

## Radiofrequency radiation exposure evaluation: mobile devices

RESULT :

Pass

### Test Specification

Test item : Air Purifier  
 Identification / Type No. : MA-04WBN  
 FCC ID : 2BBDW-MA04WBN  
 Test standard : CFR47 FCC Part 2: Section 2.1091  
 CFR47 FCC Part 1: Section 1.1310  
 FCC KDB Publication 447498 D04

### ➤ FCC requirements

**FCC requirement:** Systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy level in excess limit for maximum permissible exposure. In accordance with 47 CFR FCC Part 2 Subpart J, section 2.1091 this device has been defined as a mobile device whereby a distance of 20cm normally can be maintained between the user and the device.

### MPE Calculation Method according to KDB 447498 D04

TABLE B.1—THRESHOLDS FOR SINGLE RF SOURCES  
SUBJECT TO ROUTINE ENVIRONMENTAL EVALUATION

RF Source Frequency			Minimum Distance			Threshold ERP
$f_L$ MHz		$f_H$ MHz	$\lambda_L / 2\pi$		$\lambda_H / 2\pi$	W
0.3	–	1.34	159 m	–	35.6 m	$1.920 R^2$
1.34	–	30	35.6 m	–	1.6 m	$3.450 R^2/f^2$
30	–	300	1.6 m	–	159 mm	$3.83 R^2$
300	–	1,500	159 mm	–	31.8 mm	$0.0128 R^2/f$
1,500	–	100,000	31.8 mm	–	0.5 mm	$19.2 R^2$

Subscripts L and H are low and high;  $\lambda$  is wavelength.  
 From § 1.1307(b)(3)(i)(C), modified by adding Minimum Distance columns.

### a) EUT RF Exposure Evaluation operations, Worst Case mode

Test Mode	Measured Power (dBm)	Antenna Gain (dBi)	Measured e.i.r.p (dBm)	Minimum Separation Distances (cm)	Limit (mW)
BLE	12.18	2.54	14.72	20	768
2.4GHz band Wi-Fi	17.89	2.54	20.43		