



Samsung 3D Glasses

COMING AT YOU: 3DTV

The chairman of the IEEE Consumer Electronics Society Standards Committee, Stuart Lipoff, explains why 3D television is set to be the biggest development in home entertainment since High Definition.

So you have just purchased a new flat screen television and you don't expect to be shopping for an upgrade for at least another ten years. After all, the latest super skinny, extra wide, HD flat screen is as good as it gets – right? Well television manufacturers might have something up their sleeves that could mean you are off to the shops again sooner than you (or your bank balance) expect.

For many of us 3D conjures up images of a dodgy pair of card glasses with one blue lens and one red. Recently however films like Avatar have brought a whole new 3D experience to the big screen and the technology is now making the transition to the small screen. Although 3DTV is relatively new to the consumer, 3D still photos have been around nearly as long as photography itself. Enjoying 3D still photos through dual eye magnifiers was a popular past-time way back in the late 1800's, and 3D films

appeared in cinemas as far back as the mid 1950's.

However, it proved to be little more than a fad. 60 years later and 3D has only just returned to the cinema, so should we be already considering shelling out on a 3DTV device for the home? Well yes – actually maybe we should. Technological innovation across the board, from the production of 3D content to the manufacture of home 3D devices, mean the time has never been better. I believe 3DTV will become a reality in the home in the next three to five years.

On the production side not only are 3D films such as Avatar being made using computer generated imaging (CGI), but we also have new economical imaging technology that means 3D cameras can be used to capture in 3D at live venues such as sporting events or concerts. It will bring new meaning to the phrase 'getting closer to the action.'

This doesn't necessarily mean you have to go out and buy an expensive new television just yet though. With the technology for producing 3D advancing so fast, there are also new ways to watch TV in 3D without the need for a major purchase. The modern flat screen TVs contain such powerful software that it is possible for you to watch 3D films from the internet or play computer games in 3D, such as on BSkyB's new 3D channel, through either a 3D Blu-ray player or by buying the right adapters and computer monitors from companies such as NVIDIA.

If you are ready for an upgrade however, you will be pleased to know that all the main manufacturers (Sony, LG, Samsung, Toshiba etc) either already have, or are set to launch 3DTVs by the end of this year. Some sets are sold as "3D Ready," which means you need to buy other accessories before you can display 3D so make sure you investigate what is needed first. You also need



Samsung 3D TV

Sony 3D TV



Panasonic 3D Blu-ray Disc Player



Sky 3D



to check that the TV supports HDMI interface at version number 1.4A or higher. HDMI 1.4A is the most recent version of the 3DTV standard that covers the cable and connectors that go between 3DTV devices such as the cable box, satellite box, Blu-ray player and your TV. As the standardisation of 3DTV is still taking place, HDMI 1.4A is the only standard that will automatically sense and support all the 3D formats currently in use, and is highly likely to continue to work into the future.

Although all the latest 3DTVs have an exceptional 2D HD image, most require special 3D glasses to watch in 3D. There are two types available at the moment: passive glasses and active shutter glasses. Passive glasses are cheap (around 50p per pair and the type that are currently provided at the cinema and in pubs) but only work with expensive TV display devices, whereas active shutter glasses cost about £70, have a higher quality image and are the ones that

are most popular with 3DTVs currently on the market.

I believe 3DTV is the future because the stunning graphics and high quality image mean the viewer experience is truly immersive, however before it becomes truly universal all the companies involved in producing and transmitting 3D content need to work together to standardise 3DTV. This will allow 3D to be broadcast on terrestrial TV, though it may take a few years to happen. Until the 3DTV industry develops standards and the technology advances so that we can watch high quality 3D on any modern TV either with or without cheap glasses, mainstream 3DTV in the home is a long way off except for those with cash to burn. However, the amount of 3D films, games and adverts being developed is growing, and we may start to see 3DTV on more one-to-one devices such as mobile phones, laptops and aeroplane TV screens much sooner than you might think.