

FCC Test Report

Report No.: AGC10514231209FR01

FCC ID	:	2AIMR-MDZ37DB
APPLICATION PURPOSE	:	Original Equipment
PRODUCT DESIGNATION	:	Xiaomi Sound Pocket
BRAND NAME	:	Xiaomi
MODEL NAME	:	MDZ-37-DB
APPLICANT	:	Beijing Xiaomi Electronics Co.,Ltd
DATE OF ISSUE	:	Feb. 01, 2024
STANDARD(S)	:	FCC Part 15 Subpart C §15.247
REPORT VERSION	:	V1.0







Report Revise Record

Report Version	Revise Time	Issued Date	Valid Version	Notes
V1.0	/	Feb. 01, 2024	Valid	Initial Release



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1. General Information

Applicant	Beijing Xiaomi Electronics Co.,Ltd			
Address	Room 802, Floor 8, Building 5, No.15 KeChuang 10th Road, Beijing Economic			
	and Technological Development Zone, Beijing, 100176 China			
Manufacturer	Beijing Xiaomi Electronics Co.,Ltd			
Address	Room 802, Floor 8, Building 5, No.15 KeChuang 10th Road, Beijing			
Address	Economic and Technological Development Zone, Beijing, 100176 China			
Factory	Jiangxi Taide Intelligence Technology Co., Ltd			
Address	No. 2 Xiamen Road, Yuanshangang Industrial Park, Dongxiang District Economic			
	Development Zone, Fuzhou City, Jiangxi Province, China			
Product Designation	Xiaomi Sound Pocket			
Brand Name	Xiaomi			
Test Model	MDZ-37-DB			
Series Model(s)	N/A			
Difference Description	N/A			
Date of receipt of test item	Jan. 03, 2024			
Date of Test	Jan. 12, 2024 – Feb. 01, 2024			
Deviation from Standard	No any deviation from the test method			
Condition of Test Sample	Normal			
Test Result	Pass			
Test Report Form No	AGCER-FCC-BLE-V1			

Note: The test results of this report relate only to the tested sample identified in this report.

Prepared By

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Feb. 01, 2024

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Feb. 01, 2024

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Feb. 01, 2024



2. Product Information

2.1 Product Technical Description

Frequency Band	2400MHz-2483.5MHz
Operation Frequency Range	2402MHz-2480MHz
Bluetooth Version	V5.4
Modulation Type	BLE GFSK 1Mbps GFSK 2Mbps
Number of channels	40
Carrier Frequency of Each Channel	40 Channels (37 hopping + 3 advertising channels)
Channel Separation	2 MHz
Maximum Transmitter Power	Bluetooth LE (1Mbps): 2.882dBm Bluetooth LE (2Mbps): 3.002dBm
Hardware Version	BT1052_JL7016C_TCS6356_XA9712B_V1.1_20240123
Software Version	V2.2.6
Antenna Designation	PCB Antenna
Antenna Gain	3.31dBi
Power Supply	DC 3.7V by battery or DC 5V by adapter
Adapter Information	N/A

2.2 Test Frequency List

Frequency Band	Channel Number	Frequency		
	0	2402 MHz		
	1	2404 MHz		
2400~2483.5MHz	:	:		
	19	2440MHz		
	:	:		
	38	2478 MHz		
	39	2480 MHz		
Note: f = 2402 + 2*k MHz, k = 0,, 39 f is the operating frequency (MHz); k is the operating channel.				



2.3 Related Submittal(S) / Grant (S)

This submittal(s) (test report) is intended for FCC ID: 2AIMR-MDZ37DB, filing to comply with Part 2, Part 15 of the Federal Communication Commission rules.

2.4 Test Methodology

The tests were performed according to following standards:

No.	Identity	Document Title
1	FCC 47 CFR Part 2	Frequency allocations and radio treaty matters; general rules and regulations
2	FCC 47 CFR Part 15	Radio Frequency Devices
3	ANSI C63.10-2013	American National Standard for Testing Unlicensed Wireless Devices
4	KDB 558074 D01 15.247 Meas Guidance v05r02	Guidance for compliance measurements on Digital Transmission Systems, Frequency Hopping Spread Spectrum system, and Hybrid system devices operating under Section 15.247 of the FCC rules

2.5 Special Accessories

Not available for this EUT intended for grant.

2.6 Equipment Modifications

Not available for this EUT intended for grant.

2.7 Antenna Requirement

Standard Requirement

15.203 requirement:

An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator, the manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.

15.247(b) (4) requirement:

The conducted output power limit specified in paragraph (b) of this section is based on the use of antennas with directional gains that do not exceed 6 dBi. Except as shown in paragraph (c) of this section, if transmitting antennas of directional gain greater than 6 dBi are used, the conducted output power from the intentional radiator shall be reduced below the stated values in paragraphs (b)(1), (b)(2), and (b)(3) of this section, as appropriate, by the amount in dB that the directional gain of the antenna exceeds 6 dBi

EUT Antenna:

The non-detachable antenna inside the device cannot be replaced by the user at will. The gain of the antenna is 3.31dBi.



3. Test Environment

3.1 Address of the Test Laboratory

Laboratory: Attestation of Global Compliance (Shenzhen) Co., Ltd.

Address: 1-2/F, Building 19, Junfeng Industrial Park, Chongqing Road, Heping Community, Fuhai Street, Bao'an District, Shenzhen, Guangdong, China

3.2 Test Facility

The test facility is recognized, certified, or accredited by the following organizations:

CNAS-Lab Code: L5488

Attestation of Global Compliance (Shenzhen) Co., Ltd. has been assessed and proved to follow CNAS-CL01 Accreditation Criteria for Testing and Calibration Laboratories (identical to ISO/IEC17025: 2017 General Requirements for the Competence of Testing and Calibration Laboratories).

A2LA-Lab Cert. No.: 5054.02

Attestation of Global Compliance (Shenzhen) Co., Ltd. EMC Laboratory has been accredited by A2LA for technical competence in the field of electrical testing, and proved to follow ISO/IEC 17025: 2017 General Requirements for the Competence of Testing and Calibration Laboratories and any additional program requirements in the identified field of testing.

FCC-Registration No.: 975832

Attestation of Global Compliance (Shenzhen) Co., Ltd. EMC Laboratory has been registered and fully described in a report filed with the FCC (Federal Communications Commission). The acceptance letter from the FCC is maintained in our files with Registration 975832.

IC-Registration No.: 24842 (CAB identifier: CN0063)

Attestation of Global Compliance (Shenzhen) Co., Ltd. EMC Laboratory has been registered and fully described in a report filed with the Certification and Engineering Bureau of Industry Canada. The acceptance letter from the IC is maintained in our files with Registration 24842.



3.3 Environmental Conditions

	Normal Conditions
Temperature range (°C)	15 - 35
Relative humidity range	20 % - 75 %
Pressure range (kPa)	86 - 106
Power supply	DC 3.7V by battery

3.4 Measurement Uncertainty

The reported uncertainty of measurement $y \pm U$, where expended uncertainty U is based on a standard

uncertainty multiplied by a coverage factor of k=2, providing a level of confidence of approximately 95%.

Item	Measurement Uncertainty
Uncertainty of Conducted Emission for AC Port	$U_c = \pm 2.9 \text{ dB}$
Uncertainty of Radiated Emission below 1GHz	$U_c = \pm 3.9 \text{ dB}$
Uncertainty of Radiated Emission above 1GHz	$U_c = \pm 4.9 \text{ dB}$
Uncertainty of total RF power, conducted	$U_c = \pm 0.8 \text{ dB}$
Uncertainty of RF power density, conducted	$U_c = \pm 2.6 \text{ dB}$
Uncertainty of spurious emissions, conducted	U _c = ±2 %
Uncertainty of Occupied Channel Bandwidth	U _c = ±2 %



3.5 List of Equipment Use

• R	RF Conducted Test System								
Used	Equipment No.	Test Equipment	Manufacturer	Model No.	Serial No.	Last Cal. Date (YY-MM-DD)	Next Cal. Date (YY-MM-DD)		
\boxtimes	AGC-ER-E036	Spectrum Analyzer	Agilent	N9020A	MY49100060	2023-06-01	2024-05-31		
\boxtimes	AGC-ER-E062	Power Sensor	Agilent	U2021XA	MY54110007	2023-03-03	2024-03-02		
\boxtimes	AGC-ER-E063	Power Sensor	Agilent	U2021XA	MY54110009	2023-03-03	2024-03-02		
\boxtimes	AGC-EM-A152	6dB Attenuator	Eeatsheep	LM-XX-6-5W	N/A	2023-06-09	2024-06-08		
\boxtimes	AGC-ER-E083	Signal Generator	Agilent	E4421B	US39340815	2023-06-01	2024-05-31		
\boxtimes	N/A	RF Connection Cable	N/A	1#	N/A	Each time	N/A		
\boxtimes	N/A	RF Connection Cable	N/A	2#	N/A	Each time	N/A		

• F	Radiated Spurious Emission							
Used	Equipment No.	Test Equipment	Manufacturer	Model No.	Serial No.	Last Cal. Date (YY-MM-DD)	Next Cal. Date (YY-MM-DD)	
	AGC-EM-E046	EMI Test Receiver	R&S	ESCI	10096	2023-02-18	2024-02-17	
\boxtimes	AGC-EM-E116	EMI Test Receiver	R&S	ESCI	100034	2023-06-03	2024-06-02	
\boxtimes	AGC-EM-E061	Spectrum Analyzer	Agilent	N9010A	MY53470504	2023-06-01	2024-05-31	
\boxtimes	AGC-EM-E086	Loop Antenna	ZHINAN	ZN30900C	18051	2022-03-12	2024-03-11	
\boxtimes	AGC-EM-E001	Wideband Antenna	SCHWARZBECK	VULB9168	D69250	2023-05-11	2025-05-10	
	AGC-EM-E029	Broadband Ridged Horn Antenna	ETS	3117	00034609	2023-03-23	2024-03-22	
\square	AGC-EM-E082	Horn Antenna	SCHWARZBECK	BBHA 9170	#768	2023-09-24	2025-09-23	
\square	AGC-EM-E146	Pre-amplifier	ETS	3117-PA	00246148	2022-08-04	2024-08-03	
\boxtimes	AGC-EM-A119	2.4G Filter	SongYi	N/A	N/A	2023-06-01	2024-05-31	
\boxtimes	AGC-EM-A138	6dB Attenuator	Eeatsheep	LM-XX-6-5W	N/A	2023-06-09	2024-06-08	
	AGC-EM-A139	6dB Attenuator	Eeatsheep	LM-XX-6-5W	N/A	2023-06-09	2024-06-08	

• A	AC Power Line Conducted Emission							
Used	Equipment No.	Test Equipment	Manufacturer	Model No.	Serial No.	Last Cal. Date (YY-MM-DD)	Next Cal. Date (YY-MM-DD)	
\boxtimes	AGC-EM-E045	EMI Test Receiver	R&S	ESPI	101206	2023-06-03	2024-06-02	
\boxtimes	AGC-EM-A130	6dB Attenuator	Eeatsheep	LM-XX-6-5W	DC-6GZ	2023-06-09	2024-06-08	
\bowtie	AGC-EM-E023	AMN	R&S	100086	ESH2-Z5	2023-06-03	2024/06/02	



• Te	Test Software							
Used	Equipment No.	Test Equipment	Manufacturer	Model No.	Version Information			
	AGC-EM-S003	RE Test System	FARA	EZ-EMC	V.RA-03A			
\boxtimes	AGC-EM-S011	RSE Test System	Tonscend	TS⁺ Ver2.1(JS36-RSE)	4.0.0.0			
\boxtimes	AGC-EM-S001	CE Test System	R&S	ES-K1	V1.71			
	AGC-ER-S009	BT/WIFI Test System	Tonscend	JS1120-3	2.6.77.0518			



4.System Test Configuration

4.1 EUT Configuration

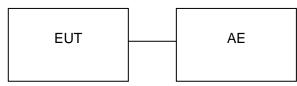
The EUT configuration for testing is installed on RF field strength measurement to meet the Commission's requirement and operating in a manner which intends to maximize its emission characteristics in a continuous normal application.

4.2 EUT Exercise

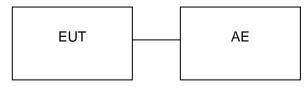
The Transmitter was operated in the normal operating mode. The TX frequency was fixed which was for the purpose of the measurements.

4.3 Configuration of Tested System

Radiated Emission Configure:



Conducted Emission Configure:



4.4 Equipment Used In Tested System

The following peripheral devices and interface cables were connected during the measurement:

I Test Accessories Come From The Laboratory

			,				
No.	Equipment	Model No.	Manufacturer	Specification Information	Cable		
1	Xiaomi Phone	MI 10	Xiaomi				
2	Adapter	HW-200440C00	Huawei				
	Test Accessories Come From The Manufacturer						
							

No.	Equipment	Model No.	Manufacturer	Specification Information	Cable
1				-	



4.5 Summary of Test Results

Item	FCC Rules	Description of Test	Result
1	§15.203&15.247(b)(4)	Antenna Equipment	Pass
2	§15.247 (b)(3)	RF Output Power	Pass
3	§15.247 (a)(2)	6 dB Bandwidth	Pass
4	§15.247 (e)	Power Spectral Density	Pass
4	§15.247 (d)	Conducted Band Edge and Out-of-Band Emissions	Pass
5	§15.209	Radiated Emission& Band Edge	Pass
6	§15.207	AC Power Line Conducted Emission	Pass



5. Description of Test Modes

Summary Table of Test Cases				
Data Rate / Modulation				
Test Item	Bluetooth – LE(1Mbps/2Mbps) / GFSK			
	Mode 1: Bluetooth Tx CH00_2402 MHz_1Mbps(Battery powered or AC/DC adapter)			
	Mode 2: Bluetooth Tx CH19_2440 MHz_1Mbps(Battery powered or AC/DC adapter)			
Radiated & Conducted	Mode 3: Bluetooth Tx CH39_2480 MHz_1Mbps(Battery powered or AC/DC adapter)			
Test Cases	Mode 4: Bluetooth Tx CH00_2402 MHz_2Mbps(Battery powered or AC/DC adapter)			
	Mode 5: Bluetooth Tx CH19_2440 MHz_2Mbps(Battery powered or AC/DC adapter)			
	Mode 6: Bluetooth Tx CH39_2480 MHz_2Mbps(Battery powered or AC/DC adapter)			
AC Conducted Emission	Mode 1: Bluetooth Link + Battery + USB Cable (Charging from AC Adapter)			
Note:				

- 1. Only the result of the worst case was recorded in the report, if no other cases.
- 2. 3. The battery is full-charged during the test.
- For Radiated Emission, 3axis were chosen for testing for each applicable mode.
- For Conducted Test method, a temporary antenna connector is provided by the manufacture. 4.
 - Software Setting Diagram



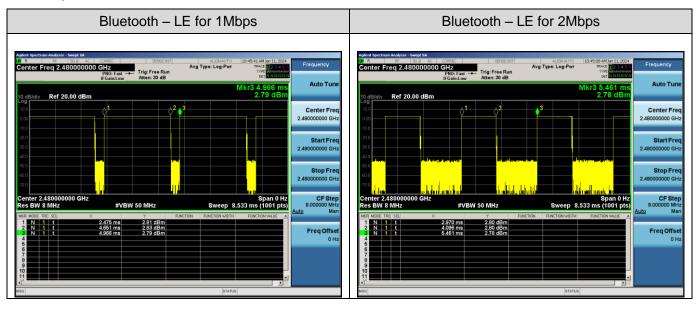
6. Duty Cycle Measurement

The maximum achievable duty cycles for all modes were determined based on measurements performed on a spectrum analyzer in zero-span mode with RBW = 8MHz, VBW = 50MHz, and detector = Peak. The RBW and VBW were both greater than 50/T, where T is the minimum transmission duration, and the number of sweep points across T was greater than 100. The duty cycles are as follows:

Operating mode	T(µs)	Duty Cycle (%)	Duty Cycle Factor (dB)	1/ T Minimum VBW (kHz)
BLE_1Mbps	2176	87.35	0.59	0.46
BLE_2Mbps	1126	45.20	3.45	0.89

Remark:

2. The duty cycle of each frequency band mode reflects the determination requirements of the low channel measurement value



The test plots as follows:

^{1.} Duty Cycle factor = 10 * log (1/ Duty cycle)



7. RF Output Power Measurement

7.1 Provisions Applicable

For DTSs employing digital modulation techniques operating in the bands 2400-2483.5 MHz, the maximum peak conducted output power shall not exceed 1 W.

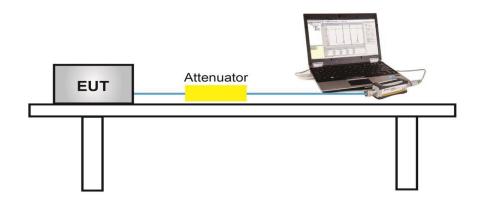
7.2 Measurement Procedure

For Peak Power, the testing follows ANSI C63.10 Section 11.9.1.1 Method Max peak power:

- 1. Connect EUT RF output port to the Spectrum Analyzer through an RF attenuator
- 2. Set the RBW > DTS bandwidth
- 3. Set the VBW \geq [3 x RBW].
- 4. Span≥[3 x RBW].
- 5. Sweep= auto couple.
- 6. Detector Function= Peak.
- 7. Trace mode= Max hold.
- 8. Allow trace to stabilize. Use the marker-to-peak function to set the marker to the peak of the emission. The indicated level is the peak output power, after any corrections for external attenuators and cables.
- For Average power, the testing follows ANSI C63.10 Section 11.9.2.3.2 Method AVGPM-G:
- 1. The RF output of EUT was connected to the power meter by RF cable and attenuator.
- 2. The path loss was compensated to the results for each measurement.
- 3. Set to the maximum power setting and enable the EUT transmit continuously.
- 4. Measure the conducted output power and record the results in the test report.

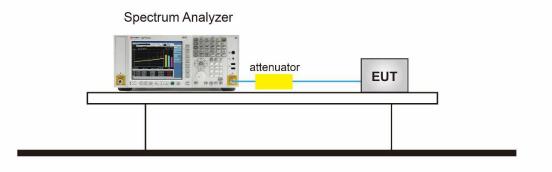
7.3 Measurement Setup (Block Diagram of Configuration)

For Average power test setup





For peak power test setup



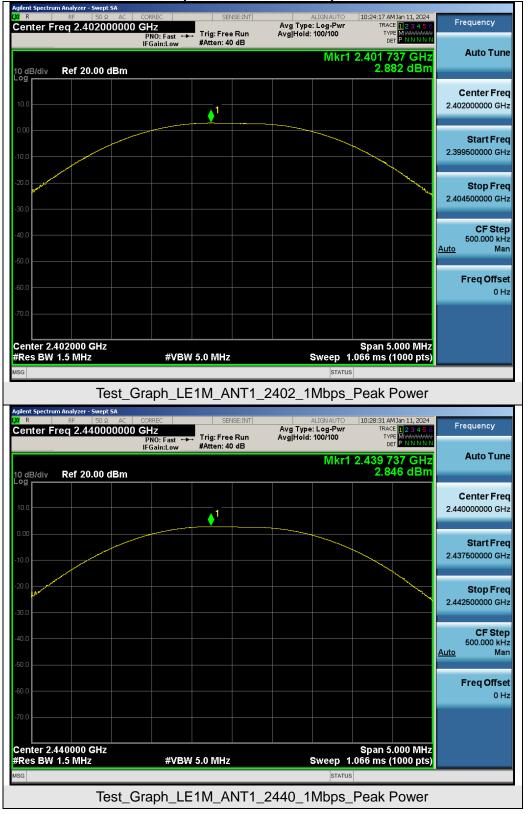
7.4 Measurement Result

Test Data of Conducted Output Power						
Test Mode	Test Frequency (MHz)	Peak Power (dBm)	Limits (dBm)	Pass or Fail		
	2402	2.882	≪30	Pass		
GFSK_1Mbps	2440	2.846	≪30	Pass		
	2480	2.761	≪30	Pass		
	2402	2.984	≪30	Pass		
GFSK_2Mbps	2440	3.002	≪30	Pass		
	2480	2.892	≤30	Pass		

Test Result of Average Output Power (Reporting Only)

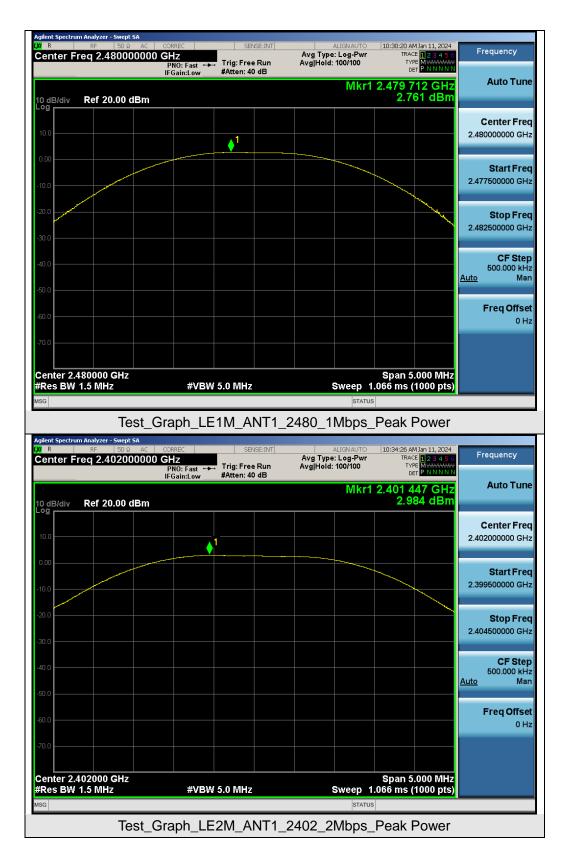
Test Data of Conducted Output Power						
Test Mode	Test Frequency (MHz)	Average Power (dBm)	Limits (dBm)	Pass or Fail		
	2402	0.891	≪30	Pass		
GFSK_1Mbps	2440	0.853	≪30	Pass		
	2480	0.771	≪30	Pass		
	2402	0.995	≪30	Pass		
GFSK_2Mbps	2440	1.014	≪30	Pass		
	2480	0.899	≪30	Pass		



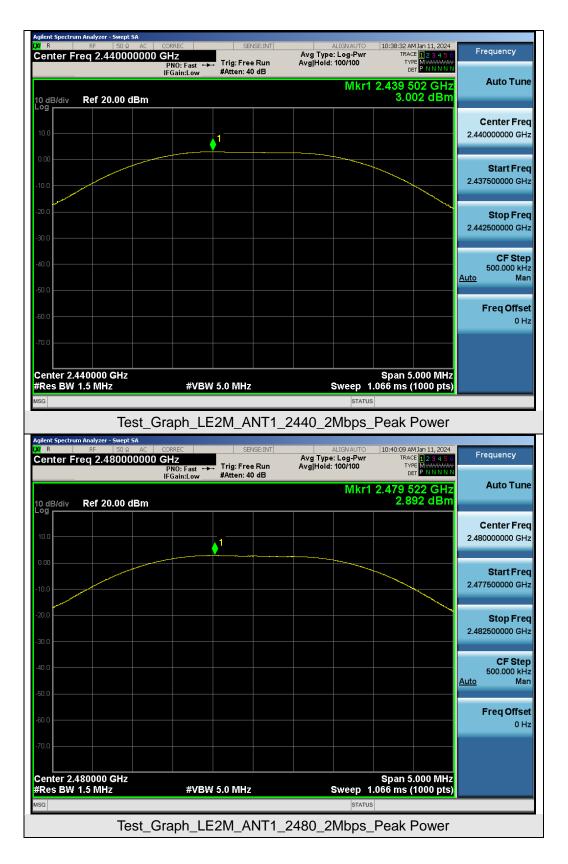


Test Graphs of Conducted Output Power











8. 6dB Bandwidth Measurement

8.1 Provisions Applicable

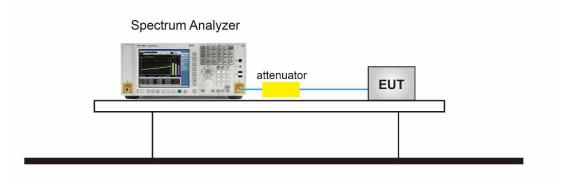
The minimum 6 dB bandwidth shall be 500 kHz.

8.2 Measurement Procedure

The testing follows the ANSI C63.10 Section 6.9.3 (OBW) and 11.8.1 (6dB BW).

- 1. The RF output of EUT was connected to the spectrum analyzer by RF cable and attenuator. The path loss was compensated to the results for each measurement.
- 2. Set to the maximum power setting and enable the EUT transmit continuously.
- Make the measurement with the spectrum analyzer's resolution bandwidth (RBW) = 100 kHz. Set the Video bandwidth (VBW) = 300 kHz. In order to make an accurate measurement. The 6 dB bandwidth must be greater than 500 kHz.
- For 99% Bandwidth Measurement, the spectrum analyzer's resolution bandwidth (RBW) is set 1-5% of the OBW and set the Video bandwidth (VBW) ≥ 3 * RBW.
- 5. Measure and record the results in the test report.

8.3 Measurement Setup (Block Diagram of Configuration)

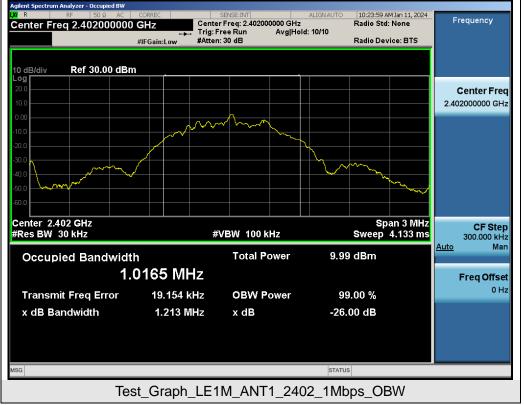




8.4 Measurement Results

Test Data of Occupied Bandwidth and DTS Bandwidth							
Test Mode	Test Frequency (MHz)	Occupied Bandwidth (MHz)	DTS BW (MHz)	DTS BW Limits	Pass or Fail		
	2402	1.017	0.664	≥0.5	Pass		
GFSK_1Mbps	2440	1.015	0.662	≥0.5	Pass		
	2480	1.019	0.667	≥0.5	Pass		
	2402	2.012	1.142	≥0.5	Pass		
GFSK_2Mbps	2440	2.014	1.135	≥0.5	Pass		
	2480	2.015	1.138	≥0.5	Pass		

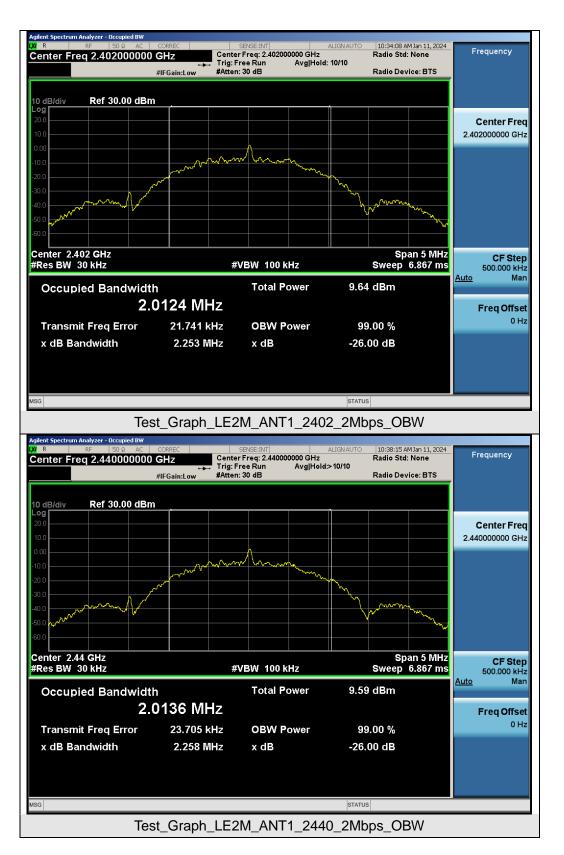
Test Graphs of Occupied Bandwidth











Man

Freq Offset

Auto





Any report having not been signed by authorized approver, or having been altered without authorization, or having not been stamped by the "Dedicated Testing/Inspection Stamp" is deemed to be invalid. Copying or excerpting portion of, or altering the content of the report is not permitted without the written authorization of AGC. The test results presented in the report apply only to the tested sample. Any objections to report issued by AGC should be submitted to AGC within 15days after the issuance of the test report. Further enquiry of validity or verification of the test report should be addressed to AGC by agc01@agccert.com.

Test_Graph_LE1M_ANT1_2402_1Mbps_DTSBW

Total Power

OBW Power

x dB

9.53 dBm

99.00 %

-6.00 dB

STATUS

1.0388 MHz

13.612 kHz

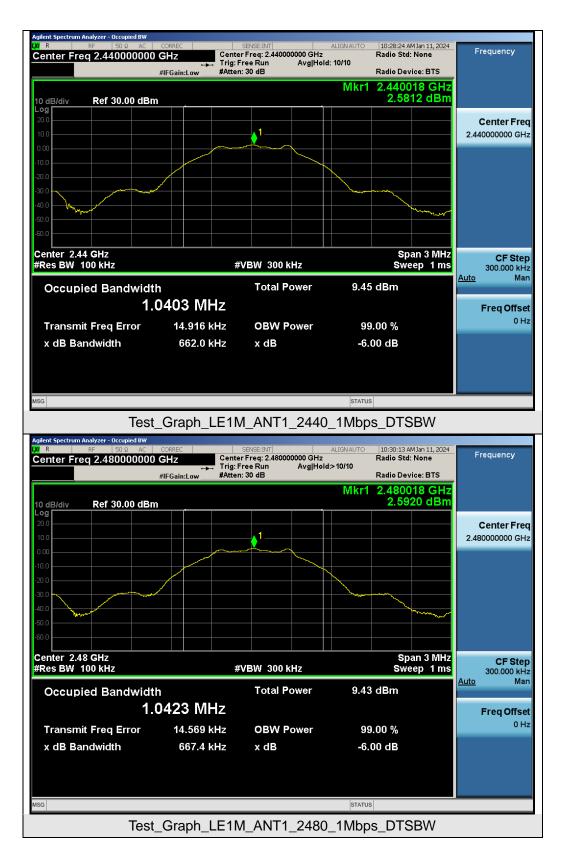
664.5 kHz

Occupied Bandwidth

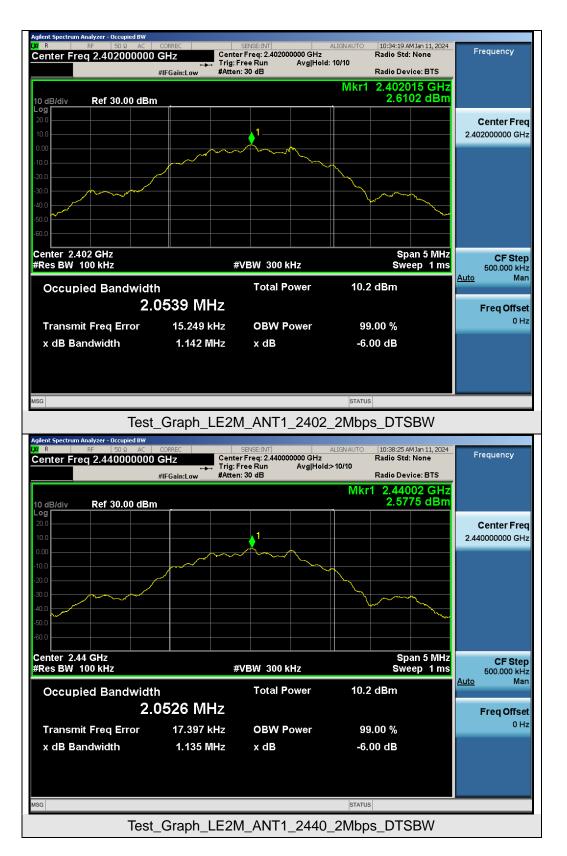
Transmit Freq Error

x dB Bandwidth

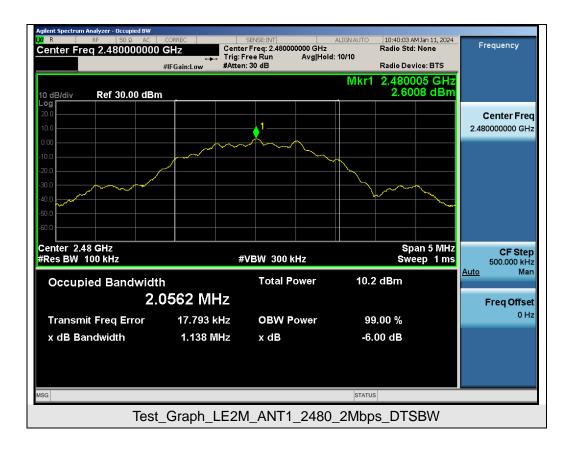














9. Power Spectral Density Measurement

9.1 Provisions Applicable

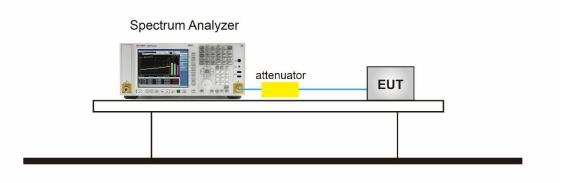
The transmitter power spectral density conducted from the transmitter to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission.

9.2 Measurement Procedure

The testing follows the ANSI C63.10 Section 11.10.2 Method PKPSD.

- 1. The RF output of EUT was connected to the spectrum analyzer by RF cable and attenuator. The path loss was compensated to the results for each measurement.
- 2. Set to the maximum power setting and enable the EUT transmit continuously.
- Make the measurement with the spectrum analyzer's resolution bandwidth (RBW) = 3 kHz. Video bandwidth VBW = 10 kHz in order to make an accurate measurement, set the span to 1.5 times DTS Channel Bandwidth. (6dB BW)
- 4. Detector = peak, Sweep time = auto couple, Trace mode = max hold, Allow trace to fully stabilize. Use the peak marker function to determine the maximum power level.
- 5. Measure and record the results in the test report.
- 6. The Measured power density (dBm)/ 100kHz is a reference level and used as 20dBc down limit line for Conducted Band Edges and Conducted Spurious Emission.

9.3 Measurement Setup (Block Diagram of Configuration)





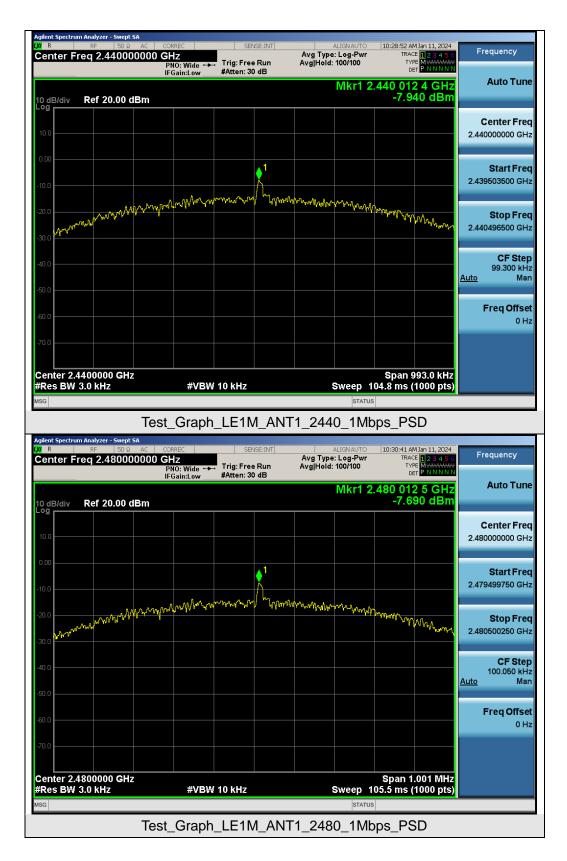
9.4 Measurement Results

Test Data of Conducted Output Power Spectral Density						
Test Mode	Test Frequency (MHz)	Power density (dBm/3kHz)	Limit (dBm/3kHz)	Pass or Fail		
	2402	-7.699	≪8	Pass		
GFSK_1Mbps	2440	-7.940	≪8	Pass		
	2480	-7.690	≪8	Pass		
	2402	-8.419	≪8	Pass		
GFSK_2Mbps	2440	-8.591	≪8	Pass		
	2480	-8.209	≪8	Pass		

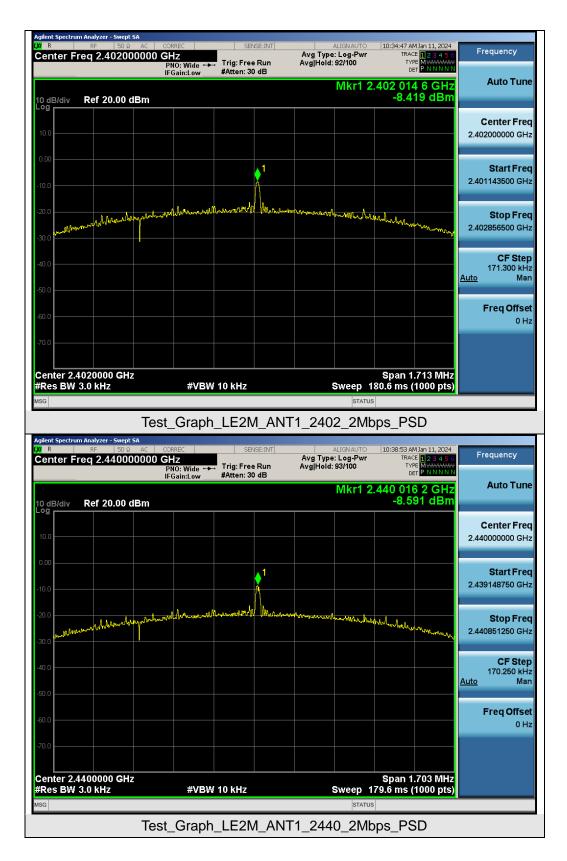
Test Graphs of Conducted Output Power Spectral Density













R	RF 50 Ω AC req 2.480000000	CORREC GH7	SENSE:IN		ALIGNAUTO Avg Type: Log-Pwr		M Jan 11, 2024 E 1 2 3 4 5 6	Frequency
		PNO: Wide +++ Trig: Free Run IFGain:Low #Atten: 30 dB		Avg Hol	Avg Hold: 93/100			Auto Tu
dB/div	Ref 20.00 dBm				Mkr1 2.480 016 2 GHz -8.209 dBm			
.0								Center Fr 2.480000000 G
.0			↓ 1					Start Fr 2.479146500 G
.0 0.	mandhamhangalah	month for the month	amperiado fu	Shallantan Alexandration	Mr. W. L.	halmhalm	weberman with	Stop Fr 2.480853500 G
.0								CF St 170.700 k Auto N
.0								Freq Off 0
.0								
	1800000 GHz 3.0 kHz	#VBW	/ 10 kHz		Sweep 1	80.0 ms (.707 MHz 1000 pts)	
				ANT1_248				



10. Conducted Band Edge and Out-of-Band Emissions

10.1 Provisions Applicable

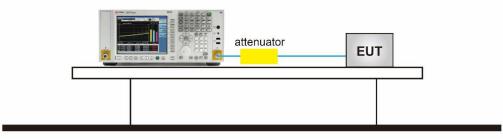
The limit for out-of-band spurious emissions at the band edge is 20dB below the fundamental emission level, as determined from the in-band power measurement of the DTS channel performed in a 100kHz bandwidth per the PSD procedure.

10.2 Measurement Procedure

- Reference level measurement
- 1. Set instrument center frequency to DTS channel center frequency
- 2. Set the span to \geq 1.5 times the DTS bandwidth
- 3. Set the RBW = 100 kHz
- 4. Set the VBW \geq 3 x RBW
- 5. Detector = peak
- 6. Sweep time = auto couple
- 7. Trace mode = max hold
- 8. Allow trace to fully stabilize
- Emission level measurement
- 1. Set the center frequency and span to encompass frequency range to be measured
- 2. RBW = 100kHz
- 3. VBW = 300kHz
- 4. Detector = Peak
- 5. Trace mode = max hold
- 6. Sweep time = auto couple
- 7. The trace was allowed to stabilize

10.3 Measurement Setup (Block Diagram of Configuration)

Spectrum Analyzer



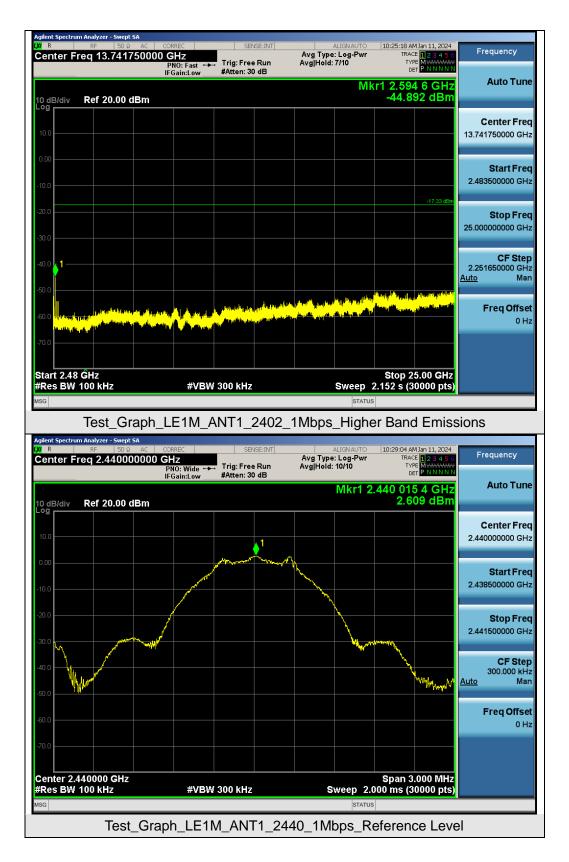


10.4 Measurement Results

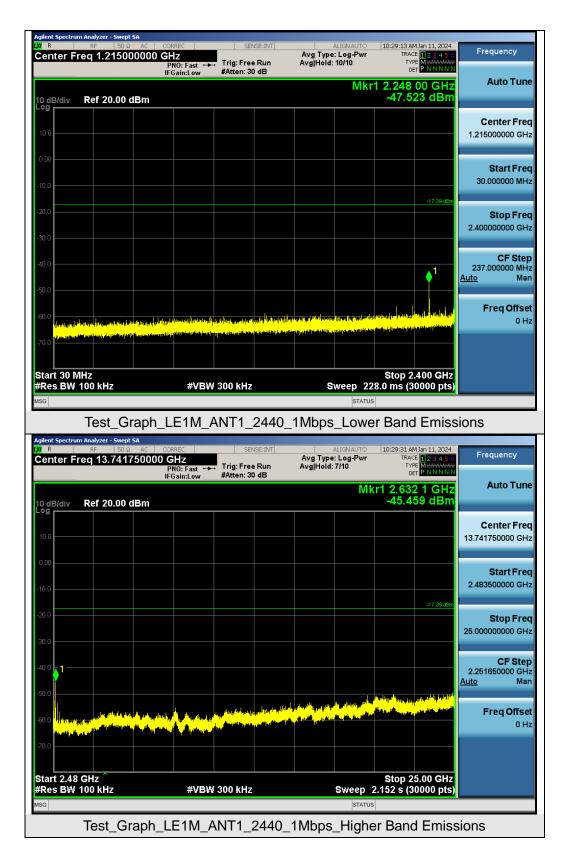


Test Graphs of Spurious Emissions in Non-Restricted Frequency Bands

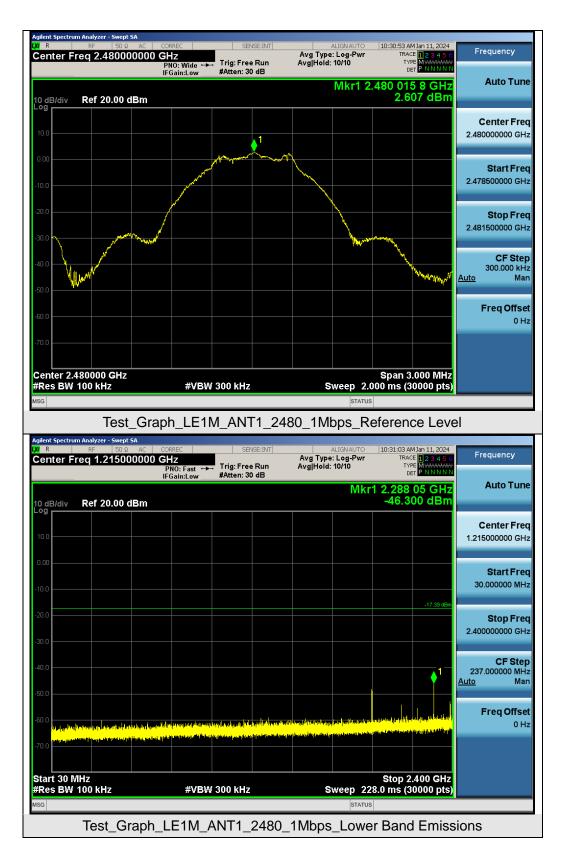




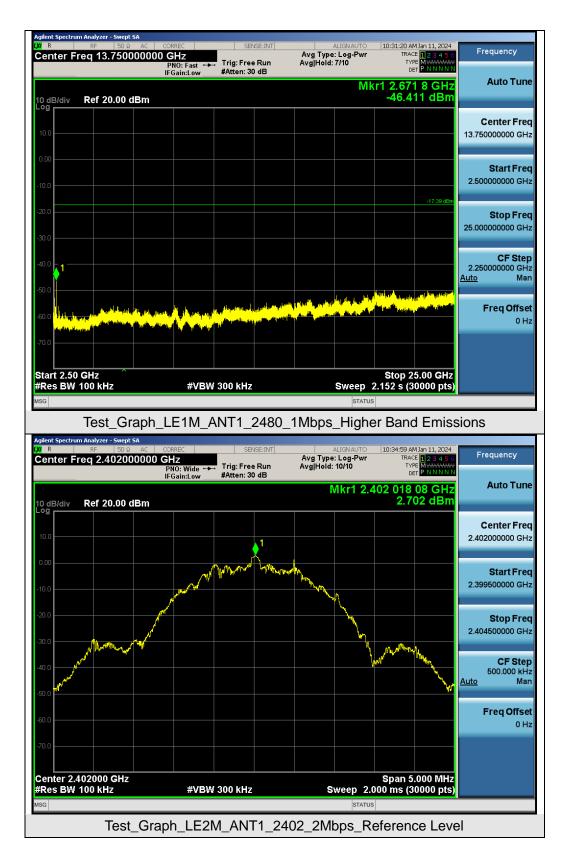




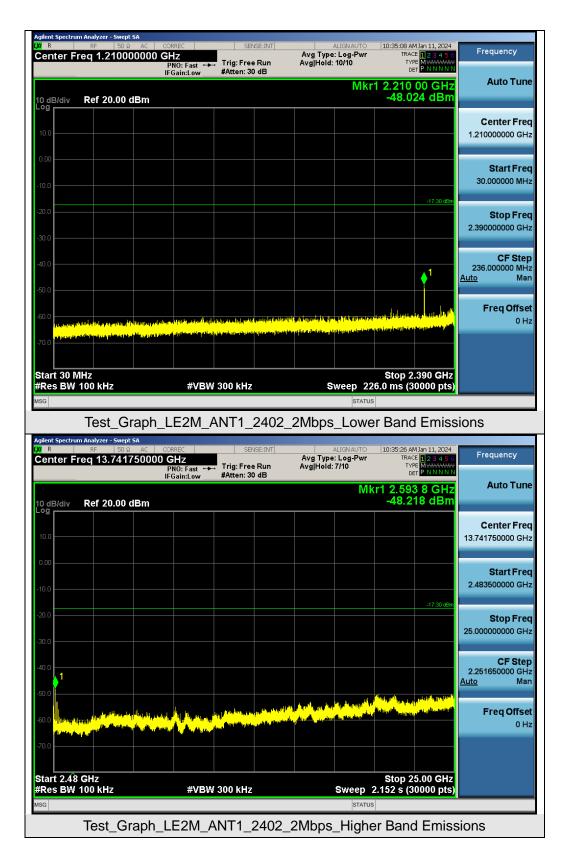








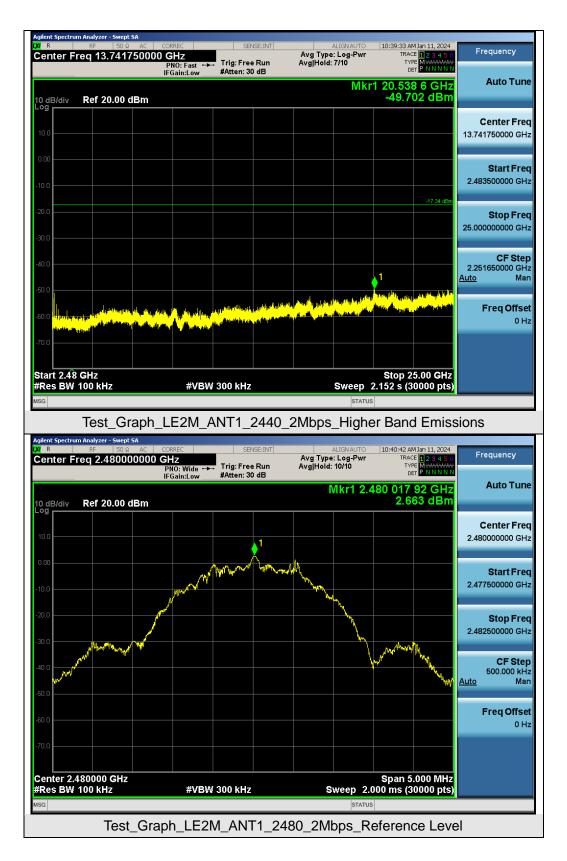




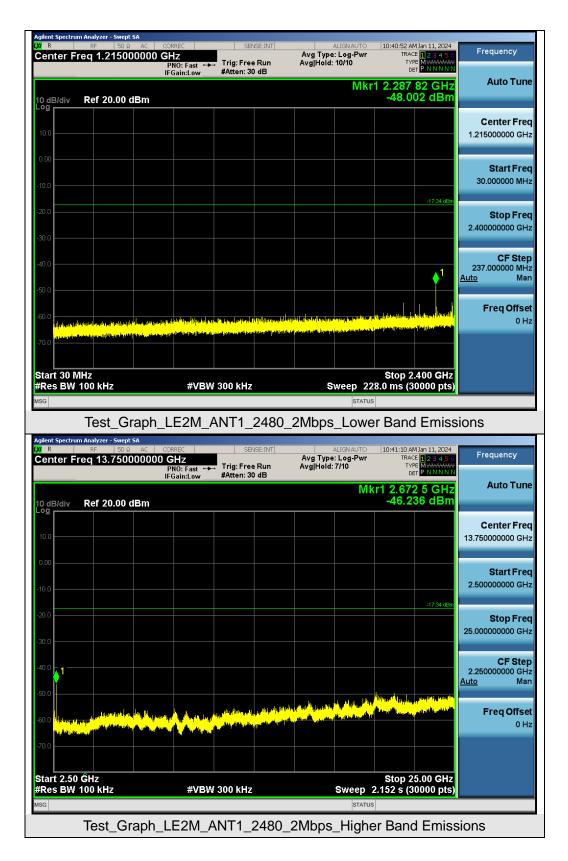
















Test Graphs of Band Edge Emissions in Non-Restricted Frequency Bands







11. Radiated Spurious Emission

11.1 Measurement Limit

FCC Part 15.209 Limit in the below table to be followed

Frequencies (MHz)	Field Strength (microvolts/meter)	Measurement Distance (meters)
0.009~0.490	2400/F(kHz)	300
0.490~1.705	24000/F(kHz)	30
1.705~30.0	30	30
30~88	100	3
88~216	150	3
216~960	200	3
Above 960	500	3

Note: All modes were tested for restricted band radiated emission, the test records reported below are the worst result compared to other modes.

11.2 Measurement Procedure

- 1. The EUT was placed on the top of the turntable 0.8 or 1.5 meter above ground. The phase center of the receiving antenna mounted on the top of a height-variable antenna tower was placed 3 meters far away from the turntable.
- 2. Power on the EUT and all the supporting units. The turntable was rotated by 360 degrees to determine the position of the highest radiation.
- 3. The height of the broadband receiving antenna was varied between one meter and four meters above ground to find the maximum emissions field strength of both horizontal and vertical polarization.
- 4. For each suspected emission, the antenna tower was scan (from 1 M to 4 M) and then the turntable was rotated (from 0 degree to 360 degrees) to find the maximum reading.
- 5. Set the test-receiver system to Peak or CISPR quasi-peak Detect Function with specified bandwidth under Maximum Hold Mode.
- 6. For emissions above 1GHz, use 1MHz RBW and 3MHz VBW for peak reading. Place the measurement antenna away from each area of the EUT determined to be a source of emissions at the specified measurement distance, while keeping the measurement antenna aimed at the source of emissions at each frequency of significant emissions, with polarization oriented for maximum response. The measurement antenna may have to be higher or lower than the EUT, depending on the radiation pattern of the emission and staying aimed at the emission source for receiving the maximum signal. The final measurement antenna elevation shall be that which maximizes the emissions. The measurement antenna elevation for maximum emissions shall be restricted to a range of heights of from 1 m to 4 m above the ground or reference ground plane.
- 7. When the radiated emissions limits are expressed in terms of the average value of the emissions, and pulsed operation is employed, the measurement field strength shall be determined by averaging over one complete pulse train, including blanking intervals, as long as the pulse train does not exceed 0.1 seconds.



As an alternative (provided the transmitter operates for longer than 0.1 seconds) or in cases where the pulse train exceeds 0.1 seconds, the measured field strength shall be determined from the average absolute voltage during a 0.1 second interval during which the field strength is at its maximum values.

- 8. If the emissions level of the EUT in peak mode was 3 dB lower than the average limit specified, then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions which do not have 3 dB margin will be repeated one by one using the quasi-peak method for below 1GHz.
- 9. For testing above 1GHz, the emissions level of the EUT in peak mode was lower than average limit (that means the emissions level in peak mode also complies with the limit in average mode), then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions will be measured in average mode again and reported.
- 10. In case the emission is lower than 30MHz, loop antenna has to be used for measurement and the recorded data should be QP measured by receiver. High Low scan is not required in this case.

Spectrum Parameter	Setting
Start ~Stop Frequency	9kHz~150kHz/RB 200Hz for QP
Start ~Stop Frequency	150kHz~30MHz/RB 9kHz for QP
Start ~Stop Frequency	30MHz~1000MHz/RB 120kHz for QP
Start ~Stop Frequency	1GHz~26.5GHz 1MHz/3MHz for Peak, 1MHz/3MHz for Average

The following table is the setting of spectrum analyzer and receiver.

Receiver Parameter	Setting
Start ~Stop Frequency	9kHz~150kHz/RB 200Hz for QP
Start ~Stop Frequency	150kHz~30MHz/RB 9kHz for QP
Start ~Stop Frequency	30MHz~1000MHz/RB 120kHz for QP



• Quasi-Peak Measurements below 1GHz

- 1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
- 2. Span was set greater than 1MHz
- 3. RBW = as shown in the table above
- 4. Detector = CISPR quasi-peak
- 5. Sweep time = auto couple
- 6. Trace was allowed to stabilize

Peak Measurements above 1GHz

- 1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
- 2. RBW = 1MHz
- 3. VBW = 3MHz
- 4. Detector = peak
- 5. Sweep time = auto couple
- 6. Trace mode = max hold
- 7. Trace was allowed to stabilize

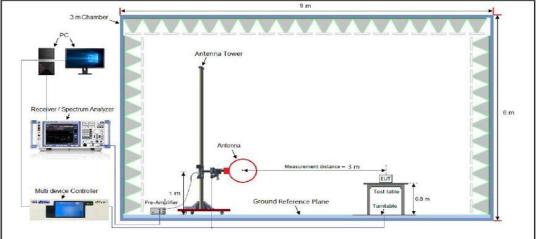
<u>Average Measurements above 1GHz (Method VB)</u>

- 1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
- 2. RBW = 1MHz
- 3. VBW setting requirements are as follows:
- 4. If the EUT is configured to transmit with duty cycle \ge 98%, set VBW = 10 Hz.
- 5. If the EUT duty cycle is < 98%, set VBW \geq 1/T. T is the minimum transmission duration.
- 6. Detector = Peak
- 7. Sweep time = auto
- 8. Trace mode = max hold
- 8. Trace was allowed to stabilize

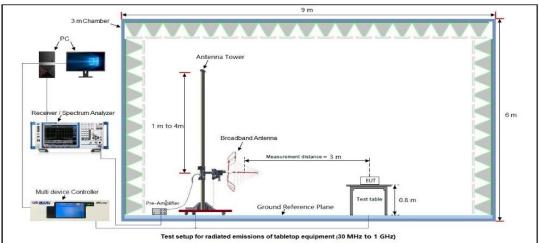


11.3 Measurement Setup (Block Diagram of Configuration)

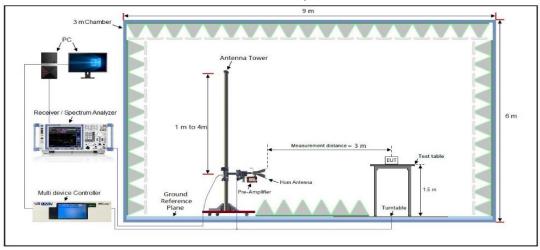




Radiated Emission Test Setup 30MHz-1000MHz



Radiated Emission Test Setup Above 1000MHz



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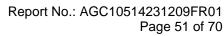


11.4 Measurement Result

Radiated Emission Below 30MHz

The amplitude of spurious emissions from 9kHz to 30MHz which are attenuated more than 20 dB below the permissible value need not be reported.

			Radia	ated Emiss	ion Test Res	ults at 30MH	z-1GHz				
EUT N	ame	Xia	omi Sound Poo	ket		Model Na	ime	MDZ-37-D	В		
Tempe	erature	22.	5°C			Relative I	Humidity	59.7%			
Pressu	ure	960	hPa			Test Volta	Test Voltage DC 3.7V by battery				
Test M	ode	Mo	de 5	Antenna Polarity Horizontal							
	72.0	dBu¥∕r	n								
	32	under open of			Merrichen Manuelle Provider Provider		3 4 5	Limit: — Margin: —			
	30.0	DO 4	40 50 60 70	80	(MHz)	300	400 500 60	0 700 1000.0	00		
Final D	ata List										
NO.	Freq [MHz		Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity		
1	108.26	67	22.55	16.28	43.50	20.95	100	190	Horizontal		
2	336.03	52	24.07	16.98	46.00	21.93	100	120	Horizontal		
3	383.93	18	27.81	18.63	46.00	18.19	100	50	Horizontal		
4	447.98	22	32.39	24.82	46.00	13.61	100	260	Horizontal		
5	609.92	17	31.79	25.15	46.00	14.21	100	180	Horizontal		
6	906.48	24	37.22	30.89	46.00	8.78	100	150	Horizontal		





			Radia	ted Emiss	ion Test Res	ults at 30MH	lz-1GHz			
EUT N	ame	Xiac	omi Sound Poc	ket		Model N	ame	MDZ-37-D	В	
Tempe	erature	22.5	5°C			Relative	Humidity	59.7%		
Pressu	ure	960hPa Test Voltage						DC 3.7V b	y battery	
Test M	Test Mode Mode 5 Antenna Polarity Vertical									
	72.0 dBuV/m									
	72.0 dBw/m							10		
Einal D	ata List									
NO.	Freq. [MHz]		Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity	
1	68.872	-	25.05	17.01	40.00	14.95	100	190	Vertical	
2	146.88	77	25.05	18.20	43.50	18.45	100	120	Vertical	
3	315.48	08	27.88	19.98	46.00	18.12	100	50	Vertical	
4	447.98	22	33.71	25.74	46.00	12.29	100	260	Vertical	
5	724.26	11	35.55	28.40	46.00	10.45	100	180	Vertical	
6	942.13	05	38.54	30.91	46.00	7.46	100	150	Vertical	

RESULT: Pass

Note: 1. Factor=Antenna Factor + Cable loss, Margin=Measurement-Limit.



UT Name	Xia	aomi Sour	nd Pocket		Mode	I Name	MDZ-37	MDZ-37-DB	
emperature	22	2.5℃			Relat	ive Humidity	59.7%		
ressure	96	60hPa			Test Voltage		DC 3.7V	by battery	
est Mode	Mo	ode 1			Anter	nna Polarity	Horizont	al	
Frequency	Meter F	Reading	Factor	Emission Leve		Limits	Margin	Value Type	
(MHz)	(dE	3μV)	(dB)	(dBµ∖	//m)	(dBµV/m)	(dB)	value Type	
4804.000	47	7.61	0.08	47.6	69	74	-26.31	peak	
4804.000	38	3.42	0.08	38.	5	54	-15.5	AVG	
7206.000	42	2.13	2.21	44.3	34	74	-29.66	peak	
7206.000	31	1.64	2.21	33.8	35	54	-20.15	AVG	
Remark:									
Factor = Anter	nna Facto	or + Cable	e Loss – Pre-	amplifier.					
			e Loss – Pre- nd Pocket	amplifier.	Mode	I Name	MDZ-37	DB	
Factor = Anter	Xia			amplifier.		I Name	MDZ-37	-DB	
Factor = Anter	Xia 22	aomi Soui		amplifier.	Relat		59.7%	-DB by battery	
Factor = Anter UT Name emperature	Xia 22 96	aomi Soui 2.5℃		amplifier.	Relat	ive Humidity	59.7%		
Factor = Anter UT Name emperature ressure est Mode	Xia 22 96 Mo	aomi Soui 2.5℃ 60hPa pde 1		emplifier.	Relat Test V Anter	ive Humidity Voltage	59.7% DC 3.7V Vertical	by battery	
Factor = Anter UT Name emperature ressure	Xia 22 96 Mc Meter F	aomi Soui 2.5℃ 60hPa	nd Pocket		Relat	ive Humidity /oltage nna Polarity	59.7% DC 3.7V		
Factor = Anter UT Name emperature ressure est Mode Frequency (MHz)	Xia 22 96 Mo Meter F (dE	aomi Soui 2.5℃ 60hPa 50de 1 Reading	nd Pocket	Emission	Relat Test V Anter	ive Humidity Voltage nna Polarity	59.7% DC 3.7V Vertical Margin	by battery	
Factor = Anter UT Name emperature ressure est Mode	Xia 22 96 Mo Meter F (dE 47	aomi Sou 2.5℃ 60hPa 50de 1 Reading 3µV)	nd Pocket Factor (dB)	Emission (dBµ\	Relat Test V Anter	ive Humidity Voltage nna Polarity Limits (dBµV/m)	59.7% DC 3.7V Vertical Margin (dB)	by battery Value Type	
Factor = Anter UT Name emperature ressure est Mode Frequency (MHz) 4804.000	Xia 22 96 Mo Meter F (dE 47 38	aomi Sour 2.5 °C 30hPa 50de 1 Reading 3µV) 7.69	nd Pocket Factor (dB) 0.08	Emission (dBµ\ 47.7	Relat Test V Anter n Level //m) 77 6	ive Humidity Voltage nna Polarity Limits (dBµV/m) 74	59.7% DC 3.7V Vertical Margin (dB) -26.23	by battery Value Type peak	
Factor = Anter	Xia 22 96 Mc Meter F (dE 47 38 42	aomi Sour 2.5°C 60hPa 50de 1 Reading 3µV) 7.69 3.52	nd Pocket Factor (dB) 0.08 0.08	Emission (dBµ\ 47.7 38.	Relat Test V Anter n Level //m) 77 6 39	ive Humidity Voltage nna Polarity Limits (dBµV/m) 74 54	59.7% DC 3.7V Vertical Margin (dB) -26.23 -15.4	Value Type Peak AVG	
Factor = Anter	Xia 22 96 Mc Meter F (dE 47 38 42	aomi Sour 2.5℃ 60hPa 50de 1 Reading 3µV) 7.69 3.52 2.68	nd Pocket Factor (dB) 0.08 0.08 2.21	Emission (dBµ\ 47.7 38. 44.8	Relat Test V Anter n Level //m) 77 6 39	ive Humidity Voltage nna Polarity Limits (dBµV/m) 74 54 74	59.7% DC 3.7V Vertical Margin (dB) -26.23 -15.4 -29.11	Value Type Value Type AVG peak	

RESULT: Pass



UT Name	Xiaomi So	und Pocket	Мс	odel Name	MDZ-37	MDZ-37-DB	
emperature	22.5 ℃		Re	lative Humidity	59.7%		
ressure	960hPa		Tes	st Voltage	DC 3.7\	/ by battery	
est Mode	Mode 2		An	tenna Polarity	Horizontal		
Frequency	Meter Reading	Factor	Emission Lev	el Limits	Margin		
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Value Type	
4880.000	46.29	0.14	46.43	74	-27.57	peak	
4880.000	37.54	0.14	37.68	54	-16.32	AVG	
7320.000	41.52	2.36	43.88	74	-30.12	peak	
7320.000	31.48	2.36	33.84	54	-20.16	AVG	
Remark:		<u> </u>					
Factor = Anter	nna Factor + Cab	le Loss – Pre-	amplifier.				
UT Name	Xiaomi So	und Pocket	Мо	odel Name	MDZ-37	-DB	
emperature			Re	lative Humidity	59.7%		
emperature	22.5 ℃				DC 3.7V by battery		
ressure	22.5℃ 960hPa			st Voltage	DC 3.7\	/ by battery	
•			Те		DC 3.7V	/ by battery	
ressure est Mode	960hPa Mode 2		Tes	st Voltage Itenna Polarity	Vertical	/ by battery	
ressure est Mode	960hPa Mode 2 Meter Reading	Factor	Tes An Emission Lev	st Voltage Itenna Polarity rel Limits	Vertical Margin		
ressure est Mode Frequency (MHz)	960hPa Mode 2 Meter Reading (dBµV)	(dB)	Emission Lev (dBµV/m)	st Voltage tenna Polarity rel Limits (dBµV/m)	Vertical Margin (dB)	Value Type	
ressure est Mode Frequency (MHz) 4880.000	960hPa Mode 2 Meter Reading (dBµV) 46.29	(dB) 0.14	Emission Lew (dBµV/m) 46.43	st Voltage atenna Polarity rel Limits (dBµV/m) 74	Margin (dB) -27.57	Value Type	
ressure est Mode Frequency (MHz) 4880.000 4880.000	960hPa Mode 2 Meter Reading (dBµV) 46.29 38.54	(dB) 0.14 0.14	Emission Lev (dBµV/m) 46.43 38.68	st Voltage tenna Polarity rel Limits (dBµV/m) 74 54	Vertical Margin (dB) -27.57 -15.32	Value Type peak AVG	
ressure est Mode Frequency (MHz) 4880.000 4880.000 7320.000	960hPa Mode 2 Meter Reading (dBμV) 46.29 38.54 41.42	(dB) 0.14 0.14 2.36	Emission Lev (dBµV/m) 46.43 38.68 43.78	st Voltage tenna Polarity rel Limits (dBµV/m) 74 54 74	Vertical Margin (dB) -27.57 -15.32 -30.22	Value Type peak AVG peak	
Frequency (MHz) 4880.000	960hPa Mode 2 Meter Reading (dBµV) 46.29 38.54	(dB) 0.14 0.14	Emission Lev (dBµV/m) 46.43 38.68	st Voltage tenna Polarity rel Limits (dBµV/m) 74 54	Vertical Margin (dB) -27.57 -15.32	Value Type peak AVG	
Frequency (MHz) 4880.000 7320.000	960hPa Mode 2 Meter Reading (dBμV) 46.29 38.54 41.42	(dB) 0.14 0.14 2.36	Emission Lev (dBµV/m) 46.43 38.68 43.78	st Voltage tenna Polarity rel Limits (dBµV/m) 74 54 74	Vertical Margin (dB) -27.57 -15.32 -30.22	Value Type peak AVG peak	
ressure est Mode Frequency (MHz) 4880.000 4880.000 7320.000	960hPa Mode 2 Meter Reading (dBμV) 46.29 38.54 41.42	(dB) 0.14 0.14 2.36	Emission Lev (dBµV/m) 46.43 38.68 43.78	st Voltage tenna Polarity rel Limits (dBµV/m) 74 54 74	Vertical Margin (dB) -27.57 -15.32 -30.22	Value Type peak AVG peak	

RESULT: Pass



EUT Name	Xiaomi Sour	Xiaomi Sound Pocket			Name	MDZ-37-	MDZ-37-DB		
Femperature	22.5 ℃		R	Relativ	e Humidity	59.7%			
Pressure	960hPa		Т	Test Voltage		DC 3.7V	DC 3.7V by battery		
Fest Mode	Mode 3			Anteni	na Polarity	Horizonta	Horizontal		
Frequency	Meter Reading	Factor	ctor Emission L		Limits	Margin	Value Type		
(MHz)	(dBµV)	(dB)	(dBµV/n	m)	(dBµV/m)	(dB)	value Type		
4960.000	46.95	0.22	47.17	7	74	-26.83	peak		
4960.000	37.84	0.22	38.06	6	54	-15.94	AVG		
7440.000	42.33	2.64	44.97	7	74	-29.03	peak		
7440.000	31.98	2.64	34.62	2	54	-19.38	AVG		
	nna Factor + Cabl					MDZ 07			
	nna Factor + Cabl			Model	Name	MDZ-37-	DB		
Factor = Anter			N		Name /e Humidity	MDZ-37- 59.7%	DB		
Factor = Anter	Xiaomi Sour		N R		e Humidity	59.7%	DB by battery		
Factor = Anter EUT Name Femperature	Xiaomi Sour 22.5℃		R T	Relativ Test Vo	e Humidity	59.7%			
Factor = Anter EUT Name Femperature Pressure Fest Mode	Xiaomi Sour 22.5℃ 960hPa Mode 3	nd Pocket	R T A	Relativ Test Vo Anteni	ve Humidity oltage na Polarity	59.7% DC 3.7V Vertical	by battery		
Factor = Anter	Xiaomi Sour 22.5℃ 960hPa Mode 3 Meter Reading	nd Pocket	R T A Emission I	Relativ Test Vo Antenn	ve Humidity oltage na Polarity Limits	59.7% DC 3.7V Vertical Margin	by battery		
Factor = Anter	Xiaomi Sour 22.5 °C 960hPa Mode 3 Meter Reading (dBµV)	nd Pocket Factor (dB)	R T Emission I (dBµV/n	Relativ Test Vo Antenn Level	ve Humidity oltage na Polarity Limits (dBµV/m)	59.7% DC 3.7V Vertical Margin (dB)	by battery Value Type		
Factor = Anter EUT Name Femperature Pressure Fest Mode Frequency (MHz) 4960.000	Xiaomi Sour 22.5℃ 960hPa Mode 3 Meter Reading (dBµV) 46.29	nd Pocket	R T A Emission I	Relativ Test Vo Anteni Level m)	ve Humidity oltage na Polarity Limits	59.7% DC 3.7V Vertical Margin			
Factor = Anter	Xiaomi Sour 22.5 °C 960hPa Mode 3 Meter Reading (dBµV)	Factor (dB) 0.22	R T Δ Emission I (dBµV/n 46.51	Relativ Test Vo Antenn Level m) 1 4	ve Humidity oltage na Polarity Limits (dBµV/m) 74	59.7% DC 3.7V Vertical Margin (dB) -27.49	by battery Value Type peak		
Factor = Anter	Xiaomi Sour 22.5℃ 960hPa Mode 3 Meter Reading (dBµV) 46.29 47.62	Factor (dB) 0.22 0.22	К К Т Етіззіоп I (dBµV/n 46.51 47.84	Relativ Test Vo Antenn Level (m) 1 4 9	ve Humidity oltage na Polarity Limits (dBµV/m) 74 54	59.7% DC 3.7V Vertical Margin (dB) -27.49 -6.16	by battery Value Type peak AVG		
Factor = Anter EUT Name Femperature Pressure Fest Mode Frequency (MHz) 4960.000 7440.000	Xiaomi Sour 22.5 °C 960hPa Mode 3 Meter Reading (dBµV) 46.29 47.62 41.55	Factor (dB) 0.22 0.22 2.64	К К К К К К К К К К К К К К К К К К К	Relativ Test Vo Antenn Level (m) 1 4 9	ve Humidity oltage na Polarity Limits (dBµV/m) 74 54 74	59.7% DC 3.7V Vertical Margin (dB) -27.49 -6.16 -29.81	by battery Value Type peak AVG peak		
Factor = Anter EUT Name Femperature Pressure Fest Mode Frequency (MHz) 4960.000 7440.000	Xiaomi Sour 22.5 °C 960hPa Mode 3 Meter Reading (dBµV) 46.29 47.62 41.55	Factor (dB) 0.22 0.22 2.64	К К К К К К К К К К К К К К К К К К К	Relativ Test Vo Antenn Level (m) 1 4 9	ve Humidity oltage na Polarity Limits (dBµV/m) 74 54 74	59.7% DC 3.7V Vertical Margin (dB) -27.49 -6.16 -29.81	by battery Value Type peak AVG peak		

RESULT: Pass



Emperature ressure est Mode Frequency N (MHz) 4804.000 4804.000 7206.000 7206.000 1	22.5℃ 960hPa Mode 4 Weter Reading (dBµV) 48.64 37.52 42.15	Factor (dB) 0.08		Test \ Anter	ive Humidity /oltage nna Polarity	Horizonta	by battery al	
Frequency M (MHz) 4804.000 4804.000 7206.000	Mode 4 Meter Reading (dBµV) 48.64 37.52	(dB)	Emission	Anter	nna Polarity	Horizonta		
Frequency N (MHz) 4804.000 4804.000 7206.000	Meter Reading (dBµV) 48.64 37.52	(dB)	Emission				al	
(MHz) 4804.000 4804.000 7206.000	(dBµV) 48.64 37.52	(dB)		Level	11			
(MHz) 4804.000 4804.000 7206.000	(dBµV) 48.64 37.52	(dB)		Level	1.1.1.1.1.			
4804.000 4804.000 7206.000	48.64 37.52	()	(dBµV/ı		Limits	Margin	Value Type	
4804.000 7206.000	37.52	0.08		m)	(dBµV/m)	(dB)	value Type	
7206.000			48.72	2	74	-25.28	peak	
	42.15	0.08	37.6		54	-16.4	AVG	
7206.000		2.21	44.36	6	74	-29.64	peak	
	31.59	2.21	33.8		54	-20.2	AVG	
1 I							<u> </u>	
Remark: Factor = Antenna	Factor + Cable	Loss – Pre-	amplifier.					
UT Name	Xiaomi Sour	nd Pocket		Mode	I Name	MDZ-37-	MDZ-37-DB	
emperature	22.5 ℃			Relati	ive Humidity	59.7%		
ressure	960hPa			Test \	/oltage	DC 3.7V	by battery	
est Mode	Mode 4			Anter	nna Polarity	Vertical		
Frequency N	Meter Reading	Factor	Emission		Limits	Margin	1	
(MHz)	(dBµV)	(dB)	(dBµV/r		(dBµV/m)	(dB)	Value Type	
4804.000	47.68	0.08	47.76	· ·	74	-26.24	peak	
4804.000	38.52	0.08	38.6	-	54	-20.24	AVG	
7206.000	42.91	2.21	45.12		74	-15.4	peak	
7206.000	31.24	2.21	33.45		54	-28.88	AVG	
1200.000	31.24	۷.۷۱	33.45	J	54	-20.00		
Domoriu								
Remark: Factor = Antenna	<u> </u>							

RESULT: Pass



UT Name	Xiaomi Sou	Ind Pocket	Mode	el Name	MDZ-37	-DB
emperature	22.5 ℃		Relat	ive Humidity	59.7%	
ressure	960hPa		Test	Voltage	DC 3.7V	' by battery
est Mode	Mode 5	Antei	nna Polarity	Horizontal		
Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Value Trme
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Value Type
4880.000	48.62	0.14	48.76	74	-25.24	peak
4880.000	38.17	0.14	38.31	54	-15.69	AVG
7320.000	41.24	2.36	43.6	74	-30.4	peak
7320.000	32.49	2.36	34.85	54	-19.15	AVG
Remark:						
Factor = Anter	nna Factor + Cabl	e Loss – Pre-	amplifier.			
UT Name	Xiaomi Sou	Ind Pocket	Mode	el Name	MDZ-37	-DB
emperature	22.5 ℃		Relat	ive Humidity	59.7%	
ressure	960hPa		Test	Voltage	DC 3.7V by battery	
est Mode	Mode 5		Antei	nna Polarity	Vertical	
	Matan Daradia		Eminatory Law 1	L ins it-	Man	
Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Value Type
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	
(MHz) 4880.000	(dBµV) 46.25	(dB) 0.14	(dBµV/m) 46.39	(dBµV/m) 74	(dB) -27.61	peak
(MHz) 4880.000 4880.000	(dBµV) 46.25 37.54	(dB) 0.14 0.14	(dBµV/m) 46.39 37.68	(dBµV/m) 74 54	(dB) -27.61 -16.32	peak AVG
(MHz) 4880.000 4880.000 7320.000	(dBµV) 46.25 37.54 41.35	(dB) 0.14 0.14 2.36	(dBµV/m) 46.39 37.68 43.71	(dBµV/m) 74 54 74	(dB) -27.61 -16.32 -30.29	peak AVG peak
(MHz) 4880.000 4880.000	(dBµV) 46.25 37.54	(dB) 0.14 0.14	(dBµV/m) 46.39 37.68	(dBµV/m) 74 54	(dB) -27.61 -16.32	peak AVG
(MHz) 4880.000 4880.000 7320.000	(dBµV) 46.25 37.54 41.35	(dB) 0.14 0.14 2.36	(dBµV/m) 46.39 37.68 43.71	(dBµV/m) 74 54 74	(dB) -27.61 -16.32 -30.29	peak AVG peak
(MHz) 4880.000 4880.000 7320.000	(dBµV) 46.25 37.54 41.35	(dB) 0.14 0.14 2.36	(dBµV/m) 46.39 37.68 43.71	(dBµV/m) 74 54 74	(dB) -27.61 -16.32 -30.29	peak AVG peak

RESULT: Pass

emperature	00 5 °O					MDZ-37-DB		
	22.5 C	22.5 °C Relative Humidity 59.7%			59.7%			
ressure	960hPa		Т	est Voltage	DC 3.7V	by battery		
est Mode	Mode 6		A	ntenna Polarity	Horizonta	Horizontal		
			·		·			
Frequency	Meter Reading	Factor	Emission L	evel Limits	Margin	Value Type		
(MHz)	(dBµV)	(dB)	(dBµV/m	n) (dBµV/m)	(dB)	value Type		
4960.000	47.64	0.22	47.86	74	-26.14	peak		
4960.000	38.54	0.22	38.76	54	-15.24	AVG		
7440.000	42.16	2.64	44.8	74	-29.2	peak		
7440.000	31.24	2.64	33.88	54	-20.12	AVG		
Remark:								
Factor = Anten	na Factor + Cabl	e Loss – Pre-	-amplifier.					
UT Name	Xiaomi Sou	nd Pocket	N	lodel Name	MDZ-37-	DB		
emperature	22.5 ℃		R	elative Humidity	59.7%	59.7%		
ressure	960hPa		Т	est Voltage	DC 3.7V	DC 3.7V by battery		
est Mode	Mode 6		A	ntenna Polarity	Vertical	Vertical		
Frequency	Motor Dooding	Factor	Emission L	evel Limits	Margin			
Frequency (MHz)	Meter Reading (dBµV)	(dB)	(dBµV/m		Margin (dB)	Value Type		
4960.000	(овру) 47.68	(uB) 0.22	(ubµv/ii 47.9	<u>(dBµV/II)</u> 74	(ub) -26.1	peak		
4960.000	38.12	0.22	38.34	54	-20.1	AVG		
7440.000	41.26	2.64	43.9	74	-13.00	peak		
7440.000	32.46	2.64	35.1	54	-30.1	AVG		
7440.000	52.40	2.04			-10.9	////		
Remark:								

RESULT: Pass

Note:

- 1. The amplitude of other spurious emissions from 1G to 25 GHz which are attenuated more than 20 dB below the permissible value need not be reported.
- 2. Factor = Antenna Factor + Cable loss Pre-amplif5er gain, Margin = Emission Level-Limit.
- 3. The "Factor" value can be calculated automatically by software of measurement system.



EUT Name	Xiaomi Sound Pocket	Model Name	MDZ-37-DB
Temperature	25℃	Relative Humidity	55.4%
Pressure	960hPa	Test Voltage	DC 3.7V by battery
Test Mode	Mode 1	Antenna Polarity	Horizontal

Test Graph for Peak Measurement



Test Graph for Average Measurement



RESULT: Pass



EUT Name	Xiaomi Sound Pocket	Model Name	MDZ-37-DB
Temperature	25℃	Relative Humidity	55.4%
Pressure	960hPa	Test Voltage	DC 3.7V by battery
Test Mode	Mode 1	Antenna Polarity	Vertical

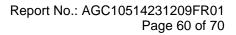
Test Graph for Peak Measurement



Test Graph for Average Measurement



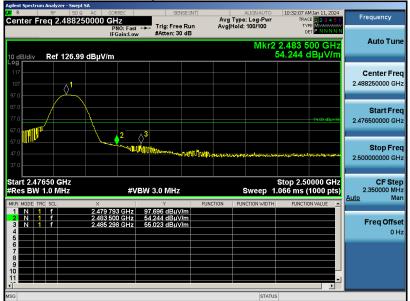
RESULT: Pass



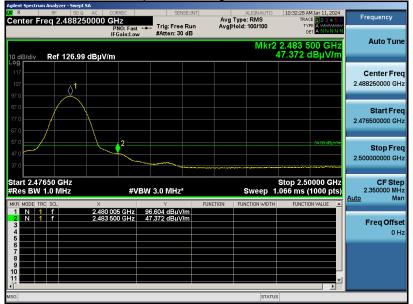


EUT Name	Xiaomi Sound Pocket	Model Name	MDZ-37-DB
Temperature	25 ℃	Relative Humidity	55.4%
Pressure	960hPa	Test Voltage	DC 3.7V by battery
Test Mode	Mode 3	Antenna Polarity	Horizontal

Test Graph for Peak Measurement



Test Graph for Average Measurement

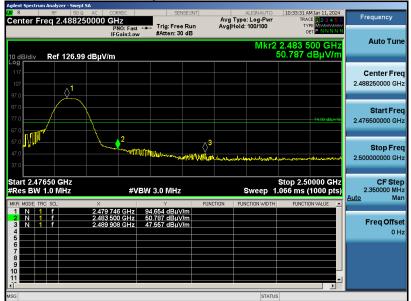


RESULT: Pass



EUT Name	Xiaomi Sound Pocket	Model Name	MDZ-37-DB
Temperature	25 ℃	Relative Humidity	55.4%
Pressure	960hPa	Test Voltage	DC 3.7V by battery
Test Mode	Mode 3	Antenna Polarity	Vertical

Test Graph for Peak Measurement



Test Graph for Average Measurement

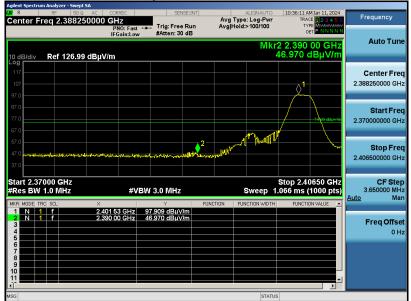


RESULT: Pass

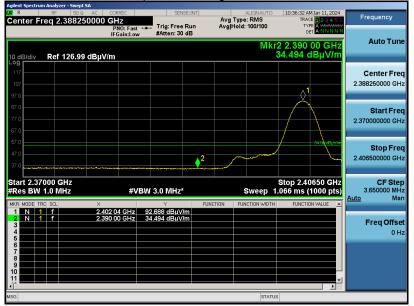


EUT Name	Xiaomi Sound Pocket	Model Name	MDZ-37-DB
Temperature	25℃	Relative Humidity	55.4%
Pressure	960hPa	Test Voltage	DC 3.7V by battery
Test Mode	Mode 4	Antenna Polarity	Horizontal

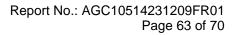
Test Graph for Peak Measurement



Test Graph for Average Measurement



RESULT: Pass



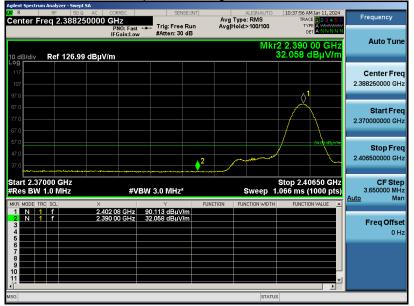


Balla Euge Ellission lest Results for Restricted Ballas			
EUT Name	Xiaomi Sound Pocket	Model Name	MDZ-37-DB
Temperature	25 ℃	Relative Humidity	55.4%
Pressure	960hPa	Test Voltage	DC 3.7V by battery
Test Mode	Mode 4	Antenna Polarity	Vertical

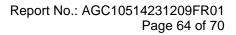
Test Graph for Peak Measurement



Test Graph for Average Measurement



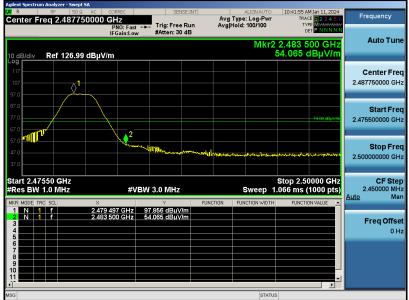
RESULT: Pass



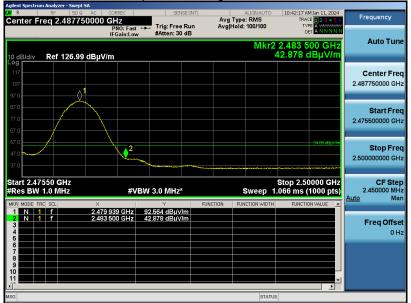


EUT Name	Xiaomi Sound Pocket	Model Name	MDZ-37-DB
Temperature	25 ℃	Relative Humidity	55.4%
Pressure	960hPa	Test Voltage	DC 3.7V by battery
Test Mode	Mode 6	Antenna Polarity	Horizontal

Test Graph for Peak Measurement



Test Graph for Average Measurement

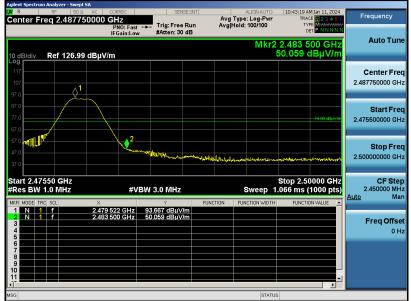


RESULT: Pass

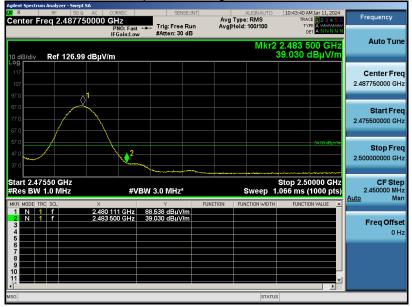


EUT Name	Xiaomi Sound Pocket	Model Name	MDZ-37-DB
Temperature	25℃	Relative Humidity	55.4%
Pressure	960hPa	Test Voltage	DC 3.7V by battery
Test Mode	Mode 6	Antenna Polarity	Vertical

Test Graph for Peak Measurement



Test Graph for Average Measurement



<u>**RESULT: Pass</u>** Note: The factor had been edited in the "Input Correction" of the Spectrum Analyzer.</u>



12. AC Power Line Conducted Emission Test

12.1 Measurement Limit

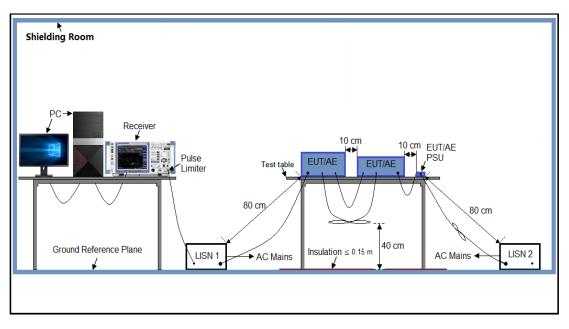
Frequency	Maximum RF Line Voltage		
Frequency	Q.P. (dBµV)	Average (dBµV)	
150kHz~500kHz	66-56	56-46	
500kHz~5MHz	56	46	
5MHz~30MHz	60	50	

Note:

1. The lower limit shall apply at the transition frequency.

2. The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.50 MHz

12.2 Measurement Setup (Block Diagram of Configuration)





12.3 Preliminary Procedure of Line Conducted Emission Test

- 1. The equipment was set up as per the test configuration to simulate typical actual usage per the user's manual. When the EUT is a tabletop system, a wooden table with a height of 0.8 meters is used and is placed on the ground plane as per ANSI C63.10 (see Test Facility for the dimensions of the ground plane used). When the EUT is a floor-standing equipment, it is placed on the ground plane which has a 3-12 mm non-conductive covering to insulate the EUT from the ground plane.
- 2. Support equipment, if needed, was placed as per ANSI C63.10.
- 3. All I/O cables were positioned to simulate typical actual usage as per ANSI C63.10.
- 4. All support equipment received AC120V/60Hz power from a LISN, if any.
- 5. The EUT received DC 5V power from adapter which received AC120V/60Hz power from a LISN.
- 6. The test program was started. Emissions were measured on each current carrying line of the EUT using a spectrum Analyzer / Receiver connected to the LISN powering the EUT. The LISN has two monitoring points: Line 1 (Hot Side) and Line 2 (Neutral Side). Two scans were taken: one with Line 1 connected to Analyzer / Receiver and Line 2 connected to a 50 ohm load; the second scan had Line 1 connected to a 50 ohm load and Line 2 connected to the Analyzer / Receiver.
- 7. Analyzer / Receiver scanned from 150 kHz to 30MHz for emissions in each of the test modes.
- 8. During the above scans, the emissions were maximized by cable manipulation.
- 9. The test mode(s) were scanned during the preliminary test.

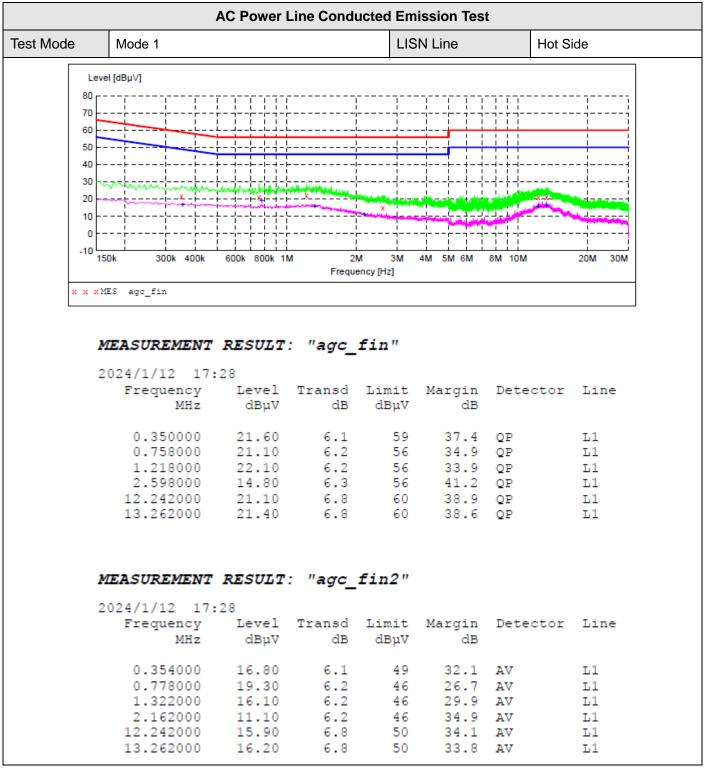
Then, the EUT configuration and cable configuration of the above highest emission level were recorded for reference of final testing.

12.4 Final Procedure of Line Conducted Emission Test

- 1. EUT and support equipment was set up on the test bench as per step 2 of the preliminary test.
- A scan was taken on both power lines, Line 1 and Line 2, recording at least the six highest emissions. Emission frequency and amplitude were recorded into a computer in which correction factors were used to calculate the emission level and compare reading to the applicable limit. If EUT emission level was less – 2dB to the A.V. limit in Peak mode, then the emission signal was re-checked using Q.P and Average detector.
- 3. The test data of the worst case condition(s) was reported on the Summary Data page.

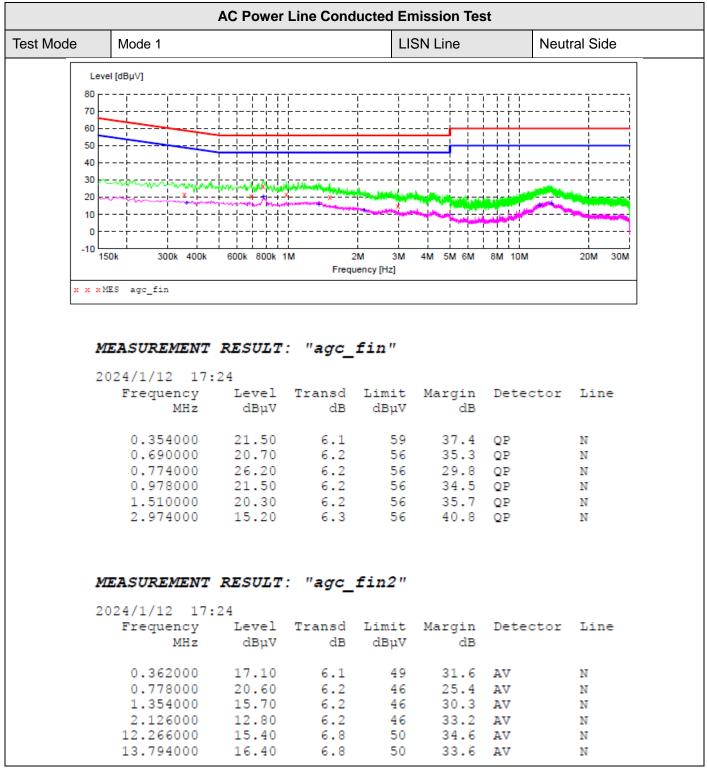
12.5 Measurement Results





RESULT: Pass





RESULT: PASS

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Appendix I: Photographs of Test Setup

Refer to the Report No.: AGC10514231209AP02

Appendix II: Photographs of Test EUT

Refer to the Report No.: AGC10514231209AP03

-----End of Report-----



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1. All samples and goods are accepted by the Attestation of Global Compliance (Shenzhen) Co., Ltd (the "Company") solely for testing and reporting in accordance with the following terms and conditions. The company provides its services on the basis that such terms and conditions constitute express agreement between the company and any person, firm or company requesting its services (the "Clients").

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3. The Company shall not be called or be liable to be called to give evidence or testimony on the Report in a court of law without its prior written consent, unless required by the relevant governmental authorities, laws or court orders.

4. In the event of the improper use of the report as determined by the Company, the Company reserves the right to withdraw it, and to adopt any other additional remedies which may be appropriate.

5. Samples submitted for testing are accepted on the understanding that the Report issued cannot form the basis of, or be the instrument for, any legal action against the Company.

6. The Company will not be liable for or accept responsibility for any loss or damage however arising from the use of information contained in any of its Reports or in any communication whatsoever about its said tests or investigations.

7. Clients wishing to use the Report in court proceedings or arbitration shall inform the Company to that effect prior to submitting the sample for testing.

8. The Company is not responsible for recalling the electronic version of the original report when any revision is made to them. The Client assumes the responsibility to providing the revised version to any interested party who uses them.

9. Subject to the variable length of retention time for test data and report stored hereinto as otherwise specifically required by individual accreditation authorities, the Company will only keep the supporting test data and information of the test report for a period of six years. The data and information will be disposed of after the aforementioned retention period has elapsed. Under no circumstances shall we provide any data and information which has been disposed of after retention period. Under no circumstances shall we be liable for damage of any kind, including (but not limited to) compensatory damages, lost profits, lost data, or any form of special, incidental, indirect, consequential or punitive damages of any kind, whether based on breach of contract of warranty, tort (including negligence), product liability or otherwise, even if we are informed in advance of the possibility of such damages.