ES3300 Switch Series

Managed Switch for Road and Rail Vehicles

Key Features

Ethernet	2x Gigabit Ethernet, M12 8x Fast Ethernet, optional with PoE+, M12
Power	24 VDC to 48 VDC 12 VDC to 48 VDC without PoE
Layer 2 Features	Jumbo Frames Switching VLAN 802.1Q Port mirroring STP, RSTP
Temperature	–40 °C to +70 °C
Compliance	CE (RED), Vehicle (UNECE-R10, UNECE-R118), Railway (EN 50155, EN 45545), ITxPT

Product Description

The ES3300 is an Ethernet Switch that is developed for transportation applications. It has 10 Ethernet ports, two of them are Gigabit and 8 are Fast Ethernet ports. The optionally integrated PoE power supply provides up to 62W at 24 VDC on 8 Fast Ethernet ports.

The layer 2 Switch has management functionality to realize network segmentation and redundant ring topology networks. It also can be used for automatic IP address configuration. Additionally the switch can be configured via an USB flash drive.

Designed in a metal housing the Switch reaches the protection class of IP54 and is robust for most applications. Further the M12 connectors provide secure connection and are able to endure high vibration and mechanical shocks.

The switch is preferred used in the combination with NB3800 Railway Routers or NB2810 Vehicle Routers to establish an Internet enabled and redundant Gigabit IP backbone with ring topology. The combination allows over-the-air configuration of all system components.
We're currently working on a seamless management (configuration, firmware update) solution of Router, Switch and Connectivity Suite.

Applications

— Passenger WiFi
— Passenger Infotainment
— CCTV
— Ticketing
— eMobility

Specifications

Ethernet

2x Gigabit Ethernet
10/100/1000 Mbps

Connectors
2x M12 X-coded female

8x Fast Ethernet (optional with PoE+)
10/100 Mbps

PoE Standard
Max. 30 W per port, 60 W in total
PoE classes 0, 1, 2, 3, 4

Connectors
8x M12 D-coded female

USB
1x USB host port for configuration

Connector
1x M12 A-coded female

Power

Non PoE Operation
Nominal Input Voltages
12 VDC to 48 VDC (-12 % / +20 %)

Power Consumption
5 W

PoE Operation (only PoE version)
Nominal Input Voltages
24 VDC to 48 VDC (-33 % / +8 %)

Power Consumption
70 W

Connector
1x M12 A-coded male

LED Display

System
PWR, ERR, MOD, CFG

Gigabit ports
Link/activity, speed

Fast Ethernet ports
Link/activity, PoE

Software

General
Configuration via web WebGUI or USB

Layer 2 Features
Jumbo Frames Switching
VLAN 802.1Q
32 VLAN Groups (VLAN IDs: 4096)
Port mirroring
IGMP snooping
Storm protection
STP, MSTP, RSTP

Networking Services
DHCP Server (pool, port based, static leases, client)
SNMP v1/v2/v3

Security
1:N NAT, PAT
L3 stateless firewall

Diagnose
Ethernet Ports
Link up/down, Traffic

Logging
Link, System, PoE

PoE
On/off, allocated power budget

ITxPT Services
Module Inventory

Other

Mounting
Brackets (wall mounting)

Dimensions
Width 175 mm x height 52 mm x depth 121 mm

Weight
ca. 780 g

Environment
Operating Temperature
-40 °C to +70 °C

Storage Temperature
-40 °C to +85 °C

Ingress Protection Level
IP54

Ambient humidity
10 % to 90 % non condensing

Certifications

Compliance (pending)
CE (RED)

Vehicle according to UNECE-R10, UNECE-R118

Railway according to EN 50155, EN 45545-2

ITxPT

Order code
ES3300-2Eg8Eq (PoE Version)

ES3300-2Eg8Ef (non PoE Version)

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