



HUBERT

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Datasheet



A1020

RF broadband power amplifier

1 Product description

The RF broadband power amplifiers of the A1020 family are robust Class A/AB amplifiers for EMC testing and general laboratory applications.

Stability under all load conditions encountered in practice, a wide frequency range frequency range, low distortion and a fair purchase price characterise these amplifiers.

Optimum cooling is guaranteed by the use of a high-performance cooling element with temperature-controlled fans. Sophisticated protective devices protect the hardware even under extreme load conditions.

The devices are also optionally available for rack mounting.

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2 Features

- Universally applicable HF amplifier with 50 Ω input/output
- Ultra broadband frequency response over several decades
- High linearity enables good signal fidelity with all modulation types
- Low distortion for clean test signals
- High gain stability over temperature
- Optimised cooling concept enables the lowest possible noise generation with low weight
- Highly efficient power supply with a power factor close to 1 and universal wide range input
- Monitor output parallel to the amplifier output for monitoring the test signal
- Interlock connection for safe test setups

3 Application examples

- General applications in research, development and testing
- EMC testing (e.g. with CDNs, coupling clamps, antennas)
- Radio technology
- Material testing
- Medical technology
- Component testing
- Laser technology
- Plasma technology



4 Photos



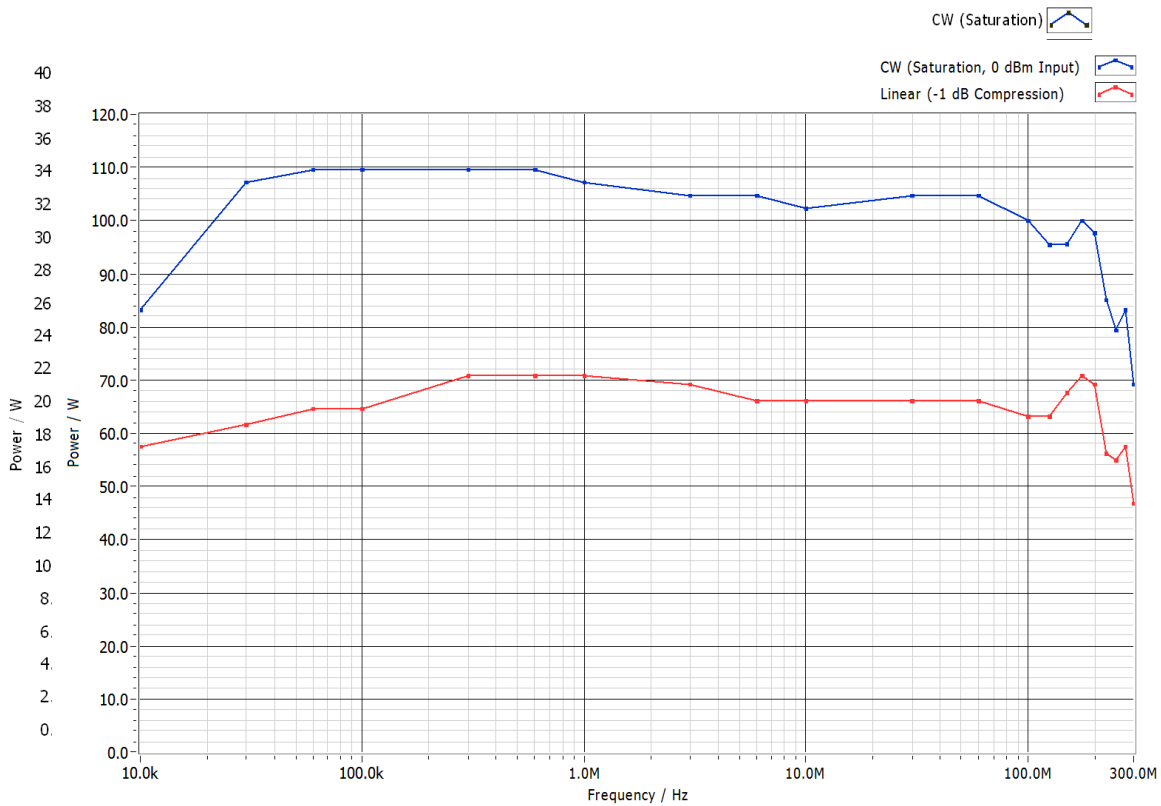


5 Technical data

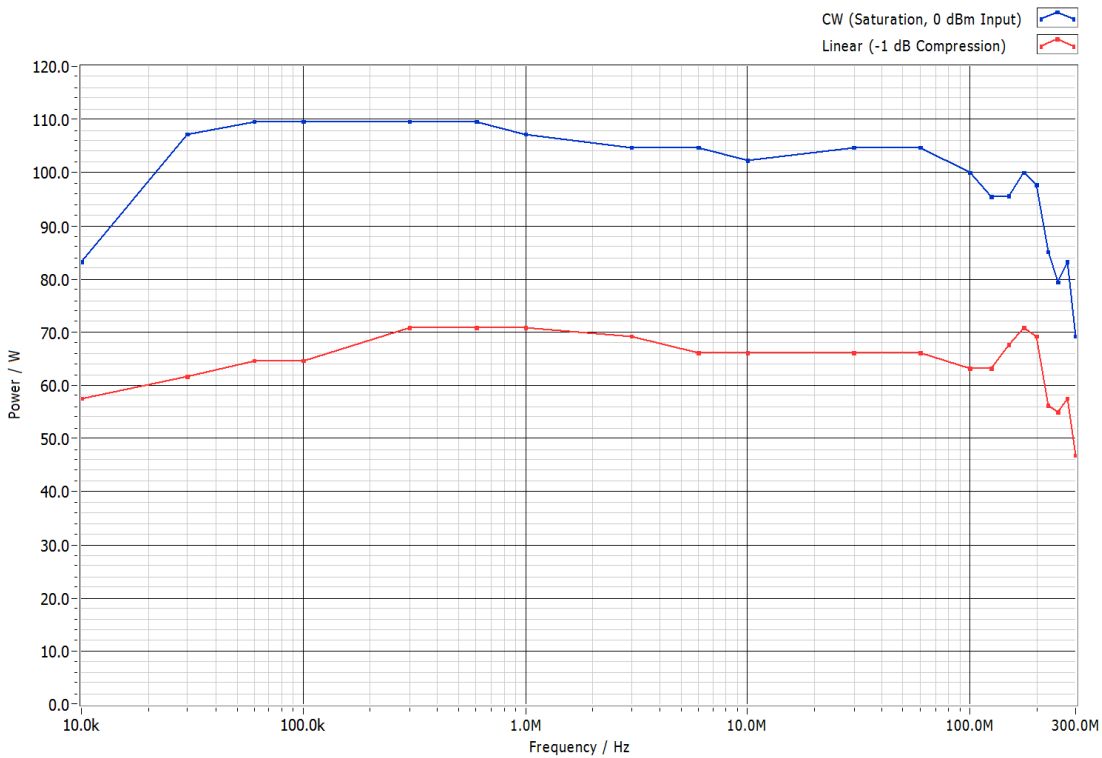
Parameters	Models			
	A1020-25-250	A1020-75-250	A1020-75-400	A1020-180-400
Operating Mode	Class A/AB			
Frequency Range	100 kHz – 250 MHz			
Output Power				
Nominal	25 W	75 W	75 W	180 W
Linear @ 1 dB compression	20 W	50 W	50 W	100 W
Monitor Output	50 Ω monitor output. Level is -40 dB lower than amplifier output level.			
Gain	46 dB nominal	51 dB nominal	51 dB nominal	56 dB nominal
Flatness	± 1.5 dB maximum			
Input Power For Rated Output	1 mW / 0 dBm			
Input / Output Impedance	50 Ω			
Input VSWR	1.5 : 1 max.			
Harmonic Distortion	< -20 dBc @ 20 W	< -20 dBc @ 50 W	< -20 dBc @ 50 W	< -20 dBc @ 100 W
Noise Figure	typ. 5 dB	typ. 7 dB	typ. 7 dB	tbd
Spurious Output	< -75 dBc bei 10 W			
Protection	RF INPUT: Unit will withstand an input signal of +13 dBm or 1 Vrms max. RF OUTPUT: Fully protected against output load VSWR & out-of-band operation THERMAL: auto-reset			
RF Connector	N, female			
Physical Characteristics				
AC Power	88 - 264 VAC / 47 – 63 Hz			
Operating Temperature	10 °C to 55 °C			
Humidity	80% or less at 40 °C / non-condensing			
Cooling	Forced air			
Dimensions (WxHxD)	449 x 133 x 435.5 mm			
Weight	Approx. 10 kg			Approx. 15 kg



6.1 Output power A1020-25-250

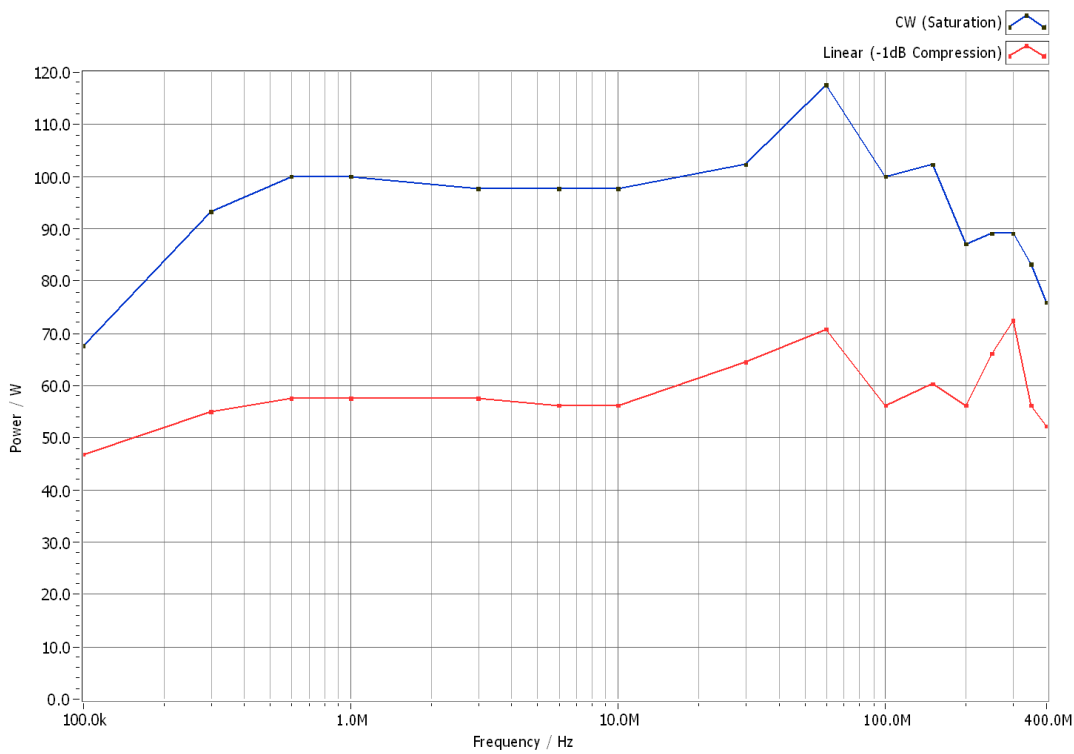


6.2 Output power A1020-75-250

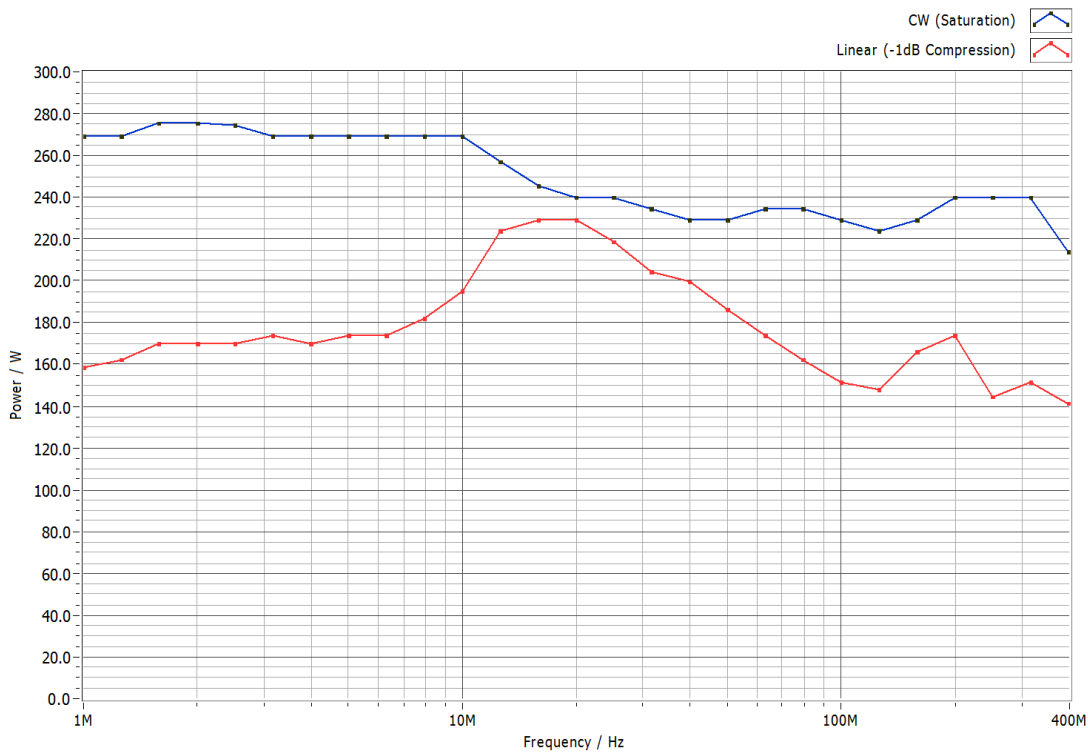




6.3 Output power A1020-75-400



6.4 Output power A1020-180-400





7 Contact

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8 Document history

Revision	Date	Changes
1.0	November 2022	First publication new layout
1.1	November 2022	Pictures updated