

**Product Name: ZX120GT – PCISIG mini PCIe passive breakout extender adapter**

**Product Description:** ZX120GT is a mini PCIe passive breakout extender adapter module, providing access to all mini PCIe signals. ZX120GT mates with host. It is designed for real-time Test & Measurement, signal integrity, characterization, manufacturing test and debug of any mini PCIe design interface. All reserved mini PCIe Ground signals are inner connected to GND planes as well as GND stitching vias. It is available at the GND Test Points, TP, and the Mounting Holes, MH.

- 1- Provides access to ALL mini PCIe PCISIG signals via standard through hole, TH, test points.
- 2- ZX120GT is designed to be inserted into the host for purpose of debugging, development, testing and characterization.
- 3- Listed number adjacent to each TH test point represents the associated mini PCIe connector's pin number.
- 4- All traces are 50 Ohms impedance controlled with exceptional signal integrity & crosstalk.
- 5- Four layers PCB design, inner layers are GND planes with direct connection to GND stitching vias & top/bottom GND fills + the mounting holes.
- 6- Mates with any standard mini PCIe connector.

**Electrical:**  
 Insertion loss > -2dB @3GHz  
 Trace impedance: 50 Ω  
 Operating Temperature: -65°C to +170°C  
 mini PCIe Edge Connector type ( J1 ) : mini PCIe, 52 position  
 Mates with: mini PCIe, 52 position  
 Plating: Gold 75U  
 Through Hole Test Point :  
 Diameter : Standard 0.1" ( 2.54mm) post - 0.025" ( 0.064mm ) diameter  
 Plating: Gold 75U  
 Current per pin: 0.5A ( maximum)

**Application:** Bringup, testing, emulation, development, modular design evaluations, manufacturing loopback test, wifi GPS GYRO Compass BT FM sensor

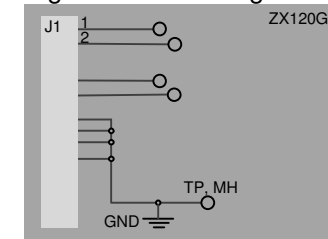
**Mates with :** Any with any standard mini PCIe PCISIG host and device – TE 1775861 Molex SD-48338 and more

**Ground :** All reserved mini PCIe Ground signals are inner connected to GND planes as well as GND stitching vias. Access to the GND is available at the GND Test Points, TP, and the Mounting Holes, MH. Please refer to table 1 for list of the reserved GND signals. Each reserved GND signal is routed to the designated TH test point.

**Compliance:**

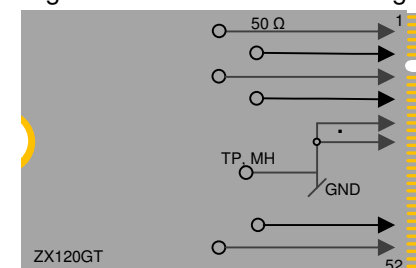
- ISO2001 certified
- RoHS - Lead Free
- EU RoHS2
- UL E111594 document
- ELV- Vehicle Directive ( Directive 2000/EC)
- European Union Directive ( 203/11/EC )
- Halogen Free per IEC-61249-2.21 : 2003
- RoHS Directive 2011/65/EU
- WEEE Directive ( 2012/12/EU)
- Certificate of Compliance for Radioactive substances
- Certificate of Compliance for Asbestos
- Certificate of Compliance for Ozone Depleting Substances, ODS
- Certificate REACH SVHC
- Certificate of Compliance RoHS\_EN\_CoC

Figure 1 Circuit diagram



50 Ω : All traces are designed 50 Ω trace impedance control  
 J1 : mini PCIe PCISIG edge connector  
 GND – All reserved mini PCIe Ground signals are inner connected to GND planes as well as GND stitching vias. It is available at the GND Test Points, TP, and the Mounting Holes, MH.

Figure 2 – ZX120GT Circuit diagram



50 Ω : All traces are designed 50 Ω trace impedance control  
 J2 : mini PCIe PCISIG receptacle connector  
 GND – All reserved mini PCIe Ground signals are inner connected to GND planes as well as GND stitching vias. It is available at the GND Test Points, TP, and the Mounting Holes, MH.

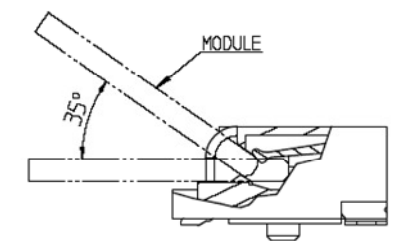
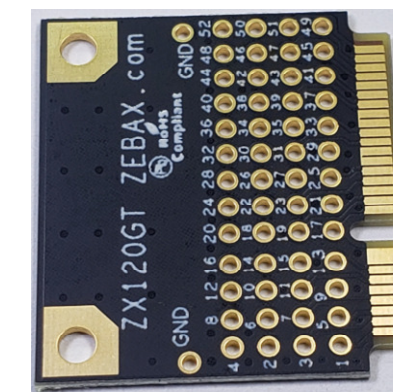
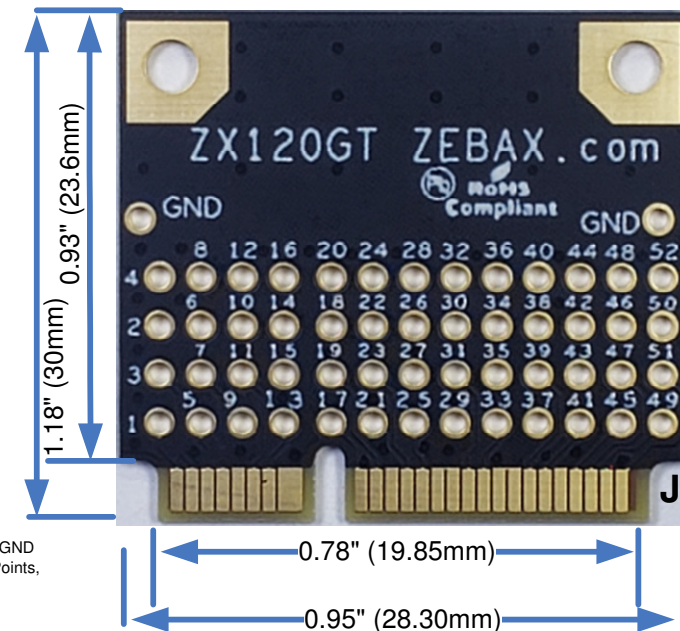


Table 1 – Standard PCIe Signal assignments

| Pin #          | Name               | Pin # | Name       |
|----------------|--------------------|-------|------------|
| 51             | Reserved           | 52    | +3.3Vaux   |
| 49             | Reserved           | 50    | GND        |
| 47             | Reserved           | 48    | +1.5V      |
| 45             | Reserved           | 46    | LED_WPAN#  |
| 43             | GND                | 44    | LED_WLAN#  |
| 41             | +3.3Vaux           | 42    | LED_WWAN#  |
| 39             | +3.3Vaux           | 40    | GND        |
| 37             | GND                | 38    | USB_D+     |
| 35             | GND                | 36    | USB_D-     |
| 33             | PETp0              | 34    | GND        |
| 31             | PETn0              | 32    | SMB_DATA   |
| 29             | GND                | 30    | SMB_CLK    |
| 27             | GND                | 28    | +1.5V      |
| 25             | PERp0              | 26    | GND        |
| 23             | PERn0              | 24    | +3.3Vaux   |
| 21             | GND                | 22    | PERST#     |
| 19             | Reserved* (UIM_C4) | 20    | W_DISABLE# |
| 17             | Reserved* (UIM_C8) | 18    | GND        |
| Mechanical Key |                    |       |            |
| 15             | GND                | 16    | UIM_VPP    |
| 13             | REFCLK+            | 14    | UIM_RESET  |
| 11             | REFCLK-            | 12    | UIM_CLK    |
| 9              | GND                | 10    | UIM_DATA   |
| 7              | CLKREQ#            | 8     | UIM_PWR    |
| 5              | COEX2              | 6     | 1.5V       |
| 3              | COEX1              | 4     | GND        |
| 1              | WAKE#              | 2     | 3.3Vaux    |

**Ordering Information:**

| Part number | Description                               |
|-------------|---|
| ZX120GT     | mini PCIe PCISIG passive breakout adapter |

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

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|  |                         |
|--|-------------------------|
| SPECIFIED DIMENSIONS ARE INCHES (MM). ROHS COMPLIANT                   | <b>ASSEMBLY DRAWING</b> |
| <b>ITEM: ZX120GT mini PCIe PCISIG</b>                                  |                         |
| <b>DESCRIPTION: PCISIG mini PCIe passive breakout extender adapter</b> |                         |
| <b>CHECKED:</b><br>M. MARINA   | <b>DRAWN:</b><br>SONYA  |
| <b>REVISION: 1.0</b><br><b>SHEET: 1 OF 1</b>                           |                         |

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