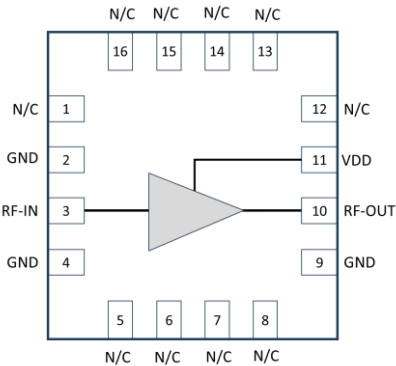


Direct Coupled Amplifier:

- RF Frequency: DC- 12 GHz
- Small signal gain: 8.5 dB
- Output P1dB: 6 dBm
- Saturated Output Power: 7 dBm
- DC drain bias voltage: 4 V
- Dc supply current: 58.9 mA
- 0.1um GaAs pHEMT Technology
- Die Size: 1.15 mm * 1.02 mm

Functional Block Diagram



Description:

RFDCA06S is a Direct Coupled Amplifiers that operates from DC to 12 GHz. The amplifier provides 8.5 dB of small signal gain.

The RFDCA06S device is specifically designed for use in the DC-12 GHz frequency range in Bluetooth, Zigbee, Wi-Fi, IoT, and SATCOM applications.

The Technology used to design DCA is a 0.1um GaAs pHEMT Process.

Pin Configuration

Pin No.	Pin Name	Description
2,4,9	GND	Ground
3	RF-IN	RF Input
10	RF-OUT	RF Output
1,5,6,7,8,12,13,14,15,16	N/C	Not Connected
11	VDD	Voltage Drain Bias

Applications:

- Mobile Phones
- GPS
- Weather radar
- Long Distance radio telecommunications
- Militry telemetry
- Communications

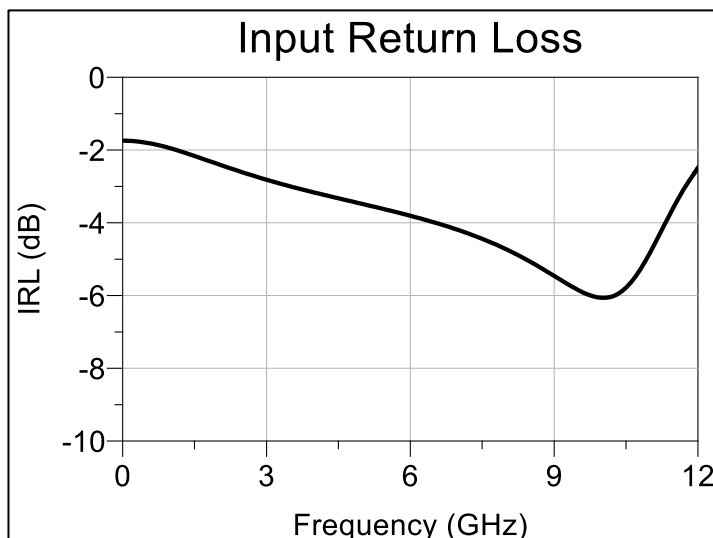
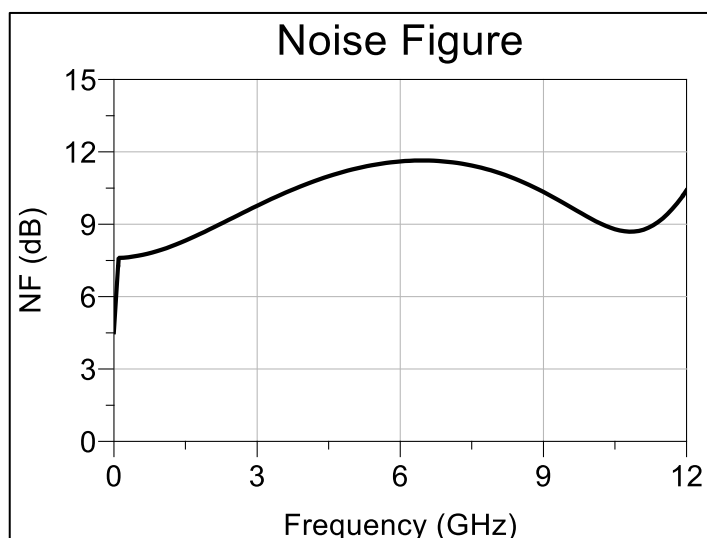
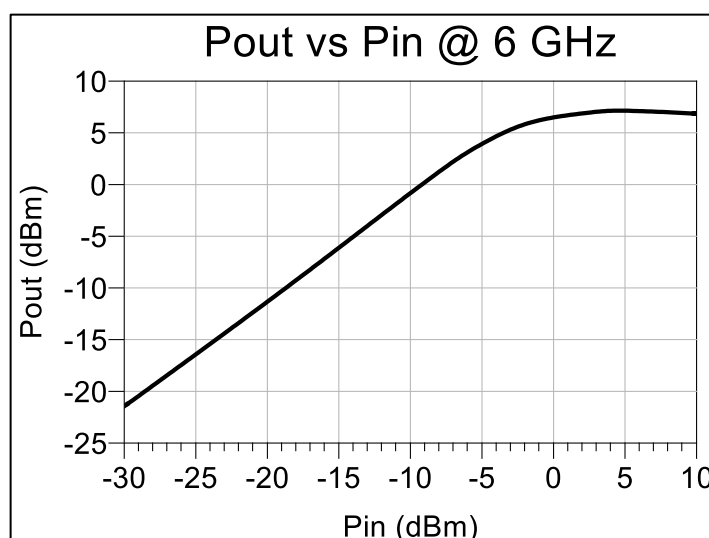
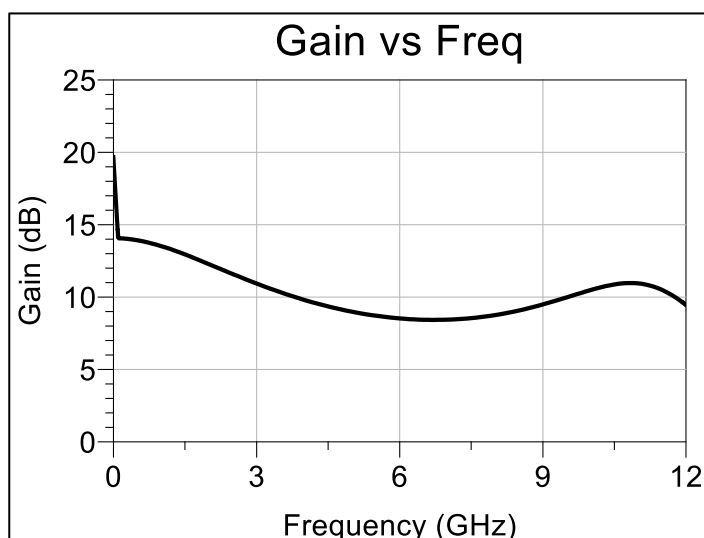
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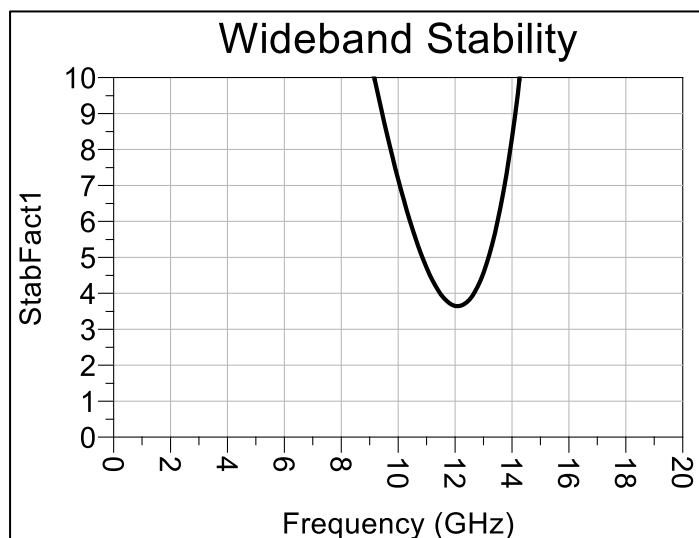
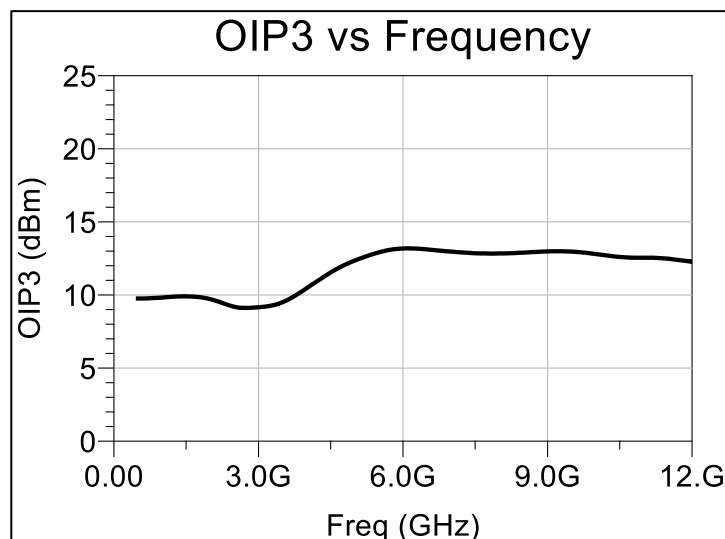
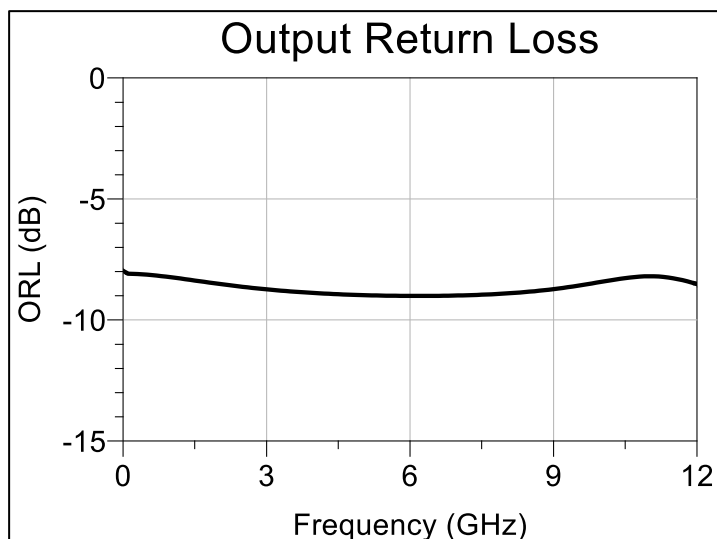
- Sample Ready Die
- Product Datasheet

Electrical Specification:

Freq = DC-12 GHz, VDD= 4V, ID= 58.9 mA, Zo=50 Ω

Parameters	Test Condition	Units	Typ
Gain	DC	dB	15
	6 GHz		8.5
	12 GHz		9.4
Output P1 dB	DC	dBm	
	6 GHz		6
	12 GHz		
Noise Figure	DC	dB	7.5
	6 GHz		11
	12 GHz		10
Input Return Loss	DC	dB	1.7
	6 GHz		3.8
	12 GHz		2.5
Output Return Loss	DC	dB	8
	6 GHz		9
	12 GHz		8.5
Operating Bias Conditions			
Drain Current (Id)	-	mA	58.9
Drain Voltage (VDD)	-	V	4

Typical Performance Curve:



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