

KU PA 640700 25 A, Power Amplifier

6400 ... 7000 MHz • 25 W

As very powerful and highly linear amplifier the PA 640700 - 25 A is designed for terrestrial data-links or satellite up-links.

- High power up to 25 W
- Very good linearity and low shoulders for modulated signals
- Low EVM of 2%



Description

The KU PA 640700 - 25 A is a high power and highly linear amplifier for terrestrial data links and SATCOM uplinks. Using GaAs FETs a preeminent linearity in combination with high frequency and output power is reached. The 12 V supply voltage ease usage in non-stationary environments such as broadcast vehicles or flying platforms.

Features

- GaAs FET technology
- High linearity
- Low EVM
- Isolator for protection against high VSWR
- Reverse polarity protection
- Over temperature protection
- Monitor outputs for forward and reverse power detection (DC voltage)
- Logic ON / OFF control (ON at +5 ... 14 V DC)

Applications

- Digital transmission and broadcast systems (DVB, WiMAX)
- COFDM systems using QPSK, QAM
- Analog transmission systems

Important notes

Please notice the following:

- Only use with proper cooling.
- Specifications valid at room temperature.
- Suggested cooling and fans designed at 25 °C ambient temperature.
- More information regarding cooling design can be found on our FAQ-page.

Technical specifications:

Frequency range	6400..7000 MHz
Input power for P1dB	typ. 2 dBm
Maximum input power	+6 dBm
Output power P1dB	typ. 43,8 dBm, min. 42,5 dBm typ. 24 W, min. 18 W (CW)
Output power COFDM (1)	typ. 38.5 dBm, min. 37 dBm typ. 7 W, min. 5 W
Automatic level control (ALC)	yes (adjustable ALC)
Gain (small signal)	typ. 46 dB, min. 42 dB
Gain flatness (small signal)	typ. +/- 3 dB
Harmonic rejection	typ. 52 dB, min. 47 dB @ 42.5 dBm

VSWR protection	Isolator
Over temperature protection	yes
IM3 (2)	typ. 35 dBc, min. 30 dBc @ 40 dBm PEP typ. 20 dBc @ 42.5 dBm PEP
Efficiency	typ. 18 %, min. 13 % @ 42.5 dBm (CW)
ON voltage	+5 ... 14 V DC
Supply voltage	+12 ... 14 V DC
Quiescent current	typ. 9 A
Current consumption	max. 12 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)	158 x 100 x 20
Weight	550 g (typ.)
(1)	Measured with QAM 64, single carrier, EVM: 2%
(2)	Measured 2-tone, frequency spacing: 1 MHz