RF Characterization Report

RF25M Series Cable Assemblies

RF25M-01SP1-01SP1-0305

RF25M-01BJ1-01BJ1-0305

RF25M-SCC21-01SP1-0305

Description:
RF Cable Assembly, RF25M Cable

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Table of Contents

Series: RF25M
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Test Setup Information

Scope:

To perform characterization tests, Insertion Loss, Return Loss and Voltage Standing Wave Ratio.

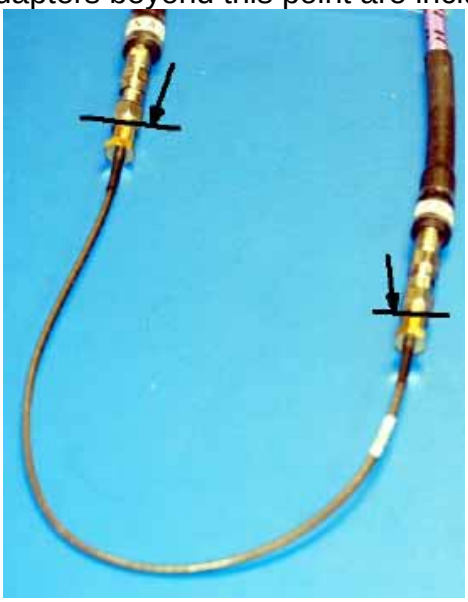
Product Description:

The table below presents a description of the different RF25M series cable assemblies that were tested

Part Number	Length	Termination – End 1	Termination – End 2
RF25M-01BJ1-01BJ1-0305	305 mm	SMA, Straight, Bulkhead Jack	SMA, Straight, Bulkhead Jack
RF25M-01SP1-01SP1-0305	305 mm	SMA, Straight, Plug	SMA, Straight, Plug
RF25M-SCC21-01SP1-0305	305 mm	Bull's Eye Coat Test Point with knurled ferrule	SMA, Straight, Plug

Test Calibration:

Calibration is performed using Agilent mechanical calibration kit, PN 85052D to the calibration point below. Any adapters beyond this point are included in the measurements.



(Sample setup of adapters, actual setup not depicted.)

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Adapter Use:

Each port uses at least one precision adapter capable of mating to the assembly under test. Any supplementary adapter will contribute additional electrical characteristics to the measured data. Any use of additional adapters is noted.

Product Part Number	Used Adapter Part Number	Adapter End	Vender	Used Quantity
RF25M-SCC21-01SP1-0305	73251-1850	SMA Jack	Molex	1

Definition of Assembly under Test:

The performance characteristics include the interface with adapters.

Port Designations:

The connector attached to port 1 of the VNA is “End 1” from the part number callout. Insertion Loss is measured using S21 and Return Loss / VSWR is measured using S11.

Legend for Plots:

5 samples were tested. Only the min/max plots are shown for clarity in this report.

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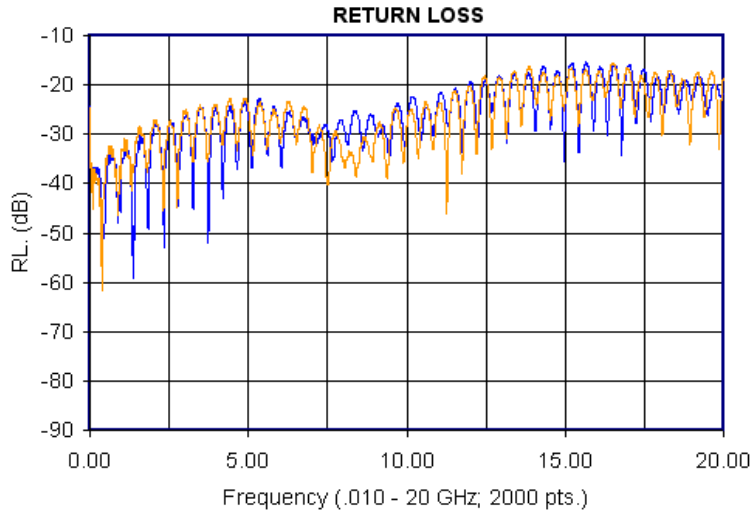
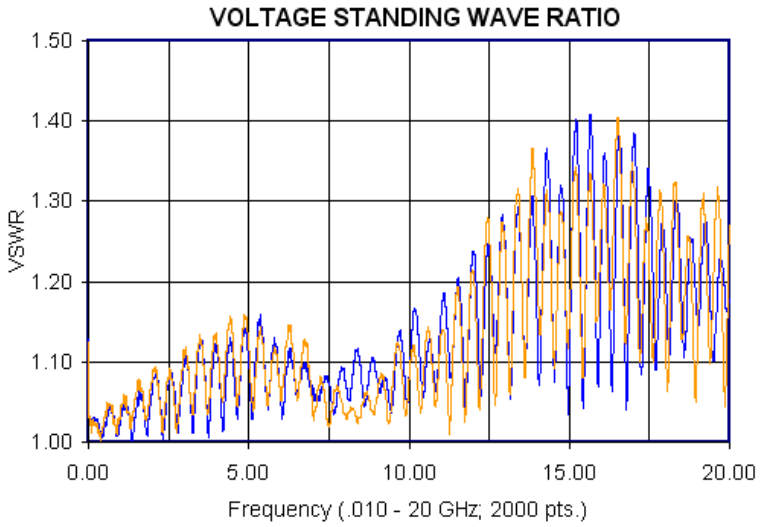
RF25M-01BJ1-01BJ1-0305





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Description: RF Cable Assembly, RF25M Cable

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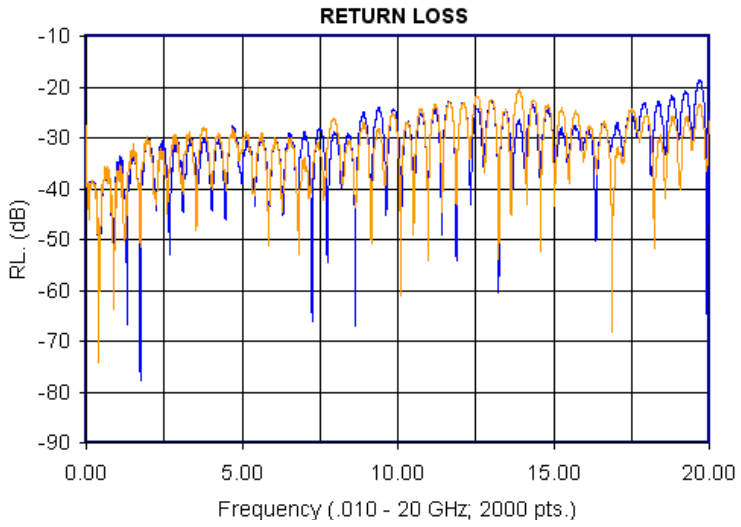

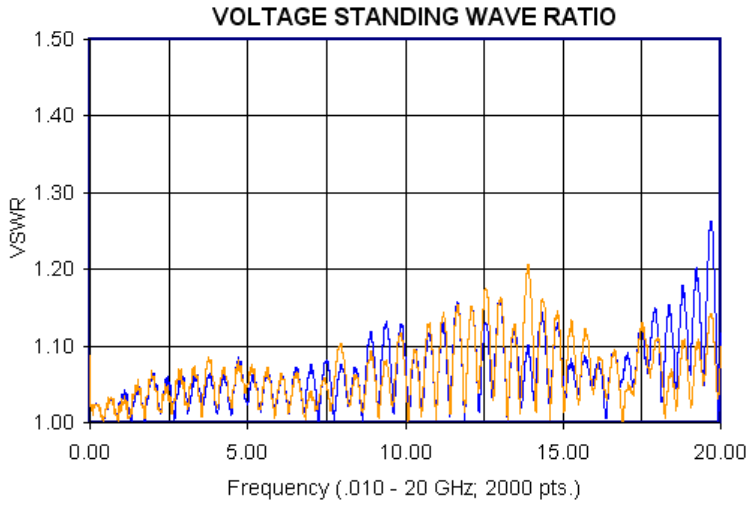

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Description: RF Cable Assembly, RF25M Cable

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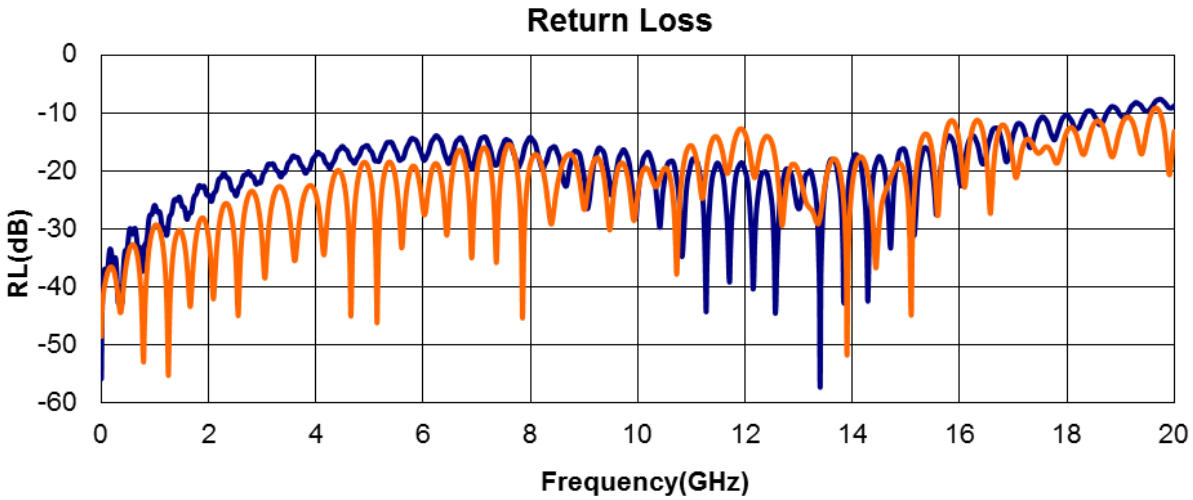

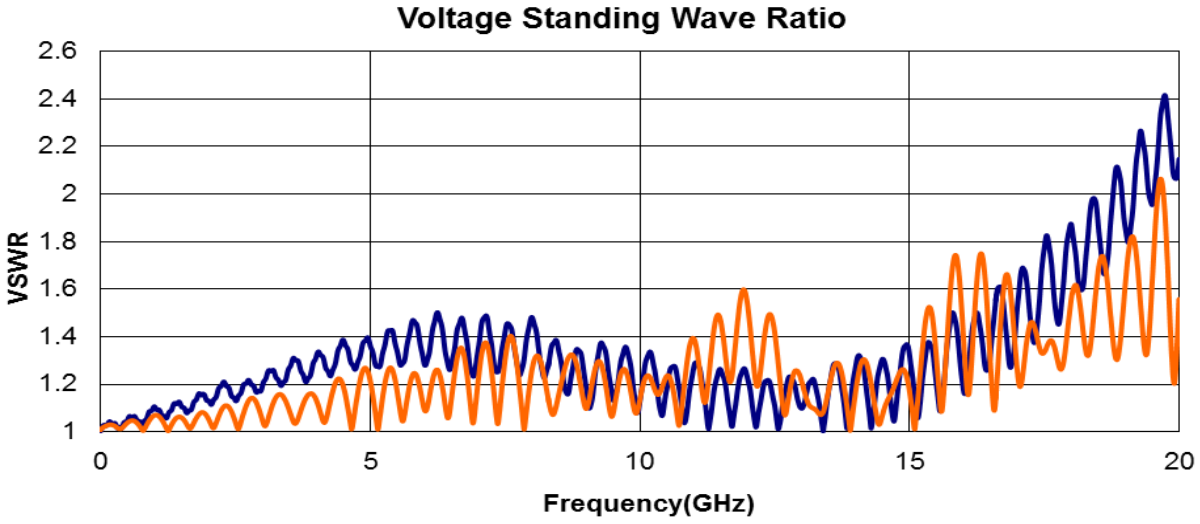

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Instrument Setup:

For some of test results, network analyzer (Agilent E8364B) was used and setup as below:

Network Analyzer	Agilent Model E8364B, 10MHz – 50 GHz, PNA Series
Mechanical Calibration Kit	Agilent Model 3.5mm 85052D Calibration Kit, 26.5 GHz
Adapters:	Pasternack PE9651 and PE9652 2.4mm (F) to 3.5mm (M) Precision Adapters
Averaging Factor	Off
Smoothing	Off
IF Bandwidth	1 KHz
Sweep Start	10 MHz
Sweep End	20 GHz
Points	2000

For some of test results, network analyzer (Agilent N5230C) was used and setup as below:

Network Analyzer	Agilent N5230C PNA-L Series (300 KHz - 20 GHz)
Mechanical Calibration Kit	85052D
Electronic Calibration Kit	N4433A
Averaging Factor	Off
Smoothing	Off
IF Bandwidth	1 KHz
Sweep Start	300 KHz
Sweep End	20 GHz
Points	1601

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Test Fixture:

E8364B (Typical set-up, actual part not depicted.)

Series: RF25M
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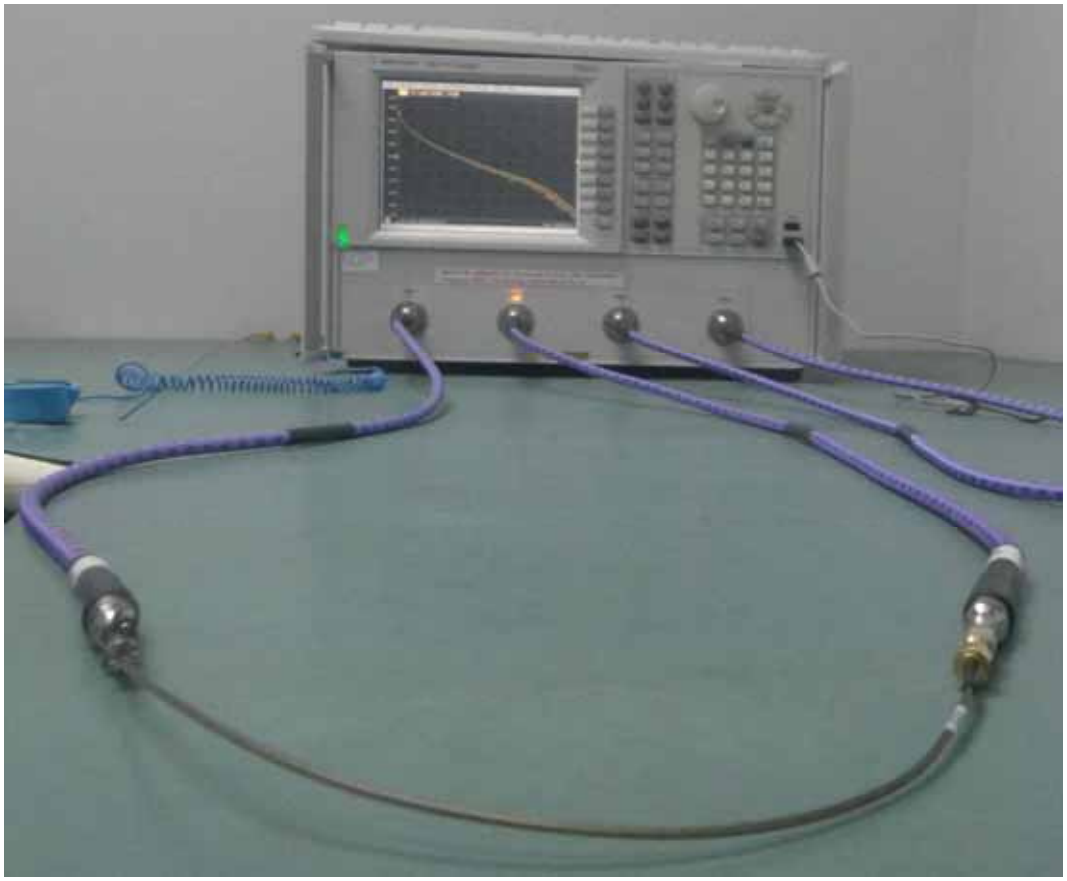

N5230C (Typical set-up, actual part not depicted.)