

- IPTV
- VoIP
- High speed internet

# FTTx GPON ONU

## GPON FTTx ONU

PON (Passive Optical Network) is a FTTP or point-to-multipoint network architecture in which passive optical splitters are used to send information to multiple locations. With this method, one single fiber can leave the CO to later be split into a number of new locations. Today typically 16 to 128 customers can be served using one single fiber.

PON uses bi-directional data transfers over a single fiber. The wavelengths that are used are normally 1310nm and 1490nm. Sweden Telecoms GPON ONU's handle up to 2,5Gbit per second downstream and 1,25Gbit upstream. An extra wavelength (1550nm) can be added to deliver RF-video with broadcast technique.

With those speeds available, GPON has no problem serving the customers with several channels of IP-HDTV and other demanding services like VoIP, online gaming, internet radio and high-speed internet access.



**Main features**

- Single chip solution for GPON residential gateway
- Dual core PONRunner network processing engine for 1 Gbps L2/3/4 performance
- Embedded VoIP DSP
- Embedded MIPS32 24K controller
- PCM interfaces for SLICs
- PCI interfaces for USB and WiFi
- Microcoded classification engine with hardware accelerators supporting bridging, queuing, scheduling, policing and traffic shaping
- Layer 3 & 4 accelerators for 1Gbps throughput
- Performance for NAT, VPN, Firewall, security, routing, DES, 3DES, AES encryption for IPSec
- DHCP and TR-069, TR-104, TR-111 provisioning
- IGMP v2
- IP Diffserv, DSCP
- 802.3q VLAN tagging, mapping, Q-in-Q stacking
- 802.1q VLAN,
- 802.1p with 8 priority queues
- 802.1ag Connection Fault Management (CFM)
- Support IPv4 and IPv6
- Software and firmware upgrade via FTP
- Built on a Linux platform

**CPU**

- 400 MHz MIPS32 24K RISC core with MMU
- 4-way, 16KB instruction and 16Kb data cache
- 32 GPIO, UART, SPI, I<sup>2</sup>C, PBI

**VoIP**

- SIP v2
- Up to 4 voice ports, 3-way conferencing
- G.711, G.722, G.723.1, G.726, G.729A/AB coding
- G.168 echo cancellation (64 mS tail)
- T.38 fax relay
- Tone and comfort noise generator
- Voice activity detection

**Ethernet interfaces**

- 4x SMII + 1x GMII MAC (IEEE 802.3ab/802.3z) or 2x GMII (IEEE 802.3ab/802.3z)
- Configurable IEEE 802.3x flow control
- Configurable MDIO interface
- Programmable watermarks and automatic generation of pause frames
- Statistic counters for OMCI and RMON
- Loopbacks

**ONU CPE**

	WAN-Interface	100Mbit LAN ports	1000Mbit LAN ports	VLAN QinQ	QoS	Bandwidth control	VoIP	WiFi	CATV
STC-G700	GPON	4	-	Yes	802.1p/DSCP	Yes	2	-	-
STC-G720	GPON	2	2	Yes	802.1p/DSCP	Yes	2	-	Yes
STC-G730	GPON	4	-	Yes	802.1p/DSCP	Yes	4	Yes	Yes

**Reseller information**

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