DATASHEET

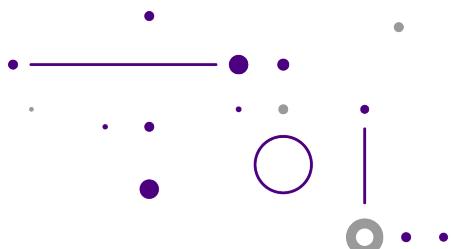# REV-S2985G Series

L2 Managed Switches

The S2985G series REV switches are intelligent Layer 2 GigabitEthernet switches, designed for use at the access level in internet service providers and enterprise networks.

Main features:

· GigabitEthernet switch with a line-rate efficiency

· Build-in power surge protection on each port

· Power supply backup

· Backup protocols with a fast convergence

· Wide range of security features

· Multicast traffic managment: IGMP Snooping/Filter, MVR

· Powerful features for managing quality of service (QoS)

REVIVAL

Switch Models

The REV-S2985G series switches are equipped with GigabitEthernet downlink ports and GigabitEthernet SFP uplink ports.

Model	10/100/1000 Base-T	100/1000 Base-X SFP
REV-S2985G-24TX-POE	24	4
REV-S2985G-24Tx-POE-E	24	4

High performance

The REV-S2985G series switches are built with modern chipsets and have a non-blocking switching matrix that allows all switch ports to operate simultaneously at full speed. It also guarantees high performance and minimal network latency.

Model	Switching Capacity	Forwarding Rate	MAC
REV-S2985G-24TX-POE	56 Gbps	41,7 Mpps	8K
REV-S2985G-24Tx-POE-E	56 Gbps	41,7 Mpps	8K

Resilience

For organizing resilient networks, support for standard protocols STP/RSTP/MSTP as well as ERPS (G.8032) including ERPS + CFM is implemented.

Link aggregation functionality using LACP or static aggregation allows combining up to 8 ports into one logical interface, increasting the bandwidth ability and resilience at the data link level.

PoE+ support

The REV-S2985G series switches support PoE 802.3af и PoE+ 802.3at standards with a smart capacity management. The PoE technology reduces cost of ownership and makes network maintenance easier. It allows to supply with power directly from switch different types of equipment such as WiFi hotspots, IP/Video phones, thin clients and others.

Model	Number of PoE ports	Total PoE capacity
S2985G-24TX-POE	24	185 Watt
S2985G-24Tx-POE-E	24	370 Watt

Multicast management

Switches of REV-S2985G series have all the necessary functionality for multicast control on Layer 2: IGMP Snooping, MVR, IGMP packet filtering, and multicast filtering. It allows to organize an efficient transporting of multicast-based services, such as IPTV.

Quality of Service (QoS)

Support for 8 hardware queues per port allows creating flexible service policies for different types of traffic, thus ensuring high quality of sensitive services under high load conditions. Traffic can be classified by field values in L2-L4 headers, including CoS, DSCP, VLAN ID, IP/MAC addresses, and TCP/UDP ports.

Model	Multicast group	Queues per Port	ACL
S2985G	500	8	1408

Security

The S2985G series switches provide a wide range of security features for both service providers and enterprise networks. Hardware Access Control Lists (ACLS) can filter traffic by L2-L4 header fields without performance brake. MAC-IP-Port binding functionality helps to protect the network from IP/MAC address spoofing by clients. Support for 802.1x and MAB protocols provides authentication of devices connected to the network.

Dimensions and and power supply

Model	Dimension	Weight (Brutto)	Power Consumtion	Cooling	Power Supply
S2985G-24TX-POE	442 x 44 x 260 mm	5 kg	210 Watt	Active	100-240AC

Operational convenience

S2985G series REV switches work under the control REV system NOS (Networking Operating System) with the typical syntax CLI and SNMP MIB for all REV switches. The system supports all the necessary functionality of the Enterprise/ISP level for building modern data networks and has extensive management and monitoring capabilities via CLI, Web and SNMP.

Technical Brief

Switching type
· Store-and-Forward

MAC address table
· 8K entries

MAC address table features
· Limiting max number MAC addresses on a port, VLAN
· Static MAC addresses
· MAC-notification
· Disabling MAC address learning on a port, VLAN

Flow Control
· 802.3x Flow Control

Jumbo frame
· 10 Kbytes

Flash memory size
· 32 Mbytes

RAM size
· 128 Mbytes

Ring Protection
· ERPS ITU-T G.8032
· MRPP
· Fast Link
· ULPP
· ULSM

Spanning Tree
· 802.1D STP
· 802.1W RSTP
· 802.1S MSTP
· Root/BPDU Guard
· BPDU Forwarding

Loopback Detection
· Per-port
· Per-port-per-vlan
· Action shutdown/block

Port Aggregation
· LACP 802.3ad / 802.1ax
· Up to 8 groups per switch /up to 8 ports in group
· Load balance src/dst MAC, src/dst IP, dst-src-MAC/IP, dst-src-MAC-IP, ingress-port

Traffic Mirroring
· 4 groups
· One-to-one / Many-to-one
· Flow-based (ACL)
· RSPAN VLAN

VLAN
· 4094 VLAN
· Port-based VLAN
· IEEE 802.1Q
· Private VLAN
· Protocol VLAN
· Voice VLAN
· MAC VLAN
· Multicast VLAN
· VLAN Trunking
· VLAN Translation
· GVRP

Multicast
· 500 IGMP groups
· IGMP v1/v2/v3 Snooping
· IGMP Fast Leave
· IGMP Snooping Immediately Leave
· IGMP Snooping Querier
· Multicast VLAN Registration (MVR)
· Multicast Source/Destination Control
· Illegal source detection
· Multicast policy
· Multicast Filter
· IGMP Snooping RADIUS Authentication
· MLD v1/v2 Snooping, MLD Snooping Immediately Leave

QoS

- 8 queues per port
- Bandwidth Control
- Traffic classification per port, ACL (L2-L4), VLAN ID, CoS, ToS, DSCP, IPv6 Flow Label
- Per port/VLAN policing
- Remarking DSCP, CoS/802.1p, Precedence, ToS
- SP, WRR, SWRR, DWRR

ACL

- 1408 ACL
- Per port/VLAN
- Filtering based on: switch port, VLAN ID, 802.1p priority, MAC address, EtherType, IPv4 / IPv6 address, IPv6 traffic class, IPv6 flow label, ToS, DSCP, protocol type, TCP / UDP port number, CPU Interface Filtering
- Time Range ACL.
- Userdefined ACL
- ACL statistics

Security

- SSH v1/v2
- SSL v1/v2/v3
- MAC binding
- MAC filter
- Limiting the number of MAC addresses on a port
- Limiting Broadcast/Multicast/ Unicast packets on a port by Kbps
- Access Management (IP-MAC-Port Binding)
- Port Security
- Port Isolation
- ARP Guard
- ARP Binding
- ARP/ND Limit
- Anti-ARP-Scan
- Dynamic ARP inspection (DAI)
- RA Snooping
- ND Snooping
- SAVI
- CPU protection
- IEEE 802.3az (Energy Efficient Ethernet),
- CE, RoHS
- CB, cUL, LVD

DHCP

- IPv4/IPv6 DHCP Client/Relay
- Option 82, Option 37/38
- IPv4/IPv6 DHCP Snooping/ Server

Management and monitoring

- RADIUS, TACACS+
- 802.1x (host/port based access control, Dynamic VLAN, Guest VLAN, Auto VLAN)
- MAC Authentication Bypass
- Up to 15 levels of user privileges
- Passing privilege levels via RADIUS/TACACS+
- Xmodem/TFTP/FTP, CLI, Telnet, Console
- Web/SSL, SSH (IPv4/IPv6)
- SNMPv1/v2c/v3, SNMP Traps, Public & Private MIB interface
- RMON 1,2,3,9
- Bootp/DHCP Client
- Autoprovisioning
- PPPoE Intermediate agent
- Debug commands
- Password recovery
- Password encryption
- Backup and restore settings
- Ping, Traceroute
- Syslog (IPv4/IPv6)
- SNTP/NTP (IPv4/IPv6)
- Dual IMG, Multiple Configuration Files
- Port/CPU Mirror, RSPAN
- OAM, VCT, DDM
- Multiple IP Interface
- ULDP (like Cisco UDLD), LLDP/ LLDP MED
- Management of Indication

IPv6

- ICMPv6
- NDP
- SNMP over IPv6
- HTTP over IPv6
- IPv6 ping/traceroute
- IPv6 Telnet IPv6 Syslog
- RFC1981 Path MTU Discovery
- RFC2460 IPv6
- RFC2461 4861 Neighbor Discovery
- RFC2462,4862 IPv6 Stateless Address Auto-configuration
- RFC2464 IPv6 Neighbor over Ethernet and definition
- RFC3515, 4291 IP Version 6 Addressing Architecture
- RFC2893, 4213 IPv4/IPv6 Dual-stack
- IPv6 Ready Logo Phase 2

Logging

- RAM logging
- Flash logging
- Logging to Syslog server
- Configuring the logging level
- Logging executed command

QinQ

- Port-based/Selective QinQ
- Flexible QinQ

Humidity

- 5%-95%, no condensation

Operating temperature

- 0C ~ 50C

Storage temperature

- -40C ~ 70C

Surge protection

- Up to 4 kV

MBTF

- >800000 hours

Ordering information

Model	Description
REV-S2985G-24T-POE	L2 Managed PoE Switch, 24 ports x 10/100/1000Base-T, 4 ports 100/1000Base-X SFP. Power: 220V AC. POE 185W
REV-S2985G-24T-POE-E	L2 Managed PoE Switch, 24 ports 10/100/1000Base-T, 4 ports100/1000Base-X SFP. Power: 220V AC. POE 370W

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