

**FCC ID: NTAFP300RA: Reader circuitry description**

1. The power amplifier is a RF Hitachi's IC, type PF08127B.  
It has 4.8 V supply voltage and draws 1.5 A @ +31.2 dBm maximum power at power amplifier output.
2. a. The TX data modulates an ASK modulator at 70 MHz. The modulator output frequency is filtered by a SAW filter (FL6) with a 3 dB bandwidth of 2.5 MHz and up-converted to 912-918 MHz by a PLL synthesizer of 842-848 MHz. Both oscillators are locked to a 16 MHz TCXO with a frequency stability of  $\pm 5$  PPM.  
  
The TX frequency is filtered by a SAW filter (FL5) with a 3 dB bandwidth of 10 MHz.  
  
The modulation is ASK with an on-to-off ratio of at least 20 dB. The voltage applied to Q13 together with an RC network at the base of Q13 are used as a spectrum shaper.
- b. The receiver frequency is down-converted to a 10 MHz IF by mixing it with a 925 MHz oscillator based on a SAW resonator with a frequency stability of  $\pm 200$  kHz.
3. The device is categorized as fixed.

Sincerely yours,

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