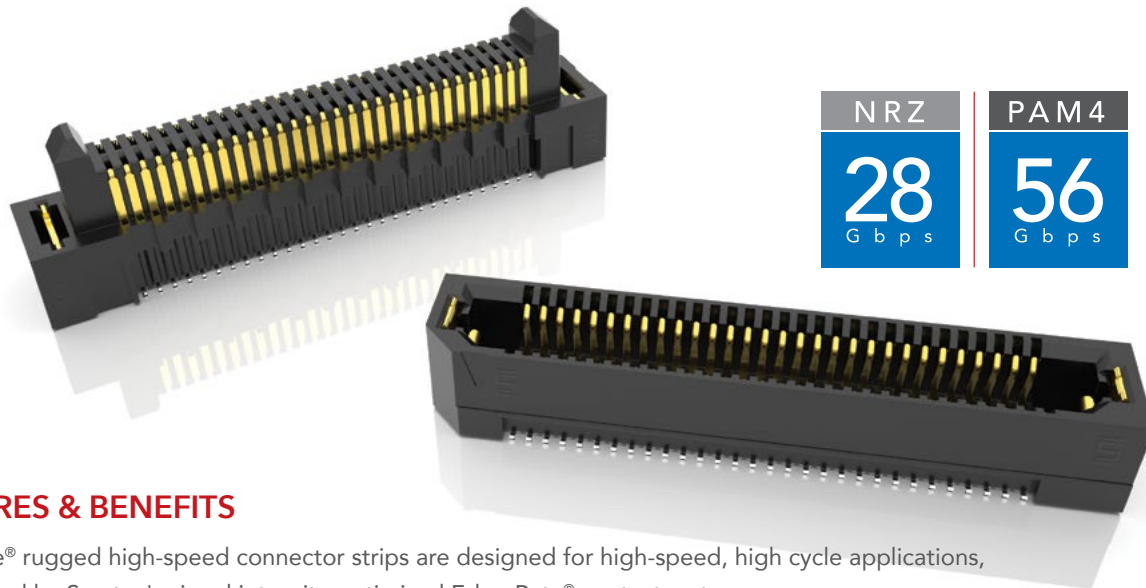




**THE DATASHEET OF  
ERF8-020-07.0-S-DV-K-TR**



# RUGGED HIGH-SPEED STRIPS

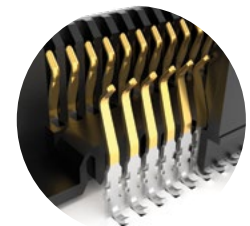


NRZ	PAM4
28 Gbps	56 Gbps

## 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](http://samtec.com/set)



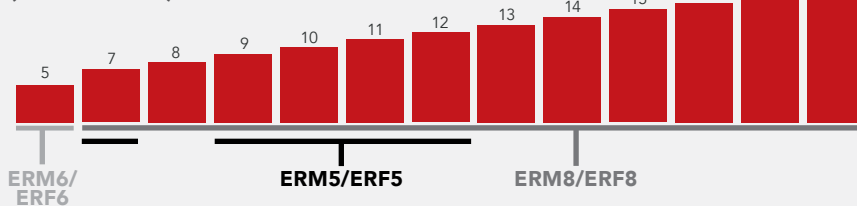
Signal integrity-optimized Edge Rate® contact system reduces broadside coupling



Rugged 360° shielding reduces EMI

### EDGE RATE® STACK HEIGHT FLEXIBILITY

(shown in mm)



## 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 μm (1.27 μm) Ni	-55 °C to +125 °C	1.5 A	190 VAC	Yes
ERM6 / ERF6	0.635 mm		Copper Alloy			1.4 A	155 VAC	
ERM8 / ERF8	0.80 mm		Phosphor Bronze or BeCu (ERM8), BeCu (ERF8)			1.4 A	225 VAC	

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

TYPE	POSITIONS PER ROW	LEAD STYLE	PLATING OPTION	DV	OPTIONS	"X"R
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**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**

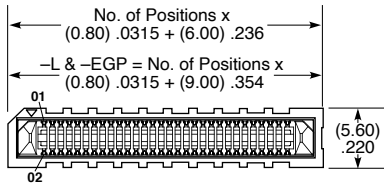
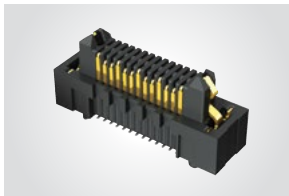
**-L**  
= 10 μ" (0.25 μm)  
Gold on contact,  
Matte Tin on tail  
**-S**  
= 30 μ" (0.76 μm)  
Gold on contact,  
Matte Tin on tail

**-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)

**-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



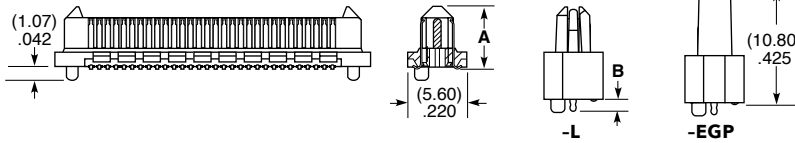
ERM8 LEAD STYLE	A	B
-02.0	(5.97) .235	N/A
-03.0	(6.97) .274	(1.60) .063
-05.0	(8.91) .351	(1.17) .046
-08.0	(11.91) .469	N/A
-09.0	(12.91) .508	(1.60) .063

**-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)

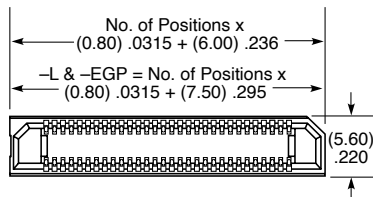
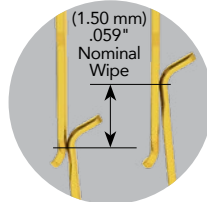
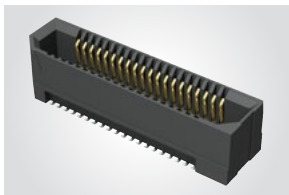
**-P**  
= Pick & Place Pad  
(ERM8 -02.0, -03.0 & -05.0 Lead Styles only) (-DS not available)



View complete specifications at: [samtec.com?ERM8](http://samtec.com?ERM8)

**ERF8**  
Board Mates:  
ERM8

**ERF8**  
Cable Mates:  
ERCD, ERDP

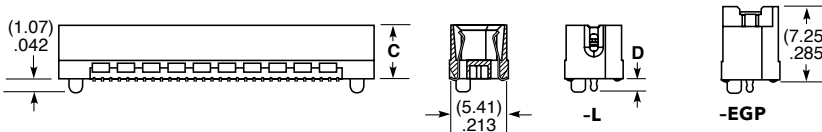


ERF8 LEAD STYLE	C	D
-05.0	(5.34) .210	(1.60) .063
-07.0	(7.25) .285	(1.17) .046
-09.0	(9.34) .368	(1.60) .063

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](http://samtec.com/set)





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

View complete specifications at: [samtec.com?ERF8](http://samtec.com?ERF8)

## Looking for pricing, stock, or lifecycle information?

Click below to explore more details on WIN SOURCE:

-  [View ERF8-020-07.0-S-DV-K-TR on WIN SOURCE](#)
-  [Samtec Inc. Information](#)

## Optimize Your Supply Chain with WIN SOURCE Solutions

-  Global Sourcing Solution
-  Obsolete Management
-  Cost Control Management
-  Shortage Management
-  Alternative Solution
-  Excess Inventory Management