

## 2 to 18 GHz Wide Band EW / ECM / IFM High Gain Limiting Amplifier APT55-02001800-7016-66-LMS



### Applications

- IFM Receiver Front End
- Radar Systems
- EW/ECM Communications Systems

### Features

- 2 to 18 GHz Frequency Range
- Typical N.F. < 4 dB
- High Gain (80 dB)
- Gain Flatness <  $\pm 2.5$  dB
- +20 dBm Saturated Output Power
- Low Harmonic Distortion with Two-tone input signals up to +10 dBm
- Internal DC Regulator
- Reverse Voltage Protection
- State-of-the-Art PHEMT Technology
- MIL-883, MIL-45208 construction and reliability

### Product Description

The APT55-02001800-7016-66-LMS is a wideband, high gain medium power limiting amplifier with +20 dBm saturated output power. It is designed mainly for IFM EW airborne application where multiple signals are present at the input and low harmonic distortion is required to preserve the two-tone ratio at output under limiting conditions. The input signals can be as large as +10 dBm.

### Key Specifications at 23°C

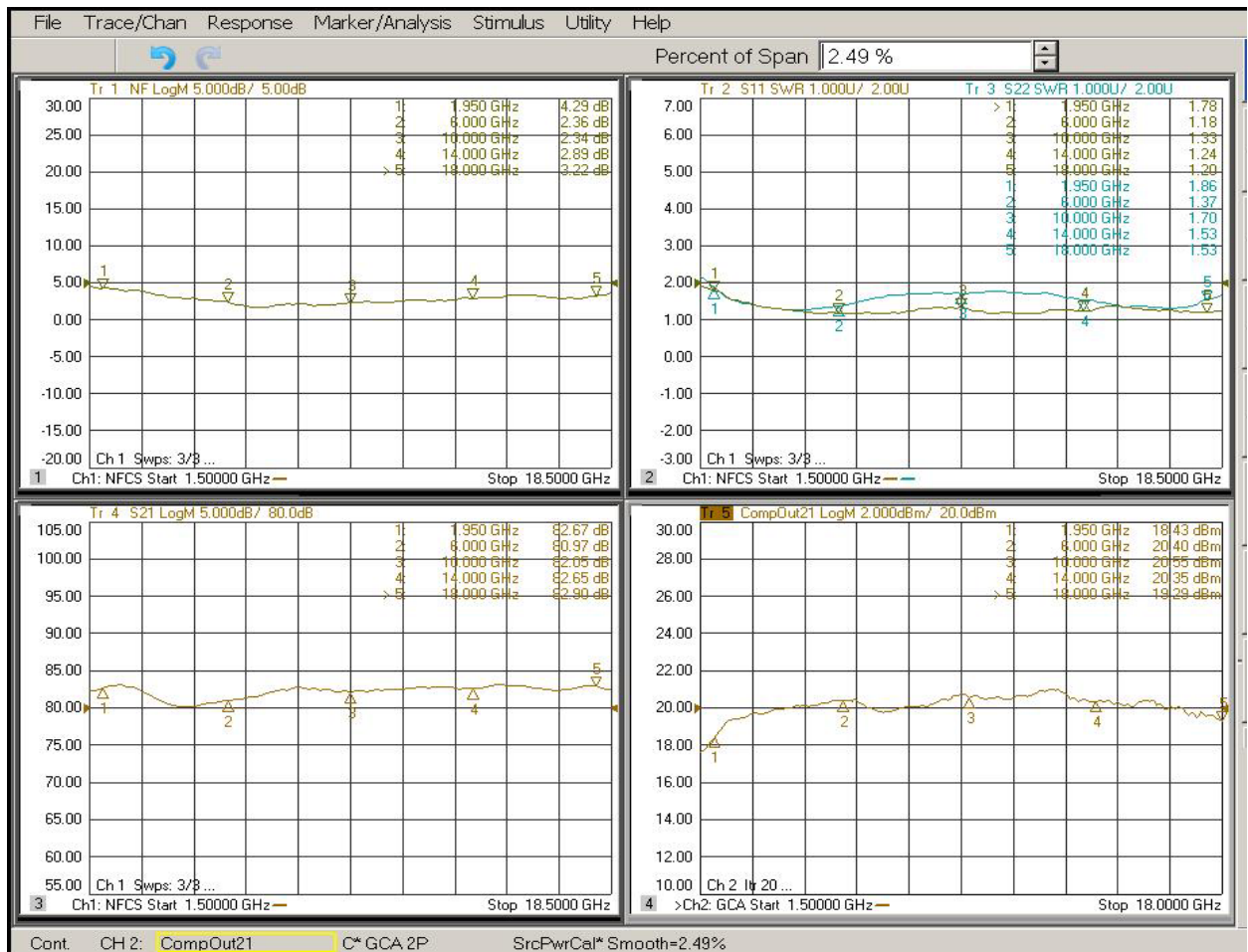
Parameter	Unit	Minimum	Typical	Maximum	Notes
Frequency	GHz	2	-	18	Customizable
Gain	dB	72	80	-	Customizable
Gain Flatness	dB	-	$\pm 2.5$	$\pm 2.5$	Customizable
In/Out VSWR	-	-	2.0	2.0	Customizable
Psat Output	dBm	+17	+20	-	Customizable
Input Power	dBm	-50		+10	
Two-tone ratio	dBc	-5	$\pm 15$	+5	6 dB ratio@
DC Power	V@mA	+11	+12	+16	@550 mA
Noise Figure	dB	-	3.0	7.0	@23°C
Outline/Package	-	-	-	-	D6+D6

## Absolute Maximum Ratings\*

Parameter	Unit	Minimum	Maximum	Notes
Operating Temperature (Case)	°C	-40	+95	95% humidity, non-condensing
Storage Temperature (Case)	°C	-54	+115	95% humidity, non-condensing
RF Input Power	dBm	-	+20	CW
Die Junction Temp (Tj)	°C	-	+150	For GaAs devices
Positive Supply Voltage	V	-	+16	At +V DC terminal
Negative Voltage	V	-	-10	Reverse Voltage

\*Stresses above those listed under "Absolute Maximum Rating" may cause permanent damage to the device. This is a stress rating only and functional operation of the device at these or any other conditions above those indicated in the operational sections of this specification is not implied. Exposure to absolute maximum rating conditions for extended periods may affect device reliability.

## Typical Measured Data



Data taken with Agilent N5242 PNA-X Vector Network Analyzer

## Outline Drawing

