

circuit Technical Description

A)WIFI & BT

The Equipment Under Test(EUT) is a Netbook with Wifi operating at 2.412-2.462GHz,11 channels selection separated by 5MHz channel spacing. The EUT is installed with Windows CE operating system and can carry out the base function of PC. The device is powered by 1X8.4V rechargeable battery or AC 120V/60Hz via an external Adapter.

Type of Modulation:

IEEE 802.11b: DQPSK, DBPSK, DSSS, and CCK

IEEE 802.11g: BPSK, QPSK, 16QAM, 64QAM

IEEE 802.11n: HT20/HT40: OFDM (64QAM,16QAM, QPSK, BPSK)

BT: FHSS,GFSK,DPSK,DQPSK

Type Data Rate: 802.11b: 11,5.5,2 and 1 Mbps with auto-rate fall back

802.11g: 54,48,36,24,18,12,9&6 Mbps

802.11n: (20MHz): up to 72Mbps

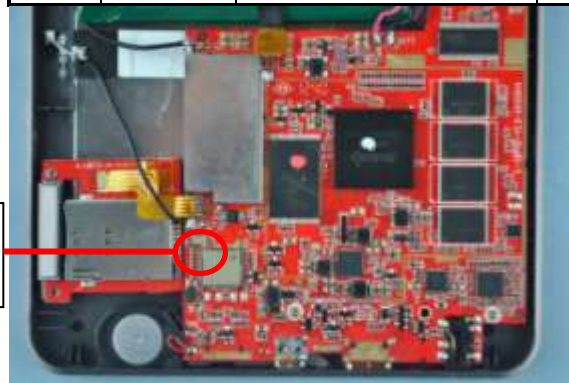
802.11n: (40MHz): up to 150Mbps

BT: GFSK (1Mbps); $\pi/4$ -DQPSK (2Mbps) ; 8DPSK (3Mbps)

Antenna Type: one 2.4GHz internal antenna (gain 3.0).

Field Antenna For 2.4GHz Band

Ant.	Brand	Model Name	Antenna Type	Connector	Gain (dBi)	Remark
0	South Star	WIFI & BT Antenna N12-0532-R0A	Internal	N/A	3.00	TX/RX



ANT0

TX0/RX0

Note:

The EUT incorporates a WiFi function with 802.11b, 802.11g, draft 802.11n and Bluetooth GFSK (1Mbps); $\pi/4$ -DQPSK (2Mbps) ; 8DPSK (3Mbps). Physically, the EUT provides one completed transmit and receiver. The device was tested in a 802.11b/g/n and FHSS type operation .

Frequency List:

2412 MHz 2417 MHz 2422 MHz 2427 MHz 2432 MHz 2437 MHz 2442 MHz 2447 MHz 2452 MHz 2457 MHz 2462MHz

Main IC Function:

At MAIN PCB

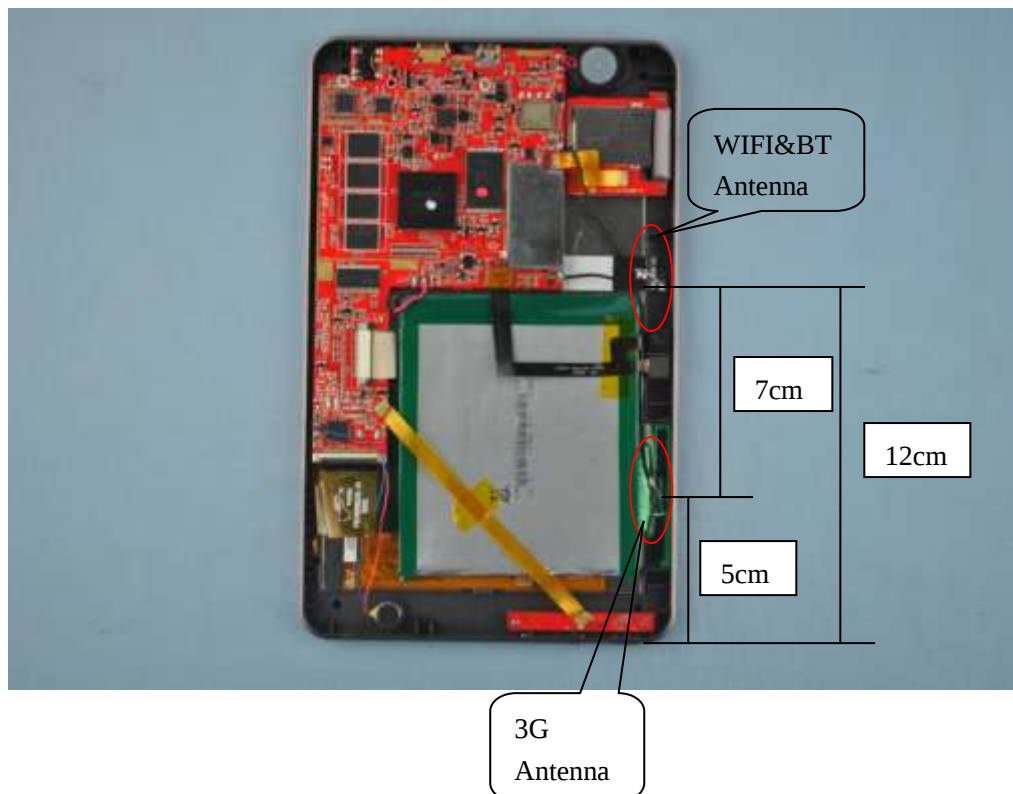
1) U1(InfoTM IMP210) is CPU with varied function such as Control Unit Arithmetic Logic Unit.

2) U8U9U10 U11 is DDR2 SDRAM.

- 3) U18 is NAND flash memory:
- 4) Q15.Q14 is HDMI decode IC
- 5) U15 is audio decode IC
- 6) U29 is G-Sensor
- 7) U3 is recharge IC
- 8) U14,U4, U21,U7, U31 ,is power regulator
- 9) CRY1 is oscillator for U1 mian frequency.
- 10) CRY3 is oscillator for U1 RTC frequency.
- 11) U3 is PC camary
- 12) U16 is touch IC

B)3G

3G Specification	
Tx Frequency	WCDMA Band V: 826.4 MHz ~ 846.6 MHz
Rx Frequency	WCDMA Band V: 871.4 MHz ~ 891.6 MHz
Maximum Output Power to	WCDMA Band V : 23.61 dBm
Antenna Type	Embedded Antenna
Type of Modulation	WCDMA: QPSK (Uplink) HSDPA: QPSK (Uplink) HSUPA: QPSK (Uplink)



The EUT build in RF module that is a 3G data modem design to utilize the MTK MT6276M processor and MTK MT6162 RFIC to comprise with major data modem kernel, it' s also included rich communication interfaces; USB and UART .

UNA module provides an UART1 port for debug and downloads bootloader. The baud rate support from 9600 to 410800。 Signal level is 2.8V. If UNA module goes through standard RS -232 interface to connect with PC, Please used MAX3238 for best baud rate, catch log file and download bootloader setting. For embedded AP, Please notes signal level and use level shifter if needed .The UART2 is for AT command.

The UNA module support PCM digital interface and I2C interface to external codec wider application with runs in master mode, support PCM CLK 256 KHz. Signal level is 2.8V。 The details of those interface connections are as following. Please do not connect if no use this function. Please notes signal level and use level shifter if needed. UNA module PCM format is " mode A " with 16bit x 2 channels、 BLCK 512KHz and 8KHz sample rate.

VBAT_M1 is UNA module power, Please use battery mode or DC/DC converter/LDO mode to provide 3.3~4.2V and peak current is 1.8A.

UNA power input circuit:

1. Battery (USI recommend) to connect UNA power to one cell battery to save cost. Please refer to figure5-5, VBAT_M1 power input range is 3.3~4.2V.and peak current is 1.8A, the typical voltage is 3.7V from battery.
2. DC/DC converter/LDO to connect UNA power, The VBAT_M1 power input range is 3.3~4.2V(typical 3.7V) and peak current is 1.8A.

UNA module provides an antenna trace for UF.L/IPEX connector and the impedance of the antenna interface is 50 Ohms. Antenna diversity is not supported on the UNA Module.