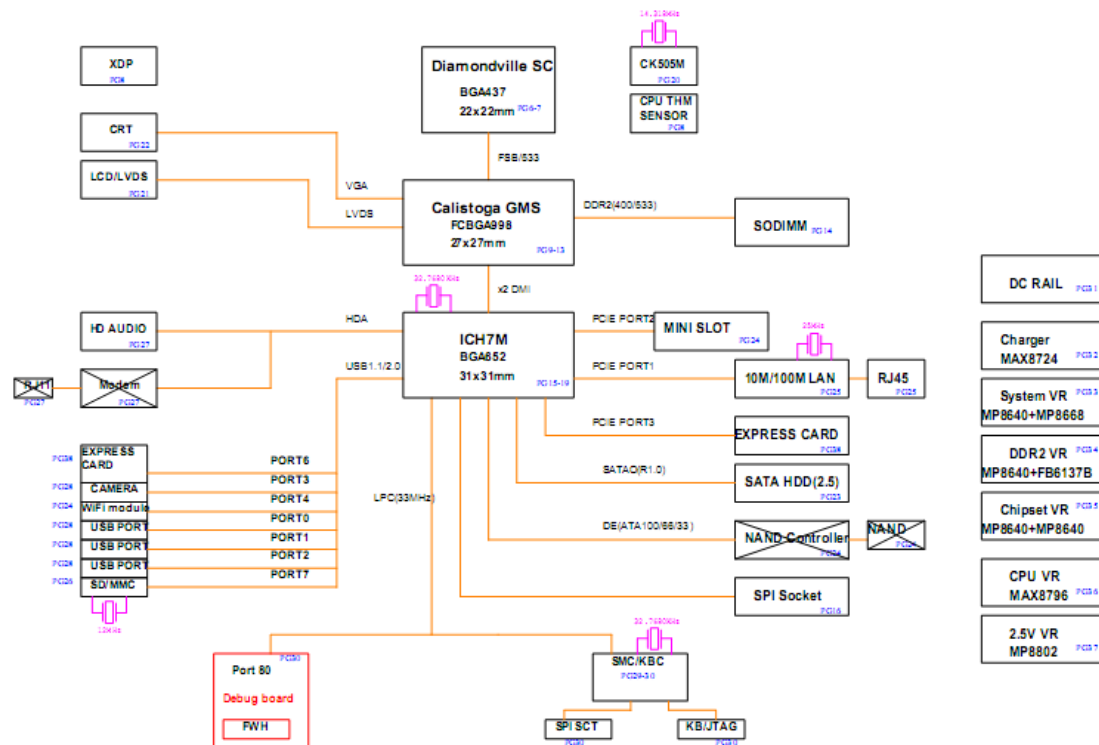


Operation Description of PC-81006



PC-81006 setup:

INTEL SLB73 1.6GHZ (Atom N270) CPU, Chipset is 945GSE + ICH7M, DDR2 533 memory bank, three USB ports, a VGA interface, an earphone jack, a microphone jack, a multi-card holder (support SD/MS/MMC), a 10M/100M LAN interface, an Express Card (34mm) slot, a 130M pixels camera, a mini PCIE type wireless LAN adapter interface, 10" LCD panel.

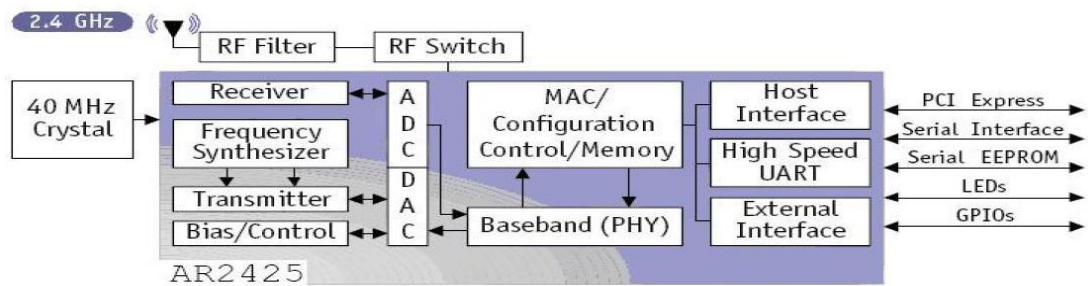
The wireless LAN adapter communicates with PCI Express Bus by the mini PCIE slot.

WiFi Module

1、 Features

- ◎ Mini PCI Express
- ◎ High speed wireless connection to 54Mbps
- ◎ Solid design with external antenna diversity
- ◎ Low power consumption and high performance
- ◎ Enhanced wireless security

2、Simplifide block diagram



3、General Specifications

WLAN Standard	IEEE 802.11b/g,Wi-Fi compliant
Host Interface	Mini PCI Express
Major Chipset	Atheros AR2425
Dimension	51mm×30mm×3.3mm(with shielding)
weight	18g
Voltage	3.3V+/-5%
Temperature	0~80 C
Frequency Range	2.4GHz ISM Bands 2.412-2.472GHz,2.484GHz
Modulaton	802.11g:OFDM 802.11b:CCK(11,5.5Mbps),DQPSK(2Mbps),DBPSK(1Mbps)
Output Power	802.11b:typical 16+/-1.5dBm 802.11g:typical 13+/-1.5dBm
Receive Sensitivity	802.11b:typical -76dBm at 11Mbps 802.11g:typical -68dBm at 54Mbps
Data Rates	802.11b:1,2,5.5,11Mbps 802.11g:6,9,12,18,24,36,48,54Mbps
Power Consumption	802.11b: TX:MAX 710mA at 3.3V,MIN 630mA at 3.3V Rx:MAX 330mA at 3.3V,MIN 310Ma at 3.3V 802.11g TX:MAX 650mA at 3.3V,MIN 620mA at 3.3V Rx:MAX 340mA at 3.3V,MIN 320Ma at 3.3V
Operating Range	Open Space:~300m;indoor~100m (The transmission speed may vary according to the environment)
Security	◎ WEP 64-bit and 128-bit encryption ◎ WAP(WI-FI Protected Access) ◎ WAP2(Wi-Fi Protected Access)

4、The channel center frequency and CHNL_ID numbers shall be shown in the following table.

802.11b/g Channel Center Frequency	
CHNL_ID	Frequency (MHz)
1	2412
2	2417
3	2422
4	2427
5	2432
6	2437
7	2442
8	2447
9	2452
10	2457
11	2462

5、Antenna Specification

Antenna Type	PIFA
Frequency Range	2.40~2.50 for 802.11b/g 5.15~875 for 802.11a
Center Frequency	2450Mhz
Peak Gain(Max)	1.5dBi
VSWR	2.50 for 2.4GHz band 2.85 for 5.0GHz band
Impedance	50Ohms
Connect Cable	Φ 1.13/length(Length1=312mm/Length2=517mm)
Connector	IPEX
Number of Antenna	1

6、Dual-Antenna work principle

Dual-Antenna with feedback cable (1.13mm/Length1=312mm/Length2=517mm) connect with the WiFi module through the standard connector I-PEX.

WiFi Module Control Unit can check the signal strength of the one antenna ,and decide use which one through control the RF switch unit. In the same time just One Antenna is working.