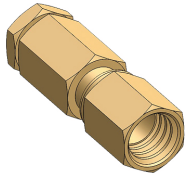


SSMC

Microminiature,
Screw-on Mating
High Performance
Interconnects





Microminiature, Screw-on Mating High Performance to 12.4 GHz



General Description

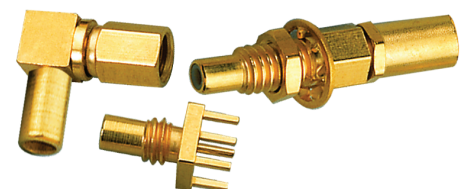
Delta SSMC connectors are microminiature, 50Ω impedance connectors with 6-40 threaded coupling. SSMC connectors are ideal for use in limited-space applications that require the rugged design of a threaded coupling interface. They are best suited for use with semi-rigid cables or miniature flexible cables in demanding applications up to 12.4 GHz. Our extensive line of receptacles contains a variety of mounting configurations and contact / insulator terminations perfect for any packaging requirements. Our adapters are available in both in-series and between series. We also offer an adapter with a slide-on version of the SSMC interface (See page 11) that is ideal for testing components; reducing wear and tear on mounted connectors and saving time on mating and unmating of test cables.

Delta's SSMC connectors are designed in accordance with IEC 169-20, and are intermateable with other manufacturers' SSMC connectors. However, through our unique internal construction design, precision machining capabilities, and Lean Manufacturing processes, we are able to offer the highest quality components while optimizing both cost and lead time.

These connectors are machined to exacting tolerances and the highest quality standards on modern CNC turning centers, and assembly is tightly controlled and monitored to ensure peak consistency of performance from unit to unit.

Contents

Interface Dimensions and Specifications	2	Panel Jack Receptacles—2-hole Flange	9
Straight Cable Plugs	3	P.C. Board Jack Receptacles—	
Right Angle Cable Plugs	3	Through-Hole and Surface Mount	10
Straight Cable Jacks	4	P.C. Board Bulkhead Jack Receptacles—	
Right Angle Cable Jacks	4	Edge Mount	11
Straight Bulkhead-Mount Cable Jacks	5	Adapters Between Series	12
Right Angle Bulkhead-Mount Cable Jacks	5	Dust Cap for Jacks	12
Bulkhead Jack Receptacles—Front Mount	6	Cable Assembly Instructions	13
Bulkhead Jack Receptacles—Rear Mount	7	Index by Part Number	15
Panel Jack Receptacles—4-hole Flange	8	Delta Website Tools	16
		About Delta	17



AS9100 / ISO9001
QMS CERTIFIED

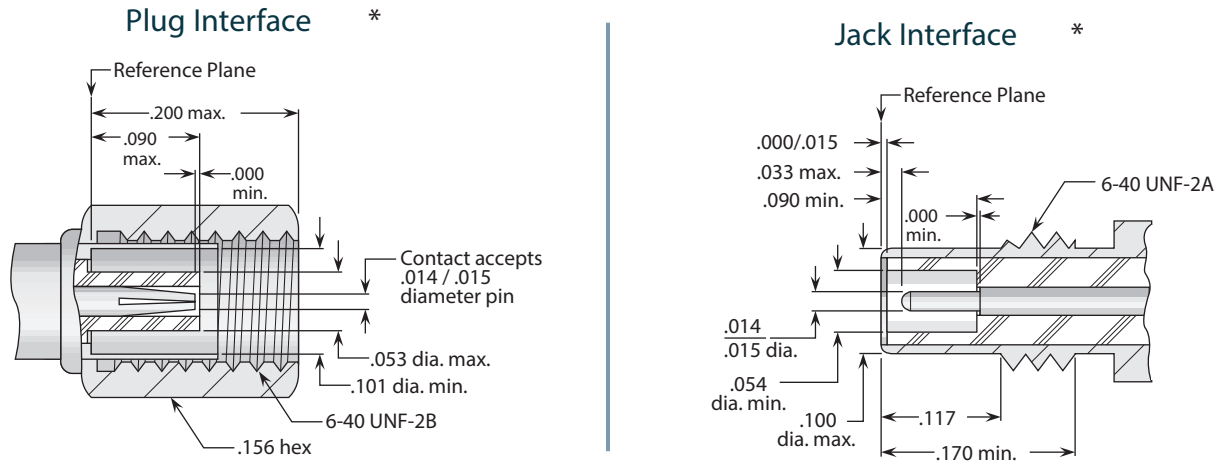
DFARS
COMPLIANT

ROHS
COMPLIANT

ITAR
COMPLIANT

JCP
REGISTERED

SSMC Interfaces



*Some proportions altered to illustrate detail.

SSMC Specifications *

Electrical:

Nominal Impedance: 50 ohms.

Frequency Range: DC–12.4 GHz.

Voltage Rating: 250 Volts RMS @ sea level;
600 Volts RMS @ 70,000 feet.

VSWR

RG-178 cable:

Straight connectors, 1.20 + (.020 x F [GHz]).

Right angle connectors, 1.20 + (.030 x F [GHz]).

RG-316 cable:

Straight connectors, 1.25 + (.020 x F [GHz]).

Right angle connectors, 1.25 + (.030 x F [GHz]).

.085" semi-rigid cable:

Straight connectors, 1.20 + (.015 x F [GHz]).

Right angle connectors, 1.20 + (.025 x F [GHz]).

Insertion Loss: .30 dB maximum @1.5 GHz.

RF Hipot : 400 Volts RMS @ 5 MHz.

Insulation Resistance: 1,000 megohms minimum.

RF Leakage: -50 dB minimum @ 2–3 GHz.

Contact Resistance: Center contact: 6.0 milliohms maximum;
Outer contact: 1.5 milliohms maximum.

All specifications are in accordance with IEC 169-20 and (as applicable) comparative MIL-PRF-39012 specifications for SSMB connectors.

*These specifications are typical and may not apply to all connectors. Detailed specifications for individual connectors are available on request.

Mechanical:

Force to Engage: 16 inch-ounces torque maximum.

Coupling Nut Retention: 25 pounds minimum.

Contact Retention: 2 pounds axial force minimum.

Durability: 500 mating cycles minimum.

Mating Torque: 28–32 inch-ounces.

Materials / Finishes

Insulators:

Teflon TFE per ASTM D4894.

Contacts: Beryllium copper (Alloy C17300) per ASTM B196.

Contact Plating: Gold per ASTM B488.

Other Metal Parts: Brass per ASTM B16, gold plated per ASTM B488; or stainless steel per ASTM A582, plated gold per ASTM B488 or passivated per SAE AMS-A2700.

Gaskets: Silicone rubber per A-A-59588.

Environment:

Operating Temperature: -65 to +165° C.

Vibration: Per MIL-STD-202, Method 204, condition D.

Corrosion (Salt Atmosphere):

Per MIL-STD-202, Method 101, test condition B.

Mechanical Shock: Per MIL-STD-202, Method 213, 75G.

Cable Plugs—For Flexible and Semi-Rigid Cable

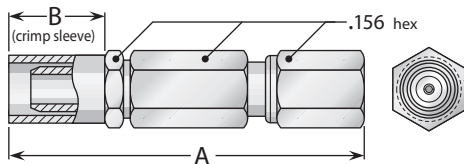


Figure 1
(Crimp type for flexible cable)

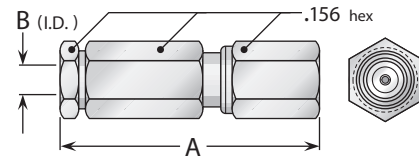


Figure 2
(Solder type for semi-rigid cable)

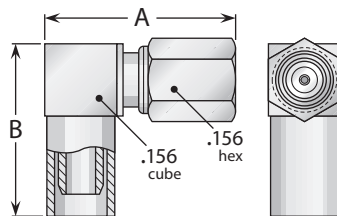


Figure 3
(Crimp type for flexible cable)

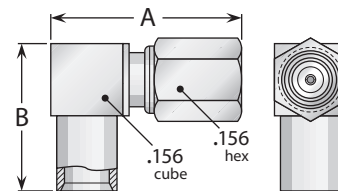


Figure 4
(Solder type for semi-rigid cable)

Straight Plugs

Cable Group	Figure	Dimensions		Plating		Delta P/N	Assembly Procedure/ Trim Code
		A	B	Body	Contact		
9	1	.740	.200	Gold	Gold (C)	2403037G001-000	A/01
10	1	.740	.200	Gold	Gold (C)	2403100G001-000	A/01
11	1	.740	.200	Gold	Gold (C)	2403038G001-000	A/01
14	2	.540	.090	Gold	Gold (C)	2403025G003-000	C/01
32	2	.540	.050	Gold	Gold (C)	2403111G003-000	C/01

Right Angle Plugs

Cable Group	Figure	Dimensions		Plating		Delta P/N	Assembly Procedure/ Trim Code
		A	B	Body	Contact		
9	3	.420	.355	Gold	Gold (C)	2407037G001-002	B/01
10	3	.420	.355	Gold	Gold (C)	2407100G001-001	B/01
11	3	.420	.355	Gold	Gold (C)	2407038G001-003	B/01
14	4	.420	.300	Gold	Gold (C)	2405025G003-000	D/01
32	4	.420	.300	Gold	Gold (C)	2405111G003-000	D/01

Cable Groups

9: RG-174, 188, 188A, 316; M17/94, 113, 119, 138, 172, 173, 196	10: Double-Shielded RG-174, 316; M17/152
11: RG-178, 178A, 178B, 196, 196A; , M17/93	14: .085" semi-rigid; RG-405; M17/133
	32: .047" semi-rigid; M17/151

(C) in contact plating column indicates captive contact. • See pages 13-14 for assembly instructions.

Cable Jacks—For Flexible and Semi-Rigid Cable

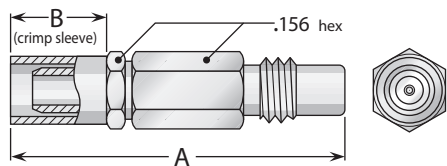


Figure 1
(Crimp type for flexible cable)

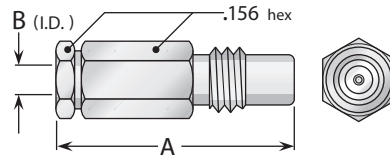


Figure 2
(Solder type for semi-rigid cable)

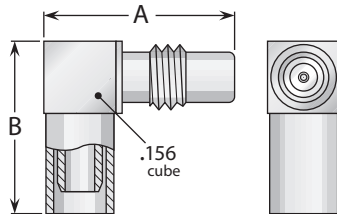


Figure 3
(Crimp type for flexible cable)

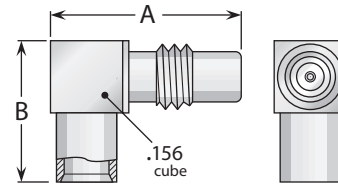


Figure 4
(Solder type for semi-rigid cable)

Straight Jacks

Cable Group	Figure	Dimensions		Plating		Delta P/N	Assembly Procedure/ Trim Code
		A	B	Body	Contact		
9	1	.700	.200	Gold	Gold (C)	2408037G001-000	A/01
10	1	.700	.200	Gold	Gold (C)	2408100G001-000	A/01
11	1	.700	.200	Gold	Gold (C)	2408038G001-000	A/01
14	2	.500	.090	Gold	Gold (C)	2408025G003-000	C/01
32	2	.500	.050	Gold	Gold (C)	2408111G003-000	C/01

Right Angle Jacks

Cable Group	Figure	Dimensions		Plating		Delta P/N	Assembly Procedure/ Trim Code
		A	B	Body	Contact		
9	3	.400	.355	Gold	Gold (C)	2478037G001-001	B/01
10	3	.400	.355	Gold	Gold (C)	2478100G001-001	B/01
11	3	.400	.355	Gold	Gold (C)	2478038G001-000	B/01
14	4	.400	.300	Gold	Gold (C)	2478025G003-000	D/01
32	4	.400	.300	Gold	Gold (C)	2478111G003-000	D/01

Cable Groups

9: RG-174, 188, 188A, 316; M17/94, 113, 119, 138, 172, 173, 196	10: Double-Shielded RG-174, 316; M17/152
11: RG-178, 178A, 178B, 196, 196A; , M17/93	14: .085" semi-rigid; RG-405; M17/133
	32: .047" semi-rigid; M17/151

(C) in contact plating column indicates captive contact. • See pages 13-14 for assembly instructions.

Bulkhead Mount Cable Jacks—For Flexible and Semi-Rigid Cable

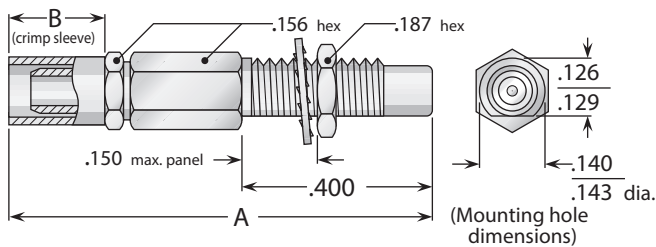


Figure 1
(Crimp type for flexible cable)

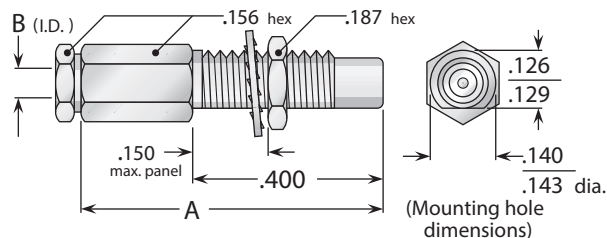


Figure 2
(Solder type for semi-rigid cable)

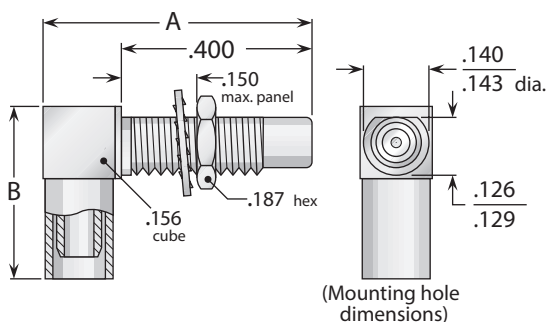


Figure 3
(Crimp type for flexible cable)

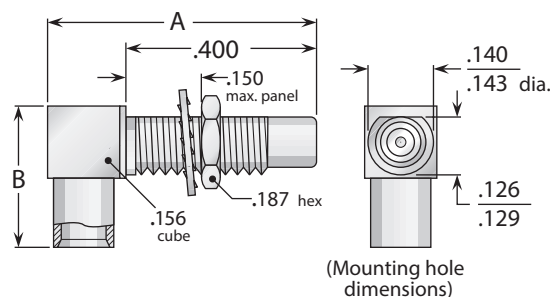


Figure 4
(Solder type for semi-rigid cable)

Straight Bulkhead Jacks

Cable Group	Figure	Dimensions		Plating			Delta P/N	Assembly Procedure/ Trim Code
		A	B	Body	Contact			
9	1	.700	.200	Gold	Gold (C)		2419037G911-000	A/01
10	1	.700	.200	Gold	Gold (C)		2419100G911-000	A/01
11	1	.700	.200	Gold	Gold (C)		2419038G911-000	A/01
14	2	.500	.090	Gold	Gold (C)		2416025G913-000	C/01
32	2	.500	.050	Gold	Gold (C)		2416111G913-000	C/01

Right Angle Bulkhead Jacks

Cable Group	Figure	Dimensions		Plating			Delta P/N	Assembly Procedure/ Trim Code
		A	B	Body	Contact			
9	3	.400	.355	Gold	Gold (C)		2476037G911-000	B/01
10	3	.400	.355	Gold	Gold (C)		2476100G911-000	B/01
11	3	.400	.355	Gold	Gold (C)		2476038G911-000	B/01
14	4	.400	.300	Gold	Gold (C)		2476025G913-000	D/01
32	4	.400	.300	Gold	Gold (C)		2476111G913-000	D/01

Cable Groups

9: RG-174, 188, 188A, 316; M17/94, 113, 119, 138, 172, 173, 196	10: Double-Shielded RG-174, 316; M17/152
11: RG-178, 178A, 178B, 196, 196A; , M17/93	14: .085" semi-rigid; RG-405; M17/133
	32: .047" semi-rigid; M17/151

(C) in contact plating column indicates captive contact. • See pages 13-14 for assembly instructions.

Bulkhead Receptacles—Front Mount (Nut behind panel)

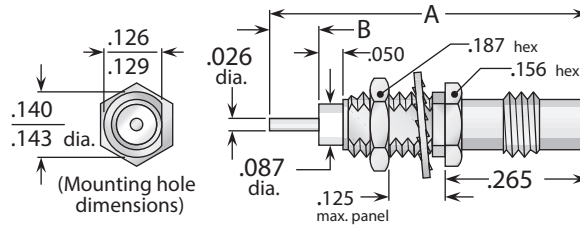


Figure 1 (Post contact)

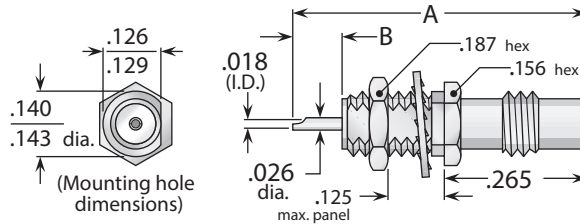


Figure 2 (Solder pot contact)

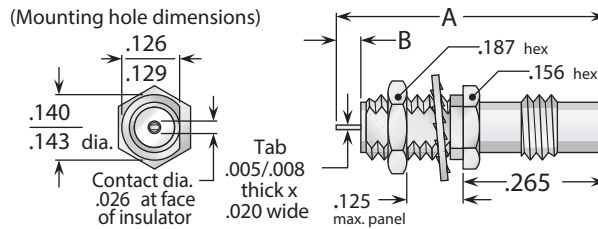


Figure 3 (Tab contact)

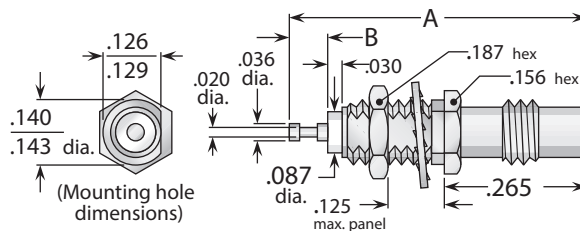


Figure 4 (Turret contact)

Figure	Dimensions		Plating		Delta P/N
	A	B	Body	Contact	
1	.665	.100	Gold (SS)	Gold (C)	2420000G911-012
2	.625	.100	Gold (SS)	Gold (C)	2420000G911-013
3	.565	.050	Gold (SS)	Gold (C)	2420000G911-014
4	.625	.080	Gold (SS)	Gold (C)	2420000G911-011

(C) in contact plating column indicates captive contact (Mechanically captivated).
(SS) in body plating column indicates stainless steel body.

Bulkhead Receptacles—Rear Mount (Nut in front of panel)

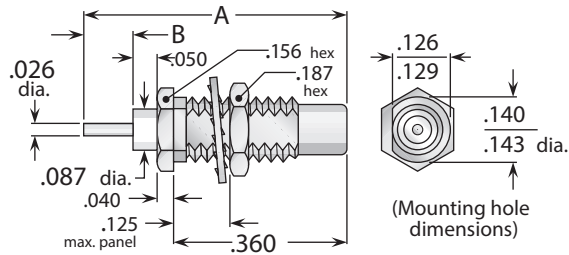


Figure 1 (Post contact)

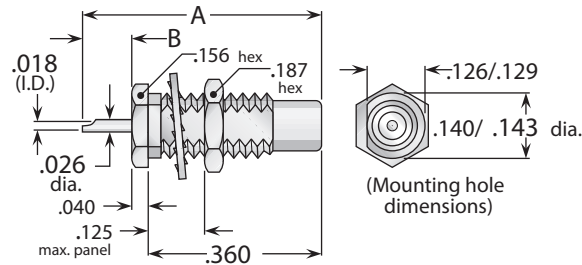


Figure 2 (Solder pot contact)

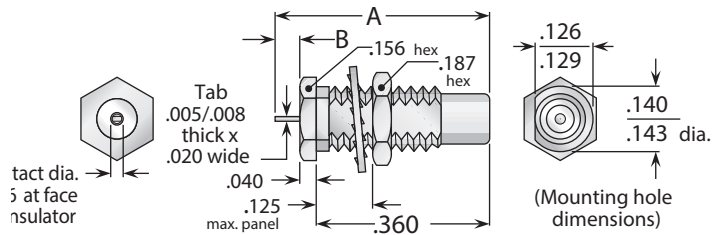


Figure 3 (Tab contact)

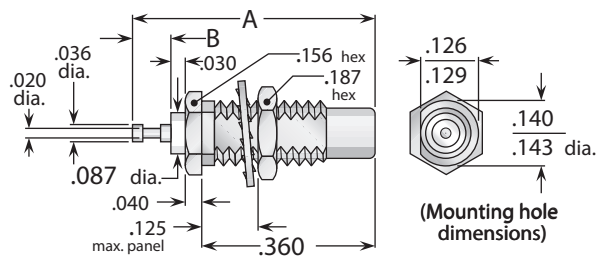


Figure 4 (Turret contact)

Figure	Dimensions		Plating		Delta P/N
	A	B	Body	Contact	
1	.550	.100	Gold (SS)	Gold (C)	2421000G911-003
2	.500	.100	Gold (SS)	Gold (C)	2421000G911-004
3	.450	.050	Gold (SS)	Gold (C)	2421000G911-005
4	.510	.080	Gold (SS)	Gold (C)	2421000G911-002

(C) in contact plating column indicates captive contact (Mechanically captivated).
 (SS) in body plating column indicates stainless steel body.

Panel Receptacles—4-Hole Flange

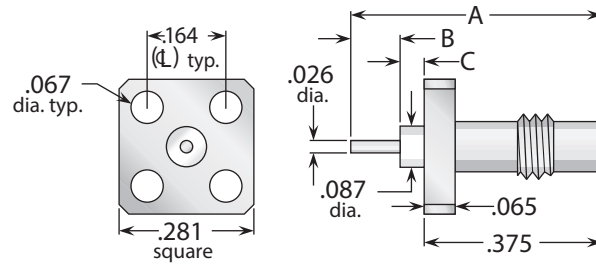


Figure 1 (Post contact)

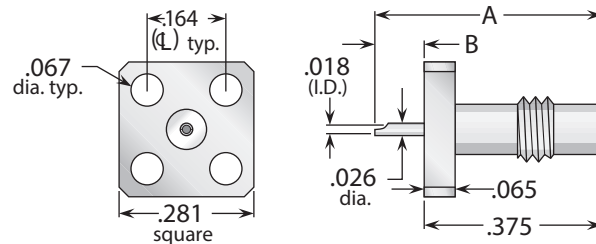


Figure 2 (Solder pot contact)

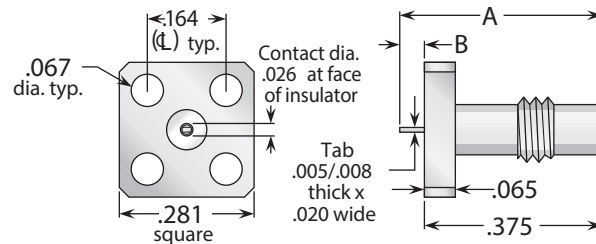


Figure 3 (Tab contact)

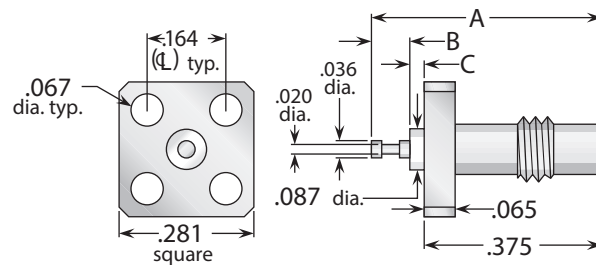


Figure 4 (Turret contact)

Figure	Dimensions		Plating		Delta P/N
	A	B	Body	Contact	
1	.525	.100	Gold	Gold (C)	2458000G911-004
2	.475	.100	Gold	Gold (C)	2458000G911-005
3	.425	.050	Gold	Gold (C)	2458000G911-006
4	.485	.080	Gold	Gold (C)	2458000G911-003

(C) in contact plating column indicates captive contact (Mechanically captivated).

Panel Receptacles—2-Hole Flange

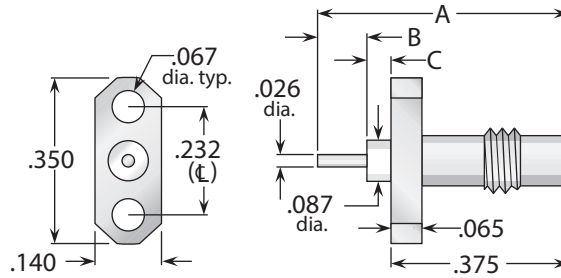


Figure 1 (Post contact)

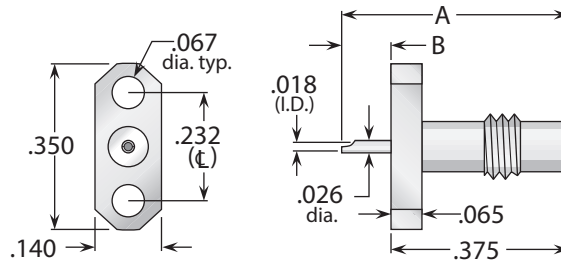


Figure 2 (Solder pot contact)

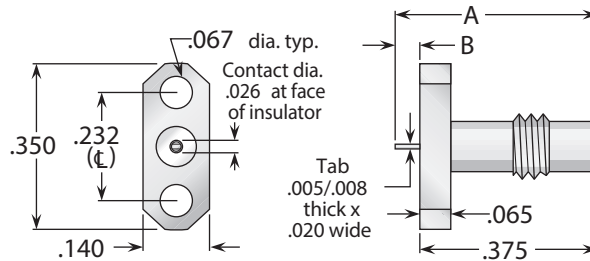


Figure 3 (Tab contact)

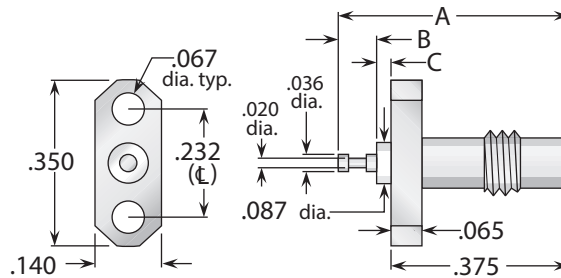


Figure 4 (Turret contact)

Figure	Dimensions		Plating		Delta P/N
	A	B	Body	Contact	
1	.525	.100	Gold	Gold (C)	2458000G911-008
2	.475	.100	Gold	Gold (C)	2458000G911-009
3	.425	.050	Gold	Gold (C)	2458000G911-010
4	.485	.080	Gold	Gold (C)	2458000G911-007

(C) in contact plating column indicates captive contact (Mechanically captivated).

P. C. Board Receptacles—Through-Hole and Surface Mount

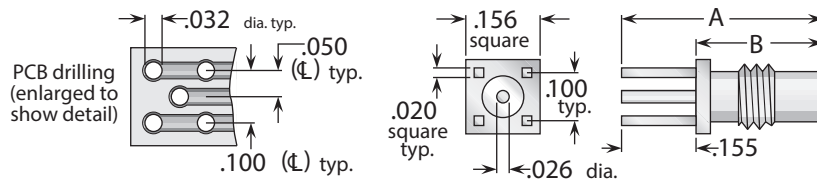


Figure 1 (Through-hole; fits board .125" thick maximum)

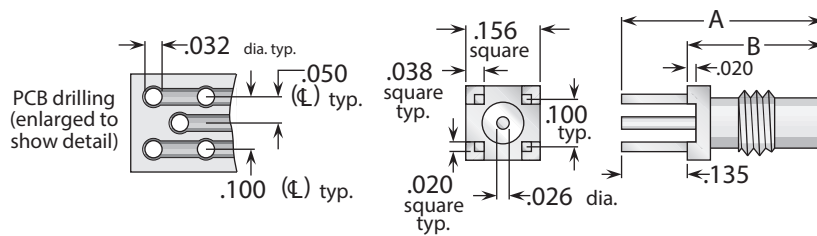


Figure 2 (Through-hole with standoff legs; fits board .125" thick maximum)

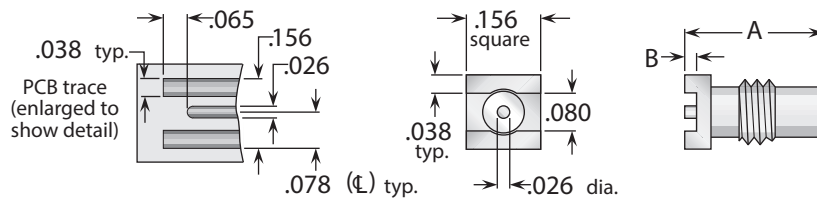


Figure 3 (Surface mount)

Figure	Dimensions		Plating		Delta P/N
	A	B	Body	Contact	
1	.420	.265	Gold	Gold (C)	2467000G911-005
2	.420	.285	Gold	Gold (C)	2467000G911-006
3	.290	.020	Gold	Gold (C)	2467000G911-007

(C) in contact plating column indicates captive contact (Mechanically captivated).
All are available with different leg lengths or other modifications.

Edge Mount P.C. Board Receptacles—Bulkhead Jack

These connectors are designed for use in applications requiring tight vertical spacing of P.C. boards (see illustrations).

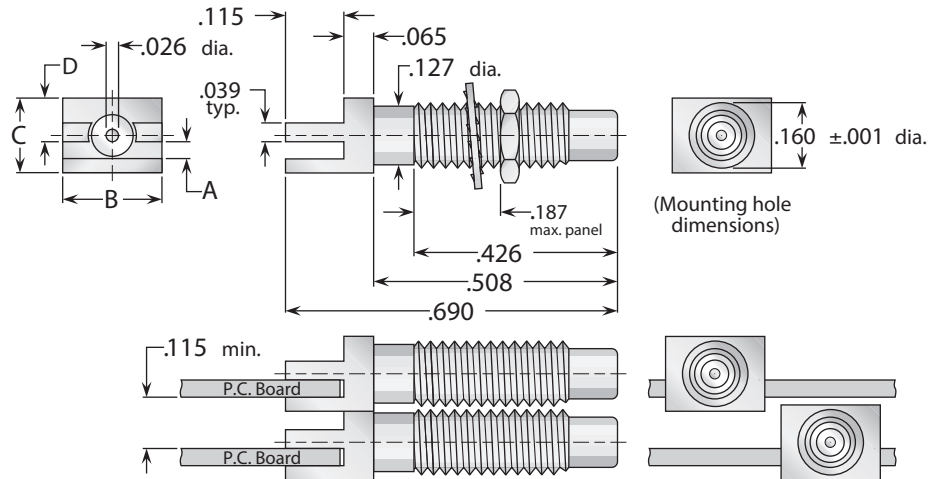


Figure 1 (.115" minimum vertical board spacing)

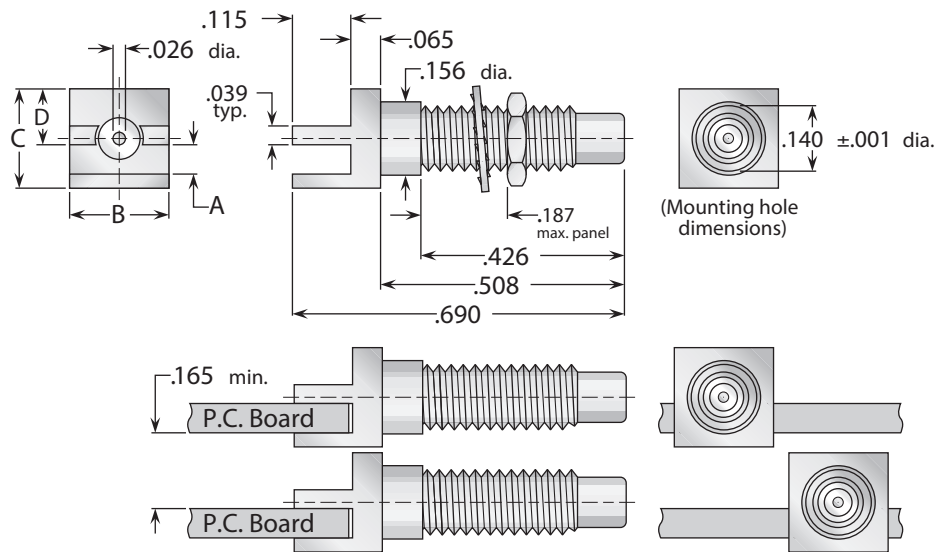


Figure 2 (.165" minimum vertical board spacing)

Board Thickness	Figure	Dimensions				Plating		Delta P/N
		A	B	C	D	Body	Contact	
.042	1	.048	.207	.156	.075	Gold (SS)	Gold (C)	2467000G91P-022
.054	1	.060	.207	.156	.075	Gold (SS)	Gold (C)	2467000G91P-008
.067	1	.073	.156	.222	.110	Gold (SS)	Gold (C)	2467000G91P-011
.042	2	.048	.207	.207	.115	Gold (SS)	Gold (C)	2467000G91P-002
.054	2	.060	.207	.207	.115	Gold (SS)	Gold (C)	2467000G91P-014
.062	2	.066	.207	.207	.115	Gold (SS)	Gold (C)	2467000G91P-013

(C) in contact plating column indicates captive contact (Epoxy captivated).
 (SS) in body plating column indicates stainless steel body.

SMA to SSMC Adapters

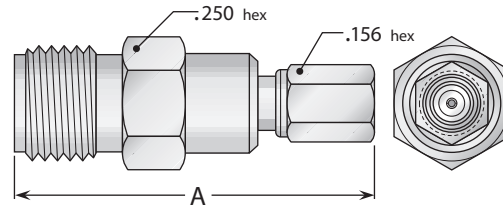


Figure 1 (SMA jack to SSMC plug)

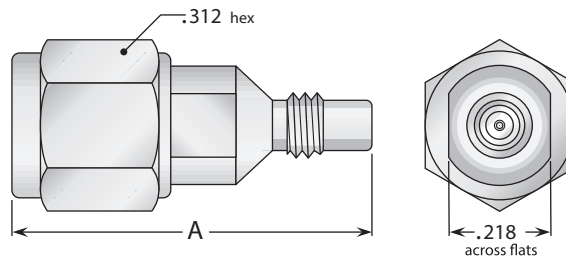


Figure 2 (SMA plug to SSMC jack)

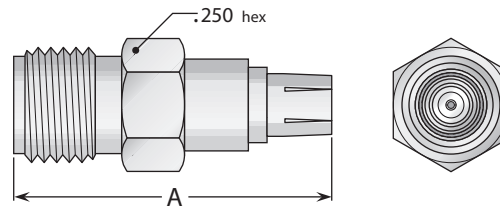
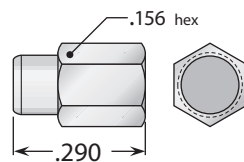


Figure 3 (SMA jack to SSMC push-on plug)

Figure	Dimensions	Plating		Delta P/N
		Body	Contact	
1	A .750	Passivated (SS)	Gold (C)	2234000K001-195
2	A .750	Passivated (SS)	Gold (C)	2234000K001-194
3	A .665	Passivated (SS)	Gold (C)	2432000G00D-000

Dust Cap for Jacks



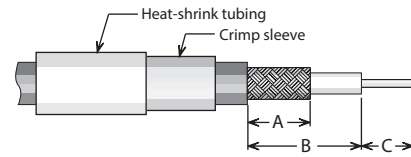
Plating	Delta P/N
Gold	2234000K001-194

(C) in contact plating column indicates captive contact (Mechanically captivated).
 (SS) in body plating column indicates stainless-steel body.

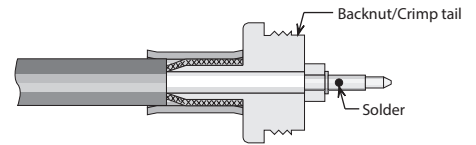
Assembly Procedure A

Cable Trim Codes			
Code	A	B	C
A/01	.150	.300	.125

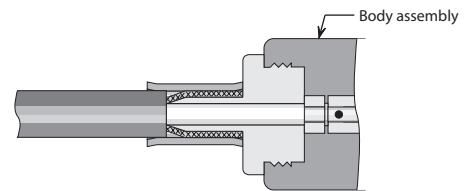
- 1) Trim cable per chart. Slide crimp sleeve and heat-shrink tubing (if supplied) onto cable.



- 2) Flare cut end of braid slightly by rotating dielectric. Insert cable into rear of backnut/crimp tail, with all braid wires on outside of crimp tail. Slide insulator over cable dielectric until it is flush with front of backnut, and cable insulation bottoms inside insulator. Slide contact onto center conductor, with contact shoulder flush with front of insulator. Solder contact to center conductor.
- 3) Slide crimp sleeve forward until flush with clamp shoulder; crimp as close to shoulder as possible. (see page 15 for hex die sizes).



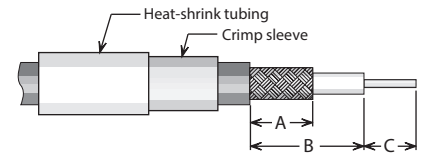
- 4) Insert prepared cable into back of body. Slide nut forward and tighten to 25-50 inch ounces torque. Shrink heat-shrink tubing (if supplied) with hot-air gun.



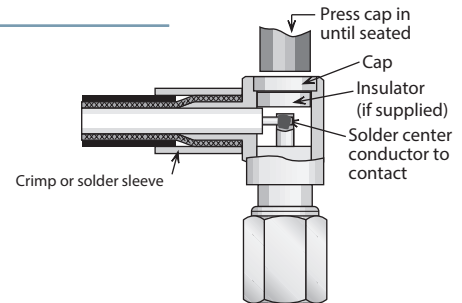
Assembly Procedure B

Cable Trim Codes			
Code	A	B	C
B/01	.150	.187	.050

- 1) Trim cable per chart. Slide crimp sleeve and heat-shrink tubing (if supplied) onto cable.



- 2) Insert cable into rear of body, with all braid wires on outside of crimp tail. Push cable in until end of braid touches connector body shoulder and center conductor rests in contact slot. Slide crimp sleeve forward until flush with body and crimp (see below for hex die sizes). (For solder-type connectors, solder braid to body and sleeve through hole in sleeve.) Solder center conductor into contact slot, assemble insulator disc (if supplied), then press cap into body until seated. Shrink heat-shrink tubing (if supplied) with hot-air gun.



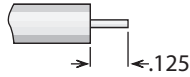
Crimp Tools for Flexible Cable



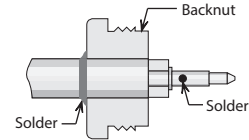
Frame only—P/N	M22520/5-01	—Use with interchangeable dies listed below.	
Cable Group*	Hex Die Size	Die Set P/N	Closure
9	.128 hex, .400 wide	M22520/5-35	B
10	.151 hex, .400 wide	M22520/5-37	B
11	.105 hex, .400 wide	M22520/5-33	B

Assembly Procedure C

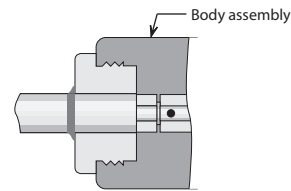
- 1) Trim cable as shown. Remove any burrs from jacket and center conductor.



- 2) Soft solder cable jacket to backnut, making sure that end of cable is flush with front side of backnut. Slide insulator over cable dielectric until it is flush with front of backnut. Slide contact onto center conductor, with contact shoulder flush with front of insulator. Solder contact to center conductor.

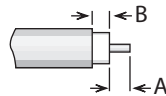


- 3) Insert prepared cable into back of body. Slide nut forward and tighten to 25-50 inch ounces torque.

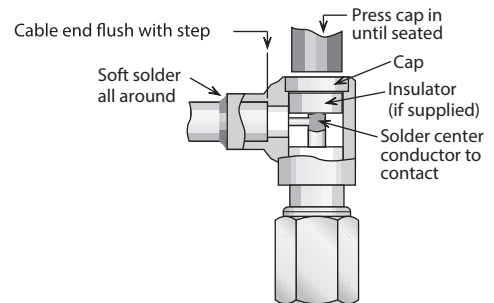


Assembly Procedure D

Trim Codes		
Code	A	B
D/01	.059	.050



- 1) Trim cable as shown. Remove any burrs from jacket and center conductor.



- 2) Soft solder cable jacket to body, making sure that end of cable is flush with step in body. Solder center conductor into contact slot, assemble insulator disc (if supplied), then press cap into body until seated or screw into place.

Index by Delta Part Number

(Click on any line to go to the indicated page)

Delta P/N	Page	Delta P/N	Page	Delta P/N	Page
2234000K001-194	.....12	2416111G913-000	.....5	2458000G911-009	.....9
2234000K001-195	.....12	2419037G911-000	.....5	2467000G911-005	.....10
2403025G003-000	.....3	2419038G911-000	.....5	2467000G911-006	.....10
2403037G001-000	.....3	2419100G911-000	.....5	2467000G911-007	.....10
2403038G001-000	.....3	2420000G911-011	.....6	2467000G91P-011	.....11
2403100G001-000	.....3	2420000G911-012	.....6	2467000G91P-013	.....11
2403111G003-000	.....3	2420000G911-013	.....6	2467000G91P-014	.....11
2405025G003-000	.....3	2420000G911-014	.....6	2467000G91P-002	.....11
2405111G003-000	.....3	2421000G911-002	.....7	2467000G91P-022	.....11
2407037G001-002	.....3	2421000G911-003	.....7	2467000G91P-008	.....11
2407038G001-003	.....3	2421000G911-004	.....7	2476025G913-000	.....5
2407100G001-001	.....3	2421000G911-005	.....7	2476037G911-000	.....5
2408025G003-000	.....4	2432000G00D-000	.....12	2476038G911-000	.....5
2408037G001-000	.....4	2458000G911-010	.....9	2476100G911-000	.....5
2408038G001-000	.....4	2458000G911-003	.....8	2476111G913-000	.....5
2408100G001-000	.....4	2458000G911-004	.....8	2478025G003-000	.....4
2408111G003-000	.....4	2458000G911-005	.....8	2478037G001-001	.....4
2416025G913-000	.....5	2458000G911-006	.....8	2478038G001-000	.....4
		2458000G911-0079	2478100G001-0014
		2458000G911-0089	2478111G003-0004

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for more information.



Our Delta website provides numerous resources for our customers:

- A Visual Search
- Downloadable Drawings
- Downloadable Solid Models
- Downloadable Cable Assembly Instructions
- Distributor Inventory
- A Live Chat to Speak With a Specialist

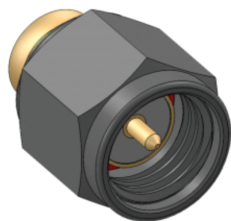
- Videos of Our Facility and People
- Downloadable Catalogs
- Press Releases
- Distributor and Representative Contacts
- White Papers
- Industry News

1301031K003-008

SMA Straight Direct Solder - One Step Male For Semi-rigid Cable



If you don't see the file type you're looking for please contact us.



Gender: Male (Plug)
Orientation: Straight
Body Material: Stainless Steel
Body Plating: Gold PCN
Contact Plating: Gold
Epoxy Captivated: No
Frequency: 18 GHz
Impedance: 50 Ohms
Dimension A: .330
Dimension B: .430
Reverse Polarity: No
Cable: .141 Semi-Rigid, M17-130, RG-402

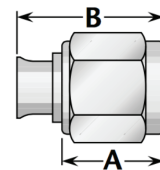


Figure 4
(One-Step cable attachment)

Distributor Inventory

Delta P/N	Mill Dwg P/N	Qty	Inv.Date	In Stock at	Phone	RFQ	Shop
1301-031-K003-008		1049	08-24-2016	Microwave Components Inc	772/286-4455		
1301031K003-008		240	08-24-2016	RFMW, Ltd	408/414-1450		

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