



**The European Eye on the
Display World**

Display Monitor

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EMEA Monitor Shipments Fell in Q3

EMEA desktop monitor (DTM) shipments decreased 15.7% year-on-year (YoY) in Q3'09, according to Meko's DisplayCast tracking service. The reduction is less than was seen in Q1 and Q2, when the industry saw YoY declines of 19.9% and 23.6% respectively. However, every region saw a volume decrease YoY in Q3, with the Nordics and Baltics the best performing at just 1.2% down and Russia & CIS the worst with a drop of 42.6%.

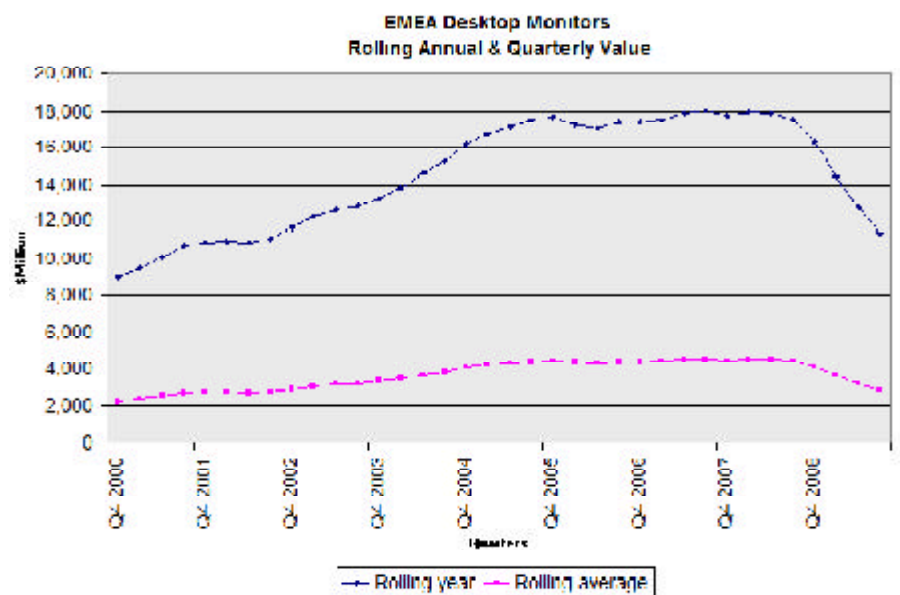
"Within one period of time we are seeing the combination of a major recession, an acceleration of mobile computing, delays in desktop refreshes and the arrival of new types of display form factors such as multi-functional monitors (MFMs) and all-in-one PCs

(AIOs)", said Andy Barker, Meko's analyst director for monitors. "However, there is a 'silver lining' and we have seen the consolidation of brands, major display lead product opportunities and the chance for creative marketers to attach monitors to sub-notebook sales. Vendors can still extract value from today's display market space".

The Korean brands, Samsung and LG, had a strong quarter and their combined sales accounted for 38.7% of the Q3'09 market. Acer also saw its market share rise 1% to 16.5% of the market.

"We saw the top three brands strengthen their grip on the EMEA market, going from 44.4% of the LCD market in Q3'08 to over

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Editor's comment

This should be the last editorial of the year as we have come to Issue 48 of Display Monitor. It has been (mostly) a real pleasure to get back 'into the driving seat' of the publication after a seven-year break from the day to day editing. There is nothing like the flow of daily news to give you a feeling of understanding the 'pulse' of the industry. We've made a lot of changes to the newsletter in design and content this year and we hope you think that it is an improvement. We have more changes planned - watch this space! I also welcome feedback at any time to bobr@meko.co.uk.

As I look out of my window this morning, the view is of snow (if there's room in this bumper edition, then there may even be a picture!). That sets the tone for the run-in to Christmas. Unfortunately, things didn't work out for a last visit to Germany this year - and that is always a pleasure at this time of year. I did get to Bavaria a couple of weeks ago, but there was no time for the Christmas market!

When we come back it will be to a very busy time with CES in Las Vegas. We will try to get an issue out at the end of the first week, but if it is delayed by that event, please forgive us.

Looking at the news this week, there was plenty that was important, but none that was 'earth shattering'. I put the monitor market story on the front cover. The monitor market has been an incredibly tough one, but our new monitor analyst, Andy Barker, sees this partly as a 'Sales and Marketing' issue and doesn't think that

hope for the market is dead. He has good ideas on how makers can boost monitor sales and also capture more value. He's in the planning stage of a report on the future of monitors so if you would like to know more, contact andyb@meko.co.uk. One small item of news I spotted this week was that Teletext in the UK, a popular data service on analogue TVs since 1975, was closed a month earlier than planned. At one time, the Teletext pages were the best place in the UK to find 'last minute' holiday bargains. So that is the end of an era. In fact, I just realised that it is a couple of years since I last looked at teletext. It's easier now to get 'live information' from a phone or from the net.

Anyway, I will wish you all a good holiday and also good health and prosperity for 2010. For Meko, 2009 has been a tough year, but has ended well and we're really looking forward to new developments in 2010 (of which, more later!).

Bob



LG Prepares OLED Patent Group

A group of LG companies are to launch 'LG OLED', an OLED patent administrator, by the end of the year. The new division is being financed by LG Electronics, LG Display and LG Chem.

LG OLED is the strongest candidate for the name of the OLED patent administrator as LG Group has recently purchased all Kodak's OLED patent assets (Display Monitor Vol. 16 No 47). It is then expected to sign contracts with LG affiliates to share the patents with them. LG Group will also take over Kodak's licensing contracts with other companies. LG Chem's strategy for the OLED business includes the development of OLED panels for lighting, with the aim of producing these on a mass scale in 2011.

Apple Countersues Nokia

In October, Nokia accused Apple of "attempting to get a free ride on the back of Nokia's innovation". The Finnish company sued for infringement of 10 of its mobile phone technology patents, covering wireless data, speech coding, security and encryption, with the iPhone.

Apple has countersued Nokia, alleging that it has breached 13 Apple patents, and saying, "Other companies must compete with us by inventing their own technologies, not just by stealing ours". It alleges that Nokia is trying to shore up its own flagging business by charging "exorbitant" fees for patented technology intrinsic to industry standards.

Nokia made agreements to let its patented technology be included into industry standards. Apple says that this has given it "hold-up" power, which it is "abusively seeking to wield". Apple maintains that, if the technology is critical to standards, Nokia is betraying a commitment to license it on "fair, reasonable, and non-discriminatory terms". The US company also added that Nokia is already using Apple smartphone technology without permission.

Samsung Increases Investment in 8G LCD Production

Samsung is increasing investment in its 8G LCD production line in Tangjeong, South Korea, by 484.6 billion won (\$418 million). The investment will be made in the first half of 2010 as the company is looking to respond to the rising demand for LCD televisions.

The firm has also announced another management reshuffle. It has appointed a new CEO, Choi Gee Sung, and Jay Lee, the son of former company chairman Lee Kun-hee, has taken the new position of COO.

Best Buy Sees Solid US Growth

Best Buy recorded a 4.6% increase in turnover to \$12.02 billion in its fiscal Q3, with net profits of \$227 million, compared with \$52 million a year earlier. The rise in revenue reflected the addition of 127 new stores in the past year, 87 in the USA. Q3 US sales were \$8.9 billion, up 9% YoY. On average each customer spent more. There was increased spending on notebooks, flat panel TVs, mobile phones and appliances but decreases in gaming, films and music.

International Q3 turnover was \$3.1 billion, down 6% YoY, following both reduced spending and negative foreign currency fluctuations.

Hon Hai's November Figures Down

Hon Hai Precision Industry recorded November turnover of NT\$147.3 billion (\$4.57 billion), down 9.1% MoM. Revenue for the first eleven months was NT\$1.3 trillion (\$39.96 billion), down 4.7% YoY. The monthly decline was attributed to a seasonal drop in demand for consumer electronics but the company believes that PC demand is rising. It is predicting a 10% rise in sales for 2010.

Comet Loses Less and Kesa Returns to Profit

UK retailer Comet saw further losses of £1.2 million for the past six months, despite a 3.6% rise in sales to £749.3 million (\$1.22 billion). However, this was an improvement on losses a year ago of £8 million. Comet is owned by Kesa Electricals, which also owns retailers in France, Holland and Spain. Kesa reported half-yearly profits of £6 million, compared with losses of £103.8 million a year earlier, on turnover which rose 7.6% to £2.35 billion (\$3.83 billion).

In local currencies, Darty France saw its revenue increase 1.1%, total sales for BCC, Vanden Borre and Datart fell by 7.4% and turnover for developing businesses, Darty Switzerland, Darty Italy, Darty Turkey and Menaje del Hogar fell 4.3%.

CPT to Raise More Funds

Taiwanese panel maker Chunghwa Picture Tubes (CPT) has gained approval from its shareholders to raise NT\$21 billion (\$650 million) through a private placement next year. The company plans to issue bonds or six billion shares, at up to NT\$3.25 per share, to improve its financial structure and fund operations and new equipment.

In July, Compal bought CPT privately placed shares and acquired 19.9% of the company (Display Monitor Vol. 16 No 29). Recognising this, shareholders also approved a board reshuffle, electing Compal Electronics' president, Ray Chen, as one of three new board members. Compal is now the second biggest shareholder after Tatung.

CPT's chairman said that the partnership with Compal would double or triple the company's notebook panel shipments next year, but that it had no plans to merge with any company. This comment was assumed to have been made to dismiss speculation that it might be bought by Compal or rival AUO.

UK Christmas Shoppers Offered TV Discounts

UK retailer Richer Sounds is offering discounts to customers in the run-up to Christmas. Samsung's LE32B450 has been reduced from £449.95 to £299.95, while the price of the LE32B350 has been taken down by £120 to £279.95. Toshiba's Regza 32AV615 is down from £349.95 to £289.95 and Samsung's 40" TV (LE40B350) has been reduced from £599.95 to £449.95.

You would normally expect promotions to be for end of life models. However, Samsung's LE32B450 is a current model which is the only 720p Samsung model in its 32" LCD TV product range. The average advertised price in the UK for 32" 720p is £466 (including 15% VAT). So this means that this model, from Samsung's current model range, is being advertised at 35% below the market average. I consider it to be a very aggressive price!

Top tier brands are mostly moving their 32" LCD TV sets to 1080p resolution panels. Brands typically have only one 720p model in their 2009 product range with a 32" screen size. Of course, this price promotion could mean that Samsung has high stock and wants to clear it out.

We expect top tier brands to keep 32" 720p models in their ranges because they want to be able to offer an entry price model option at 32" which is the top selling size category. (GS)

Massive Growth in TVs and Handsets for TCL

TCL Group has announced that its November sales of LCD TVs and mobile handsets have had YoY growth of 83.1% and 88% respectively.

The firm sold 862,338 LCD TVs in the month and this was higher than the 470,936 sold in the same period last year. Total LCD TV sales reached 7.15 million in the month and this is a YoY increase of 99.4%. TCL Group sold 2.18 million handsets in November and 13.5 million in the year so far. These figures are up 88% and 5% respectively.

Samsung Electronics Sees Executive Reshuffle

Samsung Electronics is to merge with Samsung Digital Imaging. Assuming that this meets with shareholder approval, the merger is expected to be effective from April 1st 2010. Samsung Digital Imaging will be absorbed into Samsung Electronics and become the business unit responsible for digital cameras, camcorders and optical devices.

Meanwhile Samsung Electronics has undertaken an organisational restructuring. Head of digital media and communications business, Geesung Choi, has now been appointed as CEO, and will continue as president. Jay Y. Lee takes on the newly-created role of COO and Ju-Hwa Yoon becomes CFO. Yoon-woo Lee remains solely as chairman.

Samsung will now manage each business unit similarly to a stand-alone company, in a bid to create a more focused and responsive business structure.

The Kudelski Group Buys Medialive

The Kudelski Group has bought Paris-based Medialive, which develops and licenses content protection technologies for broadcast, internet and mobile distribution. The acquisition combines the Kudelski Group's strengths in conditional access with Medialive's encryption and watermarking technology and aims to bring new security solutions to the pay-TV market.

PVI Fixes GDR Price

Electrophoretic display maker Prime View International (PVI) has fixed the price of its global depositary receipts at \$23.5732 per unit. It hopes to raise over \$165 million through the issue of seven million GDRs (Display Monitor Vol. 16 No 42). The funding will be used towards the purchase of E-Ink for \$215 million.

Asustek Spins Off Pegatron

Asustek Computer is to spin off its manufacturing arm, Pegatron Technology, to help to separate its growing brand operation from its contract manufacturing business. This is due to take place on July 1st 2010, after Asustek sets up Pegatron Investment Holding to manage its investment in Pegatron Technology. The new company will issue 2.29 billion shares, with 25% going to Asustek and the rest to Asustek's shareholders. Asustek's issued shares will also be reduced by 85%.

The move is a response to client concerns about its strong brand operation and Asustek believes that a 25% holding in the manufacturer should be enough to allay those concerns. The company says that the stake will be reduced in the future, but did not say by how much or when. The plan has to be ratified by a shareholders' meeting to be held in February.

Local analysts say that Pegatron must make sure that it has strong R&D capability to ensure its competitiveness and gain orders from other clients. Currently Asustek orders account for up to 80% of Pegatron's total business.

Stock markets in Taiwan reacted badly to this plan and the move has seen the company's share price drop by amounts equal or close to the maximum daily price drop of 7%.

Rambus Buys LED Technology from GLT

Rambus has bought technology and around 84 patents related to LCDs and optoelectronics from Global Lighting Technologies (GLT) for \$26 million. Twelve GLT employees will move to Rambus to work in a new Lighting Technology division, led by GLT co-founder Jeff Parker, who is joining Rambus.

Rambus wants to expand its LCD and consumer electronics offerings. The purchase includes technology for LED backlighting for LCDs. GLT will become a Rambus licensee and continue to develop and manufacture display backlighting products.

NEC Electronics and Renesas to Merge

In Japan, NEC Electronics and Renesas Technology, both semiconductor companies, have signed a merger agreement. Business operations will be integrated from April 1st 2010 and the new firm will be known as NEC Electronics. Hitachi and Mitsubishi Electric are the sole shareholders of Renesas. NEC Electronics will exchange 20.5 shares of its common stock for every Renesas common share. NEC Corporation, Hitachi and Mitsubishi will be the main shareholders of the new company.

This development should help the Japanese part of the chip business to survive in the future. It's hard to remember that twenty years ago, Japan had six of the top ten chip makers, with three US and one European (Philips). Now just Toshiba, Renesas and Sony are still there, and Sony is in tenth position. Memory makers have slipped down the rankings this year. The new combined company would have been at around fourth place in ranking for sales in 2009.

Panasonic Buys 50% of Sanyo Shares

In the public offering which started in early November, Panasonic acquired 3,082 million shares, and Sanyo is now to become a subsidiary of Panasonic. Sanyo is to sell some of its rechargeable battery manufacturing operations in response to concerns from competition authorities in Japan, China, Europe and the USA.

There were a number of reasons for the long delay in this acquisition. First, there were concerns over competition law and then Goldman Sachs, a major shareholder in Sanyo, held out for a better price. However, the bank finally decided to sell and now Panasonic has the brand under its broad control. The companies have agreed to keep the brand alive for some time and will keep Sanyo independently listed on the stock exchange in Tokyo.

Merck Expands Chilworth Centre

Merck KGaA has expanded its Advanced Technologies Centre at Chilworth, near Southampton in the UK. Chilworth has served as a chemical research and technology centre for the past ten years, focusing on reactive liquid crystals, organic electronics and materials for flexible displays. Now a further three million euros has been invested in technical facilities for research and product development and up to 20 new jobs have been created for highly qualified scientists and technical experts.

Philips' Consumer Lifestyle Unit Improves

Philips Electronics' consumer lifestyle division continued to improve in Q4. The company is forecasting Q4 turnover of €2.8 billion (\$4.07 billion), up from €2.1 billion in Q3, but down sharply from €3.06 billion a year ago. Q4 is normally the strongest, bring in a third of the year's sales.

Philips expects its TV business to break even next year and intends to use its strategic partnership with LG Display, Sharp and TPV to optimise the supply chain in Brazil, Poland and China. The Nikkei said that Sharp is considering making sets for Philips in Poland. The company said that it doesn't care about being first-to-market but prefers to launch a fuller portfolio of products later. It's now heading towards 20% Blu-ray market share in Europe. However there is a question mark over Philips' presence in China, where it only has 5% of the TV market.

We were interested to see the company mention its relationship with LG Display, Sharp and TPV. There have been rumours that Philips might be thinking about doing with the European TV business what it has done with the US business (which is now run by Funai - not mentioned in this report) and its monitor business in Europe (which is now run by TPV). (BR)



DSG International Director Resigns

DSG International's group retail director, Keith Jones, is to leave the company to become CEO at UK sports retailer JJB Sports.

Choy Joins ActiveVideo Networks

Henry Choy, previously with Jon Peddie Research and Displaysearch, has joined ActiveVideo Networks. We last saw him at CES in January, when he was VP, consumer electronics business development for AnySource Media, which was acquired by DivX earlier this year.

EMEA Monitor Shipments Fail (Continued from front page)

55.2% this quarter", said Barker. Wide LCD was the dominant technology with over 77.8% of the market in value terms compared with standard ratio at 22.2%. The greatest percentage of sales went through consumer channels at over 53%. "While we recorded growth in wide format and the consumer channel sold well, this still could not revive the market because corporate clients are delaying desktop refreshes until they have confidence in Windows 7. Many missed the transition to Vista. However, we are not expecting them to move in volume until 2011", stated Barker.

Meko is forecasting some growth in Q4'09 (5.8%) and Q1'10 (5.1%). However, this is in comparison to some of the lowest quarters on record. "How the industry performs past 2010 depends on whether or not brands can persuade the end-user that working on smaller than 12" screens is detrimental to their health, and whether they develop innovative display products which fit in with increasingly mobile and time limited life styles", said Barker. Meko is producing 'The Future of Monitors Report 2010' to assist our vendors' future thinking.

New Lenovo Monitor Aims for Entry Level Market



Lenovo has added a new entry level monitor to the market. The D186 is a 18.5" monitor that has resolution of 1366 x 768 (16:9), a contrast ratio of 600:1 and brightness of 200cd/m2. The viewing angles are 90 /50 and the monitor's response time is 5ms.

The D186 has bezel width of 15.6mm and it comes with an analogue system attachment and a tilt stand.

The monitor is Kensington lock slot compatible and meets 100mm Vesa require-

ment. Lenovo says that the monitor works with any Lenovo ThinkCentre, IdeaCentre or Lenovo 3000H system and that it is suited to 'individual study and entertainment', spreadsheet users or those looking to browse the web. It comes in black and is now available in Hong Kong and Thailand for the equivalent of \$141. In Europe it will have a 3-year rapid replacement warranty like the rest of the Lenovo range.

Innovations sometimes come in the form of right-figuring a product that actually meets the needs of end-users in a given economic climate. The netbook is a good example. It is not trying to be a notebook replacement, just a means to leverage the internet and see your emails, etc. This Lenovo launch is an example of the new low priced, low spec monitors that are designed with the same philosophy.

The panel is a pure TN type, with no wide viewing angle film coating on the polariser or prism sheet or BEF (Brightness Enhancement Film) in the backlight, hence reducing the brightness and viewing angle, but saving \$5-6 on the panel. CMO and CPT are examples of panel companies developing products in the 18.5"W, 20"W and 21.5"W classes that are targeting the low-end LCD monitor market.

Whether the SOHO or SMB end-user will find the product inferior is doubtful. How often do they compare solutions side-by-side? Even when they do, the input and content are often more important than the specifications. Such products are purchased sight-unseen off the web or from the floor of a retail warehouse. Even when taken home, they might only be compared to an old monitor or have no point of comparison at all. The point is that such a display could be "good enough" and better than no monitor at all. This may be a good add-on sale for all those millions of netbooks buyers.

There are, of course, countries in the world where CRT monitors are still being bought, or LCDs are not being bought because of price, and this kind of LCD may be good enough for them. (AB)

Open IPTV Forum works with DLNA, DVB and ETSI



The Open IPTV Forum e.V. announced that it has signed liaison agreements with the Digital Living Network Alliance (DLNA), the Digital Video Broadcasting Project (DVB) and the European Telecommunications Standards Institute (ETSI) to further drive for an interoperable end-to-end IPTV solution for managed network and open internet deployments in a global market.

These liaison agreements underline the Forum's commitment to using existing and emerging technologies and specifications

from standardisation bodies and other industry associations. DLNA, DVB and ETSI specifications are the base for major parts of the Open IPTV Forum Release 1 specifications and the setup of these working relationships will foster the cooperation with these organisations, ensure proper reuse of specifications and further drive the alignment of the various IPTV specifications, which is an important target for mass market IPTV deployments.

<http://www.oipf.tv>

Although this announcement doesn't tell us much, it does tell us that the Open IPTV Forum is being taken very seriously by "heavyweight" organisations. (BR)

Industry Leaders Back HDBaseT Wiring

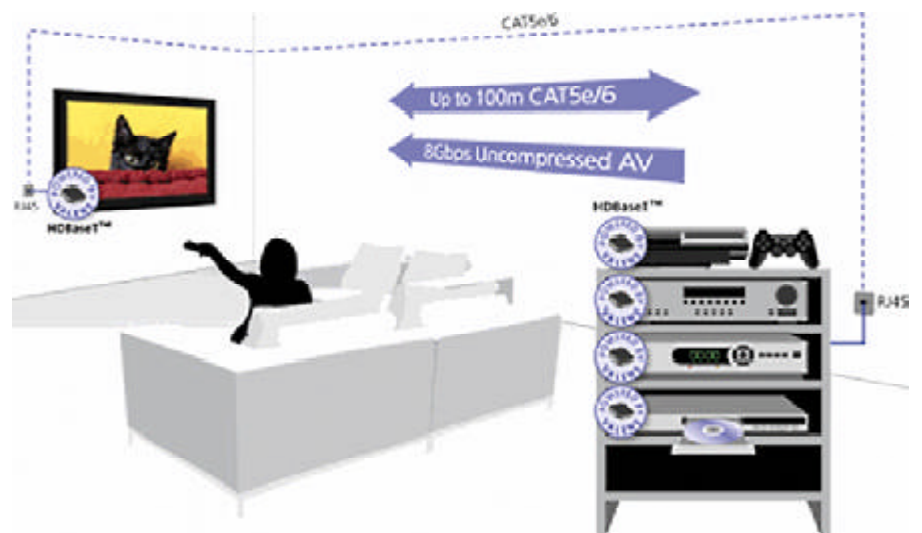


LG, Samsung, Sony Pictures Entertainment and Valens Semiconductor said that they intend to launch a cross-industry alliance to promote and standardise HDBaseT technology for whole-home distribution of uncompressed HD multimedia content.

"As the demand for high-quality HD content distribution in the entire home is already

huge, we are hoping that HDBaseT will play the trigger role in advancing this market, since HDBaseT enables simultaneous multi-room distribution of uncompressed HD multimedia, as well as data, control and power, over a single CAT5e cable", said ByungJin Kim, research fellow, LG Electronics.

It's intriguing to us that it's Sony Pictures that has backed this move, rather than Sony Electronics. We'll try to get some understanding of this when we're at CES. It's also slightly surprising to see moves to standardise wire-based technology, when much of the pressure seems to be for wireless solutions. (BR)



The HDBaseT technology allows power as well as HD video to go over a single cable

EMEA Public Display Market Went Down in Q3'09



EMEA public display (PD) shipments decreased 6.7% year on year (YoY) in Q3'09, according to Meko's Public Display DisplayCast tracking service. The reduction is less than was seen in Q1 and Q2 where Meko saw YoY declines of 14.7% and 15.5% respectively. Recovery was seen in developing regions for digital signage such as in the Mediterranean region, which saw a 20.4% increase YoY, and the Middle East & Africa which saw 14.9% growth.

"We are seeing an improvement in the overall market, but it remains slow to recover", said Andy Barker, Meko's analyst director for public displays. "Not only is it a question of how quickly an economy is coming out of recession, but how a country responded to the credit crunch. For instance, Germany saw 5.3% YoY volume growth in PD in Q3 as it was faster to recover. Others, such as Spain, invested heavily in public projects from the beginning of the downturn to boost employment levels and, as those schemes finish their build phase, they are investing in digital signage, so we saw a quarterly increase of 8.6%. However, countries only just coming out of recession, which made minimal capital investment, such as the UK, are not seeing their public display

market improve and saw a 22.7% YoY decline".

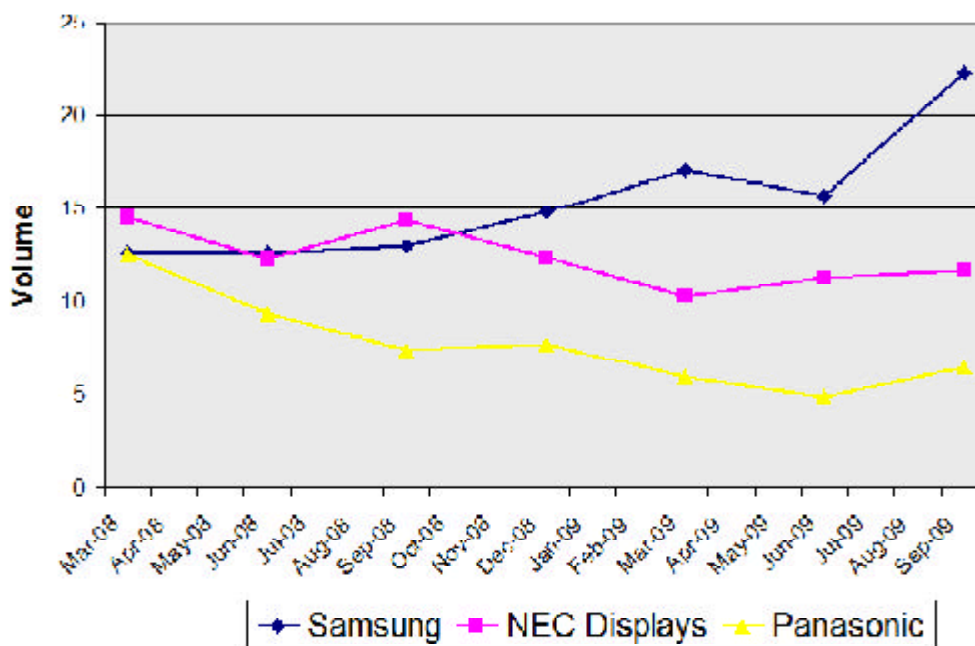
Samsung had a very strong quarter and saw its sales increase to 40.4% of the market from 33.6% in Q2'09. NEC Displays grew QoQ and took 21.1% of the EMEA market.

"We saw the top three brands strengthen their grip on the market taking over 73% market share in the quarter, versus 67.8% in Q2", said Barker.

LCD continued to be the dominant technology with over 84.8% of the market compared to PDP. "While we saw continued declines for plasma, we do not see it disappearing from the market because of the substantial investment that brands, such as Panasonic, have made in new fabs", stated Barker.

Meko is forecasting a double-digit recovery in terms of volume in 2010. However, this will vary substantially across countries and regions. Some areas will see an improvement due to external factors such as the World Cup. Others have substantial out-of-home digital signage projects due to complete during the year. However, other markets will continue to see declines, due to lack of credit, reduced public investment or both.

EMEA Top 3 Public Display Brands Volume



Blu-ray Disc Association Announces Final 3D Specification



The Blu-ray Disc Association (BDA) announced the finalisation and release of the "Blu-ray 3D" specification.

"Throughout this year, movie goers have shown an overwhelming preference for 3D when presented with the option to see a theatrical release in either 3D or 2D", said Victor Matsuda, chairman, BDA Global Promotions Committee. "We believe this demand for 3D content will carry over into the home now that we have, in Blu-ray disc, a medium that can deliver a quality Full HD 3D experience to the living room".

The specification allows Blu-ray 3D players and films to deliver Full HD 1080p resolution to each eye, although it is 'agnostic' about the display technology being used.

The Blu-ray 3D specification is also designed to allow PS3 game consoles to play back Blu-ray 3D content in 3D. Additionally, the specification supports playback of 2D discs in forthcoming 3D players and can en-

Well, we hadn't got the full details as we went to press, but it looks as though Panasonic has got its way on the specification. H.264 MVC looks like a good way to go and we look forward to some great 3D demos at CES. (BR)

able 2D playback of Blu-ray 3D discs on the large installed base of Blu-ray disc players currently in homes around the world.

The Blu-ray 3D specification calls for encoding 3D video using the Multiview Video Coding (MVC) codec, an extension to the ITU-T H.264 Advanced Video Coding (AVC) codec currently supported by all Blu-ray disc players. MPEG4-MVC compresses both left and right eye views with a typical 50% overhead compared to equivalent 2D content, and can provide full 1080p resolution backward compatibility with current 2D Blu-ray disc players. The specification also incorporates enhanced graphic features for 3D. These features provide a new experience for users, enabling navigation using 3D graphic menus and displaying 3D subtitles positioned in 3D video.

The completed specification will be available 'shortly', according to the BDA.

LG Partners With SkyLife and Sets 3DTV Target



LG Electronics has signed a memorandum of understanding for a partnership with digital satellite broadcaster and 3D content provider Korea Digital Satellite Broadcasting (SkyLife). The companies will develop technologies, standards and original content together, in an attempt to expand the 3DTV market.

LG said that it is the first TV manufacturer to work with a digital satellite broadcaster to

configure standards for 3D television. Skylife has said that it will invest KRW30 million (\$25 million) in the venture, but the financial input of LG is still to be confirmed.

The company plans to introduce a range of 3DTVs in sizes from 42" to 72" next year, and it is aiming to sell 400,000 3DTVs in 2010 and 3.4 million 3DTVs in 2011. Some of the brand's flagship models next year will also boast 3D functionality, according to reports in Korea.

Skylife ran a 3D content trial in October and it has said that it will run a second trial from January. This trial is expected to commence in Korea but LG has said that it hopes to build up 3DTV markets in the US and Europe by expanding the initiative next year.

The brand conducted an internal global survey which revealed that 58% of consumers want to buy 3DTV and up to 75% who have seen 3D images would like to see 3DTV again. DisplaySearch has predicted that the 3DTV market will increase to \$1.1 billion in 2010, \$2.8 billion in 2011, \$4.6 billion in 2011 and \$15.8 billion in 2015.



LG Electronics aims to sell 3.4 million 3DTVs in 2011

WLED Monitor Boasts Big Contrast and Own Website!



LG's W86L series of white LED-backlight monitors was launched in 22" and 24".

The 24" monitor (W2486L) has Full-HD resolution of 1920 x 1080 (16:9) and the 22" (W2286L) has resolution of 1680 x 1050 (16:10). They both have 'mega' contrast ratios of 2,000,000:1 and brightness of 250cd/m². The response time of the monitors is 2ms and viewing angles are 170/160.



LG's W86L has its own 'online galaxy' website

The monitors are 20mm deep and they come with two HDMI inputs, one DVI-D and a D-sub input. This enables the W86L to work with HD devices such as HD-DVD, Blu-ray, Playstation 3 and Xbox 360. There are seven control keys, including modes for cinema viewing and a time controller, and there is also a touch sensor power button.

The 22" monitor consumes 27 watts when on and the 24" monitor takes 28 watts. When in standby or power save mode, both models use less than 1 watt. LG says that the mercury-free W86L saves 42% of the energy of a conventional monitor and that it restricts use of hazardous materials.

The W2486L and the W2286L cost around £300 and £270 respectively and they are both available in the UK.

<http://www.lge.com>
 LG has set up a 'micro-website' for this product. It is a kind of an online virtual tour that takes you through the features and benefits of the W86L. There's even a place for you to 'create your own LED galaxy' - which is basically an area for budding artists or kids! It is hard to find a spec for the product without digging around but I must say that I was impressed with the design and graphics of the website. Check it out for yourself at <http://lgled.lge.com/uk/> (DD).

Portable Panel Production Moves to Gen 5



LCD panel makers are increasingly using Gen 5 fabs for notebook and netbook panels, partly because of growing competition and partly to take advantage of new fab capacity, according to DisplaySearch. 93% of netbook panels were produced in Gen 5 fabs in Q4'09, up from 69% in Q4'08. Only CPT and Toshiba are still producing netbook panels just in Gen 4 fabs.

To use fabs as efficiently as possible, top tier manufacturers are transferring LCD TV panel production to Gen 7 and 8 facilities and monitor panel production is moving to Gen 6, Gen 7 and even Gen 8. This leaves

Gen 5 capacity free for notebooks and netbooks. Gen 3 and 4 capacity is being dedicated to small and medium panel production. To compete and survive, second-tier panel makers are producing small and medium panels in Gen 5. In Q4'09, 33% of Hannstar's Gen 5 capacity is being used for small and medium panels, and medium panels take up 15% of Innolux's Gen 5 capacity.

Sharp's new Gen 10 fab in Sakai is focusing on 40-65" TV panels, including 46" HD and 56" 21:9 aspect ratio panels. The company is selling its Gen 6 Kameyama fab to CEC Panda in China but Sharp will use its Gen 8 fab to produce 26" TV panels.

Panel makers predict strong demand in Q1'10, and will increase production volumes to meet this. Total area input is forecast to grow 1.7% QoQ, and unit volumes will grow 1.6% QoQ. Notebook panel output will increase 4.5% QoQ, monitor panels will grow by 1.1% and TV panels by 0.7%.

Netbook Panel Production by Fab Generation								
	Q1'08	Q2'08	Q3'08	Q4'08	Q1'09	Q2'09	Q3'09	Q4'09
Gen 4	23%	32%	28%	31%	20%	10%	10%	7%
Gen 5	77%	69%	72%	69%	80%	90%	90%	93%

Source: Displaysearch

Market News

PC Market Returns to Growth



PC shipments returned to growth in Q3'09, up 2.3% QoQ, thanks to the back-to-school market, according to IDC. Consumer portables remained the driver, with shipments up 33.5% YoY, while consumer desktop demand remained weak. Commercial PC decline slowed, possibly a sign that IT spending will pick up. Netbooks saw strong growth of 37% QoQ, increasing their share of consumer portables to 28% from 14% a year

ago.

IDC predicts growth for 2010, with emerging regions, now half of the total market, leading the way and mature markets also making gains. Desktop shipments will be flat in 2010, while portables will see growth of 18.1%. The commercial sector is expected to see a turnaround in the second half of 2010. Netbooks will continue to grow, but not so quickly.

PC Shipments By Region And Form Factor (millions)

Region	Form Factor	2008	2009	2010	2011	2012	2013
USA	Desktop PC	31.4	26.9	25.9	25.4	25.1	24.8
USA	Portable PC	34.2	40.0	45.0	51.9	58.3	61.9
USA	Total PC	65.6	66.9	70.9	77.3	83.4	86.8
International	Desktop PC	113.5	99.3	100.3	102.8	105.6	107.0
International	Portable PC	108.5	125.2	150.2	180.0	213.9	250.6
International	Total PC	222.0	224.5	250.5	282.8	319.5	357.6
World-wide	Desktop PC	144.9	126.2	126.2	128.2	130.7	131.9
World-wide	Portable PC	142.7	165.2	195.2	231.9	272.2	312.5
World-wide	Total PC	287.6	291.4	321.4	360.1	402.9	444.4

Source: IDC

PC Shipment Growth By Region And Form Factor

Region	Form Factor	2008	2009	2010	2011	2012	2013
USA	Desktop PC	-8.3%	-14.2%	-3.6%	-1.9%	-1.2%	-1.2%
USA	Portable PC	14.0%	16.8%	12.5%	15.3%	12.3%	6.3%
USA	Total PC	2.1%	2.0%	6.0%	9.0%	7.9%	4.1%
International	Desktop PC	-4.8%	-12.6%	1.0%	2.5%	2.7%	1.4%
International	Portable PC	39.2%	15.5%	19.9%	19.9%	18.8%	17.1%
International	Total PC	12.6%	1.1%	11.6%	12.9%	13.0%	11.9%
World-wide	Desktop PC	-5.6%	-12.9%	0.1%	1.6%	2.0%	0.9%
World-wide	Portable PC	32.2%	15.8%	18.1%	18.8%	17.4%	14.8%
World-wide	Total PC	10.0%	1.3%	10.3%	12.0%	11.9%	10.3%

Source: IDC

Channel News

Dell Makes \$6.5 Million From Twitter Advertising

Dell has said that it has generated more than \$6.5 million in orders by advertising products directly to customers on the social network website, Twitter.

According to one report, the firm has a team of 100 employees to write updates on its 35 Twitter channels. Its main Twitter account has 1700 followers but its DellOutlet account has nearly 1.5 million followers. Manish Mehta, the company's VP, said that the number of followers of the DellOutlet account has grown by 23% in the last three months.

In June, Dell was reported to have said that its advertising expenditure totalled \$3 million for Twitter. It began using the social networking site two years ago.

John Lewis Sells Dell's Adamo XPS Laptops

Dell's high-end Adamo XPS laptop line will be sold exclusively at UK retailer John Lewis.

The Adamo XPS, said to be the 'slimmest laptop in the world', has a 13.4" HD White LED (WLED) screen that is 9.99mm thick. It incorporates resolution of 1366 x 768 (16:9) and has brightness of 300cd/m2. It has an Intel Core 2 Duo ULV processor running at 1.4GHz, 4GB of RAM and 128GB of SSD storage. The XPS laptop comes with Windows 7

Home and a two-year warranty. It is now available from John Lewis stores for £1,750.

Loewe UK Now Responsible For Eire Distribution

Loewe UK is to take over the responsibility for promotion, sales and service of Loewe products in the Republic of Ireland. The role was previously undertaken by Dublin-based distributor Origo.

There are 12 existing Loewe dealers in the country and the firm has said that it will focus its short-term efforts on ensuring that there is a smooth changeover. It will then focus on the roll-out of a group strategy in line with the rest of Europe. This will see the deployment of the dealer classification system which has already seen nine Loewe Galleries set up in the UK in the last two years.

Samsung On Tour In Germany

Samsung kicked off its "LED TV on Tour" campaign in Germany in mid December, which will visit 60 cities and finish on the 28th February. It is using two big presentation light cubes to showcase products from the LED TV line-up, including the B6000, B7090 and B8090, as well as 6 and 8 series plasma TVs. Blu-ray players and home theatre systems will also be demonstrated. The company is emphasising the environmental benefits of its energy-efficient LED TVs which will only cost an additional €90 if purchased before 31st December.

Digital Out-of-Home

Digital Signage Firms Target Spanish Markets

Digital signage companies C-nario and Onelan are both said to be targeting Spanish-speaking markets for future development.

Israeli software supplier C-nario has signed Ikusi, a Spanish-based systems integrator, to develop digital out-of-home installations in Spain and Latin America. Ikusi, which specialises in digital signage at airports, railways and security, will implement C-nario's software and the pair are already said to be working on several projects in transport and retail.

Onelan in the UK has signed with Madrid-based AV firm RPS Audiovisuales to distribute its Net-Top-Box in Spain. Onelan has said that RPS will offer the product to customers who need a 'simple-to-use solution that does not rely on Windows'.

Sign Companies Agree Digital Partnership

Visual communications solutions provider Texas Digital Systems and sign franchise company Sign-A-Rama have agreed a digital signage partnership. The partnership names Texas Digital Systems as the exclusive preferred provider of digital signage solutions for Sign-A-Rama.

Sign-A-Rama has nearly 1000 franchises in the US and these franchises will now be able to sell their customers static and digital signage solutions, including Texas Digital Systems' VitalCast software. Sign-A-Rama will continue to source its hardware from existing vendors such as Dell, LG, NEC and Samsung. The franchises will also be able to access creative and content-management services.

Texas Digital Systems says that it has more than 22,000 installations around the world for its digital-signage technology.

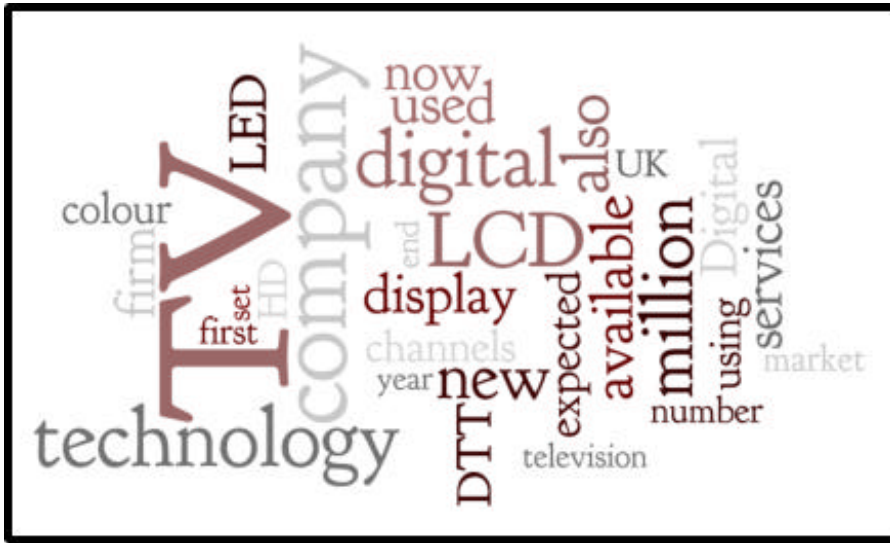
Supply Chain News

Amazon's Kindle Is Popular in the UK

Amazon has revealed that the Kindle is the company's number one export to the UK. The firm now provides over 130 countries with Kindle eReaders and downloadable eBooks.

The company says that there are now 300,000 books available to read and that





Created at: <http://www.wordle.net/>

these take under 60 seconds to download. Amazon has also said that there are more than 100 newspapers and magazines which are now available for single purchase or subscription at the Kindle Store.

BOE Gains Government Subsidy To Develop FPDs

BOE Technology of China has said that its subsidiary, Hefei BOE Optoelectronics Technology, has signed an Electronic and Information Industry Innovation and R&D Cost Subsidy Agreement with the Hefei New Railway Station Comprehensive Development Experimental Zone committee. BOE confirmed this by submitting a filing to the Shenzhen Stock Exchange.

The committee will promote the development of Hefei's FPD industry and a fee of RMB 260 million (\$38.08 million) in subsidies will go to Hefei BOE Optoelectronics upon completion of the product design and development of its 19", 20.1", 22" and 23.6" LCD displays. Hefei BOE Optoelectronics has said that it has already completed product design for the models. The money is to be paid in full by December 31st and reports say that it will be used to pay existing R&D costs.

At the time of the announcement, Hefei BOE Optoelectronics had already received RMB 120 million (\$17.57 million) in subsidies from the Hefei New Railway Station Comprehensive Development Experimen-

tal Zone committee.

CPT In The News

Chungwha Picture Tubes (CPT) has been in the news this week. The firm is believed to be in talks with glass suppliers in Japan, on the verge of launching a 21.5" touch panel, and looking to expand its 6G LCD panel plant and 6G colour filter capacity.

Reports say that the firm wants to diversify its LCD glass supply next year as supply from Corning has been tight and rushed orders have put pressure on the 6G plant. CPT is said to have been in talks with three 'major' glass suppliers in Japan but the full details of the talks have not been published. Q4 is also defying seasonal patterns as vendors and system makers are continuing to replenish their inventories to meet the strong demand for LCD TVs and notebooks.

The company has also launched a 21.5" projected capacity touch panel, which is currently being validated by clients. CPT expects orders from handset vendors to push up small-to-medium panel shipments to 200 million units in 2010. It currently stands at 140-150 million units in 2009.

Local sources have said that CPT is to expand its 6G LCD panel plant and its 6G colour filter capacity. Reports say that CPT will first increase its 6G LCD panel plant capacity to meet in-house demand before it increases the capacity from 100,000 to 120,000

substrates a month. CPT's 6G production line is mainly used to produce panels for notebooks, monitors and 32" and below LCD TVs. The company has said that 20% to 30% of its 6G production capacity will be for notebooks in 2010.

According to a filing by CPT to the Taiwan Stock Exchange, Compal president Ray Chen has now taken a seat on CPT's board of directors.

We suspect that the rumours of a possible buy-out by AUO together with a rush by some brands to get away from CMO as a supplier because of the merger with Innolux may be making the company more positive.

Hannstar To Buy Stake In LED Chipmaker

Hannstar Display is to buy 30 million shares in LED chipmaker Unity Opto for NT\$1.21 billion (\$37.4 million). The firm will obtain a 9% stake in Unity Opto and the finance is expected to be raised via private placement.

The plan has been approved by Hannstar's board and local reports have said that Unity Opto is also planning to issue 50 million new common shares at a price of NT\$40.24 (\$1.24) per share. Digitimes reported that the incoming money will be used by Unity Opto to add to its product line-up and improve its competitiveness in the LED backlighting market. This is because the company expects its revenues and capacity to increase up to 60-70% in 2010.

Panasonic Malaysia To Double Output

Japan's Panasonic expects production of LCD television sets to double at its plant in Shah Alam, Malaysia, next year. The company has said that this is due to growing consumer demand in the Asia and Oceania regions.

The plant, which serves as the firm's regional base for LCD TV sets, is expected to produce one million units in 2009. Panasonic moved its television panel assembly plant from Japan to Malaysia last year and the firm also relocated its TV production units from Indonesia, the Philippines and Australia to the country. Panasonic Malaysia now exports 90% of the LCD televisions it produces and, despite this, the firm said that the financial crisis in the United States has had little effect on business. Panasonic has invested a total of RM10 billion (\$2.94 billion) in Malaysia.

TV News

Blockbuster's New STB To Stream Movies

Movie rental company Blockbuster is planning to launch a set-top-box which can stream films, according to reports. Sources say that the STB is likely to be in conjunction with online film services firm Movielink, which Blockbuster acquired last year.

Its OTT play is expected to be a stand-alone box that will compete head-to-head with the likes of Apple TV.

DVB-T Is Progressing in Finland

Finish telecommunications company DNA Oy and DTT and mobile TV specialist TeamCast are to collaborate on implementing DVB-T2 in Finland. DNA Oy was chosen by the country's Ministry of Transport and Telecommunications department in July (Display Monitor Vol. 16 No 27) and the operator is expected to introduce two multiplexes on the VHF frequency band, using DVB-T2 technology, in 2010.

DNA has also launched a digital terrestrial television (DTT) broadcasting pilot in Lahti. The company plans to make DVB-T2 based HDTV services commercially available to 40% of households by the end of 2010 and 60% of households in 2011. Consumers in the Lahti and Helsinki regions will be able to receive DNA's test transmission from the winter Olympics without the need of a DVB-T2 tuner, providing they have an HD-ready television and an aerial that points towards DNA's transmitter.

DVR On The Rise In USA

Digital video recorder (DVR) usage in the US is up by 21.1% since Q3'08, according to market researcher Nielsen.

The company has said that the average American spent 31 hours watching TV each week and 31 minutes on DVR viewing in Q3. People spent more than four hours a week on the internet and 22 minutes watching online video. Mobile video usage stands at 3 minutes per week while the 65+ age group spent most time watching traditional TV, with a viewing time of more than 43 hours.

The highest DVR usage comes from the 25 to 34 age group (56 minutes) and they were followed by the 35 to 44 group (52

minutes). The 18-24 and 25-34 age groups both watched the most online video with average viewing of 35 minutes per week. Mobile video usage is highest among 12-17 year olds, with an average time of 13 minutes.

German Digital TV Households See Decline

According to figures from the Arbeitsgemeinschaft Fernsehforschung (AGF), the number of German households with a digital TV receiver declined in November for the first time since data was collected in 2001. The figure fell to 13.56 million from 14.11 million in October. The organisation did not suggest any reason for the drop. Although the overall size of the population has varied over the time covered, this is the first time that there has been a decline in the percentage of households with DTV.

German TV Company Adds More HD Content

German television company ProSiebenSat.1 will offer its free-to-air channels Sat.1, ProSieben and 'kabel eins' in high definition at the end of January 2010. Test broadcasts will begin on January 1 and some existing programmes that were not produced in high-definition, will be up-converted.

The distribution of the services will be via

the encrypted digital platform HD+, operated for SES Astra. Viewers will have to pay a yearly reception fee of €50 but the first year is being offered free.

The HDTV versions of RTL and VOX have been available on HD+ since November 1st.

Germany To End Analogue Transmissions

Germany's media regulatory authority, ALM (Arbeitsgemeinschaft der Landesmedienanstalten), is proposing to end analogue TV via satellite by April 30th 2012.

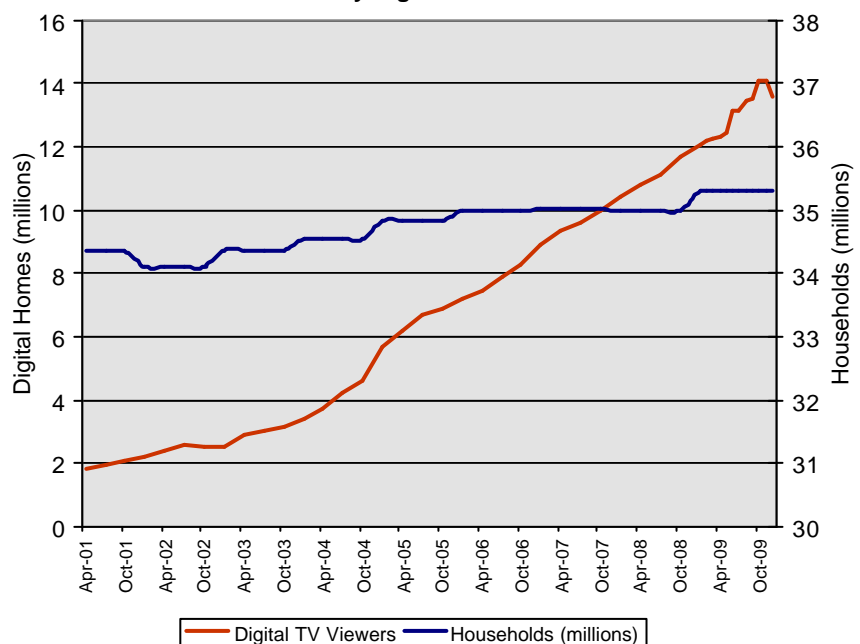
ALM's Regulatory Affairs Commission recently announced in its 2009 digitisation report that more than 70% of satellite households already receive their programmes digitally.

Holland's Digital TV Growth Is Dropping

The number of digital TV connections in Netherlands grew by 3.4% (149,300) net additions in Q3, but this growth is expected to slow in 2010, according to market researcher, Telecompaper.

The total number of Dutch TV connections was up 0.1% to 7.96 million and the share of digital TV across the entire TV market grew to 57.3%. This growth was in contrast to the declining numbers of analogue TV connec-

Germany Digital TV Homes



tions. Telecompaper expects growth for the digital TV market to reach 5% in Q4 but it says that growth will continue at a slower rate of 4 to 4.5% per quarter in 2010.

Cable grew by 0.6 percentage points during Q3 to reach 52.6% and satellite's digital TV market dropped by 1.2% to 22.1%. Digital terrestrial television's digital TV share increased to 19.1%. Telecompaper said that Ziggo is the largest digital TV provider with a 31.8% market share and it is followed by KPN with 20.7%, Canal Digital with 18.5% and UPC with 15.6%.

Latvian ASO To Begin in March

Latvia is expected to announce its ASO timetable by the end of the month. Local reports have said that some analogue services in the Riga region will be switched off in March and the rest of the country's analogue services will be switched off in the summer.

Four television services are currently available on the analogue terrestrial platform and, of these, only TV3 is unavailable on the DTT platform. DTT platform operator Lattelecom has recently signed an agreement with commercial broadcaster LNT to continue making its service available free-of-charge on the DTT platform.

More EuroDOCSIS Products Now Available

Cable Europe Labs has certified new EuroDOCSIS products from Motorola, Cisco, Humax and Thomson. The company said that the certifications were evidence of a 'continuing flow of new products which help cable to stay ahead in the speed race'.

"We keep on repeating that having speeds that are 2-6 times faster than ADSL offerings requires large and continued investments in the latest technology. The certification process is precisely that nexus where the cable providers meet the hardware providers. Speed and scale are outputs of this interaction that translate into high performance", said Malcolm Taylor, the firm's managing director.

New IPTV Service in Romania

Romanian TV company Romtelecom has launched Dolce Interactiv, its new IPTV service. It is now available in Romania's ten largest cities and the service is aimed at Romtelecom Clicknet internet users with download speeds of at least 8Mbps.

The firm has said that Dolc Interactive, which is accessible via a web portal, will be gradually optimised and upgraded with new functions and that it will be made available in other cities at a later date. Romtelecom says that the service offers access to various TV programmes and to a VOD library. There is also a feature which allows the user to record multiple programmes at the same time.

Panama Launches DVB-T Services

Panama has launched free-to-air DTT services to become the first country in Latin America to implement DVB-T.

Services are currently available from public service broadcaster SERTV but commercial broadcasters are expected to launch DTT services in the coming months. Local market researchers have estimated that approximately 770,000 DTT receivers will be sold next year.

DTT STBs are currently available from \$20 and iDTVs are expected to be introduced soon. ASO will be completed in 10 years' time.

Samsung and TF1 Agree Partnership

TF1 has announced a three-year partnership with Samsung Electronics France. The partnership will mean that, from March 2010, Samsung products sold in France will feature interactive TF1-related content and services, such as applications for news, weather and sport updates, as well as programme guides.

The technology is expected to be on display at the Consumer Electronics Show (CES) in Las Vegas in January 2010.

Serbia Experiments With DVB-T2

Serbia-based telecommunications company Telekom Srbija and national broadcaster Fox Televizija conducted the first public tests of the DVB-T2 broadcasting standard in the region at the 2009 Telefor conference in Belgrade. The event demonstrated the broadcasting of 13 digital TV channels in SD, one HDTV channel and eight SDTV channels on UHF channel 21.

SES Astra Has 100 HD Channels

Satellite operator SES Astra has said that it now broadcasts more than 100 HD channels via its satellite system. This follows the launch of five new HD services by Spanish pay-TV operator Digital+.

The new HD channels are transmitted by Astra's 19.2 degrees East orbital position and the new additions mean that Digital+ now broadcasts a total of 10 services in the format. SES Astra said that the additional Digital+ channels 'proves that HD is gaining momentum'.

Sky Brazil Commences 'World's Largest TV Calibration Project'

Sky Brazil is deploying thousands of X-Rite i1Display2 systems as part of the 'largest mass TV calibration project in the world'. To coincide with the launch of several new HD channels, the company is making professional colour calibration services available to its 1.8 million subscribers.

The firm has said that calibration greatly enhances viewers' overall watching experience and that calibration can significantly improve the efficiency of a TV and extend its life. Sky Brazil has said that a professionally calibrated set can reduce a TV's energy consumption by as much as 50%.

Two US-based companies have provided calibration tools and training. THX Ltd, the entertainment technology company, is providing video calibration training to Sky Brazil's team of technicians, while SpectraCal, a software company, has been providing the calibration software.

The i1Display2 is designed to quickly and easily calibrate and profile all types of LCD and CRT monitors. However, this calibration service is now also being used in televisions.



In Brief

"X-Rite's i1Display2 is sold to consumers and professionals in industries where colour is mission-critical for use in calibrating all types of monitors. But in recent months, it has become our biggest seller for calibrating televisions", said SpectraCal CEO Derek Smith.

Spanish DTT Is Still Growing

Spanish digital TV association Impulsa has said that 74% of community buildings in Spain now have converted antennae which can receive digital television. This number is expected to rise to 816,111 by the end of Q3 and sources say that there are another 154,107 new builds already complete. However, work is required on another 282,500 before ASO can be completed.

696,000 DTT receivers were sold in September. This has brought total sales so far up to almost 22.5 million tuners and this means that digital penetration is now at 72.1%, an increase of 28 percentage points this year (Display Monitor Vol. 16 No 44). IDTVs accounted for 46.8% of DTT equipment but standalone receivers have also remained popular.

Telecom Italia Launches Multimedia Broadband Device

Telecom Italia has launched a multimedia broadband device called CuboVision which is designed to turn a traditional TV set into an online media centre. The product is designed so that it can offer multiple services and digital content, just by using a single remote control.

The device can receive digital terrestrial TV channels, main web TV channels and PPV movies via the TV set. It can also manage personal content such as photos, videos and music as well as news, weather and finance information. The CuboVision features a 500GB hard drive, which can store multimedia files from mobile phones, PCs, digital cameras and MP3 players. This content can be transferred to the set by using a USB stick, an SD card, Wi-Fi connectivity and the DLNA standard.

The company says that the CuboVision is the 'first world-wide expansion of OTT TV' and it plans to 'enlarge the internet and broadband market in Italy and bring it to 20 million customers'.

CuboVision will be offered to all broadcast-

ers as Telecom Italia believes that the product will eventually replace all decoders as it has a potential market of 'several million people'. The product has an RRP of €199.

TivùSat Doubles Growth Objectives

Italy's free-to-air satellite platform TivùSat has doubled its own growth objectives in four months. To date, the service has sold 570,000 smartcards to manufacturers of decoders and TV sets, which is almost twice as high as its original objective of 300,000 cards.

The firm, which is owned by RAI, Mediaset and Telecom Italia Media, has said that this growth can also be seen by the increasing number of activations, which is currently estimated to be around 1500 a day. TivùSat has also said that it is to launch three new decoders.

Technology News

Apple Stops Psystar

Apple has stopped Psystar, a US company, from selling software that allows the Mac OS to run on non-Apple machines. The company had already stopped Psystar from selling the OS itself.

Aluratek Libre Uses LCD

While most eBooks are using E Ink technology, Aluratek of the US has announced the Libre, a new product using a 5" mono-

chrome reflective LCD. The book supports lots of formats and costs \$179.

CDT & Semprius Ink Deal for Backplanes

Cambridge Display Technology (CDT) and Semprius of the US have done a deal to develop backplanes for OLEDs. The plan is to use semiconductor printing technology from Semprius to develop the active TFT backplanes that are essential for larger OLEDs.

Semprius said that it will work on its micro-transfer printing process that allows printing of high-performance semiconductors onto 'virtually any' surface, including glass, flexible and rigid plastic, metal and other semiconductor materials. Semprius will focus on using its patented process to transfer single crystal silicon semiconductors onto the backplane, thereby increasing overall display performance.

CDT will integrate the new backplane technology into their 14-inch development line at the company's Godmanchester campus near Cambridge, UK.

For readers that are new to displays and OLEDs, I should explain. While the TFTs in LCDs only control the 'switch' performance in the LCD, with the light coming from a second source (the CCFL or LED backlight, normally), OLEDs actually have to supply all the energy for the 'glowing pixel' through the backplane, so they need higher quality transistors with better silicon. This has been one of the barriers for the technology to overcome. (BR)

Chinese to Standardise Web-enabled TVs

The China Video Industry Association (CVIA) has filed two applications for industry standards for web-enabled TV sets. The two standards, entitled Web TV Application Technical Requirements and Web TV User Certification Management System Technical Requirements (SJCPZT0309 and SJCPZT0310) were drafted by the CVIA, China Digital Home Industry Association (CDHIA), and Chinese TV manufacturers TCL, Skyworth and Changhong.

HDI 2D/3D TV To Debut in May

HDI of California has said that its first laser-driven, 100" diagonal, 2D/3D projection television will be available from May. A full-scale production line is expected to be in place for Christmas 2010. The technology previously debuted as a prototype in September.



Aluratek's eBook uses a reflective LCD

In Brief

The firm has now partnered with an unnamed manufacturer in China and a select number of models will become available in May. The price of the TV is expected to be around \$10,000 to \$15,000. HDi says that it offers a greater-than-high-definition resolution and that it draws 80% less power than existing 2D flatscreen monitors of the same size. The television also gives a 95% reduction in manufacturing pollution and a 100% reduction in harmful chemicals and radioactive components. It is 10" thick (Display Monitor Vol. 16 No 40) and weighs 75% less than conventional LCD displays.

HDMI Updates Trademark and Logo Guidelines

HDMI Licensing has updated its trademark and logo guidelines which will mean the end of HDMI version numbers on cable products by 2012. For non-cable products, the version number can only be specified in conjunction with a specific HDMI feature.

The guidelines are available for download from <http://tinyurl.com/hdmiguide>

Itri Shows Flexible Developments

Taiwan's Industrial Technology Research Institute (ITRI) had a demonstration to show flexible displays including a 4.1" colour OLED. There was also a colour LCD using cholesteric technology for ePaper applications. A flexible touch display based on organic TFTs and developed with Corning was also on show.

Kaon Uses Cloud for 3D Graphics

We were interested to read an article in the CAD publication, upFront eZine, about new technology from Kaon that uses cloud computing technology to render 3D models in large back end server farms and then stream them to viewers using special compression techniques in a browser to give good performance over even moderate broadband connections.

<http://www.kaon.com>

How things are coming full circle - put the rendering back on the 'big iron' and then use a terminal. We've been there before, haven't we? (BR)

Make Your Pixels 'Undead'

Those obsessed with stuck pixels on LCDs can try a software programme, UDPixel or 'Undeadpixel' that aims to help to find dead or stuck pixels and then trying to 'fix' them by rapidly flashing them on or off.



NEC's remote uses no batteries

<http://udpix.free.fr>

We're not sure how this would fix a broken transistor, but, hey, the programme is free!! (BR)

NEC Shows 'Zero battery' Remote

We've just caught up with a story from the end of last month. At the Embedded Technology 2009 show in Yokohama, NEC showed a remote control that works without batteries. The power to operate the remote comes from the user's pressing of the keys and the power is generated by piezo crystals from Sound Power Corporation. At the moment, only basic operations are controlled and the remote uses RF to communicate with the set.

Sony Shows 280" 3D LED Display

At the recent International Broadcast Equipment Exhibition 2009 at the Makuhari Messe in Japan, Sony showed 3D on a 280" LED wall. Although reports talked of polarising glasses being used for the demo, other sources say that an anaglyph method was chosen.

We find it hard to understand how a polarisation-based system could be used on a big LED wall without massive cost and complexity, so we suspect that some commentators think that any 3D that uses glasses is based on polarisation! (BR)

QD Claims Three of Top Five LCD Makers

QD Vision of the US, which develops Quantum Dot technology, has said that its quantum dots, which can be used to improve the efficiency and quality of light from LEDs, will be adopted by three of the top five LCD makers and introduced into commercial products in 2011.

The dots are added to LEDs and convert light of a particular colour to be more pure, allowing the use of more efficient and purer colour filters, according to the company. For example, a blue LED can be used to excite dots that create red and green.

Just as we went to press, QD Vision said that it had raised \$10m in additional finance. The company's technology can be used in lighting as well as backlighting. Separately, Nanaco of the UK said that it has signed a deal with a 'major Japanese electronics company' under which it will design and develop quantum dots for use in LEDs in LCD TVs. Like QD Vision, the company said that its technology has better colour performance than the phosphors currently used in white LEDs. Could this be the 'secret display technology' that Sony is talking about? If so, remember that you read it here first! (BR)

Onyx from Oregon in Cello TV

Last week we reported on a new TV from Cello that has internet connectivity. This



Oregon's browser can support Skype on a TV

week, Oregon Networks said that it supplied the technology for this and for digital rights management in the set. The sets will be available through Marks and Spencer in the UK.

The set supports the BBC iViewer and Oregon said that its Onyx solution, the consumer brand of its Oregon Media Browser, was the basis for this. Onyx includes a built-in CE-HTML internet browser, W3C Widgets engine and standards-based media APIs to simplify the design and delivery of new media services and applications. Oregon's Open W3C Widgets Platform - The Widgetry - can be used by its CE customers as an extensible framework for scheduled and user-initiated downloads of new widget based applications.

<http://www.oregan.net>

Philips Joins e-Skin Gang

Philips Research has joined the list of companies that have developed e-skin technology to allow consumer electronics devices to have 'chameleon-like' properties.

Pixel Qi Claims \$100 < 10W HDTV

Pixel Qi, the company of Mary Lou Jepsen that came to the fore after developing the display technology for the OLPC (One Laptop per Child) scheme, has said that it believes that it can make an HDTV that could be sold for around \$100. The TV would also run on around 10W. Separately, the company said

that its combined colour/ePaper display would start to get into mass production from this month.

If nothing else, Jepsen knows how to generate headlines! (BR)

Oki Develops LEDs that Have High Resolution

Oki has made a 1.1" LED display using tiny LEDs that has resolution of 320 x 240. The pixels are on a 65µ pitch and use LEDs that were originally developed and used in LED printheads. The company said that the development depends on the firm's EPI film bonding technology which allows thin films to be released and bonded to dissimilar materials. Thin film LEDs are bonded onto a metal substrate.



We couldn't find a good quality image of this display at press time

Oki claims that the display has a contrast ratio of 5,000:1 and is ten times more efficient than LCDs. According to Oki, this means that the display is very legible even in bright daylight.

Shipments of samples are expected to begin by the end of fiscal year 2010.

If the price were to be right, the combination of 10X power saving and legibility in bright sunlight should be irresistible to mobile phone makers, if the company could make the displays full colour.

Qualcomm Builds Smartbook Platform

Qualcomm has shown more details of its Smartbook platform concept. The 'somewhere between a smartphone and a netbook' device is based on the Snapdragon processor. The first 'official' product is likely to come from Lenovo.

Qualcomm has lots of the technologies for a smartbook platform, including the Mirasol display technology, which holds the promise of low power, colour and video speed. We'll be watching out at CES.

Toppan Makes Oxide TFTs Using Solvents

Toppan Printing Co Ltd has made a prototype of a solution-processed thin-film transistor (TFT) by using a transparent amorphous oxide semiconductor and a low-temperature manufacturing process. The TFT was used to drive an E Ink-type display. The transistor was made with a combination of printing and 'traditional' photo-lithography. The maximum temperature used in the process was 270 degrees C, allowing the use of a flexible film substrate, rather than glass.

Toppan worked with Evonik Industries AG, a Germany-based material maker. The use of solution processing would mean that arrays could be made without vapour deposition.

UltraHD Adoption Will be Slow

A forecast by InStat predicts that 5% of European homes will have an 'UltraHD' TV set by 2010, rising to 28.2% by 2025, although sets will be sold earlier in Japan.

On the one hand, broadcasters, especially in Europe, have barely got started on HD yet, let alone UltraHD. On the other hand, LCD makers will soon be looking for 'the next big thing' and UltraHD could be it, especially if technologies such as those that eliminate the colour filter make UltraHD much cheaper (e.g. UniPixel). It's perfectly possible that millions of users will have UltraHD sets by then, but that nobody will



have any content apart from what comes from PCs!
(BR)

Sezmi Aims at Hybrid TV

Sezmi Corp. of the US recently demonstrated its hybrid DTT plus broadband TV solution to the NAB in the US. The firm estimates that current users of multiple video channels get 50% of their content from traditional broadcast and 40% from just fifty or so other content providers (including cable channels) with just 10% coming from a huge variety of other sources - the so-called 'long tail'. The Sezmi solution is designed to offer all of this through a single media box on a TV.
<http://www.sezmi.com>

VESA Updates Embedded DisplayPort

VESA has announced an update to the Embedded DisplayPort (eDP) Specification Version 1.1a. eDP version 1.1a includes further definition on display authentication for protected video content, addresses Sink device AUX channel interrupt requests, and makes enhancements to the 4-lane connector used for 3D display applications.

<http://www.vesa.org>

We plan to catch up with VESA at CES in January.

WHDI Releases 1.0 Specification

WHDI has completed and released its version 1.0 specification.

"WHDI is the only solution that meets consumers' expectation and demand for a high-quality, multi-room HD wireless solution", said Leslie Chard, president of WHDI LLC. He added that, "WHDI further enables two of the strongest trends in the AV universe: the proliferation of HD content sources (now including PC and mobile devices) and the increasing number of inexpensive, high quality displays placed throughout the home".

<http://www.whdi.org/>

WHDI is the wireless system based on Amimon's technology.

WiGig Completes 60GHz Wireless Spec

The Wireless Gigabit Alliance (WiGig) said that it has completed version 1.0 of its specification for 60GHz wireless, and after member review will release it to members in Q1 of 2010.

The WiGig version 1.0 specification includes the following elements:

- Supports data transmission rates up to 7Gbps – more than ten times faster than the highest 802.11n rate
- Supplements and extends the 802.11

Medium Access Control (MAC) layer and is backward compatible with the IEEE 802.11 standard

- Physical layer enables both the low power and the high performance
- WiGig devices, guaranteeing interoperability and communication at gigabit rates
- Protocol adaptation layers are being developed to support specific system interfaces including data buses for PC peripherals and display interfaces for HDTVs, monitors and projectors
- Support for beamforming, enabling robust communication at distances beyond 10 metres
- Widely used advanced security and power management for WiGig devices
<http://wirelessgigabitalliance.org/>

So does WiGig mean wireless, or does it mean 'When it's gone, it's gone!'?

Son of Psion Uses XP

We always had a soft spot for that early pda/netbook that was the Psion. Now PsiXpda, founded by an ex Psion employee, has decided to make a small netbook of just 174 x 84 x 25 mm weighing in at only 430 grammes. The netbook has a 5" TFT LCD touchscreen with resolution of 800 x 480. It runs on an Intel Atom 1.1GHz Z510 processor, has 1GB RAM, 16GB SSD and 32 MB display memory and features the Windows XP Home operating system.

Other features include a 64-key backlit QWERTY keyboard with built-in track pad and mouse buttons on the screen's bezel, full size and mini USB port, VGA webcam, Micro SD card support, High Definition audio, internal speaker and microphone, 2.5mm headset socket and an 1850mAh battery.

Cheap, it isn't, at around £500 when it goes on sale.



Event Report - Humax Press Event

Humax Reveals Results and Plans for 2010

Humax organised a press event on 9th of December in London to show its new product range, as well as the first demos of its Freeview HD Box and BBC iPlayer running on the 'Foxsat', Humax's Freesat set-top box. Graham North, the commercial director of Humax UK, made the presentation.

Humax celebrated its 20th year in 2009. The first Humax product was a karaoke box, but the presentation began with a review of Humax's products since 2003.

Humax began its set-top box business in the UK market with the Fox-T2 DTT set-top box and a single tuner PVR, the PVR-8000T. Following this, in 2005, the firm launched its first twin tuner PVR, which was the PVR-9200T. In the following year, Humax climbed to first position in the UK free to air PVR market, according to North. In May 2008, the company was the 'leader brand' for new Freesat services with its DVB-S box Foxsat-HD. In the same year, it developed a Freesat-HD PVR, the Freesat+. As of 2009, Humax claims that it is the main brand being used for Freeview-HD trials in London.

North gave some market share data about Humax's position in the UK market. The company showed 70% year on year revenue growth from 2008 to 2009. Humax believes that it has 40% market share in the UK of the FTA (free to air) PVR market (in the presentation, it wasn't clear whether this was by volume or by value).

Humax is going to release a DTT Freeview HD box, the HD Fox-T2, in the first quarter of 2010. The expected retail price is about £170. The box will be compatible with DVB-T2 as well as DVB-T broadcasts, which means that consumers will be able to watch HD and SD freeview. The box can also upscale the picture to 1080p50. Similarly to a satellite box, it can record and show content to and from a USB stick and it has home networking functions. The PVR version of the box will have a 500GB harddisk and will be in the UK market in Q2 2010. At this point, Bob Hannent, the chief technologist of Humax, demonstrated the HD-Fox T2 box.

North continued the presentation by showing the new freesat HD set-top boxes. The key feature is BBC iPlayer support. In 2010 iTV Player will also be available on Foxsat set-top boxes and the Foxsat-HD2 box will be released in Q3 2010. The box can auto-detect new channels or new software. It will include both BBC iPlayer and iTV Player support. It will have DLNA compatibility which will equip the box for home networking. It will be possible to record channels to a USB with the HD2 box. It will also be possible to watch the content from an external harddisk or USB in formats including MP3, JPEG or Xvid. A PVR version of the Freesat box will be available in the market in Q3 2010 with a 500GB harddisk.

At this point, Hannent demoed the BBC iPlayer on the FoxSat HD box. Basically, the iPlayer works exactly the same as it does on a PC, with the same programme guide and the same programmes.

During the rest of the presentation, Humax talked about the upcoming features in its next generation of products. Humax HD products' USB features will enable users to play back external video files, view and slideshow JPEGs and back up settings. The new generation of

boxes will also have a file manager function.

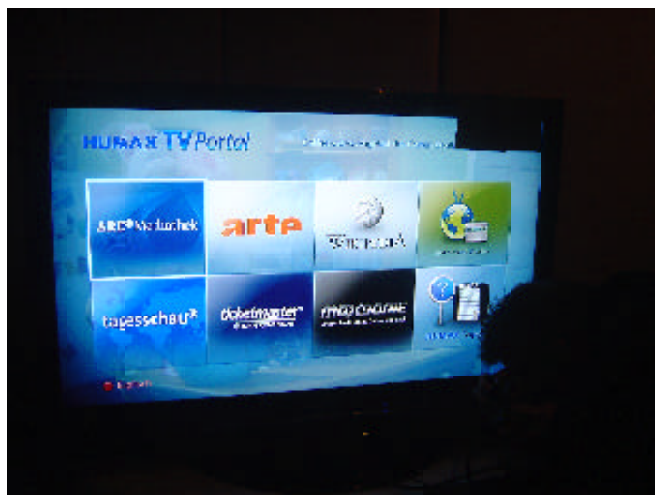
In the HD zapper boxes, live pause, instant recording and schedule programming will be available. A demonstration of this USB functionality followed the presentation.

Humax is working on new boxes which will provide IPTV services. Some of the Humax services will be

- remote access to set-top boxes
- product support
- remote EPG and
- video on demand.

The company already has a Humax Portal for its set-top boxes in Germany. Here it has widgets for news, some on-demand films, wikipedia, internet radio and internet ticket-buying, called ARD Mediathek, Arte, Wikipedia, Internet Radio, Tagesschau, Ticketmaster and Maxdome. Future set-top boxes will also function as a home media server to connect to a PC, TV, Blu-ray, DVD Player, mobile devices or other set-top boxes in the same house.

Most of these features, including home networking device functionality, USB recording and viewing content from a USB, did not surprise us. These are features already supported by top tier brand TV models. However BBC iPlayer and iTV Player compatibility was different. It was good to see one of the first demonstrations of DVB-T2 box. However, it would have been better if the demo had included a comparison with the DVB-T2 and DVB-T.



The company already has a Humax Portal on its set-top boxes in Germany



Humax is going to release a DTT Freeview HD box, the HD Fox-T2, in Q1'10.

Event Report - Panasonic UK Showcase

Panasonic Showcases Neo PDP 12 Series Plasmas

Panasonic UK showcased its Neo PDP 12 series of plasmas and its latest projectors at the Emirates Stadium, London, on 10th December. The event focused on the firm's 58", 65", 85" and 103" plasmas as well as the F300 series, the D6K series and the D12 K series projectors.

Jatin Bhatt, Panasonic's display application engineer, said that there is a new series of plasma models which is 'now more economical than ever before'. It has 768 lines (1024 x 768) and no slots for PCs or modular inputs, and Bhatt said that this keeps the cost of the monitor low. The 85", on show at the event in portrait orientation, has been designed in a six-sheet poster size and this product is ideal for digital-out-of-home advertising. The 85" and 65" both have the same thickness and all the new plasmas are said to be light (200kg!!) and 9" thinner than the 11 series.

The plasma models have NeoPDP technology. Panasonic says that this means that the plasmas achieve twice the luminous efficiency of past models. The new technology also means that the plasmas use new materials and a new panel structure, and the circu-

ity and the drive technology of the new plasmas has been completely revamped. Panasonic says that this technology is ideal for moving pictures, especially sport, as it delivers brighter images with 'deeper, richer' blacks.

The new series also features Nano Drift Technology. The company says that while the phosphors burn faster in the first few hours, the latest PDPs are in a better condition than CRTs are after approximately 10,000 to 20,000 hours. This technology reduces the chance of burning as there is a 'butterfly pattern' which blurs the edges of screen burn, but at 1/16th of a pixel, viewers should not be able to see it.

Touch-panel plasmas are available across the range, from the 42" to the 103". The front of the plasma displays is also covered with a hard glass panel for strong impact resistance to impact or breakage. The contrast ratio is now 30,000:1 and the plasmas also incorporate the same remote control PLink software that is used in projectors. The software does require a LAN connection. There are 123 different commands available so that the user can control the features and performance of the plasma (e.g. PIP tickers).

There is support for HD-SDI up to 4:4:4 and 1:1 pixel mapping. All the plasmas can be used in videowalls and the 103" model (TH-

103PF12E) is to be released in Q1'10.

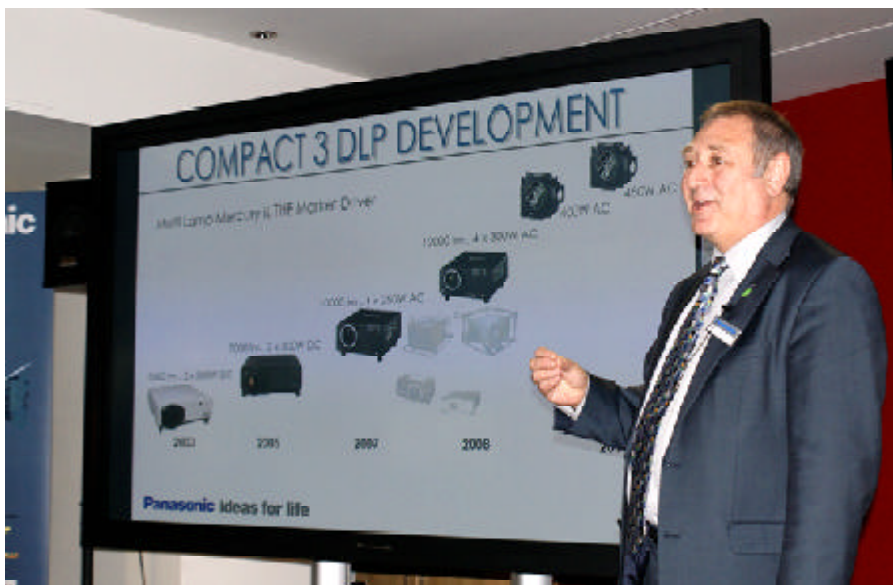
For projectors, Charlie Fenton, the firm's product application manager, stressed the importance of the rise of three-chip DLPs and the increasing performance of high brightness lamps. Panasonic says that it has improved the performance of the lamp's red spectrum and Fenton said that many of the firm's lamps now have the 'look and feel' of a Xenon lamp but at half the price.

He said that all of the Panasonic projectors on show are for front or rear projection and that they are suited to the retail environment. This is because the projectors' DLP technology is guaranteed for 24/7 use. Cost of ownership is another important factor for Panasonic and the firm has focused on increasing the life of the projectors by re-focusing the lamp's colour direction and brightness. (Just as a 'techie detail', it seems to me that Panasonic is optimising the optics on the front of the lamp to work well not only when the lamp is new, but also as the spark gap widens with age. - Man. Ed.)

Fenton said that intelligent filters are becoming more significant in the firm's projectors. The auto-cleaning filter has a cartridge which cleans the filter automatically based on the product's airflow and temperature. The filters can then last up to 10,000 hours, and this also means that dust and dirt, which can often affect a projectors performance, is reduced. This has been particularly important for the firm as some of its projectors have been used at Manchester Airport for applications which otherwise might have needed LCDs or PDPs. Transport applications are often a problem with respect to dust and dirt.

Panasonic said that up to 1024 of its projectors can be controlled on one network. The projectors can also work together in a formation of ten projectors wide by ten projectors tall for image blending.

The F300 series are 3LCD projectors with LCDs using an inorganic alignment layer and polariser. There is a two times zoom with a 1.5:1 - 3:1 range which is wider than many competing products. The optical block can be moved and there is no need to move the bracket for re-fits. The lamp life is estimated at 5,000 hours and the warranty covers 3,000 of these hours.



The company used a 103" PDP fitted with touch for its presentations

Event Report - Panasonic UK Showcase

The D6K is a single-chip DLP with two 300W lamps and resolution of 1920 x 1200. The D12K three-chip DLP projector was the 'pick of the bunch' (although hardly new) as it has four 300W lamps (each with their own PSU). The projector also features liquid cooling. The coolant flows past the DMD block and

there are also two radiators to cool it, which work 'much in the same way as a radiator in a car'. The liquid cooling reduces the amount of fan power needed and thus the noise. The D12K projector is aimed at the broadcast market, especially as most broadcasters are working in smaller and smaller stu-

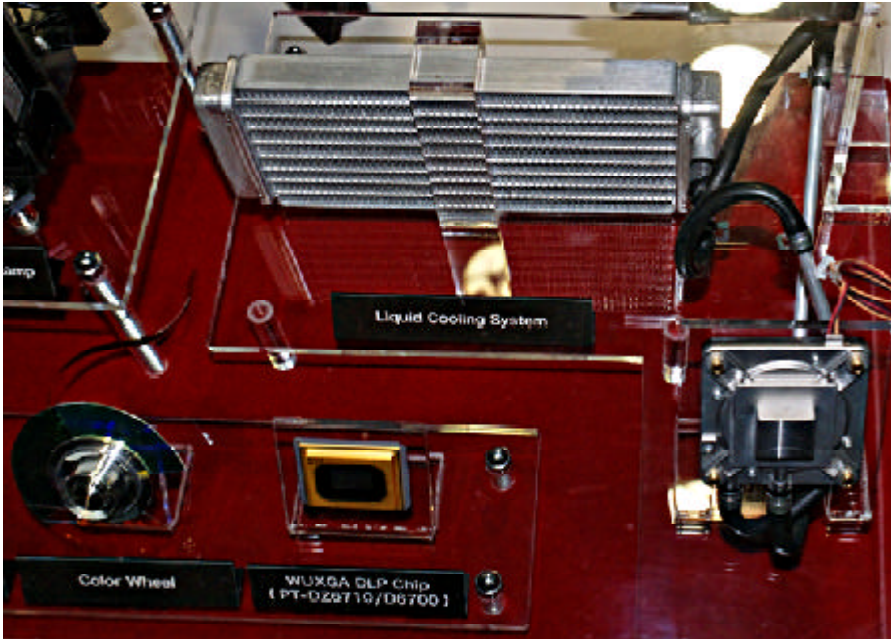
dios and need a small throw ratio as well as lower noise levels.

The 12 series has been based on the same technology platform as previous designs so that lenses can easily be added or switched over. The D12K series has geometric correction, for which there is a less than a 1 frame delay. Fenton said that Panasonic is now working on developing 450 watt bulbs.

The newest projector on show here was from Panasonic's PT-L90 series, which is for portable or fixed installation use. It has maximum resolution of 1024 x 768 (4:3), brightness of 3500 ANSI lumens and can be mounted on the ceiling. It has a LAN connector so the projector can be controlled remotely. The PT-L90 series has been designed for the entry level market.

In summary, there wasn't really too much here that we haven't seen already. The event was probably more aimed towards promoting the plasmas and projectors to partners in the business market. However, new or not, the image quality, especially from the D12K was very good. (DD)

Panasonic remains committed to PDP (\$2 billion of investment in a new factory can be persuasive!). To try to drive volume, it is offering lower resolution panels, with a 4:3 resolution on a 16:9 panel which may be OK for video, but is not good for data. It remains to be seen if this is a barrier to adoption. (BR)



Panasonic's liquid cooling system cuts fans and noise

Event Report - The Screen

A Digital Perspective by The Screen

The Screen holds informative digital signage (DS) based mini-conferences for European digital signage professionals. On this occasion, the firm offered a 2009 digital perspective with a range of speakers, embracing many different aspects of the public display world.

Carolyn Nugent, the head of digital at Kinetic (WPP's DS media agency), began by discussing the evolution of digital out of home (DOOH) advertising. She argued that much has been learnt by clients since the early days of digital signage. Early on, many mistakes were made in areas such as the positioning of screens, displays being out of the line-of-



sight and non-tailored TV style adverts. Today, brands use higher quality solutions with greater impact, more akin to animated posters, in improved viewing environments. She felt that agencies could now put together excellent digital media packages for UK clients and have greater knowledge of what creative approach to use.

Nugent forecasts that advertising spend on DOOH will grow modestly in 2010 at a rate

of 7% YoY, compared with the 45% growth commonly seen in previous years. The digital sector now accounts for 8% of total out of home advertising (including posters, billboards and so on). While price depreciation might have driven down some of the revenue growth, she felt it was the reduction in new screen networks being installed during the recession that is preventing the industry from growing even faster.

Event Report - The Screen



Germany has a well developed digital signage infrastructure

At one time DOOH campaigns followed the same cycles and timings as traditional OOH campaigns, such as posters. However, clients now realise that the strength of the medium is tactical and time-based actions. The examples she described included the UK Orange mobile network campaign for its 2 for 1 cinema tickets promotion. In this instance, it bought digital screen media on underground and train stations just on Tuesdays and Wednesdays, which generated the greatest ever attendance of Orange customers on the second Wednesday of the campaign. Another example Nugent described was the use of the "count down" technique for events such as TV digital switchover, or showing what is happening live on the displays at the launch of a new film.

Nugent felt that there were a lot of creative issues which need to be addressed with digital out of home advertising. For instance, how can you share a panel with other brands? But research showed that digital advertising beats the still image in all areas. An 'eye-tracking' study of passers-by showed that end users were twice as likely to look at a video advert and watched for a significantly longer time period. In fact, this period of absorption increased in non-rush-hour times, allowing viewers to better understand more emotional advertising copy. A core finding of the research was that, while animation of digital

copy did increase viewing by 20%, too much movement actually reduced viewing and distracted the consumer from understanding the advert on the display.

Denis Gaumondle, editor of OOH.TV, was the second speaker and he talked about the French and German markets for digital signage. He made the point that they are two very different markets. France does not have a lot of DOOH advertising, and a lot of what does exist is shown on a series of small screens within retail outlets or doctors' waiting rooms. The market is very fragmented, with small networks 'feeding' from local advertising. There is comparatively little 'reach' for large brands as the national networks are still being created. Germany is at the other extreme, with a lot of DS advertising and large national networks.

He thinks that the situation may change quickly in France, as companies are preparing to roll out screens on public transport. One roll-out will be on the trains and another in the corridors of the Parisian metro stations. Gaumondle argued that this will create awareness of the medium and will lead to further DS installations. In addition, existing screen networks are opening up their viewing space to advertising. For example, the French post office is now open to external advertisers. In addition, the French Lottery (FDJ) allows its 20,000 screens in newsa-

gents to be used by third party advertising and he feels that this will enable the market to grow beyond its current 20,000 screens carrying advertising (for a detailed description of the Française des Jeux project, see our report in Display Monitor Vol. 16 No 15).

Germany is a digital signage advertising country. Public transport screen networks such as Berliner Fenster (4,000 screens, half of which are on trains) are doing well, while Infoscreen/Stroer has 2,200 screens on trams, buses and stations. Trend Network has 2,500 screens on trains and trams and is going to launch on the Berlin underground.

While the German market started with transport-based networks, it is now moving on to mall-operated retail screens in supermarkets such as Edeko and Neo (700 screens). Large companies such as ECE Flatmedia, Deutsche Telekom and Neo, all of which are investing heavily, are installing large networks of screens in retail environments.

While Germany considers itself as a late adopter of digital signage, there is already a big market with over 40,000 screens for advertising digitally. However, the immaturity may be seen in the fact that the content on the screens is not yet in the form of digital posters as we now see in the UK.

In Gaumondle's view the country digital signage market rankings read: the UK, Germany, the Netherlands, France, Switzerland,



France is less well developed than Germany, but La Poste has a lot of screens

Event Report - The Screen

Italy, Spain, Poland, Romania and Turkey.

The third speaker was Michael Nutley, editor-in-chief of New Media Age. He started by discussing the growth of Twitter. While it has only half a million users, it is highly visible, as in many ways it is the 'media talking about itself, to itself'. Three quarters of Twitter users in the UK live in Greater London and 10% of the audience produces 90% of the output. This makes it a broadcast medium, rather than a social network. Nutley felt that while 'real time web' may be gaining 'currency', the market is unsure if Twitter style social networks are a transient movement or part of a new communication culture such as SMS.

Nutley posed the question whether there is enough advertising to support online content? Will there be an inevitable collapse of media? He felt that it is not a question of whether the content is paid for or free, as tomorrow's successful media outlets will have a hybrid of both. He used the example of Sun Bingo helping to fund The Sun online presence as an example. (The Sun is a popular UK daily newspaper - Man. Ed.)

He also stated that online advertising spend (OAS) at 23.5% of all advertising is now bigger than TV advertising at 21.9%. However, what is important is that this is part of a long-term trend, since online spend has already passed cinema, radio and press advertising, and Nutley believes that this trend will continue.

He also discussed the issues of privacy and online behavioural targeting. The more an organisation can target relevant advertising, the more effective it is. While research shows that 69% of end-users also want more relevant online advertising, they still do not trust the mechanisms that deliver these messages. New EU laws come into effect in the next 18 months. These will ensure that end users' consent is sought for website cookies (where a pop-up box comes up and you have to tick your acceptance). Nutley felt this would make web navigation a 'nightmare' and targeted advertising and ownership of data will become an "even greater issue".

He related these media themes back to digital signage at the end of his speech. He pointed out that many of these issues were



Stroer Media has 2,200 screens in Germany in its network

mirrored in outdoor media in areas such as ownership of space, privacy and the unique benefits of the media. In order for digital signage to be successful in the future it must understand 'what the unique thing DS can do that no other medium can achieve'. He felt that context and flexibility are two unique aspects of digital signage.

Bob Michaels of Magenta Research spoke last. He first talked about the development of Magenta and made the point that we are at a unique moment in time when there is a lot of talent available in the employment market (following the recession). He felt that this was the right time to bring in experienced staff to take one's DS business forward.

He argued that the industry has been very poor in portraying a coherent message to the general public and few of them understand digital signage. However, he can see that from 2010 the situation should improve.

In Michaels' view, multi-store construction and expansion ended in 2008, when the retail sector had to scale back - not just stopping the construction of new units, but closing and reducing some of the existing space. However, today's retailers need growth and the only way to do this is to increase 'same store' revenue and this provides an opportu-

nity, as digital signage (with the right content) is one of the few tools retailers can use. He used Apple stores as the example of success with DS and same store revenue improvement.

In addition, he can see a trend where brands and retailers use display 'shape' as the new tool to engage customers where screens are placed together in different patterns and at different angles to create a total message. This supports a new method of measuring the effectiveness of DS where brand owners are moving away from ROI to instead look at ROO (return on objective). Public displays are becoming more of a branding exercise, using innovation in shape and content to fuel growth and adoption at retail.

Michaels felt that the current large choice of vendor was suppressing market growth as it confused the DS provider. He talked about the large numbers of 'black boxes' at trade events such as Infocom making clients unwilling to invest without the help of a 'trusted advisor'. He felt consolidation was required on the supplier side to help the market to recover.

The event gave listeners much to think about and provided the opportunity for digital signage professionals to network over breakfast. The next event is due in Q1'10.

Optoma's New Pico Projector Is Under \$200



Optoma has a new DLP pico pocket projector which costs under \$200. The PK100 can be used to view videos and images from media players, mobile phones, PDAs, cam-



The PK100 can project images and videos on any surface, and up to 60" in size

eras and gaming devices. It has resolution of 480 x 320, a contrast ratio of 1000:1, an LED-light source life of around 20,000 hours and one 0.5W speaker. For inputs, there is a 2.5mm jack AV input (composite, video and stereo audio-in) and a mini-USB connector.

The PK100 pico projector can project images and videos onto any surface and up to 60" in size. It weighs 4 ounces, including battery, and users can recharge the battery via USB or the included AC power adaptor. The battery lasts up to 2 hours before it needs to be recharged.

<http://www.optomausa.com>

Acer Has Two New Monitors... One is 3D!



Acer has continued its busy month of promoting new products by introducing a 3D monitor, the GD245HQ, into the market. The 23.6" LCD monitor has Full-HD resolution of 1920 x 1080 (16:9) and a refresh rate of 120Hz, and it is compatible with Nvidia's 3D Vision technology. The response time is 2ms and it has a dynamic contrast ratio is 80,000:1. The brightness is 300cd/m² and the viewing angles are said to be 170/160 degrees.

For connectivity, there is a D-sub input and HDMI (HDCP supported) and dual DVI interfaces, which Acer says 'provides advanced

connectivity to the latest graphics cards and digital video sources'. The 120Hz refresh rate renders each image twice, once for each eye, so that the image can be 'offset' against its double. 3D polarised glasses are included. When on, the monitor consumes 38.2 watts and this is reduced to less than 2 watts when the GD245HQ is on standby. The monitor weighs 5.8kg and is now available for approximately £300.

Acer has also launched a new 24" LCD monitor in its B-series. The Acer B243HA uses a TN panel with Full HD resolution of 1920 x 1080, 300cd/m² of brightness and an 80,000:1 dynamic contrast ratio. It has viewing angles of 176 degrees horizontally and vertically.

The stand of the monitor allows it to be tilted forward 5 and 15 back. It can then also be rotated 90° in a pivot function so that it is in portrait mode. When on, the B243HA consumes 32.5 watts and in sleep mode it uses 1.2 watts. The monitor has D-sub, HDMI and DVI interfaces and there is an integrated USB hub as well as built-in speakers.

The B243HA weighs around 7.6kg and is for the European market. It has a MSRP of approximately €250 and a manufacturer's warranty of three years.

www.acer.com
Acer did originally have plans to have the frame of the GD245HQ in orange but Display Monitor thinks that these have been shelved. (This could be good or bad news, depending on your own tastes!)



Acer's 3D monitor has a response time of just 2ms and an impressive dynamic contrast ratio of 80,000:1

Crestron Introduces New HD Touchpanels



Crestron introduced its latest ultra-slim, low-profile, high-definition touchpanels at GV Expo 2009. The V-panels are two-inches deep and they are available in 12" (V12) or 15" (V15) widescreen. The displays can function as a touchpanel control interface and as a high definition FPD.

The panel has resolution of 1280 x 768 (15:9), a contrast ratio of 700:1 and brightness of 470cd/m2. It comes with either a DGE-1 or DGE-2 external graphics engine and cable or fibre connectivity. The graphics engine enables the V-panel to integrate seamlessly with Crestron DigitalMedia systems and this means that the panels can display high definition (HDMI/HDCP) and analogue video (VGA, component and streaming media from online videos, digital media servers and web cameras), as well as provide VoIP or SIP intercommunication. The V12 and V15 feature embedded PC applica-

tions (including Internet Explorer and Windows Media Player), on-screen annotation and a built-in USB input that can be connected to a mouse or keyboard. Crestron says that the V-panels are quiet, fanless designs which can be used for 'whole house control'. The panels also have RJ45 network control.

The digital graphics engines feature Crestron's DigitalMedia to provide direct connectivity to the new V-panels so that uncompressed HD signals can be displayed on touchpanels for the first time. There are additional options for a VESA mount installation as well as a flush-wall mount and desktop option fittings.

The 12" V-panel (V12-BW) is available in black and white. It priced at £3,040. The 15" V-panel (V15-B) is available in black and costs £3,990. Both models are available to buy from Q1 next year.



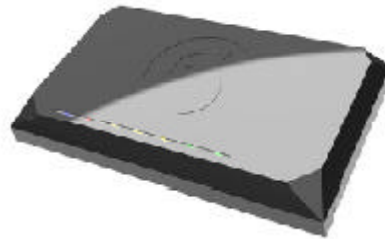
The V-panels are just two inches deep

Woxter's Videolan Gets Powerline Makeover!



AV manufacturer Woxter Technology and DS2, a supplier of powerline communications technology, have teamed up so that Woxter's Videolan now incorporates embedded DS2 powerline technology.

Videolan, which said to be the first multi-room, cable-free HDMI extender offering a



Woxter's Videolan is designed to distribute Full HD resolution to HDTVs across a home or outlet

'full HD home theatre experience', is designed to be a compact and easy to install solution which customers can use to connect their HDTVs with any AV source. This means that the product can connect to an STB, a multimedia player, a Blu-ray player, an Xbox console, satellite or DVD player so that it can distribute full HD1080p resolution to HD TVs at any electrical outlet or anywhere in the user's home.

Videolan receives input from any user remote control and this means that it can offer 'transparent and cable-free' connectivity for HD viewing at the touch of a button. The design is even said to power the TV unit, so that customers can save money on purchasing an external wall outlet.

Videolan is available now at www.woxter.com and through major retail stores in the US and Europe.

AG Neovo's HD Monitor Is For Security



AG Neovo's new 42" Full-HD display is designed for the security industry. The RX-W42 has resolution of 1920 x 1080, a contrast ratio of 5,000:1 and brightness of 500cd/m². It has a grey-to-grey response time of 6.5ms and viewing angles of 178/178 degrees. The panel is designed for a life of 50,000 hours.

The RX-W42 has a 3D comb filter to minimise visual noise, even in still images. The

monitor also has a 3D deinterlace function. AG Neovo says that the 'unique' 3D noise reduction feature also allows codecs to work much more efficiently and create higher quality output video streams.

The monitor has anti-burn technology to prevent 'ghosting' (screen burn) and AG Neovo says that this is especially important in security where monitors display static images for an extended period of time. The 42" screen can also double up as a PC and CCTV monitor as it can display images in Picture-in-Picture (PIP) and Picture-by-Picture (PBP) modes. For connectivity, there are the options of VGA, DVI, S-video, CVBS and component (YPbPr). For audio, the RX-W42 has two 2 watt speakers.

The RX-W42 is said to consume 41% less energy than conventional monitors. It consumes 155 watts when on and less than 10 watts when off. It has 3mm thick NeoV Optical Glass which is designed to protect displays in multi-user and public environments. The company says that the monitor is 'cost efficient, competent, versatile and environment-friendly'. With the base, the RX-W42 weighs 28.4kg. It is now available for RRP £1,899.99 (including VAT).

www.neovo.com



The RX-W42 has a 3D noise reduction feature which is said to create higher quality output of video streams

Acer's 3D Projector Is Made For Gamers



Acer's H5360 projector incorporates Nvidia's 3D Vision technology

The H5360 is Acer's new 3D, DLP projector that has native HD resolution and includes Nvidia's 3D Vision technology. It has 1280 x 720 resolution (16:9), a refresh rate of 120Hz, brightness of 2,500 ANSI lumens and a contrast ratio of 3,200:1.

The projector comes with 3D polarised glasses. The colour performance is said to be enhanced on any surface. The projector's ColorSafe technology is designed to prevent colour deterioration caused by prolonged use while the EcoProjection feature reduces power consumption in standby by 50%. The

H5360 consumes 224 watts when on and its 200 watt bulb has an expected life of 3,000 hours in normal mode and 4,000 hours in eco-mode. The H5360 also has an Instant Resume feature which enables the user to instantly turn the projector back on, without having to wait for

The X1130P enters a new category of low-priced consumer projectors. We'll watch with interest to see if this blend of brightness and 3D sets the market rolling. (BR)

it to cool to room temperature.

The H5360 is designed for 3D games and movies. The 24p frame rate projects a 'film-like quality for a cinema experience'. For connectivity, the projector has HDMI, S-video, RS232, composite and component inputs. This model is available now for around £550 (including VAT) and it has a two-year warranty.

Meanwhile, the firm has also announced the X1130P projector, a 3D projector that has most of the same specifications as the H5360 but with a lower resolution and contrast ratio. It has 800 x 600 resolution, a 3,000: contrast ratio, brightness of 2,500 ANSI lumens and a refresh rate of 120Hz. It is compatible with Nvidia's 3D Vision technology and it comes with 3D polarised glasses. The projector can also reproduce high-definition content and it has the same colour-boosting and power-saving features as the H5360. Acer has said that this projector ideal for home and school users. It is now available for around £290.

www.acer.com

Benq Aims Filter-Free Projector At Businesses



Benq says that the MP525P projector is filter-free and 'virtually immune to colour decay'

Benq's MP525P DLP projector is designed for education and business use. It has resolution of 1,024 x 768 (4:3 native - 16:9 selectable), brightness of 2,500 ANSI lumens and a contrast ratio of 2,600:1. The 210 watt lamp has a life of 3,000 hours in normal mode and 4,000 hours in eco mode. It consumes 275 watts when on and less than 1 watt in standby. Benq says that the projector supports 16.7 million colours and that the 6-segment colour wheel offers 'excellent colour

quality'.

It is a filter-free design so there is no need for filter cleaning or a filter replacement. Benq also boasts that this projector is 'virtually immune to colour decay'. The projector has 3D colour management so users can independently adjust the hue, grain and saturation levels of all six colour wheel tones. This is designed so that the colours work together without compromising each other.

Other features include wall colour correction, which offers a selection of five wall colours to allow projection onto various surfaces (including blackboards) and there is also closed captioning and an auto keystone adjustment.

The model has a built-in 2-watt speaker and weighs 2.2kg. The MP525P projector has a variety of connectivity options, including D-sub 15 pin, S-video, component, AC and RS232. The MP525P is available from January for a retail price of €599.

New FlexScan Monitor From Eizo



Eizo Japan has a new 22" LCD monitor, the Flexscan SX2262W, which has resolution of 1920 x 1200, a contrast ratio of 1,000:1 and brightness of 280cd/m2. It has a VA panel, viewing angles of 178/178 degrees and a GTG response time of 6ms.

The firm says that the HD monitor displays approximately 1.3 times more information than the FlexScan S2232W-E but that it is 16% more compact than the FlexScan S2432W-H. The SX2262W is said to have an Adobe RGB cover rate of 95% and an auto-dimming feature and temperature sensor to stabilise the monitor's brightness, temperature and power consumption.

The monitor takes a maximum of 90 watts when on but Eizo says that this can be reduced to 45 watts. On standby, the SX2262W consumes less than 1 watt. For connectivity, there is a DisplayPort (HDCP compatible) input, two DVI-I 29-pin inputs and two USB ports. It weighs about 9.6kg including the monitor's FlexStand, which can swivel and

tilt up or down. This product, which is available in black or white, is to be released on January 12th and it will be available in Japan for ¥69,800 (\$779). It comes with a five-year warranty.



Eizo says that the SX2262W can reproduce 95% of Adobe's RGB colour space

Samsung L-Series Projectors Now Available in Germany



Samsung's SP-L331W projector, along with the SP-L301W, has an aftercooling function

Samsung has unveiled two of its L-Series projectors to the market in Germany. The SP-L301W and SP-L331W 3LCD projectors have resolution of 1024 x 768 (4:3) and brightness of 3,000 and 3,300 ANSI lumens respectively. The SP-301W has a contrast ratio of 500:1

and the SP-L331W has a contrast ratio of 400:1.

Both projectors also feature automatic keystone correction and horizontal keystone correction. There is no 'after cooling' function so they are easy to turn on and off in a hurry. There are connections for an HDMI input, two VGA ports (in and out), a composite video port and S-video. The two models also have an RS-232 and RJ-45 interface. After a prolonged period of no use, the projectors automatically go into standby mode to save power. The SP-L301W and SP-L331W consume 220 watts in normal mode and 150 watts in eco-mode. The projectors have a life of 2500 hours in eco mode and, for audio, two 3-watt speakers.

The SP-L301W and SP-L331W are now available for €829 and €949 respectively. Both models come with a 3-year warranty. www.samsung.de

Prismatic Magic Boasts Of 'World's First 3D Laser Projector'



Prismatic Magic

Prismatic Magic says that the 'World's First 3D Laser Projector' will be available in early 2010

Prismatic Magic has introduced the Laser-3D projector, which is said to be the first in the world to have a 3D laser projection system.

The company has said that the projector 'fuses two of the most popular concepts in public consciousness - lasers and 3D' - and

merges them into a 'single, dazzling visualisation medium'. The 3D projector is designed as an extension of the 3D technology developed by Infitec GmbH, which is the same system as used by Dolby 3D Digital Cinema.

The projector works by generating left and right duplicate images which are slightly offset from one another. Each image is projected by its own dedicated red, green and blue (RGB) laser subsystem. The laser wavelengths are tuned 10-30 nanometers from each other so that the image projected matches that of Infitec's reusable 3D glasses. By allowing each eye to only see one RGB image, the 3D glasses create a stereoscopic parallax, which is interpreted by the wearer as a full-colour, 3D laser image.

The Laser 3D can project onto any surface or wall and it doesn't require a special screen. The system is designed to be compact and portable. Eight complete 40-minute 3D programmes are expected to be available initially and additional content is being created on an ongoing basis. The Laser 3D systems are expected to be available commercially in early 2010.

Prismatic Magic told Display Monitor that the complete projector package (including the projector, a 3D library, about 200 minutes of laser programming and several hundred pairs of reusable 3D glasses) is approximately \$125,000 to \$150,000.

The Musical Photo Frame With LED BLU!



Samsung has a new photo frame which has LED backlighting. The SPF-800P has an



8" display, resolution of 800 x 480, brightness of 250cd/m² and a contrast ratio of 300:1. There is an internal memory of 2GB and the photo frame has a Bluetooth 2.0 slot and a slot for a microSD card. Besides accepting images in JPEG and BMP format, the SPF-800P can also be used for playing music and videos as it is compatible with MP3, MPEG and MJPEG files.

The photo frame is available for around 199KRW (€120) in Korea but the price and availability in Europe is still to be confirmed.

Sanyo Projector Has Airflow Management System



Sanyo's portable PLC-XC56 LCD projector has been designed with the education and business markets in mind. The projector has resolution of 1024 x 768 (4:3), brightness of 3100 ANSI lumens and a contrast ratio of 450:1. It has DVI-I, RGB, D-sub 15 pin, S-video, composite and RCA connections and there is an RJ45 LAN control and a RS-232 interface, so users can remotely control the network.

The PLC-XC56 has Sanyo's 'unique' Active Maintenance Filter (AMF) system. This consists of a filter cartridge with ten lengths of filter material and an airflow sensor that detects when the airflow is being obstructed by dust. The system then advances a clean section of filter when needed. As well as a built-in network function, the PLC-XC56 also has closed captioning.

In eco mode, the projector's lamp can last up to 4000 hours (2000 hours in normal mode) and the projector has a noise level of 27.5 dBA. When on, the PLC-XC56 con-

sumes 290 watts but this is reduced to 205 watts when in eco-mode.

For security, the projector has a security bar in the corner of the device which accepts security wires up to 0.43" in diameter. There is also an on-board pin number so that the user can lock the projector when it is not in use. Sanyo says that the model has speaker output of 7 watts and that it is now available for around £929.

<http://uk.sanyo.com/>



Sanyo's PLC-XC56's 'AMF system' detects when the airflow is being obstructed by dust

Sony Adds To Its Professional Projector Range



Sony has added to its Professional projector range with the VPL-EX130 LCD. It has resolution of 1024 x 768, brightness of 3000 ANSI lumens and a contrast ratio of 700:1. The projector weighs just over 3kg and has inputs for S-video and component as well as an RS232 interface.

The model incorporates Sony's 'BrightEra technology' which is designed to produce higher brightness and colour accuracy and increase reliability. The projector has a built-in tilt angle of 8 degrees to 'give a perfectly proportioned presentation on the screen or

wall' and there are also controls for height adjustment. The projector features a Dynamic Detail Enhancer, which generates 'high quality' images through the interlace/progressive conversion processor, and a Image Freeze Function, which freezes the image display so the user can make changes to the presentation without the audience knowing.

The VPL-EX130 can be unplugged as soon as it is switched off, so there is no need to wait for the fan to turn off. The model has two power-saving modes, Lamp Cutoff and Standby. The lamp cuts off if no signal is input for ten minutes and lights up again when a signal is input or a key is pressed. The projector consumes 260 watts when on but this is reduced to less than 3 watts when in standby. The lamp has an expected life of around 3000 hours.

For security, this Sony projector has password access, control panel lock and an optional security cable and security bar.

The VPL-EX130 is available now from Sony dealers at an RRP at £760. It comes with a three-year warranty and can be mounted on the ceiling.



The VPL-EX130 weighs just 3kg and can be unplugged as soon as it is switched off

SEG Has New TVs With LED-Backlighting



German manufacturer Schmid Electronics GmbH (SEG) has launched 'LED Blu-TV', a new range of LCD televisions with LED-backlighting. The range includes the first of three models. Kobe is an 18.5" TV, Osaka is a



SEG's 'Tokyo' television is the largest of the three new models at 23.6"

21.5" Full-HD TV and Tokyo is a 23.6" Full-HD TV.

The 21.5" Osaka and the 23" Tokyo TVs have resolution of 1920 x 1080 (16:9), a dynamic contrast ratio of 6,000:1, brightness of 250cd/m² and a response time of 5ms. They both have viewing angles of 170/160 degrees and connectors for SCART, HDMI 1.3, VGA and a CI slot. There are two 3-watt speakers and a 3D comb filter on both models. The 18.5" Kobe TV has resolution of 1366 x 768 (16:9) but it has the same features as the Osaka and Tokyo televisions. All the televisions come with an integrated DVB-T/analogue tuner and they also have a foot/stand that is made of safety glass.

The suggested retail price is €399 for the Osaka, €499 for the Tokyo and €349 for the Kobe television.

Metz Adds New TVs To Puros Family



Metz has added to its Puros TV range. The Puros 32" 32 FHDTV 100 CTS2 Z and the Puros 37" 37 FHDTV CTS2Z each have three integrated digital tuners and HDTV reception via cable and satellite.

The LCD TVs have Full-HD resolution of 1920 x 1080 (16:9) and 100Hz DMC technology for 'optimum' motion display. Both models have a 3D comb filter, a cross colour reduction feature and adjustment that can alter the picture settings to suit the ambient brightness. The TVs have viewing angles of 178/178 degrees, brightness of 500cd/m² and a contrast ratio of 8,000:1. The grey-to-grey response time on the new products is 5ms. There are four integrated speakers and the TVs both have a Metz mecaSound+ sound system.



The Metz Puros TVs both have delayed viewing, so users can revisit paused programmes at a later time

There are two HDMI (HDCP) sockets and one DVI-I socket. There are standard connections for USB, component and RS232 inputs as well as YUV input sockets and two Euro/AV sockets. The TV consumes a maximum of 161 watts when on and less than 1 watt when off.

It also features an electronic programming guide, 2000 programme slots and a delayed viewing feature. This enables the viewer to pause the programme they are watching by using the Metz remote control. They can then revisit the programme later to watch the remaining content. If the tuner is configured to Twin Tuner then 'parallel' viewing is also possible for digital reception. The viewer can pause the current programme and watch another programme at the same time. The integrated USB memory means these new TVs allow for interruptions of 130 to 300 minutes in standard definition or 70-120 minutes in high-definition quality.

<Body Both TVs are now available. The Puros 37 FHDTV CTS2 Z is €1,899 and the Puros 32 FHDTV 100 CTS2 Z is €1,599.

Benq's 42" HDTV Has Colour and Brightness Sensor



Benq Taiwan has a new 42" Full-HD TV. The SQ4242 has resolution of 1920 x 1080 at 60Hz, a contrast ratio of 5,000:1 (the dynamic mode is 20,000:1) and brightness of 500cd/m². The response time is 5.5ms and the TV has viewing angles of 178/178. It also has a 24p Cinema Mode.

The SW4242 has 'Senseye Human Vision Technology' which calibrates the TV's colour saturation and tint for red, green, blue, magenta, yellow and cyan. Benq says that this ensures that each hue of colour is presented in its 'unique purity'. The technology also controls the ambient lighting and viewing distance for optimal screen brightness.

The TV's Dual-Trace (horizontally and vertically) sharpness calibration method is designed to make sharper distinctions between colours and shades. Benq says that this makes colours and contours more defined and the overall image appears more 3D-like. The SQ4242 also has a 3D noise reduction feature which reduces distortion and virtual noise around the borders of the screen.

The TV is equipped with a USB 2.0 port which supports MP3 and JPEG files so users can upload their own images onto the TV. There are two 10W speakers and the TV has an SRS TruSurround XT sound system. The TV has inputs for HDMI 1.3 (2 rear, 1 side), S-video, component, D-sub and DVI. It consumes 205 watts when on and weighs 20kg (including stand). It is currently on sale in Taiwan for NT29,888 (\$924).

<http://www.benq.com/>

Although Benq has started some TV sales again in Europe, it was not clear at press time whether this product was going to be launched in Europe.

'Web Kiosks' Available From MultiQ



MultiQ says that the Media monitors are 'web kiosks' in their own right.

MultiQ has a new range of digital signage products with integrated media players. The DSMS 3 range now includes Media monitors 4, 5, 6 and 7. All the 19" monitors have a programming interface and support HD video. The company said that the units have open APIs and that they support web tools such as html, MPEG-4, PHP and Ajax.

The monitors have resolution of 1280 x 1024, brightness of 300cd/m² and a contrast ratio of 1,500:1. The response time is 8ms and they have a RJ45 remote network

control. Two USB ports are included and all four media monitors support MPEG-1, MPEG-2, MPEG-4, H264 and SWF video file formats. The 4 and 5 screens are described as 'cost efficient monitors for kiosks and displays', while the 6 and 7 units are said to add a 'bit of extra processing power'.

MultiQ says that these monitors are compact and easy to install. With touchscreen and media player capabilities, the firm also believes that the monitors are 'web kiosks' in their own right. The products are designed to be used for self-service applications in retailing and, to do this, the user would simply need to connect the monitor to the network and configure a web address. The Media monitors are now available from MultiQ's website. Prices are available on request.

www.multiq.com

Display Monitor spoke to Niklas Forslund, a product manager at MultiQ, and he had this to say: "The basic concept of the new digital signage range is to combine tailor-made hardware with open APIs on both the client and server side. This will make it much easier for end customers to create more complex digital signs, which we believe is the future of digital signage".

REAR PANEL

Liquavista won the award for best technology company at the the Eurecan European Venture Contest final, Barcelona, on the 14th and 15th of December. The firm came second in the overall competition. Life science company Biomodics came first and won €90,000.

Barco awarded a total sum of €27,500 to innovative researchers at its annual awards for Scientific Research. The prizes, which ranged in value from €2,500 to €5,000 were given to young researchers with designs such as a SD/HD-SDI video viewer with OLED and a multi-touch screen product.

Intel's Extreme Masters PC gaming tournament showcased a **Microvision** PicoP projection engine which helps to project a 360 degree, 200" wide, video image from a handheld game controller. Microvision has said that this technology is a 'radical innovation that will drive the gaming industry forward'. The event took place in Edmonton, Alberta, USA, between the 11th and 13th December.

NEC Display Solutions has said that Pacific ArcLight is to show the premiere of James Cameron's Avatar movie on an NEC 3D digital cinema projector. Pacific ArcLight has installed 17 NEC projectors, including the NC2500S-A projector, in around ten cinemas and theatres in Los Angeles.

A huge 3D screen has been used for the 'world's largest 3D demo' at the Dallas Cowboys gridiron football stadium, USA. The crowd were given 3D glasses to watch the half-time show and second half of the game, as well as replays in 3D. The screen is 160ft (48.77m) wide and 72ft (21.95m) high and is said to be the largest video board installation in the world. The technology was provided by **HDlogix** of Edison, New Jersey.

Huntsville International Airport has installed a curved **Clarity Matrix LCD** videowall system to display flight information, news programmes and community information. The videowall is made of twenty one 46" LCD monitors and it has a thickness of 4.5" (12.6cm). It also features an EasyAxis mounting system.

DisplayLED has supplied four of its DigiLED screens to the musical production, 'We Will Rock You', which is currently showing in Milan. The company said that the screens will 'create a dramatic backdrop of video, animation and spectacular lighting effects'.

Benq has won eighteen 2010 iF Design Awards. Two LED-backlight displays, the V2200TW and the V2400Eco, won awards alongside the MP780 ST short-throw projector, the Joybee GP1 mini projector, two eReaders and the QPC-215, Benq's all-in-one PC.

UK electronics magazine **Stuff** has revealed that its readers have voted Sony as the most reliable and trustworthy brand in Europe. The results were revealed as part of Stuff's pan-European Annual Index Survey, which asked nearly 3,000 consumers in France, Spain, Germany and the UK a series of questions on which brands they trust the most. Over 80% of those surveyed were said to have owned at least one Sony product.

French rental company **Ace Event Group** has bought 128 tile modules from DisplayLED. The company will use the latest DigiLED product from the Tile series, the T8S, for sport and company promotion events as well as at festivals and concerts.

And Finally...

Toshiba America is the exclusive sponsor for the 'Official Countdown of the Times Square New Year's Eve Celebration'. A Toshiba Vision signboard will be displayed on One Times Square while six mobile LED screens will be used throughout the location to show content and provide entertainment to people in attendance. Toshiba will also be giving away products to lucky residents. Prizes include portable Toshiba hard drives, digital media frames, laptops and a 54.6" diagonal Toshiba LED TV.

Godt Nyttår

Een Voorspoedig Nieuwjaar

Menestyksellistä Uutta Vuotta

Tous nos Voeux de Réussite pour cette Nouvelle Année

Ein Erfolgreiches Neues Jahr

Un Prospero Anno Nuovo

Godt Nyttår

Un Prospero Ano Novo

Próspero Año Nuevo

Gott Nytt År

Sretna Nova Godina

Yoi Otoshio

Stastný Nový rok

Stastia v Novum roku

Szczęśliwego Nowego Roku

Sikerekben gazdag Új Évet!

La multi ani!

and a prosperous New Year to all our readers, wherever they are.