PD5500U05

Preliminary Datasheet
Power Divider/Combiner
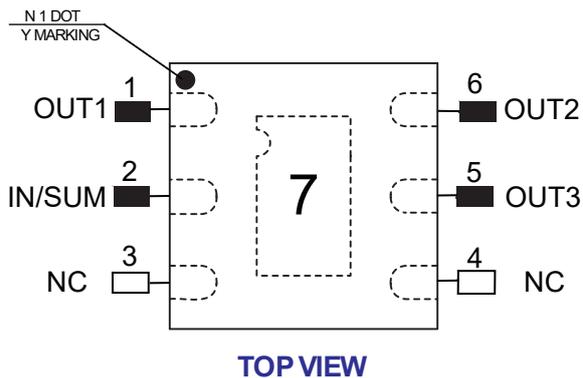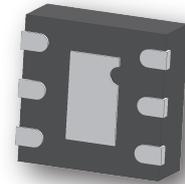
3-Way 0°   50Ω   4.4-6GHz

Rev A1.0

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

N 1 DOT
Y MARKING

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

TOP VIEW

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

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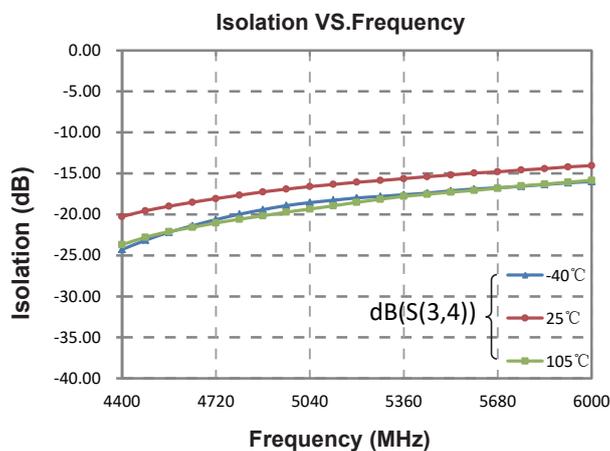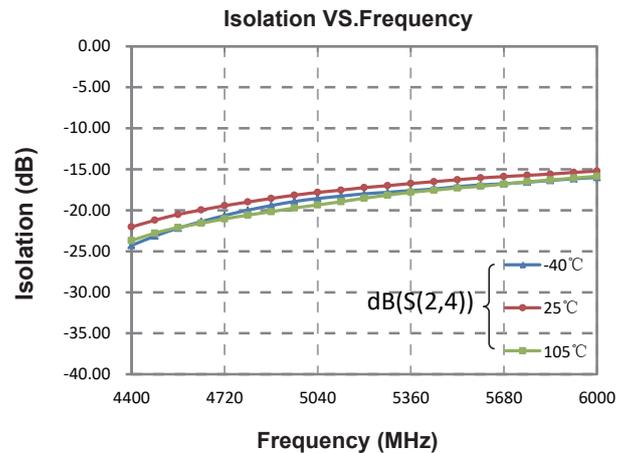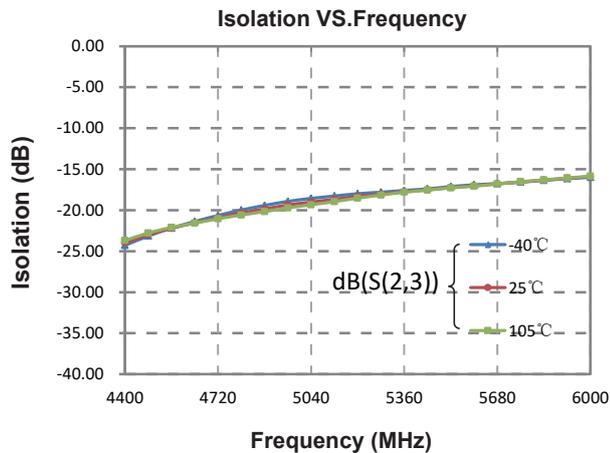## Power Divider/Combiner
3-Way 0°   50Ω   4.4-6GHz

Yantel®

Rev A1.0

Electrical Specifications at 25º C

Parameter	Symbol	Min	Typ	Max	Unit
Frequency Range	F	4.4		6.0	GHz
Insertion Loss (Above 5dB)	I_L		0.3	0.85	dB
Isolation	Isol	13	25		dB
Phase balance	$\varnothing_{bal}$		5.0	16.0	deg
Amplitude balance	A_{bal}		±0.25	±0.60	dB
Input VSWR			1.40	1.70	
Output VSWR			1.30	1.70	

Typical Performance (-40°C,25°C,105°C: 4.4-6.0GHz)

Isolation VS.Frequency — dB(S(2,3))

Isolation VS.Frequency — dB(S(2,4))

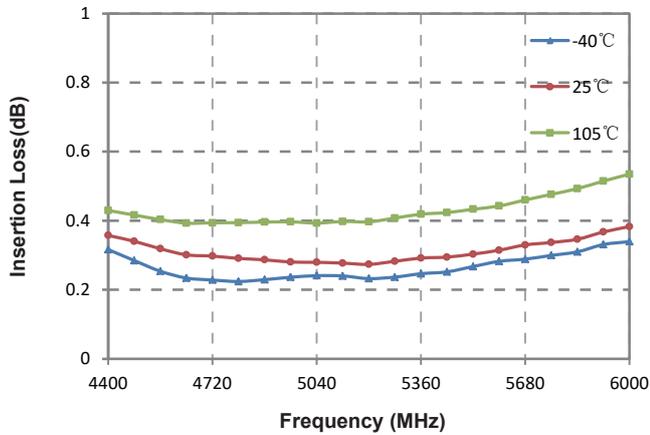Isolation VS.Frequency — dB(S(3,4))

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Preliminary Datasheet
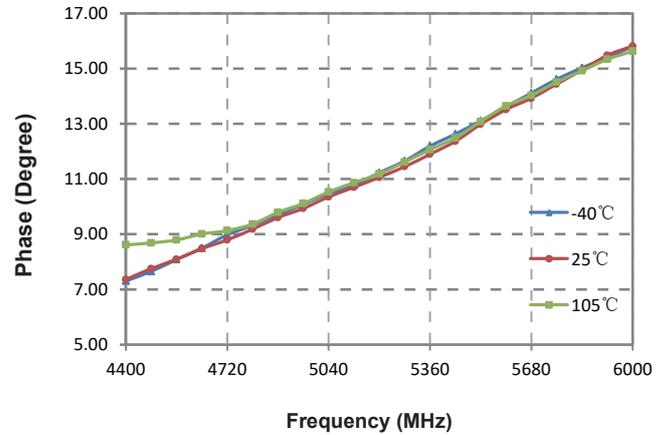## Power Divider/Combiner
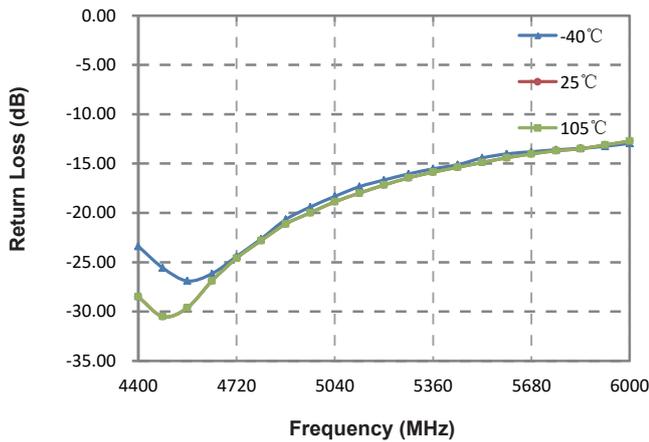
3-Way 0°   50Ω   4.4-6GHz

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Insertion Loss(dB) VS.Frequency

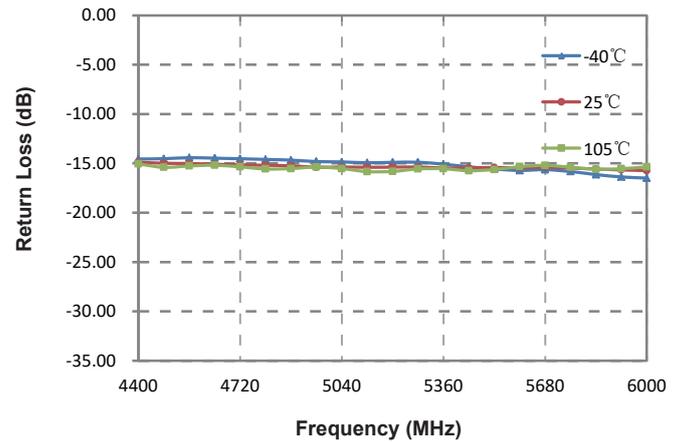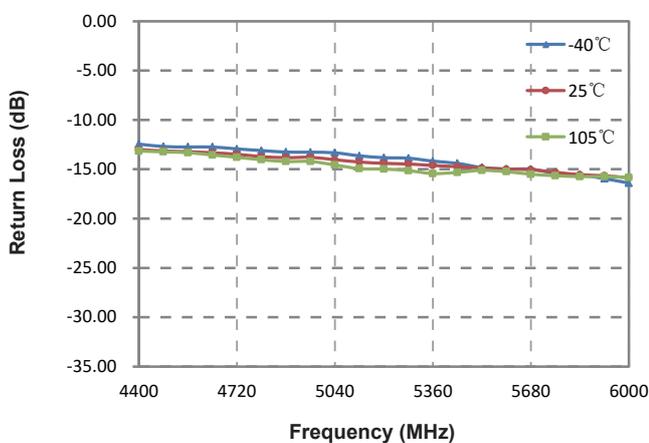**Phase (Degree) VS.Frequency**
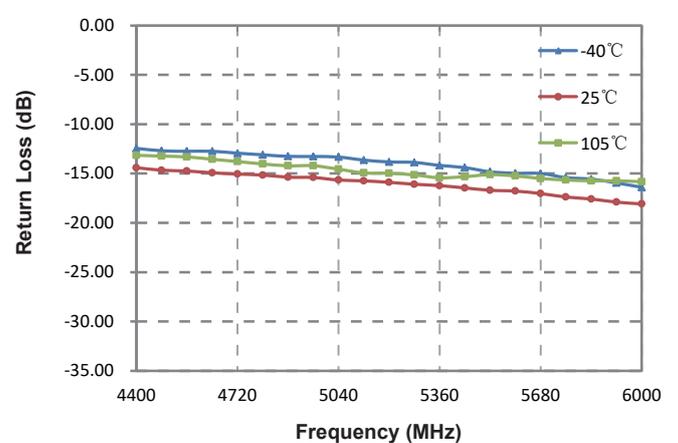

Return Loss (Port 1)

Return Loss (Port 2)

Return Loss (Port 3)

Return Loss (Port 4)
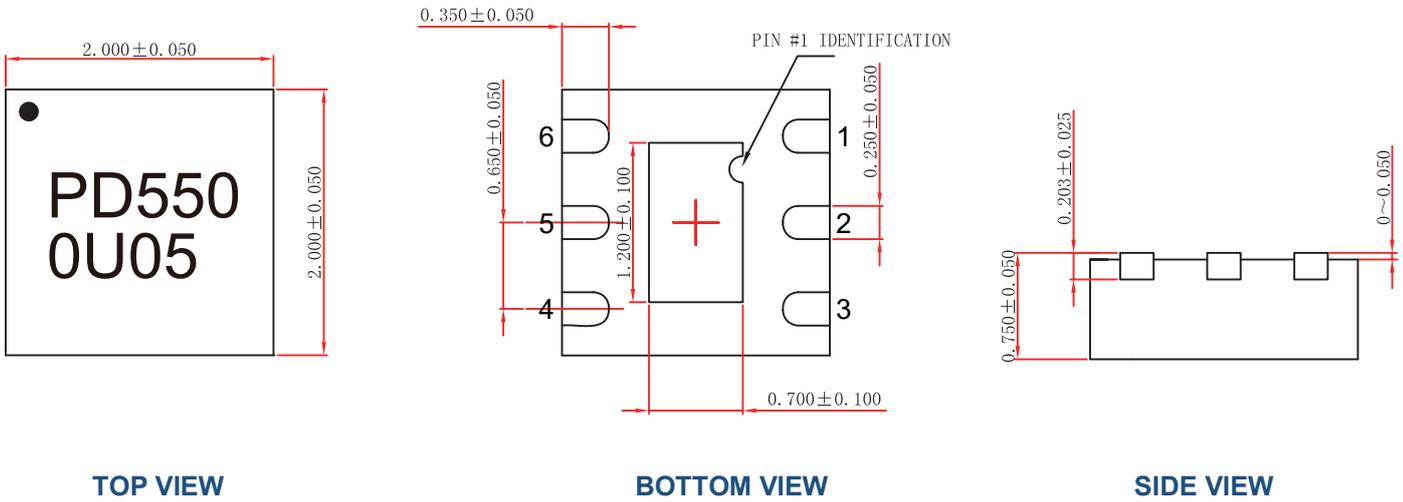
PD5500U05

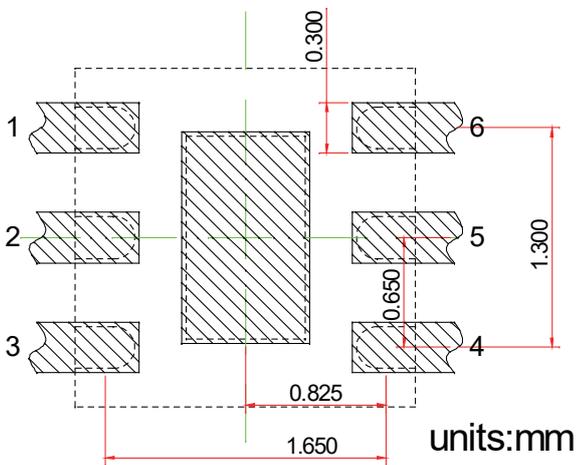**Preliminary Datasheet**
Power Divider/Combiner
3-Way 0°   50Ω   4.4-6GHz

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Outline Drawing

TOP VIEW

BOTTOM VIEW

SIDE VIEW

Land Pattern

units:mm

Recommended Land Pattern
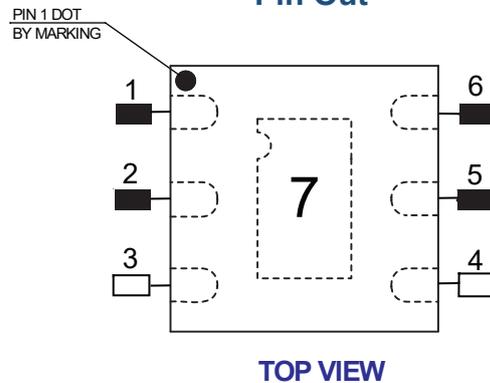Top View

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 guranteeparts 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