

The widest range of
mission-critical interconnect
technologies in the world



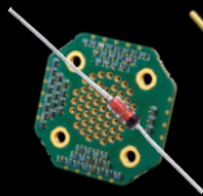
AS39029 Electrical Connector Contacts

Summary of Contact Types

Signal and
Thermocouple



EMI Filter



Coax/Twinax



Optoelectronic



Pneumatic



Gas/Fluids



Nano/Micro
TwistPin

Power and
LouverBand

Hermetic

#8 Quadrax

Fiber Optic

From electrons to photons to fluids

Mil Spec Contact Offerings

M39029 Crimp Contacts

- Common power, signal and shielded contacts available in stock
- All mil-spec thermocouple contacts in stock
- Hard-to-find items available
- No minimum order quantities



Glenair Custom and Special Purpose Contacts



PC tail
Solder cup
Thermocouple

Differential Twinax
Quadrax
Pneumatic

Pneumatic Contacts

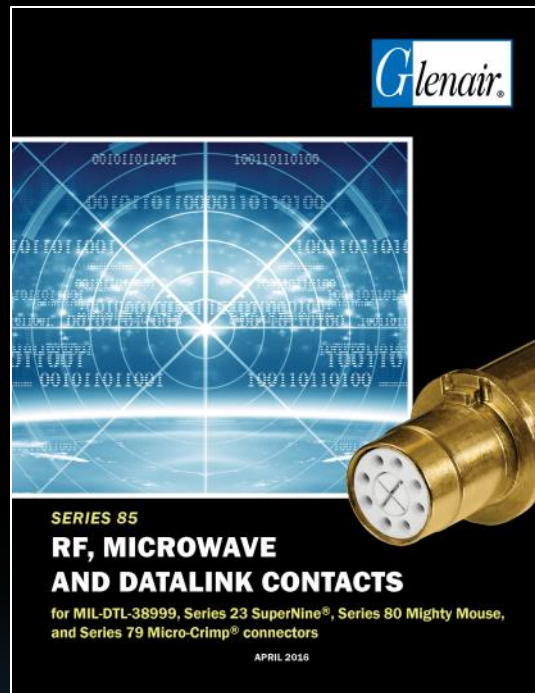
- Pneumatic contacts for available for Mighty Mouse, Series 79, and D38999
- Variety of contact and tubing configurations available to meet high pressure requirements
- Complete in-house capability; from engineering to testing



RF, Microwave and Datalink Contacts

High Speed · High Reliability · High Availability

- Coax
- Concentric Twinax
- Differential Twinax
- El Ochito™ Octaxial



The advertisement for Glencair Series 85 RF, Microwave and Datalink Contacts features a blue background with a grid of binary code (0s and 1s) and a circular pattern resembling a radar or signal plot. In the top right corner is the Glencair logo. In the bottom right corner is a close-up image of a brass-colored connector with a circular face containing several pins. The text below the image reads: "SERIES 85 RF, MICROWAVE AND DATALINK CONTACTS for MIL-DTL-38999, Series 23 SuperNine®, Series 80 Mighty Mouse, and Series 79 Micro-Crimp® connectors APRIL 2016".

Glencair

SERIES 85
RF, MICROWAVE
AND DATALINK CONTACTS

for MIL-DTL-38999, Series 23 SuperNine®, Series 80 Mighty Mouse,
and Series 79 Micro-Crimp® connectors

APRIL 2016

RF, Microwave and Datalink Contacts

Catalog documentation

Intro, Features

Part Number Table

Specifications,
Construction,
Compatibility

Cutaway View,
Dimensions

RF, Microwave and Datalink Contacts
for MIL-DTL-38999, SuperNine®, Mighty Mouse and Micro-Crimp® Connectors

Low-Loss Matched Impedance Coaxial Contacts
Size #8 50 Ohm Matched Impedance Coaxial Contacts

Crane contacts fit Glenair Series 80 Mighty Mouse connectors and 800, 076, 38999 Series 1, 2B and 3C connectors with size 8 crimp cables. 50 Ohm nominal impedance, 50 Ω G-Grade frequency range. Inner contact is solder type, shield termination is crimp type. Supplied as unassembled kit with contact body, center contact, front and rear dielectrics, retainer, clamp with crimp sleeve, and spring lock and insulator sleeve. Contacts are crimp to, not solder.

Crane crimp termination
 ■ VS08 1.251 max. @ 4 GHz
 ■ AS39023 design, construction and performance

Size #8 50 Ohm Matched Impedance Coaxial Contacts

Part Number	Size	Impedance	Max. Freq.
RG Cable			
RG316 (M17/113-RG316)	B	50 Ω	128 3.25
RG316DS (M17/152-00001)	B	50 Ω	3.25
LLSB-200 (M17/220-0001)	B	50 Ω	213 5.41

Specifications

- Operating temperature: 40° to 125°C
- Weight: 1.200 max. @ 4 GHz
- Dielectric withstanding voltage: 1000 Vdc at sea level, 2000 Vdc at 10000 ft
- Construction: 1 connector
- Quantity: 200 mating cables
- Stock: 500 kits of material @ 5
- Mission: EA, SA, SR, SR, SR, SR, SR, SR

Technical Notes

- Mounting: 1/8" thru-hole, 1/8" thru-hole, 1/8" thru-hole
- General: 1/8" thru-hole, 1/8" thru-hole, 1/8" thru-hole

Kit Contents

- 1 Contact Body (ES1-031) (ES1-043)
- 1 Center Contact (ES1-031) (ES1-043)
- 1 Front Dielectric (ES1-031) (ES1-043)
- 1 Rear Dielectric (ES1-031) (ES1-043)
- 1 Retainer (ES1-031) (ES1-043)
- 1 Clamp with Crimp Sleeve (ES1-031) (ES1-043)
- 1 Spring Lock (ES1-031) (ES1-043)
- 1 Insulator Sleeve (ES1-031) (ES1-043)

RF, Microwave and Datalink Contacts
for MIL-DTL-38999, SuperNine®, Mighty Mouse and Micro-Crimp® Connectors

Low-Loss Matched Impedance Coaxial Contacts
Size #8 50 Ohm Matched Impedance Coaxial Contacts

Kit Contents

- 1 Contact Body (ES1-030) (ES1-042)
- 1 Center Contact (ES1-030) (ES1-042)
- 1 Front Dielectric (ES1-030) (ES1-042)
- 1 Rear Dielectric (ES1-030) (ES1-042)
- 1 Retainer (ES1-030) (ES1-042)
- 1 Clamp with Crimp Sleeve (ES1-030) (ES1-042)
- 1 Spring Lock (ES1-030) (ES1-042)
- 1 Insulator Sleeve (ES1-030) (ES1-042)

Crimp Tools, Insulator Sleeve, Assembly Instruction Sheet

Crimp Tool	Inner Contact	Shield Crimp Sleeve	Insulator Sleeve	Assembly Instruction Sheet
ES1-030	ES1-030	ES1-030	ES1-030	ES1-030
ES1-031	ES1-031	ES1-031	ES1-031	ES1-031
ES1-042	ES1-042	ES1-042	ES1-042	ES1-042
ES1-043	ES1-043	ES1-043	ES1-043	ES1-043

Reference Cable Data

Manufacturer	Part Number	Impedance	Operating Frequency Band	Temperature Range	Continuous Working Voltage	Dielectric Material	Shield Diameter
Tyco Microwave	RG316	50 Ω	0.1 to 100 GHz	-55°C to +125°C	1000 Vdc max.	PTFE	1.14 (2.86)
MIL-DTL-38999	RG316	50 Ω	0.1 to 100 GHz	-55°C to +125°C	1000 Vdc max.	PTFE	1.14 (2.86)

Sealing Boot

Sealing boots are supplied with contacts. To locate contacts in the sealing boot, remove the "Y" suffix from the part number.

Wire Dia. (mm)	Wire Dia. (in.)	Part Number
0.80	0.0315	ES1-042-01
1.00	0.0394	ES1-042-02
1.20	0.0472	ES1-042-03

Crimp Tools,
Assembly Instruction
Sheets

Cable Specifications

Boot Information



RF, Microwave and Datalink Contacts

Coax contacts

AS39029



75 Ohm Matched Impedance



50 Ohm Matched Impedance



Spring-Loaded Microwave
Coax



RF, Microwave and Datalink Contacts

AS39029 Coax sizes



Size 16



Size 12



Size 8

RF, Microwave and Datalink Contacts

50 Ohm Matched Impedance Coax

Series III Size 12



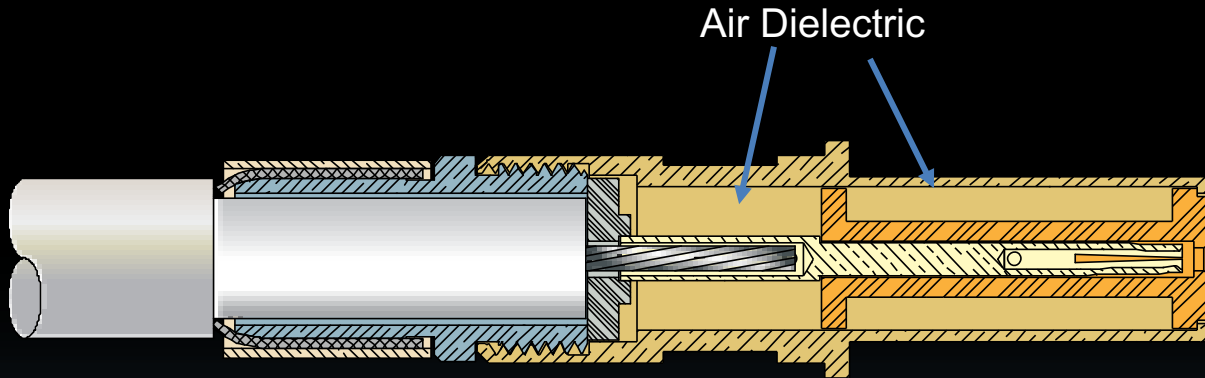
RG316, RG316DS Size 8



RF, Microwave and Datalink Contacts

75 Ohm Matched Impedance Coax

- Size 12
- SMPTE 424M
- LMR-240-75



RF, Microwave and Datalink Contacts

Spring-Loaded Microwave Coax

BMA Size 8 18 GHz



BMB Size 8 18 GHz

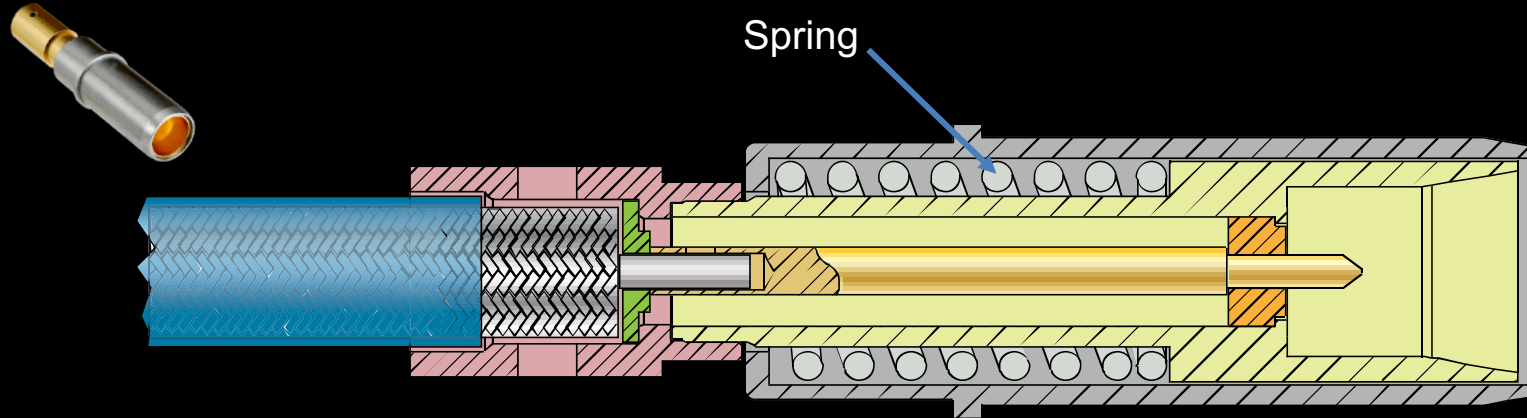


SMPM Size 12 40 GHz



RF, Microwave and Datalink Contacts

Spring-Loaded Microwave Coax

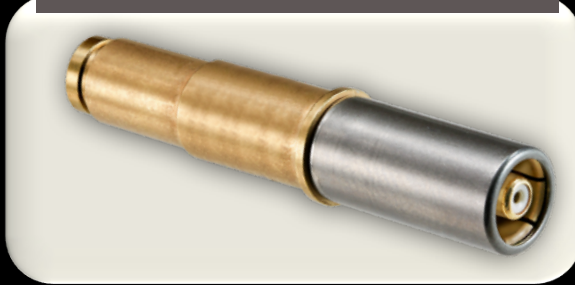


BMB Pin Contact

RF, Microwave and Datalink Contacts

Datalink Contacts

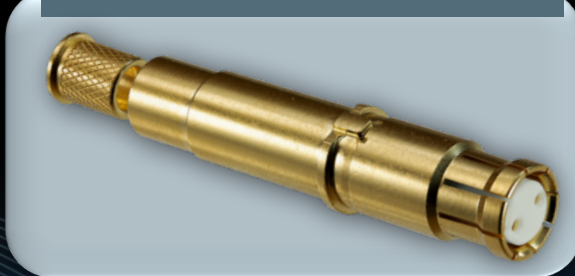
Concentric Twinax



Quadrax



Differential Twinax



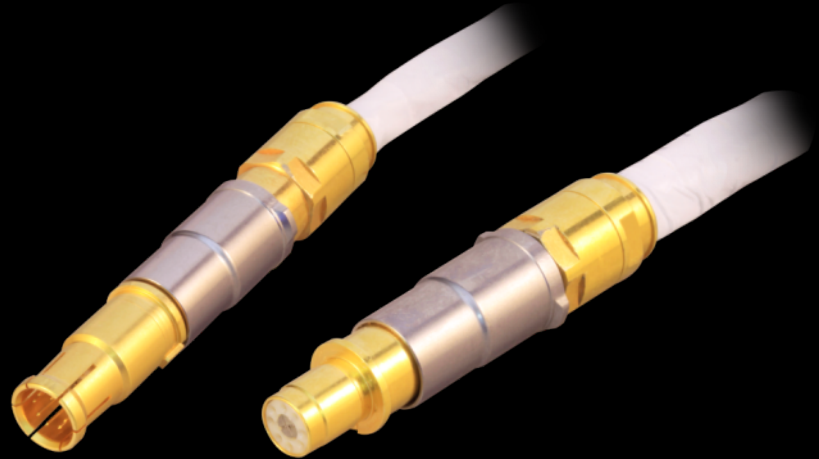
El Ocho



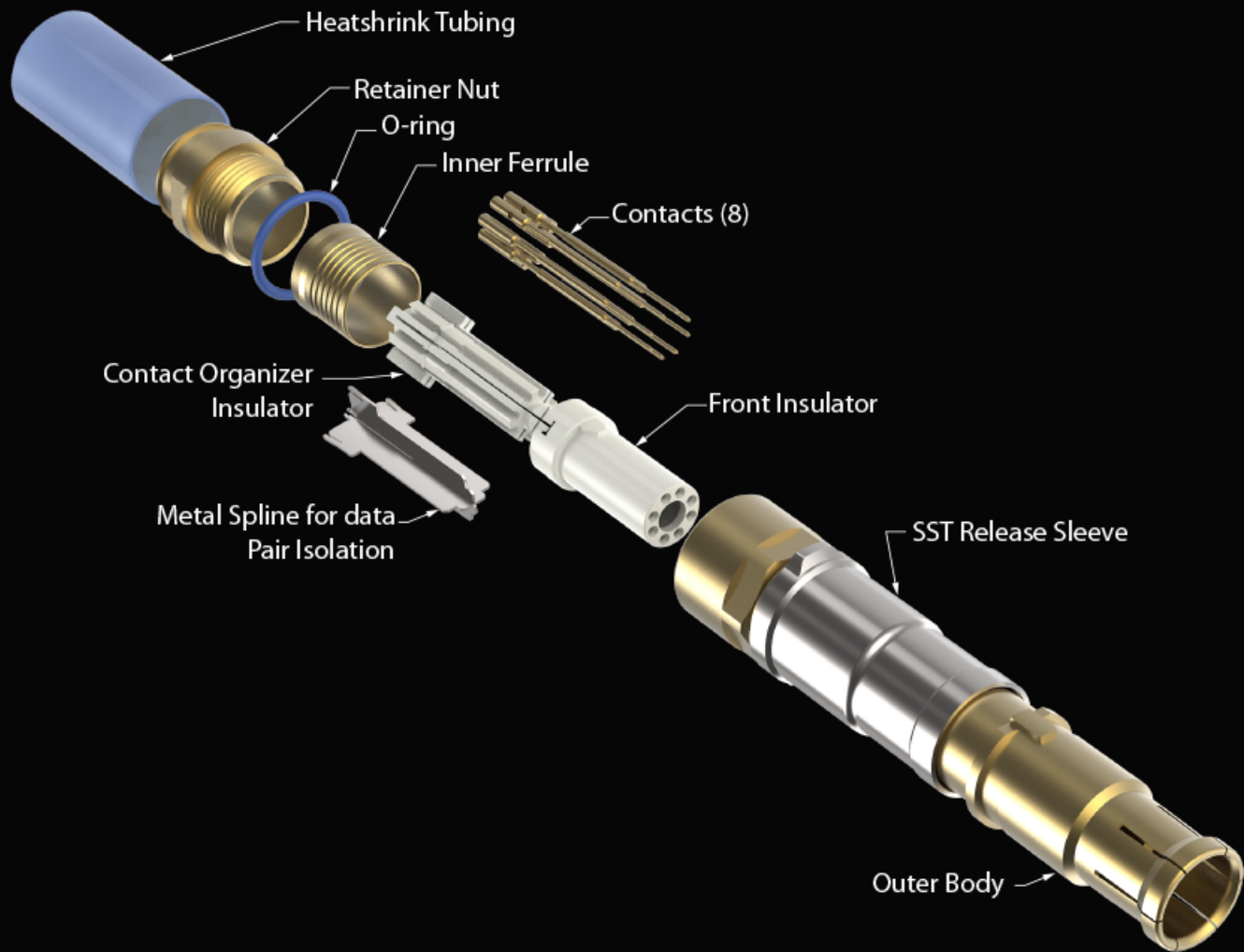
El Ochito™ Octaxial Ethernet Contacts

For #24 AWG cable

- Crimp contact
- Field-repairable
- Supports standard aerospace Ethernet cable
- Same performance and specifications



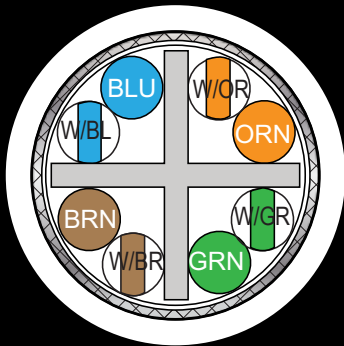
El Ochito 24 AWG Exploded view



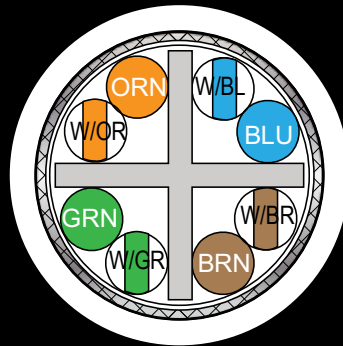
RF, Microwave and Datalink Contacts

El Ochito Wiring Guidelines

- ARINC 664



End A



End B

RF, Microwave and Datalink Contacts
for MIL-DTL 38999, SuperNine®, Mighty Mouse and Micro-Crimp® Connectors

Glennair

El Ochito® Octo-Ax Contacts for 10G Ethernet

Wiring Guidelines

Implementation Guidelines for Terminating Octo Contacts to 4-Pair Wire

ARINC Specification 664 Part 2, Appendix B provides guidelines for implementing 10GBASE-T and 10GBASE-R Ethernet links utilizing Octo contacts. These guidelines provide instructions for maintaining the geometric relationship between the Octo contacts and the wire. The wire has an "A" end and a "B" end as shown in Figure 1. A contact installed on end "A" has a different wiring schematic than a contact installed on end "B". This is done to prevent the four wire pairs to be crossed contrary to their natural twist or lay. System designers and integrators should refer to ARINC 664 Part 2 for full guidance on specifying the connectors used throughout the data link.

The ARINC specification allows only four possible contact number-to-wire color combinations. Figure 2 shows these four combinations. The wire designer must specify which wire end (A or B) to terminate to each connector. Following the pin number wire colors in Figure 2 will ensure cable assemblies are assembled with the correct wire rotation.

Figure 1 — Wire Rotation

End "A" (Wire pair color-coding rotation to WHT/BLU, WHT/GRN, WHT/ORN, WHT/BRN) | End "B" (Wire pair color-coding rotation to WHT/BLU, WHT/GRN, WHT/ORN, WHT/BRN)

Figure 2 — Contact Color Assignments

End "A" (Pin with END A Color Assignments) | End "B" (Pin with END B Color Assignments) | Socket with END B Color Assignments

ARINC 664 Wire Combinations

Figure 3 Schematic for Pin - Socket Wiring

Figure 4 Schematic for Pin - Pin Wiring

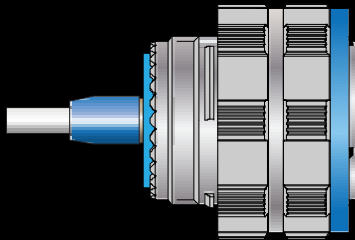
Figure 5 Schematic for Socket - Socket Wiring

© 2016 Glennair, Inc. 01101 Wire, Oroville, CA 95965. 916-941-0910. www.glenair.com. 4151 Cable code 00104

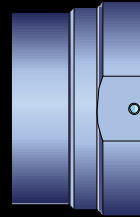
RF, Microwave and Datalink Contacts

El Ocho Test Adapters

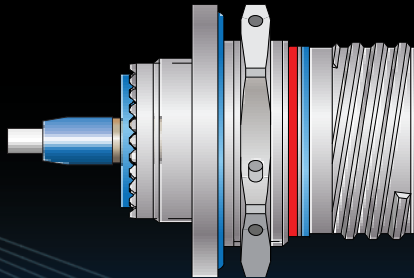
DEVICE UNDER TEST



TEST ADAPTER



ADAPTER CABLES



RF, Microwave and Datalink Contacts

Concentric Twinax

100 Ohm Concentric
Twinax



Size 12 Concentric Twinax



RF, Microwave and Datalink Contacts

Differential Twinax

- Size 8 Differential Twinax
 - 24 AWG
 - 26 AWG
- Size 12 Differential Twinax
 - For Mighty Mouse Ultra-Twinax connectors



RF, Microwave and Datalink Contacts

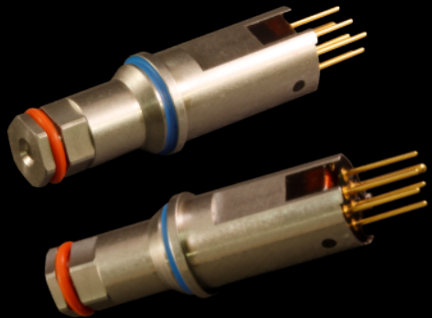
Quadrax

- 150 Ohm Fibre Channel



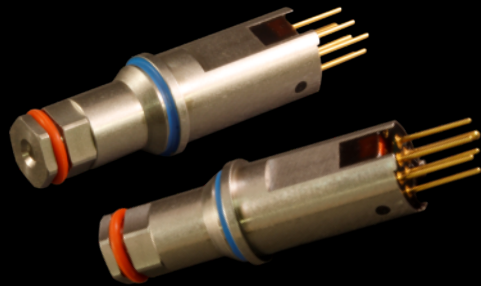
Size #8 Cavity Opto-Electronic Contacts / Adapters

For high-speed signal/video applications such as Gigabit Ethernet, DVI, SMPTE 3G, HD-SDI etc.



050-301

1.25mm ARINC 801



050-307

2.5mm ELIO®

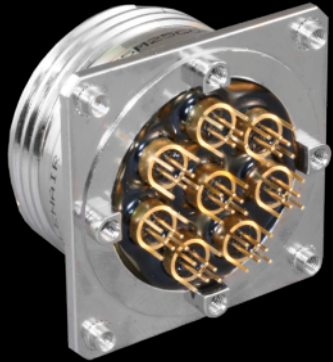


050-367

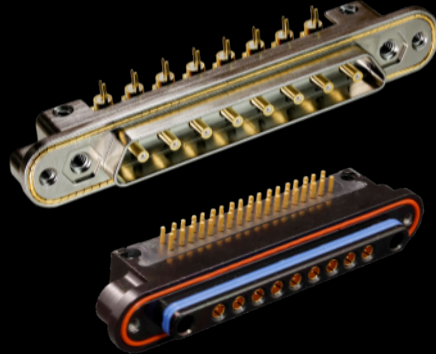
1.25mm LuxCis®

RF, Microwave and Datalink Contacts

Board-mount connector solutions



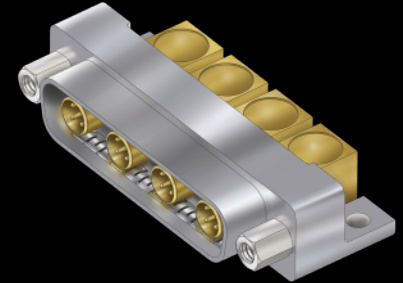
SuperNine
Quadrax



Series 79
Micro-Crimp
Coax



Series 79
Micro-Crimp
Differential Twinax



HiPer-D
Quadrax

Contact Termination Tools

Miniature adjustable crimp tools and positioners

- Perform gas-tight, eight-indent crimps
- Standard M22520/2-01 crimpers for use with standard #23, #22D, #20HD contacts, and M39029/76 and /78 coaxial contacts
- Bayonet-type positioners hold contacts at correct height for crimping



Contact Termination Tools

Adjustable crimp tools and positioners

- Crimp tool and positioner for #20, #16, and #12 power pins
- Positioners for Mighty Mouse and Micro-Crimp wire adapters, and for #20, #16, and #12 power contacts



Contact Termination Tools

Coaxial contact crimp tools and positioners

- Crimp tool and positioner for #16 and #12 coaxial outer contacts
- Mil-spec approved tools with ratchet mechanism to prevent damage from overcrimping



Contact Termination Tools

Parallel action crimp tool

- Parallel action crimp tool and hex die set for 50 Ohm matched - impedance #12 coax contacts



Contact Termination Tools

Insertion and extraction tools

- For #23, #20HD, #16, #12, #20 contacts



The widest range of
mission-critical interconnect
technologies in the world



AS39029 Electrical Connector Contacts