

V1.0

# KU PA 8001400 - 2 A



## Manual

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## Specification

### Specifications (Ta = 25 °C):

<b>Type</b>	<b>KU PA 8001400 – 2 A</b>
Frequency range	8000 ... 14000 MHz
<b>Input power</b>	
For P1dB	typ. +17 dBm
Maximum	+20 dBm
<b>Output power</b>	
P1dB (CW)	min. 31.7 dBm; typ. 33 dBm
P1dB (CW)	min. 1.5 W; typ. 2.0 W
COFDM (single carrier; 64 QAM; 8MSPS; EVM = 2%)	typ. 27 dBm / typ. 0.5 W
Efficiency @ 33 dBm (CW)	typ. 17 %
<b>Gain</b>	
Small signal	typ. 20 dB
Flatness (small signal)	typ. +/-3 dB
<b>Harmonics</b>	
Harmonic rejection @ 33 dBm	typ. 40 dB
<b>Protection</b>	
Overtemperature protection	Yes
<b>Intermodulation distortions</b>	
IM3 @ 33 dBm PEP (Two tone test; Δf=1MHz)	typ. 20 dBc
Supply voltage	+9 ... 14 V DC
Current consumption @ P1dB	max. 1.1 A
<b>Monitor output</b>	
Forward detection	yes (Diode-Detector)
<b>Limits</b>	
VSWR of load	max. 1.8:1
Operating case temperature range	-20 ... +55 °C
<b>Mechanics</b>	
Input connector / impedance	SMA-female, 50 ohms
Output connector / impedance	SMA-female, 50 ohms
Case	milled aluminium
Dimensions (mm)	50 x 30 x 17
Weight	typ. 50 g

### Features

- High linearity (CLASS A operation)
- Reverse polarity protection
- Monitor outputs for forward power detection (DC voltage)
- Overtemperature shutdown at 65 °C case temperature

### Applications

- Analog transmission systems
- COFDM-systems using modulation types QPSK, QAM
- Measurement, laboratory equipment

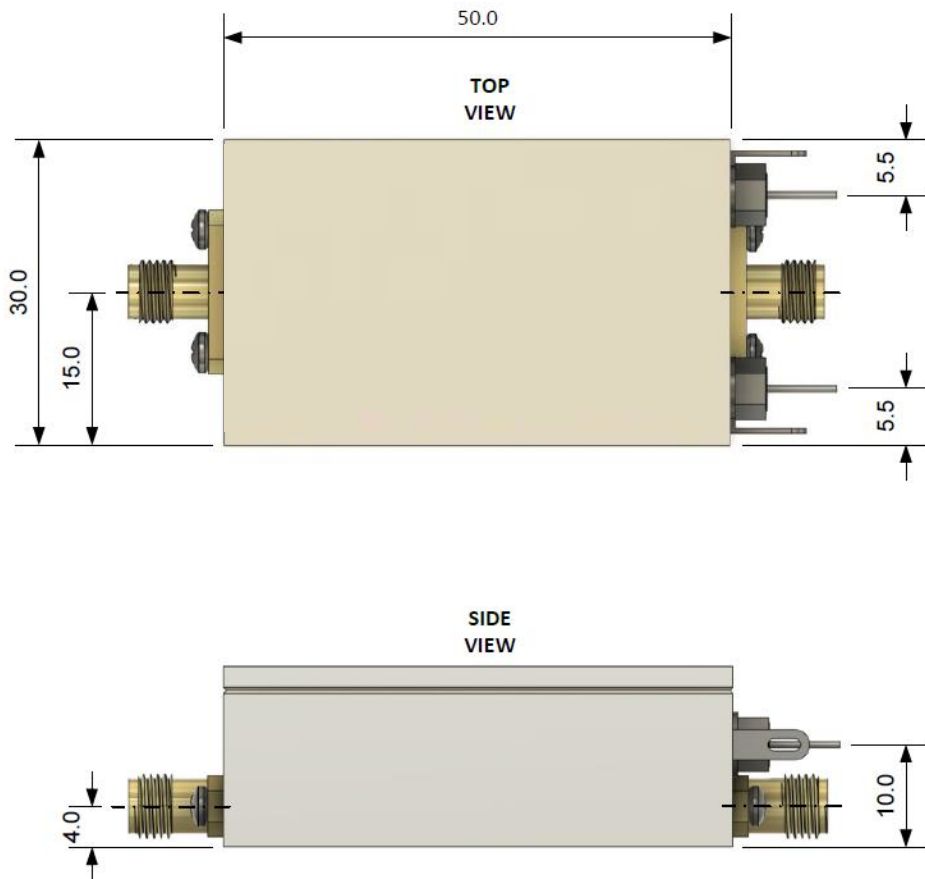
### Amplifier should be mounted on heat sink!

### CE Konformität / CE Conformity

- EMC directive 2014/30/EU
- Low voltage directive 2014/35/EU
- RoHS directive 2011/65/EU



## Dimensions / Mounting holes



## Important Note on the Warranty

The amplifier does not contain an active protection circuit. It has to be installed and run by qualified technical personnel or radio amateurs.

Within the warranty period of three years, in case of a notification of defects, repairing is free of charge. This is NOT valid for the replacement of semiconductor devices like MOSFETs or GaAs FETs. Otherwise, repairing must be paid.

The amplifier must only be run within the specifications.

- The maximum input power must not be exceeded
- The amplifier must only be run within the specified frequency range
- While the amplifier is being run, the load VSWR has to be better than 1.8:1 (better than 10 dB) in case of no built-in isolator
- Depending on the application, the use of a sequence controller is recommended

Too high input power, even for a short time period, can lead to destruction or damage of transistors. Especially MOSFETs are very sensitive to overdrive! MOSFET amplifiers must never be driven into saturation!

All power amplifiers require good cooling. The case temperature must not exceed 55 °C. The amplifier must not be run with opened case!

Already the opening or destroying of the warranty seal has the exclusion of the warranty as result.

## Notes