| Document Name SPEC-WB1201(H)-HXXXX SPEC-WB1201-TX Date Revised 2021/10/12 Revised Edition A2 変更限历: 間灯 核准 A0 新版发行 2020/05/20 千小芳 Leo_he A1 版木更新 2021-04-09 丁小芳 Leo_he A2 更改电流及T.作温度 2021-10-12 千小芳 Leo_he A2 更改电流及T.作温度 2021-10-12 丁小芳 Leo_he A2 更改电流及T.作温度 1 1 1 1 A2 更改电流及T.作温度 1 1 1 1 A3 1 1 1 1 1 1 A3 1 < | | CRS | Pre | cision electronic C | C Issu Dat | Control NO Jed BY e Issued | El015 ED 2020/5/20 | |
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| A0 新版发行 2020/05/20 手小芳 Leo_he A1 版本更新 2021-04-09 千小芳 Leo_he A2 更改电流及工作温度 2021-10-12 千小芳 Leo_he Image: Second Secon | | 版本号 | 变 | 更内容 | 日期 | | 制订 | 核准 |
| A1 版本更新 2021-04-09 手小芳 Leo_he A2 更改电流及工作温度 2021-10-12 千小芳 Leo_he | | AO | | 新版发行 | 2020/05/20 | | 于小芳 | Leo_he |
| A2 更改电流及工作温度 2021-10-12 于小芳 Leo_he | | A1 | | 版本更新 | 2021-04-09 | | 于小芳 | Leo_he |
| | | A2 | | 更改电流及工作温度 | 2021-10-12 | | 于小芳 | Leo_he |
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| CRS Pre | cision ele | ectronic Co ITD | Issued BY | ED | | |
| | | | Date Issued | 2020/5/20 | | |
| Document | SPEC-WB1202 | I (H)-HXXXX (H)-XXXXX | Date Revised | 2021/10/12 | | |
| Name | SPEC-WB1203 SPEC-WB1207 | 3H-XXXXX 1-TX | Revised Edition | A2 | | |
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| Forest | | Jackson Wang | Ken | | | |

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1 Scope

This specification covers performance, tests and quality requirements for 1.2mm Pitch WTB Connector.

2. Applicable Documents

The following documents form a part of this specification to the extent specified herein. Unless otherwise specified, the latest edition of the document applies.

In the event of conflict between the requirements of this specification and the product drawing, the product drawing shall take precedence. In the event of conflict between the requirements of this specification and the referenced documents, this specification shall take precedence.

EIA-364: ELECTRONICS INDUSTRIES ASSOCIATION REQUIREMENTS

3.Requirements

3.1 DESIGN AND CONSTRUCTIONS

Product shall be of the design, construction and physical dimensions specified on the applicable product drawing.

WB1202H-XXXXX

| NO | DIMENSIONS | MATERIAL | PLATING&COLOR |
|----|------------|-------------------------|-------------------------|
| 1 | Housing | High-Temperature Plasti | UL94V-0 BLACK |
| 2 | Terminal | Copper Alloy | Gold and nickel plating |
| 3 | PEG | Copper Alloy | Gold and nickel plating |

| | WB1201H-HXXXX&WB1201-TX | | | | | | | |
|----|-------------------------|--------------|-------------------------|--|--|--|--|--|
| NO | DIMENSIONS | MATERIAL | PLATING&COLOR | | | | | |
| 1 | Housing | PA66 | UL94V-0 BLACK | | | | | |
| 2 | Terminal | Copper Alloy | Gold and nickel plating | | | | | |

| | | Control NO | FI015 | | | | | |
|---|--|-------------------|-----------------|--|--|--|--|--|
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| CRS Pr | ecision electronic Co., LTD | Date Issued | 2020/5/20 | | | | | |
| D | SPEC-WB1201(H)-HXXXX | Date Revised | 2021/10/12 | | | | | |
| Document Name | SPEC-WB1202(H)-XXXXX SPEC-WB1203H-XXXXX SPEC-WB1201-TX | Revised Edition | A2 | | | | | |
| 3.2 RATING | S AND APPLICABLE WIRE | | | | | | | |
| A. Worki | ng voltage less than 36 volts (per pin) | | | | | | | |
| | B. Current Rating: 50V AC/DC | | | | | | | |
| C. Operation | on environment: : Temperature Rating-40°C to | o +85 ℃ | | | | | | |
| er operation en information i remperature raung to e to toe e | | | | | | | | |
| D. Curren | t: | | | | | | | |
| AWG | #28.2.0A/1pin(Over 2 circuits shell be co | nduct by customer | request) | | | | | |
| | #30.1.5A/1pin(Over 2 circuits shell be con | duct by customer | request) | | | | | |
| AWG | #32 1 $0A/1pin(Over 2 circuits shell be cor$ | duct by customer | request) | | | | | |
| ////0 | | | request) | | | | | |
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| 4. Test Require | ments and Procedures Summary | | | | | | | |
| | | | | | | | | |
| TEST | Test Procedure | Requir | ements | | | | | |
| | Visual. dimensional and | Product shall me | et | | | | | |
| Visua | l and functional. | requirements of | | | | | | |
| 1 dimen | sional • per applicable quality | applicable produ | ct drawing | | | | | |
| inspec | tions inspection | and | are are writing | | | | | |
| | | anu | | | | | | |

Electrical Requirement

| | | | | Control NO | EI015 |
|--------------------------------------|---|------------------------|--|---|------------------|
| | | cicic | n alactronic Co. I TD | Issued BY | ED |
| | CKS FIE | C121C | | Date Issued | 2020/5/20 |
| Document SPEC | | | SPEC-WB1201(H)-HXXXX | | 2021/10/12 |
| DocumentSPECDocumentSPECNameSPECSPEC | | SPEC- SPEC SPEC | WB1202(H)-XXXXX -WB1203H-XXXXX -WB1201-TX | Revised Edition | A2 |
| 2 | Contact Res | sistance | Subject mated contacts assembled in housing to closed circuit of 10mA max. at open circuit voltage of 20mV max. | 20 m Ω Max.(initial)p contact 40 m Ω Max. (After t | ber test) |
| 3 | Insulation Res | sistance | (EIA-364-23) Test between adjacent contacts of unmated connector assemblies apply a voltage of 500V DC for 1 minute (EIA-364-21) | 100 MΩ Minimum | |
| 4 | Dielectric withstandin Voltage | c ng | AC 500 V for 1 minute. Test between adjacent contacts of unmated connectors. (EIA-364-20) | No discharge, flash ov breakdown. Current leakage: 1 m. | ver or A max. |
| 5.0 | Terminal Ho Retention H (Board Si | ousing Force de) | Apply axial pull out force at the speed rate of 25.4 ± 3 mm/minute. On the crimping assembled in the housing.(EIA-364-29) | 0.25kgf Min/PIN | |
| 5.1 | Crimping Ho Retention H (Cable Si | ousing Force de) | Apply axial pull out force at the speed rate of 25.4 ± 3 mm/minute. On the crimping assembled in the housing. (EIA-364-29) | 0.5kgf Min | |

| | | | | Control NO | EI015 |
|----|------------------------|---|--|--|--|
| | | aici | an alastronis Ca. ITD | Issued BY | ED |
| | CK3 FIE | C1210 | | Date Issued | 2020/5/20 |
| Dc | oumont | SPEC | -WB1201(H)-HXXXX | Date Revised | 2021/10/12 |
| | Name | SPEC-WB1202(H)-XXXXX SPEC-WB1203H-XXXXX SPEC-WB1201-TX | | Revised Edition | A2 |
| 6 | Mating / Unm Forces | ating | Mate and unmate connector (male to female) at a rate of $25.4 \pm 3 \text{ mm} (1 \pm 1/8 \text{ inch})$ per minute. EIA-364-13 | See Item 7 | |
| 7 | Durabili | The sample should be mounted in the tester and fully mated and Durability unmated the number of cycles 30 cycles specified at the rate of 25.4 ± 3 mm/min. EIA-364-09 | | | |
| 8 | Vibration | | Mate connectors and subject to the following vibration conditions for period of 2 hours in each of 3 mutually perpendicular axes passing DC 1mA during the test.Amplitude:1.5mm P-P frequency:10~55~10 Hz in 1 minute (EIA-364-28 Condition I) | Appearance: No Dar No discontinuities 1 microsecond Or longer duration. Discontinuity :1 µ s Contact Resistance: See Product Qualifica and Test Sequence Gr | mage secMAX 40mΩ Max tion roup B |
| | | | ENVIRONMENTAL | | |

| | | | Control NO EI015 | |
|----|--------------------|---|---|------|
| | CDC Dro | sision alactronic Co. ITD | Issued BY ED | |
| | CR3 FIE | cision electronic co., LID | Date Issued 2020/5/ | /20 |
| Πο | cument | SPEC-WB1201(H)-HXXXX | Date Revised 2021/10 | 0/12 |
| | Name | SPEC-WB1202(H)-XXXXX SPEC-WB1203H-XXXXX SPEC-WB1201-TX | Revised Edition A | 2 |
| 9 | Shock (Mechania | Mate The sample connectors shall and subject to the following shock condition.3 times of shocks shall be applied for each 6 directions along 3 mutually perpendicular axes, passing DC 1mA current during the test.(Total of 18 shocks) Peak value490m/s2 {50G} (EIA-364-27, test condition EIA 364-27-H | Appearance: No Damage No discontinuities 1 microsecond Or longer duration. Discontinuity :1 μ secMAX Contact Resistance: 40mΩ M See Product Qualification and Test Sequence GroupD | lax |
| | | Environmental Performance | | |
| 10 | Temperature | Mate connector: measure the Temperature Rise at rated current until Rise temperature stable. The ambient cond still air at 25 °C EIA 364-70 Method B | ition is Appearance: No Damage 30°C max change allowed | |

| | | | Control NO EI015 | |
|----|---------------|---|--|---|
| | | cision electronic Co. ITD | Issued BY ED | |
| | CKS FIE | | Date Issued 2020/5/20 |) |
|)0 | cument | SPEC-WB1201(H)-HXXXX | Date Revised 2021/10/1 | 2 |
| 1 | Name | SPEC-WB1202(H)-XXXXX SPEC-WB1203H-XXXXX SPEC-WB1201-TX | Revised Edition A2 | |
| 11 | Heat Resistan | Mate The sample connectors shall expose to $+85 \pm 2$ °C for 96 hours. Upon completion of the exposure period, the test specimens shall be conditioned at ambient room condition for 1to2 hours, after which the specified measurements shall be performed. | See Product Qualification and Test Sequence Group F | |
| 12 | Cold Resist | Mate The sample connectors shall expose to $-40\pm 2^{\circ}$ for 96 hours. Upon completion of the exposure period, the test specimens shall be onditioned at ambient room condition for 1 to 2 hours, after which the specified measurements shall be performed. | See Product Qualification and Test Sequence Group G | |
| 13 | Humidi | Mated Connector 40°C+/-2°C, 90~95% RH,96hours (EIA-364-31, Condition A Method 11) | See Product Qualification and Test Sequence Group A | |

| CRS Precisie Document Name SPEC SPEC SPEC SPEC 14 Thermal Shock | | | CRS Precision electronic Co., LTD Spec-wB1201(H)-HXXXX Spec-wB1202(H)-XXXXX Spec-wB1203H-XXXXX Spec-wB1201-TX Mate module and subject to follow condition for 5 cycles. 1 cycles: -40 °C, 30 minutes 1 + 95 °C - 20 minutes | | EI015 ED 2020/5/20 2021/10/12 A2 ation roup I |
|---|--|----|---|---|---|
| 15 | Salt Spra | ay | •+85 °C, 30 minutes (EIA-364-32, test condition I) Subject mated/unmated connectors to 5% salt-solution concentration, $35^{\circ}C + /-2^{\circ}C$ 24 hours (EIA-364-26) | See Product Qualifica and Test Sequence G | ation roup J |
| 16 | Solder ability (Board side) | | And then into solder bath, Temperature at 250±5°C,for 4-5sec (EIA-364-52). | Solder able area shall minimum of 95% sol coverage. | l have der |
| 17 | Resistance to Soldering Hea (Board side) | t | Pre Heat: 80°C~130°C,40~60sec. • Heat: 245°C Min.,3-6sec. • Peak Temp.: 250°C Max,3-6sec. • crest: 2 times (EIA-364-56) | Shall meet visual requirement, show no physical damage. |) |



| | | Control NO | EI015 |
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六. Product certification and test sequence

| | Test Group | | | | | | | | | | | |
|------------------------------|------------|-----|-----|-----|-----|--------|-------|-----|-----|-----|-----|-----|
| Test of Examination | Α | В | С | D | E | F | G | Н | | J | K | L |
| | | | | | T | est Se | quenc | e | | | | |
| 1、Visual and dimensional | 1,6 | 1,5 | 1,6 | 1,5 | 1,5 | 1,6 | 1,6 | 1,3 | 1,6 | 1,6 | 1,3 | 1,3 |
| 2、Contact Resistance | 2,7 | 2,4 | 2,7 | 2,4 | 2,4 | 2,7 | 2,7 | | 2,7 | 2,7 | | |
| 3、Insulation Resistance | 3,8 | | | | | 3,8 | 3,8 | | 3,8 | 3,8 | | |
| 4、Dielectric Withstanding | 4,9 | | | | | 4,9 | 4,9 | | 4,9 | 4,9 | | |
| 5、Terminal Housing Retention | | | | | | | | 2 | | | | |
| 6、Mating / Unmating Forces | | | 3,5 | | | | | | | | | |
| 7、Durability | | | 4 | | | | | | | | | |
| 8、Vibration | | 3 | | | | | | | | | | |
| 9、Shock Mechanical | | | | 3 | | | | | | | | |
| 10、Temperature Rise | | | | | 3 | | | | | | | |
| 11、Heat Resistance | | | | | | 5 | | | | | | |
| 12、Cold Resistance | | | | | | | 5 | | | | | |
| 13、Humidity | 5 | | | | | | | | | | | |
| 14、Thermal Shock | | | | | | | | | 5 | | | |
| 15、Salt Spray | | | | | | | | | | 5 | | |
| 16、Solder ability | | | | | | | | | | | 2 | |
| 17、Resistance to Soldering | | | | | | | | | | | | 2 |
| Sample Size | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |

| | | Control NO | El015 | |
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七、INSERTION/WITHDRAWAL FORCE

| NO. OF | Mating(Max) | | Unmating(Min) | |
|--------|-------------|------|---------------|------|
| Ckt | | | | |
| | 1th | 30th | 1th | 30th |
| 2 | 2.0 | 2.0 | 0.40 | 0.15 |
| 3 | 2.0 | 2.0 | 0.40 | 0.15 |
| 4 | 2.5 | 2.5 | 0.40 | 0.15 |
| 5 | 2.5 | 2.5 | 0.35 | 0.15 |
| 6 | 2.0 | 2.0 | | |
| 7-9 | 4.0 | 4.0 | | |
| 10-14 | 5.0 | 5.0 | 0.80 | 0.40 |

八. ANATOMY OF CRIMPING TERMINAL



| | | Control NO | EI015 |
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| CK2 Pre | ecision electronic Co., LID | Date Issued | 2020/5/20 |
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九 CRIMPING CONDITION

| | Wire Specification | | Crimp Hei | ght (mm) | Crimp Width (mm) | | |
|-------------|--------------------|------|------------|-----------|------------------|-----------|------------|
| Part Number | UL Style | AWG | Insulation | Conductor | Insulation | Conductor | Insulation |
| | (REF.) | Size | OD(mm) | А | В | W1 | W2 |
| WB1201-Tx | UL3302 | 28 | 0.60 | 0.50~0.55 | 0.70~0.75 | 0.80~0.87 | 0.85~0.93 |
| | (Furukawa) | | | | | | |
| WB1201-Tx | UL3302 | 30 | 0.70 | 0.43~0.48 | 0.72~0.77 | 0.80~0.87 | 0.85~0.93 |
| | (Sumitomo) | | | | | | |
| WB1201-Tx | UL3302 | 32 | 0.55 | 0.33~0.38 | 0.65~0.70 | 0.70MAX | 0.80MAX |
| | | | | | | | |



Strip length



Note:

1、W1為芯線導體鉚壓後之寬度(Conductor Crimping Width):W1值如上表(參考值)

2、W2為電線外被部分鉚壓後之寬度(Insulation Crimping Width):W2值如上表(參考值)

3、A為芯線導體鉚壓後之高度(Conductor Crimping height); A值如上表(參考值)

4、B為電線外被鉚壓後之高度(Insulation Crimping height):B值如上表(參考值)

5、電線剝皮長度(Strip length): 0.7~1.0mm(參考值)

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| | | | |

+ CRIMPING HEIGHT MEASUREMENT





Before test samples, please measure crimp height and do not crimp insulation.





$\pm \Xi$. CONDUCTORS CRIMPING CONDITION



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| 十四 CRIMPI | ING REQUIREMENT | | |
| Max. Right Tw | | | |



| Item | Range(Ref.) |
|---------------------------|-------------|
| Max. Up Bend | 6° |
| Max. Down Bend | 6° |
| Max. Left Twist | 5° |
| Max. Right Twist | 5° |
| Bell-Mouth Length | 0.1~0.3mm |
| Carrier Cut Off Length | 0~0.2mm |
| Conductor Extruded Length | 0.05~0.2mm |

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| | cicion electronic Co. ITD | Issued BY | ED |
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