

MARKET MONITOR REPORT

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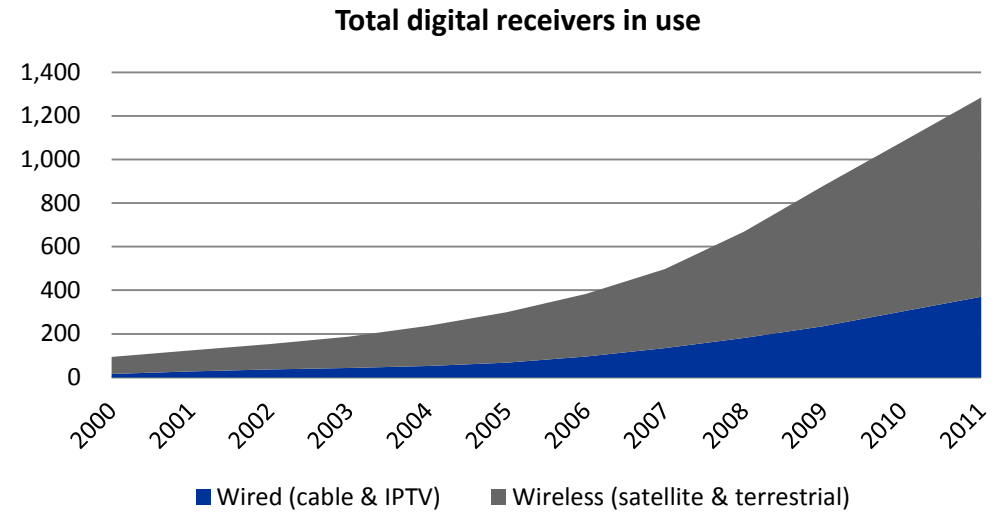
The Global Transmission Market

Contents

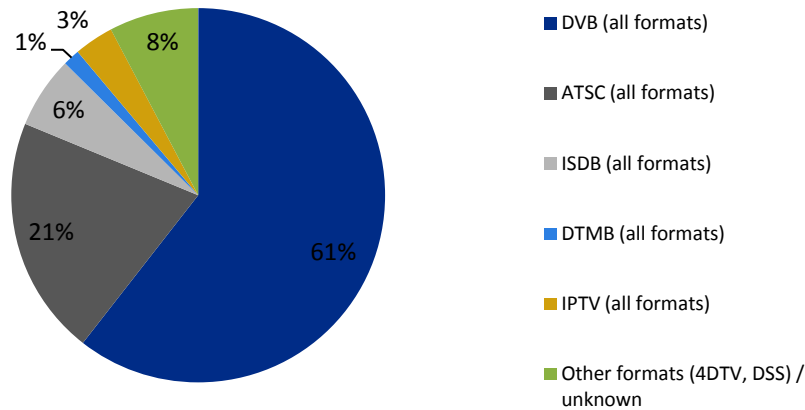
- 1 Total Digital Receivers in use
- 2 DVB across cable, satellite and terrestrial
- 3 DVB growth across pay and free platforms
- 4 DVB Transmitter and Receiver installed base

DVB is the most widely used transmission standard in the world

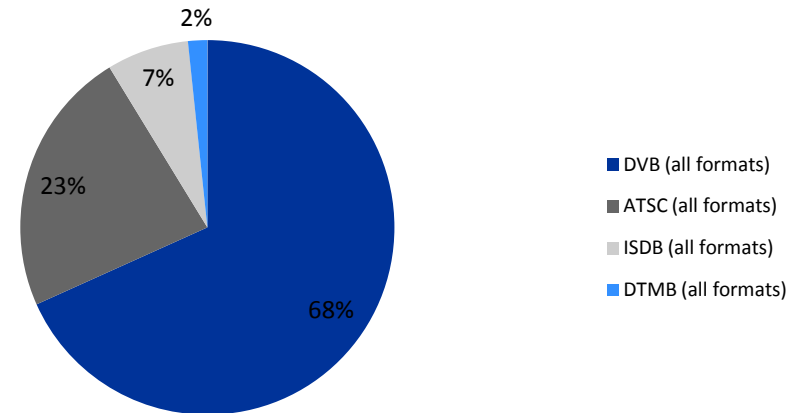
- The total number of digital receivers worldwide is expected to reach 1.4bn by the end of 2012 while Cable and IPTV receivers reflect 30 per cent of the total market of digital receivers currently in use.
- DVB receivers accounted for 61 per cent of all receivers in use at the end of 2011 while ATSC and ISDB receivers reached 21 per cent and 6 per cent respectively. 8 per cent of all digital receivers currently in use, account mainly for ABS-S and DSS
- Amongst digital broadcast receivers, DVB represents 68 per cent of the total, with ATSC taking 23 per cent and ISDB variants 7 per cent, as of end of 2011. DTMB only represents 2 per cent



Total digital receivers in use - 2011

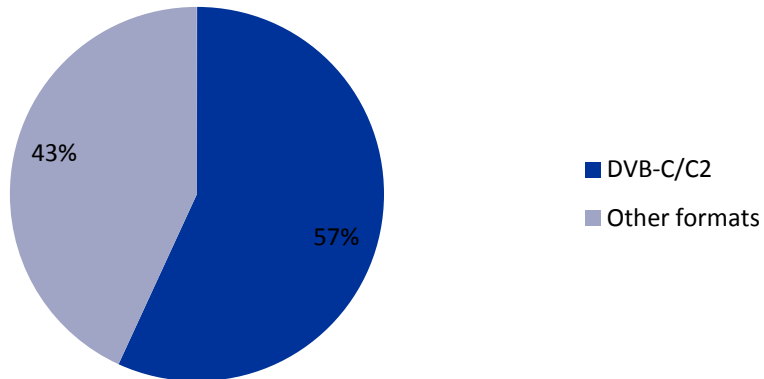


Digital broadcast receivers (non-IPTV) in - 2011



DVB dominates cable, satellite and terrestrial platforms

Cable receivers in use - 2011

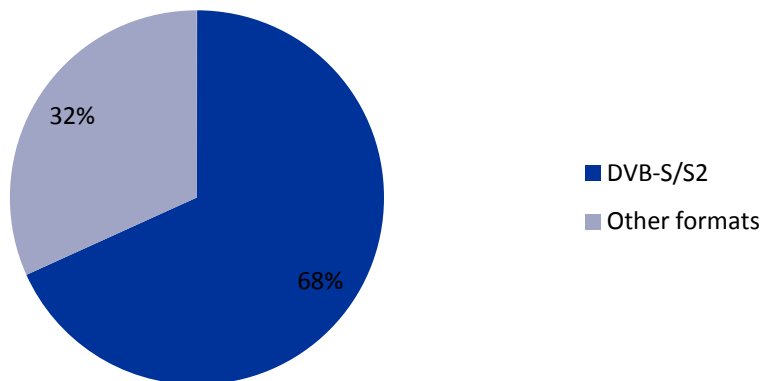


- 57 per cent of all cable receivers globally use DVB-C/C2 for transmission. The main competition is from ATSC-variant QAM in the US market and ISDB-C in Japan. There is future competition to DVB from IP over DOCSIS, but growth from digitisation of Chinese cable networks will bolster DVB-C/C2 in the mid-term

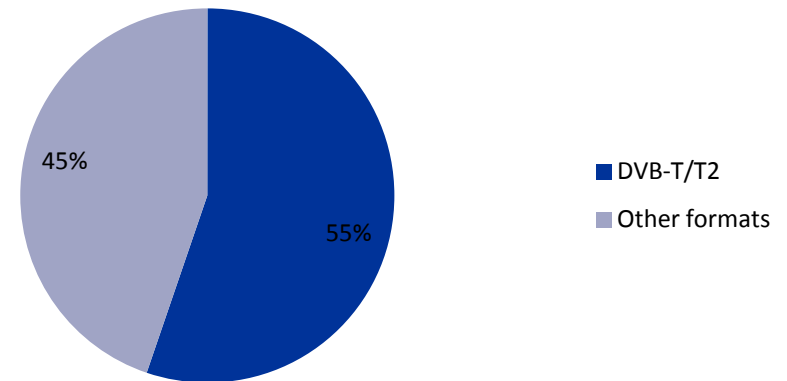
- Satellite receivers using DVB-S/S2 are the strongest platform for DVB. DVB-S/S2 market share reached 68 per cent in 2011.

- Digital terrestrial is the only DVB platform which is dominated by free-to-air. DVB-T/T2 accounts for 55 per cent of the terrestrial market while the number of ATSC receivers is 3.5 times greater than that of ISDB-T variant receivers

Satellite receivers in use - 2011

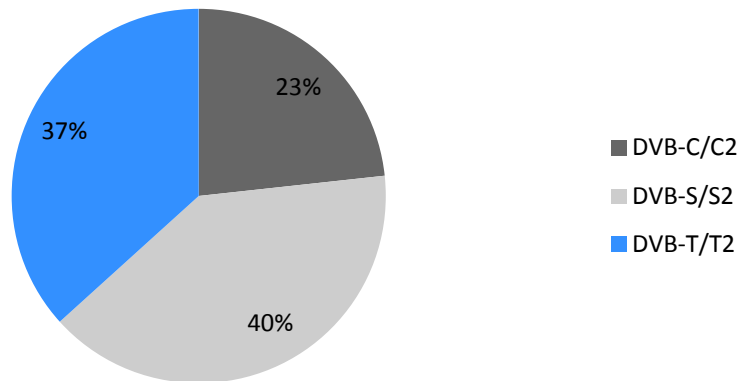


Terrestrial receivers in use - 2011



Growth in DVB will continue across all platforms in both pay and free

DVB receivers in use - 2011

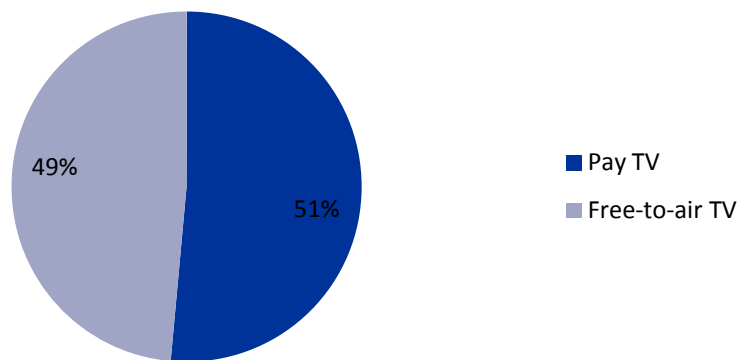


- The current installed base of DVB receivers splits relatively fairly between cable, satellite and terrestrial, with DVB-S slightly ahead on 40 per cent. As a proportion of all DVB receivers deployed, satellite fell by 4 per cent since 2010 while terrestrial continues to grow by reaching to 37 per cent of all DVB receivers currently in use.

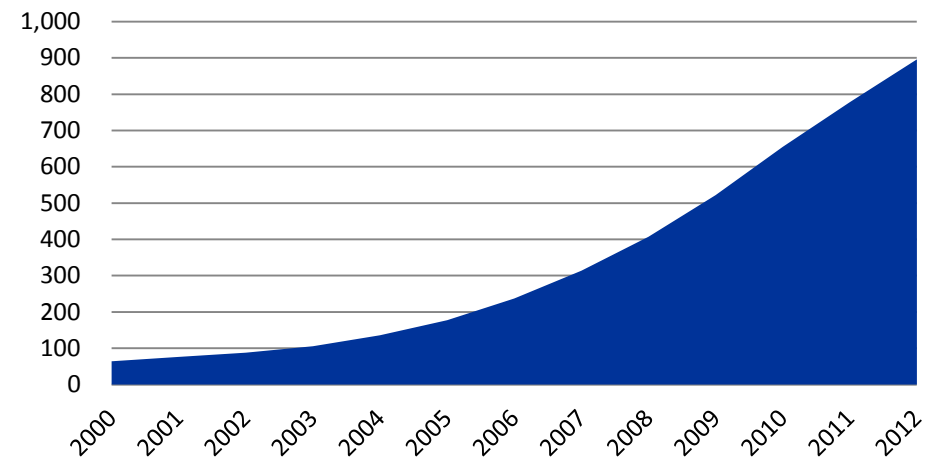
- Overall DVB deployments are evenly split between pay and free. Satellite receivers account for both free and pay; cable is all pay and terrestrial is primarily free.

- Overall, the growth of DVB receivers will continue from 517m in 2010 to 969m in 2015

DVB receivers in use - Pay TV & FTA

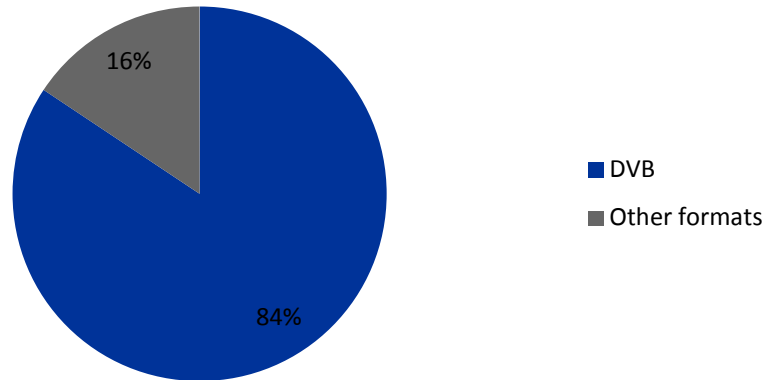


Total DVB receivers in use (m)



DVB makes up the majority of terrestrial infrastructure

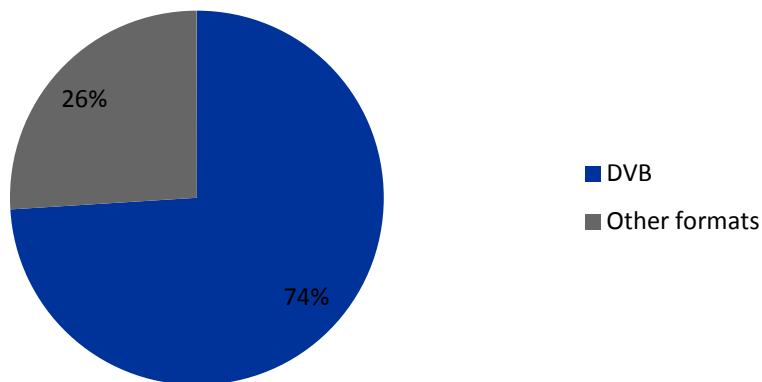
DVB transmitters (installed base) - 2011



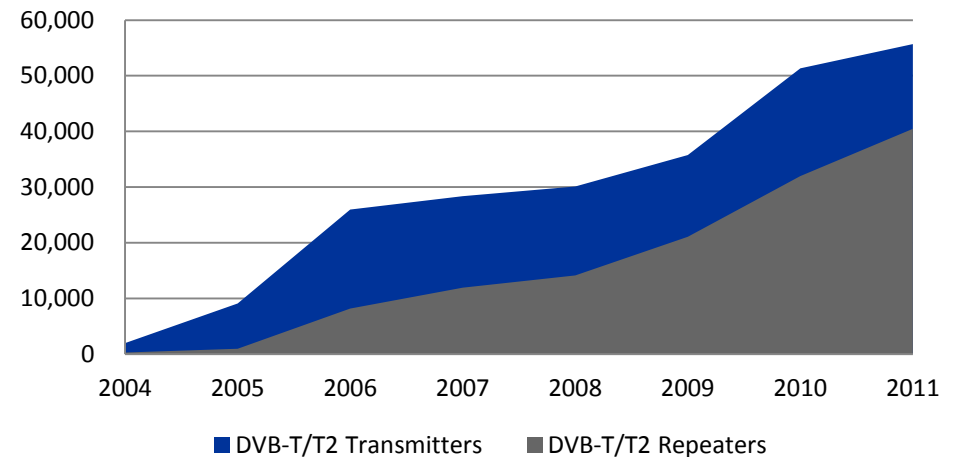
• DVB transmitters and repeaters make up 84 per cent and 74 per cent of the global installed base respectively.

• The majority of DVB transmitters and repeaters are located in Eastern and Western Europe. Spain has an unusually high installed base of low power transmitters

DVB repeaters (installed base) - 2011



DVB transmitter and repeater installed base



Definitions

Methodology

• **STB shipments** - shipments from a vendor to an operator. Just-in-time delivery is assumed so vendor sales and operator shipments are assumed to be within a month or so. Sell-through via retail is not modelled and data is only presented for sell-in by country, platform or operator

Platforms

• **Cable** - Any TV service that is broadcast over an internal wired infrastructure to a STB. Common digital transmission standards include DVB-C and ISDB-C. All cable is considered pay TV although there are lower levels of 'utility cable' penetration, primarily in Europe

• **DTH satellite** - Direct-to-home (DTH) satellite services are TV services that broadcast via a geo-stationary satellite to a receiver that is directly connected to a single house. Common transmission standards include DVB-S, DVB-S2, ISDB-S and S-DMB. All DTH satellite provision covered is digital

• **DTT** - Any TV service which broadcasts land-based signals to an antenna connected to a single house. Common transmission standards include DVB-T, DVB-T2, ISDB-T, DMB-T and ATSC

• **Free-to-air (FTA) TV** - Any TV content that is delivered at no subscription cost to the consumer

• **IPTV** - Any TV service multicast or unicast to a STB using IP over wired infrastructure in a walled-garden network controlled by a telecom company. All signals are digital and are encoded in a variety of forms including MPEG-2, MPEG-4 (AVC) and VC-1 (WM-9)

• **Pay TV** - Any TV content that is delivered at a subscription cost to the consumer or is associated with a paid for package or channels or services

Box technology

• **Connectable set-top box** - Any set-top box which can be connected to an IP network. It typically contains an ethernet port

• **Digital Video Recorder (DVR)** - An integrated hard disk drive (HDD) function built into a STB. Excludes external consumer HDDs activated through a USB

• **HD DVR** - Defined as a class of STB capable of decoding an HD signal and including a DVR

• **HD standard** - Defined as a class of STB capable of decoding an HD signal and without a DVR Bitmap

• **High definition (HD)** - Any resolution standard over 1280x720 pixels, usually 16:9 aspect ratio. Full HD is considered to start at 1920x1080 pixels and is the size used for Blu-Ray Disc (BD) resolution

• **Hybrid set-top box** - A set-top box which is also connectable in addition to having either a cable, satellite or DTT tuner. See 'connectable' set-top box'

• **Multimedia Home Gateway (MHG)** - A converged STB/residential gateway device which directly processes video signals for all IP distribution and routing to multiple client devices in (and potentially outside, rights permitting) the home

• **SD DVR** - Defined as a class of STB capable of decoding an SD signal and including a DVR

• **SD standard** - Defined as a class of STB capable of decoding an SD signal and without a DVR

• **Set-top box (STB)** - Any device used to decode and display TV content delivered in a digital broadcast, multicast or unicast

• **Standard definition (SD)** - SD is a loose term to define a basket of less-than-HD resolution TV standards. This is broadly in line with legacy analogue transmission resolution of PAL, NTSC and SECAM. Broadly speaking, SD signals will have no more than 720x576 pixels of resolution •

Thin client - A partner STB device for use with MHGs used to interface between the IP-based, in-home video signals and a television. Thin clients do not contain broadcast tuners or HDDs port

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