

### KU PA 230250-20 B, GaAs FET Power Amplifier

2300 ... 2500 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)
- 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              | 2300..2500 MHz                                             |
| Input power for P1dB         | typ. 14 dBm<br>typ. +12 dBm                                |
| Maximum input power          | +17.5 dBm                                                  |
| Output power P1dB            | typ. 44 dBm, min. 43 dBm (CW)<br>typ. 25 W, min. 20 W (CW) |
| Output power COFDM (1)       | typ. 39 dBm, min. 37.7 dBm<br>typ. 8 W, min. 6 W           |
| Gain (small signal)          | typ. 31 dB, min. 30 dB                                     |
| Gain flatness (small signal) | +/-0.5 dB (typ.)                                           |
| 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. 13 dB                                                 |
| ON voltage                   | +5 ... 14 V DC                                             |
| Supply voltage               | +11 ... 14 V DC                                            |
| Quiescent current            | typ. 7.3 A                                                 |
| Current consumption          | typ. 7.5 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)              | 178 x 60 x 20                                 |
| Weight                       | 350 g (typ.)                                  |
| (1)                          | Measured with QAM 64, single carrier, EVM: 2% |
| (2)                          | Measured 2-tone, frequency spacing: 1 MHz     |