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a filter. Also known by various other names, including resonating cavity, resonant chamber, resonance cavity, rhumbatron, cavity (2), cavity resonator, microwave cavity, microwave resonance cavity, and waveguide resonator.

resonant chamber Same as **resonant cavity**.

resonant circuit A circuit whose parameters provide for resonance at a single frequency. In a parallel-resonant circuit, for instance, a capacitor and an inductor are connected in parallel with an AC source, which provides for resonance at or near the maximum impedance of such a circuit. Also called **resonance circuit**.

resonant dipole A dipole antenna whose parameters, such as capacitance and inductance, provide for resonance at its operating frequency. Also called **resonant dipole antenna**, or **tuned dipole**.

resonant dipole antenna Same as **resonant dipole**.

resonant filter A filter whose action results in the boosting of certain frequencies, inducing resonance. Also called **resonance filter**.

resonant fluorescence Same as **resonance radiation**.

resonant frequency Also called **resonance frequency**. 1. A frequency at which a circuit, body, system, or phenomena exhibits enhanced vibration, oscillation, response, absorption, amplitude, or the like. For instance, the vibration of a piezoelectric transducer is greatest with the least applied voltage at its resonant frequency. That of a resonant cavity is determined by its geometry, and so on. 2. The frequency at which a body or system resonates without an external driving force. Also called **natural resonant frequency**, or **self-resonant frequency**.

resonant line Also called **resonant transmission line**. 1. A transmission line which has reflections, and therefore has standing waves. 2. A transmission line which resonates at the frequency utilized.

resonant luminescence Same as **resonance radiation**.

resonant radiation Same as **resonance radiation**.

resonant resistance The resistance of a resonant circuit or resonant line at its resonant frequency.

resonant transmission line Same as **resonant line**.

resonate To exhibit or produce **resonance**.

resonating cavity Same as **resonant cavity**.

resonator That which exhibits or produces **resonance**. For example, an acoustic cavity, or a crystal resonator.

resource A means utilized to perform one or more operations, or to accomplish a given task. In computers, for instance, resources include storage devices, processors, and applications.

resource allocation 1. The designation or distribution of resources. 2. The reserving of computer resources for specific purposes.

Resource Description Framework A framework for describing and processing metadata. Used, for instance, to enhance the capabilities of search engines, or for cataloging Web site content. Its abbreviation is **RDF**.

resource requirements The minimum software and/or hardware a system must have in order for a given program or device to work properly. For example, to run a given application a computer needing to have a minimum amount of available memory and disk space, one of the supported operating systems, an available port, and so on.

Resource Reservation Protocol A communications protocol which allows for the reservation of a given bandwidth, and which confers a high priority to the packets sent during the subsequent transmission. Used, for instance, for multicasting of real-time of audio and/or video programming. Its ab-

breivation is **RSVP**. Also called **Resource Reservation Setup Protocol**, or **Reservation Protocol**.

Resource Reservation Setup Protocol Same as **Resource Reservation Protocol**. Its abbreviation is **RSVP**.

resource sharing The distribution of resources, or their or simultaneous use by multiple users or entities.

resources management The management of resources.

responder Also called **responser**. 1. A device or system which incorporates both a transmitter and a receiver, and which emits the appropriate signals automatically when the specified trigger signals are received. Used, for instance, in satellite communications, or in radars. Also called **transponder** (1). 2. The part of a **responder** (1) which transmits signals when triggered by an **interrogator** (1). An example is a radar beacon.

response 1. A change in the behavior, operation, or function of a component, circuit, device, piece of equipment, system, mechanism, process, material, or the like, as a consequence of a change in its external or internal environment. For example, a change in output resulting from a change in input. 2. A quantified **response** (1), such as a frequency response. 3. The automatic emission of the appropriate signals when specified trigger signals are received, as seen, for instance, in a **responder** (1). Also called **reply**.

response characteristic The gain or loss of a circuit, device, piece of equipment, or system, as a function of its input signal frequencies. Also called **frequency-response characteristic**, or **frequency characteristic**.

response curve A graph representing the **response** (1) of a component, circuit, device, piece of equipment, or system. An example is a frequency-response curve.

response delay Same as **response time**.

response interval Same as **response time**.

response time Also called **response delay**, or **response interval**. 1. The time interval that elapses between the reception of a trigger signal and the corresponding **response** (1). 2. The time interval that elapses between a change in the external or internal environment of a component, circuit, device, piece of equipment, system, mechanism, process, material, or the like, and the corresponding **response** (1). For example, the time required for an instrument to update its reading when a monitored parameter varies.

responser Same as **responder**.

rest energy The energy of a particle at rest, according to the mass-energy equation. The rest energy of an electron, for instance, is approximately 0.511 MeV, while that of a proton is approximately 938 MeV. Also called **self-energy**.

rest mass The mass of a particle at rest. The rest mass of an electron, for instance, is equal to approximately 9.10939×10^{-31} kg, while that of a proton is approximately 1.67262×10^{-27} kg.

rest position The position a device, mechanism, or object is in when no signal is applied. Also, the position returned to once a signal is no longer present. Also called **resting position**.

rest state Same as **resting state**.

restart To again start up a device, piece of equipment, unit, or system. For example, a checkpoint/restart. Also spelled **re-start**.

resting position Same as **rest position**.

resting state Also called **rest state**, **idle state**, or **quiescent state**. 1. A state in which a component, circuit, device, piece of equipment, or system is functioning under normal operating conditions, but does not have an applied signal at a given time. Also called **standby** (1). 2. A state in which a device, piece of equipment, or system is operational and available, but is not in use. Also called **standby** (2).