



PRODUCT SPECIFICATION

1.0 SCOPE

This Product Specification covers the TNC 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 As customer end use applications vary greatly, the performance requirements stated within are superseded by performance requirements stated on the Molex Sales Drawing(s).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
TNC

3.0 APPLICABLE DOCUMENTS AND SPECIFICATIONS

MIL-STD -348B

4.0 RATINGS

4.1 VOLTAGE
500 Vrms at Sea Level
125 Vrms at 70,000 Feet

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

4.3 FREQUENCY RATING
50 OHM: DC to 11 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 1 GHz Commercial

4.4 NOMINAL IMPEDANCE
50 or 75 Ohm (see sales drawing)

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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
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 (Noble Plating) 20.0 Milliohms (Non-Noble 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	MIL-PRF-39012	4-6 In-lbs (.49-.69 N-m)
10	Force to Engage and Disengage	Axial Force	N/A
11	Coupling Retention	Axial Force	100 lbs (444.82 N)
12	Coupling Proof Torque	MIL-PRF-39012, paragraph 3.6	15 in-lb (1.69 N-m)
13	Mating Characteristics	MIL-PRF-39012, paragraph 3.7	Fig. 313-1 and 313-2
14	Connector Durability	MIL-PRF-39012, paragraph 3.15	500 Cycles
15	Center Contact Retention	MIL-PRF-39012, paragraph 3.12 Axial Force	6 lbs (Captivated Contact designs only)

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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 (Noble Plating) 20.0 Milliohms (Non-Noble Plating) Max Increase Post Environment
17	Shock	MIL-PRF-39012, paragraph 3.19 Per MIL-STD-202, Method 213	Test Condition I Signal (Center) LLCR: 10.0 Milliohms Max Increase Post Environment Outer Conductor LLCR: 10.0 Milliohms (Noble Plating) 20.0 Milliohms (Non-Noble Plating) Max Increase Post Environment
18	Shock (Thermal)	MIL-PRF-39012, paragraph 3.2 Per MIL-STD-202, Method 107	Test Condition B (165°C Standard) (95°C Commercial) Signal (Center) LLCR: 10.0 Milliohms Max Increase Post Environment Outer Conductor LLCR: 10.0 Milliohms (Noble Plating) 20.0 Milliohms (Non-Noble 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	DWV 1500 Vrms (after drying)

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