

DVB-S2 Receives Asia Launch

practical solution for decades to come“, commented Peter MacAvock, Executive Director of the DVB Project Office.

DVB-S2 benefits from recent developments in channel coding and modulation that give a 30% capacity increase over DVB-S under the same transmission conditions and more robust reception for the same spectrum efficiency. DVB-S2 is so flexible that it is able to cope with any satellite transponder characteristics, with a large variety of spectrum efficiencies (from 0.5 to 4.5 bit/s per unit bandwidth) and associated Carrier-to-Noise requirements (from –2 dB to 16 dB).

When used for interactive point-to-point applications like IP unicasting, the gain of DVB-S2 over DVB-S is even greater. Variable Coding & Modulation (VCM) functionality allows different modulations and error protection levels to be used and changed on a frame-by-frame basis. This may be combined with the use of a return channel to achieve closed-loop Adaptive Coding Modulation (ACM), thus allowing the transmission parameters to be optimised for each individual user, dependant on path conditions. ACM allows the reuse of the 4 to 8 dB of power which are typically wasted in conventional satellite links, thus doubling or even tripling the average satellite throughput and reducing dramatically the service cost.

DVB-S2 has been optimised for several satellite broadband applications: broadcast services; interactive services including Internet access; digital TV contribution and satellite news gathering; data content distribution/trunking; and other professional applications.

DVB-S2 is not limited to MPEG-2 video and audio coding, but is designed to handle a variety of codecs (MPEG-2, MPEG-4, HDTV). It is so flexible that it supports any input stream format, including continuous bit-streams, single or multiple MPEG transport streams, IP, ATM. This future proofing will allow other current and future data schemes to be used without the need for a new specification.

Background

The DVB Project

The Digital Video Broadcasting Project (DVB) is an industry-led consortium of over 250 broadcasters, manufacturers, network operators, software developers, regulatory bodies and others in over 35 countries committed to designing global standards for the delivery of digital television and data services. The DVB standards cover all aspects of digital television from transmission through interfacing, conditional access and interactivity for digital video, audio and data. The consortium came together in 1993 to create unity in the march towards global standardisation, interoperability and future proofing.

To date, there are numerous broadcast services using DVB standards. There are hundreds of manufacturers offering DVB compliant equipment, which is already in use around the world. DVB dominates the digital broadcasting world. A host of other services is also on-air with DVB-T, DVB-S and DVB-C including data on the move and high-bandwidth Internet over the air. Further information about DVB can be found at: www.dvb.org.

ETSI (European Telecommunications Standards Institute)

ETSI is a non-profit making organisation whose mission is to produce the telecommunications standards that will be used for decades to come throughout Europe and beyond.

Based in Sophia Antipolis (France), ETSI unites 889 members from 54 countries inside and outside

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Europe, and represents manufacturers, network operators, administrations, service providers, research bodies and users.

ETSI plays a major role in developing a wide range of standards and other technical documentation as Europe's contribution to worldwide standardisation in telecommunications, broadcasting and information technology. ETSI's prime objective is to support global harmonisation by providing a forum in which all the key players can contribute actively. ETSI is officially recognised by the European Commission and the European Free Trade Association (EFTA). Information on ETSI can be found at: www.etsi.org.

DVB is registered trademark of the DVB Project.

"DVB-S2 Technology and Markets" is available from Northern Sky Research. Contact Ken Marini at +1 781-826-9484 or visit www.northernskyresearch.com.