

Product Name: ZX106QTH090-HSMC Samtec Breakout Adapter designed for Altera HSMC bus interface

Product Description: Altera HSMC bus interface breakout adapter using Samtec QTH (ASP-122953-01). Provides full access to ALL differential signal pairs (or single -ended signals) using headers designed for differential probe, compatible with Agilent E5381A or similar. ALL clocks are accessible via onboard IPEX connectors for measurements, stimulus. The D0 .. D3, PRSNTn signals as well as JTAG signals are accessible via onboard 0402 SMD landing pads.

- Designed in 6 layers PCBoard with no vias on any signal traces, improved signal integrity and crosstalk.
- All traces are designed with 50 Ω trace impedance. 100 Ω differential signaling.
- Accessible JTAG, D0, D1, D2, D3, D4 signals via onboard 0402 SMD package footprint.
- 3 Pin header – Accessing +12V, 3.3V and GND planes
- GND test point for direct connection to inner GND planes/fills as well as Samtec connector's center GND stub.

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

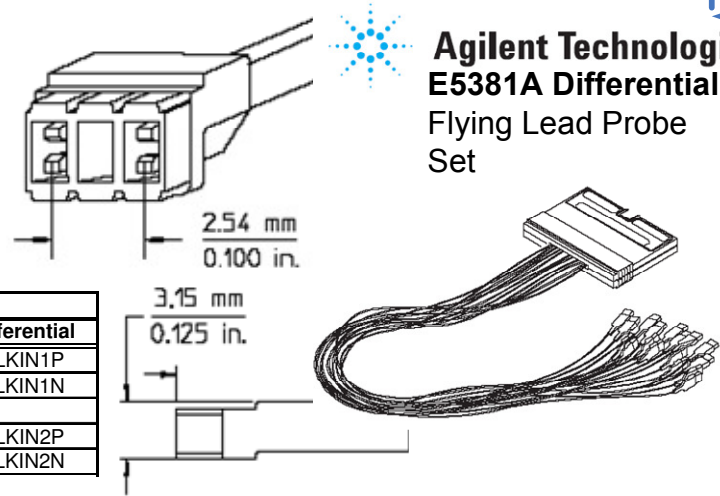
Mates with : Samtec QSH090 QSH060(DP) . Fully compatible with Altera HSMC development board. Mates with HSMC Host interfacing ASP-122953-01 ZX106QTH090-HSMC would be a mezzanine card to HSMC host.

Pitch: 0.50mm (0.0197") High Speed connector

Headers: Pin Center - 0.1" (2.54mm) Pitch - 0.15" (4mm)
Pin diameter - 0.018" (0.46mm) Post height -0.157 (4mm)
Compatible with differential probe Agilent E5381A, or similar or any flying lead or any scope probe

Single-Ended signals, are listed in Tables below as "Single" or Dx as marked

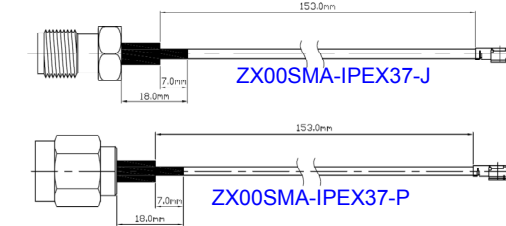
Cross Matrix Clocks vs Single ended			
Differential	Single	Single	Differential
CLKOUT1P	D36	D37	CLKIN1P
CLKOUT1N	D38	D39	CLKIN1N
CLKOUT2P	D76	D77	CLKIN2P
CLKOUT2N	D78	D79	CLKIN2N



Agilent Technologies E5381A Differential Flying Lead Probe Set

Zebax offers the following cable assemblies complementing the ZX106-QTH090-HSMC:

Part number	Description
ZX00SMA-IPEX37-J	SMA-Jack to IPEX coax cable assembly
ZX00SMA-IPEX37-P	SMA-Plug to IPEX coax cable assembly



Ordering INFO:
Part Number
ZX106QTH090-HSMC

J3	
Pin	Assigned
1	12.0V
2	GND
3	3.3V

ZX106QTH090-HSMC pin configuration

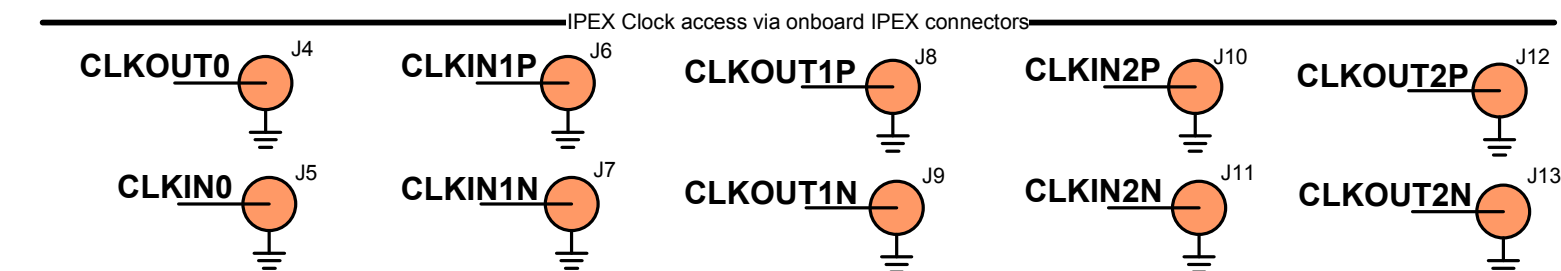
		Bottom Headers																							
		J2												J2											
		TN7	TN6	TN5	TN4	TN3	TN2	TN1	TN0	TN1	TN2	TN3	TN4	TN5	TN6	TN7	TN8	TN9	TN10	TN11	TN12	TN13	TN14	TN15	TN16
Bottom	Headers	1	7	11	15	19	23	27	31	35	39	43	47	51	55	59	63	67	71	75	79	83	87	91	95
		3	5	9	13	17	21	25	29	33	37	41	45	49	53	57	61	65	69	73	77	81	85	89	93
		TP7	TP6	TP5	TP4	TP3	TP2	TP1	TP0	TP1	TP2	TP3	TP4	TP5	TP6	TP7	TP8	TP9	TP10	TP11	TP12	TP13	TP14	TP15	TP16
		D4												D8											
		D6												D10											
		D14												D18											
		D22												D26											
		D30												D34											
		D42												D46											
		D50												D54											
		D58												D62											
		D66												D70											
		D74																							
		D7												D11											
		D15												D19											
		D23												D27											
		D31												D35											
		D43												D47											
		D51												D55											
		D59												D63											
		D67												D71											
		D75																							
Top	Header	RN7	RN6	RN5	RN4	RN3	RN2	RN1	RN0	RN1	RN2	RN3	RN4	RN5	RN6	RN7	RN8	RN9	RN10	RN11	RN12	RN13	RN14	RN15	RN16
		4	8	12	16	20	24	28	32	36	40	44	48	52	56	60	64	68	72	76	80	84	88	92	96
		2	6	10	14	18	22	26	30	34	38	42	46	50	54	58	62	66	70	74	78	82	86	90	94
		RP7	RP6	RP5	RP4	RP3	RP2	RP1	RP0	RP1	RP2	RP3	RP4	RP5	RP6	RP7	RP8	RP9	RP10	RP11	RP12	RP13	RP14	RP15	RP16
		D5												D9											
		D13												D17											
		D21												D25											
		D29												D33											
		D41												D45											
		D49												D53											
		D57												D61											
		D65												D69											
		D73																							

Header pin numbers refer to the SAMTEC connector pin number

XCVR	RPx	RNx	XCVR_RXPx	XCVR_RXNx	where x 7..0
	TPx	TNx	XCVR_TXPx	XCVR_TXNx	where x 7..1

LVDS	RPx	RNx	LVDS_RXPx	LVDS_RXPx	where x 16..0
	TPx	TNx	LVDS_TXPx	LVDS_TXPx	where x 16..1

Single-Ended Host pin assignments - D0 .. D75

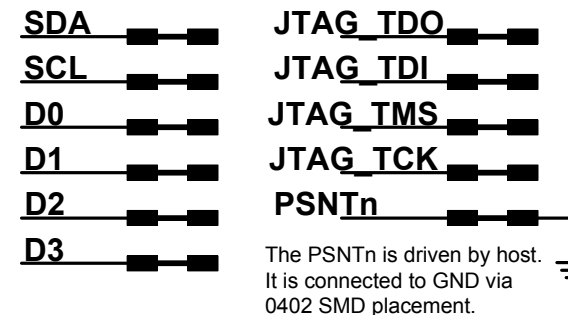


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0402 SMD Package



The PSNTn is driven by host. It is connected to GND via 0402 SMD placement.

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: ZX106QTH090-HSMC

DESCRIPTION: Samtec breakout adapter QTH 090 Altera HSMC single / differential signaling

CHECKED: M. MARINA

DRAWN: SLAVIK

REVISION: 1.0
SHEET: 1 OF 1

Typical 0402 SMD package

