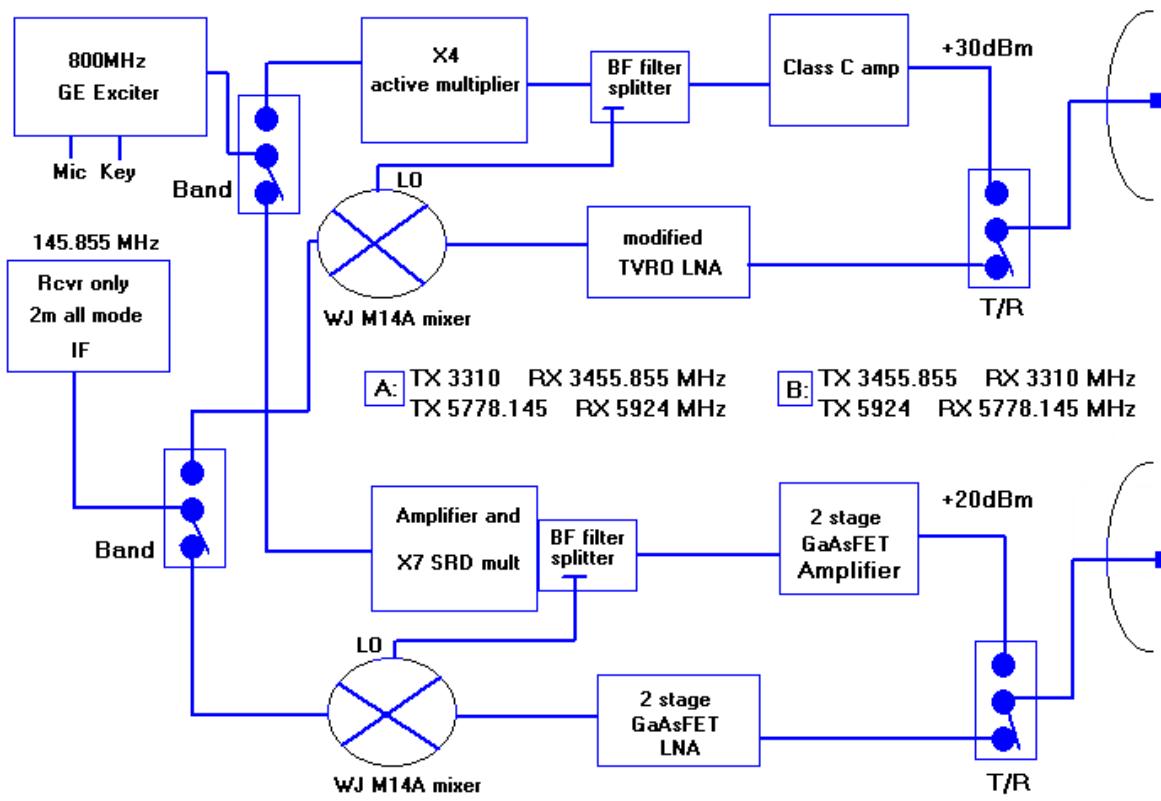
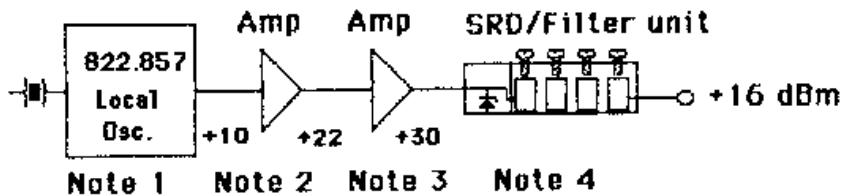


### 3 and 5 GHz Duplex Rigs W3KM 1987



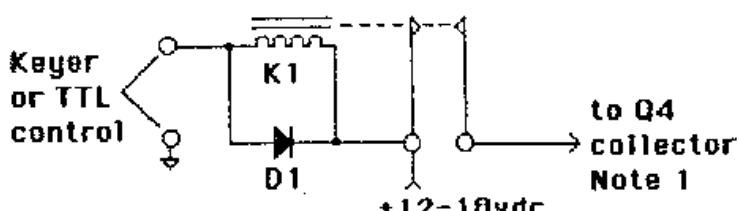
## 5760 MHz Beacon Transmitter



### Reference Notes:

- Note 1:** 9 cm SSB System Local Osc #2, WA3JUF, Rev 1982
- Note 2:** 800-950 Mhz amplifier, WA3JUF, 1986
- Note 3:** 5760 Mhz SRD Multiplier, WA3JUF, 1987
- Note 4:** SRD Multiplier/Filter for 5760 Mhz, WA3JUF, 1987

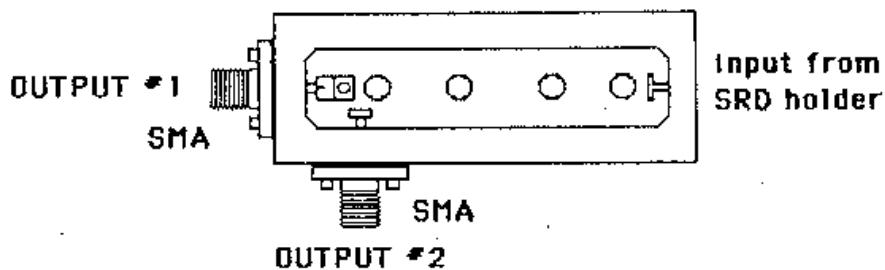
CW operation using an isolated keying circuit as follows:



**D1=1N4148**  
**K1=Reed Relay**  
**Hamlin # HE721A05-00**

**WA3JUF**  
**D. Mascaro 1987**

## 5760 MHz Filter/Power divider

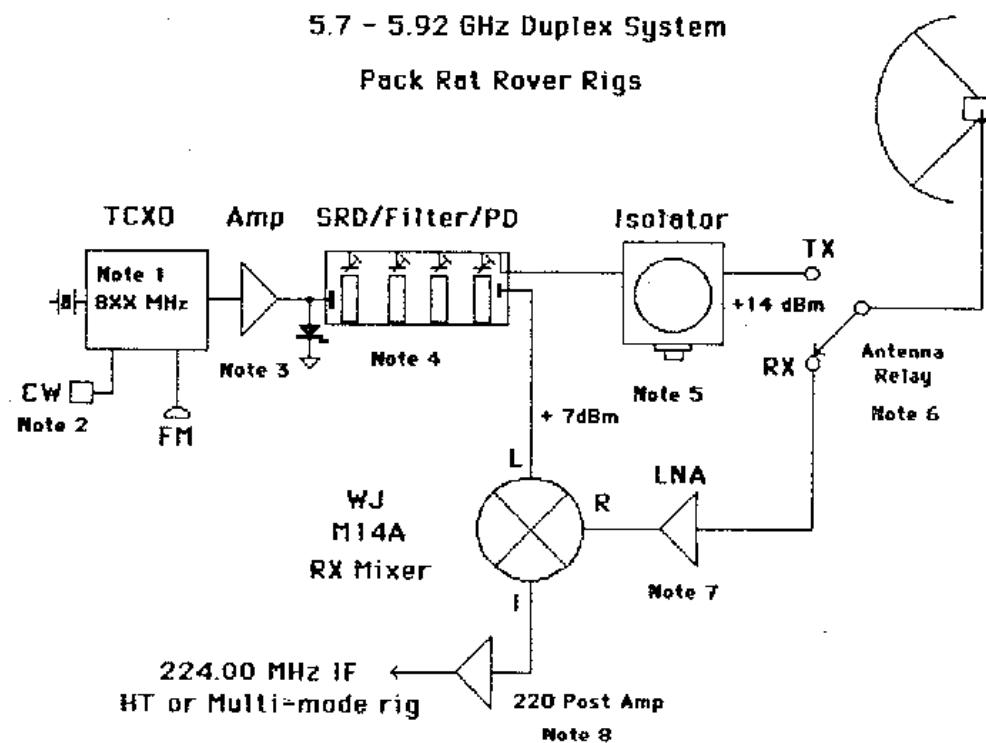


Output #1 is the normal output of the filter unit using inductive coupling. Output #2 is a capacitively coupled output. In the case of a duplex system where the transmitter and receive L.O. are on the same frequency, output #2 supplies +7 dBm L.O. for the receive mixer. The amplitude at output #2 is set by the size of the output coupling disc and the depth of the disc into the filter unit.

The #2 SMA is mounted on the side wall of the filter unit centered on the output pole and the output loop of #1 as shown. The exact position is not critical since the level is adjustable. I used the locking cover off a 0.3-3.0 pf Johanson piston trimmer for the disc. A hole is drilled just large enough to pass the output disc so that the connector can be inserted and adjusted for proper output while the filter is fully assembled.

After the filter is tuned up at the transmitter power level, the mixer L.O. can be adjusted to the proper level. Coupling can be adjusted so that output #1 and #2 are equal for L.O. of 2 mixers, for normal transverter operation.

D. Moscero WA3JUF 1987



Note 1: 800 MHz GE exciter unit, Pout 50-75 mw

Note 2: CW keying circuit, WA3JUF, 1987

Note 3: 5760 MHz SRD Multiplier, WA3JUF, 1987

Note 4: SRD Multiplier/Filter for 5760 MHz, WA3JUF, 1987

Note 5: 5760 MHz Filter/Power divider, WA3JUF, 1987

Note 6: Isolator, keeps filter outputs constant during RX/TX

Note 7: DC-DC converter

Note 8: 5760 MHz LNA, WA3JUF, 1987

Note 9: 3SK48 Preamp, WA3JUF, 1987

Unit A: TX 5700 MHz, RX 5924 MHz, exciter 814.2857 MHz

Unit B: TX 5924 MHz, RX 5700 MHz, exciter 846.2857 MHz

FIGURE 4.

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