

MICRO RUGGED

INTERCONNECT SOLUTIONS GUIDE

MICRO RUGGED INTERCONNECT SOLUTIONS

Rugged contact systems, flexible power interconnects and rugged signal integrity create the foundation of Samtec's micro rugged solutions for high cycle, high speed, high power and harsh environment applications. Samtec's rugged products are offered in conjunction with full engineering support, online tools and a service attitude that is unmatched in the connector industry.

RUGGED CONTACT SYSTEM

1,000+ MATING CYCLES

TIGER EYE[™] HEAT-TREATED BeCu CONTACTS

MULTIPLE POINTS OF CONTACT FOR HIGH-RELIABILITY



FLEX POWER

3 TO 60 AMPS

CONFIGURABILITY OF POWER & SIGNAL

SPACE-SAVING FORM FACTOR

RUGGED SIGNAL INTEGRITY

HIGH SPEEDS TO 56 Gbps PAM4

EDGE RATE® CONTACT DESIGN INCREASES WEAR LIFE

> EXPERTISE IN SIGNAL INTEGRITY DESIGN & ANALYSIS



RUGGED CONTACT SYSTEMS

Tiger Eye[™] contact system for high-reliability in rugged applications 1,000+ mating cycles 0.80 mm to 2.00 mm pitch Board-to-board, discrete wire and IDC cable assemblies

RUGGED SIGNAL INTEGRITY SYSTEMS

Edge Rate^{*} contact system for rugged signal integrity performance Performance to 56 Gbps PAM4 0.50 mm, 0.635 mm and 0.80 mm pitch Edge card and ultra-micro connectors

FLEXIBLE POWER SYSTEMS

Ultra-micro power to 17 A and incredible design flexibility Individually shrouded contacts Small form factor, high power systems to 60 A Board-to-board and cable assemblies

SEALED I/O SYSTEMS

IP67 and IP68 rated for dust and water Variety of circular shell sizes with power, power/signal pinouts Rectangular designs for space savings Rugged latching



4-7







16-17

Modified & Custom Solutions	. 18
Rugged Features	19
Power Integrity & Extended Life Product™	. 20
Severe Environment Testing	. 21
Solutionator [®]	. 22
Fechnology Centers	. 23

RUGGED TIGER EYE[™] SYSTEMS

HIGH-RELIABILITY • MULTI-FINGER BeCu CONTACT • HIGH MATING CYCLES



2.00 mm PITCH TIGER EYE™

- Tiger Eye[™] is Samtec's most rugged contact system rated to 1,000+ mating cycles
- Wide range of stack heights
- Right-angle mating headers available
- Optional screw downs, weld tabs and locking clips
- Discrete wire assemblies available in 24-30 AWG PVC or Teflon® wire



EMI shielded 2.00 mm iger Eye™ discrete wire assembly (SS2SD/ST2M)



Components (ISD2/CC81) & tooling available: samtec.com/tooling



TIGER EYE[™] CONTACT SYSTEM

- Multi-finger design with several points of contact for high-reliability
- Smooth, flat mating area increases mating cycles and lowers contact resistance
- Heat-treated BeCu for the best combination of mechanical and electrical properties
- Surface mount, micro slot tail increases solder surface area for higher joint strength



1.27 mm PITCH TIGER EYE[™]

- Screw down, locking clip, friction latching and weld tab ruggedizing options
- Shrouded, polarized and keyed
- Discrete wire assemblies available in single or double row, 28 and 30 AWG PVC or Teflon® wire
- Cable components (ISDF/CC03) and tooling available

Dupont[™] Teflon® is a registered trademark of the E.I. du Pont de Nemours and Company or its affiliates.



IDC cable assemblies with rugged strain relief (FFSD/FFMD, FFTP/FMTP)



Locking for increased unmating force (SFML/TFML)

RUGGED TIGER EYE[™] SYSTEMS

HIGH-RELIABILITY • MULTI-FINGER BeCu CONTACT • HIGH MATING CYCLES

0.80 mm PITCH TIGER EYE[™] • Micro pitch and slim body for space-savings • 6 mm, 7 mm and 10 mm stack heights Locking clip, alignment pins and weld tab ruggedizing features • Discrete wire assembly available with Rugged latching 32 AWG Teflon® wire system for increased withdrawal force Extended Life Product[™] testing available **TEM/SEM** TEMS/ SEMS SESDT/ TEM-L1 LLI TEM/ Vertical and right-angle SEM mating headers





1.00 mm PITCH CABLE SYSTEM

- Crimp-style dual leaf contact system for reliable wire-to-board connection
- \bullet 28 and 30 AWG cable options in PVC or Teflon $^{\circ}$
- Rugged positive latching for increased retention
- Socket or terminal, single or double row assemblies
- Vertical and right-angle mating headers



Dual leaf contact system or a reliable connection

Components (ISS1, ISD1/CC09; T1SS, T1SD, T1PS, T1PD/T1M137-X) and tooling available: samtec.com/tooling Custom solutions available (twisted pair cable shown): asp@samtec.com

RUGGED SI EDGE RATE® SYSTEMS

OPTIMIZED FOR SI PERFORMANCE • INCREASED CONTACT WIPE • HIGH CYCLES

0.50 mm PITCH EDGE RATE[®]

- 1.00 mm contact wipe for a reliable connection
- Rugged friction locks and weld tabs available
- Up to 40% PCB savings vs. ERM8/ERF8
- Compatible with UMPT/UMPS for flexible power/signal solutions





0.635 mm PITCH EDGE RATE[®]

- Extremely slim 2.5 mm body width
- Up to 120 positions in a 2-row design
- 5 mm stack height with others in development
- Compatible with UMPT/UMPS for flexible power/signal solutions

Sockets shown actual size at 40 total positions ERX5 ERX6 ERX8





EDGE RATE[®] CONTACT SYSTEM

- Smooth milled mating surface reduces wear and increases durability
- Lower insertion and withdrawal forces
- Robust when "zippered" during unmating
- Minimized parallel surface area reduces broadside coupling and crosstalk
- \bullet Designed, simulated and optimized for 50 Ω and 100 Ω systems



RUGGED SI EDGE CARD

UP TO 56 Gbps PAM4 • CHOICE OF PITCH • EDGE RATE® CONTACTS

0.80 mm & 1.00 mm PITCH SYSTEMS

• High-speed Edge Rate[®] contact system • Vertical, right-angle and edge mount • Power/signal combo to 60 A per power bank Pass-through application HSEC8 **HSEC8-PV** 56 Gbps with differential pair (HSEC8-DP) Misalignment mitigation (HSEC1-DV) HSEC1-DV

HIGH-DENSITY EDGE CARD

- Justification beam enables use of standard PCB tolerance
- 0.50 mm ultra-fine pitch with up to 300 total I/Os
- PCIe[®] Gen 4 compatible

MICRO EDGE CARDS

- 0.635 mm, 0.80 mm, 1.00 mm, 1.27 mm and 2.00 mm pitch
- Optional rugged weld tabs, board locks and solder locks
- Solutions for 1.60 mm (.062") and 2.36 mm (.093") thick cards



PCI-SIG[®] , PCI Express[®] and the PCIe[®] design marks are registered trademarks and/or service marks of PCI-SIG.

RUGGED SI MICRO SYSTEMS

HIGH-DENSITY • HIGH-RETENTION CONTACTS • SLIM ROW-TO-ROW DESIGNS

<image><list-item><list-item><list-item><list-item><list-item>

FLOATING CONNECTORS

- Provides 0.50 mm contact float in the X and Y axes to compensate for misalignment
- 5 mm and 7 mm stack heights
- Micro 0.50 mm pitch

ONE-PIECE INTERFACES

- Robust design and mechanical hold-downs for high-shock and vibration applications
- Optional rugged weld tabs and locking clips
- 1.00 mm, 1.27 mm and 2.54 mm pitch designs



FSI

Profiles from 1.65 mm to 10 mm

FLEXIBLE POWER ULTRA MICRO POWER

17.1 A PER BLADE • MICRO 2.00 mm PITCH • DESIGN FLEXIBILITY

MICRO 2.00 mm PITCH

- Design flexibility as a power-only system or a two-piece system for power/signal applications
- Use with Samtec's high-speed connector systems for a unique power/signal system (see chart)

mPOWER

- Tin or 10 μ" Gold plated power blades; 30 μ" Gold plating available to meet specific regulations
- Selectively loading contacts achieves customer specific creepage and clearance requirements; contact asp@samtec.com



PRODUCT ROADMAP

Samtec now offers power simulation that can calculate temperature increase in the connector area; contact microruggedgroup@samtec.com for more details.

		Vertical UMPT & UMPS Series
SE 1	5 Position, 5 mm Stack Height	POSITIONS STACK HEIGHTS 2, 3, 4, 5 5, 7, 8, 10
PHA		Length, width and height shown actual size
~	2.0 P	Vertical UMPT & UMPS Series
ASE		POSITIONS STACK HEIGHTS
H	6 Position, 9 mm Stack Height	6, 7, 8, 9, 10 6, 9, 11, 12, 14, 16
ო		Right-Angle UMPT Series
ASE		POSITIONS OPTIONS
PH	10 Position Right-Angle	2, 3, 4, 5, 6, Latch for 7, 8, 9, 10 mating with cable assembly
4		Cable Assembly with Latch
Ш S	5222 2011	POSITIONS MATES
PHA	4 Position Cable Assembly and UMPT Right-Angle with Staged Blades	7, 8, 9, 10 vertical and right-angle with latch

FLEXIBLE POWER HIGH-POWER

SMALL FORM FACTORS • 10-60 A PER PIN/BLADE • INDIVIDUALLY SHROUDED CONTACTS

Metal or plastic rugged latching system

MINI MATE[®] & POWER MATE[®]

- Individually shrouded contacts for electrical and mechanical protection
- .100" (2.54 mm) and .165" (4.19 mm) pitch
- Discrete wire assemblies with 16-30 AWG PVC or Teflon® cable
- Selectively loading contacts achieves customer specific creepage and clearance requirements; contact asp@samtec.com



	CREEPAGE	CLEARANCE
IPT1/IPS1 MMSS(T)/MMSD(T)	2.55 mm	1.91 mm
IPBT/IPBS PMSS(T)/PMSD(T)	4.27 mm	3.05 mm

EXTREME POWER

- AC or DC power, AC-DC combos and split power options (ET60T/ET60S)
- High-density, double stacked power blades (LPHT/LPHS)

ALL DE LE DE

 Selectively loading contacts achieves customer specific creepage and clearance requirements; contact asp@samtec.com 3 or 5 signal rows in the same form factor

MMSD/

IPBT/ IPBS

IPL1

IPT1/ IPS1

ET60T/ET60S

30-60 A

CE

Rugged guide posts

Components and tooling

available

LPHT/LPHS

Low 7.5 mm – profile design

	CREEPAGE	CLEARAN
LPHT/LPHS	5.63 mm	2.69 mm
ET60T/ET60S	3.02 mm	1.87 mm

PMSDT/

IPBT

14 samtec.com/power

POWERSTRIP[™] SYSTEM

- 23.5 A/blade to 58.7 A/blade (1 blade powered)
- 5.00 mm and 6.35 mm pitch

MPSS/ MPT

- Discrete wire assemblies with 10-16 AWG cable
- Selectively loading contacts achieves customer specific creepage and clearance requirements; contact asp@samtec.com

	CREEPAGE	CLEARANCE
PET/PES/PETC/ PESC/PESS	3.66 mm	3.31 mm
MPT/MPS/MPTC/ MPSC/MPSS/MPPT	2.95 mm	2.71 mm
UPT/UPS/UPPT	5.80 mm	1.51 mm

20-60 A



right-angle





samtec.com/power 15

SEALED I/O ACCLIMATE™ SYSTEMS

IP67 & IP68 • BAYONET/PUSH-PULL CIRCULARS • SPACE-SAVING RECTANGULARS



ACCLI**MATE**[™]

FLEXIBLE SEALED CIRCULAR SYSTEMS

- Metal or plastic, 12 mm, 16 mm and 22 mm shells
- Flexible pin configuration, gender and panel interface termination
- Bayonet-style latching systems meet IP68 requirements
- Cost-effective crimp version available
- Mini push-pull latching system meets IP67 requirements for dust and waterproof sealing



Kitted components for efficient field assembly



SEALED RECTANGULARS

- Space saving design
- Meets IP68 requirements
- USB and Ethernet signal systems
- Rugged dust caps available
- 1 or 2-port vertical and right-angle panel mount sockets





- 10 and 17 shell sizes
- Rugged dust caps and panel-to-board termination available

MODIFIED & CUSTOM SOLUTIONS

WILLINGNESS, SUPPORT & EXPERTISE



A substantial percentage of each Micro Rugged product segment is custom





INDUSTRY LEADING CUSTOMER SERVICE



FLEXIBLE IN-HOUSE MANUFACTURING



EXPERTISE

FLEXIBLE SOLUTIONS

- Full engineering, design and prototype support
- Design, simulation and processing assistance
- Quotes and samples turned around in 24 hours
- Flexible, quick-turn manufacturing
- Dedicated Application Specific Product engineers and technicians
- Modified or custom options for board level connectors and cable assemblies including: contacts, bodies, stamping, plating, wiring, molding, ruggedizing features and much more



Express Modification Standard PowerStrip[™] cable with non-standard end 2 option

Engineered Custom Multi-power staging, power/signal combo, header/socket combo, custom body

Contact the Application Specific Products Group at asp@samtec.com for express modifications or engineered customs.

RUGGED FEATURES

OPTIONS FOR HIGH-RELIABILITY, HIGH-RETENTION AND HIGH-CYCLE LIFE

RUGGEDIZING OPTIONS



JACK SCREWS Ideal for high normal force, zippering and other rugged applications



POSITIVE LATCHING Manually activated latches increase unmating force by up to 200%



FRICTION LOCKS Metal or plastic friction locks increase retention/withdrawal force



RETENTION PINS Increase unmating force by up to 50%



BOARD LOCKS Boards are mechanically locked together



WELD TABS Significantly increase sheer resistance of connector to PCB



GUIDE POSTS Easy and secure mating



SHIELDING 360° shielding reduces EMI



SCREW DOWNS Secure mechanical attachment to the board



BOARD STANDOFFS Precision machined standoffs for 5 mm to 25 mm board spacing

CONTACT SYSTEMS



TIGER EYE[™] High-reliability High Mating Cycles Multi-finger Contact



TIGER CLAW[™] Dual Wipe Contact Pass-through Applications Ultra-low Profile



BLADE & BEAM Mating/Alignment "Friendly" Cost-effective



TIGER BEAM[™] Best Cost Reliable Performance Post & Beam Contact



EDGE RATE*

Designed for Signal Integrity Superior Impedance Control Reduced Broadside Coupling

POWER INTEGRITY AND E.L.P.™

POWER INTEGRITY SERVICES

- Standard power test data, including current carrying capacity, working voltage, voltage drop and resistance, creepage and clearance, is available for select power systems
- Current Cycling Test Data, which demonstrates connector performance in realistic and common applications, is available for select series
- Power Integrity Guidelines are based on test data and proven design parameters, and are designed to help in connector selection and PCB design maximization
- Power Integrity Certified products undergo testing and additional requirements unique to Samtec.
 To be certified, products must pass Current Cycling Test EIA 365-55, have current carrying capacity, resistance vs. number of contacts data available and Power Integrity Guidelines developed
- Visit samtec.com/powerintegrity to learn more

EXTENDED LIFE PRODUCT[™]

E.L.P.[™] products are tested to rigorous standards, which evaluate contact resistance in simulated storage and field conditions.

- 10 year Mixed Flowing Gas (MFG)
- High Mating Cycles (250 to 2,500)
- Certain plating and/or contact options will apply
- For complete details on Samtec's E.L.P.™ program, a list of qualifying products and test results, please visit samtec.com/ELP or email the Customer Engineering Support Group at ASG@samtec.com







* Tested socket/terminal combination shown. Other mating headers also available. Contact Samtec if header design you need is not shown.

SEVERE ENVIRONMENT TESTING

Severe Environment Testing is a new Samtec initiative to test our products beyond typical industry standards and specifications, many set forth by common requirements for rugged industries. Several of our products will undergo additional testing to ensure they are more than suitable for industrial, military, automotive and other extreme applications.

TESTING WILL INCLUDE:

- Higher mating cycle testing
- Intense shock and vibration
- Altitude testing
- ESD testing
- Temperature cycling
- And more

PRODUCTS TO BE TESTED:

- Rugged Tiger Eye[™] connectors
- Hermaphroditic Razor Beam[™] connectors
- SEARAY[™] high-density arrays
- Edge Rate[®] rugged signal integrity connectors
- AcceleRate[®] HD ultra-micro connectors
- Ultra Micro Power systems
- High-speed coax and twinax cable assemblies

Please contact set@samtec.com for more information and test results when available.



PRND NETWORK vs. MIL-PR	(F-834)	D1 PERFORM	ANCE
TEST OR CONDITION		MIL-PRF-83401	VISHAY FOIL RESISTORS
		с	Typical
Resistance Temp Characteristic	ppm/°C	± 50	± 2
Tracking to Reference Element (-55 to +125 °C)	ppm/°C	± 5	± 2
Max Ambient Temp at Rated Wattage		± 70	°C
Max Ambient Temp at Zero Power		± 125	°C
Thermal Shock and Power Conditioning		± 0.25 % ± 0.03 %	± 0.015 % ± 0.015 %
Low Temperature Operation	∆R	± 0.10 %	± 0.01 %
	∆Ratio	± 0.02 %	± 0.01 %
Short Time Overload	∆R	± 0.10 %	± 0.01 %
	∆Ratio	± 0.02 %	± 0.01 %
Terminal Strength	∆R	± 0.10 %	± 0.01 %
	∆Ratio	± 0.03 %	± 0.01 %
Resistance to Soldering Heat	∆R	± 0.10 %	± 0.01 %
	∆Ratio	± 0.02 %	± 0.01 %
Moisture Resistance	∆R	± 0.20 %	± 0.01 %
	∆Ratio	± 0.02 %	± 0.01 %
Shock (Specified Pulse)	∆R	± 0.25 %	± 0.01 %
	∆Ratio	± 0.03 %	± 0.01 %
Vibration, High Frequency	∆R	± 0.25 %	± 0.01 %
	∆Ratio	± 0.03 %	± 0.01 %
Load Life (Per EEE-INST-002)	∆R	± 0.10 %	± 0.05 %
(+70 °C, Full Power, 2000 hours)	∆Ratio	± 0.03 %	± 0.02 %
+25 °C Power Rating (1000 hours)	∆R	± 0.10 %	± 0.01 %
	∆Ratio	± 0.03 %	± 0.01 %
High Temperature Exposure (+125 °C, 100 hours)	∆R	± 0.10 %	± 0.01 %
	∆Ratio	± 0.03 %	± 0.01 %
Low Temperature Storage	∆R	± 0.10 %	± 0.01 %
	∆Ratio	± 0.02 %	± 0.01 %
nsulation Resistance		10,000) MΩ
Resistance Tolerance and, when applicable, Resistance Ratio Accuracy		± 0.1 % (B) ± 0.5 % (D) ± 1.0 % (F)	± 0.1 % (B) ± 0.5 % (D)

SOLUTIONATOR® QUICKLY BUILD MATED SETS ONLINE

sily sort result	ts to find the r	ght matec	l set —						
ve chat with er	ngineers for cu	istom opti	ons —						
mediately dov	wnload model	and oper	n Specs K	iit 🔶	ERN	Part Number 18-030-02.0-L-D	V-TR	Mating Part Nun ERF8-030-07.0-S	nber -DV-TR
Sc				_	2D/3D CAD or g Select Format	praphic file:	;	2D/3D CAD or graphic file: Select Format Download	*
Search by Keywor	d, Series, or Part #, or Us	e the Parametric F	ilters Below		powered by PARTso	lutions@		powered by PARTsolutions@	
			Specs Kit: Prints	Catalog Page PADS	Library please visit the	Specs Kit: Prints Footprints Catalo	g Page PADS Library ion, please visit the		
Search Optic	ons (Choose As N	iany As App	ny)		Technical Specif	ications page.		Technical Specifications page.	
Pitch:		P S	tack Height:		in e	rd Termination: elect	~	Mating Orientation: Coplanar	~
0.80 mm	. (0315")			12					ter ter
0.00 mm	1(.0313)	•	min	12	nax				5
					nu	al Type:		Card Thickness:	Live
Select	✓ Select		✓ Select.		✓ Se	elect	~	Select	~ _
Gender	RF Style		RF Applica	tion	Con	tact System		Interconnect Type	
Select	✓ Select		✓ Select.		∼ Ec	dge Rate	~	Select	~
Row Type	RF Family								
Select	✓ Select		-	Creepage:			E Cle	arance:	
			0		T	nm in	0		mm in
Product Type	Category			min				resizy	Lamo June 1
Select	✓ Select		~	TIME:					
Active Filters Pitch: 0.80 mm (.0315 37 Results Part Number	Clear All *) X Stack Height: Mating Part Number	Range of values (Pitch	1630) 🗶 P Mated Stack Height (mm)	ositions: Rar Positions	ge of values (1 Board Termination	350) 🗶 Co Mating Orientation	Rugged Rating	m: Edge Rate (87) 🗙 Signal Integrity @ Rating	Creepage (mm)
THUR 030 03 0 L DUTE	ERF8-030-07.0-S-DV-TR	0.80 mm (.0315")	9	60	Surface Mount	Parallel	3 - Edge Rate	e NA	NA
-RIVI8-030-02.0-L-DV-1R	ERF8-070-07.0-S-DV-TR	0.80 mm (.0315")	9	140	Surface Mount	Parallel	3 - Edge Rate	e NA	NA
ERM8-030-02.0-L-DV-TR		0.90 mm / 0.215%	10	100	Surface Mount	Parallel	3 - Edge Rate	e 16 GHZ	NA
ERM8-030-02.0-L-DV-TR ERM8-070-02.0-L-DV-TR ERM8-050-05.0-L-DV-K-TR	ERF8-050-05.0-L-DV-K-TR	0.00 mm (.0313)		140	Surface Mount	Parallel	3 - Edge Rate	e 12 GHZ	NA
ERM8-030-02.0-L-DV-TR ERM8-070-02.0-L-DV-TR ERM8-050-05.0-L-DV-K-TR ERM8-070-02.0-L-DV-TR	ERF8-050-05.0-L-DV-K-TR ERF8-070-05.0-L-DV-TR	0.80 mm (.0315")	7	194					
ERM8-050-02.0-L-DV-TR ERM8-050-05.0-L-DV-TR ERM8-070-02.0-L-DV-TR ERM8-070-02.0-L-DV-TR DRM8-052-05.0-L-D-A	ERF8-050-05.0-L-DV-K-TR ERF8-070-05.0-L-DV-TR QRF8-052-07.0-L-D-A	0.80 mm (.0315") 0.80 mm (.0315")	7 12	104	Surface Mount	Parallel	3 - Edge Rate	e NA	NA
ERMB-030-02-0-L-DV-TR ERMB-070-02-0-L-DV-TR ERMB-070-02-0-L-DV-TR DRMB-052-05-0-L-DV-TR DRMB-052-05-0-L-DV-TR	ERF8-050-05.0-L-DV-K-TR ERF8-070-05.0-L-DV-TR QRF8-052-07.0-L-D-A ERF8-020-07.0-L-DV-TR	0.80 mm (.0315") 0.80 mm (.0315") 0.80 mm (.0315")	7 12 12	104 40	Surface Mount Surface Mount	Parallel Parallel	3 - Edge Rate 3 - Edge Rate	e NA e NA	NA
ERMB-050-02-0-L-DV-TR ERMB-050-05-0-L-DV-TR ERMB-070-02-0-L-DV-K-TR ERMB-070-02-0-L-DV-TR ERMB-020-05-0-L-DV-TR SEAMB-10-S02-0-S-10-2-K	ERF8-050-05.0-L-DV-K-TR ERF8-070-05.0-L-DV-TR QRF8-052-07.0-L-D-A ERF8-020-07.0-L-DV-TR SEAF8-10-05.0-S-10-2-K	0.80 mm (.0315") 0.80 mm (.0315") 0.80 mm (.0315") 0.80 mm (.0315")	7 12 12 7	104 40 100	Surface Mount Surface Mount Surface Mount	Parallel Parallel Parallel	3 - Edge Rate 3 - Edge Rate 3 - Edge Rate	e NA e NA e 12 GHZ	NA NA NA
ERMB-050-02-0-L-DV-TR ERMB-050-05-0-L-DV-TR ERMB-050-05-0-L-DV-K-TR ERMB-070-02-0-L-DV-TR ERMB-020-05-0-L-DV-TR ERMB-020-05-0-L-DV-TR ERMB-025-02-0-L-DV-TR	ERF8-050-05.0-L-DV-K-TR ERF8-070-05.0-L-DV-TR QRF8-052-07.0-L-D-A ERF8-020-07.0-L-DV-TR SEAF8-10-05.0-S-10-2-K ERF8-025-05.0-S-DV-TR	0.80 mm (.0315") 0.80 mm (.0315") 0.80 mm (.0315") 0.80 mm (.0315") 0.80 mm (.0315")	7 12 12 7 7	104 40 100 50	Surface Mount Surface Mount Surface Mount Surface Mount	Parallel Parallel Parallel Parallel	3 - Edge Rate 3 - Edge Rate 3 - Edge Rate 3 - Edge Rate	e NA e NA e 12 GHZ e 12 GHZ	NA NA NA
ERMB-050-02-0-L-DV-TR ERMB-050-05-0-L-DV-K-TR ERMB-050-05-0-L-DV-K-TR ERMB-052-05-0-L-DV-TR ERMB-020-05-0-L-DV-TR ERMB-020-05-0-L-DV-TR ERMB-025-02-0-L-DV-TR ERMB-010-02-0-L-DV-TR	ERF8-050-05.0-L-DV-K-TR ERF8-070-05.0-L-DV-TR QRF8-052-07.0-L-DV-TR ERF8-020-07.0-L-DV-TR SEAF8-10-05.0-S-10-2-K ERF8-025-05.0-S-DV-TR ERF8-010-05.0-S-DV-TR	0.80 mm (.0315") 0.80 mm (.0315") 0.80 mm (.0315") 0.80 mm (.0315") 0.80 mm (.0315") 0.80 mm (.0315")	7 12 12 7 7 7 7	104 40 100 50 20	Surface Mount Surface Mount Surface Mount Surface Mount Surface Mount	Parallel Parallel Parallel Parallel Parallel	3 - Edge Rate 3 - Edge Rate 3 - Edge Rate 3 - Edge Rate 3 - Edge Rate	 NA NA 12 GHZ 12 GHZ 12 GHZ 	NA NA NA NA
ERME-030-02-0-L-DV-TR ERME-050-05-0-L-DV-K-TR ERME-050-05-0-L-DV-K-TR ERME-052-05-0-L-DV-TR ERME-020-05-0-L-DV-TR ERME-020-05-0-L-DV-TR ERME-025-02-0-L-DV-TR ERME-010-02-0-L-DV-TR	ERF8-050-05.0-L-DV-K-TR ERF8-070-05.0-L-DV-TR QRF8-052-07.0-L-D-A ERF8-020-07.0-L-DV-TR SEAF8-10-05.0-S-10-2-K ERF8-025-05.0-S-DV-TR ERF8-010-05.0-S-DV-TR ERF8-070-05.0-L-DV-TR	0.80 mm (.0315") 0.80 mm (.0315") 0.80 mm (.0315") 0.80 mm (.0315") 0.80 mm (.0315") 0.80 mm (.0315") 0.80 mm (.0315")	7 12 12 7 7 7 7 10	104 40 100 50 20 140	Surface Mount Surface Mount Surface Mount Surface Mount Surface Mount Surface Mount	Parallel Parallel Parallel Parallel Parallel Parallel	3 - Edge Rate 3 - Edge Rate	NA NA NA 12 GHZ 12 GHZ 12 GHZ 12 GHZ 16 GHZ	NA NA NA NA NA

To build your mated set, visit samtec.com/solutionator

INTEGRATION LEADS TO INNOVATION

SAMTEC TECHNOLOGY CENTERS ENABLE COMPLETE SYSTEM OPTIMIZATION FROM SILICON-TO-SILICON™

Samtec's Technology Centers offer high-level design and development of advanced interconnect systems and technologies, along with industry-leading signal integrity expertise which allows us to provide effective strategies and technical support for optimizing the entire serial channel of high-performance systems.

Because Samtec's Technology Centers are not limited by the boundaries of traditional business units, we are able to work in a fully integrated capacity that enables true collaboration and innovation to support the demands of today, and the challenges of tomorrow.



samtec.com/tech-centers



H

UNITED STATES • NORTHERN CALIFORNIA • SOUTHERN CALIFORNIA • SOUTH AMERICA • UNITED KINGDOM GERMANY • FRANCE • ITALY • NORDIC/BALTIC • BENELUX • ISRAEL • INDIA • AUSTRALIA / NEW ZEALAND SINGAPORE • JAPAN • CHINA • TAIWAN • HONG KONG • KOREA

NOVEMBER 2018