

# Data Sheet

## HC1300U03

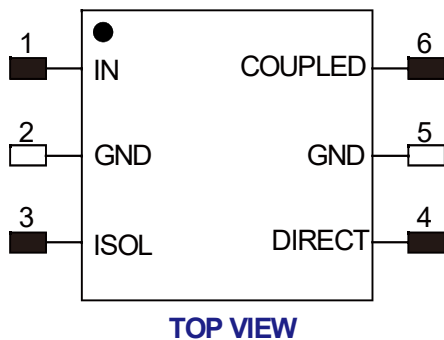
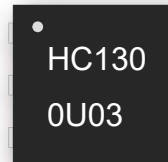
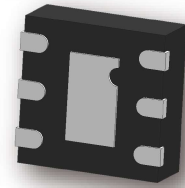
### 90 Degree Hybrid

### 10.7 GHz-14.5 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.

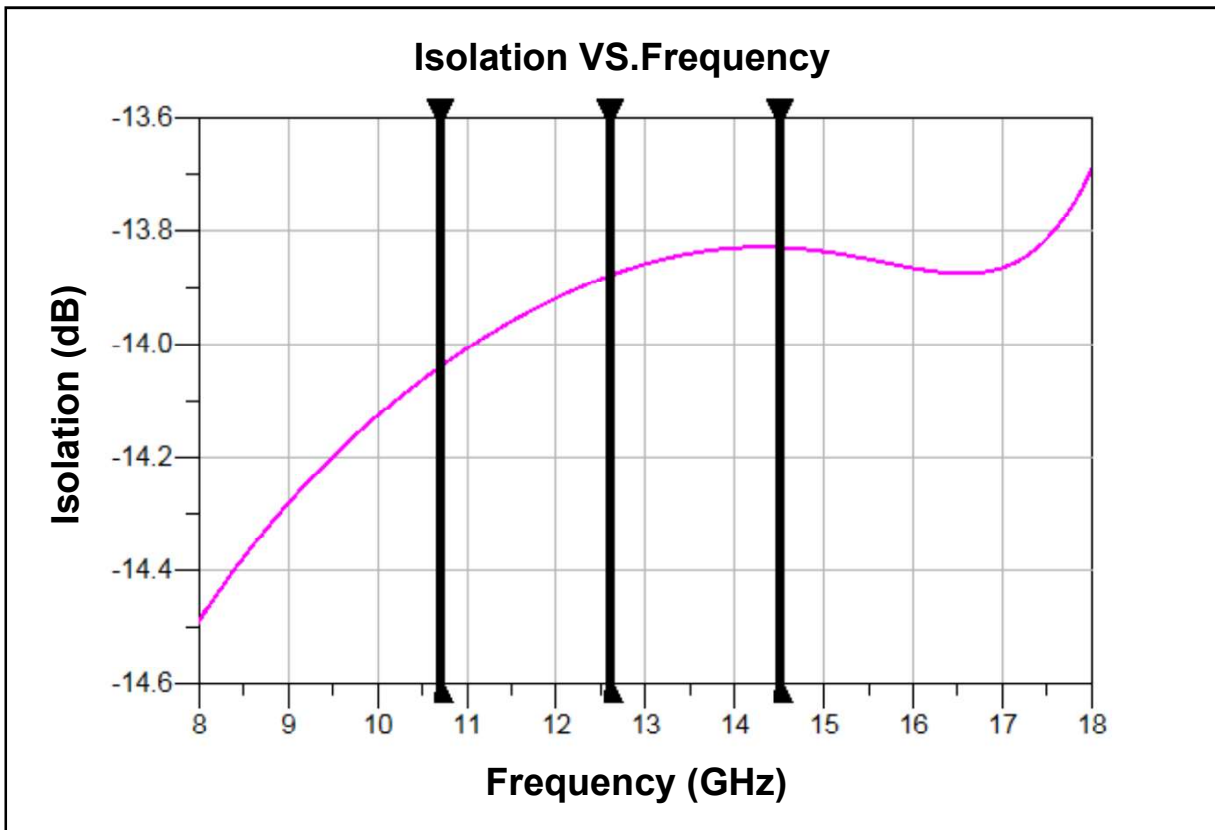
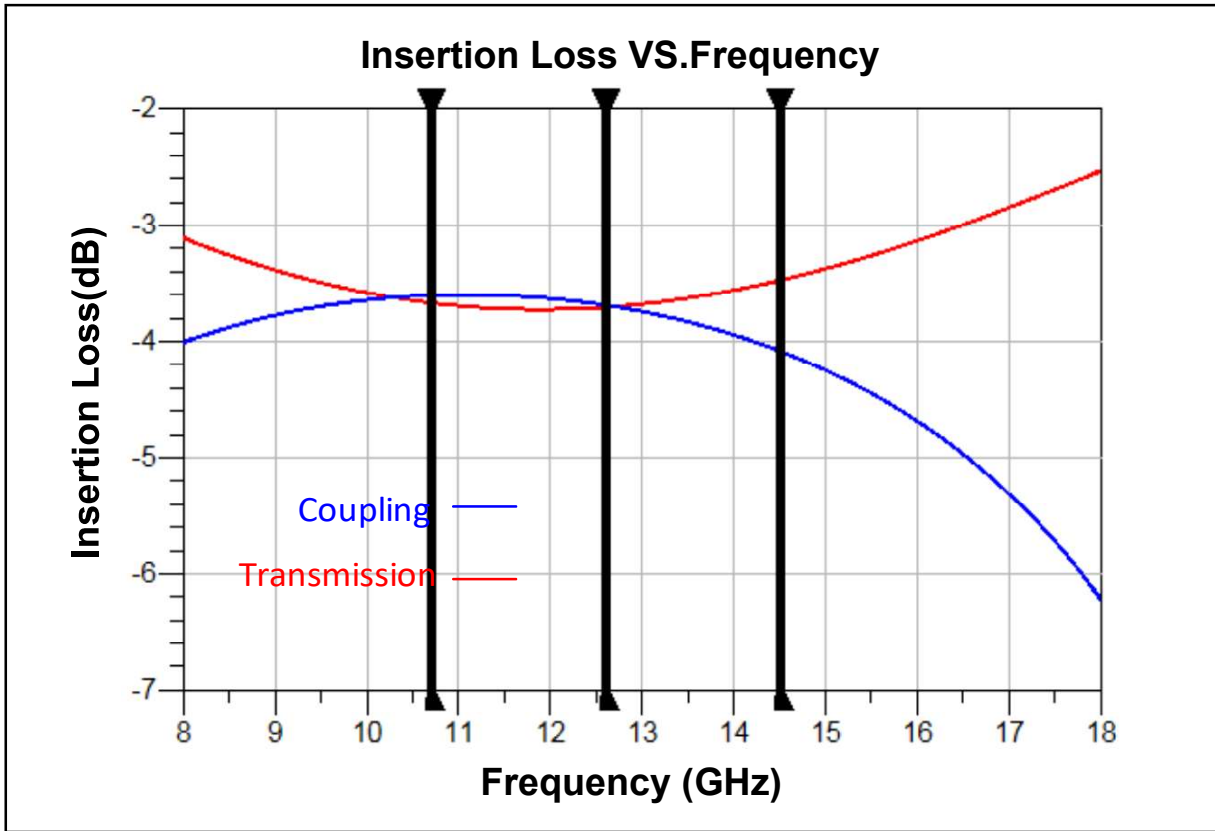
### Electrical Specifications at 25°C

Parameter	Symbol	Min	Typ	Max	Unit
Frequency Range	F	10.7		14.5	GHz
Insertion Loss (Above 3dB)	$I_L$		0.7	1.3	dB
Isolation	$I_{sol}$	13	16		dB
Phase Unbalance (Deviation from 90°)	$\varnothing_{bal}$		3.0	5.0	deg
Amplitude Unbalance	$A_{bal}$		0.6	1.0	dB
Input VSWR			1.4	1.6	
Output VSWR			1.3	1.5	

### 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

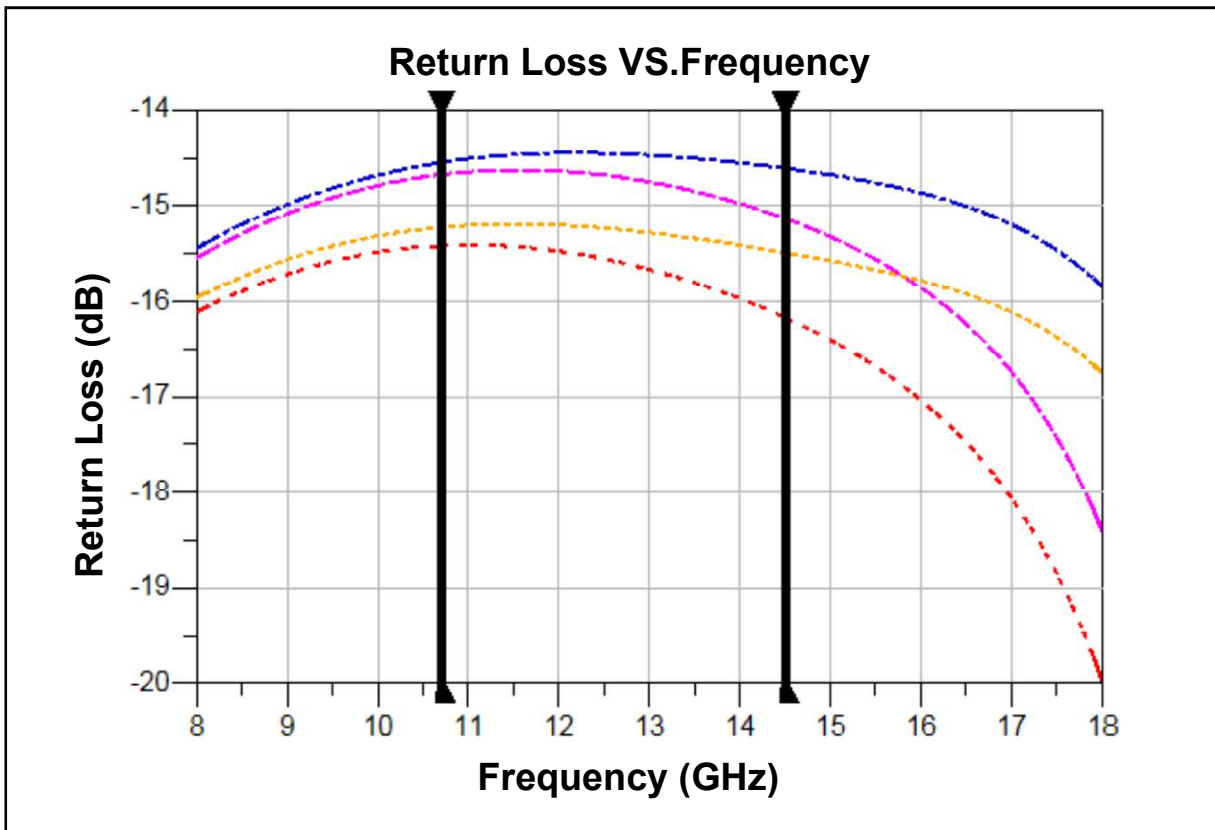
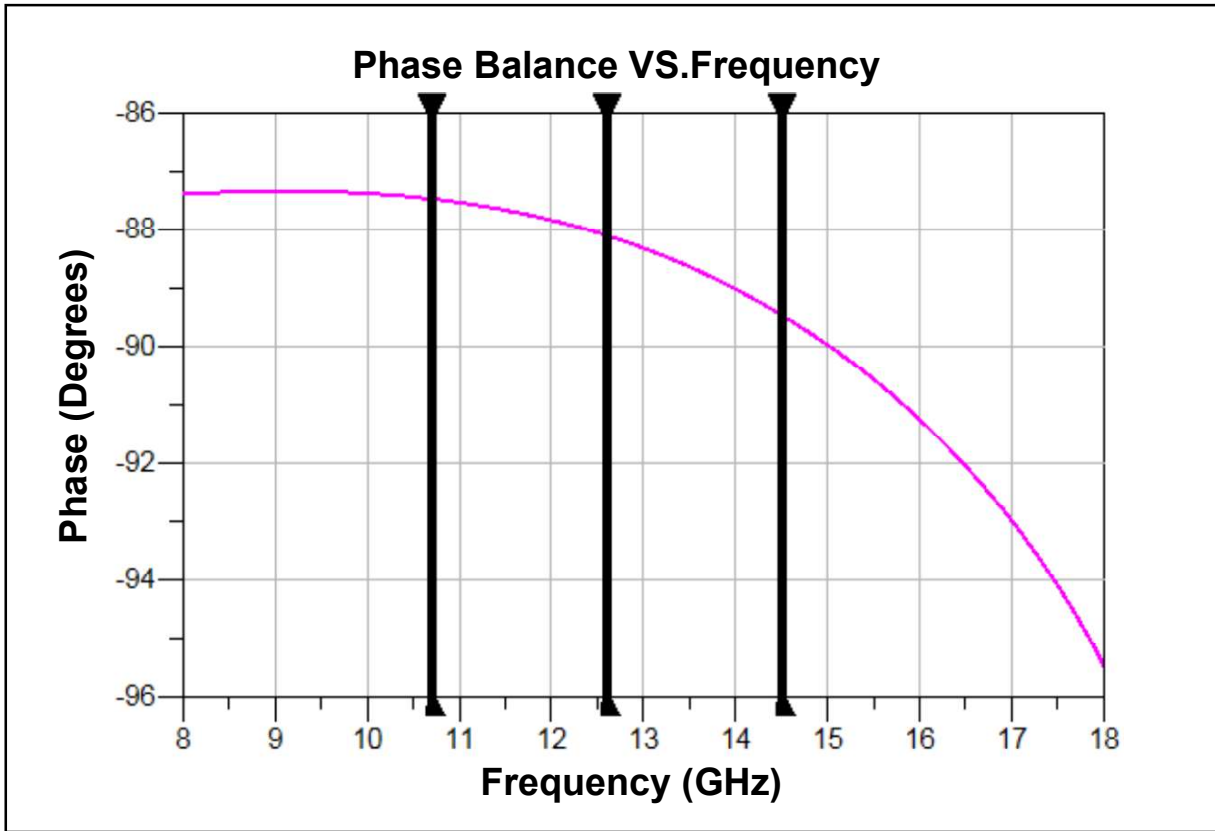
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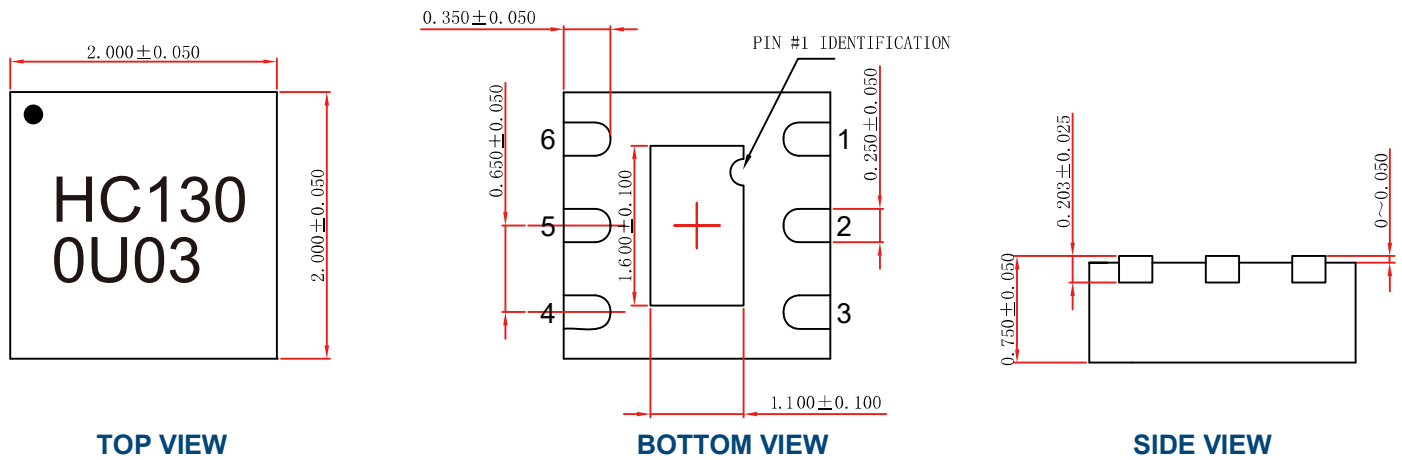
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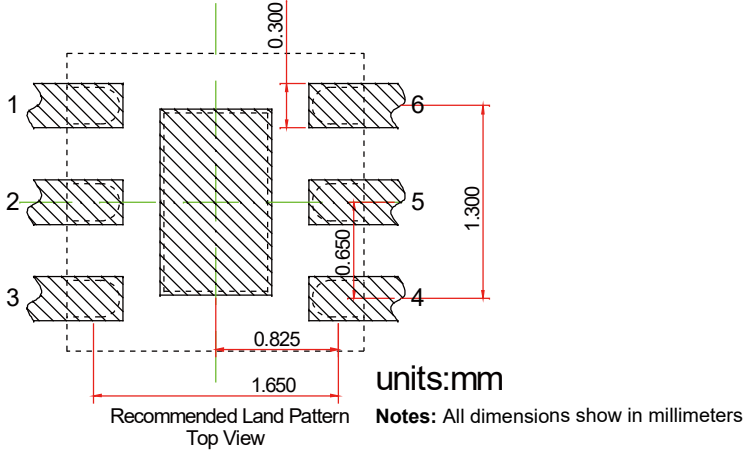
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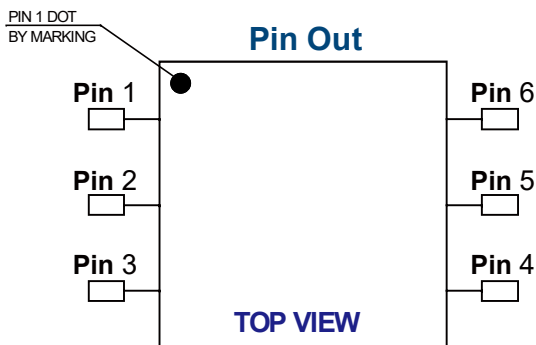
### Outline Drawing



### Land Pattern



### Hybrid Coupler Pin Configuration



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

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