

INDUSTRIAL AUTOMATION PRODUCT

4329

Network Communication Module

Triconex 4329 is a Network Communication Module for Tricon controllers. It provides dual-port Ethernet connectivity for peer, time-synchronization, and host-system data exchange.

IDENTITY	VERIFIED VALUE
Manufacturer	Triconex
System family	Tricon Ethernet communication
Part number	4329
Country	USA
HS code	8537101190

APTER POWER SALES TEAM

WHATSAPP / PHONE +86 180 3023 5313
EMAIL sales13@apterpower.com
WEBSITE www.apterpower.com



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Technical Specifications

Technical values below are limited to the named Triconex product record.

PARAMETER	TECHNICAL VALUE
Module models	4329; 4329G
Ethernet standard	IEEE 802.3
Ethernet speed	10 Mbit/s
BNC Ethernet ports	2
Thin coaxial cable	RG58; 50 Ohm
External transceiver ports	2 x 15-pin D
Serial port	1 x RS-232 compatible
Port isolation	500 VDC
Protocol	TSAA over TCP/UDP/IP/802.3
Typical RG58 distance	607 ft (185 m)
Extended distance	2.5 mi (4000 m) with repeaters and standard cable
Modules per logical slot	2 independent NCMs
NET 1 function	Peer-to-Peer and Time Synchronization
NET 2 function	TriStation, SOE, OPC, DDE, and host applications
Indicators	PASS; FAULT; ACTIVE; TX/RX per port

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System Role and Architecture

Triconex 4329 is a Network Communication Module for Tricon controllers. It provides dual-port Ethernet connectivity for peer, time-synchronization, and host-system data exchange.

FUNCTION 1

Connects Tricon controllers and external hosts over 10 Mbit/s IEEE 802.3 Ethernet

FUNCTION 2

Separates safety-network peer traffic on NET 1 from host applications on NET 2

FUNCTION 3

Carries TSAA data for TriStation, SOE, OPC, DDE, and user applications

FUNCTION 4

Supports time synchronization among interconnected Tricon systems

Matched system components

- Tricon logical communication slot
- RG58 50-ohm thin Ethernet segment
- TSAA-capable host application
- peer Tricon controllers or time master

SYSTEM INTEGRATION RECORD

INTEGRATION ITEM	DOCUMENTED ROLE
Installed host / carrier	Tricon logical communication slot
Companion hardware	RG58 50-ohm thin Ethernet segment
Field connection	TSAA-capable host application
Primary system function	Connects Tricon controllers and external hosts over 10 Mbit/s IEEE 802.3 Ethernet
Controlled acceptance duty	Tricon peer-to-peer safety data network

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Applications and Engineering Context

Tricon peer-to-peer safety data network

Connects Tricon controllers and external hosts over 10 Mbit/s IEEE 802.3 Ethernet

TriStation and SOE host connectivity

Separates safety-network peer traffic on NET 1 from host applications on NET 2

OPC or DDE process-data integration

Carries TSAA data for TriStation, SOE, OPC, DDE, and user applications

Multi-controller time synchronization

Supports time synchronization among interconnected Tricon systems

TECHNICAL NOTE

Identify NET 1 and NET 2 services, save alias and host settings, verify coax termination and segment length, then restore communication while monitoring port-specific TX/RX status.

MODEL-SPECIFIC ACCEPTANCE EVIDENCE

CHECK	ACCEPTANCE CONDITION
Identity	4329 / 4329 recorded
Physical interface	Tricon logical communication slot
Companion check	RG58 50-ohm thin Ethernet segment
Functional proof	Connects Tricon controllers and external hosts over 10 Mbit/s IEEE 802.3 Ethernet
Application test	Tricon peer-to-peer safety data network

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Engineering Precautions

- 1
- Verify 4329 and its logical-slot assignment before disconnecting the network.
- 2
- Label NET 1, NET 2, both BNC connectors, and any external transceiver cables.
- 3
- Maintain RG58 50-ohm cabling and the approved coaxial termination topology.
- 4
- Preserve the distinction between peer/time traffic on NET 1 and host traffic on NET 2.
- 5
- Export TSAA host addresses, aliases, and synchronization settings before replacement.

RELATED PRODUCTS ON APTER POWER

MODEL	SYSTEM ROLE	APTER POWER PAGE
Triconex 4119A	Enhanced Intelligent Communication Module	Open product page
Triconex 4210	Remote Extender Module Set	Open product page
Triconex 3008	Main Processor Module	Open product page

MANUFACTURER SOURCE RECORD

Tricon Systems Technical Product Guide
9791007-013

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