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Product Specification

Series: EQCD 38 AWG ribbon co-ax HS Cable A 0.8 mm pitch



1.0 SCOPE

1.1 This specification covers performance, tests, and quality requirements for the Samtec EQCD Micro-coax High Speed Cable Assembly 0.8mm pitch

2.0 ELECTRICAL

2.1 Dielectric Withstanding Voltage, DWV, per EIA-364-20
- 2.1.1 675 VAC in DV - EM Configurations

2.2 Insulation Resistance, IR, per EIA-364-21
- 2.2.1 > 1,000 Meg Ohms DV - EM Configurations

2.3 Low Level Contact Resistance, LLCR, per EIA-364--23
- 2.3.1 17.4 milli Ohms Average - Contact System
- 2.3.2 2.4 milli Ohms Average - GND System

2.4 Current Carrying Capacity for a 30°C temp rise, CCC, per EIA-364-70
- 2.4.1 0.23 A at 70 degrees ambient
- 2.4.2 6.0 A - GND System at 70 degrees ambient

3.0 MATERIALS

3.1 Insulator Material
- 3.1.1 LCP

3.2 Contact
- 3.2.1 Copper Alloy with Gold over 50 microInches Nickel

4.0 MECHANICAL

4.1 Operational Temperature
- 4.1.1 -25 degrees C to 80 degrees C

4.2 Mating/Unmating forces, per EIA-364-13
- 4.2.1 3.8/4.0 lbs respectively - One Bank
- 4.2.2 10.2/10.6 lbs respectively - Three Banks
- 4.2.3 18.0/18.9 lbs respectively - Five Banks

4.3 Durability after 800 cycles per EIA-364-23
- 4.3.1 LLCR change < 15.0 milli-Ohms (H- plating) --- PASS

4.4 Normal Force at 0.006 inches deflection, per EIA-364-04
- 4.4.1 90 gr.

4.5 Cable Flexing Life with 8 oz. load on end of cable, Loss of SIG or GND continuity
- 4.5.1 35 degree mode: 750 cycles
- 4.5.2 90 degree mode: 1300 cycles

4.6 Cable /Connector Pull, Loss of SIG or GND continuity
- 4.6.1 0 degree in-line pull: 61 lbs
- 4.6.2 90 degree pull: 45 lbs

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5.0 ENVIRONMENTAL

5.1 Thermal Aging per EIA-364-17
- 5.1.1 DWV at 720 VAC --- PASS
- 5.1.2 Insulation Resistance >1000 Meg Ohms --- PASS
- 5.1.3 Test Conditions
  - 5.1.3.1 105 degrees C
  - 5.1.3.2 250 hours

5.2 Cyclic Humidity per EIA-364-31
- 5.2.1 DWV at 600 VAC --- PASS
- 5.2.2 Insulation Resistance >1000 Meg Ohms --- PASS
- 5.2.3 Test Conditions
  - 5.2.3.1 Cyclic 25 degrees C to 65 degrees C for 240 hours, at 90% to 95% RH
  - 5.2.3.2 Time Condition "B" (240 hours) for Method III, excluding sub-cycle 7A and 7B

5.3 Gas Tight per EIA-364-36
- 5.3.1 Signal Contact LLCR 17.1 milli Ohms - Contact System
- 5.3.2 Signal Contact Delta LLCR < 15.0 milli-Ohms (L- plating) --- PASS
- 5.3.3 Ground Contact LLCR, 2.5 milOhms
- 5.3.4 Ground Contact delta LLCR, < 5.0 milli-Ohms (L- plating) --- PASS
- 5.3.5 713 VAC in DV - DV Configuration
- 5.3.6 100 Meg Ohms DV - EM Configuration

6.0 HIGH FREQUENCY PERFORMANCE

6.1 Performance with Sinusoidal Signals
- 6.1.1 Readings based on using – 3dB insertion Loss point
- 6.1.2 For complete test information, click **HERE**

Series	**Configuration**
EQCD	Single Ended
Length	**Insertion Loss**
6"	2.52 GHz
9"	2.49 GHz
12"	1.62 GHz
19.68"	1.17 GHz
29.53"	750 MHz
39.37"	480 MHz

For additional information, contact Samtec Signal Integrity Group sig@samtec.com or 1-(800)-726-8329.

7.0 ASSEMBLY PRECAUTIONS

7.1 When laying out the printed wiring board, care should be taken to insure adequate clearance for the cable assembly housing. Failure to do so could result in interference with other components.

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