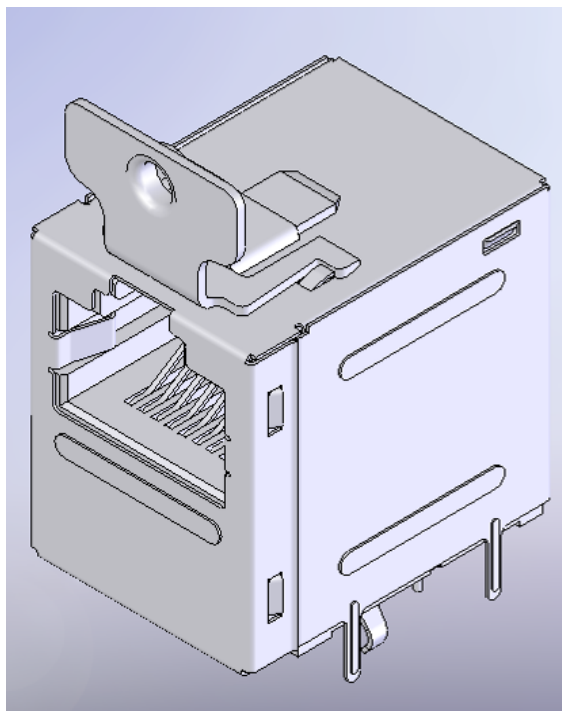




PRODUCT SPECIFICATION



ACRON P/N:GDP21-N3-0609300

育鼎精密工業股份有限公司

ACRON PRECISION INDUSTRIAL CO., LTD

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☐ 東莞睦永電子五金廠
(AMMI)

☐ 東莞育鼎電子五金廠
(ACRON)

☒ 東莞愷興電子科技電子有限公司
(NUCONN)

| | | | | | |
|-------------------|----------------------|-------------------|-----------------------|---|---------------|
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| DOCUMENT NUMBER: | | | CREATED / REVISED BY: | CHECKED BY: | APPROVED BY: |
| PS-RJ-0007 | | | BRIAN.TAN | KENNY.CHEN | KIMI |



PRODUCT SPECIFICATION

1.0 SCOPE

This Product Specification covers the performance requirements for Single port RJ45,10/100 Base-T(With Out USB)connector series.

2.0 PRODUCT DESCRIPTION

2.1 PRODUCT NAME AND SERIES NUMBER(S)

Single port RJ45,10/100 Base-T(With Out USB)connector series.
ACRON part No:GDP21-N3-0609300,

2.2 DIMENSIONS, MATERIALS, PLATINGS AND MARKINGS

See appropriate sales drawings for details on dimensions ,materials , plating and markings.

2.3 SAFETY AGENCY APPROVALS

See appropriate sales drawings

2.4 PRODUCT WEIGHT

The product weight is 9.65 g

2.5 PRODUCING PLANT FACTORY AND ADDRESS

Producing plant factory: Nuconn Industry CORP

Coil plant factory: DongGuan Nuconn Industry CORP.or MinXin Electronic CORP
or Vetak Electronic CORP .

DongGuan Nuconn Industry CORP. Address:

Nr.32,RongFu Rd.,3rd Industrial District,ShangSha Village,,ChangeAn Town,DonGuan
City,GuangDong,

MinXin Electronic CORP.Address:

Qianwei City industrial park,SiChuan

Vetak Electronic CORP. Address

XinZhai Village, Sansui city , GuiZhou,

3.0 APPLICABLE DOCUMENTS AND SPECIFICATIONS

Please refer to the Sales Drawings , and other sections of this Specification for specific references to applicable documents and specifications. In cases where the Product Specification differs from the Sales Drawings, the Sales Drawing will take precedence

EIA-364 TEST METHODS FOR ELECTRICAL CONNECTORS

4.0 RATINGS

4.1 TEMPERATURE

Operating Temperature Range: 0°C to + 70°C

Storage Temperature Range: - 40°C to + 85°C

| | | | | | |
|-------------------|----------------------|-----------------------|--------------|---|---------------|
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PRODUCT SPECIFICATION

5.0 PERFORMANCE

| Item | Test Items | Requirement | Procedures |
|------|------------------------|--|--|
| 1 | Examination of Product | Meets requirements of product drawing. No physical damage. | Visual, dimensional and functional per applicable quality inspection plan. |

Electrical Requirements

| | | | |
|---|--|--|--|
| 2 | LOW Contact Resistance Level | 30 mΩ max initial ΔR = 30 mΩ max final | Mate subject connector with compatible connector. EIA-364-23B |
| 3 | Insulation Resistance | 1000 MΩ min initial 50 MΩ min final | Apply 100±10% Volts DC between adjacent contacts of mated connectors for one minute. EIA-364-21 |
| 4 | Dielectric Withstanding Voltage | No discharge, flashover or breakdown. Current leakage: 1 mA max | For mated specimens, 2250VDC between connected RJ interface contacts and all PCB tails connected together with shield. 1 milliamp ere cutoff current, 500 Volts per second maximum ramp. EIA-364-20 |

Mechanical Requirements

| | | | |
|---|------------------------------------|---|--|
| 5 | Mating and Un-mating Forces | Insertion Force:22N max Unlatched Withdrawal Force: 22N max Latched Withdrawal Force: 89N min | Measure force necessary to mate and un-mate connectors using the free floating fixtures at rate of 25mm/min. EIA-364-05B |
| 6 | Solder ability | Wetting must occur over at least 95% of the solder immersion surface | Solder:SN/3.0Ag/0.5Cu,Flux:ROSIN 25%,IPA75%.High Temp Storage:150℃ 1 hour, PCT: 105℃ 100% 1.22*10sPa 4 hours. Solder 240℃±2℃; Immersion depth 2mm; Immersion time 3S |
| 7 | Terminal Strength | Appearance meet requirement | Gravitation 500g , Winding 90 angle 2-3sec |
| 8 | KOJIRI Strength | Appearance meet requirement | Left: 100N, push 15sec Right: 100N, push 15sec Up: 100N, push 15sec |

| | | | | | |
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PRODUCT SPECIFICATION

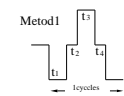
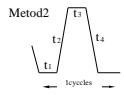
| | | | |
|----|-----------------------------------|--|---|
| | | | Down : 100N, push 15se |
| 9 | Solder Joint Strength Test | (1) The variation must be 50 % \leq of the initial value (2) After test measured items must be 75 % \leq of solder (Pb/Sn) item | (1)Temp Cycle Test Min Temp: -40°C . MAX TEMP:+125°C TIME : Each 30 min. CYCLES:200 (2) Measurement Item: Component with LEAD: Tension Test (EIAJED-4702); Component without LEAD: Bend Test (EIAJED-4702) (3) Measurement cycle: INITIAL,(100) 200 (4) Measurement SMPL: Component with LEAD: 5LEADS \leq Component without LEAD: 5POINTS \leq To calculate Average |
| 10 | Physical Shock | No electrical discontinuity greater than 1 μ second. Shall meet visual requirements, and show no physical damages. | Subject mated connectors to 50 G's (peak value) half-sine shock pulses of 11 milliseconds duration. Three shocks in each direction shall be applied along the three mutually perpendicular axes of the test specimen (18 shocks). The electrical load condition shall be 100mA maximum for all contacts. EIA-364-27B |
| 11 | Durability | 200 cycles with no function damage for RJ-45. Low Level Contact Resistance: $\Delta R = 30m\Omega$ max final | The sample should be mounted in the tester and fully mated and unmated 300 times per hour at the rate of 25mm/min. EIA-364-09C |
| 12 | Random Vibration | No electrical discontinuity greater than 1 μ second. Shall meet visual requirements, and show no physical damages. | The electrical load condition shall be 100mA maximum for all contacts. Subject to a simple harmonic motion having amplitude of 0.76mm (1.52mm maximum total excursion) in frequency which being varied uniformly between the approximate limits of 10 and 55 Hz. The entire frequency range, from 10 to 55 Hz and return to 10 Hz, shall be traversed in approximately 1 minute. This motion shall be applied for 2 hours in each of three mutually perpendicular directions. EIA-364-28D |

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PRODUCT SPECIFICATION

Environment Requirements

| 13 | Thermal Shock (Simulate Non-Operating State) | ΔR : 30m Ω max (change from initial) & Appearance: no damage | Subject mated connectors to 100 cycles between -40℃ and 85℃ , 30 minutes duration at both temperature extremes. EIA-364-32C | | | | | | | | | | | | | | | |
|-------|---|---|--|-------|------|------|----|------|-------|----|-------|----------------|----|-----|-------|----|-------|----------------|
| 14 | Humidity-Temperature Cycling | ΔR : 30m Ω max (change from initial) & Appearance: no damage | Mated connectors placed in humidity chamber (Humidity 80-98%, Temperature 20-65℃) for 500 Hrs. EIA-364-31B, Method IV, Except 7a | | | | | | | | | | | | | | | |
| 15 | Temperature Life (Heat Aging) | ΔR : 30m Ω max (change from initial) & Appearance: no damage | Subject mated connectors to temperature life at 85℃ for 500 hours. EIA-364-17B, Method A | | | | | | | | | | | | | | | |
| 16 | Temperature Life (Cold Aging) | ΔR : 30m Ω max (change from initial) & Appearance: no damage | Subject mated connectors to temperature life at -40℃ for 500 hours EIA-364-17B, Method A | | | | | | | | | | | | | | | |
| 17 | Salt Spray | ΔR : 30m Ω max (change from initial) & Appearance: no damage | 8hours moving 16hours resting total 24hours 3cycles Atmosphere: salt spray from a 5% solution. Temperature: 35 +1/-2℃ EIA 364-26 | | | | | | | | | | | | | | | |
| 18 | Damp Heat, Steady State | JIS C 0022 JEC Pub.68 2-3 Ca MIL-STD-202 103B | Test Temp :40±2℃ Relative Humidity:90~95%RH Test time:500Hrs | | | | | | | | | | | | | | | |
| 19 | Change of Temperature | JIS C 0025 JEC Pub.68 2-14 NA MIL-STD-202 102A (Unless otherwise specified, either method 1or method 2. is to be chosen) | <div><div><p>Metod1</p></div><div><p>Metod2</p></div><div><p>(Both Method 1and2 are performed under following conditions)</p><table><tr><th>Stage</th><th>Temp</th><th>Time</th></tr><tr><td>t1</td><td>-40°</td><td>30min</td></tr><tr><td>t2</td><td>5~35℃</td><td>Less than 5min</td></tr><tr><td>t3</td><td>85°</td><td>30min</td></tr><tr><td>t4</td><td>5~35℃</td><td>Less than 5min</td></tr></table><p>Number of test cycles:100cycles</p></div></div> | Stage | Temp | Time | t1 | -40° | 30min | t2 | 5~35℃ | Less than 5min | t3 | 85° | 30min | t4 | 5~35℃ | Less than 5min |
| Stage | Temp | Time | | | | | | | | | | | | | | | | |
| t1 | -40° | 30min | | | | | | | | | | | | | | | | |
| t2 | 5~35℃ | Less than 5min | | | | | | | | | | | | | | | | |
| t3 | 85° | 30min | | | | | | | | | | | | | | | | |
| t4 | 5~35℃ | Less than 5min | | | | | | | | | | | | | | | | |
| 20 | Ammonia | Appearance: no damage | Hydrogen Ion Exponent Index (PH)=10 Test Temperature:15~35℃ Test Time:72±4hrs | | | | | | | | | | | | | | | |

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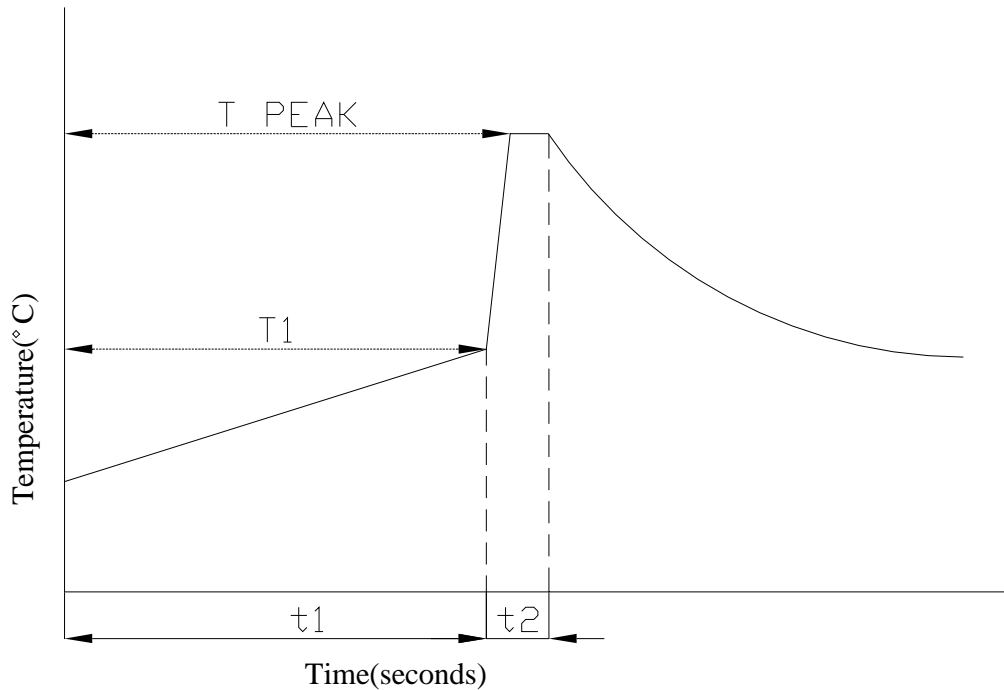
| | | | |
|----|----------------|--|--|
| 21 | Soldering Heat | 1: Electrical and mechanical performance must be satisfactory in specifications 2: There must be no conspicuous changes in appearance (For example warping, swelling, cracking, indication) | MATERIALS Solder : Sn/99Ag/0.3/Cu0.7 (Weight%) If no doubts arise in judgment, it is ok to use another SOLDER TEST CONDITION 1 : TEST A: Flow Soldering (Partly Heating) 260±3°C 10S ≒ 2 : TEST B: Hand Soldering 400°C (Soldering iron tip) 3S ≒ |
|----|----------------|--|--|

6.0 PACKAGING

Parts shall be packaged to protect against damage during handling, transit and storage. See packaging appropriate drawings

7.0 RECOMMENDED WAVE SOLDERING PROFILE

| | | | | | |
|------------------|----------------------|------------|-----------------------|---|--------------|
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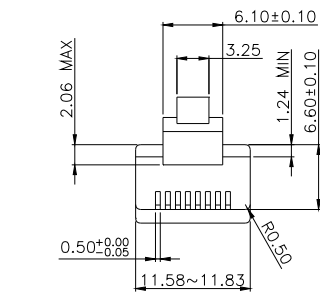
| PARAMETER | REFERENCE | LEAD FREE SPECIFICATION |
|------------------------------|-----------|-------------------------|
| PREHEAT TEMPERATURE GRADIENT | | +1~4°C/sec |
| PREHEAT TIME | t1 | 70 sec |
| PREHEAT TEMPERATURE | T1 | 100~120°C |
| SOLDER POT TEMPERATURE | T PEAK | 260°C |
| DWELL TIME | t2 | 5 SEC |
| PEAK BOARD TOP TEMPERATURE | | 190°C |
| COOLING TEMPERATURE GRADIENT | | -6°C/SEC MAX. |

8.0 RECOMMENDED RJ PLUG SPECIFICATION

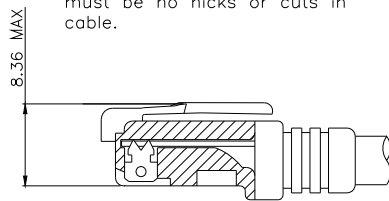
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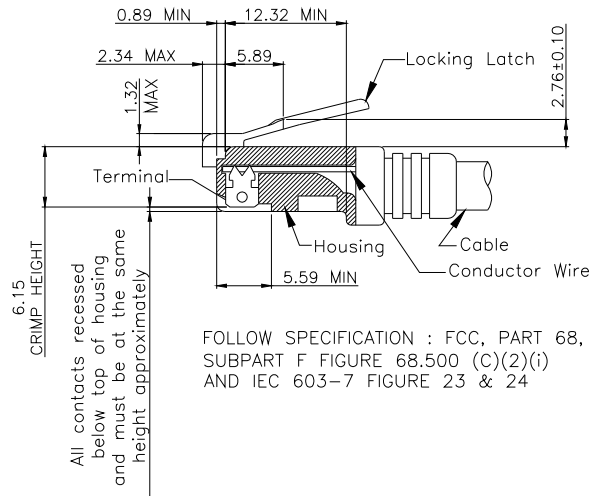
PRODUCT SPECIFICATION



* There must be no damage to housing or locking latch. There must be no nicks or cuts in cable.



FOLLOW SPECIFICATION : FCC, PART 68, SUBPART F
FIGURE 68.500 (C)(2)(iii)



FOLLOW SPECIFICATION : FCC, PART 68, SUBPART F FIGURE 68.500 (C)(2)(i)
AND IEC 603-7 FIGURE 23 & 24

| | | | | | |
|-------------------|----------------------|-----------------------|--------------|---|---------------|
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