

PD3500U05

Preliminary Datasheet

Power Divider/Combiner

3-Way 0° 50Ω 3.2-3.7GHz



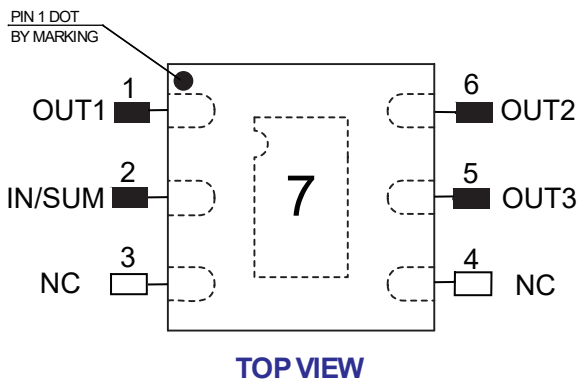
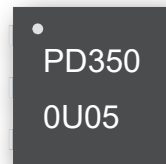
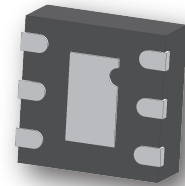
Features

- Small Size (2×2mm DFN package)
- GaAs
- No need external 100 Ω resistor
- Very Low Loss
- Tight Amplitude Balance
- High Isolation
- Low VSWR
- Good Repeatability
- High ESD level*

Operating Temperature -40°C~105°C

Power handling

- 2.5 Watts as a divider
- 0.8 Watts as a combiner



Applications

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

Notes:

1. This part has passed through 100% RF test.

* ESD rating

Human body model (HBM): Class 2 (2000 to <4000V) in accordance with ANSI/ESD 5.1-2007

Machine model: Class M3 (200 to <4000V) in accordance with ANSI/ESD 5.2-2009

Yantel Corporation

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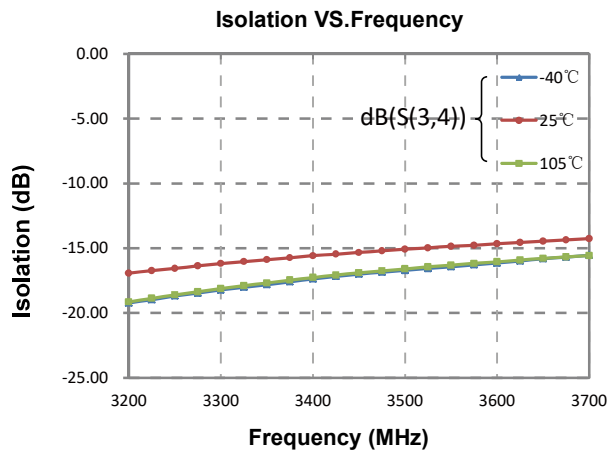
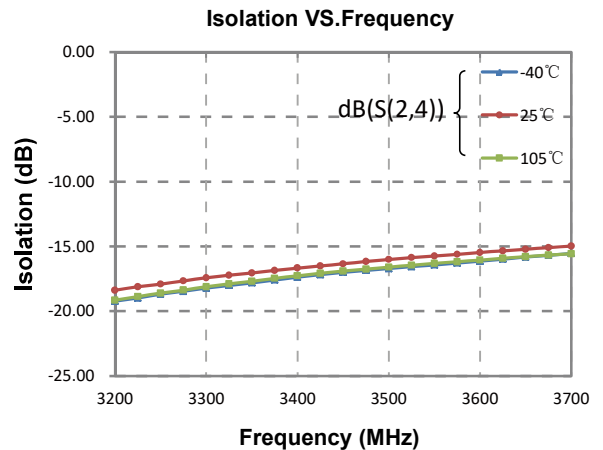
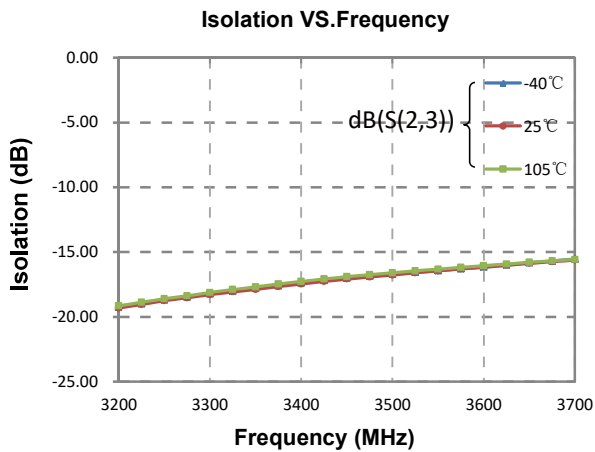
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Electrical Specifications at 25° C

Parameter	Symbol	Min	Typ	Max	Unit
Frequency Range	F	3.2		3.7	GHz
Insertion Loss (Above 5dB)	I_L		0.5	0.7	dB
Isolation	Isol	15.5	25		dB
Phase balance	ϕ_{bal}		3.0	10.0	deg
Amplitude balance	A_{bal}		± 0.25	± 0.45	dB
Input VSWR			1.30	1.60	
Output VSWR			1.30	1.60	

Typical Performance (-40°C, 25°C, 105°C: 3.2-3.7GHz)



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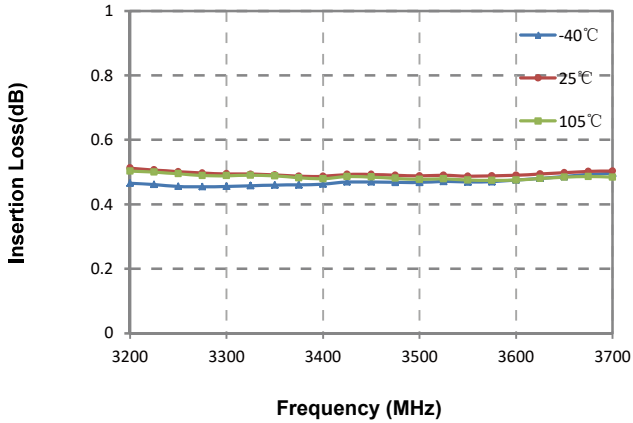
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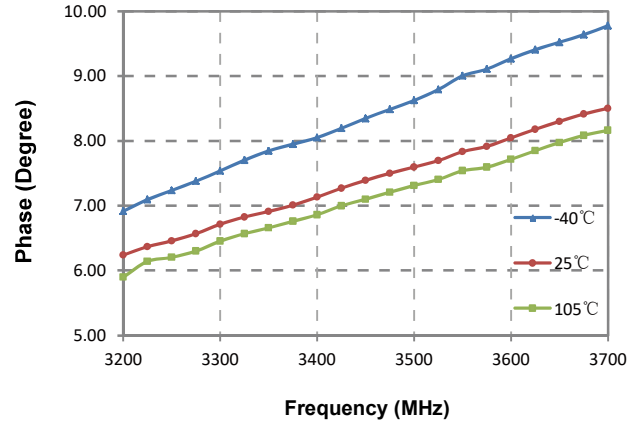
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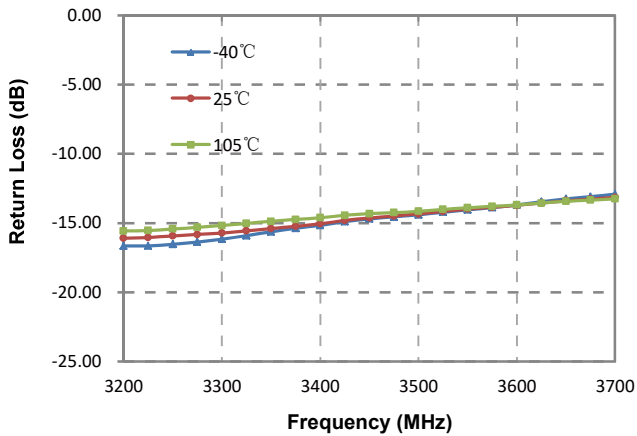
Insertion Loss(dB) VS.Frequency



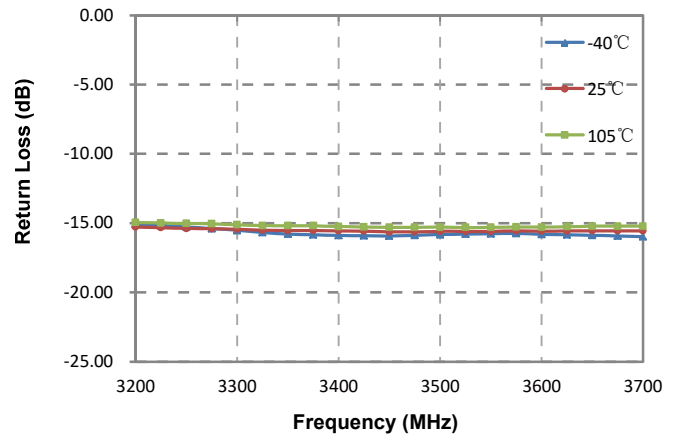
Phase (Degree) VS.Frequency



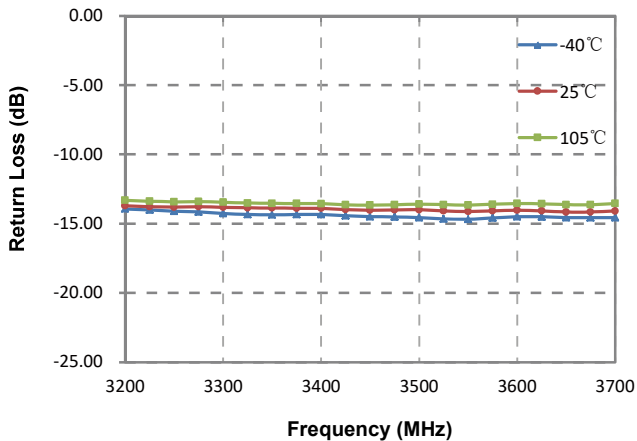
Return Loss (Port 1)



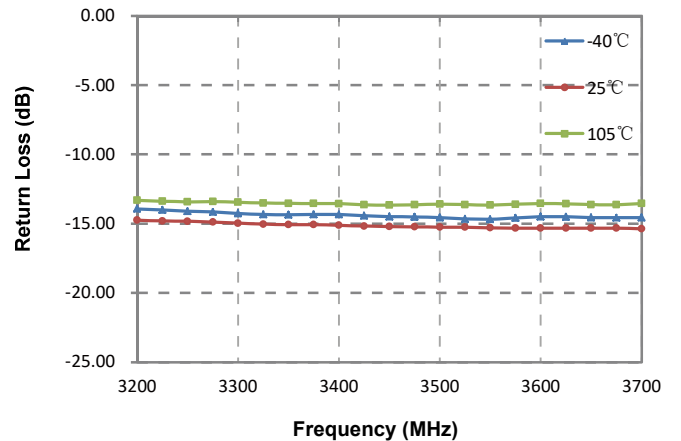
Return Loss (Port 2)



Return Loss (Port 3)



Return Loss (Port 4)



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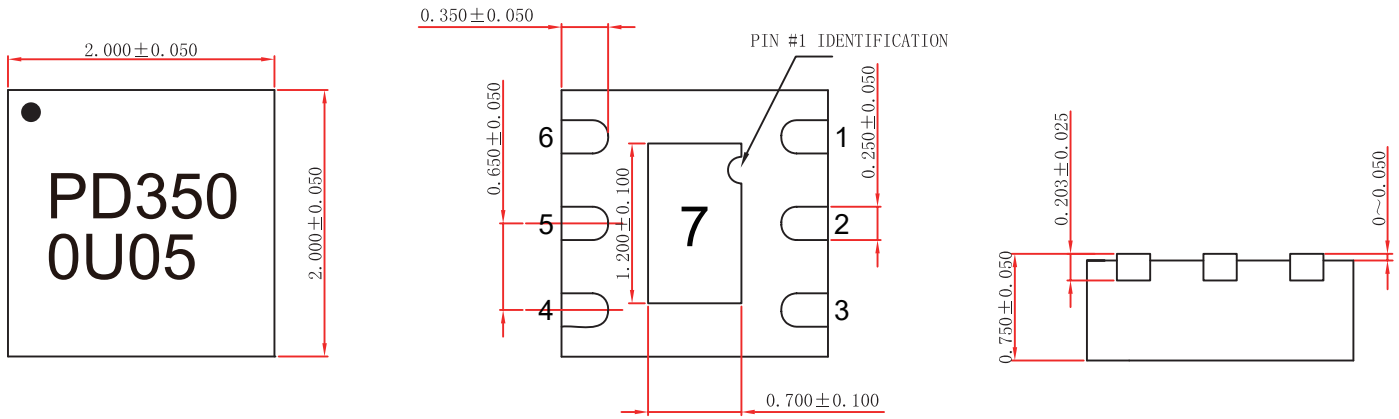
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Outline Drawing

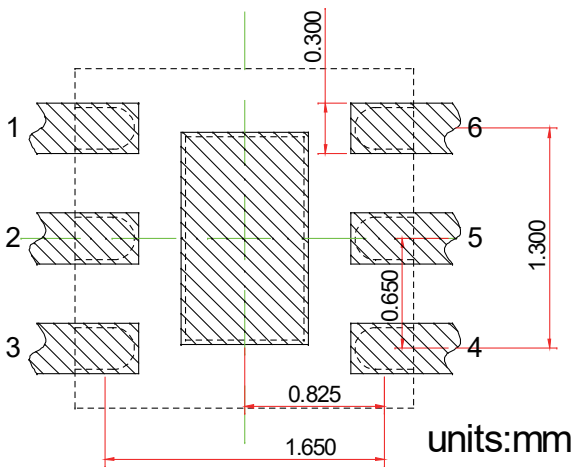


TOP VIEW

BOTTOM VIEW

SIDE VIEW

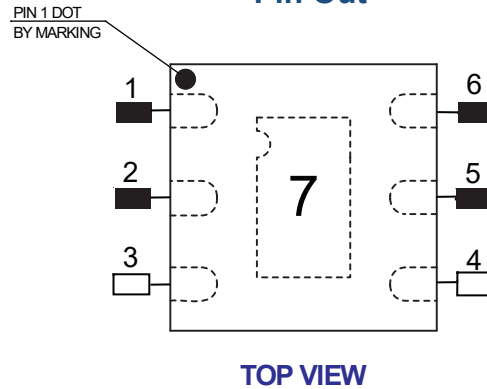
Land Pattern



Recommended Land Pattern Top View

Notes: All dimensions show in millimeters

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
1	OUT1
2	IN/SUM
3	NC
4	NC
5	OUT3
6	OUT2
7	GND

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