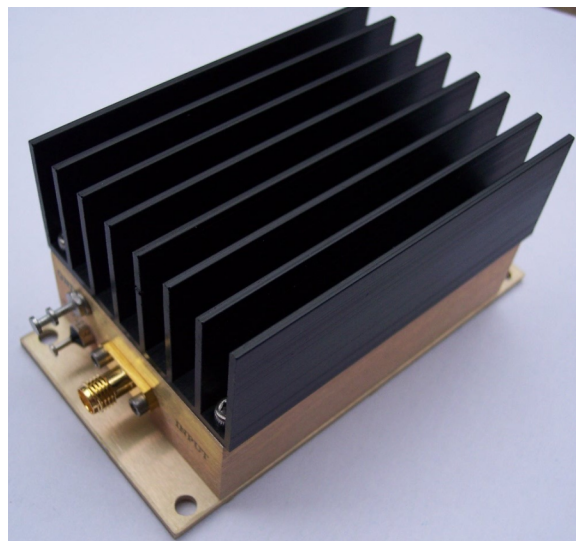


HD27138

3200–4000MHz 1.5W RF Power Amplifier

Features

- Frequency Range: 3200-4000MHz
- Gain: 35dB
- P_{out} : +32dBm
- IP3: +42dBm
- Noise Figure: 6dB
- Efficiency: 28%
- DC Power: 5V
- SMA Connector



Performance tested at 3600MHz

Description

HD27138 is a 1.5Watt (+32dBm) output RF Power Amplifier operating from single 5V DC power supply with frequency from 3200MHz to 4000MHz.

Electrical Specifications @ +25 °C, $Z_S = Z_L = 50 \Omega$, $V_{cc} = +5V$

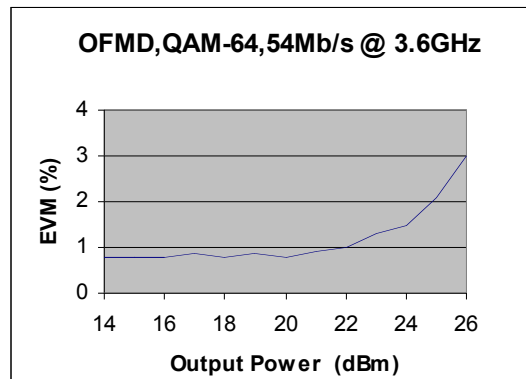
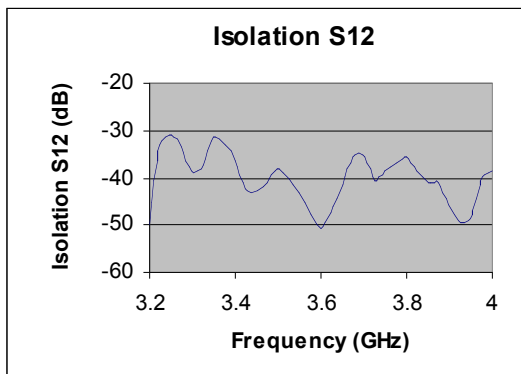
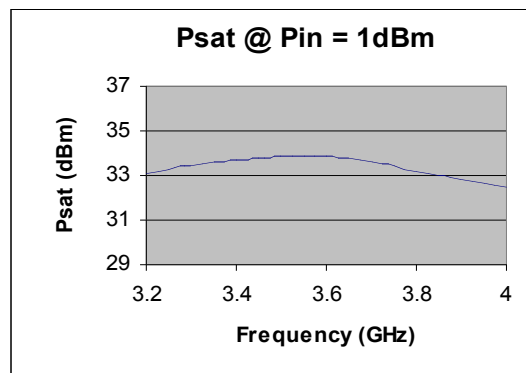
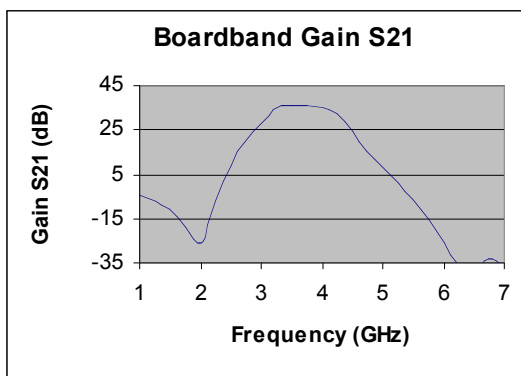
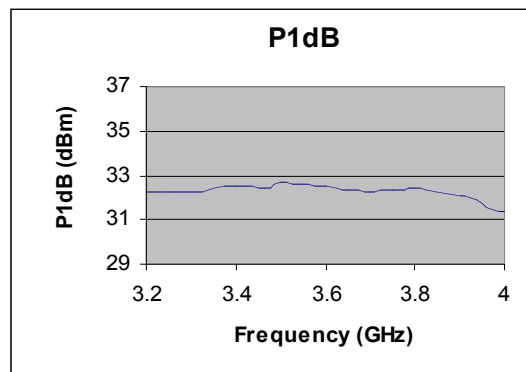
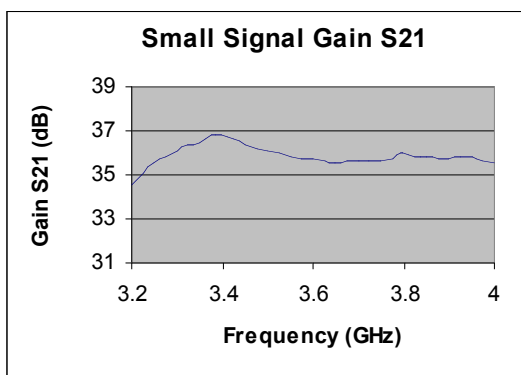
Parameter	Unit	Minimum	Typical	Maximum
Frequency Range	MHz	3200		4000
Small Signal Gain	dB		35	
Output Power P_{1dB} @ $P_{in} = -2dBm$	dBm		+32	
Channel Output Power P_{out} (OFDM QAM-64, 54Mb/s, EVM<2.5%)	dBm		+25	
IP3	dBm		+42	
Reverse Isolation	dB		-50	
Noise Figure	dB		6.0	
Efficiency at $P_{out} = +32dBm$	%		28	
VSWR Input/Output			1.3:1/1.3:1	
DC Power Supply	V		5.0	6.0
Quiescent Current with No Input	mA		730	

HD27138

3200–4000MHz 1.5W RF Power Amplifier

Supply Current at $P_{out} = +32\text{dBm}$	mA	1300
Size (Excluding SMA Connector)	inch	3.750" x 2.000" x 1.813"
Weight	Oz.	8

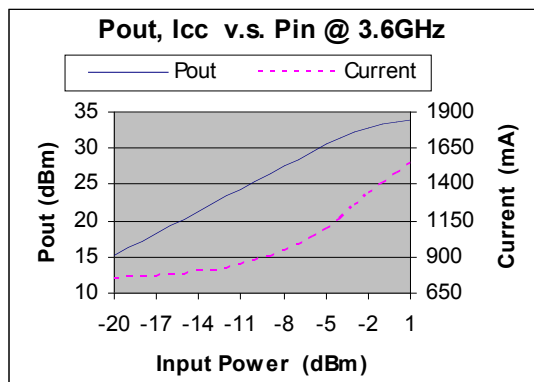
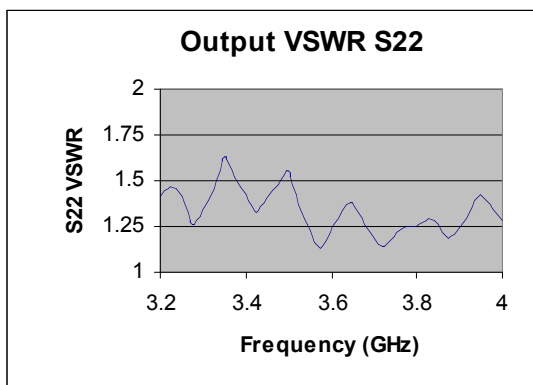
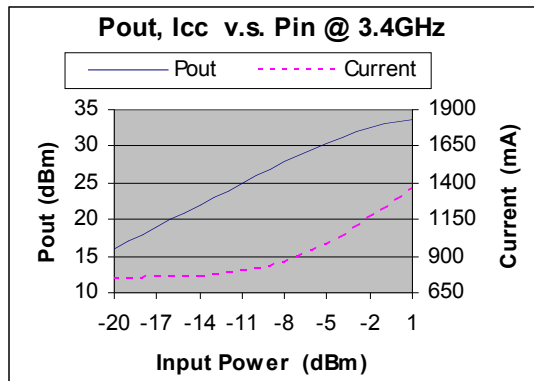
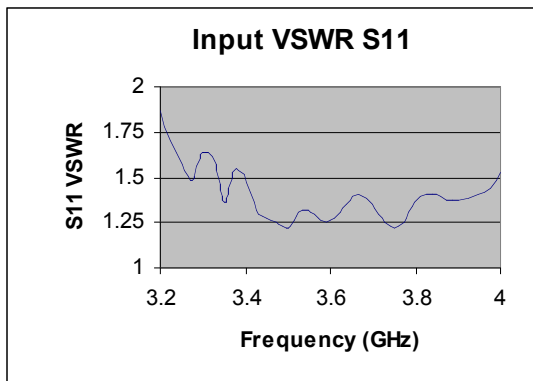
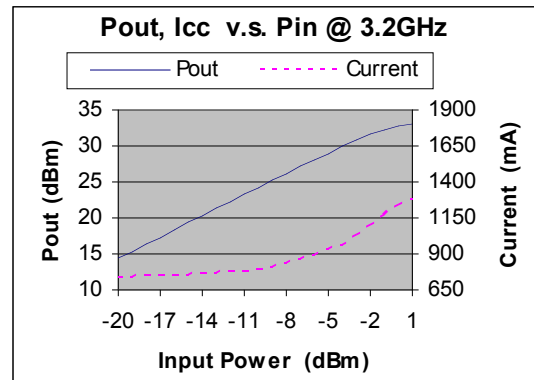
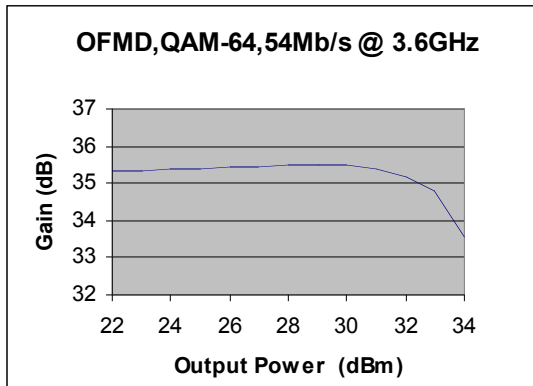
Typical Performance @ +25 °C



HD27138

3200–4000MHz 1.5W RF Power Amplifier

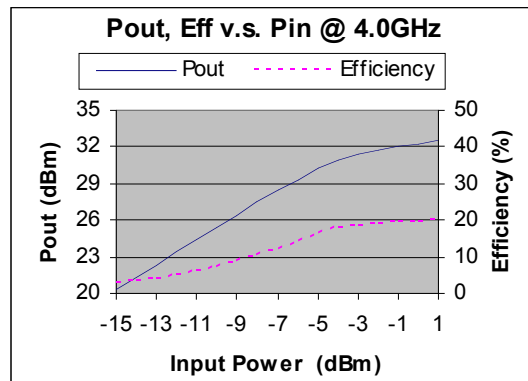
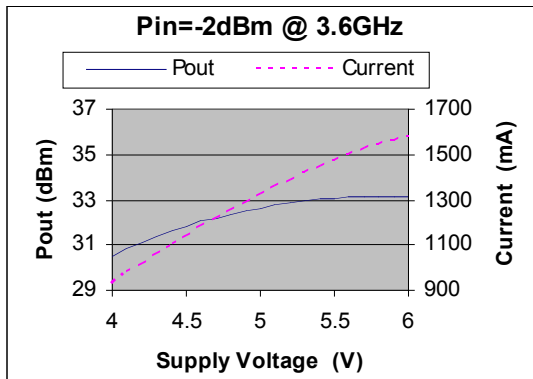
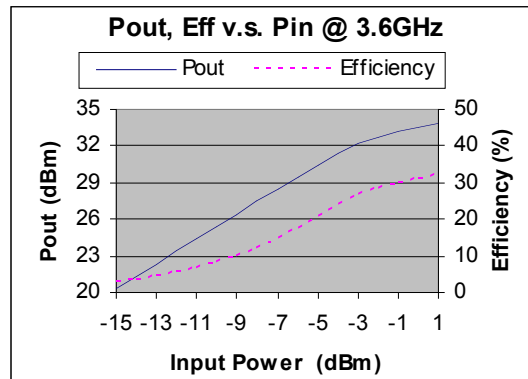
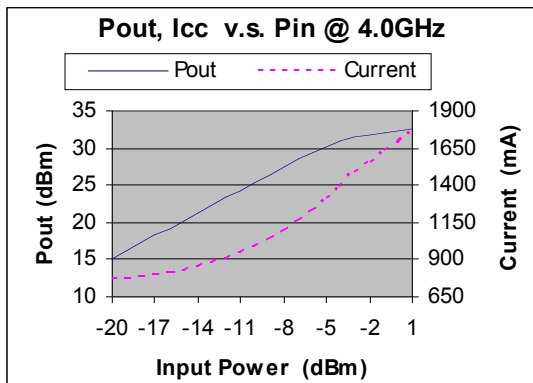
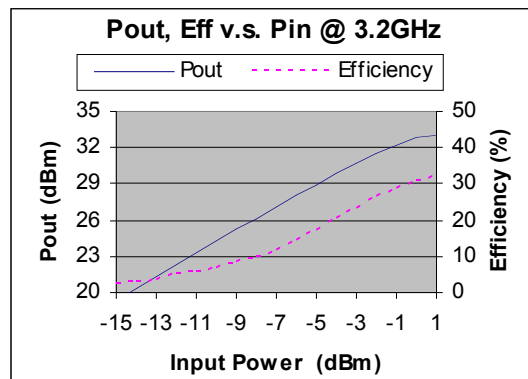
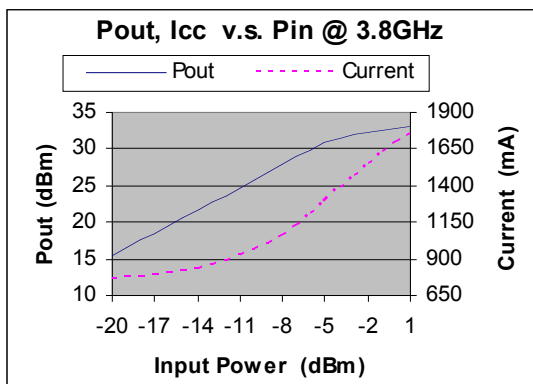
Typical Performance @ +25 °C



HD27138

3200–4000MHz 1.5W RF Power Amplifier

Typical Performance @ +25 °C



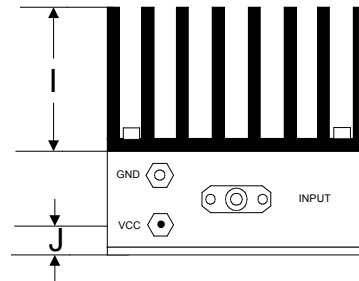
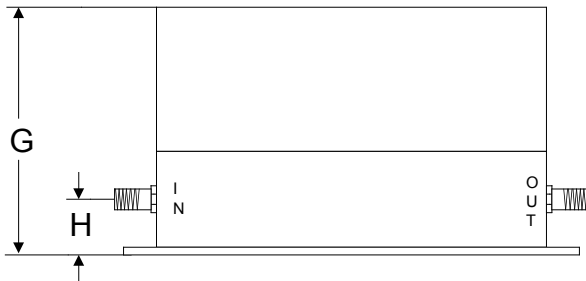
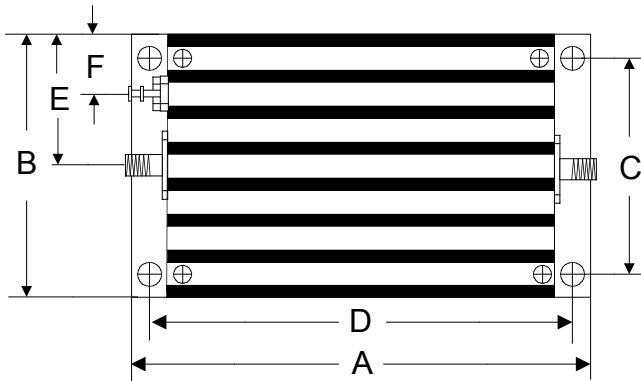
HD27138

3200–4000MHz 1.5W RF Power Amplifier

Absolute Maximum Ratings

Parameter	Absolute Maximum
RF Input Power	+7dBm
Supply Voltage	+7V
Operating Temperature	-30 °C to +65 °C
Storage Temperature	-55 °C to +100 °C

Outline



	A	B	C	D	E	F	G	H	I	J
Inch	3.750	2.000	1.750	3.400	1.000	0.400	1.813	0.375	1.000	0.238
mm	92.25	50.80	44.45	86.36	25.40	10.16	46.05	9.53	25.40	6.03