

Data Sheet

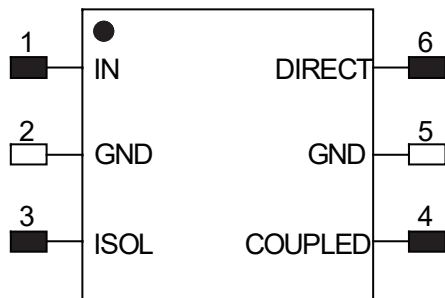
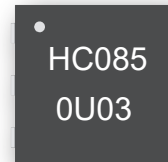
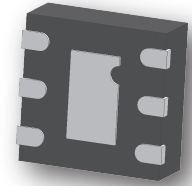
HC085U03-010

3dB 90° Coupler IC
820 MHz-900 MHz



Features

- Small Size (2×2mm)
- Passive RF IC, no need external DC power supply
- Very Low Loss
- Tight Amplitude Balance
- High Isolation
- Low VSWR
- Good Repeatability
- Tape & Reel
- Operating Temperature: -40°C to +85°C
- 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	820		900	MHz
Insertion Loss (Above 3dB)	I _L		0.30	0.35	dB
Isolation	Isol	23	25		dB
Phase balance	∅ _{bal}		1.0	2.0	deg
Amplitude balance	A _{bal}		0.45	0.6	dB
Return Loss	R _L	22	25		dB

Yantel Corporation

Add: 3F, Building 3, Southern District 2 of Zhongguan Honghualing Industrial Park, Xili, Nanshan, Shenzhen, China
Tel: 86-755-8355-1886 Fax: 86-755-8355-2533

Rev A3

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

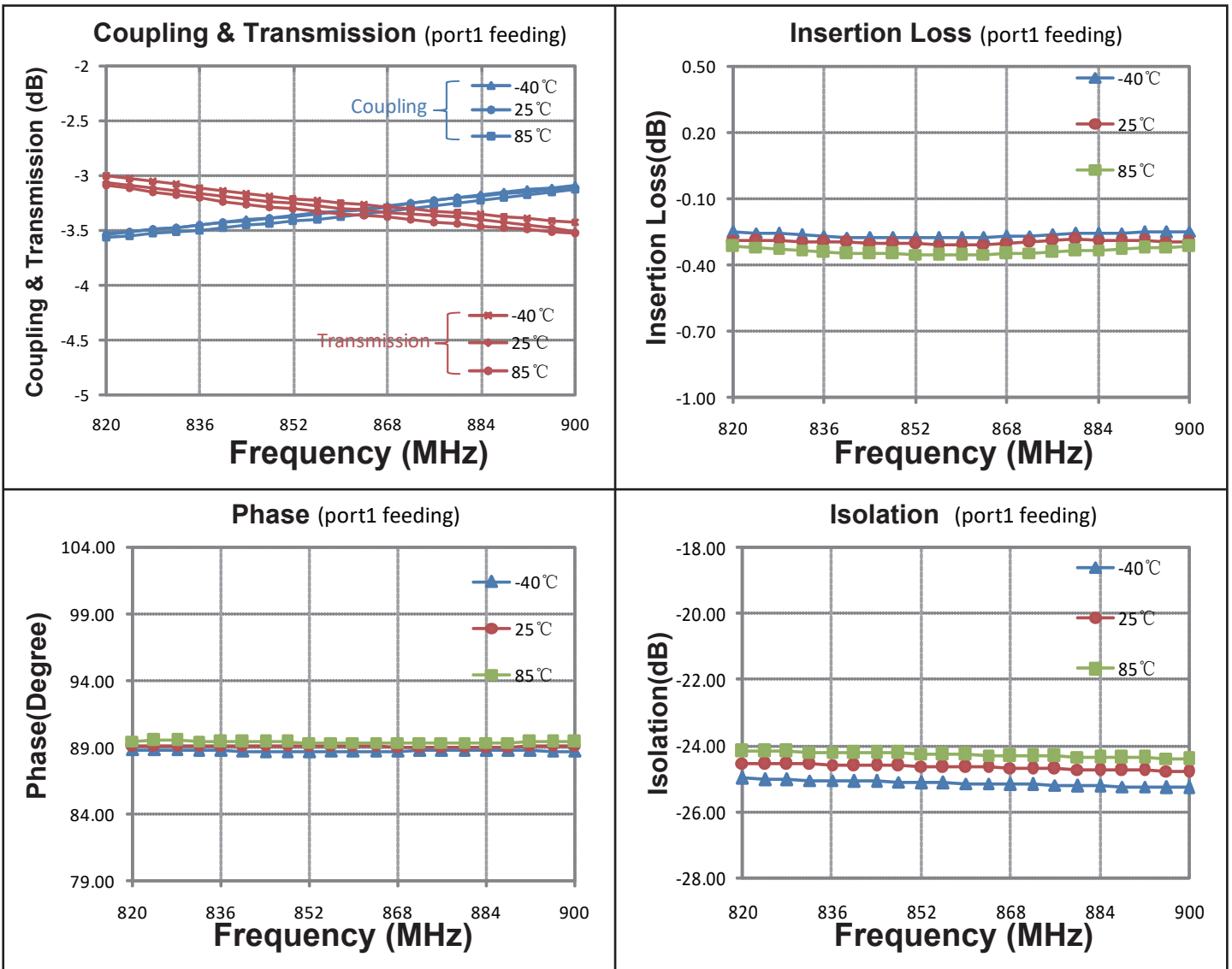
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HC0850U03-010

3dB 90° Coupler IC
820 MHz-900 MHz



Typical Performance (-40°C, 25°C, 85°C: 820-900 MHz)



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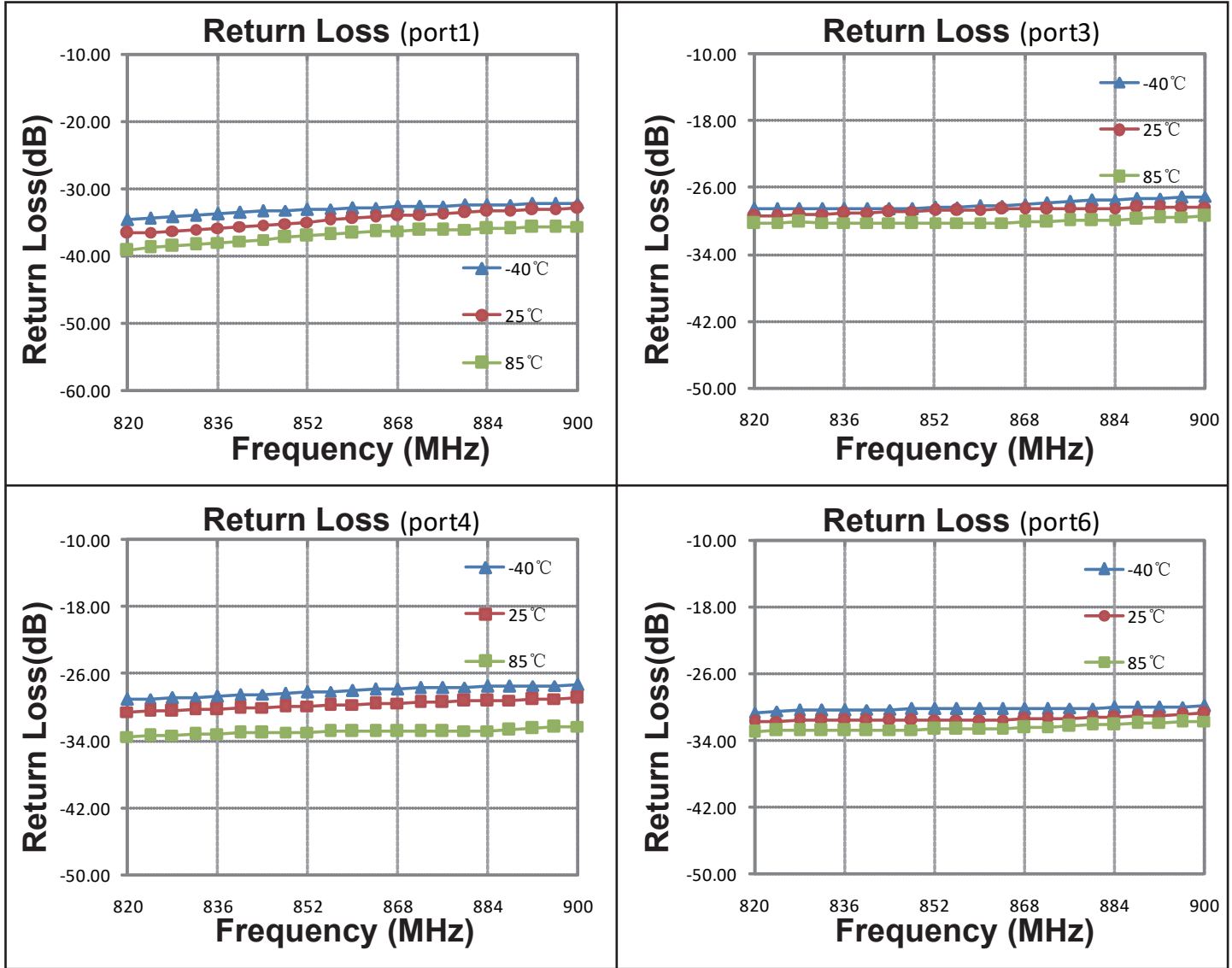
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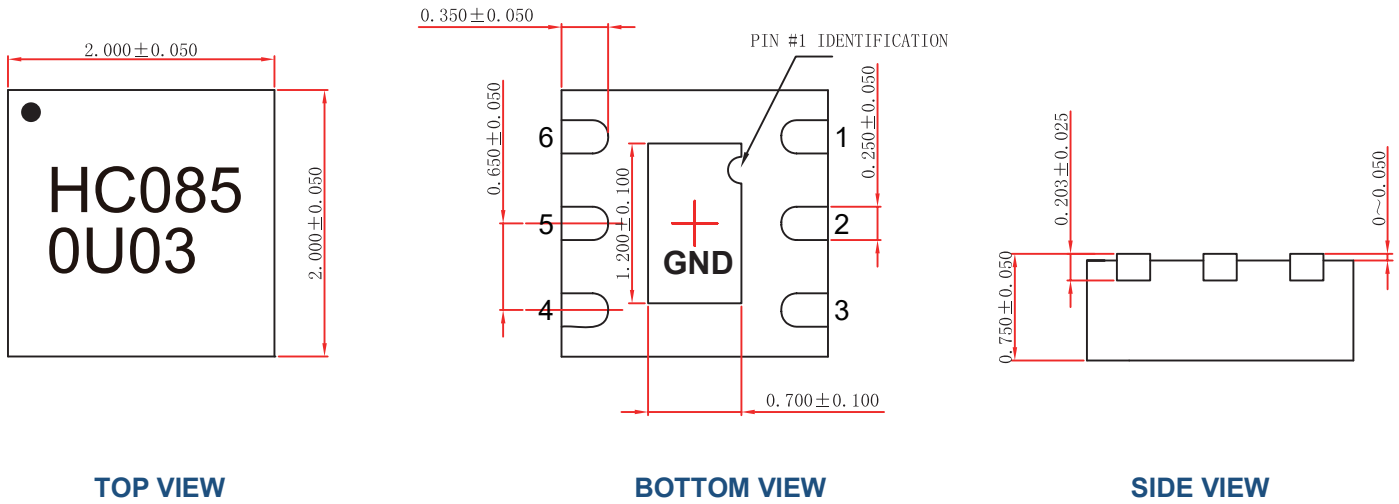
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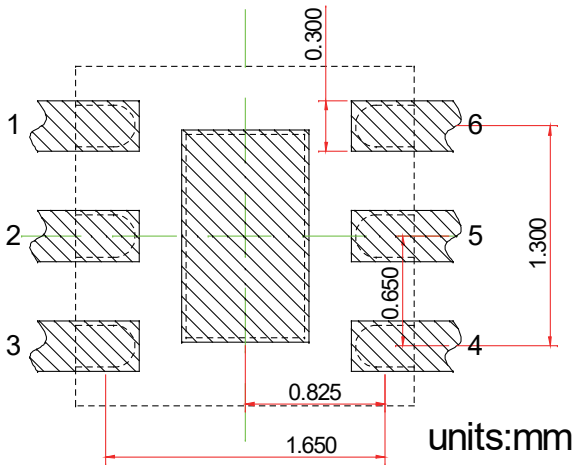
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Outline Drawing



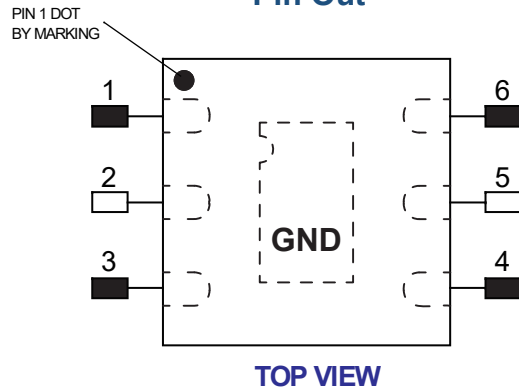
Land Pattern



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 normal work.
2. This part has passed through 100% RF test.

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

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