

# **EFX-11**

Single 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-11** system is a Plug & Play solution distributing ultra-speed data inside single- and 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-11** single port G.fast DPU (ONU) overcomes this issue by "unbundling" the installation case. It makes it possible to address each customer individually.

Instead of carrying out new fibre installations, the existing telephone cables are used. The **EFX-11** uses a single copper pair to transmit ultra-high-speed data and to power equipment, all at the same time. Each customer powers his associated ONU **EFX-11** unit, which is installed at distribution point (dp), in the basement or in the hallway (front door scenario), from his mains via the RPM-01 unit. Each fiber (GPON, P2P) is connected to an individual **EFX-11** ONU, and the latest G.fast technology is used

to transmit 700 Mbps (total BW 1 Gbps) up to the customer. G.fast modem can then deliver premium Triple Play services.

- > Plug & Play FTTdp/FTTB deployment
- Front door scenario
- > Power feeding problem solved
- Individual approach Pay as You Grow
- Extra compact housing for installation in dp boxes

# MAIN FEATURES & SPECIFICATIONS

#### **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 802.1g VLAN Tagging, IEE 802.1ad QinQ, 802.1 QoS
- > Port configuration for Bandwidth/Duplex/Speed/Flow control/ Broadcast storm

#### **Connectors:**

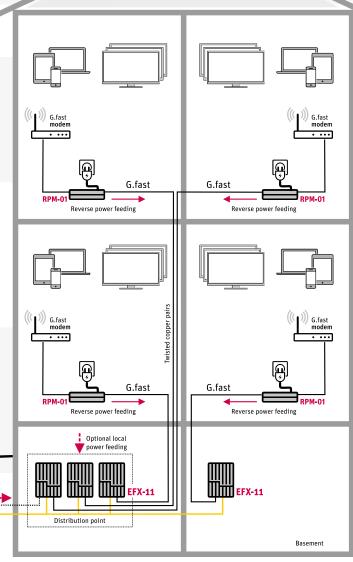
- remote power feeding over legacy copper -> Interchangeable SFP module: Ethernet: 10/100/1000 Base T (RJ45) or OPTICAL FIBRE 4X Optical gigabit Ethernet (SFP-LC, single/ multi-mode, single/dual fiber) or GPON ONU solution compliant with ITU-T G.984 standard
- > 10/100/1000 Base T, PoE, RJ-45
- > Local 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)



FTTB example

#### **Emissions Compliance**

> FCC part 15 Class B, CE Mark

# On-board surge protection

#### Housing:

- > Dimensions: (WxLxD) = 109 x 169 x 56 mm
- > Metal with passive cooling

#### **Environment Conditions**

> Operating Temperature: -20C ~ +70°C

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



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