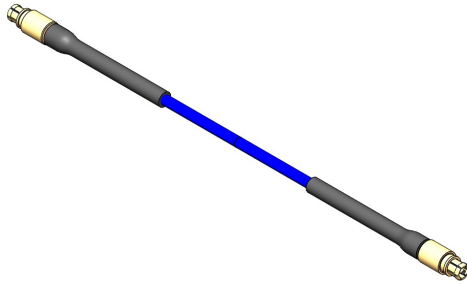


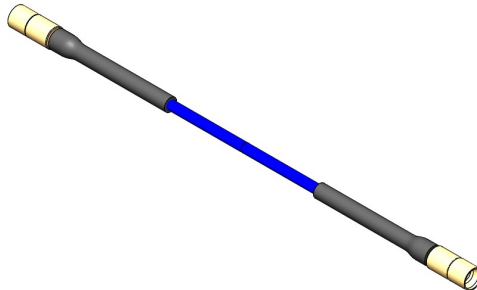


## RF Characterization Report

**RF047-A-M0SJ-M0SJ-XXXX**



**RF047-A-M0SP-M0SP-XXXX**



**Description:  
50 Ohm SMPM, Cable Assembly**

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## Test Information

### Scope:

Provide insertion loss(IL), and standing wave ratio(SWR) performance parameters for SMPM RF connector types terminated to RF047 series coaxial cable. Where requested, provide extended bandwidth and TDR information.

### Instrument Setup & Test Accessories:

**SAMTEC SIGNAL  
INTEGRITY GROUP**  
Mechanicsburg, PA USA

Keysight N5227A 4-Port PNA, Front Panel, S2P file format  
5000pts., 700 Hz IFBW, 10MHz to 67GHz

### Calibration Type:

**SAMTEC SIGNAL  
INTEGRITY GROUP**  
Mechanicsburg, PA USA

85058B Standard Mechanical Calibration Kit,  
DC to 67 GHz, 1.85 mm

### Adapter Use:

**SAMTEC SIGNAL  
INTEGRITY GROUP**  
Mechanicsburg, PA USA

Inmet SMPM to 1.85mm adapters

## RF047-A-M0SJ-M0SJ-0250 Test Definition

Part Number	Length	End 1	End 2
RF047-A-M0SJ-M0SJ-0250	0250mm	SMPM, Jack	SMPM, Jack

### Assembly under Test:



### Rating Opportunity:

Not Available

### Conclusion:

RF047-A-M0SJ-M0SJ-0250 cable assemblies perform to expected insertion loss and SWR levels between 10 MHz to 40 GHz. All connectors respond consistently and are free of resonance.

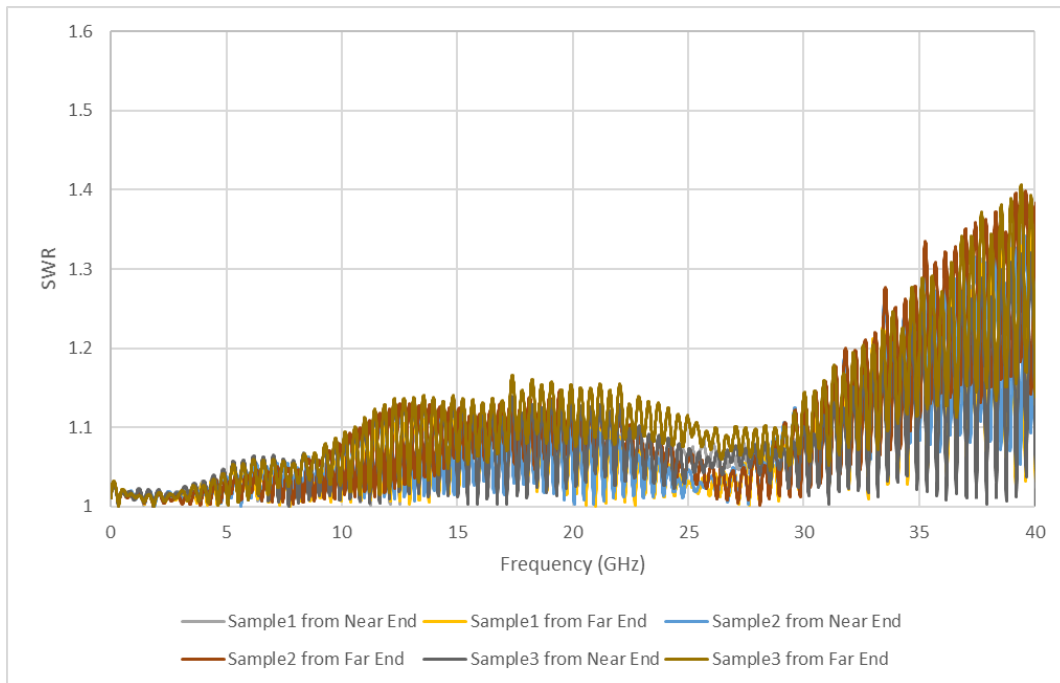
### NOTE:

Test data includes cable assembly and two 1.85mm to SMPM Plug adapters.

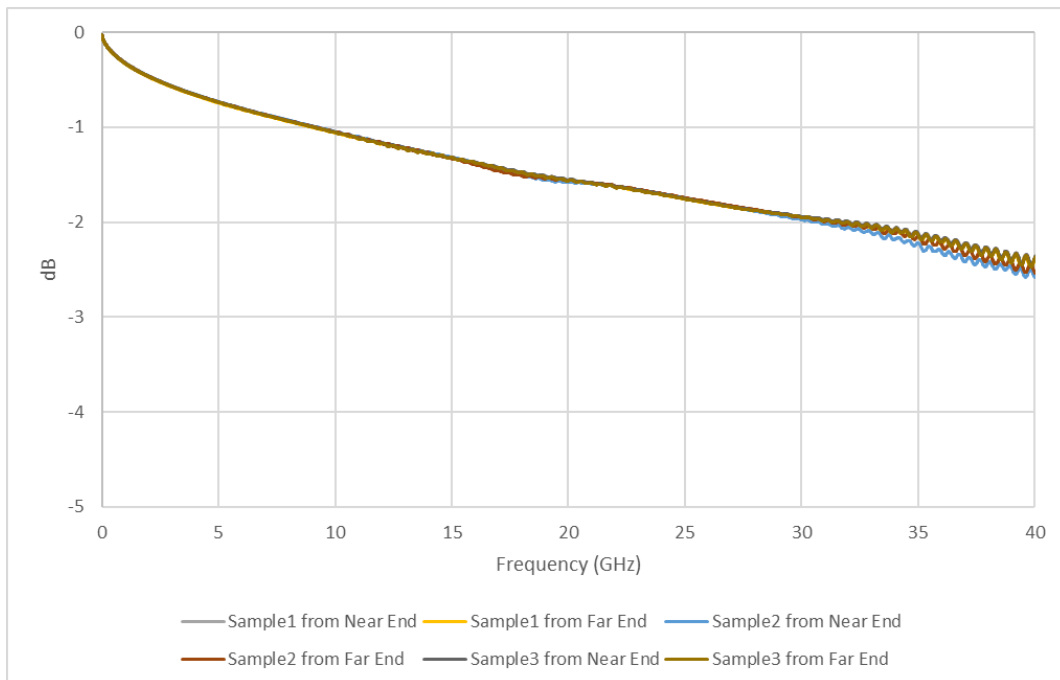
### Results: RF047-A-M0SJ-M0SJ-0250

Description: 50 Ohm SMPM Cable Assembly (40 GHz)		
Sample	SWR(max)	IL(min)
1 from Near End	1.39	-2.46 dB
1 from Far End	1.36	-2.49 dB
2 from Near End	1.34	-2.58 dB
2 from Far End	1.40	-2.53 dB
3 from Near End	1.32	-2.45 dB
3 from Far End	1.41	-2.47 dB

## Standing Wave Ratio



## Insertion Loss



## RF047-A-M0SJ-M0SJ-0500 Test Definition

Part Number	Length	End 1	End 2
RF047-A-M0SJ-M0SJ-0500	0500mm	SMPM, Jack	SMPM, Jack

### Assembly under Test:



### Rating Opportunity:

Not Available

### Conclusion:

RF047-A-M0SJ-M0SJ-0500 cable assemblies perform to expected insertion loss and SWR levels between 10 MHz to 40 GHz. All connectors respond consistently and are free of resonance.

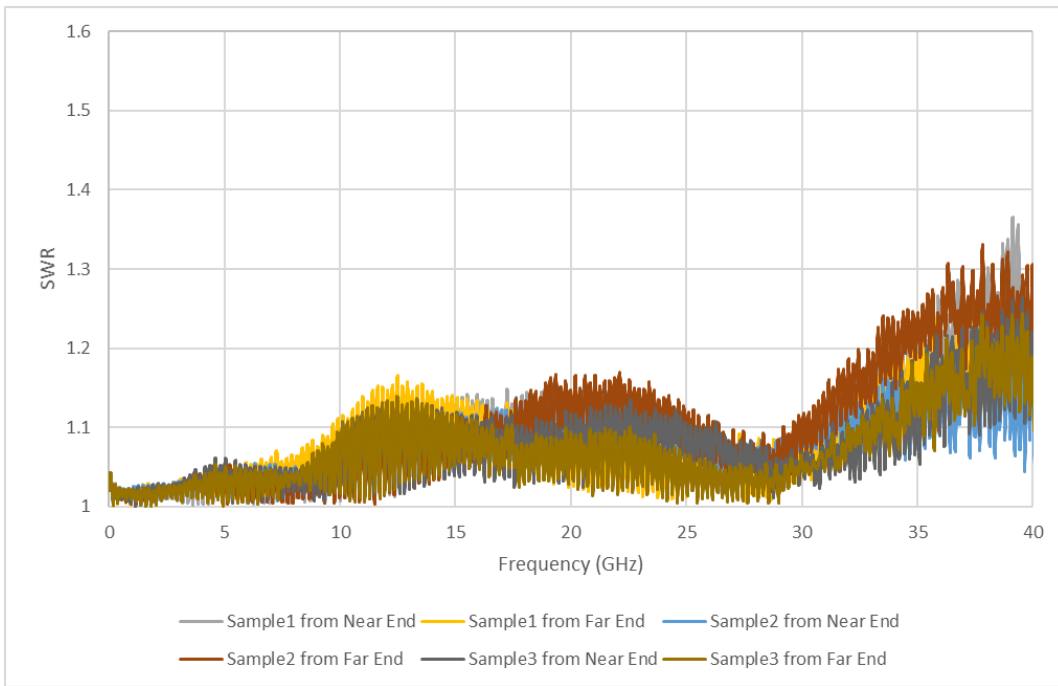
### NOTE:

Test data includes cable assembly and two 1.85mm to SMPM Plug adapters.

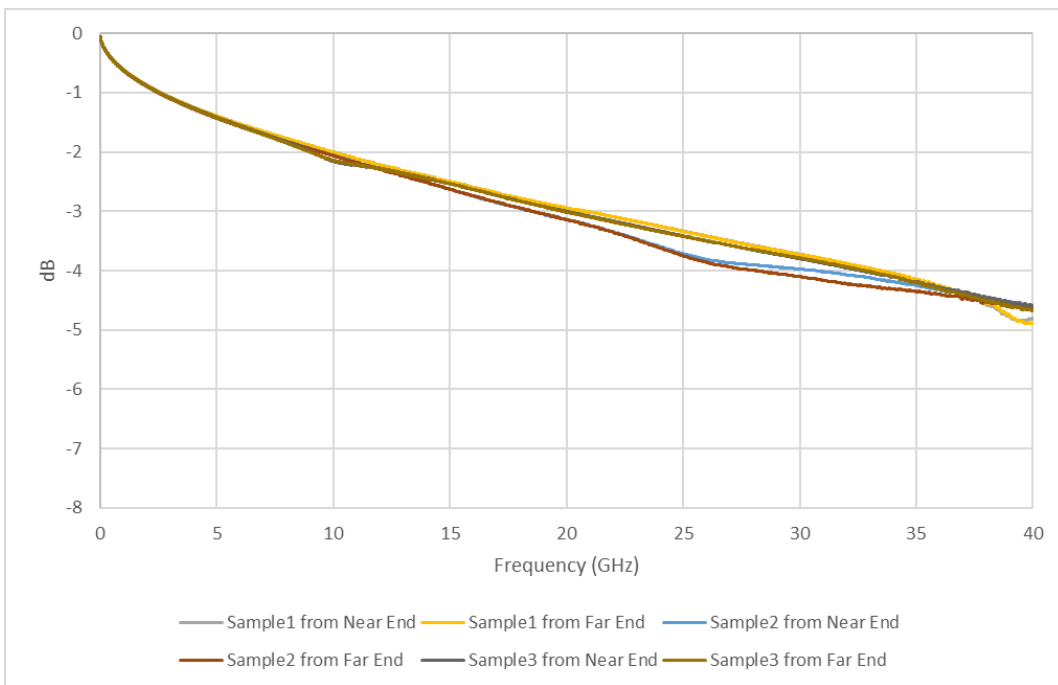
### Results: RF047-A-M0SJ-M0SJ-0500

Description: 50 Ohm SMPM Cable Assembly (40 GHz)		
Sample	SWR(max)	IL(min)
1 from Near End	1.37	-4.85 dB
1 from Far End	1.24	-4.90 dB
2 from Near End	1.22	-4.62 dB
2 from Far End	1.33	-4.68 dB
3 from Near End	1.27	-4.60 dB
3 from Far End	1.24	-4.67 dB

## Standing Wave Ratio



## Insertion Loss



## RF047-A-M0SJ-M0SJ-1000 Test Definition

Part Number	Length	End 1	End 2
RF047-A-M0SJ-M0SJ-1000	1000mm	SMPM, Jack	SMPM, Jack

### Assembly under Test:



### Rating Opportunity:

Not Available

### Conclusion:

RF047-A-M0SJ-M0SJ-1000 cable assemblies perform to expected insertion loss and SWR levels between 10 MHz to 40 GHz. All connectors respond consistently and are free of resonance.

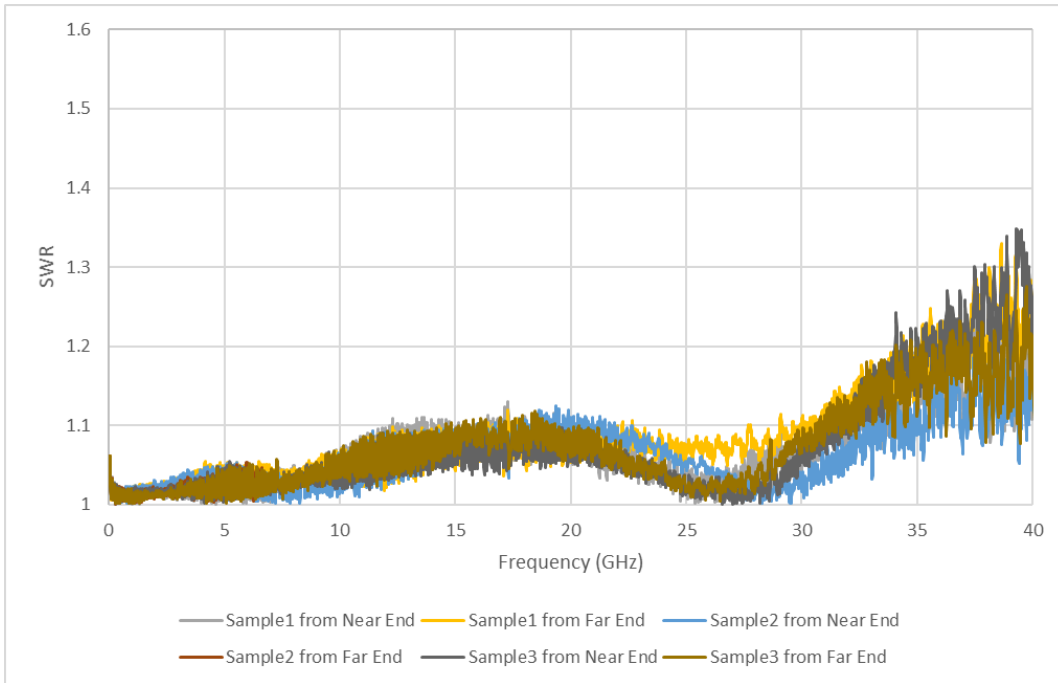
### NOTE:

Test data includes cable assembly and two 1.85mm to SMPM Plug adapters.

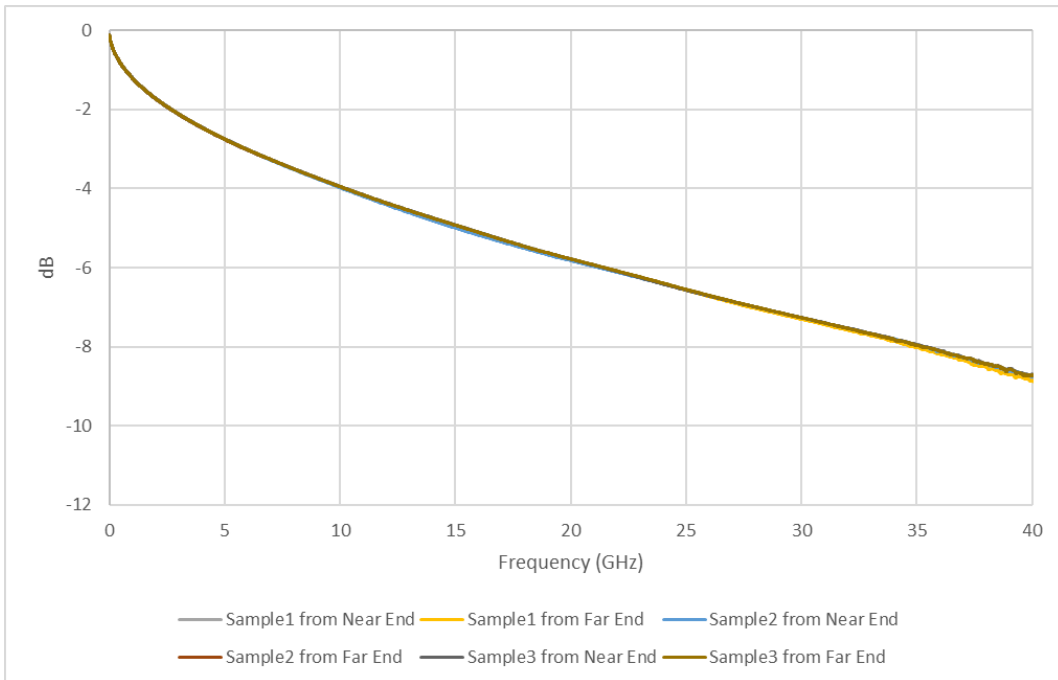
### Results: RF047-A-M0SJ-M0SJ-1000

Description: 50 Ohm SMPM Cable Assembly (40 GHz)		
Sample	SWR(max)	IL(min)
1 from Near End	1.25	-8.78 dB
1 from Far End	1.33	-8.87 dB
2 from Near End	1.21	-8.75 dB
2 from Far End	1.30	-8.77 dB
3 from Near End	1.35	-8.74 dB
3 from Far End	1.28	-8.74 dB

## Standing Wave Ratio



## Insertion Loss



## RF047-A-M0SP-M0SP-0250 Test Definition

Part Number	Length	End 1	End 2
RF047-A-M0SP-M0SP-0250	0250mm	SMPM, Plug	SMPM, Plug

### Assembly under Test:



### Rating Opportunity:

Not Available

### Conclusion:

RF047-A-M0SP-M0SP-0250 cable assemblies perform to expected insertion loss and SWR levels between 10 MHz to 40 GHz. All connectors respond consistently and are free of resonance.

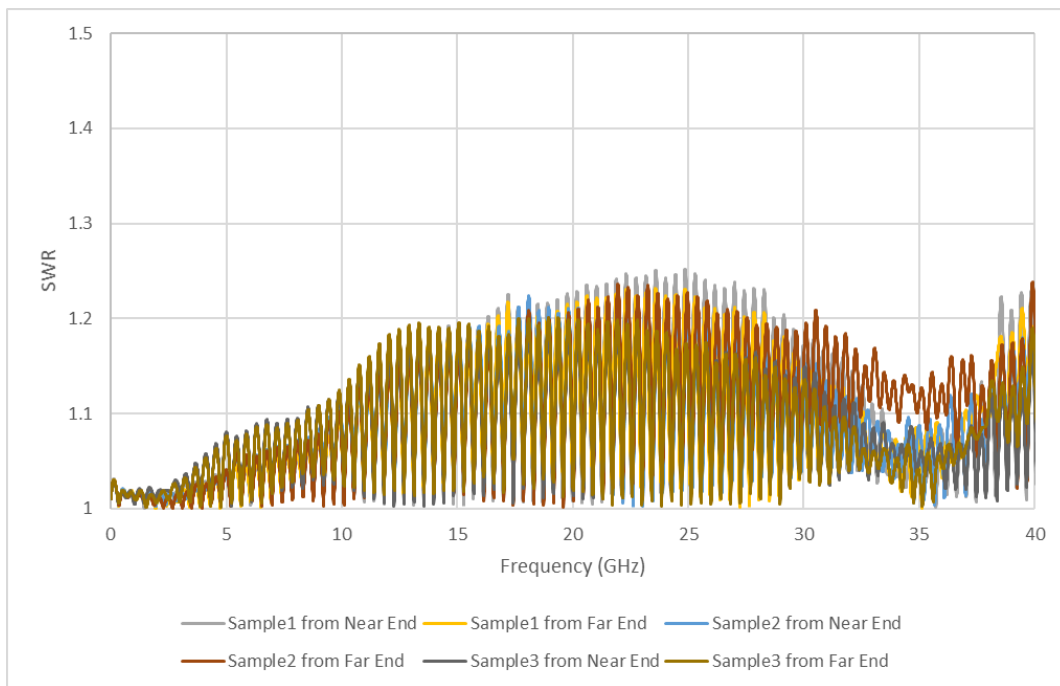
### NOTE:

Test data includes cable assembly and two 1.85mm to SMPM JACK adapters.

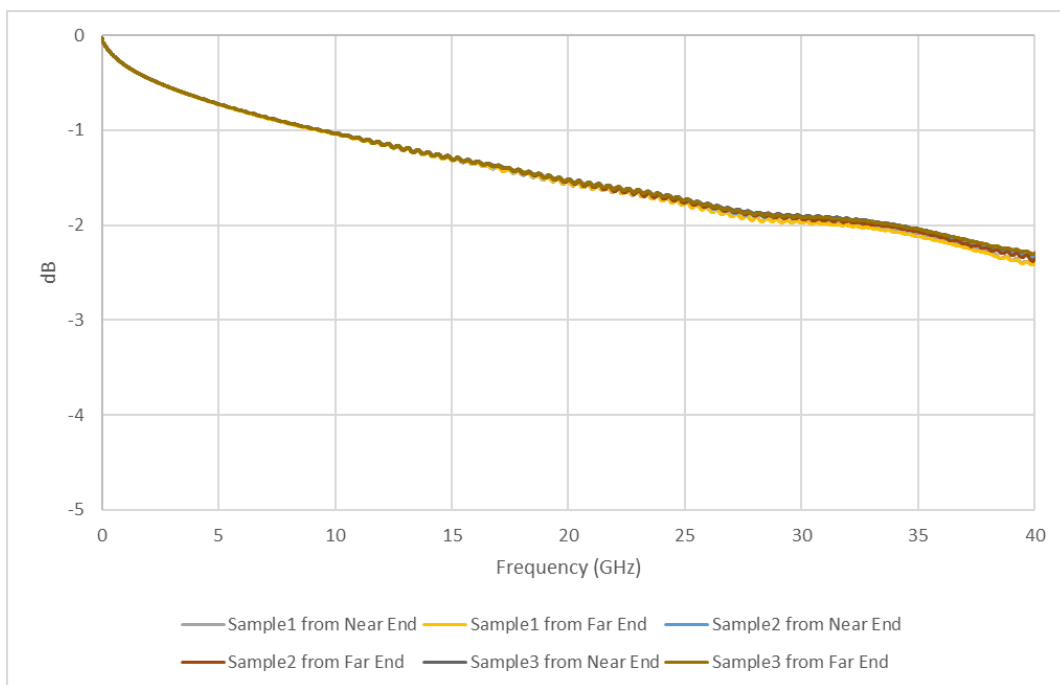
### Results: RF047-A-M0SP-M0SP-0250

Description: 50 Ohm SMPM Cable Assembly (40 GHz)		
Sample	SWR(max)	IL(min)
1 from Near End	1.25	-2.42 dB
1 from Far End	1.23	-2.42 dB
2 from Near End	1.23	-2.35 dB
2 from Far End	1.24	-2.38 dB
3 from Near End	1.19	-2.31 dB
3 from Far End	1.20	-2.31 dB

## Standing Wave Ratio



## Insertion Loss



## RF047-A-M0SP-M0SP-0500 Test Definition

Part Number	Length	End 1	End 2
RF047-A-M0SP-M0SP-0500	0500mm	SMPM, Plug	SMPM, Plug

### Assembly under Test:



### Rating Opportunity:

Not Available

### Conclusion:

RF047-A-M0SP-M0SP-0500 cable assemblies perform to expected insertion loss and SWR levels between 10 MHz to 40 GHz. All connectors respond consistently and are free of resonance.

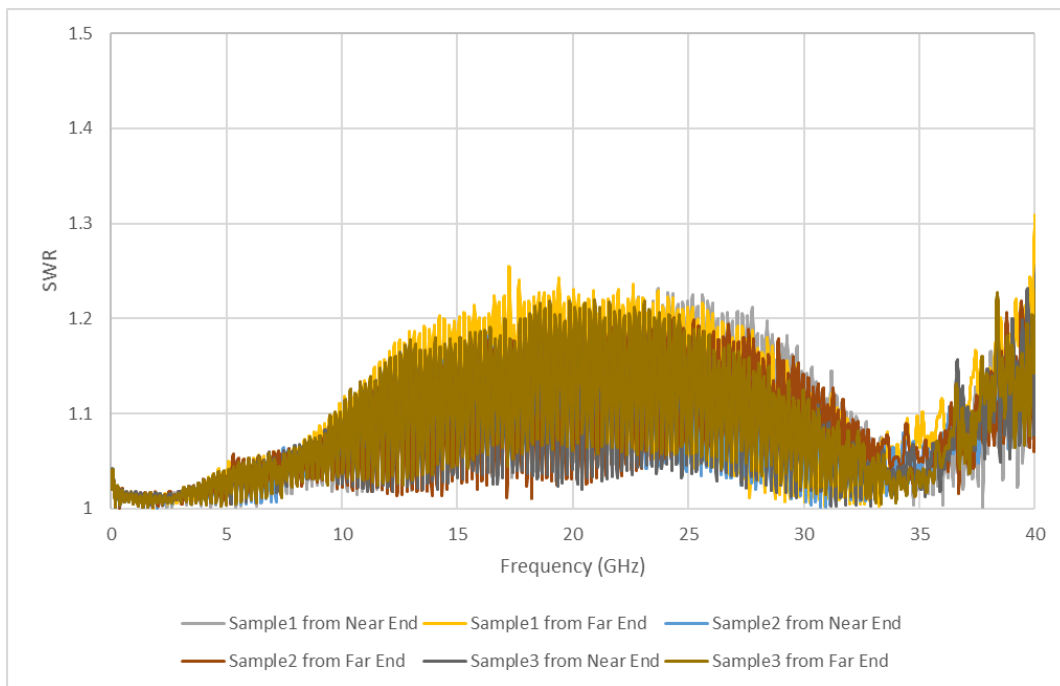
### NOTE:

Test data includes cable assembly and two 1.85mm to SMPM JACK adapters.

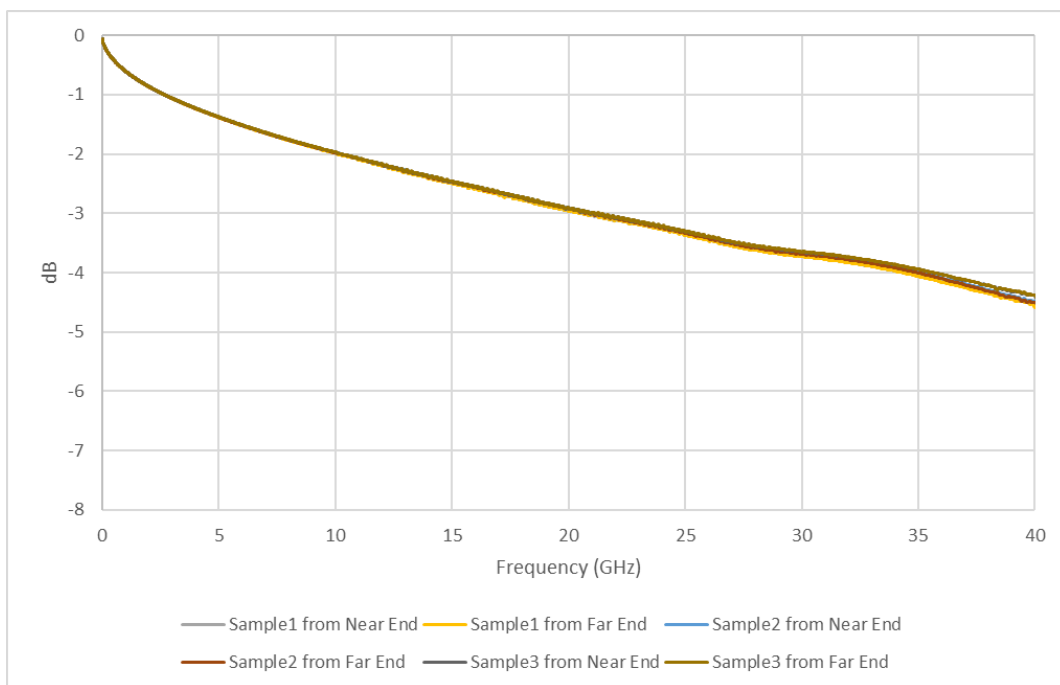
### Results: RF047-A-M0SP-M0SP-0500

Description: 50 Ohm SMPM Cable Assembly (40 GHz)		
Sample	SWR(max)	IL(min)
1 from Near End	1.25	-4.55 dB
1 from Far End	1.30	-4.58 dB
2 from Near End	1.23	-4.48 dB
2 from Far End	1.22	-4.51 dB
3 from Near End	1.23	-4.39 dB
3 from Far End	1.23	-4.39 dB

## Standing Wave Ratio



## Insertion Loss



## RF047-A-M0SP-M0SP-1000 Test Definition

Part Number	Length	End 1	End 2
RF047-A-M0SP-M0SP-1000	1000mm	SMPM, Plug	SMPM, Plug

### Assembly under Test:



### Rating Opportunity:

Not Available

### Conclusion:

RF047-A-M0SP-M0SP-1000 cable assemblies perform to expected insertion loss and SWR levels between 10 MHz to 40 GHz. All connectors respond consistently and are free of resonance.

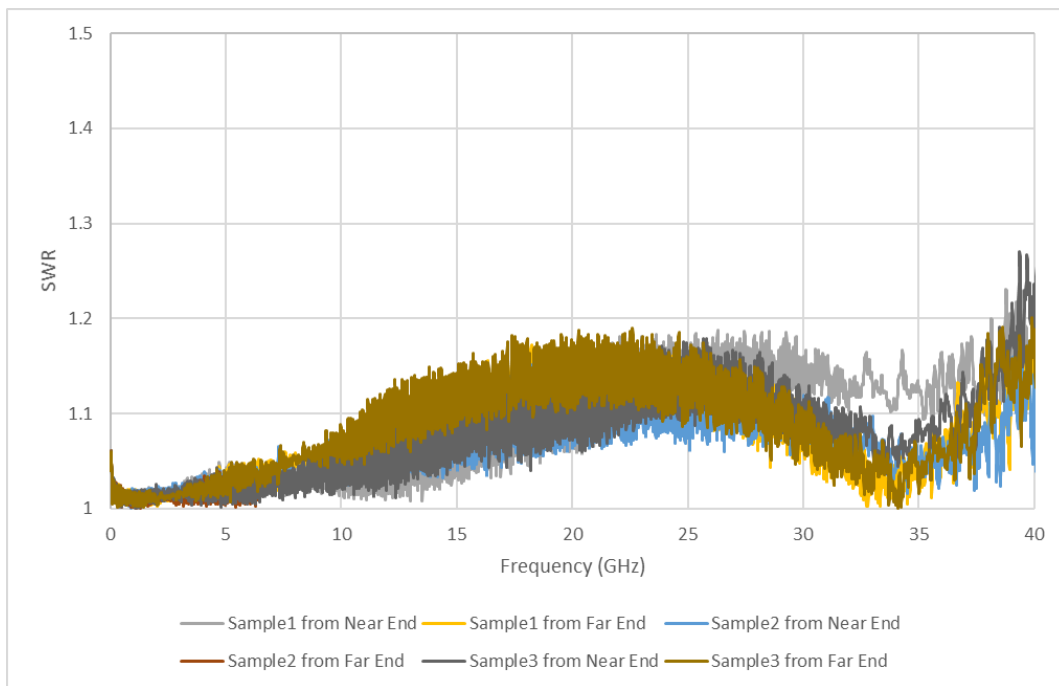
### NOTE:

Test data includes cable assembly and two 1.85mm to SMPM JACK adapters.

### Results: RF047-A-M0SP-M0SP-1000

Description: 50 Ohm SMPM Cable Assembly (40 GHz)		
Sample	SWR(max)	IL(min)
1 from Near End	1.23	-8.79 dB
1 from Far End	1.21	-8.79 dB
2 from Near End	1.22	-8.59 dB
2 from Far End	1.24	-8.58 dB
3 from Near End	1.27	-8.87 dB
3 from Far End	1.20	-8.87 dB

## Standing Wave Ratio



## Insertion Loss

