

3000 Series Channel Card Manual

© Case Technology Ltd 1997

3000 Series Channel Cards

Channel Interface Cards may be fitted into any port position in the 3000 series multiplexer or into any channel card position in a 2000 series multiplexer. The individual channel card manual describes the facilities available on each interface along with configuration and connection detail.

All channels cards may be inserted or removed from the 3000 or 2000 multiplexer with power applied to the chassis without damage. It is usual to remove the card from the Equipment map before physical removal to prevent an alarm being raised.

Configuration of a channel card consists of:

- a) Hardware configuration by links or DIL switches.
- b) Soft configuration by means of Control Ports and a TS Control port.
- c) Smart cards configured by menu options.

Two 'Control ports' in the form of two bytes of information are provided for each circuit on each channel card (on some cards only one is used), and these are used to configure the card from the control terminal. The setting of the bits for these control bytes is described for each card in the relevant manual for the card type.

Voice Frequency (VF) cards require an additional byte of information called the 'TS Control'. This byte of information is used to set the analogue interface VF levels and is programmed at the same time as the timeslot is assigned to the circuit. This parameter should be ignored when assigning timeslots to data cards.

Each channel card has two 'Status ports'. These are in the form of two bytes of information which are available in the 'Maintenance' menu, to provide the operator with some information regarding the current operating status of the card.

A unique I.D. code for the card is contained in the status port information. This is used by the system controller in the 'Equipment map' to display which type of card is fitted in each position.

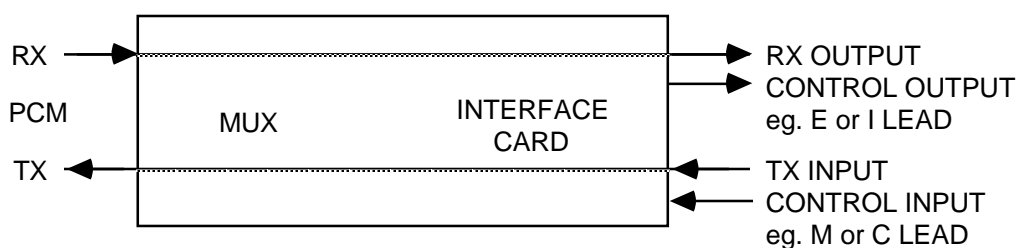
Data channel cards, when set for DTE operation, can provide an 8kHz clock signal derived from the data/clock input at the interface. This can be selected by links or switches to drive the 8k1 or 8k2 signals for use as the source of system synchronisation. Only one circuit in the multiplexer must be set to provide each clock.

All channel cards have their channel interface connections on the upper backplane connector. The connections are listed in the relevant channel card manual. A Universal I/O Adapter DT280 is available to convert the 96 way DIN connector to a 50 way Amphenol female connector. This adapter provides additional screening and must be used where compliance to EMC specifications is required. Converter cables, to change the Amphenol connector to a standard data interface for the type of card fitted are also available.

The maximum power required by any of the channel cards (not using the backplane -48V supply) except for the Dual Nx64k card is 8W, however the power requirement for most of the cards is considerably less than this. The Dual Nx64k card consumes 10W, and a *maximum* of eight of these cards may be fitted to a chassis. The maximum loading for each card can be found in the relevant channel card manual.

A red LED provided on all data cards (one per circuit) gives a visual indication that the circuit is in loop, or that in DTE mode, a timing slip is occurring. On cards with more than one circuit the lower LED is for circuit 1. Other LED functions are described in the manual for each card.

The relationship of input/output connections for all interface cards is shown below.



Approvals

The following Interface cards, when fitted to a 3000 series multiplexer chassis, have approval for use with 'Private Circuits' Details of the approvals are given in the relevant installation and operation manual for each card.

Quad 2/4 Wire E&M Channel Card	DTE65 & 69
Quad 4 Wire AC Signalling Card	DTE66
Eight Channel ADPCM Card	DTE90 to 94 inclusive
Dual V.11 Universal Data Card	DTE50
Optical 2048kbit/s G.703 Modules	DT504 to 509 inclusive
Dual Nx64k Data Card	DT585

Interface Card Reference Numbers

Quad 2/4 Wire E&M Card	DTE65 & 69
Quad 4 Wire AC Signalling Card	DTE66
Quad 2 Wire Loop Disconnect (Exch) Card	DTE63
Quad 2 Wire Loop Disconnect (Subs) Card	DTE59, 64 & 83
4/8 Channel 2 Wire Loop Disconnect (Subs) Card	DTE67 & 68
Ringling Generator Card	DT579
24 Channel E&M Signalling Card	DTE62
Eight Channel VF/ADPCM Card	DTE90 to 95 inclusive

Dual Universal Data Card (DT500) fitted with:-

a) V.11 Module	DTE50
b) V.35 Module	DTE51
c) V.36 Module	DTE58
d) G.703 Co-Directional Module	DTE53
e) G.703 Contra-Directional Module	DTE54
f) DDS Network V.11 & V.35 Operation	DTE55 & 56
g) 12kbit/s V.35 Operation	DTE57
Quad 64k X.21 (V.11) Data Card	DT587
Quad 64k V.35 Data Card	DT561
Quad G.703 Contra-Directional Data Card	DT521
Quad G.703 Co-Directional Data Card	DT536
Nx64k RS-449 (V.11 and V.35) Data Card	DT530
Dual Nx64k (V.11) Data Card	DT585
64k Sub-multiplex Card	DTE85
64k Dual V.24 multipoint Card	DTE87
8 Channel V.110 Data Card	DTE82
1544kbit/s Line Interface Card	DTE74 & 75
Optical 2048kbit/s G.703 Modules	DT504 to 509 inclusive