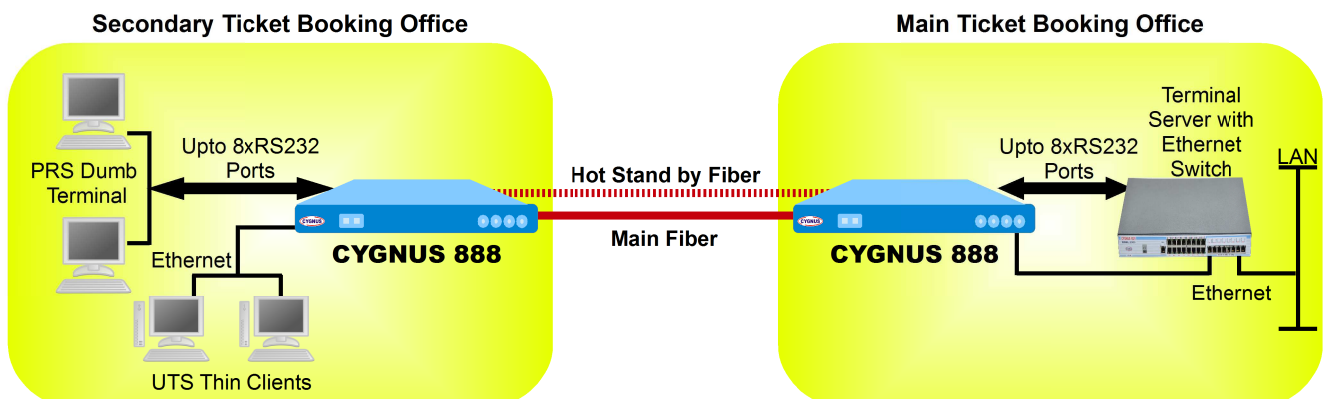# CYGNUS 888
Fiber Optic Multiplexer

FEATURES

- Ideal for extending multiple devices with asynchronous RS232 or RS422 interface across fiber
- 8 independent full-duplex asynchronous ports with ordering option for RS232 or RS422 interface. Maximum port speed on each of these ports can be 230,400 bps. Each port has 1500 VAC Isolation protection on it.
- Option for simultaneous 10/100 Mbps Ethernet along with the serial ports, via a built-in 4-port Switch. This allows simultaneous LAN extension over fiber at a throughput of up to 12.5 Mbps (nominal).
- Driving range: up to 20 km (using single mode fiber)
- Option for backup fiber port with hot standby functionality
- Multiple methods of managing the unit:
  - Through DIP switches and RS232 compatible console port
  - Through a separate 10/100 Base-T Ethernet Port supporting SNMP and TELNET (optional)
- Loop back and test pattern facilities for quick fault isolation on both fiber and DTE interfaces
- Front panel indicators for displaying unit status.
- Ordering time option for 230 VAC or 48 VDC power supply
- Applications include extending booking counters, ticket vending machines and information display systems from one platform to another, Router WAN port connectivity, etc.
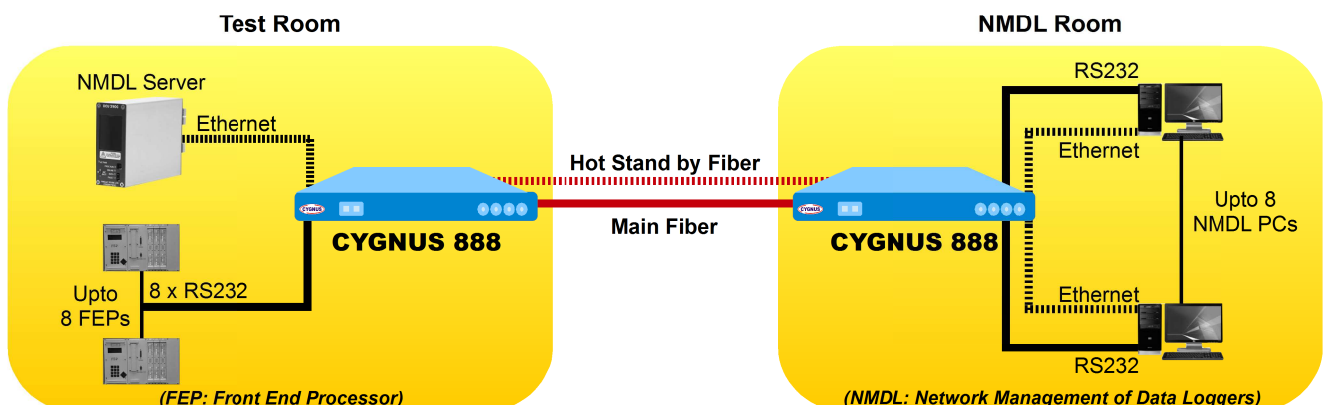
TYPICAL APPLICATIONS

Using CYGNUS 888 to provide connectivity for Secondary Ticket Booking Office at a Station

Secondary Ticket Booking Office

PRS Dumb Terminal

Upto 8xRS232 Ports

Ethernet

CYGNUS 888

Hot Stand by Fiber

Main Fiber

UTS Thin Clients

Main Ticket Booking Office

Terminal Server with Ethernet Switch

LAN

Upto 8xRS232 Ports

CYGNUS 888

Ethernet

A CYGNUS 888 pair used to extend up to 8 RS232 Dumb Terminals and Ethernet Thin Clients from the main Booking Office at a station to a secondary Booking Office there

Using CYGNUS 888 to extend Data Logger FEP ports and NMDL Ethernet Port between Test Room and NMDL Room

Test Room

NMDL Server

Ethernet

Upto 8 FEPs

8 x RS232

CYGNUS 888

Hot Stand by Fiber

Main Fiber

(FEP: Front End Processor)

NMDL Room

RS232

Ethernet

Upto 8 NMDL PCs

CYGNUS 888

Ethernet

RS232

(NMDL: Network Management of Data Loggers)

A CYGNUS 888 pair used to extend up to 8 RS232 ports of FEPs from Test Room to NMDL Room. Simultaneously the processed data from the NMDL PCs is send back to NMDL Server using Ethernet port

SPECIFICATIONS

OPTICAL FIBER INTERFACE

Fiber Type:	Single mode or multimode (ordering time option)
No. of fiber channels	One (Ordering time option for an additional Hot Standby fiber interface for protection purpose)
Range:	Up to 20 km on single mode. *(Models with higher driving ranges on fiber are also available. Contact Cygnus for details)*
Connector:	Ordering option for SC Duplex, SC Bi-Di, LC Duplex
Wavelength	Duplex operation: 1310 nm
	Bi-directional operation: 1310/1550 nm
Mounting:	Ordering option for 1x9 Fixed or SFP (pluggable)

LAN BRIDGE INTERFACE (ordering time option)

No. of ports	4 (as 4-port LAN switch)
Compliance	IEEE 802.3 compliant 10/100 Base-T autosensing interface
Connector	RJ45 socket
Functionality	Self learning bridge. Can bridge with a similar unit at the other end of the fiber
Bridging Throughput	12.5 Mbps (nominal)

RS232 / RS422 INTERFACE

No. of ports	8
Compliance	Asynchronous Full duplex RS232 / RS422
Bit rate	Up to 230.4 kbps
Connector	RJ45 or 9-pin D-type (ordering time option)
Interface signals	Transmit, Receive, Ground

CONSOLE PORT

Compatibility:	ITU-T V.24/RS232
Format:	Asynchronous; 8 data bits, 1 stop bit, no parity - default speed : 9600 bps
Connector:	RJ45 socket

NETWORK MANAGEMENT INTERFACE (ordering time option)

Interface:	10/100 Base-T ethernet on RJ45 socket
Software functionality:	• SNMP Traps for important events
	• TELNET access for configuration and monitoring

DIAGNOSTIC SWITCHES

DTE port local loop back, DTE port digital loop back

Remote loop back request (DTE test)

Remote pattern request (Fiber test)

Test pattern generation and checking (for both DTE and Fiber test)

INDICATORS

General indicators:

Unit Power status, Alarm condition, Test status, Default parameter status, LT status, Pattern Error, Configuration Mismatch status, Fiber main or backup select status

Fiber interface indicators:

Link status

Ethernet port indicators (for each port):

LAN Link Status, Speed, Receive, Transmit

RS232 interface indicators:

Transmit / Receive

GENERAL

Size:	Standard 19" Rack mountable, 1U height
Power input:	230 VAC or 48 VDC (ordering time option)
Operating temp:	0°C - 45°C
Humidity:	0-85% RH, non condensing

ORDERING INFORMATION

Order code: CYGNUS 888/A/B/C/D/E/F/G/H/I

A: Specify

- ◆ "SM" for single mode fiber interface
- ◆ "MM" for multi mode fiber interface

B: Specify "SC-SC" or "SFP-SC" or "SFP-LC" for Transceiver connector

C: Specify "Bi-Di" or "DUPLEX" Mode (Only Bi-Di for "SFP-SC")

D: Specify "HS" if hot standby fiber port is required, else leave blank.

E: Specify "ETH" for 4-port 10/100 Base-T compliant ethernet switch DTE interface, else leave blank

F: Specify DTE interface option

- ◆ "8_RS232" or "8_RS422"

G: Specify Power Supply option:

- ◆ "AC" for 230 VAC
- ◆ "DC" for 48 VDC

H: Specify connector option for RS232/RS422 ports:

- ◆ "RJ45" for RJ45
- ◆ "D-sub" for 9 pin D-sub (female)

I: Specify "NMS" if support for centralised NMS is required.

NOTE

1. *Specifications are subject to change without notice.*
2. *All options may not be available simultaneously.*
3. *Contact Cygnus for available configurations.*

Ref.: 221122