Product Notification
RS-485 Wire Specification

Date of Release: December 6, 2006

Background:

Quadlogic has previously accepted and specified Belden 1069A as the recommended cable for RS-485 networks. However, the specifications (characteristic impedance and shunt capacitance) of the Belden 1069A do not comply with the Electronics Industry Association (EIA) standards for RS-485 communications. This prompted Quadlogic to change our specification.

Note that this document does not suggest that existing Quadlogic devices in RS-485 networks with Belden 1069A cables will not work. Furthermore, this document does not imply that existing Belden 1069A cables should be replaced. The intention of this new recommendation is mainly to meet the EIA specifications for RS-485 network.

Specifications:

Brand	Wire Gauge	Voltage Rating (V)	Shunt Cap. (pF)	Temp. Range (°C)	Shield
Delco 43902	24	300	12.5	-20 to 80	Braid
Belden 3087A	22	300	12	-30 to 80	Foil
Belden 9842	24	300	12.8	-30 to 80	Foil + Braid

Note: Quadlogic does not supply these cables. Please consult your local electrical suplier.

Wire Type	Two-pair (Four conductors. Two SEPARATELY twisted pairs of wires.)
Characteristic Impedance	120_
Shunt Capacitance	17pF Max
Acceptable Wire Gauges	24 or thicker (24, 22, 20, 18, 16,…)

For further information regarding these wires, please consult the web links listed below.

http://www.delcowire.com
http://www.belden.com

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