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Glossary of Words, Terms and Acronyms

Analog: Analog signals take the form of continuous waves of varying amplitude. Analog signals are variable as a function of time and amplitude.

Antenna: A device for the radiation or reception of a signal in free space. An antenna can be used to improve transmission or reception of an RF signal.

Bandwidth: The width of a band of frequencies that make up a specific signal.

BNC: A type of wire connector. The BNC connector locks in place and the connection cannot be pulled apart without twisting the locking ring.

CCTV: Closed Circuit Television. A self contained private video transmission system. Generally used for security systems.

CCD: A charge coupled device. This is a solid state semi-conductor that converts light into an electrical charge. CCDs are used as sensors in digital cameras, camcorders and scanners. CCDs generally produce higher quality images than CMOSs, but are limited in size. For this reason, many of the expensive (over $1,000) digital cameras utilize CMOSs to achieve high resolution.

CMOS: Pronounced Seamoss. This is a complementary metal-oxide semiconductor. The CMOS chip acts in the same way as a CCD. CMOSs require less power to operate than CCDs and are less expensive to produce.

Digital: A signal system wherein signals have specific values rather than the varying values in an analog system.

Dipole Antenna: An omni-directional antenna which radiates a signal perpendicular to its axis. This radiation is in all directions in this axis. The signal pattern for a dipole antenna looks like the cross section of a donut with the antenna in the middle of the donut hole. This type of antenna is used on most cellular telephones and portable radios.

Dish Antenna: This type of antenna includes a dish to reflect signals and a sensor/receiver at the middle. This type of antennas is commonly seen in use for satellite TV reception.

DPI: Dots per inch measure the resolution that a device will support. It is a measurement of the number of horizontal or vertical dots in a video picture.

FCC: Federal Communications Commission. The FCC oversees the rules and administration of wireless communications such as wireless cameras.

Frequency: The measurement of the number of cycles that occurs in one second of a periodic wave form.

Gigahertz: Commonly abbreviated to GHz. A GHZ is one billion hertz or one billion cycles per second.

Hertz: Commonly expressed as Hz. The Hertz is a unit used to measure signals that vary in time. One Hertz is one cycle per second.

LCD: Liquid crystal display. This type of display screen is used on digital cameras and some monitors and television sets.

LED: Light emitting diode. LEDs are used in place of incandescent lights in many situations. LEDs produce bright light at low power outputs and last much longer than regular incandescent or fluorescent bulbs. LEDs are also used to produce infrared light for night viewing.

LOS: Line of sight. This refers to a clear view from a transmitter to a receiver that has no impediments.

Lux: A measurement of light intensity. For cameras the lux is the minimum amount of light needed to produce pictures. For instance, infrared cameras require 0 lux.

Milliamp: Expressed as mAh. A measurement of electrical power delivery or usage. A milliamp is 1/1000 of an amp. Milliamps are commonly used to define the power of a battery.

Megahertz: This is one million hertz or one million cycles per second. Abbreviated to MHz.

Milliwatt: Expressed as mW. This is 1/1000 of a watt. A measurement of electrical power output.

Noise: For video signals this refers to unwanted electrical signals that interfere with the image.

NTSC: This is the acronym for the National Television Systems Committee that established the color television system that is used in the U.S. This was adopted in 1953 by the FCC.

Ohms: Ohms are a standard measurement of electrical resistance in an electrical circuit.

Omni-Directional: This refers to antennas that transmit or receive in all directions. Omni-directional signals are easier to pick-up since they are widespread. However, omni-directional signals are somewhat weaker than the signals of directional antennas.

PAL: This is the acronym for Phase Alternating Line and is the color composite standard used in Europe and some other countries.

Panel Antenna: This is generally a flat antenna made up of a varying number of elements on printed circuit boards.

Part 15: This is the section of the Federal Communications Commission regulations that deals with wireless devices such as wireless camera systems. The regulations can be reviewed in detail at www.wireless.fcc.gov/services. Part 15 generally requires that approved devices do not produce interference with other approved communications including police, aircraft, and emergency personnel and that the transmission power be no more than 10 milliwatts.

Part 90: This is the section of the FCC regulations that defines rules and standards for higher powered RF units. This section is titled,"Land Mobile Radio Services" and is directed mainly toward commercial 2-way radio systems. The allowable power in the 2.4 GHz range is 5 watts.

PPI: Pixels per square inch. The number of pixels per inch at which an image is displayed. Higher the pixel counts produce greater detail in images.

RF: Radio frequency. The method by which video and audio signals are transmitted to the receiver.

Sequencing: The automatic progressive change through channels on multi channel receivers.

S/N ratio: Signal to noise ratio. This is a comparison of maximum signal strength to the nominal background noise generated by a device. The S/N ration indicates how clean a signal will be. The larger the S/N ratio is the better the performance of the device will be. For camera systems, noise refers to video as well as audio. (see noise)

TFT: Thin Film Transistor. This is a type of flat panel display screen in which each pixel is controlled by from one to four transistors. TFT display screens offer the best resolution of all flat panel displays and are the most expensive. They are also known as active matrix LCDs.