

Product Name: ZX230CASC USB type C test fixture TPA-R TDR electrical test fixture breakout adapter for 10+GHz bandwidth

Product Description: USB Type C TPA-R TDR electrical test fixture breakout adapter supporting **USB Type C receptacle** connector. **ZX230CASC** TPA USB type C electrical test fixture is designed for application requiring USB type C connector, but have application specific signal assignments, including **Display Port (DP) HDMI** connector characterization and more. ALL USB type C signals are accessible for test and measurement. ZX230CASC is designed for 16GHz applications offering reduced insertion loss and full flexibility in adapting to any designs applications for purpose of validation, characterization and functional test.

The ZX230CASC is multi-layer PCB with 50 Ohms trace impedance. ZX230CASC USB type C test fixture offering best in class signal integrity and performance. The test fixture is designed to meet variety of applications using USB type C connector such as DP, HDMI and more.

- 1- All signals (from USB type C connector) are accessible at SMA connector.
- 2- All of USB type C signals have onboard 0402 SMD footprint (not populated) in order to accommodate any/all application specific applications.

- Any of the USB type C signals may be assigned to system GND via onboard 0402 SMD footprints. As default the 0402 SMD components are not populated.

- Any of the USB type C signal may be loaded with 50 Ohms or EMI filter (for testing) via onboard 0402 SMD footprint.

- 3- Using ZX00SMAS-P cable assembly, the ZX230CASC may be interfaced with any test equipment, evaluation module requiring standard pin header.

ZX230CASC is offered with 8" (20cm) long semi-flexible cable assemblies with SMA Plug or Jack connectors interfacing directly to scope probe or other cable assemblies, Please see ordering Information. Cable replacement or longer 16" (40cm) cable assemblies can be purchased, see "**Package Includes**". ZX230CASC USB type C electrical test fixture is characterized using the supplied 8" (20cm) long cable assemblies.

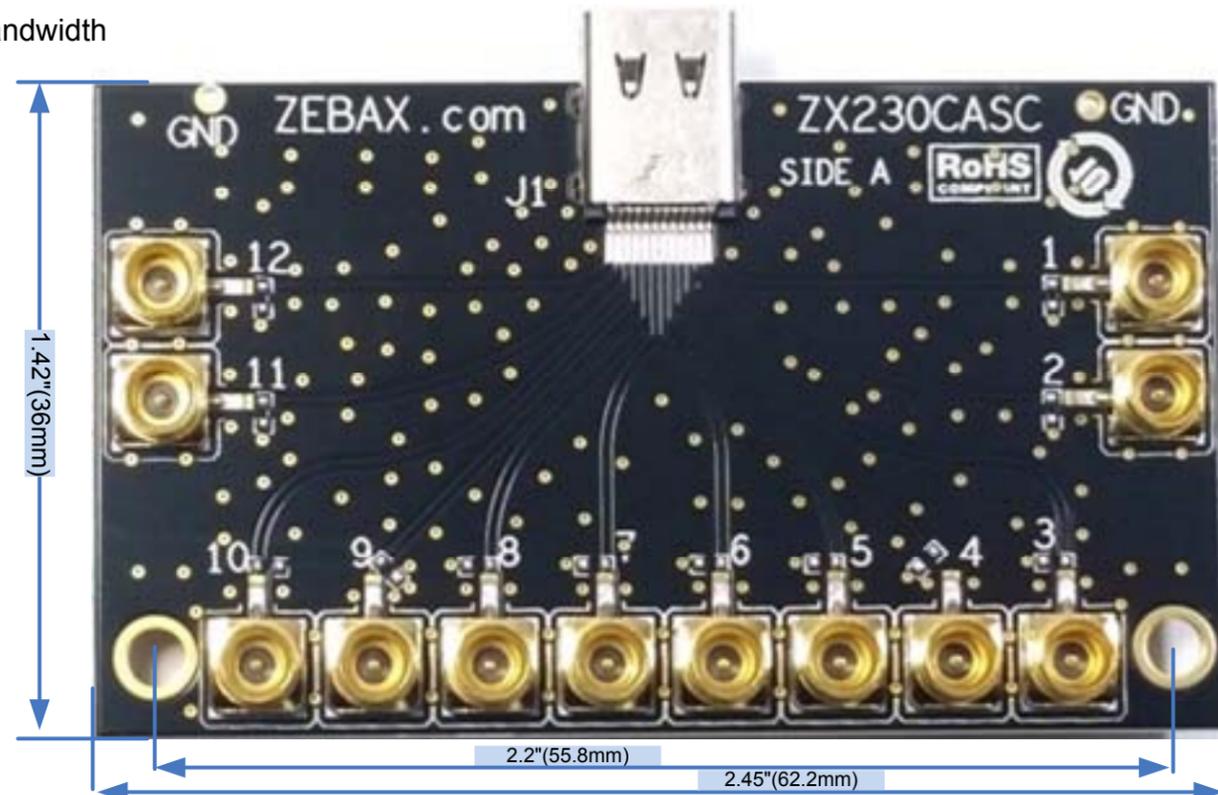
Application: Full USB 3.1 electrical test fixture – Electrical measurement of application specific designs such as Display Port, DP, or HDMI, connector characterization and more.

Supported bandwidth: Supporting SuperSpeed Gen1 (2.5GHz) SuperSpeed Gen2 (5GHz) and future 20Gbps (10GHz) Nyquist frequencies, bandwidth.

Mates with : **USB Type C Socket (receptacle)** connector.
SMA connectors mates with standard SMA cable assembly , see ordering information

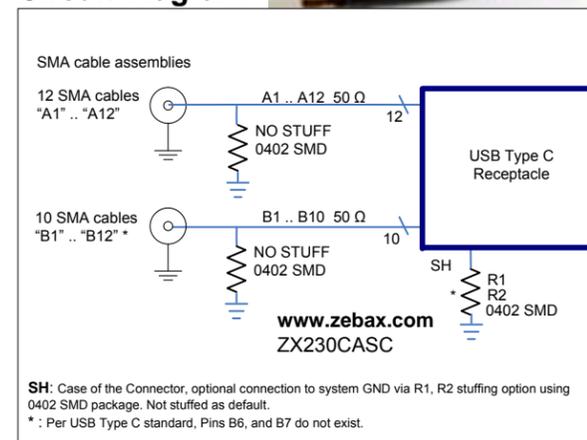
Package includes:

| Item | Part number | Quantity | Description |
|------|-------------------|----------|--|
| 1 | ZX230CASC | 1 | USB Type C test fixture |
| 2 | ZX00010308R-US | 1 | Complete set (24pc) of USB 8" (20cm) long coax cable assemblies, SMA Jack. |
| | or ZX00020308R-US | 1 | or SMA Plug – Please see ordering information. |
| 3 | ZX230CR | 0 | USB Type C test fixture |
| 4 | ZX230CAS | 0 | USB Type C test fixture - application specific |
| 5 | ZX00SMAH-P | 0 | SMA to 2 pin header cable assembly |
| 6 | ZX00WT-09NM | 0 | SMA Wrench Torque 5/16" (8mm) |



See Page 2 for more information

Circuit Diagram



Ordering INFO:
Part Number: ZX230CASC-X
Options:
J : SMA Jack (Standard)
P : SMA Plug connector

Note: ALL ZEBAX products are RoHS compliant and Lead Free unless otherwise indicated.

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|---|------------------|
| SPECIFIED DIMENSIONS ARE INCHES (MM). ROHS COMPLIANT | ASSEMBLY DRAWING |
| | ITEM: ZX230CASC |
| DESCRIPTION: USB 3.1 Type C Receptacle TPA-R electrical test fixture breakout adapter Gen1 Gen2 | |
| CHECKED: M. MARINA | DRAWN: SLAVIK |
| | REVISION: 1.0 |
| | SHEET 1 OF 2 |

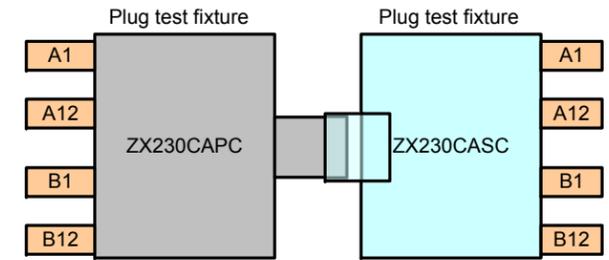
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S-Parameter, Insertion loss: The ZX230CASC USB type C test fixture exhibits unprecedented insertion loss. Using Agilent NA, the s-parameter for all the signal lanes have been complied for reference, see below.

Test case: Using mated network configuration (ZX230CAPC – ZX230CASC)

S-Parameter files: [ZX230CAPC-ZX230CASC](#) – It is .7z file. It consists of 22 .s4p files.



Test network : ZX230CAPC – ZX230CASC Plug and Receptacle via the supplied SMA cable assembly

S12 : A1 A2 A3 A4 A5 A6 A7 A8 A9 A10 A11 A12
S11: B6, B7 on ZX230CASC module only



SMA Cable Assembly is semi-flexible coax cable with maximum bends of 35mm. Please do not over exert beyond the cable's tolerance.



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| SPECIFIED DIMENSIONS ARE INCHES (MM). ROHS COMPLIANT | | ASSEMBLY DRAWING |
| | | ITEM: ZX230CASC |
| DESCRIPTION: USB 3.1 Type C Receptacle TPA-R electrical test fixture breakout adapter Gen1 Gen2 | | |
| CHECKED: M. MARINA | DRAWN: SLAVIK | REVISION: 1.0 SHEET: 2 OF 2 |

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