

### USB 3.2 Type-C to SMA Breakout Board

#### FEATURES

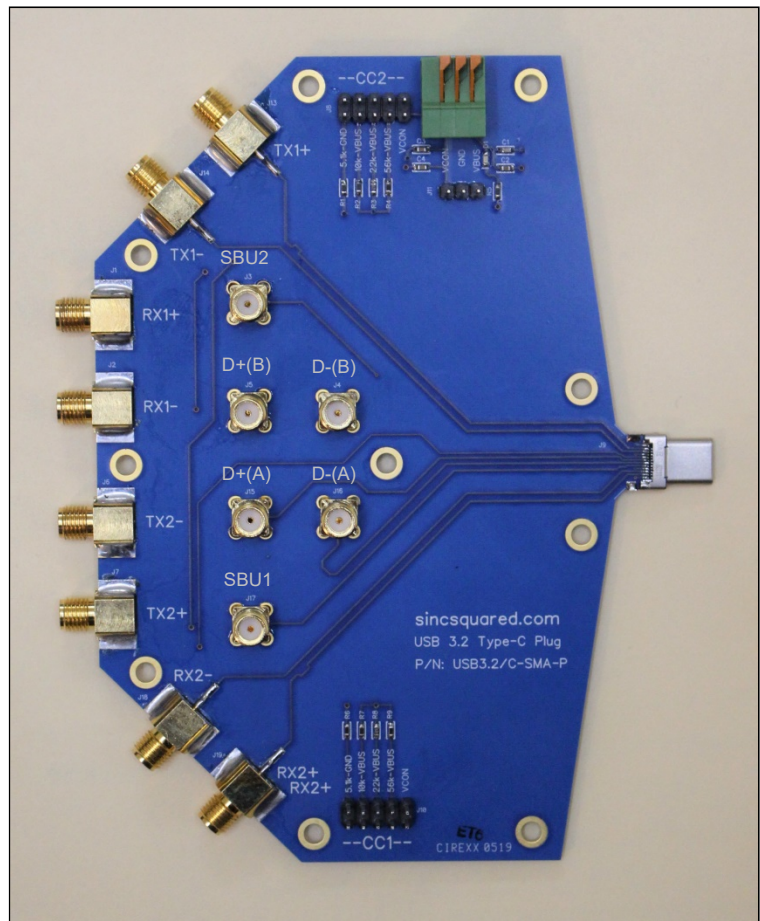
- Full-Featured USB-3.2 Enhanced Superspeed Gen 2x2 test board
- USB Type-C plug or receptacle connectors
- 20 GHz SMA connectors on TX/RX lanes
- Rogers 4350 low-loss dielectric rated at less than 1dB insertion loss up to 30 GHz
- Single-Ended (non-coupled) 50  $\Omega$  microstrip transmission lines
- High-speed D+/- and SBU1/SBU2 connections
- VBUS, VCONN, and CC1/CC2 connections with on-board Rp/Rd termination options

#### APPLICATIONS

- Test/Verification of USB 3.2 host or device
- Testing of all USB Type-C cable types
- Monitor/Debug all aspects of USB 3.2 link during operation
- Test/Debug USB Type-C alternate modes, such as DisplayPort, Digital Audio, Audio Adapter, and Debug Accessory Mode

#### DESCRIPTION

The SS-USB3.2C-SMA breakout board is designed to test everything USB, from USB-2.0 up through dual-lane USB-3.2. It incorporates a standards compliant USB Type-C connector (plug or receptacle boards are available) on one end of the printed circuit board and 20 GHz SMA connectors on the other end of the board. High-speed transmit and receive signals are routed to the SMA connectors via 50-ohm microstrip transmission lines over Rogers RO4350 low-loss dielectric for excellent signal integrity at frequencies up to 30 GHz. All USB Type-C connector pins (both A and B sides) are routed to individual connectors, including USB-2.0 D+/-, Sideband Use (SBU1/SBU2), and Configuration Channel (CC1/CC2). On-board CC1 and CC2 jumper connections are provided for all valid Rp and Rd terminations as well as VCONN. A spring-loaded terminal block is provided for easy connection to external VBUS, Ground, and VCONN. Conveniently placed mounting holes provide mechanical strength when attached to the separate base-board stiffener.



SS-USB3.2/C-SMA-P: USB-3.2 Type-C to SMA Breakout Board