

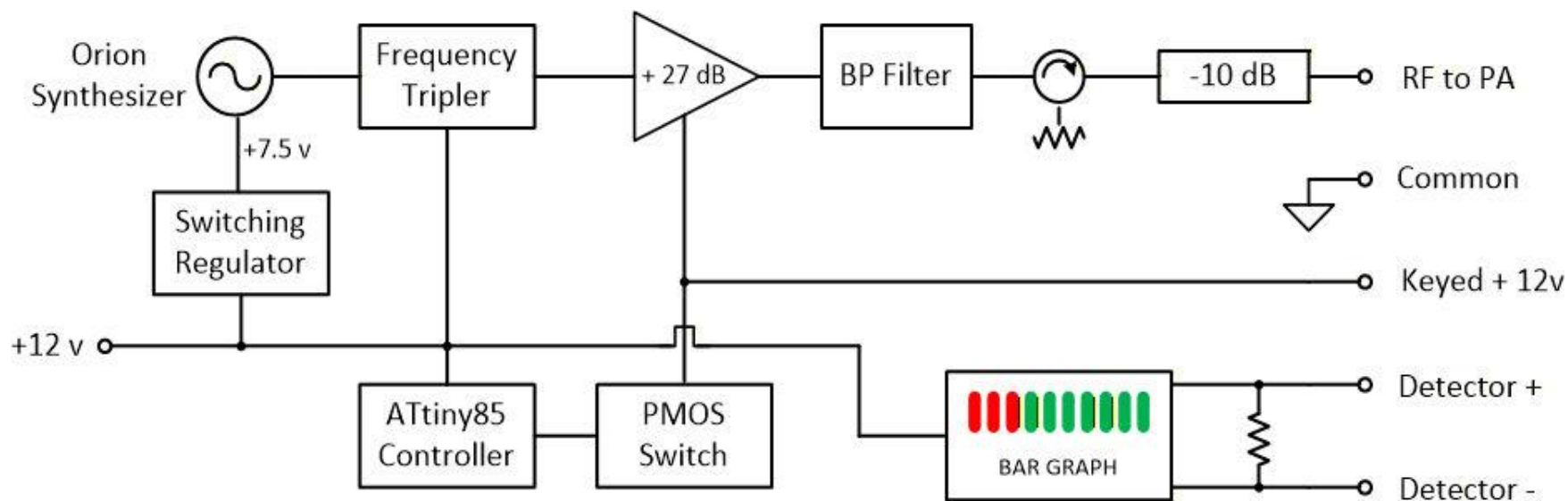
10 GHz Beacon

Buckman Mtn

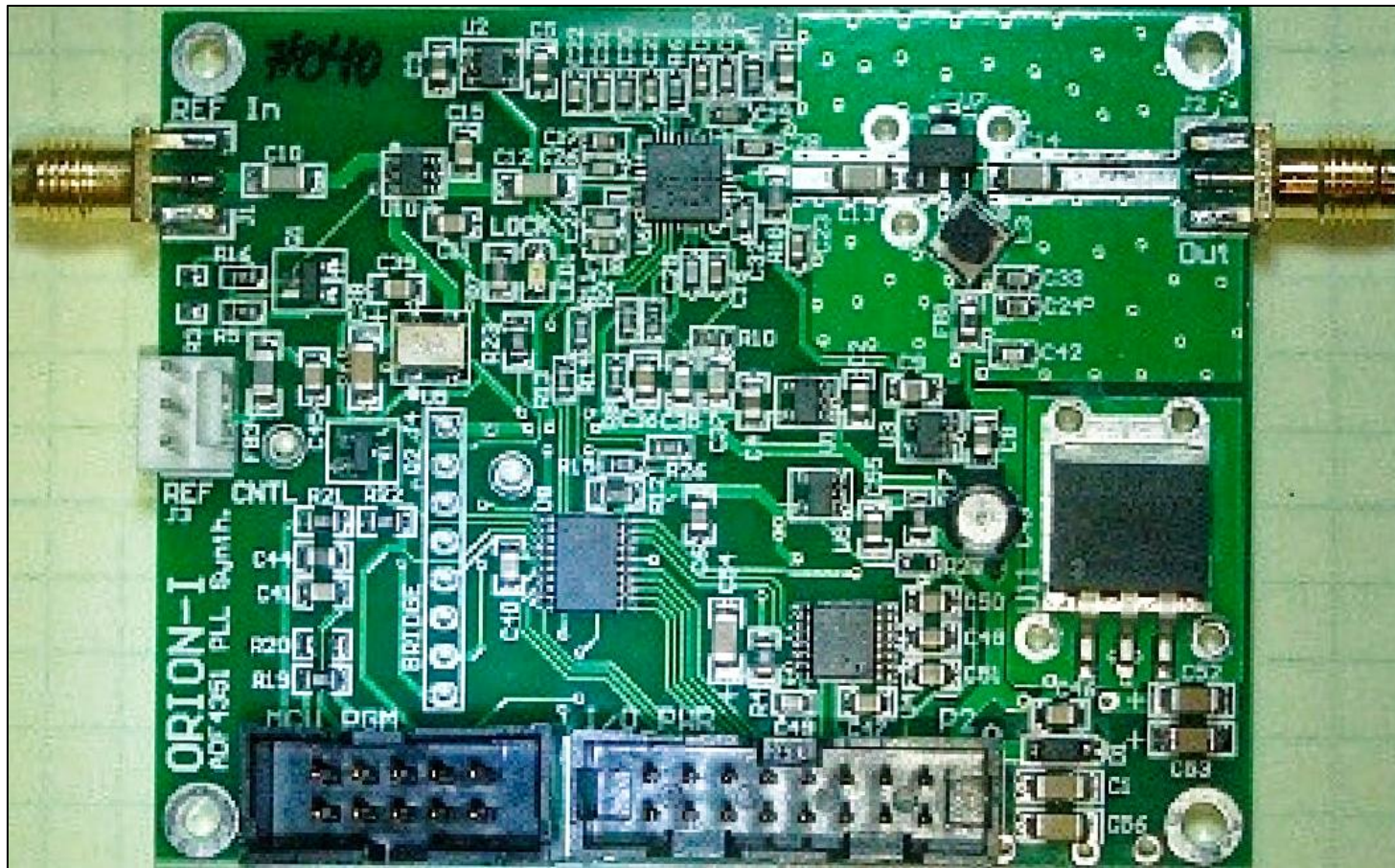
OVERVIEW

- Beacon exciter drives external 1W PA and slotted WG omni
- FR4 circuit boards
- Orion synthesizer
 - 3,456.075 MHz
 - Internal 10 MHz reference
 - Powered from 7.5v switching regulator
 - KE0FF design
- Frequency tripler to 10,368.225 MHz
- Varian VSR7413RC driver amplifier
- Farinon WG BPF
- 10 GHz Isolator
- Beacon controller with ATtiny85 MCU
- PMOS switch board to provide Morse +12v keying of driver and PA
- Location: EM10ch
- 1W PA
- WR90 8 slot omni

BEACON EXCITER - BLOCK DIAGRAM

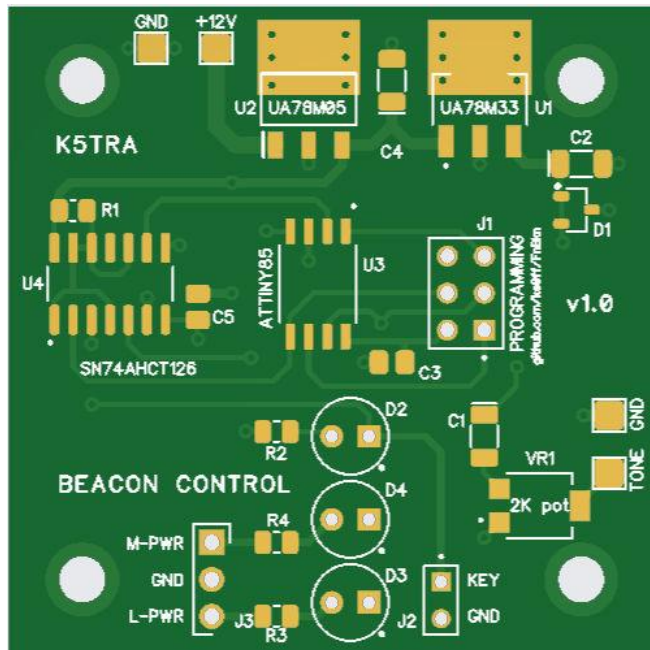


ORION SYNTHESIZER

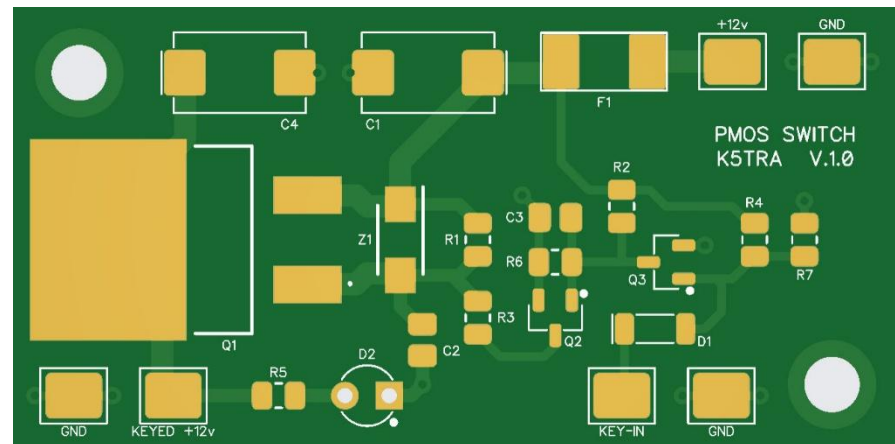
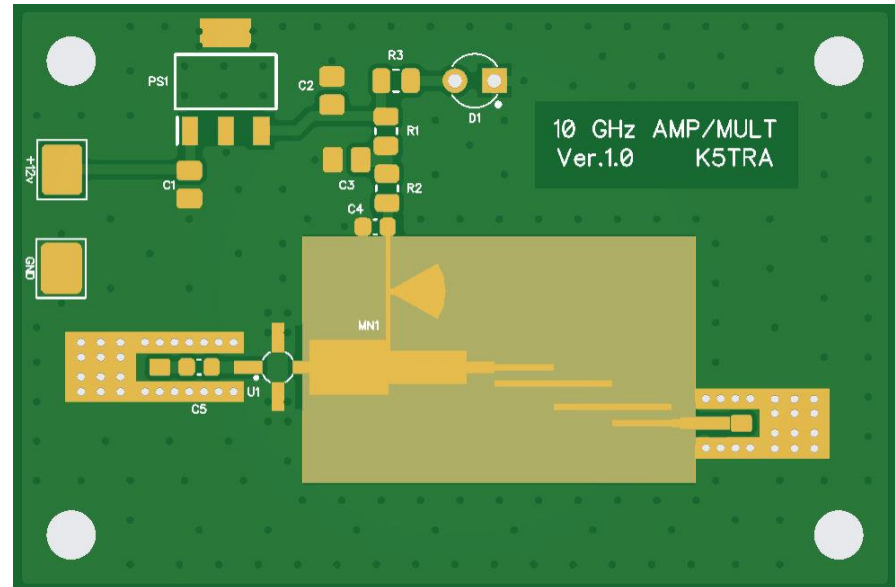


- 3,456.075 MHz output
- ADF-4351 using internal 10 MHz reference

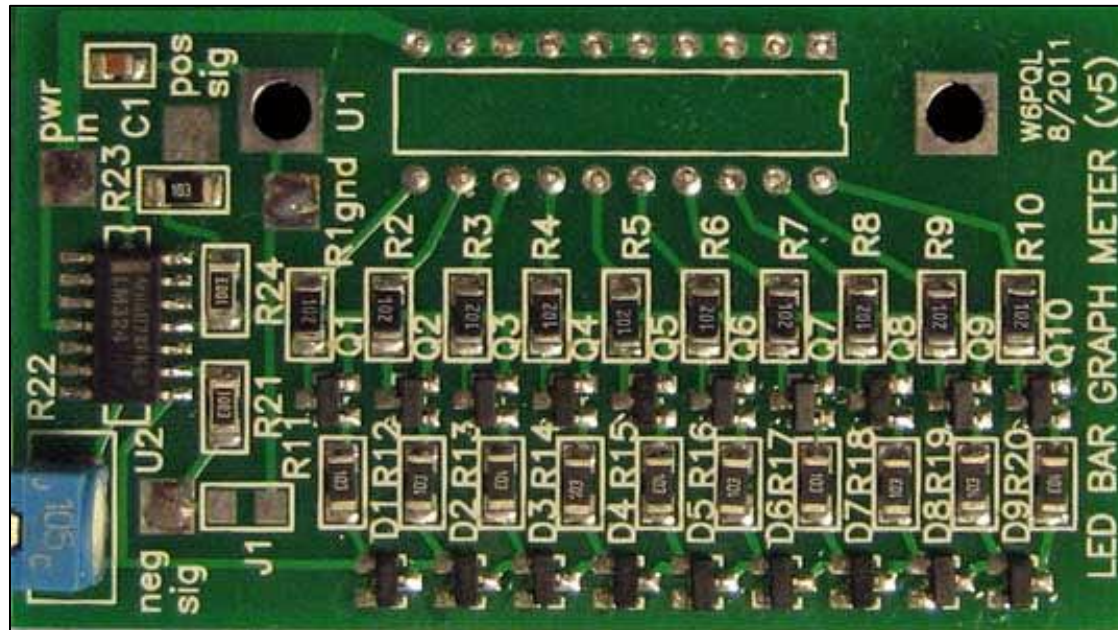
K5TRA BOARDS



- Beacon Controller (ATtiny85)
 - ✓ Generates Morse ID
- Freq. Tripler
 - ✓ NLB-310
 - ✓ Edge coupled 10 GHz BPF
- PMOS Switch
 - ✓ Morse keys +12v to driver and PA

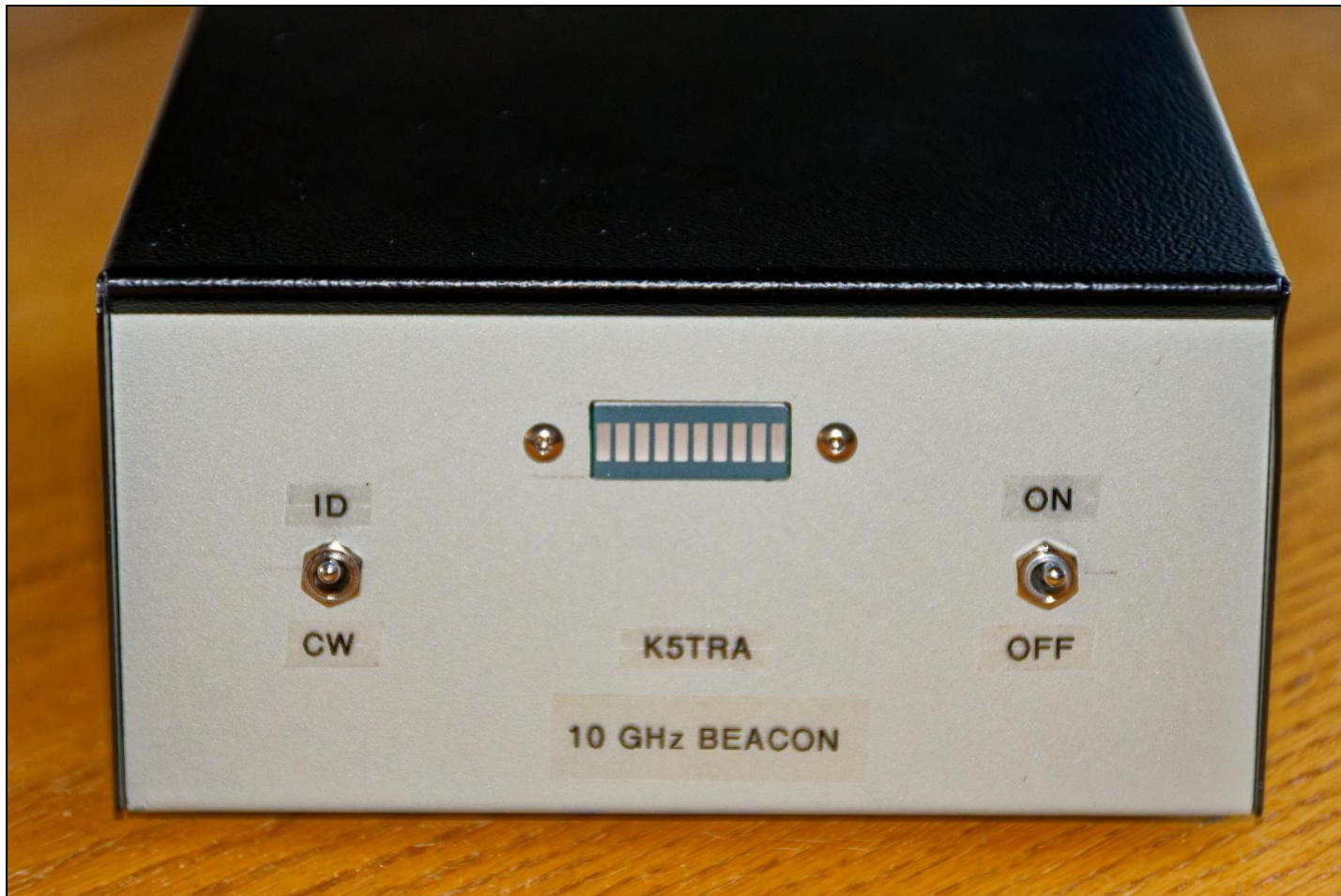


LED BAR-GRAPH BOARD

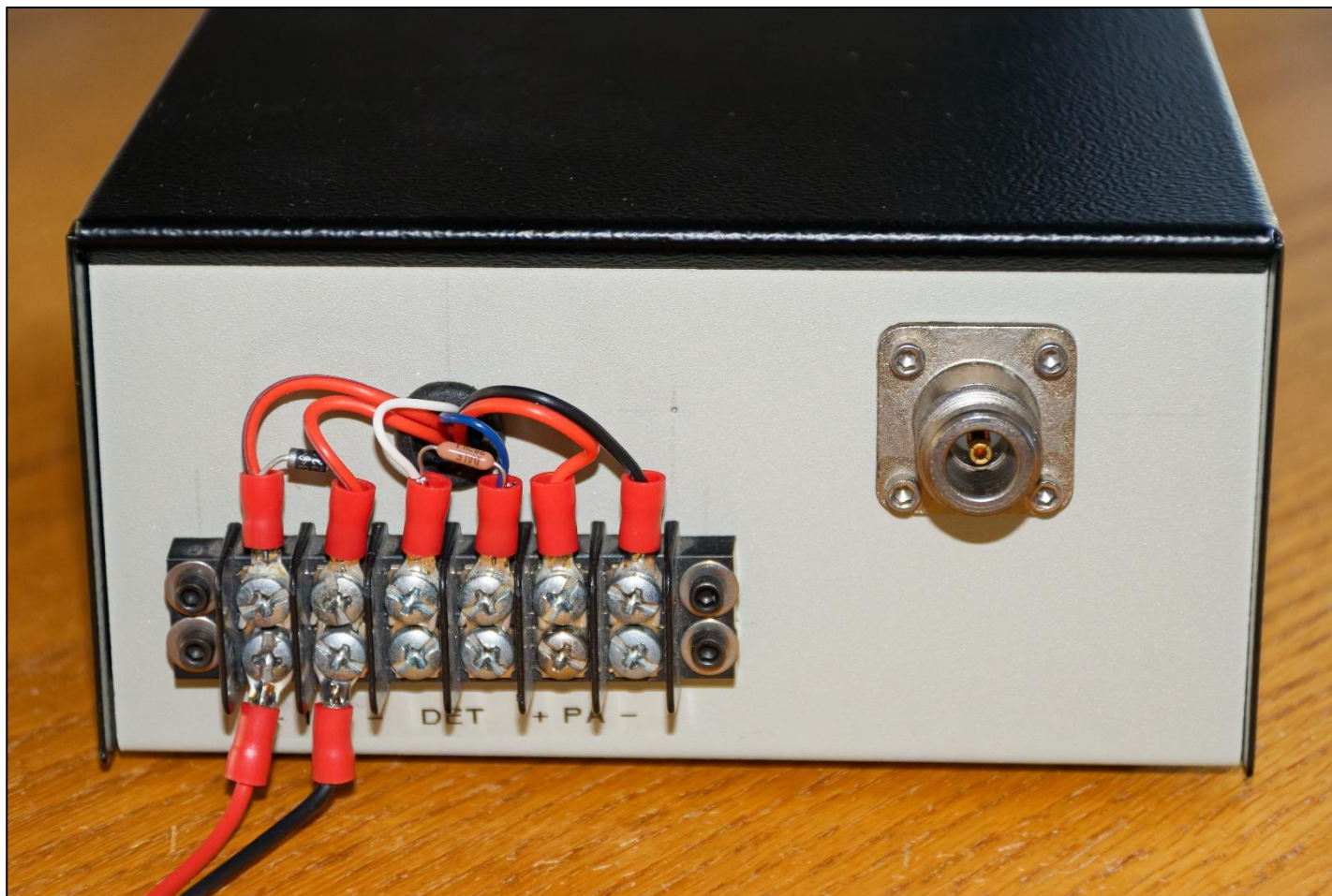


- 10 segment display
- Differential input from detector (PA output sense)
- W6PQL board

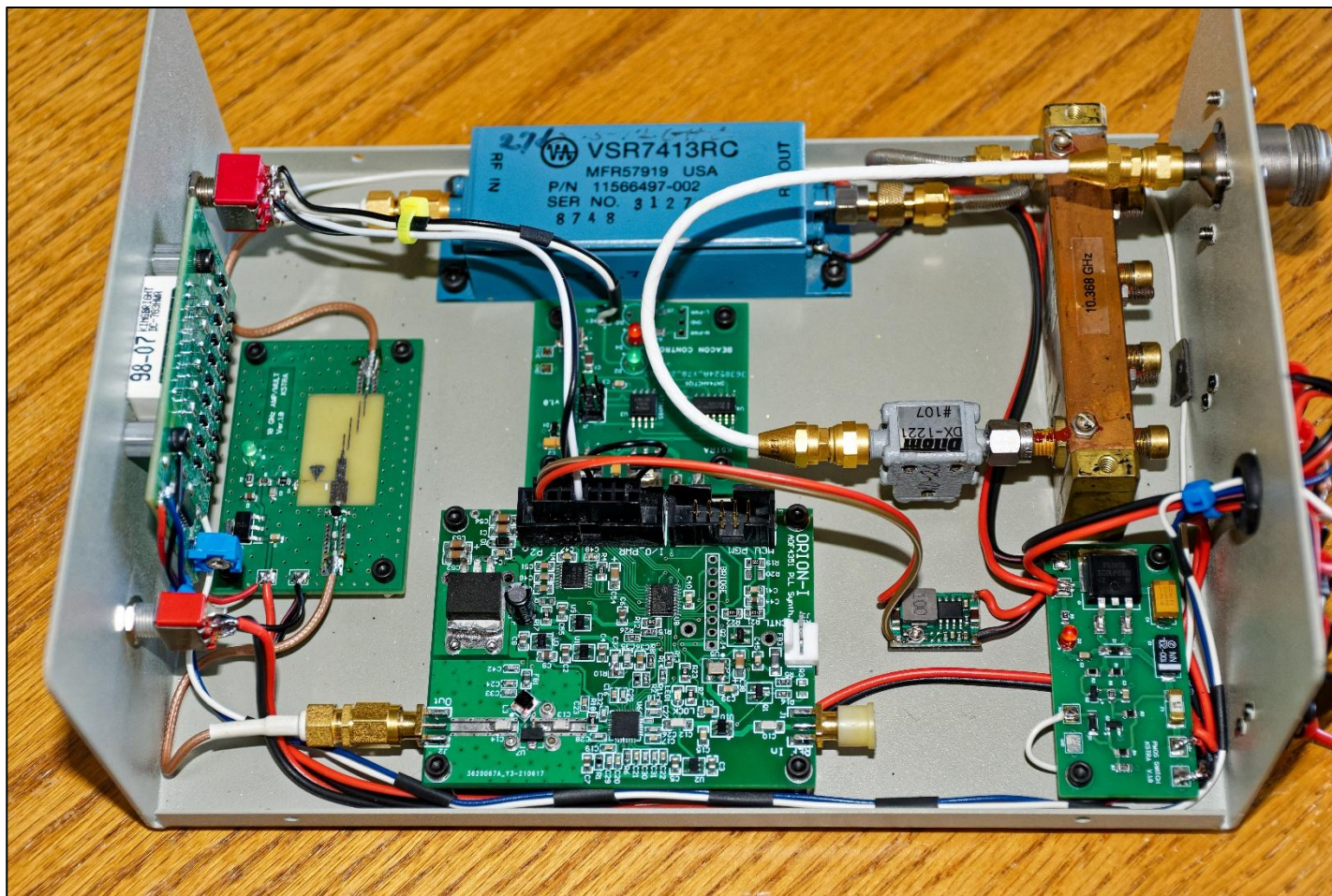
10 GHz BEACON FRONT PANEL



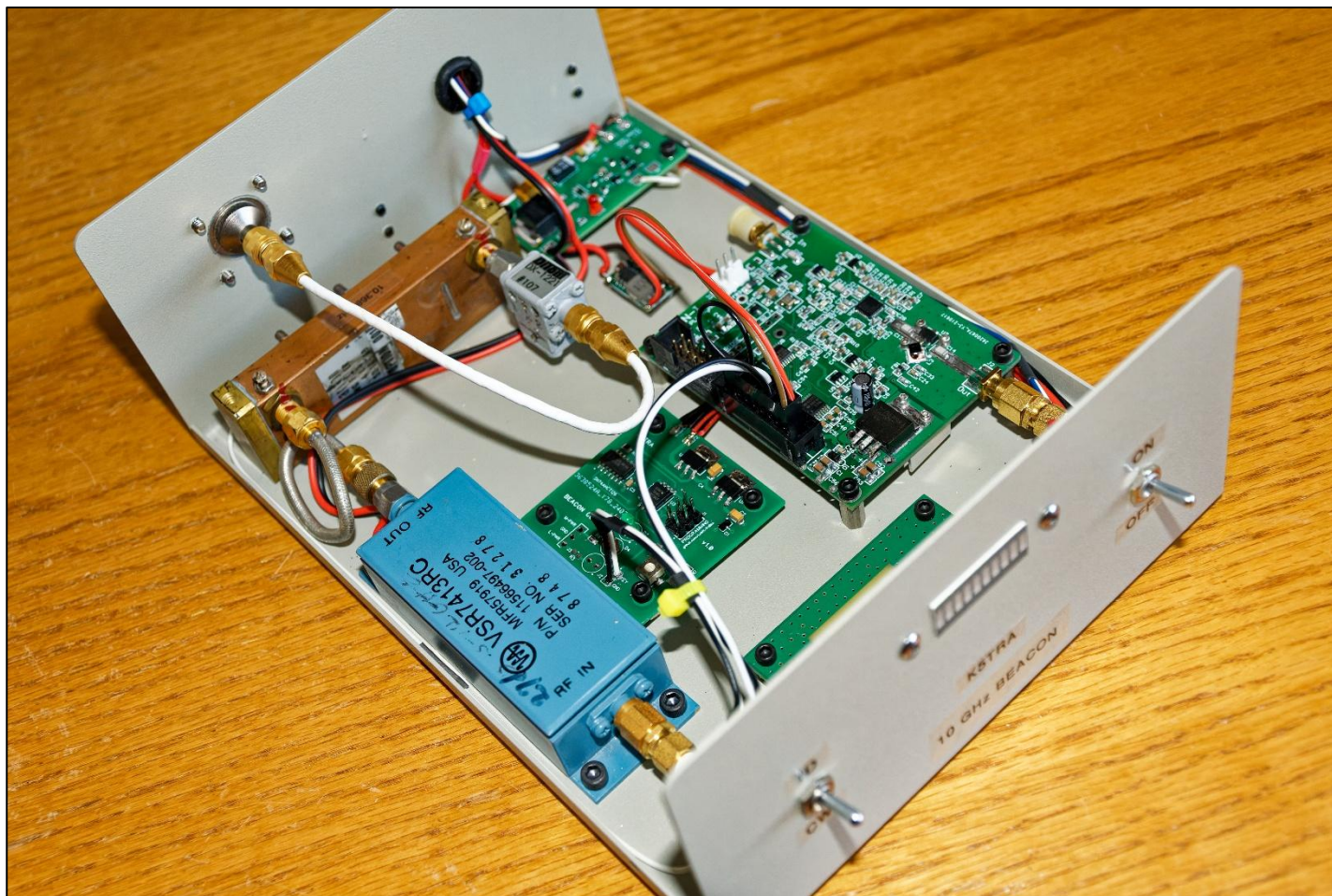
10 GHz BEACON REAR PANEL



10 GHz BEACON INTERIOR



10 GHz BEACON EXCITER



POWER AMPLIFIER and SLOTTED WG ANTENNA



10 GHz BEACON RECEIVE LEVEL – K5TRA QTH

