



Coax to Twisted Pair Converters for E1

CUSTOMER
SUPPORT
INFORMATION

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MT1242A-F, MT1242A-M

1. Features

Coax to twisted pair converters for E1:

- Convert between coax interface and twisted pairs for E1 applications (2.048 Mbps)
- Enable standard ISDN primary rate installation over existing coax cables
- Require no AC or DC power
- Insensitive to signal direction
- Immediate installation
- Miniature, lightweight Balun.

Versions

The following versions of the Baluns are available:

- MT1242A-F – converter with female BNC connectors
- MT1242A-M – converter with male BNC connectors.

Applications

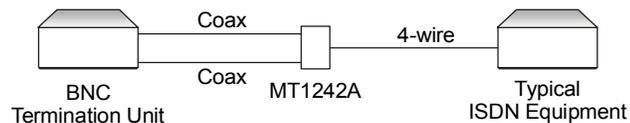


Figure 1. ISDN Primary Rate from Carrier

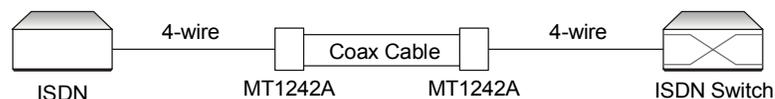


Figure 2. ISDN over Existing Coaxial Cables

2. Description

The MT1242A (coax to twisted pair converter) enables any E1 equipment with coax interface to operate over two twisted pairs (4-wire interface), as shown in [Figure 1](#).

Two MT1242A units back-to-back allow 4-wire ISDN equipment to operate over existing coax cables (see [Figure 2](#)).

MT1242A is insensitive to the direction of the signal, allowing transmit and receive lines to be reversed without affecting operation.

MT1242A is a miniature, lightweight Balun. It operates without AC or DC power and provides up to 1000V isolation voltage for protection against AC and DC overvoltage on the line.

[Table 1](#) describes connector pinouts.

Table 1. Connector Pinouts

RJ-45	BNC-1	Ground	BNC-2
1			Shield
2			Core
3, 6		GND	
4	Shield		
5	Core		
7, 8	Not connected		

3. Technical Specifications

E1 Interface	<i>Standards</i>	Supports ITU G.703 pulse mask on unbalanced and balanced sides
	<i>Data Rate</i>	2.048 Mbps
	<i>Unbalanced Line Impedance</i>	75 Ω , unbalanced
	<i>Unbalanced Connectors</i>	Two BNC coax, male or female
	<i>Balanced Line Impedance</i>	120 Ω , balanced
	<i>Balanced Connectors</i>	RJ-45, 8-pin
Power		No external power supply is required
Physical	<i>Height</i>	50 mm / 2.0 in
	<i>Width</i>	50 mm / 2.0 in
	<i>Depth</i>	24 mm / 0.9 in
	<i>Weight</i>	50g / 1.8 oz
Environment	<i>Temperature</i>	0–50°C (32–122°F)
	<i>Humidity</i>	Up to 90%, non-condensing