

SMA SERIES

The SMA is a miniature connector series originally designed to be compatible with the small semi-rigid cables and yield very low VSWR at high frequencies. Other connectors have been developed in the series that accept flexible coaxial cables. The series has a screw thread coupling mechanism and features stainless steel shells for high strength and wear qualities, beryllium copper contacts and heavy gold plating throughout.

The series is covered by military specification MIL-C-39012.

MATERIALS:

Body Parts: Non-Magnetic stainless steel, per ASTM, class 303.

Contacts: Beryllium copper per QQ-C-530

Insulators: TFE Fluorocarbon per L-P-403

Gaskets: Silicone rubber per ZZ-R-765

FINISH:

All parts plated to meet finish and corrosion requirements of MIL-C-39012.

Gold plating per MIL-G-45204.

Proprietary bright nickel (IP23).

Silver plating per QQ-S-365.

Passivated.

MECHANICAL:

Force to Engage and Disengage: Torque, 2 in.-lb. max.

Coupling nut Retention Force: 60 lbs. min.

Coupling Proof Torque: 15 in. - lb. min.

Mating Torque: 7 to 10 in. - lb.

Connector Durability: 500 Cycles min.

ELECTRICAL

Impedance: 50 OHMS nominal

Frequency Range: D.C. to 18 GHZ

Insulation Resistance: 5000 MEGOHMS Min.

Voltage Rating: 335 VRMS with RG 58.

Dielectric Withstanding: 1500 VRMS at sea level

R.F. Leakage: $-(100 - F \text{ GHZ}) \text{ dB max.}$

R.F. High Potential Withstanding Voltage:

1000 VRMS at 5 MHZ

Voltage Standing Wave ratio (VSWR):

1.05 + .05 FGHZ Max.

Insertion Loss: $.03 \sqrt{FGHZ} \text{ db Max.}$

Contact Resistance: Outer contact: 3.0 milliohms max.

Center contact: 2.0 milliohms max.

ENVIRONMENTAL:

Temperature rating: -65°C to $+165^{\circ}\text{C}$

Vibration: MIL-STD-202, method 204, cond. D (20 G's)

Shock: MIL-STD-202, method 213, cond. I (100 G's)

Thermal Shock: MIL-STD-202, method 107, cond. B

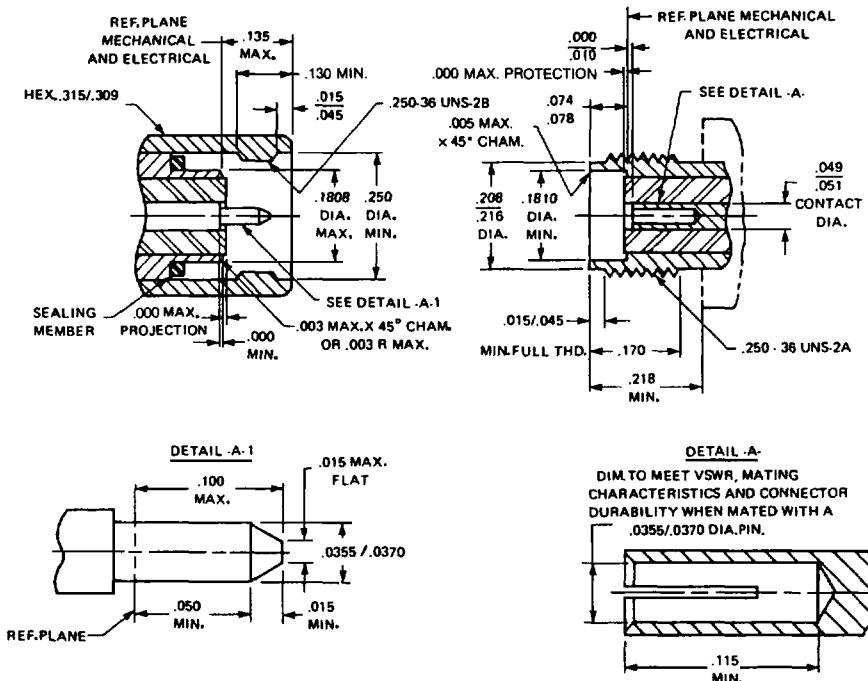
$(-65^{\circ}\text{C}$ to $+115^{\circ}\text{C})$

Corrosion (salt spray): MIL-STD-202, method 101,

cond. B

Moisture Resistance: MIL-STD-202, method 106

INTERFACE DIMENSIONS PER MIL-C-39012



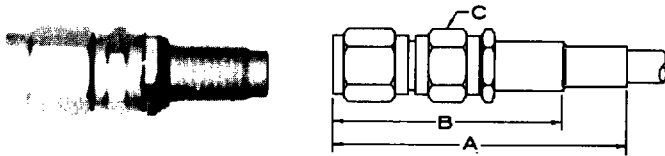
SMA SERIES

SMA CABLE PLUG — SOLDER ON — SEMI-RIGID CABLE



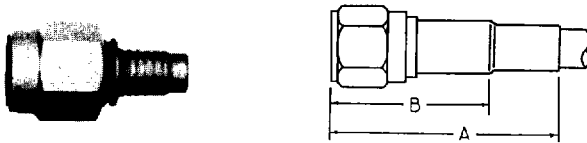
S/C Part No.	Cable RG-U	Dimension		Engr. Data
		A	B	
39P104-1	.141 DIA	.447	5/16 HEX	Direct Solder-on
39P106-1	.085 DIA	.437	5/16 HEX	Has Separate Contact
39P134-1	.141 DIA	7/16	5/16 HEX	Has Separate Contact

SMA CABLE PLUG — CRIMP



S/C Part No.	Cable RG-U	Crimp Tool	Dimension			Engr. Data
			A	B	C	
39P116-1	59,62	.255 HEX	1-5/16	1.0	5/16 HEX	Captive Contact

SMA CABLE PLUG — CRIMP



S/C Part No.	Cable RG-U	Crimp Tool	Dimension		Engr. Data
			A	B	
39P122-1	223	.213 HEX	1-1/16	47/64	
39P122-4	174,316	.128 HEX	1-1/16	47/64	

SMA CABLE PLUG — CLAMP



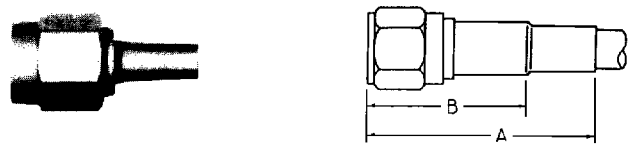
S/C Part No.	Cable RG-U	Dimension		Engr. Data	Assy. Inst.
		A	B		
39P109-1	.141 dia	27/32	11/32 Rd	Solder Cont. - Clamp Jacket	
39P109-2	.085 dia	27/32	11/32 Rd	Solder Cont. - Clamp Jacket	
39P112-1	.141 dia	11/16	5/16 Hex	Solder Cont. - Solder Bushing on Jacket	
39P113-1	.141 dia	3/4	5/16 Rd	Solder Cont. - Clamp Jacket - Weatherproof	AI-59
39P113-2	.085 dia	3/4	5/16 Rd	Solder Cont. - Clamp Jacket - Weatherproof	AI-59
39P123-1	174,188	53/64	11/32 Hex	Straight Cut Style	AI-61
39P123-2	122	53/64	11/32 Hex	Straight Cut Style	AI-61
39P123-3	58,141	53/64	11/32 Hex	Straight Cut Style	AI-61
39P123-4	55,223	53/64	11/32 Hex	Straight Cut Style	AI-61
39P136-1	178,196	53/64	11/32 Hex	Straight Cut Style	AI-55

SMA CABLE PLUG — SOLDER ON



S/C Part No.	Cable RG-U	Dimension	Engr. Data
		A	
39P125-1	.085 DIA	17/32	Plug In Center Conductor - Solder Jacket
39P128-1	.141 DIA	5/8	Plug In Center Conductor - Solder Jacket

SMA CABLE PLUG — SOLDER BRAID



S/C Part No.	Cable RG-U	Dimension		Engr. Data
		A	B	
39P100-1	58,223	1-3/64	49/64	Solder Braid
39P101-1	174,188, 316	1-3/32	11/16	Solder Braid

SMA CABLE PLUG — SOLDER ON



S/C Part No.	Cable RG-U	Dimension		Engr. Data
		A	B	
39P105-1	.141 dia	43/64	7/16	Direct Solder On
39P107-1	.085 dia	43/64	7/16	Direct Solder On

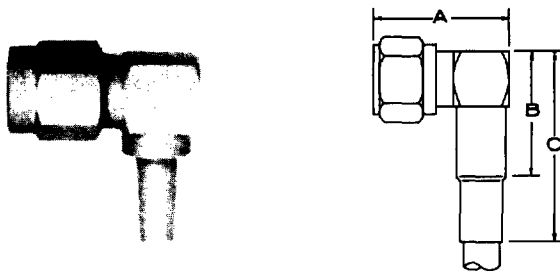
SMA CABLE PLUG — RIGHT ANGLE — CLAMP



S/C Part No.	Cable RG-U	Dimension			Engr. Data	Assy. Inst.
		A	B	C		
39P115-1	.141 dia	11/16	7/8	5/16 dia	Clamp On Jacket Weatherproof	AI-61
39P117-1	58	45/64	57/64	11/32 dia	Straight Cut Style	AI-61
39P117-2	142	45/64	57/64	11/32 dia	Straight Cut Style	AI-61

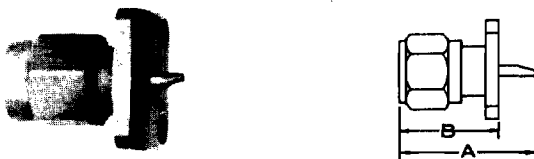
SMA SERIES

SMA CABLE PLUG — RIGHT ANGLE



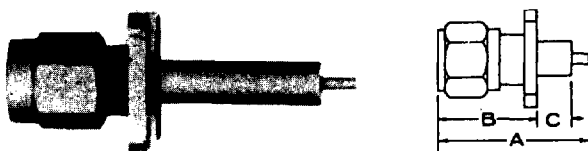
S/C Part No.	Cable RG-U	Crimp Tool	Dimension			Engr. Data
			A	B	C	
39P102-1	58,223		43/64	5/8	7/8	Solder on Style
39P103-1	174,316		43/64	7/16	3/4	Solder on Style
39P121-1	55,142	.213 HEX	43/64	11/32	15/16	Crimp on Style
39P121-4	174,316	.128 HEX	43/64	11/32	13/16	Crimp on Style

SMA PLUG RECEPTACLE — FLANGE MOUNT



S/C Part No.	Dimension		Mtg. Plate	Engr. Data
	A	B		
39PR103-1	45/64	1/2	5A	Fixed, Solder Pot Contact

SMA PLUG RECEPTACLE — FLANGE MOUNT



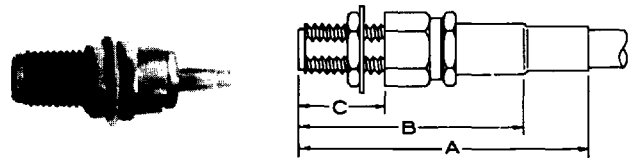
S/C Part No.	Dimension			Mtg. Plate	Engr. Data
	A	B	C		
39PR101-1	1.212	.507	.590	5A	Fixed Contact
39PR101-2	.995	.507	.330	5A	Fixed Contact

SMA CABLE JACK — CLAMP



S/C Part No.	Cable RG-U	Dimension		Engr. Data	Assy. Inst.
		A	B		
39J106-1	.141 dia	21/32	5/16 HEX	Solder Bushing to Jacket	
39J108-1	174	13/16	11/32 HEX	Straight Cut Style	AI-61
39J108-2	122	13/16	11/32 HEX	Straight Cut Style	AI-61
39J108-3	58	13/16	11/32 HEX	Straight Cut Style	AI-61
39J108-4	223	13/16	11/32 HEX	Straight Cut Style	AI-61

SMA CABLE JACK — SINGLE HOLE MOUNT — CRIMP



S/C Part No.	Cable RG-U	Crimp Tool	Dimension			Mtg. Hole	Engr. Data
			A	B	C		
39JS104-1	142	.213 HEX	1-1/2	1-3/64	.450	D14	
39JS104-2	174,188	.128 HEX	1-1/2	1-3/64	.450	D14	

SMA CABLE JACK — SINGLE HOLE MOUNT — SOLDER ON — SEMI-RIGID CABLE



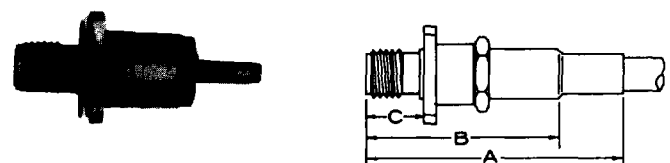
S/C Part No.	Cable RG-U	Dimension			Mtg. Hole	Engr. Data
		A	B	C		
39JS101-1	.141 dia	3/4	.415	7/16 HEX	D14	Has Mounting Gasket
39JS101-2	.085 dia	3/4	.415	7/16 HEX	D14	Has Mounting Gasket

SMA CABLE JACK — SINGLE HOLE MOUNT — CLAMP



S/C Part No.	Cable RG-U	Dimension			Mtg. Hole	Engr. Data	Assy. Inst.
		A	B	C			
39JS103-1	174	13/16	7/16	11/32 HEX	D14	Straight Cut Style	AI-61
39JS103-2	122	13/16	7/16	11/32 HEX	D14	Straight Cut Style	AI-61
39JS103-3	58	13/16	7/16	11/32 HEX	D14	Straight Cut Style	AI-61
39JS103-4	223	13/16	7/16	11/32 HEX	D14	Straight Cut Style	AI-61

SMA CABLE JACK — FLANGE MOUNT — CRIMP



S/C Part No.	Cable RG-U	Crimp Tool	Dimension			Mtg. Plate	Engr. Data
			A	B	C		
39JF102-1	174,188	.128 HEX	1-7/16	1-1/16	5/16	5A	

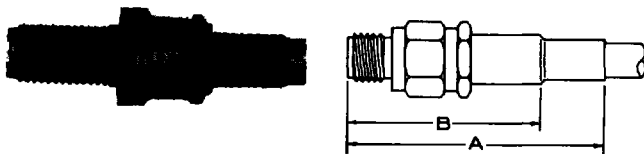
SMA SERIES

SMA CABLE JACK — FLANGE MOUNT — CLAMP



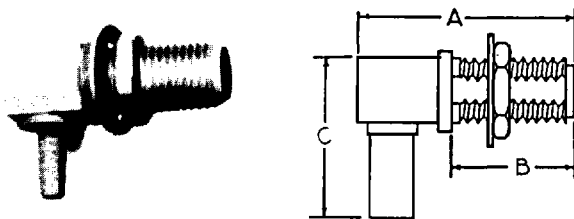
S/C Part No.	Cable RG-/U	Dimension			Mtg. Plate	Engr. Data	Assy. Inst.
		A	B	C			
39JF101-1	174	13/16	5/16	5/16 dia	5A	Straight Cut Style	AI-61
39JF101-2	122	13/16	5/16	5/16 dia	5A	Straight Cut Style	AI-61
39JF101-3	58	13/16	5/16	5/16 dia	5A	Straight Cut Style	AI-61

SMA CABLE JACK — CRIMP



S/C Part No.	Cable RG-/U	Crimp Tool	Dimension		Engr. Data
			A	B	
39J109-1	174,188	.128 HEX	1-7/16	1-1/16	

SMA CABLE JACK — SINGLE HOLE MOUNT — RIGHT ANGLE — CRIMP



S/C Part No.	Cable RG-/U	Crimp Tool	Dimension			Mtg. Hole	Engr. Data
			A	B	C		
39JS105-1	188,316	.128 HEX	25/32	.450	1-9/64	D14	

SMA ADAPTER — JACK TO JACK



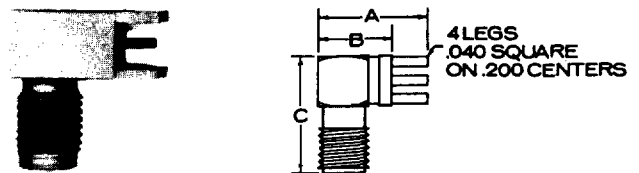
S/C Part No.	Dimension	Engr. Data
	A	
39A101-1	1/2	Has Diamond Knurl
39A107-1	7/8	

SMA CABLE JACK — SOLDER ON



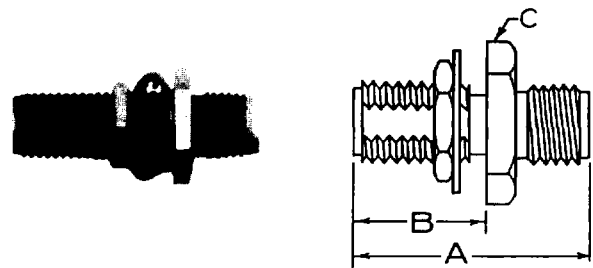
S/C Part No.	Cable RG-/U	Dimension		Engr. Data
		A	B	
39J102-1	.141 dia	5/8	1/4 HEX	Solder on Jacket
39J103-1	.085 dia	5/8	1/4 HEX	Solder on Jacket

SMA JACK RECEPTACLE — RIGHT ANGLE PCB MOUNT



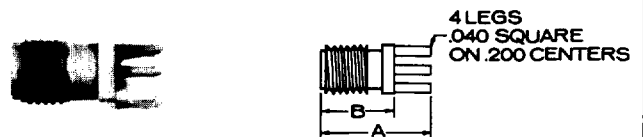
S/C Part No.	Dimension			Engr. Data
	A	B	C	
39JR128-1	17/32	3/8	.583	

SMA ADAPTER — JACK TO JACK — SINGLE HOLE MOUNT



S/C Part No.	Dimension			Mtg. Hole	Engr. Data
	A	B	C		
39AS102-1	7/8	.575	3/8 HEX	D14	

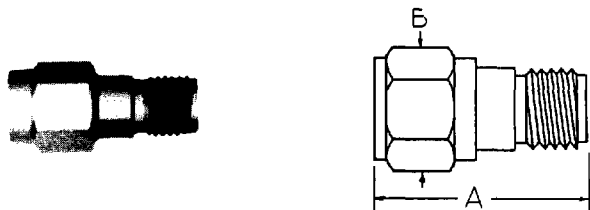
SMA JACK RECEPTACLE — PCB MOUNT



S/C Part No.	Dimension		Engr. Data
	A	B	
39JR127-1	17/32	3/8	
39JR162-1	.541	.391	
39JR162-2	.484	.391	

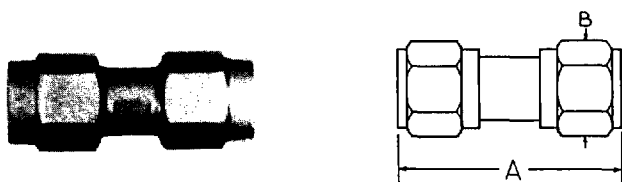
SMA SERIES

SMA ADAPTER — PLUG TO JACK



S/C Part No.	Dimension		Engr. Data
	A	B	
39A105-1	23/32	5/16 HEX	

SMA ADAPTER — PLUG TO PLUG



S/C Part No.	Dimension		Engr. Data
	A	B	
39A106-2	7/8	5/16 HEX	

SMA CABLE JACK — FLANGE MOUNT — SOLDER ON — SEMI-RIGID CABLE



S/C Part No.	Cable RG-U	Dimension		Mtg. Plate	Engr. Data
		A	B		
39JF100-1	.141 DIA	9/16	3/8	5A	Solder on Jacket
39JF104-1	.085 DIA	9/16	3/8	5A	Solder on Jacket
39JF106-1	.085 DIA	1/2	3/8	6A	Solder on Jacket

SMA JACK RECEPTACLE — RIGHT ANGLE — FLANGE MOUNT



S/C Part No.	Dimension			Mtg. Plate	Engr. Data
	A	B	C		
39JR180-1	39/64	27/64	37/64	5A	
39JR182-1	39/64	27/64	37/64	3B	

SMA JACK RECEPTACLE



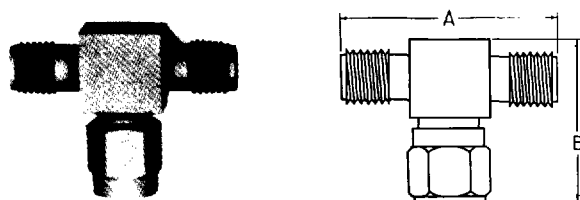
S/C Part No.	Dimension			Engr. Data
	A	B	C	
39JR154-1	.660	.500	.076	

SMA ADAPTER — RIGHT ANGLE



S/C Part No.	Dimension		Engr. Data
	A	B	
39AR100-1	5/8	37/64	

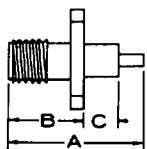
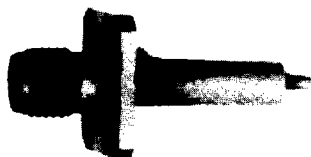
SMA ADAPTER — TEE



S/C Part No.	Dimension		Engr. Data
	A	B	
39AT102-2	1-1/32	3/4	

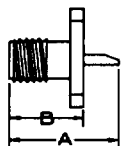
SMA SERIES

SMA JACK RECEPTACLE — FLANGE MOUNT



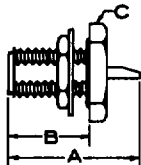
S/C Part No.	Dimension			Mtg. Plate	Engr. Data
	A	B	C		
39JR100-1	.425	3/8	.000	5A	
39JR101-1	1.080	3/8	.590	5A	
39JR101-4	.868	3/8	.400	5A	
39JR101-5	.805	3/8	.187	5A	
39JR105-1	1.080	3/8	.590	5A	Has Loose Contact
39JR113-1	1.311	3/8	.440	5A	Has Loose Contact
39JR113-2	.975	3/8	.313	5A	Has Loose Contact
39JR124-1	13/16	3/8	5/16	6A	Slot in Contact .015x.120
39JR129-1	1.080	3/8	.590	6A	
39JR184-1	3/4	3/8	.175	3B	

SMA JACK RECEPTACLE — FLANGE MOUNT



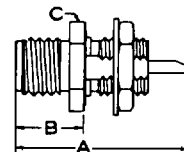
S/C Part No.	Dimension		Mtg. Plate	Engr. Data
	A	B		
39JR143-1	9/16	3/8	5A	M39012/60-3001
39JR160-1	9/16	3/8	2B	
39JR161-1	9/16	3/8	3B	
39JR178-1	9/16	3/8	6A	M39012/60-3002

SMA JACK RECEPTACLE — REVERSE SINGLE HOLE MOUNT



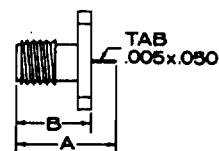
S/C Part No.	Dimension			Mtg. Hole	Engr. Data
	A	B	C		
39JR103-1	43/64	.450	5/16 HEX	D14	
39JR104-1	21/32	.415	7/16 HEX	D14	Mounting Gasket
39JR106-1	47/64	.415	7/16 HEX	D14	Herm. Seal Gasket
39JR117-1	43/64	.437	5/16 HEX	D14	
39JR120-1	3/4	.497	3/8 HEX	D13	Herm. Seal Gasket
39JR177-1	43/64	.425	7/16 DIA	D13	M39012/61-3001

SMA JACK RECEPTACLE — SINGLE HOLE MOUNT



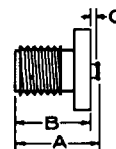
S/C Part No.	Dimension			Mtg. Hole	Engr. Data
	A	B	C		
39JR118-1	3/4	9/32	3/8 HEX	D14	Herm. Seal Gasket
39JR126-1	43/64	9/32	5/16 HEX	D14	
39JR179-1	43/64	.305	7/16 DIA	D13	M39012/61-3002

SMA JACK RECEPTACLE — FLANGE MOUNT



S/C Part No.	Dimension		Mtg. Plate	Engr. Data
	A	B		
39JR114-1	.475	3/8	5A	Has Loose Contact

SMA JACK RECEPTACLE — FLANGE MOUNT — STRIP LINE



S/C Part No.	Dimension			Mtg. Plate	Engr. Data
	A	B	C		
39JL100-1	.448	3/8	.063	8A	
39JL101-1	.416	3/8	.031	8A	
39JL102-1	.510	3/8	.125	8A	