

**Product Name: ZX131BSH-RK Samtec Breakout Adapter – in-system rackmount – low profile**

**Product Description:** 30pins per row x 2 rows -- > 60 pins Samtec breakout adapter designed for rackmount or low profile test and measurement applications; servers or networking hardware in any standard rackmount – Onboard BSH-030 Samtec connector, mating with BTH-030 connector series.

- 1- Each BSH-030 connector's signal is routed to onboard header.
- 2- Listed number adjacent to each header pin represents the associated Samtec BSH pin number.
- 3- All traces are 50 Ohms impedance controlled.
- 4- Four layers PCB design, inner layers are GND planes.
- 5- One accessible GND test point, The test point is connected to module's GND planes and top and bottom GND fills.
- 6- Offering Low profile design, targeting in-system rackmount or low profile design test & measurement applications.
- 7- Ease of interface with single channel and differential scope probes.
- 8- Fully compatible with Single Ended , -D, and Differential Pair, -DP, Samtec connector BSH BTH series as well as cable assemblies; HQCD , HQDP
- 9- Mates with any height and form factor BTH-030 connector series such as -D -DP, -RA, -EM configurations.
- 10- Flying lead wire assembly may be used for board to board interface – See ordering information, see [ZX100ACC-SS](#)

**Electrical:**  
 Insertion loss > -2dB @3GHz  
 Trace impedance: 50 Ω  
 Operating Temperature: -55°C to +125°C  
 Samtec Connector:

Onboard Connector: BSH-030-xx 2rows x 30 pins/row  
 Mates with: Any BTH-030-xx formfactor  
 Pitch: 0.0197" ( 0.50mm ) pin to pin pitch  
 Plating: Gold Flash  
 Header:  
 Pitch: 0.1" ( 2.54mm ) pin to pin pitch  
 Pin: Square 0.025" ( 0.635mm )  
 Height: 0.24" ( 6mm )  
 Plating: Gold Flash

**Application:** Bringup, testing, emulation, development, modular design evaluations

**Mates with :** Samtec BTH030 BTH020(DP) - Also mates with ANY one bank of BTH060, BTH090, BTH120 : BTH020(DP) BTH040(DP) BTH060(DP) BTH080(DP) HFHM2 HQCD, HQDP  
 Compatible with – differential Pair (DP), unused signal can be left unconnected or Grounded for improved noise immunity.

**Signal assignments:** Table below exhibits the assigned Samtec pin numbers associated with the headers for top and bottom sides of the module. Due to the module size, there are no listed reference designators on this module. The side with "Zebax.com" and Module name , ZX131BSH-RK" is the top side.

**ZX131BSH-RK Header pin configuration**

		5	11	17	23	29	35	41	47	53	59
Bottom	Headers										
		1	7	13	19	25	31	37	43	49	55
		3	9	15	21	27	33	39	45	51	57
		6	12	18	24	30	36	42	48	54	60
Top	Headers										
		2	8	14	20	26	32	38	44	50	56
		4	10	16	22	28	34	40	46	52	58

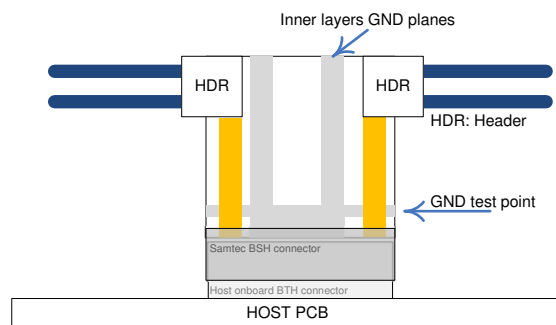
Header pin numbers refer to the SAMTEC BSH connector pin number

**Notice**

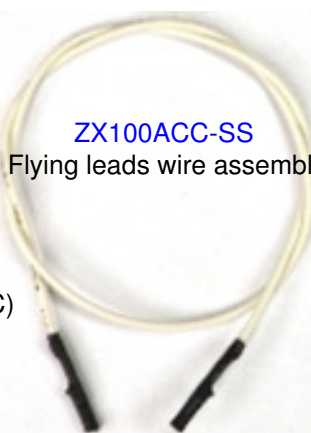
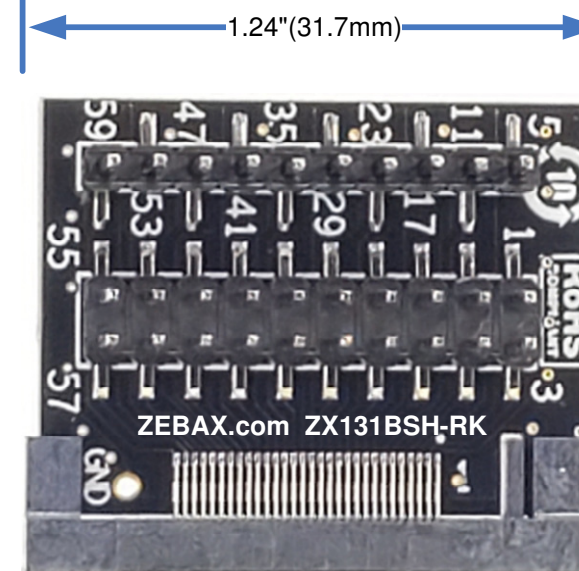
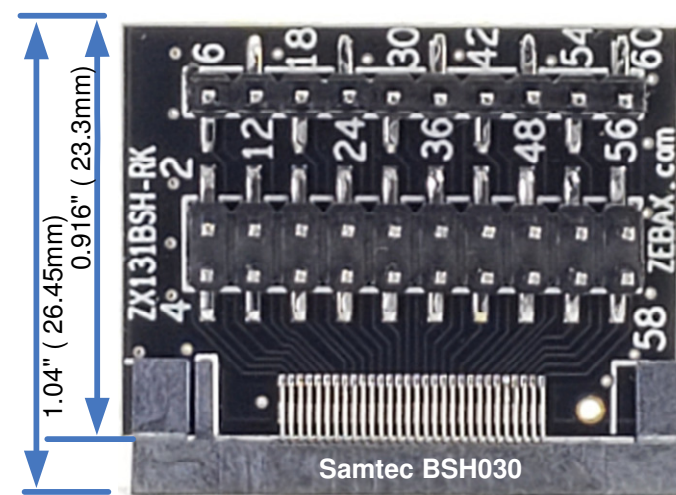
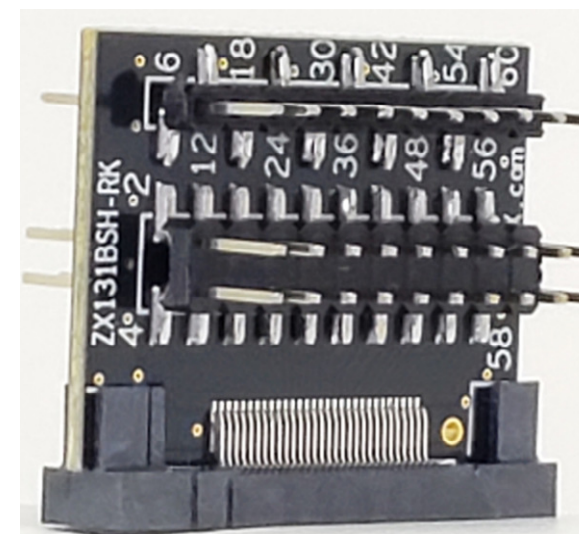
ALL ZEBAX TECHNOLOGIES DESIGN SPECIFICATIONS, DRAWINGS, PUBLICATIONS, AND OTHER DOCUMENTS (TOGETHER AND SEPARATELY, "MATERIALS") ARE BEING PROVIDED "AS IS." ZEBAX MAKES NO WARRANTIES, EXPRESSED, IMPLIED, STATUTORY, OR OTHERWISE WITH RESPECT TO THE MATERIALS, AND EXPRESSLY DISCLAIMS ALL IMPLIED WARRANTIES OF NO INFRINGEMENT, MERCHANTABILITY, AND FITNESS FOR A PARTICULAR PURPOSE.

Information furnished is believed to be accurate and reliable. However, Zebax Technologies assumes no responsibility for the consequences of use of such information or for any infringement of patents or other rights of third parties that may result from its use. Specifications mentioned in this publication are subject to change without notice. This publication replaces all other information previously supplied. Zebax Technologies products are not authorized as in life support devices or systems.

ZX131BSH-RK simplified cross section diagram



Note:  
 Signal layers  
 Ground layers, Please note – The GND test point is connector to:  
 1- Top/Bottom GND fill  
 2- The inner layers ground planes



**ZX131BSH-RK package includes:**

Part number	Quantity	Description
ZX131BSH-RK	1	Samtec Breakout Adapter module
ZX100ACC-SS	0	Flying leads wire assembly

[ZX100ACC-SS site page](#) for ordering the flying leads wire assembly

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

**ZEBAX TECHNOLOGIES**  
 SANTA CRUZ, CA U.S.A (831) 222-0717  
 WWW.ZEBAX.COM

SPECIFIED DIMENSIONS ARE INCHES (MM). ROHS COMPLIANT  
**ASSEMBLY DRAWING**  
**ITEM: ZX131BSH-RK**

**DESCRIPTION:** In-system rackmount / low profile Samtec breakout adapter BSH-RK

CHECKED: M. MARINA

DRAWN: MATTHEW

REVISION: 1.0  
 SHEET: 1 OF 1