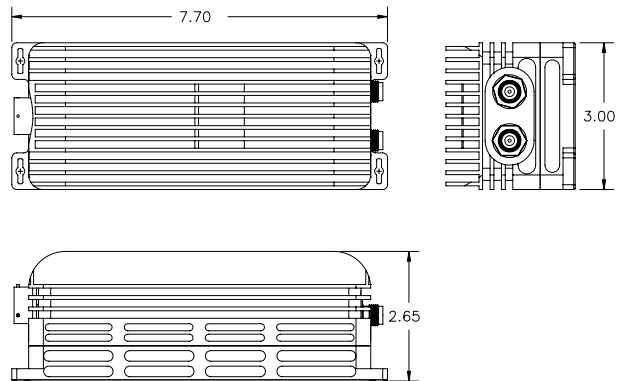
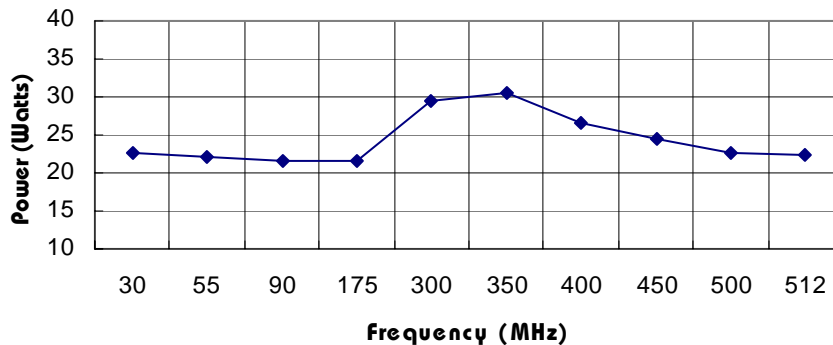


MODEL KMW1031
20 TO 30 WATTS
30 MHz - 512 MHz, Multi-Band
Automatic Band-Switching

The Model KMW1031 is a portable, lightweight, waterproof, fully automatic band-switching RF booster amplifier for multi-band VHF/UHF Tactical Radio equipment employing legacy, proprietary and emerging waveforms. The amplifier covers the frequency band of 30-512 MHz using six filters to assure acceptable harmonic distortion levels and is SINCGARS compatible. With proper operation, the KMW1031 is Mil Std 461E Compliant. The amplifier includes Voltage Spike Suppression, RF sensing, T/R switching, Automatic Level Control (ALC), six automatically switched harmonic filter bands, and protection against antenna mismatch and over-temperature. The unit may be operated locally or remotely and may be powered from two BA5590 batteries or vehicle power. Normal operating time using two BA5590 batteries is approximately 15 hours. Protection against accidental polarity reversal is provided. Very low current usage on standby due to "sleep mode" extends battery life in field use. The amplifier comprises a rugged 2-piece aluminum case with slotted openings to allow strapping the unit to the body. Optional cables and vehicle mounting kit are available.



KMW1031 Output Power



SPECIFICATIONS

FREQUENCY RANGE.....	30 MHz – 512 MHz	
AUTO SWITCHING FREQUENCY BANDS.....	Band 1: 30 MHz - 45 MHz	Band 4: 108 MHz – 175 MHz
.....	Band 2: 45 MHz - 70 MHz	Band 5: 225 MHz - 345 MHz
.....	Band 3: 70 MHz – 108 MHz	Band 6: 345 MHz - 512 MHz
POWER OUTPUT.....	20 to 30 Watts	
INPUT POWER.....	Up to 5 Watts max for rated power	
RF KEYING SENSITIVITY.....	1 Watt typical	
T/R & FILTER SWITCHOVER TIME.....	SINGARS Compatible	
INSERTION LOSS.....	1.0 dB maximum	
MODULATION.....	AM, FM, or PM	
DUTY CYCLE.....	10% Transmit	
INPUT/OUTPUT IMPEDANCE.....	50 Ohm nominal	
INPUT VSWR.....	1.5:1 maximum	
HARMONICS.....	-63 dBc typical Per Mil Std 461E, CE 106	
SPURIOUS OUTPUTS.....	-60 dBc maximum	
POWER REQUIREMENT.....	24 VDC @ 5 - 6A Transmit, <0.015A Sleep Mode	
.....	24V Vehicle Power Compatible	
INPUT VOLTAGE RANGE.....	19 – 32 VDC	
OPERATING TEMPERATURE.....	-30 to +60 °C	
RF CONNECTORS.....	TNC female	
COOLING.....	Natural convection required	
DC & CONTROL CONNECTOR.....	Multi-pin connector (Mating Connector Supplied)	
CONSTRUCTION.....	Aluminum housing with integral heatsink	
ALTITUDE (operating).....	10,000 m	
IMMERSION (water).....	66 ft for 20 min	
VIBRATION / SHOCK / HUMIDITY.....	Per Mil Std 810E	
SIZE (WxHxD).....	3.00" x 2.65" x 7.70"	
WEIGHT.....	2 lb. 5 oz	

OPTIONAL EQUIPMENT

BC1030	Battery Cable (18" cable connecting KMW1030 Series to two BA5590 batteries)
VC1030	Vehicle Power Cable (120" cable with NATO slave plug for vehicle use)
RC1030	Radio Cable (96" cable connecting radio output to amplifier input)
AC1030	Antenna Cable (96" cable connecting amplifier output to antenna input)
VMK1031	Vehicle Mounting Kit (Vehicle mounted sleeve for holding KMW1031)

DOC # 7-98-846-013 REV DATE: -
