

ENGINEERING

PRODUCT SPECIFICATION

SPEC.NO.: SPCE005A

DEPT.

For Mini Circular DIN Connector of system CE52

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1. SCOPE:

This specification contains the test requirement of subject connectors when tested under the condition and below standards base on CviLux test procedure

2. APPLICABLE STANDARDS:

| MIL - STD - 202 | Methods for test of connectors for electronic equipment | |
|------------------|---|--|
| MIL - STD - 1344 | Test methods for electrical connectors | |

- 3. APPLICABLE SERIES NO.: CE52 Series
- 4. SHAPE, CONSTRUCTION AND DIMENSIONS See attached drawings
- 5. MATERIALS See attached drawings
- 6. ACCOMMODATED P.C.BOARD 6.1 Thickness: 1.6 mm (.063")
 - 6.2 P.C. Board Layout: See attached drawings



REVIEWED: Alex APPROVED: David VERIFIED: Sun .



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7. ELECTRICAL PERFORMANCE:

| | ITEM | TEST CONDITION | REQUIREMENT |
|-------|--------------------------------------|--|---|
| 7.1 | Rated current and voltage | | 1A 100V AC (r.m.s.) 2A 12V DC |
| 7.2 | Contact resistance | Dry circuit of DC 20 mV max., 100 mA max. | Less than 30 m Ω |
| 7.3 | Dielectric strength | When applied AC 500 V 1 minute between adjacent terminal | No change |
| 7.4 | Insulation resistance | When applied DC 500 V between adjacent terminal or ground | More than 500 M Ω |
| 8. MI | ECHANICAL PERFORM | MANCE: | |
| | ITEM | TEST CONDITION | REQUIREMENT |
| 8.1 | Contact retaining force in insulator | Retention speed 25± 3 mm per minute from housing | More than 1.8 Kgf |
| 8.2 | Mating force | Mating speed 25 mm/minute | 4.5 Kgf max. |
| 8.3 | Unmating force | Unmating speed 25 mm/minute | 0.9 Kgf ~ 3.0 Kgf |
| 8.4 | Durability | Connector shall be subject to 100 cycles of insertion and withdrawal | Contact resistance: Less than twice of initial |

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 | Solder ability | Soldering time: 5 ± 0.5 second Soldering pot: 230 ± 5°C | Minimum: 90% of immersed area |
| 9.4 | Resistance to soldering heat | Soldering time: 5 ± 0.5 second Soldering pot: 260 ± 5°C | No damage |
| 9.5 | Heat aging | 105±2°C, 96 hours | No damage |
| 9.6 | 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 |



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| | ITEM | TEST CONDITION | REQUIREMENT |
|-----|---------------------|---|--|
| 9.7 | 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. | Appearance: No damage Contact resistance: Less than twice of initial |
| 9.8 | Salt spray | Temperature: 35±3°C Solution: 5±1% Spray time: 48±4 hours Measurement must be taken after water rinse | Appearance: No damage Contact resistance: Less than twice of initial |

10. AMBIENT TEMPERATURE RANGE: -40 to + 105°C