

## **Technical Description:**

The Equipment Under Test (EUT) is a 7-inch Tablet with Android Operating System. The EUT equipped with a 7-inch LCD display (with touch screen), camera, USB, SD interface, loudspeaker and headphone output. The EUT contains a WiFi module complying with IEEE 802.11b/g/n(HT20)/n(HT40) standards that operating in 2.4GHz ISM frequency band (2400MHz – 2483.5MHz). The EUT is powered by an external AC/DC adaptor with 5VDC output. The adaptor accepts 100-240VAC. The applicant declared that the EUT does not contain Bluetooth RF module.

An internal, integral antenna has been used.

### **1. WiFi module (CP318)**

CP318 is a WLAN USB module which fully supports the features and functional compliance of IEEE 802.11b/g/n(HT20)/n(HT40) standards. This module operates in 2.4GHz frequency bands.

CP318 consists of:

- 1) U6 (RTL8188CUS) is a single-chip IEEE802.11b/g/n 1T1R WLAN controller with PCI (USB) interface. XTAL1 is 40MHz (crystal) clock for U6.

### **2. Main Processor Portion**

- 1) U1 (RK3618) is main processor.
- 2) Y1 is 24MHz crystal oscillator for U1.

### **3. Memory Portion**

- 1) U14 and U15 (H5TQ4G63MFR) are 4Gbit DDR3 memories.
- 2) U5 (TC58TEG5DCJTA00) is 4GB flash memory.

## Channel Occupation of CP318 WiFi Module in 802.11b/g/n standard

### Channel (b/g/n20) Frequency (MHz)

1 2412  
2 2417  
3 2422  
4 2427  
5 2432  
6 2437  
7 2442  
8 2447  
9 2452  
10 2457  
11 2462

**n20 = 802.11n HT20 (20MHz Bandwidth)**

### Channel (n40) Frequency (MHz)

1 N/A  
2 N/A  
3 2422  
4 2427  
5 2432  
6 2437  
7 2442  
8 2447  
9 2452  
10 N/A  
11 N/A

**n40 = 802.11n HT40 (40MHz Bandwidth)**

### 802.11n HT40 (40MHz Bandwidth)

The WiFi modules was tested in according with the following power output and in actual application the below limit shall not be exceeded.

Operating Mode	Nominal Radiated Field Strength	Production Tolerance
802.11b	101.8dB $\mu$ V/m at 3m	±3dB
802.11g	93.5dB $\mu$ V/m at 3m	±3dB
802.11n (HT20)	93.4dB $\mu$ V/m at 3m	±3dB
802.11n (HT40)	92.8dB $\mu$ V/m at 3m	±3dB

An internal, integral antenna has been used.  
Antenna Gain: 0dBi