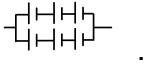


# Analysis Report

Report No.: 14040555HKG-004

The WSF01 is an Auto-Feed Portable WiFi Scanner.

For 802.11b mode, it operates at frequency range of 2412MHz to 2462MHz with 11 channels. It transmits via DSSS modulation. Maximum bit rate can be up to 11Mbps. For 802.11g mode, it operates at frequency range of 2412MHz to 2462MHz with 11 channels. It transmits via OFDM modulation. Maximum bit rate can be up to 54Mbps. For 802.11n (with 20MHz bandwidth) mode, it operates at frequency range of 2412MHz to 2462MHz with 11 channels. It transmits via OFDM modulation. Maximum bit rate can support up to 65Mbps.

The EUT is powered by 6VDC (6x"AA" size batteries)  .

Antenna Type: Internal integral antenna

Antenna Gain: +2.3dBi

Nominal rated field strength: 97.4dB $\mu$ V/m at 3m

Maximum allowed field strength of production tolerance: +/- 3dB 

According to the KDB 447498:

Based on the Maximum allowed field strength of production tolerance was 100.4dB $\mu$ V/m at 3m in frequency 2.4GHz, thus; 

The EIRP =  $[(FS^*D)^2 * 1000 / 30] = 3.289\text{mW}$  

Conducted power = Radiated Power (EIRP) – Antenna Gain

So;

Conducted Power = 1.937mW. 

The SAR Exclusion Threshold Level:

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

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

$= 9.56 \text{ mW}$

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.