

# SAC1151

## Wide-band Driver Amplifier Module 0.1~20GHz

Rev 1.1

### Features

- Frequency: 0.1~20GHz
- Gain: 27dB
- OP<sub>-1dB</sub>: 10dBm
- Noise Figure: 3.5dB Typ.
- Supply Current: 130mA
- Hermetic Laser Sealing
- Size: 40x20x9mm

### Typical Applications

- Microwave radio
- Telecommunication
- Test instrumentation

### General Description

SAC1151 is a driver amplifier module with a typical small signal gain of 27dB and a nominal OP<sub>-1dB</sub> of +10dBm across the frequency range of 0.1 to 20GHz

SAC1151 is integrated with SUPERAPEX proprietary GaAs MMIC amplifier chip, high frequency microelectronic assembly techniques, and high reliability design to realize optimum low noise figure, wideband operation

### Picture



### Electrical Performance ( $T_A=25^{\circ}\text{C}$ , $I_D=130\text{mA}$ , $Z_0=50\Omega$ )

Parameter	Min.	Typ.	Max.	Units
Frequency Range	0.1~20			GHz
Gain	26	28	-	dB
Gain Flatness	-	±1.0	±1.5	dB
Noise Figure*	-	3.5	4.5	dB
Output Power for 1 dB Compression (OP <sub>-1dB</sub> )	9	10	-	dBm
Output IP <sub>3</sub>	-	22	-	dBm
Input VSWR	-	1.4	1.8	:1
Output VSWR	-	1.4	1.8	:1
Supply Voltage	9	-	15	V
Supply Current	-	130	160	mA

\*Frequency:1~18GHz

### Mechanical Specifications

Parameter	
Input/Output	SMA(F) Field-replaceable
Bias	Pin/Case ground
Case Material	4047 Aluminum alloy
Weight	35g

### SuperApex, LLC

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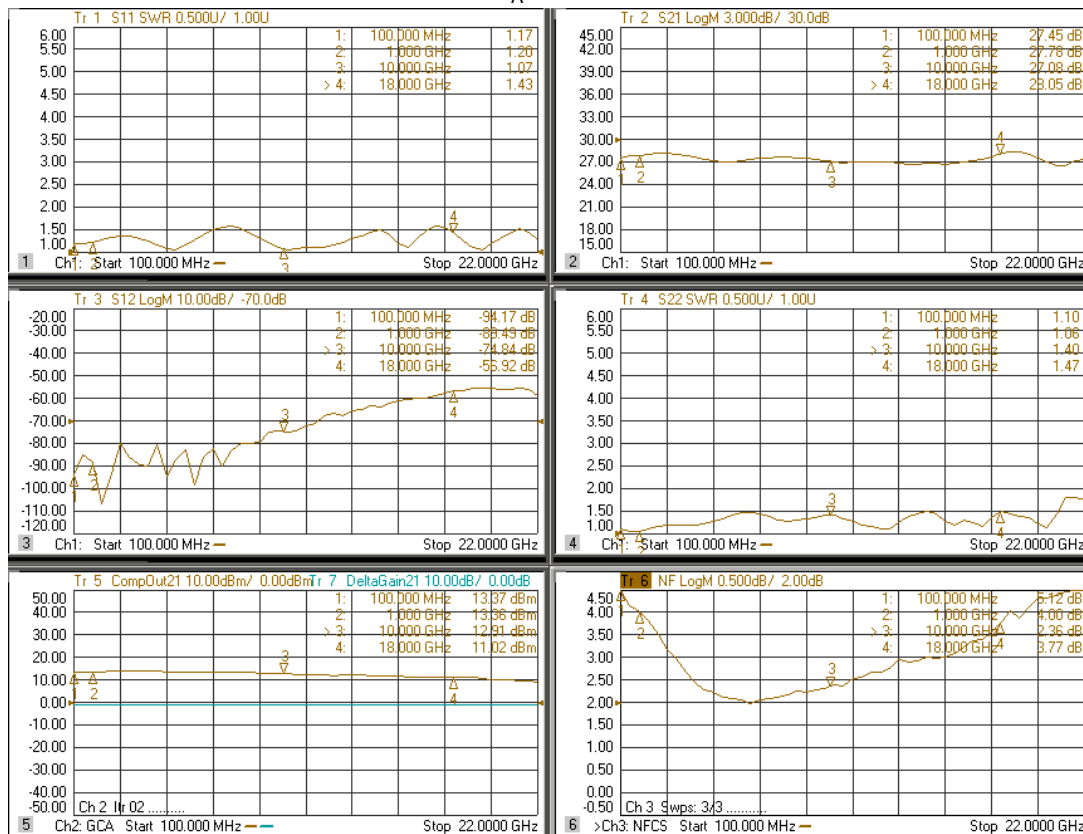
### Absolute Maximum Ratings

Maximum Input Power	+10dBm	Operating Temperature	-40°C~+70°C
Channel Temperature	+150°C	Storage Temperature	-65°C~+150°C

### Typical Performance Curve

+V<sub>DC</sub>=12V, I<sub>D</sub>=130mA

T<sub>A</sub>=25°C



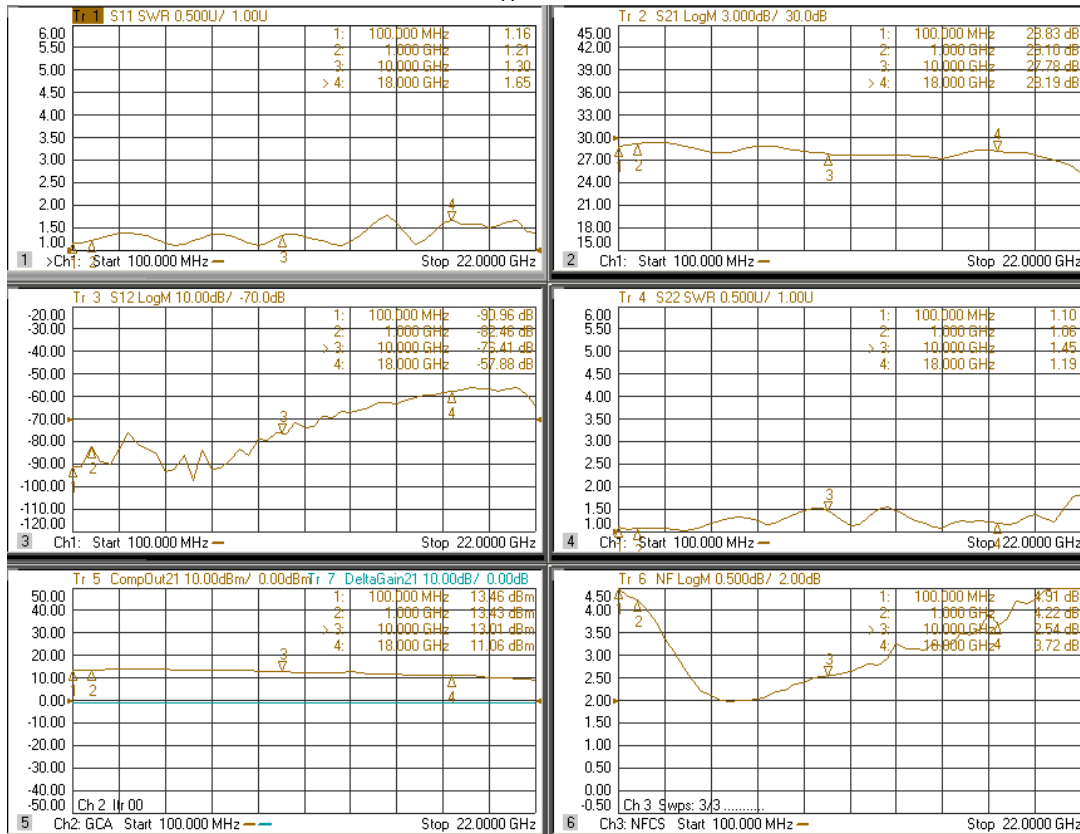
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$T_A = +70^\circ\text{C}$



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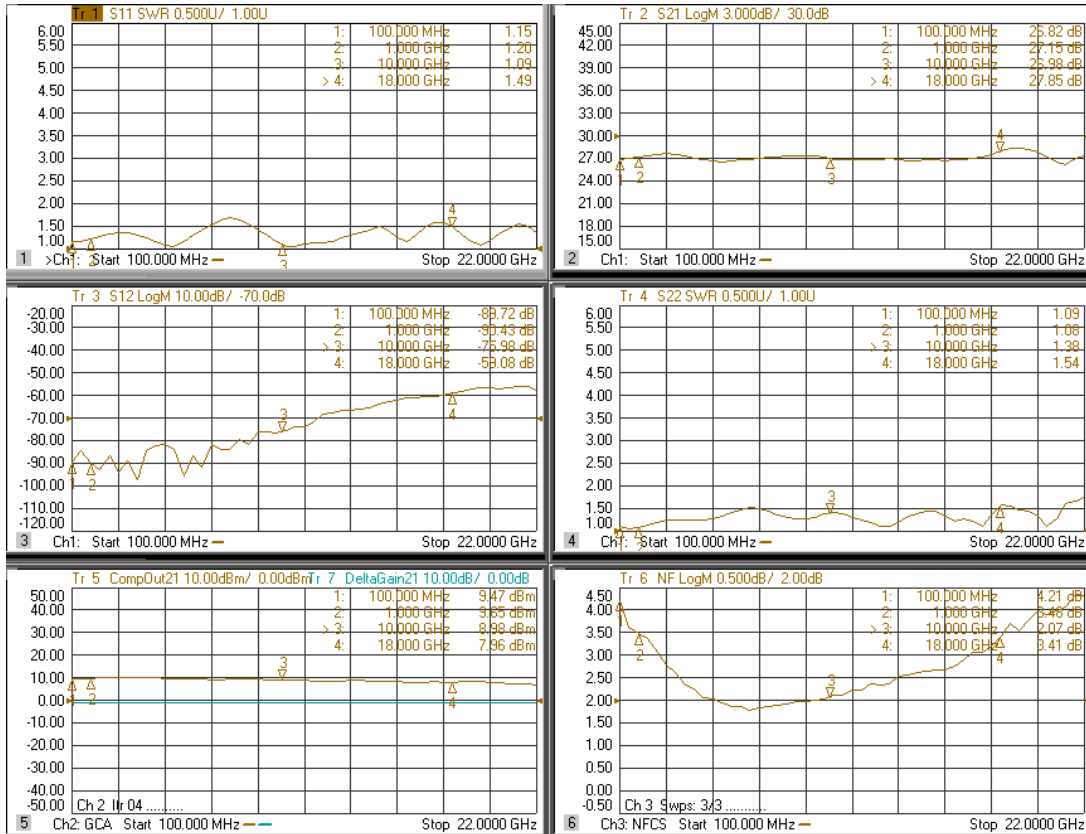
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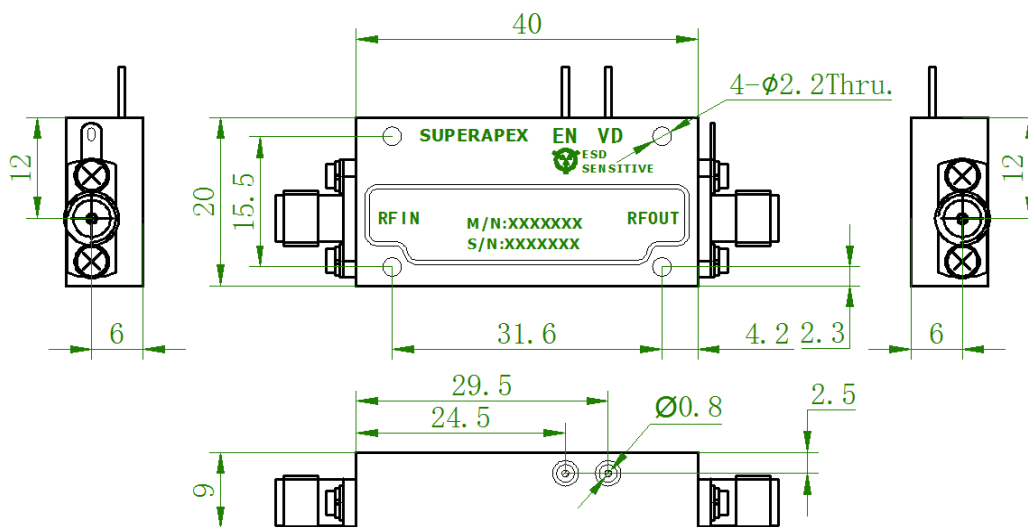
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T<sub>A</sub> = -55°C



## Mechanical Outline

All dimensions are in millimeters



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