

All-in-One Compact G-PON System



The AMN1620 supports G-PON technology, network synchronization and QoS functionality, and provides an Ethernet/ATM-integrated environment.

It is suitable for use for mobile backhaul and leased line access.

AMN1620



Optical Line Terminal



Optical Network Terminal

Compliance with the ITU-T G.984 International Standard

The G-PON interface supports 2.4 Gbit/s downstream and 1.2 Gbit/s upstream.

Support for Network Synchronization

- Receives a network sync clock signal and distributes it to each ONT.
- Supplies users with a high-precision network sync clock signal.

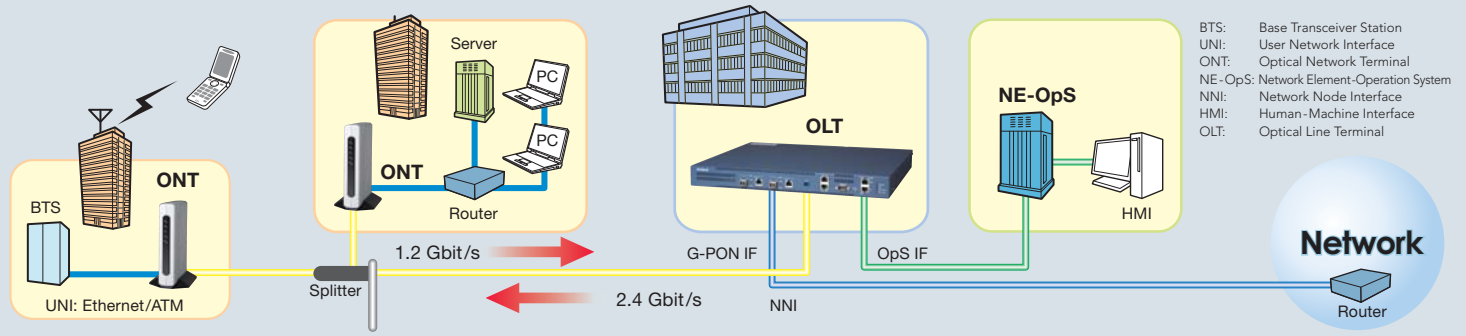
Carrier-grade Quality

- CoS-based QoS
- Peak rate shaper
- Dynamic Bandwidth Assignment (DBA)

Hitachi Compact G-PON System

Compact Gigabit Passive Optical Network System

System Configuration Example



Advanced QoS Functionality

Quality of service is assured by ToS/CoS-based priority queuing and high-precision bandwidth control (maximum bandwidth, assured bandwidth and fixed bandwidth).

Security

Data passed from the OLT to an ONT is encrypted for security.

OLT with an Internal Layer 2 Switch

MAC address learning enables packets to be bridged within the OLT.

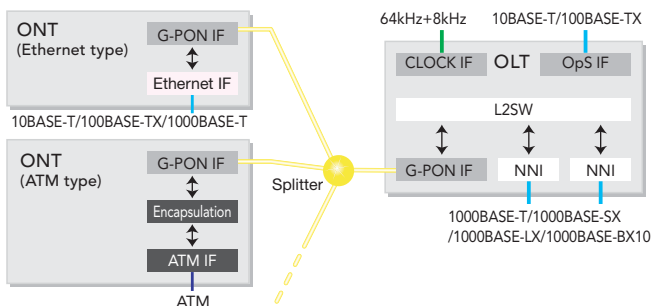
Remote Monitoring and Control Functionality

SNMP-based remote monitoring and control (inband/outband)

Web Server-based Management Functionality

GUI-based remote configuration and alarm monitoring

Device Configuration



OLT Specifications

Item	OLT	
PON	Number of ports	1
	Supported standards	ITU-T G.984
	Optical line rate	Downstream: 2.488 Gbit/s Upstream: 1.244 Gbit/s
	Transmission method	Single-fiber bidirectional transmission (1.49 μm for downstream, 1.31 μm for upstream)
	Optical level	ITU-T G.984.2 ClassB+
	Optical fiber	1.3 μm zero-dispersion SM fiber (ITU-T G.652)
	Splitting ratio	32 max.
	Transmission distance	20 km max.
	Connector	SC/UPC
	NNI	Number of ports
Supported standards		IEEE 802.3ab/IEEE 802.3z/IEEE802.3ah
Connector		RJ-45 (1000BASE-T), LC (1000BASE-SX/LX/BX10)
External Clock Interface	Number of ports	1 x input, 1 x output
OpS Interface	Input clock	64 kHz + 8 kHz composite bipolar signal
Function	Number of ports	1 x 10BASE-T/100BASE-TX
	Protocols	SNMPv2c
	Connector	RJ-45
Power	Bandwidth control	PON interface section Upstream: DBA [Dynamic Bandwidth Assignment] Downstream: Per-ONT peak rate shaper
	Priority control	CoS-based class control (4 classes)
	Maintenance	PON-section loopback test function
	Path management	Point-to-point connection and point-to-multipoint connection
	Power supply	-48 VDC (-40.5 V to -57 V), 100–250 VAC
Cooling	Power consumption	50 W max.
	Cooling	Fan cooling (the fan unit can be replaced)
	Physical	External Dimensions
Rack mounting		19-inch rack mountable [1U]
Mass		5 kg max.
Environmental	Temperature/Humidity	+5 to +40°C / 5 to 85% RH, no condensation

ONT Specifications

Item	ONT (Ethernet type)	ONT (ATM type)	
UNI	Number of ports	1 x 10BASE-T/100BASE-TX/1000BASE-T	1 x ATM (STM-1/OC-3)
	Supported standards	IEEE802.3i/IEEE802.3u/IEEE802.3ab	ITU-T I.432.2, I.361, I.610
	Connector	RJ-45	SC/UPC
Power	Power supply	-48 VDC (-40.5 V to -57 V), 100–250 VAC	
Cooling	Cooling	Air cooling	
Environmental	Temperature/Humidity	0 to +50°C / 5 to 85% RH, no condensation	

· Ethernet is a registered trademark of Xerox Corp.

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To ensure safety and normal operation, be sure to read the operation manual carefully before using the instrument. Product appearance and specifications are subject to change without notice.

HITACHI

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For more information and inquiry.

URL: <http://www.hitachi.com/PON/>

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