RY-LPITE-802GBTME

Industrial L2/L3 Switch with management, PoE+, PoE++ and DMS



- DIN rail mounting
- Copper ports: 8x10/100/1000TX, RJ45
- 8 ports with PoE, PoE+ and PoE++
- Optical fibre ports: 2 x 100/1000 MBit/s SFP
- Manageable, Layer 2/3, ring redundant, DMS
- IEEE 1588 V2, PTP
- Power supply 54 VDC, redundant

This robust, high-quality switch is designed for use in powerful 10, 100 and 1000MBit/s Ethernet ring network structures according to IEEE802.x. The eight copper ports feature Power over Ethernet with PoE, PoE+ and PoE++. These devices have been specially developed for video networks. The switch allows the construction of one or more error tolerant rings via two or more connections. In the event of an interruption, the ring closes automatically in less than 50ms. This increases the availability of the system.

Two SFP sockets for 100/1000BaseSX/LX/ZX are available for the backbone, which can be equipped either for multimode or singlemode. The switches can also be used as stand-alone devices, for point-to-point connections or as connection modules. The extensive possibilities of the management software also allow the use of the switches in systems with high demands on the functionality of the network. Installation is very quick and easy thanks to the mounting device for mounting rails. The electrical and optical connections are ensured by standardized plugs (RJ45 or LC).

Video network special features

Active surveillance of the camera
Cameras powered by the switch via PoE are continuously monitored. In the event of a camera failure, the switch restarts the camera automatically. If this fails, the switch sends an alarm message via SNMP.

Active monitoring of PoE power supply
If, for example, a defective camera requires too much power from the switch, the switch alerts via SNMP.

Active management of PoE performance
When the switch is started up, the individual PoE ports can be started up with a time delay to prevent the PoE power supply from being overloaded.

Additional video-friendly features

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Extra high backplane performance for smooth video transmission with full port occupancy. Jumbo frames up to 9600Bytes are also supported at 100MBit/s. Port security through MAC address limitation.

More information

System notes	The switch supports PTP, precision time protocol according to IEEE1588 v2 and IEC 61588, a feature used in industrial automation, professional audio-video applications for audio-video bridging and telecommunications, among others.

DMS

DMS (Device Management System)

This switch has an integrated network monitoring and control system, which gives the user a very simple overview of the entire network. This DMS system has the following features:

Graphical network overview
The view of the network topology allows a quick overview of all switches and end devices available in the network, such as IP cameras or servers, with details of the IP address, device type and name. Plans and maps can be stored as background images, allowing the user to quickly access certain network devices even without knowledge of the IP structure,

Device search functions
This function allows access to a specific device even in larger networks. Newly added devices, e.g. a replaced IP camera, are displayed immediately and allow the user immediate access without requiring the IP address.

Data traffic display
The data traffic per port can be graphically displayed over a time axis.

Error handling and security
Network diagnostics between master switch and connected terminals.
Protection mechanisms such as data rate limitation provide effective protection against unwanted access.
IEEE802.3ah and IEEE802.1ag provide tools for structuring networks.

Technical data

General properties

supply voltage	54 VDC, redundant power supply possible, screw terminals For PoE+ and PoE++ a minimum of 54VDC power supply is required.
power consumption	Max. 15W (without PoE)
MTBF	25°C: 296'997h 75°C: 82'976h
operating temperature	-40°C up to +75°C Rel. humidity: 5% to 95%, non-condensing
dissipation loss	51BTU, without PoE 188BTU, with maximum PoE power output of 480W
dimensions	135x62x130mm (HxWxL)
weight	0,7kg
Testing standards	EMV: IEC61000-4-2, 4-3, 4-4, 4-5, 4-6, 4-8 EMI: FCC Part 15 Class A, EN61000-3-2, -3-3, -6-4, EN55022, EN55011 free fall: IEC60068-2-32 shock: IEC60068-2-27 vibration: IEC60068-2-6 rail norm: EN0121-4, EN50155 transport: NEMA TS2

interfaces

copper ports	8 x 10/100/1000TX with PoE, PoE+ and PoE++ Maximum PoE performance over all eight Ports: 480W Each pair of ports (1-2 / 3-4 / 5-6 / 7-8) can supply a maximum of 120W PoE power. Thus, 90W cannot be provided twice within a port pair.
optical fibre ports	2 x 100/1000, SFP We recommend the use of our barox SFPs. We do not test or guarantee the compatibility of our devices with SFPs of other manufacturers.
console port	RS232, 115,2kBit/s, 8, N, 1, RJ45

network properties

backplane	24 GBit/s
MAC-table	8k
configuration	Console, Webserver, Telnet, CLI, SNMP v1/v2/v3, TFTP, SSH, SSL, RMON, USB
PoE Management	
port settings	Per Port: Port disable/enable, Auto negotiation 10/100/1000, Full- & halfduplex, Flow Control disable/enable, data rate
port status	Per Port: Data rate, Duplex, Link, Flow Control, Auto Negotiation, Trunk
layer3 functions	IPv4 and IPv6 Unicast: static routing
VLAN	max. 64 VLAN ID & 802.1Q VLAN & Port Based
link aggregation	802.3ad LACP, static Trunk, 12 groups of 16 ports each
QoS	Class of Service IEEE 802.1p 8 priorities per port
security	FCC Class A, CE, SSH v1 and v2, SSL for GUI User authentification with private key
multicast	IGMP v1, v2, v3 MVR, Multicast VLAN Registration
standards	802.3, 10Base-T Ethernet 802.3u, 100BaseTX and 100BaseFX Fast Ethernet 802.3ab, 1000Base-T 802.3z, 1000Base-X 802.3x, Flow Control und Back Pressure 802.1d, Spanning Tree 802.1w Rapid Spanning Tree 802.1s, Multiple Spanning Tree ITU-TG.8032 / Y.1344 Ethernet Ring Protection Switch 802.3ad, Port Trunk mit LACP 802.3af Power over Ethernet (15W) 802.3at Power over Ethernet PoE+ (30W) 802.3bt Power over Ethernet PoE++ (90W) 802.1p, Class of Service 802.1q, VLAN Tag 802.1x, User Authentication (RADIUS) 802.1ab LLDP ITU-T G.8031 Ethernet Linear Protection Switching ITU-T G.8032 Ethernet Ring Protection Switching IEEE 1588 V2, PTP

Product variants

RY-LPITE-802GBTME	without SFP, without power supply

Version 13.11.2023, Changes without notice

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