



STRADA Whisper : The Next-Gen 25-Gbps Connector

EVERY CONNECTION COUNTS



Whisper Electrical Review

- Power Sum FEXT is lower than -50 dB for system implementation at 12.5 GHz
- Insertion loss is less than 1dB and linear up to 20 GHz
- Individual shielded pairs offer excellent signal integrity / EMI performance
- Little to no skew through high-speed differential pairs
- Common mode impedance controlled throughout the connector, including footprint and mating interface
- Superior 25-Gbps electrical performance maintained even in a 1.5mm unmated condition
- No reliance on noise cancellation which can be critical in high-speed applications, unlike some competitive products
- 85-Ohm and 100-Ohm versions available



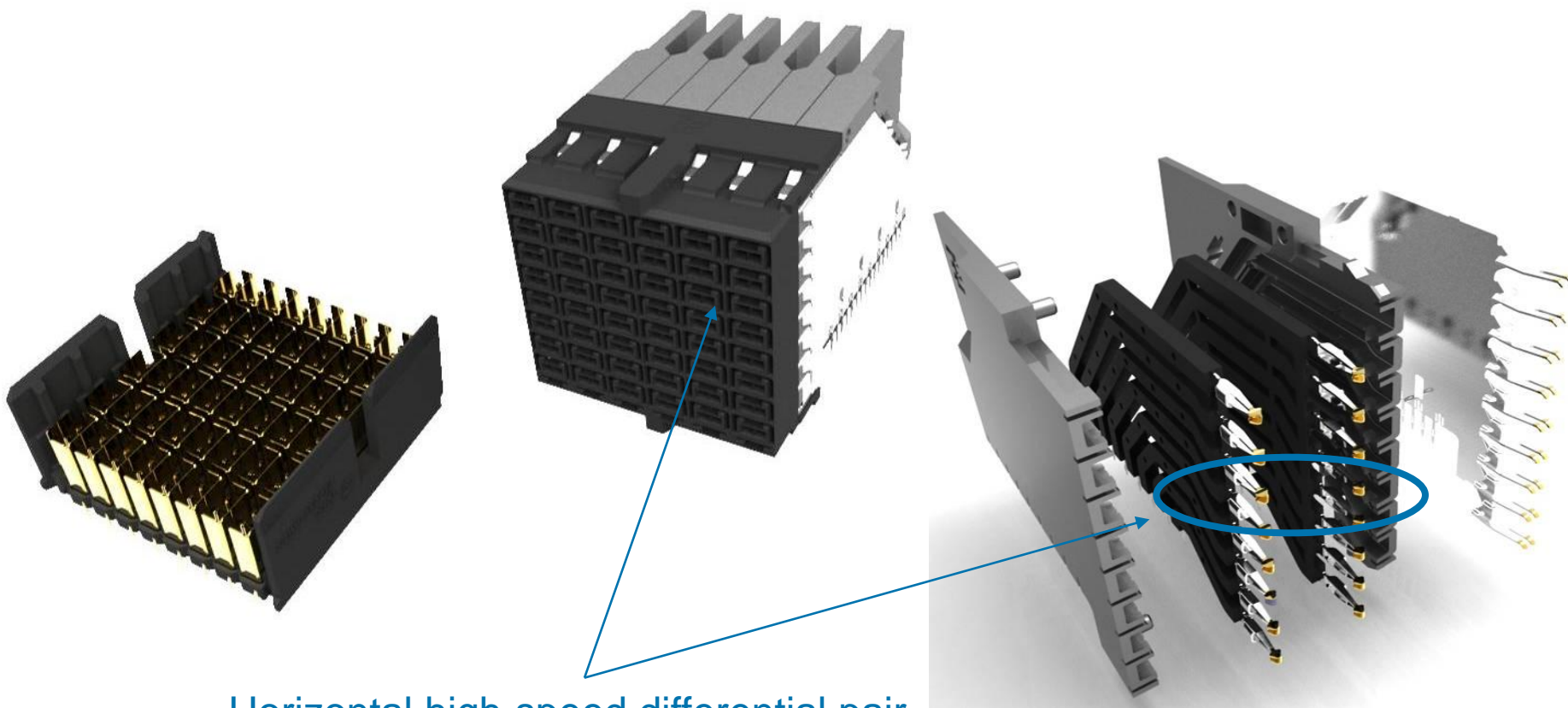
STRADA Whisper 3.9mm Connector

STANDARD CONSTRUCTION

EVERY CONNECTION COUNTS

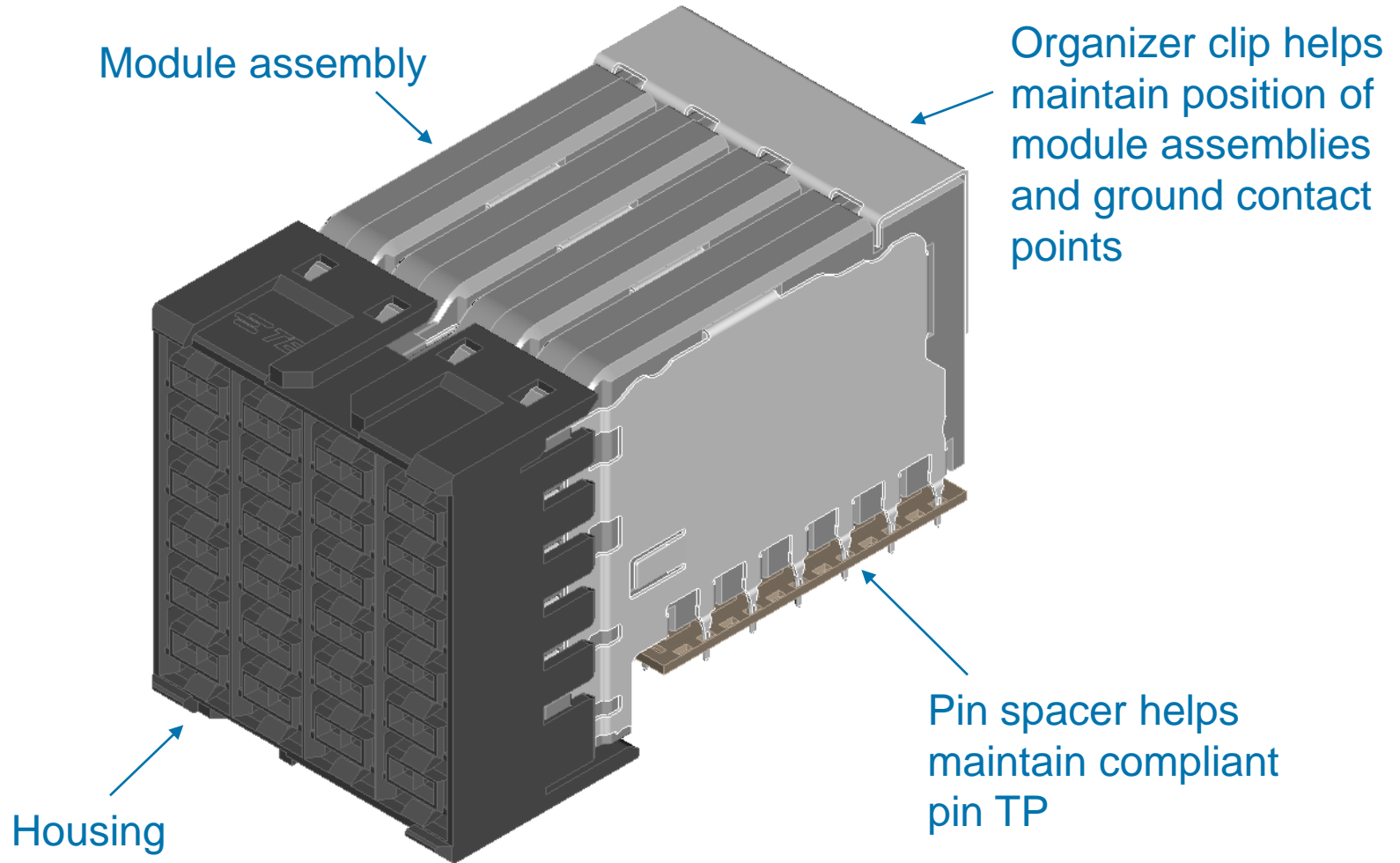


High-Performance Backplane Solution

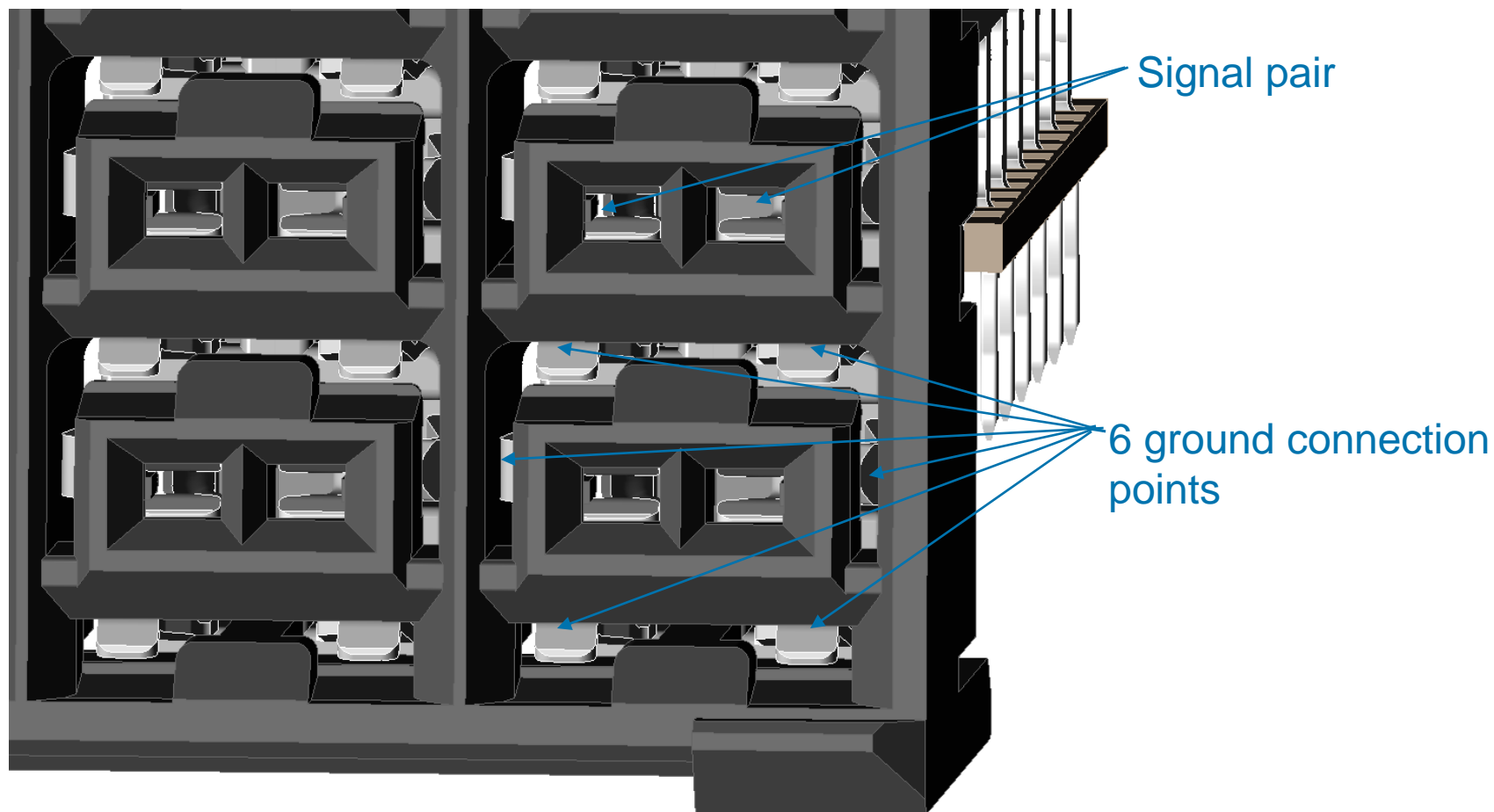


Horizontal high-speed differential pair
“Zero Skew” through connector

Receptacle Assembly: 6-pair 4-column (6x4)

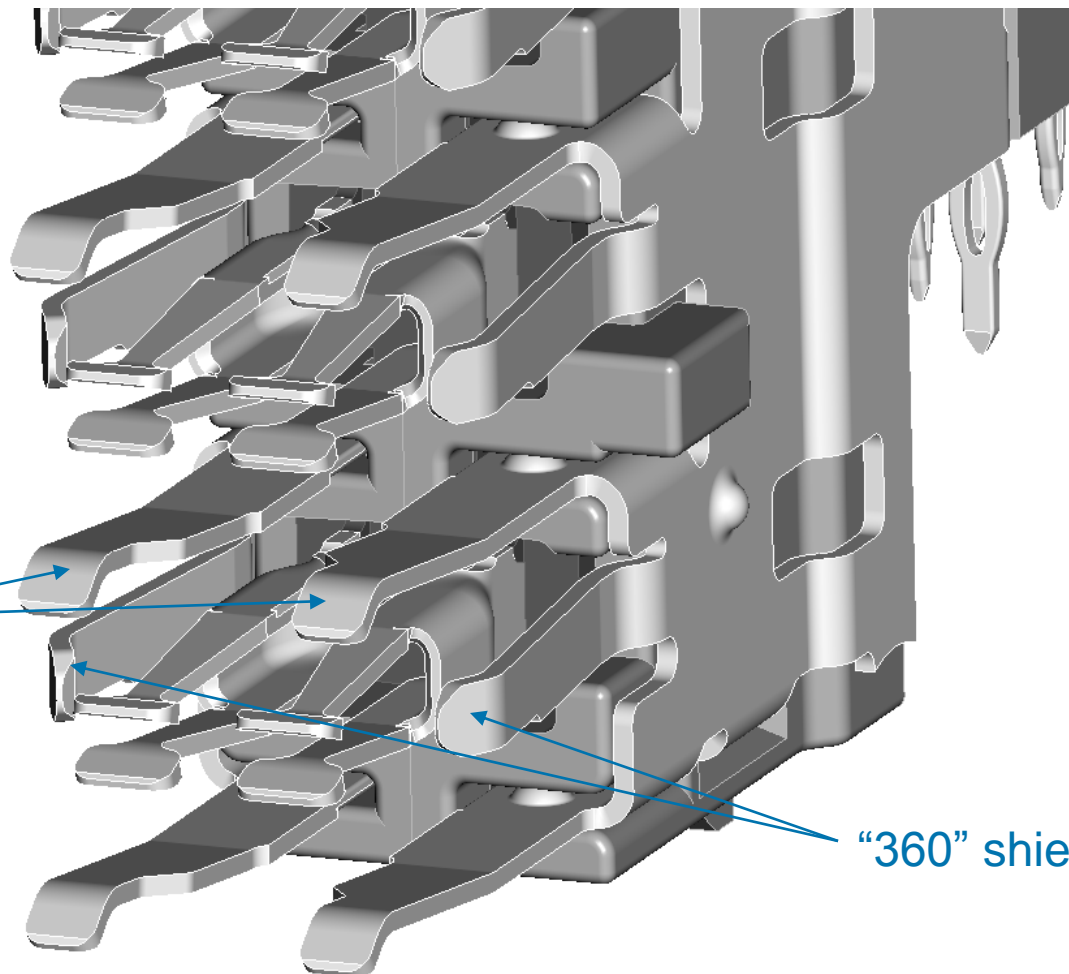


Receptacle Assembly: Front Housing Mating Interface



Receptacle Module Assembly: Shield Contacts

All shield springs
mate on the inside
of the header
C-Shield



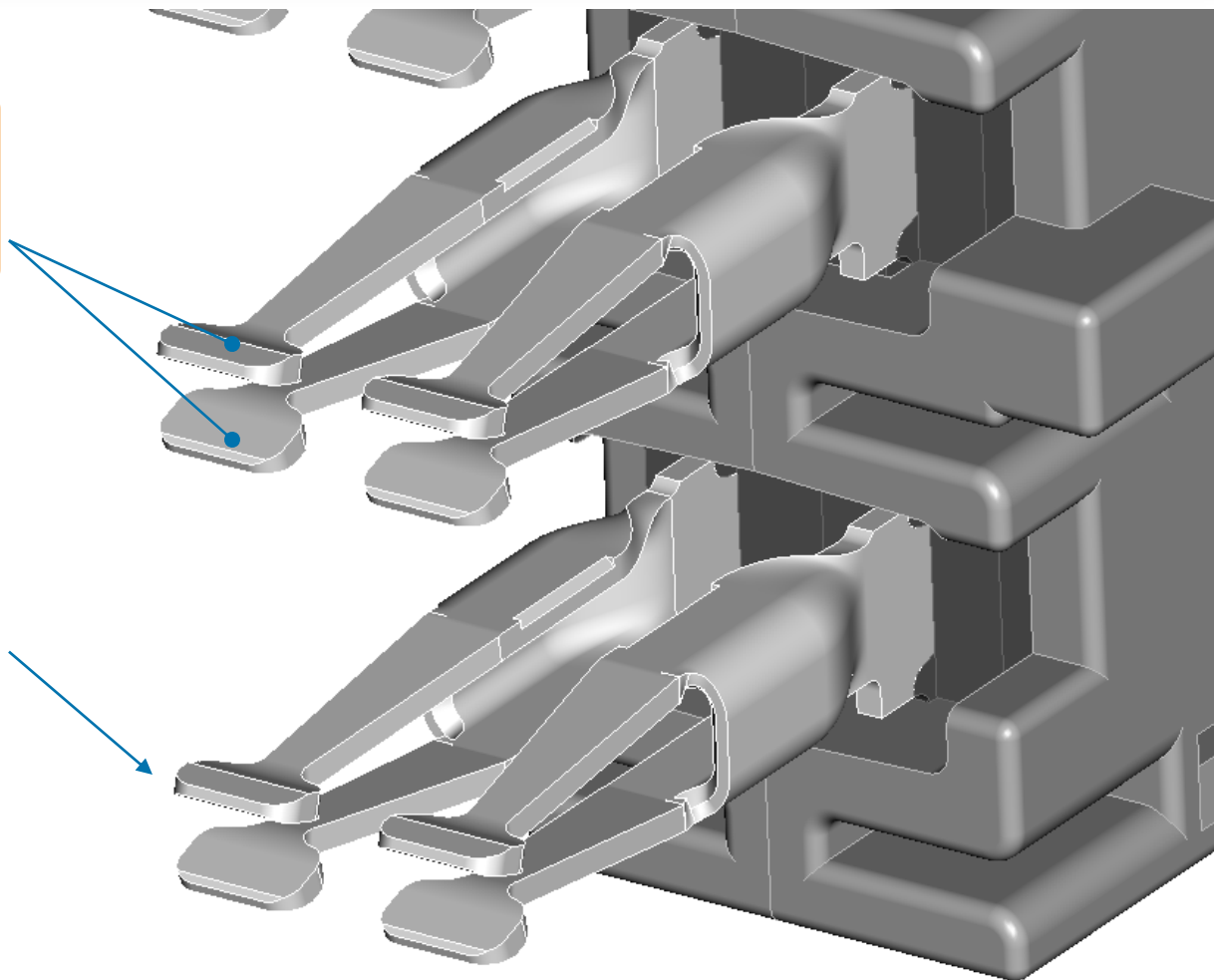
Horizontal shield
springs

"360" shield springs

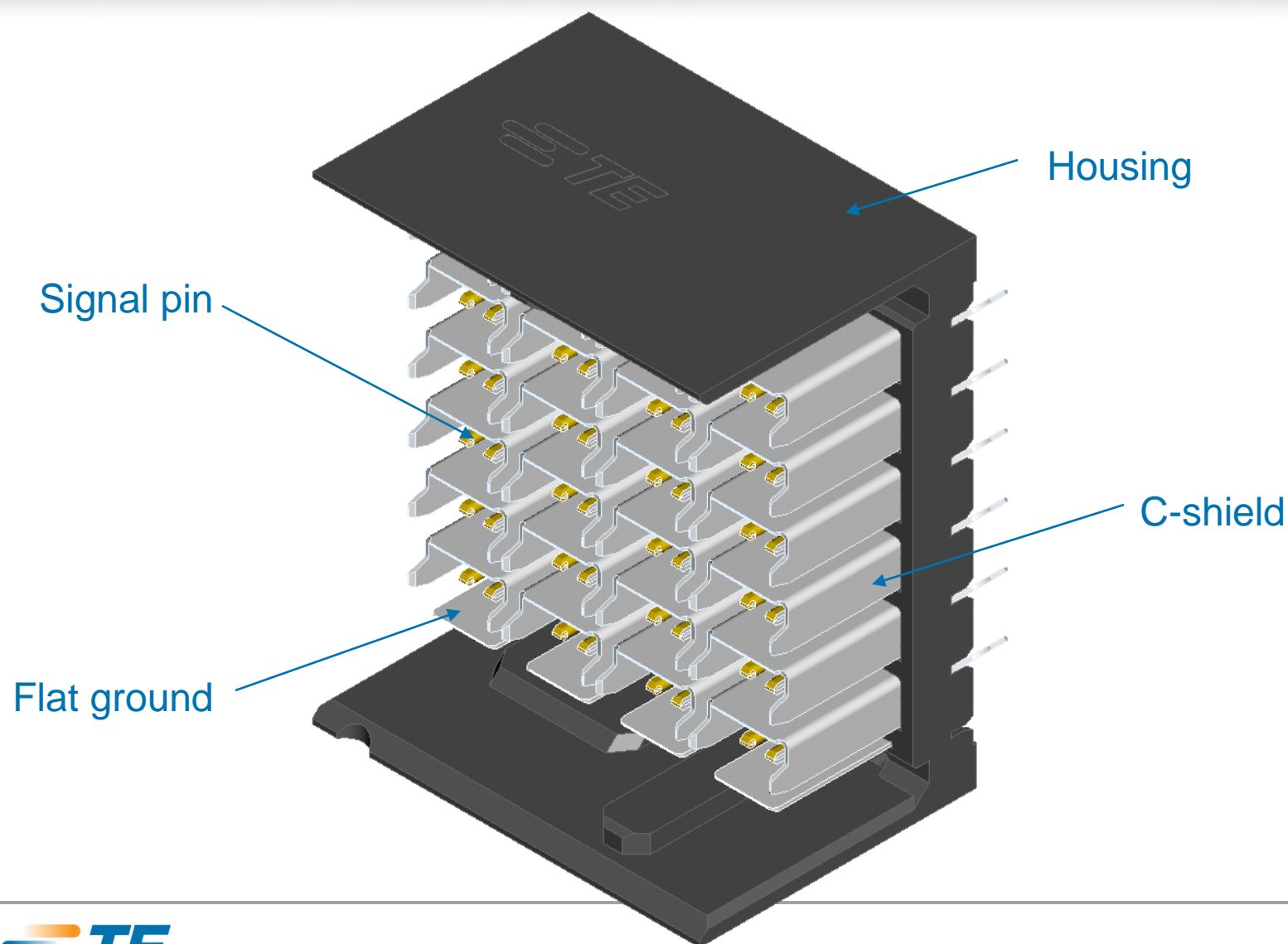
Receptacle Module Assembly (Shields Hidden): Receptacle Contact

Signal contacts have two points of contact

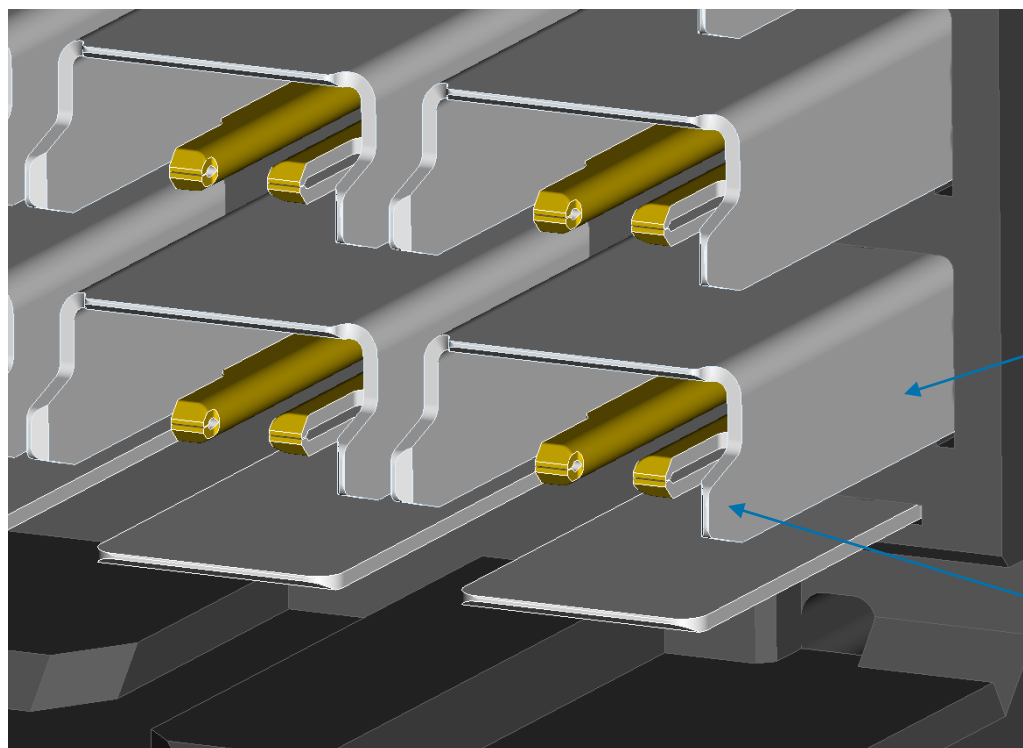
Wide paddle tips ensure maximum contact surface area when interfacing with header pin for added robustness



Header Assembly: Open End Wall 6x4



Header Assembly C-Shield Contact Detail



C-shield protects
signal pins from
damage

Tabs on sides of
C-shield provide
extra wipe

Whisper Robust Header Pins

TinMan



Ground and Signal



Cross Section

Impact



Ground and Signal



Cross Section

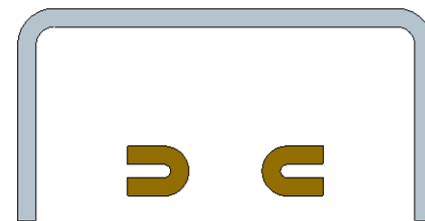
STRADA Whisper



Ground



Signal



Cross Section



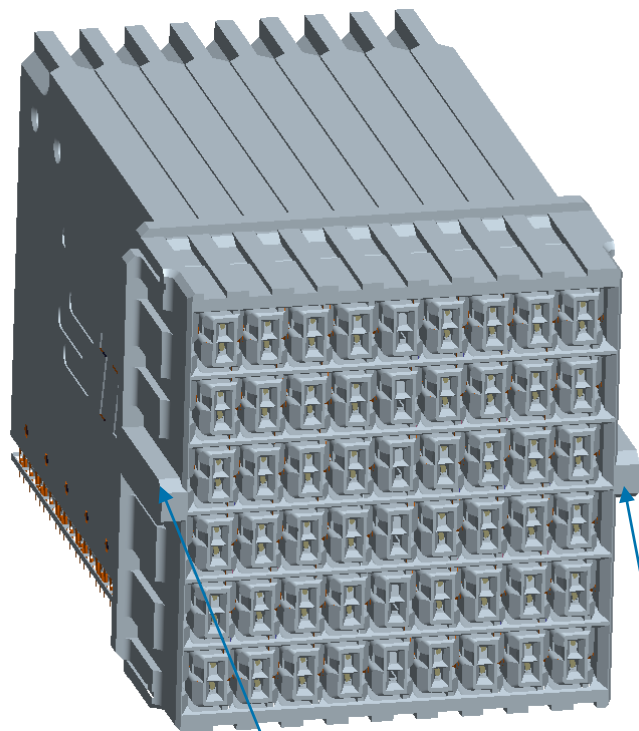
Strada Whisper 3.9mm MidPlane: Orthogonal Overview

ORTHOGONAL CONSTRUCTION

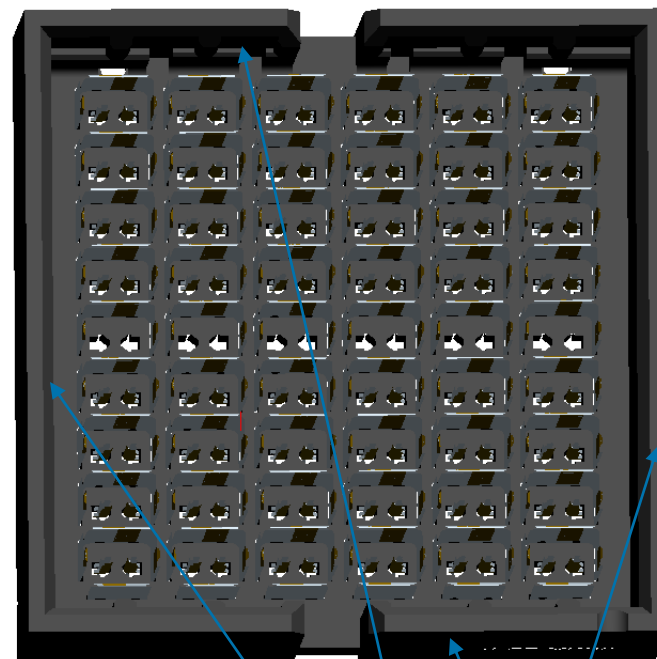
EVERY CONNECTION COUNTS



Orthogonal: Connector Mating

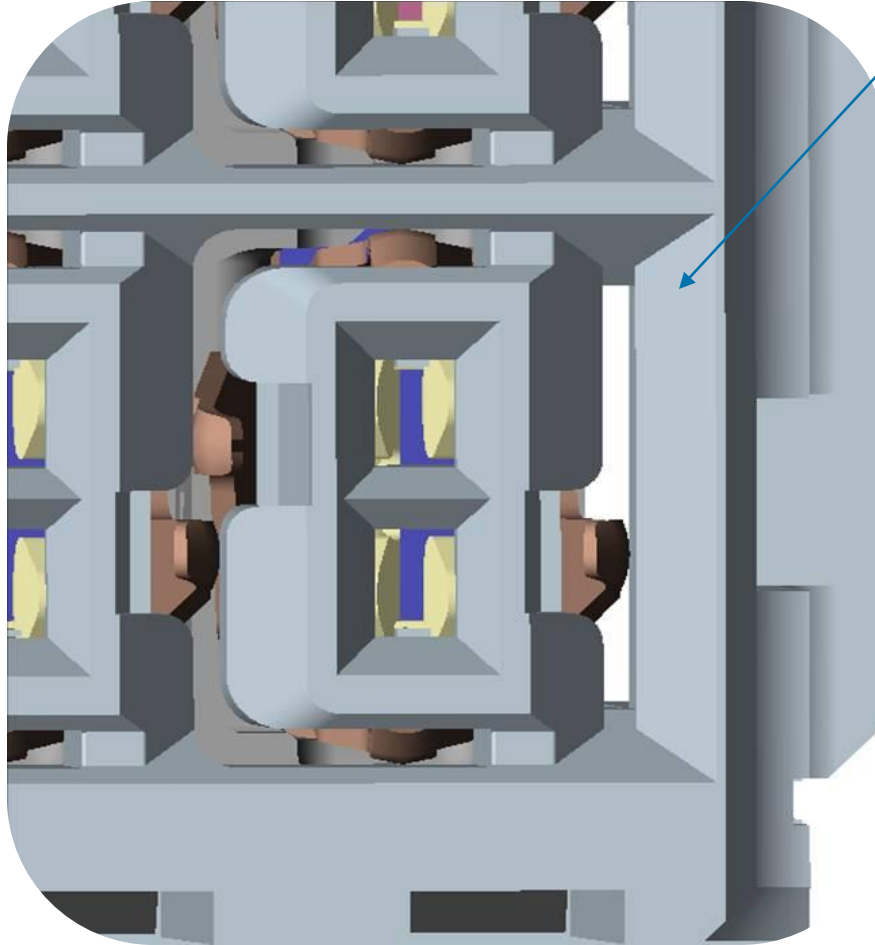


Keys provide proper alignment during connector mating



4-sided shroud provides robustness during system mating

Orthogonal Receptacle: Front Housing

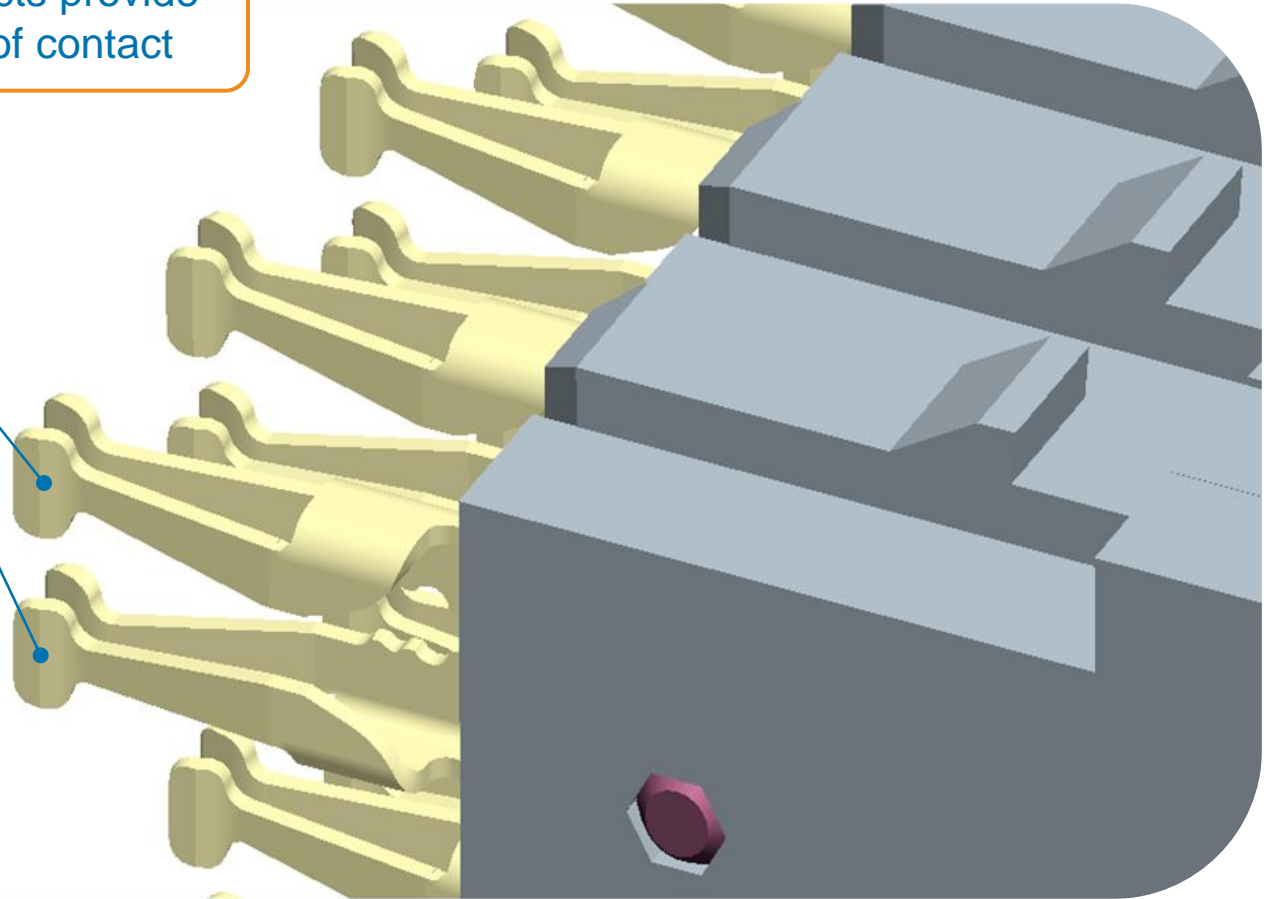


Front housing ensures good contact location and proper alignment during mating

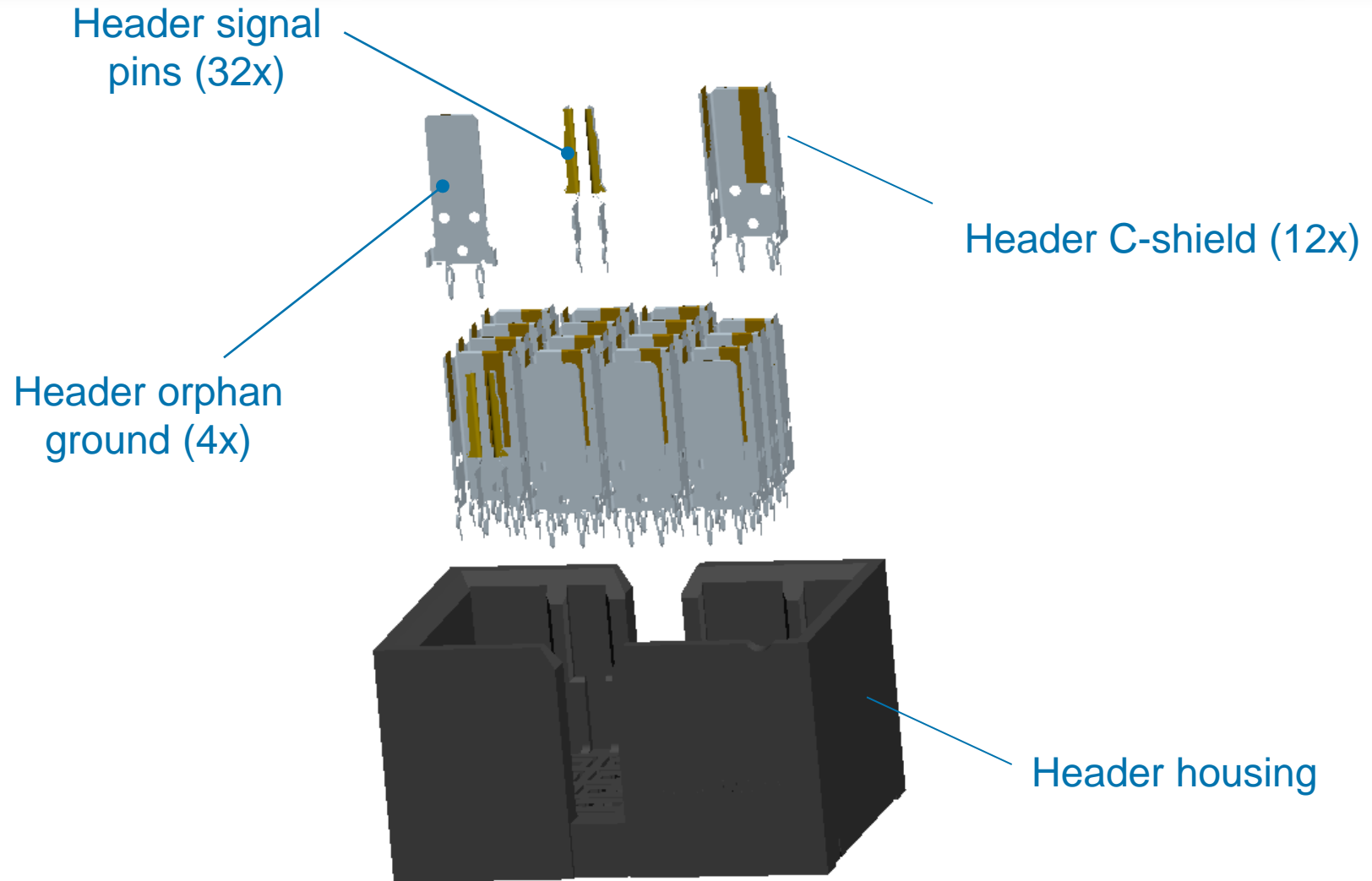
Orthogonal Receptacle: Signal Contacts

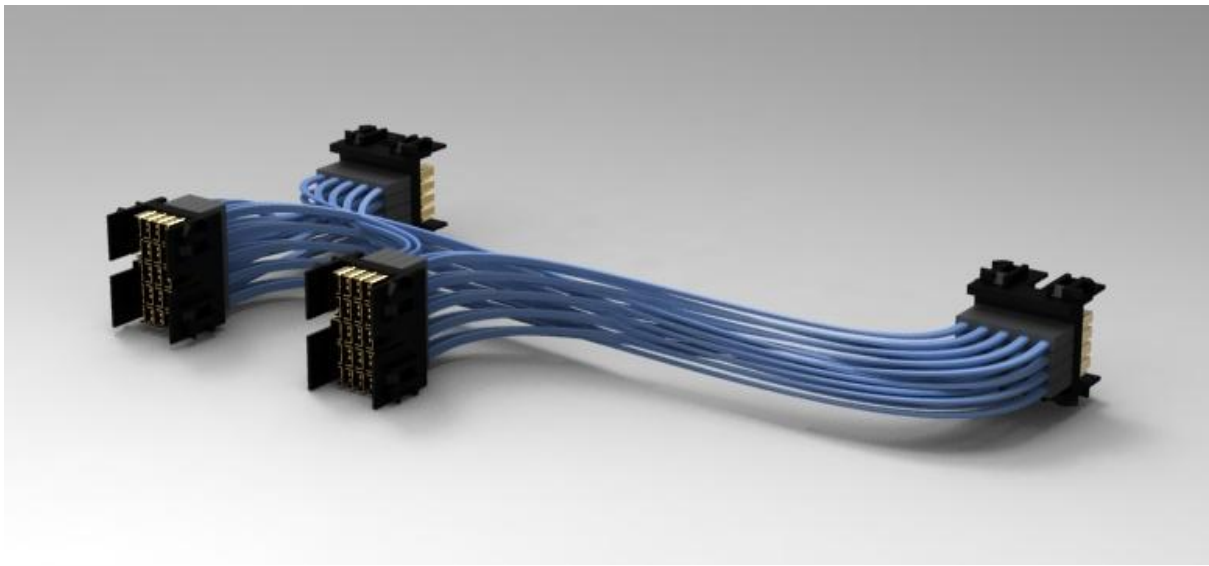
Signal contacts provide two points of contact

Wide paddle tips provide good alignment of header pin



4x4 Header Assembly (Exploded View)





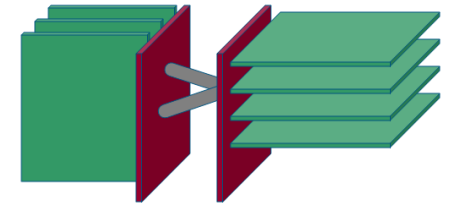
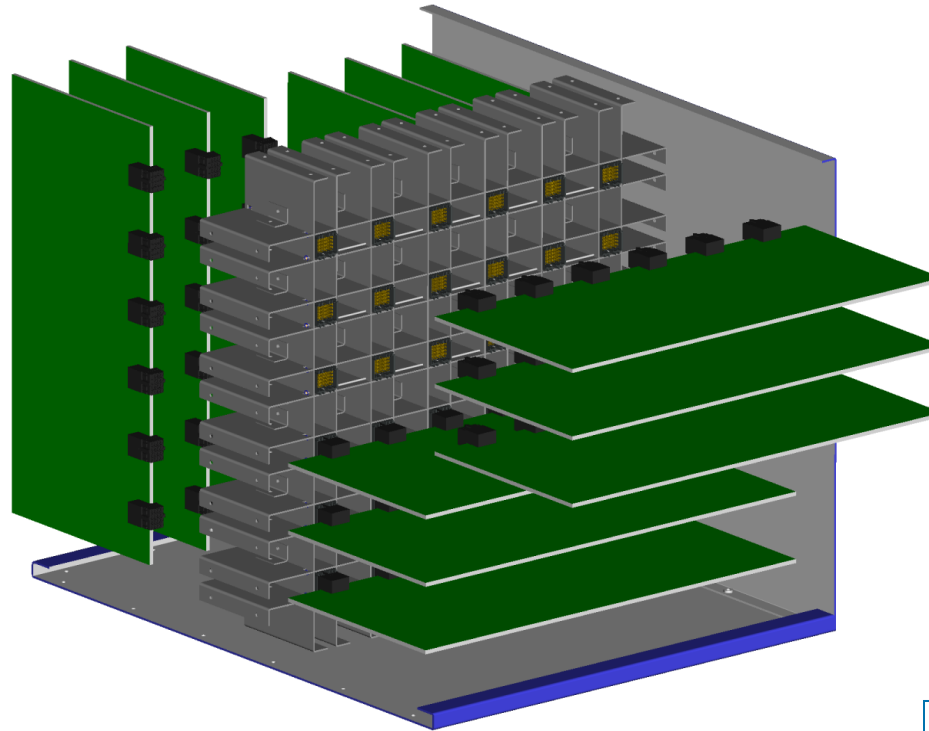
STRADA Whisper 3.9mm Cable Assembly

CABLE ASSEMBLY

EVERY CONNECTION COUNTS



Alternate Architectural Concept: STRADA Whisper Cable



Switch Cards

- Up to 6 in a chassis
- Cable-to-board configuration

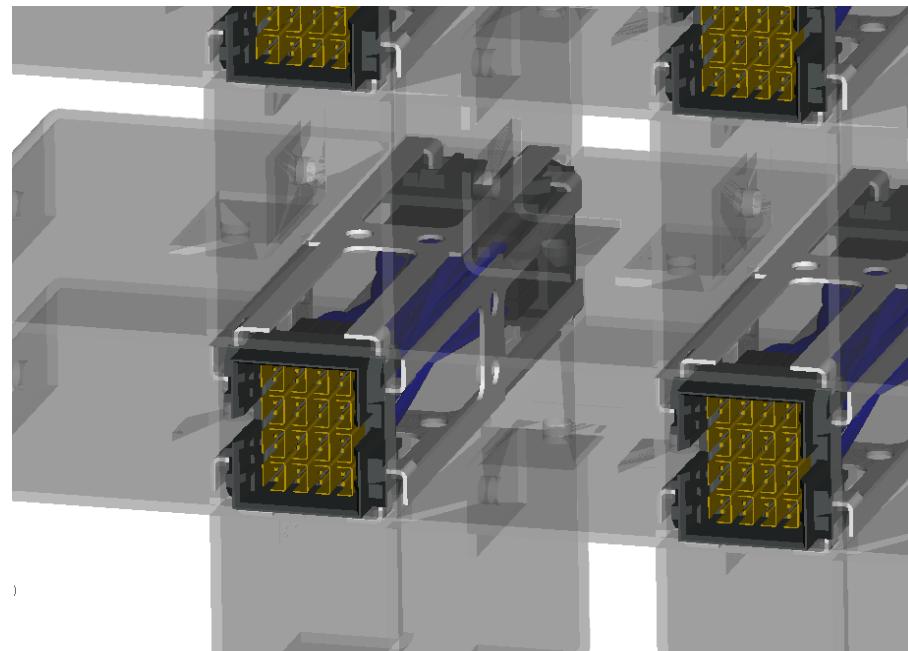
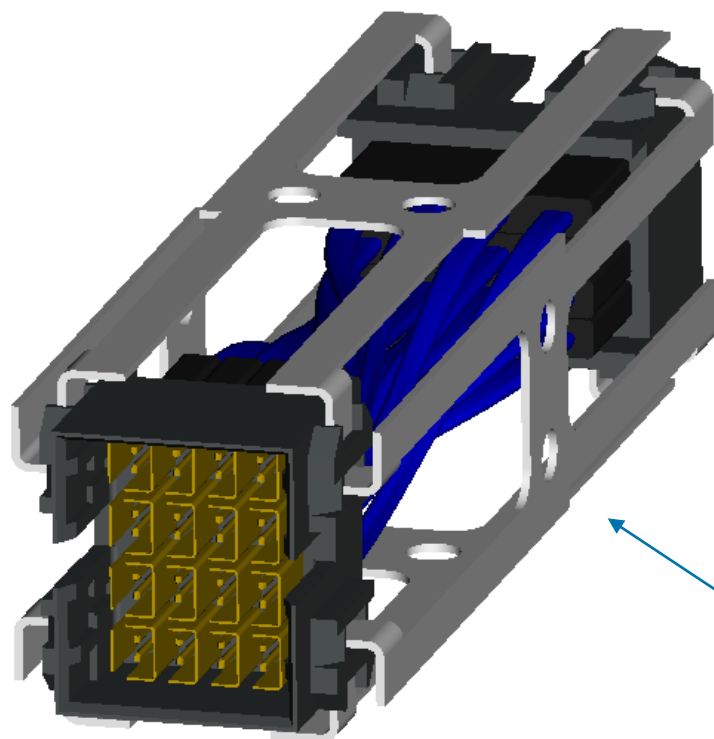
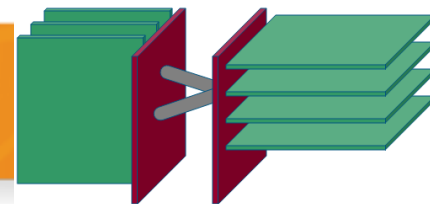
Dual Panels for Cabling

- Estimated at 6" from panel to panel
- Must support 25Gb/s
- Envision a "Whisper-Like" Internal Cable
- "Y" Cables: 1 I/O to 2 Switch Cards

Blades

- Processor Cards
- May contain I/O modules
 - Co-Planar or Mez
- Up to 12 in a chassis
- Cable-to-Board Config.

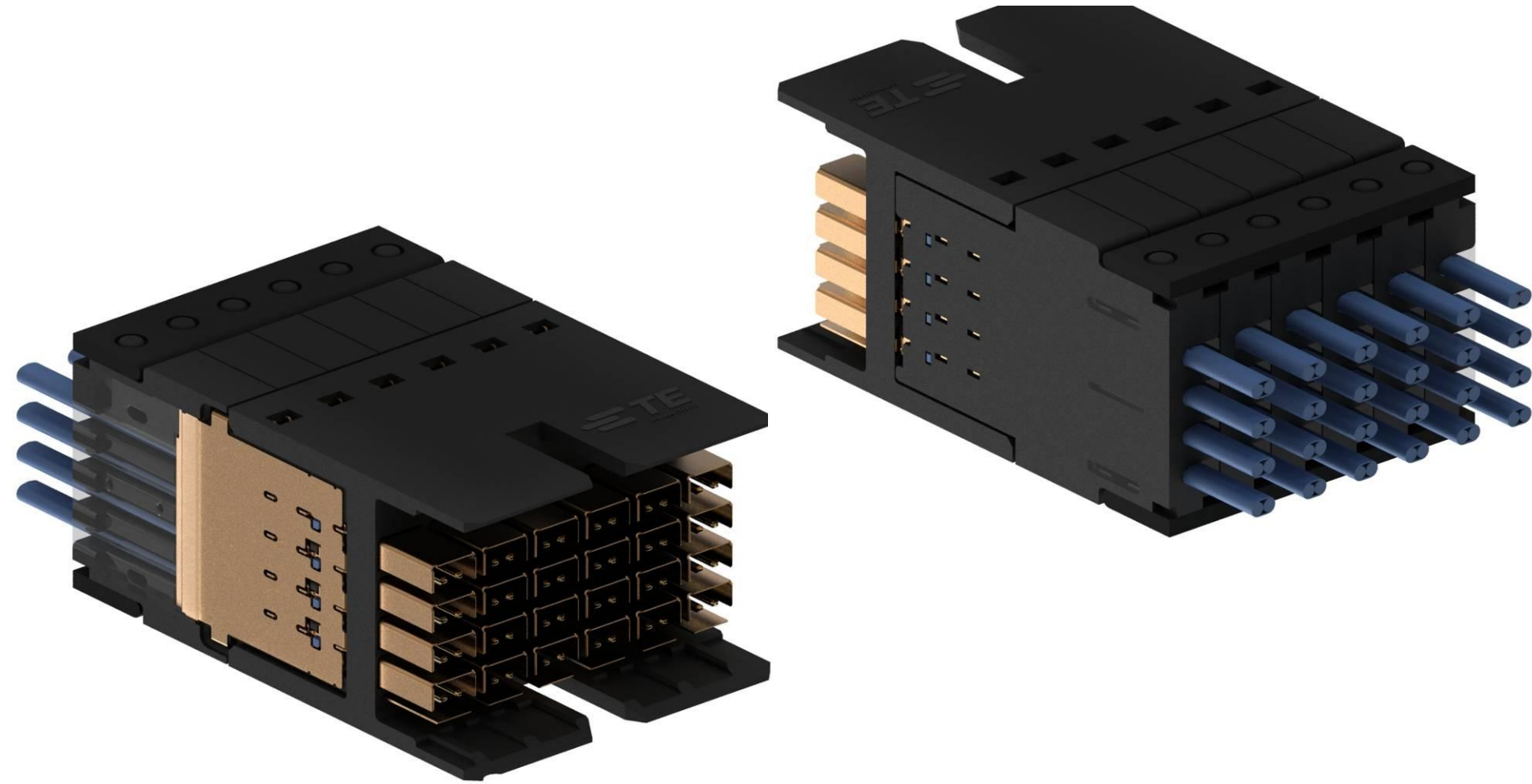
High-Speed Cable Orthogonal System



Leaf Spring (4) to Center Header

Sheetmetal “HoneyComb Midplane” Detail – Vertical Card Side

STRADA Whisper Cable Header: Complete Assembly



Questions?

Please visit www.te.com/products/stradawhisper or contact your local TE sales representative.