Datasheet

Fiber

Gigabit Passive Optical Network

Models: UF-OLT, UF-OLT-4, UF-Nano, UF-LOCO

GPON End-to-End Solution

High-Performance, Provider OLT

Low-Cost, Robust ONU CPE

UBIQUITI® NETWORKS

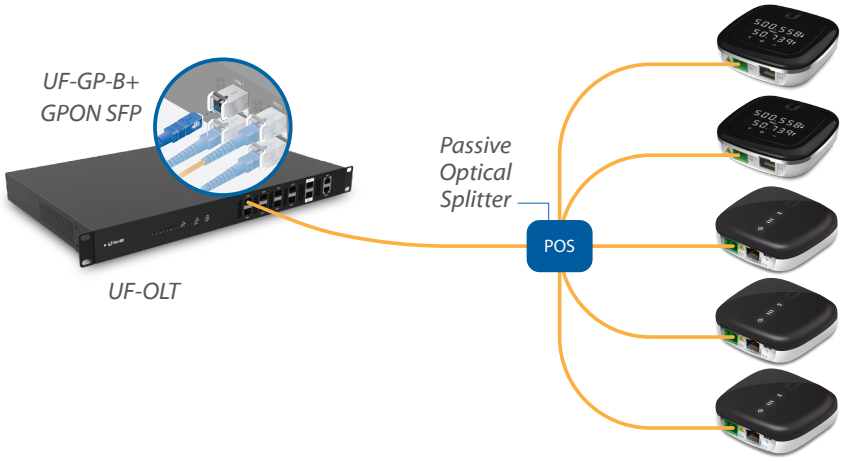
UFiber

High-Performance GPON

Configuring a fiber network just became as easy as setting up a smartphone. Say goodbye to command lines, manuals, and paid support licenses. Introducing the UFiber OLT – a fiber solution that anyone can deploy.

UFiber offers internet and telecom service providers a cost-effective fiber optic delivery system for Triple Play Services (data, voice, IPTV/VoD) with speeds of up to 2.488 Gbps downstream and 1.244 Gbps upstream.

The UFiber network is intelligently managed using the included UNMS™ (Ubiquiti® Network Management System) controller. UFiber devices consist of the UFiber OLT or OLT-4 (deployed at the provider premises) and the UFiber Nano G or loco clients, which function as ONU CPEs (Customer Premises Equipment).

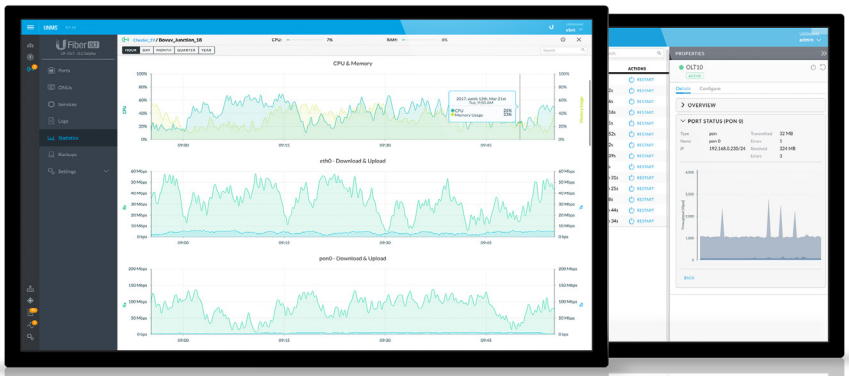


Up to 128 UF-Nano or UF-LOCO per OLT GPON Port

UNMS™

UFiber Controller Software

Ubiquiti Networks distinguishes itself with a library of powerful and intuitive management software that is included at no additional cost. The UNMS is the latest addition to the library.



UNMS is a comprehensive management controller, featuring a graphical UI that is easy to learn and navigate. UNMS manages all of the registered UFiber OLTs and all of their ONU clients.

Features

- Intuitive, Graphical Web UI
- Quick Configuration and Deployment of UFiber Devices
- Centralized Management of Multiple GPON Networks and Sites
- Graphical Reports for Efficient Monitoring and Troubleshooting
- Linux-based Software Installation
- Bundled Software – No Licensing or Support Fees

Optical Line Terminal

The UFiber OLT supports up to 128 ONU CPEs per GPON port with physical links of up to 20 km in distance. It also features SFP+ connectivity for uplinking.

The UFiber OLT is available in two models: the UF-OLT for eight GPON ports and the UF-OLT-4 for four GPON ports.

Features

- **GPON Speeds:**
  - 2.488 Gbps Upstream (TX)
  - 1.244 Gbps Downstream (RX)
- **Wavelengths:**
  - 1490 nm Upstream (TX)
  - 1310 nm Downstream (RX)
- **GPON Range:** Up to 20 km Link
- **Mounting Options:**
  - 1U Rack
  - Wall
  - Desktop
- **Management Options:**
  - Gigabit Ethernet Port (Out-of-Band)
  - RJ45 Serial Console Port (CLI)

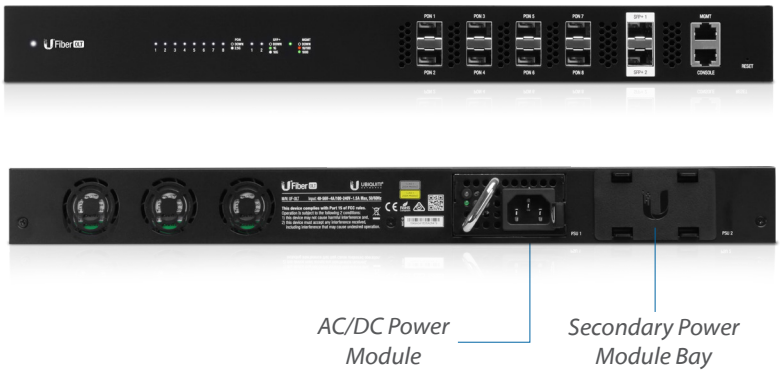
UFiber OLT

Model: UF-OLT

8-Port GPON Optical Line Terminal

Features

- **Ports:**
  - (8) GPON SFP Ports
  - (2) SFP+ Ports
- **Concurrent Clients:** 1024 ONUs Total (128 Clients per Port)
- **Max. Power Consumption:** 40W
- **Power Method:** Hot-Swappable Power Module(s)
  - AC/DC Power Module (Included)
  - DC/DC Power Module (Optional)



UFiber OLT 4

Model: UF-OLT-4

4-Port GPON Optical Line Terminal

Features

- **Ports:**
  - (4) GPON SFP Ports
  - (1) SFP+ Port
- **Concurrent Clients:** 512 ONUs Total (128 Clients per Port)
- **Max. Power Consumption:** 35W
- **Power Method:** 100-240VAC/50-60 Hz, Universal Input

UFiber Nano G

Model: UF-Nano

GPON Optical Network Unit

Featuring an informational LED display, the UFiber Nano G is a robust, high-performance GPON CPE housed in a sophisticated design. It is powered by 24V passive PoE.

Features

- **WAN:** (1) GPON Port
- **LAN:** (1) Gigabit Ethernet Port
- **GPON Speeds:** 2.488 Gbps Downstream (RX), 1.244 Gbps Upstream (TX)
- **Wavelengths:** 1490 nm Downstream (RX), 1310 nm Upstream (TX)
- **Display:** Digital LED for Status Reporting
- **Max. Power Consumption:** 7W
- **Power Method:** 24V Passive PoE
- **Mounting:** Wall-Mountable (Indoor)

UFiber loco

Model: UF-LOCO

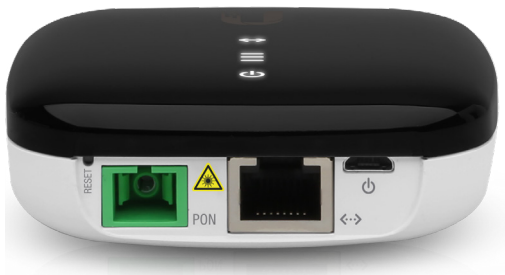
GPON Optical Network Unit

Sporting a sleek industrial design, the UFiber loco is a robust, high-performance GPON CPE that features extremely low power consumption and the choice of 24V passive PoE or Micro-USB power.

Features

- **WAN:** (1) GPON Port
- **LAN:** (1) Gigabit Ethernet Port
- **GPON Speeds:** 2.488 Gbps Downstream (RX), 1.244 Gbps Upstream (TX)
- **Wavelengths:** 1490 nm Downstream (RX), 1310 nm Upstream (TX)
- **Max. Power Consumption:** 3.5W
- **Power Method:** 24V Passive PoE or Micro-USB Power Adapter*
- **Mounting:** Wall-Mountable (Indoor)

* Included only in the single-pack of the UF-LOCO



UFiber Accessories

GPON SFP Modules

The UFiber OLT's GPON SFP ports are designed for use with the UF-GP-B+ and UF-GP-C+ SFP modules.

Each model, the UF-OLT or UF-OLT-4, includes one UF-GP-B+ module; additional modules can be purchased separately.

FiberModule™ Model Comparison

	UF-GP-B+	UF-GP-C+
Supported Media	Single-Mode Fiber	Single-Mode Fiber
Connector Type	(1) SC/UPC	(1) SC/UPC
TX Wavelength	1490 nm	1490 nm
RX Wavelength	1310 nm	1310 nm
TX Power Range	1.5 to 5 dBm	3 to 7 dBm
RX Power Range	-28 to -8 dBm	-30 to -12 dBm
Downstream Data Rate	2.5 Gbps	2.5 Gbps
Upstream Data Rate	1.25 Gbps	1.25 Gbps
Cable Distance	20 km	20 km
Pack Options	20-Pack	20-Pack

Power Modules

The UF-OLT comes with one AC/DC power module pre-installed and features two modular power adapter bays for flexible power options:

Backup Power The second power bay can house a backup power module. If the UF-OLT detects failure of the primary power module, the backup module automatically activates to supply uninterrupted power.

DC/DC Power Both power bays can also house a DC/DC power module for use with DC power.

Available power modules are: RPS-AC-100W and RPS-DC-100W.

PowerModule™ Model Comparison

	RPS-AC-100W	RPS-DC-100W
Power Type	AC/DC	DC/DC
Input Voltage Range	90-264VAC	38-54VDC
Output Voltage Range	24-26VDC	23-25V
Operating Temperature	-10 to 45° C (14 to 104° F)	-10 to 50° C (14 to 122° F)
Operating Humidity	5 to 95% Noncondensing	5 to 95% Noncondensing

Fiber OLT

Hardware Specifications

UF-OLT	
Dimensions	442.4 x 285.6 x 43.7 mm (17.42 x 11.24 x 1.72")
Weight (with Mount Brackets)	4.40 kg (9.70 lb) 4.495 kg (9.91 lb)
Networking Interfaces	(8) GPON OLT SFP (2) 1G/10G SFP+
Concurrent Clients	1024 Registered ONUs/ONTs (128 per GPON Port)
Management Interfaces	(1) Ethernet for Out-of-Band Management (1) RJ45 Serial Console Port
GPON Speeds	2.488 Gbps Upstream (TX) 1.244 Gbps Downstream (RX)
Operating Wavelengths	1490 nm TX 1310 nm RX
Normal Optical Power Range	TX (Class B+): 1.5 dBm to 5 dBm RX: -28 dBm to -8 dBm
Range Physical Reach Logical Reach Max. Differential Fiber Distance	 20 km 60 km 20 km (B+) /40 km (C+)
Power Method	100-240VAC, 100W AC/DC Power Module (Included) 38-54VDC, 100W DC/DC Power Module (Optional)
Power Supply	(1) 25V, 100W AC/DC PSU Module (Included)
Max. Power Consumption	40W (Excluding SFP Modules)
Operating Mode	OLT 2/3 Ethernet Switch and GPON Core
Advanced QoS	Supports 8 Priority Queues per User Port and Traffic Classification
Processor Specs	MIPS 1004kc, 880 MHz Dual Core
Memory Information	512 MB DDR3, 512 MB NAND
Operating Temperature	-10 to 45° C (14 to 113° F)
Operating Humidity	10 to 90% Noncondensing
Certifications	CE, FCC, IC

Fiber OLT 4

Hardware Specifications

UF-OLT-4	
Dimensions	299.80 x 258.95 x 42.55 mm (11.80 x 10.19 x 1.68")
Weight (with Mount Brackets)	1.93 kg (4.25 lb) 2.13 kg (4.70 lb)
Networking Interfaces	(4) GPON OLT SFP (1) 1G/10G SFP+
Concurrent Clients	512 Registered ONUs/ONTs (128 per GPON Port)
Management Interfaces	(1) Ethernet for Out-of-Band Management (1) RJ45 Serial Console Port
GPON Speeds	2.488 Gbps Upstream (TX) 1.244 Gbps Downstream (RX)
Operating Wavelengths	1490 nm TX 1310 nm RX
Normal Optical Power Range	TX (Class B+): 1.5 dBm to 5 dBm RX: -28 dBm to -8 dBm
Range Physical Reach Logical Reach Max. Differential Fiber Distance	 20 km 60 km 20 km (B+) /40 km (C+)
Power Method	100-240VAC/50-60 Hz, Universal Input
Power Supply	AC/DC Internal 56W DC
Max. Power Consumption	35W (Excluding SFP Modules)
Operating Mode	OLT 2/3 Ethernet Switch and GPON Core
Advanced QoS	Supports 8 Priority Queues per User Port and Traffic Classification
Processor Specs	MIPS 1004kc, 880 MHz Dual Core
Memory Information	512 MB DDR3, 512 MB NAND
Operating Temperature	-10 to 45° C (14 to 113° F)
Operating Humidity	10 to 90% Noncondensing
Certifications	CE, FCC, IC

Fiber | Nano G

Hardware Specifications

UF-Nano	
Dimensions	77 x 77 x 28 mm (3.03 x 3.03 x 1.1")
Weight	110 g (3.88 oz)
Networking Interface Speeds	(1) GPON WAN, ITU G.984, 2.488 Gbps Downstream, 1.244 Gbps Upstream (1) GbE LAN, 10/100/1000 Mbps
Management Interface	In-Band Ethernet/PON
Normal Optical Power Range	TX (Class B+): 1.5 dBm to 5 dBm RX: -28 dBm to -8 dBm
Power Method	Passive PoE (Pins +4, 5; -7, 8) Dying Gasp Support
Power Supply	PoE Adapter: 24V, 0.3A (Included)
Max. Power Consumption	7W
Supported Voltage Range	20V to 28V
Processor Specs	MIPS32, 240 MHz
Memory Information	128 MB DDR3
Buttons	(1) Display Information (1) Reset
Operating Temperature	-10 to 45° C (14 to 113° F)
Operating Humidity	5 to 95% Noncondensing
Certifications	CE, FCC, IC

Fiber loco

Hardware Specifications

UF-LOCO	
Dimensions	76.5 x 76.5 x 26.4 mm (3.01 x 3.01 x 1.04")
Weight	77 g (2.72 oz)
Networking Interface Speeds	(1) GPON WAN, ITU G.984, 2.488 Gbps Downstream, 1.244 Gbps Upstream (1) GbE LAN, 10/100/1000 Mbps
Management Interface	In-Band Ethernet/PON
Normal Optical Power Range	TX (Class B+): 1.5 dBm to 5 dBm RX: -28 dBm to -8 dBm
Power Method	Micro-USB: 5V, 1A 24V Passive PoE (Pins +4, 5; -7, 8)
Power Supply	Micro-USB Power Adapter*: 5V, 1A
Max. Power Consumption	3.5W
Supported Voltage Range	4.7 to 5.3V
Processor Specs	MIPS32, 240 MHz
Memory Information	128 MB DDR3
Buttons	(1) Reset
Operating Temperature	-10 to 45° C (14 to 113° F)
Operating Humidity	10 to 90% Noncondensing
Certifications	CE, FCC, IC

* Included only in the single-pack of the UF-LOCO

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