

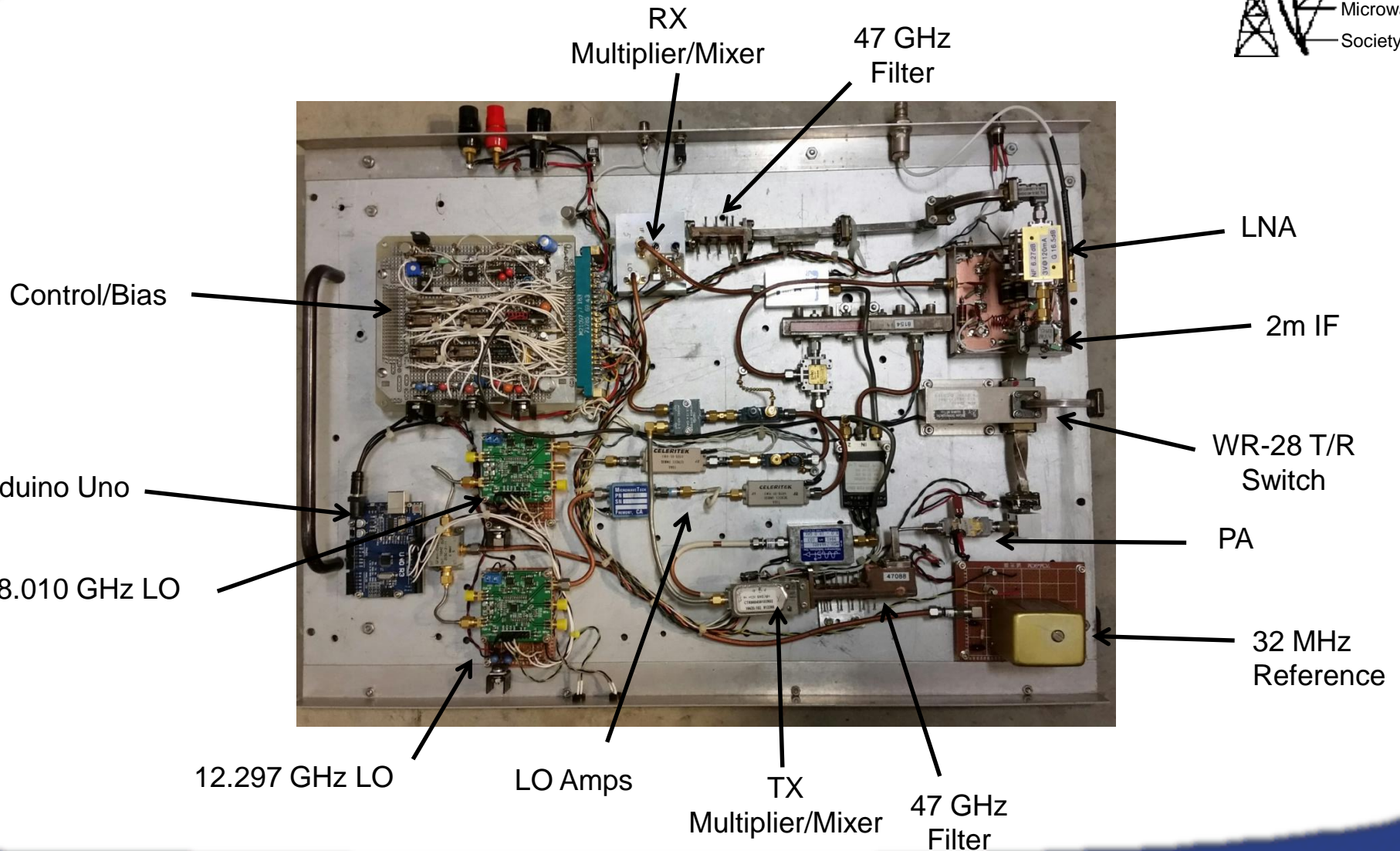
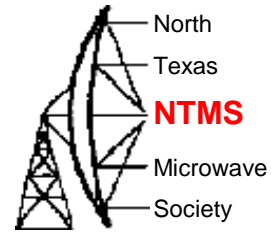
47 GHz Transverter

Greg McIntire, AA5C

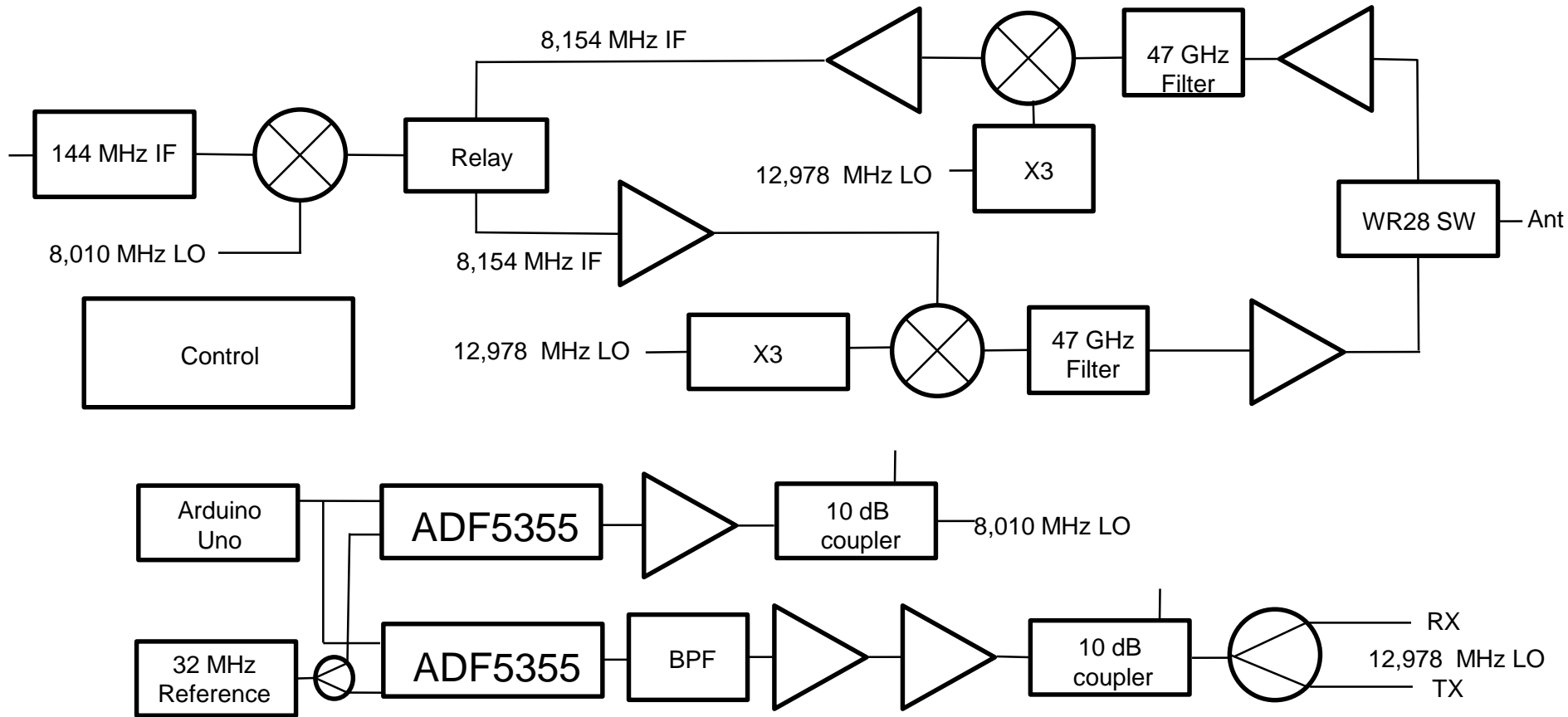
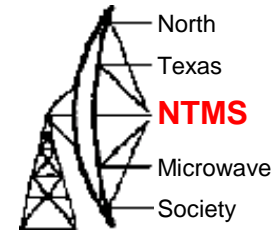
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February 3, 2018

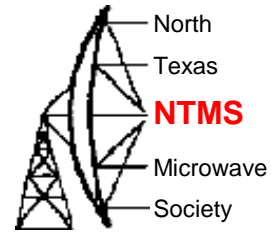
AA5C 47 GHz Transverter



47 GHz XVTR Block Diagram

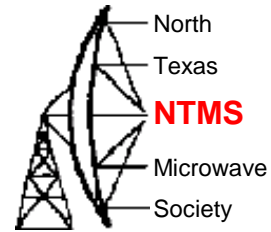


Frequency Plan



- 8,154 MHz 1st IF
- 144 MHz 2nd IF
- 12,978 MHz 1st LO x 3 = 38,934 MHz
- 8,010 MHz 2nd LO
- $144 + 8010 + 3 * 12,978 = 47,088$ MHz

Status



- Assembled and in-test
 - Supply and bias voltages set
 - Control functional
 - Transmits and receives
 - Replaced 10 MHz reference with a 32 MHz reference
- Working through issues
 - 4 dB TX Loss through WR-28 WG switch
 - Poor noise figure
- Good enough to start field testing