



PRODUCT SPECIFICATION

1.0 SCOPE

This Product Specification covers Type F (Plug and Jack) Connectors

2.0 PRODUCT DESCRIPTION

2.1 PRODUCT NAME

F PLUG AND JACK

3.0 APPLICABLE DOCUMENTS AND SPECIFICATIONS

4.0 RATINGS

4.1 VOLTAGE

500 Vrms at Sea Level

333 Vrms at 70,000 Feet

4.2 TEMPERATURE

Rating:

Standard: - 40°C TO + 85°C

High Performance: - 40°C TO + 165°C

4.3 FREQUENCY RATING

Standard: DC to 2 GHz

High Performance: DC to 4 GHz

4.4 NOMINAL IMPEDANCE

75 Ohms

REVISION: A2	ECR/ECN INFORMATION: EC No: URF-2009-0705 DATE: 2009 / 06 / 01	TITLE: PS-89675-3640 F PLUG AND JACK	SHEET No. 1 of 3
DOCUMENT NUMBER: PS-89675-364	CREATED / REVISED BY: J.MASTRIANO/J.WIENER	CHECKED BY: J.MASTRIANO	APPROVED BY: 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	RF High Potential Withstanding	MIL-PRF-39012, paragraph 3.23	1000 Vrms @ 5 MHz to 7.5 MHz
4	Contact Resistance	MIL-PRF-39012, paragraph 3.16 Center Contact Initial Outer Contact	10 Milliohms Max 1.0 Milliohm Max
5	Voltage Standing Wave Ratio	MIL-PRF-39012, paragraph 3.14	Standard: 1.4 Typ at 2 GHz High Perform: 1.12 to 4 Ghz
6	RF Leakage	MIL-PRF-39012, paragraph 3.26	> 80 dB
7	RF Insertion Loss	MIL-PRF-39012, paragraph 3.27	Standard: $.1X\sqrt{f}$ (GHz) High Perf: .06 dB Max to 4 Ghz

5.2 MECHANICAL REQUIREMENTS

ITEM	DESCRIPTION	TEST CONDITION	REQUIREMENT
8	Material		See Sales Drawing
9	Finish		See Sales Drawing
10	Design		See Sales Drawing
11	Recommended Mating Torque		15-20 in-lbs
12	Force to Engage and Disengage	MIL-PRF-39012, paragraph 3.5.1 Mating Force Max. Unmating Force Min.	N/A N/A
13	Coupling Nut Retention Force		100 lbs
14	Coupling Proof Torque	MIL-PRF-39012, paragraph 3.6	60 in-lbs

REVISION:	ECR/ECN INFORMATION:	TITLE:	SHEET No.
A2	EC No: URF-2009-0705 DATE: 2009 / 06 / 01	PS-89675-3640 F PLUG AND JACK	2 of 3
DOCUMENT NUMBER:	CREATED / REVISED BY:	CHECKED BY:	APPROVED BY:
PS-89675-364	J.MASTRIANO/J.WIENER	J.MASTRIANO	J. WIENER



PRODUCT SPECIFICATION

5.2 MECHANICAL REQUIREMENTS (continued)

ITEM	DESCRIPTION	TEST CONDITION	REQUIREMENT
15	Mating Characteristics	MIL-PRF-39012, paragraph 3.7	N/A
16	Connector Durability	MIL-PRF-39012, paragraph 3.15	500 Cycles
17	Center Contact Retention	MIL-PRF-39012, paragraph 3.12 Axial Force Radial Torque	27N (6 lbs) min N/A
18	Cable Retention	MIL-PRF-39012, paragraph 3.24 Axial Force	See Cable Specification
19	Hermetic Seal	MIL-PRF-39012, paragraph 3.9 Helium Tracer Gas	N/A

5.3 ENVIRONMENTAL REQUIREMENTS

ITEM	DESCRIPTION	TEST CONDITION	REQUIREMENT
20	Vibration	MIL-PRF-39012, paragraph 3.18 Per MIL-STD-202, Method 204	N/A
21	Shock	MIL-PRF-39012, paragraph 3.19 Per MIL-STD-202, Method 213	N/A
22	Shock (Thermal)	MIL-PRF-39012, paragraph 3.2 Per MIL-STD-202, Method 107	Test Condition B
23	Corrosion (Salt Spray)	MIL-PRF-39012, paragraph 3.13 Per MIL-STD-202, Method 101	Test Condition B
24	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.
A2	EC No: URF-2009-0705 DATE: 2009 / 06 / 01	PS-89675-3640 F PLUG AND JACK	3 of 3
DOCUMENT NUMBER:	CREATED / REVISED BY:	CHECKED BY:	APPROVED BY:
PS-89675-364	J.MASTRIANO/J.WIENER	J.MASTRIANO	J. WIENER