

EFFICIENCY MONITOR FOR INDUCTIVE POWER TRANSMISSION

CROSS-REFERENCE TO RELATED APPLICATIONS

5 This application is a continuation of U.S. Serial No. 12/563,558 filed
September 21, 2009, which is a continuation of PCT application Serial No.
PCT/IL2008/000401 filed March 23, 2008, which claims the benefit of U.S. provisional
application Serial Nos. 60/907,132 filed March 22, 2007, 60/935,847 filed September 4, 2007,
10 61/006,076 filed December 18, 2007, 61/006,106 filed December 19, 2007, 61/006,488 filed
January 16, 2008 and 61/006,721 filed January 29, 2008, the disclosures of which are hereby
incorporated by reference in their entirety.

FIELD OF THE INVENTION

15 The present invention relates to a system and method for monitoring efficiency
and controlling power transfer across an inductive power coupling.

BACKGROUND

20 For safety, the power supplying side of a conductive couple is generally the
female part, and does not have bare conductive elements protruding therefrom. A plug
coupled to the device is the corresponding male part with bare pins. The size of the pins and
holes are such that a child cannot insert his or her fingers thereinto. In high quality sockets, an
earth connection is provided, and, only when a plug with a longer earth pin is inserted
25 thereinto, is it possible to insert a pin (or anything else) into the holes connected to the current
carrying live and neutral wires. Nevertheless, socket holes are dangerous and children do
sometimes manage to insert pencils, pins and other objects into socket holes, sometimes with
fatal results. Water can also cause shorting and may result in electrocution.

It can therefore be safer and more reliable to provide socket-less power outlets such as inductive couplers. Inductive power coupling allows energy to be transferred from a power supply to an electric load without connecting wires. A power supply is wired to a primary coil and an oscillating electric potential is applied across the primary coil which induces an oscillating magnetic field therearound. The oscillating magnetic field may induce an oscillating electrical current in a secondary coil, placed close to the primary coil. In this way, electrical energy may be transmitted from the primary coil to the secondary coil by electromagnetic induction without the two coils being conductively connected. When electrical energy is transferred inductively from a primary coil to a secondary coil, the pair are said to be inductively coupled. An electric load wired in series with such a secondary coil may draw energy from the power source when the secondary coil is inductively coupled to the primary coil.

Low power inductive electrical power transmission systems over extended surfaces are not new. One such example is described in United States Patent No. 7,164,255 to Hui. In Hui's system a planar inductive battery charging system is designed to enable electronic devices to be recharged. The system includes a planar charging module having a charging surface on which a device to be recharged is placed. Within the charging module, and parallel to the charging surface, at least one, and preferably an array of primary windings are provided. These couple energy inductively to a secondary winding formed in the device to be recharged. Such systems are adequate for charging batteries in that they typically provide a relatively low power inductive coupling. It will be appreciated however, that extended base units such as Hui's charging surface which transmit energy continually approximately uniformly over the whole area of the unit, are not suitable for use with high energy systems.

By not requiring holes for coupling pins, socket-less outlets may be disguised more effectively than conductive sockets, and are thus less obtrusive. A primary inductive coil, for example, may be concealed behind a surface. Generally, the fact that socket-less outlets are less obtrusive is advantageous. But being harder to spot than conventional power outlets has its disadvantages. The user must somehow locate the outlet before being able to

use it by bringing a secondary coil into proximity therewith. The problem of locating such sockets is particularly acute where the power outlets are behind a concealing surface such as a desk top or wall, and the positions thereof are adjustable over a large area.

5 Locating mobile source 'hotspots' or sockets is particularly problematic in high power systems where no extended power transmission surface is provided. Moreover, a high power primary coil produces a large oscillating magnetic field. Where a secondary coil is inductively coupled to the primary coil, the resulting flux linkage causes power to be drawn into the secondary coil. Where there is no secondary coil to focus the power, the oscillating
10 magnetic field causes high energy electromagnetic waves to be transmitted which may be harmful to bystanders. In contrast to low power systems, such as Hui's charging surface, where excess heat may be readily dissipated, uncoupled high power primary coils and their surroundings may become dangerously hot.

15 In order to provide power to electrical devices in an efficient manner it is important that certain parameters of the power are regulated. By feeding back such parameters as working voltage, current, temperature and the like, the power supply to an electric device may be optimized to minimize energy losses and to prevent excessive heating of the components. Consequently, it may be useful to provide a signal transfer channel for power
20 regulation and the like. Thus a communication channel between source and load device is often provided alongside the power input channel in conventional conductive power supply systems. Methods for providing such a communication channel include wired connections to the device that are often packaged in the same cable as the power lines and conductively coupled to the load via conventional pin-and-socket type connectors.

25 Leak prevention systems which are able to detect power emanating from a primary coil of an inductive power source and to cut off power to the primary coil if no secondary coil is coupled thereto have been considered. However in order to prevent power leakage from a primary coil while a secondary coil is coupled thereto, a communication
30 channel between the secondary and primary coil would be useful. Nevertheless due to the lack

of connecting wires in inductive power couplings, conductive communication channels are not practical.

There is a need for a control system for inductive power outlets, which is capable of locating a concealed power outlet, preventing power leakage from the power outlet, locating secondary coils close to the power outlet and regulating power transfer from the power outlet to a secondary coil coupled thereto. The present invention addresses this need.

10 SUMMARY OF THE INVENTION

A first aspect of the invention is directed to providing a signal transfer system for controlling power transfer across an inductive power coupling, said inductive power coupling comprising a primary inductive coil wired to a power source and a secondary inductive coil wired to an electric load; said system comprising:

- a. at least one signal generator for generating a control signal;
- b. at least one transmitter for transmitting said control signal, and
- c. at least one receiver for receiving said control signal.

Optionally and preferably, the control signal for carrying encoded data pertains to at least one of the group comprising:

- d. presence of said electric load;
- e. location of said primary inductive coil;
- f. location of said secondary inductive coil;
- g. required operating voltage for said electric load;
- h. required operating current for said electric load;
- i. required operating temperature for said electric load;
- j. required operating power for said electric load;

- k. measured operating voltage for said electric load;
 - l. measured operating current for said electric load;
 - m. measured operating temperature for said electric load;
 - n. measured operating power for said electric load;
 - 5 o. power delivered to said primary inductive coil;
 - p. power received by said secondary inductive coil, and
- a user identification code.

10 In one embodiment, the signal generator comprises a transmission circuit connected to the secondary inductive coil; the transmitter comprising the secondary inductive coil, and the receiver comprising the primary inductive coil connected to a reception circuit wherein: said transmission circuit comprises an ancillary load selectively connectable to said secondary inductive coil, and said reception circuit comprises at least one power monitor for monitoring power provided to said primary inductive coil.

15 In one embodiment, the transmission circuit further comprises at least one switching unit comprising: a modulator for modulating a bit-rate signal with an input signal to create a modulated signal; and a switch for intermittently connecting said ancillary load to said secondary inductive coil according to said modulated signal, and said reception circuit
20 further comprises: at least one current monitor for monitoring a primary current drawn by said primary inductive coil, thereby producing a primary current signal, and at least one correlator for cross-correlating said primary current signal with said bit-rate signal, thereby producing an output signal.

25 The signal transfer system may be further characterized by at least one of the following restrictions:

- said switching unit further comprises a controller configured to encode data into said input signal;

- said switching unit further comprises a frequency divider;
- said inductive power coupling transfers energy with a driving frequency and said bit rate frequency is an integer fraction of said driving frequency;
- 5 • said inductive power coupling is a device selected from the group comprising: a transformer, a DC-to-DC converter, an AC-to-DC converter, an AC-to-AC converter, a flyback transformer, a flyback converter, a full-bridge converter, a half-bridge converter and a forward converter; and
- said primary inductive coil is galvanically isolated from said secondary inductive coil.

10

In another embodiment, the transmission circuit further comprises a half-wave rectifier, and the reception circuit is configured to detect second harmonic signals in the power supplied to said primary inductive coil when said secondary inductive coil is coupled thereto.

15

Optionally, a plurality of the primary inductive coils are each connected to a driver and the driver is configured to selectively operate each primary inductive coil in turn so as to identify which primary inductive coil is closest to the secondary inductive coil.

20

Optionally, each primary inductive coil is operable at a plurality of power levels and said driver is configured to selectively operate each primary inductive coil at a low power until the primary inductive coil closest to said secondary inductive coil is identified and then to operate said primary inductive coil closest to said secondary inductive coil at a high power.

25

A second aspect of the invention is directed to an efficiency monitor for monitoring the efficiency of said power transfer comprising the signal transfer system described hereinabove; the efficiency monitor further comprising: at least one input power monitor for measuring the input power delivered to said primary inductive coil; at least one

output power monitor for measuring the output power received by said secondary inductive coil; at least one processor for determining an index of power-loss, and at least one communication channel for communicating said input power and said output power to said processor.

5

Typically, the efficiency monitor is further characterized by at least one of the following restrictions:

- the efficiency monitor additionally comprises at least one circuit-breaker for disconnecting said primary inductive coil from said power supply;
 - 10 • the input power monitor is incorporated into an inductive power outlet;
 - the output power monitor is incorporated into an electric device;
 - the index of power-loss is an efficiency quotient Q , defined as the ratio of said output power to said input power;
 - the index of power-loss is an efficiency differential Δ , defined as the difference
15 between said output power and said input power, and
- the efficiency monitor additionally comprises hazard detectors in communication with said processor.

Optionally, the efficiency monitor is incorporated into an electric device that
20 further comprises at least one said transmitter for transmitting said output power to said receiver.

Optionally, the transmitter is selected from the group comprising: light emitting diodes, radio transmitters, optocouplers, mechanical oscillators, audio sources,
25 ultrasonic transducers and ancillary load transmission circuits.

The signal transfer system may be incorporated into a power outlet locator for locating an inductive power outlet, said power outlet comprising at least one said primary inductive coil and at least one said transmitter; the system further comprising:

- at least one sensor for detecting said control signal;
- 5 • at least one processor for receiving a sensor signal from said at least one sensor and computing at least one coordinate of a location of said power outlet, and at least one user interface for receiving a signal from said processor and communicating said location to a user.

10 Typically, the power outlet locator is further characterized by at least one of the following restrictions:

- the at least one sensor being selected to detect an electromagnetic field generated by at least one said primary inductive coil;
- the processor calculates the distance between said sensor and said power outlet by
15 comparing the intensity of said control signal received by the sensor with a reference value;
- the processor determines the direction of said power outlet by comparing the relative intensities of said control signal as detected by a plurality of said sensors;
- the location of said power outlet being encoded into said control signal and
20 decoded by said processor;
- the user interface comprises a visual display for indicating the location of said power outlet, and
the user interface comprises an audible signal.

25 In one embodiment, the power outlet locator is incorporated into an electrical device.

Optionally, the electrical device is further characterized by at least one of the following restrictions:

- the electrical device additionally comprises at least one said secondary inductive coil for powering said electrical device;
- 5 • the electrical device additionally comprises at least one electrochemical power cell for powering said electrical device and at least one said secondary inductive coil wired to said electrochemical cell via a rectifier for charging said electrochemical power cell, and

10 the electrical device is selected from the group comprising: telephones, personal digital assistants (PDAs), cameras, media players, computers, keyboards and cursor controllers.

15 A further aspect of the invention is directed to providing a method for transmitting a control signal through an inductive energy coupling comprising a primary inductive coil connected to a power source and a secondary inductive coil connected to an electric load, said method comprising:

- providing an input signal;
 - providing a bit-rate signal;
 - modulating the bit-rate signal with the input signal to create a modulated signal;
 - connecting an ancillary load to said secondary inductive coil intermittently according to said modulated signal;
 - 20 • monitoring a primary current drawn by said primary inductive coil and producing a primary current signal, and
- cross-correlating said primary current signal with said bit-rate signal to generate an output signal.

25

A further aspect of the invention is directed to providing a method for monitoring the efficiency of power transmission by an inductive power outlet comprising at

least one primary inductive coil wired to a power supply for inductively coupling with a secondary inductive coil wired to an electric device, said method comprising the steps of:

- measuring the input power delivered to said primary inductive coil;
 - measuring the output power received by said electric device;
 - 5 • communicating said input power to a processor;
 - communicating said output power to said processor, and
- said processor determining an index of power-loss.

10 In one specific method, a working range of values for said index of power-loss is predetermined, and the method comprises the further step of: disconnecting said primary inductive coil from said power supply if said index of power-loss falls outside said working range of values.

BRIEF DESCRIPTION OF THE FIGURES

For a better understanding of the invention and to show how it may be carried into effect, reference will now be made, purely by way of example, to the accompanying
5 drawings.

With specific reference now to the drawings in detail, it is stressed that the particulars shown are by way of example and for purposes of illustrative discussion of the preferred embodiments of the present invention only, and are presented in the cause of
10 providing what is believed to be the most useful and readily understood description of the principles and conceptual aspects of the invention. In this regard, no attempt is made to show structural details of the invention in more detail than is necessary for a fundamental understanding of the invention; the description taken with the drawings making apparent to those skilled in the art how the several forms of the invention may be embodied in practice. In
15 the accompanying drawings:

Fig. 1 is a block diagram showing the main elements of an inductive power coupling incorporating a signal transfer system according to a first embodiment of the invention;
20

Fig. 2a-d show another embodiment of the signal transfer system in which a control signal is transmitted through an inductive energy coupling;

Fig. 3 is a schematic diagram showing a signal transfer system integrated into a contactless inductive power coupling system for powering a computer;
25

Fig. 4 is a flowchart showing a method for transferring a transmission signal through an inductive energy coupling in accordance with the invention.

Fig. 5 is a block diagram representing another embodiment of the signal transfer system incorporated into an efficiency monitor for monitoring the efficiency of power transmission by an inductive power outlet;

5 Fig. 6a is a schematic diagram of an inductive power outlet with an electrical load inductively coupled thereto, monitored by an efficiency monitor;

 Fig. 6b is a schematic diagram of the inductive power outlet of Fig. 6a wherein a power drain has been introduced between the primary and secondary coils;

10

Fig. 7 is a flow diagram of a method for using the signal transfer system to monitor the efficiency of power transmission by an inductive power outlet;

 Fig. 8a is a schematic representation of another embodiment of the signal transfer system incorporated into a power outlet locator used to indicate the location of an inductive power outlet concealed behind a surface;

15

Fig. 8b is a schematic representation of a computer standing on the surface of Fig. 8a and being powered by the concealed primary outlet;

20

Fig. 9 is a block diagram representing the main features of the power outlet locator;

Fig. 10 is a schematic representation of a power outlet locator with four sensors;

25

Fig. 11 is a block diagram representing a power outlet locator configured to receive and decode a control signal transmitted by a power outlet using still another embodiment of the signal transfer system;

30

Fig. 12a-c are schematic representations of a mobile phone incorporating a power outlet locator, wherein a graphical user interface represents a virtual target superimposed over an image of the surface, and

5 Fig. 13 is a schematic representation of a signal transfer system incorporated into a system for locating secondary coils placed upon a multi-coil power transmission surface.

DESCRIPTION OF THE PREFERRED EMBODIMENTS

10 Reference is now made to Fig. 1 showing a block diagram of the main elements of an inductive power coupling 200 incorporating a signal transfer system 100 according to a first embodiment of the invention.

15 The inductive power coupling 200 consists of a primary inductive coil 220 and a secondary inductive coil 260. The primary coil 220 is wired to a power supply 240 typically via a driver 230 which provides the electronics necessary to drive the primary coil 220. Driving electronics may include a switching unit providing a high frequency oscillating voltage supply, for example. The secondary coil 260 is wired to an electric load 280.

20 When the secondary coil 260 is brought into proximity with the primary coil 220, the pair of coils forms an inductive couple and power is transferred from the primary coil 220 to the secondary coil 260. In this way a power outlet 210 may provide power to an electric device 290.

25 The signal transfer system 100 comprises: a signal generator 120, for generating a control signal S_C ; a transmitter 140 for transmitting said control signal S_C ; and a receiver 160 for receiving said control signal S_C .

Although in the signal transfer system 100 described herein, the transmitter 140 is incorporated into the power outlet 210 and the receiver 160 is incorporated into the electrical device 290, it will be appreciated that a transmitter 140 may alternatively or additionally be incorporated into the electrical device 290 and a receiver 160 may alternatively or additionally be incorporated into the power outlet 210.

The control signal S_C communicates encoded data pertaining to the power transmission. This data may be pertinent to regulating efficient power transmission. Examples of such data includes parameters such as: required operating voltage, current, temperature or power for the electric load 280, the measured voltage, current, temperature or power supplied to the electric load 280 during operation, the measured voltage, current, temperature or power received by the electric load 280 during operation and the like.

In other embodiments, the control signal S_C may communicate data relating to the coordinates of the primary inductive coil 220 for the purposes of indicating the location of the power outlet 210. Alternatively, the control signal S_C may communicate data relating to the identity or presence of the electric load 280 such as the location of the secondary coil 260, or an identification code or the electric device 290 or its user.

Various transmitters 140 and receivers 160 may be used with the signal transfer system. Where the primary and secondary coils 220, 260 are galvanically isolated for example, optocouplers may have a light emitting diode serving as a transmitter 140 which sends encoded optical signals over short distances to a photo-transistor which serves as a receiver 160. Optocouplers typically need to be aligned such that there is a line-of-sight between transmitter and receiver. In systems where alignment between the transmitter 140 and receiver 160 may be problematic, optocoupling may be inappropriate and alternative systems may be preferred such as ultrasonic signals transmitted by piezoelectric elements or radio signals such as Bluetooth, WiFi and the like. Alternatively the primary and secondary coils 220, 260 may themselves serve as the transmitter 140 and receiver 160.

Coil-to-coil Signal Transfer

One aspect of the present embodiments relate to a signal transfer system for transferring a transmission signal regarding an electric load connectable via an inductive energy coupling to a power source. The inductive energy coupling comprises a primary coil connectable to the power source in inductive alignment with a secondary coil connectable to the electric load, the system comprises at least one ancillary load; at least one switching unit comprising a modulator for modulating a bit-rate signal with an input signal to create a modulated signal and a switch for intermittently connecting the ancillary load to the secondary coil according to the modulated signal; at least one current monitor for monitoring primary current drawn by the primary coil and producing a primary current signal, and at least one correlator for cross-correlating the primary current signal with the bit-rate signal for producing an output signal.

The switching unit preferably also comprises a controller configured to encode data into the input signal. Typically, the switching unit further comprises a frequency divider and the inductive energy coupling transfers energy with a driving frequency and the bit rate frequency is an integer fraction of the driving frequency.

The inductive energy coupling is typically a device wherein the primary coil is galvanically isolated from said secondary coil. The device may include a transformer, a DC-to-DC converter, an AC-to-DC converter, an AC-to-AC converter, a flyback transformer, a flyback converter, a full-bridge converter, a half-bridge converter, a buck converter, a boost converter, a buck-boost converter, a SEPIC converter or a zeta converter, for example.

Optionally, the input signal carries encoded data pertaining to, for example, the presence of the electric load, required operating voltage for the electric load, required operating current for the electric load, required operating temperature for the electric load, measured operating voltage for the electric load, measured operating current for the electric load, measured operating temperature for the electric load, and / or a user identification code.

In one embodiment, a contactless inductive coupling is provided, comprising the signal transfer system wherein the primary coil is embedded in a power jack and the secondary coil is embedded in a power plug galvanically isolated from the power jack.

5

An aspect of the technology described herein, teaches a method for transferring a signal through an inductive energy coupling, wherein the inductive energy coupling comprises a primary coil connected to a power source and a secondary coil connected to an electric load, the method comprising the following steps: providing an input signal, providing a bit-rate signal, modulating the bit-rate signal with the input signal to create a modulated signal, connecting an ancillary load to the secondary coil intermittently according to the modulated signal, monitoring a primary current drawn by the primary coil and producing a primary current signal; and cross-correlating the primary current signal with the bit-rate signal to generate an output signal.

10

15

According to another aspect, a method for regulating power transfer across a contactless inductive coupling is taught wherein the output signal provides details of power requirements of the load. Typically the input signal is provided by encoding data regarding at least one power requirement of the electric load into the input signal. Optionally and typically, the power requirement depends on parameters such as operating voltage, operating current and / or operating temperature. Alternatively the input signal is provided by monitoring at least one operating parameter of the electric load and encoding monitored parameter data into the input signal. Optionally the parameter is selected from the group comprising operating voltage, operating current and operating temperature. Typically the method for transferring a signal through an inductive energy coupling includes a preliminary step of detecting the presence of an electric load.

20

25

Reference is now made to Figs 2a-d wherein a signal transfer system 2100 according to a second general embodiment of the invention is shown. With particular reference to Fig. 2a, the signal transfer system 2100 is configured to transmit a transmission

30

signal through an inductive energy coupling 2200. The inductive energy coupling 2200 consists of a primary coil L_1 which may be connected to a power source 2240 and a secondary coil L_2 , galvanically isolated therefrom, across which an electric load 2280 may be connected either directly or via an AC-DC converter 2270.

5

A transmission circuit 2140 may be connected in parallel with the electric load 2280. The transmission circuit 2140 comprises an ancillary load 2142 connected to the secondary coil L_2 via a switching unit 2144. Typically the ancillary load 2142 is much smaller than the electric load 2280.

10

A corresponding reception circuit 2160 is connected to the primary coil L_1 of the inductive energy coupling 2200 and comprises a current monitor 2162, such as an ammeter in series with the primary coil L_1 , and a correlator 2164.

15

The switching unit 2144 is configured to receive an input signal S_{in} and a bit-rate signal F_b . A modulator (not shown) modulates the bit-rate signal F_b with the input signal S_{in} to produce a modulated signal S_M . The ancillary load 2142 is intermittently connected to the secondary coil L_2 at a rate determined by the modulated signal S_M .

20

The power source 2240, such as an alternating-current voltage source, intermittent direct current voltage source or the like, is configured and operable to produce a primary voltage V_1 which oscillates at a driving frequency F_d . The oscillating primary voltage V_1 in coil L_1 induces a secondary voltage $V_2(t)$ in the secondary coil L_2 . The secondary voltage $V_2(t)$ is optionally passed through an AC-DC converter 22 producing a direct-current voltage $V_{22}(t)$.

25

The electric load 2280 which is coupled to the secondary coil L_2 - either directly or via the AC-DC converter 2270 - draws a load current I_{22} . The power P_{22} provided to the load 2280 is given by the scalar product of the voltage V_{22} and the load current I_{22} . When the ancillary load 2144 is connected, an additional ancillary current i_{24} is also drawn.

30

Thus, with the ancillary load 2144 connected, the total power P_2 drawn by the secondary coil L_2 is given by:

$$P_2(t) = \vec{V}_{22}(t) \bullet [\vec{I}_{22} + \vec{i}_{24}(t)]$$

where the ancillary current signal $i_{24}(t)$ varies with the modulated signal S_M .

5 The input power $P_1(t)$ provided to the primary coil L_1 is given by:

$$P_1(t) = \vec{V}_1(t) \bullet \vec{I}_{10}(t)$$

where the primary voltage $V_1(t)$ oscillates at the driving frequency F_d which is determined by the power supply 2240.

10 Input power $P_1(t)$ provided by the primary coil L_1 is generally proportional to the total power $P_{22}(t)$ drawn by the secondary coil L_2 , and the primary voltage $V_1(t)$ is determined by the power supply. Perturbations in the primary current $I_{10}(t)$ supplied to the primary coil L_1 are thus in proportion with $i_{24}(t)$.

15 The current monitor 2162 monitors the primary current $I_{10}(t)$ over time, producing a primary current signal S_p which typically has similar characteristics to the modulated signal S_M . The correlator 2164 is configured to cross-correlate the primary current signal S_p with the bit rate F_b . The output signal S_{out} of the correlator 2164 therefore has the same characteristics as the input signal S_{in} .

20 In this manner, information carried by the input signal S_{in} is transmitted from the transmission circuit 2140 and is retrievable by the receiver circuit 2160 from the output signal S_{out} . It is noted that the signal transfer system 2100 described herein, transmits a transmission signal across the same inductive power coupling 2200 as used for power transmission. This is in contradistinction to prior art transmission systems, which use
25 additional elements to provide signal transmission channels separate from the power transmission channels. In consequence of this innovative approach, additional transmission

elements such as optocouplers, piezoelectric elements, supplementary coil pairs and the like are not generally required.

5 With reference now to Fig. 2b, an exemplary transmission circuit 2140 of the signal transfer system 2100 of Fig. 2a is shown. An AC-to-DC converter 2270 comprising a diode 2272 and a capacitor 2274, which is connected in parallel to the secondary coil L_2 , converts an AC secondary voltage V_2 from the secondary coil L_2 into a DC load voltage V_{22} which is connected across an electric load 2280.

10 The connection between the ancillary load 2142 and the load voltage V_2 is controlled by a switching unit 2144 which includes a frequency divider 2145, microcontroller 2146 and a switch 2147. The frequency divider 2145 provides the bit-rate signal F_b which is passed to the microcontroller 2146. The microcontroller 2146 is configured to modulate the bit-rate signal F_b according to input signals including control signals S_C from the electric load 2280 and external signals S_E , as described hereinbelow.

15 Control signals S_C may be used to regulate the power supply. Control signals S_C typically provide data relating to load parameters. Typically these include the required operating voltage, current and temperature and the actual measured operating voltage, current and temperature as monitored during operation of the load.

20 External Signals S_E may be used to provide the transmission circuit 2140 with external data to be digitally encoded into the input signal S_{in} by the microcontroller 2146 and transmitted to the receiver circuit 2160. External information, may, for example, provide useful supplementary data such as a user identification code, a pass key, battery level of the load device and the like.

25 It will be appreciated that the ability to transmit supplementary information such as external signals S_E through the inductive energy coupling 2200 presents a further advantage over prior art systems which are only suitable for transmitting control signals.

Fig. 2c shows a schematic representation of an exemplary receiver circuit 2160 in accordance with the signal transfer system of Fig. 2a, consisting of a current monitor 2162, a frequency divider 2166, a correlator 2164 and a microcontroller 2168. The frequency divider 2166 provides the bit-rate signal F_b which is typically an integer fraction of the driving frequency F_d . The current monitor 2162 provides a primary current signal S_p which is passed to the correlator 2164 for cross-correlation with the bit-rate signal F_b . The resulting output signal S_{out} is passed to a microcontroller 2168 which may use the output signal S_{out} to pass a control signal S_c to control the power source 2240 so as to regulate the power provided to the electric load 2280. The microcontroller 2168 may also be used to extract external signals S_E from the output signal.

An exemplary use of the receiver circuit 2160 of Fig. 2c is highlighted in Fig. 2d which shows the receiver circuit 2160 configured to control a flyback power source 2240F. In a flyback converter, a direct current voltage source 2242 is intermittently connected to a primary coil L_1 by a switch 2244. This produces a varying voltage signal $V_1(t)$ in the primary coil L_1 which induces a secondary voltage V_2 in a secondary coil L_2 (Fig. 2a). The secondary coil L_2 is generally connected to a smoothing circuit such the AC-DC converter 2270 shown in Fig. 2b to produce a DC output.

The switch 2244 is controlled by a driver 2248 which receives a pulsing signal F_d from a clock 2246. The pulsing signal F_d determines the frequency with which the direct current voltage source 2242 is connected to the primary coil L_1 . The power delivered to the primary coil L_1 may be regulated by varying the duty cycle of the switch 2244. The duty cycle is the proportion of the time between pulses during which the switch 2244 is closed.

Fig. 2d shows the innovative use of the signal transfer system 2100 which receives a feedback signal transferred between the primary and secondary power transmission coils and received by the receiver circuit 2160. This is an improvement on prior art flyback

converters, wherein additional elements such as optocouplers or the like have been used to transmit feedback signals.

5 The microcontroller 2168 generates a control signal S_C which is relayed to the driver 2248. The control signal S_C determines the duty cycle of the switch 2248 and so may be used to regulate power transmission.

10 Although only a flyback converter is represented in Fig. 2d it is noted that a control signal S_C thus transmitted may be used to regulate power transfer in a variety of transmission assemblies such as a transformer, a DC-to-DC converter, an AC-to-DC converter, an AC-to-AC converter, a flyback transformer, a full-bridge converter, a half-bridge converter or a forward converter for example.

15 As an example of the signal transfer system 100 (Fig. 1), with reference to Fig. 3, according to a third embodiment of the invention, a signal transfer system 3100 may be integrated into a contactless inductive power coupling system 3200 where power is inductively transmitted from a jack unit 3212 to a plug unit 3292 galvanically isolated therefrom. A transmission circuit 3140 embedded in the plug unit 3292 may be used to transmit control signals S_C to a receiver circuit 3160 in the jack 3212. Thus once the primary
20 L_1 and secondary L_2 coils are aligned, control signals may be passed between the plug 3292 and jack 3212 units with no need to align additional components such as optocouplers, and the like.

25 Where a contactless plug 3292 is used, for example to power a portable computer 3290 having on-board power cells 3280, the signal transfer system 3100 may be used to detect the presence of the load 3290 producing a detection signal S_{DL} and then to provide the jack 3212 with signals relating to the identity of the user S_{ID} and the serial number S_{SN} or other identifier of the laptop computer 3290. Signals regarding the operating voltage and current required by the PC may be provided as a regulatory signal S_Q which may also
30 provide supplementary information such as information related to the power level of the cells

3280, for example. Using this signal S_Q , the signal transfer system 3100 may be used to select between powering the computer 3290 directly, recharging the power cells 3280 thereof, or both powering and recharging, depending on defaults and predetermined criteria. It is further noted that when used for recharging cells 3280, the ability to monitor the temperature of the cells 3280 during recharging may be used to prevent overheating.

Referring to Fig. 4, a flowchart showing a method for transferring a transmission signal through an inductive energy coupling in accordance with another embodiment of the invention is presented. With further reference to Fig. 2a, an Input Signal S_{in} – Step (a) and a Bit-rate Signal F_b – Step (b) are provided to the transmission circuit 2140. The Bit-rate Signal F_b is then modulated by the Input Signal S_{in} , producing a Modulated Signal S_M – Step (c). An ancillary load 2142 is then connected to the second coil L_2 intermittently according to the Modulated Signal S_M – Step (e). The receiver circuit 2160 monitors the primary current drawn by the primary coil L_1 to produce a Primary Current Signal S_P – Step (e). This Primary Current Signal S_P is then cross-correlated with the Bit-rate Signal F_b to generate an Output Signal S_{out} – Step (f).

The basic signal transfer system and method described hereinabove are capable of variation. For example, it will be appreciated that through the use of such a system, information regarding a load 2280 may be transmitted to the power outlet 2210 across the inductor coils L_1 and L_2 of the inductive coupling 2200, as a signal superimposed on the power transmitted, without requiring additional data transmitting components.

Power Coupling Efficiency

Embodiments of the invention are directed to providing methods for monitoring the efficiency of power transmission by an inductive power outlet comprising at least one primary coil wired to a power supply, for inductively coupling with a secondary coil wired to an electric device. The method comprises the steps of: measuring the input power delivered to the primary coil, measuring the output power received by the electric device,

communicating the input power to a processor, communicating the output power to the processor and the processor determining an index of power-loss.

5 In one specific application, the index of power-loss is an efficiency quotient Q , being the ratio of the output power to the input power, and the method comprises the further step of: disconnecting the primary coil from the power supply if the efficiency quotient Q is below a threshold value. Typically the threshold efficiency quotient is in the range of from 75% to 95%.

10 In another application, the index of power-loss is an efficiency differential Δ , being the difference between the output power to the input power, and the method comprises the further step of: disconnecting the primary coil from the power supply if the efficiency differential Δ is above a threshold value.

15 A further aspect of the technology described herein relates to an efficiency monitor for monitoring the efficiency of power transmission by an inductive power outlet of the type including at least one primary coil wired to a power supply, for inductively coupling with a secondary coil wired to an electric device. The efficiency monitor includes: at least one input power monitor for measuring the input power delivered to the primary coil; at least one
20 output power monitor for measuring the output power received by the secondary coil; at least one processor for determining an index of power-loss; and at least one communication channel for communicating the input power and the output power to the processor.

25 Typically the efficiency monitor also includes at least one circuit-breaker for disconnecting the primary coil from the power supply. Preferably the input power monitor is incorporated within the power outlet and the output power monitor is incorporated within the electric device.

30 Optionally, the electric device comprises at least one transmitter for transmitting the output power to a receiver incorporated in the power outlet. The transmitter

may include one or more light emitting diodes, radio transmitters, optocouplers, or ancillary load transmitter circuits, for example.

5 According to preferred embodiments, the efficiency monitor includes one or more hazard detectors in communication with the processor. Such hazard detectors may include magnetic sensors, heat sensors, electromagnetic radiation sensors and Hall probes, for example.

10 Reference is now made to Fig. 5 showing a block diagram of a signal transfer system 4100. The signal transfer system 4100 is incorporated into an efficiency monitor 4300 for monitoring the efficiency of power transmission by an inductive power outlet 4210.

15 The inductive power outlet 4210 consists of a primary coil 4220 wired to a power supply 4240 via a driver 4230 which provides the electronics necessary to drive the primary coil 4220. Driving electronics may include a switching unit providing a high frequency oscillating voltage supply, for example.

20 If a secondary coil 4260 is brought into proximity with the primary coil 4220, the pair of coils forms an inductive couple, and power is transferred from the primary coil 4220 to the secondary coil 4260. In this way the power outlet 4210 may provide power to an electric device 4262 comprising an electric load 4280 wired in series with the secondary coil 4260.

25 The efficiency monitor 4300 consists of an input power monitor 4122 incorporated within the power outlet 4210 and an output power monitor 4124 incorporated within the electric device 4290, both in communication with a processor 4162.

The input power monitor 4122 is configured to measure the input power P_{in} provided by the primary coil 4220 and communicates this value to the processor 4162. The

output power monitor 4124 is configured to measure the output power P_{out} received by the secondary coil 4260 and communicates this value to the processor 4162.

The processor 4162 is configured to receive the values of the input power P_{in} and the output power P_{out} and to calculate an index of power-loss. The index of power loss indicates how much power is leaking from the inductive couple. The index of power-loss may be the efficiency quotient Q which is the ratio between them, P_{out}/P_{in} , which is an indication of the efficiency of the inductive coupling. Alternatively the index of power loss may be the efficiency differential Δ which is the difference between P_{out} and P_{in} .

The processor 4162 may additionally or alternatively be configured to trigger a circuit-breaker 4280 thereby cutting off the primary coil 4220 from the power supply 4240 when the efficiency quotient Q falls below a predetermined threshold or the efficiency differential Δ rises above a predetermined threshold. Typically, this predetermined threshold for the efficiency quotient Q is in the range of from about 75% to 95%, and more preferably about 85%.

With reference to Fig. 6a, an efficiency monitor 5300 for an inductive power outlet 5210 is shown. Inductive power outlet 5210 consists of a primary coil 5220 wired to a power source 5240 via an efficiency monitor 5300 all concealed behind a facing layer 5642 of a horizontal platform 5640 such as a desk-top, a kitchen work-top, a conference table or a work bench. The facing layer may be a sheet of self-adhesive plastic film, plastic, vinyl, Formica or wood veneer, for example.

In other embodiments a primary coil 5220 may be concealed beneath or within flooring such as rugs, fitted carpet, parquet, linoleum, floor tiles, tiling, paving and the like. Alternatively the primary coil 5220 may be concealed behind or within a vertical surface such as a wall of a building or a cabinet, for example behind wallpaper or stretched canvas or the like.

The primary coil 5220 may be used to power an electrical device 5290 such as a computer wired to a secondary coil 5260. The electrical device 5290 is placed upon the surface 5642 of a platform 5640 such that the secondary coil 5260 is aligned with the primary coil 5220 therebeneath.

5

The efficiency of the power outlet 5210 is monitored by an efficiency monitor 5300. An input power monitor 5122 is incorporated within the power outlet 5210 behind the platform 5640 and is in direct conductive communication with a processor 5162. An output power monitor 5124 is incorporated within the electrical device 5290 and is not physically connected to the power outlet 5210. The output power monitor 5124 communicates with the processor 5162 via a signal transfer system 5100 comprising a transmitter 5140 incorporated within the electrical device 5290 which is configured to transmit a signal to a receiver 5160 incorporated within the power outlet 5210.

10

15

The transmitter 5140 may be a standard transmitter such as those widely used in computing and telecommunications, such as an Infra-red, Wi-fi or Bluetooth transmitter or the like. Indeed, any light emitting diodes, radio transmitters, optocouplers or other such transmitters of radiation for which the platform 5640 is translucent may be used. Alternatively a fiber optic pathway may be provided through the platform.

20

In certain embodiments, an optical transmitter, such as a light emitting diode (LED) for example, is incorporated within the power outlet 5210 and is configured and operable to transmit electromagnetic radiation of a type and intensity capable of penetrating the casing of the electrical device 5290, and the surface layer 5642. An optical receiver, such as a photodiode, a phototransistor, a light dependent resistors of the like, is incorporated within the primary unit for receiving the electromagnetic radiation transmitted through the surface layer 5642.

25

It is noted that many materials are partially translucent to infra-red light. It has been found that relatively low intensity infra red signals from LEDs and the like, penetrate

30

several hundred microns of common materials such as plastic, cardboard, Formica or paper sheet, to a sufficient degree that an optical receiver, such as a photodiode, a phototransistor, a light dependent resistors or the like, behind a sheet of from 0.1 mm to 2 mm of such materials, can receive and process the signal. For example a signal from an Avago HSDL-4420 LED
 5 transmitting at 850nm over 24 degrees, may be detected by an Everlight PD15-22C-TR8 NPN photodiode, from behind a 0.8 mm Formica sheet. For signalling purposes, a high degree of attenuation may be tolerated, and penetration of only a small fraction, say 0.1% of the transmitted signal intensity may be sufficient. Thus an infra-red signal may be used to provide a communication channel between primary and secondary units galvanically isolated from
 10 each other by a few hundred microns of wood, plastic, Formica, wood veneer, glass or the like.

The transmitter 5140 and receiver 5160 may be laterally displaced from the primary coil 5220 and secondary coil 5260. In preferred embodiments, however, the
 15 transmitter 5140 is located at the center of the secondary coil 5260 and the receiver 5160 is located at the center of the primary coil 5220. This permits alignment to be maintained through 360 degree rotation of the secondary coil 5260 relative to the primary coil 5220.

The processor 5162 is configured to receive the values of the input power P_{in} ,
 20 directly from the input power monitor 5122, and the output power P_{out} , via the receiver 5160. The processor 5162 then calculates the efficiency quotient Q . In normal usage as represented in Fig. 6a, the processor records an efficiency quotient Q higher than a predetermined threshold so power transmission continues uninterrupted. When the efficiency quotient Q falls below a predetermined threshold, this indicates that power is being drawn from the primary
 25 coil 5220 by some power drain other than the secondary coil 5260.

Fig. 6b is a schematic diagram of the inductive power outlet 5210 of Fig. 6a wherein a power drain such as a conductive sheet of metallic foil 5800 is introduced between the primary coil 5220 and the secondary coil 5260. The oscillating magnetic field produced by
 30 the primary coil 5220 when connected to a high frequency oscillating voltage from a driver

5230, produces eddy currents in the conductive sheet 5800 thereby heating the conductive sheet and draining power from the primary coil 5220. Such a power drain may be wasteful and/or dangerous. It will be appreciated that leak prevention systems which cut off power to the primary coil 5220 if no secondary coil 5260 is coupled thereto, would fail to detect this hazard.

In contradistinction to previous systems known to the inventors, embodiments of the present invention measure the efficiency quotient Q . Consequently, when a power drain is introduced, such as that shown in Fig. 6b, for example, the output power P_{out} received by the secondary coil 5260 is lower than normal and the efficiency quotient Q may therefore drop below the predetermined threshold. The efficiency monitor 5300 is thus able to detect the hazard.

According to certain embodiments, additional detectors (not shown) may be incorporated within the power outlet 5210, the platform 5640 or the electrical device 5290 for monitoring other scientific effects which may be indications of possible hazards such as the magnetic field generated by the primary coil 5220, or the temperature of the platform 5640 for example. Such detectors may function in accordance with one or more of a variety of principles, including, inter alia, magnetic sensing means, Hall probes, heat sensors or electromagnetic sensors.

The processor 5162 may assess the level of the hazard detected by processing the various signals received according to a predetermined logical sequence. If necessary, the processor 5162 may trigger a circuit-breaker 5280 thereby cutting off the primary coil 5220 from the power supply 5240. Depending on the nature of the hazard, the processor 5162 may additionally or alternatively alert a user to the hazard. The alert may be a visual or audio alarm for example, such as a buzzer or light incorporated in the power transmission surface, or a signal sent to the computer 5290 which displays a warning 5294 on its visual display 5296 or emits a warning sound.

In preferred embodiments the output power P_{out} may be monitored and encoded into the input signal S_{in} . The coil-to-coil signal generator shown in Fig. 2a may be used to transmit the input signal S_{in} from a transmission circuit 2140 (Fig. 2a) incorporated within an electrical device 290 (Fig. 1) and is retrievable by the receiver circuit 2160 (Fig. 2a) incorporated within the power outlet 210 (Fig. 1) from the output signal S_{out} . The retrieved signal may then be communicated to a processor which uses it to calculate the efficiency quotient Q .

Reference is now made to Fig. 7 showing a flow diagram of a method for monitoring the efficiency of power transmission by an inductive power outlet according to a further embodiment of the present invention. The method includes the following steps:

- a) measuring the input power delivered to a primary coil;
- b) measuring the output power received by an electric device;
- c) communicating the input power P_{in} to a processor;
- d) communicating the output power P_{out} to the processor;
- e) determining an index of power-loss, such as an efficiency quotient Q or efficiency differential Δ ;
- f) optionally, disconnecting the primary coil from the power supply, for example if the efficiency quotient Q is below a threshold value (f1) or the efficiency differential Δ is above a threshold value (f2), thereby preventing power leakage.

Primary Coil Locators

Another aspect of the invention is directed to providing a power outlet locator for locating an inductive power outlet of the type comprising at least one primary coil wired to a power supply for inductively coupling with a secondary coil wired to an electrical device. Typically, the power outlet locator comprises at least one sensor for detecting the at least one

power outlet, at least one processor for receiving a sensor signal from the at least one sensor and computing at least one coordinate of a location of the at least one power outlet and at least one user interface for receiving a signal from the processor and communicating the location to a user.

5

Preferably, at least one sensor is selected to detect radiation transmitted by the at least one the power outlet. Typically, at least one sensor is selected to detect an electromagnetic field generated by at least one the primary coil. Optionally the processor calculates the distance between the sensor and the power outlet by comparing the intensity of the radiation received by the sensor with a reference value. Typically, the processor determines the direction to the power outlet by comparing the relative intensities of the radiation detected by a plurality of the sensors. Alternatively the location of the power outlet is encoded into a signal transmitted by the power outlet and decoded by the processor.

10

15

Typically, the user interface comprises a visual display. Optionally, the visual display indicates the direction of the power outlet. Preferably, the visual display indicates the distance to the power outlet. Preferably, the visual display comprises a graphical user interface representing at least a section of a target comprising concentric rings centered on a point indicating the location of the power outlet. Typically, the power outlet is concealed behind a surface and the target is superimposed upon an image of the surface. Alternatively or additionally, the user interface comprises an audible signal.

20

25

Another aspect of the invention is to provide an electrical device incorporating a power outlet locator. Typically, the electrical device additionally comprises at least one secondary inductive coil for powering the electrical device. Optionally, the electrical device additionally comprises at least one electrochemical power cell for powering the electrical device and at least one the secondary inductive coil wired to the electrochemical cell via a rectifier for charging the electrochemical power cell. The electrical device may be, but is not necessarily, selected from the group comprising: telephones, personal digital assistants (PDAs), cameras, media players, computers, keyboards and mice.

30

Reference is now made to Fig. 8a showing a schematic representation of such a power outlet locator 6300 which utilizes such a signal transfer system. The location of an inductive power outlet 6210, concealed behind a surface 6642, is indicated by an arrow 6362
5 displayed upon a visual user interface 6360.

The inductive power outlet 6210 is wired to a power source typically via a driver 230 (Fig. 1) providing the electronics necessary to drive the inductive power outlet 6210, such as a switching unit providing a high frequency oscillating voltage supply, for
10 example.

The inductive power outlet 6210 may be incorporated into a vertical surface such as a wall of a building or a cabinet. The inductive power outlet 6210 may be concealed behind a surface 6642 of wallpaper or stretched canvas for example. Alternatively the
15 inductive power outlet 6210 may be incorporated behind a facing layer of a horizontal platform such as a desk-top, a kitchen work-top, a conference table or a work bench for example of mica, Formica or wood veneer. Alternatively, again, an inductive power outlet 6210 may be concealed beneath flooring such as rugs, fitted carpet, parquet, linoleum, floor tiles, tiling, paving and the like.

It will be apparent that when the location of the inductive power outlet 6210 is known, a secondary coil 6260 may be brought into alignment therewith, as shown in Fig. 8b, for example. Thus with reference to Fig. 8b, the inductive power outlet 6210 may inductively
20 couple with the secondary coil 6260 and thereby power an electrical device, such as a computer 6290, wired to the secondary coil 6260. It is noted that according to some embodiments, the electrical device, such as a computer 6290 may itself incorporate an integral inductive power outlet locator.

With reference now to Fig. 9, a block diagram representing the main functional
30 components of a power outlet locator 7300 is shown. A sensing unit 7160 configured and

operable to detect an inductive power outlet 7210 is provided. A processor 7362, in communication with the sensing unit 7160, is configured to compute the location of the power outlet 7210. A user interface 7360 is provided for communicating the computed location to a user.

5

According to various embodiments, the sensor unit 7160 may incorporate magnetic sensors such as Hall probes, for example, configured to detect the magnetic field generated by the inductive power outlet directly. Alternatively, the sensor unit 7160 may incorporate a radio receiver for receiving a radio signal transmitted from the power outlet. It will be appreciated, however, that appropriate sensors may be selected for detecting specific electromagnetic wavelengths, including ultra-violet radiation, micro waves, radio waves or even x-ray or shorter wavelengths. Furthermore, the sensing unit may be configured to receive other types of radiation, including mechanical vibrations such as both audible and inaudible (e.g. ultrasonic) sound waves.

10

15

By way of example, an exemplary sensing unit 7460 is represented in Fig. 10, four sensors 7462a-d, such as proximity sensors based on volume sensors, infra-red sensors, ultrasonic sensors, magnetic sensors (like Hall probes), inductance sensors, capacitance sensors or the like, are arranged in a diamond configuration.

20

Each sensor 7462 is configured to receive a control signal S_C transmitted from an inductive power outlet 7210. The processor 7362 may compare the intensity I of the control signal S_C detected by a sensor 7462 with a reference value I_r to indicate the distance between the sensor 7462 and the power outlet 7210.

25

Furthermore, the diamond configuration, provides two perpendicular opposing pairs of sensors 7462a-b, 7462c-d. The intensity I of the control signal S_C is measured by each sensor independently. The processor 7460 may use the differences between intensities measured by opposing pairs ($I_a - I_b$), ($I_c - I_d$) to provide vector coordinates indicating the direction of the power outlet 7210. Although a two dimensional vector is computed using the

30

two dimensional diamond configuration of sensors described hereinabove, it will be appreciated that a three dimensional vector may be computed from three pairs of sensors in a tetrahedral configuration.

5 It will be appreciated that the computation method herein described are by way of example, for illustrative purposes only. Alternative methods by which the processor may compute the direction of the power outlet will be familiar to those skilled in the art.

10 Fig. 11 shows a block diagram representing a power outlet locator 8500 in accordance with yet another embodiment. An inductive power outlet 8210 transmits a control signal S_C which carries an encoded location signal S_L identifying the location of the inductive power outlet 8210. A primary coil 8220 is connected to a power supply 8240 via a switching unit 8232 and a microcontroller 8234. The switching unit 8232 is configured to intermittently connect the power supply 8240 to the primary coil 8220 with a bit-rate frequency f . The location of the primary coil 8220 is encoded into a location signal S_L which is sent to the microcontroller 8234. The microcontroller 8234 is configured to modulate the bit-rate signal with the location signal S_L .

20 The voltage applied to the primary coil 8220 is thus a modulated variable voltage with a frequency f , carrying an encoded location signal S_L . It will be appreciated that the variable voltage may produce a radio wave of frequency f which may be transmitted as a control signal S_C . Alternatively, the control signal S_C may be transmitted by a dedicated transmitter separate from the primary coil 8220.

25 The power outlet locator 8500 includes a receiver 8160, a clock 8542 and a cross-correlator 8544. The radio receiver 8160 is tunable to receive radio waves of frequency f , such that it may receive the control signal S_C . The clock 8542 produces a fixed reference signal R of frequency f . The cross-correlator 8544 receives both the reference signal R from the clock 8542 and the control signal S_C from the receiver 8160 and by cross-correlating these signals the location signal S_L is isolated.

30

Although a digital bit-rate modulated control signal S_C is described hereinabove, it will be appreciated that the control signal S_C may alternatively be modulated in other ways such as by analogue or digital frequency modulation or by amplitude modulation, for example.

The location of the power outlet 8210 may thereby be transmitted to a remote power outlet indicator 8500, which may then output the location of the power outlet 8210 a user interface 7360 (Fig. 9).

As shown in Figs. 12a-c, a power outlet locator 9300 may be incorporated into a mobile phone 9290, for example, thereby providing a convenient means of locating concealed inductive power outlets. A graphical user interface 9360, displayed upon the visual display of the mobile phone 9290, represents a virtual target 9660, centered upon the power outlet (not shown) and superimposed over the surface 9640 behind which the power outlet is concealed.

Although the whole of the virtual target 9660 is represented by a dotted line in Figs 12a-c for convenience, only the section 9661a-c of the virtual target 9660 in the visual display 9360 of the mobile phone 9290 will normally be visible. The displayed section depends upon the location of the mobile phone 9290. Thus the curvature of the visible concentric arcs may indicate both the direction and distance to the power outlet. It will be appreciated that the virtual target 9660 may be displayed upon a blank background or alternatively may be superimposed upon an image of the surface 9640, for example a real time image produced by the camera (not shown) of the mobile phone 9660.

It is further noted that the mobile phone 9290 may itself carry a secondary inductive coil (not shown) wired to an electrochemical cell via a rectifier for inductively coupling with an inductive power outlet and charging the electrochemical power cell. Optimal alignment between the secondary coil and the inductive power outlet may additionally be

indicated by an audible signal such as a ring-tone or the like. In other embodiments, particularly useful for the visually impaired, an audible signal may be additionally or alternatively be provided to guide the user to the power outlet, perhaps verbally or alternatively through other variations in pitch, volume or timbre.

5

It will be apparent that in certain situations such as when the power source of the mobile phone 9660 is completely devoid of power, a power outlet locator 9300 which draws power from the mobile phone 9290 is impractical. In alternative embodiments, therefore, a power outlet locator may be an independently powered unit with a user interface separate from that of the mobile phone 9290. For example, in another embodiment, the power outlet locator draws power from the secondary inductive coil. Additionally or alternatively, it may include a dedicated electrochemical power source, for example. The relative brightness of four light emitting diodes mounted upon the corners of the mobile phone may indicate both the direction and proximity to a primary coil.

10
15

Whilst the power outlet locator 9300 is incorporated into a mobile phone 9290 it is noted that such a power outlet locator may alternatively be incorporated within other electrical devices such as fixed telephones, personal digital assistants (PDAs), cameras, media players, computers, keyboards, cursor controllers (e.g. mice) and the like.

20

Secondary Coil Locators

The signal transfer system may be associated with the primary coil and used to detect the location of the secondary inductive coil. For example, in a power outlet surface comprising multiple primary coils, each primary coil may be independently connected to the power source via a driver. The signal transfer system may be used to identify the primary coil closest to the location of a secondary coil. Typically, the primary coils may be driven at multiple power levels, such that a low power level is used to locate the secondary coil and a higher power is used to transfer power when a secondary coil is located.

25
30

In preferred embodiments the secondary coil is wired to a transmission circuit comprising an ancillary load connectable to the secondary coil via a half-wave rectifier, such as a diode. The transmission circuit may also comprise a smoothing capacitor, a low power current source and a DC to DC converter.

5

When in detection mode, the driver activates each primary coil sequentially at low power. When a secondary coil is close enough to a primary coil to inductively couple with it, the low power pulse is transferred from the primary coil to the secondary coil. An AC voltage is induced in the secondary coil and the transmission circuit is activated. A DC current is produced by the half-wave rectifier and flows through the ancillary load.

10

A control signal is transmitted by the secondary coil due to the transmission circuit. Because half-wave rectification is used, even harmonics of the power transmission frequency are generated. These may be detected by a reception circuit connected to the primary coil, for example by cross-correlating the power transmission frequency with a reference clock frequency.

15

The strength of the even harmonic signals may indicate the proximity of the primary to the secondary coil. Once a secondary coil is detected, the driver may switch the closest primary coil to power transmission mode, typically at a higher power.

20

It will be appreciated that in applications where a main electric load is itself wired to the secondary coil via an AC-DC power converter which performs half-wave rectification, even harmonics are produced whenever the secondary coil is coupled to a primary coil, whether or not the ancillary load is connected. The strength and phase of both odd and even harmonics may be continuously monitored during power transmission so that if the secondary coil is displaced or removed it will be readily detected. Optionally the transmission circuit may be deactivated when power is provided to the electric load. Alternatively, where the main load is wired to the secondary coil via a half-wave rectifier, the ancillary load may be dispensed with entirely.

25

30

Fig. 13 shows the signal transfer system 2101 according to yet another embodiment of the invention. The signal transfer system 2101 is used for locating a secondary coil L_{22} wired to an electric load 2281, which is placed somewhere over a multi-coil power transmission surface 2211.

The multi-coil power transmission surface 2211 comprises an array of primary coils L_{1n} each connected to a driver 2231 wired to a power source 2241. The signal transfer system 2101 includes a transmission circuit 2141 wired to the secondary coil 2221 and a reception circuit 2161 connected to the driver 2231. The transmission circuit 2141 includes a half-wave rectifier 2144 connected to an ancillary load 2142 and the reception circuit 2161 is configured to detect second harmonic signals in the power supplied to the primary inductive coil L_{1n} when the secondary inductive coil L_{22} is coupled thereto.

The driver 2231 is configured to selectively operate each primary inductive coil L_{1n} in turn preferably at low power so as to identify which primary inductive coil is closest to the secondary inductive coil L_{22} . When a secondary coil L_{22} is detected, the driver 2231 is then configured to operate the primary inductive coil L_{1n} closest to the secondary inductive coil L_{22} at a high power. It will be appreciated that for some purposes it may be desirable to disconnect the transmission circuit 2141 after the secondary inductive coil L_{22} is coupled to a primary coil L_{1n} .

Thus a number of related technologies are presented that use signal transfer systems across an inductive power coupling to regulate the power and to detect and align the two coils.

The scope of the present invention is defined by the appended claims and includes both combinations and sub combinations of the various features described hereinabove as well as variations and modifications thereof, which would occur to persons skilled in the art upon reading the foregoing description.

In the claims, the word “comprise”, and variations thereof such as “comprises”, “comprising” and the like indicate that the components listed are included, but not generally to the exclusion of other components.

5

WHAT IS CLAIMED IS:

1. An efficiency monitor for monitoring power transmission by an inductive power outlet, the inductive power outlet comprising at least one primary coil wired to a power supply, for inductively coupling with a secondary coil wired to an electric load, the efficiency monitor comprising:

at least one input power monitor for measuring input power delivered to the primary coil;

at least one output power monitor for measuring output power received by the secondary coil;

at least one processor for determining an index of power-loss; and

at least one communication channel for communicating the input power and the output power to the processor.

2. The efficiency monitor of claim 1 additionally comprising at least one circuit-breaker configured to disconnect the primary coil from the power supply.

3. The efficiency monitor of claim 1 wherein the input power monitor is incorporated into the inductive power outlet.

4. The efficiency monitor of claim 1 wherein the output power monitor is incorporated into an inductive power receiver unit.

5. The efficiency monitor of claim 4 wherein the inductive power receiver unit comprises at least one signal transmitter for transmitting a signal to a receiver incorporated in the power outlet, the signal carrying data pertaining to the output power.

6. The efficiency monitor of claim 5 wherein the signal transmitter is selected from a group consisting of: light emitting diodes, radio transmitters, optocouplers, and transmitter circuits.
- 5 7. The efficiency monitor of claim 5 wherein the transmitter comprises:
an ancillary load selectively connectable to the secondary inductive coil, a modulator for modulating a bit-rate signal with an input signal to create a modulated signal, and a switch for intermittently connecting the ancillary load to the secondary inductive coil according to the modulated signal.
- 10 8. The efficiency monitor of claim 1 additionally comprising hazard detectors in communication with the processor.
- 15 9. The efficiency monitor of claim 8 wherein the hazard detectors are selected from a group consisting of: magnetic sensors, heat sensors, electromagnetic radiation sensors and Hall probes.
- 20 10. The efficiency monitor of claim 1 wherein the index of power comprises at least one of:
an efficiency quotient Q , defined as the ratio of the output power to the input power, and
an efficiency differential Δ , defined as the difference between the output power and the input power.
- 25 11. A method for monitoring the efficiency of power transmission by an inductive power outlet, the inductive power outlet comprising at least one primary coil wired to a power supply, for inductively coupling with a secondary coil wired to an electric load, the method comprising the steps of:
q. measuring the input power delivered to the primary coil;

- r. measuring the output power received by the secondary coil;
- s. communicating the input power to a processor;
- t. communicating the output power to the processor; and
- u. the processor determining an index of power-loss.

5

12. The method of claim 11, wherein the index of power-loss is an efficiency quotient Q , being the ratio of the output power to the input power, the method comprising the further step of:
disconnecting the primary coil from the power supply if the efficiency quotient Q is below a
10 threshold value.

13. The method of claim 11, wherein the index of power-loss is the efficiency differential Δ , being the difference between the output power to the input power, the method comprising the further step of:
15 disconnecting the primary coil from the power supply if the efficiency differential Δ is above a threshold value.

14. An inductive power outlet comprising at least one primary coil, for inductively coupling with a secondary coil wired to an electric load, the inductive power
20 outlet further comprising an efficiency monitor comprising:

at least one input power monitor configured to measure input power delivered to the primary coil;

at least one signal detector configured to detect signals carrying data pertaining to output power received by the secondary coil;

25 at least one processor configured to receive data pertaining to the input power and the output power, the processor further configured to determine an index of power-loss.

15. The inductive power outlet of claim 14 additionally comprising at least one circuit-breaker configured to disconnect the primary coil from the power supply.

16. An inductive power receiver comprising at least one secondary coil for inductively coupling to a primary coil and supplying power to an electric load, the inductive power receiver further comprising

at least one output power monitor for measuring output power received by the secondary coil, and

at least one signal transmitter configured to transmit signals carrying data pertaining to the output power to an efficiency monitor.

17. The inductive power receiver of claim 16 wherein the signal transmitter is selected from a group consisting of: light emitting diodes, radio transmitters, optocouplers, and transmitter circuits.

18. The inductive power receiver of claim 16 wherein the transmitter comprises:

an ancillary load selectively connectable to the secondary inductive coil,

a modulator for modulating a bit-rate signal with an input signal to create a modulated signal, and a switch for intermittently connecting the ancillary load to the secondary inductive coil according to the modulated signal.

19. The inductive power receiver of claim 16 wherein the output power monitor is incorporated into an electric device.

20. The inductive power receiver of claim 19 wherein the electric device is selected from a group consisting of: computers, telephones, personal digital assistance (PDAs), cameras, media players, computers, keyboards and mice.

ABSTRACT

5 An efficiency monitor for monitoring the efficiency of power transmission by an inductive power outlet. The efficiency monitor includes an input power monitor, for measuring the input power delivered to the primary coil, and an output power monitor, for measuring the output power received by the secondary coil. The input and output powers are used by a processor to determine an index of power-loss. A circuit breaker may be used to disconnect the inductive power outlet in case of excessive power loss.

2 / 20

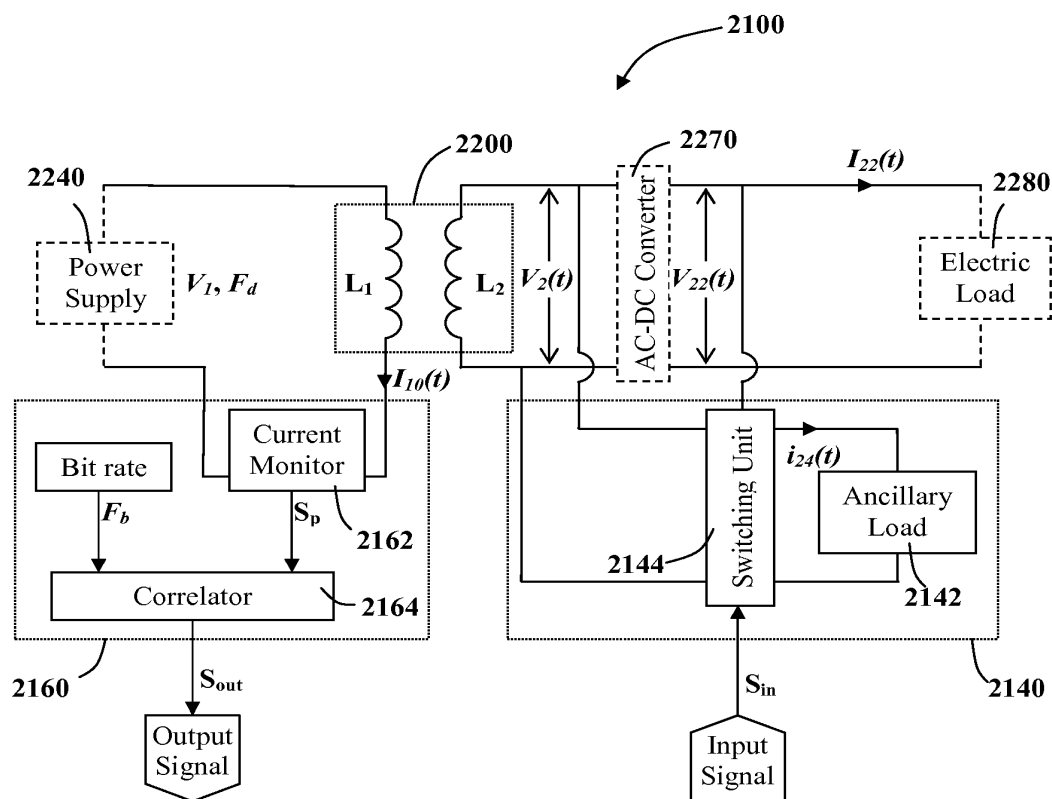


Fig. 2a

3 / 20

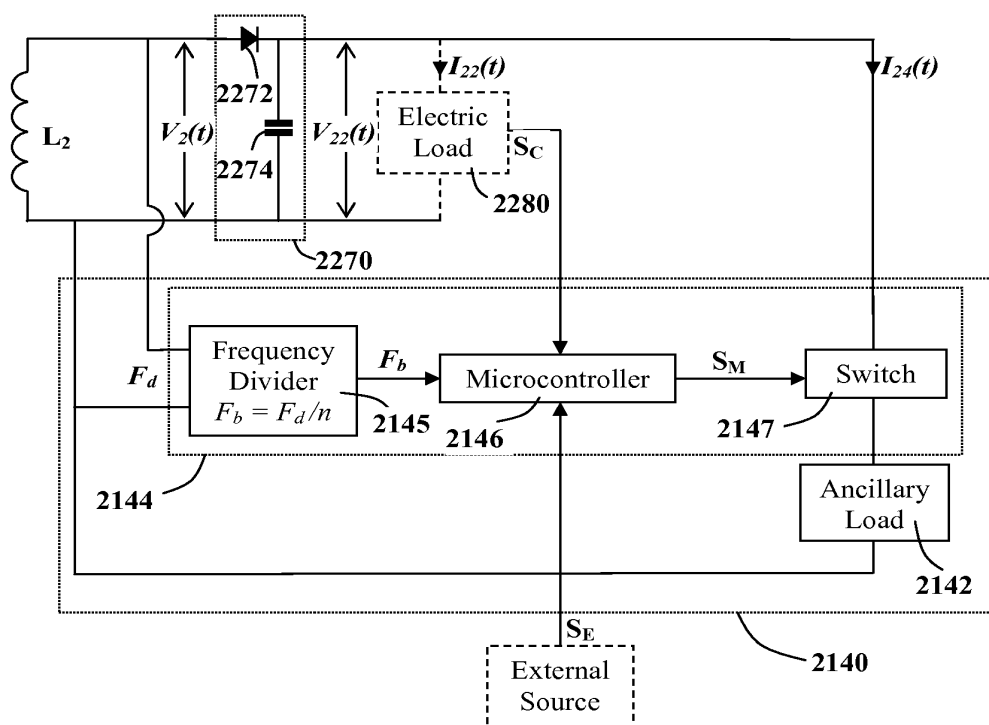


Fig. 2b

4 / 20

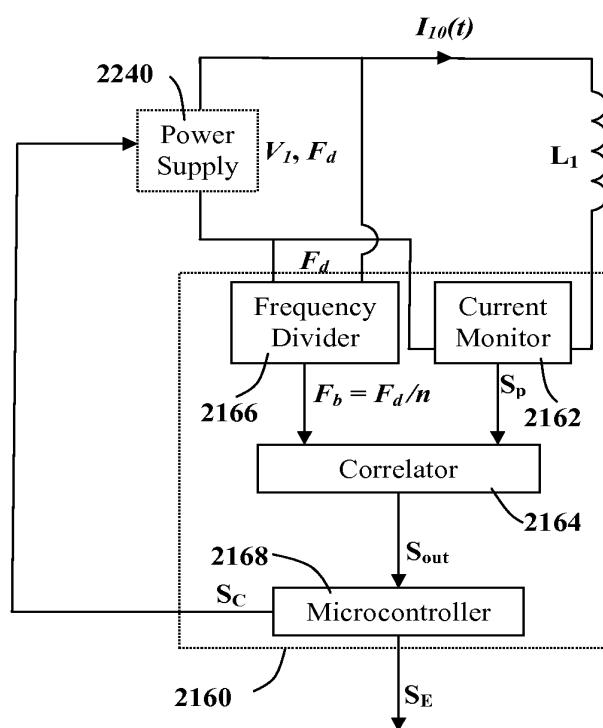


Fig. 2c

5 / 20

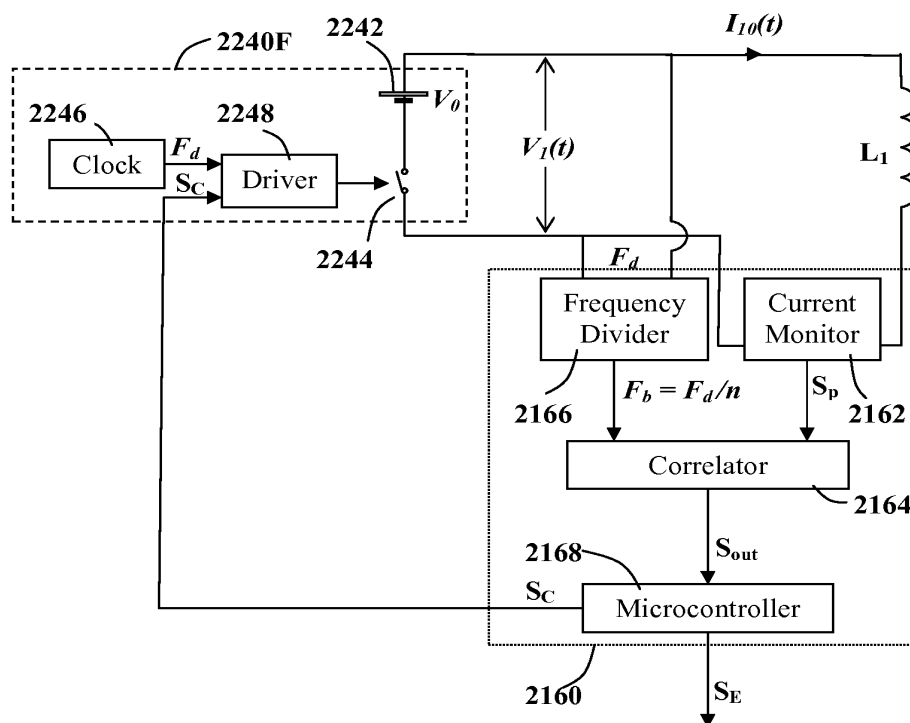


Fig. 2d

6 / 20

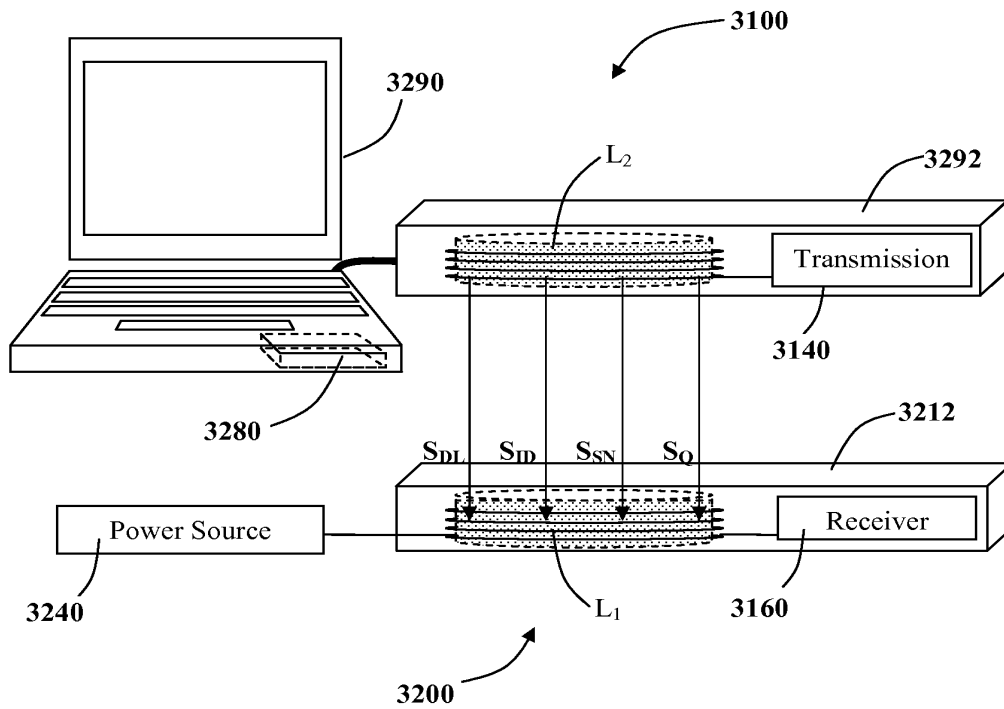


Fig. 3

7 / 20

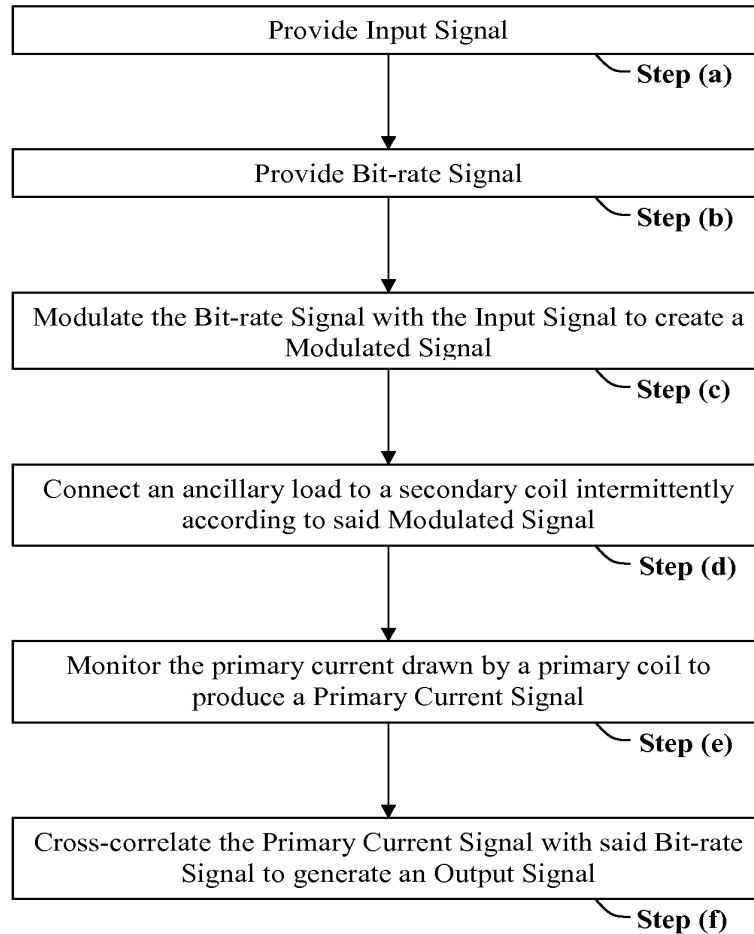


Fig. 4

8 / 20

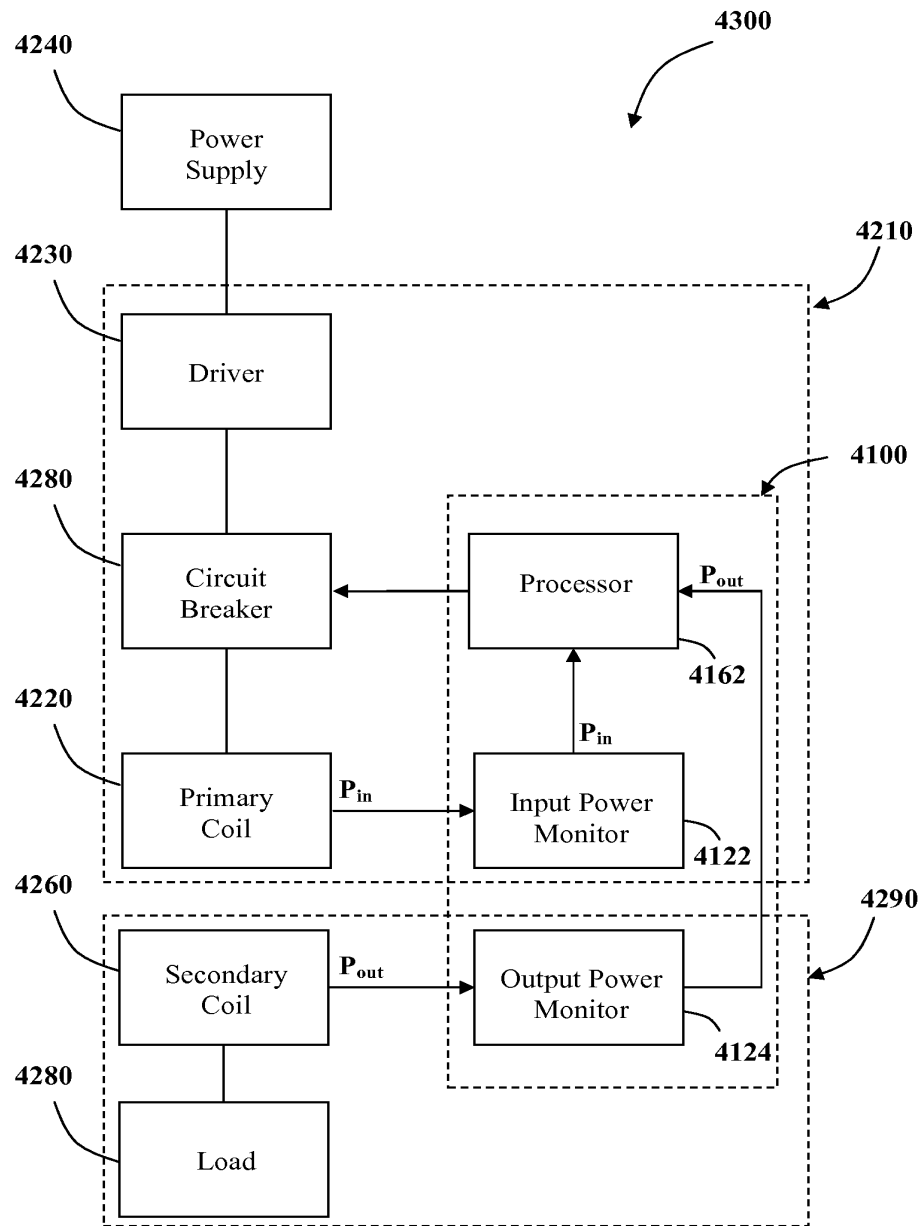


Fig. 5

9 / 20

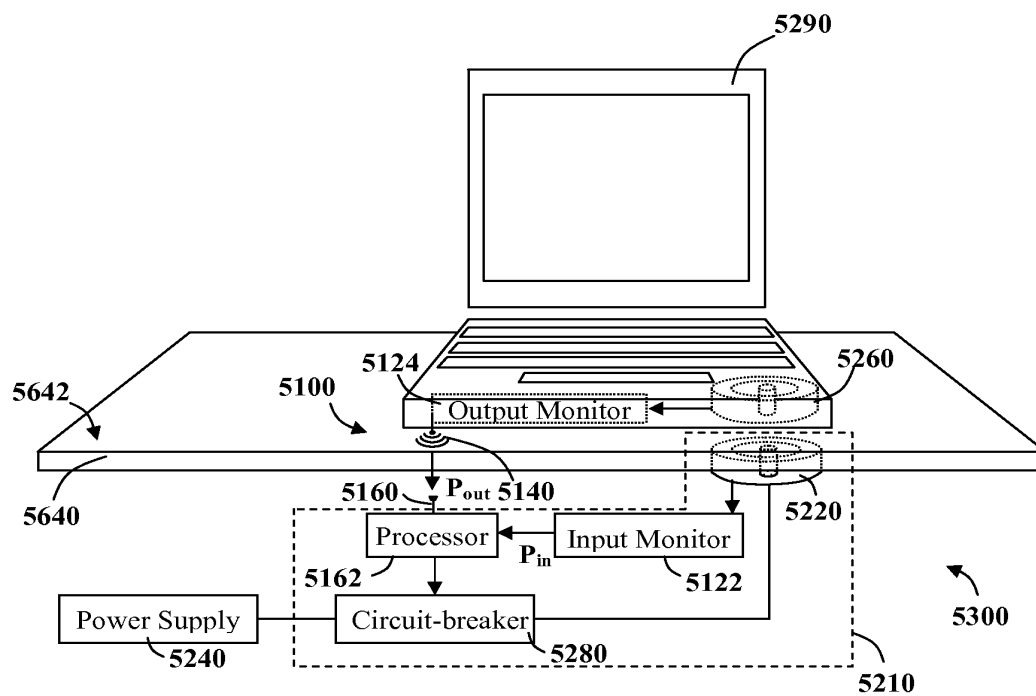


Fig. 6a

10 / 20

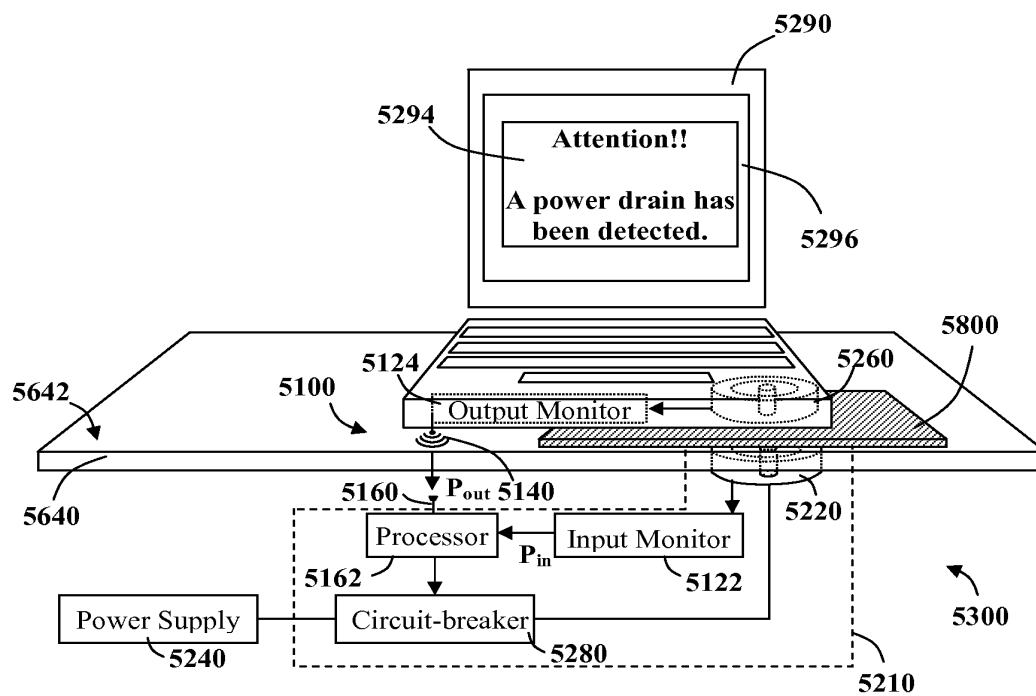


Fig. 6b

11 / 20

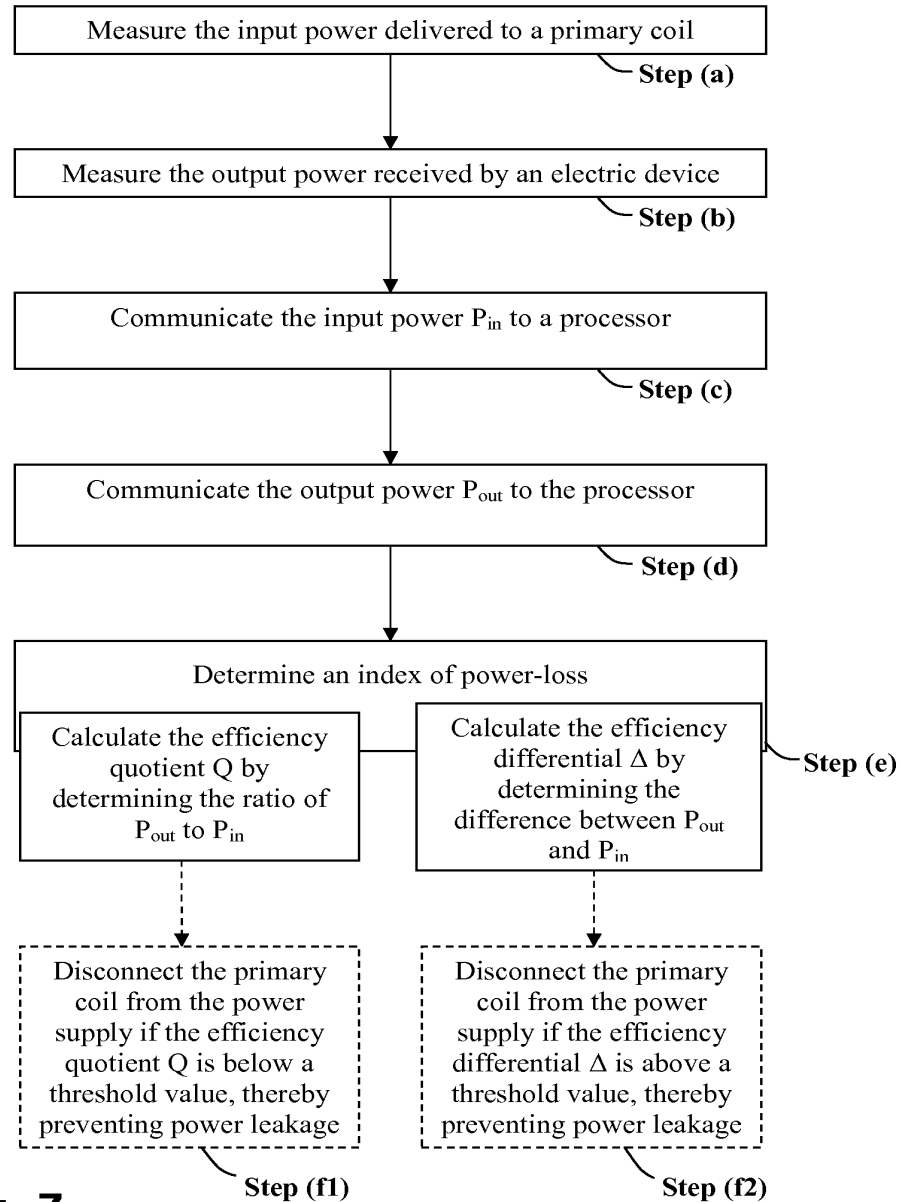


Fig. 7

12 / 20

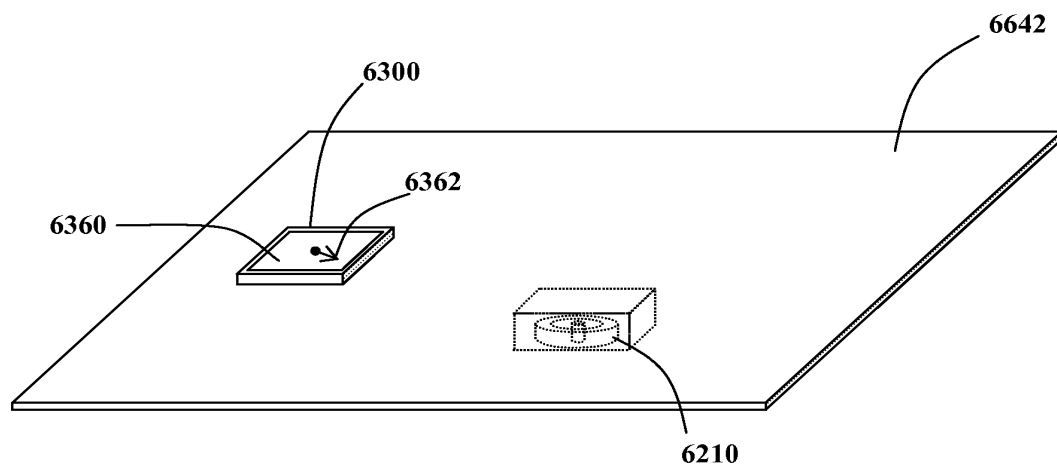


Fig. 8a

13 / 20

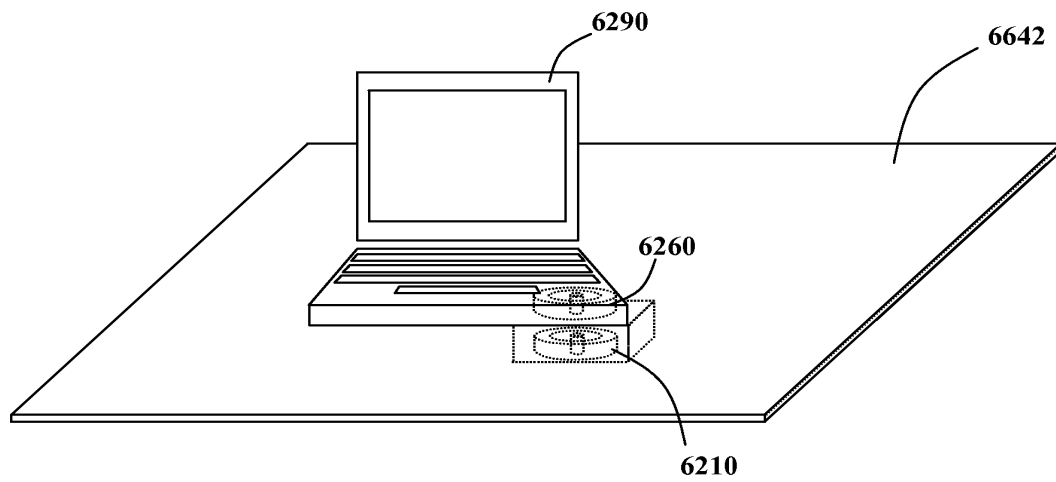


Fig. 8b

14 / 20

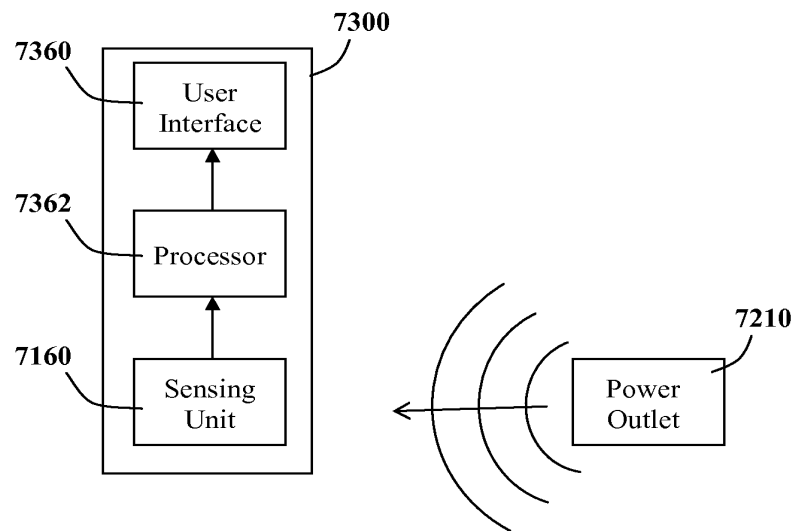


Fig. 9

15 / 20

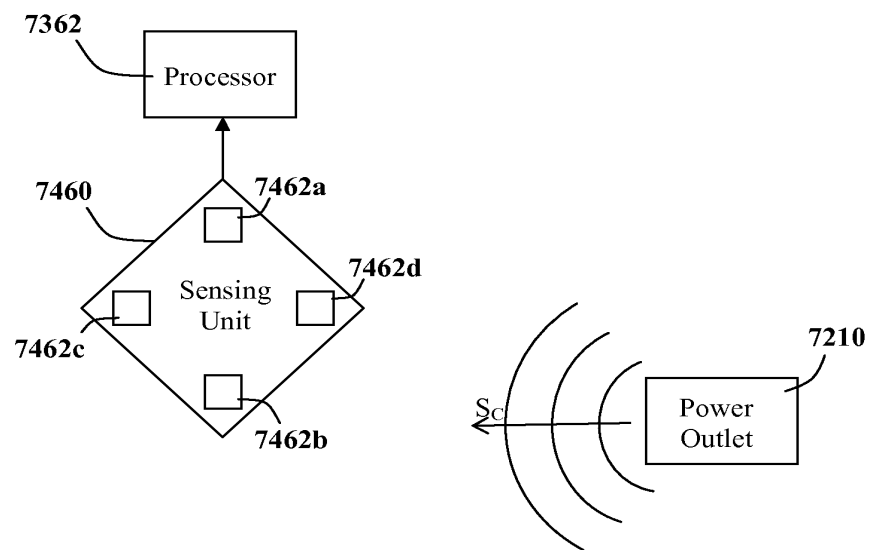


Fig. 10

16 / 20

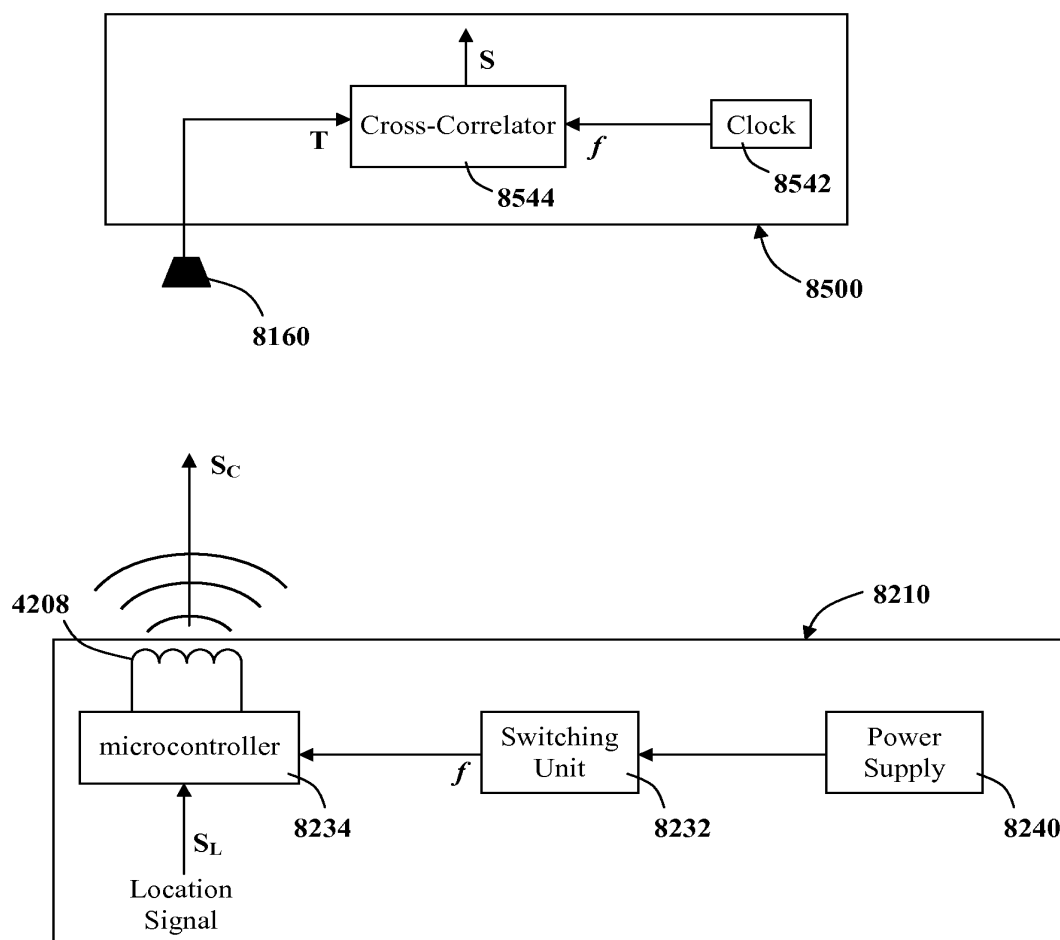


Fig. 11

17 / 20

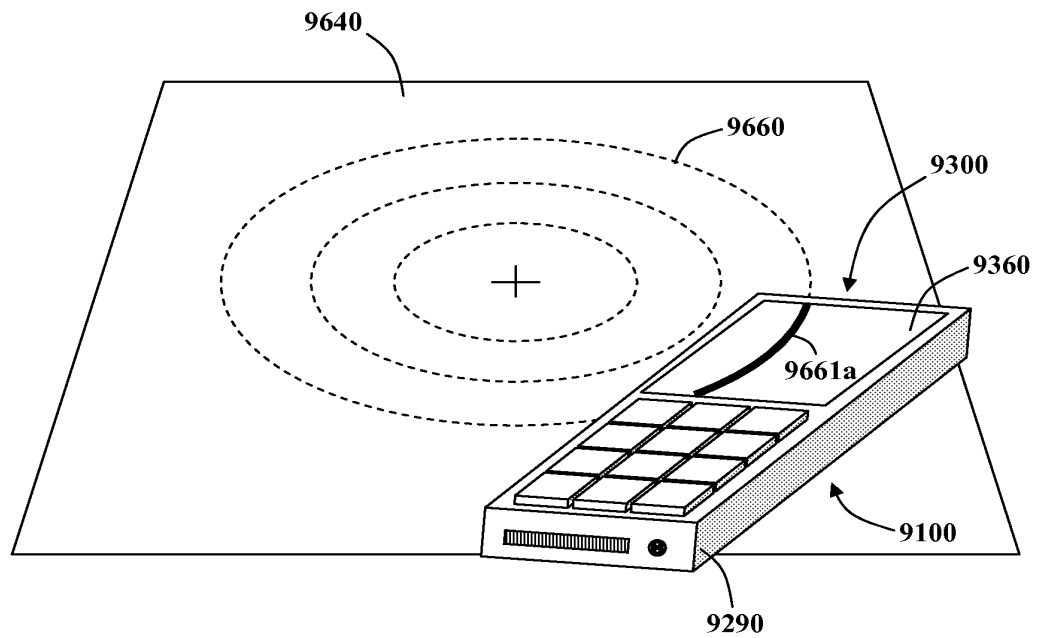


Fig. 12a

18 / 20

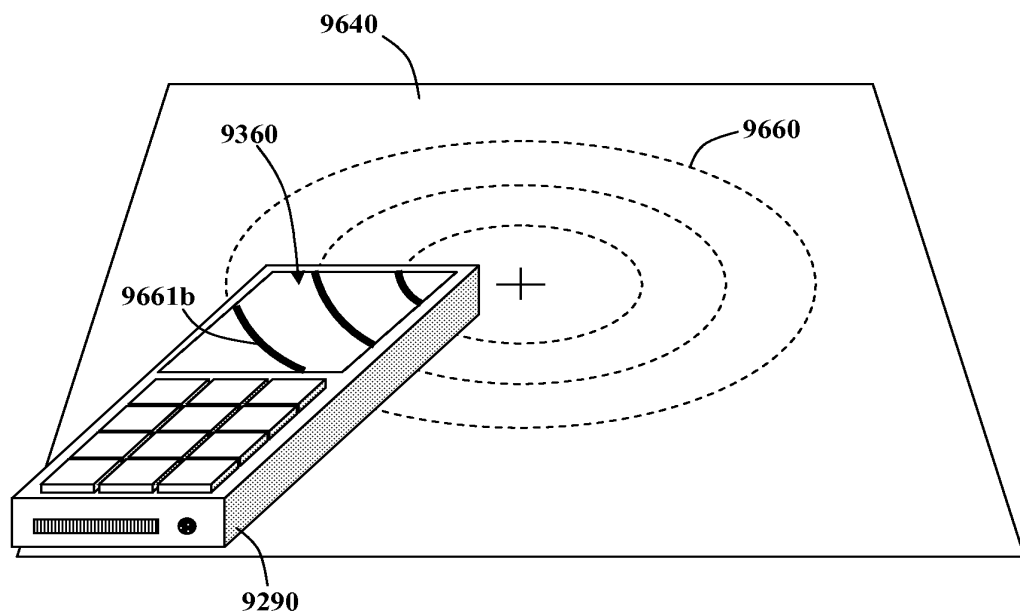


Fig. 12b

19 / 20

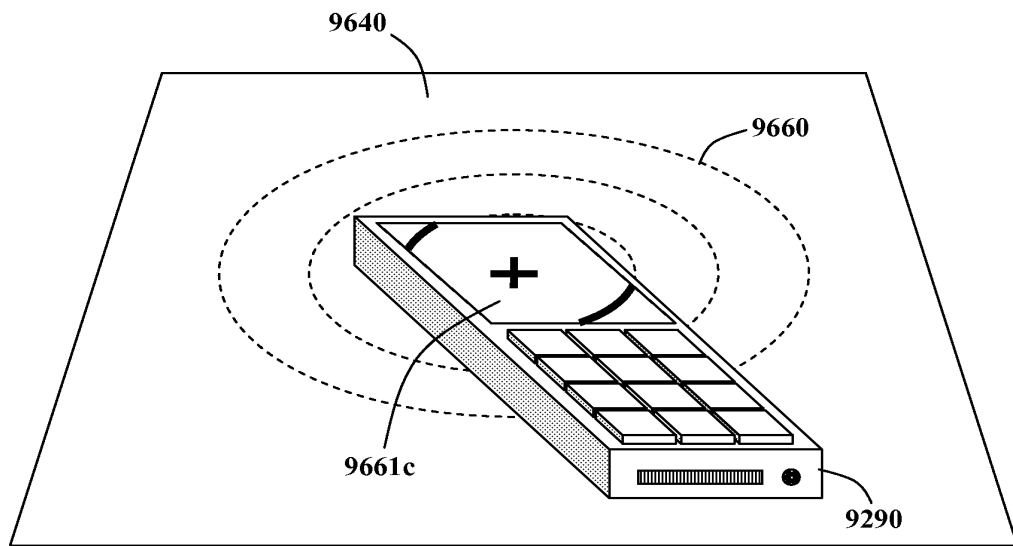


Fig. 12c

20 / 20

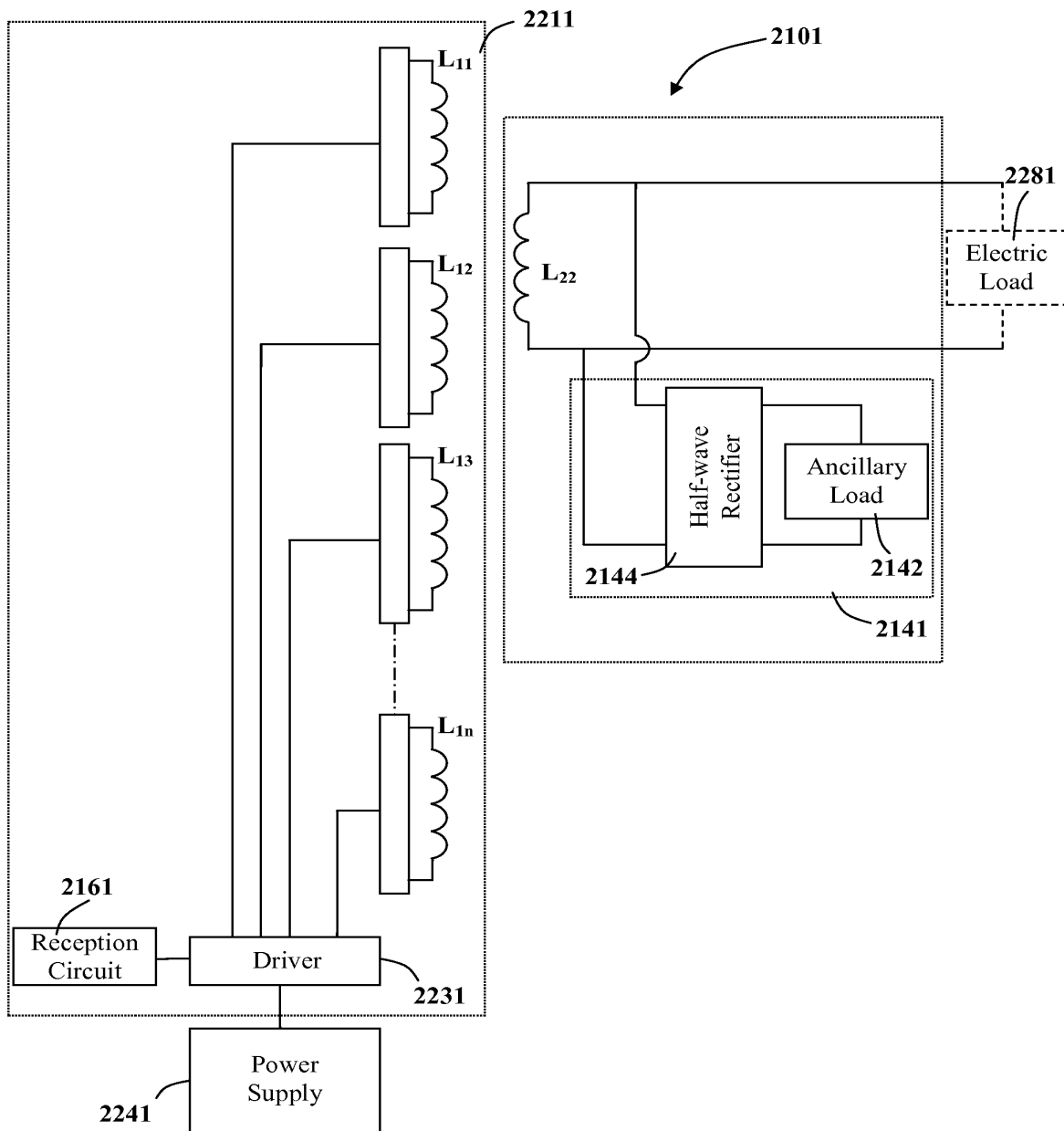


Fig. 13

DECLARATION FOR PATENT APPLICATION AND POWER OF ATTORNEY

Atty. Docket No. POWM0106PUSA

First Named Inventor Yossi Azancot

I hereby declare that:

Each inventor's residence, mailing address, and citizenship are as stated below next to their name.

I believe the inventor(s) named below to be the original and first inventor(s) of the subject matter which is claimed and for which a patent is sought on the invention entitled:

EFFICIENCY MONITOR FOR INDUCTIVE POWER TRANSMISSION

the specification of which:

☐ is attached hereto; or

☒ was filed on (MM/DD/YYYY) September 21, 2009 as U.S. Application Number or PCT International Application Number 12/563,558, and was amended on (MM/DD/YYYY) _____ (if applicable).

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment specifically referred to above.

I acknowledge the duty to disclose information which is material to patentability as defined in 37 C.F.R. § 1.56, including for continuation-in-part applications, material information which became available between the filing date of the prior application and the national or PCT international filing date of the continuation-in-part application.

Authorization to Permit Access to Application by Participating Offices

☐ If checked, the undersigned hereby grants the USPTO authority to provide the European Patent Office (EPO), the Japan Patent Office (JPO), the Korean Intellectual Property Office (KIPO), the World Intellectual Property Office (WIPO), and any other intellectual property offices in which a foreign application claiming priority to the above-identified patent application is filed access to the above-identified patent application. See 37 CFR 1.14(c) and (h). This box should not be checked if the applicant does not wish the EPO, JPO, KIPO, WIPO, or other intellectual property office in which a foreign application claiming priority to the above-identified patent application is filed to have access to the above-identified patent application.

In accordance with 37 CFR 1.14(h)(3), access will be provided to a copy of the above-identified patent application with respect to: 1) the above-identified patent application-as-filed; 2) any foreign application to which the above-identified patent application claims priority under 35 U.S.C. 119(a)-(d) if a copy of the foreign application that satisfies the certified copy requirement of 37 CFR 1.55 has been filed in the above-identified patent application; and 3) any U.S. application-as-filed from which benefit is sought in the above-identified patent application.

In accordance with 37 CFR 1.14(c), access may be provided to information concerning the date of filing the Authorization to Permit Access to Application by Participating Offices.

I hereby claim foreign priority benefits under 35 U.S.C. § 119(a)-(d) or (f), or § 365(b) of any foreign application(s) for patent, inventor's or plant breeder's rights certificate(s), or § 365(a) of any PCT international application which designated at least one country other than the United States of America, listed below, and have also identified below, by checking the box, any foreign application for patent, inventor's or plant breeder's rights certificate(s), or any PCT international application having a filing date before that of the application on which priority is claimed.

<i>Prior Foreign Application Number(s)</i>	<i>Country</i>	<i>Foreign Priority Date (MM/DD/YYYY)</i>	<i>Priority Not Claimed</i>	<i>Certified Copy Attached? (Yes/No)</i>

Declaration for Patent Application (cont'd.)

Atty. Docket No. POWM0106PUSA

BK0001/05-09

[Decl. -- Page 1 of 3]

Lowrey PUSA

I hereby claim the benefit under Title 35, United States Code, § 119(e) of any United States provisional application(s) listed below:

Application Number(s)	Filing Date (MM/DD/YYYY)
60/907,132	March 22, 2007
60/935,847	September 4, 2007
61/006,076	December 18, 2007
61/006,106	December 19, 2007
61/006,488	January 16, 2008
61/006,721	January 29, 2008

I hereby claim the benefit under Title 35, United States Code, § 120 of any United States application(s) listed below:

Application Number(s)	Filing Date (MM/DD/YYYY)	Status: Patented, Pending, Abandoned

I hereby appoint the practitioners associated with Customer Number 22045 to prosecute this application and to transact all business in the Patent and Trademark Office connected therewith, and direct that all correspondence be addressed to that Customer Number. Telephone calls should be directed to (248) 358-4400.

CUSTOMER NO.

22045

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Full Name of Sole or First Inventor: Yossi Azencot

Inventor's signature  Date OCT 23, 2009

Mailing address 13.4 Haikufah, Jerusalem, Israel 92628

Residence (same as above) Citizenship Israel

Full Name of Second Joint Inventor: Amir Ben-Shalom

Inventor's signature _____ Date _____

Mailing address 8, Mentor, Modun, Israel 71700

Residence (same as above) Citizenship Israel

BK0001 05-09

[Decl] -- Page 2 of 3

Declaration for Patent Application (cont'd.)

Atty. Docket No. POWM0106PUSA

Full Name of Third Joint Inventor Oola Greenwald

Inventor's signature



Date Oct. 25, 2009

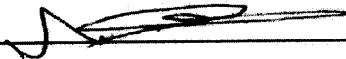
Mailing address 107, HaShalom, Mevasseret Zion, Israel 90805

Residence (same as above)

Citizenship Israel

Full Name of Fourth Joint Inventor Arik Rofe

Inventor's signature



Date Oct. 25, 2009

Mailing address 8, Hameyasdim, Bet Hakerem, Jerusalem, Israel 96224

Residence (same as above)

Citizenship Israel

DECLARATION FOR PATENT APPLICATION AND POWER OF ATTORNEY

Atty. Docket No. POWM0106PUSA

First Named Inventor Yossi Azancot

I hereby declare that:

Each inventor's residence, mailing address, and citizenship are as stated below next to their name.

I believe the inventor(s) named below to be the original and first inventor(s) of the subject matter which is claimed and for which a patent is sought on the invention entitled:

EFFICIENCY MONITOR FOR INDUCTIVE POWER TRANSMISSION

the specification of which:

☐ is attached hereto; or

☒ was filed on (MM/DD/YYYY) September 21, 2009 as U.S. Application Number or PCT International Application Number 12/563,558, and was amended on (MM/DD/YYYY) _____ (if applicable).

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment specifically referred to above.

I acknowledge the duty to disclose information which is material to patentability as defined in 37 C.F.R. § 1.56, including for continuation-in-part applications, material information which became available between the filing date of the prior application and the national or PCT international filing date of the continuation-in-part application.

Authorization to Permit Access to Application by Participating Offices

☐ If checked, the undersigned hereby grants the USPTO authority to provide the European Patent Office (EPO), the Japan Patent Office (JPO), the Korean Intellectual Property Office (KIPO), the World Intellectual Property Office (WIPO), and any other intellectual property offices in which a foreign application claiming priority to the above-identified patent application is filed access to the above-identified patent application. See 37 CFR 1.14(c) and (h). This box should not be checked if the applicant does not wish the EPO, JPO, KIPO, WIPO, or other intellectual property office in which a foreign application claiming priority to the above-identified patent application is filed to have access to the above-identified patent application.

In accordance with 37 CFR 1.14(h)(3), access will be provided to a copy of the above-identified patent application with respect to: 1) the above-identified patent application-as-filed; 2) any foreign application to which the above-identified patent application claims priority under 35 U.S.C. 119(a)-(d) if a copy of the foreign application that satisfies the certified copy requirement of 37 CFR 1.55 has been filed in the above-identified patent application; and 3) any U.S. application-as-filed from which benefit is sought in the above-identified patent application.

In accordance with 37 CFR 1.14(c), access may be provided to information concerning the date of filing the Authorization to Permit Access to Application by Participating Offices.

I hereby claim foreign priority benefits under 35 U.S.C. § 119(a)-(d) or (f), or § 365(b) of any foreign application(s) for patent, inventor's or plant breeder's rights certificate(s), or § 365(a) of any PCT international application which designated at least one country other than the United States of America, listed below, and have also identified below, by checking the box, any foreign application for patent, inventor's or plant breeder's rights certificate(s), or any PCT international application having a filing date before that of the application on which priority is claimed.

<i>Prior Foreign Application Number(s)</i>	<i>Country</i>	<i>Foreign Priority Date (MM/DD/YYYY)</i>	<i>Priority Not Claimed</i>	<i>Certified Copy Attached? (Yes/No)</i>

Declaration for Patent Application (cont'd.)

Atty. Docket No. POWM0106PUSA

I hereby claim the benefit under Title 35, United States Code, § 119(e) of any United States provisional application(s) listed below.

<i>Application Number(s)</i>	<i>Filing Date (MM/DD/YYYY)</i>
60/907,132	March 22, 2007
60/935,847	September 4, 2007
61/006,076	December 18, 2007
61/006,106	December 19, 2007
61/006,488	January 16, 2008
61/006,721	January 29, 2008

I hereby claim the benefit under Title 35, United States Code, § 120 of any United States application(s) listed below.

<i>Application Number(s)</i>	<i>Filing Date (MM/DD/YYYY)</i>	<i>Status: Patented, Pending, Abandoned</i>

I hereby appoint the practitioners associated with Customer Number 22045 to prosecute this application and to transact all business in the Patent and Trademark Office connected therewith, and direct that all correspondence be addressed to that Customer Number. Telephone calls should be directed to (248) 358-4400.

CUSTOMER NO.

22045

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Full Name of Sole or First Inventor Yossi Azancot

Inventor's signature _____ Date _____

Mailing address 13/4 Hatkufah, Jerusalem, Israel 92628

Residence (same as above) Citizenship Israel

Full Name of Second Joint Inventor Amir Ben-Shalom

Inventor's signature A Date Oct. 25, 2009

Mailing address 8, Mentor, Modiin, Israel 71700

Residence (same as above) Citizenship Israel

Declaration for Patent Application (cont'd.)

Atty. Docket No. POWM0106PUSA

Full Name of Third Joint Inventor Oola Greenwald

Inventor's signature _____ Date _____

Mailing address 107, HaShalom, Mevasseret Zion, Israel 90805

Residence (same as above) Citizenship Israel

Full Name of Fourth Joint Inventor Arik Rofe

Inventor's signature _____ Date _____

Mailing address 8, Hameyasdim, Bet Hakerem, Jerusalem, Israel 96224

Residence (same as above) Citizenship Israel

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Application Data Sheet 37 CFR 1.76		Attorney Docket Number	POWM 0106 PUSA1
		Application Number	
Title of Invention	EFFICIENCY MONITOR FOR INDUCTIVE POWER TRANSMISSION		
<p>The application data sheet is part of the provisional or nonprovisional application for which it is being submitted. The following form contains the bibliographic data arranged in a format specified by the United States Patent and Trademark Office as outlined in 37 CFR 1.76.</p> <p>This document may be completed electronically and submitted to the Office in electronic format using the Electronic Filing System (EFS) or the document may be printed and included in a paper filed application.</p>			

Secrecy Order 37 CFR 5.2

☐ Portions or all of the application associated with this Application Data Sheet may fall under a Secrecy Order pursuant to 37 CFR 5.2 (Paper filers only. Applications that fall under Secrecy Order may not be filed electronically.)

Applicant Information:

Applicant 1					Remove
Applicant Authority		☒ Inventor		☐ Legal Representative under 35 U.S.C. 117	☐ Party of Interest under 35 U.S.C. 118
Prefix	Given Name	Middle Name	Family Name	Suffix	
	Yossi		Azancot		
Residence Information (Select One) ☐ US Residency ☒ Non US Residency ☐ Active US Military Service					
City	Jerusalem	Country Of Residenceⁱ	IL		
Citizenship under 37 CFR 1.41(b)ⁱ		IL			
Mailing Address of Applicant:					
Address 1	13/4, Hatkufah				
Address 2					
City	Jerusalem	State/Province			
Postal Code	92628	Countryⁱ	IL		
Applicant 2					Remove
Applicant Authority		☒ Inventor		☐ Legal Representative under 35 U.S.C. 117	☐ Party of Interest under 35 U.S.C. 118
Prefix	Given Name	Middle Name	Family Name	Suffix	
	Amir		Ben-Shalom		
Residence Information (Select One) ☐ US Residency ☒ Non US Residency ☐ Active US Military Service					
City	Modiin	Country Of Residenceⁱ	IL		
Citizenship under 37 CFR 1.41(b)ⁱ		IL			
Mailing Address of Applicant:					
Address 1	8, Mentor				
Address 2					
City	Modiin	State/Province			
Postal Code	71700	Countryⁱ	IL		
Applicant 3					Remove
Applicant Authority		☒ Inventor		☐ Legal Representative under 35 U.S.C. 117	☐ Party of Interest under 35 U.S.C. 118
Prefix	Given Name	Middle Name	Family Name	Suffix	
	Oola		Greenwald		
Residence Information (Select One) ☐ US Residency ☒ Non US Residency ☐ Active US Military Service					
City	Mevasseret Zion	Country Of Residenceⁱ	IL		

Application Data Sheet 37 CFR 1.76		Attorney Docket Number	POWM 0106 PUSA1
		Application Number	
Title of Invention	EFFICIENCY MONITOR FOR INDUCTIVE POWER TRANSMISSION		

Citizenship under 37 CFR 1.41(b) i		IL	
Mailing Address of Applicant:			
Address 1	107, HaShalom		
Address 2			
City	Mevasseret Zion	State/Province	
Postal Code	90805	Countryⁱ	IL
Applicant 4			<input type="button" value="Remove"/>
Applicant Authority		☒ Inventor ☐ Legal Representative under 35 U.S.C. 117 ☐ Party of Interest under 35 U.S.C. 118	
Prefix	Given Name	Middle Name	Family Name
	Arik		Rofe
Residence Information (Select One) ☐ US Residency ☒ Non US Residency ☐ Active US Military Service			
City	Jerusalem	Country Of Residenceⁱ	IL
Citizenship under 37 CFR 1.41(b) i		IL	
Mailing Address of Applicant:			
Address 1	8, Hameyasdim, Bet Hakerem		
Address 2			
City	Jerusalem	State/Province	
Postal Code	96224	Countryⁱ	IL
All Inventors Must Be Listed - Additional Inventor Information blocks may be generated within this form by selecting the Add button.			<input type="button" value="Add"/>

Correspondence Information:

Enter either Customer Number or complete the Correspondence Information section below. For further information see 37 CFR 1.33(a).	
☐ An Address is being provided for the correspondence Information of this application.	
Customer Number	22045
Email Address	<input type="button" value="Add Email"/> <input type="button" value="Remove Email"/>

Application Information:

Title of the Invention	EFFICIENCY MONITOR FOR INDUCTIVE POWER TRANSMISSION		
Attorney Docket Number	POWM 0106 PUSA1	Small Entity Status Claimed	☒
Application Type	Nonprovisional		
Subject Matter	Utility		
Suggested Class (if any)		Sub Class (if any)	
Suggested Technology Center (if any)			
Total Number of Drawing Sheets (if any)	20	Suggested Figure for Publication (if any)	1

Application Data Sheet 37 CFR 1.76		Attorney Docket Number	POWM 0106 PUSA1
		Application Number	
Title of Invention	EFFICIENCY MONITOR FOR INDUCTIVE POWER TRANSMISSION		

Publication Information:

☐	Request Early Publication (Fee required at time of Request 37 CFR 1.219)
☐	Request Not to Publish. I hereby request that the attached application not be published under 35 U.S.C. 122(b) and certify that the invention disclosed in the attached application has not and will not be the subject of an application filed in another country, or under a multilateral international agreement, that requires publication at eighteen months after filing.

Representative Information:

Representative information should be provided for all practitioners having a power of attorney in the application. Providing this information in the Application Data Sheet does not constitute a power of attorney in the application (see 37 CFR 1.32). Enter either Customer Number or complete the Representative Name section below. If both sections are completed the Customer Number will be used for the Representative Information during processing.			
Please Select One:	☒ Customer Number	☐ US Patent Practitioner	☐ Limited Recognition (37 CFR 11.9)
Customer Number	22045		

Domestic Benefit/National Stage Information:

This section allows for the applicant to either claim benefit under 35 U.S.C. 119(e), 120, 121, or 365(c) or indicate National Stage entry from a PCT application. Providing this information in the application data sheet constitutes the specific reference required by 35 U.S.C. 119(e) or 120, and 37 CFR 1.78(a)(2) or CFR 1.78(a)(4), and need not otherwise be made part of the specification.			
Prior Application Status	Pending	Remove	
Application Number	Continuity Type	Prior Application Number	Filing Date (YYYY-MM-DD)
	Continuation of	12563558	2009-09-21
Prior Application Status		Remove	
Application Number	Continuity Type	Prior Application Number	Filing Date (YYYY-MM-DD)
12563558	Continuation of	PCT/IL2008/000401	2008-03-23
Prior Application Status		Remove	
Application Number	Continuity Type	Prior Application Number	Filing Date (YYYY-MM-DD)
PCT/IL2008/000401	non provisional of	60/907132	2007-03-22
Prior Application Status		Remove	
Application Number	Continuity Type	Prior Application Number	Filing Date (YYYY-MM-DD)
PCT/IL2008/000401	non provisional of	60/935847	2007-09-04
Prior Application Status		Remove	
Application Number	Continuity Type	Prior Application Number	Filing Date (YYYY-MM-DD)
PCT/IL2008/000401	non provisional of	61/006076	2007-12-18
Prior Application Status		Remove	

Application Data Sheet 37 CFR 1.76		Attorney Docket Number	POWM 0106 PUSA1
		Application Number	
Title of Invention	EFFICIENCY MONITOR FOR INDUCTIVE POWER TRANSMISSION		

Application Number	Continuity Type	Prior Application Number	Filing Date (YYYY-MM-DD)
PCT/IL2008/000401	non provisional of	61/00106	2007-12-19
Prior Application Status	Remove		
Application Number	Continuity Type	Prior Application Number	Filing Date (YYYY-MM-DD)
PCT/IL2008/000401	non provisional of	61/006488	2008-01-16
Prior Application Status	Remove		
Application Number	Continuity Type	Prior Application Number	Filing Date (YYYY-MM-DD)
PCT/IL2008/000401	non provisional of	61/006721	2008-01-29
Additional Domestic Benefit/National Stage Data may be generated within this form by selecting the Add button. Add			

Foreign Priority Information:

This section allows for the applicant to claim benefit of foreign priority and to identify any prior foreign application for which priority is not claimed. Providing this information in the application data sheet constitutes the claim for priority as required by 35 U.S.C. 119(b) and 37 CFR 1.55(a).			
Remove			
Application Number	Country ⁱ	Parent Filing Date (YYYY-MM-DD)	Priority Claimed
			☐ Yes ☒ No
Additional Foreign Priority Data may be generated within this form by selecting the Add button. Add			

Assignee Information:

Providing this information in the application data sheet does not substitute for compliance with any requirement of part 3 of Title 37 of the CFR to have an assignment recorded in the Office.			
Assignee 1 Remove			
If the Assignee is an Organization check here. ☒			
Organization Name	POWERMAT LTD		
Mailing Address Information:			
Address 1	Kirat Hatikshoret		
Address 2			
City	Neve Ilan	State/Province	
Country ⁱ	IL	Postal Code	90850
Phone Number		Fax Number	
Email Address			
Additional Assignee Data may be generated within this form by selecting the Add button. Add			

Signature:

A signature of the applicant or representative is required in accordance with 37 CFR 1.33 and 10.18. Please see 37 CFR 1.4(d) for the form of the signature.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Application Data Sheet 37 CFR 1.76		Attorney Docket Number	POWM 0106 PUSA1		
		Application Number			
Title of Invention	EFFICIENCY MONITOR FOR INDUCTIVE POWER TRANSMISSION				
Signature	/David S. Bir/		Date (YYYY-MM-DD)	2011-11-29	
First Name	David	Last Name	Bir	Registration Number	38383

This collection of information is required by 37 CFR 1.76. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 23 minutes to complete, including gathering, preparing, and submitting the completed application data sheet form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

Privacy Act Statement

The Privacy Act of 1974 (P.L. 93-579) requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C. 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether the Freedom of Information Act requires disclosure of these records.
2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspections or an issued patent.
9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

Electronic Patent Application Fee Transmittal				
Application Number:				
Filing Date:				
Title of Invention:		EFFICIENCY MONITOR FOR INDUCTIVE POWER TRANSMISSION		
First Named Inventor/Applicant Name:		Yossi Azancot		
Filer:		David S. Bir/Carolyn Bielaniec		
Attorney Docket Number:		POWM 0106 PUSA1		
Filed as Small Entity				
Utility under 35 USC 111(a) Filing Fees				
Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Basic Filing:				
Utility filing Fee (Electronic filing)	4011	1	95	95
Utility Search Fee	2111	1	310	310
Utility Examination Fee	2311	1	125	125
Pages:				
Claims:				
Independent claims in excess of 3	2201	1	125	125
Miscellaneous-Filing:				
Petition:				

Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				
Extension-of-Time:				
Miscellaneous:				
Total in USD (\$)				655

Electronic Acknowledgement Receipt	
EFS ID:	11496357
Application Number:	13306379
International Application Number:	
Confirmation Number:	3309
Title of Invention:	EFFICIENCY MONITOR FOR INDUCTIVE POWER TRANSMISSION
First Named Inventor/Applicant Name:	Yossi Azancot
Customer Number:	22045
Filer:	David S. Bir/Carolyn Bielaniec
Filer Authorized By:	David S. Bir
Attorney Docket Number:	POWM 0106 PUSA1
Receipt Date:	29-NOV-2011
Filing Date:	
Time Stamp:	16:00:40
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	Deposit Account
Payment was successfully received in RAM	\$655
RAM confirmation Number	2819
Deposit Account	023978
Authorized User	
<p>The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows:</p> <p>Charge any Additional Fees required under 37 C.F.R. Section 1.16 (National application filing, search, and examination fees)</p> <p>Charge any Additional Fees required under 37 C.F.R. Section 1.17 (Patent application and reexamination processing fees)</p>	

File Listing:					
Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1		Application.pdf	201993	yes	43
			6ba0ac1f34bb68a2dcacdb6e72268312103bc86b		
	Multipart Description/PDF files in .zip description				
	Document Description		Start		End
	Specification		1		38
	Claims		39		42
	Abstract		43		43
Warnings:					
Information:					
2	Drawings-only black and white line drawings	drawings.pdf	192460	no	20
			f994e5393b3802cd0103b3b7370231900d048c7a		
Warnings:					
Information:					
3	Oath or Declaration filed	Declaration.pdf	368257	no	6
			99148caa1734afae9423cb36be3ccacd568c3984		
Warnings:					
Information:					
4	Application Data Sheet	sb0014_fill.pdf	898999	no	6
			fc9830e18ca63730fc54020bd967daa24532f6b		
Warnings:					
Information:					
5	Fee Worksheet (SB06)	fee-info.pdf	36571	no	2
			9c635a25c551161c9812cdb26090d76967d81594		
Warnings:					
Information:					
Total Files Size (in bytes):			1698280		

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

Electronic Acknowledgement Receipt	
EFS ID:	11496357
Application Number:	13306379
International Application Number:	
Confirmation Number:	3309
Title of Invention:	EFFICIENCY MONITOR FOR INDUCTIVE POWER TRANSMISSION
First Named Inventor/Applicant Name:	Yossi Azancot
Customer Number:	22045
Filer:	David S. Bir/Carolyn Bielaniec
Filer Authorized By:	David S. Bir
Attorney Docket Number:	POWM 0106 PUSA1
Receipt Date:	29-NOV-2011
Filing Date:	
Time Stamp:	16:00:40
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	Deposit Account
Payment was successfully received in RAM	\$655
RAM confirmation Number	2819
Deposit Account	023978
Authorized User	
<p>The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows:</p> <p>Charge any Additional Fees required under 37 C.F.R. Section 1.16 (National application filing, search, and examination fees)</p> <p>Charge any Additional Fees required under 37 C.F.R. Section 1.17 (Patent application and reexamination processing fees)</p>	

File Listing:					
Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1		Application.pdf	201993	yes	43
			6ba0ac1f34bb68a2dcacdb6e72268312103bc86b		
	Multipart Description/PDF files in .zip description				
	Document Description		Start		End
	Specification		1		38
	Claims		39		42
	Abstract		43		43
Warnings:					
Information:					
2	Drawings-only black and white line drawings	drawings.pdf	192460	no	20
			f994e5393b3802cd0103b3b7370231900d048c7a		
Warnings:					
Information:					
3	Oath or Declaration filed	Declaration.pdf	368257	no	6
			99148caa1734afae9423cb36be3ccacd568c3984		
Warnings:					
Information:					
4	Application Data Sheet	sb0014_fill.pdf	898999	no	6
			fc9830e18ca63730fc54020bdc967daa24532f6b		
Warnings:					
Information:					
5	Fee Worksheet (SB06)	fee-info.pdf	36571	no	2
			9c635a25c551161c9812cdb26090d76967d81594		
Warnings:					
Information:					
Total Files Size (in bytes):			1698280		

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

PATENT APPLICATION FEE DETERMINATION RECORD Substitute for Form PTO-875						Application or Docket Number 13/306,379				
APPLICATION AS FILED - PART I										
(Column 1)		(Column 2)		SMALL ENTITY		OTHER THAN SMALL ENTITY				
FOR	NUMBER FILED	NUMBER EXTRA	RATE(\$)	FEE(\$)		RATE(\$)	FEE(\$)			
BASIC FEE <small>(37 CFR 1.16(a), (b), or (c))</small>	N/A	N/A	N/A	95		N/A				
SEARCH FEE <small>(37 CFR 1.16(k), (l), or (m))</small>	N/A	N/A	N/A	310		N/A				
EXAMINATION FEE <small>(37 CFR 1.16(o), (p), or (q))</small>	N/A	N/A	N/A	125		N/A				
TOTAL CLAIMS <small>(37 CFR 1.16(j))</small>	20	minus 20 = *	x 30 =	0.00	OR					
INDEPENDENT CLAIMS <small>(37 CFR 1.16(h))</small>	4	minus 3 = *	x 125 =	125						
APPLICATION SIZE FEE <small>(37 CFR 1.16(s))</small>	If the specification and drawings exceed 100 sheets of paper, the application size fee due is \$310 (\$155 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).			0.00						
MULTIPLE DEPENDENT CLAIM PRESENT <small>(37 CFR 1.16(j))</small>				0.00						
				TOTAL		TOTAL				
* If the difference in column 1 is less than zero, enter "0" in column 2.				655						
APPLICATION AS AMENDED - PART II										
(Column 1)		(Column 2)		(Column 3)		SMALL ENTITY		OTHER THAN SMALL ENTITY		
AMENDMENT A		CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	RATE(\$)	ADDITIONAL FEE(\$)		RATE(\$)	ADDITIONAL FEE(\$)
	Total <small>(37 CFR 1.16(i))</small>	*	Minus	**	=	x	=	OR	x	=
	Independent <small>(37 CFR 1.16(h))</small>	*	Minus	***	=	x	=	OR	x	=
	Application Size Fee <small>(37 CFR 1.16(s))</small>							OR		
	FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM <small>(37 CFR 1.16(j))</small>							OR		
						TOTAL ADD'L FEE		OR	TOTAL ADD'L FEE	
AMENDMENT B		CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	RATE(\$)	ADDITIONAL FEE(\$)		RATE(\$)	ADDITIONAL FEE(\$)
	Total <small>(37 CFR 1.16(i))</small>	*	Minus	**	=	x	=	OR	x	=
	Independent <small>(37 CFR 1.16(h))</small>	*	Minus	***	=	x	=	OR	x	=
	Application Size Fee <small>(37 CFR 1.16(s))</small>							OR		
	FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM <small>(37 CFR 1.16(j))</small>							OR		
						TOTAL ADD'L FEE		OR	TOTAL ADD'L FEE	
* If the entry in column 1 is less than the entry in column 2, write "0" in column 3. ** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20". *** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3". The "Highest Number Previously Paid For" (Total or Independent) is the highest found in the appropriate box in column 1.										



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NUMBER	FILING or 371(c) DATE	GRP ART UNIT	FIL FEE REC'D	ATTY. DOCKET NO	TOT CLAIMS	IND CLAIMS
13/306,379	11/29/2011	2821	655	POWM 0106 PUSA1	20	4

CONFIRMATION NO. 3309

22045
BROOKS KUSHMAN P.C.
1000 TOWN CENTER
TWENTY-SECOND FLOOR
SOUTHFIELD, MI 48075

FILING RECEIPT



OC000000051388871

Date Mailed: 12/15/2011

Receipt is acknowledged of this non-provisional patent application. The application will be taken up for examination in due course. Applicant will be notified as to the results of the examination. Any correspondence concerning the application must include the following identification information: the U.S. APPLICATION NUMBER, FILING DATE, NAME OF APPLICANT, and TITLE OF INVENTION. Fees transmitted by check or draft are subject to collection. Please verify the accuracy of the data presented on this receipt. **If an error is noted on this Filing Receipt, please submit a written request for a Filing Receipt Correction. Please provide a copy of this Filing Receipt with the changes noted thereon. If you received a "Notice to File Missing Parts" for this application, please submit any corrections to this Filing Receipt with your reply to the Notice. When the USPTO processes the reply to the Notice, the USPTO will generate another Filing Receipt incorporating the requested corrections**

Applicant(s)

Yossi Azancot, Jerusalem, ISRAEL;
Amir Ben-Shalom, Modiin, ISRAEL;
Oola Greenwald, Mevasseret Zion, ISRAEL;
Arik Rofe, Jerusalem, ISRAEL;

Assignment For Published Patent Application

POWERMAT LTD, Neve Ilan, ISRAEL

Power of Attorney: The patent practitioners associated with Customer Number 22045

Domestic Priority data as claimed by applicant

This application is a CON of 12/563,558 09/21/2009 PAT 8090550
which is a CON of PCT/IL2008/000401 03/23/2008
which claims benefit of 60/907,132 03/22/2007
and claims benefit of 60/935,847 09/04/2007
and claims benefit of 61/006,076 12/18/2007
and claims benefit of 61/006,106 12/19/2007
and claims benefit of 61/006,488 01/16/2008
and claims benefit of 61/006,721 01/29/2008

Foreign Applications (You may be eligible to benefit from the **Patent Prosecution Highway** program at the USPTO. Please see <http://www.uspto.gov> for more information.)

If Required, Foreign Filing License Granted: 12/09/2011

The country code and number of your priority application, to be used for filing abroad under the Paris Convention, is **US 13/306,379**

Projected Publication Date: 03/22/2012

Non-Publication Request: No

Early Publication Request: No

**** SMALL ENTITY ****

Title

EFFICIENCY MONITOR FOR INDUCTIVE POWER TRANSMISSION

Preliminary Class

315

PROTECTING YOUR INVENTION OUTSIDE THE UNITED STATES

Since the rights granted by a U.S. patent extend only throughout the territory of the United States and have no effect in a foreign country, an inventor who wishes patent protection in another country must apply for a patent in a specific country or in regional patent offices. Applicants may wish to consider the filing of an international application under the Patent Cooperation Treaty (PCT). An international (PCT) application generally has the same effect as a regular national patent application in each PCT-member country. The PCT process **simplifies** the filing of patent applications on the same invention in member countries, but **does not result** in a grant of "an international patent" and does not eliminate the need of applicants to file additional documents and fees in countries where patent protection is desired.

Almost every country has its own patent law, and a person desiring a patent in a particular country must make an application for patent in that country in accordance with its particular laws. Since the laws of many countries differ in various respects from the patent law of the United States, applicants are advised to seek guidance from specific foreign countries to ensure that patent rights are not lost prematurely.

Applicants also are advised that in the case of inventions made in the United States, the Director of the USPTO must issue a license before applicants can apply for a patent in a foreign country. The filing of a U.S. patent application serves as a request for a foreign filing license. The application's filing receipt contains further information and guidance as to the status of applicant's license for foreign filing.

Applicants may wish to consult the USPTO booklet, "General Information Concerning Patents" (specifically, the section entitled "Treaties and Foreign Patents") for more information on timeframes and deadlines for filing foreign patent applications. The guide is available either by contacting the USPTO Contact Center at 800-786-9199, or it can be viewed on the USPTO website at <http://www.uspto.gov/web/offices/pac/doc/general/index.html>.

For information on preventing theft of your intellectual property (patents, trademarks and copyrights), you may wish to consult the U.S. Government website, <http://www.stopfakes.gov>. Part of a Department of Commerce initiative, this website includes self-help "toolkits" giving innovators guidance on how to protect intellectual property in specific countries such as China, Korea and Mexico. For questions regarding patent enforcement issues, applicants may call the U.S. Government hotline at 1-866-999-HALT (1-866-999-4158).

LICENSE FOR FOREIGN FILING UNDER
Title 35, United States Code, Section 184
Title 37, Code of Federal Regulations, 5.11 & 5.15

GRANTED

The applicant has been granted a license under 35 U.S.C. 184, if the phrase "IF REQUIRED, FOREIGN FILING LICENSE GRANTED" followed by a date appears on this form. Such licenses are issued in all applications where the conditions for issuance of a license have been met, regardless of whether or not a license may be required as set forth in 37 CFR 5.15. The scope and limitations of this license are set forth in 37 CFR 5.15(a) unless an earlier license has been issued under 37 CFR 5.15(b). The license is subject to revocation upon written notification. The date indicated is the effective date of the license, unless an earlier license of similar scope has been granted under 37 CFR 5.13 or 5.14.

This license is to be retained by the licensee and may be used at any time on or after the effective date thereof unless it is revoked. This license is automatically transferred to any related applications(s) filed under 37 CFR 1.53(d). This license is not retroactive.

The grant of a license does not in any way lessen the responsibility of a licensee for the security of the subject matter as imposed by any Government contract or the provisions of existing laws relating to espionage and the national security or the export of technical data. Licensees should apprise themselves of current regulations especially with respect to certain countries, of other agencies, particularly the Office of Defense Trade Controls, Department of State (with respect to Arms, Munitions and Implements of War (22 CFR 121-128)); the Bureau of Industry and Security, Department of Commerce (15 CFR parts 730-774); the Office of Foreign AssetsControl, Department of Treasury (31 CFR Parts 500+) and the Department of Energy.

NOT GRANTED

No license under 35 U.S.C. 184 has been granted at this time, if the phrase "IF REQUIRED, FOREIGN FILING LICENSE GRANTED" DOES NOT appear on this form. Applicant may still petition for a license under 37 CFR 5.12, if a license is desired before the expiration of 6 months from the filing date of the application. If 6 months has lapsed from the filing date of this application and the licensee has not received any indication of a secrecy order under 35 U.S.C. 181, the licensee may foreign file the application pursuant to 37 CFR 5.15(b).

SelectUSA

The United States represents the largest, most dynamic marketplace in the world and is an unparalleled location for business investment, innovation and commercialization of new technologies. The USA offers tremendous resources and advantages for those who invest and manufacture goods here. Through SelectUSA, our nation works to encourage, facilitate, and accelerate business investment. To learn more about why the USA is the best country in the world to develop technology, manufacture products, and grow your business, visit SelectUSA.gov.



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NUMBER	FILING OR 371(C) DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
13/306,379	11/29/2011	Yossi Azancot	POWM 0106 PUSA1

CONFIRMATION NO. 3309

22045
BROOKS KUSHMAN P.C.
1000 TOWN CENTER
TWENTY-SECOND FLOOR
SOUTHFIELD, MI 48075

PUBLICATION NOTICE



Title:EFFICIENCY MONITOR FOR INDUCTIVE POWER TRANSMISSION

Publication No.US-2012-0071091-A1

Publication Date:03/22/2012

NOTICE OF PUBLICATION OF APPLICATION

The above-identified application will be electronically published as a patent application publication pursuant to 37 CFR 1.211, et seq. The patent application publication number and publication date are set forth above.

The publication may be accessed through the USPTO's publically available Searchable Databases via the Internet at www.uspto.gov. The direct link to access the publication is currently <http://www.uspto.gov/patft/>.

The publication process established by the Office does not provide for mailing a copy of the publication to applicant. A copy of the publication may be obtained from the Office upon payment of the appropriate fee set forth in 37 CFR 1.19(a)(1). Orders for copies of patent application publications are handled by the USPTO's Office of Public Records. The Office of Public Records can be reached by telephone at (703) 308-9726 or (800) 972-6382, by facsimile at (703) 305-8759, by mail addressed to the United States Patent and Trademark Office, Office of Public Records, Alexandria, VA 22313-1450 or via the Internet.

In addition, information on the status of the application, including the mailing date of Office actions and the dates of receipt of correspondence filed in the Office, may also be accessed via the Internet through the Patent Electronic Business Center at www.uspto.gov using the public side of the Patent Application Information and Retrieval (PAIR) system. The direct link to access this status information is currently <http://pair.uspto.gov/>. Prior to publication, such status information is confidential and may only be obtained by applicant using the private side of PAIR.

Further assistance in electronically accessing the publication, or about PAIR, is available by calling the Patent Electronic Business Center at 1-866-217-9197.

Office of Data Management, Application Assistance Unit (571) 272-4000, or (571) 272-4200, or 1-888-786-0101



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
13/306,379	11/29/2011	Yossi Azancot	POWM 0106 PUSA1	3309
22045 7590 08/29/2012 BROOKS KUSHMAN P.C. 1000 TOWN CENTER TWENTY-SECOND FLOOR SOUTHFIELD, MI 48075			EXAMINER TSAL, CAROL S W	
			ART UNIT 2857	PAPER NUMBER
			MAIL DATE 08/29/2012	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.		Applicant(s)	
	13/306,379		AZANCOT ET AL.	
	Examiner		Art Unit	
	CAROL TSAI		2857	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on 29 November 2011.

2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.

3) ☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on ____; the restriction requirement and election have been incorporated into this action.

4) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

5) ☒ Claim(s) 1-20 is/are pending in the application.

5a) Of the above claim(s) ____ is/are withdrawn from consideration.

6) ☐ Claim(s) ____ is/are allowed.

7) ☒ Claim(s) 1-6,8-17,19 and 20 is/are rejected.

8) ☒ Claim(s) 7 and 18 is/are objected to.

9) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

10) ☐ The specification is objected to by the Examiner.

11) ☒ The drawing(s) filed on 29 November 2011 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

12) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)	4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. ____.
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)	5) ☐ Notice of Informal Patent Application
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date ____.	6) ☐ Other: ____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. Claim 10 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
2. Claim 10 recites the limitation "the index of power" in line 1. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-6, 10-17, 19, and 20 are rejected under 35 U.S.C. 102(e) as being anticipated by U. S. Patent No. 7,605,496 to Stevens et al.
5. With respect to claims 1, 11, 14, and 16, Stevens et al. disclose an efficiency monitor for monitoring power transmission by an inductive power outlet, the inductive power outlet comprising at least one primary coil wired to a power supply, for inductively coupling with a secondary coil wired to an electric load, the efficiency monitor comprising: at least one input power monitor for measuring input power delivered to the

Application /Control Number: 13/306,379

Art Unit: 2857

primary coil (primary coil 12 shown on Fig. 4) (see Fig. 4; col. 12, lines 10-18; and col. 14, lines 21-32); at least one output power monitor for measuring output power received by the secondary coil (secondary coil 32 shown on Fig. 4) (see Fig. 4; col. 11, lines 57-63; and col. 12 lines 10-20); at least one processor (control unit 16 shown on Fig. 4) for determining an index of power-loss (see Abstract, lines 8-12 and col. 12, line 50 to col. 13, line 7); and at least one communication channel for communicating the input power and the output power to the processor (see col. 4, lines 8-16).

6. As to claims 2, 12, 13, 15, and 17, Stevens et al. also disclose at least one circuit-breaker configured to disconnect the primary coil from the power supply (see col. 12, lines 57-62).

7. As to claim 3, Stevens et al. also disclose the input power monitor being incorporated into the inductive power outlet (see col. 7, line 58 to col. 8, line 2).

8. As to claim 4, Stevens et al. also disclose the output power monitor being incorporated into an inductive power receiver unit (see Abstract, lines 5-12).

9. As to claims 5 and 6, Stevens et al. do not disclose expressly at least one signal transmitter for transmitting a signal to a receiver incorporated in the power outlet, the signal carrying data pertaining to the output power.

10. It is, however, considered inherent that Stevens et al. include at least one signal transmitter for transmitting a signal to a receiver incorporated in the power outlet, the signal carrying data pertaining to the output power (see col. 4, lines 8-16 and col. 5, lines 37-46), because such element is known to be a necessary in order that each secondary device that is in the power-receiving state transmits power requirement information to the primary unit in the method of the second aspect, the or each said

Application /Control Number: 13/306,379

Art Unit: 2857

secondary device not having the power-requiring state may also transmit such power requirement information to the primary unit, if desired (see col. 5, lines 37-42).

11. As to claim 10, Stevens et al. also disclose the index of power comprises at least one of: an efficiency quotient Q , defined as the ratio of the output power to the input power, and an efficiency differential Δ , defined as the difference between the output power and the input power (see Abstract, lines 8-12).

12. As to claim 19, Stevens et al. also disclose the output power monitor being incorporated into an electric device (see col. 14, lines 16-18).

13. As to claim 20, Stevens et al. do not disclose expressly the electric device being selected from a group consisting of: computers, telephones, personal digital assistance (PDAs), cameras, media players, computers, keyboards and mice.

14. It is, however, considered inherent that Stevens et al.'s electric device is selected from a group consisting of: computers, telephones, personal digital assistance (PDAs), cameras, media players, computers, keyboards and mice (see col. 14, lines 16-18), because portable electrical or electronic device is known to include laptops, cellular phones, personal digital assistance (PDAs), cameras, media players, keyboards and mice.

Claim Rejections - 35 USC § 103

15. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and

Application /Control Number: 13/306,379

Art Unit: 2857

the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

16. Claims 8 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stevens et al. in view of U. S. Patent No. 7,791,312 to Kook.

17. As noted above, with respect to claims 8 and 9, Stevens et al. disclose the claimed invention, except for hazard detectors in communication with the processor.

18. Kook teaches hazard detectors in communication with the processor (see col. 13, lines 37-44).

19. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Stevens et al.'s system to include for hazard detectors in communication with the processor, as taught by Kook, in order to intercept the charging if the temperature exceeds the previously set temperature (see Kook, col. 13, lines 43-44).

Allowable Subject Matter

20. Claims 7 and 18 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Contact Information

1. Any inquiry concerning this communication or earlier communications from the examiner should be directed to CAROL S. TSAI whose telephone number is (571)272-2224. The examiner can normally be reached on M-F (7:30-4:30).

Application /Control Number: 13/306,379

Art Unit: 2857

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew M. Schechter, can be reached on (571) 272-2302. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

August 22, 2012

Art Unit 2857

/Carol S Tsai/

Primary Examiner, Art Unit 2857

Notice of References Cited	Application/Control No. 13/306,379	Applicant(s)/Patent Under Reexamination AZANCOT ET AL.	
	Examiner CAROL TSAI	Art Unit 2857	Page 1 of 1

U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
*	A	US-7,791,312	09-2010	Kook, Yoon-Sang	320/108
*	B	US-7,605,496	10-2009	Stevens et al.	307/17
*	C	US-6,690,169	02-2004	Candy, Bruce Halcro	324/329
*	D	US-5,850,416	12-1998	Myer, Robert Evan	375/221
*	E	US-2009/0322158	12-2009	Stevens et al.	307/104
	F	US-			
	G	US-			
	H	US-			
	I	US-			
	J	US-			
	K	US-			
	L	US-			
	M	US-			

FOREIGN PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	Classification
	N					
	O					
	P					
	Q					
	R					
	S					
	T					

NON-PATENT DOCUMENTS

*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
	U	
	V	
	W	
	X	

*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)
Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

<i>Index of Claims</i> 	Application/Control No. 13306379	Applicant(s)/Patent Under Reexamination AZANCOT ET AL.
	Examiner CAROL TSAI	Art Unit 2857

✓	Rejected	-	Cancelled	N	Non-Elected	A	Appeal
=	Allowed	÷	Restricted	I	Interference	O	Objected

☐ Claims renumbered in the same order as presented by applicant
 ☐ CPA
 ☐ T.D.
 ☐ R.1.47

CLAIM		DATE								
Final	Original	08/22/2012								
	1	✓								
	2	✓								
	3	✓								
	4	✓								
	5	✓								
	6	✓								
	7	O								
	8	✓								
	9	✓								
	10	✓								
	11	✓								
	12	✓								
	13	✓								
	14	✓								
	15	✓								
	16	✓								
	17	✓								
	18	O								
	19	✓								
	20	✓								

Search Notes 	Application/Control No. 13306379	Applicant(s)/Patent Under Reexamination AZANCOT ET AL.
	Examiner CAROL TSAI	Art Unit 2857

SEARCHED			
Class	Subclass	Date	Examiner
702	62,150	8/22/2012	CST
324	239,329,334,335,336	8/22/2012	CST
323	224,225,235,238,247,259,262	8/22/2012	CST
363	16,24,25,131	8/22/2012	CST
320	108,109,114	8/22/2012	CST
235	380	8/22/2012	CST
307	104,116	8/22/2012	CST
318	16,480,538	8/22/2012	CST

SEARCH NOTES		
Search Notes	Date	Examiner
East Search (see search history printout)	8/22/2012	CST

INTERFERENCE SEARCH			
Class	Subclass	Date	Examiner

	/CAROL TSAI/ Primary Examiner.Art Unit 2857
--	--



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
 United States Patent and Trademark Office
 Address: COMMISSIONER FOR PATENTS
 P.O. Box 1450
 Alexandria, Virginia 22313-1450
 www.uspto.gov

BIB DATA SHEET

CONFIRMATION NO. 3309

SERIAL NUMBER	FILING or 371(c) DATE	CLASS	GROUP ART UNIT	ATTORNEY DOCKET NO.
13/306,379	11/29/2011	702	2857	POWM 0106 PUSA1
APPLICANTS Yossi Azancot, Jerusalem, ISRAEL; Amir Ben-Shalom, Modiin, ISRAEL; Oola Greenwald, Mevasseret Zion, ISRAEL; Arik Rofo, Jerusalem, ISRAEL;				
** CONTINUING DATA ***** This application is a CON of 12/563,558 09/21/2009 PAT 8,090,550 which is a CON of PCT/IL2008/000401 03/23/2008 which claims benefit of 60/907,132 03/22/2007 and claims benefit of 60/935,847 09/04/2007 and claims benefit of 61/006,076 12/18/2007 and claims benefit of 61/006,106 12/19/2007 and claims benefit of 61/006,488 01/16/2008 and claims benefit of 61/006,721 01/29/2008				
** FOREIGN APPLICATIONS *****				
** IF REQUIRED, FOREIGN FILING LICENSE GRANTED *** SMALL ENTITY ** 12/09/2011				
Foreign Priority claimed	☐ Yes ☒ No	☐ Met after Allowance	STATE OR COUNTRY	SHEETS DRAWINGS
35 USC 119(a-d) conditions met	☐ Yes ☒ No	CST Initials	ISRAEL	20
Verified and Acknowledged	/CAROL S W TSAI/ Examiner's Signature			20
			TOTAL CLAIMS	INDEPENDENT CLAIMS
			4	4
ADDRESS BROOKS KUSHMAN P.C. 1000 TOWN CENTER TWENTY-SECOND FLOOR SOUTHFIELD, MI 48075 UNITED STATES				
TITLE EFFICIENCY MONITOR FOR INDUCTIVE POWER TRANSMISSION				
FILING FEE RECEIVED 655	FEES: Authority has been given in Paper No. _____ to charge/credit DEPOSIT ACCOUNT No. _____ for following:			☐ All Fees
				☐ 1.16 Fees (Filing)
				☐ 1.17 Fees (Processing Ext. of time)
				☐ 1.18 Fees (Issue)
				☐ Other _____
				☐ Credit

EAST Search History

EAST Search History (Prior Art)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
S1	127	("20020057584" "20020158512" "20030210106" "20040023633" "20040195767" "20040203537" "20040242264" "20040261802" "20050007067" "20050083020" "20050130593" "20050169506" "20050192062" "20050233768" "20060028176" "20060043927" "20060052144" "20060061325" "20060071632" "20060091222" "20060093132" "20060202665" "20070023559" "20070057763" "20070076459" "20070136593" "20070165371" "20070182367" "20070279002" "20080001922" "20080030985" "20080049988" "20080079388" "20080132293" "20080157715" "20080223926" "20080258680" "20080265835" "20090026959" "20090040807" "20090047768" "20090047769" "20090075704" "20090079387" "20090084705" "20090097221" "20090102416" "20090134972" "20090146608" "20090153098" "20090153297" "20090174263" "20090203355" "20090212639" "20090226050" "20090243791" "20090251102" "20090273891" "20090278494" "20100039066" "3771085" "3938018" "4160193" "4431948" "4754180" "4977515" "5221877" "5278771" "5367242" "5455466" "5486394" "5528113" "5550452" "5600225" "5713939" "5734254" "5762250" "5821728" "5821731" "5907285" "5929598" "5949214" "6042005" "6211649" "6230029" "6396935" "6436299" "6441589" "6484260" "6532298" "6586909" "6624616" "6644557" "6673250" "6721540" "6731071" "6766040" "6825620" "6888438" "6894457" "7043060" "7126450" "7132918" "7164255" "7180248" "7180265" "7224086" "7233319" "7385357" "7392068" "7405535" "7462951" "7518267" "7522878" "7576514" "7612528" "D519275" "D553852" "D586809" "D599735" "D599736" "D599737" "D599738" "D603603" "D607879" "D611407" "D611408"). PN.	US-PGPUB; USPAT	OR	ON	2011/06/01 09:56

S2	0	S1 and power\$3 with transmi\$6 with induct\$4 with power with outlet	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 09:57
S3	47	S1 and power\$3 with transmi\$6	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 09:58
S4	3	S1 and power\$3 with transmi\$6 and induct\$4 with power with outlet	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 09:58
S5	3	S1 and power\$3 with transmi\$6 and induct\$4 with power with outlet and coil	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 09:59
S6	2	S1 and power\$3 with transmi\$6 and induct\$4 with power with outlet and coil and loss	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 09:59
S7	2	S1 and power\$3 with transmi\$6 and induct\$4 with power with outlet and coil and (short or loss)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 09:59
S8	0	S1 and power\$3 with transmi\$6 and induct\$4 with power with outlet with coil	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 10:00
S9	67	power\$3 with transmi\$6 and induct\$4 with power with outlet with coil	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 10:00
S10	22	(monitor\$3 or sens\$3 or detect\$4 or identif\$4 or indicat\$4 or determin\$3) with power\$3 with transmi\$6 and induct\$4 with power with outlet with coil	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 10:01
S11	32	(monitor\$3 or sens\$3 or detect\$4 or identif\$4 or indicat\$4 or determin\$3) with power\$3 with (deliver\$4 or transmi\$6 or transfer\$4) and induct\$4 with power with outlet with coil	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 10:01
S12	32	(monitor\$3 or sens\$3 or detect\$4 or identif\$4 or indicat\$4 or determin\$3) with power\$3 with (deliver\$4 or transmi\$6 or transfer\$4) and induct\$4 with power\$3 with outlet with coil	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 10:02
S13	8	(monitor\$3 or sens\$3 or detect\$4 or identif\$4 or indicat\$4 or determin\$3) with power\$3 with (deliver\$4 or transmi\$6 or transfer\$4) and induct\$4 with power\$3 with outlet with coil and	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 10:02

		output\$4 with power\$3 and input\$4 with power\$3				
S14	6	(monitor\$3 or sens\$3 or detect\$4 or identif\$4 or indicat\$4 or determin\$3) with power\$3 with (deliver\$4 or transmi\$6 or transfer\$4) and induct\$4 with power\$3 with outlet with coil and output\$4 with power\$3 and input\$4 with power\$3 and power\$3 with (loss or short)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 10:03
S15	6	(monitor\$3 or sens\$3 or detect\$4 or identif\$4 or indicat\$4 or determin\$3) with (electricity or utility or power\$3) with (deliver\$4 or transmi\$6 or transfer\$4) and induct\$4 with (electricity or utility or power\$3) with outlet with coil and output\$4 with (electricity or utility or power\$3) and input\$4 with (electricity or utility or power\$3) and (electricity or utility or power\$3) with (loss or short)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 10:10
S16	8	(monitor\$3 or sens\$3 or detect\$4 or identif\$4 or indicat\$4 or determin\$3) with (electricity or utility or power\$3) with (deliver\$4 or transmi\$6 or transfer\$4) and induct\$4 with (electricity or utility or power\$3) with outlet with coil and output\$4 with (electricity or utility or power\$3) and input\$4 with (electricity or utility or power\$3) and (loss or short)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 10:10
S17	8	(monitor\$3 or sens\$3 or detect\$4 or identif\$4 or indicat\$4 or determin\$3) with (electricity or utility or power\$3) with (deliver\$4 or transmi\$6 or transfer\$4) and induct\$4 with (electricity or utility or power\$3) with outlet with coil and output\$4 with (electricity or utility or power\$3) and input\$4 with (electricity or utility or power\$3)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 10:11
S18	50	(monitor\$3 or sens\$3 or detect\$4 or identif\$4 or indicat\$4 or determin\$3) with (electricity or utility or power\$3) with (deliver\$4 or transmi\$6 or transfer\$4) and induct\$4 and (electricity or utility or power\$3) with outlet with coil and output\$4 with (electricity or utility or power\$3) and input\$4 with (electricity or utility or power\$3)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 10:12
S19	119	(monitor\$3 or sens\$3 or detect\$4 or identif\$4 or indicat\$4 or determin\$3) with (electricity or utility or power\$3) with (deliver\$4 or transmi\$6 or transfer\$4) and induct\$4 and (electricity or utility or power\$3) with outlet and first with second with coil and output\$4 with (electricity or utility or power\$3) and input\$4 with (electricity or utility or power\$3)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 10:13
S20	18	(monitor\$3 or sens\$3 or detect\$4 or identif\$4 or indicat\$4 or determin\$3) with (electricity or utility or power\$3)	US-PGPUB; USPAT; EPO; JPO;	OR	ON	2011/06/01 10:13

		with (deliver\$4 or transmi\$6 or transfer\$4) and induct\$4 with (electricity or utility or power\$3) with outlet and first with second with coil and output\$4 with (electricity or utility or power\$3) and input\$4 with (electricity or utility or power\$3)	DERWENT; IBM_TDB			
S21	20	(monitor\$3 or sens\$3 or detect\$4 or identif\$4 or indicat\$4 or determin\$3) with (electricity or utility or power\$3) with (deliver\$4 or transmi\$6 or transfer\$4) and induct\$4 with (electricity or utility or power\$3) with (socket or outlet) and first with second with coil and output\$4 with (electricity or utility or power\$3) and input\$4 with (electricity or utility or power\$3)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 10:20
S22	2	(monitor\$3 or sens\$3 or detect\$4 or identif\$4 or indicat\$4 or determin\$3) with (electricity or utility or power\$3) with (deliver\$4 or transmi\$6 or transfer\$4) and induct\$4 with (electricity or utility or power\$3) with (socket or outlet) and first with second with coil and output\$4 with (electricity or utility or power\$3) and input\$4 with (electricity or utility or power\$3) not S20	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 10:20
S23	2	(monitor\$3 or sens\$3 or detect\$4 or identif\$4 or indicat\$4 or determin\$3) with (electricity or energy or power\$3) with (deliver\$4 or transmi\$6 or transfer\$4) and induct\$4 with (electricity or energy or power\$3) with (socket or outlet) and first with second with coil and output\$4 with (electricity or energy or power\$3) and input\$4 with (electricity or utility or power\$3) not S20	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 10:21
S24	49	(monitor\$3 or sens\$3 or detect\$4 or identif\$4 or indicat\$4 or determin\$3) with (electricity or energy or power\$3) with (deliver\$4 or transmi\$6 or transfer\$4) and induct\$4 with coupler and first with second with coil and output\$4 with (electricity or energy or power\$3) and input\$4 with (electricity or utility or power\$3) not S20	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 10:38
S25	6	(monitor\$3 or sens\$3 or detect\$4 or identif\$4 or indicat\$4 or determin\$3) with (electricity or energy or power\$3) with (deliver\$4 or transmi\$6 or transfer\$4) and induct\$4 with coupler with first with second with coil and output\$4 with (electricity or energy or power\$3) and input\$4 with (electricity or utility or power\$3) not S20	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 10:39
S26	76	(monitor\$3 or sens\$3 or detect\$4 or identif\$4 or indicat\$4 or determin\$3) with (electricity or energy or power\$3) with (deliver\$4 or transmi\$6 or transfer\$4) and induct\$4 with coupl\$4 with first with second with coil and output\$4 with (electricity or energy or	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 10:40

		power\$3) and input\$4 with (electricity or utility or power\$3) not S20				
S27	15	(monitor\$3 or sens\$3 or detect\$4 or identif\$4 or indicat\$4 or determin\$3) with (electricity or energy or power\$3) with (deliver\$4 or transmi\$6 or transfer\$4) and induct\$4 with coupl\$4 with first with second with coil and output\$4 with (electricity or energy or power\$3) with (monitor or sensor or detector) and input\$4 with (electricity or utility or power\$3) with (monitor or sensor or detector) not S20	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 10:41
S28	24	(monitor\$3 or sens\$3 or detect\$4 or identif\$4 or indicat\$4 or determin\$3) with (electricity or energy or power\$3) with (deliver\$4 or transmi\$6 or transfer\$4) with induct\$4 with coupl\$4 with first with second with coil	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 10:44
S29	79	control\$4 with system with induct\$4 with (power\$3 or energy or electric\$5) with (outlet or socket)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 10:59
S30	1	control\$4 with system with induct\$4 with (power\$3 or energy or electric\$5) with (outlet or socket) with first with second with coil	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 11:00
S31	26	control\$4 with (power\$3 or energy or electric\$5) with (transfer\$4 or deliver\$4 or transmi\$6) with induct\$4 with (power\$3 or energy or electric\$5) with (outlet or socket or coupl\$4) with first with second with coil	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 11:02
S32	14	induct\$4 with (power\$3 or energy or electric\$5) with coupl\$4 with first adj coil with second adj coil with power with supply	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 11:11
S33	6	(power\$3 or energy or electric\$5) with (transfer\$4 or deliver\$4 or transmi\$6) with induct\$4 with (power\$3 or energy or electric\$5) with coupl\$4 with first adj coil with second adj coil with power with supply	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 11:18
S34	4	(power\$3 or energy or electric\$5) with (transfer\$4 or deliver\$4 or transmi\$6) with induct\$4 with (power\$3 or energy or electric\$5) with coupl\$4 and transmitter with receiver and induct\$4 with first adj coil with second adj coil with power with supply	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 11:20
S35	4	(power\$3 or energy or electric\$5) with (transfer\$4 or deliver\$4 or transmi\$6) with induct\$4 with (power\$3 or energy or electric\$5) with coupl\$4 and transmitter with receiver and induct\$4 with first adj coil with power with supply and second with coil	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 11:21

S36	4	(transfer\$4 or deliver\$4 or transmi\$6) with induct\$4 with (power\$3 or energy or electric\$5) with coupl\$4 and transmitter with receiver and induct\$4 with first adj coil with power with supply and second with coil	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 11:23
S37	10	(transfer\$4 or deliver\$4 or transmi\$6) with induct\$4 with (power\$3 or energy or electric\$5) with coupl\$4 and transmitter with receiver and first adj coil with power with supply and second with coil	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 11:24
S38	4	(transfer\$4 or deliver\$4 or transmi\$6) with induct\$4 with (power\$3 or energy or electric\$5) with coupl\$4 and transmitter with receiver and first adj coil with power with supply and second with coil and loss	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 11:24
S39	5	(transfer\$4 or deliver\$4 or transmi\$6) with induct\$4 with (power\$3 or energy or electric\$5) with coupl\$4 and transmitter with receiver and first adj coil with power with supply and second with coil and (power\$3 or energy or electric\$5) with (short or shorage or loss or dis-contin\$6 or discontinu\$4 or dis-connect\$4 or disconnect\$4)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 11:26
S40	22	(transfer\$4 or deliver\$4 or transmi\$6) with induct\$4 with (power\$3 or energy or electric\$5) with coupl\$4 and transmitter with receiver and (primary or first) adj coil with power with supply and second with coil and (power\$3 or energy or electric\$5) with (short or shorage or loss or dis-contin\$6 or discontinu\$4 or dis-connect\$4 or disconnect\$4)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 11:35
S41	11	(transfer\$4 or deliver\$4 or transmi\$6) with induct\$4 with (power\$3 or energy or electric\$5) with coupl\$4 and transmitter with receiver and (primary or first) adj coil with power with supply and second with coil and (power\$3 or energy or electric\$5) with (short or shorage or loss or dis-contin\$6 or discontinu\$4 or dis-connect\$4 or disconnect\$4) and electric\$4 with load	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 11:38
S42	38	(transfer\$4 or deliver\$4 or transmi\$6) with induct\$4 with (power\$3 or energy or electric\$5) with coupl\$4 and transmitter with receiver and (primary or first) adj coil with induct\$4 and power with supply and second with coil and (power\$3 or energy or electric\$5) with (short or shorage or loss or dis-contin\$6 or discontinu\$4 or dis-connect\$4 or disconnect\$4) and electric\$4 with load	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 11:38
S43	21	(transfer\$4 or deliver\$4 or transmi\$6) with induct\$4 with (power\$3 or energy or electric\$5) with coupl\$4 and transmitter with receiver and (primary or first) adj coil with induct\$4 and power	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 11:39

		with supply and second with coil and (power\$3 or energy or electric\$5) with (short or shorage or loss or dis-continu\$6 or discontinu\$4 or dis-connect\$4 or disconnect\$4) and (voltage or current or temperature) with electric\$4 with load				
S44	7	(transfer\$4 or deliver\$4 or transmi\$6) with induct\$4 with (power\$3 or energy or electric\$5) with coupl\$4 and transmitter with receiver and (primary or first) adj coil with induct\$4 and power with supply and second with coil with induct\$4 and (power\$3 or energy or electric\$5) with (short or shorage or loss or dis-continu\$6 or discontinu\$4 or dis-connect\$4 or disconnect\$4) and (voltage or current or temperature) with electric\$4 with load	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 11:40
S45	21	(transfer\$4 or deliver\$4 or transmi\$6) with induct\$4 with (power\$3 or energy or electric\$5) with coupl\$4 and transmitter with receiver and (primary or first) adj coil with induct\$4 and power with supply and second with coil and (power\$3 or energy or electric\$5) with (short or shorage or loss or dis-continu\$6 or discontinu\$4 or dis-connect\$4 or disconnect\$4) and (voltage or current or temperature) with electric\$4 with load	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 11:41
S46	21	(transfer\$4 or deliver\$4 or transmi\$6) with induct\$4 with (power\$3 or energy or electric\$5) with coupl\$4 and transmitter with receiver and (primary or first) adj coil with induct\$4 and power with supply and second with coil and (power\$3 or energy or electric\$5) with (short or shorage or loss or dis-continu\$6 or discontinu\$4 or dis-connect\$4 or disconnect\$4) and (voltage or current or temperature) with electric\$4 with load and switch\$4 and driv\$4	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 11:41
S47	7	(transfer\$4 or deliver\$4 or transmi\$6) with induct\$4 with (power\$3 or energy or electric\$5) with coupl\$4 and transmitter with receiver and (primary or first) adj coil with power with supply and second with coil and (power\$3 or energy or electric\$5) with (short or shorage or loss or dis-continu\$6 or discontinu\$4 or dis-connect\$4 or disconnect\$4) and load and switch\$4 and driver and signal with generat\$4	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 11:46
S48	7	(transfer\$4 or deliver\$4 or transmi\$6) with induct\$4 with (power\$3 or energy or electric\$5) with coupl\$4 and transmitter with receiver and (primary or first) adj coil with power with supply and second\$5 with coil and (power\$3 or energy or electric\$5) with (short or	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 11:47

		storage or loss or dis-continu\$6 or discontinu\$4 or dis-connect\$4 or disconnect\$4) and load and switch\$4 and driver and signal with generat\$4				
S49	7	(transfer\$4 or deliver\$4 or transmi\$6) with induct\$4 with (power\$3 or energy or electric\$5) with coupl\$4 and transmitter with receiver and (primary or first) adj coil with power with supply and second\$5 with coil and (power\$3 or energy or electric\$5) with (short or storage or loss or dis-continu\$6 or discontinu\$4 or dis-connect\$4 or disconnect\$4) and load and switch\$4 with load with coil and driver	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 11:51
S50	8	(transfer\$4 or deliver\$4 or transmi\$6) with induct\$4 with (power\$3 or energy or electric\$5) with coupl\$4 and transmitter with receiver and (primary or first) adj coil with power with supply and second\$5 with coil and (power\$3 or energy or electric\$5) with (short or storage or loss or dis-continu\$6 or discontinu\$4 or dis-connect\$4 or disconnect\$4) and load and switch\$4 and contactless and driver	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 11:54
S51	25	contactless with induct\$4 with coupl\$4 and transmitter with receiver and (primary or first) adj coil and power with supply and second\$5 with coil and (power\$3 or energy or electric\$5) with (short or storage or loss or dis-continu\$6 or discontinu\$4 or dis-connect\$4 or disconnect\$4) and load and switch\$4 and driver	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 11:56
S52	26	contactless with induct\$4 with coupl\$4 and transmitter with receiver and (primary or first) adj coil and power with supply and second\$5 with coil and (power\$3 or energy or electric\$5) with (short or storage or loss or dis-continu\$6 or discontinu\$4 or dis-connect\$4 or disconnect\$4)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 11:58
S53	1	contactless with induct\$4 with coupl\$4 and transmitter with receiver and (primary or first) adj coil and power with supply and second\$5 with coil and (power\$3 or energy or electric\$5) with (short or storage or loss or dis-continu\$6 or discontinu\$4 or dis-connect\$4 or disconnect\$4) not S51	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 11:58
S54	10	contactless with induct\$4 with coupl\$4 and transmitter with receiver and (primary or first) adj coil and power with supply and second\$5 with coil not S51	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 11:59
S55	6	contactless with induct\$4 with coupl\$4 and communicat\$4 with channel and (primary or first) adj coil and power with supply and second\$5 with coil not S51	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 12:03

S56	108	induct\$4 with (power\$3 or electric or energy) with coupl\$4 with (primary or first) adj coil with second\$5 with coil and supply\$3 with (electric or power or energy) with load not S51	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 12:09
S57	15	induct\$4 with (power\$3 or electric or energy) with coupl\$4 with (primary or first) adj coil with second\$5 with coil and supply\$3 with (electric or power or energy) with load and transmitter with receiver not S51	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 12:10
S58	40	induct\$4 with (power\$3 or electric or energy) with coupl\$4 with (primary or first) adj coil with second\$5 with coil and supply\$3 with (electric or power or energy) with load and transmit\$5 with receiv\$3 not S51	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 12:21
S59	0	induct\$4 with (power\$3 or electric or energy) with coupl\$4 with (primary or first) adj coil with second\$5 with coil and supply\$3 with (electric or power or energy) with ancillary with load and transmit\$5 with receiv\$3 not S51	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 12:32
S60	31	induct\$4 with (power\$3 or electric or energy) with coupl\$4 with (primary or first) adj coil with second\$5 with coil and supply\$3 with (electric or power or energy) with load and transmit\$5 with receiv\$3 and (LED or light adj emit\$4 with diode or radio with transmitter or optocoupler or transmitter with circuit) not S51	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 12:34
S61	27	Azancot-yossi.in.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 12:56
S62	129	("20020057584" "20020158512" "20030210106" "20040023633" "20040145343" "20040195767" "20040203537" "20040242264" "20040261802" "20050007067" "20050083020" "20050130593" "20050169506" "20050192062" "20050233768" "20060028176" "20060043927" "20060052144" "20060061325" "20060071632" "20060087282" "20060091222" "20060093132" "20060202665" "20070023559" "20070057763" "20070076459" "20070136593" "20070165371" "20070182367" "20070279002" "20080001922" "20080030985" "20080049988" "20080079388" "20080132293" "20080157715" "20080223926" "20080258680" "20080265835" "20090026959" "20090040807" "20090047768" "20090047769" "20090075704" "20090079387" "20090084705" "20090097221" "20090102416" "20090134972"	US-PGPUB; USPAT; USOCR	OR	ON	2011/06/01 12:58

		"20090146608" "20090153098" "20090153297" "20090174263" "20090203355" "20090212639" "20090226050" "20090243791" "20090251102" "20090273891" "20090278494" "20100039066" "3771085" "3938018" "4160193" "4431948" "4754180" "4977515" "5221877" "5278771" "5367242" "5455466" "5486394" "5528113" "5550452" "5600225" "5713939" "5734254" "5762250" "5821728" "5821731" "5907285" "5929598" "5949214" "6042005" "6211649" "6230029" "6396935" "6436299" "6441589" "6484260" "6532298" "6586909" "6624616" "6644557" "6673250" "6721540" "6731071" "6766040" "6825620" "6888438" "6894457" "7043060" "7126450").PN. OR ("7132918" "7164255" "7180248" "7180265" "7224086" "7233319" "7385357" "7392068" "7405535" "7462951" "7518267" "7522878" "7576514" "7612528" "D519275" "D553852" "D586809" "D599735" "D599736" "D599737" "D599738" "D603603" "D607879" "D611407" "D611408").PN. OR ("7906936").URPN.				
S63	468	702/ 62.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 13:07
S64	1783	702/ 150.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 13:11
S65	721	324/ 239.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 13:11
S66	432	324/ 329.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 13:11
S67	307	324/ 334.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 13:11
S68	101	324/ 335.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 13:16
S69	58	324/ 336.ccls.	US-PGPUB; USPAT; EPO; JPO;	OR	ON	2011/06/01 13:16

			DERWENT; IBM_TDB			
S70	518	323/224.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 13:17
S71	337	323/225.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 13:17
S72	259	323/235.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 13:17
S73	96	323/238.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 13:17
S74	162	323/247.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 13:17
S75	197	323/259.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 13:17
S76	56	323/262.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 13:17
S77	0	63/16.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 13:18
S78	81	63/24.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 13:18
S79	28	63/25.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 13:18
S80	0	63/131.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 13:18
S81	682	320/108.ccls.	US-PGPUB; USPAT; EPO; JPO;	OR	ON	2011/06/01 13:18

			DERWENT; IBM_TDB			
S82	423	320/109.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 13:18
S83	793	320/114.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 13:18
S84	6938	235/380.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 13:18
S85	1279	307/104.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 13:19
S86	1187	307/116.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 13:23
S87	761	318/16.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 13:24
S88	899	318/480.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 13:24
S89	90	318/538.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 13:24
S90	15	induct\$4 with (power\$3 or electric or energy) with coupl\$4 with (primary or first) adj coil with second\$5 with coil and supply\$3 with (electric or power or energy) with load and induct\$4 adj (power\$3 or electric or energy) adj outlet	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 15:47
S91	16	induct\$4 with (power\$3 or electric or energy) with coupl\$4 with (primary or first) adj coil with second\$5 with coil and supply\$3 with (electric or power or energy) and induct\$4 adj (power\$3 or electric or energy) adj outlet not "I15"	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 15:48
S92	16	induct\$4 with (power\$3 or electric or energy) with coupl\$4 with (primary or first) adj coil with second\$5 with coil and supply\$3 with (electric or power or energy) and induct\$4 adj (power\$3 or	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 15:49

		electric or energy) adj outlet not "I1"				
S93	1	induct\$4 with (power\$3 or electric or energy) with coupl\$4 with (primary or first) adj coil with second\$5 with coil and supply\$3 with (electric or power or energy) and induct\$4 adj (power\$3 or electric or energy) adj outlet not S90	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 15:49
S94	2	induct\$4 with (power\$3 or electric or energy) with coupl\$4 and (primary or first) adj coil with second\$5 with coil and supply\$3 with (electric or power or energy) and induct\$4 adj (power\$3 or electric or energy) adj outlet not S90	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 15:49
S95	2	induct\$4 with (power\$3 or electric or energy) with coupl\$4 and (primary or first) adj coil with second\$5 with coil and supply\$3 with (electric or power or energy) and induct\$4 adj (power\$3 or electric or energy) adj (socket or outlet) not S90	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 15:50
S96	2	(primary or first) adj coil with second\$5 with coil and supply\$3 with (electric or power or energy) and induct\$4 adj (power\$3 or electric or energy) adj (socket or outlet) not S90	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 15:51
S97	2	(primary or first) adj coil and second\$5 with coil and supply\$3 with (electric or power or energy) and induct\$4 adj (power\$3 or electric or energy) adj (socket or outlet) not S90	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 15:51
S98	3	(primary or first) with coil and second\$5 with coil and supply\$3 with (electric or power or energy) and induct\$4 adj (power\$3 or electric or energy) adj (socket or outlet) not S90	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 15:52
S99	18	induct\$4 adj (power\$3 or electric or energy) adj (socket or outlet) not S90	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 15:52
S100	345	inductive with (power\$3 or electric or energy) with (socket or outlet) not S90	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 15:55
S101	12	inductive adj (power\$3 or electric or energy) adj (socket or outlet) not S90	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 15:55
S102	25	contactless with induct\$4 with coupl\$4 and transmitter with receiver and (primary or first) adj coil and power with supply and second\$5 with coil and (power\$3 or energy or electric\$5) with (short or shorage or loss or discontinu\$6 or discontinu\$4 or disconnect\$4 or disconnect\$4) and load and switch\$4 and driver	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 15:57
S103	11	induct\$4 with (power\$3 or electric or	US-PGPUB;	OR	ON	2011/06/01

		energy) with coupl\$4 with (primary or first) adj coil with second\$5 with coil and supply\$3 with (electric or power or energy) with load and transmit\$5 with receiv\$3 and (LED or light adj emit\$4 with diode or radio with transmitter or optocoupler or transmitter with circuit) and (power\$3 or electric or energy) with (outlet or socket) not S102	USPAT; EPO; JPO; DERWENT; IBM_TDB			15:57
S104	25	contactless with induct\$4 with coupl\$4 and transmitter with receiver and (primary or first) adj coil and power with supply and second\$5 with coil and (power\$3 or energy or electric\$5) with (short or shorage or loss or discontinu\$6 or discontinu\$4 or disconnect\$4 or disconnect\$4) and load and switch\$4 and driver	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 16:28
S105	3	induct\$4 with (power\$3 or electric or energy) with coupl\$4 with (primary or first) adj coil with second\$5 with coil and supply\$3 with (electric or power or energy) with load and transmit\$5 with receiv\$3 and (LED or light adj emit\$4 with diode or radio with transmitter or optocoupler or transmitter with circuit) and shutdown with loss not S104	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 16:28
S106	3	induct\$4 with (power\$3 or electric or energy) with coupl\$4 with (primary or first) adj coil with second\$5 with coil and supply\$3 with (electric or power or energy) with load and transmit\$5 with receiv\$3 and (LED or light adj emit\$4 with diode or radio with transmitter or optocoupler or transmitter with circuit) and (stop\$4 or shutdown) with loss not S104	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 16:32
S107	3	induct\$4 with (power\$3 or electric or energy) with coupl\$4 with (primary or first) adj coil with second\$5 with coil and supply\$3 with (electric or power or energy) with load and transmit\$5 with receiv\$3 and (LED or light adj emit\$4 with diode or radio with transmitter or optocoupler or transmitter with circuit) and (stop\$4 or shutdown) with loss and losses not S104	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 16:41
S108	3	induct\$4 with (power\$3 or electric or energy) with coupl\$4 with (primary or first) adj coil with second\$5 with coil and supply\$3 with (electric or power or energy) with load and transmit\$5 with receiv\$3 and (LED or light adj emit\$4 with diode or radio with transmitter or optocoupler or transmitter with circuit) and (stop\$4 or shutdown) with loss and losses same difference not S104	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 16:42
S109	3	induct\$4 with (power\$3 or electric or energy) with coupl\$4 with (primary or first) adj coil with second\$5 with coil and supply\$3 with (electric or power or energy) with load and transmit\$5 with	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 16:48

		receiv\$3 and (LED or light adj emit\$4 with diode or radio with transmitter or optocoupler or transmitter with circuit) and (stop\$4 or shutdown) with loss and losses and losses same difference not S104				
S110	21	induct\$4 with (power\$3 or electric or energy) with coupl\$4 with (primary or first) adj coil with second\$5 with coil and supply\$3 with (electric or power or energy) with load and transmit\$5 with receiv\$3 and (magnetic or electromagnetic adj radiation or heat\$3 or thermal or temperature) with (sensor or detector or monitor)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/02 11:12
S111	3	induct\$4 with (power\$3 or electric or energy) with coupl\$4 with (primary or first) adj coil with second\$5 with coil and supply\$3 with (electric or power or energy) with load and transmit\$5 with receiv\$3 and (hazard or disaster or danger\$4 or malfunction or defect or anomaly or abnormality) with (magnetic or electromagnetic adj radiation or heat\$3 or thermal or temperature) with (sensor or detector or monitor)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/02 11:16
S112	3	induct\$4 with (power\$3 or electric or energy) with coupl\$4 with (primary or first) adj coil with second\$5 with coil and supply\$3 with (electric or power or energy) with load and transmit\$5 with receiv\$3 and (hazard or disaster or danger\$4 or malfunction or defect or anomaly or abnormality or alarm) with (magnetic or electromagnetic adj radiation or heat\$3 or thermal or temperature) with (sensor or detector or monitor)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/02 11:17
S113	12	induct\$4 with (power\$3 or electric or energy) with coupl\$4 with (primary or first) adj coil with second\$5 with coil and supply\$3 with (electric or power or energy) with load and transmit\$5 with receiv\$3 and (hazard or disaster or danger\$4 or malfunction or defect or anomaly or abnormality or alarm) and (magnetic or electromagnetic adj radiation or heat\$3 or thermal or temperature) with (sensor or detector or monitor)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/02 11:17
S114	9	induct\$4 with (power\$3 or electric or energy) with coupl\$4 with (primary or first) adj coil with second\$5 with coil and supply\$3 with (electric or power or energy) with load and transmit\$5 with receiv\$3 and (magnetic or electromagnetic adj radiation or heat\$3 or thermal or temperature) with (sensor or detector or monitor) not S113	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/02 11:20
S115	9	induct\$4 with (power\$3 or electric or energy) with coupl\$4 with (primary or first) adj coil with second\$5 with coil and	US-PGPUB; USPAT; EPO; JPO;	OR	ON	2011/06/02 13:39

		supply\$3 with (electric or power or energy) with load and transmit\$5 with receiv\$3 and bit-rate	DERWENT; IBM_TDB			
S116	0	driver adj bit-rate	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/02 13:40
S117	70	modulat\$3 with bit-rate adj signal	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/02 13:41
S118	9	modulat\$3 with bit-rate adj signal and (first or primary) with second\$5 with coil	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/02 13:42
S119	0	cellular with telephone and bit-rate with signal with transmitter and modulat\$3 with bit-rate adj signal	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/02 13:45
S120	8	bit-rate with signal with transmitter and modulat\$3 with bit-rate adj signal	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/02 13:45
S121	0	bit-rate with signal with (computer or cellular adj phone or PDA) and transmitter and modulat\$3 with bit-rate adj signal	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/02 13:50
S122	29	bit-rate with signal with (computer or cellular adj phone or PDA)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/02 13:51
S123	0	bit-rate with signal with (computer or cellular adj phone or PDA) with transmitter	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/02 13:51
S124	0	bit-rate with signal with (computer or cellular adj phone or PDA) same transmitter	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/02 13:51
S125	0	bit-rate with signal with portable with (computer or cellular adj phone or PDA)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/02 13:52
S126	25	contactless with induct\$4 with coupl\$4 and transmitter with receiver and (primary or first) adj coil and power with supply and second\$5 with coil and (power\$3 or energy or electric\$5) with (short or shorage or loss or discontinu\$6 or discontinu\$4 or dis-	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/02 14:28

		connect\$4 or disconnect\$4) and load and switch\$4 and driver				
S127	13	induct\$4 with (power\$3 or electric or energy) with coupl\$4 with (primary or first) adj coil with second\$5 with coil and supply\$3 with (electric or power or energy) with load and transmit\$5 with receiv\$3 and (LED or light adj emit\$4 with diode or radio with transmitter or optocoupler or transmitter with circuit) and load with (select\$5 or switch\$3) with second\$3 with coil not S126	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/02 14:28
S128	1	(bit or transfer) with rate with synchronising with signal	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/02 14:37
S129	498	702/62.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/09/23 13:35
S130	1869	702/150.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/09/23 13:35
S131	735	324/239.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/09/23 13:36
S132	443	324/329.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/09/23 13:36
S133	311	324/334.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/09/23 13:36
S134	103	324/335.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/09/23 13:36
S135	59	324/336.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/09/23 13:36
S136	532	323/224.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/09/23 13:36
S137	346	323/225.ccls.	US-PGPUB; USPAT; EPO; JPO;	OR	ON	2011/09/23 13:42

			DERWENT; IBM_TDB			
S138	264	323/235.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/09/23 13:43
S139	97	323/238.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/09/23 13:43
S140	169	323/247.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/09/23 13:43
S141	199	323/259.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/09/23 13:43
S142	56	323/262.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/09/23 13:43
S143	1063	363/16.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/09/23 13:43
S144	276	363/24.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/09/23 13:43
S145	336	363/25.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/09/23 13:43
S146	986	363/131.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/09/23 13:44
S147	764	320/108.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/09/23 13:44
S148	501	320/109.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/09/23 13:44
S149	820	320/114.ccls.	US-PGPUB; USPAT; EPO; JPO;	OR	ON	2011/09/23 13:44

			DERWENT; IBM_TDB			
S150	7150	235/380.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/09/23 13:44
S151	1402	307/104.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/09/23 13:44
S152	1205	307/116.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/09/23 13:44
S153	763	318/16.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/09/23 13:45
S154	905	318/480.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/09/23 15:24
S155	91	318/538.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/09/23 15:24
S163	13348	702/62,150.ccls. or 323/224.ccls. or 320/108.ccls. or 235/380.ccls. or 307/104,116.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/09/25 19:19
S166	13348	702/62,150.ccls. or 323/224.ccls. or 320/108.ccls. or 235/380.ccls. or 307/104,116.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/09/25 21:59
S177	610	702/62.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2012/08/22 15:53
S178	2166	702/150.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2012/08/22 15:54
S179	946	324/239.ccls.	US-PGPUB; USPAT; USOCR; FPRS;	OR	ON	2012/08/22 16:13

			EPO; JPO; DERWENT; IBM_TDB			
S180	489	324/329.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2012/08/22 16:13
S181	412	324/334.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2012/08/22 16:14
S182	137	324/335.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2012/08/22 16:14
S183	75	324/336.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2012/08/22 16:14
S184	598	323/224.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2012/08/22 16:14
S185	381	323/225.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2012/08/22 18:07
S186	301	323/235.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2012/08/22 18:07
S187	116	323/238.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2012/08/22 18:07
S188	197	323/247.ccls.	US-PGPUB; USPAT;	OR	ON	2012/08/22 18:08

			USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB			
S189	243	323/259.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2012/08/22 18:08
S190	80	323/262.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2012/08/22 18:08
S191	1139	363/16.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2012/08/22 18:08
S192	305	363/24.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2012/08/22 18:08
S193	360	363/25.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2012/08/22 18:08
S194	1090	363/131.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2012/08/22 18:08
S195	1014	320/108.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2012/08/22 18:08
S196	740	320/109.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2012/08/22 18:08

EAST Search History

S197	959	320/114.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2012/08/22 18:09
S198	7731	235/380.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2012/08/22 18:09
S199	2394	307/104.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2012/08/22 18:09
S200	1377	307/116.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2012/08/22 18:09
S201	1159	318/16.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2012/08/22 18:09
S202	1472	318/480.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2012/08/22 18:10
S203	114	318/538.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2012/08/22 18:10

8/ 22/ 2012 6:19:33 PM
H:\ 12563558.wsp

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)	Application Number		13306379
	Filing Date		2011-11-29
	First Named Inventor	Yossi Azancot, et al.	
	Art Unit	2857	
	Examiner Name	Carol S. W. Tsai	
	Attorney Docket Number	POWM 0106 PUSA1	

U.S. PATENTS						Remove
Examiner Initial*	Cite No	Patent Number	Kind Code ¹	Issue Date	Name of Patentee or Applicant of cited Document	Pages, Columns, Lines where Relevant Passages or Relevant Figures Appear
	1	5713939	A	1998-02-03	Nedungadi et al.	
	2	5367242	A	1994-11-22	Hulman	
	3	5455466	A	1995-10-03	Parks et al.	
	4	6721540	B1	2004-04-13	Hayakawa	
	5	3771085		1973-11-06	Hojo et al.	
	6	3938018		1976-02-10	Dahl	
	7	4160193		1979-07-03	Richmond	
	8	4431948		1984-02-14	Elder et al.	

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)	Application Number		13306379	
	Filing Date		2011-11-29	
	First Named Inventor		Yossi Azancot, et al.	
	Art Unit		2857	
	Examiner Name		Carol S. W. Tsai	
	Attorney Docket Number		POWM 0106 PUSA1	

	9	4754180		1988-06-28	Kiedrowski	
	10	4977515		1990-12-11	Rudden et al.	
	11	5221877	A	1993-06-22	Falk	
	12	5278771	A	1994-01-11	Nyenya	
	13	5486394	A	1996-01-23	Stough	
	14	5528113	A1	1996-06-18	Boys et al.	
	15	5550452	A	1996-08-27	Shirai et al.	
	16	5600225	A	1997-02-04	Goto	
	17	5734254	A	1998-03-31	Stephens	
	18	5762250	A	1998-06-09	Carlton et al.	
	19	5821728	A	1998-10-13	Schwind	

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)	Application Number		13306379	
	Filing Date		2011-11-29	
	First Named Inventor	Yossi Azancot, et al.		
	Art Unit	2857		
	Examiner Name	Carol S. W. Tsai		
	Attorney Docket Number	POWM 0106 PUSA1		

	20	5821731	A	1998-10-13	Kuki et al.	
	21	5907285	A	1999-05-25	Toms et al.	
	22	5929598	A	1999-07-27	Nakama et al.	
	23	5949214	A	1999-09-07	Broussard et al.	
	24	6042005	A	2000-03-28	Basile et al.	
	25	6211649	B1	2001-04-03	Matsuda	
	26	6230029	B1	2001-05-08	Hahn et al.	
	27	6396935	B1	2002-05-28	Makkonen	
	28	6436299	B1	2002-08-20	Baarman et al.	
	29	6441589	B1	2002-08-27	Frerking et al.	
	30	6484260	B1	2002-11-29	Scott et al.	

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)	Application Number		13306379	
	Filing Date		2011-11-29	
	First Named Inventor	Yossi Azancot, et al.		
	Art Unit	2857		
	Examiner Name	Carol S. W. Tsai		
	Attorney Docket Number	POWM 0106 PUSA1		

	31	6532298	B1	2003-03-11	Cambier et al.	
	32	6586909	B1	2003-07-01	Trepka	
	33	6624616	B1	2003-09-23	Frerking et al.	
	34	6644557	B1	2003-11-11	Jacobs	
	35	6673250	B2	2004-01-06	Kuennen et al.	
	36	6731071	B2	2004-05-04	Baarman	
	37	6766040	B1	2004-07-20	Catalano et al.	
	38	6825620	B2	2004-11-30	Kuennen et al.	
	39	6894457	B2	2005-05-17	Germagian et al.	
	40	7043060	B2	2006-05-09	Quintana	
	41	7126450	B2	2006-10-24	Baarman et al.	

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)	Application Number		13306379	
	Filing Date		2011-11-29	
	First Named Inventor	Yossi Azancot, et al.		
	Art Unit	2857		
	Examiner Name	Carol S. W. Tsai		
	Attorney Docket Number	POWM 0106 PUSA1		

	42	7132918	B2	2006-11-07	Baarman et al.	
	43	7164255	B2	2007-01-16	Hui	
	44	7180248	B2	2007-02-20	Kuennen et al.	
	45	7180265	B2	2007-02-20	Naskali et al.	
	46	7224086	B2	2007-05-29	Germagian et al.	
	47	7233319	B2	2007-06-19	Johnson et al.	
	48	7385357	B2	2008-06-10	Kuennen et al.	
	49	7405535	B2	2008-07-29	Frerking et al.	
	50	7462951	B1	2008-12-09	Baarman	
	51	7518267	B2	2009-04-14	Baarman	
	52	7522878	B2	2009-04-21	Baarman	

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)	Application Number		13306379	
	Filing Date		2011-11-29	
	First Named Inventor	Yossi Azancot, et al.		
	Art Unit	2857		
	Examiner Name	Carol S. W. Tsai		
	Attorney Docket Number	POWM 0106 PUSA1		

	53	7576514	B2	2009-08-18	Hui	
	54	7612528	B2	2009-11-03	Baarman et al.	
	55	6888438	B2	2005-05-03	Hui et al.	
	56	D519275	S	2006-04-25	Jennifer Leiya Shertzer	
	57	D553852	S	2007-10-30	Brandenburg	
	58	D586809	S	2009-02-17	Jones et al.	
	59	D599735	S	2009-09-08	Amidei et al.	
	60	D599736	S	2009-09-08	Ferber et al.	
	61	D599737	S	2009-09-08	Amidei et al.	
	62	D599738	S	2009-09-08	Amidei et al.	
	63	D603603	S	2009-11-10	Laine et al.	

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)	Application Number		13306379	
	Filing Date		2011-11-29	
	First Named Inventor	Yossi Azancot, et al.		
	Art Unit	2857		
	Examiner Name	Carol S. W. Tsai		
	Attorney Docket Number	POWM 0106 PUSA1		

	64	D607879	S	2010-01-12	Ferber et al.	
	65	D611407	S	2010-03-09	Webb	
	66	D611408	S	2010-03-09	Ferber et al.	
	67	7392068	B2	2008-06-24	Dayan et al.	
	68	4076996		1978-02-28	Maehara et al.	
	69	5896278		1999-04-20	Tamura et al.	

If you wish to add additional U.S. Patent citation information please click the Add button.

Add

U.S.PATENT APPLICATION PUBLICATIONS

Remove

Examiner Initial*	Cite No	Publication Number	Kind Code ¹	Publication Date	Name of Patentee or Applicant of cited Document	Pages, Columns, Lines where Relevant Passages or Relevant Figures Appear
	1	20020057584	A1	2002-05-16	Brockmann	
	2	20020158512	A1	2002-10-31	Mizutani et al.	
	3	20030210106	A1	2003-11-13	Cheng et al.	

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)	Application Number	13306379
	Filing Date	2011-11-29
	First Named Inventor	Yossi Azancot, et al.
	Art Unit	2857
	Examiner Name	Carol S. W. Tsai
	Attorney Docket Number	POWM 0106 PUSA1

	4	20040023633	A1	2004-02-05	Gordon	
	5	20040195767	A1	2004-10-07	Randall	
	6	20040203537	A1	2004-10-14	Yoshida et al.	
	7	20040242264	A1	2004-12-02	Cho	
	8	20040261802	A1	2004-12-30	Griffin et al.	
	9	20050007067	A1	2005-01-13	Baarman et al.	
	10	20050083020	A1	2005-04-21	Baarman	
	11	20050130593	A1	2005-06-16	Michalak	
	12	20050169506	A1	2005-08-04	Fenrich et al.	
	13	20050233768	A1	2005-10-20	Guo et al.	
	14	20060028176	A1	2006-02-09	Tang et al.	

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)	Application Number	13306379
	Filing Date	2011-11-29
	First Named Inventor	Yossi Azancot, et al.
	Art Unit	2857
	Examiner Name	Carol S. W. Tsai
	Attorney Docket Number	POWM 0106 PUSA1

	15	20060043927	A1	2006-03-02	Beart et al.	
	16	20060052144	A1	2006-03-09	Seil et al.	
	17	20060061325	A1	2006-03-23	Tang et al.	
	18	20060071632	A1	2006-04-06	Ghabra et al.	
	19	20060091222	A1	2006-05-04	Leung et al.	
	20	20060093132	A1	2006-05-04	Desormiere et al.	
	21	20060202665	A1	2006-09-14	Hsu	
	22	20070023559	A1	2007-02-01	Scapillato et al.	
	23	20070057763	A1	2007-03-15	Blattner et al.	
	24	20070076459	A1	2007-04-05	Limpkin	
	25	20070136593	A1	2007-06-14	Plavcan et al.	

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)	Application Number		13306379	
	Filing Date		2011-11-29	
	First Named Inventor	Yossi Azancot, et al.		
	Art Unit	2857		
	Examiner Name	Carol S. W. Tsai		
	Attorney Docket Number	POWM 0106 PUSA1		

	26	20070165371	A1	2007-07-19	Brandenburg	
	27	20070182367	A1	2007-08-09	Partovi	
	28	20080001922	A1	2008-01-03	Johnson et al.	
	29	20080030985	A1	2008-02-07	Jeon et al.	
	30	20080049988	A1	2008-02-28	Basile et al.	
	31	20080079388	A1	2008-04-03	Sarnowski et al.	
	32	20080132293	A1	2008-06-05	Gundlach et al.	
	33	20080157715	A1	2008-07-03	Rosenboom et al.	
	34	20080223926	A1	2008-09-18	Miller et al.	
	35	20080258680	A1	2008-10-23	Frerking et al.	
	36	20080265835	A1	2008-10-30	Reed et al.	

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)	Application Number		13306379	
	Filing Date		2011-11-29	
	First Named Inventor	Yossi Azancot, et al.		
	Art Unit	2857		
	Examiner Name	Carol S. W. Tsai		
	Attorney Docket Number	POWM 0106 PUSA1		

	37	20090026959	A1	2009-01-29	Lin et al.	
	38	20090040807	A1	2009-02-12	Doumae et al.	
	39	20090047768	A1	2009-02-19	Jain	
	40	20090047769	A1	2009-02-19	Bhat et al.	
	41	20090075704	A1	2009-03-19	Wang	
	42	20090084705	A1	2009-04-02	Justiss	
	43	20090097221	A1	2009-04-16	Sayed et al.	
	44	20090102416	A1	2009-04-23	Burley	
	45	20090134972	A1	2009-05-28	Wu, Jr. et al.	
	46	20090153297	A1	2009-06-18	Gardner	
	47	20090174263	A1	2009-07-09	Baarman et al.	

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)	Application Number		13306379	
	Filing Date		2011-11-29	
	First Named Inventor	Yossi Azancot, et al.		
	Art Unit	2857		
	Examiner Name	Carol S. W. Tsai		
	Attorney Docket Number	POWM 0106 PUSA1		

	48	20090203355	A1	2009-08-13	Clark	
	49	20090212639	A1	2009-08-27	Johnson	
	50	20090226050	A1	2009-09-10	Hughes	
	51	20090243791	A1	2009-10-01	Partin et al.	
	52	20090251102	A1	2009-10-08	Hui	
	53	20090273891	A1	2009-11-05	Peiker	
	54	20090278494	A1	2009-11-12	Randall	
	55	20100039066	A1	2010-02-18	Yuan et al.	
	56	20090079387	A1	2009-03-26	Jin et al.	
	57	20090146608	A1	2009-06-11	Lee	
	58	20090153098	A1	2009-06-18	Toya et al.	

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)	Application Number		13306379	
	Filing Date		2011-11-29	
	First Named Inventor	Yossi Azancot, et al.		
	Art Unit	2857		
	Examiner Name	Carol S. W. Tsai		
	Attorney Docket Number	POWM 0106 PUSA1		

	59	20050192062	A1	2005-09-01	Mickle et al.	
	60	20070279002	A1	2007-12-06	Partovi	

If you wish to add additional U.S. Published Application citation information please click the Add button. **Add**

FOREIGN PATENT DOCUMENTS								Remove
Examiner Initial*	Cite No	Foreign Document Number ³	Country Code ² i	Kind Code ⁴	Publication Date	Name of Patentee or Applicant of cited Document	Pages, Columns, Lines where Relevant Passages or Relevant Figures Appear	T ⁵
	1	0215320	WO	A1	2002-02-21	Inca Systems Co., Ltd.		☐
	2	0558316	EP	A1	1993-01-09	G2 Design Limited		☐
	3	0160990	EP	A2	1985-11-13	Licentia GmbH		☐
	4	0160990	EP	B1	1991-01-16	Telefunken Systemtechnik GmbH		☐
	5	2008030985	WO	A2	2003-03-13	Newton Peripherals LLC		☐
	6	2006015143	WO	A2	2006-02-09	Manifold Products LLC		☐
	7	1990734	EP	A1	2008-11-12	Menstecnica S.R.L.		☐

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)	Application Number		13306379	
	Filing Date		2011-11-29	
	First Named Inventor		Yossi Azancot, et al.	
	Art Unit		2857	
	Examiner Name		Carol S. W. Tsai	
	Attorney Docket Number		POWM 0106 PUSA1	

	8	0201557	WO	A1	2002-03-01	Citizen Watch Co. Ltd.		☐
	9	2008086080	WO	A2	2008-07-17	Newton Peripherals, LLC		☐
	10	2008093334	WO	A2	2008-07-08	Powermat Ltd.		☐
	11	2008114268	WO	A2	2008-09-25	Powermat Ltd.		☐
	12	2009040807	WO	A2	2009-04-02	Powermat Ltd.		☐
	13	2009047768	WO	A2	2009-04-16	Powermat Ltd.		☐
	14	2009047769	WO	A2	2009-04-16	Powermat Ltd.		☐
	15	2009049657	WO	A1	2009-04-23	Tom-Tom International B. V.		☐
	16	2009108958	WO	A1	2009-09-03	L & P Property Management Company		☐
	17	2399466	GB	A	2004-09-15	City University of Hong Kong		☐
	18	2399466	GB	B	2005-11-16	City University of Hong Kong		☐

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)	Application Number		13306379	
	Filing Date		2011-11-29	
	First Named Inventor	Yossi Azancot, et al.		
	Art Unit	2857		
	Examiner Name	Carol S. W. Tsai		
	Attorney Docket Number	POWM 0106 PUSA1		

	19	9602879	WO	A1	1996-02-01	Elonex Technologies, Inc.		☐
	20	2001025157	WO	A1	2010-03-04	Nigel P. Cook et al.		☐
	21	2010025156	WO	A1	2010-03-04	Nigel P. Cook et al.		☐

If you wish to add additional Foreign Patent Document citation information please click the Add button **Add**

NON-PATENT LITERATURE DOCUMENTS

Remove

Examiner Initials*	Cite No	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc), date, pages(s), volume-issue number(s), publisher, city and/or country where published.	T ⁵
	1	S.Y.R. Hui, et al., A New Generation of Universal Contactless Battery Charging Platform for Portable Consumer Electronic Equipment, IEEE Transactions on Power Electronics, Vol 20, No. 3, May 2005	☐
	2	X. Liu, et al., An Analysis of a Double-layer Electromagnetic Shield for a Universal Contactless Battery Charging Platform, IEEE 2006	☐
	3	X. Liu, Equivalent Circuit Modeling of a Multilayer Planar Winding Array Structure for Use in a Universal Contactless Battery Charging Platform, 2006 IEEE	☐
	4	S.C. Tang, et al., Evaluation of the Shielding Effects on Printed-Circuit-Board Transformers Using Ferrite Plates and Copper Sheets, 2002 IEEE	☐
	5	Y.P. Xu, et al., Extended Theory on the Inductance Calculation of Planar Spiral Windings Including the Effect of Double-layer Electromagnetic Shield, 2007 IEEE	☐
	6	Xun Liu, et al., Optimal Design of a Hybrid Winding Structure for Planar Contactless Battery Charging Platform, 2007 IEEE	☐

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)	Application Number		13306379
	Filing Date		2011-11-29
	First Named Inventor	Yossi Azancot, et al.	
	Art Unit	2857	
	Examiner Name	Carol S. W. Tsai	
	Attorney Docket Number	POWM 0106 PUSA1	

	7	Xun Liu, et al., Simulation Study and Experimental Verification of a Universal Contactless Battery Charging Platform With Localized Charging Features, 2007 IEEE	☐
	8	International Search Report and Written Opinion as filed in PCT/IL2008/001282, as mailed on 3-3-2009	☐
	9	International Search Report and Written Opinion as filed in PCT/IL2008001347, as mailed on 2-17-2009	☐
	10	International Search Report and Written Opinion as filed in PCT/IL2008/001348, as mailed on 10-12-2008	☐

If you wish to add additional non-patent literature document citation information please click the Add button **Add**

EXAMINER SIGNATURE

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through a citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ See Kind Codes of USPTO Patent Documents at www.USPTO.GOV or MPEP 901.04. ² Enter office that issued the document, by the two-letter code (WIPO Standard ST.3). ³ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁴ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁵ Applicant is to place a check mark here if English language translation is attached.

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)	Application Number	13306379
	Filing Date	2011-11-29
	First Named Inventor	Yossi Azancot, et al.
	Art Unit	2857
	Examiner Name	Carol S. W. Tsai
	Attorney Docket Number	POWM 0106 PUSA1

CERTIFICATION STATEMENT

Please see 37 CFR 1.97 and 1.98 to make the appropriate selection(s):

☐ That each item of information contained in the information disclosure statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(1).

OR

☐ That no item of information contained in the information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the person signing the certification after making reasonable inquiry, no item of information contained in the information disclosure statement was known to any individual designated in 37 CFR 1.56(c) more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(2).

☐ See attached certification statement.

☒ Fee set forth in 37 CFR 1.17 (p) has been submitted herewith.

☐ None

SIGNATURE

A signature of the applicant or representative is required in accordance with CFR 1.33, 10.18. Please see CFR 1.4(d) for the form of the signature.

Signature	/David S. Bir/	Date (YYYY-MM-DD)	2012-09-25
Name/Print	David S. Bir	Registration Number	38383

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1 hour to complete, including gathering, preparing and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. **DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

Privacy Act Statement

The Privacy Act of 1974 (P.L. 93-579) requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C. 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether the Freedom of Information Act requires disclosure of these records.
2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspections or an issued patent.
9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

Electronic Patent Application Fee Transmittal				
Application Number:		13306379		
Filing Date:		29-Nov-2011		
Title of Invention:		EFFICIENCY MONITOR FOR INDUCTIVE POWER TRANSMISSION		
First Named Inventor/Applicant Name:		Yossi Azancot		
Filer:		David S. Bir/Judy Noble		
Attorney Docket Number:		POWM 0106 PUSA1		
Filed as Large Entity				
Utility under 35 USC 111(a) Filing Fees				
Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Basic Filing:				
Pages:				
Claims:				
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				
Extension-of-Time:				

Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Miscellaneous:				
Submission- Information Disclosure Stmt	1806	1	180	180
Total in USD (\$)				180

Electronic Acknowledgement Receipt	
EFS ID:	13827898
Application Number:	13306379
International Application Number:	
Confirmation Number:	3309
Title of Invention:	EFFICIENCY MONITOR FOR INDUCTIVE POWER TRANSMISSION
First Named Inventor/Applicant Name:	Yossi Azancot
Customer Number:	22045
Filer:	David S. Bir/Judy Noble
Filer Authorized By:	David S. Bir
Attorney Docket Number:	POWM 0106 PUSA1
Receipt Date:	25-SEP-2012
Filing Date:	29-NOV-2011
Time Stamp:	11:13:38
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	Deposit Account
Payment was successfully received in RAM	\$180
RAM confirmation Number	10758
Deposit Account	023978
Authorized User	

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
-----------------	----------------------	-----------	-------------------------------------	------------------	------------------

1	Foreign Reference	EP0160990A2.pdf	296742	no	9
			fc3db97d9c3c05286702d3c550e3274dc1bf65ba		
Warnings:					
Information:					
2	Foreign Reference	EP0160990B1.pdf	282800	no	5
			1d5626255bab641c12bfe6428842d80dc82656db		
Warnings:					
Information:					
3	Foreign Reference	EP0558316A1.pdf	597375	no	9
			44c2041851e33b7303a326d8b06212ffff12f2f5		
Warnings:					
Information:					
4	Foreign Reference	EP1990734A1.pdf	1449491	no	12
			73383b8bf089478304395637188795312f4ace50		
Warnings:					
Information:					
5	Foreign Reference	GB2399466A.pdf	591544	no	22
			e3bb84f53d4b276d11470d00114445beea9820e5		
Warnings:					
Information:					
6	Foreign Reference	GB2399466B.pdf	512500	no	21
			fda2b1b7ea4f2e5e4d64f2030c3c066df60551a9		
Warnings:					
Information:					
7	Foreign Reference	WO02015320.pdf	988167	no	29
			6deb1b295189e0c8056ff0b5a49d7714289cd5f8		
Warnings:					
Information:					
8	Foreign Reference	WO2002001557A1.pdf	3057628	no	82
			b68c08d295ae0fc132b49daf330ecfee93f87152		
Warnings:					
Information:					
9	Foreign Reference	WO2006015143A2.pdf	1334605	no	38
			140abc85b30eac728f7a5bba48fd890be7c4053		
Warnings:					
Information:					

10	Foreign Reference	WO2008030985A2.pdf	1582502	no	47
			b6f8c5eb5cba9ea38856d57c96b41fe67e9d27da		
Warnings:					
Information:					
11	Foreign Reference	WO2008086080A2.pdf	5159334	no	54
			cb3bace2912d5bee381954f6fd8f688724592f54		
Warnings:					
Information:					
12	Foreign Reference	WO2008093334A2.pdf	1862918	no	49
			af4d9684ac0ddb9cb2003dcbc9501c545fecbaf		
Warnings:					
Information:					
13	Foreign Reference	WO2008114268A2.pdf	2319767	no	67
			e734f5b61dd1e10fb2af17cb0f2f8962236b8eb8		
Warnings:					
Information:					
14	Foreign Reference	WO2009047768A2.pdf	3190112	no	65
			47de4bb27a957bb6a49d3cb16c5c63ce588a736b		
Warnings:					
Information:					
15	Foreign Reference	WO2009047769A2.pdf	1527787	no	34
			66446bf27c86069f4fa8fb1941092fb3e939fe7d		
Warnings:					
Information:					
16	Foreign Reference	WO2009049657A1.pdf	1093603	no	30
			2f73f15ef63153f289d1cde8710b8ffe8237950d		
Warnings:					
Information:					
17	Foreign Reference	WO2009108958.pdf	635051	no	15
			70661cd4ed8ccc1e1d47bda55308095657e9884		
Warnings:					
Information:					
18	Foreign Reference	WO9602879.pdf	2839422	no	91
			47d425b8dff06739a995ac9680aa136dac03592		
Warnings:					
Information:					

19	Foreign Reference	10025156.pdf	1496400 <div>7b0d2e71ecf727e994973fb664567c3dff918061</div>	no	37
Warnings:					
Information:					
20	Information Disclosure Statement (IDS) Form (SB08)	updated_IDS.pdf	617372 <div>290d6bf534fd849a9143767c0daa186e7b055da2</div>	no	18
Warnings:					
Information:					
21	Fee Worksheet (SB06)	fee-info.pdf	30433 <div>afc9fb5b127b41256baea937ae1c51ce3b90b9b1</div>	no	2
Warnings:					
Information:					
Total Files Size (in bytes):			31465553		
<p>This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.</p> <p><u>New Applications Under 35 U.S.C. 111</u> If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.</p> <p><u>National Stage of an International Application under 35 U.S.C. 371</u> If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.</p> <p><u>New International Application Filed with the USPTO as a Receiving Office</u> If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.</p>					

PATENT COOPERATION TREATY

From the INTERNATIONAL SEARCHING AUTHORITY

To: JMB, FACTOR & CO.
P.O. BOX 45087 PARK CENTER HAR
HOTZVIM
HI-TECH PARK
91450 JERUSALEM
ISRAEL

PCT

NOTIFICATION OF TRANSMITTAL OF
THE INTERNATIONAL SEARCH REPORT AND
THE WRITTEN OPINION OF THE INTERNATIONAL
SEARCHING AUTHORITY, OR THE DECLARATION

(PCT Rule 44.1)

Date of mailing (day/month/year)	03 MAR 2009
Applicant's or agent's file reference POW1052-52.2	FOR FURTHER ACTION See paragraphs 1 and 4 below
International application No. PCT/IL2008/001282	International filing date (day/month/year) 24 September 2008
Applicant POWERMAT LTD.	

1. ☒ The applicant is hereby notified that the international search report and the written opinion of the International Searching Authority have been established and are transmitted herewith.

Filing of amendments and statement under Article 19:
The applicant is entitled, if he so wishes, to amend the claims of the international application (see Rule 46):

When? The time limit for filing such amendments is normally two months from the date of transmittal of the international search report.

Where? Directly to the International Bureau of WIPO, 34 chemin des Colombettes
1211 Geneva 20, Switzerland, Facsimile No.: +41 22 338 82 70

For more detailed instructions, see the notes on the accompanying sheet.

2. ☐ The applicant is hereby notified that no international search report will be established and that the declaration under Article 17(2)(a) to that effect and the written opinion of the International Searching Authority are transmitted herewith.

3. ☐ **With regard to the protest against payment of (an) additional fee(s) under Rule 40.2, the applicant is notified that:**

☐ the protest together with the decision thereon has been transmitted to the International Bureau together with the applicant's request to forward the texts of both the protest and the decision thereon to the designated Offices.

☐ no decision has been made yet on the protest; the applicant will be notified as soon as a decision is made.

4. **Reminders**

Shortly after the expiration of **18 months** from the priority date, the international application will be published by the International Bureau. If the applicant wishes to avoid or postpone publication, a notice of withdrawal of the international application, or of the priority claim, must reach the International Bureau as provided in Rules 90bis.1 and 90bis.3, respectively, before the completion of the technical preparations for international publication.

The applicant may submit comments on an informal basis on the written opinion of the International Searching Authority to the International Bureau. The International Bureau will send a copy of such comments to all designated Offices unless an international preliminary examination report has been or is to be established. These comments would also be made available to the public but not before the expiration of 30 months from the priority date.

Within **19 months** from the priority date, but only in respect of some designated Offices, a demand for international preliminary examination must be filed if the applicant wishes to postpone the entry into the national phase **until 30 months** from the priority date (in some Offices even later); otherwise, the applicant must, **within 20 months** from the priority date, perform the prescribed acts for entry into the national phase before those designated Offices.

In respect of other designated Offices, the time limit of **30 months** (or later) will apply even if no demand is filed within 19 months.

See the Annex to Form PCT/IB/301 and, for details about the applicable time limits, Office by Office, see the *PCT Applicant's Guide*, Volume II, National Chapters and the WIPO Internet site.

Name and mailing address of the ISA/US Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450 Facsimile No. 571-273-3201	Authorized officer: Blaine R. Copenheaver Telephone No. 571-272-7774
---	--

Form PCT/ISA/220 (January 2004)

JMB, Fa©tor & Co.
ISRAEL'S INTERNATIONAL IP FIRM

12-03-2009

RECEIVED-נתקבל

(See notes on accompanying sheet)

PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference POW1052-52.2	FOR FURTHER ACTION <div style="display: flex; justify-content: space-between; font-size: small;"> see Form PCT/ISA/220 as well as, where applicable, item 5 below. </div>	
International application No. PCT/IL2008/001282	International filing date (<i>day/month/year</i>) 24 September 2008	(Earliest) Priority Date (<i>day/month/year</i>) 25 September 2007
Applicant POWERMAT LTD.		

This international search report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This international search report consists of a total of 2 sheets.

☐ It is also accompanied by a copy of each prior art document cited in this report.

1. Basis of the report

a. With regard to the **language**, the international search was carried out on the basis of:

- ☒ the international application in the language in which it was filed
☐ a translation of the international application into _____, which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1(b))

b. ☐ With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, see Box No. I.

2. ☐ **Certain claims were found unsearchable** (see Box No. II)

3. ☐ **Unity of invention is lacking** (see Box No. III)

4. With regard to the **title**,

- ☒ the text is approved as submitted by the applicant
☐ the text has been established by this Authority to read as follows:

5. With regard to the **abstract**,

- ☒ the text is approved as submitted by the applicant
☐ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority

6. With regard to the **drawings**,

a. the figure of the **drawings** to be published with the abstract is Figure No. 1

- ☒ as suggested by the applicant
☐ as selected by this Authority, because the applicant failed to suggest a figure
☐ as selected by this Authority, because this figure better characterizes the invention

b. ☐ none of the figures is to be published with the abstract

Form PCT/ISA/210 (first sheet) (April 2005)

INTERNATIONAL SEARCH REPORT

International application No.

PCT/IL2008/001282

A. CLASSIFICATION OF SUBJECT MATTER IPC(8) - H01F 21/06 (2009.01) USPC - 336/118 According to International Patent Classification (IPC) or to both national classification and IPC		
B. FIELDS SEARCHED Minimum documentation searched (classification system followed by classification symbols) IPC(8) - H01F 21/06 (2009.01) USPC - 336/118 Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) USPTO EAST System (US, USPG-PUB, EPO, DERWENT), PatBase, IEEE Xplore, Google Patent		
C. DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X — Y	US 2006/0202665 A1 (HSU) 14 September 2006 (14.09.2006) entire document	1, 10-18, 26-42, 44, 45 2-9, 19-25, 43
X — Y	US 4,977,515 A (RUDDEN et al) 11 December 1990 (11.12.1990) entire document	46, 49-51 47, 48
Y	US 2007/0076459 A1 (LIMPKIN) 05 April 2007 (05.04.2007) entire document	2-9, 19-25, 43
Y	US 5,278,771 A (NYENYA) 11 January 1994 (11.01.1994) entire document	47, 48
☐ Further documents are listed in the continuation of Box C. ☐		
<p>* Special categories of cited documents:</p> <p>"A" document defining the general state of the art which is not considered to be of particular relevance</p> <p>"E" earlier application or patent but published on or after the international filing date</p> <p>"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)</p> <p>"O" document referring to an oral disclosure, use, exhibition or other means</p> <p>"P" document published prior to the international filing date but later than the priority date claimed</p> <p>"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention</p> <p>"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone</p> <p>"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art</p> <p>"&" document member of the same patent family</p>		
Date of the actual completion of the international search 25 February 2009		Date of mailing of the international search report 03 MAR 2009
Name and mailing address of the ISA/US Mail Stop PCT, Attn: ISA/US, Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450 Facsimile No. 571-273-3201		Authorized officer: Blaine R. Copenheaver PCT Helpdesk: 571-272-4300 PCT OSP: 571-272-7774

Form PCT/ISA/210 (second sheet) (April 2005)

PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

To: JMB, FACTOR & CO.
P.O. BOX 45087 PARK CENTER HAR
HOTZVIM
HI-TECH PARK
91450 JERUSALEM
ISRAEL

PCT

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43bis.1)

Applicant's or agent's file reference POW1052-52.2		FOR FURTHER ACTION See paragraph 2 below
International application No. PCT/IL2008/001282	International filing date (day/month/year) 24 September 2008	Priority date (day/month/year) 25 September 2007
International Patent Classification (IPC) or both national classification and IPC IPC(8) - H01F 21/06 (2009.01) USPC - 336/118		
Applicant POWERMAT LTD.		

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis. 1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA/US Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450 Facsimile No. 571-273-3201	Date of completion of this opinion 25 February 2009	Authorized officer: Blaine Copenheaver <small>PCT Helpdesk: 571-272-4300 PCT OSP: 571-272-7774</small>
--	---	---

Form PCT/ISA/237 (cover sheet) (April 2007)

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/IL2008/001282

Box No. I Basis of this opinion

1. With regard to the **language**, this opinion has been established on the basis of:
☒ the international application in the language in which it was filed.
☐ a translation of the international application into _____ which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1(b)).
2. ☐ This opinion has been established taking into account the **rectification of an obvious mistake** authorized by or notified to this Authority under Rule 91 (Rule 43bis.1(a))
3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, this opinion has been established on the basis of:
 - a. type of material
☐ a sequence listing
☐ table(s) related to the sequence listing
 - b. format of material
☐ on paper
☐ in electronic form
 - c. time of filing/furnishing
☐ contained in the international application as filed
☐ filed together with the international application in electronic form
☐ furnished subsequently to this Authority for the purposes of search
4. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table(s) relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
5. Additional comments:

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/IL2008/001282

Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims	2-9, 11, 19-25, 43, 47, 48	YES
	Claims	1, 10, 12-18, 26-42, 44-46, 49-51	NO
Inventive step (IS)	Claims	None	YES
	Claims	1-51	NO
Industrial applicability (IA)	Claims	1-51	YES
	Claims	None	NO

2. Citations and explanations:

Claims 1, 10, 12-18, 26-42, 44, and 45 lack novelty under PCT Article 33(2) as being anticipated by Hsu (US 2006/0202665 A1).

As per claim 1, Hsu discloses a power module for providing power inductively to at least one electrical load (power inducting to an electrical load, para [0018]), said power module comprising at least one primary inductor (primary inductive coil, para [0002]), for inductively coupling with at least one secondary inductor wired to said electrical load (secondary inductive coil, para [0002]), wherein the location of said primary inductor is adjustable (primary inductive coils are distributed in different locations, para [0030] and fig 6).

As per claim 10, Hsu further discloses at least one connector for coupling said module to at least one further module (connector for connecting structures such as primary and secondary coils, figs 3 and 4).

As per claim 12, Hsu further discloses wherein said connector comprises at least one electrical contact for electrically coupling said module to a second module (two parts connector, abstract, ln 7).

As per claim 13, Hsu further discloses a lid for covering said power docks and thereby providing a generally smooth worktop (smooth inductive surface covering the inductive coils, para [0019]).

As per claim 14, Hsu further discloses being a tessellating shape for tiling a work surface (there are no particular limitations on the shape and form of the powering device, para [0018]).

As per claim 15, Hsu further discloses wherein said tessellating shape is selected from the group comprising quadrilaterals, triangles, hexagons and square based pentagons (there are no particular limitations on the shape and form of the powering device, para [0018]).

As per claim 16, Hsu further discloses a work-surface comprising at least one module of claim 1 and a cover to provide a generally smooth worktop (smooth inductive surface covering the inductive coils, para [0019]).

As per claim 17, Hsu further discloses the module of claim 1 being incorporated within a horizontal platform (table or powering pad, para [0018]).

As per claim 18, Hsu further discloses said horizontal platform being selected from the group comprising: table-tops, kitchen work-tops, conference tables, work benches, desks and floors (table, para [0018]).

As per claim 26, Hsu further discloses a plurality of said primary inductors and a common driver (driver circuits, para [0023] and [0029]), said driver for providing an oscillating voltage to said primary inductors (AC voltage with oscillator, para [0003], [0005] and [0019]), wherein said primary inductors are connected to said common driver via individual power switches (primary inductive coils are connected to switches, para [0030] and [0031]).

As per claim 27, Hsu further discloses wherein each of said power switches remains closed for as long as electric current passes therethrough (switches draw current when they are closed, para [0030] and [0031]).

As per claim 28, Hsu further discloses wherein each said power switch comprises a reed switch (any type of switch, para [0030]).

As per claim 29, Hsu further discloses a solenoid for providing a magnetic field in the vicinity of said reed switch when said reed switch is closed (effective air gap of the magnetic circuit, para [0035]).

As per claim 30, Hsu further discloses a secondary sensing unit, in communication with said driver, for detecting said secondary inductor coupled to said primary inductor (second source of sensing para [0005] and [0006]).

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/IL2008/001282

Supplemental Box

In case the space in any of the preceding boxes is not sufficient.

Continuation of:

As per claim 31, Hsu further discloses said driver providing said oscillating voltage only on reception of an activation signal from the sensing unit (oscillator signal, para [0005]).

As per claim 32, Hsu further discloses wherein said sensing unit comprises an optical receiver for receiving an optical signal from an optical emitter associated with said secondary inductor (laptop as cited in para [0003] has optical receiver).

As per claim 33, Hsu further discloses a plurality of said primary inductors (primary inductive coils, para [0005]), and further comprising an energy management system for managing the power drawn from a power source, said energy management system (controller for managing power distribution, para [0023]) comprising: at least one power monitor for monitoring the power drawn by said power module and for producing a power signal (power controller, para [0023]), at least one load detector for detecting the presence of said electric load coupled to said primary inductor and for producing a detection signal (load detector, para [0019]), at least one controller for receiving said power signal and said detection signal, for selecting at least one primary inductor to be activated and for controlling power delivered to said at least one primary inductor (controller for receiving power and sensing signals and for using the switches to select the inductive coils, para [0023]).

As per claim 34, Hsu further discloses the power module of claim 33 additionally comprising at least one energy reservoir (DC power, para [0031]).

As per claim 35, Hsu further discloses wherein said energy reservoir is selectively connectable to at least one said power source and at least one said primary inductor (DC power is connected to a primary inductive coil, para [0031] and fig 7A).

As per claim 36, Hsu further discloses a reservoir monitor for monitoring the level of energy stored in said energy reservoir producing a reservoir signal (controller monitor the DC and AC voltages, para [0023]), wherein said controller receives said reservoir signal and selectively connects said energy reservoir to said power source (controller selects DC or AC voltages, para [0023]).

As per claim 37, Hsu further discloses wherein said energy reservoir is selected from at least one of the group comprising a voltaic cell, a capacitor, a fuel cell, a supercapacitor, a flow battery and a superconducting magnetic energy store (fuel cell or battery, para [0022]).

As per claim 38, Hsu further discloses said at least one electric load being a computer having onboard rechargeable power cells and said energy reservoir being said power cells (fuel cell or battery is rechargeable, para [0022]).

As per claim 39, Hsu further discloses wherein said load detector is selected from the group comprising a volume sensor, an infra-red sensor, an ultrasonic sensor, a hall probe, a spring switch, a magnetic switch, a transmitter-receiver arrangement and inductive elements (inductive coils, para [0019]).

As per claim 40, Hsu further discloses said controller being configured to sequentially connect a plurality of said primary inductors to said power source (connecting primary inductors and power source, para [0006]).

As per claim 41, Hsu discloses a method for aligning a primary inductor wired to a power source, to a secondary inductor wired to an electric load (primary inductive coil connected to a power source and a secondary inductive coil connected to a load, para [0019], [0023] and [0031] and figs 2-4, 7A and 7B), said method comprising the steps of: providing at least one adjustable power supply module comprising said primary inductor (primary inductive coil with AC power supply with oscillator, para [0005]), providing at least one secondary inductor (secondary inductive coil, para [0005]), adjusting the configuration of said adjustable module such that said primary inductor is proximal said secondary inductor (primary and secondary coils are closer proximity of each others, para [0019] and fig 2) and aligning said secondary inductor to said primary inductor (aligning the primary and secondary inductive coils, para [0019] and fig 2).

As per claim 42, Hsu further discloses the additional step of coupling together a plurality of said modules such that said primary inductor may be selectively positioned in a plurality of locations (primary inductive coils are distributed in different locations, para [0030] and fig 6).

As per claim 44, Hsu further discloses said adjustable module having a plurality of configurations (configurations, para [0019] and fig 2), wherein said primary inductor is in the vicinity of said secondary inductor (the primary inductive coil is align on top of the secondary inductive coil, para [0019] and fig 2).

As per claim 45, Hsu discloses a method for providing a low maintenance inductive power transmission by: embedding in a module a cluster comprising a plurality of primary inductors (embedded primary inductive coils, para [0020]), each said primary inductor connected to a power switch (primary inductive coil connected to power switch, para [0031]), said power switch being configured to remain closed for as long as electric current passes therethrough (switches connecting different part of the circuit, para [0030]), connecting all power switches to a common driver (switches are connected to a power driver, para [0029] and [0030]), said driver for providing an oscillating voltage to said cluster only if it receives an activation signal (AC voltage with oscillator, para [0003], [0005] and [0019]), providing an inductive power receiver comprising a secondary inductor wired to an electric load and at least one trigger configured to close at least one said power switch when said secondary inductor is aligned with the primary inductor associated therewith (secondary inductive coil wired to a load and a primary inductive coil align with the secondary inductive coil, para [0019] and [0023] and figs 2-4), and providing a secondary detector configured to send said activation signal to said driver when it detects a secondary inductor coupled to said primary inductor (a controller sending activating signal to primary and secondary inductive coils, para [0019]-[0024] and figs 2 and 3).

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/IL2008/001282

Supplemental Box

In case the space in any of the preceding boxes is not sufficient.

Continuation of:

Claims 46 and 49-51 lack novelty under PCT Article 33(2) as being anticipated by Rudden et al, hereinafter "Rudden" (US 4,977,515 A).

As per claim 46, Rudden discloses a method for managing the power drawn from a power source by a power board (col 7, ln 21 and fig 6, device 103), said power board comprising a plurality of electrical power jacks (in the items of the claimed invention following the preamble one jack only can be addressed, col 9, ln 39-40), said method comprising the steps of: providing at least one power monitor (power monitor, col 5, ln 1-11), providing at least one load detector (load detector, col 6, ln 4-20 and col 7, ln 64), providing at least one controller (microprocessor, col 2, ln 8-25), monitoring the power drawn by said power board and producing a power signal (sending a power control signal, col 9, ln 39-50), detecting at least one load coupled with at least one power jack of said power board (load detector, col 9, ln 14-20) and producing a detection signal (output from load detector, col 9, ln 14-20), said controller receiving said power signal and said detection signal (microprocessor receiving power signal and detecting signal, col 8, ln 59-68 and col 9, ln 1-28), said controller selecting at least one of said power jacks to be activated (jack, col 9, ln 39-40), said controller determining a duty cycle for connecting active power jacks (duty cycle, col 8, ln 54-58), and connecting said active power jacks according to said duty cycle (on/off cycle setting, col 8, ln 54-58).

As per claim 49, Rudden further discloses wherein the power drawn by said power board is limited to a range of values (power timing range, col 5, ln 4-46).

As per claim 50, Rudden further discloses the additional step of connecting an energy reservoir to at least one activated power jack when said activated power jack is disconnected from said power source (battery or dc source, col 2, ln 15-19).

As per claim 51, Rudden further discloses the additional step of providing at least one energy reservoir couplable to at least one of the group comprising said power source and at least one said power jack (a jack and a power source, col 9, ln 39-40 and col 10, ln 1-13).

Claim 11 lacks an inventive step under PCT Article 33(3) as being obvious over Hsu.

As per claim 11, Hsu does not explicitly teach wherein said connector comprises at least one mechanical connector for mechanically coupling said module to a further module. However, it is well known in the art to mechanically connect two electronic devices via an outlet. It would have been obvious to one of ordinary skill in the art at the time the invention was made to connect the table which provides power of Hsu to a power outlet in order to avoid having a power supply in the table.

Claims 2-9, 19-25, and 43 lack an inventive step under PCT Article 33(3) as being obvious over Hsu view of Limpkin, (US 2007/0076459 A1).

As per claim 2, Hsu does not explicitly teach a base unit having at least one power dock for accommodating at least one primary inductor unit. However, Limpkin teaches a base unit having at least one power dock for accommodating at least one primary inductor unit (a base 1520, para [0087] and [0088] and fig 15). It would have been obvious to one of ordinary skill in the art at the time the invention was made to use a base of Limpkin to hold the inductor of Hsu's to have a removable or replaceable inductor in order to optimize the inductive system.

As per claim 3, Hsu does not explicitly teach said power dock comprising at least one of: a socket for releasably receiving said primary inductor unit and a clip for releasably securing said primary inductor unit. However, Limpkin teaches said power dock comprising at least one of: a socket for releasably receiving said primary inductor unit (a socket for releasably receiving an inductive coil, para [0087] and [0088]) and a clip for releasably securing said primary inductor unit (a clip for releasably securing an inductive coil, para [0087] and [0088]). It would have been obvious to one of ordinary skill in the art at the time the invention was made to use a clip and socket for an inductor of Limpkin's in Hsu's application to have mobile inductor in order to have a useful optimal inductor.

As per claim 4, Hsu further teaches, said primary inductor unit comprising at least one electrical contact for connecting said primary inductor unit to a power line for providing power to said primary inductor (power coil transferring power to primary inductive coil, para [0006]).

As per claim 5, Hsu further teaches at least one power line for providing power to said primary inductor unit (power coil transferring power to primary inductive coil, para [0006]).

As per claim 6, Hsu further teaches comprising a signal line for communicating between a controller and the primary inductor unit (signal to primary inductive coil, para [0019]).

As per claim 7, Hsu does not explicitly teach said power line comprises a three core cable. However, Limpkin teaches said power line comprises a three core cable (three core cable, para [0046]). It would have been obvious to one of ordinary skill in the art at the time the invention was made to use a three core cable of Limpkin's in Hsu's application to be able to be use a cable for all kind of household appliances in order to minimize number of cables and a use a multi-purpose cable in different applications.

As per claim 8, Hsu further teaches wherein a plurality of said primary inductor units are connected in parallel to said at least one power line (power supply from 30 is parallel to primary coil 26, fig 3).

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/IL2008/001282

Supplemental Box

In case the space in any of the preceding boxes is not sufficient.

Continuation of:

As per claim 9, Hsu further teaches wherein a plurality of the primary inductor units are each connected to at least one power hub, said power hub for controlling power distribution to said primary inductor units (power supply circuit, para [0023] and fig 3).

As per claim 19, Hsu does not explicitly teach a base unit for accommodating at least one primary inductor unit of claim 2. However, Limpkin teaches a base unit for accommodating at least one primary inductor unit of claim 2 (a base unit for accommodating at least one primary inductive coil, a base 1520 and inductive coil 1516, para [0087] and [0088] and fig 15). It would have been obvious to one of ordinary skill in the art at the time the invention was made to use a base of Limpkin to hold the inductor of Hsu's to have a removable or replaceable inductor in order to optimize the inductive system.

As per claim 20, Hsu further teaches a primary inductor unit for coupling with a secondary inductor unit wired to an electrical load (a primary inductive coil connected to a secondary inductive coil, para [0019]), said primary inductor unit being connectable to at least one power dock of the base unit of claim 2 (a primary inductive coil connected to power structure, para [0023] and fig 3).

As per claim 21, Hsu does not explicitly teach said base unit comprising at least one flexible strip capable of assuming a plurality of configurations within at least one plane, such that said power dock is movable into the vicinity of said secondary inductor. However, Limpkin teaches said base unit comprising at least one flexible strip capable of assuming a plurality of configurations within at least one plane, such that said power dock is movable into the vicinity of said secondary inductor (the dock could be for primary or secondary coil, para [0087] and [0088]). It would have been obvious to one of ordinary skill in the art at the time the invention was made to use switchable dock between primary and secondary coils such Limpkin's in Hsu's application to design flexible docks in order to have all have all type of inductive coils sit in these docks.

As per claim 22, Hsu further teaches wherein said flexible strip comprises a ridged rim (there are no particular limitations on the shape and form of the powering device, para [0018]).

As per claim 23, Hsu further teaches wherein said flexible strip comprises a plurality of jointed sections (there are no particular limitations on the shape and form of the powering device, para [0018]).

As per claim 24, Hsu further teaches said flexible strip being closed into a band (there are no particular limitations on the shape and form of the powering device, para [0018]).

As per claim 25, Hsu further teaches a flexible material selected from the group comprising elastomers, woven fabric, unwoven fabrics and polymers (there are no particular limitations on the shape and form of the powering device, para [0018]).

As per claim 43, Hsu does not explicitly teach wherein said adjustable module comprises a plurality of power docks for accommodating said primary inductor and docking said primary inductor into at least one said power dock. However, Limpkin teaches wherein said adjustable module comprises a plurality of power docks for accommodating said primary inductor and docking said primary inductor into at least one said power dock (docks for primary inductive coils, para [0087] and [0088] and figs 15 and 14a-14e). It would have been obvious to one of ordinary skill in the art at the time the invention was made to use a dock of Limpkin to hold the inductor of Hsu's to have a removable or replaceable inductor in order to optimize the inductive system.

Claims 47 and 48 lack an inventive step under PCT Article 33(3) as being obvious over in Rudden view of Nyenya (US 5,278,771 A).

As per claim 47, Rudden does not explicitly teach wherein said duty cycle connects active power jacks individually and sequentially. However, Nyenya teaches wherein said duty cycle connects active power jacks individually and sequentially (power jacks, col 2, ln 12-13 and col 8, ln 32-38). It would have been obvious to one of ordinary skill in the art at the time the invention was made to use jacks as of Nyenya's in Rudden's invention to apply the management device to more house hold products in order to make the management device a handy and practical device.

As per claim 48, Rudden does not explicitly teach wherein said duty cycle connects at least two active power jacks simultaneously. However, Nyenya teaches wherein said duty cycle connects at least two active power jacks simultaneously (power jacks, col 2, ln 12-13 and col 8, ln 32-38). It would have been obvious to one of ordinary skill in the art at the time the invention was made to use jacks as of Nyenya's in Rudden's invention to apply the management device to more house hold products in order to make the management device a handy and practical device.

Claims 1-51 meet the criteria set out in PCT Article 33(4), and thus have industrial applicability because the subject matter claimed can be made or used in industry.

PATENT COOPERATION TREATY

From the INTERNATIONAL SEARCHING AUTHORITY

PCT

NOTIFICATION OF TRANSMITTAL OF
THE INTERNATIONAL SEARCH REPORT AND
THE WRITTEN OPINION OF THE INTERNATIONAL
SEARCHING AUTHORITY, OR THE DECLARATION

(PCT Rule 44.1)

To: JMB, FACTOR & CO.
P.O. BOX 45087
PARK CENTER HAR HOTZVIM
HI-TECH PARK
91450 JERUSALEM
ISRAEL

Date of mailing
(day/month/year) **17 FEB 2009**

Applicant's or agent's file reference

POW1052-53.2

FOR FURTHER ACTION See paragraphs 1 and 4 below

International application No.

PCT/IL2008/001347

International filing date
(day/month/year)

12 October 2008

Applicant

POWERMAT LTD.

1. ☒ The applicant is hereby notified that the international search report and the written opinion of the International Searching Authority have been established and are transmitted herewith.

Filing of amendments and statement under Article 19:

The applicant is entitled, if he so wishes, to amend the claims of the international application (see Rule 46):

When? The time limit for filing such amendments is normally two months from the date of transmittal of the international search report.

Where? Directly to the International Bureau of WIPO, 34 chemin des Colombettes
1211 Geneva 20, Switzerland, Facsimile No.: +41 22 338 82 70

For more detailed instructions, see the notes on the accompanying sheet.

2. ☐ The applicant is hereby notified that no international search report will be established and that the declaration under Article 17(2)(a) to that effect and the written opinion of the International Searching Authority are transmitted herewith.

3. ☐ **With regard to the protest** against payment of (an) additional fee(s) under Rule 40.2, the applicant is notified that:

☐ the protest together with the decision thereon has been transmitted to the International Bureau together with the applicant's request to forward the texts of both the protest and the decision thereon to the designated Offices.

☐ no decision has been made yet on the protest; the applicant will be notified as soon as a decision is made.

4. **Reminders**

Shortly after the expiration of **18 months** from the priority date, the international application will be published by the International Bureau. If the applicant wishes to avoid or postpone publication, a notice of withdrawal of the international application, or of the priority claim, must reach the International Bureau as provided in Rules 90bis.1 and 90bis.3, respectively, before the completion of the technical preparations for international publication.

The applicant may submit comments on an informal basis on the written opinion of the International Searching Authority to the International Bureau. The International Bureau will send a copy of such comments to all designated Offices unless an international preliminary examination report has been or is to be established. These comments would also be made available to the public but not before the expiration of 30 months from the priority date.

Within **19 months** from the priority date, but only in respect of some designated Offices, a demand for international preliminary examination must be filed if the applicant wishes to postpone the entry into the national phase **until 30 months** from the priority date (in some Offices even later); otherwise, the applicant must, **within 20 months** from the priority date, perform the prescribed acts for entry into the national phase before those designated Offices.

In respect of other designated Offices, the time limit of **30 months** (or later) will apply even if no demand is filed within 19 months.

See the Annex to Form PCT/IB/301 and, for details about the applicable time limits, Office by Office, see the *PCT Applicant's Guide*, Volume II, National Chapters and the WIPO Internet site.

Name and mailing address of the ISA/US

Mail Stop PCT, Attn: ISA/US
Commissioner for Patents
P.O. Box 1450, Alexandria, Virginia 22313-1450
Facsimile No. 571-273-3201

Authorized officer:

Blaine R. Copenheaver

Telephone No. 571-272-7774

Form PCT/ISA/220 (January 2004)

(See notes on accompanying sheet)

PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference POW1052-53.2	FOR FURTHER ACTION <div style="display: flex; justify-content: space-between; font-size: small;"> see Form PCT/ISA/220 as well as, where applicable, item 5 below. </div>	
International application No. PCT/IL2008/001347	International filing date (day/month/year) 12 October 2008	(Earliest) Priority Date (day/month/year) 09 October 2007
Applicant POWERMAT LTD.		

This international search report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This international search report consists of a total of 2 sheets.

☐ It is also accompanied by a copy of each prior art document cited in this report.

1. Basis of the report

a. With regard to the **language**, the international search was carried out on the basis of:

- ☒ the international application in the language in which it was filed
- ☐ a translation of the international application into _____, which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1(b))

b. ☐ With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, see Box No. I.

2. ☐ **Certain claims were found unsearchable** (see Box No. II)

3. ☐ **Unity of invention is lacking** (see Box No. III)

4. With regard to the **title**,

- ☒ the text is approved as submitted by the applicant
- ☐ the text has been established by this Authority to read as follows:

5. With regard to the **abstract**,

- ☒ the text is approved as submitted by the applicant
- ☐ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority

6. With regard to the **drawings**,

- a. the figure of the **drawings** to be published with the abstract is Figure No. 1
- ☒ as suggested by the applicant
- ☐ as selected by this Authority, because the applicant failed to suggest a figure
- ☐ as selected by this Authority, because this figure better characterizes the invention
- b. ☐ none of the figures is to be published with the abstract

INTERNATIONAL SEARCH REPORT

International application No.

PCT/IL2008/001347

A. CLASSIFICATION OF SUBJECT MATTER IPC(8) - H01F 38/14 (2009.01) USPC - 320/108 According to International Patent Classification (IPC) or to both national classification and IPC		
B. FIELDS SEARCHED Minimum documentation searched (classification system followed by classification symbols) IPC(8) - H01F 38/14 (2009.01) USPC - 320/108 Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) PatBase, Google Patents		
C. DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2007/0182367 A1 (PARTOVI) 09 August 2007 (09.08.2007) entire document	1-3,13-17,20-27
Y		4-12,18,19,28-37
Y	US 5,486,394 A (STOUGH) 23 January 1996 (23.01.1996) entire document	4-10
Y	US 5,528,113 A (BOYS et al) 18 June 1996 (18.06.1996) entire document	11,12
Y	US 5,907,285 A (TOMS et al) 25 May 1999 (25.05.1999) entire document	18-19
Y	US 5,221,877 A (FALK) 22 June 1993 (22.06.1993) entire document	28-37
☐ Further documents are listed in the continuation of Box C. ☐		
* Special categories of cited documents: "A" document defining the general state of the art which is not considered to be of particular relevance "E" earlier application or patent but published on or after the international filing date "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) "O" document referring to an oral disclosure, use, exhibition or other means "P" document published prior to the international filing date but later than the priority date claimed "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art "&" document member of the same patent family		
Date of the actual completion of the international search 02 February 2009		Date of mailing of the international search report 17 FEB 2009
Name and mailing address of the ISA/US Mail Stop PCT, Attn: ISA/US, Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450 Facsimile No. 571-273-3201		Authorized officer: Blaine R. Copenheaver PCT Helpdesk: 571-272-4300 PCT OSP: 571-272-7774

Form PCT/ISA/210 (second sheet) (April 2005)

PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

To: JMB, FACTOR & CO.
P.O. BOX 45087
PARK CENTER HAR HOTZVIM
HI-TECH PARK
91450 JERUSALEM
ISRAEL

PCT

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43bis.1)

Date of mailing (day/month/year) 17 FEB 2009	
Applicant's or agent's file reference POW1052-53.2	FOR FURTHER ACTION See paragraph 2 below
International application No. PCT/IL2008/001347	International filing date (day/month/year) 12 October 2008
Priority date (day/month/year) 09 October 2007	
International Patent Classification (IPC) or both national classification and IPC IPC(8) - H01F 38/14 (2009.01) USPC - 320/108	
Applicant POWERMAT LTD.	

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA/US Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450 Facsimile No. 571-273-3201	Date of completion of this opinion 02 February 2009	Authorized officer: Blaine Copenheaver PCT Helpdesk: 571-272-4300 PCT OSP: 571-272-7774
---	--	--

Form PCT/ISA/237 (cover sheet) (April 2007)

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/IL2008/001347

Box No. I Basis of this opinion

1. With regard to the **language**, this opinion has been established on the basis of:
 - ☒ the international application in the language in which it was filed.
 - ☐ a translation of the international application into _____ which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1(b)).
2. ☐ This opinion has been established taking into account the **rectification of an obvious mistake** authorized by or notified to this Authority under Rule 91 (Rule 43*bis*.1(a))
3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, this opinion has been established on the basis of:
 - a. **type of material**
 - ☐ a sequence listing
 - ☐ table(s) related to the sequence listing
 - b. **format of material**
 - ☐ on paper
 - ☐ in electronic form
 - c. **time of filing/furnishing**
 - ☐ contained in the international application as filed
 - ☐ filed together with the international application in electronic form
 - ☐ furnished subsequently to this Authority for the purposes of search
4. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table(s) relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
5. **Additional comments:**

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/IL2008/001347

Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims	4-12, 18, 19, 28-37	YES
	Claims	1-3, 13-17, 20-27	NO
Inventive step (IS)	Claims	None	YES
	Claims	1-37	NO
Industrial applicability (IA)	Claims	1-37	YES
	Claims	None	NO

2. Citations and explanations:

Claims 1-3, 13-17, and 20-27 lack novelty under PCT Article 33(2) as being anticipated by Partovi.

Regarding claim 1, Partovi discloses a power providing system (Title, abstract), comprising at least one inductive power outlet (fig.6 element 172 (inductive outlet)) incorporated into a bounding surface of a workspace (para. [0094], fig.8 element 222 (unit), fig.20 element 370 (surface of the unit)), said inductive power outlet comprising at least one primary inductor (para. [0127], fig.2 element 116), connectable to a power supply (fig.2 element 118 Vin, claim 3) via a driver (para. [0104], fig.10 element 268 (mosfet driver)); said driver for providing an oscillating voltage supply to the primary inductor (para.[0104], generates an AC voltage across the primary coil), the primary inductor for inductively coupling with a secondary inductor wired to an electric load (fig.2 elements Lp (primary coil), 120 secondary coil, 124 (RL)).

Regarding claim 2, Partovi discloses the power providing system of claim 1 and further the bounding surface is selected from the group comprising: walls, floors, ceilings, sinks, baths, doors and work surfaces (para.[0130], walls, fig.15 element 330 (surface)).

Regarding claim 3, Partovi discloses the power providing system of claim 1 and further the inductive power outlets are incorporated into prefabricated materials for incorporating into the bounding surfaces (para.[0127],[0129],[0130], fig.1 element 104 (coils or set of wires), element 100 (Pad)).

Regarding claim 13, Partovi discloses the power providing system in claim 1, and further an electrical appliance adapted to draw power inductively from at least one inductive power outlet, one electrical appliance comprising at least one said secondary inductor (Para.[0131], [0133],[0140],[0160],fig.16 (Mobile)).

Regarding claim 14, Partovi discloses the power providing system of claim 13 and further the electrical appliance comprising a power storage means, for storing electrical energy for powering the appliance (Para.[0160],claim 10).

Regarding claim 15, Partovi discloses the power providing system in claim 14 and further the electrical appliance, wherein the power storage means are selected from the group comprising capacitors, accumulators, and rechargeable electrochemical cells (fig.11 element C1 (capacitor), para.[0159] (solar cells)).

Regarding claim 16, Partovi discloses the electrical appliance of claim 13, being selected from the group comprising: standing lamps, video recorders, DVD players, paper shredders, fans, photocopiers, computers, printers, cooking appliances, fridges, freezers, washing machines, clothes dryers, heavy machinery, desk lamps, ambient lighting units, fans, wireless telephones, speakers, speaker phones, conference call base units, electric pencil sharpeners, electric staplers, display devices, electrical picture frames, VDUs, projectors, televisions, video players, music centers, calculators, scanners, fax machines, hot plates, electrically heated mugs, mobile 20 phones, hairdryers, shavers, delapidators, heaters, wax-melting equipment, hair curlers, beard trimmers, bathroom-scales, lights and radios, egg beaters, bread-makers, liquidizers, orange juice extractors, vegetable juices, food-processors, electric knives, toasters, sandwich toasters, waffle makers, electrical barbecue grills, slow cookers, hot-plates, deep-fat fryers, electrical frying pans, knife sharpeners, domestic sterilizers, kettles, urns, radios, cassette players, CD players and electrical tin-openers, popcorn makers and magnetic stirrers (claim 32, para.[0095],[0096],[0156],[0173]).

Regarding claim 17, Partovi discloses the power providing system of claim 1 and further a system comprising a power platform that comprises at least one device-mounted inductive power outlet for inductively providing power to electrical loads, said system further comprising at least one said secondary inductor for drawing power inductively from at least one said inductive power outlet. (Para.[0039], [0049],[0058],[0081], fig.8,fig.16).

Regarding claim 20, Partovi discloses the power providing system of claim 1 and further the system wherein said inductive power outlet comprises a positioning mechanism for moving said primary inductor behind said bounding surface (Para.[0130],[0131],[0132]).

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/IL2008/001347

Supplemental Box

In case the space in any of the preceding boxes is not sufficient.
Continuation of:

Regarding claim 21, Partavi discloses the power providing system of claim 20 and further the system being characterized by at least one feature selected from the group comprising: the positioning mechanism comprising a carriage (para.[0161]), the primary inductor being mounted upon at least one of the group comprising roller-balls, wheels, skis and levitating magnets; the primary inductor being affixed to at least one guiding cable; the positioning mechanism being motorized; the positioning mechanism being remotely controllable by a user; the primary inductor being affixed to a first magnetic element configured to be pulled by a second magnetic element (Para.[0040]); the positioning mechanism further comprising a clutch for engaging said primary coil to the back face of said bounding surface, and the positioning mechanism further comprising a release mechanism for disengaging said primary inductor from said back face of said bounding surface (para.[0132].)

Regarding claim 22, Partovi discloses the power providing system of claim 20 and further the system of wherein said positioning mechanism additionally comprises at least one rail upon which said primary inductor is slideably mounted. (Para.[0060],[0079],[0130]).

Regarding claim 23, Partovi discloses the power outlet of claim 21 and further wherein said rail is slideably supported by at least one of the group comprising tracks and pulleys (Para.[0046],[0094], fig.8 element 226, fig.18 element 358, para.[0155]).

Regarding claim 24, Partovi discloses the system of claim 1, and further the primary inductor being concealed behind a substantially Opaque layer (Para.[0127]-[0130]) and the system further comprising at least one indicator for indicating the location of said primary inductor (Para.[0121],[Hall sensor] to sense the presence of magnet).

Regarding claim 25, Partovi discloses the system of claim 24 and further being characterized by at least one feature selected from: the indicator being incorporated within said bounding surface (Para.[0133], (proximity sensor under each section)), the indicator comprising a visual display representing a map of said surface (Para.[0071], LEDs), the location of said primary inductor being indicated upon the map (Para.[0071]), the indicator further comprising a control panel for adjusting the location of the primary inductor, the location of said primary inductor being indicated upon control panel; the indicator comprising at least one transmitter configured to transmit a locator beam, said locator beam being detectable remotely (Para.[0081]); the location of said primary inductor being determinable by external sensors (Para.[0135]); and f. the location of said primary inductor being determinable by external sensors selected from the group comprising: proximity sensors, volume sensors, infra-red sensors, ultrasonic sensors, magnetic sensors, Hall probes, inductance sensors and capacitance sensors (Para.[0135],[0081],fig.11).

Regarding claim 26, Partovi discloses the power providing system of claim 24 and further the system indicator comprising an emitter of radiation of a type and intensity capable of penetrating the substantially opaque layer and for allowing detection thereof from in front of the substantially opaque layer (Para.[0110], radiates EMI).

Regarding claim 27, Partovi discloses the system of claim 26 and further being characterized by at least one feature selected from the group comprising: the emitter being incorporated within said primary inductor and said radiation being selected such that said substantially opaque surface translucent to the radiation (Para.[0082]); the emitter comprising a light emitting diode (Para.[0110], EMI, para.[0142]); the emitter comprising the primary inductor; the radiation being detectable by a photodiode; the radiation comprising at least one of the group comprising: electromagnetic radiation, sound waves and ultrasonic waves; the radiation comprising infra-red radiation; said infra red radiation being detectable by a digital camera; and the location of said primary inductor being encoded into a location signal and the location signal being transmitted by said radiation (Para.[0053],[0054],[0081], claims 33,32).

Claims 4-10 lack an inventive step under PCT Article 33(3) as being obvious over Partovi in view of Stough.

Regarding claim 4, Partovi discloses the power providing system of claim 3, Partavi lacks the explicit teaching of the prefabricated materials being selected from the group comprising: plasterboard, paper sheets, wallpaper, plasterers tape, doors, window frames, wall-tiles, fitted cabinets, kitchen counters, sinks, baths, sink surrounds, rugs, fitted carpets, parquet, linoleum, floor-tiles, non-slip matting, tiling, stone, artificial stone and paving.

Stough discloses a self-release self-adhesive drywall tape (title and abstract) and further the prefabricated materials being selected from the group comprising: plasterboard, paper sheets, wallpaper, plasterers tape, doors, window frames, wall-tiles, fitted cabinets, kitchen counters, sinks, baths, sink surrounds, rugs, fitted carpets, parquet, linoleum, floor-tiles, non-slip matting, tiling, stone, artificial stone and paving (abstract, fig.1, fig.2 claims 1,2).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the pad unit of Partavi with the drywall tap method of Stough in order to provide a tape for application of drywall for releasable engagement with itself (col.2 lns. 7-13, Stough).

Regarding claim 5, Partovi discloses the power providing system of claim 1 and further the primary inductor being behind at least one of said paper sheets (fig.5 element 162 primary coil), Partavi lacks the explicit teaching of the plasterboard panel for affixing into the bounding surface and the plasterboard panel comprising a layer of gypsum sandwiched between two paper sheets and at least one pair of conductors for connecting said primary inductor to said power supply.

Stough discloses the plasterboard panel for affixing into the bounding surface and the plasterboard panel comprising a layer of gypsum sandwiched between two paper sheets and at least one pair of conductors for connecting said primary inductor to said power supply (claims 6,7, col.1 lns. 15-30).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the pad or Partavi with the drywall tape structure of Stough in order to have the drywall resistant to tearing (col.2 lns. 10-15, Stough).

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/IL2008/001347

Supplemental Box

In case the space in any of the preceding boxes is not sufficient.

Continuation of:

Regarding claim 6, Partovi discloses the power providing system of claim 5, and further the plasterboard panel additionally being characterized by at least one feature selected from: a ferromagnetic core for improving flux guidance between said primary inductor and the secondary inductor (para.[0080]), the panel being water-resistant (para.[0088]), the panel comprising a heating element ([0096], [0099]), the panel comprising a high resistance primary inductor (para.[0071],[0109], (current limiting resistor)) and the primary inductor comprising an alloy having relatively high resistance such that oscillating currents therein, produce a heating effect (para.[0140]).

Regarding claim 7, Partovi discloses the power providing system of claim 1, and further the sheet comprising at least one primary inductor; and at least one pair of conductors for connecting the primary inductor to said power supply (fig.2, primary inductors, power supply (Vin), circuit), Partovi does not disclose that the sheet is a paper sheet for adhering to the bounding surface.

Stough teaches a paper sheet for adhering to the bounding surface (claim 6).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the pad of Partovi with the paper sheet of Stough in order to overlie the enforcing material (claim 4, Stough).

Regarding claim 8, Partovi discloses the power providing system of claim 7, Partovi does not disclose that the paper sheet being characterized by at least one feature selected from: a. the paper sheet being a wallpaper; b. the primary inductor being adhered onto the back of a dielectric layer; c. the primary inductor comprising a conducting coil printed onto the paper; and d. the paper sheet comprising an adhesive layer for self adhering to said bounding surface.

Stough teaches that the paper sheet being characterized by at least one feature selected from: a. the paper sheet being a wallpaper (claim 1), and the paper sheet comprising an adhesive layer for self adhering to said bounding surface (col.3 lns. 20-30).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the power providing system of Partovi with the paper sheet of Stough in order to prevent the adhesive coating from forming a permanent bond with the top layer (col.3 lns. 40-57, Stough).

Regarding claim 9, Partovi discloses the power providing system of claim 1, Partovi does not disclose that the method comprising a tape for affixing onto the bounding surface, the tape comprising: a first layer having an adhesive surface, a second layer comprising: at least one pair of electrical conductors electrically isolated from each other, and at least one primary inductor being electrically coupled to the pair of electrical conductors, and a third layer overlaying the second layer such that said pair of electrical conductors and said primary inductor are sandwiched between said first layer and said second layer.

Stough teaches a tape for affixing onto the bounding surface (claim 3, c), the tape comprising: a first layer having an adhesive surface (col.1 lns. 45-50), a second layer comprising: at least one pair of electrical conductors electrically isolated from each other (col.1 lns. 50-55) and a third layer overlaying the second layer such that said pair of electrical conductors and said primary inductor are sandwiched between said first layer and said second layer (col.1 lns. 50-65).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the power providing method of Partovi with the tape of Stough in order to provide a tape for application to drywall which is self adhesive (col.2 lns. 1-5, Stough).

Regarding claim 10, Partovi discloses the power providing system of claim 9, Partovi lacks the explicit teaching of the power outlet tape being characterized by at least one feature selected from the group comprising: the second layer comprising a two dimensional array of primary inductors; a release layer releasably engaged to said adhesive surface of the first layer; a coating applied to the outer face of said third layer, said adhesive surface releasably engaging with said coating when said power outlet tape is rolled upon itself; the tape comprising a scrim layer of interwoven fibers and tape comprising a ferromagnetic core for improving flux guidance between said primary inductor and said secondary inductor.

Stough teaches the power outlet tape being characterized by at least one feature selected from the group comprising: a release layer releasably engaged to said adhesive surface of the first layer (col.1 lns. 45-60), a coating applied to the outer face of said third layer, said adhesive surface releasably engaging with said coating when said power outlet tape is rolled upon itself (col.1 lns. 45-65, col.2 lns. 35-55, fig.2 elements 20 (tape), 28 (coating)), the tape comprising a scrim layer of interwoven fibers (col.1 lns. 45-60 (reinforcing woven fiber)).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the power providing method of Partovi with the tape of Stough in order to provide a tape for application to drywall which is self adhesive (col.2 lns. 1-5, Stough).

Claims 11 and 12 lack an inventive step under PCT Article 33(3) as being obvious over Partovi in view of Boys et al. hereinafter referred to as Boys.

Regarding claim 11, Partovi discloses the power providing system of claim 1, Partovi does not disclose that a floor surface for the workspace, the primary inductor being embedded therein and wired to the power supply via wiring under the floor surface. Boys teaches an inductive power pick-up coils (title), and furthers a floor surface (col.6 lns. 35-43, col.12 lns. 60-65), for the workspace, the primary inductor (col.2 lns. 5-15), being embedded therein and wired to the power supply via wiring under the floor surface (fig.13 col.4 lns. 40-45, fig.2).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the power providing system of Partovi with the vehicle floor structure of Boys in order to provide an improved means for the transfer of electric power across gap by inductive means (col.2 lns. 20-22, Boys).

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/IL2008/001347

Supplemental Box

In case the space in any of the preceding boxes is not sufficient.

Continuation of:

Regarding claim 12, Partovi discloses the power providing system in claim 11, Partovi does not disclose that the floor surface being selected from the group comprising: rugs, fitted carpets, parquet, linoleum, floor-tiles, non-slip matting, tiling, stone, artificial stone and paving.

Boys teaches that the floor surface being selected from the group comprising: rugs, fitted carpets, parquet, linoleum, floor-tiles, non-slip matting, tiling, stone, artificial stone and paving (col.7 lns. 5-25, fig.12,13)
It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the power providing system of Partovi with the floor surface of Boys in order to gather the flux into small place (col.8 lns. 64-67, col.9 lns. 1-5, Boys).

Claims 18 and 19 lack an inventive step under PCT Article 33(3) as being obvious over Partovi in view of Toms et al. hereinafter referred to as Toms.

Regarding claim 18, Partovi discloses the system of claim 17, Partovi does not disclose that the power platform being incorporated into an item of furniture.

Toms teaches a furniture unit having a modular communication network (Title), and further the power platform being incorporated into an item of furniture (abstract).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the power providing system of Partovi with the furniture unit of Toms in order to promote people wellbeing since many of today utility devices are readily portable (col.2 lns. 31-35, Toms).

Regarding claim 19, Partovi discloses the system of claim 18, Partovi does not disclose that the item of furniture being selected from the group comprising chairs, tables, workbenches, partitioning walls cabinets and cupboards.

Toms teaches that the item of furniture being selected from the group comprising chairs, tables, workbenches, partitioning walls cabinets and cupboards (fig.1,2)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the power providing system of Partovi with the furniture unit of Toms in order to promote people wellbeing since many of today utility devices are readily portable (col.2 lns. 31-35, Toms).

Claims 28-33, 36, and 37 lack an inventive step under PCT Article 33(3) as being obvious over Partovi in view of Falk.

Regarding claim 28, Partovi discloses the system of claim 1 and further a protection system for preventing the power providing system from transmitting power in the absence of said electric load, (Para.[0125], [0081], [0039],[0058], fig.17 elements 352 (zener diode regulator),350 (MCU2) (micro-controller)). Partovi does not disclose that the system comprising at least one circuit-breaker for disconnecting said primary coil from the power supply.

Falk teaches power protection control for inductive lighting installation (Title) and the system comprising at least one circuit-breaker for disconnecting said primary coil from said power supply (fig.1 element 23 (circuit breaker), col.4 lns. 10-20,col.9 lns. 30-60)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the power providing system of Partovi with the circuit breaker of Falk in order to protect the circuit against damages that could otherwise incurred from voltage spikes (col.9 lns. 50-60, Falk).

Regarding claim 29, Partovi discloses the protection system of claim 28 and further the protection system comprising: at least one primary detector for detecting power transmitted by the primary inductor (Para.[0013],[0077],[0078]); at least one secondary detector for detecting said secondary inductor inductively coupled to said primary inductor (Para.[0141],[0142]; and at least one controller in communication with both said primary detector and the secondary detector, for triggering (fig.17 element MCU2 (micro-controller)). Partovi does not disclose having a circuit breaker being triggered.

Falk teaches triggering circuit breaker (col.4 lns. 25-35, claim 9).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the power providing system of Partovi with the circuit breaker of Falk in order to protect the circuit against damages that could otherwise incurred from voltage spikes (col.9 lns. 50-60, Falk).

Regarding claim 30, Partovi discloses the system of claim 29, and further the primary detector being selected from the group comprising: magnetic sensors, heat sensors, electromagnetic radiation sensors and Hall probes (Para.[0121]-[0125]).

Regarding claim 31, Partovi discloses the protection system of claim 29 and further the primary inductor radiating at a characteristic frequency f and said primary detector being configured to detect radiation at frequency f (Para.[0070],[0110], resonance frequency).

Regarding claim 32, Partovi discloses the protection system of claim 31 and additionally comprising a modulator for tagging the radiation with a secondary tag indicating that said secondary inductor is inductively coupled to the primary inductor, wherein said secondary detector comprises a processor for demodulating said radiation and isolating said secondary signal (Para.[0114],[0125],[0127])

Regarding claim 33, Partovi discloses the system of claim 31 and additionally comprising a modulator for tagging said radiation with a primary tag uniquely identifying said primary inductor (Para.[0114],[0125],[0127]).

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/IL2008/001347

Supplemental Box

In case the space in any of the preceding boxes is not sufficient.

Continuation of:

Regarding claim 36, Partovi discloses the method of claim 33, wherein at least one controller in communication with both said primary detector and the secondary detector, for triggering the circuit breaker is selected from at least one of the steps: communicating a signal from said secondary inductor to a controller (fig.11 elements L2 (secondary coil), MCU2 (microcontroller)); encoding a secondary signal within radiation emanating from the primary inductor (Para.[0123],[0110],Para.[0133]); and monitoring the temperature in the vicinity of the primary inductor and checking for a significant rise in said temperature (para.[0101],[0097], claim 16).

Regarding claim 37, Partovi discloses the method of claim 33 wherein the system comprises sending at least one control signal to a controller indicating that said primary inductor is transmitting power with no secondary inductor present (Para.[0111],[0117],[0114],[0125]), Partovi does not disclose sending a trigger signal to a circuit-breaker connected between the power supply and said primary inductor. Falk teaches sending a trigger signal to a circuit-breaker connected between the power supply and said primary inductor (col.3 lns. 5-30, col.4 lns. 10-35, 40-50).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the method of Falk with the power providing system of Partovi in order to improve efficiency of the power transfer (Para.[0013], Partovi).

Claims 34 and 35 lack an inventive step under PCT Article 33(3) as being obvious over Falk in view of Partovi.

Regarding claim 34, Falk discloses a method for preventing an inductive power outlet from transmitting power in the absence of an electric load (claim 9,abstract).

Falk does not disclose that the inductive power outlet comprising at least one primary inductor wired to a power supply, for inductively coupling with a secondary inductor wired to said electric load, said method comprising the steps of: the primary inductor transmitting power; detecting that said primary inductor is transmitting power; checking that said primary inductor is inductively coupled to said secondary inductor; and disconnecting said primary inductor from said power supply if no secondary inductor is detected.

Partovi discloses that the inductive power outlet comprising at least one primary inductor (fig.9 element(Lp) Primary winding) wired to a power supply (fig.9 Vin (input voltage)), for inductively coupling with a secondary inductor wired to said electric load (fig.9 , secondary inductor, Load (RL), Para. [0156]), the method comprising the steps of: the primary inductor transmitting power; (Para. [0058],[0063],[0064]), detecting that said primary inductor is transmitting power (Para.[0065]); checking that said primary inductor is inductively coupled to said secondary inductor (magnet, claims 1,11, abstract); and disconnecting said primary inductor from said power supply if no secondary inductor is detected (Para.[0156]).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the method of Falk with the power providing system of Partovi in order to improve efficiency of power transfer (Para. [0013], Partovi).

Regarding claim 35, Falk discloses the method of claim 34, Falk lacks the explicit teaching of the detecting of the primary inductor transmitting power is being selected from at least one of the steps: communicating a signal from said primary inductor to a controller; and detecting a radiation emanating from said primary inductor.

Partovi discloses that detecting of the primary inductor transmitting power is being selected from at least one of the steps: communicating a signal from the primary inductor to a controller (Para.[0123],[0124],[0125]); and detecting a radiation emanating from said primary inductor (Para.[0047],[0082]).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the method of Falk with the power providing system of Partovi in order to improve efficiency of the power transfer between the charger and the receiver (Para.[0013], Partovi).

Claims 1-37 meet the criteria set out in PCT Article 33(4), and thus have industrial applicability because the subject matter claimed can be made or used in industry.

PATENT COOPERATION TREATY

JMB, Factor & Co.
ISRAEL'S INTERNATIONAL IP FIRM

22-02-2009

From the INTERNATIONAL SEARCHING AUTHORITY

PCTRECEIVED-נתקבל

To: JMB, FACTOR & CO.
P.O. BOX 45087
PARK CENTER HAR HOTZVIM
91450 JERUSALEM
ISRAEL

NOTIFICATION OF TRANSMITTAL OF
THE INTERNATIONAL SEARCH REPORT AND
THE WRITTEN OPINION OF THE INTERNATIONAL
SEARCHING AUTHORITY, OR THE DECLARATION

(PCT Rule 44.1)

<p>Date of mailing (day/month/year)</p>	
<p>Applicant's or agent's file reference</p> <p>POW1052-54.2</p>	<p>FOR FURTHER ACTION See paragraphs 1 and 4 below</p>
<p>International application No. PCT/IL2008/001348</p>	<p>International filing date (day/month/year) 12 October 2008</p>
<p>Applicant POWERMAT LTD.</p>	

1. ☒ The applicant is hereby notified that the international search report and the written opinion of the International Searching Authority have been established and are transmitted herewith.

Filing of amendments and statement under Article 19:

The applicant is entitled, if he so wishes, to amend the claims of the international application (see Rule 46):

When? The time limit for filing such amendments is normally two months from the date of transmittal of the international search report.

Where? Directly to the International Bureau of WIPO, 34 chemin des Colombettes
1211 Geneva 20, Switzerland, Facsimile No.: +41 22 338 82 70

For more detailed instructions, see the notes on the accompanying sheet.

2. ☐ The applicant is hereby notified that no international search report will be established and that the declaration under Article 17(2)(a) to that effect and the written opinion of the International Searching Authority are transmitted herewith.
3. ☐ **With regard to the protest** against payment of (an) additional fee(s) under Rule 40.2, the applicant is notified that:
- ☐ the protest together with the decision thereon has been transmitted to the International Bureau together with the applicant's request to forward the texts of both the protest and the decision thereon to the designated Offices.
- ☐ no decision has been made yet on the protest; the applicant will be notified as soon as a decision is made.

4. Reminders

Shortly after the expiration of **18 months** from the priority date, the international application will be published by the International Bureau. If the applicant wishes to avoid or postpone publication, a notice of withdrawal of the international application, or of the priority claim, must reach the International Bureau as provided in Rules 90bis.1 and 90bis.3, respectively, before the completion of the technical preparations for international publication.

The applicant may submit comments on an informal basis on the written opinion of the International Searching Authority to the International Bureau. The International Bureau will send a copy of such comments to all designated Offices unless an international preliminary examination report has been or is to be established. These comments would also be made available to the public but not before the expiration of 30 months from the priority date.

Within **19 months** from the priority date, but only in respect of some designated Offices, a demand for international preliminary examination must be filed if the applicant wishes to postpone the entry into the national phase **until 30 months** from the priority date (in some Offices even later); otherwise, the applicant must, **within 20 months** from the priority date, perform the prescribed acts for entry into the national phase before those designated Offices.

In respect of other designated Offices, the time limit of **30 months** (or later) will apply even if no demand is filed within 19 months.

See the Annex to Form PCT/IB/301 and, for details about the applicable time limits, Office by Office, see the *PCT Applicant's Guide*, Volume II, National Chapters and the WIPO Internet site.

<p>Name and mailing address of the ISA/US Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450 Facsimile No. 571-273-3201</p>	<p>Authorized officer: Blaine R. Copenheaver Telephone No. 571-272-7774</p>
--	---

Form PCT/ISA/220 (January 2004)

(See notes on accompanying sheet)

PATENT COOPERATION TREATY

From the INTERNATIONAL SEARCHING AUTHORITY

To: JMB, FACTOR & CO.
P.O. BOX 45087
PARK CENTER HAR HOTZVIM
91450 JERUSALEM
ISRAEL

PCT

NOTIFICATION OF TRANSMITTAL OF
THE INTERNATIONAL SEARCH REPORT AND
THE WRITTEN OPINION OF THE INTERNATIONAL
SEARCHING AUTHORITY, OR THE DECLARATION

(PCT Rule 44.1)

Applicant's or agent's file reference POW1052-54.2	Date of mailing <i>(day/month/year)</i> 12 FEB 2009
International application No. PCT/IL2008/001348	International filing date <i>(day/month/year)</i> 12 October 2008
Applicant POWERMAT LTD.	

1. ☒ The applicant is hereby notified that the international search report and the written opinion of the International Searching Authority have been established and are transmitted herewith.

Filing of amendments and statement under Article 19:
 The applicant is entitled, if he so wishes, to amend the claims of the international application (see Rule 46):

When? The time limit for filing such amendments is normally two months from the date of transmittal of the international search report.

Where? Directly to the International Bureau of WIPO, 34 chemin des Colombettes
 1211 Geneva 20, Switzerland, Facsimile No.: +41 22 338 82 70

For more detailed instructions, see the notes on the accompanying sheet.

2. ☐ The applicant is hereby notified that no international search report will be established and that the declaration under Article 17(2)(a) to that effect and the written opinion of the International Searching Authority are transmitted herewith.

3. ☐ **With regard to the protest** against payment of (an) additional fee(s) under Rule 40.2, the applicant is notified that:

☐ the protest together with the decision thereon has been transmitted to the International Bureau together with the applicant's request to forward the texts of both the protest and the decision thereon to the designated Offices.

☐ no decision has been made yet on the protest; the applicant will be notified as soon as a decision is made.

4. **Reminders**

Shortly after the expiration of **18 months** from the priority date, the international application will be published by the International Bureau. If the applicant wishes to avoid or postpone publication, a notice of withdrawal of the international application, or of the priority claim, must reach the International Bureau as provided in Rules 90bis.1 and 90bis.3, respectively, before the completion of the technical preparations for international publication.

The applicant may submit comments on an informal basis on the written opinion of the International Searching Authority to the International Bureau. The International Bureau will send a copy of such comments to all designated Offices unless an international preliminary examination report has been or is to be established. These comments would also be made available to the public but not before the expiration of 30 months from the priority date.

Within **19 months** from the priority date, but only in respect of some designated Offices, a demand for international preliminary examination must be filed if the applicant wishes to postpone the entry into the national phase **until 30 months** from the priority date (in some Offices even later); otherwise, the applicant must, **within 20 months** from the priority date, perform the prescribed acts for entry into the national phase before those designated Offices.

In respect of other designated Offices, the time limit of **30 months** (or later) will apply even if no demand is filed within 19 months.

See the Annex to Form PCT/IB/301 and, for details about the applicable time limits, Office by Office, see the *PCT Applicant's Guide*, Volume II, National Chapters and the WIPO Internet site.

Name and mailing address of the ISA/US Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450 Facsimile No. 571-273-3201	Authorized officer: Blaine R. Copenheaver Telephone No. 571-272-7774
---	--

Form PCT/ISA/220 (January 2004)

(See notes on accompanying sheet)

PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference POW1052-54.2	FOR FURTHER ACTION		see Form PCT/ISA/220 as well as, where applicable, item 5 below.
International application No. PCT/IL2008/001348	International filing date (day/month/year) 12 October 2008	(Earliest) Priority Date (day/month/year) 09 October 2007	
Applicant POWERMAT LTD.			

This international search report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This international search report consists of a total of 2 sheets.

☐ It is also accompanied by a copy of each prior art document cited in this report.

1. Basis of the report

a. With regard to the **language**, the international search was carried out on the basis of:

- ☒ the international application in the language in which it was filed
☐ a translation of the international application into _____, which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1(b))

b. ☐ With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, see Box No. I.

2. ☐ **Certain claims were found unsearchable** (see Box No. II)

3. ☐ **Unity of invention is lacking** (see Box No. III)

4. With regard to the **title**,

- ☒ the text is approved as submitted by the applicant
☐ the text has been established by this Authority to read as follows:

5. With regard to the **abstract**,

- ☒ the text is approved as submitted by the applicant
☐ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority

6. With regard to the **drawings**,

a. the figure of the **drawings** to be published with the abstract is Figure No. 5

- ☒ as suggested by the applicant
☐ as selected by this Authority, because the applicant failed to suggest a figure
☐ as selected by this Authority, because this figure better characterizes the invention

b. ☐ none of the figures is to be published with the abstract

INTERNATIONAL SEARCH REPORT

International application No.

PCT/IL2008/001348

A. CLASSIFICATION OF SUBJECT MATTER

IPC(8) - H01M 10/46 (2009.01)

USPC - 320/108

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC(8) - H01M 10/46 (2009.01)

USPC - 320/108

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

PatBase, Google Patent.

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 7,180,265 B2 (NASKALI et al) 20 February 2007 (20.02.2007) entire document	1-5, 10-18, 20-26
Y		6-9, 19
Y	US 6,586,909 B1 (TREPKA) 01 July 2003 (01.07.2003) entire document	6, 8, 9, 19
Y	US 5,762,250 A (CARLTON et al) 09 June 1998 (09.06.1998) entire document	7
Y	US 6,211,649 B1 (MATSUDA) 03 April 2001 (03.04.2001) entire document	8, 9

☐ Further documents are listed in the continuation of Box C. ☐

* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family

Date of the actual completion of the international search

28 January 2009

Date of mailing of the international search report

12 FEB 2009

Name and mailing address of the ISA/US

Mail Stop PCT, Attn: ISA/US, Commissioner for Patents

P.O. Box 1450, Alexandria, Virginia 22313-1450

Facsimile No. 571-273-3201

Authorized officer:

Blaine R. Copenheaver

PCT Helpdesk: 571-272-4300

PCT OSP: 571-272-7774

Form PCT/ISA/210 (second sheet) (April 2005)

PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

To: JMB, FACTOR & CO.
P.O. BOX 45087
PARK CENTER HAR HOTZVIM
91450 JERUSALEM
ISRAEL

PCT

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43bis.1)

Date of mailing (day/month/year) **12 FEB 2009**

Applicant's or agent's file reference
POW1052-54.2

FOR FURTHER ACTION

See paragraph 2 below

International application No.
PCT/IL2008/001348

International filing date (day/month/year)
12 October 2008

Priority date (day/month/year)
09 October 2007

International Patent Classification (IPC) or both national classification and IPC
IPC(8) - H01M 10/46 (2009.01)
USPC - 320/108

Applicant POWERMAT LTD.

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

2. **FURTHER ACTION**

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA/US Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450 Facsimile No. 571-273-3201	Date of completion of this opinion <p style="text-align: center;">28 January 2009</p>	Authorized officer: <p style="text-align: center;">Blaine Copenheaver</p> <p style="font-size: small;">PCT Helpdesk: 571-272-4300 PCT OSP: 571-272-7774</p>
---	--	--

Form PCT/ISA/237 (cover sheet) (April 2007)

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/IL2008/001348

Box No. I Basis of this opinion

1. With regard to the **language**, this opinion has been established on the basis of:
☒ the international application in the language in which it was filed.
☐ a translation of the international application into _____ which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1(b)).
2. ☐ This opinion has been established taking into account the **rectification of an obvious mistake** authorized by or notified to this Authority under Rule 91 (Rule 43*bis*.1(a))
3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, this opinion has been established on the basis of:
 - a. type of material
☐ a sequence listing
☐ table(s) related to the sequence listing
 - b. format of material
☐ on paper
☐ in electronic form
 - c. time of filing/furnishing
☐ contained in the international application as filed
☐ filed together with the international application in electronic form
☐ furnished subsequently to this Authority for the purposes of search
4. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table(s) relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
5. Additional comments:

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/IL2008/001348

Box No. V	Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement		
1. Statement			
Novelty (N)	Claims	6-9, 19	YES
	Claims	1-5, 10-18, 20-26	NO
Inventive step (IS)	Claims	None	YES
	Claims	1-26	NO
Industrial applicability (IA)	Claims	1-26	YES
	Claims	None	NO
2. Citations and explanations:			
<p>Claims 1-5, 10-18, and 20-26 lack novelty under PCT Article 33(2) as being anticipated by Naskali (hereinafter referred to as Naskali).</p> <p>Regarding claim 1, Naskali discloses a power providing system for an electrical device (col.1 Ins. 14-16), comprising: a secondary inductor (col.1 Ins. 48-60, fig.1 (secondary side coil 2)), wired to said electrical device (col.1 Ins. 39-41, fig.1 (wired to portable telephone 1)), for inductively coupling (electromagnetic induction coupling, col.1 Ins. 38-39) with a primary inductor hardwired to a power supply (col.1 Ins. 40-44, fig. 1, primary side coil 7 hardwired to battery 8), wherein said secondary inductor (col.1 Ins. 48-60, fig.1 (secondary side coil 2)) is incorporated into an accessory (col.1 Ins. 50-51, fig. 1, charger 3) of said electrical device (col.1 Ins.39-41, fig. 1, portable telephone 1).</p> <p>Regarding claim 26, Naskali discloses an inductive charger (col.2 Ins. 34-41) comprising at least one inductive coil (abstract), and at least one chargeable power pack (col.9 Ins. 54-60), said charger additionally comprising: at least one charging circuit (all the elements of Fig. 3 work together to form charging circuit) for connecting the inductive coil (fig. 3, secondary coil side 40) to the power pack (fig. 3, rechargeable battery 38) when the inductive coil (fig. 3, secondary coil side 40) is inductively coupled to a primary coil (fig. 1, primary side coil 26) wired to a power supply (fig. 3, rechargeable battery 38) for charging said power pack (col.5 Ins. 35-52); and at least one driving circuit connectable to said power pack for providing a varying electrical potential to said inductive coil (col.9 Ins. 42-44, driving circuit shown in FIG. 5 is adapted to control the flow of electricity either to the battery 70 from the coil 76, or from the battery 70 to the coil 76) such that said inductive coil (fig. 3, secondary coil side 40) is inductively coupleable to a secondary coil wired to an electrical load (col.5 Ins. 17-52, multiple portable devices 18 each with a secondary side coil 40).</p> <p>Regarding claim 2, Naskali discloses the power providing system shown in claim 1 and further the electrical device is selected from the group comprising: computers, mobile telephones, media players, PDAs, Walkman®s, portable CD players, Dictaphones, portable DVD players and mobile communications devices (fig.1 (portable telephone 1), col.1 Ins. 36-37).</p> <p>Regarding claim 3, Naskali discloses the power providing system shown in claim 1 and further the secondary inductor comprises an electrical connector (col.5 Ins. 1-5) for coupling to a power jack socket such that said secondary inductor is retrofittable to said electrical device (fig.12 element 124 (electrical connector), element 84 (contacts), col.11 Ins. 20-30).</p> <p>Regarding claim 4, Naskali discloses the power providing system shown in claim 3 and further the electrical connector being a hermaphrodite connector comprising: a male plug portion, for coupling with the power jack socket and a female socket portion for coupling to an external power source (claims 10, 11).</p> <p>Regarding claim 5, Naskali discloses the power providing system shown in claim 1 and further the electrical device comprises a removable power pack (fig.3 elements 38 (battery), col.8 Ins. 35-42), And further the power pack being connectable to said electrical device via contacts (claim 4), the secondary inductor comprising an electrical connector for coupling to said contacts (fig.4 element 66 (electrical connector)).</p> <p>Regarding claim 10, Naskali discloses the power providing system shown in claim 1, and further the electrical device further comprising an audio device having an external earphone unit (fig.15 element 162 (handset)), wherein the secondary inductor is incorporated into said earphone unit(col.12Ins. 15-30, fig.15).</p> <p>Regarding claim 11, Naskali discloses the power providing system shown in claim 10, and furthers the power providing system of the earphone unit comprising at least one inductive element for inductively coupling said primary inductor to secondary inductor (claim 12, col.13 Ins. 1-14).</p> <p>Regarding claim 12, Naskali discloses the power providing system shown in claim 11, and further the power providing system of the inductive element comprising the secondary inductor (col.1 Ins. 35-65, fig.1 element 2 (secondary side coil)).</p> <p>Regarding claim 13, Naskali discloses the power providing system shown in claim 11, and furthers the power providing system of the secondary inductor comprising a voice coil of at least one speaker of the earphone unit (col.12 Ins. 10-24).</p> <p>Regarding claim 14, Naskali discloses the power providing system shown in claim 11, and furthers the power providing system of the secondary inductor comprising at least one loop of wire (col.11 Ins. 15-35, fig.14 induction coil (146), electrical wires inside the wall (12)).</p>			

Form PCT/ISA/237 (Box No. V) (April 2007)

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/IL2008/001348

Supplemental Box

In case the space in any of the preceding boxes is not sufficient.

Continuation of:

Regarding claim 15, Naskali discloses the power providing system shown in claim 14, and further the power providing system wherein said at least one loop of wire is incorporated into a neck support strap for supporting the audio device (col.11 Ins. 25-32 (support loops), col.12 Ins. 15-40).

Regarding claim 16, Naskali discloses the power providing system shown in claim 14, and further the power providing system wherein the ends of at least one wire are connected together to produce said at least one loop of wire (col.11 Ins. 11-51).

Regarding claim 17, Naskali discloses the power providing system shown in claim 11, and further the power providing system wherein the inductive element comprises a ferromagnetic core extending through said secondary inductor and into said earphone unit for selectively coupling with said primary inductor (col.5 Ins. 5-35).

Regarding claim 18, Naskali discloses the power providing system shown in claim 1, and further the power providing system wherein the secondary inductor comprises at least one inductive coil (col.9 Ins. 35-40), said inductive coil being selectively connectable to: at least one charging circuit (col.9 Ins. 40-45) for connecting said inductive coil to a power pack via a rectifier (col.11 Ins. 15-35) for charging said power pack when said secondary inductor (col.11 Ins. 15-35, fig.14 induction coil (146), electrical wires inside the wall (12)), is inductively coupled to said primary inductor (col.1 Ins. 35-45, fig.10); and at least one driving circuit connectable to said power pack for providing a varying electrical potential to said inductive coil such that said inductive coil transfers power to an external inductor wired to an external electrical load. (col.9 Ins. 40-50, fig.3, 5).

Regarding claim 20, Naskali discloses the power providing system shown in claim 18, and further the power providing system additionally comprising a ferromagnetic core (col.5 Ins. 5-35), for guiding magnetic flux through said inductive coil when inductively coupled (col.5 Ins. 54-67).

Regarding claim 21, Naskali discloses the power providing system shown in claim 18, and further the power providing system wherein the driver comprises at least one switching unit for intermittently connecting said power pack to said inductive coil at high frequency (fig.5 element 72 (switch), col.9 Ins. 35-52).

Regarding claim 22, Naskali discloses the power providing system shown in claim 18, and further the power providing system additionally comprising a jack for conductively connecting said power pack to an external power source for charging purposes (fig.3 element 28, col.6 Ins. 40-55, col.3 Ins. 1-10,25-35), col.8 Ins. 40-50, claim 10, 11, fig.12 element 124 (electrical connector)).

Regarding claim 23, Naskali discloses the power providing system shown in claim 18, and further the power providing system additionally comprising a jack for conductively connecting said power pack to said external electrical load (fig.7 element 104 (plug), fig.10, element 82 (electrical connector)).

Regarding claim 24, Naskali discloses the power providing system shown in claim 18, and further a computer comprising the inductive coil (col.4 Ins. 45-60).

Regarding claim 25, Naskali discloses the power providing system shown in claim 18, and further the computer wherein the power pack powers the computer (col.4 Ins. 40-55).

Claims 6 and 19 lack an inventive step under PCT Article 33(3) as being obvious over Naskali in view of Trepka.

Regarding claim 6, Naskali discloses the power providing system shown in claim 1; Naskali lacks the explicit teaching of having the electrical device comprising an electrochemical cell, wherein the secondary inductor is connected to the electrochemical cell via a rectifier for charging said electrochemical cell.

Trepka discloses a parallel battery charging device (Title, abstract) and further the electrical device comprising an electrochemical cell, wherein the secondary inductor is connected to the electrochemical cell via a rectifier for charging said electrochemical cell (abstract, col.1 Ins. 5-23).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the power providing device of Naskali with using the electrochemical cells of Trepka in order to utilize oxygen from ambient air as a reactant in an electrochemical reaction (col.1 Ins. 60-67, Trepka).

Regarding claim 19, Naskali discloses the power providing system shown in claim 18, Naskali does not disclose that the power providing system wherein said power pack is selected from the group comprising: nickel-cadmium cells, nickel metal hydride cells, alkaline cells, flow batteries, rechargeable electrochemical cells and capacitors.

Trepka teaches that the power providing system wherein said power pack is selected from the group comprising: nickel-cadmium cells, nickel metal hydride cells, alkaline cells, flow batteries, rechargeable electrochemical cells and capacitors (col.4 Ins. 25-40).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the power providing device of Naskali with the battery charging device of Trepka in order to simultaneous charging for a multiple of batteries (col.1 Ins. 1-21, Trepka).

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/IL2008/001348

Supplemental Box

In case the space in any of the preceding boxes is not sufficient.

Continuation of:

Claim 7 lacks an inventive step under PCT Article 33(3) as being obvious over Naskali in view of Carlton et al. (hereinafter referred to as Carlton).

Regarding claim 7, Naskali discloses the power providing system shown in claim 1, and further the accessory is selected from the group comprising: straps for carrying said electrical device, neck support straps (col.10 lns. 15-25, fig.15 element 164 (wrist strap)), mobile dangles (fig.4 element 64), carrying handles (col.10 lns. 14-25, fig.4 element 60 (strap loop)) and an earphone units (fig.15 element 162 (handset), col.15 lns. 15-25). Naskali lacks to teach that the accessory is selected from the group comprising: a removable casings of said electrical device, carrying cases for transporting said electrical device, fashion-tags, skins for encasing said electrical device, stickers for adhering to said electrical device, belt clips, and ornamental pendants.

Carlton teaches a convertible carrying case and work platform for small electronic devices (Abstract), and further the power providing system of electrical device further comprising: a removable casings of said electrical device, removable casings of said electrical device (abstract (flexible top cover portion)), carrying cases for transporting said electrical device (Title, abstract, fig.1), fashion-tags (abstract), ornamental pendants, (col.13 lns. 50-60 "having other objects held accidentally to straps"), for encasing the electrical device, stickers for adhering to the electrical device skin (col.13 lns. 25-30 (external labels and tags), abstract (top cover portion)), beltclips (col.10 lns. 15-30 (attachment points)).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the charging device of Naskali with the carrying case of Carlton in order to provide a convertible carrying case and work platform (col.2 lns. 20-30, Carlton).

Claims 8 and 9 lack an inventive step under PCT Article 33(3) as being obvious over Naskali in view of Matsuda and in further view of Trepka.

Regarding claim 8, Naskali discloses the power providing system shown in claim 1, Naskali does not disclose that an electrochemical cell, wherein said accessory comprises a USB plug for coupling to a computer such that said electrochemical cell is selectable chargeable by power drawn from said computer.

Matsuda teaches a power providing system having a USB cable and method for charging battery of external apparatus by using a USB cable (title, abstract), and further comprising a USB plug for coupling to a computer (col.2 lns. 50-60, claim 1).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the charging device of Naskali with the USB cable of Matsuda in order to charge a battery of an external apparatus connected with the PC (col.1 lns. 5-12, Matsuda).

Trepka teaches an electrochemical cell (col.1 lns. 5-15), and further the electrochemical cell is selectable chargeable by power drawn from the computer (claims 18, 19).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the charging device of Naskali with the electrochemical cell of Trepka in order to have a simultaneous charging for a multiple of batteries (col.1 lns. 1-21, Trepka).

Regarding claim 9, Naskali discloses the power providing system shown in claim 8, Naskali does not disclose that the power providing system wherein the USB plug is wired to a data jack socket of said electrical device such that data is exchangeable between the computers and said mobile communication device.

Matsuda teaches a power providing system wherein the USB plug is wired to a data jack socket of said electrical device such that data is exchangeable between the computers and said mobile communication device (abstract).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the charging device of Naskali with the USB method of Matsuda in order to charge the battery of an external apparatus using the USB cable (col.2 lns. 1-5, Matsuda).

Claims 1-26 meet the criteria set out in PCT Article 33(4), and thus have industrial applicability because the subject matter claimed can be made or used in industry.

Electronic Acknowledgement Receipt	
EFS ID:	13827947
Application Number:	13306379
International Application Number:	
Confirmation Number:	3309
Title of Invention:	EFFICIENCY MONITOR FOR INDUCTIVE POWER TRANSMISSION
First Named Inventor/Applicant Name:	Yossi Azancot
Customer Number:	22045
Filer:	David S. Bir/Judy Noble
Filer Authorized By:	David S. Bir
Attorney Docket Number:	POWM 0106 PUSA1
Receipt Date:	25-SEP-2012
Filing Date:	29-NOV-2011
Time Stamp:	11:16:30
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	no
------------------------	----

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Foreign Reference	10025157.pdf	1087164 <small>cd28c5d7f6d37dbad989dc893bc2e3abfc5eb9c</small>	no	28

Warnings:

Information:

2	Non Patent Literature	1282PCTsearchreport.pdf	592678	no	9
			45d497ac68db8f2a86cb5b7bcc57671db6390da7		
Warnings:					
Information:					
3	Non Patent Literature	1347PCTsearchreport.pdf	686297	no	10
			8daa6d45dfce4f568bf7f1a4c350d861d60d4f63		
Warnings:					
Information:					
4	Non Patent Literature	1348PCTSearchReport.pdf	566718	no	9
			547a8fa134a14db1f5f02f5132bcecd8974f842f		
Warnings:					
Information:					
5	Non Patent Literature	AnAnalysis.pdf	691188	no	6
			c3843d826dfcf9d0705238acf4eef15c34416c44		
Warnings:					
Information:					
6	Non Patent Literature	ANewGeneration.pdf	1911803	no	8
			db875ee61391f78212f488b998aa330a6661aa84		
Warnings:					
Information:					
7	Non Patent Literature	EquivalentCircuitModeling.pdf	1199209	no	9
			8782b6a7afacc072092543c8cbb20de70e6a6231		
Warnings:					
Information:					
8	Non Patent Literature	EvalofShieldingEffects.pdf	2012281	no	9
			c1dbbf363f67590e6dfb6893365cfd520fa2f45b		
Warnings:					
Information:					
9	Non Patent Literature	ExtendedTheory.pdf	441620	no	7
			188f4ad9b325d05548ca086ce7f6b03aaaca7f35		
Warnings:					
Information:					
10	Non Patent Literature	OptimalDesign.pdf	1399660	no	9
			f4485927746a8a42722e7017284ac5ff6acdb8219		
Warnings:					
Information:					

11	Non Patent Literature	SimulationStudy.pdf	5790916 acfd766137bbe2d9cda01639da29baf6516 a7000	no	9
Warnings:					
Information:					
Total Files Size (in bytes):				16379534	
<p>This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.</p> <p><u>New Applications Under 35 U.S.C. 111</u> If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.</p> <p><u>National Stage of an International Application under 35 U.S.C. 371</u> If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.</p> <p><u>New International Application Filed with the USPTO as a Receiving Office</u> If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.</p>					

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

AZANCOT, YOSSI

Serial No.: 13/306379

Filed: November 29, 2011

For: EFFICIENCY MONITOR FOR INDUCTIVE POWER
TRANSMISSION

Group Art Unit: 2857

Examiner: TSAI, CAROL S. W.

Attorney Docket No.: POWM0106PUSA1

**AMENDMENT UNDER 37 C.F.R. § 1.111
AND PETITION FOR EXTENSION OF TIME
UNDER 37 C.F.R. § 1.136(a)**

Mail Stop Amendment
Commissioner for Patents
U.S. Patent and Trademark Office
P.O. Box 1450
Alexandria, VA 22313-1450

Commissioner:

Applicant hereby petitions for a two month extension of time to respond to the Office Action mailed August 29, 2012 thereby extending the time period within which to respond to January 29, 2013.

In response to the Office Action mailed August 29, 2012, please amend the above-identified application as follows:

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Original) An efficiency monitor for monitoring power transmission by an inductive power outlet, the inductive power outlet comprising at least one primary coil wired to a power supply, for inductively coupling with a secondary coil wired to an electric load, the efficiency monitor comprising:

at least one input power monitor for measuring input power delivered to the primary coil;

at least one output power monitor for measuring output power received by the secondary coil;

at least one processor for determining an index of power-loss; and

at least one communication channel for communicating the input power and the output power to the processor.

2. (Original) The efficiency monitor of claim 1 additionally comprising at least one circuit-breaker configured to disconnect the primary coil from the power supply.

3. (Original) The efficiency monitor of claim 1 wherein the input power monitor is incorporated into the inductive power outlet.

4. (Original) The efficiency monitor of claim 1 wherein the output power monitor is incorporated into an inductive power receiver unit.

5. (Original) The efficiency monitor of claim 4 wherein the inductive power receiver unit comprises at least one signal transmitter for transmitting a signal to a receiver incorporated in the power outlet, the signal carrying data pertaining to the output power.

6. (Original) The efficiency monitor of claim 5 wherein the signal transmitter is selected from a group consisting of: light emitting diodes, radio transmitters, optocouplers, and transmitter circuits.

7. (Original) The efficiency monitor of claim 5 wherein the transmitter comprises:

an ancillary load selectively connectable to the secondary inductive coil,
a modulator for modulating a bit-rate signal with an input signal to create a modulated signal, and
a switch for intermittently connecting the ancillary load to the secondary inductive coil according to the modulated signal.

8. (Original) The efficiency monitor of claim 1 additionally comprising hazard detectors in communication with the processor.

9. (Original) The efficiency monitor of claim 8 wherein the hazard detectors are selected from a group consisting of: magnetic sensors, heat sensors, electromagnetic radiation sensors and Hall probes.

10. (Currently amended) The efficiency monitor of claim 1 wherein the index of power-loss comprises at least one of:

an efficiency quotient Q , defined as the ratio of the output power to the input power, and

an efficiency differential Δ , defined as the difference between the output power and the input power.

11. (Original) A method for monitoring the efficiency of power transmission by an inductive power outlet, the inductive power outlet comprising at least one primary coil wired to a power supply, for inductively coupling with a secondary coil wired to an electric load, the method comprising the steps of:

measuring the input power delivered to the primary coil;
measuring the output power received by the secondary coil;
communicating the input power to a processor;
communicating the output power to the processor; and
the processor determining an index of power-loss.

12. (Original) The method of claim 11, wherein the index of power-loss is an efficiency quotient Q , being the ratio of the output power to the input power, the method comprising the further step of:

disconnecting the primary coil from the power supply if the efficiency quotient Q is below a threshold value.

13. (Original) The method of claim 11, wherein the index of power-loss is the efficiency differential Δ , being the difference between the output power to the input power, the method comprising the further step of:

disconnecting the primary coil from the power supply if the efficiency differential Δ is above a threshold value.

14. (Original) An inductive power outlet comprising at least one primary coil, for inductively coupling with a secondary coil wired to an electric load, the inductive power outlet further comprising an efficiency monitor comprising:

at least one input power monitor configured to measure input power delivered to the primary coil;

at least one signal detector configured to detect signals carrying data pertaining to output power received by the secondary coil;

at least one processor configured to receive data pertaining to the input power and the output power, the processor further configured to determine an index of power-loss.

15. (Original) The inductive power outlet of claim 14 additionally comprising at least one circuit-breaker configured to disconnect the primary coil from the power supply.

16. (Original) An inductive power receiver comprising at least one secondary coil for inductively coupling to a primary coil and supplying power to an electric load, the inductive power receiver further comprising

at least one output power monitor for measuring output power received by the secondary coil, and

at least one signal transmitter configured to transmit signals carrying data pertaining to the output power to an efficiency monitor.

17. (Original) The inductive power receiver of claim 16 wherein the signal transmitter is selected from a group consisting of: light emitting diodes, radio transmitters, optocouplers, and transmitter circuits.

18. (Original) The inductive power receiver of claim 16 wherein the transmitter comprises:

an ancillary load selectively connectable to the secondary inductive coil, a modulator for modulating a bit-rate signal with an input signal to create a modulated signal, and

a switch for intermittently connecting the ancillary load to the secondary inductive coil according to the modulated signal.

19. (Original) The inductive power receiver of claim 16 wherein the output power monitor is incorporated into an electric device.

20. (Original) The inductive power receiver of claim 19 wherein the electric device is selected from a group consisting of: computers, telephones, personal digital assistance (PDAs), cameras, media players, computers, keyboards.

Remarks

CLAIMS

In the Office Action mailed August 29, 2012, Claim 10 was rejected under 35 U.S.C. § 112, Claims 1-6, 10-17, 19 and 20 were rejected under 35 U.S.C. § 102(b) as being anticipated by Stevens et al. (US 7,605,496). Claims 8 and 9 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Stevens et al. (US 7,605,496) in view of Kook (US 7,791,312). Claims 7 and 18 were objected to as being dependent upon a rejected base claim.

Reconsideration and re-examination of the application as amended considering the following remarks is respectfully requested.

Rejections under 35 U.S.C. § 112

Claim 10, as originally presented, was rejected under 35 U.S.C. § 112 as it recited elements with insufficient antecedent basis. Claim 10 has been amended to correct a typographical error, specifically the term “the index of power” has been amended to read “the index of power-loss” to more particularly point out the claimed subject matter. The antecedent basis for the corrected term may be found in claim 1. The applicant respectfully requests that the examiner reconsider the amended claim 10.

Rejections under 35 U.S.C. § 102

As originally filed, claims 1-6, 10-17, 19 and 20 were rejected under 35 U.S.C. § 102(b) as being anticipated by Stevens et al. (US 7,605,496).

The applicants respectfully traverse this rejection for at least the reasons below.

In particular, independent Claim 1 of the current application, which was rejected under 35 U.S.C. § 102(b) as being anticipated by Stevens, recites:

An efficiency monitor for monitoring power transmission by an inductive power outlet, the inductive power outlet comprising at least one primary coil wired to a

power supply, for inductively coupling with a secondary coil wired to an electric load, the efficiency monitor comprising:

at least one input power monitor for measuring input power delivered to the primary coil;

*at least one **output power monitor for measuring output power received by the secondary coil;***

*at least one **processor for determining an index of power-loss;** and*

*at least one communication channel for communicating **the input power and the output power** to the processor.*

The applicant respectfully notes that at least the element “**output power monitor for measuring output power received by the secondary coil**” as recited in claim 1 of the current application, is not described by Stevens.

In contrast to Applicant’s claims, Stevens describes a power measurement unit 100 which measures the power drawn by an electrical drive unit 14 which is part of the primary unit 10.

The primary unit 10 in the FIG. 1 system also comprises a power measurement unit 100 connected to the control unit 16. The power measurement unit 100 performs a measurement of the electrical power drawn by the electrical drive unit 14, on receipt of a signal provided by the control unit 16. The power measurement unit 100 provides an output representative of the electrical power drawn by the electrical drive unit 14 to the control unit 16.

(Stevens column 12 lines 10-17)

Stevens explicitly notes that the power drawn by the electrical drive unit represents the power drawn by **all** the secondary devices plus other losses.

The power drawn by the electrical drive unit 14 is representative of the power drawn by the primary coil 12 and hence also the power drawn by all the secondary devices 30 plus other losses.

(Stevens column 12 lines 17-20)

The only element described by Stevens which may be considered a power monitor (which it is not) is the power measurement unit 100. As noted explicitly, this measures only power drawn by the electrical drive unit. Stevens does not describe any power monitor used to measure the output power received by a secondary coil wired to an electric load.

Moreover, the applicant respectfully notes that Stevens fails to describe a “processor for determining an index of power-loss” or a “communication channel for communicating **the input power and the output power** to the processor”, as recited in claim 1 of the current application.

Stevens does not describe a processor which compares a measured input power to a measured output power. Instead, Stevens describes a control unit 16 which compares measured power with a **predetermined** shutdown threshold and restricts the power supply accordingly.

*...the control unit 16 simply compares the measured power with a **predetermined shutdown threshold**. If the measured power exceeds the shutdown threshold value, the control unit 16 determines that the inductive power supply from the primary unit should be restricted or stopped.*

(Stevens column 12 lines 58-62)

Therefore, the applicant notes that Stevens does not describe an efficiency monitor comprising an input power monitor, an output power monitor, a processor and a communication channel as recited in claim 1 of the current application. Consequently, the applicant respectfully contests that Stevens does not anticipate the invention recited in claim 1 of the current application.

For at least the above reasons, the applicant respectfully requests allowance of Claim 1 as well as all of claims 2-6 and 8-10, which are dependent thereupon.

Regarding independent Claim 11 of the current application, which was rejected under 35 U.S.C. § 102(b) as being anticipated by Stevens, it is noted that Claim 11 recites:

A method for monitoring the efficiency of power transmission by an inductive power outlet, the inductive power outlet comprising at least one primary coil wired to a power supply, for inductively coupling with a secondary coil wired to an electric load, the method comprising the steps of:

- a. measuring the input power delivered to the primary coil;*
- b. **measuring the output power received by the secondary coil;***
- c. communicating the input power to a processor;*
- d. **communicating the output power to the processor; and***
- e. **the processor determining an index of power-loss.***

The applicant respectfully notes that Stevens does not describe any method including “*measuring the output power received by the secondary coil*”, “*communicating the output power to the processor*” or “*determining an index of power-loss*”.

As noted above, Stevens does not describe any power monitor used to measure the output power received by a secondary coil wired to an electric load. Accordingly, Stevens does not describe measuring output power or communicating output power to a processor. Consequently, no index of power-loss is determined.

Instead, Stevens in Fig. 11 describes a method in which a control unit 16 receives the **power requirement** of the device, not the output power of the secondary coil. This is subsequently used to determine whether to restrict or stop the primary unit:

*In step S23 the control unit 16 determines whether inductive power supply from the primary unit should be restricted or stopped in dependence upon the measured power in step S22 and the **power requirement information** received in step S21.*

(Stevens column 24 lines 51-55)

Consequently, the applicant respectfully contests that Stevens does not anticipate the invention recited in claim 11 of the current application.

For at least the above reasons, the applicant respectfully requests allowance of Claim 11 as well as all of claims 12 and 13, which are dependent thereupon.

Regarding independent claim 14 of the current application, which was rejected under 35 U.S.C. § 102(b) as being anticipated by Stevens, it is noted that Claim 14 recites:

An inductive power outlet comprising at least one primary coil, for inductively coupling with a secondary coil wired to an electric load, the inductive power outlet further comprising an efficiency monitor comprising:
at least one input power monitor configured to measure input power delivered to the primary coil;
*at least one signal detector configured to detect signals carrying data **pertaining to output power received by the secondary coil** ;*
*at least one processor configured to receive data pertaining to the input power and **the output power**, the processor further configured to **determine an index of power-loss**.*

The applicant respectfully notes that Stevens does not describe any inductive power outlet comprising a signal detector configured to detect signals carrying data pertaining to output power received by the secondary coil. Furthermore Stevens does not describe any processor configured to determine an index of power-loss.

As noted above, Stevens does not describe any power monitor used to measure the output power received by a secondary coil wired to an electric load. Accordingly, Stevens does not describe any signal detector configured to detect signals carrying data pertaining to output power received by the secondary coil. Similarly, Stevens does not describe any alternative way to determine an index of power-loss.

For at least the above reasons, the applicant respectfully requests allowance of Claim 14 as well as claim 15, which is dependent thereupon.

Regarding independent claim 16 of the current application, which was rejected under 35 U.S.C. § 102(b) as being anticipated by Stevens, it is noted that Claim 16 recites:

***An inductive power receiver** comprising at least one secondary coil for inductively coupling to a primary coil and supplying power to an electric load, the inductive power receiver further comprising*
*at least one **output power monitor** for measuring output power received by the secondary coil, and*
at least one signal transmitter configured to transmit signals carrying data pertaining to the output power to an efficiency monitor.

The applicant respectfully notes that Stevens does not describe any inductive power receiver comprising an output power monitor.

Stevens describes a secondary device 30 in Fig. 4 which is described in column 15 lines 55-66 as:

The secondary device 30 comprises a secondary coil 32, a rectifier 34, a secondary control unit 36, a dummy load switch 38, a dummy load 40, a load switch 42, a storage unit 44 and an actual load 46. The dummy load switch 38 and the load switch 42 may

each be an FET, for example. The dummy load 40 is, for example, a resistor. The storage unit 44 is a capacitor in this embodiment but an inductor could be used instead.

The actual load 46 is external to the secondary device 30 in this embodiment and is part of the host object. It could be a battery charge controller for a Lithium-ion cell .

There is also a detection unit 200 for detecting a modulation imposed on the received AC signal.

(Stevens column 15 lines 55-66)

It is noted that none of the elements described by Stevens as elements of the secondary unit 30 are operable to measure output power received by the secondary coil. Consequently, the applicant respectfully contests that Stevens does not anticipate the invention recited in claim 16 of the current application

For at least the above reasons, the applicant respectfully requests allowance of Claim 16 as well as all of claims 17, 19 and 20 which are dependent thereupon.

Rejections under 35 U.S.C. § 103

Claims 8 and 9 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Stevens et al. (US 7,605,496) in view of Kook (US 7,791,312). The applicant respectfully requests that the examiner reconsider these claims in view of amendments to claim 1 from which they depend.

For at least the above reasons, the applicant submits that all the pending claims are in proper form and now define patentability and novelty over the prior art relied upon by the examiner.

Summary

Applicant has made a genuine effort to respond to the Examiner's rejections and advance prosecution of this application. Applicant respectfully submits that all formal and substantive requirements for patentability have been met and that this case is in condition for allowance, which action is respectfully requested.

The Examiner is requested to telephone the undersigned to discuss resolution of any remaining issues that may be necessary to place this application in condition for allowance.

The Petition fee of \$285 (Small Entity) pursuant to 37 C.F.R. § 1.17(a) is being charged to our Deposit Account No. 02-3978 via electronic authorization submitted concurrently herewith. Please charge any fees or credit any overpayments as a result of the filing of this paper to our Deposit Account No. 02-3978.

Respectfully submitted,
AZANCOT, YOSHI

By: /David S. Bir/
David S. Bir
Reg. No. 38,383
Attorney/Agent for Applicant

Date: January 29, 2013

BROOKS KUSHMAN P.C.
1000 Town Center, 22nd Floor
Southfield, MI 48075-1238
Phone: 248-358-4400
Fax: 248-358-3351

Electronic Patent Application Fee Transmittal				
Application Number:		13306379		
Filing Date:		29-Nov-2011		
Title of Invention:		EFFICIENCY MONITOR FOR INDUCTIVE POWER TRANSMISSION		
First Named Inventor/Applicant Name:		Yossi Azancot		
Filer:		David S. Bir/Theresa Good		
Attorney Docket Number:		POWM 0106 PUSA1		
Filed as Small Entity				
Utility under 35 USC 111(a) Filing Fees				
Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Basic Filing:				
Pages:				
Claims:				
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				
Extension-of-Time:				
Extension - 2 months with \$0 paid	2252	1	285	285

Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Miscellaneous:				
Total in USD (\$)				285

Electronic Acknowledgement Receipt	
EFS ID:	14817801
Application Number:	13306379
International Application Number:	
Confirmation Number:	3309
Title of Invention:	EFFICIENCY MONITOR FOR INDUCTIVE POWER TRANSMISSION
First Named Inventor/Applicant Name:	Yossi Azancot
Customer Number:	22045
Filer:	David S. Bir
Filer Authorized By:	
Attorney Docket Number:	POWM 0106 PUSA1
Receipt Date:	29-JAN-2013
Filing Date:	29-NOV-2011
Time Stamp:	15:07:06
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	Deposit Account
Payment was successfully received in RAM	\$285
RAM confirmation Number	1695
Deposit Account	023978
Authorized User	
<p>The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows:</p> <p>Charge any Additional Fees required under 37 C.F.R. Section 1.16 (National application filing, search, and examination fees)</p> <p>Charge any Additional Fees required under 37 C.F.R. Section 1.17 (Patent application and reexamination processing fees)</p>	

File Listing:					
Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1		Response.pdf	427591 32c181abafabaab57c920463a64633a5b93a6f6a	yes	13
	Multipart Description/PDF files in .zip description				
	Document Description	Start	End		
	Amendment/Req. Reconsideration-After Non-Final Reject	1	1		
	Claims	2	5		
	Applicant Arguments/Remarks Made in an Amendment	6	13		
Warnings:					
Information:					
2	Fee Worksheet (SB06)	fee-info.pdf	30626 540c6872cba3053ce1c3c4318411d75d19f625db	no	2
Warnings:					
Information:					
Total Files Size (in bytes):			458217		
<p>This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.</p> <p><u>New Applications Under 35 U.S.C. 111</u> If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.</p> <p><u>National Stage of an International Application under 35 U.S.C. 371</u> If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.</p> <p><u>New International Application Filed with the USPTO as a Receiving Office</u> If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.</p>					

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

PATENT APPLICATION FEE DETERMINATION RECORD Substitute for Form PTO-875					Application or Docket Number 13/306,379		Filing Date 11/29/2011		☐ To be Mailed	
APPLICATION AS FILED – PART I										
(Column 1)			(Column 2)			SMALL ENTITY ☒ OR		OTHER THAN SMALL ENTITY		
FOR	NUMBER FILED	NUMBER EXTRA	RATE (\$)	FEE (\$)	OR	RATE (\$)	FEE (\$)			
☐ BASIC FEE (37 CFR 1.16(a), (b), or (c))	N/A	N/A	N/A			N/A				
☐ SEARCH FEE (37 CFR 1.16(k), (i), or (m))	N/A	N/A	N/A			N/A				
☐ EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A	N/A			N/A				
TOTAL CLAIMS (37 CFR 1.16(i))	minus 20 =	*	X \$ =		OR	X \$ =				
INDEPENDENT CLAIMS (37 CFR 1.16(h))	minus 3 =	*	X \$ =			X \$ =				
☐ APPLICATION SIZE FEE (37 CFR 1.16(s))	If the specification and drawings exceed 100 sheets of paper, the application size fee due is \$250 (\$125 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).									
☐ MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))										
* If the difference in column 1 is less than zero, enter "0" in column 2.			TOTAL			TOTAL				
APPLICATION AS AMENDED – PART II										
(Column 1)			(Column 2)			(Column 3)		SMALL ENTITY OR OTHER THAN SMALL ENTITY		
AMENDMENT	01/29/2013	CLAIMS REMAINING AFTER AMENDMENT	HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	RATE (\$)	ADDITIONAL FEE (\$)	OR	RATE (\$)	ADDITIONAL FEE (\$)	
	Total (37 CFR 1.16(i))	* 20	Minus	** 20	= 0	X \$31 =	0	OR	X \$ =	
	Independent (37 CFR 1.16(h))	* 4	Minus	***4	= 0	X \$125 =	0	OR	X \$ =	
	☐ Application Size Fee (37 CFR 1.16(s))									
	☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))									
					TOTAL ADD'L FEE	0	OR	TOTAL ADD'L FEE		
AMENDMENT	CLAIMS REMAINING AFTER AMENDMENT	HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	RATE (\$)	ADDITIONAL FEE (\$)	OR	RATE (\$)	ADDITIONAL FEE (\$)		
	Total (37 CFR 1.16(i))	*	Minus	**	=	X \$ =	OR	X \$ =		
	Independent (37 CFR 1.16(h))	*	Minus	***	=	X \$ =	OR	X \$ =		
	☐ Application Size Fee (37 CFR 1.16(s))									
	☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))									
					TOTAL ADD'L FEE		OR	TOTAL ADD'L FEE		
<p>* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.</p> <p>** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".</p> <p>*** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".</p> <p>The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1.</p>										

Legal Instrument Examiner:
/BRENDA 13522338 HINES/

This collection of information is required by 37 CFR 1.16. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
13/306,379	11/29/2011	INV001 Yossi Azancot	POWM 0106 PUSA1	3309
22045 7590 03/21/2013 BROOKS KUSHMAN P.C. 1000 TOWN CENTER TWENTY-SECOND FLOOR SOUTHFIELD, MI 48075			EXAMINER TSAL, CAROL S W	
			ART UNIT 2857	PAPER NUMBER
			MAIL DATE 03/21/2013	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	13/306,379	AZANCOT ET AL.	
	Examiner	Art Unit	
	CAROL TSAI	2857	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on 29 January 2013.

2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.

3) ☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on ____; the restriction requirement and election have been incorporated into this action.

4) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

5) ☒ Claim(s) 1-20 is/are pending in the application.

5a) Of the above claim(s) ____ is/are withdrawn from consideration.

6) ☐ Claim(s) ____ is/are allowed.

7) ☒ Claim(s) 1-6, 8-17, 19 and 20 is/are rejected.

8) ☒ Claim(s) 7 and 18 is/are objected to.

9) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

10) ☐ The specification is objected to by the Examiner.

11) ☒ The drawing(s) filed on 29 November 2011 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

12) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)	4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. ____.
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)	5) ☐ Notice of Informal Patent Application
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date ____.	6) ☐ Other: ____.

DETAILED ACTION

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-6, 10-17, 19, and 20 are rejected under 35 U.S.C. 102(e) as being anticipated by U. S. Patent No. 7,605,496 to Stevens et al.
3. With respect to claims 1, 11, 14, and 16, Stevens et al. disclose an efficiency monitor for monitoring power transmission by an inductive power outlet, the inductive power outlet comprising at least one primary coil wired to a power supply, for inductively coupling with a secondary coil wired to an electric load, the efficiency monitor comprising: at least one input power monitor (power measurement unit 100 shown on Fig. 4) for measuring input power delivered to the primary coil (primary coil 12 shown on Fig. 4) (see Fig. 4; col. 12, lines 10-18; and col. 14, lines 21-32); at least one output power monitor (detection unit 200 shown on Fig. 4) for measuring output power received by the secondary coil (secondary coil 32 shown on Fig. 4) (see Fig. 4;

Art Unit: 2857

Application /Control Number: 13/306,379

Art Unit: 2857

Abstract, lines 4-8; col. 3, lines 5-11; and col. 11, lines 57-63); at least one processor

(control unit 16 shown on Fig. 4) for determining an index of power-loss (see Abstract,

lines 8-12 and col. 12, line 50 to col. 13, line 7); and at least one communication

channel for communicating the input power and the output power to the processor (see

col. 4, lines 8-16).

4. As to claims 2, 12, 13, 15, and 17, Stevens et al. also disclose at least one circuit-breaker configured to disconnect the primary coil from the power supply (see col. 12, lines 57-62).

5. As to claim 3, Stevens et al. also disclose the input power monitor being incorporated into the inductive power outlet (see col. 7, line 58 to col. 8, line 2).

6. As to claim 4, Stevens et al. also disclose the output power monitor being incorporated into an inductive power receiver unit (see Abstract, lines 5-12).

7. As to claims 5 and 6, Stevens et al. do not disclose expressly at least one signal transmitter for transmitting a signal to a receiver incorporated in the power outlet, the signal carrying data pertaining to the output power.

8. It is, however, considered inherent that Stevens et al. include at least one signal transmitter for transmitting a signal to a receiver incorporated in the power outlet, the signal carrying data pertaining to the output power (see col. 4, lines 8-16 and col. 5, lines 37-46), because such element is known to be a necessary in order that each secondary device that is in the power-receiving state transmits power requirement information to the primary unit in the method of the second aspect, the or each said

Art Unit: 2857

Application /Control Number: 13/306,379

Art Unit: 2857

secondary device not having the power-requiring state may also transmit such power requirement information to the primary unit, if desired (see col. 5, lines 37-42).

9. As to claim 10, Stevens et al. also disclose the index of power comprises at least one of: an efficiency quotient Q , defined as the ratio of the output power to the input power, and an efficiency differential Δ , defined as the difference between the output power and the input power (see Abstract, lines 8-12).

10. As to claim 19, Stevens et al. also disclose the output power monitor being incorporated into an electric device (see col. 14, lines 16-18).

11. As to claim 20, Stevens et al. do not disclose expressly the electric device being selected from a group consisting of: computers, telephones, personal digital assistance (PDAs), cameras, media players, computers, keyboards and mice.

12. It is, however, considered inherent that Stevens et al.'s electric device is selected from a group consisting of: computers, telephones, personal digital assistance (PDAs), cameras, media players, computers, keyboards and mice (see col. 14, lines 16-18), because portable electrical or electronic device is known to include laptops, cellular phones, personal digital assistance (PDAs), cameras, media players, keyboards and mice.

Claim Rejections - 35 USC § 103

13. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and

Art Unit: 2857

Application /Control Number: 13/306,379

Art Unit: 2857

the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

14. Claims 8 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stevens et al. in view of U. S. Patent No. 7,791,312 to Kook.

15. As noted above, with respect to claims 8 and 9, Stevens et al. disclose the claimed invention, except for hazard detectors in communication with the processor.

16. Kook teaches hazard detectors in communication with the processor (see col. 13, lines 37-44).

17. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Stevens et al.'s system to include for hazard detectors in communication with the processor, as taught by Kook, in order to intercept the charging if the temperature exceeds the previously set temperature (see Kook, col. 13, lines 43-44).

Allowable Subject Matter

18. Claims 7 and 18 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

2. Applicant's arguments filed January 29, 2013 have been fully considered but they are not persuasive.

Art Unit: 2857

Application /Control Number: 13/306,379

Art Unit: 2857

3. Applicants argued that Stevens et al. do not describe any power monitor used to measure the output power received by a secondary coil wired to an electric load. The Examiner disagrees with Applicants. As set forth in the art rejection above, Stevens et al. do disclose measuring output power received by the secondary coil (see Fig. 4; Abstract, lines 4-8, **when the secondary device is in proximity to the primary unit so that power can be received inductively by the secondary device from the primary unit without direct electrical conductive contacts therebetween**; col. 3, lines 5-11, **when the secondary device is in proximity to the primary unit so that power can be received inductively by the secondary device from the primary unit without direct electrical conductive contacts therebetween**; col. 11, lines 57-63, **The secondary device 30 is separable from the primary unit 10 and has a secondary coil 32 which couples with the electromagnetic field generated by the primary unit 10 when the secondary device 30 is in proximity to the primary unit 10. In this way, power can be transferred inductively from the primary unit 10 to the secondary device 30 without direct electrical conductive contacts therebetween**). Therefore, Stevens et al. do disclose the claimed invention.

4. Applicants argued that Stevens fails to describe a "processor for determining an index of power-loss" or a "communication channel for communicating the input power and the output power to the processor" because Stevens describes a control unit 16 which compares measured power with a predetermined shutdown threshold and restricts the power supply accordingly instead of **comparing a measured input power to a measured output power by a processor**. The Examiner disagrees with

Art Unit: 2857

Application /Control Number: 13/306,379

Art Unit: 2857

Applicants. Even though Applicants have defined the index of power-loss as the difference between said output power and said input power in the Specification; however, Applicants do not include that definition in the claimed language. The examiner interprets the claimed language differently from Applicant. As set forth in the art rejection above, Stevens et al. do disclose at least one processor (control unit 16 shown on Fig. 4) for determining an index of power-loss (see Abstract, lines 8-12 and col. 12, line 50 to col. 13, line 7, **these losses include losses in the primary unit itself and/or any secondary devices/host objects present. These losses include inefficiencies in the primary coil itself and any other components associated with the primary coil such as the electrical drive unit, for example I^2R losses in the copper of the coil or effective series resistance of any resonating capacitor. The losses also include any magnetic losses in the primary unit and the secondary devices, for example magnetic is hysteretic loop losses in any coils associated with the primary unit and/or secondary devices**), and at least one communication channel for communicating the input power and the output power to the processor (see col. 4, lines 8-16; **any suitable communication method may be used to transmit the power requirement information from each secondary device to the primary unit. One preferred method for the or each secondary device to transmit its power requirement information to the primary unit is an RFID method. Alternatively, the or each secondary device may transmit its power requirement information to the primary unit by varying a load imposed by the secondary device on the primary unit**). Therefore, Stevens et al. do disclose the claimed invention.

Conclusion

1. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Contact Information

1. Any inquiry concerning this communication or earlier communications from the examiner should be directed to CAROL TSAI whose telephone number is (571)272-2224. The examiner can normally be reached on M-F(8:00-4:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew M. Schechter, can be reached on (571) 272-2302. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Application/Control Number: 13/306,379

Page 9

Art Unit: 2857

Application /Control Number: 13/306,379

Art Unit: 2857

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

March 18, 2013

Art Unit 2857

/Carol S Tsai/

Primary Examiner, Art Unit 2857

<i>Index of Claims</i> 	Application/Control No. 13306379	Applicant(s)/Patent Under Reexamination AZANCOT ET AL.
	Examiner CAROL TSAI	Art Unit 2857

✓	Rejected	-	Cancelled	N	Non-Elected	A	Appeal
=	Allowed	÷	Restricted	I	Interference	O	Objected

☐ Claims renumbered in the same order as presented by applicant
 ☐ CPA
 ☐ T.D.
 ☐ R.1.47

CLAIM		DATE									
Final	Original	08/22/2012	03/18/2013								
	1	✓	✓								
	2	✓	✓								
	3	✓	✓								
	4	✓	✓								
	5	✓	✓								
	6	✓	✓								
	7	O	O								
	8	✓	✓								
	9	✓	✓								
	10	✓	✓								
	11	✓	✓								
	12	✓	✓								
	13	✓	✓								
	14	✓	✓								
	15	✓	✓								
	16	✓	✓								
	17	✓	✓								
	18	O	O								
	19	✓	✓								
	20	✓	✓								



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
13/306,379	11/29/2011	Yossi Azancot	POWM0106PUSA1	3309
22045 7590 05/24/2013 BROOKS KUSHMAN P.C. 1000 TOWN CENTER TWENTY-SECOND FLOOR SOUTHFIELD, MI 48075			EXAMINER TSAI, CAROL S W	
			ART UNIT 2857	PAPER NUMBER
			MAIL DATE 05/24/2013	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

<i>Applicant-Initiated Interview Summary</i>	Application No.	Applicant(s)	
	13/306,379	AZANCOT ET AL.	
	Examiner	Art Unit	
	CAROL S. W. TSAI	2857	

All participants (applicant, applicant's representative, PTO personnel):

(1) CAROL S. W. TSAI, examiner. (3) _____.

(2) Kenichi Hartman, attorney for applicant. (4) _____.

Date of Interview: 21 May 2013.

Type: ☒ Telephonic ☐ Video Conference
 ☐ Personal [copy given to: ☐ applicant ☐ applicant's representative]

Exhibit shown or demonstration conducted: ☐ Yes ☒ No.
 If Yes, brief description: _____.

Issues Discussed ☐101 ☐112 ☒102 ☐103 ☐Others
 (For each of the checked box(es) above, please describe below the issue and detailed description of the discussion)

Claim(s) discussed: 1 and 16.

Identification of prior art discussed: U. S. Patent No. 7,605,496.

Substance of Interview
 (For each issue discussed, provide a detailed description and indicate if agreement was reached. Some topics may include: identification or clarification of a reference or a portion thereof, claim interpretation, proposed amendments, arguments of any applied references etc...)

Mr. Hartman argued that Stevens et al. do not disclose at least one output power monitor for measuring output power received by the secondary coil. Examiner disagreed with Applicant after she paid more attention to claimed language and Fig. 5. Examiner suggested Mr. Hartman to file an Official Amendment including all arguments in written form in response to the Final Rejection mailed on March 21, 2013 in order that examiner can have more time to consider the application..

Applicant recordation instructions: The formal written reply to the last Office action must include the substance of the interview. (See MPEP section 713.04). If a reply to the last Office action has already been filed, applicant is given a non-extendable period of the longer of one month or thirty days from this interview date, or the mailing date of this interview summary form, whichever is later, to file a statement of the substance of the interview

Examiner recordation instructions: Examiners must summarize the substance of any interview of record. A complete and proper recordation of the substance of an interview should include the items listed in MPEP 713.04 for complete and proper recordation including the identification of the general thrust of each argument or issue discussed, a general indication of any other pertinent matters discussed regarding patentability and the general results or outcome of the interview, to include an indication as to whether or not agreement was reached on the issues raised.

☐ Attachment

/CAROL S. W. TSAI/ Primary Examiner, Art Unit 2857	
---	--

Summary of Record of Interview Requirements

Manual of Patent Examining Procedure (MPEP), Section 713.04, Substance of Interview Must be Made of Record

A complete written statement as to the substance of any face-to-face, video conference, or telephone interview with regard to an application must be made of record in the application whether or not an agreement with the examiner was reached at the interview.

Title 37 Code of Federal Regulations (CFR) § 1.133 Interviews

Paragraph (b)

In every instance where reconsideration is requested in view of an interview with an examiner, a complete written statement of the reasons presented at the interview as warranting favorable action must be filed by the applicant. An interview does not remove the necessity for reply to Office action as specified in §§ 1.111, 1.135. (35 U.S.C. 132)

37 CFR §1.2 Business to be transacted in writing.

All business with the Patent or Trademark Office should be transacted in writing. The personal attendance of applicants or their attorneys or agents at the Patent and Trademark Office is unnecessary. The action of the Patent and Trademark Office will be based exclusively on the written record in the Office. No attention will be paid to any alleged oral promise, stipulation, or understanding in relation to which there is disagreement or doubt.

The action of the Patent and Trademark Office cannot be based exclusively on the written record in the Office if that record is itself incomplete through the failure to record the substance of interviews.

It is the responsibility of the applicant or the attorney or agent to make the substance of an interview of record in the application file, unless the examiner indicates he or she will do so. It is the examiner's responsibility to see that such a record is made and to correct material inaccuracies which bear directly on the question of patentability.

Examiners must complete an Interview Summary Form for each interview held where a matter of substance has been discussed during the interview by checking the appropriate boxes and filling in the blanks. Discussions regarding only procedural matters, directed solely to restriction requirements for which interview recordation is otherwise provided for in Section 812.01 of the Manual of Patent Examining Procedure, or pointing out typographical errors or unreadable script in Office actions or the like, are excluded from the interview recordation procedures below. Where the substance of an interview is completely recorded in an Examiners Amendment, no separate Interview Summary Record is required.

The Interview Summary Form shall be given an appropriate Paper No., placed in the right hand portion of the file, and listed on the "Contents" section of the file wrapper. In a personal interview, a duplicate of the Form is given to the applicant (or attorney or agent) at the conclusion of the interview. In the case of a telephone or video-conference interview, the copy is mailed to the applicant's correspondence address either with or prior to the next official communication. If additional correspondence from the examiner is not likely before an allowance or if other circumstances dictate, the Form should be mailed promptly after the interview rather than with the next official communication.

The Form provides for recordation of the following information:

- Application Number (Series Code and Serial Number)
- Name of applicant
- Name of examiner
- Date of interview
- Type of interview (telephonic, video-conference, or personal)
- Name of participant(s) (applicant, attorney or agent, examiner, other PTO personnel, etc.)
- An indication whether or not an exhibit was shown or a demonstration conducted
- An identification of the specific prior art discussed
- An indication whether an agreement was reached and if so, a description of the general nature of the agreement (may be by attachment of a copy of amendments or claims agreed as being allowable). Note: Agreement as to allowability is tentative and does not restrict further action by the examiner to the contrary.
- The signature of the examiner who conducted the interview (if Form is not an attachment to a signed Office action)

It is desirable that the examiner orally remind the applicant of his or her obligation to record the substance of the interview of each case. It should be noted, however, that the Interview Summary Form will not normally be considered a complete and proper recordation of the interview unless it includes, or is supplemented by the applicant or the examiner to include, all of the applicable items required below concerning the substance of the interview.

A complete and proper recordation of the substance of any interview should include at least the following applicable items:

- 1) A brief description of the nature of any exhibit shown or any demonstration conducted,
- 2) an identification of the claims discussed,
- 3) an identification of the specific prior art discussed,
- 4) an identification of the principal proposed amendments of a substantive nature discussed, unless these are already described on the Interview Summary Form completed by the Examiner,
- 5) a brief identification of the general thrust of the principal arguments presented to the examiner,
(The identification of arguments need not be lengthy or elaborate. A verbatim or highly detailed description of the arguments is not required. The identification of the arguments is sufficient if the general nature or thrust of the principal arguments made to the examiner can be understood in the context of the application file. Of course, the applicant may desire to emphasize and fully describe those arguments which he or she feels were or might be persuasive to the examiner.)
- 6) a general indication of any other pertinent matters discussed, and
- 7) if appropriate, the general results or outcome of the interview unless already described in the Interview Summary Form completed by the examiner.

Examiners are expected to carefully review the applicant's record of the substance of an interview. If the record is not complete and accurate, the examiner will give the applicant an extendable one month time period to correct the record.

Examiner to Check for Accuracy

If the claims are allowable for other reasons of record, the examiner should send a letter setting forth the examiner's version of the statement attributed to him or her. If the record is complete and accurate, the examiner should place the indication, "Interview Record OK" on the paper recording the substance of the interview along with the date and the examiner's initials.



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
13/306,379	11/29/2011	Yossi Azancot	POWM0106PUSA1	3309
22045 7590 06/14/2013 BROOKS KUSHMAN P.C. 1000 TOWN CENTER TWENTY-SECOND FLOOR SOUTHFIELD, MI 48075			EXAMINER TSAI, CAROL S W	
			ART UNIT 2857	PAPER NUMBER
			MAIL DATE 06/14/2013	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Applicant-Initiated Interview Summary	Application No.	Applicant(s)	
	13/306,379	AZANCOT ET AL.	
	Examiner	Art Unit	
	ANDREW SCHECHTER	2857	

All participants (applicant, applicant's representative, PTO personnel):

(1) Andrew Schechter. (3) ____.

(2) Kenichi Hartman, Reg. No. 68,766. (4) ____.

Date of Interview: 12 June 2013.

Type: ☒ Telephonic ☐ Video Conference
☐ Personal [copy given to: ☐ applicant ☐ applicant's representative]

Exhibit shown or demonstration conducted: ☐ Yes ☒ No.
If Yes, brief description: ____.

Issues Discussed ☐101 ☐112 ☒102 ☒103 ☐Others
(For each of the checked box(es) above, please describe below the issue and detailed description of the discussion)

Claim(s) discussed: 1.

Identification of prior art discussed: Stevens.

Substance of Interview
(For each issue discussed, provide a detailed description and indicate if agreement was reached. Some topics may include: identification or clarification of a reference or a portion thereof, claim interpretation, proposed amendments, arguments of any applied references etc...)

The examiner conveyed to the applicant's representative claim language suggestions from examiner Carol Tsai which she believes would improve the clarity of the claimed invention. In particular, replacing "delivered to the primary coil" in lines 5-6 with "received by the primary coil from a power supply"; replacing "output power received by the secondary coil" in lines 7-8 with "inductive output power received by the secondary coil from the primary coil"; and including the limitations of claim 10 in claim 1, with a clarification that the efficiency quotient Q and efficiency differential delta are indicative of the efficiency of the inductive coupling. Differences between the Stevens reference and the applicant's invention were discussed. As the application remains after a Final rejection, the examiner will await a formal response from the applicant.

Applicant recordation instructions: The formal written reply to the last Office action must include the substance of the interview. (See MPEP section 713.04). If a reply to the last Office action has already been filed, applicant is given a non-extendable period of the longer of one month or thirty days from this interview date, or the mailing date of this interview summary form, whichever is later, to file a statement of the substance of the interview

Examiner recordation instructions: Examiners must summarize the substance of any interview of record. A complete and proper recordation of the substance of an interview should include the items listed in MPEP 713.04 for complete and proper recordation including the identification of the general thrust of each argument or issue discussed, a general indication of any other pertinent matters discussed regarding patentability and the general results or outcome of the interview, to include an indication as to whether or not agreement was reached on the issues raised.

☐ Attachment

	/Andrew Schechter/ Supervisory Patent Examiner, Art Unit 2857
--	--

Summary of Record of Interview Requirements

Manual of Patent Examining Procedure (MPEP), Section 713.04, Substance of Interview Must be Made of Record

A complete written statement as to the substance of any face-to-face, video conference, or telephone interview with regard to an application must be made of record in the application whether or not an agreement with the examiner was reached at the interview.

Title 37 Code of Federal Regulations (CFR) § 1.133 Interviews

Paragraph (b)

In every instance where reconsideration is requested in view of an interview with an examiner, a complete written statement of the reasons presented at the interview as warranting favorable action must be filed by the applicant. An interview does not remove the necessity for reply to Office action as specified in §§ 1.111, 1.135. (35 U.S.C. 132)

37 CFR §1.2 Business to be transacted in writing.

All business with the Patent or Trademark Office should be transacted in writing. The personal attendance of applicants or their attorneys or agents at the Patent and Trademark Office is unnecessary. The action of the Patent and Trademark Office will be based exclusively on the written record in the Office. No attention will be paid to any alleged oral promise, stipulation, or understanding in relation to which there is disagreement or doubt.

The action of the Patent and Trademark Office cannot be based exclusively on the written record in the Office if that record is itself incomplete through the failure to record the substance of interviews.

It is the responsibility of the applicant or the attorney or agent to make the substance of an interview of record in the application file, unless the examiner indicates he or she will do so. It is the examiner's responsibility to see that such a record is made and to correct material inaccuracies which bear directly on the question of patentability.

Examiners must complete an Interview Summary Form for each interview held where a matter of substance has been discussed during the interview by checking the appropriate boxes and filling in the blanks. Discussions regarding only procedural matters, directed solely to restriction requirements for which interview recordation is otherwise provided for in Section 812.01 of the Manual of Patent Examining Procedure, or pointing out typographical errors or unreadable script in Office actions or the like, are excluded from the interview recordation procedures below. Where the substance of an interview is completely recorded in an Examiners Amendment, no separate Interview Summary Record is required.

The Interview Summary Form shall be given an appropriate Paper No., placed in the right hand portion of the file, and listed on the "Contents" section of the file wrapper. In a personal interview, a duplicate of the Form is given to the applicant (or attorney or agent) at the conclusion of the interview. In the case of a telephone or video-conference interview, the copy is mailed to the applicant's correspondence address either with or prior to the next official communication. If additional correspondence from the examiner is not likely before an allowance or if other circumstances dictate, the Form should be mailed promptly after the interview rather than with the next official communication.

The Form provides for recordation of the following information:

- Application Number (Series Code and Serial Number)
- Name of applicant
- Name of examiner
- Date of interview
- Type of interview (telephonic, video-conference, or personal)
- Name of participant(s) (applicant, attorney or agent, examiner, other PTO personnel, etc.)
- An indication whether or not an exhibit was shown or a demonstration conducted
- An identification of the specific prior art discussed
- An indication whether an agreement was reached and if so, a description of the general nature of the agreement (may be by attachment of a copy of amendments or claims agreed as being allowable). Note: Agreement as to allowability is tentative and does not restrict further action by the examiner to the contrary.
- The signature of the examiner who conducted the interview (if Form is not an attachment to a signed Office action)

It is desirable that the examiner orally remind the applicant of his or her obligation to record the substance of the interview of each case. It should be noted, however, that the Interview Summary Form will not normally be considered a complete and proper recordation of the interview unless it includes, or is supplemented by the applicant or the examiner to include, all of the applicable items required below concerning the substance of the interview.

A complete and proper recordation of the substance of any interview should include at least the following applicable items:

- 1) A brief description of the nature of any exhibit shown or any demonstration conducted,
- 2) an identification of the claims discussed,
- 3) an identification of the specific prior art discussed,
- 4) an identification of the principal proposed amendments of a substantive nature discussed, unless these are already described on the Interview Summary Form completed by the Examiner,
- 5) a brief identification of the general thrust of the principal arguments presented to the examiner,
(The identification of arguments need not be lengthy or elaborate. A verbatim or highly detailed description of the arguments is not required. The identification of the arguments is sufficient if the general nature or thrust of the principal arguments made to the examiner can be understood in the context of the application file. Of course, the applicant may desire to emphasize and fully describe those arguments which he or she feels were or might be persuasive to the examiner.)
- 6) a general indication of any other pertinent matters discussed, and
- 7) if appropriate, the general results or outcome of the interview unless already described in the Interview Summary Form completed by the examiner.

Examiners are expected to carefully review the applicant's record of the substance of an interview. If the record is not complete and accurate, the examiner will give the applicant an extendable one month time period to correct the record.

Examiner to Check for Accuracy

If the claims are allowable for other reasons of record, the examiner should send a letter setting forth the examiner's version of the statement attributed to him or her. If the record is complete and accurate, the examiner should place the indication, "Interview Record OK" on the paper recording the substance of the interview along with the date and the examiner's initials.

CERTIFICATION AND REQUEST FOR CONSIDERATION UNDER THE AFTER FINAL CONSIDERATION PILOT PROGRAM 2.0		
Practitioner Docket No.: POWM0106PUSA1	Application No.: 13/306,379	Filing Date: November 29, 2011
First Named Inventor: Yossi Azancot et al.	Title: EFFICIENCY MONITOR FOR INDUCTIVE POWER TRANSMISSION	
<p>APPLICANT HEREBY CERTIFIES THE FOLLOWING AND REQUESTS CONSIDERATION UNDER THE AFTER FINAL CONSIDERATION PILOT PROGRAM 2.0 (AFCP 2.0) OF THE ACCOMPANYING RESPONSE UNDER 37 CFR 1.116.</p> <ol style="list-style-type: none"> 1. The above-identified application is (i) an original utility, plant, or design nonprovisional application filed under 35 U.S.C. 111(a) [a continuing application (<i>e.g.</i>, a continuation or divisional application) is filed under 35 U.S.C. 111(a) and is eligible under (i)], or (ii) an international application that has entered the national stage in compliance with 35 U.S.C. 371(c). 2. The above-identified application contains an outstanding final rejection. 3. Submitted herewith is a response under 37 CFR 1.116 to the outstanding final rejection. The response includes an amendment to at least one independent claim, and the amendment does not broaden the scope of the independent claim in any aspect. 4. This certification and request for consideration under AFCP 2.0 is the only AFCP 2.0 certification and request filed in response to the outstanding final rejection. 5. Applicant is willing and available to participate in any interview requested by the examiner concerning the present response. 6. This certification and request is being filed electronically using the Office's electronic filing system (EFS-Web). 7. Any fees that would be necessary consistent with current practice concerning responses after final rejection under 37 CFR 1.116, <i>e.g.</i>, extension of time fees, are being concurrently filed herewith. [There is no additional fee required to request consideration under AFCP 2.0.] 8. By filing this certification and request, applicant acknowledges the following: <ul style="list-style-type: none"> • Reissue applications and reexamination proceedings are not eligible to participate in AFCP 2.0. • The examiner will verify that the AFCP 2.0 submission is compliant, <i>i.e.</i>, that the requirements of the program have been met (see items 1 to 7 above). For compliant submissions: <ul style="list-style-type: none"> ○ The examiner will review the response under 37 CFR 1.116 to determine if additional search and/or consideration (i) is necessitated by the amendment and (ii) could be completed within the time allotted under AFCP 2.0. If additional search and/or consideration is required but cannot be completed within the allotted time, the examiner will process the submission consistent with current practice concerning responses after final rejection under 37 CFR 1.116, <i>e.g.</i>, by mailing an advisory action. ○ If the examiner determines that the amendment does not necessitate additional search and/or consideration, or if the examiner determines that additional search and/or consideration is required and could be completed within the allotted time, then the examiner will consider whether the amendment places the application in condition for allowance (after completing the additional search and/or consideration, if required). If the examiner determines that the amendment does not place the application in condition for allowance, then the examiner will contact the applicant and request an interview. <ul style="list-style-type: none"> ▪ The interview will be conducted by the examiner, and if the examiner does not have negotiation authority, a primary examiner and/or supervisory patent examiner will also participate. ▪ If the applicant declines the interview, or if the interview cannot be scheduled within ten (10) calendar days from the date that the examiner first contacts the applicant, then the examiner will proceed consistent with current practice concerning responses after final rejection under 37 CFR 1.116. 		
Signature /David S. Bir/	Date 2013-06-19	
Name (Print/Typed) David S. Bir	Practitioner Registration No. 38383	
<p>Note: This form must be signed in accordance with 37 CFR 1.33. See 37 CFR 1.4(d) for signature requirements and certifications. Submit multiple forms if more than one signature is required, see below*.</p>		
<p>☐ * Total of _____ forms are submitted.</p>		

Privacy Act Statement

The **Privacy Act of 1974 (P.L. 93-579)** requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C. 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether disclosure of these records is required by the Freedom of Information Act.
2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (*i.e.*, GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspection or an issued patent.
9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

YOSSI AZANCOT et al.

Serial No.: 13/306,379

Filed: November 29, 2011

For: EFFICIENCY MONITOR FOR INDUCTIVE POWER
TRANSMISSION

Group Art Unit: 2857

Examiner: CAROL S. W. TSAI

Attorney Docket No.: POWM0106PUSA1

AMENDMENT UNDER 37 C.F.R. § 1.116 FOR CONSIDERATION
UNDER AFTER FINAL PILOT PROGRAM 2.0

Mail Stop AF
Commissioner for Patents
U.S. Patent and Trademark Office
P.O. Box 1450
Alexandria, VA 22313-1450

Commissioner:

In response to the Final Office Action mailed March 21, 2013, please consider this amendment and remarks under the After Final Consideration Pilot Program 2.0. Applicant submits herewith form PTO/SB/434.

Please amend the above-identified application as follows:

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) An efficiency monitor for monitoring power transmission by an inductive power outlet, the inductive power outlet comprising at least one primary coil wired to a power supply, for inductively coupling with a secondary coil wired to an electric load, the efficiency monitor comprising:

at least one input power monitor for measuring input power received by the primary coil from the power supply ~~delivered to the primary coil~~;

at least one output power monitor for measuring output power received inductively by the secondary coil from the primary coil;

at least one processor for determining an index of power-loss indicative of the efficiency of an inductive coupling between the primary coil and the secondary coil; and

at least one communication channel for communicating the input power and the output power to the processor

wherein the index of power-loss comprises at least one of:

an efficiency quotient Q , defined as the ratio of the output power to the input power, and

an efficiency differential Δ , defined as the difference between the output power and the input power.

2. (Original) The efficiency monitor of claim 1 additionally comprising at least one circuit-breaker configured to disconnect the primary coil from the power supply.

3. (Original) The efficiency monitor of claim 1 wherein the input power monitor is incorporated into the inductive power outlet.

4. (Original) The efficiency monitor of claim 1 wherein the output power monitor is incorporated into an inductive power receiver unit.

5. (Original) The efficiency monitor of claim 4 wherein the inductive power receiver unit comprises at least one signal transmitter for transmitting a signal to a receiver incorporated in the power outlet, the signal carrying data pertaining to the output power.

6. (Original) The efficiency monitor of claim 5 wherein the signal transmitter is selected from a group consisting of: light emitting diodes, radio transmitters, optocouplers, and transmitter circuits.

7. (Original) The efficiency monitor of claim 5 wherein the transmitter comprises:

an ancillary load selectively connectable to the secondary inductive coil,
a modulator for modulating a bit-rate signal with an input signal to create a modulated signal, and
a switch for intermittently connecting the ancillary load to the secondary inductive coil according to the modulated signal.

8. (Original) The efficiency monitor of claim 1 additionally comprising hazard detectors in communication with the processor.

9. (Original) The efficiency monitor of claim 8 wherein the hazard detectors are selected from a group consisting of: magnetic sensors, heat sensors, electromagnetic radiation sensors and Hall probes.

10. (Canceled)

11. (Currently Amended) A method for monitoring the efficiency of power transmission by an inductive power outlet, the inductive power outlet comprising at least one primary coil wired to a power supply, for inductively coupling with a secondary coil wired to an electric load, the method comprising the steps of:

measuring the input power ~~delivered to the primary coil~~ received by the primary coil from the power supply;

measuring the output power received inductively by the secondary coil from the primary coil;

communicating the input power to a processor;

communicating the output power to the processor; and

the processor determining an index of power-loss indicative of the efficiency of an inductive coupling between the primary coil and the secondary coil;

wherein the index of power-loss comprises at least one of:

an efficiency quotient Q , defined as the ratio of the output power to the input power; and

an efficiency differential Δ , defined as the difference between the output power and the input power.

12. (Currently Amended) The method of claim 11, wherein the index of power-loss is ~~an the efficiency quotient Q , being the ratio of the output power to the input power~~, the method comprising the further step of:

disconnecting the primary coil from the power supply if the efficiency quotient Q is below a threshold value.

13. (Currently Amended) The method of claim 11, wherein the index of power-loss is the efficiency differential Δ , ~~being the difference between the output power to the input power~~, the method comprising the further step of:

disconnecting the primary coil from the power supply if the efficiency differential Δ is above a threshold value.

14. (Currently Amended) An inductive power outlet comprising at least one primary coil, for inductively coupling with a secondary coil wired to an electric load, the inductive power outlet further comprising an efficiency monitor comprising:

at least one input power monitor configured to measure input power received by the primary coil from the power supply delivered to the primary coil;

at least one signal detector configured to detect signals carrying data pertaining to output power received by the secondary coil;

at least one processor configured to receive data pertaining to the input power and the output power, the processor further configured to determine an index of power-loss indicative of the efficiency of an inductive coupling between the primary coil and the secondary coil;

wherein the index of power-loss comprises at least one of:

an efficiency quotient Q , defined as the ratio of the output power to the input power; and

an efficiency differential Δ , defined as the difference between the output power and the input power.

15. (Original) The inductive power outlet of claim 14 additionally comprising at least one circuit-breaker configured to disconnect the primary coil from the power supply.

16. (Currently Amended) An inductive power receiver comprising at least one secondary coil for inductively coupling to a primary coil and supplying power to an electric load, the inductive power receiver further comprising

at least one output power monitor for measuring output power received inductively by the secondary coil from the primary coil, and

at least one signal transmitter configured to transmit signals carrying data pertaining to the output power to ~~an efficiency monitor~~ the inductive power outlet of claim 14.

17. (Original) The inductive power receiver of claim 16 wherein the signal transmitter is selected from a group consisting of: light emitting diodes, radio transmitters, optocouplers, and transmitter circuits.

18. (Original) The inductive power receiver of claim 16 wherein the transmitter comprises:

an ancillary load selectively connectable to the secondary inductive coil, a modulator for modulating a bit-rate signal with an input signal to create a modulated signal, and

a switch for intermittently connecting the ancillary load to the secondary inductive coil according to the modulated signal.

19. (Original) The inductive power receiver of claim 16 wherein the output power monitor is incorporated into an electric device.

20. (Currently Amended) The inductive power receiver of claim 19 wherein the electric device is selected from a group consisting of: computers, telephones, personal digital assistance (PDAs), cameras, media players, computers, keyboards and mice.

Remarks

Interview Summaries

Applicants thank the Examiner for the courtesies extended during the May 24, 2013 telephonic interview (and for preparing the May 24, 2013 Applicant Initiated Interview Summary). Examiner Tsai, Kenichi Hartman (USPTO Registration number 68,766) and Michael Morris participated and discussed independent claim 1 in light of U.S. Patent 7,605,496 (“Stevens”), as well as concerns raised by Examiner Tsai regarding the language of claim 1. No agreement was reached.

Applicants thank the Examiner, as well as Supervisor Schechter, for the courtesies extended during the June 12, 2012 telephonic interview (and for preparing the June 14, 2013 Applicant Initiated Interview Summary). Supervisor Schechter, Kenichi Hartman and Michael Morris participated and discussed applicants’ proposed amendment of independent claim 1 as well as concerns raised by Examiner Tsai during the May 24, 2013 telephonic interview regarding the language of claim 1. Supervisor Schechter further provided additional amendments suggested by Examiner Tsai, which she believes would improve the clarity of the claimed invention. In particular, Examiner Tsai suggested (1) replacing “delivered to the primary coil” with “received by the primary coil from a power supply”; (2) replacing “output power received by the secondary coil” with “inductive output power received by the secondary coil from the primary coil”; and (3) including the limitations of claim 10 in claim 1, with a clarification that the efficiency quotient Q and efficiency differential Δ are indicative of the efficiency of the inductive coupling. The participants also discussed differences between applicants’ invention and Stevens.

Claim amendments

Applicants have amended claim 1, 11 and 14 to incorporate subject matter from claim 10, to recite: “wherein the index of power-loss comprises at least one of: an efficiency quotient Q , defined as the ratio of the output power to the input power; and an efficiency differential Δ , defined as the difference between the output power and the input power.”

Applicants have amended claims 1, 11 and 14 to recite “an index of power-loss indicative of the efficiency of an inductive coupling between the primary coil and the secondary coil”, following the suggestions of the Examiner (and communicated to applicants by Supervisor Schechter during the June 12, 2012 telephonic interview and the June 14, 2013 Applicant Initiated Interview Summary).

Applicants have amended claim 1, 11 and 14 to recite: “input power received by the primary coil from the power supply”, following the suggestions of the Examiner (and communicated to applicants by Supervisor Schechter during the June 12, 2012 telephonic interview and the June 14, 2013 Applicant Initiated Interview Summary).

Applicants have amended claim 1, 11 and 16 to recite: “output power received inductively by the secondary coil from the primary coil”, following the suggestions of the Examiner (and communicated to applicants by Supervisor Schechter during the June 12, 2012 telephonic interview and the June 14, 2013 Applicant Initiated Interview Summary).

Applicants have amended claims 12 and 13 to remove language rendered redundant in light of the amendments of claim 11, from which claims 12 and 13 depend.

Applicants have amended claim 16 to recite “at least one signal transmitter configured to transmit signals carrying data pertaining to the output power to the inductive power outlet of claim 14.”

Applicants have added no new matter.

Applicants have canceled claim 10, as it was rendered redundant in light of the amendments of claim 1, from which claim 10 depended.

Applicants reserve the right to pursue any canceled subject matter in this or another application.

With the amendments, claims 1-9 and 11-20 are pending.

Rejections

35 U.S.C. § 102

Claims 1-6, 10-17, 19 and 20 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Stevens et al. (US 7,605,496; “Stevens”). The Examiner reiterated the reasons for rejection given previously in the August 29, 2012 Office Action.

Further, the Examiner states that applicant’s arguments filed January 29, 2013 have been fully considered but that they are not persuasive.

The Examiner disagrees with Applicants’ argument that Stevens does not describe any power monitor used to measure the power received by a secondary coil wired to an electric load. The Examiner contends that Stevens refers to measuring output power received by a secondary coil, pointing to Figure 4 and Abstract, lines 4-8 (*when the secondary device is in proximity to the primary unit so that power can be received inductively by the secondary device from the primary unit without direct electrical conductive contacts there between*); column 3, lines 5-11 (*when the secondary device is in proximity to the primary unit so that power can be received inductively by the secondary device from the primary unit without direct electrical conductive contacts therebetween*); column 11, lines 57-63 (*the secondary device 30 is separable from the primary unit 10 and has a secondary coil 32 which couples with the electromagnetic field generated by the primary unit 10 when the secondary device 30 is in proximity to the primary unit 10. In this way, power can be transferred inductively from the primary unit 10 the secondary device 30 without direct electrical conductive contacts therebetween*). The Examiner concludes, based on the above, that Stevens refers to the claimed invention.

The Examiner also disagrees with Applicants’ argument that Stevens fails to describe a “processor for determining an index of power loss” because Stevens refers to a control unit 16 which compared measured power with a predetermined shutdown threshold and restricts the power supply accordingly instead of comparing a measured input power to a measured output power by a processor. The Examiner contends that even though Applicants have defined the index of power loss as the difference between said output power and said input power in the Specification, Applicants do not include that definition in the claimed language, and that the Examiner interprets the claimed language differently from Applicant. The Examiner states that

Stevens does disclose at least one processor (at Figure 4, control unit 16) for determining an index of power loss (allegedly at Abstract, lines 8-12 and column 12, line 50 to column 13, line 7: *“these losses include losses in the primary unit itself and/o any secondary devices/host objects present. These losses include inefficiencies in the primary coil itself and any other components associated with the primary coil such as the electrical drive unit, for example I^2R losses in the copper of the coil or effective series resistance or any resonating capacitor. The losses also include any magnetic losses in the primary unit and the secondary devices, for example magnetic is hysteretic loop losses in any coils associated with the primary unit and or secondary devices”*).

The Examiner further maintains that Stevens refers to at least one communication channel for communicating the input power and the output power to the processor (allegedly at column 4, lines 8-16: *“any suitable communication method may be used to transmit the power requirement information from each secondary device to the primary unit. One preferred method for the or each secondary device to transmit its power requirement information to the primary unit is an RFID method. Alternatively, the or each secondary device may transmit its’ power requirement information to the primary unit by varying a load imposed by the secondary device on the primary unit.*

The Examiner concludes, based on the above, that Stevens does refer to the claimed invention.

Applicants traverse.

Applicants respectfully disagree with the Examiner’s assertion that Stevens refers to measuring output power received by a secondary coil. It does not. The sections of Stevens quoted by the Examiner (i.e., the Abstract, lines 4-8; column 3, lines 5-11, column 11, lines 57-63) merely refer to the inductive coupling, and the resulting transfer of power, between a primary inductor and a secondary inductor. The selections (as well as Stevens in general) lack any reference to the claimed output power monitor.

Further, and more importantly, the Examiner appears to acknowledge that the claimed invention may be distinguishable from Stevens. In response to applicants’ argument that Stevens fails to refer to a processor (e.g., in claim 1) that is operable to compare a measured input power to a measured output power, the Examiner responded as follows: “Applicants have defined the

index of power-loss as the difference between said output power and said input power in the Specification; however, Applicants do not include that definition in the claimed language. The examiner interprets the claimed language differently from Applicant.” Applicants respectfully disagree with the Examiner’s contention that the language of the claims fail to define the “index of power loss” in a way that would distinguish the pending claims from Stevens. However, in order to expedite prosecution, and following the Examiner’s suggestions (communicated to applicants by Supervisor Schechter during the June 12, 2012 telephonic interview and the June 14, 2013 Applicant Initiated Interview Summary) , applicants have amended independent claims 1, 11 and 14 to more explicitly define the claimed “index of power loss” within the claims: As amended, claims 1, 11 and 14 refers to a “processor for determining an index of power-loss indicative of the efficiency of the inductive coupling between the primary coil and the secondary coil ... wherein the index of power-loss comprises at least one of: an efficiency quotient Q , defined as the ratio of said output power to said input power, and an efficiency differential Δ , defined as the difference between said output power and said input power.” These amendments further clarify the failure of Stevens to anticipate the claimed invention.

For at least these reasons, independent claims 1, 11 and 14 (as well as claims 2-7, 12, 13 and 15 that depend therefrom, are novel over Stevens. Further, claim 16 refers to claim 14, and as such, claim 16 (as well as claims 17, 19 and 20 that depend therefrom) are also novel over Stevens.

Applicants respectfully request that the Examiner reconsider and withdraw the anticipation rejection.

35 U.S.C. § 103

Claims 8 and 9 stand rejected under 35 U.S.C. § 103(a) as being obvious over Stevens in view of Kook (US 7,791,312). The Examiner has reiterated the reasons given previously in the August 29, 2012 Office Action.

The applicants respectfully request that the examiner reconsider and withdraw the obviousness rejection in view of amendments to claim 1 from which claim 8 and 9 depend and the above arguments with respect to the novelty of claim 1 over Stevens.

Summary

Applicants have made a genuine effort to respond to the Examiner's rejections and advance prosecution of this application. Applicants respectfully submit that all formal and substantive requirements for patentability have been met and that this case is in condition for allowance, which action is respectfully requested. Further, applicants request consideration under the after final consideration pilot program 2.0. As such, a completed Form PTO/SB/434 is submitted herewith.

The Examiner is requested to telephone the undersigned to discuss resolution of any remaining issues.

No additional fee is believed be due as a result of filing this paper. However, please charge any fees or credit any overpayments as a result of the filing of this paper to Deposit Account No. 02-3978.

Respectfully submitted,
YOSSI AZANCOT et al.

By /David S. Bir/
David S. Bir
Reg. No. 38,383
Attorney/Agent for Applicants

Date: June 19, 2013

BROOKS KUSHMAN P.C.
1000 Town Center, 22nd Floor
Southfield, MI 48075-1238
Phone: 248-358-4400
Fax: 248-358-3351

Electronic Acknowledgement Receipt	
EFS ID:	16082550
Application Number:	13306379
International Application Number:	
Confirmation Number:	3309
Title of Invention:	EFFICIENCY MONITOR FOR INDUCTIVE POWER TRANSMISSION
First Named Inventor/Applicant Name:	Yossi Azancot
Customer Number:	22045
Filer:	David S. Bir/Theresa Good
Filer Authorized By:	David S. Bir
Attorney Docket Number:	POWM0106PUSA1
Receipt Date:	19-JUN-2013
Filing Date:	29-NOV-2011
Time Stamp:	13:53:12
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	no
------------------------	----

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	After Final Consideration Program Request	sb0434.pdf	226386 7bc76207de4bb39fd1d1361abaf8679d6a592b59	no	2

Warnings:

Information:

2		Response.pdf	297762 7d0cb0dd8a252d57ad020ab66274b73a1e6868f6	yes	12
	Multipart Description/PDF files in .zip description				
	Document Description		Start	End	
	Amendment After Final		1	1	
	Claims		2	6	
	Applicant Arguments/Remarks Made in an Amendment		7	12	
Warnings:					
Information:					
Total Files Size (in bytes):			524148		
<p>This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.</p> <p><u>New Applications Under 35 U.S.C. 111</u> If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.</p> <p><u>National Stage of an International Application under 35 U.S.C. 371</u> If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.</p> <p><u>New International Application Filed with the USPTO as a Receiving Office</u> If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.</p>					

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

PATENT APPLICATION FEE DETERMINATION RECORD Substitute for Form PTO-875				Application or Docket Number 13/306,379		Filing Date 11/29/2011		☐ To be Mailed	
ENTITY: ☐ LARGE ☒ SMALL ☐ MICRO									
APPLICATION AS FILED – PART I									
(Column 1)			(Column 2)						
FOR		NUMBER FILED	NUMBER EXTRA		RATE (\$)		FEE (\$)		
☐ BASIC FEE (37 CFR 1.16(a), (b), or (c))		N/A	N/A		N/A				
☐ SEARCH FEE (37 CFR 1.16(k), (i), or (m))		N/A	N/A		N/A				
☐ EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))		N/A	N/A		N/A				
TOTAL CLAIMS (37 CFR 1.16(i))		20 minus 20 =	* 0		x \$30 =		0		
INDEPENDENT CLAIMS (37 CFR 1.16(h))		4 minus 3 =	* 1		x \$125 =		125		
☐ APPLICATION SIZE FEE (37 CFR 1.16(s))		If the specification and drawings exceed 100 sheets of paper, the application size fee due is \$310 (\$155 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).							
☐ MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))									
* If the difference in column 1 is less than zero, enter "0" in column 2.					TOTAL		125		
APPLICATION AS AMENDED – PART II									
(Column 1)			(Column 2)		(Column 3)				
AMENDMENT	06/19/2013		CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	RATE (\$)		ADDITIONAL FEE (\$)
	Total (37 CFR 1.16(i))		* 19	Minus	** 20	= 0	x \$40 =		0
	Independent (37 CFR 1.16(h))		* 4	Minus	*** 4	= 0	x \$210 =		0
	☐ Application Size Fee (37 CFR 1.16(s))								
	☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))								
							TOTAL ADD'L FEE		0
(Column 1)			(Column 2)		(Column 3)				
AMENDMENT			CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	RATE (\$)		ADDITIONAL FEE (\$)
	Total (37 CFR 1.16(i))		*	Minus	**	=	x \$ =		
	Independent (37 CFR 1.16(h))		*	Minus	***	=	x \$ =		
	☐ Application Size Fee (37 CFR 1.16(s))								
	☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))								
							TOTAL ADD'L FEE		
<p>* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.</p> <p>** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".</p> <p>*** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".</p> <p>The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1.</p>									

LIE
/GERALDINE STANLEY/

This collection of information is required by 37 CFR 1.16. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

Doc code: IDS

Doc description: Information Disclosure Statement (IDS) Filed

PTO/SB/08a (01-10)

Approved for use through 07/31/2012. OMB 0651-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)	Application Number		13306379	
	Filing Date		2011-11-29	
	First Named Inventor	YOSSI AZANCOT		
	Art Unit			
	Examiner Name			
	Attorney Docket Number		POWM0106PUSA1	

U.S. PATENTS							Remove	
Examiner Initial*	Cite No	Patent Number	Kind Code ¹	Issue Date	Name of Patentee or Applicant of cited Document	Pages, Columns, Lines where Relevant Passages or Relevant Figures Appear		
	1							
If you wish to add additional U.S. Patent citation information please click the Add button.							Add	
U.S. PATENT APPLICATION PUBLICATIONS							Remove	
Examiner Initial*	Cite No	Publication Number	Kind Code ¹	Publication Date	Name of Patentee or Applicant of cited Document	Pages, Columns, Lines where Relevant Passages or Relevant Figures Appear		
	1	20050189910	A1	2005-09-01	HUI			
	2	20070103110	A1	2007-05-10	SAGOO			
If you wish to add additional U.S. Published Application citation information please click the Add button.							Add	
FOREIGN PATENT DOCUMENTS							Remove	
Examiner Initial*	Cite No	Foreign Document Number ³	Country Code ² j	Kind Code ⁴	Publication Date	Name of Patentee or Applicant of cited Document	Pages, Columns, Lines where Relevant Passages or Relevant Figures Appear	T ⁵
	1	2005041281	WO	A1	2005-05-06	NORTHROP GRUMMAN CORPORATION		☐
	2	2001-309579	JP		2001-11-02	MATSUSHITA ELECTRIC WORKS LTD		☐

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)	Application Number		13306379	
	Filing Date		2011-11-29	
	First Named Inventor	YOSSI AZANCOT		
	Art Unit			
	Examiner Name			
	Attorney Docket Number		POWM0106PUSA1	

	3	2007-529110	JP		2007-10-18	THALES UK PLC		☐
	4	07-039078	JP		1995-02-07	TOSHIBA CORP		☐
	5	2005-006440	JP		2005-01-06	SEIKO EPSON CORP		☐
	6	2005-110412	JP		2005-04-21	SHARP CORP		☐
	7	04-156242	JP		1992-05-28	SEKISUI CHEM CO LTD		☐
	8	2006-102055	JP		2006-04-20	CLEANUP CORP		☐
	9	07-036556	JP			UNKNOWN		☐

If you wish to add additional Foreign Patent Document citation information please click the Add button **Add**

NON-PATENT LITERATURE DOCUMENTS			Remove
Examiner Initials*	Cite No	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc), date, pages(s), volume-issue number(s), publisher, city and/or country where published.	T ⁵
	1	Office Action dated March 22, 2013, for Mexican Application MX/a/2011/003088	☐
	2	Office Action dated February 5, 2013, for Chinese Application 201110068458.7	☐

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)	Application Number		13306379
	Filing Date		2011-11-29
	First Named Inventor	YOSSI AZANCOT	
	Art Unit		
	Examiner Name		
	Attorney Docket Number		POWM0106PUSA1

	3	Office Action dated May 28, 2013, for Japanese Application 2010-526422	☐
	4	Office Action dated May 28, 2013, for Japanese Application 2010-528526	☐
	5	Office Action dated May 21, 2013, for Japanese Application 2011-500345	☐

If you wish to add additional non-patent literature document citation information please click the Add button **Add**

EXAMINER SIGNATURE

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through a citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ See Kind Codes of USPTO Patent Documents at www.USPTO.GOV or MPEP 901.04. ² Enter office that issued the document, by the two-letter code (WIPO Standard ST.3). ³ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁴ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁵ Applicant is to place a check mark here if English language translation is attached.

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)	Application Number	13306379
	Filing Date	2011-11-29
	First Named Inventor	YOSSI AZANCOT
	Art Unit	
	Examiner Name	
	Attorney Docket Number	POWM0106PUSA1

CERTIFICATION STATEMENT

Please see 37 CFR 1.97 and 1.98 to make the appropriate selection(s):

☐ That each item of information contained in the information disclosure statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(1).

OR

☐ That no item of information contained in the information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the person signing the certification after making reasonable inquiry, no item of information contained in the information disclosure statement was known to any individual designated in 37 CFR 1.56(c) more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(2).

☐ See attached certification statement.

☐ The fee set forth in 37 CFR 1.17 (p) has been submitted herewith.

☒ A certification statement is not submitted herewith.

SIGNATURE

A signature of the applicant or representative is required in accordance with CFR 1.33, 10.18. Please see CFR 1.4(d) for the form of the signature.

Signature	/David S. Bir/	Date (YYYY-MM-DD)	2013-08-01
Name/Print	David S. Bir	Registration Number	38383

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1 hour to complete, including gathering, preparing and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. **DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

Privacy Act Statement

The Privacy Act of 1974 (P.L. 93-579) requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C. 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether the Freedom of Information Act requires disclosure of these records.
2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspections or an issued patent.
9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

Electronic Acknowledgement Receipt	
EFS ID:	16478678
Application Number:	13306379
International Application Number:	
Confirmation Number:	3309
Title of Invention:	EFFICIENCY MONITOR FOR INDUCTIVE POWER TRANSMISSION
First Named Inventor/Applicant Name:	Yossi Azancot
Customer Number:	22045
Filer:	David S. Bir/Theresa Good
Filer Authorized By:	David S. Bir
Attorney Docket Number:	POWM0106PUSA1
Receipt Date:	02-AUG-2013
Filing Date:	29-NOV-2011
Time Stamp:	08:34:43
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	no
------------------------	----

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Information Disclosure Statement (IDS) Form (SB08)	updated_IDS.pdf	613180 db142d0f86d8b714cafbec45794ff76821846342	no	5

Warnings:

Information:

2	Foreign Reference	WO2005041281.pdf	1261584	no	26
			2b15a81bc1a82caa5d3aa47ed542dc4275a ab11e		
Warnings:					
Information:					
3	Foreign Reference	JP2001-309579.pdf	6230186	no	92
			738fc0499a8e8ac66146a017e8116a39ef7d e6e4		
Warnings:					
Information:					
4	Foreign Reference	JP2007-529110.pdf	3488123	no	49
			68daaa76c38fb806a94fbc670f284ccc8939 3b1		
Warnings:					
Information:					
5	Foreign Reference	H7-39078.pdf	2308128	no	36
			7792b83f5a7eff8829b58d9aaa125c2f67d1 c023		
Warnings:					
Information:					
6	Foreign Reference	JP2005-6440.pdf	1441680	no	27
			9f1ffc6ac655c4d2cbd4ba02cc67036d17b9 874		
Warnings:					
Information:					
7	Foreign Reference	JP2005-110412.pdf	2005043	no	33
			e207340ce5b0a0950eb3233f58b44550924 0d7f6		
Warnings:					
Information:					
8	Foreign Reference	H4-156242.pdf	43696	no	1
			5fa23b69fb769120a4740620a942a50f6815 4a8e		
Warnings:					
Information:					
9	Foreign Reference	JP2006-102055.pdf	951025	no	19
			a648813f2e56f306f703e03825c07381678a 5974		
Warnings:					
Information:					
10	Foreign Reference	UM-H7-36556.pdf	866012	no	22
			99902ee34b9485a4f94fd9214aabd6e05fef 728a		
Warnings:					
Information:					

11	Non Patent Literature	MX_OA_2013-03-22.pdf	384388 0e204c56e34631ec3b208cabb60b1d20588b30b3	no	3
Warnings:					
Information:					
12	Non Patent Literature	Chinese_OA_2013-02-05.pdf	84561 c3990338e2410afe001848159f35fb608780930	no	7
Warnings:					
Information:					
13	Non Patent Literature	JP_OA_2013-05-28.pdf	422816 61394b9b7f328b851dedfec8c95bd2f9a2c5cf07	no	10
Warnings:					
Information:					
14	Non Patent Literature	JP2010528526_OA-2013-05-28.pdf	378681 eeecd3fbc91179d296ff48eda7e71b9603410fc6b	no	8
Warnings:					
Information:					
15	Non Patent Literature	JP_OA_2013-05-21.pdf	393588 7aaac4a34c90415f4ff570d4ae2a211b0b666623	no	8
Warnings:					
Information:					
Total Files Size (in bytes):			20872691		
<p>This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.</p> <p><u>New Applications Under 35 U.S.C. 111</u> If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.</p> <p><u>National Stage of an International Application under 35 U.S.C. 371</u> If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.</p> <p><u>New International Application Filed with the USPTO as a Receiving Office</u> If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.</p>					



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
13/306,379	11/29/2011	Yossi Azancot	POWM0106PUSA1	3309
22045 7590 08/23/2013 BROOKS KUSHMAN P.C. 1000 TOWN CENTER TWENTY-SECOND FLOOR SOUTHFIELD, MI 48075			EXAMINER TSAI, CAROL S W	
			ART UNIT 2857	PAPER NUMBER
			MAIL DATE 08/23/2013	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Summary of Record of Interview Requirements

Manual of Patent Examining Procedure (MPEP), Section 713.04, Substance of Interview Must be Made of Record

A complete written statement as to the substance of any face-to-face, video conference, or telephone interview with regard to an application must be made of record in the application whether or not an agreement with the examiner was reached at the interview.

Title 37 Code of Federal Regulations (CFR) § 1.133 Interviews

Paragraph (b)

In every instance where reconsideration is requested in view of an interview with an examiner, a complete written statement of the reasons presented at the interview as warranting favorable action must be filed by the applicant. An interview does not remove the necessity for reply to Office action as specified in §§ 1.111, 1.135. (35 U.S.C. 132)

37 CFR §1.2 Business to be transacted in writing.

All business with the Patent or Trademark Office should be transacted in writing. The personal attendance of applicants or their attorneys or agents at the Patent and Trademark Office is unnecessary. The action of the Patent and Trademark Office will be based exclusively on the written record in the Office. No attention will be paid to any alleged oral promise, stipulation, or understanding in relation to which there is disagreement or doubt.

The action of the Patent and Trademark Office cannot be based exclusively on the written record in the Office if that record is itself incomplete through the failure to record the substance of interviews.

It is the responsibility of the applicant or the attorney or agent to make the substance of an interview of record in the application file, unless the examiner indicates he or she will do so. It is the examiner's responsibility to see that such a record is made and to correct material inaccuracies which bear directly on the question of patentability.

Examiners must complete an Interview Summary Form for each interview held where a matter of substance has been discussed during the interview by checking the appropriate boxes and filling in the blanks. Discussions regarding only procedural matters, directed solely to restriction requirements for which interview recordation is otherwise provided for in Section 812.01 of the Manual of Patent Examining Procedure, or pointing out typographical errors or unreadable script in Office actions or the like, are excluded from the interview recordation procedures below. Where the substance of an interview is completely recorded in an Examiners Amendment, no separate Interview Summary Record is required.

The Interview Summary Form shall be given an appropriate Paper No., placed in the right hand portion of the file, and listed on the "Contents" section of the file wrapper. In a personal interview, a duplicate of the Form is given to the applicant (or attorney or agent) at the conclusion of the interview. In the case of a telephone or video-conference interview, the copy is mailed to the applicant's correspondence address either with or prior to the next official communication. If additional correspondence from the examiner is not likely before an allowance or if other circumstances dictate, the Form should be mailed promptly after the interview rather than with the next official communication.

The Form provides for recordation of the following information:

- Application Number (Series Code and Serial Number)
- Name of applicant
- Name of examiner
- Date of interview
- Type of interview (telephonic, video-conference, or personal)
- Name of participant(s) (applicant, attorney or agent, examiner, other PTO personnel, etc.)
- An indication whether or not an exhibit was shown or a demonstration conducted
- An identification of the specific prior art discussed
- An indication whether an agreement was reached and if so, a description of the general nature of the agreement (may be by attachment of a copy of amendments or claims agreed as being allowable). Note: Agreement as to allowability is tentative and does not restrict further action by the examiner to the contrary.
- The signature of the examiner who conducted the interview (if Form is not an attachment to a signed Office action)

It is desirable that the examiner orally remind the applicant of his or her obligation to record the substance of the interview of each case. It should be noted, however, that the Interview Summary Form will not normally be considered a complete and proper recordation of the interview unless it includes, or is supplemented by the applicant or the examiner to include, all of the applicable items required below concerning the substance of the interview.

A complete and proper recordation of the substance of any interview should include at least the following applicable items:

- 1) A brief description of the nature of any exhibit shown or any demonstration conducted,
- 2) an identification of the claims discussed,
- 3) an identification of the specific prior art discussed,
- 4) an identification of the principal proposed amendments of a substantive nature discussed, unless these are already described on the Interview Summary Form completed by the Examiner,
- 5) a brief identification of the general thrust of the principal arguments presented to the examiner,
(The identification of arguments need not be lengthy or elaborate. A verbatim or highly detailed description of the arguments is not required. The identification of the arguments is sufficient if the general nature or thrust of the principal arguments made to the examiner can be understood in the context of the application file. Of course, the applicant may desire to emphasize and fully describe those arguments which he or she feels were or might be persuasive to the examiner.)
- 6) a general indication of any other pertinent matters discussed, and
- 7) if appropriate, the general results or outcome of the interview unless already described in the Interview Summary Form completed by the examiner.

Examiners are expected to carefully review the applicant's record of the substance of an interview. If the record is not complete and accurate, the examiner will give the applicant an extendable one month time period to correct the record.

Examiner to Check for Accuracy

If the claims are allowable for other reasons of record, the examiner should send a letter setting forth the examiner's version of the statement attributed to him or her. If the record is complete and accurate, the examiner should place the indication, "Interview Record OK" on the paper recording the substance of the interview along with the date and the examiner's initials.



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

NOTICE OF ALLOWANCE AND FEE(S) DUE

22045 7590 08/30/2013
BROOKS KUSHMAN P.C.
1000 TOWN CENTER
TWENTY-SECOND FLOOR
SOUTHFIELD, MI 48075

EXAMINER

TSAL, CAROL S W

ART UNIT

PAPER NUMBER

2857

DATE MAILED: 08/30/2013

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
13/306,379	11/29/2011	Yossi Azancot	POWM0106PUSA1	3309

TITLE OF INVENTION: EFFICIENCY MONITOR FOR INDUCTIVE POWER TRANSMISSION

APPLN. TYPE	ENTITY STATUS	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	SMALL	\$890	\$300	\$0	\$1190	12/02/2013

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

I. Review the ENTITY STATUS shown above. If the ENTITY STATUS is shown as SMALL or MICRO, verify whether entitlement to that entity status still applies.

If the ENTITY STATUS is the same as shown above, pay the TOTAL FEE(S) DUE shown above.

If the ENTITY STATUS is changed from that shown above, on PART B - FEE(S) TRANSMITTAL, complete section number 5 titled "Change in Entity Status (from status indicated above)".

For purposes of this notice, small entity fees are 1/2 the amount of undiscounted fees, and micro entity fees are 1/2 the amount of small entity fees.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PART B - FEE(S) TRANSMITTAL

**Complete and send this form, together with applicable fee(s), to: Mail Mail Stop ISSUE FEE
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450
or Fax (571)-273-2885**

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

22045 7590 08/30/2013
BROOKS KUSHMAN P.C.
1000 TOWN CENTER
TWENTY-SECOND FLOOR
SOUTHFIELD, MI 48075

Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

Certificate of Mailing or Transmission

I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO (571) 273-2885, on the date indicated below.

(Depositor's name)
(Signature)
(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
13/306,379	11/29/2011	Yossi Azancot	POWM0106PUSA1	3309

TITLE OF INVENTION: EFFICIENCY MONITOR FOR INDUCTIVE POWER TRANSMISSION

APPLN. TYPE	ENTITY STATUS	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	SMALL	\$890	\$300	\$0	\$1190	12/02/2013

EXAMINER	ART UNIT	CLASS-SUBCLASS
TSAI, CAROL S W	2857	702-062000

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).

- ☐ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.
- ☐ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. **Use of a Customer Number is required.**

2. For printing on the patent front page, list

- (1) the names of up to 3 registered patent attorneys or agents OR, alternatively, 1 _____
- (2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed. 2 _____
- 3 _____

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE

(B) RESIDENCE: (CITY and STATE OR COUNTRY)

Please check the appropriate assignee category or categories (will not be printed on the patent): ☐ Individual ☐ Corporation or other private group entity ☐ Government

4a. The following fee(s) are submitted:

- ☐ Issue Fee
- ☐ Publication Fee (No small entity discount permitted)
- ☐ Advance Order - # of Copies _____

4b. Payment of Fee(s): (Please first reapply any previously paid issue fee shown above)

- ☐ A check is enclosed.
- ☐ Payment by credit card. Form PTO-2038 is attached.
- ☐ The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment, to Deposit Account Number _____ (enclose an extra copy of this form).

5. **Change in Entity Status** (from status indicated above)

☐ Applicant certifying micro entity status. See 37 CFR 1.29

☐ Applicant asserting small entity status. See 37 CFR 1.27

☐ Applicant changing to regular undiscounted fee status.

NOTE: Absent a valid certification of Micro Entity Status (see form PTO/SB/15A and 15B), issue fee payment in the micro entity amount will not be accepted at the risk of application abandonment.

NOTE: If the application was previously under micro entity status, checking this box will be taken to be a notification of loss of entitlement to micro entity status.

NOTE: Checking this box will be taken to be a notification of loss of entitlement to small or micro entity status, as applicable.

NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.

Authorized Signature _____

Date _____

Typed or printed name _____

Registration No. _____

This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
13/306,379	11/29/2011	Yossi Azancot	POWM0106PUSA1	3309

22045	7590	08/30/2013
BROOKS KUSHMAN P.C. 1000 TOWN CENTER TWENTY-SECOND FLOOR SOUTHFIELD, MI 48075		

EXAMINER	
TSAI, CAROL S W	

ART UNIT	PAPER NUMBER
2857	

DATE MAILED: 08/30/2013

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b) (application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 0 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 0 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (<http://pair.uspto.gov>).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

Privacy Act Statement

The Privacy Act of 1974 (P.L. 93-579) requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C. 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether disclosure of these records is required by the Freedom of Information Act.
2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspection or an issued patent.
9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

Notice of Allowability	Application No. 13/306,379	Applicant(s) AZANCOT ET AL.	
	Examiner CAROL S. W. TSAI	Art Unit 2857	AIA (First Inventor to File) Status No

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 8/2/2013.
☐ A declaration(s)/affidavit(s) under **37 CFR 1.130(b)** was/were filed on _____.

2. ☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on _____; the restriction requirement and election have been incorporated into this action.

3. ☒ The allowed claim(s) is/are 1-9 and 11-20, now renumbered as 1-19. As a result of the allowed claim(s), you may be eligible to benefit from the **Patent Prosecution Highway** program at a participating intellectual property office for the corresponding application. For more information, please see http://www.uspto.gov/patents/init_events/pph/index.jsp or send an inquiry to PPHfeedback@uspto.gov.

4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
Certified copies:
a) ☐ All b) ☐ Some *c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)	5. ☐ Examiner's Amendment/Comment
2. ☒ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date <u>9/25/12 & 8/2/13</u>	6. ☒ Examiner's Statement of Reasons for Allowance
3. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material	7. ☐ Other _____.
4. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____.	

/CAROL S. W. TSAI/ Primary Examiner, Art Unit 2857	
---	--

DETAILED ACTION

Allowable Subject Matter

1. Claims 1-9 and 11-20 are allowed.
2. The following is an examiner's statement of reasons for allowance:
3. U. S. Patent No. 7,605,496 to Stevens et al. is the reference closest to the claimed invention. Stevens et al. disclose an efficiency monitor for monitoring power transmission by an inductive power outlet, the inductive power outlet comprising at least one primary coil wired to a power supply, for inductively coupling with a secondary coil wired to an electric load, the efficiency monitor comprising: at least one input power monitor for measuring input power received by the primary coil from the power supply delivered to the primary coil; at least one output power monitor for measuring output power received inductively by the secondary coil from the primary coil; and at least one communication channel for communicating the input power and the output power to the processor. However, Stevens et al. do not teach at least one processor for determining an index of power-loss indicative of the efficiency of an inductive coupling between the primary coil and the secondary coil; wherein the index of power-loss comprises at least one of: an efficiency quotient Q , defined as the ratio of the output power to the input power, and an efficiency differential A , defined as the difference between the output power and the input power; and including all of the other limitations in the respective independent claims.
4. U. S. Patent No. 7,605,496 to Stevens et al. is the reference closest to the claimed invention. Stevens et al. disclose a method for monitoring the efficiency of

power transmission by an inductive power outlet, the inductive power outlet comprising at least one primary coil wired to a power supply, for inductively coupling with a secondary coil wired to an electric load, the method comprising the steps of: measuring the input power delivered to the primary coil received by the primary coil from the power supply; measuring the output power received inductively by the secondary coil from the primary coil; communicating the input power to a processor; communicating the output power to the processor. However, Stevens et al. do not teach and the processor determining an index of power-loss indicative of the efficiency of an inductive coupling between the primary coil and the secondary coil; wherein the index of power-loss comprises at least one of: an efficiency quotient Q , defined as the ratio of the output power to the input power; and an efficiency differential A , defined as the difference between the output power and the input power; and including all of the other limitations in the respective independent claims.

5. U. S. Patent No. 7,605,496 to Stevens et al. is the reference closest to the claimed invention. Stevens et al. disclose an inductive power outlet comprising at least one primary coil, for inductively coupling with a secondary coil wired to an electric load, the inductive power outlet further comprising an efficiency monitor comprising: at least one input power monitor configured to measure input power received by the primary coil from the power supply; at least one signal detector configured to detect signals carrying data pertaining to output power received by the secondary coil; at least one processor configured to receive data pertaining to the input power and the output power. However, Stevens et al. do not teach the processor further configured to determine an index of

power-loss indicative of the efficiency of an inductive coupling between the primary coil and the secondary coil; wherein the index of power-loss comprises at least one of: an efficiency quotient Q , defined as the ratio of the output power to the input power; and an efficiency differential A , defined as the difference between the output power and the input power; and including all of the other limitations in the respective independent claims.

6. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Contact Information

1. Any inquiry concerning this communication or earlier communications from the examiner should be directed to CAROL S. TSAI whose telephone number is (571)272-2224. The examiner can normally be reached on M-F (7:30-4:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew M. Schechter, can be reached on (571) 272-2302. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

August 27, 2013
Art Unit 2857

/Carol S Tsai/
Primary Examiner, Art Unit 2857

Receipt date: 08/02/2013

Doc code: IDS

Doc description: Information Disclosure Statement (IDS) Filed

13306379 - GAU: 2857

Approved for use through 07/31/2012. OMB 0651-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)	Application Number		13306379	
	Filing Date		2011-11-29	
	First Named Inventor	YOSSI AZANCOT		
	Art Unit			
	Examiner Name			
	Attorney Docket Number		POWM0106PUSA1	

U.S. PATENTS							Remove	
Examiner Initial*	Cite No	Patent Number	Kind Code ¹	Issue Date	Name of Patentee or Applicant of cited Document	Pages, Columns, Lines where Relevant Passages or Relevant Figures Appear		
	1							
If you wish to add additional U.S. Patent citation information please click the Add button.							Add	
U.S. PATENT APPLICATION PUBLICATIONS							Remove	
Examiner Initial*	Cite No	Publication Number	Kind Code ¹	Publication Date	Name of Patentee or Applicant of cited Document	Pages, Columns, Lines where Relevant Passages or Relevant Figures Appear		
	1	20050189910	A1	2005-09-01	HUI			
	2	20070103110	A1	2007-05-10	SAGOO			
If you wish to add additional U.S. Published Application citation information please click the Add button.							Add	
FOREIGN PATENT DOCUMENTS							Remove	
Examiner Initial*	Cite No	Foreign Document Number ³	Country Code ² j	Kind Code ⁴	Publication Date	Name of Patentee or Applicant of cited Document	Pages, Columns, Lines where Relevant Passages or Relevant Figures Appear	T ⁵
	1	2005041281	WO	A1	2005-05-06	NORTHROP GRUMMAN CORPORATION		☐
	2	2001-309579	JP		2001-11-02	MATSUSHITA ELECTRIC WORKS LTD		☐

Receipt date: 08/02/2013 INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)	Application Number		13306379	13306379 - GAU: 2857
	Filing Date		2011-11-29	
	First Named Inventor		YOSSI AZANCOT	
	Art Unit			
	Examiner Name			
	Attorney Docket Number		POWM0106PUSA1	

	3	2007-529110	JP		2007-10-18	THALES UK PLC		☐
	4	07-039078	JP		1995-02-07	TOSHIBA CORP		☐
	5	2005-006440	JP		2005-01-06	SEIKO EPSON CORP		☐
	6	2005-110412	JP		2005-04-21	SHARP CORP		☐
	7	04-156242	JP		1992-05-28	SEKISUI CHEM CO LTD		☐
	8	2006-102055	JP		2006-04-20	CLEANUP CORP		☐
	9	07-036556	JP			UNKNOWN		☐

If you wish to add additional Foreign Patent Document citation information please click the Add button **Add**

NON-PATENT LITERATURE DOCUMENTS

Remove

Examiner Initials*	Cite No	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc), date, pages(s), volume-issue number(s), publisher, city and/or country where published.	T ⁵
	1	Office Action dated March 22, 2013, for Mexican Application MX/a/2011/003088	☐
	2	Office Action dated February 5, 2013, for Chinese Application 201110068458.7	☐

Receipt date: 08/02/2013 INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)	Application Number		13306379	13306379 - GAU: 2857
	Filing Date		2011-11-29	
	First Named Inventor	YOSSI AZANCOT		
	Art Unit			
	Examiner Name			
	Attorney Docket Number		POWM0106PUSA1	

	3	Office Action dated May 28, 2013, for Japanese Application 2010-526422	☐
	4	Office Action dated May 28, 2013, for Japanese Application 2010-528526	☐
	5	Office Action dated May 21, 2013, for Japanese Application 2011-500345	☐

If you wish to add additional non-patent literature document citation information please click the Add button **Add**

EXAMINER SIGNATURE

Examiner Signature	/Carol Tsai/	Date Considered	08/26/2013
--------------------	--------------	-----------------	------------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through a citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ See Kind Codes of USPTO Patent Documents at www.USPTO.GOV or MPEP 901.04. ² Enter office that issued the document, by the two-letter code (WIPO Standard ST.3). ³ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁴ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁵ Applicant is to place a check mark here if English language translation is attached.

Receipt date: 08/02/2013 INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)	Application Number		13306379 13306379 - GAU: 2857
	Filing Date		2011-11-29
	First Named Inventor	YOSSI AZANCOT	
	Art Unit		
	Examiner Name		
	Attorney Docket Number		POWM0106PUSA1

CERTIFICATION STATEMENT

Please see 37 CFR 1.97 and 1.98 to make the appropriate selection(s):

☐ That each item of information contained in the information disclosure statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(1).

OR

☐ That no item of information contained in the information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the person signing the certification after making reasonable inquiry, no item of information contained in the information disclosure statement was known to any individual designated in 37 CFR 1.56(c) more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(2).

☐ See attached certification statement.

☐ The fee set forth in 37 CFR 1.17 (p) has been submitted herewith.

☒ A certification statement is not submitted herewith.

SIGNATURE

A signature of the applicant or representative is required in accordance with CFR 1.33, 10.18. Please see CFR 1.4(d) for the form of the signature.

Signature	/David S. Bir/	Date (YYYY-MM-DD)	2013-08-01
Name/Print	David S. Bir	Registration Number	38383

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1 hour to complete, including gathering, preparing and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. **DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

Privacy Act Statement

The Privacy Act of 1974 (P.L. 93-579) requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C. 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether the Freedom of Information Act requires disclosure of these records.
2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspections or an issued patent.
9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /C.T./

<i>Index of Claims</i> 	Application/Control No. 13306379	Applicant(s)/Patent Under Reexamination AZANCOT ET AL.
	Examiner CAROL S TSAI	Art Unit 2857

✓	Rejected	-	Cancelled	N	Non-Elected	A	Appeal
=	Allowed	÷	Restricted	I	Interference	O	Objected

☐ Claims renumbered in the same order as presented by applicant
 ☐ CPA
 ☐ T.D.
 ☐ R.1.47

CLAIM		DATE								
Final	Original	08/22/2012	03/18/2013	08/27/2013						
1	1	✓	✓	=						
2	2	✓	✓	=						
3	3	✓	✓	=						
4	4	✓	✓	=						
5	5	✓	✓	=						
6	6	✓	✓	=						
7	7	O	O	=						
8	8	✓	✓	=						
9	9	✓	✓	=						
	10	✓	✓	-						
10	11	✓	✓	=						
11	12	✓	✓	=						
12	13	✓	✓	=						
13	14	✓	✓	=						
14	15	✓	✓	=						
15	16	✓	✓	=						
16	17	✓	✓	=						
17	18	O	O	=						
18	19	✓	✓	=						
19	20	✓	✓	=						

Issue Classification 	Application/Control No. 13306379	Applicant(s)/Patent Under Reexamination AZANCOT ET AL.	
	Examiner CAROL S TSAI	Art Unit 2857	

CPC			Type	Version
Symbol				

CPC Combination Sets				
Symbol	Type	Set	Ranking	Version

NONE		Total Claims Allowed:	
(Assistant Examiner)	(Date)	19	
/CAROL S TSAI/ Primary Examiner.Art Unit 2857	08/27/2013	O.G. Print Claim(s)	O.G. Print Figure
(Primary Examiner)	(Date)	1	5

Issue Classification 	Application/Control No. 13306379	Applicant(s)/Patent Under Reexamination AZANCOT ET AL.
	Examiner CAROL S TSAI	Art Unit 2857

US ORIGINAL CLASSIFICATION						INTERNATIONAL CLASSIFICATION														
CLASS		SUBCLASS				CLAIMED					NON-CLAIMED									
702		62				G	0	1	R	21 / 00 (2006.01.01)										
CROSS REFERENCE(S)																				
CLASS	SUBCLASS (ONE SUBCLASS PER BLOCK)																			
702	150																			
323	224																			
320	108																			
235	380																			
307	104,116																			

NONE		Total Claims Allowed:	
		19	
(Assistant Examiner)	(Date)		
/CAROL S TSAI/ Primary Examiner.Art Unit 2857	08/27/2013	O.G. Print Claim(s)	O.G. Print Figure
(Primary Examiner)	(Date)	1	5

Issue Classification 	Application/Control No. 13306379	Applicant(s)/Patent Under Reexamination AZANCOT ET AL.
	Examiner CAROL S TSAI	Art Unit 2857

☐ Claims renumbered in the same order as presented by applicant ☐ CPA ☐ T.D. ☐ R.1.47															
Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original
1	1	16	17												
2	2	17	18												
3	3	18	19												
4	4	19	20												
5	5														
6	6														
7	7														
8	8														
9	9														
	10														
10	11														
11	12														
12	13														
13	14														
14	15														
15	16														

NONE (Assistant Examiner) _____ (Date) _____		Total Claims Allowed: 19	
/CAROL S TSAI/ Primary Examiner.Art Unit 2857 (Primary Examiner) _____ (Date) _____		O.G. Print Claim(s) 1	O.G. Print Figure 5

EAST Search History

EAST Search History (Prior Art)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
S1	127	("20020057584" "20020158512" "20030210106" "20040023633" "20040195767" "20040203537" "20040242264" "20040261802" "20050007067" "20050083020" "20050130593" "20050169506" "20050192062" "20050233768" "20060028176" "20060043927" "20060052144" "20060061325" "20060071632" "20060091222" "20060093132" "20060202665" "20070023559" "20070057763" "20070076459" "20070136593" "20070165371" "20070182367" "20070279002" "20080001922" "20080030985" "20080049988" "20080079388" "20080132293" "20080157715" "20080223926" "20080258680" "20080265835" "20090026959" "20090040807" "20090047768" "20090047769" "20090075704" "20090079387" "20090084705" "20090097221" "20090102416" "20090134972" "20090146608" "20090153098" "20090153297" "20090174263" "20090203355" "20090212639" "20090226050" "20090243791" "20090251102" "20090273891" "20090278494" "20100039066" "3771085" "3938018" "4160193" "4431948" "4754180" "4977515" "5221877" "5278771" "5367242" "5455466" "5486394" "5528113" "5550452" "5600225" "5713939" "5734254" "5762250" "5821728" "5821731" "5907285" "5929598" "5949214" "6042005" "6211649" "6230029" "6396935" "6436299" "6441589" "6484260" "6532298" "6586909" "6624616" "6644557" "6673250" "6721540" "6731071" "6766040" "6825620" "6888438" "6894457" "7043060" "7126450" "7132918" "7164255" "7180248" "7180265" "7224086" "7233319" "7385357" "7392068" "7405535" "7462951" "7518267" "7522878" "7576514" "7612528" "D519275" "D553852" "D586809" "D599735" "D599736" "D599737" "D599738" "D603603" "D607879" "D611407" "D611408"). PN.	US-PGPUB; USPAT	OR	ON	2011/06/01 09:56

S2	0	S1 and power\$3 with transmi\$6 with induct\$4 with power with outlet	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 09:57
S3	47	S1 and power\$3 with transmi\$6	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 09:58
S4	3	S1 and power\$3 with transmi\$6 and induct\$4 with power with outlet	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 09:58
S5	3	S1 and power\$3 with transmi\$6 and induct\$4 with power with outlet and coil	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 09:59
S6	2	S1 and power\$3 with transmi\$6 and induct\$4 with power with outlet and coil and loss	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 09:59
S7	2	S1 and power\$3 with transmi\$6 and induct\$4 with power with outlet and coil and (short or loss)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 09:59
S8	0	S1 and power\$3 with transmi\$6 and induct\$4 with power with outlet with coil	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 10:00
S9	67	power\$3 with transmi\$6 and induct\$4 with power with outlet with coil	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 10:00
S10	22	(monitor\$3 or sens\$3 or detect\$4 or identif\$4 or indicat\$4 or determin\$3) with power\$3 with transmi\$6 and induct\$4 with power with outlet with coil	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 10:01
S11	32	(monitor\$3 or sens\$3 or detect\$4 or identif\$4 or indicat\$4 or determin\$3) with power\$3 with (deliver\$4 or transmi\$6 or transfer\$4) and induct\$4 with power with outlet with coil	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 10:01
S12	32	(monitor\$3 or sens\$3 or detect\$4 or identif\$4 or indicat\$4 or determin\$3) with power\$3 with (deliver\$4 or transmi\$6 or transfer\$4) and induct\$4 with power\$3 with outlet with coil	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 10:02
S13	8	(monitor\$3 or sens\$3 or detect\$4 or identif\$4 or indicat\$4 or determin\$3) with power\$3 with (deliver\$4 or transmi\$6 or transfer\$4) and induct\$4 with power\$3 with outlet with coil and	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 10:02

		output\$4 with power\$3 and input\$4 with power\$3				
S14	6	(monitor\$3 or sens\$3 or detect\$4 or identif\$4 or indicat\$4 or determin\$3) with power\$3 with (deliver\$4 or transmi\$6 or transfer\$4) and induct\$4 with power\$3 with outlet with coil and output\$4 with power\$3 and input\$4 with power\$3 and power\$3 with (loss or short)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 10:03
S15	6	(monitor\$3 or sens\$3 or detect\$4 or identif\$4 or indicat\$4 or determin\$3) with (electricity or utility or power\$3) with (deliver\$4 or transmi\$6 or transfer\$4) and induct\$4 with (electricity or utility or power\$3) with outlet with coil and output\$4 with (electricity or utility or power\$3) and input\$4 with (electricity or utility or power\$3) and (electricity or utility or power\$3) with (loss or short)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 10:10
S16	8	(monitor\$3 or sens\$3 or detect\$4 or identif\$4 or indicat\$4 or determin\$3) with (electricity or utility or power\$3) with (deliver\$4 or transmi\$6 or transfer\$4) and induct\$4 with (electricity or utility or power\$3) with outlet with coil and output\$4 with (electricity or utility or power\$3) and input\$4 with (electricity or utility or power\$3) and (loss or short)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 10:10
S17	8	(monitor\$3 or sens\$3 or detect\$4 or identif\$4 or indicat\$4 or determin\$3) with (electricity or utility or power\$3) with (deliver\$4 or transmi\$6 or transfer\$4) and induct\$4 with (electricity or utility or power\$3) with outlet with coil and output\$4 with (electricity or utility or power\$3) and input\$4 with (electricity or utility or power\$3)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 10:11
S18	50	(monitor\$3 or sens\$3 or detect\$4 or identif\$4 or indicat\$4 or determin\$3) with (electricity or utility or power\$3) with (deliver\$4 or transmi\$6 or transfer\$4) and induct\$4 and (electricity or utility or power\$3) with outlet with coil and output\$4 with (electricity or utility or power\$3) and input\$4 with (electricity or utility or power\$3)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 10:12
S19	119	(monitor\$3 or sens\$3 or detect\$4 or identif\$4 or indicat\$4 or determin\$3) with (electricity or utility or power\$3) with (deliver\$4 or transmi\$6 or transfer\$4) and induct\$4 and (electricity or utility or power\$3) with outlet and first with second with coil and output\$4 with (electricity or utility or power\$3) and input\$4 with (electricity or utility or power\$3)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 10:13
S20	18	(monitor\$3 or sens\$3 or detect\$4 or identif\$4 or indicat\$4 or determin\$3) with (electricity or utility or power\$3)	US-PGPUB; USPAT; EPO; JPO;	OR	ON	2011/06/01 10:13

		with (deliver\$4 or transmi\$6 or transfer\$4) and induct\$4 with (electricity or utility or power\$3) with outlet and first with second with coil and output\$4 with (electricity or utility or power\$3) and input\$4 with (electricity or utility or power\$3)	DERWENT; IBM_TDB			
S21	20	(monitor\$3 or sens\$3 or detect\$4 or identif\$4 or indicat\$4 or determin\$3) with (electricity or utility or power\$3) with (deliver\$4 or transmi\$6 or transfer\$4) and induct\$4 with (electricity or utility or power\$3) with (socket or outlet) and first with second with coil and output\$4 with (electricity or utility or power\$3) and input\$4 with (electricity or utility or power\$3)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 10:20
S22	2	(monitor\$3 or sens\$3 or detect\$4 or identif\$4 or indicat\$4 or determin\$3) with (electricity or utility or power\$3) with (deliver\$4 or transmi\$6 or transfer\$4) and induct\$4 with (electricity or utility or power\$3) with (socket or outlet) and first with second with coil and output\$4 with (electricity or utility or power\$3) and input\$4 with (electricity or utility or power\$3) not S20	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 10:20
S23	2	(monitor\$3 or sens\$3 or detect\$4 or identif\$4 or indicat\$4 or determin\$3) with (electricity or energy or power\$3) with (deliver\$4 or transmi\$6 or transfer\$4) and induct\$4 with (electricity or energy or power\$3) with (socket or outlet) and first with second with coil and output\$4 with (electricity or energy or power\$3) and input\$4 with (electricity or utility or power\$3) not S20	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 10:21
S24	49	(monitor\$3 or sens\$3 or detect\$4 or identif\$4 or indicat\$4 or determin\$3) with (electricity or energy or power\$3) with (deliver\$4 or transmi\$6 or transfer\$4) and induct\$4 with coupler and first with second with coil and output\$4 with (electricity or energy or power\$3) and input\$4 with (electricity or utility or power\$3) not S20	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 10:38
S25	6	(monitor\$3 or sens\$3 or detect\$4 or identif\$4 or indicat\$4 or determin\$3) with (electricity or energy or power\$3) with (deliver\$4 or transmi\$6 or transfer\$4) and induct\$4 with coupler with first with second with coil and output\$4 with (electricity or energy or power\$3) and input\$4 with (electricity or utility or power\$3) not S20	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 10:39
S26	76	(monitor\$3 or sens\$3 or detect\$4 or identif\$4 or indicat\$4 or determin\$3) with (electricity or energy or power\$3) with (deliver\$4 or transmi\$6 or transfer\$4) and induct\$4 with coupl\$4 with first with second with coil and output\$4 with (electricity or energy or	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 10:40

		power\$3) and input\$4 with (electricity or utility or power\$3) not S20				
S27	15	(monitor\$3 or sens\$3 or detect\$4 or identif\$4 or indicat\$4 or determin\$3) with (electricity or energy or power\$3) with (deliver\$4 or transmi\$6 or transfer\$4) and induct\$4 with coupl\$4 with first with second with coil and output\$4 with (electricity or energy or power\$3) with (monitor or sensor or detector) and input\$4 with (electricity or utility or power\$3) with (monitor or sensor or detector) not S20	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 10:41
S28	24	(monitor\$3 or sens\$3 or detect\$4 or identif\$4 or indicat\$4 or determin\$3) with (electricity or energy or power\$3) with (deliver\$4 or transmi\$6 or transfer\$4) with induct\$4 with coupl\$4 with first with second with coil	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 10:44
S29	79	control\$4 with system with induct\$4 with (power\$3 or energy or electric\$5) with (outlet or socket)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 10:59
S30	1	control\$4 with system with induct\$4 with (power\$3 or energy or electric\$5) with (outlet or socket) with first with second with coil	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 11:00
S31	26	control\$4 with (power\$3 or energy or electric\$5) with (transfer\$4 or deliver\$4 or transmi\$6) with induct\$4 with (power\$3 or energy or electric\$5) with (outlet or socket or coupl\$4) with first with second with coil	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 11:02
S32	14	induct\$4 with (power\$3 or energy or electric\$5) with coupl\$4 with first adj coil with second adj coil with power with supply	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 11:11
S33	6	(power\$3 or energy or electric\$5) with (transfer\$4 or deliver\$4 or transmi\$6) with induct\$4 with (power\$3 or energy or electric\$5) with coupl\$4 with first adj coil with second adj coil with power with supply	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 11:18
S34	4	(power\$3 or energy or electric\$5) with (transfer\$4 or deliver\$4 or transmi\$6) with induct\$4 with (power\$3 or energy or electric\$5) with coupl\$4 and transmitter with receiver and induct\$4 with first adj coil with second adj coil with power with supply	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 11:20
S35	4	(power\$3 or energy or electric\$5) with (transfer\$4 or deliver\$4 or transmi\$6) with induct\$4 with (power\$3 or energy or electric\$5) with coupl\$4 and transmitter with receiver and induct\$4 with first adj coil with power with supply and second with coil	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 11:21

S36	4	(transfer\$4 or deliver\$4 or transmi\$6) with induct\$4 with (power\$3 or energy or electric\$5) with coupl\$4 and transmitter with receiver and induct\$4 with first adj coil with power with supply and second with coil	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 11:23
S37	10	(transfer\$4 or deliver\$4 or transmi\$6) with induct\$4 with (power\$3 or energy or electric\$5) with coupl\$4 and transmitter with receiver and first adj coil with power with supply and second with coil	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 11:24
S38	4	(transfer\$4 or deliver\$4 or transmi\$6) with induct\$4 with (power\$3 or energy or electric\$5) with coupl\$4 and transmitter with receiver and first adj coil with power with supply and second with coil and loss	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 11:24
S39	5	(transfer\$4 or deliver\$4 or transmi\$6) with induct\$4 with (power\$3 or energy or electric\$5) with coupl\$4 and transmitter with receiver and first adj coil with power with supply and second with coil and (power\$3 or energy or electric\$5) with (short or shorage or loss or dis-contin\$6 or discontinu\$4 or dis-connect\$4 or disconnect\$4)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 11:26
S40	22	(transfer\$4 or deliver\$4 or transmi\$6) with induct\$4 with (power\$3 or energy or electric\$5) with coupl\$4 and transmitter with receiver and (primary or first) adj coil with power with supply and second with coil and (power\$3 or energy or electric\$5) with (short or shorage or loss or dis-contin\$6 or discontinu\$4 or dis-connect\$4 or disconnect\$4)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 11:35
S41	11	(transfer\$4 or deliver\$4 or transmi\$6) with induct\$4 with (power\$3 or energy or electric\$5) with coupl\$4 and transmitter with receiver and (primary or first) adj coil with power with supply and second with coil and (power\$3 or energy or electric\$5) with (short or shorage or loss or dis-contin\$6 or discontinu\$4 or dis-connect\$4 or disconnect\$4) and electric\$4 with load	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 11:38
S42	38	(transfer\$4 or deliver\$4 or transmi\$6) with induct\$4 with (power\$3 or energy or electric\$5) with coupl\$4 and transmitter with receiver and (primary or first) adj coil with induct\$4 and power with supply and second with coil and (power\$3 or energy or electric\$5) with (short or shorage or loss or dis-contin\$6 or discontinu\$4 or dis-connect\$4 or disconnect\$4) and electric\$4 with load	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 11:38
S43	21	(transfer\$4 or deliver\$4 or transmi\$6) with induct\$4 with (power\$3 or energy or electric\$5) with coupl\$4 and transmitter with receiver and (primary or first) adj coil with induct\$4 and power	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 11:39

		with supply and second with coil and (power\$3 or energy or electric\$5) with (short or shorage or loss or dis-continu\$6 or discontinu\$4 or dis-connect\$4 or disconnect\$4) and (voltage or current or temperature) with electric\$4 with load				
S44	7	(transfer\$4 or deliver\$4 or transmi\$6) with induct\$4 with (power\$3 or energy or electric\$5) with coupl\$4 and transmitter with receiver and (primary or first) adj coil with induct\$4 and power with supply and second with coil with induct\$4 and (power\$3 or energy or electric\$5) with (short or shorage or loss or dis-continu\$6 or discontinu\$4 or dis-connect\$4 or disconnect\$4) and (voltage or current or temperature) with electric\$4 with load	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 11:40
S45	21	(transfer\$4 or deliver\$4 or transmi\$6) with induct\$4 with (power\$3 or energy or electric\$5) with coupl\$4 and transmitter with receiver and (primary or first) adj coil with induct\$4 and power with supply and second with coil and (power\$3 or energy or electric\$5) with (short or shorage or loss or dis-continu\$6 or discontinu\$4 or dis-connect\$4 or disconnect\$4) and (voltage or current or temperature) with electric\$4 with load	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 11:41
S46	21	(transfer\$4 or deliver\$4 or transmi\$6) with induct\$4 with (power\$3 or energy or electric\$5) with coupl\$4 and transmitter with receiver and (primary or first) adj coil with induct\$4 and power with supply and second with coil and (power\$3 or energy or electric\$5) with (short or shorage or loss or dis-continu\$6 or discontinu\$4 or dis-connect\$4 or disconnect\$4) and (voltage or current or temperature) with electric\$4 with load and switch\$4 and driv\$4	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 11:41
S47	7	(transfer\$4 or deliver\$4 or transmi\$6) with induct\$4 with (power\$3 or energy or electric\$5) with coupl\$4 and transmitter with receiver and (primary or first) adj coil with power with supply and second with coil and (power\$3 or energy or electric\$5) with (short or shorage or loss or dis-continu\$6 or discontinu\$4 or dis-connect\$4 or disconnect\$4) and load and switch\$4 and driver and signal with generat\$4	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 11:46
S48	7	(transfer\$4 or deliver\$4 or transmi\$6) with induct\$4 with (power\$3 or energy or electric\$5) with coupl\$4 and transmitter with receiver and (primary or first) adj coil with power with supply and second\$5 with coil and (power\$3 or energy or electric\$5) with (short or	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 11:47

		storage or loss or dis-continu\$6 or discontinu\$4 or dis-connect\$4 or disconnect\$4) and load and switch\$4 and driver and signal with generat\$4				
S49	7	(transfer\$4 or deliver\$4 or transmi\$6) with induct\$4 with (power\$3 or energy or electric\$5) with coupl\$4 and transmitter with receiver and (primary or first) adj coil with power with supply and second\$5 with coil and (power\$3 or energy or electric\$5) with (short or storage or loss or dis-continu\$6 or discontinu\$4 or dis-connect\$4 or disconnect\$4) and load and switch\$4 with load with coil and driver	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 11:51
S50	8	(transfer\$4 or deliver\$4 or transmi\$6) with induct\$4 with (power\$3 or energy or electric\$5) with coupl\$4 and transmitter with receiver and (primary or first) adj coil with power with supply and second\$5 with coil and (power\$3 or energy or electric\$5) with (short or storage or loss or dis-continu\$6 or discontinu\$4 or dis-connect\$4 or disconnect\$4) and load and switch\$4 and contactless and driver	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 11:54
S51	25	contactless with induct\$4 with coupl\$4 and transmitter with receiver and (primary or first) adj coil and power with supply and second\$5 with coil and (power\$3 or energy or electric\$5) with (short or storage or loss or dis-continu\$6 or discontinu\$4 or dis-connect\$4 or disconnect\$4) and load and switch\$4 and driver	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 11:56
S52	26	contactless with induct\$4 with coupl\$4 and transmitter with receiver and (primary or first) adj coil and power with supply and second\$5 with coil and (power\$3 or energy or electric\$5) with (short or storage or loss or dis-continu\$6 or discontinu\$4 or dis-connect\$4 or disconnect\$4)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 11:58
S53	1	contactless with induct\$4 with coupl\$4 and transmitter with receiver and (primary or first) adj coil and power with supply and second\$5 with coil and (power\$3 or energy or electric\$5) with (short or storage or loss or dis-continu\$6 or discontinu\$4 or dis-connect\$4 or disconnect\$4) not S51	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 11:58
S54	10	contactless with induct\$4 with coupl\$4 and transmitter with receiver and (primary or first) adj coil and power with supply and second\$5 with coil not S51	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 11:59
S55	6	contactless with induct\$4 with coupl\$4 and communicat\$4 with channel and (primary or first) adj coil and power with supply and second\$5 with coil not S51	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 12:03

S56	108	induct\$4 with (power\$3 or electric or energy) with coupl\$4 with (primary or first) adj coil with second\$5 with coil and supply\$3 with (electric or power or energy) with load not S51	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 12:09
S57	15	induct\$4 with (power\$3 or electric or energy) with coupl\$4 with (primary or first) adj coil with second\$5 with coil and supply\$3 with (electric or power or energy) with load and transmitter with receiver not S51	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 12:10
S58	40	induct\$4 with (power\$3 or electric or energy) with coupl\$4 with (primary or first) adj coil with second\$5 with coil and supply\$3 with (electric or power or energy) with load and transmit\$5 with receiv\$3 not S51	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 12:21
S59	0	induct\$4 with (power\$3 or electric or energy) with coupl\$4 with (primary or first) adj coil with second\$5 with coil and supply\$3 with (electric or power or energy) with ancillary with load and transmit\$5 with receiv\$3 not S51	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 12:32
S60	31	induct\$4 with (power\$3 or electric or energy) with coupl\$4 with (primary or first) adj coil with second\$5 with coil and supply\$3 with (electric or power or energy) with load and transmit\$5 with receiv\$3 and (LED or light adj emit\$4 with diode or radio with transmitter or optocoupler or transmitter with circuit) not S51	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 12:34
S61	27	Azancot-yossi.in.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 12:56
S62	129	("20020057584" "20020158512" "20030210106" "20040023633" "20040145343" "20040195767" "20040203537" "20040242264" "20040261802" "20050007067" "20050083020" "20050130593" "20050169506" "20050192062" "20050233768" "20060028176" "20060043927" "20060052144" "20060061325" "20060071632" "20060087282" "20060091222" "20060093132" "20060202665" "20070023559" "20070057763" "20070076459" "20070136593" "20070165371" "20070182367" "20070279002" "20080001922" "20080030985" "20080049988" "20080079388" "20080132293" "20080157715" "20080223926" "20080258680" "20080265835" "20090026959" "20090040807" "20090047768" "20090047769" "20090075704" "20090079387" "20090084705" "20090097221" "20090102416" "20090134972"	US-PGPUB; USPAT; USOCR	OR	ON	2011/06/01 12:58

		"20090146608" "20090153098" "20090153297" "20090174263" "20090203355" "20090212639" "20090226050" "20090243791" "20090251102" "20090273891" "20090278494" "20100039066" "3771085" "3938018" "4160193" "4431948" "4754180" "4977515" "5221877" "5278771" "5367242" "5455466" "5486394" "5528113" "5550452" "5600225" "5713939" "5734254" "5762250" "5821728" "5821731" "5907285" "5929598" "5949214" "6042005" "6211649" "6230029" "6396935" "6436299" "6441589" "6484260" "6532298" "6586909" "6624616" "6644557" "6673250" "6721540" "6731071" "6766040" "6825620" "6888438" "6894457" "7043060" "7126450").PN. OR ("7132918" "7164255" "7180248" "7180265" "7224086" "7233319" "7385357" "7392068" "7405535" "7462951" "7518267" "7522878" "7576514" "7612528" "D519275" "D553852" "D586809" "D599735" "D599736" "D599737" "D599738" "D603603" "D607879" "D611407" "D611408").PN. OR ("7906936").URPN.				
S63	468	702/ 62.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 13:07
S64	1783	702/ 150.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 13:11
S65	721	324/ 239.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 13:11
S66	432	324/ 329.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 13:11
S67	307	324/ 334.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 13:11
S68	101	324/ 335.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 13:16
S69	58	324/ 336.ccls.	US-PGPUB; USPAT; EPO; JPO;	OR	ON	2011/06/01 13:16

			DERWENT; IBM_TDB			
S70	518	323/224.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 13:17
S71	337	323/225.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 13:17
S72	259	323/235.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 13:17
S73	96	323/238.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 13:17
S74	162	323/247.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 13:17
S75	197	323/259.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 13:17
S76	56	323/262.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 13:17
S77	0	63/16.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 13:18
S78	81	63/24.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 13:18
S79	28	63/25.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 13:18
S80	0	63/131.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 13:18
S81	682	320/108.ccls.	US-PGPUB; USPAT; EPO; JPO;	OR	ON	2011/06/01 13:18

			DERWENT; IBM_TDB			
S82	423	320/109.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 13:18
S83	793	320/114.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 13:18
S84	6938	235/380.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 13:18
S85	1279	307/104.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 13:19
S86	1187	307/116.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 13:23
S87	761	318/16.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 13:24
S88	899	318/480.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 13:24
S89	90	318/538.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 13:24
S90	15	induct\$4 with (power\$3 or electric or energy) with coupl\$4 with (primary or first) adj coil with second\$5 with coil and supply\$3 with (electric or power or energy) with load and induct\$4 adj (power\$3 or electric or energy) adj outlet	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 15:47
S91	16	induct\$4 with (power\$3 or electric or energy) with coupl\$4 with (primary or first) adj coil with second\$5 with coil and supply\$3 with (electric or power or energy) and induct\$4 adj (power\$3 or electric or energy) adj outlet not "I15"	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 15:48
S92	16	induct\$4 with (power\$3 or electric or energy) with coupl\$4 with (primary or first) adj coil with second\$5 with coil and supply\$3 with (electric or power or energy) and induct\$4 adj (power\$3 or	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 15:49

		electric or energy) adj outlet not "I1"				
S93	1	induct\$4 with (power\$3 or electric or energy) with coupl\$4 with (primary or first) adj coil with second\$5 with coil and supply\$3 with (electric or power or energy) and induct\$4 adj (power\$3 or electric or energy) adj outlet not S90	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 15:49
S94	2	induct\$4 with (power\$3 or electric or energy) with coupl\$4 and (primary or first) adj coil with second\$5 with coil and supply\$3 with (electric or power or energy) and induct\$4 adj (power\$3 or electric or energy) adj outlet not S90	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 15:49
S95	2	induct\$4 with (power\$3 or electric or energy) with coupl\$4 and (primary or first) adj coil with second\$5 with coil and supply\$3 with (electric or power or energy) and induct\$4 adj (power\$3 or electric or energy) adj (socket or outlet) not S90	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 15:50
S96	2	(primary or first) adj coil with second\$5 with coil and supply\$3 with (electric or power or energy) and induct\$4 adj (power\$3 or electric or energy) adj (socket or outlet) not S90	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 15:51
S97	2	(primary or first) adj coil and second\$5 with coil and supply\$3 with (electric or power or energy) and induct\$4 adj (power\$3 or electric or energy) adj (socket or outlet) not S90	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 15:51
S98	3	(primary or first) with coil and second\$5 with coil and supply\$3 with (electric or power or energy) and induct\$4 adj (power\$3 or electric or energy) adj (socket or outlet) not S90	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 15:52
S99	18	induct\$4 adj (power\$3 or electric or energy) adj (socket or outlet) not S90	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 15:52
S100	345	inductive with (power\$3 or electric or energy) with (socket or outlet) not S90	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 15:55
S101	12	inductive adj (power\$3 or electric or energy) adj (socket or outlet) not S90	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 15:55
S102	25	contactless with induct\$4 with coupl\$4 and transmitter with receiver and (primary or first) adj coil and power with supply and second\$5 with coil and (power\$3 or energy or electric\$5) with (short or shorage or loss or discontinu\$6 or discontinu\$4 or disconnect\$4 or disconnect\$4) and load and switch\$4 and driver	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 15:57
S103	11	induct\$4 with (power\$3 or electric or	US-PGPUB;	OR	ON	2011/06/01

		energy) with coupl\$4 with (primary or first) adj coil with second\$5 with coil and supply\$3 with (electric or power or energy) with load and transmit\$5 with receiv\$3 and (LED or light adj emit\$4 with diode or radio with transmitter or optocoupler or transmitter with circuit) and (power\$3 or electric or energy) with (outlet or socket) not S102	USPAT; EPO; JPO; DERWENT; IBM_TDB			15:57
S104	25	contactless with induct\$4 with coupl\$4 and transmitter with receiver and (primary or first) adj coil and power with supply and second\$5 with coil and (power\$3 or energy or electric\$5) with (short or shorage or loss or discontinu\$6 or discontinu\$4 or disconnect\$4 or disconnect\$4) and load and switch\$4 and driver	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 16:28
S105	3	induct\$4 with (power\$3 or electric or energy) with coupl\$4 with (primary or first) adj coil with second\$5 with coil and supply\$3 with (electric or power or energy) with load and transmit\$5 with receiv\$3 and (LED or light adj emit\$4 with diode or radio with transmitter or optocoupler or transmitter with circuit) and shutdown with loss not S104	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 16:28
S106	3	induct\$4 with (power\$3 or electric or energy) with coupl\$4 with (primary or first) adj coil with second\$5 with coil and supply\$3 with (electric or power or energy) with load and transmit\$5 with receiv\$3 and (LED or light adj emit\$4 with diode or radio with transmitter or optocoupler or transmitter with circuit) and (stop\$4 or shutdown) with loss not S104	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 16:32
S107	3	induct\$4 with (power\$3 or electric or energy) with coupl\$4 with (primary or first) adj coil with second\$5 with coil and supply\$3 with (electric or power or energy) with load and transmit\$5 with receiv\$3 and (LED or light adj emit\$4 with diode or radio with transmitter or optocoupler or transmitter with circuit) and (stop\$4 or shutdown) with loss and losses not S104	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 16:41
S108	3	induct\$4 with (power\$3 or electric or energy) with coupl\$4 with (primary or first) adj coil with second\$5 with coil and supply\$3 with (electric or power or energy) with load and transmit\$5 with receiv\$3 and (LED or light adj emit\$4 with diode or radio with transmitter or optocoupler or transmitter with circuit) and (stop\$4 or shutdown) with loss and losses same difference not S104	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 16:42
S109	3	induct\$4 with (power\$3 or electric or energy) with coupl\$4 with (primary or first) adj coil with second\$5 with coil and supply\$3 with (electric or power or energy) with load and transmit\$5 with	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/01 16:48

		receiv\$3 and (LED or light adj emit\$4 with diode or radio with transmitter or optocoupler or transmitter with circuit) and (stop\$4 or shutdown) with loss and losses and losses same difference not S104				
S110	21	induct\$4 with (power\$3 or electric or energy) with coupl\$4 with (primary or first) adj coil with second\$5 with coil and supply\$3 with (electric or power or energy) with load and transmit\$5 with receiv\$3 and (magnetic or electromagnetic adj radiation or heat\$3 or thermal or temperature) with (sensor or detector or monitor)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/02 11:12
S111	3	induct\$4 with (power\$3 or electric or energy) with coupl\$4 with (primary or first) adj coil with second\$5 with coil and supply\$3 with (electric or power or energy) with load and transmit\$5 with receiv\$3 and (hazard or disaster or danger\$4 or malfunction or defect or anomaly or abnormality) with (magnetic or electromagnetic adj radiation or heat\$3 or thermal or temperature) with (sensor or detector or monitor)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/02 11:16
S112	3	induct\$4 with (power\$3 or electric or energy) with coupl\$4 with (primary or first) adj coil with second\$5 with coil and supply\$3 with (electric or power or energy) with load and transmit\$5 with receiv\$3 and (hazard or disaster or danger\$4 or malfunction or defect or anomaly or abnormality or alarm) with (magnetic or electromagnetic adj radiation or heat\$3 or thermal or temperature) with (sensor or detector or monitor)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/02 11:17
S113	12	induct\$4 with (power\$3 or electric or energy) with coupl\$4 with (primary or first) adj coil with second\$5 with coil and supply\$3 with (electric or power or energy) with load and transmit\$5 with receiv\$3 and (hazard or disaster or danger\$4 or malfunction or defect or anomaly or abnormality or alarm) and (magnetic or electromagnetic adj radiation or heat\$3 or thermal or temperature) with (sensor or detector or monitor)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/02 11:17
S114	9	induct\$4 with (power\$3 or electric or energy) with coupl\$4 with (primary or first) adj coil with second\$5 with coil and supply\$3 with (electric or power or energy) with load and transmit\$5 with receiv\$3 and (magnetic or electromagnetic adj radiation or heat\$3 or thermal or temperature) with (sensor or detector or monitor) not S113	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/02 11:20
S115	9	induct\$4 with (power\$3 or electric or energy) with coupl\$4 with (primary or first) adj coil with second\$5 with coil and	US-PGPUB; USPAT; EPO; JPO;	OR	ON	2011/06/02 13:39

		supply\$3 with (electric or power or energy) with load and transmit\$5 with receiv\$3 and bit-rate	DERWENT; IBM_TDB			
S116	0	driver adj bit-rate	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/02 13:40
S117	70	modulat\$3 with bit-rate adj signal	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/02 13:41
S118	9	modulat\$3 with bit-rate adj signal and (first or primary) with second\$5 with coil	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/02 13:42
S119	0	cellular with telephone and bit-rate with signal with transmitter and modulat\$3 with bit-rate adj signal	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/02 13:45
S120	8	bit-rate with signal with transmitter and modulat\$3 with bit-rate adj signal	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/02 13:45
S121	0	bit-rate with signal with (computer or cellular adj phone or PDA) and transmitter and modulat\$3 with bit-rate adj signal	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/02 13:50
S122	29	bit-rate with signal with (computer or cellular adj phone or PDA)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/02 13:51
S123	0	bit-rate with signal with (computer or cellular adj phone or PDA) with transmitter	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/02 13:51
S124	0	bit-rate with signal with (computer or cellular adj phone or PDA) same transmitter	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/02 13:51
S125	0	bit-rate with signal with portable with (computer or cellular adj phone or PDA)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/02 13:52
S126	25	contactless with induct\$4 with coupl\$4 and transmitter with receiver and (primary or first) adj coil and power with supply and second\$5 with coil and (power\$3 or energy or electric\$5) with (short or shorage or loss or discontinu\$6 or discontinu\$4 or dis-	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/02 14:28

		connect\$4 or disconnect\$4) and load and switch\$4 and driver				
S127	13	induct\$4 with (power\$3 or electric or energy) with coupl\$4 with (primary or first) adj coil with second\$5 with coil and supply\$3 with (electric or power or energy) with load and transmit\$5 with receiv\$3 and (LED or light adj emit\$4 with diode or radio with transmitter or optocoupler or transmitter with circuit) and load with (select\$5 or switch\$3) with second\$3 with coil not S126	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/02 14:28
S128	1	(bit or transfer) with rate with synchronising with signal	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/06/02 14:37
S129	498	702/62.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/09/23 13:35
S130	1869	702/150.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/09/23 13:35
S131	735	324/239.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/09/23 13:36
S132	443	324/329.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/09/23 13:36
S133	311	324/334.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/09/23 13:36
S134	103	324/335.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/09/23 13:36
S135	59	324/336.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/09/23 13:36
S136	532	323/224.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/09/23 13:36
S137	346	323/225.ccls.	US-PGPUB; USPAT; EPO; JPO;	OR	ON	2011/09/23 13:42

			DERWENT; IBM_TDB			
S138	264	323/235.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/09/23 13:43
S139	97	323/238.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/09/23 13:43
S140	169	323/247.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/09/23 13:43
S141	199	323/259.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/09/23 13:43
S142	56	323/262.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/09/23 13:43
S143	1063	363/16.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/09/23 13:43
S144	276	363/24.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/09/23 13:43
S145	336	363/25.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/09/23 13:43
S146	986	363/131.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/09/23 13:44
S147	764	320/108.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/09/23 13:44
S148	501	320/109.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/09/23 13:44
S149	820	320/114.ccls.	US-PGPUB; USPAT; EPO; JPO;	OR	ON	2011/09/23 13:44

			DERWENT; IBM_TDB			
S150	7150	235/380.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/09/23 13:44
S151	1402	307/104.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/09/23 13:44
S152	1205	307/116.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/09/23 13:44
S153	763	318/16.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/09/23 13:45
S154	905	318/480.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/09/23 15:24
S155	91	318/538.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/09/23 15:24
S163	13348	702/62,150.ccls. or 323/224.ccls. or 320/108.ccls. or 235/380.ccls. or 307/104,116.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/09/25 19:19
S166	13348	702/62,150.ccls. or 323/224.ccls. or 320/108.ccls. or 235/380.ccls. or 307/104,116.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/09/25 21:59
S177	610	702/62.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2012/08/22 15:53
S178	2166	702/150.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2012/08/22 15:54
S179	946	324/239.ccls.	US-PGPUB; USPAT; USOCR; FPRS;	OR	ON	2012/08/22 16:13

			EPO; JPO; DERWENT; IBM_TDB			
S180	489	324/329.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2012/08/22 16:13
S181	412	324/334.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2012/08/22 16:14
S182	137	324/335.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2012/08/22 16:14
S183	75	324/336.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2012/08/22 16:14
S184	598	323/224.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2012/08/22 16:14
S185	381	323/225.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2012/08/22 18:07
S186	301	323/235.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2012/08/22 18:07
S187	116	323/238.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2012/08/22 18:07
S188	197	323/247.ccls.	US-PGPUB; USPAT;	OR	ON	2012/08/22 18:08

			USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB			
S189	243	323/259.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2012/08/22 18:08
S190	80	323/262.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2012/08/22 18:08
S191	1139	363/16.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2012/08/22 18:08
S192	305	363/24.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2012/08/22 18:08
S193	360	363/25.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2012/08/22 18:08
S194	1090	363/131.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2012/08/22 18:08
S195	1014	320/108.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2012/08/22 18:08
S196	740	320/109.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2012/08/22 18:08

S197	959	320/114.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2012/08/22 18:09
S198	7731	235/380.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2012/08/22 18:09
S199	2394	307/104.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2012/08/22 18:09
S200	1377	307/116.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2012/08/22 18:09
S201	1159	318/16.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2012/08/22 18:09
S202	1472	318/480.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2012/08/22 18:10
S203	114	318/538.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2012/08/22 18:10
S204	795	702/62.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/08/27 13:15
S205	2791	702/150.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO;	OR	ON	2013/08/27 13:15

			DERWENT; IBM_TDB			
S206	1026	324/239.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/08/27 13:16
S207	526	324/329.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/08/27 13:16
S208	458	324/334.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/08/27 13:16
S209	144	324/335.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/08/27 13:16
S210	85	324/336.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/08/27 13:16
S211	0	32/224.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/08/27 13:16
S212	0	32/225.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/08/27 13:16
S213	0	32/235.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/08/27 13:16
S214	0	32/238.ccls.	US-PGPUB; USPAT; USOCR;	OR	ON	2013/08/27 13:17

			FPRS; EPO; JPO; DERWENT; IBM_TDB			
S215	0	32/247.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/08/27 13:17
S216	0	32/259.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/08/27 13:17
S217	0	32/262.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/08/27 13:17
S218	686	323/224.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/08/27 13:17
S219	451	323/225.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/08/27 13:17
S220	334	323/235.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/08/27 13:17
S221	131	323/238.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/08/27 13:18
S222	208	323/247.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/08/27 13:18
S223	274	323/259.ccls.	US-PGPUB;	OR	ON	2013/08/27

			USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB			13:18
S224	84	323/262.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/08/27 13:18
S225	1336	363/16.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/08/27 13:18
S226	344	363/24.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/08/27 13:18
S227	393	363/25.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/08/27 13:18
S228	1387	363/131.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/08/27 13:18
S229	1646	320/108.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/08/27 13:19
S230	1329	320/109.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/08/27 13:19
S231	1149	320/114.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT;	OR	ON	2013/08/27 13:19

			IBM_TDB			
S232	9055	235/380.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/08/27 13:19
S233	3271	307/104.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/08/27 13:19
S234	1498	307/116.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/08/27 13:20
S235	1182	318/16.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/08/27 13:20
S236	1498	318/480.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/08/27 13:20
S237	132	318/538.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/08/27 13:20
S238	19502	702/62,150.ccls. or 323/224.ccls. or 320/108.ccls. or 235/380.ccls. or 307/104,116.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/08/27 13:21
S256	2	"20120071091"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/08/27 14:33
S257	268	("20030210106" "20040023633" "20040203537" "20040261802" "20060071632" "20080223926" "20090026959" "20090273891"	US-PGPUB; USPAT; USOCR; FPRS;	OR	ON	2013/08/27 14:48

		"3771085" "5907285" "5949214" "6644557" "6731071" "6888438" "7462951" "7612528" "20070103110" "20050192062" "20060093132" "20060202665" "20070136593" "20080001922" "20090153098" "20090203355" "6721540" "7180248" "7405535" "D599738" "20050189910" "20040242264" "20070057763" "20070165371" "20080258680" "20090047769" "20090226050" "20090278494" "4431948" "4977515" "5221877" "5550452" "5713939" "5734254" "5896278" "7233319" "D599735" "20020158512" "20050083020" "20050233768" "20060028176" "20060061325" "20070076459" "20080049988" "20080079388" "20090047768" "20090079387" "20090251102" "4160193" "5278771" "5455466" "5821728" "6436299" "6484260" "6766040" "7164255" "7385357" "D603603" "D611407" "20050007067" "20050130593" "20060052144" "20080132293" "20090153297" "20090174263" "20100039066" "4754180" "5367242" "5528113" "5762250" "5821731" "6211649" "6396935" "6673250" "7180265" "7518267" "D599737" "20070182367" "20080030985" "20080157715" "20090102416" "4076996" "5486394" "6042005" "6230029" "6624616" "7126450" "7392068" "7522878" "D519275" "D553852" "D599736" "D611408" "20020057584" "20050169506" "20060043927" "20060091222" "20070279002" "20080265835" "20090134972" "3938018" "5600225" "5929598" "6441589" "6532298" "6825620" "6894457" "7043060" "7224086" "D586809" "D607879" "20040195767" "20070023559" "20090040807" "20090075704" "20090084705" "20090097221" "20090146608" "20090212639" "20090243791" "6586909" "7132918" "7576514").PN.	EPO; JPO; DERWENT; IBM_TDB			
S258	0	S257 and power\$3 with transmi\$6 and induct\$4 with power with outlet with coil	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/08/27 14:49
S259	0	S257 and power\$3 with transmi\$6 and induct\$4 with power with outlet with coil	US-PGPUB; USPAT	OR	ON	2013/08/27 14:52
S260	131	("20030210106" "20040023633" "20040203537" "20040261802" "20060071632" "20080223926" "20090026959" "20090273891" "3771085" "5907285" "5949214"	US-PGPUB; USPAT	OR	ON	2013/08/27 14:52

		"6644557" "6731071" "6888438" "7462951" "7612528" "20070103110" "20050192062" "20060093132" "20060202665" "20070136593" "20080001922" "20090153098" "20090203355" "6721540" "7180248" "7405535" "D599738" "20050189910" "20040242264" "20070057763" "20070165371" "20080258680" "20090047769" "20090226050" "20090278494" "4431948" "4977515" "5221877" "5550452" "5713939" "5734254" "5896278" "7233319" "D599735" "20020158512" "20050083020" "20050233768" "20060028176" "20060061325" "20070076459" "20080049988" "20080079388" "20090047768" "20090079387" "20090251102" "4160193" "5278771" "5455466" "5821728" "6436299" "6484260" "6766040" "7164255" "7385357" "D603603" "D611407" "20050007067" "20050130593" "20060052144" "20080132293" "20090153297" "20090174263" "20100039066" "4754180" "5367242" "5528113" "5762250" "5821731" "6211649" "6396935" "6673250" "7180265" "7518267" "D599737" "20070182367" "20080030985" "20080157715" "20090102416" "4076996" "5486394" "6042005" "6230029" "6624616" "7126450" "7392068" "7522878" "D519275" "D553852" "D599736" "D611408" "20020057584" "20050169506" "20060043927" "20060091222" "20070279002" "20080265835" "20090134972" "3938018" "5600225" "5929598" "6441589" "6532298" "6825620" "6894457" "7043060" "7224086" "D586809" "D607879" "20040195767" "20070023559" "20090040807" "20090075704" "20090084705" "20090097221" "20090146608" "20090212639" "20090243791" "6586909" "7132918" "7576514").PN.				
S261	19	S260 and power with loss	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/08/27 14:55
S262	0	S260 and power with loss same index	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/08/27 14:55

EAST Search History

S263	6	S260 and index	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/08/27 14:55
S264	61	S260 and induct\$4 with power	US-PGPUB; USPAT	OR	ON	2013/08/27 14:56
S265	15	S260 and induct\$4 with power and power with loss	US-PGPUB; USPAT	OR	ON	2013/08/27 14:56
S266	10	S260 and induct\$4 with power and power with loss and input with output	US-PGPUB; USPAT	OR	ON	2013/08/27 14:56
S267	7	S260 and induct\$4 with power and power with loss and input with output and primary with coil and secondary with coil	US-PGPUB; USPAT	OR	ON	2013/08/27 14:57

8/ 27/ 2013 3:30:41 PM

H:\ 12563558.wsp

Receipt date: 09/25/2012

Doc code: IDS

Doc description: Information Disclosure Statement (IDS) Filed

13306379 - GAU: 2857

Approved for use through 07/31/2012. OMB 0651-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)	Application Number		13306379	
	Filing Date		2011-11-29	
	First Named Inventor	Yossi Azancot, et al.		
	Art Unit	2857		
	Examiner Name	Carol S. W. Tsai		
	Attorney Docket Number	POWM 0106 PUSA1		

U.S. PATENTS						Remove
Examiner Initial*	Cite No	Patent Number	Kind Code ¹	Issue Date	Name of Patentee or Applicant of cited Document	Pages, Columns, Lines where Relevant Passages or Relevant Figures Appear
	1	5713939	A	1998-02-03	Nedungadi et al.	
	2	5367242	A	1994-11-22	Hulman	
	3	5455466	A	1995-10-03	Parks et al.	
	4	6721540	B1	2004-04-13	Hayakawa	
	5	3771085		1973-11-06	Hojo et al.	
	6	3938018		1976-02-10	Dahl	
	7	4160193		1979-07-03	Richmond	
	8	4431948		1984-02-14	Elder et al.	

Receipt date: 09/25/2012 INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)	Application Number		13306379	13306379 - GAU: 2857
	Filing Date		2011-11-29	
	First Named Inventor	Yossi Azancot, et al.		
	Art Unit	2857		
	Examiner Name	Carol S. W. Tsai		
	Attorney Docket Number	POWM 0106 PUSA1		

	9	4754180		1988-06-28	Kiedrowski	
	10	4977515		1990-12-11	Rudden et al.	
	11	5221877	A	1993-06-22	Falk	
	12	5278771	A	1994-01-11	Nyenya	
	13	5486394	A	1996-01-23	Stough	
	14	5528113	A1	1996-06-18	Boys et al.	
	15	5550452	A	1996-08-27	Shirai et al.	
	16	5600225	A	1997-02-04	Goto	
	17	5734254	A	1998-03-31	Stephens	
	18	5762250	A	1998-06-09	Carlton et al.	
	19	5821728	A	1998-10-13	Schwind	

Receipt date: 09/25/2012 INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)	Application Number		13306379	13306379 - GAU: 2857
	Filing Date		2011-11-29	
	First Named Inventor	Yossi Azancot, et al.		
	Art Unit	2857		
	Examiner Name	Carol S. W. Tsai		
	Attorney Docket Number	POWM 0106 PUSA1		

	20	5821731	A	1998-10-13	Kuki et al.	
	21	5907285	A	1999-05-25	Toms et al.	
	22	5929598	A	1999-07-27	Nakama et al.	
	23	5949214	A	1999-09-07	Broussard et al.	
	24	6042005	A	2000-03-28	Basile et al.	
	25	6211649	B1	2001-04-03	Matsuda	
	26	6230029	B1	2001-05-08	Hahn et al.	
	27	6396935	B1	2002-05-28	Makkonen	
	28	6436299	B1	2002-08-20	Baarman et al.	
	29	6441589	B1	2002-08-27	Frerking et al.	
	30	6484260	B1	2002-11-29	Scott et al.	

Receipt date: 09/25/2012 INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)	Application Number		13306379	13306379 - GAU: 2857
	Filing Date		2011-11-29	
	First Named Inventor	Yossi Azancot, et al.		
	Art Unit	2857		
	Examiner Name	Carol S. W. Tsai		
	Attorney Docket Number	POWM 0106 PUSA1		

	31	6532298	B1	2003-03-11	Cambier et al.	
	32	6586909	B1	2003-07-01	Trepka	
	33	6624616	B1	2003-09-23	Frerking et al.	
	34	6644557	B1	2003-11-11	Jacobs	
	35	6673250	B2	2004-01-06	Kuennen et al.	
	36	6731071	B2	2004-05-04	Baarmaan	
	37	6766040	B1	2004-07-20	Catalano et al.	
	38	6825620	B2	2004-11-30	Kuennen et al.	
	39	6894457	B2	2005-05-17	Germagian et al.	
	40	7043060	B2	2006-05-09	Quintana	
	41	7126450	B2	2006-10-24	Baarmaan et al.	

Receipt date: 09/25/2012 INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)	Application Number		13306379	13306379 - GAU: 2857
	Filing Date		2011-11-29	
	First Named Inventor	Yossi Azancot, et al.		
	Art Unit	2857		
	Examiner Name	Carol S. W. Tsai		
	Attorney Docket Number	POWM 0106 PUSA1		

	42	7132918	B2	2006-11-07	Baaman et al.	
	43	7164255	B2	2007-01-16	Hui	
	44	7180248	B2	2007-02-20	Kuennen et al.	
	45	7180265	B2	2007-02-20	Naskali et al.	
	46	7224086	B2	2007-05-29	Germagian et al.	
	47	7233319	B2	2007-06-19	Johnson et al.	
	48	7385357	B2	2008-06-10	Kuennen et al.	
	49	7405535	B2	2008-07-29	Frerking et al.	
	50	7462951	B1	2008-12-09	Baaman	
	51	7518267	B2	2009-04-14	Baaman	
	52	7522878	B2	2009-04-21	Baaman	

Receipt date: 09/25/2012 INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)	Application Number		13306379	13306379 - GAU: 2857
	Filing Date		2011-11-29	
	First Named Inventor	Yossi Azancot, et al.		
	Art Unit	2857		
	Examiner Name	Carol S. W. Tsai		
	Attorney Docket Number	POWM 0106 PUSA1		

	53	7576514	B2	2009-08-18	Hui	
	54	7612528	B2	2009-11-03	Baarman et al.	
	55	6888438	B2	2005-05-03	Hui et al.	
	56	D519275	S	2006-04-25	Jennifer Leiya Shertzer	
	57	D553852	S	2007-10-30	Brandenburg	
	58	D586809	S	2009-02-17	Jones et al.	
	59	D599735	S	2009-09-08	Amidei et al.	
	60	D599736	S	2009-09-08	Ferber et al.	
	61	D599737	S	2009-09-08	Amidei et al.	
	62	D599738	S	2009-09-08	Amidei et al.	
	63	D603603	S	2009-11-10	Laine et al.	

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)	Receipt date: 09/25/2012		Application Number		13306379	13306379 - GAU: 2857
			Filing Date		2011-11-29	
			First Named Inventor		Yossi Azancot, et al.	
			Art Unit		2857	
			Examiner Name		Carol S. W. Tsai	
			Attorney Docket Number		POWM 0106 PUSA1	

	64	D607879	S	2010-01-12	Ferber et al.	
	65	D611407	S	2010-03-09	Webb	
	66	D611408	S	2010-03-09	Ferber et al.	
	67	7392068	B2	2008-06-24	Dayan et al.	
	68	4076996		1978-02-28	Maehara et al.	
	69	5896278		1999-04-20	Tamura et al.	

If you wish to add additional U.S. Patent citation information please click the Add button.

Add

U.S.PATENT APPLICATION PUBLICATIONS

Remove

Examiner Initial*	Cite No	Publication Number	Kind Code ¹	Publication Date	Name of Patentee or Applicant of cited Document	Pages, Columns, Lines where Relevant Passages or Relevant Figures Appear
	1	20020057584	A1	2002-05-16	Brockmann	
	2	20020158512	A1	2002-10-31	Mizutani et al.	
	3	20030210106	A1	2003-11-13	Cheng et al.	

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)	Application Number		13306379	13306379 - GAU: 2857
	Filing Date		2011-11-29	
	First Named Inventor		Yossi Azancot, et al.	
	Art Unit		2857	
	Examiner Name		Carol S. W. Tsai	
	Attorney Docket Number		POWM 0106 PUSA1	

	4	20040023633	A1	2004-02-05	Gordon	
	5	20040195767	A1	2004-10-07	Randall	
	6	20040203537	A1	2004-10-14	Yoshida et al.	
	7	20040242264	A1	2004-12-02	Cho	
	8	20040261802	A1	2004-12-30	Griffin et al.	
	9	20050007067	A1	2005-01-13	Baerman et al.	
	10	20050083020	A1	2005-04-21	Baerman	
	11	20050130593	A1	2005-06-16	Michalak	
	12	20050169506	A1	2005-08-04	Fenrich et al.	
	13	20050233768	A1	2005-10-20	Guo et al.	
	14	20060028176	A1	2006-02-09	Tang et al.	

Receipt date: 09/25/2012 INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)	Application Number		13306379	13306379 - GAU: 2857
	Filing Date		2011-11-29	
	First Named Inventor	Yossi Azancot, et al.		
	Art Unit	2857		
	Examiner Name	Carol S. W. Tsai		
	Attorney Docket Number	POWM 0106 PUSA1		

	15	20060043927	A1	2006-03-02	Beart et al.	
	16	20060052144	A1	2006-03-09	Seil et al.	
	17	20060061325	A1	2006-03-23	Tang et al.	
	18	20060071632	A1	2006-04-06	Ghabra et al.	
	19	20060091222	A1	2006-05-04	Leung et al.	
	20	20060093132	A1	2006-05-04	Desormiere et al.	
	21	20060202665	A1	2006-09-14	Hsu	
	22	20070023559	A1	2007-02-01	Scapillato et al.	
	23	20070057763	A1	2007-03-15	Blattner et al.	
	24	20070076459	A1	2007-04-05	Limpkin	
	25	20070136593	A1	2007-06-14	Plavcan et al.	

Receipt date: 09/25/2012 INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)	Application Number		13306379	13306379 - GAU: 2857
	Filing Date		2011-11-29	
	First Named Inventor	Yossi Azancot, et al.		
	Art Unit	2857		
	Examiner Name	Carol S. W. Tsai		
	Attorney Docket Number	POWM 0106 PUSA1		

	26	20070165371	A1	2007-07-19	Brandenburg	
	27	20070182367	A1	2007-08-09	Partovi	
	28	20080001922	A1	2008-01-03	Johnson et al.	
	29	20080030985	A1	2008-02-07	Jeon et al.	
	30	20080049988	A1	2008-02-28	Basile et al.	
	31	20080079388	A1	2008-04-03	Samowski et al.	
	32	20080132293	A1	2008-06-05	Gundlach et al.	
	33	20080157715	A1	2008-07-03	Rosenboom et al.	
	34	20080223926	A1	2008-09-18	Miller et al.	
	35	20080258680	A1	2008-10-23	Frerking et al.	
	36	20080265835	A1	2008-10-30	Reed et al.	

Receipt date: 09/25/2012 INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)	Application Number		13306379	13306379 - GAU: 2857
	Filing Date		2011-11-29	
	First Named Inventor	Yossi Azancot, et al.		
	Art Unit	2857		
	Examiner Name	Carol S. W. Tsai		
	Attorney Docket Number	POWM 0106 PUSA1		

	37	20090026959	A1	2009-01-29	Lin et al.	
	38	20090040807	A1	2009-02-12	Doumae et al.	
	39	20090047768	A1	2009-02-19	Jain	
	40	20090047769	A1	2009-02-19	Bhat et al.	
	41	20090075704	A1	2009-03-19	Wang	
	42	20090084705	A1	2009-04-02	Justiss	
	43	20090097221	A1	2009-04-16	Sayed et al.	
	44	20090102416	A1	2009-04-23	Burley	
	45	20090134972	A1	2009-05-28	Wu, Jr. et al.	
	46	20090153297	A1	2009-06-18	Gardner	
	47	20090174263	A1	2009-07-09	Baarman et al.	

Receipt date: 09/25/2012 INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)	Application Number		13306379	13306379 - GAU: 2857
	Filing Date		2011-11-29	
	First Named Inventor	Yossi Azancot, et al.		
	Art Unit	2857		
	Examiner Name	Carol S. W. Tsai		
	Attorney Docket Number	POWM 0106 PUSA1		

	48	20090203355	A1	2009-08-13	Clark	
	49	20090212639	A1	2009-08-27	Johnson	
	50	20090226050	A1	2009-09-10	Hughes	
	51	20090243791	A1	2009-10-01	Partin et al.	
	52	20090251102	A1	2009-10-08	Hui	
	53	20090273891	A1	2009-11-05	Peiker	
	54	20090278494	A1	2009-11-12	Randall	
	55	20100039066	A1	2010-02-18	Yuan et al.	
	56	20090079387	A1	2009-03-26	Jin et al.	
	57	20090146608	A1	2009-06-11	Lee	
	58	20090153098	A1	2009-06-18	Toya et al.	

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)	Receipt date: 09/25/2012		Application Number		13306379	13306379 - GAU: 2857	
			Filing Date		2011-11-29		
			First Named Inventor		Yossi Azancot, et al.		
			Art Unit		2857		
			Examiner Name		Carol S. W. Tsai		
			Attorney Docket Number		POWM 0106 PUSA1		

	59	20050192062	A1	2005-09-01	Mickle et al.	
	60	20070279002	A1	2007-12-06	Partovi	

If you wish to add additional U.S. Published Application citation information please click the Add button. **Add**

FOREIGN PATENT DOCUMENTS								Remove
Examiner Initial*	Cite No	Foreign Document Number ³	Country Code ²	Kind Code ⁴	Publication Date	Name of Patentee or Applicant of cited Document	Pages, Columns, Lines where Relevant Passages or Relevant Figures Appear	T ⁵
	1	0215320	WO	A1	2002-02-21	Inca Systems Co., Ltd.		☐
	2	0558316	EP	A1	1993-01-09	G2 Design Limited		☐
	3	0160990	EP	A2	1985-11-13	Licentia GmbH		☐
	4	0160990	EP	B1	1991-01-16	Telefunken Systemtechnik GmbH		☐
	5	2008030985	WO	A2	2003-03-13	Newton Peripherals LLC		☐
	6	2006015143	WO	A2	2006-02-09	Manifold Products LLC		☐
	7	1990734	EP	A1	2008-11-12	Menstecnica S.R.L.		☐

Receipt date: 09/25/2012 INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)	Application Number		13306379	13306379 - GAU: 2857
	Filing Date		2011-11-29	
	First Named Inventor	Yossi Azancot, et al.		
	Art Unit	2857		
	Examiner Name	Carol S. W. Tsai		
	Attorney Docket Number	POWM 0106 PUSA1		

	8	0201557	WO	A1	2002-03-01	Citizen Watch Co. Ltd.		☐
	9	2008086080	WO	A2	2008-07-17	Newton Peripherals, LLC		☐
	10	2008093334	WO	A2	2008-07-08	Powermat Ltd.		☐
	11	2008114268	WO	A2	2008-09-25	Powermat Ltd.		☐
	12	2009040807	WO	A2	2009-04-02	Powermat Ltd.		☐
	13	2009047768	WO	A2	2009-04-16	Powermat Ltd.		☐
	14	2009047769	WO	A2	2009-04-16	Powermat Ltd.		☐
	15	2009049657	WO	A1	2009-04-23	Tom-Tom International B. V.		☐
	16	2009108958	WO	A1	2009-09-03	L & P Property Management Company		☐
	17	2399466	GB	A	2004-09-15	City University of Hong Kong		☐
	18	2399466	GB	B	2005-11-16	City University of Hong Kong		☐

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)	Receipt date: 09/25/2012		Application Number		13306379	13306379 - GAU: 2857
			Filing Date		2011-11-29	
			First Named Inventor		Yossi Azancot, et al.	
			Art Unit		2857	
			Examiner Name		Carol S. W. Tsai	
			Attorney Docket Number		POWM 0106 PUSA1	

	19	9602879	WO	A1	1996-02-01	Elonex Technologies, Inc.		☐
	20	2001025157	WO	A1	2010-03-04	Nigel P. Cook et al.		☐
	21	2010025156	WO	A1	2010-03-04	Nigel P. Cook et al.		☐

If you wish to add additional Foreign Patent Document citation information please click the Add button **Add**

NON-PATENT LITERATURE DOCUMENTS

Remove

Examiner Initials*	Cite No	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc), date, pages(s), volume-issue number(s), publisher, city and/or country where published.	T ⁵
	1	S.Y.R. Hui, et al., A New Generation of Universal Contactless Battery Charging Platform for Portable Consumer Electronic Equipment, IEEE Transactions on Power Electronics, Vol 20, No. 3, May 2005	☐
	2	X. Liu, et al., An Analysis of a Double-layer Electromagnetic Shield for a Universal Contactless Battery Charging Platform, IEEE 2006	☐
	3	X. Liu, Equivalent Circuit Modeling of a Multilayer Planar Winding Array Structure for Use in a Universal Contactless Battery Charging Platform, 2006 IEEE	☐
	4	S.C. Tang, et al., Evaluation of the Shielding Effects on Printed-Circuit-Board Transformers Using Ferrite Plates and Copper Sheets, 2002 IEEE	☐
	5	Y.P. Xu, et al., Extended Theory on the Inductance Calculation of Planar Spiral Windings Including the Effect of Double-layer Electromagnetic Shield, 2007 IEEE	☐
	6	Xun Liu, et al., Optimal Design of a Hybrid Winding Structure for Planar Contactless Battery Charging Platform, 2007 IEEE	☐

Receipt date: 09/25/2012 INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)	Application Number		13306379 13306379 - GAU: 2857
	Filing Date		2011-11-29
	First Named Inventor	Yossi Azancot, et al.	
	Art Unit	2857	
	Examiner Name	Carol S. W. Tsai	
	Attorney Docket Number	POWM 0106 PUSA1	

	7	Xun Liu, et al., Simulation Study and Experimental Verification of a Universal Contactless Battery Charging Platform With Localized Charging Features, 2007 IEEE	☐
	8	International Search Report and Written Opinion as filed in PCT/IL2008/001282, as mailed on 3-3-2009	☐
	9	International Search Report and Written Opinion as filed in PCT/IL2008001347, as mailed on 2-17-2009	☐
	10	International Search Report and Written Opinion as filed in PCT/IL2008/001348, as mailed on 10-12-2008	☐

If you wish to add additional non-patent literature document citation information please click the Add button **Add**

EXAMINER SIGNATURE

Examiner Signature	/Carol Tsai/	Date Considered	08/26/2013
--------------------	--------------	-----------------	------------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through a citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ See Kind Codes of USPTO Patent Documents at www.USPTO.GOV or MPEP 901.04. ² Enter office that issued the document, by the two-letter code (WIPO Standard ST.3). ³ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁴ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁵ Applicant is to place a check mark here if English language translation is attached.

Receipt date: 09/25/2012 INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)	Application Number		13306379 13306379 - GAU: 2857
	Filing Date		2011-11-29
	First Named Inventor	Yossi Azancot, et al.	
	Art Unit	2857	
	Examiner Name	Carol S. W. Tsai	
	Attorney Docket Number	POWM 0106 PUSA1	

CERTIFICATION STATEMENT

Please see 37 CFR 1.97 and 1.98 to make the appropriate selection(s):

☐ That each item of information contained in the information disclosure statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(1).

OR

☐ That no item of information contained in the information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the person signing the certification after making reasonable inquiry, no item of information contained in the information disclosure statement was known to any individual designated in 37 CFR 1.56(c) more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(2).

☐ See attached certification statement.

☒ Fee set forth in 37 CFR 1.17 (p) has been submitted herewith.

☐ None

SIGNATURE

A signature of the applicant or representative is required in accordance with CFR 1.33, 10.18. Please see CFR 1.4(d) for the form of the signature.

Signature	/David S. Bir/	Date (YYYY-MM-DD)	2012-09-25
Name/Print	David S. Bir	Registration Number	38383

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1 hour to complete, including gathering, preparing and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. **DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

Privacy Act Statement

The Privacy Act of 1974 (P.L. 93-579) requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C. 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether the Freedom of Information Act requires disclosure of these records.
2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspections or an issued patent.
9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /C.T./

Search Notes 	Application/Control No. 13306379	Applicant(s)/Patent Under Reexamination AZANCOT ET AL.
	Examiner CAROL TSAI	Art Unit 2857

CPC- SEARCHED		
Symbol	Date	Examiner

CPC COMBINATION SETS - SEARCHED		
Symbol	Date	Examiner

US CLASSIFICATION SEARCHED			
Class	Subclass	Date	Examiner
702	62,150	8/22/2012	CST
324	239,329,334,335,336	8/22/2012	CST
323	224,225,235,238,247,259,262	8/22/2012	CST
363	16,24,25,131	8/22/2012	CST
320	108,109,114	8/22/2012	CST
235	380	8/22/2012	CST
307	104,116	8/22/2012	CST
318	16,480,538	8/22/2012	CST
Updated Search		8/27/2013	CST

SEARCH NOTES		
Search Notes	Date	Examiner
East Search (see search history printout)	8/22/2012	CST
Updated Search (see search history printout)	8/27/2013	CST

INTERFERENCE SEARCH			
US Class/ CPC Symbol	US Subclass / CPC Group	Date	Examiner
702	62,150	8/27/2013	CST
323	224	8/27/2013	CST

	/CAROL S TSAI/ Primary Examiner.Art Unit 2857
--	--

INTERFERENCE SEARCH			
US Class/ CPC Symbol	US Subclass / CPC Group	Date	Examiner
320	108	8/27/2013	CST
235	380	8/27/2013	CST
307	104,116	8/27/2013	CST

	/CAROL S TSAI/ Primary Examiner.Art Unit 2857
--	--

O.K. to enter
CST
8/27/2013

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

YOSSI AZANCOT et al.

Serial No.: 13/306,379

Filed: November 29, 2011

For: EFFICIENCY MONITOR FOR INDUCTIVE POWER
TRANSMISSION

Group Art Unit: 2857

Examiner: CAROL S. W. TSAI

Attorney Docket No.: POWM0106PUSA1

AMENDMENT UNDER 37 C.F.R. § 1.116 FOR CONSIDERATION
UNDER AFTER FINAL PILOT PROGRAM 2.0

Mail Stop AF
Commissioner for Patents
U.S. Patent and Trademark Office
P.O. Box 1450
Alexandria, VA 22313-1450

Commissioner:

In response to the Final Office Action mailed March 21, 2013, please consider this amendment and remarks under the After Final Consideration Pilot Program 2.0. Applicant submits herewith form PTO/SB/434.

Please amend the above-identified application as follows:

EAST Search History

EAST Search History (Interference)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L36	0	"I35" and power\$3 with transmi\$6 and induct\$4 with power with outlet with coil	USPAT; UPAD	OR	ON	2013/08/27 13:21
L37	0	"I35" and (monitor\$3 or sens\$3 or detect\$4 or identif\$4 or indicat\$4 or determin\$3) with power\$3 with transmi\$6 and induct\$4 with power with outlet with coil	USPAT; UPAD	OR	ON	2013/08/27 13:22
L38	0	"I35" and (monitor\$3 or sens\$3 or detect\$4 or identif\$4 or indicat\$4 or determin\$3) with power\$3 with (deliver\$4 or transmi\$6 or transfer\$4) and induct\$4 with power with outlet with coil	USPAT; UPAD	OR	ON	2013/08/27 13:22
L39	0	"I35" and (monitor\$3 or sens\$3 or detect\$4 or identif\$4 or indicat\$4 or determin\$3) with (electricity or utility or power\$3) with (deliver\$4 or transmi\$6 or transfer\$4) and induct\$4 and (electricity or utility or power\$3) with outlet with coil and output\$4 with (electricity or utility or power\$3) and input\$4 with (electricity or utility or power\$3)	USPAT; UPAD	OR	ON	2013/08/27 13:22
L40	0	"I35" and (monitor\$3 or sens\$3 or detect\$4 or identif\$4 or indicat\$4 or determin\$3) with (electricity or utility or power\$3) with (deliver\$4 or transmi\$6 or transfer\$4) and induct\$4 and (electricity or utility or power\$3) with outlet with coil and output\$4 with (electricity or utility or power\$3) and input\$4 with (electricity or utility or power\$3)	USPAT; UPAD	OR	ON	2013/08/27 13:22
L41	0	"I35" and (monitor\$3 or sens\$3 or detect\$4 or identif\$4 or indicat\$4 or determin\$3) with (electricity or utility or power\$3) with (deliver\$4 or transmi\$6 or transfer\$4) and induct\$4 and (electricity or utility or power\$3) with outlet with coil and output\$4 with (electricity or utility or power\$3) and input\$4 with (electricity or utility or power\$3)	USPAT; UPAD	OR	ON	2013/08/27 13:22
L42	0	"I35" and (monitor\$3 or sens\$3 or detect\$4 or identif\$4 or indicat\$4 or determin\$3) with (electricity or utility or power\$3) with (deliver\$4 or transmi\$6 or transfer\$4) and induct\$4 and (electricity or utility or power\$3) with outlet with coil and output\$4 with (electricity or utility or power\$3) and input\$4 with (electricity or utility or power\$3)	USPAT; UPAD	OR	ON	2013/08/27 13:23
L43	0	"I35" and bit-rate with signal with (computer or cellular adj phone or PDA)	USPAT; UPAD	OR	ON	2013/08/27 13:23
L44	0	"I35" and bit-rate with signal with (computer or cellular adj phone or PDA)	USPAT; UPAD	OR	ON	2013/08/27 13:23
L45	0	"I35" and bit-rate with signal with (computer or cellular adj phone or PDA)	USPAT; UPAD	OR	ON	2013/08/27 13:23

L46	0	"I35" and contactless with induct\$4 with coupl\$4 and transmitter with receiver and (primary or first) adj coil and power with supply and second\$5 with coil and (power\$3 or energy or electric\$5) with (short or shorage or loss or dis-contin\$6 or discontinu\$4 or dis-connect\$4 or disconnect\$4) and load and switch\$4 and driver	USPAT; UPAD	OR	ON	2013/08/27 13:24
L47	0	"I35" and contactless with induct\$4 with coupl\$4 and transmitter with receiver and (primary or first) adj coil and power with supply and second\$5 with coil and (power\$3 or energy or electric\$5) with (short or shorage or loss or dis-contin\$6 or discontinu\$4 or dis-connect\$4 or disconnect\$4) and load and switch\$4 and driver	USPAT; UPAD	OR	ON	2013/08/27 13:24
L48	0	"I35" and induct\$4 with (power\$3 or electric or energy) with coupl\$4 with (primary or first) adj coil with second\$5 with coil and supply\$3 with (electric or power or energy) with load and transmit\$5 with receiv\$3 and (magnetic or electromagnetic adj radiation or heat\$3 or thermal or temperature) with (sensor or detector or monitor)	USPAT; UPAD	OR	ON	2013/08/27 13:24
L49	0	"I35" and induct\$4 with (power\$3 or electric or energy) with coupl\$4 with (primary or first) adj coil with second\$5 with coil and supply\$3 with (electric or power or energy) with load and transmit\$5 with receiv\$3 and (hazard or disaster or danger\$4 or malfunction or defect or anomaly or abnormality or alarm) and (magnetic or electromagnetic adj radiation or heat\$3 or thermal or temperature) with (sensor or detector or monitor)	USPAT; UPAD	OR	ON	2013/08/27 13:24
L50	0	"I35" and induct\$4 with (power\$3 or electric or energy) with coupl\$4 with (primary or first) adj coil with second\$5 with coil and supply\$3 with (electric or power or energy) with load and induct\$4 adj (power\$3 or electric or energy) adj outlet	USPAT; UPAD	OR	ON	2013/08/27 13:24
L51	0	"I35" and induct\$4 with (power\$3 or electric or energy) with coupl\$4 with (primary or first) adj coil with second\$5 with coil and supply\$3 with (electric or power or energy) and induct\$4 adj (power\$3 or electric or energy) adj outlet not "I15"	USPAT; UPAD	OR	ON	2013/08/27 13:25
L52	0	"I35" and induct\$4 with (power\$3 or electric or energy) with coupl\$4 with (primary or first) adj coil with second\$5 with coil and supply\$3 with (electric or power or energy) and induct\$4 adj (power\$3 or electric or energy) adj outlet not "I1"	USPAT; UPAD	OR	ON	2013/08/27 13:25

8/ 27/ 2013 1:59:47 PM

H:\ 12563558.wsp

PART B - FEE(S) TRANSMITTAL

**Complete and send this form, together with applicable fee(s), to: Mail Mail Stop ISSUE FEE
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450
or Fax (571)-273-2885**

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

22045 7590 08/30/2013
BROOKS KUSHMAN P.C.
1000 TOWN CENTER
TWENTY-SECOND FLOOR
SOUTHFIELD, MI 48075

Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

Certificate of Mailing or Transmission

I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO (571) 273-2885, on the date indicated below.

(Depositor's name)
(Signature)
(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
13/306,379	11/29/2011	Yossi Azancot	POWM0106PUSA1	3309

TITLE OF INVENTION: EFFICIENCY MONITOR FOR INDUCTIVE POWER TRANSMISSION

APPLN. TYPE	ENTITY STATUS	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	SMALL	\$890	\$300	\$0	\$1190	12/02/2013

EXAMINER	ART UNIT	CLASS-SUBCLASS
TSAI, CAROL S W	2857	702-062000

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).

- ☐ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.
- ☐ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. **Use of a Customer Number is required.**

2. For printing on the patent front page, list

- (1) the names of up to 3 registered patent attorneys or agents OR, alternatively,
- (2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed.

1 Brooks Kushman P.C.

2 _____

3 _____

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE

POWERMAT TECHNOLOGIES, LTD

(B) RESIDENCE: (CITY and STATE OR COUNTRY)

NEVE ILAN, ISRAEL

Please check the appropriate assignee category or categories (will not be printed on the patent): ☐ Individual ☒ Corporation or other private group entity ☐ Government

4a. The following fee(s) are submitted:

- ☒ Issue Fee
- ☒ Publication Fee (No small entity discount permitted)
- ☐ Advance Order - # of Copies _____

4b. Payment of Fee(s): (Please first reapply any previously paid issue fee shown above)

- ☐ A check is enclosed.
- ☐ Payment by credit card. Form PTO-2038 is attached.
- ☒ The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment, to Deposit Account Number 02-3978 (enclose an extra copy of this form).

5. **Change in Entity Status** (from status indicated above)

☐ Applicant certifying micro entity status. See 37 CFR 1.29

☐ Applicant asserting small entity status. See 37 CFR 1.27

☐ Applicant changing to regular undiscounted fee status.

NOTE: Absent a valid certification of Micro Entity Status (see form PTO/SB/15A and 15B), issue fee payment in the micro entity amount will not be accepted at the risk of application abandonment.

NOTE: If the application was previously under micro entity status, checking this box will be taken to be a notification of loss of entitlement to micro entity status.

NOTE: Checking this box will be taken to be a notification of loss of entitlement to small or micro entity status, as applicable.

NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.

Authorized Signature /David S. Bir/

Date November 27, 2013

Typed or printed name David S. Bir

Registration No. 38383

This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

Electronic Patent Application Fee Transmittal				
Application Number:	13306379			
Filing Date:	29-Nov-2011			
Title of Invention:	EFFICIENCY MONITOR FOR INDUCTIVE POWER TRANSMISSION			
First Named Inventor/Applicant Name:	Yossi Azancot			
Filer:	David S. Bir/Theresa Good			
Attorney Docket Number:	POWM0106PUSA1			
Filed as Small Entity				
Utility under 35 USC 111(a) Filing Fees				
Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Basic Filing:				
Pages:				
Claims:				
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				
Utility Appl Issue Fee	2501	1	890	890
Publ. Fee- Early, Voluntary, or Normal	1504	1	300	300

Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Extension-of-Time:				
Miscellaneous:				
Total in USD (\$)				1190

Electronic Acknowledgement Receipt	
EFS ID:	17517390
Application Number:	13306379
International Application Number:	
Confirmation Number:	3309
Title of Invention:	EFFICIENCY MONITOR FOR INDUCTIVE POWER TRANSMISSION
First Named Inventor/Applicant Name:	Yossi Azancot
Customer Number:	22045
Filer:	David S. Bir
Filer Authorized By:	
Attorney Docket Number:	POWM0106PUSA1
Receipt Date:	27-NOV-2013
Filing Date:	29-NOV-2011
Time Stamp:	10:58:01
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	Deposit Account
Payment was successfully received in RAM	\$1190
RAM confirmation Number	13705
Deposit Account	023978
Authorized User	
<p>The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows:</p> <p>Charge any Additional Fees required under 37 C.F.R. Section 1.16 (National application filing, search, and examination fees)</p> <p>Charge any Additional Fees required under 37 C.F.R. Section 1.17 (Patent application and reexamination processing fees)</p>	

File Listing:					
Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1		312Amendment.pdf	195279 83b6cb65ea8867cbfd40fcece9077a8088b250	yes	3
	Multipart Description/PDF files in .zip description				
	Document Description	Start	End		
	Amendment after Notice of Allowance (Rule 312)	1	1		
	Specification	2	2		
	Applicant Arguments/Remarks Made in an Amendment	3	3		
Warnings:					
Information:					
2	Issue Fee Payment (PTO-85B)	PTOL85.pdf	108940 15f0ae673b7d6698ae0d2865d366aea8d3d6e2ea	no	2
Warnings:					
Information:					
3	Fee Worksheet (SB06)	fee-info.pdf	32038 f552470c192599408a35398124d5175fa7c6785	no	2
Warnings:					
Information:					
Total Files Size (in bytes):			336257		
<p>This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.</p> <p><u>New Applications Under 35 U.S.C. 111</u> If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.</p> <p><u>National Stage of an International Application under 35 U.S.C. 371</u> If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.</p> <p><u>New International Application Filed with the USPTO as a Receiving Office</u> If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.</p>					

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

YOSSI AZANCOT

Serial No.: 13/306379

Filed: November 29, 2011

For: EFFICIENCY MONITOR FOR INDUCTIVE POWER
TRANSMISSION

Group Art Unit: 2857

Examiner: CAROL S. W. TSAI

Attorney Docket No.: POWM0106PUSA1

**AMENDMENT AFTER ALLOWANCE
UNDER 37 C.F.R. § 1.312**

Mail Stop Issue Fee
Commissioner for Patents
U.S. Patent and Trademark Office
P.O. Box 1450
Alexandria, VA 22313-1450

Commissioner:

Please amend the above-identified application as follows:

Amendments to the Specification:

Please amend the first paragraph beginning on page 1, as shown below:

This application is a continuation of U.S. Serial No. 12/563,558 filed September 21, 2009 (now U.S. Patent No. 8,090,550), which is a continuation of PCT application Serial No. PCT/IL2008/000401 filed March 23, 2008, which claims the benefit of U.S. provisional application Serial Nos. 60/907,132 filed March 22, 2007, 60/935,847 filed September 4, 2007, 61/006,076 filed December 18, 2007, 61/006,106 filed December 19, 2007, 61/006,488 filed January 16, 2008 and 61/006,721 filed January 29, 2008, the disclosures of which are hereby incorporated by reference in their entirety.

Remarks

Applicant has amended the "Cross-Reference to Related Applications" section in the specification to add the U.S. Patent number for U.S. Application No. 12/563,558. No new matter has been added by this amendment.

Please charge any fees or credit any overpayments as a result of the filing of this paper to our Deposit Account No. 02-3978.

Respectfully submitted,

YOSSI AZANCOT

By: /David S. Bir/
David S. Bir
Reg. No. 38,383
Attorney/Agent for Applicant

Date: November 27, 2013

BROOKS KUSHMAN P.C.
1000 Town Center, 22nd Floor
Southfield, MI 48075-1238
Phone: 248-358-4400
Fax: 248-358-3351

O.K. to enter
CST
12/6/2013

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

YOSSI AZANCOT

Serial No.: 13/306379

Filed: November 29, 2011

For: EFFICIENCY MONITOR FOR INDUCTIVE POWER
TRANSMISSION

Group Art Unit: 2857

Examiner: CAROL S. W. TSAI

Attorney Docket No.: POWM0106PUSA1

**AMENDMENT AFTER ALLOWANCE
UNDER 37 C.F.R. § 1.312**

Mail Stop Issue Fee
Commissioner for Patents
U.S. Patent and Trademark Office
P.O. Box 1450
Alexandria, VA 22313-1450

Commissioner:

Please amend the above-identified application as follows:



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
13/306,379	11/29/2011	Yossi Azancot	POWM0106PUSA1	3309
22045 7590 12/09/2013 BROOKS KUSHMAN P.C. 1000 TOWN CENTER TWENTY-SECOND FLOOR SOUTHFIELD, MI 48075			EXAMINER TSAL, CAROL S W	
			ART UNIT 2857	PAPER NUMBER
			MAIL DATE 12/09/2013	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Response to Rule 312 Communication	Application No. 13/306,379	Applicant(s) AZANCOT ET AL.
	Examiner CAROL S. W. TSAI	Art Unit 2857
<p align="center">-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --</p> <p>1. ☒ The amendment filed on <u>27 November 2013</u> under 37 CFR 1.312 has been considered, and has been:</p> <p>a) ☐ entered.</p> <p>b) ☒ entered as directed to matters of form not affecting the scope of the invention.</p> <p>c) ☐ disapproved because the amendment was filed after the payment of the issue fee. Any amendment filed after the date the issue fee is paid must be accompanied by a petition under 37 CFR 1.313(c)(1) and the required fee to withdraw the application from issue.</p> <p>d) ☐ disapproved. See explanation below.</p> <p>e) ☐ entered in part. See explanation below.</p>		
		/CAROL S. W. TSAI/ Primary Examiner, Art Unit 2857

Receipt date: 08/02/2013 INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)	Application Number		13306379	13306379 - GAU: 2857
	Filing Date		2011-11-29	
	First Named Inventor		YOSSI AZANCOT	
	Art Unit			
	Examiner Name			
	Attorney Docket Number		POWM0106PUSA1	

	3	2007-529110	JP		2007-10-18	THALES UK PLC		☐
	4	07-039078	JP		1995-02-07	TOSHIBA CORP		☐
	5	2005-006440	JP		2005-01-06	SEIKO EPSON CORP		☐
	6	2005-110412	JP		2005-04-21	SHARP CORP		☐
	7	04-156242	JP		1992-05-28	SEKISUI CHEM CO LTD		☐
	8	2006-102055	JP		2006-04-20	CLEANUP CORP		☐
Change(s) applied to document, /L.K.H./ 10/17/2013		07-036556	JP		2007-02-08	UNKNOWN		☐

If you wish to add additional Foreign Patent Document citation information please click the Add button

Add

NON-PATENT LITERATURE DOCUMENTS

Remove

Examiner Initials*	Cite No	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc), date, pages(s), volume-issue number(s), publisher, city and/or country where published.	T ⁵
	1	Office Action dated March 22, 2013, for Mexican Application MX/a/2011/003088	☐
	2	Office Action dated February 5, 2013, for Chinese Application 201110068458.7	☐

Receipt date: 09/25/2012 INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)	Application Number		13306379	13306379 - GAU: 2857
	Filing Date		2011-11-29	
	First Named Inventor	Yossi Azancot, et al.		
	Art Unit	2857		
	Examiner Name	Carol S. W. Tsai		
	Attorney Docket Number	POWM 0106 PUSA1		

	19	9602879	WO	A1	1996-02-01	Elonex Technologies, Inc.	☐
Change(s) applied to document.	20	2001025157 2010025157	WO	A1	2010-03-04	Nigel P. Cook et al.	☐
/M.F.O./ 11/1/2013	21	2010025156	WO	A1	2010-03-04	Nigel P. Cook et al.	☐
If you wish to add additional Foreign Patent Document citation information please click the Add button Add							
NON-PATENT LITERATURE DOCUMENTS Remove							
Examiner Initials*	Cite No	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc), date, pages(s), volume-issue number(s), publisher, city and/or country where published.					T ⁵
	1	S.Y.R. Hui, et al., A New Generation of Universal Contactless Battery Charging Platform for Portable Consumer Electronic Equipment, IEEE Transactions on Power Electronics, Vol 20, No. 3, May 2005					☐
	2	X. Liu, et al., An Analysis of a Double-layer Electromagnetic Shield for a Universal Contactless Battery Charging Platform, IEEE 2006					☐
	3	X. Liu, Equivalent Circuit Modeling of a Multilayer Planar Winding Array Structure for Use in a Universal Contactless Battery Charging Platform, 2006 IEEE					☐
	4	S.C. Tang, et al., Evaluation of the Shielding Effects on Printed-Circuit-Board Transformers Using Ferrite Plates and Copper Sheets, 2002 IEEE					☐
	5	Y.P. Xu, et al., Extended Theory on the Inductance Calculation of Planar Spiral Windings Including the Effect of Double-layer Electromagnetic Shield, 2007 IEEE					☐
	6	Xun Liu, et al., Optimal Design of a Hybrid Winding Structure for Planar Contactless Battery Charging Platform, 2007 IEEE					☐



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	ISSUE DATE	PATENT NO.	ATTORNEY DOCKET NO.	CONFIRMATION NO.
13/306,379	01/07/2014	8626461	POWM0106PUSA1	3309

22045 7590 12/18/2013
BROOKS KUSHMAN P.C.
1000 TOWN CENTER
TWENTY-SECOND FLOOR
SOUTHFIELD, MI 48075

ISSUE NOTIFICATION

The projected patent number and issue date are specified above.

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b) (application filed on or after May 29, 2000)

The Patent Term Adjustment is 0 day(s). Any patent to issue from the above-identified application will include an indication of the adjustment on the front page.

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (<http://pair.uspto.gov>).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Application Assistance Unit (AAU) of the Office of Data Management (ODM) at (571)-272-4200.

APPLICANT(s) (Please see PAIR WEB site <http://pair.uspto.gov> for additional applicants):

Yossi Azancot, Jerusalem, ISRAEL;
Amir Ben-Shalom, Modiin, ISRAEL;
Oola Greenwald, Mevasseret Zion, ISRAEL;
Arik Rofo, Jerusalem, ISRAEL;

The United States represents the largest, most dynamic marketplace in the world and is an unparalleled location for business investment, innovation, and commercialization of new technologies. The USA offers tremendous resources and advantages for those who invest and manufacture goods here. Through SelectUSA, our nation works to encourage and facilitate business investment. To learn more about why the USA is the best country in the world to develop technology, manufacture products, and grow your business, visit SelectUSA.gov.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

YOSSI AZANCOT

Serial No.: 13/306,379

Filed: November 29, 2011

For: EFFICIENCY MONITOR FOR INDUCTIVE POWER
TRANSMISSION

Group Art Unit: 2857

Examiner: CAROL S. W. TSAI

Attorney Docket No.: POWM0106PUSA1

REQUEST FOR CERTIFICATE OF CORRECTION

Attention Certificate of Correction Branch
Commissioner for Patents
U.S. Patent & Trademark Office
P.O. Box 1450
Alexandria, VA 22313-1450

Commissioner:

It is requested that a Certificate of Correction be issued for the above-identified patent under the provisions of 37 C.F.R. § 1.322. The corrections noted are as follows:

Column 21, Line 43, Claim 11:
(Page 4, Line 2, Claim 12: Amendment dated June 19, 2013):

After “quotient Q” delete “the input power”.

Filed herewith is the form for Certificate of Correction (PTO/SB/44). The Commissioner is hereby authorized to charge any additional fees to our Deposit Account No. 02-3978.

Respectfully submitted,

YOSSI AZANCOT

By: /David S. Bir/

David S. Bir

Reg. No. 38,383

Attorney/Agent for Applicant

Date: March 7, 2014

BROOKS KUSHMAN P.C.
1000 Town Center, 22nd Floor
Southfield, MI 48075-1238
Phone: 248-358-4400
Fax: 248-358-3351

**UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION**

Page 1 of 1

PATENT NO.: 8,626,461
APPLICATION NO.: 13/306,379
ISSUE DATE: January 7, 2014
INVENTOR(S): YOSSI AZANCOT (et al.)

It is certified that an error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Column 21, Line 43, Claim 11:

After "quotient Q" delete "the input power".

MAILING ADDRESS OF SENDER (Please do not use customer number below):

BROOKS KUSHMAN P.C.
1000 Town Center, 22nd Floor
Southfield, MI 48075-1238

Electronic Acknowledgement Receipt	
EFS ID:	18403116
Application Number:	13306379
International Application Number:	
Confirmation Number:	3309
Title of Invention:	EFFICIENCY MONITOR FOR INDUCTIVE POWER TRANSMISSION
First Named Inventor/Applicant Name:	Yossi Azancot
Customer Number:	22045
Filer:	David S. Bir
Filer Authorized By:	
Attorney Docket Number:	POWM0106PUSA1
Receipt Date:	10-MAR-2014
Filing Date:	29-NOV-2011
Time Stamp:	14:49:58
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	no
------------------------	----

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Request for Certificate of Correction	RequestForCertificateofCorrection.pdf	142554 831eca978490dfb6f46ce13ffa6da289998b76df	no	2

Warnings:

Information:

2	Request for Certificate of Correction	CertificateofCorrection.pdf	172896 2e7160fdb4feb753e6e6b1ba2c4a6d7dfed3762d	no	1
Warnings:					
Information:					
Total Files Size (in bytes):			315450		
<p>This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.</p> <p><u>New Applications Under 35 U.S.C. 111</u> If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.</p> <p><u>National Stage of an International Application under 35 U.S.C. 371</u> If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.</p> <p><u>New International Application Filed with the USPTO as a Receiving Office</u> If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.</p>					

UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

PATENT NO. : 8,626,461 B2
APPLICATION NO. : 13/306379
DATED : January 7, 2014
INVENTOR(S) : Yossi Azancot et al.

Page 1 of 1

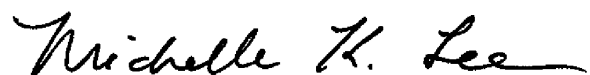
It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

In the Claims

Column 21, Line 43, Claim 11:

After “quotient Q” delete “the input power”.

Signed and Sealed this
Seventeenth Day of June, 2014



Michelle K. Lee
Deputy Director of the United States Patent and Trademark Office

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

Group Art Unit: 2857

Yossi AZANCOT

Examiner: Carol S. W. Tsai

Serial No.: 13/306,379

Filed: 11/29/2011

For: EFFICIENCY MONITOR FOR INDUCTIVE POWER TRANSMISSION

Attorney Docket No.: POWM 0106 PUSA1

**NOTIFICATION OF WITHDRAWAL OF CLAIM OF SMALL
ENTITY STATUS AND ERROR IN PAYMENT OF
FEE(S) AS A SMALL ENTITY (37 C.F.R. § 1.28(c))**

Commissioner for Patents
U.S. Patent & Trademark Office
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

It appears that small entity status was established in error for the above-identified patent application. Therefore, the assignee of the patent application hereby withdraws the claim of entitlement to small entity status.

Presented below is an itemization of the deficiency payment owed for this application:

Type of Payment Made	Fee Code	Fee Paid	Payment Date	Fee Required	Deficiency Amt. Owed
Basic filing fee - Utility	4011	\$95.00	11/30/2011	\$280.00	\$185.00
Independent claims in excess of 3	2201	\$125.00	11/30/2011	\$420.00	\$295.00
Utility Search fee	2111	\$310.00	11/30/2011	\$600.00	\$310.00
Utility Examination Fee	2311	\$125.00	11/30/2011	\$720.00	\$595.00
Extension for response within second month Submission of an Information Disclosure Statement Utility issue fee	2252	\$285.00	1/30/2013	\$600.00	\$315.00
	2806	\$90.00	9/27/2013	\$180.00	\$90.00
	2501	\$890.00	11/27/2013	\$960.00	\$890.00

Please charge our Deposit Account No. 02-3978 for the sum of \$2,680.00 based on the deficiency between the amount of fees paid and the amount owed.

The Commissioner is also hereby authorized to charge any additional fees or credit any overpayments as a result of the filing of this paper to our Deposit Account No. 02-3978.

Respectfully submitted,

Yossi AZANCOT

By: /David S. Bir/

David S. Bir

Reg. No. 38,383

Attorney for Applicant

Date: September 5, 2014

BROOKS KUSHMAN P.C.
1000 Town Center, 22nd Floor
Southfield, MI 48075-1238
Phone: 248-358-4400
Fax: 248-358-3351

Electronic Acknowledgement Receipt	
EFS ID:	20059532
Application Number:	13306379
International Application Number:	
Confirmation Number:	3309
Title of Invention:	EFFICIENCY MONITOR FOR INDUCTIVE POWER TRANSMISSION
First Named Inventor/Applicant Name:	Yossi Azancot
Customer Number:	22045
Filer:	David S. Bir/Pamela Demos
Filer Authorized By:	David S. Bir
Attorney Docket Number:	POWM0106PUSA1
Receipt Date:	05-SEP-2014
Filing Date:	29-NOV-2011
Time Stamp:	16:41:00
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	no
------------------------	----

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Notification of loss of entitlement to small entity status	Withdrawal_of_claim_of_small_entity.pdf	172734 84d84c0b0c55999475c6ef1f6007c687b933b925	no	3

Warnings:

Information:

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

Yossi AZANCOT

Serial No.: 13/306,379

Filed: 11/29/2011

For: EFFICIENCY MONITOR FOR INDUCTIVE POWER TRANSMISSION

Attorney Docket No.: POWM 0106 PUSA1

Group Art Unit: 2857

Examiner: Carol S. W. Tsai

**NOTIFICATION OF WITHDRAWAL OF CLAIM OF SMALL
ENTITY STATUS AND ERROR IN PAYMENT OF
FEE(S) AS A SMALL ENTITY (37 C.F.R. § 1.28(c))**

Commissioner for Patents
U.S. Patent & Trademark Office
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

It appears that small entity status was established in error for the above-identified patent application. Therefore, the assignee of the patent application hereby withdraws the claim of entitlement to small entity status.

Presented below is an itemization of the deficiency payment owed for this application:

09/10/2014 DALLEN 00000011 023978 13306379
01 FC:1461 2600.00 DA

S.N. 13/306,379

Atty Dkt No. POWM 0106 PUSA1

Type of Payment Made	Fee Code	Fee Paid	Payment Date	Fee Required	Deficiency Amt. Owed
Basic filing fee - Utility	4011	\$95.00	11/30/2011	\$280.00	\$185.00
Independent claims in excess of 3	2201	\$125.00	11/30/2011	\$420.00	\$295.00
Utility Search fee	2111	\$310.00	11/30/2011	\$600.00	\$310.00
Utility Examination Fee	2311	\$125.00	11/30/2011	\$720.00	\$595.00
Extension for response within second month Submission of an Information Disclosure Statement	2252	\$285.00	1/30/2013	\$600.00	\$315.00
Utility issue fee	2806	\$90.00	9/27/2013	\$180.00	\$90.00
	2501	\$890.00	11/27/2013	\$960.00	\$890.00

Please charge our Deposit Account No. 02-3978 for the sum of \$2,680.00 based on the deficiency between the amount of fees paid and the amount owed.

S.N. 13/306,379

Atty Dkt No. POWM 0106 PUSA1

The Commissioner is also hereby authorized to charge any additional fees or credit any overpayments as a result of the filing of this paper to our Deposit Account No. 02-3978.

Respectfully submitted,

Yossi AZANCOT

By: /David S. Bir/
David S. Bir
Reg. No. 38,383
Attorney for Applicant

Date: September 5, 2014

BROOKS KUSHMAN P.C.
1000 Town Center, 22nd Floor
Southfield, MI 48075-1238
Phone: 248-358-4400
Fax: 248-358-3351



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
13/306,379	11/29/2011	Yossi Azancot	POWM0106PUSA1	3309
22045 7590 02/03/2015 BROOKS KUSHMAN P.C. 1000 TOWN CENTER TWENTY-SECOND FLOOR SOUTHFIELD, MI 48075			EXAMINER TSAI, CAROL S W	
			ART UNIT 2857	PAPER NUMBER
			MAIL DATE 02/03/2015	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.



UNITED STATES PATENT AND TRADEMARK OFFICE

Commissioner for Patents
United States Patent and Trademark Office
P.O. Box 1450
Alexandria, VA 22313-1450
www.uspto.gov

In re Patent No. 8,626,461 :
Issue Date: January 7, 2014 :
Application No. 13/306,379 : NOTICE
Filed: November 29, 2011 :
Attorney Docket No. POWM0106PUSA1 :

This is a notice regarding your request for acceptance of a fee deficiency submission under 37 CFR 1.28 on September 5, 2014.

The Office no longer investigates or rejects original or reissue patent under 37 CFR 1.56. **1098 Off. Gaz. Pat. Office 502 (January 3, 1989)**. Therefore, nothing in this Notice is intended to imply that an investigation was done.

Your fee deficiency submission under 37 CFR 1.28 is hereby **ACCEPTED**.

This patent is no longer entitled to small entity status. Accordingly, all future fees paid in this patent must be paid at the large entity rate.

Inquiries related to this communication should be directed to the undersigned at (571) 272-3208.

/KOC/
Karen Creasy
Paralegal Specialist
Office of Petitions

Office of Petitions: Routing Sheet



Application No. 13/306,379

This application is being forwarded to your office for further processing. A decision has been rendered on a petition filed in this application.

☒ **GRANTED**

☐ **DISMISSED**

☐ **DENIED**

Office of Petitions: Decision Count Sheet

Mailing Month

Application No.

13306379



For US serial numbers: enter number only, no slashes or commas. Ex: 10123456

For PCT: enter "51+single digit of year of filing+last 5 numbers", Ex. for PCT/US05/12345, enter 51512345

Deciding Official:

KAREN CREASY

Count (1) - Palm Credit

13/306,379

Decision: GRANT

FINANCE WORK NEEDED

☐ Select Check Box for YES

Decision Type: 321 - 37 CFR 1.28 TO MAKE ENTITY STATUS LARGE FRC



Notes:

Count (2)

Decision: n/a

FINANCE WORK NEEDED

☐ Select Check Box for YES

Decision Type: NONE

Notes:

Count (3)

Decision: n/a

FINANCE WORK NEEDED

☐ Select Check Box for YES

Decision Type: NONE

Notes:

Initials of Approving Official (if required)

If more than 3 decisions, attach
2nd count sheet & mark this box

Printed on: 2/2/2015

Office of Petitions Internal Document - Ver. 5.0

TRANSMITTAL FOR POWER OF ATTORNEY TO ONE OR MORE REGISTERED PRACTITIONERS

NOTE: This form is to be submitted with the Power of Attorney by Applicant form (PTO/AIA/82B) to identify the application to which the Power of Attorney is directed, in accordance with 37 CFR 1.5, unless the application number and filing date are identified in the Power of Attorney by Applicant form. If neither form PTO/AIA/82A nor form PTO/AIA/82B identifies the application to which the Power of Attorney is directed, the Power of Attorney will not be recognized in the application.

Application Number	13/306,379
Filing Date	November 29, 2011
First Named Inventor	Yossi AZANCOT
Title	EFFICIENCY MONITOR FOR INDUCTIVE POWER TRANSMISSION
Art Unit	2857
Examiner Name	Carol S W Tsai
Attorney Docket Number	POW-NP05BUS

SIGNATURE of Applicant or Patent Practitioner

Signature	/Gerald B. Halt, Jr./	Date (Optional)	November 19, 2020
Name	Gerald B. Halt, Jr.	Registration Number	37,633
Title (if Applicant is a juristic entity)			
Applicant Name (if Applicant is a juristic entity)	Powermat Technologies Ltd.		

NOTE: This form must be signed in accordance with 37 CFR 1.33. See 37 CFR 1.4(d) for signature requirements and certifications. If more than one applicant, use multiple forms.

☐

*Total of _____ forms are submitted.

This collection of information is required by 37 CFR 1.131, 1.32, and 1.33. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 3 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

POWER OF ATTORNEY BY APPLICANT

I hereby revoke all previous powers of attorney given in the application identified in either the attached transmittal letter or the boxes below.

Application Number	Filing Date

(Note: The boxes above may be left blank if information is provided on form PTO/AIA/82A.)

- ☒ I hereby appoint the Patent Practitioner(s) associated with the following Customer Number as my/our attorney(s) or agent(s), and to transact all business in the United States Patent and Trademark Office connected therewith for the application referenced in the attached transmittal letter (form PTO/AIA/82A) or identified above:

03624

OR

- ☐ I hereby appoint Practitioner(s) named in the attached list (form PTO/AIA/82C) as my/our attorney(s) or agent(s), and to transact all business in the United States Patent and Trademark Office connected therewith for the patent application referenced in the attached transmittal letter (form PTO/AIA/82A) or identified above. (Note: Complete form PTO/AIA/82C.)

Please recognize or change the correspondence address for the application identified in the attached transmittal letter or the boxes above to:

- ☒ The address associated with the above-mentioned Customer Number

OR

- ☐ The address associated with Customer Number:

OR

☐ Firm or Individual Name

Address

City

State

Zip

Country

Telephone

Email

I am the Applicant (if the Applicant is a juristic entity, list the Applicant name in the box):

Powermat Technologies Ltd.

- ☐ Inventor or Joint Inventor (title not required below)
- ☐ Legal Representative of a Deceased or Legally Incapacitated Inventor (title not required below)
- ☒ Assignee or Person to Whom the Inventor is Under an Obligation to Assign (provide signer's title if applicant is a juristic entity)
- ☐ Person Who Otherwise Shows Sufficient Proprietary Interest (e.g., a petition under 37 CFR 1.46(b)(2) was granted in the application or is concurrently being filed with this document) (provide signer's title if applicant is a juristic entity)

SIGNATURE of Applicant for Patent

The undersigned (whose name is stated below) is authorized to act on behalf of the applicant (e.g., where the applicant is a juristic entity).

Signature

[Handwritten Signature]
Company NO. 51381444-2

Date (Optional)

Name

Kfir ABUHATZIRA

Title

Chief Financial Officer

NOTE: Signature - This form must be signed by the applicant in accordance with 37 CFR 1.33. See 37 CFR 1.4 for signature requirements and certifications. If more than one applicant, use multiple forms.

☐ Total of _____ forms are submitted.

This collection of information is required by 37 CFR 1.131, 1.32, and 1.33. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 3 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

Privacy Act Statement

The **Privacy Act of 1974 (P.L. 93-579)** requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C. 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether the Freedom of Information Act requires disclosure of these records.
2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspections or an issued patent.
9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

Electronic Acknowledgement Receipt	
EFS ID:	41167011
Application Number:	13306379
International Application Number:	
Confirmation Number:	3309
Title of Invention:	EFFICIENCY MONITOR FOR INDUCTIVE POWER TRANSMISSION
First Named Inventor/Applicant Name:	Yossi Azancot
Customer Number:	22045
Filer:	Gerald B. Halt Jr./Lorraine Givigliano
Filer Authorized By:	Gerald B. Halt Jr.
Attorney Docket Number:	POWM0106PUSA1
Receipt Date:	19-NOV-2020
Filing Date:	29-NOV-2011
Time Stamp:	11:12:33
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	no
------------------------	----

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Power of Attorney	POW_NP05BUS_Power_of_Attorney_By_Applicant_13306379_20201119_EFS.pdf	265885 38dd73e6f6e6aa3320eb7284f3dae5b92a73619f	no	3

Warnings:

Information:	
Total Files Size (in bytes):	265885
<p>This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.</p> <p><u>New Applications Under 35 U.S.C. 111</u> If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.</p> <p><u>National Stage of an International Application under 35 U.S.C. 371</u> If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.</p> <p><u>New International Application Filed with the USPTO as a Receiving Office</u> If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.</p>	



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NUMBER	FILING OR 371(C) DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
13/306,379	11/29/2011	Yossi Azancot	POWM0106PUSA1

CONFIRMATION NO. 3309
IMPROPER CPOA LETTER

22045
Brooks Kushman
1000 Town Center
22nd Floor
Southfield, MI 48075



Date Mailed: 11/25/2020

NOTICE REGARDING POWER OF ATTORNEY

This is in response to the power of attorney filed 11/19/2020. The power of attorney in this application is not accepted for the reason(s) listed below:

- The power of attorney is from an assignee and the statement required by 37 CFR 3.73(c) has not been received.

/ytdemisse/

Office of Data Management, Application Assistance Unit (571) 272-4000, or (571) 272-4200, or 1-888-786-0101

3624
Volpe Koenig
30 SOUTH 17TH STREET, 18TH FLOOR
PHILADELPHIA, PA 19103
UNITED STATES

TRANSMITTAL FOR POWER OF ATTORNEY TO ONE OR MORE REGISTERED PRACTITIONERS

NOTE: This form is to be submitted with the Power of Attorney by Applicant form (PTO/AIA/82B) to identify the application to which the Power of Attorney is directed, in accordance with 37 CFR 1.5, unless the application number and filing date are identified in the Power of Attorney by Applicant form. If neither form PTO/AIA/82A nor form PTO/AIA/82B identifies the application to which the Power of Attorney is directed, the Power of Attorney will not be recognized in the application.

Application Number	13/306,379
Filing Date	November 29, 2011
First Named Inventor	Yossi AZANCOT
Title	EFFICIENCY MONITOR FOR INDUCTIVE POWER TRANSMISSION
Art Unit	2857
Examiner Name	Carol S W Tsai
Attorney Docket Number	POW-NP05BUS

SIGNATURE of Applicant or Patent Practitioner

Signature	/Gerald B. Halt, Jr./	Date (Optional)	December 16, 2020
Name	Gerald B. Halt, Jr.	Registration Number	37,633
Title (if Applicant is a juristic entity)			
Applicant Name (if Applicant is a juristic entity)	Powermat Technologies Ltd.		

NOTE: This form must be signed in accordance with 37 CFR 1.33. See 37 CFR 1.4(d) for signature requirements and certifications. If more than one applicant, use multiple forms.

☐

*Total of _____ forms are submitted.

This collection of information is required by 37 CFR 1.131, 1.32, and 1.33. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 3 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

POWER OF ATTORNEY BY APPLICANT

I hereby revoke all previous powers of attorney given in the application identified in either the attached transmittal letter or the boxes below.

Application Number	Filing Date

(Note: The boxes above may be left blank if information is provided on form PTO/AIA/82A.)

- ☒ I hereby appoint the Patent Practitioner(s) associated with the following Customer Number as my/our attorney(s) or agent(s), and to transact all business in the United States Patent and Trademark Office connected therewith for the application referenced in the attached transmittal letter (form PTO/AIA/82A) or identified above:
- OR
- ☐ I hereby appoint Practitioner(s) named in the attached list (form PTO/AIA/82C) as my/our attorney(s) or agent(s), and to transact all business in the United States Patent and Trademark Office connected therewith for the patent application referenced in the attached transmittal letter (form PTO/AIA/82A) or identified above. (Note: Complete form PTO/AIA/82C.)

Please recognize or change the correspondence address for the application identified in the attached transmittal letter or the boxes above to:

- ☒ The address associated with the above-mentioned Customer Number
- OR
- ☐ The address associated with Customer Number:
- OR

☐ Firm or Individual Name

Address

City

State

Zip

Country

Telephone

Email

I am the Applicant (if the Applicant is a juristic entity, list the Applicant name in the box):

Powermat Technologies Ltd.

- ☐ Inventor or Joint Inventor (title not required below)
- ☐ Legal Representative of a Deceased or Legally Incapacitated Inventor (title not required below)
- ☒ Assignee or Person to Whom the Inventor is Under an Obligation to Assign (provide signer's title if applicant is a juristic entity)
- ☐ Person Who Otherwise Shows Sufficient Proprietary Interest (e.g., a petition under 37 CFR 1.46(b)(2) was granted in the application or is concurrently being filed with this document) (provide signer's title if applicant is a juristic entity)

SIGNATURE of Applicant for Patent

The undersigned (whose title is supplied below) is authorized to act on behalf of the applicant (e.g., where the applicant is a juristic entity).

Signature

Name

Title

Kfir ABUHATZIRA

Chief Financial Officer

Date (Optional)

NOTE: Signature - This form must be signed by the applicant in accordance with 37 CFR 1.33. See 37 CFR 1.4 for signature requirements and certifications. If more than one applicant, use multiple forms.

☐ Total of _____ forms are submitted.

This collection of information is required by 37 CFR 1.131, 1.32, and 1.33. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 3 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

Privacy Act Statement

The **Privacy Act of 1974 (P.L. 93-579)** requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C. 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether the Freedom of Information Act requires disclosure of these records.
2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspections or an issued patent.
9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

STATEMENT UNDER 37 CFR 3.73(c)

Applicant/Patent Owner: Yossi AZANCOT et al

Application No./Patent No.: 13/306,379 Filed/Issue Date: November 29, 2011

Titled: EFFICIENCY MONITOR FOR INDUCTIVE POWER TRANSMISSION

Powermat Technologies Ltd., a corporation

(Name of Assignee)

(Type of Assignee, e.g., corporation, partnership, university, government agency, etc.)

states that, for the patent application/patent identified above, it is (choose **one** of options 1, 2, 3 or 4 below):

1. ☒ The assignee of the entire right, title, and interest.
2. ☐ An assignee of less than the entire right, title, and interest (check applicable box):
- ☐ The extent (by percentage) of its ownership interest is ____%. Additional Statement(s) by the owners holding the balance of the interest must be submitted to account for 100% of the ownership interest.
- ☐ There are unspecified percentages of ownership. The other parties, including inventors, who together own the entire right, title and interest are:

Additional Statement(s) by the owner(s) holding the balance of the interest must be submitted to account for the entire right, title, and interest.

3. ☐ The assignee of an undivided interest in the entirety (a complete assignment from one of the joint inventors was made). The other parties, including inventors, who together own the entire right, title, and interest are:

Additional Statement(s) by the owner(s) holding the balance of the interest must be submitted to account for the entire right, title, and interest.

4. ☐ The recipient, via a court proceeding or the like (e.g., bankruptcy, probate), of an undivided interest in the entirety (a complete transfer of ownership interest was made). The certified document(s) showing the transfer is attached.

The interest identified in option 1, 2 or 3 above (not option 4) is evidenced by either (choose **one** of options A or B below):

- A. ☐ An assignment from the inventor(s) of the patent application/patent identified above. The assignment was recorded in the United States Patent and Trademark Office at Reel _____, Frame _____, or for which a copy thereof is attached.
- B. ☒ A chain of title from the inventor(s), of the patent application/patent identified above, to the current assignee as follows:

1. From: AZANCOT et al. To: Powermat Ltd.

The document was recorded in the United States Patent and Trademark Office at
Reel 023585, Frame 0450, or for which a copy thereof is attached.

2. From: Powermat Ltd. To: Powermat Technologies Ltd.

The document was recorded in the United States Patent and Trademark Office at
Reel 027508, Frame 0819, or for which a copy thereof is attached.

[Page 1 of 2]

This collection of information is required by 37 CFR 3.73(b). The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

STATEMENT UNDER 37 CFR 3.73(c)

3. From: _____ To: _____

The document was recorded in the United States Patent and Trademark Office at
Reel _____, Frame _____, or for which a copy thereof is attached.

4. From: _____ To: _____

The document was recorded in the United States Patent and Trademark Office at
Reel _____, Frame _____, or for which a copy thereof is attached.

5. From: _____ To: _____

The document was recorded in the United States Patent and Trademark Office at
Reel _____, Frame _____, or for which a copy thereof is attached.

6. From: _____ To: _____

The document was recorded in the United States Patent and Trademark Office at
Reel _____, Frame _____, or for which a copy thereof is attached.

☐ Additional documents in the chain of title are listed on a supplemental sheet(s).

☒ As required by 37 CFR 3.73(c)(1)(i), the documentary evidence of the chain of title from the original owner to the assignee was, or concurrently is being, submitted for recordation pursuant to 37 CFR 3.11.

[NOTE: A separate copy (i.e., a true copy of the original assignment document(s)) must be submitted to Assignment Division in accordance with 37 CFR Part 3, to record the assignment in the records of the USPTO. See MPEP 302.08]

The undersigned (whose title is supplied below) is authorized to act on behalf of the assignee.

/Gerald B. Halt, Jr./

Signature

Gerald B. Halt, Jr.

Printed or Typed Name

December 16, 2020

Date

37,633

Title or Registration Number

Privacy Act Statement

The **Privacy Act of 1974 (P.L. 93-579)** requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C. 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether disclosure of these records is required by the Freedom of Information Act.
2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (*i.e.*, GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspection or an issued patent.
9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

Electronic Acknowledgement Receipt	
EFS ID:	41400655
Application Number:	13306379
International Application Number:	
Confirmation Number:	3309
Title of Invention:	EFFICIENCY MONITOR FOR INDUCTIVE POWER TRANSMISSION
First Named Inventor/Applicant Name:	Yossi Azancot
Customer Number:	22045
Filer:	Gerald B. Halt Jr./Lorraine Givigliano
Filer Authorized By:	Gerald B. Halt Jr.
Attorney Docket Number:	POWM0106PUSA1
Receipt Date:	16-DEC-2020
Filing Date:	29-NOV-2011
Time Stamp:	11:37:36
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	no
------------------------	----

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Power of Attorney	POW_NP05BUS_Power_of_Attorney_By_Applicant_13306379_20201216_EFS.pdf	314624 62eda026ddfce0153a66929daca372f942fe23dc	no	3

Warnings:

Information:					
2	Assignee showing of ownership per 37 CFR 3.73	POW_NP05BUS_Statement_Under_373c_13306379_20201216_EFS.pdf	139859 623c9aba84e7246c0360b46e84223ae862333f4d	no	3
Warnings:					
Information:					
Total Files Size (in bytes):			454483		
<p>This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.</p> <p><u>New Applications Under 35 U.S.C. 111</u> If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.</p> <p><u>National Stage of an International Application under 35 U.S.C. 371</u> If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.</p> <p><u>New International Application Filed with the USPTO as a Receiving Office</u> If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.</p>					



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NUMBER	FILING OR 371(C) DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
13/306,379	11/29/2011	Yossi Azancot	POW-NP05BUS

CONFIRMATION NO. 3309

POA ACCEPTANCE LETTER

176391

Volpe Koenig - Powermat
30 South 17th Street
Suite 1800
Philadelphia, PA 19103



OC000000122120498

Date Mailed: 12/21/2020

NOTICE OF ACCEPTANCE OF POWER OF ATTORNEY

This is in response to the Power of Attorney filed 12/16/2020.

The Power of Attorney in this application is accepted. Correspondence in this application will be mailed to the above address as provided by 37 CFR 1.33.

Questions about the contents of this notice and the requirements it sets forth should be directed to the Office of Data Management, Application Assistance Unit, at (571) 272-4000 or (571) 272-4200 or 1-888-786-0101.

/afessechaye/



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NUMBER	FILING OR 371(C) DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
13/306,379	11/29/2011	Yossi Azancot	POWM0106PUSA1

CONFIRMATION NO. 3309

POWER OF ATTORNEY NOTICE

22045
Brooks Kushman
1000 Town Center
22nd Floor
Southfield, MI 48075



Date Mailed: 12/21/2020

NOTICE REGARDING CHANGE OF POWER OF ATTORNEY

This is in response to the Power of Attorney filed 12/16/2020.

- The Power of Attorney to you in this application has been revoked by the applicant. Future correspondence will be mailed to the new address of record(37 CFR 1.33).

Questions about the contents of this notice and the requirements it sets forth should be directed to the Office of Data Management, Application Assistance Unit, at (571) 272-4000 or (571) 272-4200 or 1-888-786-0101.

/afessehayel/