

# Alloptic Xgen1000™ ONT



Supporting today's business communications, the **Xgen1000 ONT** delivers the reliability of TDM with the flexibility of Ethernet services. With both high speed data and toll-grade T1/E1 ports, and support for multiple services and subscribers per port, the Xgen1000 ONT allows the Service Provider to deliver next-gen broadband services via its optical access network. QoS and prioritization functionality support business-grade data services and SLAs, along with IP video, voice, and TDM services. The Xgen1000's compact, temperature hardened design and extended-reach Gigabit Ethernet capabilities allow it to deliver high value business services wherever needed.

## Benefits

- Services supported: VoIP, TDM T1/E1, IP Video and Data
- Multiple subscriber/multiple service support from single ONT
- Hardware efficiency: Multiple services from any Ethernet port
- Advanced data services via symmetrical high speed throughput, bandwidth guarantees, and VLAN service segregation
- Wire speed, full bidirectional data rate on each port
- Support and monitor RF devices such as MicroNode™ RFoG ONUs
- High reliability: temperature hardening and optional PON redundancy
- Subscriber and service provisioning without OSS changes via DPC™ DOCSIS PON controller
- Comprehensive remote management facilitates activation and diagnostics
- Quick installation and turn-up via pre-provisioning of the ONT
- Flexible installation: indoor or outdoor mounting, long reach operating range, temperature hardened design
- Standards compliant



Imagine the Possibilities™

# Alloptic Xgen1000™ ONT

## Specifications

### Physical

- Wall or shelf mount:  
1.5"H x 8.75"W x 9.25"D  
3.8cm x 22.2cm x 23.5cm
- Weight: 2 pounds / 0.9kg

### Indicators/External Alarms

- PON/unit status multi-color LED
- TDM port status
- Ethernet port status
- 3 inputs for external alarm – Intrusion, high water, MicroNode
- Low battery/charger status alarm input
- Low optical power input alarm
- Low RF video power alarm

### Optical Characteristics

#### PON Interface

- SC/APC optical PHY (single-mode fiber)
- 1.25 Gigabit Ethernet PON
- Operating range: 0 to 75km (loss limited)

#### Optional Dual PON capability

- Dual optic transceivers
- Automatic switchover on LOS
- Automatic re-ranging
- Working/protect link status indicator
- Manual lockout and force controls

#### Downstream PON (receiver)

- Dynamic range: 0 to -24 dBm
- Receive wavelength: 1490nm ±10nm
- Configurable RSSI (Receive Signal Strength Indicator) range: -15 to -25dBm

#### Return Path PON (transmitter)

- Class 1 laser
- Optical output power level: 1dBm ±1dB
- Optical output wavelength: 1310nm ±50nm

### Ethernet Data Ports

- 4 x 10/100baseT Ethernet data ports
- RJ45 connectors with link state and activity indicators
- Automatic speed detection
- Full or half duplex (automatic or manual setting)
- Guaranteed and best-effort bandwidth controls
- Bandwidth selectivity: 64Kb to 100Mb in 64Kb increments
- Each port supports 100Mbps full duplex
- Reach at 100Mbps: 100 meters on CAT5 cable

### Data switching features

- Port bridging
- Port trunking
- VLAN trunking
- 1 VLAN + 3 "special services" per port
- IGMP V2 support
- IGMP proxy and snooping with "fast leave"
- Diffserv and QoS prioritization
- Transparent LAN services using Q-in-Q or VLAN stacking

### Port statistics

- Transmit packets/octets
- Receive packets/octets
- Receive errors
- Collisions
- Packet discard reason

### T1/E1 Ports (optional)

#### Interfaces

- 2 x RJ48 connectors

#### Framing options

- SF (super frame)
- ESF (extended super frame)
- Unframed E1 mode
- CRC E1 mode
- MF E1 mode
- CRC-MF E1 mode
- Basic E1 mode

### Line coding

- B8ZS
- AMI
- HDB3 E1 line coding

### Synchronization

- System clocked (synchronous mode)

### Other

- Loopback diagnostics
- Configurable LBO (line build-out)
- GR24 performance monitoring

### Management/Operations Functionality

- Remote control capable
- Alarms with configurable severity
- Optical power threshold alarms
- Software download
- Remote configuration
- TDM line testing
- TDM line loop-back
- Transmission path confirmation testing
- Real time data port statistics
- Auto ONT discovery
- DPC™ DOCSIS controller support

### Power and Environmental

- Operating temperature range: -40°C to +65°C
- Humidity: 5% to 95% (non-condensing)
- Operating voltage: 10 to 16VDC (12VDC nominal)
- Operating power: 20 watts (max)
- Optional battery back-up for critical and lifeline applications

## Standards, Certifications, and Patents

- TUV listed, CE mark and FDA certified for safety
- Meets or exceeds FCC part 15b for emissions
- RoHS
- ANSI T1.403, T1.231, T1.408
- ITU-T G.703, G.704, G.706, G.823, G.824
- Telcordia TA5, TR194, TR54016, TR62411, GR909
- IEEE 802.3p, 802.3Q, 802.1ad: QinQ, RFC2495, 802.3ah, 802.3U, 802.3ab
- MEF 9, 14
- IGMP V2 for IP video
- Patents
  - United States (US Pat 7 031 343)
  - Taiwan (#90128223)
  - China (ZL01821736.2)



## Ordering information

Part #	Description
ONUX1110	4 fast Ethernet ports
ONUX1140	4 fast Ethernet ports, 2 T1/E1
ONUX1210	4 fast Ethernet ports, dual PON ports
ONUX1240	4 fast Ethernet ports, 2 T1/E1, dual PON ports

## Compatible power systems

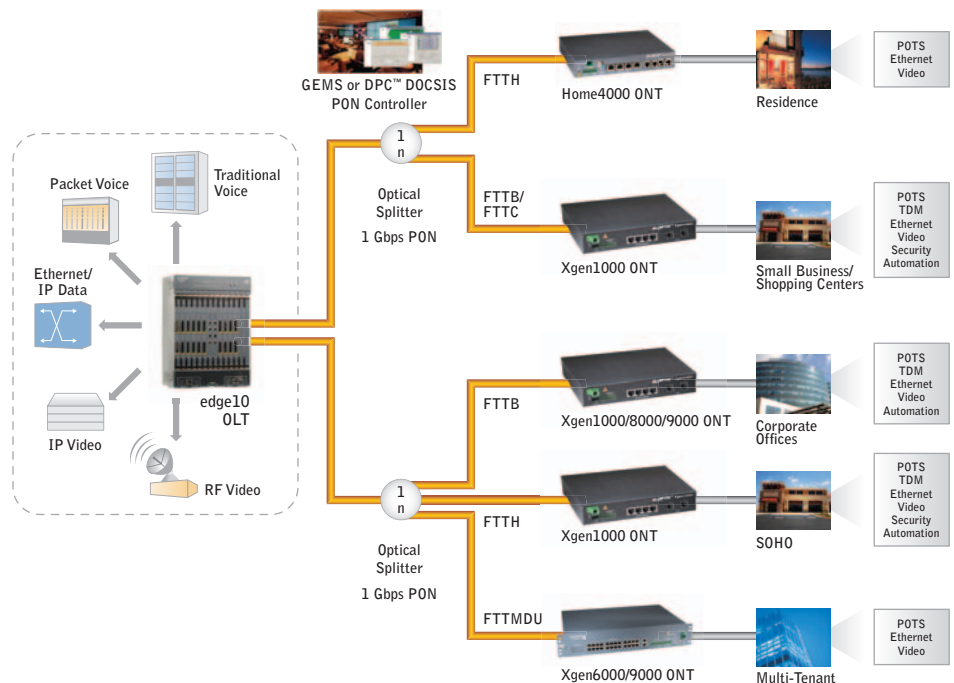
Part #	Description
PSB8000	UPS, 12 Volt, charger and battery
PSB8002	Hardened UPS (charger & battery), 12 Volt
PSB1005	Brick, plug-mount, 12 Volt
PSB1006	Brick, International plug mount, 12 Volt
PSB1009	Hardened UPS (charger & battery) for Alloptic OSPE202 enclosure
PSB1010	12VDV, 20W hardened UPS for OSPE202
BAT1002	Temperature-hardened UPS battery, 12 Volt, for Alloptic OSPE202 enclosure

## Compatible mounting options

The Xgen1000 ONT operates with or without enclosures. It may be mounted in the following Alloptic enclosures and adapters if required.

Part #	Description
OSPE202	All-in-One metal enclosure
ADPTR03	Wall mount adapter
ADPTR06	Snap-on wall-mounting adaptor

## EPON Service Delivery





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