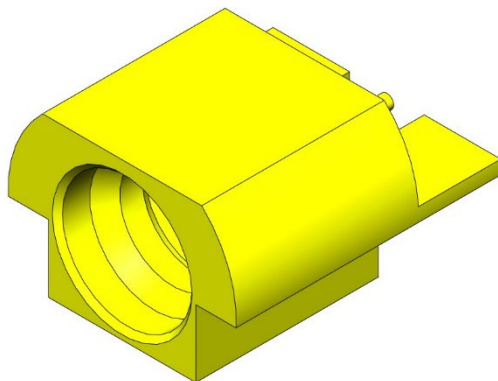




RF Characterization Report

SMP-PX-P-XX-ST-EM



Test Date: Aug 2023

Description

50 Ohm SMP Plug, Edge Mount, 40 GHz

Series: SMP-EM

Description: 50 Ohm SMP Plug, Edge Mount, 40 GHz

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Series: SMP-EM

Description: 50 Ohm SMP Plug, Edge Mount, 40 GHz

Test Setup Information

Scope:

Provide standing wave ratio, return loss and insertion loss performance parameters for the 40 GHz rated SMP Plug, Edge Mount 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 Keysight 2.4 mm Mechanical Calibration kit.

Calibration Kit	Keysight 85056D 2.4 mm Mechanical Calibration kit
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Adapter Use:

Fairview Microwave SM8861 2.4 mm Female to SMP Female adapter was used for the measurements of SMP-PX-P-XX-ST-EM3. The adapter effects were removed from the measurement using the Fixture Removal method.

Series: SMP-EM

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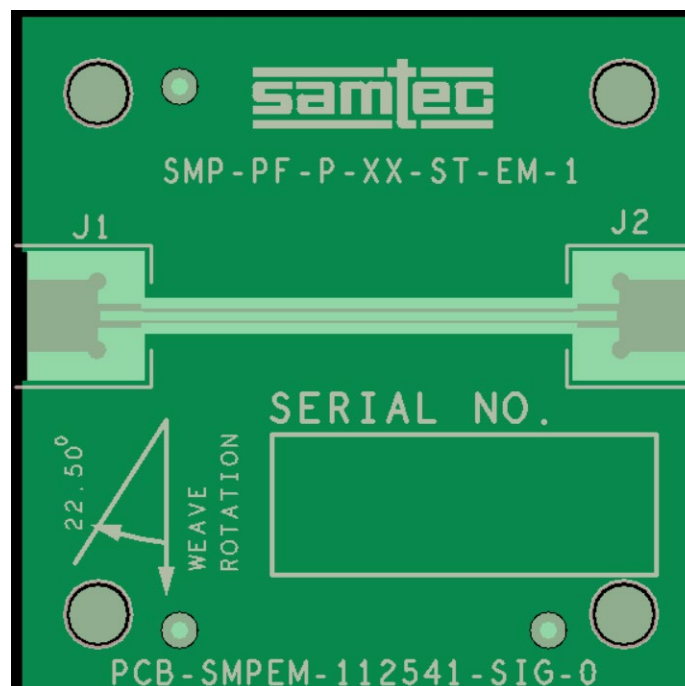
PCB-SMPEM-112541-SIG-0 Test Fixtures

Shown below is a photograph of the test board.



PCB-SMPEM-112541-SIG-0 PCB Layout

Artwork of the PCB design is shown below.



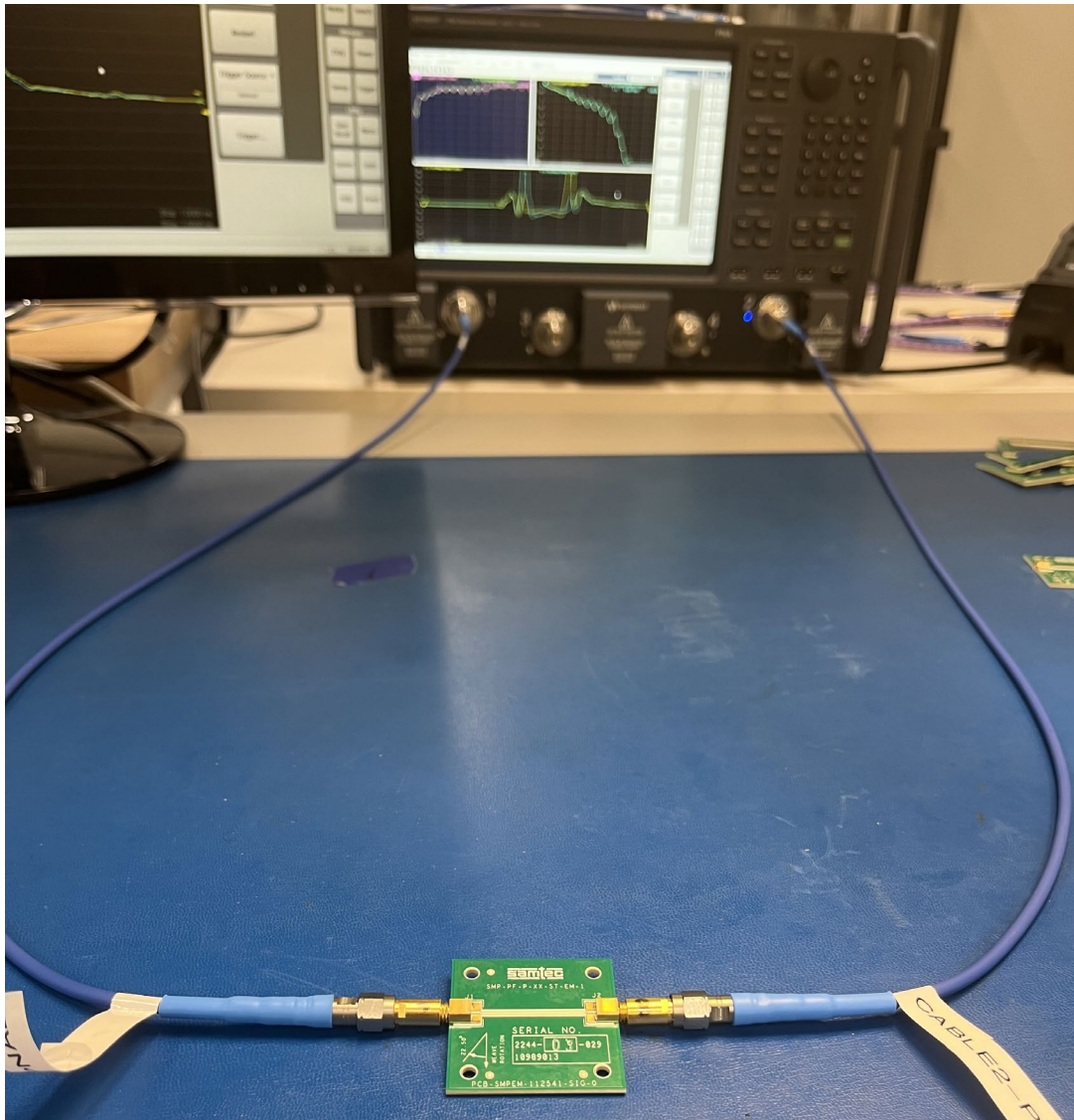
Series: SMP-EM

Description: 50 Ohm SMP Plug, Edge Mount, 40 GHz

SMP-PX-P-XX-ST-EM Test Definition

Part Number	End 1
SMP-PX-P-XX-ST-EM	SMP Plug

Connector Under Test:



Series: SMP-EM

Description: 50 Ohm SMP Plug, Edge Mount, 40 GHz

Results: SMP-PX-P-XX-ST-EM

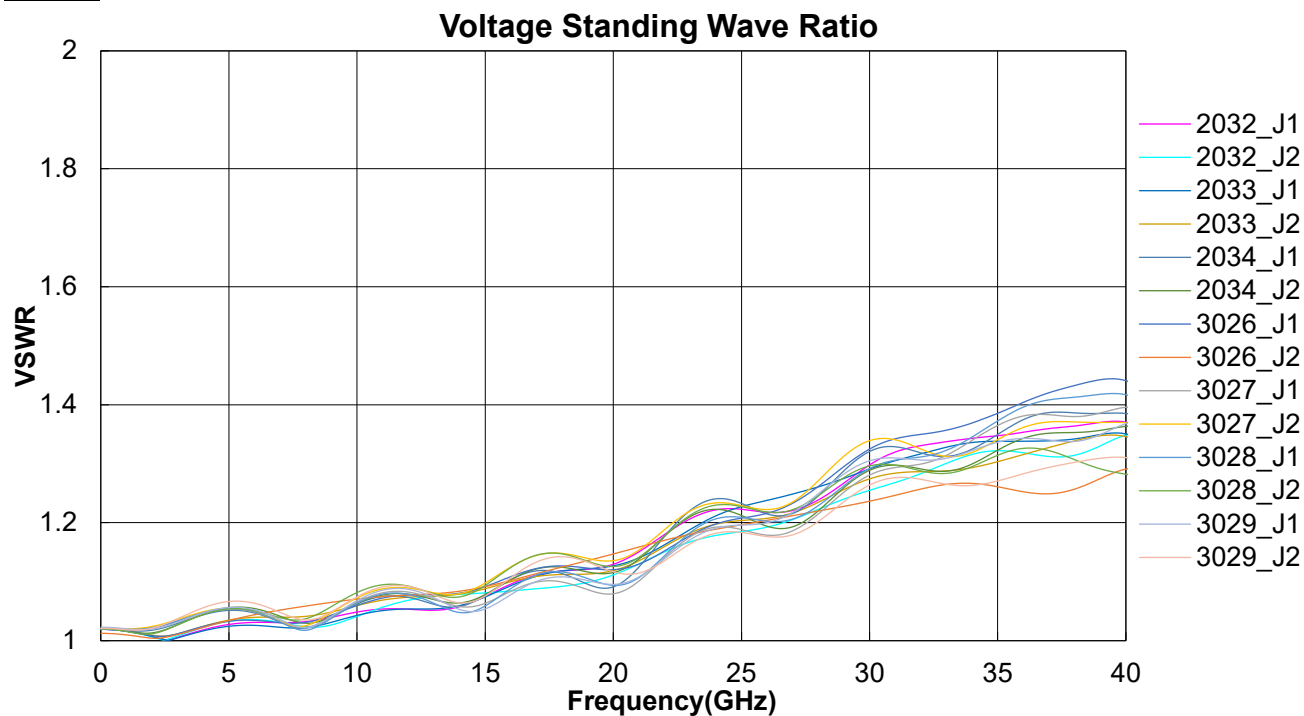
The post processed results include one SMP-PX-P-XX-ST-EM connector, launch, and about 0.5" of PCB trace to minimize the effects of the test setup. Special attention during processing to minimize gap at back edge of connector to prevent suck outs between the connector and PCB. Fixturing can be helpful to avoid this issue.

Description: 50 Ohm SMP Edge Mount			
Sample	SWR(max)	RL(dB, max)	IL(dB, min)
2032_J1	1.37@39.54GHz	-16.09@39.54GHz	-0.95@40.00GHz
2032_J2	1.35@40.00GHz	-16.57@40.00GHz	-0.93@39.94GHz
2033_J1	1.35@39.62GHz	-16.49@39.62GHz	-0.93@40.00GHz
2033_J2	1.35@39.44GHz	-16.57@39.44GHz	-0.92@39.13GHz
2034_J1	1.39@37.34GHz	-15.79@37.34GHz	-0.98@40.00GHz
2034_J2	1.36@40.00GHz	-16.26@40.00GHz	-0.98@40.00GHz
3026_J1	1.44@39.46GHz	-14.81@39.46GHz	-0.99@39.99GHz
3026_J2	1.29@40.00GHz	-17.92@40.00GHz	-0.98@40.00GHz
3027_J1	1.40@40.00GHz	-15.64@40.00GHz	-0.97@40.00GHz
3027_J2	1.37@37.37GHz	-16.10@37.37GHz	-0.96@40.00GHz
3028_J1	1.42@39.45GHz	-15.23@39.45GHz	-1.03@40.00GHz
3028_J2	1.33@36.28GHz	-17.05@36.28GHz	-1.02@40.00GHz
3029_J1	1.37@40.00GHz	-16.18@40.00GHz	-0.97@40.00GHz
3029_J2	1.31@39.72GHz	-17.42@39.72GHz	-0.96@40.00GHz

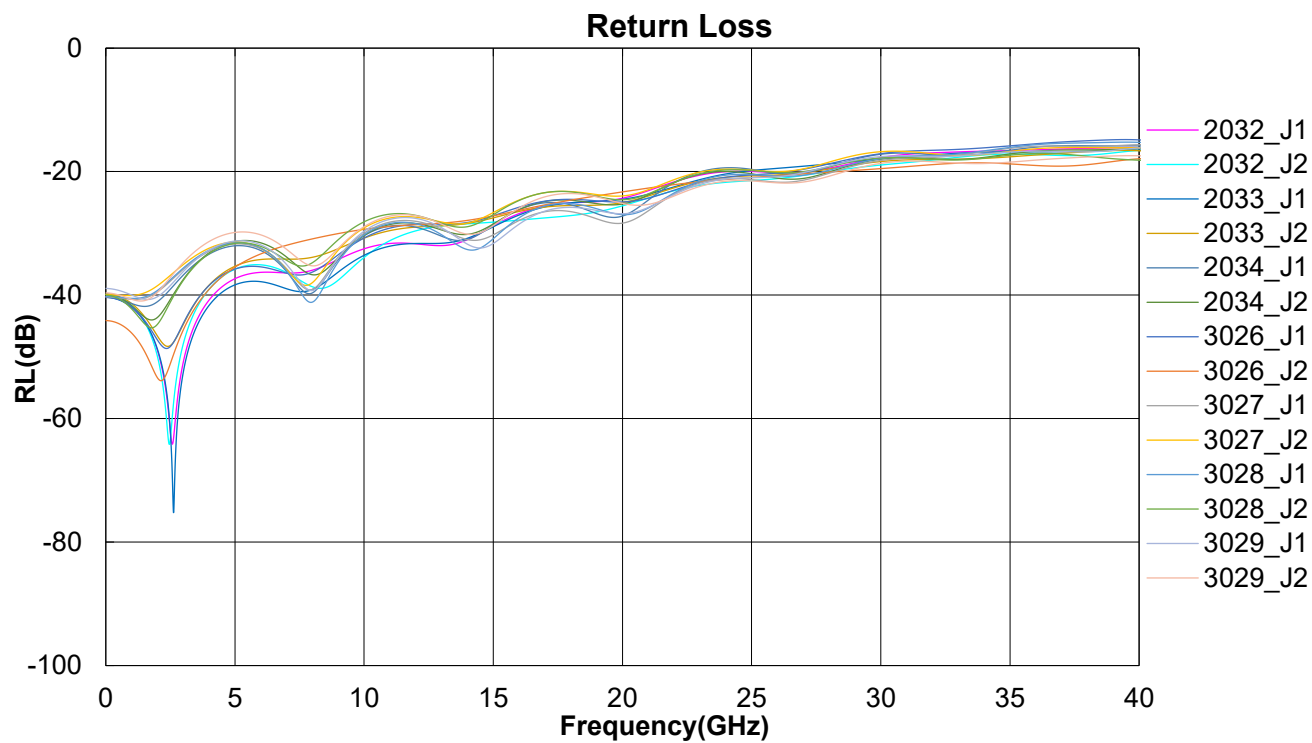
Series: SMP-EM

Description: 50 Ohm SMP Plug, Edge Mount, 40 GHz

VSWR



Return Loss



Series: SMP-EM

Description: 50 Ohm SMP Plug, Edge Mount, 40 GHz

Insertion Loss

