

KU PA 10301050-55 B, RF Power Amplifier

Linear Power Amplifier for 10 GHz

10300 ... 10500 MHz • 55 W

Preliminary technical data



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. 22 dBm
Maximum input power	25 dBm
Output power P1dB	typ. 47.4 dBm, min. 47 dBm (CW) typ. 55 W, min. 50 W (CW)
Gain (small signal)	typ. 27 dB
Gain flatness (small signal)	typ. +/-0.5 dB
Harmonic rejection	typ. 40 dB @ 47 dBm
Over temperature protection	yes
IM3 (1)	typ. 30 dBc @ 43 dBm PEP typ. 30 dBc @ 46 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. 11 A
Current consumption @ P1dB	typ. 23 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