

Cisco 7304 6-Port Clear Channel E3 Line Card with Digital Service Unit

Major service provider and enterprise customers have requested a cost-effective and time-to-market solution for E3 interfaces on the Cisco® 7304 platform for network edge aggregation deployments. The Cisco 7304 6-Port E3 line card is a native line card designed for Cisco 7304 chassis only. It provides customers with 6-port E3 connections in a single interface slot, ideal for providing direct customer IP access or network-to-network connections where copper E3 is the only service to a remote point of presence (POP).

Features and Benefits Overview

Table 1 lists the features and benefits of the Cisco 6-Port Clear Channel E3 Line Card.

Table 1 Features and Benefits

Features	Benefits
Six ports of E3 per line card	Maximizes connectivity within the rack space
Up to 34 Mbps per port	Provides high-performance routing and connectivity
Online insertion and removal (OIR)	Allows for insertion of the card without rebooting the router
Integrated data service unit (DSU)	No need for extra equipment

Cisco 7304 6-Port Clear Channel E3 Line Card Specifications

Features

- Serial encapsulation protocols:
 - High-Level Data Link Control (HDLC) (default)
 - Point-to-Point Protocol (PPP)
 - Frame Relay

Figure 1
 Cisco 7304 6-Port Clear Channel E3 Line Card





- Cyclic redundancy check (CRC) control, 16-bit CRC or 32-bit CRC
- Gap character (0x7e (flag) or 0xff (idle))
- Gap count (between 0 and 255, inclusive)
- TX and RX data inversion
- E3 support:
 - Framing control (g751 only)
 - Clocking modes (local and line)
 - Local (diagnostic), data terminal equipment (DTE), network (line) and network (payload) loopback
 - Receive and transmit alarm processing (LOS, LOF, RAI, AIS)
 - Performance and error counters
 - Each channel can be configured to provide payload scrambling for either of the two (Digital Link and Kentrox) supported third-party DSU vendor modes as well as the default Cisco mode
 - The channels can be configured to allow fractional E3 bandwidth transmission (subrate), for either of the two supported third-party DSU modes, as well as the default Cisco mode
 - Bit error rate testing
 - B3ZS line coding

Environmental Conditions

Table 2 Environmental Conditions

Cisco 7304 6-Port Clear Channel E3 Line Card	
Operating temperature	32 F to 104 F (0 C to 40 C)
Storage temperature	-4 F to 149 F (-20 C to 65 C)
Operating humidity	5 to 90 percent (noncondensing)
Altitude	-500 feet to 6500 feet



MIBs

- T3/E3 interface MIB (RFC 1407)

See the Cisco NSE-100 data sheet for more MIB support information.

Physical Specifications

Table 3 Physical Specifications

Cisco 7304 6-Port E3 Line Card	
Height	1.92 inches (4.87 cm)
Width	8.44 inches (21.43 cm)
Depth	12.94 inches (32.87 cm)
Weight	3.0 lb (1.36 kg)
Mean time between failure (MTBF)	5.5 years for system configuration

Cisco Line Card LED Indicators

Table 4 LED Indicators

LED Label	Color	State	Function
OIR	Green	On	Line card is ready to be removed
		Off	Line card is online
Status	Green/Yellow	Green	Line card is online
		Yellow	Line card bootstrapping is in progress
		Off	Line card is offline or deactivated
LNK	Green/Yellow	Green	Line card port is enabled
		Yellow	Line card port is in loopback mode or is receiving or transmitting alarms
		Off	Line card port is disabled

Regulatory Compliance and Safety Information

Product Regulatory Compliance

- Products bear CE marking indicating compliance with the Cisco 89/366/EEC and Cisco 73/23/ECC directives, which include the following safety and EMC standards.

Safety

- UL 1950
- CSA C22.2 No. 950
- EN60950
- IEC 60950
- TS 001
- AS/NZS 3260

EMC

- FCC Part 15 (CFR 47) class A
- ICES-003 class A
- EN55022 class A
- CISPR 22 class A
- AS/NZS 3548 class A
- VCCI class A
- EN55024
- EN50082-1
- EN300386

Industry EMC, Safety, and Environmental Standards

- GE-63-Core NEBS level 3 requirement
- GR-1089-Core NEBS level 3 requirement
- ETS 300-019 storage class 1.1
- ETS 300-019 transportation class 2.3
- ETS 300-019 stationary use class 3.1

Product Ordering Details and Instructions

Software Requirements

Cisco IOS[®] Software Release 12.2(20)S2 or later is required for the Cisco 7304 6-Port Clear Channel E3 Line Card.

Table 5 Product ID and Descriptions

Product Number	Product Description
7300-6E3	Cisco 7304 6-Port Clear Channel E3 Line Card with DSU
7300-6E3=	Cisco 7304 6-Port Clear Channel E3 Line Card with DSU, spare

To place an order, go to:

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