Table of Contents

Catalog 1773095
Revised 12-08

www.tycoelectronics.com

Dimensions are in millimeters and inches unless otherwise specified. Values in brackets are U.S. equivalents.

Dimensions are shown for reference purposes only. Specifications subject to change.

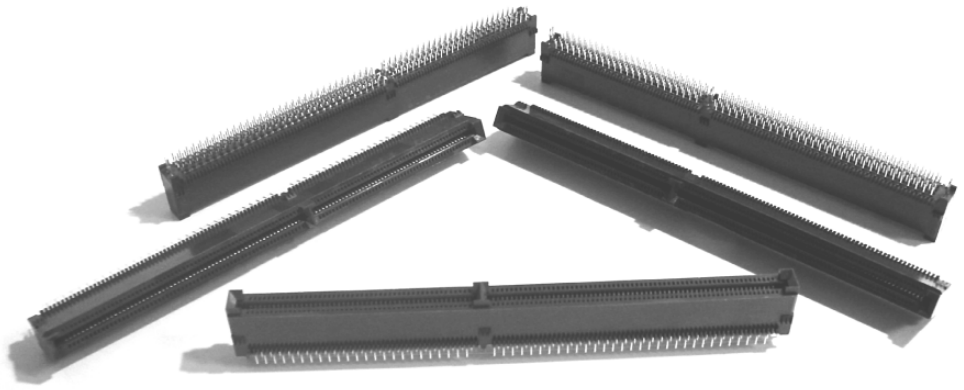
USA: 1-800-522-6752
Canada: 1-905-470-4425
Mexico: 01-800-733-8926
C. America: 52-55-1106-0803

South America: 55-11-2103-6000
Hong Kong: 852-2735-1628
Japan: 81-44-844-8013
UK: 44-8706-080-208

High Speed Standard Edge Connector

Product Facts

- **1:1 signal-to-ground ratio**
- **Designed for signal transmissions with rise and fall times of 0.5 nanoseconds or greater**
- **40 signal/ground pairs per linear inch**
- **Less than 10 picosecond skew**
- **Propagation delay is typically 75 picoseconds from motherboard to daughtercard at the top of the connector**
- **43 ohm impedance**
- **Multiple simultaneous switching: 7% max. @ 0.5 ns; 5% max. @ 1.0 ns**
- **High performance maintained when using up to 50% of the ground contacts for power**
- **50 to 130 dual positions (in increments of 10) and 73 dual position**



High Speed Standard Edge connectors are the answer for a low cost, one-piece approach to high speed signal transmissions or density requirements. These Tyco Electronics connectors have an upper row of signal contacts on 1.27 [.050] centerline with a lower row of ground contacts within each circuit cavity. This achieves 0.64 [.025] centerline density in a 1.27 [.050] centerline connector with 40 signal/ground pairs per linear inch and a 1:1 signal-to-ground ratio. The staggered contact height also reduces the daughtercard mating force.

Board retainers align the connector with the motherboard and retain it for soldering. The use of high temperature tolerant materials ensures that these connectors will withstand various wave and reflow soldering techniques.

Tyco Electronics High Speed Standard Edge connectors are available in sizes of 50 to 130 dual positions (in increments of 10) and a 73 dual position, with solder lead lengths of 2.54 [.100] and 3.18 [.125].

Performance Specifications

Contact Current Rating —
Signal contact — 1 ampere max.
Ground contact — 1.5 amperes max.
Preground contact — 1 ampere max.

Termination Resistance —
20 milliohms max. (initial)
40 milliohms max. (final)

Dielectric Withstanding Voltage —
500 volts AC min.

Insulation Resistance —
1000 megohms min.

Mating Force — 2.78 N [10 oz] max. per dual signal/ground contact pair using test blade

Durability (Mating Cycles) —
Tested to 25 cycles with test blade

Application Temperature —
+215°C for 120 seconds max.

Operating Temperature Range —
-55°C to +85°C

Catalog 1773095
Revised 12-08

www.tycoelectronics.com

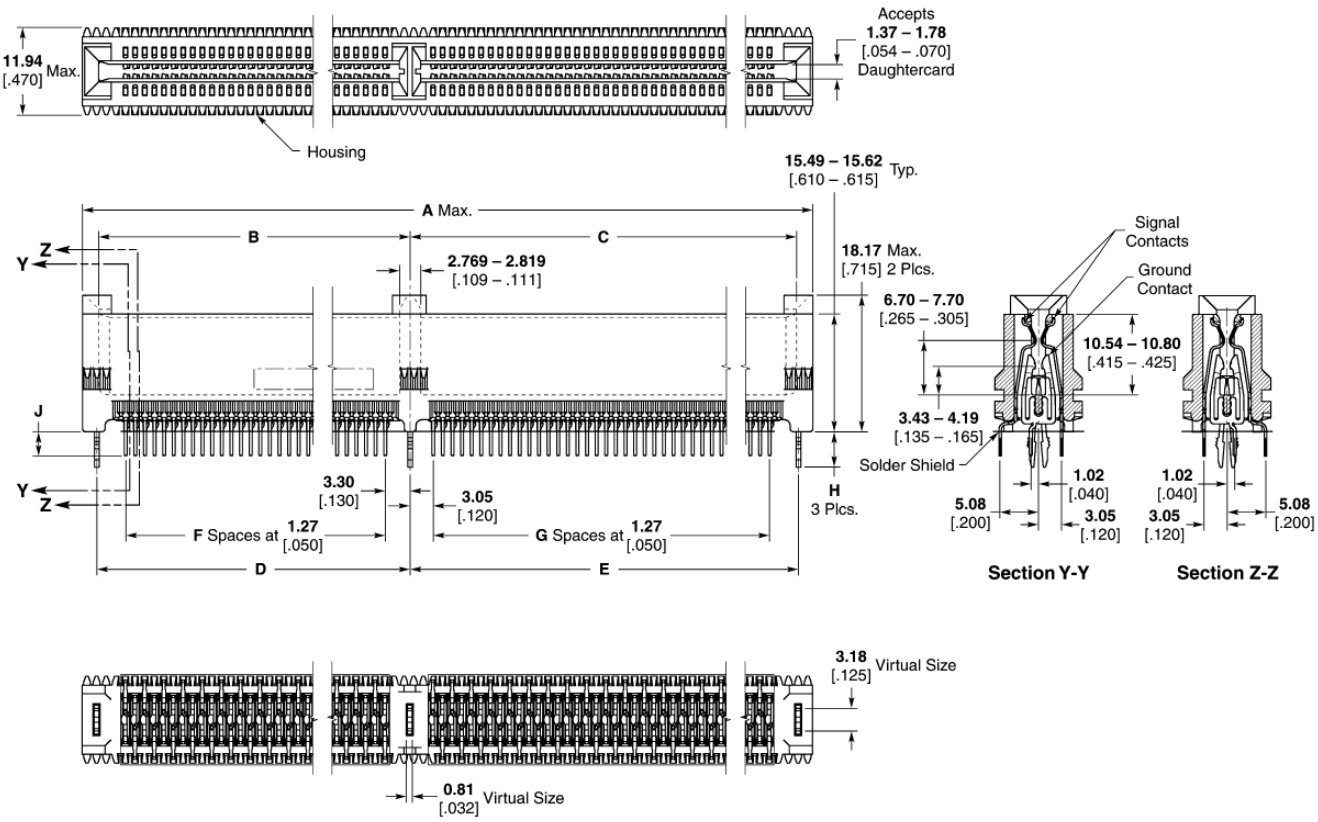
Dimensions are in millimeters and inches unless otherwise specified. Values in brackets are U.S. equivalents.

Dimensions are shown for reference purposes only. Specifications subject to change.

USA: 1-800-522-6752
Canada: 1-905-470-4425
Mexico: 01-800-733-8926
C. America: 52-55-1106-0803

South America: 55-11-2103-6000
Hong Kong: 852-2735-1628
Japan: 81-44-844-8013
UK: 44-8706-080-208

High Speed Standard Edge Connector (Continued)



Dimensions									No. of Dual Positions	Part Number
A	B	C	D	E	F	G	H	J		
155.35 6.116	**66.42-66.68** 2.615-2.625	**83.95-84.20** 3.305-3.315	**66.73-66.88** 2.627-2.633	**84.25-84.40** 3.317-3.323	47	61	**4.44-4.95** .175-.195	**2.29-2.79** .090-.110	110	5145236-1
108.36 4.266	**46.10-46.36** 1.815-1.825	**57.28-57.53** 2.255-2.265	**46.41-46.56** 1.827-1.833	**57.58-57.73** 2.267-2.273	31	40	**4.44-4.95** .175-.195	**2.29-2.79** .090-.110	73	5145236-2
155.35 6.116	**66.42-66.68** 2.615-2.625	**83.95-84.20** 3.305-3.315	**66.73-66.88** 2.627-2.633	**84.25-84.40** 3.317-3.323	47	61	**4.44-4.95** .175-.195	**2.92-3.43** .115-.135	110	5145236-3

Note: All part numbers are RoHS compliant.

Catalog 1773095
Revised 12-08

www.tycoelectronics.com

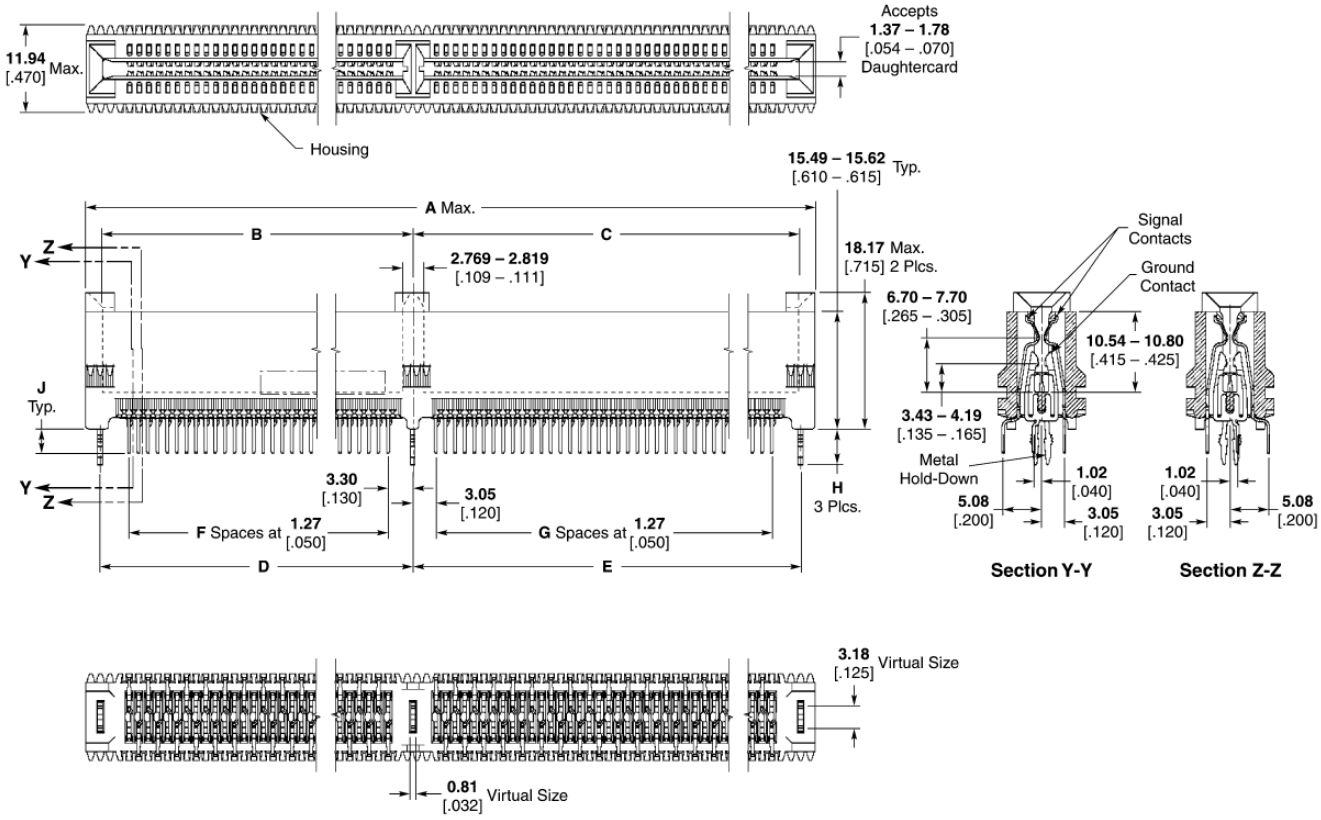
Dimensions are in millimeters and inches unless otherwise specified. Values in brackets are U.S. equivalents.

Dimensions are shown for reference purposes only. Specifications subject to change.

USA: 1-800-522-6752
Canada: 1-905-470-4425
Mexico: 01-800-733-8926
C. America: 52-55-1106-0803

South America: 55-11-2103-6000
Hong Kong: 852-2735-1628
Japan: 81-44-844-8013
UK: 44-8706-080-208

High Speed Standard Edge Connector (Continued)



Catalog 1773095
Revised 12-08

www.tycoelectronics.com

Dimensions are in millimeters and inches unless otherwise specified. Values in brackets are U.S. equivalents.

Dimensions are shown for reference purposes only. Specifications subject to change.

USA: 1-800-522-6752
Canada: 1-905-470-4425
Mexico: 01-800-733-8926
C. America: 52-55-1106-0803

South America: 55-11-2103-6000
Hong Kong: 852-2735-1628
Japan: 81-44-844-8013
UK: 44-8706-080-208

High Speed Standard Edge Connector (Continued)

Dimensions									No. of Dual Positions	Part Number
A	B	C	D	E	F	G	H	J		
79.15 3.116	**33.40-33.66** 1.315-1.325	**40.77-41.02** 1.605-1.615	**33.71-33.66** 1.327-1.333	**41.07-41.22** 1.617-1.623	21	27	**4.44-4.95** .175-.195	**2.29-2.79** .090-.110	50	5145090-1
								2.92-3.43 .115-.135	50	5145090-2
91.85 3.616	**38.48-38.74** 1.515-1.525	**48.39-48.64** 1.905-1.915	**38.79-38.94** 1.527-1.533	**46.69-48.84** 1.917-1.923	25	33	**4.44-4.95** .175-.195	**2.29-2.79** .090-.110	60	5145090-5
								2.92-3.43 .115-.135	60	5145090-6
								4.57-5.08 .180-.200	60	5145090-8
104.55 4.116	**43.56-43.82** 1.715-1.725	**55.01-56.26** 2.205-2.215	**43.87-44.02** 1.727-1.733	**56.31-56.46** 2.217-2.223	29	39	**4.44-4.95** .175-.195	**2.29-2.79** .090-.110	70	5145090-9
								2.92-3.43 .115-.135	70	1-5145090-0
117.25 4.616	**51.18-51.44** 2.015-2.025	**61.09-61.34** 2.405-2.415	**51.49-51.64** 2.027-2.033	**61.39-61.54** 2.417-2.423	35	43	**4.44-4.95** .175-.195	**2.29-2.79** .090-.110	80	1-5145090-3
								2.92-3.43 .115-.135	80	1-5145090-4
129.95 5.116	**56.26-56.52** 2.215-2.225	**68.71-68.96** 2.705-2.715	**56.57-56.72** 2.227-2.233	**69.01-69.16** 2.717-2.723	39	49	**4.44-4.95** .175-.195	**2.29-2.79** .090-.110	90	1-5145090-7
								2.92-3.43 .115-.135	90	1-5145090-8
								3.68-4.19 .145-.165	90	1-5145090-9
142.65 5.616	**61.34-61.60** 2.415-2.425	**76.33-76.58** 3.005-3.015	**61.65-61.80** 2.427-2.433	**76.63-76.78** 3.017-3.023	43	55	**4.44-4.95** .175-.195	**2.29-2.79** .090-.110	100	2-5145090-1
								2.92-3.43 .115-.135	100	2-5145090-2
155.35 6.116	**66.42-66.68** 2.615-2.625	**83.95-84.20** 3.305-3.315	**66.73-66.88** 2.627-2.633	**84.25-84.40** 3.317-3.323	47	61	**4.44-4.95** .175-.195	**2.29-2.79** .090-.110	110	2-5145090-5
								2.92-3.43 .115-.135	110	2-5145090-6
								3.68-4.19 .145-.165	110	2-5145090-7
								4.57-5.08 .180-.200	110	2-5145090-8
168.05 6.616	**71.50-71.76** 2.815-2.825	**91.57-91.82** 3.605-3.615	**71.81-71.96** 2.827-2.833	**91.87-92.02** 3.617-3.623	51	67	**4.44-4.95** .175-.195	**2.29-2.79** .090-.110	120	2-5145090-9
								2.92-3.43 .115-.135	120	3-5145090-0
								3.68-4.19 .145-.165	120	3-5145090-1
180.75 7.116	**79.12-79.38** 3.115-3.125	**96.65-96.90** 3.805-3.815	**79.43-79.58** 3.127-3.133	**96.95-97.10** 3.817-3.823	57	71	**4.44-4.95** .175-.195	**2.29-2.79** .090-.110	130	3-5145090-3
								2.92-3.43 .115-.135	130	3-5145090-4
								3.68-4.19 .145-.165	130	3-5145090-5
108.36 4.266	**46.10-46.36** 1.815-1.825	**57.28-57.53** 2.255-2.265	**46.41-46.56** 1.827-1.833	**57.58-57.73** 2.267-2.273	31	40	**4.44-4.95** .175-.195	**2.29-2.79** .090-.110	73	3-5145090-7*
								2.92-3.43 .115-.135	73	3-5145090-8*

*Alternate Pattern Applies.

Note: All part numbers are RoHS compliant.

Catalog 1773095
Revised 12-08

www.tycoelectronics.com

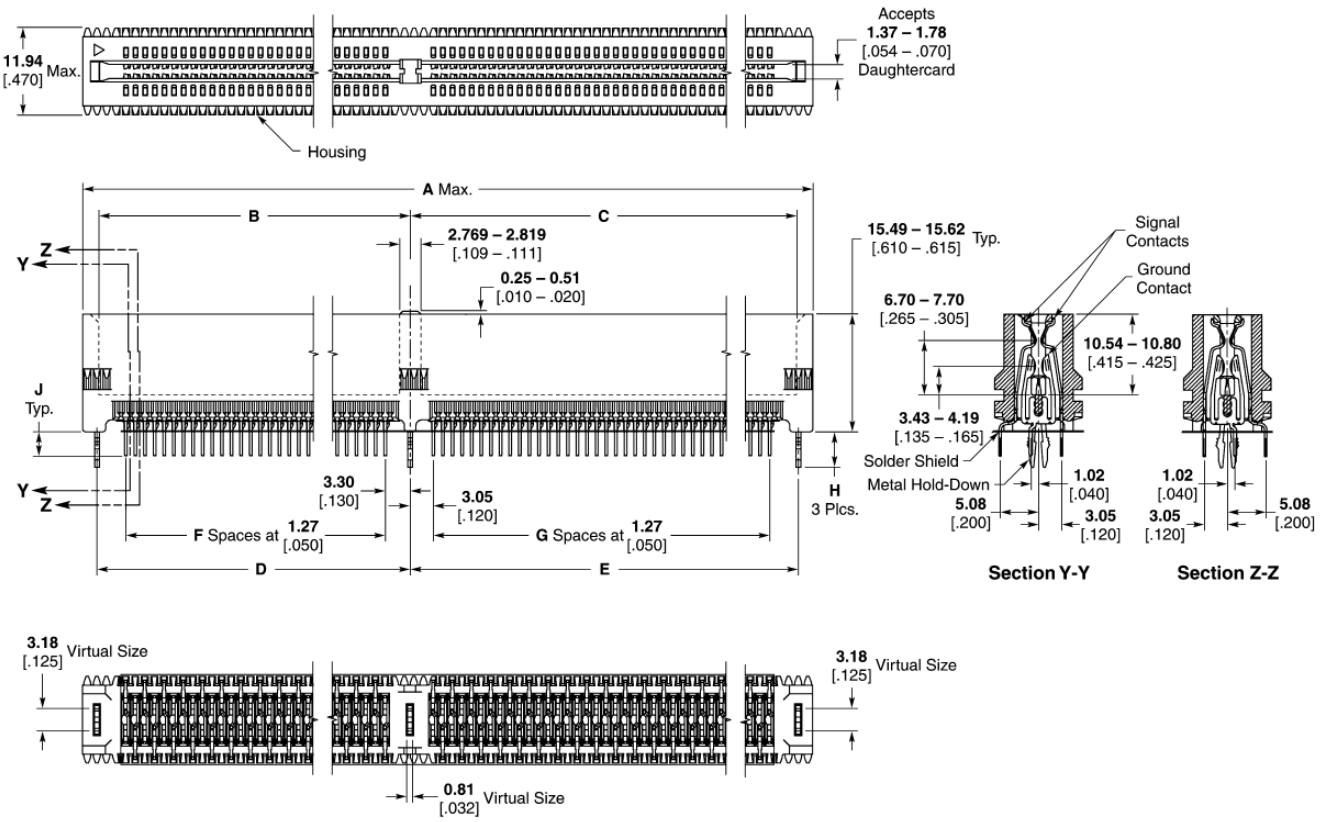
Dimensions are in millimeters and inches unless otherwise specified. Values in brackets are U.S. equivalents.

Dimensions are shown for reference purposes only. Specifications subject to change.

USA: 1-800-522-6752
Canada: 1-905-470-4425
Mexico: 01-800-733-8926
C. America: 52-55-1106-0803

South America: 55-11-2103-6000
Hong Kong: 852-2735-1628
Japan: 81-44-844-8013
UK: 44-8706-080-208

High Speed Standard Edge Connector (Continued)



Dimensions									No. of Dual Positions	Part Number
A	B	C	D	E	F	G	H	J		
108.36 4.266	**46.10-46.36** 1.815-1.825	**57.28-57.53** 2.255-2.265	**46.41-46.56** 1.827-1.833	**57.58-57.73** 2.267-2.273	31	40	**4.44-4.95** .175-.195	**2.29-2.79** .090-.110	73	5145349-1

Note: All part numbers are RoHS compliant.

Catalog 1773095
Revised 12-08

www.tycoelectronics.com

Dimensions are in millimeters and inches unless otherwise specified. Values in brackets are U.S. equivalents.

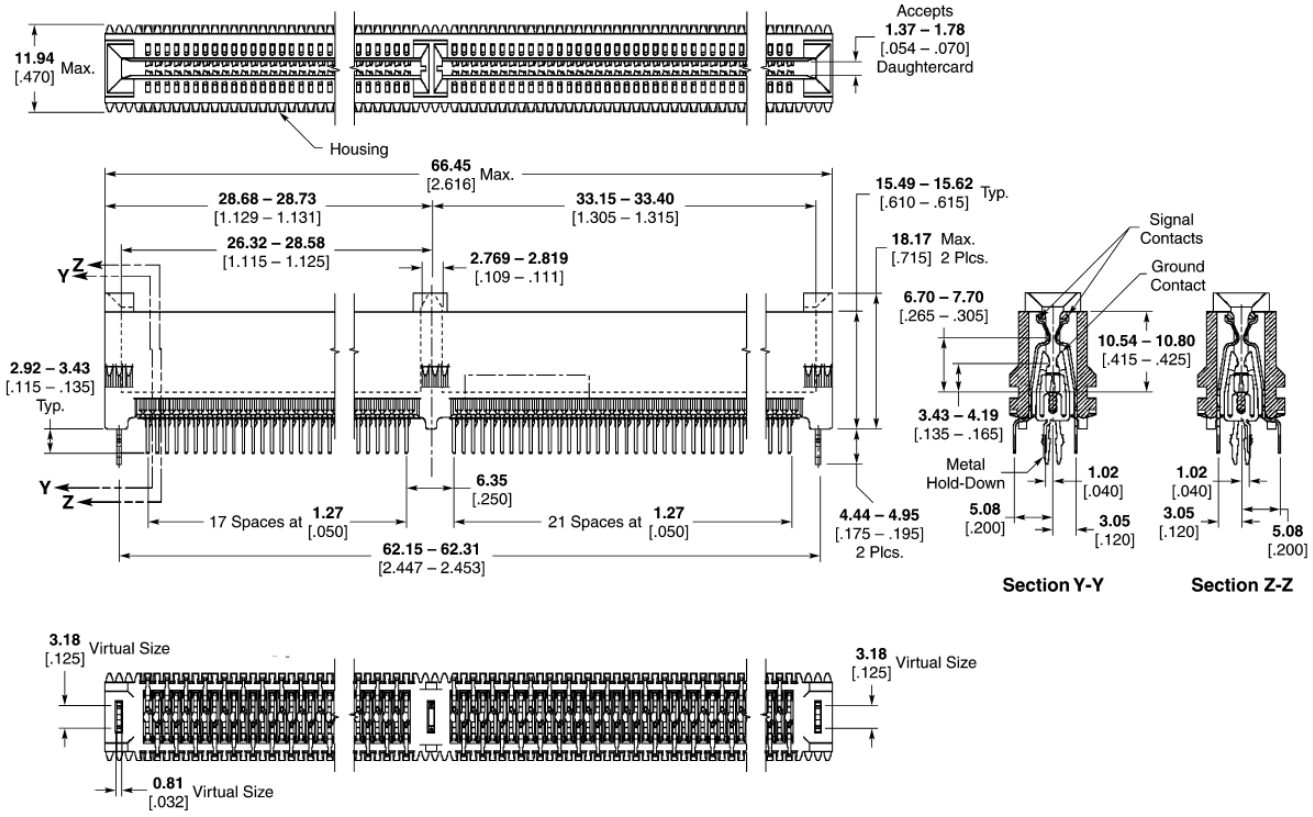
Dimensions are shown for reference purposes only. Specifications subject to change.

USA: 1-800-522-6752
Canada: 1-905-470-4425
Mexico: 01-800-733-8926
C. America: 52-55-1106-0803

South America: 55-11-2103-6000
Hong Kong: 852-2735-1628
Japan: 81-44-844-8013
UK: 44-8706-080-208

High Speed Standard Edge Connector (Continued)

Part Number 5145094-6
30 Dual Positions



Note: All part numbers are RoHS compliant.

Catalog 1773095
Revised 12-08

www.tycoelectronics.com

Dimensions are in millimeters and inches unless otherwise specified. Values in brackets are U.S. equivalents.

Dimensions are shown for reference purposes only. Specifications subject to change.

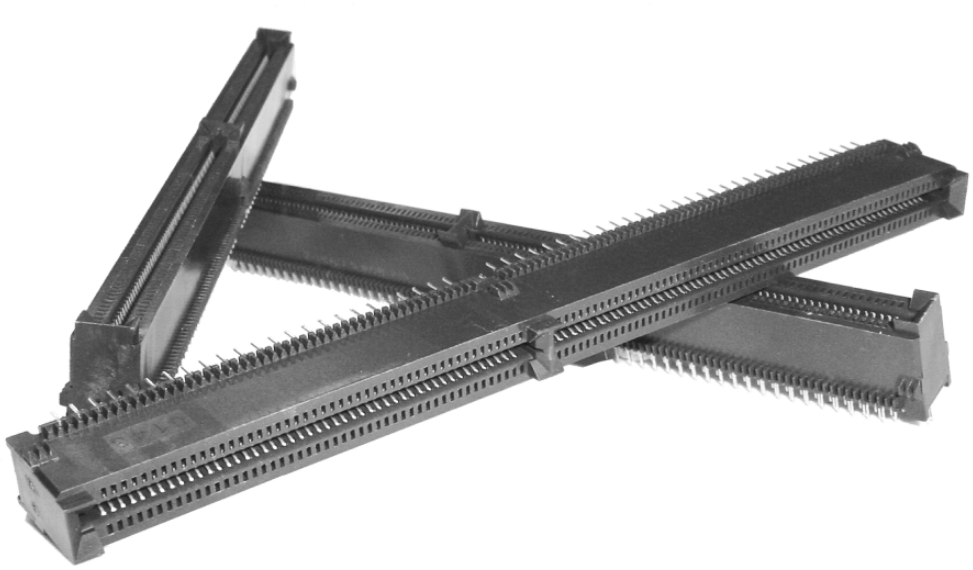
USA: 1-800-522-6752
Canada: 1-905-470-4425
Mexico: 01-800-733-8926
C. America: 52-55-1106-0803

South America: 55-11-2103-6000
Hong Kong: 852-2735-1628
Japan: 81-44-844-8013
UK: 44-8706-080-208

SEC-Z Connector

Product Facts

- **High density card edge connector for high speed signal applications**
- **Used in servers, workstations, high-end PCs**
  - **Memory Expansion connector**
  - **High performance and multiple CPU interface (SPARC®, Alpha, AMD)**
- **0.64 [.025] centerline density with 1.27 [.050] centerline daughtercard allowances**
- **High density: 80 lines/inch**
- **100 cycles, min. durability**
- **Available in sizes from 240 position to 520 position (40 position increments)**



Active Part Numbers (additional sizes may be available)

1.57 [.062] thick daughtercard

240 position	5145427-5
280 position	5145427-5
360 position	1-5145427-7
440 position	6658664-2
520 position	3-5145427-3

2.36 [.093] thick daughtercard

480 position	2-5145400-9

Product Specification

108-1863

Electrical Characteristics

Crosstalk — Less than 1% @ 200 pS, 1:1 signal/ground ratio

Current Rating — 1 ampere/contact

ALPHA is a trademark of Digital Equipment Corporation.

AMD is a trademark of Advanced Micro Devices, Inc.

SPARC is a trademark of SPARC International, Inc.

Note: All part numbers are RoHS compliant.

Catalog 1773095
Revised 12-08

www.tycoelectronics.com

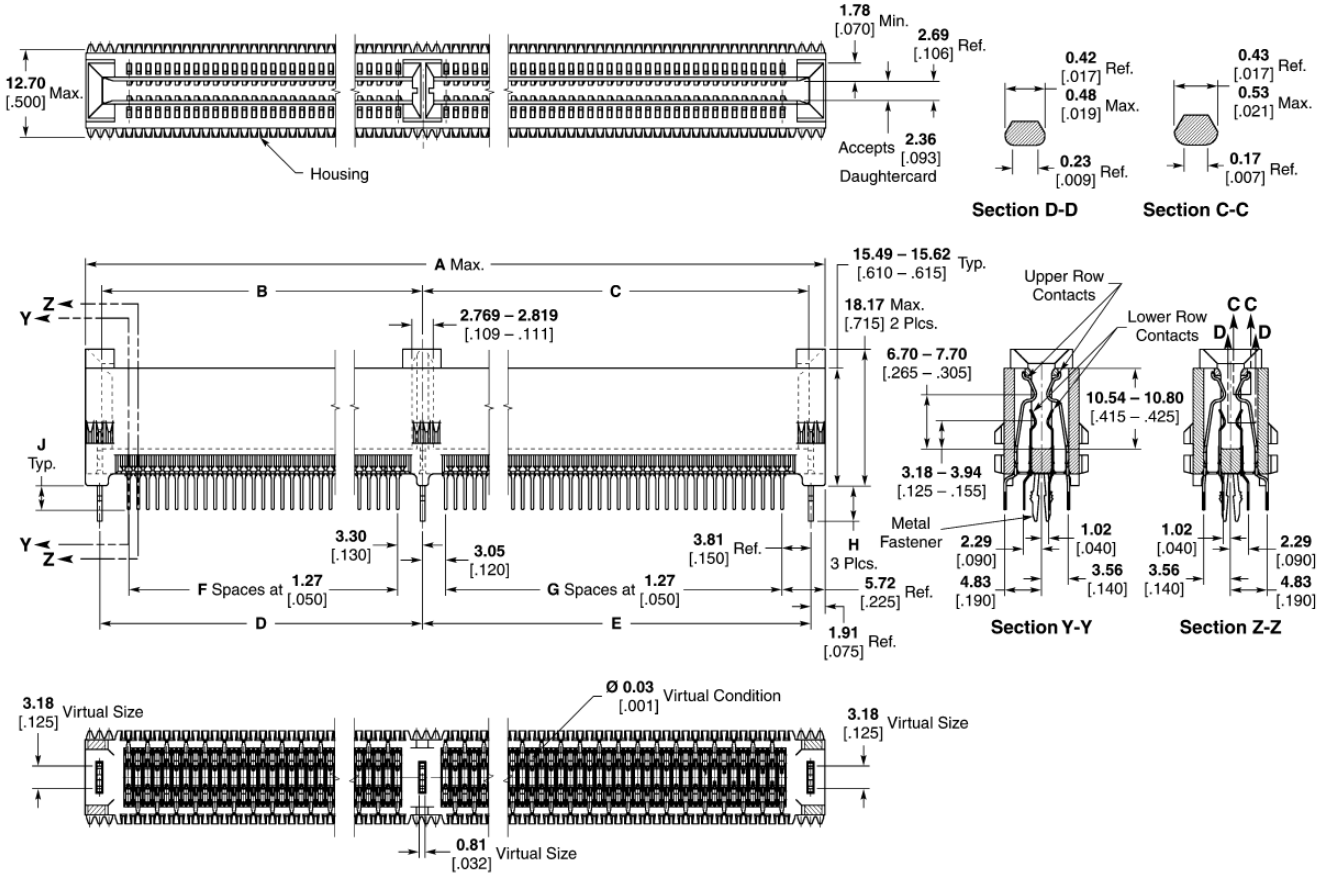
Dimensions are in millimeters and inches unless otherwise specified. Values in brackets are U.S. equivalents.

Dimensions are shown for reference purposes only. Specifications subject to change.

USA: 1-800-522-6752
Canada: 1-905-470-4425
Mexico: 01-800-733-8926
C. America: 52-55-1106-0803

South America: 55-11-2103-6000
Hong Kong: 852-2735-1628
Japan: 81-44-844-8013
UK: 44-8706-080-208

SEC-Z Connector (Continued)



Dimensions									No. of Total Positions	No. of Quad Positions	Part Number
A	B	C	D	E	F	G	H	J			
168.05 6.616	**71.50-71.76** 2.815-2.825	**91.57-91.82** 3.605-3.615	**71.81-71.96** 2.827-2.833	**91.87-92.02** 3.617-3.623	51	67	**4.44-4.95** .175-.195	**2.29-2.79** .090-.110	480	120	6-5145400-1
47.40 1.866	**18.16-18.41** .715-.725	**24.26-24.51** .955-.965	**18.47-18.62** .727-.733	**24.56-24.71** .967-.973	9	14	**4.44-4.95** .175-.195	**2.29-2.79** .090-.110	100	25	2-5145400-9

Note: All part numbers are RoHS compliant.

Catalog 1773095
Revised 12-08

www.tycoelectronics.com

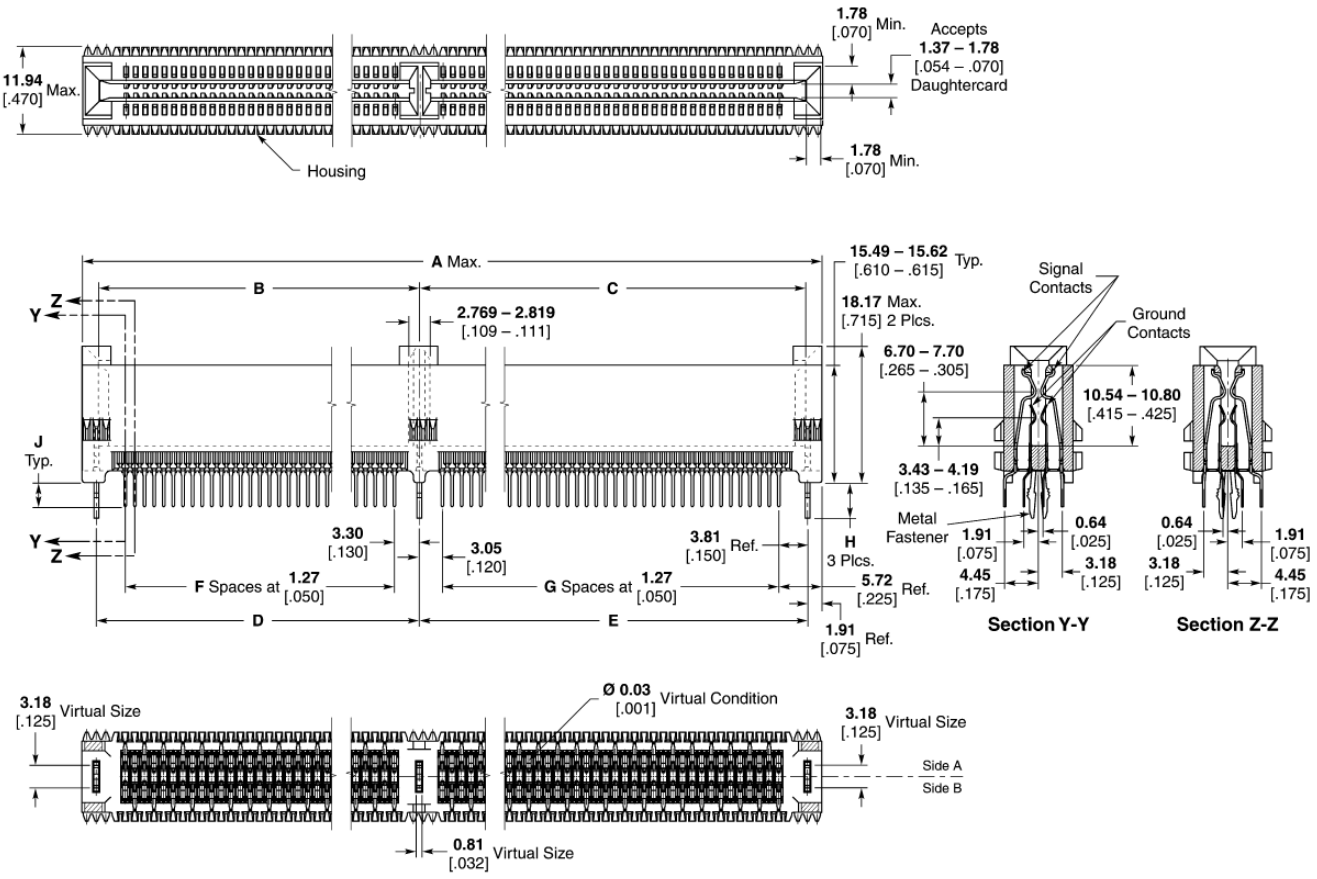
Dimensions are in millimeters and inches unless otherwise specified. Values in brackets are U.S. equivalents.

Dimensions are shown for reference purposes only. Specifications subject to change.

USA: 1-800-522-6752
Canada: 1-905-470-4425
Mexico: 01-800-733-8926
C. America: 52-55-1106-0803

South America: 55-11-2103-6000
Hong Kong: 852-2735-1628
Japan: 81-44-844-8013
UK: 44-8706-080-208

SEC-Z Connector (Continued)



Dimensions									No. of Total Positions	No. of Quad Positions	Part Number
A	B	C	D	E	F	G	H	J			
91.85 3.616	**38.48-38.74** 1.515-1.525	**48.39-48.64** 1.905-1.915	**38.79-38.94** 1.527-1.533	**48.69-48.84** 1.917-1.923	25	33	**4.44-4.95** .175-.195	**2.29-2.79** .090-.110	240	60	5145427-5
104.55 4.116	**43.56-43.82** 1.715-1.725	**56.01-56.26** 2.205-2.215	**43.87-44.02** 1.727-1.733	**56.31-56.46** 2.217-2.223	29	39	**4.44-4.95** .175-.195	**2.29-2.79** .090-.110	280	70	5145427-9
129.95 5.116	**56.26-56.52** 2.215-2.225	**68.71-68.96** 2.705-2.715	**56.57-56.72** 2.227-2.233	**69.01-69.16** 2.717-2.723	39	49	**4.44-4.95** .175-.195	**2.29-2.79** .090-.110	360	90	1-5145427-7
155.35 6.116	**66.42-66.68** 2.615-2.625	**83.95-84.20** 3.305-3.315	**66.73-66.88** 2.627-2.633	**84.25-84.40** 3.317-3.323	47	61	**4.44-4.95** .175-.195	**2.29-2.79** .090-.110	440	110	6658664-2*
180.75 7.116	**79.12-79.38** 3.115-3.125	**96.65-96.90** 3.805-3.815	**79.43-79.58** 3.127-3.133	**96.95-97.10** 3.817-3.823	57	71	**4.44-4.95** .175-.195	**2.29-2.79** .090-.110	520	130	3-5145427-3
206.15 8.116	**89.28-89.54** 3.515-3.525	**111.89-112.14** 4.405-4.415	**89.59-89.74** 3.527-3.533	**112.19-112.34** 4.417-4.423	65	83	**4.44-4.95** .175-.195	**2.29-2.79** .090-.110	600	150	4-5145427-1
237.90 9.366	**103.25-103.51** 4.065-4.075	**129.67-129.92** 5.105-5.115	**103.56-103.71** 4.077-4.083	**129.97-130.12** 5.12-5.12	76	97	**4.44-4.95** .175-.195	**2.29-2.79** .090-.110	700	175	5-5145427-3

*Contact Area Lubricated with Bellcore Approved Lubricant. Technical Reference GR-1217-Core. Issue 1, November 1995.

Note: All part numbers are RoHS compliant.

Catalog 1773095
Revised 12-08

www.tycoelectronics.com

Dimensions are in millimeters and inches unless otherwise specified. Values in brackets are U.S. equivalents.

Dimensions are shown for reference purposes only. Specifications subject to change.

USA: 1-800-522-6752
Canada: 1-905-470-4425
Mexico: 01-800-733-8926
C. America: 52-55-1106-0803

South America: 55-11-2103-6000
Hong Kong: 852-2735-1628
Japan: 81-44-844-8013
UK: 44-8706-080-208