

CYGNUS 805 Ethernet - E1 Bridge

Q What is the function of CYGNUS 805 Ethernet - E1 Bridge?

A The CYGNUS 805 Ethernet - E1 Bridge converts between 10/100 Base-TX and E1 interfaces. It allows ethernet data at 10/100 Mbps to be transported over a wide area PCM telecom link with an E1 interface, at speeds up to 2 Mbps. At the other end of the wide area link another CYGNUS 805, CYGNUS 806 or CYGNUS 850 unit must be provided so that end-to-end bridging can be achieved.

Q How many ethernet ports does the CYGNUS 805 provide?

A The CYGNUS 805 is available with ordering time options of built-in 2-port or 4-port ethernet switch.

Q What are the typical applications of the CYGNUS 805 Ethernet - E1 Bridge?

A The CYGNUS 805 is typically used to bridge two 10/100 Base-TX Ethernet networks over E1 PCM telecom links.

Q Which connector on the CYGNUS 805 do I use to connect it to the E1 interface on the PCM equipment?

A Use the RJ-45 socket marked "E1" on the back panel of the unit.

Q What is the pin out of the E1 interface connector?

A Pins 1,2 - TX; pins 4,5 - RX.

Q What protection is provided against current and voltage surges on the E1 interface?

A Current limiting devices (PTCs) and GD Tubes are provided for this purpose.

Q What is the default clock mode in CYGNUS 805?

A The default clock mode is "Recovered Main" clock. In this mode the clock is supplied by the PCM equipment connected to the unit's E1 interface.

Q How do I know whether the E1 interface of the CYGNUS 805 is properly connected to the PCM equipment and synchronised with it?

A If the E1 LINK indicator is ON, the unit is properly connected to the PCM equipment and synchronised with it.

Q What does a flashing "ALARM indicator" signify?

A It indicates failure of the E1 link

Q What diagnostic facilities are available in CYGNUS 805?

A Local loopback, Digital loopback and Pattern generation and checking for E1.

Q How do I test whether the end-to-end circuit is OK?

A Start the Pattern Generation test from the local CYGNUS 805 unit. TEST/DFLT and PAT ERR indicators should glow on this unit. Now give Digital Loopback from the remote end. If the end-to-end link is working properly PAT ERR indication on the local CYGNUS 805 unit should go off.



Q What is the function of the optional built-in buzzer in the CYGNUS 805?

A This optional feature alerts the operator if the E1 link goes down.

Q Can I disable the buzzer?

A Yes, by pressing the DSBL BZR switch on the front panel.

Q What indicators on the CYGNUS 805 will glow if the end to end link with the remote LAN is up?

A PWR, E1 LINK, E1 SLV, RXD, TXD, LAN port Speed and LINK indicators will glow.

Q How do I configure the CYGNUS 805 for framed operation at (say) 256 kbps?

Connect a terminal to the console port of the modem. Configure the terminal for 9600 bps, no parity, 8 data bits and 1 stop bit. Log in to the supervisory function. Default password is "0".

From Main menu > Configuration, select framing mode.

From Main menu > Configuration > TDM slots, select 4 slots to E1 (4x64 kbps = 256 kbps).

Store the parameters and reset the unit.

Q How do I select between 120 ohms and 75 ohms E1 interface?

Set switches SW1 - 1,2,3,4 OFF to select 120 ohm E1 interface, and ON to select 75 ohm E1 interface (4 way DIP switch SW1 is provided inside the unit).