Linet Product catalog

>>> # CCITT G.703 Dual Balun Patch Panel
(PCB Modular Type)

CCITT G.703 Dual Balun Patch Panel
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Description:

The CCITT G.703 Balun panel matches multiple

sets of dual 75 ohm coax connections to multiple 120

ohm twisted pair connections. Supporting data stream to three

speed versions, 2-8 Mbit/s for E1/T1 and E2/T2, 2-8-34 Mbit/s for E1/T1 to E3, 34

to 155 Mbit/s for E3 and higher, the patch panel bi-directionally match, not only

signal impedance, but also the pulse shapes of the signals according to the CCITT

G.703 standard.

The modular construction allows up to 16 separate G.703 Balun Modules in a 19"

rack mountable chassis or they can be purchased in the fully populated format

shown above. This modular approach provides cost effective solutions, with a

proven growth path.

Features:

1. Connects 75 ohm dual coax to 120 ohm twisted pair

2. Bi-directional signal conversion according to CCITT G.703

3. Three speed versions as below:
   2-8 Mbit/s for E1/T1 and E2/T2 data streams
   2-8-34 Mbit/s for E1/T1 to E3 data streams
   34 to 155 Mbit/s for E3 and higher data streams

4. Low profile design

5. Mounts in standard 19" Rack

Specification:

2-8 Mbit/s speed version for E1 (T1), E2 (T2) data streams

Impedance: 75 ohm to 120 ohm/100 ohm
Insertion loss: Max. 0.2dB (2Mbps); Max. 0.3dB(8Mbps)
Return loss: -29dB(2Mpbs); -21dB(8Mpbs)
Cross talk: better than -80dB from 0.1 to 12MHz between any 2 baluns mounted distance up to 15mm

2-8-34 Mbit/s speed version for E1 (T1) to E3 (T3) data streams

Impedance: 75 ohm to 120 ohm/100 ohm
Insertion loss: Max. 0.3dB (8Mbps); Max. 0.9dB from 0.2-70MHz
Return loss: -21B(8Mbs); -15dB from 1 to 70 MHz
Cross talk: better than -60dB from 1MHz to 70MHz between any 2 baluns mounted distance up to 15mm

34 to 155 Mbit/s speed version for E3 (T3) and higher data streams

Impedance: 75 ohm to 120 ohm/100 ohm
Insertion loss: Max. 0.8dB from 860 KHz to 52 MHZ Max. 1.5dB from 50KHz to 240 MHz
Return loss: Max. 15dB from 1MHz to 240 MHz
Cross talk: -80dB from 1MHz to 240MH

Configuration:

There are four configuration jumpers on the printed circuit board, which are printed on the PC board as "J1", "J2", "J3" and "J4".

Below figure shows the orientation of the rear interface card straps. Observe that the strap can either be on posts 1and 2, or on posts 2 and 3.

Typical schematic diagrams

A type:

A type: Coaxial Tx/Rx shields connected to RJ45 overall foil shield.

Jumper Strap	Connection	Description
J1	Position 2&3	RJ45 Pin 3 not connected toRJ45 overall foil shield
J2	Position 2&3	Coaxial Tx shield not connected to RJ45 Pin 3
J3	Position 2&3	Coaxial Tx shield not connected to RJ45 Pin 7
J4	Position 1&2	Coaxial Tx/Rx shield connected to RJ45 overall foil

B type:

- Coaxial Tx shield connected to RJ45 Tx pair shield and to RJ45 overall foil shield.
- Coaxial Rx shield connected to RJ45 Rx pair shield.

Jumper Strap	Connection	Description
J1	Position 1&2	RJ45 Pin 3 connected to RJ45 overall foil shield
J2	Position 1&2	Coaxial Tx shield connected to RJ45 Pin 3
J3	Position 2&3	Coaxial Tx shield not connected to RJ45 Pin 7
J4	Position 2&3	Coaxial Rx shield connected to RJ45 Pin 6

C type:

Coaxial Tx/Rx shield connected to RJ45 overall foil shield and to RJ45 Pin 7

Jumper Strap	Connection	Description
J1	Position 1&2	RJ45 Pin 3 not connected to RJ45 overall foil shield
J2	Position 1&2	Coaxial Tx shield not connected to RJ45 Pin 3
J3	Position 2&3	Coaxial Tx shield connected to RJ45 Pin 7
J4	Position 2&3	Coaxial Tx/Rx shield connected to RJ45 overall foil