

Datalink Contacts for Series 791 Connectors

Size #8 Differential Twinax Contacts



Differential twinax contacts accept 100 ohm shielded twisted pair cable. These snap-in, rear-release contacts fit Glenair Series 79 connectors. Crimp termination. 24 and 26 AWG versions. Gold-plated copper alloy. Supplied unassembled with sealing boot and instruction sheet.

Size #8 Differential Twinax Contacts

Shielded Twisted Pair Cable	Wire Size (AWG)	Impedance (ohms)	Pin Contact	Socket Contact
GSC-03-83971-00 (Gore)	24	100	853-014-02F	853-026-01F
0024A0024 (TE Raychem)	24	100	853-014-04F	853-026-02F
DXN2603 (Gore)	26	100	853-014-09F	853-026-04F
M17/176-00002	24	77	853-014-05F	853-026-05F

Technical Data

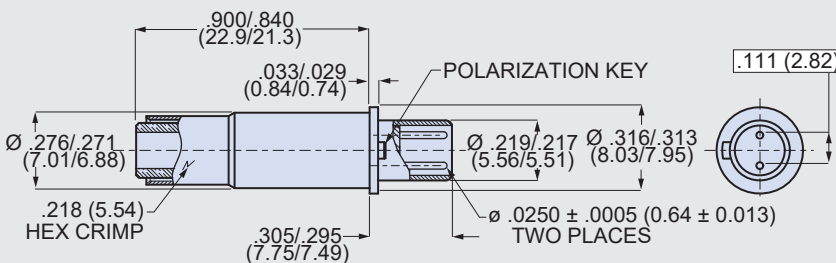
Specifications

- Operating temperature: -65°C to +175°C
- Operating frequency 100 ohm versions: DC – 3GHz
- Operating frequency 77 ohm versions: DC – 20MHz
- Dielectric withstanding voltage, inner contact to inner contact: 1000 Vrms
- Dielectric withstanding voltage, inner contact to outer body: 500 Vrms
- Insulation resistance: 5000 megohms min.
- Contact resistance, inner contacts: 55 millivolt max. voltage drop @ 1 ampere
- Contact resistance, outer body: 75 millivolt max. voltage drop @ 12A
- Durability: 500 mating cycles

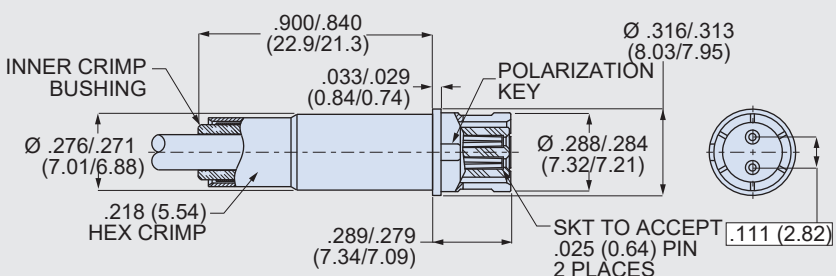
Construction

- Inner contacts, outer body: copper alloy, 50 microinches gold over nickel plating
- Crimp ferrule: copper alloy, 50 microinches gold over nickel plating
- Insulators: PPS
- Sealing boot: fluorosilicone rubber grommet, glass-filled PEI follower

Pin Contact 853-014

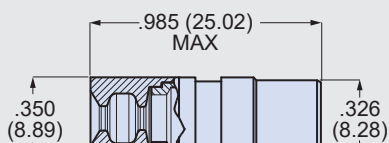
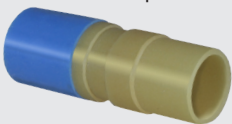


Socket Contact 853-026



Sealing Boot

Sealing boots are supplied with contacts. To order contacts without sealing boots, delete the "F" suffix from the part number



Crimp Tools, Removal Tool

Contact Part Number	Inner Contacts Crimper	Inner Contacts Positioner	Outer Body Crimper	Outer Body Hex Die	Removal Tool
853-014	809-015	809-240	809-129	859-007	859-049
853-026	(M22520/2-01)	(M22520/2-37)	(M22520/5-01)	(M22520/5-45)	(M81969/14-12)

Inner Contact Crimp Tools



[809-015](#)
(M22520/2-01)



[809-240](#)
(M22520/2-37)



[809-129](#)
(M22520/5-01)



[859-007](#)
(M22520/5-45)



[859-049](#)
(M81969/14-12)

Outer Body Crimp Tools

Datalink Contacts for Series 791 Connectors

Size #8 Quadrax Contacts



Quadrax contacts are size 8 multi-pin contacts with four signal pins and an outer contact body. Crimp termination. Compatible with Glenair Series 79 connectors. Supplied as unassembled kit.

Size #8 100 Ohm Quadrax Contacts

Wire Size (AWG)	Ref Cable Dia.	Cable Accommodation		Pin Contact	Socket Contact
		Mfgr.	Part Number		
24	.160 (4.06)	PIC	E51424	854-001-02F	854-019-02F
		Gore	GSC-03-84608-00		
		Tensolite	NF24Q100-01		
24	.175 (4.45)	Draka	F 4704-4	854-001-04F	854-019-04F
		PIC	E50424		
26	.137 (3.48)	Tensolite	NF26Q100-01	854-001-01F	854-019-01F
		PIC	E51426		

Technical Data

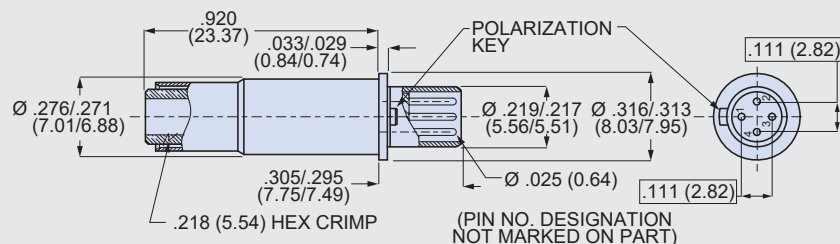
Specifications

- Operating temperature: -65°C to +175°C
- Operating frequency: DC – 3 GHz
- Characteristic Impedance: 100 ±10 ohms
- Dielectric withstanding voltage, inner to inner contact: 1000 Vrms sea level, 250 Vrms 70,000 feet.
- Dielectric withstanding voltage, inner to outer contact: 500 Vrms sea level, 250 Vrms 70,000 feet.
- Contact resistance, inner contacts: 55 millivolt max. voltage drop @ 1 ampere
- Contact resistance, outer body: 75 millivolt max. voltage drop @ 12A
- Insulation resistance: 5000 megohms min.
- Contact resistance, inner contacts: 55 millivolt max. voltage drop @ 1 ampere
- Contact resistance, outer body: 75 millivolt max. voltage drop @ 12A
- Durability: 500 mating cycles

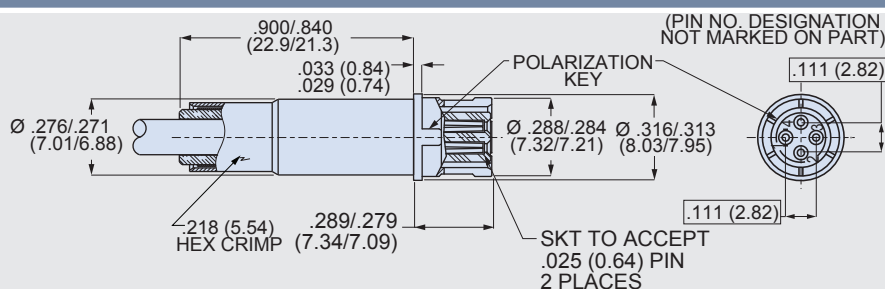
Construction

- Inner contacts, outer body: copper alloy, 50 microinches gold over nickel plating
- Crimp ferrule: copper alloy, 50 microinches gold over nickel plating
- Insulators: PPS
- Sealing boot: fluorosilicone rubber grommet, glass-filled PEI follower

Pin Contact 854-001

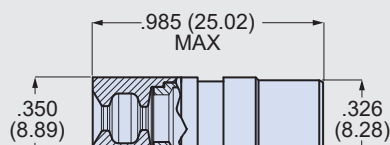
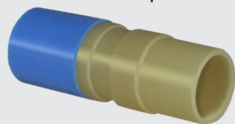


Socket Contact 854-019



Sealing Boot

Sealing boots are supplied with contacts. To order contacts without sealing boots, delete the "F" suffix from the part number



Crimp Tools, Removal Tool

Contact PN	Inner Contacts		Outer Body		Removal Tool
854-001	Crimper	Positioner	Crimper	Hex Die	
854-019	809-015 (M22520/2-01)	809-240 (M22520/2-37)	809-129 (M22520/5-01)	859-007 (M22520/5-45)	859-049 (M81969/14-12)

Inner Contact Crimp Tools



Outer Body Crimp Tools



Removal Tool



Datalink Contacts for Series 791 Connectors

Size #8 El Ochito® Octaxial Contacts

El Ochito®

The 10G Ethernet
Contact with Patented
Data Pair Isolator
Technology

**United States Patent Number
9,257,796**

- DC – 4 GHz frequency range
- 100 ohms
- Data pair isolation technology
- 50% size and weight savings compared to quadax contacts

Pin Contact



Socket Contact



El Ochito® contacts are intended for harsh environment military and aerospace data networks utilizing 1000BASE-T or 10GBASE-T protocols. El Ochito® contacts provide up to 50% total weight savings compared to quadax-based solutions. These contacts have eight signal pins housed in a machined, gold plated outer contact. Crimp termination. Metal spline isolates data pairs for improved signal integrity. For use with aerospace-grade 26 AWG Category 6a cables with unshielded or shielded data pairs. El Ochito® contacts snap into Series 791 connectors. Supplied as unassembled kit with outer body, (8) inner contacts, shield crimp ferrule, insulators, and instruction sheet.

Technical Data

Specifications

- Operating temperature: -65°C to +175°C
- Operating frequency: DC – 4 GHz
- Nominal Impedance: 100 ohms
- Dielectric withstanding voltage, inner to inner contact: 1000 Vrms sea level, 250 Vrms 70,000 feet.
- Dielectric withstanding voltage, inner to outer contact: 500 Vrms sea level, 250 Vrms 70,000 feet.
- Insulation resistance: 5000 megohms min.
- Durability: 500 mating cycles
- Vibration: MIL-DTL-38999 Series III
- Shock: MIL-DTL-38999 Series III

Construction

- Inner contacts, outer body: copper alloy, 50 microinches gold over nickel plating
- Crimp ferrule: copper alloy, 50 microinches gold over nickel plating
- Insulators: thermoplastic
- Sealing boot: fluorosilicone rubber grommet, glass-filled PEI follower

Size #8 El Ochito® Ethernet Contacts for Series 791 Connectors

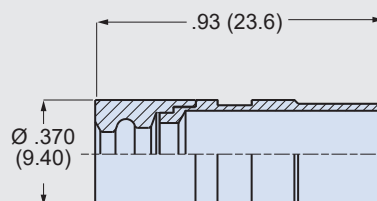
Cable Type	Cable Description	Cable		Pin Contact	Socket Contact
		Mfgr. Part Number	Glenair Part No.		
S/UTP	Unshielded twisted pairs	PIC E6A3826	963-003-26	858-003-01F	858-032-01F
S/FTP	Foil shields on individual twisted pairs	Gore RCN9047-26	963-033-26	858-016-01F	858-032-02F

Crimp Tools, Removal Tool

Contact PN	Inner Contacts		Outer Body		Removal Tool
	Crimper	Positioner	Crimper	Hex Die	
858-003-01F 858-032-01F	809-015 (M22520/2-01)	859-101 (K1906)	809-129 (M22520/5-01)	859-007 (M22520/5-45)	859-049 (M81969/14-12)
858-016-01F 858-032-02F	809-015 (M22520/2-01)	859-101 (K1906)	859-134 (GS206)	(not required)	859-049 (M81969/14-12)

Sealing Boot

Sealing boots are supplied with Ochito contacts. To order contacts without sealing boots, delete the "F" suffix from the part number.

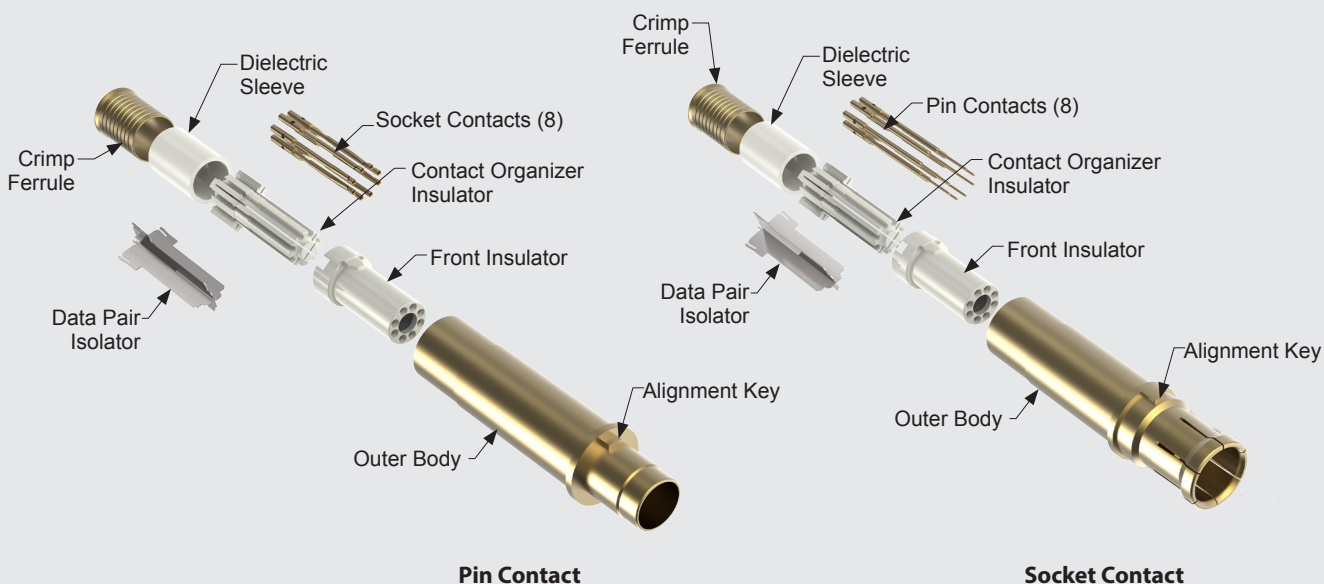


SEALING BOOT FOR
OCHITO CONTACTS USING
.220 (5.59) DIAMETER
CABLE
687-754-8-8

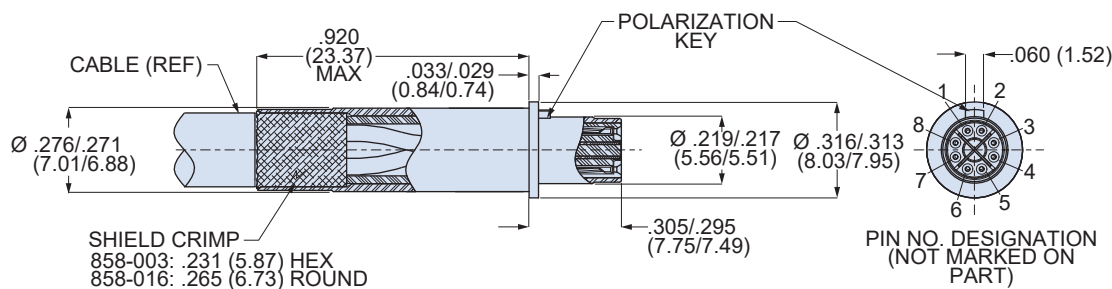
Datalink Contacts for Series 791 Connectors

Size #8 100 Ohm El Ochito® Octaxial Contacts

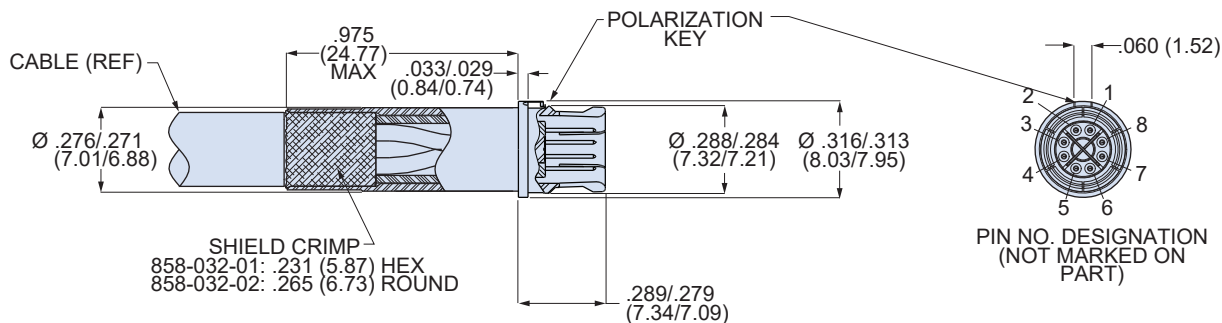
Ochito® Exploded View



858-003 and 858-016 El Ochito® Pin Contact



858-032 El Ochito® Socket Contact



Datalink Contacts for Series 791 Connectors

Size #12 Ultra-Fast Differential Twinax Contacts for DC – 10 GHz Frequency Range



Glenair Ultra-Twinax differential twinax contacts are suited for multi-gigabit data rate applications such as CML, LVDS and other advanced digital communications protocols. Size #12 100 ohm contacts feature DC – 10 GHz frequency range. Use with high-speed #30 AWG twisted pair cable 963-102-30. These contacts are compatible with Glenair Series 791 connectors with size keyed #12 cavities. [Order connector with “-688” suffix code to specify keyed cavities.](#) Snap-in, rear release. Solder termination. Supplied as kit with body, front insulator-solder contact subassembly, and rear insulator.

Features

- DC – 10 GHz frequency range
- 100 ohm impedance
- Aerospace-grade construction
- Low insertion loss

Applications

- LVDS
- SATA 3.0
- DisplayPort
- CML

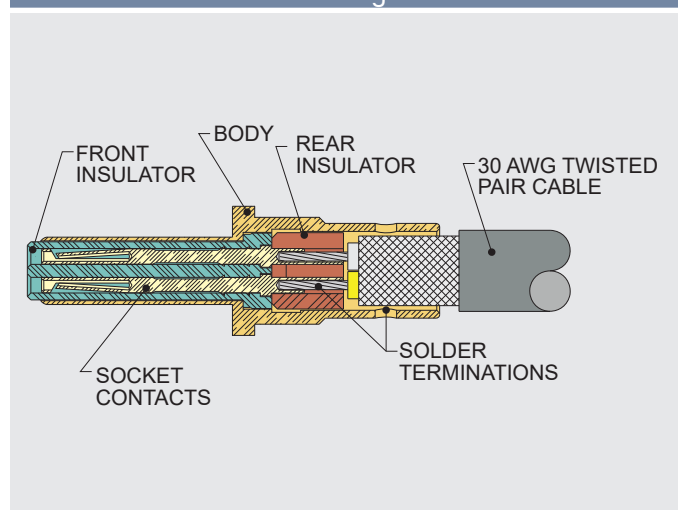
Size #12 Ultra-Twinax Contacts

Cable	Wire Size (AWG)	Impedance (ohms)	Pin Contact	Socket Contact	Assembly Instruction Sheet
963-102-30 (Glenair)	30	100	853-016-01	853-015-01	AI85051

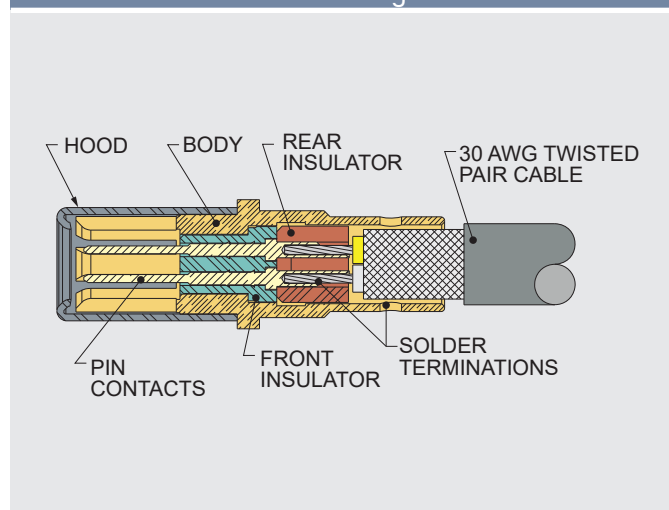
Technical Data

Specifications	Construction	Connector Compatibility
■ Operating temperature: -65°C to +105°C ■ Operating frequency: 0 – 10 GHz ■ Impedance: 100 ohms ■ VSWR: 1.1 + (.03 X Freq GHz) ■ Insertion loss : (.33 X Freq GHz) ■ Dielectric withstanding voltage: 500 Vrms ■ Insulation resistance: 5000 megohms min. ■ Durability: 500 mating cycles	■ Inner contacts, outer body: copper alloy, 50 microinches gold over nickel plating ■ Insulator: glass-filled PTFE ■ Rear insulator: PPS ■ Socket hood: stainless steel, passivated	■ Compatible only with connectors with specially keyed size #12 insert cavities. To order keyed connectors, add modification code -688 to the part number per the following example: 791-001PH-10P4MES-688

Pin Contact Design Features



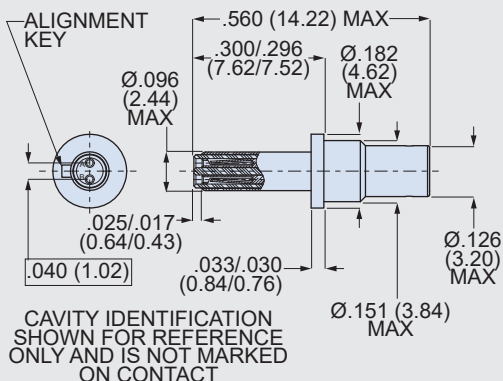
Socket Contact Design Features



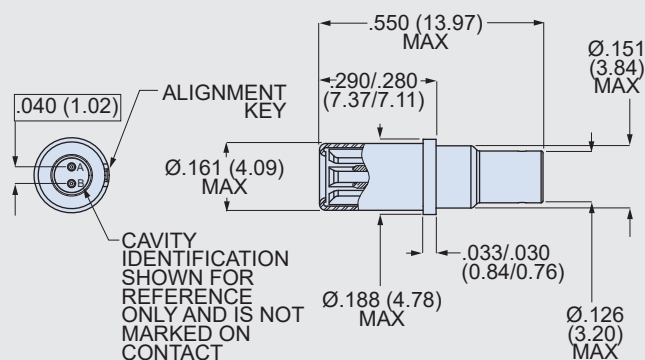
Datalink Contacts for Series 791 Connectors

Size #12 Ultra-Fast Differential Twinax Contacts for DC – 10 GHz Frequency Range

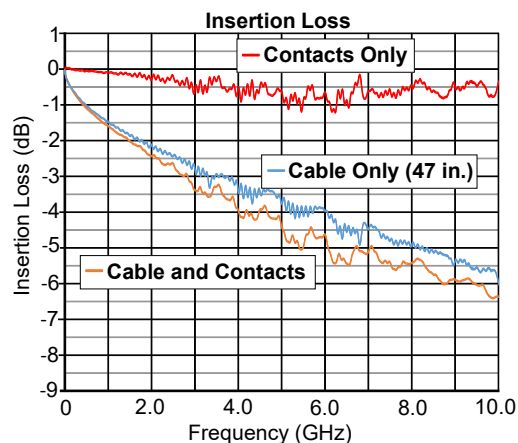
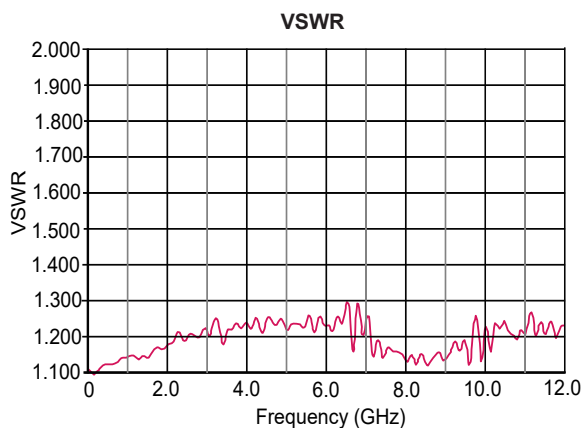
Pin Contact 853-016-01



Socket Contact 853-015-01



Performance Data



963-102-30 100 Ohm Twisted Pair Cable Specifications

Conductors	30 AWG silver-coated high strength copper alloy, 19/42 strand
Insulation	PFA, white and yellow, .032 dia.
Inner shield	.0015" aluminum/polyester tape
Outer shield	Silver-coated 40 AWG braid, 90% minimum coverage
Jacket	PFA, black
Temperature Rating	-65° to +105° C
Impedance	100 $\pm$ 10 ohms
Capacitance	15.0 pF/ft (cond-cond)
DC resistance	98.55 ohms/1000 ft. maximum
Attenuation (nominal)	40 dB @ 500 MHz, 56dB @ 1 GHz
Velocity of Propagation	80%

