

1 W Medium Power Amplifier 100 kHz ... 80 MHz, 50  $\Omega$

## Features

- output power +32 dBm typ.
- high IP3 +55 dBm typ.
- high IP2 +110 dBm typ.
- open / short stable
- transient protected
- 110 V and 230 V AC mains supply

## Applications

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

## At a Glance

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

## Excellent Dynamic

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

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



## Robust Design

AMP018032-T features a compact design. It is robust against mismatches which can occur in operation with complex loads.

The device is supplied by mains voltage and is equipped with N female connectors. This allows for a straightforward connection of the amplifier.

## 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	$\Delta S_{21}$			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 <sup>rd</sup> order intercept out	OIP3 <sup>1</sup>	50	55		dBm	
2 <sup>nd</sup> order intercept out	OIP2 <sup>1</sup>	100	110		dBm	
noise figure	NF		3.8	5.0	dB	
maximum input power				+20	dBm	output terminated with 50 Ohm
RF connectors						N female

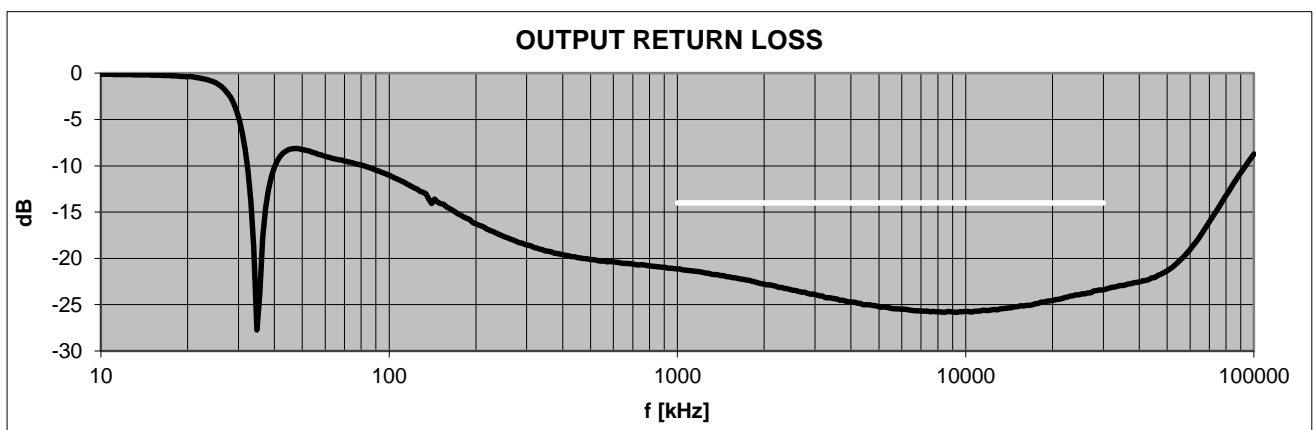
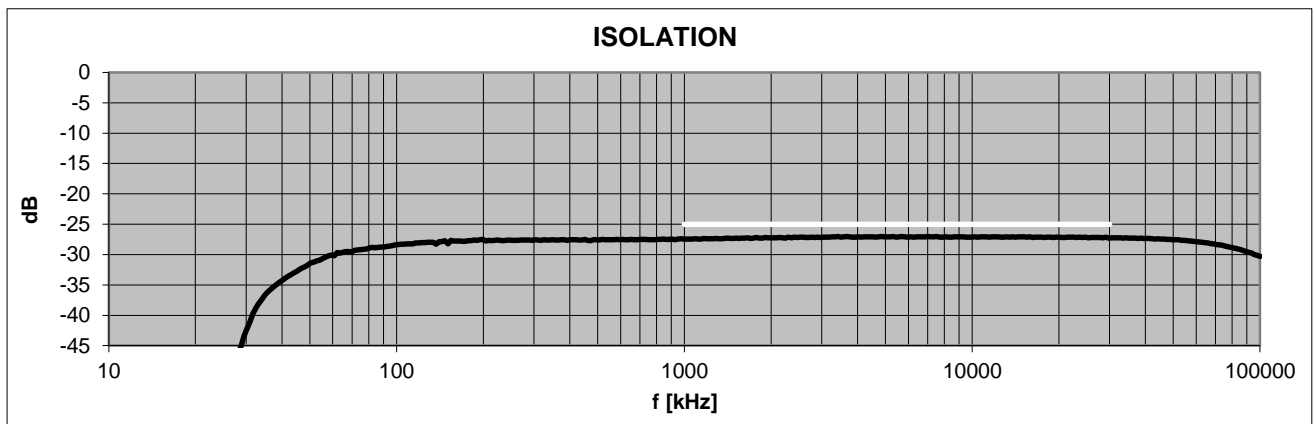
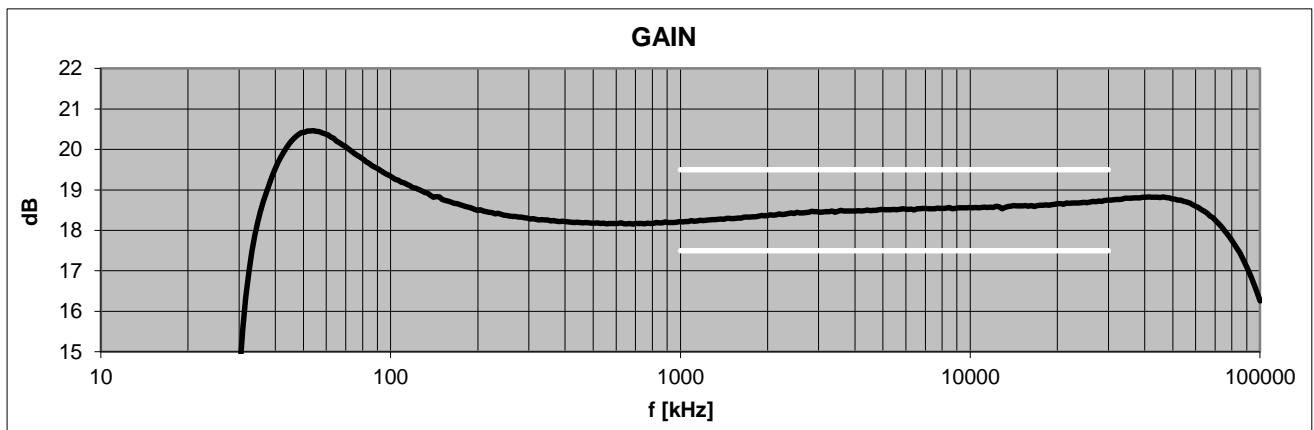
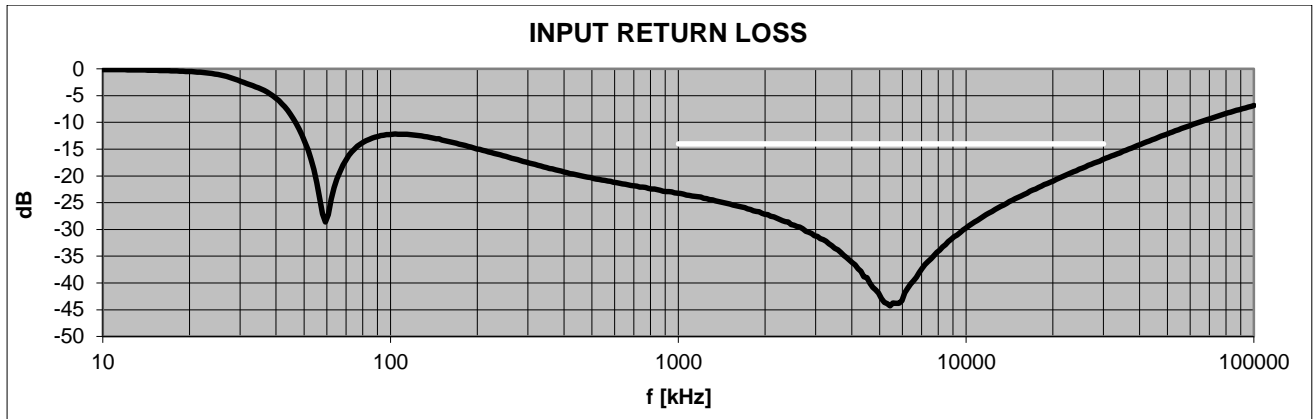
Note 1: Tested at 2 x 0 dBm  $P_{in}$   $\Delta f = 1$  MHz

## Common Specifications

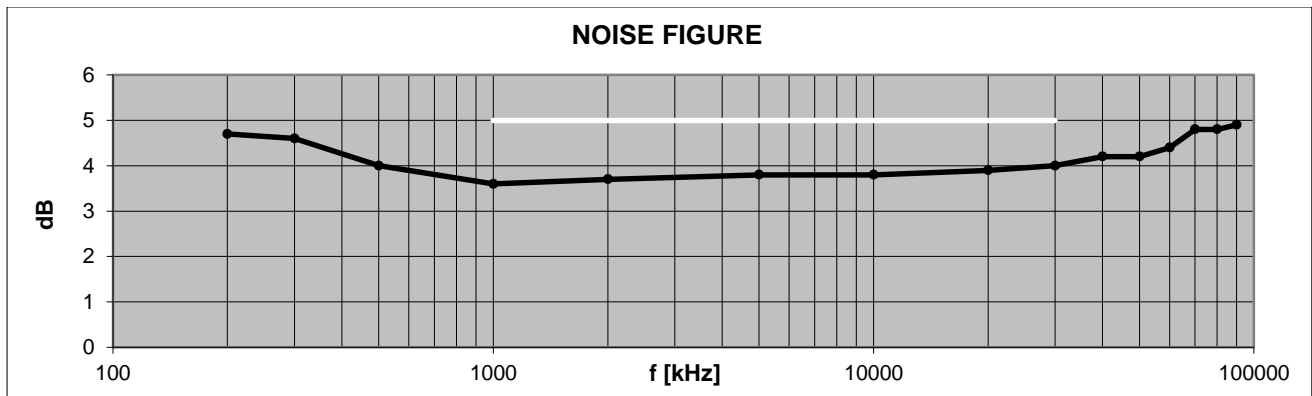
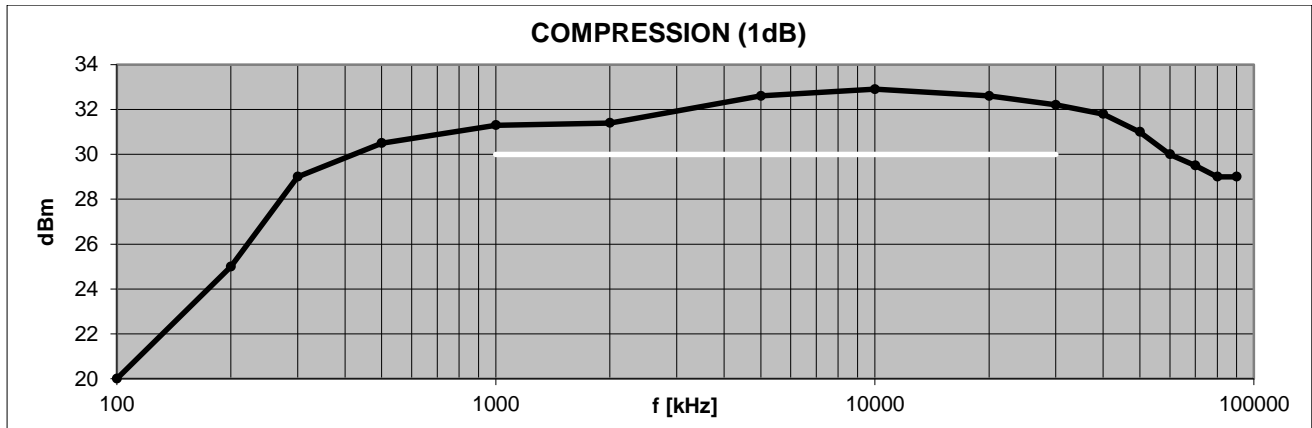
Parameter	Symbol	Min.	Typ.	Max.	Unit	Condition
power supply	U	90		260	V	AC
	f	50		400	Hz	
power consumption	P		15		VA	
dimensions	L x W x H	approx. 175 x 115 x 95			mm	length without connectors
weight	m		1.4		kg	
operating temp. range	$T_o$	+5		+40	°C	ambiance
storage temp. range	$T_s$	-40		+70	°C	
ordering information	AMP018032-T			1002.5703.1		



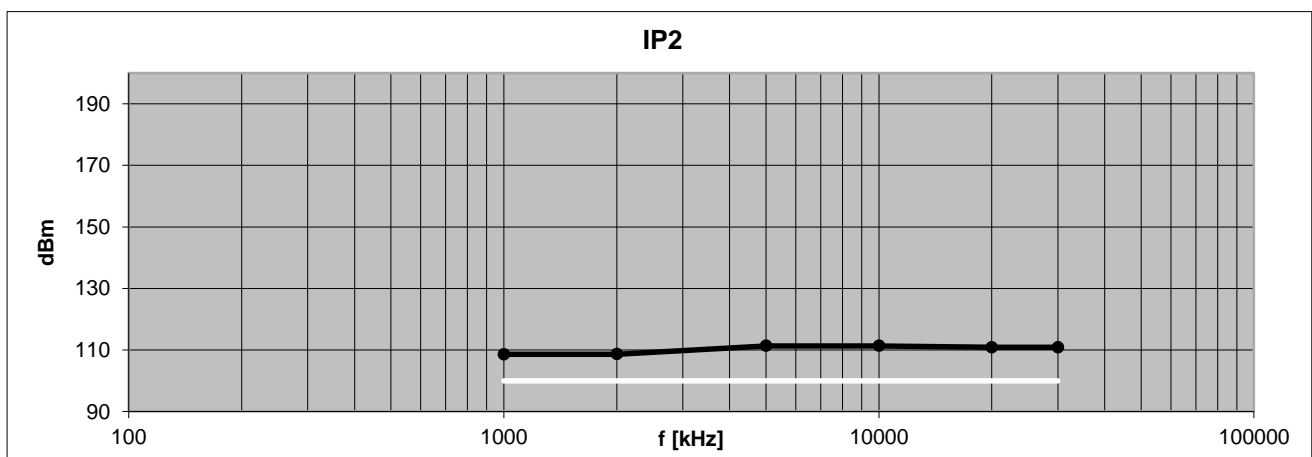
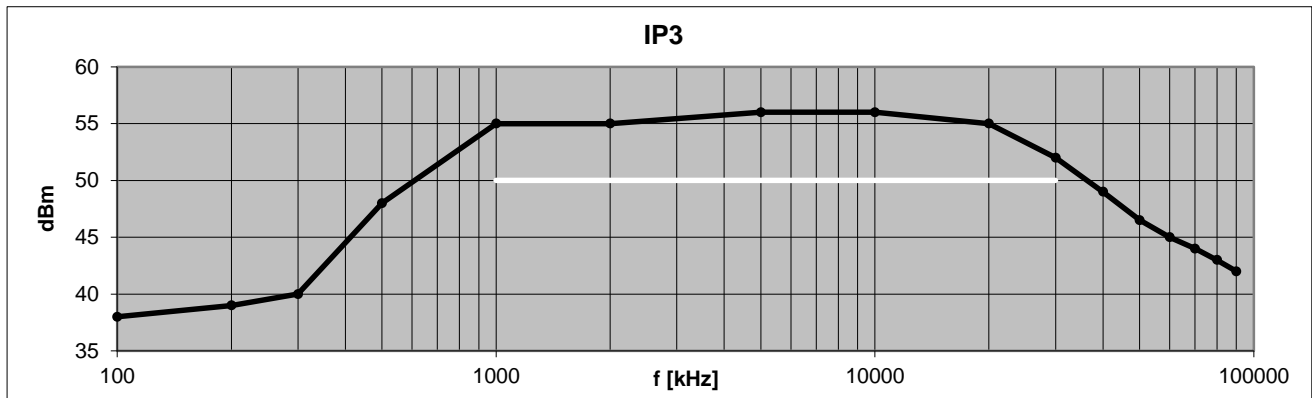
## S-Parameters (typical responses)



## Dynamic Range (typical responses)



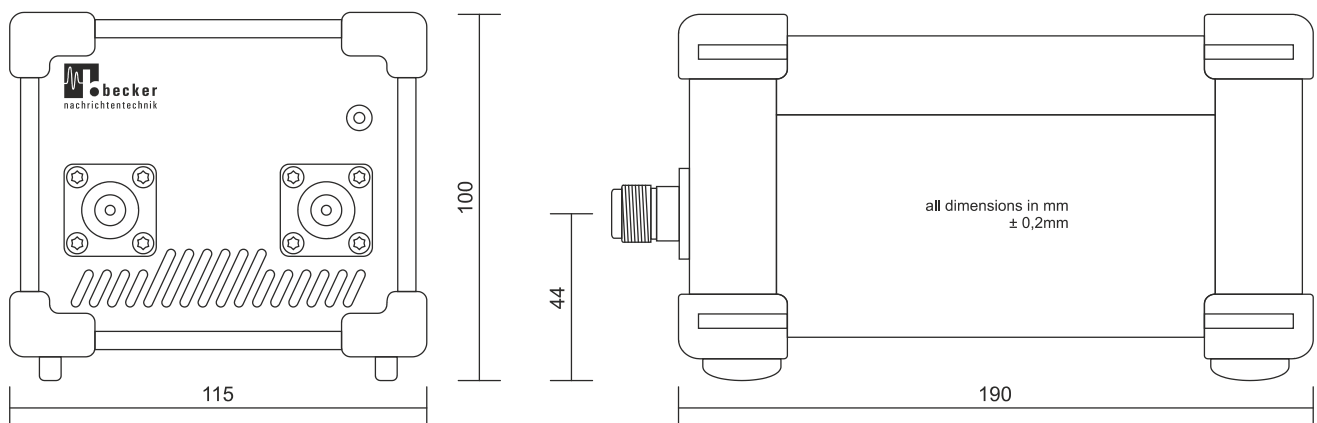
## Linearity (typical responses)



## Front / Rear View



## Dimensions



## Related Products

Product	Description	P/N
LNA1080014-T	High Dynamic Range Amplifier 10 ... 800 MHz, 50 Ω	0901.5503.1
AMP590033-T	2 W Booster Amplifier 5 ... 900 MHz, 50 Ω	0901.5013.1
AMP590033H-T	2 W Power Amplifier 5 ... 900 MHz, 50 Ω	0901.5003.1
AMP5270026-T	High Dynamic Amplifier 5 ... 2700 MHz, 50 Ω	1005.5203.1
AMP5220031-T	High Dynamic Amplifier 5 ... 2200 MHz, 50 Ω	1005.5103.1
AMP20280035-T	4.5 W Wideband Amplifier 20 ... 2800 MHz, 50 Ω	1209.5003.1
AMP10850026-T	500 mW Wideband Amplifier 10 ... 8500 MHz, 50 Ω	1305.5003.1

