

STRADA Mesa Mezzanine Connectors

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- Technical Support
- Catalogs
- Technical Documents
- Product Samples
- TE Authorized Distributor Locations

Product Line Information

Product Facts

- Stack heights — 8 to 42 mm in 1 mm increments
- Optional open space to allow for airflow through connector
- Optional guide system to accommodate blind mating
- Press-fit (eye-of-the-needle) attach for the receptacle and header
- Three base housing sizes will be offered in standard-width and half-width which, when loaded in a differential pair pattern, will give 40 pairs, 80 pairs, and 120 pairs, and 24, 48, and 88 pairs respectively
- Optional power contacts combined with signals for matched stack height
- Power contacts spaced for 50V applications
- Low mating forces for signal contacts (approximately 40g/contact)
- Footprint and performance characterization for signal contacts arranged in a Coax/RF application
- Optional high-density contact footprint for single-ended signals



The TE STRADA Mesa connector system is the latest advancement for mezzanine (stacking) applications. It has a pin and socket signal contact design that can be arranged in high speed differential, high density single-ended, and/or coax patterns. In addition, the STRADA Mesa connector offers integrated power contacts, each capable of carrying derated 14 amps of current.

The STRADA Mesa system is being offered in stack height options starting at 8 mm and growing to 42 mm. This connector system is offered in standard-width, which has 8 differential pairs per column, and half-width, which has 4 differential pairs per column.

Standard-width, 8 pairs per column, is offered in sizes 1, 2, and 3, which when fully loaded with differential pairs, will yield 40, 80, and 120 pairs, respectively. Half-width, 4 pairs per column, is also offered in sizes 1, 2, and 3 which, when fully loaded with differential pairs, will yield 24, 48, and 88 pairs, respectively.

Performance Characteristics

- 1.4mm nominal contact wipe
- 15+ Gbps data rates
- 85 ohm and 100 ohm impedance options
- Current rating: derated 14 amps for power contacts

Applications

- All high speed, high density, and power mezzanine applications such as found in:
 - Servers
 - Switches
 - Routers
 - Optical transport

Technical Specifications

Technical Documents

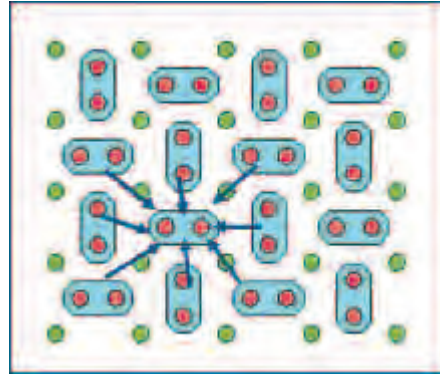
Product Specification

108-2375

Application Specification

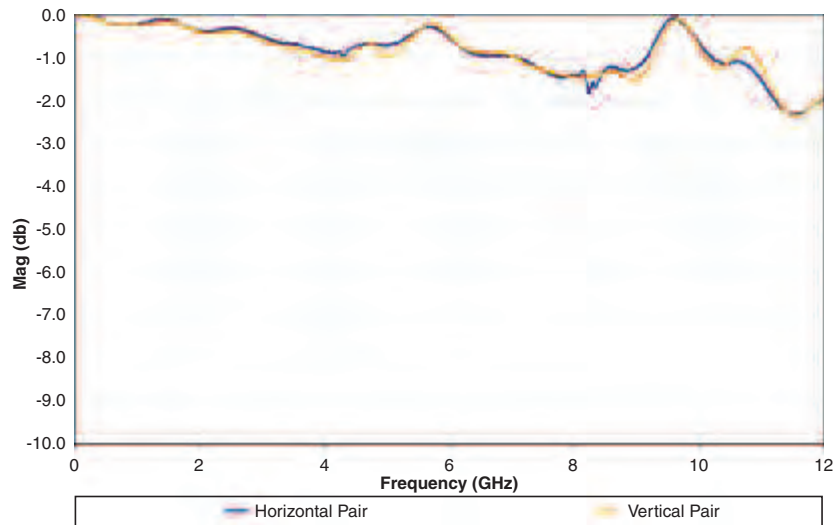
114-13249

Pair Orientation	Total NEXT	Total FEXT
Vertical	0.6%	0.8%
Horizontal	0.7%	0.8%

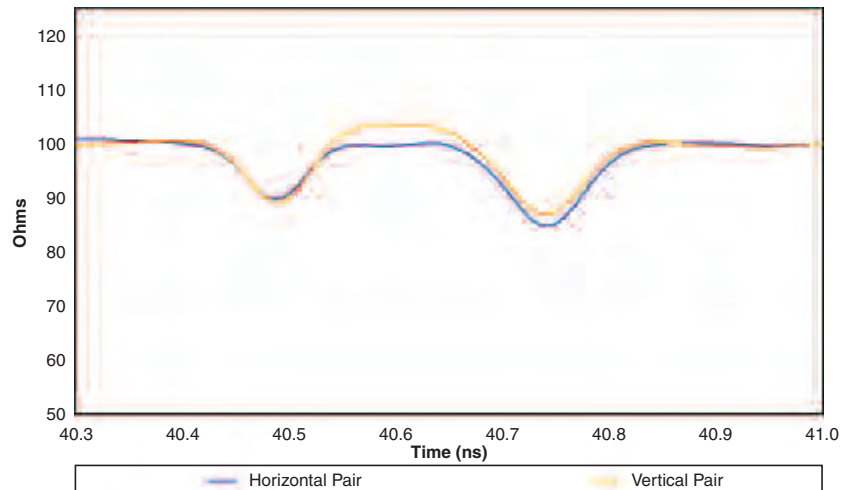


- Mated STRADA Mesa connector from 28mm stack height
- 30 ps (20-80%) edge rate
- Includes two 1.6 mm [0.063"] vias to bottom layer traces
- Asynchronous sum of peaks from each aggressor
- Percentage is total noise divided by differential swing (A - B)

Differential Insertion Loss

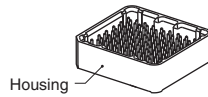


Differential Impedance



STRADA Mesa Connectors — Size 1*

8-13 mm Header Height*

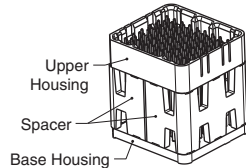


Isometric View
Typical Configuration for
8 mm thru 13 mm
(8 mm Shown)

Standard Width; 8-pairs per Column

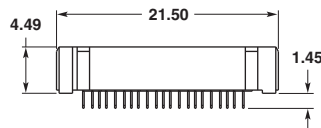
Housing Size	No. of Diff Pairs	No. of Single Ended Contacts	No. of Power Contacts
1	40	0	0
1	16	0	6
1	0	70	6

14- 42 mm Header Height*

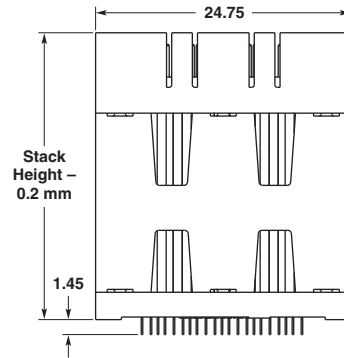


Isometric View
Typical Configuration for
14 mm thru 42 mm
(28 mm Shown)

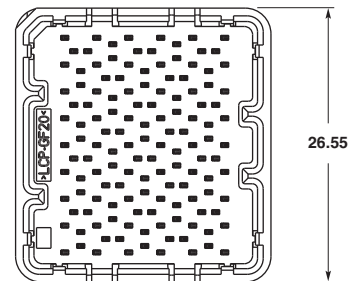
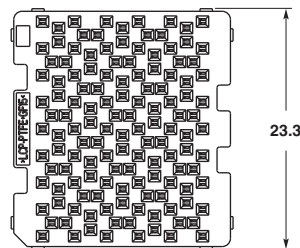
Receptacles



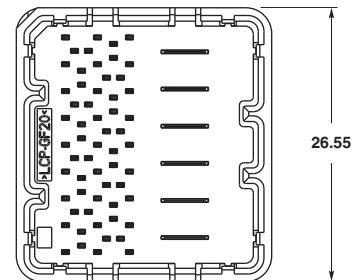
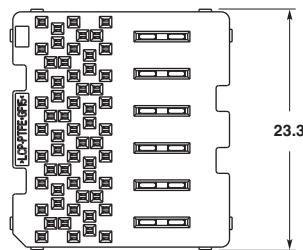
Headers



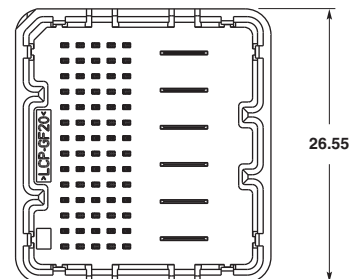
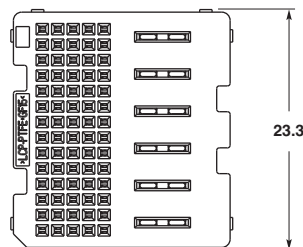
**40 Differential Pairs
134 Signal Contacts**
Receptacle Drawing 2110321
Header Drawing 2110320



**16 Differential Pairs
59 Total Contacts
6 Power Contacts**
Receptacle Drawing 2110421
Header Drawing 2110420



**70 High Density Grid
6 Power Contacts**
Receptacle Drawing 2110501
Header Drawing 2110500

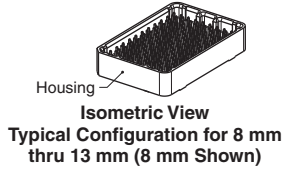


*All available with or without guide posts. See page 10 for alternate dimensions. Additionally, all available with tin or tin/lead contacts.

See back cover for instructions on downloading drawings.

STRADA Mesa Connectors — Size 2*

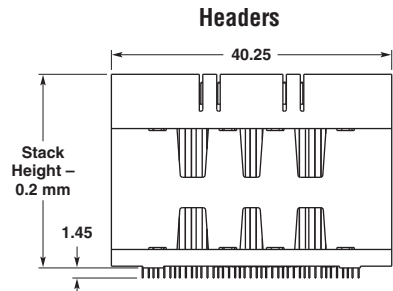
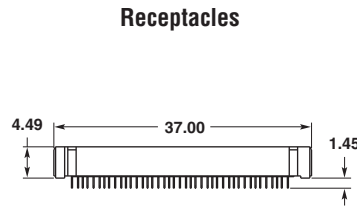
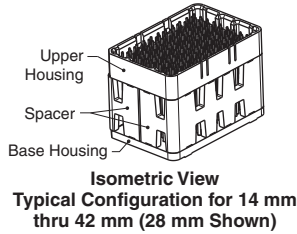
8-13 mm Header Height*



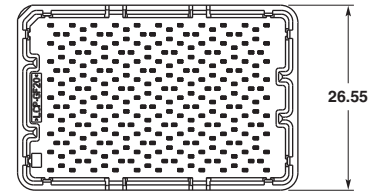
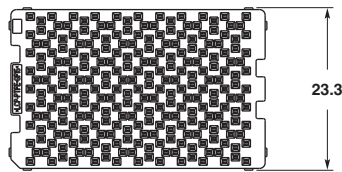
Standard Width; 8-pairs per Column

Housing Size	No. of Diff Pairs	No. of Single Ended Contacts	No. of Power Contacts
2	80	0	0
2	56	0	6
2	32	84	6
2	0	210	6
2	32	0	12

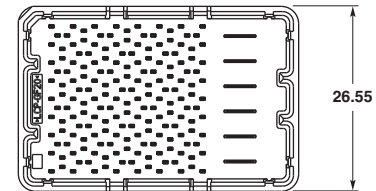
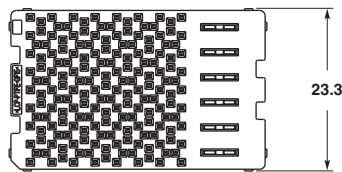
14- 42 mm Header Height



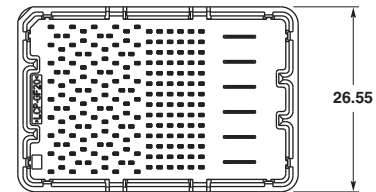
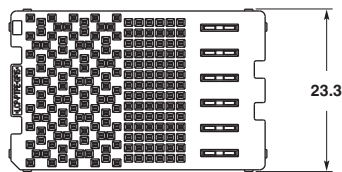
80 Differential Pairs
259 Total Signal Contacts
Receptacle Drawing 2057361
Header Drawing 2057360



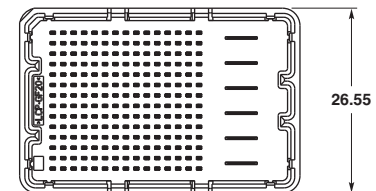
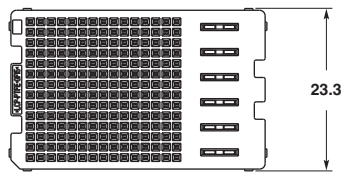
56 Differential Pairs
184 Total Contacts
6 Power Contacts
Receptacle Drawing 2057461
Header Drawing 2057460



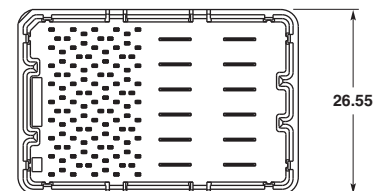
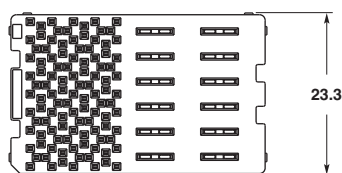
32 Differential Pairs
84 Single Ended Contacts
193 Total Signal Contacts
6 Power Contacts
Receptacle Drawing 2110901
Header Drawing 2110900



210 High Density-Grid
6 Power Contacts
Receptacle Drawing 2110511
Header Drawing 2110510



32 Differential Pairs
109 Total Signal Contacts
12 Power Contacts
Receptacle Drawing 2110521
Header Drawing 2110520

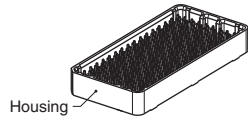


*All available with or without guide posts. See page 10 for alternate dimensions. Additionally, all available with tin or tin/lead contacts.

See back cover for instructions on downloading drawings.

STRADA Mesa Connectors — Size 3*

8-13 mm Header Height*

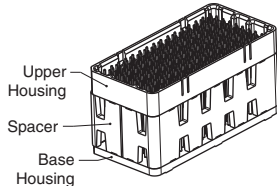


Isometric View
Typical Configuration for
8 mm thru 13 mm
(8 mm Shown)

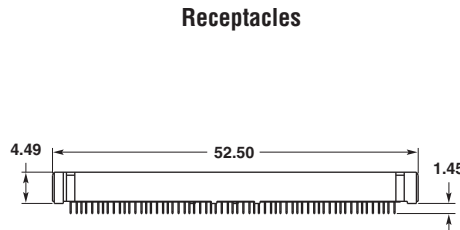
Standard Width; 8-pairs per Column

Housing Size	No. of Diff Pairs	No. of Single Ended Contacts	No. of Power Contacts
3	120	0	0
3	96	0	6
3	96	84	0
3	72	0	12

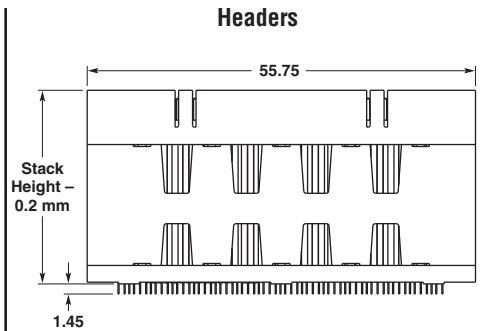
14- 42 mm Header Height*



Isometric View
Typical Configuration for
14 mm thru 42 mm
(28 mm Shown)

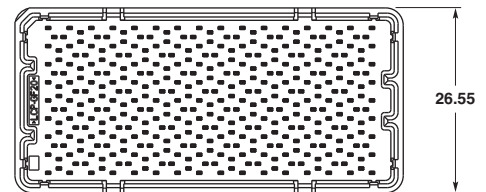
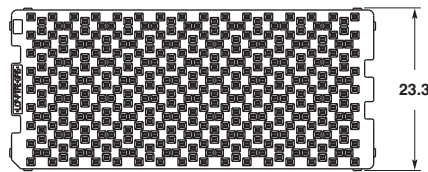


Receptacles

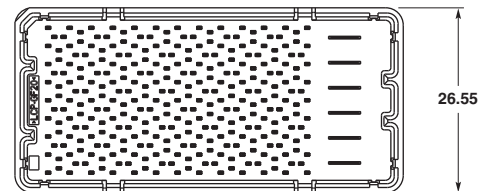
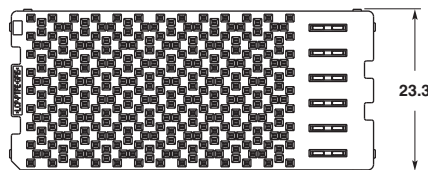


Headers

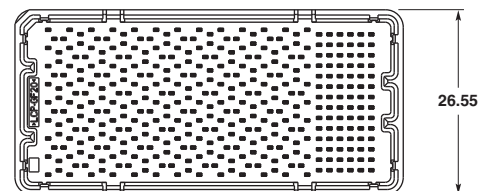
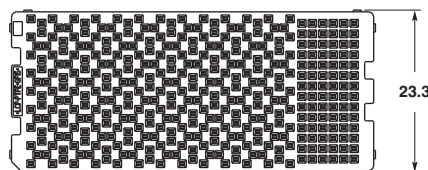
120 Differential Pairs
384 Total Signal Contacts
Receptacle Drawing 2110401
Header Drawing 2110400



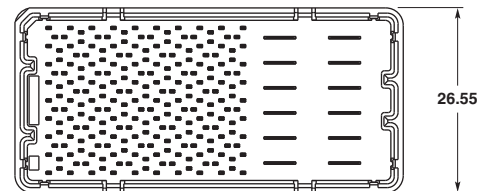
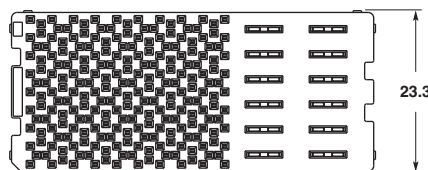
96 Differential Pairs
304 Total Signal Contacts
6 Power Contacts
Receptacle Drawing 2110481
Header Drawing 2110480



96 Differential Pairs
84 High Density-Grid
393 Total Signal Contacts
Receptacle Drawing 2110551
Header Drawing 2110550



72 Differential Pairs
234 Total Signal Contacts
12 Power Contacts
Receptacle Drawing 2110531
Header Drawing 2110530



*All available with or without guide posts. See page 10 for alternate dimensions. Additionally, all available with tin or tin/lead contacts.

See back cover for instructions on downloading drawings.

STRADA Mesa Connectors — Sizes 1-3*

8-13 mm Header Height*



Isometric View
Typical Configuration for 8 mm
thru 13 mm (8 mm Shown)

Half-Width; 4-pairs per Column

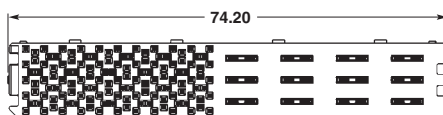
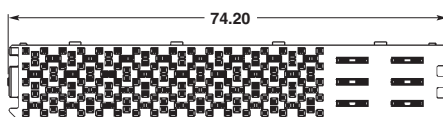
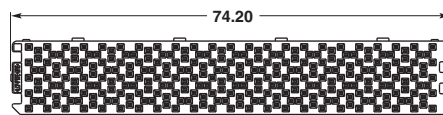
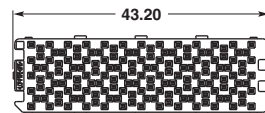
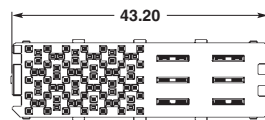
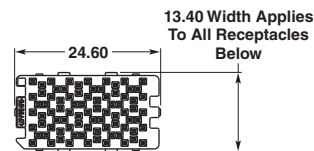
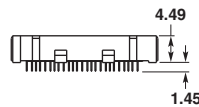
Housing Size	No. of Diff Pairs	No. of Single Ended Contacts	No. of Power Contacts
1	24	0	0
2	48	0	0
2	24	0	6
3	88	0	0
3	64	0	6
3	40	0	12

14- 42 mm Header Height

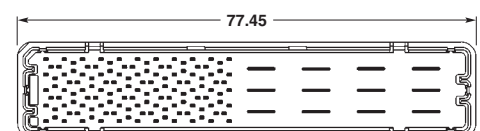
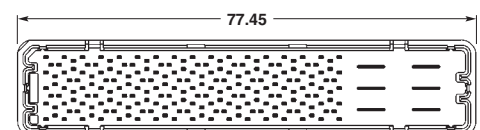
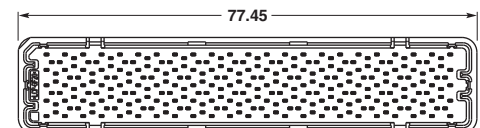
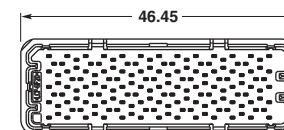
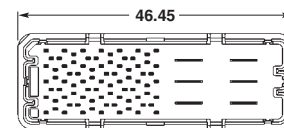
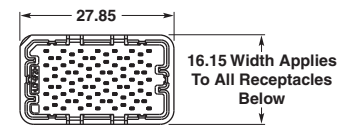
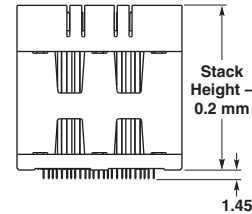


Isometric View
Typical Configuration for 14 mm
thru 42 mm (28 mm Shown)

Receptacles



Headers



Size 1 Half-Width
24 Differential Pairs + Grounds
83 Total Signal Contacts
Receptacle Drawing 2143411
Header Drawing 2143410

Size 2 Half-Width
24 Differential Pairs
6 Power Contacts
Receptacle Drawing 2149501
Header Drawing 2149500

Size 2 Half-Width
48 Differential Pairs + Grounds
161 Total Signal Contacts
Receptacle Drawing 2143381
Header Drawing 2143380

Size 3 Half-Width
88 Differential Pairs + Grounds
291 Total Signal Contacts
Receptacle Drawing 2132681
Header Drawing 2132680

Size 3 Half-Width
64 Differential Pairs
6 Power Contacts
Receptacle Drawing 2149441
Header Drawing 2149440

Size 3 Half-Width
40 Differential Pairs
12 Power Contacts
Receptacle Drawing 2149511
Header Drawing 2149510

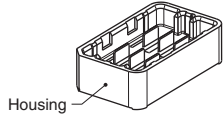
*All available with or without guide posts. See page 10 for alternate dimensions. Additionally, all available with tin or tin/lead contacts.

See back cover for instructions on downloading drawings.

STRADA Mesa Connectors for Power*

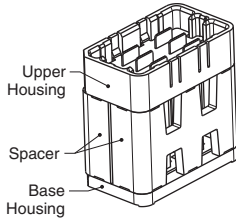
Power only Half-Width Mezzanine Connectors Sizes 1 & 2

8-13 mm Header Height*

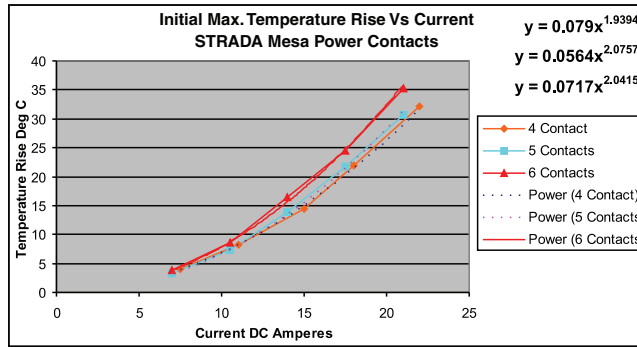
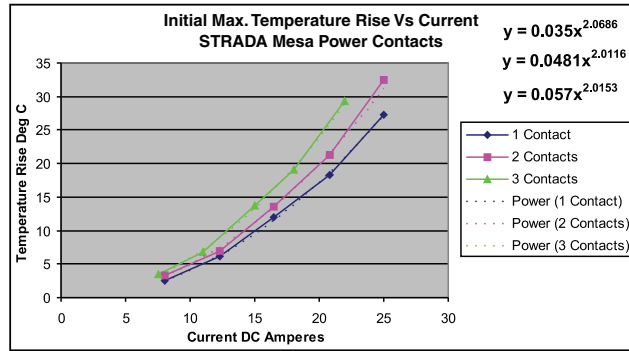


Isometric View
Typical Configuration for
8 mm thru 13 mm
(8 mm Shown)

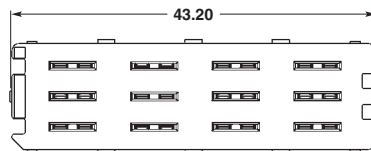
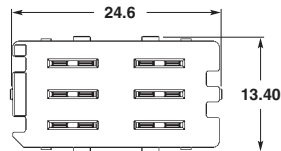
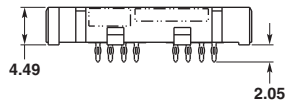
14- 42 mm Header Height*



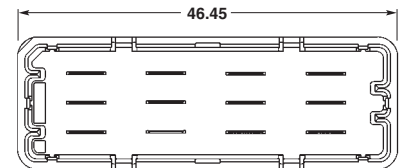
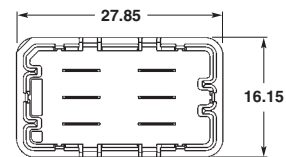
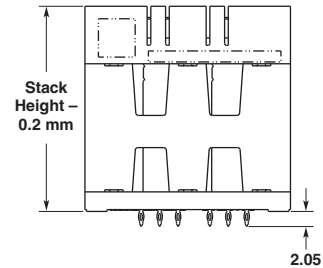
Isometric View
Typical Configuration for
14 mm thru 42 mm
(28 mm Shown)



Receptacles



Headers



Size 1 Power Half-Width
6 Power Contacts
0 Differential Pairs
0 Total Signal Contacts
 Receptacle Drawing 2149521
 Header Drawing 2149520

Size 2 Power Half-Width
12 Power Contacts
0 Differential Pairs
0 Total Signal Contacts
 Receptacle Drawing 2149531
 Header Drawing 2149530

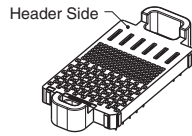
*All available with or without guide posts. See page 10 for alternate dimensions. Additionally, all available with tin or tin/lead contacts.

See back cover for instructions on downloading drawings.

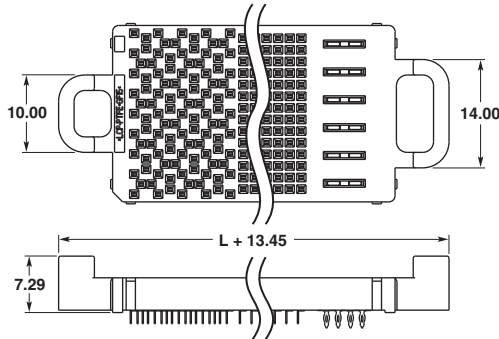
Guide Post Options*

Standard Width — 8 pairs per column

Receptacle

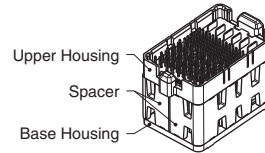


Isometric Views



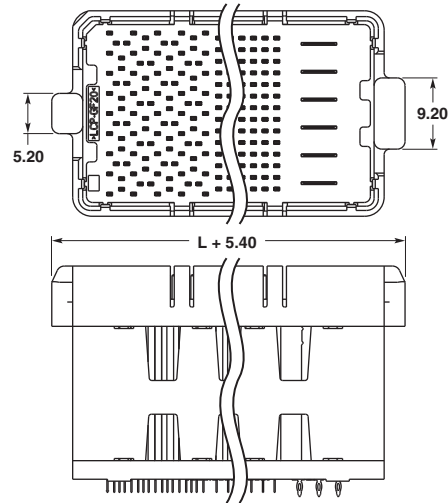
Size 2 Receptacle with Guide Posts
Drawing Number 2057471

Header



Isometric View

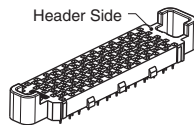
Typical Configuration for 14 mm thru 42 mm (28 mm Shown)



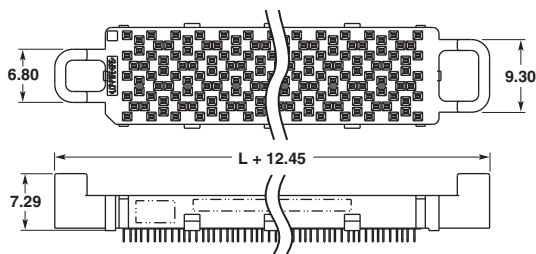
Drawing Number 2057470

Half-Width — 4 pairs per column

Receptacle

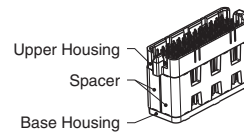


Isometric Views



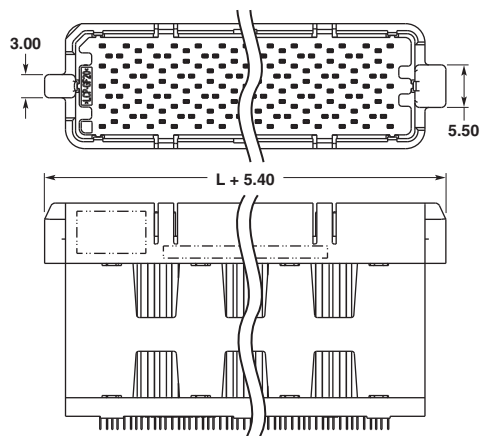
Size 2 Half-width with Guide Posts
Drawing Number 2149781

Header



Isometric View

Typical Configuration for 14 mm thru 42 mm (28 mm Shown)



Drawing Number 2149780

*All available with tin or tin/lead contacts.

Overall Drawing Number Chart

Standard Width

Housing Size	No. of Diff Pairs	No. of SE Contacts	No. of Power Contacts	Customer Drawing Number			
				Without Guide Posts		With GuidePosts	
				Header	Receptacle	Header	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	—	—
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

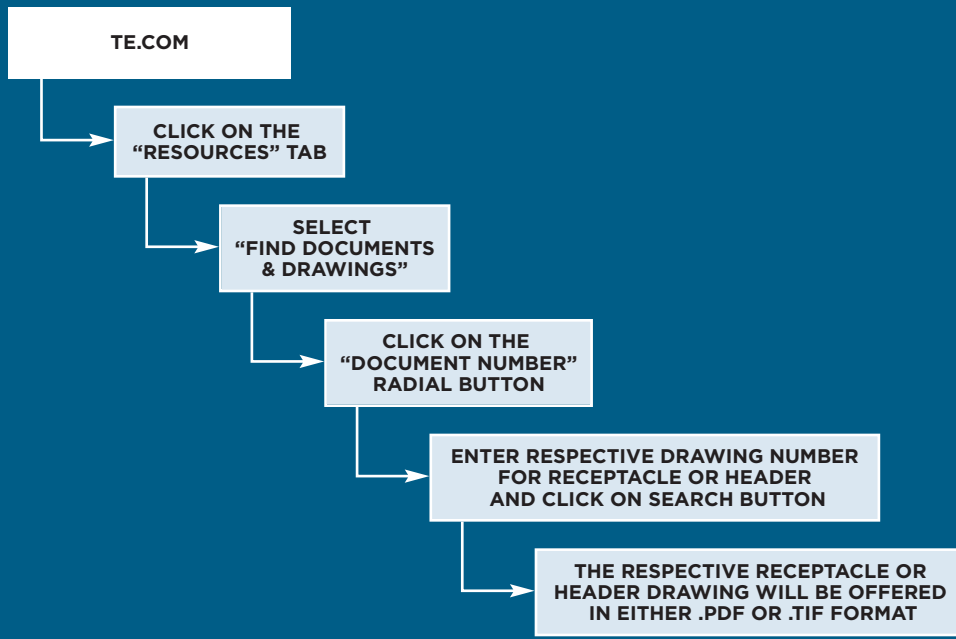
1	24	0	0	2143410	2143411	2149770	2149771
2	48	0	0	2143380	2143381	2149780	2149781
3	88	0	0	2132680	2132681	2149790	2149791
2	24	0	6	2149500	2149501	—	—
3	64	0	6	2149440	2149441	2143540	2143541
3	40	0	12	2149510	2149511	—	—
1	0	0	6	2149520	2149521	—	—
2	0	0	12	2149530	2149531	—	—

Drawing Number Index

Note: This index lists all drawings by base number only. Complete part numbers (with prefixes and/or suffixes) are shown on the engineering drawing which can be downloaded following the instructions on the back cover (page 12) of this catalog.

Drawing No.	Page	Drawing No.	Page	Drawing No.	Page
2057360	5	2110501	4	2143410	7
2057361	5	2110510	5	2143411	7
2057460	5	2110511	5	2149440	7
2057461	5	2110520	5	2149441	7
2057470	9	2110521	5	2149500	7
2057471	9	2110530	6	2149501	7
2110320	4	2110531	6	2149510	7
2110321	4	2110550	6	2149511	7
2110400	6	2110551	6	2149520	8
2110401	6	2110900	5	2149521	8
2110420	4	2110901	5	2149530	8
2110421	4	2132680	7	2149531	8
2110480	6	2132681	7	2149780	9
2110481	6	2143380	7	2149781	9
2110500	4	2143381	7		

Drawing download instructions:



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