EDGE® RATE SYSTEM

RUGGED HIGH-SPEED STRIPS

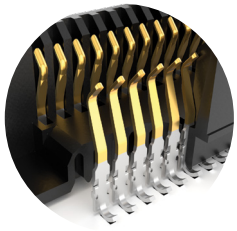
NRZ 28 Gbps | PAM4 56 Gbps

FEATURES & BENEFITS

Edge Rate® rugged high-speed connector strips are designed for high-speed, high cycle applications, and enabled by Samtec's signal integrity-optimized Edge Rate® contact system.

- Up to 1.5 mm contact wipe for a reliable connection
- 20 to 200 positions
- Choice of 0.50 mm, 0.635 mm or 0.80 mm pitch
- 0.50 mm pitch system offers up to 40% PCB space savings vs. 0.80 mm pitch
- 0.635 mm pitch system with extremely slim 2.5 mm body width
- Rugged latching, extended guide posts and 360° shielding
- Severe Environment Testing qualified (ERM8/ERF8); aligns with MIL-DTL-55302. Visit **samtec.com/set**

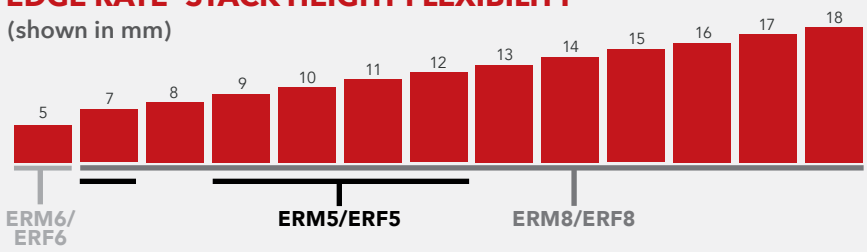
EDGE® RATE CONTACT

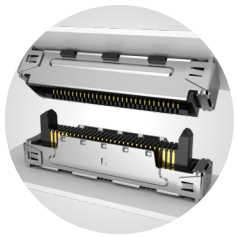


Signal integrity-optimized Edge Rate® contact system reduces broadside coupling

EDGE RATE® STACK HEIGHT FLEXIBILITY

(shown in mm)





Rugged 360° shielding reduces EMI

KEY SPECIFICATIONS

SERIES	PITCH	INSULATOR MATERIAL	TERMINAL MATERIAL	PLATING	OPERATING TEMP RANGE	CURRENT RATING	VOLTAGE RATING	LEAD-FREE SOLDERABLE
ERM5 / ERF5	0.50 mm	Black LCP	Phosphor Bronze or BeCu (ERM5), BeCu (ERF5)	Au or Sn over 50 µ" (1.27 µm) Ni	-55 °C to +125 °C	1.5 A	190 VAC/ 269 VDC	Yes
ERM6 / ERF6	0.635 mm		Copper Alloy			1.4 A	155 VAC/ 219 VDC	
ERM8 / ERF8	0.80 mm		Phosphor Bronze or BeCu (ERM8), BeCu (ERF8)			1.4 A	225 VAC/ 318 VDC	

EDGE® RATE SYSTEM

PAM4 56 Gbps

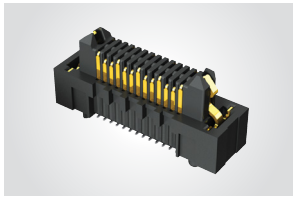
(0.80 mm) .0315" PITCH • RUGGED HIGH-SPEED HEADERS & SOCKETS

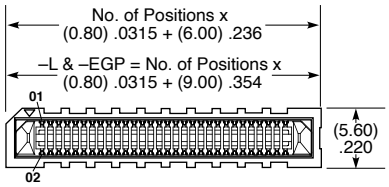
TYPE	POSITIONS PER ROW	LEAD STYLE	PLATING OPTION	DV	OPTIONS	"X"R
ERM8 = Header **ERF8** = Socket	**–005, –010, –011, –013, –020, –025, –030, –035, –040, –049, –050, –060, –070, –075, –100** (100 Position Only Available with ERM8–09.0 & ERF8–05.0 Lead Styles; –L or –EGP N/A)	SPECIFY LEAD STYLE FROM CHART	**–L** = 10 µ" (0.25 µm) Gold on contact, Matte Tin on tail **–S** = 30 µ" (0.76 µm) Gold on contact, Matte Tin on tail		**–DS** = Differential Pair (ERM8 –05.0 Lead Style with –010, –013, –025, –049 Positions only) (–P not available) **–L** = Latching (ERM8 –03.0, –05.0 & –09.0 Lead Styles only & –EGP Option not available) (ERF8 –05.0,–07.0 & –09.0 Lead Style only, –L & –EGP Options not available) **–EGP** = Extended Guide Post (ERM8 –05.0 & ERF8 –07.0 Lead Style Only & –L Option not available) **–DSP** = Differential Pair with Extended Guide Post (ERM8 –05.0 Lead Style with –013 and –025 Positions only) **–K** = Polyimide Film Pick & Place Pad (–02.0 Lead Style not available) **–P** = Pick & Place Pad (ERM8 –02.0, –03.0 & –05.0 Lead Styles only) (–DS not available)	**–TR** = Tape & Reel (100 Positions N/A) **–FR** = Full Reel Tape & Reel (must order maximum quantity per reel; contact Samtec for quantity breaks) (100 Positions N/A)

ERM8

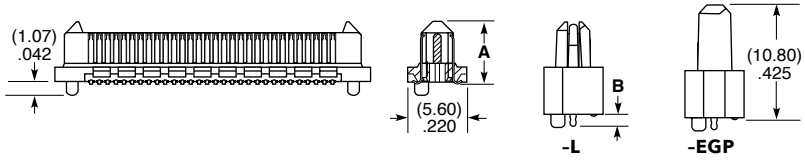
Board Mates: ERF8

Cable Mates: ERCD, ERDP





ERM8 LEAD STYLE	A	B
–02.0	(5.97) .235	N/A
–03.0	(6.97) .274	(1.60) .063
–05.0	(8.91) .351	(1.17) .046
–08.0	(11.91) .469	N/A
-09.0	(12.91) .508	(1.60) .063



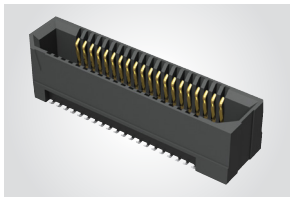
View complete specifications at: **samtec.com?ERM8**

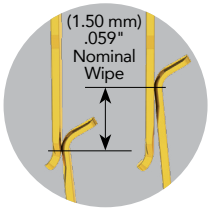
ERF8

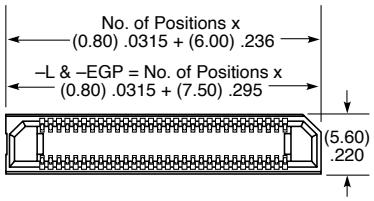
Board Mates: ERM8

ERF8

Cable Mates: ERCD, ERDP



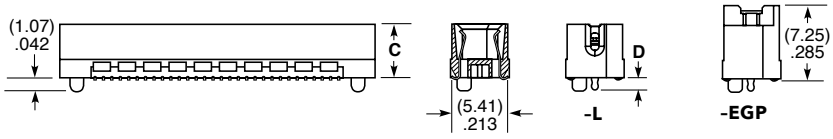




ERF8 LEAD STYLE	C	D
–05.0	(5.34) .210	(1.60) .063
–07.0	(7.25) .285	(1.17) .046
-09.0	(9.34) .368	(1.60) .063

ERM8 LEAD STYLE	MATED HEIGHT* ERF8 LEAD STYLE –05.0	–07.0	–09.0
–02.0	(7.00) .276	(9.00) .354	(11.00) .433
–03.0	(8.00) .315	(10.00) .394	(12.00) .472
–05.0	(10.00) .394	(12.00) .472	(14.00) .551
–08.0	(13.00) .512	(15.00) .591	(17.00) .669
–09.0	(14.00) .551	(16.00) .630	(18.00) .709

*Processing conditions will affect mated height.



Notes:
Severe Environment Testing qualified; aligns with MIL-DTL-55302. Visit samtec.com/set

Some lengths, styles and options are non-standard, non-returnable.

View complete specifications at: **samtec.com?ERF8**

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

Samtec:

ERM8-020-02.0-S-DV-K-TR ERM8-013-02.0-L-DV-K-TR ERM8-060-02.0-L-DV-K-TR ERM8-050-02.0-L-DV-K-TR ERM8-020-02.0-L-DV-K-TR ERM8-025-02.0-S-DV-K-TR ERM8-040-02.0-L-DV-K-TR ERM8-060-02.0-S-DV-K-TR ERM8-075-02.0-S-DV-K-TR ERM8-030-02.0-L-DV-K-TR ERM8-013-02.0-S-DV-K-TR ERM8-005-02.0-S-DV-K-TR ERM8-005-02.0-L-DV-K-TR ERM8-070-02.0-L-DV-K-TR ERM8-030-02.0-S-DV-K-TR ERM8-010-02.0-L-DV-K-TR ERM8-050-02.0-S-DV-K-TR ERM8-075-02.0-L-DV-K-TR ERM8-040-02.0-S-DV-K-TR ERM8-070-05.0-L-DV-TR ERM8-049-05.0-S-DV-DS-L-TR ERM8-060-05.0-S-DV-L-TR ERM8-070-03-L-D-RA-L-TR ERM8-070-03-S-D-RA-TR ERM8-070-05.0-S-DV-EGP-K-TR ERM8-075-05.0-S-DV-L-K-TR ERM8-035-02.0-L-DV-K-TR ERM8-035-02.0-S-DV-K-TR ERM8-013-05.0-S-DV-DS-EGP-TR ERM8-049-5.0-L-DV-DS-EGP-TR ERM8-060-01-L-D-EM2-L-TR ERM8-060-01-S-D-RA-K-TR ERM8-070-01-S-D-RA-L-TR ERM8-075-01-S-D-RA-L-K-TR ERM8-075-05.0-S-DV-EGP-TR ERM8-049-05.0-S-DV-TR ERM8-049-09.0-L-DV-K-TR ERM8-050-08.0-L-DV-TR ERM8-060-03-L-D-RA-L-TR ERM8-060-03-L-D-RA-TR ERM8-075-03-S-D-RA-TR ERM8-075-05.0-L-DV-EGP-TR ERM8-070-02.0-S-DV-K-TR ERM8-070-03-S-D-RA-K-TR ERM8-075-01-S-D-EM2-L-TR ERM8-075-08.0-L-DV-K-TR ERM8-025-05.0-L-DV-DS-EGP-K-TR ERM8-050-03-S-D-RA-K-TR ERM8-060-01-S-D-EM2-L-TR ERM8-070-01-L-D-RA-L-TR ERM8-070-05.0-S-DV-TR ERM8-049-05.0-S-DV-EGP-TR ERM8-049-05.0-S-DV-L-TR ERM8-060-05.0-L-DV-EGP-K-TR ERM8-060-09.0-S-DV-TR ERM8-070-05.0-S-DV-L-K-TR ERM8-075-01-S-D-RA-TR ERM8-075-03-L-D-RA-TR ERM8-050-03-L-D-RA-L-K-TR ERM8-060-01-S-D-EM2-TR ERM8-060-05.0-L-DV-EGP-TR ERM8-070-01-S-D-RA-TR ERM8-070-09.0-S-DV-TR ERM8-075-08.0-S-DV-TR ERM8-049-05.0-S-DV-K-TR ERM8-050-05.0-L-DV-EGP-K-TR ERM8-049-02.0-L-DV-K-TR ERM8-049-08.0-S-DV-TR ERM8-050-05.0-S-DV-L-K-TR ERM8-060-03-L-D-RA-L-K-TR ERM8-070-01-L-D-EM2-TR ERM8-070-08.0-L-DV-TR ERM8-075-05.0-L-DV-EGP-K-TR ERM8-049-05.0-S-DV-DS-TR ERM8-049-5.0-S-DV-DS-EGP-TR ERM8-050-01-S-D-RA-L-K-TR ERM8-060-01-S-D-RA-L-K-TR ERM8-060-05.0-S-DV-L-K-TR ERM8-070-08.0-L-DV-K-TR ERM8-075-03-L-D-RA-K-TR ERM8-075-05.0-S-DV-EGP-K-TR ERM8-070-01-L-D-RA-L-K-TR ERM8-070-09.0-S-DV-K-TR ERM8-075-03-S-D-RA-L-K-TR ERM8-30-05.0-L-DV-EGPS-K-TR ERM8-30-05.0-S-DV-EGPS-K-TR ERM8-070-05.0-L-DV-EGP-K-TR ERM8-070-05.0-L-DV-L-K-TR ERM8-075-05.0-S-DV-TR ERM8-060-05.0-S-DV-EGP-TR ERM8-060-01-S-D-RA-TR ERM8-070-05.0-L-DV-EGP-TR ERM8-025-02.0-L-DV-K-TR ERM8-070-01-S-D-EM2-TR ERM8-050-01-S-D-EM2-TR ERM8-075-05.0-L-DV-L-TR ERM8-070-05.0-L-DV-L-TR ERM8-070-05.0-S-DV-EGP-TR ERM8-070-01-S-D-RA-L-K-TR ERM8-070-03-S-D-RA-L-K-TR