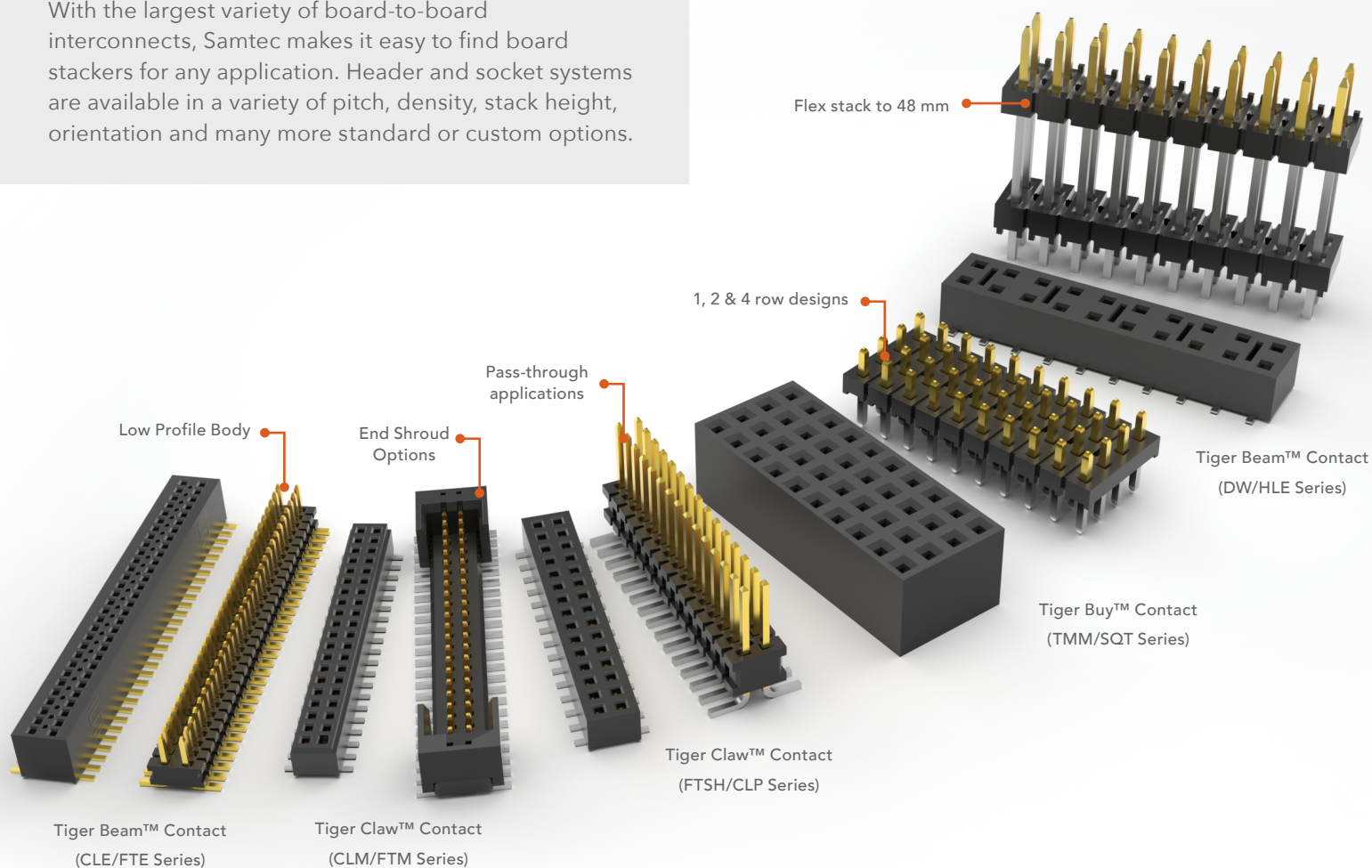


FLEXIBLE STACKING

APPLICATION DESIGN GUIDE

FLEXIBLE STACKING

With the largest variety of board-to-board interconnects, Samtec makes it easy to find board stackers for any application. Header and socket systems are available in a variety of pitch, density, stack height, orientation and many more standard or custom options.



INCREDIBLE FLEXIBILITY

- Post height: adjustable in .005" increments
- Body positions: adjustable in .005" increments
- Board stacking distance: 1.65 mm - 48.51 mm
- Number of pins: 2-300
- Number of rows: 1-6

VARIETY OF PITCHES

- 0.80 mm
- 1.00 mm
- 1.27 mm
- 1.27 x 1.27 mm
- 1.27 x 2.54 mm
- 2.00 mm
- 2.54 mm

BUILD IT YOURSELF

Check out Solutionator® to quickly build a mated set for your specific application. Visit [samtec.com/solutionator](https://www.samtec.com/solutionator)



CUSTOMIZABLE

- Mix-and-match headers and sockets to find the right solution
- Quick and easy custom parts are available. Contact Samtec.

VARIETY OF CONTACTS

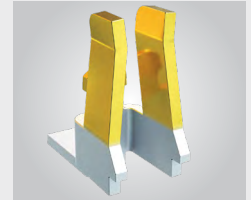
TIGER EYE™ CONTACT

- High-reliability
- High mating cycles
- Multi-finger contact



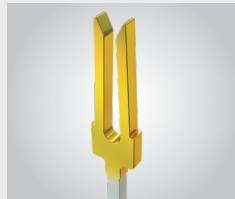
TIGER CLAW™ CONTACT

- Pass-through
- Ultra-low profile
- Dual wipe contact



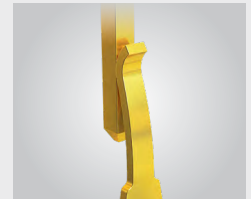
TIGER BUY™ CONTACT

- High-retention
- Cost-effective
- Tuning fork contact

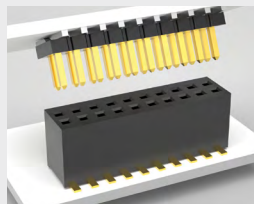


TIGER BEAM™ CONTACT

- Best cost
- Reliable performance
- Post & beam contact

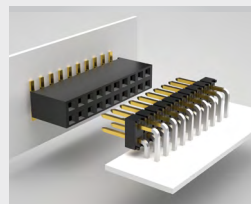


VARIETY OF ORIENTATIONS/APPLICATIONS



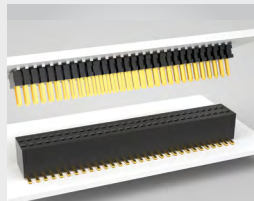
Standard

- Choice of contact system
- Single, double and triple row designs
- Largest variety



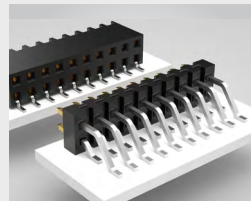
Right-angle

- Design flexibility
- Tiger Claw™ & Tiger Buy™ contacts
- Through-hole, surface mount



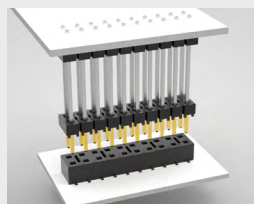
Low Profile

- Down to 1.65 mm stack height
- Tiger Claw™ contacts
- Space saving



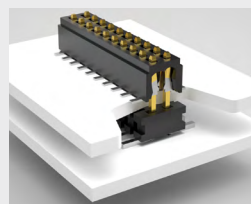
Coplanar

- 1-4 row designs
- Surface mount, through-hole or mixed technology
- Tiger Claw™ & Tiger Beam™ contacts



Elevated

- Up to 48.26 mm stack height
- Design flexibility
- Clearance, air flow



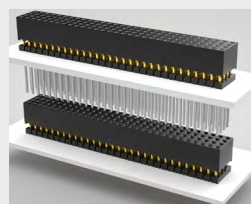
Bottom Entry

- Tiger Claw™ contacts
- Access to components when mated
- Space savings



Pass-through

- Connect three or more boards
- Tiger Claw™ and Tiger Beam™ contacts
- Surface mount or offset through-hole



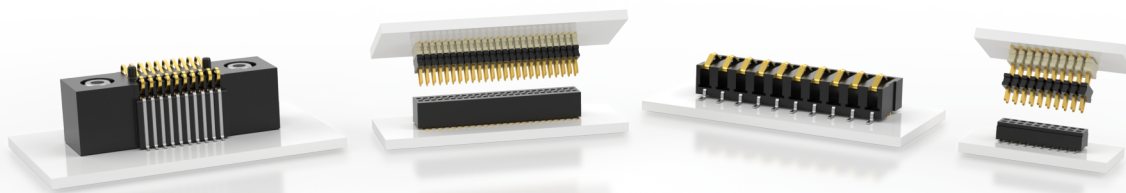
Self-nesting

- Tiger Buy™ contacts
- Press-fit or through-hole tails
- PC/104-Plus™ embedded applications

BOARD STACKING REFERENCE

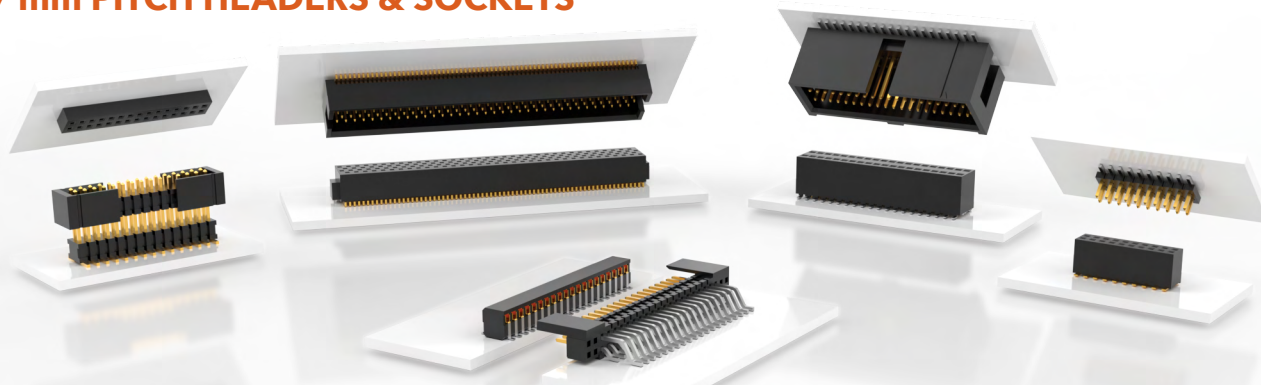
Focused/most popular series in charts. For all flexible stacking solutions visit [samtec.com/connectors](https://www.samtec.com/connectors)

ONE-PIECE, 0.80 mm & 1.00 mm PITCH



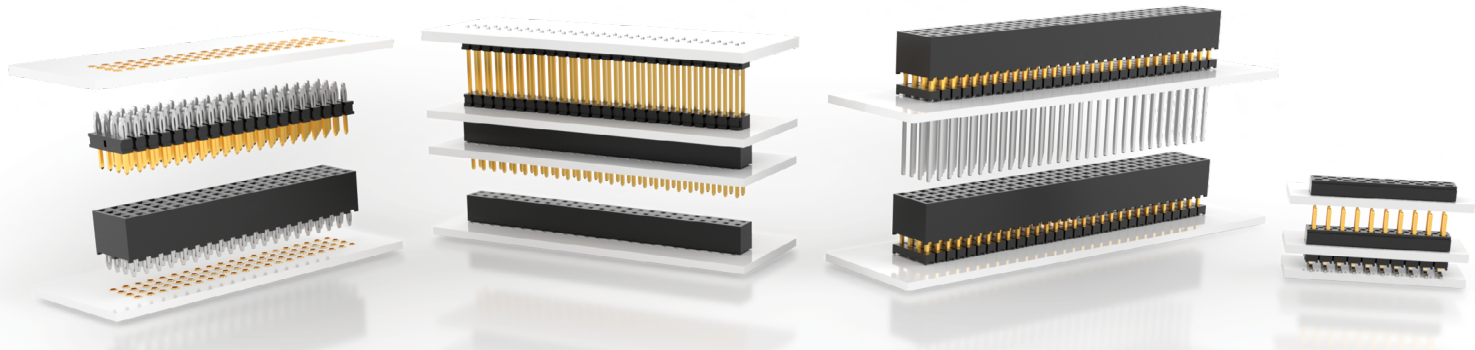
Series		FSI	SEI	SIB	CLE	FTE	CLM	FTMH/FTM	MLE	MW
Pitch		1.00 mm		2.54 mm	0.80 mm		1.00 mm			
Orientation		V				V & RA	V	V & RA	V	
Board Stacking (mm)	min	3	1.65	3.8	5	5	3.48		4.57	4.62
	max	10			9.14		8.43	5.11	9.27	
Contact System					Tiger Beam™		Tiger Claw™		Tiger Beam™	
Mates		One-Piece			FTE, AW	CLE	FTM, FTMH, MW	CLM, MLE	FTM, FTMH, MW	CLM, MLE

1.27 mm PITCH HEADERS & SOCKETS



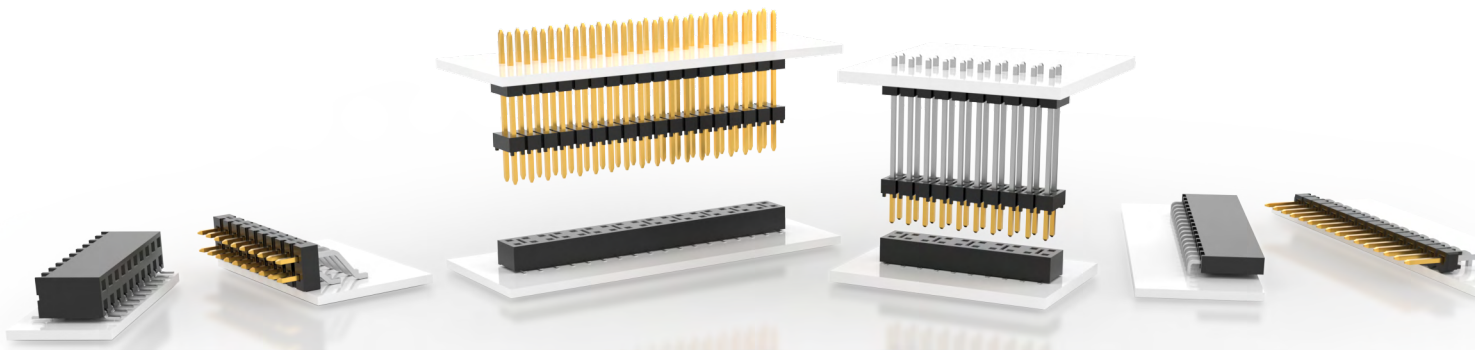
SERIES		CLP	FLE	FTS	FTSH	FW	SOLC	TOLC	DWM/ HDWM	FTR	RSM	SLM
PITCH		1.27 mm x 1.27 mm							1.27 mm x 2.54 mm			
ORIENTATION		V & RA	V		V & RA	V						
BOARD STACKING (mm)	min	3.53	5.82	3.53	5.18	7.72	6.35		9.65	9.78		7.11
	max	17.75	19.15	5.82	7.49	19.15	12.00		22.99	14.73	19.69	19.43
CONTACT SYSTEM		Tiger Claw™	Tiger Beam™				Tiger Buy™					Tiger Buy™
MATES		FTSH, FTS, FW		CLP, FLE			TOLC	SOLC	SMS, SLM, RSM		FTR, HTMS, HDWM, DWM, TML, ZML, TMS	HTMS, TMS, MTMS, DWM, HDWM, FTR, HM- TMS

2.00 mm PITCH HEADERS & SOCKETS



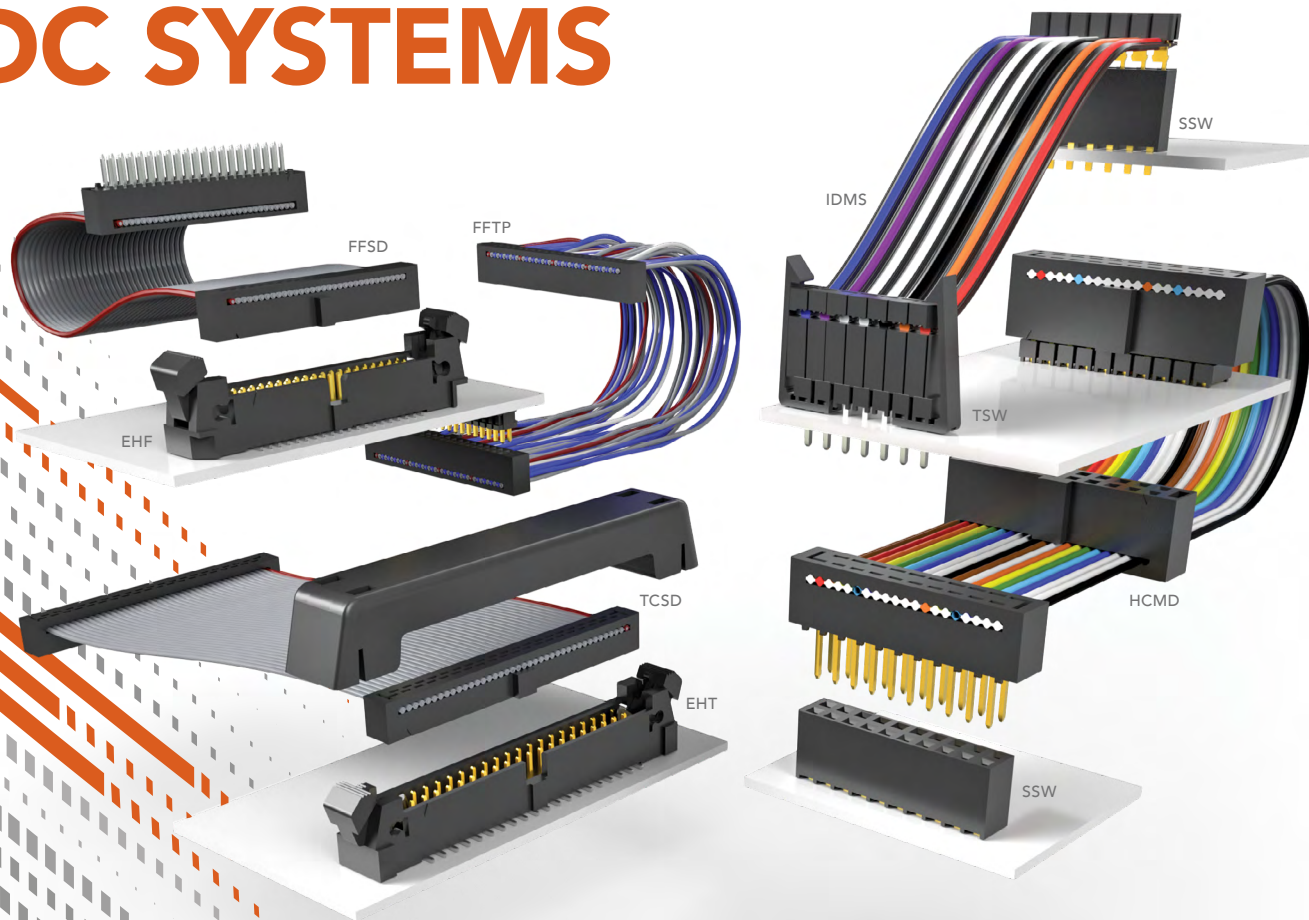
SERIES		MMT	TMM/ MTMM	TMMH	TW	ZLTMM	CLT	ESQT/ -368	MMS	SMM	SQT	SQW	TLE
ORIENTATION		RA	V & RA		V				V & RA	V	V & RA	V	
TERMINATION		SMT & MT	T/H & SMT			T/H	T/H & SMT	T/H	T/H & SMT	SMT	T/H	T/H & SMT	SMT
BOARD STACKING (mm)	min	2	3.63	4.14	7.49	7.62	3.63	9.37	5.94	6.07	7.85		6.99
	max	4	18.87	22.07	43.31	13.34	4.98	43.31	19.81	17.78	29.59		17.53
CONTACT SYSTEM							Tiger Claw™	Tiger Buy™	Tiger Claw™	Tiger Eye™	Tiger Buy™		Tiger Beam™
MATES		CLT, SQT, SQW, ESQT, TLE, SMM, MMS				SQT, SQW, ESQT, SMM	TMM, TMMH, MTMM, MMT, TW, TSH	TMMH, TMM, MTMM, MMT, TW, LTMM, ZLTMM, ESQT, PTT, TSH, TMMS, PTHF	TMMH, TMM, MTMM, MMT, TW, LTMM, ZLTMM, TSH	TMM, TMMH, MTMM, MMT, LTMM, TW, PTT, ZLTMM	TMMH, TMM, MTMM, MMT, TW, LTMM, ZLTMM, PTT, ESQT, TSH	TMMH, TMM, MTMM, MMT, TW, TSH, LTMM, PTT	TMMH, TMM, MTMM, MMT, TW, LTMM, ZLTMM, TSH

2.54 mm PITCH HEADERS & SOCKETS



SERIES	DW, EW, ZW	HW	MTSW/ HMTSW	TLW/ MTLW	TSM	TSW/ HTSW	BCS	ESW, ESQ	HLE	SSM	SSQ	SSW
ORIENTATION	V		V & RA				V & RA	V		V & RA		
TERMINATION	T/H	T/H & SMT	T/H		SMT & MT	T/H			T/H & SMT	SMT	T/H	T/H & SMT
BOARD STACKING (mm)	min	13.59	10.03	7.24	6.1	7.47	7.87	9.02	13.59	7.47	11.18	10.03
	max	48.51	30.73	46.36	20.96	14.48	35.69	18.92	48.51	26.16	30.1	38.35
CONTACT SYSTEM							Tiger Claw™	Tiger Buy™	Tiger Beam™	Tiger Claw™	Tiger Buy™	
MATES	SSW, SSQ, ESW, ESQ, CES, SLW, BSW, BCS, SSM, HLE, PHF		SSW, SSQ, ESW, ESQ, BCS, BSW, CES, SLW, HLE, SSM	BSW, CES, SLW, HLE	SSW, SSQ, SSM, BSW, ESW, ESQ, BCS, BSW, CES, SLW	SSW, SSQ, SSM, ESW, ESQ, BCS, BSW, CES, SLW	TSW, MTSW, HTSW, HMTSW, TSS, ZSS, DW, EW, ZW, HW, TSM, MTLW, PHT	TSW, MTSW, EW, MTLW, TSS, ZSS, TSM, DW, ZW, HW, TSSH, HTSS	TSW, MTSW, DW, EW, ZW, TLW, TSM, MTLW, HW	TSW, MTSW, TST, TSS, ZST, ZSS, DW, EW, ZW, TSM, HMTSW, HTSW, TSSH, BST, HTSS, TLW, MTLW	TSW, MTSW, MTLW, EW, ZW, TSS, ZSS, TSM, TSSH, HTSS	TSW, MTSW, HTSW, HMTSW, MTLW, EW, ZW, TSS, HTSS, ZSS, TSM, TSSH, DW, HW

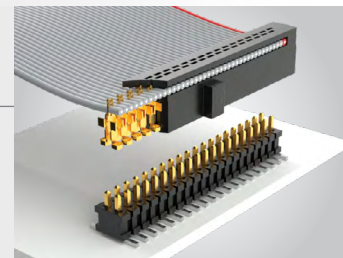
IDC SYSTEMS



1.27 mm & 2.00 mm PITCH IDC CABLE SYSTEMS

**TIGER
EYE™
IDC**

- Exceptionally low-profile design
- Choice of socket and plug terminations
- Single or double ended
- Twisted pair or flat cable
- Tiger Eye™ board level mates
- Mating shrouded and ejector terminal strips
- Variety of options including rugged strain relief, polarization and standard wiring configurations



HIGH-RELIABILITY, HIGH CYCLE
TIGER EYE™ IDC CONTACTS

FLEXIBLE FLAT RIBBON IDC SYSTEMS

- Low profile with no bulky side locks
- Choice of dual beam socket or plug terminations

MOLDED-TO-POSITION IDC ASSEMBLIES

- Low profile and skinny side locks
- Plugs with (0.64 mm) .025" square tail headers

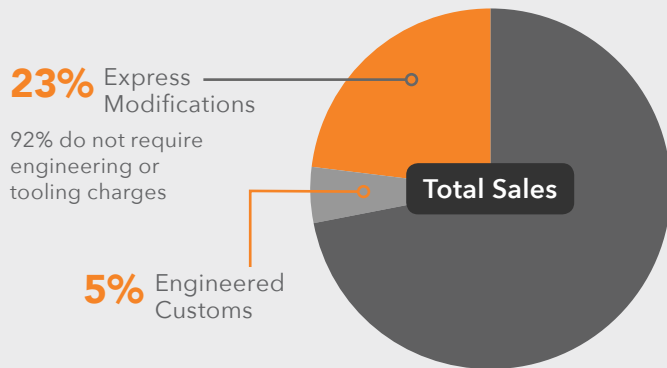
IDC CABLE ASSEMBLIES & HEADERS

SERIES	IDMX/IDSX	HCMX/HCSX	TCS/TCMD	FFSD/FFMD	FFTP/FMTP
Pitch	2.54 mm		2.00 mm	1.27 mm	
Cable	28 AWG Color Coded (standard) or Gray (optional)		28 AWG Gray	30 AWG Gray	30 AWG Twisted Pair
Headers	HTST/TST/ZST/EJH	TST/ZST/EJH	STMM/ETMM/EHT	SHF/ESHF/EHF	SHF/EHF
Contacts	Dual Beam Contacts		Tiger Eye™ Contacts		
Notes	Low Profile & Slim Body	Low Profile	Strain Relief Available		

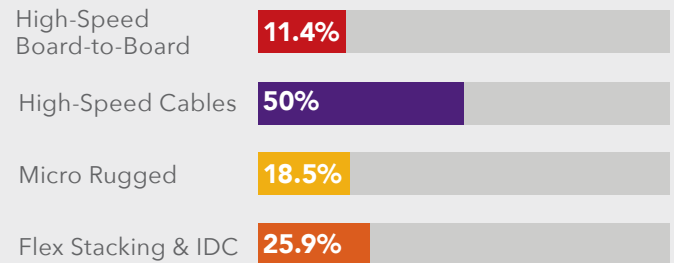
MODIFIED & CUSTOM SOLUTIONS

WILLINGNESS, SUPPORT & EXPERTISE

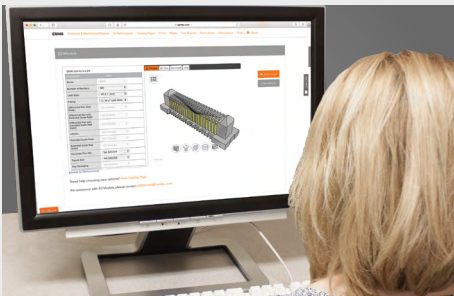
Customs and Modifications make up about 28% of Samtec's total sales.



A substantial percentage of Samtec's product segments are custom.



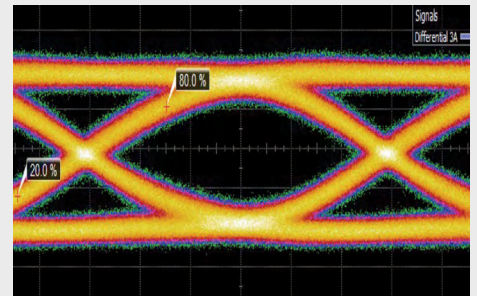
INDUSTRY LEADING CUSTOMER SERVICE



FLEXIBLE IN-HOUSE MANUFACTURING



SIGNAL INTEGRITY EXPERTISE



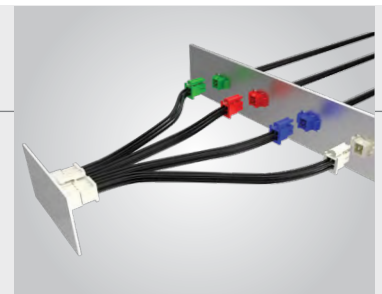
FLEXIBLE CAPABILITIES

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



ENGINEERED CUSTOM

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



EXPRESS MODIFICATION

2.54 mm pitch Mini Mate® discrete wire assembly with custom color coded breakout



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JUNE 2018