

**Product Name:** ZX133CS Samtec Connector Saver - Breakout Adapter BSH – BTH 060

**Product Description:** 60 pins x 2 rows, 60 pins Samtec Connector Saver - breakout adapter. Offering both BSH and BTH connectors on connector saver module with debug access point providing full feature breakout adapter.

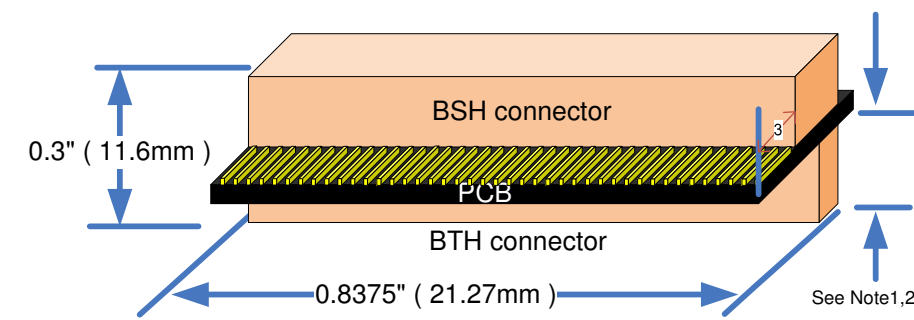
- 1- Each BSH signal is routed to associated BTH connector through board to board via. Pin 1 of BTH is connected to pin 1 of BSH connector.
- 2- All signals have 0.24" ( 6mm) trace access on both top and bottom layers of the PCB.
- 3- All traces are 50 Ohms impedance.
- 4- Four, 4, layers PCB design, inner layers are GND planes.
- 5- Accessible GND test points, The test points are connected to module GND planes.
- 6- Offering Extended height BTH connector ( 0.286" – 7.26mm ) , providing interface clearance from host components.
- 7- Mated BSH-BTH ( Host with ZX133CS ) height 0.315" ( 8.00mm )
- 8- Ease of interface with single channel and differential scope probes.
- 9- User may relocate any BTH signal by cutting trace before the via and solder to new location or external test equipment.
- 10- Fully compatible with Single Ended , SE, and Differential Pair, DP, Samtec connector BSH BTH series as well as cable assemblies; HQCD , HQDP .

**Application:** Manufacturing test and re-use, bringup, testing , debugging

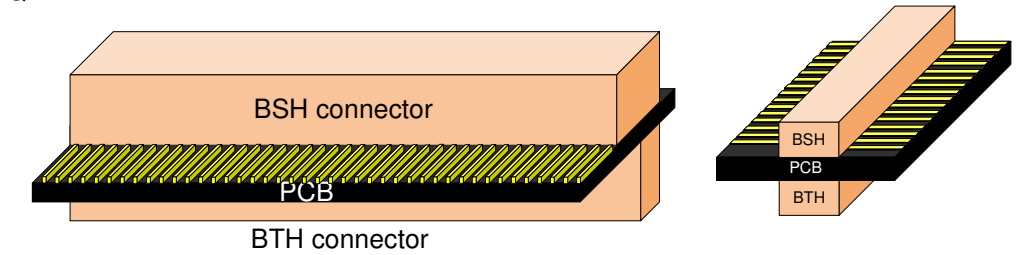
**Mates with :** Samtec BTH060 BSH060 BSH020(DP) BTH020(DP)  
Compatible with – differential Pair (DP), unused signal can be left unconnected or Grounded for improved noise immunity.

**Pitch:** 0.50mm (0.0197") High Speed connector

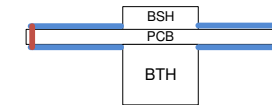
**Access:** All traces are 10mils ( 0.26mm) wide with 0.24" ( 6mm ) length.



- Notes:
- 1- BTH height 0.286" ( 7.26mm)
  - 2- Mated BTH – BSH height 0.315" ( 8.00mm)
  - 3- PCB Extends 0.24" ( 6mm) from the BSH connector



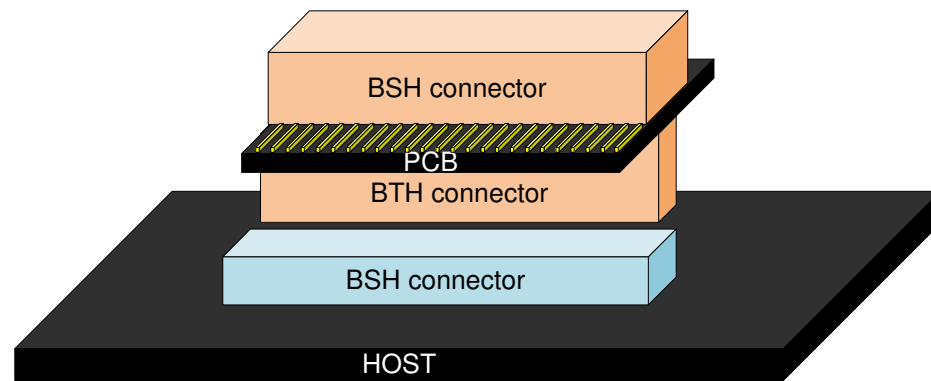
Simplified Block Diagram



- 1- BSH & BTH connector pins are extended by 0.24" ( 6mm) to edge of the PCB.
- 2- Via at edge of the PCB , connects the top BSH pins to bottom BTH pins via extended PCB traces.
- 3- User may relocate any BTH signal to any BSH signal pin by cutting trace before the via and solder the pin to new location.
- 4- Scope probe wire as well as differential scope probe may be soldered to the traces for ease of test and measurement.
- 5- All traces are 10mils ( 0.26mm) wide.

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

Picture below exhibits ZX133CS interface with host, enabling scope probe access. Typically HOST has onboard BSH connector.



**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

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SPECIFIED DIMENSIONS ARE INCHES (MM). ROHS COMPLIANT	<b>ASSEMBLY DRAWING</b>	
	ITEM: ZX133CS	
<b>DESCRIPTION:</b> Samtec Connector Saver - breakout adapter BSH BTH 060		
<b>CHECKED:</b> M. MARINA	<b>DRAWN:</b> SLAVIK	<b>REVISION:</b> 1.0
		<b>SHEET:</b> 1 OF 1

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