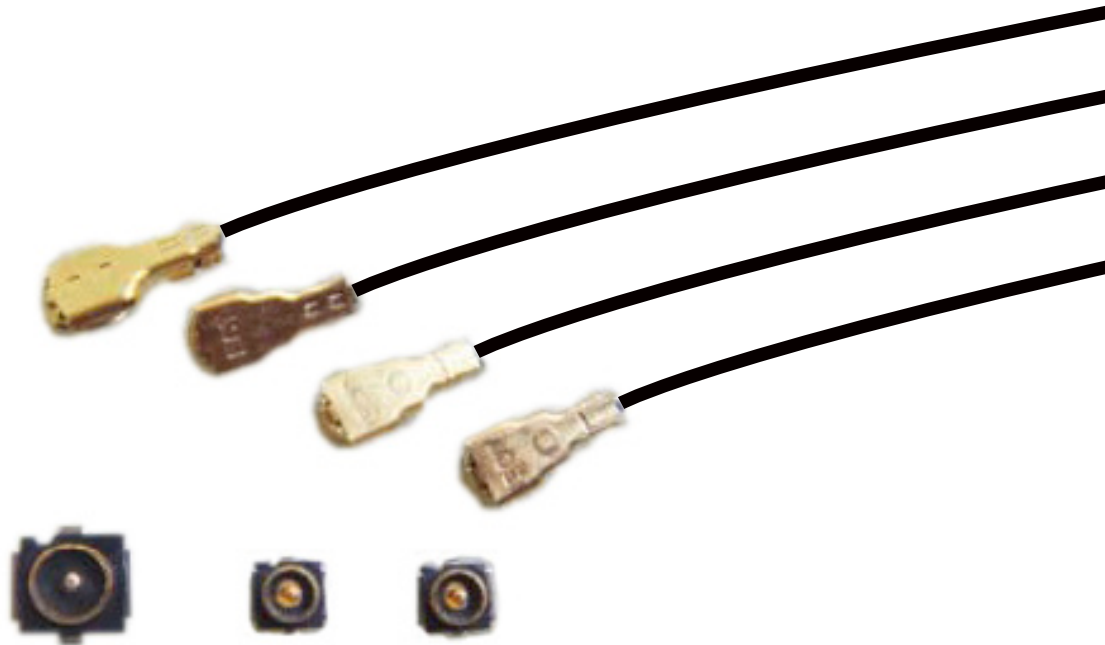


**MCC**

# Micro Coaxial Connector

Ultrasmall Series with mating height 1.00 mm



IEEE802.11a|b|g|n  
WiMAX  
Bluetooth  
Zigbee  
MIMO (Multiple input and multiple output)

## USS RF V Plug Cable Assembly

Mating height 1.00 mm

### Major Applications

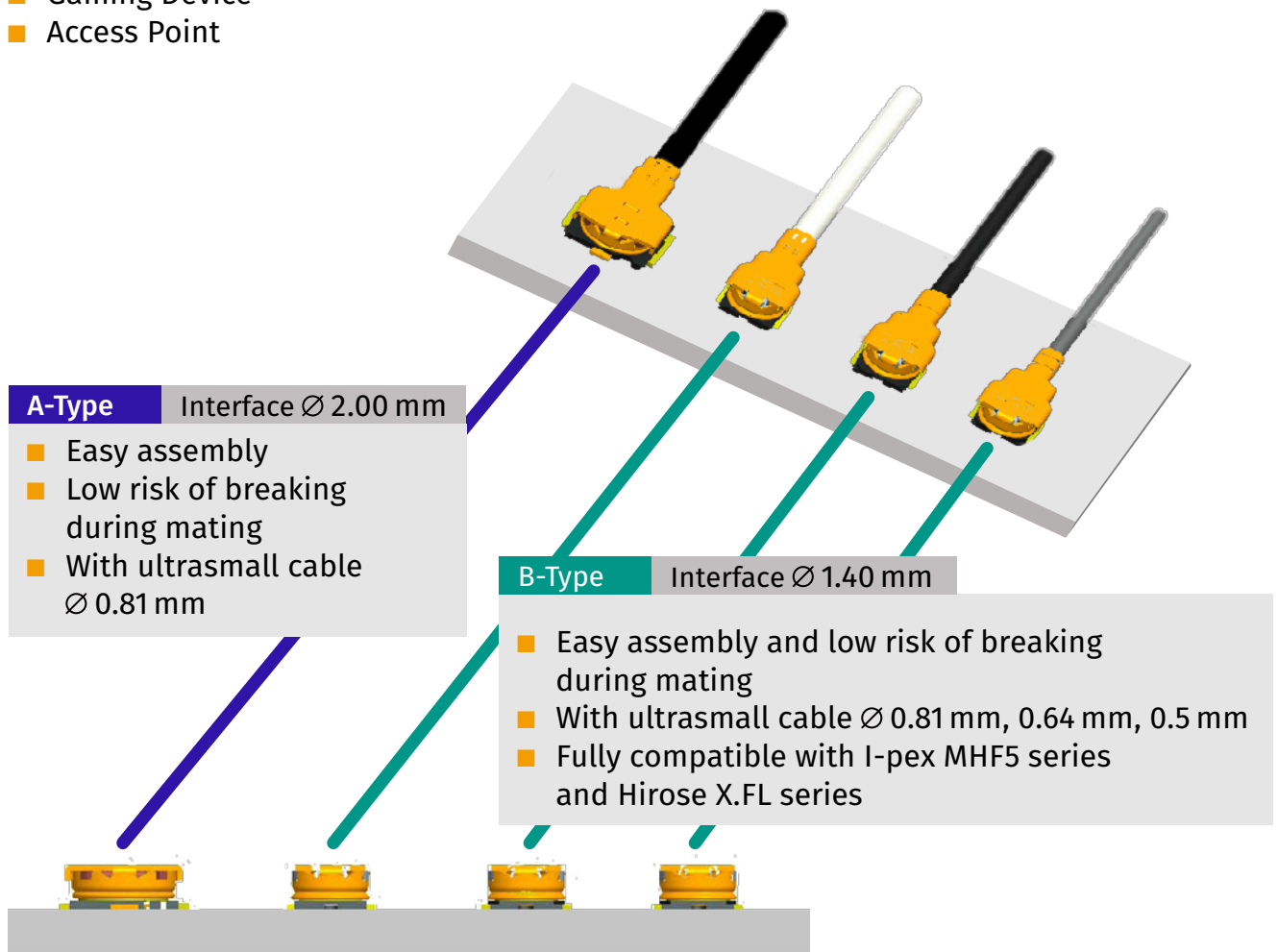
- Wireless LAN Antenna
- Mobile Phone
- Smart Phone
- Notebook PC
- Gaming Device
- Access Point

### Space Economy

1.0 mm Mating Height max.

Excellent electrical

performance on the high signal transitions



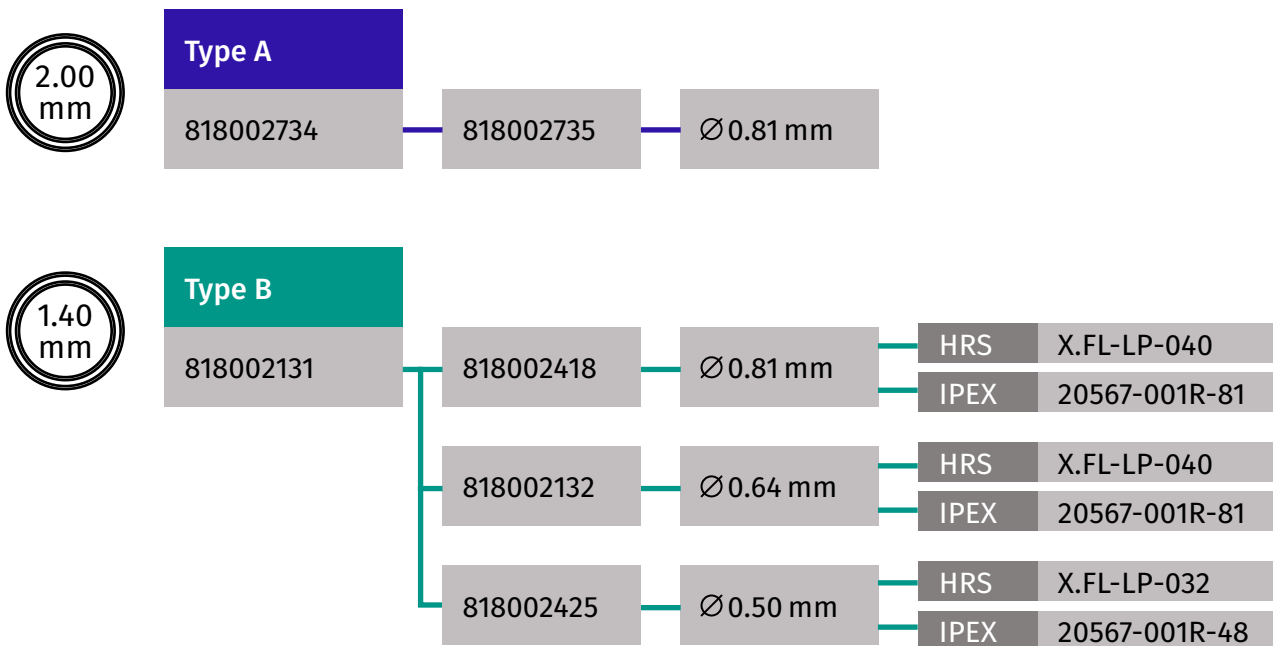
## Technology Parameters

<b>Rated Voltage</b>	<b>Withstand Voltage</b>	<b>Insulation Resistance</b>
60 V AC	200 V AC	500 MΩ min.
<b>Characteristic Impedance</b>	<b>V.S.W.R</b>	<b>Contact Resistance</b>
50 Ω (nominal)	1.3 max. (DC ~ 3 GHz) 1.5 max. (DC ~ 3 – 6 GHz)	20 mΩ max.

## Product Overview

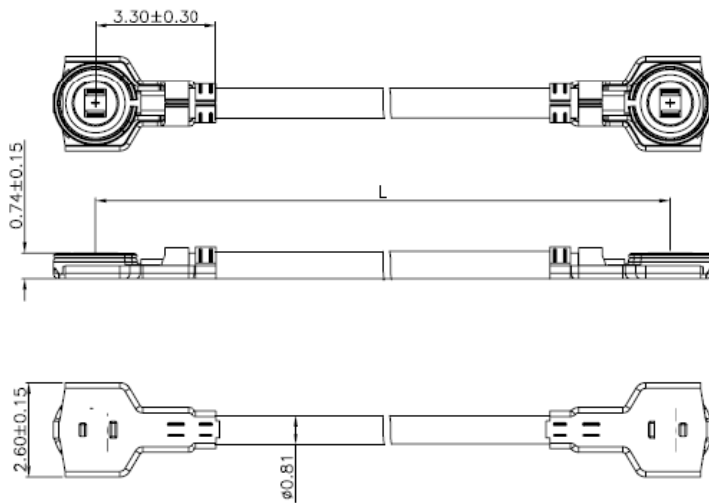
Mating Height 1.00 mm

Plug	Cable	Compatible
------	-------	------------

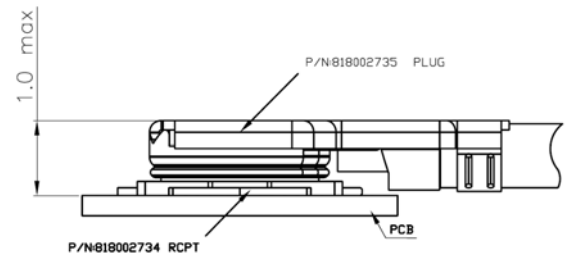


## Plug Type

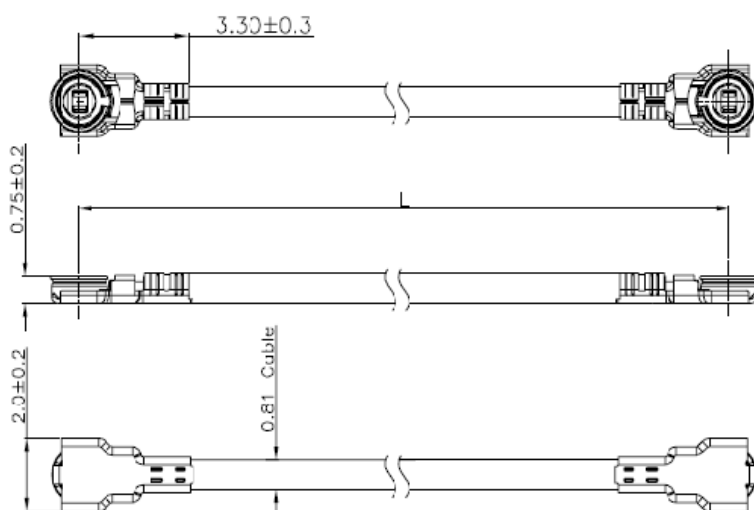
### A-Type USS RF V Cable Assembly



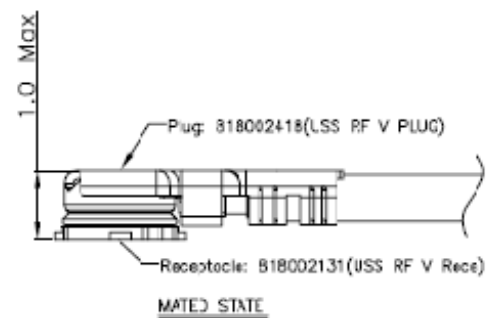
USS RF V (818002375)  
With Cable Ø 0.81 mm  
Shell Au plated



### B-Type USS RF V Cable Assembly

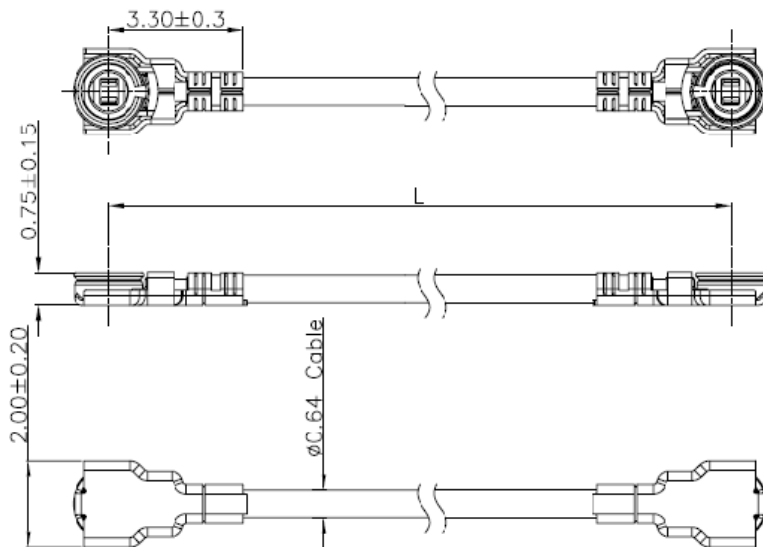


USS RF V (818002418)  
With Cable Ø 0.81 mm  
Shell Au plated

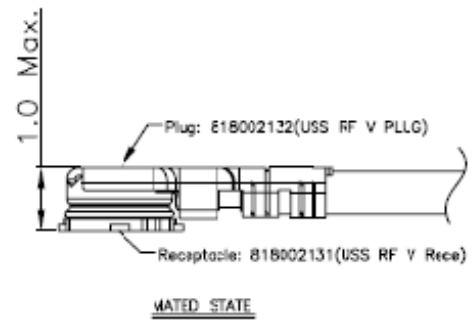


## Plug Type

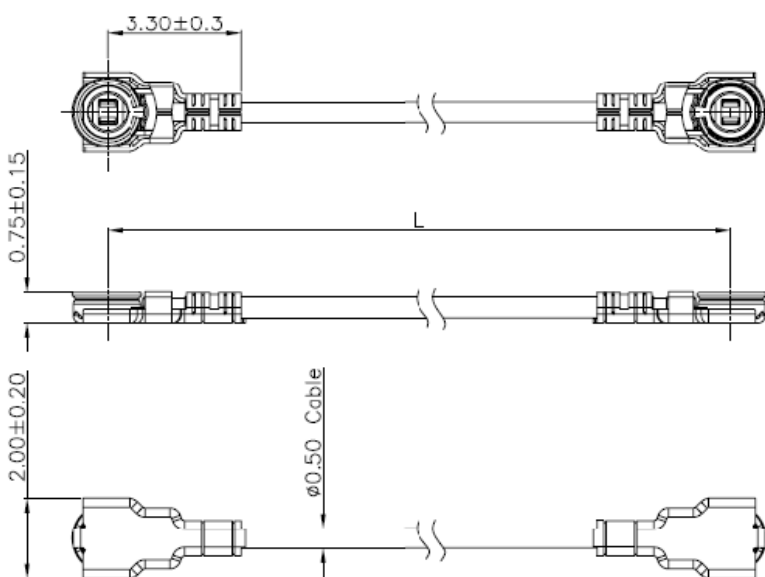
**B-Type** USS RF V Cable Assembly



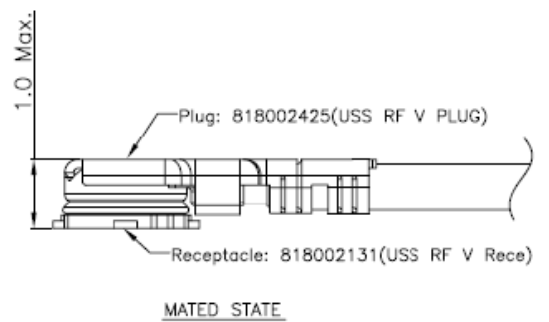
USS RF V (818002132)  
With Cable Ø 0.64 mm  
Shell Au plated



**B-Type** USS RF V Cable Assembly



USS RF V (818002425)  
With Cable Ø 0.50 mm  
Shell Au plated

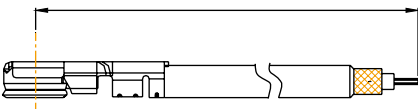


## Material and Finish RoHS ✓

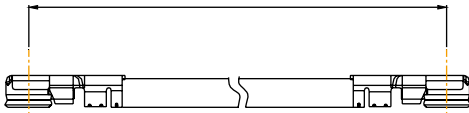
Housing	Contact (Signal)	Shell (Grounding)
High Temperature Plastic Color: Black	Copper Alloy Plating: Au over Ni	Copper Alloy Au or Ag over Ni

## Available Variety

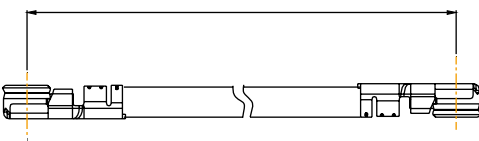
### Single Ended



### Double Ended and Forward



### Double Ended and Reverse



- RF connector (such as SMA/MCX) and/or antenna can be connected to the stripped end of single ended type products
- Ground Clamp or notch for grounding in the coaxial cable is available
- Kinds of Shell Plating, Cable Color, Cable Diameter, Cable Length are optional

## Length Tolerance

$L \leq 80$ (25 mm min.)	$80 < L \leq 200$	$200 < L$
$\pm 0.80$ mm	$\pm 1.00$ mm	$\pm 1.5$ %

Please feel free to contact us if you need any more precision manufacture.

# Applicable Receptacle Specification

**A-Type**    USS RF V Receptable

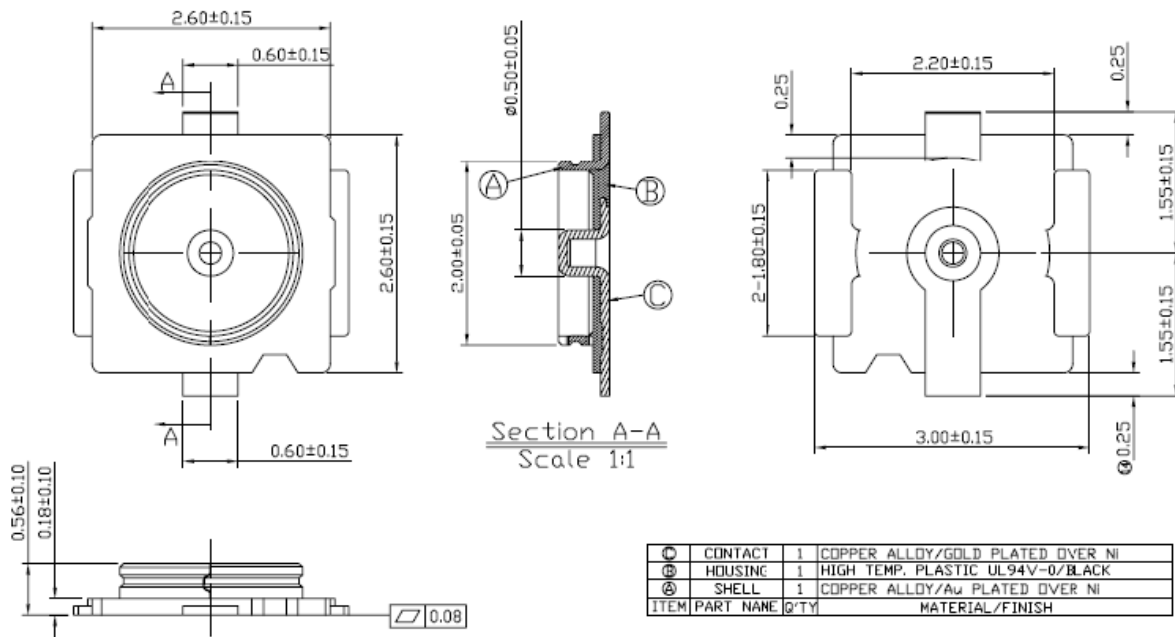


818002743  
USS RF CONN

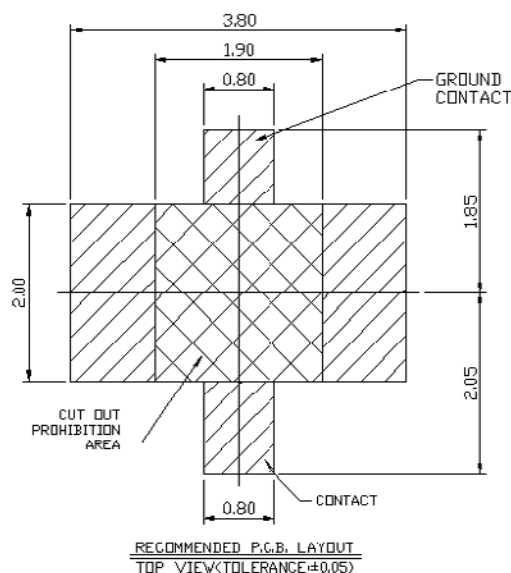
Length 3.1 mm  
Width 3.0 mm  
Height 0.56 mm

50 Ω  
4 Pins (2735)  
Height 1.00 mm max.

## Profile Dimensions of Receptacle Type A



## Recommended PCB Layout of Receptacle Type A



# Applicable Receptacle Specification

B-Type USS RF V Receptable

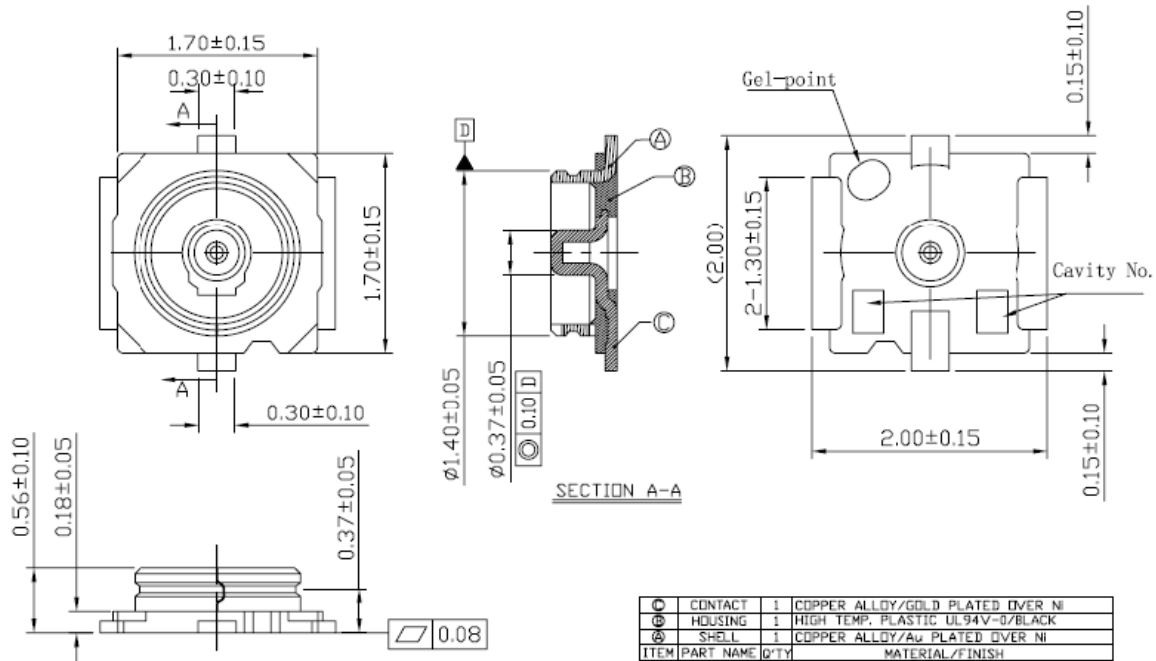


818002131  
USS RF CONN

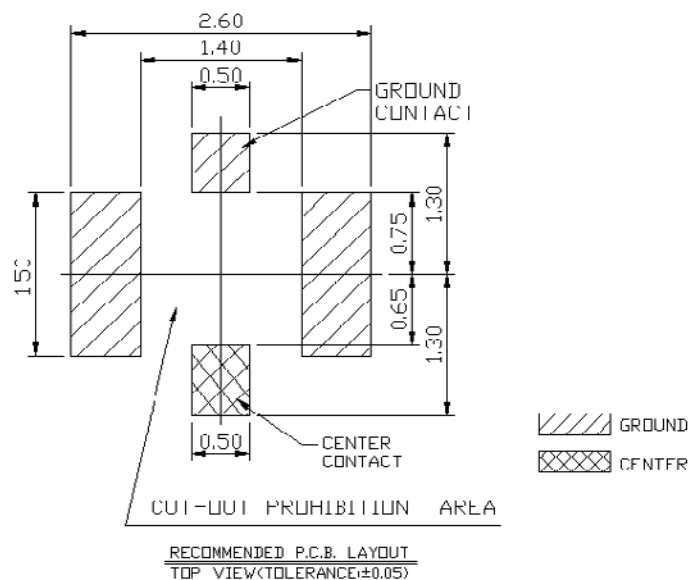
Length 2.0 mm  
Width 2.0 mm  
Height 0.56 mm

50 Ω  
4 Pins (2132)  
Height 1.00 mm max.

## Profile Dimensions of Receptacle Type B



## Recommended PCB Layout of Receptacle Type B

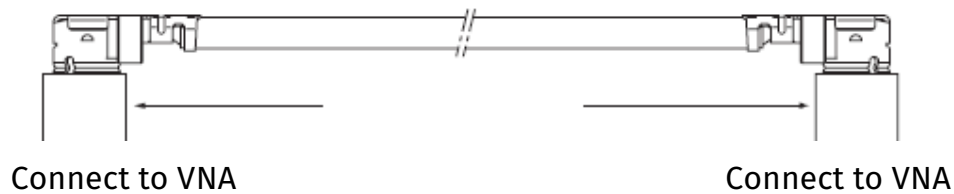




## Cable Loss

Item	Unit	Note	Specification		
			0.81 mm	0.64 mm	0.50 mm
Attenuation	dB/m	1 GHz	3.6 dB	3.1 dB	4.7 dB
		2 GHz	5.1 dB	4.7 dB	6.3 dB
		3 GHz	6.2 dB	5.8 dB	7.8 dB
		4 GHz	7.5 dB	6.9 dB	9.2 dB
		5 GHz	8.3 dB	8.2 dB	10.3 dB
		6 GHz	9.4 dB	9.4 dB	12.0 dB

## RF Performance



### Frequency

DC ~ 6 GHz

### Test Equipment

Agilent E 5071 C

### DUT-Cable Length

100 mm

### Adaptor

USS V(M) /  
SMA(F)

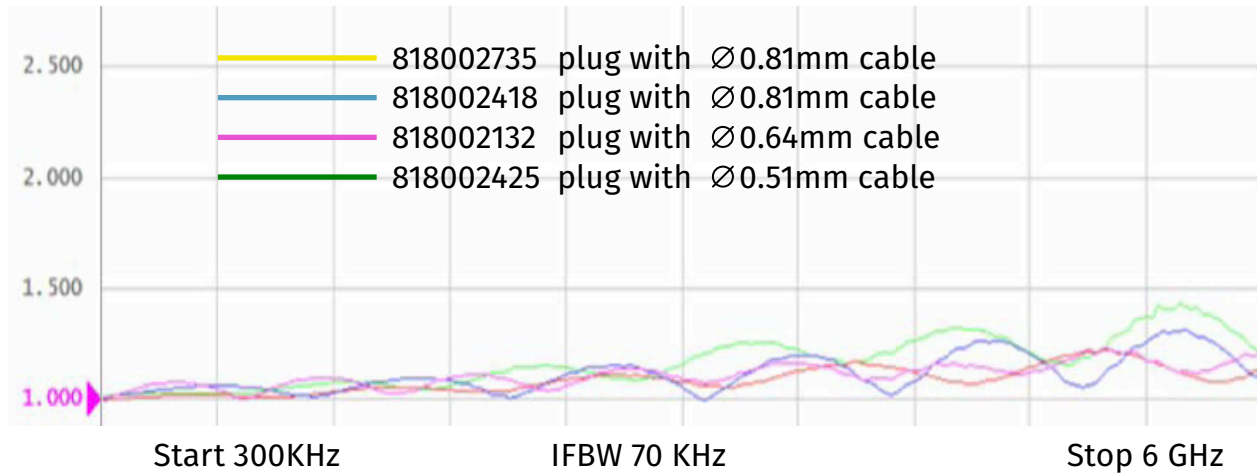
### Test Configuration

3.5 mm full 2-port  
calibration

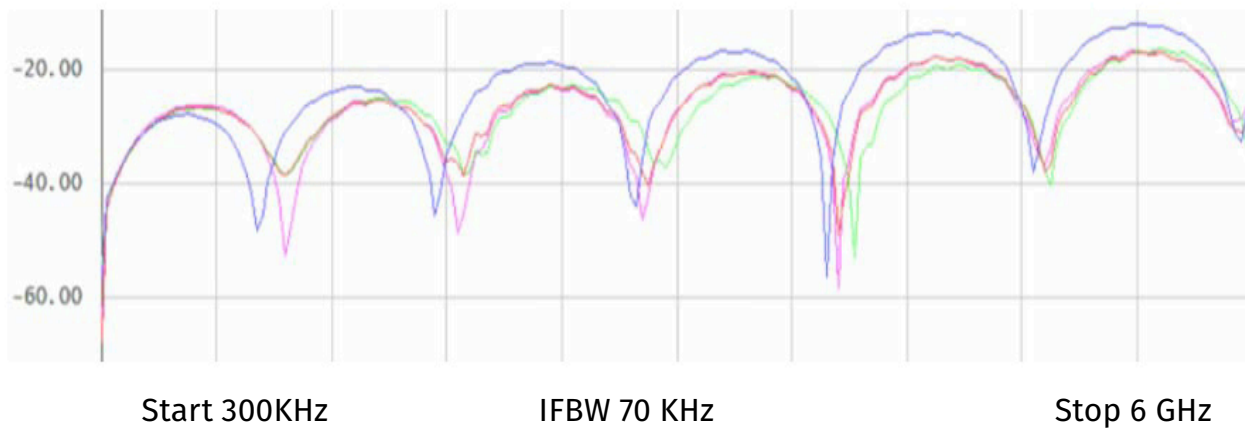


## RF Test System

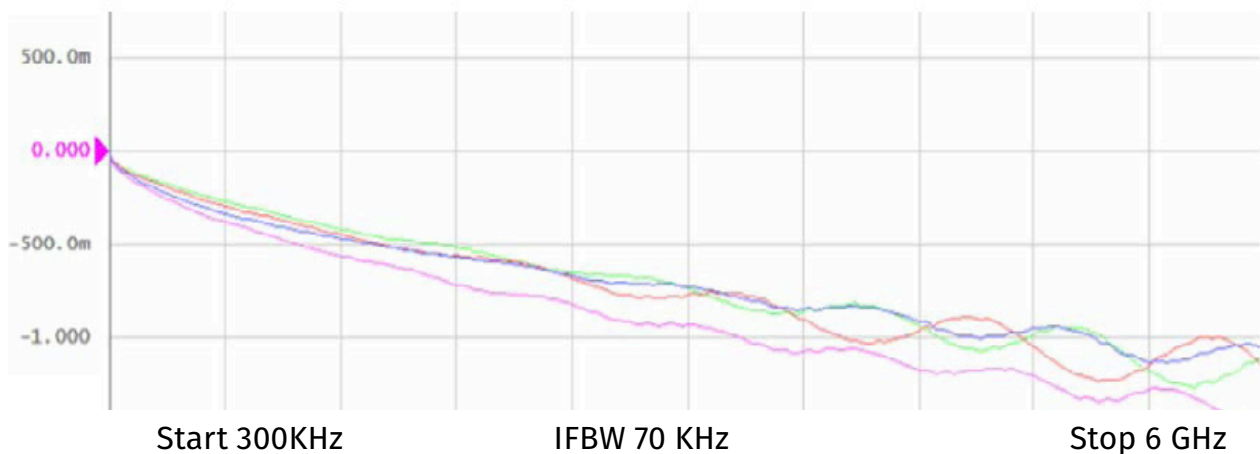
### V.S.W.R.



### Return Loss

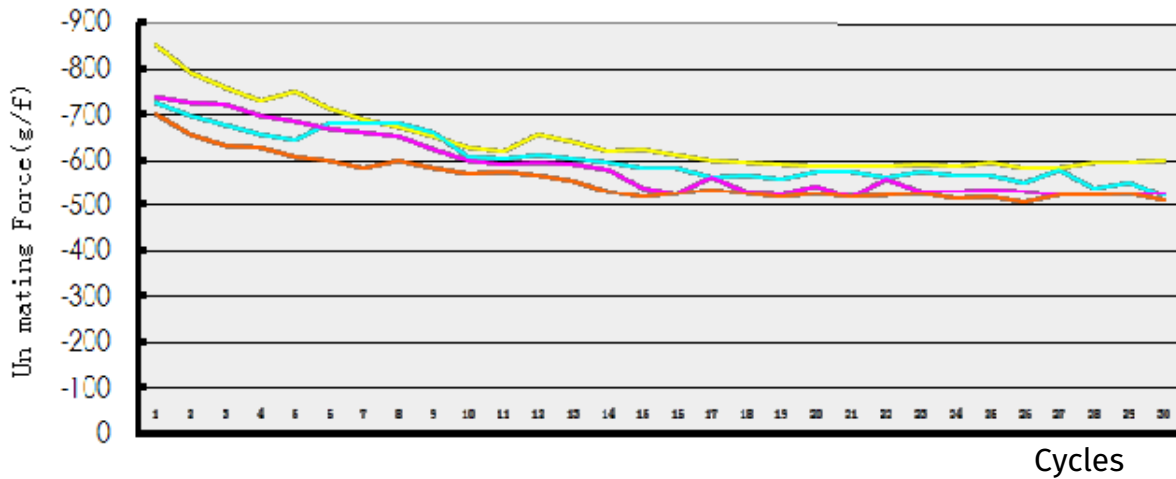


### Insertion Loss

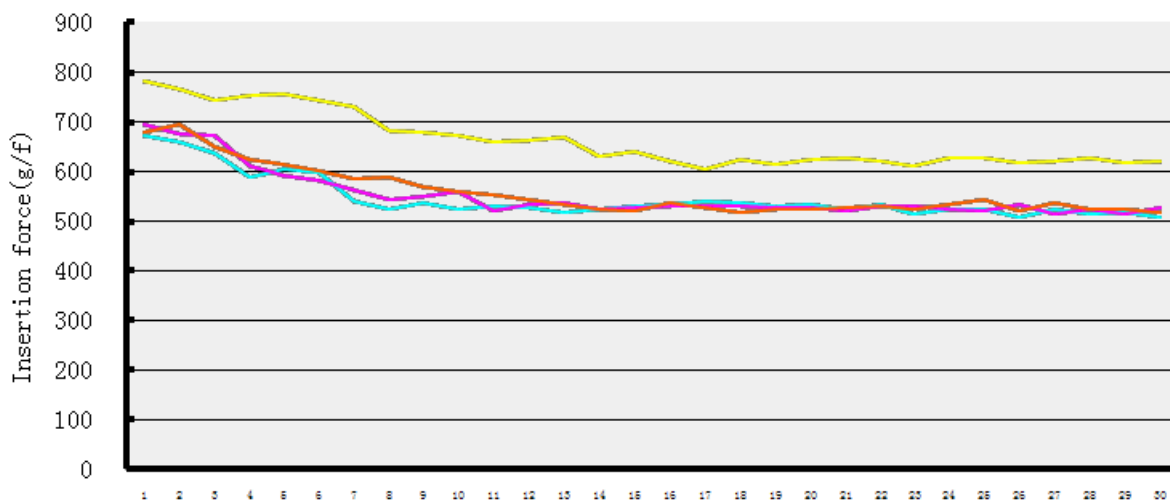


## RF Test System

Insertion Force (tested with its mating receptacle)



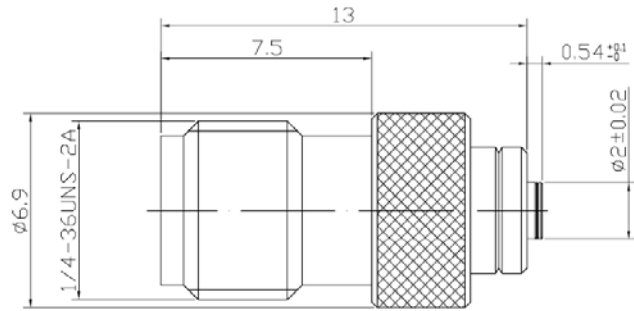
Unmating Force (tested with its mating receptacle)



- 818002735 plug with Ø0.81mm cable
- 818002418 plug with Ø0.81mm cable
- 818002132 plug with Ø0.64mm cable
- 818002425 plug with Ø0.51mm cable

## SMA Conversion for RF Test

A-Type SMA(F) USS RF V Adaptor



Part Number

818002913

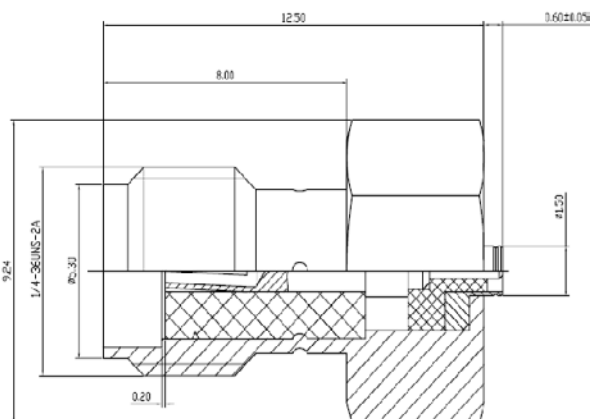
Title

SMA(F)-USSV200(M)

Durability

500 Cycles

B-Type SMA(F) USS RF V Adaptor



Part Number

818001301

Title

SMA(F)-USSV150(M)

Durability

300 Cycles