V.35 Adapter Cable

Part # 2534GT

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Overview

This document describes the Microgate V.35 adapter cable, part number 2534GT. This cable converts the DB-25 plug on Microgate serial products to the legacy V.35 standard (34 pin block plug). The cable's DB-25 receptacle mates to the DB-25 plug of Microgate serial products (DTE) and a 34 pin block plug mates to a DCE device with a 34 pin block receptacle. The cable is 6 feet (1.8 meters) in length.

DTE and DCE

Data Terminal Equipment (DTE) and Data Circuit-terminating Equipment (DCE) are designations applied to end points of a serial connection. DTE is a source or destination of data. DCE is a device, such as a MODEM, that converts data to a form for transmission. These designations determine which signals are considered inputs or outputs from the perspective of the attached equipment. For example, the transmit data signal is a DTE output and a DCE input.

Microgate serial products are DTE devices and the table below specifies input/output from the perspective of the DTE.

DTE devices connect directly to DCE devices. This adapter cable is intended for direct connection of a DTE to a DCE. Connecting two DTE devices directly requires a separate cross over cable or intermediate device (Null MODEM) to connect outputs to the appropriate inputs. For example, a cross over cable would connect the transmit data signal of one DTE to the receive data signal of the other DTE.

Connectors

D-Subminiature (D-Sub) connectors are a class of connectors with a D shaped metal shell used for I/O applications such as serial communications. The connectors come in plug and receptacle versions. D-Sub naming depends on the shell size and number of pins.

DB-25 B Size Shell 25 pins

The V.35 standard defines a 34 pin block connector with pins designated by letters rather than numbers. There is no standard pin assignment for V.35 on a DB-25 connector. The V.35 DB-25 connector pin assignments are proprietary to Microgate products.

Electrical and Pin Assignment Standards

RS-422, RS-485 and ITU V.11 define electrical properties of differential signals.
RS-232 and ITU V.28 define electrical properties of single ended signals.
V.35 defines pin assignments for a 34 pin block connector.

V.35 Adapter Cable Pin Assignments				
Signal	**Electrical**	**DB-25 Pin**	**34-pin Block V.35 Pin**	**Direction**
TxD (-/A), Transmit Data	RS-422/V.11	2	P	Output
RxD (-/A), Receive Data	RS-422/V.11	3	R	Input
RTS, Request to Send	RS-232/V.28	4	C	Output
CTS, Clear to Send	RS-232/V.28	5	D	Input
DSR, Data Set Ready	RS-232/V.28	6	E	Input
Signal Ground		7	B	
DCD, Data Carrier Detect	RS-232/V.28	8	F	Input
RxC (+/B), Receive Clock	RS-422/V.11	9	X	Input
AuxClk (+/B), DTE Clock Output	RS-422/V.11	11	W	Output
TxC (+/B), Transmit Clock	RS-422/V.11	12	AA	Input
TxD (+/B), Transmit Data	RS-422/V.11	14	S	Output
TxC (-/A), Transmit Clock	RS-422/V.11	15	Y	Input
RxD (+/B), Receive Data	RS-422/V.11	16	T	Input
RxC (-/A), Receive Clock	RS-422/V.11	17	V	Input
DTR, Data Terminal Ready	RS-232/V.28	20	H	Output
AuxClk (-/A), DTE Clock Output	RS-422/V.11	24	U	Output