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## Genexis FiberTwist

### XGS2000-Series (XGS-PON)

Compact and high-speed network demarcation

Where GPON and Point-to-Point (PtP) are starting to hit bandwidth limitations, XGS-PON provides a solution. The well-known FiberTwist now offers an easy Do It Yourself (DIY) upgrade path from GPON and PtP to XGS-PON: 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 and high-speed XGS-PON network demarcation
- A flexible solution matching both single-dwelling and multi-dwelling deployment scenarios
- TrueTalk™ PON autosensing
- Patented FiberTwist twist-on interface on FTU or Bracket, enabling 100% fool-proof, DIY, end-user installation
- Optional integrated CATV receiver or FXS-port
- 10GE or 2.5GE LAN, and up to 3x GE LAN ports to connect external devices, such as a Residential Gateway

#### Sustainability features

- Power consumption compliant to EU-CoC-BBE
- Housing made of 90% recycled plastics
- Halogen free PCB
- Minimized size to reduce materials
- Surge protection against lightning strikes

#### A perfect fit for every deployment scenario

The FiberTwist product family has been developed in such a way that it can be integrated into various deployment models, including single-dwelling and multi-dwelling 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 makes the FiberTwist a perfect fit in any environment, be it a living room, metering cabinet or basement.

# Product features and specifications

## Genexis FiberTwist XGS2000-Series (XGS-PON)

### Environment

Dimensions (H x W x D)	
· FiberTwist XGS21xx / XGS2310(B) / XGS2418	110x110x46 mm
· FiberTwist XGS24xx	180x180x57 mm
Weight	
· FiberTwist XGS2110-2.5G	158 g
· FiberTwist XGS2114-2.5G	161 g
· FiberTwist XGS2120-2.5G	210 g
· FiberTwist XGS2110	187 g
· FiberTwist XGS2120 & FiberTwist XGS2130	245 g
· FiberTwist XGS2310B	198 g
· FiberTwist XGS2410 & FiberTwist XGS2414	356 g
· FiberTwist XGS2420 & FiberTwist XGS2472	411 g
Power supply voltage	12 Vdc ± 5%
Operating temperature	0 - 40 °C
Operating humidity (non-condensing)	5% ~ 95%
Storage temperature	-25 - 55 °C
Storage humidity (non-condensing)	10% ~ 100%
Flame retardants	Halogen free

### LAN interface(s)

10GE: Compliant with 100/1000/2.5G/5G/10G BASE-T

2.5GE: Compliant with 100/1000/2.5G BASE-T

GE: Compliant with 10/100/1000 BASE-T

Led indicators for speed and activity

### User interfaces

1 x Unlock button

1 x LED dimming button

10GE / 2.5GE / GE LAN interfaces\*

1 x Power connector

1 x Power button

1 x Reset button

1x CATV Output coaxial F-female\*

1x FXS\*

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

FiberTwist XGS2110-2.5G	3.2 W Idle Mode 3.2 W On Mode
FiberTwist XGS2114-2.5G	3.2 W Idle Mode 4.3 W On Mode
FiberTwist XGS2120-2.5G	5.1 W Idle Mode 5.5 W On Mode
FiberTwist XGS2172-2.5G	5.1 W Idle Mode 5.5 W On Mode
FiberTwist XGS2110	4.8 W Idle mode 5.3 W On Mode
FiberTwist XGS2310B	4.0 W Idle Mode 6.1 W On Mode
FiberTwist XGS2410	3.8 W Idle Mode 6.2 W On Mode
FiberTwist XGS2414	4.0 W Idle Mode 7.1 W On Mode
FiberTwist XGS2420	5.8 W Idle Mode 7.7 W On Mode
FiberTwist XGS2472	5.8 W Idle Mode 7.7 W On Mode

### Voice features\*

SIP based Voice-over-IP

G.711 A-law /  $\mu$ -law codec

G.729 codec

5 REN support

Line Echo Cancellation

DTMF: In-band, RFC2833, SIP-Info

Class 5 features

FiberTwist XGS2000-Series (XGS-PON) has two different product housings



FiberTwist XGS2310B



FiberTwist XGS2420

## WAN interface

1x XGS-PON interface

- Compliant with ITU-T G.9807.1 Annex B
- Compliant with ITU-T G.988
- Compliant with BBF TR-156 issue 4
- Compliant with BBF TR-247

SC/APC connector

N1 optics

- TX (upstream) power +4 ... +9 dBm
- RX (downstream) power -9 ... -28 dBm
- TX wavelength 1260 ... 1280 nm
- RX wavelength 1575 ... 1580 nm

TRx allows co-existence with GPON, 25GS-PON and CATV

Interoperable with the major OLT brands in triple-play configurations

Support up to 256 XGEM ports (XGS-PON Encapsulation Method)

32 T-CONT (Transmission Containers)

Dying gasp

## CATV\*

Wavelength (typical)	1550 nm
Optical return loss	min 45 dB
RF passband	45-900 MHz
RF output impedance	75 Ω
F-Connector length	11 mm
AGC optical input power	-9 ... 0 dBm
RF output level (AGC on)	80 ± 2.5 dBμV
· Exception: XGS2130	86 ± 2.5 dBμV
according to CENELEC-42	4% OMI / ch
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	> 34
MER QAM-256	> 36

Remote management via OMCI\*\*

## Interoperable OLTs - TrueTalk™

Genexis has been an independent PON ONT vendor since 2013. All Genexis ONTs are interoperable and have been field deployed with main OLT brands active in the European and North American markets. Genexis will provide its full support to enable a successful interop.

Please ask your sales representative for more information.

## Emissions and safety regulations

CE approved

Safety:

- IEC EN 62368-1

Laser safety:

- IEC 60825-1: Class 1 laser

Emissions & Immunity:

- EN 55032/CISPR 32:2008, Class B
- EN 55024 / EN 55035

RoHS/WEEE marking:





- Compliant with 2011/65/EU

Surge protection

- Compliant with ITU-T K.21 basic level

UKCA approved

## Status LEDs

Power	
Fiber uplink status	
CATV Status*	
Telephony status*	

\* Applicable to selected models only

\*\* OMCI implementation by the OLT is required

## FiberTwist XGS2000-Series (XGS-PON) product models

Model	Type	10GE LAN	2.5 GE LAN	GE LAN	CATV (80 ± 2.5 dBμV)	FXS
FiberTwist XGS2110-2.5G	Layer-2 XGS-PON ONT	-	1x	-	-	-
FiberTwist XGS2114-2.5G	Layer-2 XGS-PON ONT	-	1x	-	-	Yes
FiberTwist XGS2120-2.5G	Layer-2 XGS-PON ONT	-	1x	-	Yes	-
FiberTwist XGS2172-2.5G	Layer-2 XGS-PON ONT	-	1x	-	Yes, CATV filters for Denmark	-
FiberTwist XGS2110	Layer-2 XGS-PON ONT	1x	-	-	-	-
FiberTwist XGS2120	Layer-2 XGS-PON ONT	1x	-	-	Yes	-
FiberTwist XGS2130	Layer-2 XGS-PON ONT	1x	-	-	Yes (86 ± 2.5 dBμV)	-
FiberTwist XGS2310B	Layer-2 XGS-PON ONT	1x	-	2x	-	-
FiberTwist XGS2410	Layer-2 XGS-PON ONT	1x	-	3x	-	-
FiberTwist XGS2414	Layer-2 XGS-PON ONT	1x	-	3x	-	Yes
FiberTwist XGS2418	Layer-2 XGS-PON ONT	2x	-	2x	-	-
FiberTwist XGS2420	Layer-2 XGS-PON ONT	1x	-	3x	Yes	-
FiberTwist XGS2424	Layer-2 XGS-PON ONT	1x	-	3x	Yes	Yes

# People Deserve Fiber

## Interested?

Contact your local sales representative

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