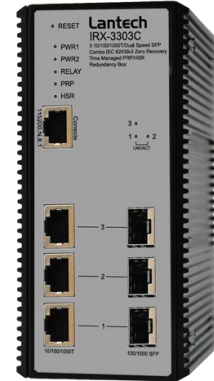


IRX-3303C-PT

3 10/100/1000TX + 3 Dual Speed SFP Combo IEC 62439-3 Zero Recovery Time
Managed PRP/HSR Redundancy Box w/One step PTP & Built-in MMS Server for

Data Modeling

- Compliant with IEC61850-3 & IEEE1613
- Compatible with IEC 62439-3 Clause 5 "High-availability Seamless Redundancy (HSR)"
- Compatible with IEC 62439-3 Clause 4" Parallel Redundancy Protocol (PRP)"
- Support PRP/HSR coupling with Quadbox architecture
- Built-in MMS server based on IEC61850-90-4 switch data modeling for power SCADA
- Support One-step PTP IEEE 1588 v2 w/transparent clock



OVERVIEW

Lantech IRX-3303C-PT is an IEC 62439-3 zero recovery time managed PRP/HSR redundancy box with 3 10/100/1000TX + 3 Dual Speed SFP Combo which meets the IEC-61850-3 & IEEE 1613 Standards.

Support IEC61850-90-4 switch data modeling with built-in MMS server

Lantech IRX-3303C-PT embeds a MMS server based on IEC61850-90-4 switch data modeling for power SCADA that allow power SCADA to control and monitor the switch without additional NMS.

Compliant with IEC61850-3, IEEE1613 and IEC62439-3

Follow standard IEC 62439-3, supports High-availability Seamless Redundancy (HSR) and the Parallel Redundancy Protocol (PRP) to provide the ultimate in network reliability and zero failover time from network faults. All the ports support copper triple-speed (10Mbps/100Mbps/1Gbps) or fiber dual speed (100M/Giga) and the internal wire-speed forwarding capability makes it one of the best performing HSR/PRP solutions in the market.

Support HSR/PRP coupling with Quad box architecture

To achieve two HSR/PRP ring redundancy with zero packet loss,

IRX-3303C-PT supports HSR/PRP coupling redundancy with quad box topology

Hardware one-step PTP with transparent clock

Lantech IRX-3303C-PT features hardware-based one step PTP IEEE1588 v2 function which can allow all Gigabit ports to synchronize the network with precise accuracy.

2DI + 2DO for relay contact alarm & email/SMS/trap alert*

The IRX-3303C-PT DIDO function can support additional open/close physical contact for designate applications besides Port / Power events, for example, DIDO function can trigger alarm if the switch was moved or stolen. In case of events, the IRX-3303C-PT will immediately send an alarm message through MMS server to Power SCADA. It provides 2DI and 2DO while disconnection of the specific port was detected; DO will activate the signal LED to alarm.

Wide input range for low VDC or high VDC

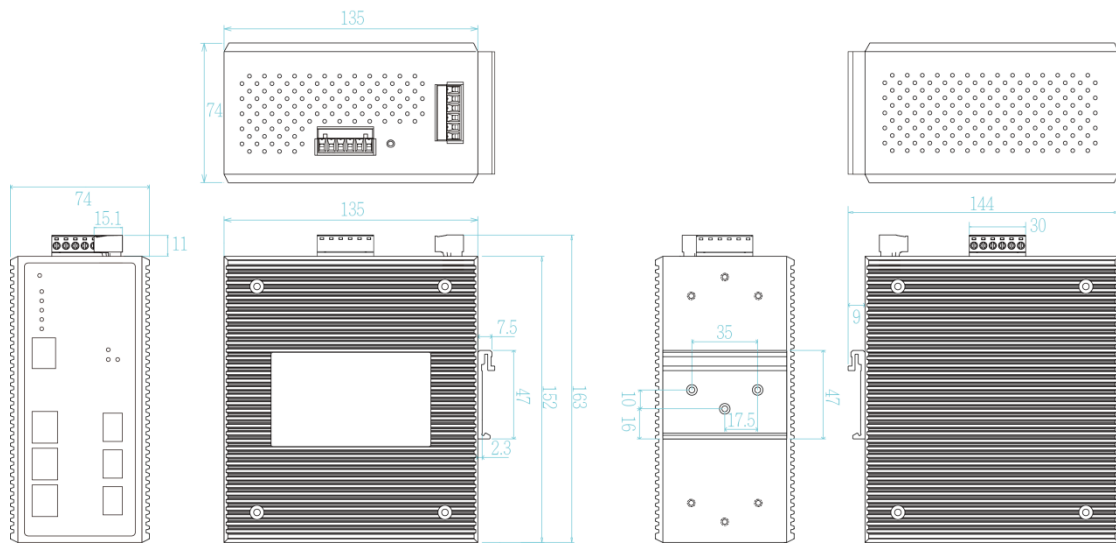
The Lantech IRX-3303C-PT is designed with dual power supply input at 12~56VDC. Optional 90-305VAC / 120~430VDC model is also available to meet with various power substation applications.

FEATURES & BENEFITS

- 3 Dual Speed SFP + 3 10/100/1000TX Combo
- Compliant with IEC61850-3 and IEEE 1613
- Supports DIDO (2Digital Input/2 Digital Output)
- IP30 metal housing with DIN rail and Wall Mount** design
- Dual DC input from 12V~56VDC, HV model with one 90~305VAC / 120~430VDC power input
- Support IEC 61850 over MMS (TCP/IP Ethernet)
 - Provide .cid file type

- Solicited data access through Manufacturing Message Specification (MMS) Read and Write requests
- Unsolicited data through MMS Information Reports
- Compatible with IEC 62439-3 Clause 5 “High-availability Seamless Redundancy (HSR)”
- Compatible with IEC 62439-3 Clause 4 “Parallel Redundancy Protocol (PRP)”
- HSR RedBox, HSR /PRP QuadBox for coupling, PRP RedBox support
- Zero recovery time from network failures
- Triple-speed (10Mbps/100Mbps/1Gbps), full-duplex operation on all ports
- Ethernet packet forwarding at wire-speed, non-blocking
- All of the ports can be either copper or fiber Ethernet interfaces
- Time and frequency synchronization using IEEE1588-v2 One step PTP with transparent clock
- Guaranteed behavior under failure conditions
- High availability network using simultaneous transmission over two Ethernet ports
- Efficient elimination of duplicated packets at hardware level
- Wide operating temp. -40°C to 75°C
- Wide-range high-voltage AC/DC power supply
- SSH/SSL encryption
- Web-based, Telnet, CLI

DIMENSIONS (unit=mm)



SPECIFICATION

Hardware Specification

Transfer Rate	14,880pps for Ethernet port 148,800pps for Fast Ethernet port 1,488,000pps for Gigabit Ethernet / Gigabit Fiber port
CPU	Marvell 925Mhz
RAM	64M Byte
Flash	1G Byte
Connectors	Combo 10/100/1000T: 3 x RJ-45 type connector Combo Mini-GBIC: 3 x Dual Speed SFP Sockets Power & P-Fail connector: 1 x 6-pole terminal block RS-232 connector: 1 x RJ-45 type connector
Network Cable	10Base-T: 2-pair UTP/STP Cat. 3, 4, 5 cable EIA/TIA-568 100-ohm (100m) 100Base-TX: 2-pair UTP/STP Cat. 5/ 5E cable EIA/TIA-568 100-ohm (100m)
Optical Cable	Multi-mode: 50/125um-62.5/125um; Single mode: 9/125um Wavelength: 850nm (Multi-mode) / 1310nm (Single-mode)
Protocol	CSMA/CD
LED	Per unit: Power 1 (Green), Power 2 (Green), Alarm (Red), Quad mode, HSR Ethernet port: Link/Activity (Green), Speed (Green); Mini-GBIC: Link/Activity (Green)
DI/DO	2 Digital Input (DI) :

	Level 0: -30~2V / Level 1: 10~30V Max. input current:8mA 2 Digital Output(DO): Open collector to 40 VDC, 200mA
Operating Humidity	5% ~ 95% (Non-condensing)
Operating Temperature	-40°C~75°C / -40°F~167°F
Storage Temperature	-40°C~85°C / -40°F~185°F
Power Supply	LV: 12 to 56 VDC dual input HV: 90-305VAC or 120-430VDC one power supply
Case Dimension	Metal case. IP-30, 74 (W) x 135 (D) x 152 (H) mm
Weight	900 g
Installation	DIN Rail and Wall Mount** Design
EMI & EMS	FCC Class A, CE EN55022 Class A, CE EN55024, CE EN61000-4-2, CE EN61000-4-3, CE EN61000-4-4, CE EN61000-4-5, CE EN61000-4-6, CE N61000-4-8
Stability Testing	IEC60068-2-32 (Free fall), IEC60068-2-27 (Shock), IEC60068-2-6 (Vibration)
Warranty	5 years
Software Specification	
Management	HTTP graphical web-based

	Telnet, VT100 Command Line Interface (CLI) SSH/SFTP (128-bit encryption) SNMP v1, v2c, v3 (56-bit encryption) RADIUS client	requests Unsolicited data access through MMS information reports
SNMP MIB	RFC1493-BRIDGE-MIB RFC1907-SNMPv2-MIB RFC2012-TCP-MIB RFC2013-UDP-MIB RFC2578-SNMPv2-SMI RFC2579-SNMPv2-TC RFC2863-IF-MIB IANAifType-MIB	*Future release **Optional
MMS for data modeling	IEC 61850 over MMS (TCP/IP Ethernet) Provide .cid file type Solicited data access through MMS read and write	

ORDERING INFORMATION

- **IRX-3303C-PT-LV.....P/N: 8360-9051**
3 10/100/1000TX + 3 Dual Speed SFP Combo IEC 62439-3 Zero Recovery Time Managed PRP/HSR Redundancy Box; -40°C to 75°C; 12/24/48VDC dual input
- **IRX-3303C-PT-HV.....P/N: 8360-9061**
3 10/100/1000TX + 3 Dual Speed SFP Combo IEC 62439-3 Zero Recovery Time Managed PRP/HSR Redundancy Box; -40°C to 75°C; one 90-305VAC or 120-430VDC power input

OPTIONAL ACCESSORIES

DIN Rail Power

- **MDR-40 Series** 40W Single Output Industrial Din Rail Power; 85-264VAC / 120-370VDC Input Range; Cooling by free air convection; RoHS2 ; Operating Temp. -20°C~70°C (ambient, derating each output at 4% per degree from 60°C ~ 70°C)
- **MDR-20 Series** 20W Single Output Industrial Din Rail Power; 85-264VAC / 120-370VDC Input Range; Cooling by free air convection; RoHS2 ; Operating Temp. -20°C~70°C (ambient, derating each output at 2.5% per degree from 50°C ~ 70°C)

Mini GBIC (SFP)

- | | |
|--|---|
| ■ 8330-162X MINI GBIC 1000SX (LC/0.5km) Transceiver | ■ 8330-169 MINI GBIC 1000XD (LC/60km) Transceiver |
| ■ 8330-163X MINI GBIC 1000SX2 (LC/2km) Transceiver | ■ 8330-167 MINI GBIC 1000ZX (LC/80km) Transceiver |
| ■ 8330-165X MINI GBIC 1000LX (LC/10km) Transceiver | ■ 8330-170 MINI GBIC 1000EZ (120km) Transceiver |
| ■ 8340-0591 MINI GBIC 1000LHX (LC/40km) Transceiver | ■ 8330-168 MINI GBIC 10/100/1000T (100m) Transceiver |
| ■ 8330-166 MINI GBIC 1000XD (LC/50km) Transceiver | |

All SFP part no. with D are with DDM function

Wall Mount Bracket

MBAK19003 Wall mount bracket for 74(W) x 105 (D) x 152 (H) mm Industrial switches

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