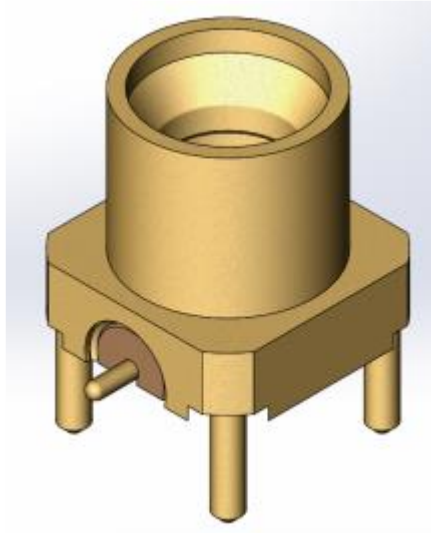




Project Number: Design Qualification Test Report	Tracking Code: CR-652601_Report_Rev_1
Requested by: Ross Pritchett	Date: 10/21/2021
Part #: SMPM-PF-P-EG-ST-MT-1	
Part description: SMPM	Tech: John Crawford
Test Start: 10/13/2021	Test Completed: 10/14/2021



DESIGN QUALIFICATION TEST REPORT
SMPM
SMPM-PF-P-EG-ST-MT-1

Tracking Code: CR-652601_Report_Rev_1	Part #: SMPM-PF-P-EG-ST-MT-1
Part description: SMPM	

REVISION HISTORY

DATA	REV.NUM.	DESCRIPTION	ENG
10/21/2021	1	Initial Issue	KH

CERTIFICATION

All instruments and measuring equipment were calibrated to National Institute for Standards and Technology (NIST) traceable standards according to ISO 10012-1 and ANSI/NCSL 2540-1, as applicable.

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SCOPE

To perform the following tests: Design Qualification test. Please see test plan.

APPLICABLE DOCUMENTS

Standards: MIL-PRF-39012

TEST SAMPLES AND PREPARATION

- 1) All materials were manufactured in accordance with the applicable product specification.
- 2) All test samples were identified and encoded to maintain traceability throughout the test sequences.
- 3) Either an automated cleaning procedure or an ultrasonic cleaning procedure may be used.
- 4) The automated procedure is used with aqueous compatible soldering materials.
- 5) Any additional preparation will be noted in the individual test sequences.
- 6) Solder Information: Lead Free
- 7) Samtec Test PCBs used: PCB-110799-TST

FLOWCHARTS**Pull/Shear**Group 1

SMPM-PF-P-EG-ST-MT-1

5 Assemblies

Step Description**1. Connector Pull***Note: PULL TO DESTROY, AXIALLY AWAY FROM BOARD;*Group 2

SMPM-PF-P-EG-ST-MT-1

5 Assemblies

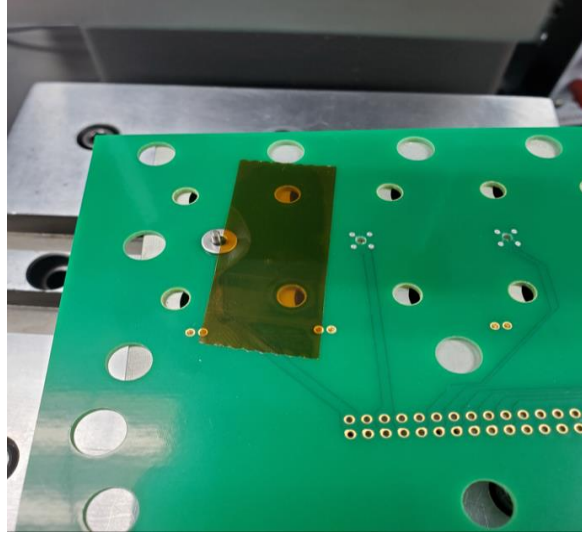
Step Description**1. Connector Shear***Note: SHEAR TO DESTROY, PARALLEL TO BOARD.*

ATTRIBUTE DEFINITIONS

The following is a brief, simplified description of attributes.

Pull force:

A small hole is drilled in the PCB, under the SMPM assembly. A dowel is placed in the hole and push/shear testing is executed. 100+lb maximum threshold.



Shear force:

PCB is secured to -RA baseplate and clamped in place. Small -RA head pushes down on test sample to failure. Peak force recorded.



RESULTS

Push & Shear Force:

Push force

- **Min** ----- **106.40 lbs**
- **Max** ----- **123.80 lbs**

Shear force

- **Min** ----- **143.90 lbs**
- **Max** ----- **163.70 lbs**

DATA SUMMARIES**Push & Shear Force:****Push force**

	Force (lbs)
Minimum	106.40
Maximum	123.80
Average	116.42

Shear force

	Force (lbs)
Minimum	143.90
Maximum	163.70
Average	154.48

EQUIPMENT AND CALIBRATION SCHEDULES**Equipment #:** TCT-04**Description:** Dillon Quantrol TC21 25-1000 mm/min series test stand**Manufacturer:** Dillon Quantrol**Model:** TC2 I series test stand**Serial #:** 04-1041-04**Accuracy:** Speed Accuracy: +/- 5% of indicated speed; Speed Accuracy: +/- 5% of indicated speed;
... Last Cal: 05/29/2021, Next Cal: 05/29/2022