

PD550U05

Preliminary Datasheet

Power Divider/Combiner

3-Way 0° 50Ω 4.4-6GHz



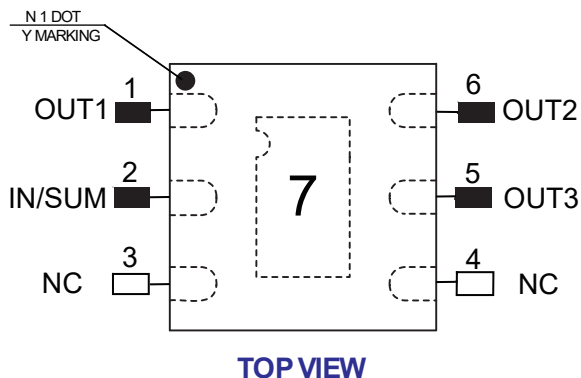
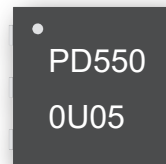
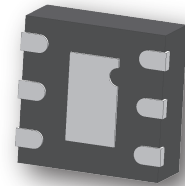
Features

- 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

Add: No.308-322, 3F, Building 1, Juchuang Jingu Innovation Park, Wenyuan Road 35, Xili Street, Nanshan, Shenzhen, China

Tel: 86-755-8355-1886 Fax: 86-755-8355-2533

PD5500U05

Preliminary Datasheet
Power Divider/Combiner

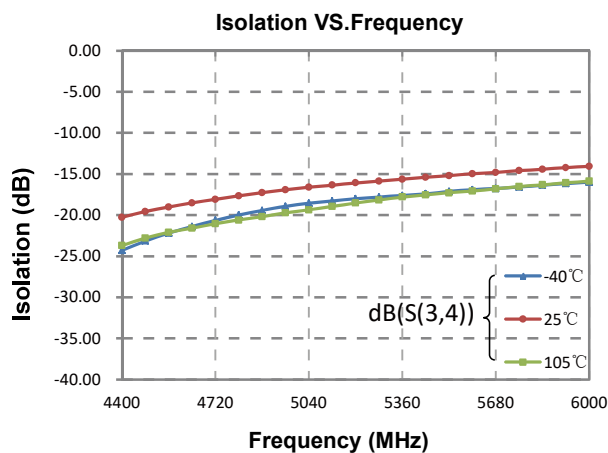
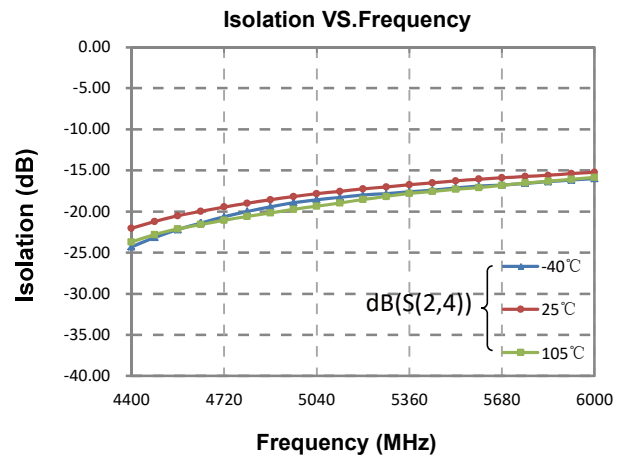
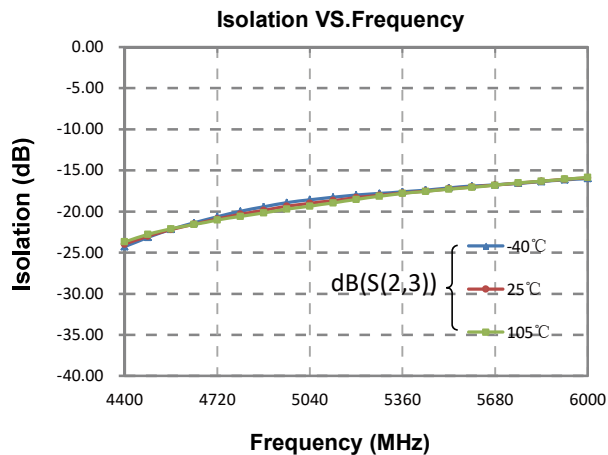
3-Way 0° 50Ω 4.4-6GHz



Electrical Specifications at 25° C

Parameter	Symbol	Min	Typ	Max	Unit
Frequency Range	F	4.4		6.0	GHz
Insertion Loss (Above 5dB)	I_L		0.3	0.5	dB
Isolation	Isol	14	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	1.60	

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



Yantel Corporation

Add: No.308-322, 3F, Building 1, Juchuang Jingu Innovation Park, Wenyuan Road 35, Xili Street, Nanshan, Shenzhen, China
Tel: 86-755-8355-1886 Fax: 86-755-8355-2533

PD5500U05

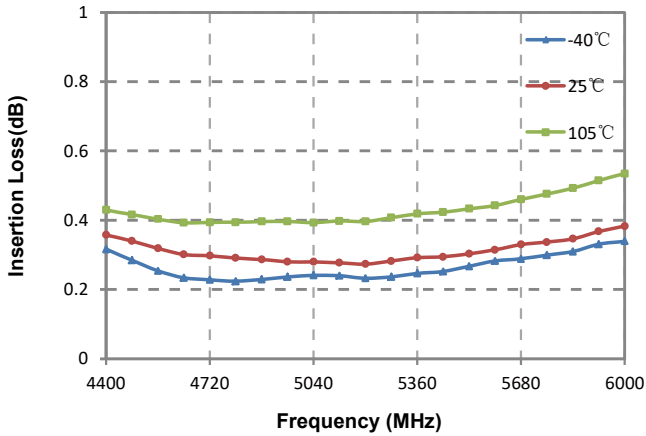
Preliminary Datasheet

Power Divider/Combiner

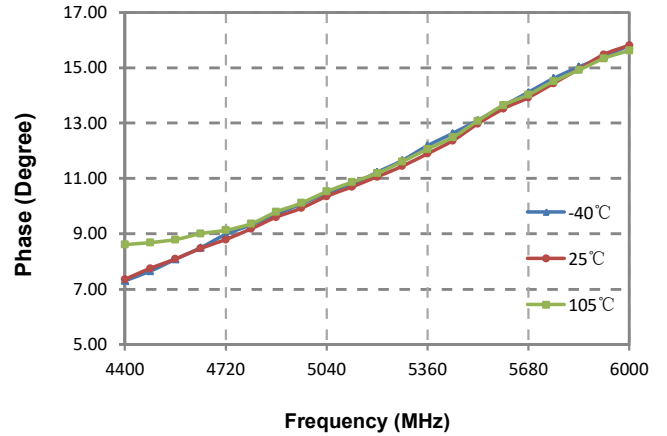
3-Way 0° 50Ω 4.4-6GHz



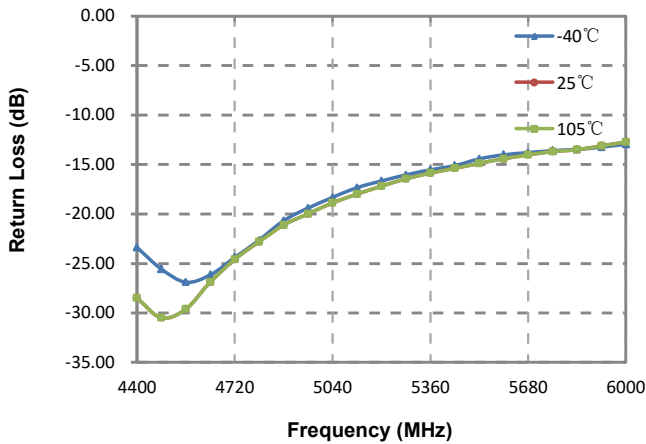
Insertion Loss(dB) VS.Frequency



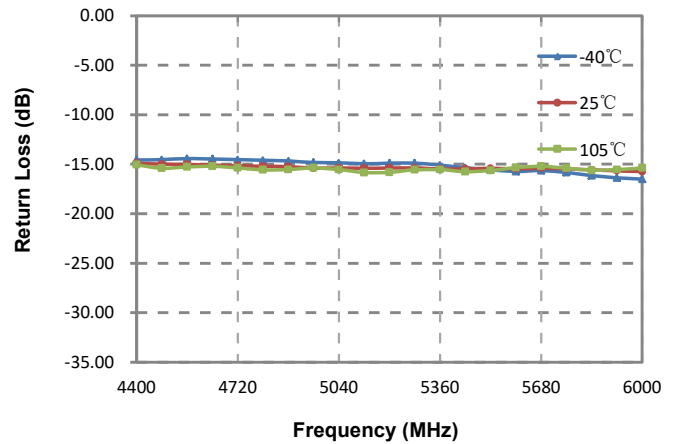
Phase (Degree) VS.Frequency



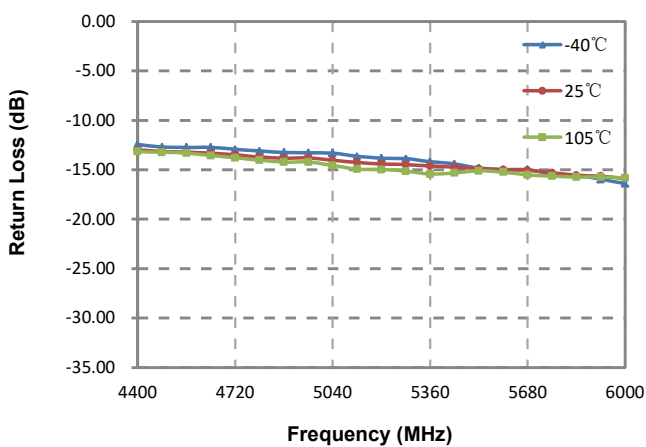
Return Loss (Port 1)



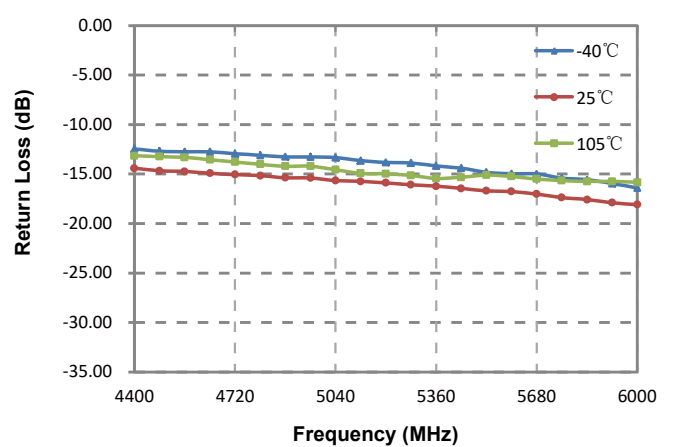
Return Loss (Port 2)



Return Loss (Port 3)



Return Loss (Port 4)



Yantel Corporation

Add: No.308-322, 3F, Building 1, Juchuang Jingu Innovation Park, Wenyuan Road 35, Xili Street, Nanshan, Shenzhen, China
Tel: 86-755-8355-1886 Fax: 86-755-8355-2533

PD550U05

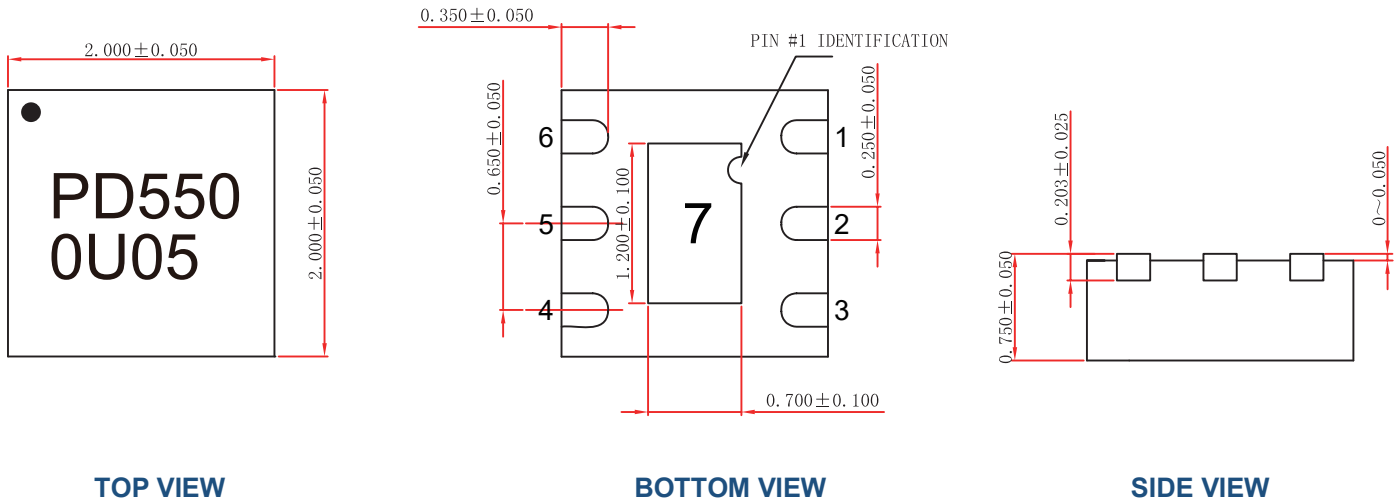
Preliminary Datasheet

Power Divider/Combiner

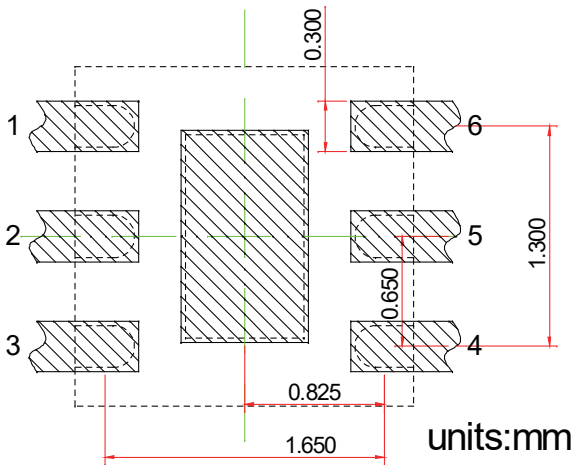
3-Way 0° 50Ω 4.4-6GHz



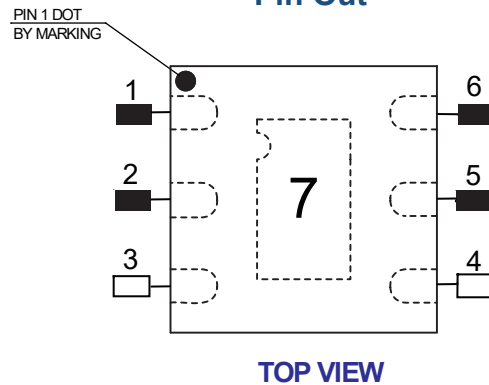
Outline Drawing



Land Pattern



Pin Out



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.

Recommended Land Pattern Top View

Notes: All dimensions show in millimeters

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

Yantel Corporation

Add: No.308-322, 3F, Building 1, Juchuang Jingu Innovation Park, Wenyuan Road 35, Xili Street, Nanshan, Shenzhen, China

Tel: 86-755-8355-1886 Fax: 86-755-8355-2533