



- **GPON/XGS-PON multi-service unified platform for easy network upgrades and future proof PON deployment**
- **Dual main controllers, dual redundant power supplies, and dual network modules for uplink diversity and resilience**
- **Modular design with sub units, power supplies and fans all hot-swappable**
- **Third party ONU support**
- **Rich layer 2/3 switching features and flexible-management options:**
  - **VLAN support includes 4K VLAN 802.1Q, dual tagging and Q-in-Q**
  - **MAC 128K**
  - **QoS - 802.1P and DSCP**
- **DHCP Option82 and PPPoE+**
- **Multiple link redundancy protocols including STP / RSTP / MSTP / ERPS / LACP**
- **CLI, GUI, SNMP V3, 802.3ah OAM, RFC 3164 Syslog**
- **Line card options include:**
  - **16 GPON SFP ports**
  - **16 Combo PON SFP+ ports (GPON+XGS-PON)**
- **Line cards can be mixed in any combination to present up to 32 ports of PON**
- **19" rack mount and 270 mm depth - suitable for street cabinet as well as central office and hub site deployments**

## Overview

Technetix' MIRA Flexible PON OLT is a medium capacity XGS-PON, XG-PON and GPON-capable OLT that is highly integrated and suitable for network operators, ISPs, enterprises, and park applications. Compliant with the ITU-T 984/G.987/ G.988/G.9807 technical standards. It offers flexibility, operability with third party ONUs, high reliability, and comprehensive software functions. This product is ideal for a wide range of applications including high speed FTTH broadband services to business and residential customers including, business park, campus, and other enterprise communities.

The compact 2RU design comprises two main control slots and two 16-port PON card slots and supports GPON/ XG-PON/XGS-PON mixed deployments, with up to 32 PON ports (each supporting a maximum of 128 ONUs). The dual main control boards each support 4x GE/10GE SFP+ interfaces and 2x 100G QSFP28 ports.

The MIRA Flexible PON OLT is a 2RU device that is simple to install and maintain, making it a space-efficient choice for street cabinet as well as central office and hub site deployments. It allows for mixed networking of various types of ONUs, providing operators with a cost-effective fiber access solution.

## Hardware

Parameter	Specification
Interface	MPSA: main control board, 4x GE/10GE SFP+, 2x 100G QSFP28 GP16A: 16-port GPON line card XS16A: 16-port XG/XGS PON line card CS16A: 16-port GPON/XG/XGSPON Combo line card
Exchange capacity	1280 Gbps
Forwarding rate	952.32 Mpps
Memory and storage	4G Bytes (main control board) + 4G Bytes (PON board)
Flash	64M + 8G Bytes (main control board) + 64M Bytes (PON board)
Management port	Console port, debugging network port
Standard	Comply with ITU-TG.984/T G.987/G.988 standard
PON	Wavelength: GPON: 1310 nm (upstream) 1490 nm (downstream) XGSPON: 1270 nm (upstream) 1577 nm (downstream)
	Line speed: GPON downlink 2.5 Gbps, uplink 1.25 Gbps XGPON downlink 10 Gbps, uplink 2.5 Gbps XGSPON downlink 10 Gbps, uplink 10 Gbps
	Flexibly compatible with any brand of ONT perform batch software upgrades on ONUs
Fan	Modular fans supply (x2)
Power supply	AC: 100-240 V, 47/63 Hz; DC: 48 V Modular power supply, optional AC+DC, DC+DC
Power consumption	280 W
Temperature	Operating -10°C to +50°C (+14°F to +122°F)
	Storage -40°C to +70°C (-40°F to +158°F)
Humidity	Operating 10-95%, non-condensing
	Storage 10-95%, non-condensing
Weight	26.5 lb (12.0 kg)
Dimensions (H x W x D)	3.5"H x 19.0"W x 10.6"D (8.9H x 48.3W x 27.0D cm)

## Software

Parameter	Specification
VLAN	Support 4K VLAN 802.1Q
	Support VLAN based on port, MAC and protocol
	Support dual-tag VLAN function, port-based static Q-in-Q and flexible Q-in-Q
MAC	Support 128K MAC address entries
	Support static MAC address setting
	Support black hole MAC address filtering function
	Support port MAC address limit
PON	Splitting ratio: 1:128 (GPON, XG-PON, XGS-PON)
	Support B+/C+/C++ GPON optical module
	Support N1/N2/E2 XG-PON or XGS-PON optical module
	Support N1/B+, N2/C+, E2/D Combo optical modules
	SN / SN + Password ONU authentication, FEC
	ONU optical power monitoring
Rogue ONU detection	

## Software

Parameter	Specification
Layer 2 switching	Support STP/RSTP/MSTP
	Support ERPS Ethernet ring network protection protocol
	Support Loopback-detection port loopback detection
Port control	Support bi-directional bandwidth control
	Support port storm suppression
	Support 9K Jumbo super long frame forwarding
Port aggregation	Support static link aggregation
	Support dynamic LACP
	Each aggregation group supports a maximum of 8 ports
Mirroring	Support mirror image
ACL	Support standard and extended ACL
	Support 3K QACL entries
	Support time range (Time Range) ACL policy
	Provide flow classification and flow definition based on IP packet header information such as source/destination MAC address, VLAN, 802.1p, ToS, DSCP, source/destination IP address, L4 port number, protocol type, etc.
QoS	Support flow speed limit function based on custom business flow
	Supports packet mirroring and packet redirection based on custom service flows
	Support priority marking based on custom service flow, support 802.1P, DSCP priority remark capability
	Support port-based priority scheduling function, support queue scheduling algorithms such as SP/WRR/SP+WRR
Safety	Support user hierarchical management and password protection
	Support IEEE 802.1X authentication/centralized MAC address authentication
	Support Radius&TACACS+ authentication
	Support MAC address learning number limit, support black hole MAC function
	Support SSH 2.0, providing a secure encrypted channel for user login
	Support SNMP v3 encrypted management
	Support port isolation, hardware isolation of packets between ports
	Support broadcast packet rate suppression
	Support IP Source Guard to automatically create IP+MAC+port+VLAN binding table, and support manual binding table items
	Support DHCP Option82 and PPPoE+
Support ARP flood attack automatic suppression and ARP spoofing protection	
Support the prevention of various DOS attacks and virus attacks against the CPU on the control layer	
Layer 3 routing	Support ARP learning and aging
	Support 16K IPv4 and 8K IPv6 address entries
	Support for creating VLAN Layer 3 interfaces and configuring static IPv4/IPv6
	Support static route configuration
	Support RIP/OSPF protocol function
	Support VRRP protocol function

## Software

Parameter	Specification
System management	Support Console/Telnet/SSH2.0 command line configuration
	Support WEB browser configuration management
	Support FTP, TFTP file upload and download management
	Support SNMP V1/V2/V3
	Support RMON
	Support SNTP clock
	Support system work log
	Support LLDP Neighbor Discovery Protocol
	Support 802.3ah Ethernet OAM
	Support RFC 3164 Syslog function
Support Ping and Traceroute	

## Order information

Model code	Name	Description
OLT-F32000XX1021	MIRAFlexPONOLT32CHASSIS	2RU OLT chassis plus common equipment
OLT-F16100XXG001	MIRAFlexPONOLT16GPONCARD	16-port GPON OLT line card
OLT-F16001XXC001	MIRAFlexPONOLT16CPONCARD	16-port GPON+XGS-PON Combo PON OLT line card
OLT-F32100EDP001	MIRAFlexPONOLT32EACDCPSU	AC+DC dual power supply