

MKU PA 2M-120W HY, VHF MOSFET-Power Amplifier

144 ... 146 MHz • 120 W VHF MOSFET Power Amplifier for the Amateur Radio Band 2 m



Features

- Good linearity
- Built-in low pass filter for good harmonic rejection
- Reverse polarity protection
- Monitor output for forward power detection

Applications

- Analog and digital transmission systems
- Power amplifier for radio amateur applications (SSB, CW)

Important notes

Please notice the following:

- Recommended output power for radio amateur applications: Modulation type: CW/FM up to 120 W, SSB up to 40 W

- 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.

Industrial use

Our power amplifiers of the MKU-series are exclusively intended for amateur radio applications and will only be sold to radio amateurs with a licence. These products are specified for amateur radio requirements and are not designed for industrial applications. Please notice our list of industrial products or ask for a special version.

Frequency range	144146 MHz
Input power	typ. 100 mW
Saturation power	typ. 120 W (CW)
Gain (small signal)	typ. 40 dB, min. 35 dB
Harmonic rejection	typ. 60 dB
Supply voltage	+12 14 V DC
Quiescent current	typ. 8 A
Current consumption	max. 21 A
Operating case temp. range	-20 +55 °C
VSWR of load	max. 1.8 : 1
Input connector / impedance	SMA-female / 50 ohms
Output connector / impedance	N-female / 50 Ohms
Case	milled aluminium
Dimensions (mm)	124 x 80 x 22
Weight	400 g (typ.)



MKU PA 2M-60W HY, VHF-MOSFET Power Amplifier

144 ... 146 MHz • 60 W VHF MOSFET Power Amplifier for the Amateur Radio Band 2 m



Features

- Good linearity
- Built-in low pass filter for good harmonic rejection
- Reverse polarity protection
- Monitor outputs for forward and reverse power detection

Applications

- Analog and digital transmission systems
- Power amplifier for radio amateur applications (SSB, CW)

Important notes

Please notice the following:

- Recommended output power for radio amateur applications: Modulation type: CW/FM up to 60 W, SSB up to 20 W

- 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.

Industrial use

Our power amplifiers of the MKU-series are exclusively intended for amateur radio applications and will only be sold to radio amateurs with a licence. These products are specified for amateur radio requirements and are not designed for industrial applications. Please notice our list of industrial products or ask for a special version.

Frequency range	144146 MHz
Maximum input power	50 mW
Saturation power	typ. 60 W
Gain (small signal)	typ. 36 dB
Harmonic rejection	typ. 60 dB
Supply voltage	+12 14 V DC
Quiescent current	typ. 4 A
Current consumption	max. 12 A
Operating case temp. range	-20 +55 °C
VSWR of load	max. 1.8 : 1
Input connector / impedance	SMA-female / 50 ohms
Output connector / impedance	N-female / 50 Ohms
Case	milled aluminium
Dimensions (mm)	130 x 60 x 20
Weight	270 g (typ.)



MKU PA 3CM-8W A, GaAs-Fet Power Amplifier

10300 ... 10400 MHz • 8 W Power Amplifier for the Amateur Radio Band 3 cm

Features

- GaAs FET technology
- High linearity (class A operation)
- Detector output (DC voltage) for monitoring forward output power
- Reverse polarity protection
- Small mechanical dimensions

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.

Industrial use

Technical specifications:	
Frequency range	1030010400 MHz
Input power	typ. 200 mW
Maximum input power	300 mW
Saturation power	min. 10 W
Gain (small signal)	typ. 17 dB
Supply voltage	+12 14 V DC
Current consumption	typ. 4 A
Operating case temp. range	-20 +55 °C
VSWR of load	max. 1.8 : 1
Input connector / impedance	SMA-female / 50 ohms
Output connector / impedance	SMA-female / 50 ohms
Case	milled aluminium
Dimensions (mm)	130 x 60 x 20
Weight	250 g (typ.)



MKU PA 4M-35W HY, MOSFET-Power Amplifier

68 ... 75 MHz • 35 W VHF MOSFET Power Amplifier for the 4 m Band - 70 MHz



Features

- Good linearity
- Built-in low pass filter for good harmonic rejection
- Reverse polarity protection
- Monitor outputs for forward and reverse power detection
- ON / OFF control with DC voltage (+12 V DC)

Applications

- Analog and digital transmission systems
- Power amplifier for radio amateur applications (SSB, CW)

Important notes

Please notice the following:

- Recommended output power for radio amateur applications: Modulation type: CW/FM up to 40 W, SSB up to 20 ... 25 W

- 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 $^\circ$ C.

- Further information about dimensioning of heat sinks is available on our FAQ site.

Industrial use

Our power amplifiers of the MKU-series are exclusively intended for amateur radio applications and will only be sold to radio amateurs with a licence. These products are specified for amateur radio requirements and are not designed for industrial applications. Please notice our list of industrial products or ask for a special version.

Frequency range	6875 MHz
Input power	typ. 20 mW
Maximum input power	40 mW
Saturation power	min. 40 W @ 13,5 V
Gain (small signal)	min. 37 dB
Harmonic rejection	min. 60 dB
ON voltage	+12 13.8 V DC
Supply voltage	+13.5 V DC
Quiescent current	typ. 2,7 A
Current consumption	max. 6.5 A
Operating case temp. range	-20 +55 °C
VSWR of load	max. 1.8 : 1
Input connector / impedance	SMA-female / 50 ohms
Output connector / impedance	SMA-female / 50 ohms
Case	milled aluminium
Dimensions (mm)	130 x 60 x 20



Weight

270 g (typ.)



MKU PA 6CM-4W A, GaAs FET Power Amplifier

5740 ... 5780 MHz • 4 W Power Amplifier for the Amateur Radio Band 6 cm



Features

- GaAs FET technology
- High linearity (class A operation)
- Detector output (DC voltage) for monitoring forward output power
- Reverse polarity protection
- Milled aluminium case

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 $^\circ\text{C}.$

- Further information about dimensioning of heat sinks is available on our FAQ site.

Industrial use

Technical specifications:	
Frequency range	57405780 MHz
Maximum input power	100 mW
Saturation power	min. 4 W
Supply voltage	+12 14 V DC
Current consumption	max. 1.6 A
Operating case temp. range	-20 +55 °C
VSWR of load	max. 1.8 : 1
Input connector / impedance	SMA-female / 50 ohms
Output connector / impedance	SMA-female / 50 ohms
Case	milled aluminium
Dimensions (mm)	80 x 55 x 20
Weight	160 g (typ.)



MKU PA 70CM-60W HY, UHF MOSFET-Power Amplifier

430 ... 440 MHz • 60 W UHF MOSFET Power Amplifier for the Amateur Radio Band 70 cm List price: 499,00 EUR



Features

- Good linearity
- Built-in low pass filter for good harmonic rejection
- Reverse polarity protection
- Monitor output for forward power detection

Applications

- Analog and digital transmission systems
- Power amplifier for radio amateur applications (SSB, CW)

Important notes

Please notice the following:

- Recommended output power for radio amateur applications: Modulation type: CW/FM up to 60 W, SSB up to 20 W

- 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 $^\circ$ C.

- Further information about dimensioning of heat sinks is available on our FAQ site.

Industrial use

Our power amplifiers of the MKU-series are exclusively intended for amateur radio applications and will only be sold to radio amateurs with a licence. These products are specified for amateur radio requirements and are not designed for industrial applications. Please notice our list of industrial products or ask for a special version.

Frequency range	430440 MHz
Input power	typ. 50 mW
Maximum input power	100 mW
Saturation power	typ. 60 W
Gain (small signal)	min. 34 dB
Harmonic rejection	typ. 60 dB
Supply voltage	+12 14 V DC
Quiescent current	typ. 4 A
Current consumption	max. 10 A
Operating case temp. range	-20 +55 °C
VSWR of load	max. 1.8 : 1
Input connector / impedance	SMA-female / 50 ohms
Output connector / impedance	N-female / 50 Ohms
Case	milled aluminium
Dimensions (mm)	130 x 60 x 20
Weight	270 g (typ.)



MKU PA 23CM-1W A, GaAs FET power amplifier

1240 ... 1300 MHz • 1 W Linear Power Amplifier for the Amateur Radio Band 23 cm

This amplifier with an output power of 1 watt is suitable as driver amplifier or for low power applications. Because of the small mechanical dimensions of the milled aluminium case, it is easy to integrate into compact systems.



Features

- High linearity (class A operation)
- Reverse polarity protection
- Milled aluminium case
- Small mechanical dimensions

Applications

- Low power applications
- Driver amplifier
- 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.

Industrial use

Technical specifications:	
Frequency range	12401300 MHz
Maximum input power	50 mW
Saturation power	typ. 1 W
Supply voltage	+12 14 V DC
Quiescent current	typ. 300 mA
Current consumption	max. 0.45 A
Operating case temp. range	-20 +55 °C
VSWR of load	max. 1.8 : 1
Input connector / impedance	SMA-female / 50 ohms
Output connector / impedance	SMA-female / 50 ohms
Case	milled aluminium
Dimensions (mm)	50 x 30 x 22
Weight	65 g (typ.)





MKU PA 23CM-250W CU, Power Amplifier

1270 ... 1300 MHz • 250 W High Power Amplifier for the Amateur Radio Band 23 cm

This linear high power amplifier was developed for producing high frequency energy for accelerators applications.

High power, high efficiency and best linearity are achieved by our high power amplifier for the 23 cm amateur radio band. Compared to tube power amplifiers the used LDMOS transistor operates with a supply voltage of only +50 V DC. High voltage transformers, waiting for tube warm-up and retuning of the tube are the past! The power amplifier can be mounted close to the antenna to avoid power losses caused by long coaxial cable.



Features

- Milled copper case to provide optimum heat transfer
- 50 V LD MOSFET technology
- High linearity
- High efficiency (up to 50 %)
- Reverse polarity protection
- Monitor output for forward power detection (DC voltage)
- ON / OFF control with DC voltage

Applications

- Research: High Power Amplifier for accelerators
- Analog and digital (COFDM) transmission systems
- Amateur Radio operations (EME, contest)

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.

Industrial use

Technical specifications:	
Frequency range	12701300 MHz
Input power	4 6 W
Maximum input power	6 W
Saturation power	typ. 300 W
Gain (small signal)	min. 17 dB
Harmonic rejection	min. 35 W @ 250 W
ON voltage	+9 14 V DC
Supply voltage	+50 V DC



Quiescent current	typ. 0.25 A
Current consumption	max. 12 A @ 300 W
Operating case temp. range	-20 +65 °C
VSWR of load	max. 1.8 : 1
Input connector / impedance	SMA-female / 50 ohms
Output connector / impedance	N-female / 50 Ohms
Case	milled copper, silver-plated
Dimensions (mm)	130 x 60 x 20
Weight	730 g (typ.)



MKU PA 3CM-60W B WG, GaAs-FET Power Amplifier

10300 ... 10400 MHz • 60 W Linear Power Amplifier for 10 GHz



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 $^{\circ}\text{C}.$

- Further information about dimensioning of heat sinks is available on our FAQ site.

Industrial use

Our power amplifiers of the MKU-series are exclusively intended for amateur radio applications and will only be sold to radio amateurs with a licence. These products are specified for amateur radio requirements and are not designed for industrial applications. Please notice our list of industrial products or ask for a special version.

Frequency range	1030010400 MHz
Input power	typ. 23 dBm
Maximum input power	25 dBm
Saturation power	typ. 60 W, min. 55 W
Gain (small signal)	typ. 27 dB
Gain flatness (small signal)	+/-0.5 dB (typ.)
Harmonic rejection	typ. 40 dB @ 47 dBm
Over temperature protection	yes
Input return loss (S11)	typ. 10 dB
ON voltage	+5 14 V DC
Supply voltage	+12 14 V DC
Quiescent current	typ. 11 A
Current consumption	typ. 26 A @ 60 W
Forward detection	yes (diode detector)
Operating case temp. range	-20 +55 °C
VSWR of load	max. 1.8 : 1



Output connector / impedancewaveguide R100 / WG16 / WG90Casemilled aluminiumDimensions (mm)158 x 64 x 22Weight400 g (typ.)	Input connector / impedance	SMA-female / 50 ohms
Dimensions (mm) 158 x 64 x 22	Output connector / impedance	waveguide R100 / WG16 / WG90
	Case	milled aluminium
Weight 400 g (typ.)	Dimensions (mm)	158 x 64 x 22
	Weight	400 g (typ.)



MKU PA 2M-60W HY-2, VHF-MOSFET Power Amplifier

144 ... 146 MHz • 60 W VHF MOSFET Power Amplifier for the Amateur Radio Band 2 m Designed for usage with SDR Flex 6700



Features

- Good linearity
- Built-in low pass filter for good harmonic rejection
- Reverse polarity protection
- Monitor outputs for forward and reverse power detection

Applications

- Analog transmissions systems
- Power amplifier for radio amateur applications (SSB, CW)
- Designed for usage with SDR Flex 6700

Important notes

Please notice the following:

- Recommended output power for radio amateur applications: Modulation type: CW/FM up to 60 W, SSB up to 20 W

- 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 $^\circ$ C.

- Further information about dimensioning of heat sinks is available on our FAQ site.

Industrial use

Please notice the following:Recommended output power for radio amateur applications: Modulation type: CW/FM up to 60 W, SSB up to 20 W 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	144146 MHz
Input power	typ. 5 mW
Maximum input power	8 dBm
Saturation power	typ. 60 W
Gain	41 dB (typ.)
Harmonic rejection	typ. 60 dB
Supply voltage	+12 14 V DC
Quiescent current	typ. 4 A
Current consumption	max. 12 A
Operating case temp. range	-20 +55 °C
VSWR of load	max. 1.8 : 1
Input connector / impedance	SMA-female / 50 ohms
Output connector / impedance	N-female / 50 Ohms



Case Dimensions (mm) Weight milled aluminium 130 x 60 x 20

270 g (typ.)



MKU PA 13CM-20W A2, LD-MOSFET Power Amplifier

2300 ... 2450 MHz • 20 W Power Amplifier for the Amateur Radio Band 13 cm



Features

- Detector output (DC voltage) for monitoring forward output power
- Reverse polarity protection
- Suitable for all analog and digital modes (SSB, CW, ATV, DATV)

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 $^\circ$ C.

- Further information about dimensioning of heat sinks is available on our FAQ site.

Industrial use

Input power typ. 400 mW Maximum input power 1 W Output power P1dB typ. 20 W Saturation power typ. 27 W Gain (small signal) typ. 16 dB Harmonic rejection 40 dB (typ.) IM3 (2) typ. 40 dBc @ 20 W PEP ON voltage +12 V DC Supply voltage +28 V DC Quiescent current typ. 180 mA Current consumption max. 4 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 N-female / 50 Ohms Case milled aluminium Dimensions (mm) 130 x 60 x 20	Technical specifications:	
Numiniput powerNMaximum input power1 WOutput power P1dBtyp. 20 WSaturation powertyp. 27 WGain (small signal)typ. 16 dBHarmonic rejection40 dB (typ.)IM3 (2)typ. 40 dBc @ 20 W PEPON voltage+12 V DCSupply voltage+28 V DCQuiescent currenttyp. 180 mACurrent consumptionmax. 4 AForward detectionyes (diode detector)Reflected power detectionyes (diode detector)VSWR of loadmax. 1.8 : 1Operating case temp. range-20 +55 °CInput connector / impedanceSMA-female / 50 ohmsOtuput connector / impedanceSMA-female / 50 ohmsCasemilled aluminiumDimensions (mm)130 x 60 x 20	Frequency range	23002450 MHz
Output power P1dBtyp. 20 WSaturation powertyp. 27 WGain (small signal)typ. 16 dBHarmonic rejection40 dB (typ.)IM3 (2)typ. 40 dBc @ 20 W PEPON voltage+12 V DCSupply voltage+28 V DCQuiescent currenttyp. 180 mACurrent consumptionmax. 4 AForward detectionyes (diode detector)VSWR of load-20 +55 °CInput connector / impedanceSMA-female / 50 ohmsOutput connector / impedanceMA-female / 50 ohmsCurpent consumptionSMA-female / 50 ohmsDimensions (mm)130 x 60 x 20	Input power	typ. 400 mW
Saturation powertyp. 27 WGain (small signal)typ. 16 dBHarmonic rejection40 dB (typ.)IM3 (2)typ. 40 dBc @ 20 W PEPON voltage+12 V DCSupply voltage+28 V DCQuiescent currenttyp. 180 mACurrent consumptionmax. 4 AForward detectionyes (diode detector)VSWR of loadmax. 1.8 : 1Operating case temp. range-20 +55 °CInput connector / impedanceNA-female / 50 ohmsOutput connector / impedanceNA-female / 50 ohmsCasemilled aluminiumDimensions (mm)130 x 60 x 20	Maximum input power	1 W
Gain (small signal) typ. 16 dB Harmonic rejection 40 dB (typ.) IM3 (2) typ. 40 dB c@ 20 W PEP ON voltage +12 V DC Supply voltage +28 V DC Quiescent current typ. 180 mA Current consumption max. 4 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 N-female / 50 Ohms Case milled aluminium Dimensions (mm) 130 x 60 x 20	Output power P1dB	typ. 20 W
Harmonic rejection40 dB (typ.)IM3 (2)typ. 40 dBc @ 20 W PEPON voltage+12 V DCSupply voltage+28 V DCQuiescent currenttyp. 180 mACurrent consumptionmax. 4 AForward detectionyes (diode detector)VSWR of loadmax. 1.8 : 1Operating case temp. range-20 +55 °CInput connector / impedanceNA-female / 50 ohmsOutput connector / impedanceN-female / 50 ohmsCasemilled aluminiumDimensions (mm)130 x 60 x 20	Saturation power	typ. 27 W
IM3 (2) typ. 40 dBc @ 20 W PEP ON voltage +12 V DC Supply voltage +28 V DC Quiescent current typ. 180 mA Current consumption max. 4 A Forward detection yes (diode detector) VSWR of load yes (diode detector) Operating case temp. range -20 +55 °C Input connector / impedance SMA-female / 50 ohms Output connector / impedance Nefmale / 50 Ohms Case milled aluminium Dimensions (mm) 130 x 60 x 20	Gain (small signal)	typ. 16 dB
ON voltage+12 V DCSupply voltage+28 V DCQuiescent currenttyp. 180 mACurrent consumptionmax. 4 AForward detectionyes (diode detector)Reflected power detectionyes (diode detector)VSWR of loadmax. 1.8 : 1Operating case temp. range-20 +55 °CInput connector / impedanceSMA-female / 50 ohmsOutput connector / impedanceN-female / 50 OhmsCasemilled aluminiumDimensions (mm)130 x 60 x 20	Harmonic rejection	40 dB (typ.)
Supply voltage+28 V DCQuiescent currenttyp. 180 mACurrent consumptionmax. 4 AForward detectionyes (diode detector)Reflected power detectionyes (diode detector)VSWR of loadmax. 1.8 : 1Operating case temp. range-20 +55 °CInput connector / impedanceSMA-female / 50 ohmsOutput connector / impedanceN-female / 50 OhmsCasemilled aluminiumDimensions (mm)130 x 60 x 20	IM3 (2)	typ. 40 dBc @ 20 W PEP
NumberQuiescent currenttyp. 180 mACurrent consumptionmax. 4 AForward detectionyes (diode detector)Reflected power detectionyes (diode detector)VSWR of loadmax. 1.8 : 1Operating case temp. range-20 +55 °CInput connector / impedanceSMA-female / 50 ohmsOutput connector / impedanceN-female / 50 OhmsCasemilled aluminiumDimensions (mm)130 x 60 x 20	ON voltage	+12 V DC
Current consumptionmax. 4 AForward detectionyes (diode detector)Reflected power detectionyes (diode detector)VSWR of loadmax. 1.8 : 1Operating case temp. range-20 +55 °CInput connector / impedanceSMA-female / 50 ohmsOutput connector / impedanceN-female / 50 OhmsCasemilled aluminiumDimensions (mm)130 x 60 x 20	Supply voltage	+28 V DC
Forward detectionyes (diode detector)Reflected power detectionyes (diode detector)VSWR of loadmax. 1.8 : 1Operating case temp. range-20 +55 °CInput connector / impedanceSMA-female / 50 ohmsOutput connector / impedanceN-female / 50 OhmsCasemilled aluminiumDimensions (mm)130 x 60 x 20	Quiescent current	typ. 180 mA
Reflected power detectionyes (diode detector)VSWR of loadmax. 1.8 : 1Operating case temp. range-20 +55 °CInput connector / impedanceSMA-female / 50 ohmsOutput connector / impedanceN-female / 50 OhmsCasemilled aluminiumDimensions (mm)130 x 60 x 20	Current consumption	max. 4 A
VSWR of loadmax. 1.8 : 1Operating case temp. range-20 +55 °CInput connector / impedanceSMA-female / 50 ohmsOutput connector / impedanceN-female / 50 OhmsCasemilled aluminiumDimensions (mm)130 x 60 x 20	Forward detection	yes (diode detector)
Operating case temp. range -20 +55 °C Input connector / impedance SMA-female / 50 ohms Output connector / impedance N-female / 50 Ohms Case milled aluminium Dimensions (mm) 130 x 60 x 20	Reflected power detection	yes (diode detector)
Input connector / impedance SMA-female / 50 ohms Output connector / impedance N-female / 50 Ohms Case milled aluminium Dimensions (mm) 130 x 60 x 20	VSWR of load	max. 1.8 : 1
Output connector / impedanceN-female / 50 OhmsCasemilled aluminiumDimensions (mm)130 x 60 x 20	Operating case temp. range	-20 +55 °C
Case milled aluminium Dimensions (mm) 130 x 60 x 20	Input connector / impedance	SMA-female / 50 ohms
Dimensions (mm) 130 x 60 x 20	Output connector / impedance	N-female / 50 Ohms
	Case	milled aluminium
Weight 270 g (typ.)	Dimensions (mm)	130 x 60 x 20
	Weight	270 g (typ.)



MKU PA 23CM-1200W A, Power Amplifier

1280 ... 1300 MHz 1200 W High power linear amplifier for the 23 cm amateur radio band

Our high-performance amplifier for the 23 cm amateur radio band achieves great performance, high efficiency and best linearity. In contrast to tube amplifiers, an LDMOS transistor with a supply voltage of only +50 V is used here. High-voltage transformers, preheating and annoying post-voices are a thing of the past! The amplifier can be mounted close to the antenna to avoid power losses due to long coaxial cables.

Included supply:

Cable lugs for the power supply



Features

- Construction in milled aluminum and copper housing to ensure optimal heat transfer

- 50V LD MOSFET technology
- High linearity
- High efficiency (up to 45%)
- Detector output to monitor forward and reverse power (DC
- voltage)Switch on / off with DC voltage
- Over-temperature shutdown

Applications

- Research: high power amplifiers for accelerators
- COFDM systems with modulation types QPSK, QAM
- Analog transmission systems
- Ham Radio: EME Contest

Important notes

- Specification refers to room temperature.
- The amplifier module does not contain any coaxial relays!
- The heat sink/fan combination or water cooling is only dimensioned for an ambient temperature of 25 °C.
- For more information on heatsink sizing, see our FAQ page.

Industrial use

Technical specifications:	
Frequency range	12801300 MHz
Input power	typ. 20 - 30 W
Output power (CW)	1200 W (CW) peak power
Gain (small signal)	typ. 17 dB
Harmonic rejection	typ. 37 dB @ 1000 W
Over temperature protection	at 75 Degree
Supply voltage	+50 V DC



Quiescent current	typ. 4 A
Current consumption	max. 57 A
VSWR of load	max. 1.8 : 1
Input connector / impedance	SMA-female / 50 ohms
Output connector / impedance	7/16-female, 50 ohms
Case	aluminum and copper (nickel plated)
Dimensions (mm)	223 x 156 x 43
Weight	5200 g (typ.)



MKU PA 23CM-50W B, Power Amplifier

1240 ... 1300 MHz • 50 W High Power Amplifier for the Amateur Radio Band 23 cm

Our high-performance amplifier for the 23 cm amateur radio band achieves great performance, high efficiency and best linearity. An LDMOS transistor with a supply voltage of only +28 V is used here. High-voltage transformers, preheating and annoying post-voices are a thing of the past! The amplifier can be mounted close to the antenna to avoid power losses due to long coaxial cables.

Compact size (80x60x20) High power in given size Light weight



Description

The compact power amplifier for the 23 cm band combines small size and light weight with high power and efficiency thanks to LDMOS technology. Thus mounting close to the antenna is eased and plenty of applications become possible. E.g. analog and digital transmissions using COFDM-Systems with QPSK, QAM modulation and DAB, DVB.

Features

- LD-MOSFET technology
- Good linearity
- High efficiency
- Reverse polarity protection
- Monitor output for forward power detection (DC voltage)

Applications

- Digital broadcast systems (DAB, DVB)
- COFDM systems using modulation types QAM, QPSK
- Analog transmission systems

Important notes

Please notice the following:

- Further information about dimensioning of heat sinks is available on our FAQ site.

- Attention: The recommended fans need a supply voltage of 24 \ldots 28 V DC.

- The technical specifications refer to room temperature.

Industrial use

Our power amplifiers of the MKU-series are exclusively intended for amateur radio applications and will only be sold to radio amateurs with a licence. These products are specified for amateur radio requirements and are not designed for industrial applications. Please notice our list of industrial products or ask for a special version.

Technical specifications:	
Frequency range	12401300 MHz
Input power	typ. 3 W
Output power P3dB	typ. 50 W (CW)
Gain (small signal)	typ. 16 dB
ON voltage	+9 14 V DC
Supply voltage	+28 V DC

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Quiescent current	typ. 0.5 A
Current consumption	max. 6 A
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)	80 x 60 x 20
Weight	240 g (typ.)



MKU PA 6CM-100W A, GaAs FET power amplifier

5740 ... 5780 MHz • 100 W

Power Amplifier for the Amateur Radio Band 6 cm



Features

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

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 $^\circ$ C.

- Further information about dimensioning of heat sinks is available on our FAQ site.

Industrial use

Our power amplifiers of the MKU-series are exclusively intended for amateur radio applications and will only be sold to radio amateurs with a licence. These products are specified for amateur radio requirements and are not designed for industrial applications. Please notice our list of industrial products or ask for a special version.

Frequency range	57405780 MHz
Input power	typ. 200 mW
Maximum input power	350 mW
Saturation power	typ. 100 W
ON voltage	+5 14 V DC
Supply voltage	+12 V DC
Current consumption	typ. 28 A
Operating case temp. range	-20 +55 °C
VSWR of load	max. 1.8 : 1
Input connector / impedance	SMA-female / 50 ohms
Output connector / impedance	N-female / 50 Ohms
Case	milled aluminium
Dimensions (mm)	158 x 64 x 22
Weight	380 g (typ.)



MKU PA 3CM-30W B, GaAs-Fet Power amplifier

10000 ... 10500 MHz • 30 W Linear Power Amplifier for 10 GHz



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 recommended combination of heat sink and fan(s) is only specified for an ambient temperature of 25 $^\circ\text{C}.$

- Further information about dimensioning of heat sinks is available on our FAQ site.

Technica	l specif	ications:
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Frequency range	1000010500 MHz
Maximum input power	+7 dBm
Saturation power	min. 30 W
Gain (small signal)	typ. 48 dB
Over temperature protection	yes
ON voltage	+5 15 V DC
Supply voltage	+12 14 V DC
Current consumption	max. 15 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	380 g (typ.)



MKU PA 3CM-60W C, GaAs-FET Power Amplifier

10300 ... 10400 MHz • 60 W Linear Power Amplifier for 10 GHz



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 $^\circ$ C.

- Further information about dimensioning of heat sinks is available on our FAQ site.

Industrial use

Our power amplifiers of the MKU-series are exclusively intended for amateur radio applications and will only be sold to radio amateurs with a licence. These products are specified for amateur radio requirements and are not designed for industrial applications. Please notice our list of industrial products or ask for a special version.

Frequency range	1030010400 MHz
Maximum input power	+8 dBm
Saturation power	typ. 60 W, min. 55 W
Gain (small signal)	typ. 48 dB
Gain flatness (small signal)	typ. +/- 1 dB
Harmonic rejection	typ. 40 dB @ 47 dBm
Over temperature protection	yes
Input return loss (S11)	typ. 10 dB
ON voltage	+5 14 V DC
Supply voltage	+12 14 V DC
Quiescent current	typ. 12 A
Current consumption	max. 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 Dimensions (mm) Weight milled aluminium 158 x 64 x 22

400 g (typ.)



MKU PA 3CM-2W C- Power Amplifier

10000 ... 10500 MHz • 2 W Linear Power Amplifier for 10 GHz



Features

- GaAs-FET-technology
- High linearity
- Good harmonic rejection
- High bandwidth
- Reverse polarity protection

- Monitor output for forward power detection (DC voltage)Small mechanical dimensions

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 $^\circ\text{C}.$

- Further information about dimensioning of heat sinks is available on our FAQ site.

Industrial use

Our power amplifiers of the MKU-series are exclusively intended for amateur radio applications and will only be sold to radio amateurs with a licence. These products are specified for amateur radio requirements and are not designed for industrial applications. Please notice our list of industrial products or ask for a special version.

Frequency range	1000010500 MHz
Input power	typ. 17 dBm
Maximum input power	+20 dBm
Saturation power	min. 2 W
Gain (small signal)	typ. 20 dB
Harmonic rejection	typ. 40 dB @ 33 dBm
Supply voltage	+9 14 V DC
Current consumption	max. 1.5 A
Operating case temp. range	-20 +55 °C
VSWR of load	max. 1.8 : 1
Input connector / impedance	SMA-female / 50 ohms
Output connector / impedance	SMA-female / 50 ohms
Case	milled aluminium
Dimensions (mm)	50 x 30 x 17
Weight	50 g (typ.)