



标准&定制开关连接器产品制造商
DONG GUAN XI BANG ELECTRONICS CO., LTD.

规格书

SPECIFICATION

CUSTOMER NAME 客户名称: _____
 CUSTOMER NO. 客户编号: _____
 SERIES 系列: 线对板接头
 MODEL NO. 型号: XB-series
 DRAWING NO. 图形号 CP Series Board Mount Header

If specification of this product meets your request, please confirm all the items of it and return to us with signature and stamp, it will be basis of our production and record. Thanks your cooperation in advance!

若此产品规格符合贵司要求，敬请确认此规格书内所有项目
 并签名和盖章后回传给我司，以作我司产品制作之
 依据和存档之用，多谢合作！

EXAMINE & APPROVAL 审批

APPROVE 接受	NOT APPROVE 不接受
SIGNATURE 签署 STAMP 盖章 DATE 日期	

PREPARED BY. 制表人	CHECKED BY. 校对	APPROVED BY. 审核	APPROVAL BY. 批准
<div style="border: 1px solid red; padding: 2px;">研发部</div> <div style="border: 1px solid red; padding: 2px;">戴海明</div> <div style="border: 1px solid red; padding: 2px;">2022. 06. 08</div>	<div style="border: 1px solid red; padding: 2px;">品质部</div> <div style="border: 1px solid red; padding: 2px;">黄自清</div> <div style="border: 1px solid red; padding: 2px;">2022. 06. 08</div>	<div style="border: 1px solid red; padding: 2px;">工程部</div> <div style="border: 1px solid red; padding: 2px;">庞军</div> <div style="border: 1px solid red; padding: 2px;">2022. 06. 08</div>	<div style="border: 1px solid red; padding: 2px;">总经理办</div> <div style="border: 1px solid red; padding: 2px;">吴量</div> <div style="border: 1px solid red; padding: 2px;">2022. 06. 08</div>

东莞市溪榜电子有限公司

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 required)

MAiL: HK@ALPSR.CN XB@ALPSR.CN XB@ALPSR.COM
 Quality core! Afterburner for Made in China!



ENGINEERING DEPT.		PRODUCT SPECIFICATION For CP05 Series Halogen-Free Power Connector	SPEC.NO.: SPCP046B
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1. SCOPE:

This specification contains the test requirement of subject connectors when tested under the condition and procedure with terminals crimped on the specified maximum size wire

2. APPLICABLE STANDARDS:

- MIL - STD - 202 Methods for test of connectors for electronic equipment
- MIL - STD - 1344 Test methods for electrical connectors
- J-STD-020 Resistance to soldering Temperature for through hole Mounted Devices
- SS-00254 Test methods for electronic components ,LEAD-FREE soldering Part design standards

3. APPLICABLE SERIES NO.:

- Housing: CP0502S0000 (Halogen-Free)
- Header: CP0502P*M*0-NH (Halogen-Free)
- CP0502P*H*0-NH (Halogen-Free)
- Terminal: CP05T021PE0

4. SHAPE, CONSTRUCTION AND DIMENSIONS

See attached drawings

5. MATERIALS

See attached drawings

6. ACCOMMODATED P.C.BOARD

6.1 P.C. Board Layout: See attached drawings

REVIEWED : XIE.BING.XIN APPROVED : HE.LONG.FEI VERIFIED : PANG.DONG



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7. ELECTRICAL PERFORMANCE:

	ITEM	TEST CONDITION	REQUIREMENT
7.1	Rated current and voltage		1.0A (AWG #24), 1400V AC/DC
7.2	Contact resistance	Dry circuit of DC 20mV max., 100mA max., Wire resistance shall be removed from the measured value.	Less than 10 mΩ
7.3	Dielectric strength	When applied AC 3800 V 1 minute between adjacent terminal	No Breakdown
7.4	Insulation resistance	When applied DC 500 V between adjacent terminal or ground	More than 1000 MΩ

8. MECHANICAL PERFORMANCE:

	ITEM	TEST CONDITION	REQUIREMENT	
8.1	Wire size	Specified wire size	Accepts AWG#24-#28	
8.2	Terminal crimp strength	When crimped AWG#24 size wire	More than 3 kgf.	
		When crimped AWG#26 size wire	More than 2 kgf	
		When crimped AWG#28 size wire	More than 1.3 kgf	
8.3	Terminal insertion force	Insertion speed 25± 3 mm per minute into housing	Less than 0.5 Kgf	
8.4	Terminal retaining force in insulator	Retention speed 25± 3 mm per minute from Wire to Wire Housing	More than 1.0 kgf	
8.5	Single contact insertion force	Measure force to insertion using mating square pin at speed 25± 3 mm per minute	500 gram max.	
8.6	Single contact withdrawal force	Measure force to withdrawal using mating square pin at speed 25± 3 mm per minute	100 gram min.	
8.7	Pin retention force in Board mount Header	Push Pin from insulator base at speed 25± 3 mm per minute	More than 0.7 kgf	
8.8	Mating and Unmating force	Speed 25± 3 mm per minute	Mating (Max.)	Unmating (Min.)
			2.5 kgf	0.5 kgf
8.9	Durability	Connector shall be subjected to 30 cycles of insertion and withdrawal	Contact resistance: Less than twice of initial	



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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.
9.3	Heat aging	85± 2°C, 96 hours	No damage
9.4	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
9.5	Temperature cycling	One cycle consists of : (1) -55 ⁺⁰ / ₋₃ °C , 30 min. (2) Room temp. 10-15 min. (3) 85 ⁺³ / ₋₀ °C , 30 min. (4) Room temp. 10-15 min. Total cycle: 5 cycle	Appearance: No damage Contact resistance: Less than twice of initial
9.6	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. (EIA 364-26B / MIL-STD-202 Method 101)	Appearance: No damage on function Contact resistance: Less than twice of initial



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	ITEM	TEST CONDITION	REQUIREMENT
9.7	Solder ability	Tin-Lead Process Soldering time: 5 ± 0.5 second Soldering pot: $230 \pm 5^\circ\text{C}$ Lead-Free Process Soldering time: 3 ± 0.5 second Soldering pot: $245 \pm 5^\circ\text{C}$	Minimum: 90% of immersed area
9.8	Resistance to soldering heat	DIP Type Lead-Free Process: Soldering time: 5 ± 0.5 second Soldering pot: $260 \pm 5^\circ\text{C}$ SMT Type Lead-Free Process: Soldering time: 20 second Max. Soldering pot: $250\sim 260^\circ\text{C}$ Refer Reflow temperature profile(11.2)	No damage

10. AMBIENT TEMPERATURE RANGE: -25 to $+85^\circ$

11. Recommended IR Reflow Temperature Profile:

11.1 Using Lead-Free Solder Paste

