

## KU PA 10301050-55 A, RF Power Amplifier

Linear Power Amplifier for 10 GHz

10300 ... 10500 MHz • 55 W



### Features

- GaAs FET technology
- High linearity (class A operation)
- Detector output (DC voltage) for monitoring forward output power
- Reverse polarity protection
- ON / OFF control with DC voltage
- Small mechanical dimensions
- Over temperature protection

### Applications

- Analog and digital 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              | 10300..10500 MHz                                             |
| Input power for P1dB         | typ. 8 dBm                                                   |
| Maximum input power          | +10 dBm                                                      |
| Output power P1dB            | typ. 47.4 dBm, min. 47 dBm (CW)<br>typ. 55 W, min. 50 W (CW) |
| Gain (small signal)          | typ. 44 dB                                                   |
| Gain flatness (small signal) | typ. +/- 1 dB                                                |
| Harmonic rejection           | typ. 40 dB @ 47 dBm                                          |
| Over temperature protection  | yes                                                          |
| IM3 (1)                      | typ. 25 dBm @ 44.7 dBm PEP                                   |
| Efficiency                   | typ. 15 % @ 47 dBm (CW)                                      |
| Input return loss (S11)      | min. 10 dB                                                   |
| ON voltage                   | +5 ... 14 V DC                                               |
| Supply voltage               | +12 ... 14 V DC                                              |
| Quiescent current            | typ. 12 A                                                    |
| Current consumption @ P1dB   | typ. 26 A                                                    |
| Forward detection            | yes (diode detector)                                         |
| VSWR of load                 | max. 1.8 : 1                                                 |
| 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 64 x 22                                                |

|        |                                           |
|--------|-------------------------------------------|
| Weight | 400 g (typ.)                              |
| (1)    | Measured 2-tone, frequency spacing: 1 MHz |