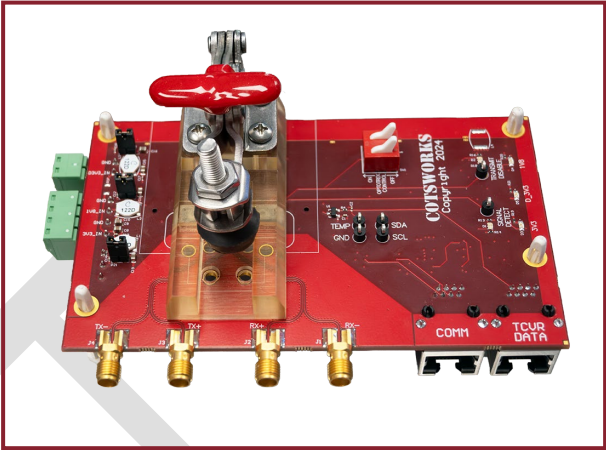


Features:

- 4 SMA electrical interfaces
- Designed to work with COTSWORKS RJ-28G-SR transceivers
- fast and easy transceiver mounting
- Convenient test points for DDMI interface
- Easy to read LED indicators for visual verification
- Easy access signal detect test points



This high performance evaluation board allows for fast and reliable testing without the need for a final board design.



COMMERCIAL
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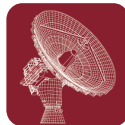
MILITARY
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MILITARY
TACTICAL



SUBSEA
NETWORKING



RADAR &
SENSING



OIL &
EXPLORATION

General Description

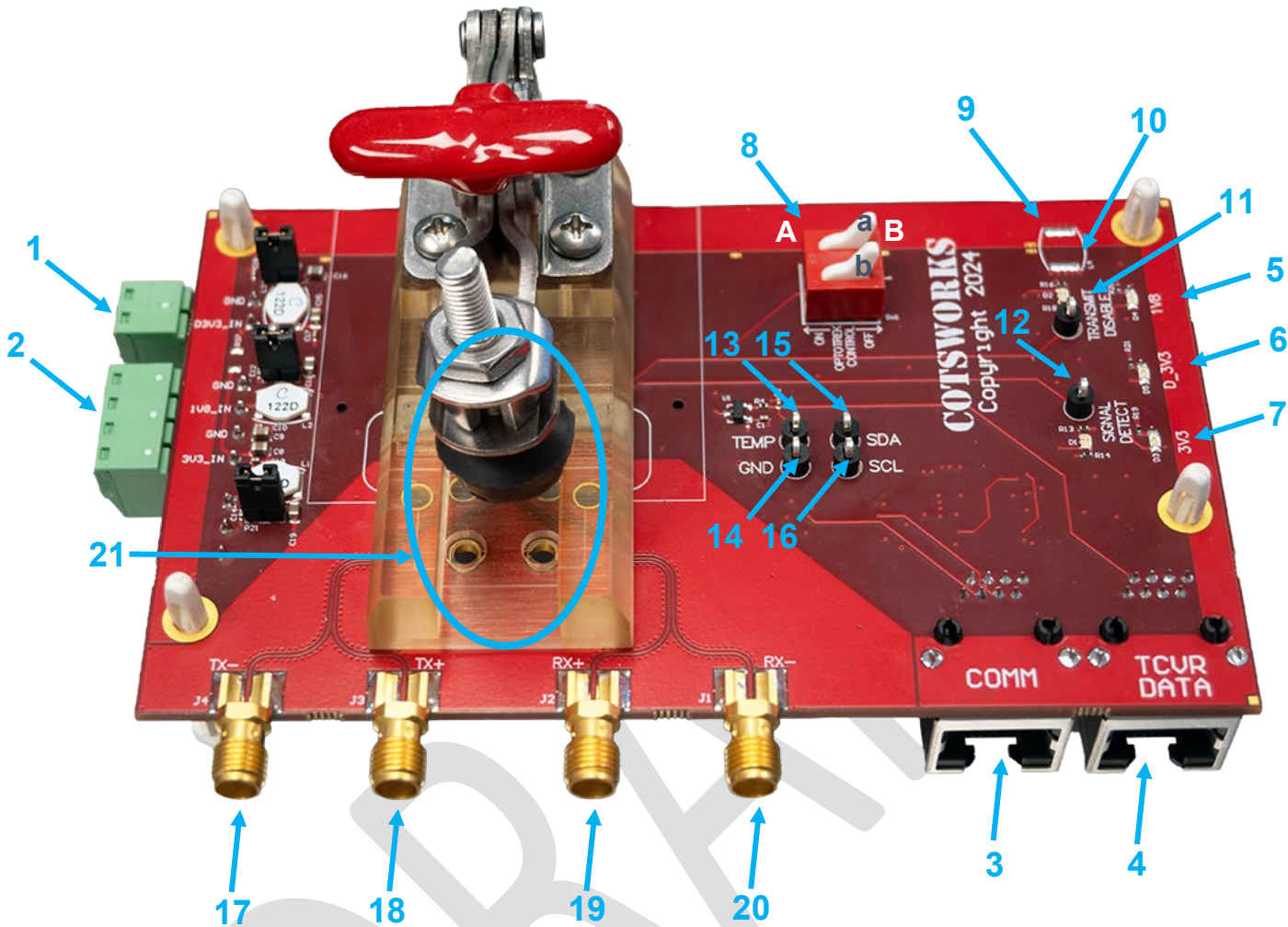
This electrical interface board is ideal for testing all features of the Moog Rugged Optical Solutions RJ-28G transceivers.

RJ-28G-SR transceiver test board is designed to simplify early level testing without having to integrate the transceiver into a host board from pattern generation through electrical connectors.

The RJ-28G transceiver test board can become an Interposer Board, routing the electrical connection from Moog's transceivers to a connector on a PCB.

Absolute Maximum Ratings

PARAMETER	SYMBOL	MIN.	MAX.	UNIT	NOTES
Maximum Supply Voltage	V _{CC}	-	3.47	V	
Storage Temperature	T _{sto}	-55	105	°C	
Operating Temperature	T _{OP}	-55	105	°C	



1	Digital Power	Connect the supplied 2-pin power cable to 3.3V. Digital power is used to power the components on the eval board and does not power the DUT.
2	Transceiver Power	Connect the supplied 4-pin power cable to 3.3V. Transceiver power is used to power the DUT and does not power the components on the eval board.
3	Communication I/O	A standard OTS Ethernet communication cable with an RJ-45 can be used for communication with the DUT and eval board EEPROM through I2C. Contact Moog Rugged Optical Solutions for the pinout details.
4	Transceiver I/O	A standard OTS Ethernet communication cable with an RJ-45 can be used for communication with features of the DUT. Pin 1: Temperature Sensor Output Pin 2: GND Pin 3: Rate Select Input (Not Used) Pin 4: Signal Detect Output Pin 5: 10kΩ Pull-up to Vcc Pin 6: TX Disable Input (GND to Enable, Vcc to Disable) Pin 7: TX Fault Output Pin 8: GND

5	TX Power Indicator	The blue LED will turn on if there is 3.3V on the TX power plane supplied from location 2. TX power is used to power the TX on the DUT.
6	Digital Power Indicator	The blue LED will turn on if there is 3.3V on the digital power plane supplied from location 1. Digital power is used to power the components on the eval board and does not power the DUT.
7	RX Power Indicator	The blue LED will turn on if there is 3.3V on the RX power plane supplied from location 2. RX power is used to power the RX on the DUT.
8	TX Disable Source Control	If switch <i>b</i> is in position B, the transmit disable is controlled by the switch <i>a</i> at location 8. If switch <i>b</i> is in position A, the transmit disable is controlled by an external source at location 4.
9	TX Disable Indicator	The LED will turn red if the transmitter is disabled. This means the TX_DIS pin on the DUT is driven to Vcc. The LED will turn green if the transmitter is enabled. This means the TX_DIS pin on the DUT is driven to GND.
10	TX Disable Test Point	This test point can be used to measure the voltage on the TX_DIS pin on the DUT. It can also be used to drive the TX_DIS pin on the DUT. If the test point is connected to GND, the Transmitter will be enabled. If the test point is connected to Vcc, the Transmitter will be disabled.
11	Signal Detect Test Point	This test point can be used to measure the voltage on the SD pin on the DUT. If the voltage is measured high, the receiver of the DUT is receiving a signal. If the voltage is measured low, the receiver of the DUT is not receiving a signal.
12	Signal Detect Indicator	The LED will turn red if the receiver of the DUT is not receiving a signal. The LED will turn green if the receiver of the DUT is receiving a signal.
13	Temperature Test Point	This test point can be used to measure the voltage from the temperature sensor on the eval board.
14	Ground Test Point	This test point is connected to circuit ground.
15	SDA Test Point	If supported by the DUT, communication through the I2C bus can be established through this test point.
16	SCL Test Point	If supported by the DUT, communication through the I2C bus can be established through this test point.
17	TX- Input	Provide non-inverted input signal for the optical transmitter through a 50Ω SMA cable. Check DUT datasheet for input signal specifications.
18	TX+ Input	Provide inverted input signal for the optical transmitter through a 50Ω SMA cable. Check DUT datasheet for input signal specifications.
19	RX+ Output	Non-Inverted output signal from the optical receiver. Connect 50Ω SMA cable.
20	RX- Output	Inverted output signal from the optical receiver. Connect 50Ω SMA cable.
21	DUT connection Point	Connection point for RJ DUT. Place screw posts from DUT inside the through holes on securing fixture, place DUT pins on corresponding pins from 20-pin header on test board, and secure in place with plunger for connection.



Ordering Information

TESTBD-RJ-28	-XX
RJ-28G Transceiver Eval Board	Plate Option P(): Plate Included NP: Plate Not Included

Contact Moog Rugged Optical Solutions for mechanical dimensional information

DRAFT