

Casa Systems SMM300G Switch and Management Module

Winning and keeping residential and enterprise video and Internet services customers has never been tougher. Service providers face a range of competition in a business that requires rapid response but is still capital intensive. They need partners who are fast enough to get them ahead of their competition and committed to keeping them there, which is why more and more, leading providers depend on Casa Systems.

With the SMM300G Switch and Management Module, Casa Systems provides the switching scale ultra-broadband solutions demand. The SMM300G enables line-rate forwarding with 300G switching throughput per module and terabit backplane capacity. Each SMM300G provides two 100GE interfaces (QSFP28) and ten 10GE interfaces (SFP+). The SMM300G is a single slot module, which can be added to either Casa's C100G or C40G CCAP chassis. Up to two SMM300G modules can be deployed in Casa's C100G chassis, enabling 600G aggregate throughput per C100G chassis.

The SMM300G provides robust switching and routing features to support a range of services including MPLS, BGP (IPv4 and IPv6), and L2 VPN. Designed for the high availability service providers require, the SMM300G runs in Active-Active mode on the data plane and Active-Protect on the control plane and provides 1+1 redundancy. Features such as IEEE 1588v2 Precision Timing and SyncE provide precision timing services required for ultra-broadband services, including mobile backhaul. Management interfaces including CLI, Telnet, SSH, SNMPv1, 2, 3, TACACS+ and Radius enable user friendly, flexible network management.

Casa's award winning, high density C100G and mid-density CCAP solution support DPOEv2 compliant 10G EPON OLT services. The SMM300G deployed with 16x10G PON cards deliver the features of a standards based "DPOEv2 System" enabling 10G EPON services managed by the same DOCSIS back office systems and tools that are used today.



SMM300G Card

Highlights

Ultra-broadband Support

Terabit backplane capacity, 300G switching throughput per module

- 2 x 100GE Interfaces
- 10 x 10GE Interfaces

Precision Timing

IEEE 1588v2 Precision Timing and SyncE

High Availability

Active-Active data plane, Active-Protect control plane

QSFP28 and SFP+ Interfaces

Enable evolution to DWDM

Management Interfaces

CLI, Telnet, SSH, SNMPv1, 2, 3, TACACS+ and Radius

Robust Switching and Routing Features

- OSPFv2 and v3, RIPv2 and RIPv6, BGP (IPv4 and IPv6), MLD / MLD2, Static IP and Multi-Cast
- L2 and L3 MPLS
- L2VPN

10G EPON OLT services — DPOEv2 compliant

The SMM300G & 16x10G PON cards must be deployed for this service

Feature	Benefit
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Capacity and Throughput

Two 100GE and ten 10GE interfaces per SMM300G module	300G bi-directional switching throughput enables ultra-broadband services with minimal hardware
1+ Terabit Backplane	End user speeds can be constrained at various points. Adequate bandwidth between the switch card and line card assures higher throughput.

Reliability

Product Reliability	99.999% availability and hitless failover assure services are consistently delivered to subscribers. Active-Active mode on the data plane and Active-Protect on the control plane and provides 1+1 redundancy.
Vendor Reliability	Casa Systems’ track record proves a reliable history of bringing new technologies to market first, at each generational shift. Casa’s winning design, vision of the future, freedom from reliance on third party silicon providers, and passion to be first with the best solution all create value for our customers. Service providers who want faster time to revenue, lower lifetime TCO, and gigabit+ speeds today choose Casa Systems.
Service and Support	Casa’s support engineers own our customers’ problems from the first contact (we have no call centers) to resolution with a sense of urgency and ownership — even if the problem turns out to be with another vendor’s equipment. This means less network downtime for our customers.

Technical Specifications

Capacity

Two 100GE interfaces (QSFP28) and ten 10GE interfaces (SFP+) per module

Management

Two management ports:

- 1G Ethernet (RJ45) and a Console port (RJ45)

Command line interface (CLI) Telnet

SSH

SNMPv1, v2 & v3

Standard DOCSIS & IETF MIBs

IPDR

Casa Systems Enterprise MIBs

Event logging through Syslog Electronic mail notification

Resource usage reporting TACACS+ and RADIUS

Front LEDs including Status, Active, and Alarm

Environmental

Operating temperature	0° to 50° C
Storage temperature	-40° to 70° C
Operating Humidity	5% to 95%, non-cond.
Power Requirements (DC)	-40.5 to -60 V (dual)
Power Consumption	160W

Additional Features

IEEE 1588v2 Precision Timing and Synchronous Ethernet support for delivering precision timing services for cellular backhaul

IP Features

OSPF v2 and OSPF v3

IS-IS (IPv4 & IPv6)

RIPv2 and RIPv6

BGP (IPv4 & IPv6)

PIM-SM

IGMP snooping

IGMP v2 and v3

Static IP routing

DHCP Relay and option 82

DHCPv6

DHCP prefix delegation

Multiple DHCP servers

Proxy ARP IP subnet bundling

Multiple default routes

Access Control Lists

L2 MPLS

L3 MPLS

L2VPN VLAN Tagging

Link Aggregation

IPFIX

Pseudowire redundancy

Regulatory Compliance

Designed to NEBS level 3 requirements

Safety: EN/UL/IEC/CAN/CSA/C22.2 60950-1

EMC: FCC Part 15 Class A & CISPR Class A

Immunity: EN61000-4