



Technical features

General
IP Network Adapter to Coaxial infrastructure and Powerline.
Modes HomeNetworking and MDU / MTU.
Up to 253 devices per master in Mode MDU / MTU.
Supports multiple masters, up to 4, on the same frequency. A total of 1012 devices.
Data Frequency Range: 2 to 67.5 MHz
TV Frequency range: 87-2150MHz
Maximum Attenuation: 85 dB
Output Signal: 70 dBmV
Power spectral density: -50dBm/Hz
Low Power spectral density: -135dBm/Hz
Temperature range: 23°F to 113°F
Distance
Coax Cable: 1.2Km
PowerLine: 300 m
LEDs
Led On/Off
Medium: Detection of Coaxial / Hybrid
LINK: Link Establishment and activity.
1000/100/10Mbps: Ethernet Link and Activity on
Standards
IEEE 802.3 10BASE-T, 100BASE-TX, 1000BASE-T
HomePlugAV IEEE P1901
SFP with support for 802.3z 1000BASE-X
Modulation and Channel Coding
Dynamic adaptation to channel conditions and frequency synchronization with the PLC network 50/60Hz
2880 OFDM carriers, QAM 4096/1024/256 / 64/16/8, QPSK, BPSK and ROBO mode.
Automatic error correction based on FEC (forward error correction) and TCC (Turbo Convolutional Codes)
QoS
Supports Multicast, IGMP snooping, MLDv2/IGMPv3 / IGMPv2.
Four transmission queues prioritized.
VLAN IEEE 802.1p prioritization
Type of Service (ToS) and COS (Class of Service)
Source/Destination MAC Address Classifier.
Source / Destination IP Address Classifier.
Other adjustable classifiers filters.
AC and Consumption
108V-254V ~ 50/60Hz
Consumption: Max 6Watts
Low Power Mode (Advanced Power Management) Max 1.8Watts
Transmit Modes
HomeNetworking: Asynchronous mode based on CSMA / CA with low latencies.
MxU: Token-based synchronous mode (Hidden Node) which synchronizes slave transmissions and supports long distances.
Security
Establishment of private networks using network key (NPW, Network Password key)
Privacy of communications using AES-128 encryption (NEK, Network encryption key)
Privacy settings on devices using AES-128 access key (NVAK, Non-Volatile Access key)
Connectors
Mains plug
2 x "F" Connectors 75 Ohm, low pass filter to the data (2 to 67.5 MHz) and high-pass filter for TV Services (87MHz-2150MHz).
2x RJ45 ports for 1000/100/10Mbps, Auto Ethernet MDI / MDIX.
Normative
Compact Design, robust and shielded that meets all applicable regulations.
UNE-EN 60950-1:2007 / AC: 2012: product safety
UNE-EN 55022:2008 Radio Interference
UNE-EN 55024:2011 Immunity requirements
UNE-EN 50412-2-1:2006 Immunity requirements for low voltage installations for communications equipment over powerline.

DECLARATION OF CONFORMITY N° 131125075542

Per FCC Part 2 Section 2.1077(a)

FC

Responsible Party Name: Televes S.A.
Address: Rua Benedita de Conso, 17
15706 - Santiago de Compostela
Spain
Phone / Fax N°: 981522200 / 981522262

Hereby declares that the product

Product Name: COAXDATA 1Gbps
Model Number: 769281, 769282, 769283

Conforms to the following specifications:

FCC Part 15, Subpart B, Section 15.107(e) and section 15.109(g)

Supplementary Information:

This device complies with Part 15 of the FCC rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Representative Person's Name: José L. Fernández Carnero
Signature:
Date: 5/11/2013

DECLARACIÓN DE CONFORMIDAD ■ DECLARATION OF CONFORMITY ■ DECLARAÇÃO DE CONFORMIDADE ■ DECLARATION DE CONFORMITE ■ DICHIARAZIONE DI CONFORMITÀ ■ DEKLARACJA ZGODNOSCI ■ KONFORMITÄTSEKTLÄRUNG ■ ΠΙΣΤΟΠΟΙΗΤΙΚΟ ΣΥΜΜΟΡΦΩΣΗΣ ■ FÖRSÄKRAN OM ÖVERENSSTÄMMELSE ■ ДЕКЛАРАЦИЯ СООТВЕТСТВИЯ ■ www.televes.com

Televes Limited Warranty

- (A) Televes warrants, only to the original Purchaser, all Products be free from any defect in materials or workmanship for a period of two (2) years from the date of original purchase, unless otherwise specified.
- (B) Televes shall, free of charge and in its sole discretion, either repair, replace with a new or factory reconditioned equivalent, or refund the purchase price of the Product(s), that has been determined by Televes to be defective in material or workmanship, subject to the limits of this warranty.
- (C) This warranty excludes any damage or inoperability resulting from:
- (I) use or installation that is not in strict compliance with the written instructions and specifications;
 - (II) any modification or alteration performed by any third party not authorized in writing by Televes;
 - (III) service or repair performed by any third party not authorized in writing by Televes;
 - (IV) misuse, abuse, intentional harm, or lack of reasonable care;

- (V) fire, ice, snow, rain, wind, water, volcano, excessive heat or cold, lightning, flood, power surge, earthquake, or any other acts of God;
 - (VI) war, crime, strike, riot, electro-magnetic pulse, or any other acts beyond the control of Televes;
 - (VII) shipping.
- (D) All claims under the terms of this warranty must be made in writing, by the original Purchaser, within fourteen (14) days of the defect being known to the Purchaser. Such claims shall be accompanied by a description of any material facts related to the claimed defect and the invoice or other proof of original purchase date and price. If Televes so requests, the Purchaser shall, at Purchaser's expense, deliver the claimed Product(s) to Televes, within 14 days of the date of the return authorization. Under no circumstances shall the Product(s) be returned to Televes without a return authorization.
- (E) Any refund to the Purchaser, shall be limited to the purchase price of the Product(s), excluding any applicable taxes, duties, freight costs, removal costs, installation costs, or any other charges incident to the purchase of the product.
- (F) Any damage caused by shipper shall be claimed with

- the shipper in accordance with the shipper's policies and procedures.
- (G) Televes shall in no event and under no circumstances be liable or responsible for any consequential, indirect, incidental, punitive, direct or special damages based upon breach of warranty, breach of contract, negligence, strict tort liability or otherwise or any other legal theory, arising directly or indirectly from the sale, use, installation or failure of any product acquired by Purchaser from Televes.
- (H) This limited warranty extends to the original Purchaser and cannot be assigned or transferred to any other party without the prior express written permission of Televes, which permission Televes may withhold for any reason or for no reason at all.
- (I) Televes will not assume any liabilities for any other warranties, whether statutory, express or implied, made by any other person.
- (J) Televes reserves the right to modify or discontinue this warranty at Televes' sole discretion without notification. No other warranties are expressed or implied.

Note: More information about the CoaxData 1Gbps-HDTV adapter, is accessible via the web: www.televes.com.

Existence of professional software to complex installations CoaxManagerPro, AccessControl management (SNMP) and complex parameterization (QoS). To obtain it, contact the Televes sales department (cial@televes.com).

Safety instructions:

Caution Statements

- **Product inspection** - Inspect the equipment for shipping damage. Should any damage be discovered, immediately file a claim with the carrier.
- **Important Safety Instructions** - To ensure proper installation and operation, take a moment to read this guide before proceeding with the installation. If you have any questions or comments about the T.OX Series Optical Fiber Receivers please contact your dealer.

WARNING: TO PREVENT FIRE OR ELECTRICAL SHOCK DO NOT EXPOSE TO RAIN OR MOISTURE.

CAUTION: RISK OF ELECTRIC SHOCK DO NOT OPEN

CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER. NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED PERSONNEL.

	A product and cart combination should be moved with care. Quick stops, excessive force and uneven surfaces may cause the product and cart combination to overturn.
	The lightning flash with arrow head symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.
	The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the product.

WARNING: TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS PRODUCT TO RAIN OR MOISTURE. DO NOT OPEN THE CABINET, REFER SERVICING TO QUALIFIED PERSONNEL ONLY.

CAUTION: TO PREVENT ELECTRIC SHOCK, DO NOT USE THIS (POLARIZED) PLUG WITH AN EXTENSION CORD RECEPTACLE OR OTHER OUTLET UNLESS THE BLADES CAN BE FULLY INSERTED TO PREVENT BLADE EXPOSURE.

Important Safety Instructions

- 1. Read and Follow All Instructions** - All the safety and operating instructions should be read prior to and followed while operating this product.
- 2. Retain Instructions** - The safety and operating instructions should be retained for future reference.
- 3. Heed Warnings** - All warnings on the product and in the operating instructions should be adhered to
- 4. Cleaning** - Disconnect this product from any electrical source before cleaning. Use a damp cloth; do not use liquid or aerosol cleaners.
- 5. Attachments** - Do not use attachments that are not recommended by the product manufacturer as they may cause hazards.
- 6. Water and Moisture** - Do not use this product near any source of water.
- 7. Mounting** - Do not place this product on an unstable cart, stand, tripod, bracket, or table. The product may fall, causing serious injury to persons or nearby objects, and serious damage to this product. Use only with a cart, stand, tripod, bracket, or table recommended by the

manufacturer, or sold with the product. Any mounting of the product should follow the manufacturer's instructions, and should use a mounting accessory recommended by the manufacturer.

- 8. Ventilation** - Slots and openings in the cabinet are provided for ventilation and to ensure reliable operation of the product. These openings should never be blocked or covered in any way. This product should not be placed in any case, cabinet, or rack unless proper ventilation is provided and the manufacturer's instructions have been adhered to.

- 9. Power Sources** - This product should be operated only from the type of power source indicated on the marking label.

- 10. Grounding or Polarization** - Do not bypass or defeat electrical plug polarization or grounding. Doing so will violate the warranty and may pose a risk of fire or electrocution.

- 11. Wire Protection** - Ensure all connected wiring is routed correctly to avoid damage including pinching, excessive bends, or compression.

- 12. Electrical Supply, Grounding, and Surge Protection** - Ensure that all local or national electrical codes are followed. Seek the advice of a licensed electrician, professional engineer, or other licensed expert. See example wiring figure.

- 13. Power Lines** - Always use caution and avoid operating this or any connected equipment near uninsulated power line or any other hazards.

- 14. Object and Liquid Entry** - Never allow objects or liquid of any kind into this product through openings. Doing so could result in fire or electric shock.

- 15. Servicing** - There are no user serviceable parts. Do not attempt to service this product or remove covers. Doing so may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel. Examples of damage requiring service include but are not limited to:

- Damage to power-supply wiring.
- If liquid has been spilled, or objects have fallen into the product.
- If the product has been exposed to rain or water.
- If the product does not operate normally by following the operating instructions. Adjust only those controls that are covered by the operating instructions as an improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the product to its normal operation.
- If the product has been dropped or physically damaged.
- When the product exhibits a distinct change in performance.

- 16. Replacement Parts** - Ensure that repairs are performed by qualified technicians and that only manufacturer supplied or authorized parts are used.

- 17. Safety Check** - Upon completion of any service or repairs to this product, ensure safety checks to determine that the product is functioning per manufacturer specifications are performed.

- 18. Heat** - The product should be situated away from heat sources such as radiators, heat registers, stoves, or other products (including amplifiers) that produce heat. Ensure that ambient temperature is maintained in the manufacturer specified operating range.

Optical connection instructions:

- An SC/APC single mode fiber cable must be used. Remove the protective cover from the optical connector on the unit and the cap on the cable connector.

- Carefully align the guides on both connectors when plugging a cable to the device, then push the connector all the way in.

- Take special care to avoid damaging the unprotected ends of the connectors, as small scratches, impurities and/or particles of dirt, oil, grease, sweat, etc. may significantly affect the quality of the signal.

- To clean the ends of the connectors, gently rub with a lint-free lens cleaning cloth, dampened using additive-free isopropyl alcohol. Make sure the alcohol evaporates fully before connecting. Keep the connector covers and cable caps in a safe place in case they are needed in the future. Always fit the covers on the connectors of devices that are not connected to cables to prevent the laser beam from damaging the eyes.

- Do not turn the transmitter on without a fiber optic cable connected to it.

Safety measures

Warning.- This product emits an invisible laser beam. Avoid contact with laser radiation. The use of equipment such as binoculars or magnifying glasses may increase damage caused to the eyes.



According to EN60825-1_ 2007

- The use of the equipment in any other way than the specified in this manual may lead to exposure to harmful radiation.
- Do not use the equipment in any way that does not comply with the operating instructions or in any conditions that exceed the stipulated atmospheric specifications.
- Never point the laser beam at people or animals.

CoaxDATA 1Gbps-HDTV

The **CoaxData 1Gbps-HDTV** can transmit IP data over coaxial cable installations with coexistence of TV channels or other existing services. The Coaxial Ethernet modem immediately connects multiple PCs on the coaxial network or powerline on your home, hotel or buildings without additional cabling.

The Ref. 769281 **CoaxData 1Gbps-HDTV** incorporates power supply, two "F" connectors for TV and data connectors and two RJ-45 Ethernet 1000BASE-T / 100BASE-TX / 10BASE-T.

The Ref. 769282 **CoaxData 1Gbps-HDTV** incorporates an Ethernet 1000BASE-T / 100BASE-TX / 10BASE-T and a SFP (According to MSA INF-8074i specification of the SFF Committee). This connector allows you to use Gigabit modules 1000BASE-LX / 1000BASE-SX / 1000BASE-CX or built-in SFP devices that support new protocols like EPON (IEEE 802.3ah) or GPON (ITU G.984) to CoaxData integration in fiber optic networks.

Ref. 769283 **CoaxDATA 1Gbps-HDTV Coaxial Only** incorporates power supply, two "F" connectors for TV and data connectors and one RJ-45 Ethernet 1000BASE-T / 100BASE-TX / 10BASE-T.

Robust metal cover, which enables compliance with CE regulations Coaxial. Highly robust against external interference.

Transfer up to 700 Mbps over coaxial and **500 Mbps** over PLC for triple-play applications such as VoIP telephony, Internet TV, video on demand, Internet shared access. **Quality of Service** (QoS) for classifying the data and set priorities for multiple services.

Allows **up to 253 slaves** ideal distribution datos. Datos shared services and private insured by encrypting the data.

High coverage that supports high attenuation > **85dB** and a distance of **1.2 Km** via coax.

