

RF amplifier – 1 MHz to 3 GHz, 20/40 dB

Features

- Wide frequency range from 1 MHz up to 3 GHz
- Universal usage as near field probe preamplifier, general purpose or measurement preamplifier, power amplifier for immunity testing, etc.
- Very good gain flatness combined with high output power, both available in entire frequency range
- Small and portable design, powered from USB
- Downloadable compensation data



Product description

EMCgear RF amplifier RFA-30 provides excellent parameters within entire frequency range 1 MHz to 3 GHz. Very stable gain characteristics allows its usage as measurement amplifier. High output power in pocket size offers application in field of RF transmitters as RF power amplifier. Amplifier output can directly drive antennas or other RF stages.

Technical parameters

Input / output impedance		50 Ohm
Input / output terminal		SMA female
Operating frequency range		1 MHz to 3 GHz
Gain	20 dB variant 40 dB variant	Typ. 20 dB Typ. 40 dB
Input power	20 dB variant 40 dB variant	Max. 16 dBm Max. 13 dBm
Output power (P1dB @ 2GHz)	20 dB variant 40 dB variant	Typ. 20 dBm Typ. 16 dBm
Input VSWR		< 1,50 (f < 1 GHz) < 1,75 (f < 3 GHz)
Noise figure		Typ. 3,4 dB
Power supply terminal		Mini USB socket
Current consumption	20 dB variant 40 dB variant	Typ. 70 mA Typ. 100 mA

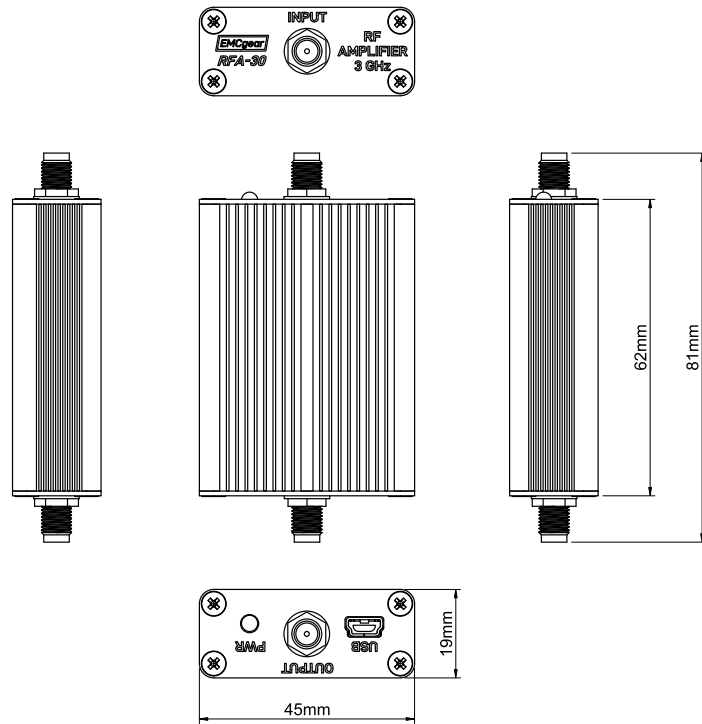
Scope of delivery

RF amplifier, 1 MHz to 3 GHz, 20 dB gain	RFA-30-20dB
RF amplifier, 1 MHz to 3 GHz, 40 dB gain	RFA-30-40dB
USB cable, USB A to Mini USB, 1 m	-

Warranty

2-year manufacturer warranty

Mechanical dimensions
RF amplifier (RFA-30)



Optional accessories

Description	Order code
SMA to BNC cable, RG174, length 0,5 / 1 / 2 m	<i>C-SABCxx174</i>
SMA to SMA cable, RG174, length 0,5 / 1 / 2 m	<i>C-SASAx174</i>
SMA to SMB cable, RG174, length 0,5 / 1 / 2 m	<i>C-SASBxx174</i>
RF attenuator, SMA, 3 / 6 / 10 / 20 / 30 / 40 dB	<i>RFAT-xx</i>
RF attenuator kit, SMA, 3 to 40 dB, 6 pcs.	<i>RFAT-K1</i>



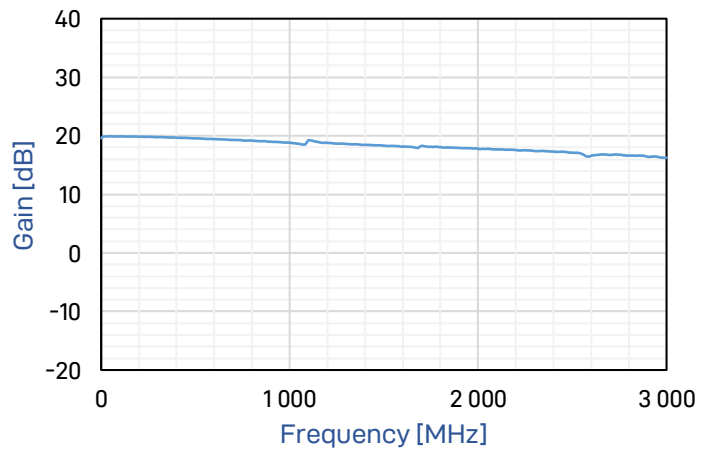
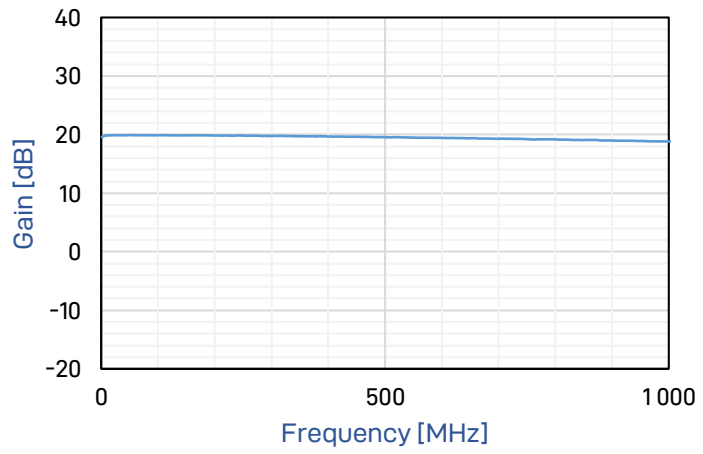
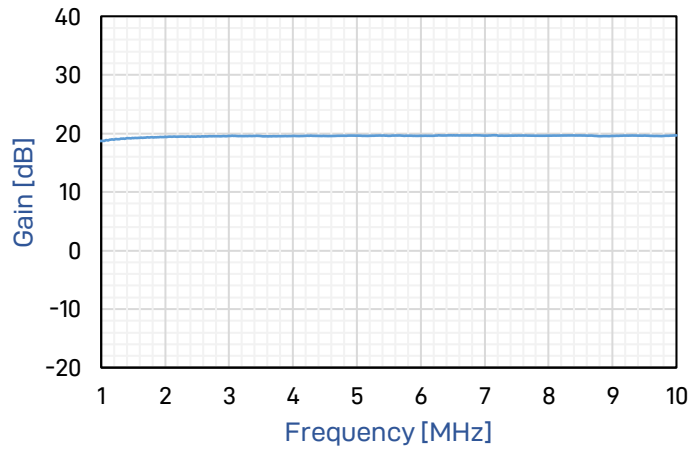
SMA to BNC cable, RG174
C-SABCxx174



RF attenuator kit, SMA, 3 to 40 dB, 6 pcs.
RFAT-K1

Frequency characteristics

RFA-30-20dB
(20 dB variant)



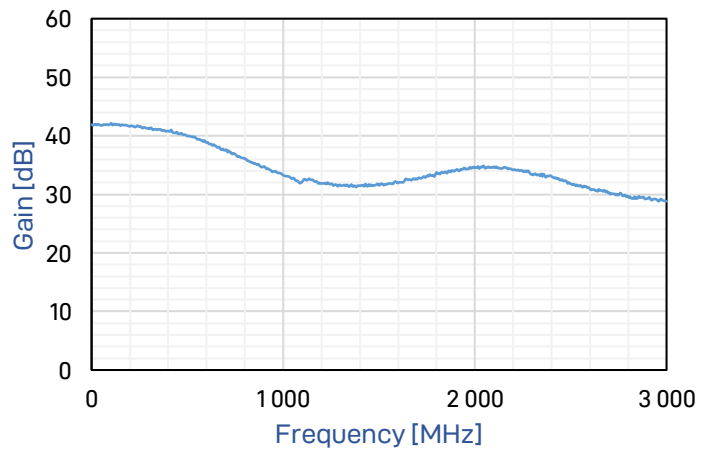
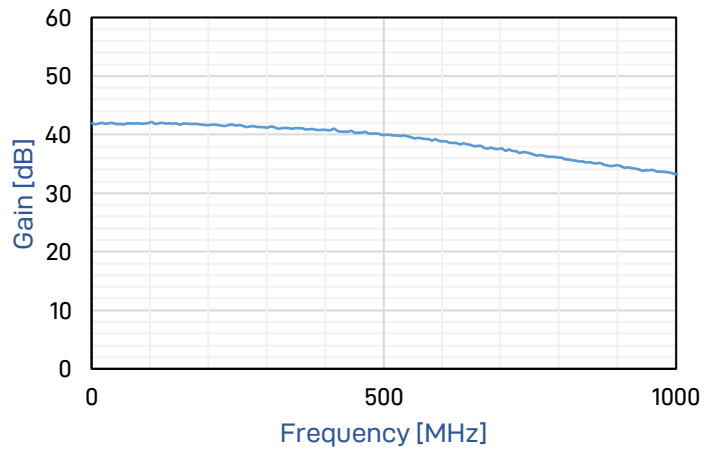
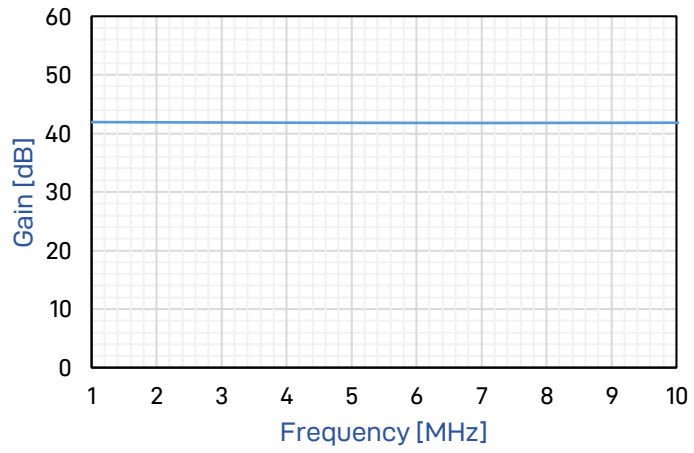
Test conditions

Input power = -20 dBm

Frequency characteristics

RFA-30-40dB

(40 dB variant)



Test conditions

Input power = -40 dBm