





FCC Radio Test Report FCC ID: 2BH7FEAP603OD

This report concerns: Original Grant

Project No. 2501G023

Equipment AX1800 Indoor/Outdoor Wi-Fi 6 Access Point

Brand Name tp-link

: EAP603-Outdoor **Test Model**

Series Model : N/A

Applicant : TP-Link Systems Inc.

Address : 10 Mauchly, Irvine, CA 92618

: TP-Link Systems Inc. Manufacturer

Address : 10 Mauchly, Irvine, CA 92618

Date of Receipt : Feb. 28, 2025

Date of Test : Mar. 05, 2025 ~ Jul. 17, 2025

Issued Date : Jul. 29, 2025

Test Sample : Engineering Sample No.: DG2025022823 for Radiated (below 30 MHz)

& AC Power Line Conducted Emissions, DG2025041041 for Radiated

(above 30 MHz), DG202505294 for power, DG2025031354 for other.

Standard(s) : FCC CFR Title 47, Part 15, Subpart C

The above equipment has been tested and found compliance with the requirement of the relative standards by BTL Inc. (Dongguan).

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Report Version: R01

Declaration

BTL represents to the client that testing is done in accordance with standard procedures as applicable and that test instruments used has been calibrated with standards traceable to international standard(s) and/or national standard(s).

BTL's reports apply only to the specific samples tested under conditions. It is manufacture's responsibility to ensure that additional production units of this model are manufactured with the identical electrical and mechanical components. BTL assumes no responsibility for the data provided by the customer, any statements, inferences or generalizations drawn by the customer or others from the reports issued by BTL.

The report must not be used by the client to claim product certification, approval, or endorsement by A2LA or any agency of the U.S. Government.

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BTL's laboratory quality assurance procedures are in compliance with the ISO/IEC 17025: 2017 requirements, and accredited by the conformity assessment authorities listed in this test report.

BTL is not responsible for the sampling stage, so the results only apply to the sample as received.

The information, data and test plan are provided by manufacturer which may affect the validity of results, so it is manufacturer's responsibility to ensure that the apparatus meets the essential requirements of applied standards and in all the possible configurations as representative of its intended use.

Limitation

For the use of the authority's logo is limited unless the Test Standard(s)/Scope(s)/Item(s) mentioned in this test report is (are) included in the conformity assessment authorities acceptance respective. Please note that the measurement uncertainty is provided for informational purpose only and are not use in determining the Pass/Fail results.





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REVISION HISTORY

Report No.	Version	Description	Issued Date	Note
BTL-FCCP-5-2501G023	R00	Original Report.	Jul. 18, 2025	Invalid
BTL-FCCP-5-2501G023	R01	 In this report: Modified the brand name in page 1 and page 10. Modified the antenna connection method in chapter 3.1. It is a revision of the report BTL-FCCP-5-2501G023 R00. This is a newly released report, replacing the BTL-FCCP-5-2501G023 R00 report. 	Jul. 29, 2025	Valid



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1. APPLICABLE STANDARDS

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

ANSI C63.10-2013

The following reference test guidance is not within the scope of accreditation of A2LA: KDB 558074 D01 15.247 Meas Guidance v05r02

2. SUMMARY OF TEST RESULTS

Test procedures according to the technical standard(s):

FCC CFR Title 47, Part 15, Subpart C					
Standard(s) Section	Test Item	Test Result	Judgment	Remark	
15.207	AC Power Line Conducted Emissions	APPENDIX A	PASS		
15.247(d) 15.205(a) 15.209(a)	Radiated Emissions	APPENDIX B APPENDIX C APPENDIX D	PASS		
15.247(a)(2)	Bandwidth	APPENDIX E	PASS		
15.247(b)(3)	Maximum Output Power	APPENDIX F	PASS		
15.247(d)	Conducted Spurious Emission	APPENDIX G	PASS		
15.247(e)	Power Spectral Density	APPENDIX H	PASS		
15.203	Antenna Requirement		PASS	Note(2)	

Note:

- (1) "N/A" denotes test is not applicable to this device.
- (2) The device what use a permanently attached antenna were considered sufficient to comply with the provisions of 15.203.



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2.1 TEST FACILITY

The test facilities used to collect the test data in this report at the location of No.3, Jinshagang 1st Road, Dalang, Dongguan, Guangdong People's Republic of China.

BTL's Registration Number for FCC: 747969 BTL's Designation Number for FCC: CN1377

2.2 MEASUREMENT UNCERTAINTY

ISO/IEC 17025 requires that an estimate of the measurement uncertainties associated with the emissions test results be included in the report. The measurement uncertainties given below are based on a 95.45% confidence level (based on a coverage factor (k=2))

The BTL measurement uncertainty as below table:

A. AC power line conducted emissions Measurement:

Test Site	Method	Measurement Frequency Range	U,(dB)
DG-C02	CISPR	150kHz ~ 30MHz	2.88

B. Radiated emissions Measurement:

Test Site	Method	Measurement Frequency Range	U,(dB)
DG-CB01	CISPR	9kHz ~ 30MHz	2.36

Test Site	Method	Measurement Frequency Range	Ant. H / V	U,(dB)
		30MHz ~ 200MHz	V	4.40
DG-CB03	30MHz ~ 200MHz	Н	3.62	
(3m)	CISPR	200MHz ~ 1,000MHz	V	4.58
		200MHz ~ 1,000MHz	Н	3.98

Test Site	Method	Measurement Frequency Range	U,(dB)
DG-CB18	1GHz ~ 6GHz	4.48	
(3m)	CISPR	6GHz ~ 18GHz	3.88

Test Site	Method	Measurement Frequency Range	U,(dB)
DG-CB18 (1m)	CISPR	18 ~ 26.5 GHz	3.56



C. Other Measurement:

Test Item	Uncertainty
Bandwidth	0.90 %
Maximum Output Power	1.3 dB
Conducted Spurious Emission	1.9 dB
Power Spectral Density	1.4 dB
Temperature	0.8 °C
Humidity	2.2 %

Note: Unless specifically mentioned, the uncertainty of measurement has not been taken into account to declare the compliance or non-compliance to the specification.

2.3 TEST ENVIRONMENT CONDITIONS

Test Item	Temperature	Humidity	Test Voltage	Tested By	Test Date
AC Power Line Conducted Emissions	22°C	53%	PoE 48V	Hayden Chen	Mar. 12, 2025
Radiated Emissions -9 kHz to 30 MHz	20°C	48%	AC 120V/60Hz	Hayden Chen	Mar. 21, 2025
Radiated Emissions -30 MHz to 1000 MHz	25°C	55%	PoE 48V	Calvin Wen	Jun. 06, 2025
Radiated Emissions -Above 1000 MHz	23°C	55%	PoE 48V	Calvin Wen	Jul. 17, 2025
Bandwidth	21°C	54%	PoE 48V	Parker Yang	Jul. 16, 2025
Maximum Output Power	25°C	60%	PoE 48V	Alex Yin	Jul. 17, 2025
Conducted Spurious Emission	21°C	54%	PoE 48V	Parker Yang	Jul. 16, 2025
Power Spectral Density	21°C	54%	PoE 48V	Parker Yang	Jul. 16, 2025





3. GENERAL INFORMATION

3.1 GENERAL DESCRIPTION OF EUT

Equipment	AX1800 Indoor/Outdoor Wi-Fi 6 Access Point
Brand Name	tp-link
Test Model	EAP603-Outdoor
Series Model	N/A
Model Difference(s)	N/A
Software Version	V1
Hardware Version	V1
Power Source	1# DC Voltage supplied from PoE adapter. Model: POE4824G 2# Supplied from PoE port.
Power Rating	1# I/P: 100-240V~, 50/60Hz, 0.8A O/P: 48.0V== 0.5A 24.0W +4,5pins; -7,8pins 2# PoE: 42.5-57V== 0.6A 802.3at
Operation Frequency	2402 MHz ~ 2480 MHz
Modulation Type	GFSK
Bit Rate of Transmitter	1Mbps
Max. Output Power	1Mbps: 17.41 dBm (0.0551 W)

Note:

1. For a more detailed features description, please refer to the manufacturer's specifications or the user's manual.





2. Channel List:

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

3. Table for Filed Antenna:

Ant.	Brand	Model Name	Antenna Type	Connector	Gain (dBi)
1	TP-Link Systems Inc.	N/A	Dipole	N/A	3.66



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3.2 DESCRIPTION OF TEST MODES

The test system was pre-tested based on the consideration of all possible combinations of EUT operation

Pretest Mode	Description
Mode 1	TX Mode_1Mbps Channel 00/19/39
Mode 2	TX Mode_1Mbps Channel 00

Following mode(s) was (were) found to be the worst case(s) and selected for the final test.

AC power line conducted emissions test				
Final Test Mode	Description			
Mode 2	TX Mode_1Mbps Channel 00			

Radiated emissions test - Below 1GHz & Above 18 GHz			
Final Test Mode	Description		
Mode 2	TX Mode_1Mbps Channel 00		

Radiated emissions test - 1 GHz - 18 GHz			
Final Test Mode	Description		
Mode 1	TX Mode_1Mbps Channel 00/19/39		

Conducted test				
Final Test Mode	Description			
Mode 1 TX Mode_1Mbps Channel 00/19/39				

Note:

- (1) For radiated emission above 1 GHz test, the spurious points of 1GHz~26.5GHz have been pre-tested and in this report only recorded the worst case. The remaining spurious points are all below the limit value of 20dB.
- (2) For AC power line conducted emissions and radiated emissions below 1 GHz test, the 1Mbps Channel 00 is found to be the worst case and recorded.
- (3) For radiated emission Harmonic 18-26.5GHz test, only tested the worst case and recorded.
- (4) For radiated emission 1 GHz 18GHz test, the polarization of Vertical and Horizontal are evaluated, the worst case is Vertical for Band edge, Horizontal for Harmonic. In this report only recorded the worst case.



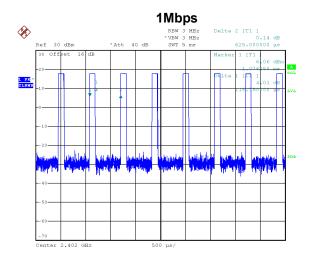


During testing channel & power controlling software provided by the customer was used to control the operating channel as well as the output power level.

Test Software Version	MobaXterm_Personal_22.1		
Frequency (MHz)	2402	2440	2480
1Mbps	20	20	20

3.4 DUTY CYCLE

If duty cycle is \geq 98 %, duty factor is not required. If duty cycle is < 98 %, duty factor shall be considered. The output power = measured power + duty factor.



Date: 16.JUL.2025 19:29:52

Duty cycle = 0.11875 ms / 0.625 ms = 19.00% Duty Factor = 10 log(1/Duty cycle) = 7.21

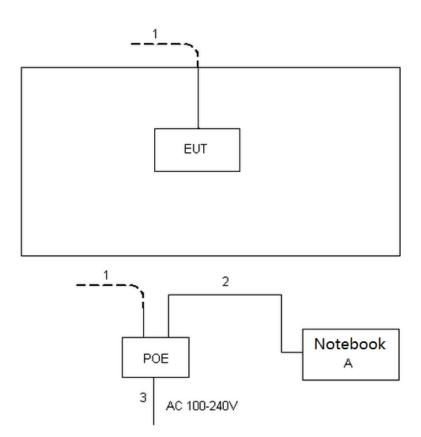
NOTE:

For radiated emissions frequency above 1 GHz, the resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 1 kHz.





3.5 BLOCK DIAGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED



3.6 SUPPORT UNITS

Item	Equipment	Brand	Model No.	Series No.
Α	Notebook	Dell	Inspiron 15-7559	N/A

Item	Cable Type	Shielded Type	Ferrite Core	Length
1	RJ45 Cable	NO	NO	10m
2	Network Cable	NO	NO	1m
3	AC Cable	NO	NO	1.5m

3.7 CUSTOMER INFORMATION DESCRIPTION

- The antenna gain and beamforming gain are provided by the manufacturer.
 Except for AC power line conducted emissions and radiated emissions, the results of all test items include cable losses. All cable losses are provided by the testing laboratory.



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4. AC POWER LINE CONDUCTED EMISSIONS

4.1 LIMIT

Fraguency of Emission (MHz)	Limit (dBμV)		
Frequency of Emission (MHz)	Quasi-peak	Average	
0.15 - 0.5	66 to 56*	56 to 46*	
0.5 - 5.0	56	46	
5.0 - 30.0	60	50	

Note:

- (1) The tighter limit applies at the band edges.
- (2) The limit of " * " marked band means the limitation decreases linearly with the logarithm of the frequency in the range.
- (3) The test result calculated as following:

Measurement Value = Reading Level + Correct Factor

Correct Factor = Insertion Loss + Cable Loss + Attenuator Factor (if use)

Margin Level = Measurement Value - Limit Value

4.2 TEST PROCEDURE

- a. The EUT was placed 0.8 meters from the horizontal ground plane with EUT being connected to the power mains through a line impedance stabilization network (LISN). All other support equipment powered from additional LISN(s). The LISN provide 50 Ohm/ 50uH of coupling impedance for the measuring instrument.
- b. Interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth in the center forming a bundle 30 to 40 cm long.
- c. I/O cables that are not connected to a peripheral shall be bundled in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. The overall length shall not exceed 1 m.
- d. LISN at least 80 cm from nearest part of EUT chassis.
- e. For the actual test configuration, please refer to the related Item -EUT Test Photos.

The following table is the setting of the receiver:

Receiver Parameters	Setting	
Start Frequency	0.15 MHz	
Stop Frequency	30 MHz	
IF Bandwidth	9 kHz	

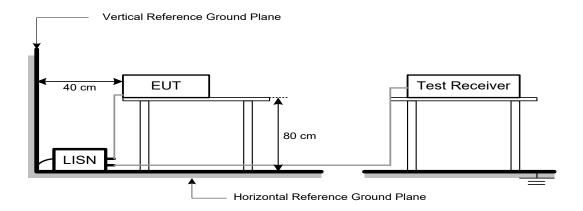
4.3 DEVIATION FROM TEST STANDARD

No deviation.





4.4 TEST SETUP



4.5 EUT OPERATING CONDITIONS

The EUT was configured for testing in a typical fashion (as a customer would normally use it). The EUT has been programmed to continuously transmit during test. This operating condition was tested and used to collect the included data.

4.6 TEST RESULTS

Please refer to the APPENDIX A.

Remark:

- (1) All readings are QP Mode value unless otherwise stated AVG in column of <code>『Note』</code>. If the QP Mode Measured value compliance with the QP Limits and lower than AVG Limits, the EUT shall be deemed to meet both QP & AVG Limits and then only QP Mode was measured, but AVG Mode didn't perform.In this case, a " * " marked in AVG Mode column of Interference Voltage Measured.
- (2) Measuring frequency range from 150 kHz to 30 MHz.



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5. RADIATED EMISSIONS

5.1 LIMIT

In case the emission fall within the restricted band specified on 15.205(a), then the 15.209(a) limit in the table below has to be followed.

LIMITS OF RADIATED EMISSION MEASUREMENT (9 kHz-1000 MHz)

Frequency	Field Strength	Measurement Distance	
(MHz)	(microvolts/meter)	(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	

LIMITS OF RADIATED EMISSION MEASUREMENT (Above 1000 MHz)

Frequency (MHz)	Band edge/ Harmonic at 3m (dBµV/m)		Harmonic at 1m (dBμV/m)	
r requeries (iiii iz)	Peak	Average	Peak	Average
Above 1000	74	54	83.5 (Note 5)	63.5 (Note 5)

Note:

- (1) The limit for radiated test was performed according to FCC CFR Title 47, Part 15, Subpart C.
- (2) The tighter limit applies at the band edges.
- (3) Emission level (dBuV/m)=20log Emission level (uV/m).
- (4) The test result calculated as following:

 Measurement Value = Reading Level + Correct Factor

Correct Factor = Antenna Factor + Cable Loss - Amplifier Gain(if use)

Margin Level = Measurement Value - Limit Value

(5)

$$FS_{\text{limit}} = FS_{\text{max}} - 20\log\left(\frac{d_{\text{limit}}}{d_{\text{measure}}}\right)$$

 $20log (d_{limit}/d_{measure})=20log (3/1)=9.5 dB.$

FS_{limit}: Harmonic at 3m Peak and Average limit.

FS_{max}: Harmonic at 1m Peak and Average Maximum value.

d_{limit}: Harmonic at 3m test distance. d_{measure}: Harmonic Actual test distance.



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5.2 TEST PROCEDURE

- a. The measuring distance of 3 m shall be used for measurements. The EUT was placed on the top of a rotating table 0.8 meter above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.(below 1 GHz)
- b. The measuring distance of 3 m or 1m shall be used for measurements. The EUT was placed on the top of a rotating table 1.5 meter above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.(above 1GHz)
- c. The height of the equipment or of the substitution antenna shall be 0.8m or 1.5m; the height of the test antenna shall vary between 1 m to 4 m. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights find the maximum reading (used Bore sight function).
- e. The receiver system was set to peak and average detect function and specified bandwidth with maximum hold mode when the test frequency is above 1 GHz.
- f. The initial step in collecting radiated emission data is a receiver peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured.
- g. All readings are Peak unless otherwise stated QP in column of Note. Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform. (below 1 GHz)
- h. All readings are Peak Mode value unless otherwise stated AVG in column of Note. If the Peak Mode Measured value compliance with the Peak Limits and lower than AVG Limits, the EUT shall be deemed to meet both Peak & AVG Limits and then only Peak Mode was measured, but AVG Mode didn't perform. (above 1 GHz)
- i. For the actual test configuration, please refer to the related Item –EUT Test Photos.

The following table is the setting of the receiver:

Spectrum Parameters	Setting	
Start ~ Stop Frequency 9 kHz~150 kHz for RBW 200 Hz		
Start ~ Stop Frequency	0.15 MHz~30 MHz for RBW 9 kHz	
Start ~ Stop Frequency	30 MHz~1000 MHz for RBW 100 kHz	

Spectrum Parameters	Setting	
Start Frequency	1000 MHz	
Stop Frequency	10th carrier harmonic	
RBW / VBW	1 MHz / 3 MHz for PK value	
(Emission in restricted band)	1 MHz / 1/T Hz for AVG value	

Spectrum Parameters	Setting	
Start ~ Stop Frequency	9 kHz~90 kHz for PK/AVG detector	
Start ~ Stop Frequency	90 kHz~110 kHz for QP detector	
Start ~ Stop Frequency	110 kHz~490 kHz for PK/AVG detector	
Start ~ Stop Frequency	490 kHz~30 MHz for QP detector	
Start ~ Stop Frequency	30 MHz~1000 MHz for QP detector	
Start ~ Stop Frequency	1 GHz~26.5 GHz for PK/AVG detector	

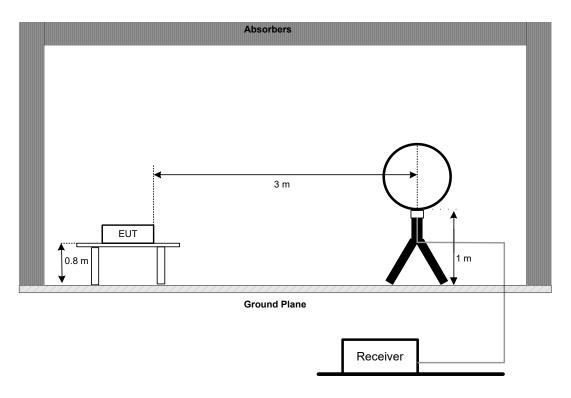


5.3 DEVIATION FROM TEST STANDARD

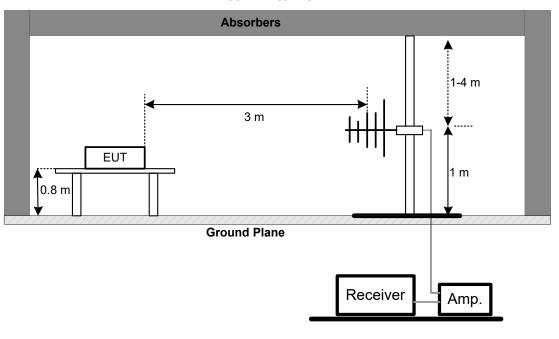
No deviation.

5.4 TEST SETUP

9 kHz to 30 MHz

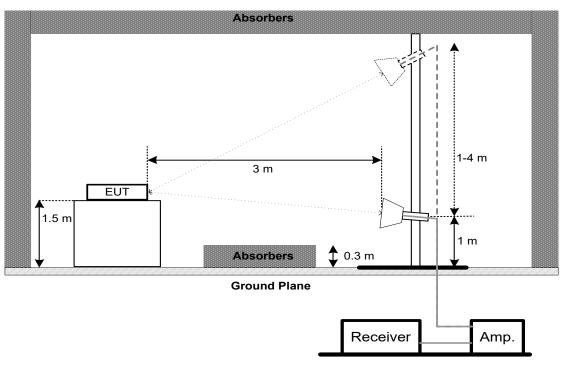


30 MHz to 1 GHz

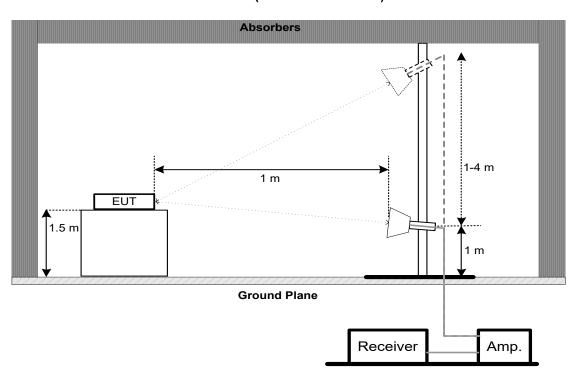




Above 1 GHz Band edge & Harmonic(1 GHz to 18 GHz)



Harmonic(18 GHz to 26.5 GHz)





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5.5 EUT OPERATING CONDITIONS

The EUT was programmed to be in continuously transmitting mode.

5.6 TEST RESULT - 9 kHz TO 30 MHz

Please refer to the APPENDIX B.

Remark:

- (1) Distance extrapolation factor = 40 log (specific distance / test distance) (dB).
- (2) Limit line = specific limits (dBuV) + distance extrapolation factor.

5.7 TEST RESULT - 30 MHz TO 1000 MHz

Please refer to the APPENDIX C.

5.8 TEST RESULT - ABOVE 1000 MHz

Please refer to the APPENDIX D.

Remark:

(1) No limit: This is fundamental signal, the judgment is not applicable. For fundamental signal judgment was referred to Peak output test.



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6. BANDWIDTH

6.1 LIMIT

Section	Test Item	Limit
FCC 15.247(a)(2)	6 dB Bandwidth	>= 500 kHz
	99% Emission Bandwidth	-

6.2 TEST PROCEDURE

- a. The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below.
- b. The following table is the setting of the spectrum analyzer:

For 6 dB Bandwidth:

or o ab barrawiatir.			
Spectrum Parameters	Setting		
Span	> Measurement Bandwidth		
RBW	100 kHz		
VBW	300 kHz		
Detector	Peak		
Trace	Max Hold		
Sweep Time	Auto		

For 99% Emission Bandwidth:

Spectrum Parameters	Setting	
Span	Between 1.5 times and 5.0 times the OBW	
RBW	30 kHz	
VBW	100 kHz	
Detector	Peak	
Trace	Max Hold	
Sweep Time	Auto	

6.3 DEVIATION FROM STANDARD

No deviation.

6.4 TEST SETUP



6.5 EUT OPERATION CONDITIONS

The EUT was programmed to be in continuously transmitting mode.

6.6 TEST RESULTS

Please refer to the APPENDIX E.



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7. MAXIMUM OUTPUT POWER

7.1 LIMIT

Section	Test Item	Limit
FCC 15.247(b)(3)	Maximum Output Power	1.0000 watt or 30.00 dBm

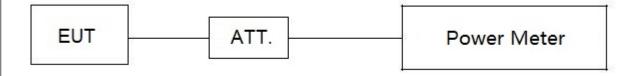
7.2 TEST PROCEDURE

- a. The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below.
- b. The maximum conducted output power was performed in accordance with method 11.9.2.3.2 of ANSI C63.10-2013.

7.3 DEVIATION FROM STANDARD

No deviation.

7.4 TEST SETUP



7.5 EUT OPERATION CONDITIONS

The EUT was programmed to be in continuously transmitting mode.

7.6 TEST RESULTS

Please refer to the APPENDIX F.



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8. CONDUCTED SPURIOUS EMISSION

8.1 LIMIT

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 Output Power limits. If the transmitter complies with the Output Power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in Section 15.209(a) is not required.

8.2 TEST PROCEDURE

- a. The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below.
- b. The following table is the setting of the spectrum analyzer:

For Reference Level:

3		
Spectrum Parameters	Setting	
Span	≥ 1.5 times the bandwidth.	
RBW	100 kHz	
VBW	300 kHz	
Detector	Peak	
Trace	Max Hold	
Sweep Time	Auto	

For Emission Level - Band edge:

To Emiddion Edvar Band dage.		
Setting		
2300 MHz		
2690 MHz		
100 kHz		
300 kHz		
Peak		
Max Hold		
Auto		

For Emission Level - Harmonic:

Spectrum Parameters	Setting	
Start Frequency	30 MHz	
Stop Frequency	26.5 GHz	
RBW	100 kHz	
VBW	300 kHz	
Detector	Peak	
Trace	Max Hold	
Sweep Time	Auto	



Report Version: R01

8.3 DEVIATION FROM STANDARD

No deviation.

8.4 TEST SETUP



8.5 EUT OPERATION CONDITIONS

The EUT was programmed to be in continuously transmitting mode.

8.6 TEST RESULTS

Please refer to the APPENDIX G.



Report Version: R01

9. POWER SPECTRAL DENSITY

9.1 LIMIT

Section	Test Item	Limit
FCC 15.247(e)	Power Spectral Density	8 dBm (in any 3 kHz)

9.2 TEST PROCEDURE

- a. The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below.
- b. The following table is the setting of the spectrum analyzer:

Spectrum Parameters	Setting			
Span	1.5 times the DTS bandwidth			
RBW	3 kHz			
VBW	10 kHz			
Detector	Peak			
Trace	Max Hold			
Sweep Time	Auto			

9.3 DEVIATION FROM STANDARD

No deviation.

9.4 TEST SETUP



9.5 EUT OPERATION CONDITIONS

The EUT was programmed to be in continuously transmitting mode.

9.6 TEST RESULTS

Please refer to the APPENDIX H.





10. MEASUREMENT INSTRUMENTS LIST

	AC Power Line Conducted Emissions							
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until			
1	EMI TEST RECEIVER	R&S	ESCI	ESCI 100382				
2	TWO-LINE V-NETWORK	R&S	ENV216	101447	Dec. 06, 2025			
3	Measurement Software	Farad	EZ-EMC Ver.NB-03A1-01	N/A	N/A			
4	Cable	N/A	SFT205-NMNM-9M -001	9M	Nov. 11, 2025			
5	643 Shield Room	ETS	6*4*3	N/A	N/A			

	Radiated Emissions - 9 kHz to 30 MHz						
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until		
1	Active Loop Antenna	Schwarzbeck	FMZB 1513-60B	1513-60 B-034	Mar. 30, 2025		
2	MXE EMI Receiver	Keysight	N9038A	MY56400091	Dec. 06, 2025		
3	Cable	N/A	RW4950-3.8A-NMS M-1.5	N/A	Nov. 12, 2025		
4	Cable	N/A	LMR400-NMNM-8 M	N/A	Nov. 12, 2025		
5	Measurement Software	Farad	EZ-EMC Ver.NB-03A1-01	N/A	N/A		
6	966 Chamber room	Chamber room ETS		N/A	May 16, 2025		

Radiated Emissions - 30 MHz to 1 GHz						
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until	
1	Trilog-Broadband Antenna	Schwarzbeck	VULB 9168	1462	Dec.14,2025	
2	Attenuator	EMC INSTRUMENT	EMCI-N-6-06	AT-06009	Dec.14,2025	
3	Preamplifier	EMC INSTRUMENT	EMC001330	980998	May 17, 2026	
4	Cable	RegalWay	LMR400-NMNM-12 .5m	N/A	Jun. 06, 2025	
5	Cable	RegalWay	LMR400-NMNM-3 m	N/A	Jun. 06, 2025	
6	Cable	RegalWay	LMR400-NMNM-0. 5m	N/A	Jun. 06, 2025	
7	Receiver	Agilent	N9038A	MY52130039	Jan. 10, 2026	
8	Positioning Controller	MF	MF-7802	N/A	N/A	
9	Measurement Software	Farad	EZ-EMC Ver.NB-03A1-01	N/A	N/A	
10	966 Chamber room	CM	9*6*6	N/A	May 15, 2026	





Radiated Emissions - 1 GHz - 18 GHz Manufacturer Calibrated until Item Kind of Equipment Type No. Serial No. N9038A MY52130039 1 Receiver Agilent Jan. 10, 2026 **EMC** 2 Preamplifier EMC118A45SE 980888 Oct. 29, 2025 INSTRUMENT Double Ridged Guide 3 **ETS** 3115 75846 Mar. 02, 2026 Antenna RWLP50-4.0A-SMS 4 Cable RegalWay N/A Jun. 29, 2026 M-12.5M RWLP50-4.0A-NM 5 Cable RegalWay N/A Jun. 29, 2026 RASM-2.5M RWLP50-4.0A-NM 6 Cable RegalWay N/A Jun. 29, 2026 RASMRA-0.8M 7 966 Chamber room СМ 9*6*6 N/A May 18, 2026 8 Attenuator **Talent Microwave** TA10A2-S-18 N/A N/A 9 Filter STI STI15-9912 N/A May 27, 2026 10 Positioning Controller MF MF-7802 N/A N/A EZ-EMC Measurement N/A 11 N/A Farad Software Ver.NB-03A1-01

	Radiated Emissions - Above 18 GHz						
Item	Kind of Equipment	Kind of Equipment Manufacturer		Serial No.	Calibrated until		
1	Preamplifier	EMC INSTRUMENT	EMC184045SE	980905	Oct. 29, 2025		
2	Cable	RegalWay	RWLP50-2.6A-2.92 M2.92M-1.1M	N/A	Jul. 25, 2025		
3	Cable	Tonscend	HF160-KMKM-3M	N/A	Jul. 25, 2025		
4	Broad-Band Horn Antenna	Schwarzbeck	BBHA9170	1227	Oct. 20, 2025		
5	Positioning Controller	MF	MF-7802	N/A	N/A		
6	Measurement		EZ-EMC Ver.NB-03A1-01	N/A	N/A		
7	EXA Spectrum Analyzer	Keysight	N9010A	MY55150209	May 17, 2026		
8	966 Chamber room	6 Chamber room CM		N/A	May 18, 2026		

	Bandwidth & Maximum Output Power & Power Spectral Density & Conducted Spurious Emission							
Item	Item Kind of Equipment Manufacturer Type No. Serial No. Calibrated until							
1	1 Spectrum Analyzer R&S FSP38 100852 May 27, 2026							
2 CTA BTL CTA N/A N/A								
3	3 Isolation attenuator Z-Link ASMA-16-18-2W N/A N/A							

Remark: "N/A" denotes no model name, serial no. or calibration specified. All calibration period of equipment list is one year.



11. EUT TEST PHOTO

AC Power Line Conducted Emissions Test Photos







9 kHz to 30 MHz



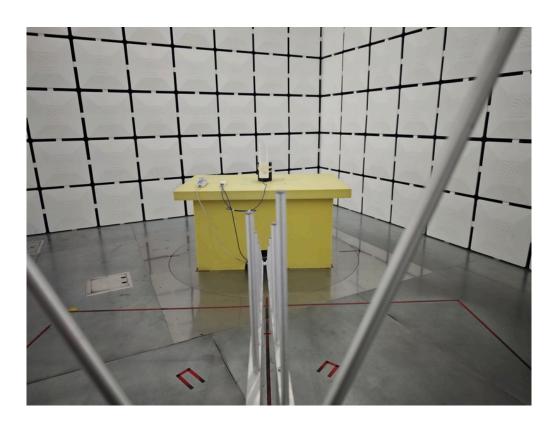






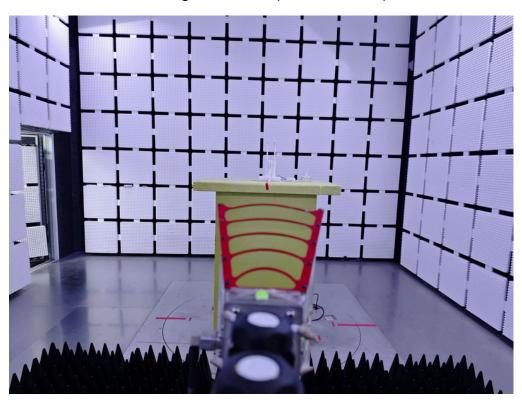
30 MHz to 1000 MHz

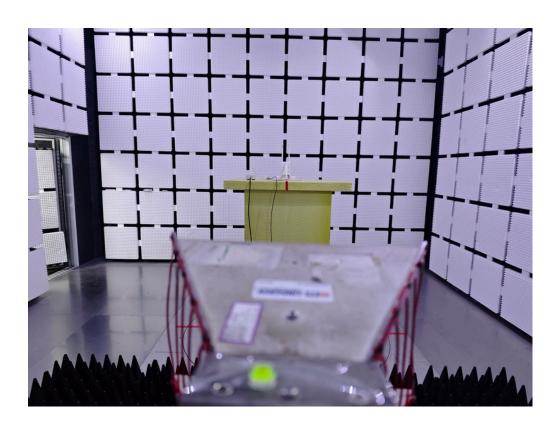






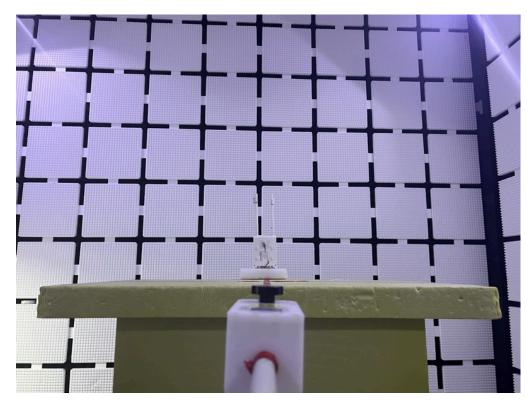
Band edge & Harmonic(1 GHz to 18 GHz)

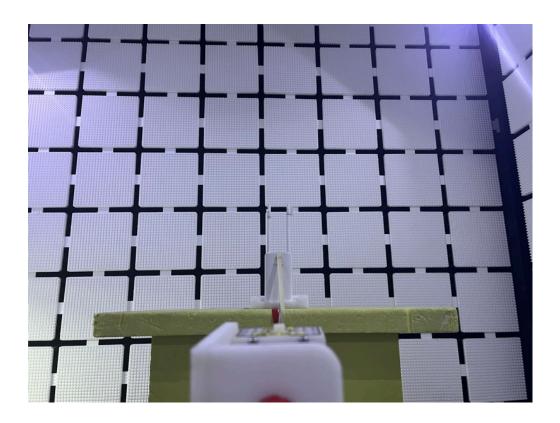






Harmonic(18 GHz to 26.5 GHz)

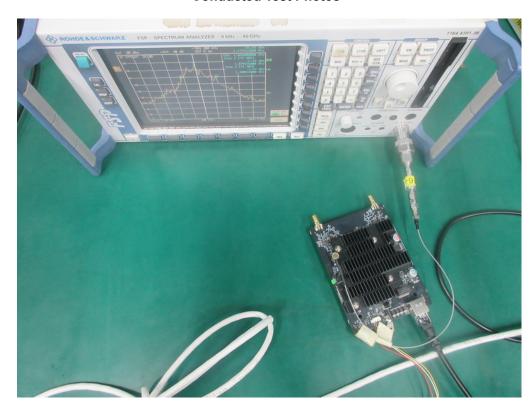




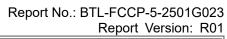




Conducted Test Photos







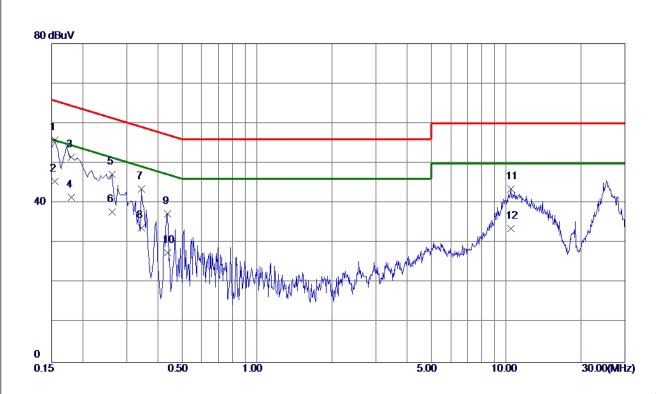


ADDENDIY A AC DOWED LINE CONDUCTED EMISSIONS

APPENDIX A - AC POWER LIN	E CONDUCTED EMISSIONS



Test Mode Phase TX Mode Channel 00_1Mbps Line



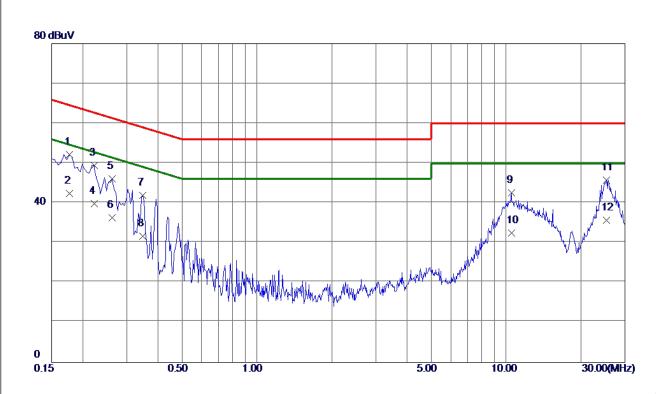
No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1 *	0. 1545	45. 89	9. 90	55. 79	65. 75	-9. 96	QP	
2	0. 1545	35. 61	9. 90	45. 51	55. 75	-10. 24	AVG	
3	0. 1796	41. 54	9. 92	51. 46	64. 50	-13. 04	Q P	
4	0. 1796	31. 50	9. 92	41. 42	54. 50	−13. 08	AVG	
5	0. 2625	37. 36	9. 90	47. 26	61.35	-14. 09	QP	
6	0. 2625	27. 91	9. 90	37. 81	51. 35	-13. 54	AVG	
7	0. 3435	33. 56	9. 93	43. 49	59 . 12	-15. 63	Q P	
8	0. 3435	23. 80	9. 93	33. 73	49 . 12	-15. 39	AVG	
9	0. 4380	27. 36	9. 95	37. 31	57. 10	-19. 79	QP	
10	0. 4380	17. 59	9. 95	27. 54	47. 10	-19. 56	AVG	
11	10. 4460	31. 34	12. 12	43. 46	60.00	-16. 54	QP	
12	10. 4460	21. 41	12. 12	33. 53	50.00	-16. 47	AVG	

REMARKS:

- (1) Measurement Value = Reading Level + Correct Factor.(2) Margin Level = Measurement Value Limit Value.

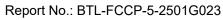


Phase Test Mode TX Mode Channel 00_1Mbps Neutral



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1	0. 1770	42. 12	9. 97	52. 09	64. 63	-12. 54	QP	
2 *	0. 1770	32. 50	9. 97	42. 47	54.63	-12. 16	AVG	
3	0. 2220	39. 49	9. 97	49. 46	62.74	-13. 28	QP	
4	0. 2220	29. 80	9. 97	39. 77	52.74	-12. 97	AVG	
5	0. 2625	36. 10	9. 98	46. 08	61. 35	-15. 27	QP	
6	0. 2625	26. 40	9. 98	36. 38	51. 35	-14. 97	AVG	
7	0.3480	31. 88	9. 98	41.86	59. 01	-17. 15	QP	
8	0.3480	21. 70	9. 98	31. 68	49.01	-17. 33	AVG	
9	10. 5000	30. 38	12. 12	42. 50	60.00	-17. 50	QP	
10	10. 5000	20. 31	12. 12	32. 43	50.00	-17. 57	AVG	
11	25. 3365	30. 25	15. 57	45.82	60.00	-14. 18	QP	
12	25. 3365	20. 10	15. 57	35. 67	50.00	-14. 33	AVG	

- (1) Measurement Value = Reading Level + Correct Factor.(2) Margin Level = Measurement Value Limit Value.





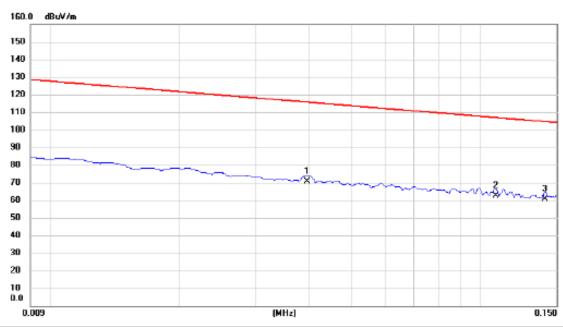
Report Version: R01

APPENDIX B - RADIATED EMISSION - 9 KHZ TO 30 MHZ





Polarization Test Mode TX Mode Channel 00_1Mbps Ant 0°

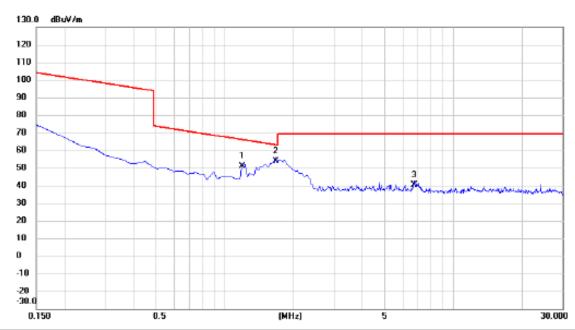


No. Mk.	Freq.		Correct Factor	Measure- ment	Limit	Margin		
	MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	0.0396	49.36	21.19	70.55	115.65	-45.10	AVG	
2	0.1084	41.43	21.33	62.76	106.91	-44.15	QP	
3 *	0.1411	39.47	21.28	60.75	104.62	-43.87	AVG	

- (1) Measurement Value = Reading Level + Correct Factor.(2) Margin Level = Measurement Value Limit Value.







No. Mk.	Freq.		Correct Factor	Measure- ment	Limit	Margin		
	MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	1.1947	29.74	21.18	50.92	66.06	-15.14	QP	
2 *	1.6724	32.48	21.14	53.62	63.14	-9.52	QP	
3	6.7470	19.26	21.14	40.40	69.54	-29.14	QP	

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value Limit Value.



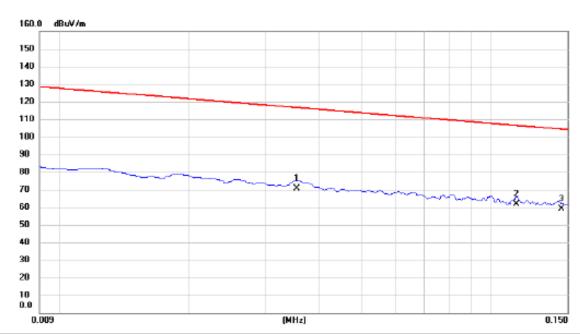
Ant 90°



Test Mode

Report Version: R01

Polarization



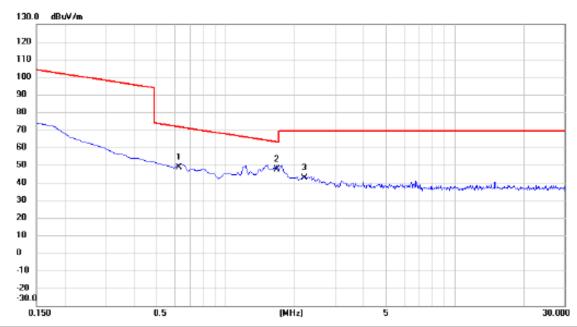
TX Mode Channel 00_1Mbps

No. Mk.	Freq.	Level	Factor	Measure- ment	Limit	Margin		
	MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	0.0355	49.47	21.17	70.64	116.60	-45.96	AVG	
2 *	0.1143	40.58	21.32	61.90	106.45	-44.55	AVG	
3	0.1452	37.63	21.27	58.90	104.37	-45.47	AVG	

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value Limit Value.





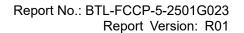


No. Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin		
	MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	0.6276	27.41	21.10	48.51	71.65	-23.14	QP	
2 *	1.6724	26.34	21.14	47.48	63.14	-15.66	QP	
3	2.2096	21.58	21.11	42.69	69.54	-26.85	QP	

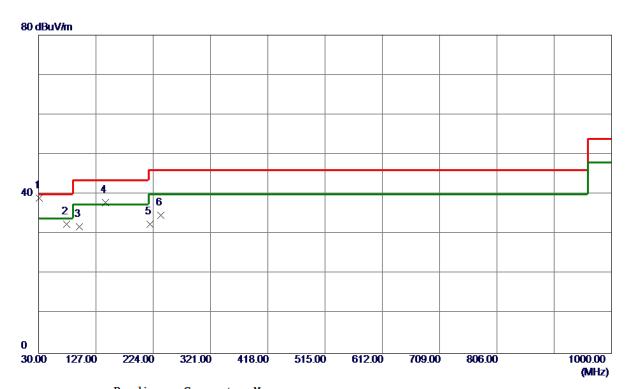
- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value Limit Value.



APPENDIX C - RADIATED EMISSION - 30 MHZ TO 1000 MHZ







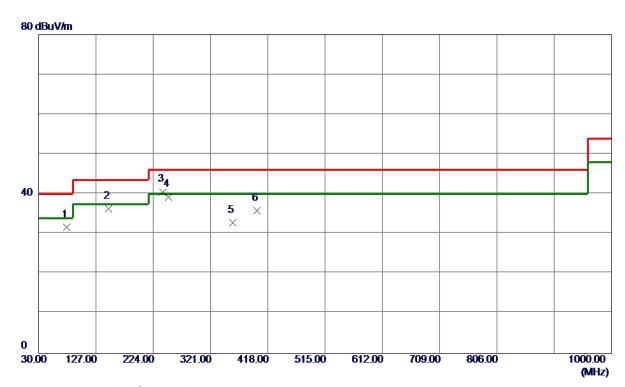
No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	30. 9700	51.84	-12. 78	39. 06	40.00	-0. 94	QP	
2	77. 5300	46. 96	-14. 55	32. 41	40.00	-7. 59	Peak	
3	98.8700	47. 44	-15. 58	31. 86	43. 52	-11. 66	Peak	
4	143. 4900	48. 92	-11.00	37. 92	43. 52	-5. 60	QP	
5	218. 1800	46. 02	-13. 56	32. 46	46 . 0 2	-13. 56	Peak	
6	236. 6100	46. 91	-12. 21	34. 70	46. 02	-11. 32	Peak	

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value Limit Value.





Polarization Test Mode TX Mode Channel 00_1Mbps Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	77. 5300	46. 19	-14. 55	31. 64	40.00	-8. 36	Peak	
2	148. 3400	47. 01	-10. 73	36. 28	43. 52	-7. 24	Peak	
3 *	240. 4900	52. 42	-11. 86	40. 56	46.02	-5. 46	QP	
4	250. 1900	50. 65	-11. 37	39. 28	46.02	-6. 74	Peak	
5	358. 8299	41. 25	-8. 47	32. 78	46. 02	-13. 24	Peak	
6	399. 5700	43. 29	-7. 39	35. 90	46. 02	-10. 12	Peak	

- (1) Measurement Value = Reading Level + Correct Factor.(2) Margin Level = Measurement Value Limit Value.



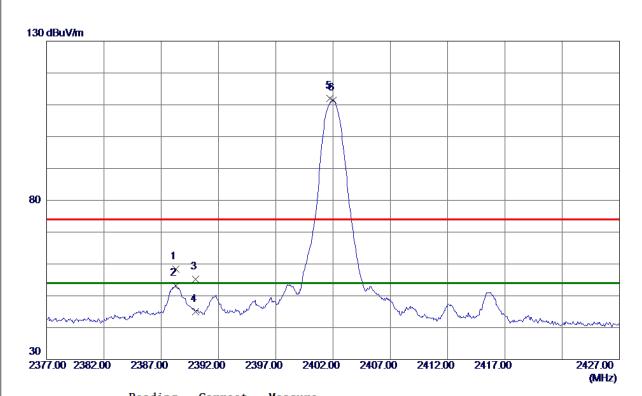


APPENDIX D - RADIATED EMISSION - ABOVE 1000 MHZ





Test Mode TX 2402 MHz_CH00_1Mbps Polarization Vertical



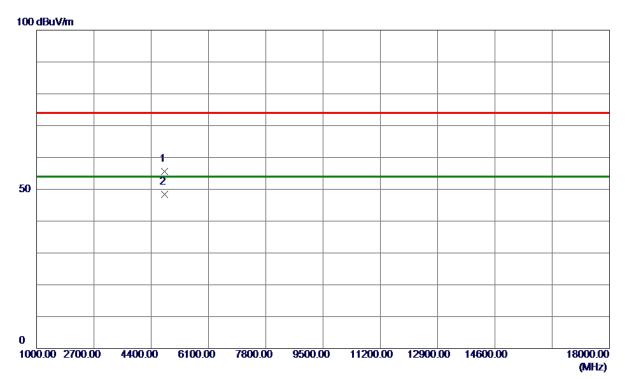
No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2388. 2500	50. 46	7. 89	58. 35	74.00	-15. 65	Peak	
2	2388. 2500	45. 23	7. 89	53. 12	54.00	-0.88	AVG	
3	2390. 0000	47. 26	7. 90	55. 16	74.00	-18.84	Peak	
4	2390. 0000	37. 07	7. 90	44. 97	54.00	-9. 03	AVG	
5	2401. 7500	104. 10	7. 92	112. 02	74.00	38. 02	Peak	No Limit
6 *	2402. 0000	103. 47	7. 92	111. 39	54.00	57. 39	AVG	No Limit

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value Limit Value.





Test Mode TX 2402 MHz_CH00_1Mbps Polarization Horizontal



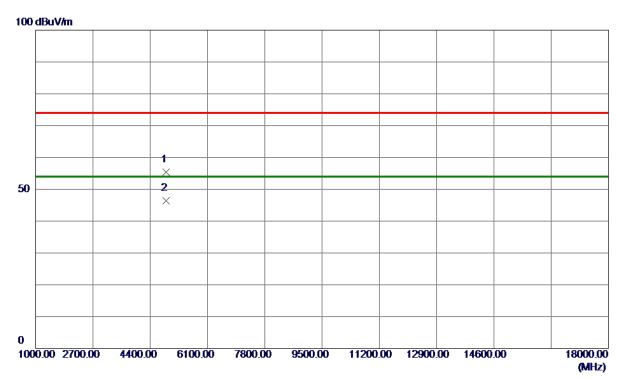
No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	4803. 5299	51. 17	4. 36	55. 53	74.00	-18. 47	Peak	
2 *	4804. 0600	43. 96	4. 36	48. 32	54. 00	-5. 68	AVG	

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value Limit Value.



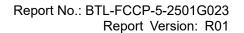


Test Mode TX 2440 MHz_CH19_1Mbps Polarization Horizontal



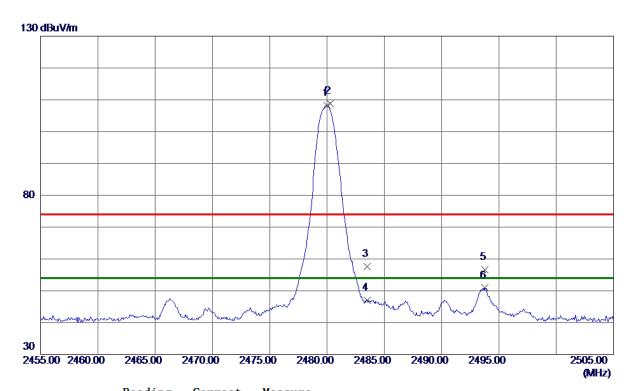
No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	4879. 4300	50. 94	4. 40	55. 34	74.00	-18. 66	Peak	
2 *	4879. 9100	42. 03	4. 41	46. 44	54. 00	-7. 56	AVG	

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value Limit Value.





Test Mode TX 2480 MHz_CH39_1Mbps Polarization Vertical



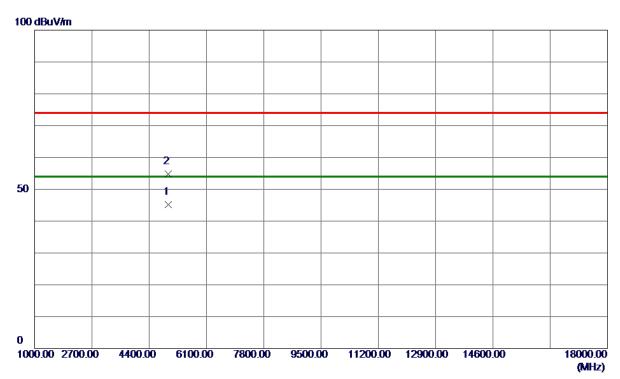
No.	Freq.	Reading Level	Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	2480. 0000	100. 04	8. 10	108. 14	54.00	54. 14	AVG	No Limit
2	2480. 2500	100. 70	8. 10	108. 80	74.00	34. 80	Peak	No Limit
3	2483. 5000	49. 44	8. 11	57. 55	74.00	-16. 45	Peak	
4	2483. 5000	38. 88	8. 11	46. 99	54.00	−7. 01	AVG	
5	2493. 8000	48. 46	8. 14	56. 60	74.00	-17. 40	Peak	
6	2493. 8000	42. 76	8. 14	50. 90	54.00	-3. 10	AVG	

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value Limit Value.





Test Mode TX 2480 MHz_CH39_1Mbps Polarization Horizontal



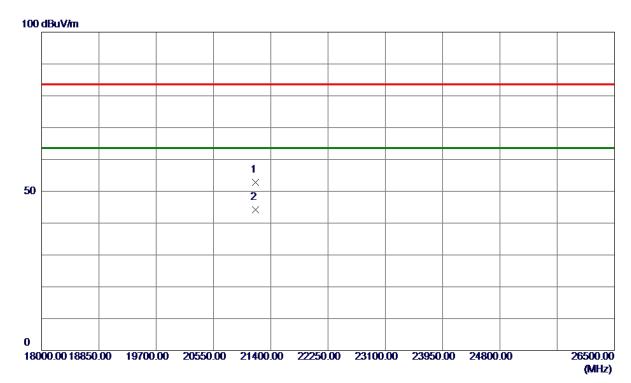
No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	4960. 0200	40. 70	4. 45	45. 15	54.00	-8. 85	AVG	
2	4960. 5000	50. 40	4. 45	54. 85	74. 00	-19. 15	Peak	

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value Limit Value.





Test Mode TX 2402 MHz_CH00_1Mbps Polarization Vertical



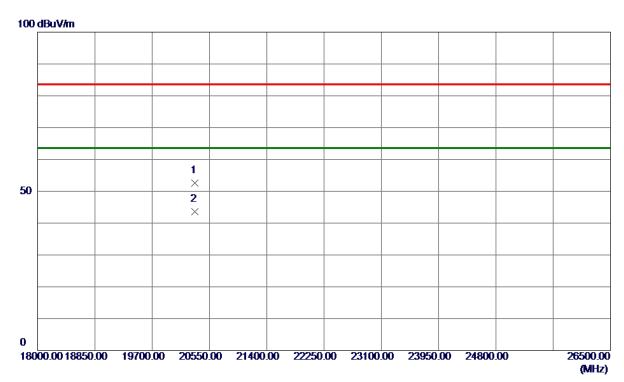
No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	21170. 5000	51.86	0.87	52. 73	83. 50	-30. 77	Peak	
2 *	21170, 5000	43, 28	0. 87	44. 15	63, 50	-19, 35	AVG	

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value Limit Value.



Report No.: BTL-FCCP-5-2501G023 Report Version: R01

Test Mode	TX 2402 MHz CH00 1Mbps	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	20337. 5000	52. 39	0. 30	52. 69	83. 50	-30. 81	Peak	
2 *	20337, 5000	43, 25	0. 30	43. 55	63. 50	-19. 95	AVG	

- (1) Measurement Value = Reading Level + Correct Factor.(2) Margin Level = Measurement Value Limit Value.





Report Version: R01

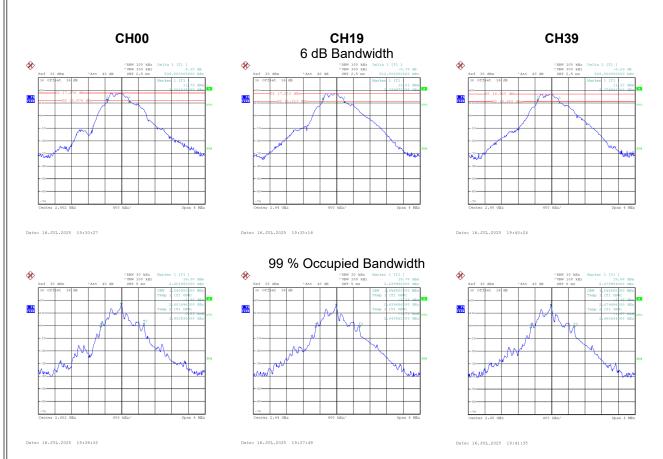
APPENDIX E - BANDWIDTH





Test Mode TX Mode_1Mbps

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	99 % Occupied Bandwidth (MHz)	6 dB Bandwidth Min. Limit (MHz)	Test Result
00	2402	0.536	1.040	0.5	Pass
19	2440	0.512	1.056	0.5	Pass
39	2480	0.528	1.048	0.5	Pass







APPENDIX F - MAXIMUM OUTPUT POWER



Report No.: BTL-FCCP-5-2501G023

Report Version: R01

To a 4 NA and a	TV Mada ANAbaa
Test Mode	IX Mode 1Mbps
	l

Frequency (MHz)	Output Power (dBm)	Duty Factor	Output Power + Duty Factor (dBm)	Max. Limit (dBm)	Max. Limit (W)	Test Result
2402	10.20	7.21	17.41	30.00	1.0000	Pass
2440	9.82	7.21	17.03	30.00	1.0000	Pass
2480	9.39	7.21	16.60	30.00	1.0000	Pass

Note: Output power = Measure result + Cable loss



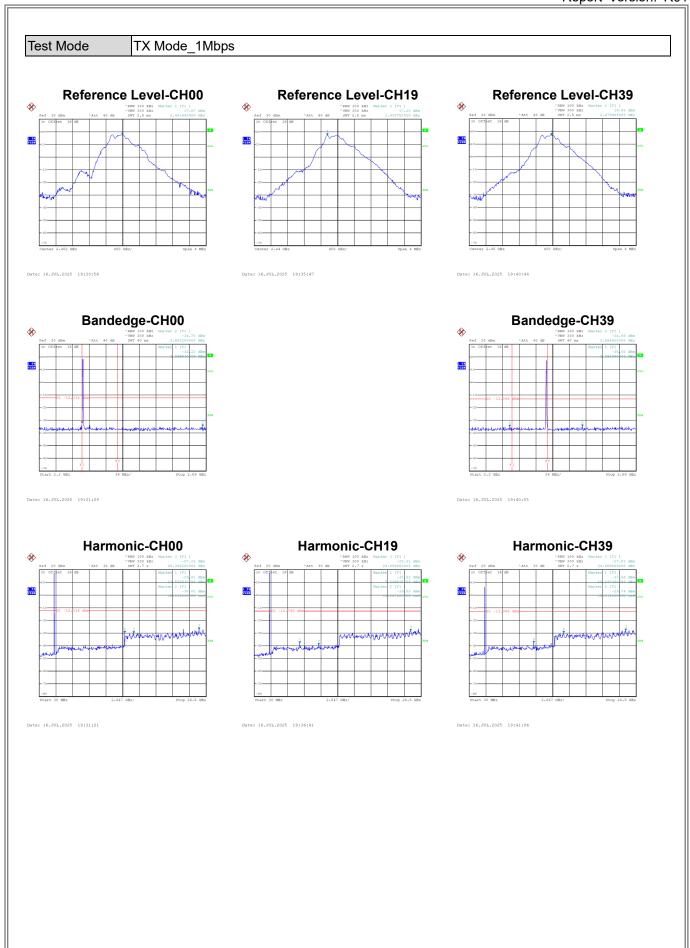


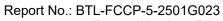
Report Version: R01

APPENDIX G - CONDUCTED SPURIOUS EMISSION











Report Version: R0
APPENDIX H - POWER SPECTRAL DENSITY





Test Mode TX Mode_1Mbps

Channel	Frequency (MHz)	Power Spectral Density (dBm/3 kHz)	Max. Limit (dBm/3 kHz)	Test Result
00	2402	2.11	8.00	Pass
19	2440	0.95	8.00	Pass
39	2480	0.79	8.00	Pass

