

**Product Name:** ZX145QSE-020 Samtec Breakout Adapter  
TE Mictor SB 0.8mm ( 0.032" ) centerline 40 Breakout Adapter

**Product Description:** 20x2, 40 pins breakout adapter supporting both Samtec and TE Mictor SB connector series :  
1- Samtec's HI-SPEED Header / Socket QSE Q-Strip Blade & Beam Design connectors.  
2- Tyco Electronics, TE, Mictor SB 0.80mm centerline ( pitch ) 40 positions Mictor-Strip connectors.

**Fully compatible** with 14x2 28 pins differential pairs, -DP , signaling applications for both TE Mictor SB as well as Samtec connector.  
ZX145QSE has onboard QSE connector, mating with Host QTE or TE Mictor SB Plug 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 connectors.
- Mates with TE Mictor SB 0.80mm centerline Plug connectors.
- GND test point for easy access

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

**Mates with :** Samtec QTE-020-L-D QTE-014-01-**DP** connectors  
EQCD EQSD EQDP EQRF cable assembly  
and any **bank** of QTE-040 ( -028 Differential pair, -DP), QTE-060 (-042 ), QTE-080 (-056) connectors.  
TE Mictor SB 0.8mm ( 0.032" ) centerline 40 positions ( 2 rows, 20 positions / row )  
1658044-1 , 1658013-1 , 1658463-1 TE Mictor SB 0.8mm ( 0.032" )  
Table 2 lists 40 positions - 2 Rows x 20 Pins/Row TE Mictor SB 0.8mm ( 0.032" ) Pitch Connectors Part numbers  
**ZX145QSE mates with all listed Plug** of TE Mictor SB 0.80mm ( 0.032" ) centerline 40 positions connectors.  
Table 3 lists cross matrix compatibility between Samtec and TE Mictor SB 0.8mm ( 0.032 ) 40 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

ZX145QSE-020 pin configuration - Labeled header pin number refers to QSE pin.

Bottom	Headers	J3	4	6	12	16	20	24	28	32	36	40
			2	6	10	14	18	22	26	30	34	38
Top	Headers	J2	3	7	11	15	19	23	27	31	35	39
			1	5	9	13	17	21	25	29	33	37
TOP	QSE	J1										
BOTTOM												

40 positions - 2 Rows x 20 Pins/Row TE Mictor SB 0.8mm ( 0.032" ) Pitch Connectors Part numbers

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

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

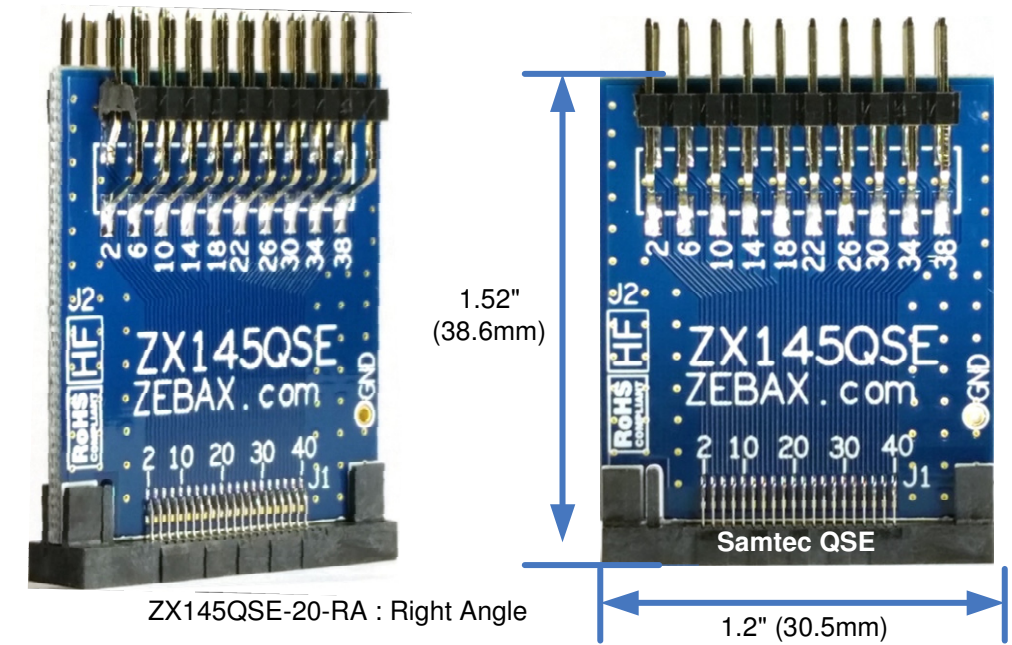
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ZX145 Samtec Qstrip QTE QSE cross matrix compatibility with TE Mictor SB 0.8mm ( 0.032" ) Pitch Connectors

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		
1658043-1	1658012-1	1658462-1	QSE-020-01-F-D-A	QSE-020-01-L-D-A	QSE-020-01-C-D-A	Receptacle	
1658044-1	1658013-1	1658463-1	QTE-020-01-F-D-A	QTE-020-01-L-D-A	QTE-020-01-C-D-A	Plug	5mm ( 0.197" )
1658045-1	1658014-1	1658464-1	QTE-020-02-F-D-A	QTE-020-02-L-D-A	QTE-020-02-C-D-A		8mm ( 0.315" )
1658046-1	1658015-1	1658465-1	QTE-020-03-F-D-A	QTE-020-03-L-D-A	QTE-020-03-C-D-A		11mm ( 0.433" )
1658437-1	1658438-1	1658439-1	QTE-020-09-F-D-A	QTE-020-09-L-D-A	QTE-020-09-C-D-A		14mm ( 0.551" )
1658047-1	1658016-1	1658466-1	QTE-020-04-F-D-A	QTE-020-04-L-D-A	QTE-020-04-C-D-A		16mm ( 0.63" )
1658048-1	1658017-1	1658467-1	QTE-020-05-F-D-A	QTE-020-05-L-D-A	QTE-020-05-C-D-A		19mm ( 0.748" )
1658049-1	1658018-1	1658468-1					22mm ( 0.866" )
1658050-1	1658019-1	1658469-1	QTE-020-07-F-D-A	QTE-020-07-L-D-A	QTE-020-07-C-D-A		25mm ( 0.984" )
1658050-1	1658019-1	1658469-1					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.



ZX145QSE-20-RA : Right Angle



ZX145QSE-20-ST : Straight header

Ordering INFO:  
Part Number  
ZX145QSE-20-X options  
RA : Right Angle header ( Standard )  
ST : Straight header

Note  
ALL ZEBAX products are RoHS compliant and Lead Free unless otherwise indicated.

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SPECIFIED DIMENSIONS ARE INCHES (MM). ROHS COMPLIANT	<b>ASSEMBLY DRAWING</b>	
	<b>ITEM: ZX145QSE-020</b>	
<b>DESCRIPTION: Samtec breakout adapter QSE 020 014 TE Mictor SB 0.80mm 40 breakout adapter</b>		
<b>CHECKED:</b> M. MARINA	<b>DRAWN:</b> SLAVIK	<b>REVISION: 1.0</b> <b>SHEET: 1 OF 1</b>