

Introducing

CeeLok FAS-T Connector

**The most rugged, small form factor, 10
Gbps field terminable I/O Connector**

in the Aerospace, Defense and Marine marketplace

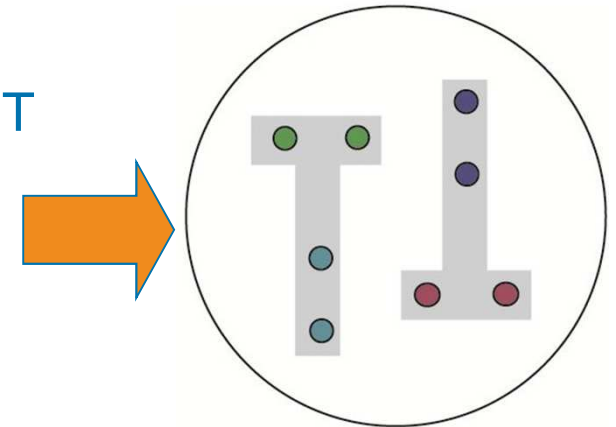
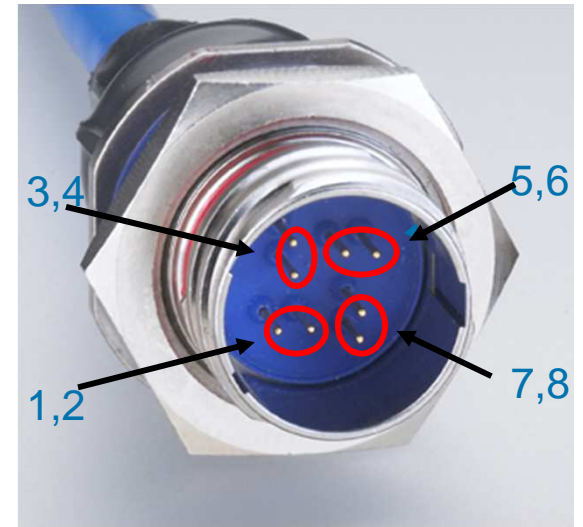


CeeLok FAS-T Connector

Small, 10 Gbit Ethernet,
Rugged I/O Connector

10 Gigabit ETHERNET

- Patented, noise-cancelling contact arrangement
 - Minimizes cross talk
 - Achieves speeds up to 10 Gigabit ETHERNET with Cat 6a or Cat 7 wire
 - Achieves Gigabit ETHERNET speeds with Cat 5e cable



CeeLok FAS-T Connector

Applications

- **Military**
 - Rotary Wing
 - Fixed Wing
 - Ground Vehicle
 - Soldier Systems
 - Missiles & Smart Munitions
 - Space
 - Shipboard
 - C4I
- **Commercial & Civilian Aircraft**
 - In Flight Entertainment & Connectivity
 - Avionics
 - Communication Systems
 - Production Breaks –
(high speed signal)



CeeLok FAS-T Connector

Applications

- Small, Light Weight, M38999 Style Size 8 Shell

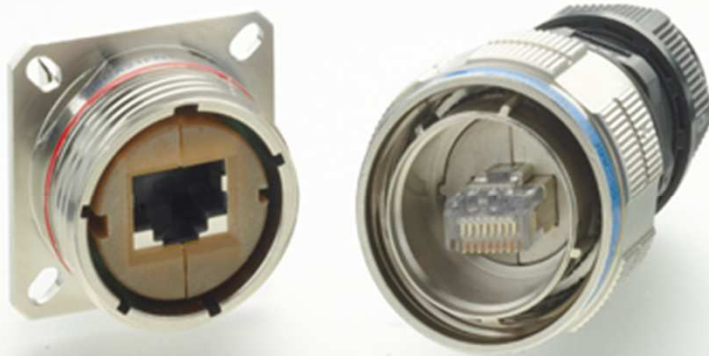


CeeLok FAS-T Connector

Features and Benefits

- Small & Lightweight: More performance with less space.....

From this....



Size 19 (1.4")
99 Grams

To this....



Size 8 (.69" panel cutout)
25.6 Grams

CeeLok FAS-T Connector

Features and Benefits

- *Small, Light Weight,
MIL-DTL 38999 Size 8
Shell*
- **Field Terminable**

Note: All varieties available in Electroless Nickel or Black Zinc Nickel



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CeeLok FAS-T Connector

Features and Benefits

Field Terminable - Crimp-Snap, 39029-style contacts for easy termination & field repairability

Step 1:

- Prepare wire, fold braid, terminate contacts

Plug



Receptacle



CeeLok FAS-T Connector

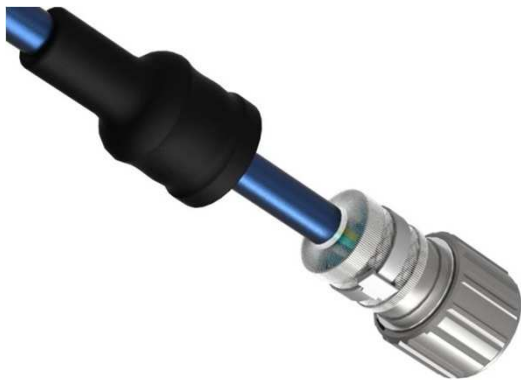
Features and Benefits

Field Terminable - Crimp-Snap, 39029-style contacts for easy termination & field repairability

Step 2:

- Wrap braid over integral shell adaptor & terminate with band strap or other shield termination device.

Plug



Receptacle



CeeLok FAS-T Connector

Features and Benefits

Field Terminable - Crimp-Snap, 39029-style contacts for easy termination & field repairability

Step 3:

- Recover shrink boot



CeeLok FAS-T Connector

Features and Benefits

- *Small, Light Weight, MIL-DTL 38999
Size 8 Shell*
- *Field Terminable*
- **Rugged**

Note: All varieties available in Electroless Nickel or Black Zinc Nickel



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CeeLok FAS-T Connector

Features & Benefits

- Rugged
- Operating Temperature: -65C to +175C
- Sealing:
 - 70,000 feet altitude immersion and IP67 (mated)
- 500 hr Salt Mist corrosion resistance - Black Zinc Nickel
 - DOD-Approved, ROHS compliant
- Insert assembly mechanically retained for >25 lb. retention force
- Scoop-Proof Design
- Mechanical Performance Specifications:
 - Vibration, Sine: MIL-DTL-38999 Series III, (60 G)
 - Vibration, Random: EIA-364-28 Condition VI Letter J (43.9 G)
 - Durability – 500 Mating Cycles
 - Contact Retention – 10 lb. Min
 - Coupling Torque – 8 in-lb. Max



CeeLok FAS-T Connector

Features & Benefits

- *Small, Light Weight, MIL-DTL 38999 Size 8 Shell*
- *Field Terminable*
- *Rugged*
- **Integral Adaptor for Shield Termination**

Note: All varieties available in Electroless Nickel or Black Zinc Nickel



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CeeLok FAS-T Connector

Features & Benefits

- Integral Shield Termination

- Integral backshell provides low cost, low weight strain relief & EMI protection,
- Multiple braid termination techniques (Band Strap, TinelLock, Spring Clamp)
- Compatible with Raychem brand shrink boots for sealed harness applications



CeeLok FAS-T Connector

SIGNAL INTEGRITY TEST RESULTS

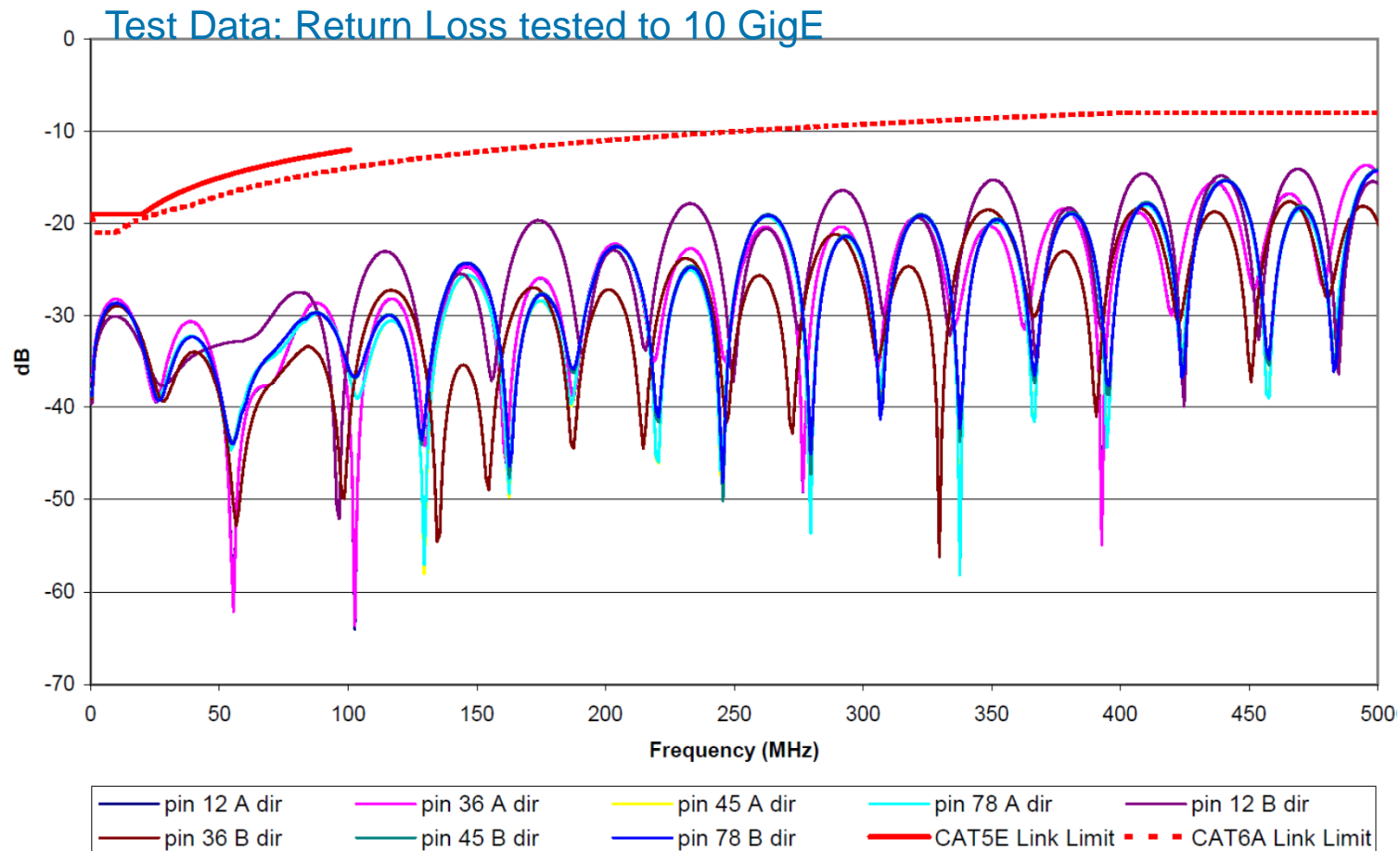
Return Loss; NEXT; Insertion Loss to 10 GIG E performance



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Signal Integrity Test Results

Return Loss Group 1:
4 Pair Assembly EMEB134287-001

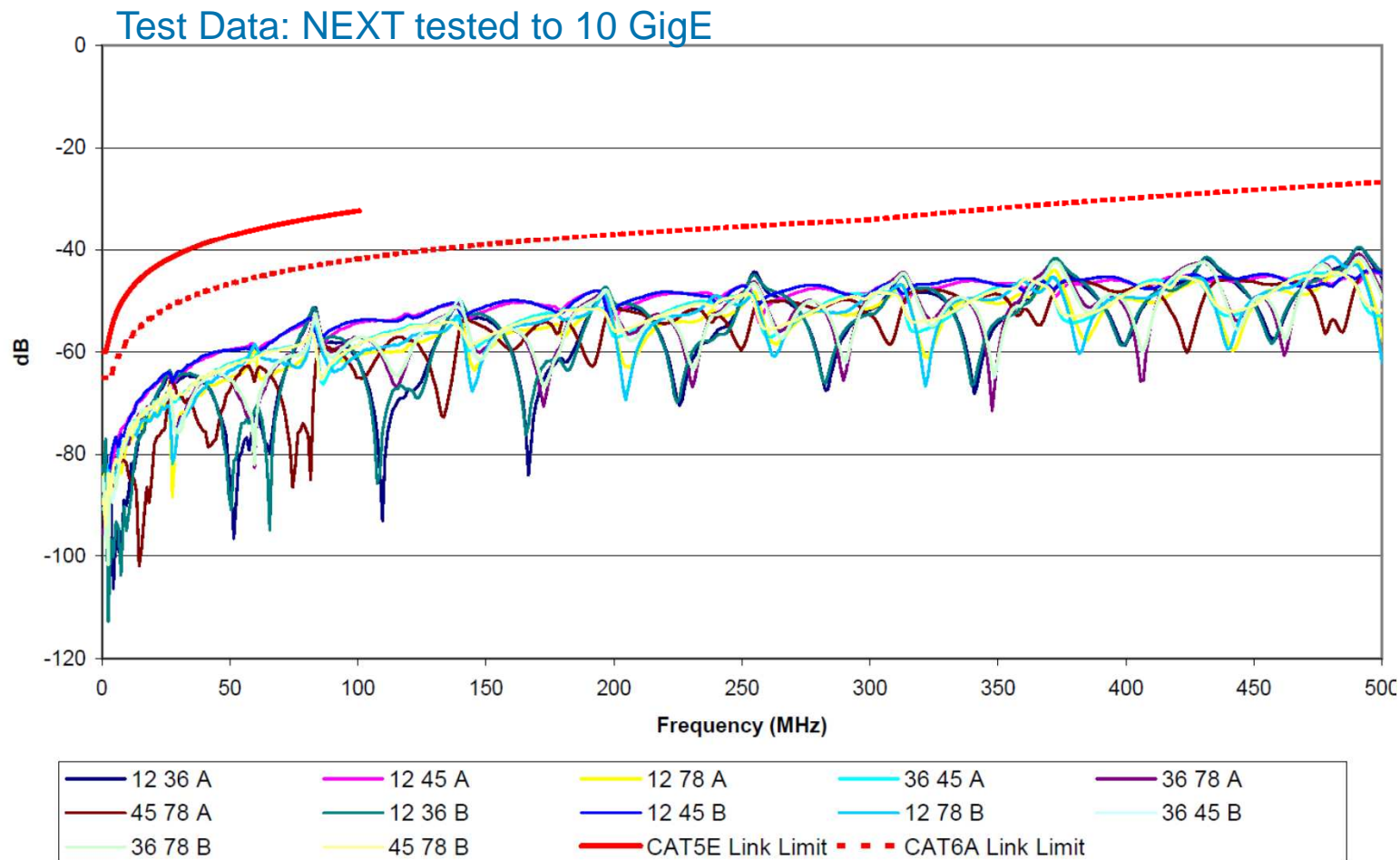


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Signal Integrity Test Results

NEXT Group 1: 4 Pair Assembly
EMEB134287-001



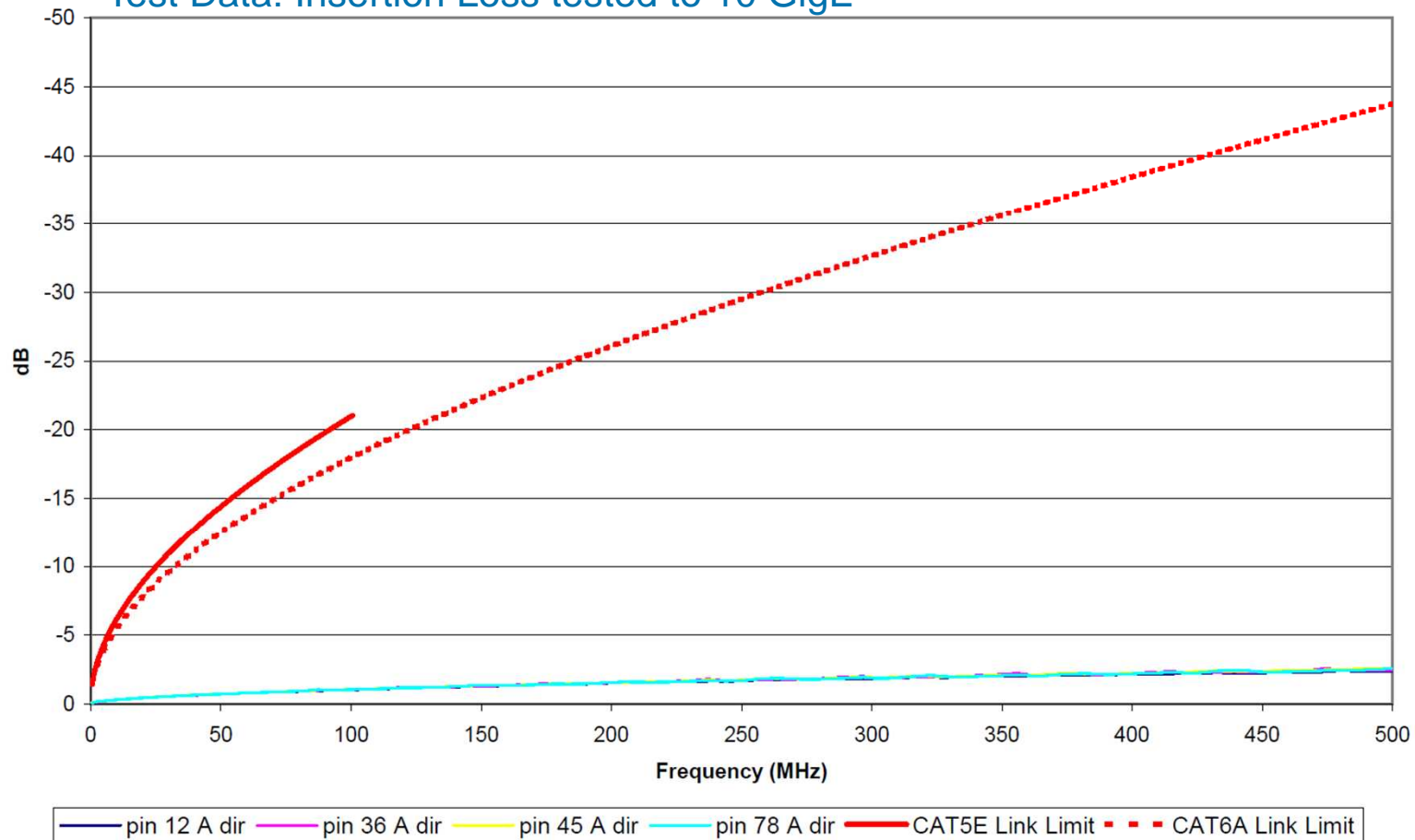
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Signal Integrity Test Results

Insertion Loss Group 1: 4 Pair Assembly
EMEB134287-001

Test Data: Insertion Loss tested to 10 GigE



Sz 11



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PLANNED OPTIONS/ADDITIONS

Straight PCB Tail

Threaded back end

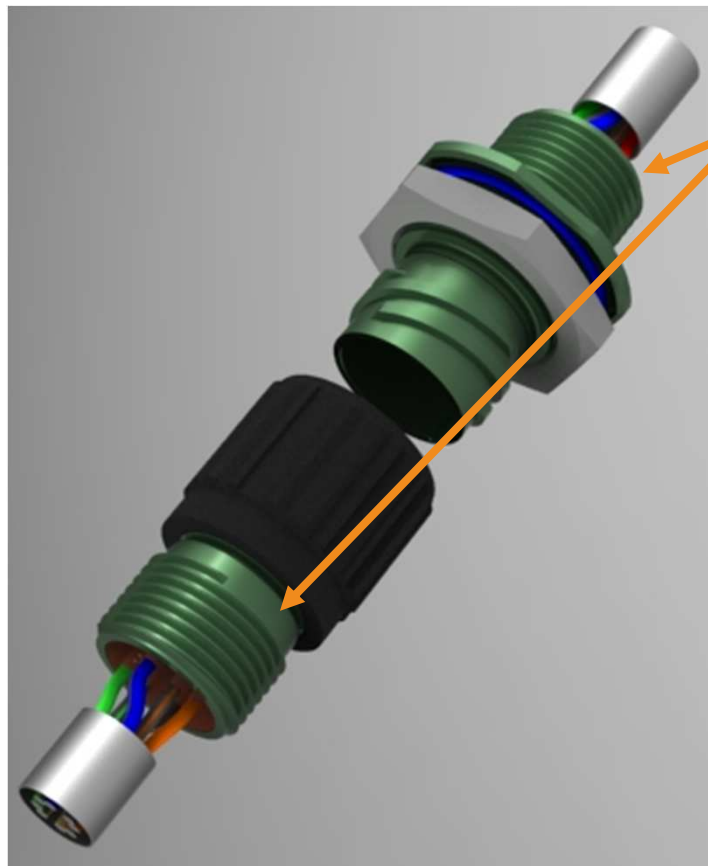
8 pair insert



CeeLok FAS-T Connector

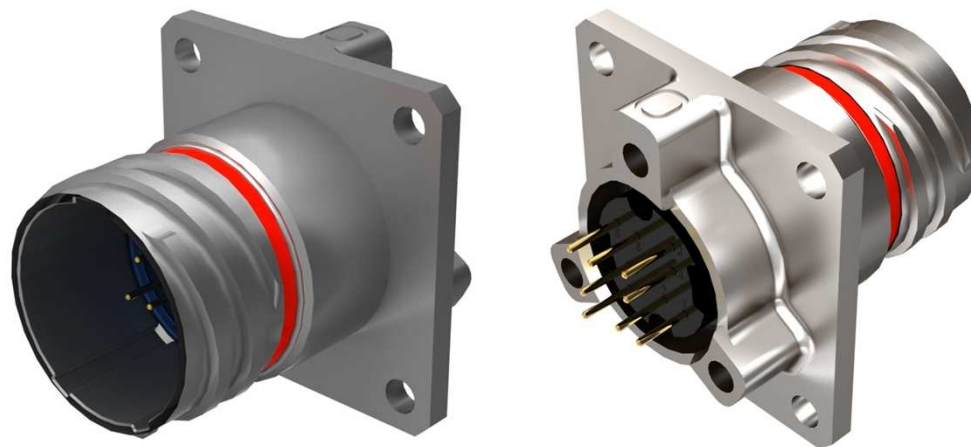
Planned Options

Accessory - Threaded Back End:



Threaded adaptor shells:
Plug & Receptacle

Square Flange Receptacle:



CeeLok FAS-T Connector

Conclusions

- 1Gig-E to 10Gig-E
- Small, Light Weight, & Rugged
- Field Terminable
- Mil-38999 Style Size 8
- Simple shield termination options
- Modular & Scalable



CeeLok FAS-T Connector

Market Timing & Application Tooling Information

- Qualified Production parts availability
 - April 2, 2012
- TE Connector Qualification
 - Complete per TE# 108-2482
 - See TE# 501-134002 for QTR
- Application Specification
 - TE# 114-32025
- Instruction Sheet
 - TE# 408-32046
- Tooling
 - Crimp Tool = M22520/2-01
 - Positioner = K1850 (Daniels Corporation)
 - Insertion/Extraction Tool = DHK696 (Daniels Corporation)

CeeLok FAS-T Connector

Associated Products



CeeLok FAS-T Connector

Informational Points of Contact

- Steve McIntire, Global Product Manager, sjmcinti@te.com
- Earle Olson, Business Development Manager, eoolson@te.com
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