Angelcare Monitors Inc.

Application
For
Certification

FCC ID: N7TAC215T

Baby Monitor-Nursery Unit

Models: AC215, AC210

Brand name: Angelcare

2.4GHz Transceiver

Report No.: 170317022GZU-002

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 [10-1-15]

Prepared and Checked by:	Approved by:
Sign on file	Digitally signed by Kidd Yang Location: Intertek Testing Services
Harry Wu *Project Engineer*	*Kidd Yang* *Senior Project Engineer* *Date: 24 April 2017*

- The test results reported in this test report shall refer only to the sample actually tested and shall not refer or be deemed to refer to bulk from which such a sample may be said to have been obtained.
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TRF No.: FCC 15C_TX_b

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LIST OF EXHIBITS

INTRODUCTION

EXHIBIT 1:	General Description
EXHIBIT 2:	System Test Configuration
EXHIBIT 3:	Emission Results
EXHIBIT 4:	Equipment Photographs
EXHIBIT 5:	Product Labelling
EXHIBIT 6:	Technical Specifications
EXHIBIT 7:	Instruction Manual
EXHIBIT 8:	Miscellaneous Information
EXHIBIT 9:	Confidentiality Request
EXHIBIT 10:	Test Equipment List

MEASUREMENT/TECHNICAL REPORT

Angelcare Monitors Inc.

MODEL:AC215, AC210

Brand name: Angelcare

FCC ID: N7TAC215T

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 [10-1-15 Edition] provision.

Report prepared by:

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Table of Contents

1.0 **General Description** 2
1.1 Product Description 2
1.2 Related Submittal(s) Grants 2
1.3 Test Methodology 2
1.4 Test Facility 2
2.0 **System Test Configuration** 4
2.1 Justification 4
2.2 EUT Exercising Software 4
2.3 Special Accessories 4
2.4 Equipment Modification 4
2.5 Measurement Uncertainty 4
2.6 Support Equipment List and Description 5
3.0 **Emission Results** 7
3.1 Radiated Test Results 8
3.1.1 Field Strength Calculation 8
3.1.2 Radiated Emission Configuration Photograph 9
3.1.3 Radiated Emissions 9
3.1.4 Transmitter Spurious Emissions 11
3.2 Conducted Emission at Mains Termina 15
3.2.1 Conducted Emissions Configuration Photograph 15
3.2.2 Conducted Emissions 15
4.0 Equipment Photographs 19
5.0 Product Labelling 21
6.0 Technical Specifications 23
7.0 Instruction Manual 25
8.0 Miscellaneous Information 27
8.1 Bandedge Plot 28
8.2 Discussion of Pulse Desensitization 30
8.3 Transmitter Duty Cycle Calculation 31
8.4 Emissions Test Procedures 32
9.0 Confidentiality Request 35
10.0 Test Equipment Specifications 37

List of attached file

Exhibit type	File Description	Filename
Test Report	Test Report	report.pdf
Test Setup Photo	Radiated Emission	radiated photos.pdf
Test Setup Photo	Conducted Emission	conducted photos.pdf
Test Report	Bandedge Plot	bandedge.pdf
Test Report	20dB BW Plot	bw.pdf
Test Report	Timing Plot	af.pdf
External Photo	External Photo	external photos.pdf
Internal Photo	Internal Photo	internal photos.pdf
Block Diagram	Block Diagram	block.pdf
Schematics	Circuit Diagram	circuit.pdf
Operation Description	Technical Description	descri.pdf
ID Label/Location	Label Artwork and Location	label.pdf
User Manual	User Manual	manual.pdf
Cover Letter	Confidentiality Letter	request.pdf
Cover Letter	Letter of Agency	agency.pdf

EXHIBIT 1

GENERAL DESCRIPTION

1.0 General Description

1.1 Product Description

The equipment under test (EUT) is a Baby Monitor-Nursery Unit with 2.4GHz wireless control function operating in 2410.875MHz to 2471.625MHz. There are total 19 channels. The EUT is powered by DC5V via micro USB port which can be connected to adapter with model: K05S050100U and K05S050060U. For more detail information pls. refer to the user manual.

Antenna type: Integral antenna

Modulation Type: GFSK

The Model: AC210 is the same as the Model: AC215 in hardware aspect (circuitry and electrical, mechanical and physical construction), the differences are appearance and model no. for trading purpose.

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

1.2 Related Submittal(s) Grants

This is an application for certification of a transmitter for the Baby Monitor-Nursery Unit which has 2.4GHz wireless control function, and the corresponding unit has been granted under the FCC ID: N7TAC1300R.

1.3 Test Methodology

Both AC mains line-conducted and radiated emission measurements were performed according to the procedures in ANSI C63.10 (2013). Radiated emission measurement was performed in Semi-anechoic chamber and conducted emission measurement was performed in shield room. 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.

1.4 Test Facility

The Semi-anechoic chamber and shielding room used to collect the radiated data and conducted data are EMTEK (Shenzhen) Co., Ltd. and located at Bldg. 69, Majialong Industry Zone, Nanshan District, Shenzhen, Guangdong, 518052, China. This test facility and site measurement data have been fully placed on file with the FCC (Registration Number: 406365).

EXHIBIT 2

SYSTEM TEST CONFIGURATION

2.0 System Test Configuration

2.1 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 DC5V via micro USB port which was connected to a adapter with AC 120V/60Hz during the test. All models were tested and only reported the worst-case data.

For maximizing emissions, the EUT was rotated through 360°, the EUT was placed on the styrene turntable with 0.8m up to 1GHz and 1.5 m above 1GHz. The antenna height and polarization are varied during the search for maximum signal level. The antenna height is varied from 1 to 4 meters. Radiated emissions are taken at three meters unless the signal level is too low for measurement at that distance. If necessary, a pre-amplifier is used and/or the test is conducted at a closer distance.

The rear of unit was flushed with the rear of the table.

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.

2.2 EUT Exercising Software

The EUT exercise program (provided by client) used during testing was designed to exercise the various system components in a manner similar to a typical use.

2.3 Special Accessories

No special accessories used.

2.4 Equipment Modification

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

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

2.5 Measurement Uncertainty

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

2.6 Support Equipment List and Description

Description	Manufacture	Model No.
Baby Monitor - Parent Unit	Angelcare Monitors Inc.	AC215-P, AC210-P
AC/DC Adapter (Provided by Applicant)	Dongguan Guanjin Electronics Technology Co., Ltd	K05S050100U (Input: AC 100-240V, 50/60Hz, 0.2A Output: DC 5.0V, 1.0A)
AC/DC Adapter (Provided by Applicant)	Dongguan Guanjin Electronics Technology Co., Ltd	K05S050060U (Input: AC 100-240V, 50/60Hz, 0.2A Output: DC 5.0V, 0.6A)
Split USB cable	Angelcare Monitors Inc.	Unshielded, Length: 340cm
Sensor Pad	Angelcare Monitors Inc.	NA

EXHIBIT 3

EMISSION RESULTS

3.0 Emission Results

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

3.1 Radiated Test Results

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

3.1.1 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

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

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

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 net field strength for comparison to the appropriate emission limit is 42 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

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

3.1.2 Radiated Emission Configuration Photograph

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

3.1.3 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
503.845 MHz

Judgement: Passed by 8.1 dB

TEST PERSONNEL:

Sign on file

Harry Wu, Project Engineer
Typed/Printed Name

24 April 2017
Date

Applicant: Angelcare Monitors Inc.
Date of Test: 24 April 2017
Worst Case Operating Mode: Transmitting(2410.875MHz) with adapter:K05S050100U

Table 1

Radiated Emissions

Polarization	Frequency (MHz)	Reading (dBµV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBµV/m)	Limit at 3m (dBµV/m)	Margin (dB)
Horizontal	167.997	41.2	20.0	10.8	32.0	43.5	-11.5
Horizontal	456.019	35.7	20.0	19.4	35.1	46.0	-10.9
Horizontal	503.850	34.1	20.0	20.6	34.7	46.0	-11.3
Vertical	167.990	40.7	20.0	10.8	31.5	43.5	-12.0
Vertical	455.830	36.0	20.0	19.4	35.4	46.0	-10.6
Vertical	503.845	37.3	20.0	20.6	37.9	46.0	-8.1

NOTES:
1. Quasi-Peak detector is used except for others stated.
2. All measurements were made at 3 meters. Harmonic emissions not detected at the 3-meter distances 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. All emissions are below the QP limit.

3.1.4 Transmitter Spurious Emissions (Radiated)

Worst Case Radiated Emission
at
2441.250 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 1.8 dB

TEST PERSONNEL:

Sign on file

Harry Wu Project Engineer
Typed/Printed Name

24 April 2017
Date

Applicant: Angelcare Monitors Inc.
Date of Test: 24 April 2017
Worst Case Operating Mode: Transmitting with adapter:K05S050100U

Table 2

Radiated Emissions

(2410.875MHz)

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	2410.875	119.8	36.7	28.5	111.6	114.0	-2.4
Horizontal	4821.750	68.7	36.7	28.5	60.5	74.0	-13.5
Horizontal	7232.625	60.3	36.1	33.1	57.3	74.0	-16.7

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	2410.875	119.8	36.7	28.5	20.8	90.8	94.0	-3.2
Horizontal	4821.750	68.7	36.7	28.5	20.8	39.7	54.0	-14.3
Horizontal	7232.625	60.3	36.1	33.1	20.8	36.5	54.0	-17.5

Notes:
1. Peak Detector Data unless otherwise stated.
2. All measurements were made at 3 meter. 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.

Test Engineer: Harry Wu

Applicant: Angelcare Monitors Inc.
Date of Test: 24 April 2017
Worst Case Operating Mode: Transmitting with adapter:K05S050100U

Table 3

Radiated Emissions

(2441.250MHz)

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	2441.250	120.4	36.7	28.5	112.2	114.0	-1.8
Horizontal	4882.500	66.6	36.7	28.5	58.4	74.0	-15.6
Horizontal	7323.750	60.8	36.1	33.1	57.8	74.0	-16.2

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	2441.250	120.4	36.7	28.5	20.8	91.4	94.0	-2.6
Horizontal	4882.500	66.6	36.7	28.5	20.8	37.6	54.0	-16.4
Horizontal	7323.750	60.8	36.1	33.1	20.8	37.0	54.0	-17.0

Notes:
1. Peak Detector Data unless otherwise stated.
2. All measurements were made at 3 meter. 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.

Test Engineer: Harry Wu

Applicant: Angelcare Monitors Inc.
Date of Test: 24 April 2017
Worst Case Operating Mode: Transmitting with adapter:K05S050100U

Table 4

Radiated Emissions

(2471.625MHz)

Polarization	Frequency (MHz)	Reading (dBµV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBµV/m)	Limit at 3m (dBµV/m)	Margin (dB)
Horizontal	2471.625	119.9	36.7	28.6	111.8	114.0	-2.2
Horizontal	4943.250	63.4	36.7	28.6	55.3	74.0	-18.7
Horizontal	7414.875	60.6	36.1	33.4	57.9	74.0	-16.1

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	2471.625	119.9	36.7	28.6	20.8	91.0	94.0	-3.0
Horizontal	4943.250	63.4	36.7	28.6	20.8	34.5	54.0	-19.5
Horizontal	7414.875	60.6	36.1	33.4	20.8	37.1	54.0	-16.9

Notes:
1. Peak Detector Data unless otherwise stated.
2. All measurements were made at 3 meter. 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.

Test Engineer: Harry Wu

3.2 Conducted Emission at Mains Terminal

3.2.1 Conducted Emissions Configuration Photograph

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

3.2.2 Conducted Emissions

Worst Case Conducted Configuration
At

0.266 MHz

Judgement: Passed by 13.4 dB margin

TEST PERSONNEL:

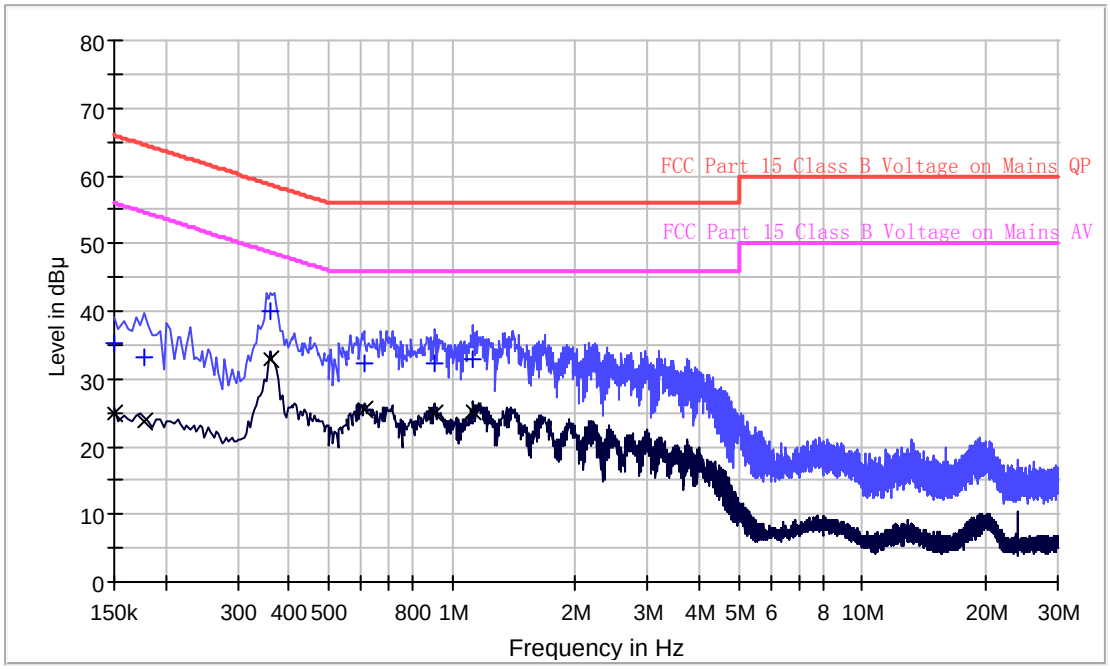
Sign on file

Harry Wu Project Engineer
Typed/Printed Name

24 April 2017
Date

Applicant: Angelcare Monitors Inc.
Date of Test: 24 April 2017
Model: AC215
Sample: 1/1
Worst Case Operating Mode: Transmitting(2410.875MHz) with adapter:K05S050100U
Phase: Live

Conducted Emission Test - FCC



Limit and Margin QP

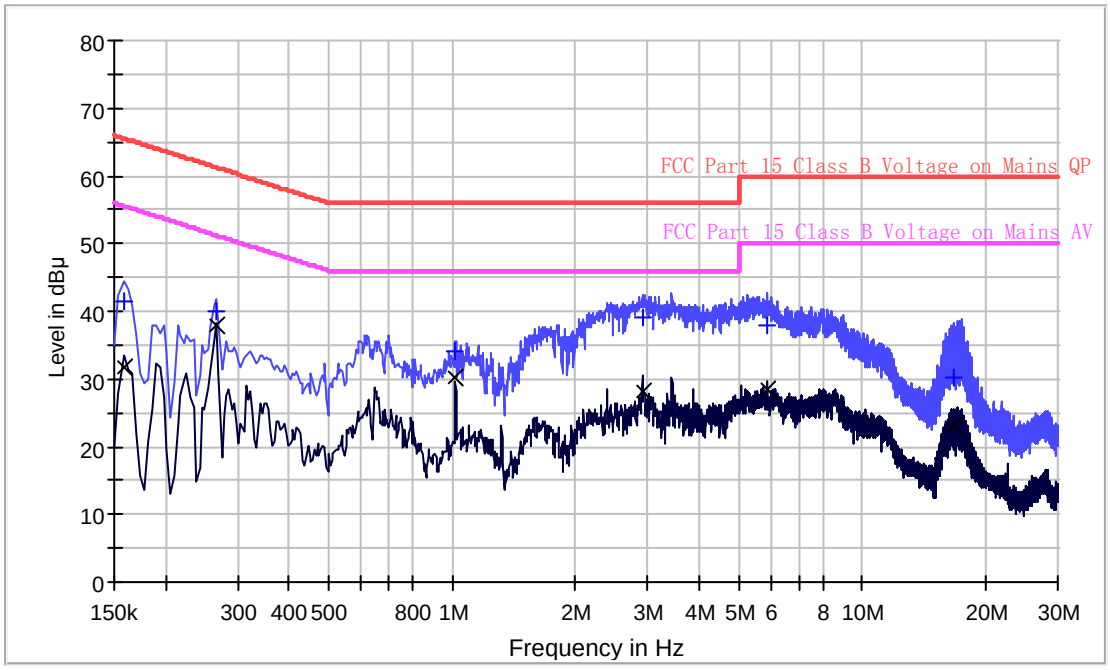
Frequency (MHz)	QuasiPeak (dB µ V)	Line	Corr. (dB)	Margin (dB)	Limit (dB µ V)
0.150000	35.1	L1	9.6	30.9	66.0
0.178000	33.2	L1	9.7	31.4	64.6
0.362000	40.1	L1	9.7	18.6	58.7
0.614000	32.4	L1	9.7	23.6	56.0
0.906000	32.3	L1	9.7	23.7	56.0
1.126000	33.0	L1	9.7	23.0	56.0

Limit and Margin AV

Frequency (MHz)	Average (dB µ V)	Line	Corr. (dB)	Margin (dB)	Limit (dB µ V)
0.150000	24.8	L1	9.6	31.2	56.0
0.178000	23.8	L1	9.7	30.8	54.6
0.362000	32.8	L1	9.7	15.9	48.7
0.614000	25.4	L1	9.7	20.6	46.0
0.906000	24.8	L1	9.7	21.2	46.0
1.126000	25.2	L1	9.7	20.8	46.0

Applicant: Angelcare Monitors Inc.
Date of Test: 24 April 2017
Model: AC215
Sample: 1/1
Worst Case Operating Mode: Transmitting(2410.875MHz) with adapter:K05S050100U
Phase: Neutral

Conducted Emission Test - FCC



Limit and Margin QP

Frequency (MHz)	QuasiPeak (dB µ V)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dB µ V)
0.158000	41.5	9.000	N	9.6	24.1	65.6
0.266000	40.0	9.000	N	9.7	21.2	61.2
1.018000	34.1	9.000	N	9.7	21.9	56.0
2.934000	39.0	9.000	N	9.8	17.0	56.0
5.878000	38.0	9.000	N	9.8	22.0	60.0
16.726000	30.3	9.000	N	10.1	29.7	60.0

Limit and Margin AV

Frequency (MHz)	Average (dB µ V)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dB µ V)
0.158000	31.7	9.000	N	9.6	23.9	55.6
0.266000	37.8	9.000	N	9.7	13.4	51.2
1.018000	30.3	9.000	N	9.7	15.7	46.0
2.934000	28.2	9.000	N	9.8	17.8	46.0
5.878000	28.5	9.000	N	9.8	21.5	50.0
16.726000	23.1	9.000	N	10.1	26.9	50.0

EXHIBIT 4

EQUIPMENT PHOTOGRAPHS

4.0 Equipment Photographs

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

EXHIBIT 5

PRODUCT LABELLING

5.0 Product Labelling

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

EXHIBIT 6

TECHNICAL SPECIFICATIONS

6.0 Technical Specifications

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

EXHIBIT 7

INSTRUCTION MANUAL

7.0 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.

EXHIBIT 8

MISCELLANEOUS INFORMATION

8.0 Miscellaneous Information

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

8.1 Bandedge Plot

For electronic filing, the plot shows the fundamental emission when modulated is saved with filename: bandedge.pdf. 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 and Average Measurement

Bandedge compliance is determined by applying radiated measurements method, i.e (Bandedge Plot).

(i) Lower channel 2410.875MHz:

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	61.8	36.7	28.5	53.6	74.0	-20.4

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	52.6	36.7	28.5	44.4	54.0	-9.6

(ii) Upper channel 2471.625MHz:

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	65.3	36.7	29.0	57.6	74.0	-16.4

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	51.3	36.7	29.0	43.6	54.0	-10.4

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).

8.1 Bandedge Plot (cont'd)

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.

Figure 8.1 Bandwidth

8.2 Discussion of Pulse Desensitization

Pulse desensitivity is not applicable for this device. The effective period (T_{eff}) is approximately 826.1 μs for a digital "1" bit, as shown in the plots of Exhibit 8.3. With a resolution bandwidth (3dB) of 1MHz, so the pulse desensitivity factor is 0dB.

8.3 Transmitter Duty Cycle Calculation, FCC Rule 15.35(b, c)

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 3dB 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.

A plot of the worst-case duty cycle as detected in this manner are saved with filename: af.pdf

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

The duration of one cycle = 100 ms
Effective period of the cycle = 826.1 μ s

DC = 11 * 0.8261 ms / 100 ms = 0.09087 or 9.087%

Therefore, the averaging factor is found by $20\log_{10}0.09087$ = -20.8 dB

8.4 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, up to 1GHz 0.8m and above 1GHz 1.5m 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.

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.

8.4 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. Above 1000 MHz, a resolution bandwidth of 1 MHz (RBW 10MHz for fundamental emission) is used.

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.

EXHIBIT 9

CONFIDENTIALITY REQUEST

9.0 Confidentiality Request

For electronic filing, the confidentiality request of the tested EUT is saved with filename: request.pdf.

EXHIBIT10
TEST EQUIPMENT LIST

10.0 Test Equipment List

Equipment No.	Equipment	Manufacturer	Model No.	Serial No.	Cal. Date	Due Date
EE089	EMI Test Receiver	Rohde & Schwarz	ESU	1302.6005.26	17-May-2016	17-May-2017
EE040	Pre-Amplifier	HP	8447F	2944A07999	17-May-2016	17-May-2017
EE043	Bilog Antenna	Schwarzbeck	VULB9163	142	17-May-2016	17-May-2017
EE147	Cable	Schwarzbeck	AK9513	ACRX1	17-May-2016	17-May-2017
EE169	Cable	Rosenberger	N/A	FP2RX2	17-May-2016	17-May-2017
EE168	Cable	Schwarzbeck	AK9513	CRPX1	29-May-2016	29-May-2017
EE170	Cable	Schwarzbeck	AK9513	CRRX2	29-May-2016	29-May-2017
EE096	Pre-Amplifier	A.H.	PAM-0126	1415261	17-May-2016	17-May-2017
EE094	Horn Antenna	Schwarzbeck	BBHA 9120	707	29-May-2016	29-May-2017
EE097	Cable	H+B	0.5M SF104-26.5	289147/4	29-May-2016	29-May-2017
EE100	Cable	H+B	3M SF104-26.5	295838/4	29-May-2016	29-May-2017
EE101	Cable	H+B	6M SF104-26.5	295840/4	29-May-2016	29-May-2017
EE095	Horn Antenna	Schwarzbeck	BBHA 9170	BBHA9170 399	17-May-2016	17-May-2017
EE343	EMI Test Receiver	Rohde & Schwarz	FSV40	132.1-3008K39-100967-AP	29-May-2016	29-May-2017
EE240	Pre-Amplifier	Lunar EM	LNA26G40-40	J1013131028001	17-May-2016	17-May-2017
EE234	Horn Antenna	AHS/USA	SAS-573	184	17-May-2016	17-May-2017
EE312	Cable	A.H	SAC-40G-1	414	17-May-2016	17-May-2017
EE313	Cable	A.H	SAC-40G-1	413	17-May-2016	17-May-2017
EE023	Test Receiver	Rohde & Schwarz	ESCS30	879	29-May-2016	29-May-2017
EE145	L.I.S.N.	Rohde & Schwarz	ENV216	590	29-May-2016	29-May-2017
EE022	AMN	ROHDE & SCHWARZ	B-1492-9	856	26-Jun-2016	26-Jun-2017