

50 Ω

DC - 18 GHz

GENERAL

- Sub-miniature coaxial connectors
- Screw-on coupling
- High RF performance
- 2 plating options :
 - passivated stainless steel
 - gold plated
- Wide hermetically sealed range
(Please contact *RADIALL*)
- Space qualified range of products
(Please contact *RADIALL*)
- SMA extended frequency 27 GHz

APPLICABLE STANDARDS

- MIL- C - 39012
- IEC 169-1
- CECC 22110
- CECC 22111 - 801 to 808
- BS 9210 N006



QUALIFICATIONS/APPROVALS

- MIL QPL
- CECC QPL

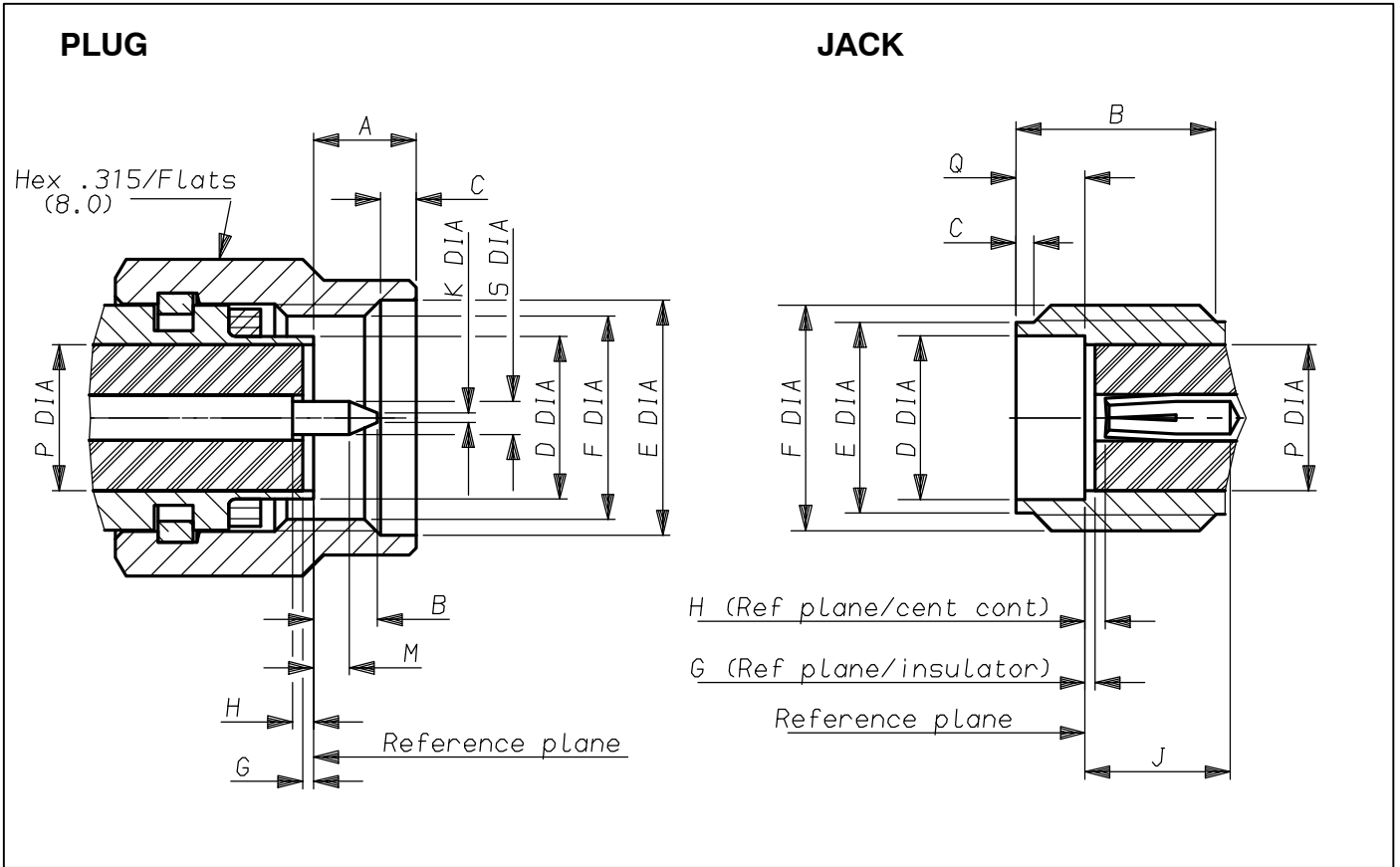
SPACE QUALIFIED/APPROVALS

(For space range)

- SCC 3402 (ESA)
- CNES

APPLICATIONS

- Civil & Military Telecommunications
- Civil & Military Aeronautics
- Military equipments
- Space
- Measurement systems



LETTER	mm		inch	
	min.	max.	min.	max.
A		3.43		.135
B		2.54		.100
C	0.38	1.14	.015	.045
D DIA		4.59		
E DIA	6.35		.250	
F DIA	1/4 36 UNS 2B			
G*	0.0	-0.20	0.0	-.008
H*	0.0	-0.25	0.0	-.010
J				
K DIA		0.38		.015
M	1.27		.050	
P DIA	4.10 nom		.161 non	
Q DIA				
S DIA	0.90	0.94	.035	.037

LETTER	mm		inch	
	min.	max.	min.	max.
A				
B	4.31		.170	
C	0.38	1.14	.015	.045
D DIA	4.596		.181	
E DIA	5.28	5.49	.208	.216
F DIA	1/4 36 UNS 2A			
G*	0.0	-0.20	0.0	-.008
H*	0.0	-0.25	0.0	-.010
J	2.92		.115	
K				
M				
P DIA	4.10 nom		.161 non	
Q	1.88	1.98	.074	.078
S DIA				

*NOTA : - means behind ref plane



TEST / CHARACTERISTICS	VALUES / REMARKS
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ELECTRICAL CHARACTERISTICS

Impedance		50 Ω				
Frequency range		DC - 18 GHz				
Typical V.S.W.R.	Frequency	1 GHz	2.4 GHz	6 GHz	12.4 GHz	18 GHz
• <i>straight connector</i>	.085"	1.01	1.01	1.04	1.06	1.06 1.05
	.141"	1.01	1.01	1.01	1.03	
	2.6/50S	1.05	1.07	1.12	1.15	
	5/50S	1.04	1.05	1.10	1.12	
• <i>right angle connector</i>	.085"	1.01	1.02	1.06	1.14	1.10 1.09
	.141"	1.01	1.02	1.08	1.10	
	2.6/50S	1.06	1.15	1.18	1.24	
	5/50S	1.06	1.15	1.15	1.25	
Typical insertion loss in dB • <i>straight connector</i>	.085"	0.03	0.03	0.05	0.08	0.10 0.02
	.141"	0.02	0.02	0.02	0.02	
	2.6/50S	0.06 F (F in GHz) max				
	5/50S	0.06 F (F in GHz) max				
• <i>right angle connector</i>	.085"	0.04	0.04	0.04	0.08	0.09 0.10
	.141"	0.04	0.05	0.06	0.09	
	2.6/50S	0.08	0.08	0.10	0.10	
	5/50S	0.04	0.12	0.12	0.25	
RF leakage (dB max) • <i>connectors for semi-rigid cables solder attachment</i> • <i>connectors for flexible cables crimp attachment</i> • <i>receptacles</i>		-90 + F (GHz) -60 + F (GHz) -100 + F (GHz)				
Insulation resistance		5 000 MΩ mini				
Contact resistance • <i>Outer conductor</i> • <i>Inner conductor</i>		After tests 4 mΩ 3 mΩ			Initial 3 mΩ 2 mΩ	
Working voltage in VRMS • <i>sea level</i> • <i>70 000 feet</i>		.085", RG 405, KS 1	.141", RG 402, KS 2	RG 174, 188, 316, KX 3, KX 22	RG 55, 142, 223, KX 23	
		350	500	250	335	
		85	125	65	85	
Dielectric withstanding voltage in VRMS		1000	1500	750	1000	
RF testing voltage at in VRMS		670	1000	500	670	

MECHANICAL CHARACTERISTICS

Durability	500 matings				
Force to engage and disengage	23 Ncm - (2 inch pounds)				
Recommended coupling nut torque	80 to 115 Ncm - (7 to 10 inch pounds)				
Coupling nut retention force	270 N - (60 Lbs)				
Cable retention force	.085", RG 405, KS 1	.141", RG 402, KS 2	RG 174, 188, 316, KX 3, KX 22	RG 55, 142, 223, KX 23	
	135 N (30 Lbs)	270 N (60 Lbs)	110 N (25 Lbs)	180 N (40 Lbs)	
Center contact retention force • <i>axial</i> • <i>torque</i>	27 N				
	2.8 N				



ENVIRONMENTAL CHARACTERISTICS

Temperature range <i>Standard models</i> <i>Semi-rigid cable</i> R125 753 000 & R125 603 000	- 65°C + 165° C - 65°C + 105° C - 40°C + 100° C
Thermal shock	MIL STD 202, method 107, condition B,
High temperature test	MIL STD 202, method 108
Corrosion (salt spray)	MIL STD 202, method 101, condition B,
Vibration	MIL STD 202, method 204, condition D, 20g
Shock	MIL STD 202, method 213
Moisture resistance	MIL STD 202, method 106
Hermetic test	down to 10 ⁻⁶ mmHg (Torr) leakage rate < 10 ⁻⁸ atm/cm ³ /sec
Barometric pressure	MIL STD 202, method 105, condition C

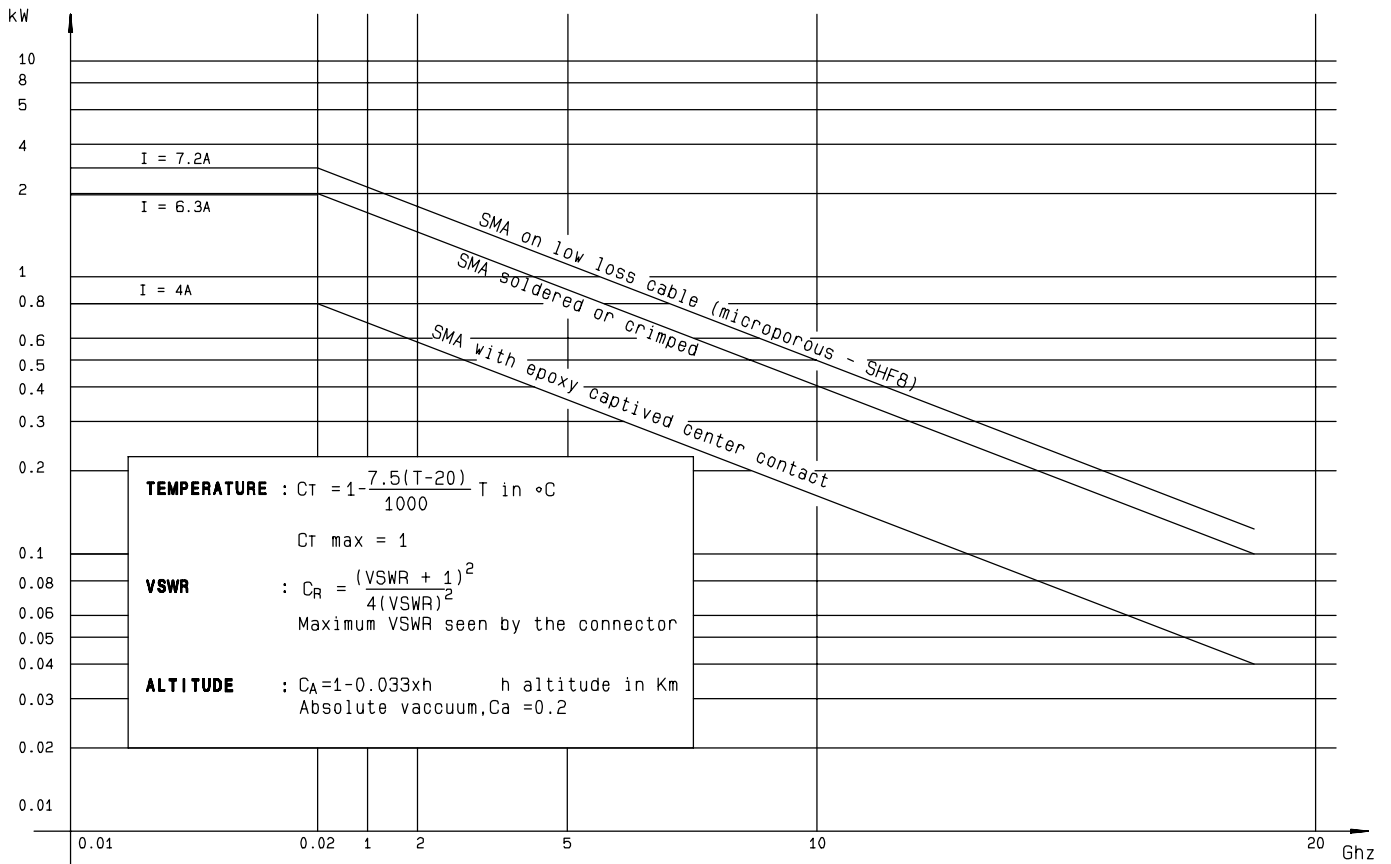
MATERIALS

Body / nut	Stainless steel
Center contacts female male	Beryllium copper Brass
Gaskets	Silicone rubber
Insulator	PTFE

FINISH

Bodies	Passivated or gold plated
Center contacts	Gold plated

POWER RANGE



Standard packaging : unit

All dimensions are given in mm