



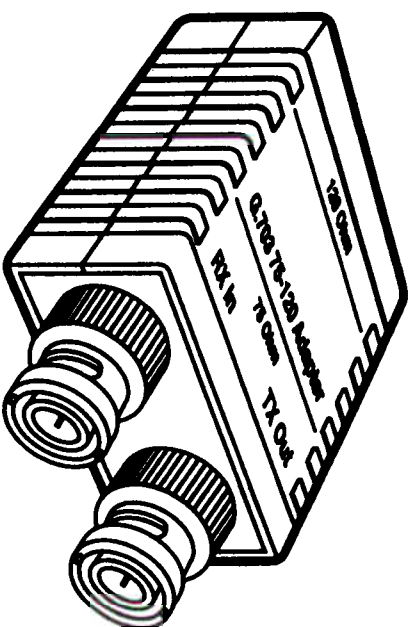
Black Box Corporation
The World's Source for Connectivity™

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G:703 75/120 Adapter (F)
G:703 75/120 Adapter (M)



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CUSTOMER SUPPORT INFORMATION

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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.

Pin 3 (TX Shield)	Jumper	Coax BNC (75-ohm)
Pin 6 (RX Shield).....	JP1	TX OUT 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>PIN#</u>	<u>Function</u>
1 and 2.....	TX pair
3.....	TX shield
4 and 5.....	RX pair
6.....	RX shield