

**MODEL KMW2046**  
**125 WATTS CW/PULSE**  
**225 MHz - 512 MHz**

The Model KMW2046 is an RF power amplifier module supplying 100 Watts continuous output power for OEM applications or integration into a user system. The module comprises a printed wiring assembly housed in a machined aluminum enclosure with feed-through capacitive terminals for connection to the DC power source. Cooling requirements defined by the data provided below and protection of the output devices against output mismatch are the responsibility of the user.

**SPECIFICATIONS**

FREQUENCY RANGE .....	225 MHz - 512 MHz
POWER OUTPUT @ 1db COMPRESSION .....	125 Watts minimum
INPUT FOR RATED OUTPUT .....	≤ 10dBm
GAIN CONTROL (OUTPUT LEVEL VARIATION / ALC) .....	45dB average (40dB Worst Case) 12V/0V
GAIN VARIATION VS FREQUENCY .....	±1.2 dB maximum at Half Power
GAIN .....	≥ 44dB
EFFICIENCY (@ 100 WATTS) .....	>30% *
DC CURRENT (@ 100 WATTS) .....	24V @ 12A average (14A maximum)
IMD, 0.2MHz SPACING (@ 100 WATTS) .....	-38 dBc average (-34 dBc maximum)
HARMONIC DISTORTION (@100 WATTS) .....	-45dBc average (- 24 dBc worst case) *
SPURIOUS .....	≤ -90dBc
NOISE FIGURE .....	9dB average
TEMPERATURE MONITOR .....	Linear (Vt=750mV @ 25°C + (10mV/°C)
QUIESCENT NOISE AT INPUT .....	-120dBm / Hz @ 1MHZ Bandwidth
ON/OFF TIME (PTT) .....	< 3μS (Off ≤ 0.5V / ≤ 5mA or ground)
SURVIVABILITY AT OPEN AND SHORT (@100 Watts) .....	5 Sec*
INPUT VSWR .....	Better than 1.5 : 1
MISMATCH TOLERANCE .....	2:1 maximum
OPERATING TEMPERATURE .....	-45 TO +65° C. Baseplate temperature shutdown at 71° C (low temp spec based on testing by customer on a sample of one)
STORAGE TEMPERATURE .....	-55 to +85°.C (Baseplate Temperature)
PRIMARY POWER .....	21-28Vdc (21Vdc = 100 Watts / 28Vdc = 150 to 200 Watts)
RF CONNECTORS .....	SMA female
ENCLOSURE SIZE (W x L x H) .....	140 x 183 x 30 mm (no indentations) RF input, PTT, Vdc, Vt, VDC & Ground on one side, RF output on the opposite side.
COOLING .....	Customer to supply proper cooling to maintain enclosure temp of 65°C

\* At 24 deg. C @ 100W

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