

TEST REPORT

Report No.: SHATBL2410021W02

Applicant	1	Rapsodo Pte. Ltd.	
Product Name	2	MLM2PRO™	

Brand Name Rapsodo

MLM2.0P **Model Name**

- FCC ID 2AH3O-MLM2PRO
- **Test Standard** 47 CFR 15.247
- Date of Test 2024.10.10~2024.10.31

Report Prepared by

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Authorized Signatory

(Terry Yang)



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REVISION HISTORY

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	Revised by	Revisions	Issue Date	Rev.
A0 2024.11.01 Initial Release	Terry Yang	Initial Release	2024.11.01	A0

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DECLARATION OF REPORT

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1. The device has been tested by ATBL, and the test results show that the equipment under test (EUT) is in compliance with the requirements of 47 CFR 15.247. And it is applicable only to the tested sample identified in the report.

2. This report shall not be reproduced except in full, without the written approval of ATBL, this document only be altered or revised by ATBL, personal only, and shall be noted in the revision of the document.

3. The general information of EUT in this report is provided by the customer or manufacture, ATBL is only responsible for the test data but not for the information provided by the customer or manufacture.

4. The results in this report is only apply to the sample as tested under conditions. The customer or manufacturer is responsible for ensuring that the additional production units of this model have the same electrical and mechanical components.

5. In this report, ' \Box ' indicates that EUT does not support content after ' \Box ', and ' \Box ' indicates that it supports content after ' \Box '

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Report Section			Judgment	Remark
3.1	47 CFR 15.247(b)(3)	Maximum Peak Conducted Output Power	PASS	A
3.2	D' -	Duty Cycle		2- 2
s.,	47 CFR 15.247(a)(2)	6dB Bandwidth	PASS	-8
3.3	×-2'	99% Bandwidth	Report only	s-
3.4	47 CFR 15.247(e)	Power Spectral Density	PASS	-
3.5	47 CFR 15.247(d) Conducted Band Edge		PASS	P.
3.6	47 CFR 15.247(d)	Conducted Spurious Emission	PASS	- 7
3.7	47 CFR 15.247(d)/15.209(a)/15.205(a)	Radiated Spurious Emission and Restricted Band	PASS	3
3.8	47 CFR 15.207(a)	AC Power-Line Conducted Emission	PASS	2 -28
3.9	47 CFR 15.203	Antenna Requirements	PASS	2

SUMMARY OF TEST RESULT



1. GENERAL DESCRIPTION

1.1. Applicant

Name : Rapsodo Pte. Ltd.

Address : 20 Ayer Rajah Crescent #08-05 Singapore 139964

1.2. Manufacturer

- Name : Rapsodo Pte. Ltd.
- Address : 20 Ayer Rajah Crescent #08-05 Singapore 139964

1.3. Factory

- Name : Rapsodo Pte. Ltd.
- Address : 20 Ayer Rajah Crescent #08-05 Singapore 139964



1.4. General Information of EUT

General Information				
Equipment Name	MLM2PRO™			
Brand Name	Rapsodo			
Model Name	MLM2.0P			
Series Model	N/A			
Model Difference	N/A			
SN or IMEI Code	FPC			
Battery	Rated Voltage: 7.4V Charge Limit Voltage: 8.4V Capacity: 24.42Wh			
Hardware Version	G 1.11			
Software Version	3.0.0			
Connecting I/O Port(s)	Refer to the remark below.			

Remark:

The above information of EUT was declared by manufacturer. Please refer to the specifications or user's manual for more detailed description.

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1.5. Equipment Specification

Equipment Specification					
Frequency Range	2400MHz - 2483.5MHz	S T 3			
Number of Channels	40	R & F B			
Carrier Frequency of Each Channel	$2402 + n*2$ MHz; $n = 0 \sim 3$	39			
Maximum Output Dama Ta Antonna	☑Bluetooth LE(1Mbps):	7.048dBm (0.005067W)			
Maximum Output Power To Antenna	☑Bluetooth LE(2Mbps):	6.971dBm (0.004979W)			
Type of Modulation	Bluetooth LE:	GFSK			
Antenna Type	FPC	D PN			
Antenna 0 Gain	5dBi	F BY S			

1.6. Modification of EUT

No modifications are made to the EUT during all test items.

1.7. Laboratory Information

Company Name :	Shanghai ATBL Technology Co., Ltd.
Address :	Building 8,No.160 Basheng Road, Waigaoqiao Free Trade Zone, Pudong New Area, Shanghai
Telephone :	+86(0)21-51298625

1.8. Applicable Standards

According to the specifications of the manufacturer, the EUT must comply with the requirements of the following standards:

47 CFR Part 15 Subpart C §15.247

FCC KDB 558074 D01 15.247 Meas Guidance v05r02

ANSI C63.10-2013

Remark:

All test items were verified and recorded according to the standards and without any deviation during the est.

test.



2. TEST CONFIGURATION OF EUT

2.1. Carrier Frequency Channel

Frequency Band	Channel	Frequency MHz	Channel	Frequency MHz	Channel	Frequency MHz
	00	2402	14	2430	28	2458
	01	2404	15	2432	29	2460
	02	2406	16	2434	30	2462
	03	2408	17	2436	31	2464
	04	2410	18	2438	32	2466
	05	2412	19	2440	33	2468
2400 - 2483.5	06	2414	20	2442	34	2470
MHz	07	2416	21	2444	35	2472
	08	2418	22	2446	36	2474
	09	2420	23	2448	37	2476
	10	2422	24	2450	38	2478
	11	2424	25	2452	39	2480
	12	2426	26	2454	- 32	V 20
	13	2428	27	2456	21 -	F

Remark:

Low Channel: CH 00_2402 MHz; Middle Channel: CH 19_2440 MHz; High Channel: CH 39_2480

MHz.

2.2. Test Modes

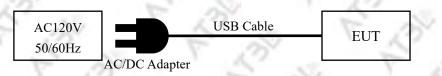
The table below is showing all test modes to demonstrate in compliance with the standard.

Summary Table of Test Modes					
Test Item	Data Rate / Modulation				
Test Item	☑Bluetooth LE(1Mbps)	☑Bluetooth LE(2Mbps)			
For Conducted and Radiated Test	Mode 1: CH00_2402 MHz	Mode 4: CH00_2402 MHz			
	Mode 2: CH19_2440 MHz	Mode 5: CH19_2440 MHz			
	Mode 3: CH39_2480 MHz Mode 6: CH39_2480 MHz				
For AC Power-line Conducted Emission	Mode 7: Keep Bluetooth link under the max	imum output power			

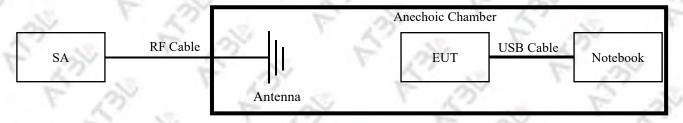


2.3. Block Diagram of Test System

2.3.1. For AC Power-Line Conducted Emission



2.3.2. For Radiated Spurious Emission



2.3.3. For Conducted Test

SA	RF Cable	FUT	USB Cable	Notebook
SA	2	EUT	- N	Notebook

2.4. Description of Support Units

NO.	Unit	Brand	Model	Description
1	PC	Redmi	Redmi G	1
2	USB Line	ZL	24AWG	3150

2.5.

2.6. Test Software and Power Level

During the test, the channel and power control software provided by the customer is used to control the operation channel and output power level.

2.7. EUT Operating Conditions

For AC power-line conducted emission, the EUT was connected under the large package sizes transmission.

For radiated spurious emission and conducted test, the engineering test program was provided and make the EUT to continuous transmit/receive.



2.8. Equipment List

2.8.1. For AC Power-Line Conducted Emission

Equipment Name	Manufacturer	Model	Serial No.	Equipment No.	Calibration Until
Test Receiver	R&S	ESPI	101679	SHATBL-E012	2025.05.21
LISN	R&S	ENV216	100300	SHATBL-E013	2025.05.21
LISN	R&S	ENV216	100333	SHATBL-E041	2025.05.21
Thermometer	DeLi	N/A	N/A	SHATBL-E016	2025.09.21
Test Software	FALA	EZ-EMC	N/A	SHATBL-E046	N/A

2.8.2. For Radiated Spurious Emission

Equipment Name	Manufacturer	Model	Serial No.	Equipment No.	Calibration Until
Signal analyzer	Agilent	N9020A	MY50200811	SHATBL-E017	2025.05.21
Amplifier	JPT	JPA0118-55-303A	1910001800055000	SHATBL-E006	2025.05.21
Amplifier	JPT	JPA-10M1G32	21010100035001	SHATBL-E005	2025.05.21
Antenna/Turn table Controller	Brilliant	N/A	N/A	SHATBL-E007	N/A
Loop Antenna	Daze	ZN30900C	20077	SHATBL-E042	2025.05.21
Bilog Antenna	SCHWARZBECK	VULB 9168	01174	SHATBL-E008	2025.05.21
Broad-band Horn Antenna	SCHWARZBECK	BBHA 9120D	02334	SHATBL-E009	2025.05.21
Horn Antenna	COM-POWER	AH-1840	10100008	SHATBL-E043	2025.05.21
Thermometer	DeLi	N/A	N/A	SHATBL-E015	2025.09.21
Test Software	FALA	EMC-RI	N/A	SHATBL-E046	N/A

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2.8.3. For Conducted Test

2.8.3. For Conducted Test		1	05	1 1	5 F
Equipment Name	Manufacturer	Model	Serial No.	Equipment No.	Calibration Until
Power meter	Anritsu	ML2496A	1935001	SHATBL-W030	2025.09.28
Power sensor	Anritsu	MA2411B	1911006	SHATBL-W031	2025.09.28
Power sensor	DARE	RPR3006W	16I00054SN016	SHATBL-W008	2025.09.28
Power sensor	DARE	RPR3006W	RPR6W-2001005	SHATBL-W032	2025.09.28
Power sensor	Rediteq	RPR3006W	RPR6W-2201002	SHATBL-W033	2024.11.15
Power sensor	Rediteq	RPR3006W	RPR6W-2201003	SHATBL-W034	2024.11.15
Power sensor	Keysight	U2021XA	MY59120004	SHATBL-W035	2025.08.13
Adjustable Attenuator	Agilent	8494B	MY42144015	SHATBL-W009	2025.09.28
Adjustable Attenuator	Agilent	8496B	MY42143776	SHATBL-W010	2025.09.28
Environmental Test Chamber	KSON	THS-B6C-150	9159K	SHATBL-W019	2025.01.17
Signal analyzer	Keysight	N9020A	MY50510136	SHATBL-W003	2025.09.28
Vector signal generator	Keysight	N5182B	MY57300196	SHATBL-W005	2025.09.28
Vector signal generator	Agilent	N5182A	MY50143555	SHATBL-W037	2025.07.17
Analog signal generator	Keysight	N5173B	MY60403026	SHATBL-W038	2025.07.17
Wideband radio communication tester	R&S	CMW500	101331	SHATBL-W007	2025.09.28
Spectrum analyzer	R&S	FSV40-N	101761	SHATBL-W036	2025.08.22
Switch Box	N/A	RFSW3003328	RFSW201019	SHATBL-W029	N/A
Thermometer	DeLi	N/A	N/A	SHATBL-W012	2025.09.21
Test Software	FALA	LZ-RF	N/A	SHATBL-W020	N/A

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2.9. 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 %.

No.	Item	Uncertainty
1	RF output power, conducted	±0.958dB
2	Conducted spurious emissions	±2.988dB
3	All emissions, radiated 30MHz-1GHz	±2.50dB
4	All emissions, radiated 1GHz-18GHz	±3.51dB
5	Occupied bandwidth	±23.20Hz
6	Power spectral density	±0.886dB

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3. TEST RESULT

3.1. Maximum Peak Conducted Output Power

3.1.1. Limit

<u>47 CFR 15.247(b)(3)</u>: For systems using digital modulation in the 902-928 MHz, 2400-2483.5 MHz, and 5725-5850 MHz bands: 1 Watt.

<u>47 CFR 15.247(b)(4)</u>: 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 by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

<u>47 CFR 15.247(c)(1)(i)</u>: Systems operating in the 2400–2483.5 MHz band that are used exclusively for fixed, point-to-point operations may employ transmitting antennas with directional gain greater than 6 dBi provided the maximum conducted output power of the intentional radiator is reduced by 1 dB for every 3 dB that the directional gain of the antenna exceeds 6 dBi.

3.1.2. Test Procedure

<u>ANSI C63.10-2013 clause 11.9.1.3 PKPM1 Peak power meter method</u>: The maximum peak conducted output power may be measured using a broadband peak RF power meter. The power meter shall have a video bandwidth that is greater than or equal to the DTS bandwidth and shall use a fast-responding diode detector.

<u>ANSI C63.10-2013 clause 11.9.2.3.1 Method AVGPM</u>: Method AVGPM is a measurement using an RF average power meter, as follows:

1. As an alternative to spectrum analyzer or EMI receiver measurements, measurements may be performed using a wideband RF power meter with a thermocouple detector or equivalent if all of the conditions listed below are satisfied:

① The EUT is configured to transmit continuously, or to transmit with a constant duty cycle.

② At all times when the EUT is transmitting, it shall be transmitting at its maximum power control level.

③ The integration period of the power meter exceeds the repetition period of the transmitted signal by at least a factor of five.

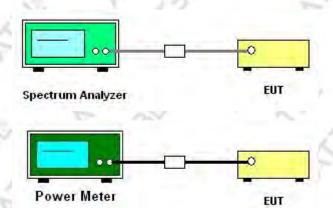
2. If the transmitter does not transmit continuously, measure the duty cycle, D, of the transmitter output signal as described in <u>ANSI C63.10-2013 clause 11.6</u>.

3. Measure the average power of the transmitter. This measurement is an average over both the ON and OFF periods of the transmitter.

4. Adjust the measurement in dBm by adding $[10 \log (1 / D)]$, where D is the duty cycle.



3.1.3. Test Setup



3.1.4. Test Result of Maximum Peak Conducted Output Power Please refer to the Appendix A.



3.2. Duty Cycle

3.2.1. Limit

There is no limit requirement for Duty Cycle.

3.2.2. Test Procedure

<u>ANSI C63.10-2013 clause 11.6</u>: Measurements of duty cycle and transmission duration shall be performed using one of the following techniques:

1. A diode detector and an oscilloscope that together have a sufficiently short response time to permit accurate measurements of the ON and OFF times of the transmitted signal.

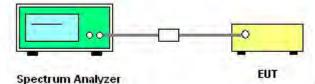
2. The zero-span mode on a spectrum analyzer or EMI receiver if the response time and spacing between bins on the sweep are sufficient to permit accurate measurements of the ON and OFF times of the transmitted signal:

1 Set the center frequency of the instrument to the center frequency of the transmission.

- (2) Set $RBW \ge OBW$ if possible; otherwise, set RBW to the largest available value.
- ③ Set VBW \geq RBW. Set detector = peak or average.

(4) The zero-span measurement method shall not be used unless both RBW and VBW are > 50/T and the number of sweep points across duration T exceeds 100. (For example, if VBW and/or RBW are limited to 3 MHz, then the zero-span method of measuring the duty cycle shall not be used if $T \le 16.7$ µs.)

3.2.3. Test Setup



3.2.4. Test Result of Duty Cycle

Please refer to the Appendix A.



3.3. 6dB Bandwidth and 99% Bandwidth

3.3.1. Limit

<u>47 CFR 15.247(a)(2)</u>: Systems using digital modulation techniques may operate in the 902-928 MHz, 2400-2483.5 MHz, and 5725-5850 MHz bands. The minimum 6 dB bandwidth shall be at least 500 kHz. There is no limit requirement for 99% Bandwidth.

3.3.2. Test Procedure

1. The testing of 6dB Bandwidth follows <u>ANSI C63.10-2013 clause 11.8.1</u>: The steps for the first option are as follows:

- (1) Set RBW = 100 kHz.
- (2) Set the VBW \geq [3 × RBW].
- \bigcirc Detector = peak.
- (4) Trace mode = max hold.
- \bigcirc Sweep = auto couple.
- (6) Allow the trace to stabilize.

(7) Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

2. The testing of 99% Bandwidth follows <u>ANSI C63.10-2013 clause 6.9.3</u>: The occupied bandwidth is the frequency bandwidth such that, below its lower and above its upper frequency limits, the mean powers are each equal to 0.5% of the total mean power of the given emission. The following procedure shall be used for measuring 99% power bandwidth:

① The instrument center frequency is set to the nominal EUT channel center frequency. The frequency span for the spectrum analyzer shall be between 1.5 times and 5.0 times the OBW.

(2) The nominal IF filter bandwidth (3 dB RBW) shall be in the range of 1% to 5% of the OBW, and VBW shall be approximately three times the RBW, unless otherwise specified by the applicable requirement.

③ Set the reference level of the instrument as required, keeping the signal from exceeding the maximum input mixer level for linear operation. In general, the peak of the spectral envelope shall be more than [10 log (OBW/RBW)] below the reference level. Specific guidance is given in <u>ANSI</u> <u>C63.10-2013 clause 4.1.5.2</u>.

(4) Step a) through step c) might require iteration to adjust within the specified range.

(5) Video averaging is not permitted. Where practical, a sample detection and single sweep mode shall be used. Otherwise, peak detection and max hold mode (until the trace stabilizes) shall be used.

(6) Use the 99% power bandwidth function of the instrument (if available) and report the measured bandwidth.

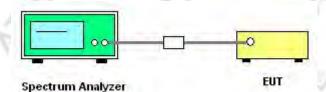
(7) If the instrument does not have a 99% power bandwidth function, then the trace data points are recovered and directly summed in linear power terms. The recovered amplitude data points, beginning at

the lowest frequency, are placed in a running sum until 0.5% of the total is reached; that frequency is recorded as the lower frequency. The process is repeated until 99.5% of the total is reached; that frequency is recorded as the upper frequency. The 99% power bandwidth is the difference between these two frequencies.

(8) The occupied bandwidth shall be reported by providing plot(s) of the measuring instrument display; the plot axes and the scale units per division shall be clearly labeled. Tabular data may be reported in addition to the plot(s).

3.3.3. Test Setup

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3.3.4. Test Result of 6dB Bandwidth and 99% Bandwidth Please refer to the Appendix A.



3.4. Power Spectral Density

3.4.1. Limit

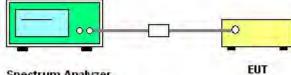
47 CFR 15.247(e): For digitally modulated systems, the power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission.

3.4.2. Test Procedure

ANSI C63.10-2013 clause 11.10.2: The following procedure shall be used if maximum peak conducted output power was used to determine compliance, and it is optional if the maximum conducted (average) output power was used to determine compliance:

- 1. Set analyzer center frequency to DTS channel center frequency.
- 2. Set the span to 1.5 times the DTS bandwidth.
- 3. Set the RBW to 3 kHz.
- 4. Set the VBW \geq [3 × RBW].
- 5. Detector = peak.
- 6. Sweep time = auto couple.
- 7. Trace mode = max hold.
- 8. Allow trace to fully stabilize.
- 9. Use the peak marker function to determine the maximum amplitude level within the RBW.

3.4.3. Test Setup



Spectrum Analyzer

3.4.4. Test Result of Power Spectral Density

Please refer to the Appendix A.

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3.5. Conducted Band Edge

3.5.1. Limit

<u>47 CFR 15.247(d)</u>: In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits.

3.5.2. Test Procedure

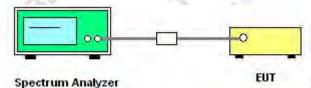
- 1. The testing follows <u>ANSI C63.10-2013 clause 11.13</u>.
- 2. Set to the maximum power setting and enable the EUT transmit continuously.

3. Set RBW = 100 kHz, VBW=300 kHz, Peak Detector. Conducted Band Edge measured in any 100 kHz bandwidth outside of the authorized frequency band shall be attenuated by at least 20 dB relative to the 100 kHz bandwidth within the band that contains the highest level of the desired power when maximum peak conducted output power procedure is used. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, the attenuation required under this paragraph shall be 30 dB instead of 20 dB.

4. Measure and record the results in the test report.

5. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.

3.5.3. Test Setup



3.5.4. Test Result of Conducted Band Edge Please refer to the Appendix A.



3.6. Conducted Spurious Emission

3.6.1. Limit

<u>47 CFR 15.247(d)</u>: In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits.

3.6.2. Test Procedure

1. The testing follows ANSI C63.10-2013 clause 7.8.8.

2. 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.

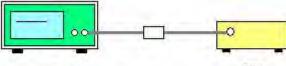
3. Set to the maximum power setting and enable the EUT transmit continuously.

4. Set RBW = 100 kHz, VBW = 300 kHz, scan up through 10th harmonic. All harmonics / spurs must be at least 20 dB down from the highest emission level within the authorized band as measured with a 100 kHz RBW.

5. Measure and record the results in the test report.

6. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.

3.6.3. Test Setup



Spectrum Analyzer

EUT

3.6.4. Test Result of Conducted Spurious Emission

Please refer to the Appendix A.

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3.7. Radiated Spurious Emission and Restricted Band

3.7.1. Limit

<u>47 CFR 15.247(d)</u>: In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits.

<u>47 CFR 15.205(a)</u>: Only spurious emissions are permitted in any of the frequency bands listed below:

Frequency (MHz)	Frequency (MHz)	Frequency (MHz)	Frequency (MHz)	Frequency (MHz)
0.090-0.110	12.29-12.293	149.9-150.05	1660-1710	8.025-8.5
0.495-0.505	12.51975-12.52025	156.52475-156.52525	1718.8-1722.2	9.0-9.2
2.1735-2.1905	12.57675-12.57725	156.7-156.9	2200-2300	9.3-9.5
4.125-4.128	13.36-13.41	162.0125-167.17	2310-2390	10.6-12.7
4.17725-4.17775	16.42-16.423	167.72-173.2	2483.5-2500	13.25-13.4
4.20725-4.20775	16.69475-16.69525	240-285	2690-2900	14.47-14.5
6.215-6.218	16.80425-16.80475	322-335.4	3260-3267	15.35-16.2
6.26775-6.26825	25.5-25.67	399.9-410	3332-3339	17.7-21.4
6.31175-6.31225	37.5-38.25	608-614	3345.8-3358	22.01-23.12
8.291-8.294	73-74.6	960-1240	3600-4400	23.6-24.0
8.362-8.366	74.8-75.2	1300-1427	4500-5150	31.2-31.8
8.37625-8.38675	108-121.94	1435-1626.5	5350-5460	36.43-36.5
8.41425-8.41475	123-138	1645.5-1646.5	7250-7750	Above 38.6

<u>47 CFR 15.209(a)</u>: The emissions from an intentional radiator shall not exceed the field strength levels specified in the following table:

Frequency (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	

AT3

3.7.2. Test Procedure

1. The testing follows ANSI C63.10-2013 clause 11.11 & 11.12.

2. The EUT was arranged to its worst case and then tune the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp and a high pass filter are used for the test in order to get better signal level.

3. The EUT was placed on a turntable with 0.8 meter for frequency below 1GHz and 1.5 meter for frequency above 1GHz respectively above ground.

4. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a variable height antenna tower.

5. Corrected Reading: Antenna Factor + Cable Loss + Read Level - Pre-amp Factor = Level.

6. For testing below 1GHz, if the emission level of the EUT in peak mode was 3 dB lower than the limit specified, then peak values of EUT will be reported, otherwise, the emissions will be repeated one by one using the CISPR quasi-peak method and reported.

7. For testing above 1GHz, the emission level of the EUT in peak mode was 20dB lower than peak limit (that means the emission level in average mode also complies with the limit in average mode), then peak values of EUT will be reported, otherwise, the emissions will be measured in average mode again and reported.

8. Use the following spectrum analyzer settings:

- ① Span shall wide enough to fully capture the emission being measured;
- (2) When frequency < 1 GHz:

• Set RBW=100 kHz; VBW \geq RBW; Sweep = auto; Detector function = peak; Trace = max

hold;

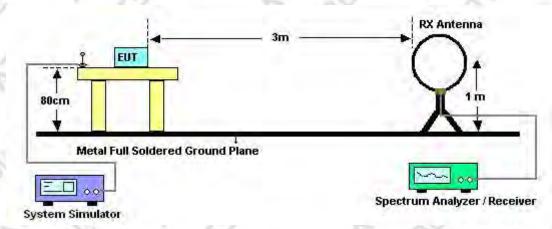
(3) When frequency \geq 1 GHz:

• Set RBW = 1 MHz; VBW = 3 MHz for peak measurement;

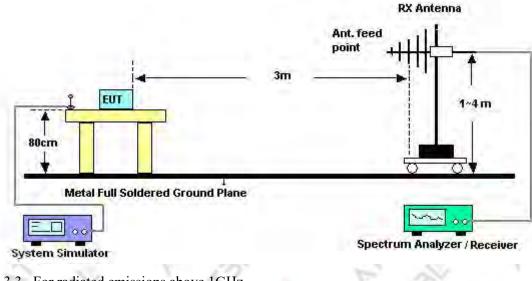
• Set RBW = 1 MHz; VBW = 10 Hz, when duty cycle is no less than 98 percent or VBW \geq 1/T, when duty cycle is less than 98 percent where T is the minimum transmission duration over which the transmitter is on and is transmitting at its maximum power control level for the tested mode of operation.

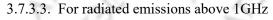


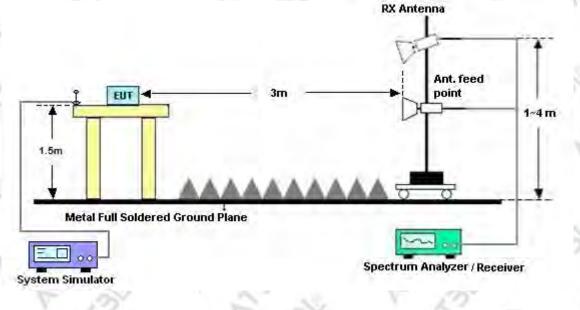
- 3.7.3. Test Setup
 - 3.7.3.1. For radiated emissions below 30MHz



3.7.3.2. For radiated emissions from 30MHz to 1GHz







- AT3
 - 3.7.4. Test Result of Radiated Spurious Emission
 - 3.7.4.1. For 9 kHz ~ 30 MHz Please refer to the Appendix B.
 - 3.7.4.2. For 30 MHz \sim 1 GHz Please refer to the Appendix B.
 - 3.7.4.3. For 1 GHz ~ 18GHz Please refer to the Appendix B.
 - 3.7.4.4. For above 18GHz Please refer to the Appendix B.
 - **3.7.5. Test Result of Restricted Band** Please refer to the Appendix B.



3.8. AC Power-Line Conducted Emission

3.8.1. Limit

<u>47 CFR 15.207(a)</u>: For an intentional radiator that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies, within the band 150 kHz to 30 MHz, shall not exceed the limits in the following table:

Enormous of amiggion (MII-	Conducted limit (dBµV)				
Frequency of emission (MHz)	Quasi-peak	Average			
0.15-0.5	66 to 56*	56 to 46*			
0.5-5	56	46			
5-30	60	50			

*Decreases with the logarithm of the frequency.

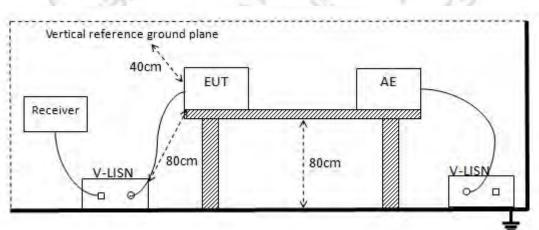
3.8.2. Test Procedure

1. The EUT was placed 0.4 meter from the conducting wall of the shielding room was kept at least 80 centimeters from any other grounded conducting surface.

- 2. Connect EUT to the power mains through a line impedance stabilization network (LISN).
- 3. All the support units are connecting to the other LISN.
- 4. The LISN provides 50 ohm coupling impedance for the measuring instrument.
- 5. The FCC states that a 50 ohm, 50 microhenry LISN should be used.
- 6. Both sides of AC line were checked for maximum conducted interference.
- 7. The frequency range from 150 kHz to 30 MHz was searched.

8. Set the test-receiver system to Peak Detect Function and specified bandwidth (IF Bandwidth = 9 kHz) with Maximum Hold Mode. Then measurement is also conducted by Average Detector and Quasi-Peak Detector Function respectively.

3.8.3. Test Setup





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3.8.4. Test Result of AC Power-Line Conducted Emission Please refer to the Appendix A.

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3.9. Antenna Requirement

3.9.1. Standard Requirement

According to <u>47 CFR 15.203</u>, 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.

3.9.2. EUT Antenna

The antenna used for the EUT is FPC antenna, which meets the antenna requirements.



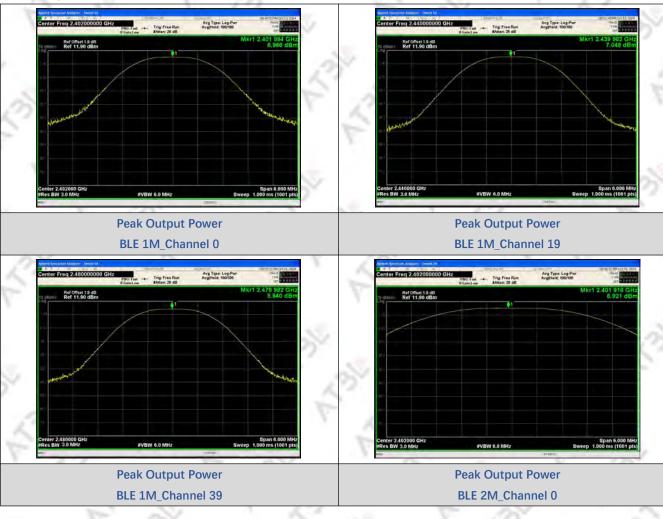
4. Appendix A of data

Conducted Output Power

Test Result

Mode	Channel	Peak Output Power (dBm)	Peak Output Power (mW)	Limit (dBm)	Result
	0	6.966	4.97	≤30	PASS
BLE 1M	19	7.048	5.07	≤30	PASS
5 2	39	5.940	3.93	≤30	PASS
BLE 2M	0	6.921	4.92	≤30	PASS
	19	6.971	4.98	≤30	PASS
	39	5.860	3.85	≤30	PASS

Test Graphs



AT3

Report No.:SHATBL2410021W02

	Hitt Fast Trig: Free Run Brialett en BAtten: 25 dtl	Avg Type: Log-Pwr Avg Heid: 100/100	11 2.439 658 GHz	200		PBD: Feel Trig: Free Run #Gain Law #Atten: 20 48	Avg Type: Log-Pue AvgPreid: 100/100	MRF1 2.479 916
Ref Offset 1.9 dB Ref 11,90 dBm			6,971 dBm	1.72	Ref Offset 1.9 dB Ref 11.90 dBm			5,860
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40.1				100				
ei()1				2				
-71				1	71.			
Center 2.440000 GHz #Res BW 3.0 MHz	#VBW 6.0 MHz	Swieer	Span 6.000 MHz 1.000 ms (1001 pts)	1	Center 2,480000 GHz #Res BW 3.0 MHz	#VBW 6.0 MHz		Span 6.000 weep 1.000 ms (100
		and the		10	MALE AND A COMPANY		anang	
F	Peak Output P	ower				Peak Output	Power	
	BLE 2M_Chann	-1.10				BLE 2M_Chan		

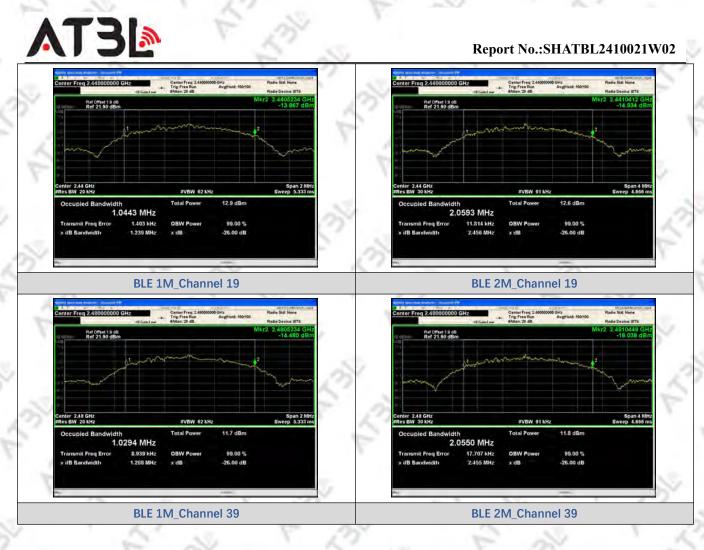
99% Bandwidth

Mode	Channel	Center Frequency (MHz)	99% BW (MHz)
BLE 1M	0	2402	1.0244
BLE 1M	19	2440	1.0443
BLE 1M	39	2480	1.0294
BLE 2M	0	2402	2.0721
BLE 2M	19	2440	2.0593
BLE 2M	39	2480	2.0550

Test Graphs



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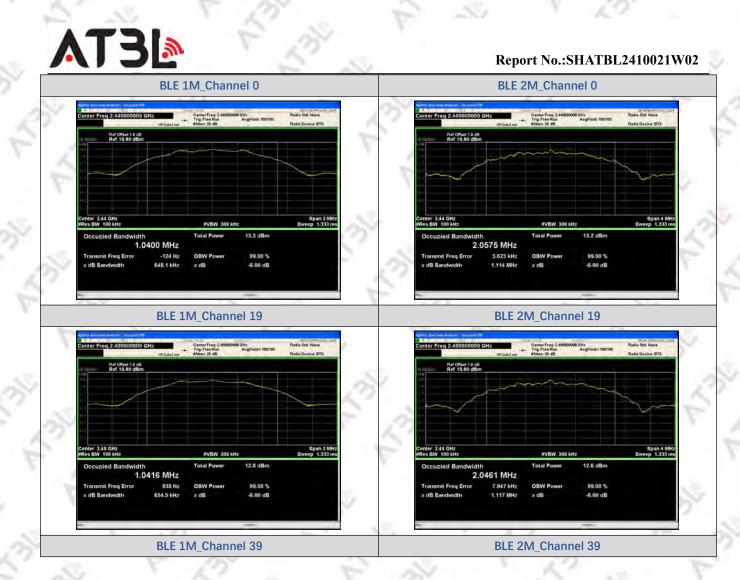
6dB Bandwidth

Test Result

Mode	Channel	Center Frequency (MHz)	6 dB Bandwidth (MHz)	Limit (MHz)	Result
BLE 1M	0	2402	0.6532	25	PASS
	19	2440	0.6481	F 22	PASS
	39	2480	0.6545		PASS
R	0	2402	1.143	≥0.5	PASS
BLE 2M	19	2440	1.114		PASS
	39	2480	1.117	N 1	PASS

Test Graphs





AT3L

Report No.:SHATBL2410021W02

Conducted Out Of Band Emission

Test Result

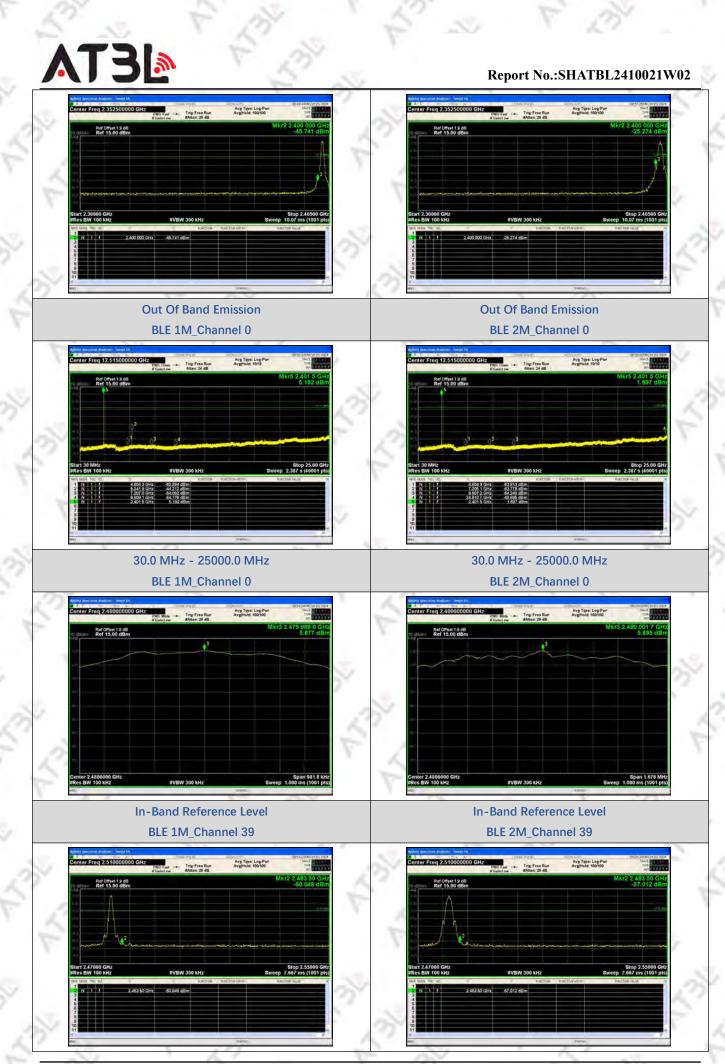
Mode	Channel	OOB Emission Frequency (MHz)	OOB Emission Level (dBm)	Limit (dBm)	Over Limit (dB)	Result
	12	2400.00	-45.741	-13.11	-32.631	PASS
	F 13	4804.26	-62.294	-13.11	-49.184	PASS
54	0	5241.86	-44.212	-13.11	-31.102	PASS
25	¥	7207.00	-64.092	-13.11	-50.982	PASS
	2	9609.12	-64.776	-13.11	-51.666	PASS
BLE 1M	19 C	2483.50	-60.048	-14.12	-45.928	PASS
	1.55	4959.70	-63.655	-14.12	-49.535	PASS
	39	7441.72	-64.942	-14.12	-50.822	PASS
	8 2	9919.99	-63.095	-14.12	-48.975	PASS
N	1 13	24863.3	-48.165	-14.12	-34.045	PASS
100	F	2400.00	-25.274	-13.03	-12.244	PASS
25		4804.89	-63.813	-13.03	-50.783	PASS
	0	7205.13	-63.779	-13.03	-50.749	PASS
BLE 2M	2	9607.24	-64.240	-13.03	-51.210	PASS
	23	24910.7	-49.895	-13.03	-36.865	PASS
	2 3	2483.50	-57.012	-14.31	-42.702	PASS
SI	× 12	4958.45	-64.641	-14.31	-50.331	PASS
2	39	7438.60	-64.259	-14.31	-49.949	PASS
25		9919.99	-65.419	-14.31	-51.109	PASS
5	5.50	24879.5	-48.773	-14.31	-34.463	PASS

Test Graphs



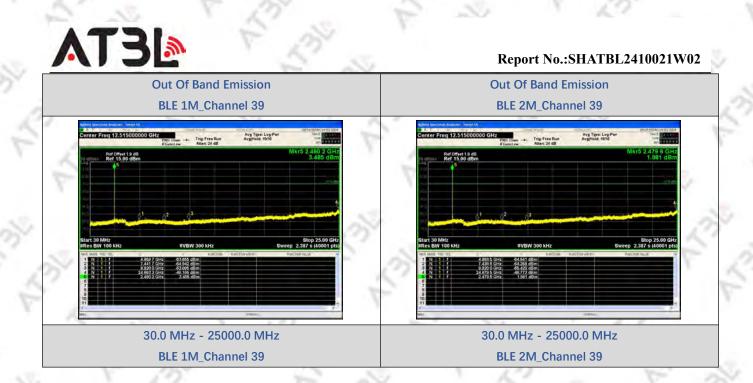
BLE 1M_Channel 0

BLE 2M_Channel 0



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SHATBL-W-118/A0



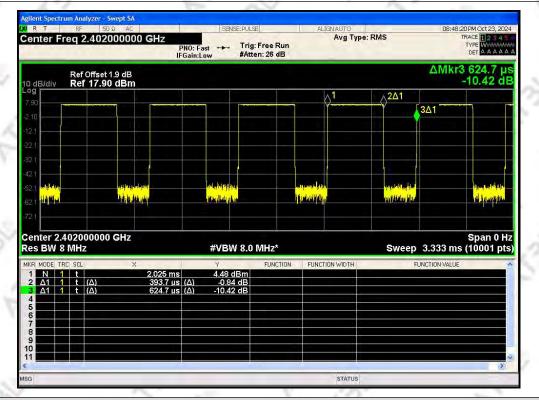
AT3L Duty Cycle

Report No.:SHATBL2410021W02

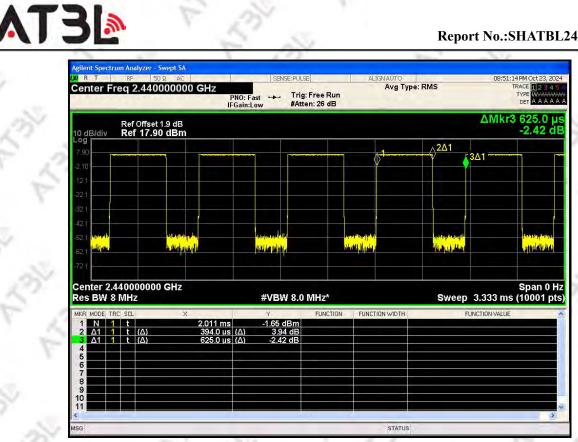
Test Result

root noodit				
Mode	Channel	On Time (ms)	Period (ms)	Duty Cycle (%)
1 12	0	0.394	0.625	63.02
BLE 1M	19	0.394	0.625	63.04
8	39	0.394	0.625	63.07
2	0	1.080	1.874	57.62
BLE 2M	19	1.080	1.873	57.65
5 8	39	1.080	1.874	57.62

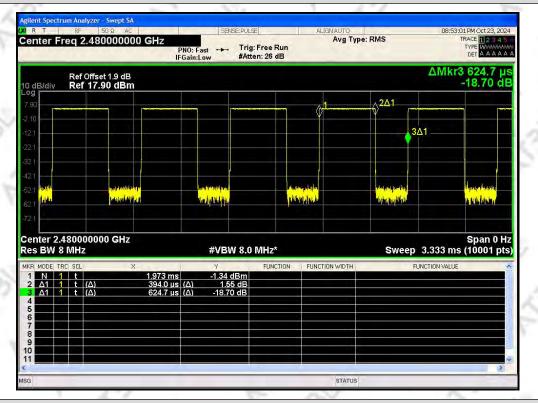
Test Graphs



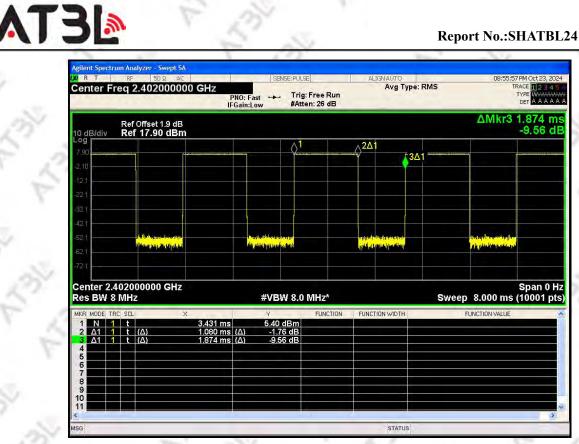
BLE 1M_Channel 0



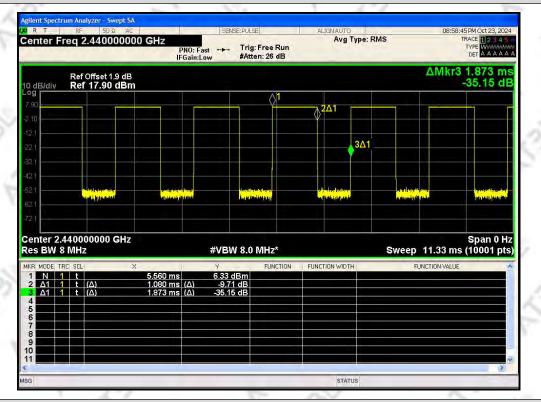
BLE 1M_Channel 19



BLE 1M_Channel 39



BLE 2M_Channel 0



BLE 2M_Channel 19

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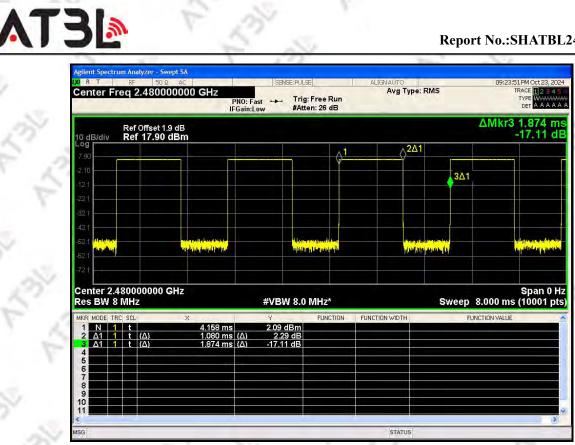
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BLE 2M_Channel 39

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AT3

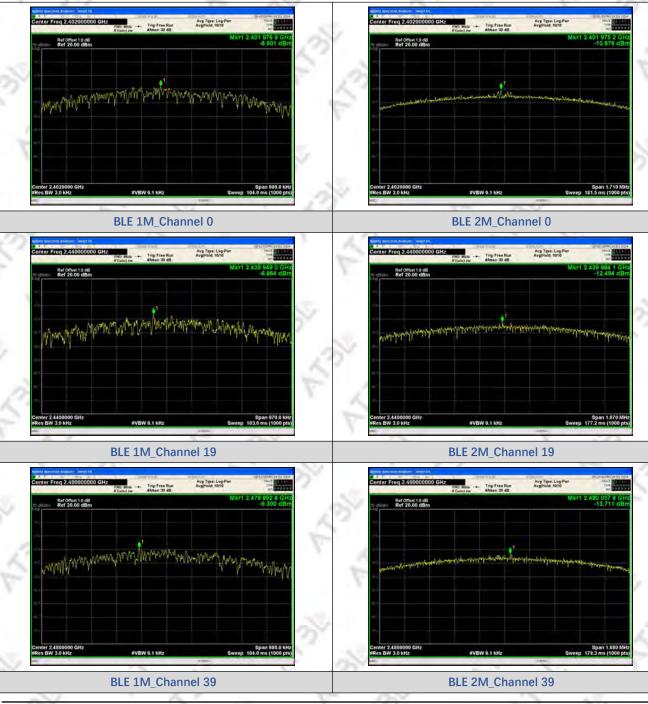
Report No.:SHATBL2410021W02

Power Spectral Density

Test Result

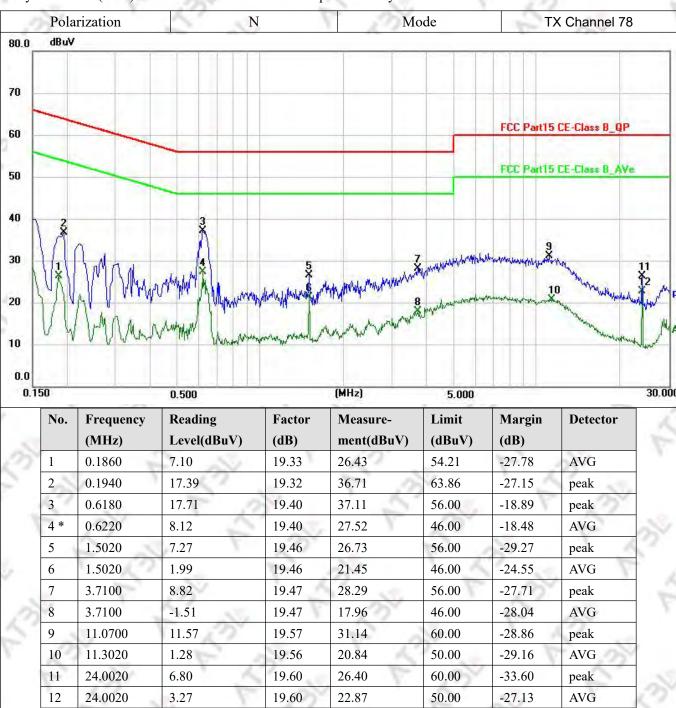
Mode	Channel	PSD (dBm/3kHz)	Limit (dBm/3kHz)	Result
BLE 1M	0	-8.601	≤8	PASS
BLE 1M	19	-6.864	≤8	PASS
BLE 1M	39	-9.300	≤8	PASS
BLE 2M	0	-10.676	≤8	PASS
BLE 2M	19	-12.494	≤8	PASS
BLE 2M	39	-13.711	≤8	PASS

Test Graphs

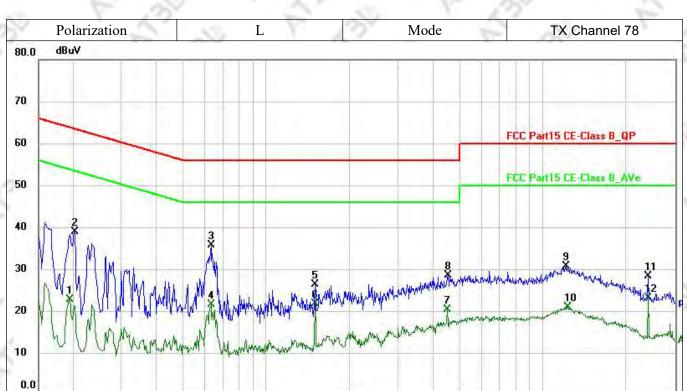


AT3L AC Power-Line Conducted Emission

only worst case (DH5) mode was recorded in the test report if no any others.







0		0.500		(MHz)	5.000		
No.	Frequency (MHz)	Reading Level(dBuV)	Factor (dB)	Measure- ment(dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	0.1940	3.44	19.32	22.76	53.86	-31.10	AVG
2	0.2020	19.66	19.32	38.98	63.53	-24.55	peak
3 *	0.6300	16.43	19.40	35.83	56.00	-20.17	peak
4	0.6300	2.27	19.40	21.67	46.00	-24.33	AVG
5	1.5020	6.94	19.40	26.34	56.00	-29.66	peak
6	1.5020	2.38	19.40	21.78	46.00	-24.22	AVG
7	4.5020	0.93	19.49	20.42	46.00	-25.58	AVG
8	4.5300	9.15	19.50	28.65	56.00	-27.35	peak
9	12.1540	11.17	19.60	30.77	60.00	-29.23	peak
10	12.3060	1.43	19.59	21.02	50.00	-28.98	AVG
11	24.0020	8.71	19.63	28.34	60.00	-31.66	peak
12	24.0020	3.69	19.63	23.32	50.00	-26.68	AVG



5. Appendix B of data

Radiated spurious emissions

For 9 kHz ~ 30 MHz

The low frequency, which started from 9 kHz to 30MHz, was pre-scanned and the result which was 20dB lower than the limit line was not reported.

For 30 MHz \sim 1 GHz:

Note:

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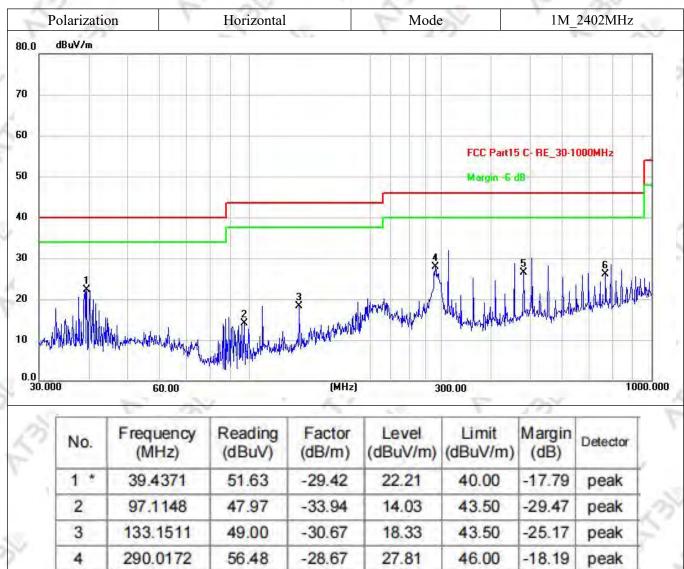
480.5276

768.7481

50.45

44.47

All modes have been tested, only worst case(DH5_2402MHz)mode was recorded in the test report if no any others.



-23.95

-18.28

26.50

26.19

46.00

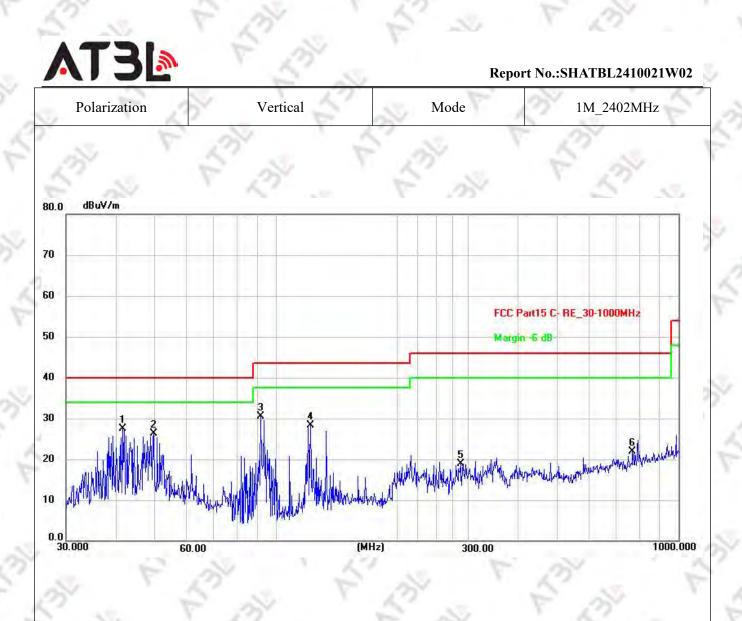
46.00

-19.50

-19.81

peak

peak



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1 *	41.4215	56.84	-29.32	27.52	40.00	-12.48	peak
2	49.5328	55.33	-28.97	26.36	40.00	-13.64	peak
3	91.4949	65.16	-34.75	30.41	43.50	-13.09	peak
4	121.5486	60.19	-31.83	28.36	43.50	-15.14	peak
5	286.9823	47.72	-28.81	18.91	46.00	-27.09	peak
6	768.7481	40.26	-18.28	21.98	46.00	-24.02	peak

For 1 GHz ~ 18GHz:

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Note:

1. The all data rate modes had been test, but only worse test data was recorded in the test report.

2.In frequency ranges 18 ~25GHz no any other harmonic emissions detected which are tested to

compliance with the limit. No recording in the test report. No any other emissions level which are

attenuated less than 20dB below the limit. No recording in the test report.

3.We used the filter to test and the main frequency was filtered out.

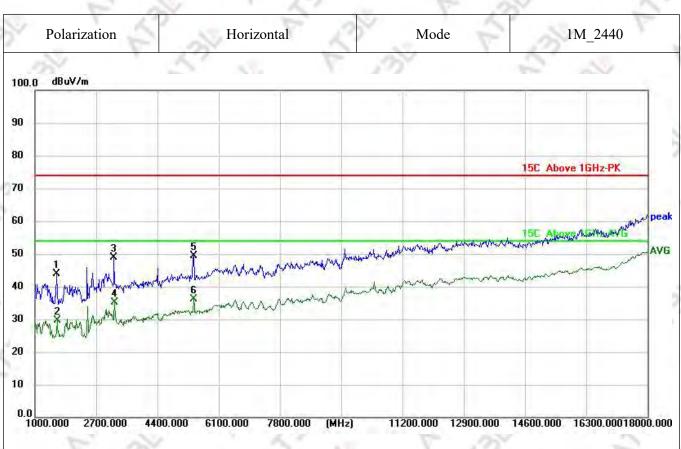
Polarization	Horizon	ıtal	Mode	1M_2402	2402	
)(),() dBu∀/m	5 5	1	1924	5 2		
1						
d				15C Above 1GHz-PK	_	
6					-	
17				15C ADDISONAL AND	rola	
	mar marken marken	municular	and the second	A Martin and A Mar	and a	
Walland and	and the second	mummum	man			
White Marken and						
0						
0.0	4400.000 6100.000 7	7800.000 (MHz)		00 14600.000 16300.00018		

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detecto
1	1289.000	62.89	-20.09	42.80	74.00	-31.20	peak
2	1306.000	51.91	-20.04	31.87	54.00	-22.13	AVG
3	3193.000	61.12	-11.78	49.34	74.00	-24.66	peak
4	3210.000	46.60	-11.76	34.84	54.00	-19.16	AVG
5	5403.000	53.73	-4.39	49.34	74.00	-24.66	peak
6 *	5403.000	40.69	-4.39	36.30	54.00	-17.70	AVG

T3 Report No.:SHATBL2410021W02 Polarization Vertical Mode 1M_2402 100.0 dBuV/m 90 80 15C Above 1GHz-PK 70 5 peak 60 Aboxe A Stranty G 50 AVG 40 30 20 10 0.0 11200.000 12900.000 14600.000 16300.00018000.000 2700.000 4400.000 6100.000 7800.000 (MHz)

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	3193.000	68.51	-11.78	56.73	74.00	-17.27	peak
2	3210.000	51.84	-11.76	40.08	54.00	-13.92	AVG
3	5403.000	55.37	-4.39	50.98	74.00	-23.02	peak
4	5403.000	42.41	-4.39	38.02	54.00	-15.98	AVG
5	10384.000	58.67	5.78	64.45	74.00	-9.55	peak
6 *	10401.000	45.61	5.82	51.43	54.00	-2.57	AVG





				- 19 - V			
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	1595.000	63.65	-19.82	43.83	74.00	-30.17	peak
2	1612.000	49.43	-19.80	29.63	54.00	-24.37	AVG
3	3193.000	60.68	-11.78	48.90	74.00	-25.10	peak
4	3210.000	46.98	-11.76	35.22	54.00	-18.78	AVG
5	5403.000	53.82	-4.39	49.43	74.00	-24.57	peak
6 *	5403.000	40.54	-4.39	36.15	54.00	-17.85	AVG

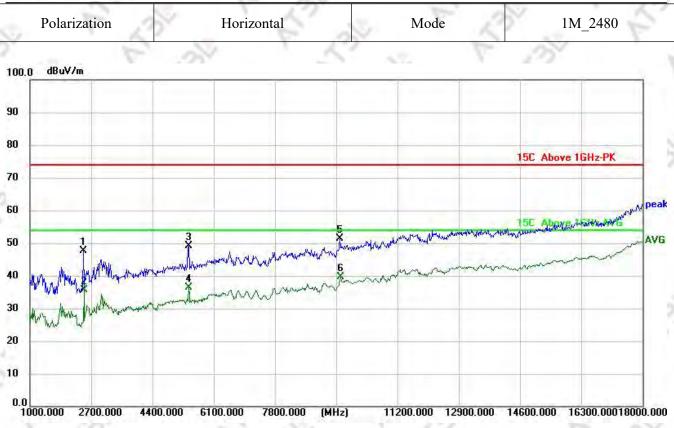
T3 Report No.:SHATBL2410021W02 Polarization Vertical 1M_2440 Mode 100.0 dBuV/m 90 80 15C Above 1GHz-PK 70 5 peak 60 CENTRAL MAN 15C Ab AVG 50 40 30 20 10 0.0 11200.000 12900.000 14600.000 16300.00018000.000 2700.000 6100.000 7800.000 4400.000 (MHz)

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	3193.000	66.87	-11.78	55.09	74.00	-18.91	peak
2	3210.000	51.76	-11.76	40.00	54.00	-14.00	AVG
3	5216.000	62.21	-4.71	57.50	74.00	-16.50	peak
4	5233.000	45.22	-4.67	40.55	54.00	-13.45	AVG
5	15603.000	55.15	11.86	67.01	74.00	-6.99	peak
6 *	15620.000	41.37	11.87	53.24	54.00	-0.76	AVG

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Report No.:SHATBL2410021W02

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No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	2479.000	63.01	-15.32	47.69	74.00	-26.31	peak
2	2496.000	50.92	-15.21	35.71	54.00	-18.29	AVG
3	5403.000	53.55	-4.39	49.16	74.00	-24.84	peak
4	5403.000	40.79	-4.39	36.40	54.00	-17.60	AVG
5	9602.000	47.08	4.38	51.46	74.00	-22.54	peak
6 *	9619.000	35.17	4.41	39.58	54.00	-14.42	AVG

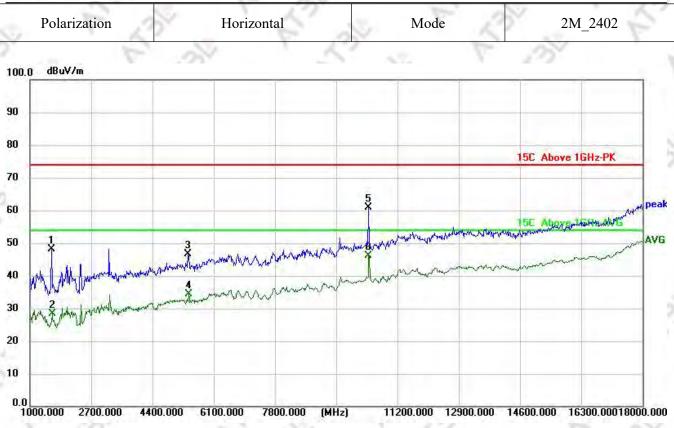
T3 Report No.:SHATBL2410021W02 Polarization Vertical 1M_2480 Mode 5 100.0 dBuV/m 90 80 15C Above 1GHz-PK 70 peak 60 15C Above Laward 4 ¥ 50 AVG All 40 5 X 30 20 10 0.0 11200.000 12900.000 14600.000 16300.00018000.000 2700.000 4400.000 6100.000 7800.000 (MHz)

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	3193.000	63.67	-11.78	51.89	74.00	-22.11	peak
2	3193.000	63.67	-11.78	51.89	74.00	-22.11	peak
3	3210.000	46.17	-11.76	34.41	54.00	-19.59	AVG
4	5403.000	53.46	-4.39	49.07	74.00	-24.93	peak
5	5403.000	40.57	-4.39	36.18	54.00	-17.82	AVG
6	9602.000	46.38	4.38	50.76	74.00	-23.24	peak
7*	9619.000	35.47	4.41	39.88	54.00	-14.12	AVG

AT3

Report No.:SHATBL2410021W02

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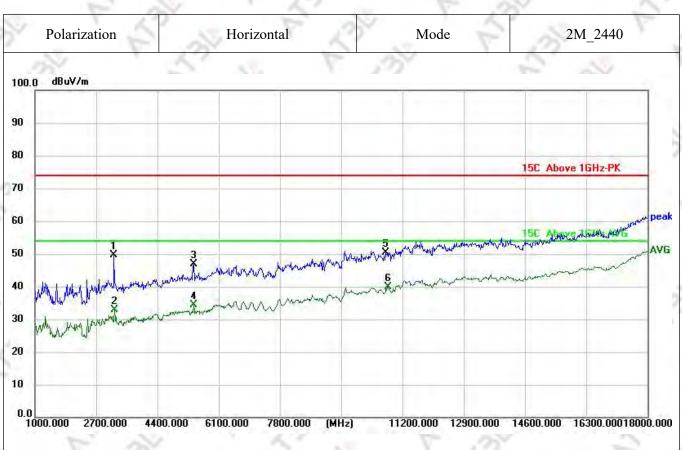


	Francisco	Destine	Faiter	Frank	1.1-1.14	i to have	
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detecto
1	1595.000	67.87	-19.82	48.05	74.00	-25.95	peak
2	1612.000	48.07	-19.80	28.27	54.00	-25.73	AVG
3	5386.000	51.09	-4.41	46.68	74.00	-27.32	peak
4	5403.000	38.84	-4.39	34.45	54.00	-19.55	AVG
5	10401.000	55.04	5.82	60.86	74.00	-13.14	peak
6 *	10401.000	40.34	5.82	46.16	54.00	-7.84	AVG

[3] Report No.:SHATBL2410021W02 Polarization Vertical Mode 2M_2402 0 100.0 dBuV/m 90 80 15C Above 1GHz-PK 70 peak 60 5 X 15C Above Manuparts MARCHANNING . AVG 50 6 40 30 20 10 0.0 11200.000 12900.000 14600.000 16300.00018000.000 2700.000 4400.000 6100.000 7800.000 (MHz)

					- AN 1		
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	1595.000	69.87	-19.82	50.05	74.00	-23.95	peak
2	1612.000	53.44	-19.80	33.64	54.00	-20.36	AVG
3	3193.000	69.91	-11.78	58.13	74.00	-15.87	peak
4	3210.000	51.65	-11.76	39.89	54.00	-14.11	AVG
5	10384.000	51.32	5.78	57.10	74.00	-16.90	peak
6 *	10401.000	37.68	5.82	43.50	54.00	-10.50	AVG
100	T C	0	Ser.	200		100	



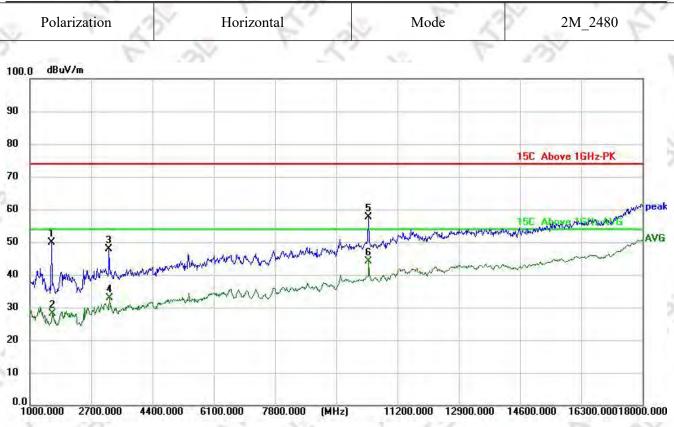


							10 M
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	3193.000	61.33	-11.78	49.55	74.00	-24.45	peak
2	3210.000	44.59	-11.76	32.83	54.00	-21.17	AVG
3	5403.000	51.17	-4.39	46.78	74.00	-27.22	peak
4	5403.000	38.86	-4.39	34.47	54.00	-19.53	AVG
5	10741.000	43.90	6.44	50.34	74.00	-23.66	peak
6 *	10792.000	33.40	6.53	39.93	54.00	-14.07	AVG

T3 Report No.:SHATBL2410021W02 Polarization Vertical Mode 2M_2440 100.0 dBuV/m 90 80 15C Above 1GHz-PK 70 peak 60 3 Aboxantawant 15C AVG 50 40 30 20 10 0.0 11200.000 12900.000 14600.000 16300.00018000.000 2700.000 4400.000 6100.000 7800.000 (MHz)

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	3193.000	66.33	-11.78	54.55	74.00	-19.45	peak
2	3210.000	46.25	-11.76	34.49	54.00	-19.51	AVG
3	5182.000	60.36	-4.78	55.58	74.00	-18.42	peak
4 *	5199.000	47.80	-4.74	43.06	54.00	-10.94	AVG
5	9602.000	48.02	4.38	52.40	74.00	-21.60	peak
6	9619.000	35.17	4.41	39.58	54.00	-14.42	AVG





No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	1595.000	69.82	-19.82	50.00	74.00	-24.00	peak
2	1612.000	47.92	-19.80	28.12	54.00	-25.88	AVG
3	3193.000	59.73	-11.78	47.95	74.00	-26.05	peak
4	3210.000	44.58	-11.76	32.82	54.00	-21.18	AVG
5	10384.000	51.75	5.78	57.53	74.00	-16.47	peak
6 *	10401.000	38.32	5.82	44.14	54.00	-9.86	AVG

T3 Report No.:SHATBL2410021W02 2M_2480 Polarization Vertical Mode 0 100.0 dBuV/m 90 80 15C Above 1GHz-PK 70 3 w peak 60 15C ADAXS ALGHA AVG ward almost a 50 AVG 40 30 20 10 0.0 11200.000 12900.000 14600.000 16300.00018000.000 2700.000 4400.000 6100.000 7800.000 (MHz)

Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)			Detector
1204.000	69.23	-20.31	48.92	74.00	-25.08	peak
1204.000	52.57	-20.31	32.26	54.00	-21.74	AVG
3193.000	71.72	-11.78	59.94	74.00	-14.06	peak
3210.000	49.28	-11.76	37.52	54.00	-16.48	AVG
5386.000	55.59	-4.41	51.18	74.00	-22.82	peak
5403.000	42.00	-4.39	37.61	54.00	-16.39	AVG
	(MHz) 1204.000 1204.000 3193.000 3210.000 5386.000	(MHz)(dBuV)1204.00069.231204.00052.573193.00071.723210.00049.285386.00055.59	(MHz)(dBuV)(dB/m)1204.00069.23-20.311204.00052.57-20.313193.00071.72-11.783210.00049.28-11.765386.00055.59-4.41	(MHz)(dBuV)(dB/m)(dBuV/m)1204.00069.23-20.3148.921204.00052.57-20.3132.263193.00071.72-11.7859.943210.00049.28-11.7637.525386.00055.59-4.4151.18	(MHz)(dBuV)(dB/m)(dBuV/m)(dBuV/m)1204.00069.23-20.3148.9274.001204.00052.57-20.3132.2654.003193.00071.72-11.7859.9474.003210.00049.28-11.7637.5254.005386.00055.59-4.4151.1874.00	(MHz)(dBuV)(dB/m)(dBuV/m)(dBuV/m)(dB)1204.00069.23-20.3148.9274.00-25.081204.00052.57-20.3132.2654.00-21.743193.00071.72-11.7859.9474.00-14.063210.00049.28-11.7637.5254.00-16.485386.00055.59-4.4151.1874.00-22.82



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Polarization	Horizontal	Horizontal Mode		
) dBuV/m	S 3. 1	5.35	5. 2	
			A	
			15C Above 1GHz-PK	
			TEC Above 16Hz-AVG	
			A K.	
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			000 2400.000 2405.000 241	

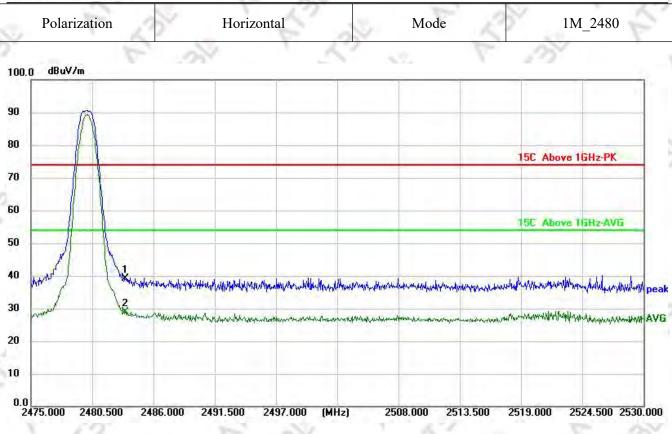
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	2390.000	51.77	-15.88	35.89	74.00	-38.11	peak
2 *	2390.000	42.09	-15.88	26.21	54.00	-27.79	AVG

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AT 3 🕑 Report No.:SHATBL2410021W02 Polarization Vertical 1M_2402 Mode 100.0 dBuV/m 90 80 15C/Above 1GHz-PK 70 60 15C Above 16Hz-AVG 50 40 Why hund Walnut peak An and a repaired and a second and water with when 30 AVG Anna 20 10 0.0 2360.000 2405.000 2410.000 2365.000 2370.000 2375.000 2380.000 2390.000 2395.000 2400.000 (MHz)

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	2390.000	49.43	-15.88	33.55	74.00	-40.45	peak
2 *	2390.000	40.70	-15.88	24.82	54.00	-29.18	AVG





No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	2483.500	54.36	-15.30	39.06	74.00	-34.94	peak
2 *	2483.500	44.30	-15.30	29.00	54.00	-25.00	AVG

AT3L Report No.:SHATBL2410021W02 Polarization Vertical 1M_2480 Mode 100.0 dBuV/m 90 80 15C Above 1GHz-PK 70 60 15C Above 1GHz-AVG 50 MANALAPALANAMAN 棴 40 North Anthony May Peak www.deesertustry.coloresticherstrandering whether and the section of the section of the section of the section and the section of the section 30 AVG 协 Martinenta 20 10 0.0 2475.000 2524.500 2530.000 2480.500 2486.000 2491.500 2497.000 2508.000 2513.500 (MHz) 2519.000

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	2483.500	54.44	-15.30	39.14	74.00	-34.86	peak
2 *	2483.500	46.30	-15.30	31.00	54.00	-23.00	AVG



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Report No.:SHATBL2410021W02

Polarization	Horizontal	Mode	2M_2402
nn dBuV/m	21	S SS T	105
0,0 dBuV/m			
			(2)
			15C Above 1GHz-PK
-			AUDIC TUTET K
			SE Above GHz-AVG
			TOC ADOVE DH2-AVG
			()
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0 2360.000 2365.000 2370.	DOO 2375.000 2380.000 (N	(Hz) 2390.000 2395.000 2	2400.000 2405.000 2410.0

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	2390.000	52.89	-15.88	37.01	74.00	-36.99	peak
2 *	2390.000	42.26	-15.88	26.38	54.00	-27.62	AVG

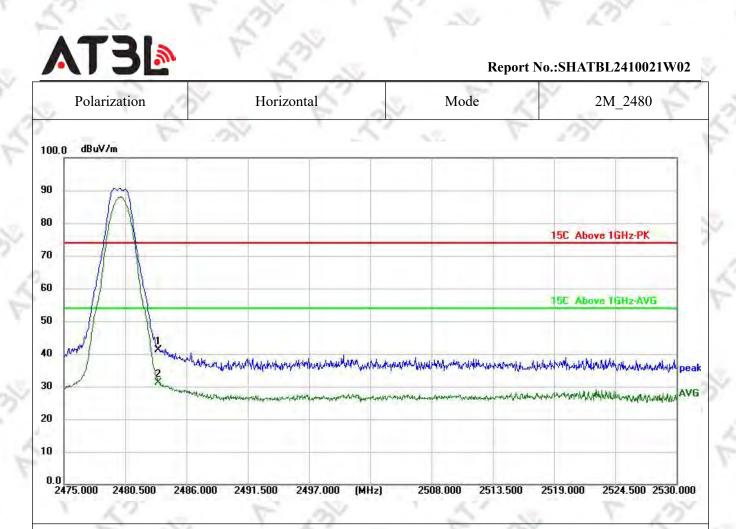
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AT 3 Report No.:SHATBL2410021W02 Polarization 2M_2402 Vertical Mode 100.0 dBuV/m 90 80 e 1GHz-PK 150 Ab 70 60 SE Above IGHZ-AVG 50 of the holder Whenthe Market www. on a the march of the state of the source of the state of the state of the state of the source of the state of the st 40 w. Maldha Holds peak 30 that and a present and the second present and the second AVG have been the the state of the 20 10 0.0 2360.000 2405.000 2410.000 2365.000 2370.000 2375.000 2380.000 (MHz) 2390.000 2395.000 2400.000

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)		Margin (dB)	Detector
1	2390.000	54.08	-15.88	38.20	74.00	-35.80	peak
2 *	2390.000	44.17	-15.88	28.29	54.00	-25.71	AVG



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	2483.500	56.35	-15.30	41.05	74.00	-32.95	peak
2 *	2483.500	46.50	-15.30	31.20	54.00	-22.80	AVG

AT3 Report No.:SHATBL2410021W02 Polarization 2M_2480 Vertical Mode dBuV/m 100.0 90 80 15C Above 1GHz-PK 70 60 15C Above 1GHz-AVG 50 L. 40 hat a solution of the second second and the second and the second s ŝ 30 month of the second and the second and the second of the second 20 10 0.0 2475.000 2524.500 2530.000 2480.500 2497.000 2513.500 2486.000 2491.500 (MHz) 2508.000 2519.000

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	2483.500	56.35	-15.30	41.05	74.00	-32.95	peak
2 *	2483.500	46.50	-15.30	31.20	54.00	-22.80	AVG

*****END OF THE REPORT***