



Genexis FiberTwist

P3000B-Series Point-to Point (PtP)

Compact network demarcation with optional routing

The highly successful FiberTwist P2000 and P3000-Series have proven themselves as flexible, reliable and fully manageable Point-to-Point Network Terminators. To further meet future market demands, a new platform generation will provide even more possibilities, like upgrading the device to a router using the same hardware.

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
- Up to 4 Gigabit LAN ports to connect external devices, such as a Residential Gateway and various Layer 2 services
- Optional integrated CATV receiver or FXS port
- Flexible management via i.a. TR-069 and CloudSight
- ITU-T K.21 Basic level (Surge Protection)
- Halogen-free PCB
- Dying gasp support
- Enhanced LED dimming
- Upgradable to L3/routing via license fee

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 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.

The FiberTwist P3000B-Series is using the open and flexible GenXOS operating system, based on ioWrt. This offers operators maximum software flexibility in every deployment scenario.

Product features and specifications



Genexis FiberTwist P3000B-Series Point-to Point (PtP)

General specifications		IGMP	Quality of Service (QoS)
Dimensions (H x W x D)	110x110x46 mm	IGMP/MLD (v2/v3) snooping and proxy	4 QoS traffic classes
Operating temperature	0 - 45 °C	Configurable parameters for e.g. robustness, fast leave and snooping behavior	Port based QoS
Storage temperature	-20 - 75 °C		IEEE 802.1p tagged frames
Operating humidity (non-condensing)	5% -95%	User interfaces	IPv4 QoS Type of Service (ToS)
Storage humidity (non-condensing)	5% -95%	1 x Unlock button	IPv4 QoS Differentiated Services (DS)
Flame retardants	Halogen free	1 x LED dimming button	IPv6 QoS Traffic Class
Power supply voltage	12 Vdc ± 5%	4x LAN interface	Strict, weighted, or mixed mode per port
Power consumption (EU-CoC-BBE)		1 x Power connector	Management
P3410B & P3411B	2.8 W Idle Mode	1 x Reset button	DHCP/TFTP, HTTP
	4.4 W On Mode	1 x CATV output coaxial F-female*	TR-069, TR-181
P3416B	3.2 W Idle Mode	CATV*	CLI
	5.3 W On Mode	Wavelength (typical)	CloudSight
P3420B	5.5 W Idle Mode	Optical return loss	Ethernet OAM including dying gasp
	6.9 W On Mode	RF passband	GUI
Fiber (WAN) interface		RF output impedance	Emissions and safety regulations
Optics compliant with 1000BASE-BX20-U		F-Connector length	CE approved
TX wavelength (typical)	1310 nm	AGC optical input power	LVD safety standard:
RX wavelength (typical)		RF output level (AGC on) according to CENELEC-42	· IEC EN 62368-1:2014
· FiberTwist P3410B	1490 & 1550 nm	RF flatness	· A11 2017 (Second Edition)
· FiberTwist P3411B	1490 nm	Output return loss	Laser safety standard:
· FiberTwist P3416B	1490 & 1550 nm	Slope / tilt	· IEC EN 60825-1: Class 1 laser
· FiberTwist P3420B	1490 nm (CATV 1550 nm)	CNR min	Emissions & Immunity standards:
Single mode fiber	ITU-T G.657.A2	CSO / CTB	· EN 55032/CISPR 32:2015 ED2.0, Class B
Optical connector	SC/APC	Spurious to carrier	· EN 55035:2017
Optical Range	Up to 20km	MER QAM-64	· EN 55024:2010 / A1:2015
Digital Diagnostic Monitoring (DDM)		MER QAM-256	· EN 50083-2
Configurable optical blackout (for OTDR)		Remote enabling of CATV	RoHS/WEEE marking
LAN interfaces		Layer 2 features	Surge protection:
4x 10/100/1000Base-T RJ45 ports		Jumbo up to 2K supported on WAN and LAN	· Compliant with ITU-T K.21 basic level
LED indicators for speed and activity		Non-blocking switching performance	Status LEDs
IEEE802.3az Energy Efficient Ethernet (EEE)		Up to 8K MAC addresses	System/Status
Voice features*		Automatic learning and aging	Fiber uplink
SIP based Voice-over-IP		IEEE 802.1Q VLAN support for 4096 VLANs	CATV status*
G.711 A-law / μ-law codec		VLAN classification and retagging (VLAN mapping)	FXS status*
G.729 codec		Port-based VLANs	
5 REN support		IEEE 802.1ad QinQ VLAN tagging	
Line Echo Cancellation		Port Trunking and Monitoring/Mirroring	
DTMF: In-band, RFC2833, SIP-Info		Layer 2 loop prevention	
Class 5 features			

* Applicable to selected models only



Genexis FiberTwist P3000B-Series product models

Model	Type	WAN (Mbps)	LAN interface	Wavelength			
				TX	RX	CATV	Voice (FXS)
FiberTwist P3410B	Network termination with router functionality	1000	4x	1310 nm	1490 nm & 1550 nm	-	-
FiberTwist P3411B	Network termination with router functionality	1000	4x	1310 nm	1490 nm	-	-
FiberTwist P3416B	Network termination with router functionality	1000	4x	1310 nm	1490 nm & 1550 nm	-	Yes
FiberTwist P3420B	Network termination with router functionality	1000	4x	1310 nm	1490 nm	1550	-

Note: More features are available and not listed in this document. Not every listed feature may be included in the shipping product.

Genexis reserves the right to make changes of technical specifications, housing or design without prior notice.