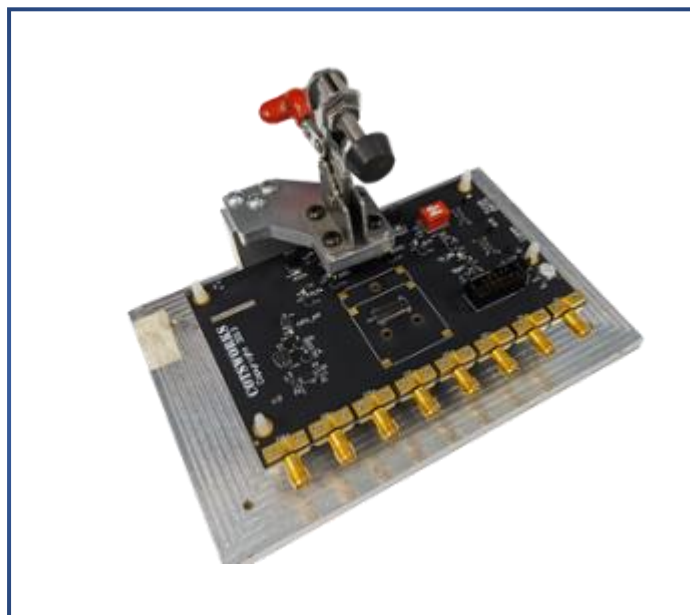




Features:

- 8 SMA electrical interfaces
- Designed to work with RCP-SX-DX
- Clampdown feature standard on all boards
- Built-in mating fine stack connector to the COTSWORKS RCP
- Easy to read LED indicators for visual function verification
- Easy access TX Disable D.I.P. switches
- Modified RCP test boards are available and made to fit customer requested shapes, sizes, and I/O



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



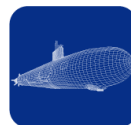
COMMERCIAL AEROSPACE



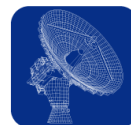
MILITARY AEROSPACE



MILITARY TACTICAL



SUBSEA NETWORKING



RADAR & SENSING



OIL & EXPLORATION

General Description

This electrical interface board is ideal for testing all features of the COTSWORKS RCP transceiver.

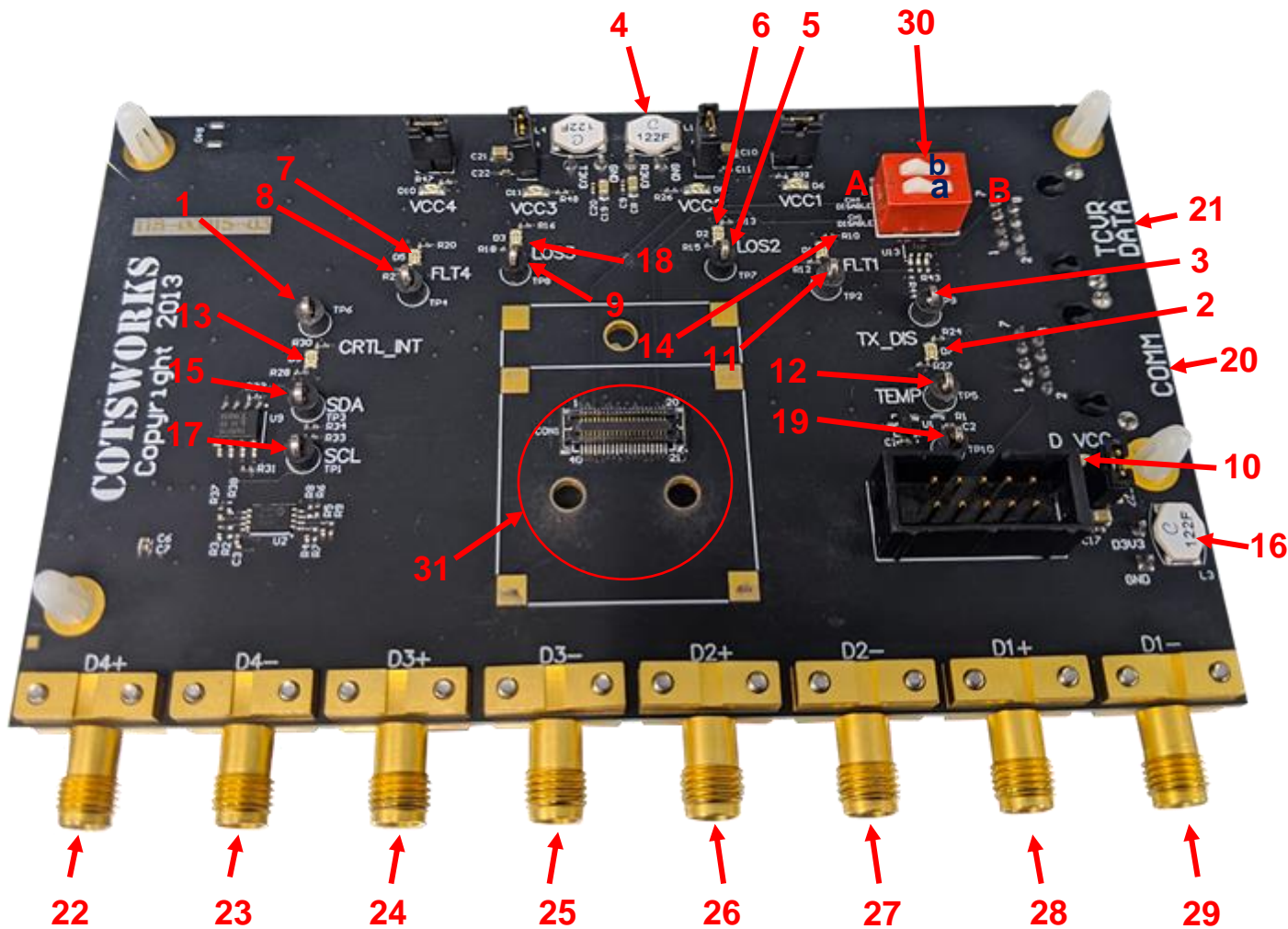
RCP transceiver test board is designed to simplify early level testing without having to integrate the transceiver into a host board.

This test board can become an interposer board, routing the electrical connection from our Transceiver Platform parts to a customer specified connector on a customer 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	MCU Reset Test Point	This test point can be used to measure the voltage on the MCU reset pin on the DUT.
2	TX Disable Indicator	The LED will turn red if the transmitter is disabled from location 21. This means the TX_DIS pin 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.
3	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.





4	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.
5	Channel 2 LOS Test Point	This test point can be used to measure the voltage on the channel 2 LOS pin on the DUT. If the voltage is measured high, the receiver of the DUT is not receiving a signal. If the voltage is measured low, the receiver of the DUT is receiving a signal.
6	Channel 2 LOS 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.
7	Channel 4 TX Fault Indicator	The LED will turn red if channel 4 of the DUT is faulted. The LED will turn green if channel 4 of the DUT is not faulted.
8	Channel 4 TX Fault Test Point	This test point can be used to measure the voltage on the channel 4 TX fault point on the DUT. If the voltage is measured high, the transmitter on channel 4 is faulted. If the voltage is measured low, the transmitter on channel 4 is not faulted.
9	Channel 3 LOS Test Point	This test point can be used to measure the voltage on the channel 3 LOS pin on the DUT. If the voltage is measured high, the receiver of the DUT is not receiving a signal. If the voltage is measured low, the receiver of the DUT is receiving a signal.





10	Digital Power Indicator	The blue LED will turn on if there is 3.3V on the digital power plane supplied from location 16. Digital power is used to power the components on the eval board and does not power the DUT.
11	Channel 1 TX Fault Test Point	This test point can be used to measure the voltage on the channel 1 TX fault point on the DUT. If the voltage is measured high, the transmitter on channel 1 is faulted. If the voltage is measured low, the transmitter on channel 1 is not faulted.
12	Temperature Test Point	This test point can be used to measure the voltage from the temperature sensor on the eval board.
13	MCU Reset Indicator	The LED will turn red if the MCU is not in a reset state. The LED will turn green if the MCU is in a reset state.
14	Channel 1 TX Fault Indicator	The LED will turn red if channel 1 of the DUT is faulted. The LED will turn green if channel 4 of the DUT is not faulted.
15	SDA Test Point	If supported by the DUT, communication through the I2C bus can be established through this test point.





16	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.
17	SCL Test Point	If supported by the DUT, communication through the I2C bus can be established through this test point.
18	Channel 3 LOS 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.
19	Ground Test Point	This test point is connected to circuit ground.
20	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 COTSWORKS for the pinout details.
21	Transceiver I/O	A standard OTS Ethernet communication cable with an RJ-45 can be used for communication with features of the DUT. Contact COTSWORKS for the pinout details.





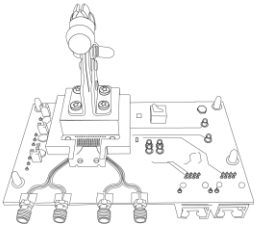
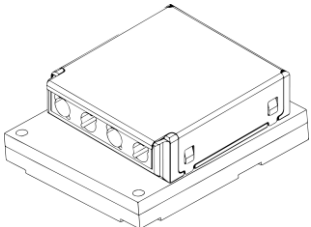
22	Channel 4 TX+ Input	Provide non-inverted input signal for the optical transmitter through a 50Ω SMA cable. Check DUT datasheet for input signal specifications.
23	Channel 4 TX- Input	Provide inverted input signal for the optical transmitter through a 50Ω SMA cable. Check DUT datasheet for input signal specifications.
24	Channel 3 RX+ Output	Non-inverted output signal from the optical receiver. Connect 50Ω SMA cable.
25	Channel 3 RX- Output	Inverted output signal from the optical receiver. Connect 50Ω SMA cable.
26	Channel 2 RX+ Output	Non-inverted output signal from the optical receiver. Connect 50Ω SMA cable.
27	Channel 2 RX- Output	Inverted output signal from the optical receiver. Connect 50Ω SMA cable.





28	Channel 1 TX+ Input	Provide non-inverted input signal for the optical transmitter through a 50Ω SMA cable. Check DUT datasheet for input signal specifications.
29	Channel 1 TX- Input	Provide inverted input signal for the optical transmitter through a 50Ω SMA cable. Check DUT datasheet for input signal specifications.
30	TX Disable Switch	If switch a is in position B and the indicator at location 2 is green, channel 1 will be enabled. If switch a is in position A, channel 1 will be disabled. If switch b is in position B and the indicator at location 2 is green, channel 4 will be enabled. If switch b is in position A, channel 4 will be disabled.
31	DUT Connection Point	Connection point for RCP DUT. Place screw posts from DUT inside the through holes on securing fixture, place DUT pins on corresponding pins from 40-pin header on test board with DUT fiber connection point facing the same direction as the SMA female connection points, and secure in place with plunger for connection.

Test Board Modification into Interposer Board

		<p>Possible Modifications Include</p> <ul style="list-style-type: none"> • Custom form factors, connectors and layout • Ruggedization for shock, vibration, and environmental requirements
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Ordering Information

TESTBD-RCP
RCP Transceiver Eval Board

Contact sales@COTSWORKS.com for mechanical dimensional information, Interposer Board modifications, and other configuration options.

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