

## SPECIFICATIONS

### SCT110 TRANSMITTER/EXCITER

FREQUENCY RANGE	136-174MHz; 216-240 MHz
POWER OUTPUT	10 WATTS (NOM.) @ 13.5VDC.
CURRENT DRAW	1.9 - 2.2A TYP. @ +12-14 VDC.
MODULATION	"TRUE FM" FOR THE ULTIMATE IN AUDIO QUALITY. <b>LOW DISTORTION</b> MODULATOR WITH INSTANTANEOUS DEVIATION LIMITING (CLIPPING) AND MULTISECTION AUDIO LOW PASS FILTER, FOR MINIMUM FM SIDEBAND ENERGY AND BEST SOUND.
AUDIO INPUT IMPEDANCE	40K OHMS NOM.
DEVIATION	ADJUSTABLE UP TO $\pm 7$ KHz. FACTORY SET TO $\pm 6$ KHz MAX PEAK DEVIATION.
FINAL STAGE	<b>INFINITE VSWR PROTECTED.</b> NO SHUTDOWN REQUIRED.
SPURIOUS	-75dB TYP.
HARMONICS	-65dB MIN.
"WHITE NOISE"	-90dB MIN. @ $\pm 600$ KHz
TEMPERATURE STABILITY	$\pm 0.001\%$ NOM. FROM -10 TO +60°C. <b>ALSO AVAILABLE WITH OPTIONAL ULTRA-HIGH STABILITY PROPORTIONAL CRYSTAL OSCILLATOR/OVEN MODULE (OS-18).</b> ( $\pm 0.0002\%$ MAX. -30 TO +60°C.)
CRYSTAL INFORMATION (136-174MHz)	$CRYSTAL F_o = \frac{TRANSMIT FREQ.}{8}$
(216-240MHz)	$CRYSTAL F_o = \frac{TRANSMIT FREQ.}{12}$
	FUNDAMENTAL MODE, PARALLEL RESONANT, 32pF LOAD CAPACITY, 25 OHMS OR LESS AT RESONANCE. HC-25/U CASE. TOLERANCE: $\pm 0.0005\%$ (-10 TO +60°C.)
CRYSTAL	ONE $\pm 0.0005\%$ HIGH STABILITY COMMERCIAL GRADE CRYSTAL SUPPLIED.
SIZE	5 $\frac{1}{8}$ " X 6 $\frac{3}{8}$ "

### BA-10 (136-174MHz) & BA-10A (216-240MHz) 30 Wt. AMPLIFIER BOARDS

POWER OUTPUT	30 WATTS TYP. (25Wt. MIN. 136-174MHz.) AT +13.8 VDC.
RF DRIVE REQUIREMENTS	8-10Wt. NOM. @ 136-174MHz. 10-12 Wt. NOM. @ 216-240MHz.
DC CURRENT DRAW	3.5A NOM. @ 13.8 VDC.
HARMONICS	-60dB MIN.
HIGH VSWR	AMP. TRANSISTOR IS THE BALASTED EMITTER TYPE AND WILL WITHSTAND INFINITE VSWR FOR UP TO 1 MIN. NO SHUTDOWN REQUIRED.
SIZE	2 X 4"

SPECIFY BA-10 OR BA-10A, AND FREQUENCY.

## MOUNTING AND HEAT SINKING

MOUNT THE BOARD WITH THE FOUR STANDOFFS PROVIDED. THE STUD TRANSISTOR(S) MUST BE BOLTED TO A HEAT SINK WHICH IS CAPABLE OF DISSIPATING SEVERAL WATTS. (NORMALLY THE SHIELDED ENCLOSURE IS SUFFICIENT.) BE SURE TO USE A SMALL AMOUNT OF THERMAL GREASE ON THE TRANSISTOR(S) FLANGE FOR GOOD HEAT CONDUCTIVITY. TIGHTEN THE NUT(S) ON THE STUD(S) ONLY SNUGLY. **DO NOT OVERTORQUE** - AS THE STUD COULD BREAK-OFF!

FOR REPEATER APPLICATION, THE BOARD MUST BE MOUNTED IN A TIGHTLY SHIELDED BOX. (SPECTRUM COMMUNICATIONS CUSTOM TRANSMITTER HOUSING RECOMMENDED). FEED THROUGH CAPACITORS (APX 1000pF) MUST BE USED FOR **ALL** DC AND AUDIO LINES ENTERING THE BOX (EXCEPT GROUND). A UHF OR TYPE N CONNECTOR IS RECOMMENDED FOR RF OUTPUT.