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Nemko
Chip Fleury

- The Nordic nRF52832 processor is self-contained and manages all ANT communication.
- The RF paths are primarily contained inside the nRF52832 with a connection to an antenna via an impedance matching network.
- The RF signal takes the same path when transmitting as it does when receiving
- The design of the antenna employs the following:
 - 50 Ohm trace antenna on the top outer layer of the PCB
 - Ground on the same layer as the antenna is pulled back
 - Ground is pulled back on the remaining layers

- The MediaTek MT6630 processor is self-contained and manages all WiFi® / ANT communication.
- The RF paths are primarily contained inside the MT6630 with a connection to an antenna via an impedance matching network.
- The RF signal takes the same path when transmitting as it does when receiving
- The design of the antenna employs the following:
 - 50 Ohm trace antenna on the top outer layer of the PCB
 - Ground on the same layer as the antenna is pulled back
 - Ground is pulled back on the remaining layers

These designs use Gaussian Frequency Shift Keying (GFSK) modulation scheme to transmit data using ANT protocols at a maximum data rate of 2Mbps and a maximum message rate of approximately 300Hz for ANT. The maximum transmit duty cycle is ~13.3%.

Sincerely,



Michael Sundstrom

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