

- 4:3** – aspect ratio of a standard TV screen. For every four horizontal units there are three vertical ones, so a screen 16 inches wide will be 12 inches high.
- 5.1** – number of channels of audio reproduction used by surround sound formats such as Dolby Digital and DTS. The 5.1 channels comprise front-left, front-right, front-center, surround-left, surround-right and a dedicated Low Frequency Effects (bass) channel, represented by the '.1.' Audio reproduction in 5.1 surround is found on DVDs, DVD-Audio, digital television, and digital movie soundtracks.
- 6.1** – number of channel used by the DTS ES sound format. It is similar to 5.1 but also includes a dedicated, discrete center-surround channel.
- 16:9** – aspect ratio of a widescreen TV. For every sixteen horizontal units there are nine vertical ones, so a screen 24 inches wide will be 13.5 inches high.

Actuator – home automation device that switches digital (on/off for an electrical switch) or analog signals, e.g., dimmer or blind control.

Asymmetric Digital Subscriber Line (ADSL) – uses existing copper wire telephone lines to provide high-speed (or broadband) data transfer. It is asymmetric because the downstream (toward the customer) data rates tend to be faster than upstream (toward the network) rates. In theory, ADSL supports up to 9Mb/s downstream and 640kb/s upstream, compared with ISDN that supports 128kb/s downstream and upstream. ADSL operates alongside the existing telephone service, and so supports Internet use as well as a normal telephone line.

Advanced Optical Disc (AOD) – created by Toshiba in conjunction with NEC, the AOD format is a more recent development than the Blu-Ray Disc format, but is supported by the DVD Forum – a consortium that includes all nine members of the ‘Blu-Ray Disc founders.’ The AOD format uses blue laser technology to store up to 15GB of data on a single-layered read-only 12cm optical disc. A dual-layered disc would hold 30GB, and a rewriteable version would hold 20GB. AOD is expected to offer long recording times by using MPEG-4 compression, which uses less data than MPEG-2.

Association – process of adding a device to a group. By doing so, the device can be controlled as part of the group.

Balun – device that converts a balanced line signal to an unbalanced one, and vice versa. A balun is typically used for converting an unbalanced television antenna signal, with one conductor and an electrical earth, to a balanced signal with two conductors having equal currents that are opposite in phase.

Bandwidth – band of frequencies occupied by transmitted modulated signals, but also used to refer to the capacity available in a communications network.

Blu-Ray Disc Format – format developed by the ‘Blu-Ray Disc founders,’ namely Hitachi, LG Electronics, Matsushita, Pioneer, Philips, Samsung, Sharp, Sony, and Thomson. This uses a blue-violet laser technology that has a smaller laser beam width than a conventional laser beam and so can store more data on a standard 12cm optical disc. A single-layered Blu-Ray disc can store up to 27GB, and a dual-layered double-sided Blu-Ray disc can store up to 54GB.

Broadband – generally defined as a connection that offers data rates of more than 128kb/s.

Bus – electrical transmission path that usually comprises one or more conductors, whereby all attached devices receive all transmissions along the bus at the same time.

Category 5 (Cat 5) – four-pair, twisted, telephone-style cable that is used to carry telephone and data signals at rates of up to 100Mb/s.

Category 6 (Cat 6) – four-pair, twisted, telephone-style cable with a longitudinal separator to ensure that each pair is kept a minimum distance from its neighbor. It supports more than double the bandwidth of Cat5, but requires a higher standard of installation.

Compact Fluorescent Lamp (CFL Bulb) – the “Energy-saving” light bulb that we now use in our homes. CFLs have replaced traditional incandescent light bulbs.

Compact Fluorescent Radio Lamp (CFR Bulb) – identical to a CFL but this bulb has a built-in radio receiver that enables it to be controlled by a wireless home automation network such as LightwaveRF.

Coaxial Cable (coax) – cable that has a single center copper conductor surrounded by an insulating material that is covered with another conductive material, usually a braid or shield, and then wrapped in an overall insulating jacket. Coaxial cable is typically used for video distribution of TV, satellite, video, and CCTV images. Coaxial cables are designated by their overall impedance, but the naming process bears no relation to this. For example, RG-58 cable has an impedance of 50 ohms, while RG-62 has an impedance of 93 ohms.

Controller – device that can control other devices on the wireless network. There are a variety of controllers available including hand-held remotes, central gateways that provide access to the Internet and PC software (via USB) that can control your network from anywhere in the world.

CPU Bus – special unit that use the CPU bus to exchange data with the CPU. Examples include Network Communications Units and Serial Communications Units. CPU Bus Units differ from Special I/O Units in that they have a larger area for exchanging data with the CPU.

CPU – main device that controls a PLC. The CPU consists mainly of the user program, I/O memory, PLC Setup, and Serial Communications ports. I/O with external devices is performed by refreshing I/O with the various other units.

Cathode Ray Tube (CRT) – technology used in conventional televisions, where the picture is formed on a glass picture tube by an electron gun that excites phosphors on the back of the glass screen. CRT technology offers the most absolute levels of black as there is no light spill, and offers a large dynamic range, producing high peak in brightness over a short period. CRT technology is also used in projectors.

Digital European Cordless Telecommunication (DECT) – digital cordless system for communication within a local area, for example, within a residence or a company.

Device – device is a specific electronic part that can be controlled through a wireless network. The device can be a local wireless controller, which controls a specific light or appliance (usually connected to it by mains wiring), or a sensor that provides input to the network. Each device is seen as a network node.

Digital Television (DTV) – theoretically offers better quality pictures than analog because the digital signal is much less susceptible to interference. It uses MPEG-2 coding for video and audio, and once received, the digital signal is converted back to analog via a set-top box (STB) or hardware within an integrated television (iTV). DTV is available via satellite and cable through subscription, or free via terrestrial through a Freeview box. DTV offers the broadcaster the possibility of more channels, as well as interactive services.

Dimmer – wireless controlled device that controls the brightness, as well as the on/off state of a local light. It connects to the light via standard wiring.

Disc – conventional spelling used for an optical disc, such as a CD or DVD.

Disk – conventional spelling used for a Winchester hard disk, a non-optical magnetic medium.

DiVX – pay-per-view version of DVD. The disc costs less to buy than a normal DVD, but after a 48-hour viewing window has passed, the disc expires unless you pay more to extend the viewing window.

Digital Light Processing (DLP) – a way to project and display video signals based on the Digital Micromirror Device (DMD) developed by Texas Instruments. The DMD stores image information and reflects light with thousands of 16x16-micron mirrors, and is designed to provide noise-free, precise image quality with digital gray scale and good color reproduction. Close spacing of the micro mirrors causes video images to be projected as seamless pictures with higher perceived resolution.

Dolby Digital – digital surround sound system developed by Dolby Laboratories. It offers from 1 to 5.1 channels of audio reproduction.

Dolby Pro-Logic (Dolby Surround) – surround sound system developed by Dolby Laboratories. It offers four channels of audio reproduction.

- Double-winding Latching** – relay with a set coil and reset coil and a latching configuration to hold the set or reset status.
- Digital Subscriber Line (DSL)** – uses existing copper wire telephone lines to provide high-speed (or broadband) data transfer. A common configuration of DSL is to support higher data rates downstream (toward the customer) and lower data rates upstream (toward the network). This arrangement is asymmetric. Another common configuration is symmetrical, having the same data rate in both directions.
- DSLAM** – multiplexing system that must be installed at the consumer's local telephone exchange in order to support ADSL and separate voice traffic from data traffic on the telephone line.
- DTS** – 5.1 digital surround sound system developed by Digital Theater Systems. It offers 5.1 channels of audio reproduction.
- Dual-Mesh Network** – network system used by INSTEON. Control signals are simultaneously sent using your home's mains wiring (power line) and the INSTEON wireless network. At the same time, all INSTEON devices act as repeaters ensuring signals get to the furthest reaches of your home without dead spots.
- Digital Versatile Disc (DVD) (Digital Video Disc)** – an optical disc that has two sides and can store 4.7GB of data per side, i.e., enough for a 133-minute movie including several audio tracks in formats such as stereo, Dolby Digital or DTS, and advanced menu systems, subtitles and still pictures that can be played by many standalone DVD players and most computer DVD-ROMs. If the disc has two layers per side, then it can store up to 17GB of data. DVD uses MPEG-2 compression for video and audio.
- DVD+R - DVD Recordable** – some different features to DVD-R, and is compatible with about 86% of all DVD players and most DVD-ROMs.
- DVD+RW - DVD ReWriteable** – some different features to DVD-RW and is compatible with about 75% of all DVD players and most DVD-ROMs.
- DVD-R - DVD Recordable** – a non-rewriteable format and is compatible with about 92% of all DVD players and most DVD-ROMs.
- DVD-RAM** – recordable DVD format claimed to have the best recording features, but which is not compatible with most DVD-ROM drives and DVD-Video players. It is more commonly used in applications where a removable hard disk might be used.
- DVD-RW - DVD ReWriteable** – compatible with about 75% of all DVD players and most DVD-ROMs. DVD-RW supports single-sided 4.7GB DVDs(called DVD-5) and double-sided 9.4GB DVDs(called DVD-10).
- DVD-Video** – means of distinguishing between DVD used primarily for audio (DVD-Audio) and DVD primarily used for video.
- Electromagnetic interference (EMI)** – generated by the internal circuits of devices such as personal computers, wireless devices and CRT displays, and can cause

interference and disruption of other electronic devices such as cordless telephones, home entertainment systems, computers, and certain medical devices. Problems can be minimized by grounding, filtering, and shielding.

- Ethernet** – common system to create a computer network using cables (wired network). This system is less common in homes, where the more convenient Wi-Fi (wireless) system is used. However, the wireless router typically includes Ethernet sockets so that a PC or other device can be directly connected to it.
- Event** – set of commands that are instigated following a trigger from a device or sensor, e.g., when a motion detector is tripped and a light comes on.
- Exclude** – remove a device from a wireless network. After a device is Excluded, the network cannot control it. It can be Included into the network again at any time.
- FireWire** – see IEEE-1394
- Forward Versatile Disc (FVD)** – optical disc format for storing high definition video based on red laser technology, developed by Taiwan's Advanced Optical Storage Research Alliance (AOSRA) in conjunction with the Industrial Technology Research Institute (ITRI).
- Front Projection** – when a projector, usually ceiling-mounted, projects the picture onto a white screen. Both the projector and the screen may be retractable when not in use.
- Gateway** – connects your home automation network to the Internet. The Gateway enables you to control the network and all the devices on it from anywhere in the world using a computer or smartphone. It also enables your network to send and retrieve information from specific remotely located servers.
- Group** – collection of individual devices, which can be controlled as a group, e.g., a controller can switch them all on with one action, rather than having to turn on each device individually.
- High-Definition-Compatible Digital (HDCD)** – an enhancement to standard audio CDs that effectively increases the 16-bit dynamic range to 20-bits. Originally developed by Pacific Microsonics, the technology is now owned by Microsoft. HDCDs are compatible with non-HDCD players, and standard CDs can be played on HDCD players.
- Home Audio Video Interoperability (HAVi)** – an initiative by some major consumer electronics companies to network consumer electronics hardware using an IEEE 1394 connection. The network does not require a dedicated PC, and allows communication with devices, such as heating, lighting and home appliances, operating on other networks.
- Home Automation** – all aspects of adding control to your home and appliances. It can be as simple as adding remote control to a few lights, or creating a more

complex system that includes automatic sensors and security systems.

- Home ID** – common identification for all nodes belonging to one Z-Wave network. Each controller is factory-programmed with a unique Home ID. When operating as the primary controller, it assigns this Home ID to the network. The Home ID is 4 Bytes (32-bits) long.
- Hub/Switch** – device for connecting computers and peripherals to a router. A router connects a home network to outside networks or computers, while a hub or switch connects the computers and peripherals within the house, and appropriately disseminates the information they request. Routers and hubs/switches are traditionally separate units, but are more frequently being bundled in packages that include a built-in hub/switch, and sometimes a DSL modem.
- IEEE 1394 (FireWire or iLink)** – communications protocol that allows direct digital transfer of data from one device to another. IEEE 1394 allows, for example, digital video from a DV camcorder to be transferred to the hard disk of a personal computer, providing both camera and computer have each have an IEEE 1394 connection. IEEE 1394 is also at the heart of the HAVi home networking standard.
- IEEE 802.11** – wireless transmission protocol. It exists in a number of versions (labelled ‘a’ to ‘g’) that run at different frequencies in the spectrum 2.4GHz (g) to 5.7GHz (a), giving different possible data rates. Version ‘b’ is currently in commercial use, predominately for wireless PC networks (WLAN).
- Include** – the process of adding a device to a wireless network. When Included, the network can control the device.
- Insert** – similar to Module. An Insert is installed inside an existing wall-box to add wireless control to the appliance or light. In most instances, the existing switch or dimmer can be retained for manual control.
- INSTEON** – dual-band mesh network system that uses your existing mains wiring and the INSTEON wireless network to send control signals around your home. INSTEON is a fast, reliable home automation system for control of lighting, appliances, doors and locks, and motion sensing.
- Integrated Services Digital Network (ISDN)** – communications network for data transmission of 64kb/s per channel. ISDN has mostly been superseded by broadband/ADSL.
- Internet Protocol (IP)** – a standard set of rules for sending and receiving data across a computer network or the Internet. Used with Ethernet and Wi-Fi networks.
- Infrared (IR)** – commonly used by remote controllers to control appliances such as TVs, DVDs, etc. The control signals are sent using Infrared light, which is invisible to the human eye and is line-of-sight technology,

meaning there must be no obstacles between the controller and the appliance.

kB/s (kBps) – kilobytes per second. There 8 bits to a byte.

Last Mile – colloquial name for the final part of the communications signal chain, running between the local exchange and individual buildings.

LED – light-emitting diode – a method in which only the light source of an incandescent lamp model is changed from a filament to an LED and the LED is lit to provide illumination.

LightwaveRF – wireless technology to control home electronics from a single wireless network. LightwaveRF is an affordable alternative to Z-Wave, ideal for creating a simple home network to control lights and appliances.

Liquid Crystal Display (LCD) – digital display that uses liquid crystal cells that change reflectivity in an applied electric field. LCDs are used for portable computer displays, wristwatches, and some TV screens.

Macro – sequence of commands that have been pre-programmed into a control device, that can be activated by one touch. For example, when the user selects “showtime” on a home cinema touchscreen remote control, it could be programmed to dim the lights, draw the blinds, lower the projector screen, start up the DVD player, amplifier and projector and commence playback.

Manual Override – enables user to control the device locally without using the wireless network. For instance, a Z-Wave socket will have a manual on/off switch.

Mb/s (Mbps) – megabits per second. 1Mb/s is 1024 times faster than 1kb/s.

Mesh Network – type of network that allows each device to send, receive and repeat messages. This process makes the network more robust and extends the range of the entire network. Z-Wave is a good example of a Mesh Network.

Module – device that adds wireless control to a light or appliance, e.g., a dimmer module enables the control a lamp wirelessly.

Mood – similar to scene. Mood is a LightwaveRF term where one switch can control many devices at the same time, each device receiving a different command, e.g., turn lamp ‘A’ off, raise the roller blind on window ‘C’ and turn on the TV.

MPEG Layer 3 (MP3) – data required for an MP3-encoded audio track is 12 times less than that of the same track recorded at standard CD quality. Hence MP3 requires shorter download times when used to transfer music via the Internet for example, and less storage space required, giving rise to a proliferation of solid-state MP3 players such as the Apple iPod® and iPad® and players in mobile phones. MP3 files can be stored on any digital recording medium, providing they have MP3 decoding

capabilities, CD and DVD players can read a CD that has been burned with MP3 tracks.

- MPEG-2** – developed by the Motion Pictures Experts Group (MPEG), MPEG-2 is a video compression algorithm that compresses the data required to represent a video picture by a factor of about 40. MPEG-2 is used by DVD-Video, digital broadcast satellite, and digital TV (including HDTV).
- MPEG-4** – sometimes called the “MP3 of the video world,” MPEG-4 is designed for multimedia applications including web, hand-held and wireless devices. It is based on object-based compression, whereby individual objects within a scene are tracked separately and compressed together to create an MPEG-4 file. This results in very efficient compression that is highly scalable, from low bit rates to high quality.
- Multiroom** – describes any distributed system, such as an audio or heating system, that covers a number of rooms in a building.
- Near Video On Demand (NVOD)** – system typically used for subscription movies, whereby the same movie is continuously played on several channels, with the start time between each channel being staggered by 15 or 30 minutes, so that the consumer does not have too long a wait to catch the beginning.
- Network** – two or more devices connected together is called a network. This enables devices to be controlled and to communicate with each other. For home automation, typically refers to a wireless network as a network.
- Node** – specific point or device on a home network. Each node has a unique address, which the controller uses to communicate and control it.
- Node ID** – address of a single Z-Wave node, the address length is 1Byte (8-bits).
- Pairing** – same as Include – the process to add a device to a wireless network. The network can then control the paired device.
- Personal Video Recorder (PVR)** – video recorder that records to hard disk, and usually supports both programmed recording as well as automated recording according to your personal profile.
- Plasma Display** – a display that produces an image by using a matrix of transparent electrodes, positioned in front of a gas (plasma)-filled cavity. The gas is contained in hundreds of thousands of tiny cells between the two plates, and when excited by the electrodes, acts like tiny fluorescent lights. Each pixel of the image comprises a red, green and a blue fluorescent light. Just like a CRT television, the plasma display varies the intensities of the different lights to produce a full range of colors. Most plasma displays are not technically televisions, since they do not include a television tuner. They must be connected to a tuner, cable box, or some other source such as a DVD or VCR.

Plasma displays are popular because even large-screen models are only a few inches thick.

- PLC Setup** – parameter settings made from a programming device (e.g., CX-Programmer or a Programming Console) saved in the CPU to enable the user to make software settings to control CPU operation in an OMRON PLC.
- Portable Controller** – a network controller that can be moved around the home or office. These controllers are normally hand-held and battery-powered. It's recommended that Portable Controllers be used together with at least one Static Controller to ensure reliable network operation.
- Power Line Carrier or Communication (PLC)** – use of a residence's existing mains wiring as a network that also carries control information and/or content.
- Primary Controller** – controller Includes all other devices into the network. It assigns its Home ID to the network and allocates a node ID to each device in the network (including secondary controllers).
- Protocol** – a set of communication rules that enable network devices to communicate with each other. INSTEON, Z-Wave , ZigBee and LightwaveRF all have their own communication protocols.
- Radio Frequency (RF)** – many types of wireless system, such as cordless and mobile phones, radio and television signals, and satellite communications, operate in the RF spectrum.
- Rear Projection Television** – large-screen television which uses a projector to fire the image onto a screen, all housed in one self-contained unit. Rear projection TVs are said to give the best picture quality of all, but have traditionally had the disadvantage of being quite deep, although relatively shallow models have emerged.
- Regional Coding** – system used to prevent DVDs bought in one region of the world from being played in another in order to protect revenues from theatrical movie screenings. The world is divided into six regions, including the USA & Canada (Region 1) and Europe & Japan (Region 2). There is also a region-free designation, Region 0. In practice, Regional Codes can often be side-stepped by DVD players.
- Relay** – wireless controlled Device that controls the on/off state of a local appliance (load). The relay controls the power going to the load via standard mains cables. The term relay is normally associated with inserts and modules that control appliances of more than 600W (not lights).
- RF Modulator** – device which converts a line-level signal into a robust radio frequency signal for wireless or wired transmission.
- RG-6 Quad Shield** – coaxial cable with an impedance of 75 ohms. It is recommended for CATV residential applications, and can handle CATV, satellite,

HDTV and cable modems, with some additional shielding to prevent noise.

Ringer Equivalency Number (REN) – usually, the total number of ringer equivalency phone equipment (such as telephone base units and answering machines) attached to a domestic network cannot exceed three, otherwise there may not be sufficient current to make the devices ring. The REN value is usually printed on the bottom of a unit.

RJ-45 – a serial connector used with Ethernet and Token Ring devices that looks like a telephone jack but has eight wires instead of four or six.

Router – connects the home network and outside networks or computers, while a hub or switch connects the computers and peripherals within the house and appropriately disseminates the information they request. Routers and hubs/switches are traditionally separate units, but are more frequently being “bundled” in packages that include a built-in hub/switch, and sometimes a DSL modem.

Scene Lighting – where different lighting circuits are dimmed or activated to create a particular mood, such as a reading scene or movie-viewing scene.

Scenes – like groups, scenes group together multiple devices. However, while groups treat all devices similarly, scenes enable a controller to send different commands to different devices, resulting in endless possibilities.

Synchronous Digital Hierarchy (SDH) – International digital telecommunications network hierarchy that standardizes transmission around the bit rate of 51.84Mb/s and multiples thereof. SDH specifies how data is transported across optical fibre transmission links and supports transmission speeds of up to 10GB/s.

Secondary Controller – an additional controller that can control devices on a network, however, it cannot include devices to the network, this is performed by the primary controller. When the secondary controller is included into the network, the primary controller assigns its home and node ID.

Sensor – home automation device that sends information across the network based on changing conditions such as movement, temperature, and light levels. For instance, a motion sensor sends information when motion is detected.

Slaves – device that is controlled by other network devices. In Z-Wave networks, slaves are categorized as “standard” or “routing” slaves. A routing slave includes advanced capabilities for routing signals around the network. Typically, slaves are actuator devices such as switches, dimmers, and relays.

Smart Home – a dwelling, usually a new one, that is equipped with special structured wiring that allows occupants to remotely control or

program various automated home electronic devices using single commands.

- Synchronous Optical Network (SONET)** – American version of SDH.
- Star/Radial Wiring (Home Run)** – wiring system whereby cables are distributed from a central controller hub to each access point, allowing independent access to any of the signals or services from any point in the house.
- Static Controller** – a network controller that has a fixed location. At least one static controller is recommended to ensure reliable network operation in Z-Wave systems.
- Subwoofer (Sub)** – A loudspeaker that is specifically designed to handle bass in a home system. It should not be confused with the low frequency effects (LFE) channel (or .1 channel) of surround formats. When audio channels from a disc enter a surround processor, the processor's bass management system filters the low frequencies out of the feeds to speakers that cannot handle them and feeds them to loudspeakers that can – either large, full-range speakers, or the subwoofer, or both.
- Super Audio CD (SACD)** – better-quality audio than a CD, and supports both stereo and multichannel audio. SACD can be played on SACD players, as well as on SACD-compatible players such as certain DVD-Video players. Hybrid SACD discs contain two versions of the recording. One version plays on the latest generation of SACD hardware, and the other plays on standard home, car, or portable CD players. SACD uses a technology called Direct Stream Digital (DSD) to record and replay audio. While standard CD audio uses 16-bit words sampled 44,100 times a second, DSD stores data as a stream of single bits sampled at 2.8224MHz. SACD players may play standard CDs, but SACD discs do not always play on standard CD players.
- Surround Sound** – general term for audio reproduction that is not only from the traditional front-left and right positions, but from behind and possibly to the side of the listener. A number of configurations are in use, typically ranging from 4 channels (front-left, center and right, and one rear channel fed to two speakers at the back left and right); the popular 5.1 (front left, center and right, back and right surrounds, and a low frequency effects (.1) channel); 7.1 (5.1 plus side left and right), and even 10.2 (additional side channels and a second .1 channel).
- Switch** – wireless controlled device that controls the on/off state of a local light (load). The switch controls the power going to the light via standard mains cables and can be a switch paddle, insert or module.
- Thin Film Transistor (TFT)** – the highest quality and brightest LCD color display type. A method for packaging one to four transistors per pixel within a flexible material that is the same size and shape as the LCD display, so that

the transistors for each pixel lie directly behind the liquid crystal cells that they control.

THX – Tomlinson Holman’s eXperiment. An audio standard developed by Lucasfilm for some categories of consumer electronic hardware such as home cinema amplifiers, speakers and source equipment. Equipment must meet stringent THX specifications in order to gain THX status.

Touchscreen – touch-sensitive screen that allows the user to activate graphical buttons and access menus, simply by touching the screen. In home entertainment and automation, the touchscreen, in the form of a touch-sensitive LCD, tends to be incorporated into remote controllers that allow the user to select different menus and controls.

TV Rating (UL/CSA) – TV rating is an appraisal of the inrush withstand current performance in the UL and CSA standards. It is one of the typical ratings. The TV rating indicates the level of load that can be switched by the relay, including the inrush current.

Universal Mobile Telecommunications System (UMTS) – standard adopted for third generation (3G) mobile networks.

Unpairing – same exclude – to remove a device from a wireless network. After a device is unpaired, it cannot be controlled by the network, but can be paired again at any time.

Universal Plug and Play (UpnP) – developed by Microsoft, this is an open standard technology for transparently connecting appliances, PCs, and services, by extending plug-and-play to support networks and peer-to-peer discovery and configuration.

Wireless Fidelity (Wi-Fi) – Wi-Fi is the popular term for a high-frequency wireless local area network (WLAN). It is specified in the IEEE 802.11b specification and is part of a series of wireless specifications together with 802.11, 802.11a, and 802.11g. In many cases, Wi-Fi is more convenient than a wired LAN, but unless adequately protected, a Wi-Fi LAN can be susceptible to access from the outside by unauthorized users, some of whom use the access as a free Internet connection. (The activity of locating and exploiting security-exposed wireless LANs is commonly known as “wardriving” and an identifying iconography has developed that is known as “warchalking”).

Wireless Network – network on which the devices communicate wirelessly using radio waves (RF). Wi-Fi, LightwaveRF, Z-Wave and ZigBee are all wireless network technologies.

X-10 – communications language that allows compatible products to talk to each other using the existing electrical wiring in the home. A technology known as Power line Carrier System (PCS) is used to send coded signals along a home’s existing electric wiring to

programmable switches or outlets. These signals convey commands to specific 'addresses' or devices. A PCS transmitter, for instance, can send a signal along a home's wiring and a receiver plugged into any electric outlet in the home could receive that signal and operate the appliance to which it is attached. A common protocol for PCS is known as X10. X10 signals use short RF bursts to represent digital information for communication between transmitters and receivers.

- Z-Cloud** – cloud-based central controller for Z-Wave networks. It allows you to setup, manage, and control Z-Wave devices on your network without requiring a sophisticated central controller or gateway.
- ZigBee** – advanced wireless technology being built into home automation and smart energy devices; it is closely associated with the “Internet of things.” ZigBee devices are based on the IEEE 802.15 standard, however compatibility between manufacturers' products is limited.
- Zone** – designated area of a building for the provision of any service. In a multi-room audio system, for example, each bedroom would typically constitute a separate zone.
- Z-Wave** – network technology that enables all your home electronics to be controlled from a single wireless network. It's easy to install with no complicated programming and no new cables to run, yet offers sophisticated control of your network. Any Z-Wave-enabled device (from multiple manufacturers) can be added to the network, and many non-Z-Wave devices can be made compatible by plugging them into a Z-Wave accessory module.