Televes®

UHD DTT and DAB+ digital radio need an industry push in Europe

With the advance of telecommunications, it is necessary to adapt existing infrastructures in order to be up to date and offer quality services. Therefore, the headquarters of Televes Corporation, in Santiago de Compostela, has been responsible for hosting the **briefing by RTVE on the progress of UHD broadcasts in DTT and DAB + for digital radio**, also with the assistance of Cellnex Telecom, Retegal, sectoral and business associations, SETELE-CO (Secretary of State for Telecommunications) and the General Secretariat of Media of the Xunta Galicia.

The reason for this event to be held at our facilities is due to the **leadership** of our main companies, Televes, TRedess and Gsertel in the design and manufacture of products for the development of electronic communications infrastructures in buildings and homes. In his speech **Santiago Rey, CEO of Televes Corporation** stressed that in order to carry out projects to deploy digital terrestrial television in UHD and digital radio in DAB+ in Spain, it is necessary to regulate through a technical plan.

For this reason, investment must be made in these projects, as **radio and television should be universal, free and freely accessible media**, ensuring the **democratisation of audiovisual content**, which is currently being threatened by the **limitation of frequency ranges** for use in other sectors.

Moreover, the loss of progress in this sector has been openly discussed. **Ángel García Castillejo, Director of Audiovisual Policies at RTVE**, reflected on the importance of **audiovisual communication as a tool for social cohesion**. Above all, he stressed that the technology for this advance is available and the philosophy of companies should be to unify advances worldwide so that no country is left behind.

Javier Sánchez, head of strategy at RTVE's Innovation Centre, spoke further about DAB+ and warned that **without a technical plan for the deployment of DAB+, piracy of broadcasts** could increase, outside of any regulation or control.

The companies of the Corporation, **TRedess, Televes and Gsertel have specialised in designing and manufacturing equipment for the transmission, distribution and measurement of radio and television signals for more than 60 years**. This makes them understand that the leap to UHD broadcasting in DTT and DAB+ in digital radio is the best way to guarantee the **future of free content for a cohesive population** ■

The sector urgently calls for a technical plan for the deployment of UHD content in DTT and DAB+ for digital radio.

MEETING POINT

10-12 September **Hotel & Hospitality Expo**
Riyadh (Saudi Arabia)

televes@televes.com
www.televes.com

David Goldar
Director of Televes Middle East (TME)

With the escalating armed conflict in the Middle East, concern for the welfare of our colleagues in the TME subsidiary has become paramount. In order to better understand how these events are directly impacting their operations, we interviewed our director to get a firsthand view of the facts and the steps they are taking to address the current challenges

Could you explain how the current events in Gaza are affecting TME's subsidiary?

Of course. It is affecting us in two significant ways. First, any uncertainty, especially in regions with a history of geopolitical instability, affects our business. We have experienced this before, such as in Syria, where our efforts to develop the market were frustrated by the civil war. Similarly, our concern now lies in the possible spread of the conflict to areas where we are growing our business, such as Iraq.

The impact of the escalating violence in the Gaza region affects the normal flow of global shipping and the company's business.

How are global shipping disruptions affecting your operations?

Disruptions in global shipping, especially due to attacks in Yemeni waters and in the Red Sea, are a shared concern for us. We have observed that transit times for containers from Spain have doubled, mainly due to lack of space on vessels and longer routes around South Africa. This affects our ability to receive materials on time, especially for projects involving multiple products.

What measures is TME taking to mitigate the impact of these challenges?

We are proactively reviewing our requirements for the coming months and trying to anticipate them by bringing in materials earlier. However, it is a challenging task, especially in a subsidiary where a significant part of sales is project-based and covers multiple products

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Televes Corporation®

DAB RADIO:
A LEAP INTO THE FUTURE OF SPANISH RADIO

DAB (*Digital Audio Broadcasting*) radio is taking Europe by storm as the natural evolution of traditional radio, bringing a superior listening experience and a greater variety of content to listeners.

Clear, interference-free, CD-like sound, a wider choice of stations and specialised programmes, and even additional services such as information and interaction are some of the advantages that DAB offers listeners. For broadcasters, DAB means optimising resources thanks to spectral efficiency and zero interference with FM radio. In addition, new business opportunities open up through the transmission of additional data.

To guarantee the quality of the DAB signal throughout the Operator's network, **Gsertel offers technological solutions such as the RCS DAB/DAB+ probe and the Hexylon portable meter**.

The RCS DAB/DAB+ probe performs 24/7 proactive monitoring, automatically detecting any signal anomalies. Meanwhile, the Hexylon handheld meter comprehensively analyses the DAB signal, including measurements, echo and constellation analysis, as well as parameters such as transmitter ID.

DAB represents an important step into the future of broadcasting, with the potential to transform the way we consume radio. Gsertel, with its experience and commitment, is ready to support broadcasters in this transition and contribute to the development of a more modern, varied and enriching radio

GSERTEL®

www.gsertel.com

Flex Mini Floodlights

Highly efficient lighting in compact dimensions

In sports, **lighting plays a crucial role**, not only influencing the safety and performance of participants, but also affecting the overall spectator experience. However, achieving optimal lighting levels can be a challenge, especially in cases where the space available for the facility is limited, negatively affecting sports practice.

Flex Mini floodlights are a lighting solution designed especially for **small and medium-sized sports venues**. Their **compact and self-installable** format, with the support integrated into the structure, makes them ideal for areas where space is limited but lighting requirements are high. These floodlights are notable for combining a small, practical size with the ability to provide **uniform, glare-free illumination**, as well as offering up to **240W of power and a lighting efficiency of up to 144lm/W.** Mechanically, its compact size offers very low wind resistance, which, combined with its robust anodised aluminium construction and production on our automated lines, guarantees **exceptional durability**, even in adverse weather conditions.

These floodlights have been specially designed for sports facilities that require high levels of illumination in a moderate space. From padel clubs, tennis courts and basketball courts to municipal sports complexes, these floodlights deliver professional performance in an efficient and manageable format.

Flex Mini floodlights are a reliable and efficient choice for illuminating small and medium-sized sports venues. They offer a good balance between **quality, practicality and durability, satisfying the most demanding lighting needs** to offer an optimal experience for the development of sports practice, both for players and spectators ■
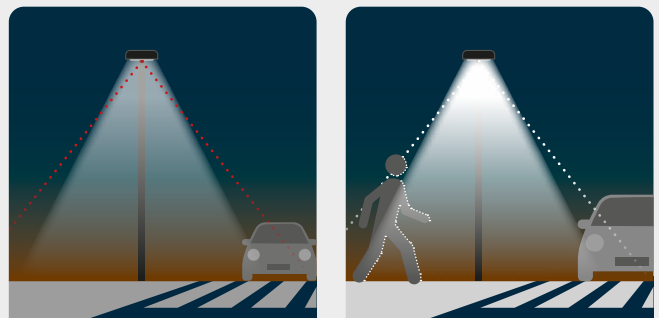

IDEA

How to improve road safety at zebra crossings

The **prevention of pedestrian accidents** at zebra crossings is a **priority road safety challenge**. Lack of visibility of pedestrians and possible carelessness of drivers are critical factors contributing to these risky situations.

An effective solution to minimise accidents and protect citizens is the **sensorisation of lighting installed at zebra crossings**. By equipping the fixtures with motion sensors, it is possible **to automatically raise the lighting level** in the walking zone when people are detected on the pavement. This increased contrast at the required time effectively warns drivers that pedestrians are crossing. By **ensuring the visibility of pedestrians**, we can **significantly reduce the risk of accidents** on urban and interurban roads, while optimising the use of lighting.

Our **CIES Crosswalk range** combines **CIES lighting** with dedicated optics for pedestrian crossing lighting and highly sensitive **motion sensors**. These sensors, designed with a **180° angle, are activated

when they detect people on the pavement, but ignore vehicles on the road. They also communicate with each other via Bluetooth to **synchronise the lighting on both sides of the zebra crossing** and activate simultaneously. This is an **intelligent alternative for illuminating pedestrian crossings and enhancing public safety** ■

What is CRI and why is it important in lighting projects?

The term CRI, which is closely linked to LED lighting, stands for Colour Rendering Index. This parameter measures **the accuracy with which a light source is able to faithfully reproduce the colours of objects**. Its value is given in comparison to a reference light source, which would be the sun (black body radiator), and is expressed **on a scale from 0 to 100**, where a higher CRI means better colour rendering. The CRI depends on the spectral composition of the light emitted by the source, not on the colour temperature itself. However, two light sources must have the same colour temperature for their CRIs to be comparable.

To measure the CRI, 8 chromatic samples, called Ra, ranging from R1 to R8, are analysed. Each R-sample is given a score from 0 to 100 according to the naturalness of the colour compared to how it would appear under the reference light source. The CRI is obtained from the average of these Ra values. There is an extension of the metric, where in addition to these 8 pastel shades, additional samples with more saturated colour are considered, up to a total of 14 samples (R1 to R14).

There are other metrics to measure colour rendering such as the TM-30 (with 99 samples), but the CRI is still the most common and widespread on the market.

The CRI is therefore a parameter to be known and considered in terms of the impact of light on colour accuracy. While a high CRI is in demand for task-oriented or indoor lighting, CRI values between 70 and 80 are more than adequate for ambient lighting and outdoor lighting. **Knowing the influence of CRI on lighting will improve decision making that will influence the visual experience of projects** ◾

PASTEL TONES								SOLID SATURATED TONES				EARTH TONES	
R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14

TELEVES FACILITIES

SANASARYAN HAN, A LUXURY COLLECTION HOTEL
(ISTANBUL, TURKEY)

The Sanasaryan Han hotel, from **Marriott's Luxury Collection hotel range**, becomes the first IPTV project in collaboration with Marriott to be carried out by Televes in Turkey.

This hotel has a privileged location in the **tourist centre of Istanbul**, a country where tourism is expected to grow exponentially. Therefore, this project is a milestone for Televes as it places us among the best options, introducing the full **range of Hospitality solutions**, which highlights the OLT512EVO, the first in the world specially designed for the hotel sector ◾
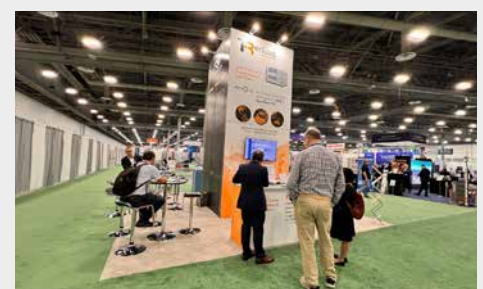

DVB WORLD FORUM 2024
(MUNICH, GERMANY)
19 - 20 MARCH

Our **business director, Ángel Álvarez**, gave a lecture on the **need for innovation in the DTT operators' sector**, as the two largest markets in Europe have already seized the opportunity to launch 4K UHD services on their DVB-T2 networks by 2024.

RTVE BRIEFINGS ON UHD AND DAB+
(SANTIAGO DE COMPOSTELA, SPAIN)
10 APRIL

Our headquarters was in charge of hosting the informative session for Galicia, organised by RTVE, to promote the **advance of UHD broadcasts in DTT and DAB+ for digital radio**. The conclusion was clear: the whole sector is urgently calling for a technical plan for its development in Spain.

NAB SHOW
(LAS VEGAS, NEVADA, USA)
13 - 17 APRIL

In this exhibition with the presence of several Televes Corporation companies, **TRedess** presented in its stand its new range of innovative and optimised solutions for broadcasters and DTT and radio network operators. For its part, **Gsertel** presented the latest developments in its RCS and Hexylon portable measurement systems for Operator networks. **Televes** also deployed all of its NextGenTV solutions for an American market that is increasingly combining broadcast TV with internet access in the home ◾

How to perform a complete deployment in just 10 steps with our OLT512EVO

Specially designed for Hospitality, this OLT speeds up the installation process of FTTH systems

Our OLT512EVO offers **intuitive configuration via a simple and consistent web interface**. This provides **great flexibility in the implementation and deployment of Hospitality services**.

Thanks to its specific functionalities, we can **create a GPON infrastructure adapted to the real needs of the hotel sector**, and deploy up to 16 services on the same ONT. We will perform all the configuration on the OLT512EVO, following **10 simple steps**:

VERIFICATION PHASE

1. We access the web interface to **register and visualise the ONTs of the installation** (Figure 1).
2. **We visualise the optical powers to check the physical state of the network** and detect possible irregularities in the fibre.

PROVISIONING PHASE

3. We define the VLANs to be propagated in the GPON network, taking into account that we can deploy up to **16 VLANs in the same ONT**.
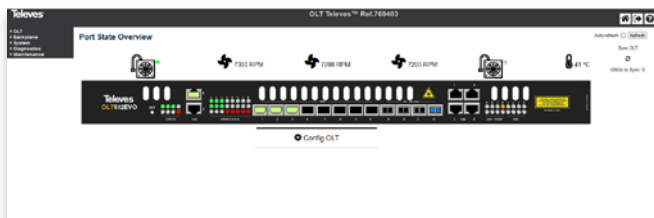4. We define and assign **bandwidth (BW) profiles per service and per ONT**.

5. **We create GPON services** using VLAN pairs and their associated bandwidth profile.
6. **We associate GPON services by different profiles**, depending on the different groups of ONTs previously defined by the hotel.
7. With a single click, we apply the **profile that best suits each ONT**.

CONFIGURATION PHASE

8. **We configure the ONTs with a backup associated to each profile**, which will be recorded in the OLT to facilitate the task.
9. We establish **the specific parameters of each ONT**, depending on the previously established needs.

MONITORING PHASE

10. **We monitor the installation to ensure that we have successfully configured it** (Figure 2).

Thanks to real-time information on the interface and the physical state of the network, as well as the alarm system, we know what is happening before, during and after deployment ■
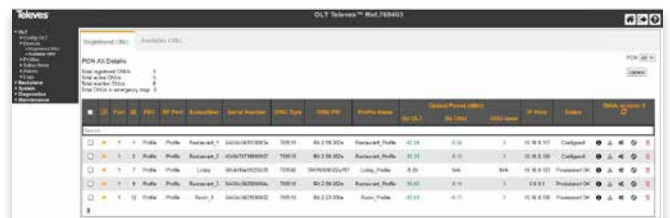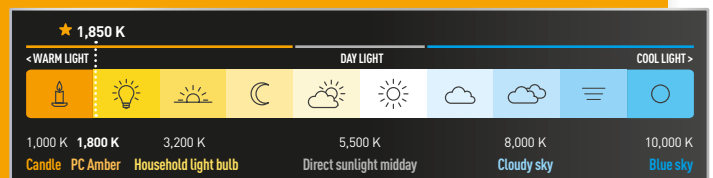

Figure 1

Figure 2

Don't miss it!

New colour temperature: 1850 K actual

In the context of public lighting, night sky conservation and respect for nature are becoming increasingly relevant issues. That is why we are looking for innovative solutions **to light better and responsibly**, achieving a healthy balance between urban life and nature.

Therefore, we offer a **new colour temperature 1850 K** for our outdoor lighting fixtures, which stands out as the warmest after PC Amber, with a higher luminous efficacy.

They are often equated, but it is important to note that **in reality 1850 K is not the same as PC Amber**. The difference lies in their efficiency and light characteristics: the **1850 K temperature offers higher efficiency with less than 1% blue light**. PC Amber, on

the other hand, **does not emit blue radiation and is practically harmless to the circadian rhythms of living beings**, so although it is less efficient, it is the option in demand in protected areas with strict legislation. However, in cases where the regulations do not preclude it, **the 1850 K temperature preserves the night sky with a higher efficiency** □

OLT**512**EVO

Uniquely
suited to the Hospitality world

Designed specifically for the realities of the hospitality industry,
this OLT meets today's communication and entertainment demands:

more services at higher speeds

Up to 16 services per room with customisable bandwidth

Advanced features, tailored for industry professionals,
streamline the implementation, management and maintenance of GPON infrastructure.

**EFFICIENT
CONFIGURATION**

Define profiles and provide
services by groups of rooms.

**CENTRALISED
MANAGEMENT**

Mass configure multiple
ONUs / ONTs from the OLT

**FLEXIBLE
INSTALLATION**

Freely exchange and install ONTs
in rooms independently of the PON

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