

CMN-C423/422



RS-423/V.10 to RS-422/V.11 Interface Converter



FEATURES

- Converts between RS-423/V.10 interface and RS-422/V.11 interface
- Transparent to protocols
- Asynchronous operation
- Data rates up to 19.2 kbps
- Optical coupler isolated
- Lightning and surge protected
- Status indicators

DESCRIPTION

- The CMN-C423/422 Interface Converter Card converts between RS-423/V.10 and RS-422/V.11 interfaces (and vice versa) to enable connection of DCE to DTE communications equipment. CMN-C423/422 is suitable for mounting in the CMN-16 rack.
- CMN-C423/422 operates in asynchronous applications at data rates up to 19.2 kbps. Distance on the RS-422/V.11 end is up to 2 km/1.2 miles, using 24 AWG wires.
- CMN-C423/422 performs the electrical conversion between the two interfaces. The card is equipped with an RJ-11 connector and a two-screw terminal block on the balanced end (RS-422), and an RJ-11 connector on the unbalanced end (RS-423).
- The CMN-C423/422 performs two diagnostic loops simultaneously: local analog loop and remote loop. The loops are activated by a push button on the front panel.
- Four LED indicators are available to facilitate diagnostics: Power, Transmit Data, Receive Data and Test. The Test LED lights when diagnostic loops are active
- The card is strap-selectable for Test Enable or Test Disable, and for operation with 100Ω receive impedance on the RS-422 receive end, if required.
- CMN-C423/422 is coupled to the line via optical couplers, which provide complete electrical isolation from the line. The card is protected against lightning and AC or DC overvoltages for surge

protection. The on-board terminal block connects directly to the chassis ground.

INSTALLATION

Insert the card through the back of the CMN-16 rack. Install the front panel supplied with the card, and insert the new card into the CMN-16.

1. Prepare the RS-422/V.11 line cable connecting the XMT pair on the CMN-C423/422 to RCV pair on the remote DCE, and vice versa. (See Table 1).
2. Connect the RS-422/V.11 cable to the RJ-11 jack.
3. Connect the ground line to the terminal block (any connector), to provide chassis ground connection, for surge protection, if required.
4. Connect the RS-423/V.10 transmission cable to the RJ-11 socket. (See Figures 1 and 2).
5. Strap the card according to Table 2 (See Figure 2).

Table 1. Line Connections (RS-422/V.11)

Pin No.	Signal Name	Description
1	NC	No connection
2	XMT+	Transmit
3	XMT-	Transmit
4	RCV-	Receive
5	RCV+	Receive
6	NC	No connection

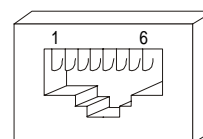


Figure 1. RJ-11 Jack

CMN-C423/422

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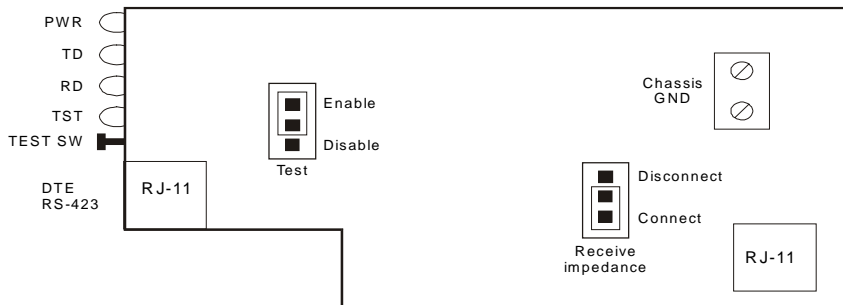


Figure 2. Strapping Diagram

Table 2. Strap Selection

Strap ID	Function	Possible Settings	Factory Setting
JP-1	Receive Impedance	Connect Disconnect	Connect
JP-2	Test Switch Enable/Disable	Enable Disable	Enable

OPERATION

LINE IMPEDANCE

Receive impedance (RCV IMPD) is strap-selectable for either connected or disconnected. When strapped for connected, 100 Ω is connected to the receive line.

TEST MODE

CMN-423/422 performs two loops: analog and remote loop. Both loops are activated simultaneously by the front panel Test button. The red Test LED turns ON when the card is in diagnostic loop test mode. (See Figure 3).

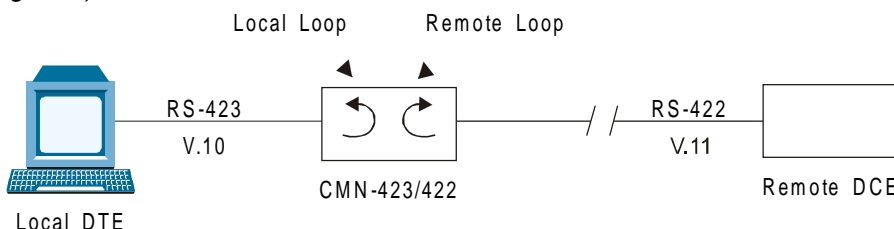


Figure 3. Loop test

LED Indicators

PWR: Power (green)
 TD: Transit Data (yellow)
 RD: Receive Data (yellow)
 TST: Test (red)

Controls

Push button front panel loop switch (ST) controls the CMN-423/422 test mode, activating local analog loop (ANA) and remote loop (REM) simultaneously when pressed

Transmission Range on RS-422/V.11 End

Up to 2 km / 1.2 miles

Terminal DTE Interface

Integral RJ-11 jack

Line Interface

RJ-11 jack (see Table 1)
 Two-screw terminal block for chassis ground connection

SPECIFICATIONS

- **Data Rates**
Up to 19.2 kbps
- **Transmission Line**
4-wire unconditioned telephone line (two twisted pairs)
- **Transmission Mode**
Asynchronous
- **Transmission Controls**
TEST Mode (Circuit 142) turns ON when the card is in diagnostic loop

ORDERING

CMN-C423/422

RS-423/V.10 to RS-422/V.11



data communications

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