

# Data Sheet

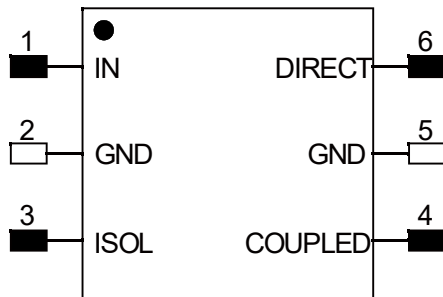
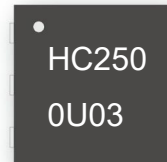
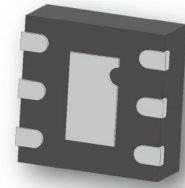
## HC2500U03-050

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



TOP VIEW

### 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	0.5	dB
Isolation	Isol	20	24		dB
Phase balance	∅ <sub>bal</sub>		1.0	2.0	deg
Amplitude balance	A <sub>bal</sub>		0.5	1.0	dB
Return Loss	R <sub>L</sub>	18	22		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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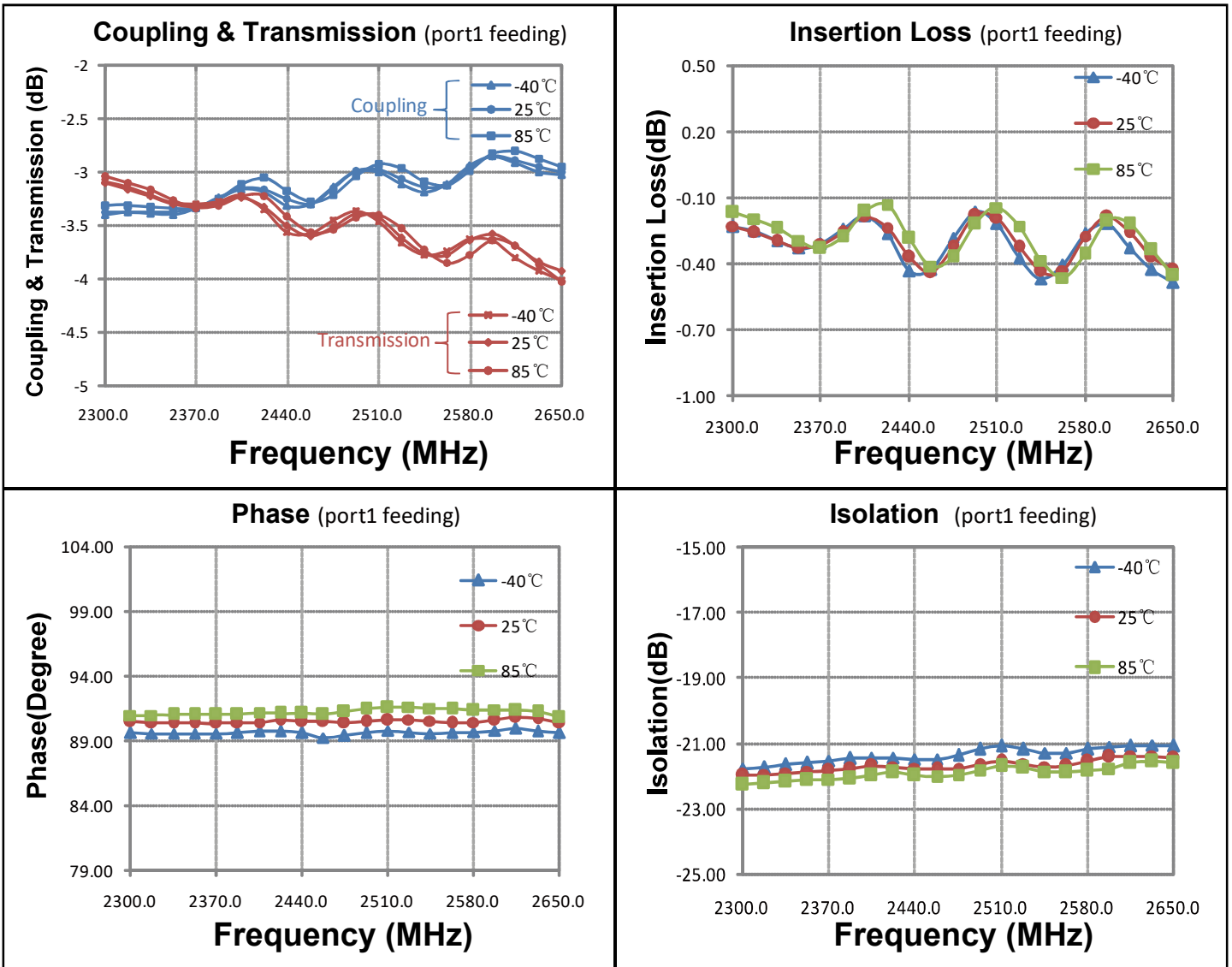
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Typical Performance (-40°C, 25°C, 85°C: 2.30-2.65 GHz)



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Rev A3.1

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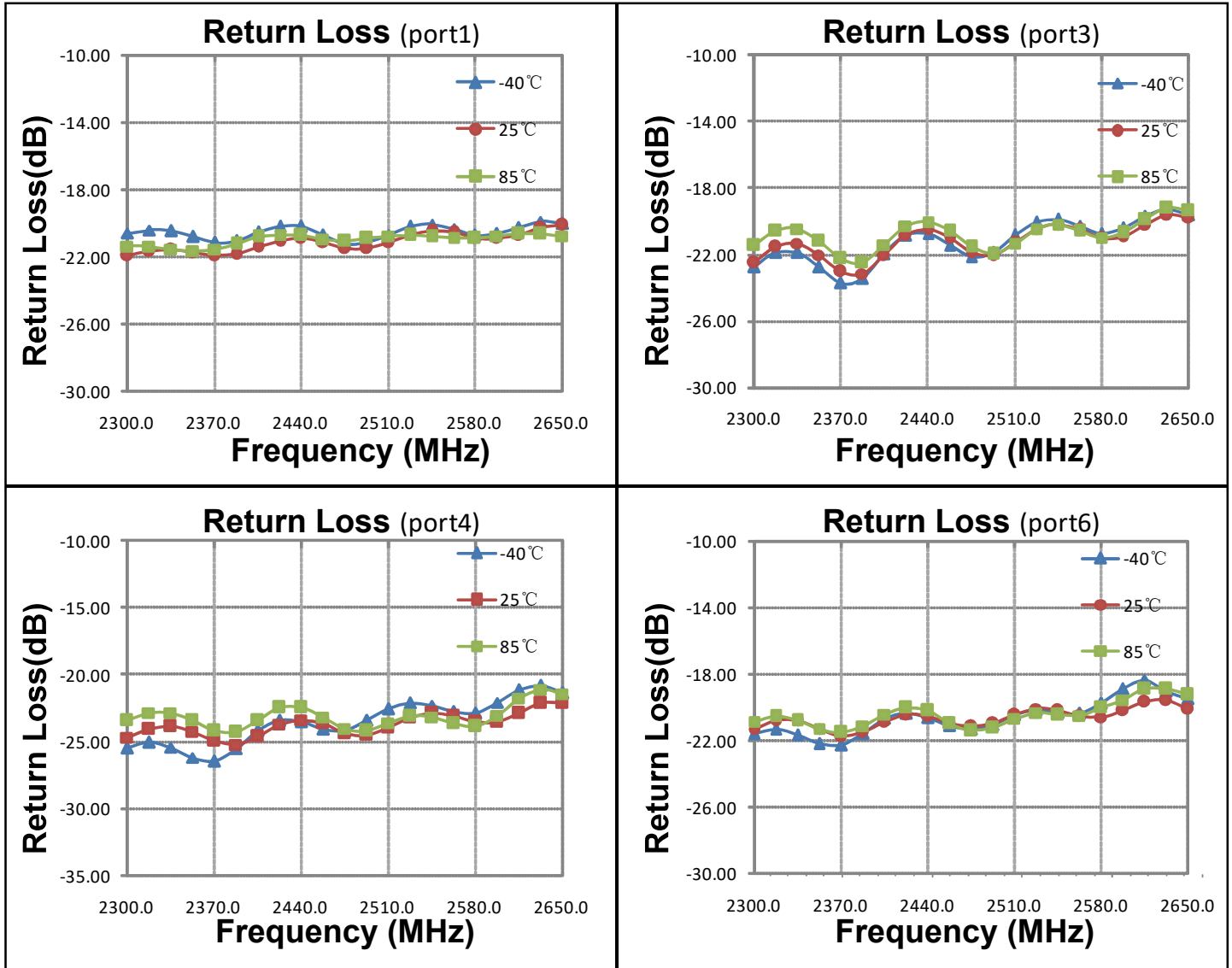
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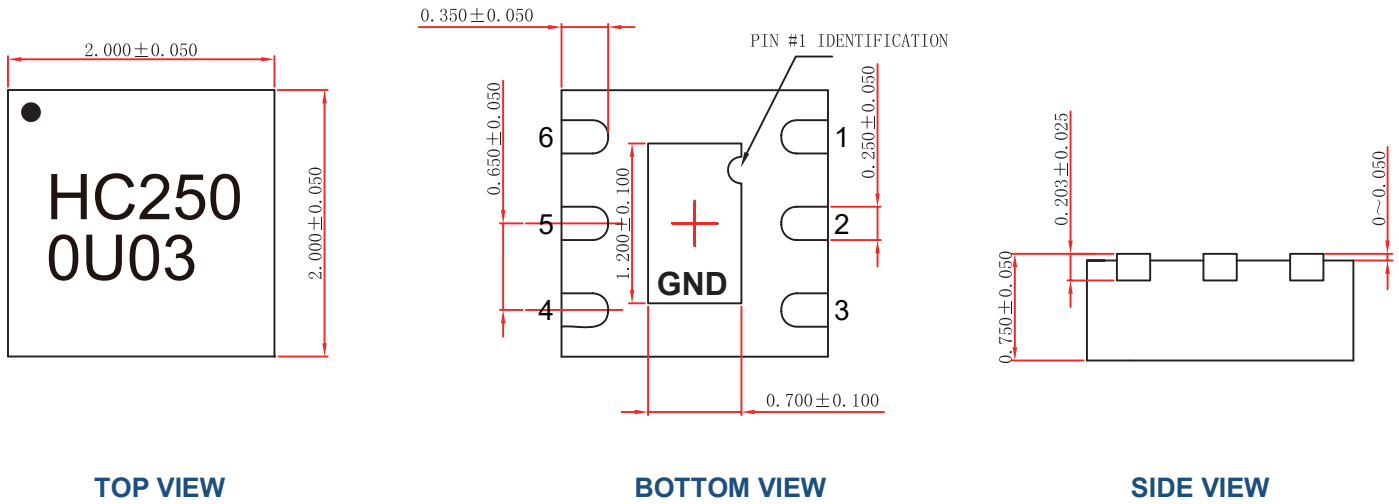
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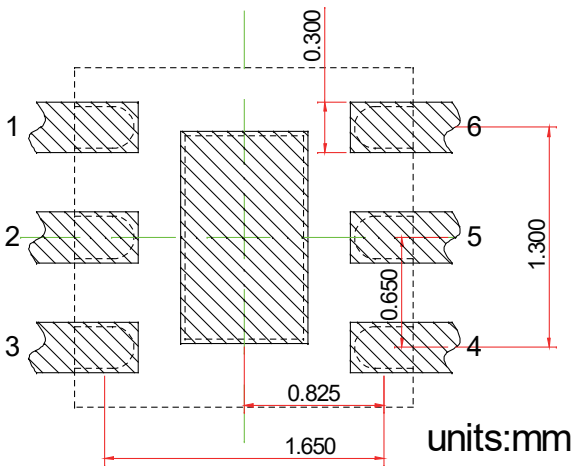
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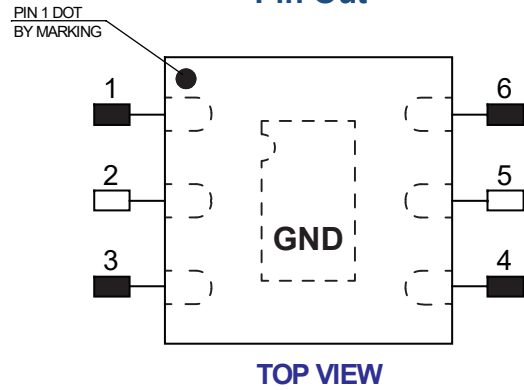
### Outline Drawing



### Land Pattern



### Pin Out



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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.
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### Recommended Land Pattern Top View

Notes: All dimensions show in millimeters

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

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