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Preliminary datasheet

# Genexis FiberTwist

PX2100-Series (PtP)

Compact and high-speed network demarcation



Where GPON and Point-to-Point (PtP) are starting to hit bandwidth limitations, 10G provides a solution. The well-known FiberTwist offers an easy Do-It-Yourself (DIY) upgrade path from PtP to 10G Point-to-Point: increasing the end-user's bandwidth with a single twist.

With the FiberTwist product range, Genexis introduces a unique broadband connectivity solution that redefines size, ease of installation and flexibility for the distribution of fiber bandwidth throughout the entire home.

### Key features

- · Compact, fully managed Point-to-Point network demarcation
- Patented FiberTwist twist-on interface that fits all FiberTwist FTUs and Bracket; enabling a trouble-free, real DIY end-user installation
- One 10GE LAN port to meet the higher speed demand of connected devices in the home
- · Optional integrated CATV receiver
- · Flexible management via i.a. TR-069 and CloudSight
- · ITU-T K.21 Basic level (Surge Protection)
- · Halogen-free PCB
- · Recycled plastics
- · Enhanced LED dimming

### A perfect Match for every deployment scenario

The Genexis FiberTwist product family has been developed in such a way that it can be integrated into various deployment scenarios. Using products from the FiberTwist FTU family, the demarcation point can be extended to any desired location in the home, enabling easy access and installation of services.

Its small size (110  $\times$  110  $\times$  46 mm) makes the FiberTwist a perfect fit in any environment, be it a living room, metering cabinet or basement.

The FiberTwist PX2100-Series is the perfect next step in a Point-to-Point network to enable higher speeds in every deployment scenario.

## Product features and specifications

### Genexis FiberTwist PX2100-Series (PtP)

## General specifications

Dimensions (H x W x D) 110x110x46 mm 1 x Unlock button Weight 1 x LED dimming button

· PX2110 1x LAN interface TBD PX2120 TBD 1 x Power button Operating temperature o - 45 °C 1 x Reset button

-25 - 55 °C 1 x CATV output coaxial F-female\* Storage temperature

Operating humidity 5% - 95%

10% - 95% Storage humidity

Flame retardants Halogen free Power supply voltage 12 Vdc ± 5%

### Power consumption (EU-CoC-BBE)

Model	Ready Mode	On Mode	
PX2110	TBD	TBD	
PX2120	TBD	TBD	

### Fiber (WAN) interface

Optics compliant with 10GBASE-BX-10U

TX (upstream) power -2.2...0.8 dBm RX sensitivity -15 dBm TX wavelength (typical) 1270 nm RX wavelength (typical) 1330 nm Single mode fiber ITU-T G.657.A2 Optical connector SC/APC Optical Range Up to 10km

Digital Diagnostic Monitoring (DDM)

### LAN interfaces

1x 10GE: Compliant with 1000/2.5G/5G/10G BASE-T

- · IEEE 802.3an-2006 for 10G
- · IEEE 802.3bz (nbase-t 2,5G/5G)
- · IEEE 802.3az Engery Efficient Ethernet

LED indicators for speed and activity

### User interfaces

BER

CATV\* Wavelength (typical) 1550 nm Optical return loss min 40 dB RF passband 45-900 MHz RF output impedance 75 Ω F-Connector length 8,5 mm AGC optical input power -9 ... o dBm RF output level (AGC on)  $80 \pm 2.5 \, dB\mu V$ RF flatness max 2 dB Output return loss max -10 dB Slope / tilt 1 ... 4 dB CNR min 47 dB@-8 dBm CSO / CTB max -57 dBc Spurious to carrier max -57 dBc MER QAM-64 > 35 MER QAM-256

Remote management via TR-069

> 37

max 1.0E-9



# Product features and specifications

### Genexis FiberTwist PX2100-Series (PtP)

### Layer 2 features

Jumbo up to 9K supported on WAN and LAN

Non-blocking switching performance

Up to 8K MAC addresses

Automatic learning and aging

IEEE 802.1Q VLAN support for 4096 VLANs

VLAN classification and retagging (VLAN

mapping)

Port-based VLANs

IEEE 802.1ad QinQ VLAN tagging

Port Trunking and Monitoring/Mirroring

Layer 2 loop prevention

### Quality of Service (QoS)

8 QoS traffic classes

Port based QoS

IEEE 802.1p tagged frames

IPv4 QoS Type of Service (ToS)

IPv4 QoS Differentiated Services (DS)

IPv6 QoS Traffic Class

Strict, weighted, or mixed mode per port

### Management

DHCP/TFTP, HTTP

TR-069, TR-369, TR-181

CLI

 ${\sf CloudSight}$ 

Ethernet OAM including dying gasp

GUI

#### **IGMP**

IGMP/MLD (v2/v3) snooping and proxy

Configurable parameters for e.g. robustness, fast

leave and snooping behavior

### Emissions and safety regulations

CE approved

Safety:

- · IEC EN 62368-1
- · BS EN 62368-1

Laser safety:

· IEC 60825-1: Class 1 laser

Emissions & Immunity:

- · EN 55032/CISPR 32, Class B
- · EN 55035

RoHS/WEEE marking:

· Compliant with 2011/65/EU

Surge protection

· Compliant with ITU-T K.21 basic level

#### Status I FD

Power/Alarm

Fiber uplink status

LAN

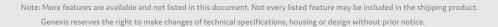
CATV status\*

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CATV status\*

### Genexis FiberTwist PX2100-Series product models

Model	Туре	WAN (Mbps)	10GE LAN	Wavelength		
				TX	RX	CATV
FiberTwist PX2110	Layer-2 PtP ONT	10000	1x	1270 nm	1330 nm	-
FiberTwist PX2120	Layer-2 PtP ONT	10000	1x	1270 nm	1330 nm	Yes





<sup>\*</sup> Applicable to selected models only