EXHIBIT
Exhibit 1082
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Independent Claims

U.S. Pat. 9,619,420

Identifier	Claim Language ('420 claim 1)
1[pre]	A Universal Serial Bus (USB) hub module, comprising:
1[a]	a first USB port configured to be connected to a USB host;
1[b]	a second USB port configured to be connected to a consumer device;
1[c]	a USB hub interconnected to the first USB port and the second USB port;
1[d]	a USB bridge interconnected to the USB hub; and
1[e]	USB routing switch interconnected to the USB bridge, the USB hub, and the second USB port,
1[f][i]	wherein the USB routing switch is configured to connect the second USB port to the first USB port through the USB bridge,
1[f][ii]	thereby providing bidirectional initiation of communication between the USB host and the consumer device when the consumer device connected to the second USB port is in a USB host mode and
1[g][i]	wherein the USB routing switch is configured to connect the second USB port directly to the first USB port through the USB hub,
1[g][ii]	thereby only responding to communication initiated by the USB Host when the consumer device connected to the second USB port is in a USB device mode.

Identifier	Claim Language ('420 claim 7)
7[pre]	An integrated circuit, comprising:
7[a]	a USB hub configured to be interconnected to a first USB port connected to a USB host and a second USB port connected to a consumer device;
7[b]	a USB bridge interconnected to the USB hub; and
7[c]	a USB routing switch interconnected to the USB bridge, the USB hub, and the second USB port,
7[d]	wherein the USB routing switch is configured to connect the second USB port to the first USB port through the USB bridge thereby providing bidirectional initiation of communication between the USB host and the consumer device when the consumer device connected to the second USB port is in a USB host mode and
7[e]	wherein the USB routing switch is configured to connect the second USB port directly to the first USB port through the USB hub, thereby only responding to communication initiated by the USB Host when the consumer device connected to the second USB port is in a USB device mode.

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Identifier	Claim Language ('420 claim 13)
13[pre][i]	A method of operating a USB hub module having
13[pre][ii]	a USB hub configured to be interconnected to a first USB port connected to a USB host and a second USB port connected to a consumer device,
13[pre][iii]	a USB bridge interconnected to the USB hub, and
13[pre][iv]	a USB routing switch interconnected to the USB bridge, the USB hub, and the second USB port, said method comprising the steps of:
13[a]	determining when the consumer device is operating in a USB host mode and in a USB device mode;
13[b]	connecting the consumer device via the second USB port to the USB hub via the first USB port through the USB routing switch and the USB bridge, thereby providing bidirectional initiation of communication between the USB host and the consumer device when the consumer device is determined to be in the USB host mode; and
13[c]	connecting the consumer device via the second USB port to the USB hub via the first USB port through the USB routing switch and the USB hub thereby bypassing the USB bridge to only respond to communication initiated by the USB host when the consumer device is determined to be in the USB device mode.

Identifier	Claim Language ('420 claim 15)
15[pre]	A Universal Serial Bus (USB) connectivity module, comprising:
15[a]	a first USB port;
15[b]	a second USB port;
15[c]	a USB host-to-host bridge connected to said first USB port;
15[d]	a USB routing switch connected to said first USB port, said second USB port and said USB host-to-host bridge,
15[e]	wherein said USB routing switch is configured to provide a communication link between said first USB port and said second USB port through said USB host-to-host bridge, thereby providing bidirectional initiation of communication between the USB host and the consumer device when a first consumer device connected to said second USB port is operating in a USB host mode and
15[f]	wherein said USB routing switch is configured to provide another communication link between said first USB port and said second USB port that bypasses said USB host-to-host bridge, thereby only responding to communication initiated by the USB host when the first consumer device connected to said second USB port is operating in a USB device mode.

Identifier	Claim Language (’420 claim 18)
18[pre]	A communication system, comprising:
18[a]	a USB hub including a first USB port and a second USB port;
18[b]	a central vehicle microcontroller connected to said first USB port;
18[c]	a first consumer device connected to said second USB port;
18[d]	a USB host-to-host bridge connected to said first USB port;
18[e]	a USB routing switch providing a first communication path between said second USB port and said USB host-to-host bridge and a second communication path between said second USB port and said first USB port that bypasses said USB host-to-host bridge,
18[f]	wherein said USB routing switch connects said first communication path when the first consumer device is connected to said second USB port and is operating in a USB host mode, thereby providing bidirectional initiation of communication between the USB host and the consumer device and
18[g]	wherein said USB routing switch connects said second communication path, thereby only responding to communication initiated by the USB host when the first consumer device is connected to said second USB port and is operating in a USB device mode.

U.S. Pat. 9,645,962

Identifier	Claim Language ('962 claim 1)
1[pre]	A Universal Serial Bus (USB) hub module, comprising:
1[a]	an upstream USB port;
1[b]	a plurality of downstream USB ports;
1[c][i]	a USB hub interconnected to the upstream USB port and the plurality of downstream USB ports,
1[c][ii]	said USB hub configured to broadcast data from the upstream USB port to each downstream USB port and to transmit data from each downstream USB port to the upstream USB port;
1[d]	a USB bridge interconnected to the USB hub and configured to connect the upstream USB port to a USB host; and
1[e]	a USB routing switch interconnected to the USB bridge, the USB hub, and the plurality of downstream USB ports,
1[f][i]	wherein the USB routing switch is configured to connect a first downstream USB port of the plurality of downstream USB ports to the upstream USB port through the USB bridge when a consumer device connected to the first downstream USB port is the USB host and
1[f[ii]	is configured to initiate bidirectional communication with the upstream USB port, and
1[g][i]	wherein the USB routing switch is configured to connect the first downstream USB port directly to the USB hub
1[g][ii]	when the consumer device connected to the first downstream USB port is configured to only respond to communication from the upstream USB port,
1[g][iii]	thereby rendering the consumer device compatible with a device connected to the upstream USB port.

Identifier	Claim Language ('962 claim 14)
14[pre]	An integrated circuit, comprising:
14[a]	a USB hub configured to be interconnected to an upstream USB port and a plurality of downstream USB ports, said USB hub configured to broadcast data from the upstream USB port to each downstream USB port and to transmit data from each downstream USB port to the upstream USB port;
14[b]	a USB bridge interconnected to the USB hub and configured to connect the upstream USB port to a USB host; and
14[c]	a USB routing switch interconnected to the USB bridge, the USB hub, and the plurality of downstream USB ports,
14[d]	wherein the USB routing switch is configured to connect a first downstream USB port of the plurality of downstream USB ports to the upstream USB port through the USB bridge when a consumer device connected to the first downstream USB port is the USB host and is configured to initiate bidirectional communication with the upstream USB port, and
14[e]	wherein the USB routing switch is configured to connect the first downstream USB port directly to the USB hub when the consumer device connected to the first downstream USB port is configured to only respond to communication from the upstream USB port, thereby rendering the consumer device compatible with a device connected to the upstream USB port.

U.S. Pat 11,176,072

Identifier	Claim Language ('072 claim 1)
1[pre]	A method, comprising:
1[a]	providing efficient communications among USB components of a data communication system that includes
1[a][i]	a first input port, a second input port, a USB hub, a USB bridge connected to the USB hub,
1[a][ii]	an embedded USB host connected to the USB hub,
1[a][iii]	a USB port connected to a USB device capable of operating in a USB Host mode and a USB device mode, and USB multiplexing switches connected to the USB port, the USB hub, and the USB bridge;
1[b]	receiving a first USB signal from the USB device via the USB port while the USB device is operating in the USB host mode;
1[c]	routing the first USB signal via the USB multiplexing switches from the USB device to the embedded USB host through the USB bridge and the USB hub;
1[d]	receiving a second USB signal from the USB device via the USB port while the USB device is operating in the USB device mode; and
1[e]	routing the second USB signal via the USB multiplexing switches from the USB device to the embedded USB host through the USB hub, wherein the second USB signal from the USB device to the embedded USB host bypasses the USB bridge.

U.S. Pat. 11,681,643

Identifier	Claim Language ('643 claim 1)
1[pre]	A method, comprising:
1[a]	providing a first USB port for communication with a USB host;
1[b]	providing a second USB port for communicating with a consumer USB device;
1[c]	providing a signal detection circuit for receiving USB signals from the consumer USB device via the second USB port;
1[d][i]	routing the USB signals emanating from the consumer USB device to the first USB port via a routing logic circuit connected directly to a USB bridge and a USB hub connected to the USB bridge in accordance with a determination by the signal detection circuit that the consumer device is operating in a USB host mode,
1[d][ii]	wherein the USB bridge includes a bridge controller, buffers, and a plurality of ports; and
1[e][i]	routing the USB signals emanating from the consumer USB device to the first USB port via the routing logic connected directly to the USB hub and thereby bypassing the USB bridge in accordance with a determination by the signal detection circuit that the consumer device is operating in a USB device mode,
1[e][ii]	wherein the USB hub and USB bridge have different components and functionality.

Identifier	Claim Language ('643 claim 5)
5[pre]	A USB communication management method for interconnecting sources of USB signals, the method comprising:
5[a]	receiving first USB host signals from a first USB host;
5[b]	receiving second USB signals from a second USB signal source;
5[c]	determining, via a signal detection circuit, whether the second USB signals emanate from a second USB host;
5[d]	routing the second USB signals emanating from the second USB host via a routing logic circuit connected directly to a USB bridge and a USB hub connected to the USB bridge to the first USB host, wherein the USB bridge includes a bridge controller, buffers, and a plurality of ports; and
5[e]	routing the second USB signals not determined to emanate from a USB host via the routing logic connected directly to the USB hub to the first USB host and thereby bypassing the USB bridge, wherein the USB hub and USB bridge have different components and functionality.

Identifier	Claim Language ('643 claim 10)
10[pre]	A USB communication management method for interconnecting sources of USB signals, the method comprising:
10[a]	receiving a first USB host signal from a first USB host;
10[b]	receiving a second USB signal from a second USB signal source;
10[c]	determining whether the second USB signal emanates from a second USB host;
10[d][i]	establishing a first communication path via a routing logic circuit connected directly to a USB bridge and a USB hub connected to the USB bridge to the first USB host and the second USB signal source in accordance with the second signal emanating from the second USB host,
10[d][ii]	wherein the USB bridge includes a bridge controller, buffers, and a plurality of ports; and
10[e]	establishing a second communication path via the routing logic connected directly to the USB hub to the first USB host to the first USB host and the second USB signal source and thereby bypassing the USB bridge in accordance with the second USB signal not to emanating from the second USB host, wherein the USB hub and USB bridge have different components and functionality.