

# SAC1141

## GaAs MMIC Power Amplifier Module 9~11GHz 42dBm

Rev 1.0

### Features

- Frequency: 9~11GHz
- Gain: 23dB
- OP<sub>3</sub>dB: 42dBm
- Supply Voltage: +13.5~+15V
- Built-in DC/DC converter

### General Description

SAC1141 is a power amplifier module with a typical small signal gain of 23dB and a nominal OP<sub>3</sub>dB of +42dBm across the frequency range of 9 to 11GHz.

### Typical Applications

- Microwave radio
- Telecommunication
- Test instrumentation



### Electrical Performance ( T<sub>A</sub>=25°C, V<sub>D</sub>=13.5V, Z<sub>0</sub>=50Ω )

Parameter	Min.	Typ.	Max.	Units
Frequency Range		9~11		GHz
Small Signal Gain	20	23	27	dB
Noise Figure	—	5.5	—	dB
Output Power for 3 dB Compression (OP <sub>3</sub> dB)	42	—	—	dBm
Input VSWR	—	1.5	2.2	:1
Output VSWR	—	1.7	2.2	:1
Reverse Isolation	—	-55	—	dB
Supply Voltage	13.5	—	15	V
Supply Current	—	—	5.5	A
Max Input Power	—	—	26	dBm
Non Harmonics Spurious	—	62	—	dBc
Harmonics*	—	18	—	dBc

\*At P<sub>out</sub>=42dBm

\*\*Load Standing Wave Ratios in excess of 2:1 may cause device damage

### SuperApex Corporation

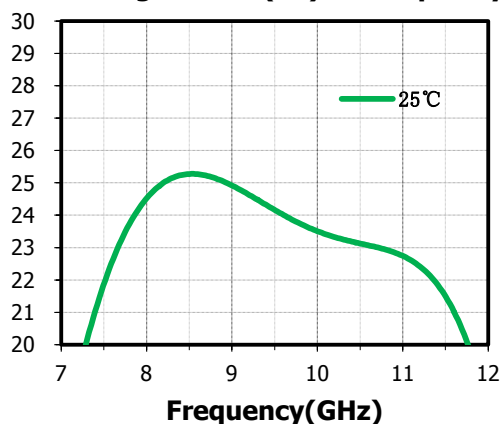
Address: 3501 Algonquin Road, Suite 230, Rolling Meadows, IL 60008, USA  
Tel: 1-847-573-9866, 1-847-505-8319  
E-mail: sales@superapexco.com  
Website: www.superapexco.com

## Mechanical Specifications

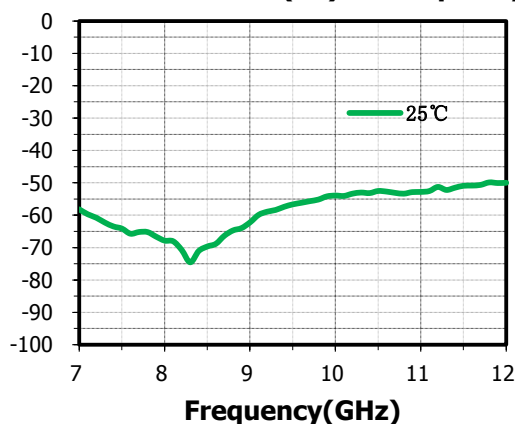
Parameter	
Input/Output	SMA-F/SMA-F
Bias	Pin
Case Material	Aluminum alloy
Weight	145g
Cooling	External Heatsink ,Forced air required

## Typical Performance Curve

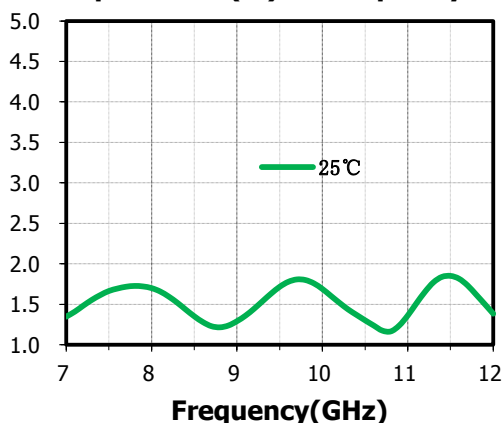
**Small Signal Gain(dB) vs.Frequency**



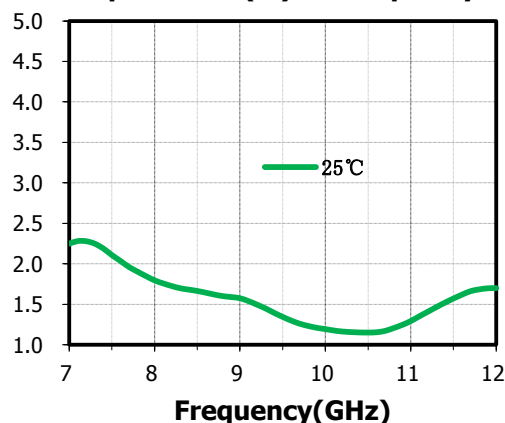
**Reverse Isolation(dB) vs.Frequency**



**Input VSWR(:1) vs.Frequency**



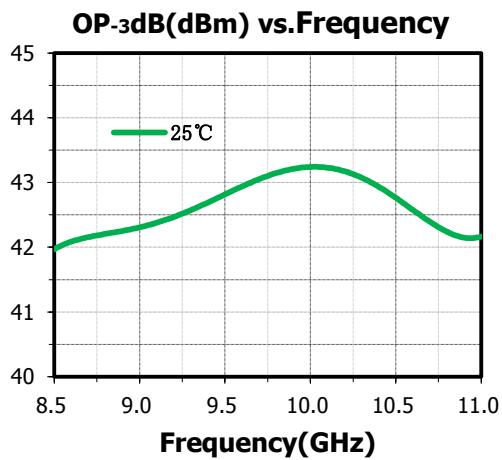
**Output VSWR(:1) vs.Frequency**



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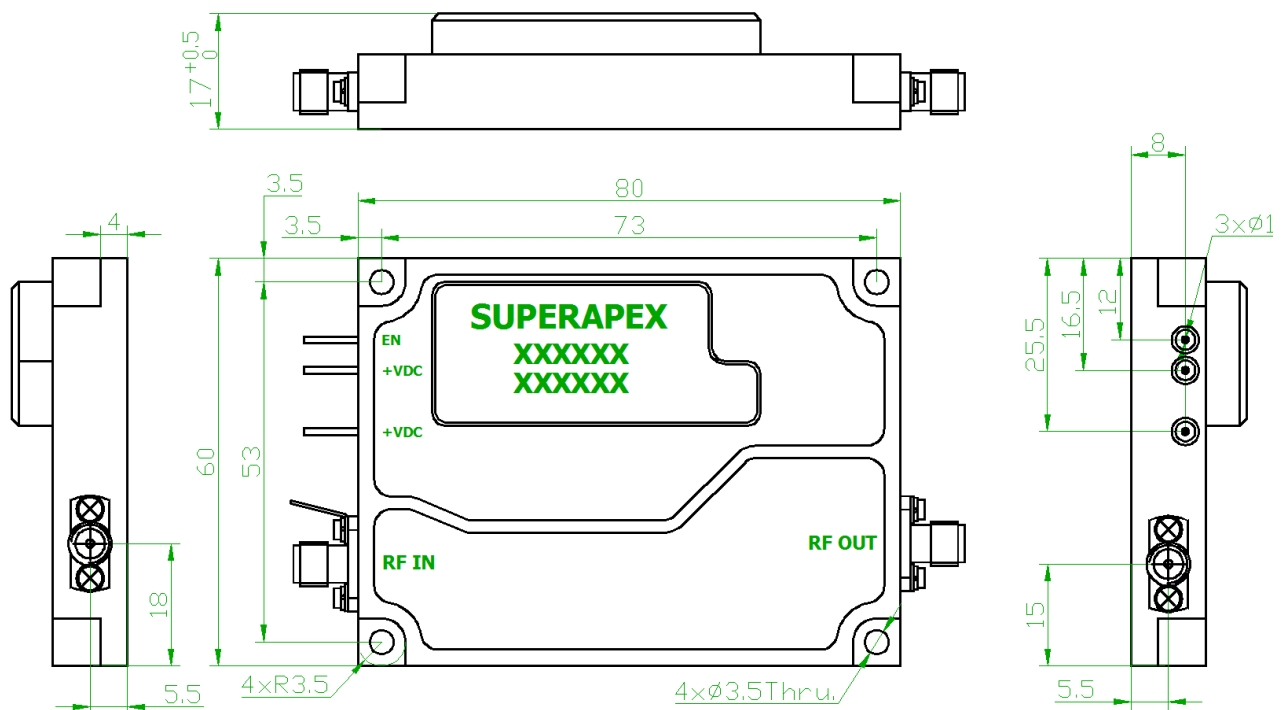
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### Mechanical Outline:

All dimensions are in millimeters



### Note:

- Two RF Connectors are field-replaceable

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