

informa



Televes Poland

Televes Corporation has launched its Polish subsidiary, which will provide the company an enhanced access to the largest domestic market amongst the new members of the European Union, as well as a strategic platform for its expansion in Central and Eastern Europe.

Televes Poland has its headquarters in Wrocław, which is one of the nation's leading business centres and also enjoys a privileged position as a logistics hub, linking major national and international transport routes.

Poland offers an attractive domestic market with 38 million consumers, a strong economic growth, low unemployment rates and favourable conditions for investment, especially in our field due to the DTT deployment and the hotel infrastructure development, boosted by the UEFA European Football Championship that Poland organizes with Ukraine in 2012.



DTT: the challenge ahead. Poland has been the last European Union nation to start the transition to digital terrestrial television (DTT), a process which will not be complete until July

With its own sales and technical team, Televes Poland will follow the Corporation's strategy, based on providing integral solutions for domestic and SMATV installations (multi-dwelling units, hotels, etc) as well as for CATV and broadcasting operators, giving a good service to its partners (personalized training, fast and professional technical support, efficient logistics, ...).



Luis Romero
Managing Director of Televes Poland



2013. Thanks to the major role played in the successful analogue switch-off all over Europe (Spain, France, UK, Italy, Germany, ...), Televes is ready to provide its experience and technological know-how to the process in Poland.

Televes Poland is the latest pillar in the multinational structure of Televes Corporation, which already has subsidiaries in eight other countries: Portugal, France, Germany, UK, Italy, USA, China and UAE. Taking advantage of its geographical location, historical and cultural links, Televes Poland should become a platform for the expansion of the company in Hungary, Czech Republic, Slovakia, Lituania, Latvia, Estonia, Ukraine and Belarus.

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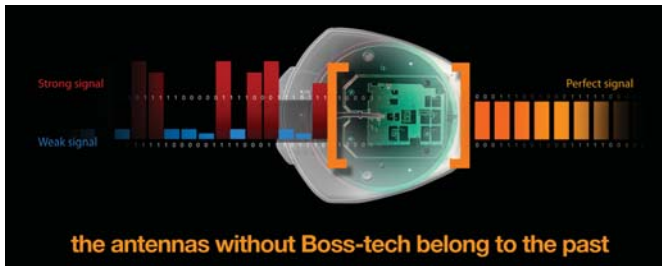
OMNI-NOVA BOSS

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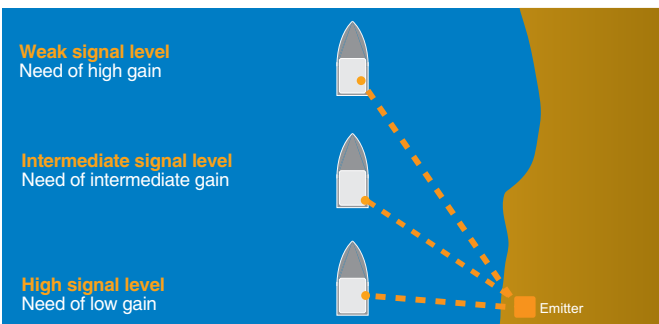
The BOSS (Balanced Output Signal System) technology provides many advantages to the antennas, remarkably improving the quality of the signal they receive.

Already implemented into the DAT HD BOSS antenna with proven success, it was very easy to develop it into the rest of the high-end antennas.

That is how the Omninova BOSS antenna is born. Combining its omnidirectional radiation diagram with the advanced BOSS technology, it guarantees the best signal and the best conditions for TV distribution on boats and caravans.



■ Corrects the signal fluctuations, autoadjusting the output level to the optimal value, independently from the input variations. The signal reception will remain protected against fluctuations, in a transparent way for the user.



- The evolution of the number of channels is not important. At the antenna output the spectrum will be: without intermodulation, without noise, with the best possible BER and the C/N optimized. The antenna adjusts itself to future channels.
- Adapts itself to the received signal level. When the installer fits it, he does not have to worry about the input level as the antenna guarantees the most adequate output to the received signal.
- Keeps the output level independently from the radioelectric spectrum in the moment of installation.
- As it is omnidirectional, it doesn't need to be aligned.

UHF		
Polarization		Horizontal Omnidirectional
Gain	dB	30 max. auto-adjustable
VHF		
Polarization		Horizontal Omnidirectional
BI Gain		26
FM Gain	dB	20
BIII/DAB Gain		28
AM		
Polarization		Horizontal Omnidirectional
Gain	dB	-1

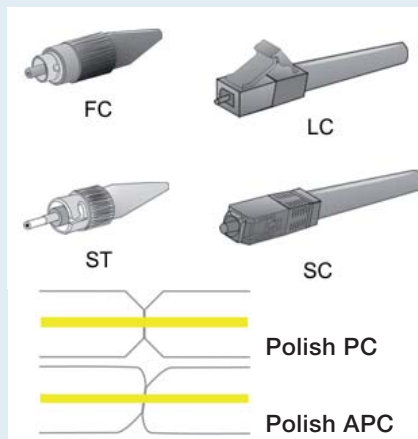
FAQ

Fiber Optic Connectors

The fiber connectors are identified by two acronyms: one referring to the type of connection and the second one referring to the size and polish of the fiber ferrule.

The attached figure shows several connectors, FC, ST, LC or SC depending on the type of connection and the PC (Physical Contact) and APC (Angle Physical Contact) polishes.

Although compatible at first sight, they could lead to network failures, including total loss of signal. For example, you cannot connect a fiber with a male SC/PC connector and a device with a female SC/APC connector, as the signal is completely degraded.



The compatibility between fiber connectors must consider connection and polish.



Your pictures

The Intelligent Antenna



We could never guess what this DAT HD BOSS has done wrong to be "punished" against the wall.

Luckily, despite its installation, its BOSS Tech still provided the best possible signal.



Real Installations

Headend of the Barcelona Olympic Stadium

The European Athletics Championships 2010 took place in Barcelona.

Two companies, *Telecomunicacions digitals d' alt nivell, S.L.* and *Antenas y Telecomunicación RX sat, S.L.* have provided the CCTV headend of the Olympic Stadium, implementing the transition to DTT with TELEVES equipment.



Ideas

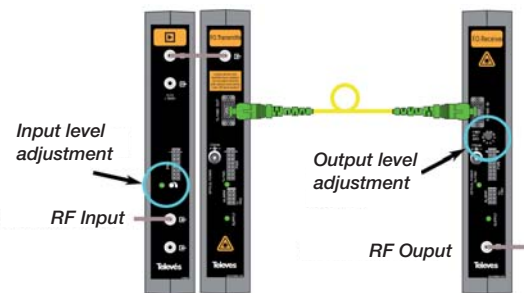
Installations adjustment with the line C/N

Despite the analogue switch-off, analogue signals (the most sensitive to noise) can be very useful as a pattern to evaluate the quality of an installation or to adjust it, specially headends, cascade amplifiers or even fiber optic links.

To do that you can generate an analogue channel and measure the line C/N with your H45. The highest line C/N value assures the best transmission conditions in the network.

In the specific case of an optic link, the input level on the transmitter and the receiver gain are parameters that, although they have to be calculated, can be adjusted using the line C/N of one of the analogue channels generated by the headend.

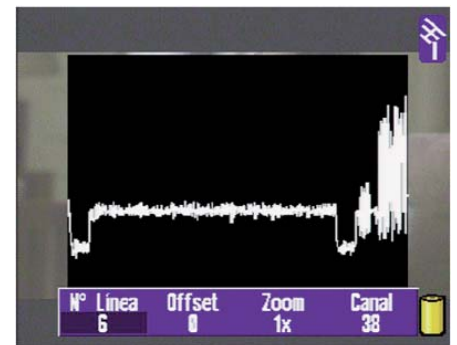
Quality adjustment controls of an optic link.



Adjustment check-up (numeric mode).



Adjustment check-up (graphic mode).





DTT reception and fading effects in the coast

Article based on the winning report of the contest "1000 antennas, 1000 solutions", made by Pedro Córdoba Osta, Senior Telecommunications Engineer (A.I.T. Marbella)

The phenomenon consisting in the power variation of TV signals due to the alteration of the propagation conditions in any section of the path between the transmitter and reception site is called "fading". This is a typical effect in the coast where temperature, humidity and tides generate different propagation conditions in terrestrial and marine sections, especially during the summer due to the higher evaporation in the trajectories over the water.

Adding the overlapping of signals coming from multiple transmitters (multipath effect), the quality and stability of the signal become very poor. This is the reason why it is very important to find solutions that minimize both effects.

The report on which is based this article shows the fading and echoes phenomena suffered by the population of San Pedro de Alcántara and Marbella (over 700.000 people in summertime) that receive TV signal from San Roque, Marbella, Mijas and Sierra Lújar transmitters, almost aligned and transmitting in the same frequencies (SFN network).

The figures below show the day evolution of the signal in the location marked in red.

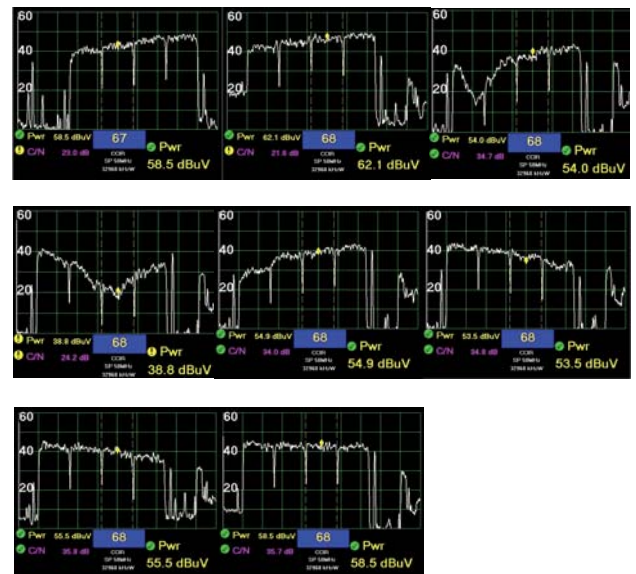
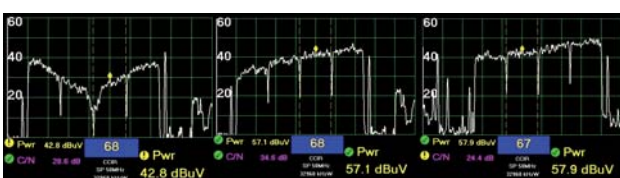
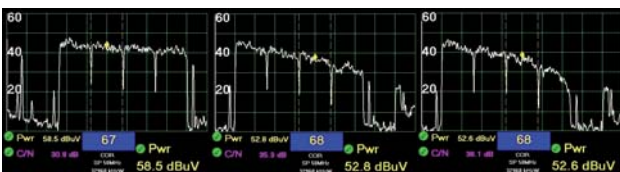


Location of the test site, with the different transmission centres of the area.

Samples of one SFN channel taken approximately every hour, from 10am. The irregular behaviour of the signal coming from the different transmitters is clearly shown.

The figures show how when night falls, the temperatures drop and the signal recovers its stability. However the better propagation conditions, increase the multipath (echoes) effect and the receivers continue having serious problems.

The DATHD Boss, designed to reduce the impact of echoes and to maintain the output signal stable independently from the input variations, is the antenna with the best features to minimize both effects.



Measurements

The measurements taken in the test site with a an antenna well positioned in the market, and the DAT HD BOSS with the BOSS Tech not activated and activated, were:

Our closest competition:

CHANNELS	Level (dBµV)	MER (dB)
DTT		
57	53	22
63	45	23
66	43	23
67	43	18
68	41	22
69	43	22

BOSS Tech not activated:

CHANNELS	Level (dBµV)	MER (dB)
DTT		
57	54	23
63	49	24
66	45	23
67	44	20
68	43	22
69	46	22

BOSS Tech activated:

CHANNELS	Level (dBµV)	MER (dB)
DTT		
57	59	25
63	59	25
66	56	25
67	57	21
68	55	23
69	56	23

If the results with the BOSS Tech not activated are already good, with its activation the signal quality is clearly improved.

- Power levels equalization.
- Stable and strong signal.
- MER improvement.
- Echoes discrimination improvement. The impact of the signals from San Roque disappears.

Conclusions

Measurements made with the DATHD BOSS show its high capacity to minimize the impact of echoes and to absorb large fluctuations caused by fading, thereby improving signal quality significantly.