

Data Sheet

DC4000U10-120

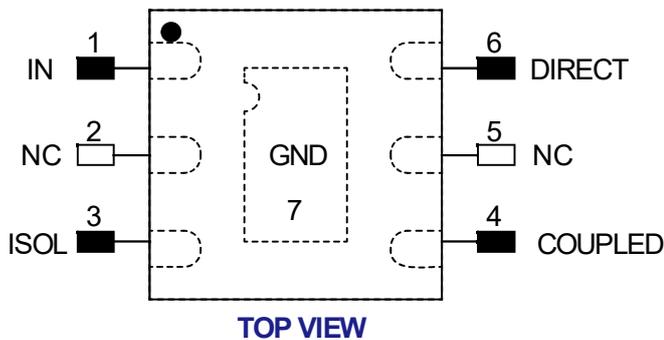
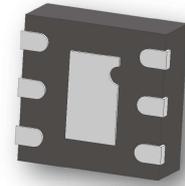
Directional Coupler

700 MHz-4.0 GHz



Features

- Small Size (2×2mm)
- Very Low Loss
- Excellent directivity
- Broad frequency coverage
- High Isolation
- Low VSWR
- Good Repeatability
- Tape & Reel
- Power handling:4 watts

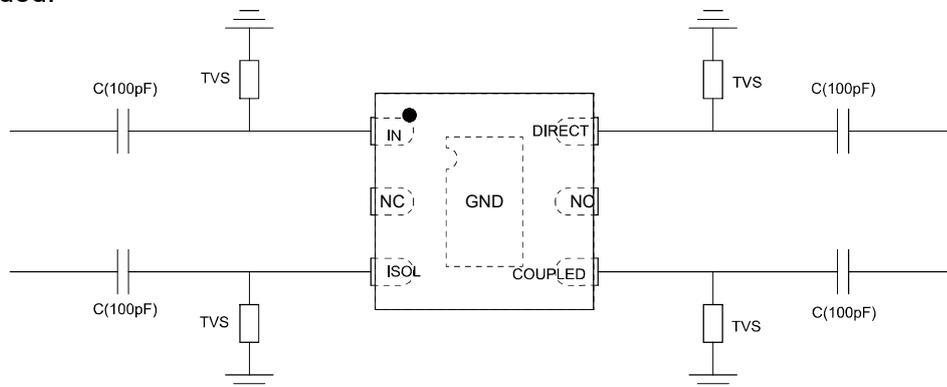


Applications

- 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 Electrode (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): $\leq 650V$ in accordance with ANSI/ESD STM 5.1 - 2001

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

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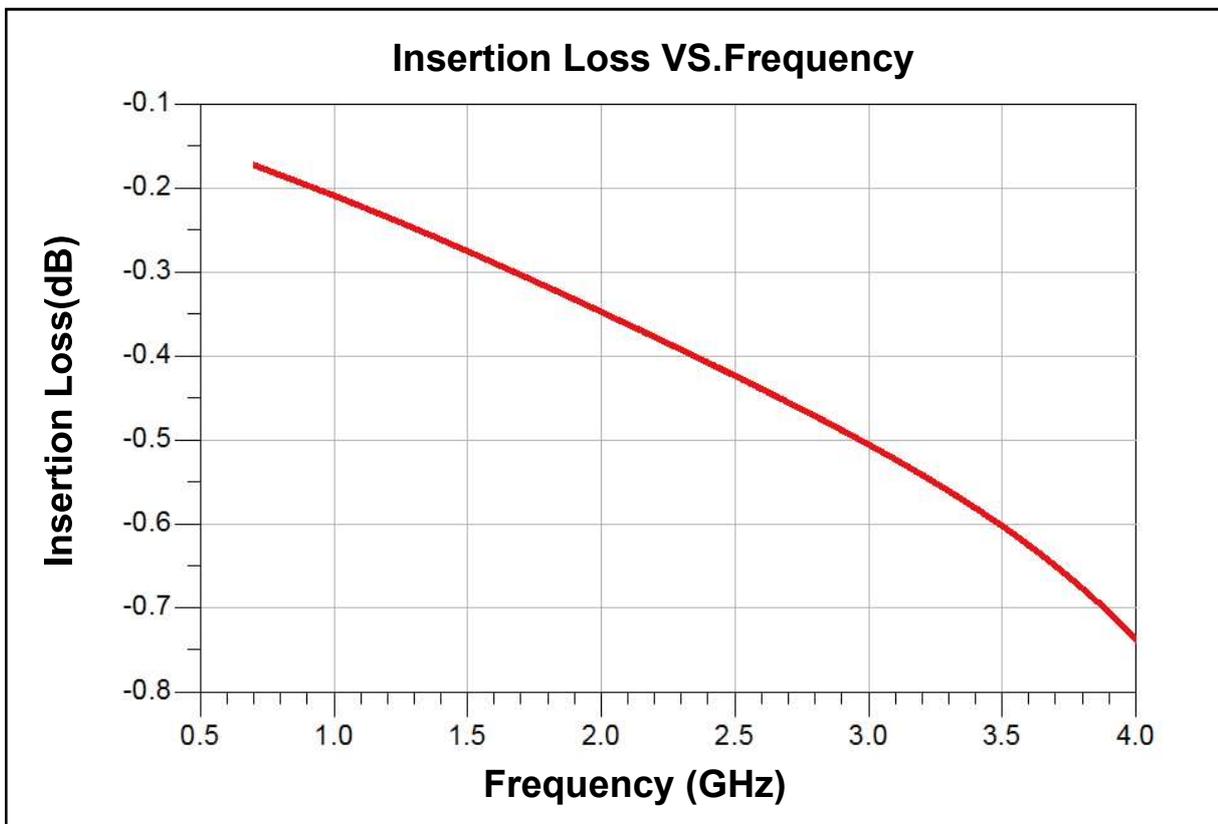
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Electrical Specifications at 25° C

Part No.	Freq. Range (MHz) FL~FU	Power (W)	Size LxW (mm)	Coupling (dB)	Insertion loss (dB)	VSWR(:1)	Directivity (dB)
DC4000U10-120	700~850	4	2X2	26.2	0.21	1.07	20.1
	850~960			24.3	0.21	1.07	19.9
	960~1400			21.1	0.27	1.09	19.1
	1400~1700			19.6	0.31	1.09	19
	1700~2000			18.4	0.35	1.09	19
	2000~2700			15.3	0.46	1.07	19
	2700~4000			12.3	0.85	1.43	13.8

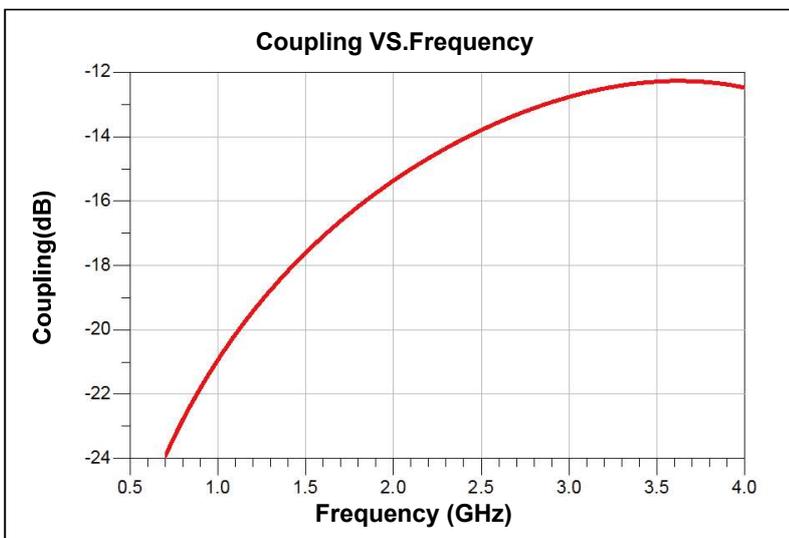
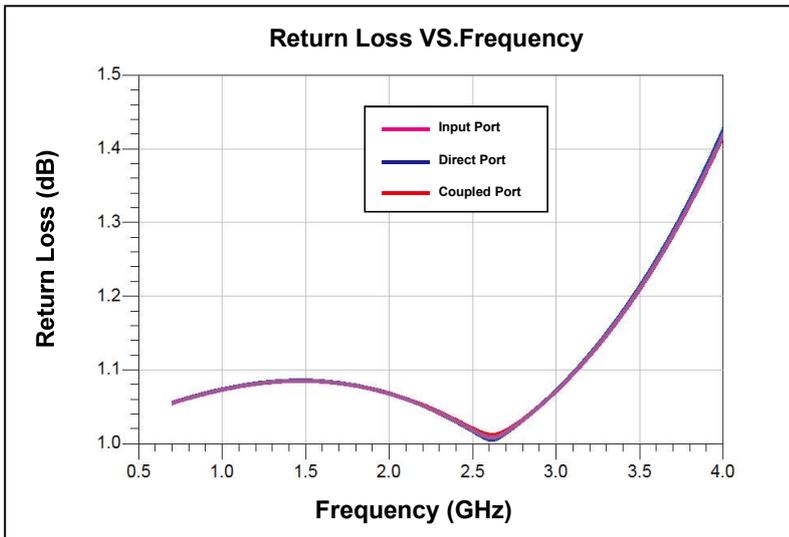
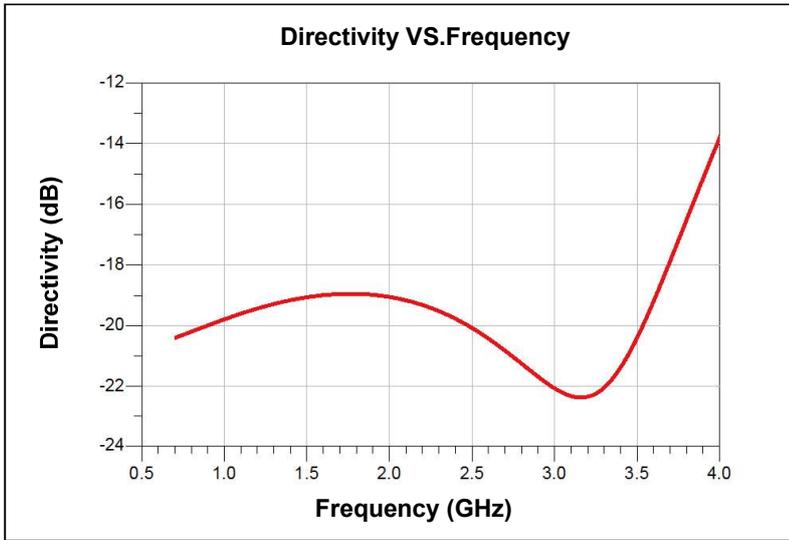
Typical Performance (-40°C, 25°C, 85°C: 700-4000 MHz)



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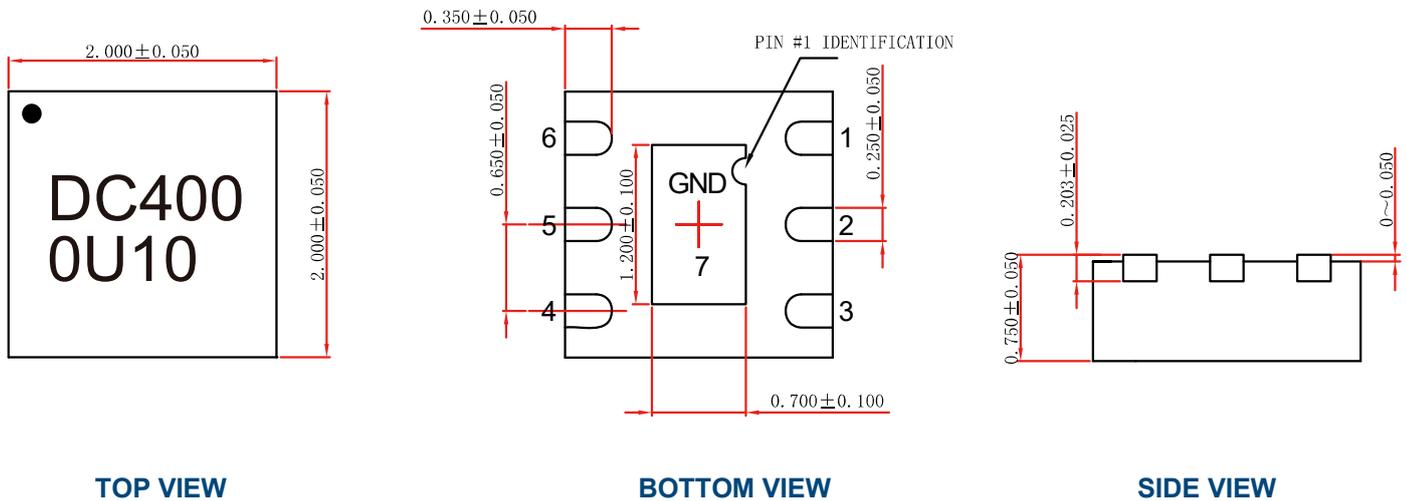
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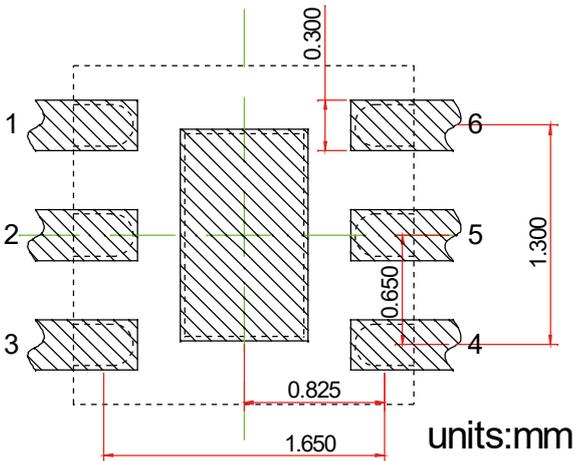
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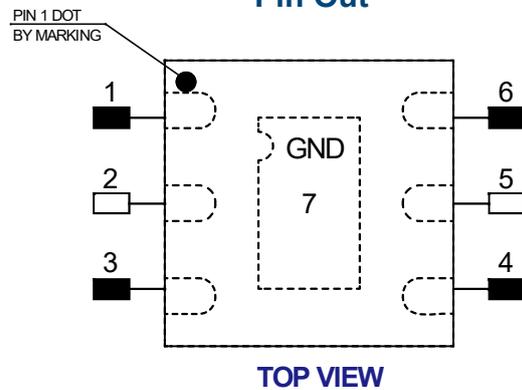
Outline Drawing



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 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	NC
3	ISOL
4	COUPLED
5	NC
6	DIRECT
7	GND