EFX-14

Four port **G.fast ONU / DPU**
for Fast and Successful FTTB and FTTdp Deployment over Existing In-House Copper Installation

Aggregate data rates up to 1 Gbps!

The **EFX-14** system is a Plug & Play solution distributing ultra-speed data inside multi-dwelling houses.

In many cases, operators have installed 1G Ethernet optical fiber pipes in front of the house but still can't deliver premium Triple Play services to customers because of in-house fiber installation problems. In multi-dwelling houses, residents often can't agree on the in-house installation work and related expenses, which in turn entirely blocks all deployment.

The **EFX-14** solution overcomes this issue **by using the existing in-house copper pair installations** instead of carrying out the fiber and thus completely eliminates the need to enter customer's home.

EFX-14 is a very compact four port DPU (ONU) with full MSAN functionality. One optical fiber can be used to feed four (4) subscribers with G.fast connection. Each G.fast connection can deliver up to **1 Gbps aggregate speed!**

Different housing options allow installation in different places. The ultra-compact size with passive cooling is very suitable for installations in existing distribution cabinets, basements, and hallways (front door scenario). Optional special IP-68 housing allows installations in manholes.

EFX-14 has different powering options. It can be powered locally, remotely from CO over existing (dark) copper or even from subscriber's side (reverse powering over G.fast). All these features make **EFX-14** a very flexible solution for applications in different **FTTdp**, **FTTB** and **FTTH** scenarios where a simple, economical and future proof solution is required for providing **premium Triple Play services**.

> Plug & Play FTTdp/FTTB deployment
> Front door scenario

> **EFX-14D** version available for daisy-chain configuration

> Extra compact housing for installation in dp boxes

Network Standards
> 10/100/1000BASE-T...........IEEE802.3, 802.3u, 802.3ab, 802.3x, 802.3ac
> 1000BASE X.......................IEEE802.3z, (2500BASE-X-optional)
> Energy efficient Ethernet..IEEE 802.3az
> PoE.....................................IEEE 802.3af, IEEE 802.3at
> QoS&VLAN.........................IEEE 802.1p, 802.1q, 802.1ad

Protocol:
> Transparent to higher layer protocols

G.fast compliant standards with:
> ITU-T G.9700/1, supports 106a profile
> ITU-T G.999.1,G.997.1
> IEEE 1588
> G.9941, G.hs
> Spectrally co-existent with legacy technologies (ADSL, VDSL)

FEATURES:
> Aggregate data rate up to 1 Gbps with DTA option (Dynamic Timing Allocation)
> Selectable „Band plan" allows allocation of throughput
> Diagnostics of DSL link function
> Line SNR select
> Line Interleave protect
> Band Plan profile selectable

Bridging and VLAN
> Filtering functions for MAC/IP/Port.
> QoS for Port/VLAN/DSCP/TCP-UDP Port number.
> Port Based VLAN & IEEE 802.1q VLAN Tagging, IEE 802.1ad QinQ, 802.1 QoS
> Port configuration for Bandwidth/Duplex/Speed/Flow control/ Broadcast storm
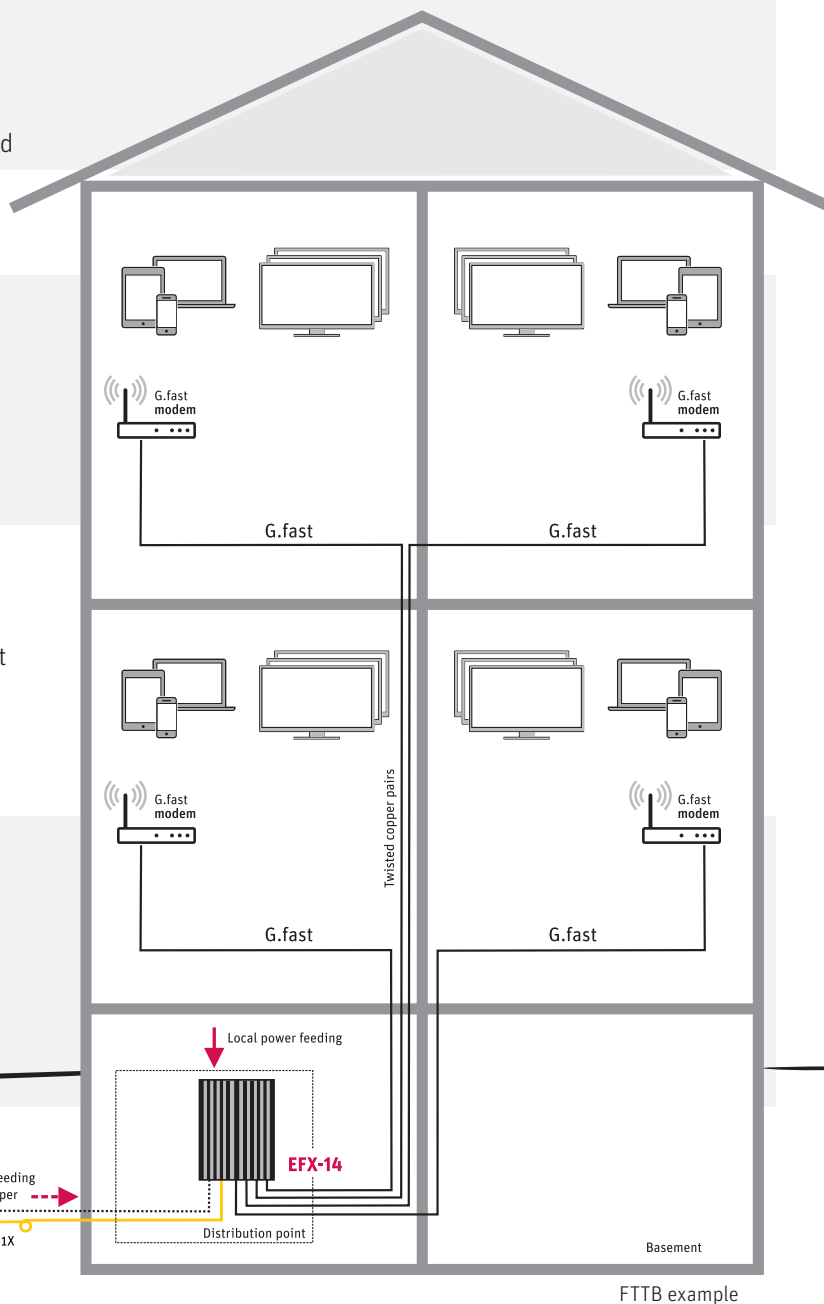
Connectors:
> Interchangeable SFP module: Ethernet: 10/100/1000 Base T (RJ45) or Optical gigabit Ethernet (SFP-LC, single/ multi-mode, single/dual fiber) or GPON ONU solution compliant with ITU-T G.984 standard
> 10/100/1000 Base T, PoE, RJ-45
> Local powering (48V/0,3A)

Indicators
> Power LED
> LAN x/Optical Link/Act LED
> Line Link/Act LED

Power Requirement-Options:
> Local powering (48V/0,3A or 100-240VAC via adaptor)
> PoE acc. to IEEE802.3af
> Reverse powering compliant with ETSI TR 102 629 and ETSI EN 302 099
> Remote powering through spare copper pair (ILoop < 55 mA, symmetry guarded)

G.fast modem

G.fast

G.fast modem

G.fast

Twisted copper pairs

G.fast modem

G.fast

G.fast modem

G.fast

Local power feeding

Optional remote power feeding over legacy copper

OPTICAL FIBRE 1X

EFX-14

Distribution point

Basement

FTTB example

Emissions Compliance
> FCC part 15 Class B, CE Mark

On-board surge protection

Housing:
> Dimensions: (WxLxD) = 120 x 170 x 55 mm
> Metal with passive cooling

Environment Conditions
> Operating Temperature: -20C ~ +70ºC

MVM TEL d.o.o. reserves the right to make changes to specifications without prior notice.

SLOVENIA
Excellent SME
Verify!