立威科技股份有限公司 Attend Technology Inc.
新北市汐止區新台五路一段75號6樓之二
6F-2, No.75, Sec.1, Xintai 5th Rd., Xizhi Dist., New Taipei City 221, Taiwan, R.O.C.
TEL 886 2 2698 7028 FAX 886 2 2698 7078 WEBSITE www.attend.com.tw

SPECIFICATION AND PERFORMANCE

Series	115R-BCA0	File	115R-BCA0_Spec_2	Date	2023/01/10

Scope:

This specification covers the requirements for product performance, test methods and quality assurance provisions of **115R-BCA0**

Performance and Descriptions:

The product is designed to meet the electrical, mechanical and environmental performance requirements specification. Unless otherwise specified, all tests are performed at ambient environmental conditions.

RoHS:

All material in according with the RoHS environment related substances list controlled.

MATERIAL AND FINISH		
INSULATOR	Material	Housing: LCP, Black
CONTACT	Material	Contact: Copper Alloy 0.08T Ground: Stainless 0.15T
	Plating	Contact: 5u" selective gold plating on contact and solder area Ground: G/F selective gold plating on solder area Under plating nickel
SHELL	Material	Stainless 0.12T
	Plating	50u" nickel plating
RATING	Voltage & Current: 10V AC/ DC, 0.5A Max. Operating Temperature: -40°C to +85°C Storage Temperature: -40°C to +85°C Storage Humidity: +10%~+80% RH	

ELECTRICAL		
Item	**Requirement**	**Test Condition**
Current Rating	Temperature rise: 30°C Max. Current: 0.5A Max.	Apply the rated current to connector, EIA 364-70
Contact Resistance	Initially 50 mΩ Max. Finally 100 mΩ Max after test.	EIA-364-23C Mate connectors with dry circuit (20 mV, 100mA Max.)at 0.05mm away from housing top surface (see appendix 1)
Insulation Resistance	(Initial) 1000 MΩ Min. (Final) 500 MΩ Min.	EIA-364-21C After 500 VDC for 1 minute, measure the insulation resistance between the adjacent contacts of mated and unmated connector assemblies.
Dielectric Withstanding Voltage	No shorting, breakdown, flashover or other damage.	Comply with EIA-364-20.Apply 500 VAC for one minute at sea level on unmated connectors, less than 0.5 mA leakage current.

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MECHANICAL

Item	Requirement	Test Condition
Contact Normal Force	30gf Min./per Pin	0mm gap to housing surface (work position) Speed of 0.60±3 mm/minute (0mm from housing) (refer to Appendix 2)
Durability (Vertical Insertion Direction)	Contact resistance Initially 50 mΩ Max. Contact resistance Finally 100 mΩ Max. Contact Normal Force within spec. (refer to Appendix 1&2)	Mate connectors at 240-550 cycles/hour to 3000 cycles. Vertical insertion for max deflection case.
Open & Lock Durability	Durability: 50 Cycles Final Force: 150g Min.	SIM card connector on the PCB welding, load a SIM card inside the connector, parallel to push on the shell surface for open & lock

ENVIRONMENTAL

Item	Requirement	Test Condition
LOW temperature resistance	Contact resistance 100mΩ Max.	At -30°C for 96 hours Recovery: 2 hours at ambient atmosphere
Humidity resistance	There shall be no short circuiting and damage detected at AC 500V r.m.s Insulation resistance:1000MΩ Min. Contact resistance: 100mΩ Max.	EIA 364 – 31 Method Ⅱ Test Condition A. Subject unmated connectors to 96 hours at 60°C with 90% to 95% R.H.
Temperature life	Resistance: 100mΩ Max. change from initial value	At +85°C for 96 hours
Salt Spray	Meets requirements of product drawing Contact resistance: 100mΩ Max.	EIA-364-26B Subject mated connectors to 5+/-1%salt-solution concentration, 35+/-2°C for 24hours. After test, rinse the sample with water and recondition the room temperature for 1 hour
Vibration (Random)	Contact resistance 100mΩ Max. Discontinuity < 1 ms	(EIA-364-28) Frequency: 10~100 Hz, 0.0132 g2/Hz; Frequency: 100~500Hz, -3dB/Oct Applied for 1 hours in each 3 mutually perpendicular axes
Shock (specified pulse)	Contact resistance 100mΩ Max. Discontinuity < 1 ms	Pulse shape = half sine Peak acceleration = 490m/s2 (50G) Duration of pulse = 11ms Apply 3 successive shocks in each direction along the 3 mutually perpendicular axes. (EIA364-27)

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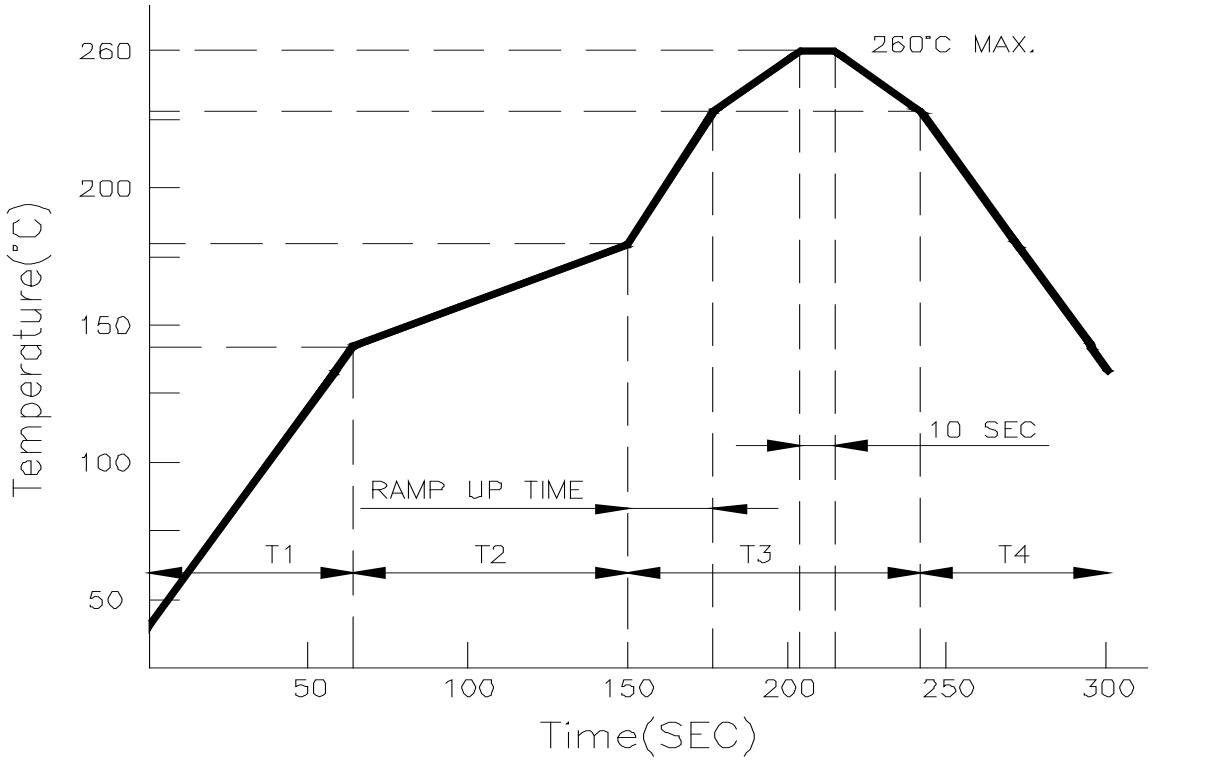
SOLDER ABILITY

Item	Requirement	Test Condition
Solder-ability	The inspected area of each lead must have 95% solder coverage min.	JESD22-B102D,Condition C Steam aging Preconditioning: 93+3/-5°C, 8 hours ±15 minute For SMT: Solder temperature:245± 5°C. Solder immersion time:5±0.5s
Soldering heat withstanding	Inspect dimension during the test, no physical damage	Reflow soldering (Infrared): Refer soldering method

Recommended Infrared Reflow Condition:



T1:	Temperature Ramp Up Rate	2~5°C/SEC
T2:	Prehead: 140°C~180°C	90±30 SEEC
T3:	Time Over 230°C	30~60 SEC
T4:	Ramp Down Rate During Cooling	4~7°C/SEC
	Pear Temperature	260°Max.

Fig.1

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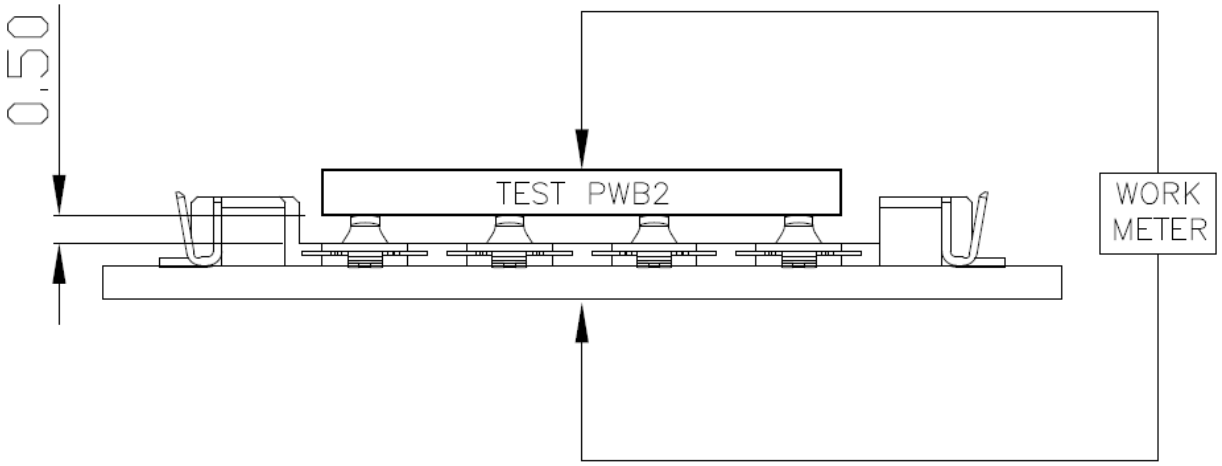
Appendix 1:
Contact Resistance Measurement



Appendix 2:
Card Insertion Directions in Durability: