

RF Exposure Evaluation

FCC ID: XMF-MID721-U

1. Client Information

Applicant : Lightcomm Technology Co., Ltd.
Address : RM 1708-10, 17/F, PROSPERITY CENTRE, 25 CHONG YIP STREET, KWUN TONG, KOWLOON, HONG KONG
Manufacturer : Huizhou Hengdu Electronics Co., Ltd.
Address : DIP South Area, Huiao Highway, Huizhou, Guangdong, China

2. General Description of EUT

EUT Name	:	MID
Models No.	:	MID713-U, MID710-U, DL700D, DL700D(B), D2-741G_XX(XX represents different color)
Model Difference	:	DL700D, DL700D(B) doesn't have the back camera and DC input jack, the other models are identical in the same PCB layout, interior structure and electrical circuits, The only difference is model name for commercial purpose.
Product Description	:	Operation Frequency: 802.11b/g/n(HT20): 2412MHz~2462MHz 802.11b/g/n(HT40): 2422MHz~2452MHz
	:	Number of Channel: 802.11b/g/n(HT20):11 channels 802.11b/g/n(HT40): 7 channels
	:	Max Peak Output Power: 802.11b: 9.40 dBm 802.11g: 9.51 dBm 802.11n (HT20): 9.46 dBm 802.11n (HT40): 9.46 dBm
	:	Antenna Gain: 0 dBi Integral Antenna
	:	Modulation Type: 802.11b: DSSS (CCK, QPSK, BPSK) 802.11g: OFDM 802.11n: OFDM
Power Supply	:	DC power supplied by AC/DC Adapter DC Voltage supplied from Li-Polymer battery.
Power Rating	:	USB DC 5V form PC. AC/DC Adapter(TEKA01-0502000UK) 1# (DC Power Jack): Input: AC 100~240V 50/60Hz 0.35A Max. Output: DC 5V 2A AC/DC Adapter(TEKA01-0502000UK) 2# (USB Port): Input: AC 100~240V 50/60Hz 0.35A Max. Output: DC 5V 2A DC 3.7V 2100mAh from Li-Polymer battery
Connecting I/O Port(S)	:	Please refer to the User's Manual

Note:

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

MPE Calculations

1. FCC: According to KDB 447498 D01 Mobile and Portable Devices RF Exposure Procedures and Equipment Authorization Policies v05r02.

(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 ≤ 50 mm are determined by:

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

$[(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation, mm})] \cdot [\sqrt{f_{(\text{GHz})}}] \leq 7.5$ for 10-g SAR

Calculation:

The maximum power is 9.51 dBm (8.933 mW) @2.437GHz

Separation Distance: 5mm

For 1-g SAR Result: $(8.933 \text{ mW} / 5\text{mm}) \cdot [\sqrt{2.437(\text{GHz})}] = 2.789 < 3.0$ for 1-g SAR

So standalone SAR measurements are not required.