



Genexis FiberTwist

P3000-Series Point-to Point (PtP)

Compact network demarcation with routing



The Genexis FiberTwist P3000-Series provide network demarcation and routing functionality in one compact device, right at the place where the fiber enters the home. With the P3000-Series, there is no need to waste space and money on additional residential gateways, while it still enables WiFi coverage in

any residence when combined with one or more In-Home products. With this solution, the end-user or the operator can place an In-Home Wifi device, such as the Genexis Pulse, at a place where wireless connectivity truly matters.

Key features

- Compact, fully managed Point-to-Point network demarcation, based on a single-fiber design
- Patented FiberTwist click-on interface on the FTU, enabling trouble-free, DIY end-user installation
- High-speed routing functionality with 4 managed Gigabit Ethernet ports
- Flexible management via TR-069, CLI, DHCP/TFTP, SNMP or/and GAPS (Genexis Automatic Provisioning System)
- Optional integrated CATV receiver
- Seamless interoperability with large variety of In-Home devices
- Wall junction box compatible
- LED dimming

The best match for In-Home devices

In order to have a great network at home, it's no longer necessary to have an overly complicated residential gateway. Instead, the router functionality is already in place in the FiberTwist P3000-Series products. That way, the WiFi functionality can be handled exclusively by In-Home devices, reducing interoperability issues with routers and improving placement and performance.

Being one of the smallest of its kind (110 x 110 x 46mm) the FiberTwist is a perfect fit in any environment, saving space in metering cabinets and basements.



Product features and specifications

Genexis FiberTwist P3000-Series Point-to Point (PtP)

General specifications

Dimensions (H x W x D)	110x110x46 mm
Weight (without on CATV)	176 g
Weight (with CATV)	225 g
Power supply voltage	12 Vdc ± 5%
Power consumption	max. 5.1 W
with CATV *	max. 6.5 W
Operating temperature	0 - 40 °C
Storage temperature	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

Network interface

- 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 frames (up to 9k)
- Managed Quality of Service (QoS)

User interfaces

- 1 x Unlock button
- 1 x Reset button
- 1 x LED dimming button
- 1x 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

Routing

- Line-speed (1000 Mbps) routing performance for packets > 256 byte
- DHCP server / DNS proxy
- NAT / PAT
- UPnP
- VPN pass-through
- SPI Firewall
- DMZ and port forwarding/translation
- Mixed bridged/routed port(s) for IPTV
- IGMP(v2/v3) snooping and proxy
- RTSP proxy for Video on Demand (VoD)

LAN interfaces

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

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 enabling of CATV	

Remote monitoring:

- CATV input signal
- (Calculated) RF output




Management and control

- TR-069, TR-098/TR-181, TR-104
- Genexis Automatic Provisioning System (GAPS)
- SNMP
- DHCP / TFTP
- CLI
- Fail-safe firmware upgrade
- End user management via web interface
- Reset button for factory default settings

Emissions and safety regulations

- CE approved, FCC on request
- Safety:
 - IEC EN 60950 or IEC EN 62368-1
- Laser safety:
 - IEC EN 60825-1: Class 1 laser
- Emissions & Immunity:
 - EN 55032/CISPR 32:2008, Class B
 - EN 55024
- RoHS/WEEE marking:
 - Compliant with 2011/65/EU

Status LEDs

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

Genexis FiberTwist P3000-Series product models

Model	Type	WAN (Mbps)	LAN interface	Wavelength		
				Tx	Rx	CATV
FiberTwist P3410	Network termination with router functionality	1000/100	4x	1310 nm	1490 nm & 1550 nm	-
FiberTwist P3411	Network termination with router functionality	1000/100	4x	1310 nm	1490 nm	-
FiberTwist P3420	Network termination with router functionality	1000/100	4x	1310 nm	1490 nm	1550 nm

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.