

SAC1176

Wide-band Low Noise Amplifier Module 6 ~ 18 GHz NF 2dB

Rev 1.0

Features

- Frequency: 6~18GHz
- Gain: 38dB
- OP₋₁dB: 14dBm
- Noise Figure: 2dB
- Supply Current: 110mA
- Hermetic Laser Sealing
- Size: 17.8mm×20×8.35mm

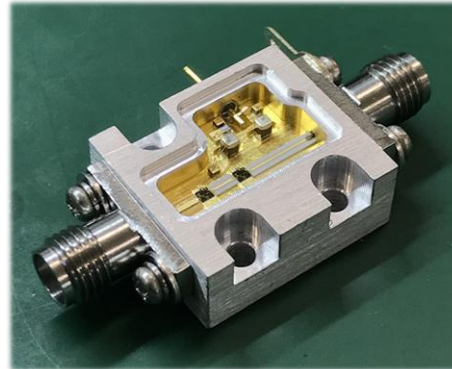
Typical Applications

- Microwave radio
- Telecommunication
- Test instrumentation
- Military

General Description

SAC1176 is a low noise amplifier module with a typical small signal gain of 38dB and a nominal OP₋₁dB of +14dBm across the frequency range of 6 to 18GHz

SAC1176 is integrated with SUPERAPEX proprietary low noise GaAs MMIC amplifier chip, high frequency micro electronic assembly techniques, and high reliability design to realize optimum low noise figure, wideband operation



Electrical Performance (T_A=25°C, I_D=110mA, Z₀=50Ω)

Parameter	Min.	Typ.	Max.	Units
Frequency Range	6~18			GHz
Gain	35	38	45	dB
Gain Flatness	—	±1.0	±1.5	dB
Noise Figure	—	2	2.6	dB
Output Power for 1 dB Compression (OP ₋₁ dB)	10	14	—	dBm
Output IP ₃	18	20	—	dBm
Input VSWR	—	1.6	2.2	:1
Output VSWR	—	1.6	2.2	:1
Supply Voltage	7	12	15	V
Supply Current	—	110	150	mA

Mechanical Specifications

Parameter	
Input/Output	SMA(F) Field-replaceable
Bias	Pin /Case ground
Case Material	7050 Aluminum alloy
Weight	25g

SuperApex Corporation

Address: 1580 S. Milwaukee, Ave. Suite 405, Libertyville, IL 60048, USA
Tel: 1-847-573-9866, 1-847-505-8319
E-mail: sales@superapexco.com
Website: www.superapexco.com

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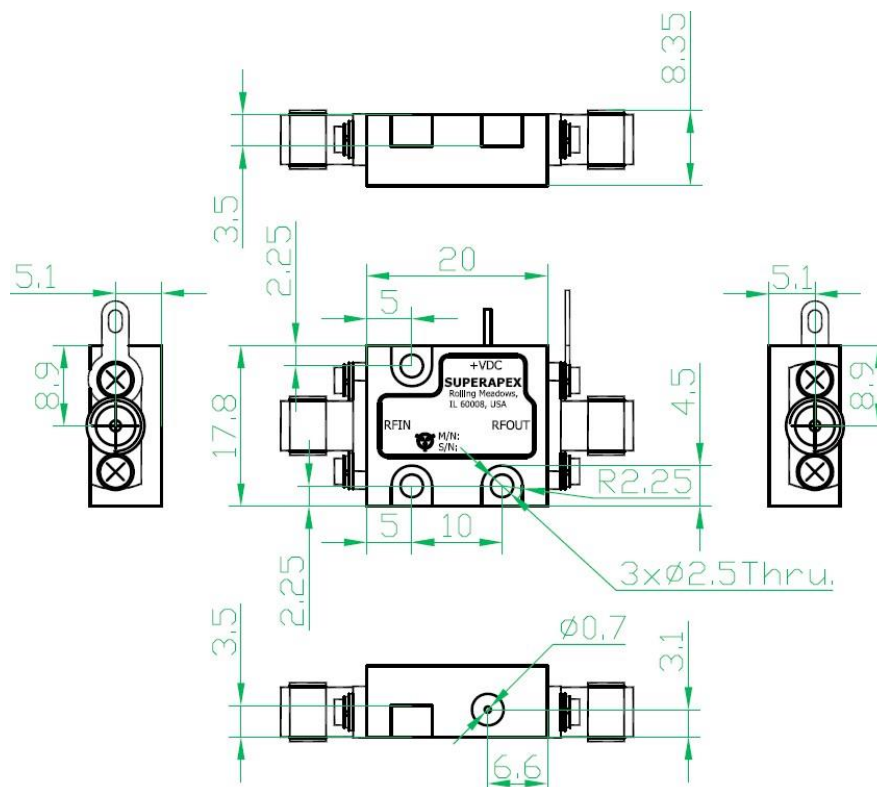
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Absolute Maximum Ratings

Maximum Input Power	+18dBm	Operating Temperature	-40°C ~ +85°C
Channel Temperature	+150°C	Storage Temperature	-65°C ~ +150°C

Mechanical Outline

All dimensions are in millimeters



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