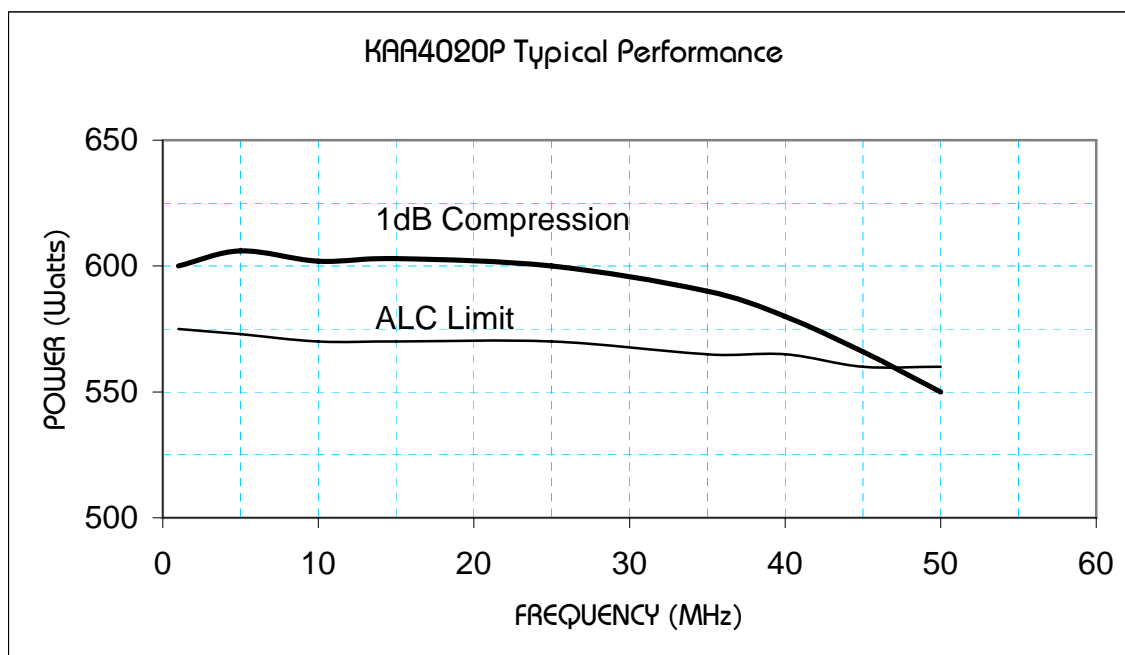


MODEL KAA4020P
500 WATTS CW
1 MHz - 50 MHz

The Model KAA4020P is a wideband RF pulse amplifier. The KAA4020P is a Class AB linear amplifier capable of 500 Watts pulsed output power into a 50-Ohm load over the frequency range of 1 MHz to 50 MHz. Power gain is 57 dB minimum. GPIB control is possible with the optional IEEE488.2/RS232 Interface Controller Module.

The system features forward and reflected power indication on a front panel-mounted, analog meter; Automatic Level Control (ALC); RF gain control; overdrive protection; full VSWR protection; input blanking, and over-temperature protection. These features, plus remote power on/off control, are also accessible for remote operation through a 25-pin, D-subminiature connector mounted on the rear panel. For a detailed description of these features refer to "SPECIAL FEATURES – KAA & KAW-SERIES SINGLE BAND RF POWER AMPLIFIERS".

The Model KAA4020P is a 19-inch rack-mount unit, 8¾ inches high and 26½ inches deep. Construction is completely modular and all subassemblies are easily removable. Forced-air cooling is provided by a highly reliable impeller fan mounted on the rear panel. The unit uses a switching-type power supply module and operates from 95-265 V_{ac}, 47-63 Hz line. The system may be placed in 'stand-by' mode with the BLANKING switch, which greatly reduces energy consumption and heat generation.



DOCS # 7-98-836-001 REV C
 22 JAN 2008

SPECIFICATIONS
Model KAA4020P

RATED POWER OUTPUT	500 Watts Pulse
INPUT FOR RATED OUTPUT	1.0 mW maximum
POWER OUTPUT @ 1dB COMPRESSION	500 Watts minimum
FLATNESS	± 1.5 dB maximum unlevelled, ± 0.5 dB leveled
FREQUENCY RESPONSE	1 MHz - 50 MHz instantaneously
GAIN	57 dB minimum
GAIN ADJUSTMENT RANGE	20 dB typical
DUTY CYCLE	35%
PULSE WIDTH	1 ms maximum
SIGNAL RISE/FALL TIME	1 µs maximum
PULSE DROOP	5% maximum
GATING SPEED	1 µs maximum
INPUT IMPEDANCE	50 Ohm nominal
OUTPUT IMPEDANCE	50 Ohm nominal
MISMATCH TOLERANCE	6:1
PROTECTION	VSWR, over-temperature, overdrive
MODULATION CAPABILITY	Will faithfully reproduce AM, FM, or pulse modulation appearing on the input signal
HARMONIC DISTORTION	-13 dBc maximum
SPURIOUS OUTPUTS	-70 dBc maximum
FRONT PANEL METER	0 - 500 Watt forward power, top scale % limit SET point reflected power, bottom scale
CONTROLS	[AC LINE]ON/OFF, [RF CTRL]ON/OFF (blanking) [METER]FWD/REFL, [ALC]FAST/SLOW (Autom. Level Control) [VSWR]RESET MAN/AUTO, ALC, RF GAIN
INDICATORS	SYSTEM, BLANKING, [METER]MODE, [ALC]MODE, VSWR, TEMP, REMOTE ACTIVE
REMOTE INTERFACE (optional)	IEEE-488.2 & RS-232
RF CONNECTORS	Type N female
REMOTE CONTROL	IEEE488.2: 24-pin female, RS-232: 25- pin D-Subminiature female
REMOTE INTERLOCK	BNC female
OPERATING TEMPERATURE	-10 to 40 °C
COOLING	Forced air (self contained fans)
PRIMARY POWER	95 - 265 V _r , 47 - 63Hz, single-phase, 400 VA average
SIZE (W x H x D)	48.3 x 22.2 x 67.3 cm, 19 x 8¾ x 26½ in.
WEIGHT	20.5 kg, 45 lb.

MODEL CONFIGURATIONS

MODEL NUMBER	OPTION
KAA4020P	Standard
KAA4020PM1	IEEE488.2/RS232