



TE high speed Mezzanine product & Card Edge

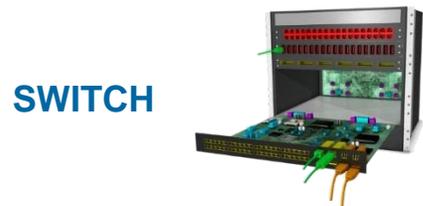
Jan 2018



EVERY CONNECTION COUNTS



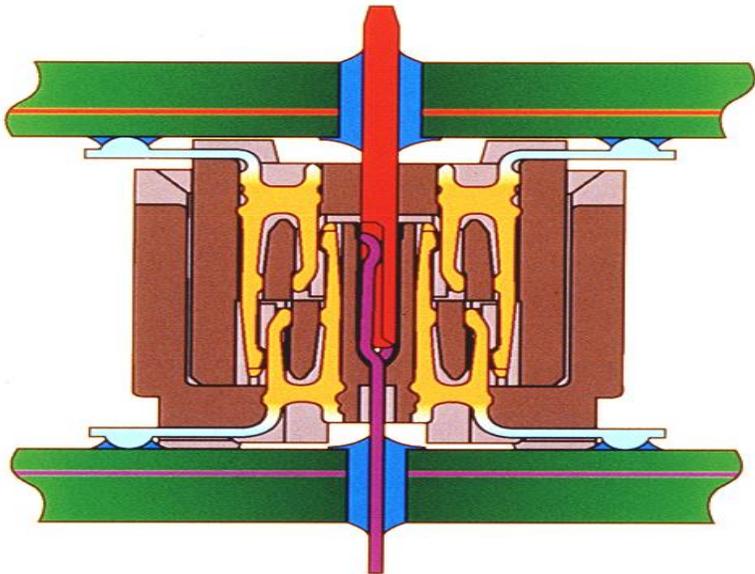
Mezzanine Application





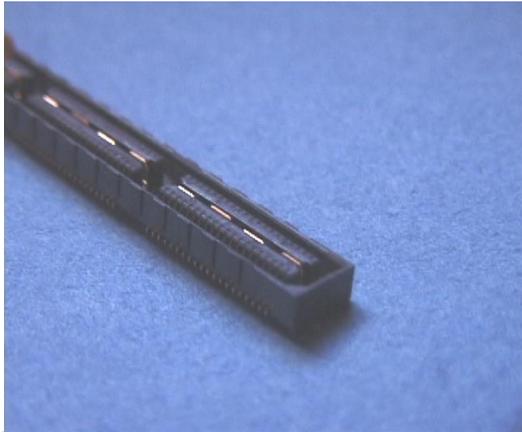
MICTOR

- 2 piece impedance controlled connector family
- Data rate: 6.5Gbps
- Impedance: 50 ohm
- Hybrid Surface mount
- Parallel stacking & Right Angle versions
- Highly reliable Redundant contact design
- 0.64mm signal contact pitch
- 38 to 266 positions
- Stack Heights from 6.5mm (0.260") to 31.9mm (1.255")
- Proven design - application experience of 10 yrs
- Performance
 - Temperature: -55°C -- +125°C
 - Current: Signal : 1A. Ground: 11.5A
 - Ground Pin has 2 options: Barbed and Barbless



MICTOR SB

- 2 piece, controlled impedance
- Lower Cost, Single Beam connector
- Data rate: 9Gbps
- Impedance: 50 ohm/100 ohm
- 0.8mm centerline versions
- Positions from 40 to 300
- Single Ended, Differential Pair or Mixed versions available
- Various stack heights between 5mm - 30mm available
- Fully Surface Mountable
- Polarized Housing Design
- Tray or Tape & Reel Packaging Available
- Performance
 - Temperature: -65°C -- +125°C
 - Current: Signal : 2A. Ground: 9.5A



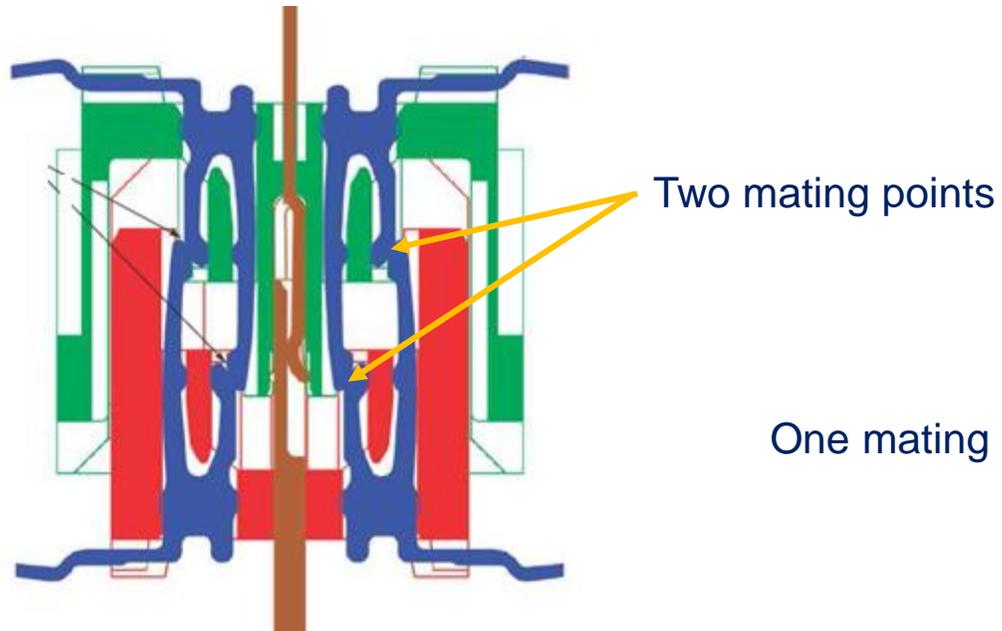
Plug



Full SMT

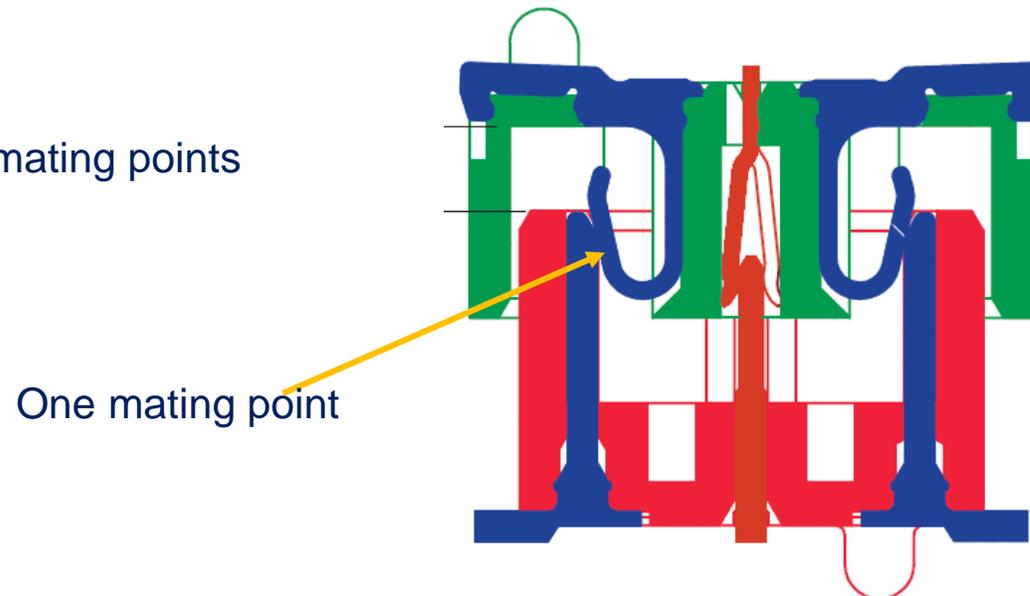


MICTOR has two mating points
MICTOR SB has one mating point



Green = Receptacle housing
Red = Plug housing
Blue = Signal contacts
Brown = Ground bus contacts

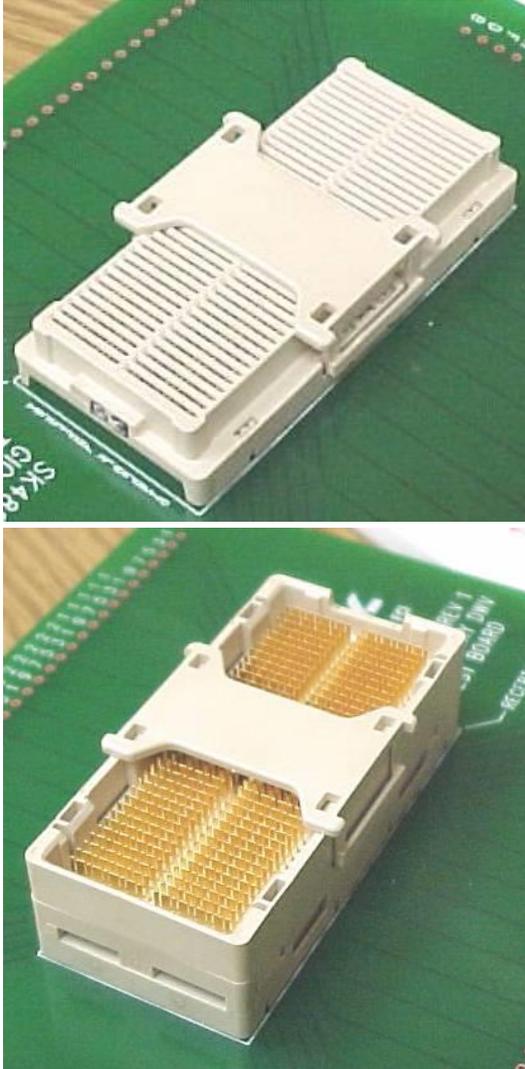
Cross section of MICTOR



Green = Receptacle housing
Red = Plug housing
Blue = Signal contacts
Brown = Ground bus contacts

Cross section of MICTOR SB

STEP-Z



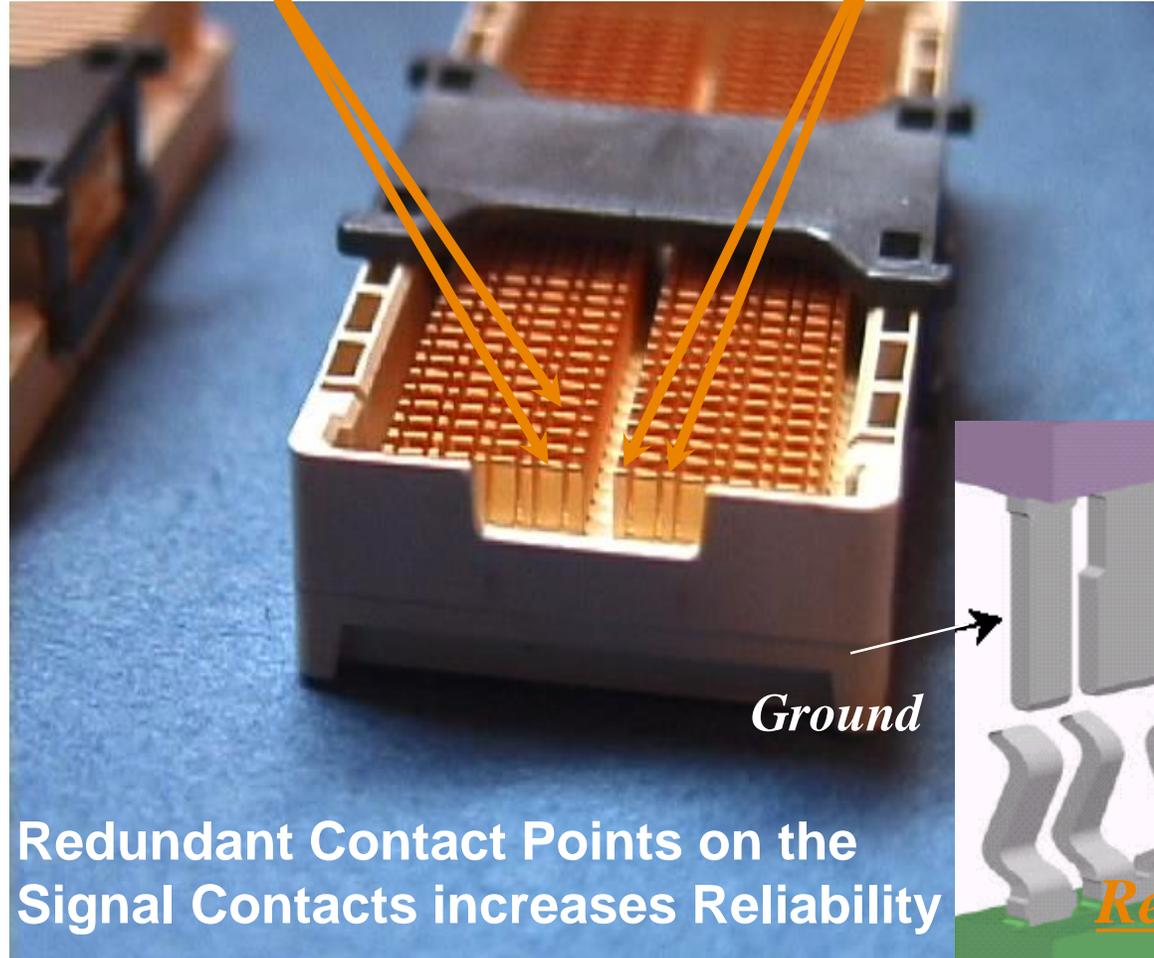
Mezzanine Grid connector

- 2 piece, array style mezzanine connector
- Impedance: 50 ohm/100 ohm
- Electrical performance to 10Gb/s+
- Can be used for either Differential Pair or Singled Ended
- Surface mount – BGA attachment
- 1mm x 0.65mm grid
- 104, 200, & 296 positions
- 158 signals / linear inch
- Stack Heights from 15mm to 35mm
- Performance
 - Temperature: -65°C -- +125°C
 - Current: Signal : 1A. Ground: 1A

Contact Configurations

Signal Contacts

Ground Contacts



Plug

Signal

Ground

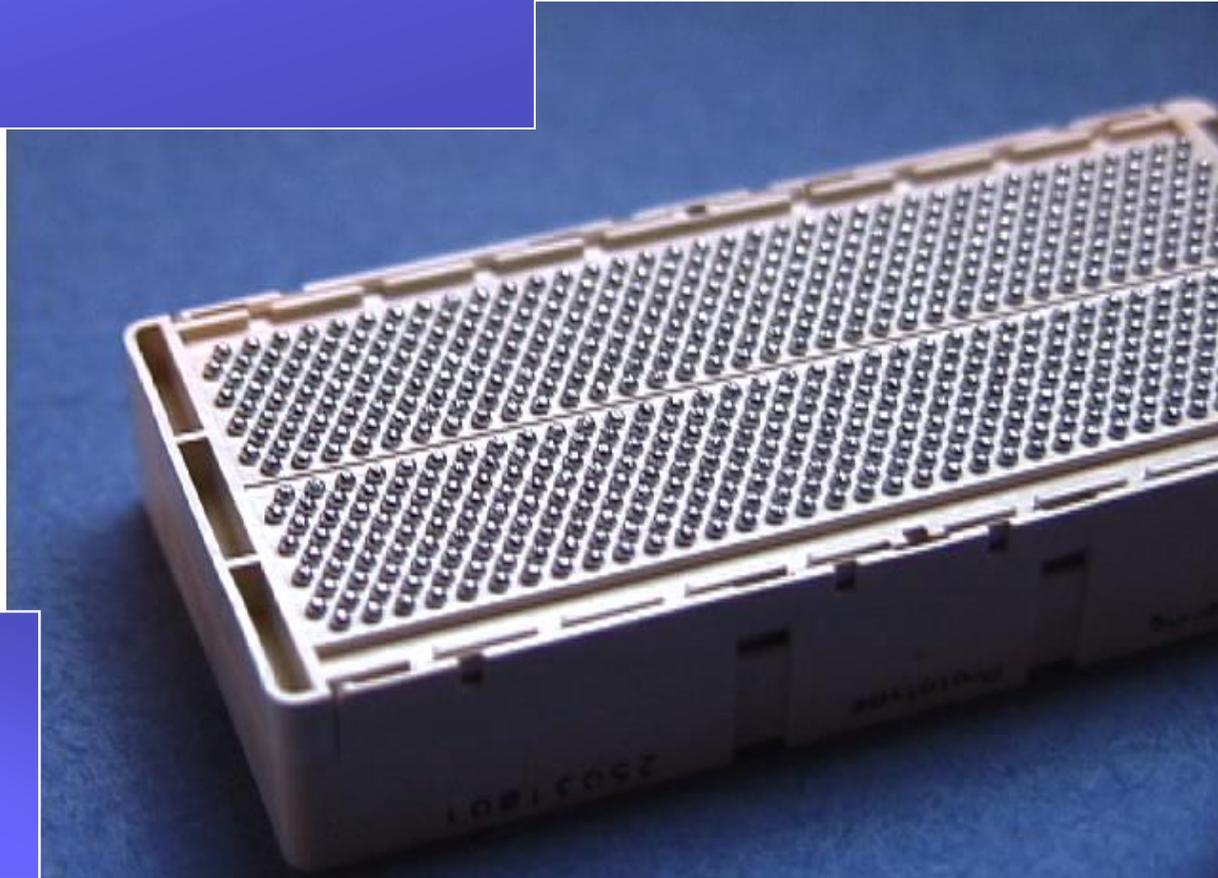
Receptacle

Redundant Contact Points on the Signal Contacts increases Reliability

STEP-Z Attachment

- BGA mounting
- Unique, Highly Reliable Ball Placement
- Plastic accurately locates Solder Balls
- Uniform Processing

Footprint
1mm x .65mm Grid
.76mm dia Solder
Balls



Mating Height

STACKING HEIGHT MATRIX

Stacking Height		Plug Height					
		10mm	12mm	13mm	15mm	20mm	25mm
Receptacle Height	5 mm	15mm	17mm	18mm	20mm	25mm	30mm
	11 mm	21mm	23mm	24mm	26mm	31mm	36mm
	15 mm	25mm	27mm	28mm	30mm	35mm	40mm

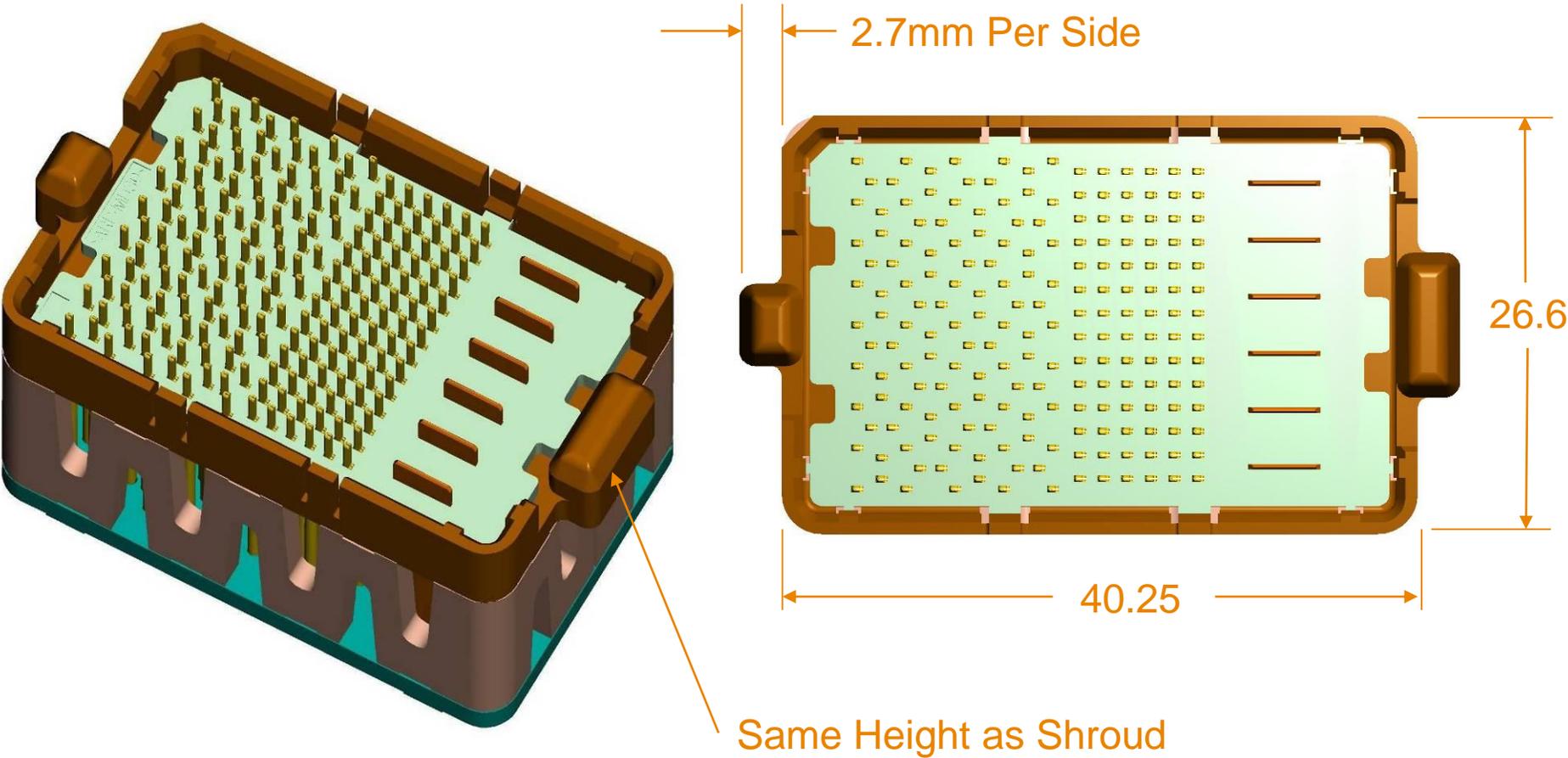
- Temperature range -65°C to 125°C
- Current rating 1A/contact (temperature increase less than 30°C)
- Durability 25 cycles
- Dielectric withstanding voltage 500 VAC
- Characteristic impedance
 - Single end 50Ω ±10%
 - Differential 100Ω ±10% to 15%

STRADA Mesa

1. Stack Heights – Target: 8 - 42mm in 1mm increments.
2. 15+ Gbps Data Rates.
3. 100 Ohm Impedance
4. Optional guide system to accommodate blind mating.
5. Press-Fit (Eye-of-the-Needle) PCB attach. Receptacle/header.
6. Two housing width's are available:
 1. Standard Width (8 pairs per column)
 2. Half Width (4 pairs per column)
7. Three base housing “sizes” for each width.
 - When fully loaded with differential pairs:
 - Standard Width will yield: 40 pairs, 80 pairs, and 120 pairs.
 - Half Width will yield: 24 pairs, 48 pairs, and 88 pairs.
8. Optional Power contacts.
 - Power contacts spaced for 48V applications per UL 1950
 - 14 amp Current rating
9. Optional high-density contact footprint for single-ended signals.
10. Open space to allow for Airflow through connector.

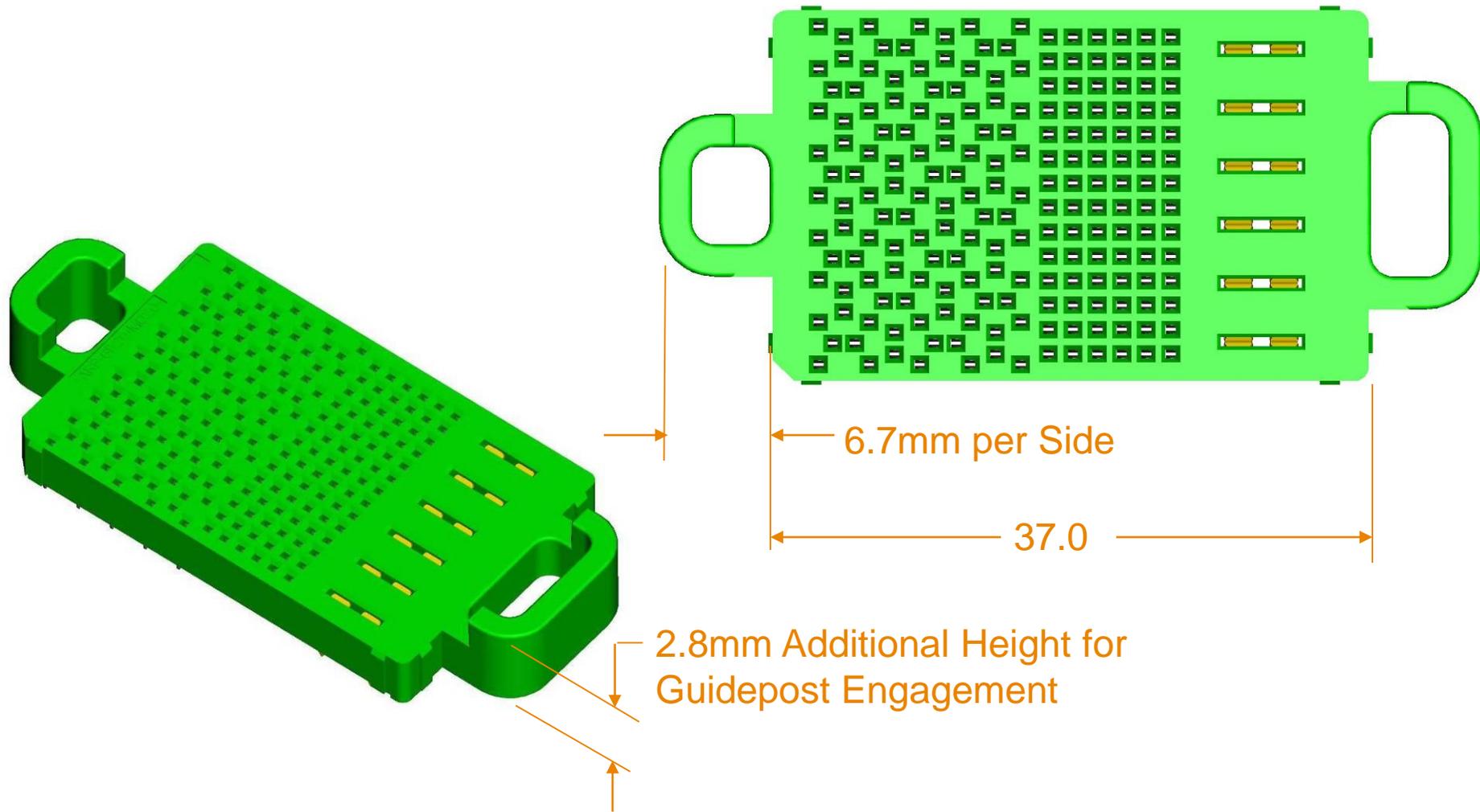


STRADA Mesa Connector with Guideposts for Blindmating – Header Views



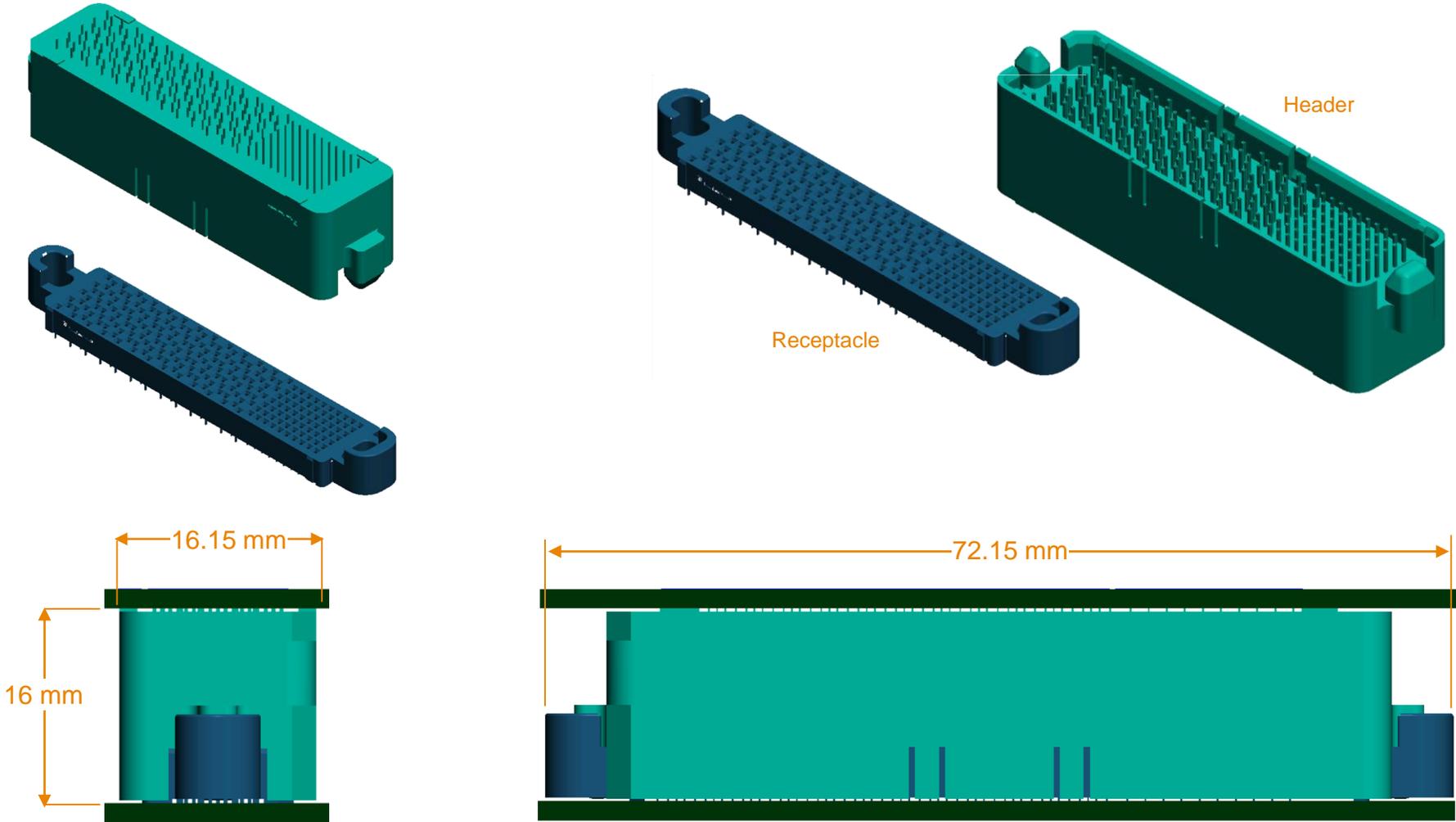
Guideposts allow up to approximately 2mm offset for blindmating

STRADA Mesa Connector with Guideposts for Blindmating – Receptacle Views



STRADA Mesa: "Half Wide" General Example

48 DP, 70 SE, 16mm Stack shown below



28mm, Size "2", Visuals

	<p>Header: 32 Differential Pairs 84 Single Ended 6 Power</p>		<p>Receptacle: 32 Differential Pairs 84 Single Ended 6 Power</p>
	<p>Header: 56 Differential Pairs 6 Power</p>		<p>Receptacle: 56 Differential Pairs 6 Power</p>
	<p>Header: 80 Differential Pairs</p>		<p>Receptacle: 80 Differential Pairs</p>

Standard Width Product Offering

STRADA Mesa Connectors - Standard Width Offering Sheet

Housing Size	# of Diff Pairs	# SE Contacts	# of Power Contacts	Without GuidePosts		With GuidePosts	
				Customer Drawing Number - Header	Customer Drawing Number - Receptacle	Customer Drawing Number - Header	Customer Drawing Number - Receptacle
1	40	0	0	2110320	2110321		
2	80	0	0	2057360	2057361	2110660	2110661
3	120	0	0	2110400	2110401	2132790	2132791
1	16	0	6	2110420	2110421	2132090	2132091
2	56	0	6	2057460	2057461		
3	96	0	6	2110480	2110481	2132100	2132101
1	0	70	6	2110500	2110501	2169700	2169701
2	32	84	6	2110900	2110901	2057470	2057471
2	0	210	6	2110510	2110511		
2	32	0	12	2110520	2110521		
3	96	84	0	2110550	2110551		
3	72	0	12	2110530	2110531	2132800	2132801

Half Width Product Offering

STRADA Mesa Connectors - Half-Width Offering Sheet

Housing Size	# of Diff Pairs	# SE Contacts	# of Power Contacts	Without GuidePosts		With GuidePosts	
				Customer Drawing Number - Header	Customer Drawing Number - Receptacle	Customer Drawing Number - Header	Customer Drawing Number - Receptacle
1	24	0	0	2143410	2143411	2149770	2149771
2	48	0	0	2143380	2143381	2149780	2149781
3	88	0	0	2132680	2132681	2149790	2149791
2	24	0	6	2149500	2149501		
3	64	0	6	2149440	2149441	2143540	2143541
3	40	0	12	2149510	2149511		
1	0	0	6	2149520	2149521		
2	0	0	12	2149530	2149531		

Product introduction- PCIe Gen 3 connector

- Data rates: 8Gbps
- DIP, RA, Straddle , SMT
- x1(36) , x4(64), x8(96), x16(164)
- Long tail , short tail
- Strong capacity for supply chain
- Cost competitive with good deal amount



Mezzanine product and Card Edge Support

- You can find detailed document including products category, drawings and specifications via below link:
 - <http://www.te.com>
- Sample available on TE website or distributors
- Who to contact for help
 - Product Manager : Taylor Luo / 罗嘉元
 - Cell Phone : 139-1731-2556
 - Desk : 021-33980778

