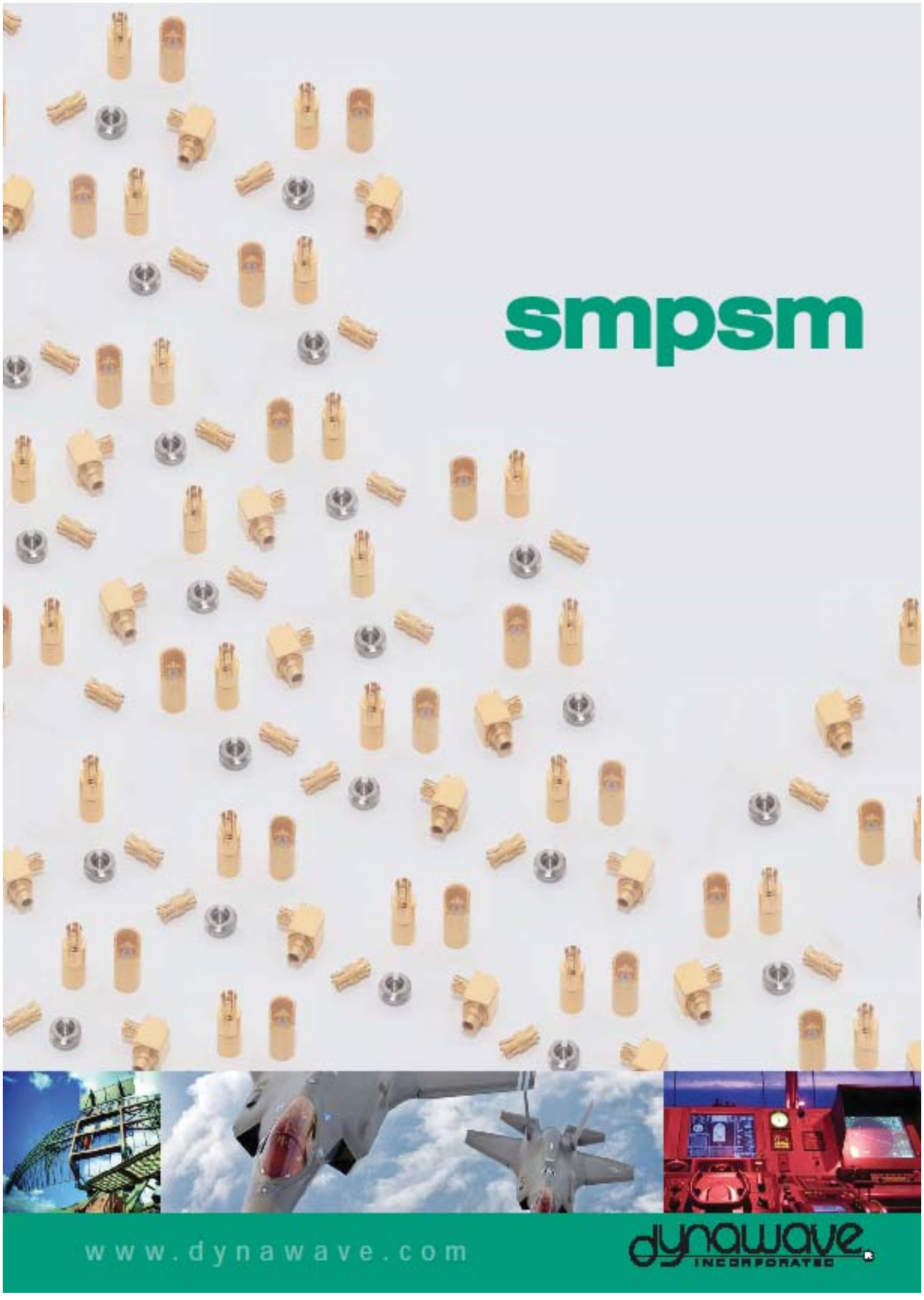
smpsm
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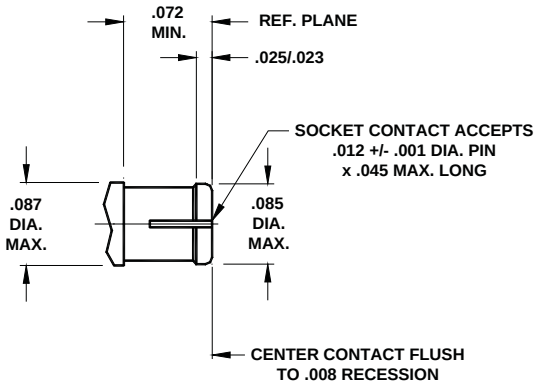
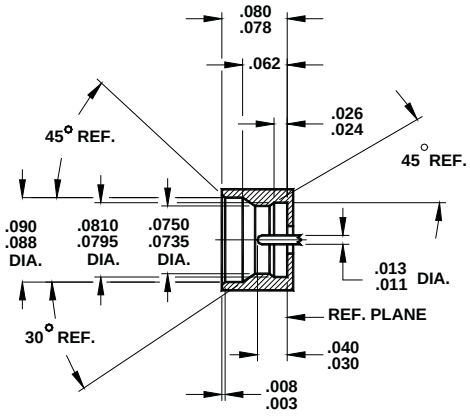
INCORPORATED

smpsm interfaces

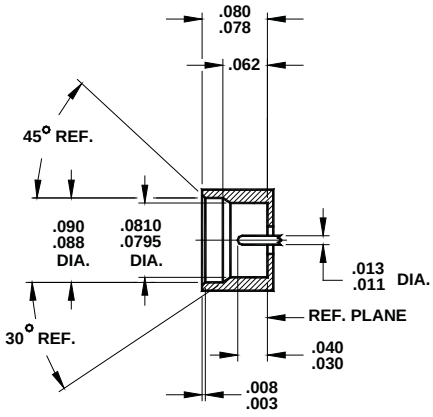
socket (adapter)



pin (shroud)



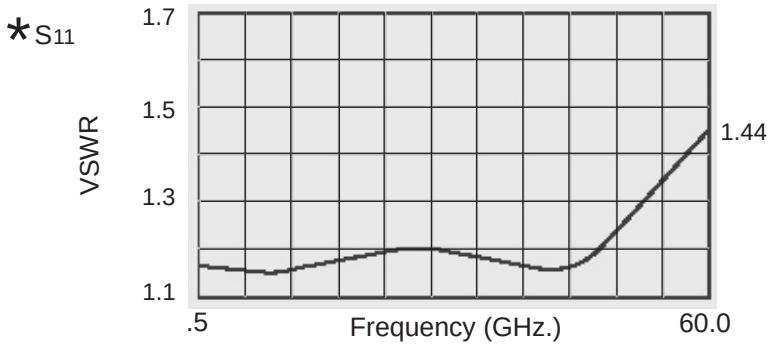
MALE, PLUG, FULL DETENT



MALE, PLUG, SMOOTH BORE

OTHER INTERFACE DIMENSIONS AVAILABLE PER CUSTOMER ENGAGE AND DISENGAGE FORCE REQUIREMENTS.

smpsm specifications



The Dynawave SMPSM socket adapter, P/N 1100-5050-5450
has a Maximum VSWR of 1.44 : 1 through 60.0 Ghz.

ELECTRICAL :

Frequency Range	DC TO 60.0 GHz.
VSWR Max.	1.10 DC TO 23.0 GHz.
	1.20 : 23.0 GHz. TO 26.5 GHz.
	1.44 : 26.5 GHz. TO 60.0 GHz.
Insertion Loss (Max. dB)	.10 dB x $\sqrt{F}$GHz.
Nominal Impedancs (OHMS)	50
Voltage Rating (Max. VRMS)	170
RF Leakage (Min. dB down, fully mated)	-80 dB - FGHz. TO 3.0 GHz.
	-65 dB FROM 3.0 TO 26.5 GHz. MIN.
Temperture Rating (Degrees Centigrade)	-65 °c TO +165 °c
Dielectric Withstanding Voltage (Max. VRMS)	500
Insulation Resistance(Min.MEGOHMS)	5,000
Center Contact (Socket) Resistance (Max. MILLIOHMS)	6.0
Outer Contact Resistance (Max. MILLIOHMS)	2.0

MECHANICAL :

CAPTIVATION-CENTER CONTACT

Minimum Axial Force	1.5 Lbs.
Minimum Radial Torque	N/A

MATING FORCES

Engagement (Max. Lbs.)	Full Detent 6.5, Smooth Bore 1.5
Disengagement (Min. Lbs.)	Full Detent 3.5, Smooth Bore 0.5
Durability (Max. Matings)	Full Detent (100),Smooth Bore (500)
Axial Displacement (Inches)	.000/.010
Total Radial Misalignment (Inches)	.0075

ENVIRONMENTAL :

TempertureCycling	MIL-STD-202, Method 102, Cond. C (-65 °c TO + 165 °c)
Shock	MIL-STD-202. Method 213, Cond. 1 (100 G's)
Vibration	MIL-STD-202, Method 204, Cond. D (20 G's)
BarometricPressure(Altitude)	MIL-STD-202, Method 105, Cond. C (70,000 FT.) (125 VRMS)
Thermal Shock	MIL-STD-202, METHOD 107, COND. B (HIGH TEMP. 165 °c)
Temperture Rating	-65 °c TO +165 °c

MATERIAL / FINISH :

ADAPTER BODY

Beryllium Copper per ASTM B196/B, 196M-03, Copper Alloy #UNS C17300, Temper TD04.
Gold per ATSM B 488, Type 3, Grade C, Class 1.25 Over Nickel per QQ-N-290, Class 1.

SHROUD (PIN) HERMETIC SEAL - WITH 7070 GLASS BEAD

Iron Nickel Allloy per MIL-I-23011 (Kovar)
Stainless per ASTM A581, or A582, Free Machining, Type 303, Condition A.
Passivate per AMS QQ-P-35, Type 2.
Gold per ATSM B 488, Type 3, Grade C, Class 1.25 Over Nickel per QQ-N-290, Class 1.

SHROUD (PIN) NON-HERMETIC

Stainless per ASTM A581, or A582, Free Machining, Type 303, Condition A.
Passivate per AMS QQ-P-35, Type 2.
Gold per ATSM B 488, Type 3, Grade C, Class 1.25 Over Nickel per QQ-N-290, Class 1.

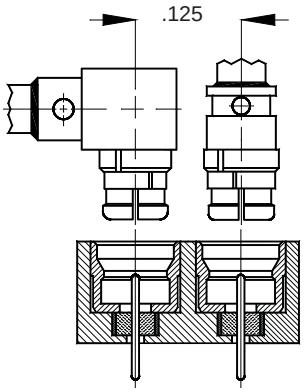
CENTER CONTACT (SOCKET)

Beryllium Copper per ASTM B196/B, 196M, Copper Alloy #UNS C17300, Temper TD04.
Gold per ATSM B 488, Type 3, Grade C, Class 1.25 Over Nickel per QQ-N-290, Class 1.

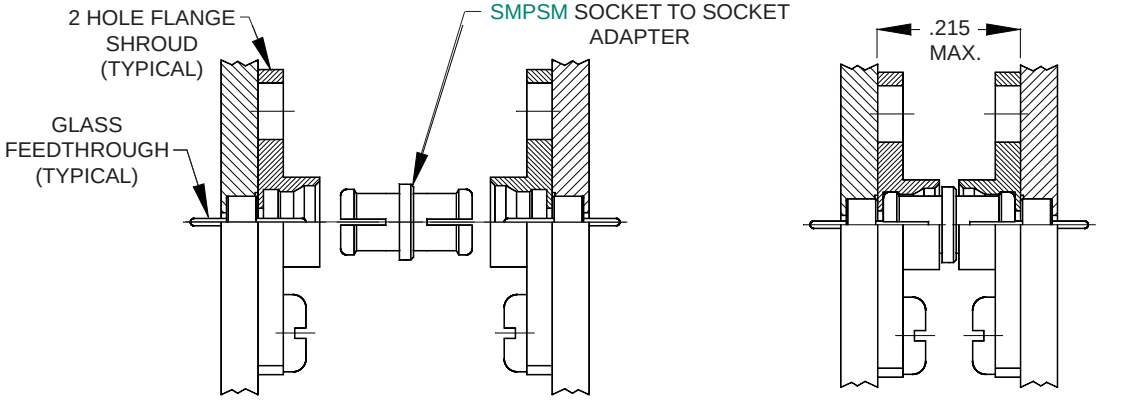
INSULATOR

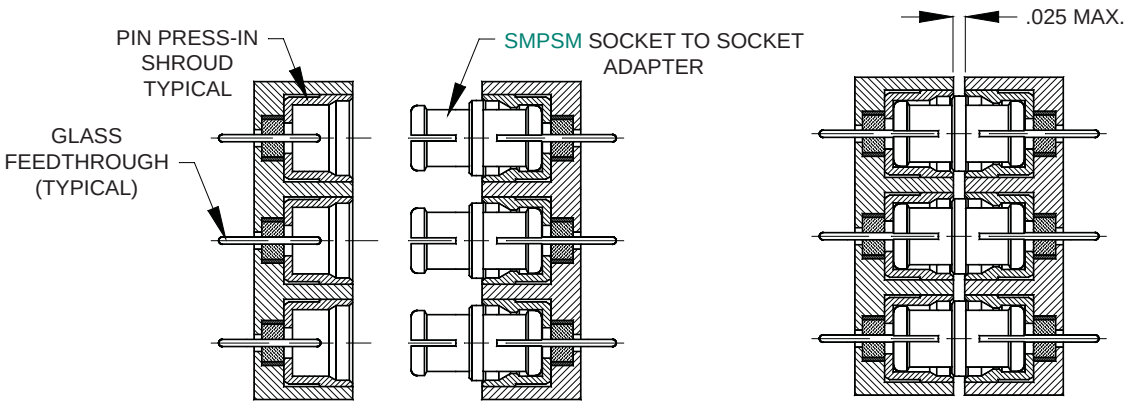
TEFLON PER ASTM D1710-02, Type 1, Class 1, Grade B.

smpsm application notes



The Dynawave SMPSM series of connectors are designed to minimize MIC package size and reduce valuable mounting space. The low profile design will allow module to module mounting with a center to center dimension of .125 inches. The SMPSM cable connectors straight and right angle as shown are designed for .047 and .085 semi-rigid cables.

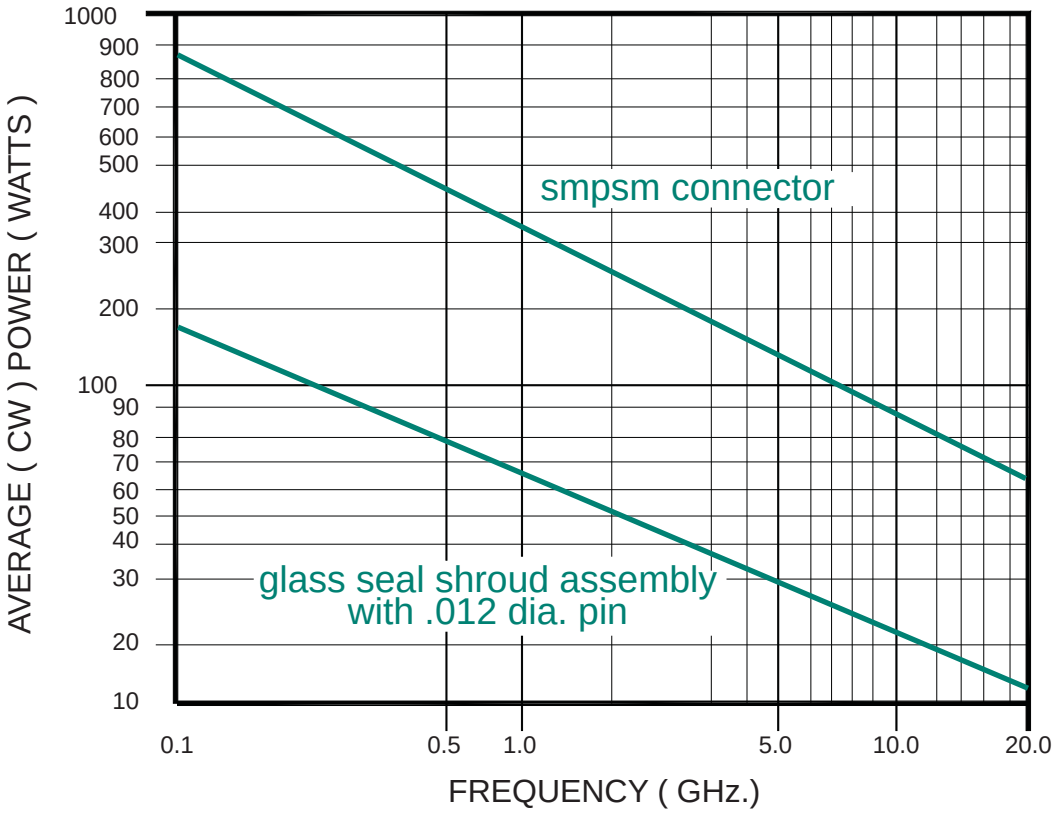




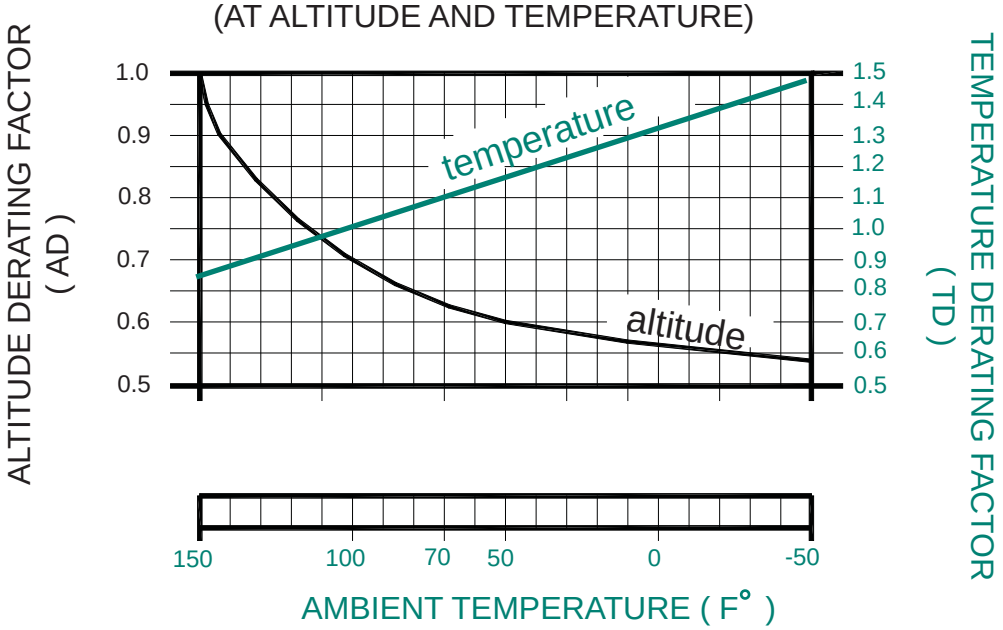
The Dynawave SMPSM 2 hole flange mount connectors or press-in shrouds are designed to reduce valuable mounting space thus allowing modules to be significantly reduced in size to maintain a low profile. The shrouds are used with a glass bead assembly to complete the coaxial interface. Hermetic Shroud designs consisting of Body, Pin and Glass are available to eliminate multi-component assemblies. The smooth bore interface allows the component engineers to mate multiple connectors at one time. Non-standard interfaces for customer unique engagement and disengagement designs are available upon request.

smpsm power ratings

AVERAGE (CW) POWER RATING
(AT SEA LEVEL & +70°F TEMPERATURE)

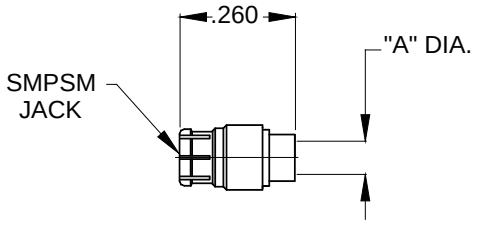


AVERAGE (CW) POWER DERATING FACTOR
(AT ALTITUDE AND TEMPERATURE)

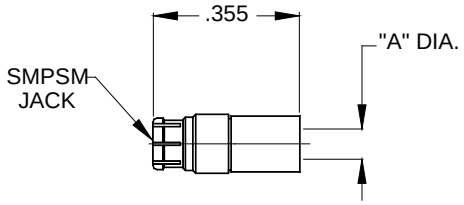


MAXIMUM OPERATING POWER = POWER RATING x AD x TD

female, jack, straight

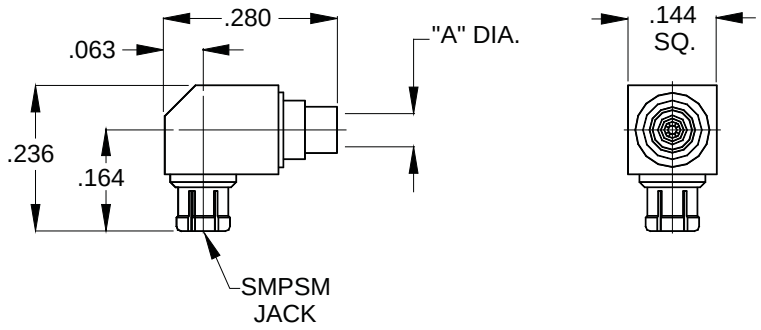


PART NUMBER	"A" DIA.	CABLE TYPE	MATERIAL TYPE	DSCC NUMBER	FREQ.RANGE
5000-3425-5400	.036 MIN.	.034 S.R.	BERYLLIUM	----------	DC - 60.0 GHz.
5000-4725-5400	.049 MIN.	.047 S.R.	BERYLLIUM	----------	DC - 60.0 GHz.



PART NUMBER	"A" DIA.	CABLE TYPE	MATERIAL TYPE	DSCC NUMBER	FREQ.RANGE
5000-8525-5400	.089 MIN.	RG 405/U (.085)	BERYLLIUM	----------	DC - 60.0 GHz.

female, jack, right angle

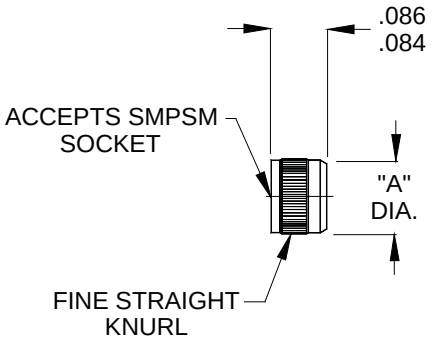


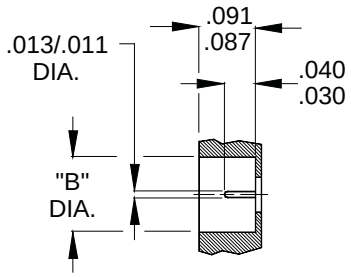
PART NUMBER	"A" DIA.	CABLE TYPE	MATERIAL TYPE	DSCC NUMBER	FREQ.RANGE
5001-4720-5400	.049 MIN.	.047 S.R.	BERYLLIUM	----------	DC - 40.0 GHz.

Specifications are subject to change without notice

smpsm • shrouds and bushings

press-in shroud

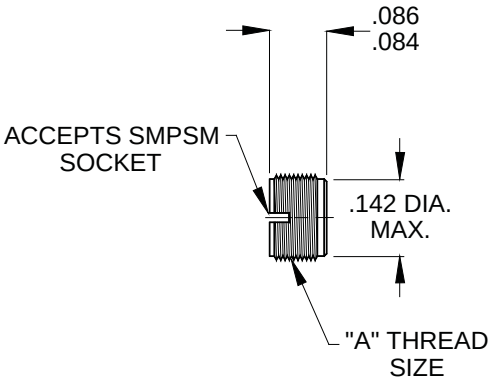


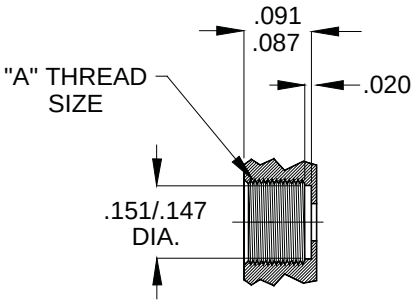


RECOMMENDED
MOUNTING HOLE

PART NUMBER	"A" DIA.	"B" DIA.	MATERIAL TYPE	ENGAGEMENT TYPE	PRESS TOOL
9-51000	.105 /.103	.101 /.099	STAINLESS STEEL	FULL DETENT	9-50142-00
9-51900	.105 /.103	.101 /.099	STAINLESS STEEL	SMOOTH BORE	9-50142-09

thread-in shroud

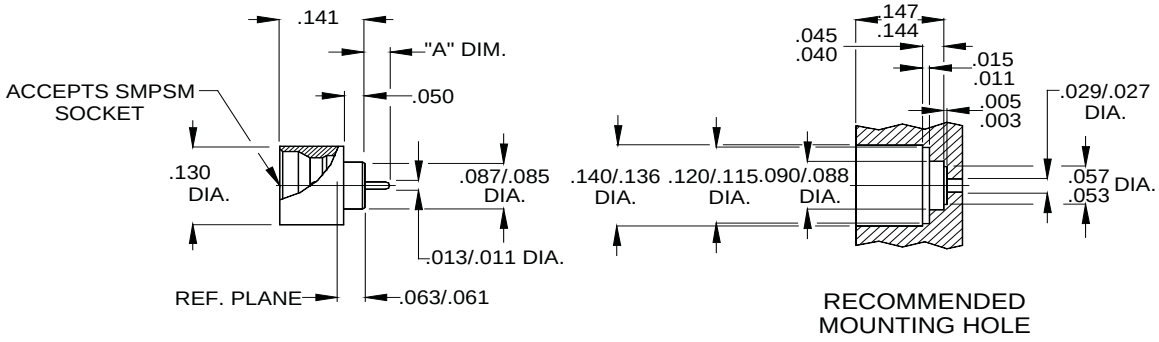




RECOMMENDED
MOUNTING HOLE

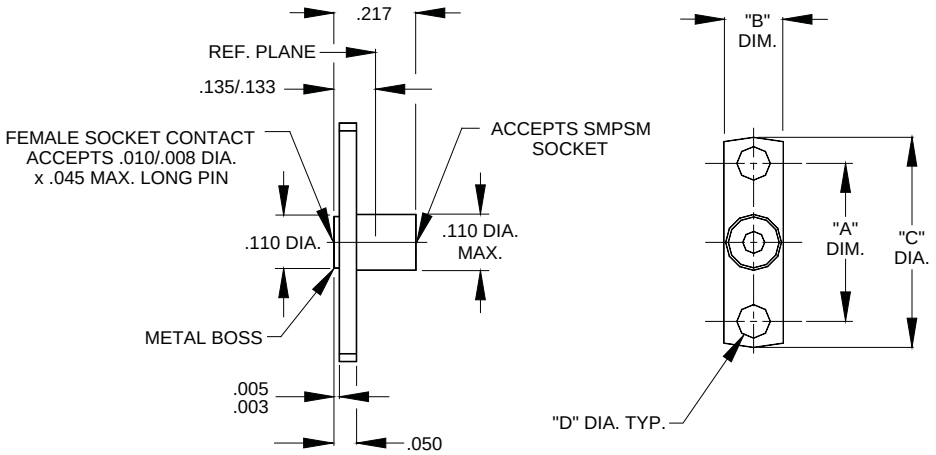
PART NUMBER	"A" THREAD SIZE	MATERIAL TYPE	ENGAGEMENT TYPE	TORQUE TOOL
9-51015	.164-64UNS-2A	STAINLESS STEEL	FULL DETENT	9-50164-00
9-51915	.164-64UNS-2A	STAINLESS STEEL	SMOOTH BORE	9-50164-09

hermetic solder-in shroud



PART NUMBER	"A" DIM.	ENGAGEMENT TYPE	MATERIAL TYPE	FREQUENCY RANGE
5140-0434-7413	.130	FULL DETENT	KOVAR	DC - 46.0 GHz.
5140-0434-7450	.05	FULL DETENT	KOVAR	DC - 46.0 GHz.
5140-0434-7470	.070	FULL DETENT	KOVAR	DC - 46.0 GHz.
5149-0434-7413	.130	SMOOTH BORE	KOVAR	DC - 46.0 GHz.
5149-0434-7450	.050	SMOOTH BORE	KOVAR	DC - 46.0 GHz.
5149-0434-7470	.070	SMOOTH BORE	KOVAR	DC - 46.0 GHz.

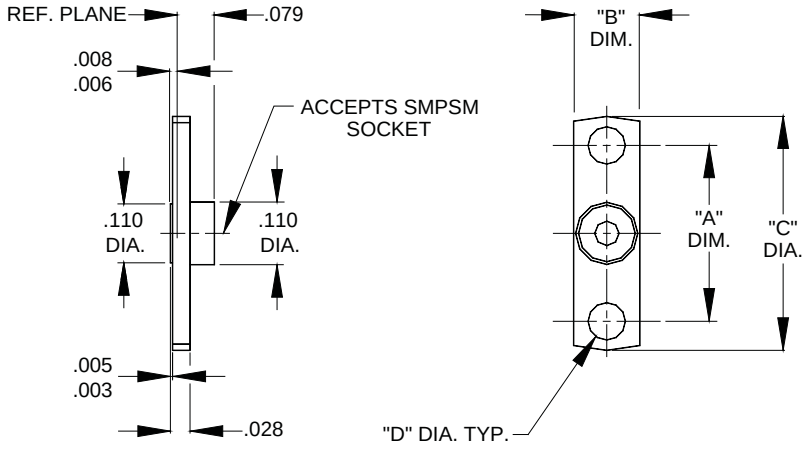
male, plug, flange mount, field replacable



PART NUMBER	"A" DIM.	"B" DIM.	"C" DIA.	"D" DIA.	ENGAGEMENT TYPE	FREQUENCY RANGE
5152-0881-6228	.282	.165	.400	.073	FULL DETENT	DC - 40.0 GHz.
5152-0881-6232	.328	.187	.480	.098	FULL DETENT	DC - 40.0 GHz.
5152-0881-6240	.400	.187	.550	.102	FULL DETENT	DC - 40.0 GHz.
5152-0881-6248	.481	.222	.625	.102	FULL DETENT	DC - 40.0 GHz.
5192-0881-6228	.282	.165	.400	.073	SMOOTH BORE	DC - 40.0 GHz.
5192-0881-6232	.328	.187	.480	.098	SMOOTH BORE	DC - 40.0 GHz.
5192-0881-6240	.400	.187	.550	.102	SMOOTH BORE	DC - 40.0 GHz.
5192-0881-6248	.481	.222	.625	.102	SMOOTH BORE	DC - 40.0 GHz.

Specifications are subject to change without notice

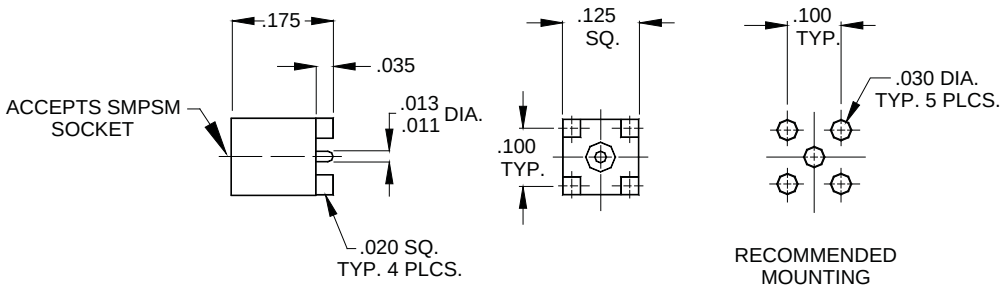
flange mount shroud with metal boss



CENTERING TOOL : 9-51040

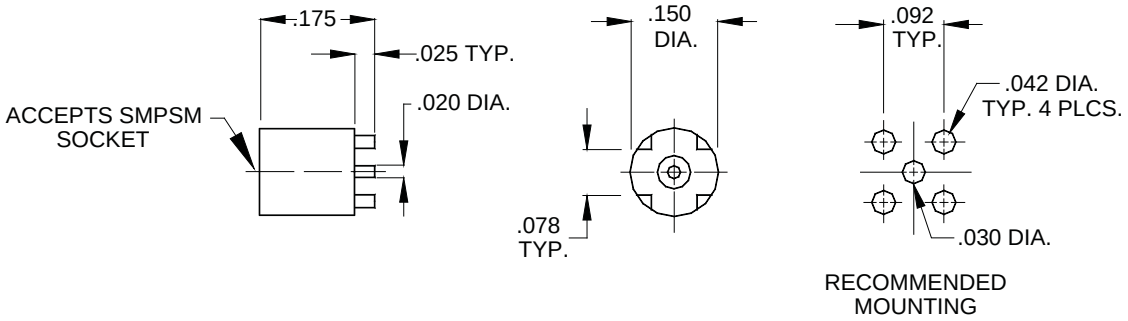
PART NUMBER	"A" DIM.	"B" DIM.	"C" DIA.	"D" DIA.	ENGAGEMENT TYPE	DSCC PART NUMBER
9-51801	.282	.125	.400	.073	FULL DETENT	----------
9-51802	.328	.125	.480	.098	FULL DETENT	----------
9-51803	.400	.125	.550	.102	FULL DETENT	----------
9-51804	.481	.150	.625	.102	FULL DETENT	----------
9-51901	.282	.125	.400	.073	SMOOTH BORE	----------
9-51902	.328	.125	.480	.098	SMOOTH BORE	----------
9-51903	.400	.125	.550	.102	SMOOTH BORE	----------
9-51904	.481	.150	.625	.102	SMOOTH BORE	----------

printed circuit board thru hole mount



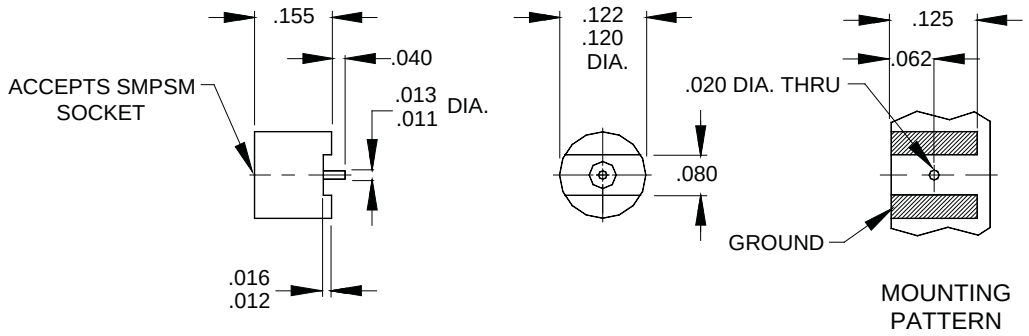
PART NUMBER	ENGAGEMENT TYPE	MATERIAL TYPE	FREQUENCY RANGE
5120-0031-6401	FULL DETENT	STAINLESS STEEL	DC - 60.0 GHz.
5129-0031-6401	SMOOTH BORE	STAINLESS STEEL	DC - 60.0 GHz.

printed circuit board, surface mount



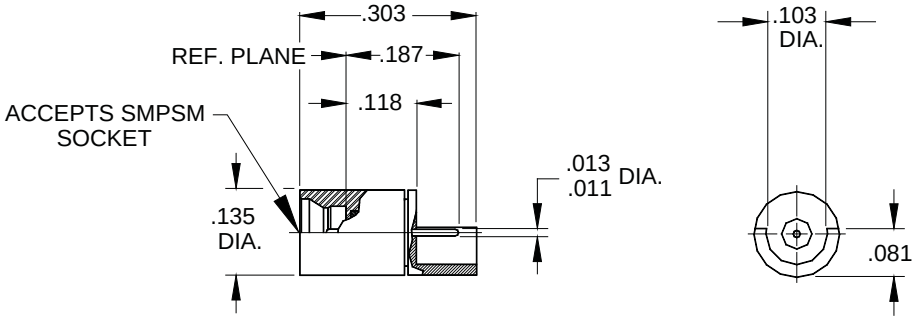
PART NUMBER	ENGAGEMENT TYPE	MATERIAL TYPE	FREQUENCY RANGE
5120-0031-2320	FULL DETENT	BRASS	DC - 60.0 GHz.
5129-0031-2320	SMOOTH BORE	BRASS	DC - 60.0 GHz.
5120-0031-6400	FULL DETENT	STAINLESS STEEL	DC - 60.0 GHz.
5129-0031-6400	SMOOTH BORE	STAINLESS STEEL	DC - 60.0 GHz.

printed circuit board, surface mount



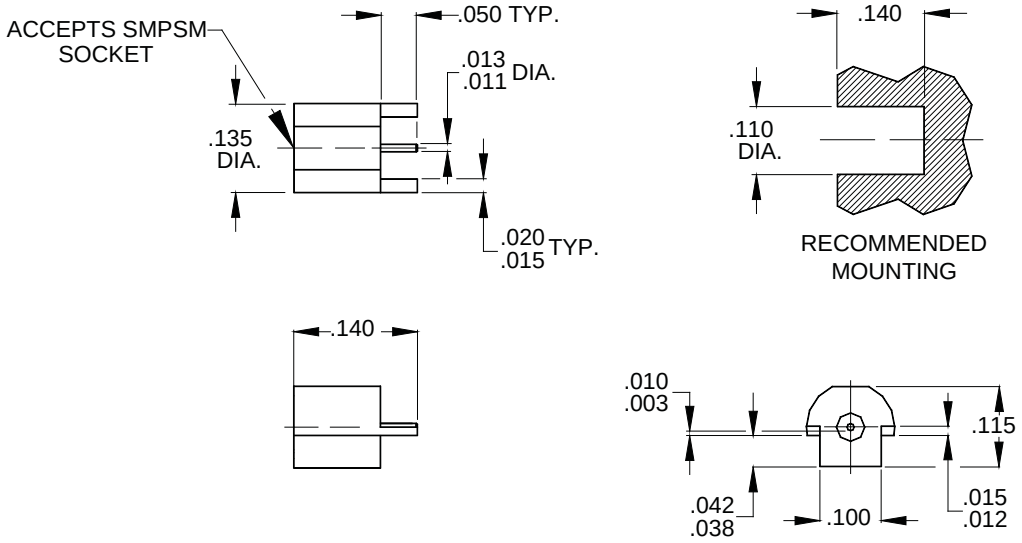
PART NUMBER	ENGAGEMENT TYPE	MATERIAL TYPE	FREQUENCY RANGE
5120-0031-2350	FULL DETENT	BRASS	DC - 60.0 GHz.
5129-0031-2350	SMOOTH BORE	BRASS	DC - 60.0 GHz.
5120-0031-6450	FULL DETENT	STAINLESS STEEL	DC - 60.0 GHz.
5129-0031-6450	SMOOTH BORE	STAINLESS STEEL	DC - 60.0 GHz.

printed circuit board, edge mount



PART NUMBER	ENGAGEMENT TYPE	MATERIAL TYPE	FREQUENCY RANGE
5120-0535-6400	FULL DETENT	STAINLESS STEEL	DC - 50.0 GHZ.
5129-0535-6400	SMOOTH BORE	STAINLESS STEEL	DC - 50.0 GHZ.

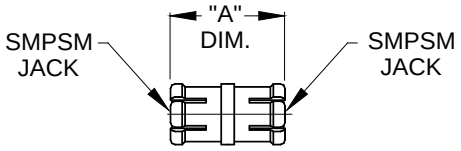
printed circuit board, hermetically sealed, edge mount



PART NUMBER	ENGAGEMENT TYPE	MATERIAL TYPE	FREQUENCY RANGE
5120-0431-6418	FULL DETENT	STAINLESS STEEL	DC - 50.0 GHZ.
5129-0431-6418	SMOOTH BORE	STAINLESS STEEL	DC - 50.0 GHZ.

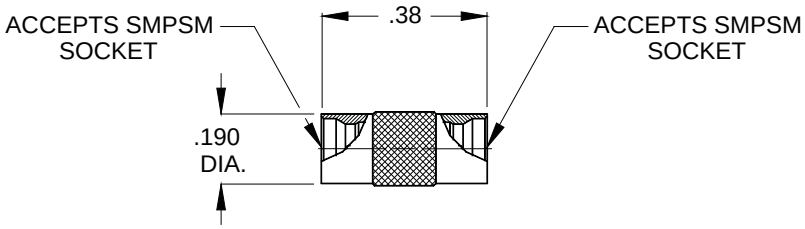
smpsm • in-series adapters

female, jack to female, jack, straight



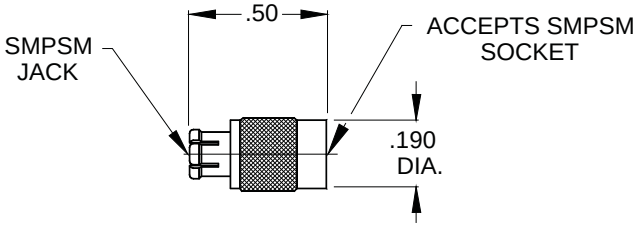
PART NUMBER	"A" DIM.	DSCC PART NUMBER	MATERIAL TYPE	FREQUENCY RANGE
1100-5050-5450	.190/.189	----------	BERYLLIUM	DC - 60.0 GHz.
1100-5050-5451	.505/.495	----------	BERYLLIUM	DC - 60.0 GHz.
1100-5050-5455	.2555/.2535	----------	BERYLLIUM	DC - 60.0 GHz.

male, plug to male, plug, straight



PART NUMBER	ENGAGEMENT TYPE	MATERIAL TYPE	FREQUENCY RANGE
1100-5151-6250	FULL DETENT / FULL DETENT	STAINLESS STEEL	DC - 60.0 GHz.
1100-5151-6251	FULL DETENT / SMOOTH BORE	STAINLESS STEEL	DC - 60.0 GHz.
1100-5151-6252	SMOOTH BORE / SMOOTH BORE	STAINLESS STEEL	DC - 60.0 GHz.

female, jack to male, plug, straight



PART NUMBER	ENGAGEMENT TYPE	MATERIAL TYPE	FREQUENCY RANGE
1100-5051-6250	FULL DETENT	STAINLESS STEEL	DC - 60.0 GHz.
1100-5051-6251	SMOOTH BORE	STAINLESS STEEL	DC - 60.0 GHz.

Specifications are subject to change without notice