



DATA SHEET

CISCO 2600/3600/3700 ISDN PRI CONNECTIVITY OPTIONS

(NM-1CT1, NM-1CT1-CSU, NM-2CT1, NM-2CT1-CSU, NM-1CE1B, NM-2CE1B, NM-1CE1U, NM-2CE1U, NM-1FE1CT1, NM-1FE1CT1-CSU, NM-1FE2CT1, NM-1FE2CT1-CSU, NM-1FE1CE1B, NM-1FE1CE1U, NM-1FE2CE1B, NM-1FE2CE1U)

The astonishing versatility of the Cisco 2600, 3600 and 3700 router series is highlighted by its broad support of Integrated Services Digital Network Primary Rate Interface (ISDN PRI) connectivity.

The available Cisco 2600/3600/3700 PRI network modules provide various port densities to meet customer requirements at various price points. The optional, integrated CSU lets customers consolidate customer premises equipment (CPE) to provide multifunction dial access server, router, and other capabilities within the Cisco 2600/3600/3700 series in power branch office environments. The balanced and unbalanced serial connectivity options enable conformity to a customer's specific application.

Customers can choose among a number of network module options to precisely fit their requirements:

- NM-1CT1—One-port Channelized T1/ISDN PRI
- NM-1CT1-CSU—One-port Channelized T1/ISDN PRI with Channel Service Unit (CSU)
- NM-2CT1—Two-port Channelized T1/ISDN PRI
- NM-2CT1-CSU—Two-port Channelized T1/ISDN PRI with CSU
- NM-1CE1B—One-port Channelized E1/ISDN PRI, balanced
- NM-1CE1U—One-port Channelized E1/ISDN PRI, unbalanced
- NM-2CE1B—Two-port Channelized E1/ISDN PRI, balanced
- NM-2CE1U—Two-port Channelized E1/ISDN PRI, unbalanced
- NM-1FE1CT1—One-port 10/100BaseTX Ethernet with one-port T1 PRI/Channelized
- NM-1FE1CT1-CSU—One-port 10/100BaseTX Ethernet with one-port T1 PRI/Channelized with integrated CSU
- NM-1FE2CT1—One-port 10/100BaseTX Ethernet with two-port T1 PRI/Channelized
- NM-1FE2CT1-CSU—One-port 10/100BaseTX Ethernet with two-port T1 PRI/Channelized with integrated CSU
- NM-1FE1CE1B—One-port 10/100BaseTX Ethernet with one-port E1 PRI/Channelized Balanced mode (120 ohm)
- NM-1FE1CE1U—One-port 10/100BaseTX Ethernet with one-port E1 PRI/Channelized Unbalanced mode (75 ohm)
- NM-1FE2CE1B—One-port 10/100BaseTX Ethernet with two-port E1 PRI/Channelized Balanced mode (120 ohm)
- NM-1FE2CE1U—One-port 10/100BaseTX Ethernet with two-port E1 PRI/Channelized Unbalanced mode (75 ohm)

Note: The 2600 and 3700 Series only supports PRI network modules without a LAN connection.

Note: The 3631 Series is not supported.

For midrange, high-density ISDN PRI applications, the Cisco 2600/3600/3700 provides superior performance and port densities. For example, a fully configured Cisco 3640 can support 8 ISDN PRI ports in one chassis, which can be multiplexed to provide up to 192 T1 channels at 56/64 kbps T1, or 240 E1 channels at 56-64 kbps.

These PRI and FE/PRI network modules support the 3600 and 3700 internal digital modems in the 3600 and 3700 for PRI, CT1, and R2 connections. This allows up to 30 V.90 modems in a 3620 or 60 V.90 modems in a 3640.

Figure 1. High Density ISDN Applications

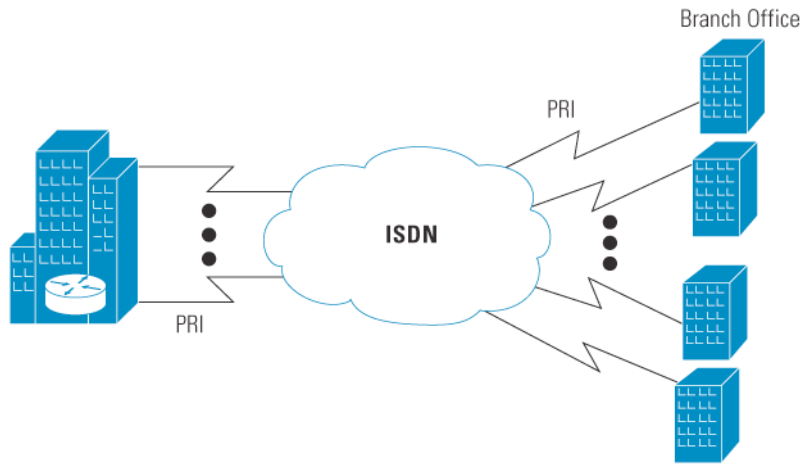


Table 1. Physical Limitations of ISDN PRI Modules per Chassis

Number of Modules per Chassis							
Type of Module	Cisco 3745	Cisco 3725	Cisco 3660	Cisco 3640	Cisco 3631	Cisco 3620	Cisco 2600
NM-1CT1, 2CT1	4	2	6	3	N/A	1	1
NM-1CT1-CSU, 2CT1-CSU	4	2	6	3	N/A	1	1
NM-1CE1B, 2CE1-B	4	2	6	3	N/A	1	1
NM-1CE1U, 2CE1-U	4	2	6	3	N/A	1	1
NM-1FE1CT1, NM1FE2CT1	N/A	N/A	N/A	4	N/A	2	N/A
NM-1FE1CT1-CSU, NM-1FE2CT1-CSU	N/A	N/A	N/A	4	N/A	2	N/A
NM-1FE1CE1B, NM-1FE2CE1B	N/A	N/A	N/A	4	N/A	2	N/A
NM-1FE1CE1U, NM-1FE2CE1U	N/A	N/A	N/A	4	N/A	2	N/A

Table 2. Cisco IOS® release requirements for ISDN PRI modules

Type of Module	Cisco IOS Release
NM-1CT1, 2CT1	11.1.(8)AA or later
NM-1CT1-CSU, 2CT1-CSU	11.1.(8)AA or later
NM-1CE1B, 2CE1-B	11.1.(8)AA or later
NM-1CE1U, 2CE1-U	11.1.(8)AA or later
NM-1FE1CT1, NM1FE2CT1	11.3(4)T or later
NM-1FE1CT1-CSU, NM-1FE2CT1-CSU	11.3(4)T or later
NM-1FE1CE1B, NM-1FE2CE1B	11.3(4)T or later
NM-1FE1CE1U, NM-1FE2CE1U	11.3(4)T or later

Table 3. Technical Specifications for NM-1CT1, 2CT1, NM-1CT1-CSU, 2CT1-CSU, NM-1CE1B, 2CE1-B, NM-1CE1U, 2CE1-U, NM-1FE1CT1, NM1FE2CT1, NM-1FE1CT1-CSU, NM-1FE2CT1-CSU, NM-1FE1CE1B, NM-1FE2CE1B, NM-1FE1CE1U, NM-1FE2CE1U

Technical Specifications	
Dimensions (H x W x D)	1.55 x 7.10 x 7.2
Weight	2 lbs max
Homologation	
Environmental Conditions	Op. temp. 32–104 F (0–40 C) Non-op. temp -13–158 F (-25–70 C)
Relative Humidity	5–95%
Safety	
Protocols Supported	Full Cisco IOS support by release 11.2
EMI	Class B EMI/Class B EMI

The following cables are available:

Cable Type	Product Number	Length	Male/Female	For Use With
MIP-CT1 DSX1 to DB15 through cable	CAB-7KCT1DB15			CT1/CE1 PRI
MIP-CT1 DSX1 to DB15 null cable	CAB-7KCT1NULL			CT1 / PRI
E1 ISDN PRI	CAB-E1-PRI	10 ft.		CE1 / PRI

Cable Type	Product Number	Length	Male/Female	For Use With
E1 Twinax 120 ohm balanced	CAB-E1-TWINAX	3m		CE1 / PRI
E1 DB15 120 ohm balanced	CAB—E1-DB15	5m		CE1 / PRI
FSIP and MIP-CE1 BNC 75 ohm unbalanced	CAB-E1-BNC	5m		CE1 / PRI

LEDs—Network module status indicator, status LEDs, including carrier detect, local/remote alarm, and loopback. Network interfaces—All supported by Cisco 3700/3600/2600 LAN Routers.



Corporate Headquarters

Cisco Systems, Inc.
 170 West Tasman Drive
 San Jose, CA 95134-1706
 USA
 www.cisco.com
 Tel: 408 526-4000
 800 553-NETS (6387)
 Fax: 408 526-4100

European Headquarters

Cisco Systems International
 BV
 Haarlerbergpark
 Haarlerbergweg 13-19
 1101 CH Amsterdam
 The Netherlands
 www-europe.cisco.com
 Tel: 31 0 20 357 1000
 Fax: 31 0 20 357 1100

Americas Headquarters

Cisco Systems, Inc.
 170 West Tasman Drive
 San Jose, CA 95134-1706
 USA
 www.cisco.com
 Tel: 408 526-7660
 Fax: 408 527-0883

Asia Pacific Headquarters

Cisco Systems, Inc.
 168 Robinson Road
 #28-01 Capital Tower
 Singapore 068912
 www.cisco.com
 Tel: +65 6317 7777
 Fax: +65 6317 7799

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Printed in the USA