



ENGINEER	RING DEPT.		SPEC.NO.:	SPCD013D
REVISIONS	ECNT120078	For Solder Cup Combination Coaxial D- Sub Connector	PAGE:	1/3

1. SCOPE:

This specification contains the test requirement of subject connectors when tested under the condition and below standards base on CviLux test procedure

2. APPLICABLE STANDARDS:

MIL - STD - 202 Methods for test of connectors for electronic equipment

EIA – 364 Test methods for electrical connectors

3. APPLICABLE SERIES NO.: 5W1, 3W3, 7W2, 5W5, 8W8, 9W4, 11W1, 13W3, 13W6, 17W5, 17W2,

21W1, 21W4, 24W7, 25W3, 27W2, 36W4, 43W2, 3W3C, C3W3, C5W5,

C7W2, C8W8, and CXLT Series

4. SHAPE, CONSTRUCTION AND DIMENSIONS See attached drawings

5. MATERIALS
See attached drawings

6. SOLDER CUP TYPE COAXIAL CONTACT RECOMMENDED CABLES: RG 179B/U for 75Ω

RG 178B/U for 50Ω

REVIEWED : <u>Eisley</u> APPROVED : <u>Sun</u> VERIFIED : <u>Michelle</u> .





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7. ELECTRICAL PERFORMANCE:

	ITEM	TEST CONDITION	REQUIREMENT
7.1	Rated current and voltage		3A 250V AC (r.m.s.)
7.2	Signal contact resistance	Dry circuit of DC 20 mV max., 100 mA max.	Less than $10 \text{ m}\Omega$
7.3	Dielectric strength (Sea Level)	When applied AC 1000 V 1 minute between adjacent terminal	No change
7.4	Insulation resistance	When applied DC 500 V between adjacent terminal or ground	More than 5000 M Ω
7.5	Coaxial contact impedance		75Ω or 50Ω

8. MECHANICAL PERFORMANCE:

	ITEM	TEST CONDITION	REQUIREMENT
8.1	Contact retaining force in insulator	Retention speed 25± 3 mm per minute from housing	More than 4.5 Kgf
8.2	Signal contact insertion force	Measure force to insertion using Ø 1.04 mm test pin at speed 25± 3 mm per minute	340 gram max. Per contact
8.3	Signal contact withdrawal force	Measure force to withdrawal using Ø 0.99 mm test pin at speed 25± 3 mm per minute	28 gram min. Per contact
8.4	Coaxial contact insertion force	Measure force to insertion using plug terminal at speed 25± 3 mm per minute	2.0 Kgf max. Per contact
8.5	Coaxial contact withdrawal force	Measure force to withdrawal using plug terminal at speed 25± 3 mm per minute	0.5 Kgf min. Per contact
8.6	Mating and unmating force	Speed 25± 3 mm per minute	17.0 Kgf max.
8.7	Durability	Connector shall be subjected to 100 cycles of insertion and withdrawal	Contact resistance: Less than twice of initial

9. ENVIRONMENTAL PERFORMANCE:

	ITEM	TEST CONDITION	REQUIREMENT
9.1	Temperature rise	Then carried the rated current	30°C max.
9.2	Vibration	1.5 mm 10-55-10 HZ / minute each 2 hours for X, Y and Z directions	Appearance: No damage Discontinuity: 1 micro second max.





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	ITEM	TEST CONDITION	REQUIREMENT
9.3	Solder ability	Soldering time: 5 ± 0.5 second Soldering pot: 230 ± 5°C	Minimum: 90% of immersed area
9.4	Heat aging	125 ± 2°C , 96 hours	No damage
9.5	Humidity	40 ± 2°C, 90-95% RH, 96 hours measurement must be taken within 30 min. after tested	Appearance: No damage Contact resistance: Less than twice of initial Dielectric strength: To pass para 7-3
9.6	Temperature cycling	One cycle consists of: (1) -55	Appearance: No damage Contact resistance: Less than twice of initial
9.7	Salt spray	Temperature: 35 ± 3 °C Solution: 5 ± 1% Spray time: 48 ± 4 hours (Stamping before plated) Spray time: 24 ± 4 hours (Stamping after plated) Mate connectors and expose to the following salt mist conditions. Upon completion of the exposure period, salt deposits shall be removed by a gentle wash or dip in running water and dried naturally, after which the specified measurements shall be performed. The specimens shall be suspended from the top using waxed twine, string or nylon thread. The test only define the plating area, without plating area (as copper cross section) will not be defined.	Appearance: No damage Contact resistance: Less than twice of initial

10. AMBIENT TEMPERATURE RANGE: -55 to + 125°C