

1 W Medium Power Amplifier Module 100 kHz ... 80 MHz, 50 Ω

Features

- output power +32 dBm typ.
- high IP3 +55 dBm typ.
- high IP2 +110 dBm typ.
- open / short stable
- transient protected

Applications

- preamplifier
- wideband signal distribution
- laboratory
- test equipment
- instrumentation



At a Glance

AMP018032 from Becker Nachrichtentechnik is a compact high dynamic amplifier module in 50 Ohm technology. It is suitable for frequencies from 100 kHz to 80 MHz.

Excellent Dynamic

The high 2nd and 3rd order intercept points in combination with a low noise figure make this module suitable for applications with highest demands for dynamic.

In shortwave receiving systems where weak signals have to be amplified among strong interfering signals, AMP018032 is the right solution.

Robust Design

AMP018032 features a compact and robust module design with integrated passive cooling. It is robust against mismatches which can occur in operation with complex loads.

This product is available in two different versions. They differ in the type of the power connector (straight or angled). The module version with angled power connector fits into typical 1 U enclosures.

RF Specifications

Parameter	Symbol	Min.	Typ.	Max.	Unit	Condition
impedance	Z_{in} / Z_{out}		50		Ohm	
low frequency	f_{min}		50	1000	kHz	
high frequency	f_{max}	30	80		MHz	
gain	S_{21}	17.5	18.5	19.5	dB	
gain ripple	ΔS_{21}			1.0	dB	
input return loss	S_{11}		-25	-14	dB	
output return loss	S_{22}		-23	-14	dB	
reverse isolation	S_{12}			-25	dB	
1 dB compression	P_{1dB}	30	32		dBm	
3 rd order intercept out	OIP3 ¹	50	55		dBm	
2 nd order intercept out	OIP2 ¹	100	110		dBm	
noise figure	NF		3.8	5.0	dB	
maximum input power				+20	dBm	output terminated with 50 Ohm
RF connectors						SMA female

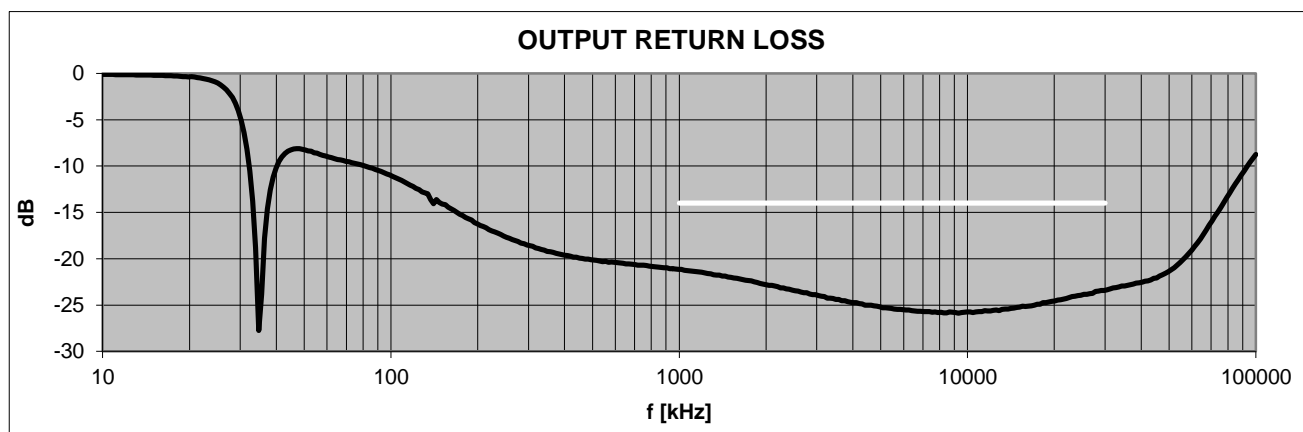
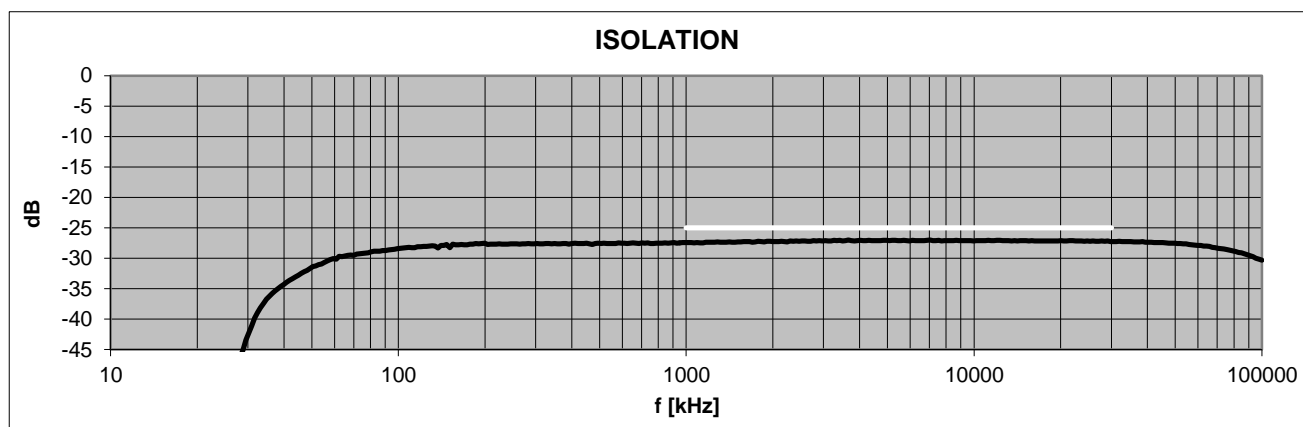
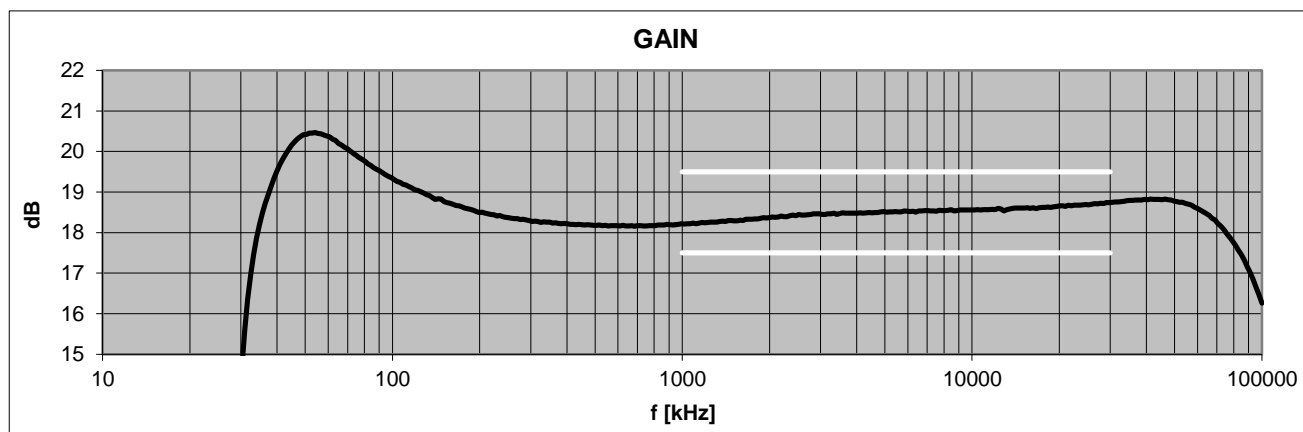
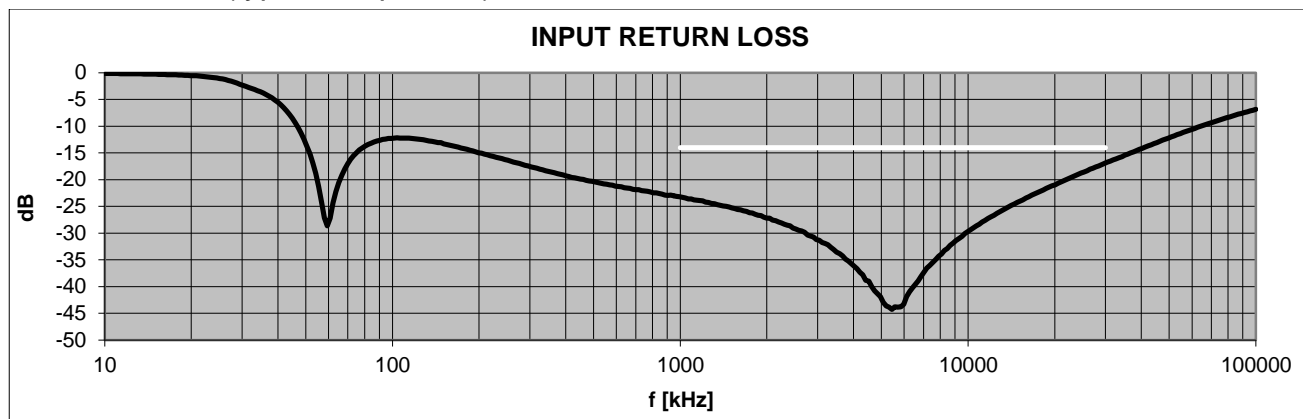
Note 1: Tested at 2 x 0 dBm P_{in} $\Delta f = 1$ MHz

Common Specifications

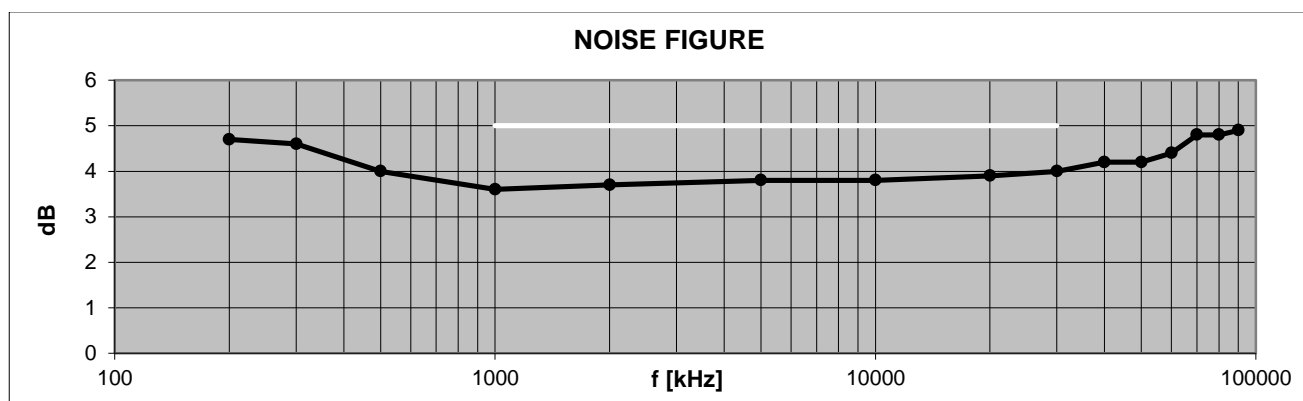
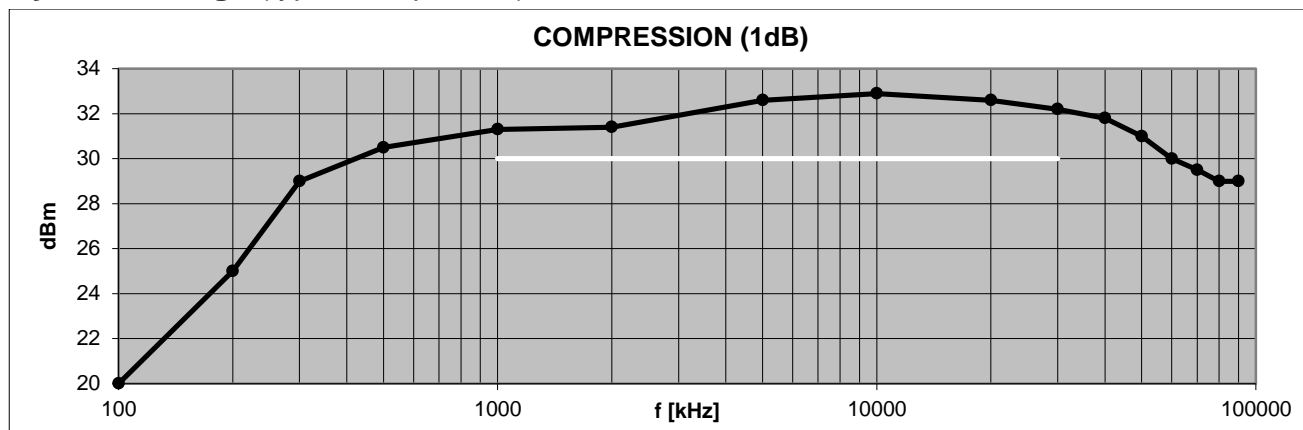
Parameter	Symbol	Min.	Typ.	Max.	Unit	Condition
supply voltage	U	23.5	24.0	24.5	V	DC
current consumption	I	390	410	430	mA	
dimensions	L x W x H	approx. 99 x 75 x 19			mm	
weight	m		220		g	
recommend power plug	GSN 87H391X1F-02 + 87C39FL-R50					included accessories
operating temp. range	T_o	+5		+45	°C	ambiance
storage temp. range	T_s	-40		+70	°C	
ordering information	AMP018032			1002.5701.1		straight power connector
	AMP018032			1002.5701.2		angled power connector



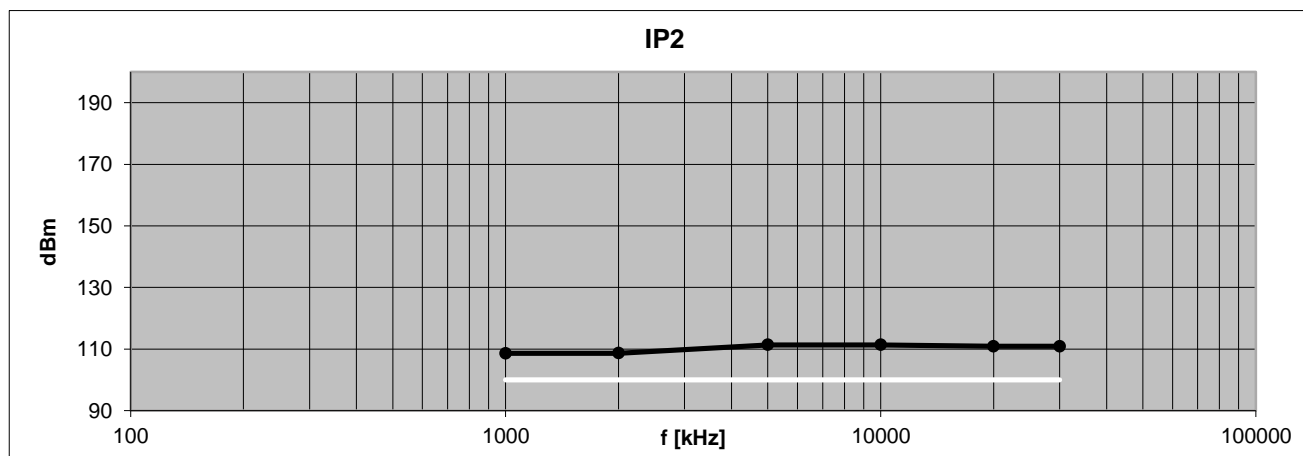
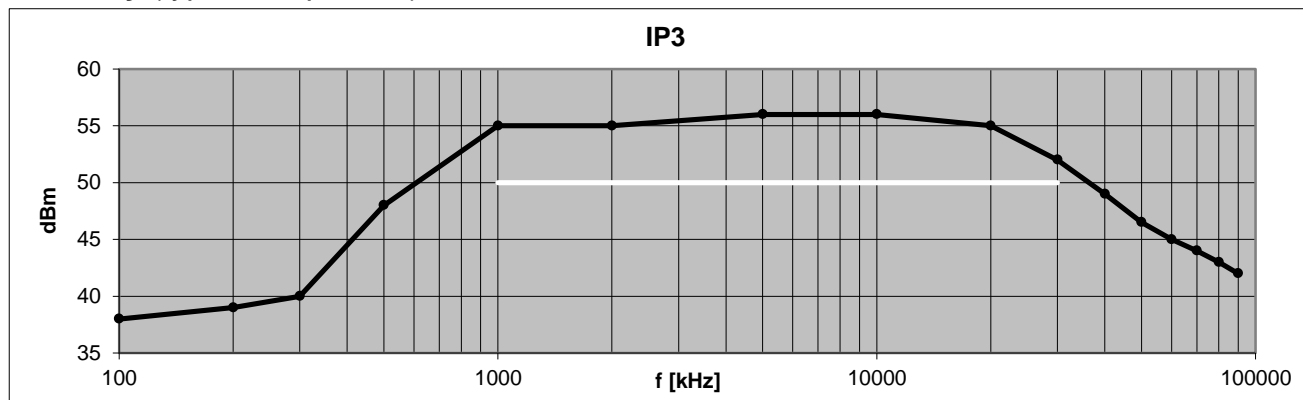
S-Parameters (typical responses)



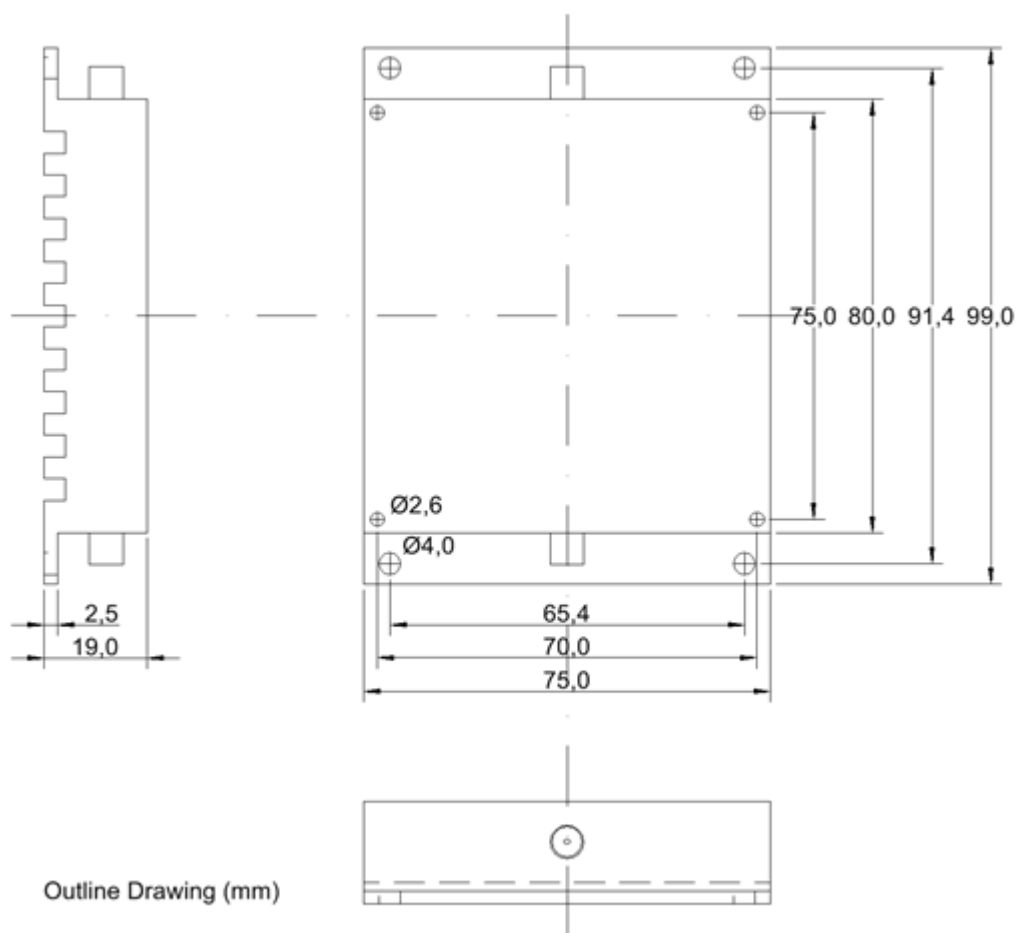
Dynamic Range (typical responses)



Linearity (typical responses)



Dimensions



Outline Drawing (mm)

Related Products

Product	Description	P/N
LNA1080014	High Dynamic Range Amplifier Module 10 ... 800 MHz, 50 Ω	0901.5501.1
AMP590033	2 W Booster Amplifier Module 5 ... 900 MHz, 50 Ω	0901.5011.1
AMP590033H	2 W Power Amplifier Module 5 ... 900 MHz, 50 Ω	0901.5001.1
AMP5270026	High Dynamic Amplifier Module 5 ... 2700 MHz, 50 Ω	1005.5201.1
AMP5220031	High Dynamic Amplifier Module 5 ... 2200 MHz, 50 Ω	1005.5101.1
AMP20280035	4.5 W Wideband Amplifier Module 20 ... 2800 MHz, 50 Ω	1209.5001.1
AMP10850026	500 mW Wideband Amplifier Module 10 ... 8500 MHz, 50 Ω	1305.5001.1
AMP5170033	Extremely High Linearity Amplifier Module 5 ... 1700 MHz, 50 Ω	1401.5011.1
AMP1053043H	20 W Power Amplifier Module 10 ... 530 MHz, 50 Ω	1001.5001.1