

Data Sheet

DC626IC10Q

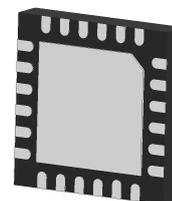
Directional Coupler

6 GHz-18 GHz



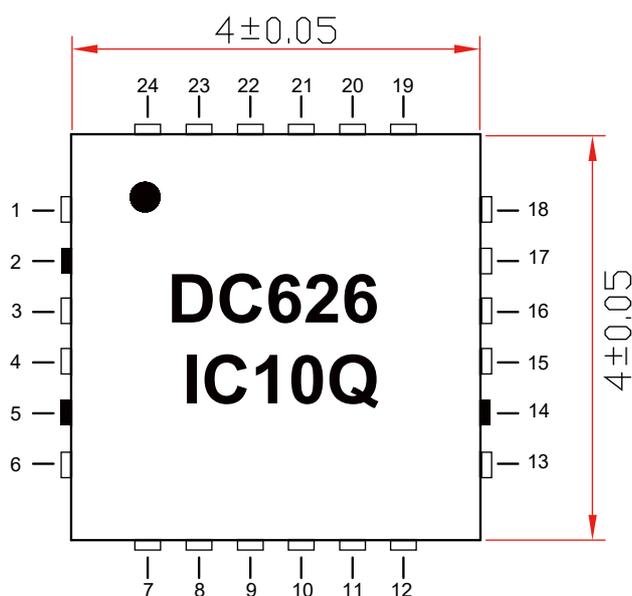
Features

- Very Low Loss
- Wideband, 6 to 18 GHz
- Excellent coupling flatness 10 ± 1.5 dB typ.
- Highly repeatable performance (GaAs based design)



Applications

- Satellite communications
- Wireless infrastructure
- Test and measurements



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.

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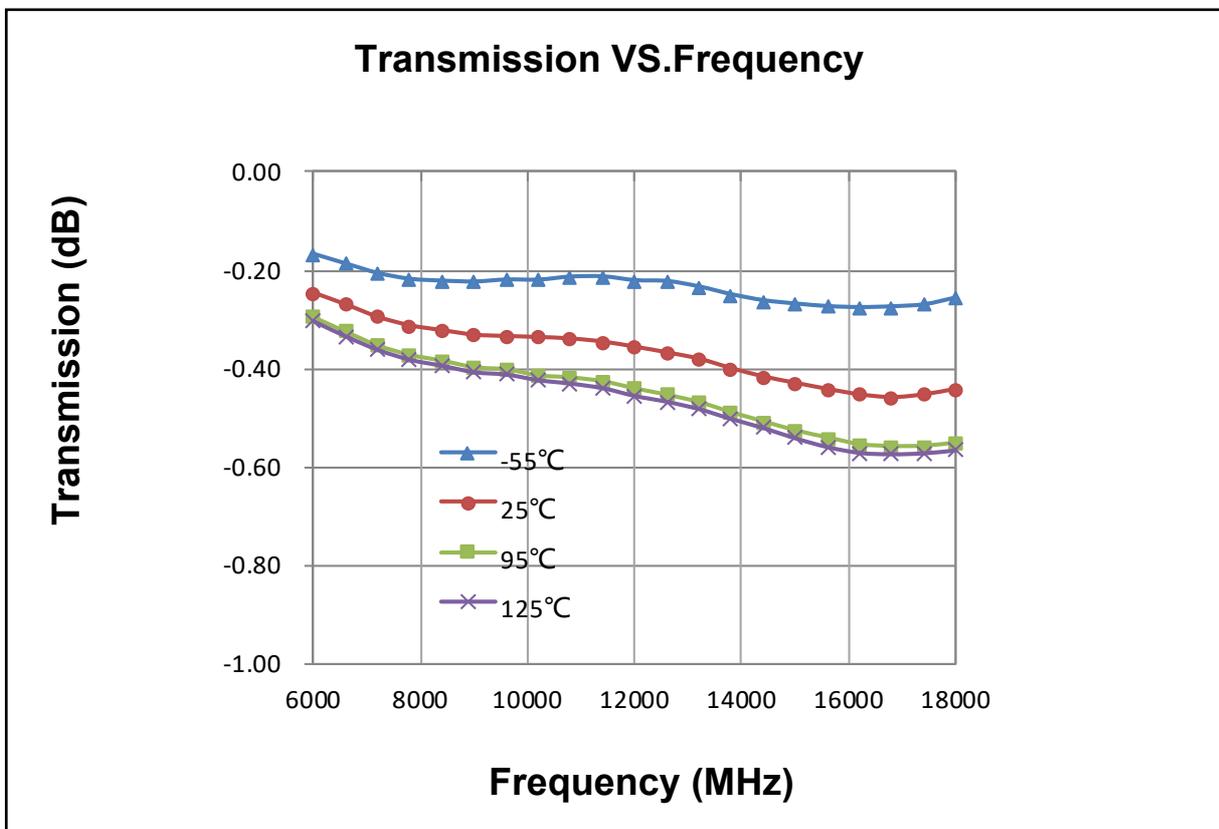
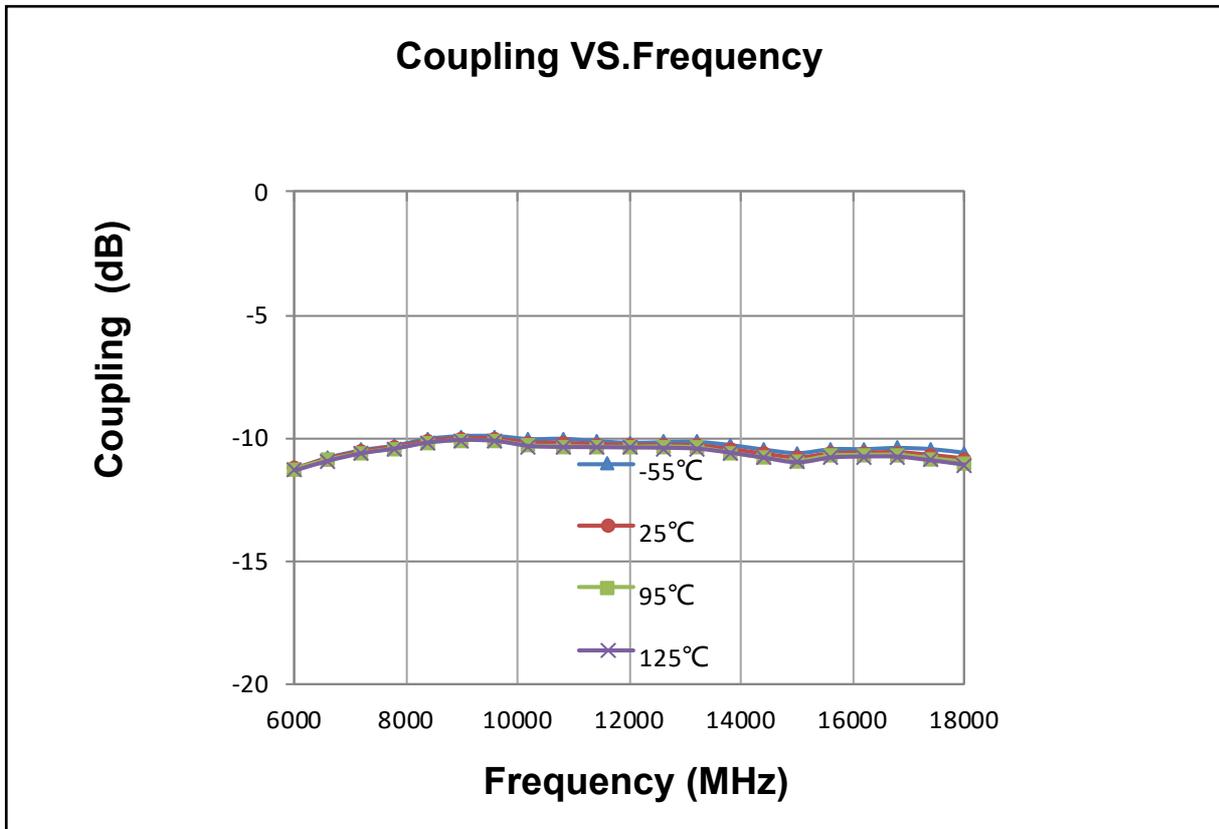
Electrical Specifications at 25°C

Parameter	Frequency (MHz)	Min.	Typ.	Max.	Unit
Frequency Range		6000		18000	MHz
Mainline Loss	6000 - 10000	—	1.0	2.2	dB
	10000 - 14000	—	1.3	2.3	
	14000 - 16000	—	1.4	2.3	
	16000 - 18000	—	1.5	2.3	
Nominal Coupling	6000 - 10000	9.2	10.3	12.5	dB
	10000 - 14000	9.5	10.0	11.7	
	14000 - 16000	9.7	10.5	11.7	
	16000 - 18000	9.8	10.8	11.9	
Coupling Flatness(±)	6000 - 18000	—	0.7	—	dB
Directivity	6000 - 10000	10	16	—	dB
	10000 - 14000	10	16	—	
	14000 - 16000	8.5	12	—	
	16000 - 18000	8.9	18	—	
Return Loss (Input)	6000 - 10000		24		dB
	10000 - 14000		18		
	14000 - 16000		15		
	16000 - 18000		15		
Return Loss (Output)	6000 - 10000		22		dB
	10000 - 14000		17		
	14000 - 16000		12		
	16000 - 18000		18		
Return Loss (Coupled)	6000 - 10000		24		dB
	10000 - 14000		17		
	14000 - 16000		14		
	16000 - 18000		14		

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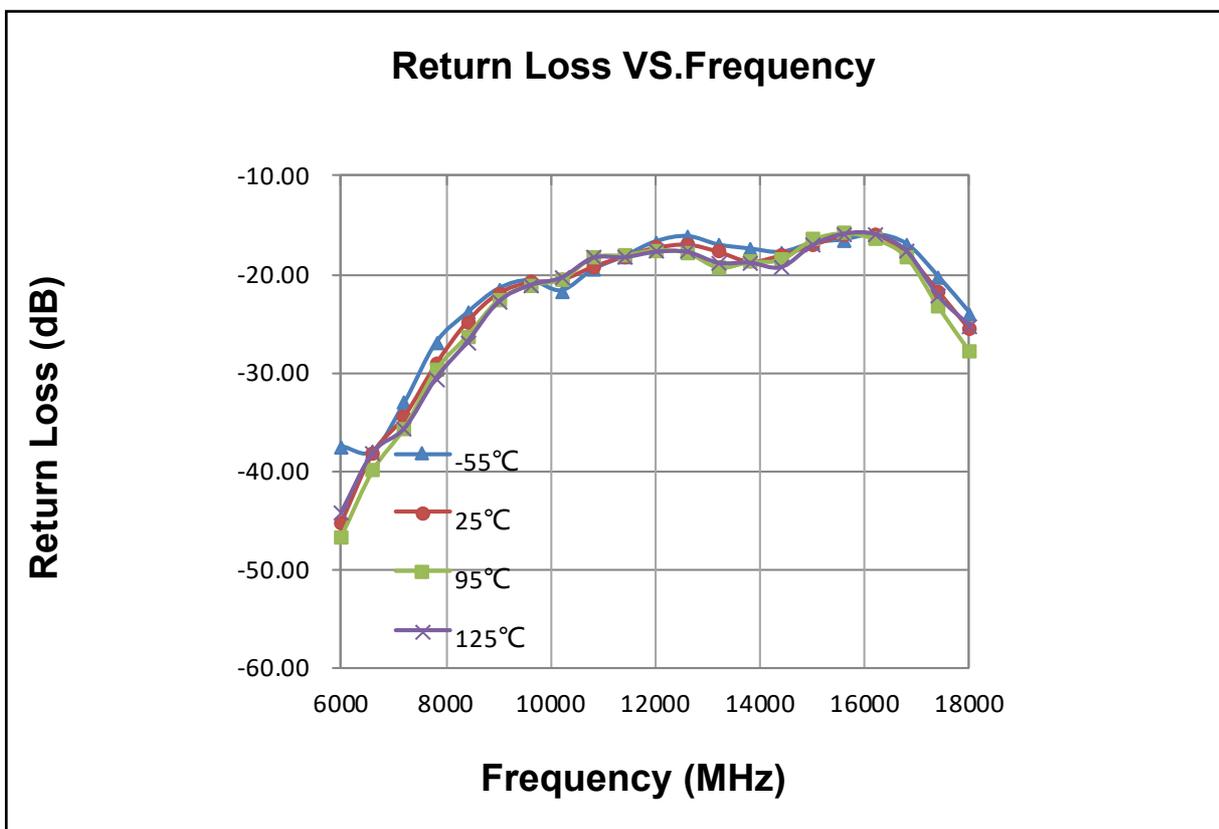
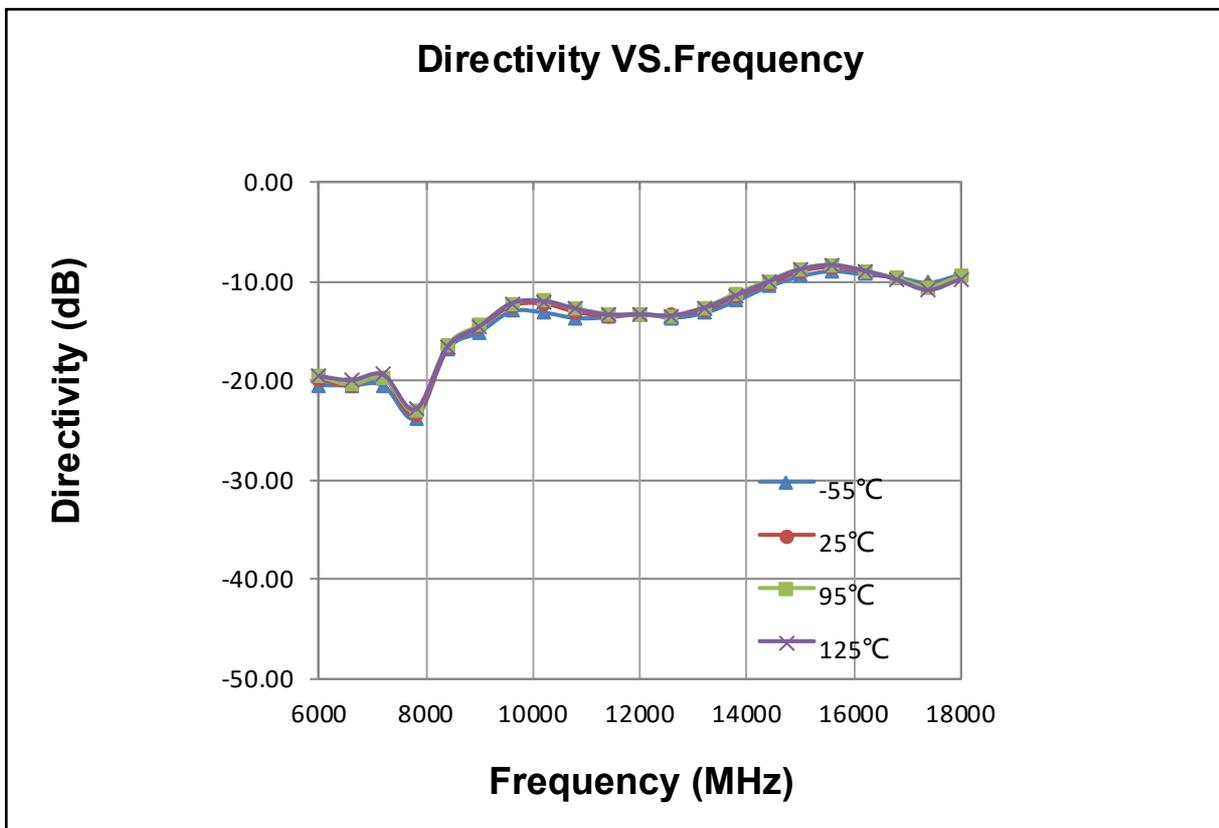


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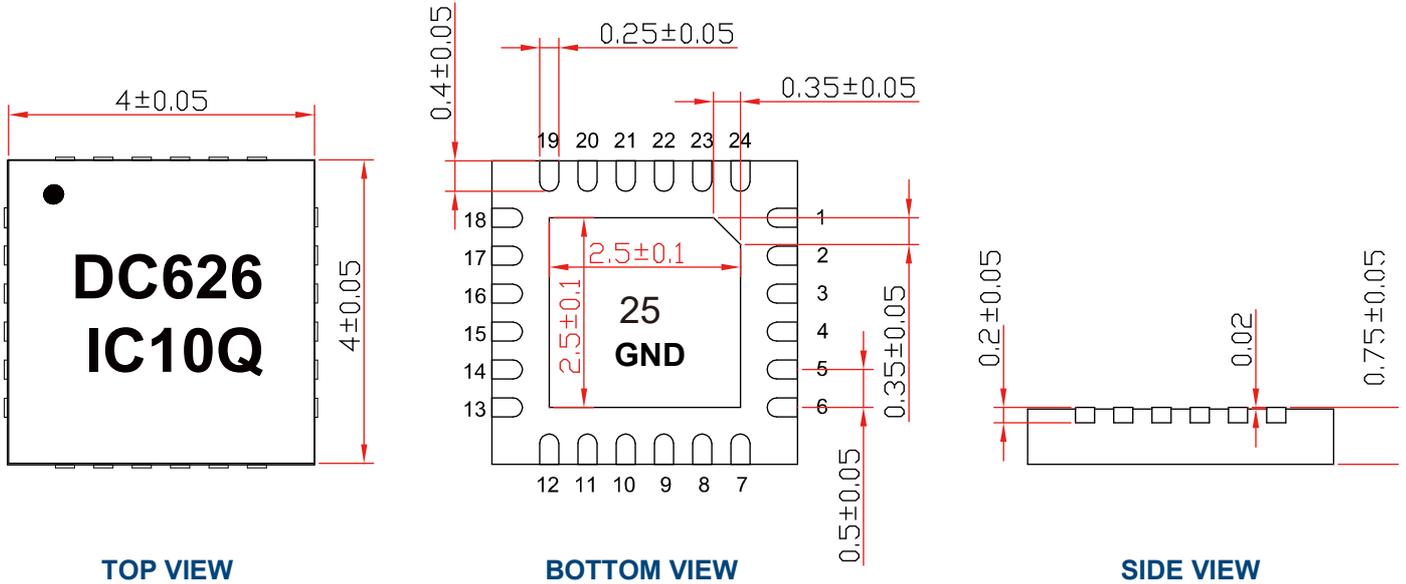
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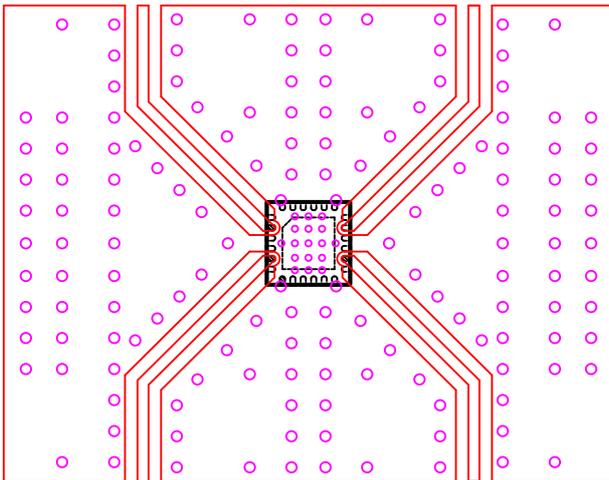
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Outline Drawing units:mm



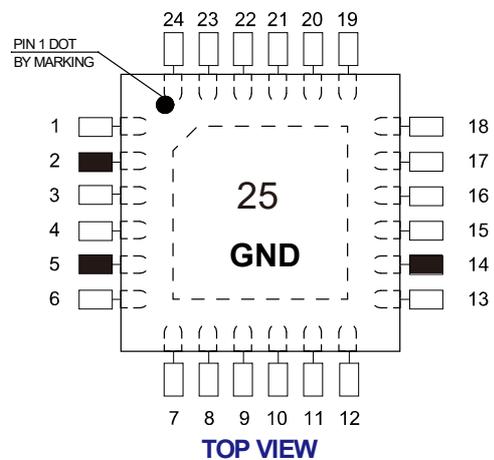
Land Pattern



NOTE:

1. 50Ω line width is shown above designing from RO4350B dielectric thickness 0.254mm; copper 1/2 OZ
2. Bottom side of the PCB is continuous ground plane.
3. All dimensions shown in mm.

Pin Out



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Function	Pad Number		
INPUT	5	14	2
COUPLED	2		5
OUTPUT	14	5	
ISO		2	14
GROUND	Paddle 25		
NC (GROUND EXTERNALLY)	1, 3, 4, 6-13, 15, 16, 17~24		