

**Product Name:** ZX145-QTE-QSE-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 QTE 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 connectors.

ZX145-QTE-QSE-020 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-020-L-D QSE-020-L-D QTE-014-01-DP QSE-014-01-DP connectors  
EQCD EQSD EQDP EQRF cable assembly  
and any 1 banks of QTE-040 QSE-040 ( -028 Differential pair, -DP), QTE-060 QSE-060 (-042), QTE-080 QSE-080 (-056) connectors.

TE Mictor SB 0.8mm ( 0.032" ) centerline 40 positions ( 2 rows, 20 positions / row ) Plug and Receptacles.

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

**ZX145-QTE-QSE-020 mates with all listed Plug and Receptacles** 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

ZX145-QTE-QSE-020 pin configuration - Labeled header pin number refers to QTE / QSE pin.

TOP	QTE	J4																							
BOTTOM																									
Bottom	Headers	J2	4	8	12	16	20	24	28	32	36	40													
			2	6	10	14	18	22	26	30	34	38													
Top	Headers	J3	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

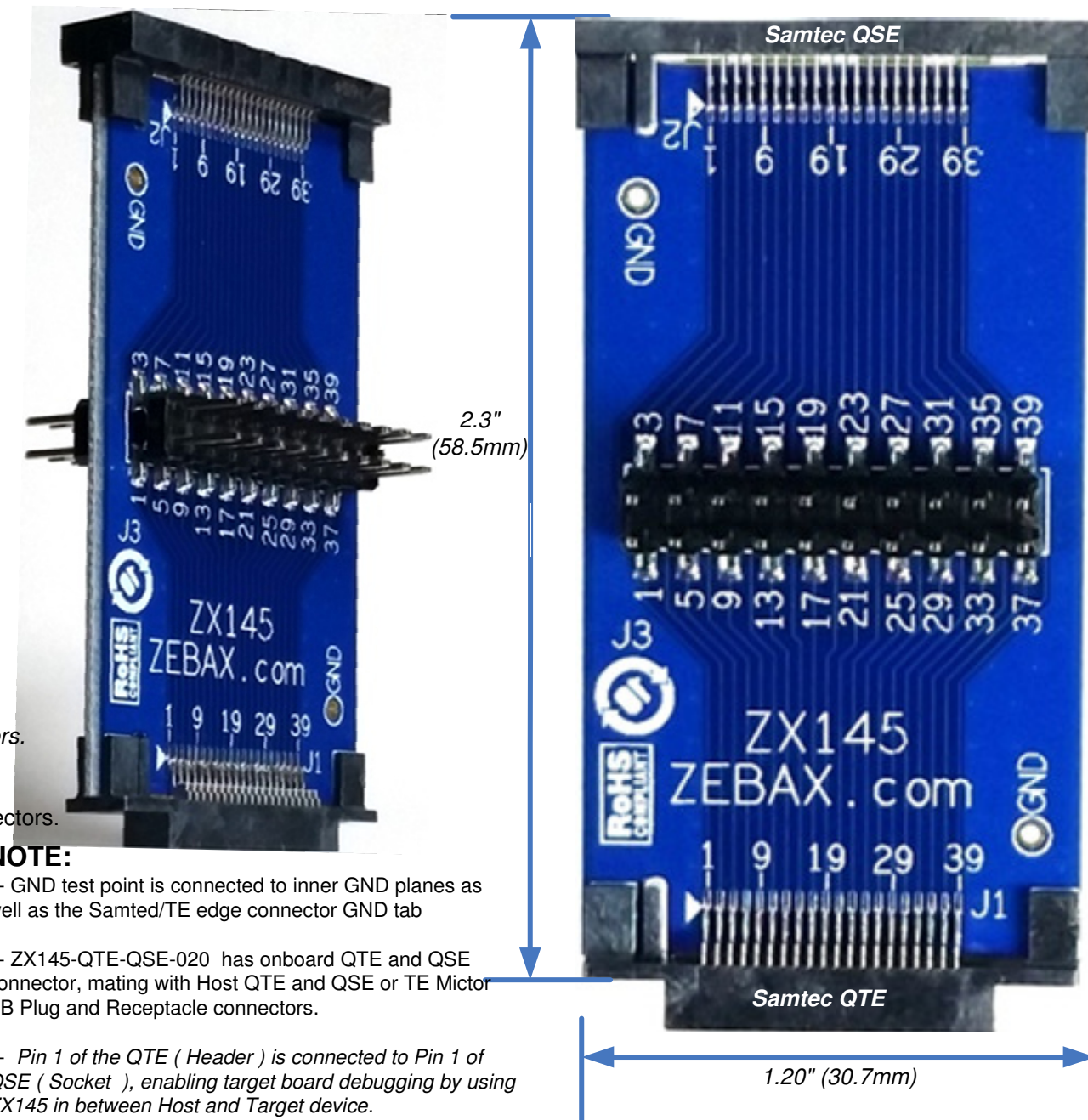
TE Mictor SD 0.8mm ( 0.032" )	Description	Mated Stack Height
1658043-1 2-1658043-1 1658012-1 2-1658012-1 1658462-1 2-1658462-1	Receptacle	
4-1658043-1 6-1658043-1 4-1658012-1 6-1658012-1 4-1658462-1 6-1658462-1		
1658044-1 2-1658044-1 1658013-1 2-1658013-1 1658463-1 2-1658463-1	Plug	5mm ( 0.197" )
4-1658044-1 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" )
1658046-1 2-1658046-1 1658015-1 2-1658015-1 1658465-1 2-1658465-1		16mm ( 0.63" )
4-1658046-1 6-1658046-1 4-1658015-1 6-1658015-1 4-1658465-1 6-1658465-1		19mm ( 0.748" )
1658437-1 2-1658437-1 1658438-1 2-1658438-1 1658439-1 2-1658439-1		22mm ( 0.866" )
4-1658437-1 6-1658437-1 4-1658438-1 6-1658438-1 4-1658439-1 6-1658439-1		25mm ( 0.984" )
1658047-1 2-1658047-1 1658016-1 2-1658016-1 1658466-1 2-1658466-1		30mm ( 1.181" )
4-1658047-1 6-1658047-1 4-1658016-1 6-1658016-1 4-1658466-1 6-1658466-1		
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**

ALL ZEBAX TECHNOLOGIES DESIGN SPECIFICATIONS, DRAWINGS, PUBLICATIONS, AND OTHER DOCUMENTS (TOGETHER AND SEPARATELY, "MATERIALS") ARE BEING PROVIDED "AS IS." ZEBAX MAKES NO WARRANTIES, EXPRESSED, IMPLIED, STATUTORY, OR OTHERWISE WITH RESPECT TO THE MATERIALS, AND EXPRESSLY DISCLAIMS ALL IMPLIED WARRANTIES OF NO INFRINGEMENT, MERCHANTABILITY, AND FITNESS FOR A PARTICULAR PURPOSE.

Information furnished is believed to be accurate and reliable. However, Zebax Technologies assumes no responsibility for the consequences of use of such information or for any infringement of patents or other rights of third parties that may result from its use. Specifications mentioned in this publication are subject to change without notice. This publication replaces all other information previously published. Zebax Technologies products are not authorized as in life support devices or systems.



**NOTE:**

1- GND test point is connected to inner GND planes as well as the Samtec/TE edge connector GND tab

2- ZX145-QTE-QSE-020 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 ZX145 in between Host and Target device.

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" )
							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.

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

**ZEBAX TECHNOLOGIES**  
SANTA CRUZ, CA U.S.A (831) 222-0717  
WWW.ZEBAX.COM

SPECIFIED DIMENSIONS ARE INCHES (MM). ROHS COMPLIANT	ASSEMBLY DRAWING	
	ITEM: ZX145-QTE-QSE-020	

**DESCRIPTION:** Samtec breakout adapter QSE 020 014  
TE Mictor SB 0.80mm 40 breakout adapter

CHECKED: M. MARINA	DRAWN: SLAVIK	REVISION: 1.0 SHEET: 1 OF 1
-----------------------	------------------	--------------------------------