

Theory of Operation/Technical Description – FCC ID: 2AMRAP-WFBT-AP6356

Product name: WiFi 802.11 a/b/g/n/ac & BT 4.1 M.2 module,

Model name: P-WFBT_AP6356SD.

- RF circuit function:

The product are based on the AP6356SD modules.

The major part of this IC is a WiFi and Bluetooth mode compliant transceiver. The IEEE 802.11 ac/n beam forming function of this product will be turned off using software. Will not be used by the final consumer.

- Description of all modulation schemes used in the product:

- Bluetooth BT

Item	EUT information
Operating Frequency	2402 MHz ~ 2480 MHz
Channel number	79
Operation Voltage	3Vdc
Modulation	GFSK , $\pi/4$ -DQPSK, 8DPSK
Maximum Output Power (mW)	0.99
Antenna Information	Refer to 5.1.1
Accessory Device	Refer to 4.4

- 2.4GHz WiFi

Item	EUT information
Operating Frequency	2412 MHz ~ 2462 MHz
Channel number	802.11b/g/n HT20: 11
Data Rate	802.11b: 11.0 / 5.5 / 2.0 / 1.0 Mbps 802.11g: 54.0 / 48.0 / 36.0 / 24.0 / 18.0 / 12.0 / 9.0 / 6.0 Mbps 802.11n: up to MCS7
Operation Voltage	3Vdc
Modulation	DSSS (DBPSK, DQPSK, CCK) OFDM (BPSK, QPSK, 16QAM, 64QAM)
Maximum Output Power (mW)	802.11b: 342.4 802.11g: 454.36 802.11n HT20: 460.38
Antenna Information	Refer to 5.1.1
Accessory Device	Refer to 4.4

- 5GHz WiFi

Item	EUT information
Operating Frequency	Band 1: 5180 MHz ~ 5240 MHz Band 2: 5260 MHz ~ 5320 MHz Band 3: 5500 MHz ~ 5700 MHz Band 4: 5745 MHz ~ 5825 MHz
Channel number	Band 1: 4 for 802.11a, 802.11n HT20 / 802.11ac VHT20 2 for 802.11n HT40 / 802.11ac VHT40 1 for 802.11ac VHT80 Band 2: 4 for 802.11a, 802.11n HT20 / 802.11ac VHT20 2 for 802.11n HT40 / 802.11ac VHT40 1 for 802.11ac VHT80 Band 3: 11 for 802.11a, 802.11n HT20 / 802.11ac VHT20 5 for 802.11n HT40 / 802.11ac VHT40 2 for 802.11ac VHT80 Band 4: 5 for 802.11a, 802.11n HT20 / 802.11ac VHT20 2 802.11n HT40 / 802.
Data Rate	802.11a: 54.0 / 48.0 / 36.0 / 24.0 / 18.0 / 12.0 / 9.0 / 6.0 Mbps 802.11n: up to MCS7 802.11ac: up to MCS9
Operation Voltage	3Vdc
Modulation	OFDM (BPSK, QPSK, 16QAM, 64QAM, 256QAM)
Maximum Output Power (mW)	5180 ~ 5240 MHz: 129.83 5260 ~ 5320 MHz: 90.51 5500 ~ 5700 MHz: 97.80 5745 ~ 5825 MHz: 105.36
Maximum EIRP (mW)	5260 ~ 5320 MHz: 161.06 5500 ~ 5700 MHz: 173.78
DFS Mode	Slave without radar detection
Antenna Information	Refer to 5.1.1
Accessory Device	Refer to 4.4

Calvin Lin
Title: Engineer

Signature: 