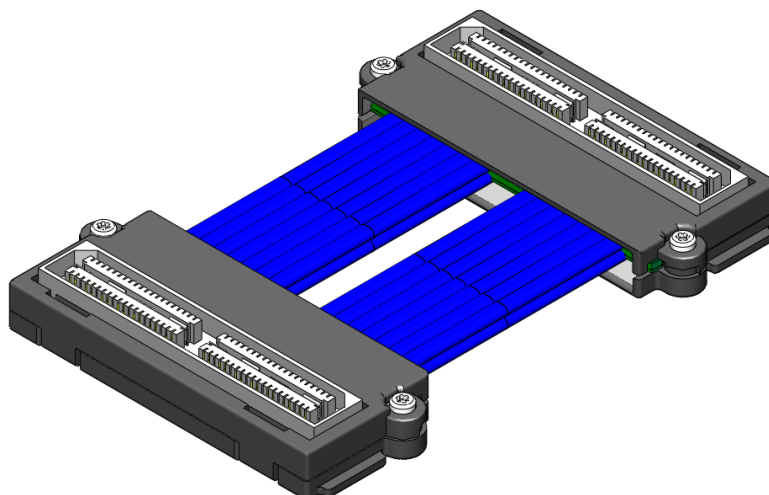
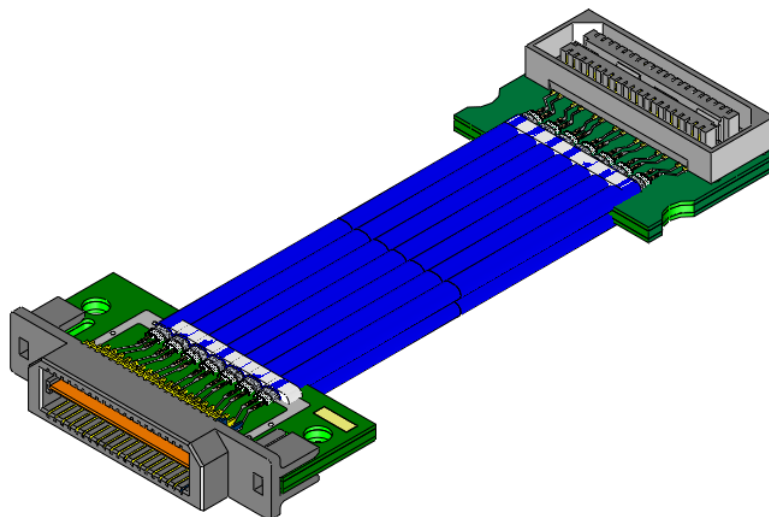


Series: EQDP 30 AWG Ribbon Twinax HS Cable Assembly, 0.8mm

**EQDP Series – STR/STR End Options**



**EQDP Series – TEU/STR End Options Without Caps**



**Other configurations available for:**

END OPTIONS: -TTR, TTL, TBR, TBL, STR, STL, SBR, SBL, TEU, TED, SEU, SED, TPU, TPD, SPU, SPD.

LATCH OPTIONS: NO CAPS, SCREW OPTION

See [www.samtec.com](http://www.samtec.com) for more information.

**Series:** EQDP 30 AWG Ribbon Twinax HS Cable Assembly, 0.8mm

## 1.0 SCOPE

1.1 This specification covers performance, testing and quality requirements for Samtec EQDP 0.80 mm (0.0315") Q Pairs<sup>®</sup> Twinax Cable Assembly. This cable assembly is available in no caps, and screw option applications.

## 2.0 DETAILED INFORMATION

2.1 Product prints, catalog pages, test reports and other specific, detailed information can be found at <https://www.samtec.com/products/eqdp>.

## 3.0 TESTING

3.1 **Current Rating:** 0.5A (6 adjacent positions)

3.2 **Voltage Rating:** 275 VAC

3.3 **Operating Temperature Range:** -25°C to +105°C

3.4 **Electrical:**

ITEM	TEST CONDITION	REQUIREMENT	STATUS
Withstanding Voltage	EIA-364-20 (No Flashover, Sparkover, or Breakdown)	825 VAC	Pass
Insulation Resistance	EIA-364-21 (1000 MΩ minimum)	1,000 MΩ	Pass
Contact Resistance (LLCR)	EIA-364-23	Δ 15 mΩ maximum (Samtec defined)/ No damage	Pass

3.5 **Mechanical:**

ITEM	TEST CONDITION	REQUIREMENT	STATUS
Durability	EIA-364-09C	100 cycles	Pass
Random Vibration	EIA-364-28 Condition V, Letter B 7.56 G 'RMS', 50 to 2000 Hz, 2 hours per axis, 3 axis total, PSD 0.04 Nanosecond Event Detection: EIA-364-87	Visual Inspection: No Damage LLCR: Δ 15 mΩ No Events	Pass
Mechanical Shock	EIA-364-27 100 G, 6 milliseconds, Half Sine wave, 12.3 fps, 3 shocks/direction, 3 axis (18 total shocks) Nanosecond Event Detection: EIA-364-87	Visual Inspection: No Damage LLCR: Δ 15 mΩ No Events	Pass
Normal Force	EIA-364-04	30 grams minimum for Gold interface	Pass

Series: EQDP 30 AWG Ribbon Twinax HS Cable Assembly, 0.8mm

### 3.6 Environmental:

ITEM	TEST CONDITION	REQUIREMENT	STATUS
Thermal Shock	EIA-364-32 Thermal Cycles: 100 (30 minute dwell) Hot Temp: +85°C Cold Temp: -55°C Hot/Cold Transition: Immediate	Visual Inspection: No Damage LLCR: $\Delta$ 15 m $\Omega$ DWV: 825 VAC IR: >25,000 M $\Omega$	Pass
Thermal Aging (Temp Life)	EIA-364-17 Test Condition 4 @ 105°C Condition B for 250 hours	Visual Inspection: No Damage LLCR: $\Delta$ 15 m $\Omega$	Pass
Cyclic Humidity	EIA-364-31 Test Temp: 25°C to 65°C Relative Humidity: 90 to 95% Test Duration: 240 hours	Visual Inspection: No Damage LLCR: $\Delta$ 15 m $\Omega$ DWV: 825 VAC IR: >25,000 M $\Omega$	Pass
Gas Tight	EIA-364-36 Gas Exposure: Nitric Acid Vapor Duration: 60 min. Drying Temp.: 50°C +/- 3°C Measurements: Within 1 hour of Exposure	LLCR: $\Delta$ 15 m $\Omega$	Pass

## 4.0 MATED SYSTEM

### 4.1 Mated views

Mated view information can be found at link below:

<https://suddendocs.samtec.com/prints/xqxx%20applications.pdf>

<https://suddendocs.samtec.com/prints/eqxx%20mated%20document.pdf>

## 5.0 HIGH SPEED PERFORMANCE

### 5.1 Channel Simulation - Channel Performance Metric (CPM)



**Note:** CPM is a channel simulation based approach to understanding connector performance. For further information on CPM please visit [Introducing Channel Performance](#).

CPM is simulated using a Samtec specific channel. Connector performance may improve based on specific applications. Please email SIG Frontline [SIGFrontline@samtec.com](mailto:SIGFrontline@samtec.com) to determine performance in your system.

### 5.2 System Impedance: 100 Ohm for differential pair

Series: EQDP 30 AWG Ribbon Twinax HS Cable Assembly, 0.8mm

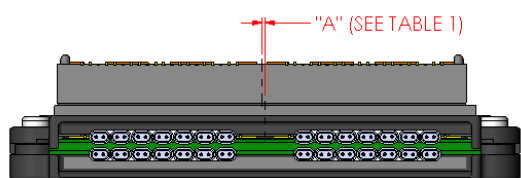
## 6.0 PROCESSING RECOMMENDATIONS

### 6.1 Mating Alignment Requirements:

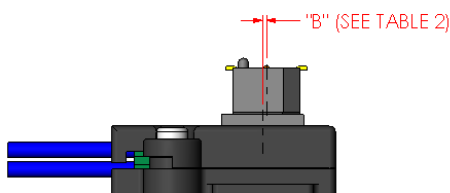
#### 6.1.1 Allowable initial linear misalignment

OPTION	"A"
STANDARD	.012 [0.30]
-RT1 OPTION	.013 [0.33]

OPTION	"B"
STANDARD	.014 [0.36]
-RT1 OPTION	.013 [0.33]



INITIAL X AXIS LINEAR MISALIGNMENT

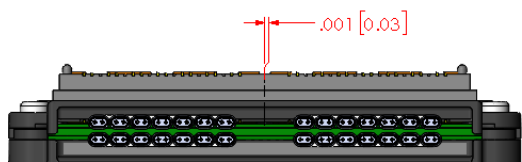


INITIAL Y AXIS LINEAR MISALIGNMENT

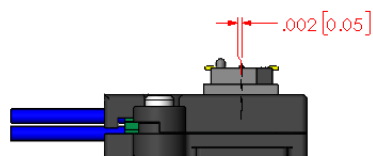
NON APPLICABLE

INITIAL Z AXIS LINEAR MISALIGNMENT

#### 6.1.2 Allowable final linear misalignment



FINAL X AXIS LINEAR MISALIGNMENT



FINAL Y AXIS LINEAR MISALIGNMENT

SEE MATED VIEW

FINAL Z AXIS LINEAR MISALIGNMENT

Series: EQDP 30 AWG Ribbon Twinax HS Cable Assembly, 0.8mm

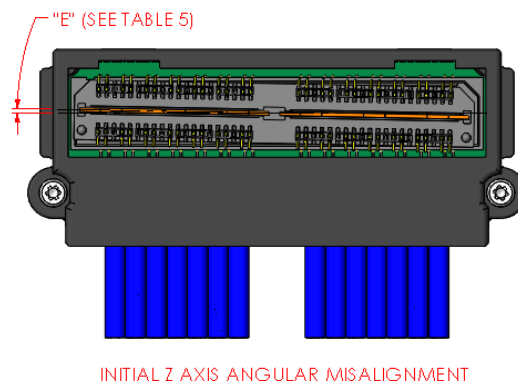
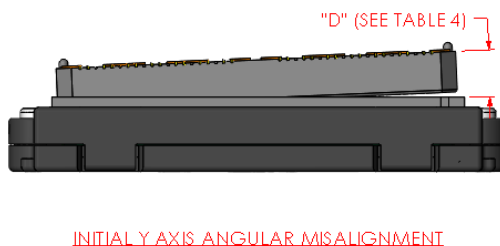
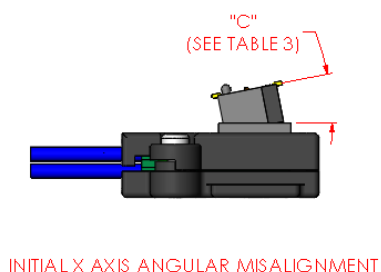
## 6.2 Mating Angle Requirements

### 6.2.1 Allowable initial angular misalignment

TABLE 3	
OPTION	"C" = DEGREE
STANDARD	10.5
-RT1 OPTION	15.0

TABLE 4		
"D" = DEGREE		
OPTION	STANDARD	-RT1 OPTION
-014	5.0	8.0
-028	2.5	4.7
-042	1.7	2.7
-056	1.3	N/A

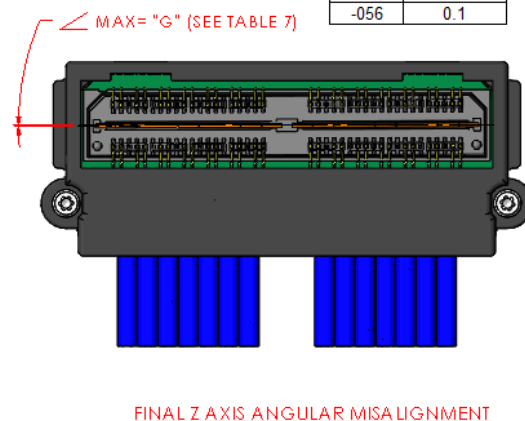
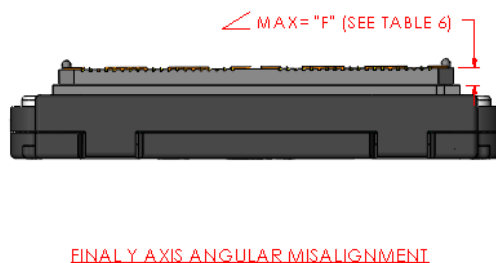
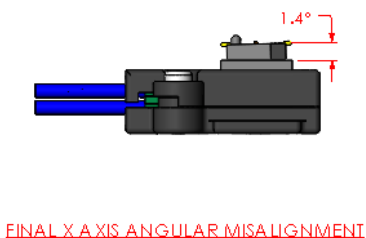
TABLE 5		
"E" = DEGREE		
OPTION	STANDARD	-RT1 OPTION
-014	2.2	8.0
-028	1.1	4.0
-042	0.7	2.7
-056	0.5	N/A



### 6.2.2 Allowable final angular misalignment

TABLE 6	
OPTION	"F" = DEG
-014	0.5
-028	0.3
-042	0.2
-056	0.1

TABLE 7	
OPTION	"G" = DEG
-014	0.4
-028	0.2
-042	0.1
-056	0.1



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## 7.0 ADDITIONAL RESOURCES

- 7.1 For additional mechanical testing or product information, contact our Customer Engineering Support Group at [CES@samtec.com](mailto:CES@samtec.com)
- 7.2 For additional information on high speed performance testing, contact our Signal Integrity Group at [SIG@samtec.com](mailto:SIG@samtec.com)
- 7.3 For additional application information, contact our High Speed Cable Group at [HDR@samtec.com](mailto:HDR@samtec.com)
- 7.4 For RoHS, REACH or other environmental compliance information, contact our Product Environmental Compliance Group at [PEC@samtec.com](mailto:PEC@samtec.com)

### USE OF PRODUCT SPECIFICATION SHEET

This Product Specification Sheet (“PSS”) is a brief summary of information related to the Product identified. As a summary, it should only be used for the limited purpose of considering the purchase/use of Product. For specific, detailed information, including but not limited to testing and Product footprint, refer to Section 2.0 of this document and the links there provided to test reports and prints. This PSS is the property of Samtec, Inc. (“Samtec”) and contains proprietary information of Samtec, our various licensors, or both. Samtec does not grant express or implied rights or license under any patent, copyright, trademark or other proprietary rights and the use of the PSS for building, reverse engineering or replication is strictly prohibited. By using the PSS, the user agrees to not infringe, directly or indirectly, upon any intellectual property rights of Samtec and acknowledges that Samtec, our various licensors, or both own all intellectual property therein. The PSS is presented “AS IS”. While Samtec makes every effort to present excellent information, the PSS is only provided as a guideline and does not, therefore, warrant it is without error or defect or that the PSS contains all necessary and/or relevant information about the Product. The user agrees that all access and use of the PSS is at its own risk. **NO WARRANTIES EXPRESSED OR IMPLIED, INCLUDING ANY WARRANTY OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR OF ANY KIND WHATSOEVER ARE PROVIDED.**