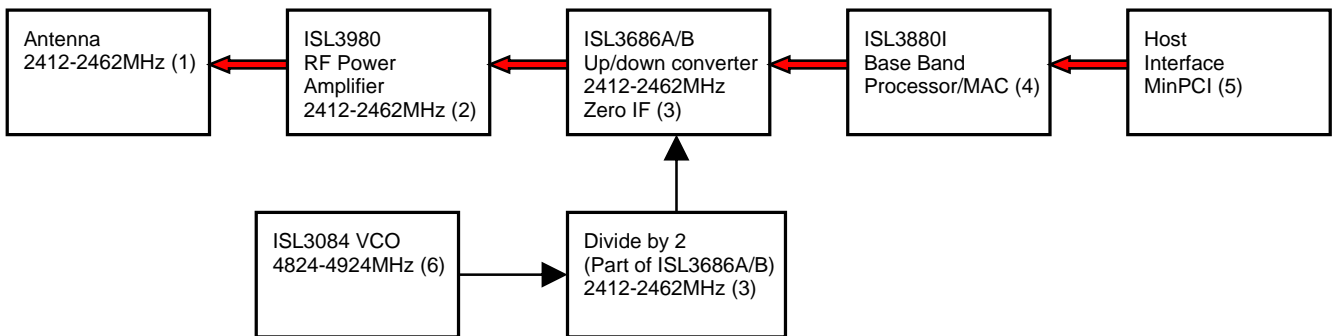


Block Diagram with Theory of operation

TX signal path in Red Arrows

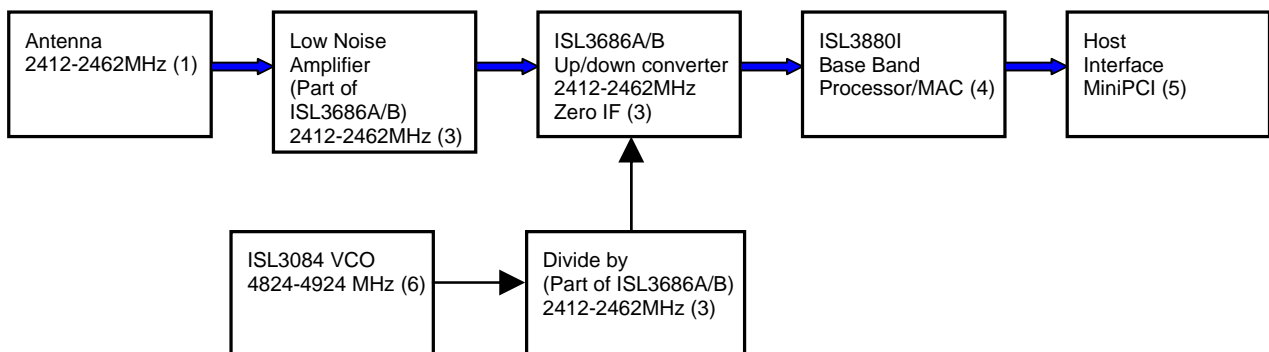


Transmitter Path

Data bits coming from the minPCI Host interface (5) are processed by the Base Band Processor MAC (BBP/MAC) ISL3880I (4) on IEEE 802.11g turbo protocol level, IQ modulated and then converted to 2.4 GHz RF signal by Direct up/down converter ISL3686 A/B (3), The ISL3686A/B (3) operating frequency is generated by the ISL3084 VCO (6) divided by two.

The 2.4GHz RF signal is then amplified by RF Power Amplifier ISL3980 (2) and then final emitted via the antenna (1).

RX signal path in Blue Arrows



Receiver path

The 2.4Ghz RF signal comes in via antenna (1) and low noise amplifier (part of ISL3686A/B) (3) to the direct up/down converter ISL3686A/B (3) where it is converted to RX IQ signals. The ISL3686A/B (3) operating frequency is generated by the ISL3084 VCO (6) divided by two.

These IQ signals are converted into data bits by the Base Band Processor MAC (BBP/MAC) ISL3880I (4).

The data bits are processed by the Base Band Processor MAC (BBP/MAC) ISL3880I (4) on IEEE802.11g Turbo protocol level. This MAC controller also provides the miniPCI interface to the HOST (5)