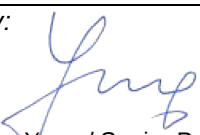
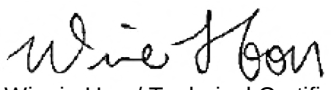


Prüfbericht-Nr.: <i>Test report No.:</i>	50052573 001	Auftrags-Nr.: <i>Order No.:</i>	164067080	Seite 1 von 27 <i>Page 1 of 27</i>	
Kunden-Referenz-Nr.: <i>Client reference No.:</i>	N/A	Auftragsdatum: <i>Order date.:</i>	23.06.2016		
Auftraggeber: <i>Client:</i>	THAMES & KOSMOS, LLC. 301 Friendship Street, Providence, Rhode Island 02903, United States				
Prüfgegenstand: <i>Test item:</i>	Kosmobits / Code Gamer				
Bezeichnung / Typ-Nr.: <i>Identification / Type No.:</i>	620141 (KOSMOS)				
Auftrags-Inhalt: <i>Order content:</i>	FCC and IC approval				
Prüfgrundlage: <i>Test specification:</i>	CFR47 FCC Part 15: Subpart C Section 15.247 CFR47 FCC Part 15: Subpart C Section 15.207 CFR47 FCC Part 15: Subpart C Section 15.209 CFR47 FCC Part 15: Subpart B Section 15.107 CFR47 FCC Part 15: Subpart B Section 15.109 CFR47 FCC Part 2: Section 2.1093 RSS-247 Issue 1 May 2015 RSS-Gen Issue 4 November 2014 ICES-003 Issue 6 January 2016 RSS-102 Issue 5 March 2015				
Wareneingangsdatum: <i>Date of receipt:</i>	23.06.2016	Please refer to photo documents			
Prüfmuster-Nr.: <i>Test sample No.:</i>	A000377748-007 A000377748-010				
Prüfzeitraum: <i>Testing period:</i>	01.07.2016 - 31.07.2016				
Ort der Prüfung: <i>Place of testing:</i>	Accurate Technology Co., Ltd.				
Prüflaboratorium: <i>Testing laboratory:</i>	TÜV Rheinland (Shenzhen) Co., Ltd.				
Prüfergebnis*: <i>Test result*:</i>	Pass				
geprüft von / tested by:		kontrolliert von / reviewed by:			
 18.09.2016 Ryan Yang / Senior Project Engineer		 18.09.2016 Winnie Hou / Technical Certifier			
Datum <i>Date</i>	Name/Stellung <i>Name/Position</i>	Unterschrift <i>Signature</i>	Datum <i>Date</i>	Name/Stellung <i>Name/Position</i>	Unterschrift <i>Signature</i>
Sonstiges / Other:					
FCC ID: 2AIAE-620141 IC: 21634-620141 HVIN: 620141-00 NOTE: Kosmobits is German model, and Code Gamer is US model, just for different markets.					
Zustand des Prüfgegenstandes bei Anlieferung: <i>Condition of the test item at delivery:</i>			Prüfmuster vollständig und unbeschädigt <i>Test item complete and undamaged:</i>		
* Legende: 1 = sehr gut 2 = gut 3 = befriedigend 4 = ausreichend 5 = mangelhaft P(ass) = entspricht o.g. Prüfgrundlage(n) F(ail) = entspricht nicht o.g. Prüfgrundlage(n) N/A = nicht anwendbar N/T = nicht getestet Legend: 1 = very good 2 = good 3 = satisfactory 4 = sufficient 5 = poor P(ass) = passed a.m. test specifications(s) F(ail) = failed a.m. test specifications(s) N/A = not applicable N/T = not tested					
Dieser Prüfbericht bezieht sich nur auf das o.g. Prüfmuster und darf ohne Genehmigung der Prüfstelle nicht auszugsweise vervielfältigt werden. Dieser Bericht berechtigt nicht zur Verwendung eines Prüfzeichens. <i>This test report only relates to the a. m. test sample. Without permission of the test center this test report is not permitted to be duplicated in extracts. This test report does not entitle to carry any test mark.</i>					

Test Summary

5.1.1 ANTENNA REQUIREMENT

RESULT: Pass

5.1.2 MAXIMUM PEAK CONDUCTED OUTPUT POWER

RESULT: Pass

5.1.3 CONDUCTED POWER SPECTRAL DENSITY

RESULT: Pass

5.1.4 6dB BANDWIDTH

RESULT: Pass

5.1.5 99% BANDWIDTH

RESULT: Pass

5.1.6 CONDUCTED SPURIOUS EMISSIONS MEASURED IN 100 KHz BANDWIDTH

RESULT: Pass

5.1.7 RADIATED SPURIOUS EMISSION

RESULT: Pass

5.1.8 CONDUCTED EMISSION ON AC MAINS

RESULT: Pass

5.1.9 RADIATED EMISSION

RESULT: Pass

6.1.1 ELECTROMAGNETIC FIELDS

RESULT: Pass

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1 General Remarks

1.1 Complementary Materials

All attachments are integral parts of this test report. This applies especially to the following appendix:

Appendix A: Test Results of Bluetooth 4.0 Low Energy of Conducted Testing

Appendix B: Test Results of Bluetooth 4.0 Low Energy of Conducted and Radiated Emission Testing

2 Test Sites

2.1 Test Facilities

Accurate Technology Co., Ltd.

F1, Bldg. A, Changyuan New Material Port Keyuan Rd., Science & Industry Park, Nanshan Shenzhen, 518057, P.R. China

FCC Registration No.: 752051

Test site Industry Canada No.: 5077A-2

The tests at the test sites have been conducted under the supervision of a TÜV engineer.

2.2 List of Test and Measurement Instruments

Table 1: List of Test and Measurement Equipment

Accurate Technology Co., Ltd.

Radio Spectrum Test				
Equipment	Manufacturer	Model No.	Serial No.	Cal. Until
Spectrum Analyzer	R&S	ESPI3	100396/003	09.01.2017
Spurious Emission & Radiated Emission				
Equipment	Manufacturer	Model No.	Serial No.	Cal. Until
Spectrum Analyzer	R&S	FSV40	101495	01.01.2017
Test Receiver	R&S	ESCS30	100307	01.01.2017
Bilog Antenna	Schwarzbeck	VULB9163	9163-323	01.01.2017
Loop Antenna	Schwarzbeck	FMZB1516	1516131	01.01.2017
Horn Antenna	Schwarzbeck	BBHA9120D	9120D-655	01.01.2017
Horn Antenna	Schwarzbeck	BBHA9170	9170-359	01.01.2017
RF Switching Unit+PreAMP	Compliance Direction	RSU-M2	38322	01.01.2017
Pre-Amplifier	R&S	CBLU11835 40-01	3791	01.01.2017
50 Coaxial Switch	Anritsu Corp	MP59B	6200506474	01.01.2017
RF Coaxial Cable	SUHNER	N-3m	No.8	01.01.2017
RF Coaxial Cable	RESENBERGER	N-3.5m	No.9	01.01.2017
RF Coaxial Cable	SUHNER	N-6m	No.10	01.01.2017
RF Coaxial Cable	RESENBERGER	N-12m	No.11	01.01.2017
50_ Coaxial Switch	Anritsu Corp	MP59B	6200283933	09.01.2017
Conducted Emission on AC Mains				
Equipment	Manufacturer	Model No.	Serial No.	Cal. Until
Test Receiver	R&S	ESCI	26115-010-0027	17.05.2017
L.I.S.N.	R&S	ENV216	101161	17.05.2017
50Ω Coaxial Switch	Anritsu	MP59B	6100175589	17.05.2017

2.3 Traceability

All measurement equipment calibrations are traceable to NIM (National Institute of Metrology) or where calibration is performed in other countries, to equivalent nationally recognized standards organizations.

2.4 Calibration

Equipment requiring calibration is calibrated periodically by the manufacturer or according to manufacturer's specifications. Additionally all equipment is verified for proper performance on a regular basis using in house standards or comparisons.

2.5 Measurement Uncertainty

The estimated combined standard uncertainty for radiated emissions and conducted emissions measurements as below table

Item		Extended Uncertainty
Conducted Emission		± 2.0 dB
Radiated Emission (9kHz-30MHz)	Field strength (dB μ V/m)	U=3.08dB, k=2, σ =95%
Radiated Emission (30-1000MHz)	Field strength (dB μ V/m)	U=4.42dB, k=2, σ =95%
Radiated Emission (above 1000MHz)	Field strength (dB μ V/m)	U=4.06dB, k=2, σ =95%
Radio Spectrum		± 0.60 dB

2.6 Location of Original Data

The original copies of all test data taken during actual testing were attached at Appendix A & B of this report and delivered to the applicant. A copy has been retained in the TÜV Rheinland (Shenzhen) file for certification follow-up purposes.

2.7 Status of Facility Used for Testing

The Accurate Technology Co., Ltd. Test facility located at F1, Bldg. A, Changyuan New Material Port Keyuan Rd., Science & Industry Park, Nanshan Shenzhen, 518057, P.R. China is listed on the US Federal Communications Commission list of facilities approved to perform measurements.

3 General Product Information

3.1 Product Function and Intended Use

The EUT is a 'Kosmobits / Code Gamer' device. It supports Bluetooth 4.0 Low Energy wireless technology.

According to the declaration of the applicant, the electrical circuit design, PCB layout and components used are identical for Kosmobits and Code Gamer, the only difference is language of manuals and outer box.

For details refer to the User Manual, Technical Description and Circuit Diagram.

3.2 Ratings and System Details

Table 2: Technical Specification of EUT

Technical Specification	Value
Kind of Equipment	Kosmobits / Code Gamer
Type Designation	620141
Trade Mark	KOSMOS
FCC ID	2AIAE-620141
IC	21634-620141
HVIN	620141-00
Operating Frequency	2402 - 2480 MHz
Operating Temperature Range	-20 °C ~ +85 °C
Operating Voltage	DC 3.7V via internal rechargeable lithium battery DC 5.0V via USB port
Testing Voltage	DC 3.7V via internal rechargeable lithium battery DC 5.0V via USB port
Type of Modulation	GFSK
Channel Number	40 channels
Channel Separation	2 MHz
Wireless Technology	Bluetooth 4.0 Low Energy
Antenna Type	Chip Antenna
Antenna Gain	0.00 dBi

Table 3: RF Channel and Frequency of Bluetooth Low Energy

RF Channel	Frequency (MHz)	RF Channel	Frequency (MHz)	RF Channel	Frequency (MHz)	RF Channel	Frequency (MHz)
00	2402.00	10	2422.00	20	2442.00	30	2462.00
01	2404.00	11	2424.00	21	2444.00	31	2464.00
02	2406.00	12	2426.00	22	2446.00	32	2466.00
03	2408.00	13	2428.00	23	2448.00	33	2468.00
04	2410.00	14	2430.00	24	2450.00	34	2470.00
05	2412.00	15	2432.00	25	2452.00	35	2472.00
06	2414.00	16	2434.00	26	2454.00	36	2474.00
07	2416.00	17	2436.00	27	2456.00	37	2476.00
08	2418.00	18	2438.00	28	2458.00	38	2478.00
09	2420.00	19	2440.00	29	2460.00	39	2480.00

3.3 Independent Operation Modes

The basic operation modes are:

- A. On, Bluetooth transmitting mode
 - 1. Low Channel
 - 2. Middle Channel
 - 3. High Channel
- B. On, Bluetooth connecting mode
- C. On, Charging mode
- D. Off

3.4 Noise Generating and Noise Suppressing Parts

Refer to Circuit Diagram for further details.

3.5 Submitted Documents

- Application Form
- Block Diagram
- FCC/IC Label and Location Info
- Model Difference Letter
- Operation Description
- Photo Document
- Schematics
- User Manual

4 Test Set-up and Operation Modes

4.1 Principle of Configuration Selection

Radio Spectrum: The equipment under test (EUT) was configured at its highest power output in order to measure its highest possible radiation and conducted level. The test modes were adapted accordingly in reference to the instructions for use.

Emission: The equipment under test (EUT) was configured to measure its highest possible radiation level. The test modes were adapted accordingly in reference to the instructions for use.

4.2 Test Operation and Test Software

Test operation refers to test setup in chapter 5. All testing were performed according to the procedures in ANSI C63.10: 2013 and ANSI C63.4: 2014

According to clause 3.1, all tests were performed on model 620141 in this report.

4.3 Special Accessories and Auxiliary Equipment

Table 4: List of Accessories and Auxiliary Equipment

Description	Manufacturer	Model	S/N	Rating
Notebook PC	Lenovo	ThinkPad X240	N/A	N/A

4.4 Countermeasures to Achieve EMC Compliance

The test sample which has been tested contained the noise suppression parts as described in the Technical Construction File (TCF).

No additional measures were employed to achieve compliance.

4.5 Test Setup Diagram

Diagram of Measurement Configuration for Radiation Test (Below 1GHz)

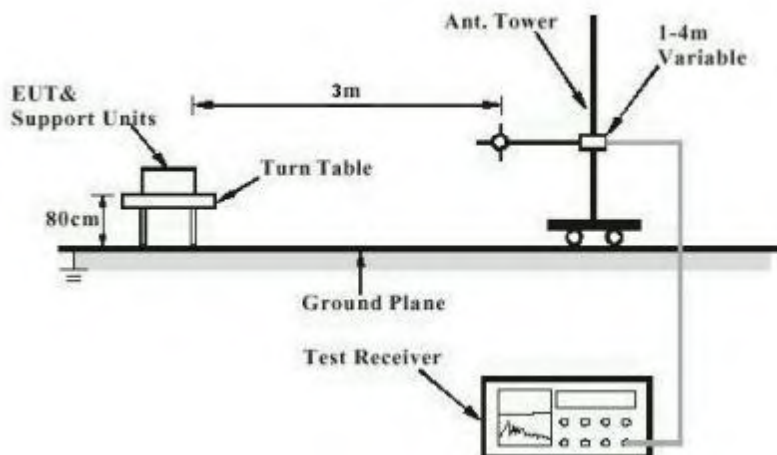


Diagram of Measurement Configuration for Radiation Test (Above 1GHz)

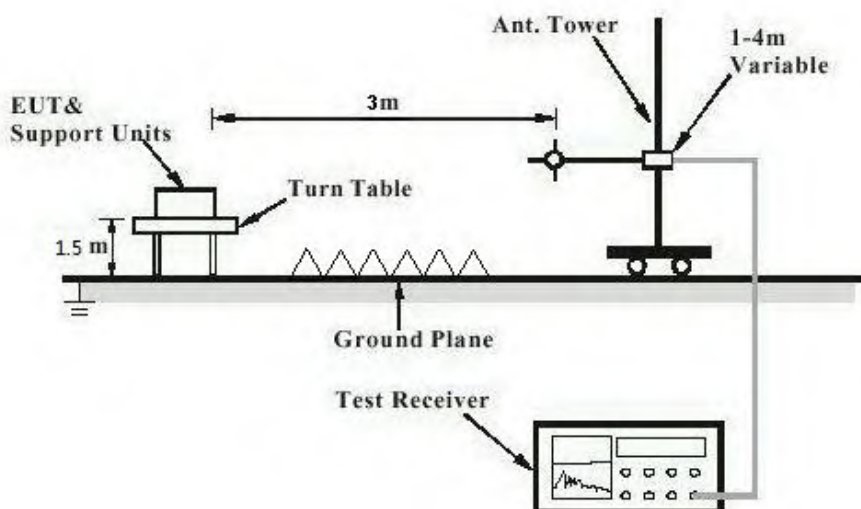


Diagram of Measurement Configuration for Mains Conduction Measurement

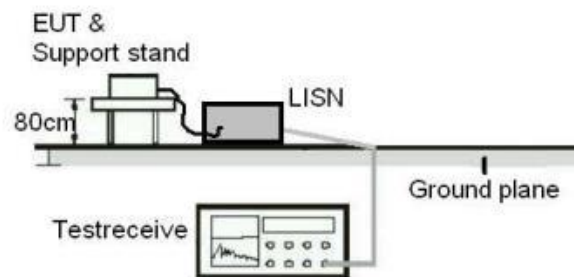
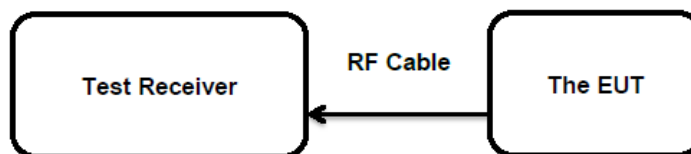


Diagram of Measurement Configuration for Conducted Transmitter Measurement



5 Test Results

5.1 Transmitter Requirement & Test Suites

5.1.1 Antenna Requirement

RESULT:

Pass

Test Specification

Test standard : FCC Part 15.247(b)(4) and Part 15.203

According to the manufacturer declared, the EUT has an internal antenna, the directional gain of antenna is 0.00 dBi, and the antenna connector is designed with permanent attachment and no consideration of replacement. Therefore the EUT is considered sufficient to comply with the provision.

Therefore the EUT is considered sufficient to comply with the provision.

Refer to EUT Photo for further details.

5.1.2 Maximum Peak Conducted Output Power

RESULT:**Pass****Test Specification**

Test standard : FCC Part 15.247(b)(3)
RSS-247 Clause 5.4(4)

Basic standard : ANSI C63.10: 2013

Limits : 1.0 Watts

Kind of test site : Shielded Room

Test Setup

Date of testing : 01.07.2016

Input voltage : DC 3.7V via internal rechargeable lithium battery

Operation mode : A

Test channel : Low / Middle / High

Ambient temperature : 25 °C

Relative humidity : 56 %

Atmospheric pressure : 101 kPa

Table 5: Test Result of Maximum Peak Conducted Output Power, Low Energy

Test Mode	Channel Frequency (MHz)	Measured Peak Output Power		Limit (W)
		(dBm)	(W)	
Low Energy	2402	-5.97	0.00025	< 1.0
	2440	-7.67	0.00017	
	2480	-9.75	0.00011	
Maximum Measured Value		-5.97	0.00025	

Note: The cable loss 1.0 dB is taken into account in results.

For the measurement records, refer to the appendix A.

5.1.3 Conducted Power Spectral Density

RESULT:**Pass****Test Specification**

Test standard : FCC Part 15.247(e)
RSS-247 Clause 5.2(2)

Basic standard : ANSI C63.10: 2013

Limits : 8 dBm/3kHz

Kind of test site : Shielded Room

Test Setup

Date of testing : 01.07.2016

Input voltage : DC 3.7V via internal rechargeable lithium battery

Operation mode : A

Test channel : Low / Middle / High

Ambient temperature : 25 °C

Relative humidity : 56 %

Atmospheric pressure : 101 kPa

Table 6: Test Result of Power Spectral Density, Low Energy

Test Mode	Test Channel (MHz)	Power Spectrum Density(dBm/3kHz)	Limit (dBm/3kHz)
Low Energy	2402	-20.38	< 8.0
	2440	-22.13	
	2480	-24.02	
Maximum Measured Value		-20.38	

Note: The cable loss 1.0 dB is taken into account in results.

For the measurement records, refer to the appendix A.

5.1.4 6dB Bandwidth

RESULT:
Pass
Test Specification

Test standard : FCC Part 15.247(a)(2)
RSS-247 Clause 5.2(1)

Basic standard : ANSI C63.10: 2013

Limits : More than 500 KHz

Kind of test site : Shielded Room

Test Setup

Date of testing : 01.07.2016

Input voltage : DC 3.7V via internal rechargeable lithium battery

Operation mode : A

Test channel : Low / Middle / High

Ambient temperature : 25 °C

Relative humidity : 56 %

Atmospheric pressure : 101 kPa

Table 7: Test Result of 6dB Bandwidth, Low Energy

Test Mode	Test Channel (MHz)	-6dB Bandwidth (kHz)	Limit (kHz)
Low Energy	2402	716.30	> 500
	2440	716.30	
	2480	720.70	
Minimum Measured Value		716.30	

For the measurement records, refer to the appendix A.

5.1.5 99% Bandwidth

RESULT:**Pass****Test Specification**

Test standard : RSS-Gen Clause 6.6
Basic standard : ANSI C63.10: 2013
Kind of test site : Shielded Room

Test Setup

Date of testing : 01.07.2016
Input voltage : DC 3.7V via internal rechargeable lithium battery
Operation mode : A
Test channel : Low / Middle / High
Ambient temperature : 25 °C
Relative humidity : 56 %
Atmospheric pressure : 101 kPa

Table 8: Test Result of 99% Bandwidth, Low Energy

Test Mode	Channel Frequency (MHz)	99% Bandwidth (kHz)	Limit (kHz)
Low Energy	2402	1089.72	/
	2440	1085.98	
	2480	1085.98	
Maximum Measured Value		1089.72	

For the measurement records, refer to the appendix A.

5.1.6 Conducted Spurious Emissions Measured in 100 kHz Bandwidth**RESULT:****Pass****Test Specification**

Test standard	: FCC Part 15.247(d) RSS-247 Clause 5.5
Basic standard	: ANSI C63.10: 2013
Limits	: 20dB (below that in the 100kHz bandwidth within the band that contains the highest level of the desired power);
Kind of test site	: Shielded Room

Test Setup

Date of testing	: 01.07.2016
Input voltage	: DC 3.7V via internal rechargeable lithium battery
Operation mode	: A
Test channel	: Low / Middle / High
Ambient temperature	: 25 °C
Relative humidity	: 56 %
Atmospheric pressure	: 101 kPa

Test results of 100kHz Bandwidth of Frequency Band Edge by Conducted method refer to following test plot, and compliance is achieved as well.

For the measurement records, refer to the appendix A.

5.1.7 Radiated Spurious Emission

RESULT:**Pass****Test Specification**

Test standard	: FCC Part 15.247(d) & FCC Part 15.205 RSS-247 Clause 3.3
Basic standard	: ANSI C63.10: 2013
Limits	: Refer to 15.209(a) of FCC part 15.247(d) RSS-Gen Table 4 & Table 5
Kind of test site	: 3m Semi-anechoic Chamber

Test Setup

Date of testing	: 03.07.2016
Input voltage	: DC 3.7V via internal rechargeable lithium battery
Operation mode	: A
Test channel	: Low / Middle / High
Ambient temperature	: 24 °C
Relative humidity	: 48 %
Atmospheric pressure	: 101 kPa

Remark:

During the pretest the EUT was rotated through three orthogonal axes to determine the attitude that maximizes the emissions. After that the EUT was manually handled to find the orientation that has the maximum emission, which is the orientation shown in the test set-up photos.

Testing was carried out within frequency range 9kHz to the tenth harmonics.

For the measurement records, refer to the appendix B.

5.1.8 Conducted Emission on AC Mains

RESULT:**Pass****Test Specification**

Test standard	: FCC Part 15.207(a) & FCC Part 15.107(a) RSS-Gen Clause 8.8 & ICES-003
Basic standard	: ANSI C63.10: 2013 & ANSI C63.4: 2014
Frequency range	: 0.15 – 30MHz
Limits	: FCC Part 15.207(a) & FCC Part 15.107(a) RSS-Gen Table 3 & ICES-003 Table 2
Kind of test site	: Shielded Room

Test Setup

Date of testing	: 31.07.2016
Input voltage	: DC 5.0V via USB port
Operation mode	: B, C
Earthing	: Not connected
Ambient temperature	: 25 °C
Relative humidity	: 56 %
Atmospheric pressure	: 101 kPa

For the measurement records, refer to the appendix B.

5.1.9 Radiated Emission

RESULT:**Pass****Test Specification**

Test standard	: FCC Part 15.109(a) ICES-003
Basic standard	: ANSI C63.4: 2014
Frequency range	: 30 - 6000MHz
Classification	: Class B
Limits	: FCC Part 15.109(a) ICES-003 Table 5 & Table 7
Kind of test site	: 3m Semi-anechoic Chamber

Test Setup

Date of testing	: 27.07.2016
Input voltage	: DC 3.7V via internal rechargeable lithium battery
Operation mode	: C
Earthing	: Not connected
Ambient temperature	: 24 °C
Relative humidity	: 48 %
Atmospheric pressure	: 101 kPa

For the measurement records, refer to the appendix B.

6 Safety Human Exposure

6.1 Radio Frequency Exposure Compliance

6.1.1 Electromagnetic Fields

RESULT:**Pass****Test Specification**

Test standard : CFR47 FCC Part 2: Section 2.1093
FCC KDB Publication 447498 D01 v06
RSS-102 Issue 5 March 2015

Measurement Record:

The minimum distance for the EUT is less than 5mm.

Since maximum peak output power of the transmitter is -5.97 dBm $\approx 0.25 \text{ mW}$ $< \frac{3 \cdot d}{\sqrt{f}} = 9.52 \text{ mW}$.

Hence the EUT is excluded from SAR evaluation according to FCC KDB Publication 447498 D01 General RF Exposure Guidance v06.

The maximum peak output power of the transmitter is -5.97 dBm (0.25 mW), which is far below the SAR exclusion threshold level $4 \text{ mW} \approx 6.02 \text{ dBm}$.

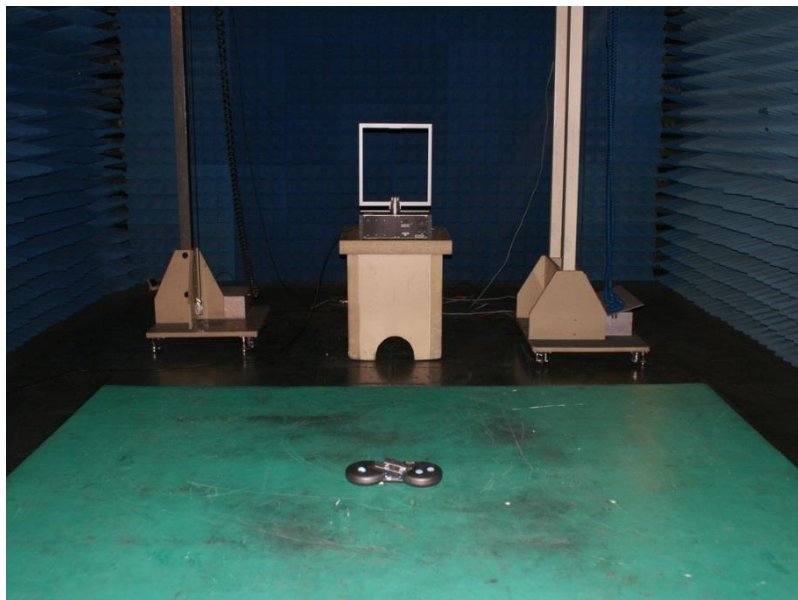
Hence the EUT is exempted from routine evaluation limits (SAR Evaluation) according to clause 2.5.1 of RSS-102 Issue 5.

7 Photographs of the Test Set-Up

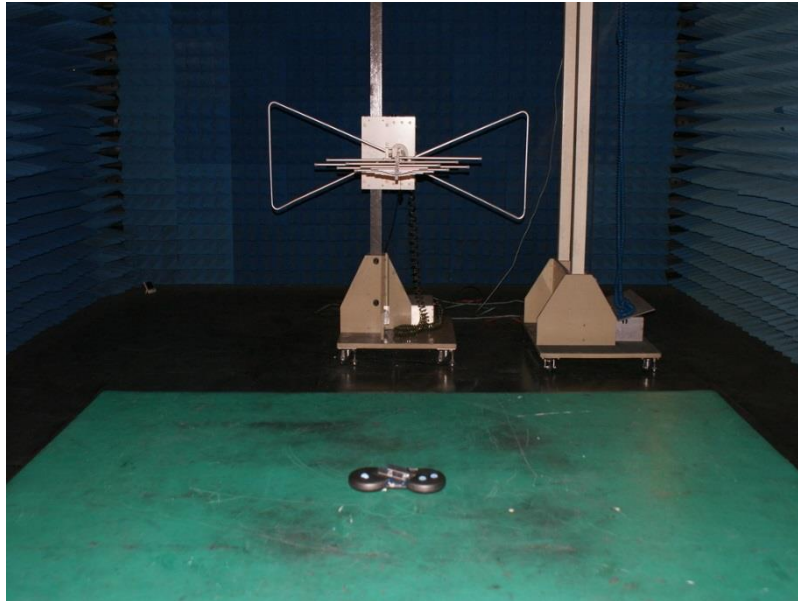
Photograph 1: Set-up for Radio Spectrum Test



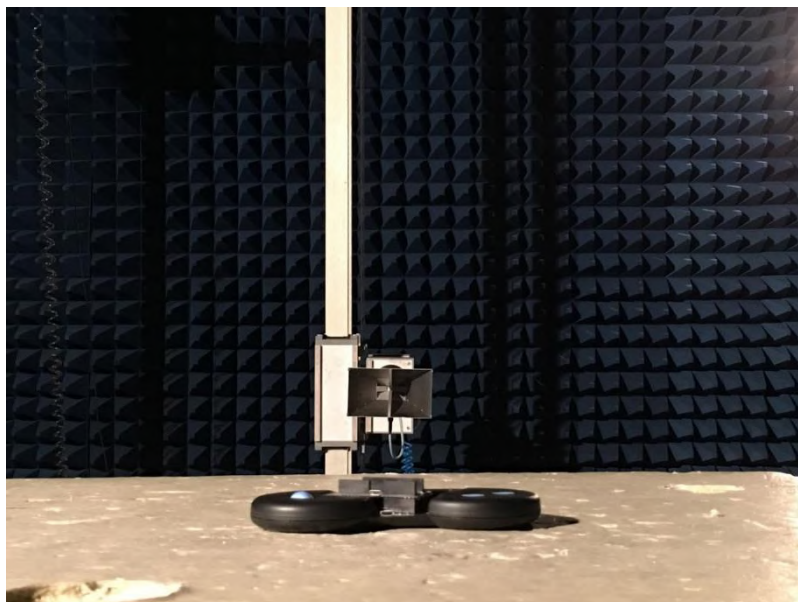
Photograph 2: Set-up for Radiated Spurious Emission (9kHz ~ 30MHz)



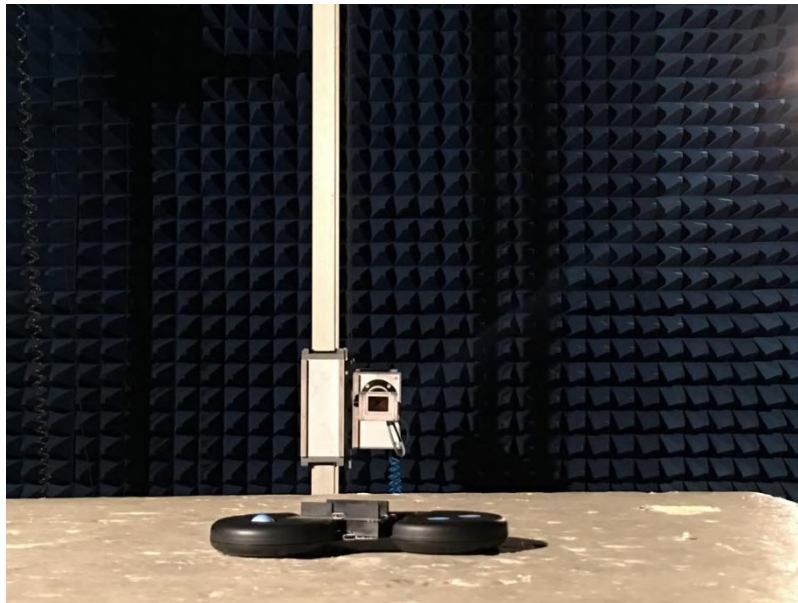
Photograph 3: Set-up for Radiated Spurious Emission (30MHz~1GHz)



Photograph 4: Set-up for Radiated Spurious Emission (1GHz ~ 18GHz)



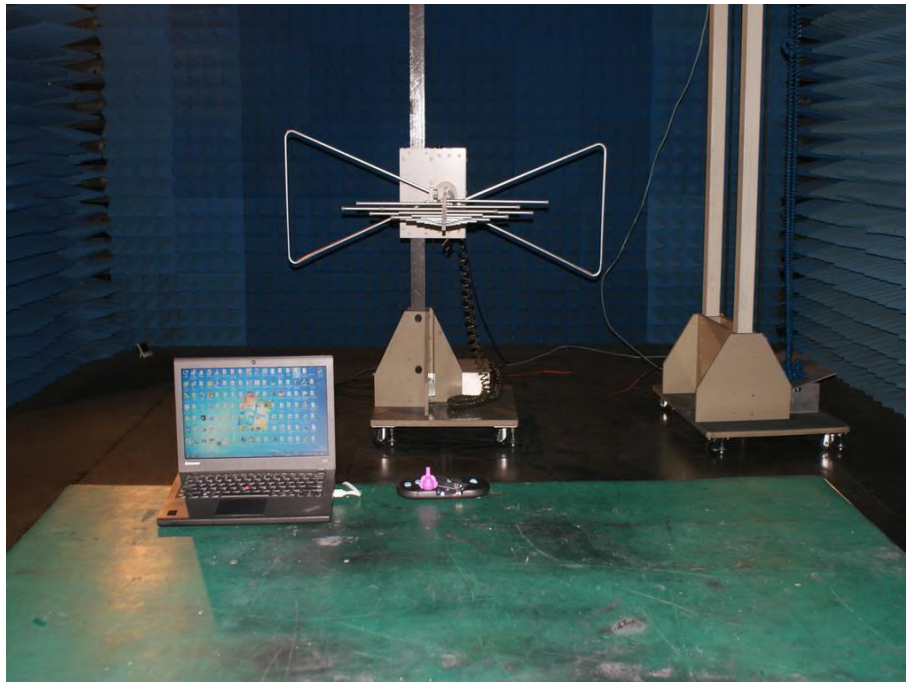
Photograph 5: Set-up for Radiated Spurious Emission (18GHz ~ 26GHz)



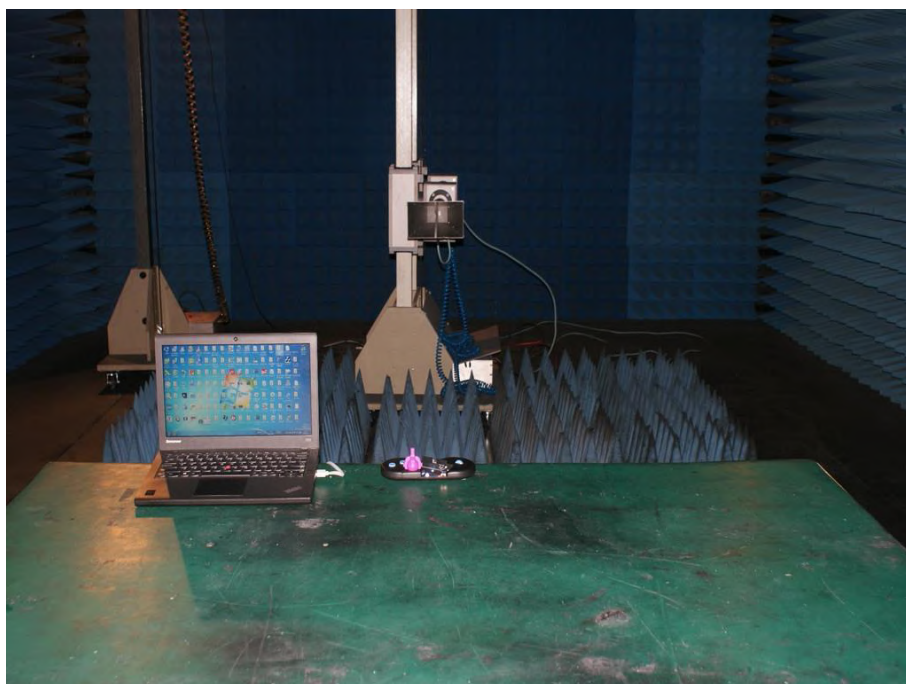
Photograph 6: Set-up for Conducted Emission on AC Mains



Photograph 7: Set-up for Radiated Emission (30MHz ~ 1GHz)



Photograph 8: Set-up for Radiated Emission (1GHz ~ 6GHz)



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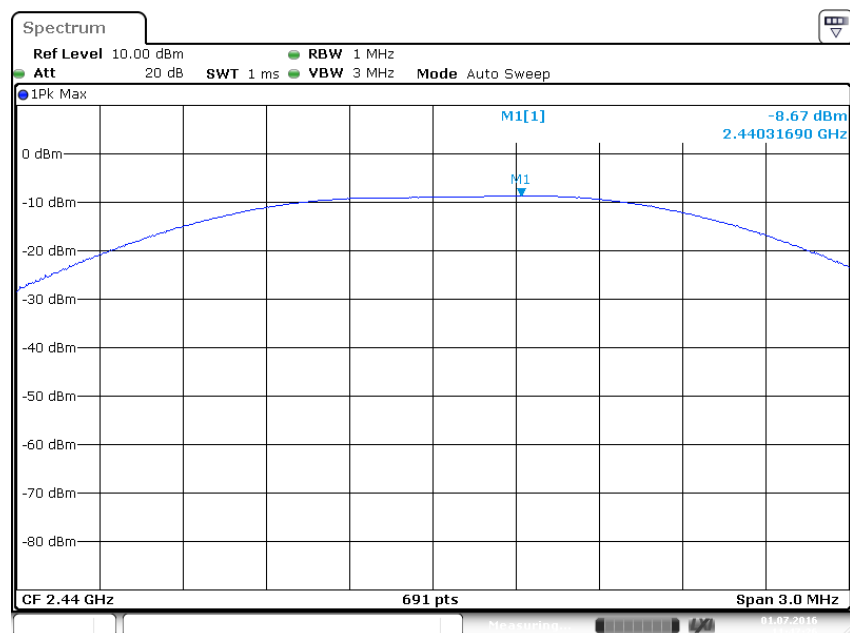
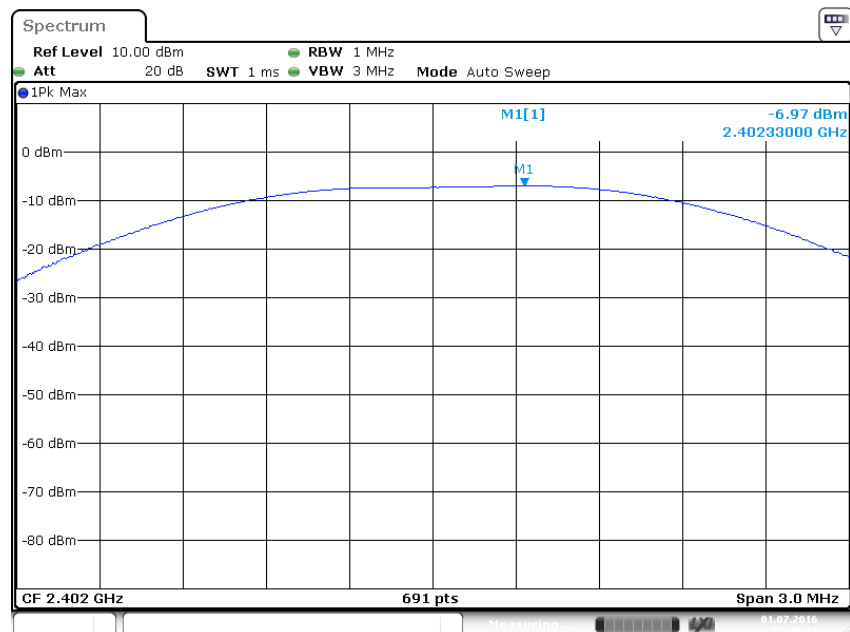
Appendix A

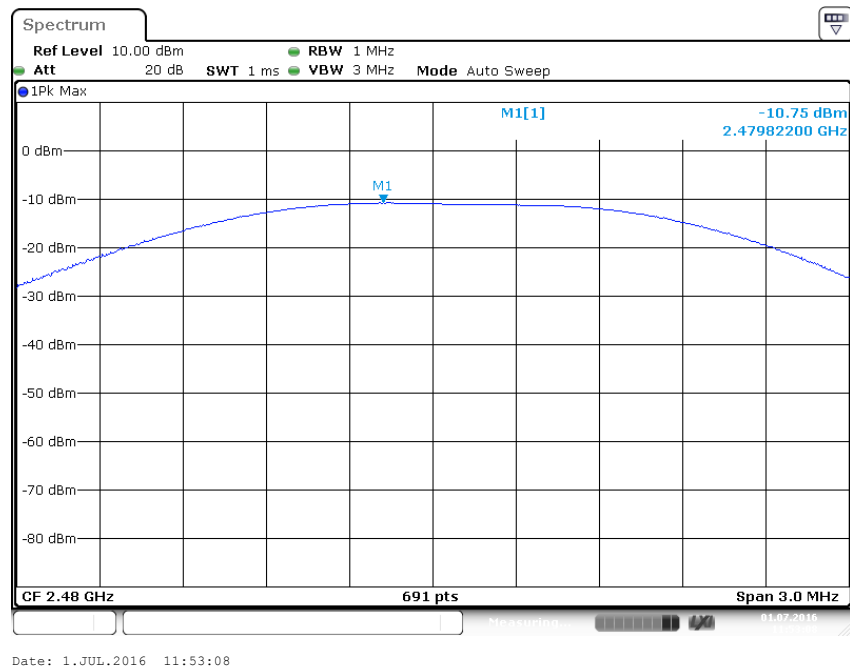
Test Results of Bluetooth 4.0 Low Energy of Conducted Testing

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Appendix A.1: Test Plots of Maximum Peak Conducted Output Power

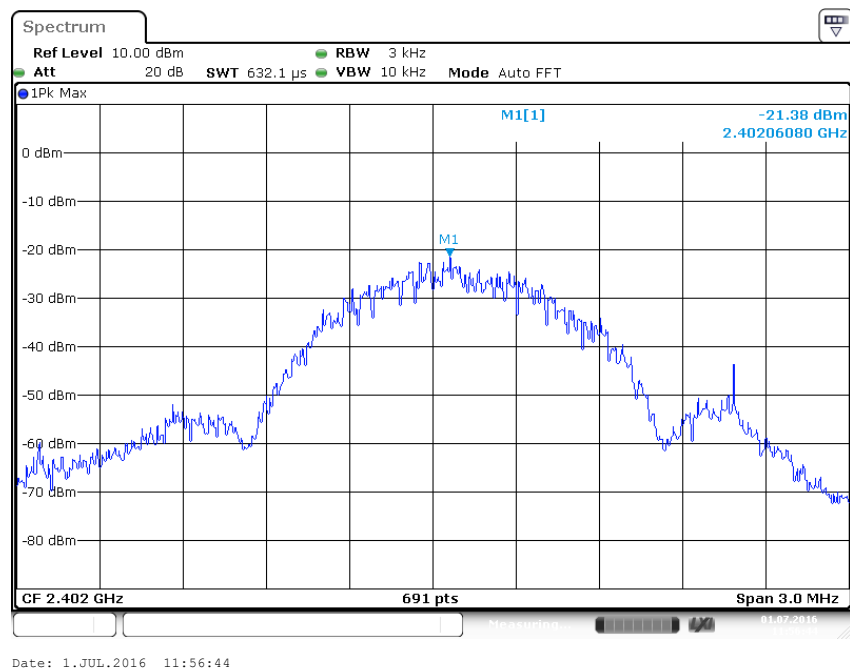
Low Energy Mode

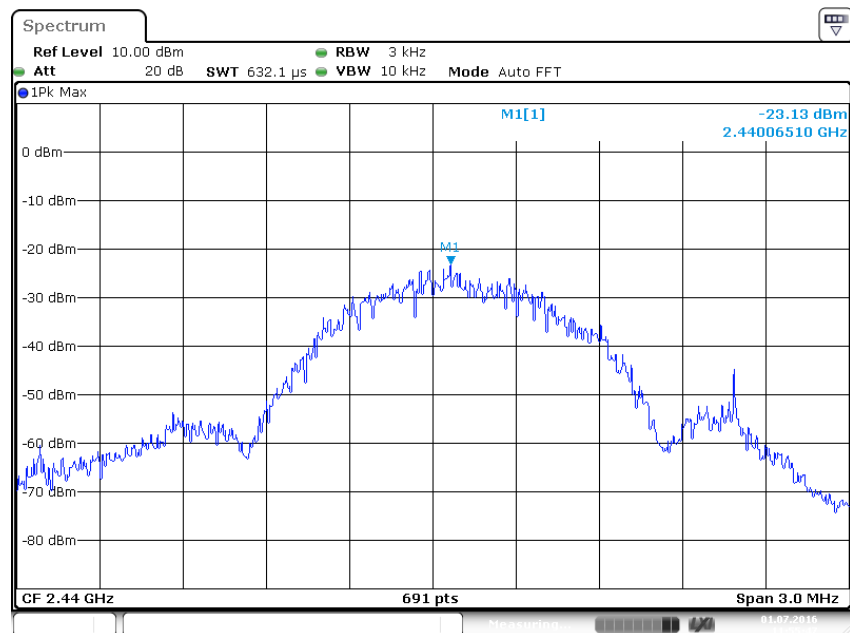




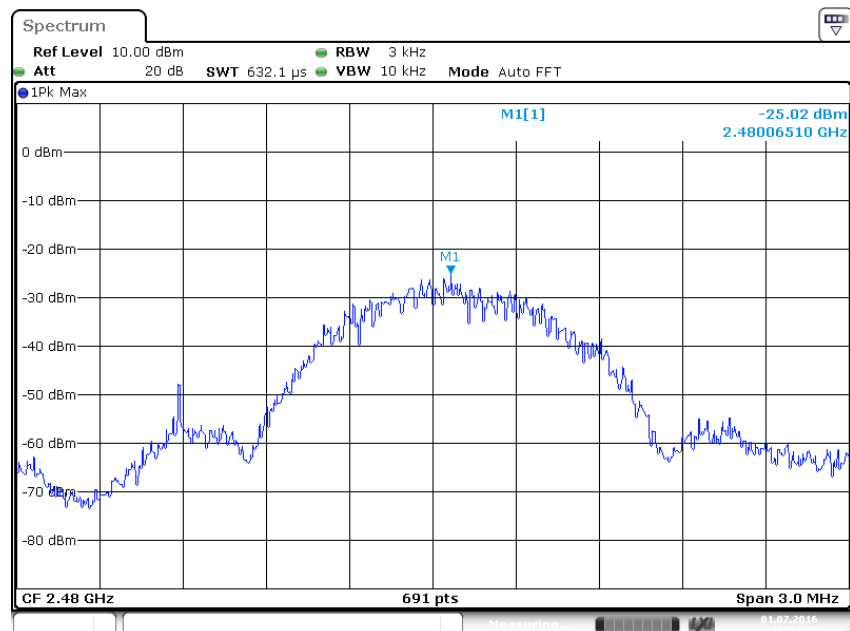
Appendix A.2: Test Plots of Conducted Power Spectral Density

Low Energy Mode





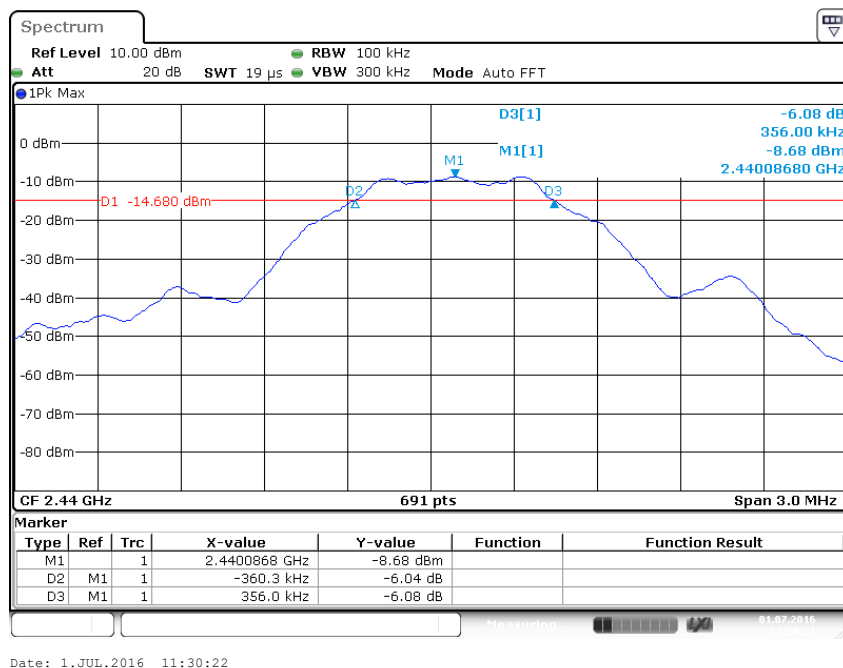
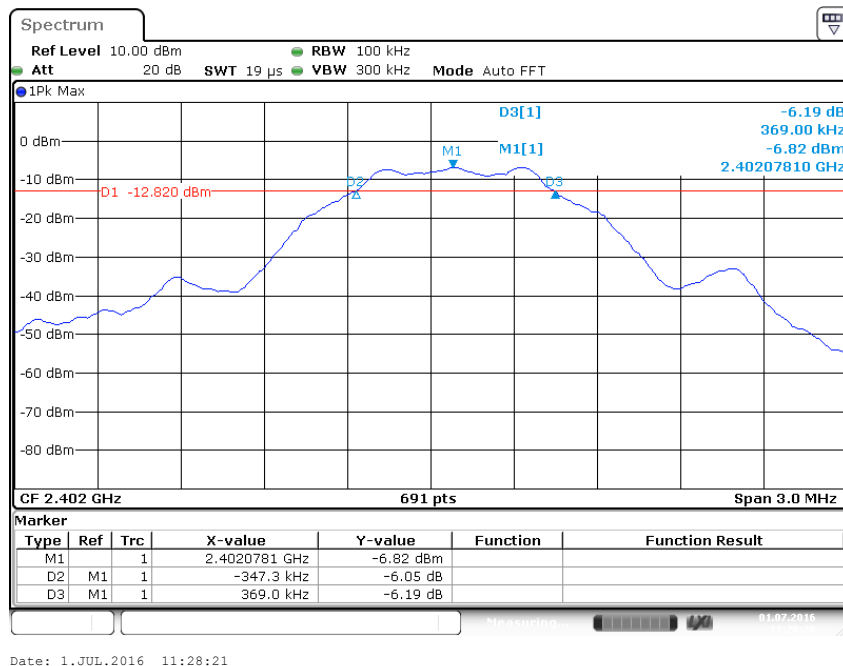
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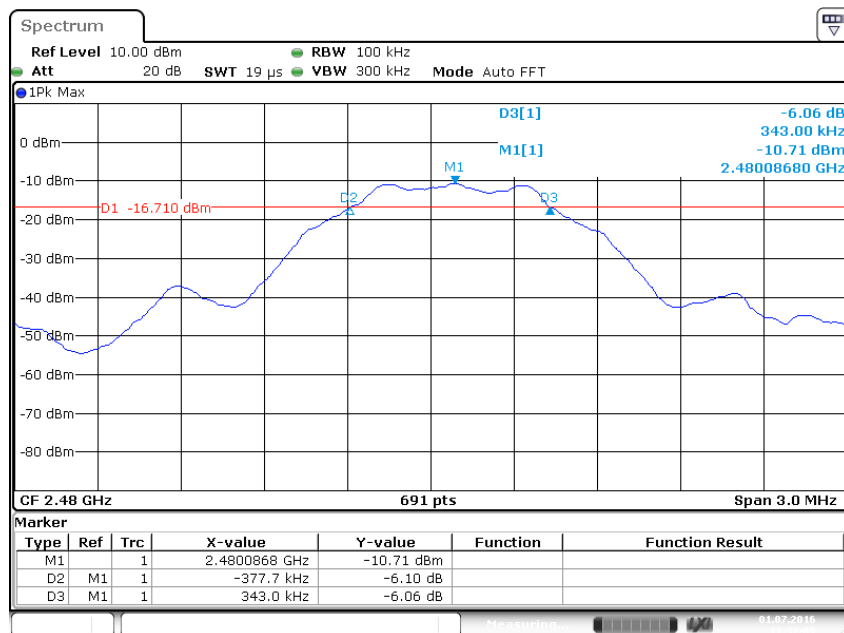


Date: 1.JUL.2016 11:54:46

Appendix A.3: Test Plots of 6dB Bandwidth

Low Energy Mode

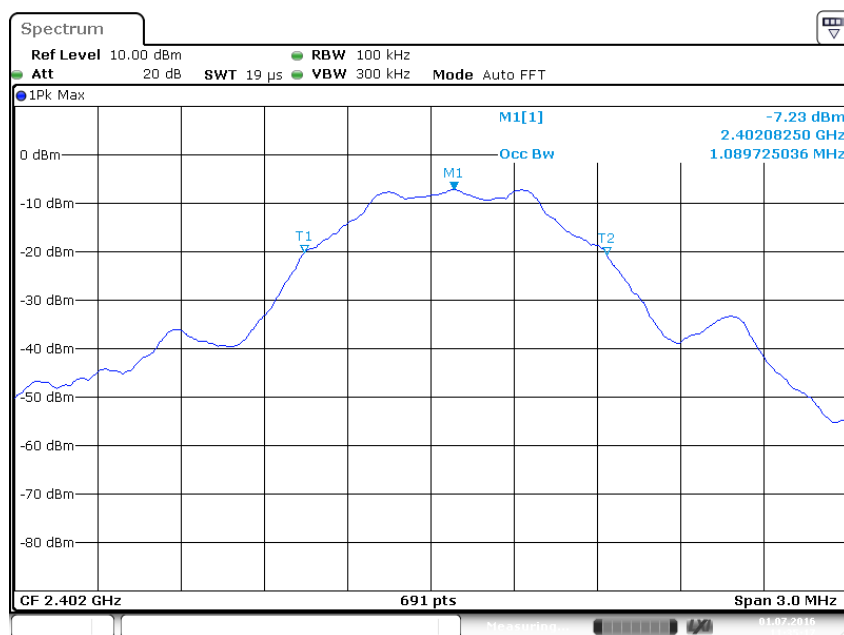




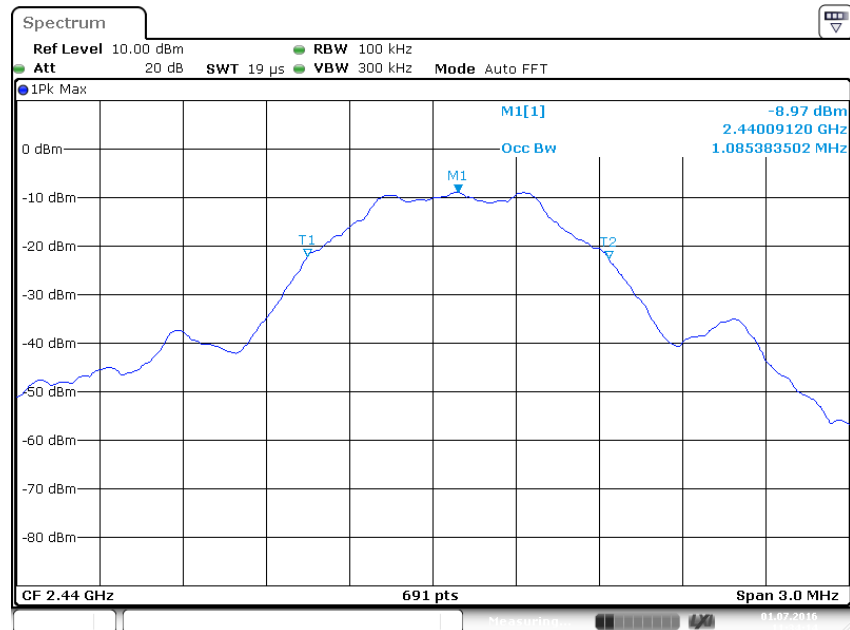
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Appendix A.4: Test Plots of 99% Bandwidth

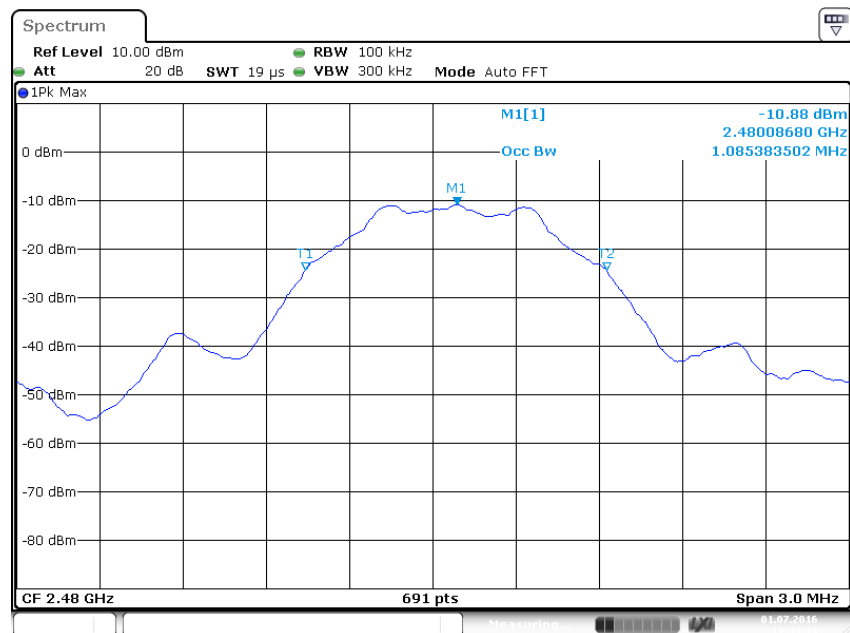
Low Energy Mode



Date: 1.JUL.2016 11:35:17



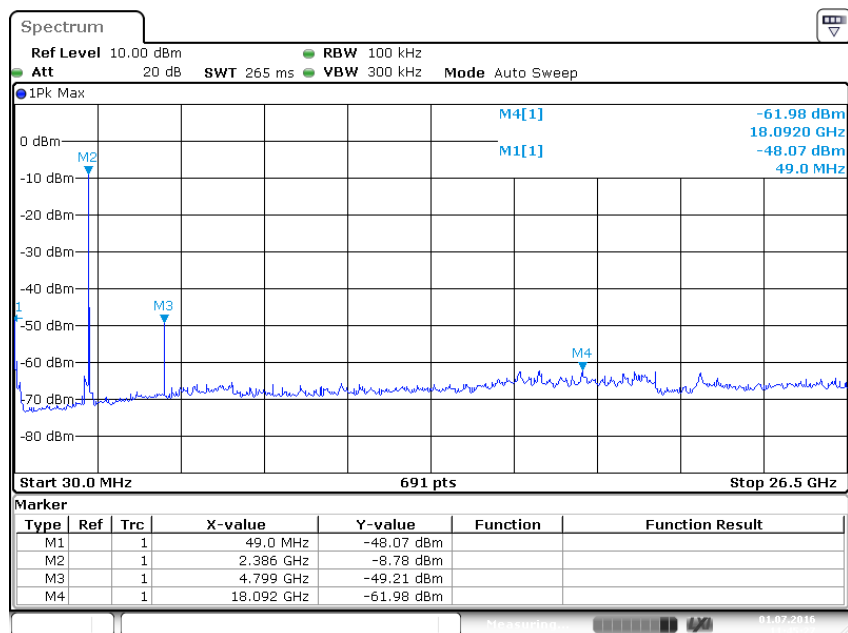
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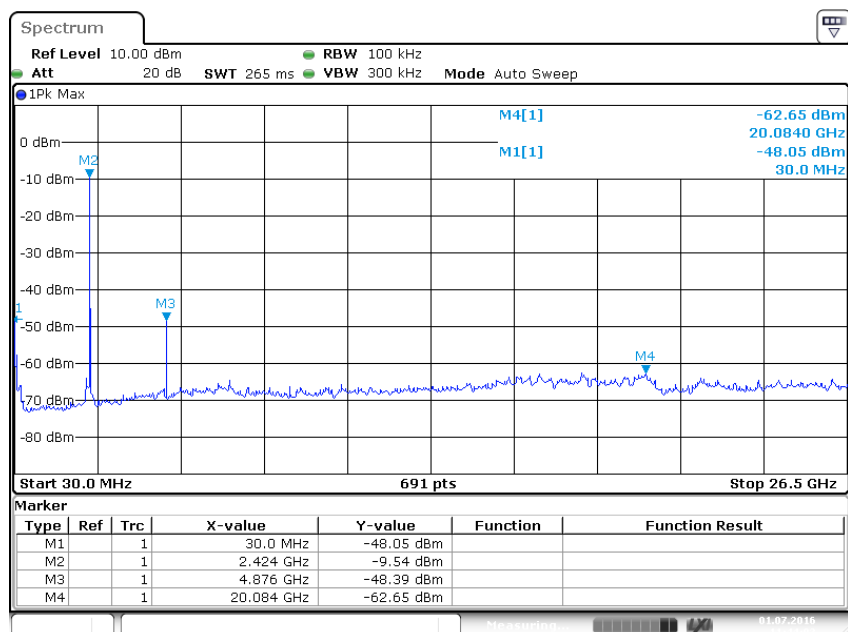
Date: 1.JUL.2016 11:33:20

Appendix A.5: Test Plots of Conducted Spurious Emissions Measured in 100 kHz Bandwidth

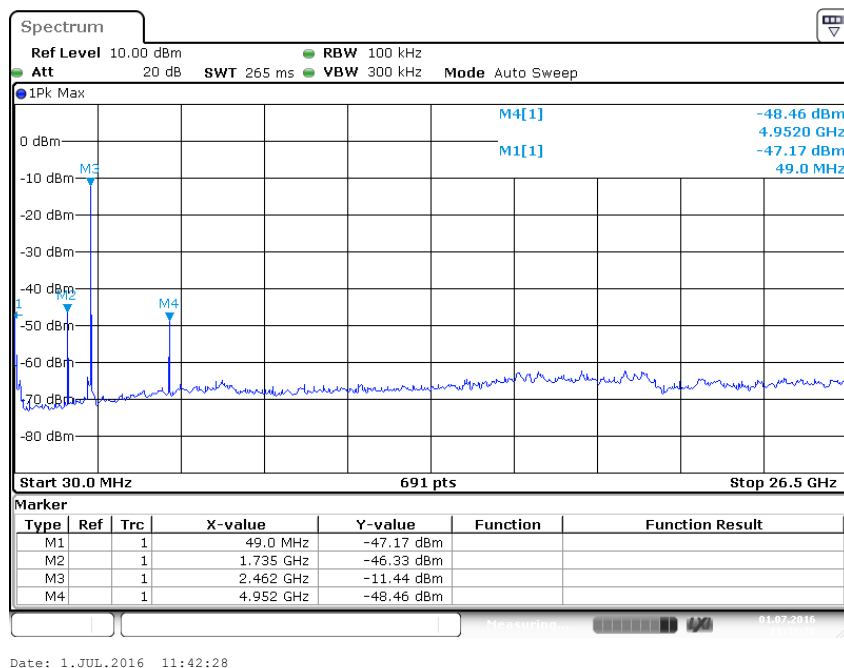
Low Energy Mode



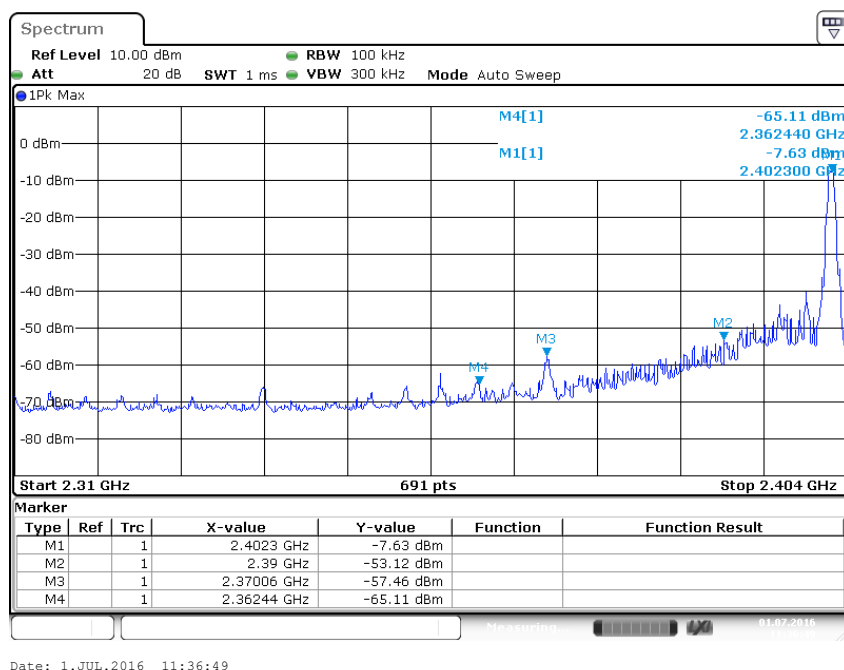
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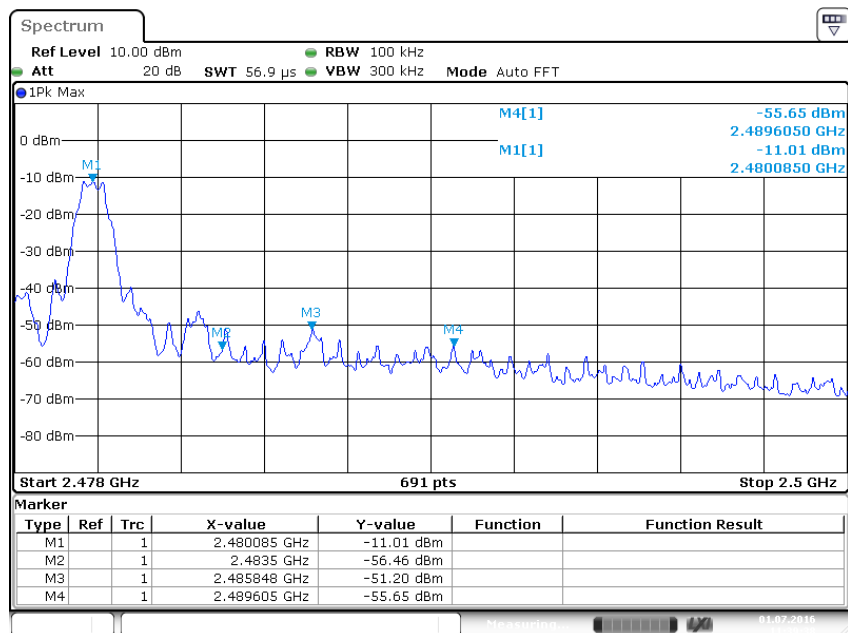


Date: 1.JUL.2016 11:44:02



Low Energy Mode, Band Edge





Date: 1.JUL.2016 11:39:38

Appendix B

Test Results of Bluetooth 4.0 Low Energy of Conducted and Radiated Emission Testing

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Appendix B.1: Test Plots of Radiated Spurious Emission

Low Energy mode, 9KHz - 30MHz

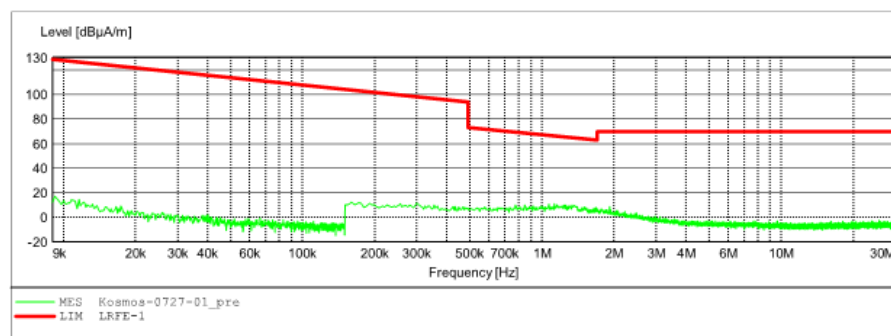
ACCURATE TECHNOLOGY CO.,LTD

FCC Class B 3m Radiated

EUT: Kosmobits & Code Gamer M/N:620141
Manufacturer: Franckh-Kosmos Verlags-GmbH & Co. KG
Operating Condition: TX 2402MHz
Test Site: 2# Chamber
Operator: LGWADE
Test Specification: DC 3.7V
Comment: X
Start of Test: 2016-7-27 /

SCAN TABLE: "LFRE Fin"

Short Description:			_SUB STD VTERM2 1.70			
Start	Stop	Step	Detector	Meas. Time	IF Bandw.	Transducer
9.0 kHz	150.0 kHz	100.0 Hz	QuasiPeak	1.0 s	200 Hz	1516M
150.0 kHz	30.0 MHz	5.0 kHz	QuasiPeak	1.0 s	9 kHz	1516M



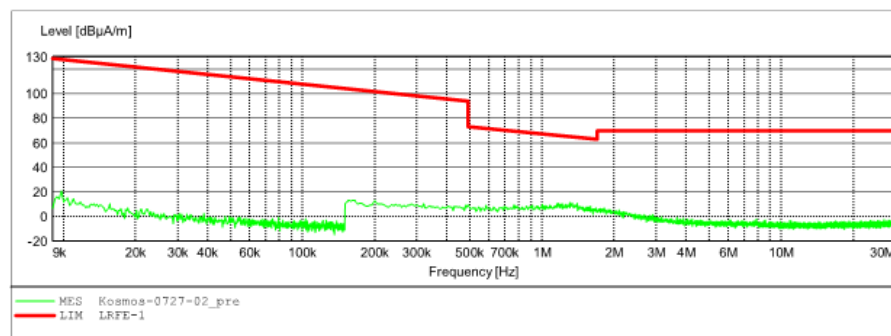
ACCURATE TECHNOLOGY CO.,LTD

FCC Class B 3m Radiated

EUT: Kosmobits & Code Gamer M/N:620141
 Manufacturer: Franckh-Kosmos Verlags-GmbH & Co. KG
 Operating Condition: TX 2440MHz
 Test Site: 2# Chamber
 Operator: LGWADE
 Test Specification: DC 3.7V
 Comment: X
 Start of Test: 2016-7-27 /

SCAN TABLE: "LFRE Fin"

Short Description:			SUB STD VTERM2 1.70			
Start	Stop	Step	Detector	Meas. Time	IF Bandw.	Transducer
9.0 kHz	150.0 kHz	100.0 Hz	QuasiPeak	1.0 s	200 Hz	1516M
150.0 kHz	30.0 MHz	5.0 kHz	QuasiPeak	1.0 s	9 kHz	1516M



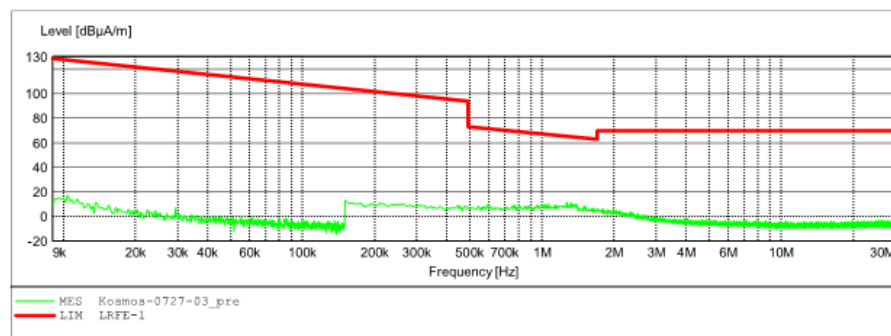
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FCC Class B 3m Radiated

EUT: Kosmobits & Code Gamer M/N:620141
 Manufacturer: Franckh-Kosmos Verlags-GmbH & Co. KG
 Operating Condition: TX 2480MHz
 Test Site: 2# Chamber
 Operator: LGWADE
 Test Specification: DC 3.7V
 Comment: X
 Start of Test: 2016-7-27 /

SCAN TABLE: "LFRE Fin"

Short Description:			SUB STD VTERM2 1.70			
Start	Stop	Step	Detector	Meas. Time	IF Bandw.	Transducer
9.0 kHz	150.0 kHz	100.0 Hz	QuasiPeak	1.0 s	200 Hz	1516M
150.0 kHz	30.0 MHz	5.0 kHz	QuasiPeak	1.0 s	9 kHz	1516M



Low Energy mode, 30MHz - 1GHz



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Job No.: Igwade #2454

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 23 C / 48 %

EUT: Kosmobits & Code Gamer

Mode: TX 2402MHz

Model: 620141

Manufacturer: Franckh-Kosmos Verlags-GmbH & Co. KG

Polarization: Horizontal

Power Source: DC 3.7V

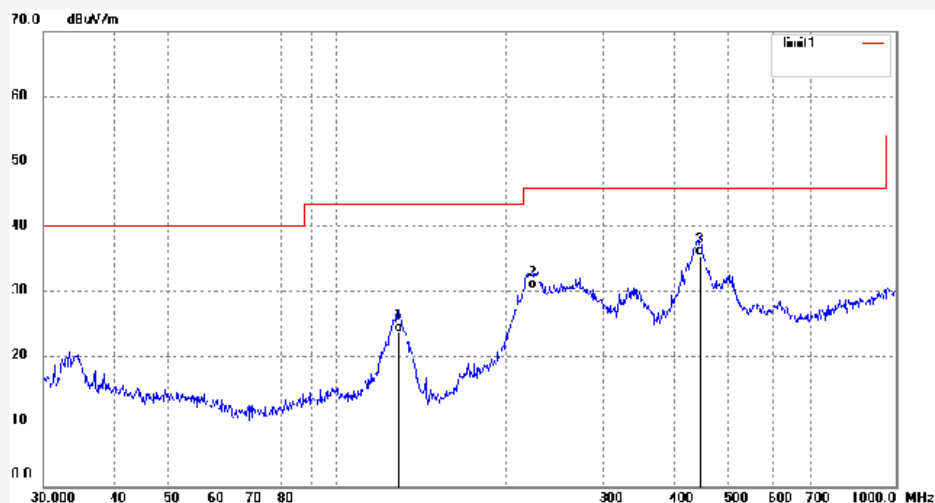
Date: 2016/07/03

Time:

Engineer Signature: LGWADE

Distance: 3m

Note:



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	129.4677	37.63	-13.85	23.78	43.50	-19.72	QP			
2	224.5192	41.80	-11.46	30.34	46.00	-15.66	QP			
3	446.4141	41.30	-5.84	35.46	46.00	-10.54	QP			



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Job No.: Igwade #2455

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 23 C / 48 %

EUT: Kosmobits & Code Gamer

Mode: TX 2402MHz

Model: 620141

Manufacturer: Franckh-Kosmos Verlags-GmbH & Co. KG

Polarization: Vertical

Power Source: DC 3.7V

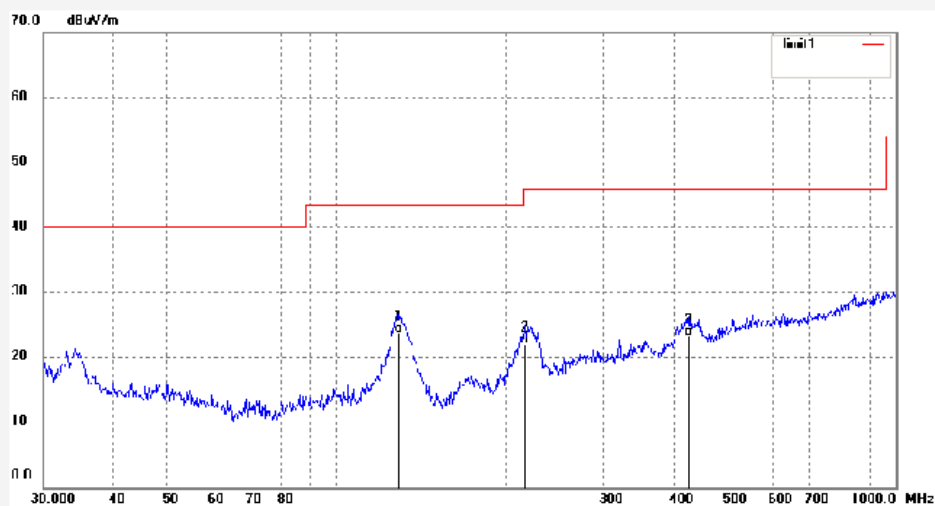
Date: 2016/07/03

Time:

Engineer Signature: LGWADE

Distance: 3m

Note:



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	129.0146	37.59	-13.84	23.75	43.50	-19.75	QP			
2	217.5442	33.75	-11.79	21.96	46.00	-24.04	QP			
3	426.5210	29.30	-6.14	23.16	46.00	-22.84	QP			



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Job No.: Igwade #2456

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 23 C / 48 %

EUT: Kosmobits & Code Gamer

Mode: TX 2440MHz

Model: 620141

Manufacturer: Franckh-Kosmos Verlags-GmbH & Co. KG

Polarization: Vertical

Power Source: DC 3.7V

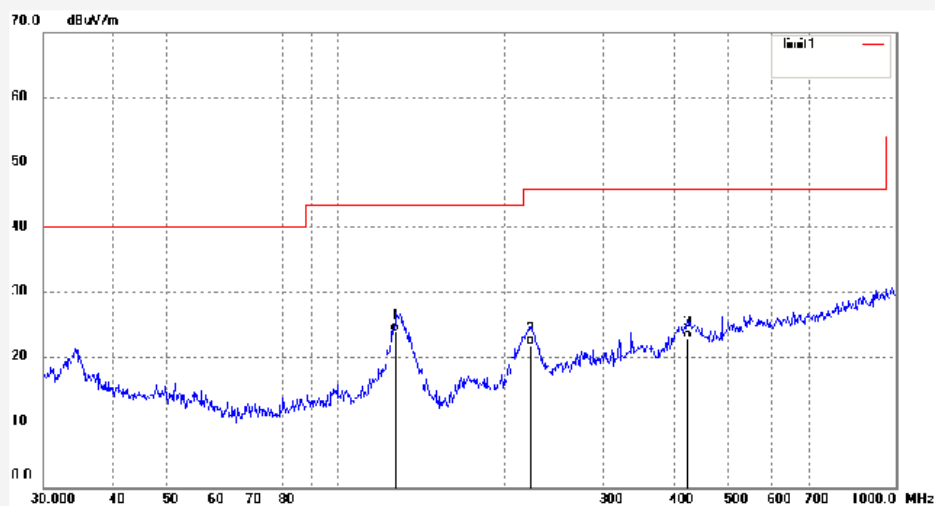
Date: 2016/07/03

Time:

Engineer Signature: LGWADE

Distance: 3m

Note:



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	127.6645	37.71	-13.80	23.91	43.50	-19.59	QP			
2	222.1698	33.42	-11.58	21.84	46.00	-24.16	QP			
3	423.5403	28.96	-6.16	22.80	46.00	-23.20	QP			



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Job No.: Igwade #2457

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 23 C / 48 %

EUT: Kosmobits & Code Gamer

Mode: TX 2440MHz

Model: 620141

Manufacturer: Franckh-Kosmos Verlags-GmbH & Co. KG

Polarization: Horizontal

Power Source: DC 3.7V

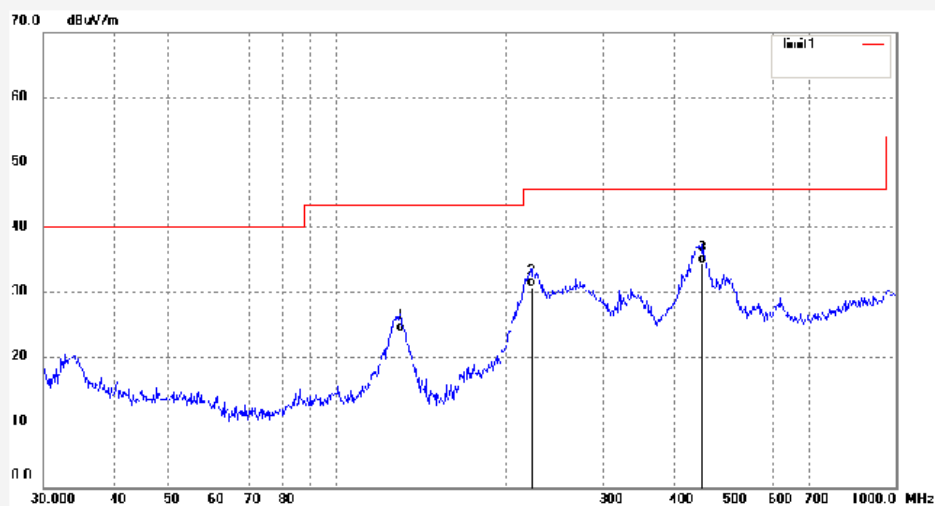
Date: 2016/07/03

Time:

Engineer Signature: LGWADE

Distance: 3m

Note:



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	130.3788	37.70	-13.88	23.82	43.50	-19.68	QP			
2	222.9501	42.18	-11.55	30.63	46.00	-15.37	QP			
3	449.5557	40.15	-5.78	34.37	46.00	-11.63	QP			



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Job No.: Igwade #2458

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 23 C / 48 %

EUT: Kosmobits & Code Gamer

Mode: TX 2480MHz

Model: 620141

Manufacturer: Franckh-Kosmos Verlags-GmbH & Co. KG

Polarization: Horizontal

Power Source: DC 3.7V

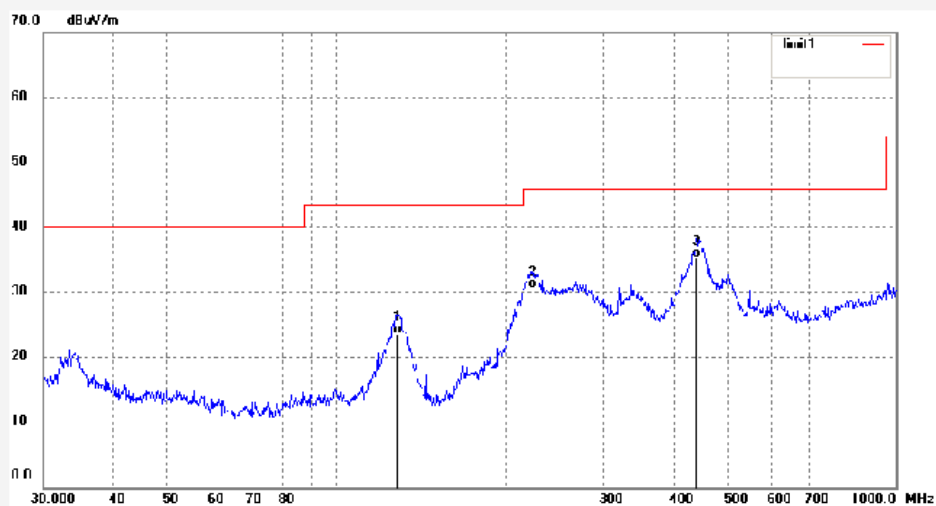
Date: 2016/07/03

Time:

Engineer Signature: LGWADE

Distance: 3m

Note:



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	128.5629	37.39	-13.82	23.57	43.50	-19.93	QP			
2	224.5192	41.97	-11.46	30.51	46.00	-15.49	QP			
3	440.1963	41.10	-5.90	35.20	46.00	-10.80	QP			



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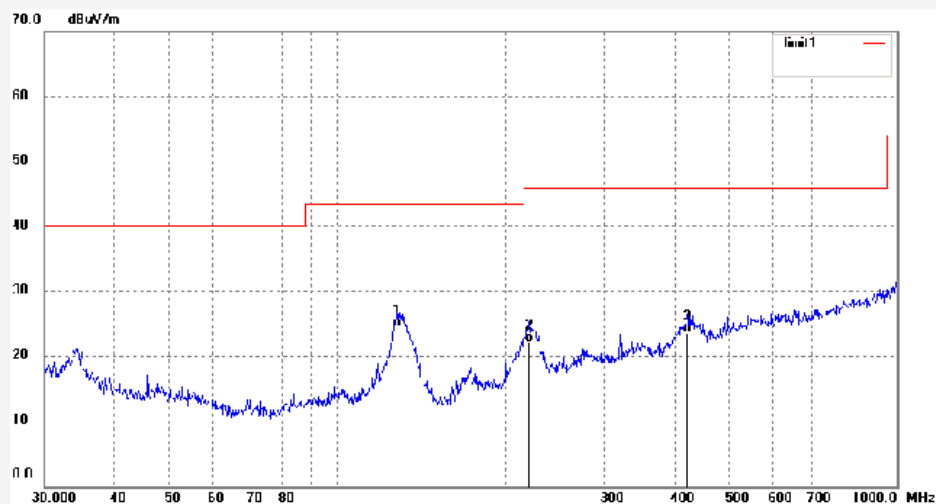
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Fax:+86-0755-26503396

Job No.: Igwade #2459
Standard: FCC Class B 3M Radiated
Test item: Radiation Test
Temp.(C)/Hum.(%) 23 C / 48 %
EUT: Kosmobits & Code Gamer
Mode: TX 2480MHz
Model: 620141
Manufacturer: Franckh-Kosmos Verlags-GmbH & Co. KG

Polarization: Vertical
Power Source: DC 3.7V
Date: 2016/07/03
Time:
Engineer Signature: LGWADE
Distance: 3m

Note:



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	128.1129	38.25	-13.81	24.44	43.50	-19.06	QP			
2	220.6170	33.88	-11.68	22.20	46.00	-23.80	QP			
3	422.0577	29.69	-6.16	23.53	46.00	-22.47	QP			

Low Energy mode, 1GHz - 18GHz



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Job No.: Igwade #2438

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 23 C / 48 %

EUT: Kosmobits & Code Gamer

Mode: TX 2402MHz

Model: 620141

Manufacturer: Franckh-Kosmos Verlags-GmbH & Co. KG

Polarization: Horizontal

Power Source: DC 3.7V

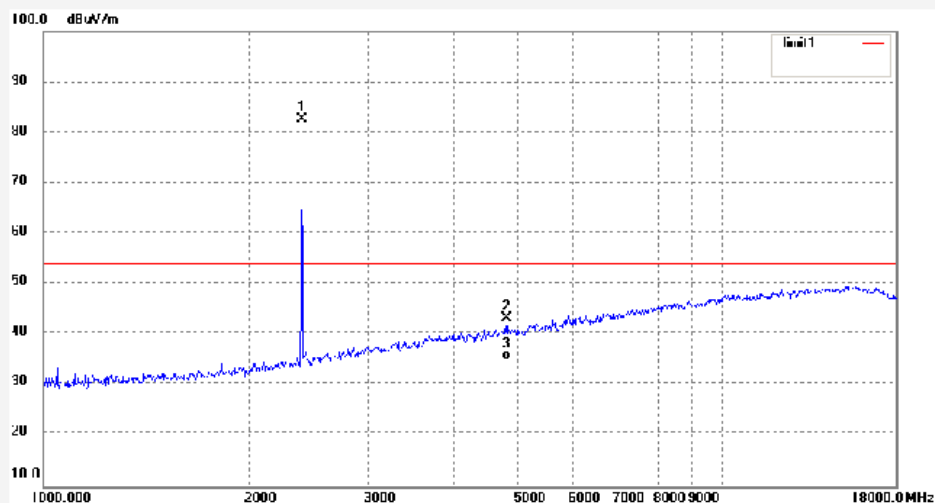
Date: 2016/07/03

Time:

Engineer Signature: LGWADE

Distance: 3m

Note:



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2402.000	90.00	-7.45	82.55	/	/	peak			
2	4804.027	43.41	-0.30	43.11	74.00	-30.89	peak			
3	4804.027	35.20	-0.30	34.90	54.00	-19.10	AVG			



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Job No.: Igwade #2439

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 23 C / 48 %

EUT: Kosmobits & Code Gamer

Mode: TX 2402MHz

Model: 620141

Manufacturer: Franckh-Kosmos Verlags-GmbH & Co. KG

Polarization: Vertical

Power Source: DC 3.7V

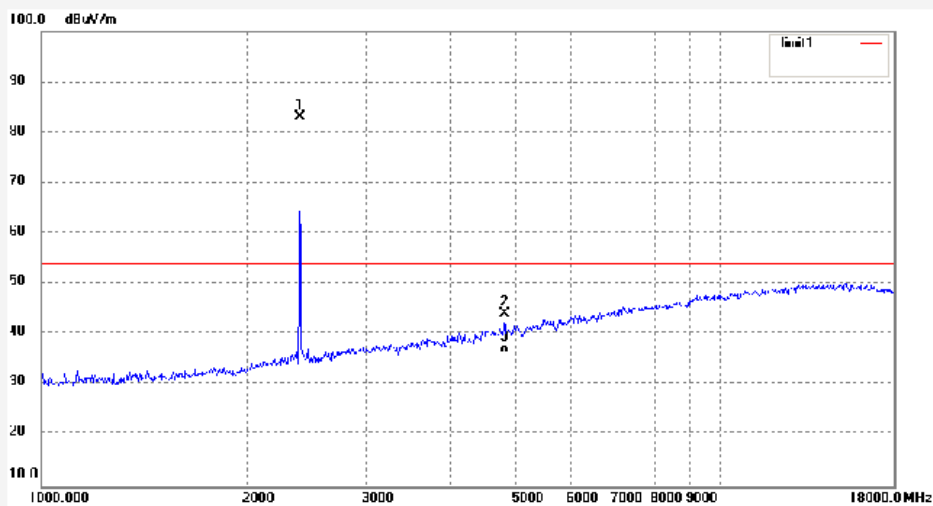
Date: 2016/07/03

Time:

Engineer Signature: LGWADE

Distance: 3m

Note:



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2402.000	90.47	-7.45	83.02	/	/	peak			
2	4804.025	44.35	-0.30	44.05	74.00	-29.95	peak			
3	4804.025	36.58	-0.30	36.28	54.00	-17.72	AVG			



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Job No.: Igwade #2442

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 23 C / 48 %

EUT: Kosmobits & Code Gamer

Mode: TX 2440MHz

Model: 620141

Manufacturer: Franckh-Kosmos Verlags-GmbH & Co. KG

Polarization: Horizontal

Power Source: DC 3.7V

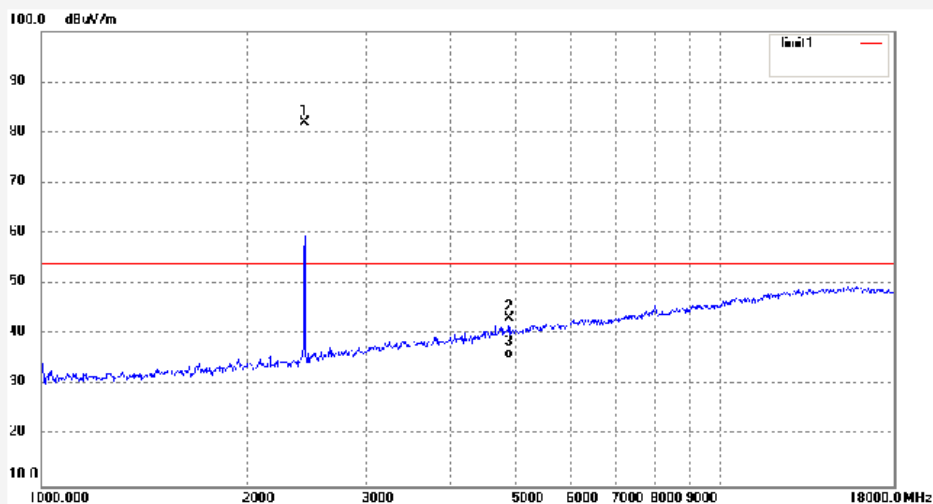
Date: 2016/07/03

Time:

Engineer Signature: LGWADE

Distance: 3m

Note:



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2440.000	89.23	-7.36	81.87	/	/	peak			
2	4880.028	43.14	0.13	43.27	74.00	-30.73	peak			
3	4880.028	35.23	0.13	35.36	54.00	-18.64	AVG			



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Fax:+86-0755-26503396

Job No.: Igwade #2443

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 23 C / 48 %

EUT: Kosmobits & Code Gamer

Mode: TX 2440MHz

Model: 620141

Manufacturer: Franckh-Kosmos Verlags-GmbH & Co. KG

Polarization: Vertical

Power Source: DC 3.7V

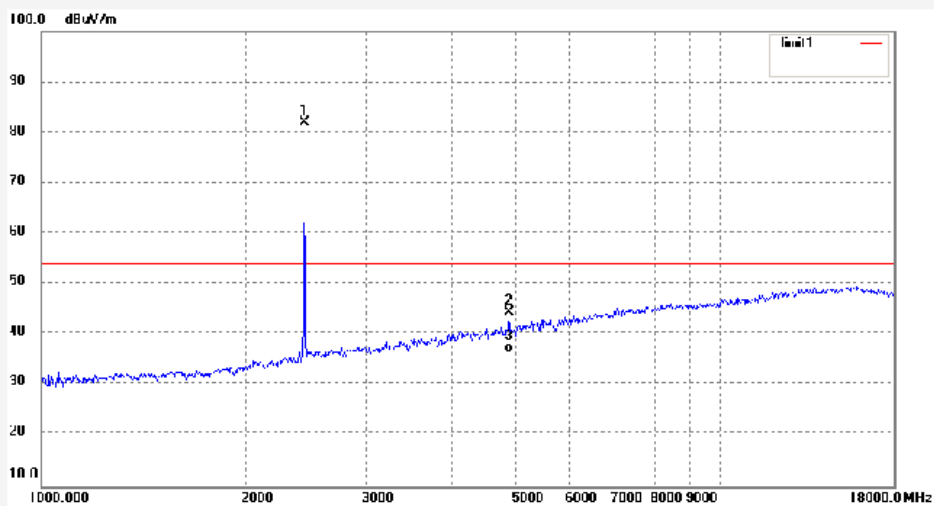
Date: 2016/07/03

Time:

Engineer Signature: LGWADE

Distance: 3m

Note:



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2440.000	89.32	-7.36	81.96	/	/	peak			
2	4880.024	44.20	0.13	44.33	74.00	-29.67	peak			
3	4880.024	36.25	0.13	36.38	54.00	-17.62	AVG			



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Site: 2# Chamber
Tel:+86-0755-26503290
Fax:+86-0755-26503396

Job No.: Igwade #2444

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 23 C / 48 %

EUT: Kosmobits & Code Gamer

Mode: TX 2480MHz

Model: 620141

Manufacturer: Franckh-Kosmos Verlags-GmbH & Co. KG

Polarization: Vertical

Power Source: DC 3.7V

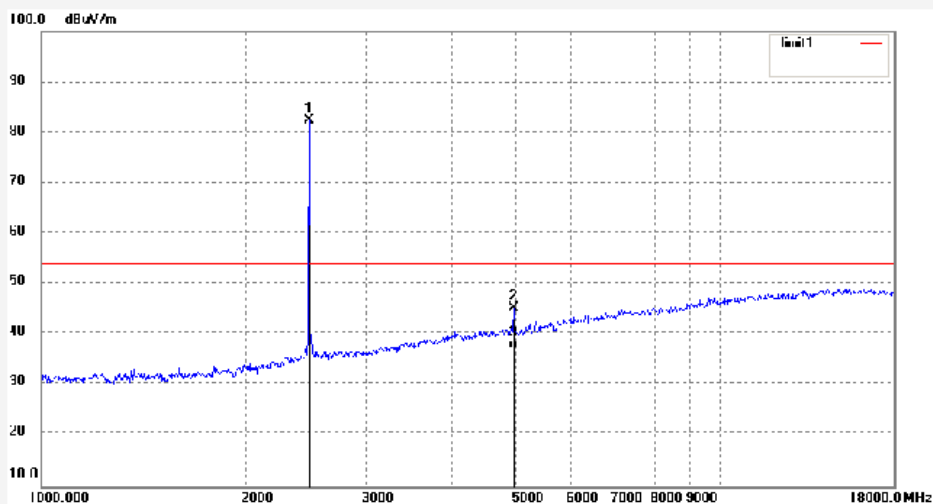
Date: 2016/07/03

Time:

Engineer Signature: LGWADE

Distance: 3m

Note:



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2480.000	89.82	-7.37	82.45	/	/	peak			
2	4960.026	44.60	0.52	45.12	74.00	-28.88	peak			
3	4960.026	36.58	0.52	37.10	54.00	-16.90	AVG			



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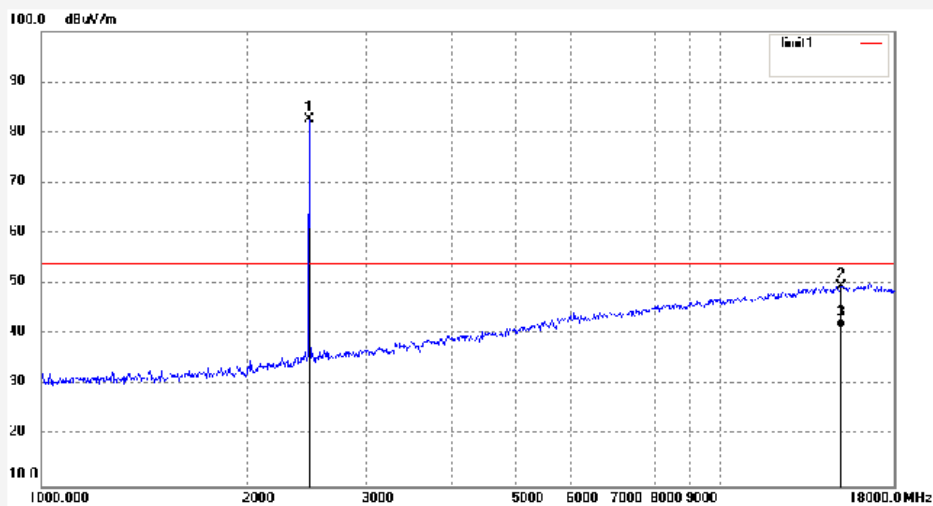
F1,Bldg.A,Changyuan New Material Port Keyuan Rd,
Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 2# Chamber
Tel:+86-0755-26503290
Fax:+86-0755-26503396

Job No.: Igwade #2445
Standard: FCC Class B 3M Radiated
Test item: Radiation Test
Temp.(C)/Hum.(%) 23 C / 48 %
EUT: Kosmobits & Code Gamer
Mode: TX 2480MHz
Model: 620141
Manufacturer: Franckh-Kosmos Verlags-GmbH & Co. KG

Polarization: Horizontal
Power Source: DC 3.7V
Date: 2016/07/03
Time:
Engineer Signature: LGWADE
Distance: 3m

Note:



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2480.000	89.87	-7.37	82.50	/	/	peak			
2	15046.851	8.55	41.01	49.56	74.00	-24.44	peak			
3	15046.851	0.20	41.01	41.21	54.00	-12.79	AVG			

Low Energy mode, 18GHz - 26.5GHz



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Site: 2# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: Igwade #2448

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 23 C / 48 %

EUT: Kosmobits & Code Gamer

Mode: TX 2402MHz

Model: 620141

Manufacturer: Franckh-Kosmos Verlags-GmbH & Co. KG

Polarization: Vertical

Power Source: DC 3.7V

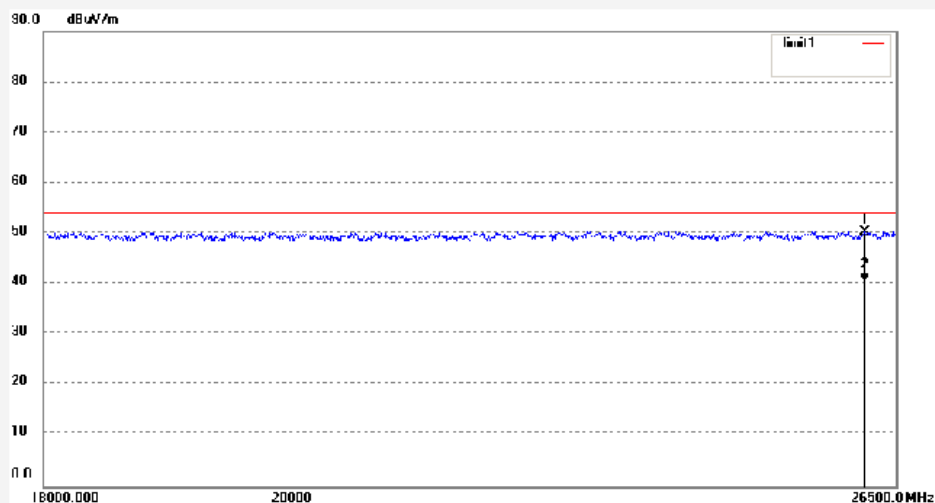
Date: 2016/07/03

Time:

Engineer Signature: LGWADE

Distance: 3m

Note:



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	26123.470	33.09	17.15	50.24	74.00	-23.76	peak			
2	26123.470	23.54	17.15	40.69	54.00	-13.31	AVG			



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Site: 2# Chamber
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Fax:+86-0755-26503396

Job No.: Igwade #2449

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 23 C / 48 %

EUT: Kosmobits & Code Gamer

Mode: TX 2402MHz

Model: 620141

Manufacturer: Franckh-Kosmos Verlags-GmbH & Co. KG

Polarization: Horizontal

Power Source: DC 3.7V

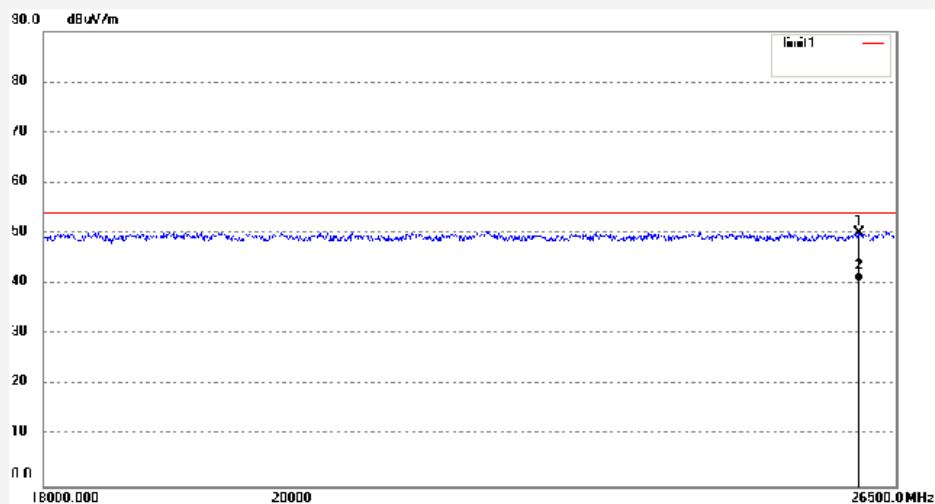
Date: 2016/07/03

Time:

Engineer Signature: LGWADE

Distance: 3m

Note:



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	26062.917	33.49	16.50	49.99	74.00	-24.01	peak			
2	26062.917	23.90	16.50	40.40	54.00	-13.60	AVG			



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Site: 2# Chamber
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Fax:+86-0755-26503396

Job No.: Igwade #2450

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 23 C / 48 %

EUT: Kosmobits & Code Gamer

Mode: TX 2440MHz

Model: 620141

Manufacturer: Franckh-Kosmos Verlags-GmbH & Co. KG

Polarization: Horizontal

Power Source: DC 3.7V

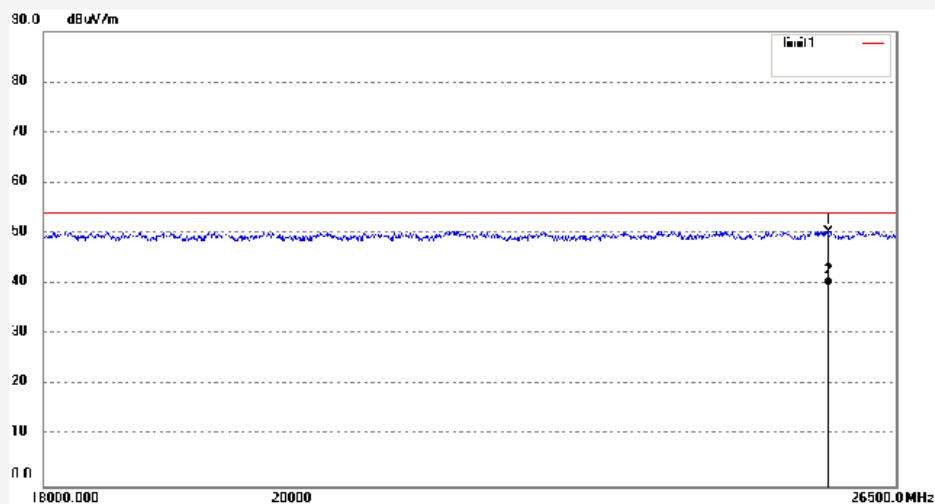
Date: 2016/07/03

Time:

Engineer Signature: LGWADE

Distance: 3m

Note:



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	25702.536	33.76	16.50	50.26	74.00	-23.74	peak			
2	25702.536	23.10	16.50	39.60	54.00	-14.40	AVG			



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Site: 2# Chamber
Tel:+86-0755-26503290
Fax:+86-0755-26503396

Job No.: Igwade #2451

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 23 C / 48 %

EUT: Kosmobits & Code Gamer

Mode: TX 2440MHz

Model: 620141

Manufacturer: Franckh-Kosmos Verlags-GmbH & Co. KG

Polarization: Vertical

Power Source: DC 3.7V

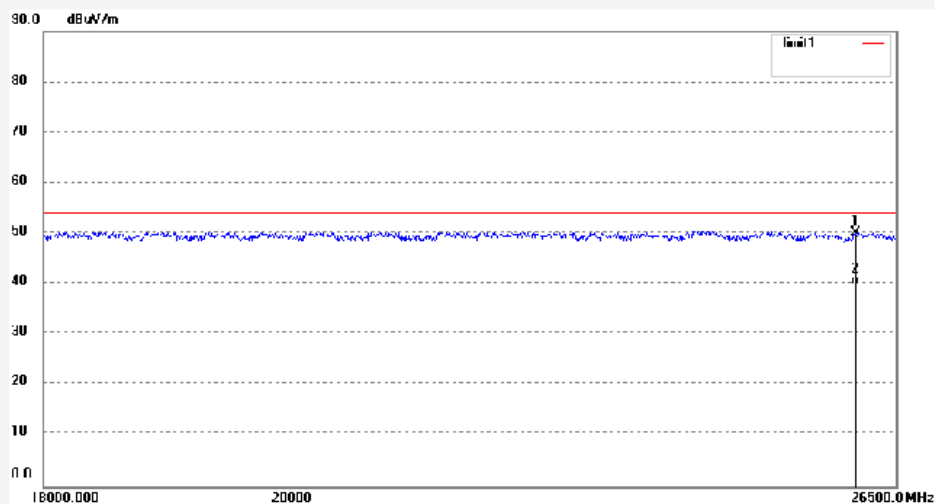
Date: 2016/07/03

Time:

Engineer Signature: LGWADE

Distance: 3m

Note:



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	26022.626	32.81	17.22	50.03	74.00	-23.97	peak			
2	26022.626	22.56	17.22	39.78	54.00	-14.22	AVG			



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Site: 2# Chamber
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Fax:+86-0755-26503396

Job No.: Igwade #2452

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 23 C / 48 %

EUT: Kosmobits & Code Gamer

Mode: TX 2480MHz

Model: 620141

Manufacturer: Franckh-Kosmos Verlags-GmbH & Co. KG

Polarization: Vertical

Power Source: DC 3.7V

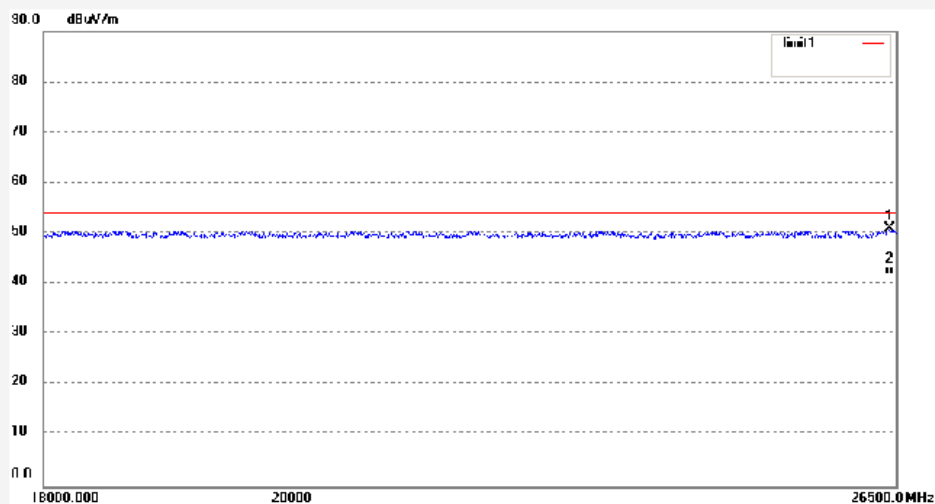
Date: 2016/07/03

Time:

Engineer Signature: LGWADE

Distance: 3m

Note:



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	26428.351	34.00	16.95	50.95	74.00	-23.05	peak			
2	26428.351	24.89	16.95	41.84	54.00	-12.16	AVG			



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Site: 2# Chamber
Tel:+86-0755-26503290
Fax:+86-0755-26503396

Job No.: Igwade #2453

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 23 C / 48 %

EUT: Kosmobits & Code Gamer

Mode: TX 2480MHz

Model: 620141

Manufacturer: Franckh-Kosmos Verlags-GmbH & Co. KG

Polarization: Horizontal

Power Source: DC 3.7V

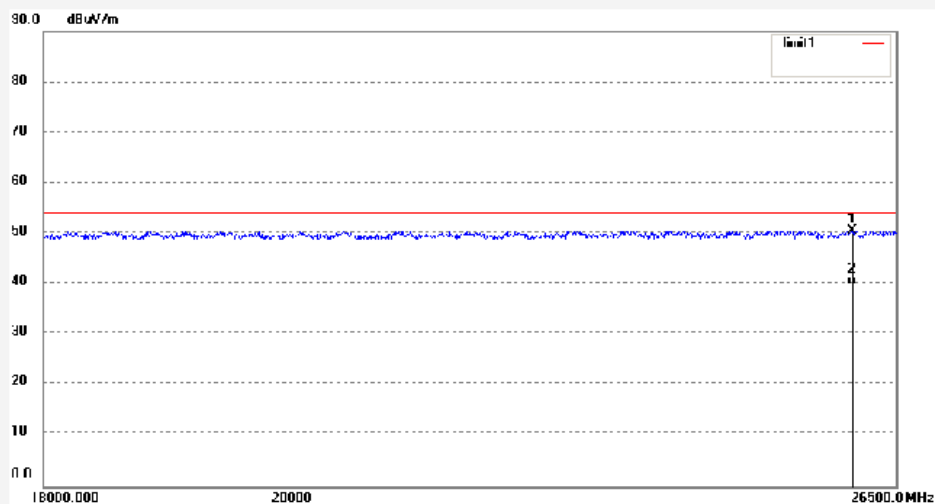
Date: 2016/07/03

Time:

Engineer Signature: LGWADE

Distance: 3m

Note:



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	25972.351	33.99	16.50	50.49	74.00	-23.51	peak			
2	25972.351	23.22	16.50	39.72	54.00	-14.28	AVG			

Appendix B.2: Test Plots of Band Edge (Radiated)

Low Energy mode, Low Channel



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Fax:+86-0755-26503396

Job No.: lgwade #2440

Standard: FCC (Band Edge)

Test item: Radiation Test

Temp.(C)/Hum.(%) 23 C / 48 %

EUT: Kosmobits & Code Gamer

Mode: TX 2402MHz

Model: 620141

Manufacturer: Franckh-Kosmos Verlags-GmbH & Co. KG

Polarization: Vertical

Power Source: DC 3.7V

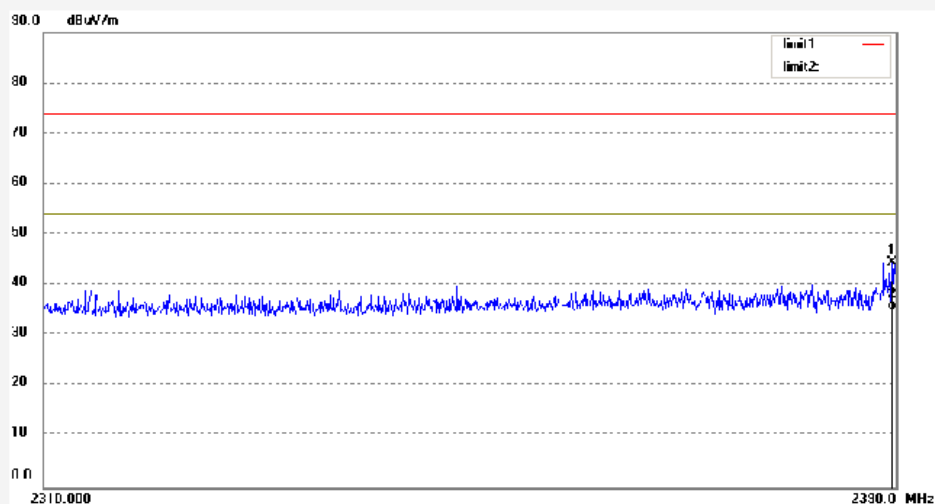
Date: 2016/07/03

Time:

Engineer Signature: LGWADE

Distance: 3m

Note:



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2389.600	52.08	-7.53	44.55	74.00	-29.45	peak			
2	2389.600	42.56	-7.53	35.03	54.00	-18.97	AVG			



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Tel:+86-0755-26503290
Fax:+86-0755-26503396

Job No.: lgwade #2441

Standard: FCC (Band Edge)

Test item: Radiation Test

Temp.(C)/Hum.(%) 23 C / 48 %

EUT: Kosmobits & Code Gamer

Mode: TX 2402MHz

Model: 620141

Manufacturer: Franckh-Kosmos Verlags-GmbH & Co. KG

Polarization: Horizontal

Power Source: DC 3.7V

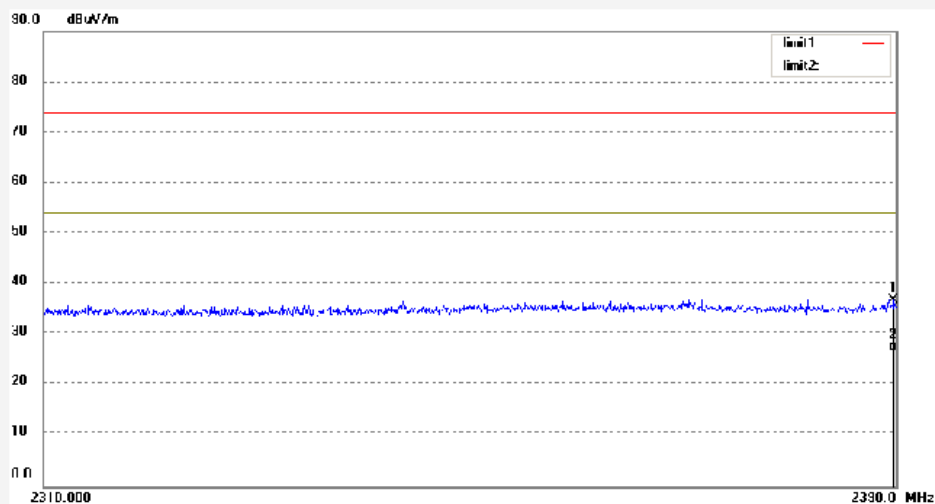
Date: 2016/07/03

Time:

Engineer Signature: LGWADE

Distance: 3m

Note:



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2389.760	44.34	-7.53	36.81	74.00	-37.19	peak			
2	2389.760	34.20	-7.53	26.67	54.00	-27.33	AVG			

Low Energy mode, High Channel



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Site: 2# Chamber
Tel:+86-0755-26503290
Fax:+86-0755-26503396

Job No.: lgwade #2446

Standard: FCC (Band Edge)

Test item: Radiation Test

Temp.(C)/Hum.(%) 23 C / 48 %

EUT: Kosmobits & Code Gamer

Mode: TX 2480MHz

Model: 620141

Manufacturer: Franckh-Kosmos Verlags-GmbH & Co. KG

Polarization: Horizontal

Power Source: DC 3.7V

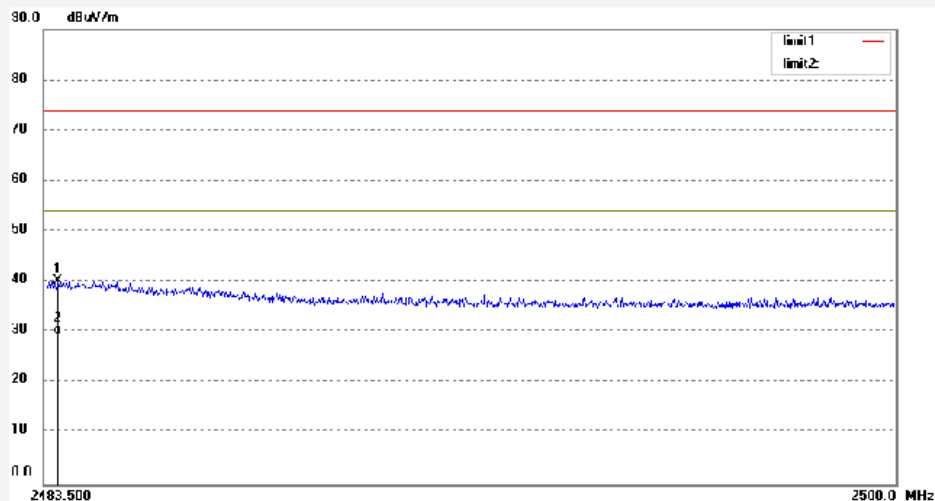
Date: 2016/07/03

Time:

Engineer Signature: LGWADE

Distance: 3m

Note:



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2483.780	47.52	-7.38	40.14	74.00	-33.86	peak			
2	2483.780	37.00	-7.38	29.62	54.00	-24.38	AVG			



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Site: 2# Chamber
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Fax:+86-0755-26503396

Job No.: Igwade #2447

Standard: FCC (Band Edge)

Test item: Radiation Test

Temp.(C)/Hum.(%) 23 C / 48 %

EUT: Kosmobits & Code Gamer

Mode: TX 2480MHz

Model: 620141

Manufacturer: Franckh-Kosmos Verlags-GmbH & Co. KG

Polarization: Vertical

Power Source: DC 3.7V

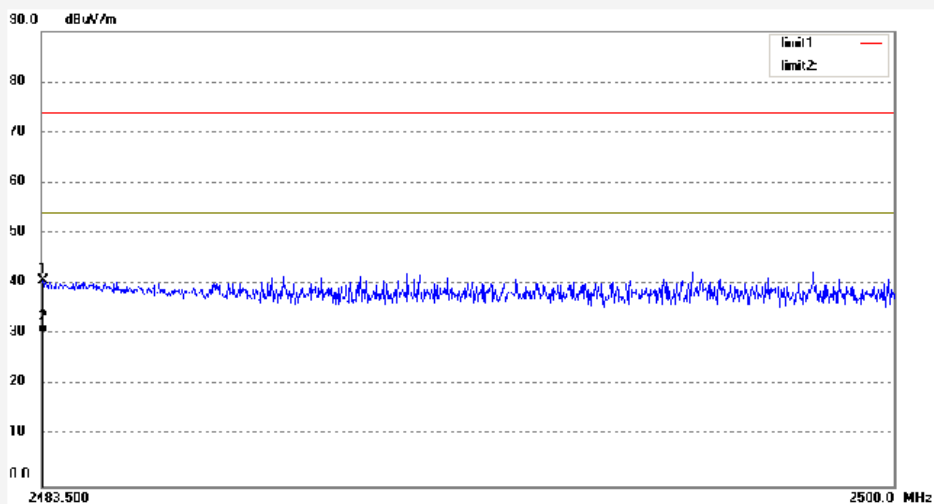
Date: 2016/07/03

Time:

Engineer Signature: LGWADE

Distance: 3m

Note:



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2483.533	47.98	-7.37	40.61	74.00	-33.39	peak			
2	2483.533	37.56	-7.37	30.19	54.00	-23.81	AVG			

Appendix B.3: Test Plots of Conducted Emission

B Mode

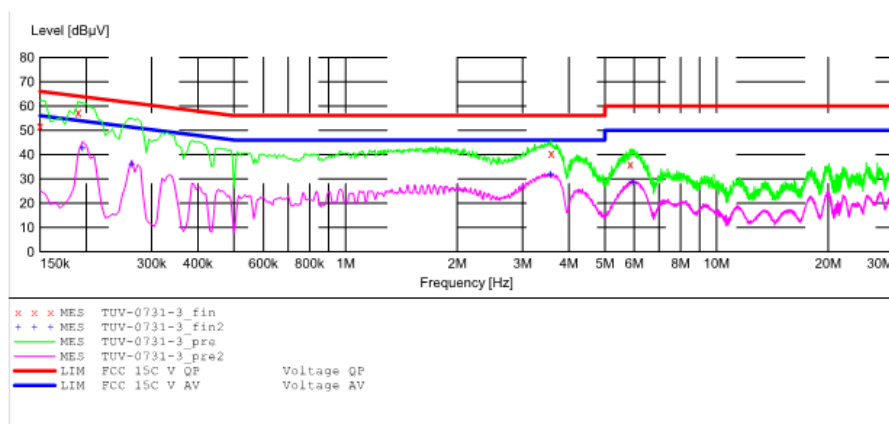
ACCURATE TECHNOLOGY CO., LTD

CONDUCTED EMISSION STANDARD FCC PART 15 C

EUT: Kosmobits & Code Gamer M/N:620141
 Manufacturer: Franckh-Kosmos Verlags-GmbH & Co. KG
 Operating Condition: On with Bluetooth
 Test Site: 1#Shielding Room
 Operator: LGWADE
 Test Specification: N 120V/60Hz
 Comment:
 Start of Test: 7/31/2016 /

SCAN TABLE: "V 9K-30MHz fin"

Start	Stop	Step	Detector	Meas. Time	IF Bandw.	Transducer
9.0 kHz	150.0 kHz	100.0 Hz	QuasiPeak	1.0 s	200 Hz	NSLK8126 2008
Average						
150.0 kHz	30.0 MHz	5.0 kHz	QuasiPeak	1.0 s	9 kHz	NSLK8126 2008
Average						



MEASUREMENT RESULT: "TUV-0731-3_fin"

7/31/2016								
Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE	
0.150000	51.70	10.5	66	14.3	QP	N	GND	
0.190000	57.40	10.5	64	6.6	QP	N	GND	
3.580000	40.50	11.1	56	15.5	QP	N	GND	
5.850000	36.00	11.2	60	24.0	QP	N	GND	

MEASUREMENT RESULT: "TUV-0731-3_fin2"

7/31/2016								
Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE	
0.195000	42.60	10.5	54	11.2	AV	N	GND	
0.265000	35.90	10.6	51	15.4	AV	N	GND	
3.560000	31.80	11.1	46	14.2	AV	N	GND	
5.950000	28.60	11.2	50	21.4	AV	N	GND	

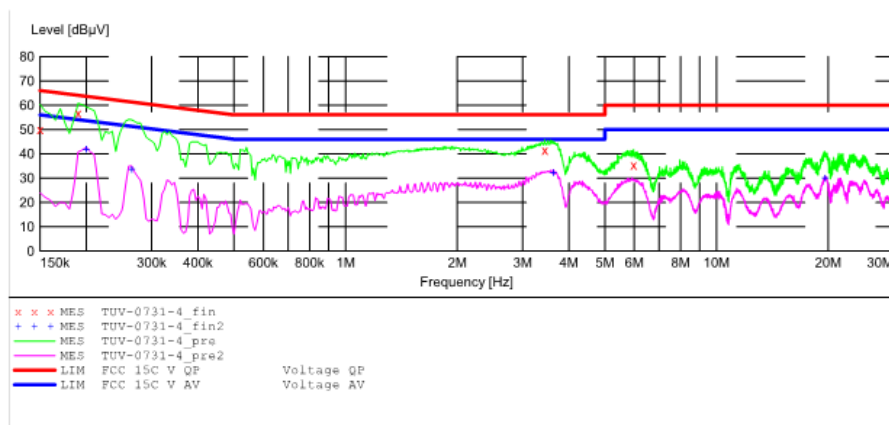
ACCURATE TECHNOLOGY CO.,LTD

CONDUCTED EMISSION STANDARD FCC PART 15 C

EUT: Kosmobits & Code Gamer M/N:620141
 Manufacturer: Franckh-Kosmos Verlags-GmbH & Co. KG
 Operating Condition: On with Bluetooth
 Test Site: 1#Shielding Room
 Operator: LGWADE
 Test Specification: L 120V/60Hz
 Comment:
 Start of Test: 7/31/2016 /

SCAN TABLE: "V 9K-30MHz fin"

Short Description: SUB_STD_VTERM2 1.70
 Start Stop Step Detector Meas. IF Transducer
 Frequency Frequency Width Time Bandw.
 9.0 kHz 150.0 kHz 100.0 Hz QuasiPeak 1.0 s 200 Hz NSLK8126 2008
 Average
 150.0 kHz 30.0 MHz 5.0 kHz QuasiPeak 1.0 s 9 kHz NSLK8126 2008
 Average



MEASUREMENT RESULT: "TUV-0731-4_fin"

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.150000	50.00	10.5	66	16.0	QP	L1	GND
0.190000	56.70	10.5	64	7.3	QP	L1	GND
3.440000	41.50	11.1	56	14.5	QP	L1	GND
5.970000	35.40	11.2	60	24.6	QP	L1	GND

MEASUREMENT RESULT: "TUV-0731-4_fin2"

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.200000	41.80	10.5	54	11.8	AV	L1	GND
0.265000	33.50	10.6	51	17.8	AV	L1	GND
3.630000	32.10	11.1	46	13.9	AV	L1	GND
19.615000	29.90	11.4	50	20.1	AV	L1	GND

C Mode

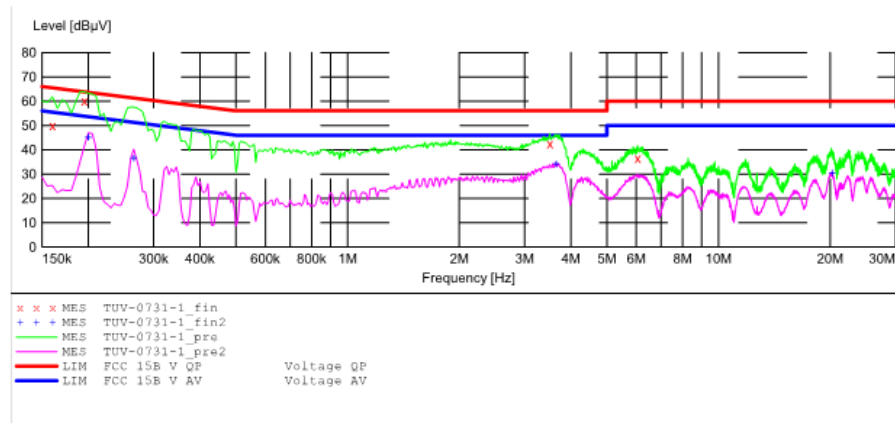
ACCURATE TECHNOLOGY CO., LTD

CONDUCTED EMISSION STANDARD FCC PART 15 B

EUT: Kosmobits & Code Gamer M/N:620141
 Manufacturer: Franckh-Kosmos Verlags-GmbH & Co. KG
 Operating Condition: Charging
 Test Site: 1#Shielding Room
 Operator: LGWADE
 Test Specification: L 120V/60Hz
 Comment:
 Start of Test: 7/31/2016 /

SCAN TABLE: "V 9K-30MHz fin"

Short Description: _SUB STD VTERM2 1.70
 Start Stop Step Detector Meas. IF Transducer
 Frequency Frequency Width Time Bandw.
 9.0 kHz 150.0 kHz 100.0 Hz QuasiPeak 1.0 s 200 Hz NSLK8126 2008
 Average
 150.0 kHz 30.0 MHz 5.0 kHz QuasiPeak 1.0 s 9 kHz NSLK8126 2008
 Average



MEASUREMENT RESULT: "TUV-0731-1_fin"

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.160000	49.90	10.5	66	15.6	QP	L1	GND
0.195000	60.10	10.5	64	3.7	QP	L1	GND
3.510000	42.50	11.1	56	13.5	QP	L1	GND
6.050000	36.50	11.2	60	23.5	QP	L1	GND

MEASUREMENT RESULT: "TUV-0731-1_fin2"

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.200000	45.10	10.5	54	8.5	AV	L1	GND
0.265000	36.50	10.6	51	14.8	AV	L1	GND
3.650000	34.10	11.1	46	11.9	AV	L1	GND
20.245000	30.30	11.4	50	19.7	AV	L1	GND

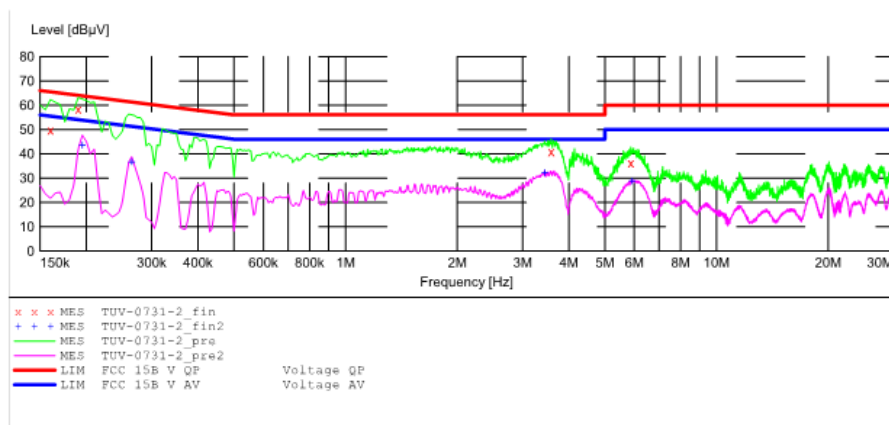
ACCURATE TECHNOLOGY CO.,LTD

CONDUCTED EMISSION STANDARD FCC PART 15 B

EUT: Kosmobits & Code Gamer M/N:620141
 Manufacturer: Franckh-Kosmos Verlags-GmbH & Co. KG
 Operating Condition: Charging
 Test Site: 1#Shielding Room
 Operator: LGWADE
 Test Specification: N 120V/60Hz
 Comment:
 Start of Test: 7/31/2016 /

SCAN TABLE: "V 9K-30MHz fin"

Short Description: SUB_STD_VTERM2 1.70
 Start Stop Step Detector Meas. IF Transducer
 Frequency Frequency Width Time Bandw.
 9.0 kHz 150.0 kHz 100.0 Hz QuasiPeak 1.0 s 200 Hz NSLK8126 2008
 Average
 150.0 kHz 30.0 MHz 5.0 kHz QuasiPeak 1.0 s 9 kHz NSLK8126 2008
 Average



MEASUREMENT RESULT: "TUV-0731-2_fin"

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.160000	49.70	10.5	66	15.8	QP	N	GND
0.190000	58.40	10.5	64	5.6	QP	N	GND
3.580000	40.90	11.1	56	15.1	QP	N	GND
5.870000	36.20	11.2	60	23.8	QP	N	GND

MEASUREMENT RESULT: "TUV-0731-2_fin2"

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.195000	43.50	10.5	54	10.3	AV	N	GND
0.265000	36.60	10.6	51	14.7	AV	N	GND
3.440000	32.10	11.1	46	13.9	AV	N	GND
5.920000	28.70	11.2	50	21.3	AV	N	GND

Appendix B.4: Test Plots of Radiated Emission

C Mode



ACCURATE TECHNOLOGY CO., LTD.

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Site: 2# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: Igwade #2912

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 23 C / 48 %

EUT: Kosmobits & Code Gamer

Mode: Charging

Model: 620141

Manufacturer: Franckh-Kosmos Verlags-GmbH & Co. KG

Polarization: Horizontal

Power Source: DC 5V

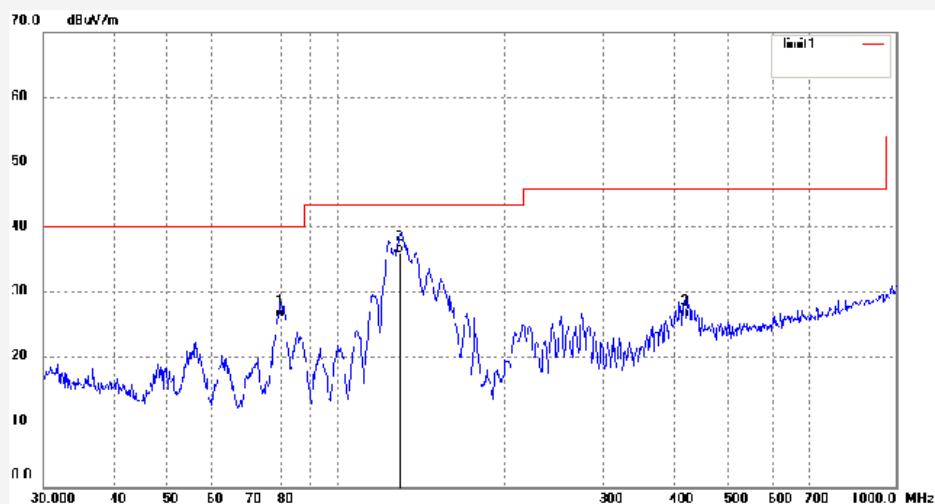
Date: 16/07/27/

Time:

Engineer Signature: LGWADE

Distance: 3m

Note:



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	79.5207	42.47	-16.54	25.93	40.00	-14.07	QP			
2	129.9225	49.76	-13.86	35.90	43.50	-7.60	QP			
3	419.1080	32.15	-6.19	25.96	46.00	-20.04	QP			



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Job No.: Igwade #2913

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 23 C / 48 %

EUT: Kosmobits & Code Gamer

Mode: Charging

Model: 620141

Manufacturer: Franckh-Kosmos Verlags-GmbH & Co. KG

Polarization: Vertical

Power Source: DC 5V

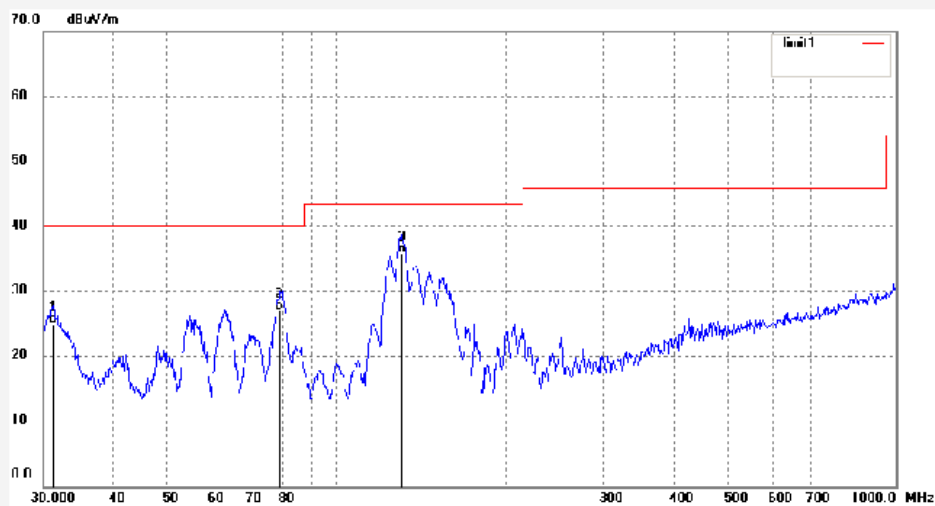
Date: 16/07/27/

Time:

Engineer Signature: LGWADE

Distance: 3m

Note:



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	31.1798	34.27	-9.27	25.00	40.00	-15.00	QP			
2	79.2425	43.59	-16.56	27.03	40.00	-12.97	QP			
3	130.8369	49.67	-13.90	35.77	43.50	-7.73	QP			



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Job No.: Igwade #2914

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 23 C / 48 %

EUT: Kosmobits & Code Gamer

Mode: Charging

Model: 620141

Manufacturer: Franckh-Kosmos Verlags-GmbH & Co. KG

Polarization: Vertical

Power Source: DC 5V

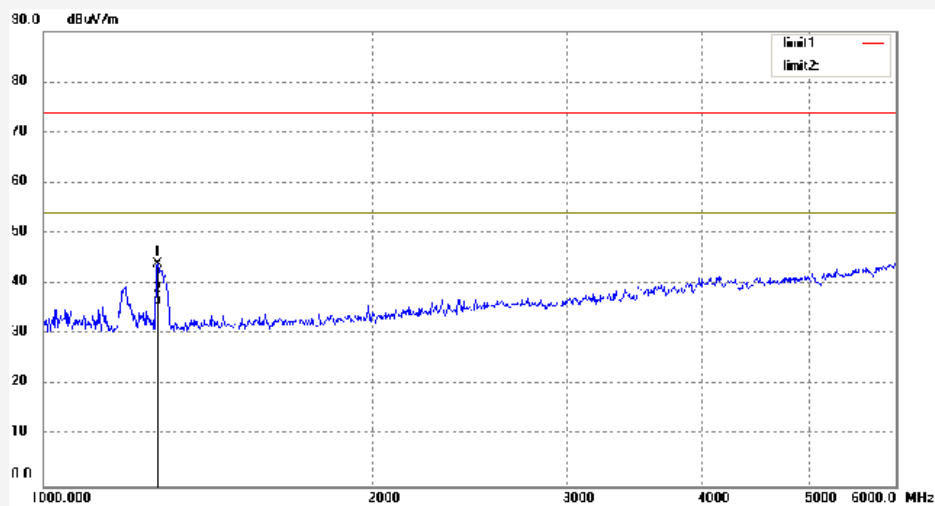
Date: 2016/07/27

Time:

Engineer Signature: LGWADE

Distance: 3m

Note:



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	1271.371	56.28	-12.26	44.02	74.00	-29.98	peak			
2	1271.371	48.23	-12.26	35.97	54.00	-18.03	AVG			



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Job No.: Igwade #2915

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 23 C / 48 %

EUT: Kosmobits & Code Gamer

Mode: Charging

Model: 620141

Manufacturer: Franckh-Kosmos Verlags-GmbH & Co. KG

Polarization: Horizontal

Power Source: DC 5V

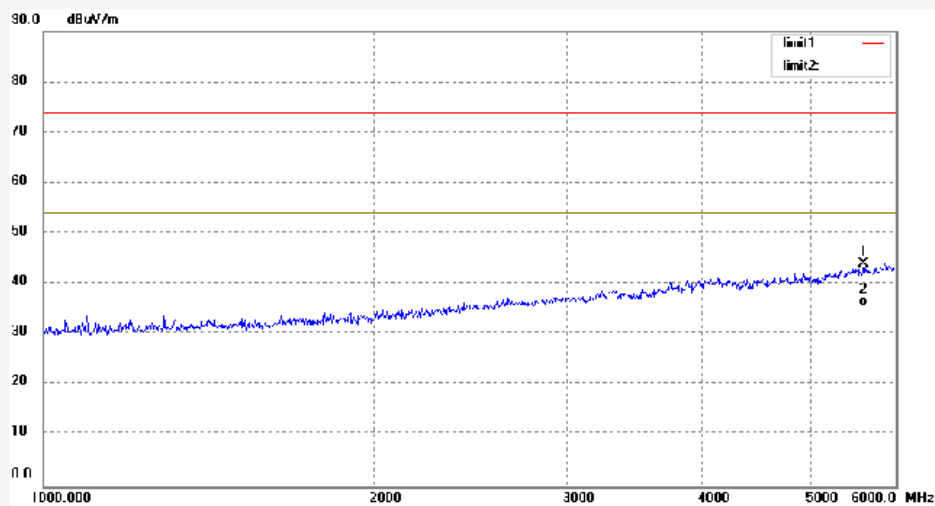
Date: 2016/07/27

Time:

Engineer Signature: LGWADE

Distance: 3m

Note:



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	5605.076	42.44	1.44	43.88	74.00	-30.12	peak			
2	5605.076	34.25	1.44	35.69	54.00	-18.31	AVG			