

Data Sheet

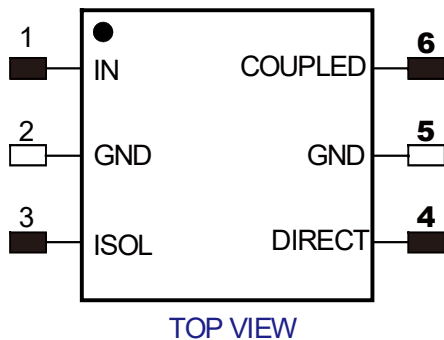
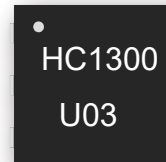
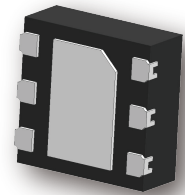
HC1300U03

3dB 90° Coupler IC
10.7 GHz-14.5 GHz



Features

- Small Size (2×2mm)
- Very Low Loss
- Tight Amplitude Balance
- High Isolation
- Low VSWR
- Good Repeatability
- Unpackaged die



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	10.7		14.5	GHz
Insertion Loss (Above 3dB)	I _L		0.7	1.0	dB
Isolation	Isol	13	16		dB
Phase Unbalance (Deviation from 90°)	∅ _{bal}		3.0	5.0	deg
Amplitude Unbalance	A _{bal}		0.6	0.8	dB
Input VSWR			1.4	1.6	
Output VSWR			1.3	1.6	

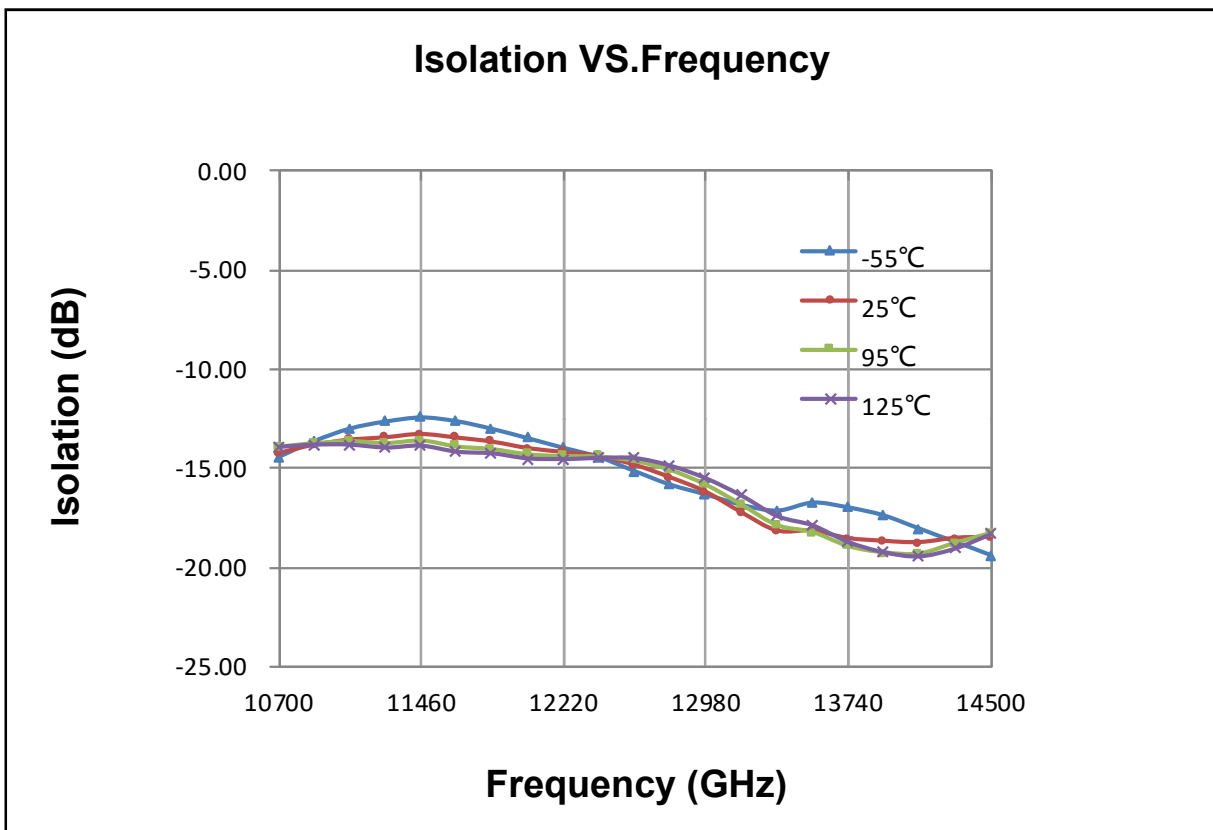
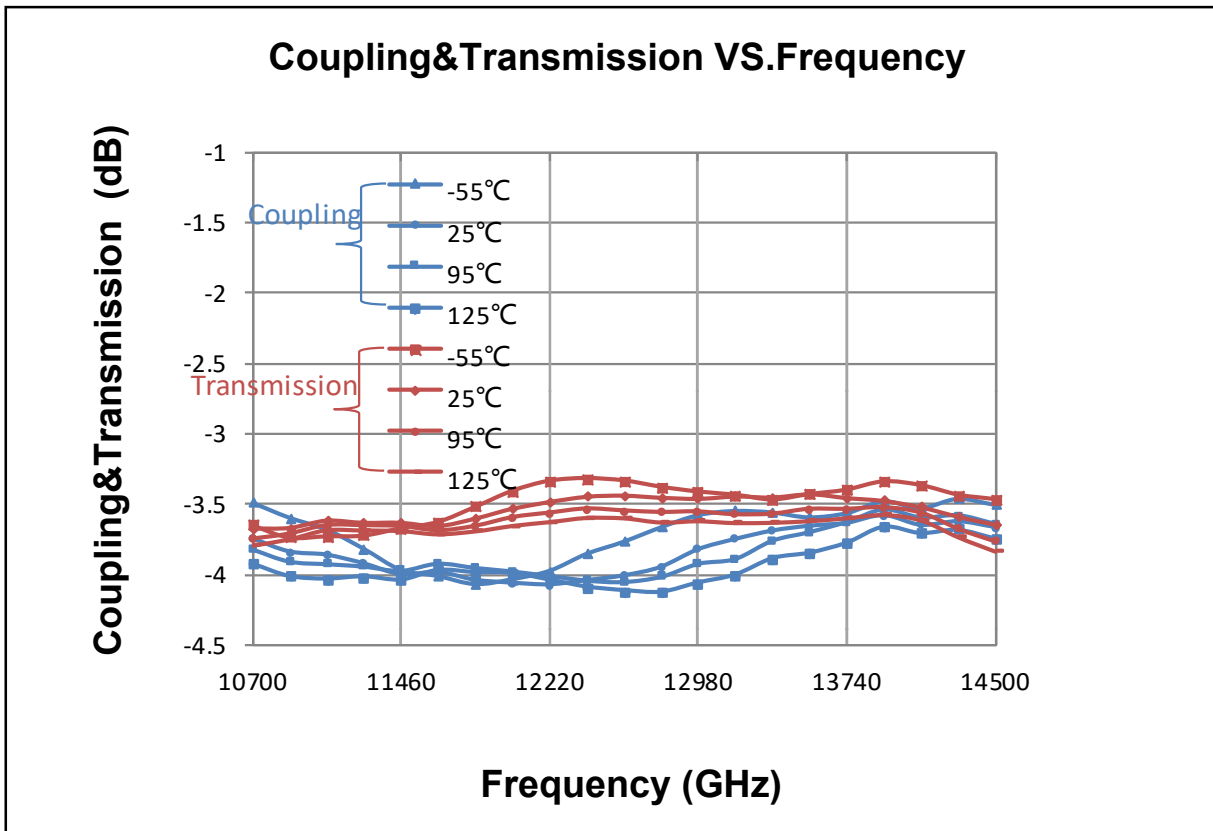
Yantel Corporation

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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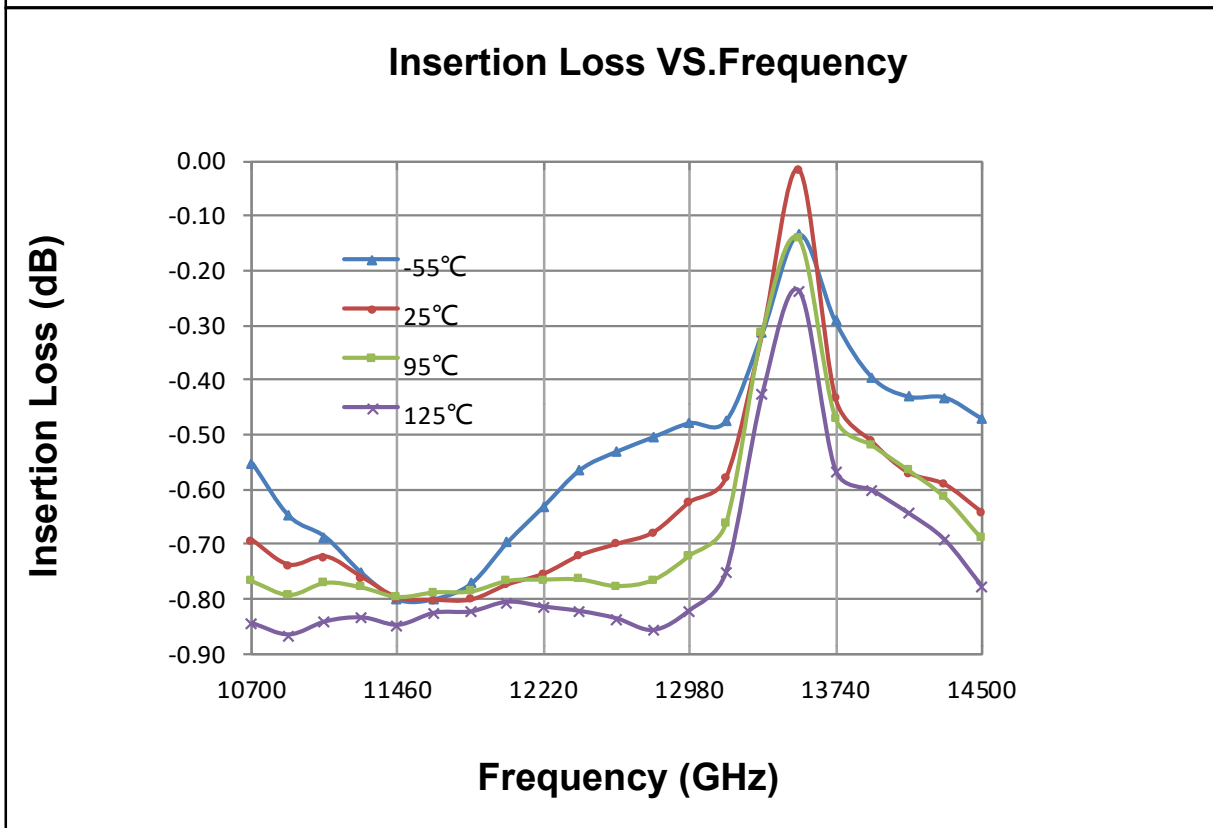
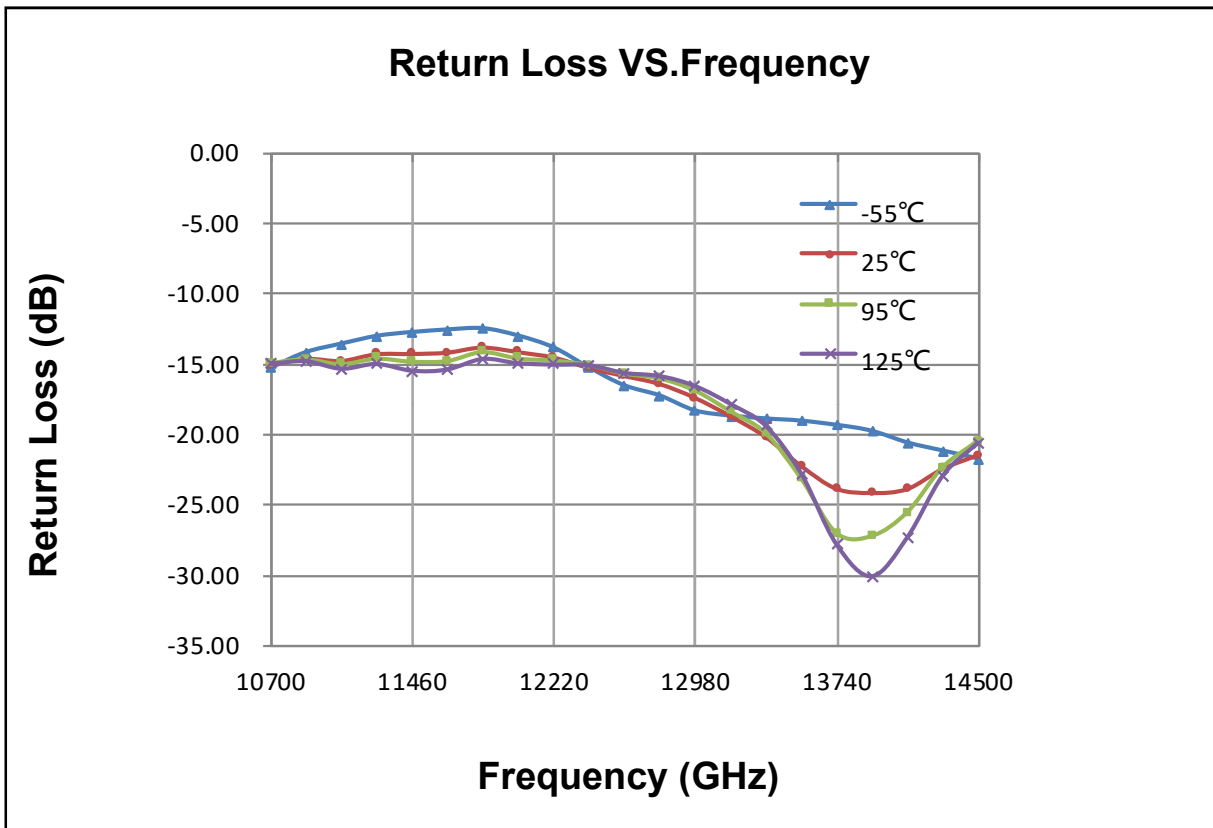
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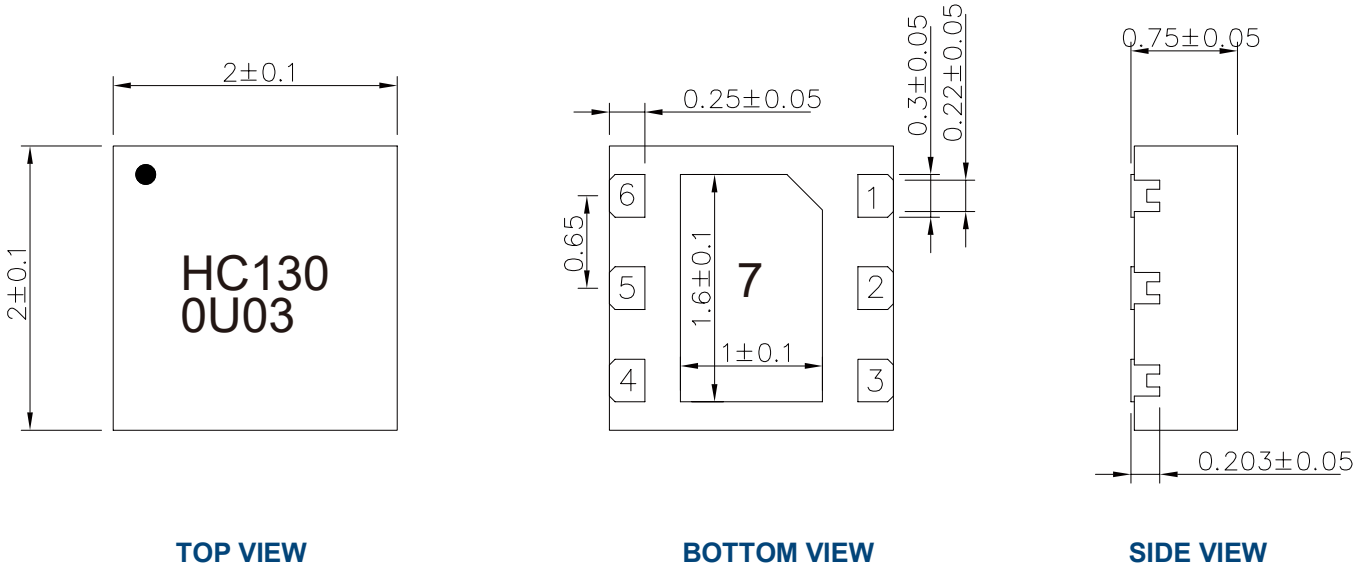
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Outline Drawing

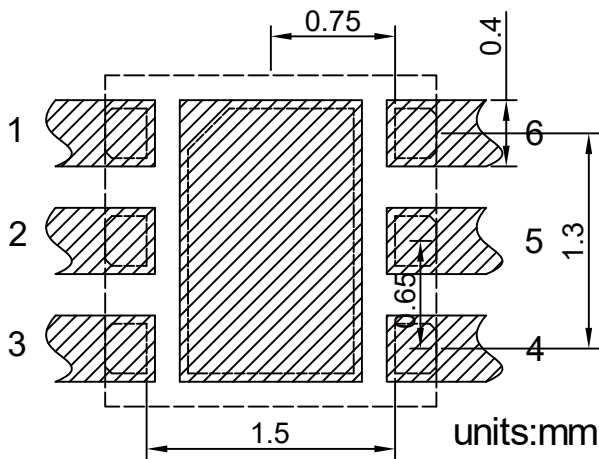


TOP VIEW

BOTTOM VIEW

SIDE VIEW

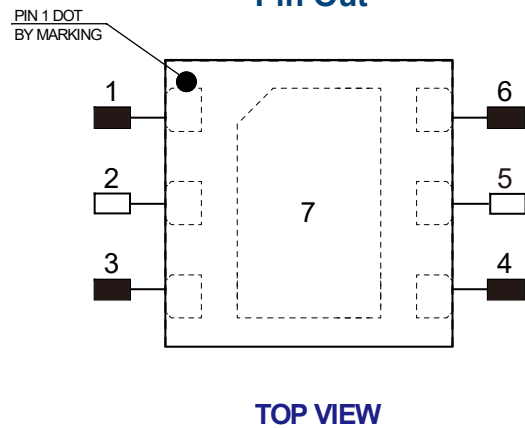
Land Pattern



Recommended Land Pattern Top View

Notes: All dimensions show in millimeters

Pin Out



TOP VIEW

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	IN
2	GND
3	ISOL
4	DIRECT
5	GND
6	COUPLED
7	GND

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