RS-232/RS-422 CONVERTER OPERATION MANUAL

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CHAPTER 1 INTRODUCTION

The RS232/RS422 converter provides a RS232 signal to a RS422 signal conversion feature, which is used to expand long hung communication distance via RS422 signal. The expandable transmission distance for a RS232/RS422 converter is 3000 ft.

The features of RS232/RS422 converter are:

* RS232 to RS422 / RS422 to RS232 converter.
* Asynchronous communication protocol.
* Each converter extends up to 3000 ft communication distance.
* Standard EIA RS232 / EIA RS422 interface.
* Several converters can be treated as repeaters for connecting to a long connumication distance.
* AC power supported for 110V/220V selectable.
* LED indicates when converter is operating.
* LED indicates when power is in normal mode.

The package contains:

* RS232/RS422 converter.
* AC power adapter.
* User's manual.

CHAPTER 2 HARDWARE CONFIGURATION

2.1 Block Diagram

Observe the figure shown in the following, the converter contains three LED indicators, LED1 indicates power status, when LED1 is light means power is in normal mode, LED2 indicates transmission data of RS232 signal and LED3 indicates transmission data of RS422 signal.

2.2 Signal Assignment

The signal assignment of RS232 to RS422 converter is shown in the following.

RS232 Pin No.	Description	Description	RS422 Pin No.
2	TXD	TXD(-)	14
		TXD(+)	2
3	RXD	RXD(-)	15
		RXD(+)	3
4	RTS	RTS(-)	16
		RTS(+)	4
5	CTS	CTS(-)	17
		CTS(+)	5
6	DSR	DSR(-)	18
		DSR(+)	6
7	GND	GND	7
8	DCD	DCD(-)	19
		DCD(+)	8
10		CTRL1(-)	21
		CTRL1(+)	10
12	CTRL2		
20	DTR	DTR(-)	9
		DTR(+)	20

CTRL1 is the empty I/P for user and CTRL2 is in normal active when it is floating and it could be controlled active or nonactive by softward.

The signal assignment of a standard DB25 connector for RS232 is shown in the following.

DB25 Pin #	Signal Name	RS-232C Name	Signal Direction
1	Chassis Ground (GND)	AA	Common
2	Transmit Data (TxD)	BA	Output
3	Receive Data (RxD)	BB	Input
4	Request to Send (RTS)	CA	Output
5	Clear to Send (CTS)	CB	Input
6	Data Set Ready (DSR)	CC	Input
7	Signal Ground (SG)	AB	Common
8	Data Carrier Detect (DCD)*	CF	Input
20	Data Terminal Ready (DTR)	CD	Output
22	Ring Indicator (RI)	CE	Input

* Data Carrier Detect (DCD) is also known as Received Line Signal Detector (RLSD).

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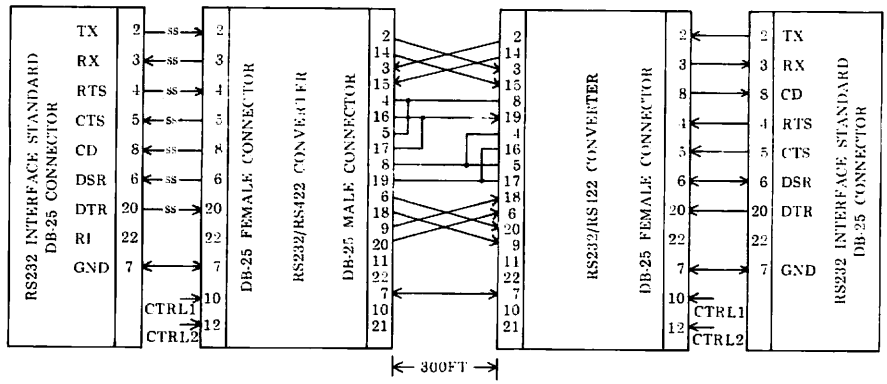
2.3 System Configuration

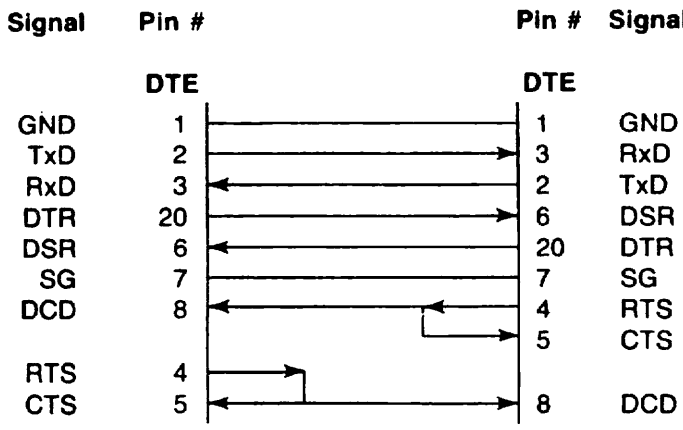
There are several system configurations for different applications.

1. Communication between RS232 and RS232

RS232/RS422 CONVERTER BLOCK DIAGREM (II)

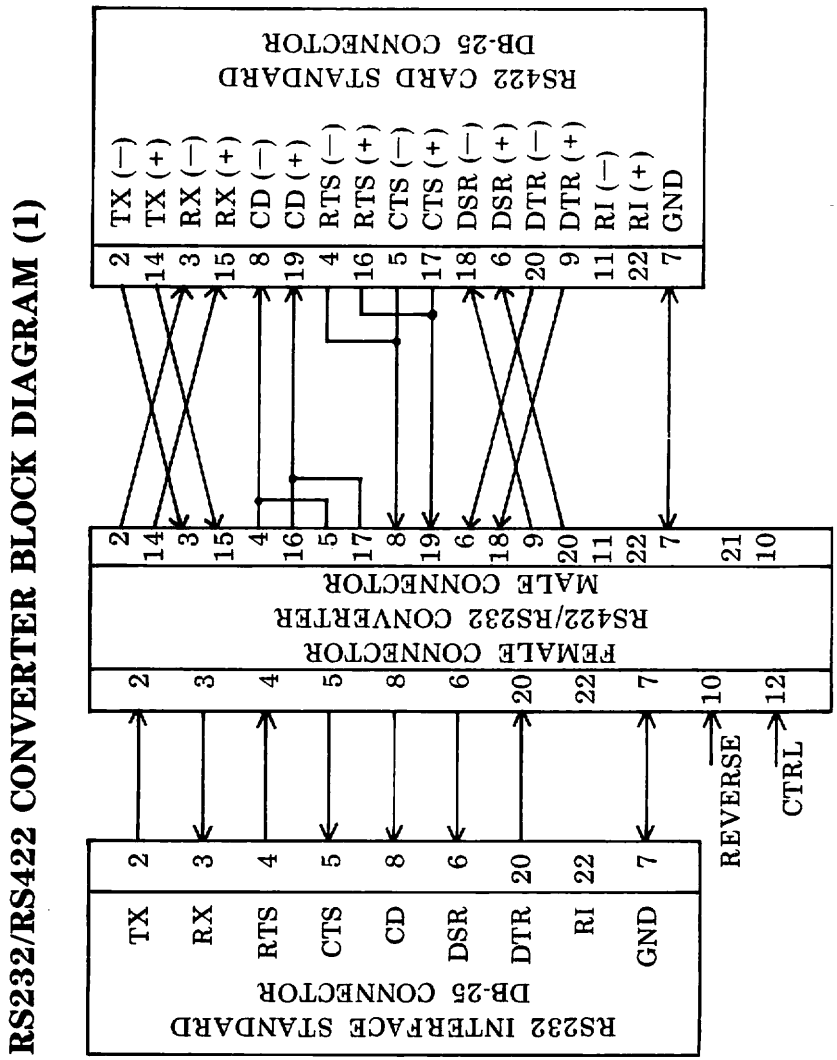


To connect your repeater to DATA TERMINAL EQUIPMENT (DTE), we suggest the following connection.



Recommended DTE-to-DTE Connection (Null Modem).

2. Communication between RS232 and RS422



NOTE: