

SMPM Connectors **DC to 26.5 & 67 GHz**

High Density Board Connector



Microwave Farm's SMPM Connectors are covering wide frequency ranges from RF to Microwave with excellent frequency performance and high density. The proprietary internal insulator enables simple structure with higher performance compared to the conventional SMPM connectors. The best applications could be 5G complex mobile communications modules, systems and various other wireless systems.



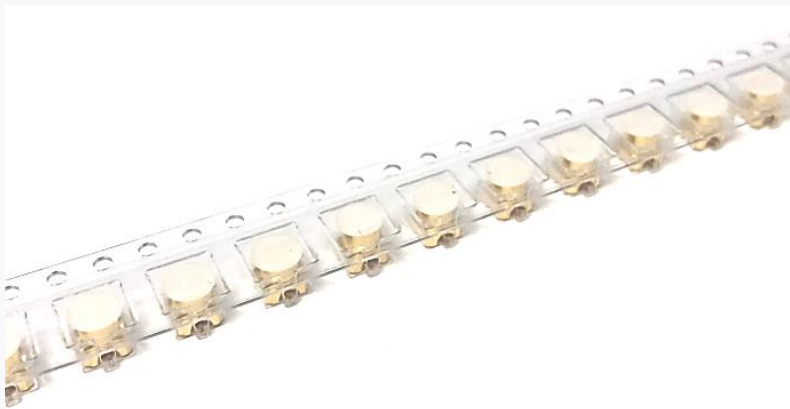
■ **Features**

- Frequency range : DC to 26.5 GHz & 67 GHz
- High density SMT packaging available
- Push-on mating for quick installation



■ **Application**

- 4G, 5G Telecommunications
- Satellite Communications
- RFIC Chip set evaluation board
- High data rate ASIC and SoC EV module test



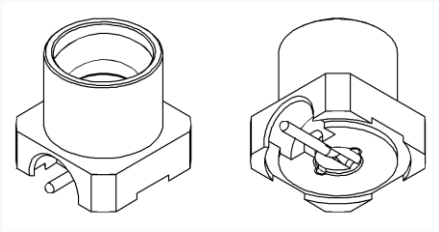
■ Specification

Scope	Items	Specification
Electrical	Freq. range	DC to 26.5 GHz (MFST17MS001/ MFST17MS003) DC to 67.0 GHz (MFST17MS002/ MFST17MS004)
	Impedance	50 Ohm
	VSWR(RL, Typical)	1.43:1 (-15dB) to 26.5 GHz (MFST17MS001/MFST17MS003) 1.43:1 (-15dB) to 40 GHz (MFST17MS002/MFST17MS004) 1.93:1 (-10dB) to 67 GHz (MFST17MS002/MFST17MS004)
	Mating Cycles	Full Detent : 100(min) Smooth Bore : 500(min)
Material	Typical Engage(Disengage) Force	Full Detent : 4 lbs typ. (6lbs typ.) Smooth Bore : 2 lbs typ. (1.5lbs typ.)
	Operating Temperature	-40~+125°C

* RoHS Compliant

■ Ordering Information

Application	Freq.(GHz)	Type	Part No.
SMPM, Straight Plug, PCB (Full Detent)	DC to 26.5	Male	MFST17MS001
SMPM, Straight Plug, PCB (Smooth Bore)	DC to 26.5	Male	MFST17MS003
SMPM, Straight Plug, PCB (Full Detent)	DC to 67.0	Male	MFST17MS002
SMPM, Straight Plug, PCB (Smooth Bore)	DC to 67.0	Male	MFST17MS004



■ Test Result

SMPM Connector

Substrate : RT/DU5880 (5 mil)

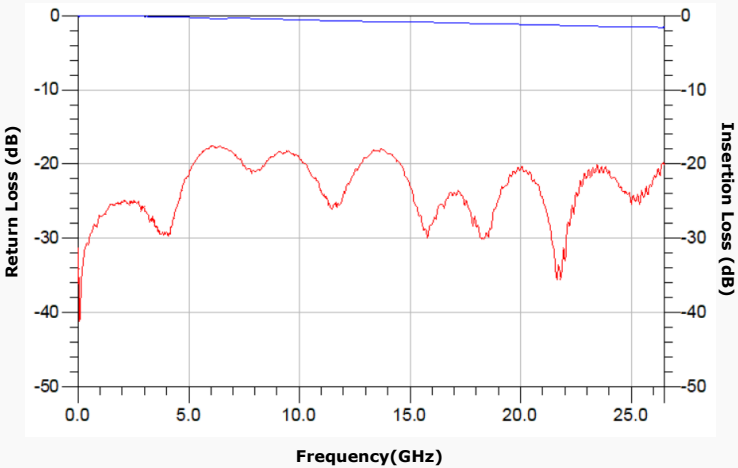
Part No. : MFST17MS001

End Launch
1.85 mm Connector



SMMPM(26.5 G)

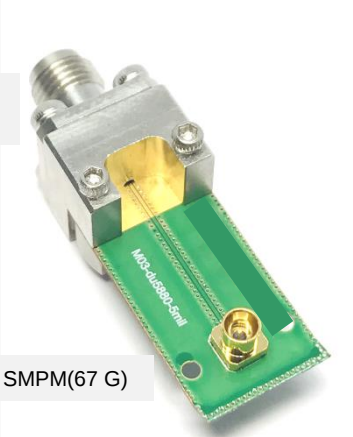
Freq. : 10 MHz to 26.5 GHz



Substrate : RT/DU5880 (5 mil)

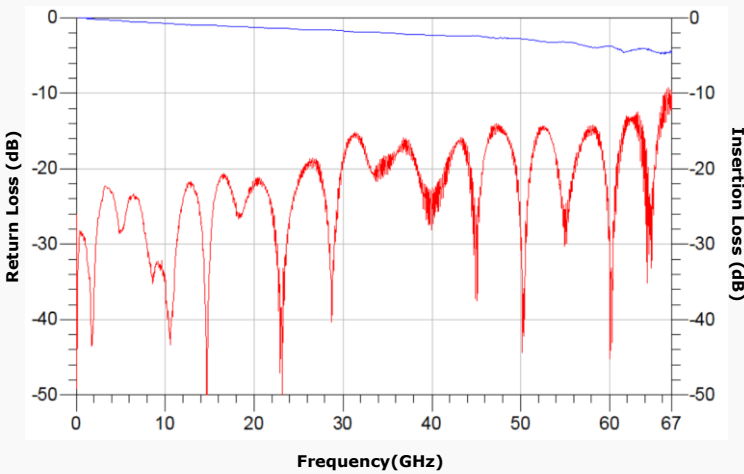
Part No. : MFST17MS002

End Launch
1.85 mm Connector



SMMPM(67 G)

Freq. : 10 MHz to 67 GHz

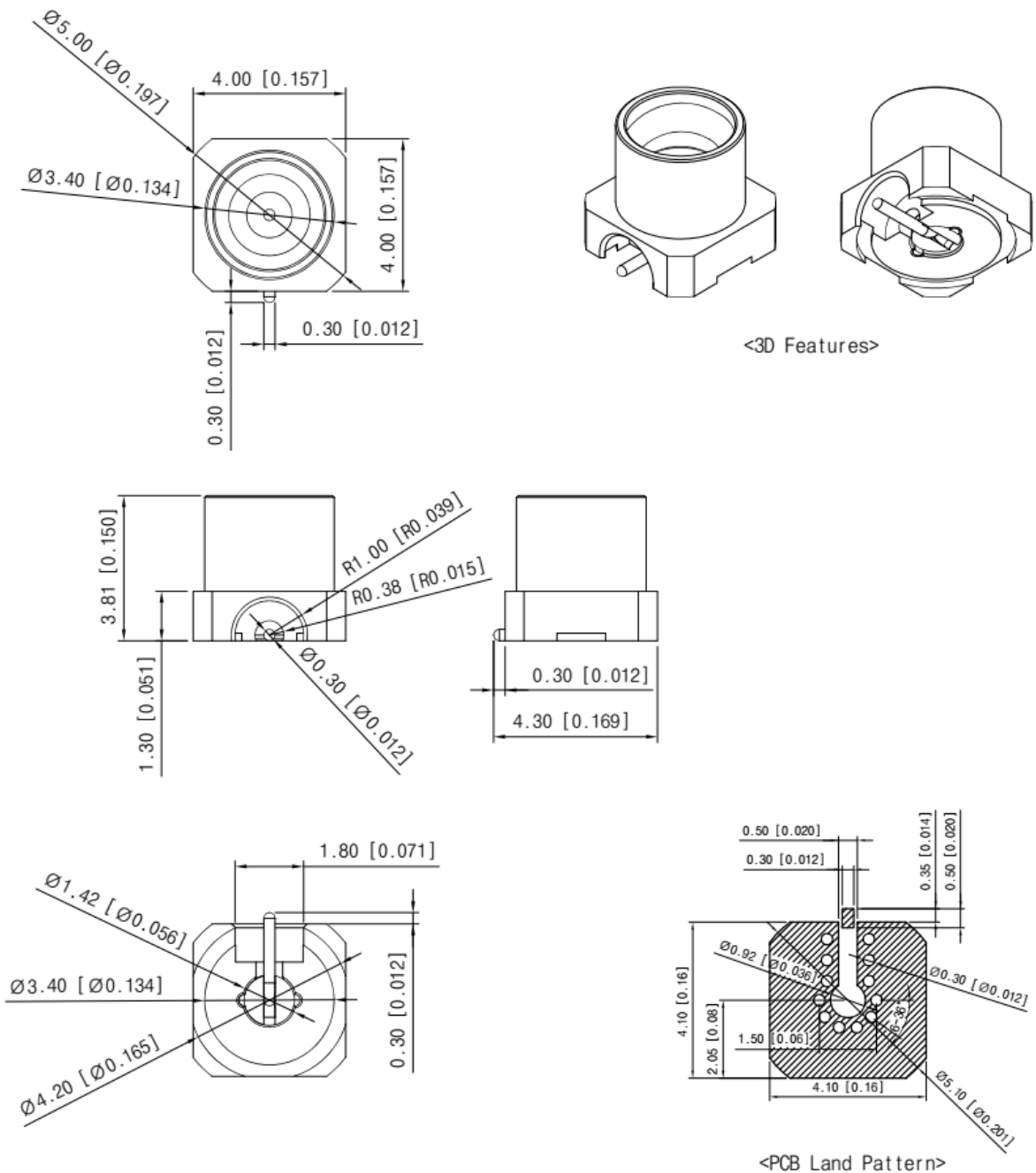


■ Drawing

SMPM Connector

Part No. : MFST17MS001/MFST17MS003

Unit : mm[inch]

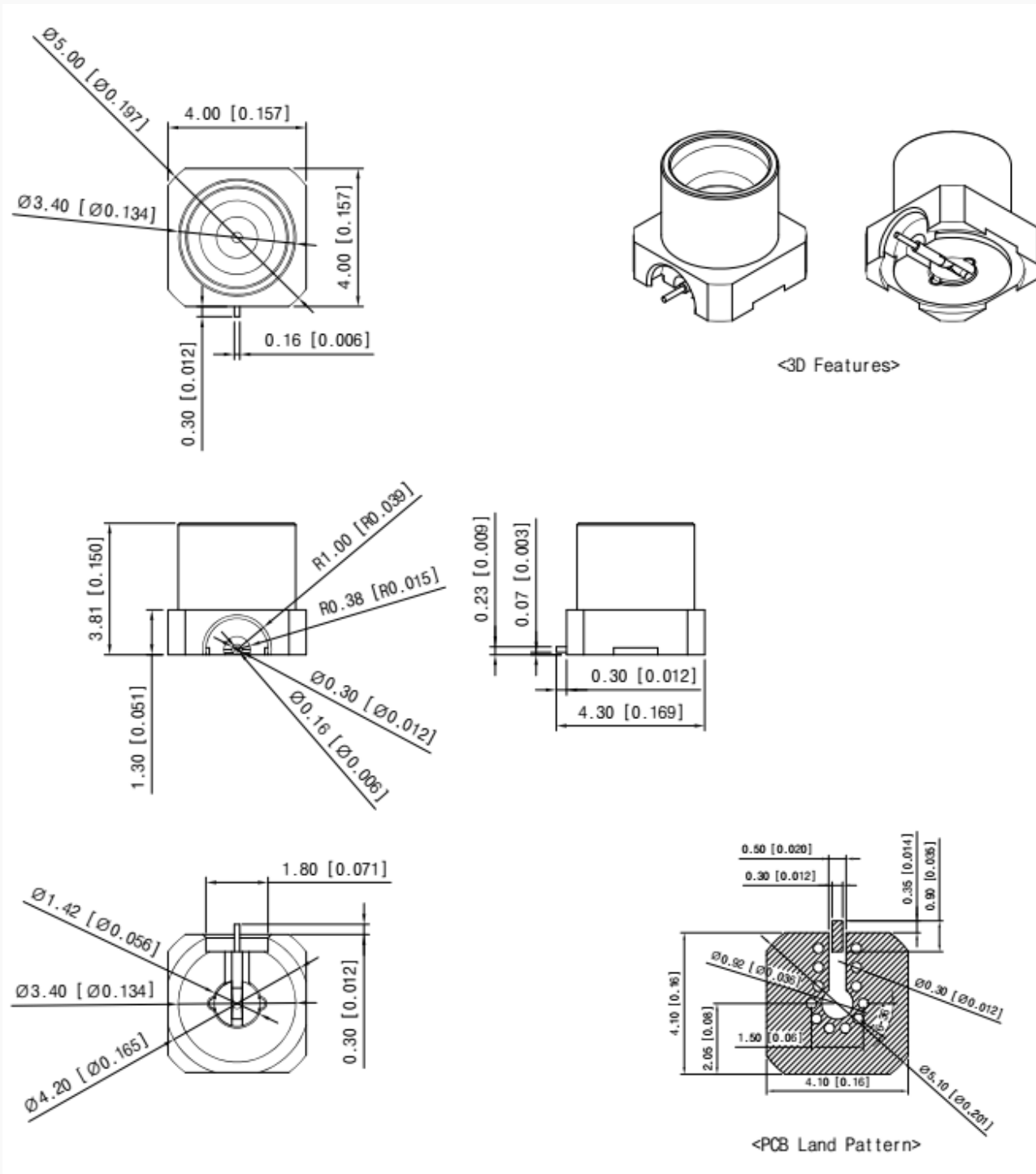


■ Drawing

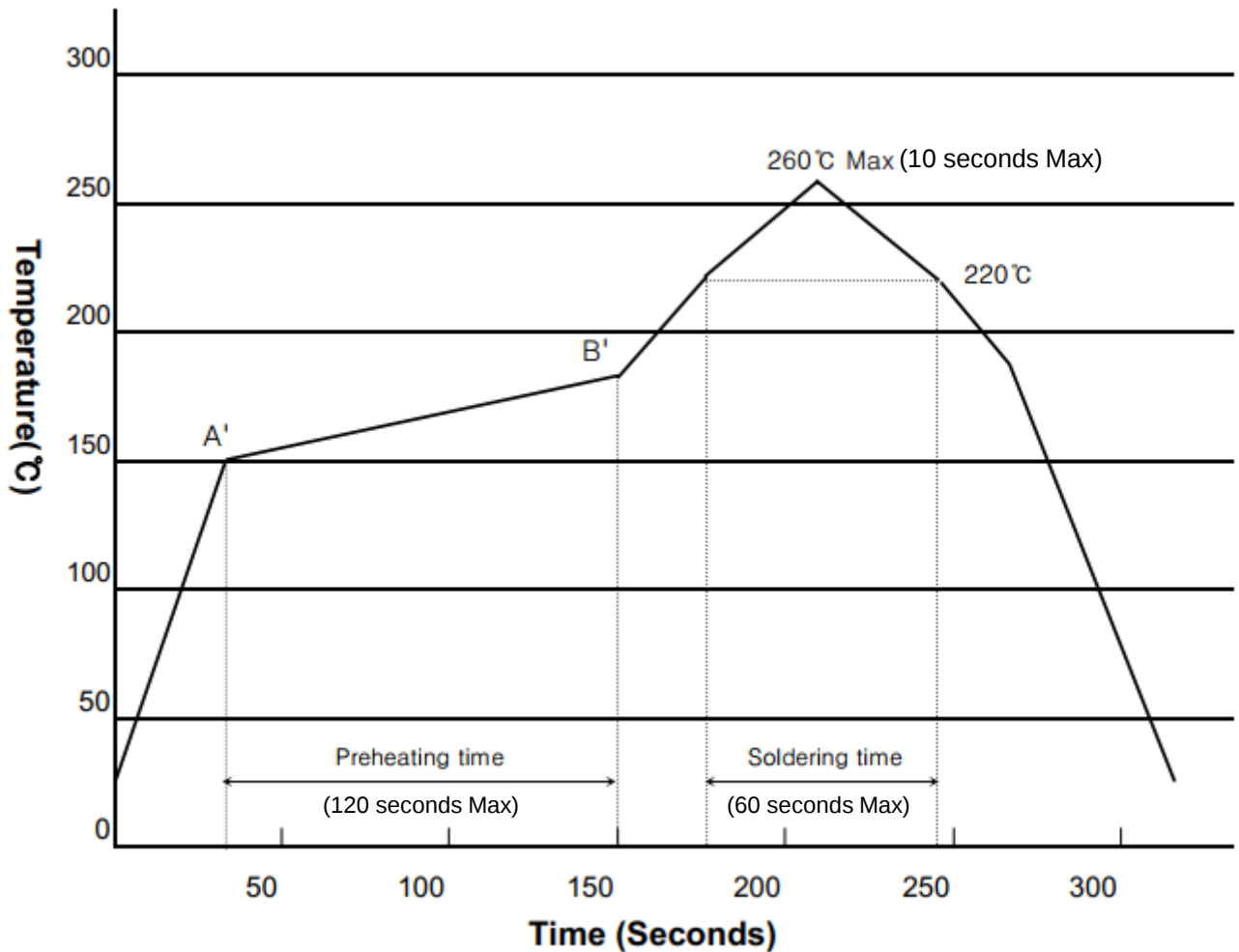
SMPM Connector

Part No. : MFST17MS002/MFST17MS004

Unit : mm[inch]



■ Recommended Reflow Profile



■ Test Condition

- Solder: Cream type Sn / 3 Ag / 0.5 Cu, Flux content 11%wt (SMIC M705 Lead free or Halogen free)
- Metal mask thickness: 0.08 mm
- Preheating time: 150°C~190°C, Max 120seconds
- Soldering time: 260°C Max, 220°C Min, Max 60 seconds (N2 condition recommended)



SM^{PM} Connectors

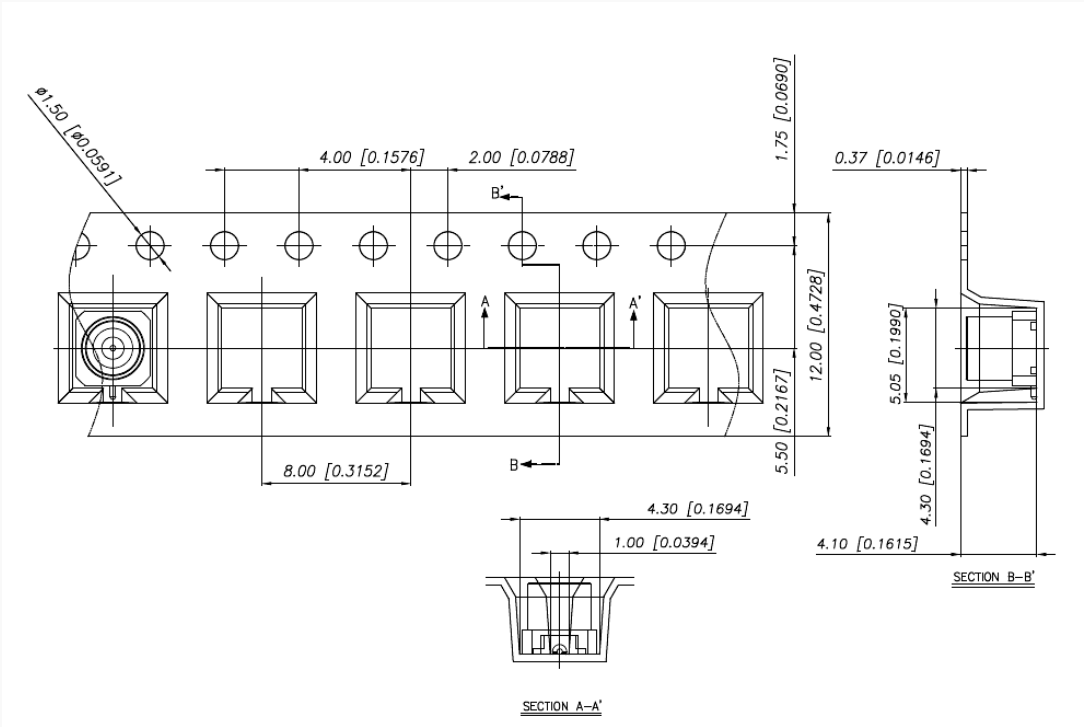
DC to 26.5 & 67 GHz

High Density Board Connector

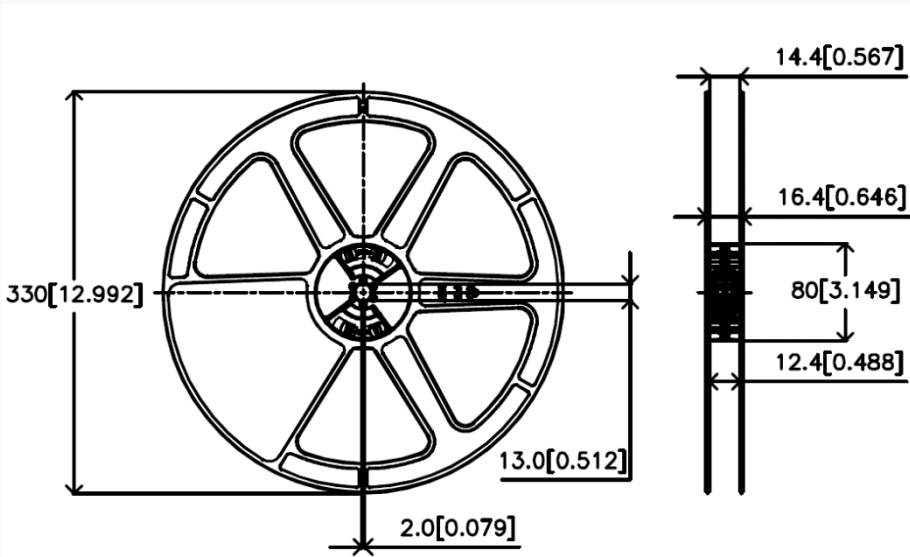


■ Packaging Information

Unit : mm[inch]



Packing Qty 2,000 ea/Reel

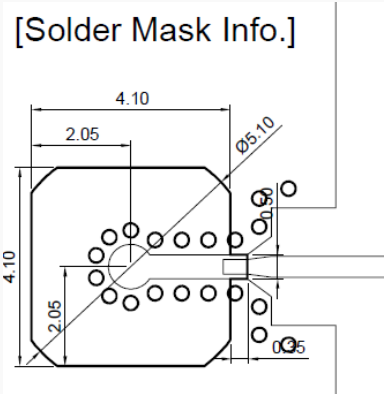
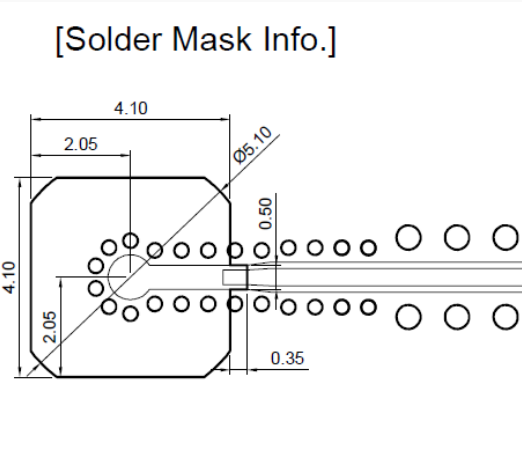
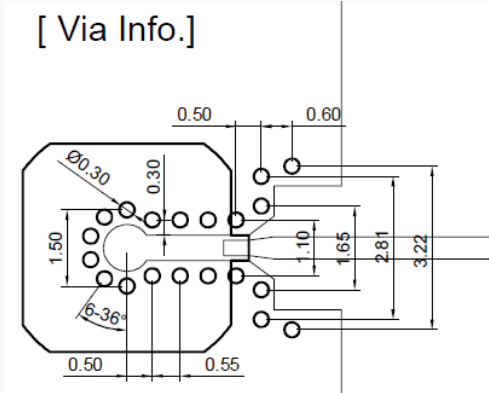
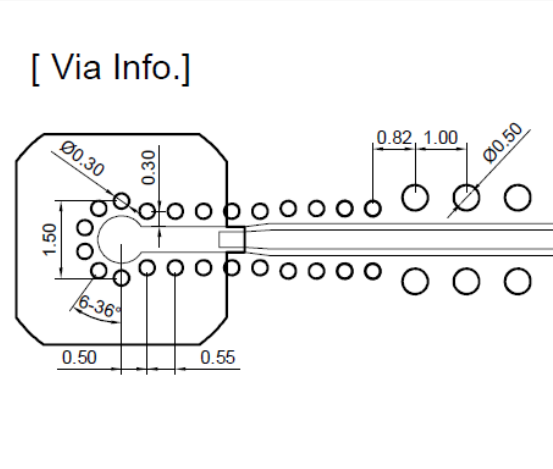
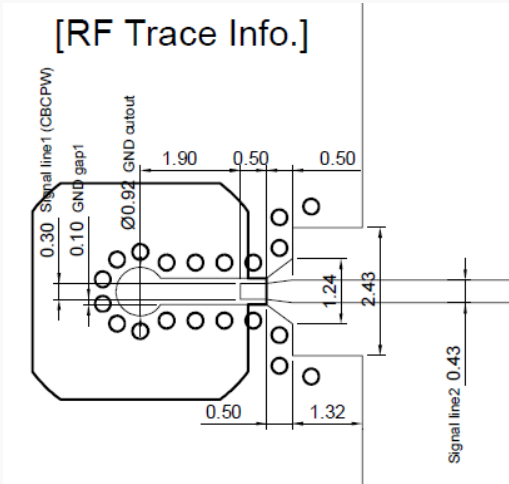
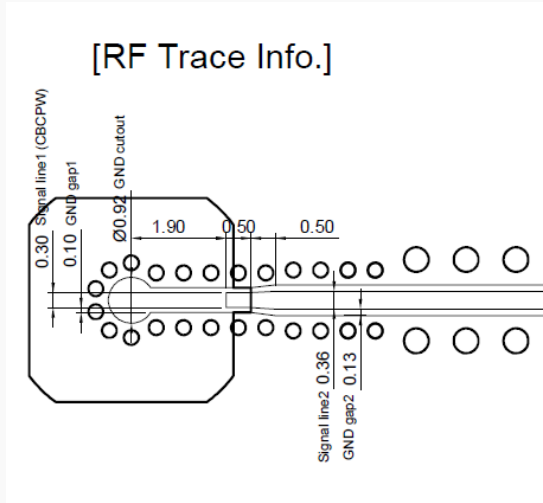


Recommended PCB Patterns for Rogers RO4003C 8mil (SMPM 26G)

Part No: MFST17MS001, MFST17MS003

Conductor Backed CPW type

Microstrip type



SMPM Connectors

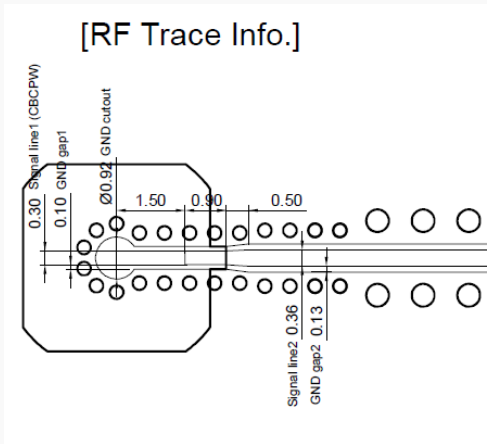
High Density Board Connector

DC to 26.5 & 67 GHz

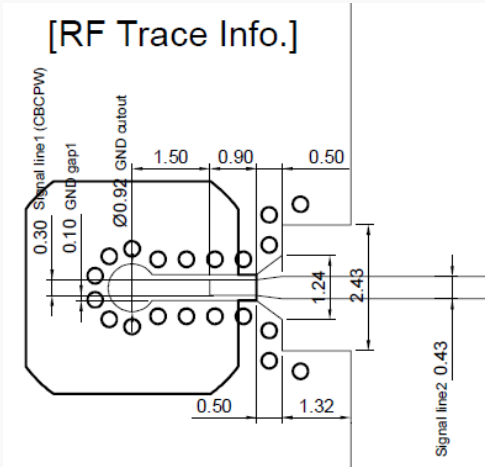


■ Recommended PCB Patterns for Rogers RO4003C 8mil (SMPM 67G)
Part No: MFST17MS002, MFST17MS004

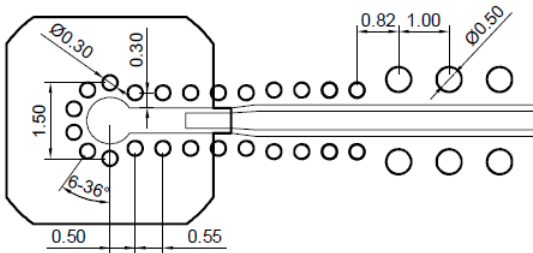
Conductor Backed CPW type



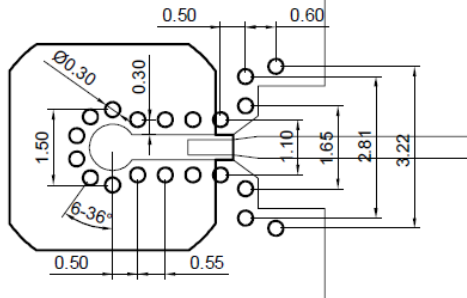
Microstrip type



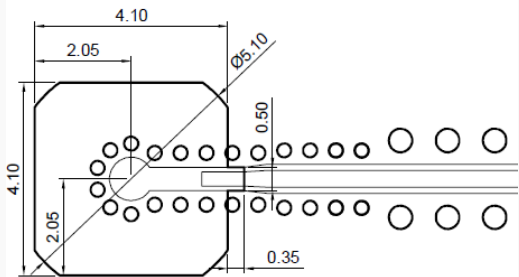
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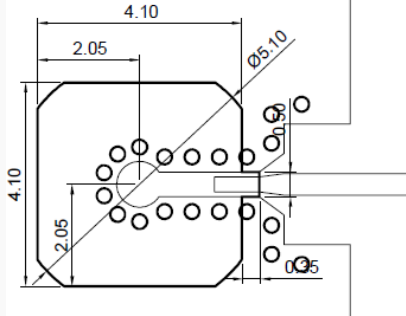
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[Solder Mask Info.]



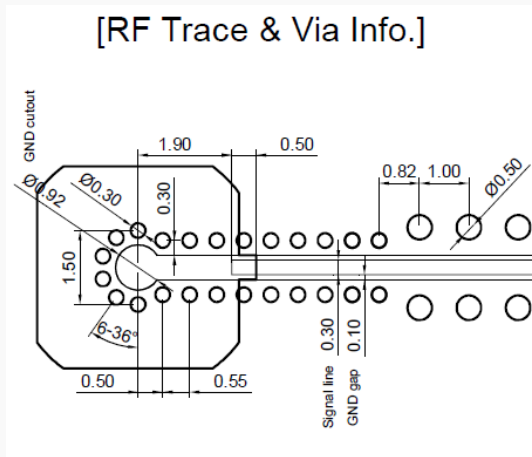
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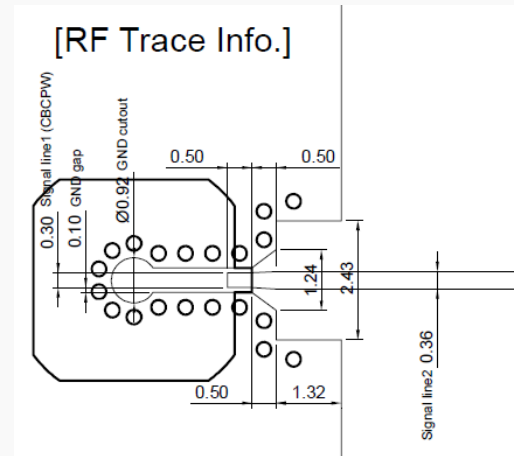
■ Recommended PCB Patterns for Rogers RT/du5880 5 mil (SMPM 26G)

Part No: MFST17MS001, MFST17MS003

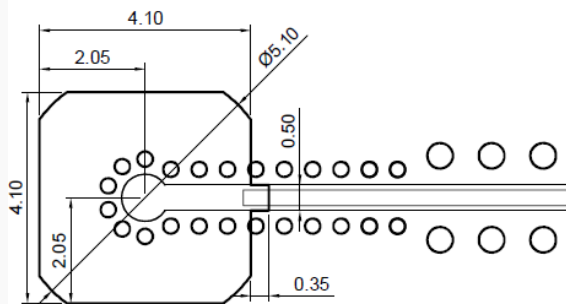
Conductor Backed CPW type



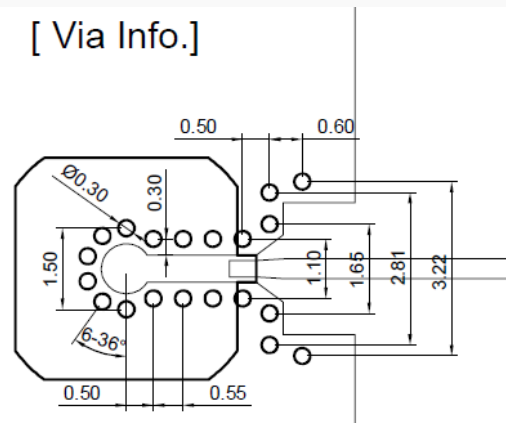
Microstrip type



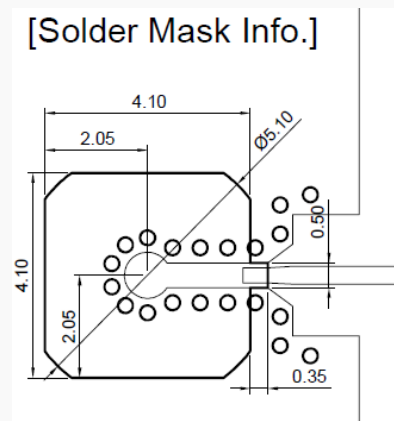
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[Via Info.]



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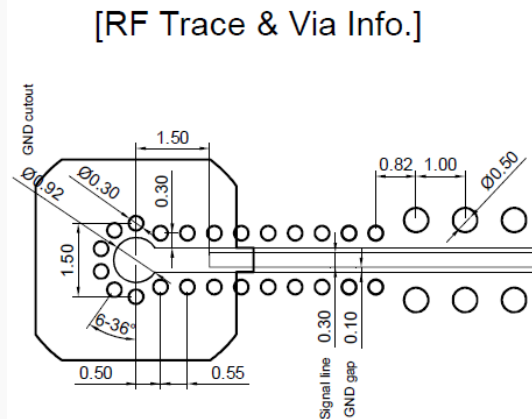


High Density Board Connector

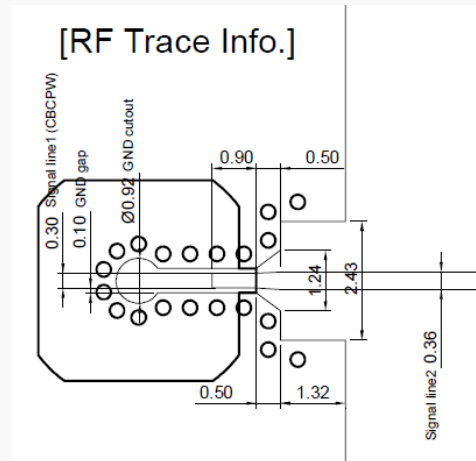
■ Recommended PCB Patterns for Rogers RT/du5880 5 mil (SMPM 67G)

Part No: MFST17MS002, MFST17MS004

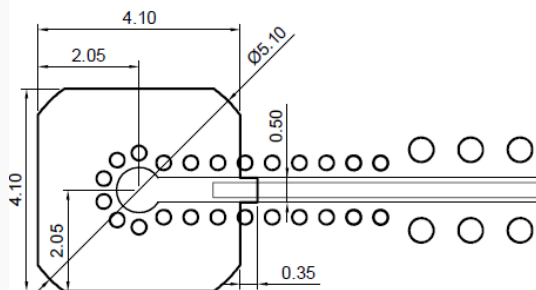
Conductor Backed CPW type



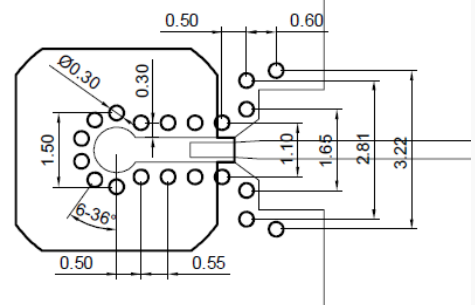
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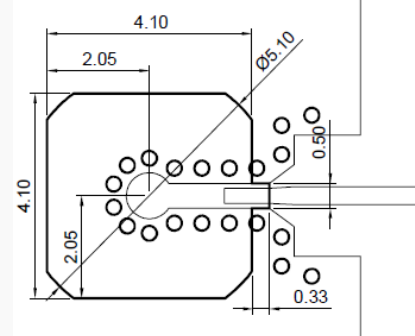
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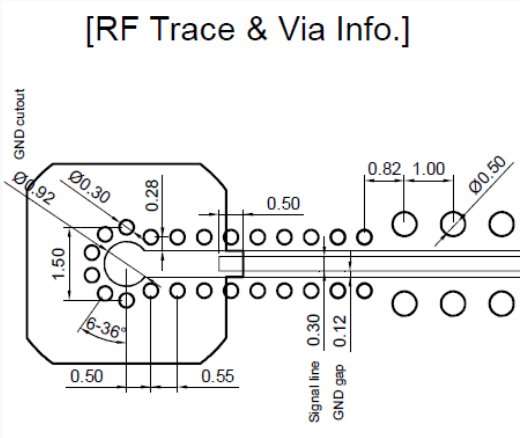
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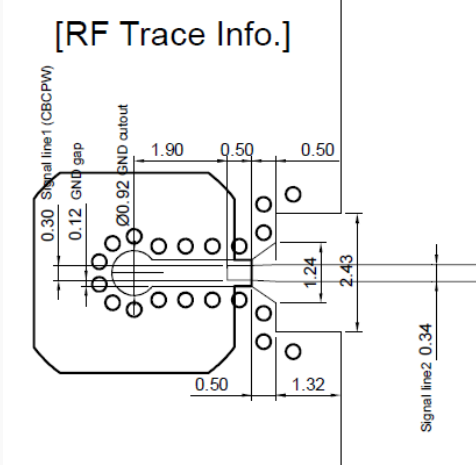
■ Recommended PCB Patterns for Rogers RO4350B 6.6 mil (SMPM 26G)

Part No: MFST17MS001, MFST17MS003

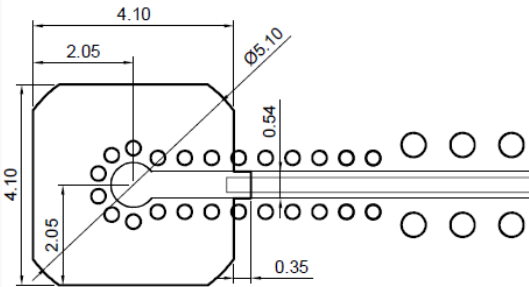
Conductor Backed CPW type



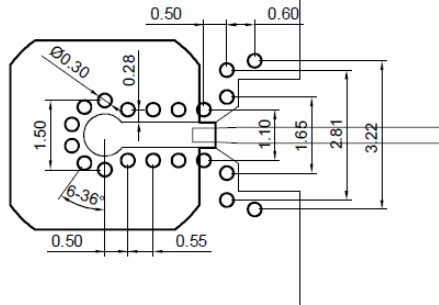
Microstrip type



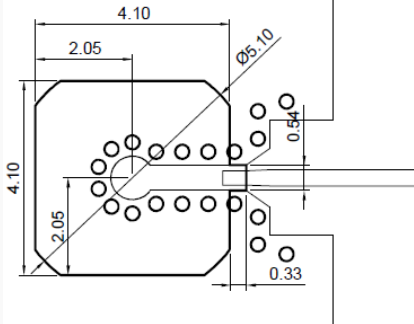
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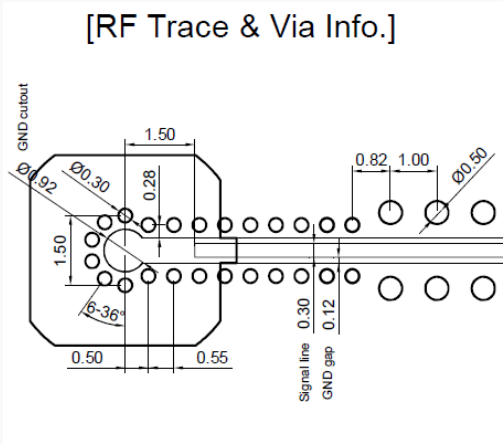
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■ Recommended PCB Patterns for Rogers RO4350B 6.6 mil (SMPM 67G)

Part No: MFST17MS002, MFST17MS004

Conductor Backed CPW type



Microstrip type

