

INFO Televes®

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FREE EDITION



Clear QAM encoders receive international recognition

To submit products to the scrutiny of the most competent and respected experts in the industry is an exercise that distinguishes the leading companies. In the particular field of telecommunications, where technology is intensive and globalized, to be included in rankings that outline the top products is a particularly complicated task, only available to selected firms that thrive for excellence. The celebration of the Broadband Technology Reviews awards at the SCTE Cable-Tec fair in Denver, United States, was certainly a milestone for Televes.

In this event Televes was officially included in the select group of winners of the Diamond Awards, which recognize the best technology in the field of cable products. The product that earned this distinction is

the family of Clear QAM encoders. These devices encode two video inputs of up to 1080p on a single RF, and Annex A or B of up to 1024 QAM, in an extended frequency range of 5-1002 MHz. All versions encode both MPEG-2 and H.264 and incorporate watermarking technology.

For over a decade, the Diamond Awards program has selected the best solutions that are released each year to the US market. The selection and qualification of the products is carried out by juries from a panel of experts to analyze the products made by different companies to finally assign a rating. Highlighted this year by the number of solutions presented that cover all the needs of cable operators, as indicated from the event organizers.

CLEAR QAM ENCODERS INCLUDED IN THE PRESTIGIOUS DIAMOND AWARDS LIST

AND ALSO...



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DIE component assembly



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FAQs

SatKraK

(Cracow - Poland) 2-3 October

SAT^{KRAK} 2014

The nevoswitch range was the main character at this tenth edition of the Digital Television Fair in Poland; It was awarded as the best product for collective installation facilities. Televes seized the occasion to relaunch the new featured HSeries field meters. The DigiNova antenna gained good attention since it can be used to receive the eighth MUX in Poland, expected to begin broadcast throughout this next year.

International Nautical Venue

(Spain) 15-19 October



Gsertel's TRITON solution for an efficient control for supplying systems in harbours was successfully presented at this year's fair. Making use of easy-to-handle towers, the access and payment of the harbor as electric mains, water of WiFi Internet connection are easily accessible for the users.

Tour of the Truck 2014

(Germany)



15000 Km, presence in more than 50 cities and more than 2000 visitors. These are the figures of the last year's tour of Televes' truck.

Technical questions solved clear and easy, with the advantage of testing the new products developed by Televes. There is where the success resides. Technical advising on site, with complete flexibility to travel mostly everywhere and therefore help those clients who need it.

If you are setting a dish with an optical LNB...

How can you feed the LNB when the installation is not already wired?

THE EXPERT'S OPINION

When using the optical interface in the H45 and H60 meters you are able to make optical measurements directly through the fiber.

Feeding can be done connecting a coaxial cable and then generating some voltage as it was a regular LNB. ■



More information on
televes.com

Javier Esteban
Technical Assistant Manager



YOUR PICTURES



Christmas postcard

This image was sent from Italy as a Christmas postcard. It's quite likely that to any TV user this image seems as touchy as irritant. Lose your TV channels because of the snow may enhance the sense of isolation.

The fix is as easy as pouring a little of warm water. Of course, it's not recommendable to shake the antenna, since the fault may get worse. As always, brain over brawn. ■

Standards and CE marking

Which documents certify that a product is compliant with the current regulations?

It's very common to receive questions about regulations that show a complete lack of knowledge about the required documentation to launch a product to the market.

Very often we may encounter that the local authorities (public works, most of all) ask for several documents that may not be entirely necessary for the final purpose of the product, ie., declarations of conformity, CE certificates, regulations, etc).

How can we identify the documents we need to present to the authorities to prove that the product is compliant with the current regulations?

Manufactured in compliance with a Standard.

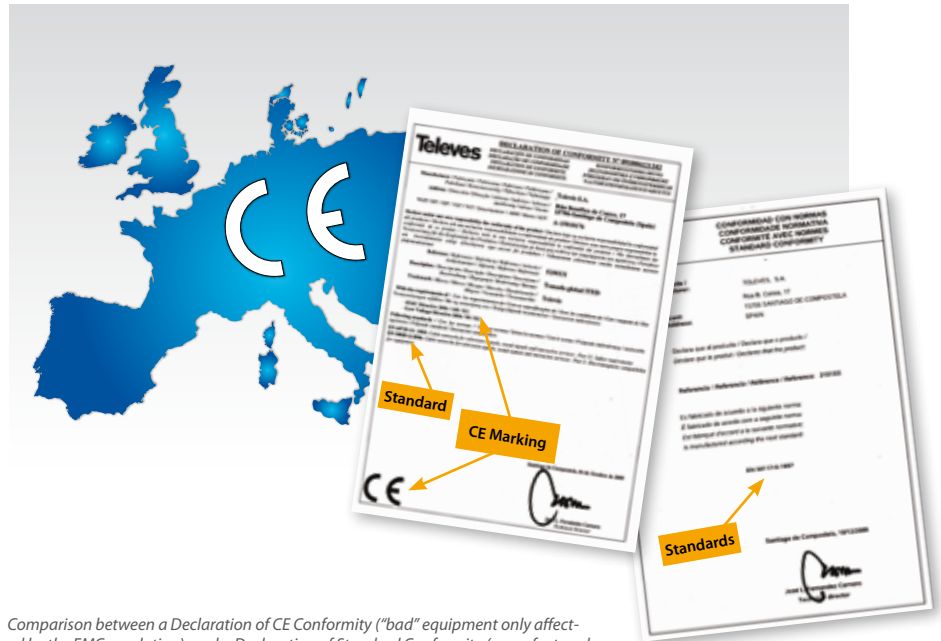
Televes is a **AENOR and IQNet certified company**. That means that all our products as well as the post-sales services are accredited in accordance with the **UNE ISO 9001 2008 standard**. These certificates are valid to use as a accredited documents for any Televes product.

As an example, Televes can produce a Conformity document of a coaxial cable to inform that it complies with certain standard. Since Televes is also an AENOR, IQNet certified company, all our products comply with the current regulations. Makes no sense to produce, then, a Conformity document per each product we produce.

CE Marking

This mark certifies that the product complies with the current guidelines in the European Community - "**Conformidad Europea**". The applied guideline for some Televes products is the "**Electromagnetic Compatibility - EMC 2004/108/EC**", and involves as a compulsory requirement showing the **official "CE" mark** in the product.

The electromagnetic compatibility is the capacity that a certain product has to satisfactory operate without generating electromagnetic disturbances in other equipment.



Comparison between a Declaration of CE Conformity ("bad" equipment only affected by the EMC regulation), and a Declaration of Standard Conformity (manufactured according to a standard).

This **EMC 2004/108/EC** regulation classify products as good or bad in terms of electromagnetic compatibility.

Apt. 1.1.4 of this guideline makes reference to some examples of similar equipment, therefore it's easy to identify to which products we shall require the "CE" marking and which don't.

By definition, an equipment is considered good in terms of electromagnetic compatibility if it complies with the next 2 points:

- If its physical features makes impossible to generate or contribute with electromagnetic emissions with a certain level to other radio, telecommunications or other kind of equipment, preventing them also to operate in a proper manner.
- If it works without visible degradation in normal electromagnetic conditions.

As example of what products are considered "good" for the EMC guideline we find products without any active electromagnetic part:

- Cables and accessories (considered separately).

- Other kit with only resistive loads.

Also, it includes other equipment that also satisfy the above criteria:

- Passive antennas for TV and Radio reception.
- Connectors, loads, outlets, etc.

For all "bad" products, Televes complies with the obligation of showing the correspondent CE Declaration of conformity, in which it's showed as well all the standards that are being complied.

Sometimes a CE Conformity declaration is presented for a "good" product; it can mislead to whom is requesting it, sometimes because of a lack of information.

It's possible to find in the market products tagged as "bad" (for example, cheap DTT receivers) that don't have any CE Conformity declaration associated to the compliance with the current regulation. This compliance involves some added costs of research&development that can be reflected on the final price of the product, so it's usual that some products, mostly cheaper ones, don't show it.



NEW RANGE OF MULTISWITCHES

100% MANUFACTURED AND VERIFIED IN OUR ROBOTIZED AUTOMATIC LINES

Nevo switch®

FULL RANGE AVAILABLE
 5X, 9X, 13X AND 17X: UP TO 4 SATELLITES
 FROM 4 TO 32 USER OUTPUTS
 QUAD COMPATIBLE VERSIONS FOR THE 5X RANGE

Low/High Gain Switch
 In HG position, the SAT level will be 10dB amplified on the user outputs.



Versatile

The same MSW can be configured as cascade or stand-alone with the flick of a switch

Chassis made of ZAMAK
Improved screening attenuation

ECO mode:

the consumption decreases as the number of users is reduced

Multiple powering options (Vertical/Low polarity):

In-line (cascade) from any point in the system

From the Set-top-box (no PSU required in the MSW)

From an external PSU



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TELEVES FACILITIES

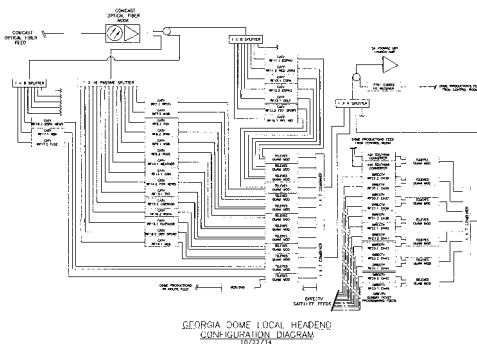
Georgia Dome Arena (Atlanta)



Atlanta's Falcon's stadium is equipped with a 20 HD encoders rack headend. This kit provides 40 full-HD channels from different sources: cable STBs, satellite STBs and in-house signage.

This Televes' headend broadcasts the TV services to more than 800 TVs within the facility (VIP suites, restaurants, hallways, rest rooms and other accommodations).

Televes' headends are perfectly suit to fit the high-end requirements of USA's market due to its high quality design and manufacture, as well as its versatility and the quality of the services provided. ■



DID YOU
KNOW...?

That Televes installed its first computer on 1968?

It was an IBM 1130 with punched cards to create coded tabs with info related to clients, billing or product specifications. Those cards were disposed in rows and columns so every perforation represented an specific value. The first computing management system was then created; system that in time would extend to every company's service.

This computer tradition led us until nowadays, where every commercial, finance, industrial, manufacturing or design processes of the 20 companies that form Televes Corporation in the

5 continents are interlaced and supervised by last-generation computing systems that make easier the synergy among the different working groups. ■



IDEAS

Does Televes have a tool to run cable easily?

Cable dispensers Ref 212001 and 212011 accommodate both coaxial and fiber optic cable drums, reducing the time needed in every installation and preventing damages. Also, it provides an easier and more comfortable carriage.

Televes offers two models:

- Ref 212001, for small plastic drums: 100m on coaxial and 200m or 300m on fiber.
- Ref 212011, for large plastic drums: 250m on coaxial and 500 or 750m on fiber.

Ref 212011 is also compatible with small drums.



Ref. 202001



Ref. 202011

Televes manufactures...



$\theta \times 45^\circ (= 360^\circ)$

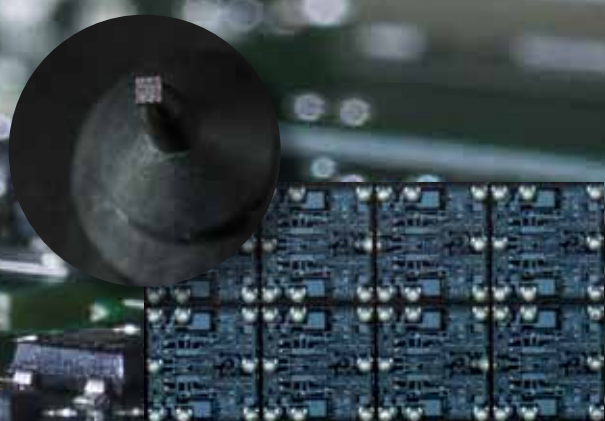
DIE component assembly

Miniaturization of electronic components advances at a gigantic pace. While still amazed by the ever reducing size of chips, the reality is that we are reaching the limits of the number of contacts by which they are soldered to the PCB, limitation that is marked by the soldering process itself.

But Televes rebels against this limitation and has continued to make progress using the next generation of components for assembly processes, **the DIE components**. In our latest SMD machine acquisition, the Siemens Siplace CA4, tiny components are presented and delivered to the machine through a wafer that uses coordinates to identify and position the DIE component to be assembled.

The DIE is a component extracted directly from the WAFER, with a size not larger than 1 mm². This tiny area is capable of generating multiple contacts, about **60 microns** each, to the motherboard. Tin is not used for welding the component, rather, it is adhered directly onto the surface of the PCB. The objective achieved with DIE component technology is to integrate various encapsulated devices directly to the silicon, or gallium arsenide in the case of radio frequency components, allowing future possibilities only now conceivable. Televes in 1983 became the first company in Europe to use SMD, now with DIE components assembly the company becomes a pioneer for our sector again.

In its continuing path to generate knowledge, Televes uses this technology in the manufacturing of the **PicoKom home amplifier range**, achieving a significant reduction of product size and infinitely superior performance characteristics. The experience gained in these vanguard processes will serve to reach the next technological evolution of Televes. ■



1mm