

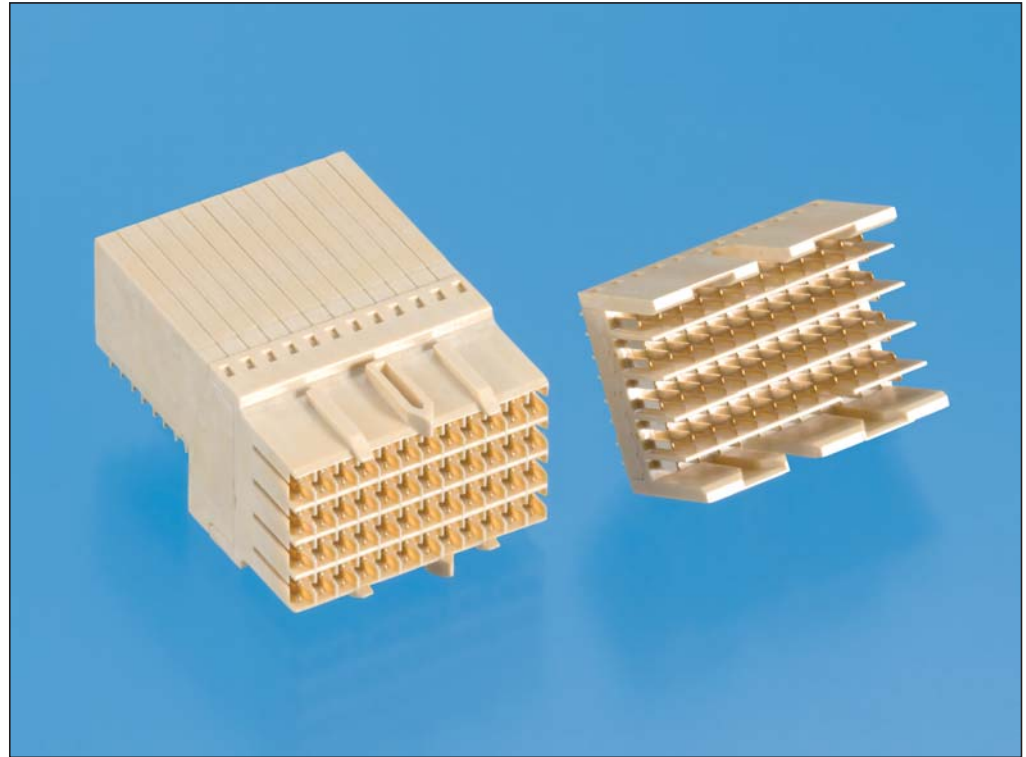
Z-PACK Slim UHD Connector Platform

RoHS
Ready 

Introduction

Key Features

- Density of 55 pins/cm²
- Fits +13 mm slot pitches
- 20+ Gbps scalable signal speed
- Complete end-to-end stackable
- Press-fit termination technology
- Different pin assignments possible
- Post/Premating possible
- Integrated polarization and guiding



Description

Z-PACK Slim (low profile) UHD (Ultra High Density) is a **flexible** and **upgradeable** connector system designed to fit **15 mm (0.6 inch) slot pitch** applications.

The Z-PACK Slim UHD connector has an extremely **high contact density** combined with **excellent high speed signal performance**.

Applications

- Telecom Equipment
- Switches
- Routers
- Servers etc.

For more Information:
<http://www.zpackuhd.com>

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Connector Concept

Flexibility

Multiple types of high speed pin assignments are permissible. See Application Specifications or contact Tyco Electronics.

Some Examples:

- 1.5 differential pairs per column
- 2.0 differential pairs per column
- Extremely high density in fully single ended arrangement up to 55 signal lines/cm²

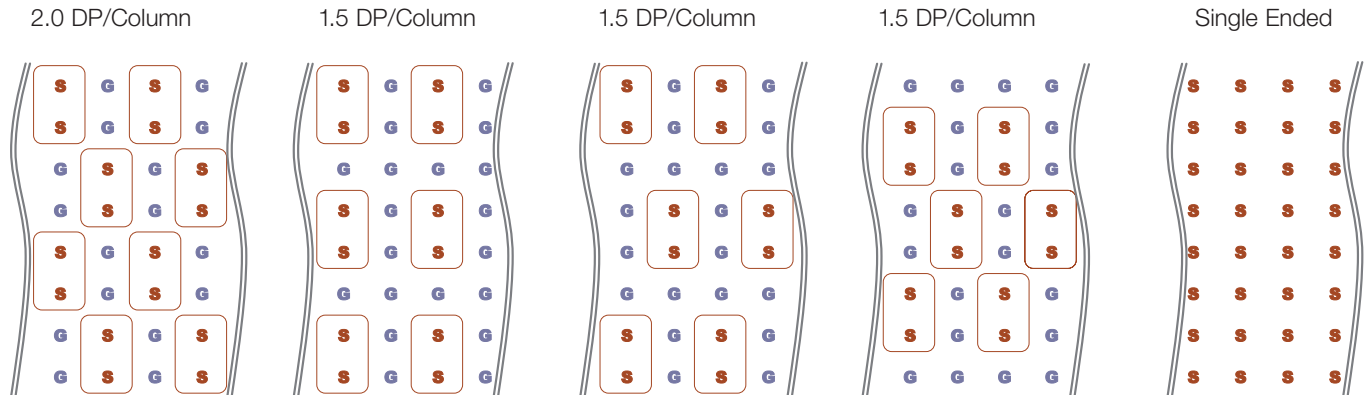
Upgradeability

- Z-PACK Slim UHD CS (Common Speed) ≤3.5 Gbps
- Z-PACK Slim UHD HS (High Speed) 12.5+ Gbps (2.0 DP/Column) 20+ Gbps (1.5 DP/Column)

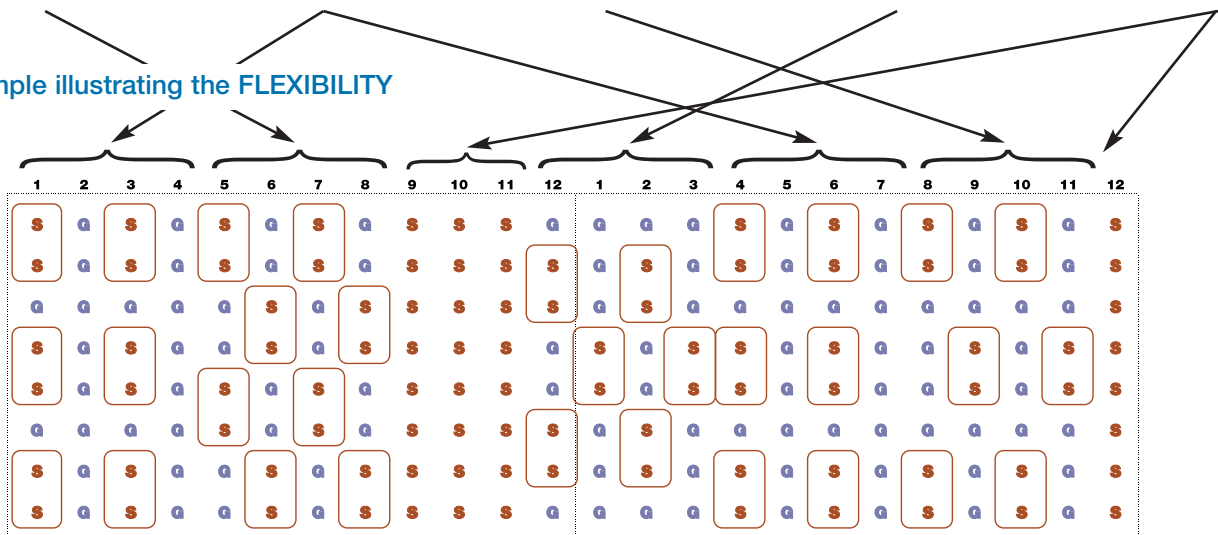
8 Contacts per Column – 12 Columns per Module

Flexibility

PIN ASSIGNMENTS

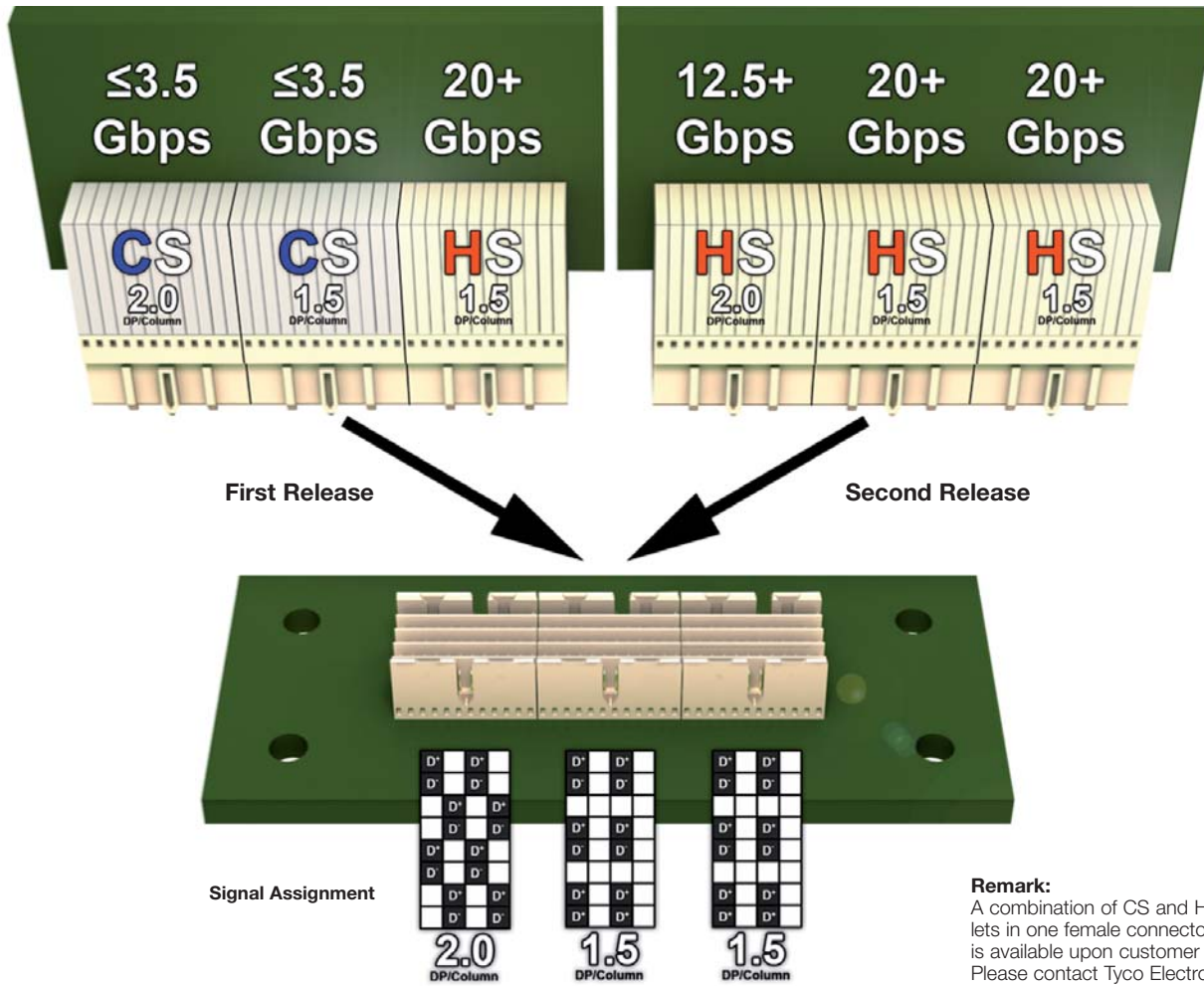


Example illustrating the FLEXIBILITY



For other assignments, please see Application Specification or contact Tyco Electronics.

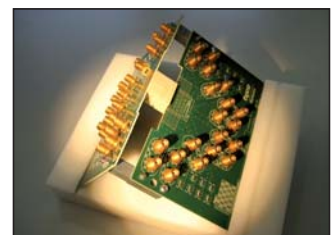
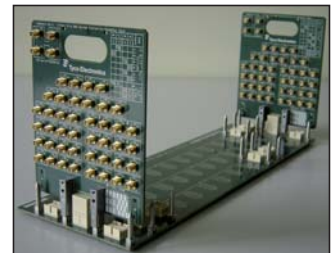
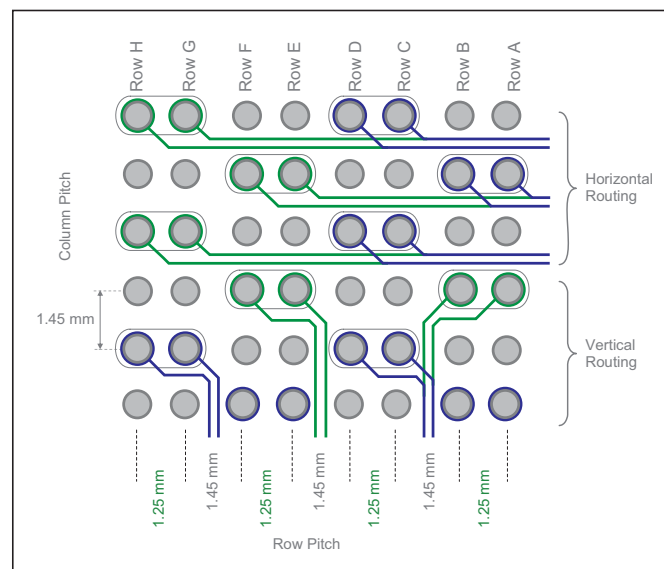
Upgradeability



Connector Footprint

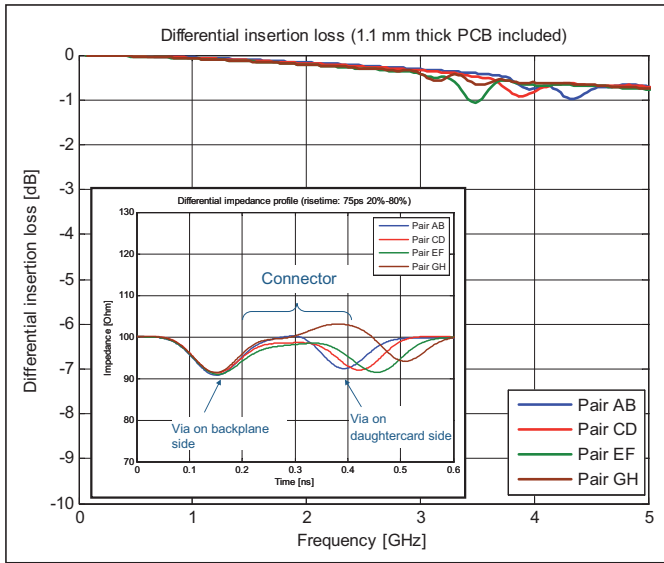
- Drill Size:**
0.5 mm
- Finished Hole Size:**
0.4 mm
- Pad Size:**
0.8 mm
- Anti-Pad Size:**
0.95 mm

- Identical board footprints on Backplane and Daughter-Card
- 1.45 mm routing channels available in Horizontal and Vertical Direction
- Footprint allows 4-6-4 MIL or 5-7-5 MIL differential routing



System and connector evaluation boards are available upon request.

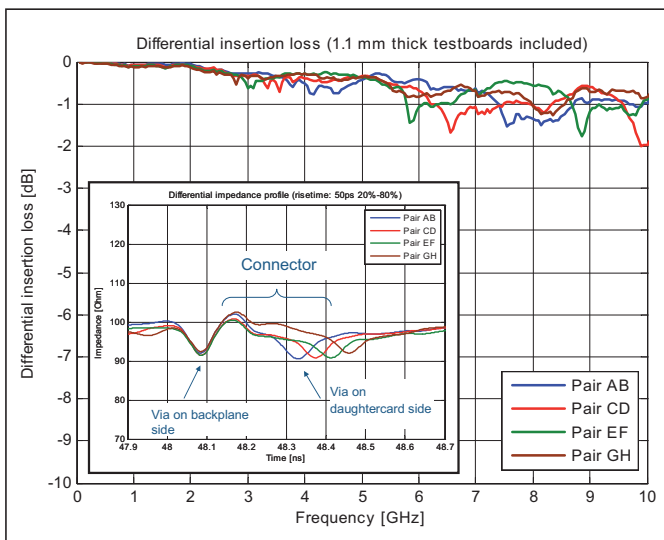
Typical Electrical Properties



2.0 DP/Column Common Speed*

Worst Case Noise with recommended TX/RX pinout:
 2.1 % @ 75 ps (20 % to 80 %)

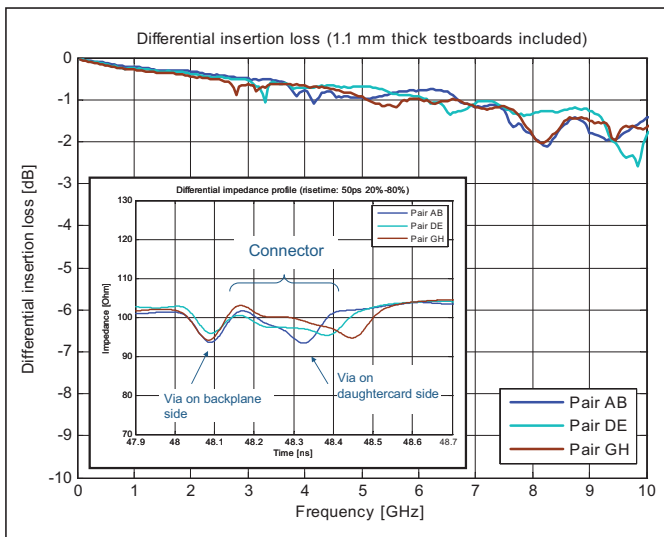
Noise Summary	Total Asynchronous Noise @ 75 ps Risetime (20 % to 80 %)	
	2.0 different pairs/column	
Victim Pair	Total Async. NEXT	Total Async. FEXT
Pair AB	1.4 %	0.7 %
Pair CD	2.9 %	1.1 %
Pair EF	2.9 %	1.2 %
Pair GH	1.4 %	0.7 %



2.0 DP/Column High Speed**

Worst Case Noise with recommended TX/RX pinout:
 1.9 % @ 50 ps (20 % to 80 %)

Noise Summary	Total Asynchronous Noise @ 50 ps Risetime (20 % to 80 %)	
	2.0 different pairs/column	
Victim Pair	Total Async. NEXT	Total Async. FEXT
Pair AB	1.5 %	0.6 %
Pair CD	3.1 %	1.3 %
Pair EF	3.1 %	1.5 %
Pair GH	1.5 %	0.8 %



1.5 DP/Column High Speed**

Worst Case Noise with recommended TX/RX pinout:
 0.9 % @ 50 ps (20 % to 80 %)

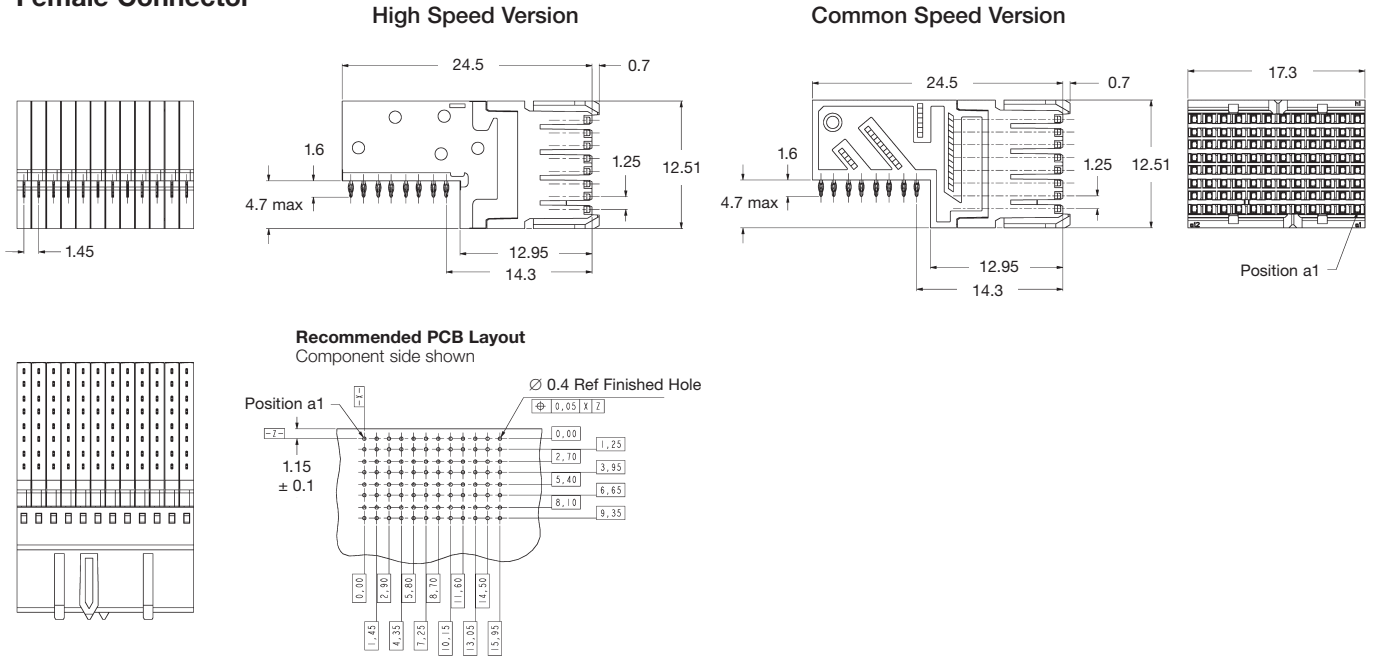
Noise Summary	Total Asynchronous Noise @ 50 ps Risetime (20 % to 80 %)	
	2.0 different pairs/column	
Victim Pair	Total Async. NEXT	Total Async. FEXT
Pair AB	1.0 %	0.6 %
Pair DE	0.4 %	0.6 %
Pair GH	1.2 %	0.8 %

*) All simulation data include the footprint performance of a 1.1 mm thick PCB test-board.

***) All measurement data include the footprint performance of a 1.1 mm thick PCB test-board.

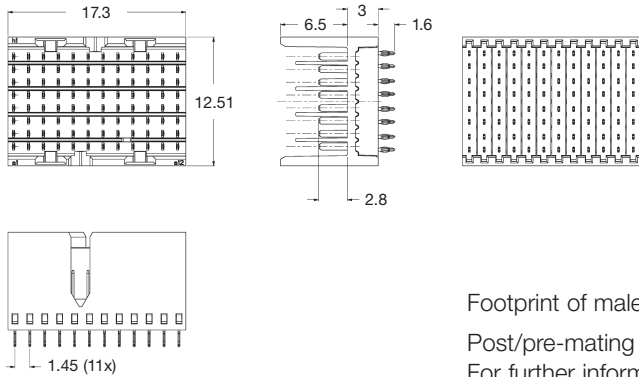
Connectors

Female Connector



Male Connector

Uniform Male Connector for High/Common Speed



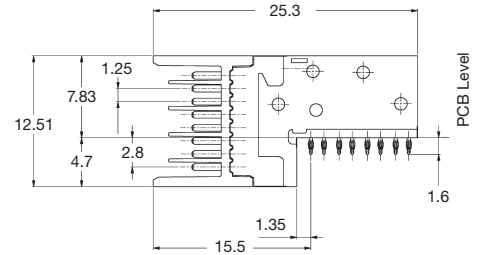
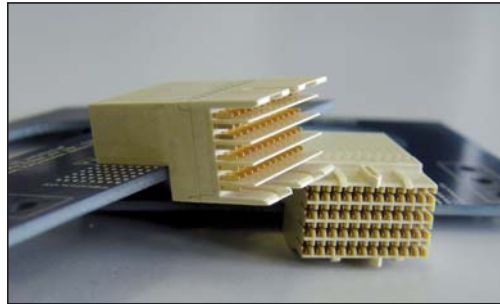
Footprint of male connector is identical to footprint of female connector.
 Post/pre-mating pins at pre-defined positions can be obtained upon request.
 For further information, please contact Tyco Electronics.

	Design Objectives/ Product Specification	Application Specification	Reference Part Numbers	
			Female	Male
High Speed	108-19353 / 108-19320	114-19106	1857657-1/-2	2042088-1/-2
Common Speed	108-19354 / 108-19352	114-19112	1982738-1/-2	
Power (see page 7)	108-19367	114-19122	1982257-5	1982260-5

Z-PACK Slim UHD Complementary Products

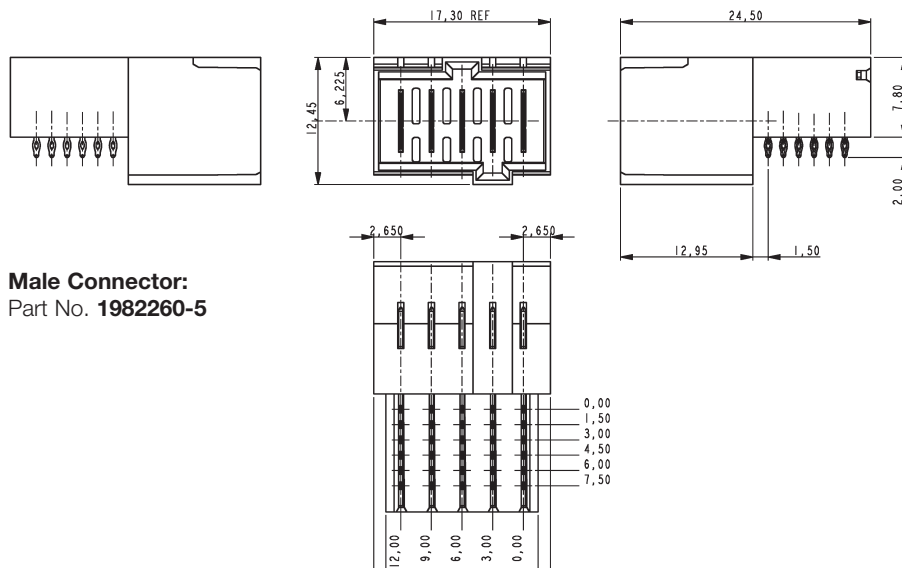
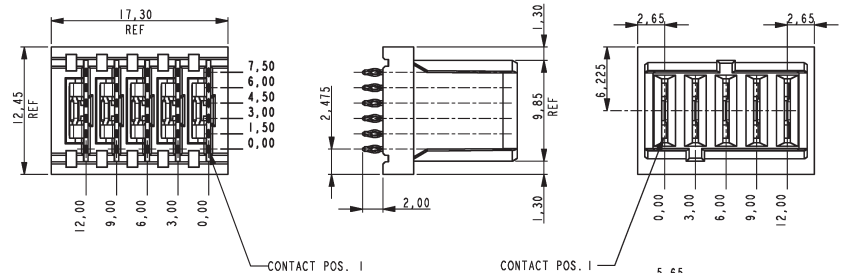
Right-Angle Male (RAM) Connector

- Co-planar application based on right-angle female and right-angle male.
- Performance up to 20+ Gbps (in combination with Female HS)
- Part No. **2042162-1**



Power Connector

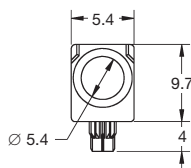
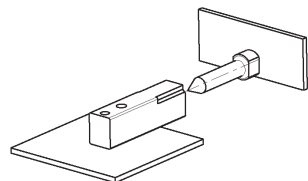
- Envelope dimensions identical to Z-PACK Slim UHD modules
- High durability (250 cycles)
- 2 Sequencing levels
- Current carrying capacity >18 Amp/Contact



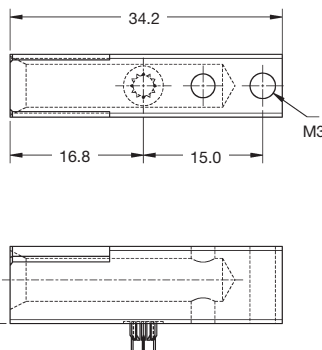
Male Connector:
Part No. **1982260-5**

Female Connector:
Part No. **1982257-5**

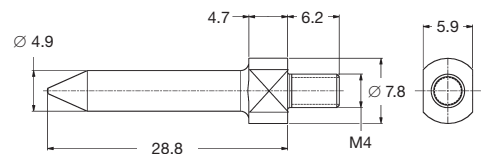
Guiding Pins



Female Guide Module
Part No. **223957-3**



Male Guide Pin
Part No. **1857988-1**



Tyco Electronics AMP GmbH

AMPèrestr. 12-14

64625 Bensheim / Germany

Phone: +49-(0)6251-133-0

Fax: +49-(0)6251-133-1600

www.tycoelectronics.com

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1654261-5 Issued 9-2008 3M ST