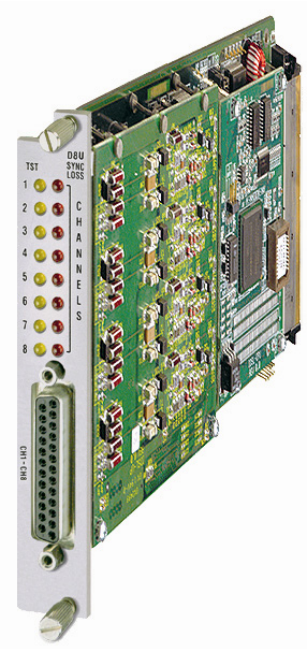
Data Sheet

DXC Module

D8U

8-Port ISDN "U" Interface Module



- Full interoperability with Megaplex-2100/2104 HS-U family modules
- Per port 2B + D channel transmission at ranges of up to 5.5 km (3.4 miles)
- ITU-T Rec. G.961 compliant
- ISDN line extension or dedicated line termination units for leased lines

8-port ISDN "U" module for the DXC family of modular cross-connects

D8U is an 8-port ISDN "U" interface module for use with the modular DXC Digital Cross-Connect units.

D8U provides ISDN "U" ports, each supporting 2B + D channels, for a total payload data rate of up to 128 kbps per port.

2B1Q line coding is used for full-duplex data transmission over 2-wire unconditioned lines at ranges of up to 5.5 km (3.4 miles) over 26 AWG line.

D8U can be configured to work in the following applications:

- Extension of ISDN lines over non-ISDN facilities (**"I" mode**). In this application D8U can be configured as either line termination (LT) or network termination (NT) unit, connecting up to two remote locations.
- Line termination (**"1" mode**) over leased lines, with D channels disabled. In this application D8U serves as dedicated line termination unit for the ASMi-31 short-range modems, connecting up to 8 remote locations.

D8U is fully interoperable with Megaplex-2100/2104 HS-U family modules.

Each B channel or "U" interface can be programmed independently to operate at the following data rates (depending on the application):

- "I" mode: 64 kbps
- "1" mode: 64 or 128 kbps.

D8U provides 96 VDC phantom feeding to remote equipment. Received from an external power source, the phantom feeding can be enabled or disabled for each module port.

Diagnostic functions include loopbacks on external ports and individual channels. Additionally, when operating in "1" mode, the modules can activate remote loopback and BERT on the ASMi-31 modems via the module ports.

Setup, control, and diagnostics are performed via a DXC system supervisory port using an ASCII terminal, Telnet, or by the RADview element management system.

RAD
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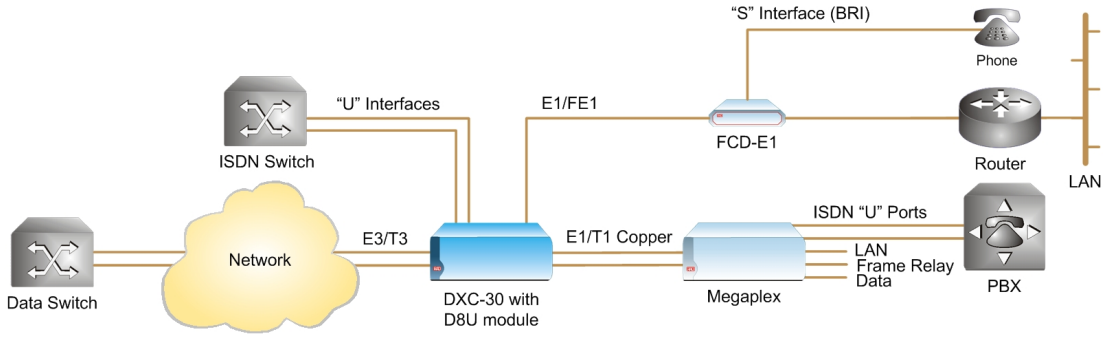

Figure 1. Extending ISDN Lines over Non-ISDN Facilities ("I" Mode)

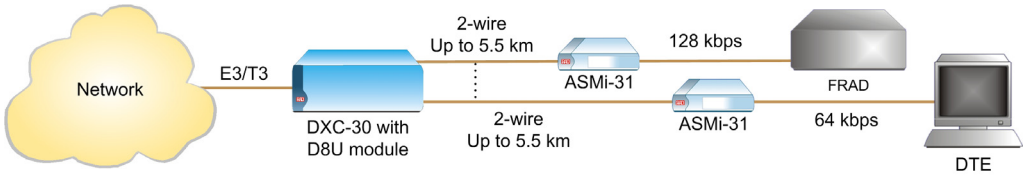

Figure 2. ISDL Application ("1" Mode)

Specifications

Number of Ports
8 "U" ports

Compliance
ITU-T Rec. G.961 ANSI T1.601

Nominal Data Rate
160 kbps (ISDN basic rate access, 2B + D channels)

Line Signal Format
2B1Q

Transmission Format
Full-duplex

Line Type
2-wire unconditioned telephone loops (one twisted pair)

Nominal Line Impedance
135Ω

Transmit Level
+13 dBm

Maximum Loop Loss
42 dB at 40 kHz, max resistance 1300Ω

Typical Range
5.5 km (3.4 miles) over 26 AWG (0.4 mm) pair

Connector
25-pin D-type female connector per group of eight ports

Phantom Feeding
96 VDC provided by an external source connected to the module connector, can be individually enabled/disabled for each module port

Port Timing
LT Mode: Transmit timing is locked to the DXC nodal timing
NT Mode: Receive timing is recovered from line signal

Power Consumption
6W at 1.2A maximum

Port Payload Rate
"I" configuration:
64 kbps on each B channel
16 kbps on each D channel
"1" configuration:
64 or 128 kbps

Diagnostics (per port)
Local loopback
Remote loopback
Local loopbacks on the individual channels of a port
Local loopback on module port in response to RLB command
Remote loopback on remote ASM-31 or ASMi-31, towards the module port
Activation of BER testing from remote ASM-31 or ASMi-31 towards the module port

Indicators (per port)
SYNC LOSS (red) –
On: line synchronization lost
TEST (yellow) –
On: test running on line

Configuration
Programmable by the DXC system management or RADview Management System
Downloading configuration of ASMi-31 from "1" port to the remote modem

Physical
Occupies a single slot in a DXC-8R, DXC-10A or DXC-30 chassis

For comparison of DXC chassis, see *Table 2*. For the list of DXC I/O modules, refer to the DXC-8R/10A/30 folder.

D8U

8-Port ISDN "U" Interface Module

Ordering

DXC-M-8U

OPTIONAL ACCESSORIES

CBL-D8U-RJ45/X

Adapter cable for D8U, splits a single DB-25 connector into 8 x RJ-45 balanced connectors

Table 2. DXC Chassis Comparison Table

Feature	DXC-8R	DXC-10A	DXC-30	DXC-100*
Height	1U	1U	3U	6U per nest
Maximum number of ports	32	40	120	688 (8 nests)
Number of I/O slots	4	5	15	86 (8 nests)
System redundancy	Built-in	None	Optional	Optional
E1, T1, E3, T3, STM-1 modules	✓	✓	✓	✓
XDSL, inverse multiplexing modules	✓	✓	✓	–
n x 56/64 kbps modules	✓	✓	✓	✓
Router, OC-3 modules	–	–	–	✓
ASCII, SNMP, RADview management	✓	✓	✓	✓

**The DXC-8R/10A/30 modules and DXC-100 modules are not interchangeable.*

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