# Televes®



# Entering the 5th revolution: communication infrastructures in buildings and homes

We can see the light at the end

of the pandemic tunnel and the

telecommunication infrastructure

sector has an incentive for the future

This month is the second anniversary of the global burst of the COVID-19 pandemic that was followed by a long period of human, economic and social losses like we had not experienced for generations. However, it seems like there is a light at the end of the tunnel. Health authorities are announcing sustained reductions in the incidence of infections – which now involve less severe symptoms – easing the burden on the healthcare system.

It gives the impression that the time has come for us to stand up and look into the future. But what about our sector? The telecommunication infrastructures in buildings and homes, what will it bring us?

Throughout history, networks specialized in the distribution of communication, information and leisure services in buildings and homes have experienced four main revolutions:

The emergence of **landlines** prompted the **FIRST REVOLUTION**. In the 1920s, homes started to integrate dial-up copper-pair connections. Back then, the telephone changed undeniably the way people used to communicate, and the first internal cabling was installed.

The creation of **TV** led to the **SECOND REVO-LUTION**, which went as far as the 80s thanks to satellite. The considerable deployment of coaxial cable and equipment required for telephony, analog and satellite TV brought about the standardization of internal networks.

It is not until well into the 21st century that we could witness the **THIRD REVOLUTION**:

broadband access that provided our homes with **Internet** services. Integrating additional network appeared to be necessary, and this forced a thorough revision of the ICT to include the Service Operators and Providers (ISP).

Audiovisual contents called for speed rates that were compromised by coaxial-cable. The **FOURTH REVOLUTION** involved the development of a new transport method: **fiber optics**. This technology has brought about a new way of distributing telecommunication services.

#### Are we on the threshold of the fifth revolution?

Buildings must go one step further. Apart from

connection and distribution, it is reasonable to imagine that **intelligent buildings** can be developed. Their features are based on the Internet of Things (IoT), which would allow for the implementation of an intelligence

for every object and person. The **fifth revolution** could be, thus, originated by **intelligent maintenance and sensorization** of building infrastructures beyond telecommunications themselves. Thanks to this objective, synergies have been created in Europe to finance the required renovations of buildings – such as the Unique Building project in Spain – by means of NextGen funds.

We are living, indeed, tough times, but telecommunications keep evolving and our sector will always have a reason to grow and transform. Televes will be there, by the side of technology and also of installer and integrating companies providing telecommunication services in buildings and homes

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televes@televes.com



### Thomas Banhart. Sales/purchasing agent at Televes Germany

#### What is your job at Televes?

My main job is to manage sales and be in contact with our customers on a daily basis, taking care of any needs they may have. As this is a company with an important presence in the market, it is also necessary to organize fairs, commercial campaigns and offers. In addition, Televes Germany has its own local providers, so I am also in charge of purchasing.

# How long have you been with the company? Could you describe your career at Televes Germany?

My career started with the previous company – Preisner – in September

1993. Transmission technology was strictly analogical back then and I was the very first employee of the company. When Preisner became Televes Germany in 2008, we grew being part of new work teams. For 28 years, I have been involved in just about every activity of the company.

### What is the most satisfying thing about your job?

The fantastic relationship we have with our clients; we are in contact with them every day



The successful integration of Preisner's infrastructure into today's Televes Germany has added perspective and future vision

and we are proud to provide them with our high-quality products. From a long-term perspective, it is about the successful integration of Preisner in today's Televes Germany - we have an optimistic and motivating outlook on the future.

#### And the hardest part?

The toughest challenge is, without a doubt, the evolution of the CO-VID-19 pandemic, as trade fairs cannot be celebrated and on-site training is limited. Personal contact with clients is, thus, restricted, which makes it difficult to show new products and technological solutions. Besides, both the current's supply situation and the fast increase in the price of raw materials are an additional and extreme challenge for every area of the company.

### What in your opinion are the key values in the company?

It is all very well condensed in our corporate slogan "Passion for Quality", which shows both the development and the production of Televes products. This is supported by a professional and close service, as well as by innovative sales ideas that lead the way of growth in which the new business areas and products are taken into account.



#### FIRST ANNIVERSARY OF THE DATACOM LAUNCH

It has been a year since the new area of structured cable Datacom was first launched. Televes has taken advantage of its expertise in the area of network technology to provide installers and system integrators with a much wider support service, thanks to comprehensive solutions for high-performance telecommunication infrastructures in the hospitality, business and residential sectors.

This area was kick-started with the creation of its own microsite in 9 languages, combined with **the ambitious campaign "Discover DataCom"**. During its first phase, it was focused on the exchange of training materials by categories with the users – by means of announcements, webinars and promos. The second phase was aimed at replying to the most frequent questions among our customers, as well as making tips and videos available to them.

The trajectory of DataCom in 2021 has been definitely driven by the supply crisis. However, thanks to the company's digitization and financial support, a consistent planning of materials could be executed. Even though, delays have forced us to put off some of our launches. We have put extra effort over the past few months to keep our supply levels.

Perspectives for the second year of activity are good. Customers are starting to think of us as comprehensive telecommunication providers. This will be the year of structured cable, racks and accessories, as well as of multi-mode solutions (OM3/OM4) and fiber single-mode. We are also expecting to achieve higher sales quotas in copper pair (Cat6 and Cat6A).

We will maintain our professionalism and close philosophy, striving to keep moving forward confidently thanks to the support and fidelity of our DataCom customers □



#### **DataBox**

#### Management and Monitoring of network equipment

Today's network infrastructures – which are made up of a number of network-electronics devices – require advanced equipment and tools that allow administrators to have a 24/7 total control over the system.



More information at: en.televes.com/databox

DataBox is our new technology especially designed for small and big network infrastructures in Hospitality environments. Its integrated web platform allows for a **comprehensive management and monitoring of equipment including an SNMP agent** – head-ends, switches, routers or ONTs, and also devices from series WaveData and CoaxData.

Thanks to DataBox technology, you can **detect and prevent network issues to ensure an optimal service performance at any time**.

This device is completely compatible with **GPON networks** and can be used in applications connected to both public and private networks such as those in companies, hotels, camp sites, hospitals or universities.

The system of projects fitted with this technology **has been monitored successfully 24/7**. Specific alerts have been created and configured to be later analyzed thanks to the powerful tools provided by our DataBox



Centralized monitoring of the network equipment.



Detailed queries on the performance of the network at any time.

#### **FUNCTIONALITIES OF ITS SOFTWARE PLATFORM**



Detailed information about the connected devices in real time



Monitoring of every network device from one single place



Shorter configuration times of networks and their devices



Quick detection of failure and errors in the network



Easy management of every point of the network without overloads



#### Increase the moved air flow in your rack

Televes has launched two new trays fitted with built-in fans (Ref. 533175 featuring 2 fans, 600mm depth and Ref. 533176 featuring 4 fans, 800mm depth). Both trays can be installed in the upper part of a rack so as to extract hot air from its active elements, achieving a longer lifespan.

If the moved air flow needs to be increased, a **double-ventilation** installation version can be used: one of them would be installed in its normal position – on top – and the other one on the bottom after a 180° turn as seen in the picture. By doing so, the direction of impulsion is changed and more hot air can be therefore expelled from the inside to the outside of the rack



Installation at the top



Installation at the bottom (Rotate fans 180º)

## How can I meet the connectivity requirements of my company?



Televes: From our new business area, we are offering state-of-the-art solutions to meet any high-speed communication needs of our customers. Optical transportation consists on the transmission of data over long distances through fiber optics. Televes can supply the external equipment that will adapt signal to travel through the fiber, no matter how far it needs to be transported (from a few kms to hundreds). This equipment uses multiplexing technology (DWDM) that allows us to allocate different optical frequencies to each service through one single fiber link.

<u>User</u>: By doing so, can the capacity of a traditional link be increased over fiber?

<u>Televes</u>: Indeed. Thanks to Televes equipment we can **multiply by more than 100 the capacity of a traditional link**.

<u>User</u>: Bearing in mind my needs as a client, when should I adopt this type of solution?

<u>Televes</u>: Using optic transportation and multiplexing over fiber brings many advantages

to specific scenarios, like, for example, those when there are not enough fibers to meet our connectivity needs. This normally involves links that may be several kilometers long, so performing new deployments would be costly. Another great example is when we need to connect several services/protocols among offices. Instead of using a pair of fibers for each service, we can multiplex them all through a pair of fibers. Then, there are situations in which latency is a determining factor. There is a number of applications requiring immediate response time that only this type of technology can provide. Our optical-transport equipment adds very little latency - it would be equivalent to a meter of fiber. Thus, the calculation to be considered would be 5ms delay added to every km of fiber; that is, for a 100km link, it would take the signal 0.5 mseg to travel from one end to the other

Read the whole article at: televes.com/en/televes-info



#### **TELEVES FACILITIES**

#### **CENTRO DE PRODUZIONE TV RAI (NOMENTANO, ITALY)**



Performed by Televes Italy, this deployment is fitted with an Over-Light transmitter to distribute the signal of HotBird 13°E satellite, as well as with a set of **28 DTT multiplex**.

For this installation, the best choice was to perform WDM multiplexing of the DTT (1550nm) and satellite (1310nm) signal, as it was necessary to distribute additional DTT multiplex apart from the broadcast ones in the spectrum of the transalpine country – which are in higher frequencies than the second digital dividend managed by OverLight.

Additional losses provoked by multiplexing can be perfectly absorbed by the **high splitting ratio of the OverLight solution**, which allows for the reception and **distribution without compromising the quality of both satellite and DTT signals**.

In this roll-out, a total of 288 users were served, though these figures can be higher. If all the fiber optics allowed by the head-end were installed, up to 512 users could be served in theory



#### **DATACOM TOUR**

(NORTHERN AND SOUTHERN PORTUGAL)

#### **NOVEMBER AND DECEMBER 2021**

In this issue we would like to place emphasis on the DataCom Tour organized by Televes Portugal. The aim was to present, from North to South, Televes brand-new solutions from its range of racks and accessories associated with coaxial-cable technologies, copper pair and fiber optics.

We knew that holding a traveling exhibition during a pandemic with cold and wet weather could compromise its success. Still, we did not give up and arranged it anyway, being extra careful and without any fear.



We owe this success to the help and dynamism of Televes' participating partners, who would prepare every exhibition the night before and, at the end of the day, they would head for a new destination.

From here, we would like to thank, once again, all of those who we were honored to meet – more than 20 participating partners.



#### CES

(LAS VEGAS, USA)

JANUARY 5-7

After two years, we were back at CES. We had the opportunity to present our latest solutions in reception, distribution and measurement of ATSC 3.0/Netgen TV, especially designed for the North American market.

This year, Televes antennas were also exhibited at the ATSC 3.0/Nextgen TV's stand located in the Grand Lobby of CES. This gave us a special relevance due to the big boost of the launch of the ATSC 3.0. ■

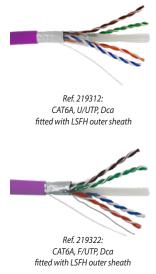


#### Augmented Category 6

#### Advantages and products of 10GBASE-T standard

Category 6A (ANSI/TIA/EIA-568-B.2-10) made its first appearance in October 2004 as CommScope's SYSTI-MAX® GigaSPE – the standard was not actually released until 2009 though. CAT6A – also known as Augmented Category 6 - operates at different frequencies up to 500 MHz (twice as much as its predecessor CAT6 that operates at frequencies up to 250 MHz) and reaches maximum speeds of 10Gbps (10 times as much as its predecessor CAT6 that reaches 1 Gbps). Category 6A supports 10GBASE-T at 100 meters, which ensures that the fastest Ethernet applications in the market can be supported in the maximum established length.

10 Gigabit Ethernet is the fastest Ethernet standard and exceeds the capabilities of its predecessor: category 6 Gigabit Ethernet. The better cost-performance ratio and the lower energy consumption of the 10GBASE-T standard make it the go-to option for Ethernet applications.



Companies are evolving at a fast pace to deal with the growing demand of bandwidth. Even if the 10 Gigabit Ethernet standard was already defined several years ago, it is today that its use has become widespread. In order to meet this need, Televes has been completing its range of DataCom products and has launched two new CAT6A data cables: Ref. 219312 and Ref. 219322.

They both complement the existing Ref. 219302 (U/ FTP, Cca Euroclass, LSFH sheath), as do every patch cord (RJ45 cables) fitted with S/FTP shielding and LSFH outer sheath (Ref. 2091xx). Please note that category 6A is compatible with the RJ45 interface, as well as with earlier versions. The global growth of today's Ethernet technology is due to the standardization of RJ45 connectors. Televes completes its range of data connectors and launches several new references in the category 6A:

TEGORY AND SHIELDING	REFERENCE		REMARKABLE FEATURES	VIDEO
CAT6A UTP female	97	209921	Wing nut: by rotating the wing nut, the pairs are inserted effortlessly into their pins, which guarantees the appropriate fixation	en.televes.com/female-wing-nut
CAT6A FTP female		209923	Grip: the pairs are inserted into their pins by closing the connector	en.televes.com/female-grip
CAT6A UTP male		209922	Pins with 50u gilded finishing	en televes com/male-rj45-armored
				en.televes.com/male-rj45
CAT6A FTP male		209924	Reusable grip	en.televes.com/male-grip-armored

#### Don't miss it!

#### **Obtain information about how guests use ArantiaCast**

There is an increasing number of establishments seeking to obtain first-hand information about the use of their entertainment services as well as their impact on their customers.

Among our new products, our streaming experience ArantiaCast solution presents an interesting section with reports on the use of the system that you will find in the management tool. Managers will be able to take advantage of the solution and to obtain information about the general statistics of the system itself since the date of the first recorded event – total length of the casting sessions, total number of castings, average length of each session, average time or average daily casting sessions.

For more detailed information, this section allows to filter statistics by room, start date and end date. You can also display three charts: Daily chart, App use by time, App use by number.

If you want to obtain a file including the recorded information, this tool will allow you to export it in PDF format (the screen displayed in the server will be replied) or in CSV format (including relevant data and statistics to create reports and charts)





