Product page >

Data Sheet

General Availability

ETS-1-1G/L2

Ethernet Access Switches

- Advanced L2 functions
- Multicast support (IGMP Snooping, MVR)
- Advanced security (multilayer ACLs, IP Source Guard, and Dynamic ARP Inspection)

MARKET SEGMENTS AND APPLICATIONS

New generation access switches provide end users connectivity to large-scale networks, small and medium business networks, and service provider networks, using Gigabit Ethernet interfaces.

The switches support VLANs, multicast groups, and advanced security.

ETHERNET INTERFACE

Head-of-line blocking (HOL) protection

Auto MDI/MDIX

Jumbo frames

Flow control (IEEE 802.3X)

Port mirroring

RSPAN

LAYER 2

VLAN

802.1Q

Q-in-Q

L2 Multicast

Multicast profiles

Static Multicast groups

IGMP Snooping v1,2,3

Port-based IGMP Snooping Fast Leave

IGMP querier

MVR

MAC Table

Independent learning mode per VLAN

MAC Multicast Support

Configurable aging time of MAC addresses

Static MAC Entries

MAC Flapping logging

MAC-based VLAN

RESILIENCY

Link aggregation

Static LAG

Dynamic LAG (LACP)

LAG Balancing Algorithm

L2 Protection

STP (Spanning Tree Protocol, IEEE 802.1d)

RSTP (Rapid Spanning Tree protocol, IEEE 802.1w)

MSTP (Multiple Spanning Tree, IEEE802.1s)

STP Root Guard

STP Loop Guard

STP BPDU Guard

BPDU Filtering

Spanning Tree Fast Link option

Layer 2 Protocol Tunneling

Loopback Detection (LBD)

Port isolation

Storm control for different traffic (broadcast, multicast, unknown unicast)

MANAGEMENT

Download and upload of configuration file via TFTP/SFTP

SNMPv3

Command Line Interface (CLI)

Syslog

SNTP (Simple Network Time Protocol)

NTP-server

Traceroute

RAD

Your Network's Edge®

LLDP (802.1ab) + LLDP MED
Access control – privilege levels
Management interface blocking
Local authentication
IP addresses filtering for SNMP
RADIUS, TACACS+ clients
SSH server
SSL
PPPoE Circuit-ID tag
Flash File System
Debugging commands
Rate limit of traffic to CPU
Password encryption
Password recovery
Ping (IPv4/IPv6 support)
System log
Commands logging via TACACS+
Static IPv4/IPv6 routes

DHCP

DHCP snooping
DHCP clients filtering
DHCP autoprovision
DHCP relay (IPv4 support)
DHCP relay Option 82
DHCP Option 82

IPv6

IPv6 Host
Dual-stack

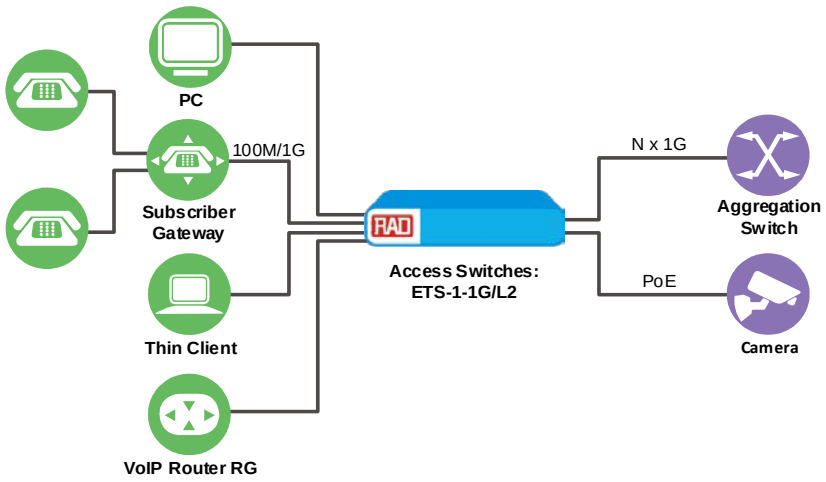
SECURITY

IP Source Guard
Dynamic ARP Inspection
MAC-based authentication, Port Security, Static MAC entries
Port-based authentication IEEE 802.1x
Traffic segmentation
Protection against non-authorized DHCP servers
BPDU attacks prevention
NetBIOS/NetBEUI filtering
PPPoE Intermediate Agent

ACL (Access Control Lists)

L2-L3-L4 ACL
IPv6 ACL
ACL based on:

- Physical port number
- IEEE 802.1p
- VLAN ID
- EtherType
- DSCP
- Protocol type
- TCP/UDP port number
- User Defined Bytes



ETS-1-1G Ethernet Access Switches, Typical Application

QUALITY OF SERVICE (QOS) AND RATE LIMITING

Shaping, policing

IEEE 802.1p Class of Service (CoS)

Storm Control

Bandwidth management

Scheduling algorithms: Strict Priority/Weighted Round Robin (WRR)

ACL-based traffic classification

DSCP to CoS/CoS to DSCP remarking

ACL-based VLAN assignment

POWER OVER ETHERNET (POE)

PoE (15.4W per port): 802.3af

PoE+ (30W per port): 802.3at

MONITORING AND DIAGNOSTICS

Statistics on interfaces

CPU utilization monitoring per task and per queue

RAM utilization monitoring

Temperature monitoring

TCAM utilization monitoring

Virtual Cable Testing (VCT)

Optical transceiver diagnostics

OAM/CFM

802.3ah Ethernet Link OAM

Dying Gasp

802.3ah Unidirectional Link Detection (UDLD)

Specifications

CAPACITY

ACL Table

1.5K

Bandwidth

20 Gbps

Buffer Memory

4.1 Mbit

Jumbo Frame Size

10240 bytes

L2 Multicast groups (IGMP Snooping)

2K

MAC Table

8K

Power Processor

Realtek RTL8380M

RAM (DDR3)

256 MB

ROM (SPI Flash)

32 MB

Throughput

14.88 MPPS (for 64 bytes)

ETHERNET INTERFACES

8 x 10/100/1000BASE-T (RJ-45)

2 x 100BASE-FX/1000BASE-X

QUALITY OF SERVICE (QOS)

8 egress queues per port

MANAGEMENT

RS-232/RJ-45 console port

GENERAL

Environment

Operating temperature: -20 to 50°C (-4 to 122°F)

Storage temperature: -40 to 70°C (-40 to 158°F)

Operational and storage relative humidity (non-condensing): 10% to 95%

Cooling: Passive

ETS-1-1G/L2

Ethernet Access Switches

Data Sheet

Ordering

ETS-1-1G/L2/2S/8U/AC
L2 Ethernet switch, 8 x 10/100/1000BASE-T ports, 2 x 100BASE-FX/1000BASE-X ports, 220V AC

ETS-1-1G/L2/2S/8U/DC
L2 Ethernet switch, 8 x 10/100/1000BASE-T ports, 2 x 100BASE-FX/1000BASE-X ports, 48V DC

ETS-1-1G/L2/2S/8P/AC
L2 Ethernet switch, 8 x 10/100/1000BASE-T (PoE/PoE+) ports, 2 x 100BASE-FX/1000BASE-X ports, 220V AC

ETS-1-1G/L2/2S/8P/DC
L2 Ethernet switch, 8 x 10/100/1000BASE-T (PoE/PoE+) ports, 2 x 100BASE-FX/1000BASE-X, 48V DC

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