



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
- 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
- Interoperable with the major OLT brands in triple-play configurations
- LED Dimming

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.



Genexis FiberTwist XGS2000-Series (XGS-PON)

Environment

Dimensions (H x W x D)	
· XGS21xx / XGS2310(B)	110x110x46 mm
· XGS24xx	180x180x57 mm
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

Power consumption

XGS2310	typ. 5.3 W
XGS2110-2.5G	typ. 3.8 W
XGS2114-2.5G	typ. 4.5 W
XGS2120-2.5G	typ. 5.5 W

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, NG-PON2 and CATV
- Interoperable with the major OLT brands in triple-play configurations
- Support up to 256 XGEM ports (XGS-PON Encapsulation Method)
- 40 T-CONT (Transmission Containers)*
- 32 T-CONT (Transmission Containers)**
- Dying gasp

* Applicable to FiberTwist-XGS2310 model only

*** Applicable to selected models only

** Applicable to FiberTwist-XGS21xx / XGS24xx / XGS2310B models

**** OMCI implementation by the OLT is required

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***

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) according to CENELEC-42	80 ± 2.5 dBμV 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****	

Voice features***

- SIP based Voice-over-IP
- G.711 A-law / μ-law codec
- G.729 codec
- 5 REN support
- Line Echo Cancellation
- DTMF: In-band, RFC2833, SIP-Info
- Class 5 features





Interoperable OLTs

Genexis has been an independent PON ONT vendor since 2013. All Genexis ONTs are interoperable and have been field deployed with major 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 EN 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*** 

FiberTwist XGS2000-Series (XGS-PON) product models

Model	Type	10GE LAN	2.5 GE LAN	GE LAN	CATV	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 XGS2310	Layer-2 XGS-PON ONT	1x	-	2x	-	-
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 XGS2420	Layer-2 XGS-PON ONT	1x	-	3x	Yes	-
FiberTwist XGS2472	Layer-2 XGS-PON ONT	1x	-	3x	Yes, CATV filters for Denmark	-

The Genexis FiberTwist XGS2000-Series supports the coexistence with CATV, GPON and NG-PON2 standards

Note: Not every listed feature may be included in the shipping product. We reserve the right to make changes of technical specifications, housing or design without prior notice.