

Analysis Report (WLAN)

Report No.: 14080215HKG-002

The Equipment Under Test (EUT) is a Tablet, equipped with WiFi, SD and USB Interface. The EUT operates in frequency range from 2412MHz to 2462MHz at 802.11b,g,n HT20 (11 channels with 5MHz spacing) while from 2422MHz to 2452MHz at 802.11n HT40 (7 channels with 5MHz channel spacing). The EUT is powered by an external AC/DC adaptor (5VDC output) or/and internal 3.7VDC (1x 3.7V rechargeable battery). The adaptor accepts 100-120VAC only. The applicant declared that only WiFi function is used in this product. GPS, FM and Bluetooth functions will not be used in the product.

WiFi 802.11b, 802.11g, 802.11n (HT20):
2412MHz – 2462MHz, 11 channels, 5MHz spacing

WiFi 802.11n (HT40):
2422MHz – 2452MHz, 7 channels, 5MHz spacing

Antenna Type: Internal integral antenna
Antenna Gain: 0dBi

Operating Mode	Nominal Radiated Field Strength	Production Tolerance	Antenna Gain
802.11b	101.4BμV/m at 3m	±3dB	0dBi
802.11g	100.6dBμV/m at 3m	±3dB	0dBi
802.11n (HT20)	100.3dBμV/m at 3m	±3dB	0dBi
802.11n (HT40)	100.1dBμV/m at 3m	±3dB	0dBi

According to the KDB 447498:

Based on the Maximum allowed field strength of production tolerance was 104.4dBμ V/m at 3m in frequency 2.4GHz, thus;

The EIRP = $[(FS \cdot D)^2 \cdot 1000 / 30] = 8.263\text{mW}$

Conducted power = Radiated Power (EIRP) – Antenna Gain

So;

Conducted Power = 8.263mW.

The SAR Exclusion Threshold Level:

= $3.0 \cdot (\text{min. test separation distance, mm}) / \sqrt{\text{freq. in GHz}}$

= $3.0 \cdot 5 / \sqrt{2.462} \text{ mW}$

= 9.56 mW

Since the above conducted output power is well below the SAR Exclusion threshold level, so the EUT is considered to comply with SAR requirement without testing.

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