molex PRODUCT SPECIFICATION molex | LANGUAGE: ENGLISH

TITLE :

50 OHM BNC JACK PCB RECEPTACLE

REV	B	B	B	B	B	B	B
SHT	1	2	3	4	5	6	7

REVISION PC ONLY	
B	PER ECN RF98-011
REV	DESCRIPTION

TITLE: 50 OHM BNC JACK PCB RECEPTACLE

DESIGN CENTER	STATUS	WRITTEN BY:	CHECK BY:	APPROVED BY:	DATE: YR/MO/DAY
MOLEX TAIWAN		DENG	Sam	wally	- 93/03/17

DOCUMENT NO.	FILE NAME	SHT NO.
PS-73598-0061	PS67003.SAM	1 OF 7

1.0 SCOPE

This specification covers the performance requirements and characteristics for 50 OHM BNC JACK VERTICAL PCB RECEPTACLE

2.0 APPLICABLE DOCUMENTS

2.1 Molex Drawing
Per applicable Molex Sales Drawing

2.2 The following document form a part of this specification to the extent specified herwith. In the event of conflict between the requirements of the specification and the product drawing, the product drawing shall take precedence. In the event of conflict between the requirements of the specification and he referenced documents, this specification shall take precedence.

MIL-STD-202 Test Methods for Electronic and Electrical Component Parts
MIL-STD-1344 Test Methods for Electrical Connectors
MIL-STD-39012 Test Sequence

3.0 MATERIAL SPECIFICATIONS

3.1 Design and Construction
Connector shall be of the design, construction and physical dimensions specified on the applicable sales drawing

3.2 Materials
Refer to Molex Sales Drawing

3.3 Finish
Specification detail shown on sales drawing

3.4 Performance and Test Description
Connector shall be designed to meet the electrical, mechanical and environmental performance

4.0 RATING

Item	Rating
Working Voltage	500 VRMS max. @ Sea Level
Impedance	50 Ohms Nominal
Frequency Range	dc to 4 GHz
Temperature Range	-55° C to +85°C

ELECTRICAL

Item	Requirement	Test Methods
5.1.1 Contact Resistance	Center Contact : [Initial] 1.5 milliohms max. [After various tests] 2.0 milliohms max. Outer Contact : 0.2 milliohms max.	According to MIL-STD-202F, Method 307.
5.1.2 Insulation Resistance	5000 Megaohms min.	According to MIL-STD-202F, Method 302, Test condition A.
5.1.3 Dielectric Withstanding Voltage	1500 VRMS @ Sea Level	According to MIL-STD-202F, Method 301.

MECHANICAL

Item	Requirement	Test Methods
5.2.1 Force to Engage/Disengage	Longitudinal Force : 3 pounds max. Torque : 2-1/2 inch-pounds min.	
5.2.2 Insertion / Withdraw Force (Center Contact)	Insertion : 2 pounds max. Withdraw : 2 ounce min.	
5.2.3 Durability	Meet the requirements of Contact Resistance as shown in 5.1.1 Force to Engage/Disengage as shown in 5.2.1	After 500 mating cycles @ 12 cycles per minute According to MIL-STD-1344A, Method 2016.1
5.2.4 Contact Retention Force	6.0 pounds axial force min. 4.0 inch-ounce radial torque min.	According to MIL-STD-1344A, Method 2007.1

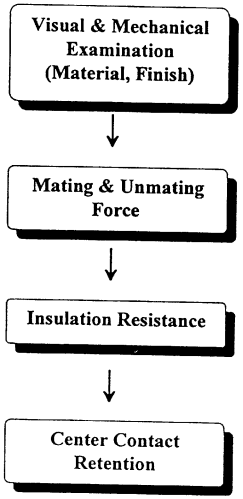
ENVIRONMENT

Item	Requirement	Test Methods
5.3.1 Corrosion (Salt Spray)	No exposure of base metal at mating surfaces and shall meet the requirements of 5.2.1 & 5.2.3	According to MIL-STD-202F, Method 101D. Test condition B
5.3.2 Mechanical Shock	No discontinuity permitted when subjected to saw tooth shock pulse of 50 G acceleration with a 11 MS duration	According to MIL-STD-202F, Method 213B. Test condition A
5.3.3 Vibration	No discontinuity permitted when subjected to sinusoidal vibration having a 15 G excitation force and 0.06 inch amplitude. Swept frequency range between 10 to 2000 Hz.	According to MIL-STD-202F, Method 204D. Test condition A
5.3.4 Moisture Resistance	Insulation Resistance shall be at least 200 megohms within 5 minutes after removal from humidity.	According to MIL-STD-202F, Method 106F.
5.3.5 Thermal Shock	1) There should be not serious corrosion affecting the insertion and extraction of connector. Contact parts should be free from rust and corrosion. 2) Contact resistance should satisfy the requistion as per 5.1.1 3) Insulator resistance should satisfy the requistion as per 5.1.2 4) Withstand voltage should satisfy the requistion as per 5.1.3	According to MIL-STD-202F, Method 107G. Test condition A.

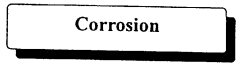
6. Test Groups and Test Sequences :

The tests are categorized into 4 major Groups. The test sequences are defined as follow .

GROUP I



GROUP II



GROUP III

Durability

GROUP IV

Center Contact & Outer Contact Resistance
↓
Dielectric Withstanding Voltage
↓
Vibration
↓
Mechanical Shock
↓
Thermal Shock
↓
Moisture Resistance