ALARIS KUHNE
INSPIRING THE NEXT RF SOLUTION

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V 1.0

KU BDA 240250 – 25 A

Manual

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A DIVISION OF ALARIS THE RF TECHNOLOGY GROUP

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Specification

Specifications (Ta = 25 °C, DC Voltage = 28 V):

Type	**KU BDA 240250 – 25 A**
Frequency range	2400 ... 2500 MHz
Supply voltage	+27 ... 30 V DC
Quiescent current RX/TX	typ. 50 mA / typ. 390 mA
TX/RX switching time	typ. 600 ns, max. 1 us
TX specifications	
P1dB	typ. 44 dBm, min. 43 dBm (CW)
Input power for P1dB	typ. 20 dBm
P3dB	min. 44 dBm (CW)
COFDM (Single carrier; 64 QAM; 8Msps; EVM=2%)	min. 37 dBm
Small Signal Gain	typ. 25 dB
Gain Flatness	typ. +/-1.5 dB
Current consumption @ P1dB	typ. 2.4 A
Input return loss (TX)	typ. 15 dB
RX specifications	
Noise Figure @ 18°C	typ. 1.7 dB, max. 2 dB
Small Signal Gain	typ. 18 dB, min. 16 dB
Gain Flatness	typ. +/-1 dB
OIP3 (Two tone test; Δf=1MHz)	typ. 20 dBm
Input return loss (RX)	typ. 15 dB
Limits	
Case temperature range	-20 ... +55 °C
Input Power TX	max. 25 dBm
Mechanics	
Radio connector / impedance	SMA-female, 50 ohms
Antenna connector / impedance	SMA-female, 50 ohms
Case	milled aluminium
Dimensions (mm)	81.8 x 63.6 x 22
Weight	typ. 250 g

The bidirectional amplifier KU BDA 240250 - 25 A is designed for operation with a wide variety of analogue and digital modulation types and signal forms in the 2.4 GHz ISM band. The transmitter makes use of LDMOS technology and has a P1dB point of at least 20 W. Switching between transmit and receive paths is automatic, depending on the power level at the input. The low-noise preamplifier integrated in the receiver improves the sensitivity of the receiver used due to its low noise figure and additional amplification.

Features:
- LDMOS technology
- RX/TX switching depending on input power level
- Circulator for protection against high VSWR
- Status LED for RX/TX indication
- Remote power supply via „Radio“ Terminal
- Additional pin for direct connection of supply voltage

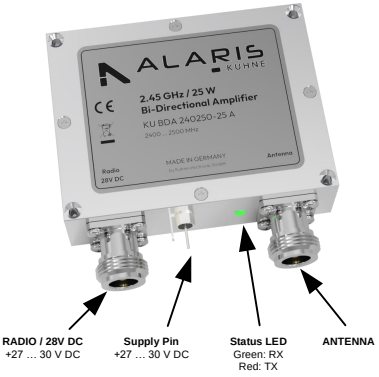
Applications:
- Digital broadcast systems (DVB-T, DVB-S)
- COFDM systems using modulation types QPSK, QAM
- WLAN applications according to IEEE 802.11b/g
- Analog & digital transmission systems

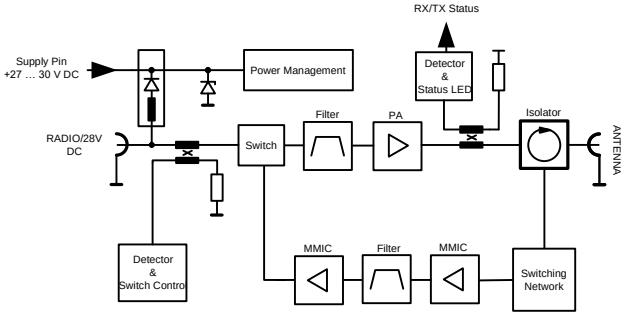
Recommended Accessoires:
- Heat sink: SK 120 – 75 (max. 10 W COFDM, 50 % RX / 50 % TX)
- BiasTee: KU BT 6000 N

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

CE

Block diagramm:





Use an external 3A fuse in your supply line

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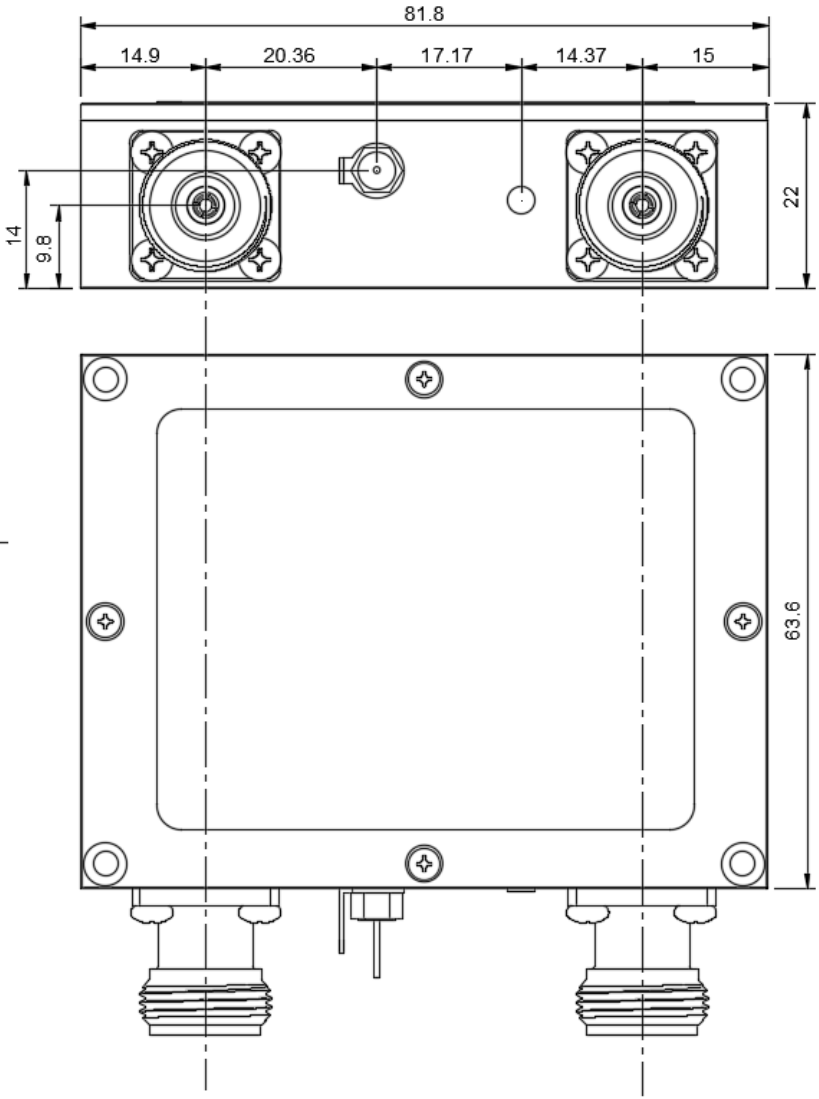
Dimensions / Mounting holes



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Notes