



MODEL KMW2030
125 WATTS CW
30 MHz - 512 MHz
Automatic Band-Switching

The AR Modular RF Model KMW2030 is an auto-band switching AM/FM-UHF/VHF DAMA amplifier for signals in the 30 to 512 MHz frequency range, with an optional external low-noise pre-amplifier for use in the UHF SatCom mode.

Operation of the amplifier requires only MODE and POWER LEVEL selection. The amplifier provides transmit power on the UHF SatCom, UHF Line-of-Sight and VHF LOS bands. The amplifier supports the UHF SatCom band for both Mil-Std 188-182, 5kHz and Mil-Std 188-183, 25 kHz DAMA and 188-181, Non-DAMA, with or without the optional external preamplifier, and supports both HPW and Mil-Std 181B waveforms. PIN-DIODE T/R switching ensures DAMA/HPW switching time requirements and UHF CO-SITE filtering eliminates interference from adjacent transmitters.

The amplifier is protected against antenna mismatch, over-temperature, excessive current draw, high VSWR, and DC power mismatch. LED indicators show output power, VSWR, temperature and input drive fault conditions. External connections are limited to RF input; RF output, DC power, and RS232 control lines.

The amplifier is self-contained, splash proof, and designed for military ground, vehicular and aircraft tactical operations. The amplifier is available in matte black only. The optional external pre-amplifier is waterproof and is powered via a single RF cable.

- Radio Vendor independent design. Single and multi-band radio compatible with just an RF connection
- Full 30 MHz - 512 MHz band coverage
- Automatic band sensing and switching of filters
- Low input power for full output
- Vehicle power compatible 24 volt systems, filtered and transient protected.
- 3 year Warranty from a company with 35+ years in the business.



GENERAL SPECIFICATIONS

TX FREQUENCY RANGE	30 MHz - 512 MHz
POWER OUTPUT	50, 75, 100, 125 Watts selectable, 32.5 Watts AM Carrier 30-400 MHz, ±1 dB 450-512 MHz, ±1 dB, -2 dB
INPUT POWER	2 to 5 Watts typical [20 Watts absolute maximum input]
RF SENSE THRESHOLD	<1 Watt for Receive-Transmit switchover
INPUT/OUTPUT IMPEDANCE	50 Ohm
INPUT VSWR	1.5:1 maximum
LOAD VSWR	2:1 maximum for full output power
HARMONICS	-65 dBc typical
RECEIVE INSERTION LOSS	<2 dB
CONTROLS	Power Select
INDICATORS	LED-type; SYSTEM on, VSWR, TEMP, DRIVE
OUTPUT METER	10-Segment Bar Graph
RF CONNECTORS	N female



modular rf

PRIMARY POWER	19-32 V DC
POWER CONSUMPTION OVER VOLTAGE RANGE	826 Watts @ 24 V DC
REMOTE OPERATION	RS232 control
ENVIRONMENTAL GENERAL	Certified to meet US Army requirements of MILSPEC 810F
TEMPERATURE OPERATING/STORAGE/SHOCK	Method 501.4, -20 to 50 °C / -40 to 70 °C and Shock Method 503.4
SHOCK AND VIBRATION	Methods 514.5 and 516.5
ALTITUDE OPERATING/STORAGE/DECOMPRESSION	Methods 500.4 and Decompression 500.4
MOISTURE RESISTANCE, HUMIDITY & SALT SPRAY	Methods 507.4 and 509.4 Amplifier is water splash proof. Pre-amplifier leak proof to 30 min. @ 1m under water.
SAND AND DUST	Method 510.4
LIGHTING REQUIREMENTS OPERATING	Fully operable under all ambient light conditions. Fully operable with generation III night vision goggles.

UHF SATCOM/DAMA Tx, HPLW & Mil STD 181B waveform

FREQUENCY RANGE	225-512 MHz
-----------------	-------------

UHF SATCOM/DAMA Rx

FREQUENCY RANGE	240-270 MHz
OPTIONAL PRE-AMPLIFIER GAIN	12 dB minimum
NOISE FIGURE	<2 dB typical
OUT-OF-BAND REJECTION	-70 dB

UHF LOS

FREQUENCY RANGE	225-512 MHz
-----------------	-------------

VHF LOS

FREQUENCY RANGE	30-174 MHz
OUT-OF-BAND REJECTION	-70 dB

MECHANICAL SPECIFICATIONS

WEIGHT	17 lb. maximum
SIZE (H X W X D)	7 X 5 X 13.5 in.

OPTIONAL EQUIPMENT

KMW2030P	Low-Noise SATCOM Pre-Amplifier, 240-270 MHz
BC2030	Battery Cable (10' cable with alligator clips)
VMK2030V	Vehicle mounting kit (vertical)



DOC # 7-98-855-101C 10 JUNE 2010
