

**Product Name:** ZX102QTH-RK Samtec Breakout Adapter – in-system rackmount – low profile

**Product Description:** 60pins per row x 2 rows -- > 120 pins Samtec breakout adapter designed for rackmount or low profile test and measurement applications; servers or networking hardware in any standard rackmount – Onboard QTH-060 Samtec connector, mating with QSH-060 connector series.

- 1- Each QTH-060 connector's signal is routed to onboard header.
- 2- Listed number adjacent to each header pin represents the associated Samtec QTH 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 direct interface to the connector GND blade.
- 6- Exposed copper area are provided for GND probe soldering, if required.
- 7- Offering Low profile design, targeting in-system rackmount or low profile design test & measurement applications.
- 8- Ease of interface with single channel and differential scope probes.
- 9- Fully compatible with Single Ended , -D, and Differential Pair, -DP, Samtec connector QSH QTH series as well as cable assemblies; HQCD , HQDP
- 10- Mates with any height and form factor QSH-060 connector series such as -D -DP, -RA, -EM configurations.
- 11- 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: QTH-060-xx 2rows x 60 pins/row  
 Mates with: Any QSH-060-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 QSH060 QSH040(DP) - Also mates with ANY one bank of QSH060, QSH090, QSH120 : QSH020(DP) QSH040(DP) QSH060(DP) QSH080(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.

ZX102QTH-RK header pin assignments J1: QTH060

Bottom Headers		J4	8	16	24	32	40	48	56	64	72	80	88	96	104	112	120
			6	14	22	30	38	46	54	62	70	78	86	94	102	110	118
Bottom Headers		J5	4	12	20	28	36	44	52	60	68	76	84	92	100	108	116
			2	10	18	26	34	42	50	58	66	74	82	90	98	106	114
Top Headers		J2	7	15	23	31	39	47	55	63	71	79	87	95	103	111	119
			5	13	21	29	37	45	53	61	69	77	85	93	101	109	117
Top Headers		J3	3	11	19	27	35	43	51	59	67	75	83	91	99	107	115
			1	9	17	25	33	41	49	57	65	73	81	89	97	105	113

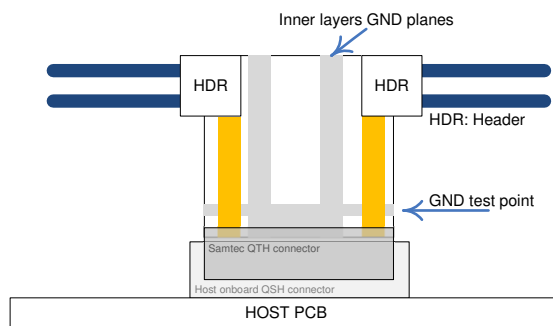
Header pin numbers refer to the SAMTEC QTH connector pin number

**Notice**

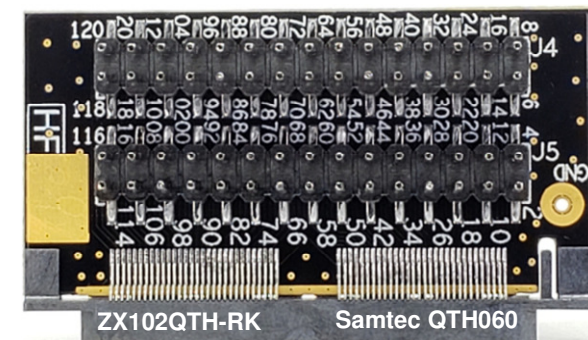
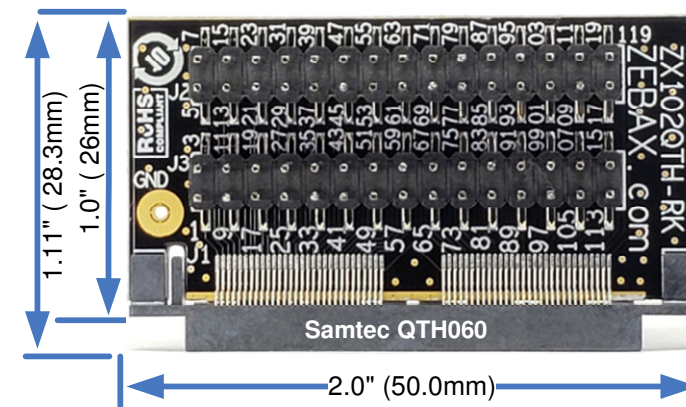
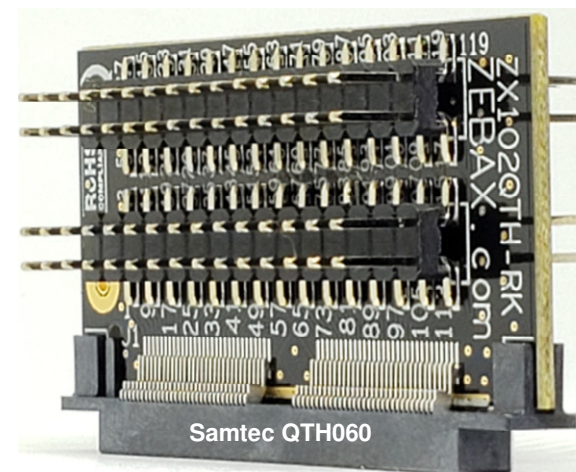
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ZX102QTH-RK simplified cross section diagram



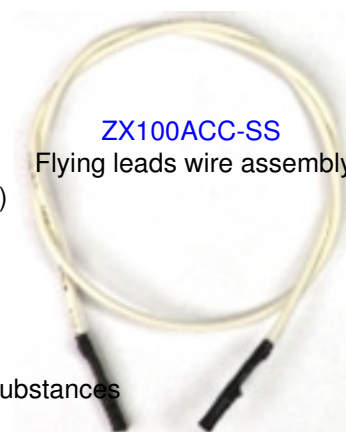
Note:  
 ■ Signal layers  
 ■ Ground layers, Please note – The GND test point is connector to:  
 1- Top/Bottom GND fill  
 2- The inner layers ground planes  
 3- Samtec connector GND blade.



**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



**ZX102QTH-RK package includes:**

Part number	Quantity	Description
ZX102QTH-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: ZX102QTH-RK	
<b>DESCRIPTION:</b>		In-system rackmount / low profile Samtec breakout adapter QTH-RK	
<b>CHECKED:</b> M. MARINA	<b>DRAWN:</b> MATTHEEW	<b>REVISION: 1.0</b>	
		<b>SHEET: 1 OF 1</b>	