



PRODUCT SPECIFICATION

1.0 SCOPE

This Product Specification covers MCX Connectors, 50 and 75 Ohms

2.0 PRODUCT DESCRIPTION

2.1 PRODUCT NAME

MCX

3.0 APPLICABLE DOCUMENTS AND SPECIFICATIONS

3.1 CECC 22 220

4.0 RATINGS

4.1 WORKING VOLTAGE

335 Vrms at Sea Level

4.2 TEMPERATURE

Rating: - 55°C to +155°C

4.3 FREQUENCY RATING

DC to 6 GHz

4.4 NOMINAL IMPEDANCE

50 or 75 Ohms (see individual sales drawings)

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DOCUMENT NUMBER:	CREATED / REVISED BY:	CHECKED BY:	APPROVED BY:
PS-89675-183	T. FLAHERTY/J. WIENER	S. SHAH	G. Hubbard



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5.0 PERFORMANCE

5.1 ELECTRICAL REQUIREMENTS

ITEM	DESCRIPTION	TEST CONDITION	REQUIREMENT
1	Insulation Resistance	MIL-PRF-39012, paragraph 3.11	5000 Megohms Min.
2	Dielectric Withstanding Voltage	MIL-PRF-39012, paragraph 3.17	1000 Vrms
3	RF High Potential Withstanding	MIL-PRF-39012, paragraph 3.23	750 Vrms @ 5 MHz
4	Contact Resistance	MIL-PRF-39012, paragraph 3.16 Center Contact Initial Outer Contact	5.0 Milliohms max. 2.5 Milliohms max.
5	Voltage Standing Wave Ratio	MIL-PRF-39012, paragraph 3.14 Straight (Max): Right Angle (Max):	1.02+(0.03 x freq(GHz)) 1.06+(0.04 x freq(GHz))
6	RF Leakage	MIL-PRF-39012, paragraph 3.26	-70 dB @ 1 GHz
7	RF Insertion Loss	MIL-PRF-39012, paragraph 3.27 Straight Connectors (Max): R/A Connectors (Max):	0.15 dB Max DC-3 GHz 0.28 dB Max 3-6 GHz 0.24 dB Max DC-3 GHz 0.45 dB Max 3-6 GHz

5.2 MECHANICAL REQUIREMENTS

ITEM	DESCRIPTION	TEST CONDITION	REQUIREMENT
8	Material	MIL-PRF-39012, paragraph 3.3	See Sales Drawing
9	Finish	MIL-PRF-39012, paragraph 3.3.1	See Sales Drawing
10	Design	MIL-PRF-39012, paragraph 3.4	See Sales Drawing
11	Recommended Mating Torque		N/A
12	Force to Engage	MIL-PRF-39012, paragraph 3.5, Axial Force	14 lbs Max
13	Force to Disengage	MIL-PRF-39012, paragraph 3.5, Axial Force	1.8 lbs Min 4.5 lbs Max

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5.2 MECHANICAL REQUIREMENTS (continued)

ITEM	DESCRIPTION	TEST CONDITION	REQUIREMENT
14	Coupling Nut Retention Force	MIL-PRF-39012, paragraph 3.25	N/A
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	2.2 lbs N/A
18	Cable Retention	MIL-PRF-39012, paragraph 3.24	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 1000 Vrms (after drying)

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