

Focus & Simple



FOCUSIMPLE

Test Probe Series Products
2022





Focusimple has been dedicated to the design and R&D of various miniature board-end RF switches, board-end RF coaxial connectors and automatic test probes for PCB solder joint pads. In addition to the current standard products, we can also customize probe connectors or probe test cable assemblies according to customer requirements.

Test probes can switch RF signals from the internal circuit of the device to the external circuit, mainly used for wireless communication equipment such as antenna, WIFI, NFC, RFID, GPS, 2G/3G/4G/5G wireless communication module, Bluetooth module, wireless communication module, router and other performance testing.

At present, the main manufacturers of miniature board-end RF switches and connectors are Murata Murata, Hirose Hirose, I-PEX, etc. in Japan. At present, our products are basically adaptable to the products from these companies.

- 1、 Automatic test probes for RF Switch series
- 2、 Automatic test probes for RF Connector series
- 3、 Various calibration adapters for RF Switch and RF Connector test probes
- 4、 Manual Test Probe Cable Assembly for RF Switch
- 5、 Automatic test probes for various PCB PADs
- 6、 Automatic test probes for various RF coaxial connectors

■ Product Applications

- Mobile phone PCB testing
- Bluetooth module, 5G module
- Semiconductor test platform
- High frequency PCB PAD

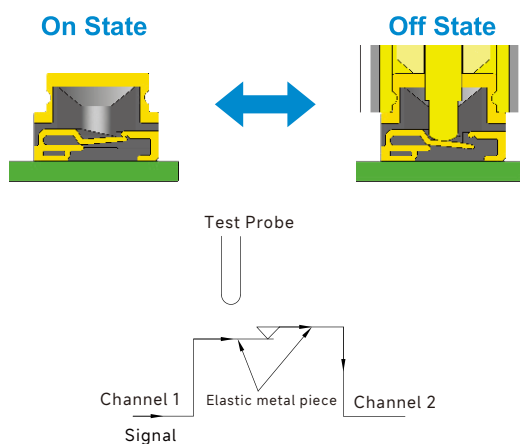
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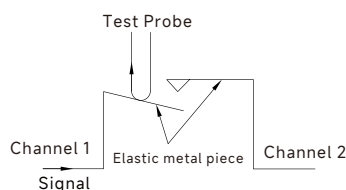


Hirose	Murata	I-PEX
MS-147 Switch Connector	SWD Switch Connector (I)	MHF-SW23 Switch Connector
MS-156C Switch Connector(II)	SWF Switch Connector (II)	MHF-SW20 Switch Connector
MS-156HF Switch Connector	SWG Switch Connector (III)	MHF-SW18 Switch Connector
MS-162B Switch Connector	SWH -2Way Switch Connector (IV)	
MS-180 Switch Connector (IV)	SWH Switch Connector (V)	
MS-190 Switch Connector(V)	SWJ Switch Connector (VI)	

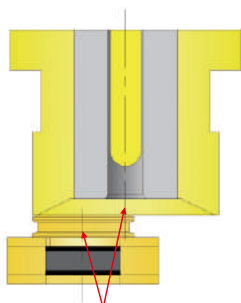
• RF Switch Device Structure and Probe Test Principle



Before the probe is inserted into the switching device, the signal has been input from the left side of the switching device illustration output from the right side.



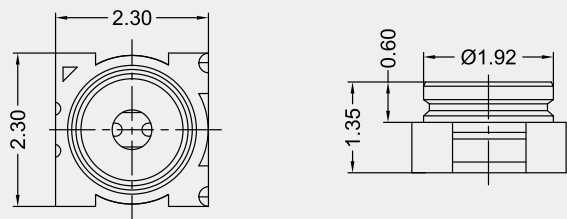
After the probe is inserted into the switching device, the signal has been output through the probe from the left input of the switching device illustration.



Test probes can be embedded in the base even in the axially offset position

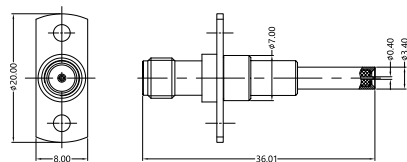
While the test probe fitting with PCB board on the base, position offset may occur. At the same time, there will be position offset between probe fixture and PCB board. By utilizing it's elastic structure between inner and outer, the offset will be calibrated automatically. Thus effective embedding will be assured under offset status.

• MS-156 Switch Connector Probe

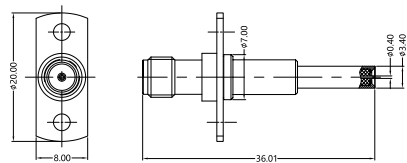


MS156 Switch Connector
Reference Picture

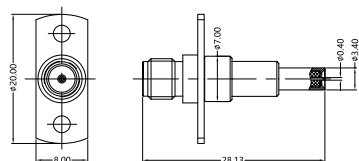
Part Name	SF-MS156M-001
Description	SMA Female to MS156 Male probe
Specification	1. Frequency: DC - 6 GHz 2. VSWR: <1.30 @ DC - 3 GHz <1.40 @ 3 - 6 GHz



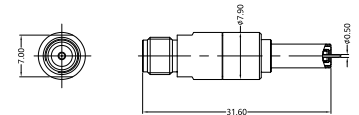
Part Name	SF-MS156M-002
Description	SMA Female to MS156 Male probe
Specification	1. Frequency: DC - 6 GHz 2. VSWR: <1.30 @ DC - 3 GHz <1.40 @ 3 - 6 GHz



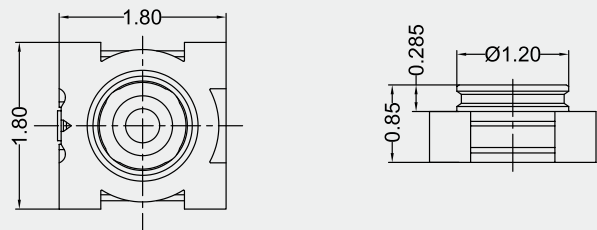
Part Name	SF-MS156M-003
Description	SMA Female to MS156 Male probe
Specification	1. Frequency: DC - 6 GHz 2. VSWR: <1.30 @ DC - 3 GHz <1.40 @ 3 - 6 GHz



Part Name	SF-MS156M-004
Description	SMA Female to MS156 Male probe
Specification	1. Frequency: DC - 6 GHz 2. VSWR: <1.30 @ DC - 3 GHz <1.40 @ 3 - 6 GHz

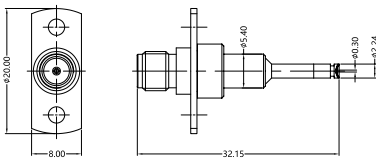


• MS-180 Switch Connector Probe

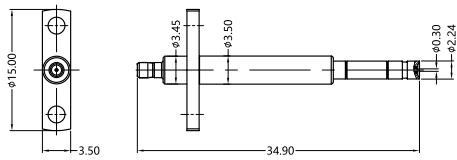


MS180 Switch Connector
Reference Picture

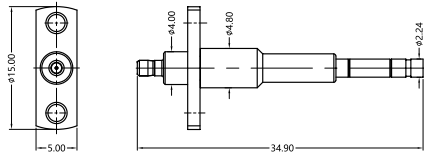
Part Name	SF-MS180M-001
Description	SMA Female to MS180 Male probe
Specification	1. Frequency: DC - 6 GHz 2. VSWR: <1.30 @ DC - 3 GHz <1.40 @ 3 - 6 GHz



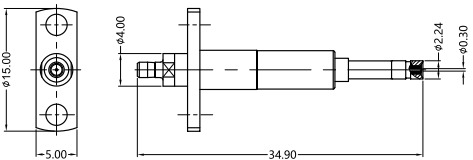
Part Name	ML51M-MS180M-001
Description	ML51 Male to MS180 Male probe
Specification	1. Frequency: DC - 8 GHz 2. VSWR: <1.30 @ DC - 3 GHz <1.40 @ 3 - 8 GHz



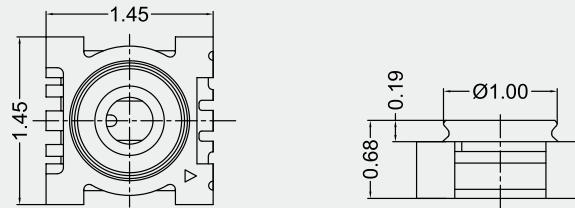
Part Name	ML51M-MS180M-002
Description	ML51 Male to MS180 Male probe
Specification	1. Frequency: DC - 8 GHz 2. VSWR: <1.30 @ DC - 3 GHz <1.40 @ 3 - 8 GHz



Part Name	ML51M-MS180M-003
Description	ML51 Male to MS180 Male probe
Specification	1. Frequency: DC - 6 GHz 2. VSWR: <1.30 @ DC - 3 GHz <1.40 @ 3 - 6 GHz



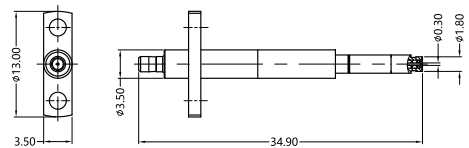
• MS-190 Switch Connector Probe



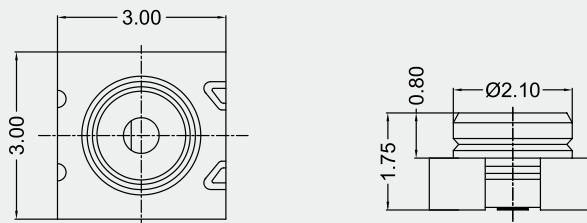
MS190 Switch Connector

Reference Picture

Part Name	ML51M-MS190M-001
Description	ML51 Male to MS190 Male probe
Specification	1. Frequency: DC - 6 GHz 2. VSWR: <1.30 @ DC - 3 GHz <1.40 @ 3 - 6 GHz



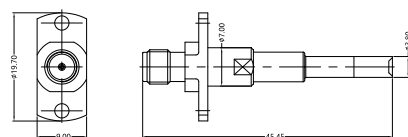
• SWD Switch Connector Probe



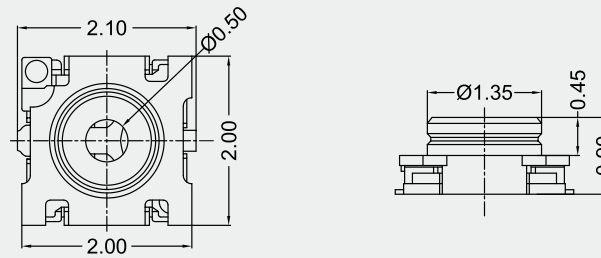
SWD Switch Connector

Reference Picture

Part Name	SF-SWDM-001
Description	SMA Female to SWD Male probe
Specification	1. Frequency: DC - 6 GHz 2. VSWR: <1.30 @ DC - 3 GHz <1.40 @ 3 - 6 GHz



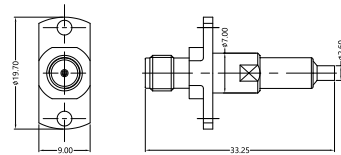
• SWG Switch Connector Probe



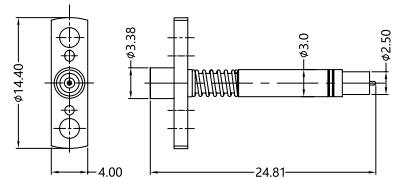
SWG Switch Connector

Reference Picture

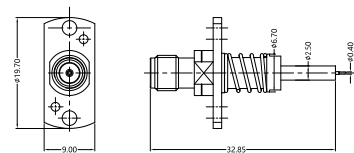
Part Name	SF-SWGM-001
Description	SMA Female to SWG Male probe
Specification	1. Frequency: DC - 6 GHz 2. VSWR: <1.30 @ DC - 3 GHz <1.40 @ 3 - 6 GHz



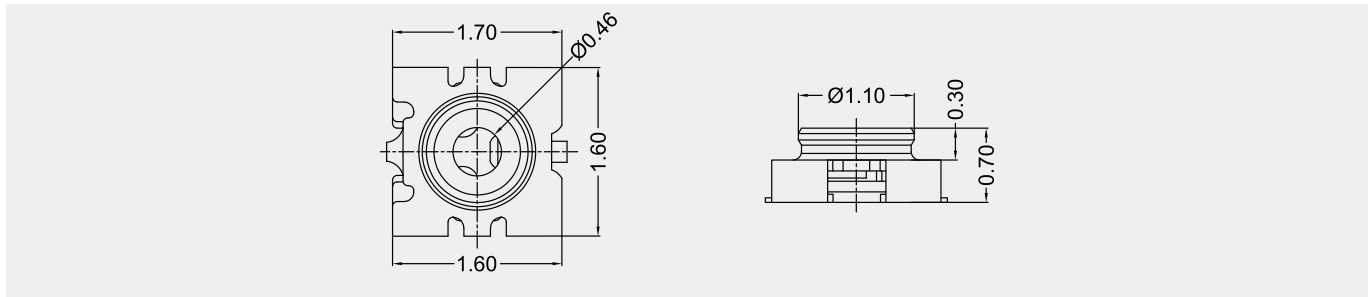
Part Name	MPM-SWGM-001
Description	SSMP Male to SWG Male probe
Specification	1. Frequency: DC - 6 GHz 2. VSWR: <1.30 @ DC - 3 GHz <1.40 @ 3 - 6 GHz



Part Name	SF-SWGM-002
Description	SMA Female to SWG Male probe
Specification	1. Frequency: DC - 6 GHz 2. VSWR: <1.30 @ DC - 3 GHz <1.40 @ 3 - 6 GHz



• SWH Switch Connector Probe

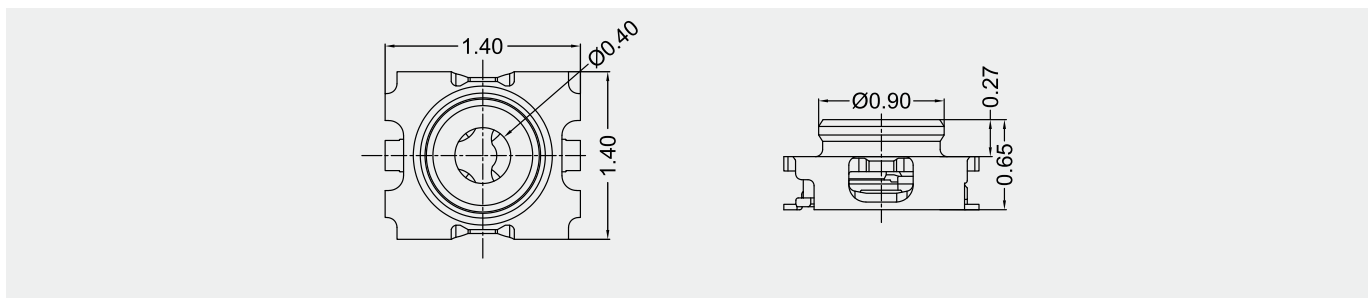


SWH Switch Connector

Reference Picture

Part Name	MPM-SWHM-001		
Description	SSMP Male to SWH Male probe		
Specification	1. Frequency: DC - 6 GHz 2. VSWR: <1.30 @ DC - 3 GHz <1.40 @ 3 - 6 GHz		

• SWJ Switch Connector Probe



SWJ Switch Connector

Reference Picture

Part Name	MPM-SWJM-001		
Description	SSMP Male to SWJ Male probe		
Specification	1. Frequency: DC - 6 GHz 2. VSWR: <1.30 @ DC - 3 GHz <1.40 @ 3 - 6 GHz		

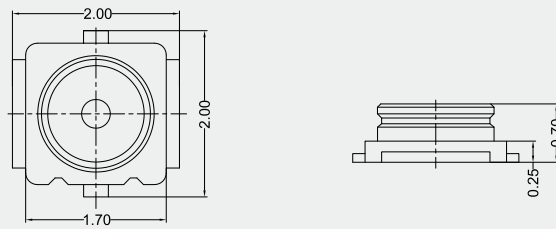
2



Automatic test probes for RF Connector series

Hirose	Murata	I-PEX
HFL RF Connector	JSC Connector	MHF A RF Connector
UFL RF Connector	KSC Connector	MHF I / II RF Connector
EFL RF Connector	LSC Connector	MHF III RF Connector
NFL RF Connector	HSC Connector	MHF IV RF Connector
KFL2 RF Connector	PSC Connector	MHF V RF Connector
WFL RF Connector		MHF VII RF Connector
WFL2 RF Connector		
XFL RF Connector		

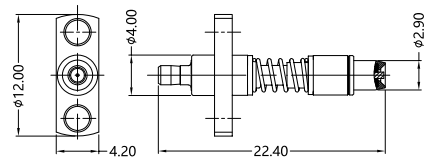
• WFL2 Micro Coaxial Connector Probe



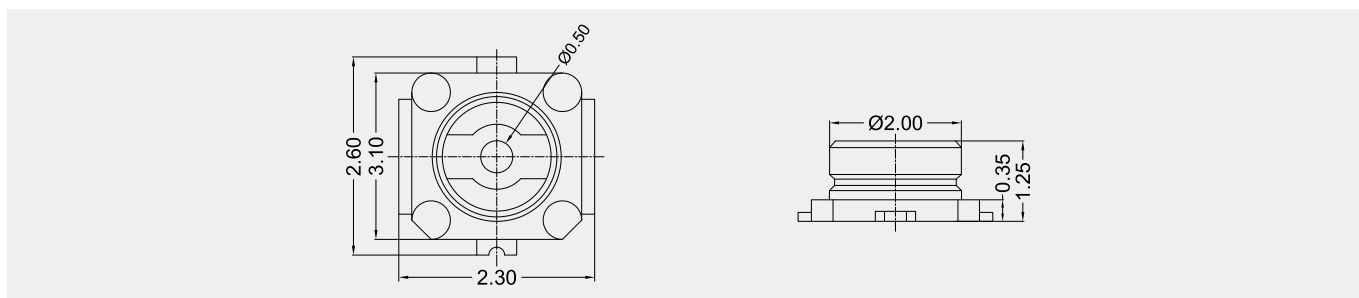
WFL2 RF Connector

Reference Picture

Part Name	ML51M-WFL2M-001
Description	ML51Male to WFL2 Male probe
Specification	1. Frequency: DC - 6 GHz 2. VSWR: <1.30 @ DC - 3 GHz <1.40 @ 3 - 6 GHz



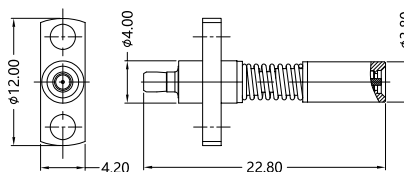
• MHF I / II (UFL) Micro Coaxial Connector Probe



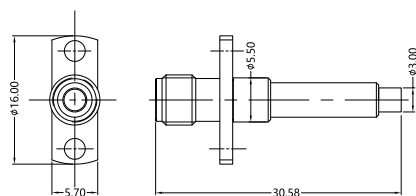
MHF I / II RF Connector

Reference Picture

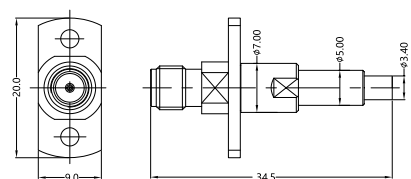
Part Name	ML51M-UFLM-001
Description	ML51 Male to UFL Male probe
Specification	1. Frequency: DC - 6 GHz 2. VSWR: <1.30 @ DC - 3 GHz <1.40 @ 3 - 6 GHz



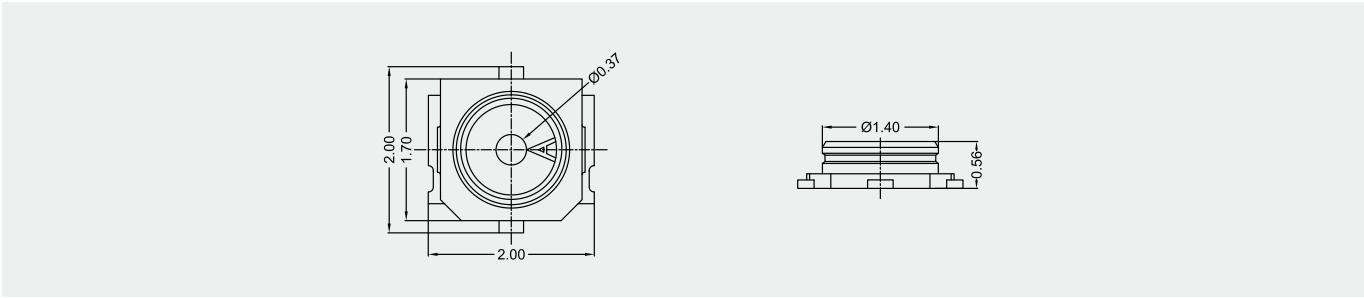
Part Name	SF-UFLM-001
Description	SMA Female to UFL Male probe
Specification	1. Frequency: DC - 6 GHz 2. VSWR: <1.30 @ DC - 3 GHz <1.40 @ 3 - 6 GHz



Part Name	SF-UFLM-002
Description	SMA Female to UFL Male probe
Specification	1. Frequency: DC - 8GHz 2. VSWR: <1.30 @ DC - 6 GHz <1.40 @ 6 - 8 GHz



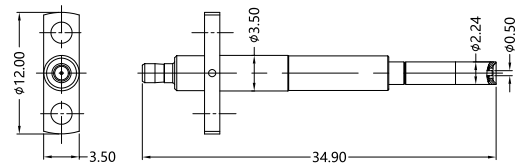
• MHF V Micro Coaxial Connector Probe



MHF V RF Connector

Reference Picture

Part Name	ML51M-MHF5F-001
Description	ML51Male to MHF5 Female probe
Specification	1. Frequency: DC - 6 GHz 2. VSWR: <1.30 @ DC - 3 GHz <1.40 @ 3 - 6 GHz



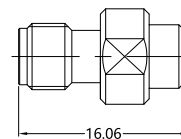
3 Various calibration adapters for RF Switch and RF Connector test probes

Part Name SF-MS156F-001

Description SMA Female to MS156 Female Adaptor

Specification

1. Frequency: DC - 8GHz
2. VSWR: <1.15 @ DC - 6 GHz
<1.20 @ 6 - 8 GHz

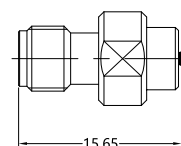


Part Name SF-MS180F-001

Description SMA Female to MS180 Female Adaptor

Specification

1. Frequency: DC - 8GHz
2. VSWR: <1.15 @ DC - 6 GHz
<1.20 @ 6 - 8 GHz

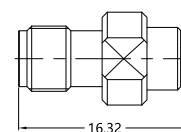


Part Name SF-SWDF-001

Description SMA Female to SWD Female Adaptor

Specification

1. Frequency: DC - 8GHz
2. VSWR: <1.15 @ DC - 6 GHz
<1.20 @ 6 - 8 GHz

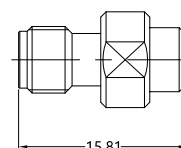


Part Name SF-SWGF-001

Description SMA Female to SWG Female Adaptor

Specification

1. Frequency: DC - 8GHz
2. VSWR: <1.15 @ DC - 6 GHz
<1.20 @ 6 - 8 GHz

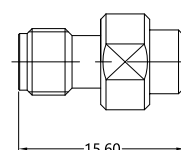


Part Name SF-SWJF-001

Description SMA Female to SWJ Female Adaptor

Specification

1. Frequency: DC - 8 GHz
2. VSWR: <1.15 @ DC - 6 GHz
<1.20 @ 6 - 8 GHz

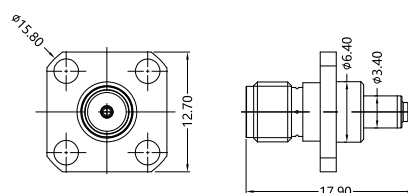


Part Name SF-UFLM-001

Description SMA Female to UFL Male Adaptor

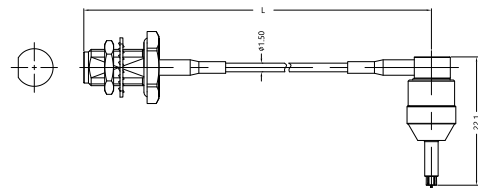
Specification

1. Frequency: DC - 6 GHz
2. VSWR: <1.20 @ DC - 3 GHz
<1.30 @ 3 - 6 GHz

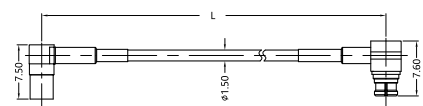


4 Manual Test Probe Cable Assembly for RF Switch

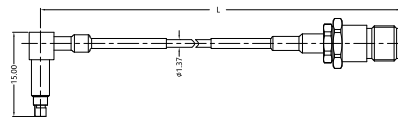
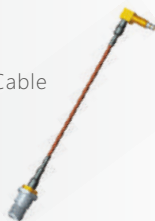
Part Name	FSB150-SFMS180MR-L
Description	SMA Female To MS180 Male R/A For FSB-150-V Cable
Specification	1. Frequency: DC – 6 GHz 2. VSWR: <1.30 @ DC - 3 GHz <1.40 @ 3 – 6 GHz



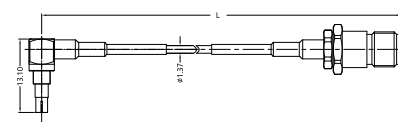
Part Name	FSB150-ML51FRSPFR-L
Description	ML51 Female R/A To SMP Female R/A For FSB-150-V Cable
Specification	1. Frequency: DC – 6 GHz 2. VSWR: <1.30 @ DC - 3 GHz <1.40 @ 3 – 6 GHz



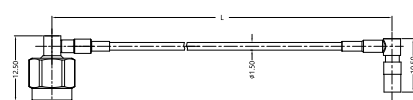
Part Name	F137-SFSWJMR-L
Description	SMA Female To SWJ Male R/A For F137 Cable
Specification	1. Frequency: DC – 8 GHz 2. VSWR : <1.30 @ DC - 3 GHz <1.40 @ 3 – 8 GHz



Part Name	F137-SFXFLMR-L
Description	SMA Female To X.FL Male R/A For F137 Cable
Specification	1. Frequency: DC – 8 GHz 2. VSWR : <1.30 @ DC - 3 GHz <1.40 @ 3 – 8 GHz

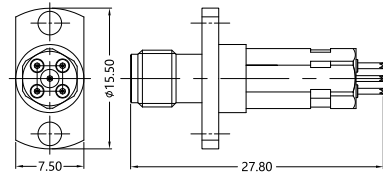


Part Name	150-SMRML51FR-L
Description	SMA Male R/A To ML51 Female R/A For 150 Cable
Specification	1. Frequency: DC – 8 GHz 2. VSWR : <1.20 @ DC - 3 GHz <1.30 @ 3 – 8 GHz

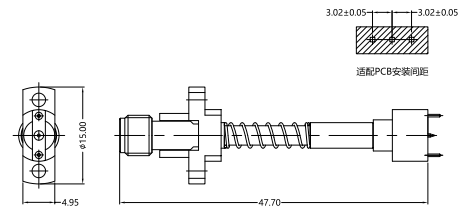


5 Automatic test probes for various PCB PADs

Part Name	SF-4PIN-001
Description	SMA Female For PCB Probe
Specification	1. Frequency: DC - 6 GHz 2. VSWR: <1.30 @ DC - 3 GHz <1.40 @ 3 - 6 GHz



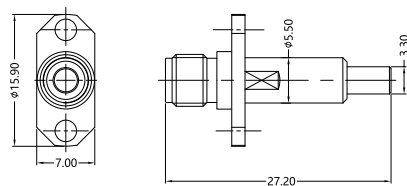
Part Name	SF-PG30-001
Description	SMA Female For PCB Probe
Specification	1. Frequency: DC - 18 GHz 2. VSWR: <1.25 @ DC - 6 GHz <1.35 @ 6 - 18 GHz



6 Automatic test probes for various RF coaxial connector

• MCX Test Probe

Part Name	SF-MXM-001
Description	SMA Female To MCX Male Probe
Specification	1. Frequency: DC - 6 GHz 2. VSWR: <1.25 @ DC - 3 GHz <1.35 @ 3 - 6 GHz





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