

| | | |
|--------------------|--|---------------------------|
| ENGINEERING | PRODUCT SPECIFICATION For 0.60mm Pitch Wire to Board Connector of CI20 System | SPEC.NO.: SPCI106A |
| DEPT. | | PAGE: 1/4 |

1. SCOPE:

This specification covers the performance, test and quality requirements for the 0.6mm pitch wire to board connector series

2. APPLICABLE STANDARDS:

| | |
|-----------------|---|
| EIA 364 | Acceleration test procedure for electrical connectors |
| MIL - STD - 202 | Methods for test of connectors for electronic equipment |

3. APPLICABLE SERIES NO: CI20 Series

4. SHAPE, CONSTRUCTION AND DIMENSIONS

See attached drawings

5. MATERIALS

See attached drawings

6. ACCOMMODATED P.C.BOARD

6.1 Thickness: 0.6 mm (.024") ~ 1.2 mm (.047"), 1.6mm(.063")

6.2 P.C. Board Layout: See attached drawings



REVIEWED : David APPROVED : Eisley VERIFIED : Enya

| | | |
|--------------------|--|---------------------------|
| ENGINEERING | PRODUCT SPECIFICATION For 0.60mm Pitch Wire to Board Connector of CI20 System | SPEC.NO.: SPCI106A |
| DEPT. | | PAGE: 2/4 |

7. ELECTRICAL PERFORMANCE:

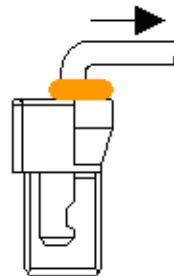
| | ITEM | TEST CONDITION | REQUIREMENT |
|-----|---------------------------|--|---|
| 7.1 | Rated current and voltage | | Rated current: AWG#36:0.2A AC/DC AWD#34:0.3A AC/DC Rated voltage: 30V AC/DC |
| 7.2 | Contact resistance | EIA 364 – 23B Dry circuit of DC 20 mV Max. , 1mA Max. Wire length :30 mm | 40mΩ Max.(initial) 50mΩ Max.(after environmental) |
| 7.3 | Dielectric strength | EIA 364 – 20B 200 V AC 1 minute. Test between adjacent circuits and contact. | No breakdown Current leakage: 2mA Max. |
| 7.4 | Insulation resistance | EIA 364 – 21C 250V DC for 1 minute. Test between adjacent circuits and contact. | 100MΩ Min. |

8. MECHANICAL PERFORMANCE:

| | ITEM | TEST CONDITION | REQUIREMENT |
|-----|----------------------|---|--|
| 8.1 | Wire size | Specified wire size | Accepts AWG#34~#36 |
| 8.2 | Wire Retention Force | Pulling load shall be applied between a correctly terminated contact and wire at the constant speed of 25mm per minute. The load to pull the contact out of the wafer shall be measures. (1~5mm/sec.) | Parallel direction: AWG#36: 0.25kgf min. AWG#34: 0.20kgf min. Perpendicular direction: AWG#36 : 0.10kgf AWG#34 : 0.05kgf min. |



Parallel direction



Perpendicular direction

Note: If need retention force more, you must use the UV glue.

| | | |
|--------------------|--|---------------------------|
| ENGINEERING | PRODUCT SPECIFICATION | SPEC.NO.: SPCI106A |
| DEPT. | For 0.60mm Pitch Wire to Board Connector of CI20 System | PAGE: 3/4 |

| | | | |
|-----|-----------------------------|--|---------------------------------|
| 8.4 | Contact Retention Force | A base contact shall be mounted in a wafer and pulled in alignment at a constant speed of 25 mm per minute. The Load to pull the contact out of the wafer shall be measured. | 0.12kgf Min. |
| 8.5 | Durability | EIA 364 – 09C Mate and unmate samples for 30 cycles at a speed of 10times/min. | Contact Resistance: 50mΩ Max |
| 8.3 | Insertion And Removal Force | EIA 364 – 13 Retention speed 25± 3 mm per minute from housing | See the table |

Requirements

| Number of circuit | At initial | | At 30th |
|-------------------|-----------------|-----------------|-----------------|
| | I.F.(Max.) kgf | R.F.(Min.) kgf | R.F.(Min.) kgf |
| 4 | 2.0 | 0.10 | 0.05 |
| 5 | 2.0 | 0.10 | 0.05 |
| 6 | 2.0 | 0.15 | 0.10 |
| 8 | 2.5 | 0.20 | 0.15 |
| 12 | 3.0 | 0.22 | 0.17 |

9. ENVIRONMENTAL PERFORMANCE:

| | ITEM | TEST CONDITION | REQUIREMENT |
|-----|------------------|---|---|
| 9.1 | Temperature rise | Then carried the rated current (UL 498) | Δ 30°C max. |
| 9.2 | Vibration | MIL-STD-202,Method 201,Condition A 1.52 mm 10-55-10 HZ / minute each 2 hours for X , Y and Z directions | Appearance: No damage Discontinuity: 1 micro second Max. Contact Resistance: 50mΩ Max |
| 9.3 | Physical Shock | MIL-STD-202,method 213B,Condition A Accelerated Velocity: 490 m/s ² (50 G) Waveform: Half sine Duration: 11 m sec. Number of Drops: 3 drops each to normal and reversed directions of X, Y and Z axes, totally 18 drops. | Appearance: No damage Discontinuity: 1 micro second Max. Contact Resistance: 50mΩ Max |

| | | |
|--------------------|--|---------------------------|
| ENGINEERING | PRODUCT SPECIFICATION | SPEC.NO.: SPCI106A |
| DEPT. | For 0.60mm Pitch Wire to Board Connector of CI20 System | PAGE: 4/4 |

| | | | |
|-----|------------------|---|--|
| 9.4 | Thermal shock | MIL-STD-202G, EIA 364-32C, Condition I Subject mated samples to 25 cycles between -55°C and 85°C | Appearance: No damage Contact Resistance: 50mΩ Max |
| 9.5 | Cold resistance | JIS C0020 Mated connect -40 ± 2°C , 96 hours After test, recondition under standard atmospheric condition for 2 hours. | No damage Contact Resistance: 50mΩ Max Insulation Resistance: 100MΩ Min |
| 9.6 | Humidity | MIL-STD-202 Method 103B, Condition B Mated connectors shall be subjected to the following condition. Temperature: 40°C Relative humidity: 90~95% Duration: 96 hours | Contact Resistance: 50mΩ Max Insulation Resistance: 100MΩ Min |
| 9.7 | Temperature Life | EIA 364-17B, Condition A Subject mated samples to temperature life at 85°C for 96 hours. | Contact Resistance: 50mΩ Max |
| 9.8 | Salt spray | EIA 364-26B, Condition B Temperature: 35 ± 2°C Solution: 5 ± 1% Spray time: 48 hours Measurement must be taken after water rinse | No evident corrosion Contact Resistance: 50mΩ Max Insulation Resistance: 100MΩ Min |

10. AMBIENT TEMPERATURE RANGE: -25 to + 85°C