

**Product Name:** ZX146QSE-040 Samtec Breakout Adapter  
TE Mictor SB 0.8mm ( 0.032" ) centerline 80 Breakout Adapter

**Product Description:** 40x2, 80 pins breakout adapter supporting :  
1- Samtec's HI-SPEED Header / Socket QSE Q-Strip Blade & Beam Design connectors.  
2- Tyco Electronics, TE, Mictor SD 0.8mm centerline ( pitch ) 80 positions Mictor-Strip connectors

**Fully compatible with 28x2 56 pins differential pairs, -DP**

- Designed in 4 layer PCBoard
- No via on any signal traces
- Improved signal integrity and crosstalk.
- Matching connector's 50Ω impedance.
- Reference plane impedance 50Ω.
- High bandwidth applications

GND test point for easy access

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

**Mates with :** Samtec QTE-040-L-D QTE-028-01-DP connectors  
EQCD EQSD EQDP EQRF cable assembly  
and any **2 banks** of QTE-060 (-042 Differential pair, -DP), QTE-080 (-056 ) connectors.  
TE Mictor SD 0.8mm ( 0.032" ) centerline 80 positions ( 2 rows, 40 positions / row ) Plugs.  
Table 2 lists 80 positions - 2 Rows x 40 Pins/Row TE Mictor SB 0.8mm ( 0.032" ) Pitch Connectors Part numbers  
**ZX146QSE-040 mates with all listed Plugs** of TE Mictor SD 0.80mm ( 0.032" ) centerline 80 position connectors.  
Table 3 lists cross matrix compatibility between Samtec and TE Mictor SD 0.8mm ( 0.032 ) 80 positions connector.

**Pitch:** 0.80mm (0.0315") High Speed connector

**Headers:** 0.1" (2.54mm) center, 0.025" (0.64mm) SQ with 0.23" (5.6mm) post height

**ZX146QSE-040 pin configuration**

Layer	J5	78	72	66	60	54	48	42	36	30	24	18	12	6	
Bottom	Headers														
	J4	GND	76	70	64	58	52	46	40	34	28	22	16	10	4
		80	74	68	62	56	50	44	38	32	26	20	14	8	2
Top	Headers														
	J3	77	71	65	59	53	47	41	35	29	23	17	11	5	
	J2	GND	75	69	63	57	51	45	39	33	27	21	15	9	3
		79	73	67	61	55	49	43	37	31	25	19	13	7	1

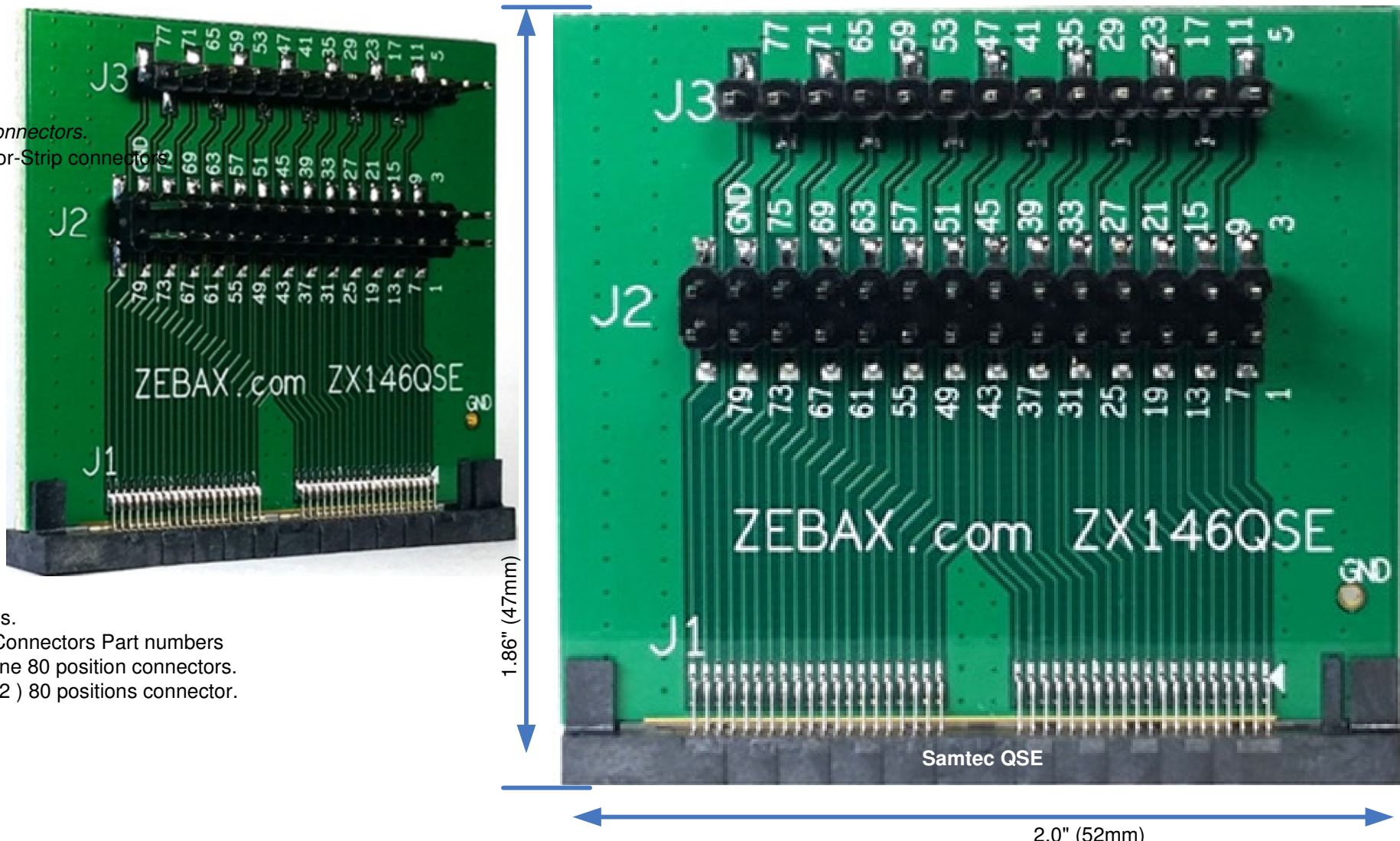
80 positions - 2 Rows x 40 Pins/Row TE Mictor SB 0.8mm ( 0.032" ) Pitch Connectors Part numbers	Description	Mated Stack Height
1658043-2 2-1658043-2 1658012-2 2-1658012-2 1658462-2 2-1658462-2	Receptacle	
1658044-2 2-1658044-2 1658013-2 2-1658013-2 1658463-2 2-1658463-2	Plug	5mm ( 0.197" )
4-1658044-2 2-1658044-2 1658013-2 2-1658013-2 4-1658463-2 2-1658463-2		8mm ( 0.315" )
1658045-2 2-1658045-2 1658014-2 2-1658014-2 1658464-2 2-1658464-2		11mm ( 0.433" )
4-1658045-2 2-1658045-2 4-1658014-2 2-1658014-2 4-1658464-2 2-1658464-2		14mm ( 0.551" )
1658046-2 2-1658046-2 1658015-2 2-1658015-2 1658465-2 2-1658465-2		16mm ( 0.63" )
4-1658046-2 2-1658046-2 4-1658015-2 2-1658015-2 4-1658465-2 2-1658465-2		19mm ( 0.748" )
1658437-2 2-1658437-2 1658438-2 2-1658438-2 1658439-2 2-1658439-2		22mm ( 0.866" )
4-1658437-2 2-1658437-2 4-1658438-2 2-1658438-2 4-1658439-2 2-1658439-2		25mm ( 0.984" )
1658047-2 2-1658047-2 1658016-2 2-1658016-2 1658466-2 2-1658466-2		30mm ( 1.181" )
4-1658047-1 6-1658047-1 4-1658016-1 4-1658016-1 4-1658466-1 6-1658466-1		
1658048-2 2-1658048-2 1658017-2 2-1658017-2 1658467-2 2-1658467-2		
1658049-2 2-1658049-2 1658018-2 2-1658018-2 1658468-2 2-1658468-2		
1658050-2 — 1658019-2 — 1658469-2 —		
1658051-2 — 1658020-2 — 1658470-2 —		

ZX146 Samtec Qstrip QTE QSE cross matrix compatability with TE Mictor SB 0.8mm ( 0.032" ) Pitch Connectors					
TE Mictor SD 0.8mm ( 0.032" )			Samtec Qstrip QTE QSE		
Gold Flashing	10 μ" Gold Plating	30 μ" Gold Plating	Gold Flashing	10 μ" Gold Plating	30 μ" Gold Plating
1658043-2	1658012-2	1658462-2	QSE-040-01-F-D-A	QSE-040-01-L-D-A	QSE-040-01-C-D-A
1658044-2	1658013-2	1658463-2	QTE-040-01-F-D-A	QTE-040-01-L-D-A	QTE-040-01-C-D-A
1658045-2	1658014-2	1658464-2	QTE-040-02-F-D-A	QTE-040-02-L-D-A	QTE-040-02-C-D-A
1658046-2	1658015-2	1658465-2	QTE-040-03-F-D-A	QTE-040-03-L-D-A	QTE-040-03-C-D-A
1658437-2	1658438-2	1658439-2	QTE-040-09-F-D-A	QTE-040-09-L-D-A	QTE-040-09-C-D-A
1658047-2	1658016-2	1658466-2	QTE-040-04-F-D-A	QTE-040-04-L-D-A	QTE-040-04-C-D-A
1658048-2	1658017-2	1658467-2	QTE-040-05-F-D-A	QTE-040-05-L-D-A	QTE-040-05-C-D-A
1658049-2	1658018-2	1658468-2			
1658050-2	1658019-2	1658469-2	QTE-040-07-F-D-A	QTE-040-07-L-D-A	QTE-040-07-C-D-A
1658051-2	1658020-2	1658470-2			

Note:  
1- Stack Height : Receptacle with the listed Plug  
2- **Any** listed Samtec QTE Plug is compatible with **Any** TE Mictor SD 0.8mm ( 0.032" ) pitch Receptacle connector.  
3- **Any** Listed TE Mictor SD 0.8mm ( 0.032" ) pitch Plug is compatible with **Any** Samtec Qstrip QSE connector.

All above listed TE Mictor SB 0.80mm ( 0.032" ) centerline ( pitch ) are compatible with Samtec Qstrip QTE QSE connectors

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**NOTE:**  
1- GND test point is connected to inner GND planes as well as the Samted/TE edge connector GND tab  
2- ZX146QSE has onboard QSE connector, mating with Host QTE or TE Mictor SB 0.80mm centerline plug connectors.

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SPECIFIED DIMENSIONS ARE INCHES (MMD). ROHS COMPLIANT	<b>ASSEMBLY DRAWING</b>	
	<b>ITEM: ZX146QSE-040</b>	
<b>DESCRIPTION: Samtec breakout adapter QSE 040 TE Mictor SD 0.80mm 80 breakout adapter</b>		
<b>CHECKED: M. MARINA</b>	<b>DRAWN: SLAVIK</b>	<b>REVISION: 1.0</b>
		<b>SHEET: 1 OF 1</b>