

MODEL AR-20HC2 [AR-20H, CONFIGURATION 2] 20 WATTS CW/PEP 300-500 MHz

The Model AR-20HC2 is a portable, lightweight, RF booster. The AR-20HC2 produces 20 Watts from a nominal 2 Watts CW/PEP radio input and covers the frequency band of 300-500 MHz. The unit is designed for use with the FSK and other latest modern networking formats like ANW2C and SRW. It also includes Voltage Spike Suppression, Over Temperature Protection, RF sensing T/R Switching, Harmonic Filters, Co-Site Filtering, lightning protection, and protection against antenna mismatch.

FREQUENCY RANGE 300-500 MHz POWER OUTPUT PEP >20 Watts typical CW or PEP AM Modulation 1 kHz DOM 70% (<10% distortion typical) INPUT POWER RANGE Nominal 2W - 5W CW or PEP for full 20W output. Up to 8W without damage RF KEYING SENSITIVITY 0.75 Watt CW (min) T/R SWITCHOVER TIME <25 JS typical NOISE FIGURE 2.5 dB typical LNA GAIN 11 dB typical MODULATION All Legacy and Modern complex tactical communications waveforms like FSK, ANW2C and SRW DUTY CYCLE 50% typical at 55C INPUT YSWR 1.5.1 nominal HARMONICS Better than -60 dBc typical SPURIOUS OUTPUTS Better than -70 dBc POWER REQUIREMENT 9 to 36 VDC CURRENT -40 to +70 °C Ambient ALTITUDE (operating) 20,000 ft IMMERSION (water) IP67 VIBRATION SHOCK / HUMIDITY / ENVIRO HST x x 57 x 8.78 inches (including connectors) VECHANICAL SPECIFICATIONS VIBRATION / SHOCK / HUMIDITY / ENVIRO VIBRATION / SHOCK / HUMIDITY / ENVIRO Natural convection required RF CONNECTORS COOLING Natural convection required RF CONNECTORS RF Output (Antenna) – BNC COOLING OCONNECTOR Multi-pin connector (Multing Connector Supplied)	GENERAL SPECIFICATIONS		
INPUT POWER RANGE Nominal 2W - 5W CW or PEP for full 20W output. Up to 8W without damage RF KEYING SENSITIVITY 0.75 Watt CW (min) T/R SWITCHOVER TIME <25 µ typical	FREQUENCY RANGE	300-500 MHz	
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T/R SWITCHOVER TIME<25 µS typicalNOISE FIGURE2.5 dB typicalLNA GAIN11 dB typicalMODULATIONAll Legacy and Modern complex tactical communications waveforms like FSK, ANW2C and SRWDUTY CYCLE50% typical at 55CINPUT/OUTPUT IMPEDANCE50 Ohm nominalINPUT/OUTPUT IMPEDANCE50 Ohm nominalINPUT VSWR1.5:1 nominalHARMONICSBetter than -60 dBc typicalSPURIOUS OUTPUTSBetter than -60 dBc typicalPOWER REQUIREMENT9 to 36 VDCCURRENT<3.5A Amps @ 24V typical	INPUT POWER RANGE	Nominal 2W - 5W CW or PEP for full 20W output. Up to 8W without damage	
NOISE FIGURE2.5 dB typicalLNA GAIN11 dB typicalMODULATIONAll Legacy and Modern complex tactical communications waveforms like FSK, ANW2C and SRWDUTY CYCLE50% typical at 55CINPUT/OUTPUT IMPEDANCE50 Ohm nominalINPUT VSWR1.5:1 nominalHARMONICSBetter than -60 dBc typicalSPURIOUS OUTPUTSBetter than -70 dBcPOWER REQUIREMENT9 to 36 VDCCURRENT<3.5A Amps @ 24V typical	RF KEYING SENSITIVITY	0.75 Watt CW (min)	
LNA GAIN11 dB typicalMODULATIONAll Legacy and Modern complex tactical communications waveforms like FSK, ANW2C and SRWDUTY CYCLE50% typical at 55CINPUT/OUTPUT IMPEDANCE50 Ohm nominalINPUT VSWR1.5:1 nominalHARMONICSBetter than -60 dBc typicalSPURIOUS OUTPUTSBetter than -70 dBcPOWER REQUIREMENT9 to 36 VDCCURRENT<3.5A Amps @ 24V typical	T/R SWITCHOVER TIME	<25 µS typical	
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HARMONICSBetter than -60 dBc typicalSPURIOUS OUTPUTSBetter than -70 dBcPOWER REQUIREMENT9 to 36 VDCCURRENT< 3.5A Amps @ 24V typical	INPUT/OUTPUT IMPEDANCE	50 Ohm nominal	
SPURIOUS OUTPUTSBetter than -70 dBcPOWER REQUIREMENT9 to 36 VDCCURRENT<3.5A Amps @ 24V typical	INPUT VSWR	1.5:1 nominal	
POWER REQUIREMENT9 to 36 VDCCURRENT9 to 36 VDCCURRENT<3.5A Amps @ 24V typical	HARMONICS	Better than -60 dBc typical	
CURRENT<3.5A Amps @ 24V typicalENVIRONMENTAL SPECIFICATIONSOPERATING TEMPERATURE-40 to +70 °C AmbientALTITUDE (operating)20,000 ftIMMERSION (water)IP67VIBRATION / SHOCK / HUMIDITY / ENVIROMIL-STD-810MECHANICAL SPECIFICATIONSSIZE (HxWxD)1.86 x 3.75 x 8.78 inches (including connectors)WEIGHT2.6 lbsCOOLINGNatural convection requiredRF CONNECTORSRF Input (Radio) – BNC RF Output (Antenna) – BNCDC CONNECTORMulti-pin connector (Mating Connector Supplied)	SPURIOUS OUTPUTS	Better than -70 dBc	
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MECHANICAL SPECIFICATIONS SIZE (HxWxD) 1.86 x 3.75 x 8.78 inches (including connectors) WEIGHT 2.6 lbs COOLING Natural convection required RF CONNECTORS RF Input (Radio) – BNC RF Output (Antenna) – BNC DC CONNECTOR Multi-pin connector (Mating Connector Supplied)	IMMERSION (water)	IP67	
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RF CONNECTORS RF Input (Radio) – BNC RF Output (Antenna) – BNC DC CONNECTOR Multi-pin connector (Mating Connector Supplied)		2.6 lbs	
RF Output (Antenna) – BNC DC CONNECTOR Multi-pin connector (Mating Connector Supplied)	COOLING	Natural convection required	
	RF CONNECTORS		
	DC CONNECTOR	Multi-pin connector (Mating Connector Supplied)	
Auninum nousing with integral neatsink	CONSTRUCTION	Aluminum housing with integral heatsink	

OPTIONAL EQUIPMENT

Mounting Plate Kit



modular rf



*Photo for illustration purposes only - actual connectors may vary (see specifications above)

ANTILE PESTS	
	Made in USA

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