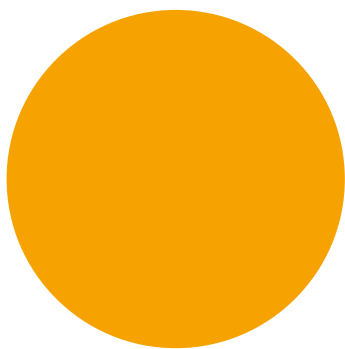




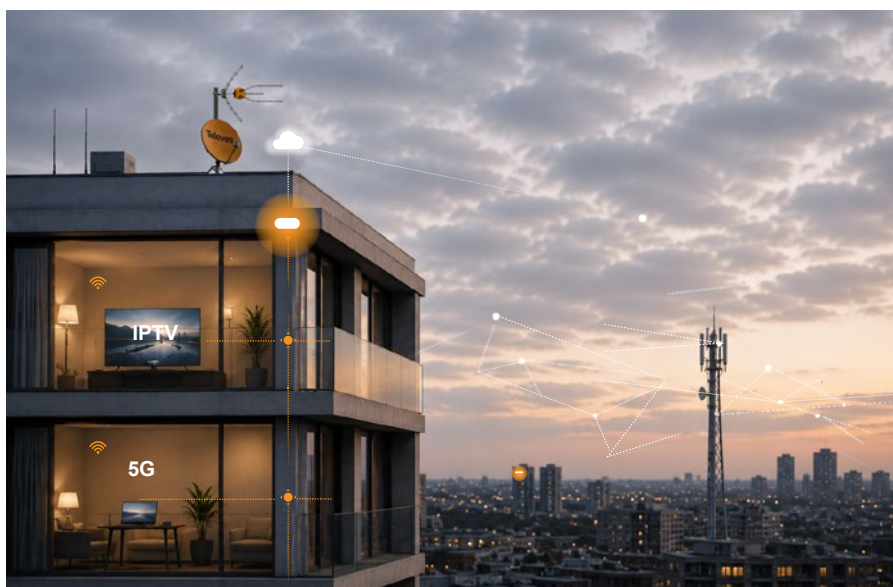
Televes®

Technological convergence is redefining the future of audiovisual media

The boundaries between the broadcast world and telecommunications are becoming increasingly blurred.

Audiovisual distribution is evolving towards IP-based architectures, virtualised infrastructures and cloud environments, where automation, cybersecurity and artificial intelligence work together to deliver more flexible, efficient and scalable networks. More than a succession of new technologies, the sector is undergoing a transformation of the very model on which infrastructures are designed, managed and operated.

This convergence is accelerating integration between equipment manufacturers, operators, software developers and service providers, driving **solutions capable of meeting the needs of an increasingly connected and demanding ecosystem**. Interoperability, real-time monitoring and intelligent network management are becoming



strategic elements for ensuring service quality and availability.

This is already shaping the evolution of the market. Proof of this is that the 2026 edition of IBC, the leading international event for the audiovisual industry, structured much of its programme around this technological

convergence, reflecting the new scenario towards which the sector is directing its investments and developments. In this context, Televes Corporation companies such as **Gsertel and TRedess** took part in the event, sharing a space where the future of audiovisual and communications infrastructures is being defined ●

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September 2026

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Hotel Selenta Don Carlos, Marbella, Spain

OUR PEOPLE:

Ángela Abreu Iglesias, Head of the Technical Office and Pre-Sales Department

TELEVES CORPORATION:

Europe is building the new industrial competitiveness

SmartKom: Smart mast amplifier

A single device to filter, combine, amplify and balance TV signals.

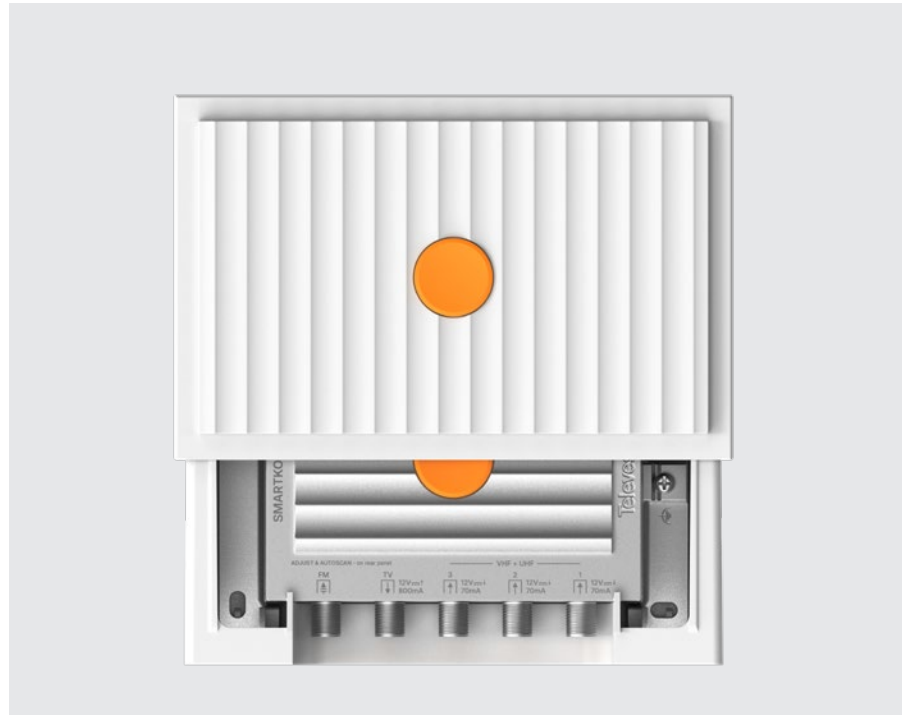
In a television installation, an amplifier is essential to ensure an adequate signal level at the user outlet. However, it is also necessary to filter unwanted signals (e.g. mobile services) and compensate for level differences between channels before distribution.

SmartKom has been designed to meet these needs **in single-family homes and small communal installations**. A device that combines filtering, combining, amplification and signal-balancing functions, reducing the number of components in the installation and avoiding associated losses.

Its digital processing handles each channel independently using 32 highly selective programmable filters, even between adjacent channels. This provides programming tailored to each installation and optimum balance across all channels.

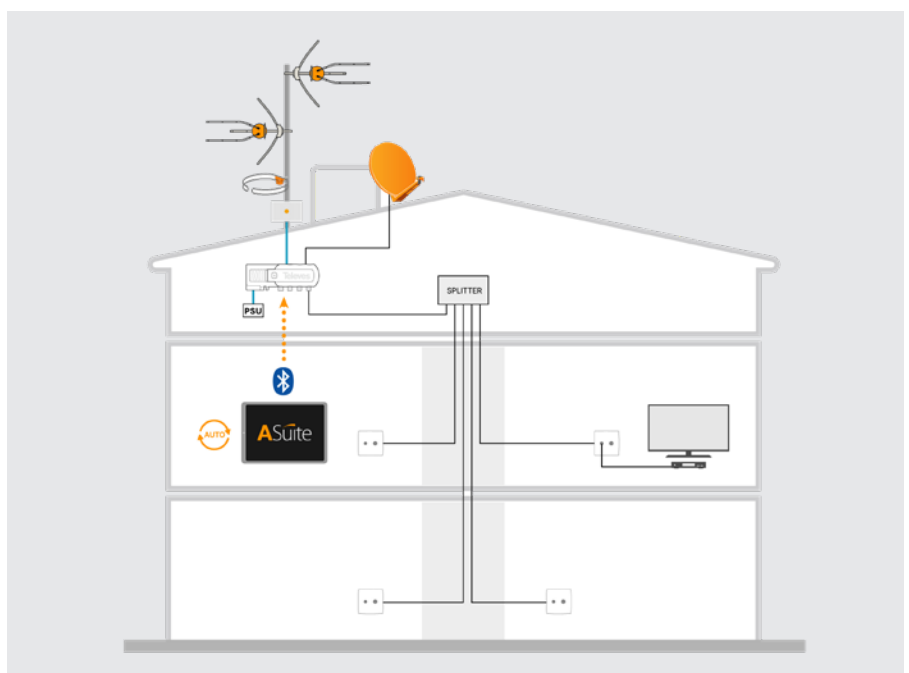
With **very low noise figure (<3 dB)**, together with installation close to the antenna, enables the signal to be amplified with minimal degradation of its quality, **preserving MER, a key factor in DVB-T2 broadcasts**. It also incorporates a SAW filter that **eliminates 4G/5G interference** while fully preserving the television band. The solution includes a power supply installed inside the home and inserted into the coaxial distribution to power SmartKom through its output connector. This power supply features Bluetooth® connectivity and allows SmartKom to be paired with a smartphone or tablet for configuration using the ASuite application.

Channel balancing is one of SmartKom's main functions. From



the mobile application **ASuite**, the installer can start **auto-programming** so that SmartKom processes signals, programmes filters and balances the level of all channels in less than one minute. It also allows advanced programming so the professional can customise channels and adjust levels.

Its new fully shielded chassis with F connectors **reduces the volume compared with the previous model**, making mast assembly and installation easier without compromising SmartKom's characteristic robustness and reliability ●



RF frequencies: from broadcasting to mobile communications

Understanding how the radio spectrum is organised is increasingly important for interpreting the evolution of communications networks and the new solutions developed by Televes.

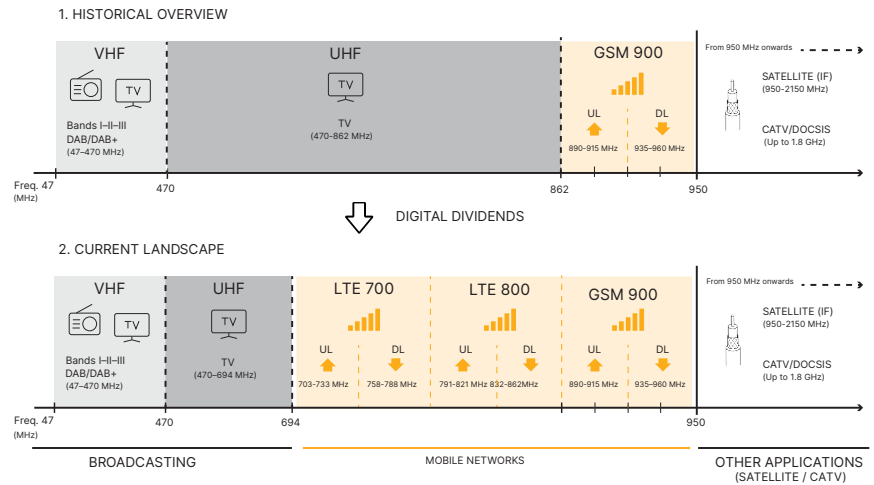
Traditionally, terrestrial television has used the UHF band (470-862 MHz) to carry signals from transmission centres to receiving antennas. Spectrum organisation therefore tends to vary from country to country. In Italy, for example, terrestrial television still also uses the VHF band, while in Spain that band is allocated to services such as digital radio (DAB and DAB+).

Above this band lies the intermediate frequency range (950-2150 MHz), used in satellite television installations. CATV networks also use higher frequencies (up to 1.8 GHz) for data transmission via DOCSIS.

The first mobile networks were developed on top of this spectrum organisation, initially using bands close to television, around 900 MHz. As they evolved, new bands were incorporated to support technologies such as 2G, 3G, 4G/LTE and 5G.

The growth of mobile networks made additional spectrum necessary. To achieve this, some frequencies used by terrestrial television were reallocated through the digital dividends. The 800 MHz and later 700 MHz bands were therefore assigned to mobile services thanks to their better propagation characteristics, which extend coverage and improve penetration inside buildings.

Today, terrestrial television in Europe occupies the UHF band up to channel 48 (**694 MHz**), while above this frequency different bands are allocated to mobile



Evolution of the radio spectrum

networks. Their use depends on the spectrum planning adopted in each country.

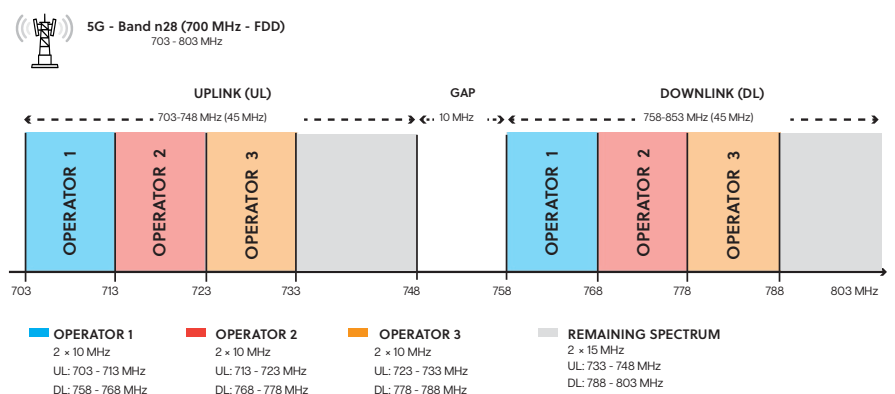
Unlike television, where communication is exclusively downstream from the transmitter to the receiver (Downlink or DL), mobile networks are bidirectional.

Each terminal not only receives information from the base station, but also transmits data back to it (**Uplink or UL**). This difference determines how the radio spectrum is organised.

In bands using **FDD (Frequency Division Duplex)**, **UL** and

DL use different frequency blocks to transmit and receive simultaneously. In contrast, **TDD (Time Division Duplex)** share the same frequency band and alternate transmission and reception periods over time.

The evolution of the radio spectrum has opened up new opportunities for mobile communications. For decades we have designed solutions to operate on these frequency bands, historically linked to television distribution. That experience now enables us to develop solutions for 4G and 5G networks ●



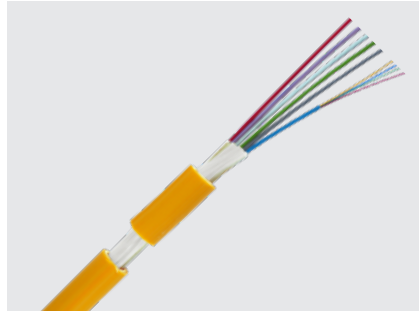
Example of a hypothetical allocation of the n28 band

FAQS

How can I protect multifibre cables against moisture?

Water ingress can compromise the reliability of a fibre-optic cable. Although the risk is greater in outdoor or underground installations, it can also occur in ducts, technical rooms or indoor routes where condensation is present.

Moisture can alter the optical properties of materials, increasing attenuation, as well as promoting corrosion processes or damage associated with freeze-thaw cycles.



To reduce these risks, multifibre cables can incorporate different protection systems. Blocking gel fills the inside of the

micromodules and hinders the spread of water. Water-blocking yarns absorb it and swell on contact, limiting its progress. Another solution is the use of PBT loose tubes, which house and isolate the fibres from environmental conditions. The most suitable solution depends on the cable design and application. In all cases, our

FK multifibre cables include moisture protection to preserve the fibres and their optical properties ●

TELEVES FACILITIES

Hotel Selenta Don Carlos, Marbella, Spain

Following its renovation as an exclusive five-star resort, Hotel Selenta Don Carlos Marbella has enhanced its guests' digital experience with a Televes Hospitality solution.

The installation integrates an IPTV headend, ArantiaTV, ArantiaCast, digital signage and high-performance network electronics, providing IP



television, private and secure 4K casting from any mobile device, and personalised content. **A scalable, centrally managed infrastructure** that optimises hotel operations and provides a modern, intuitive entertainment experience in keeping with a flagship establishment on the Costa del Sol ●

TELEVES IN THE WORLD



ATSC | Washington, USA 1-3 June

We presented our comprehensive proposal for **ATSC 3.0**, from signal transmission through to reception. Our Televes USA Director, Javier Ruano, also moderated a technical session on NextGen TV network design and met with customers and visitors during the event.



HITEC | Texas, USA 15-18 June

Our Hospitality Director, David Serramiá, represented Televes with its full range of advanced solutions for managing hotel infrastructure networks, guest audiovisual services and the integration of the property's digital systems.



TMP | Munich, Germany 9 July

The event brought the hotel sector together with the technology ecosystem. Televes showed how a Televes GPON network infrastructure integrates all the audiovisual services guests are looking for, as well as the hotel's digital systems ●

OUR PEOPLE

Ángela Abreu, Head of the Technical Office and Pre-Sales Department

The Technical Office and Pre-Sales Department (OTP) has become a key differentiating value for Televes, supporting the sales network from the definition of each project. Its preliminary technical analysis optimises solutions, reduces implementation costs and risks, and provides a high-value service integrated into the Televes proposal.

What does your job involve?

I lead the Technical Office and Pre-Sales Department, working with the sales teams to turn each customer's needs into viable, innovative solutions tailored to each project. This preliminary study makes it possible to optimise the design and facilitate more efficient implementation, at no additional cost to the customer.



"A thorough preliminary technical analysis helps reduce implementation costs and ensure project success from the outset."

How long have you been with the company?

I joined Televes in February 2022 as a pre-sales engineer in Hospitality. This stage has allowed me to gain a global view of the business and take on new challenges.

What is the most satisfying and the most challenging part?

Seeing how an idea becomes a successful project thanks to teamwork. The biggest challenge is balancing expectations, technical feasibility and business objectives.

Which values would you highlight?

Teamwork and customer focus. Collaboration between departments allows us to offer solutions with real and distinctive value ●

TELEVES CORPORATION

Europe is building the new industrial competitiveness

European industry is facing a paradigm shift. The entry into force of **Regulation (EU) 2023/956**, which establishes the Carbon Border Adjustment Mechanism (CBAM), and **Regulation (EU) 2024/1781**, on Ecodesign for Sustainable Products (ESPR), are driving a model in which competitiveness depends on factors beyond price. **Material traceability, process efficiency, reduced environmental footprint and manufacturing quality** are becoming key factors for competing.

Advanced industrial companies must respond to an increasingly demanding technical, regulatory and organisational environment. **At Gamelsa, this evolution translates into investments aimed at increasing efficiency**

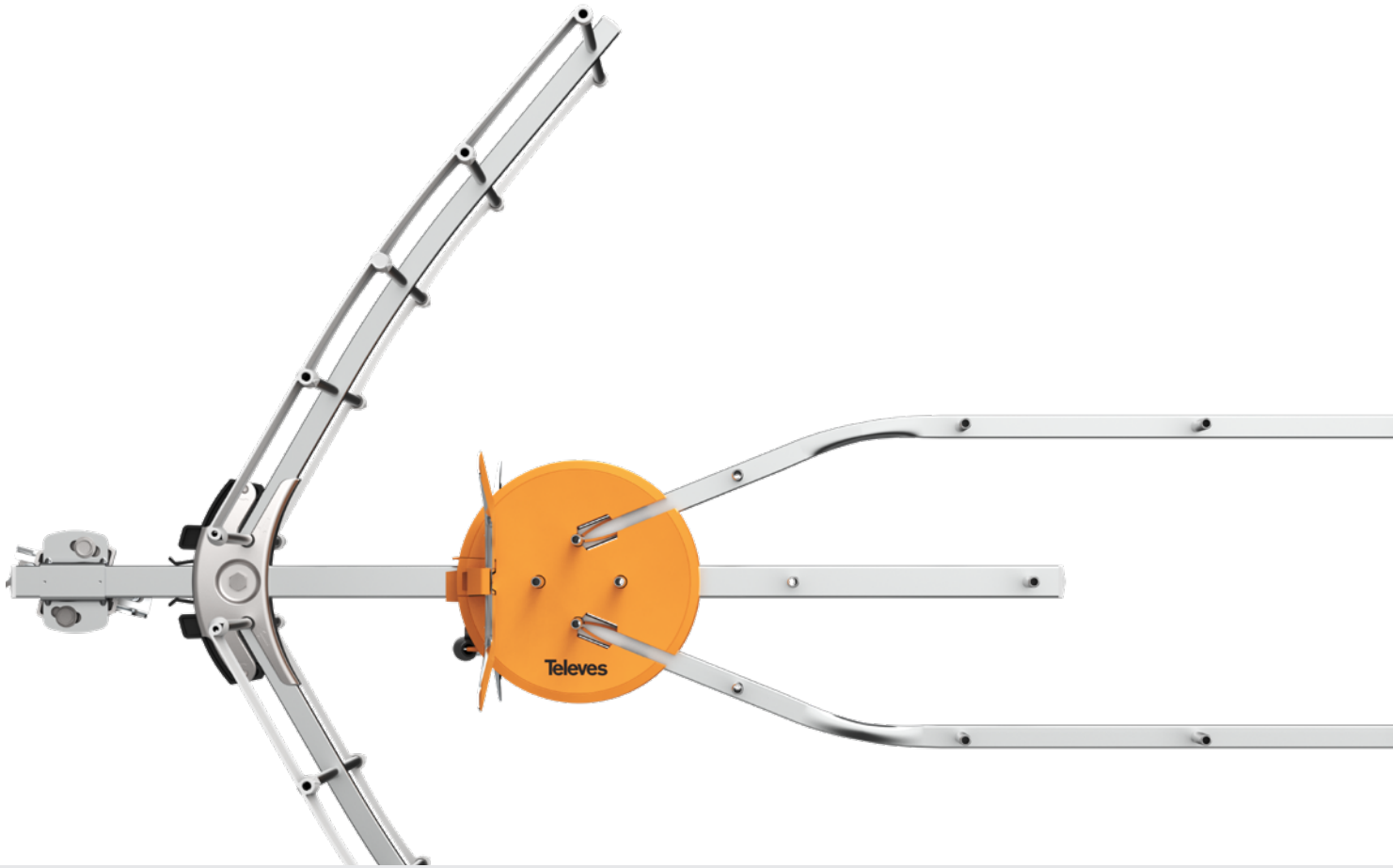


and production flexibility through automated storage systems, industrial automation and robotics solutions that optimise workflows, improve material management and strengthen responsiveness.

At the same time, manufacturing for highly regulated sectors such as rail requires approved

processes, qualified personnel, specific inspections and rigorous document control. A **combination of technological innovation, industrial specialisation and operational excellence** that places Gamelsa in line with the new industrial model promoted by Europe: more resilient, sustainable and competitive ●

Intelligent antennas that evolve with high-density modulation TV



Series **A6, A6 MIX and A9**

Ready for DVB-T2

Intelligent electronics and aerodynamic design for greater stability in new reception environments.

With BOSS Tech technology, featuring a TForce® chip and intelligent amplification in the dipole, the A series reduces noise at the very first point of reception,

providing up to four times greater tolerance to signal degradation. In DVB-T2 (UHD) broadcasts, where high-density modulations are more sensitive to noise, preserving the MER extends the effective reception range.

**BOSS
Tech with
low-noise
TForce®**

**Stable
DVB-T2
reception**

**LTE/4G/5G
protection**

**Corrosion
resistant**

**Quick
tool-free
assembly**