

FiberXport® productline



OCG-2018m Gigabit routed Ethernet gateway with VoIP

- Worlds smallest tripleplay FTTH solution, with integrated fiber management
- Automatic provisioning via GAPS or via TFTP / TR-069
- Four managed Ethernet ports, each configurable in routed or bridged mode
- QoS and extensive VLAN support, rate-limiting
- Dual phone line support
- Auto-sensing of fiber speed



The OCG-2018m routed Gigabit Ethernet gateway, with integrated Voice-over-IP (VoIP), is part of the FiberXport® product family. Together with the FiberXport® wall-mount Fiber Termination Unit and the OCG-14 optical CATV receiver family, it allows for a variety of services in a single unit.

The OCG-2018m has been developed by Genexis to enable quality voice and a combination of bridged and routed Gigabit Ethernet services over a Fiber-to-the-Home (FTTH) network at lowest cost. The extensive VLAN configuration options allow your network to deliver a plurality of services to the end-user, offered by various service providers.

Four routed / bridged data ports

The four Gigabit data ports can operate in bridged or routed mode. This can be configured by the network operator on a per port basis. Management of the routed ports by the end-user is supported via a user-friendly web-interface.

Provisioning and management







Management of the CPE can be done using TR-069 or a combination of DHCP / TFTP with UDP-based CPE commands. Furthermore the Genexis Automatic Provisioning System (GAPS) is an element manager specifically developed to manage and monitor the Genexis CPE, which can be easily integrated into overall OSS/BSS systems. The CPE checks for most recent settings at startup and performs a periodic update check. If the current settings are not available, the CPE can start with locally stored settings.

GENEXIS
Always Connected

User interfaces

- 2 user voice ports RJ-11
- 4 user data (LAN) ports RJ-45
- 1 reset switch

Status LEDs

-  Power / failure indication
-  Fiber uplink status: link and activity
-  CATV receiver status
-  General status information (3x)
-  Feedback on phone line status (2x)
-  LAN-ports – speed, link and activity (4x)

WAN interface

- Compliant with IEEE 802.3 Clause 59 (1000BASE-BX10-U)
- Compatible with IEEE 802.3 Clause 58 (100BASE-BX10-U)
- Auto-sensing fiber speed
- Single mode fiber (ITU-T G.652)
- SC/PC connector
- Full duplex transmission
- TX 1310 nm
- RX 1490 nm
- 10 km range
- > 12 dB power budget
- Class 1 laser product
- Transmit power -3 ... -9 dBm
- Receive power -3 ... -21 dBm

Voice ports

- 2 RJ-11 connectors
- 2 separate phone lines
- SIP-based
- 5 REN support
- G.711 A-law and μ -law codec
- G.729 codec (optional)
- DTMF signaling in-band / RFC 2833 / SIP info
- Line Echo Cancellation (LEC)
- Adaptive jitter buffer
- Packet Loss Concealment
- Caller ID support (DTMF / FSK)
- Support for CLIR
- Class 5 services:
 - call forward:
 - unconditional
 - on busy
 - on no answer
 - call hold / release
 - call waiting
- Modem / fax support
- Automatic provisioning via APS

LAN ports

- Compliant with IEEE 802.3 Clause 40 (10/100/1000BASE-T)
- 4 RJ-45 connectors
- Auto-negotiating speed, duplex, MDI/MDIX
- 4 priority QoS queues per port
- MTU-size 1518 / 1522 bytes
- Larger MTU-size optional
- Per port configurable to routing or bridging mode

LAN ports in bridging mode

- Configurable 802.1p and DSCP priority-to-queue mapping
- VLAN tagging, VLAN trunking support
- Q-in-Q support (optional)
- IGMP snooping
- Rate-shaping
- Transparent for layer 3-7 traffic

LAN ports in routing mode

- LAN-side management via web interface
- Reset switch for factory default settings of LAN-side router settings
- >500 Mbps routing performance
- DHCP-server, NAT, IGMP (v2), UPnP
- WAN-side of routed interface supports DHCP-client and PPPoE
- PPPoE passthrough

CATV control, for OCG-14

- Powering for OCG-14 unit
- Remotely switch on/off via provisioning
- Remote monitoring if CATV input signal is within specification

Provisioning

- Autonomous startup-sequence
- Settings stored locally in flash
- Provisioning even when CPE is turned off
- Failsafe remote firmware update
- Remote control of all port properties of all voice and data ports (VLANs, QoS, Rate-limit etc.)
- Separated management of routed ports for network operator and end-user
- Status feedback:
 - CPE, APS, CATV, LAN status
 - Extensive LAN port statistics counters
 - SIP and line status
- L2 management OAM
- TFTP / TR-069 management

General specifications

Mechanical and environmental

- Dimensions (H x W x D)
 - OCG-2018m: 190x110x60 mm
 - Incl. FXP-100: 250x110x60 mm
 - Weight
 - OCG-2018m unit 250 g
 - Incl. FXP-100 350 g
 - Incl. FXP-100 & OCG-14 480 g
 - Power supply 12 Vdc \pm 10%
 - Power dissipation
 - On-state (typical) 8.1 W *
- * 20% below the European CoC on Energy Consumption target for 2011
- Operating condition 0 - 35 °C
 - Storage condition 0 - 70 °C

Supported standards

ARP	RFC 826
CWMP	TR-069
DHCP	RFC 2131
	RFC 2132
DNS	RFC 1035
	RFC 2782
	RFC 2915
DTMF	ITU-T Q.24
DTMF signaling	RFC 2833
Ethernet	IEEE 802.3 Clause 25
	IEEE 802.3 Clause 31
	IEEE 802.3 Clause 58
ICMP	RFC 792
IGMP v2	RFC 2236
IPv4	RFC 791
LEC	ITU-T G.168
MD5	RFC 1321
NAT	RFC 1631
OAM	IEEE 802.3 Clause 57
QoS	IEEE 802.1p
RTP	RFC 3550
	RFC 3551
	RFC 3711
RTCP	RFC 3605
SDP	RFC 2327
SIP 2.0	RFC 3261, RFC 3263
	RFC 3264, RFC 3265
	RFC 3323, RFC 3420
	RFC 3515, RFC 3581
	RFC 3842, RFC 3891
	RFC 3892
SIP info	RFC 2976
TCP	RFC 793
TFTP client	RFC 1350
UDP	RFC 768
UPnP Device Architecture Version 1.0	
VLAN	IEEE 802.1Q
Voice codec	ITU-T G.711 (A & μ)
	ITU-T G.729
Q-in-Q	IEEE 802.1ad

Emission and safety regulations

- CE approved
- Safety: IEC EN 60950
- Laser safety:
 - IEC EN 60825-1: Class 1 laser product
 - IEC EN 60825-2: Hazard level 1
- Emission: EN 55022, Class B
- Immunity: EN 55024

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