

Home Entertainment Terminology Guide

Dazed and confused by tech jargon? David Gregg, new product reporter and senior editor at Behindthebuy.com makes it easy to decode by putting together a short list of some of the most common terms from one of his favorite tech sources, www.crutchfield.com. Be sure to bring this list along before you hit the stores!

3DTV: 3DTV isn't just about the TV itself, it's a system with three parts: the screen, the emitter, and yes, the glasses. First, the LCD or plasma screen has to be specially designed for 3D. The screen needs to display two slightly different versions of a video image, one for each eye, with the video frames alternating at very high speed. The wireless "active" 3D glasses are battery-powered "shutter" glasses. They can lighten or darken hundreds of times per second to alternately block out the left or right lens, timed to synchronize with the video frames flashing on the screen. The glasses communicate wirelessly via infrared beams with an "emitter" that is usually built into the TV, but is sometimes sold separately. It's this emitter that controls the timing of the shutter glasses, whether it's a single person watching or a roomful of people. There's much more to 3D TV glasses than to movie theater glasses, which is why some 3D TV glasses cost upwards of \$150/pair.

Artifacts: Unwanted visible effects in the picture created by disturbances in the video transmission or processing. Examples include "dot crawl" or "hanging dots" in analog pictures, or "pixilation" in digital pictures.

Aspect ratio: The ratio of width to height for an image or screen. The North American television standard used the "squarish" 4:3 ratio. Newer digital and HDTVs use the wider 16:9 ratio (1.78:1) to better display DVD and HDTV content.

Audio/video inputs: Using a TV's direct A/V inputs to connect a DVD player, VCR, camcorder or other video component provides improved picture and sound quality compared to using the everything-on-one-wire RF antenna-style input. If your TV is old enough that it only has RF-type inputs, that's reason enough to consider replacing it because DVD players don't normally have an RF output. Rear A/V inputs are used for components you normally leave connected to your TV. Front A/V inputs allow you to quickly and easily connect/disconnect a camcorder, second VCR, or video game console.

Audio outputs: Stereo audio jacks that let you connect your TV to your stereo or home theater system. There are two types: fixed, and variable. If you connect a TV's fixed output to your A/V receiver, you'll be able to raise and lower the TV volume via the receiver's volume control. If you connect the TV's variable output to your receiver, you would control TV volume using the TV's remote.

Black level: Describes the appearance of darker portions of a video image. Black is the absence of light, so to create the black portions of an image; a display must be able to shut off as much light as possible. Displays with good black level capability not only produce deeper blacks, but also reveal more details and shading in dark or shadowy scenes.

Blu-ray: If you want true high-def for your DVDs, you should go with a Blu-ray Disc player. These DVD players are the only type capable of delivering high-def video up to 1080p, the highest viewing resolution currently available. Blu-ray players typically do an excellent job up-converting standard DVDs, so you'll still be able to enjoy the movies you already own. Note that you will need a 3-D Blu-ray player if you want to view 3-D movies.

Burn-in: Screen burn-in is damage to the display screen, most commonly on plasma TVs. Burn-in can occur when a static image such as a news ticker or network logo remains on-screen for an extended period. Over time, the images leave a faint, but permanent impression on the screen. Newer plasma TVs have been refined to reduce the

chances of burn-in, but owners can further reduce the risk by properly adjusting the brightness and contrast settings.

Component video: The three-jack component video connection splits the video signal into three parts (one brightness and two color signals). Component video has increased bandwidth for color information, resulting in a more accurate picture with clearer color reproduction and less bleeding. Component video typically provides better picture quality than S-video or composite video, and is recommended when connecting compatible DVD players, satellite receivers, and cable set-top boxes.

Composite video: A single video signal that contains luminance (brightness) and chrominance (color) information. A composite signal is better than an RF signal, but not as good as S-video or component video. A composite video jack is usually a single RCA-type.

Contrast ratio: Measures the difference between the brightest whites and the darkest blacks a display can show. The higher the contrast ratio, the greater the ability of a display to show subtle color details and tolerate ambient room light. Contrast ratio is an important spec for all types of TV display, but especially for front projectors.

Digital audio output: A connection found on HDTVs and HDTV tuners for sending the Dolby Digital audio of HDTV broadcasts to an A/V receiver with Dolby Digital decoding.

Direct-view TV: A general term for non-projection types of TVs, which include conventional tube TVs and flat-panel plasma and LCD TVs.

Dolby® Digital: A discrete multichannel digital audio format that is the official audio standard for HDTV (and DVD). Dolby Digital is normally associated with surround sound. Though this channel configuration is common, it is only one of several possible variations — a "Dolby Digital" soundtrack can mean anything from 1 to 7.1 channels.

Down-conversion: A term used to describe the format conversion from a higher resolution input signal number to a lower display number, such as 1080i input to 480i display. Some HDTV tuners are able to down-convert digital HDTV signals for display on a regular analog TV.

Digital Television (DTV): A general term for television that is capable of displaying the digital TV signal, but may also describe a cable television service which delivers programming content to the home in the digital format.

Energy Star® compliant: A certification for consumer electronics products indicating energy efficiency. Energy Star compliant products must meet stringent standards for power consumption in "standby" mode (components that are switched off but still plugged into an AC power source, continue to draw a small amount of power in standby mode to keep circuits active and ready for quick turn-on).

Flat-panel TV: Any ultra-thin, relatively lightweight TV. Current flat-panel TVs use either plasma, LCD or LED or OLED screen technology.

HDMI (High-Definition Multimedia Interface): A multi-pin HDMI interface (cable) transfers uncompressed digital video with copy protection and multichannel audio.

HDTV (High-Definition Television): Often mistakenly used as a generic description of all digital television, HDTV specifically refers to the highest-resolution format of DTV formats. Although there still isn't 100% agreement among manufacturers, retailers, journalists and experts, true HDTV is generally considered to be 1,080-line interlaced (1080i) or 720-line progressive (720p).

LCD (Liquid Crystal Display): LCD technology is one of the methods used to create flat-panel, rear-projection, and front-projection TVs.

LEDTV: TV technology delivers deep blacks, bright colors and crisp images to rival any display category, and are the slimmest, most energy efficient televisions available. Improved motion capture allows smooth, natural pictures, even with fast paced action.

Pixel: Short for "picture element," it's the smallest bit of data in a video image. The key is the smaller the size of the pixels in an image – the greater the resolution.

Plasma Screen: Gas-plasma technology is one of the methods used to create flat-panel TVs.

Resolution: The sharpness of a video image, signal or display, generally described either in terms of "lines of resolution" or pixels. The resolution you see depends on two factors: the resolution of your display and the resolution of the video signal.

RF (radio frequency) jack: The kind of jack commonly used for bringing signals from antennas and other sources outside the home to components with some type of tuner, such as a cable box, HDTV tuner, VCR, satellite receiver or a TV.

S-video: Found on nearly all TVs, this 4-pin connector usually provides a sharp, clear picture by transmitting the brightness and color portions of a video signal separately.

Up-conversion: The term used to describe the conversion of a lower resolution signal to a higher one.

Widescreen: When used to describe a TV, widescreen generally refers to an aspect ratio of 16:9, which is the optimum ratio for viewing DVDs, many video games and HDTV content.

Source: Crutchfield.com