

PD0715U03W

Preliminary Datasheet

Power Divider/Combiner

2-Way 0° 50Ω 1.8-12.5 GHz

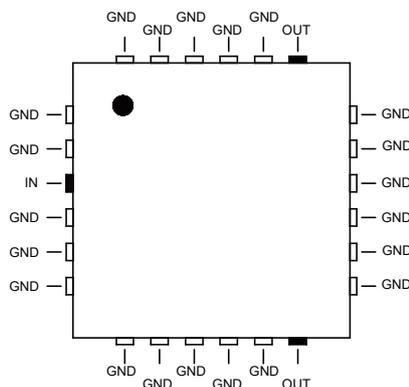
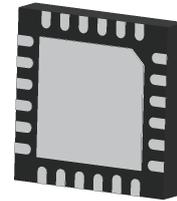


Features

- Small Size (4×4mm QFN package)
- No need external 100 Ω resistor
- Very Low Loss
- Tight Amplitude Balance
- High Isolation
- Low VSWR
- Good Repeatability
- High ESD level*
- Operating Temperature -50°C~85°C

Power handling

- 1.85 Watts as a divider
- 0.93 Watts as a combiner



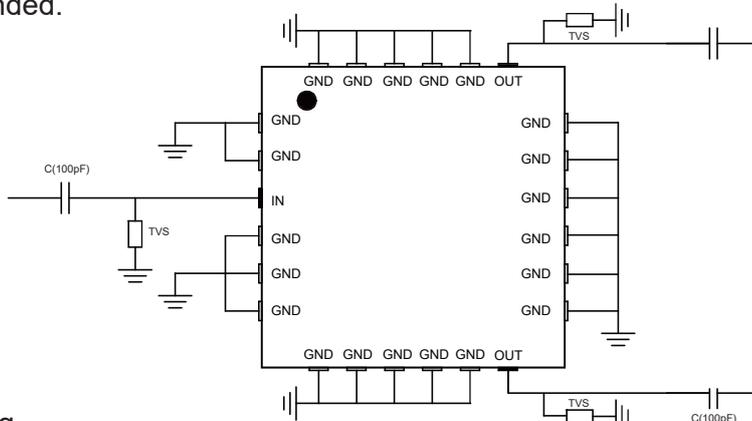
TOP VIEW

Applications

- WIMAX
- ISM
- Instrumentation
- Radar
- Satellite communications
- 5G

Notes:

1. This part has passed through 100% RF test.
2. Suggest to add Capacitors of DC Blocker between Pins (with black color) and external circuit to prevent DC signal entry to guarantee parts normal work.
3. Suggest to add a TVS Diode in parallel between Electrode (with black color) and Capacitor of DC Blocker to provide ESD protection for the product. TVS Diode use ON Semiconductor's ESD9101 is recommended.



ESD Rating

Human Body Model (HBM): ≤ 800V in accordance with ANSI/ESD STM 5.1 - 2001

Machine Model (MM): ≤ 100V in accordance with ANSI/ESD STM 5.2 - 1999

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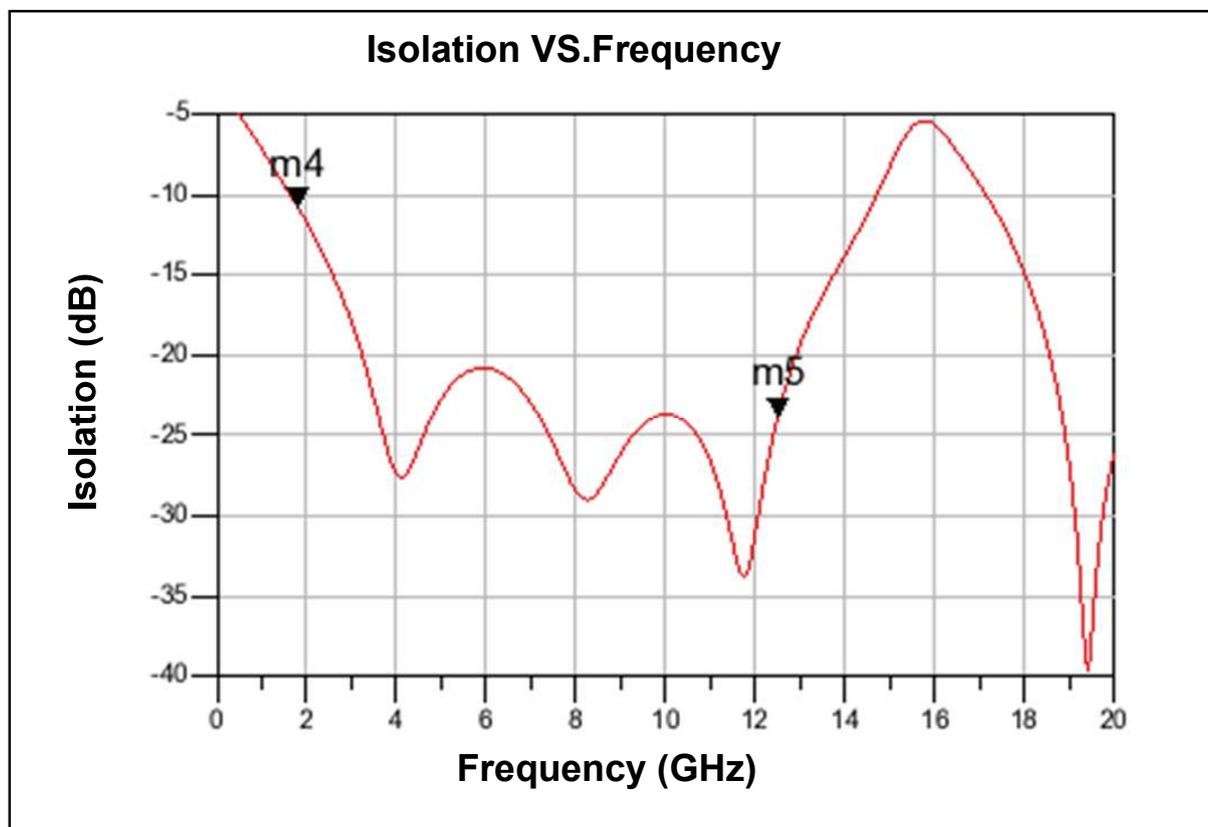
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Electrical Specifications at 25° C

Parameter	Symbol	Min	Typ	Max	Unit
Frequency Range	F	1.8		12.5	GHz
Insertion Loss (Above 3dB)	I_L		1.0	2.0	dB
Isolation	Isol	10	20		dB
Phase balance	ϕ_{bal}		3	5	deg
Amplitude balance	A_{bal}		± 0.2	± 0.4	dB
Input VSWR			1.45		
Output VSWR			1.45		

Typical Performance (25°C: 1.8-12.5 GHz)

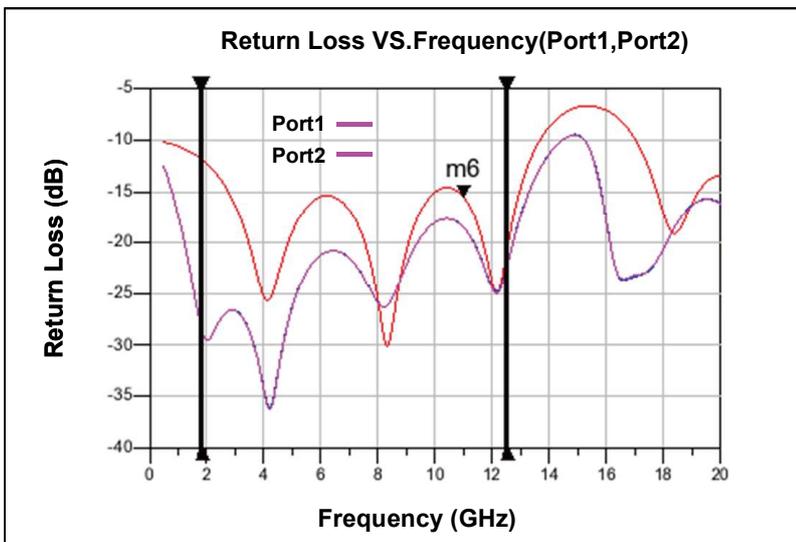
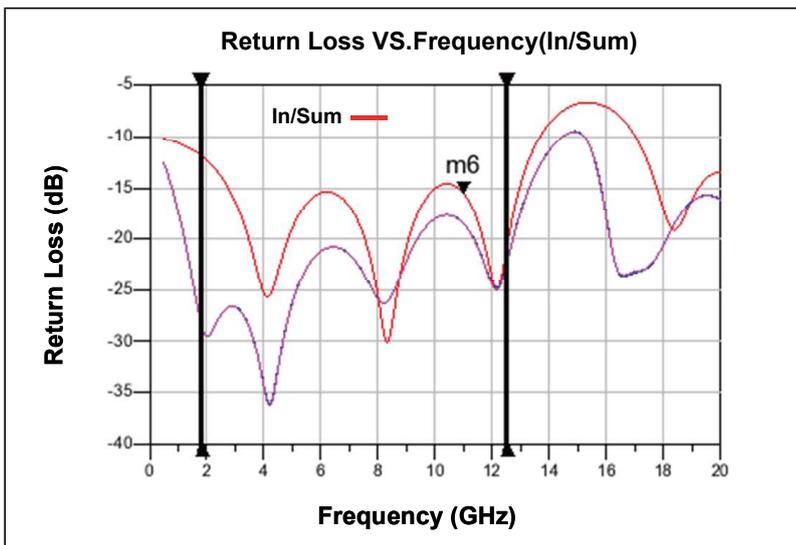
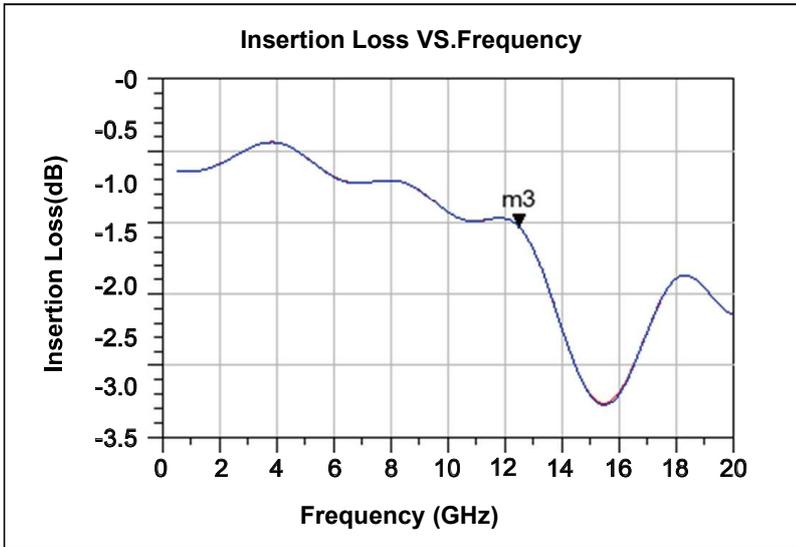


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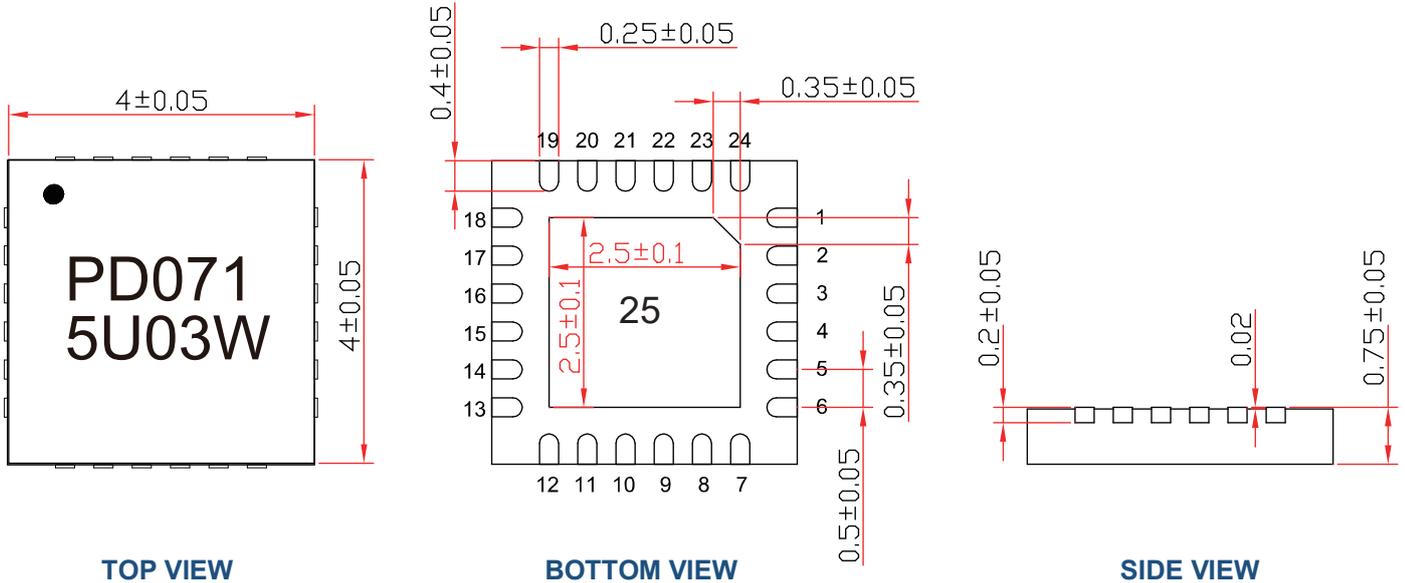
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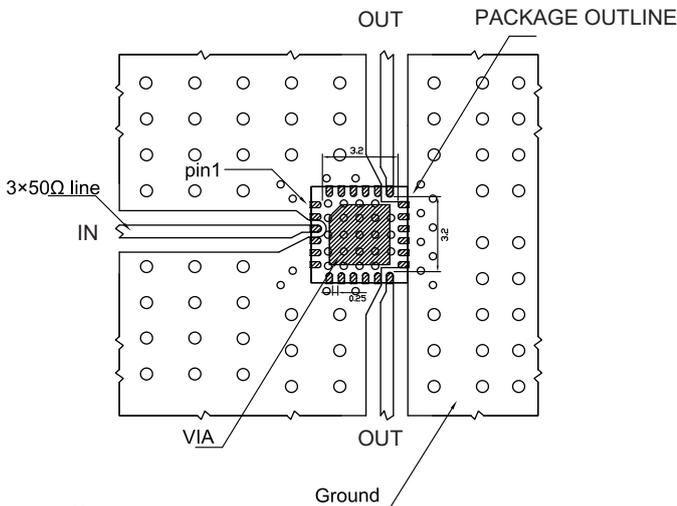
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Outline Drawing units:mm



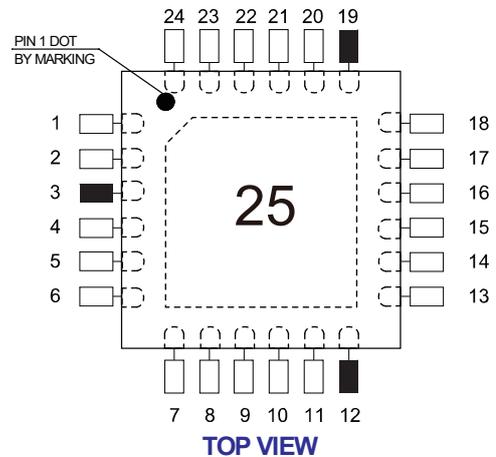
Land Pattern



NOTE:

1. 50Ω line width is shown above designing from RO4350B dielectric thickness 0.254mm; copper 1/2 OZ
2. Bottom side of the PCB is continuous ground plane.
3. All dimensions shown in mm.

Pin Out



TOP VIEW

Notes:

1. Require to add Capacitors of DC Blocker between Pins(with black color) and external circuit to prevent DC signal entry to guarantee parts normal work.
2. This part has passed through 100% RF test.

Pin #	Connection	Pin #	Connection
1	GND	13	GND
2	GND	14	GND
3	IN	15	GND
4	GND	16	GND
5	GND	17	GND
6	GND	18	GND
7	GND	19	OUT
8	GND	20	GND
9	GND	21	GND
10	GND	22	GND
11	GND	23	GND
12	OUT	24	GND