

Data Sheet

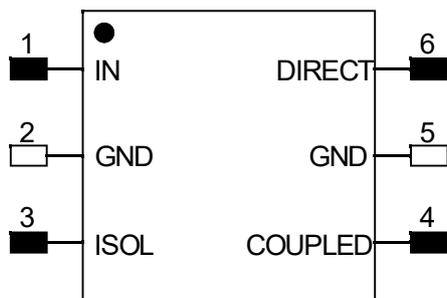
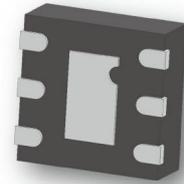
HC1850U03-030

3dB 90° Coupler IC
1.75 GHz-1.95 GHz



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	1750		1950	MHz
Insertion Loss (Above 3dB)	I _L		0.25	0.30	dB
Isolation	Isol	35	39		dB
Phase balance	∅ _{bal}		1.0	1.5	deg
Amplitude balance	A _{bal}		0.5	0.7	dB
Return Loss	R _L	28	32		dB

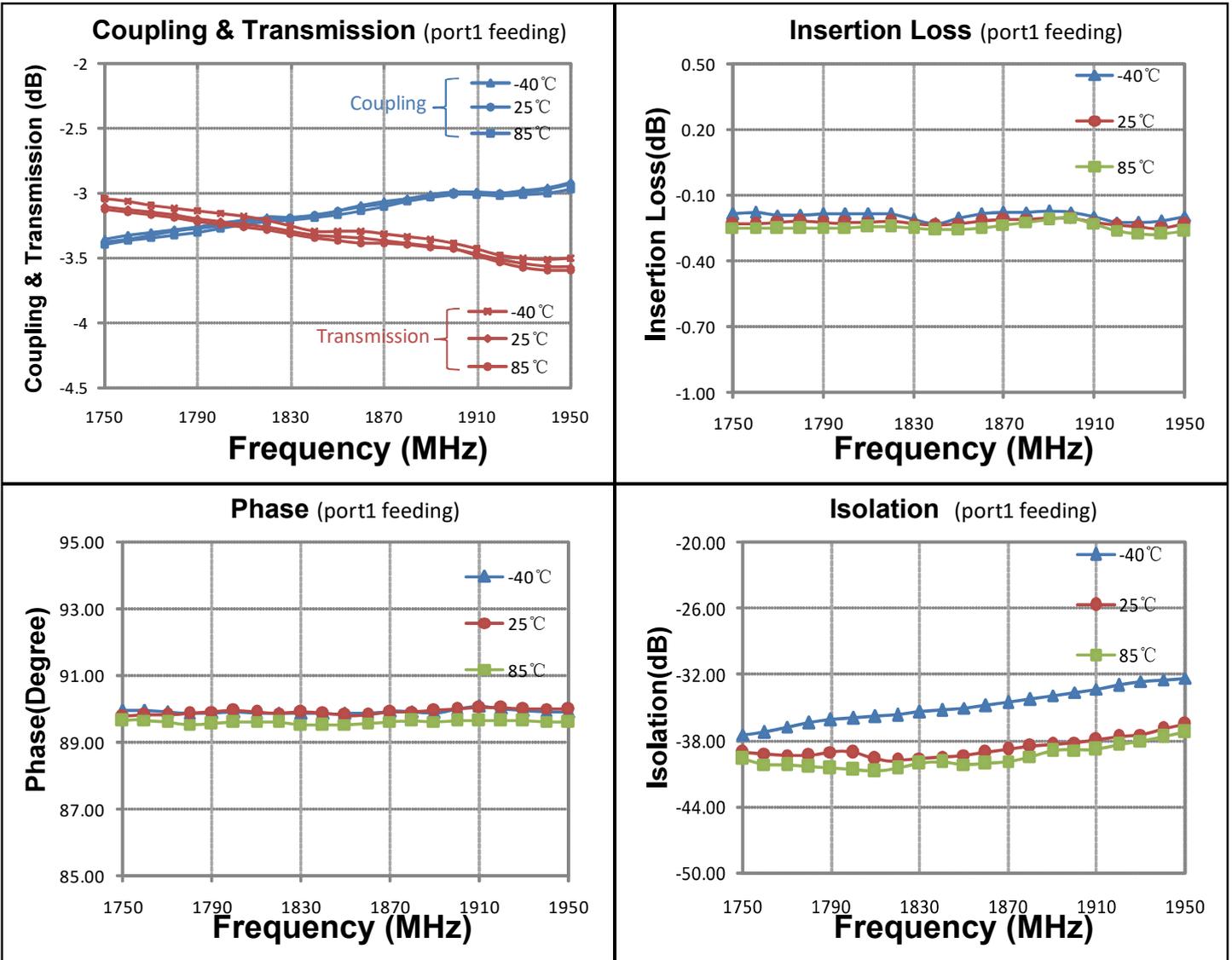
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Typical Performance (-40°C, 25°C, 85°C: 1750-1950 MHz)



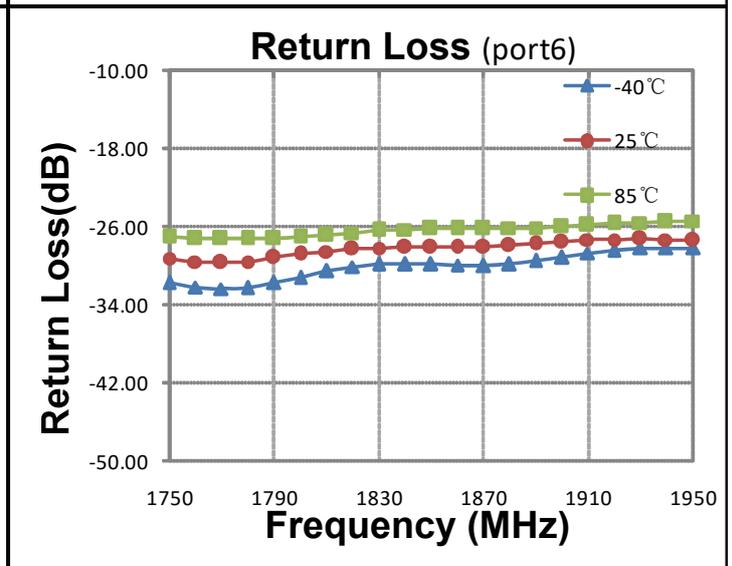
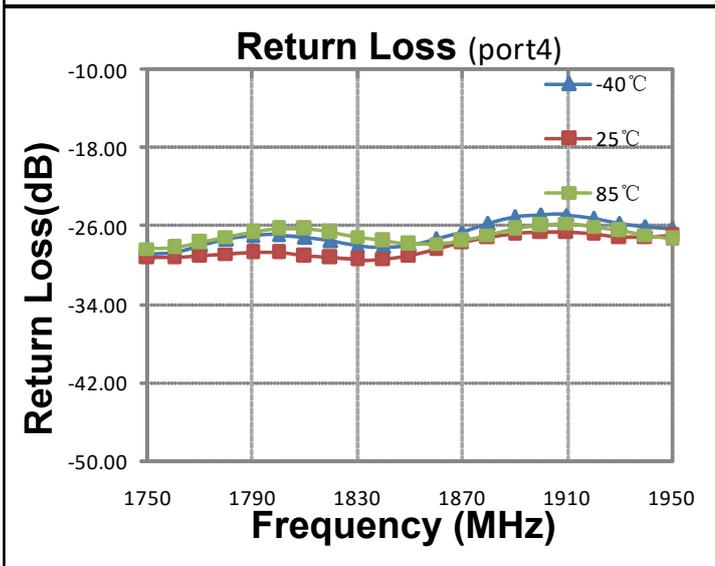
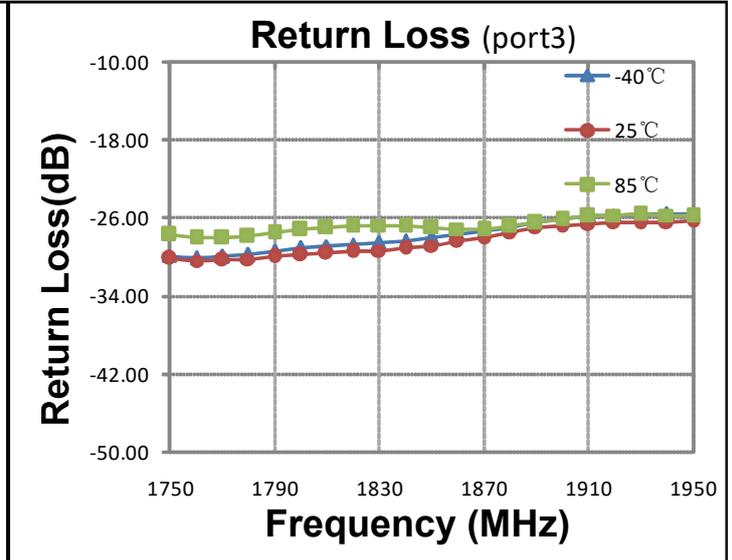
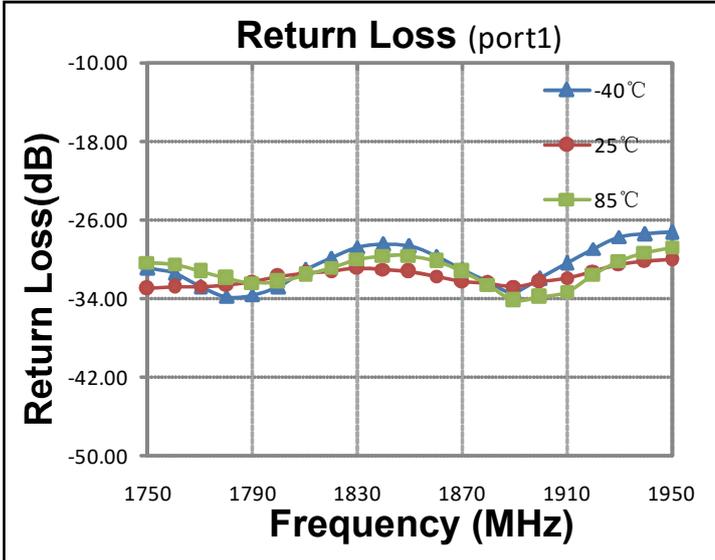
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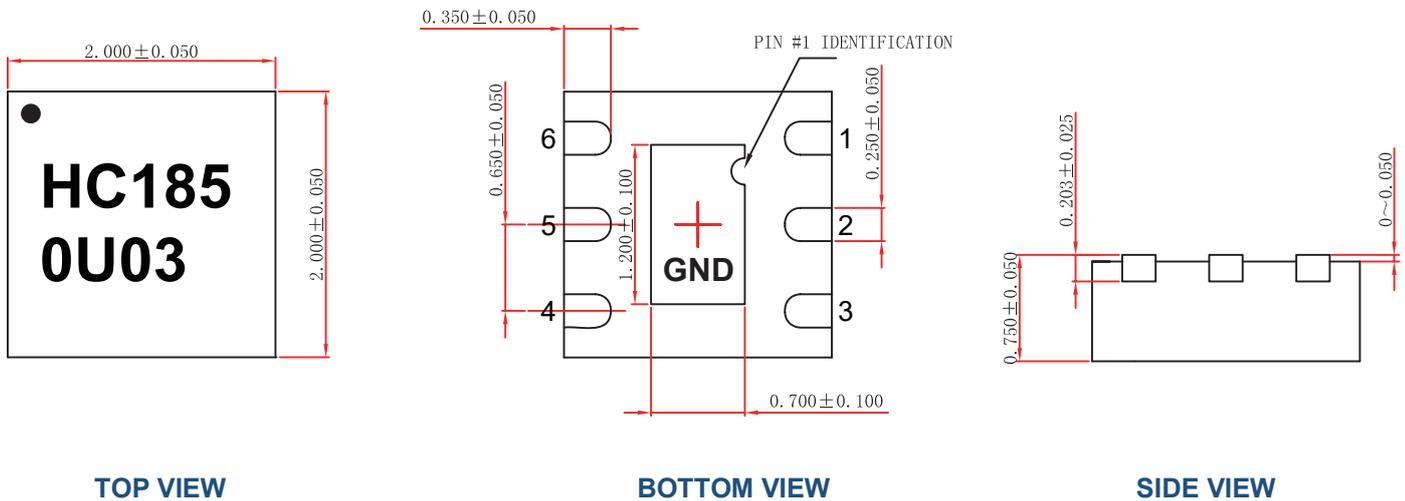
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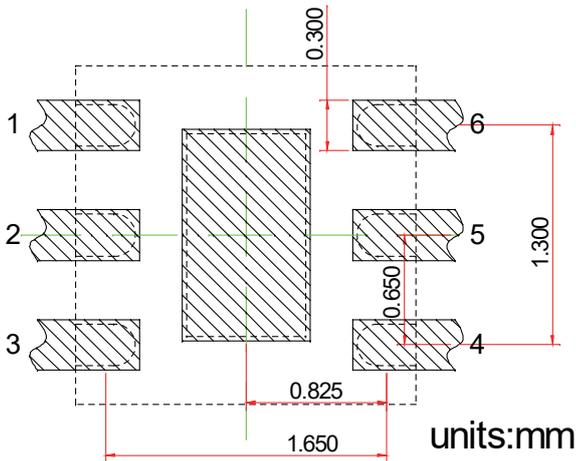
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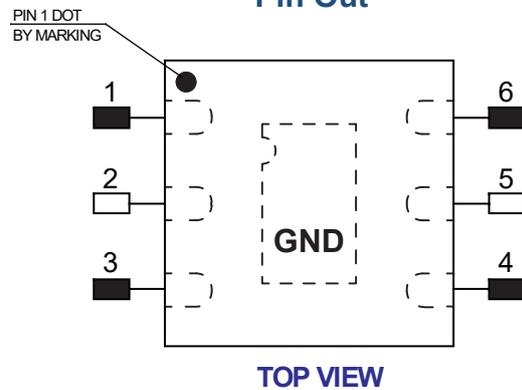
Outline Drawing



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	IN
2	GND
3	ISOL
4	COUPLED
5	GND
6	DIRECT
Center Pad	GND