Block Diagram description of PEGA-WL110

[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 HFA3783 (5) to be amplified and IQ demodulated. The demodulated signal goes to the MAC controller/ Base Band Processor ISL3873B (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 CFA interface (8) with the host.

[Transmitter Path]

Data packets coming from the CFA interface (8) are processed by the MAC controller ISL3873B (6) on IEEE802.11b HR protocol level. The Base band processor then spreads and IQ modulates the signal, which is then converted to 374MHz IF by HFA3783 (5). This 374Mhz IF signal is filtered by band pass filter (4) and then converted to 2.4GHz 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 antenna (1)