

**Withwave's 2.92 mm Connectors** are specially designed for RF/microwave application and offer compatible mating style to SMA, 3.5 mm connectors. This field replaceable connectors are easy to install /replace and precision manufacturing allows superior electrical performance up to 40 GHz.

These connectors are available with four mounting configurations and assembly is precisely controlled to ensure consistency of performance.



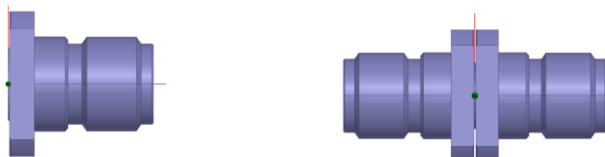
### ■ Specification

Scope	Items	Specification
Electrical	Freq. range	DC to 40 GHz
	Impedance	50 Ohm
	VSWR(Max)	1.15 :1 (DC to 18 GHz) 1.25 :1 (18 to 40 GHz)
	Insulation Resistance (Min)	5,000 megaohms
	RF Leakage	-90 dB
Material	Body	Stainless Steel (Passivated)
	Center Contact	BeCu (gold plated)
	Insulator	Special Dielectric
Environmental	Temperature	-40 to +135 degree
	Thermal Shock	MIL-STD-202, Method 107, Condition B
	Corrosion	MIL-STD-202, Method 101, Condition B
	Vibration	MIL-STD-202, Method 204, Condition D
	Moisture Resistance	MIL-STD-202, Method 106

### ■ Design Assistance

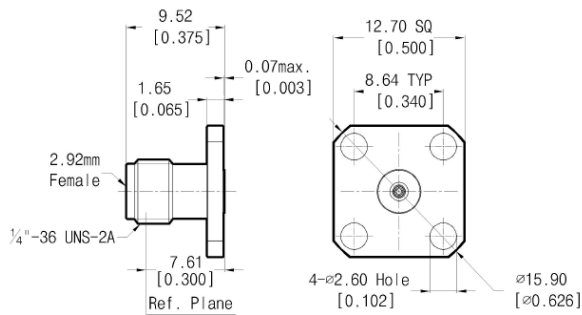
*\*RoHS Compliant*

- 3D Model for Mechanical Layout (STEP file)
- **ANSYS HFSS models** (version 17.0 or newer) for 3D EM(Electromagnetic) Simulation



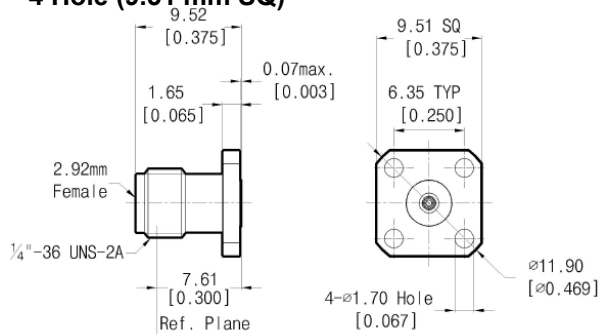
## ■ Drawing\_2.92 mm Jack (Female)

### 4 Hole (12.7 mm SQ)



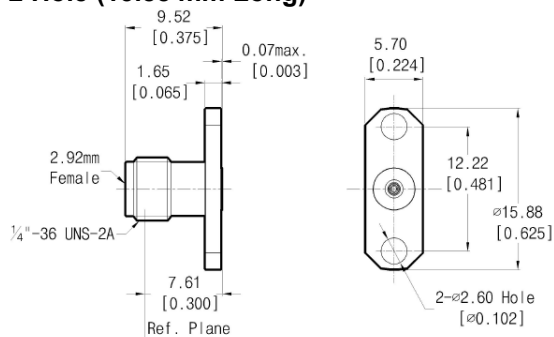
Accept Pin Dia.	Part No.
0.012" 0.020"	PM03FS031 PM03FS032

### 4 Hole (9.51 mm SQ)



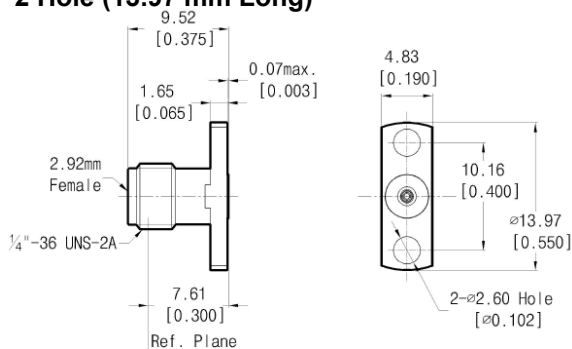
Accept Pin Dia.	Part No.
0.012" 0.020"	PM03FS035 PM03FS036

### 2 Hole (15.88 mm Long)



Accept Pin Dia.	Part No.
0.012" 0.020"	PM03FS039 PM03FS040

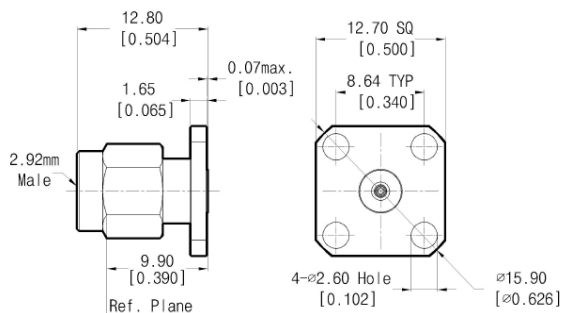
### 2 Hole (13.97 mm Long)



Accept Pin Dia.	Part No.
0.012" 0.020"	PM03FS043 PM03FS044

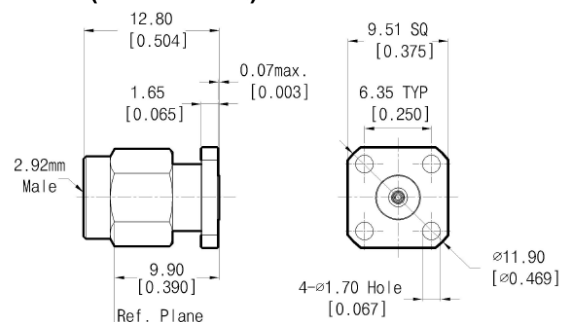
## ■ Drawing\_2.92 mm Plug (Male)

### 4 Hole (12.7 mm SQ)



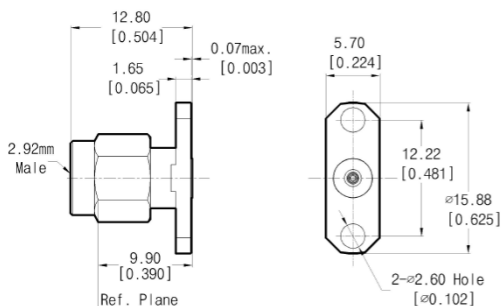
Accept Pin Dia.	Part No.
0.012" 0.020"	PM03MS031 PM03MS032

### 4 Hole (9.51 mm SQ)



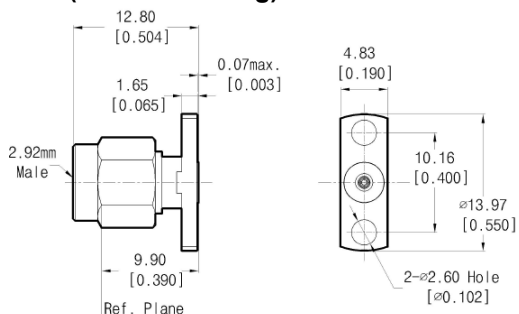
Accept Pin Dia.	Part No.
0.012" 0.020"	PM03MS035 PM03MS036

### 2 Hole (15.88 mm Long)



Accept Pin Dia.	Part No.
0.012" 0.020"	PM03MS039 PM03MS040

### 2 Hole (13.97 mm Long)



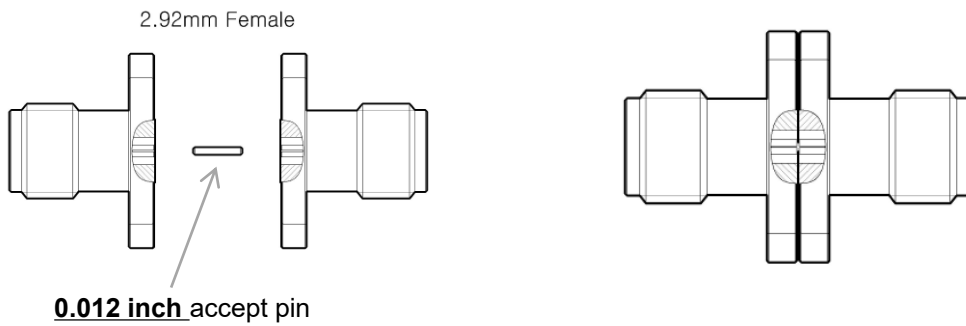
Accept Pin Dia.	Part No.
0.012" 0.020"	PM03MS043 PM03MS044

## ■ Test Result

### Back-to-Back Test

#### Female Type

Part No : PM03FS035



- Freq. Range : 10 MHz ~40 GHz
- Insertion & Return Loss Measurement

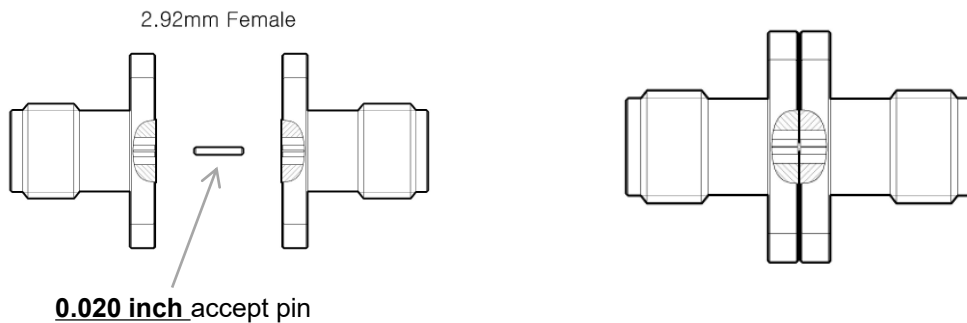


### ■ Test Result

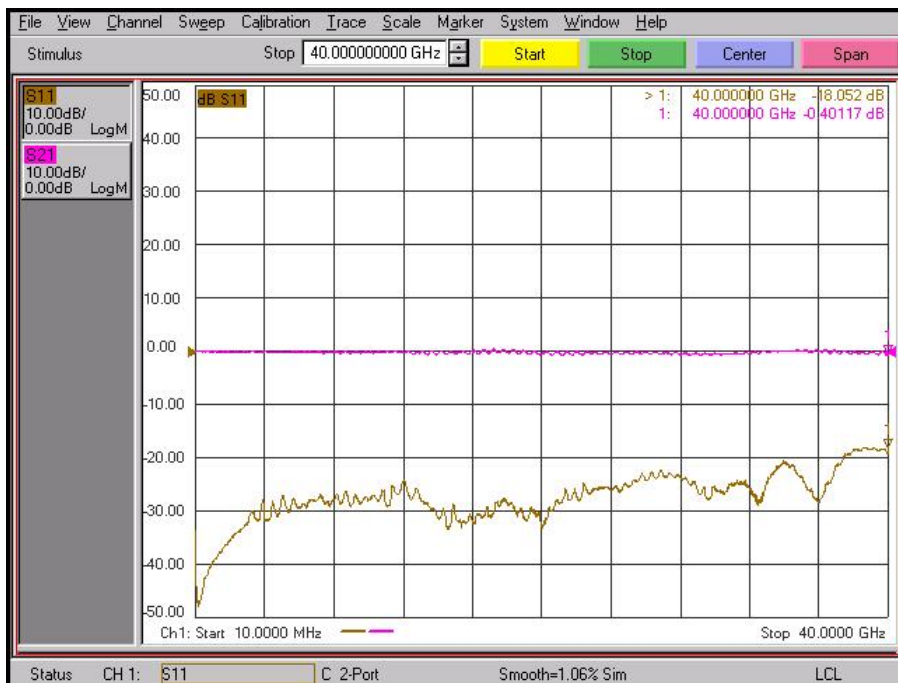
### Back-to-Back Test

### Female Type

Part No : PM03FS036



- Freq. Range : 10 MHz ~40 GHz
- Insertion & Return Loss Measurement

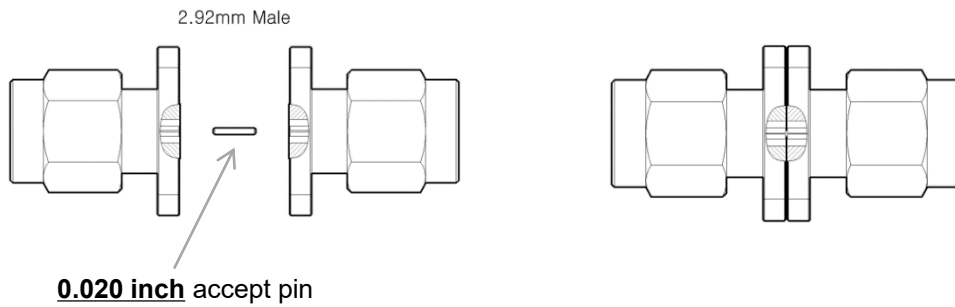


## ■ Test Result

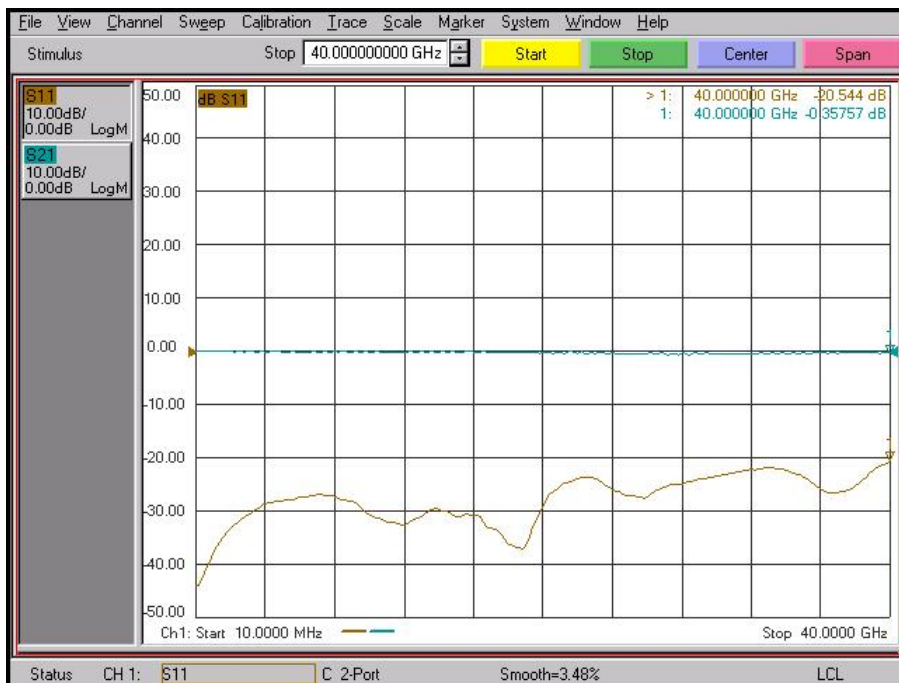
### Back-to-Back Test

#### Male Type

Part No : PM03MS036



- Freq. Range : 10 MHz ~40 GHz
- Insertion & Return Loss Measurement



### ■ Competitive cross-Reference

#### • 4 Hole 0.500" Square

##### Female type

Accept Pin Dia.	Southwest P/N	Withwave P/N
0.012"	1012-01SF	PM03FS031
0.020"	1012-05SF	PM03FS032

##### Male type

Accept Pin Dia.	Southwest P/N	Withwave P/N
0.012"	1011-01SF	PM03MS031
0.020"	1011-05SF	PM03MS032

#### • 4 Hole 0.375" Square

##### Female type

Accept Pin Dia.	Southwest P/N	Withwave P/N
0.012"	1012-11SF	PM03FS035
0.020"	1012-16SF	PM03FS036

##### Male type

Accept Pin Dia.	Southwest P/N	Withwave P/N
0.012"	1011-11SF	PM03MS035
0.020"	1011-15SF	PM03MS036

#### • 2 Hole 0.625" Long

##### Female type

Accept Pin Dia.	Southwest P/N	Withwave P/N
0.012"	1014-01SF	PM03FS039
0.020"	1014-05SF	PM03FS040

##### Male type

Accept Pin Dia.	Southwest P/N	Withwave P/N
0.012"	1013-01SF	PM03MS039
0.020"	1013-05SF	PM03MS040

#### • 2 Hole 0.550" Long

##### Female type

Accept Pin Dia.	Southwest P/N	Withwave P/N
0.012"	1014-11SF	PM03FS043
0.020"	1014-15SF	PM03FS044

##### Male type

Accept Pin Dia.	Southwest P/N	Withwave P/N
0.012"	1013-11SF	PM03MS043
0.020"	1013-15SF	PM03MS044

### ■ Revision History

Revision	Date	Changes
Ver 1.0	2016-04-01	Released 2.92 mm Connector
Ver.2.0	2017-08-01	Updated Drawing
Ver 3.0	2020-03-01	Add Design Assistance for ANSYS HFSS 3D simulation model