

XT3913Q5



GaAs MMIC Driver Amplifier
8GHz~13GHz

Rev 2.1

Features

- Frequency: 8GHz~13GHz
- Gain: 19dB
- Output P₁dB: 32dBm
- Supply Voltage: +5~+6V
- PAE: 32%
- Package Size: 5mm×5mm×1.4mm

Typical Applications

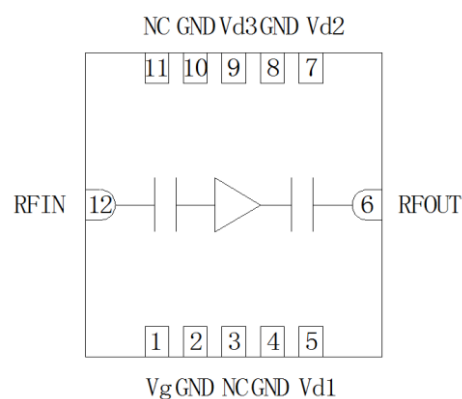
- Microwave radio including point to point communication
- Telecommunication
- Weather radar
- Optical communication
- Test instrumentation
- SatCom
- VSAT
- Military and Aerospace

General Description

XT3913Q5 is a GaAs MMIC driver amplifier which operates between 8GHz~13GHz. The amplifier provides 19dB of gain ,32dBm OutputP₁dB while requiring 650mA from a +5V~+6V supply voltage.

QFN 5x5mm surface mount package..

Functional Diagram



Electrical Performance (T_A=25°C, V_D=+6V,I_D=650mA, Z₀=50Ω)

Parameter	Min.	Typ.	Max.	Units
Frequency Range	8~13			GHz
Small Signal Gain	—	19	—	dB
Gain Flatness	—	±2	—	dB
Reverse Isolation	—	-40	—	dB
Input Return Loss	—	-10	—	dB
Output Return Loss	—	-12	—	dB
PAE	—	30	—	%
Output P ₁ dB	—	32	—	dBm
Supply Voltage(V _D)	5	—	6	V
Supply Current(I _D)	—	650	730	mA

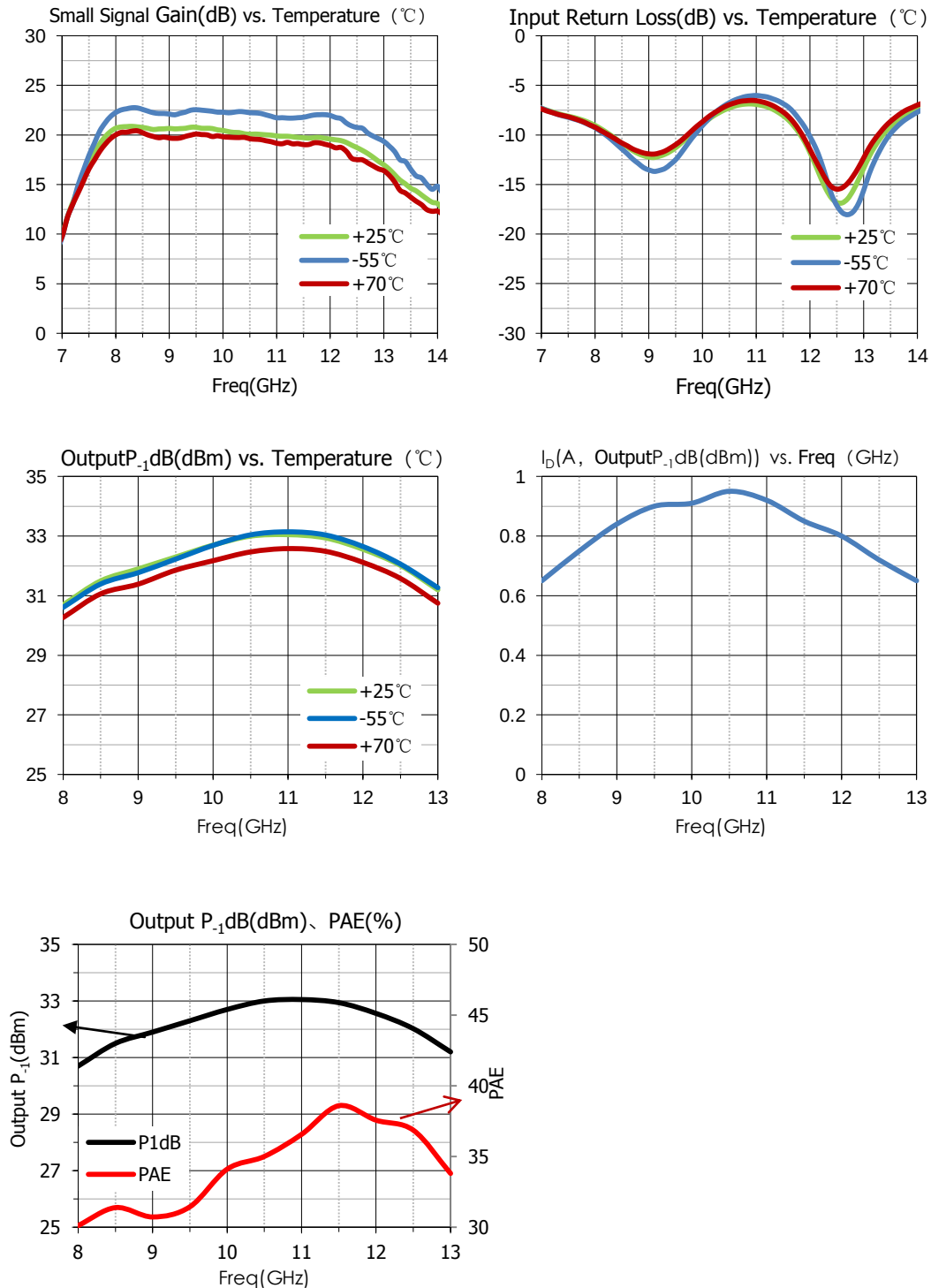
Absolute Maximum Ratings

Maximum Input Power	+17dBm	Operating Temperature	-40°C~+85°C
Channel Temperature	+150°C	Storage Temperature	-65°C~+150°C
Maximum V _D	+6.3V	Maximum V _G	-1.2V

Typical Performance Curve

All data are measured from fixture, including connector and PCB loss

Bias condition: $V_D=6V, I_D=650mA$



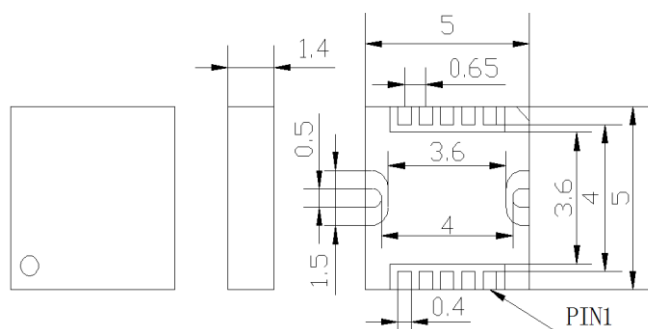
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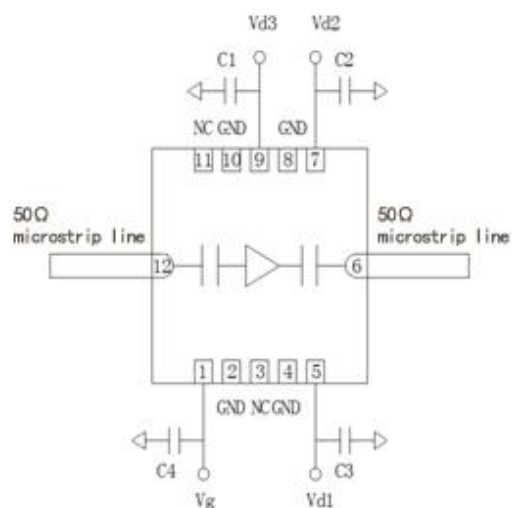
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Outline Drawing (all dimensions in mm)



Assembly Diagram



Components List

Reference Des.	Value	Part Number	Manuf.	Size
C1、C2、C3、C4	1uF	GRM155R61A105KE15D	MURATA	0402

Attention:



Electrostatic Discharge !