

Product Name: ZX131BTH-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 BTH-030 Samtec connector, mating with BSH-030 connector series.

- 1- Each BTH-030 connector’s signal is routed to onboard header.
- 2- Listed number adjacent to each header pin represents the associated Samtec BTH 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 BSH-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: BTH-030-xx 2rows x 30 pins/row
 Mates with: Any BSH-030-xx formfactor
 Pitch: 0.0197" (0.50mm) pin to pin pitch
 Plating: Gold
 Header:
 Pitch: 0.1" (2.54mm) pin to pin pitch
 Pin: Square 0.025" (0.635mm)
 Height: 0.24" (6mm)
 Plating: Gold

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

Mates with : Samtec BSH030 BSH020(DP) - Also mates with ANY one bank of BSH060, BSH090, BSH120 : BSH020(DP) BSH040(DP) BSH060(DP) BSH080(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 , ZX131BTH-RK” is the top side.

ZX131BTH-RK Header pin configuration											
Bottom	Headers	6	12	18	24	30	36	42	48	54	60
		2	8	14	20	26	32	38	44	50	56
		4	10	16	22	28	34	40	46	52	58
Top	Headers	5	11	17	23	29	35	41	47	53	59
		1	7	13	19	25	31	37	43	49	55
		3	9	15	21	27	33	39	45	51	57

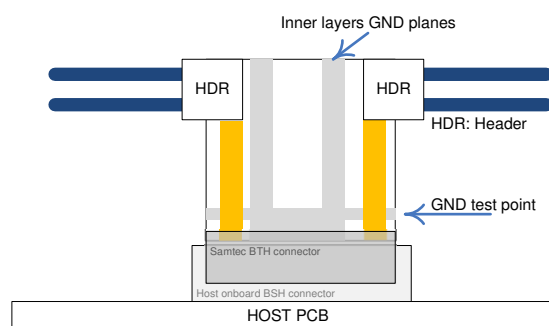
Header pin numbers refer to the SAMTEC BTH connector pin number

Notice

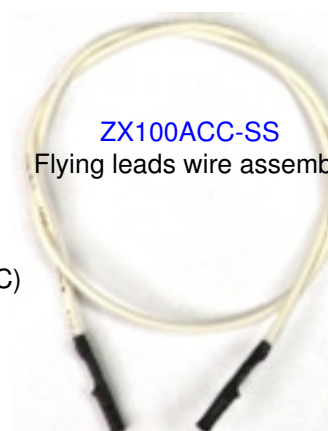
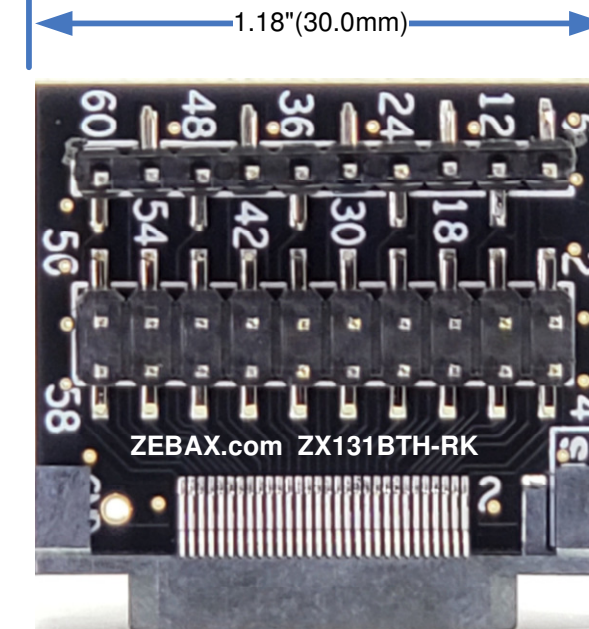
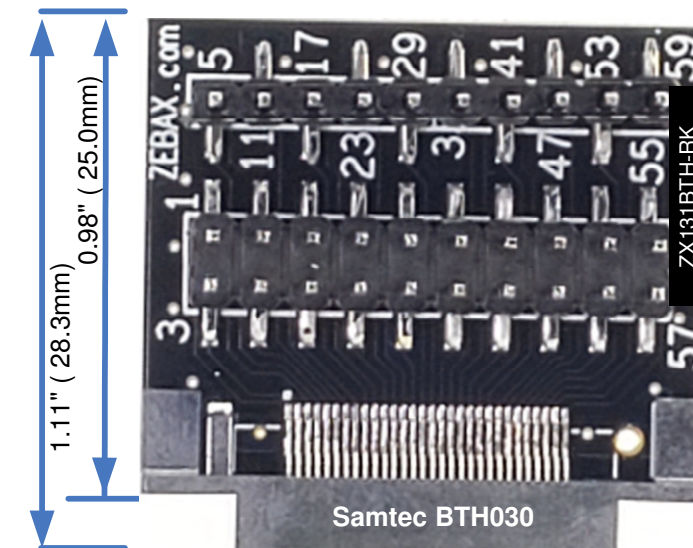
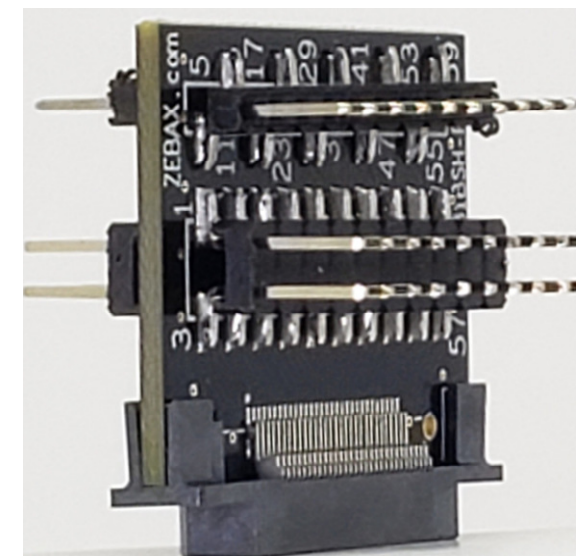
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ZX131BTH-RK simplified cross section diagram



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



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

ZX131BTH-RK package includes:

Part number	Quantity	Description
ZX131BTH-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.

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SPECIFIED DIMENSIONS ARE INCHES (MM). ROHS COMPLIANT
ASSEMBLY DRAWING
 ITEM: ZX131BTH-RK

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

CHECKED: M. MARINA
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 REVISION: 1.0
 SHEET: 1 OF 1