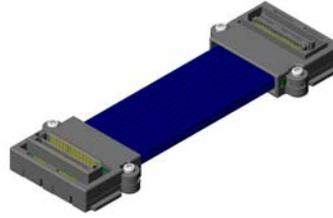


**Series:** HQDP 38 AWG ribbon twinax HS Cable Assembly, 0.5 mm pitch



## 1.0 SCOPE

- 1.1 This specification covers performance, tests, and quality requirements for the Samtec HQDP Twinax High Speed Cable Assembly 0.5mm pitch

## 2.0 ELECTRICAL

- 2.1 Dielectric Withstanding Voltage, DWV, per EIA-364-20
  - 2.1.1 900 VAC
- 2.2 Insulation Resistance, IR, per EIA-364-21
  - 2.2.1 > 1,000 Meg Ohms
- 2.3 Low Level Contact Resistance, LLCR, per EIA-364--23
  - 2.3.1 21.8 milli Ohms Average - Contact System
  - 2.3.2 4.1 milli Ohms Average - GND System
- 2.4 Current Carrying Capacity for a 30°C temp rise, CCC, per EIA-364-70
  - 2.4.1 0.4 A for a 10 degree C -Rise

## 3.0 MATERIALS

- 3.1 Insulator Material
  - 3.1.1 LCP
- 3.2 Contact
  - 3.2.1 Copper Alloy with Gold over 50 microlnches Nickel

## 4.0 MECHANICAL

- 4.1 Operational Temperature
  - 4.1.1 -25 degrees C to 80 degrees C
- 4.2 Normal Force at 0.006 inches deflection, per EIA-364-04
  - 4.2.1 90 gr.
- 4.3 Cable Flexing Life with 8 oz. load on end of cable, Loss of SIG or GND continuity
  - 4.3.1 35 degree mode: 25,000, SIG and 25,000, GND
  - 4.3.2 90 degree mode: 25,000, SIG and 25,000, GND
- 4.4 Cable /Connector Pull, Loss of SIG or GND continuity
  - 4.4.1 0 degree in-line pull: 210 lbs.
  - 4.4.2 90 degree pull: 246 lbs.

## 5.0 ENVIRONMENTAL

- 5.1 Thermal Aging per EIA-364-17
  - 5.1.1 DWV at 750 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

**Series:** HQDP 38 AWG ribbon twinax HS Cable Assembly, 0.5 mm pitch

5.2 Cyclic Humidity per EIA-364-31

5.2.1 DWV at 975 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

**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**

<b>Series</b>	<b>Configuration</b>
HQDP	Differential
<b>Length</b>	<b>Bandwidth</b>
6"	5.94 GHz
9"	3.72 GHz
12"	5.81 GHz
19.68"	3.00 GHz
29.53"	1.90 GHz
39.37"	1.76 GHz

For additional information, contact Samtec Signal Integrity Group [sig@samtec.com](mailto: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