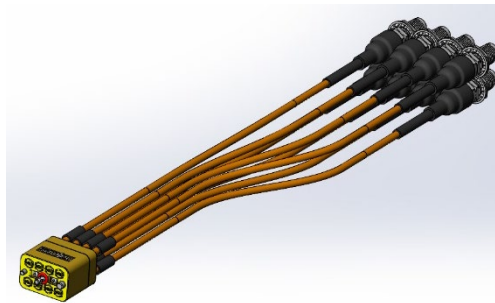


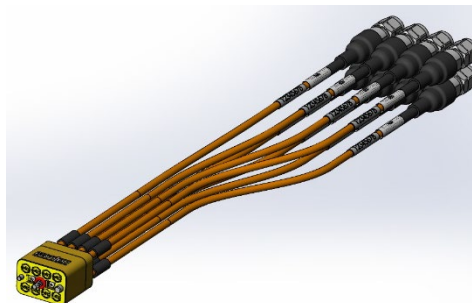


RF Characterization Report

BE71A-S-18BJ-N-2-4-XXXX



BE71A-S-18SP-N-2-4-XXXX



Test Date: Dec. 2025

Description:

**71 GHz, Bulls Eye® Phase & Amplitude Stable Test Assembly,
Stripline Transmission Type, 1.85mm End Option**

Series: BE71A**Description:** 71 GHz, Bulls Eye® Phase & Amplitude Stable Test Assembly,
Stripline Transmission Type, 1.85mm End Option

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Series: BE71A

Description: 71 GHz, Bulls Eye® Phase & Amplitude Stable Test Assembly,
Stripline Transmission Type, 1.85mm End Option

Test Setup Information

Scope:

Provide standing wave ratio, return loss, insertion loss and isolation performance parameters for BE71A-S-18BJ-N-2-4-XXXX (1.85mm Bulkhead Jack End 2) and BE71A-S-18SP-N-2-4-XXXX (1.85mm Straight Plug End 2) Bulls Eye® High-Performance Test Assembly.

Instrument Setup & Test Accessories:

Network Analyzer	Keysight PNA N5227B
Averaging Factor	1
Smoothing	Off
IF Bandwidth	1 KHz
Sweep Start	10 MHz
Sweep End	70 GHz
Points	7000
	1.85 mm test Cables
Test Cables	Gore 0F0CACB036.0-LF(DC to 67 GHz)

Calibration Type:

A Keysight mechanical calibration is performed using the 1.85 mm Keysight Calibration kit.

Calibration Kit	1.85 mm Keysight 85058B Calibration Kit
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Adapter Use:

PCB-114697-SIG-01 test board was used for the measurements of BE71A-S-18BJ-N-2-4-XXXX and BE71A-S-18SP-N-2-4-XXXX.

Test System Description

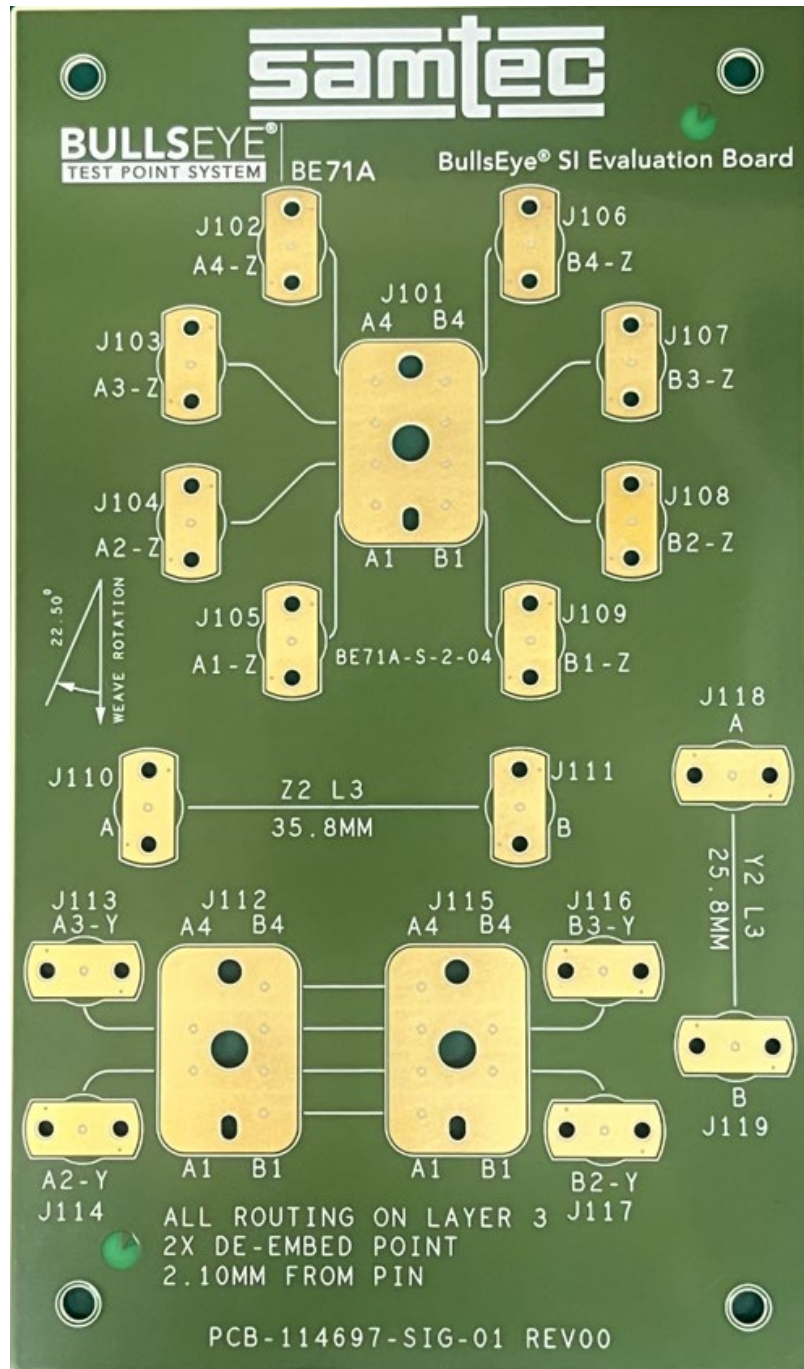
The test fixture is composed of a ten-layer EM-892BK material with 50Ω signal trace and a stripline launch designed to show performance on an L3 route. Optimization of the RF launch was performed using full wave simulation tools to minimize reflections. These launch designs were implemented on PCB-114697-SIG-01. The most of signal trace and 1.85mm RF connector launch effects were removed from the measurement using Keysight AFR in PLTS.

Series: BE71A

Description: 71 GHz, Bulls Eye® Phase & Amplitude Stable Test Assembly,
Stripline Transmission Type, 1.85mm End Option

PCB-114697-SIG-01 Test Fixtures

Shown below is a photograph of the test board.

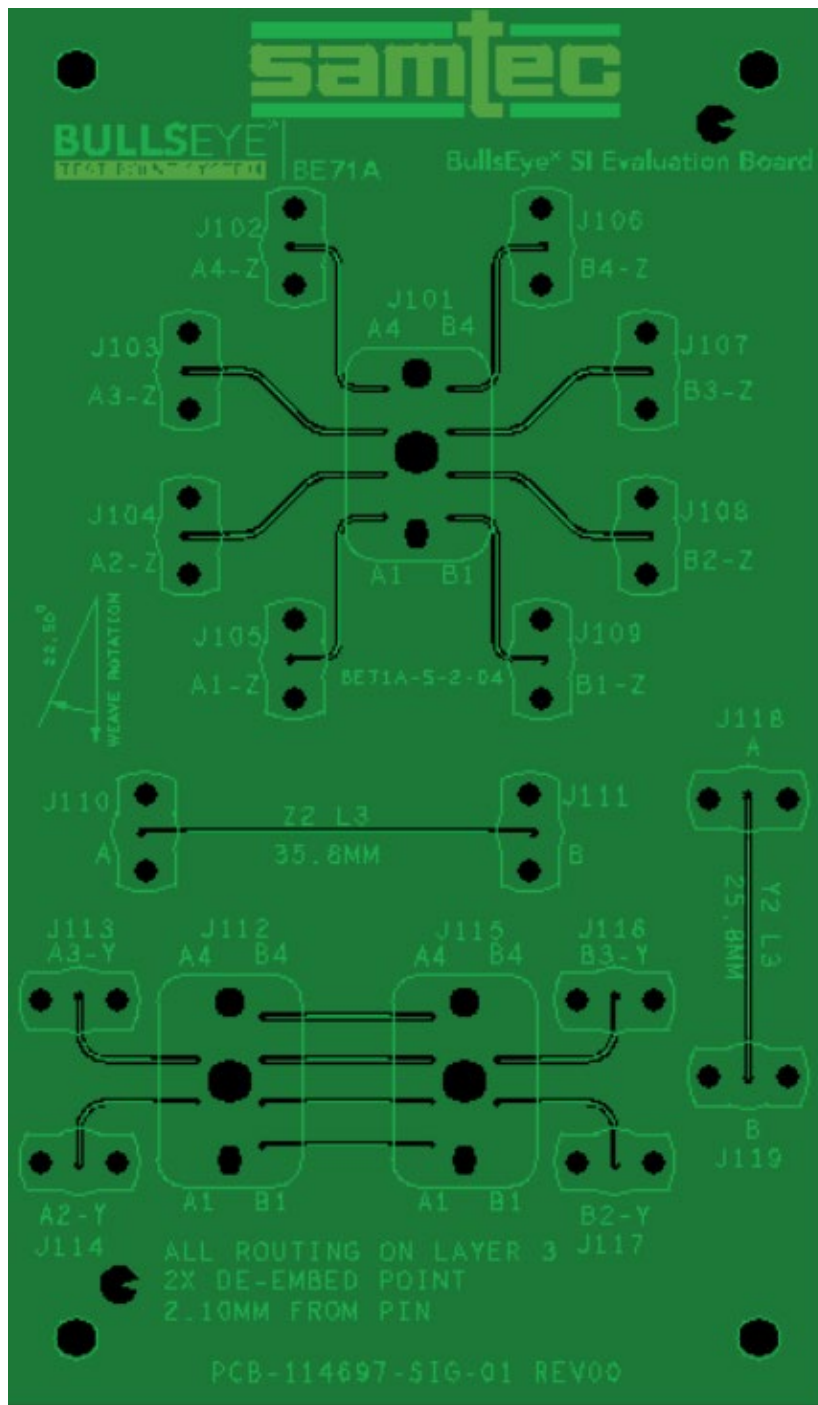


Series: BE71A

Description: 71 GHz, Bulls Eye® Phase & Amplitude Stable Test Assembly,
Stripline Transmission Type, 1.85mm End Option

PCB-114697-SIG-01 PCB Layout

Artwork of the PCB design is shown below.



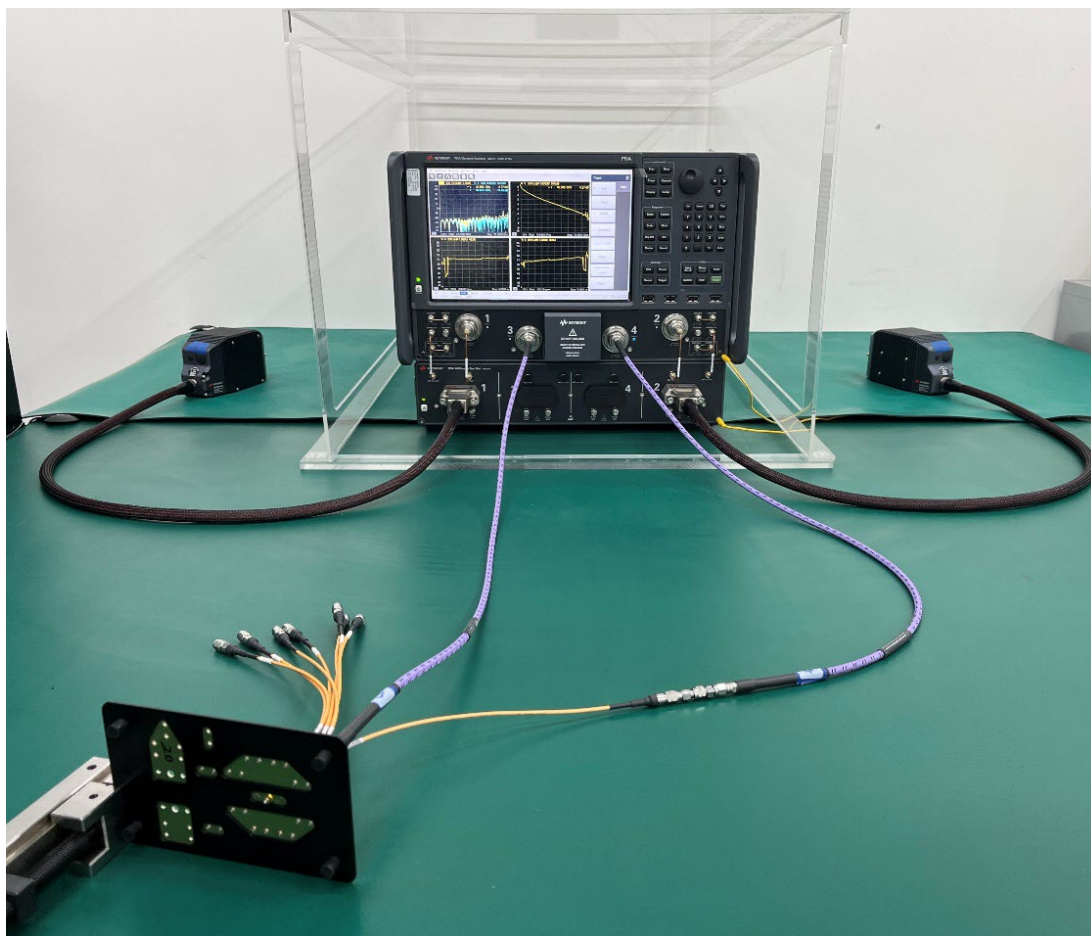
Series: BE71A

Description: 71 GHz, Bulls Eye® Phase & Amplitude Stable Test Assembly,
Stripline Transmission Type, 1.85mm End Option

BE71A-S-18XX-N-2-4-XXXX Test Definition

Part Number	End 1	End 2
BE71A-S-18BJ-N-2-4-XXXX	BE71A	1.85 mm Bulkhead Jack
BE71A-S-18SP-N-2-4-XXXX	BE71A	1.85 mm Plug

Connector Under Test:



Series: BE71A

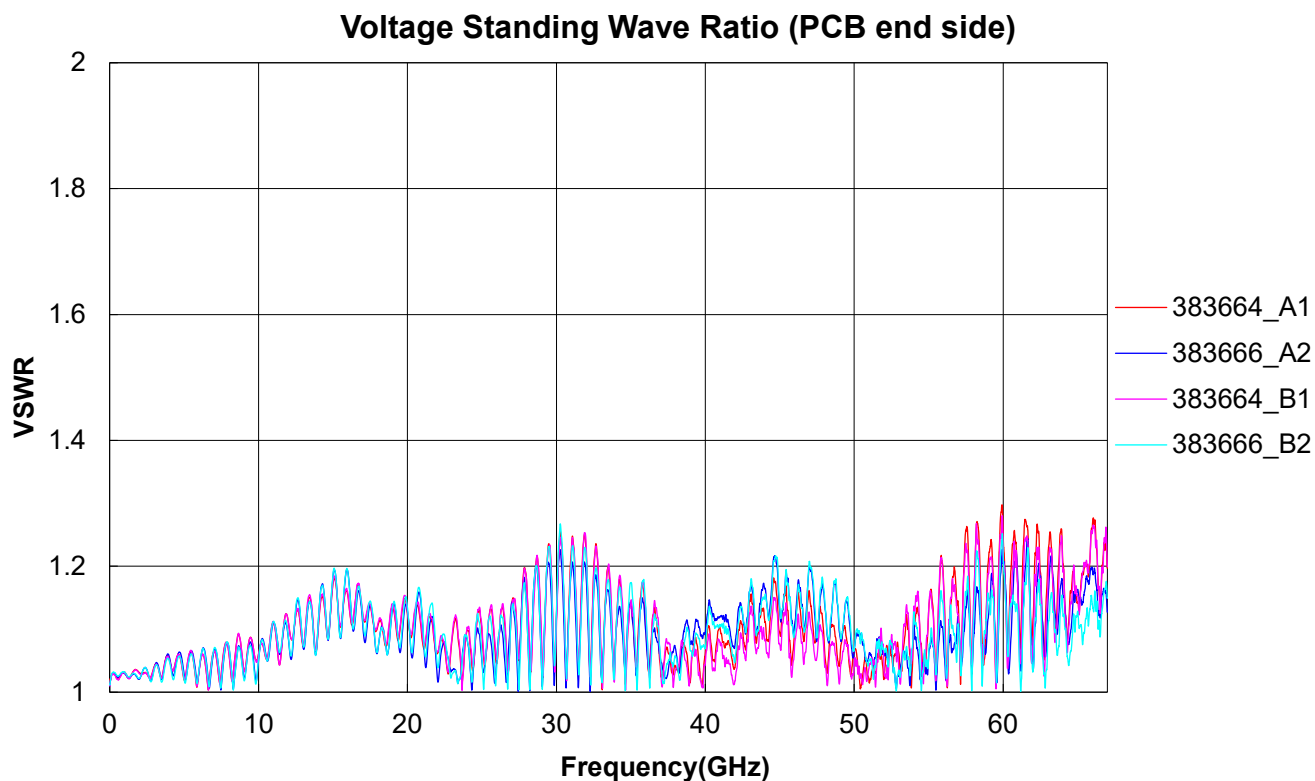
Description: 71 GHz, Bulls Eye® Phase & Amplitude Stable Test Assembly,
Stripline Transmission Type, 1.85mm End Option

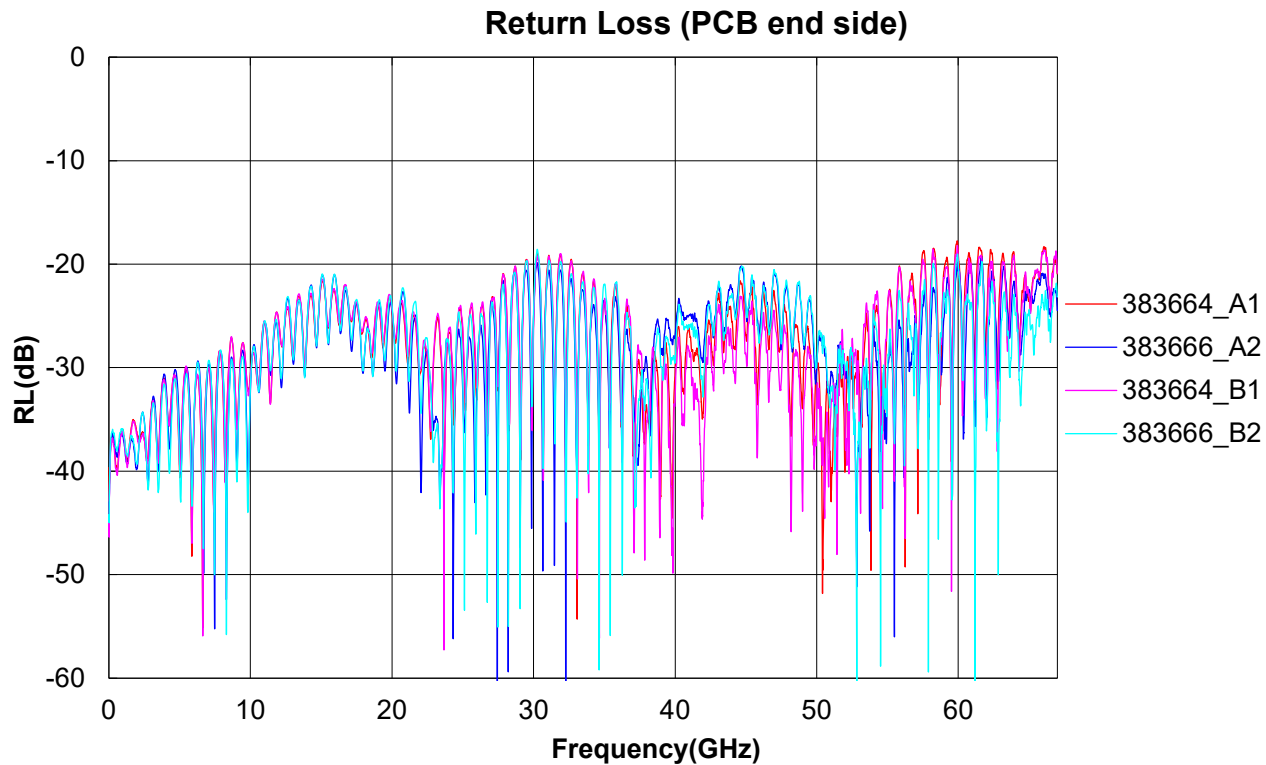
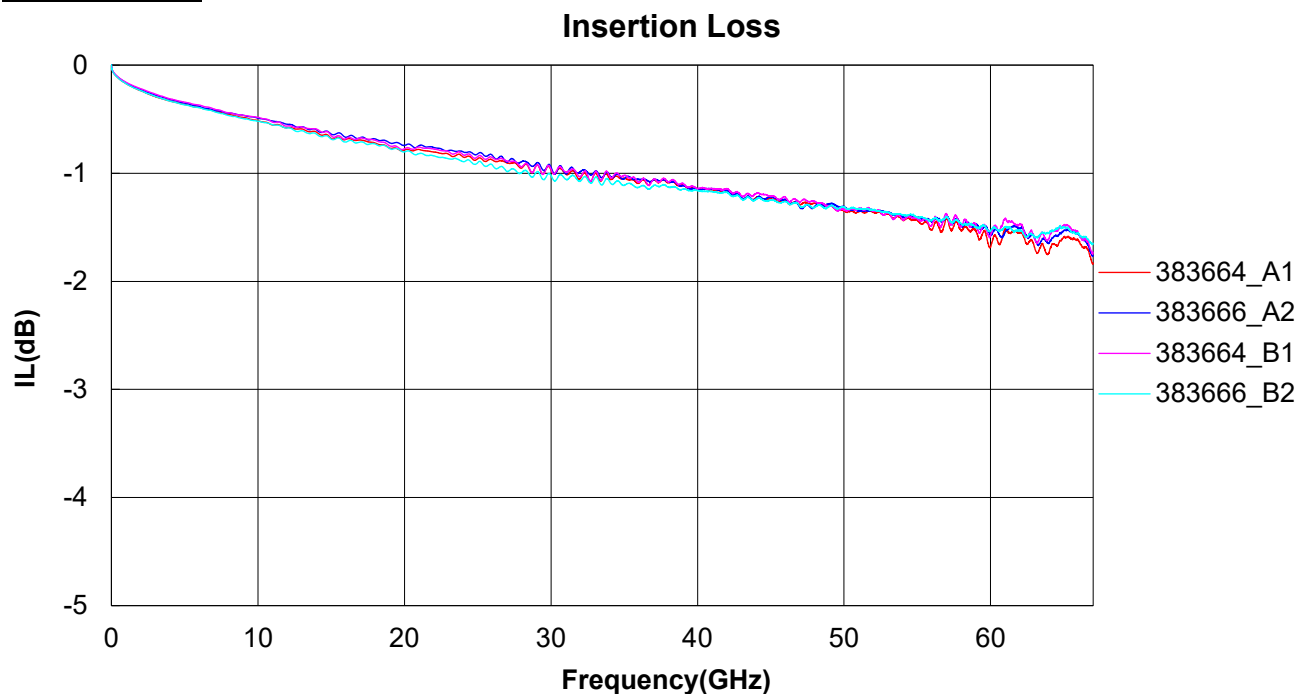
Results: BE71A-S-18BJ-N-2-4-0152

The post processed results include the BE71A-S-18BJ-N-2-4-0152 cable assembly, launch, and 2.1 mm of PCB trace to minimize the effects of the test setup.

Description: BE71A-S-18BJ-N-2-4-0152			
Sample	VSWR- PCB end side (max)	RL- PCB end side (dB, max)	IL (dB, min)
383664_A1	1.30@59.92GHz	-17.75@59.92GHz	-1.84@66.97GHz
383666_A2	1.25@61.62GHz	-19.22@61.62GHz	-1.77@66.95GHz
383664_B1	1.28@59.94GHz	-18.21@59.94GHz	-1.75@66.96GHz
383666_B2	1.27@30.26GHz	-18.56@30.26GHz	-1.66@66.95GHz

VSWR



Series: BE71A**Description:** 71 GHz, Bulls Eye® Phase & Amplitude Stable Test Assembly,
Stripline Transmission Type, 1.85mm End Option**Return Loss****Insertion Loss**

Series: BE71A

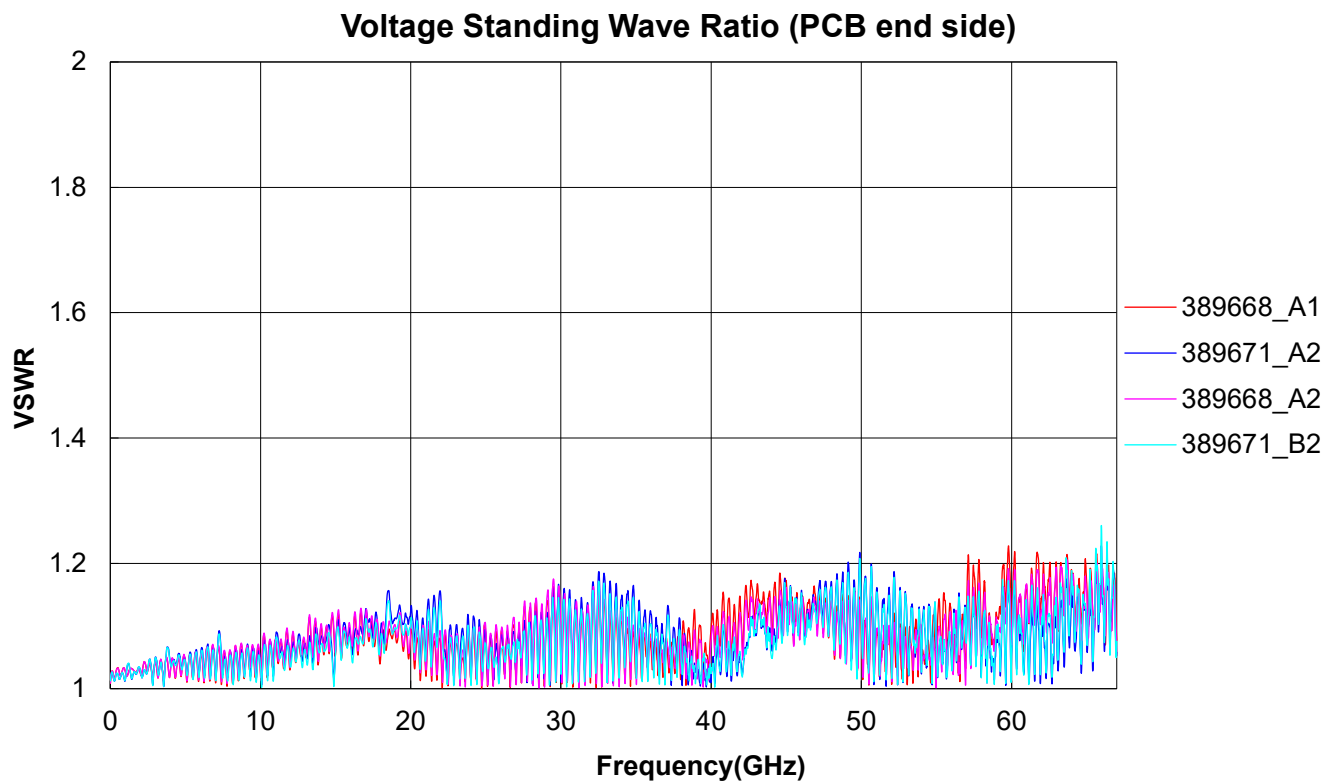
Description: 71 GHz, Bulls Eye® Phase & Amplitude Stable Test Assembly,
Stripline Transmission Type, 1.85mm End Option

Results: BE71A-S-18SP-N-2-4-0305

The post processed results include the BE71A-S-18SP-N-2-4-0305 cable assembly, launch, and 2.1 mm of PCB trace to minimize the effects of the test setup.

Description: BE71A-S-18SP-N-2-4-0305			
Sample	VSWR- PCB end side (max)	RL- PCB end side (dB, max)	IL (dB, min)
389668_A1	1.23@59.80GHz	-19.80@59.80GHz	-2.50@66.86GHz
389671_A2	1.23@65.97GHz	-19.80@65.97GHz	-2.48@66.83GHz
389668_B1	1.21@63.72GHz	-20.61@63.72GHz	-2.51@66.86GHz
389671_B2	1.26@65.98GHz	-18.77@65.98GHz	-2.44@66.79GHz

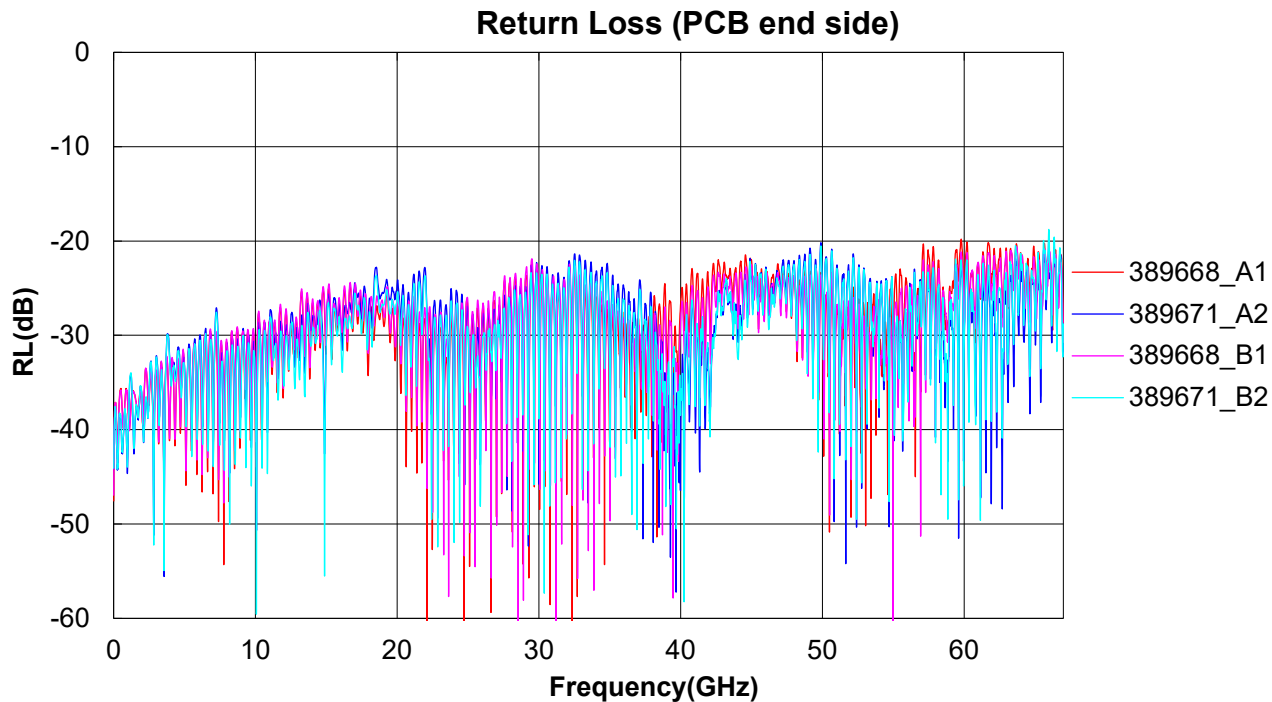
VSWR



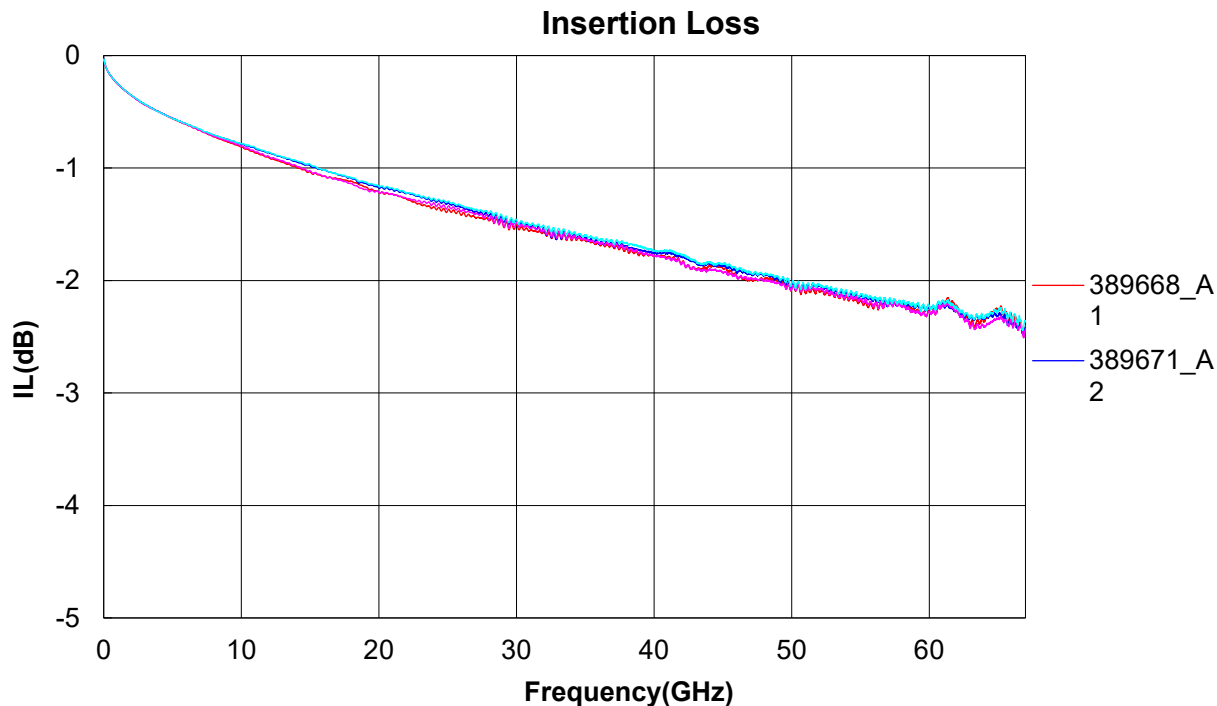
Series: BE71A

Description: 71 GHz, Bulls Eye® Phase & Amplitude Stable Test Assembly,
Stripline Transmission Type, 1.85mm End Option

Return Loss



Insertion Loss



Series: BE71A

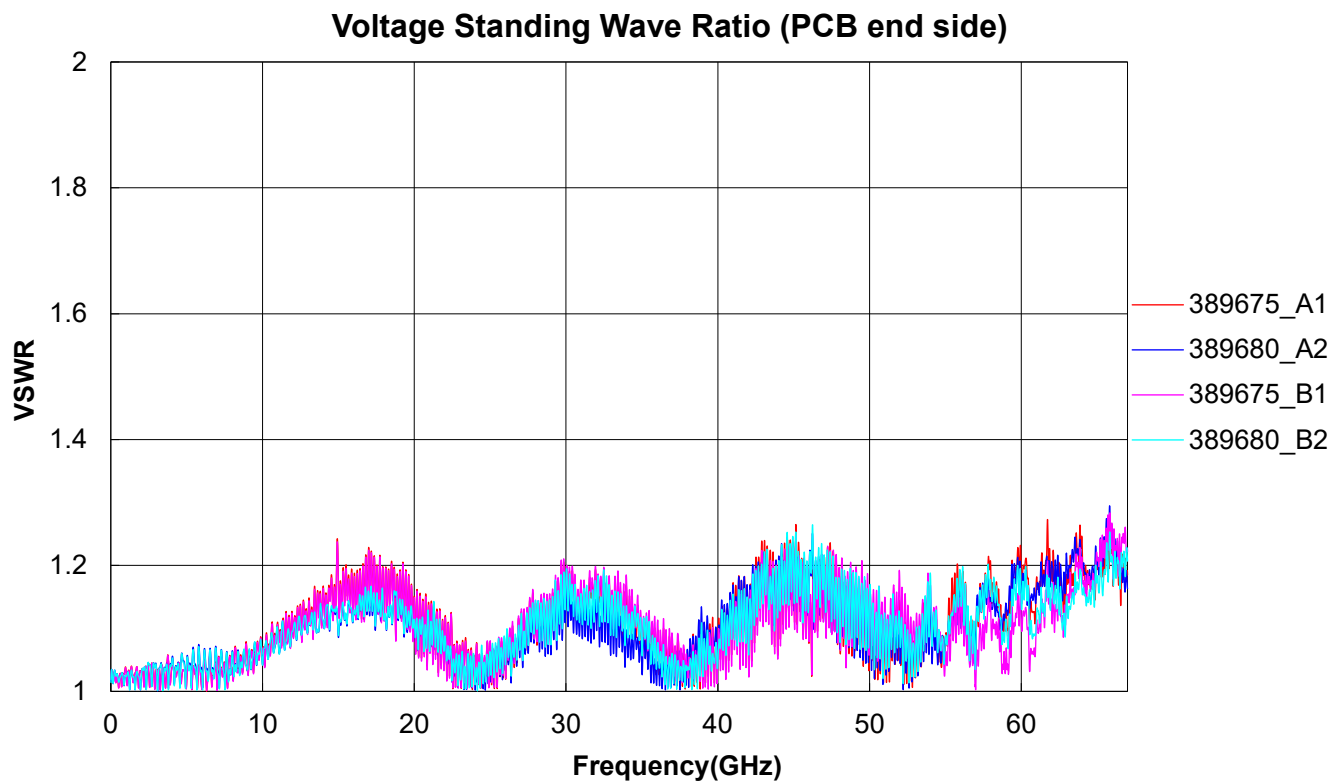
Description: 71 GHz, Bulls Eye® Phase & Amplitude Stable Test Assembly,
Stripline Transmission Type, 1.85mm End Option

Results: BE71A-S-18SP-N-2-4-0610

The post processed results include the BE71A-S-18SP-N-2-4-0610 cable assembly, launch, and 2.1 mm of PCB trace to minimize the effects of the test setup.

Description: BE71A-S-18SP-N-2-4-0610			
Sample	VSWR- PCB end side (max)	RL- PCB end side (dB, max)	IL (dB, min)
389675_A1	1.27@61.73GHz	-18.41@61.73GHz	-4.43@67.00GHz
389680_A2	1.29@65.82GHz	-17.82@65.82GHz	-4.51@66.96GHz
389675_B1	1.28@65.84GHz	-18.12@65.84GHz	-4.40@67.00GHz
389680_B2	1.26@46.24GHz	-18.64@46.24GHz	-4.37@66.95GHz

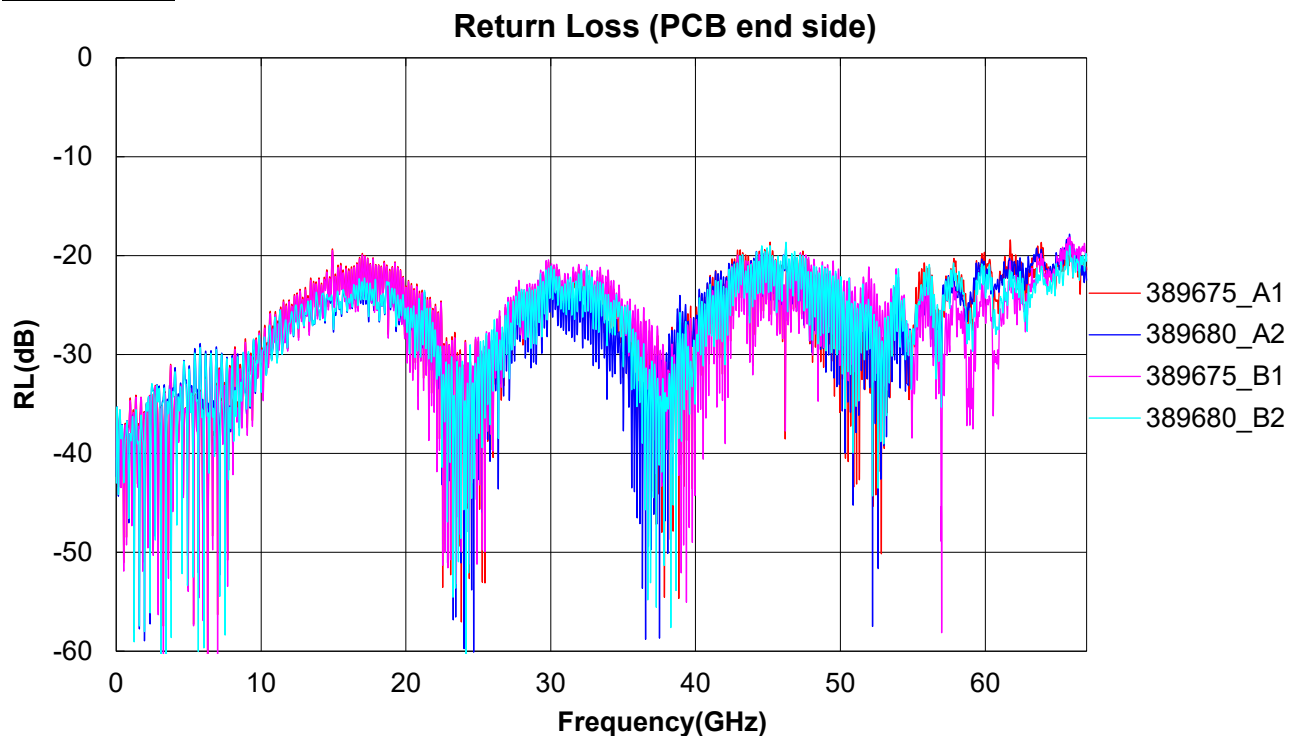
VSWR



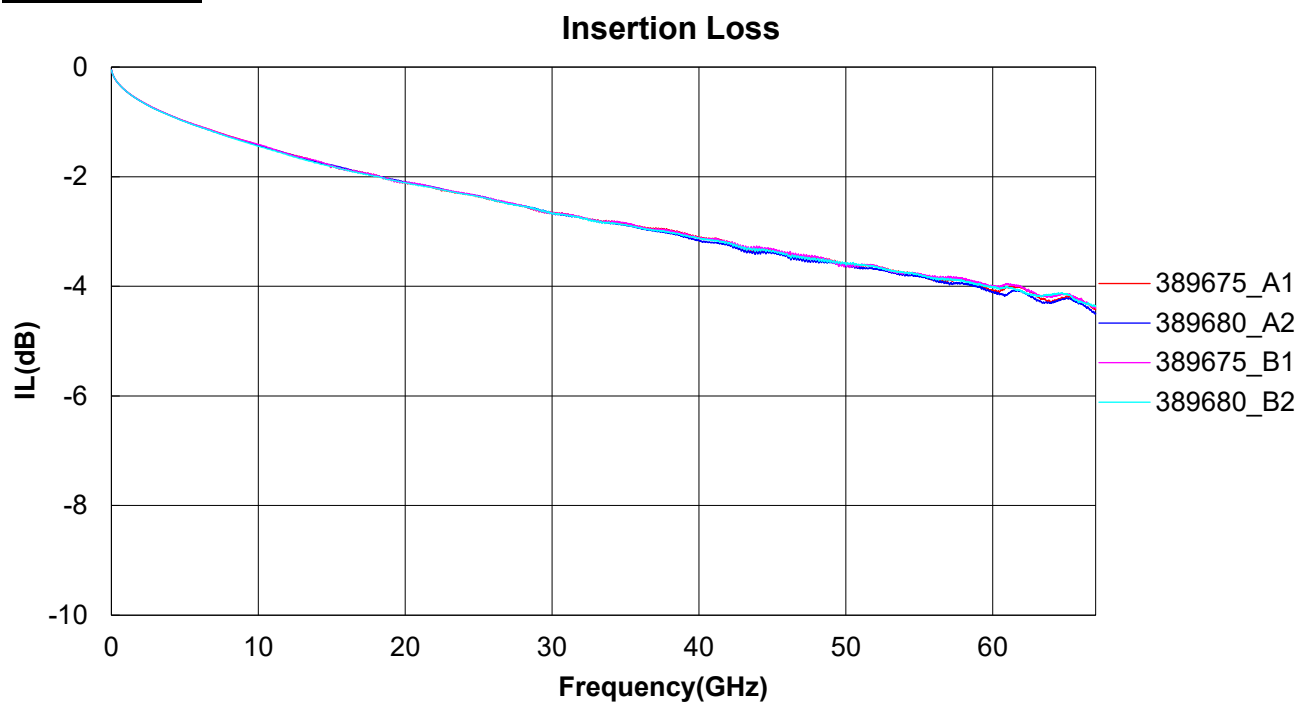
Series: BE71A

Description: 71 GHz, Bulls Eye® Phase & Amplitude Stable Test Assembly,
Stripline Transmission Type, 1.85mm End Option

Return Loss



Insertion Loss



Series: BE71A

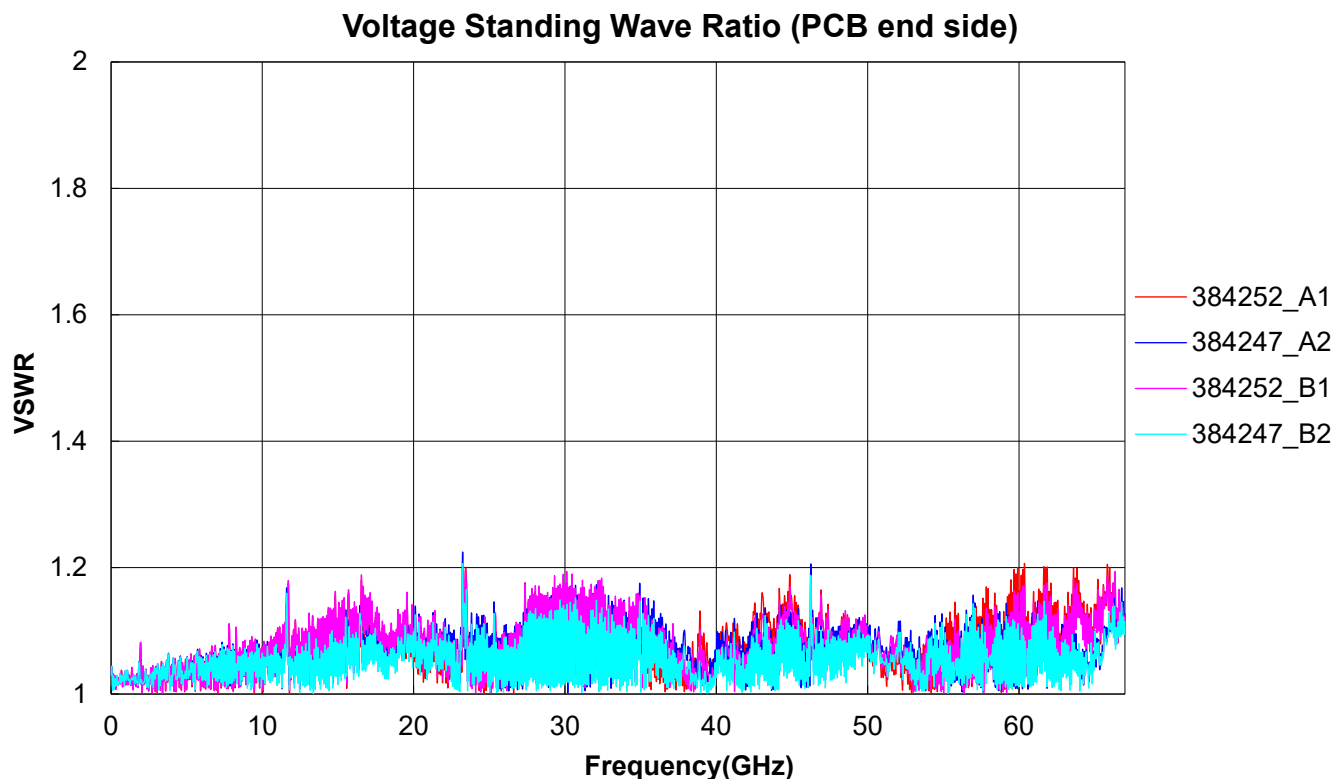
Description: 71 GHz, Bulls Eye® Phase & Amplitude Stable Test Assembly,
Stripline Transmission Type, 1.85mm End Option

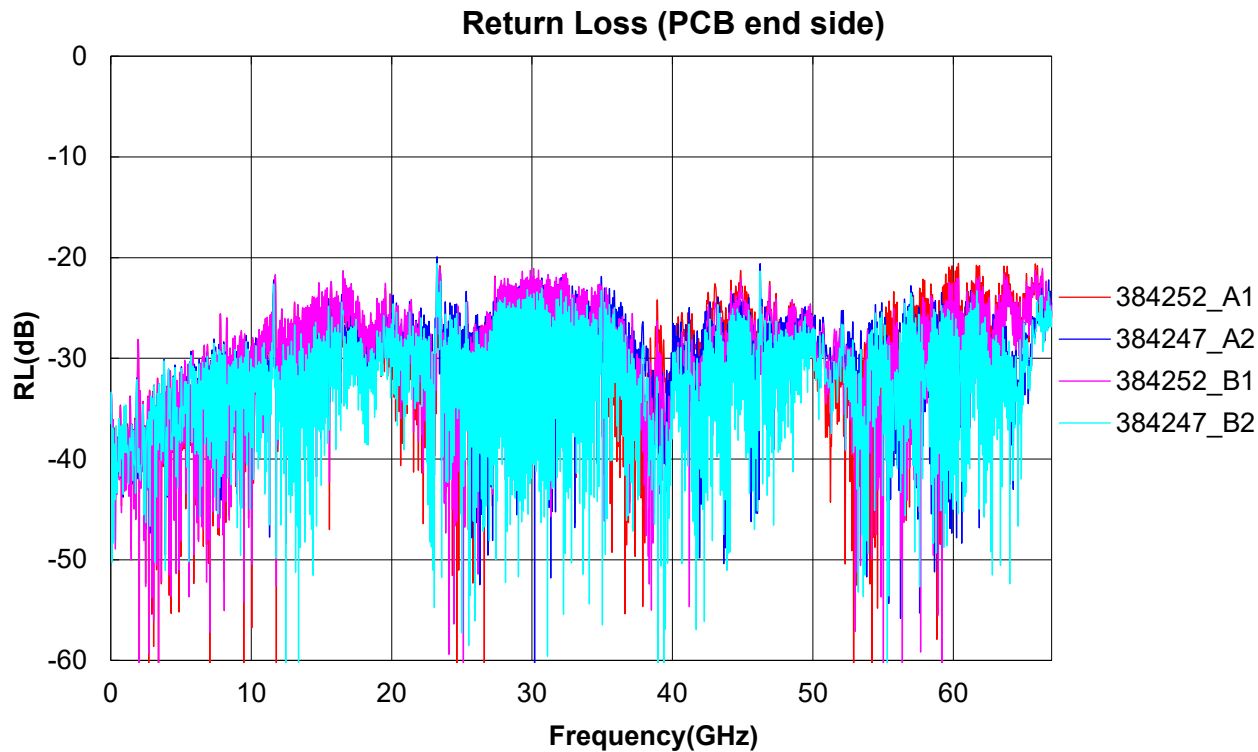
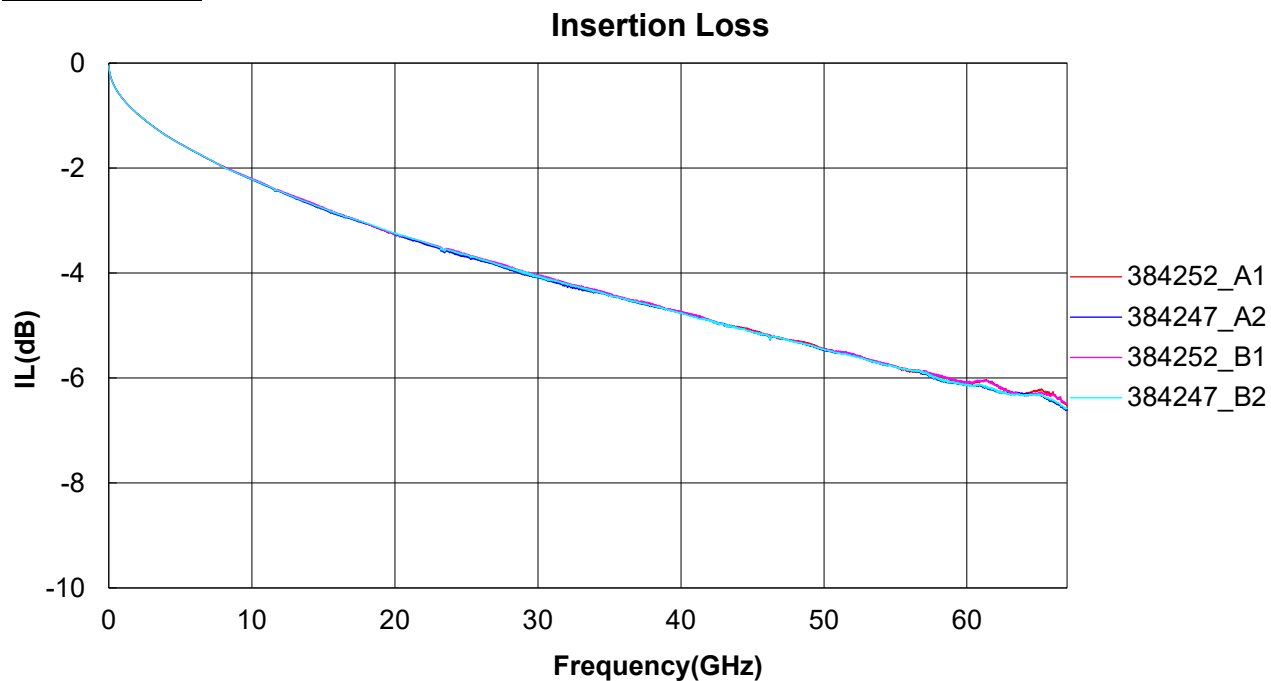
Results: BE71A-S-18BJ-N-2-4-1000

The post processed results include the BE71A-S-18BJ-N-2-4-1000 cable assembly, launch, and 2.1 mm of PCB trace to minimize the effects of the test setup.

Description: BE71A-S-18BJ-N-2-4-1000			
Sample	VSWR- PCB end side (max)	RL- PCB end side (dB, max)	IL (dB, min)
384252_A1	1.21@60.36GHz	-20.57@60.36GHz	-6.53@67.00GHz
384247_A2	1.22@23.23GHz	-19.92@23.23GHz	-6.62@66.92GHz
384252_B1	1.20@23.42GHz	-20.99@23.42GHz	-6.50@66.98GHz
384247_B2	1.21@23.23GHz	-20.58@23.23GHz	-6.59@66.90GHz

VSWR



Series: BE71A**Description:** 71 GHz, Bulls Eye® Phase & Amplitude Stable Test Assembly,
Stripline Transmission Type, 1.85mm End OptionReturn LossInsertion Loss

Series: BE71A**Description:** 71 GHz, Bulls Eye® Phase & Amplitude Stable Test Assembly,
Stripline Transmission Type, 1.85mm End Option**BE71A-S-18BJ-N-2-4-0152 Isolation**