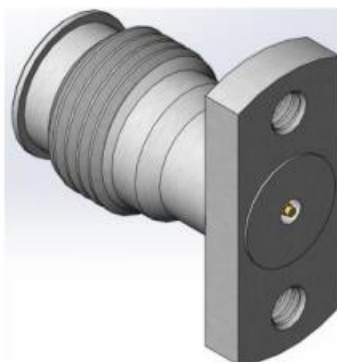




RF Characterization Report

135-J-P-VP-ST-CM-X-X

Test Date: Jul 2021



Description
50 Ohm 1.35 mm Jack, Vertical, Compression Mount Stripline

Series: 135

Description: 50 Ohm 1.35 mm Jack, Vertical, Compression Mount Stripline

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Series: 135

Description: 50 Ohm 1.35 mm Jack, Vertical, Compression Mount Stripline

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 N5227A
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-111108-SIG-1 test board was used for the measurements of 135-J-P-VP-ST-CM-X-X.

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-135SCM-111108-SIG-1.

Series: 135

Description: 50 Ohm 1.35 mm Jack, Vertical, Compression Mount Stripline

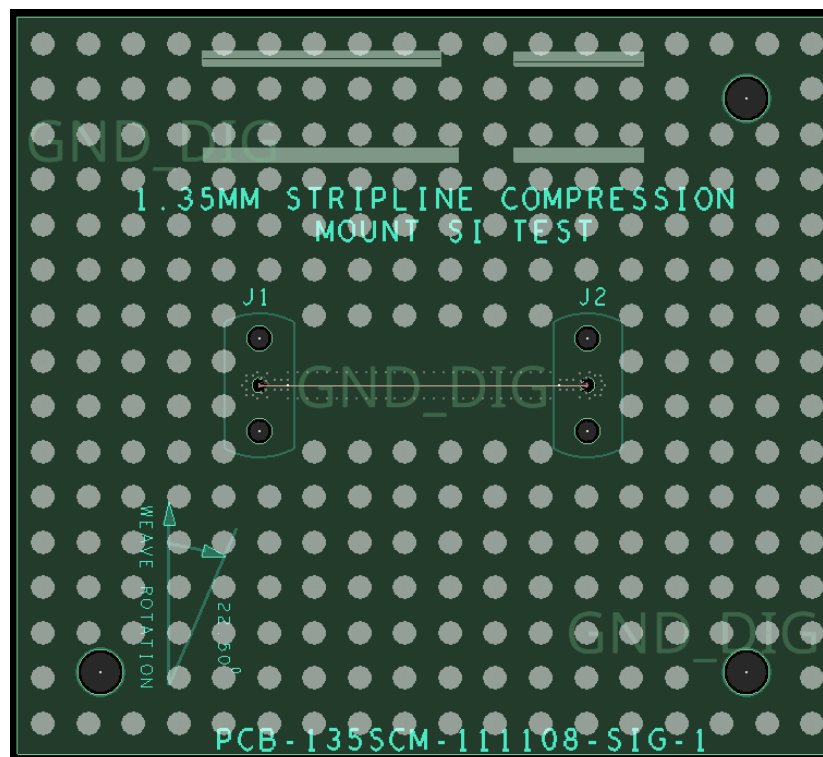
PCB-135SCM-111108-SIG-1 Test Fixtures

Shown below is a photograph of the test board.



PCB-135SCM-111108-SIG-1 PCB Layout

Artwork of the PCB design is shown below.



Series: 135

Description: 50 Ohm 1.35 mm Jack, Vertical, Compression Mount Stripline

135-J-P-VP-ST-CM-X-XTest Definition

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

Connector Under Test:



Series: 135

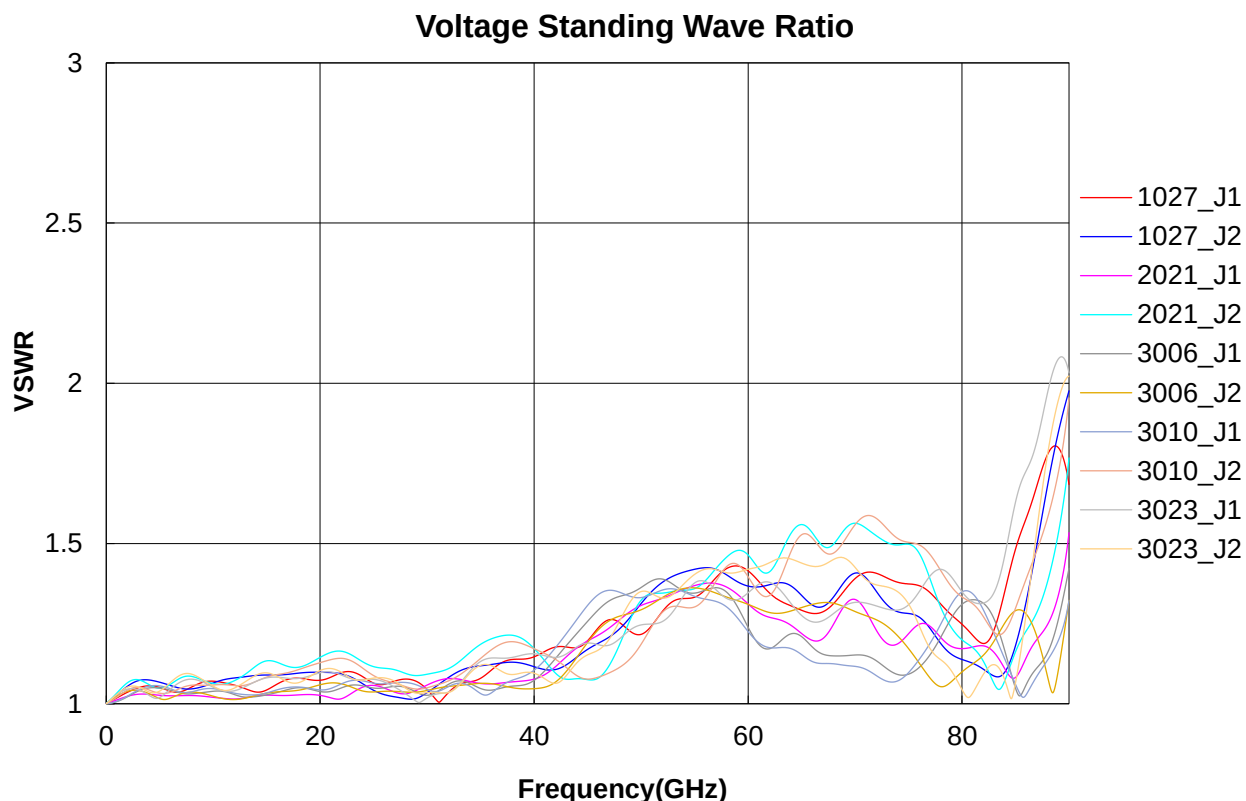
Description: 50 Ohm 1.35 mm Jack, Vertical, Compression Mount Stripline

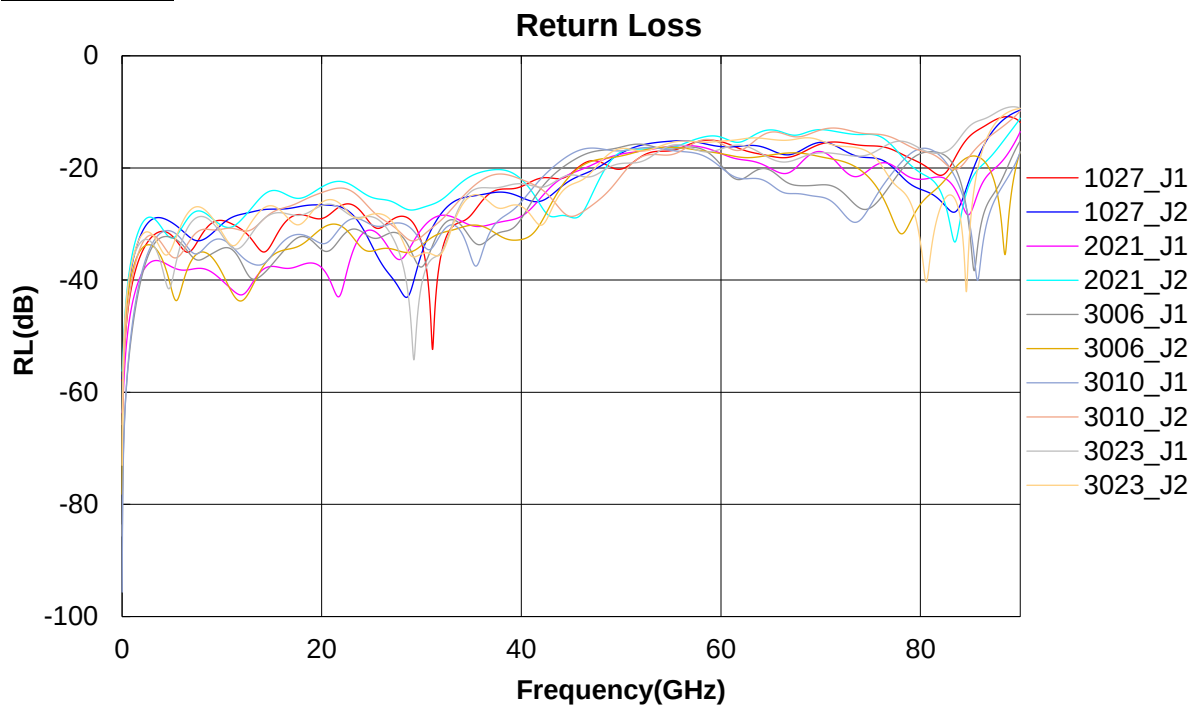
Results:135-J-P-VP-ST-CM-X-X

The post processed results include the 135-J-P-VP-ST-CM-X-X connector, launch, and ~500 mils of PCB trace to minimize the effects of the test setup.

Description: 50 Ohm 1.35 mm Vertical Compression Mount Stripline			
Sample	VSWR(max)	RL(max)	IL(min)
1027_J1	1.80@88.71GHz	-10.85@88.71GHz	-3.61@89.62GHz
1027_J2	1.98@90.00GHz	-9.68@90.00GHz	-3.60@89.62GHz
2021_J1	1.53@90.00GHz	-13.53@90.00GHz	-3.66@90.00GHz
2021_J2	1.77@90.00GHz	-11.14@90.00GHz	-3.67@90.00GHz
3006_J1	1.42@90.00GHz	-15.16@90.00GHz	-3.33@90.00GHz
3006_J2	1.36@54.72GHz	-16.29@54.72GHz	-3.33@90.00GHz
3010_J1	1.36@52.75GHz	-16.35@52.75GHz	-3.60@90.00GHz
3010_J2	1.95@90.00GHz	-9.82@90.00GHz	-3.60@90.00GHz
3023_J1	2.08@89.29GHz	-9.09@89.29GHz	-3.67@89.54GHz
3023_J2	2.02@90.00GHz	-9.41@90.00GHz	-3.66@89.56GHz

VSWR



Series: 135**Description:** 50 Ohm 1.35 mm Jack, Vertical, Compression Mount StriplineReturn LossInsertion Loss