



PRODUCT SPECIFICATION

1.0 SCOPE

This Product Specification covers 7/16 Connectors.

2.0 PRODUCT DESCRIPTION

2.1 PRODUCT NAME

7/16

3.0 APPLICABLE DOCUMENTS AND SPECIFICATIONS

See applicable sales drawings

4.0 RATINGS

4.1 VOLTAGE

2700 Vrms at Sea Level

4.2 TEMPERATURE

Rating: - 55°C TO + 155°C

4.3 FREQUENCY RATING

DC to 8.3 GHz

4.4 NOMINAL IMPEDANCE

50 Ohms

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DOCUMENT NUMBER:	CREATED / REVISED BY:	CHECKED BY:	APPROVED BY:
PS-89675-335	J. WIENER	S. SHAH	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	$\geq 10,000$ Megohms
2	Dielectric Withstanding Voltage	MIL-PRF-39012, paragraph 3.17	4000 Vrms
3	Contact Resistance	MIL-PRF-39012, paragraph 3.16 Center Contact Outer Contact	0.4 Milliohms Max 0.2 Milliohms Max
4	Voltage Standing Wave Ratio	MIL-PRF-39012, paragraph 3.14	0-1 GHz: 1.06 Max 1-2 GHz: 1.10 Max 2-3 GHz: 1.15 Max 3-8.3 GHz: 1.26 Max
5	RF Leakage	MIL-PRF-39012, paragraph 3.26	≥ 128 dB @ 1 GHz
6	RF Insertion Loss	MIL-PRF-39012, paragraph 3.27	$0.05\sqrt{f(\text{GHz})}$ dB Max
7	Power Handling	40 Degrees C, Sea Level	0-1 GHz: 1800 W 1-5 GHz: 700 W
8	Intermodulation (3 rd Order)	Two 20 W Carriers	≤ -120 dBm

5.2 MECHANICAL REQUIREMENTS

ITEM	DESCRIPTION	TEST CONDITION	REQUIREMENT
9	Material	MIL-PRF-39012, paragraph 3.3	See Sales Drawing
10	Finish	MIL-PRF-39012, paragraph 3.3.1	See Sales Drawing
11	Design	MIL-PRF-39012, paragraph 3.4	See Sales Drawing
12	Recommended Mating Torque	N/A	25-30 Nm (18.4-22.1 ft-lbs)
13	Force to Engage and Disengage	MIL-PRF-39012, paragraph 3.5.1 Axial Force	15 N (3.37 lbs)
14	Coupling Proof Torque	MIL-PRF-39012, paragraph 3.6	35 Nm (25.8 ft-lbs)

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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	≥ 200 N (45 lbs) ≥ 2 N-cm (2.8 in-ounce)
18	Cable Retention	MIL-PRF-39012, paragraph 3.24 Axial Force	Per 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	Test Condition B
21	Shock	MIL-PRF-39012, paragraph 3.19 Per MIL-STD-202, Method 213	Test Condition B
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 4000 Vrms (after drying)

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