INTERTEK TESTING SERVICES

RF Exposure

The Equipment Under Test (EUT) is a 8207 Infinity Game Table with Wi-Fi function operating at 2412-2462MHz for 802.11b/g/n-HT20, 11 channels with 5MHz channel spacing. The EUT is powered by DC 12V with AC/DC adaptor. For more detailed features description, please refer to the user's manual.

Antenna Type: Integral antenna. Antenna Gain: 1.2dBi. Modulation Type: Type of Modulation: BPSK, QPSK, 16QAM, 64QAM

802.11b:

The nominal conducted peak output power specified: 0dBm (Tolerance: +/-3dB) The normal radiated peak output power (e.i.r.p) is: 1.2dBm (tolerance: +/- 3dB).

The nominal conducted average output power specified: -2dBm (Tolerance: +/-3dB) The normal radiated average output power (e.i.r.p) is: -0.8dBm (tolerance: +/- 3dB).

802.11g/n-HT20:

The nominal conducted peak output power specified: 10.0dBm (Tolerance: +/-3dB) The normal radiated peak output power (e.i.r.p) is: 11.2dBm (tolerance: +/- 3dB).

The nominal conducted average output power specified: -1.0dBm (Tolerance: +/-3dB) The normal radiated average output power (e.i.r.p) is: 0.2dBm (tolerance: +/- 3dB).

IEEE 802.11b (Antenna Gain = 1.2 dBi) (16QAM, 6Mbps)			
Frequency (MHz)	Output in dBm	Output in dBm	
	(Peak Reading)	(Average Reading)	
Low Channel: 2412	1.9	-0.5	
Middle Channel: 2437	2.9	0.5	
High Channel: 2462	3.0	0.8	

The test data as below:

IEEE 802.11g (Antenna Gain = 1.2 dBi) (16QAM, 6Mbps)			
Frequency (MHz)	Output in dBm	Output in dBm	
	(Peak Reading)	(Average Reading)	
Low Channel: 2412	10.2	0.4	
Middle Channel: 2437	11.5	1.2	
High Channel: 2462	12.2	1.5	

IEEE 802.11n-HT20 (Antenna Gain = 1.2 dBi) (64QAM, 6Mbps)			
Frequency (MHz)	Output in dBm (Peak Beading)	Output in dBm (Average Beading)	
Low Channel: 2412	10.3		
Middle Channel: 2437	11.2	1.1	
High Channel: 2462	12.5	1.3	

According to the KDB 447498:

The maximum conducted average output power specified is 2dBm= 1.585mW The source- based time-averaging conducted output power =0.1585* Duty cycle mW = 0.1585mW(Duty cycle =100%)

The SAR Exclusion Threshold Level: = 3.0 * (min. test separation distance, mm) / sqrt(freq. in GHz) = 3.0 * 5 / sqrt (2.462) mW = 9.56mW

Since the source-based time-averaging conducted output power is well below the SAR low threshold level, so the EUT is considered to comply with SAR requirement without testing.