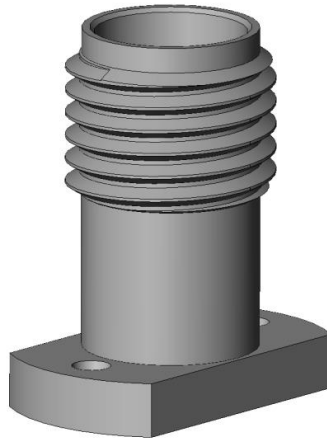




RF Characterization Report

292-J-P-EP-ST-CM-X-X



Test Date: Mar 2022

Description

50 Ohm 2.92 mm Jack, Compression Mount, Stripline Termination

Series: 292

Description: 50 Ohm 2.92 mm Jack, Compression Mount, Stripline Termination

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Series: 292

Description: 50 Ohm 2.92 mm Jack, Compression Mount, Stripline Termination

Test Setup Information

Scope:

Provide standing wave ratio, return loss and insertion loss performance parameters for 2.92 mm compression mount stripline connector.

Instrument Setup & Test Accessories:

Network Analyzer	Keysight PNA N5227B
Averaging Factor	1
Smoothing	Off
IF Bandwidth	1 KHz
Sweep Start	10 MHz
Sweep End	40 GHz
Points	4000
Test Cables	Gore 0F0CACB036.0-LF(DC to 67 GHz)

Calibration Type:

A Keysight mechanical calibration is performed using the Maury 2.92mm MCAL 8770CK Calibration kit.

Calibration Kit	Maury 2.92mm MCAL 8770CK
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Adapter Use:

PCB-SCMCSP-111119-SIG-0 RF compression mount stripline board, was used for the measurements of 292-J-P-EP-ST-CM-X-X. The traces effects were removed from the measurement using the Fixture Removal method.

Test System Description

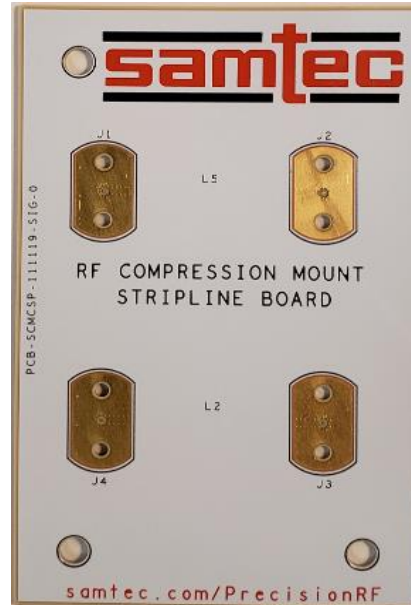
The test fixture is composed of a six-layer TACHYON 100G material with 50 Ω signal trace and varying launch designs to reflect performance on different routing layers. Optimization of the RF launch was performed using full wave simulation tools to minimize reflections. These launch designs were implemented on PCB-SCMCSP-111119-SIG-0. The test data shown in this report leveraged test coupon L2 which launch design escapes trace at layer 2.

Series: 292

Description: 50 Ohm 2.92 mm Jack, Compression Mount, Stripline Termination

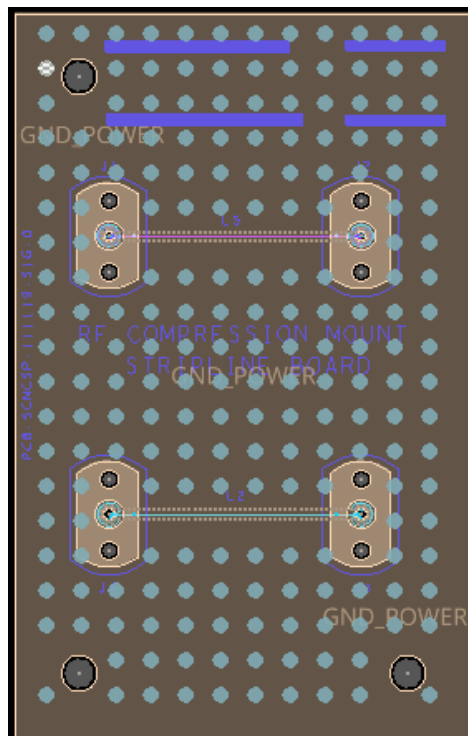
PCB-SCMCSP-111119-SIG-0 Test Fixtures

Shown below is a photograph of the test board.



PCB-SCMCSP-111119-SIG-0 PCB Layout

Artwork of the PCB design is shown below.



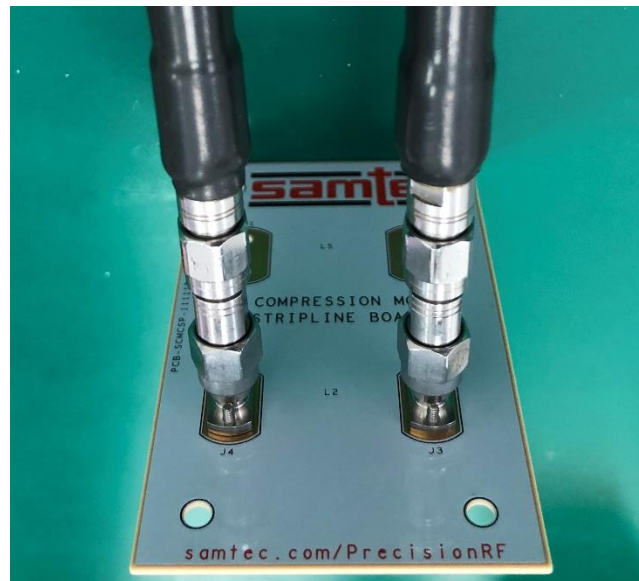
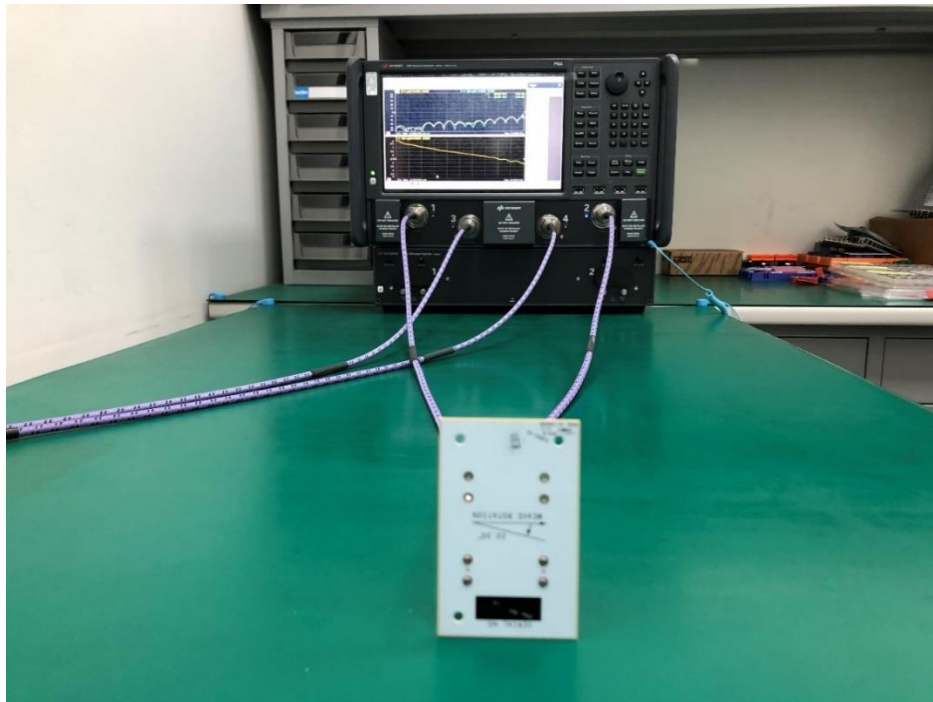
Series: 292

Description: 50 Ohm 2.92 mm Jack, Compression Mount, Stripline Termination

292-J-P-EP-ST-CM-X-X Test Definition

Part Number	End 1
292-J-P-EP-ST-CM-X-X	2.92 mm

Connector Under Test:



Series: 292

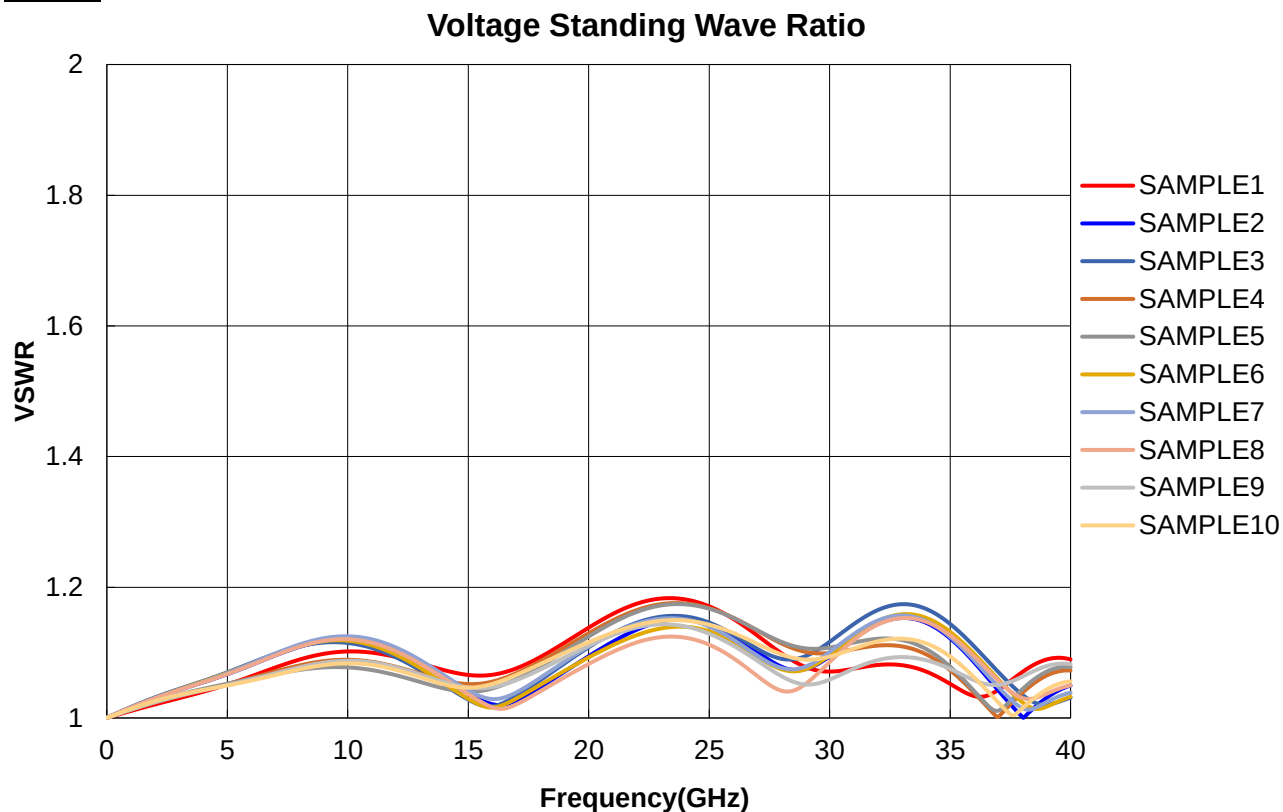
Description: 50 Ohm 2.92 mm Jack, Compression Mount, Stripline Termination

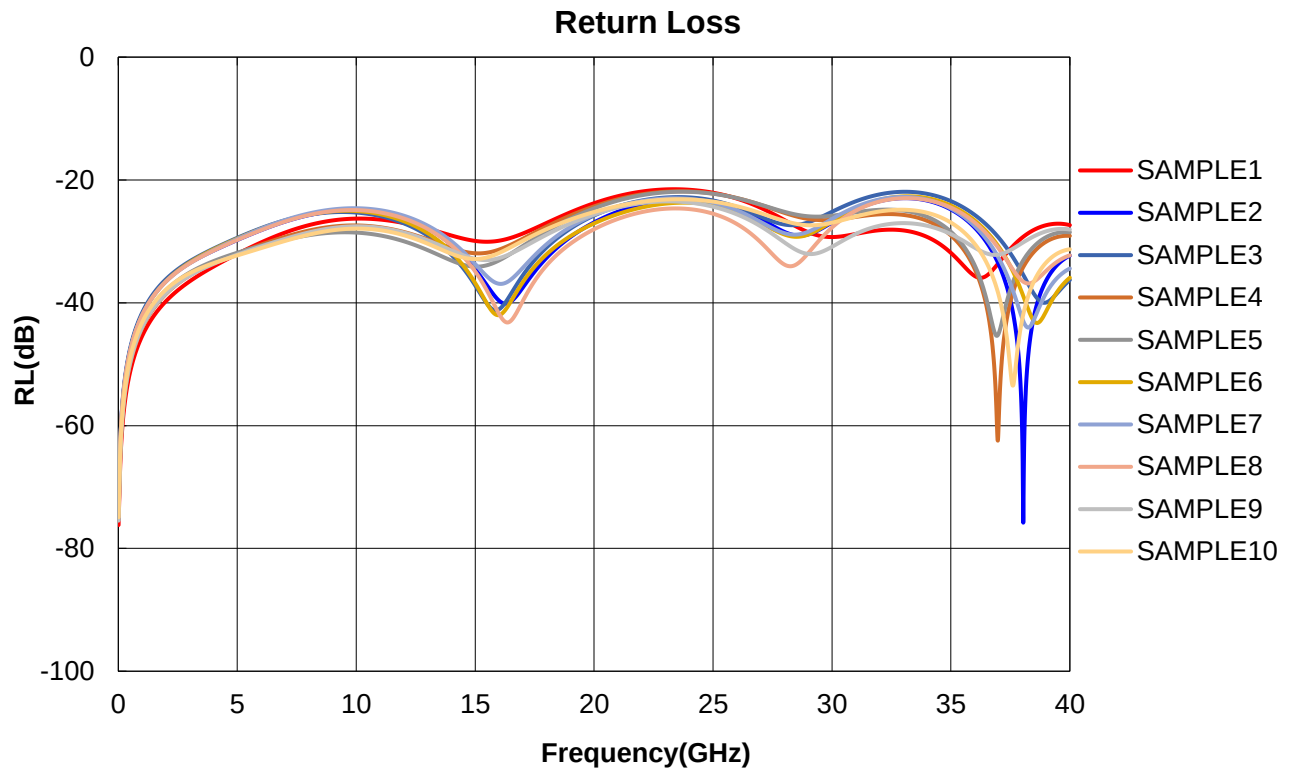
Results: 292-J-P-EP-ST-CM-X-X

The post processed results include the 292-J-P-EP-ST-CM-X-X connector, launch, and ~200 mils of PCB trace to minimize the effects of the test setup.

Description: 50 Ohm 2.92 mm Compression Mount Stripline			
Sample	VSWR(max)	RL(max)	IL(min)
SAMPLE1	1.18@23.36GHz	-21.51@23.36GHz	-0.75@39.94GHz
SAMPLE2	1.15@33.05GHz	-22.96@33.05GHz	-0.72@39.72GHz
SAMPLE3	1.17@33.07GHz	-21.93@33.07GHz	-0.72@39.56GHz
SAMPLE4	1.18@23.61GHz	-21.85@23.61GHz	-0.76@39.94GHz
SAMPLE5	1.17@23.70GHz	-21.92@23.70GHz	-0.76@39.99GHz
SAMPLE6	1.16@33.18GHz	-22.66@33.18GHz	-0.72@39.99GHz
SAMPLE7	1.16@32.99GHz	-22.76@32.99GHz	-0.72@40.00GHz
SAMPLE8	1.15@33.12GHz	-22.97@33.12GHz	-0.73@40.00GHz
SAMPLE9	1.14@23.12GHz	-23.49@23.12GHz	-0.75@39.83GHz
SAMPLE10	1.15@23.56GHz	-23.14@23.56GHz	-0.75@39.97GHz

VSWR



Series: 292**Description:** 50 Ohm 2.92 mm Jack, Compression Mount, Stripline TerminationReturn Loss

Series: 292**Description:** 50 Ohm 2.92 mm Jack, Compression Mount, Stripline TerminationInsertion Loss