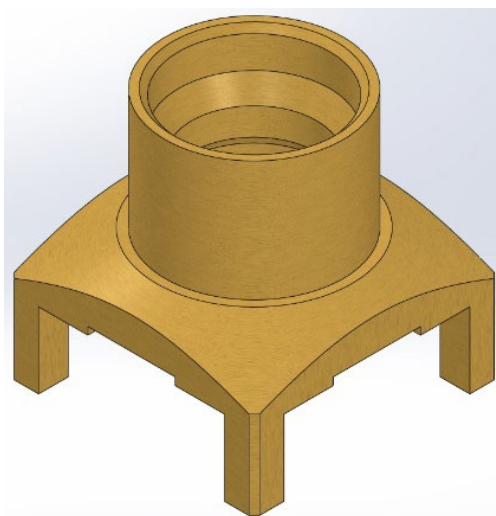




RF Characterization Report

SMP-PX-P-XX-ST-TH3



Test Date: Jan 2024

Description:
50 Ohm SMP Plug, Through-hole, 40 GHz, 0.062" PCB

Series: SMP-TH**Description:** 50 Ohm SMP Plug, Through-Hole, 40 GHz, 0.062" PCB

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Series: SMP-TH

Description: 50 Ohm SMP Plug, Through-Hole, 40 GHz, 0.062" PCB

Test Setup Information

Scope:

Provide standing wave ratio, return loss and insertion loss performance parameters for Samtec's 40 GHz version of the SMP Plug, Through-hole (0.062" PCB) 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:

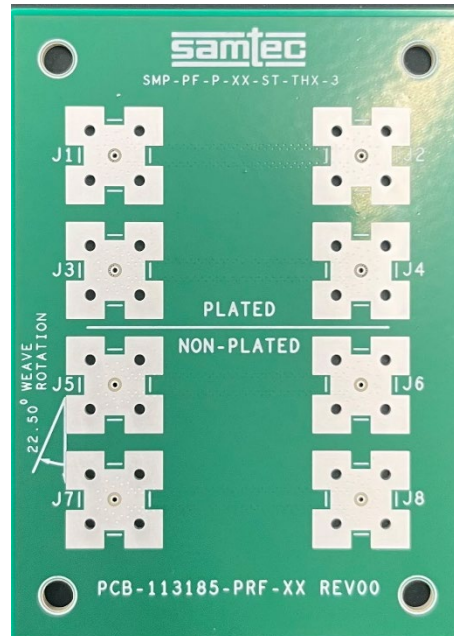
Fairview Microwave SM8861 2.4 mm Female to SMP Female adapter was used for the measurements of SMP-PL-P-HG-ST-TH3. The adapter effects were removed from the measurement using the Fixture Removal method.

Series: SMP-TH

Description: 50 Ohm SMP Plug, Through-Hole, 40 GHz, 0.062" PCB

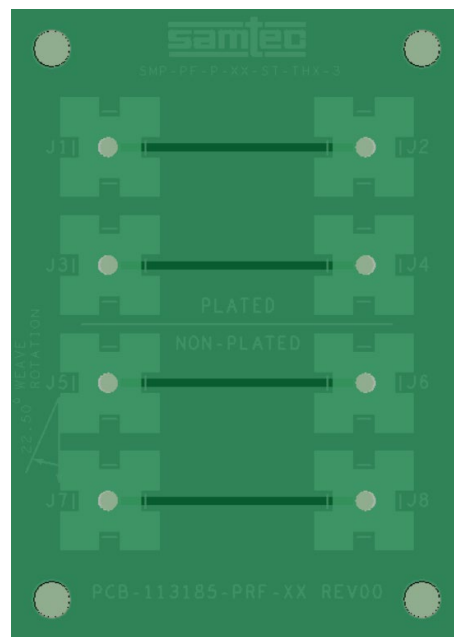
PCB-113185-PRF-XX-REV00 Test Fixtures for SMP-PX-P-XX-ST-TH3

Shown below is a photograph of the test board.



PCB-113185-PRF-XX-REV00 PCB Layout

Artwork of the PCB design is shown below.



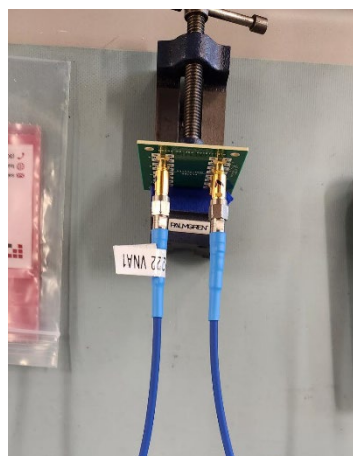
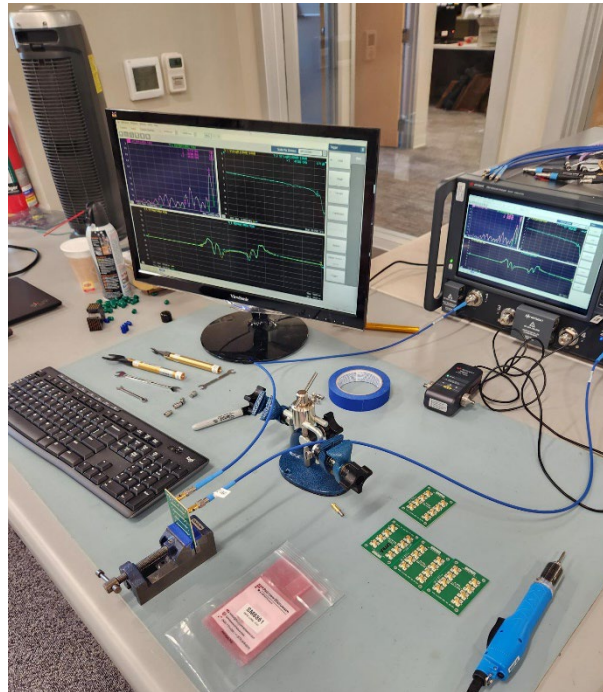
Series: SMP-TH

Description: 50 Ohm SMP Plug, Through-Hole, 40 GHz, 0.062" PCB

SMP-PX-P-XX-ST-TH3 Test Definition

Part Number	End 1
SMP-PL-P-HG-ST-TH3	SMP Plug

Connector Under Test:



Series: SMP-TH

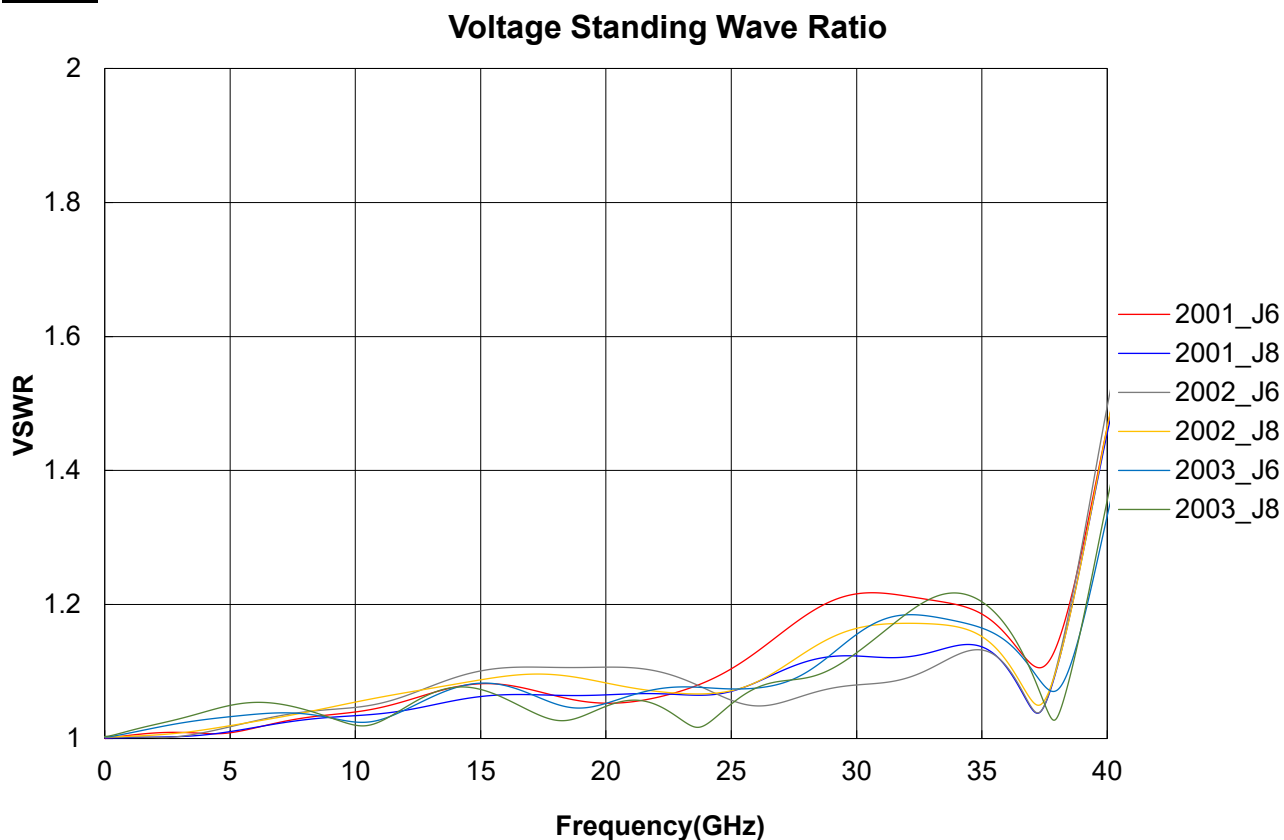
Description: 50 Ohm SMP Plug, Through-Hole, 40 GHz, 0.062" PCB

Results: SMP-PL-P-HG-ST-TH3

The post processed results include one SMP-PL-P-HG-ST-TH3 connector, launch, and 0.5" of PCB trace to minimize the effects of the test setup.

Description: 50 Ohm SMP Plug, Mixed Technology			
Sample	SWR(max)	RL(dB, max)	IL(dB, min)
2001_J6	1.46@40GHz	-14.50@40GHz	-1.58@40GHz
2001_J8	1.46@40GHz	-14.63@40GHz	-1.59@40GHz
2002_J6	1.50@40GHz	-14.04@40GHz	-1.78@40GHz
2002_J8	1.46@40GHz	-14.49@40GHz	-1.52@40GHz
2003_J6	1.33@40GHz	-16.93@40GHz	-1.47@40GHz
2003_J8	1.36@40GHz	-16.42@40GHz	-1.56@40GHz

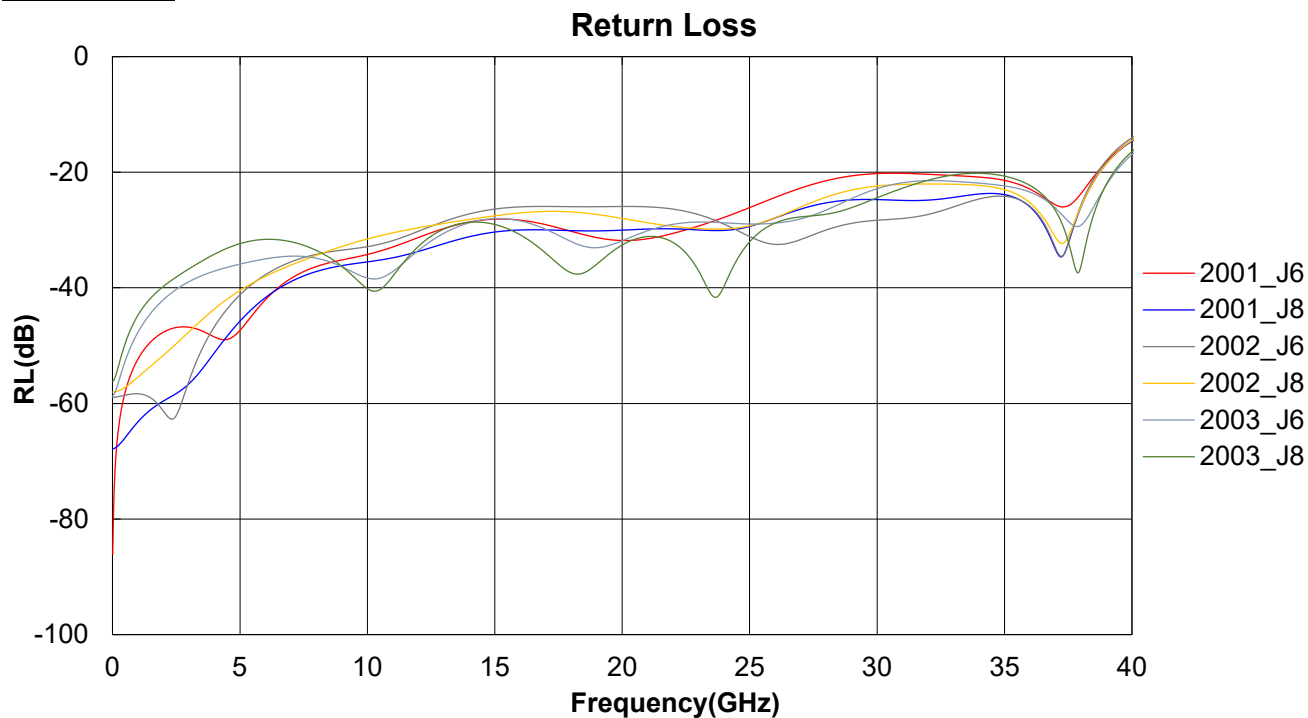
VSWR



Series: SMP-TH

Description: 50 Ohm SMP Plug, Through-Hole, 40 GHz, 0.062" PCB

Return Loss



Insertion Loss

