

Product Name: ZX127HSEC6-28S Samtec GENERATE HSEC6 / Mini Cool Edge IO , MCIO, edge card breakout adapter – Page 1 OF 2

Product Description: ZX127HSEC6-28S is Samtec HSEC6 0.6mm pitch also referred as Mini Cool Edge IO , MCIO / SFF-TA-1002 , edge card breakout adapter. ZX127HSEC6-28S is designed for real-time electrical test & measurements, signal integrity , characterization, manufacturing loopback test applications.

ZX127HSEC6-28S is MCIO edge card breakout adapter, supporting Samtec GENERATE HSEC6 & standard MCIO edge card 0.6mm pitch connectors using 1.6mm PCB thickness. It provides full access to all HSEC6 / MCIO connector signals from both sides of the PCB for purpose of test & measurement.

- 1- Provides access to all Samtec HSEC6 / MCIO signals via onboard Shunts. The Shunts are accessible on both sides of PCB for easy probe access.
- 2- The shunts are standard 0402 SMD footprint package size.
- 3- Listed number adjacent to each Shunt is in reference to the Samtec HSEC6 / MCIO connector pin numbers
- 4- All traces are impedance controlled.
- 5- Four, 4, layers PCB design, inner layers are GND planes.
- 6- Accessible GND test point, The test point is connected to inner GND planes.
- 7- Ease of interface with single channel and differential scope probes.
- 8- Reassign any signal by cutting the shunts' inner connecting trace and rewire.
- 9- Probing wires ZX00BC2PH1 or similar is recommended.

Electrical: Insertion loss > -2dB @6GHz
Trace impedance: 50 Ω
Operating Temperature: -55°C to +125°C
Edge Card Connector:
Mates with: Samtec HSEC6 / MCIO 0.60mm pitch connector
Pitch: 0.60mm pin to pin pitch
Thickness: 1.6mm (0.062")
Plating: 10μ" (0.25μm)
Shunt: Package: Standard 0402 SMD package
ZX00BC2PH1 : 36AWG Bare copper wire to pin header

Application: Manufacturing test measurement & re-use, design, testing , debugging loopback test, characterization , pre-bringup , bringup , interface

Mates with : Samtec GENERATE High Speed Edge Card HSEC6 & GC6 cable assembly
Industry standard Mini Cool Edge IO , MCIO , SFF-TA-1016, SFF-TA_1002, GEN-Z 1C
Amphenol G97, GH01 series. ACES Electronics, LOTES
MET005610101011 ME1005610203071 ME1005610201091 ME1005611201041
ME1005611202041 ME1005610211081 ME1005610205081 ME1005613401101
ME1005634478101

Industry Standard : HSEC6 & MCIO connectors have been adopted by industry standards such as:
SFF-TA_1002, SFF-TA-1016, PCI Express Gen 3.0, 4.0, 5.0, 6.0, OCP DC-MHS (HSIO recommended)
Supporting Up to 64 Gbps PAM4 performance. PCIe , NVMe , SAS ,SFP(+) ,SFP 28

Access:
For signal measurements:
1- Recommendation: Use 36AWG solid copper wire with pin header,ZX00BC2PH1 or similar

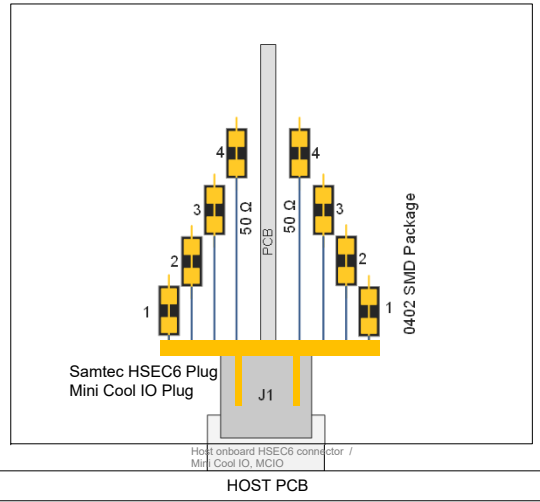
For signal relocation:
1- Cut the inner connecting trace within any Shunt and reassign to new location.
2- Using 36AWG solid copper wire, make the required connections. See Signal Access & re-route, **Page 2**

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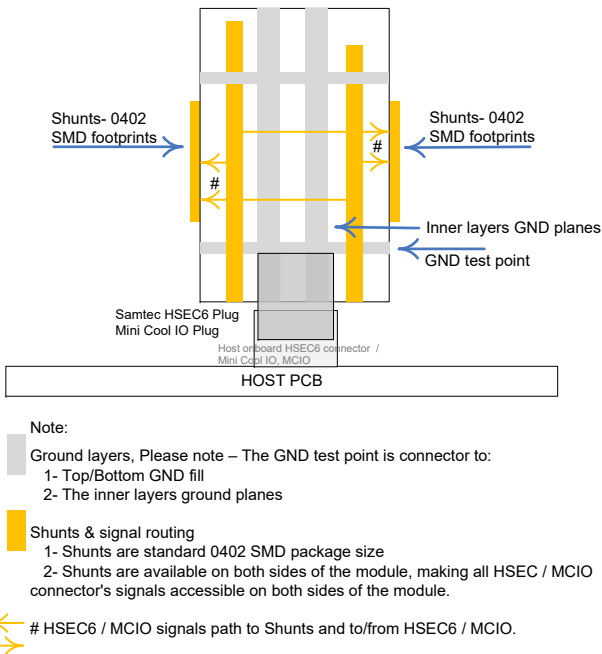
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ZX127HSEC6-28S simplified circuit diagram



Note: 1- Shunts are standard 0402 SMD package size
2- Shunts are available on both sides of ZX127HSEC-28S module, making ALL Samtec connector signals accessible on sides of the module.

ZX127HSEC6-28S simplified cross section diagram



Note:
Ground layers, Please note – The GND test point is connector to:
1- Top/Bottom GND fill
2- The inner layers ground planes
Shunts & signal routing
1- Shunts are standard 0402 SMD package size
2- Shunts are available on both sides of the module, making all HSEC / MCIO connector's signals accessible on both sides of the module.
HSEC6 / MCIO signals path to Shunts and to/from HSEC6 / MCIO.

ZX127HSEC6-28S package includes:

Part number	Quantity	Description
ZX127HSEC6-28S	1	HSEC6 MCIO edge card Breakout Adapter module
ZX00BC2PH1	0	36AWG Bare Copper wire to pin header wire assembly

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: ZX127HSEC6-28S
DESCRIPTION: Samtec HSEC6 / Mini Cool IO , MCIO , Edge Card Breakout Adapter		
CHECKED: M. MAHIN	DRAWN: KADLJEH	REVISION: 1.0
		SHEET: 1 OF 2

