

## AMP10850026-T

400 mW Ultra-Wideband Amplifier Table Top Unit 10 ... 8500 MHz

### Features

- output power +27 dBm typ.
- extremely wideband
- AC mains supply

### Applications

- research and development (R&D)
- cellular GSM, UMTS, LTE, 5G (FR1)
- wireless communication
- laboratory
- test equipment



### At a Glance

AMP10850026-T from Becker Nachrichtentechnik is a compact amplifier as table top unit in 50 Ohm technology. It is designed for the use in laboratory environments. The robust electric and mechanic design gives solid operations over a long time. The amplifier works stable over a wide frequency range with many octaves. The amplifier offers a wide AC mains supply voltage range. The presence of AC power is indicated by a LED at the front side of the unit. Mounting feet are part of delivery.

### Special Features

The AMP10850026-T offers an ultra-high operation bandwidth for versatile usages. The low noise figure combined with the high compression point gives the amplifier unit excellent dynamic range properties.

### Rugged Design

The amplifier unit has aluminum housing. The internal amplifier module additional is built in a milled aluminum case to give best shielding for avoiding EMI influences caused by radio signals coming from the environment. The RF connectors on the unit front side are N female type.

**RF Specification**

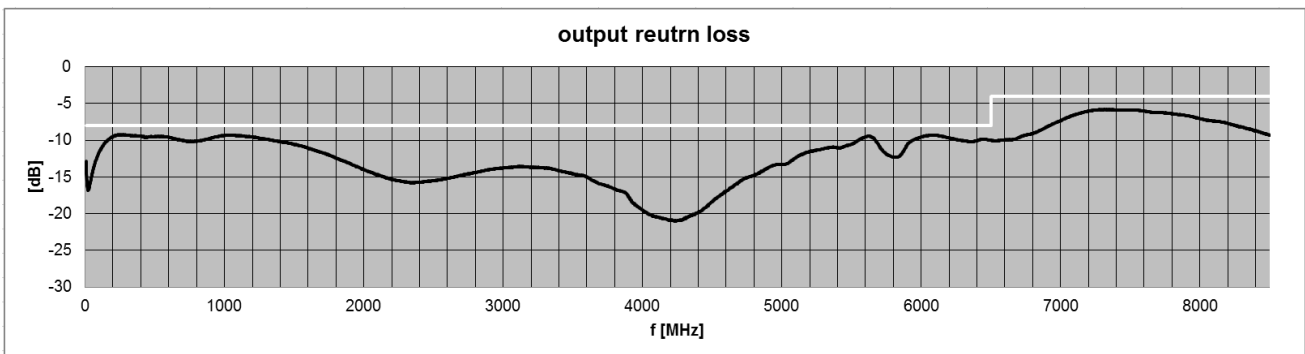
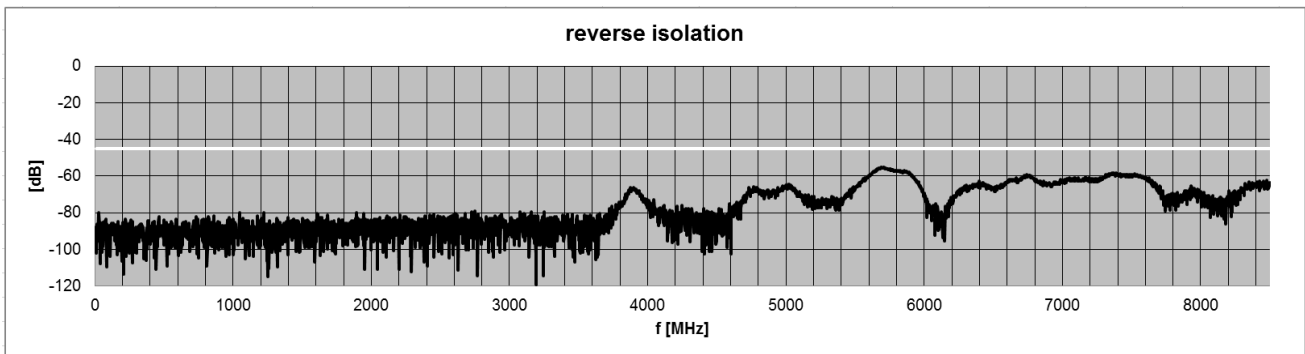
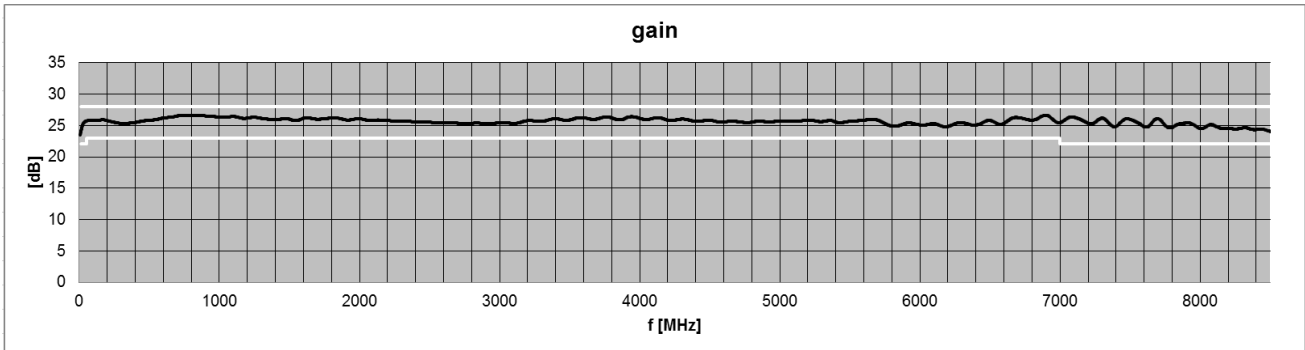
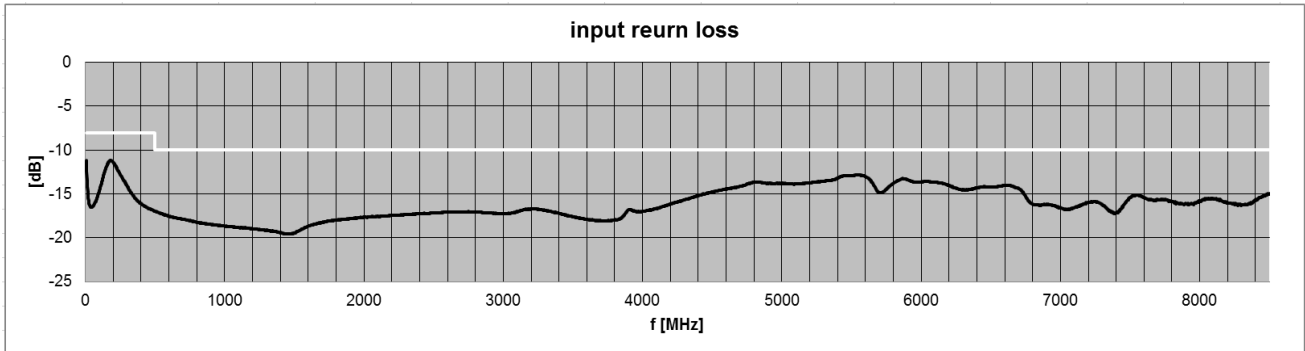
Parameter	Symbol	Min.	Typ.	Max.	Unit	Condition
impedance	$Z_{in} / Z_{out}$		50		$\Omega$	
low frequency	$f_{min}$			10	MHz	
high frequency	$f_{max}$	8500			MHz	
gain	$S_{21}$	22.0	25.0	28.0	dB	$f < 50$ MHz
	$S_{21}$	23.0	25.5	28.0	dB	$50 \text{ MHz} \leq f \leq 7000$ MHz
	$S_{21}$	22.0	25.0	28.0	dB	$f > 7000$ MHz
input return loss	$S_{11}$		-10	-8	dB	$f < 500$ MHz
	$S_{11}$		-17	-10	dB	$f \geq 500$ MHz
output return loss	$S_{22}$		-15	-8	dB	$f \leq 6500$ MHz
	$S_{22}$		-8	-4	dB	$f > 6500$ MHz
reverse isolation	$S_{12}$		-70	-45	dB	
1 dB compression	$P_{1dB}$	+19	+21		dBm	$f < 500$ MHz
	$P_{1dB}$	+24	+26		dBm	$500 \text{ MHz} \leq f \leq 6000$ MHz
	$P_{1dB}$	+23	+25		dBm	$f > 6000$ MHz
3 dB compression	$P_{3dB}$	+22	+24		dBm	$f < 500$ MHz
	$P_{3dB}$	+26	+27		dBm	$f \geq 500$ MHz
3 <sup>rd</sup> order intercept	$OIP3^1$	+26	+30		dBm	$f < 500$ MHz
	$OIP3^1$	+33	+35		dBm	$500 \text{ MHz} \leq f \leq 6000$ MHz
	$OIP3^1$	+30	+33		dBm	$6000 \text{ MHz} < f \leq 8000$ MHz
noise figure	NF		4.5	6.0	dB	$500 \text{ MHz} \leq f < 6500$ MHz
	NF		2.5	4.0	dB	$6500 \text{ MHz} \leq f \leq 8000$ MHz
maximum input power	$P_{in,max}$			+15	dBm	output terminated with 50 ohms
maximum DC Voltage	$U_{DC}$			20	V	RF ports
ESD discharge resistor	$R_{ESD}$		4.7		k $\Omega$	RF ports
RF connectors	$X_{RF}$		N female			

Note 1: Tested at  $P_{out} 2 \times +16$  dBm;  $\Delta f = 2$  MHz

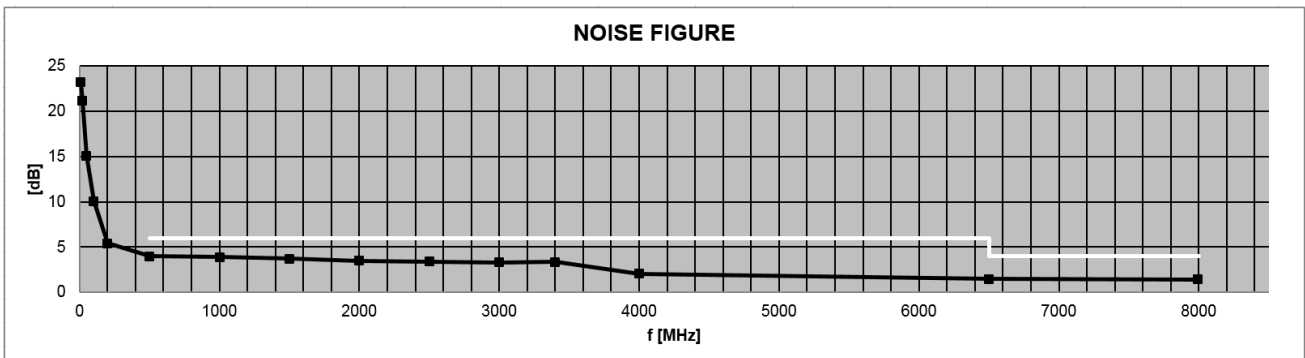
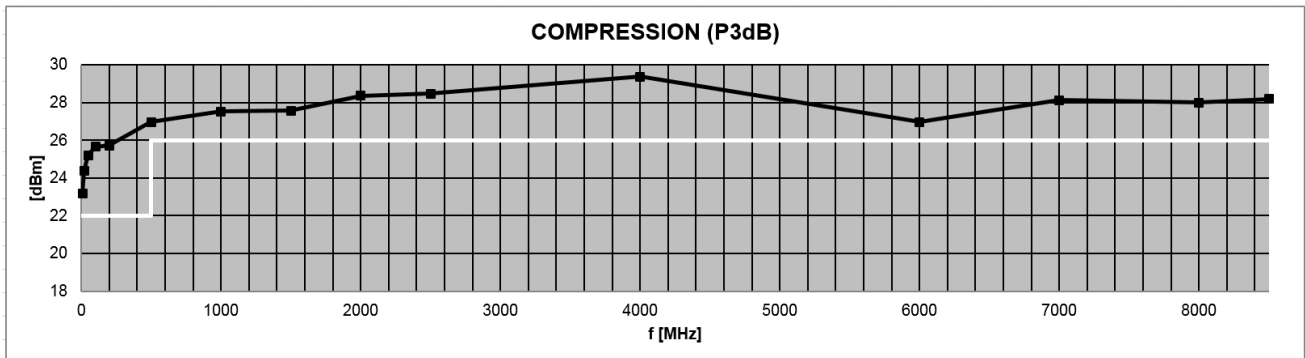
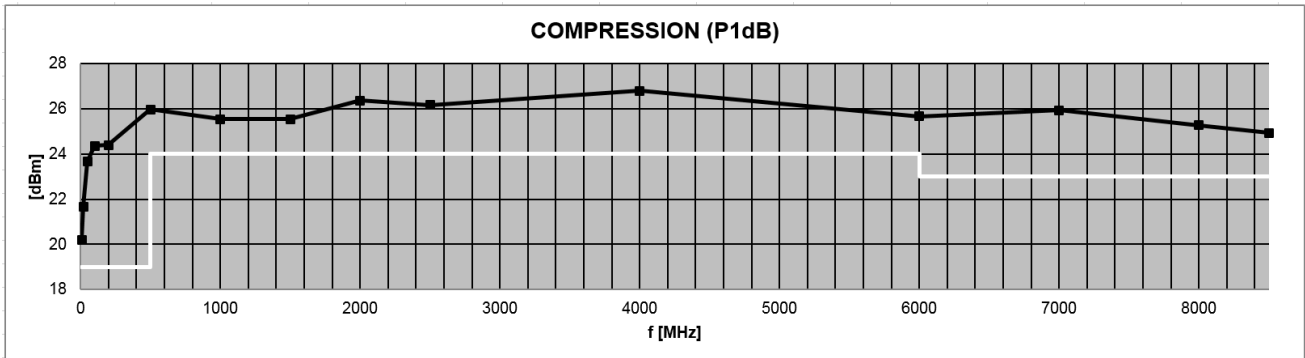
**Common Specification**

Parameter	Symbol	Min.	Typ.	Max.	Unit	Condition
power supply	$U_{AC}$	90		260	V	AC, 50 ... 400 Hz
power consumption	$P_{AC}$		18		W	
power socket	$X_{AC}$	IEC-60320 C14				country specific power cable
dimensions	W x H x D	approx. 115 x 100 x 190			mm	without connectors
weight	m		1.5		kg	
operating temp. range	$T_o$	+5		+40	$^{\circ}\text{C}$	housing surface
storage temp. range	$T_s$	-40		+70	$^{\circ}\text{C}$	
ordering information		AMP10850026-T		1305.5003.1		

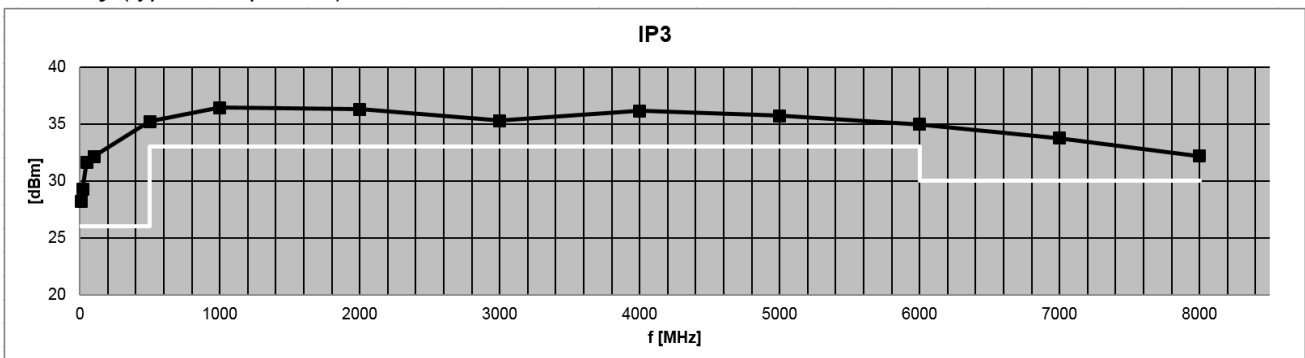


**S-Parameters (typical responses)**

## Dynamic Range (typical responses)



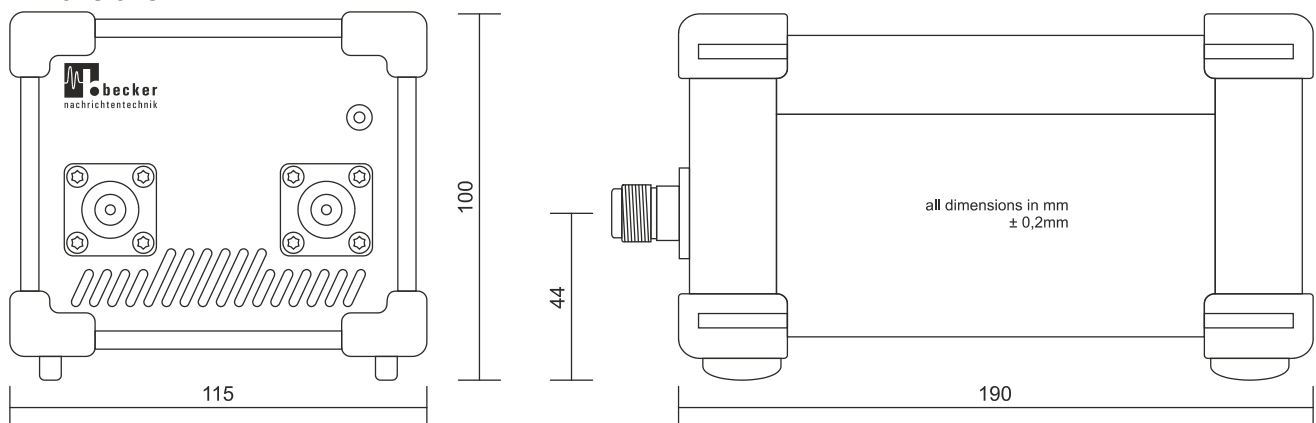
## Linearity (typical responses)



## Appearances



## Dimensions



## Related Products

Product	Description	P/N
AMP20280035-T	4.5 W Wideband Amplifier Table Top Unit 20 ... 2800 MHz	1209.5003.1
AMP590033-T	2 W Booster Amplifier Table Top Unit 5 ... 900 MHz	0901.5013.1
AMP590033H-T	2 W Amplifier Table Top Unit 5 ... 900 MHz	0901.5003.1
AMP018032	1.3 W High Linearity Table Top Unit 100 kHz...80 MHz	1002.5703.1
AMP5220031	1 W High Dynamic Amplifier Table Top Unit 5 ... 2200 MHz	1005.5103.1
AMP5270026	400 mW High Dynamic Amplifier Table Top Unit 5 ... 2700 MHz	1005.5203.1
AMP10850026	400 mW Ultra Wideband Amplifier Table Top Unit 10 ... 8500 MHz	1305.5003.1
LNA1080014	400 mW Low Noise Amplifier Table Top Unit 10 ... 800 MHz	0901.5503.1