CAT-285 Superverter
RS-422/RS485 to RS-232 Interface Converter

1.0 SPECIFICATIONS

Interface - RS-232: Conforms to CCITT V.24 and RS-232. Pins 2 & 3 Transmit and Receive Data, switch selectable, Pin 4 (RTS) tied to Pin 5 (CTS). Pins 6 (DSR), 8 (DCD) and Pin 20 (DTI) are connected together.

RS-485: Conforms to RS-485 specifications

RS-422: Conforms to RS-422 specifications

Connectors - RS-232: DB25 male

RS-485/RS422: 5 position terminal block

Indicators - TD and RD

Switches - DTE/DCE switch selectable for reversing TD & RD. 5 position dip switch: set RS-285 2 wire ON, RS-485 2 wire ON, RS-422 2 wire OFF, RS-485 4 wire OFF, RS-422 4 wire ON.

Date Rate - 0 to 64 KBPS

MTBF - 596,000 hours

Power - 115VAC @ 60 Hz

(50.8 mm x 88.9 mm x 22.2 mm)

Size 2" W x 3.5" L x 0.875" H

Power - 115VAC @ 60 Hz

MTBF - 596,000 hours

Date Rate - 0 to 64 KBPS

5.0 RS-232 PIN ASSIGNMENTS

<table>
<thead>
<tr>
<th>PIN</th>
<th>EIA</th>
<th>CCITT</th>
<th>NAME</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>BA</td>
<td>103</td>
<td>Transmit Data</td>
</tr>
<tr>
<td>3</td>
<td>BB</td>
<td>104</td>
<td>Receive Data</td>
</tr>
<tr>
<td>4</td>
<td>CA</td>
<td>105</td>
<td>Request to Send</td>
</tr>
<tr>
<td>5</td>
<td>CB</td>
<td>106</td>
<td>Clear to Send</td>
</tr>
<tr>
<td>6</td>
<td>CC</td>
<td>107</td>
<td>Data Set Ready</td>
</tr>
<tr>
<td>7</td>
<td>AB</td>
<td>102</td>
<td>Signal Ground</td>
</tr>
<tr>
<td>8</td>
<td>CF</td>
<td>109</td>
<td>Data Carrier Detect</td>
</tr>
<tr>
<td>9</td>
<td>CD</td>
<td>108.2</td>
<td>Data Terminal Ready</td>
</tr>
<tr>
<td>10</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* These signals can be reversed using the selector switch.

** Connected together.

*** Connected together.

4.0 TROUBLESHOOTING

RS-422 - To test the CAT-285 in the RS-422 mode connect T+ to R+ and T- to R-. Connect the CAT-285 to a CRT terminal set to DCE and hold down a key on the keyboard. If the converter is operating properly the TD and RD LED's will flicker and the data should appear on the CRT screen.

RS-485 - A self-test on the CAT-285 can only be performed when the unit is configured as a 4 wire device. The transmit option should be set according to your requirements. Connect T+ to R+ and T- to R- and connect the unit, in DCE mode, to a CRT terminal. Hold down a key on the terminal and if the unit is functioning the TD & RD LED will flicker and the data entered on the keyboard will appear on the screen.

6.0 POWER

The Model CAT-285 is powered by a small, wall mounted transformer that supplies 9 VAC @ 500 mA.
WARRANTY/DISCLAIMER

OMEGA ENGINEERING, INC. warrants this unit to be free of defects in materials and workmanship for a period of 13 months from date of purchase. OMEGA's WARRANTY adds an additional one (1) month grace period to the normal one (1) year product warranty to cover handling and shipping time. This ensures that OMEGA's customers receive maximum coverage on each product.

If the unit malfunctions, it must be returned to the factory for evaluation. OMEGA's Customer Service Department will issue an Authorized Return (AR) number immediately upon phone or written request. Upon examination by OMEGA, if the unit is found to be defective, it will be repaired or replaced at no charge. OMEGA's WARRANTY does not apply to defects resulting from any action of the purchaser, including but not limited to mishandling, improper interfacing, operation outside of design limits, improper repair, or unauthorized modification. This WARRANTY is VOID if the unit shows evidence of having been tampered with or shows evidence of having been damaged as a result of excessive corrosion; or current, heat, moisture or vibration; improper specification; misapplication; misuse or other operating conditions outside of OMEGA's control. Components in which wear is not warranted, include but are not limited to contact points, fuses, and triacs.

OMEGA is pleased to offer suggestions on the use of its various products. However, OMEGA neither assumes responsibility for any omissions or errors nor assumes liability for any damages that result from the use of its products in accordance with information provided by OMEGA, either verbal or written. OMEGA warrants only that the parts manufactured by the company will be as specified and free of defects. OMEGA MAKES NO OTHER WARRANTIES OR REPRESENTATIONS OF ANY KIND WHATSOEVER, EXPRESSED OR IMPLIED, EXCEPT THAT OF TITLE, AND ALL IMPLIED WARRANTIES INCLUDING ANY WARRANTY OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE HEREBY DISCLAIMED. LIMITATION OF LIABILITY: The remedies of purchaser set forth herein are exclusive, and the total liability of OMEGA with respect to this order, whether based on contract, warranty, negligence, indemnification, strict liability or otherwise, shall not exceed the purchase price of the component upon which liability is based. In no event shall OMEGA be liable for consequential, incidental or special damages.

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Direct all warranty and repair requests/inquiries to the OMEGA Customer Service Department. BEFORE RETURNING ANY PRODUCT(S) TO OMEGA, PURCHASER MUST OBTAIN AN AUTHORIZED RETURN (AR) NUMBER FROM OMEGA'S CUSTOMER SERVICE DEPARTMENT (IN ORDER TO AVOID PROCESSING DELAYS). The assigned AR number should then be marked on the outside of the return package and on any correspondence. The purchaser is responsible for shipping charges, freight, insurance and proper packaging to prevent breakage in transit.

FOR WARRANTY RETURNS, please have the following information available BEFORE contacting OMEGA:
1. Purchase Order number under which the product was PURCHASED,
2. Model and serial number of the product under warranty, and
3. Repair instructions and/or specific problems relative to the product.

FOR NON-WARRANTY REPAIRS, consult OMEGA for current repair charges. Have the following information available BEFORE contacting OMEGA:
1. Purchase Order number to cover the COST of the repair,
2. Model and serial number of the product, and
3. Repair instructions and/or specific problems relative to the product.

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