瀚荃股份有限公司
CviLux Corporation

ENGINEERING	PRODUCT SPECIFICATION	SPEC.NO.: SPCR0281
DEPT.	For CRA4 RF IV Receptacle connector	PAGE: 1/5

1. SCOPE:
This specification covers the requirement for product performance and test methods of RF III connector.

2. APPLICABLE STANDARDS:
Follow **EIA-364** specification.

3. APPLICABLE SERIES NO: CRA4 Receptacle connector

4. SHAPE, CONSTRUCTION AND DIMENSIONS
See attached drawings

5. MATERIALS
See attached drawings

6. ACCOMMODATED P.C.BOARD
P.C. Board Layout: See attached drawings

REVIEWED: David APPROVED: Eisley VERIFIED: Freya .

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7. ELECTRICAL PERFORMANCE:

	ITEM	TEST CONDITION	REQUIREMENT
7.1	Rated voltage and current		60V AC, 1A Max.
7.2	Nominal characteristic impedance		50 ohm.
7.3	Applicable Frequency		100MHz~12GHz
7.4	Contact resistance	Dry circuit of DC 20mV max. , 10mA max. Refer to Fig 1	Inner: Initial: 10 mΩ Max. Final: 20 mΩ Max. Ground: Initial: 10 mΩ Max. Final: 20 mΩ Max.
7.5	Dielectric strength	When applied AC 200 V 1 minute between adjacent terminal Current leakage: 0.5mA Max.	No change
7.6	Insulation resistance	When applied DC 100 V between adjacent terminal or ground	500 MΩ Min.(Initial) 100 MΩ Min.(Final)
7.7	VSWR	Mate the connecter and SMA connecter together, then measure the VSWR by the network analyzer. Refer to Fig 2	100M~3GHz: 1.3Max. 3G~6GHz: 1.45Max. 6G~12GHz: 2.0Max.
7.8	Insertion Loss	Mate the connector and SMA connector together, then measure the Insertion loss by the network analyzer.	100MHz to 6GHz： -0.2dB Min. 6G to 12GHz： -1.0dB Min.

8. MECHANICAL PERFORMANCE:

	ITEM	TEST CONDITION	REQUIREMENT
8.1	Durability	Operation Speed： 2~3cycle/min. Durability Cycles：30 Cycles.	No damage and meet 7.4

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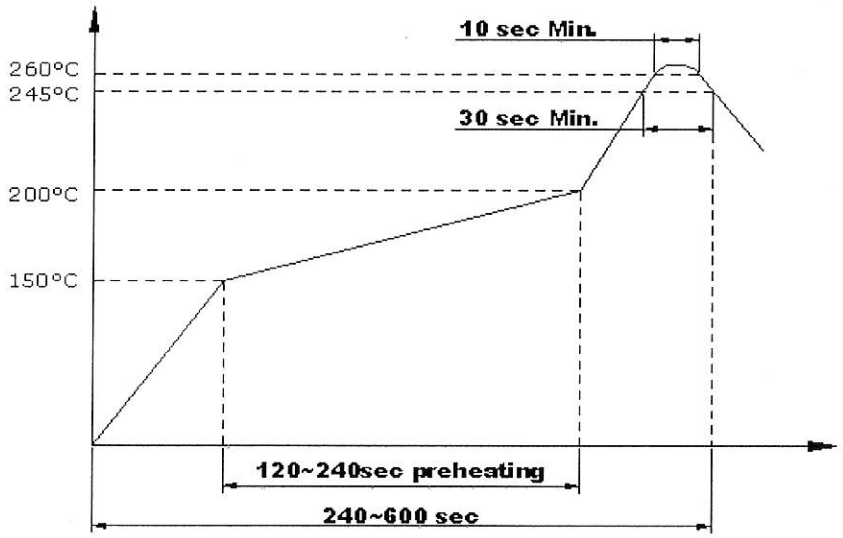
9. ENVIRONMENTAL PERFORMANCE:

	ITEM	TEST CONDITION	REQUIREMENT
9.1	Shock	Peak value of acceleration : 735m/s^2(75G) Duration: 11 msec. Wave Form: half sinusoidal No. of Drops：3 drops each to normal and reversed directions of X, Y and Z axes, totally 18 drops, passing DC 1mA current during the test.	No electrical discontinuity greater than 1μs shall occur and meet 7.4
9.2	Vibration	Mated the connector, then Impressed the 100mA DC. Frequency ：10Hz→100Hz→10Hz approx 20 minutes. Half amplitude, peak value of acceleration：1.5mm or 59m/s^2(6G). Direction：3 mutually perpendicular directions. Cycle：3 cycles for each direction.	No electrical discontinuity greater than 1μs shall occur and meet 7.4
9.3	Solder ability	Soldering time: 5 ± 0.5 second Soldering pot: 245 ± 5°C	Minimum: 95% of immersed area
9.4	Resistance to soldering heat	Lead free reflow up to 260°C peak for 10 sec. Refer Reflow temperature profile(11.1)	No damage
9.4	Heat aging	85°C , 96 hours	No damage and meet 7.4
9.6	Resistance to Cold	-40 ± 2°C , 96 hours	No damage and meet 7.4
9.7	Humidity	40 ± 2°C , 90-95% RH , 96 hours measurement must be taken within 30 min. after tested	No damage and meet 7.4, 7.5, 7.6
9.8	Temperature cycling	One cycle consists of : (1)-40 $^{+0}_{-3}$ °C, 30 min. (2)Room temp. 5 min. (3) 85 $^{+0}_{-3}$ °C, 30 min. (4)Room temp. 5 min. Total cycles : 5 cycles	No damage and meet 7.4, 7.5, 7.6

	ITEM	TEST CONDITION	REQUIREMENT
9.9	Salt spray	Temperature: 35 ± 2°C Solution: 5 ± 1% Spray time: 24 hours Measurement must be taken after water rinse and recondition the temperature for 1 hour.	No damage and meet 7.4

10. AMBIENT TEMPERATURE RANGE: -40 to + 85°C

11. Recommended IR Reflow Temperature Profile:
11.1 Using Lead-Free Solder Paste



12.

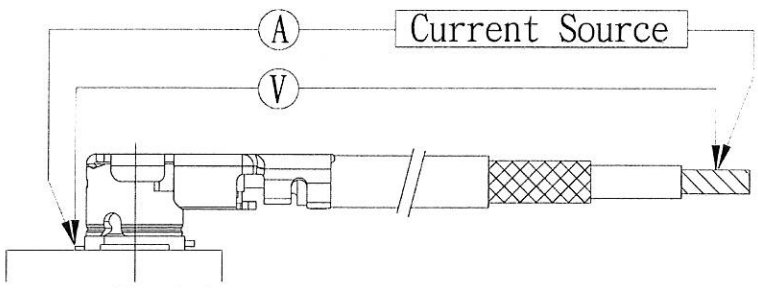


Fig.1 Contact Resistance

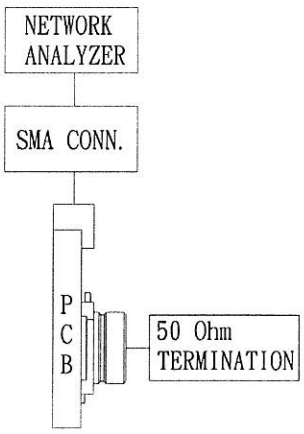


Fig.2 VSWR