

# Data Sheet

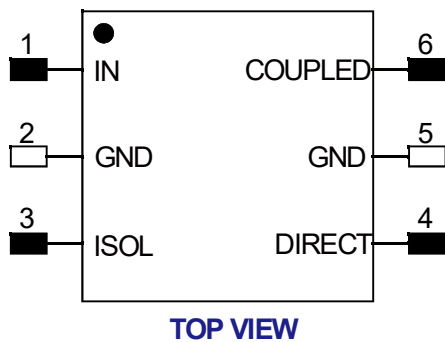
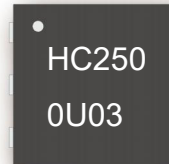
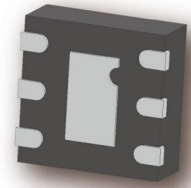
## HC2500U03-055

3dB 90° Coupler IC  
2.30 GHz-2.65 GHz



### Features

- Small Size (2×2mm)
- Very Low Loss
- Tight Amplitude Balance
- High Isolation
- Low VSWR
- Good Repeatability
- Tape & Reel
- Power handling
  - 4 Watts as a divider
  - 2 Watts as a combiner



### Applications

- Phase shifter / Attenuator
- Balanced amplifier / LNA configurations
- Modulators
- Mixers
- Power combining /dividing

#### 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.

### Electrical Specifications at 25° C

| Parameter                  | Symbol           | Min  | Typ  | Max   | Unit |
|----------------------------|------------------|------|------|-------|------|
| Frequency Range            | F                | 2300 |      | 2650  | MHz  |
| Insertion Loss (Above 3dB) | I <sub>L</sub>   |      | 0.35 | 0.4   | dB   |
| Isolation                  | Isol             | 25   | 30   |       | dB   |
| Phase balance              | ∅ <sub>bal</sub> |      | ±1.0 | ±2.0  | deg  |
| Amplitude balance          | A <sub>bal</sub> |      | ±0.5 | ±0.75 | dB   |
| Return Loss                | R <sub>L</sub>   | 20   | 25   |       | dB   |

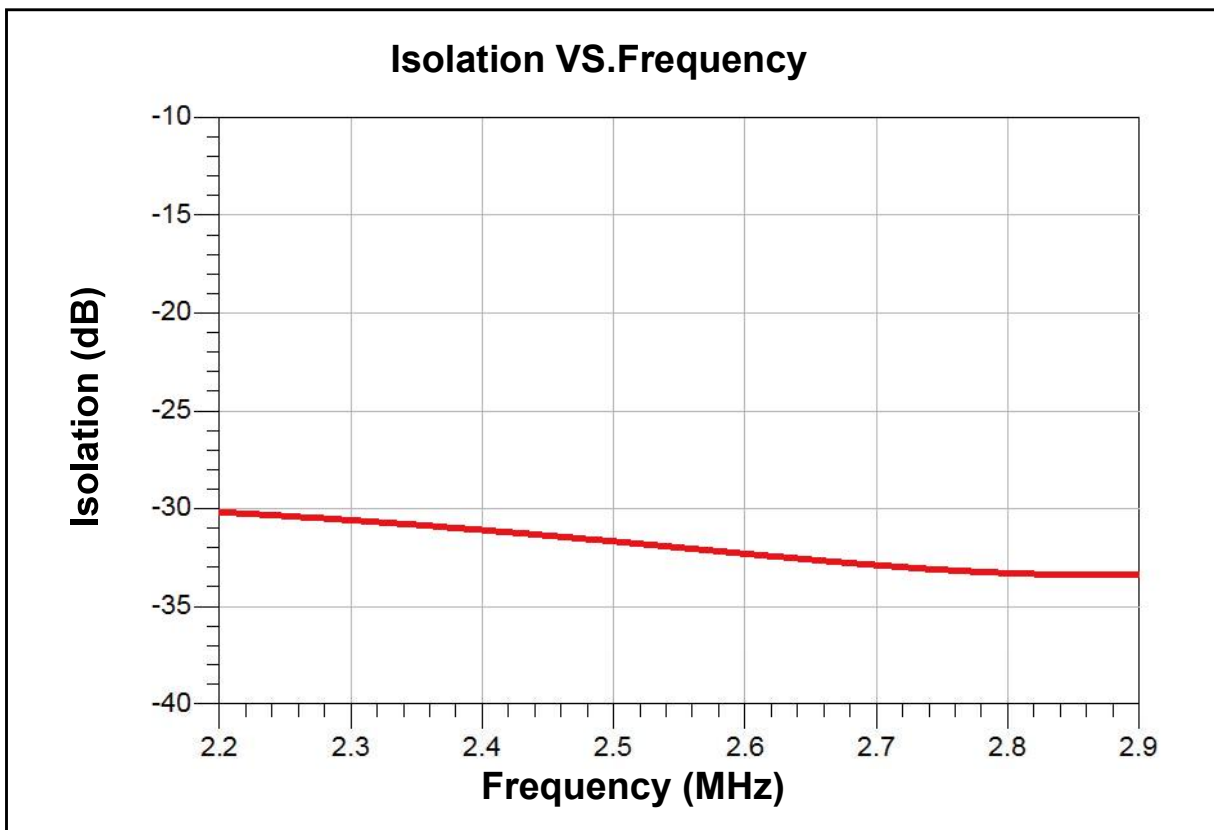
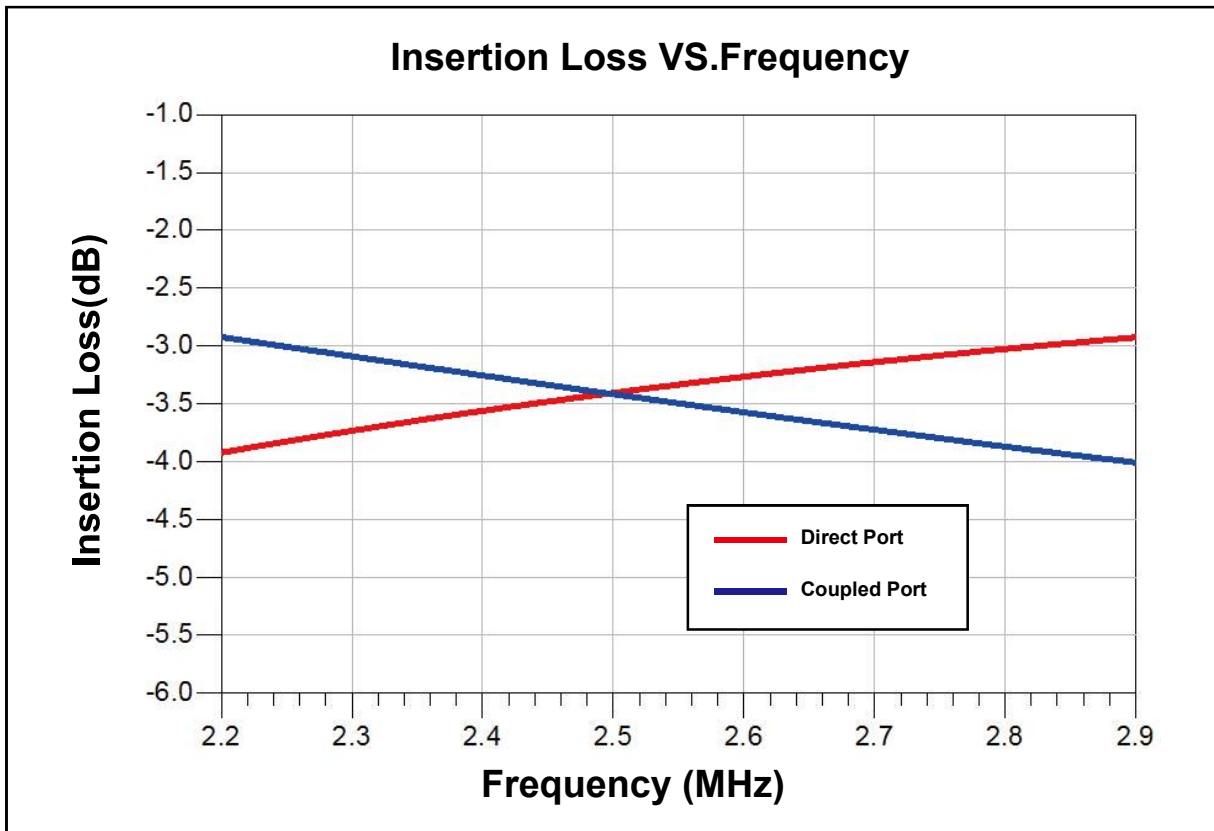
### Yantel Corporation

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

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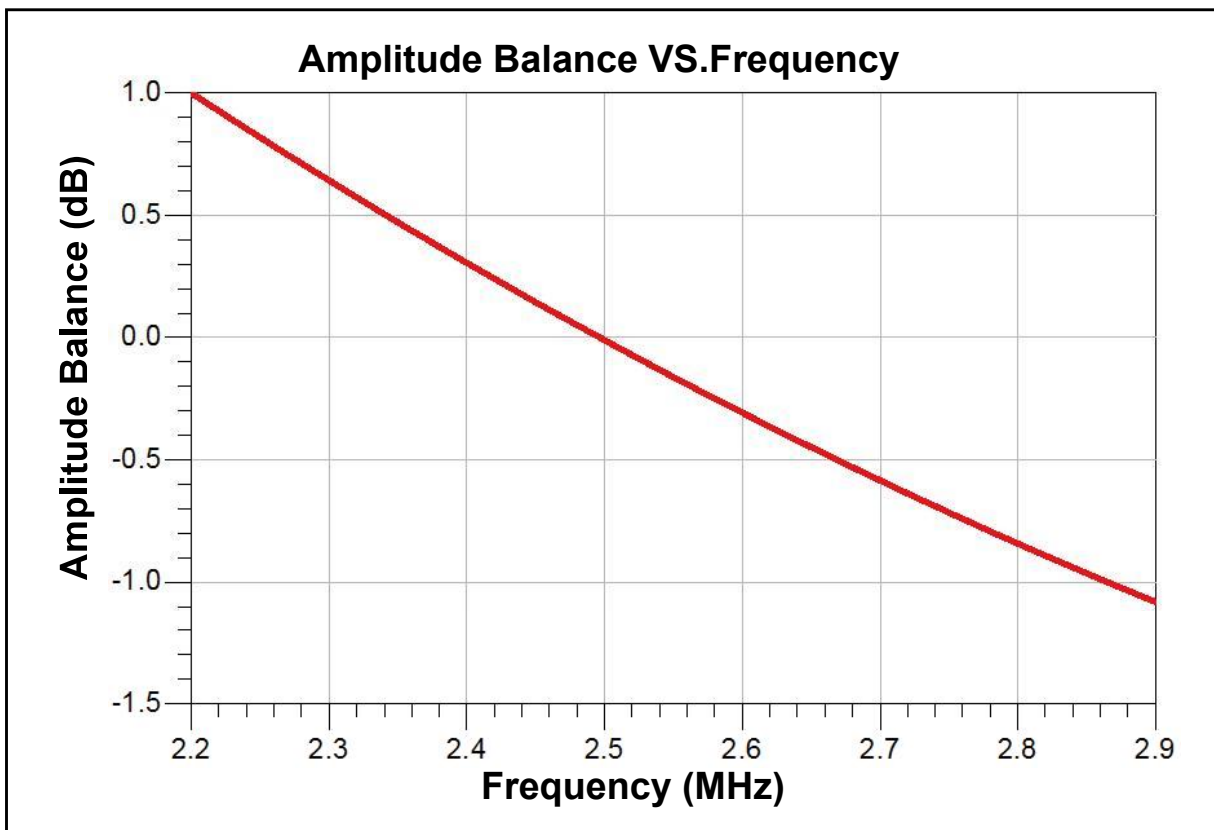
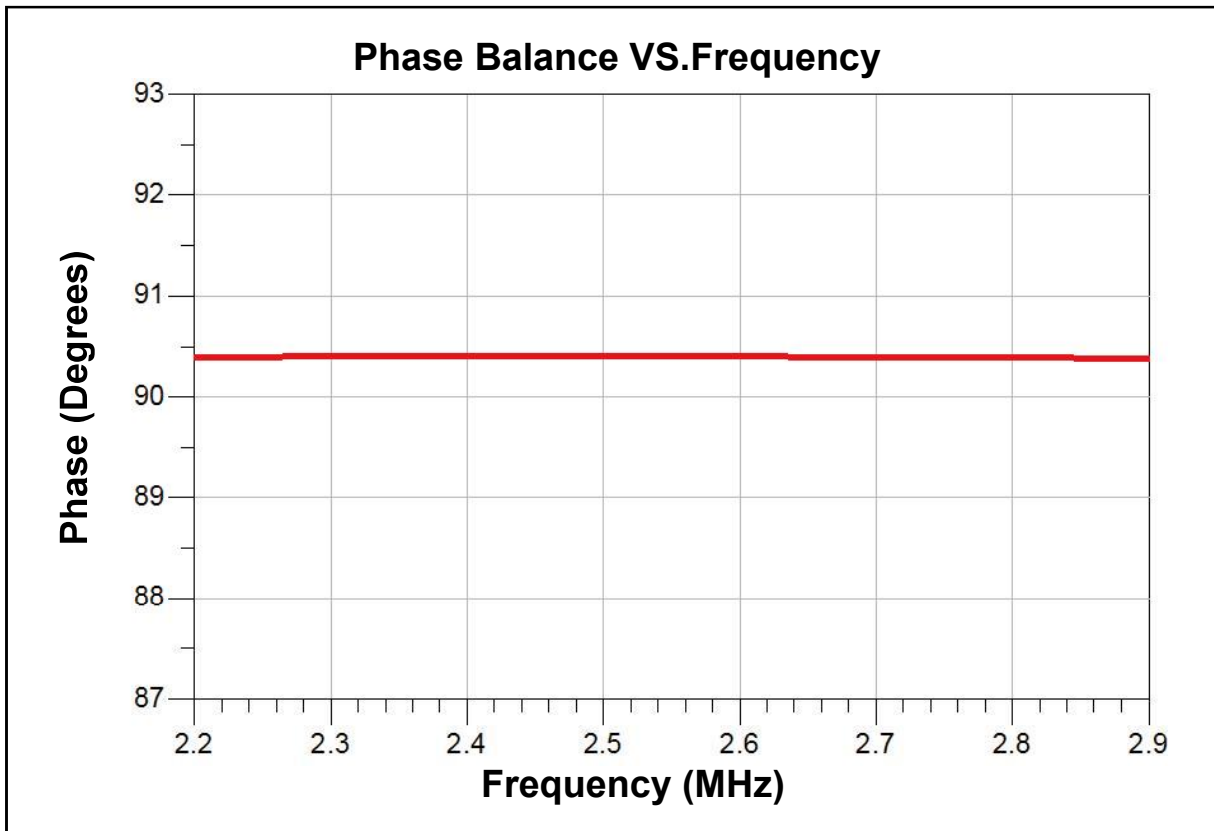
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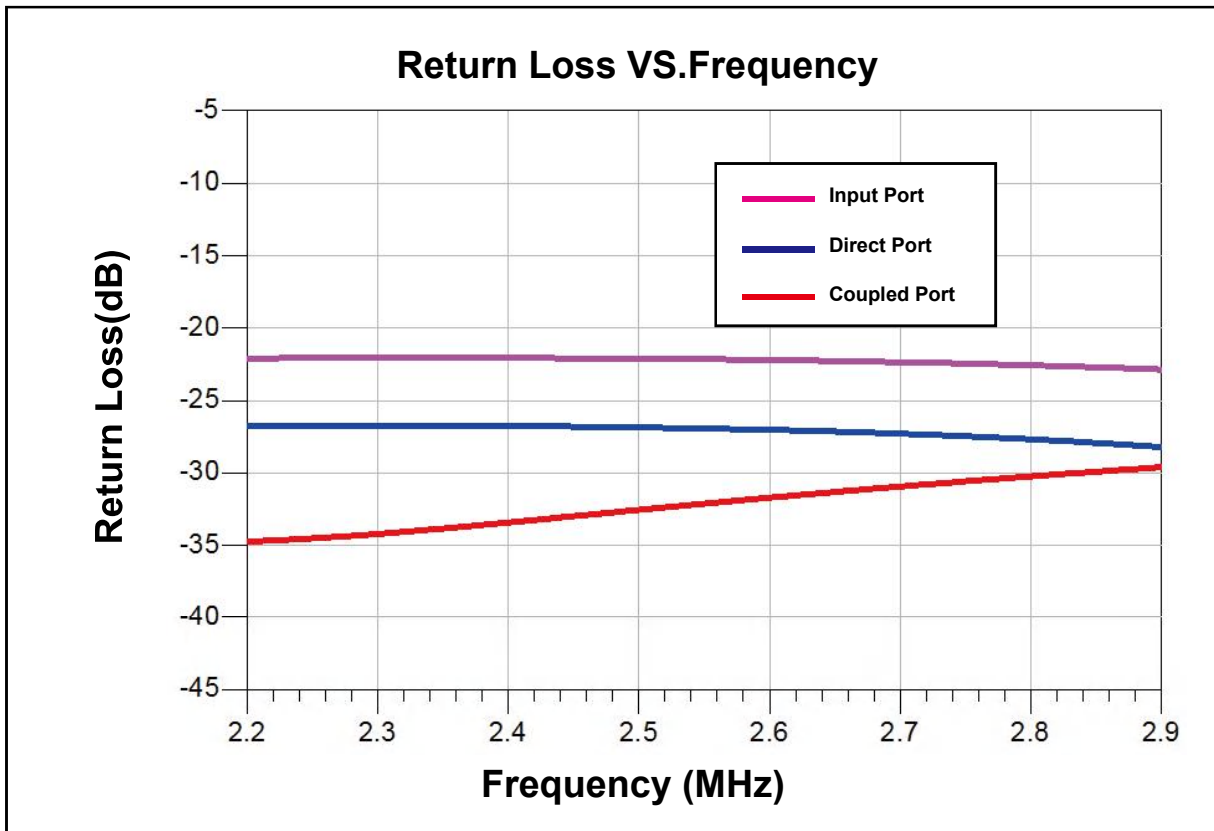
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Rev A1.1

For detailed performance specs & shopping online see Yantel web site : [www.yantel-corp.com](http://www.yantel-corp.com)

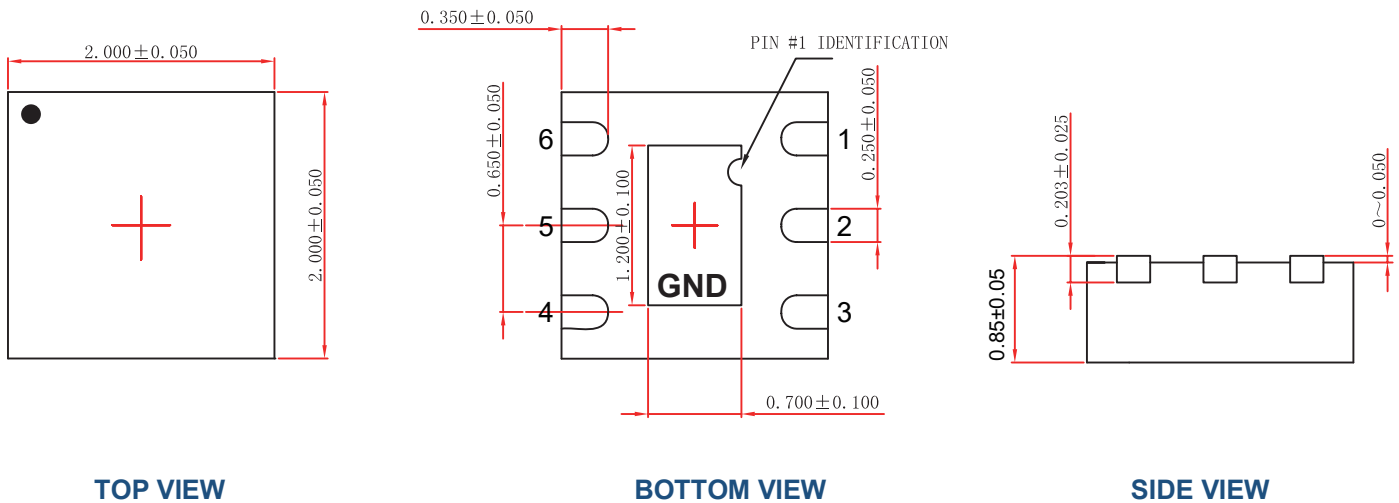
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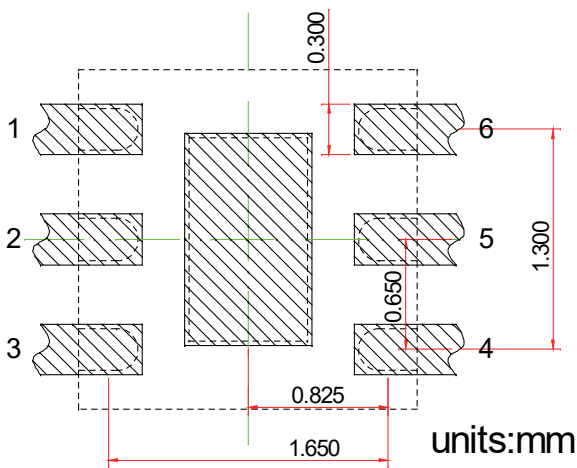
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### Outline Drawing



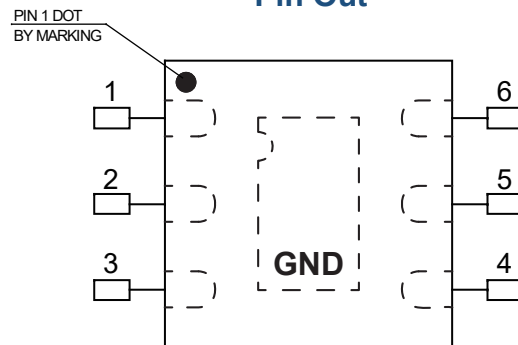
### Land Pattern



### Recommended Land Pattern Top View

Notes: All dimensions show in millimeters

### Pin Out



### TOP VIEW

| Pin #      | Connection |
|------------|------------|
| 1          | IN         |
| 2          | GND        |
| 3          | ISOL       |
| 4          | DIRECT     |
| 5          | GND        |
| 6          | COUPLED    |
| Center Pad | GND        |

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