PRODUCT SPECIFICATION

1.0 SCOPE

This Product Specification covers the BNC product family (Interface Only) and is a general performance guideline. Please contact Molex RFMS Engineering for specific design iteration performance ratings. As customer end use applications vary greatly, the performance requirements stated within are superseded by performance requirements stated on the Molex Sales Drawing(s).

2.0 PRODUCT DESCRIPTION

2.1 PRODUCT NAME

BNC

3.0 APPLICABLE DOCUMENTS AND SPECIFICATIONS

MIL-STD -348B

4.0 RATINGS

4.1 VOLTAGE

500 Vrms at Sea Level

4.2 TEMPERATURE

Rating: - 65°C TO + 165°C
- 65°C TO + 95°C (Commercial)

4.3 FREQUENCY RATING

50 OHM: DC to 10 GHz Maximum
DC to 4 GHz Optimum
DC to 2 GHz (Commercial)

75 OHM: DC to 4 GHz Maximum
DC to 2 GHz Optimum
DC to 2 GHz (Commercial)

4.4 NOMINAL IMPEDANCE

50 or 75 Ohm (See Sales Drawing)

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	1500 Vrms
3	**Low Level Contact Resistance (LLCR)**	MIL-PRF-39012, paragraph 3.16 Center Contact Outer Contact	Initial: Baseline (Reference Only) Post Environment: 10.0 Milliohms Max Increase Initial: Baseline (Reference Only) Post Environment: 10.0 Milliohms (Nobel Plating) 20.0 Milliohms (Non-Nobel Plating) Max Increase
4	**Voltage Standing Wave Ratio**	MIL-PRF-39012, paragraph 3.14	See Sales Drawing
5	**RF Insertion Loss**	MIL-PRF-39012, paragraph 3.27	Application specific. See Sales Drawing where applicable.

5.2 MECHANICAL REQUIREMENTS

ITEM	DESCRIPTION	TEST CONDITION	REQUIREMENT
6	**Material**	MIL-PRF-39012, paragraph 3.3	See Sales Drawing
7	**Finish**	MIL-PRF-39012, paragraph 3.3.1	See Sales Drawing
8	**Design**	MIL-PRF-39012, paragraph 3.4	See Sales Drawing
9	**Recommended Mating Torque**	N/A	2.5 in-lb Max
10	**Force to Engage**	Axial Radial	5.0 lbs, 3.0 lbs Max 2.5 in-lb Max
11	**Force to Disengage**	Axial Radial	3.0 lb Max 2.5 in-lb Max
12	**Coupling Nut Retention**	Axial Force	100 lbs (444.82 N) MIN
13	**Coupling Proof Torque**	MIL-PRF-39012, paragraph 3.6	N/A

5.2 MECHANICAL REQUIREMENTS (continued)

ITEM	DESCRIPTION	TEST CONDITION	REQUIREMENT
14	**Connector Durability**	MIL-PRF-39012, paragraph 3.15	500 Cycles Min
15	**Center Contact Retention**	MIL-PRF-39012, paragraph 3.12 Axial Force	6 lbs (Captivated Contact Designs)

5.3 ENVIRONMENTAL REQUIREMENTS

ITEM	DESCRIPTION	TEST CONDITION	REQUIREMENT
16	**Vibration**	MIL-PRF-39012, paragraph 3.18 Per MIL-STD-202, Method 204	Test Condition B Signal (Center) LLCR: 10.0 Milliohms Max Increase (Post Environment) Outer Conductor LLCR: 10.0 Milliohms (Nobel Plating) 20.0 Milliohms (Non-Nobel Plating) Max Increase Post Environment
17	**Shock**	MIL-PRF-39012, paragraph 3.19 Per MIL-STD-202, Method 213	Test Condition G Signal (Center) LLCR: 10.0 Milliohms Max Increase (Post Environment) Outer Conductor LLCR: 10.0 Milliohms (Nobel Plating) 20.0 Milliohms (Non-Nobel Plating) Max Increase Post Environment
18	**Shock (Thermal)**	MIL-PRF-39012, paragraph 3.2 Per MIL-STD-202, Method 107	Test Condition B (85°C) Signal (Center) LLCR: 10.0 Milliohms Max Increase (Post Environment) Outer Conductor LLCR: 10.0 Milliohms (Nobel Plating) 20.0 Milliohms (Non-Nobel Plating) Max Increase Post Environment
19	**Corrosion (Salt Spray)**	MIL-PRF-39012, paragraph 3.13 Per MIL-STD-202, Method 101	Test Condition B
20	**Moisture Resistance**	MIL-PRF-39012, paragraph 3.21 Per MIL-STD-202, Method 106	Insulation resistance 200 MΩ MIN (after drying)