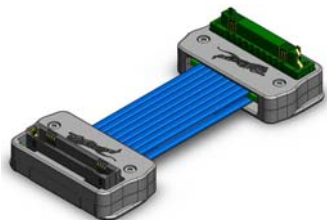


Series: ERDP 30 AWG Eye Speed™ MS twinax ribbon Edge Rate Cable 0.8 mm pitch



1.0 SCOPE

- 1.1 This specification covers performance, tests, and quality requirements for the Samtec ERDP Edge Rate MS twinax High Speed Cable Assembly 0.8mm pitch

2.0 ELECTRICAL

- 2.1 Dielectric Withstanding Voltage, DWV, per EIA-364-20
 - 2.1.1 640 VAC Maximum Breakdown; 213 VAC Working voltage
- 2.2 Insulation Resistance, IR, per EIA-364-21
 - 2.2.1 >7,000 MΩ
- 2.3 Low Level Contact Resistance, LLCR, per EIA-364—23
 - 2.3.1 19.8 mΩ Max, Initial
- 2.4 Current Carrying Capacity for a 30°C temp rise, CCC, per EIA-364-70
 - 2.4.1 .5 A/contact with all adjacent contacts powered

3.0 MATERIALS

- 3.1 Insulator Material
 - 3.1.1 Black LCP
- 3.2 Contact
 - 3.2.1 Beryllium Copper (ERF8) and Phosphor Bronze (ERM8)

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 10 position
 - 4.2.1.1 Maximum Mating Force: 2.9 Pounds
 - 4.2.1.2 Minimum Unmating Force: 0.5 Pounds
 - 4.2.2 30 Position
 - 4.2.2.1 Maximum Mating Force: 6.2 Pounds
 - 4.2.2.2 Minimum Unmating Force: 2.5 Pounds
- 4.3 Durability after 100 cycles per EIA-364-23
 - 4.3.1 Δ LLCR: 8.3 mΩ Max
- 4.4 Normal Force per EIA-364-04
 - 4.4.1 59.5 grams minimum @ 0.009" deflection
- 4.5 Cable Flexing Life with 8 oz. load on end of cable, Loss of SIG continuity
 - 4.5.1 35 degree mode: 1253 cycles
 - 4.5.2 90 degree mode: 1553 cycles

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4.6 Cable /Connector Pull, Loss of SIG continuity

4.6.1 0 degree in-line pull: 210 lbs

4.6.2 90 degree pull: 200 lbs

5.0 ENVIRONMENTAL

5.1 Thermal Aging per EIA-364-17

5.1.1 DWV at 615 VAC --- PASS

5.1.2 Insulation Resistance >7000 Meg Ohms --- PASS

5.1.3 Test Conditions

5.1.3.1 Test Condition 4 at 105°C

5.1.3.2 Test Time Condition B for 250 hours

5.2 Cyclic Humidity per EIA-364-31

5.2.1 DWV at 660 VAC --- PASS

5.2.2 Insulation Resistance >7000 Meg Ohms --- PASS

5.2.3 Test Conditions

5.2.3.1 Test Time Condition B for 240 hours

5.2.3.2 Method III, Cyclic +25°C to +65°C, 90% to 98% RH excluding sub-cycles 7A and 7B

5.3 Gas Tight per EIA-364-36

5.3.1 Post Gas Tight Δ Low Level Contact Resistance: 15.1 m Ω Max

5.3.2 Test Conditions

5.3.2.1 Gas Exposure: Nitric Acid Vapor

5.3.2.2 Exposure Duration: 60 Minutes +/- 5 Minutes

5.3.2.3 Drying Temperature: 50°C +/- 3°C

5.3.2.4 Measurements: Within one hour of exposure

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"	6.33 GHz
9"	6.14 GHz
12"	5.67 GHz
19.68"	4.59 GHz
29.53"	2.67 GHz
39.37"	1.41 GHz

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.