

Withwave's SMMPM 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 SMMPM connectors.

The best applications could be 5G complex mobile communications modules, systems and various other wireless systems.



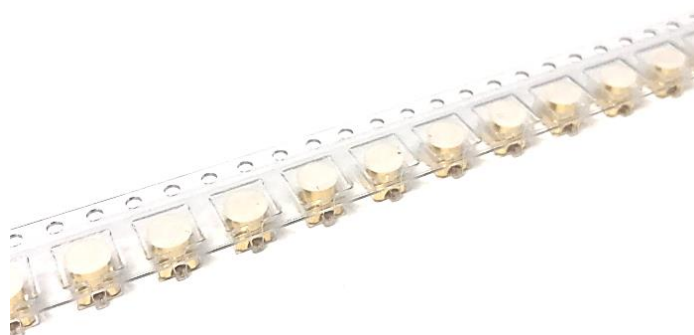
■ Features

- 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



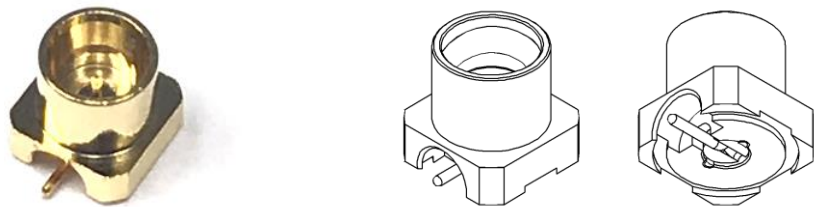
■ Specification

Scope	Items	Specification
Electrical	Freq. range	DC to 26.5 GHz (ST17MS001/ ST17MS001S) DC to 67.0 GHz (ST17MS002/ ST17MS002S)
	Impedance	50 Ohm
	VSWR(RL, Typical)	1.43:1 (-15dB) to 26.5 GHz (ST17MS001/ST17MS001S) 1.43:1 (-15dB) to 40 GHz (ST17MS002/ST17MS002S) 1.93:1 (-10dB) to 67 GHz (ST17MS002/ST17MS002S)
Material	Mating Cycles	Full Detent : 100(min) Smooth Bore : 500(min)
	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	ST17MS001
SMPM, Straight Plug, PCB (Smooth Bore)	DC to 26.5	Male	ST17MS001S
SMPM, Straight Plug, PCB (Full Detent)	DC to 67.0	Male	ST17MS002
SMPM, Straight Plug, PCB (Smooth Bore)	DC to 67.0	Male	ST17MS002S

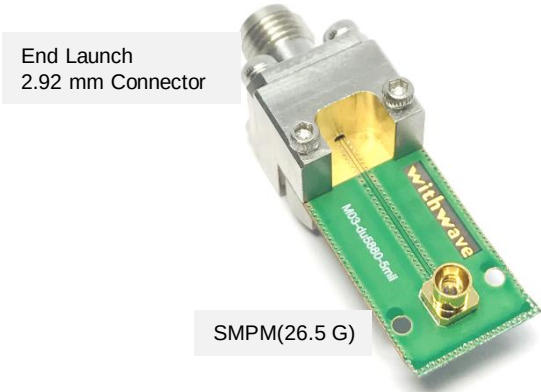


■ Test Result

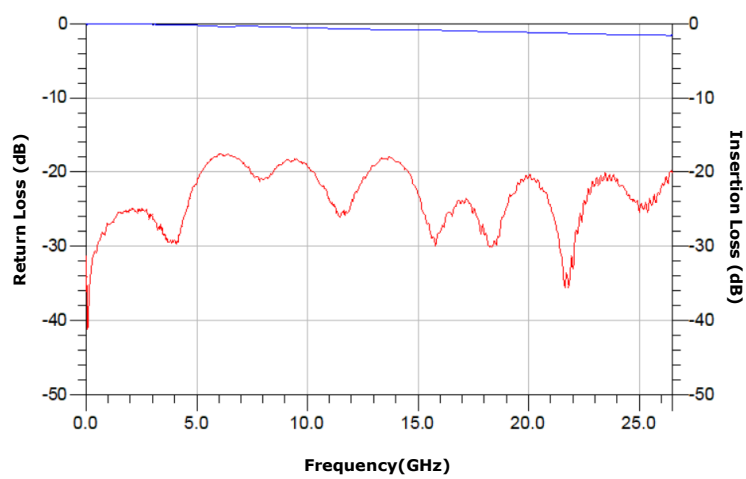
SMPM Connector

Substrate : RT/DU5880 (5 mil)

Part No. : ST17MS001

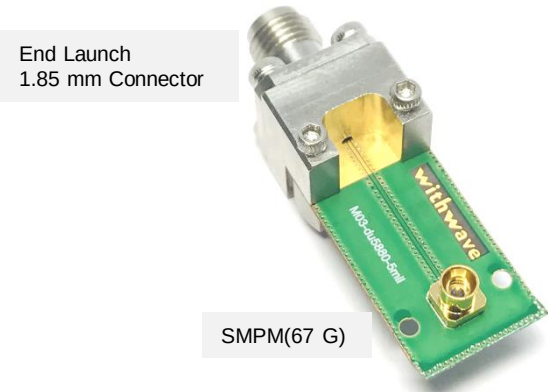


Freq. : 10 MHz to 26.5 GHz

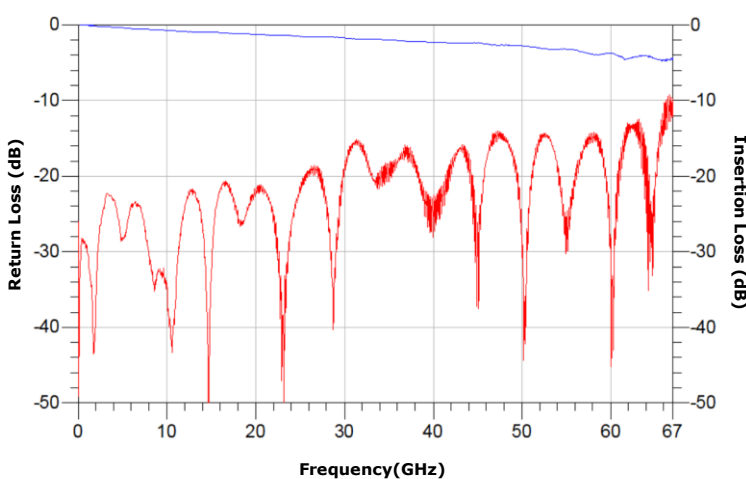


Substrate : RT/DU5880 (5 mil)

Part No. : ST17MS002



Freq. : 10 MHz to 67 GHz

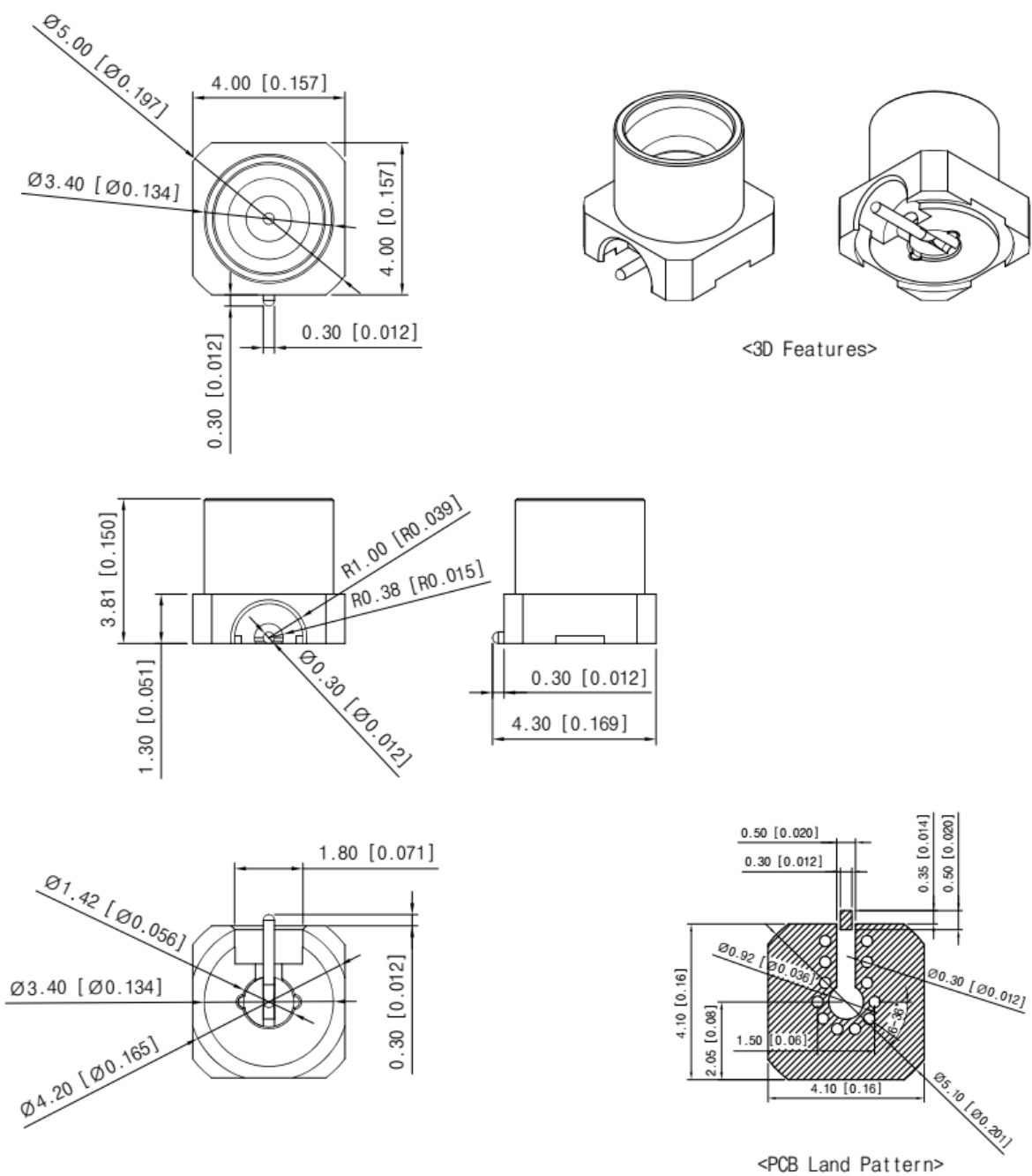


■ Drawing

SMPM Connector

Part No. : ST17MS001/ST17MS001S

Unit : mm[inch]



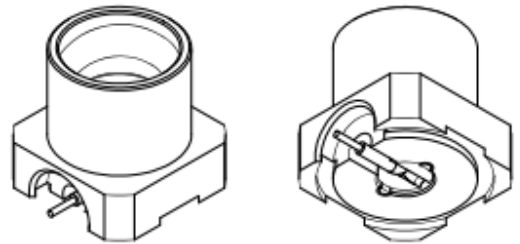
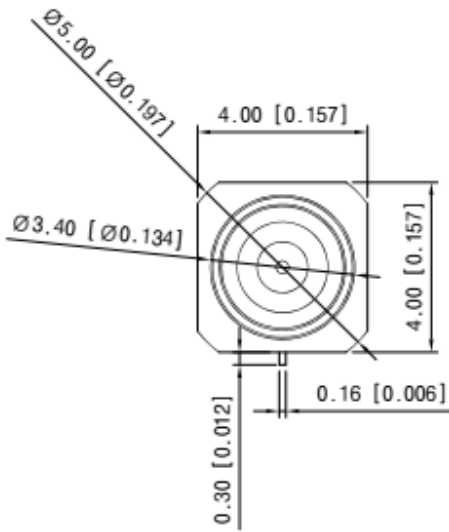
High Density Board Connector

■ *Drawing*

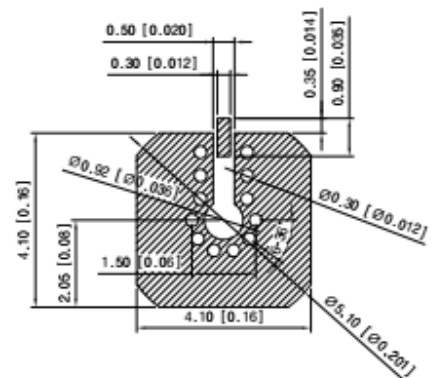
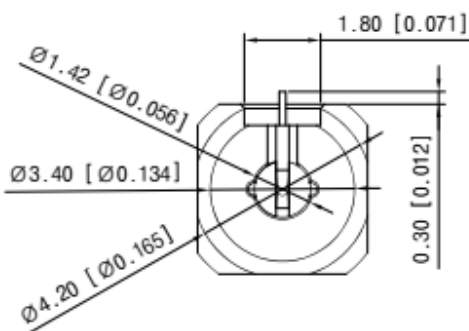
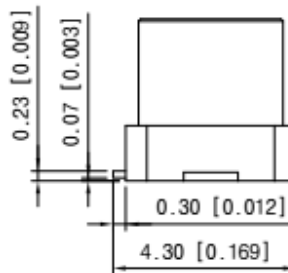
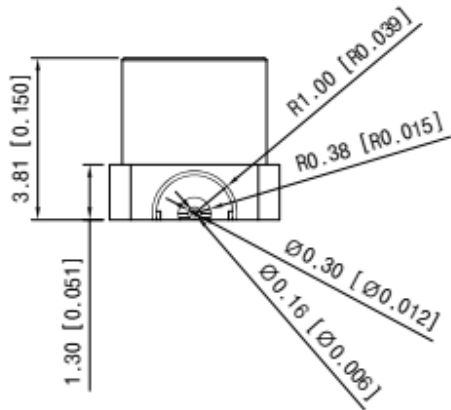
SMPM Connector

Part No. : ST17MS002/ST17MS002S

Unit : mm[inch]

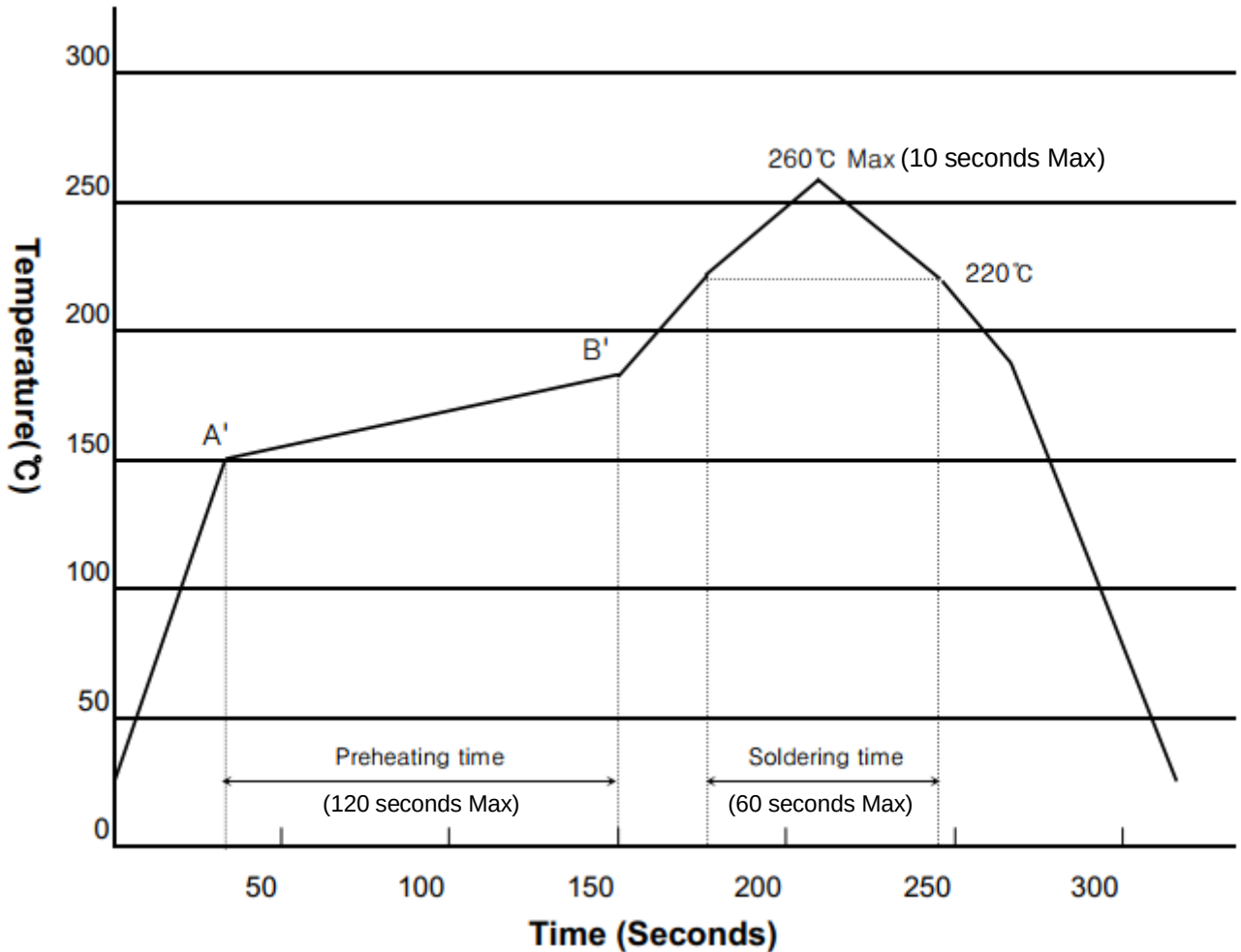


<3D Features>



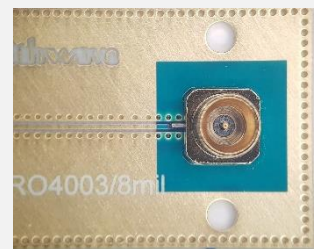
<PCB Land Pattern>

■ Recommended Reflow Profile



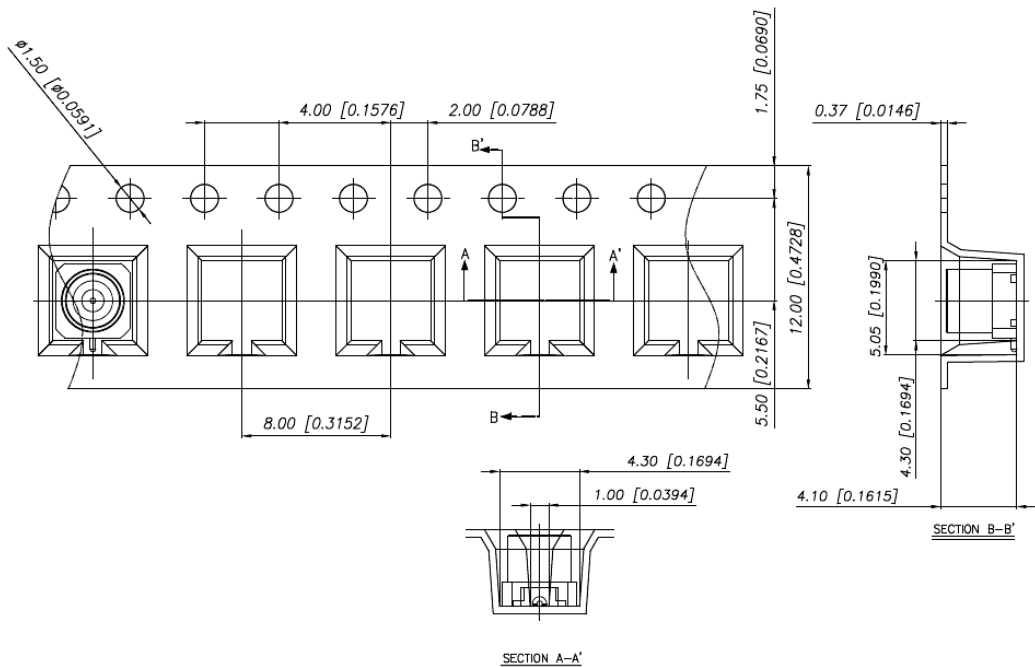
■ Test Condition

- 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)

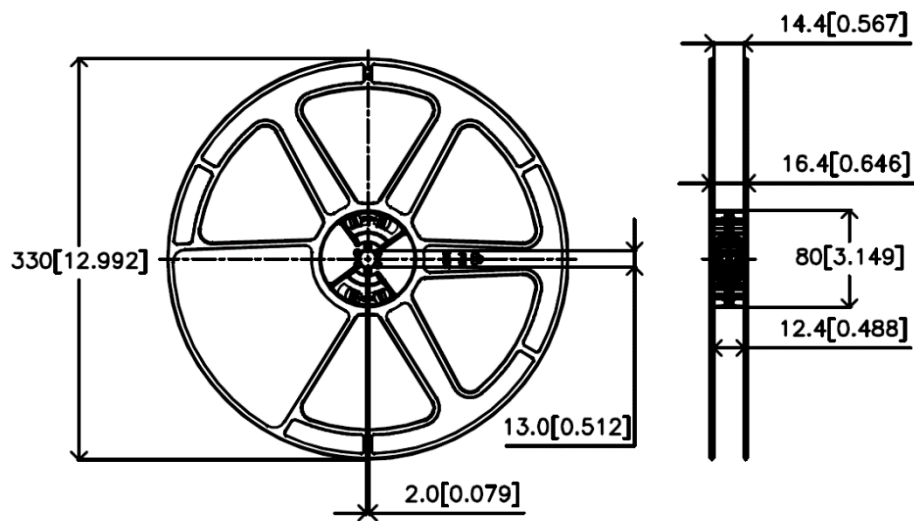


■ Packaging Information

Unit : mm[inch]

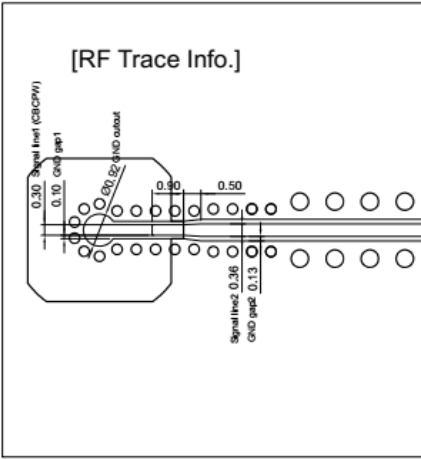


Packing Qty 2,000 ea/Reel

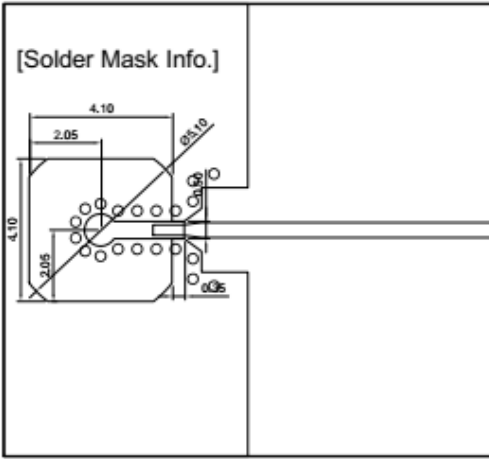
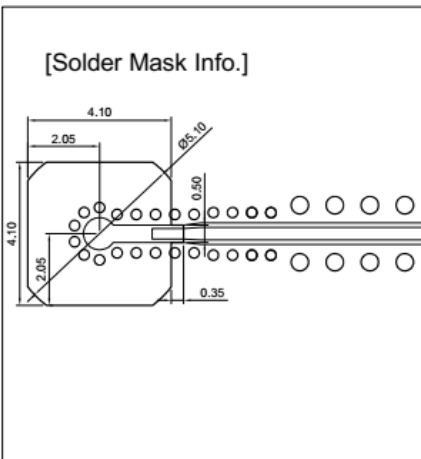
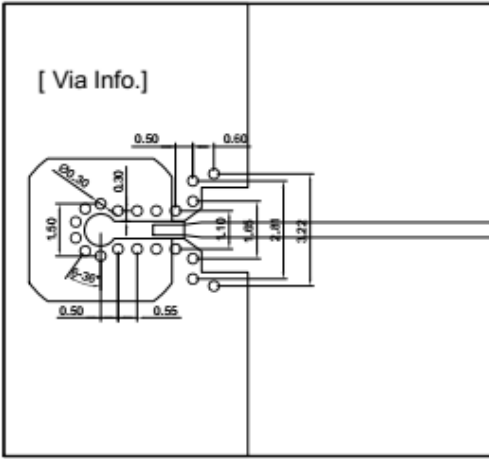
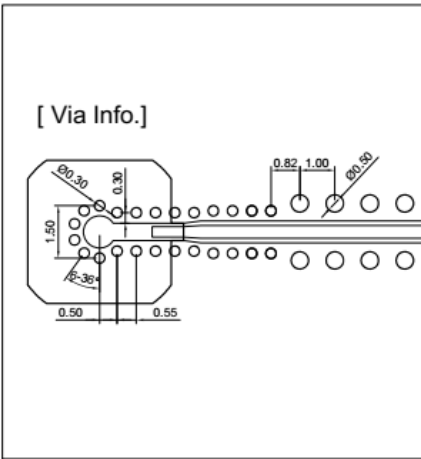
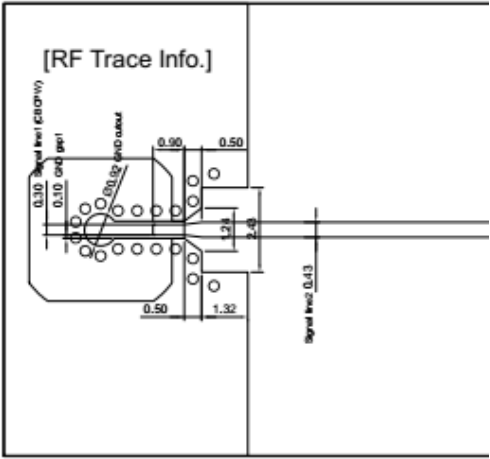


■ Recommended PCB Patterns for Roger RO4003C 8mil

Conductor Backed CPW type



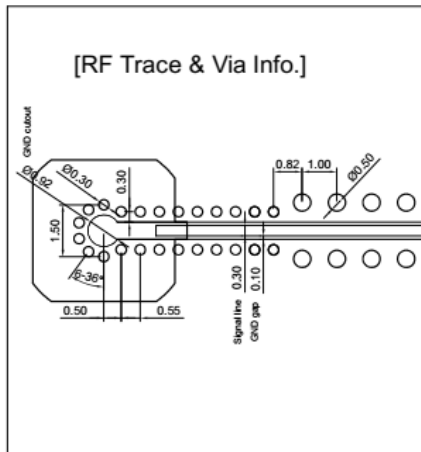
Microstrip type



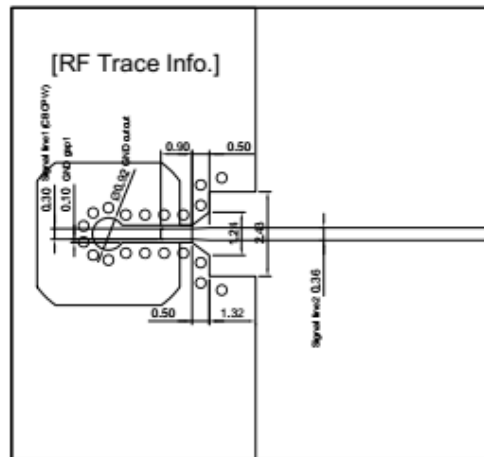
High Density Board Connector

■ Recommended PCB Patterns for Roger RT/du5880 5mil

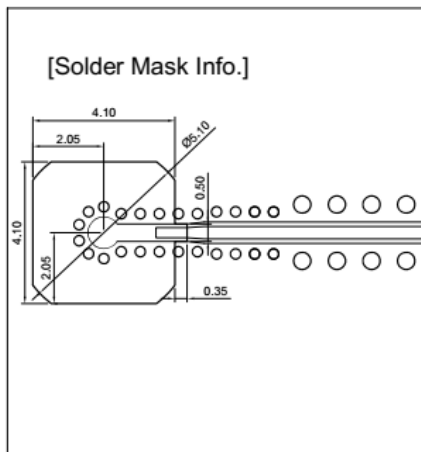
Conductor Backed CPW type



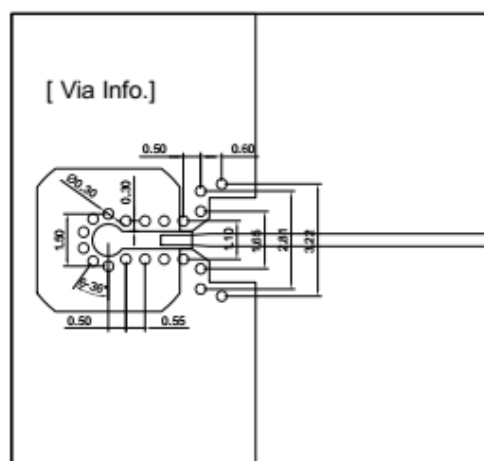
Microstrip type



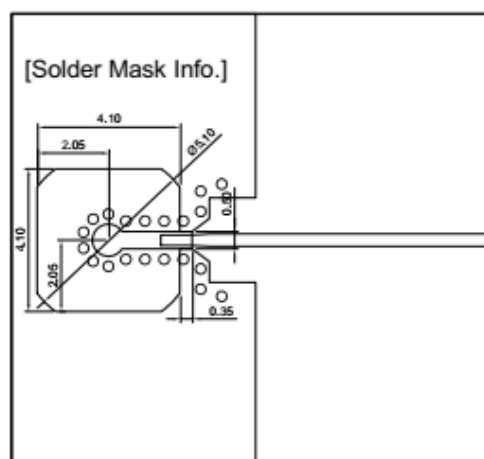
[Solder Mask Info.]



[Via Info.]



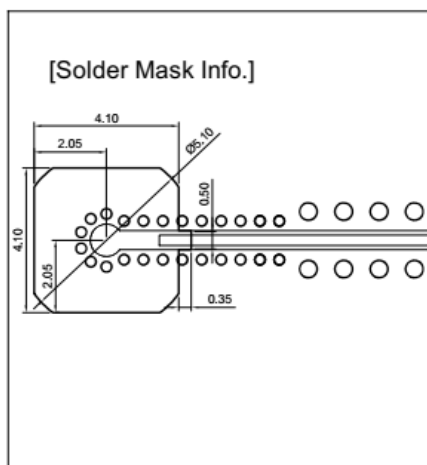
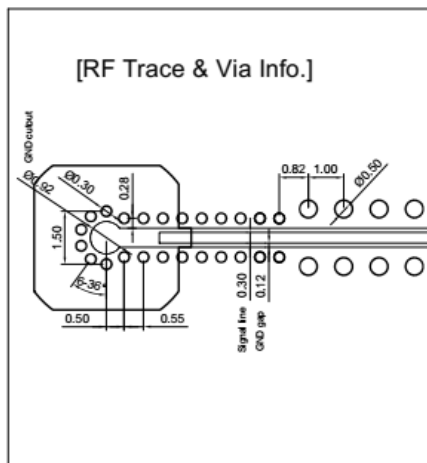
[Solder Mask Info.]



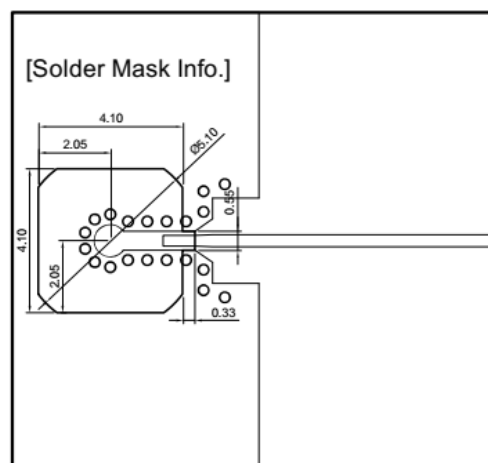
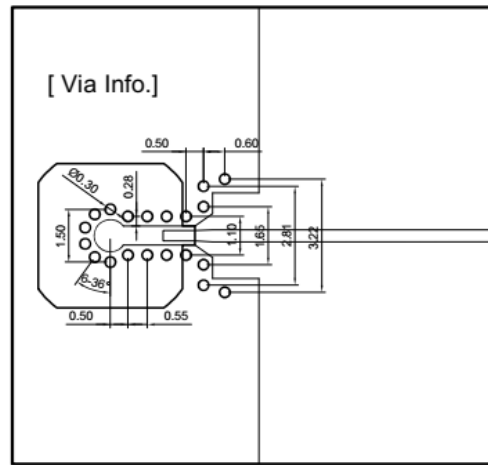
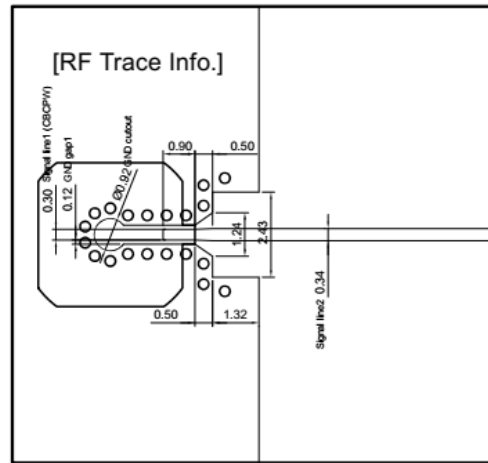
High Density Board Connector

■ Recommended PCB Patterns for Roger RO4350B 6.6mil

Conductor Backed CPW type



Microstrip type



■ Revision History

Revision	Date	Changes
Ver 1.0 Ver 1.1	2019-09-01 2020-01-22	Released SMPM Connectors PCB Land Patterns, Recommended PCB Patterns