INF⊙Televes ®

INFO TELEVÉS
TURNS 25

Being close to our customers is an identity trademark for Televes. 25 years ago, an initiative that sought to take an important step to fulfill this vocation was launched. Televes INFO bulletin was born with a first issue dated March 1991. That edition was modest in volume and content, but harbored the germ that has guided its development: to provide timely insight into the evolution of technology, report the news regarding the company's catalog and to reflect the initiatives taken by Televes in key areas such as sector training.

Throughout these years, our INFO has grown in many ways. First, in variety of content. It has incorporated sections dedicated to answering technical questions; to show the increasingly active presence of the company in technical and commercial events; to provide useful ideas; to present installations that deploy advanced solutions, or display a touch of humor through photos with the most creative ways our customers use our products.

The development of the newsletter has been forged in parallel with the evolution of our company. Thus, with the exponential international growth of Televes, so too did the translated editions; the first was Portuguese 2004. Six years later, the international edition was launched with versions in English, French and Italian. The latest additions in Polish German and Russian make up a wide array of languages with some personalized content for each market. At the same time, INFO Televes has adapted to ever changing technologies and today is available from anywhere in the world through their digital editions.

It is now the time for a brief celebration of INFO 25th Anniversary. We thank you, the readers, for your continued loyalty and we renew our commitment to continue improving our newsletter and to continue at your side ■

THE PREMIUM RANGE OF TELEVES DISHES IS CHARACTERIZED BY ITS DURABILITY AND A DESIGN THAT MAXIMIZES THE ACCURACY IN RECEIVING THE SATELLITE SIGNAL

AND ALSO...

Why does't the CoaxData Manager work when is executed from a CoaxData Gateway?
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Connecting satellite signal taking advantage of taps
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INFO Televes also available in: French, German, Italian, Polish, Portuguese and Spanish.

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MEETING POINTS

Visit us at:

Televes

Andina Link (Colombia)
March 1-3

*True to its commitment to Latin American markets, Televes attended this key event for the television and telecommunications sectors, which has reached 23 years of experience. Televes exposure was focused this year in the **Hospitality industry**, with **FibreData solutions for GPON** networks.*

CABSAT (Dubai - UAE)
March 8-10

*This event is the perfect platform to open new business opportunities and strengthen ties with our customers in a very dynamic region, where Televes is well known and appreciated. Televes exhibited **FibreData and CoaxData** QuadPlay infrastructure solutions for the **Hospitality sector**.*

Mobile World Congress
(Barcelona) February 26-28
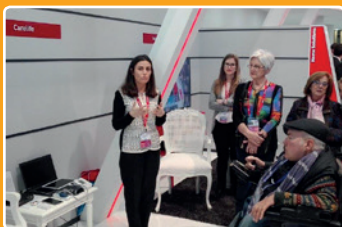
*Televes presented **CareLife**, a comprehensive system that aims to **improve the quality of life** for older or dependant people at their homes, from the perspective of promoting an active and healthy aging process.*

The presentation of CareLife was conducted jointly with Red Cross Spain within the spectacular Vodafone booth, where product demonstrations were held ■

FAQs

Why CoaxManager does not work when is executed from a CoaxData Gateway?

The Gateway needs to be configured to be detected by a CoaxManager.

THE EXPERT SAYS

The Gateway (Ref. 769301) is very particular type of slave. Its internal configuration has two independent blocks: a CoaxData slave with a coaxial interface (WAN) and a LAN interface which has two different interfaces: ethernet and WiFi.

In the installation and testing process the CoaxManager is executed by an ethernet port of the Gateway. When doing this, it is important to bridge the ethernet interface with the Coaxdata slave. This means that the Gateway should be previously configured in "AP Bridge". If not CoaxManager will not be able to access the coaxial part of the device.

Once the installation and network optimization are set up, the initial configuration Router mode needs to be restored, as well as adjusting it depending on the final configuration required ■

ALWAYS AT THE LAST   *TSuite in Play Store & App Store*

The T.0X headends can now be controlled remotely through mobile phone apps for iOS and Android.

Tsuite and also its Windows version is now available in those platforms. Thanks to this the adjusting work and the remote monitorization of Televes headends will be now possible from smartphones and tablets. The installer will be able to provide immediate services of maintenance and installation ■

YOUR PICTURES

A traveler dish

It is very grateful to see how Televes can make wait times more pleasant.

In this image sent by Carlos Pérez, an installer from Socuéllanos (Ciudad Real), a satellite dish is placed on the top of the lorry cabin. We think that it is a witty way to provide entertainment in parkings or rest areas .

In this case the lorry just needs to be parked facing south ■
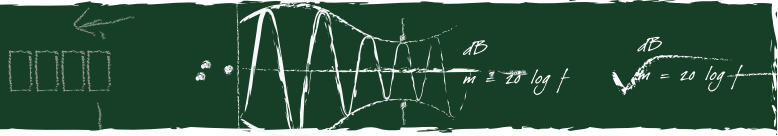
Planning a GPON installation with FibreData

The supply of telecomumnication services to hundreds of users requires an early planning.
Organising the process is key to save time and minimise errors.

A GPON network has some parameters that need to be configured in order to supply all the services by the OLT.

In a FibreData system those parameters are:

1. SERVICES

To specify the services and the traffic type associated.

In the image there are 5 services types and their associated traffic types.

2. DOWNLOAD TRAFFIC PROFILES

To specify the bandwidth available for users. For each bandwidth is required to specify how the traffic is managed.

3. UPLOAD TRAFFIC PROFILES

It is the same process as above.

4. ONU PROFILES

To specify what ONT types there are on the GPON network. The OLT needs to know the interfaces and functions of each ONT type.

In the example there are three products of the Televes' ONT range.

5. CONFIGURATION OF THE ETHERNET AND PON INTERFACES

Each GPON service is associated to a VLAN. The tagging of each VLAN can be done from the router or from the OLT itself. Also each ethernet interface input can be associated to one or serveral services.

6. DISCOVERY

Once the services, the interfaces and the profiles are associated, the OLT will recognise the ONT that is in the PON netwok. The administrator will have to set up them into the network.

7. ONU ACTIVATION

The last step is to activate the associated services of each ONT. To do so you will need to access the web interface of each ONT which is also accesible through the VLAN "management" admimistrator or any other ZTC or TFTP tool.

If you know all the steps and parameters to be adjusted, the configuration of a GPON network is easier. The best way of a having a network managed efficiently is to have a good planning of the services and profiles ◼

TELEVES FACILITIES

AWO Residenz (Cadolzburg - Germany)

AWO *Residenz* CADOLZBURG

In the AWO residence home in Cadolzburg (Bavaria), as the distance between the satellite dish and the headend is greater then 50 m fibre optic technology was the best option.

Within the first stage of the project, 220 users have received high quality TV. A 100 cm dish with an optical LNB (Ref. 2353) received the signal from Astra 19.2 º. This signal is transmitted by fibre to avoid losses and the conversion into RF is carried out by a converter (Ref. 237002). The RF signal is then injected into a 5x12 multiswitch connected directly to a Televes transmodulation headend

which converts its DVB inputs into a 8 QAM multiplexes and also a DVB-T into a QAM. Once every channel is in QAM, an optical transmitter will send the signal to the different buildings using a 1310nm wavelenght and 10dBm of optical power.

In the first stage of the project, 5 building were commissioned. Once the optical signal is received, 16 optical receivers per building (Ref.2311 and 231201), this signal will be converted back into RF ■

IN MEMORIAM

A heartfelt goodbye to designer Carlos Rolando

Marketing and Communications designer Carlos Rolando past away last February 3rd in Barcelona, at the age of 83. Argentine by birth, Rolando had been established in the catalonian capital since the late 60s, and from there he embarked on a path that would place him as an icon of his profession in Spain. Televes trusted him in the beginning of his career, and **he is credited with one of the most successful decisions in the history of the company***, at least from a marketing point of view.*

Rolando was a **great defender of adopting orange color Pantone 137 as the corporate identity and its application to satellite dishes***. It was 1972 and building roofs began to be populated with the*

distinctive color that to date has been the authentic Televes flagship. Bestowed in 2005 with the National Design Award; Rolando was a great advocate of the role of visual elements in marketing and communication, and throughout his long career he developed countless logos and identifying icons for private companies, institutions and sector events. Amongst the latter, we recall the logo for the Universal Exposition in Seville in 1992 or, more recently, the image design for the Madrid 2016 Olympic bid.

We remember him for his bold vision, good craftsmanship and the great contribution he made to the Televes brand ■

IDEAS

Connecting satellite signal taking advantage of taps

The main advantage of taps is the possibility to interconnect them and attenuate the signal in order to reach a balanced network. For this reason some taps have the same outputs but different attenuations. Originally taps had not the current between the outputs and the input.

Televes has developed a wide range of taps which have the advantage of splitters (they have current between outputs and input) and also the advantages of taps (the adaptability of the attenuation to balance the installation) in just one device: the **"all DC" taps**.

An example of application would be an installation of TVSAT in which the sockets have different distances between them so that is required to balance losses. In this case a combination of three taps would fit in the installation even with a 1U panel (Ref. 530710) ■

Load 75Ω (Ref.4061) or Cascade (to next panel)
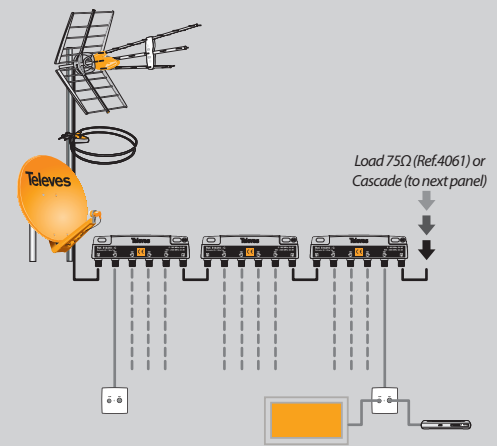
Tap 5-2400MHz 4D "F" DC ALL

Ref.	Attenuation	Type
514110	12dB	TA
514210	16dB	A
514310	20dB	B
514410	24dB	C
514510	29dB	D

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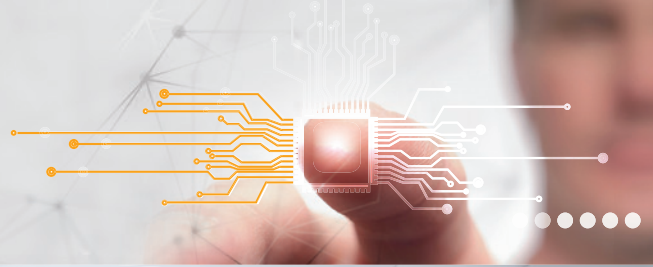
MMIC circuits: an exponential leap in component design and manufacturing

The immense possibilities offered by this technology enable a new generation of Televes equipment and opens the door to diversification into highly technical and competitive sectors

Making its own printed circuit boards (PCBs) has become one of several Televes brand traits, all driven by the historical need to employ self-sufficiency and technological development as a survival mechanism. When in 1983 Siemens decided to export its first Surface Mount Components (SMD) machine outside of Germany, it was Televes who acquired it. That investment in a technology that was virtually unknown in the industry, confirmed the company at the forefront of manufacturing.

True to its nature, Televes now goes a step beyond and has committed to **designing and manufacturing its own line of components using MMIC** *(Monolithic Microwave Integrated Circuits)* technology.

Once again, a huge leap forward that will give a substantial competitive edge to the company. MMIC drastically reduces constraints when designing advanced products. With traditional electronic components, designers must limit their requirements to the technical specifications offered by component manufacturers in their Integrated Circuit catalogs. With the MMIC technology, however, **Televes can now produce its own components** to whatever stringent and challenging specs defined. The designers now have their own imagination and industrial ingenuity as the only virtual limit.

Manufacturing the MMIC circuits is performed with compounds of semiconductors such as gallium arsenide (GaAs), gallium nitride (GaN) and silicon germanium (SiGe). Gallium arsenide offers advantages such as its ability to work at high frequencies and high resilience which prevents interference. Active devices, transmission lines and passive components devices can now be integrated on a single substrate, creating circuits so small that you must use powerful microscopes to handle them.

From a commercial point of view, MMIC component manufacturing will enable Televes to develop a new generation of equipment

in the field of television signal distribution and measurement. But surely the progress goes further along, since it will boost access to sectors as technologically demanding as Avionics, Defense, Energy or Automotive.

This investment, vast and intense in human and economic resource allocation, is only available to a company that has innovation in its core DNA, and it confirms the strategic vision of Televes to remain a leader in its core business, while gravitating towards incipient emerging technological markets, an orientation led by the *European Digital Agenda* and within the framework of the *EU Horizon 2020* Program ▪

THE FRAMEWORK PROGRAMME FOR RESEARCH AND INNOVATION

EUROPEAN COMMISSION

HORIZON 2020

INNOVATION UNION

The new generation of TV services and the growth in tablets and smartphones usage require telecommunications infrastructures optimized to provide stable systems with high capacity data services and TV on demand.

HIGH–CAPACITY
NETWORK DATA ARCHITECTURE

FIBREDATA RANGE
Fibre optics solutions for GPON networks that allow the management of Triple or Quad Play services so as to offer tailor-made service packages.

COAXDATA RANGE
Coaxial systems that make possible to use the existing installation to provide television services and high-speed internet access.

My NET WiFi

My NET WiFi *A wireless access more efficient, responsible and reliable*

100% Designed, Developed & Manufactured in Televes Corporation
televescorporation ▪ televes.com ▪ televes@televes.com

Televes®