

# S-Band GaAs FET Linear Power Amplifier KU PA 230250 – 20 A

## Product Information



### Specifications (Ta = 25 °C):

<b>Type</b>	<b>KU PA 230250 – 20 A</b>
Frequency range	2300 ... 2500 MHz
<b>Input power</b>	
For P1dB	typ. -9 dBm
Maximum	-5 dBm
<b>Output power</b>	
P1dB	typ. 43.8 dBm, min. 43 dBm (CW)
P1dB	typ. 24 W, min. 20 W (CW)
P3dB	min. 44 dBm (CW)
P3dB	min. 25 W (CW)
COFDM 1)	min. 38.4 dBm
COFDM 1)	min. 7 W
Automatic level control (ALC)	yes (adjustable ALC)
<b>Gain</b>	
Small signal	typ. 54 dB, min. 53 dB
Flatness (small signal)	typ. +/-1 dB
<b>Harmonics</b>	
Harmonic rejection @ 43 dBm	typ. 60 dB, min. 55 dB
<b>Protection</b>	
Output protection	isolator
<b>Intermodulation distortions</b>	
IM3 @ 40 dBm PEP 2)	typ. 40 dBc
Efficiency @ 43 dBm (CW)	min. 20 %
Input return loss (S11)	min. 15 dB
ON voltage	+5 ... 14 V DC
Supply voltage	+11 ... 14 V DC
Quiescent current	typ. 7.5 A
Current consumption @ P1dB	typ. 8 A
<b>Monitor output</b>	
Forward detection	yes (Diode-Detector)
Reverse detection	yes (Diode Detector)
<b>Limits</b>	
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)	212 x 63 x 22
Weight	typ. 500 g

### Features:

- GaAs FET technology
- High linearity (class A operation)
- Good harmonic rejection
- Isolator for protection against high VSWR
- Reverse polarity protection
- Monitor outputs for forward and reverse power detection (DC voltage)
- Adjustable ALC (automatic level control)
- ON / OFF control with DC voltage (ON at 5 ... 14 V)

### Applications:

- Multichannel Multipoint Distribution Service (MMDS)
- Digital broadcast systems (DVB-T, DVB-S)
- COFDM systems using modulation types QPSK, QAM
- Analog transmission systems

### Accessories:

- Recommended power supply: S 150 W 12
- Recommended heat sink: SK 300 - 62
- Heat-Conductive Paste Arctic Silver 5
- Recommended fan: FAN 60x60 12 V

### Amplifier should be mounted on heat sink!

1) Single carrier; 64 QAM; 8Msps; EVM=2%

2) Two tone test;  $\Delta f=1\text{MHz}$

### CE Conformity:

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

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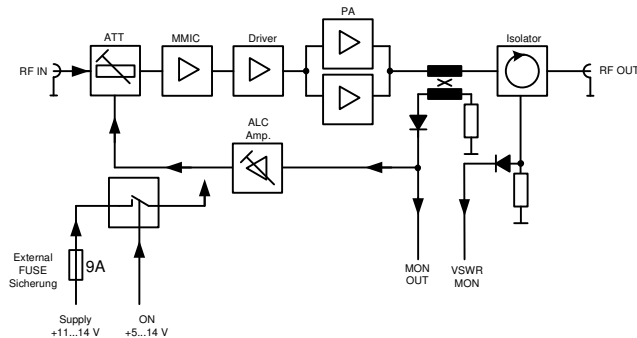


Products are only to be sold to processing companies.  
For operating high frequency modules legal instructions must be followed.

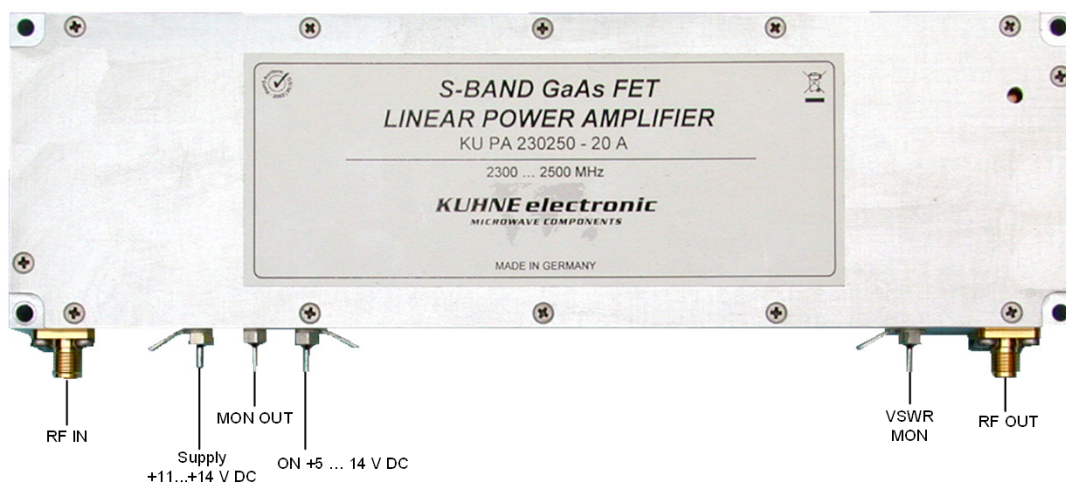
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### Block diagram



ON.....supply DC voltage to „ON“ to switch power amplifier „ON“ (active)  
 MON OUT.....Output which monitors forward power (DC voltage), not calibrated  
 VSWR MON.....Output which monitors reverse power (DC voltage), not calibrated



Sig.: \_\_\_\_\_ QS: \_\_\_\_\_



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