



ET5-0802-M Series

8-Port Industrial Managed Ethernet Switch
-6*10/100Base-TX + 2*100FX



- 6-port 10/100Base-T(X) Ethernet
- 2-port 100Fx, Multi/Single mode with SC/ST connector
- Multiusers account for security
- Configuration: http, https, CLI Command, Telnet, SNMP, SSH
- Network redundancy support: G.8032 ERPS v2/ STP/ RSTP/ MSTP
- Supports Static routes for routing function
- Supports RADIUS, TACACS+ authentication protocol
- Supports QoS, LACP bandwidth control
- Supports VLAN, SNMP v1/v2c/v3, ACL, IP source guard for Ethernet security
- Redundant power inputs design
- Operating temperature range
- STD: -10°C ~ 65°C, EOT: -40°C ~ 75°C



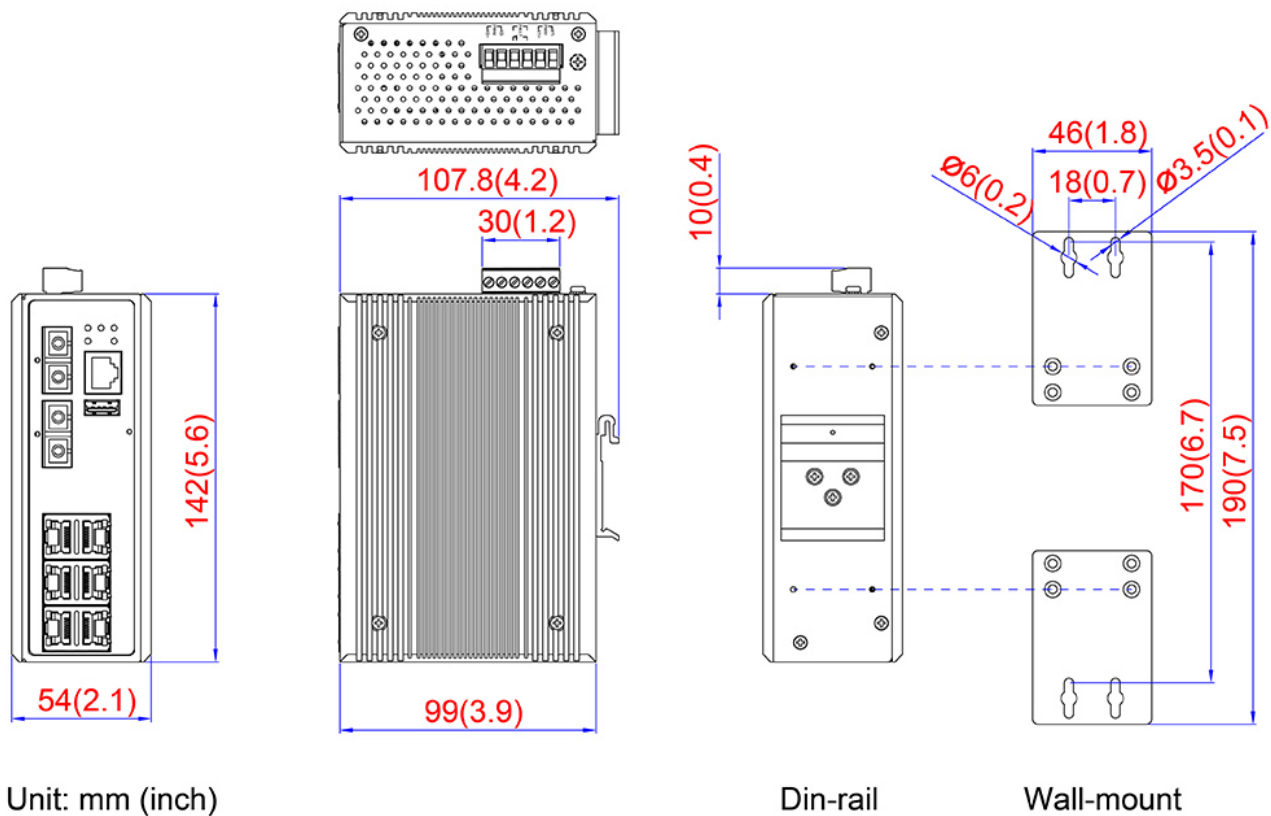
Introduction

Leonton's ET5-0802-M Series is a 8-port managed Fast Ethernet switch, which provides 6*10/100Base-T(X) and 2*100FX fixed optical fiber ports. ET5-0802-M Series is full manageable Layer-2 Ethernet switch series, and supporting power inputs redundancy. ET5-0802-M Series offers standardized network redundancy ITU-T G.8032 ERPS v2 (Ethernet Ring Protection Switch) protocol, providing <50ms recovery time to the network.

ET5-0802-M Series provides comprehensive network security and management capability by supporting Multiusers account, IGMP, GVRP, VLAN, QoS, SNMP, RADIUS, TACACS+, Aggregation(Static, LACP), SSH, SSL, IP source guard to create a highly-secured network environment.

ET5-0802-M Series as an industrial Ethernet switch product line, is designed to withstand harsh and extreme environment conditions. With fan less design, ET5-0802-M still manage to be applied in extremely polarized temperature, from -40°C to 75°C, making it the best choice in various industrial applications.

Dimension



Specification

Technology	
Standards	IEEE 802.3 10Base-T Ethernet IEEE 802.3u 100Base-TX and 100Base-FX Fiber Fast Ethernet IEEE 802.3x Flow Control IEEE 802.1d STP (Spanning Tree Protocol) IEEE 802.1w RSTP (Rapid Spanning Tree Protocol) IEEE 802.1s MSTP (Multiple Spanning Tree Protocol) ITU-T G.8032 / Y.1344 ERPS v1/v2(Ethernet Ring Protection Switch) IEEE 802.1Q Virtual Local Area Network (VLAN) IEEE 802.1p QoS/CoS Protocol for Traffic Prioritization IEEE 802.1X Network Authentication IEEE 802.1AB Link Layer Discovery Protocol (LLDP) IEEE 802.3ad Link Aggregation (LACP)
Processing Type	Store and Forward
Flow Control	IEEE 802.3x flow control, back pressure flow control
Network Management	
Management	IPv4/IPv6, SNMP v1/v2c/v3, LLDP, LLDP-MED, HTTP, HTTPS, SSHv2 telnet, DHCP client, DHCPv6 client, DHCP server, Port Mirror, DNS client/proxy, IP based Access Filter, ICMPv6, syslog, Time Zone /Daylight Saving, NTP client, RMON, sFlow, Loop detection, Console Port, Power lost warning, relay trigger
Security	Port-based/Single/Multi 802.1X, ACL(Port/Rate Limiters/ACE), MAC-based Authentication, VLAN assignment, QoS Assignment, Private VLAN, Guest VLAN, RADIUS accounting, TACACS+, IP MAC binding, WEB/CLI authentication, Authorization (15 levels), Port Security Limit Control, ACLs for filtering/policing/port copy, IP source guard, ARP Inspection
L2 Switching	Port/MAC/Protocol/IP Subnet-based VLAN, GARP/GVRP, Loop Guard, Link Aggregation static/LACP, BPDU guard, Error disable recovery, IGMP snooping v2/v3, MLD snooping v1/v2, IGMP

	filtering, IPMC throttling / filtering leave proxy, DHCP snooping, G.8032 v1/v2
L3 Switching	DHCP option82, static routes
QoS	802.1p Queueing, Input priority mapping, Storm control for Unicast/Multicast/Broadcast, Port/Queue/ACL policer, Port egress shaper, Queue egress shaper, DiffServ (DSCP), Tag remarking, Scheduler mode
Power Saving	ActiPHY, PerfectReach, IEEE 802.3az EEE power management
Network Redundancy	STP/RSTP/MSTP, port trunk with LACP, ERPS v1/v2 (<50ms)
Configuration	Http, Https, Telnet, SSH, CLI, TFTP, SNMP v3
System / Diagnostics	Dual Image Protection, PING, PING6
SNMP MIBs & RFC Standards	RFC 2674 VLAN MIB IEEE-802.1Q bridge MIB 2008 RFC 2819 RMON (group 1, 2, 3, and 9) RFC 1213 MIB II RFC 1215 TRAPS RFC 4188 bridge RFC 4292 IP forwarding table RFC 4293 management information base for the Internet Protocol (IP) RFC 5519 multicast group membership discovery RFC 4668 RADIUS auth. client RFC 4670 RADIUS accounting RFC 3635 Ethernet-like RFC 2863 interface group MIB using SMI v2 RFC 3636 802.3 MAU RFC 4133 entity MIB v3 RFC 3411 SNMP management frameworks RFC 3414 user-based security model for SNMPv3 RFC 3415 view-based access control model for SNMP RFC 2613 SMON – PortCopy IEEE 802.1 MSTP IEEE 802.1AB LLDP-MIB (LLDP MIB included in a clause of the STD) IEEE 802.3ad (LACP MIB included in a clause of the STD) IEEE 802.1X (PAE MIB included in a clause of the STD) TIA 1057 LLDP-MED (MIB is part of the STD) RFC 3621 LLDP-MED Power (POE) (No specific MIB for POE+ exists)

Switch Properties

Switching Fabric (Back-Plane)	1.6Gbps
Priority Queues	8
Max. Number of VLANs	4095
VLAN ID Range	VID 1 to 4095
Memory Buffer	4Mbits
Jumbo Frame	9.6Kbytes
MAC Table Size	8K
IGMP Group	1024
Transfer Rate	14,880pps for Ethernet port 148,800pps for Fast Ethernet port

Interface

RJ45 Ports	6*10/100 Base-T(X) Auto-Negotiation, Full/Half Duplex, Auto-MDI/MDI-X
Fiber Port	2*100Base-FX SC/ST type connector
Wavelength	1310nm (Multi mode/Single mode)
LED Indicators	System: Power 1, Power 2, Master, Ring, Fault Ethernet ports: Speed/Link/Active Fixed fiber: Link/Active
RS232 Serial Console	1*RS232 in RJ45 connector with console cable, baud rate 115,200bps,8,N,1
Relay Contact	24 VDC, 1A resistive
Network Cable	10Base-T: 2-pair UTP/STP Cat. 3, 4, 5 cable EIA/TIA-568 100-ohm (100m)

Optical Cable	100Base-TX: 2-pair UTP/STP Cat. 5 cable EIA/TIA-568 100-ohm (100m)
	Multi-mode cable - 50/125um or 62.5/125um,
	Single-mode cable - 9/125um or 10/125um
Power Requirements	
Input Voltage	Dual 12-48VDC redundant power inputs
Power Connection	1 removable 6-contact terminal block
Overload Current Protection	Present (Slow-Blow Fuse)
Reverse Polarity Protection	Present
System Power Consumption	Max. 13W full loading
Mechanical Characteristics	
Housing	Metal, IP30 protection
Dimensions (W x H x D)	54 x 142 x 99 mm (2.13 x 5.59 x 3.9 inch)
Weight	Unit weight: 0.86kg (1.90 lb), Shipping weight:1.22 kg (2.69 lb)
Mounting	DIN-Rail Mounting, Wall Mounting
Environmental Limits	
Operating Temperature	STD: -10°C ~ 65°C (14°F ~ 149°F)
	EOT: -40°C ~ 75°C (-40°F ~ 167°F)
Storage Temperature	-40°C ~ 85°C (-40°F ~ 185°F)
Ambient Relative Humidity	5 to 95%, (non-condensing)
Regulatory Approvals	
EMI	FCC Part 15 Subpart B Class A, CE EN55022/EN61000-6-4 Class A
EMS	CE EN55024/EN61000-6-2 IEC61000-4-2 (ESD), IEC61000-4-3 (RS), IEC61000-4-4 (EFT), IEC61000-4-5 (Surge), IEC61000-4-6 (CS), IEC61000-4-8 (Magnetic Field)
Free Fall	IEC60068-2-32
Shock	IEC60068-2-27
Vibration	IEC60068-2-6
Green	RoHS Compliant
Safety	UL61010-1, UL61010-2-201
MTBF (Telcordia SR-332, Issue 3, GB, 25°C)	579,346 hrs.
Warranty	5 Years
NOTE: Due to continuous improvement, all product specifications are subject to change without further notice.	

Packet Contents	pcs
ET5-0802-M(-T) Ethernet switch	1
RJ45 (Male) to DB-9 RS-232 (Female) serial console cable	1
Wall-mount installation kits	2
Quick installation guide (printed)	1

Comparison Table					
Model Name	10/100T(X)	100(F)X Fiber	100(F)X Fiber Connector Type	Power Inputs	Operating Temperature
ET5-0802-M	6	2	SC connector, Multi-Mode, 2km	12-48VDC	-10°C ~ 65°C
ET5-0802-M-T	6	2	SC connector, Multi-Mode, 2km	12-48VDC	-40°C ~ 75°C
ET5-0802-ST	6	2	ST connector, Multi-Mode, 2km	12-48VDC	-10°C ~ 65°C
ET5-0802-ST-T	6	2	ST connector, Multi-Mode, 2km	12-48VDC	-40°C ~ 75°C
ET5-0802-S1	6	2	SC connector,	12-48VDC	-10°C ~ 65°C

			Single-Mode, 10km		
ET5-0802-S1-T	6	2	SC connector, Single-Mode, 10km	12-48VDC	-40°C ~ 75°C
ET5-0802-STS1	6	2	ST connector, Single-Mode, 10km	12-48VDC	-10°C ~ 65°C
ET5-0802-STS1-T	6	2	ST connector, Single-Mode, 10km	12-48VDC	-40°C ~ 75°C
ET5-0802-S3	6	2	SC connector, Single-Mode, 30km	12-48VDC	-10°C ~ 65°C
ET5-0802-S3-T	6	2	SC connector, Single-Mode, 30km	12-48VDC	-40°C ~ 75°C
ET5-0802-STS3	6	2	ST connector, Single-Mode, 30km	12-48VDC	-10°C ~ 65°C
ET5-0802-STS3-T	6	2	ST connector, Single-Mode, 30km	12-48VDC	-40°C ~ 75°C
ET5-0802-S6	6	2	SC connector, Single-Mode, 60km	12-48VDC	-10°C ~ 65°C
ET5-0802-S6-T	6	2	SC connector, Single-Mode, 60km	12-48VDC	-40°C ~ 75°C
ET5-0802-STS6	6	2	ST connector, Single-Mode, 60km	12-48VDC	-10°C ~ 65°C
ET5-0802-STS6-T	6	2	ST connector, Single-Mode, 60km	12-48VDC	-40°C ~ 75°C
ET5-0802-S8	6	2	SC connector, Single-Mode, 80km	12-48VDC	-10°C ~ 65°C
ET5-0802-S8-T	6	2	SC connector, Single-Mode, 80km	12-48VDC	-40°C ~ 75°C
ET5-0802-STS8	6	2	ST connector, Single-Mode, 80km	12-48VDC	-10°C ~ 65°C
ET5-0802-STS8-T	6	2	ST connector, Single-Mode, 80km	12-48VDC	-40°C ~ 75°C

Ordering Information

ET5-0802-M	8-Port Industrial Managed Ethernet Switch -6*10/100Tx + 2*100Fx, multi-mode, 2km, 1310nm, SC Connector, 12-48VDC, -10°C ~ 65°C
ET5-0802-M-T	8-Port Industrial Managed Ethernet Switch -6*10/100Tx + 2*100Fx, multi-mode, 2km, 1310nm, SC Connector, 12-48VDC, -40°C ~ 75°C
ET5-0802-ST	8-Port Industrial Managed Ethernet Switch -6*10/100Tx + 2*100Fx, multi-mode, 2km, 1310nm, ST Connector, 12-48VDC, -10°C ~ 65°C
ET5-0802-ST-T	8-Port Industrial Managed Ethernet Switch -6*10/100Tx + 2*100Fx, multi-mode, 2km, 1310nm, ST Connector, 12-48VDC, -40°C ~ 75°C
ET5-0802-S1	8-Port Industrial Managed Ethernet Switch -6*10/100Tx + 2*100Fx, single-mode, 10km, 1310nm, SC Connector, 12-48VDC, -10°C ~ 65°C
ET5-0802-S1-T	8-Port Industrial Managed Ethernet Switch -6*10/100Tx + 2*100Fx, single-mode, 10km, 1310nm, SC Connector, 12-48VDC, -40°C ~ 75°C
ET5-0802-STS1	8-Port Industrial Managed Ethernet Switch -6*10/100Tx + 2*100Fx, single-mode, 10km, 1310nm, ST Connector, 12-48VDC, -10°C ~ 65°C
ET5-0802-STS1-T	8-Port Industrial Managed Ethernet Switch -6*10/100Tx + 2*100Fx, single-mode, 10km, 1310nm, ST Connector, 12-48VDC, -40°C ~ 75°C
ET5-0802-S3	8-Port Industrial Managed Ethernet Switch -6*10/100Tx + 2*100Fx, single-mode, 30km, 1310nm, SC Connector, 12-48VDC, -10°C ~ 65°C
ET5-0802-S3-T	8-Port Industrial Managed Ethernet Switch -6*10/100Tx + 2*100Fx, single-mode, 30km, 1310nm, SC Connector, 12-48VDC, -40°C ~ 75°C
ET5-0802-STS3	8-Port Industrial Managed Ethernet Switch -6*10/100Tx + 2*100Fx, single-mode, 30km, 1310nm, ST Connector, 12-48VDC, -10°C ~ 65°C
ET5-0802-STS3-T	8-Port Industrial Managed Ethernet Switch

ET5-0802-S6	-6*10/100Tx + 2*100Fx, single-mode, 30km, 1310nm, ST Connector, 12-48VDC, -40°C ~ 75°C
	8-Port Industrial Managed Ethernet Switch
ET5-0802-S6-T	-6*10/100Tx + 2*100Fx, single-mode, 60km, 1310nm, SC Connector, 12-48VDC, -10°C ~ 65°C
	8-Port Industrial Managed Ethernet Switch
ET5-0802-STS6	-6*10/100Tx + 2*100Fx, single-mode, 60km, 1310nm, SC Connector, 12-48VDC, -40°C ~ 75°C
	8-Port Industrial Managed Ethernet Switch
ET5-0802-STS6-T	-6*10/100Tx + 2*100Fx, single-mode, 60km, 1310nm, ST Connector, 12-48VDC, -10°C ~ 65°C
	8-Port Industrial Managed Ethernet Switch
ET5-0802-S8	-6*10/100Tx + 2*100Fx, single-mode, 80km, 1310nm, SC Connector, 12-48VDC, -40°C ~ 75°C
	8-Port Industrial Managed Ethernet Switch
ET5-0802-S8-T	-6*10/100Tx + 2*100Fx, single-mode, 80km, 1310nm, SC Connector, 12-48VDC, -10°C ~ 65°C
	8-Port Industrial Managed Ethernet Switch
ET5-0802-STS8	-6*10/100Tx + 2*100Fx, single-mode, 80km, 1310nm, ST Connector, 12-48VDC, -40°C ~ 75°C
	8-Port Industrial Managed Ethernet Switch
ET5-0802-STS8-T	-6*10/100Tx + 2*100Fx, single-mode, 80km, 1310nm, ST Connector, 12-48VDC, -10°C ~ 65°C
	8-Port Industrial Managed Ethernet Switch

Optional Accessories - Power Supply Series

30W Power Supply Series	
HDR-30-24	36W Industrial DIN-Rail Power Supply, 24VDC/1.5A, Universal 85-264VAC/120-370VDC power input, Plastic, -30°C ~ 70°C
60W Power Supply Series	
HDR-60-24	60W Industrial DIN-Rail Power Supply, 24VDC/2.5A, Universal 88-264VAC/124-370VDC power input, Plastic, -30°C ~ 70°C
MDR-60-24	60W Industrial DIN-Rail Power Supply, 24VDC/2.5A, Universal 85-264VAC/120-370VDC power input, Plastic, -20°C ~ 70°C
75W Power Supply Series	
EDR-75-48	75W Industrial DIN-Rail Power Supply, 48VDC/1.6A, Universal 90-264VAC/127-370VDC power input, Metal, -20°C ~ 60°C
NDR-75-48	75W Industrial DIN-Rail Power Supply, 48VDC/1.6A, Universal 90-264VAC/127-370VDC power input, Metal, -20°C ~ 70°C
120W Power Supply Series	
EDR-120-48	120W Industrial DIN-Rail Power Supply, 48VDC/2.5A, Universal 90-264VAC/127-370VDC power input, Metal, -20°C ~ 60°C
NDR-120-24	120W Industrial DIN-Rail Power Supply, 24VDC/5A, Universal 90-264VAC/127-370VDC power input, Metal, -20°C ~ 70°C
NDR-120-48	120W Industrial DIN-Rail Power Supply, 48VDC/2.5A, Universal 90-264VAC/127-370VDC power input, Metal, -20°C ~ 70°C
240W Power Supply Series	
NDR-240-48	240W Industrial DIN-Rail Power Supply w/ PFC, 48VDC/5A, Universal 90-264VAC/127-370VDC power input, Metal, -20°C ~ 70°C
SDR-240-24	240W Industrial DIN-Rail Power Supply w/ PFC, 24VDC/10A, Universal 88-264VAC/124-370VDC power input, Metal, -25°C ~ 70°C
480W Power Supply Series	
NDR-480-48	480W Industrial DIN-Rail Power Supply w/ PFC, 48VDC/10A, Universal 90-264VAC/127-370VDC power input, Metal, -20°C ~ 70°C