

Data Sheet

PD0500U03-210

Power Divider/Combiner

2-Way 0° 50Ω 260-530 MHz



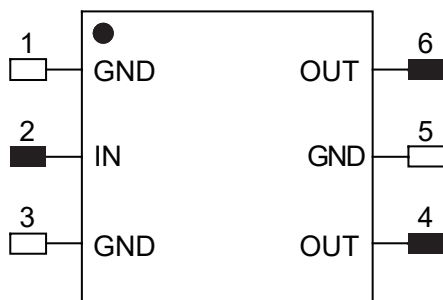
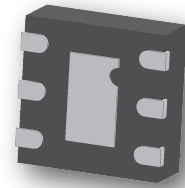
Features

- Small Size (2×2mm DFN package)
- Passive RF IC, no need external DC power supply
- No need external 100 Ω resistor
- Very Low Loss
- Tight Amplitude Balance
- High Isolation
- Low VSWR
- Good Repeatability
- Tape & Reel

Operating Temperature -40°C~85°C

Power handling

- 2 Watts as a divider
- 1 Watts as a combiner



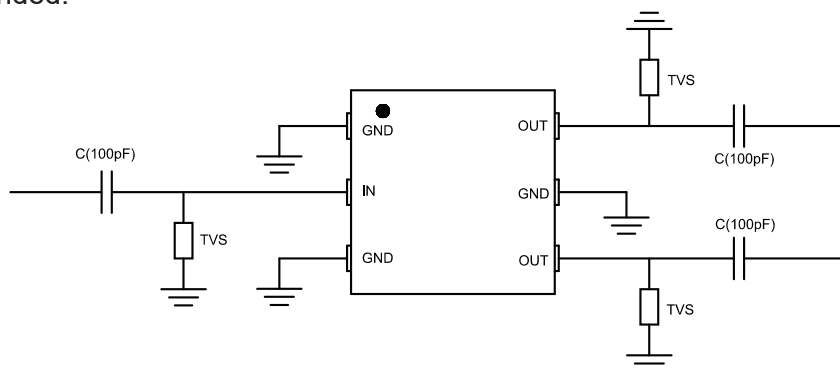
TOP VIEW

Applications

- Wireless communications
- WLAN / WiMax
- SAT Radio
- ISM band instrument
- Information System for Automotive Safety

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

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

Rev A6

For detailed performance specs & shopping online see Yantel web site : www.yantel-corp.com

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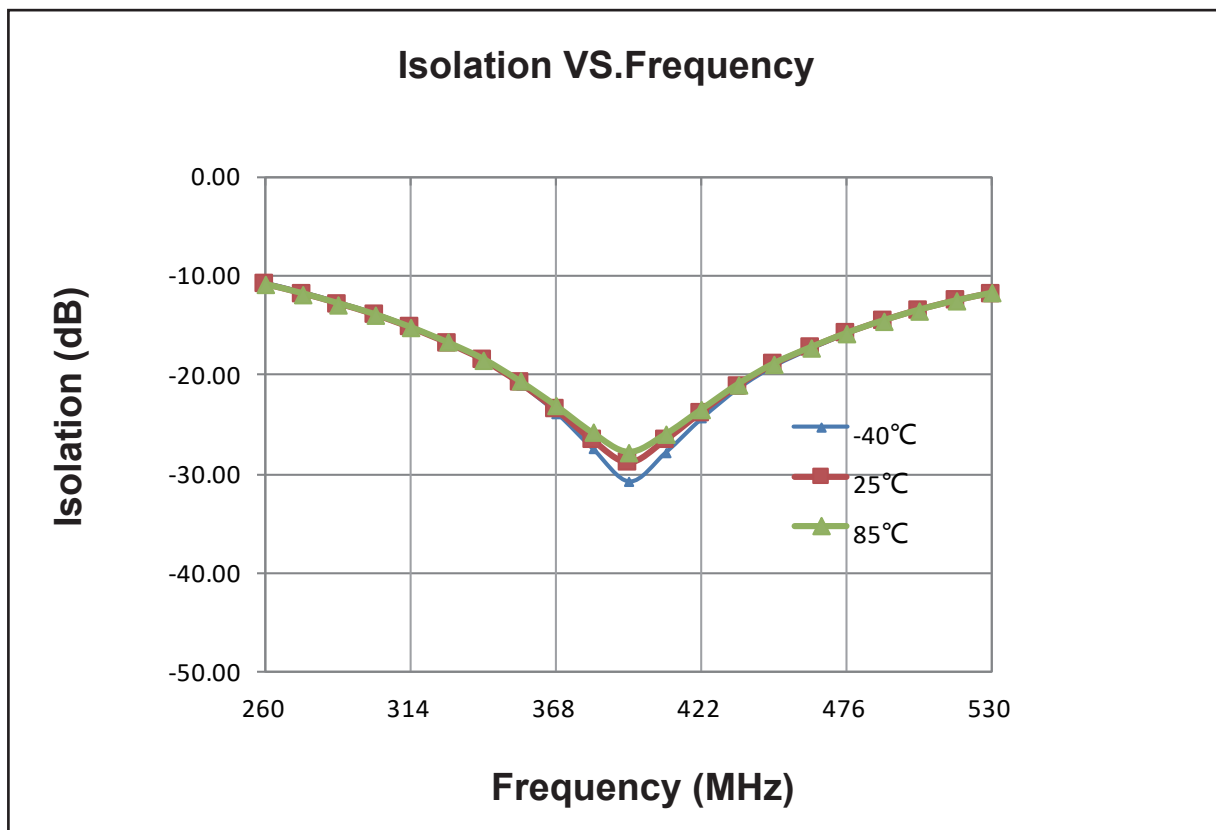
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Electrical Specifications at 25° C

| Parameter | Symbol | Min | Typ | Max | Unit |
|-------------------------------|---------------------|-----|-----------|------|------|
| Frequency Range | F | 260 | | 530 | MHz |
| Insertion Loss (Above 3dB) | I_L | | 0.55 | 0.8 | dB |
| Isolation | Isol | 10 | 15 | | dB |
| Phase balance | \varnothing_{bal} | | ± 0.5 | 1.0 | deg |
| Amplitude balance | A_{bal} | | ± 0.1 | 0.15 | dB |
| Input VSWR | | | 1.4 | 1.6 | |
| Output VSWR | | | 1.2 | 1.3 | |

Typical Performance (-40,25,85°C, : 260-530 MHz)



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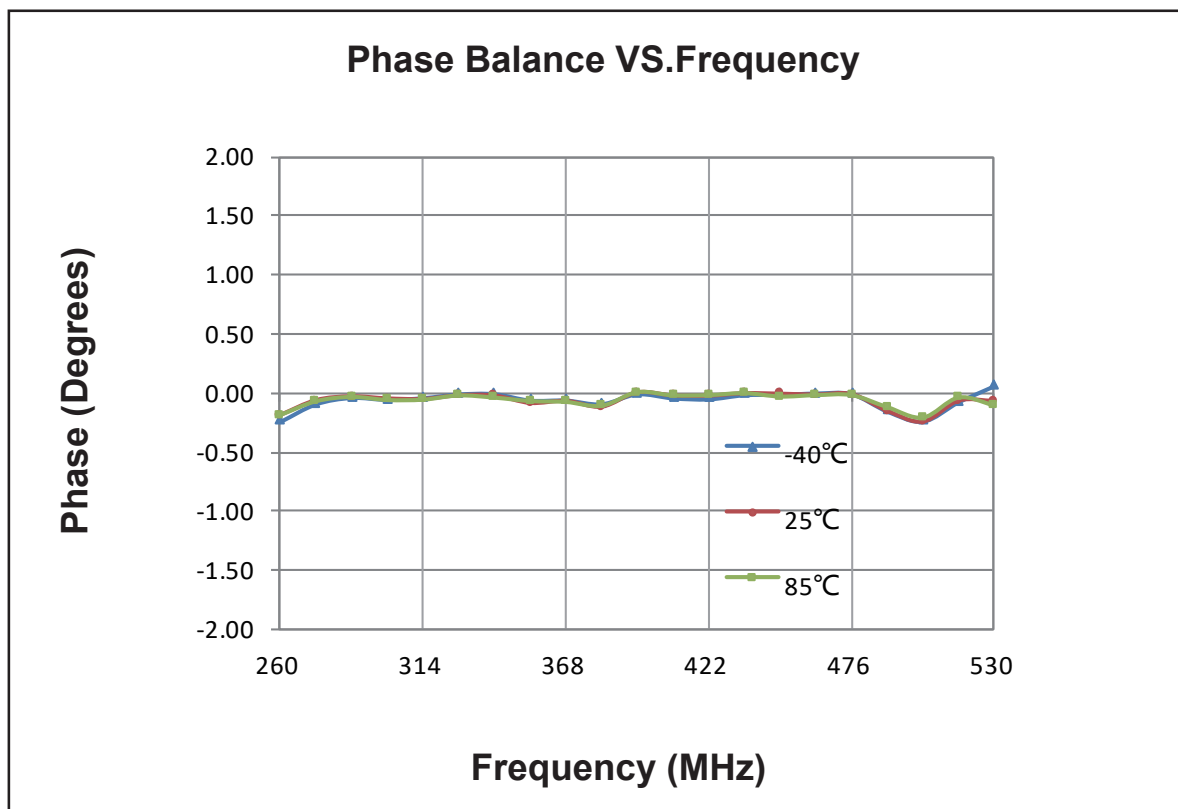
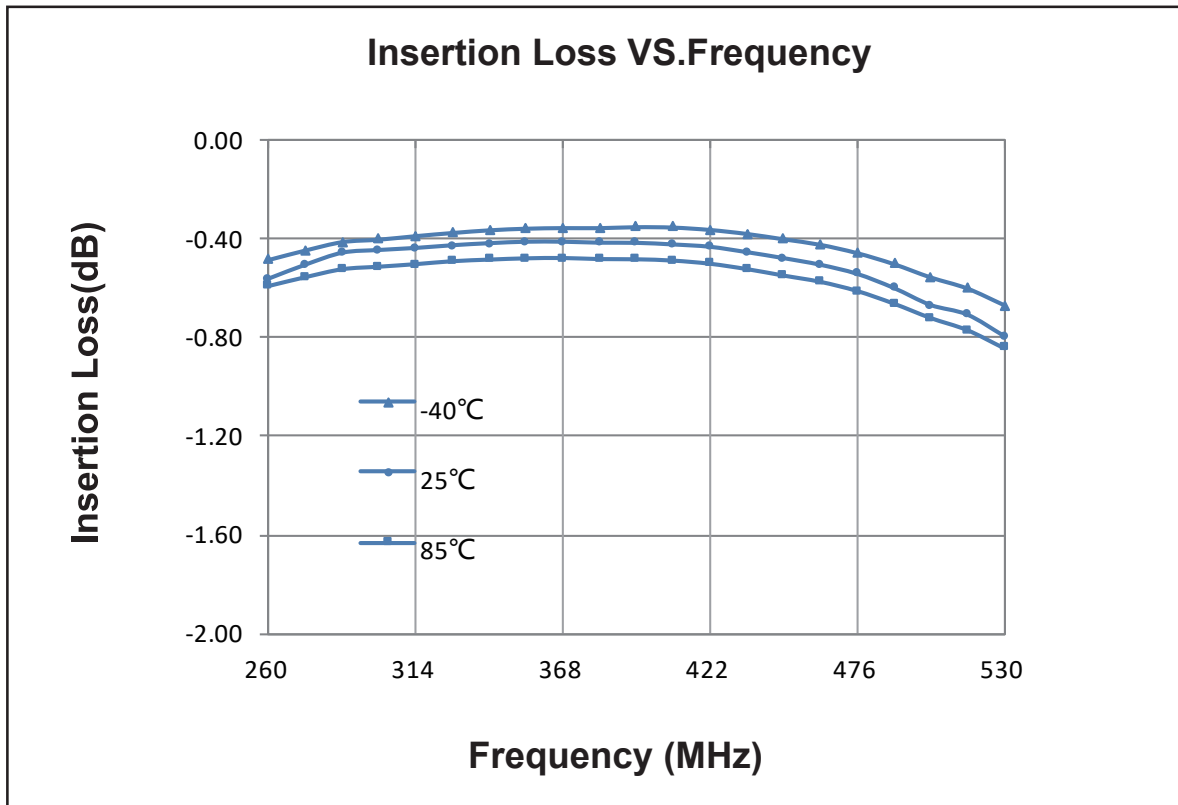
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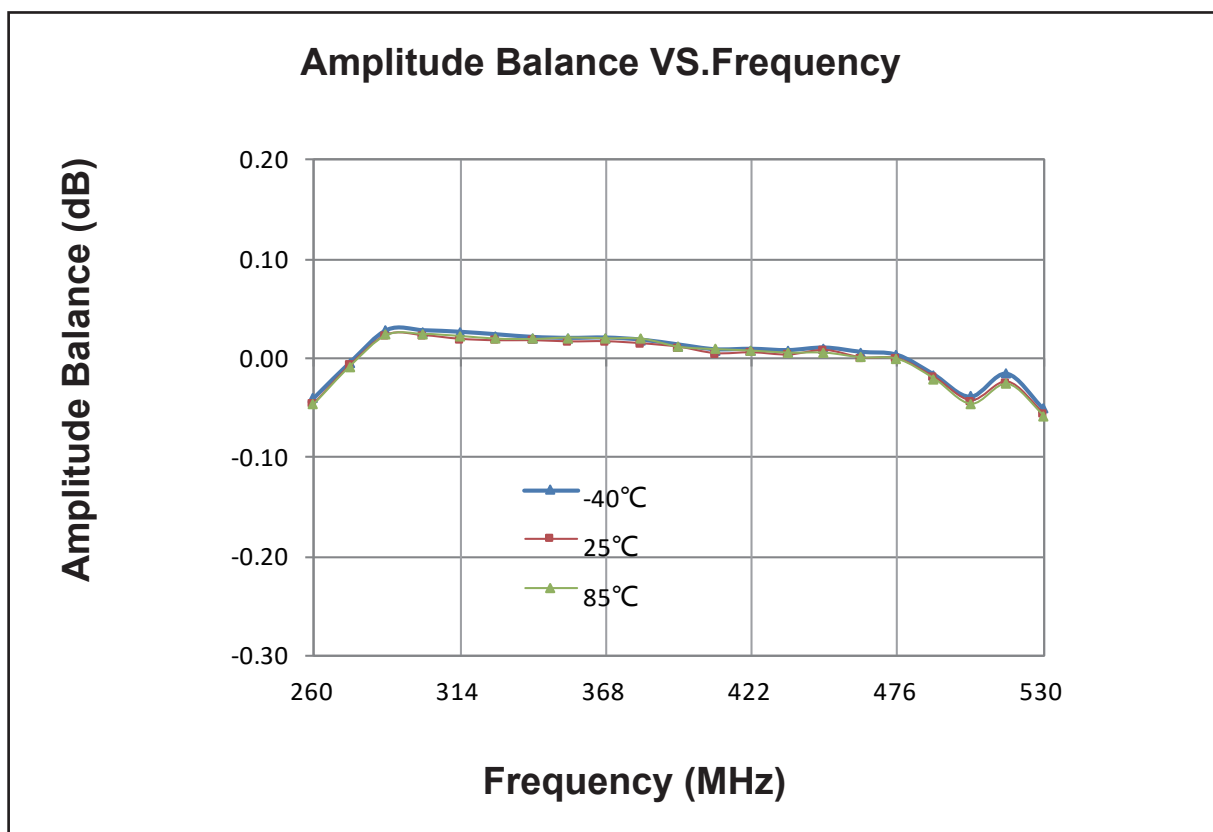
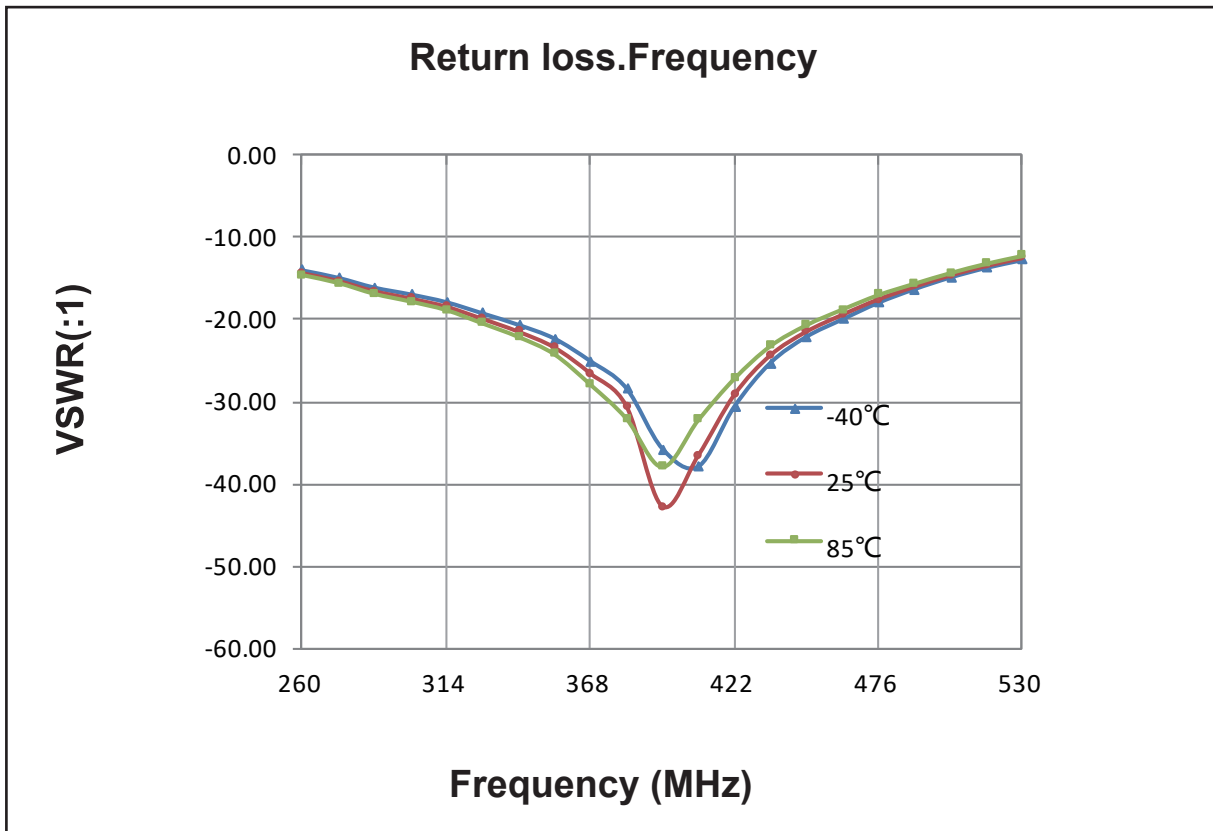
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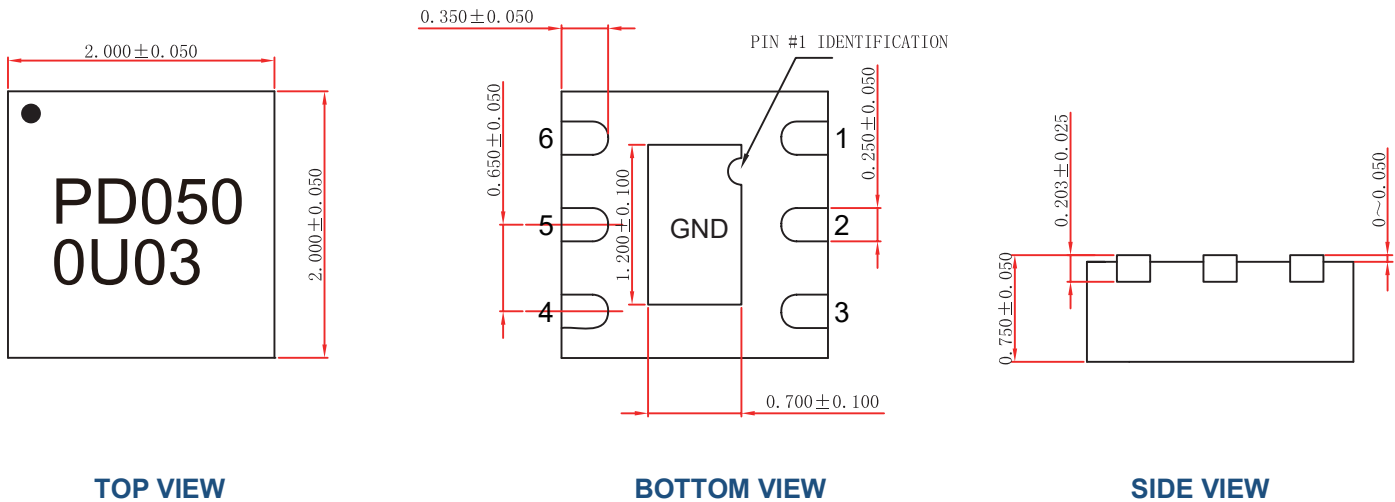
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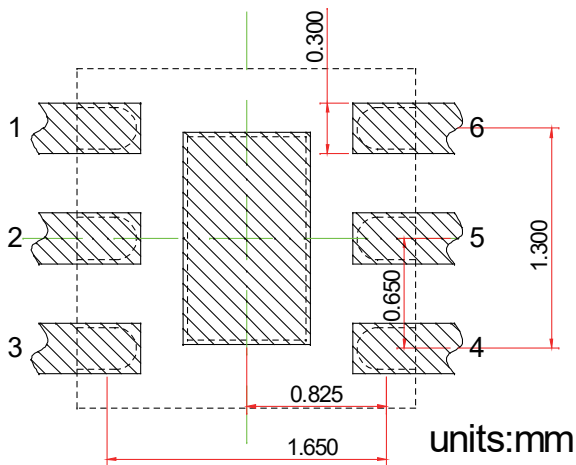
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Outline Drawing



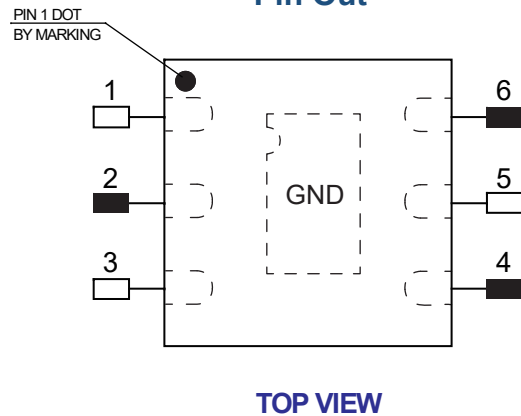
Land Pattern



Recommended Land Pattern Top View

Notes: All dimensions show in millimeters

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.

| Pin # | Connection |
|------------|------------|
| 1 | GND |
| 2 | IN |
| 3 | GND |
| 4 | OUT |
| 5 | GND |
| 6 | OUT |
| Center Pad | GND |

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