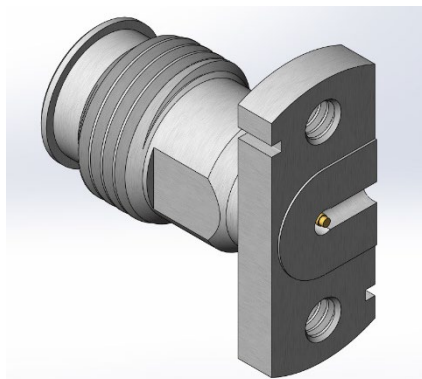




RF Characterization Report

135-J-P-VP-ST-CMM-1

Test Date: Dec 2022



Description

50 Ohm 1.35 mm Jack, Compression Mount, Microstrip Termination

Series: 135**Description:** 50 Ohm 1.35 mm Jack, Compression Mount, Microstrip Termination

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Series: 135

Description: 50 Ohm 1.35 mm Jack, Compression Mount, Microstrip Termination

Test Setup Information

Scope:

Provide standing wave ratio, return loss and insertion loss performance parameters for 1.35 mm vertical compression 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	90 GHz
Points	9000
Test Cables	1.35 mm Cables

Calibration Type:

A Keysight mechanical calibration is performed using the 1.35 mm Rosenberger Mechanical Calibration kit.

Calibration Kit	1.35 mm Rosenberger Calibration Kit
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Adapter Use:

PCB-135SCM-112485-SIG-0 test board was used for the measurements of 135-J-P-VP-ST-CMM-1.

Test System Description

The test fixture is composed of a six-layer TACHYON 100G material with 50 Ω signal trace and a CPW/Microstrip launch design on layer 1.

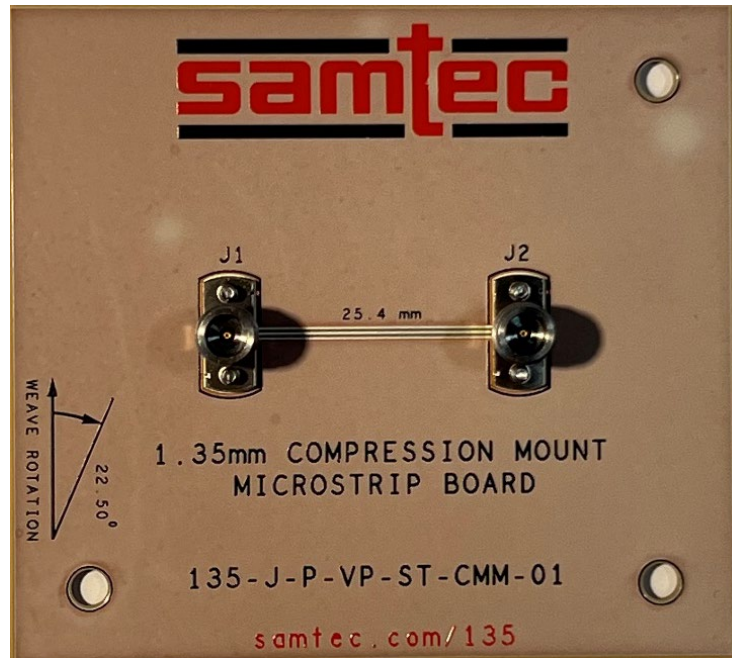
Optimization of the RF launch was performed using full wave simulation tools to minimize reflections. These launch designs were implemented on PCB-135SCM-112485-SIG-0.

Series: 135

Description: 50 Ohm 1.35 mm Jack, Compression Mount, Microstrip Termination

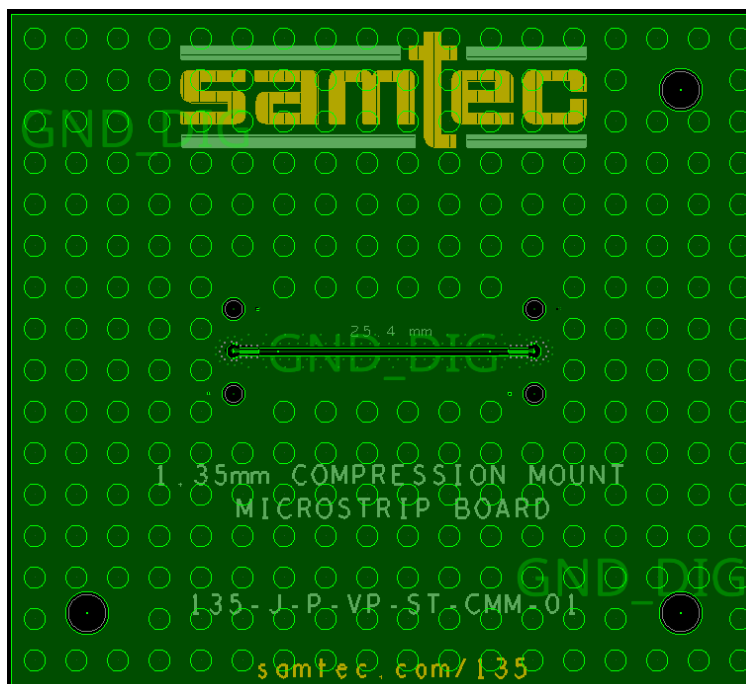
PCB-135SCM-112485-SIG-0 Test Fixtures

Shown below is a photograph of the test board.



PCB-135SCM-112485-SIG-0 PCB Layout

Artwork of the PCB design is shown below.



Series: 135

Description: 50 Ohm 1.35 mm Jack, Compression Mount, Microstrip Termination

135-J-P-VP-ST-CMM-1 Test Definition

Part Number	End 1
135-J-P-VP-ST-CMM-1	1.35 mm

Connector Under Test:



Series: 135

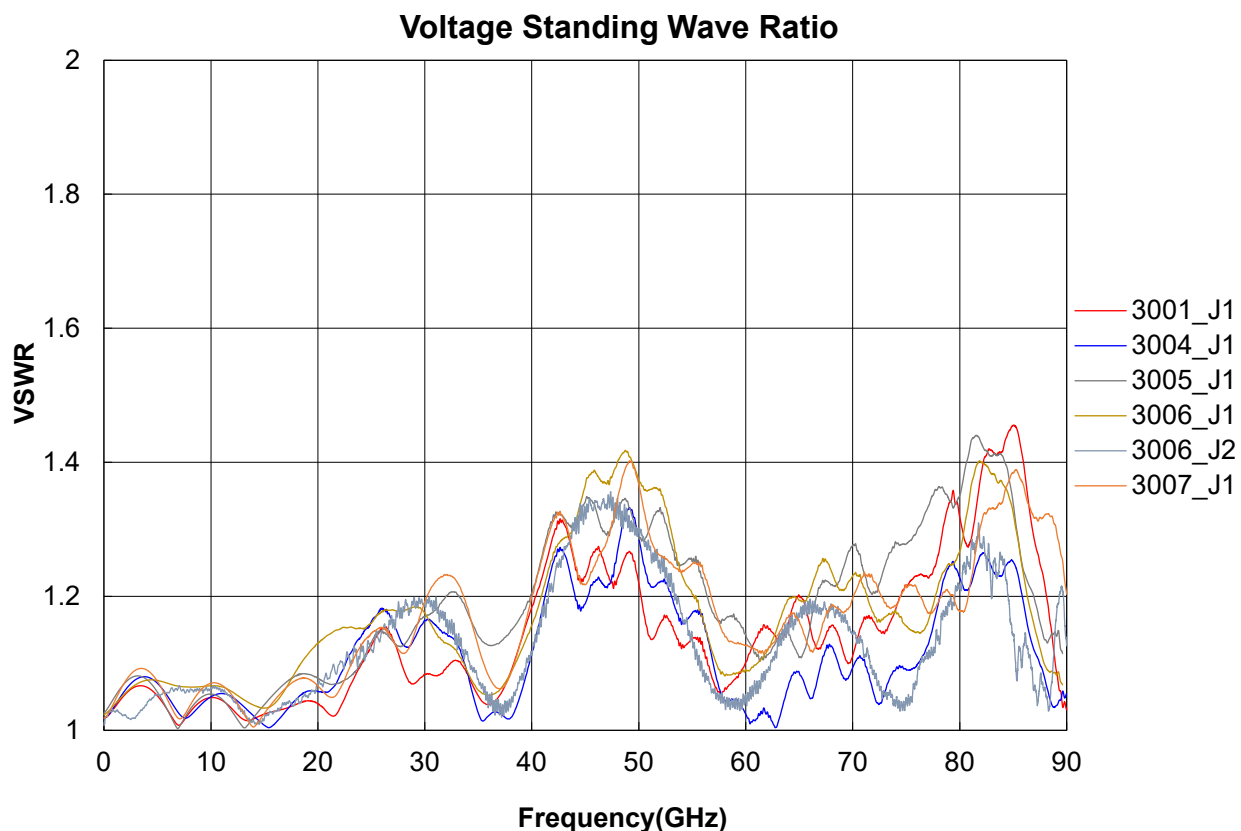
Description: 50 Ohm 1.35 mm Jack, Compression Mount, Microstrip Termination

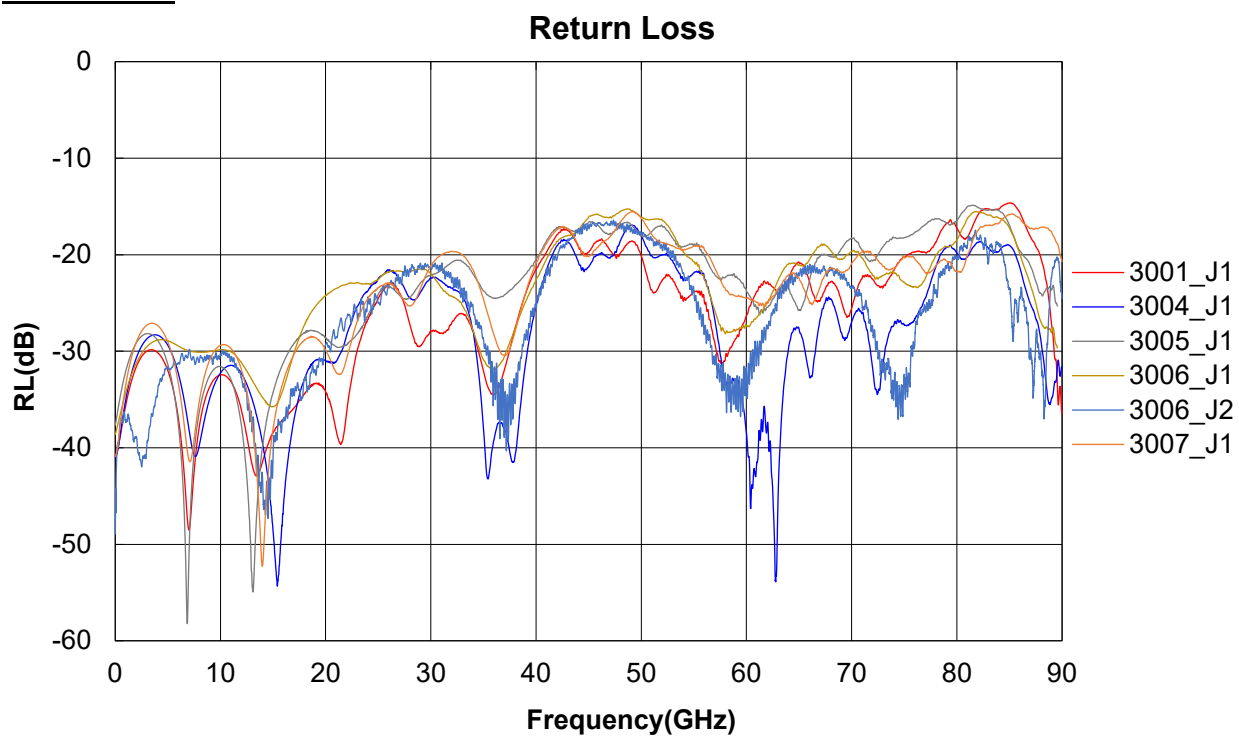
Results: 135-J-P-VP-ST-CMM-1

The post processed results include the 135-J-P-VP-ST-CMM-1 connector, launch, and 12.7mm of PCB trace to minimize the effects of the test setup.

Description: 50 Ohm 1.35 mm Vertical Compression Mount			
Sample	VSWR(max)	RL(max)	IL(min)
3001_J1	1.46@85.04GHz	-14.64@85.04GHz	-2.70@90.00GHz
3004_J1	1.33@49.12GHz	-16.92@49.12GHz	-2.75@90.00GHz
3005_J1	1.44@81.96GHz	-14.87@81.96GHz	-2.95@90.00GHz
3006_J1	1.42@49.12GHz	-15.25@49.12GHz	-2.85@90.00GHz
3006_J2	1.41@83.25GHz	-15.31@83.25GHz	-2.94@90.00GHz
3007_J1	1.40@49.15GHz	-15.52@49.15GHz	-2.50@90.00GHz

VSWR



Series: 135**Description:** 50 Ohm 1.35 mm Jack, Compression Mount, Microstrip TerminationReturn Loss

Series: 135**Description:** 50 Ohm 1.35 mm Jack, Compression Mount, Microstrip TerminationInsertion Loss