

Operational Description

FCC ID: 2AQAA-EZBOOKS7MEGA

The product is a Laptop with Bluetooth, WLAN function.

The EUT ratings: DC 7.6V by battery

Recharged by DC 12.0V

The EUT is working base on the **INS23035320 (CRYSTAL 1:19.2MHz, CRYSTAL 2:32.768KHz)**

The EUT support Bluetooth, WLAN function based on **RF Chip CM251 (CRYSTAL 1:40MHz)**

The G-sensor is only gravity sensing without power reduction.

Bluetooth

Works in the 2.4GHz (2402MHz~2480MHz) ISM band

79 channels for Bluetooth (BDR/EDR)

40 channels for Bluetooth (BT LE)

1MHz for Bluetooth (BDR/EDR)

2MHz for Bluetooth (BT LE)

Modulation type: GFSK, $\pi/4$ -DQPSK, 8-DPSK for Bluetooth (BDR/EDR)

GFSK for Bluetooth (BT LE)

2.4G WIFI:

Works in the 2.4GHz ISM Band (2412MHz~2462MHz)

Modulation: DSSS and OFDM on IEEE 802.11 protocols and support IEEE 802.11b/g/n.

Channel spacing: 5MHz.

11 channels for 20MHz bandwidth (2412-2462MHz)

7 channels for 40MHz bandwidth (2422-2452MHz)

5G WIFI:

Works in the 5GHz ISM Band (5180-5240MHz/5745-5825MHz)

Modulation: OFDM on IEEE 802.11 protocols and support IEEE 802.11a/n/ac.

4 Channels for 5180.00-5240.00MHz(802.11a/ac/n -HT20)

2 Channels for 5190.00-5230.00MHz(802.11ac/n -HT40)

1 Channels for 5210.00MHz(802.11ac -HT80)

5 channels for 20MHz bandwidth(5745-5825MHz) (802.11a/ac/n -HT20)

2 channels for 40MHz bandwidth(5755~5795MHz) (802.11ac/n -HT40)

1 channels for 80MHz bandwidth(5775MHz) (802.11ac -HT80)

Antenna Description:

The EUT use Internal antenna and maximum antenna gain is 2.00dBi(Max.) for 2.4G Band and 2.00dBi(Max.) for 5G Band, meet FCC part §15.203 , RSS-Gen and MIC antenna requirement.

This device has two antennas, The other WLAN antenna is prohibited

The device support 2 antenna while customer will disable Aux antenna by software and end-user can only use main antenna for WLAN/BT.

The device support one WLAN/BT modular and antenna, cannot support WLAN and BT simultaneously transmission.

Manufacturing Tolerance:**Bluetooth**

GFSK(Average)			
Channel	Channel 0	Channel 39	Channel 78
Target (dBm)	1.0	1.0	1.0
Tolerance \pm (dB)	1.0	1.0	1.0
$\pi/4$ DQPSK(Average)			
Channel	Channel 0	Channel 39	Channel 78
Target (dBm)	2.0	2.0	2.0
Tolerance \pm (dB)	1.0	1.0	1.0
8-DPSK(Average)			
Channel	Channel 0	Channel 39	Channel 78
Target (dBm)	2.0	2.0	2.0
Tolerance \pm (dB)	1.0	1.0	1.0
GFSK BT LE (Average)			
Channel	Channel 0	Channel 19	Channel 39
Target (dBm)	-5.5	-5.5	-5.5
Tolerance \pm (dB)	1.0	1.0	1.0

2.4G WLAN

IEEE 802.11b(Average)			
Channel	Channel 01	Channel 06	Channel 11
Target (dBm)	16.0	17.0	17.0
Tolerance \pm (dB)	1.0	1.0	1.0
IEEE 802.11g(Average)			
Channel	Channel 01	Channel 06	Channel 11
Target (dBm)	18.0	19.0	19.0
Tolerance \pm (dB)	1.0	1.0	1.0
IEEE 802.11n HT20 (Average)			
Channel	Channel 01	Channel 06	Channel 11
Target (dBm)	17.0	18.0	17.5
Tolerance \pm (dB)	1.0	1.0	1.0
IEEE 802.11n HT40(Average)			
Channel	Channel 03	Channel 06	Channel 09
Target (dBm)	15.0	16.0	16.0
Tolerance \pm (dB)	1.0	1.0	1.0

5.2GWLAN

IEEE 802.11a (Average)			
Channel	Channel 36	Channel 40	Channel 48
Target (dBm)	9.0	9.5	9.5
Tolerance \pm (dB)	1.0	1.0	1.0
IEEE 802.11n HT20 (Average)			
Channel	Channel 36	Channel 40	Channel 48
Target (dBm)	9.0	9.0	9.5
Tolerance \pm (dB)	1.0	1.0	1.0
IEEE 802.11n VHT40 (Average)			
Channel	Channel 38	Channel 46	/
Target (dBm)	8.0	9.0	/
Tolerance \pm (dB)	1.0	1.0	/
IEEE 802.11ac VHT20 (Average)			
Channel	Channel 36	Channel 40	Channel 48
Target (dBm)	9.0	9.0	9.5
Tolerance \pm (dB)	1.0	1.0	1.0
IEEE 802.11ac VHT40 (Average)			
Channel	Channel 38	Channel 46	/
Target (dBm)	8.0	9.0	/
Tolerance \pm (dB)	1.0	1.0	/
IEEE 802.11ac VHT80 (Average)			
Channel	Channel 42	/	/
Target (dBm)	8.0	/	/
Tolerance \pm (dB)	1.0	/	/

5.8GWLAN

IEEE 802.11a (Average)			
Channel	Channel 149	Channel 157	Channel 165
Target (dBm)	7.0	7.5	7.0
Tolerance ±(dB)	1.0	1.0	1.0
IEEE 802.11n HT20 (Average)			
Channel	Channel 149	Channel 157	Channel 165
Target (dBm)	7.0	7.5	6.5
Tolerance ±(dB)	1.0	1.0	1.0
IEEE 802.11n VHT40 (Average)			
Channel	Channel 151	Channel 159	/
Target (dBm)	6.0	6.0	/
Tolerance ±(dB)	1.0	1.0	/
IEEE 802.11ac VHT20 (Average)			
Channel	Channel 149	Channel 157	Channel 165
Target (dBm)	7.0	7.0	6.5
Tolerance ±(dB)	1.0	1.0	1.0
IEEE 802.11ac VHT40 (Average)			
Channel	Channel 151	Channel 159	/
Target (dBm)	6.0	6.0	/
Tolerance ±(dB)	1.0	1.0	/
IEEE 802.11ac VHT80 (Average)			
Channel	Channel 155	/	/
Target (dBm)	5.0	/	/
Tolerance ±(dB)	1.0	/	/