

FOCX32 – COAX TO THE ANYWHERE ELCONnect®

SIMPLE Use of existing
coax cable infrastructure

ADAPTIVE Integrated solutions for fiber migration –
VoIP – ISDN – WLAN

FAST Internet / Data
up to 200 Mbps gross rate



THE PRODUCT

The FOCX32 (fiber optical coax MDU) is the linking element between a fiber optical transmission system and a CATV network.

With its big transmission range and the large possible data rate which can be reached by using the optical fiber, it is the ideal medium for new network roll-outs and future-proof network updates. Hereby the inhouse distribution of the fiber is the costliest part of the network. With the ELCONnect coax FOCX32 you get an alternative solution to distribute signals over already existing coaxial cable in each apartment.

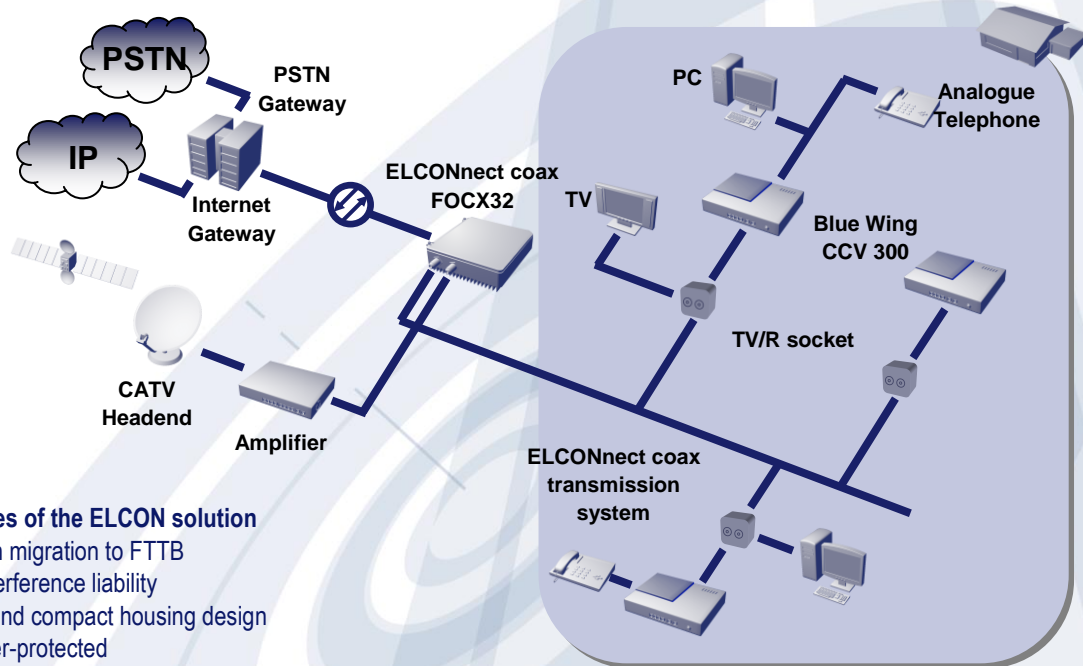
Most of the hybrid fiber coax networks are already clustered, so it is easy to implement a smooth migration to Fiber-To-The-Building installation.

By installing optical point-to-point Ethernet links between central office and remote side, a high-speed IP network can be quickly and easily deployed. The usage of the ELCONnect coax terminal equipment offers a variety of different CPEs with Ethernet ports and/or integrated POTS ports for Voice over IP telephony.

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APPLICATION



Advantages of the ELCON solution

- smooth migration to FTTB
- low interference liability
- small and compact housing design
- weather-protected
- easy mounting
- high efficiency at low power consumption
- high transmission range thanks to the optical fiber network

TECHNICAL DATA

General

- Gateway function between the fiber network and ELCONnect coax
- Optical point-to-point Ethernet WAN interface
- Operates as Ethernet bridge
- LAN: Gross data rate up to 200 Mbps on "shared medium"
- LAN: Net total bit rate up to 85 Mbps on "shared medium" depending on configuration and transmission parameters (attenuation, interferences etc.)

Optical Interface

- Fiber Connector: SC/APC
- Ethernet WAN: 100Base-BX
- Fiber Type: Single-mode Fiber
TX: 1310 nm, RX: 1550 nm

ELCONnect coax Features

- Up to 32 nodes and 64 MAC addresses can be managed directly
- UPA-compliant
- Transmission frequency 4 MHz ... 34 MHz
- Adjustable frequency range
- Modulation method: OFDM selfadjusting multi-carrier approach
- 1536 carriers QAM16 modulated
- total transmitting power: max. 23 dBm \cong 200 mW
- Transmitter adjustment range: -7 dBm ... 23 dBm
- PSD: max. -52 dBm/Hz
- Control range of receiver: -47 dBm ... 13 dBm
- Admissible linear path attenuation:
up to 50 dB – 100%
up to 70 dB – linear reduction of the data rate
- Insertion loss CATV (47 MHz ... 862 MHz): \leq 2 dB

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TECHNICAL DATA

Ethernet Features

- Standard Ethernet IEEE 802.3 protocol
- IEEE 802.1q, 802.1d, Multicast
- DHCP client
- TCP/IP

Chipsets

- AFE DSS7700
- PowerLine IC DSS9001

Quality Of Service

- Prioritization
- Definition of service classes
- Bandwidth management, Bandwidth limitation
- Latency management

Management and Configuration

- Configuration via DHCP- and TFTP-files
- Software configuration tools
- SNMP
- optional: static configuration

Security

- Encoding of the transmission path using Tone mapping (Negotiation of physical link parameters between Master and each client as individual virtual P2P connection)
- VLAN, oVLAN

Physical parameters

Power supply

- Local power supply: 230 V / 50 Hz or remote power supply: 30 V ... 70 V / 50 Hz (placement option)
- Power consumption < 10 W
- Euro mains plug (in case of local power supply) or clamp connectors (in case of remote power supply)

External ports

- 1 × Fiber connector SC/ APC
- optional: 1 × RJ45 Ethernet (8-pin) 10/100 Base-T, MDI/MDIX autosensing
- CATV connectors 75 Ω for the coaxial cables (customized version)
- Mains connection

Casing:

- Dimensions: 250 mm × 250 mm × 95 mm
- Weight: approx. 4.4 kg
- Aluminium die-casting housing
- Degree of protection IP54

Environmental conditions

- Operation: -20 °C ... 60 °C
- Humidity: 10 % ... 85 % (not condensing)
- Storage: -20 °C ... 70 °C
- Humidity: 5 % ... 90 % (not condensing)

Conformity

- CE
- EN 60950-1, ETSI EN 300 386, EN 55013, EN 55022, EN 55024, EN 50083

For the Planning Stage

- Remark: The CATV network needs a passive return path. Potentially in-stalled CATV amplifier needs to be checked and equipped.

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PURCHASE ORDER INFORMATION

Product designation	Order number
ELCONnect coax FOCX32 with local power supply 230 V / 50 Hz	900134
ELCONnect coax FOCX32 with remote power supply 30 V ... 70 V / 50 Hz	900178