

FOS 100 – FIBER TO THE HOME

blue wing

PERFORMANCE

with 100 Mbps internal routing performance one of the fastest Residential Fast Ethernet CPE in the market

PLUG & PLAY

fiber pre-wiring enables easy end customer installation

VARIETY

Router, WLAN, POTS,
Cable TV, DECT, ISDN



Sample Picture

PRODUCT FAMILY BLUE WING FOS 100 – THE DRIVE-UP TO THE DATA HIGHWAY

IP-TV and 3D-TV in HD quality for all the family, online games, Cloud Computing and applications like Smart Grid and Smart Metering require ultimate bandwidths. The steadily growing bandwidth demand, driven by ever-increasing services, calls for an adequate drive-up onto the Internet highway. Only fiber optical systems allow a continuous growth of the data rates to be transmitted.

The FOS 100, as part of the Fiber Optical System from ELCON Systemtechnik GmbH, enables network operators to roll out Fiber To The Home (FTTH) installations at moderate costs. The choice of Active Ethernet as transmission standard allows the use of common network routing elements and ensures a smooth migration to FTTH networks.

As a result, subscribers will benefit from broadband connections providing high-quality Voice-over-IP services and data rates up to 100 Mbps bidirectional.

Integrated interfaces for analogue telephones and the 4-port Ethernet router make an easy connection of CPE devices to the future data network possible already today. Profiting from the high bandwidth for Internet access, end users may decide for attractive add-on options, such as Video-On-Demand and interactive multimedia services.

Via the FOS 100w / FOS 101w / FOS 111w WLAN Access Point it is possible to connect the WLAN-equipment with the High-Speed Internet. This allows devices like notebooks or set-top boxes to be operated quickly and flexibly – without additional wiring efforts.

With the optional available CATV-module analogue or digital television signals (DVB-C) can be transmitted via a second wave length on the same fiber like the data signals (FOS 111(w)) or via a second fiber (FOS 101(w)), for direct connection of TV-sets and set-top boxes.

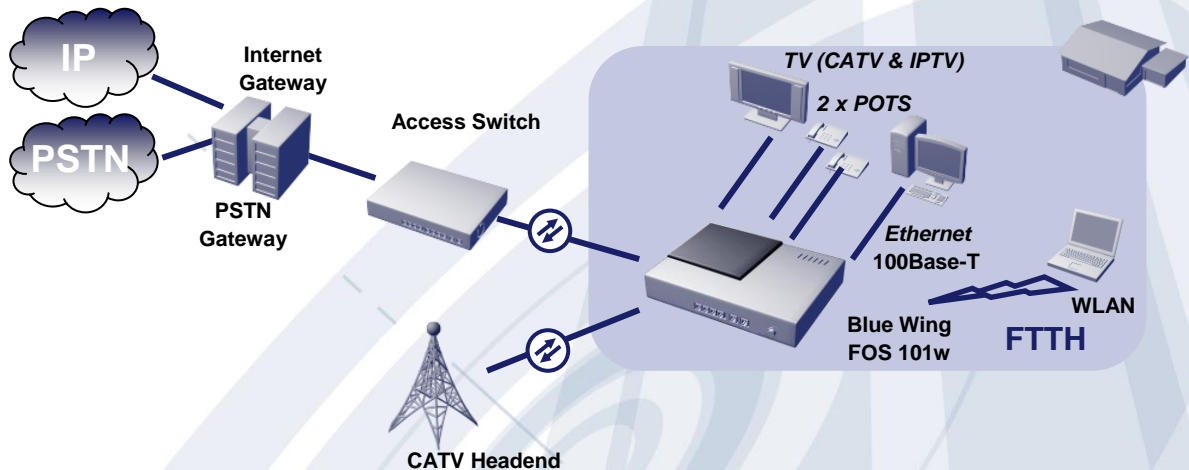
To enable a cost-efficient preassembly of the fiber access port by the service technician (Passive Fiber Rollout) and the subsequent provision of the active CPE-component, ELCON offers a pre-installation box (VIP 100 / VIP 101). This device allows for a testable termination of the optical fiber network. The active CPE-component can be easily clicked on the pre-installation box and then put into operation by the subscriber himself/herself.



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APPLICATION



TECHNICAL DATA

Optical interface (WAN)

- Fiber connector: SC/PC
- Ethernet WAN: 100Base-BX; optional: 100Base-LX
- Fiber Type: Singlemode Fiber;
- Wavelength TX: 1310 nm, RX: 1550 nm
- Optical Link budget: Minimum 16 dB (measured 20 dB)
- Range: 15 km
- Optional: Client-specific optical interface
- Optional (FOS 111(w)): WDM-Splitter for RF overlay
TX (Data): 1310 nm, RX (Data): 1490 nm;
RX (TV): 1550 nm

LAN interface

- Ethernet LAN: 4 × 10/100Base-TX; RJ45; Auto MDI / MDIX; Transparent Bridging mode
- DHCP: dynamic IP address assignment
- IGMPv1/v2 multicast / IGMP snooping
- 2048 MAC addresses
- Spanning Tree Protocol / Rapid Spanning Tree Protocol (STP / rSTP)

Telephone services

- Phone sockets: 2 × RJ11
- Signaling: SIP (RFC 3261)
- Speech codecs: G.711; optional (subject to a license): G.726, G.729a/b, G.723.1
- Supplementary services: 3PTY; CLIP; CLIR; HOLD; CW etc.
- Fax: G.711 pass-through; optional: T.38

Quality of Service & Safety

- Quality Of Service: TOS/Diffserv;
- Firewall; Network Address Translation (NAT); Port Forwarding

Management

- Remote Management via SNMP v1, v2, v3;
- Dynamic configuration: DHCP, TFTP
- Firmware update: Remote and local Firmware update
- optional: Web-GUI; TR069

Optional interfaces

Cable TV

- Optical interface: SC/APC; RX: 1280 nm ... 1600 nm
- Fiber: single mode 9/125 μm
- Optical connector: SC/APC 8°
- Optical input level: -7 dBm ... 0 dBm
- HF-outlet : F-socket / 75 Ohm
- Frequency range: 47 MHz ... 862 MHz
- Electrical output level: 80 dBμV ± 3 dB
- TV-interface: multichannel TV- and radio socket; AM-VSB; FM; QAM;

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TECHNICAL DATA

Optional interfaces

WLAN interface

- Operating mode: Access Point
- Standards 802.11g,b
- Frequency range 2.412 GHz ... 2.472 GHz
- Data rates
 - 802.11b: 11 / 5.5 / 2 / 1 Mbps
 - 802.11g: 54 / 48 / 36 / 24 / 12 / 9 / 6 Mbps
- Types of modulation: QAM-64; QAM-16; QPSK; BPSK
- Max. effective radiation power ERP:
 - 802.11g 54 Mbps = 17 dBm;
 - 802.11b 11 Mbps = 19 dBm
- Aerial power gain: +2 dBi
- Receiver sensitivity
 - 802.11g 54 Mbps = -72 dBm;
 - 802.11b 11 Mbps = -83 dBm
- Encryption: WEP, WPA, WPA-2

Optional

- Pre-installation box (PI box) passive (VIP 100 / VIP 101): with integrated fiber management incl. cover (VIC 100)
- Pigtails

Physical parameters

Power supply of plug-in power supply module (Euro plug)

- Operating voltage range: 100 V ... 240 V AC
- Frequency range: 50 Hz ... 60 Hz
- Current consumption: ≤ 0.5 A

Power supply of FOS 100

- Nominal voltage: 12 V DC
- Current consumption: < 1.2 A

Dimensions (W × D × H)

- 240,4 × 160,4 × 48,2 mm³ (FOS 100(w))
- 240,4 × 167,5 × 48,2 mm³ (FOS 101(w) / FOS 111(w))
- 242 × 165 × 68 mm³ (pre-installation box)

Environmental conditions (according to ETS 300 019)

- Operation:
 - Air temperature: 0 °C ... +45 °C
 - Rel. humidity: 5 % ... 95 %
- Storage and transport:
 - Air temperature: -25 °C ... +55 °C
 - Rel. humidity: 5 % ... 95 %

EMC & Safety

- EMC: EN 55022 Class B, ETSI EN 300 386, ETSI EN 300 328, ETSI EN 301 489-1
- Safety: EN 60950-1

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PURCHASE ORDER INFORMATION

Product designation	Order number
Blue Wing FOS 100	900229
Blue Wing FOS 100 (for pre-installation box)	900238
Blue Wing FOS 101 (with CATV)	900231
Blue Wing FOS 101 (for pre-installation box; with CATV)	900239
Blue Wing FOS 111 (WDM splitter; with CATV)	900250
Blue Wing FOS 111 (WDM splitter; external plug; with CATV)	900353
Blue Wing FOS 100w (with WLAN)	900233
Blue Wing FOS 100w (for pre-installation box; with WLAN)	900240
Blue Wing FOS 100w (external plug; with WLAN)	900274
Blue Wing FOS 101w (with CATV + WLAN)	900234
Blue Wing FOS 101w (for pre-installation box; with CATV + WLAN)	900241
Blue Wing FOS 111w (WDM splitter; with CATV + WLAN)	900271
Blue Wing FOS 111w (WDM splitter; external plug; with CATV + WLAN)	900354
Blue Wing VIP 100 (pre-installation box passive for FOS 100(w))	900235
Blue Wing VIP 101 (pre-installation box passive for FOS 101(w))	900281
Blue Wing VIC 100 (Cover for pre-installation box)	900237