

PRELIMINARY DATASHEET: Rev 1A, Issue June 2015

HFPA0360 is wideband high power amplifier. Amplifier provides for high gain and high output power in very wide frequency range 250MHz up to 6000MHz. Solid enclosure and modern components ensure reliable work within entire frequency range.

KEY FEATURES

- Wideband 250-6000MHz
- High gain 38dB
- High output power +30dBm
- Excellent flatness ± 1 dB
- High OIP3
- Compact and reliable

APPLICATIONS

- Measuring
- Communication
- Laboratory
- Antenna systems
- Military applications
- LTE/UMTS/GSM/DCS
- Wi-Fi/WiMax
- TETRA



TECHNICAL SPECIFICATIONS

Frequency	250	1000	3000	4500	6000	MHz
Small signal gain	38.0	38.5	38.0	37.5	36.5	dB
Noise figure	2.5	2.2	2.6	2.7	3.2	dB
OIP3	+40					dBm
Output 1dB compression	+28.0					dBm
Saturated output power	+30.5					dBm
Gain flatness	± 1.5 max, ± 1 typ, ± 0.7 @ 70MHz BW					dB
Return loss IN/OUT	10/10					dB
Current consumption	610					mA
Device voltage	+15.0 DC					V
Enable input	Device is switched on +3.3...+15 Device is switched off 0...+0.3					V V
Temperature monitor output	$Monitor_voltage_out = 10 * (inside_temperature_°C) + 500$ The monitor provides for amplifier internal temperature value in range -40...+100°C. Analogue voltage output with slope 10mV/°C.					mV
IN/OUT impedance	50/50					Ohm
IN/OUT connector	SMA-female/ SMA-female					
Enclosure type	Indoor, aluminium					
Surface treatment	Passivated (it can be colored by request)					
DC connector	Soldering pins					
Enable and Monitor connectors	Soldering pins					
Dimensions	165x73x48 (see mechanical drawing)					mm

* Typical values measured at environment temperature $T = +25^{\circ}\text{C}$.

Absolute maximum ratings

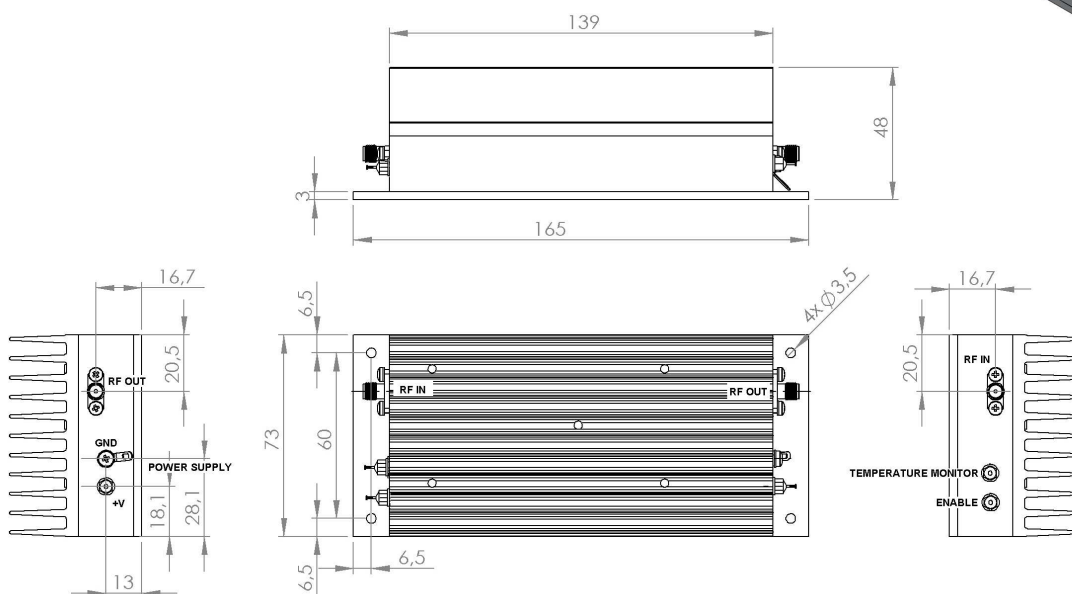
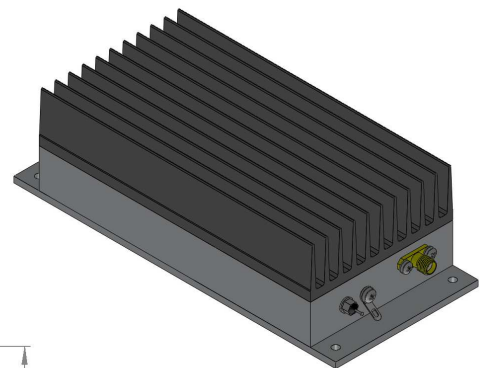
Supply voltage max	+16	V
Supply voltage min	+14.5	V
CW RF input power *	0dBm	dB
Output load VSWR	1:2	
Case temperature	+60	°C
Environment temperature **	-10...+55	°C

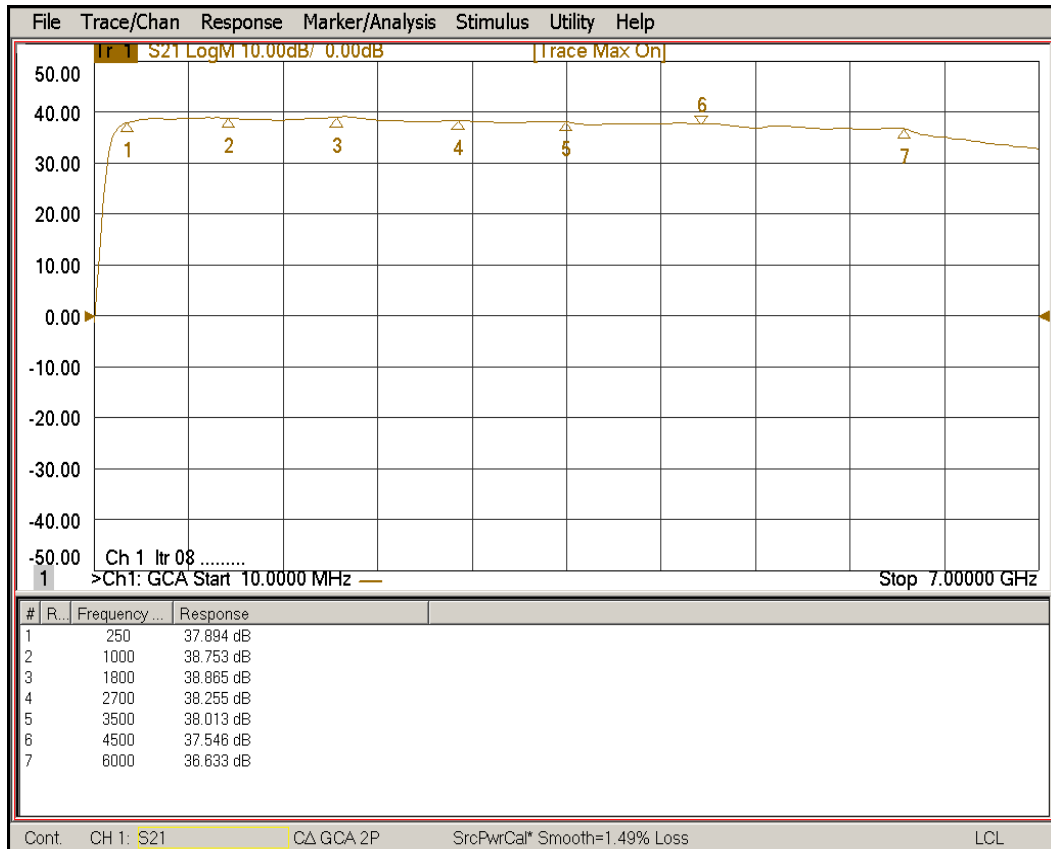
* Normal operation: input is below -15dBm

** Forced air cooling is required if environment temperature is higher than 30°C

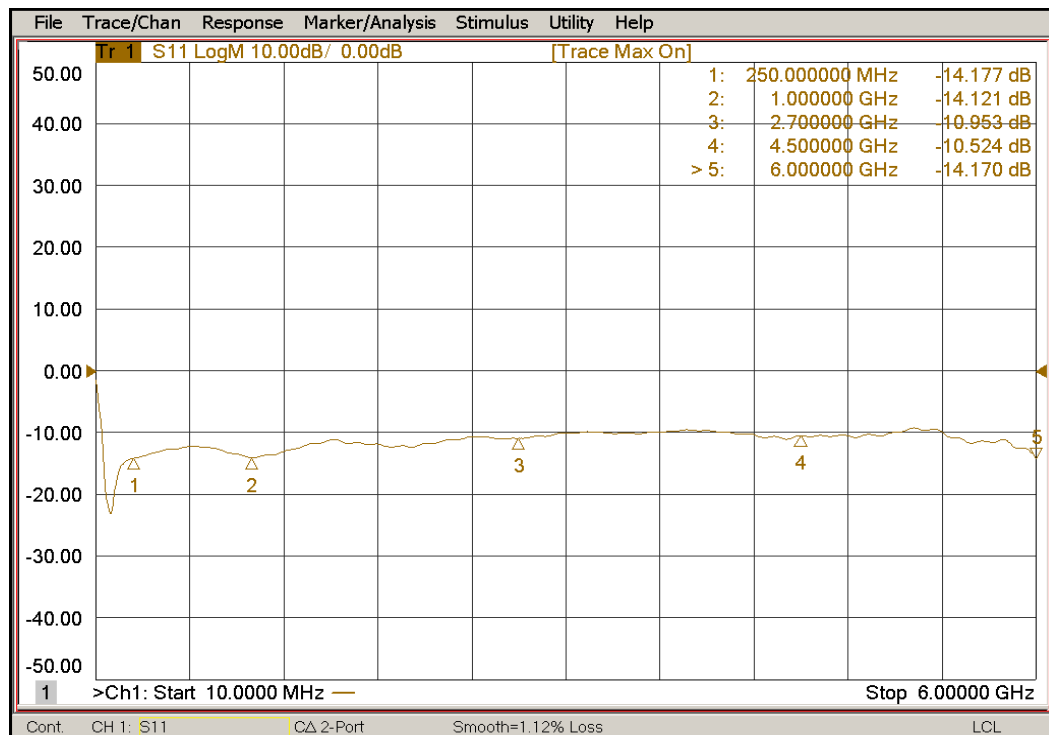
NB! HFPA0360 supplied with heat sinking radiator. The amplifier must be used in free air flow conditions. In case of need additional cooler can be used. Before switching HFPA0360 read carefully the datasheet. Switching on make sure that device RF ports are loaded with 50Ω. Not observing the requirement, the device may be damaged.

Mechanical specifications

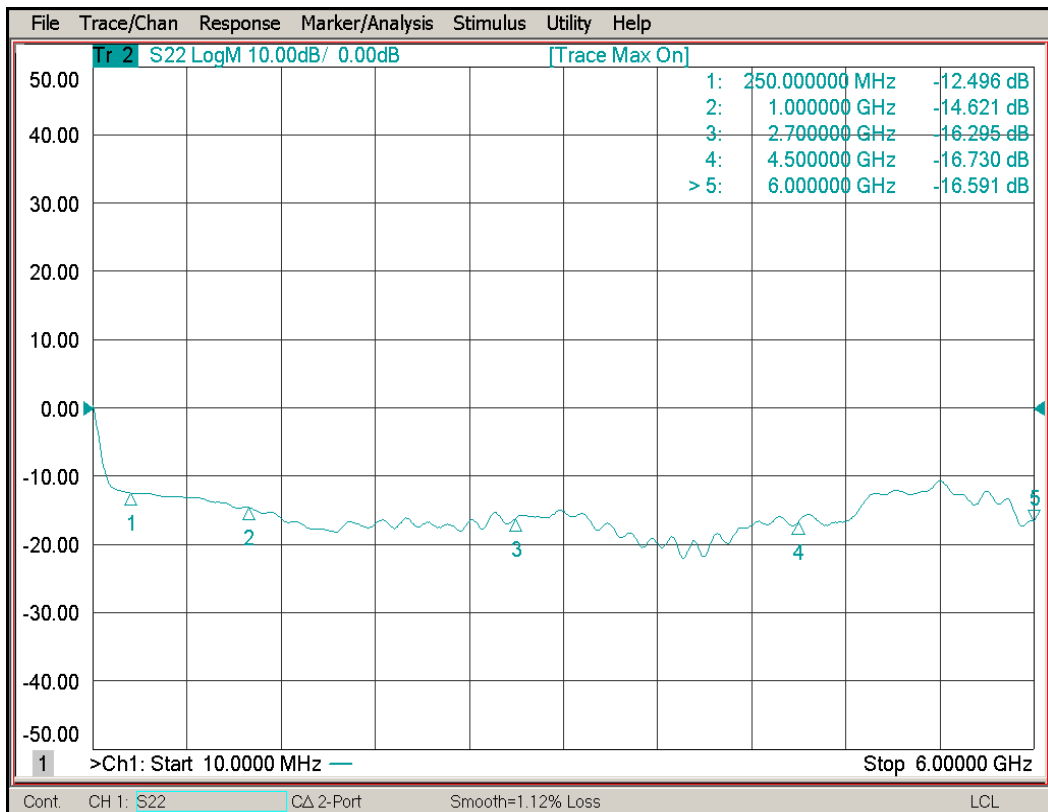




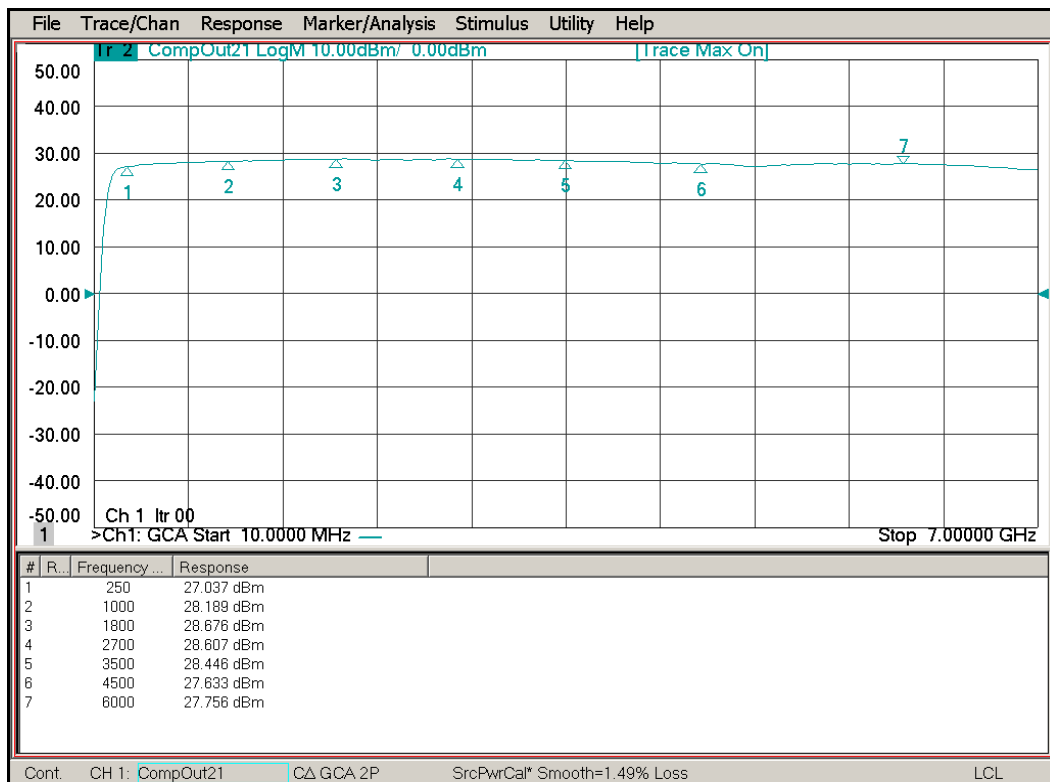
HFPA0360 small signal gain.



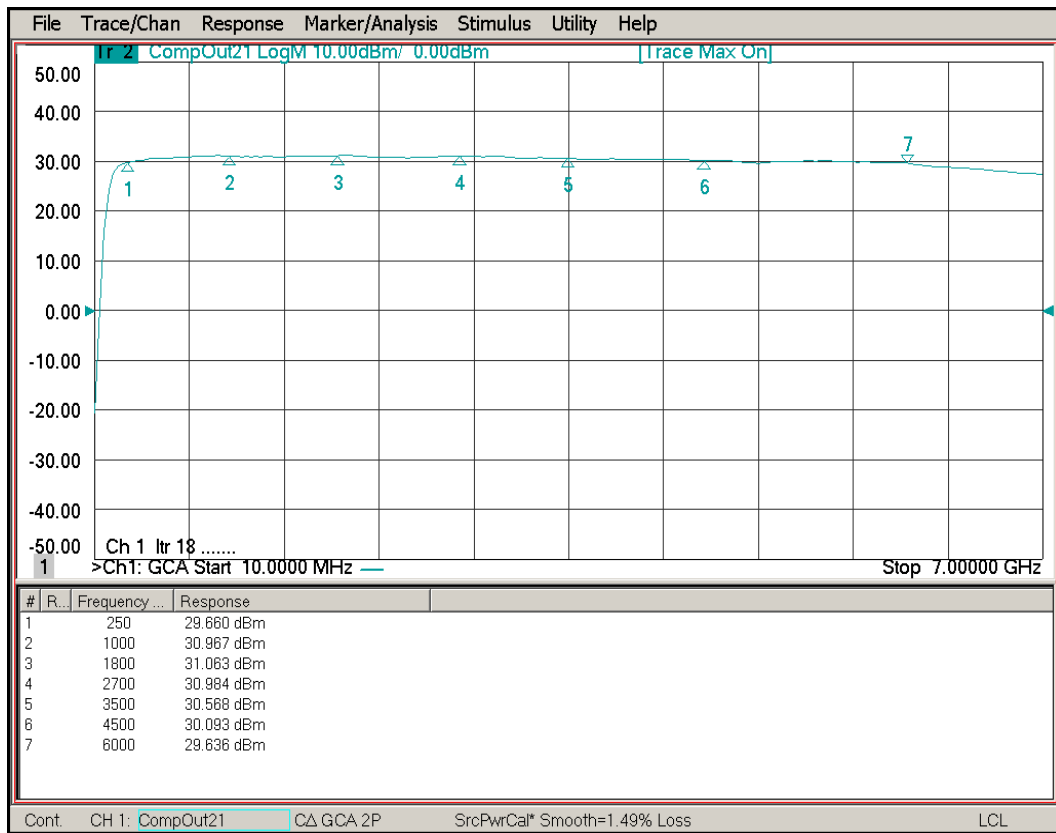
HFPA0360 input matching.



HFPA0360 output matching.



HFPA0360 output power @ 1dB gain compression.



HFPA0360 saturated output power.

Rantelon reserves the right to change the specifications without notice.