



PRODUCT SPECIFICATION

1.0 SCOPE

This Product Specification covers SMP MAX Connectors

2.0 PRODUCT NAME

SMP-MAX

3.0 APPLICABLE DOCUMENTS AND SPECIFICATIONS

See Sales Drawing

4.0 RATINGS

4.1 VOLTAGE

330 Vrms at Sea Level

4.2 TEMPERATURE

Rating: - 55°C TO + 165°C

4.3 FREQUENCY RATING

DC to 6 GHz

4.4 POWER (50 OHM DESIGNS)

300 W Min at 2.7 GHz and 25°C

200 W Min at 2.7 GHz and 85°C

4.5 NOMINAL IMPEDANCE

50 Ohms Unless Otherwise Specified On Drawing

REVISION:	ECR/ECN INFORMATION:	TITLE:	SHEET No.
A	EC No: URF2012-0086 DATE: 2011 / 08 / 15	SMP-MAX	1 of 4
DOCUMENT NUMBER:	CREATED / REVISED BY:	CHECKED BY:	APPROVED BY:
PS-89675-376	J. WIENER	A. ROBERTSON	J. WIENER



PRODUCT SPECIFICATION

5.0 PERFORMANCE

5.1 ELECTRICAL REQUIREMENTS

ITEM	DESCRIPTION	TEST CONDITION	REQUIREMENT
1	Insulation Resistance	MIL-PRF-39012, paragraph 3.11	≥ 5000 Megohms
2	Dielectric Withstanding Voltage	MIL-PRF-39012, paragraph 3.17	1000 Vrms
3	Contact Resistance	MIL-PRF-39012, paragraph 3.16 Center Contact Outer Contact	≤ 3 Milliohms ≤ 1.5 Milliohms
4	Voltage Standing Wave Ratio	MIL-PRF-39012, paragraph 3.14	50 Ohm Designs: DC to 3 GHz: 1.20 Max 3-6 GHz: 1.35 Max
5	RF Insertion Loss	MIL-PRF-39012, paragraph 3.27	50 Ohm Designs: DC to 3 GHz: .12 Max 3-6 GHz: .25 Max
6	RF Leakage		-70dB to 3 GHz (no axial misalignment)

5.2 MECHANICAL REQUIREMENTS

ITEM	DESCRIPTION	TEST CONDITION	REQUIREMENT
7	Material	MIL-PRF-39012, paragraph 3.3	See Sales Drawing
8	Finish	MIL-PRF-39012, paragraph 3.3.1	See Sales Drawing
9	Design	MIL-PRF-39012, paragraph 3.4	See Sales Drawing
10	Force to Engage and Disengage	MIL-PRF-39012, paragraph 3.5.1 Axial Force	<u>Smooth Bore/Slide-On</u> Engage (Max): 14N (3.15 lb) Disengage (Max): 9N (2.02 lb) <u>Detent/Snap-On</u> Engage (Max): 45N (10.11 lb) Disengage: 9-45N (2.0-10.1 lb)
11	Coupling Proof Torque	MIL-PRF-39012, paragraph 3.6	N/A
12	Coupling Nut Retention Force	MIL-PRF-39012, paragraph 3.25	N/A

REVISION:	ECR/ECN INFORMATION:	TITLE:	SHEET No.
A	EC No: URF2012-0086 DATE: 2011 / 08 / 15	SMP-MAX	2 of 4
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5.2 MECHANICAL REQUIREMENTS (continued)

ITEM	DESCRIPTION	TEST CONDITION	REQUIREMENT
13	Panel Nut Torque	N/A	100 N-cm (8.8in-lbs) (assumes M-6x0.75 Thread)
14	Connector Durability	MIL-PRF-39012, paragraph 3.15	100 Cycles Min
15	Center Contact Retention	MIL-PRF-39012, paragraph 3.12 Axial Force Radial Torque	7 N (1.57 lbs) Min N/A
16	Cable Retention	MIL-PRF-39012, paragraph 3.24 Axial Force	Per Cable Specification
17	Hermetic Seal	MIL-PRF-39012, paragraph 3.9 Helium Tracer Gas	Per sales drawing

5.3 ENVIRONMENTAL REQUIREMENTS

ITEM	DESCRIPTION	TEST CONDITION	REQUIREMENT
18	Vibration	MIL-PRF-39012, paragraph 3.18 Per MIL-STD-202, Method 204	Test Condition D
19	Shock	MIL-PRF-39012, paragraph 3.19 Per MIL-STD-202, Method 213	Test Condition I
20	Shock (Thermal)	MIL-PRF-39012, paragraph 3.2 Per MIL-STD-202, Method 107	Test Condition B (165 °C)
21	Corrosion (Salt Spray)	MIL-PRF-39012, paragraph 3.13 Per MIL-STD-202, Method 101	Test Condition B
22	Moisture Resistance	MIL-PRF-39012, paragraph 3.21 Per MIL-STD-202, Method 106	DWV 1000 Vrms (after drying)

REVISION:	ECR/ECN INFORMATION:	TITLE:	SHEET No.
A	EC No: URF2012-0086 DATE: 2011 / 08 / 15	SMP-MAX	3 of 4
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6.0 MISALIGNMENT

a. AXIAL (WORKING RANGE)

2mm (± 1 mm) (.079" ($\pm .039$ "))

b. RADIAL (WORKING RANGE)

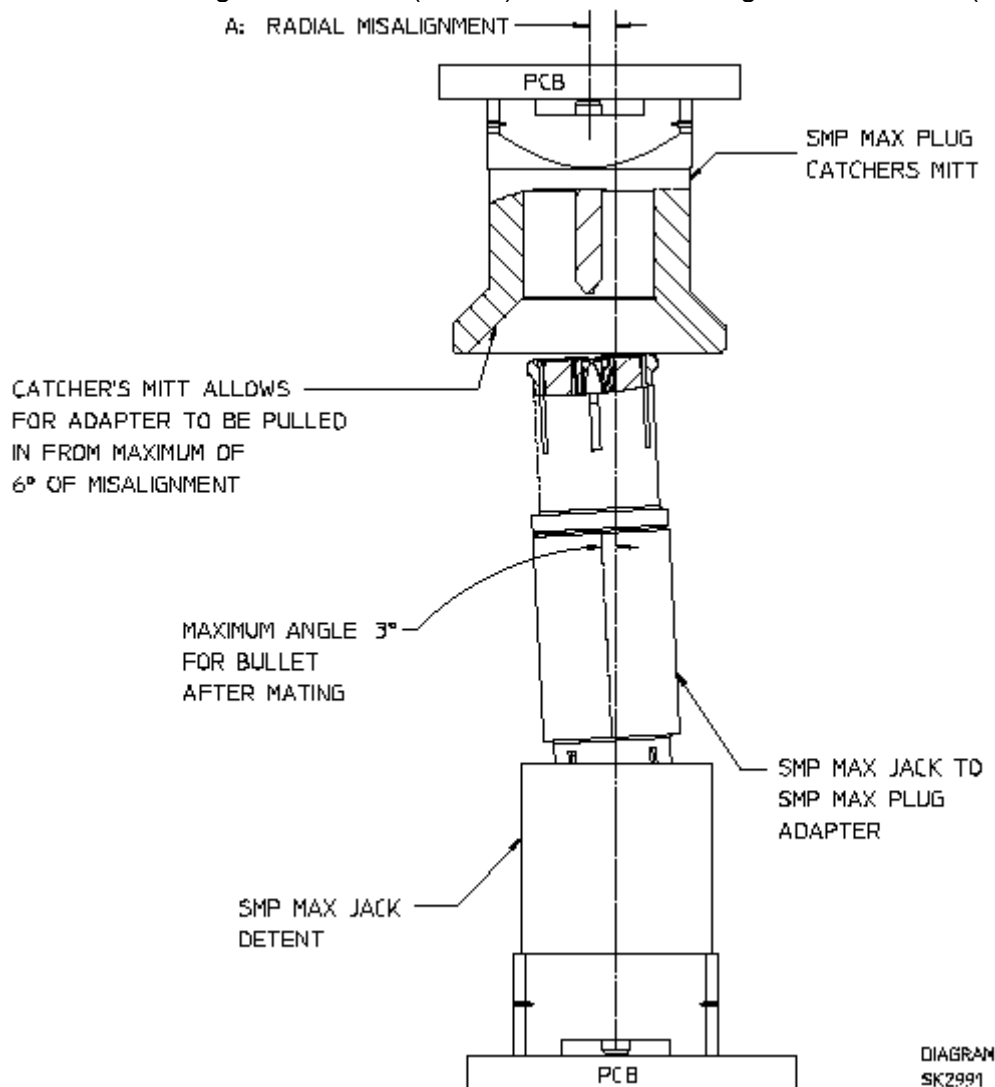
FORMULA: $A = B \times \sin(3 \text{ Deg})$

A=Max Radial Misalignment

B=Bullet Length

3 Deg=Maximum Misalignment Angle

For bullet height >28.60mm (1.126") max radial misalignment: 1.50mm (.059")



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