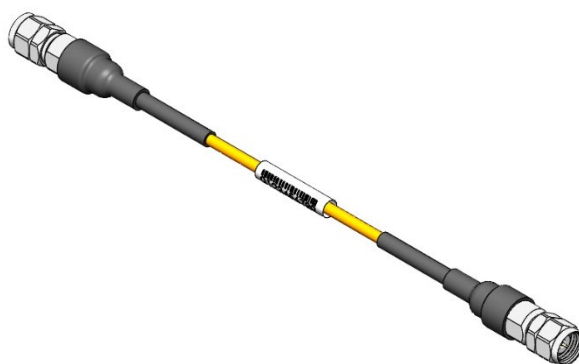




RF Characterization Report

LL071-18SP-18SP-XXXX



Test Date: Aug 2025

Description:
71 GHZ High-Performance Microwave Cable Assembly,
1.85mm Plug End Option



Series: LL071**Description:** 71 GHz, Nitrowave™ High-Performance Microwave Cable Assembly,
1.85mm Plug End Option

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Series: LL071

Description: 71 GHz, Nitrowave™ High-Performance Microwave Cable Assembly,
1.85mm Plug End Option

Test Setup Information

Scope:

Provide standing wave ratio, return loss and insertion loss performance parameters for LL071 high frequency RF cable assembly with 1.85mm Plug end option.

Instrument Setup & Test Accessories (LL071 cable assembly):

Network Analyzer	Keysight PNA N5227B
Averaging Factor	1
Smoothing	Off
IF Bandwidth	1 KHz
Sweep Start	10 MHz
Sweep End	67 GHz
Points	6700
Test Cables	Gore 0F0CACB036.0-LF (DC to 67 GHz)

Calibration Type (LL071 cable assembly):

A Keysight mechanical calibration is performed for N5227B using the Keysight 1.85mm MCAL 85058B.

Calibration Kit	Keysight MCAL 85058B
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Adapter Use:

No adapter used.

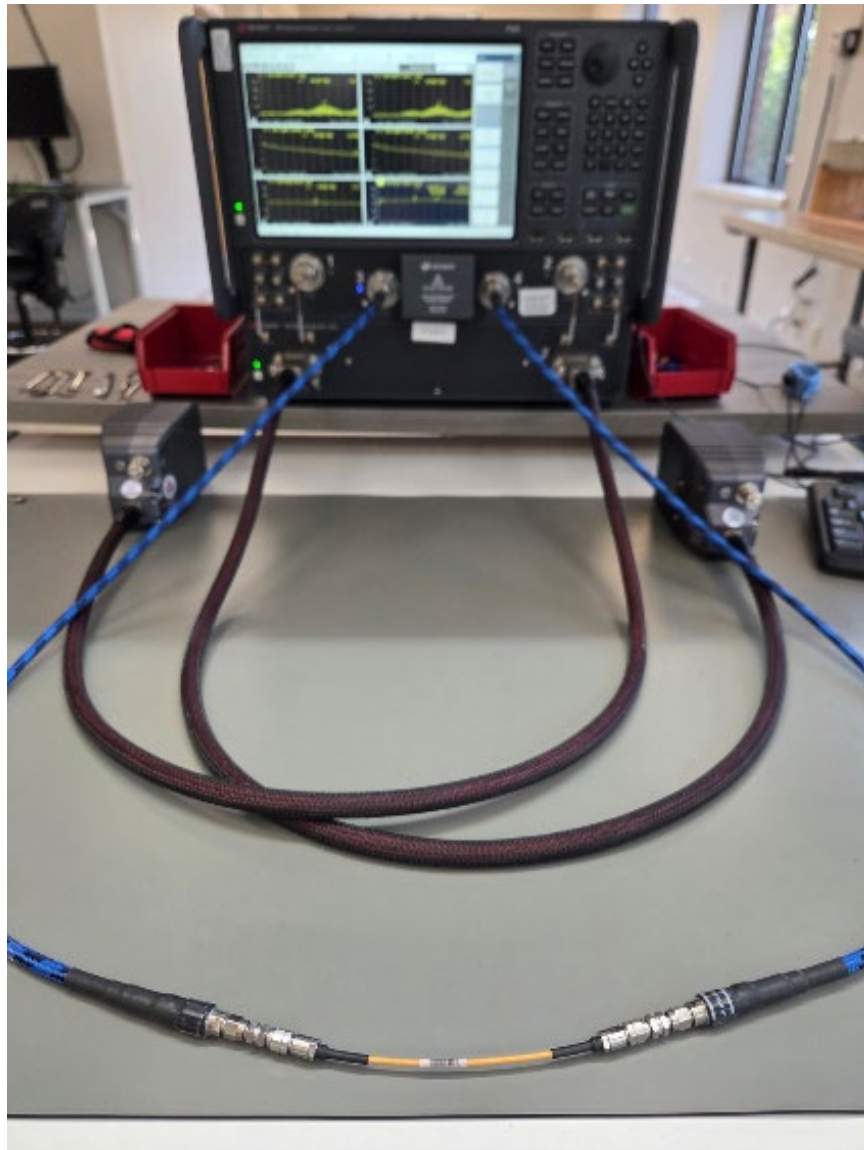
Series: LL071

Description: 71 GHz, Nitrowave™ High-Performance Microwave Cable Assembly,
1.85mm Plug End Option

LL071-18SP-18SP-XXXX Test Definition

Part Number	End 1	End 2
LL071-18SP-18SP-0152	1.85 mm Straight Plug	1.85 mm Straight Plug
LL071-18SP-18SP-1000	1.85 mm Straight Plug	1.85 mm Straight Plug

LL071 Cable Assembly Under Test:



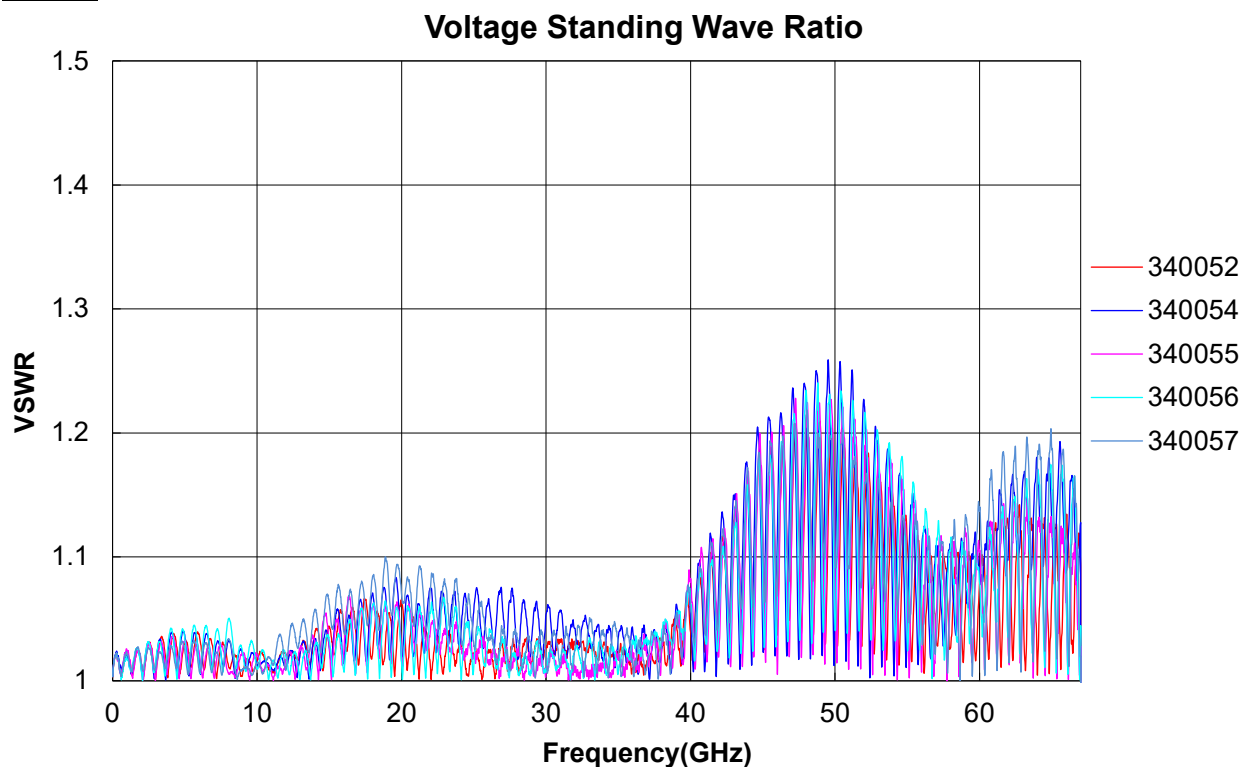
Series: LL071

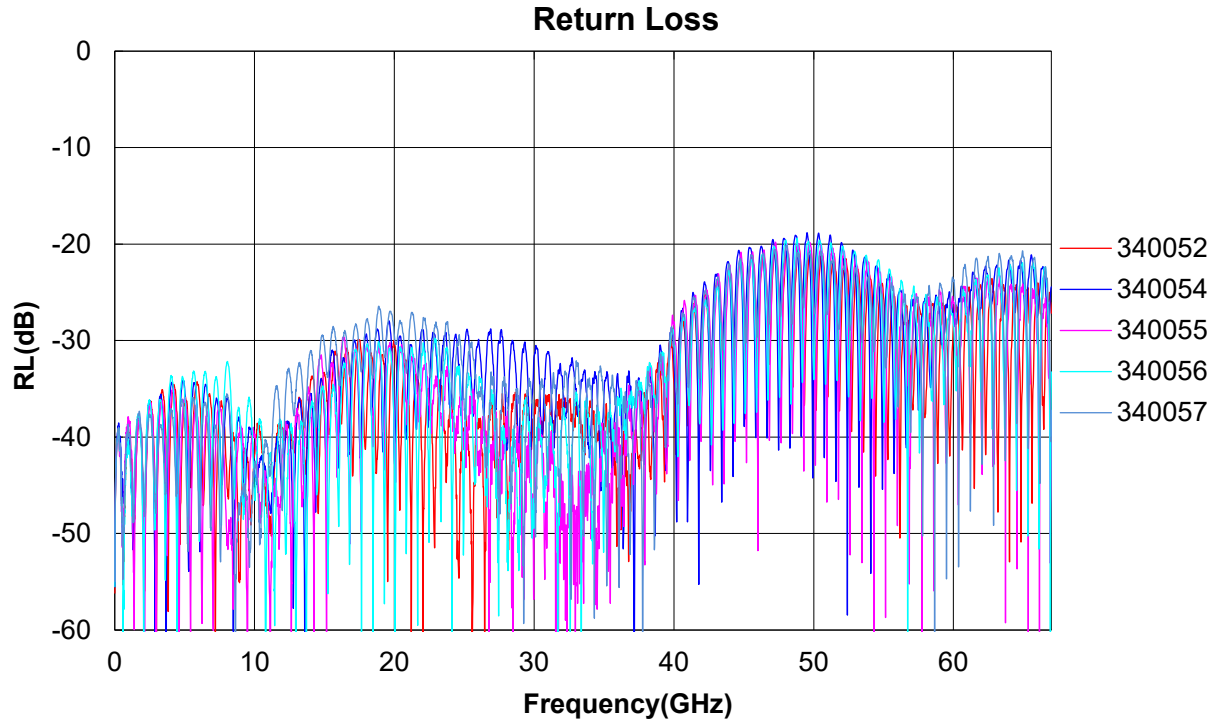
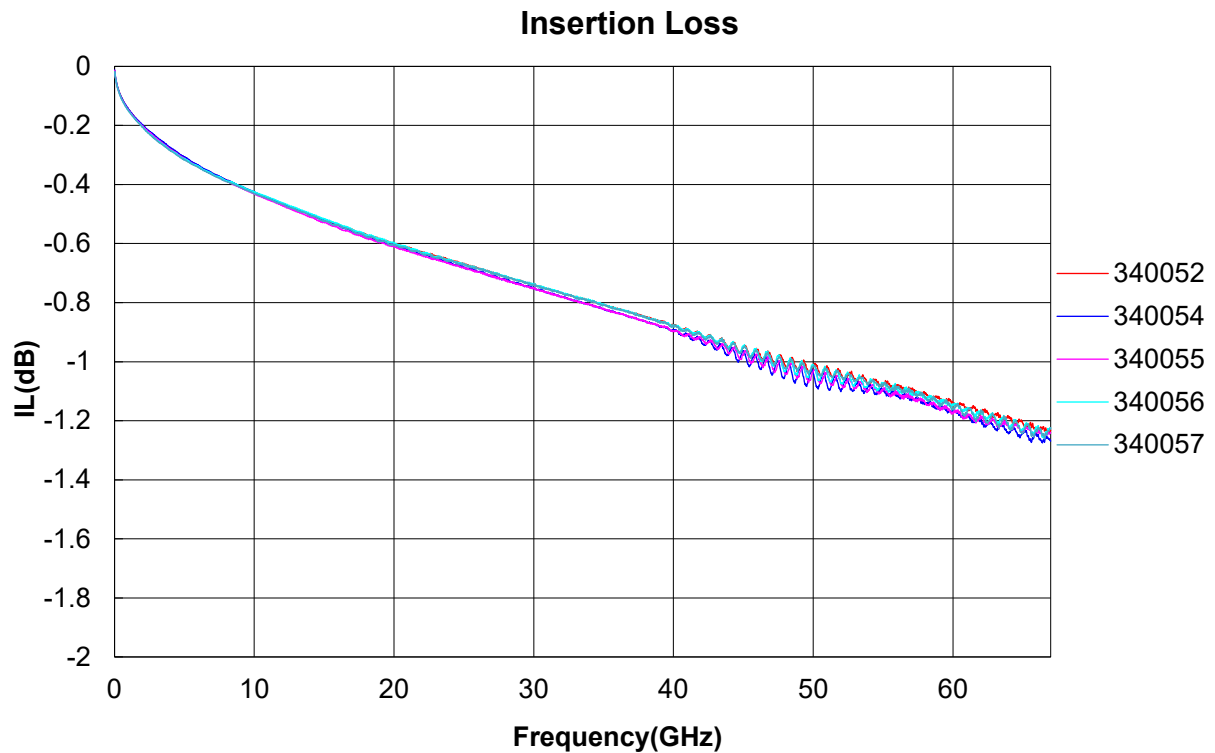
Description: 71 GHz, Nitrowave™ High-Performance Microwave Cable Assembly,
1.85mm Plug End Option

Results: LL071-18SP-18SP-0152

Description: LL071 High Frequency RF Cable Assembly			
Sample	VSWR(max)	RL (dB, max)	IL(dB, min)
340052	1.21@48.95GHz	-20.46@48.95GHz	-1.24@66.88GHz
340054	1.26@49.52GHz	-18.81@49.52GHz	-1.27@66.41GHz
340055	1.23@47.27GHz	-19.80@47.27GHz	-1.26@66.56GHz
340056	1.24@48.81GHz	-19.39@48.81GHz	-1.26@66.54GHz
340057	1.22@48.07GHz	-20.14@48.07GHz	-1.26@66.55GHz

VSWR



Series: LL071**Description:** 71 GHz, Nitrowave™ High-Performance Microwave Cable Assembly,
1.85mm Plug End OptionReturn LossInsertion Loss

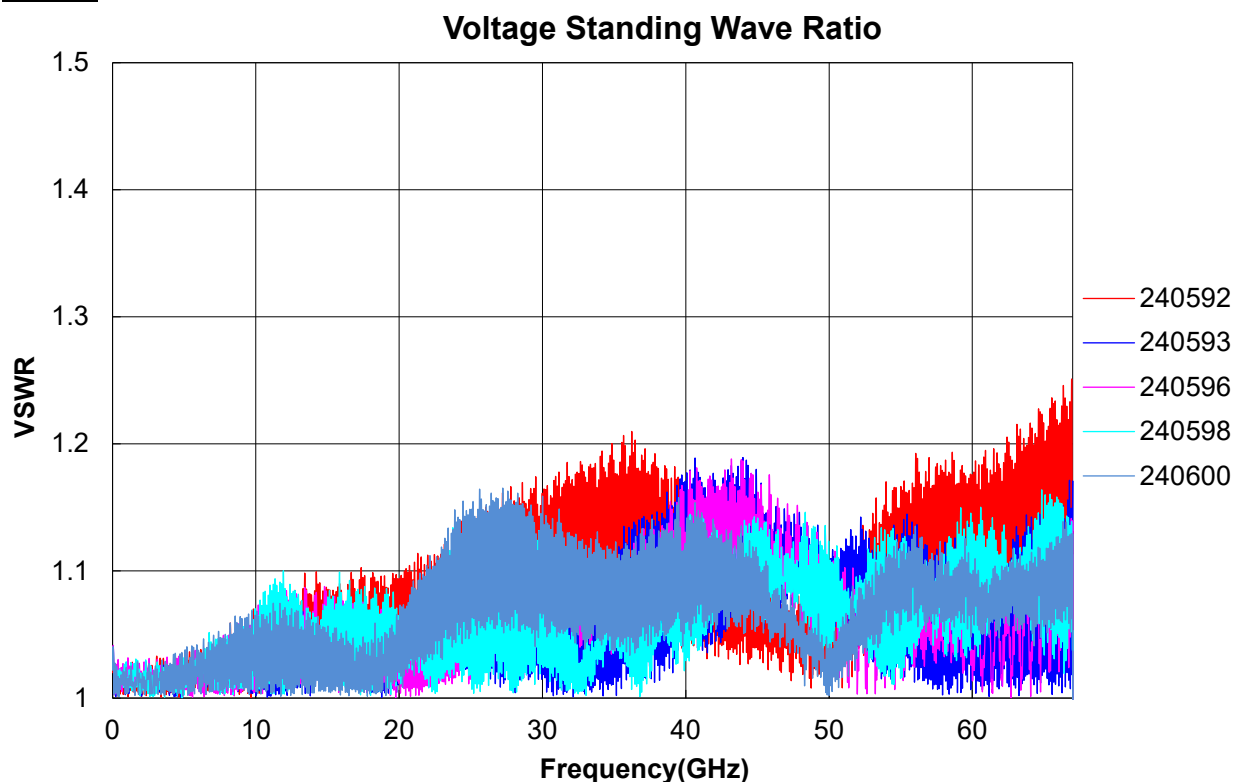
Series: LL071

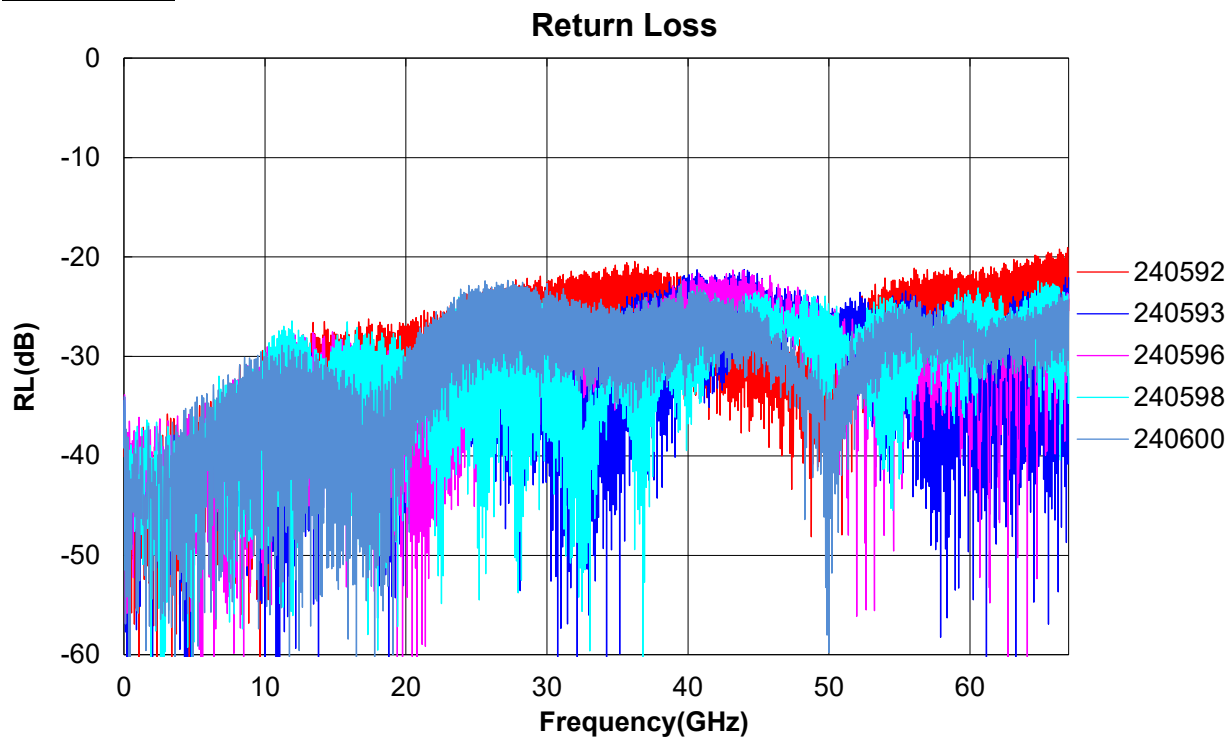
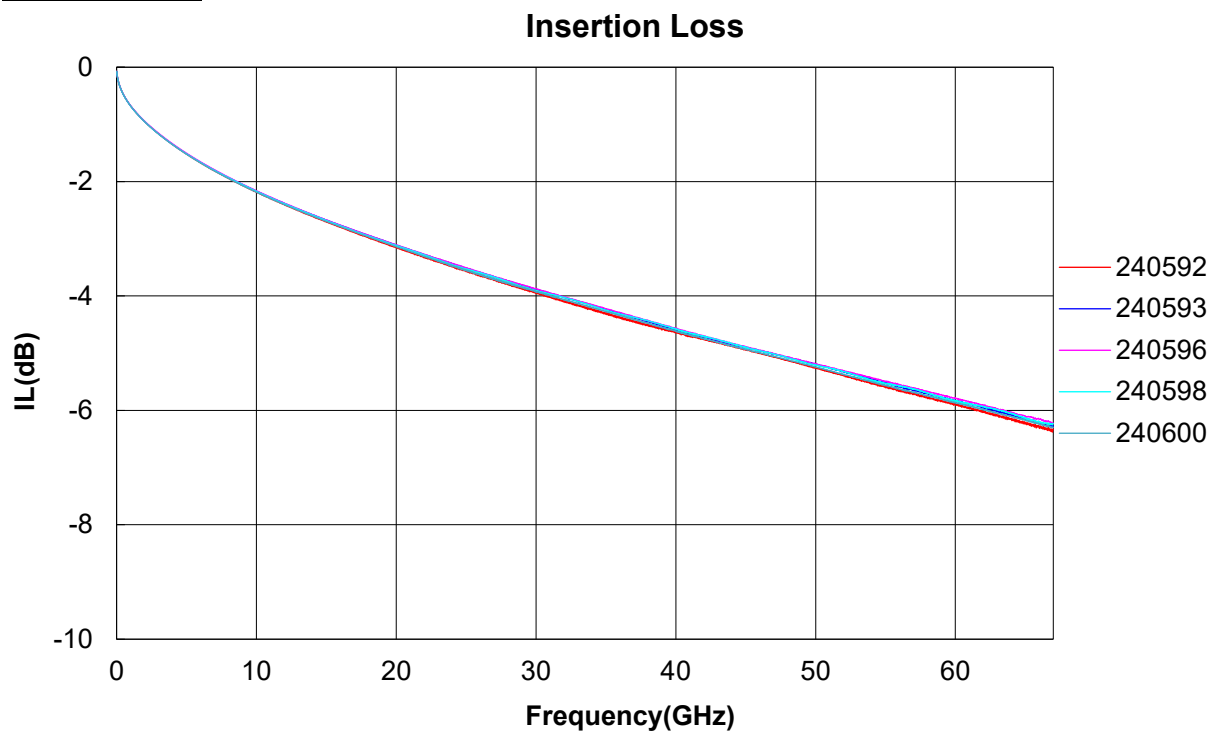
Description: 71 GHz, Nitrowave™ High-Performance Microwave Cable Assembly,
1.85mm Plug End Option

Results: LL071-18SP-18SP-1000

Description: LL071 High Frequency RF Cable Assembly			
Sample	VSWR(max)	RL (dB, max)	IL(dB, min)
240592	1.25@66.93GHz	-19.05@66.93GHz	-6.38@66.93GHz
240593	1.19@43.99GHz	-21.26@43.99GHz	-6.29@67.00GHz
240596	1.19@43.19GHz	-21.31@43.19GHz	-6.23@66.90GHz
240598	1.16@64.84GHz	-22.41@64.84GHz	-6.25@66.94GHz
240600	1.17@27.23GHz	-22.35@27.23GHz	-6.30@66.90GHz

VSWR



Series: LL071**Description:** 71 GHz, Nitrowave™ High-Performance Microwave Cable Assembly,
1.85mm Plug End OptionReturn LossInsertion Loss

Series: LL071

Description: 71 GHz, Nitrowave™ High-Performance Microwave Cable Assembly,
1.85mm Plug End Option

Instrument Setup & Test Accessories (LL071 Mated pair):

Network Analyzer	Keysight PNA N5227B
Averaging Factor	1
Smoothing	Off
IF Bandwidth	1 KHz
Sweep Start	10 MHz
Sweep End	72 GHz
Points	7200
Test Cables	Keysight N5293AX01 (110GHz Extenders)

Calibration Type (LL071 Mated pair):

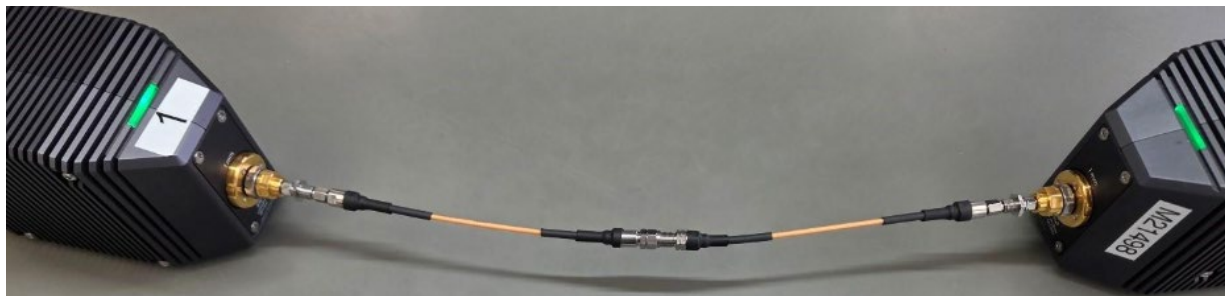
A Keysight mechanical calibration is performed for N5227B using the Keysight 1.0mm MCAL 85059B.

Calibration Kit	Keysight MCAL 85059B
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LL071 Mated pair Under Test:

The following test was performed to show mode free performance through 71GHz. A pair of LL071 cable assemblies mated at the 1.85mm ends were connected to the 110 GHz heads of the PNA. One assembly had a 1.0mm Jack on one end and a 1.85mm Jack on the other. The other assembly had a 1.0mm Jack on one end and a 1.85mm Plug on the other. The PNA was calibrated to the end of male 1.0mm interfaces. The raw measurement from 0 to 72GHz included both cable assemblies.

Test Setup for mated 152mm assemblies:



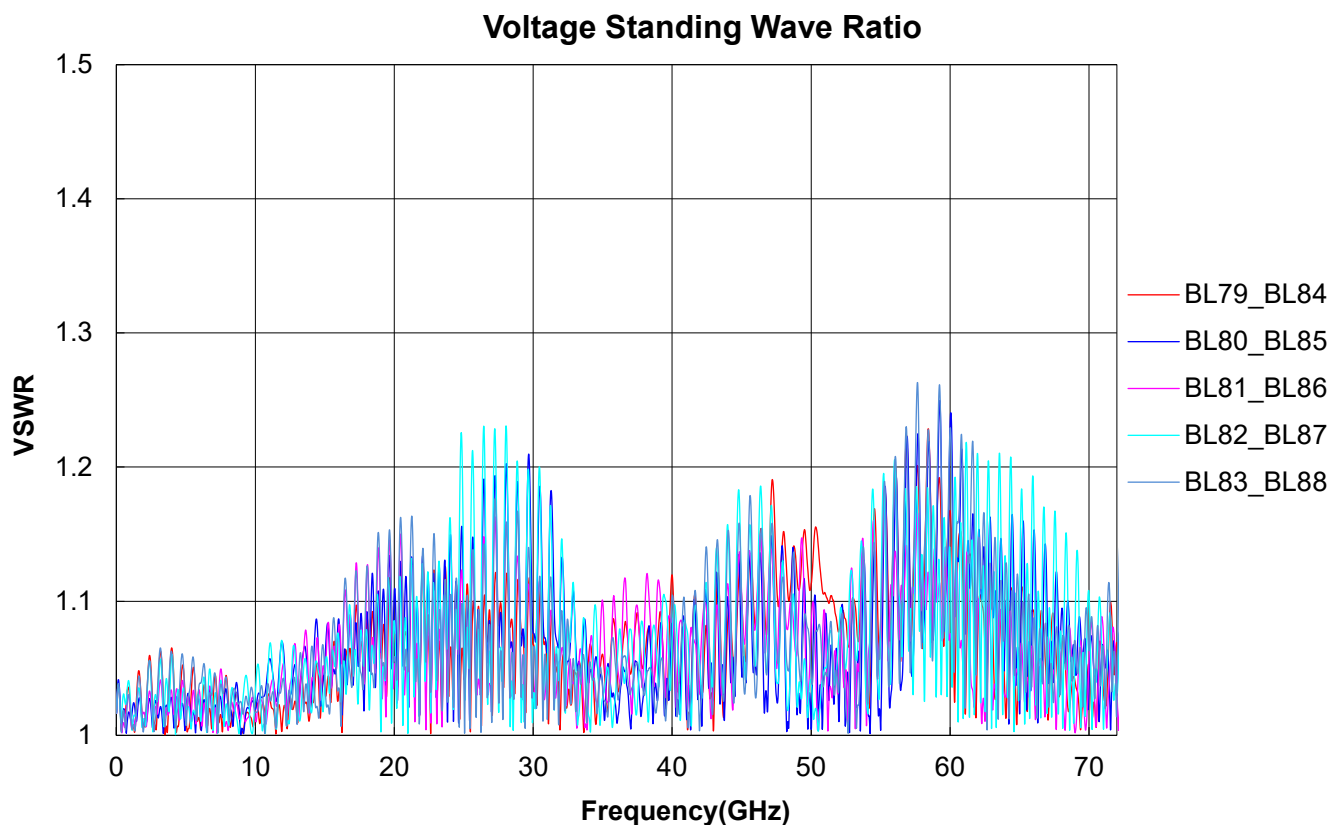
Series: LL071

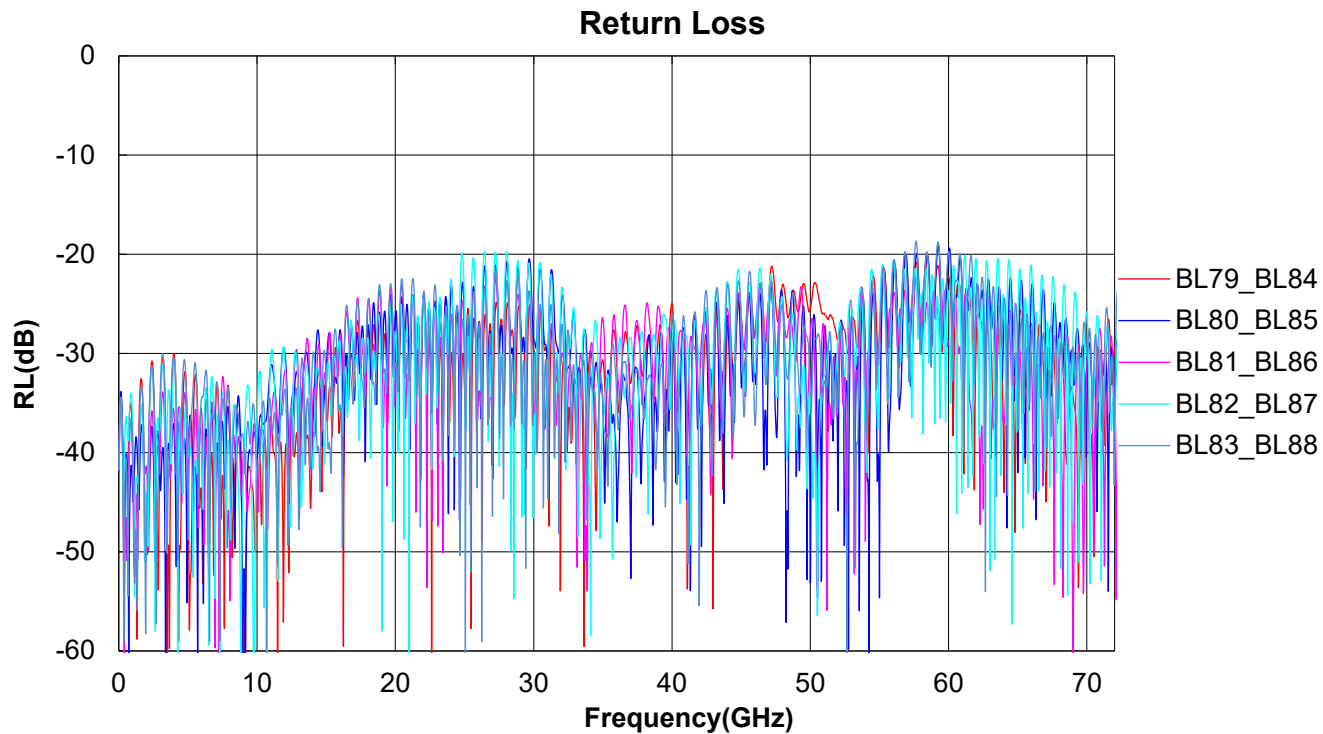
Description: 71 GHz, Nitrowave™ High-Performance Microwave Cable Assembly,
1.85mm Plug End Option

Results: Mated Pair (152mm assemblies)

Description: LL071 High Frequency RF Cable Assembly			
Sample	VSWR(max)	RL (dB, max)	IL(dB, min)
BL79_BL84	1.23@58.42GHz	-19.78@58.42GHz	-2.59@71.94GHz
BL80_BL85	1.25@59.26GHz	-19.10@59.26GHz	-2.61@71.80GHz
BL81_BL86	1.19@55.28GHz	-21.39@55.28GHz	-2.68@72.00GHz
BL82_BL87	1.23@28.04GHz	-19.71@28.04GHz	-2.72@72.00GHz
BL83_BL88	1.26@57.66GHz	-18.70@57.66GHz	-2.66@72.00GHz

VSWR



Series: LL071**Description:** 71 GHz, Nitrowave™ High-Performance Microwave Cable Assembly,
1.85mm Plug End OptionReturn LossInsertion Loss