

Theory of Operation

This device is a data transceiver operating in the UNII band. The RF Portion of the unit is designed to transmit (TX) and receive (RX) wireless data from baseband to RF and RF to baseband using Time Division Duplexing (TDD). The duty cycle is 70% transmit and 30% receive. The basestation is always going to be transmitting data out. The 26dB BW of the signal is 5.63MHz (channel BW). The RF frequency range that is used is 5726MHz – 5824MHz, the RF LO frequency is 5249MHz – 5341MHz. The 1st IF is at 480MHz, the 2nd IF is at 24 MHz and the IF LO is 456MHz.

System Diagram

