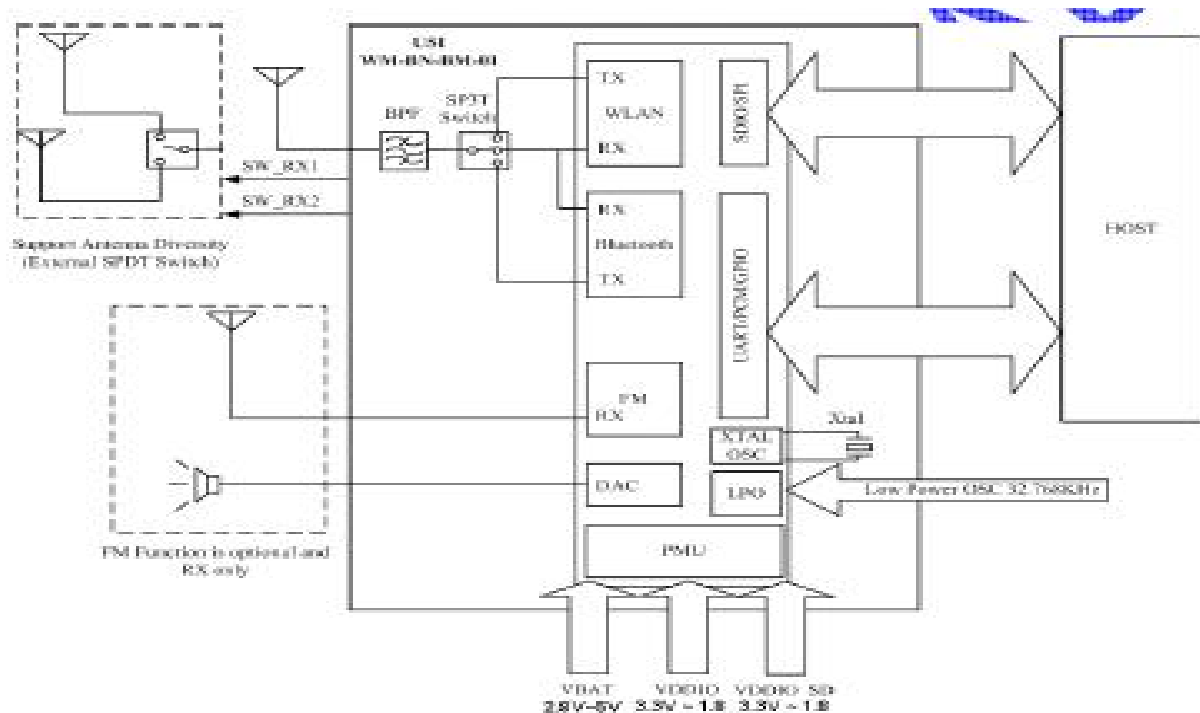


- ◎ High speed wireless connection up to 54Mbps(IEEE 802.11g) and 65Mbps(IEEE 802.11n)
- ◎ Solid design with external antenna
- ◎ Low power consumption and high performance
- ◎ Enhanced wireless security

3.2 Simplified block diagram



3.3 Power consumption

	Power Consumption	Typical	Max
WiFi	Tx @ 17dBm output power @ 25°C (11b)	275mA	320mA
	Tx @ 15dBm output power @ 25°C (11g)	220mA	280mA
	Tx @ 15dBm output power @ 25°C (11n)	220mA	280mA
	Rx @ 25°C (11b)	77mA	90mA
	Rx @ 25°C (11g)	77mA	90mA
BT	Tx @ 4dBm output power @ 25°C	50mA	60mA
	Rx(multi-sensitivity) @ 25°C	40mA	50mA

Condition: VBAT = 3.6V, VDDIO = 3.3V,

3.4 Wireless Specification

Features	Description
WLAN Standards	IEEE 802.11b/g/n
Bluetooth	Bluetooth™ 2.1 compliance
Antenna port	Support single antenna for WiFi and BT
Frequency Band	2.400 GHz ~ 2.4835 GHz

3.5 Radio Specification 802.11b/g/n

Features	Description
Frequency Band	2.4000GHz ~ 2.497GHz (2.4GHz ISM Band)
Number of selectable Sub channel	14 Channels
Modulation	OFDM,DSSS, DBPSK,DQPSK, CCK, 16QAM,64QAM

Support Data Rates	802.11b:1,2,5.5,11Mbps 802.11g:6,9,12,18,24,36,48,54Mbps 802.11n:6.5,13,19.5,26,39,52,58.5,65Mbps
Maxium Receive Level	-10dBm (with PER < 8%)
Operating Range	Open Space:~300m;indoor~100m (The transmission speed may vary according to the environment)
Output Power	17dBm $\pm$ 2dBm for 802.11b 15dBm $\pm$ 2dBm for 802.11g 15dBm $\pm$ 2dBm for 802.11b
Wide-Band Noise	-160dBm/Hz (Max.)@869 MHz ~ 960 MHz -160dBm/Hz (Max.)@1800 MHz ~ 1990 MHz -152dBm/Hz (Max.)@2110 MHz ~ 2170 MHz
Security	◎ WEP 64-bit and 128-bit encryption ◎ WAP(WI-FI Protected Access) ◎ WAP2(Wi-Fi Protected Access)

3.6 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
12	2467
13	2472
14	2484

3.7 Radio Specifications 802.15 Bluetooth

Features	Description
Frequency Band	2400MHz ~ 2483.5MHz
Number of Channels	79 channels
Modulation	FHSS, GFSK, 4-DQPSK, 8DPSK
Antenna Port	Single Antenna for WiFi and BT

3.8 Bluetooth Radio Characteristics

Features	Description		
	Max.	Typical	Min.
Maximum Receive Level			-20dBm
Output Power	4dBm	0dBm	-6dBm
Sensitivity	-84dBm	-86dBm	-88dBm
EDR Sensitivity	-78dBm	-80dBm	-83dBm
Wide-Band Noise	-160dBm/Hz (Max.)@869 MHz ~ 960 MHz -160dBm/Hz (Max.)@1800 MHz ~ 1990 MHz -152dBm/Hz (Max.)@2110 MHz ~ 2170 MHz		

3.9 Antenna Specification

Antenna Type	PIFA
Frequency Range	2.40GHz ~ 2.50GHz for 802.11b/g/n 5.15GHz ~ 5.87GHz for 802.11a/g
Peak Gain(Max)	1.0dBi
VSWR	2.0 for 2.4GHz band 2.0 for 5.0GHz band
Impedance	50Ohms
Connect Cable	Φ 1.13/length(Length1=312mm/Length2=517mm)
Connector	IPEX

4 Antenna Location

