RASTAR GROUP

TEST REPORT

SCOPE OF WORK
FCC TESTING– MODEL: 80445B4C827(10194)

REPORT NUMBER
GZHH00570624-001

ISSUE DATE
November 20, 2024

PAGES
26

DOCUMENT CONTROL NUMBER
FCC ID 249_C

RASTAR GROUP

Application for Certification

FCC ID: 2AENTXH902300TX

Model R/C Car

Model: 80445B4C827(10194)
Additional Model: See Page 5

2.4GHz Transceiver

Report No.: GZHH00570624-001

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 [10-1-23]

Prepared and Checked by:	Approved by:
Sign on file	Johnny Wang
Maura Wang *Engineer*	*Johnny Wang* *Project Engineer* *Date: November 20, 2024*

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 [10-1-23 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
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Table of Contents

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: 80445B4C827(10194)

FCC ID: 2AENTXH902300TX

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 Model R/C Car 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: 80445B4C827(10194) in hardware and electrical aspect. The difference in appearance, model number and names serve as marketing strategy.

Additional name:	Additional model:
BMW M Hybrid V8	80445B4C827(10194)
BMW M Hybrid V8	10194
BMW M Hybrid V8	10196
BMW i4	80445A52019(98340)
BMW X6 M	80445A52020(99240)
BMW I8	71070
Ferrari LaFerrari	50160
Lamborghini Huracan STO	98760
Lamborghini Sián FKP 37	97760
Bugatti Divo	98060
BMW i4	98340
BMW i4	98360
Mercedes-AMG F1 W11 EQ Performance	98460
McLaren Senna	96660
Lamborghini Aventador LP700-4	52600
BMW I8	71060
BMW I8	71060-1
BMW I8	71060-2
BMW I8	71000-6
Ferrari 458 Speciale A Convertible Version	74560
McLaren P1	75160
BMW NEW 6 SERIES	52300
JEEP Wrangler Rubicon	79460
BMW I8	95560
BMW Z4 Roadster	95660
BMW Z4 Roadster	95670
Mercedes-Benz G63	95760
Lamborghini Aventador SVJ Performance	96060
Lamborghini Aventador SVJ Performance	96070
RS Transformable car	74700
Pagani Transformable car	74600
Mercedes-Benz GT3 Transformable car	74800
Land Rover Defender Transformable Car	76400
Lamborghini Huracan STO	98770
Dodge Charger R/T	99060
Dodge Charger R/T	99070

Ferrari F40	78760
BMW X6 M	99240
BMW X6 M	99260
McLaren F1 MCL36	99860
Ferrari F1 75	99960
Hummer EV	93060
BMW M8 GTE	97160
Porsche 911 GT2 RS Clubsport 25	99560
Aston Martin Valkyrie AMR Pro	92106
Audi RS Q e-tron	92206
Red Bull F1 RB18	94706
McLaren P1 GTR	75060
Mercedes-Benz Arocs Transport Mixer	78960
Mercedes-Benz Arocs Logging vehicle	79060
RS Wolf Warriors	77640
Mercedes-Benz Container Truck	77740
RS Intelligent DOGO	77960
RS Robot - Spaceman	76960
Ferrari 499 P	10116
Porsche 911 Dakar	10136
Porsche 911 Dakar	10137
Lamborghini SC63 LMDH	10156
BMW i5 M60	80445B4C826(10176)
BMW i5 M60	10176
Mercedes AMG GT2	10226
BMW 3.0 CSL	92806
BMW 3.0CSL	80445B308D7(92840)
Mercedes AMG F1 W15	10256
Range Rover SV	10266
BMW M4 CSL	94506
Ferrari 296 GTS	94606
Porsche 911 Sport Classic	94906
Lamborghini COUNTACH LPI 800-4	92006
Remote control car in 12 scale	RC112
Remote control car in 14 scale	RC114
BMW XM	10316
Ferrari Purosangue	10336
Mercedes AMG G63	10356
R8 LMS Performance	75360
Bugatti Grand Sport Vitesse	70460
PORSCHE 918 Spyder Performance	70770
Mercedes AMG GT3 Performance	74160
Mclaren P1	75170
BMW M4 Coupe	70960
BMW I8	49660
BMW M3	48060
BMW 6 Series	42660
Porsche 963 LMDH	10386
Stake F1® Team KICK Sauber C44 Bricks	10280

2.2 Related Submittal(s) Grants

This is an application for certification of controller unit for the Model R/C Car, and the corresponding receiver unit which associated with this EUT is subjected to FCC SDOC and FCC certification with FCC ID: 2AENTXH101941RX.

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/m
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
866.625000 MHz

Judgement: Passed by 21.9 dB

TEST PERSONNEL:

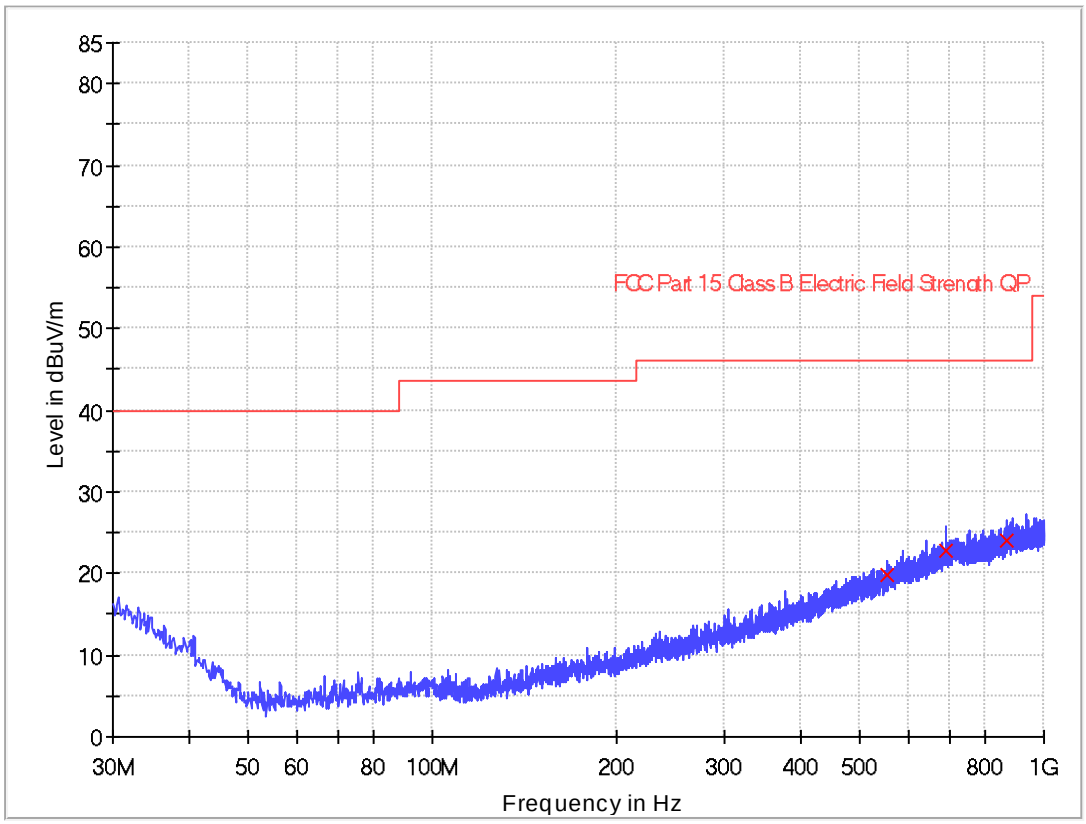
Sign on file

Maura Wang, Engineer
Typed/Printed Name

November 11, 2024
Date

Applicant: RASTAR GROUP
Date of Test: November 11, 2024
Model: 80445B4C827(10194)
Worst Case Operating Mode: Transmitting(2410.000MHz)

ANT Polarity: Horizontal

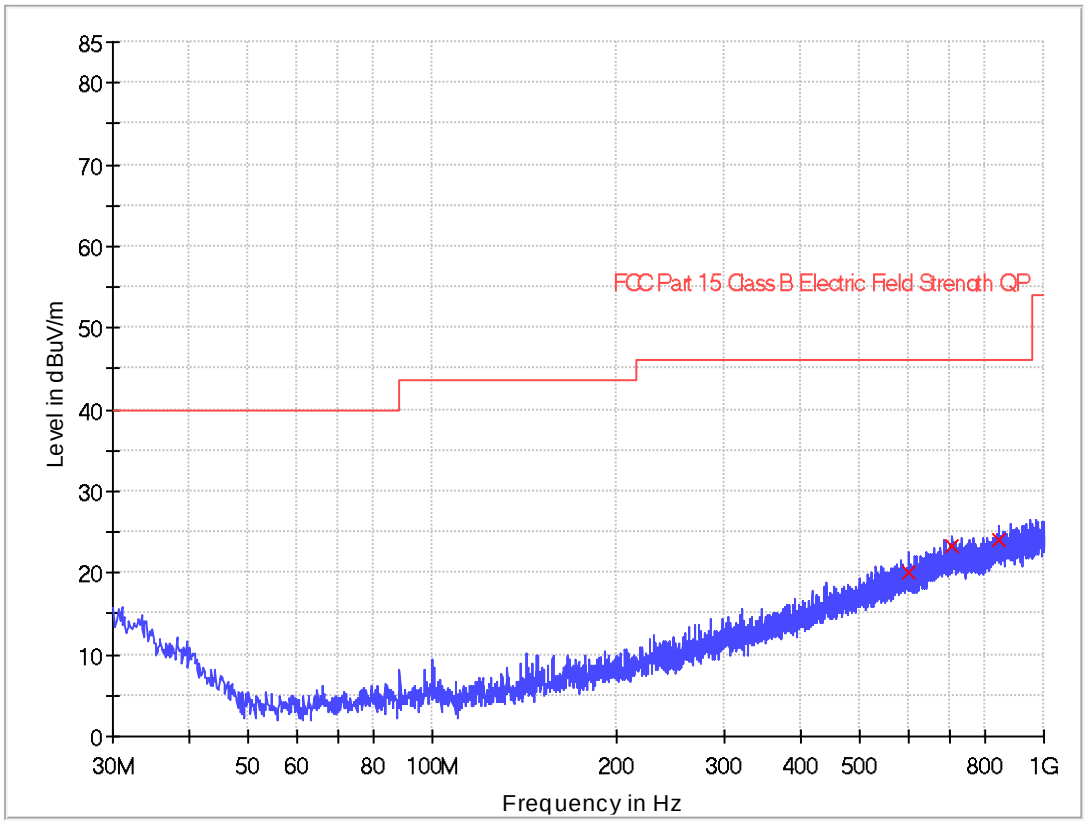


Frequency (MHz)	QuasiPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Polarization	Corr. (dB)	Margin - QPK (dB)	Limit - QPK (dBµV/m)
554.891250	19.8	1000.0	120.000	H	21.1	26.2	46.0
688.993750	22.7	1000.0	120.000	H	23.7	23.3	46.0
866.625000	24.1	1000.0	120.000	H	25.1	21.9	46.0

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: November 11, 2024
Model: 80445B4C827(10194)
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)
599.632500	20.0	1000.0	120.000	V	21.9	26.0	46.0
709.363750	23.4	1000.0	120.000	V	24.0	22.6	46.0
846.740000	24.0	1000.0	120.000	V	24.9	22.0	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)

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 7.0 dB

TEST PERSONNEL:

Sign on file

Maura Wang, Engineer
Typed/Printed Name

November 11, 2024
Date

Applicant: RASTAR GROUP
Date of Test: November 11, 2024
Model: 80445B4C827(10194)
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	107.2	36.7	28.1	98.6	114.0	-15.4
Horizontal	4820.000	47.8	36.7	35.5	46.6	74.0	-27.4

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	107.2	36.7	28.1	21.9	76.7	94.0	-17.3
Horizontal	4820.000	47.8	36.7	35.5	21.9	24.7	54.0	-29.3

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: November 11, 2024
Model: 80445B4C827(10194)
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	105.9	36.7	28.3	97.5	114.0	-16.5
Horizontal	4884.000	44.2	36.7	35.7	43.2	74.0	-30.8

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	2442.000	105.9	36.7	28.3	21.9	75.6	94.0	-18.4
Horizontal	4884.000	44.2	36.7	35.7	21.9	21.3	54.0	-32.7

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: November 11, 2024
Model: 80445B4C827(10194)
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	104.2	36.7	28.5	96.0	114.0	-18.0
Horizontal	4946.000	45.1	36.7	35.9	44.3	74.0	-29.7

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	2473.000	104.2	36.7	28.5	21.9	74.1	94.0	-19.9
Horizontal	4946.000	45.1	36.7	35.9	21.9	22.4	54.0	-31.6

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.

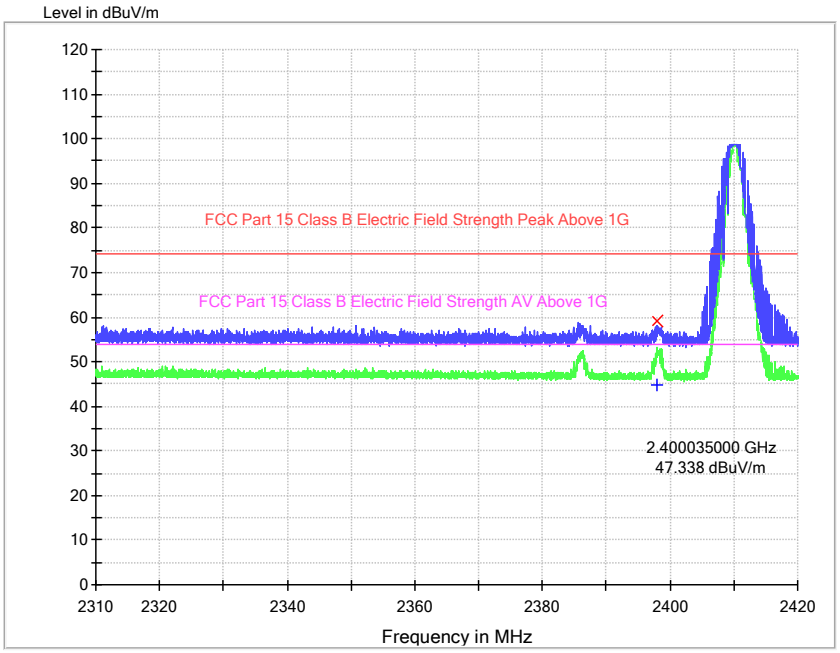
9.1 Bandedge Plot

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:



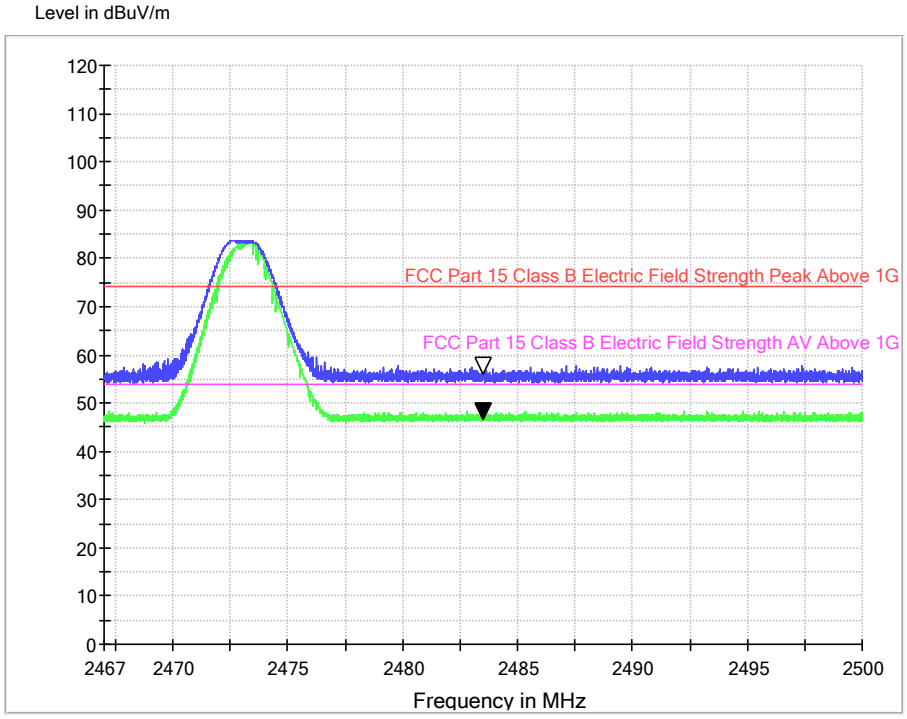
(ii)

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	68.1	36.7	28.1	59.5	74.0	-14.5

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	53.5	36.7	28.1	44.9	54.0	-9.1

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:



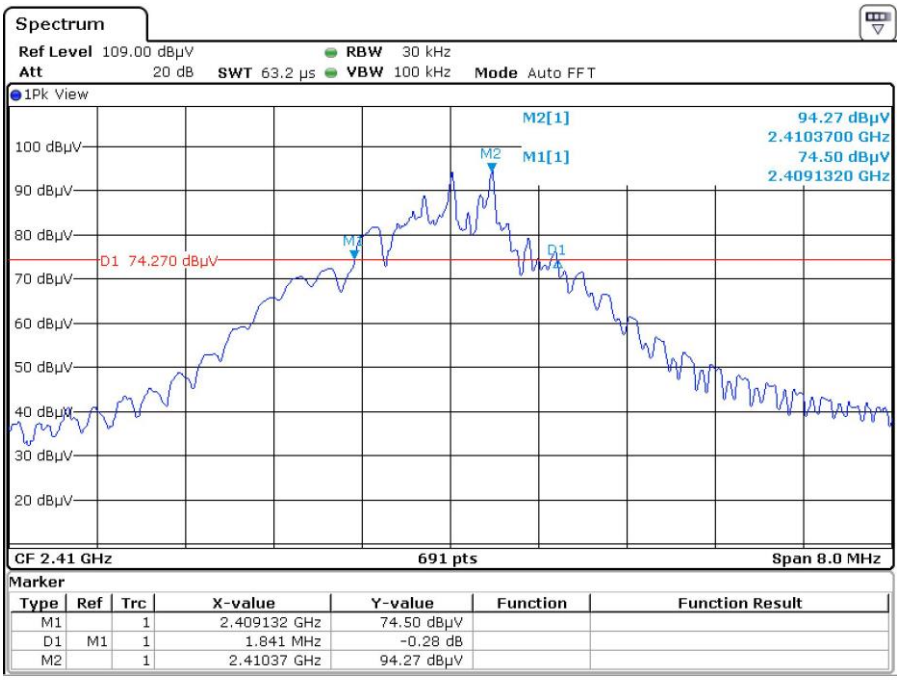
Polarization	Frequency (MHz)	Reading (dBµV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBµV/m)	Peak Limit at 3m (dBµV/m)	Margin (dB)
Horizontal	2483.500	64.0	36.8	29.1	56.3	74.0	-17.7

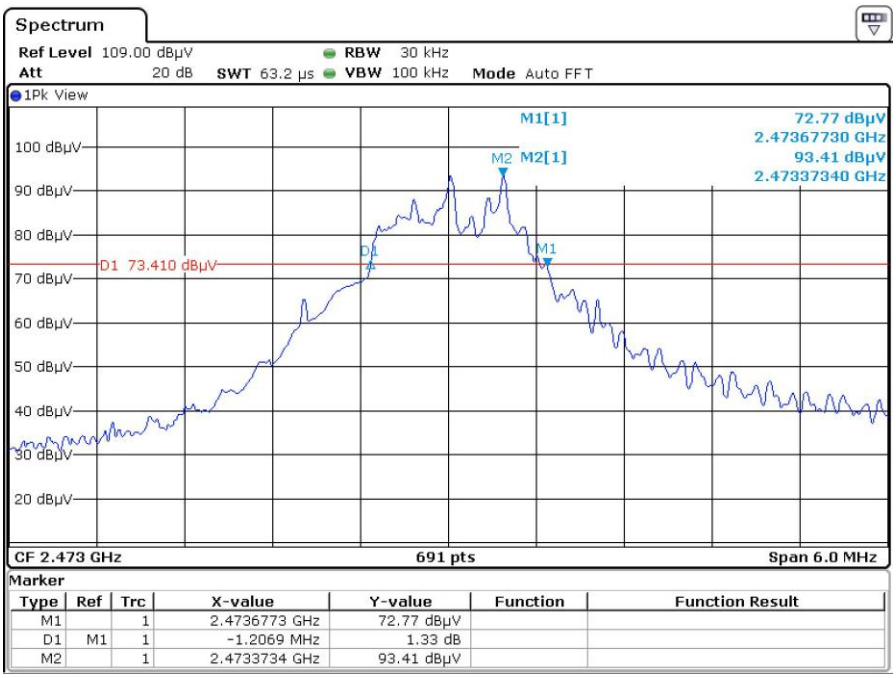
Polarization	Frequency (MHz)	Reading (dBµV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBµV/m)	Average Limit at 3m (dBµV/m	Margin (dB)
Horizontal	2483.500	54.7	36.8	29.1	47.0	54.0	-7.0

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 956.5µs 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.

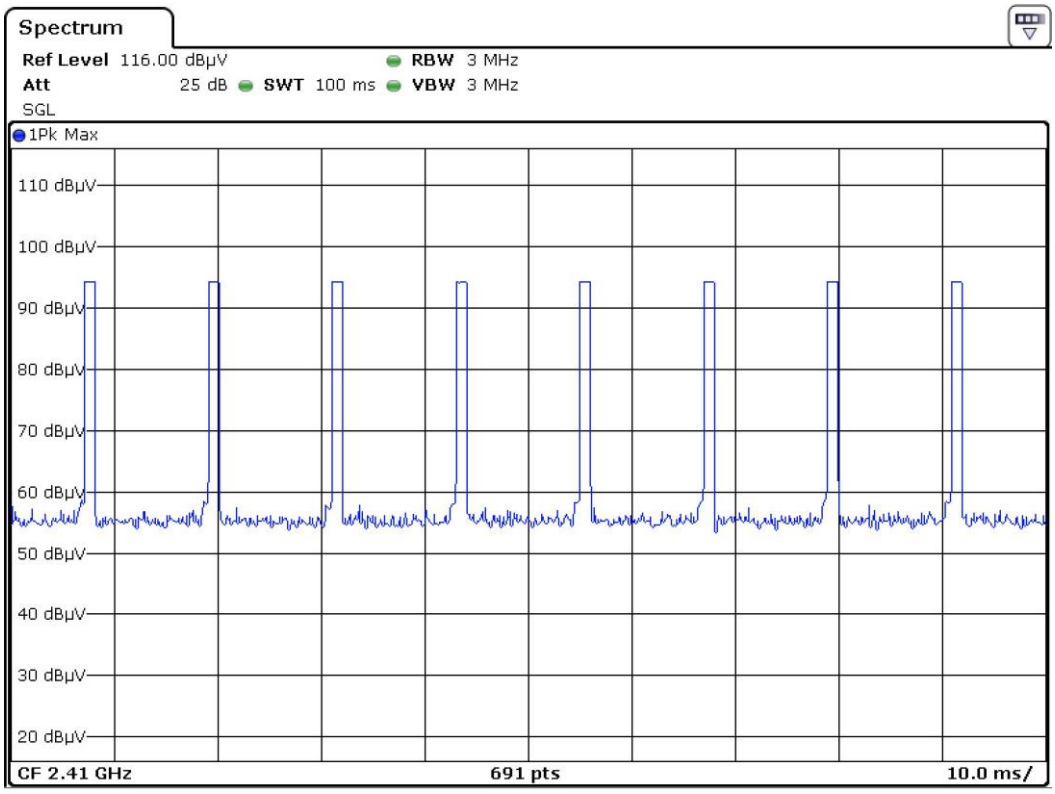
The time period over which the duty cycle is measured is 100 milliseconds, or the repetition cycle, whichever is a shorter time frame. The worst case (highest percentage on) duty cycle is used for the calculation. The duty cycle is measured by placing the spectrum analyzer in zero scan (receiver mode) 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.

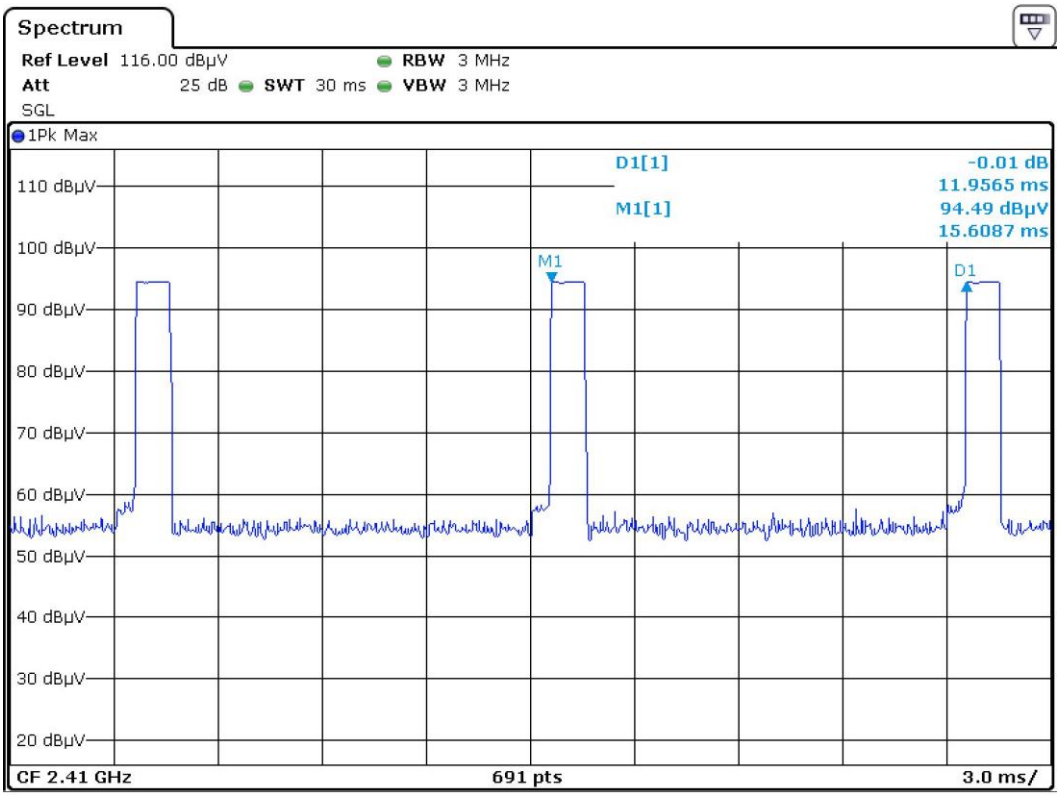
The duty cycle is simply the on-time divided by the period:

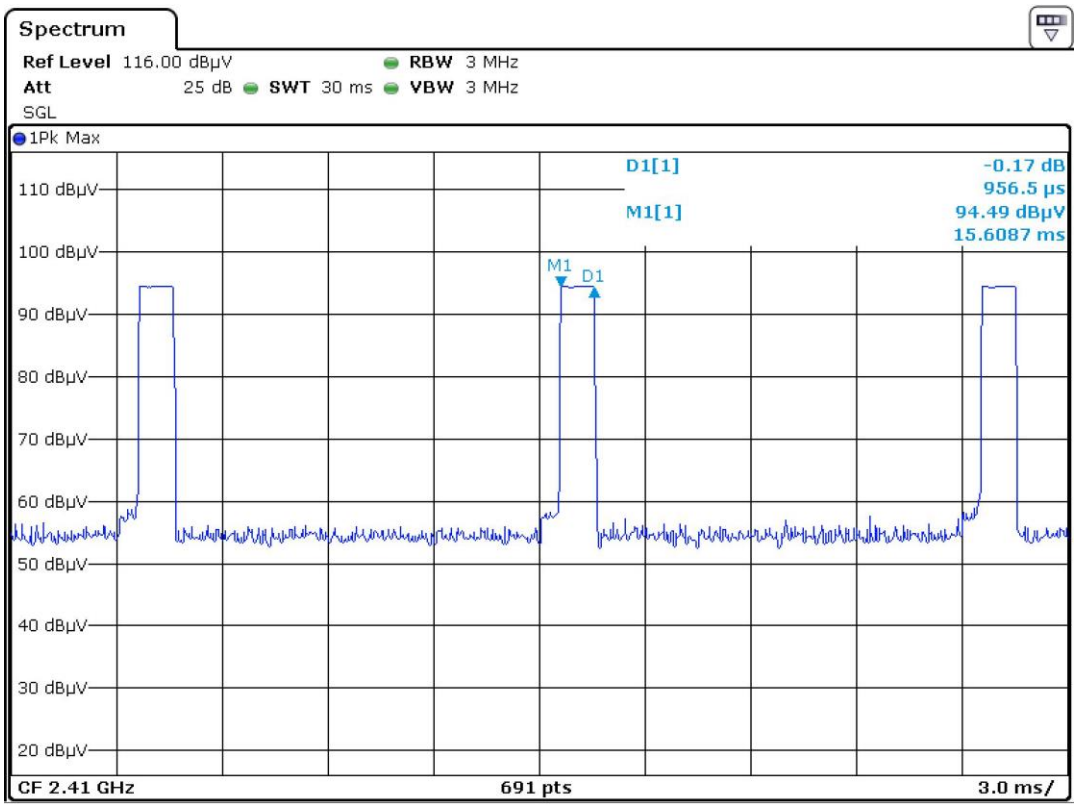
The duration of one cycle = 11.9565ms
Effective period of the cycle = 956.5µs x1 = 0.9565ms
DC =0.9565ms / 11.9565ms =0.0800 or 8.00%

Therefore, the averaging factor is found by $20 \log_{10} (0.0800) = -21.9$dB

The test plots are attached as below.






Spectrum
Ref Level 116.00 dBµV
RBW 3 MHz
Att 25 dB SWT 30 ms VBW 3 MHz
SGL
1Pk Max
D1[1] -0.17 dB
956.5 µs
M1[1] 94.49 dBµV
15.6087 ms
110 dBµV
100 dBµV
90 dBµV
80 dBµV
70 dBµV
60 dBµV
50 dBµV
40 dBµV
30 dBµV
20 dBµV
M1
D1
CF 2.41 GHz
691 pts
3.0 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 3 MHz is used, RBW 10MHz 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	13-Jul-2022	13-Jul-2025
SZ185-04	EMI Receiver	R&S	ESR7	102466	10-Nov-2024	10-Nov-2025
SZ061-09	Horn Antenna	ETS	3115	00092346	14-Oct-2022	14-Oct-2025
SZ061-06	Active Loop Antenna	Electro-Metrics	EM-6876	217	5-May-2024	5-May-2027
SZ061-15	Double-Ridged Waveguide Horn Antenna	ETS	3116C-PA	00224718	14-Jun-2024	14-Jun-2027
SZ056-06	Spectrum Analyzer	R&S	FSV40	101101	13-Dec-2023	13-Dec-2024
SZ181-04	Preamplifier	Agilent	8449B	3008A02474	22-Apr-2024	27-Apr-2025
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-2024	1-May-2025
SZ062-05	RF Cable	RADIALL	0.04-26.5GHz	--	1-Nov-2024	1-May-2025
SZ062-12	RF Cable	RADIALL	0.04-26.5GHz	--	1-Nov-2024	1-May-2025
SZ067-04	Notch Filter	Micro-Tronics	BRM50702-02	--	23-Apr-2024	23-Apr-2025

********** End of Report**********