

# QX3440-6RS-4SERIAL

## SERIAL SYNC/ASYN UNIVERSAL DTE



### FEATURES

Card for multiservice PDH  
QX3440/S and HX9500

6 ports X21, RS232, RS422  
with software configuration  
per port

6 RS232 sync/asyn

4 X21 600bps to 2Mbps

4 RS422 sync/asyn 600bps to  
64Kbps

5 Modes

Mode 1 support 64K sub-rate  
V110/i463 transmission compa-  
tible with Alcatel 1511 and  
Mainstreet\*

Mode 2 : support n\*64K  
(X.21/RS422/V.35/V.36/  
EIA530/RS449) and over-  
sampling for RS232

Single stream in Mode 1 or 2,  
one circuit per 64Kbps TS

Multi stream 64K subrate in  
Mux Mode 1 Mux, up to 6  
circuit per 64Kbps TS

RTS remote management

Transport Serial over PDH and  
serial over PDH over SDH.

Supported by SNCP-PDH and  
ULSR-PDH protection

### TDM Transmission of X21, RS232, RS422

*The QX3440-6RS-4SERIAL card for QX3440 / QX3440-S series or HX9500R supports 6 software configurable interfaces as RS232, RS422 and X21/V35/V36/EIA530/RS449. The transmission of X21 is selectable ports from 600bps to 2Mbps and RS232 or RS422 from 600bps to 64Kbps.*

*The 64Kbps sub-rate transmission is using the I.463/V.110 protocol and then it is fully compatible with the transmission of some particular PDH multiplexors.*

The card could run in two modes corresponding of different demands. All the card is set-up by software in Mode 1 or Mode 2.

- **Mode 1:** 2RJ48 for ASYNC RS232 + 2\*DB44 with for 4 ports X.21/ RS232/ RS422 when data rate is < 64Kbps, V.110 subrate protocol support
- **Mode 2:** X.21/RS422/V.35/V.36/EIA530/RS449 SYNC Nx64k (N=1~32) for Port 1 to 4 Port 5 to 6 : Disabled
- **Mode 3:** X.21/RS422/V.35/V.36/EIA530/RS449 SYNC, Nx64k (N=1~32) for Port 1 to 3. X.21 SYNC, N x64k (N=1~20) for Port 4. N\*64Kbps (N=1~6) for RS232 oversampling data for Port 5 to 6.
- **Mode 4 :** Clock Pass through Port 1 to 4 : X.21/RS422/V.35/V.36/EIA530/ RS449 SYNC 38.4K and subrate Port 5 to 6 : Disabled
- **Mode 5 :** N\*64K with Local and Remote Loopback X.21/RS422/V.35/V.36/ EIA530/RS449 SYNC Nx64k (N=1~32) for Port 1 to 4 Port 5 to 6 : Disabled Supports MUX Mode and Independent Mode for ODE1

The card owns two RJ45F connectors for RS232 asyn and two DB44F connector for RS232, RS422 and X21 interfaces.

CXR supply as option DB44M connector to 2 DB15F connectors, DB44M to 2 DB25F and RJ45M to DB9F or DB25F cables.

We supply also in option 19" 1.5U panel with 16 DB25F or 16 DB15F or 8 DB25F with 8 DB25F or other on demand.

The **QX3440-6RS-4SERIAL** card is usable in QX3440, QX3440-C and HX9500R. All protection modes of E1 WAN interfaces 1+1, SNCP-PDH, ULSR-PDH and SNCP-SDH of the HX9500R are supporting the stream from QX3440-6RS-4SERIAL.

When the card is working in Mode 2, the stream are compatible with the QX3440-6X21 and QX3440-8RS232.

## SPECIFICATIONS

### General

This card supports serial asynchronous and synchronous streams from 64K to 2Mbps and rates lower than 64K with 64Kbps sub-rating by using the i463/V110 Protocol

This is providing the compatibility of WAN stream with many multiplexors from other vendor (like Alcatel 1511\*, Mainstream\*,....)

The card supports 6 RS232, 4 RS422 or 4 X21 connections described thereafter.

The card support alternatively two modes of WAN transmission.

### Mode 1

This mode carry 64K or lower rate to 64Kbps streams.

64Kbps sub-rate are transported within i463/V110 Protocol on the WAN over a 64Kbps TS.

Support single-stream per 64Kbps in Independent mode

Support up to 4 or 6 multi-streams per 64Kbps in Mux mode

#### DTE Interface (RS232) asynchronous

2 Data Ports (port5, port6): RJ45-ASYNC

Data Rate:

- Asynchronous Mux mode 0.6K, 1.2K, 2.4K, 4.8K, 9.6K, 19.2K
- Independent mode 0.6K, 1.2K, 2.4K, 4.8K, 9.6K, 19.2K, 38.4K

#### DTE Interface (RS422/RS232) asynchronous/synchronous

4 Data Ports: DB44F-1 (port1,port2), DB44F-2 (port3,port4)

Data Rate:

- Asynchronous : Mux mode 0.6K, 1.2K, 2.4K, 4.8K, 9.6K, 19.2K
- Independent mode 0.6K, 1.2K, 2.4K, 4.8K, 9.6K, 19.2K, 38.4K

- Synchronous: Mux mode 0.6K, 1.2K, 2.4K, 4.8K, 9.6K, 19.2K,
- Independent mode 0.6K, 1.2K, 2.4K, 4.8K, 9.6K, 19.2K, 38.4K, 48K, 64K

#### DTE Interface (X.21/V11) 600bps to 64kbps

4 Data Ports: DB44F-1 (port1,port2), DB44F-2 (port3,port4)

Data Rate:

- Synchronous: Mux mode 0.6K, 1.2K, 2.4K, 4.8K, 9.6K, 19.2K,
- Independent mode 0.6K, 1.2K, 2.4K, 4.8K, 9.6K, 19.2K, 38.4K, 48K, 64K

MUX mode support maximum 4 sub-rate ports / 64Kbps

In Mode 1 the card support the mix of interfaces.

#### Mode 2: Port 1 to 4:

X.21/RS422/V.35/V.36/EIA530/RS449

SYNC N\*64k (N=1~32)

Port 5 to 6: Disabled

#### Mode 3: Port 1 to 3:

X.21/RS422/V.35/V.36/EIA530/RS449 SYNC N\*64k, (N=1~32).

Port 4: X.21/RS422 SYNC, N\*64k, (N=1~20).

Port 5 to 6: RS232 N\*64k (N=1~6) oversampling for ASYNC data.

#### All interfaces in Mode 1, 2, 3 supports:

Electrical : DCE

Alarm : Remote Alarm, RTS Loss

Loopback : To-DTE, To-DS1 (To Line)

#### Cables and Patch panels:

In option CA-DB44M-xDB15F/xDB25F cables to support X21, RS232 and RS422

In option CA-RJ45-DB25F cable to support RS232

In option PAN-1U-16DBxxM/DBxxF one 19" 1U panel to support up to 16 DBxx connectors

## MODEL AND ACCESSORIES

<b>QX3440-6RS-4SERIAL</b>	Suitable for QX3440, QX3440-C, HX9500R card with 6 interfaces: RS232: 6 asynch (up to 38,4kbps) and 4 are usable in sync (up to 64K), 4 RS422 sync/asynch and 4 X21/V35/V36/EIA530/RS449 sync from 600bps to 2Mbps. V110/i463 over 1TS. Mux over 1 TS. 2 DB44F and 2 RJ45F connectors. Cable in option. Use 1 slot
<b>CA-DB44M-2DB15F-1</b>	Cable for QX3440-6RS-4SERIAL, for 2 X21 interfaces: DB44M to 2 DB15F, 1m
<b>CA-DB44M-2DB25F-1</b>	Cable for QX3440-6RS-4SERIAL, for 2 RS232 & RS422 interfaces : DB44M to 2 DB25F, 1m
<b>CA-DB44M-DB25F-DB15F-1</b>	Cable for QX3440-6RS-4SERIAL, for 1 X21 and 1 RS232/RS422 interfaces : DB44M to 1 DB15F and 1 DB25F, 1m
<b>CA-RJ45-DB25F-1</b>	Cable RJ45 to DB25F, RS232 asynch, 1m
<b>PAN-1U-16DB15M-DB15F</b>	1U 19" panel with 16 DB15M/DB15F
<b>PAN-1U-16DB25M-DB25F</b>	1U 19" panel with 16 DB25M/DB25F
<b>PAN-1U-8DB15F-8DB25F</b>	1U 19" panel with 8 DB15M/DB15F and 8 DB25M/DB25F



CXR  
T +33 (0) 237 62 87 90  
www.cxr.com

17 Rue de l'Ornette 28410 Abondant France  
contact@cxr.com