

**Product Name:** ZX146-QTE-QSE-040 Samtec Breakout Adapter  
TE Mictor SB 0.8mm ( 0.032" ) centerline 80 Breakout Adapter

**Product Description:** 40x2, 80 pins breakout adapter supporting both Samtec and TE Mictor SB connector series :  
1- Samtec's HI-SPEED Header / Socket QTE QSE Q-Strip Blade & Beam Design connectors.  
2- Tyco Electronics, TE, Mictor SB 0.80mm centerline ( pitch ) 80 positions Mictor-Strip connectors.

**Fully compatible** with 24x2 56 pins differential pairs, -DP , signaling applications for both TE Mictor SB as well as Samtec connectors.

ZX146-QTE-QSE-040 has onboard QTE and QSE connectors, mating with Host QTE and QSE or TE Mictor SB Plug and Receptacle connectors.

- 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.
- Mates with Samtec host QTE and QSE connectors.
- Mates with TE Mictor SB 0.80mm centerline Plug and Receptacle connectors.
- GND test point for easy access

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

**Mates with :** Samtec QTE-040-L-D QSE-040-L-D QTE-028-01-DP QSE-028-01-DP connectors  
EQCD EQSD EQDP EQRF cable assembly  
and any **2 banks** of QTE-060 QSE-060 (-042 Differential pair, -DP), QTE-080 QSE-080 (-056 ) connectors.  
TE Mictor SB 0.8mm ( 0.032" ) centerline 80 positions ( 2 rows, 40 positions / row ) Plug and Receptacles.  
Table 2 lists 80 positions - 2 Rows x 40 Pins/Row TE Mictor SB 0.8mm ( 0.032" ) Pitch Connectors Part numbers  
**ZX146-QTE-QSE-040 mates with all listed Plug and Receptacles** of TE Mictor SB 0.80mm ( 0.032" ) centerline 80 position connectors.  
Table 3 lists cross matrix compatibility between Samtec and TE Mictor SB 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

ZX146-QTE-QSE-040 pin configuration - Header pin numbers refer to SAMTEC connectors pin number

TOP	QTE	J1										
BOTTOM		J5	76	68	60	52	44	36	28	20	12	4
		J6	74	66	58	50	42	34	26	18	10	2
Bottom	Headers	J6	80	72	64	56	48	40	32	24	16	8
		J6	78	70	62	54	46	38	30	22	14	6
		J3	75	67	59	51	43	35	27	19	11	3
		J3	73	65	57	49	41	33	25	17	9	1
Top	Headers	J4	79	71	63	55	47	39	31	23	15	7
		J4	77	69	61	53	45	37	29	21	13	5
TOP	QSE	J2										
BOTTOM												

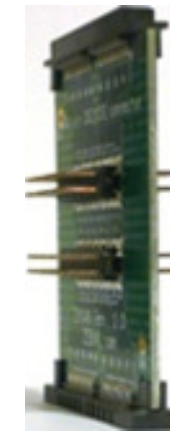
80 positions - 2 Rows x 40 Pins/Row TE Mictor SB 0.8mm ( 0.032" ) Pitch Connectors Part numbers

TE Mictor SD 0.8mm ( 0.032" )	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 6-1658044-2 4-1658013-2 6-1658013-2 4-1658463-2 6-1658463-2		8mm ( 0.315" )
1658045-2 2-1658045-2 1658014-2 2-1658014-2 1658464-2 2-1658464-2		11mm ( 0.433" )
4-1658045-2 6-1658045-2 4-1658014-2 6-1658014-2 4-1658464-2 6-1658464-2		14mm ( 0.551" )
1658046-2 2-1658046-2 1658015-2 2-1658015-2 1658465-2 2-1658465-2		16mm ( 0.63" )
4-1658046-2 6-1658046-2 4-1658015-2 6-1658015-2 4-1658465-2 6-1658465-2		19mm ( 0.748" )
1658437-2 2-1658437-2 1658438-2 2-1658438-2 1658439-2 2-1658439-2		22mm ( 0.866" )
4-1658437-2 6-1658437-2 4-1658438-2 6-1658438-2 4-1658439-2 6-1658439-2		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 6-1658016-1 4-1658466-1 6-1658466-1		
1658048-2 2-1658048-2 1658017-2 2-1658017-2 1658467-2 2-1658467-2		
4-1658048-2 6-1658048-2 4-1658017-2 6-1658017-2 4-1658467-2 6-1658467-2		
1658049-2 2-1658049-2 1658018-2 2-1658018-2 1658468-2 2-1658468-2		
4-1658049-2 6-1658049-2 4-1658018-2 6-1658018-2 4-1658468-2 6-1658468-2		
1658050-2 — 1658019-2 — 1658469-2 —		
1658051-2 — 1658020-2 — 1658470-2		

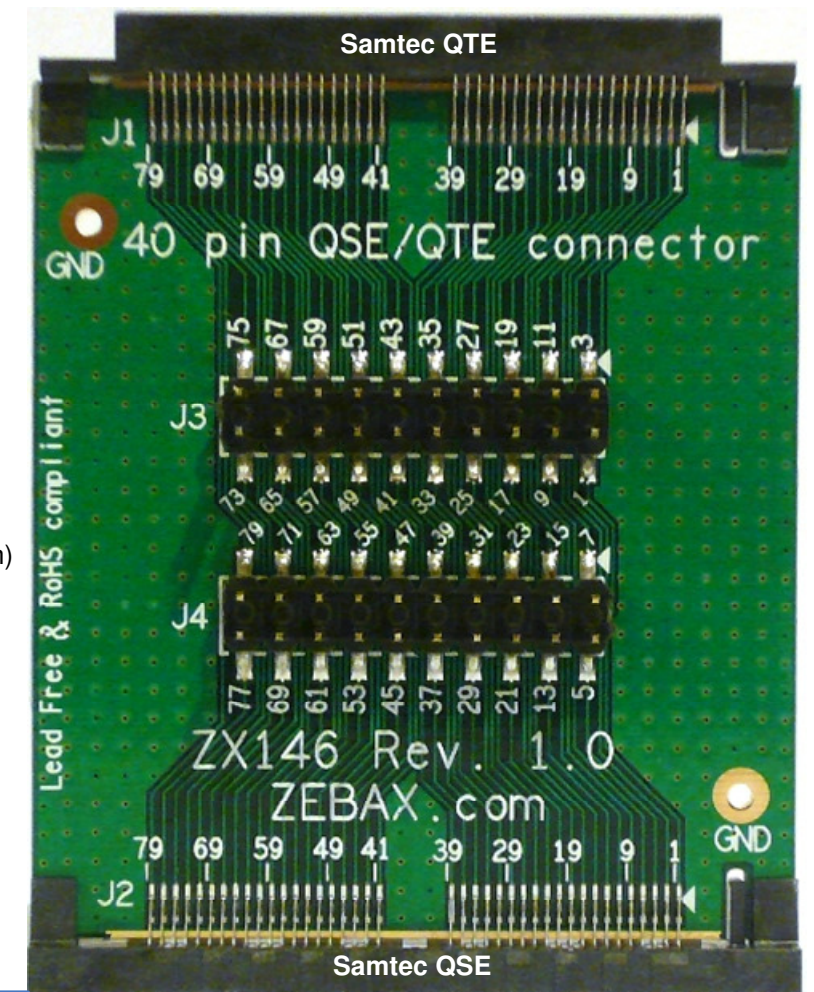
ZX146 Samtec Qstrip QTE QSE cross matrix compatibility with TE Mictor SB 0.8mm ( 0.032" ) Pitch Connectors

TE Mictor SD 0.8mm ( 0.032" )			Samtec QStrip QTE QSE			Description	Mated Stack Height
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	Receptacle	
1658044-2	1658013-2	1658463-2	QTE-040-01-F-D-A	QTE-040-01-L-D-A	QTE-040-01-C-D-A	Plug	5mm ( 0.197" )
1658045-2	1658014-2	1658464-2	QTE-040-02-F-D-A	QTE-040-02-L-D-A	QTE-040-02-C-D-A		8mm ( 0.315" )
1658046-2	1658015-2	1658465-2	QTE-040-03-F-D-A	QTE-040-03-L-D-A	QTE-040-03-C-D-A		11mm ( 0.433" )
1658437-2	1658438-2	1658439-2	QTE-040-09-F-D-A	QTE-040-09-L-D-A	QTE-040-09-C-D-A		14mm ( 0.551" )
1658047-2	1658016-2	1658466-2	QTE-040-04-F-D-A	QTE-040-04-L-D-A	QTE-040-04-C-D-A		16mm ( 0.63" )
1658048-2	1658017-2	1658467-2	QTE-040-05-F-D-A	QTE-040-05-L-D-A	QTE-040-05-C-D-A		19mm ( 0.748" )
1658049-2	1658018-2	1658468-2					22mm ( 0.866" )
1658050-2	1658019-2	1658469-2	QTE-040-07-F-D-A	QTE-040-07-L-D-A	QTE-040-07-C-D-A		25mm ( 0.984" )
1658051-2	1658020-2	1658470-2					30mm ( 1.181" )

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.



2.25"(57mm)



1.58" (40mm)

**NOTE:**

- 1- GND test point is connected to inner GND planes as well as the Samtec/TE edge connector GND tab
- 2- ZX146-QTE-QSE-040 has onboard QTE and QSE connector, mating with Host QTE and QSE or TE Mictor SB Plug and Receptacle connectors.
- 3- Pin 1 of the QTE ( Header ) is connected to Pin 1 of QSE ( Socket ), enabling target board debugging by using ZX146 in between Host and Target device.

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: ZX146-QTE-QSE-040	
DESCRIPTION:	Samtec breakout adapter QTE QSE 040 TE Mictor SB 0.80mm 80 breakout adapter	
CHECKED: M. MARINA	DRAWN: SLAVIK	REVISION: 1.0
		SHEET: 1 OF 1

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