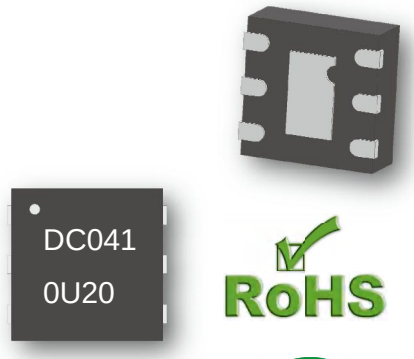
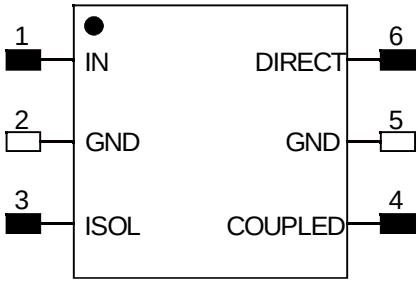
Data Sheet
DC0410U20-060
Directional Coupler
350 MHz-470 MHz

Features

- Small Size (2×2mm)
- Very Low Loss
- Excellent directivity
- Broad frequency coverage
- High Isolation
- Low VSWR
- Good Repeatability
- Tape & Reel
- Power handling:5 watts





TOP VIEW

Applications

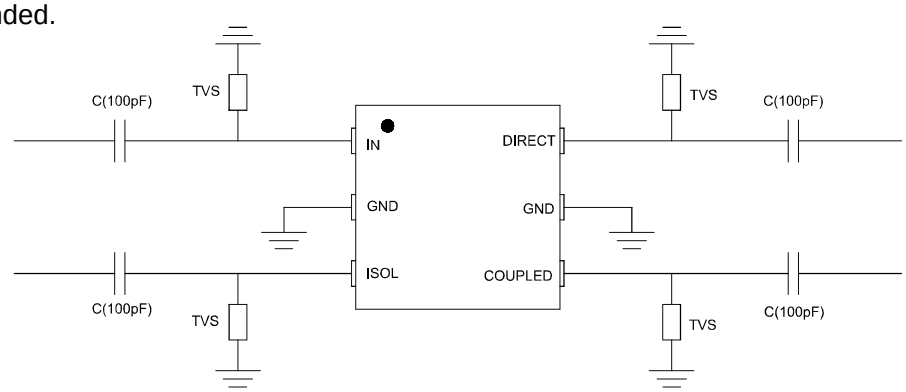
- Phase shifter / Attenuator
- Balanced amplifier / LNA configurations
- Modulators
- Mixers
- Power combining /dividing

Notes:

1.This part has passed through 100% RF test.

2. Suggest to add Capacitors of DC Blocker between Pins(with black color) and external circuit to prevent DC signal entry to guarantee parts normal work.

3. Suggest to add a TVS Diode in parallel between Eletrode (with black color) and Capacitor of DC Blocker to provide ESD protection for the product. TVS Diode use ON Semiconductor's ESD9101 is recommended.



ESD Rating

Human Body Model (HBM): ⩽ 650V in accordance with ANSI/ESD STM 5.1 - 2001

Machine Model (MM): ⩽ 50V in accordance with ANSI/ESD STM 5.2 - 1999

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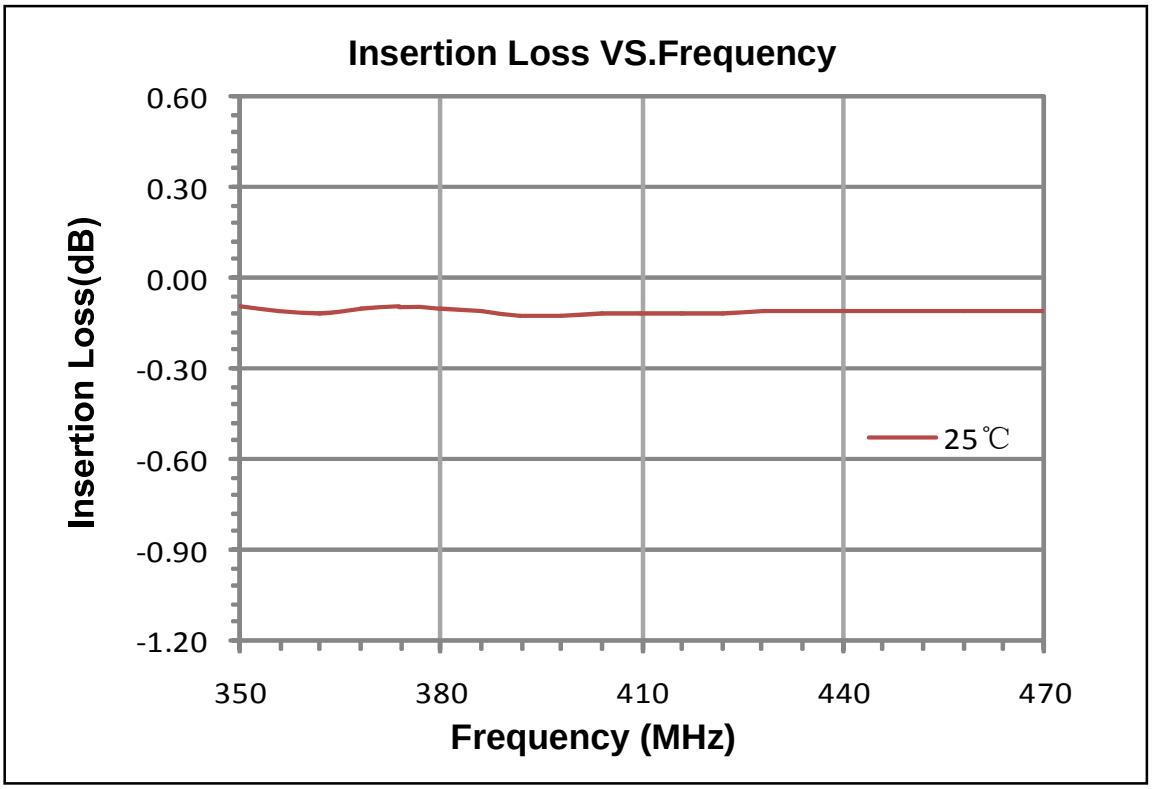
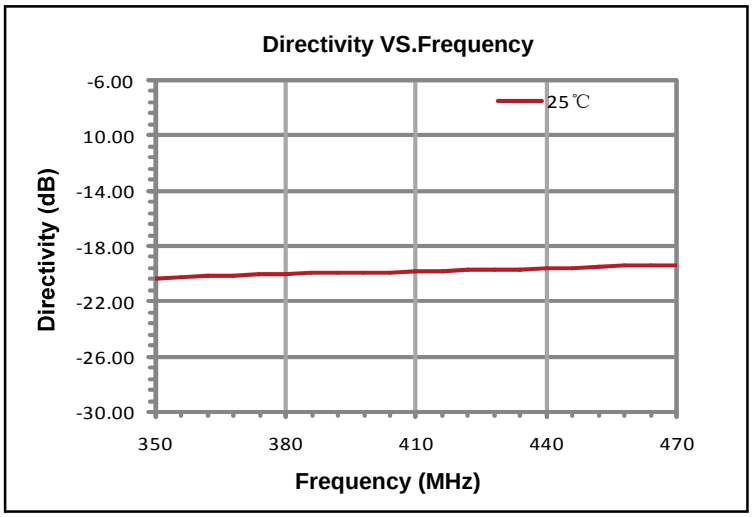
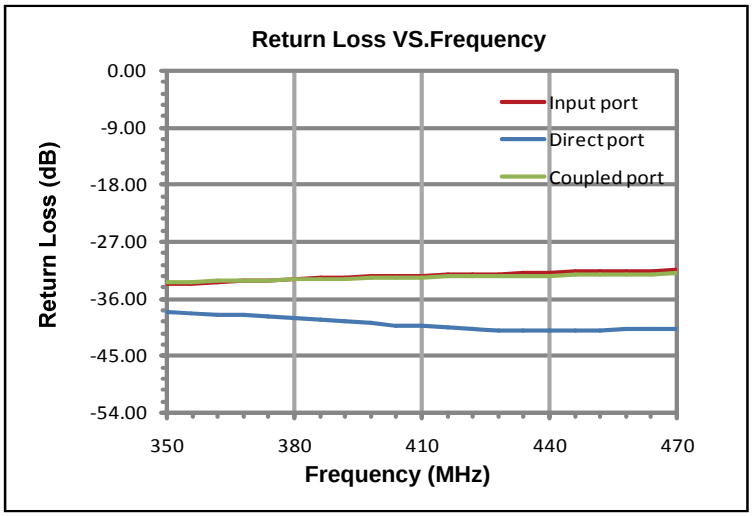
Electrical Specifications at 25º C

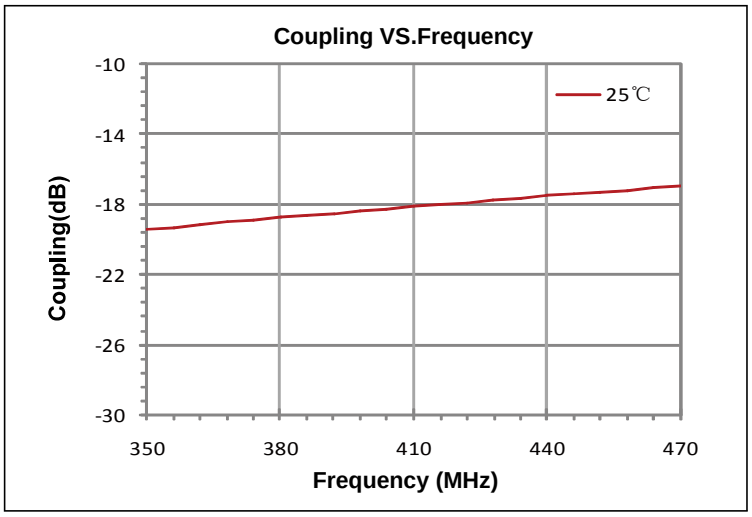
Part No.	Freq. Range (MHz) FL~FU	Power (W)	Size LxW (mm)	Coupling (dB)	Insertion loss (dB)	VSWR(:1)	Directivity (dB)
DC0410U20-060	350~380	5	2X2	19.5~19	0.1	1.06	20.2
	380~410			19~18.3	0.11	1.06	20
	410~440			18.3~17.7	0.11	1.06	19.7
	440~470			17.7~17	0.11	1.06	19.4

Typical Performance (-40°C, 25°C, 85°C, 125°C: 350-470 MHz)




Directivity VS.Frequency
-6.00
10.00
-14.00
-18.00
-22.00
-26.00
-30.00
Directivity (dB)
25℃
350
380
410
440
470
Frequency (MHz)


Return Loss VS.Frequency
0.00
-9.00
-18.00
-27.00
-36.00
-45.00
-54.00
Return Loss (dB)
Input port
Direct port
Coupled port
350
380
410
440
470
Frequency (MHz)


Coupling VS.Frequency
-10
-14
-18
-22
-26
-30
Coupling(dB)
25℃
350
380
410
440
470
Frequency (MHz)

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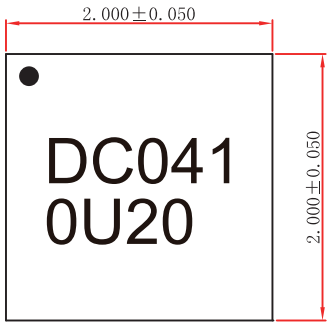
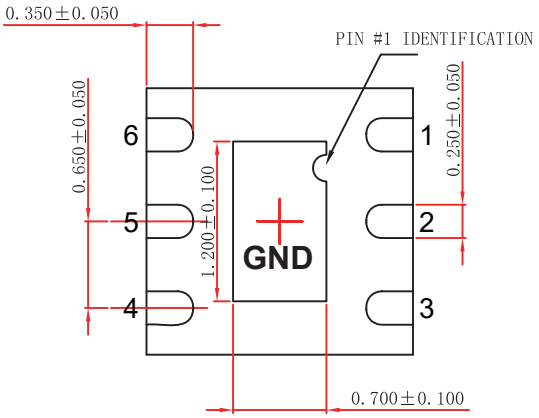
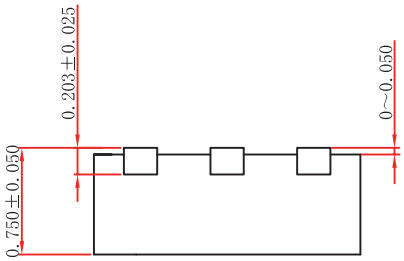
Outline Drawing



TOP VIEW

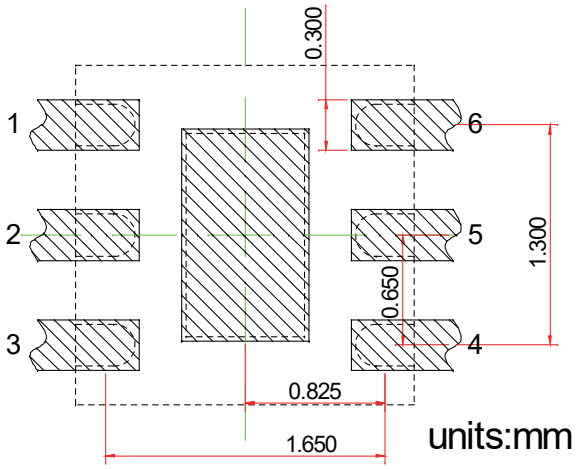


BOTTOM VIEW



SIDE VIEW

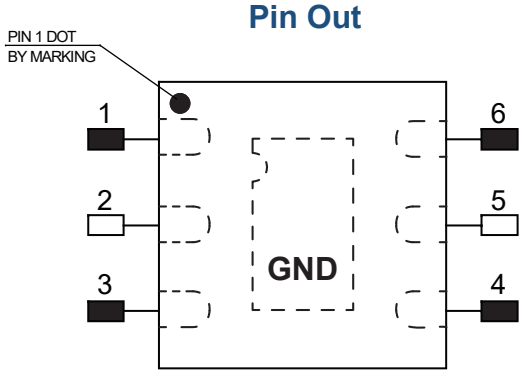
Land Pattern



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 guranteeparts 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