

# High Performance SMA Connectors

DC to 27 GHz

**withwave**  
Next Generation Connectivity

**WithWave's High Performance SMA Connectors** are specially designed for RF/microwave application. This field replaceable connectors are easy to install/replace and precision manufacturing allows superior electrical performance up to 27 GHz. These connectors are available with three mounting configurations and assembly is precisely controlled to ensure consistency of performance.



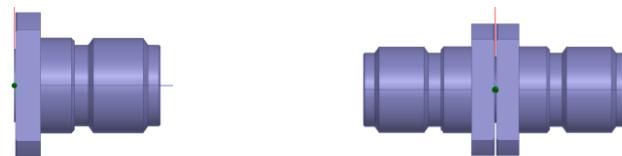
## ■ Specification

Scope	Items	Specification
Electrical	Freq. range	DC to 27 GHz
	Impedance	50 Ohm
	VSWR(Max)	1.10 :1 (DC to 18 GHz) 1.15 :1 (18 to 27 GHz)
	Insulation Resistance (Min)	5,000 megaohms
	RF Leakage	- 90 dB
Material	Body	Stainless Steel (Passivated)
	Center Contact	BeCu (gold plated)
Environmental	Insulator	Special Dielectric
	Temperature	-40 to +125 degree
	Thermal Shock	MIL-STD-202, Method 107, Condition A
	Corrosion	MIL-STD-202, Method 101, Condition B
	Vibration	MIL-STD-202, Method 204, Condition D
Moisture Resistance		MIL-STD-202, Method 106

\*RoHS Compliant

## ■ Design Assistance

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



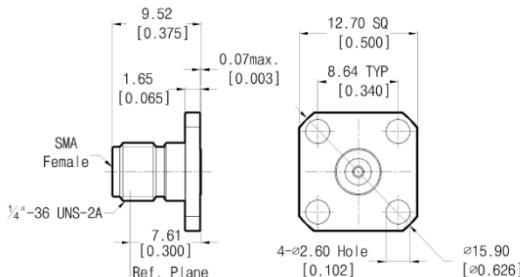
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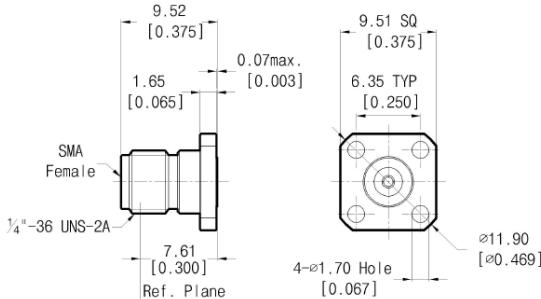
## ■ Drawing\_ High Performance SMA Jack (Female)

### 4 Hole (12.7 mm SQ)



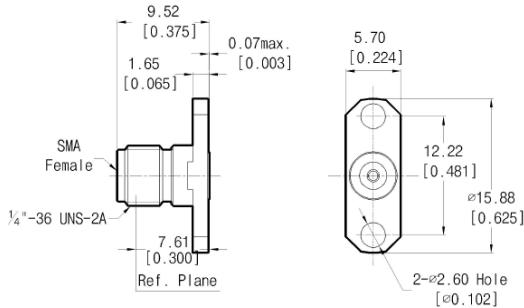
Accept Pin Dia.	Part No.
0.036"	PM06FS035

### 4 Hole (9.51 mm SQ)



Accept Pin Dia.	Part No.
0.036"	PM06FS040

### 2 Hole (15.88 mm Long)



Accept Pin Dia.	Part No.
0.036"	PM06FS045

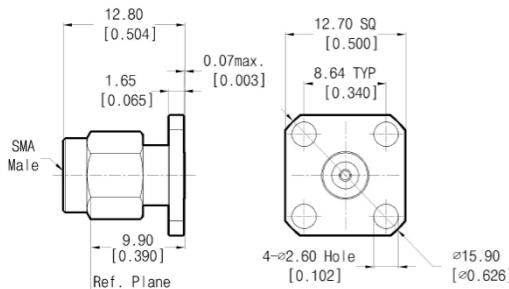
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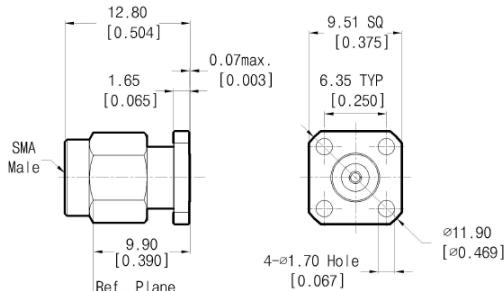
## ■ Drawing\_ High Performance SMA Plug (Male)

### 4 Hole (12.7 mm SQ)



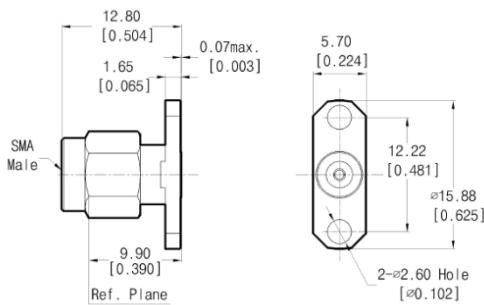
Accept Pin Dia.	Part No.
0.036"	PM06MS035

### 4 Hole (9.51 mm SQ)



Accept Pin Dia.	Part No.
0.036"	PM06MS040

### 2 Hole (15.88 mm Long)



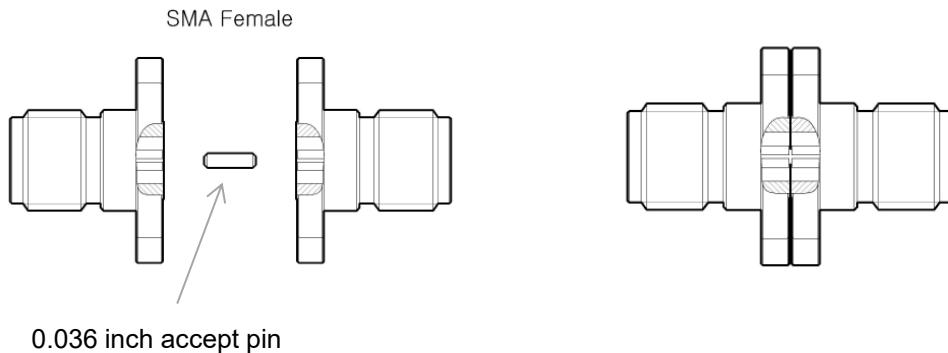
Accept Pin Dia.	Part No.
0.036"	PM06MS045

## ■ Test Result

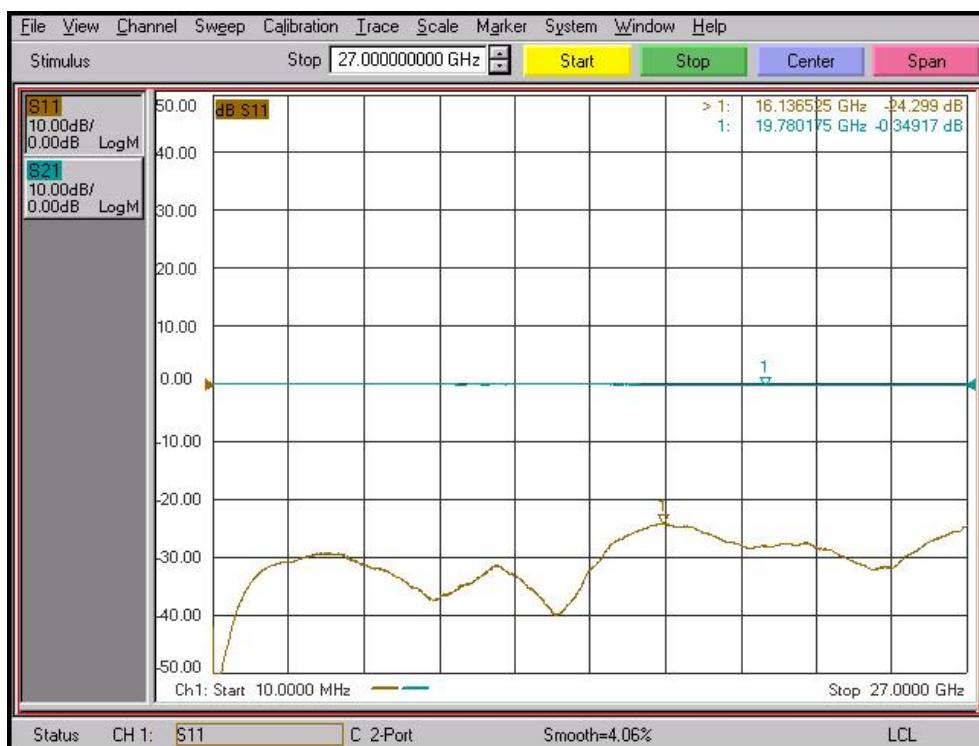
### Back-to-Back Test

#### Female Type

Part No : PM06FS035



- Freq. Range : 10 MHz ~27 GHz
- Insertion & Return Loss Measurement

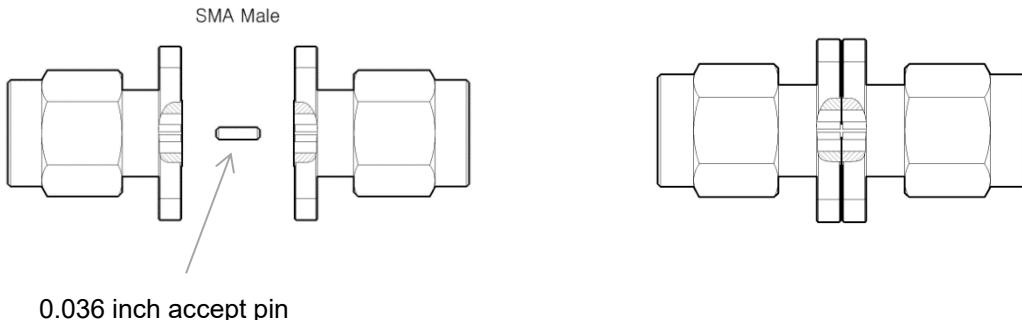


## ■ Test Result

### Back-to-Back Test

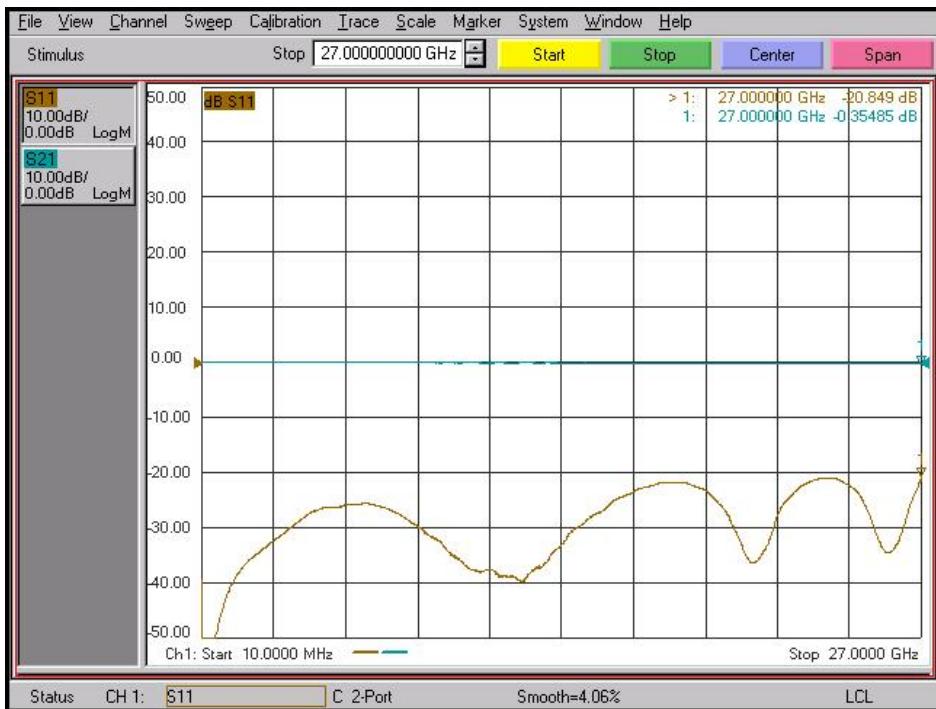
#### Male Type

Part No : PM06MS035



0.036 inch accept pin

- Freq. Range : 10 MHz ~27 GHz
- Insertion & Return Loss Measurement



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## ■ Competitive cross-Reference

Southwest P/N	Withwave P/N
212-503SF	..... PM06FS035
212-513SF	..... PM06FS040
214-503SF	..... PM06FS045
211-503SF	..... PM06MS035
211-513SF	..... PM06MS040
213-503SF	..... PM06MS045

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## ■ Revision History

Revision	Date	Changes
Ver 1.0	2016-04-05	Released High Performance SMA
Ver.1.1	2020-01-01	Updated Drawing
Ver 2.0	2020-03-01	Add Design Assistance for ANSYS HFSS 3D simulation model