



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.

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

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.

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 (H x W x D)	180x180x57 mm
Power supply voltage	12 Vdc ± 5% 2 A
Operating temperature	0 - 40 °C
Storage temperature	-25 - 70 °C
Relative humidity	10% - 95%

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
- Power switch
- Reset button
- 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

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 ± 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 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

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