



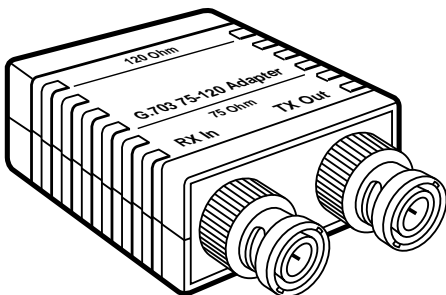
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G.703 75/120 Adapter (F)

G.703 75/120 Adapter (M)



CUSTOMER SUPPORT INFORMATION

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**FEDERAL COMMUNICATIONS COMMISSION
AND
INDUSTRY CANADA
RADIO FREQUENCY INTERFERENCE STATEMENTS**

This equipment generates, uses, and can radiate radio frequency energy and if not installed and used properly, that is, in strict accordance with the manufacturer's instructions, may cause interference to radio communication. It has been tested and found to comply with the limits for a Class A computing device in accordance with the specifications in Subpart J of Part 15 of FCC rules, which are designed to provide reasonable protection against such interference when the equipment is operated in a commercial environment. Operation of this equipment in a residential area is likely to cause interference, in which case the user at his own expense will be required to take whatever measures may be necessary to correct the interference.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This digital apparatus does not exceed the Class A limits for radio noise emission from digital apparatus set out in the Radio Interference Regulation of Industry Canada.

Le présent appareil numérique n'émet pas de bruits radioélectriques dépassant les limites applicables aux appareils numériques de la classe A prescrites dans le Règlement sur le brouillage radioélectrique publié par Industrie Canada.

1. Specifications

Transmission Line —	CCITT G.703 (unstructured)
Data Rate —	Up to 2.048 Mbps
75-Ohm Connection —	Dual coax BNC connectors, male or female (RG59 or 2002 coax)
120-Ohm Connection —	Single 8-pin RJ-45 jack, shielded (two twisted pairs)
Power Supply —	None required (passive)
Size —	2.7"H x 1.7"W x 0.8"D (6.9 x 4.3 x 2 cm)

2. Description

The G.703 75/120 Adapter allows 75-ohm coax hardware to communicate with 120-ohm twisted-pair equipment.

The G.703 75/120 Adapter specifically addresses the ONP requirement that European PTTs offer 120-ohm twisted-pair terminations to their customers. Some PTTs and private carriers are standardized on 75-ohm coax, or have customers whose CPE has only 75-ohm coax connections. The G.703 75/120 Adapter presents a ready solution to this termination impedance mismatch.

Supporting E1 data rates to 2.048 Mbps, the G.703 75/120 Adapter converts 75-ohm signals to 120-ohm and vice versa. The signals output by the G.703 75/120 Adapter are scaled to match the pulse shape requirements specified by the CCITT G.703 standard.

3. Configuration

The G.703 75/120 Adapter is pre-set to work in most applications without additional configuration. The only parameter that is user-configurable is shield connection between the 75-ohm and 120-ohm interfaces. The table below shows how the shield is connected between the modular jack and dual BNCs. Removing the jumper breaks the connection.

<u>RJ-45 Jack (120-ohm)</u>	<u>Jumper</u>	<u>Coax BNC (75-ohm)</u>
Pin 3 (TX Shield)	JP1	TX OUT Shield
Pin 6 (RX Shield)	JP2	RX IN Shield

The factory setting leaves both jumpers JP1 and JP2 in place, thus passing both shield connections through. To break one or both of the shield connections:

- 1) Insert a small flat-blade screwdriver into the slot on the side of the G.703 75/120 Adapter case and twist. The case will pop open, exposing the PC board.

- 2) Holding the PC board with the modular jack facing left, locate jumper JP1 (toward the top of the board) and JP2 (toward the bottom of the board). Remove the desired jumper(s) to break one or both shield connections.
Do not lose the jumper(s).
- 3) Re-align the case halves and end inserts and snap the case halves back together.

4. Installation

The G.703 75/120 Adapter is easy to install and requires no AC power or batteries for operation. After making any necessary configuration changes (see **Chapter 3**), simply plug in the modular and coax cables as indicated on the case. The pin configuration of the 120-ohm modular connector appears below:

<u>RJ-45 Pin(s)</u>	<u>Function</u>
1 and 2.....	TX pair
3.....	TX shield
4 and 5.....	RX pair
6.....	RX shield