



---

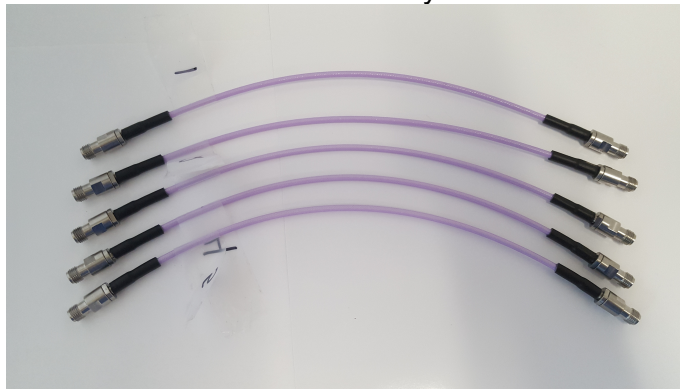
---

## RF Characterization Report

**RF23C-92SJ-92SJ-0250**

**RF23C-92SJ-92SJ-1000**

Test Date: 24 May 2017



**RF23C-92SP-92SP-0250**

**RF23C-92SP-92SP-1000**

Test Date: 24 May 2017



### Description:

**High Performance Microwave Cable Assembly, 2.92mm Connector End  
23 AWG, 50 Ohm, Solid Dielectric, Low Loss, Copper Foil Shield Coax**

Series: RF23C

Description: High Performance Microwave Cable Assembly, 2.92mm Connector End

### Table of Contents

Description: ..... i

Test Information ..... 1

    Scope: ..... 1

    Instrument Setup & Test Accessories:..... 1

    Calibration Type:..... 1

    Adapter Use:..... 1

RF23C-92SJ-92SJ-0250 Test Definition .....2

    Assembly under Test: ..... 2

    Results: RF23C-92SJ-92SJ-0250..... 2

        Standing Wave Ratio ..... 3

        Return Loss..... 3

        Insertion Loss..... 4

RF23C-92SJ-92SJ-1000 Test Definition .....5

    Assembly under Test: ..... 5

    Results: RF23C-92SJ-92SJ-1000..... 5

        Standing Wave Ratio ..... 6

        Return Loss..... 6

        Insertion Loss..... 7

RF23C-92SP-92SP-0250 Test Definition .....8

    Assembly under Test: ..... 8

    Results: RF23C-92SP-92SP-0250 ..... 8

        Standing Wave Ratio ..... 9

        Return Loss..... 9

        Insertion Loss..... 10

RF23C-92SP-92SP-1000 Test Definition .....11

    Assembly under Test: ..... 11

    Results: RF23C-92SP-92SP-1000 ..... 11

        Standing Wave Ratio ..... 12

        Return Loss..... 12

        Insertion Loss..... 13

**Series:** RF23C

**Description:** High Performance Microwave Cable Assembly, 2.92mm Connector End

## Test Information

### Scope:

Provide insertion loss, return loss, and standing wave ratio performance parameters for RF connector types terminated to RF23C 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 RBW, 10MHz to 50.0 GHz,  
Facility Capability: 67GHz

### Calibration Type:

**SAMTEC SIGNAL INTEGRITY GROUP**  
Mechanicsburg, PA USA  
Mechanical Cal, Maury Microwave 8770D Economy Cal Kit, Full 2-Port SOLT  
Unknown Thru Adapter Calibration, DC-40 GHz

### Adapter Use:

**SAMTEC SIGNAL INTEGRITY GROUP**  
Mechanicsburg, PA USA  
Huber-Suhner (Astrolabs) Model 16301, 2.92 male to 2.92 Male Unknown Thru Adapter, Rule of Reciprocity, Negligent adapter effects

**Series:** RF23C

**Description:** High Performance Microwave Cable Assembly, 2.92mm Connector End

**RF23C-92SJ-92SJ-0250 Test Definition**

Part Number	Length	End 1	End 2
RF23C-92SJ-92SJ-0250	0250 mm	SMA, 2.92 Straight Jack	SMA, 2.92 Straight Jack

**Assembly under Test:**

**Rating Opportunity:**

Not Available

**Conclusion:**

RF23C-92SJ-92SJ-0250 cable assemblies perform to expected insertion loss, return loss and SWR levels between 10 MHz and 40 GHz. All assemblies respond consistently and are free of resonance.

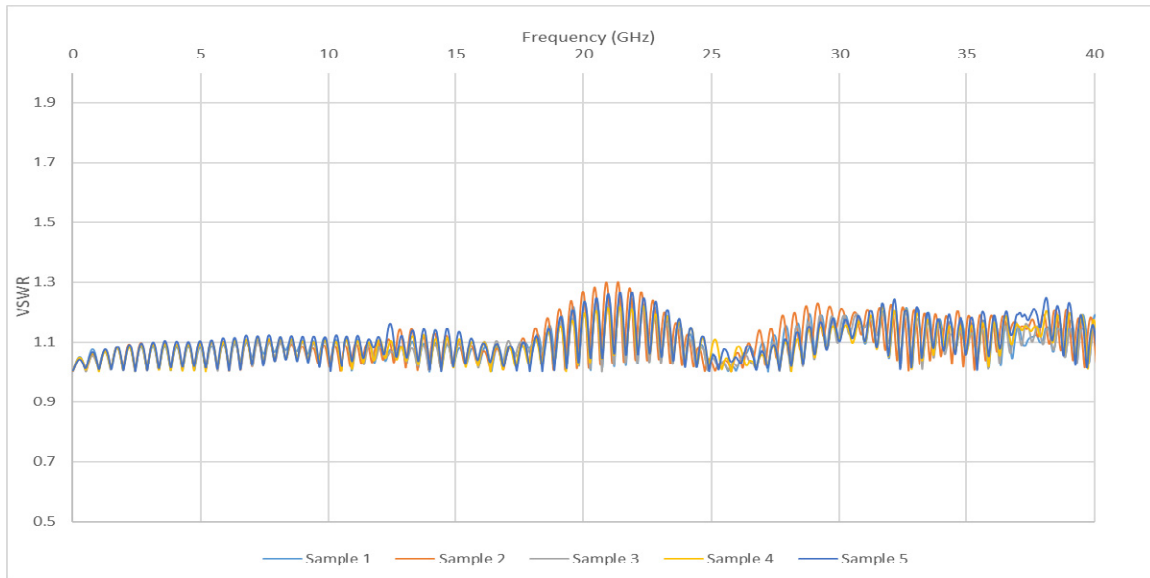
**Results: RF23C-92SJ-92SJ-0250**

Description: SMA 2.92 Plug to RF23C Microwave Cable to SMA 2.92 Plug			
Sample	SWR (max)	RL (max)	IL (min)
1	1.26@20.97	-18.8@20.97	-1.62@40.04
2	1.30@21.35	-17.7@21.35	-1.71@39.90
3	1.22@20.95	-20.1@20.95	-1.56@40.04
4	1.22@22.34	-20.0@22.34	-1.60@40.04
5	1.27@21.89	-18.6@21.89	-1.57@40.04

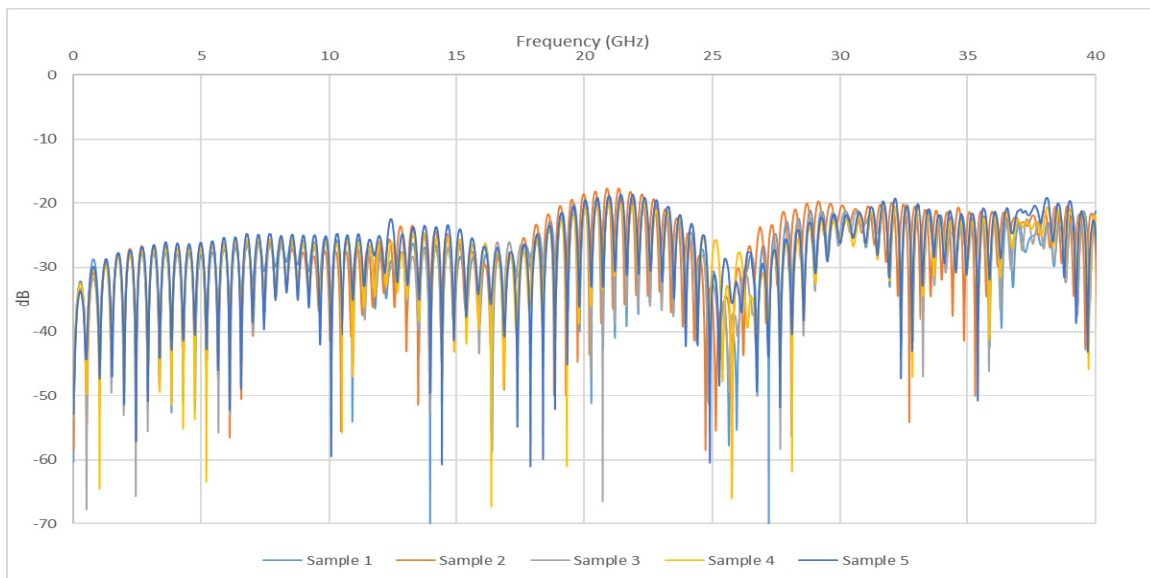
Series: RF23C

Description: High Performance Microwave Cable Assembly, 2.92mm Connector End

### Standing Wave Ratio



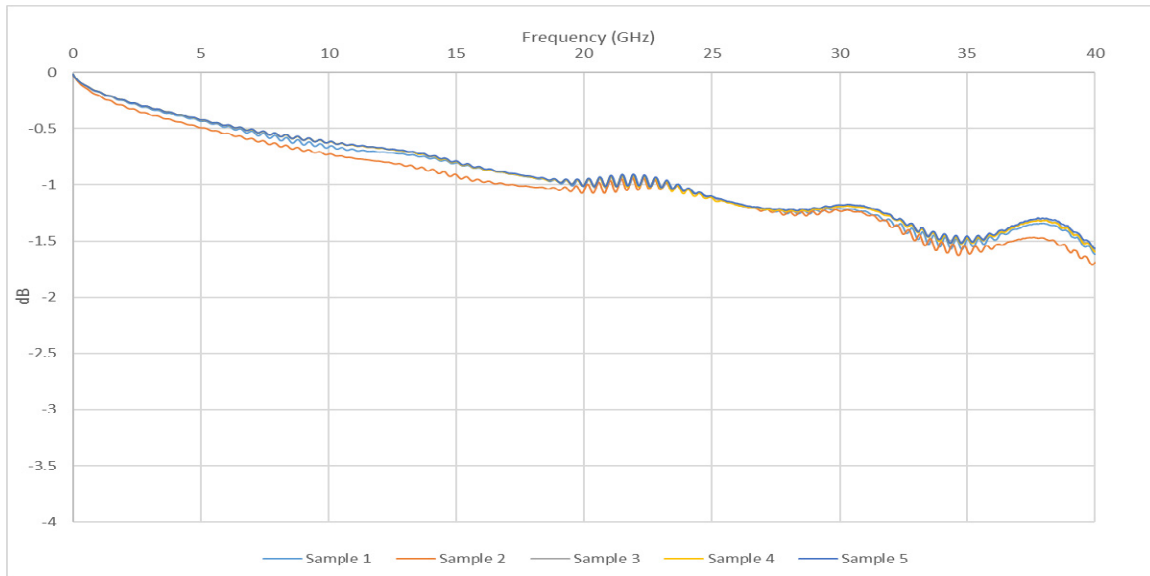
### Return Loss



**Series:** RF23C

**Description:** High Performance Microwave Cable Assembly, 2.92mm Connector End

### Insertion Loss



Series: RF23C

Description: High Performance Microwave Cable Assembly, 2.92mm Connector End

**RF23C-92SJ-92SJ-1000 Test Definition**

Part Number	Length	End 1	End 2
RF23C-92SJ-92SJ-1000	1000 mm	SMA, 2.92 Straight Jack	SMA, 2.92 Straight Jack

**Assembly under Test:**



**Rating Opportunity:**

Not Available

**Conclusion:**

RF23C-92SJ-92SJ-1000 cable assemblies perform to expected insertion loss, return loss and SWR levels between 10 MHz and 40 GHz. All assemblies respond consistently and are free of resonance.

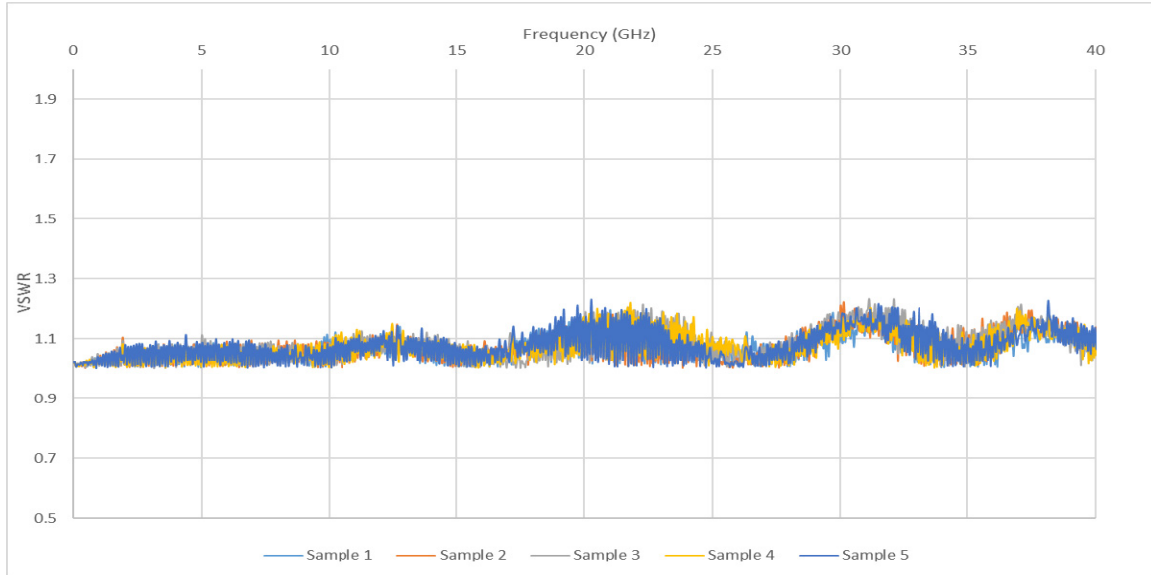
**Results: RF23C-92SJ-92SJ-1000**

Description: SMA 2.92 Plug to RF23C Microwave Cable to SMA 2.92 Plug			
Sample	SWR (max)	RL (max)	IL (min)
1	1.20@21.01	-21.00@21.01	-5.56@40.04
2	1.22@30.13	-19.95@30.13	-5.61@40.04
3	1.23@31.12	-19.60@31.12	-5.57@40.04
4	1.22@21.80	-20.02@21.80	-5.58@40.02
5	1.23@20.27	-19.66@20.27	-5.66@39.99

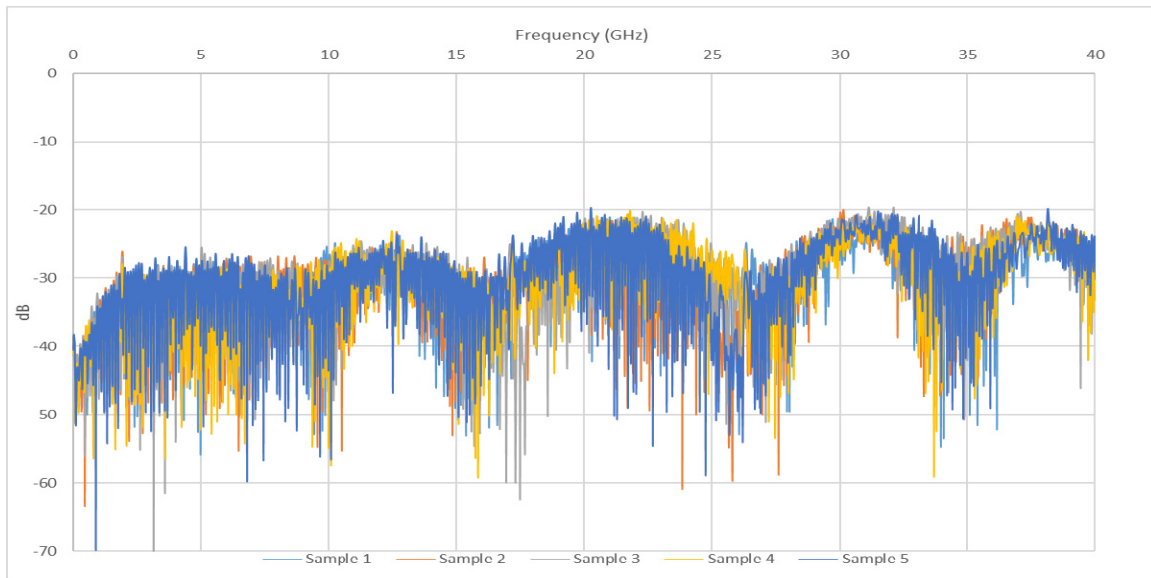
Series: RF23C

Description: High Performance Microwave Cable Assembly, 2.92mm Connector End

### Standing Wave Ratio



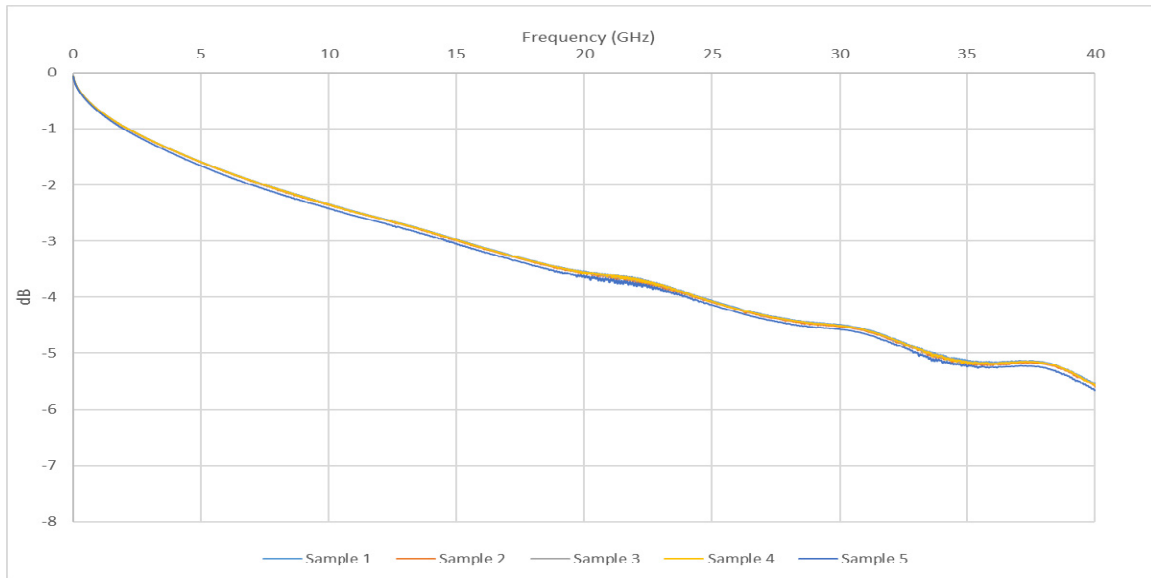
### Return Loss



**Series:** RF23C

**Description:** High Performance Microwave Cable Assembly, 2.92mm Connector End

### Insertion Loss



Series: RF23C

Description: High Performance Microwave Cable Assembly, 2.92mm Connector End

**RF23C-92SP-92SP-0250 Test Definition**

Part Number	Length	End 1	End 2
RF23C-92SP-92SP-0250	250 mm	SMA, 2.92 Straight Plug	SMA, 2.92 Straight Plug

**Assembly under Test:**



**Rating Opportunity:**

Not Available

**Conclusion:**

RF23C-92SP-92SP-0250 cable assemblies perform to expected insertion loss, return loss and SWR levels between 10 MHz and 40 GHz. All assemblies respond consistently and are free of resonance.

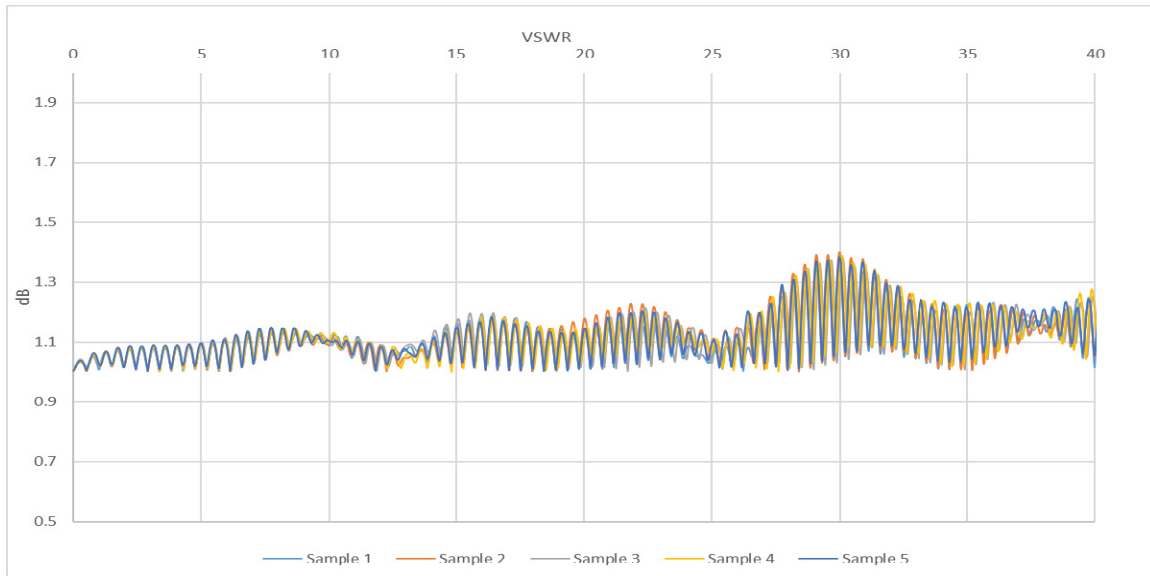
**Results: RF23C-92SP-92SP-0250**

Description: SMA 2.92 Jack to RF23C Microwave Cable to SMA 2.92 Jack			
Sample	SWR (max)	RL (max)	IL (min)
1	1.36@29.97	-16.31@29.97	-1.51@39.81
2	1.40@29.97	-15.53@29.97	-1.51@40.04
3	1.38@30.10	-15.97@30.10	-1.58@39.95
4	1.39@30.07	-15.75@30.07	-1.56@39.93
5	1.38@29.97	-15.88@29.97	-1.54@40.04

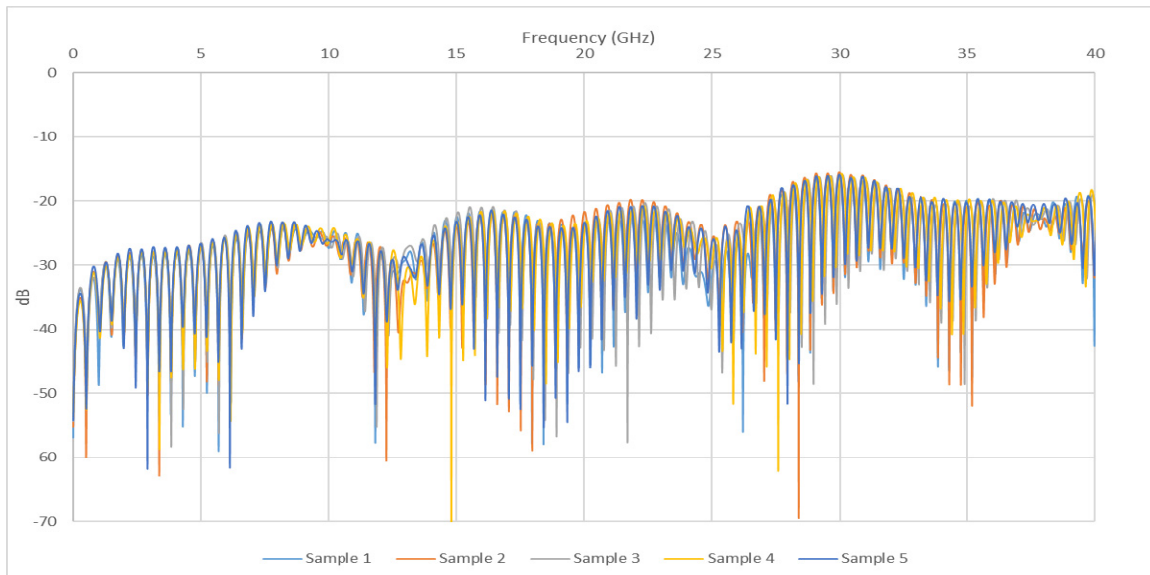
Series: RF23C

Description: High Performance Microwave Cable Assembly, 2.92mm Connector End

### Standing Wave Ratio



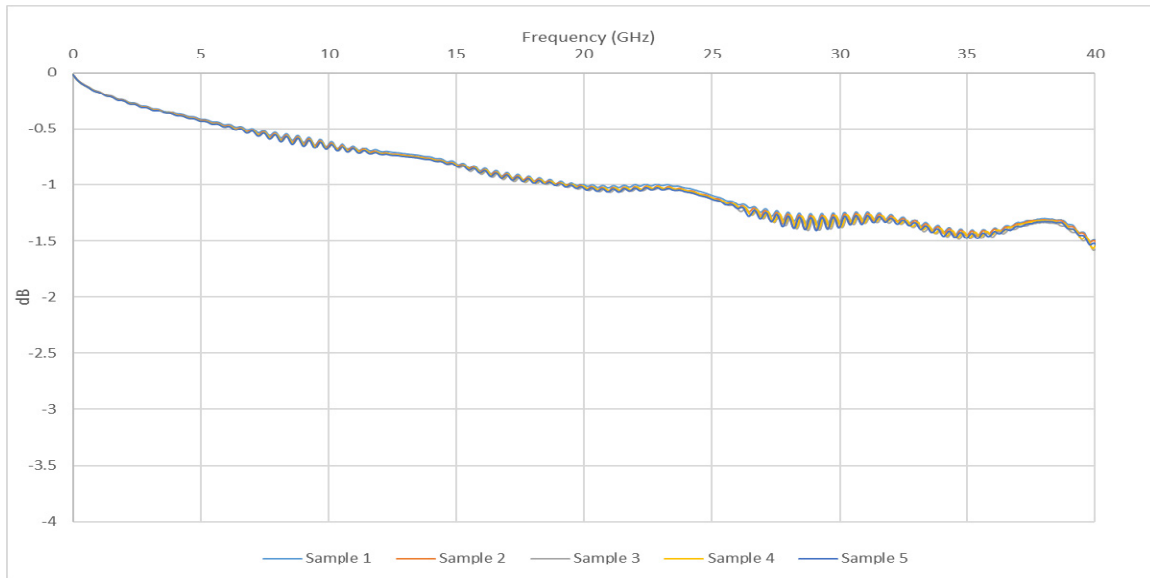
### Return Loss



**Series:** RF23C

**Description:** High Performance Microwave Cable Assembly, 2.92mm Connector End

### Insertion Loss



Series: RF23C

Description: High Performance Microwave Cable Assembly, 2.92mm Connector End

**RF23C-92SP-92SP-1000 Test Definition**

Part Number	Length	End 1	End 2
RF23C-92SP-92SP-1000	1000 mm	SMA, 2.92 Straight Plug	SMA, 2.92 Straight Plug

**Assembly under Test:**



**Rating Opportunity:**

Not Available

**Conclusion:**

RF23C-92SP-92SP-1000 cable assemblies perform to expected insertion loss, return loss and SWR levels between 10 MHz and 40 GHz. All assemblies respond consistently and are free of resonance.

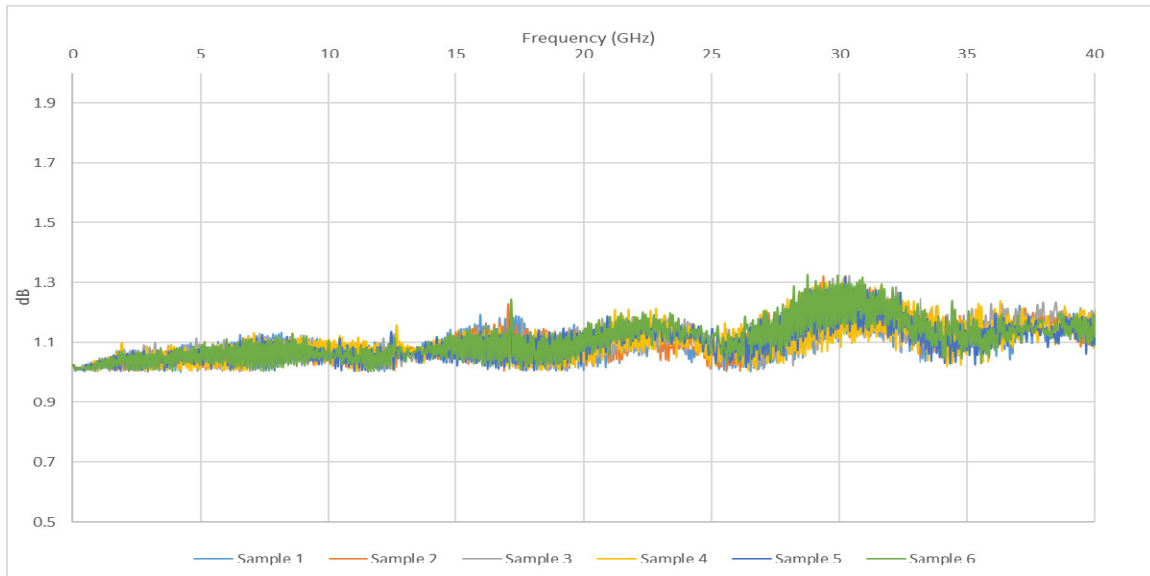
**Results: RF23C-92SP-92SP-1000**

Description: SMA 2.92 Jack to RF23C Microwave Cable to SMA 2.92 Jack			
Sample	SWR (max)	RL (max)	IL (min)
1	1.25 @ 29.79	-19.04 @ 29.79	-5.59 @ 40.04
2	1.32 @ 30.22	-17.18 @ 30.22	-5.54 @ 40.04
3	1.32 @ 30.38	-17.18 @ 30.38	-5.56 @ 40.04
4	1.30 @ 30.11	-17.58 @ 30.11	-5.57 @ 40.03
5	1.32 @ 30.23	-17.24 @ 30.23	-5.54 @ 40.04
6	1.33 @ 28.75	-17.02 @ 28.75	-5.60 @ 40.04

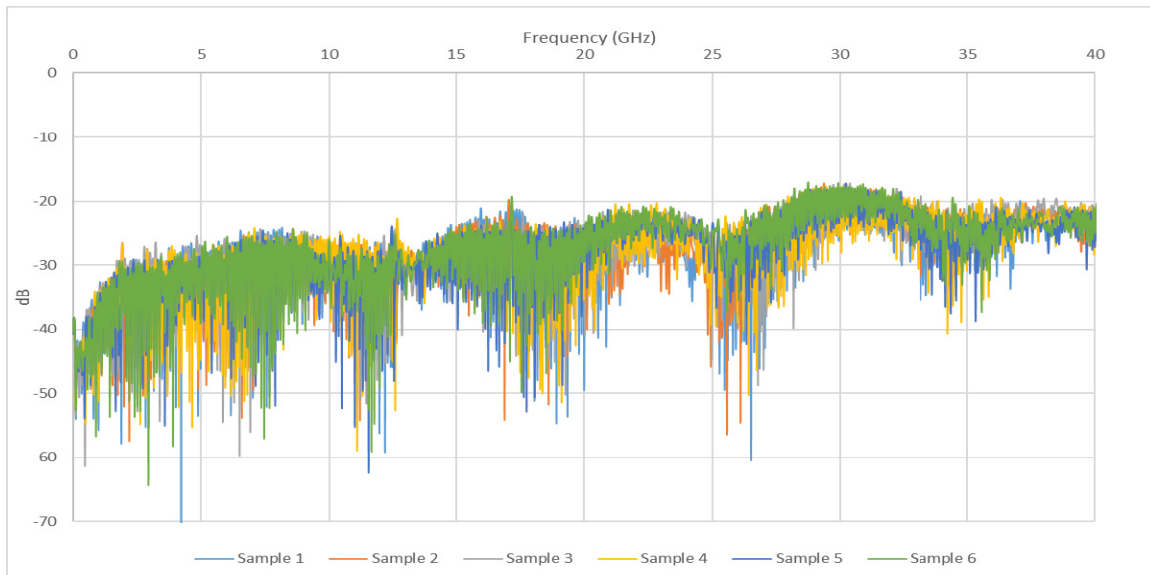
Series: RF23C

Description: High Performance Microwave Cable Assembly, 2.92mm Connector End

### Standing Wave Ratio



### Return Loss



**Series:** RF23C

**Description:** High Performance Microwave Cable Assembly, 2.92mm Connector End

### Insertion Loss

