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## Saturn SOLT33-16P

### 16 Ports OLT

Optical Line Terminal

### Product Description

Saturn OLT is designed with a focus on quality, performance and features. Based on advanced technology and supporting powerful Ethernet services and QoS features, the Saturn OLT series runs highly flexible software in order to satisfy operator requirements for monitoring and management. Redundant power supplies ensure reliable operation by providing a backup power supply in the event the primary power source should fail.

### Product Features

- » Compact 1RU 19inch design
- » 16 GPON ports
- » 4 GE Optical/Electrical uplink ports
- » 2 x 10G ports
- » Support B+ and C+ SFP
- » ONT Broadcast and loop protection
- » Hot Dual power supply

### High-performance software-driven platform

The Saturn SOLT33-16P OLT is an enhanced OLT that is easy to install and maintain. The compact 1U OLT provides 16 downstream GPON ports, 4 uplink GE optical port and 4 GE electrical ports with an expansion slot supporting an additional 2 x 10GE SFP+ ports. The splitting ratio of up to 1:128. Supports different configurations of Genexis ONTs in order to minimize operator investment

# PRODUCT FEATURES AND SPECIFICATIONS

## Saturn SOLT33-16P

### General Specifications

- » Dimensions (L x W x D) 445x383x44 mm
- » Weight ≤ 2.8 kg
- » Power supply AC 90 - 264 V, 47/63 Hz  
DC -36 - -72 V
- » Power consumption (full config)  
≤ 65 W
- » Switching Capacity 128 Gbps
- » Forward Capacity (IPv4/IPv6) 95.2 Mbps

#### Environmental Requirements

- » Operating temperature -10 - 65 °C
- » Storage temperature -40 - 70 °C
- » Relative humidity  
10% - 90%, non-condensing

### Ports

- » 16 GPON ports
- » 4 GE Optical/Electrical uplink ports
- » 2 x 10G expansion slots

### GPON

- » ITU -T G.984.x compliant
- » Supports up to 128 x ONTs
- » Max. transmission distance 20km
- » Uplink and downlink triple churning encrypted function with 128Bits
- » ONU Terminal legitimacy certification report illegal ONU registration
- » DBA algorithm, the particle is 1Kbit/s
- » Standard OMCI management function
- » ONU batch software upgrade, fixed time upgrade, real time upgrade
- » PON port optical power detection

### Service Features - Layer 3

#### QoS

- » Rate-limit to packet sending/receiving speed of port
- » Priority remark to port or self defined flow and provide 802.1P, DSCP priority and Remark
- » CAR (Committed Access Rate), Traffic shaping & flow statistics
- » Packet mirror and redirection of interface & self defined flow

#### IPv4

- » ARP Proxy
- » DHCP Relay
- » DHCP Server
- » Static route

#### IPv6

- » ICMPv6
- » ICMPv6 Redirection
- » DHCPv6

#### Multicast

- » IGMPv1/v2/v3
- » IGMPv1/v2/v3 Snooping
- » IGMP Filter
- » MLDv2/MLDv2 Snooping

### Layer 2

#### MAC

- » MAC Black Hole
- » Port MAC Limit
- » 64K MAC (packet exchange chip cache 2MB, external cache 720 MB )

#### VLAN

- » 4K VLAN entries
- » Port/MAC/IP subnet-based VLAN
- » QinQ and Flexible QinQ (Stack VLAN)
- » VLAN swap and remark

#### Spanning Tree Protocol (STP)

- » IEEE 802.1D/W/S STP/RSTP/MSTP
- » ONU remote loop detect alarm

#### Ports

- » Bi-directional bandwidth control
- » Static link aggregation
- » LACP
- » Port mirroring

### Security

#### User Security

- » Anti-ARP-spoofing
- » Anti-ARP-flooding
- » IP Source Guard
- » IEEE 802.1x & AAA/Radius authentication
- » IP Source Guard create IP, VLAN, MAC

#### and Port binding

- » Port Isolation
- » MAC address binding to the port and MAC address filtering

#### Device Security

- » Anti-DOS attack (such as ARP, Synflood, Smurf, ICMP attack), ARP
- » Detection, worm and Msblaster worm attack
- » SSHv2 Secure Shell
- » SNMP v3 encrypted management
- » Security IP login through Telnet

#### Network Security

- » User based MAC & ARP traffic examination
- » Restrict ARP traffic of each user and force-out user with abnormal ARP traffic
- » Dynamic ARP table-based binding
- » IP, VLAN, MAC and Port binding

### Reliability

#### Loop Protection

- » ERRP (recover-time <50ms)
- » Loopback-detection

#### Link Protection

- » RSTP/MSTP (recover-time <1s)
- » LACP (recover-time <10ms)

#### Device Protection

- » 1+1 power hot backup

#### Maintenance

##### Network Maintenance

- » GPON OMCI
- » Ping and Traceroute
- » Port real-time, utilization and transmit/receive statistic based on Telnet

##### Device Management

- » CLI, Console port, Telnet
- » SNMPv1/v2/v3
- » RMON (Remote Monitoring) 1,2,3,9 groups MIB
- » NTP
- » Saturn NMS

## Configuration Options

Model	Description	Configuration
SOLT33-16P	16 PORT OLT	16 x GPON ports, 2 x 10G and 4 x GE optical/Electrical
SAC0	Additional Power supply	Power supply unit
SEMS15	Saturn EMS	EMS Software and basic licence