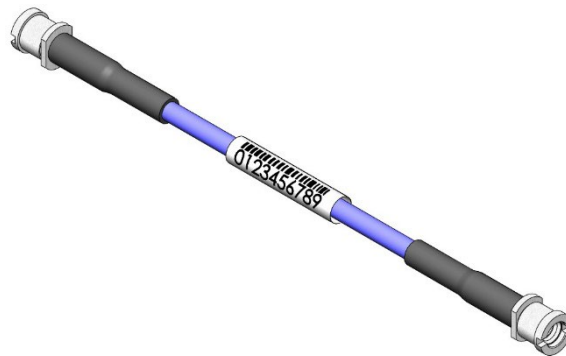




## RF Characterization Report

**RF23C-00BX-00BX-XXXX**



Test Date: Oct 2023

**Description:**  
**High Performance Microwave Cable Assembly,**  
**SMP Bulkhead Plug Ends,**  
**23AWG, 50 Ohm, Solid Dielectric, Low Loss, Copper Foil Shield Coax**

**Series:** RF23C**Description:** High Performance Microwave Cable Assembly, SMP Bulkhead Plug Ends

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**Series:** RF23C

**Description:** High Performance Microwave Cable Assembly, SMP Bulkhead Plug Ends

## Test Setup Information

### Scope:

Provide standing wave ratio, return loss and insertion loss performance parameters for RF23C cable assembly with SMP Bulkhead Plug end options.

### Instrument Setup & Test Accessories:

|                  |                                     |
|------------------|-------------------------------------|
| Network Analyzer | Keysight PNA N5227B                 |
| Averaging Factor | 1                                   |
| Smoothing        | Off                                 |
| IF Bandwidth     | 1 KHz                               |
| Sweep Start      | 10 MHz                              |
| Sweep End        | 40 GHz                              |
| Points           | 4000                                |
| Test Cables      | Gore 0F0CACB036.0-LF (DC to 67 GHz) |

### Calibration Type:

A Keysight mechanical calibration is performed using the Keysight 85056A 2.4mm Mechanical Calibration kit.

|                 |                                            |
|-----------------|--------------------------------------------|
| Calibration Kit | Keysight 85056A Mechanical Calibration Kit |
|-----------------|--------------------------------------------|

### Adapter Use:

MADP-6135 adapter was used for the measurements. The adapter effects were removed from the measurement using Keysight AFR in PLTS.

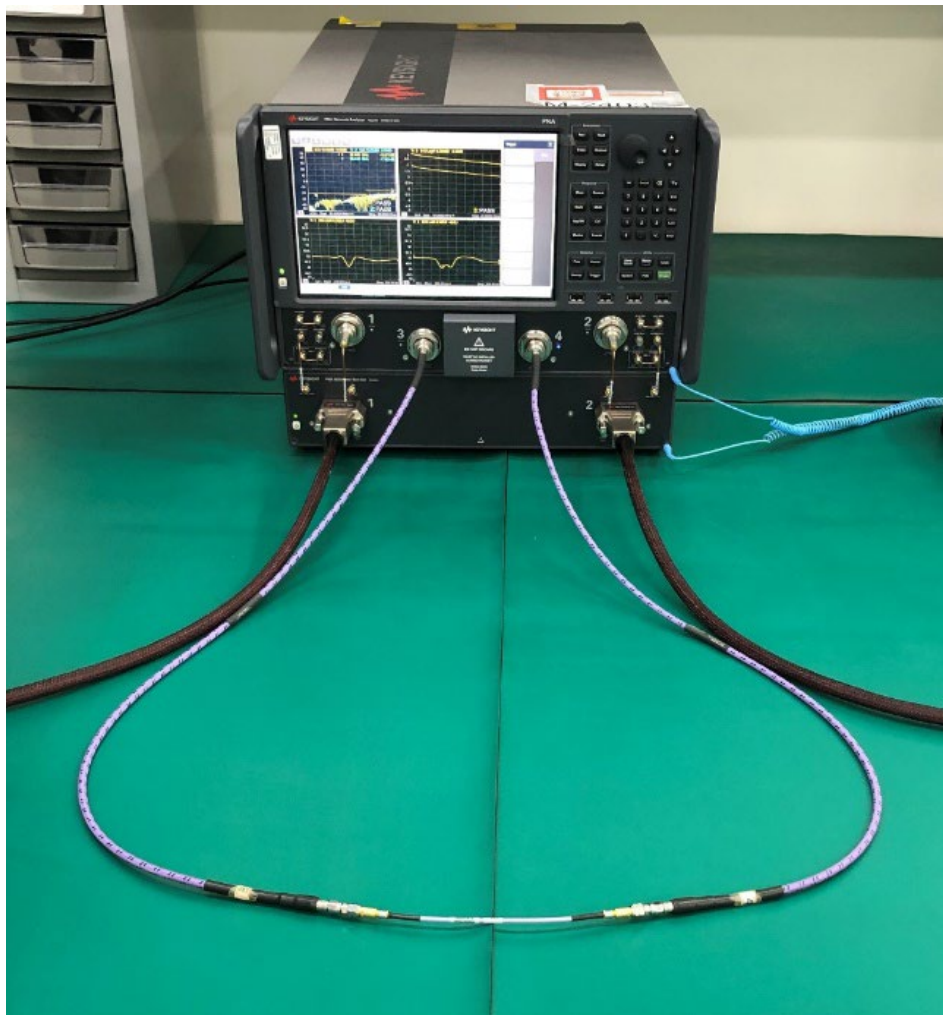
**Series:** RF23C

**Description:** High Performance Microwave Cable Assembly, SMP Bulkhead Plug Ends

**RF23C-00BL-00BL-XXXX Test Definition**

| Part Number          | End 1                                | End 2                                |
|----------------------|--------------------------------------|--------------------------------------|
| RF23C-00BL-00BL-XXXX | SMP Bulkhead Plug,<br>Limited Detent | SMP Bulkhead Plug,<br>Limited Detent |

**Cable Under Test:**



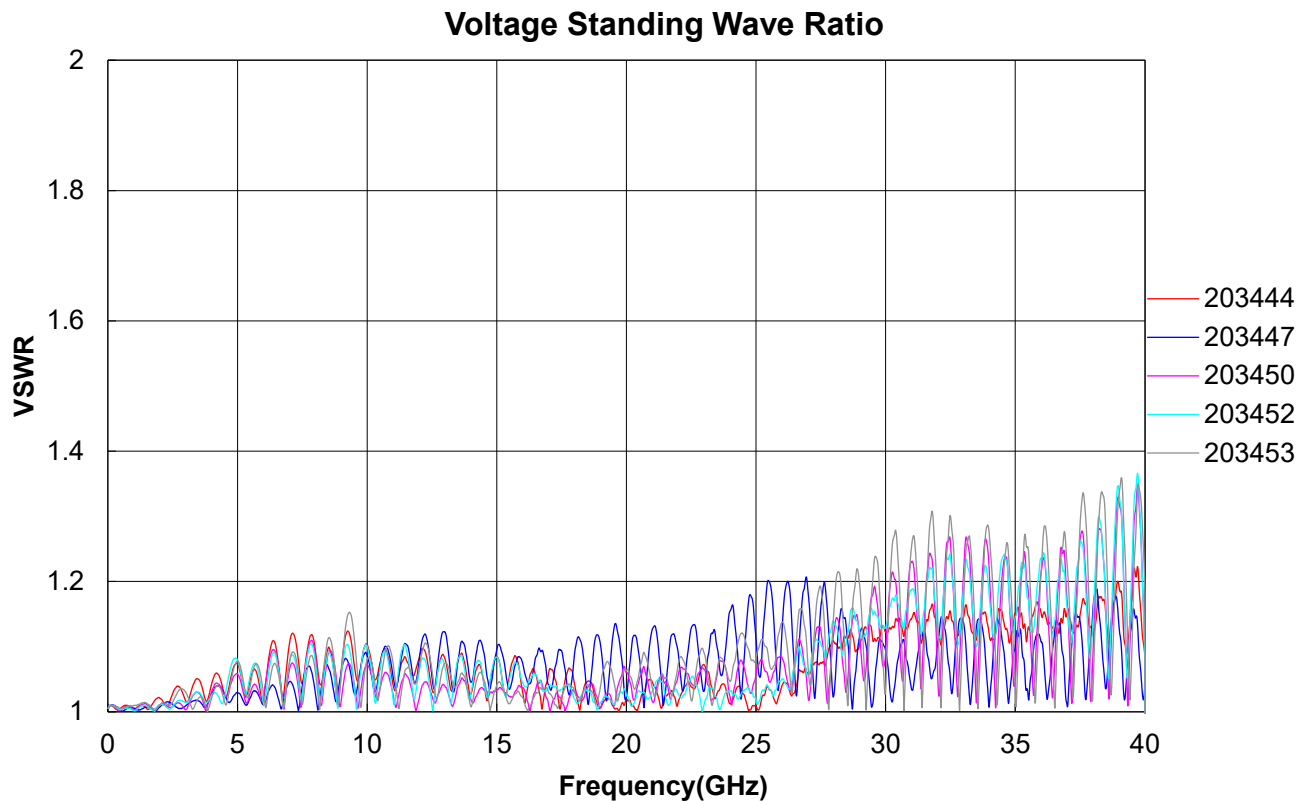
**Series:** RF23C

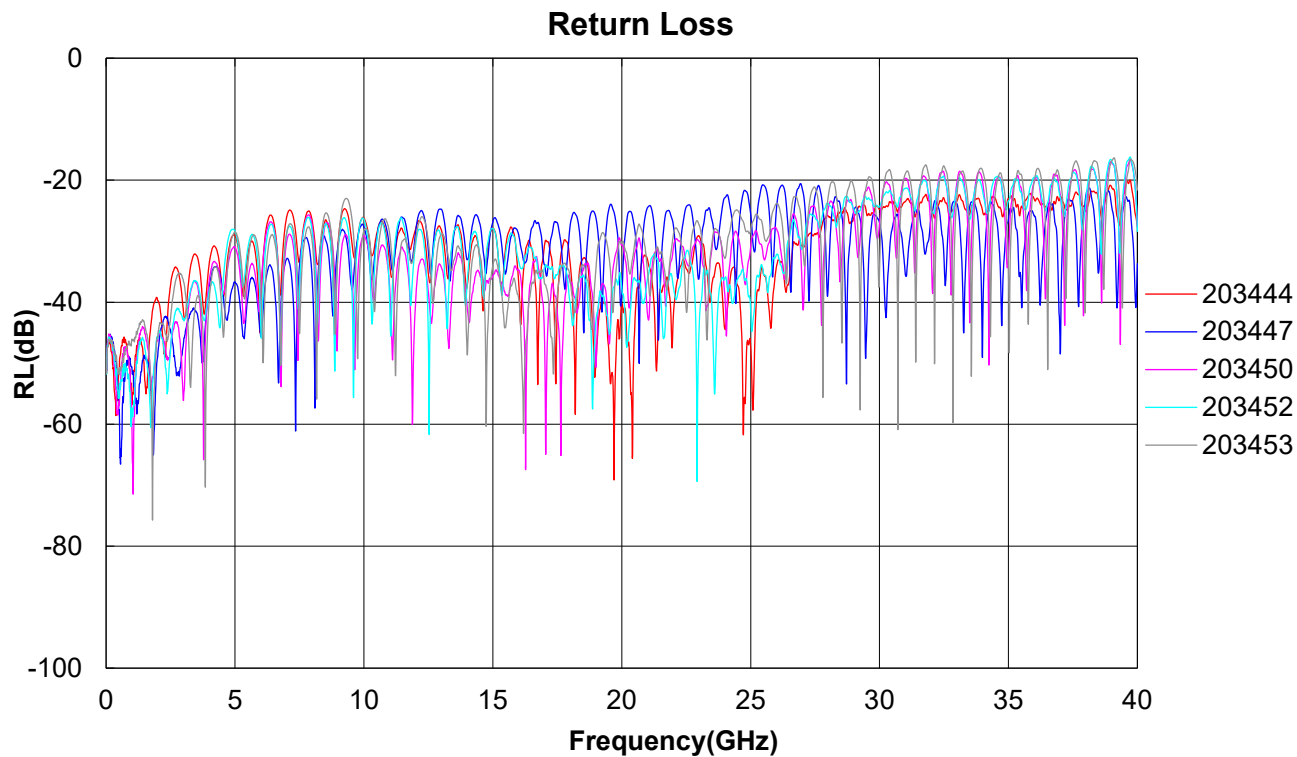
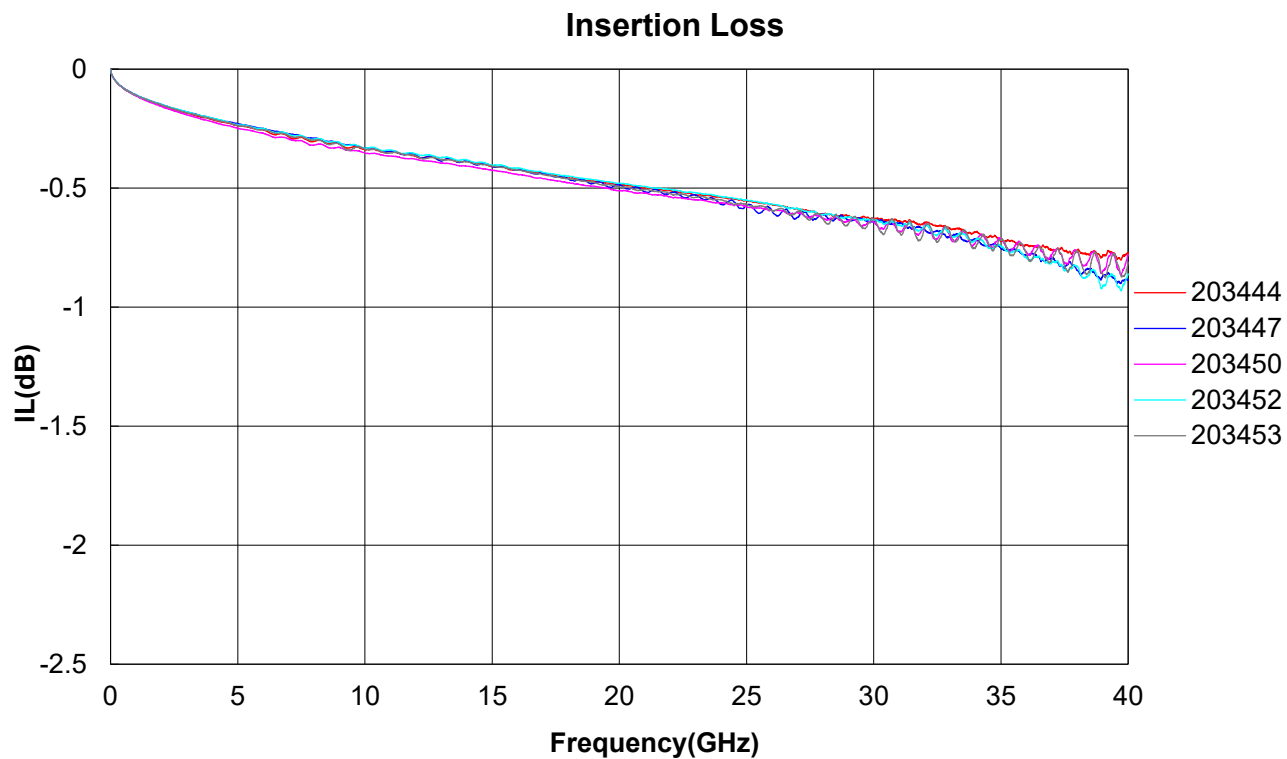
**Description:** High Performance Microwave Cable Assembly, SMP Bulkhead Plug Ends

**Results:** RF23C-00BL-00BL-0152

| Description: RF23C High Frequency RF Cable Assembly |                                  |                                  |                                     |                                     |                                     |                                     |
|-----------------------------------------------------|----------------------------------|----------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|
| Sample                                              | SWR<br>(Max)<br>DC-26.5<br>(GHz) | SWR<br>(Max)<br>26.5-40<br>(GHz) | RL<br>(dB, max)<br>DC-26.5<br>(GHz) | RL<br>(dB, max)<br>26.5-40<br>(GHz) | IL<br>(dB, min)<br>DC-26.5<br>(GHz) | IL<br>(dB, min)<br>26.5-40<br>(GHz) |
| 203444                                              | 1.12 @<br>9.25 GHz               | 1.22 @<br>39.71 GHz              | -24.66 @<br>9.25 GHz                | -19.97 @<br>39.71 GHz               | -0.57 @<br>26.50 GHz                | -0.80 @<br>39.73 GHz                |
| 203447                                              | 1.20 @<br>25.47 GHz              | 1.21 @<br>26.94 GHz              | -20.76 @<br>25.47 GHz               | -20.55 @<br>26.94 GHz               | -0.62 @<br>26.25 GHz                | -0.90 @<br>39.70 GHz                |
| 203450                                              | 1.11 @<br>7.86 GHz               | 1.35 @<br>39.72 GHz              | -25.68 @<br>7.86 GHz                | -16.58 @<br>39.72 GHz               | -0.60 @<br>26.50 GHz                | -0.86 @<br>39.72 GHz                |
| 203452                                              | 1.10 @<br>7.86 GHz               | 1.37 @<br>39.71 GHz              | -26.09 @<br>7.86 GHz                | -16.21 @<br>39.71 GHz               | -0.58 @<br>26.50 GHz                | -0.92 @<br>39.72 GHz                |
| 203453                                              | 1.15 @<br>9.31 GHz               | 1.36 @<br>39.09 GHz              | -22.97 @<br>9.31 GHz                | -16.34 @<br>39.09 GHz               | -0.60 @<br>26.04 GHz                | -0.87 @<br>39.75 GHz                |

## VSWR



**Series:** RF23C**Description:** High Performance Microwave Cable Assembly, SMP Bulkhead Plug Ends**Return Loss****Insertion Loss**

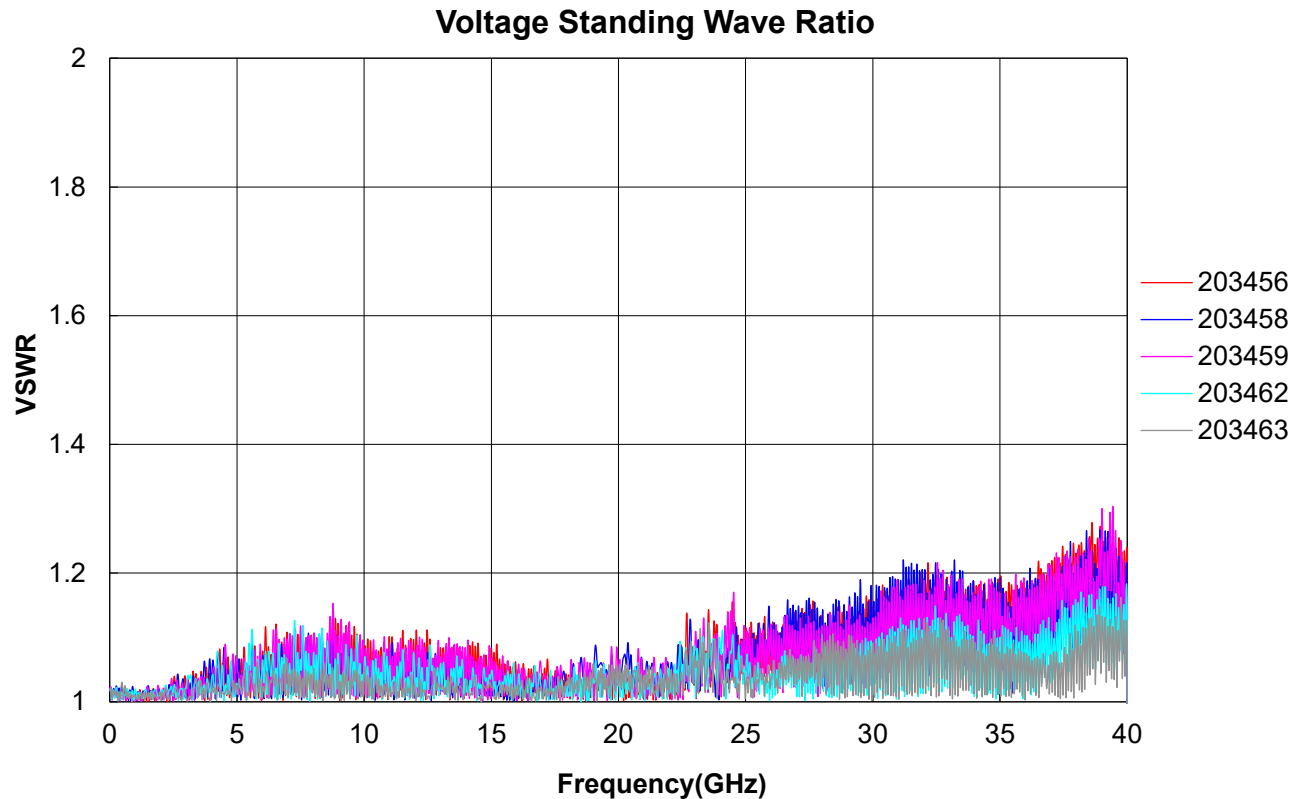
**Series:** RF23C

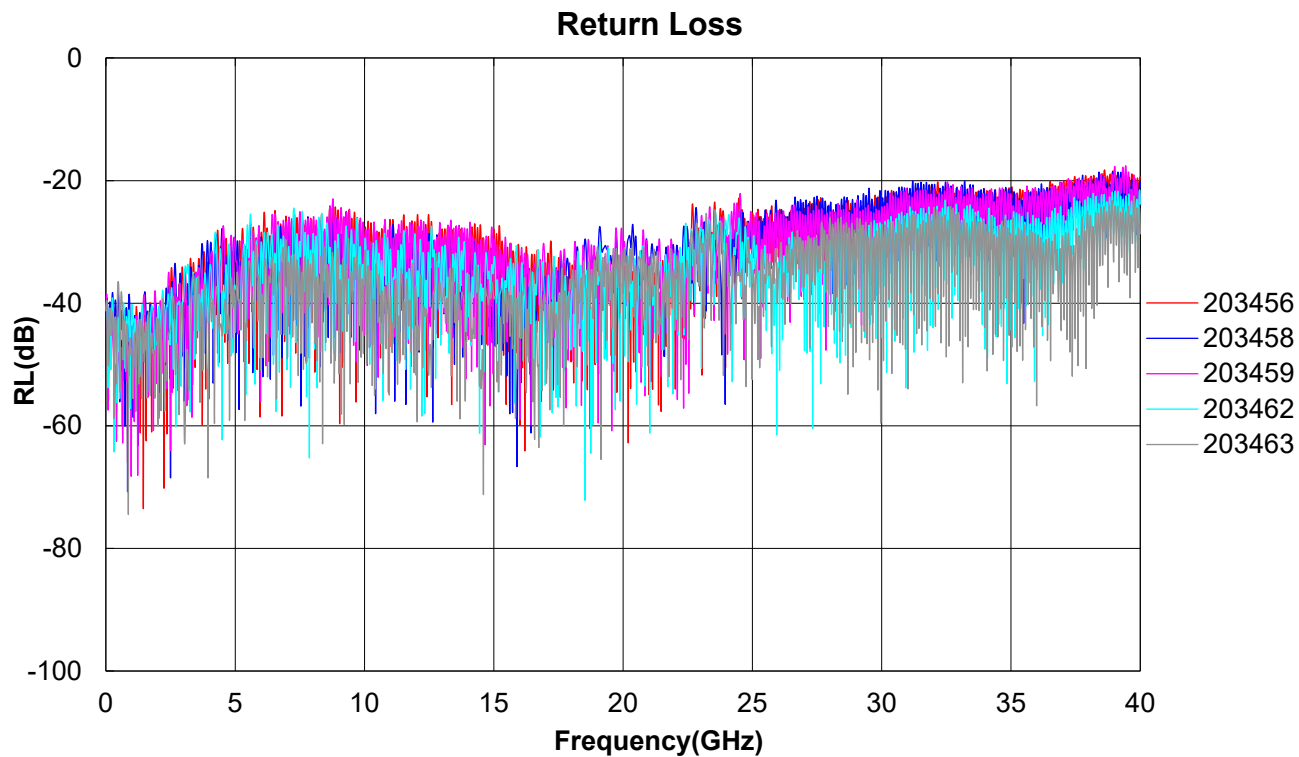
**Description:** High Performance Microwave Cable Assembly, SMP Bulkhead Plug Ends

**Results:** RF23C-00BL-00BL-1000

| Description: RF23C High Frequency RF Cable Assembly |                                  |                                  |                                     |                                     |                                     |                                     |
|-----------------------------------------------------|----------------------------------|----------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|
| Sample                                              | SWR<br>(Max)<br>DC-26.5<br>(GHz) | SWR<br>(Max)<br>26.5-40<br>(GHz) | RL<br>(dB, max)<br>DC-26.5<br>(GHz) | RL<br>(dB, max)<br>26.5-40<br>(GHz) | IL<br>(dB, min)<br>DC-26.5<br>(GHz) | IL<br>(dB, min)<br>26.5-40<br>(GHz) |
| 203456                                              | 1.16 @<br>24.48 GHz              | 1.28 @<br>38.62 GHz              | -22.85 @<br>24.48 GHz               | -18.25 @<br>38.62 GHz               | -3.95 @<br>26.49 GHz                | -5.16 @<br>40.00 GHz                |
| 203458                                              | 1.15 @<br>25.91 GHz              | 1.27 @<br>38.93 GHz              | -23.20 @<br>25.91 GHz               | -18.58 @<br>38.93 GHz               | -3.98 @<br>26.50 GHz                | -5.22 @<br>40.00 GHz                |
| 203459                                              | 1.17 @<br>24.53 GHz              | 1.30 @<br>39.43 GHz              | -22.10 @<br>24.53 GHz               | -17.59 @<br>39.43 GHz               | -3.81 @<br>26.50 GHz                | -4.99 @<br>39.44 GHz                |
| 203462                                              | 1.13 @<br>7.27 GHz               | 1.18 @<br>39.97 GHz              | -24.48 @<br>7.27 GHz                | -21.51 @<br>39.97 GHz               | -3.97 @<br>26.50 GHz                | -5.19 @<br>39.97 GHz                |
| 203463                                              | 1.12 @<br>23.55 GHz              | 1.16 @<br>39.75 GHz              | -24.74 @<br>23.55 GHz               | -22.48 @<br>39.75 GHz               | -3.94 @<br>26.50 GHz                | -5.14 @<br>39.97 GHz                |

## VSWR



**Series:** RF23C**Description:** High Performance Microwave Cable Assembly, SMP Bulkhead Plug EndsReturn LossInsertion Loss