KU PA 070080-20 A, RF Power Amplifier

770 ... 880 MHz • 20 W

The power amplifier is developed both for digital and analog transmission systems. It's frequency range is chosen to cover the new UHF frequencies for the cellular phone network completely. By the use of LD-MOSFET-technology high efficiency and low current consumption are reached at the same time.

Features

- LD-MOSFET-technology
- Reverse polarity protection
- Monitor output for forward power detection (DC voltage)
- Milled aluminium case

Applications

- Mobile communication
- COFDM – systems with modulation 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	770..880 MHz
Input power for P1dB	typ. 14 dBm
Maximum input power	+20 dBm
Output power P1dB	min. 43 dBm (CW)
	min. 20 W (CW)
Saturation power	min. 30 W
Output power COFDM (1)	min. 37 dBm
	min. 5 W
Gain (small signal)	min. 30 dB
Gain flatness (small signal)	max. 6 dB
Harmonic rejection	min. 30 dB @ 43 dBm
IM3 (2)	typ. 42 dBc, min. 39 dBc @ 40 dBm PEP
Efficiency	min. 40 % @ 44.7 dBm (CW)
Input return loss (S11)	min. 10 dB
ON voltage	+9 ... 14 V DC
Supply voltage	+28 V DC
Quiescent current	typ. 400 mA
Current consumption	max. 3.5 A
Forward detection	yes (diode detector)
VSWR of load	max. 1.8 : 1

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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)	130 x 60 x 20
Weight	235 g (typ.)
(1)	Measured with QAM 64, single carrier, EVM: 2%
(2)	Measured 2-tone, frequency spacing: 1 MHz

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