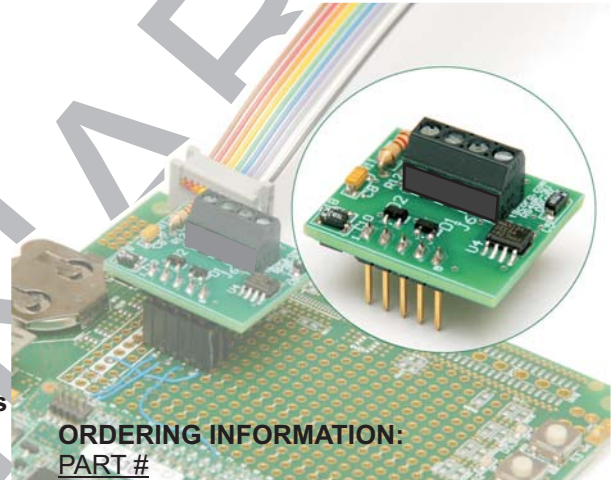


The Tech9 Corporation ISO3RS4 - RS485 Transceiver incorporates opto-isolation along with the MAX13412E RS485 transceiver, resulting in improved performance and wide application. The Transceiver is a half-duplex RS-485-/RS-422-compatible transceiver optimized for isolated applications. The AutoDirection feature reduces the number of optical isolators needed in isolated applications. Other features include enhanced ESD protection, fail-safe circuitry, slew-rate limiting, and full-speed operation. It comes in a compact plugable package that can be mounted vertically or horizontally using .1 inch center connectors.

- **Opto-isolated**
- **Electrical isolation to 2500 V**
- **Externally powered RS485 chip**
- **5V RS485 signals**
- **Automatic data direction control (ADDC)**
- **Transmit echo enable control**
- **Simple software driver**
- **Single 3.3V supply (logic side)**
- **Design centered around MAX13412E**
- **Wide +6V to +28V input supply range (RS485 side)**
- **Low 65uA (typ) shutdown supply current**
- **Extended ESD protection**  
±15kV human body model (MAX13412E)
- **1/8-unit load, allowing up to 256 transceivers on the bus**
- **-40 °C to +85 °C operating temperature range**
- **Fail-safe**
- **Slew rate limited** (inquire for full speed versions)
- **Up to 500Kbps data rate**  
(Up to 15Mbps data rate on full-speed versions)



### ORDERING INFORMATION:

PART #	
ISO3RS4	TRANSCIVER MODULE
ISO3RS4K	TRANSCIVER MODULE KIT

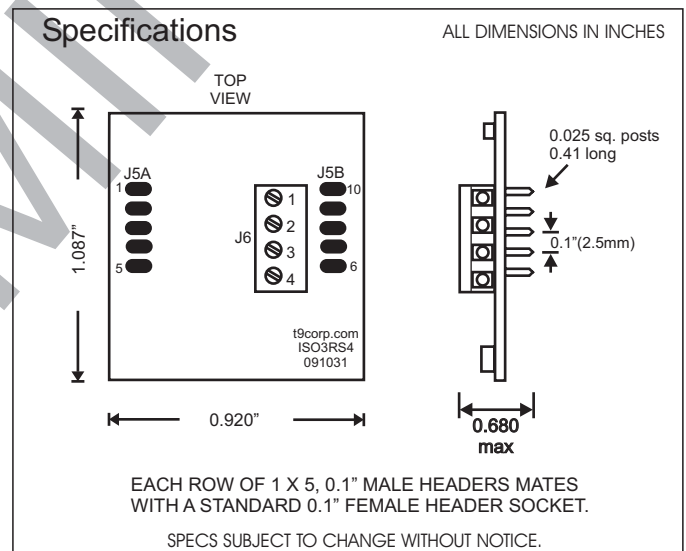
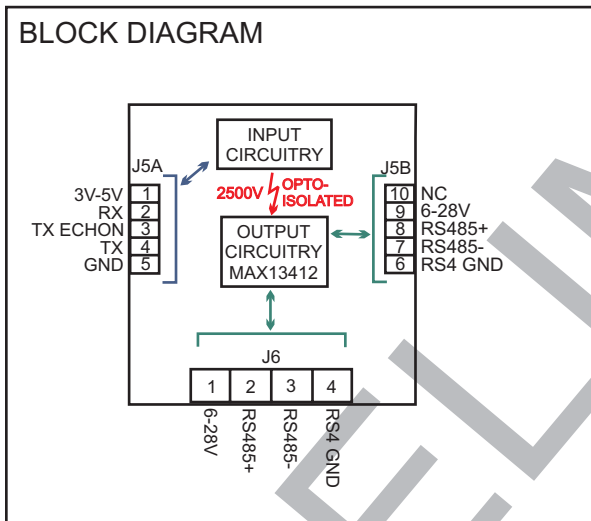
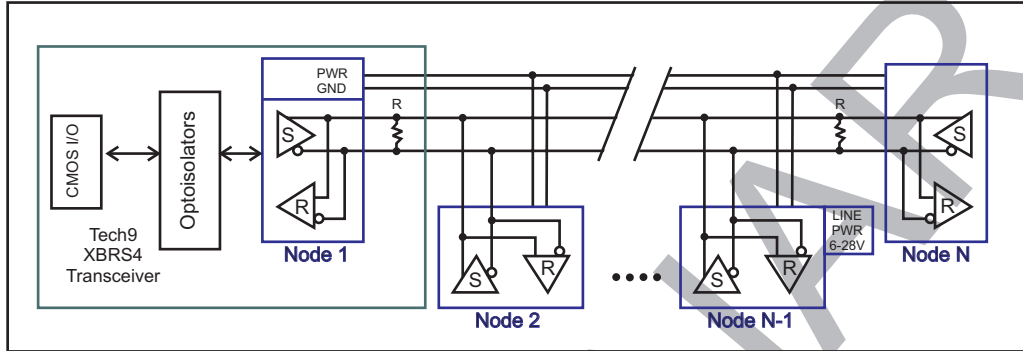
ORDER ONLINE AT [www.t9corp.com](http://www.t9corp.com)

### Electrical Specifications:

All specifications are for 20 °C unless otherwise indicated.  
All specifications subject to change without notice.

	Min	Typical	Max	Comments
<b>Logic side</b>				
Recommended supply		3.3		Volts
Absolute max power supply	-0.5		3.6	Volts
Logic 'zero' for inputs TX and RTSN	0		0.7	Volts
Logic "one" for inputs TX and RTSN	1.5		3.6	Volts
Loading by TX and RTSN Logic 0		<1		Ma
Logic 1	6	7	8	Ma
Logic 'zero' for output RX	0	0.1	0.3	Volts
Logic "one" for output RX		3K		Ohms pull up to supply
ESD protected		±15		KV Human Body Model
<b>Opto-isolation ratings</b>				
Logic gnd to RS485 gnd Transient Immunity	15	20	2500	Volts RMS KV/uS
<b>RS485 side</b>				
Recommended supply	6	-	28	Volts
Absolute max supply	-0.5	-	30	Volts
ESD protected		±15		KV Human Body Model
Receiver impedance		1/8		Unit load
Transmission speed			500	Kbps
Logic levels	-7		+12	Volts
Optional terminator built in		120		Ohms

Typical RS485 network connections.  
See Users Manual for additional detail.



### REFERENCES

1. ISORS4 Adapter User Manual
2. XBR4 & ISO3RS4 EXTENDED DEMO DOCUMENTATION

Your Tech9 ISO3RS4 - RS485 Transceiver Module is warranted against defective material or workmanship for a period of one full year from date of purchase. This warranty is void if the product has been tampered with, mistreated, misapplied or if the defect is related to servicing or parts not supplied by Tech9 Corporation. Tech9 Corporation is not responsible for consequential damage. Tech9 liability is limited to the purchase price. If our inspection shows that the trouble was caused by defective parts or workmanship, we will make all repairs or supply a replacement at our option, free of charge and return prepaid to you. Repairs made necessary by normal wear, abuse or out of warranty will be charged at our regular factory rates. If for some reason trouble should develop, please do the following:

- 1) Call or email for a Return Materials Authorization Number, shipments without an RMA# will not be accepted at our Service Center.
- 2) Enclose the Original Sales Receipt with the returned product.
- 3) Pack the product for return carefully prior to shipment to prevent further damage in transit. Make sure the Original Sales Receipt is enclosed.
- 4) Return the product with the Original Sales Receipt, prepaid shipping, direct to: Tech9 Corp. Service Center RMA# \_\_\_\_\_, 5613 St. Stephen St., Mounds View, MN 55112