

KU PA 250270-20 A, GaAs-FET Power Amplifier

2500 ... 2700 MHz • 20 W



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

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	2500..2700 MHz
Input power for P1dB	typ. -8 dBm
Maximum input power	-6 dBm
Output power P1dB	typ. 44 dBm, min. 43 dBm (CW) typ. 25 W, min. 20 W (CW)
Output power P3dB	min. 44 dBm (CW) min. 25 W (CW)
Output power COFDM (1)	min. 38.4 dBm (1) min. 7 W
Automatic level control (ALC)	yes (adjustable ALC)
Gain (small signal)	typ. 53 dB, min. 50 dB
Gain flatness (small signal)	typ. +/- 1.5 dB (ALC not aktive)
Harmonic rejection	typ. 60 dB, min. 55 dB @ 43 dBm
IM3 (2)	min. 40 dBc @ 40 dBm PEP (2)
Efficiency	min. 20 % @ 43 dBm (CW)
Input return loss (S11)	min. 10 dB
ON voltage	+5 ... 14 V DC
Supply voltage	+11 ... 14 V DC
Quiescent current	typ. 7.5 A
Current consumption	typ. 8 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)	212 x 64 x 22
Weight	500 g (typ.)
(1)	Measured with QAM 64, single carrier, EVM: 2%
(2)	Measured 2-tone, frequency spacing: 1 MHz