



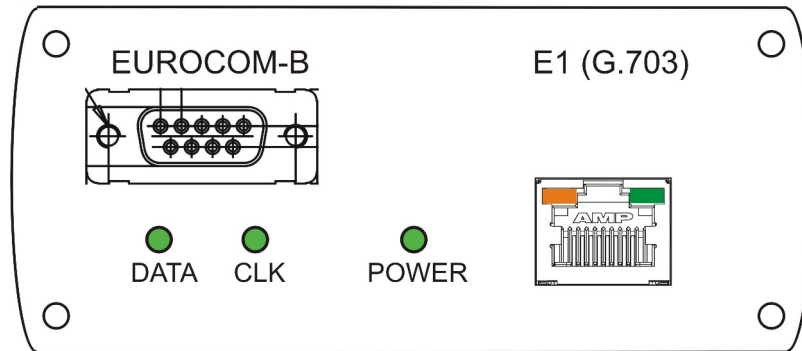
1. General Information

The Eurocom B/E1 converter box allows to connect any equipment with Eurocom B interface to any equipment with E1 interface.

The EUROCOM B / E1 converter specification:

1. Binary throughput: 2048 kbps \pm 100ppm
2. E1 interface:
 - G.703/120 Ω , balanced electrical parameters (ITU G.703, chapter 9)
 - RJ-45 socket (1,2-Rx, 4,5-Tx, 6,7-GND)
3. Eurocom interface:
 - B type, as per EUROCOM D/1 1986 IB6 (pages IB6-1 .. IB6-5)
 - connector: D-SUB 9 female-type
4. Power supply (available options):
 - DC +12V..+30, < 2W, non-isolated, '-' connected to board's earth and GND line of E1 interface, PSU socket 5.5/2.5mm
 - -48VDC (-36..-72VDC), isolated, MC 1,5/3-G-3.81 socket.
 - AC 85...240VAC, 47...63Hz, IEC60320-C14 socket
5. Power consumption < 1W
6. Box size: 106mm • 175mm • 46mm

2. Front panel layout



Front panel contains:

- EUROCOM (DSUB-9 connector) interface
- E1 (RJ-45 connector) interface
- 'Power' status indicator (LED)
- Received 'DATA' and 'CLK' signals indicators (LEDs) for EUROCOM interface.
- Received E1 signal indicator (green LED on E1 connector).
- Diagnostic loop indicator (orange LED on E1 connector).

1. Connectors layout

1. Interface E1 connector RJ-45

Pin	Direction	Function
1	input to converter	Received Data – wire A
2	input to converter	Received Data – wire B
3	not used	
4	output from converter	Transmitted Data – wire A
5	output from converter	Transmitted Data – wire B
6	not used	
7	GND	Shield - ground
8	GND	Shield - ground

2. Eurocom B interface, connector DSUB-9 female

No	Pin	Signal Name Eurocom B	Direction	RL-xxx TDM connector	AN/GRC-xxx Eurocom In/Out
1	1	Transmit Clock A	Output from converter	L	F
2	6	Transmit Clock B		M	E
3	2	Transmit Data A		H	H
4	7	Transmit Data B		G	G
5	3	Receive Clock A	Input to converter	K	S
6	8	Receive Clock B		J	R
7	4	Receive Data A		F	T
8	9	Receive Data B		E	J
9	5	GND	Chassis	V	V

1. RL-xxx : Ericsson/Konsberg
2. AN/GRC-xxx : Marconi/Ultra

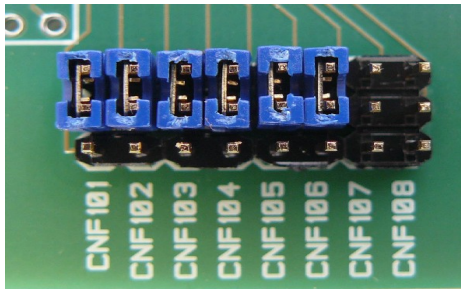
2. Power options

- DC 24V option
Converter box is powered by +12..+30VDC (non-isolated). The equipment is resistant to incorrect power connection, if the voltage is below 35V. Socket is PSU 5.5/2.5mm.
- DC 48V option
Converter box is powered by -36..-72VDC (isolated). The equipment is resistant to incorrect power connection, if the voltage is below 100V. Socket is MC 1,5/3-G-3.81.
- AC option
Converter box is powered by 85...240VAC, 47...63Hz, socket IEC60320-C14

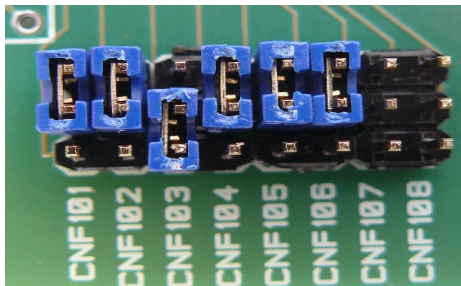
3. Configuration

The board contains 8 jumpers, marked CNF101 .. CNF108. Only four of them are used (CNF101 .. CNF104). Jumpers CNF101 and CNF102 are used for manufacturer testing. The jumper CNF103 is used to create a loop on Eurocom interface (the data from Eurocom receiver is returned to Eurocom transmitter).

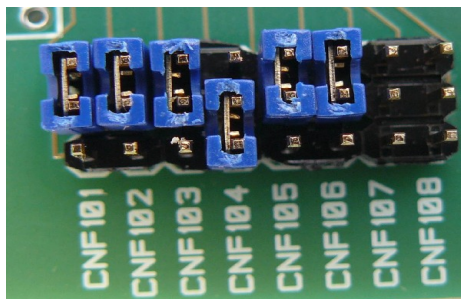
The jumper CNF104 is used to create a loop on E1 interface (data from E1 receiver is returned to E1 transmitter). Figures below show the location of switches in individual cases.



Default configuration



Loop on Eurocom interface



Loop on E1 interface

4. Converter board removal

1. Plug off power supply cable
2. Unscrew four screws holding rear panel
3. Unscrew four screws holding front panel
4. Disconnect flat cable from board
5. Pull out converter board in rear panel direction