

MODEL KMW2050
200 WATTS CW
225 MHz - 400 MHz

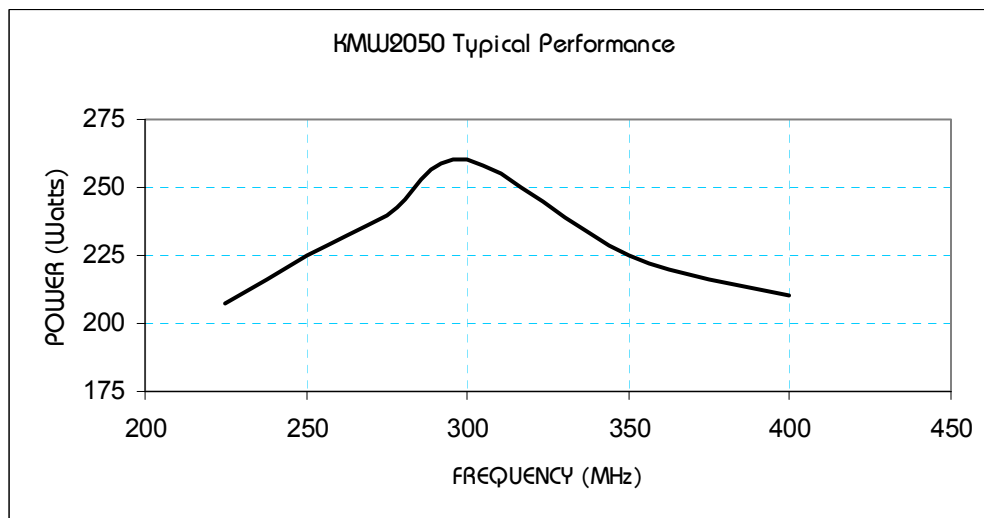
The Model KMW2050 is a general purpose, UHF Power Booster for signals in the 225 to 400 MHz frequency range. No tuning, band switching, or adjustments of any kind are required to operate this unit. Maximum power output is in excess of 200 Watts into a 50-Ohm load and will provide full output power with a 2:1 maximum load VSWR. Maximum power output may be selected from the front panel to be limited to 50, 100, 150 or 200 Watts. Output power is indicated on a 10-segment bar graph. Automatic level control (ALC) maintains the maximum power output at the level selected.

Power gain is a minimum 22 dB, providing for full power output with 1.5 Watts input. Input power may vary from 1.5 to 25 Watts for full output. When the input power exceeds this, an overdrive indication is given on the front panel and the amplifier reverts to the by-pass mode.

Transmit/Receive switching is automatic and is initiated by an RF input power of approximately 1 Watt or greater. The unit reverts to the receive mode when the input is removed. The switching times are DAMA and HPW compatible.

The unit is protected against excessive load VSWR and an excessive VSWR condition is indicated on the front panel. Forced-air cooling is supplied by two tube-axial fans. An over-temperature condition, temperatures exceeding 160 °F, is indicated on the front panel and the unit reverts to the by-pass mode until the temperature returns to the normal operating range, approximately 130 °F.

The antenna connection is normally made through a N-type female connector located on the rear panel. This connector may easily be relocated to the space provided for it on the front panel at any time.



DOC # 7-98-732-001
 REV: B

TRANSMIT: FREQUENCY RANGE	225 - 400 MHz
OUTPUT POWER	50, 100, 150 or 200 Watts, switch selectable
INPUT POWER	1.5 to 25 Watts for full output
INPUT/OUTPUT IMPEDANCE	50 Ohms nominal.
INPUT VSWR	1.51 maximum
HARMONIC DISTORTION	225-290MHZ -42dBc
.....	290-400MHZ -53dBc
SPURIOUS EMISSIONS.....	-60 dBc maximum @ 200 Watts
LOAD VSWR	2.01 maximum for full output
GAIN VARIATION	< ±1.0 dB
DUTY CYCLE	100% to 40 °C; 10 min. on/20 min. off to 50 °C
TURN-ON TIME	<375 us
TURN-OFF TIME	<500 us
RECEIVE: FREQUENCY RANGE.....	243 - 270 MHz w/preamp on; 225-400 MHz w/preamp off
GAIN	35 dB minimum (preamp on, FM only)
OUTPUT	+15 dBm @ 1 dB compression
NOISE FIGURE	≤5.5 dB
INSERTION LOSS	≤0.7 dB (unit off)
	≤3 dB (AM, or FM with preamp off)
BANDPASS FILTER RESPONSE	±1 dB (240–273 MHz); >50 dB down 223 & 290 MHz
GENERAL: RF SENSING THRESHOLD	<1.5 Watts switches from Receive to Transmit
CONTROLS	RF OUTPUT (level select), FM PREAMP
INDICATORS (LED)	SYSTEM ON, TEMP, VSWR, DRIVE
METERING (output power)	10-segment bar graph
RF CONNECTORS (input & Ant.)	N-type jack w dust cap
SUPPLY CONNECTOR.....	Amphenol MS24264R14B4P6 w dust cap
	Mating connector-MS24266R14B4S6 - supplied
I/O CONNECTOR.....	9-pin D-sub female pin 1 - ground
	pin 3 - KEY line (ground activates transmit mode)
	pin 5 - FAULT (+5V=fault) incl. all LEDs and circuit breaker trip
SUPPLY REQUIREMENTS	28 VDC @ 25 A nominal for 200 Watt out
OPERATING TEMPERATURE	-20 to +50 °C
HUMIDITY	Up to 95% non-condensing
OPERATING ALTITUDE	200 Watt to 6000 ft; 150 Watt to 10,000 feet
WEIGHT	5.45 kg, 12 lb.
SIZE (W x H x D)	11.43 x 21.0 x 39.4 cm, 4.5 x 8.25 x 15.5 in.
FINISH	Painted matte black w/screening white