

Product Name: ZX102QSH-S Samtec QSH 060 0.5mm (0.0197") pitch low profile Breakout Adapter

Product Description: 60 pins per row x 2 rows --> 120 pins Samtec QSH breakout adapter supporting Samtec QSH 060 socket (receptacle) connector. ZX102QSH-S is designed for low profile test and measurement applications; It has onboard QSH connector, mating with QTH header connector. ZX102QSH-S has onboard Samtec QSH socket (receptacle) connector, mating with any height and formfactor QTH header (plug) connector series.

- 1- Each Samtec QSH socket connector's signal is routed to onboard header.
- 2- Listed number adjacent to each header pin represents the associated Samtec QSH socket 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's GND blade.
- 6- Exposed copper area are provided for GND probe soldering, if required.
- 7- Offering Low profile design, targeting 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 ,
- 10- Mates with any height and form factor QTH-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: Samtec QSH socket 2rows x 60 pins/row
 Mates with: Any QTH060-xx header (plug) formfactor
 Pitch: 0.0197" (0.5mm) 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 QTH060 QTH040(DP) Also mates with ANY two banks of QTH : QTH090 QTH120 : QTH060(DP) QTH080(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.

ZX102QSH-S header pin assignments J1: QSH060

		ZX102QSH-S header pin assignments J1: QSH060															
Bottom	Headers	J3	7	15	23	31	39	47	55	63	71	79	87	95	103	111	119
		J2	5	13	21	29	37	45	53	61	69	77	85	93	101	109	117
	Headers	J5	8	16	24	32	40	48	56	64	72	80	88	96	104	112	120
		J4	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

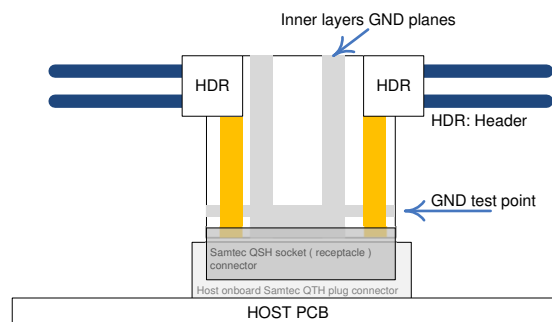
Header pin numbers refer to the SAMTEC QSH connector pin number

Notice

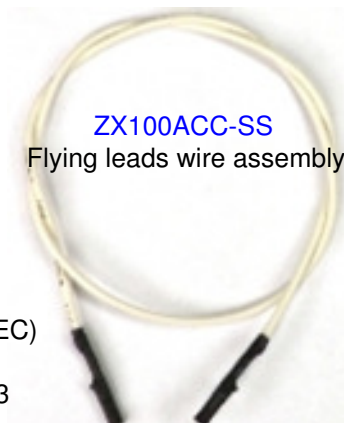
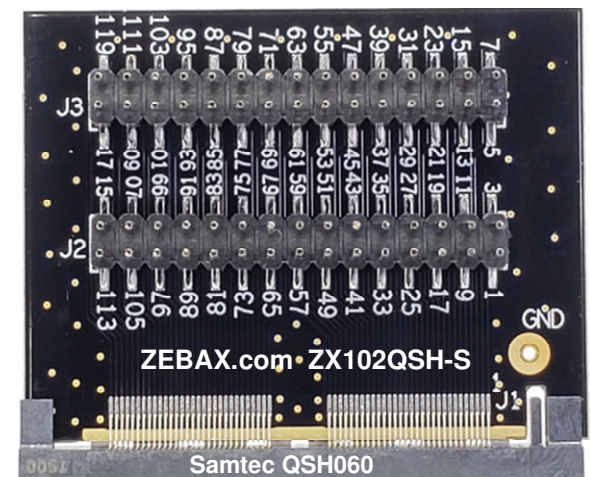
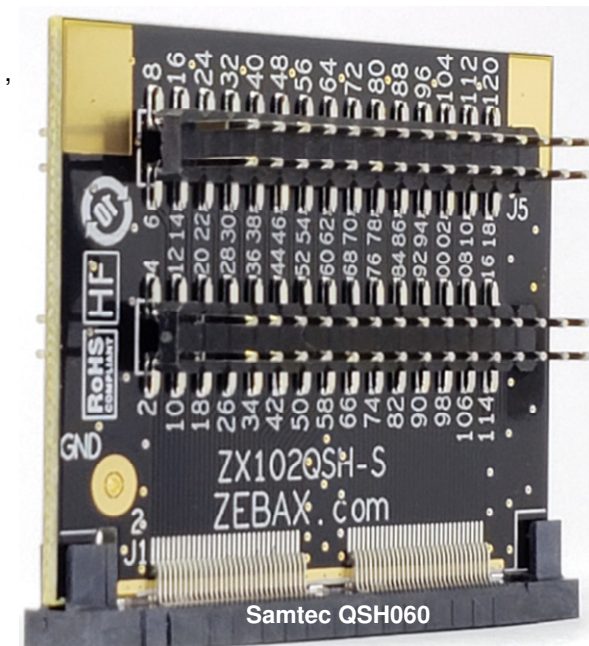
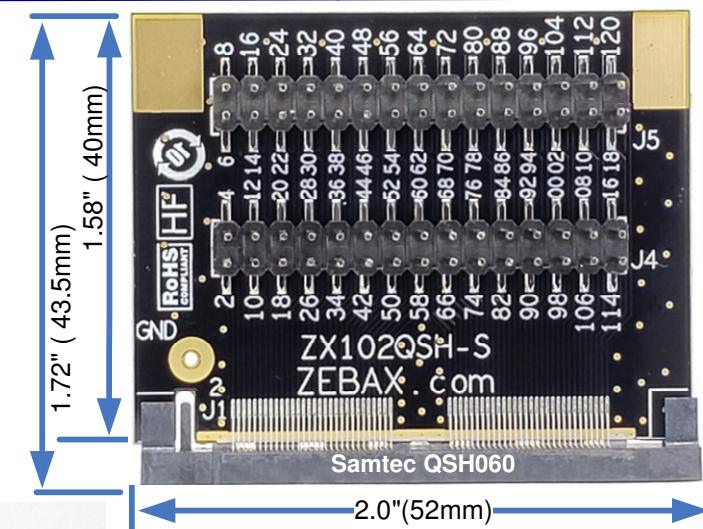
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ZX102QSH-S simplified cross section diagram



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 QSH connector GND blade.



ZX102QSH-S package includes:

Part number	Quantity	Description
ZX102QSH-S	1	TE 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: ZX102QSH-S

DESCRIPTION: Samtec QSH low profile breakout adapter

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