

# **FCC RF EXPOSURE REPORT**

**FCC ID: 2AIMRMDZ16AB**

**Project No. : 1605C248**  
**Equipment : MI BOX**  
**Model : MDZ-16-AB**  
**Applicant : Beijing Xiaomi Electronics Co.,Ltd**  
**Address : Room 707,7F,Building 5,No 58,JinghaiWulu  
Road ,Beijing economic and Technological  
Development Zone**  
**According: : FCC Guidelines for Human Exposure IEEE C95.1**

**B T L I N C .**

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## MPE CALCULATION METHOD:

Calculation Method of RF Safety Distance:

$$S = \frac{PG}{4\pi r^2} = \frac{EIRP}{4\pi r^2}$$

where:

S = power density

P = power input to the antenna

G = power gain of the antenna in the direction of interest relative to an isotropic radiator

R = distance to the center of radiation of the antenna

Table for Filed Antenna

2.4G

Ant.	Brand	Model Name	Antenna Type	Connector	Gain (dBi)
1	MI	ANT_M12	PCB	N/A	3.3

5G

Ant.	Brand	Model Name	Antenna Type	Connector	Gain (dBi)
1	MI	ANT_M12	PCB	N/A	2.94

# TEST RESULTS

## Bluetooth

EUT:	MI BOX	Model Name :	MDZ-16-AB
Temperature:	25 °C	Relative Humidity:	55 %
Test Voltage:	AC 120V/60Hz		
Test Mode:	TX Mode _1Mbps		

Antenna Gain (dBi)	Antenna Gain (numeric)	Peak Output Power (dBm)	Peak Output Power (mW)	Power Density (S) (mW/cm <sup>2</sup> )	Limit of Power Density (S) (mW/cm <sup>2</sup> )	Test Result
3.3	2.1380	9.12	8.1658	0.00347496	1	Complies
3.3	2.1380	9.55	9.0157	0.00383663	1	Complies
3.3	2.1380	8.87	7.7090	0.00328058	1	Complies

EUT:	MI BOX	Model Name :	MDZ-16-AB
Temperature:	25 °C	Relative Humidity:	55 %
Test Voltage:	AC 120V/60Hz		
Test Mode:	TX Mode _3Mbps		

Antenna Gain (dBi)	Antenna Gain (numeric)	Peak Output Power (dBm)	Peak Output Power (mW)	Power Density (S) (mW/cm <sup>2</sup> )	Limit of Power Density (S) (mW/cm <sup>2</sup> )	Test Result
3.3	2.1380	7.98	6.2806	0.00267270	1	Complies
3.3	2.1380	8.63	7.2946	0.00310420	1	Complies
3.3	2.1380	8.48	7.0469	0.00299882	1	Complies

## BLE

EUT:	MI BOX	Model Name :	MDZ-16-AB
Temperature:	25 °C	Relative Humidity:	55 %
Test Voltage:	AC 120V/60Hz		
Test Mode:	CH00, CH19 , CH39		

Antenna Gain (dBi)	Antenna Gain (numeric)	Peak Output Power (dBm)	Peak Output Power (mW)	Power Density (S) (mW/cm <sup>2</sup> )	Limit of Power Density (S) (mW/cm <sup>2</sup> )	Test Result
3.3	2.1380	6.37	4.3351	0.00184480	1	Complies
3.3	2.1380	6.48	4.4463	0.00189213	1	Complies
3.3	2.1380	5.28	3.3729	0.00143533	1	Complies

## 2.4G WIFI

EUT:	MI BOX	Model Name :	MDZ-16-AB
Temperature:	25 °C	Relative Humidity:	55 %
Test Voltage:	AC 120V/60Hz		
Test Mode:	TX G Mode_CH01/06/11		

Antenna Gain (dBi)	Antenna Gain (numeric)	Peak Output Power (dBm)	Peak Output Power (mW)	Power Density (S) (mW/cm <sup>2</sup> )	Limit of Power Density (S) (mW/cm <sup>2</sup> )	Test Result
3.3	2.1380	19.61	91.4113	0.03890007	1	Complies
3.3	2.1380	19.81	95.7194	0.04073337	1	Complies
3.3	2.1380	19.99	99.7700	0.04245710	1	Complies

## UNII-1

EUT:	MI BOX	Model Name :	MDZ-16-AB
Temperature:	25 °C	Relative Humidity:	60 %
Test Voltage:	AC 120V/60Hz		
Test Mode:	TX AC20 Mode / CH36, CH40, CH48		

Antenna Gain (dBi)	Antenna Gain (numeric)	Peak Output Power (dBm)	Peak Output Power (mW)	Power Density (S) (mW/cm <sup>2</sup> )	Limit of Power Density (S) (mW/cm <sup>2</sup> )	Test Result
2.94	1.9679	9.41	8.7297	0.00341940	1	Complies
2.94	1.9679	10.72	11.8032	0.00462328	1	Complies
2.94	1.9679	9.83	9.6161	0.00376661	1	Complies

## UNII-2A

EUT:	MI BOX	Model Name :	MDZ-16-AB
Temperature:	25 °C	Relative Humidity:	60 %
Test Voltage:	AC 120V/60Hz		
Test Mode:	TX AC20 Mode / CH52, CH60, CH64		

Antenna Gain (dBi)	Antenna Gain (numeric)	Peak Output Power (dBm)	Peak Output Power (mW)	Power Density (S) (mW/cm <sup>2</sup> )	Limit of Power Density (S) (mW/cm <sup>2</sup> )	Test Result
2.94	1.9679	10.22	10.5196	0.00412050	1	Complies
2.94	1.9679	10.07	10.1625	0.00398062	1	Complies
2.94	1.9679	9.80	9.5499	0.00374068	1	Complies

## UNII-2C

EUT:	MI BOX	Model Name :	MDZ-16-AB
Temperature:	25 °C	Relative Humidity:	60 %
Test Voltage:	AC 120V/60Hz		
Test Mode:	TX A Mode / CH100, CH116, CH140		

Antenna Gain (dBi)	Antenna Gain (numeric)	Peak Output Power (dBm)	Peak Output Power (mW)	Power Density (S) (mW/cm <sup>2</sup> )	Limit of Power Density (S) (mW/cm <sup>2</sup> )	Test Result
2.94	1.9679	9.49	8.8920	0.00348298	1	Complies
2.94	1.9679	9.87	9.7051	0.00380146	1	Complies
2.94	1.9679	11.68	14.7231	0.00576701	1	Complies

## UNII-3

EUT:	MI BOX	Model Name :	MDZ-16-AB
Temperature:	25 °C	Relative Humidity:	60 %
Test Voltage:	AC 120V/60Hz		
Test Mode:	TX A Mode / CH149, CH157, CH165		

Antenna Gain (dBi)	Antenna Gain (numeric)	Peak Output Power (dBm)	Peak Output Power (mW)	Power Density (S) (mW/cm <sup>2</sup> )	Limit of Power Density (S) (mW/cm <sup>2</sup> )	Test Result
2.94	1.9679	12.17	16.4816	0.00645580	1	Complies
2.94	1.9679	11.33	13.5831	0.00532047	1	Complies
2.94	1.9679	10.62	11.5345	0.00451804	1	Complies

Note: the calculated distance is 20 cm.