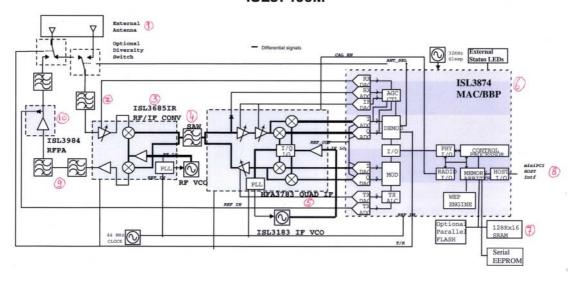


## Block diagram description of ISL37400M MiniPCI WLAN Card

### System Overview



# PRISM 2.5 miniPCI Radio Block Diagram ISL37400M



### Receiver path

The 2.4GHz RF signal enters via antenna (1) and band pass filter (2) the RF/IF converter ISL3685IR (3) to be converted to 374MHz IF.

The 374MHz IF signal then goes through a band pass saw filter (4) to the IQ demodulator ISL3783 (5) to be amplified and IQ demodulated.

The demodulated signal goes to the MAC controller / Base Band Processor ISL3874 (6) where the IQ signals are converted into data bits. The data bits are processed by the MAC controller on IEEE 802.11b HR protocol level. This MAC controller is equipped with an SRAM and Flash Memory (7) and also controls the MiniPCI interface (8) with the host.

#### **Transmitter Path**

Data packets coming from the MiniPCI interface (8) are processed by the MAC controller ISL3874 (6) on IEEE 802.11b HR protocol level. The Base band processor then spreads and IQ modulates the signal, which is then converted to 374MHz IF by ISL3783 (5).

This 374MHz IF signal is filtered by band pass filter (4) and then converted to 2.4 GHz RF signal by RF/IF converter ISL3685IR (3).

The 2.4GHz RF signal is then filtered by Band pass filter (9) and amplified by RF Power Amplifier ISL3984 (10) and finally emitted via the TX antenna (1).