# **Televes**<sup>®</sup>

# enforma



# Wind Power Expo:

Televés demonstrates its potential in the market of towers

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The Aragonese institution trade fair organized the exhibition Wind Power Expo, which reached its eighth edition, together with Solar Power Expo, Power Expo + and ExpoRecicla, thus gathering a remarkable representation of the principal business of the renewable energy field. The formula allowed to

rendezvous professionals from 39 countries, with over 8,500 visitors, according to organizers.

And there was Televés. With a well designed and crafted stand, a catalog according to the needs of customers and the presence of well qualified staff to highlight the value of most significant technical aspects.

### Knowledge and experience

Televés has a long tradition in the manufacture of towers. More than 25 years ago began to design, manufacture and market small antenna towers, and gradually began to increase the technical complexity of these products, to mark a milestone in 2001 with the completion of its first tower of 81 meters of the series 600. A subsequent redesign allowed to reach 102 meters high in this model.

In Wind Power Expo 2011, Televés gave a very important step to consolidate its position in this market by providing a catalog aimed at the wind energy business, which meets the current requirements.

Wind power developers and installers increasingly demand installations of greater height, more competitive in price and easier to assemble. And Televés proved that its new range of braced towers, fully meets these requirements. It consists of ten basic models, with heights ranging from 39 to 120 meters, all of which benefit from a manufacturing process using an automated assembly line, a process



that increases product reliability, while reducing the time customer delivery.

The new towers of Televes increase their resistance against the most adverse weather conditions, are characterized by a new type of removable fittings that improve its anticorrosion treatment and facilitates assembly and maintenance.

### Advanced software

From Televes stand in the Wind Power Expo, also worked to highlight the importance of the new calculation software used for the design process.

This software allows to simulate different configurations and multiple factors affecting the viability of each project: wind speed, terrain, topography, and so on. All of this meeting, and in many cases exceeding, the highest standards of quality and safety, including standard TIA 222-G U.S. and European standards EN 1990 (Basis for the calculation of structures), EN 1991 (Actions on structures) and EN 1993 (Design of structures of steel).

Televes staff present at the show worked intensively with leading wind power promoters (e-On, Acciona, Gamesa, Vestas ...) and leading installers. Due to the potential of this niche, it also was taken into account the manufacturers and installers of domestic use small wind turbines. All of them were informed about the company's ability to perform customized studies for particular structures required to be installed.

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# Product news

### **MINIKOM** New range

We present the new Minikom range of amplifiers with new features and improvements resulting from our development experience and the invaluable information that our customer network provides. With these improvements we hope to satisfy all needs that demand TV facilities in the new scenario of terrestrial DTT.

The following table shows the equivalences between the extinct and new references.

New Ref	Ref being substituted	
537302	5373	
539104	5391 + 5386	
5392001	5392	
5319201	5312 + 5395	

There are a number of improvements to share all these amplifiers, and, depending on the reference, other modifications particularized for each of them.

In general, shared improvements are:

- ► Split-band amplification to improve the output voltage without interference between VHF and UHF.
- ▶ Attenuators in each of the inputs, implemented through PIN diodes (0-20dB).

Automatic powering of pre-amplifiers at 12 Vdc in all inputs. It can be disabled by means of an external switch.

> Ability to select low or high gain using an external switch.



### Ref. 531201

3 input Minikom amplifier (FM-VHF-UHF).

### Ref. 539201

Minikom 4 inputs: FM-VHF-UHF1-UH2 and 1 output + test.

Ref. 539104

5 input Minikom amplifier (FM-VHF-BIV-BV-UHF) and 1 output + test.

### Ref. 537302

1 Minikom of VHF / UHF and 1 output + test.

# FAQ

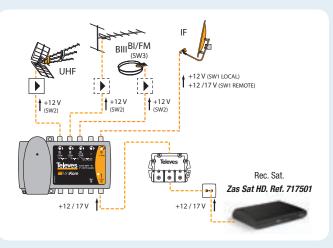
### Peculiarities of the amplifier 5396. How can you control a LNB?

The reference 5396 is an amplifier with 4 inputs and one output + test, split-band amplification with all the benefits that entails, avoiding interference

between VHF and UHF, and allowing a higher output level.

The peculiarity of this amplifier is that allows receiving terrestrial and satellite signals, and control the polarities of LNB from the domestic receiver. The amplifier can power preamps to 12 Vdc from all its inputs. This powering can be canceled by a switch located at its rear.

But, How can manage the LNB this amplifier? 1. From your domestic receiver, you can select the desired polarity by enabling the





tensions 12 or 17 Vdc. For this purpose, position the switch SW1 in REMOTE.

2. Only a fixed polarity can be selected. For this, the SW1 is positioned in LOCAL, resulting in constant 12 Vdc that are sent to the LNB, and thus sets the vertical polarity for that voltage.

# Your pictures



All installers know that for an antenna can receive TV signals, must not have obstacles between it and the transmitter.

The circumstances surrounding the installation of an antenna can be varied and the search for the transmitter free of obstacles forces to sharpen the senses. This may be an example of how to solve the problem, although this mast has to do an exercise in contortion worthy of a circus.

Needless to say that, with a collective MATV installation in the building, you can avoid situations like this.



# **Real Instalation**

### Installation in the arena of gdansk (Poland)

Trias projected installation, engineering and integration of AV events, with the collaboration of Audax as a distributor.

The aim of this complex facility is to overcome, by means of optical fiber, the distance between the box of ticket sales and the stadium.

The installed system ensures the delivery of signals to the headends of the stadium.



In this case, the color of the Televés brand is also a perfect complement to the stadium. Gdansk is a city that is always associated with amber, whose characteristic colors have been adopted in the construction of the spectacular stadium, which was officially opened this year with a match between Poland and Germany. The stadium will be one of the venues for the Euro2012.

The installation consists of:

- 2 1100 × 7572 offset antenna
- > 2 x 2353 optical LNB (Astra and Hotbird)
- 2 × 2350 MDU QUATTRO
- 2 × 5x16 Multiswitch
- 1 x DAT HD 149501
- 1 × 5326 Avant 3
- 1 × 8674 Optical Transmitter
- ▶ 1 × 8675 Optical receiver
- 3 x Lightning Arrestor

# Ideas

### The advantages of 19 inch cabinets

There are many advantages offered by Televés with such cabinets for headends. They are offered preassembled and tested, turn-key, to be directly installed at its final destination.

### ROBUSTNESS

On the robustness of the cabinet, allied with the ease of installation, it is possible to remove the side doors, and thus easily accessible anywhere inside.

Incorporating wheels, allowing greater mobility at the time of installation and subsequent maintenance.

### ADAPTABILITY

The placement of 1 height unit (1U) blank panels greatly greatly facilitate the configuration of the headend, and make the racks can be adapted to any setting.



It is a professional solution. The assembly is performed

by qualified personnel. All racks are factory tested and adjusted so that the intervention of the installer is the minimum possible, while ensuring a high level of reliability. On the other hand, the preparation of the cabinet does not imply any extra cost to the customer.

### EVOLUTIVE

These assemblies are designed to evolve with the needs of the market, at any time.

### REMOTE CONTROL FOR THE INSTALLED HEADENDS

By installing our TSuite software, the headend can be re-programmed remotely, adjusted to the changes in the programming of the operators without having to travel to the headend in its location.

### PRACTICAL

All connections are made inside the cabinet and converge into a single output, checked and adjusted for the distribution of the signal in the network.

### SUPPORT

Technical assistance is available "on-line", or in the same work if that were necessary.



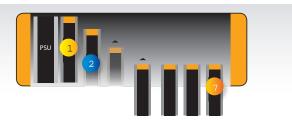
# Training



Televes makes available to the hotels the best solution to integrate on their televisions all the satellite FTA contents via a DTT installation.

Here are some possibilities among many options offered a solution soflexible.

For FTA HDTV channels broadcast by satellite, install a T.0X DVBS2-COFDM transmodulator Ref<sup>a</sup>. 563101 per package of channels that you want to configure. With a single power supply can power up to 7 modules.



And with this arrangement you could see that national channels listed below:

Channels				
Telemadrid SAT	Spanish	Autonomic		
Andalucía TV	Spanish	Autonomic	ASTRA 19.2° E Freq.: 11597V TP 26	
TV3 Cat	Catalan	Autonomic		
Extremadura TV	Spanish	Autonomic		
ETB SAT	Basque	Autonomic	ASTRA 19.2º E Freq.: 11509V	
Galicia TV	Galician	Autonomic		
Cubavisión Internacional	Spanish	General		
Al Jazeera	English	Information	TP 20	
NHK World TV	English	Japanese general		

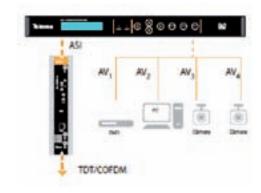
Similarly, you can access a wide variety of international channels on various subjects, and the picture quality of a broadcast DVBS2. Simply contact a qualified installer to install the headend, and a whole world of possibilities will reach: English-language channels such as CNBC, BBC; in German as ZDF, 3SAT, RTL, Eurosport, ...; in French as TV5 Monde, France 24, France 3 Sat, ... etc.; channels in Italian as all of the Rai broadcaster.

And, if the question is to plunge into the world of DTT, Televés also offers all solutions for its reception, in any format of quality for TVs with or without integrated digital tuner, FTA or PPV.





And furthermore, if you want to offer your own channels on offer, also we provide the solution:



Come to the world of Televés, and share with us the benefits of an extensive program of channels with the best quality picture and sound:

▶ A single remote control unit to watch FTA satellite channels and all thenational and regional DTT.

No subscription fee.

▶ TV flexible and customizable to the profile of its customers and in all rooms.

▶ No works. Easy installation without interruption of services to your customers.

This system also provides remote configuration and management, thanks to the Tsuite software application, offering the possibility of maintenance or configuration changes in real time.

