

INTERFACE DESIGN STANDARD			REV	DESCRIPTION	DATE	APPR
IDS-20WP			01	PRELIMINARY	08/05/08	HN
PAGE 1 OF 1	DATE: 08/05/2008		A	PER ECN 12817	03/27/18	JEM
DRAWN: JEM	APPROVED: HN		B	PER ECN 13033	07/23/18	JEM
		22 GREAT HILL ROAD, NAUGATUCK, CT. 06770				
		PHONE: (800) 323-9562 FAX: (630) 206-1801				

DESCRIPTION: SMA 20 SERIES (WATERPROOF)

**MATERIALS**

BODIES, NUTS- CORROSION RESISTANT STEEL, PER ASTM-A-582 & ASTM-A-484.  
 INSULATORS - TEFLON (PTFE) PER ASTM-D-1457.  
 CONTACTS, MALE AND FEMALE- BERYLLIUM COPPER PER ASTM-B-196.  
 GASKETS - SILICONE RUBBER PER ZZ-R-765.

**FINISHES (ADD LETTER TO END OF PART NUMBER)**

"G": BODY - .000020 MIN. GOLD OVER NICKEL;  
 CONTACT - .000050 GOLD OVER MIN. NICKEL  
 "P": BODY - PASSIVATED  
 CONTACT - .000050 GOLD OVER MIN. NICKEL  
 OTHER METAL PARTS - .000020 GOLD PLATED  
 TO MEET THE ENVIRONMENTAL REQUIREMENTS OF MIL-C-39012.

**MATING CHARACTERISTICS**

CENTER CONTACT PIN AND SOCKET PER MIL-C-39012 (1 OZ. MIN) (2 LBS. MAX)  
 FORCE TO ENGAGE /DISENGAGE : 32 OZ. (2 IN.-LBS.) MAX. TORQUE.  
 COUPLING NUT RETENTION : 960 OZ. (60 LBS.) MIN.  
 COUPLING PROOF TORQUE : 240 OZ. (15 IN.-LBS.) MIN.  
 DURABILITY: 500 CYCLES PER MIL-C-39012.  
 RECOMMENDED TORQUE : 112-160 OZ. (7-10 IN.-LBS.)

**ELECTRICALS**

IMPEDANCE: 50 OHMS.  
 FREQUENCY RANGE: DC TO 18 GHz.  
 INSULATION RESISTANCE: 5000 MEGOHMS.  
 TEMPERATURE RATING: -65°C TO +165°C

	<u>RG 402 (141)</u> <u>SEMI-RIGID</u>	<u>RG 405 (085)</u> <u>SEMI-RIGID</u>
DWV -	1,500 VOLTS RMS.	1,000 VOLTS RMS.
RF HIGH POTENTIAL -	1,000 VOLTS RMS.	670 VOLTS RMS.
CONTACT RESISTANCE -		
CENTER CONTACT:	2.0 MILLIOHMS MAX.	2.0 MILLIOHMS MAX.
OUTER CONTACT:	2.0 MILLIOHMS MAX.	2.0 MILLIOHMS MAX.
OUTER CONTACT TO CABLE:	0.5 MILLIOHMS MAX.	0.5 MILLIOHMS MAX.
VSWR -		
DC - 18.0 GHz:	TBD + .005*f(GHz)	TBD + .005*f(GHz)
CORONA LEVEL @70,000 FT. -	375 VOLTS MIN.	335 VOLTS MIN.
R.F. LEAKAGE -	-90 dB MIN.	-90 dB MIN.
INSERTION LOSS -	TBD x $\sqrt{F}$ (GHz)	TBD x $\sqrt{F}$ (GHz)

**ENVIRONMENTAL**

VIBRATION: MIL-STD-202, METHOD 204, TEST CONDITION D.  
 SHOCK: MIL-STD-202, METHOD 213, TEST CONDITION I.  
 THERMAL SHOCK: MIL-STD-202, METHOD 107, TEST CONDITION B.  
 CORROSION: MIL-STD-202, METHOD 101, TEST CONDITION B, 5% SALT SOLUTION.  
 MOISTURE RESISTANCE: MIL-STD-202, METHOD 106, OMIT STEP 7B.  
 WATERPROOF @ 10 PSI [6.2 METERS] FOR 2 MINUTES

\*NOTES:  
 1) DIMENSIONS ARE IN INCHES UNLESS OTHERWISE SPECIFIED [METRIC].  
 2) DIMENSIONS ARE SHOWN FOR REFERENCE PURPOSES ONLY.