

# D8U, D16U



## 8/16-Port ISDN "U" Interface Modules



### FEATURES

- 8 or 16-port ISDN "U" interface modules for the DXC family
- Fully interoperable with Megaplex-2100/2200 HS-U modules
- Each port supports 2B + D channels transmission at ranges up to 5.5 km (3.4 miles)
- Comply with ITU-T Rec. G.961
- Can be used as extensions for ISDN lines or as dedicated line termination units for leased lines
- Support phantom power feeding to the remote end
- Operate opposite remote ASM-31 or ASMi-31 modems, with automatic configuration download to ASMi-31
- Programmable data rates: 64 kbps or 128 kbps
- Fit into any DXC chassis: DXC-8R, DXC-10A, DXC-30, DXC-STM-1; a special 6U high D16U version fits into the DXC-30E chassis

### DESCRIPTION

- D8U, D16U are 8 or 16-port ISDN "U" interface modules for use with the modular DXC Digital Cross-Connect units.
- D8U, D16U provide ISDN "U" ports, each supporting 2B + D channels, for 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 up to 5.5 km (3.4 miles) over 26 AWG line.
- D8U, D16U can be configured to work in the following applications:
  - Extension of ISDN lines over non-ISDN facilities ("**I**" mode). In this application D8U, D16U can be configured as either line termination (LT) or network termination (NT) units, supporting up to 2/4 remote locations, respectively.
  - Line termination ("**1**" mode) over leased lines, with D channels disabled. In this application D8U, D16U serve as dedicated line termination units for the ASM-31 or ASMi-31 short-range modems, supporting up to 8/16 remote locations, respectively.
- D8U, D16U are fully interoperable with Megaplex-2100 and Megaplex-2200 HS-U modules
- Each B channel or "U" interface can be programmed independently to operate at the following data rates (depending on the application):
  - "1" mode: 64 kbps
  - "1" mode: 64 or 128 kbps.
- D8U, D16U are capable of providing 96 VDC phantom feeding to the remote equipment. Received from an external power source, the phantom feeding can

be enabled or disabled for each module port.

- D8U, D16U diagnostic functions include loopbacks on external ports and individual channels. Additionally, when operating in "1" mode, the module supports activation of remote loopback and BERT on the ASM-31 or ASMi-31 modems via the module ports.
- Setup, control and diagnostics can be performed via a DXC system supervisory port using an ASCII terminal, Telnet, or by the RADview Management System.

### SPECIFICATIONS

- **Number of Ports**
  - D8U: 8 "U" ports
  - D16U: 16 "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

# D8U, D16U

## 8/16-Port ISDN "U" Interface Modules

- Phantom Feeding**  
 96 VDC provided by 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**
  - D8U: 6W at 1.2A maximum
  - D16U: 7.5W at 1.5A 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, TEST
- Configuration**
  - Programmable by the DXC system management or RADview Management System
  - Downloading configuration of ASMi-31 from "1" port to the remote modem

### APPLICATION

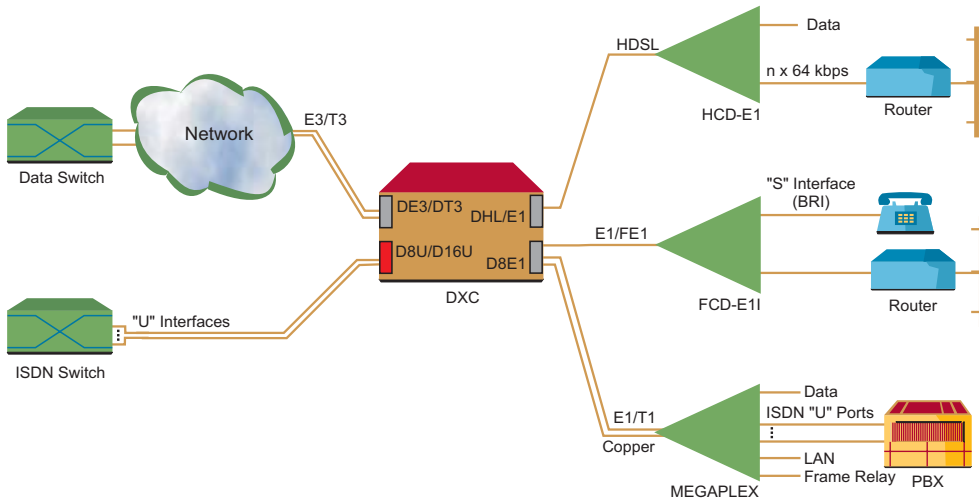


Figure 1. Extending ISDN Lines over Non-ISDN Facilities ("I" Mode)

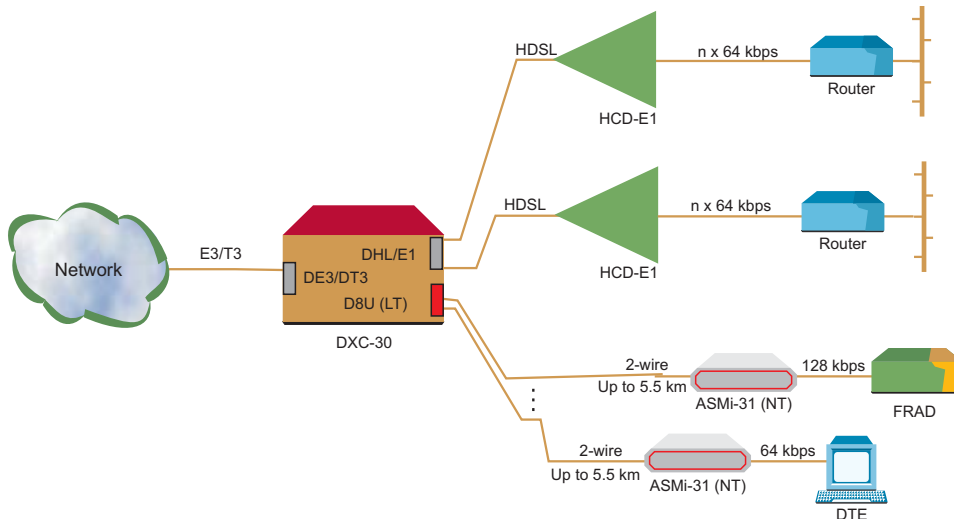


Figure 2. IDSL Application ("1" Mode)

### ORDERING

**DXC-M/8U**

8-port "U" Interface Module, 3U high version

**DXC-ME/16U**

16-port "U" Interface Module, 6U high version

**CBL-D8U-RJ45/X**

Adapter cable for D8U, splitting a single DB-25 connector into 8 x RJ-45 balanced connectors  
 D16U requires two adapter cables, one for each DB-25 connector.



data communications

www.rad.com

**International Headquarters**  
 24 Raoul Wallenberg Street  
 Tel Aviv 69719, Israel  
 Tel: (972) 3-6458181  
 Fax: (972) 3-6498250, 6474436  
 Email: rad@rad.co.il

**U.S. Headquarters**  
 900 Corporate Drive  
 Mahwah, NJ 07430  
 Tel: (201) 529-1100  
 Toll free: 1-800-444-7234  
 Fax: (201) 529-5777  
 Email: market@radusa.com

772-135-10/02