

# **DCX UIA/V.35 Reference Manual**

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# Preface

This manual describes the fitting and use of the UTILITY 3 V.35 Interface Adapter (UIA/V.35) in its two versions: DTE (part number X840-102711) and DCE (part number X840-103411). These may be used with DCX products based on the UTILITY 3 module in DCX 840/850/860 systems.

Reference information is included on the specification and connector pin assignments of the units.



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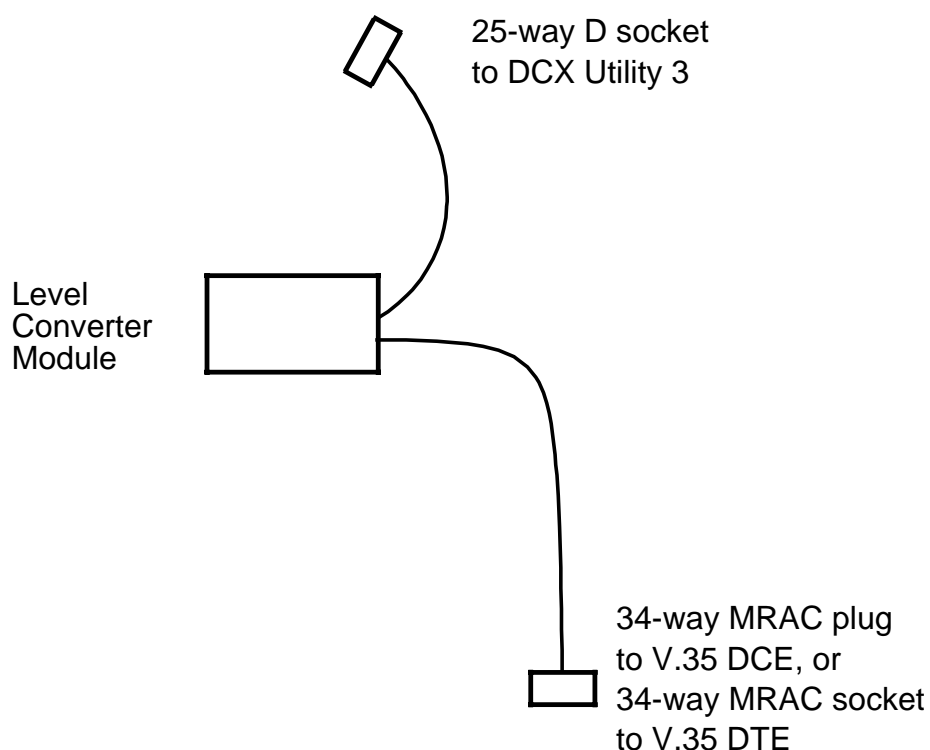


## 1.1 General

The UIA/V.35 DTE (part number X840-102711) converts the UTILITY 3 V.11 primary port to a V.35 DTE interface. The UIA/V.35 DCE (X840-103411) converts the port to a V.35 DCE interface.

The UIA consists of a small (13 x 9 cm) PCB housed in a plastic enclosure. At one end of the enclosure is a metal endplate with two rectangular cable apertures, into which strain relief clamps locate. The UIA/V.35 is fitted with cables of 2 m and 3 m length, terminating in a 25-way 'D' socket on one end, and a 34-way MRAC plug (DTE) or socket (DCE) on the other end.

The UIA PCB is fitted with voltage regulators, line drivers/receivers and two cable connectors. Power supplies of +12 V (300 mA max) and -12 V (100 mA max) for the UIA are obtained from the UTILITY 3 module.



**Figure 1-1 The UIA/V.35**

## 1.2 Specification: UIA/V.35 DTE X840-102711

V.35 Signal/Pin		Level Conversion	UT3 Signal/Pin	
TXDA	P	V.35 ← V.11	TA	6
TXDB	S		TB	19
RXDA	R	V.35 → V.11	RA	12
RXDB	T		RB	25
TXCA	Y	V.35 → V.11	SA	11
TXCB	AA		SB	24
RXCA	V	V.35 → V.11	RXCA	10
RXCB	X		RXCB	22
TXCEA	U	V.35 ← V.11	CLKA	4
TXCEB	W		CLKB	17
GND	B	—	GND	7
RTS	C	V.28 ← V.11	RTSB	14
DCD	F	V.28 → V.11	IB	23
			IA	13
CTS	D	→	CTS	3
DTR	H	ON		
			- 12 V	21
			+12 V	9
			0 V	2

### 1.3 Specification: UIA/V.35 DCE X840-103411

V.35 Signal/Pin		Level Conversion	UT3 Signal/Pin	
RXDA	R	V.35 ← V.11	TA	6
RXDB	T		TB	19
TXDA	P	V.35 → V.11	RA	12
TXDB	S		RB	25
TXCEA	U	V.35 → V.11	SA	11
TXCEB	W		SB	24
TXCA	Y	V.35 ← V.11	CLKA	4
TXCB	AA		CLKB	17
RXCA	V	V.35 ← V.11	CLKA	4
RXCB	X		CLKB	17
GND	B	—	GND	7
DCD	F	V.28 ← V.11	RTSB	14
RTS	C	V.28 → V.11	IB	23
			IA	13
DTR	H	→	CTS	3
DSR	E	ON		
CTS	D	ON	- 12 V	21
			+12 V	9
			0 V	2



## 2.1 General

Functionally the UIA acts as a single cable connecting a DCX UTILITY 3 primary port to a V.35 DCE or DTE.

Select the appropriate UIA version (DTE or DCE) for the application; do not use V.35 crossover cables.

There are no configurable parts within the UIA. Do not open the plastic enclosure. If the unit is faulty, replace the entire assembly including cables.

## 2.2 Connection

The UIA is for use only with the DCX UTILITY 3 Module, X840-605111.

Connect the 25-way 'D' socket to the primary (V.11) UTILITY 3 port, i.e. to the 25-way 'D' plug which interconnects with the lower half of the 50-way edge connector on UTILITY 3.

Suitable interconnects are:

- X840-402911                      Utility Interconnect Cable
- X840-605911                      HSD PAM

The UIA is not for use with the BT Kilostream service in the UK. It is not possible to connect the UIA to the barriered KST PAM X840-606311.

## **2.3 Positioning**

After connection, position the UIA enclosure where it cannot fall and cause damage (e.g. place it in the base of a cabinet).

Keep it away from sources of heat and out of direct sunlight.

Do not rest any heavy objects on the plastic enclosure.

Do not obstruct the ventilation slots in the plastic enclosure.

## **2.4 Fault Diagnosis/Repair**

If the UTILITY 3 module fails to communicate through the UIA but is otherwise functional, check the following points:

- That the UIA is plugged into the correct port. In normal operation the end of the plastic enclosure opposite the cable entry should become slightly warm to the touch; this will not happen if the UIA is connected to anything other than a UTILITY 3 primary (V.11) port.
- That all interface options selected by the manager channel of the UTILITY 3 application are correct, e.g. line speed, clock source.
- That the interface control signals are suitable and in the correct states: see Section 2 for the interface specification.

Replace the entire UIA assembly including cables if everything above is in order.