



Genexis FiberTwist

G6000-Series (GPON)

The all-in-one fiber gateway



From our Connected Home product line, we present the FiberTwist G6000-Series. It is our all-in-one fiber gateway. Perfect for homes and apartments where the fiber is terminated in the living area.

Featuring Wi-Fi 6 (5400 Mbps), Wi-Fi EasyMesh™, 4 LAN ports, 2 voice ports and optional CATV. Allowing you to turn a fiber connection into a fiber experience. Its true Do-It-Yourself

mechanism allows the end-users to install the gateway directly to the fiber by twisting it onto the fiber termination unit. No more expensive installers needed!

The FiberTwist G6000-Series is designed for both Point-to-Point networks as well as GPON networks (see P6000-Series Point-to-Point datasheet) and is compatible with all FiberTwist FTUs and brackets.

Key features

- All-in-one fiber gateway
- Both GPON as Point-to-Point (see P6000 PtP datasheet)
- Compatible with all FiberTwist FTUs
- Easy installation and set-up
- EasyTouch Pairing with selected Genexis extenders
- True Do-It-Yourself mechanism
- 802.11ax (Wi-Fi 6)
- Wi-Fi EasyMesh™
- 5GHz (4x4) and 2.4GHz (2x2) radio design
- Analogue telephony support
- Support for cable Set-Top Box (optional)
- Genexis CloudSight compatible

One device for a complete fiber experience

The FiberTwist product line now includes an all-in-one active unit. This means it is not necessary anymore to add an extra device (e.g., Residential Gateway) or include a cable infrastructure in homes where space is limited.

GPON, Point-to-Point, voice and/or CATV? The FiberTwist 6000-Series covers all possible scenarios, it is up to you to select the desired model.

All possible models come with the latest WiFi 6 technologies, providing the end-user with quality WiFi at all time. In other words, end-users can now get the full fiber experience from one single device.

If there is a need to extend the WiFi coverage in the home, the FiberTwist G6000-Series can be extended with an additional extender supporting the Wi-Fi EasyMesh™ standard.



Product features and specifications

Genexis FiberTwist G6000-Series (GPON)

General specifications

Dimensions	180Hx180Wx57D mm
Weight	
· FiberTwist G6414	485 gr
· FiberTwist G6426	542 gr
Power supply voltage	12 Vdc ± 5% 2 A
Operating temperature	0 - 40 °C
Storage temperature	-25 - 70 °C
Relative humidity	10% - 95%

Power consumption (EU-CoC-BBE)

Model	Idle Mode	On Mode
FiberTwist G6416	8.7 W	10.7 W
FiberTwist G6426	10.3 W	11.9 W

Fiber (WAN) interface

1x GPON interface

- Compliant with ITU-T G.984.1/2/3/5
- Compliant with ITU-T G.988

Class B+ optics

- Tx (upstream) power +0.5 ... +5 dBm
- Rx (downstream) power -8 ... -28 dBm
- Tx wavelength 1310 nm
- Rx wavelength 1490 nm

TRx allows co-existence with, CATV, XGS-PON and NG-PON2

Interoperable with the major OLT brands in triple-play configurations

128 GEM ports (GPON Encapsulation Method)

32 T-CONT (Transmission Containers)

SC/APC connector

LAN interface

4x 10/100/1000 Base-T Ethernet RJ45 ports

WLAN interface

2x2 MU-MIMO 802.11ax 2.4 GHz WiFi

4x4 MU-MIMO 802.11ax 5 GHz WiFi

User interfaces

Power connector and switch

Reset and WPS button

RGB status LED

Device status LEDs for Uplink, Internet, Telephony, WiFi and CATV (optional)

End-user web based GUI

Voice interface

2x FXS RJ11 ports

USB interface

1x USB 2.0 port

USB features

NTFS and FAT32 file system storage devices

Wireless features

Wi-Fi MultiMedia (WMM)

Wi-Fi Protected Setup (WPS)

Wi-Fi Security (WPA2 and WPA3)

Wi-Fi EasyMesh™ R2

DFS and Radar Detection

Multiple SSID and hidden SSID

Guest network SSID

Ethernet features

IPv4 and IPv6 dual IP stack

VLAN (un)tagging, Q-in-Q, QoS

PPPoE, L2TP, IGMPv3

* Applicable to selected models only



Product features and specifications

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Gateway features

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

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

Management and control

OMCI
 SNMP
 TR-069, TR369
 TR-181, TR-104 data models
 Command Line Interface (CLI)
 WebGUI
 Genexis EasyWiFi app
 Genexis CloudSight
 Fail-safe firmware upgrade

CATV interface*

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 \pm 2.5 dB μ V
 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 management via OMCI

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.

Regulatory compliance

Radio Equipment Directive 2014/53/EU
 Energy Related Products Directive 2009/125/EC
 CE Safety Directive 2014/35/EU
 RoHS and REACH Directive 2011/65/EU
 ITU-T K.21 standard compliancy

* Applicable to selected models only

Genexis FiberTwist G6000-Series (GPON) product models

Model	GPON WAN (Mbps)	LAN	WLAN 2x2 2.4 GHz	WLAN 4x4 5.0 GHz	FXS	USB	Wavelength		
							Tx	Rx	CATV
FiberTwist G6414	1000	4x	11ax	11ax	2x	1x	1310 nm	1490 nm	-
FiberTwist G6426	1000	4x	11ax	11ax	2x	1x	1310 nm	1490 nm	Yes

- 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.