

LIST OF CHANGES

1900 MHz Transceiver Board (NTGS38AB)

List of Changes

General

- Board is changing to 6 layers from 10

Receiver

- Receive splitter has been changed from Anaren to Hitachi
- AH-1 Amplifier removed on the receiver and replaced with a MACOM LNA part
- MACOM attenuator has been replaced with alpha part
- New Thomson saw filter to accommodate both 800 and 1900 MHz IF
- Mini-Circuits transformer has been replaced with a cheaper version
- Test switch has been changed from MACOM to Alpha. (Will be removed in production)
- IF lineup changed. Identical to 800 board. BFGs use 8V bias instead of 15V

Transmit

- Mini-Circuits transformer has been replaced with a cheaper version
- Using RF saw filter instead of dielectric filter
- Cheaper thermopad used
- Using 1 31dB Alpha attenuator. On board logic to stay at 31 if higher attenuation is selected
- Using new power detector design with cheaper instrumentation amplifier
- Gain blocks and lineup reworked.

Local Oscillators

- All LO's are using new PLL chips from National Semiconductor
- RF VCO will likely be Mini-Circuits instead of WJ
- IF VCO is discrete
- PLLs are programmed with an onboard microcontroller (COP8)
- Lower cost Hitachi splitter used for LO distribution.

Digital Baseband

- Using LVTTTL for all clocks
- All prescalers replaced with one single PLD chip
- New clock recovery scheme