

CYGNUS 854

2 Mbps Fiber Optic Modem

FEATURES

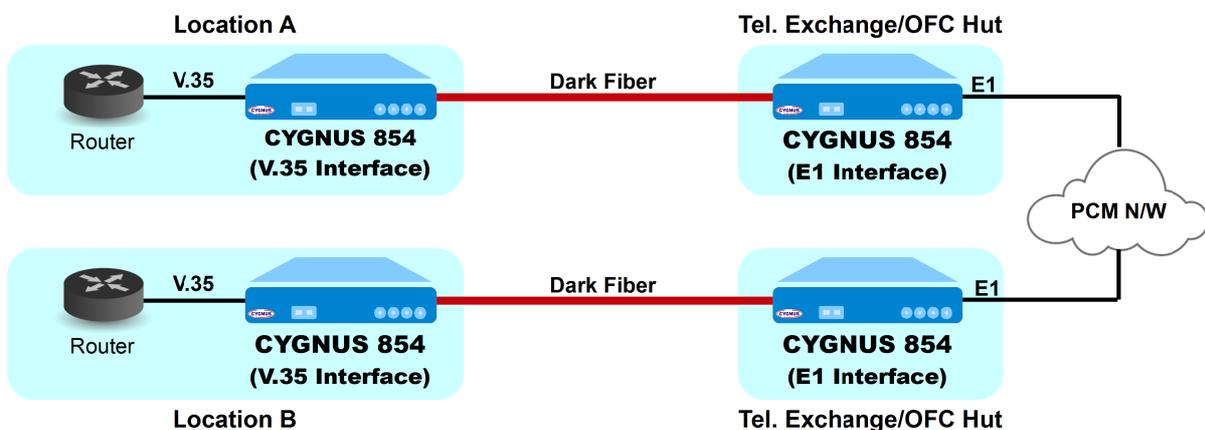
- Operates in pairs on a dedicated optical fiber link to transmit and receive DTE port data across the link
- Driving range: Upto 20 km on single mode optical fiber. Higher range available as an ordering time option
- Unit may be ordered with any one of the following DTE interface options:
 - 2 Mbps V.35 synchronous interface
 - 2 Mbps G.703 E1 interface with HDB3 encoding (unframed operation)
 - Asynchronous RS232/RS422 interface
 - Both RS232 and E1 interfaces (only one operational at a time)
- Configuration through switches and jumpers
- Loop back and test pattern generation facilities for quick fault isolation
- Front panel indicators for displaying unit status
- Power supply - ordering time options:
 - 230 VAC only
 - 48 VDC only
 - 24 VDC only
 - 18 VDC to 72 VDC (Unit can operate from either 24 VDC or 48 VDC supply)
- Commercial Operating Temperature Range (Ordering time option for Industrial operating temperature range components)

TYPICAL APPLICATIONS

Data Communication Application: Router Interconnection

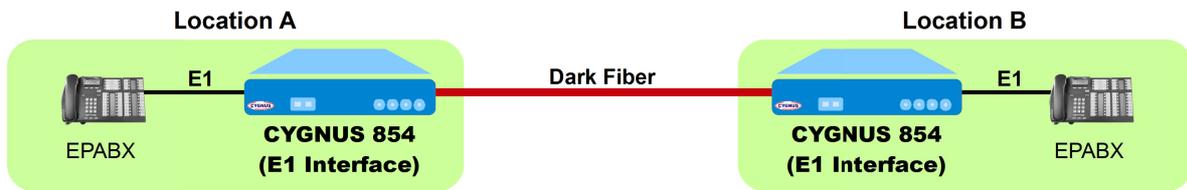


i) Interconnecting a pair of Routers over Dark Fiber



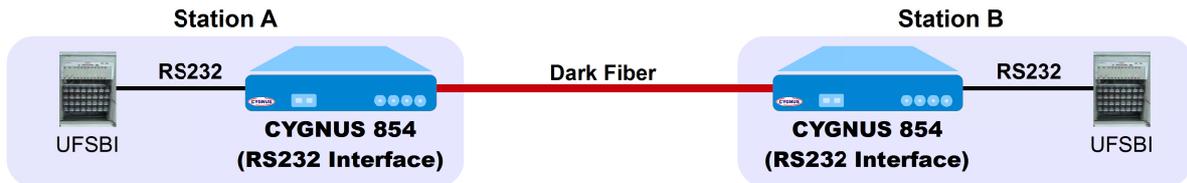
ii) Interconnecting a pair of Routers over a PCM link, with Dark Fiber used to extend the WAN port of each Router to the PCM access point (i.e., Telephone Exchange or OFC Hut)

Telecommunication Application: EPABX Interconnection

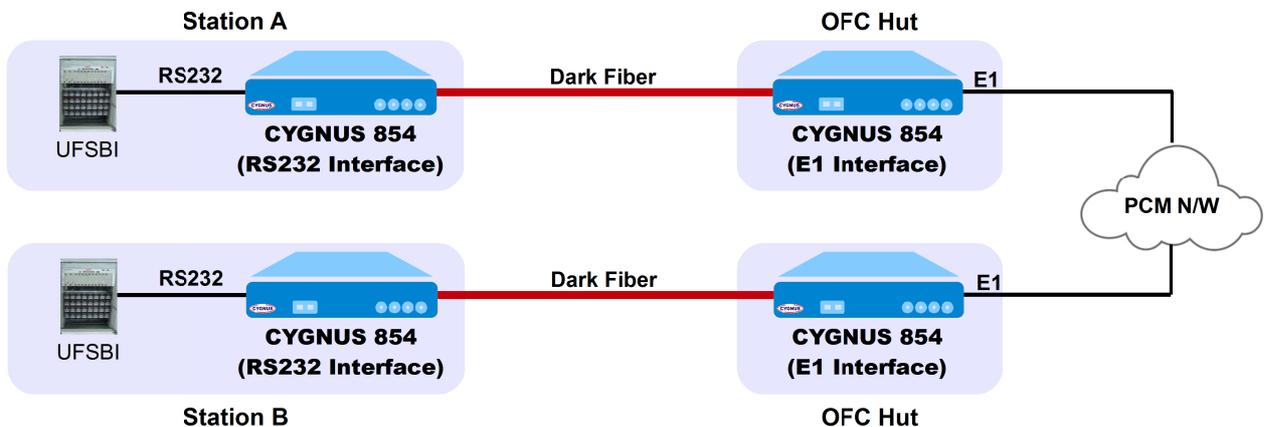


Interconnecting a pair of EPABXs over Dark Fiber

Railway Signalling, Control and Monitoring Applications: (i) UFSBI connectivity



i) Interconnecting two Universal Fail Safe Block Instrument (UFSBI) units having RS232 ports, over Dark Fiber



ii) Interconnecting two UFSBI units over a PCM link, with Dark Fiber used at either end between OFC Hut and UFSBI location

Railway Signalling, Control and Monitoring Applications: (ii) Data Logger/RTU connectivity



Connecting RTU at a LC Gate/IBH to Data Logger in the Relay Room of a nearby station, using Dark Fiber

Railway Signalling, Control and Monitoring Applications: (iii) IPIS Connectivity



Connecting CCU at a station to MDCH using Dark Fiber

SPECIFICATIONS

OPTICAL FIBER INTERFACE

Fiber Type:	Single mode
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	Bi-Directional operation: 1310 nm / 1550 nm
Mounting:	Ordering option for 1x9 Fixed or SFP (pluggable)

DTE INTERFACES AVAILABLE

Interfaces available: Ordering option for any one of the following:

- E1 (Unframed)
- V.35 (2 Mbps)
- Asynchronous RS232 or RS422
- Both RS232 and E1 interfaces (only one operational at a time)

SPECIFICATIONS OF INDIVIDUAL DTE INTERFACES

E1 Interface:	Speed: 2048 kbps Unframed operation Connector: 120 ohm - balanced interface provided on RJ45 socket
V.35 Interface:	2048 kbps operation Connector: 34 pin block
RS232/RS422 Interface:	Baud rate: Up to 115200 bps Auto speed Functionality: Async RS232 (or RS422) traffic is placed on digital 2 Mbps stream Connector: 9 pin D-sub female

CLOCKING MODES (AS APPLICABLE)

Recovered Clock:	2 Mbps clock recovered from the remote unit over fiber is used for sending and receiving data on both fiber and DTE interfaces
Internal Clock:	An internal crystal controlled clock is used for sending and receiving data on both fiber and DTE interfaces at 2 Mbps
DTE Slaved:	2 Mbps clock received from V.35 DTE, or recovered from the E1 signal, is used for sending and receiving data on both fiber and DTE interfaces

DIAGNOSTICS AND LED INDICATORS

Diagnostic Switches:	DTE Port Local Loop back; DTE port Digital Loop back; Remote Loop back Request; Test Pattern Generation and Checking
LED Indicators:	General: Power, Test Status, LT Status, Pattern Error Fiber i/f related: Link Status, Alarm status E1 i/f related: Link Status, Receive, Transmit V.35 i/f related: DTR Status, Receive, Transmit RS232 i/f related: Receive, Transmit

GENERAL

Size:	240 mm (w) x 180 mm (d) x 45 mm (h)
Power input:	Ordering option for 230 VAC, 48 VDC or 24 VDC
Operating Temperature Range:	0°C to 50°C (for units with commercial grade components) Ordering option for -10°C to 70°C (for units with industrial grade components)
Humidity:	0 – 85% RH. non condensing

ORDERING INFORMATION:

ORDER CODE: CYGNUS 854 A/B/C/D/E/F

"A" specifies the DTE interface required. Specify one of the following:

- "E" for E1 interface
- "V" for V.35 interface
- "R" for RS232 async interface on 9-pin D-sub connector
- "R4" for RS422 async interface on 9-pin D-sub connector
- **"ER" for units assembled with both E1 and 9-pin D-sub RS232 interface. Note that only one interface can be enabled for operation at a time**

"B" specifies type of fiber transceiver mounting Specify one of the following:

- "1X9" for fixed 1x9 type of transceiver
- "SFP" for pluggable transceiver interface

"C" specifies fiber connector type. Specify one of the following:

- "SC Bi-Di" for SC connector and Bi-Directional single fiber
- "SC Duplex" for SC connector in duplex fiber mode
- "LC Duplex" for LC connector in duplex fiber mode

"D" specifies the fiber driving range on single mode fiber(in km). Standard model has driving range of 20 km. For higher driving ranges contact Cygnus, and specify accordingly

"E" specifies input power supply option. Specify one of the following:

- "AC" for 230 VAC Only
- "DC24" for 24 VDC Only
- "DC48" for 48 VDC Only
- "DCE" for 18 VDC to 72 VDC (Unit can operate from either 24 VDC or 48 VDC supply)

"F" specifies industrial or commercial operating range components. Specify one of the following:

- "COM" for Commercial operating range components
- "IND" for Industrial operating range components (available only for models with DC power supply input)

NOTE

- ◆ *Not all combination of options above may be available simultaneously. Please check with Cygnus before placing the order*
- ◆ *CYGNUS 854 product with 230 VAC power supply is supplied only for commercial grade applications*
- ◆ *Specifications are subject to change without notice*

Ref.: 221122



CYGNUS MICROSYSTEMS (P) LIMITED

93, IDA Phase II, Cherlapally, Hyderabad 500051, India

Tel: +91 (40) 2726 1327

URL: www.cygnusmicro.com e-mail: mktg@cygnusmicro.com

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