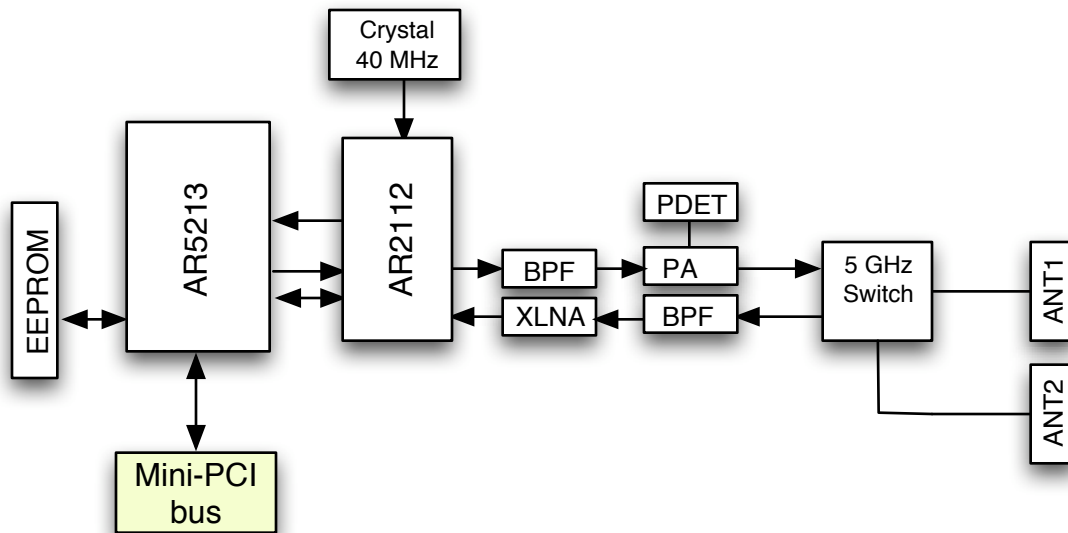




SR2 BLOCK DIAGRAM



THEORY OF OPERATION

The SR2 is a high-power mini-pci card for embedded wireless applications. The AR5213 is an Atheros MAC/BB digital chip that stores all of the 802.11 DSP and protocol functionality. It connects to the AR2112 -- a analog/RF 802.11b/g Transceiver.

The Atheros 2112 R.O.C. operates in the 2412-2462 MHz band. The transmit chain passes through a 2.4 GHz band pass filter, through a power amplifier and ties into a DPDT switch. The receive chain passes through a band pass filter and external low noise amplifier. The switch is connected to antenna two. The transmit output power passes through a coupler which samples a DC voltage from the carrier and compares this value to an internal reference voltage. This coupler circuit is used to ensure that the radio is transmitting at accurate power levels even as the outside environment changes.