

## Wideband low noise amplifier

AM-2003 is designed as wideband low noise amplifier. High linearity, wide band and good noise parameters make AM-2003 very attractive in low signal receiving applications.

### Features:

- High gain
- Flat gain-frequency response
- Low noise
- Wide band
- Solid case
- Small dimensions



### Application areas:

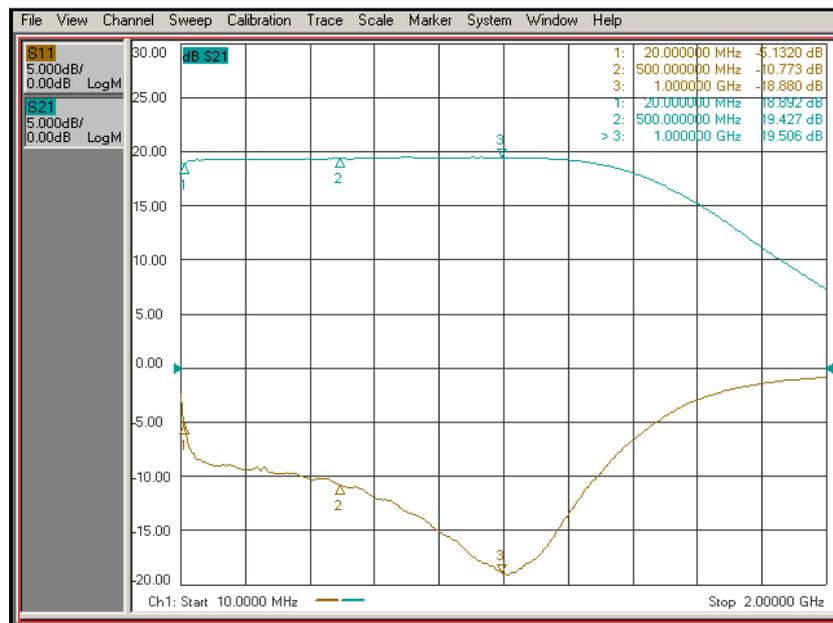
- Small signals receiving
- IF signal amplification

### Product description:

AM-2003 represents special purpose low noise amplifier. Thanks to well thought-out design the amplifier AM-2003 has high gain and linearity, flatness of gain-frequency response but for all that it can operate in wide frequency range 20-1000MHz.

Amplifying input signal by 20dB, AM-2003 contributes very small own noise, due to what it can be possible to receive very weak signals.

AM-2003 is equipped with SMA-female connectors. The impedance of input/output is 50 Ohm, what is the most commonly used impedance in such type applications.



Gain vs. frequency (upper green curve)

Input matching vs. frequency (lower yellow curve)



## Absolute maximum ratings:

Parameter	Value
Device voltage	20V
Input RF power	+13dBm
Output load VSWR	20:1

## Technical specifications:

Parameter	Value	Comment
Frequency range	20-1000MHz	
Impedance	50Ohm	
Gain:		T=23°C
50MHz	19dB	
500MHz	20dB	
1000MHz	20dB	
Flatness	±1dB	
Input VSWR typical:		50Ohm load
50MHz	2.3:1	
500MHz	1.8:1	
1000MHz	1.3:1	
Output VSWR typical:		50Ohm load
50MHz	1.4:1	
500MHz	1.2:1	
1000MHz	1.1:1	
Isolation:		
50MHz	23dB	
500MHz	24dB	
1000MHz	27dB	
Noise figure:		T=23°C
50MHz	1.5dB	
500MHz	1.3dB	
1000MHz	1.6dB	
Output P <sub>1dB</sub> :		
20MHz	21dBm	
500MHz	22dBm	
850MHz	20dBm	
Output IP <sub>3</sub> :		Two tones f <sub>1</sub> and f <sub>2</sub> , Δf= f <sub>2</sub> -f <sub>1</sub> =1MHz, P <sub>f1</sub> =0dBm, P <sub>f2</sub> =0dBm
20MHz	33dBm	
500MHz	34dBm	
850MHz	34dBm	
Power consumption	15V/100mA	
Connector type	SMA-female	
Dimensions	50x40x13mm	Without connectors