

FiberTwist P2000-Series

Compact network demarcation



Providing Gigabit fiber connectivity to any desired location in the home is one of today's major challenges. With the endless variety of different deployment scenarios and end-user requirements, this calls for a flexible and scalable connectivity solution.

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

Features

- » Compact, fully managed Point-to-Point network demarcation, based on a single-fiber design
- » A flexible solution matching both single-dwelling and multi-dwelling deployment scenarios
- » Patented FiberTwist click-on interface on the FTU, enabling trouble-free end-user installation
- » Optional integrated CATV receiver
- » Up to 4 Gigabit LAN ports to connect external devices, such as a Residential Gateway and various Layer 2 services
- » LED dimming
- » Wall junction box compatible

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 (110 x 110 x 46 mm) makes the FiberTwist a perfect fit in any environment, be it a living room, metering cabinet or basement.

Product features and specifications

FiberTwist P2000-Series

General specifications

- » Dimensions (H x W x D) 110x110x46 mm
- » Weight approx. 210 g
- » Power supply voltage 12 Vdc ± 5%
- » Power consumption with CATV * max. 5.1 W
max. 6.5 W
- » Operating conditions 0 - 40 °C
- » Storage conditions 0 - 70 °C

WAN interface

- » Tx wavelength 1310 nm
- » Rx wavelength 1490/1550 nm **
- » Optical output range -9 ... -3 dBm
- » Optical input range -23 ... -3 dBm
- » Single mode fiber (ITU-T G.657)
- » SC/APC connector
- » Up to 20 km range
- » Compliant with 1000BASE-BX20-U
- » Compliant with 100BASE-BX20-U
- » Auto sensing 1Gb/s and 100Mb/s

Layer 2 features

- » Support Jumbo (up to 9K)
- » (Managed) Quality of Service

Network Terminator

- » Remote port enabling/disabling
- » Remote per-port rate shaping
- » Up to 64 VLANs or 802.1q transparent
- » Q-in-Q (PVID 88a8)

Media Converter

- » WAN link state forwarding
- » WAN to LAN link speed following

LAN interface(s)

- » Up to 4 1000/100/10Base-T RJ45 Interfaces
- » LED indicators for link and activity

CATV *

- » Wavelength 1550 nm
- » Optical input range -8 ... 0 dBm
- » RF output impedance 75 Ω
- » RF flatness ±1 dB
- » Output return loss 14 dB
- » RF output level (AGC) 80 ± 1 dBμV
- » AGC working range -8 ... 0 dBm
- » RF frequency range 47 - 875 MHz
- » Slope / tilt 2 ... 5 dB
- » CNR min 45 dB @ -8 dBm
- » CSO / CTB max -55 dBc
- » Spurious to carrier max -55 dBc
- » Remote enabling of CATV
- » Remote monitoring:
 - CATV input signal
 - (Calculated) RF output

User interfaces

- 1 x Unlock button
- 1 x Reset button ***
- 1 x LED dimming button ***
- 1 or 4x LAN interface
- 1 x Power connector
- 1 x CATV output coaxial F-female *

* Applicable to selected models only

** The WAN receiver is wideband. In case it is

combined with CATV it is sensitive to 1490nm only

*** Applicable to Network Terminator models only

**** Under development

Management

Network Terminator

- » TR-069, TR-181
- » GAPS (7.0 and higher)
- » CLI
- » DHCP/TFTP
- » IEEE 802.3ah OAM in passive mode:****
 - Discovery
 - Loopback
 - Fault notification (dying gasp)




Media Converter

- » HTTP
- » IEEE 802.3ah OAM in passive mode:
 - Discovery
 - Loopback

Emission and safety regulations

- » CE approved, FCC on request
- » Safety:
 - IEC EN 60950
 - IEC EN 60825-1:2001-08
- » Laser safety:
 - IEC EN 60825-1: Class 1 laser
- » Emissions & Immunity:
 - EN 55022/CISPR 22:2008, Class B
 - EN 55024
- » RoHS/WEEE marking:
 - Compliant with 2002/95/EC

Status LEDs

-  Power
-  Fiber uplink status/activity
-  CATV status *

FiberTwist P2000-Series product models

Model	Type	WAN (Mbps)	LAN interface	Wavelength		
				Tx	Rx	CATV
FiberTwist-P2110	Media converter	1000/100	1 x	1310 nm	1490 nm	-
FiberTwist-P2410	Network terminator	1000/100	4 x	1310 nm	1490 nm - 1550 nm	-
FiberTwist-P2411	Network terminator	1000/100	4 x	1310 nm	1490 nm	-
FiberTwist-P2420	Network terminator	1000/100	4 x	1310 nm	1490 nm	1550 nm