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For Immediate Release

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DVB shows Australia "off-the-shelf" HDTV

Sydney, 2nd December 1997 – Today, the Digital Video Broadcasting Project (DVB) broadcast High Definition Television (HDTV) using the DVB digital terrestrial TV transmission system, DVB-T. Making history is the fact that all the equipment used to deliver the HDTV programme was sourced from multiple vendors' "off-the-shelf" products.

DVB-T Digital Terrestrial Television signals were transmitted in VHF Channel 8 from the TCN Channel 9 tower in Willoughby, Sydney. At the reception site, the Darling Harbour Convention Centre, delegates watched an HDTV showreel, in cinematic quality with full surround sound, produced by the BBC, covering the full spectrum of television programme material.

DVB/MPEG-2 compliant equipment used in the broadcasts was provided by the following vendors: NDS Ltd. (Modulators / Demodulators / Multiplexers), Digital Vision (MPEG-2 HDTV Encoder / Decoder), Panasonic (Digital VTR), Barco NV (HDTV Monitors and Video Projector), Sony (HDTV set), Pioneer (Surround Sound System), Snell & Willcox (HDTV-SDTV Down-converter), Harris (Transmitters), NEC (Transmitters), Tektronix (Test & Measurement Tools), Adherent Systems (MPEG-2 Transport Stream Generation and Analysis).

Also vital to the success of the broadcasts were facilities, assistance and equipment from the UK's Independent Television Commission (ITC), the BBC R&D Department and, from Australia, FACTS members Nine Network and Seven Network. The demonstration broadcast, co-hosted by FACTS, the Federation of Australian Commercial Television Stations, was attended by the "who's-who" of the Australian Broadcasting Industry.

Bruce Robertson, executive vice president – engineering of Nine Network Australia, and chairman of FACTS' advanced transmission specialist group, currently investigating available solutions for digital terrestrial television, said:

"Ongoing field tests of the DVB system, together with laboratory test data already gathered on the European DVB system and a competing system developed in North America, should provide us the performance data we need to make the best decision for Australia on digital television."

After the demonstration, **Professor Ulrich Reimers**, Chairman of the DVB Technical Module, commented:

"DVB services for cable, satellite and terrestrial are operational all around the world. Looking at the terrestrial standard, DVB-T, there are probably 10 times more DVB-T transmitters on the air right now than any other digital television standard.

"Companies in Europe have started to deliver numbers of modulators and transmitters to an already active digital terrestrial television market. Today DVB is demonstrating not only Terrestrial DVB, not only 7 MHz channelling, not only an Australian solution, but DVB is broadcasting in High Definition in 7 MHz terrestrial channels.

"Previous HDTV demonstrations, using laboratory-assembled equipment, have arguably done more to show how far away Digital Television is than anything else. All of the equipment that we have used today is commercially available today, off-the-shelf."

Background

For its existing analogue television services, Australia uses 7 MHz terrestrial channels (PAL-B, VHF and UHF) for images with a 50 Hz frame refresh rate. This combination is different from both the US scenario - 6MHz channels with image field refresh at 60Hz, and the European scenario - 8MHz channels with 50 Hz refresh.

"Off-the-shelf" - DVB-T Terrestrial Broadcasting solutions are commercially available in Europe today. They have to be, as the UK switches on more than 30 nationwide DVB-T digital terrestrial television channels in June 1998. With a small amount of optimisation, easily achieved at the source, DVB equipment is ready to use in the Australian environment.

Last year in November, DVB carried out the first demonstration broadcasts of digital television in Australia, carrying standard definition (SDTV) signals in Channel 8, in between two strong analogue signals from Channel 7 and Channel 9, to great success.

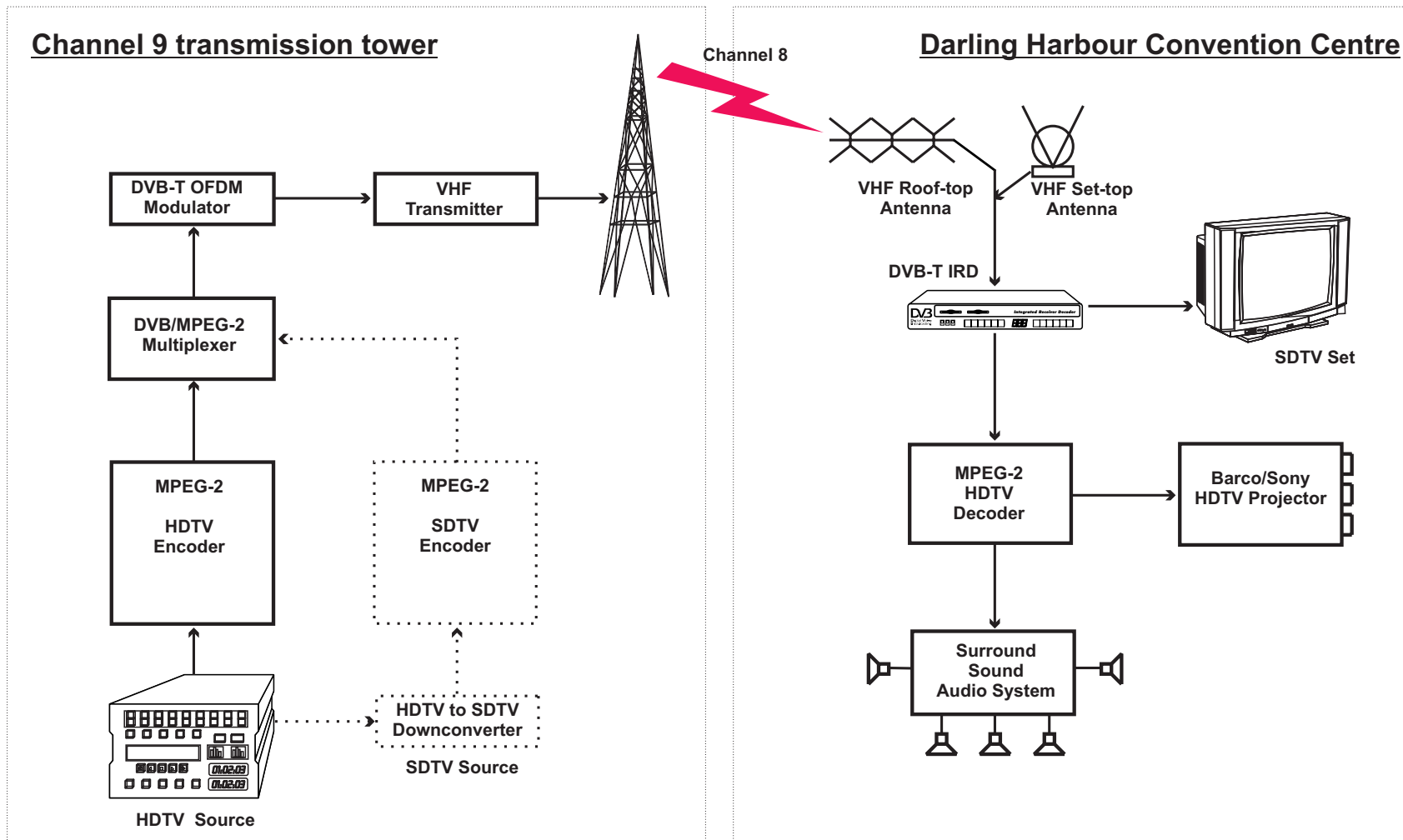
FACTS, the Federation of Australian Commercial Television Stations, represents the interests of all Australian Commercial television broadcasters. Its Engineering Committee is evaluating Digital Terrestrial Television Broadcasting (DTTB) systems in cooperation with the national public broadcasters, the Australian Broadcasting Authority, and the Australian Government's Communications Laboratory.

The **Digital Video Broadcasting Project (DVB)** is a consortium of over 200 broadcasters, manufacturers, network operators and regulatory bodies in more than 30 countries worldwide, committed to designing a global standard for the delivery of digital television. Numerous broadcast services using DVB standards are now operational, in Europe, North and South America, Africa, Asia, and Australasia.

DVB-T is the Terrestrial member of the DVB family of standards, and makes use of state of the art multi-carrier modulation (Coded Orthogonal Frequency Division Multiplexing - COFDM) to ensure extreme flexibility in adapting capacity and ruggedness of signals to suit the "hostility" of the broadcast environment.

Digital TV broadcasts involve converting images and sound into digital code. This digitalisation of images and sound (and data) starts with compression, in order to minimise the capacity required of the transmission channel. In all advanced digital TV systems compression is done to the industry standard MPEG-2. Then follows the modulation whereby the code is formatted for propagation along terrestrial, satellite or cable media.

High Definition Television (HDTV) brings sharp, clear pictures and state-of-the-art cinematic sound to the home. It is also the greatest challenge for digital TV transmission systems, as the higher picture-quality demands at least four times the bit rate required by Standard Definition TV. In services already on the air in Europe, and around the world, DVB standards are used to deliver multiple channel high-quality standard definition and wide-screen (16:9 picture format) television services, including added value multimedia and/or interactive services alongside regular programming.



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**FACTS Engineering Meeting
Sydney 2-3 December '97**

