

PRESS RELEASE

IFA 2010: Trends in consumer electronics

TV + Internet, 3D, high definition, 4th generation mobile telephony, energy efficiency:

Alicante/ Berlin, April 2010 – As the world's leading consumer electronics fair IFA 2010 presents the entire range of new developments in a dynamic and innovative industry. Media in 3D, HDTV, fascinating new screen technologies, entertainment, navigation and communication using mobile terminals, new mobile telephony technologies for area-wide broadband infrastructures, media in the wireless networked home – IFA presents the trends from all areas of the industry.

Wide range of three dimensional devices available, HDTV drives the mass market

With the start of regular broadcasts in HDTV by public and commercial channels in Germany the latest developments in television have finally reached the mass market. For some years now the equipment manufacturers have been preparing for the introduction of the new generation of TV broadcasting and can now provide a comprehensive range of screens suitable for HDTV and an increasing number of HDTV set-top boxes. In 2010 the latest TV technology is fully equipped for the HDTV future: built-in digital HDTV receivers for signals received by satellite, cable and antenna are among the standard features in the more up-market sets, as well as new digital access technologies such as the CI Plus interface ensure cross-border compatibility for distribution networks and programme providers.

And the next step in the media evolution is just around the corner: the breakthrough into the three-dimensional moving

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image. For digital movies 3D technology is already well established, the most recent example being in the spectacular 3D blockbuster “Avatar”. The consumer electronics industry can now meet the requirements for viewing 3D images in the home, in HD quality, of course. At IFA 2010 all the leading manufacturers will be offering a wide selection of 3D television sets, together with the required 3D glasses.

At the present time the DVB consortium is working on extending the capabilities of digital television to encompass 3D images, and the first stations are already running trials of 3D broadcasts, for example, of major sporting events. The Blu-ray standard has now been extended to include 3D, a development that was approved in December 2009 and which makes this optical data medium the ideal method for distributing 3D content in full high definition. For the first time trade visitors attending IFA 2010 will also be able to see stereoscopic video cameras – for professional users and for ambitious amateurs.

The internet is taking over the TV screen

Yet another important technological trend: the latest generation of television sets brings the internet into the living room. Video clips from YouTube, slide shows from providers of online photo services, weather reports, up-to-the-minute news reports, sports results, stock market prices or communication via Skype: all of these are now available at the click of a button. Manufacturers use various different technologies, such as a standardized browser or special widgets, but in all cases the results are similar. It is now as easy to access internet content as it is to zap through the television channels.

In the future it is planned that proprietary web TV solutions will gradually be supplemented by industry standards and eventually replaced by them. This would result in four practical advantages: content providers can prepare their web services irrespective of what kind of terminal will be used and unfettered by any commitments to particular manufacturers, thus substantially increasing availability. Tie-ins with established

digital TV technology will also facilitate close links between the content of television programmes and that which is available on the internet. IFA 2010 will present many examples of applications based on open standards, including a new generation of teletext using internet technology.

The merging of the web and television also offers the perfect conditions for private video conferences: the first television screens with built-in microphones and mini-cameras will go on show at IFA 2010, demonstrating that internet telephony services such as Skype can be used to provide cheap video communications with friends, relatives and partners, even in the remotest corners of the world.

New screen technologies offer improved contrast, reduced energy consumption and clearer movement

Improved energy efficiency, even better picture quality and slimmer styling: by the time IFA 2009 took place these were the dominant trends in television technology. LED backlighting of LCD screens was still an exclusive feature of the more up-market models at IFA 2009, but is now becoming more widely used. The individual LED light cells can be regulated to match the brightness requirements of a particular picture (known as 'local dimming'). This enables much greater contrast levels to be achieved as well as significantly reducing energy consumption. The plasma screens on show at IFA 2010 also require much less energy. With these developments the manufacturers are continuing to follow the path laid down two years ago.

Natural, flowing and sharply defined movement sequences are yet another criterion in the efforts to achieve an improved picture quality. All the major manufacturers will be presenting attractive new models at IFA 2010, all of which operate with a vastly increased standard picture frequency and intermediate images that are intelligently calculated in advance. This ensures images with clearly defined details, for example, when the camera pans across a whole football pitch in fractions of a second, a big advantage in the year when football's World Cup is being held.

Even though some of the alternatives to the technologies which

are now a regular feature of plasma and LCD television screens will only become commercially significant in a few years' time, IFA 2010 provides an ideal opportunity to examine them now. OLED screens, for example, will be on display in Berlin not only in the form of prototypes but also as technically refined, mass-produced models and even in larger formats suitable for the home.

The Blu-ray Disc: a well-developed market, an extensive range of playback devices

The Blu-ray disc is on show at IFA as an advanced media platform incorporating the highest technical standards. A wide choice of movies and other media content is now available in this format, with online access and an extensive range of playback units. Blu-ray players as standalone components can be found in many different versions and designs, and at very attractive prices. Blu-ray drives are increasingly forming part of the standard equipment in complete home cinema systems, where they are beginning to take the place of DVD technology.

For the first time a wide choice of Blu-ray players with 3D capability will be presented at IFA 2010, along with many models incorporating additional multimedia facilities such as digital media players which can play back content from a PC hard drive via the home network, or which support video-on-demand services.

Wireless and easy to operate: sound and vision in the home network

High definition pictures, in prototype form also in 3D, can now be fed to the screen wirelessly and uncompressed, together with high definition multi-channel sound, in conformity with the Wireless HD standard and with similar transmission systems.

The simplicity of wireless technology makes it especially suitable for use with the sophisticated styling of ultra-flat television sets, which can be hung on a wall just like a picture.

IFA will also feature many new streaming solutions for audio

and video, including a wide range of media players, as well as many new media servers and NAS drives, capable of supplying pictures, music and movies to loudspeakers and screens all over the house.

Hard drive archives, online music and internet radio: hi fi and the net are becoming inseparable

Growing numbers of hi fi enthusiasts are now taking network connection for granted: today's music is largely ordered online, computer hard drives are gradually replacing the CD rack as a sound archive, and network clients either play from their own private repertoire or relay it to a hi fi system. And the next logical step is for devices that use the home network to access an archive held on a hard drive, while serving at the same time as a receiver for internet radio services. Tens of thousands of radio stations all over the world are available through special providers, categorized according to genre or region, thereby offering another attractive source of entertainment and information.

Mobile entertainment, navigation and communication: on show in their entirety at IFA

MP3 players, sat-nav units, smart phones with browsers, email programs and multimedia facilities – it is now almost impossible to separate the various functions of today's mobile terminals. IFA 2010 has the ideal innovations for all users: mobile jukeboxes which can also display digital photos or can be used for dictation; multimedia players that fit in a pocket and can show movies with almost the same degree of resolution as a TV set; navigation devices that update recommended routes using data obtained from mobile phone networks; smart phones which can download the appropriate software in order to act as easy-to-use navigation devices. The concept of convergence is more evident here than in almost any other product category. It can all be seen, comprehensively and with all its facets, at IFA.

Mobile broadband access for everyone: getting ready for the introduction of the fourth generation of mobile telephony networks

The introduction of fourth generation mobile telephony networks, known as “Long Term Evolution” (LTE), will be evident at

the technical forums taking place during IFA 2010, where groups dealing with strategies for digital terrestrial systems and media policy forums will discuss the opportunities and risks associated with future infra-structures. For example, this will take the form of application scenarios that link traditional broadcasting services even more closely with the interactive functions of the internet, and will also look at ways in which broadcasting and mobile telephony frequencies can be arranged in closely adjacent frequency bands in order to safely avoid interference to the networks used to distribute broadcasting signals.

Clear images on equipment in every category: camcorders and digital cameras

High definition is increasingly a standard feature of today's camcorders, and does not just apply to the new top-of-the-range models with three separate image sensors delivering pictures of outstanding quality. Even the extremely compact, pocket-sized units with basic equipment for novices and for taking shots quickly can produce HD-sharp images.

Digital photo cameras too, which are actually designed more for taking stills, can produce passable moving images. And this is not only true of the pocket models, which can take short clips in small formats for inclusion on YouTube. Even at the top of the range, SLR cameras can now take moving images and it goes without saying that the resolution of these shots is of HD quality.

Flash memory is becoming more widespread: mechanical components have had their day

For televisions, DVD players or hi fi components alike: in addition to the usual interfaces, an increasing amount of consumer electronics equipment also has slots enabling chip cards to be read, or has USB ports for handy memory sticks, because these tiny everyday digital devices are now firmly established as universal media for data content of every kind. They can be used to reproduce photos from a digital camera or one's own movies from a camcorder directly onto a flat screen. Alternatively they one can very easily transfer entire MP3 collections from a computer to a home hi fi system.

The technology used in flash memory chips, a key component

in these tiny, lightweight storage media, has been developed at breathtaking speed: their capacity doubles almost every year, and they are also becoming cheaper. Flash memory is well on the way to replacing hard drives and other mechanical storage technology. Throughout the camcorder market the proportion of units which store moving images on chip cards instead of hard drives or on optical media is increasing all the time. The industry will continue this trend at IFA 2010, in the form of many, new, increasingly light and compact devices which also consumer far less energy.