ALACHUA ARES PROJECT

EMP-HARDENED/PROOF HF SSB TRANSCEIVER
SB-100 WITH RADUINO FREQUENCY CONTROL
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Frequency Range	Using RADUINO VFO: 3300 – 4050 kHz 6800 – 7400 kHz 13900-14400 kHz 14650-15200 kHz 20950-21500 kHz 27950-28550 kHz With internal VFO additionally: 28.5 – 29.5 MHz	Allows reception of some MARS and federal frequencies (with possibly reduced output power) and also CHU Canada (3.330 MHz, 14.670 MHz) time/frequency station and possible WWV 15 MHz
Frequency Accuracy	Typically within 100 Hz using RADUINO; within 1 kHz using internal VFO	
Power Output	Within ham bands 80-15 Meters typically 100W; less on 10 Meters	Power will decline outside of ham bands due to internal 8 MHz IF bandpass filter nominal bandwidth 500 kHz
Modes	Lower Side Band, Upper Sideband on any band, CW on any band. Digital modes via microphone input	
Power Amplifier	2 x 6146 vacuum tube	
SWR Limitations	Suggest 3:1 or better.	Not critical.
Computer control emulation	FT857d (for frequency control only)	9600 8N1 settings
VFO's	With RADUINO: A & B With internal: 1	
High Voltage	750-800 VDC	Full power plate current = 250mA
Low Voltage	350 VDC	
Filament Voltage	12 VAC	6v tubes are arranged in series