Chipsmall

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts,Customers Priority,Honest Operation,and Considerate Service",our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!

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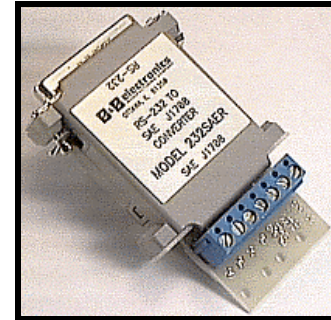Tel: +86-755-8981 8866 Fax: +86-755-8427 6832
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RS-232 to SAE J1708 Converters CE
Models 232SAER & J1708P1

Description

The models 232SAER and J1708P1 will allow any computer with an RS-232 port to communicate with vehicles using the SAE J1708 specification. SAE J1708 is the specification for serial communications between microcomputer systems in heavy-duty vehicle applications.

The 232SAER and J1708P1 convert half-duplex RS-232 transmit and receive data signals to the SAE J1708 differential communications specification. The converter is port-powered from the RS-232 port handshake lines, and may be optionally powered by a 12VDC supply. The RS-232 side of the converter is a DB25 female, and is configured as a DCE device. The J1708P1 is set to priority one (1.25ms), which is reserved for immediate access to the bus. The 232SAER is set to priority four (2.0ms), which is reserved for prompt access to the bus.

Installation

The RS-232 side of the 232SAER and J1708P1 will connect directly to a computer RS-232 port, or any other DTE RS-232 port. To connect to a DCE RS-232 device, a null-modem connection must be made. Pin outs of the units' RS-232 port are given in Table 1. The 232SAER and J1708P1 are powered from the handshake lines of the host RS-232 port. The unit will derive power from the lines in either the high or low state, however, setting the lines to their high (space) state will provide maximum power for the converter. If the handshake lines are not available, an external 12 VDC supply must be connected to the terminal blocks of the 232SAER and J1708P1.

NOTE: When using an external supply, the supply should be connected only to specifically labeled power inputs (power jack, terminal block, etc.). Connecting an external power supply to the handshake lines may damage the unit. Contact technical support for more information on connecting an external power supply to the handshake lines.

Operation

In addition to converting signal levels to and from the SAEJ1708 specification, the 232SAER/J1708P1 provides some timing information through the RS-232 CTS line. The SAEJ1708 specification requires the transmitter to verify that the network idle state continues to exist to within ½ bit time prior to transmission. The CTS line on the 232SAER and J1708P1 provides a method for the host software to monitor the network with this resolution. If the network has been idle, the CTS line goes high. Each bit transmitted on the network will cause the CTS line to go low for two milliseconds for the 232SAER and 1.25 milliseconds for the J1708P1. By checking the CTS line before transmitting the host software can avoid network collisions.

Table 1. DB-25 Pin outs

Pin	Function	Direction
2	Transmit Data	Input
3	Receive Data	Output
5	Clear To Send	Output
7	Ground	-----
4	Request To Send	Input*
20	Data Terminal Ready	Input*

*Pins 4 and 20 used only to power the converter

Table 2. Terminal Descriptions

Terminal	Function
1	Data A
2	Data A
3	Data B
4	Data B
5	Ground
6	+12VDC in