



## EN 50155 Switches

Moxa is an IRIS-certified company that offers a large portfolio of rugged Ethernet switches that comply with the mandatory sections of the EN 50155 standard. These products have been deployed in many rail and metro systems around the world. With our innovative solutions and technologies, we help train builders achieve overall transport safety, efficiency, and significant cost and time savings on railway operation and maintenance.



### TN-5510A-8PoE-2GLSX-ODC-WV-T

#### TN-5500A Series

8 FE with 802.3at PoE+ ports with M12 connector and 2 GE fiber ports, power input 24-110 VDC, -40 to 75°C operating temperature

Input/Output Interface

**Alarm Contact Channels**

2 x relay output in one M12 A-coded 5-pin male connector with current carrying capacity of 1 A @ 30 VDC

Ethernet Interface

**10/100/1000BaseT(X) Ports, Q-ODC Fiber Connector** 2

**PoE Ports (10/100BaseT(X), M12 D-coded 4-pin female connector)** 8

**Standards** IEEE 802.1D-2004 for Spanning Tree Protocol  
 IEEE 802.1p for Class of Service  
 IEEE 802.1Q for VLAN Tagging  
 IEEE 802.1s for Multiple Spanning Tree Protocol  
 IEEE 802.1w for Rapid Spanning Tree Protocol  
 IEEE 802.1X for authentication  
 IEEE 802.3 for 10BaseT  
 IEEE 802.3ab for 1000BaseT(X)  
 IEEE 802.3ad for Port Trunk with LACP  
 IEEE 802.3u for 100BaseT(X) and 100BaseFX  
 IEEE 802.3x for flow control  
 IEEE 802.3af/at for PoE/PoE+ output  
 IEEE 802.3z for 1000BaseSX/LX/LHX/ZX

Ethernet Software Features

**Broadcast Forwarding** IP directed broadcast, broadcast forwarding

**Configuration Options** Command Line Interface (CLI), Command Line Interface (CLI) through Serial/Telnet/SSH, Web Console (HTTP/HTTPS), Windows Utility

**Filter** 802.1Q, GMRP, GVRP, IGMP v1/v2/v3, Port-based VLAN, Static Multicast

**Industrial Protocols** EtherNet/IP Adapter (Slave), Modbus TCP Server (Slave)

**Management** Back Pressure Flow Control, DHCP Option 66/67/82, DHCP Server/Client, Flow control, HTTP, IPv4/IPv6, IOxpress, LLDP, Port Mirror, QoS/CoS/ToS, RARP, RMON, SMTP, SNMP Inform, SNMP Trap, Syslog, Telnet, Account Management

**MIB** Bridge MIB, Ethernet-like MIB, MIB-II, P-BRIDGE MIB, Q-BRIDGE MIB, RMON MIB Groups 1, 2, 3, 9, RSTP MIB

**Redundancy Protocols** Link Aggregation, MSTP, RSTP, STP, Turbo Chain, Turbo Ring v1/v2, Turbo Ring with DRC

**Security**

Broadcast storm protection, HTTPS/SSL,  
Local Account Accessibility, TACACS+, Port  
Lock, RADIUS, Rate Limit, SSH

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	<b>Time Management</b>	IEEE 1588 PTP v1/v2, NTP Server/Client, SNTP
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Switch Properties	<b>IGMP Groups</b>	256
	<b>Max. No. of VLANs</b>	64
	<b>VLAN ID Range</b>	VID 1 to 4094

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LED Interface	<b>LED Indicators</b>	STATE, PWR1, PWR2, FAULT, 10/100/1000M
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Serial Interface	<b>Console Port</b>	M12 A-coded male connector
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Power Parameters	<b>Input Current</b>	7.8 A @ 24 VDC, 1.58 A @ 110 VDC
	<b>Input Voltage</b>	24/36/48/72/96/110 VDC, Redundant dual inputs
	<b>No. of Power Inputs</b>	1
	<b>Operating Voltage</b>	16.8 to 137.5 VDC
	<b>Overload Current Protection</b>	Supported
	<b>Power Connector</b>	M23 connector
	<b>Reverse Polarity Protection</b>	Supported

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Physical Characteristics	<b>Housing</b>	Metal
	<b>IP Rating</b>	IP54
	<b>Dimensions</b>	185 x 219.3 x 115 mm (7.28 x 8.63 x 4.53 in)
	<b>Weight</b>	2690 g (5.93 lb)

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	<b>Installation</b>	DIN-rail mounting (optional), Wall mounting
Environmental Limits	<b>Operating Temperature</b>	-40 to 75°C (-40 to 167°F)
	<b>Storage Temperature (package included)</b>	-40 to 85°C (-40 to 185°F)
	<b>Ambient Relative Humidity</b>	5 to 95% (non-condensing)
	<b>Altitude</b>	2000 m
Standards and Certifications	<b>EMC</b>	EN 55032/24
	<b>EMS</b>	IEC 61000-4-2 ESD: Contact: 6 kV; Air: 8 kV IEC 61000-4-3 RS: 80 MHz to 1 GHz: 20 V/m IEC 61000-4-4 EFT: Power: 2 kV; Signal: 2 kV IEC 61000-4-5 Surge: Power: 2 kV; Signal: 2 kV IEC 61000-4-6 CS: 10 V IEC 61000-4-8 PFMF
	<b>Freefall</b>	IEC 60068-2-31
	<b>Radio Frequency</b>	FCC
	<b>Railway</b>	EN 50121-4, EN 50155, IEC 60571
	<b>Railway Fire Protection</b>	EN 45545-2
	<b>Safety</b>	IEC 60950-1, UL 61010-2-201
	<b>Shock</b>	IEC 60068-2-27, IEC 61373, EN 50155
	<b>Vibration</b>	IEC 60068-2-64, IEC 61373, EN 50155
Declaration	<b>Green Product</b>	RoHS, CRoHS, WEEE
MTBF	<b>Time</b>	486,560 hrs
	<b>Standards</b>	Telcordia SR332
Warranty	<b>Warranty Period</b>	5 years

**Details**

See [www.moxa.com/warranty](http://www.moxa.com/warranty)