

KU PA 510590-10 A, RF Power Amplifier

5100 ... 5900 MHz • 10 W

analog & digital transmission systems ISM band jamming



Features

- GaAs FET technology
- High linearity
- Low EVM
- Isolator for protection against high VSWR
- Adjustable ALC (automatic level control)
- Reverse polarity protection
- Over temperature protection
- Monitor outputs for forward and reverse power detection (DC voltage)
- Logic ON / OFF control (ON at +5 ... 14 V DC)

Applications

- Digital transmission and broadcast systems (DVB, WiMAX)
- COFDM systems using QPSK, QAM
- Analog transmission systems

Important notes

Please notice the following:

- The technical specifications refer to room temperature.
- The power amplifier doesn't contain any coaxial relays.
- The recommended combination of heat sink and fan(s) is only specified for an ambient temperature of 25 °C.
- Further information about dimensioning of heat sinks is available on our FAQ site.

Technical specifications:

Frequency range	5100..5900 MHz
Input power for P1dB	typ. +7 dBm
Maximum input power	+10 dBm
Output power P1dB	typ. 40 dBm, min. 39.5 dBm (CW) typ. 10 W, min. 9 W (CW)
Output power COFDM (1)	typ. 34.7 dBm, min. 34 dBm typ. 3 W, min. 2 W
Automatic level control (ALC)	yes (adjustable ALC)
Gain (small signal)	min. 35 dB
Gain flatness (small signal)	typ. +/- 1 dB
Harmonic rejection	typ. 60 dB, min. 50 dB @ 39.5 dBm min. 40 dB @ 5100 MHz
VSWR protection	Isolator
Over temperature protection	yes
IM3 (2)	typ. 40 dBc @ 33 dBm PEP typ. 38 dBc @ 36 dBm PEP
Efficiency	typ. 18 %, min. 14 % @ 39.5 dBm (CW)
ON voltage	+5 ... 14 V DC
Supply voltage	+12 ... 14 V DC

Quiescent current	typ. 4 A, max. 5.3 A
Current consumption	typ. 4.5 A, max. 5.5 A
Forward detection	yes (diode detector)
Reflected power detection	yes (diode detector)
Operating case temp. range	-20 ... +55 °C
Input connector / impedance	SMA-female / 50 ohms
Output connector / impedance	SMA-female / 50 ohms
Case	milled aluminium
Dimensions (mm)	158 x 60 x 20
Weight	320 g (typ.)
(1)	Measured with QAM 64, single carrier, EVM: 2%
(2)	Measured 2-tone, frequency spacing: 1 MHz