

RF Exposure Evaluation

Test report

**On Behalf of
Nanjing Bewelltech Electronic Inc.**

**For
Digital Magnifier**

Model No.: arLoupe48

FCC ID: 2AWJR-ARLOUPE48

Prepared for : **Nanjing Bewelltech Electronic Inc.**
No.2016 Liao Building Gulou Disdriect, Nanjing city, Jiangsu
province, China

Prepared By : **Shenzhen HUAK Testing Technology Co., Ltd.**
1F, B2 Building, JunfengZhongchengZhizao Innovation Park,
Fuhai Street, Bao'an District, Shenzhen City, China

Date of Test: **May 22, 2020 ~ Jun. 08, 2020**

Date of Report: **Jun. 08, 2020**

1 General Description of EUT

Product Name	Digital Magnifier
Model/Type reference	arLoupe48
Serial Model	S, M, L, XL
Model Difference	All models have the same functionality, software and electronics, only the color, front frame shape and model names may differ. Test sample model: arLoupe48
Trade Mark	arLoupe
FCC ID	2AWJR-ARLOUPE48
Hardware Version	EGlass_M
Software Version	DJF_20200602
Operation frequency	2402MHz ~ 2480MHz
Channel separation	2MHz
Channel number	40
Modulation Technology	GFSK
Antenna Type	PCB Antenna
Antenna Gain	0dBi
Power Supply	DC 5V from battery & Adapter
Adapter Information	MODEL: LX050200 INPUT: 100V-240V~50/60Hz 0.35A OUTPUT: 5V ---2A

2 RF Exposure Compliance Requirement

The 1-g and 10-g SAR test exclusion thresholds for 100 MHz to 6 GHz at test separation distances ≤ 50 mm are determined by:

$$[(\text{max. power of channel, including tune-up tolerance, mW})/(\text{min. test separation distance, mm})] \cdot [\sqrt{f(\text{GHz})}] \leq 3.0 \text{ for 1-g SAR and } \leq 7.5 \text{ for 10-g extremity SAR,}$$

Where $f(\text{GHz})$ is the RF channel transmit frequency in GHz

Power and distance are rounded to the nearest mW and mm before calculation

The results is rounded to one decimal place for comparison

The test exclusions are applicable only when the minimum test separation distance is ≤ 50 mm and for transmission frequencies between 100 MHz and 6 GHz. When the minimum test separation distance is < 5 mm, a distance of 5 mm is applied to determine SAR test exclusion

3 EUT RFExposure

Antenna Gain: 0dBi

Define the minimum distance: 5mm

For Bluetooth:

GFSK						
Channel	Maximum Peak Conducted Output Power (dBm)	Tune up tolerance (dBm)	Maximum tune-up Power		Calculated value	Exclusion threshold
			(dBm)	(mW)		
Lowest (2402MHz)	-12.890	0±1	-13.5	0.0447	0.0138	3.0
Middle (2440MHz)	-14.199	0±1	-13.5	0.0447	0.0140	
Highest (2480MHz)	-15.140	0±1	-14.5	0.0355	0.0112	
Conclusion: the calculated value ≤3.0, SAR is exempted.						

Note: For maximum peak conducted output power, please refer to Test report BLE