

**AM7004200 is wideband compact low noise amplifier intended for low signal receiving applications.**

## KEY FEATURES

- Wide bandwidth
- Low noise figure
- Flat gain
- High output power
- Solid case
- Small dimensions
- Wide voltage range

## APPLICATIONS

- Radio-monitoring
- Front-end amplifiers
- IF signal amplification
- Cable loss compensation
- Cellular networks
- Laboratories
- Test equipment

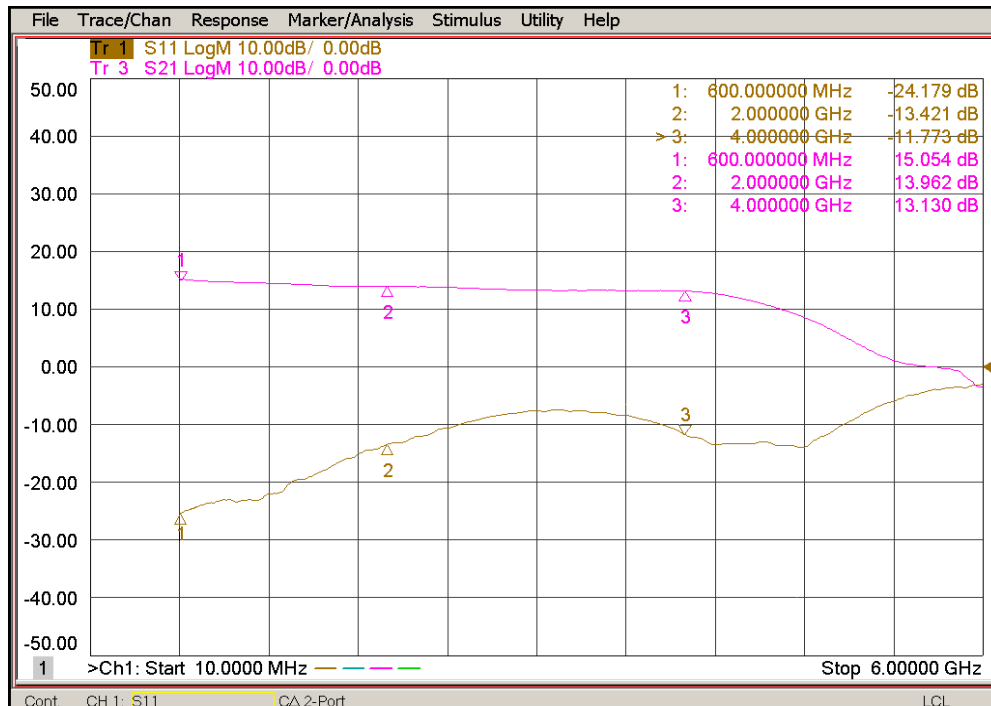


Image is for illustrative purposes only.

## PRODUCT DESCRIPTION

AM7004200 represents special purpose low noise amplifier. Thanks to well thought-out design the amplifier AM7004200 has low noise figure and flat stable gain. Amplifying input signal approximately by 14dB, AM7004200 contributes very small it's own noise about only 2-3dB, due to what it can be possible to improve sensitivity of a receiver significantly.

AM7004200 can be equipped with SMA or N-type connectors. The impedance of input/output is 50 Ohm, what is the most commonly used impedance in such type applications.



Gain and Input Matching vs. Frequency

## TECHNICAL SPECIFICATIONS

### Absolute maximum ratings

<b>Device voltage*</b>	+17	V
<b>CW RF input power **</b>	+18	dBm
<b>Operating temperature</b>	-40...+85	°C

\* Built-in protection transistor diode +18V.

\*\* Normal operation: input is below -10dBm!

### RF characteristics\*

<b>Frequency range</b>	700-4200							MHz
<b>IN/OUT impedance</b>	50/50							Ohm
	<b>700</b>	<b>900</b>	<b>1900</b>	<b>2700</b>	<b>3500</b>	<b>4000</b>	<b>4200</b>	MHz
<b>Gain</b>	15.0	14.7	14.0	13.5	13.5	13.0	12.5	dB
<b>Noise figure</b>	1.9	2.0	2.2	2.6	2.9	3.1	3.5	dB
<b>Return loss IN</b>	10							dB
<b>Return loss OUT</b>	10							dB
<b>Isolation</b>	20							dB
<b>Output 1dB</b>	21.0	21.0	20.0	19.0	17.0	16.0	15.0	dBm
<b>Output IP3</b> ( $\Delta f=1\text{MHz}$ , +0dBm each)	30.0	37.0	36.0	35.0	33.0	30.0	28.0	dBm

\* Typical values measured at temperature T=+25°C.

### DC and mechanical characteristics

<b>Operating device current</b>	85	mA
<b>Operating device voltage (DC)</b>	+9...+17	V
<b>RF IN/OUT Connector</b>	SMA-female/SMA-female or N-female/N-female	
<b>DC connector</b>	Soldering terminals	
<b>Enclosure type</b>	Indoor**, aluminium	
<b>Dimensions</b> (without connectors)	50x40x22	mm

\*\* In case of special need, outdoor type enclosure can be ordered also. Ask Rantelon for more details.

*Rantelon reserves the right to change the specification without notice.*