RASTAR GROUP

TEST REPORT

SCOPE OF WORK
FCC TESTING– MODEL: 80445A627A0(97200)

REPORT NUMBER
GZHH00440245-003

ISSUE DATE
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26

DOCUMENT CONTROL NUMBER
FCC ID 249_C

RASTAR GROUP

Application for Certification

FCC ID: 2AENTXH972002TX

RC Assembly Model Kit

Model: 80445A627A0(97200)
Additional Model: See Page 5

2.4GHz Transceiver

Report No.: GZHH00440245-003

We hereby certify that the sample of the above item is considered to comply with the requirements of FCC Part 15, Subpart C for Intentional Radiator, mention 47 CFR [10-1-20]

Prepared and Checked by:	Approved by:
Sign on file	Peter Kang
Maura Wang *Engineer*	*Peter Kang* *Technical Supervisor* *Date: April 1, 2022*

MEASUREMENT/TECHNICAL REPORT

This report concerns (check one:) Original Grant _X_ Class II Change _____

Equipment Type: DXX - Part 15 Low Power Communication Device Transmitter

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Deferred grant requested per 47 CFR 0.457(d)(1)(ii)? Yes _____ No _X_

If yes, defer until: _____
date

Company Name agrees to notify the Commission by: _____
date
of the intended date of announcement of the product so that the grant can be issued on that date.

Transition Rules Request per 15.37? Yes _____ No _X_

If no, assumed Part 15, Subpart C for intentional radiator – the new 47 CFR [10-1-20 Edition] provision.

Report prepared by:

Maura Wang
Intertek Testing Services Shenzhen Ltd. Longhua Branch
101, 201, Building B, No. 308 Wuhe Avenue, Zhangkengjing Community GuanHu Subdistrict, LongHua District, Shenzhen, People's Republic of China
Tel / Fax: 86-755-8601 6288/86-755-8601 6751

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1.0 Summary of Test Result

Applicant: RASTAR GROUP
Applicant Address: Xinghui Industrial Park, Xiadao Road,Shanghua,Chenghai,Shantou,GuangDong,China.

Manufacturer: RASTAR GROUP
Manufacturer Address: Xinghui Industrial Park, Xiadao Road,Shanghua,Chenghai,Shantou,GuangDong,China.

MODEL: 80445A627A0(97200)

FCC ID: 2AENTXH972002TX

Test Specification	Reference	Results
Transmitter Radiated Emission Bandedge	15.249 &15.209 &15.205	Pass
20dB Bandwidth	15.215(c)	Pass

Notes: The EUT uses an Integral Antenna which in accordance to Section 15.203 is considered sufficient to comply with the provisions of this section.

2.0 General Description

2.1 Product Description

The equipment under test (EUT) is an RC Assembly Model Kit operating at 2.4G Band. The EUT can be powered by DC 3.0V (2 x 1.5V AA batteries). For more detail information pls. refer to the user manual.

Antenna Type: Integral antenna
Modulation Type: GFSK
Antenna Gain: 0dBi

For electronic filing, the brief circuit description is saved with filename: descri.pdf.

The additional controller Models are the same as the Model: 80445A627A0(97200) in hardware and electrical aspect. The difference in appearance, model number and names serve as marketing strategy.

Additional name:	Additional model:
BMW M8 GTE	80445A627A0（97200）
BMW I8	59200
Ferrari SF90 Stradale	97500
Ferrari SF90 Stradale Performance	97510
Mercedes-Benz F1 W11	98500
BMW Z4 Roadster	95900
McLaren Senna	96300
PAJERO	20100
MINI COOPER S	20900
Mercedes-Benz ML-CLASS	21200
BMW X5	23100
Ferrari 458 Italia	53400
Ferrari F12	53500
Audi R8	53600
Audi R8 LMS Performance	53610
Lamborghini Sesto Elemento	53700
Ferrari F1	53800
Bugatti Veyron Grand Sport Vitesse	53900
Mercedes-Benz SLS AMG	54100
Off-Roader	59100
AUDI R8 Performance 2015 Version	59300
Porsche 911 GT3 CUP	59400
Ferrari FXXK	96900
Land Rover	96800
Ferrari F1	97000
Lamborghini Sian	97400
BMW M8 GTE	97200
Mercedes-Benz F1 W11	98600
Ferrari 458 Italia	53400-10
Ferrari F12	53500-10
Audi R8	53600-10
Auri R8 LMS	53610-10
Lamborghini Sesto Elemento	53700-10
Mercedes SLS AMG	54100-10
Mercedes-Benz Arocs Transport Mixer	78900
Mercedes-Benz Arocs Logging vehicle	79000
Mercedes-Benz Arocs Transport Mixer	78960

Mercedes-Benz Arocs Logging vehicle	79060
RS Wolf Warriors	77620
RS Wolf Warriors	77640
Mercedes-Benz Container Truck	77720
Mercedes-Benz Container Truck	77740
Porsche 911 GT2 RS Clubsport 25	99600
Stunt Scooter	08200
Stunt	08300
Stunt Car	17000
Speed Car	17090
Dancing Car	18090
Stunt Car	19030
Twist	22000
B Furious	26200
4WD Off-Road Car	33300
Amphibious car	81409
Stunt Car	89020
Stunt Car	89890
Multiple Stunt Car	91700
MINI COOPER S	15000
MINI COOPER S	15000-6
Lamborghini Superleggera	26300
Audi Q7	27300
Range Rover Sport	30300
Mercedes-Benz G55	30500
BMW X6	31700
Pagani Zonda R	38010
Audi Q5	38600
Audi Q5	38610
Lamborghini Murcielago LP670-4	39000
Lamborghini Murcielago LP670-4	39000-6
Lamborghini Murcielago LP670-4	39001
BMW Z4	39700
Porsche Cayenne Turbo	46100
Lamborghini Aventador LP700	46300
Ferrari 599 GTO	46400
Ferrari California	46500
Ferrari 458 Italia	46600
AUDI R8	46800
Range Rover Evoque	46900
Bugatti Grand Sport Vitesse	47000
Ferrari F12	48100
Lamborghini Sesto	48200
BMW M3	48300
BMW I8	48400
Range Rover Sport 2013 Version	48500
Bentley Confinental GT speed	48600
Mercedes-Benz Actros with 1/24 scale Car	74920
Mercedes-Benz Actros with 1/24 scale Car	74940
Mercedes-Benz Actros 2.4G	74930
Ferrari 599 GTO	60400
Mercedes-Benz Antos Fire Engine & Rescue car	78620
Mercedes-Benz Antos Fire Engine	78630
Mercedes-Benz Antos Fire Engine & Rescue car	78640

2.2 Related Submittal(s) Grants

This is an application for certification of controller unit for the RC Assembly Model Kit, and the corresponding receiver unit which associated with this EUT is subjected to FCC SDOC and FCC certification with FCC ID: 2AENTXH972001RX.

2.3 Test Methodology

Radiated emission measurements were performed according to the procedures in ANSI C63.10 (2013). Radiated emission measurement was performed in Semi-anechoic chamber. For radiated emission measurement, preliminary scans were performed in the semi-anechoic chamber only to determine the worst case modes. All radiated tests were performed at an antenna to EUT distance of 3 meters, unless stated otherwise in the "**Justification Section**" of this Application. All other measurements were made in accordance with the procedures in part 2 of CFR 47.

2.4 Test Facility

The Semi-anechoic chamber used to collect the radiated data is **Intertek Testing Services Shenzhen Ltd. Longhua Branch** and located at 101, 201, Building B, No. 308 Wuhe Avenue, Zhangkengjing Community GuanHu Subdistrict, LongHua District, Shenzhen, People's Republic of China. This test facility and site measurement data have been fully placed on file with the FCC (Registration Number: CN1188).

3.0 System Test Configuration

3.1 Justification

The system was configured for testing in a typical fashion (as a customer would normally use it), and in the confines as outlined in ANSI C63.10 (2013).

The EUT was powered by DC 3.0V (2 x 1.5V AA batteries) during the test, only the worst data was reported in this report.

For maximizing emissions below 30 MHz, the EUT was rotated through 360°, the bottom of the loop antenna was placed 1 meter above the ground, and the antenna polarization was changed. For maximizing emissions, the EUT was rotated through 360°, the antenna height was varied from 1 meter to 4 meters above the ground plane, and the antenna polarization was changed. This step by step procedure for maximizing emissions led to the data reported in Section 4.

The EUT was operated standalone and placed in the central of the turntable.

The equipment under test (EUT) was configured for testing in a typical fashion (as a customer would normally use it). The EUT was placed on a turn table, which enabled the engineer to maximize emissions through its placement in the three orthogonal axes.

3.2 EUT Exercising Software

There was no special software to exercise the device.

3.3 Special Accessories

No special accessories used.

3.4 Equipment Modification

Any modifications installed previous to testing by RASTAR GROUP will be incorporated in each production model sold / leased in the United States.

No modifications were installed by Intertek Testing Services Shenzhen Ltd Longhua Branch.

3.5 Measurement Uncertainty

When determining the test conclusion, the Measurement Uncertainty of test has been considered.

3.6 Support Equipment List and Description

Description	Manufacturer	Model No.
N/A	N/A	N/A

4.0 Emission Results

Data is included worst-case configuration (the configuration which resulted in the highest emission levels).

4.1 Radiated Test Results

A sample calculation, configuration photographs and data tables of the emissions are included.

4.1.1 Field Strength Calculation

The field strength is calculated by adding the reading on the Spectrum Analyzer to the factors associated with preamplifiers (if any), antennas, cables, pulse desensitization and average factors (when specified limit is in average and measurements are made with peak detectors). A sample calculation is included below.

FS = RA + AF + CF - AG + PD + AV

Where FS = Field Strength in dBµV/m
RA = Receiver Amplitude (including preamplifier) in dBµV
CF = Cable Attenuation Factor in dB
AF = Antenna Factor in dB
AG = Amplifier Gain in dB
PD = Pulse Desensitization in dB
AV = Average Factor in -dB

In the radiated emission table which follows, the reading shown on the data table may reflect the preamplifier gain. An example of the calculations, where the reading does not reflect the preamplifier gain, follows:

FS = RA + AF + CF - AG + PD + AV

Assume a receiver reading of 62.0 dBµV is obtained. The antenna factor of 7.4 dB and cable factor of 1.6 dB is added. The amplifier gain of 29 dB is subtracted. The pulse desensitization factor of the spectrum analyzer was 0 dB, and the resultant average factor was -10 dB. The net field strength for comparison to the appropriate emission limit is 32 dBµV/m. This value in dBµV/m was converted to its corresponding level in µV/m.

RA = 62.0 dBµV
AF = 7.4 dB
CF = 1.6 dB
AG = 29.0 dB
PD = 0 dB
AV = -10 dB
FS = 62 + 7.4 + 1.6 - 29 + 0 = 42 dBµV/m

Level in µV/m = Common Antilogarithm [(42 dBµV/m)/20] = 125.9 µV/m

4.1.2 Radiated Emission Configuration Photograph

For electronic filing, the worst case radiated emission configuration photograph is saved with filename: radiated photos. pdf.

4.1.3 Radiated Emissions

The data on the following page lists the significant emission frequencies, the limit and the margin of compliance. Numbers with a minus sign are below the limit.

Worst Case Radiated Emission
at
707.626250 MHz

Judgement: Passed by 20.0 dB

TEST PERSONNEL:

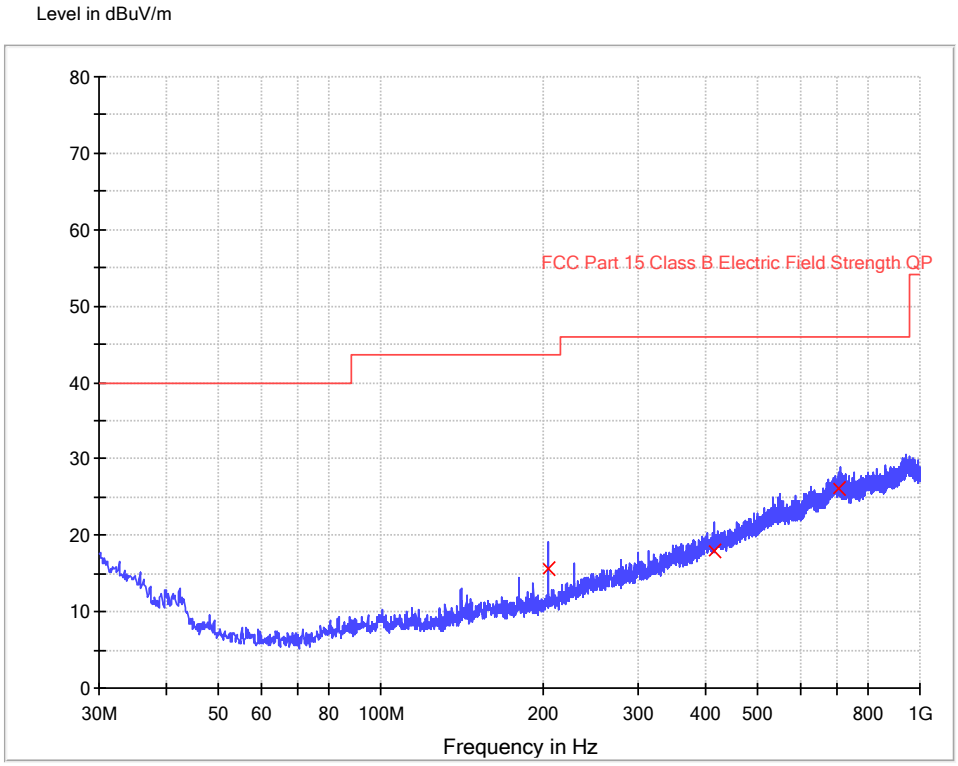
Sign on file

Maura Wang, Engineer
Typed/Printed Name

March 25, 2022
Date

Applicant: RASTAR GROUP
Date of Test: March 25, 2022
Model: 80445A627A0(97200)
Worst Case Operating Mode: Transmitting(2410.000MHz)

ANT Polarity: Horizontal

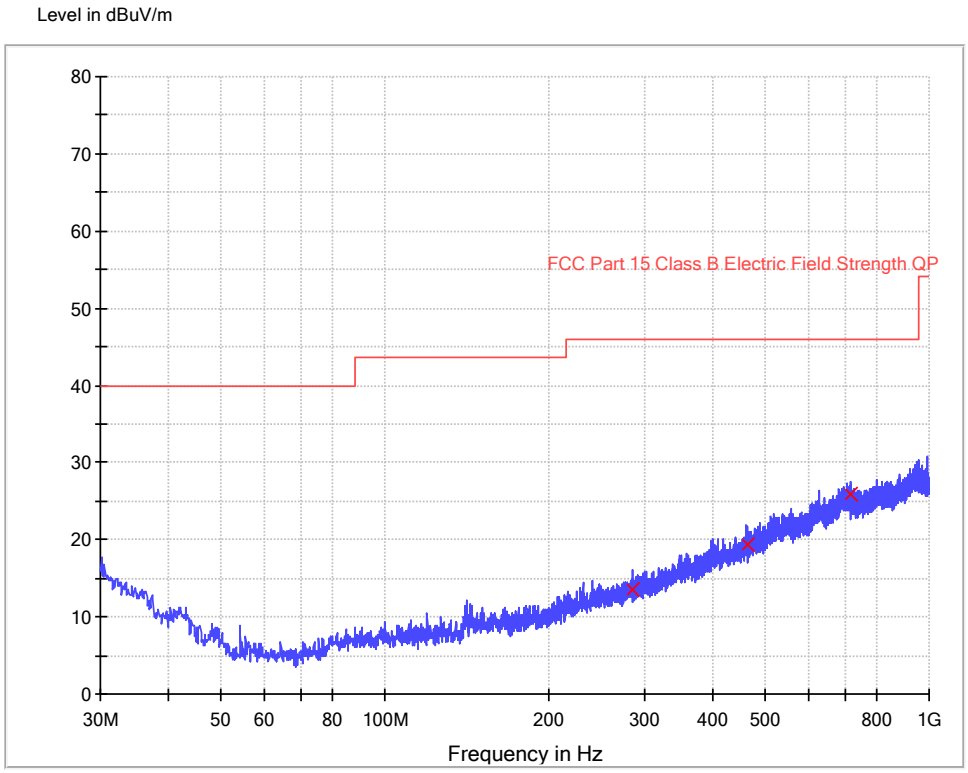


Frequency (MHz)	QuasiPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Polarization	Corr. (dB)	Margin - QPK (dB)	Limit - QPK (dBµV/m)
203.860000	15.6	1000.0	120.000	H	12.5	27.9	43.5
415.311250	18.0	1000.0	120.000	H	20.1	28.0	46.0
707.626250	26.0	1000.0	120.000	H	26.4	20.0	46.0

Remark:
1. Corr. = Antenna Factor (dB/m) + Cable Loss (dB)
2. QuasiPeak (dBµV/m)= Corr. (dB/m)+ Read Level (dBµV)
3. Margin (dB) = Limit Line(dBµV/m) – Level (dBµV/m)

Applicant: RASTAR GROUP
Date of Test: March 25, 2022
Model: 80445A627A0(97200)
Worst Case Operating Mode: Transmitting(2410.000MHz)

ANT Polarity: Vertical



Frequency (MHz)	QuasiPeak (dBuV/m)	Meas. Time (ms)	Bandwidth (kHz)	Polarization	Corr. (dB)	Margin - QPK (dB)	Limit - QPK (dBuV/m)
285.555000	13.6	1000.0	120.000	V	15.9	32.4	46.0
462.477500	19.5	1000.0	120.000	V	21.1	26.6	46.0
716.700000	25.9	1000.0	120.000	V	26.1	20.1	46.0

Remark:
1. Corr. = Antenna Factor (dB/m) + Cable Loss (dB)
2. QuasiPeak (dBμV/m)= Corr. (dB/m)+ Read Level (dBμV)
3. Margin (dB) = Limit Line(dBμV/m) – Level (dBμV/m)

4.1.4 Transmitter Spurious Emissions (Radiated)

Worst Case Radiated Emission
at
2483.500 MHz

For electronic filing, the worst case radiated emission configuration photograph is saved with filename: radiated photos. pdf.

The data on the following page lists the significant emission frequencies, the limit and the margin of compliance. Numbers with a minus sign are below the limit.

Judgement: Passed by 4.0 dB

TEST PERSONNEL:

Sign on file

Maura Wang, Engineer
Typed/Printed Name

March 25, 2022
Date

Applicant: RASTAR GROUP
Date of Test: March 25, 2022
Model: 80445A627A0(97200)
Worst Case Operating Mode: Transmitting

Table 1

Radiated Emissions
(2410 MHz)

Polarization	Frequency (MHz)	Reading (dBµV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBµV/m)	Peak Limit at 3m (dBµV/m)	Margin (dB)
Horizontal	2410.000	108.9	36.7	28.1	100.3	114.0	-13.7
Horizontal	4820.000	40.5	36.7	35.5	39.3	74.0	-34.7

Polarization	Frequency (MHz)	Reading (dBµV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Average Factor (-dB)	Net at 3m (dBµV/m)	Average Limit at 3m (dBµV/m)	Margin (dB)
Horizontal	2410.000	108.9	36.7	28.1	21.7	78.6	94.0	-15.4
Horizontal	4820.000	40.5	36.7	35.5	21.7	17.6	54.0	-36.4

Notes:
1. Peak Detector Data unless otherwise stated.

2. All measurements were made at 3 meters. Harmonic emissions not detected at the 3-meter distance were measured at 0.3-meter and an inverse proportional extrapolation was performed to compare the signal level to the 3-meter limit. No other harmonic emissions than those reported were detected at a test distance of 0.3-meter.

3. Negative value in the margin column shows emission below limit.

4. Horn antenna is used for the emission over 1000MHz.

Applicant: RASTAR GROUP
Date of Test: March 25, 2022
Model: 80445A627A0(97200)
Worst Case Operating Mode: Transmitting

Table 2

Radiated Emissions
(2442 MHz)

Polarization	Frequency (MHz)	Reading (dBµV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBµV/m)	Peak Limit at 3m (dBµV/m)	Margin (dB)
Horizontal	2442.000	109.9	36.7	28.3	101.5	114.0	-12.5
Horizontal	4884.000	39.5	36.7	35.7	38.5	74.0	-35.5

Polarization	Frequency (MHz)	Reading (dBµV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Average Factor (-dB)	Net at 3m (dBµV/m)	Average Limit at 3m (dBµV/m)	Margin (dB)
Horizontal	2442.000	109.9	36.7	28.3	21.7	79.8	94.0	-14.2
Horizontal	4884.000	39.5	36.7	35.7	21.7	16.8	54.0	-37.2

Notes:
1. Peak Detector Data unless otherwise stated.

2. All measurements were made at 3 meters. Harmonic emissions not detected at the 3-meter distance were measured at 0.3-meter and an inverse proportional extrapolation was performed to compare the signal level to the 3-meter limit. No other harmonic emissions than those reported were detected at a test distance of 0.3-meter.

3. Negative value in the margin column shows emission below limit.

4. Horn antenna is used for the emission over 1000MHz.

Applicant: RASTAR GROUP
Date of Test: March 25, 2022
Model: 80445A627A0(97200)
Worst Case Operating Mode: Transmitting

Table 3

Radiated Emissions
(2473 MHz)

Polarization	Frequency (MHz)	Reading (dBµV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBµV/m)	Peak Limit at 3m (dBµV/m)	Margin (dB)
Horizontal	2473.000	110.3	36.7	28.5	102.1	114.0	-11.9
Horizontal	4946.000	39.0	36.7	35.9	38.2	74.0	-35.8

Polarization	Frequency (MHz)	Reading (dBµV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Average Factor (-dB)	Net at 3m (dBµV/m)	Average Limit at 3m (dBµV/m)	Margin (dB)
Horizontal	2473.000	110.3	36.7	28.5	21.7	80.4	94.0	-13.6
Horizontal	4946.000	39.0	36.7	35.9	21.7	16.5	54.0	-37.5

Notes:
1. Peak Detector Data unless otherwise stated.
2. All measurements were made at 3 meters. Harmonic emissions not detected at the 3-meter distance were measured at 0.3-meter and an inverse proportional extrapolation was performed to compare the signal level to the 3-meter limit. No other harmonic emissions than those reported were detected at a test distance of 0.3-meter.
3. Negative value in the margin column shows emission below limit.
4. Horn antenna is used for the emission over 1000MHz.

5.0 Equipment Photographs

For electronic filing, the photographs of the tested EUT are saved with filename: external photos.pdf & internal photos.pdf.

6.0 Product Labelling

For electronic filing, the FCC ID label artwork and the label location are saved with filename: label.pdf.

7.0 Technical Specifications

For electronic filing, the block diagram and schematics of the tested EUT are saved with filename: block.pdf and circuit.pdf respectively.

8.0 Instruction Manual

For electronic filing, a preliminary copy of the Instruction Manual is saved with filename: manual.pdf.

This manual will be provided to the end-user with each unit sold/leased in the United States.

9.0 Miscellaneous Information

This miscellaneous information includes details of the measured bandedge, 20dB Bandwidth, the test procedure and calculation of factor such as pulse desensitization.

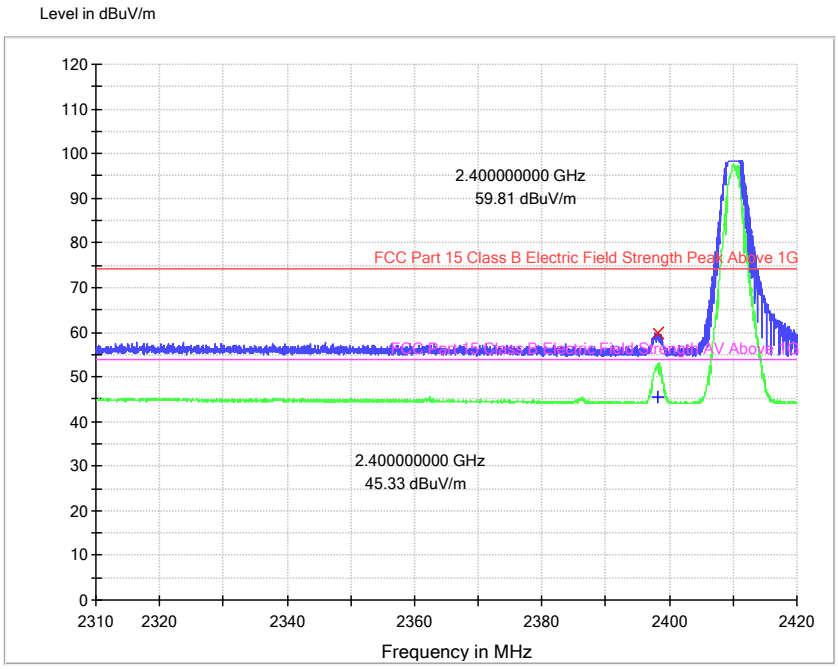
9.1 Bandedge Plot

The test plots are attached as below. From the plot, the field strength of any emissions outside of the specified frequency band are attenuated to the general radiated emission limits in section 15.209. It fulfils the requirement of 15.249(d).

Peak Measurement

Restricted-band band-edge tests shall be performed as radiated measurements, i.e (Band-edge Plot).

(i) Lower channel 2410.000 MHz:



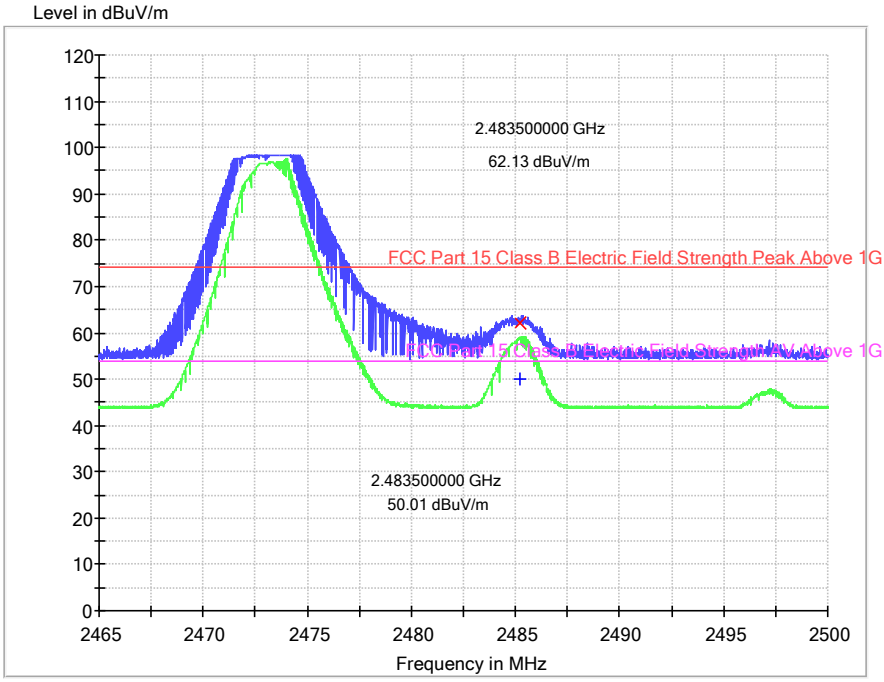
Polarization	Frequency (MHz)	Reading (dBµV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBµV/m)	Peak Limit at 3m (dBµV/m)	Margin (dB)
Horizontal	2400.000	68.4	36.7	28.1	59.8	74.0	-14.2

Polarization	Frequency (MHz)	Reading (dBµV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBµV/m)	Average Limit at 3m (dBµV/m	Margin (dB)
Horizontal	2400.000	53.9	36.7	28.1	45.3	54.0	-8.7

The resultant field strength meets the general radiated emission limit in section

15.209, which does not exceed 74dBμv/m (Peak Limit) and 54dBμv/m (Average Limit).

(ii) Upper channel 2473.000 MHz:



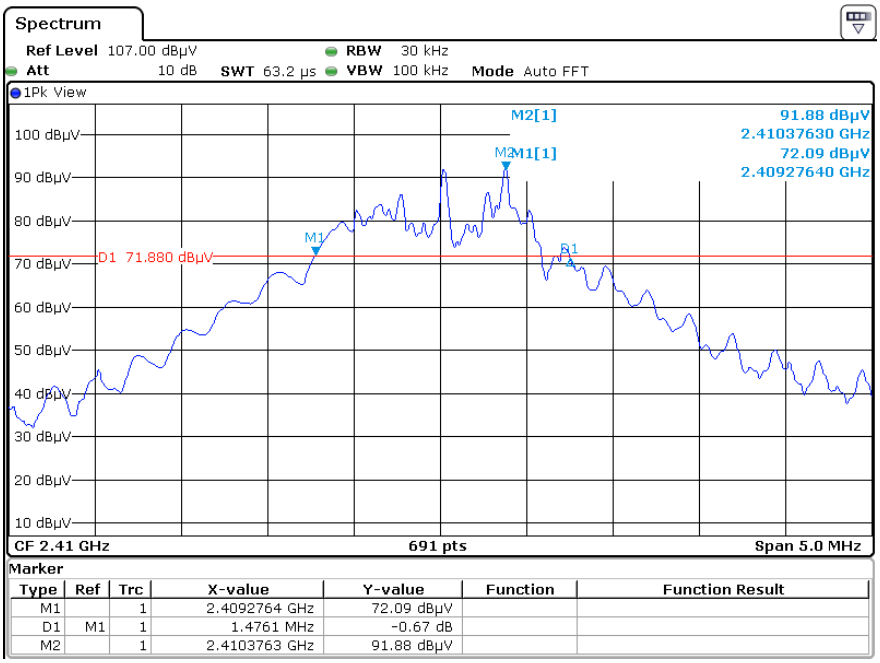
Polarization	Frequency (MHz)	Reading (dBμV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBμV/m)	Peak Limit at 3m (dBμV/m)	Margin (dB)
Horizontal	2483.500	69.8	36.8	29.1	62.1	74.0	-11.9

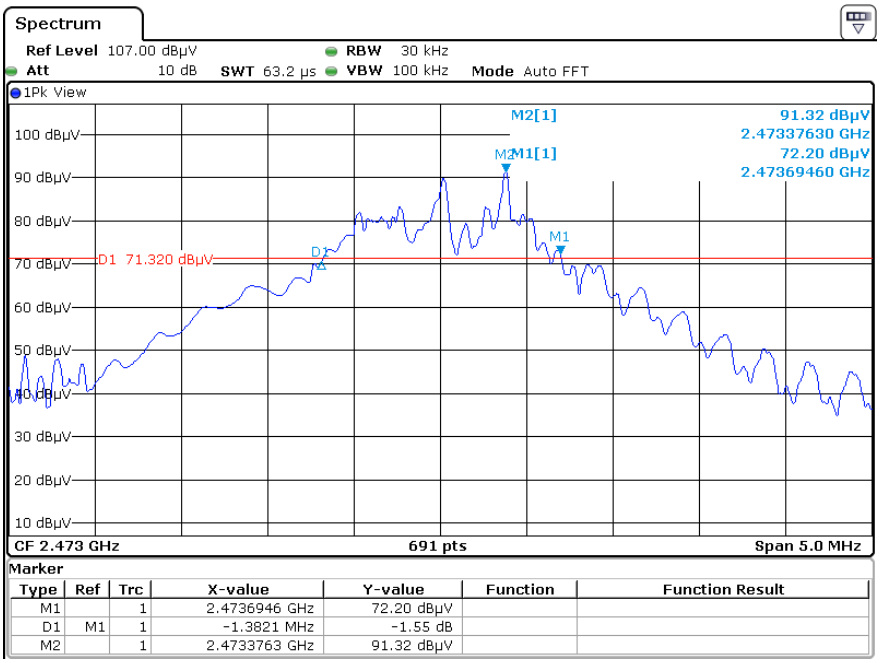
Polarization	Frequency (MHz)	Reading (dBμV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBμV/m)	Average Limit at 3m (dBμV/m	Margin (dB)
Horizontal	2483.500	57.7	36.8	29.1	50.0	54.0	-4.0

The resultant field strength meets the general radiated emission limit in section 15.209, which does not exceed 74dBμv/m (Peak Limit) and 54dBμv/m (Average Limit).

9.2 20dB Bandwidth

Pursuant to FCC part 15 Section 15.215(c), the 20dB bandwidth of the emission was contained within the frequency band designated (mentioned as above) which the EUT operated. The effects, if any, from frequency sweeping, frequency hopping, other modulation techniques and frequency stability over excepted variations in temperature and supply voltage were considered. The test plots are reported as below.





9.3 Discussion of Pulse Desensitization

Pulse desensitivity is not applicable for this device. The effective period (T_{eff}) is approximately 985.5µs for a digital "1" bit, as shown in the plots of Section 9.4 With a resolution bandwidth (3 dB) of 100 kHz, the pulse desensitivity factor was 0 dB

9.4 Calculation of Average Factor

Averaging factor in dB = 20 log (duty cycle)

The specification for output field strengths in accordance with the FCC rules specify measurements with an average detector. During testing, a spectrum analyzer incorporating a peak detector was used. Therefore, a reduction factor can be applied to the resultant peak signal level and compared to the limit for measurement instrumentation incorporating an average detector.

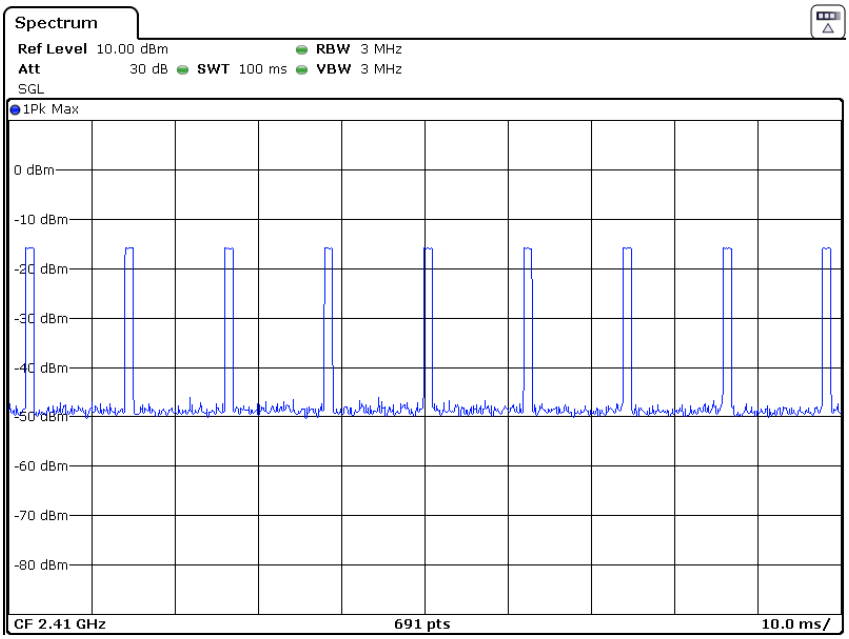
The time period over which the duty cycle is measured is 100 milliseconds, or the repetition cycle, whichever is a shorter time frame. The worst case (highest percentage on) duty cycle is used for the calculation. The duty cycle is measured by placing the spectrum analyzer in zero scan (receiver mode) and linear mode at maximum bandwidth (3 MHz at 3 dB down) and viewing the resulting time domain signal output from the analyzer on a Tektronix oscilloscope. The oscilloscope is used because of its superior time base and triggering facilities.

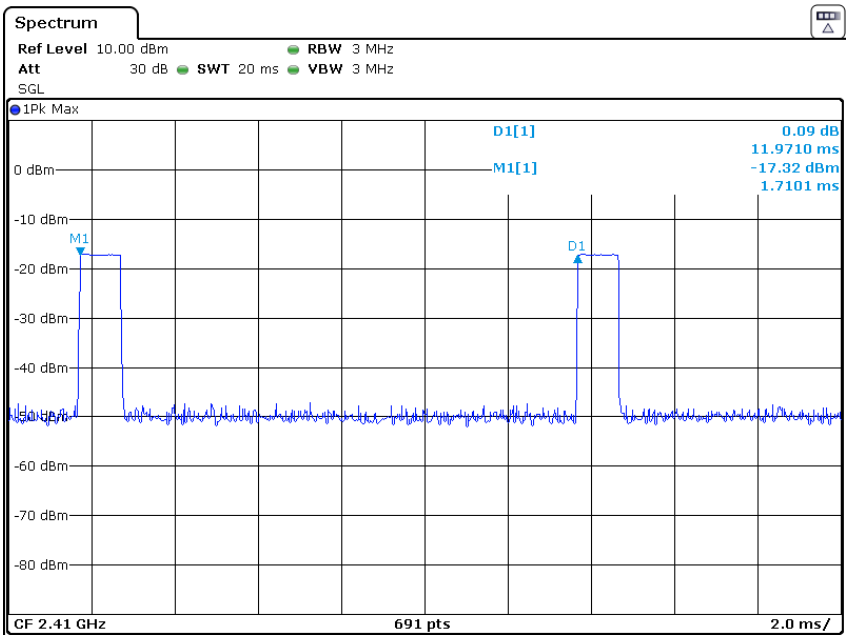
The duty cycle is simply the on-time divided by the period:

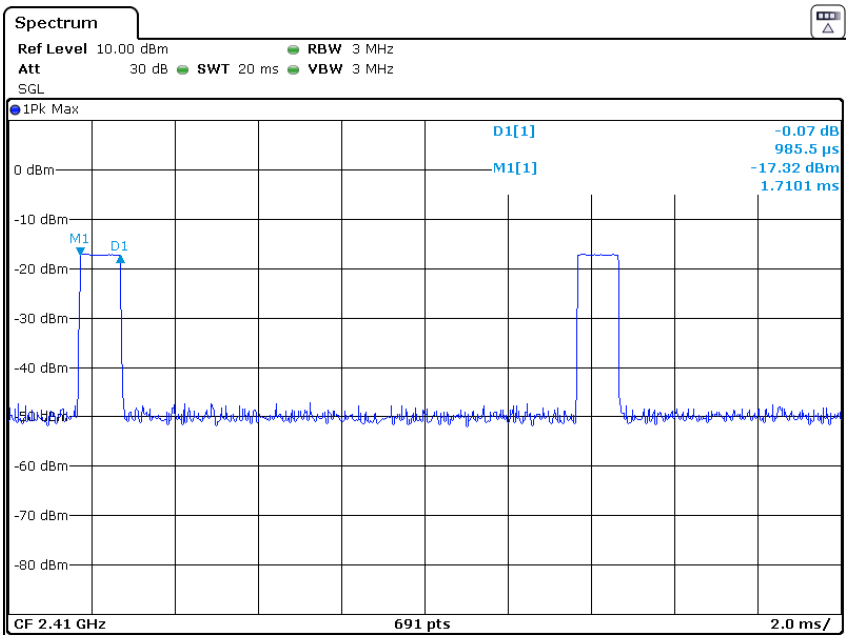
The duration of one cycle = 11.9710ms
Effective period of the cycle = 985.5µs x1 = 0.9855ms
DC =0.9855ms / 11.9710ms =0.0823 or 8.23%

Therefore, the averaging factor is found by $20 \log_{10}(0.0823) = -21.7$dB

The test plots are attached as below.






Spectrum
Ref Level 10.00 dBm
RBW 3 MHz
Att 30 dB SWT 20 ms VBW 3 MHz
SGL
1Pk Max
D1[1] -0.07 dB
985.5 µs
M1[1] -17.32 dBm
1.7101 ms
0 dBm
-10 dBm
-20 dBm
-30 dBm
-40 dBm
-60 dBm
-70 dBm
-80 dBm
M1
D1
CF 2.41 GHz
691 pts
2.0 ms/

9.5 Emissions Test Procedures

The following is a description of the test procedure used by Intertek Testing Services in the measurements of transmitters operating under Part 15, Subpart C rules.

The test set-up and procedures described below are designed to meet the requirements of ANSI C63.10 - 2013.

The transmitting equipment under test (EUT) is placed on a styrene turntable which is four feet in diameter and approximately 0.8 meter up to 1GHz and 1.5 meter above 1GHz in height above the ground plane. During the radiated emissions test, the turntable is rotated and any cables leaving the EUT are manipulated to find the configuration resulting in maximum emissions. The EUT is adjusted through all three orthogonal axes to obtain maximum emission levels. The antenna height and polarization are varied during the testing to search for maximum signal levels.

Detector function for radiated emissions is in peak mode. Average readings, when required, are taken by measuring the duty cycle of the equipment under test and subtracting the corresponding amount in dB from the measured peak readings. A detailed description for the calculation of the average factor can be found in Section 9.4.

The frequency range scanned is from the lowest radio frequency signal generated in the device which is greater than 9 kHz to the tenth harmonic of the highest fundamental frequency or 40 GHz, whichever is lower.

9.5 Emissions Test Procedures (cont'd)

The EUT is warmed up for 15 minutes prior to the test.

AC power to the unit is varied from 85% to 115% nominal and variation in the fundamental emission field strength is recorded. If battery powered, a new, fully charged battery is used.

The IF bandwidth used for measurement of radiated signal strength was 10 kHz for emission below 30 MHz and 120 kHz for emission from 30 MHz to 1000 MHz. Where pulsed transmissions of short enough pulse duration warrant, a greater bandwidth is selected according to the recommendations of Hewlett Packard Application Note 150-2. A discussion of whether pulse desensitivity is applicable to this unit is included in this report (See Section 9.2). Above 1000 MHz, a resolution bandwidth of 1 MHz is used, RBW 5MHz used for fundamental emission.

Transmitter measurements are normally conducted at a measurement distance of three meters. However, to assure low enough noise floor in the restricted bands and above 1 GHz, signals are acquired at a distance of one meter or less. All measurements are extrapolated to three meters using inverse scaling, but those measurements taken at a closer distance are so marked.

10.0 Test Equipment List

Equipment No.	Equipment	Manufacturer	Model No.	Serial No.	Cal. Date	Due Date
SZ061-13	BiConiLog Antenna	ETS	3142E	00217919	10-Jun-2019	10-Jun-2022
SZ185-01	EMI Receiver	R&S	ESCI	100547	12-Jul-2021	12-Jul-2022
SZ061-09	Horn Antenna	ETS	3115	00092346	17-Oct-2020	17-Oct-2022
SZ061-06	Active Loop Antenna	Electro-Metrics	EM-6876	217	18-May-2021	18-May-2023
SZ061-15	Double-Ridged Waveguide Horn Antenna	ETS	3116C-PA	00224718	1-Nov-2020	1-Nov-2022
SZ056-06	Spectrum Analyzer	R&S	FSV40	101101	20-Dec-2021	20-Dec-2022
SZ181-04	Preamplifier	Agilent	8449B	3008A02474	10-May-2021	10-May-2022
SZ188-01	Anechoic Chamber	ETS	RFD-F/A-100	4102	12-Dec-2021	12-Dec-2024
SZ062-02	RF Cable	RADIALL	RG 213U	--	1-Nov -2021	1-May-2022
SZ062-05	RF Cable	RADIALL	0.04-26.5GHz	--	1-Nov -2021	1-May-2022
SZ062-12	RF Cable	RADIALL	0.04-26.5GHz	--	1-Nov -2021	1-May-2022
SZ067-04	Notch Filter	Micro-Tronics	BRM50702-02	--	11-May-2021	11-May-2022