

RF Exposure Evaluation

FCC ID: 2AK8F-W23257

1. Client Information

Applicant : GSM, LLC
Address : 3385 Roy Orr Blvd. Suite B, Grand Prairie, TX 75050, U.S.A
Manufacturer : WUDOU MI ELECTRONICS TECHNOLOGY CO., LTD
Address : 3F, 5TH BUILDING, XINJIHUI INDUSTRIAL ZONE, HESHU ROAD, BANTIAN STREET, LONGGANG, SHENZHEN, CHINA.

2. General Description of EUT

| | | |
|-------------------------------|------------------------|---|
| EUT Name | : | WIFI OTG CARD READER |
| Models No. | : | STC-WIFICR, WDM-E18 |
| Model Difference | : | All these models are identical in the same PCB layout and electrical circuit, the only difference is model name for commercial. |
| Product Description | Operation Frequency: | 802.11b/g/n(HT20):2412MHz~2462MHz 802.11n(HT40): 2422MHz~2452MHz |
| | Number of Channel: | 802.11b/g/n(HT20):11 channels see note(3) 802.11n(HT40): 7 channels see note(3) |
| | Max Peak Output Power: | 802.11b: 9.34 dBm 802.11g: 9.32 dBm 802.11n (HT20): 9.36 dBm 802.11n (HT40): 9.25 dBm |
| | Antenna Gain: | 2 dBi Ceramic Antenna |
| | Modulation Type: | 802.11b: DSSS(CCK, QPSK, BPSK) 802.11g: OFDM 802.11n: OFDM |
| Power Supply | : | DC Voltage Supply by the host system DC Voltage Supply by the Battery |
| Power Rating | : | DC 5.0 V by the USB cable from the PC system DC 3.8 V by the Internal Battery |
| Connecting I/O Port(S) | : | Please refer to the User's Manual |

Note:

More test information about the EUT please refer to 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 | | | | | | | | | | | | | | |
|----------------------|-----------------|----------------|--------------------------------------|-------|---------------------------------------|--|-------|------|---|-------|------|---|--------------------|--------|
| Mode | N _{TX} | Freq. (MHz) | Conducted Power(max) (dBm) [P] | | Turn-up Power Tolerance (dB) | Max power of tune up tolerance (dbm) | | | Max power of tune up tolerance (mw) | | | Worst Maximum Calculatio n Value | Threshold Value | Result |
| | | | Ant 1 | Ant 2 | | Ant 1 | Ant 2 | Sum | Ant 1 | Ant 2 | Sum | | | |
| 802.11b | 1 | 2412 | 9.26 | 9.10 | 9±0.5 | 9.5 | / | / | 8.913 | / | / | 2.768 | 3.0 | PASS |
| | | 2437 | 9.34 | 9.01 | 9±0.5 | 9.5 | / | / | 8.913 | / | / | 2.783 | | |
| | | 2462 | 9.21 | 9.22 | 9±0.5 | 9.5 | / | / | 8.913 | / | / | 2.797 | | |
| 802.11g | 1 | 2412 | 9.32 | 8.87 | 9±0.5 | 9.5 | / | / | 8.913 | / | / | 2.768 | | |
| | | 2437 | 9.16 | 8.99 | 9±0.5 | 9.5 | / | / | 8.913 | / | / | 2.783 | | |
| | | 2462 | 9.23 | 8.98 | 9±0.5 | 9.5 | / | / | 8.913 | / | / | 2.797 | | |
| 802.11n (HT20) | 2 | 2412 | 6.46 | 6.16 | 6±0.5 | 6.5 | 6.5 | 9.51 | 4.467 | 4.467 | 8.93 | 2.775 | | |
| | | 2437 | 6.45 | 6.25 | 6±0.5 | 6.5 | 6.5 | 9.51 | 4.467 | 4.467 | 8.93 | 2.789 | | |
| | | 2462 | 6.49 | 6.03 | 6±0.5 | 6.5 | 6.5 | 9.51 | 4.467 | 4.467 | 8.93 | 2.803 | | |
| 802.11n (HT40) | 2 | 2422 | 6.16 | 5.95 | 6±0.5 | 6.5 | 6.5 | 9.51 | 4.467 | 4.467 | 8.93 | 2.780 | | |
| | | 2437 | 6.06 | 6.09 | 6±0.5 | 6.5 | 6.5 | 9.51 | 4.467 | 4.467 | 8.93 | 2.789 | | |
| | | 2452 | 6.21 | 6.26 | 6±0.5 | 6.5 | 6.5 | 9.51 | 4.467 | 4.467 | 8.93 | 2.798 | | |

So standalone SAR measurements are not required.

-----END OF REPORT-----