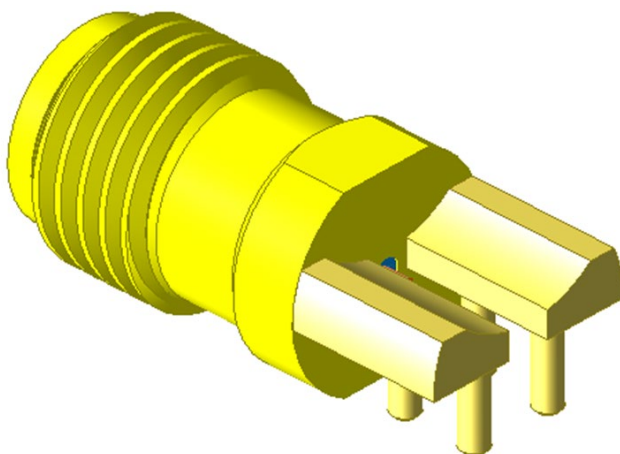




RF Characterization Report

SMA-J-P-HG-ST-EM-01



Test Date: Sep 2025

Description:
50-Ohm SMA Straight Jack, Edge Mount, 4-POST

Series: SMA-EM-01

Description: 50-Ohm SMA Straight Jack, Edge Mount, 4-POST

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Series: SMA-EM-01

Description: 50-Ohm SMA Straight Jack, Edge Mount, 4-POST

Test Setup Information

Scope:

Provide standing wave ratio, return loss and insertion loss performance parameters for SMA Straight Jack, Edge Mount, 4 Post 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	26.5 GHz
Points	2650
Test Cables	Gore 0F0CACB036.0-LF(DC to 67 GHz)

Calibration Type:

A Keysight calibration is performed for N5227B using the ECAL N4694A kit.

Calibration Kit	Keysight ECAL N4694A
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Adapter Use:

PCB-113357-PRF-01 RF board was used for the measurements of SMA-J-P-HG-ST-EM-01.

Test System Description

The test fixture is composed of a four-layer MT40 material with 50 Ω signal trace in a grounded coplanar waveguide configuration. Optimization of the RF launch was performed using full wave simulation tools to minimize reflections. This launch design was implemented on PCB-113357-PRF-01.

Series: SMA-EM-01

Description: 50-Ohm SMA Straight Jack, Edge Mount, 4-POST

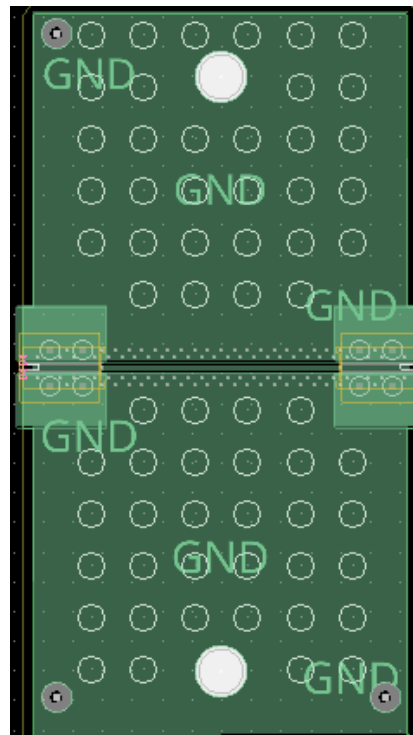
PCB-113357-PRF-01 Test Fixtures

Shown below is a photograph of the test board.



PCB-113357-PRF-01 PCB Layout

Artwork of the PCB design is shown below.



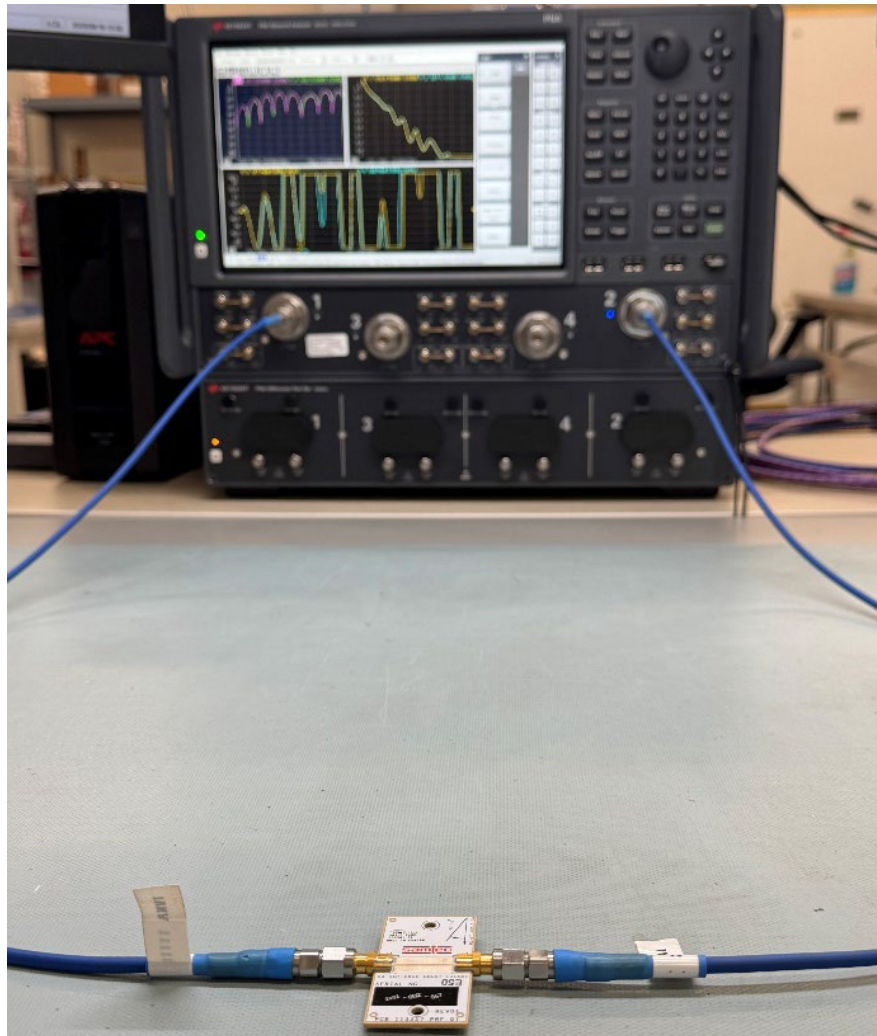
Series: SMA-EM-01

Description: 50-Ohm SMA Straight Jack, Edge Mount, 4-POST

SMA-J-P-HG-ST-EM-01 Test Definition

Part Number	End 1
SMA-J-P-HG-ST-EM-01	SMA Jack

Connector Under Test:



Series: SMA-EM-01

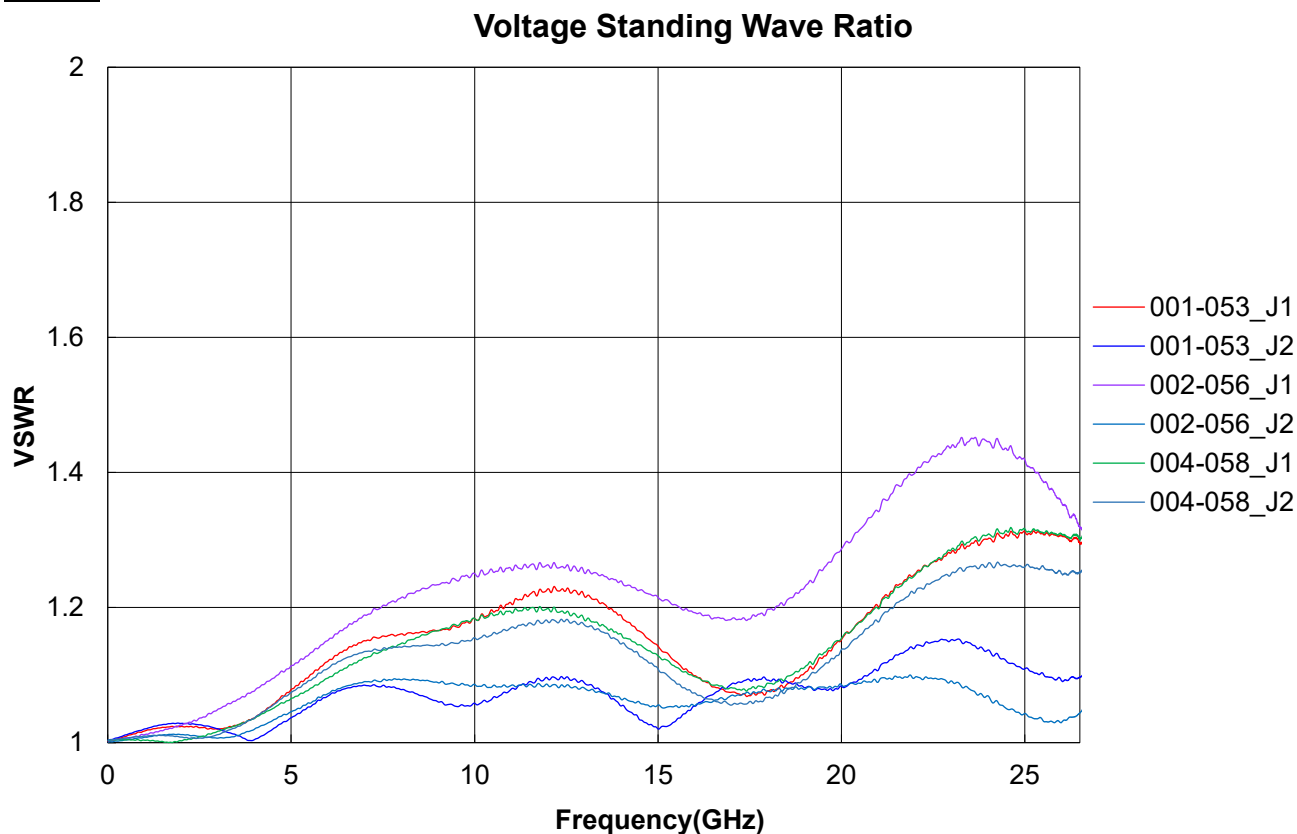
Description: 50-Ohm SMA Straight Jack, Edge Mount, 4-POST

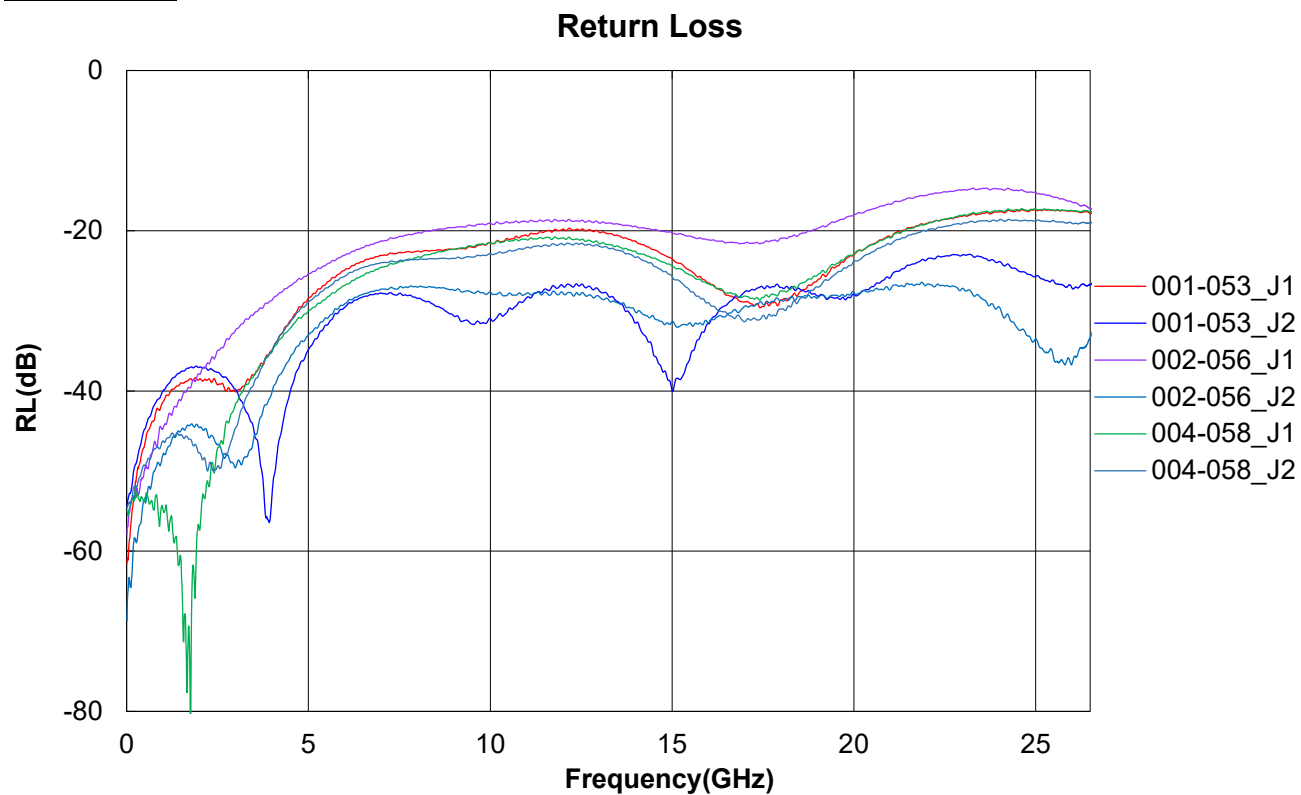
Results: SMA-J-P-HG-ST-EM-01

The post processed results include one SMA-J-P-HG-ST-EM-01 connector, launch, and about 0.5" of PCB trace to minimize the effects of the test setup.

Description: 50 Ohm SMA Edge Mount			
Sample	SWR(max)	RL(dB, max)	IL(dB, min)
001-053_J1	1.31@25.24GHz	-17.36@25.24GHz	-0.69@25.24GHz
001-053_J2	1.15@23.18GHz	-22.94@23.18GHz	-0.70@25.25GHz
002-056_J1	1.45@23.65GHz	-14.69@23.65GHz	-0.80@25.30GHz
002-056_J2	1.10@21.87GHz	-26.43@21.87GHz	-0.80@25.30GHz
004-058_J1	1.32@24.62GHz	-17.24@24.62GHz	-0.73@25.07GHz
004-058_J2	1.27@24.26GHz	-18.57@24.26GHz	-0.74@25.07GHz

VSWR



Series: SMA-EM-01**Description:** 50-Ohm SMA Straight Jack, Edge Mount, 4-POSTReturn LossInsertion Loss