

**Product Name:** ZX230CAP USB type C test fixture TPA-P TDR electrical test fixture for application specific designs 16+GHz bandwidth

**Product Description:** USB Type C TPA-P TDR electrical test fixture supporting **USB Type C** connector Plug. **ZX230CAP** TPA USB type C electrical test fixture is designed for application designs requiring USB type C connector.

- ZX230CAP is designed supporting variety of applications, including **Display Port ( DP ) HDMI** , connector characterization, embedded and more.
- ALL signals ( from USB type C connector ) are accessible for test and measurement via SMA connector.
- ZX230CAP is designed for 16GHz applications offering ultra low insertion loss and full flexibility in adapting to any designs applications for purpose of validation, characterization and functional test.

The ZX230CAP is designed in multi-layer PCB with 50 Ohms trace impedance. ZX230CAP USB type C test fixture is best in class in signal integrity, reduced cross talk, performance, and functional flexibility.

- Any of the USB type C signals may be assigned to system GND.
- Accessible GND test points for easy access to the fixture GND layers
- Using ZX00SMAS-P or ZX00SMAH-P cable assembly, the ZX230CAP can interface with any test equipment, evaluation module requiring standard pin header or receptacle ( socket ).

ZX230CAP is offered with 5.5" (14cm) long semi-flexible coax cable assemblies with SMA Jack connectors interfacing directly to scope probe , test equipment or other cable assemblies, Please see ordering Information.

**Application:** Full USB 3.1 electrical compliance test fixture – Electrical measurement of application specific designs using USB Type C connector such as Display Port, DP, HDMI , connector characterization embedded and more.

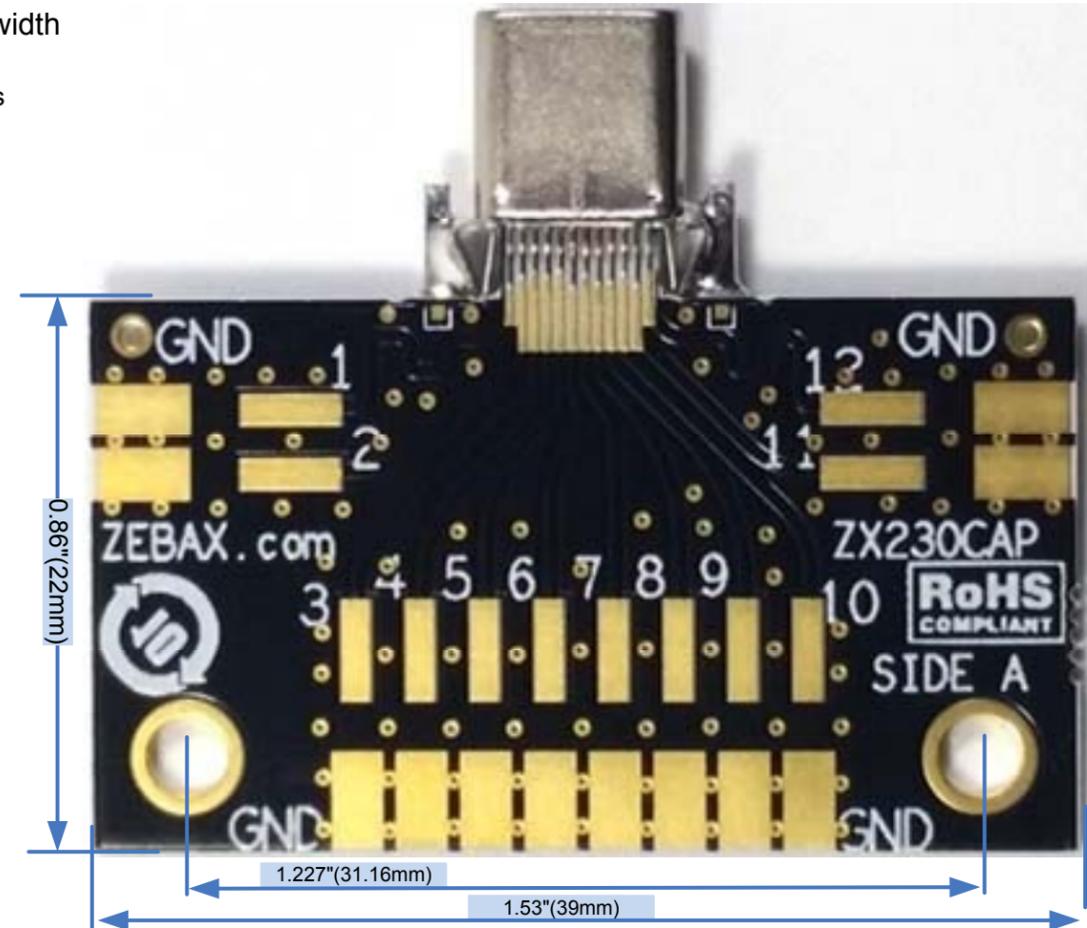
**Supported bandwidth:** Supporting SuperSpeed Gen1 ( 2.5GHz ) SuperSpeed Gen2 ( 5GHz ) and future 20Gbps ( 10GHz ) Nyquist frequencies, bandwidth.

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

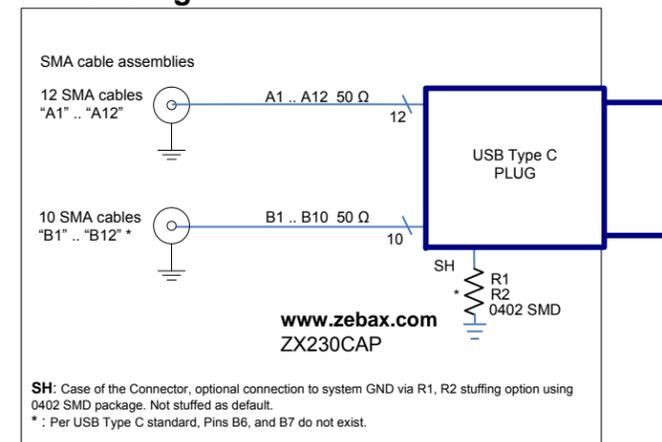


Fully assembled ZX230CAP

See Page 2 for more information



**Circuit Diagram**



Ordering INFO:  
Part Number  
ZX230CAP

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

**Package includes:**

Item	Part number	Quantity	Description
1	ZX230CAP	1	USB Type C test fixture.
2	ZX230CP	0	USB Type C test fixture
3	ZX230CAPC	0	USB Type C test fixture - application specific
4	ZX00SMAH-P	0	SMA to 2 pin header cable assembly
5	ZX00WT-09NM	0	SMA Wrench Torque 5/16" (8mm)

**ZEBAX TECHNOLOGIES**  
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SPECIFIED DIMENSIONS ARE INCHES (MM). ROHS COMPLIANT

**ASSEMBLY DRAWING**  
ITEM: ZX230CAP

**DESCRIPTION:** USB 3.1 Type C Plug TPA-P electrical test fixture for application specific designs

CHECKED: M. MARINA  
DRAWN: SLAVIK  
REVISION: 1.0  
SHEET 1 OF 2

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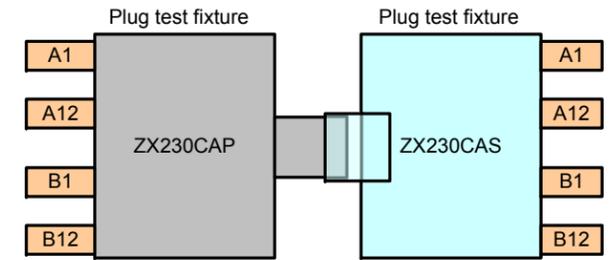
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**Product Name:** ZX230CAP USB type C test fixture TPA-P TDR electrical test fixture breakout adapter for 10+GHz bandwidth cont's

**S-Parameter, Insertion loss:** The ZX230CAP USB type C test fixture exhibits unprecedented insertion loss. Using Agilent NA, the s-parameter for all the signal lanes have been compiled for reference, see below.

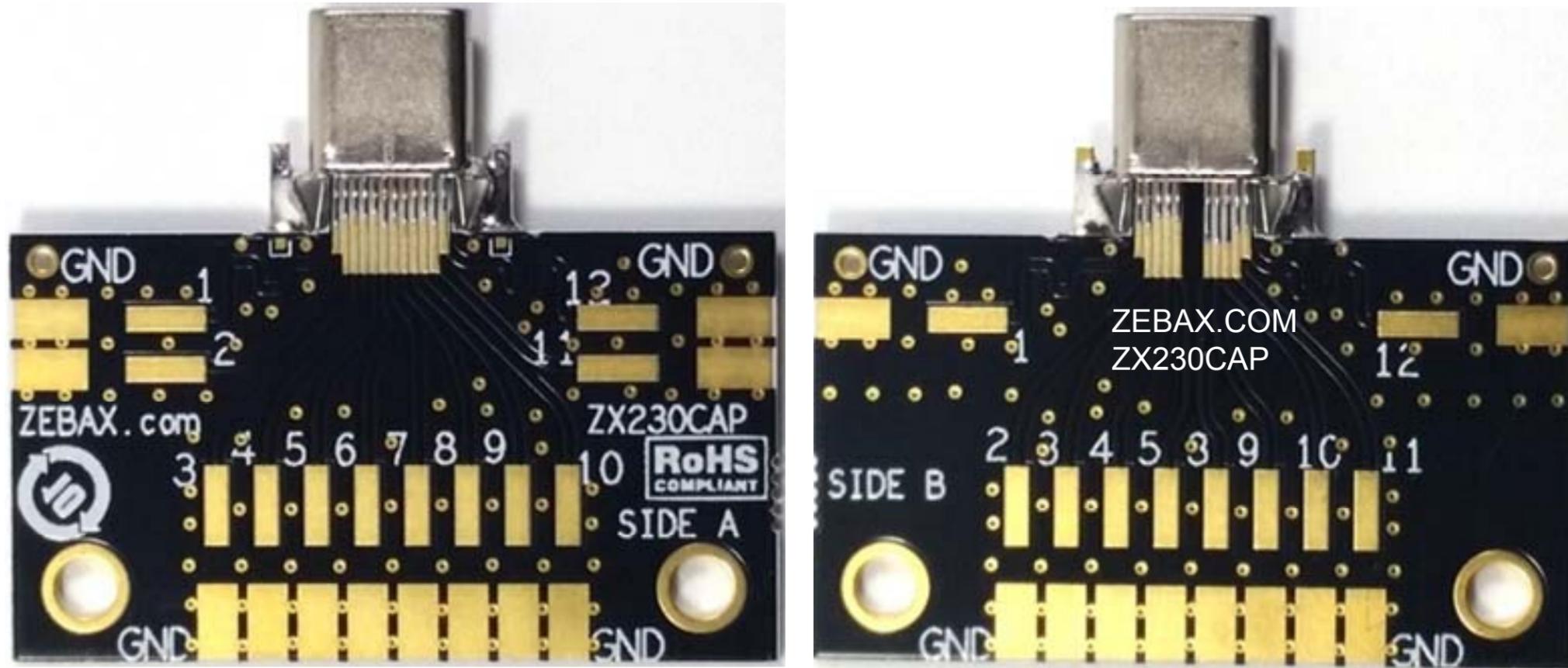
Test case: Using mated network configuration ( ZX230CAP – ZX230CAS )

**S-Parameter files:** [ZX230CAP-ZX230CAS](#) – It is .7z file. It consists of 22 .s4p files.



**Test network :** ZX230CAP – ZX230CAS 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 ZX230CAS module only



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