



Genexis FiberTwist

P2400C/P3400C-Series (PtP)

Compact network demarcation



The highly successful FiberTwist ONTs have proven itself as a flexible and reliable solution. With an extensive FiberTwist Point-to-Point (PtP) portfolio, upgrading from 1G to 2.5G PtP is effortless, all while staying on the same wavelength for greater efficiency and faster performance. Perfect for when the market demands higher speeds, but the step to 10G

is too big. For operators seeking advanced functionality, the PtP variants can be equipped with Layer 3 software on the same hardware. This unique capability delivers a powerful NT with router functionality, while maintaining FiberTwist's ease of use and scalability.

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
- One 2.5 Gigabit LAN port to meet the higher speed demand of connected devices in the home
- Up to four Gigabit LAN ports to connect additional external devices to the network terminator
- Optional integrated CATV receiver
- Flexible management via i.a. TR-069 and CloudSight
- Available with L3 routing functionality (P3400-Series)
- ITU-T K.21 Basic level (Surge Protection)
- Halogen-free PCB
- Enhanced LED dimming

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 P2400C/P3400C-Series is the perfect solution for a 1G or 2.5G Point-to-Point network where a 10G PtP network is a bridge too far. The products offer operators maximum software flexibility in every deployment scenario.

Product features and specifications



Genexis FiberTwist P2400C/P3400C-Series (PtP)

General specifications

Dimensions (H x W x D)	110x110x46 mm
Weight	
• FiberTwist P2410C/P3410C	162 gr
• FiberTwist P2411C/P3411C	162 gr
• FiberTwist P2420C/P3420C	212 gr
• FiberTwist P2410C-2.5G/P3410C-2.5G	TBD
• FiberTwist P2411C-2.5G/P3411C-2.5G	TBD
• FiberTwist P2420C-2.5G/P3420C-2.5G	TBD
Operating temperature	0 - 40 °C
Storage temperature	-25 - 55 °C
Operating humidity	5% - 95%
Storage humidity	10% - 95%
Flame retardants	Halogen free
Power supply voltage	12 Vdc ± 5%

Power consumption (EU-CoC-BBE)

Model	Ready Mode	On Mode
P2410C/P3410C	2.8 W	4.4 W
P2411C/P3411C	2.8 W	4.4 W
P2420C/P3420C	5.5 W	6.9 W
P2410C-2.5G/P3410C-2.5G	TBD	TBD
P2411C-2.5G/P3411C-2.5G	TBD	TBD
P2420C-2.5G/P3420C-2.5G	TBD	TBD

Fiber (WAN) interface

Optics compliant with 2500BASE-BX20U and/or 1000BASE-BX20U	
TX (upstream) power	-4 ... 0 dBm
RX sensitivity	-27 dBm
TX wavelength (typical)	1310 nm
RX wavelength (typical)	
• FiberTwist P2410C/P3410C	1490 & 1550 nm
• FiberTwist P2411C/P3411C	1490 nm
• FiberTwist P2420C/P3410C	1490 nm
• FiberTwist P2410C-2.5G/ FiberTwist P3410C-2.5G	1490&1550 nm
• FiberTwist P2411C-2.5G/ FiberTwist P3411C-2.5G	1490 nm
• FiberTwist P2420C-2.5G/ FiberTwist P3420C-2.5G	1490 nm (CATV 1550 nm)
Single mode fiber	ITU-T G.657.A2
Optical connector	SC/APC
Optical Range	Up to 20km
Digital Diagnostic Monitoring (DDM)	
Configurable optical blackout (for OTDR)	

LAN interface(s)

2.5GE: Compliant with 100/1000/2.5G BASE-T
GE: Compliant with 10/100/1000 BASE-T
LED indicators for speed and activity
IEEE802.3az Energy Efficient Ethernet (EEE)

User interfaces

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

CATV*

Wavelength (typical)	1550 nm
Optical return loss	min 40 dB
RF passband	45-900 MHz
RF output impedance	75 Ω
F-Connector length	8,5 mm
AGC optical input power	-9 ... 0 dBm
RF output level (AGC on)	80 ± 2.5 dBμV
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	> 35
MER QAM-256	> 37
BER	max 1.0E-9

Remote management via TR-069

Layer 2 features

Jumbo up to 9K supported on WAN and LAN
Non-blocking switching performance
Up to 8K MAC addresses
Automatic learning and aging
IEEE 802.1Q VLAN support for 4096 VLANs
VLAN classification and retagging (VLAN mapping)
Port-based VLANs
IEEE 802.1ad QinQ VLAN tagging
Port Trunking and Monitoring/Mirroring
Layer 2 loop prevention

Layer 3 features

NAT/PAT, DHCP, DNS
NTP, RTSP
Stateful Packet Inspection Firewall (SPIF)
DMZ, uPnP, Port forwarding

IGMP

IGMP/MLD (v2/v3) snooping and proxy
Configurable parameters for e.g. robustness, fast leave and snooping behavior

Quality of Service (QoS)

8 QoS traffic classes
Port based QoS
IEEE 802.1p tagged frames
IPv4 QoS Type of Service (ToS)
IPv4 QoS Differentiated Services (DS)
IPv6 QoS Traffic Class
Strict, weighted, or mixed mode per port

Management

DHCP/TFTP, HTTP
TR-069, TR-369, TR-181
CLI
CloudSight
Ethernet OAM
GUI

* Applicable to selected models only

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.

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Emissions and safety regulations

CE approved

Safety:

- IEC EN 62368-1
- BS EN 62368-1

Laser safety:

- IEC 60825-1: Class 1 laser

Emissions & Immunity:

- EN 55032/CISPR 32, Class B
- EN 55035

RoHS/WEEE marking:

- Compliant with 2011/65/EU

Surge protection

- Compliant with ITU-T K.21 basic level

Status LEDs

Power/Alarm



Fiber uplink status



LAN



CATV status*



* Applicable to selected models only

Genexis FiberTwist P2400C/P3400C-Series product models

Model	Type	WAN (Mbps)	1GE LAN	2.5GE LAN	Wavelength		
					TX	RX	CATV (1550 nm)
FiberTwist P2410C	Layer-2 PtP ONT	1000	4x	-	1310 nm	1490 nm & 1550	-
FiberTwist P2411C	Layer-2 PtP ONT	1000	4x	-	1310 nm	1490 nm	-
FiberTwist P2420C	Layer-2 PtP ONT	1000	4x	-	1310 nm	1490 nm	Yes
FiberTwist P3410C	Layer-3 PtP ONT	1000	4x	-	1310 nm	1490 & 1550 nm	-
FiberTwist P3411C	Layer-3 PtP ONT	1000	4x	-	1310 nm	1490 nm	-
FiberTwist P3420C	Layer-3 PtP ONT	1000	4x	-	1310 nm	1490 nm	Yes
FiberTwist P2410C-2.5G	Layer-2 PtP ONT	2500	3x	1x	1310 nm	1490 nm & 1550	-
FiberTwist P2411C-2.5G	Layer-2 PtP ONT	2500	3x	1x	1310 nm	1490 nm	-
FiberTwist P2420C-2.5G	Layer-2 PtP ONT	2500	3x	1x	1310 nm	1490 nm	Yes
FiberTwist P3410C-2.5G	Layer-3 PtP ONT	2500	3x	1x	1310 nm	1490 nm & 1550	-
FiberTwist P3411C-2.5G	Layer-3 PtP ONT	2500	3x	1x	1310 nm	1490 nm	-
FiberTwist P3420C-2.5G	Layer-3 PtP ONT	2500	3x	1x	1310 nm	1490 nm	Yes

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