

RF Exposure Evaluation

FCC ID:2A25O-K20

1. Client Information

Applicant	:	Deen Smart LLC.
Address	:	8350 NW 52nd Terrace Suite 301, Miami, FL, 33166 USA
Manufacturer	:	KK Smart Technology Co., Ltd
Address	:	No. 201, Guanyu Industrial Factory, Shenzhen Da Industrial Zone, No. 51 Cuijing Road, Xiuxin Community, Kengzi Street, Pingshan District, Shenzhen, China

2. General Description of EUT

EUT Name	:	Visual Pore Cleaner Device	
HVIN/Models No.	:	K20	
Product Description	:	Operation Frequency:	802.11b/g/n(HT20): 2412MHz~2462MHz
		Number of Channel:	802.11b/g/n(HT20):11 channels
		RF Output Power:	802.11b: 3.896dbm (Max) 802.11g: 6.907dbm (Max) 802.11n(HT20): 6.784dbm (Max)
	:	Antenna Gain:	0.5dBi Internal Antenna
		Modulation Type:	802.11b: DSSS (CCK, DQPSK, DBPSK) 802.11g/n: OFDM (BPSK, QPSK, 16QAM, 64QAM)
		Bit Rate of Transmitter:	802.11b:11/5.5/2/1 Mbps 802.11g:54/48/36/24/18/12/9/6 Mbps 802.11n: up to 150Mbps
Power Supply	:	Input: DC 5V, 1A DC 3.7V by 500mAh Li-ion battery	
Software Version	:	V1.6	
Hardware Version	:	V1.1	
Remark: The antenna gain provided by the applicant, the adapter and verified for the RF conduction test and adapter provided by TOBY test lab.			

Note: More test information about the EUT please refer the RF Test Report.

SAR Test Exclusion Calculations

1. FCC: According to KDB 447498 D01 Mobile and Portable Devices RF Exposure Procedures and Equipment Authorization Policies v06.

- (1) Clause 4.3: General SAR test reduction and exclusion guidance

- Sub clause 4.31: Standalone SAR test exclusion considerations

- 1) The 1-g and 10-g SAR test exclusion thresholds for 100 MHz to 6GHz at test separation distance ≤ 5 mm are determined by:

- [(max. power of channel, including tune-up tolerance, mW)/(min. test separation, mm)] * $\sqrt{f_{\text{GHz}}}$ ≤ 3.0 for 1-g SAR

- [(max. power of channel, including tune-up tolerance, mW)/(min. test separation, mm)] * $\sqrt{f_{\text{GHz}}}$ $\leq 7.5.0$ for 10-g SAR

2. Calculation:

Test separation: 5mm						
2.4G WIFI 802.11 b						
Frequency (GHz)	Conducted Power (dBm)	Turn-up Power Tolerance (dB)	Max power of tune up tolerance (dBm)	Max power of tune up tolerance (mw)	Calculation Value	Threshold Value
2.412	3.896	4±1	5	3.162	0.982	3.0
2.437	1.553	2±1	3	1.995	0.623	3.0
2.462	1.267	1±1	2	1.585	0.497	3.0
2.4G WIFI 802.11g						
Frequency (GHz)	Conducted Power (dBm)	Turn-up Power Tolerance (dB)	Max power of tune up tolerance (dBm)	Max power of tune up tolerance (mw)	Calculation Value	Threshold Value
2.412	5.116	5±1	6	3.981	1.237	3.0
2.437	5.693	6±1	7	5.012	1.565	3.0
2.462	6.907	7±1	8	6.310	1.980	3.0
2.4G WIFI 802.11n(HT20)						
Frequency (GHz)	Conducted Power (dBm)	Turn-up Power Tolerance (dB)	Max power of tune up tolerance (dBm)	Max power of tune up tolerance (mw)	Calculation Value	Threshold Value
2.412	4.816	5±1	6	3.981	1.237	3.0
2.437	6.172	6±1	7	5.012	1.565	3.0
2.462	6.784	7±1	8	6.310	1.980	3.0

Conclusion:

The measurement results comply with the FCC Limit per 47 CFR 2.1093 for the uncontrolled RF Exposure and SAR Exclusion Threshold per KDB 447498 v06.

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