

Prüfbericht-Nr.: <i>Test Report No.:</i>	17047980 001	Auftrags-Nr.: <i>Order No.:</i>	164031818	Seite 1 von 30 <i>Page 1 of 30</i>	
Kunden-Referenz-Nr.: <i>Client Reference No.:</i>	N/A	Auftragsdatum: <i>Order date:</i>	30.03.2015		
Auftraggeber: <i>Client:</i>	Cosonic Acoustic Technology Co., Ltd. 5th Floor, 1st Building, No.6, South Industry Road Songsan Lake Hi-tech Industrial Development Zone, Dongguan, Guangdong Province, China.				
Prüfgegenstand: <i>Test item:</i>	Bluetooth in-ear Headset				
Bezeichnung / Typ-Nr.: <i>Identification / Type No.:</i>	NS-CAHBTEB01				
Auftrags-Inhalt: <i>Order content:</i>	FCC Certification and Verification				
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 C Section 15.107 CFR47 FCC Part 15: Subpart C Section 15.109				
Wareneingangsdatum: <i>Date of receipt:</i>	30.03.2015				
Prüfmuster-Nr.: <i>Test sample No.:</i>	A000178656-001 to 003				
Prüfzeitraum: <i>Testing period:</i>	31.03.2015 - 03.04.2015				
Ort der Prüfung: <i>Place of testing:</i>	Shenzhen Accurate Technology Co., Ltd.				
Prüflaboratorium: <i>Testing laboratory:</i>	TÜV Rheinland (Shenzhen) Co., Ltd.				
Prüfergebnis*: <i>Test result*:</i>	Bitte wählen / Please select...				
geprüft von / tested by: <i>Owen Tian</i>	kontrolliert von / reviewed by: <i>Winnie Hou</i>				
17.04.2015	Owen Tian / Senior Project Manager		20.04.2015	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:					
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>		
<p>* 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</p> <p>Legend: 1 = very good 2 = good 3 = satisfactory 4 = sufficient 5 = poor P(ass) = passed a.m. test specification(s) F(ail) = failed a.m. test specification(s) N/A = not applicable N/T = not tested</p>					
<p>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.</p> <p><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></p>					

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TEST SUMMARY

5.1.1 ANTENNA REQUIREMENT

RESULT: Passed

5.1.2 PEAK OUTPUT POWER

RESULT: Passed

5.1.3 CONDUCTED POWER SPECTRAL DENSITY

RESULT: Passed

5.1.4 -6dB BANDWIDTH

RESULT: Passed

5.1.5 CONDUCTED SPURIOUS EMISSIONS MEASURED IN 100kHz BANDWIDTH

RESULT: Passed

5.1.6 SPURIOUS EMISSION

RESULT: Passed

5.1.7 20dB BANDWIDTH

RESULT: Passed

5.1.8 FREQUENCY SEPARATION

RESULT: Passed

5.1.9 NUMBER OF HOPPING FREQUENCY

RESULT: Passed

5.1.10 TIME OF OCCUPANCY

RESULT: Passed

5.1.11 CONDUCTED EMISSIONS

RESULT: Passed

5.1.12 RADIATED EMISSION

RESULT: Passed

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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 1: Test Result

2. Test Sites

2.1 Test Facilities

Shenzhen Accurate Technology Co., Ltd.

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

FCC Registration No.: 752051

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

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2.2 List of Test and Measurement Instruments

Table 1: List of Test and Measurement Equipment

Kind of Equipment	Manufacturer	Type	S/N	Calibrated until
Spurious emission and Radiated emission				
Spectrum Analyzer	Rohde&Schwarz	FSV40	101495	2016-01-09
Test Receiver	Rohde&Schwarz	ESCS30	100307	2016-01-09
Bilog Antenna	Schwarzbeck	VULB9163	9163-323	2016-01-09
Loop Antenna	Schwarzbeck	FMZB1516	1516131	2016-01-09
Horn Antenna	Schwarzbeck	BBHA9120D	9120D-655	2016-01-09
Horn Antenna	Schwarzbeck	BBHA9170	9170-359	2016-01-09
RF Switching Unit+PreAMP	Compliance Direction	RSU-M2	38322	2016-01-09
Pre-Amplifier	Rohde&Schwarz	CBLU11835 40-01	3791	2016-01-09
Radio Test Suite				
Spectrum Analyzer	Rohde & Schwarz	FSV40	101495	2016-01-09
Conducted Emission				
Test Receiver	Rohde & Schwarz	ESCS30	100307	2016-01-09
L.I.S.N.	Schwarzbeck	NLSK8126	8126431	2016-01-09
Pulse Limiter	Rohde & Schwarz	ESH3-Z2	100815	2016-01-09
50 ⁻ Coaxial Switch	Anritsu Corp	MP59B	6200283933	2016-01-09

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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 basics using in house standards or comparisons.

2.5 Measurement Uncertainty

The estimated combined standard uncertainty for radiated emissions and conducted emissions measurements are $\pm 3\text{dB}$.

2.6 Location of Original Data

The original copies of all test data taken during actual testing were attached at Appendix1 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 Shenzhen Accurate Technology Co., Ltd. test facility located at F1, Bldg. A, Changyuan New Material Port, Keyuan Rd., Science & Industry Park Nanshan District, 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 Bluetooth in-ear Headset.

The EUT has a variety of colors with the same circuit design.

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

3.2 Ratings and System Details

Table 2: Rating of EUT

Kind of Equipment:	Bluetooth in-ear Headset
Type Designation:	NS-CAHBTEB01
FCC ID	2AAEMNS-CAHBTEB01

Table 3: Technical Specification of Bluetooth (BDR & EDR)

Technical Specification	Value
Operating Frequency band	2402 – 2480 MHz
Bluetooth Core Version	4.0 Dual mode
Channel separation	1MHz
Extreme Temperature Range	-10°C to +55°C
Operation Voltage	DC3.7V via Lithium battery
Modulation	GFSK, 8DPSK, π/4DQPSK
Antenna Type	Internal Antenna, Non-User Replaceable
Antenna Gain	0dBi
RF Output Power	0.00032W (-4.91dBm)

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Table 4: RF channel and frequency of Bluetooth (BDR & EDR mode)

RF Channel	Frequency (MHz)						
0	2402.00	20	2422.00	40	2442.00	60	2462.00
1	2403.00	21	2423.00	41	2443.00	61	2463.00
2	2404.00	22	2424.00	42	2444.00	62	2464.00
3	2405.00	23	2425.00	43	2445.00	63	2465.00
4	2406.00	24	2426.00	44	2446.00	64	2466.00
5	2407.00	25	2427.00	45	2447.00	65	2467.00
6	2408.00	26	2428.00	46	2448.00	66	2468.00
7	2409.00	27	2429.00	47	2449.00	67	2469.00
8	2410.00	28	2430.00	48	2450.00	68	2470.00
9	2411.00	29	2431.00	49	2451.00	69	2471.00
10	2412.00	30	2432.00	50	2452.00	70	2472.00
11	2413.00	31	2433.00	51	2453.00	71	2473.00
12	2414.00	32	2434.00	52	2454.00	72	2474.00
13	2415.00	33	2435.00	53	2455.00	73	2475.00
14	2416.00	34	2436.00	54	2456.00	74	2476.00
15	2417.00	35	2437.00	55	2457.00	75	2477.00
16	2418.00	36	2438.00	56	2458.00	76	2478.00
17	2419.00	37	2439.00	57	2459.00	77	2479.00
18	2420.00	38	2440.00	58	2460.00	78	2480.00
19	2421.00	39	2441.00	59	2461.00		

Table 5: Technical Specification of Bluetooth (low energy)

Technical Specification	Value
Operating Frequency band	2402 – 2480 MHz
Bluetooth Core Version	4.0 Dual mode
Channel separation	2MHz
Extreme Temperature Range	-10°C to +55°C
Operation Voltage	DC3.7V via Lithium battery
Modulation	GFSK
Antenna Type	Internal Antenna, Non-User Replaceable
Antenna Gain	0dBi
RF Output Power	0.00018W (-7.41dBm)

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Table 6: RF channel and frequency of Bluetooth low energy

RF Channel	Frequency (MHz)						
0	2402.00	10	2422.00	20	2442.00	30	2462.00
1	2404.00	11	2424.00	21	2444.00	31	2464.00
2	2406.00	12	2426.00	22	2446.00	32	2466.00
3	2408.00	13	2428.00	23	2448.00	33	2468.00
4	2410.00	14	2430.00	24	2450.00	34	2470.00
5	2412.00	15	2432.00	25	2452.00	35	2472.00
6	2414.00	16	2434.00	26	2454.00	36	2474.00
7	2416.00	17	2436.00	27	2456.00	37	2476.00
8	2418.00	18	2438.00	28	2458.00	38	2478.00
9	2420.00	19	2440.00	29	2460.00	39	2480.00

3.3 Independent Operation Modes

The basic operation modes are:

- A. On, Traditional Bluetooth
 - 1. Transmitting on low channel
 - 2. Transmitting on middle channel
 - 3. Transmitting on high channel
- B. On, Bluetooth low energy
 - 1. Transmitting on low channel
 - 2. Transmitting on middle channel
 - 3. Transmitting on high channel
- C. Charging
- D. Off

3.4 Noise Generating and Noise Suppressing Parts

Refer to the Circuit Diagram.

3.5 Submitted Documents

- Bill of Material
- PCB Layout
- Photo Document
- Technical Description

- Circuit Diagram
- Instruction Manual
- Rating Label

4. Test Set-up and Operation Modes

4.1 Principle of Configuration Selection

The equipment under test (EUT) was configured to measure its maximum power 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 C63.4: 2003.

4.3 Special Accessories and Auxiliary Equipment

The EUT was tested with following accessories:

Description	Manufacturer	Type	S/N
iPhone4s	Apple	MD235ZP	C8PJLWZNDTC0
Notebook	Lenovo	4290-RT8	R9-FW93G
Printer	HP	HP laserjet 1015	CNFG030424

4.4 Countermeasures to achieve EMC Compliance

The test sample, which has been tested, contained the noise suppression parts as described in the Constructional Data Form or the Technical Construction File. No additional measures were employed to achieve compliance.

4.5 Test Setup Diagram

Diagram of Measurement Configuration for Radiation Test

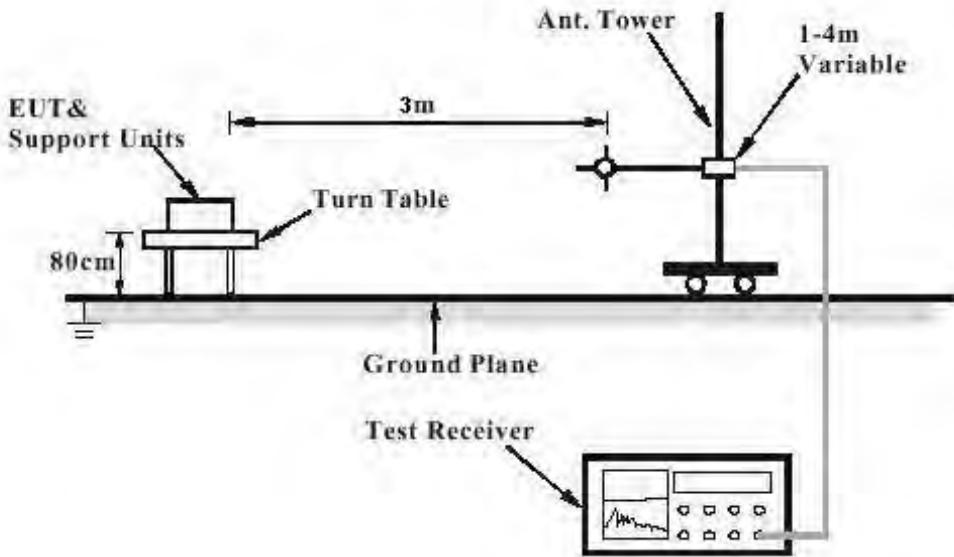
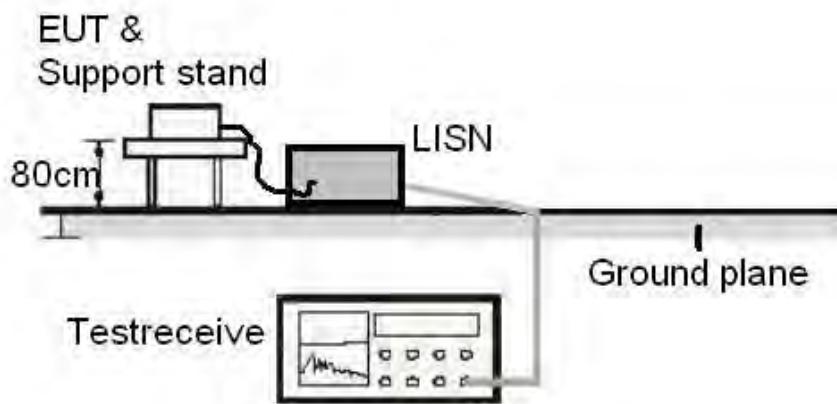
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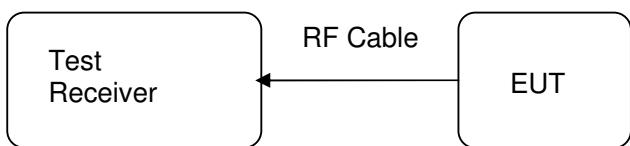
Diagram of Measurement Equipment Configuration for Mains Conduction Measurement



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Diagram of Measurement Equipment Configuration for Conducted Transmitter Measurement



5. Test Results

5.1 Transmitter Requirement & Test Suites

5.1.1 Antenna Requirement

RESULT:**Passed**

Test date	:	2015-03-31
Test standard	:	FCC Part 15.247(b)(4) and Part 15.203
Limit	:	the use of antennas with directional gains that do not exceed 6 dBi

According to the manufacturer declared, the EUT has an internal antenna, the directional gain of antenna is 0dBi, 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.

Refer to EUT photo for details.

5.1.2 Peak Output Power

RESULT:

Passed

Test date	:	2015-03-31
Test standard	:	FCC Part 15.247(b)(3)
Basic standard	:	ANSI C63.4: 2003
Limit	:	1 Watt
Kind of test site	:	Shielded room

Test setup

Test Channel	:	Low/ Middle/ High
Operation Mode	:	A
Ambient temperature	:	25°C
Relative humidity	:	55%
Atmospheric pressure	:	101 kPa

Table 7: Test result of Peak Output Power, BR

Channel	Channel Frequency (MHz)	Peak Output Power		Limit
		(dBm)	(W)	
Low Channel	2402	-6.16	0.00024	1
Middle Channel	2440	-5.10	0.00031	1
High Channel	2480	-4.91	0.00032	1

Table 8: Test result of Peak Output Power, EDR

Channel	Channel Frequency (MHz)	Peak Output Power		Limit
		(dBm)	(W)	
Low Channel	2402	-6.86	0.00021	1
Middle Channel	2440	-5.48	0.00028	1
High Channel	2480	-5.26	0.0003	1

Table 9: Test result of Peak Output Power, low energy

Channel	Channel Frequency (MHz)	Peak Output Power		Limit
		(dBm)	(W)	
Low Channel	2402	-10.69	0.00009	1
Middle Channel	2440	-7.41	0.00018	1
High Channel	2480	-7.85	0.00016	1

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5.1.3 Conducted Power Spectral Density

RESULT:

Passed

Test date	:	2015-03-31
Test standard	:	FCC Part 15.247(e)
Basic standard	:	ANSI C63.4: 2003
Limit	:	8dBm/3kHz
Kind of test site	:	Shielded room

Test setup

Test Channel	:	Low/ Middle/ High
Operation Mode	:	A
Ambient temperature	:	25°C
Relative humidity	:	55%
Atmospheric pressure	:	101 kPa

Table 10: Test result of Power Spectral Density, low energy

Channel	Channel Frequency (MHz)	Power Spectral Density (dBm/3kHz)	Limit (dBm/3kHz)
Low Channel	2402	-26.69	8
Middle Channel	2440	-23.47	8
High Channel	2480	-23.74	8

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5.1.4 -6dB Bandwidth

RESULT:**Passed**

Date of testing : 2015-03-31
Test standard : FCC Part 15.247(a)(2)
Basic standard : ANSI C63.4: 2003
Kind of test site : Shielded room

Test setup

Test Channel : Low/ Middle/ High
Operation Mode : A
Ambient temperature : 25°C
Relative humidity : 55%
Atmospheric pressure : 101 kPa

Table 11: Test result of 6dB Bandwidth, low energy

Channel	Channel Frequency (MHz)	-6dB Bandwidth (kHz)	Limit (kHz)	Result
Low Channel	2402	642.6	500	Pass
Mid Channel	2440	642.6	500	Pass
High Channel	2480	642.6	500	Pass

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5.1.5 Conducted spurious emissions measured in 100kHz Bandwidth

RESULT:

Passed

Date of testing	:	2015-03-31
Test standard	:	FCC part 15.247(d)
Basic standard	:	ANSI C63.4: 2003
Limit	:	20dB (below that in the 100kHz bandwidth within the band that contains the highest level of the desired power); In addition, radiated emissions which fall in the restricted bands, must also comply with the radiated emission limits specified in 15.209(a)
Kind of test site	:	Shield room

Test setup

Test Channel	:	Low/ High
Operation mode	:	A
Ambient temperature	:	25°C
Relative humidity	:	55%
Atmospheric pressure	:	101 kPa

All emissions are more than 20dB below fundamental, details refer to Appendix 1.

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5.1.6 Spurious Emission

RESULT:**Passed**

Date of testing	:	2015-03-31 to 2015-04-03
Test standard	:	FCC part 15.247(d) FCC Part 15.205
Basic standard	:	ANSI C63.4: 2003
Limits	:	Refer to 15.209(a) of FCC part 15.247(d)
Kind of test site	:	3m Semi-Anechoic Chamber

Test setup

Test Channel	:	Low/ Middle/ High
Operation mode	:	A
Ambient temperature	:	25°C
Relative humidity	:	55%
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 setup photos.

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

For details refer to Appendix 1.

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5.1.7 20dB Bandwidth

RESULT:**Passed**

Date of testing : 2015-03-31
Test standard : FCC Part 15.247(a)(1)
Basic standard : ANSI C63.4: 2003
Kind of test site : Shielded room

Test setup

Test Channel : Low/ Middle/ High
Operation Mode : A
Ambient temperature : 25°C
Relative humidity : 55%
Atmospheric pressure : 101 kPa

Table 12: Test result of 20dB Bandwidth, BDR mode

Channel	Channel Frequency (MHz)	20dB Bandwidth (kHz)	Limit (MHz)	Result
Low Channel	2402	933.5	/	Pass
Mid Channel	2441	920.5	/	Pass
High Channel	2480	929.1	/	Pass

Table 13: Test result of 20dB Bandwidth, EDR mode

Channel	Channel Frequency (MHz)	20dB Bandwidth (kHz)	Limit (MHz)	Result
Low Channel	2402	1207	/	Pass
Mid Channel	2441	1280.8	/	Pass
High Channel	2480	1211.3	/	Pass

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5.1.8 Frequency Separation

RESULT:

Passed

Date of testing : 2015-03-31
 Test standard : FCC part 15.247(a)(1)
 Basic standard : ANSI C63.4: 2003
 Limit : $\geq 25\text{kHz}$ or $2/3$ of 20dB bandwidth, whichever is greater

Test setup

Test Channel : Low/ Middle/ High
 Operation Mode : A
 Ambient temperature : 25°C
 Relative humidity : 55%
 Atmospheric pressure : 101 kPa

Table 14: Test result of Frequency Separation, BR&EDR mode

Channel	Channel Frequency (MHz)	Measured Channel Separation (MHz)	Limit (kHz)	Result
Low Channel	2402	1	$\geq 25\text{kHz}$ or $2/3$ of 20dB bandwidth	Pass
Adjacency Channel	2403			
Mid Channel	2441	1	$\geq 25\text{kHz}$ or $2/3$ of 20dB bandwidth	Pass
Adjacency Channel	2442			
High Channel	2480	1	$\geq 25\text{kHz}$ or $2/3$ of 20dB bandwidth	Pass
Adjacency Channel	2479			

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5.1.9 Number of hopping frequency

RESULT:**Passed**

Date of testing	:	2015-03-31
Test standard	:	FCC part 15.247(a)(1)(iii)
Basic standard	:	ANSI C63.4: 2003
Limits	:	≥ 15 non-overlapping channels
Kind of test site	:	Shield room

Test setup

Test Channel	:	Low/ Middle/ High
Operation Mode	:	A
Ambient temperature	:	25°C
Relative humidity	:	55%
Atmospheric pressure	:	101 kPa

Table 15: Test result of Number of hopping frequency, BR&EDR mode

Frequency Range	Measured Quantity of Hopping Channel	Limit	Result
2400 to 2483.5 MHz	79	≥15	Pass

5.1.10 Time of Occupancy

RESULT:

Passed

Date of testing	:	2015-03-31
Test standard	:	FCC part 15.247(a)(1)(iii)
Basic standard	:	ANSI C63.4: 2003
Limits	:	0.4s
Kind of test site	:	Shield room

Test setup

Test Channel	:	Low/ Middle/ High
Operation Mode	:	A
Ambient temperature	:	25°C
Relative humidity	:	55%
Atmospheric pressure	:	101 kPa

Table 16: Test result of Time of Occupancy, BDR mode

Channel	Data Mode	Pulse width (ms)	Measured Dwell time (s)	Limit (s)	Result
Low Channel	DH1	0.45	0.144	0.4	Pass
	DH3	1.70	0.272	0.4	Pass
	DH5	3.02	0.322	0.4	Pass
Mid Channel	DH1	0.44	0.141	0.4	Pass
	DH3	1.70	0.272	0.4	Pass
	DH5	2.98	0.318	0.4	Pass
High Channel	DH1	0.46	0.147	0.4	Pass
	DH3	1.73	0.277	0.4	Pass
	DH5	3.0	0.320	0.4	Pass

Table 17: Test result of Time of Occupancy, EDR mode

Channel	Data Mode	Pulse width (ms)	Measured Dwell time (s)	Limit (s)	Result
Low Channel	DH1	0.46	0.147	0.4	Pass
	DH3	1.71	0.274	0.4	Pass
	DH5	3.01	0.321	0.4	Pass
Mid Channel	DH1	0.46	0.147	0.4	Pass
	DH3	1.71	0.274	0.4	Pass
	DH5	3.01	0.321	0.4	Pass
High Channel	DH1	0.45	0.144	0.4	Pass
	DH3	1.72	0.275	0.4	Pass
	DH5	2.96	0.316	0.4	Pass

Note:

Dwell time = Pulse width x (Hopping rate / Number of channels) x Period

Period = 0.4 (seconds/ channel) x 79 (channel) = 31.6 seconds

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Test Report No.

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5.1.11 Conducted emissions

RESULT:**Passed**

Date of testing	:	2015-04-03
Test standard	:	FCC Part 15.207(a)
Basic standard	:	ANSI C63.4: 2003
Frequency range	:	0.15 – 30MHz
Limits	:	FCC Part 15.207(a)
Kind of test site	:	Shield room

Test setup

Input Voltage	:	AC 120V, 60Hz via AC/DC Adapter of notebook
Operation Mode	:	C
Earthing	:	Not connected
Ambient temperature	:	25°C
Relative humidity	:	55%
Atmospheric pressure	:	101 kPa

For details refer to Appendix 1.

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Test Report No.

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5.1.12 Radiated Emission

RESULT:

Passed

Date of testing	:	2015-03-31 to 2015-04-02
Test standard	:	FCC Part 15 Per Section 15.209(a)
Frequency range	:	30 - 6000MHz
Classification	:	Class B
Test procedure	:	ANSI C63.4: 2003
Kind of test site	:	3m Semi-Anechoic Chamber

Test setup

Input Voltage	:	AC 120V, 60Hz via AC/DC Adapter of notebook
Operation mode	:	C
Earthing	:	Not connected
Ambient temperature	:	Refer to Appendix 1
Relative humidity	:	Refer to Appendix 1
Atmospheric pressure	:	Refer to Appendix 1

Test data refer to Appendix 1.

Prüfbericht - Nr.: 17047980 001
Test Report No.

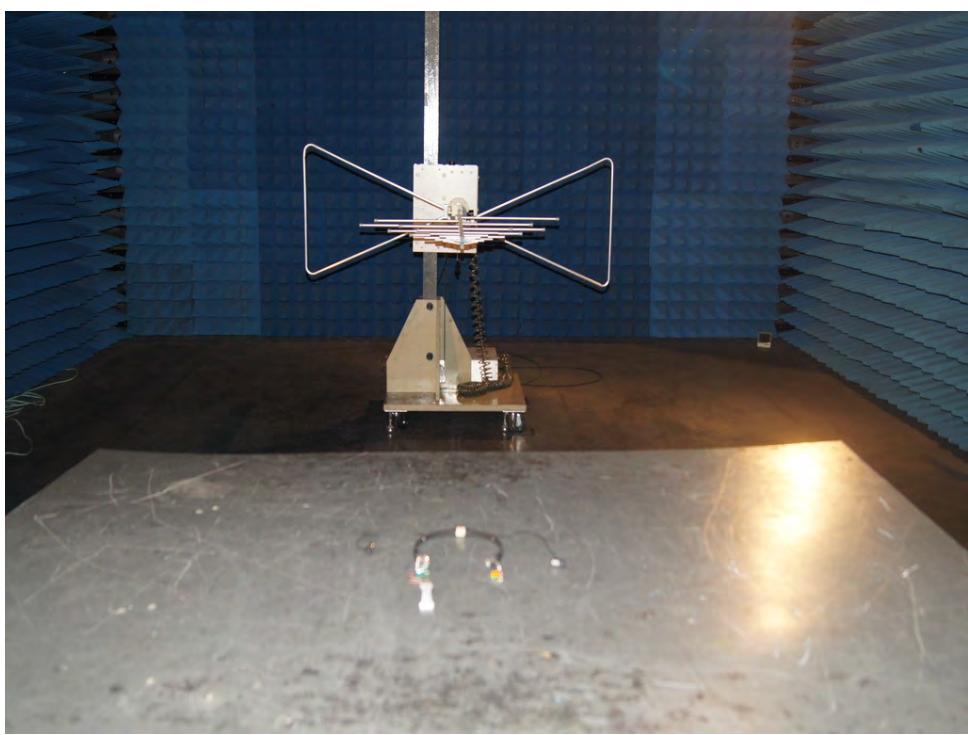
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6. Photographs of the Test Set-Up

Photograph 1: Set-up for Spurious Emissions (9kHz-30MHz)



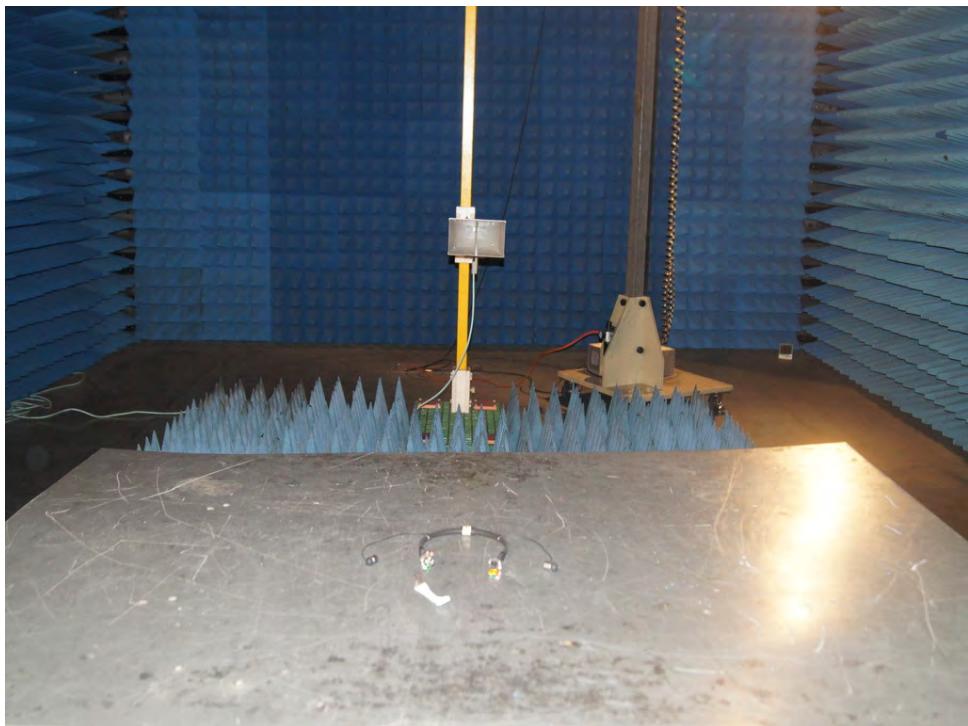
Photograph 2: Set-up for Spurious Emissions (30MHz-1GHz)



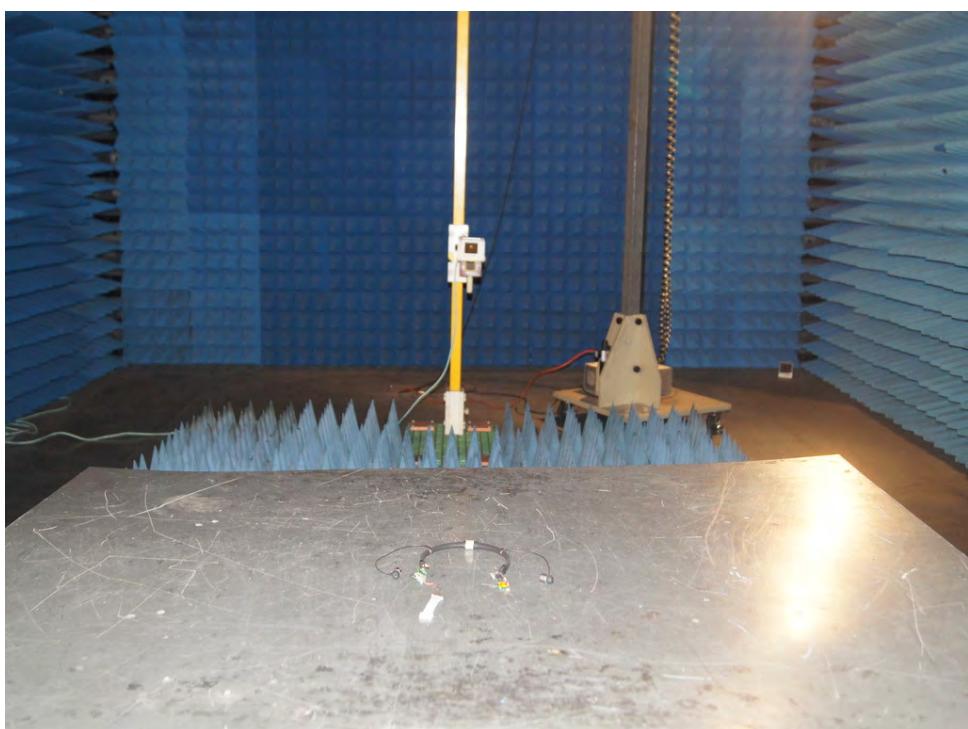
Prüfbericht - Nr.: 17047980 001
Test Report No.

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Photograph 3: Set-up for Spurious Emissions (1GHz-18GHz)



Photograph 4: Set-up for Spurious Emissions (18GHz-26GHz)



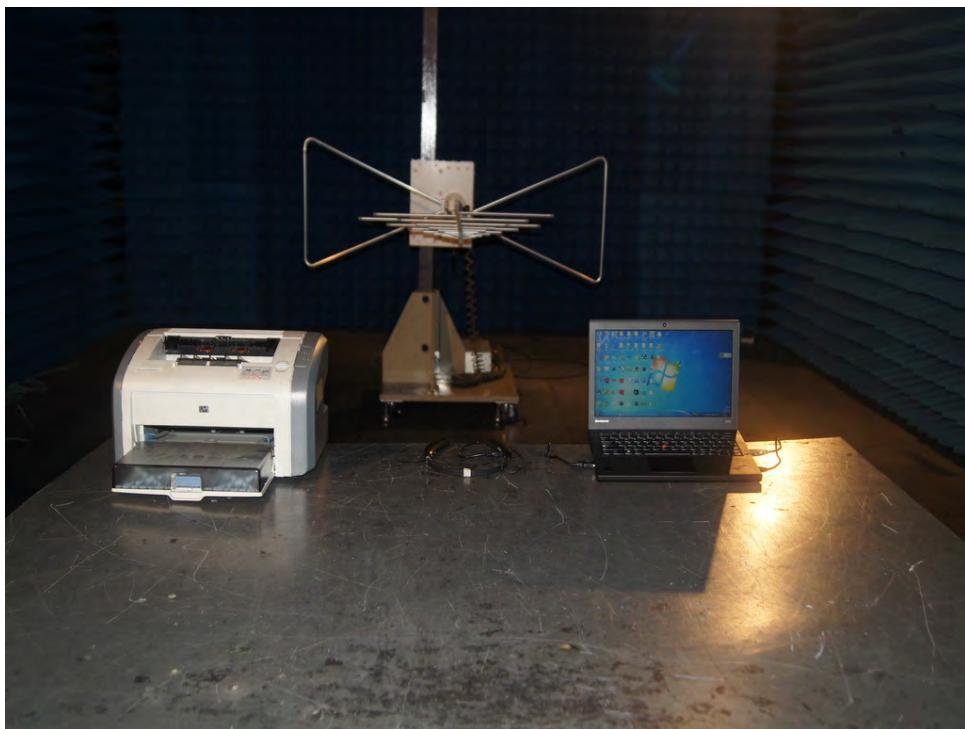
Prüfbericht - Nr.: 17047980 001
Test Report No.

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Photograph 5: Set-up for Conducted Emissions



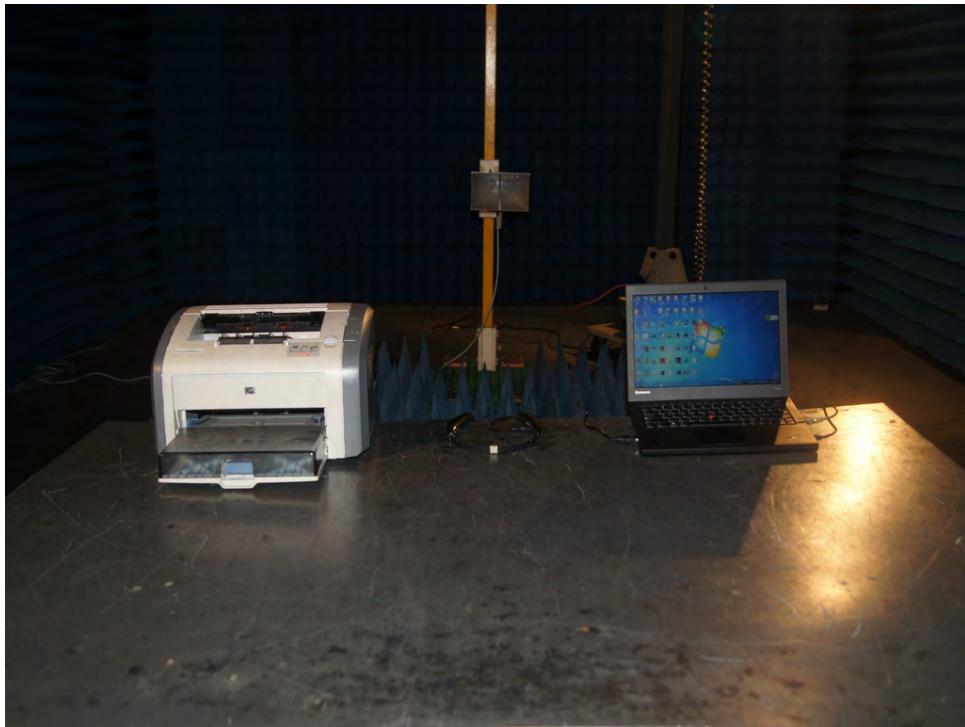
Photograph 6: Set-up for Radiated Emissions, below 1GHz



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Photograph 7: Set-up for Radiated Emissions, above 1GHz



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Figure 1: Test figure of spurious emissions, mode A.1, Horizontal polarity (9kHz – 30MHz)

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FCC Class B 3M Radiated

EUT: Bluetooth In-ear Headset M/N: NS-CAHBTEB01
 Manufacturer:
 Operating Condition: TX 2402MHz
 Test Site: 2#Chamber
 Operator: LAN
 Test Specification: DC 3.7V
 Comment: X
 Start of Test: 2015-4-3 /

SCAN TABLE: "LFRE Fin"

Start	Stop	Step	Detector	Meas.	IF	Transducer
Frequency	Frequency	Width				
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

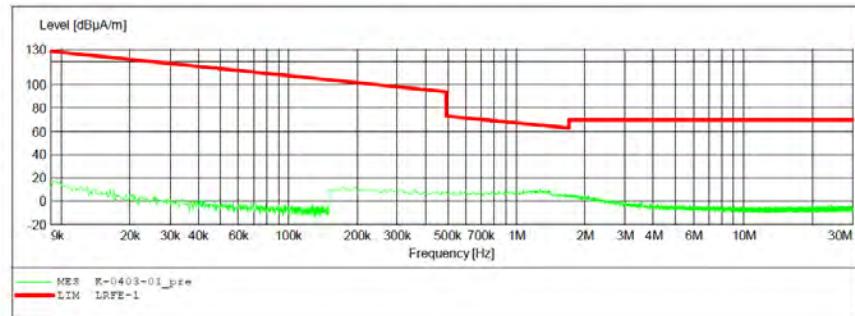


Figure 2: Test figure of spurious emissions, mode A.1, Vertical polarity (9kHz – 30MHz)

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FCC Class B 3M Radiated

EUT: Bluetooth In-ear Headset M/N: NS-CAHBTEB01
 Manufacturer:
 Operating Condition: TX 2402MHz
 Test Site: 2#Chamber
 Operator: LAN
 Test Specification: DC 3.7V
 Comment: Y
 Start of Test: 2015-4-3 /

SCAN TABLE: "LFRE Fin"

Start	Stop	Step	Detector	Meas.	IF	Transducer
Frequency	Frequency	Width				
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

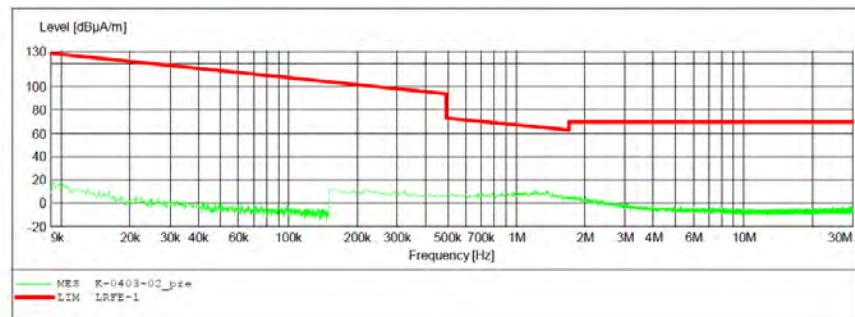


Figure 3: Test figure of spurious emissions, mode A.1, Horizontal polarity (30MHz – 1GHz)

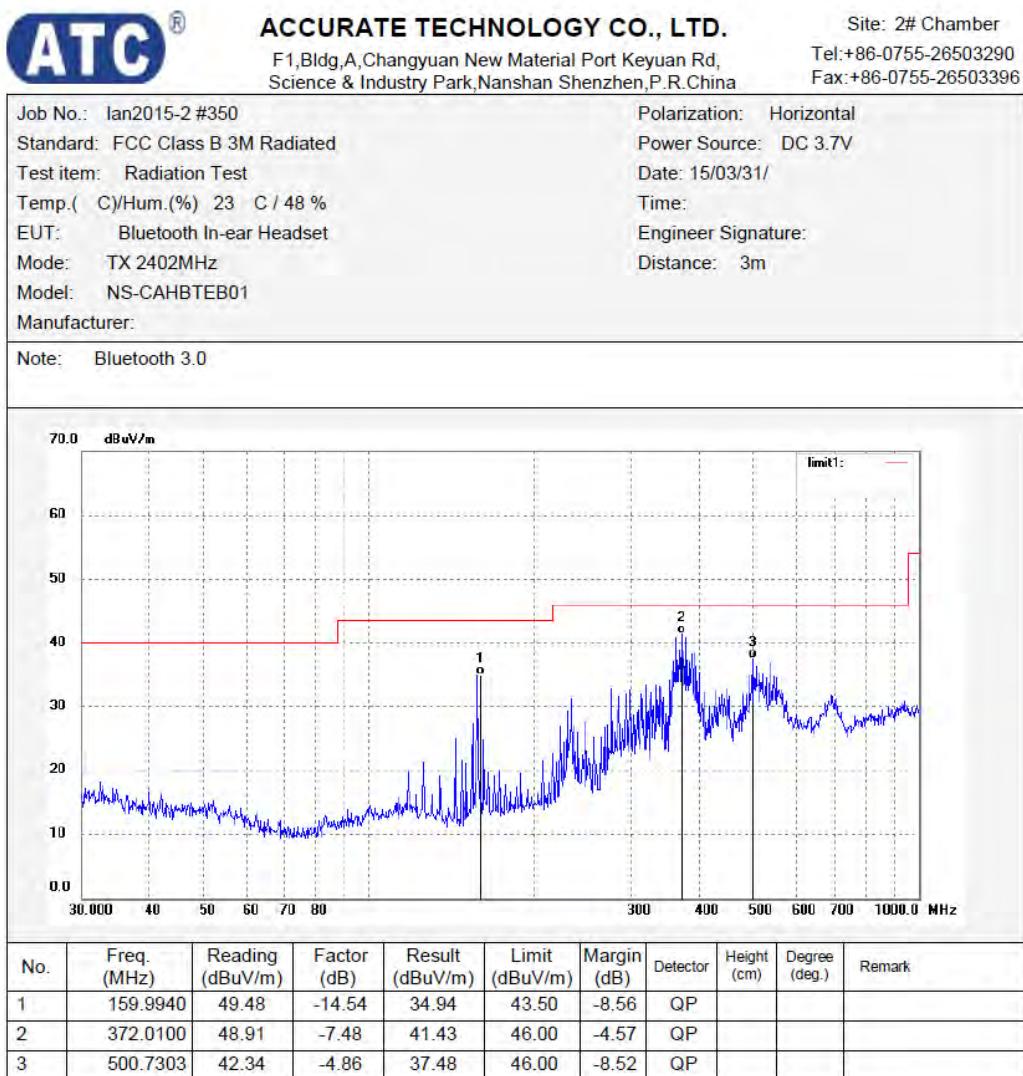


Figure 4: Test figure of spurious emissions, mode A.1, Vertical polarity (30MHz – 1GHz)

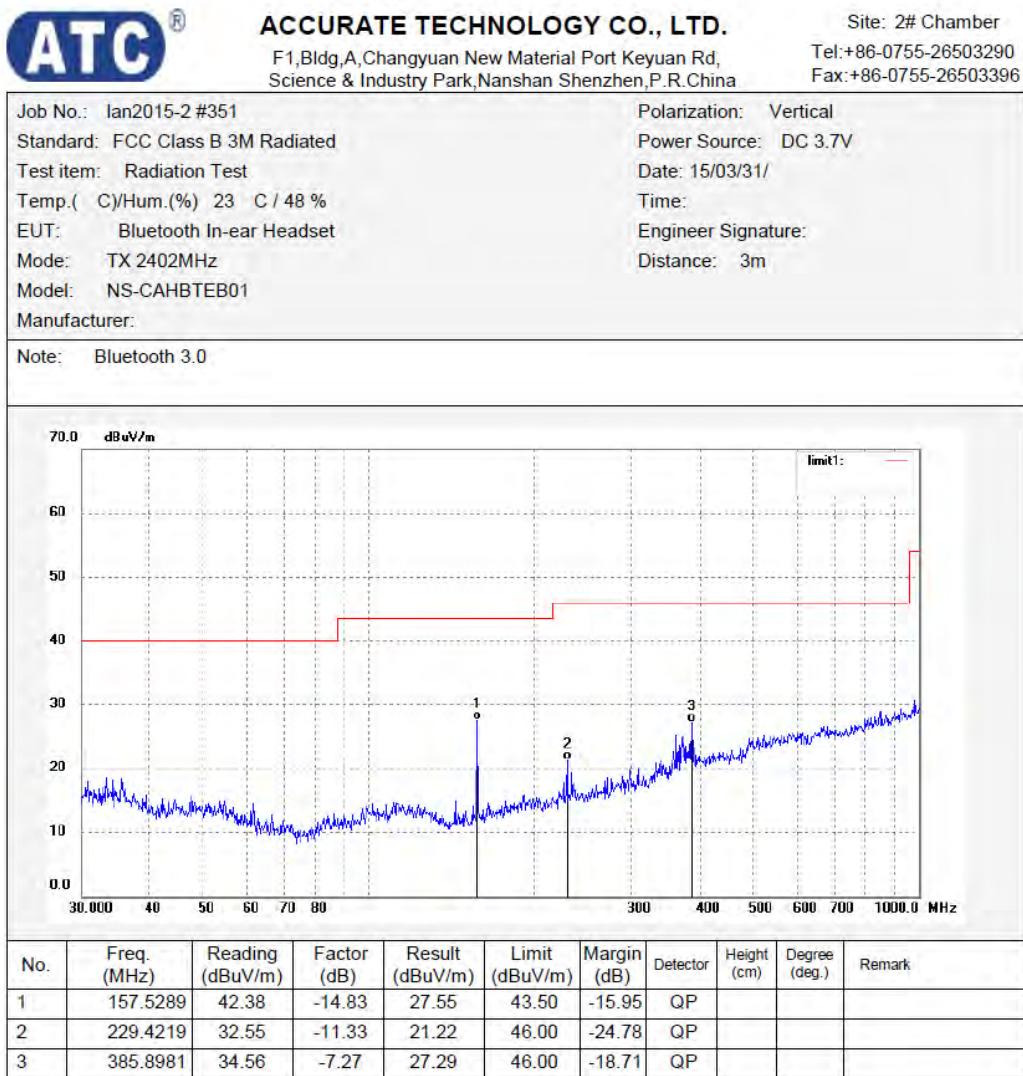


Figure 5: Test figure of spurious emissions, mode A.1, Horizontal polarity (1GHz –18GHz)



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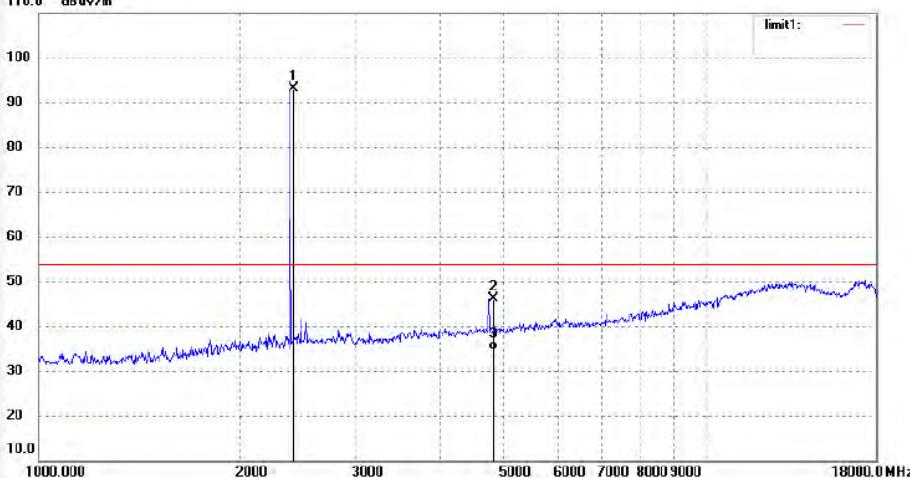
Job No.: Ian2015-2 #412	Polarization: Horizontal									
Standard: FCC Class B 3M Radiated	Power Source: DC 3.7V									
Test item: Radiation Test	Date: 15/04/02/									
Temp.(C)/Hum.(%) 23 C / 48 %	Time:									
EUT: Bluetooth In-ear Headset	Engineer Signature:									
Mode: TX 2402MHz	Distance: 3m									
Model: NS-CAHBTEB01										
Manufacturer:										
Note: Bluetooth 3.0										
										
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	100.50	-7.45	93.05	/	/	peak			
2	4804.028	46.53	-0.30	46.23	74.00	-27.77	peak			
3	4804.028	35.05	-0.30	34.75	54.00	-19.25	AVG			

Figure 6: Test figure of spurious emissions, mode A.1, Vertical polarity (1GHz – 18GHz)



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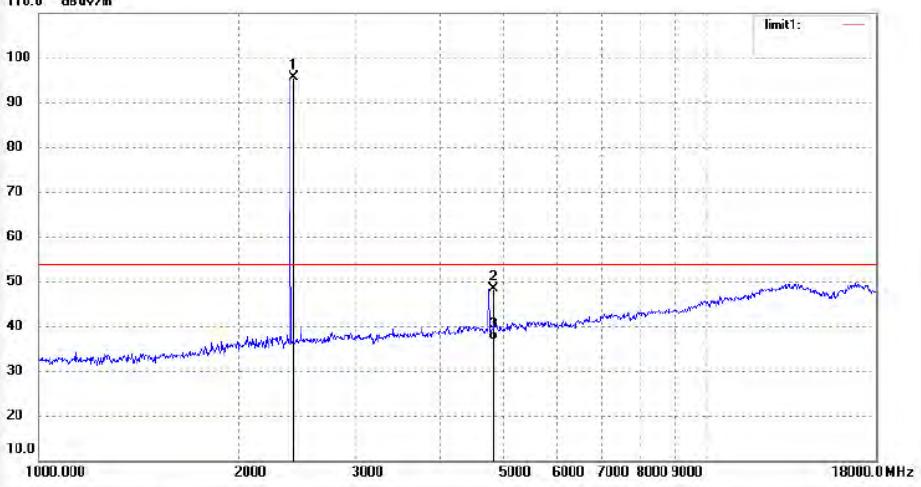
Job No.: Ian2015-2 #411	Polarization: Vertical									
Standard: FCC Class B 3M Radiated	Power Source: DC 3.7V									
Test item: Radiation Test	Date: 15/04/02/									
Temp.(C)/Hum.(%) 23 C / 48 %	Time:									
EUT: Bluetooth In-ear Headset	Engineer Signature:									
Mode: TX 2402MHz	Distance: 3m									
Model: NS-CAHBTEB01										
Manufacturer:										
Note: Bluetooth 3.0										
										
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	102.97	-7.45	95.52	/	/	peak			
2	4804.012	48.56	-0.30	48.26	74.00	-25.74	peak			
3	4804.012	37.27	-0.30	36.97	54.00	-17.03	AVG			

Figure 7: Test figure of spurious emissions, mode A.1, Horizontal polarity (18GHz –25GHz)



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Fax:+86-0755-26503396

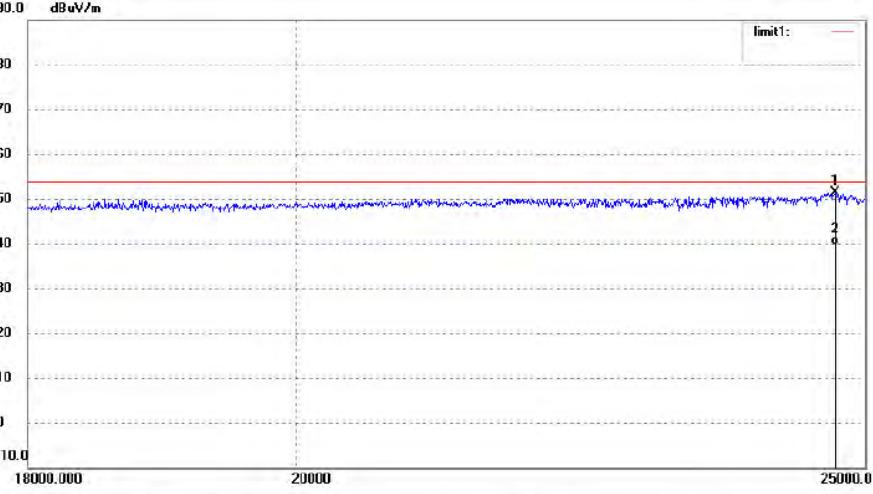
Job No.: Ian2015-2 #432	Polarization: Horizontal									
Standard: FCC Class B 3M Radiated	Power Source: DC 3.7V									
Test item: Radiation Test	Date: 15/04/02/									
Temp.(C)/Hum.(%) 23 C / 48 %	Time:									
EUT: Bluetooth In-ear Headset	Engineer Signature:									
Mode: TX 2402MHz	Distance: 3m									
Model: NS-CAHBTEB01										
Manufacturer:										
Note: Bluetooth 3.0										
										
No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	24713.636	34.70	16.68	51.38	74.00	-22.62	peak			
2	24713.636	23.05	16.68	39.73	54.00	-14.27	AVG			

Figure 8: Test figure of spurious emissions, mode A.1, Vertical polarity (18GHz – 25GHz)

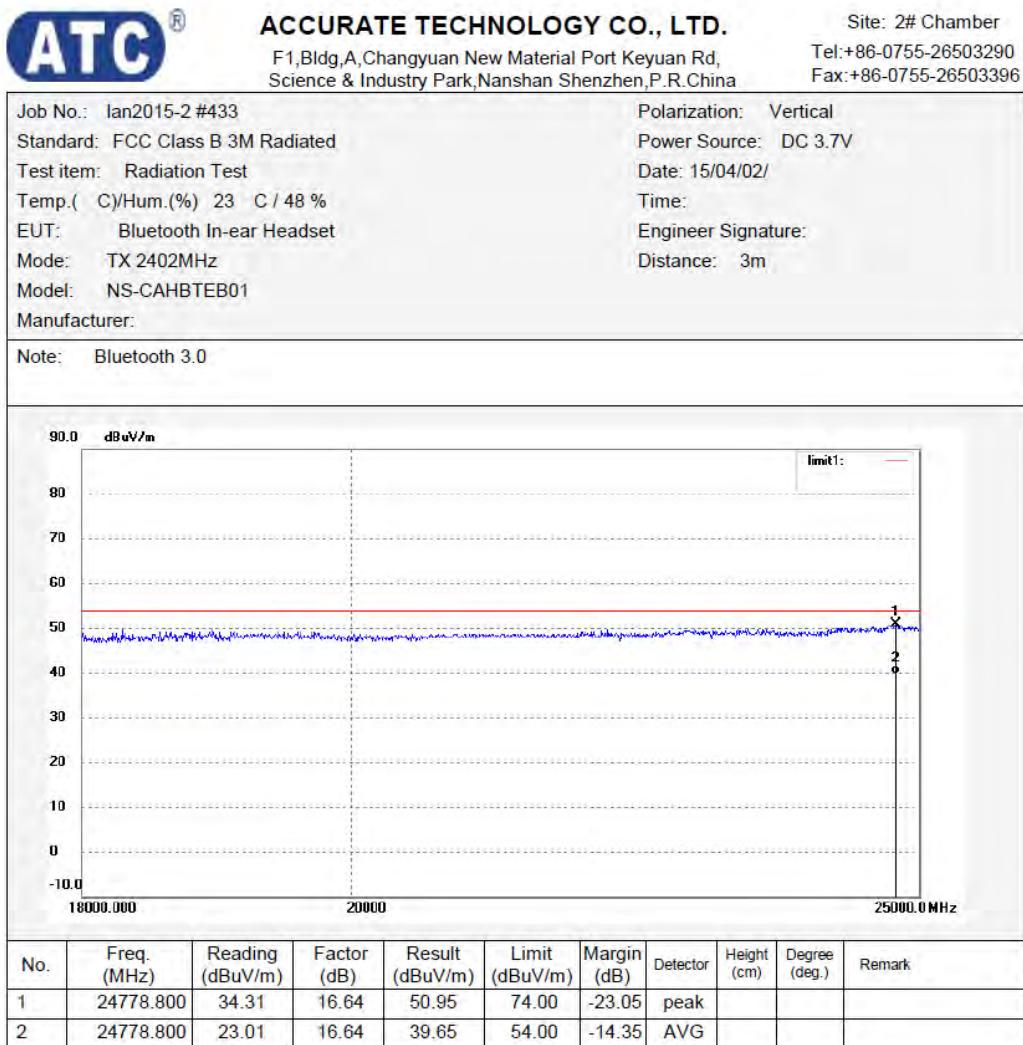


Figure 9: Test figure of spurious emissions, mode A.2, Horizontal polarity (9kHz – 30MHz)

ACCURATE TECHNOLOGY CO., LTD

FCC Class B 3M Radiated

EUT: Bluetooth In-ear Headset M/N: NS-CAHBTEB01
 Manufacturer:
 Operating Condition: TX 2441MHz
 Test Site: 2#Chamber
 Operator: LAN
 Test Specification: DC 3.7V
 Comment: X
 Start of Test: 2015-4-3 /

SCAN TABLE: "LFRE_Fin"

Start	Stop	Step	Detector	Meas.	IF	Transducer
Frequency	Frequency	Width				
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

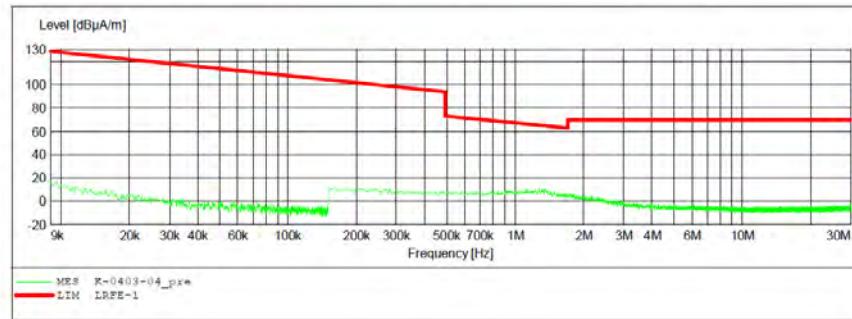


Figure 10: Test figure of spurious emissions, mode A.2, Vertical polarity (9kHz – 30MHz)

ACCURATE TECHNOLOGY CO., LTD

FCC Class B 3M Radiated

EUT: Bluetooth In-ear Headset M/N: NS-CAHBTEB01
 Manufacturer:
 Operating Condition: TX 2441MHz
 Test Site: 2#Chamber
 Operator: LAN
 Test Specification: DC 3.7V
 Comment: Y
 Start of Test: 2015-4-3 /

SCAN TABLE: "LFRE_Fin"

Start	Stop	Step	Detector	Meas.	IF	Transducer
Frequency	Frequency	Width				
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

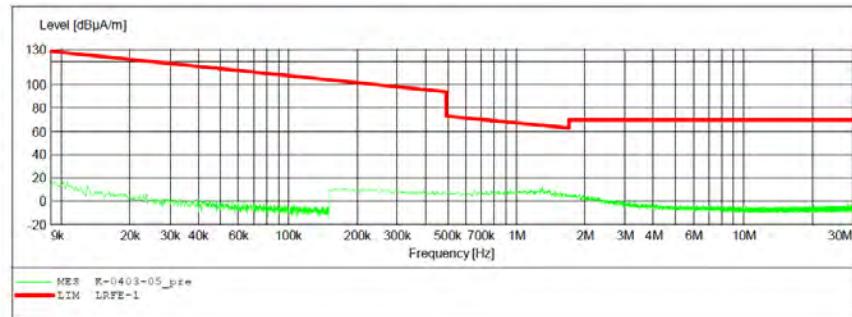


Figure 11: Test figure of spurious emissions, mode A.2, Horizontal polarity (30MHz – 1GHz)

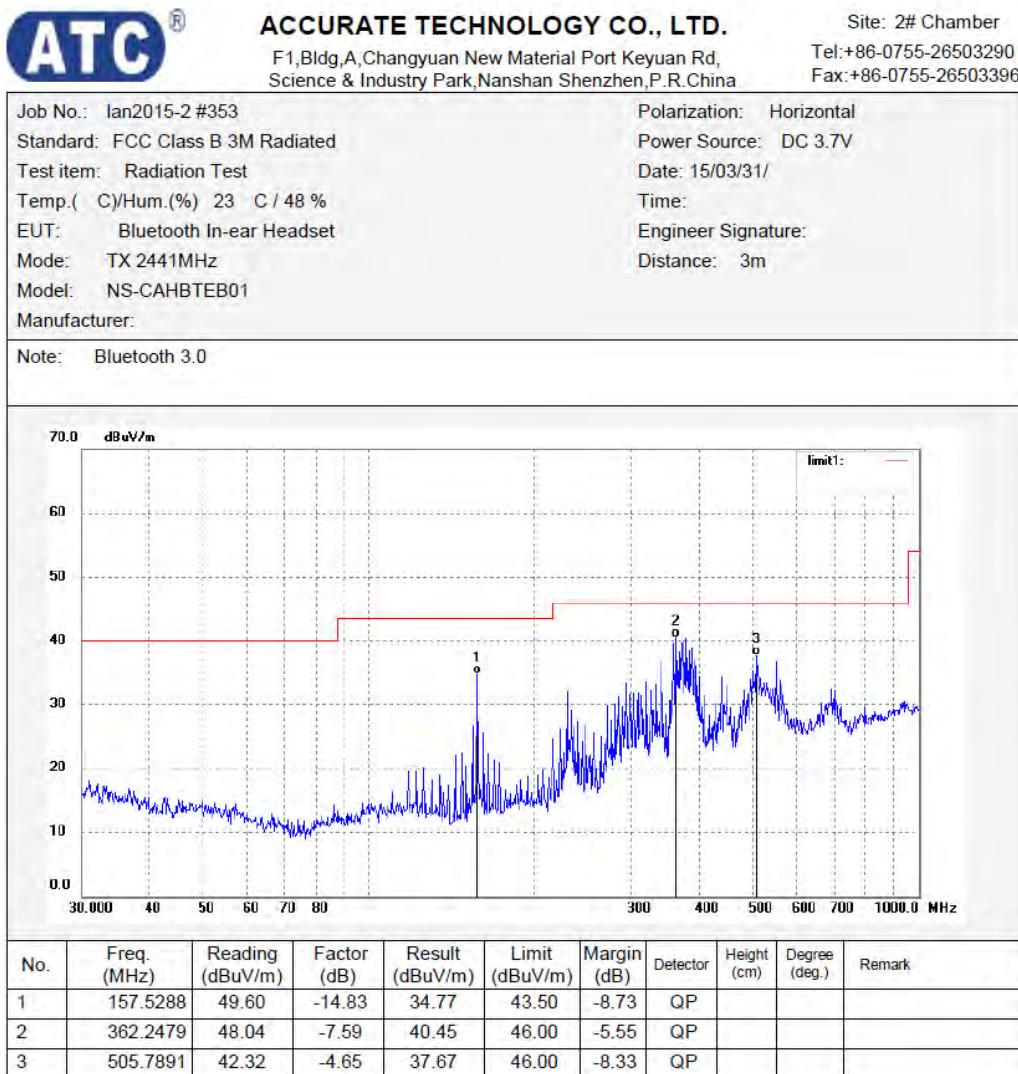


Figure 12: Test figure of spurious emissions, mode A.2, Vertical polarity (30MHz – 1GHz)



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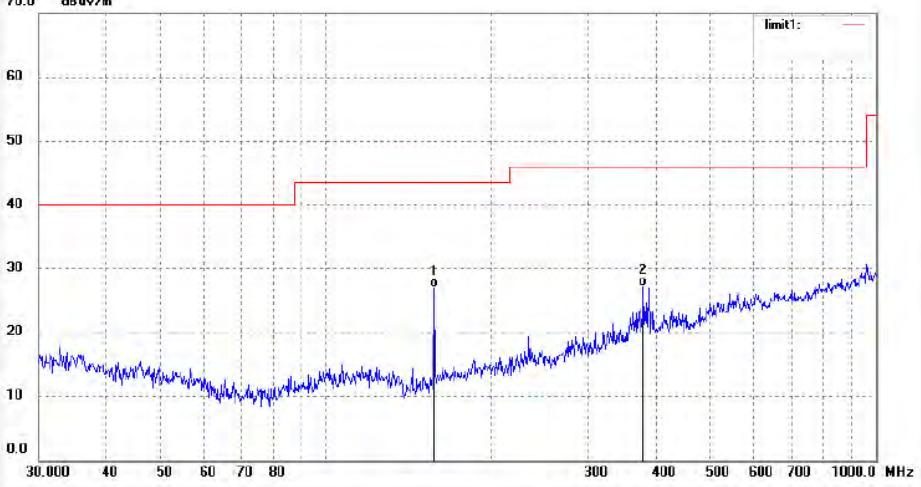
Job No.: Ian2015-2 #352	Polarization: Vertical									
Standard: FCC Class B 3M Radiated	Power Source: DC 3.7V									
Test item: Radiation Test	Date: 15/03/31/									
Temp.(C)/Hum.(%) 23 C / 48 %	Time:									
EUT: Bluetooth In-ear Headset	Engineer Signature:									
Mode: TX 2441MHz	Distance: 3m									
Model: NS-CAHBTEB01										
Manufacturer:										
Note: Bluetooth 3.0										
										
No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	157.5289	41.79	-14.83	26.96	43.50	-16.54	QP			
2	377.8480	34.56	-7.38	27.18	46.00	-18.82	QP			

Figure 13: Test figure of spurious emissions, mode A.2, Horizontal polarity (1GHz – 18GHz)



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Job No.: IAN2015-2 #417

Polarization: Horizontal

Standard: FCC Class B 3M Radiated

Power Source: DC 3.7V

Test item: Radiation Test

Date: 15/04/02/

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

Time:

EUT: Bluetooth In-ear Headset

Engineer Signature:

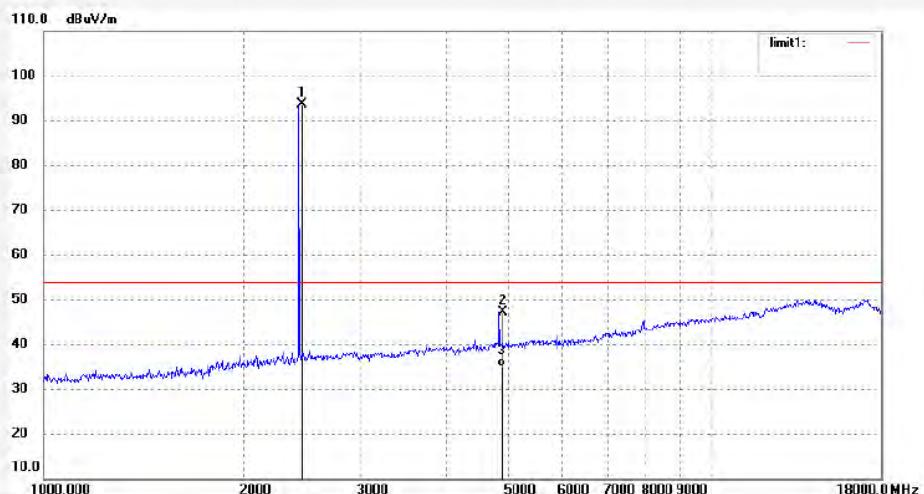
Mode: TX 2441MHz

Distance: 3m

Model: NS-CAHBTEB01

Manufacturer:

Note: Bluetooth 3.0



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2441.000	101.02	-7.35	93.67	/	/	peak			
2	4882.016	46.92	0.14	47.06	74.00	-26.94	peak			
3	4882.016	34.76	0.14	34.90	54.00	-19.10	AVG			

Figure 14: Test figure of spurious emissions, mode A.2, Vertical polarity (1GHz – 18GHz)

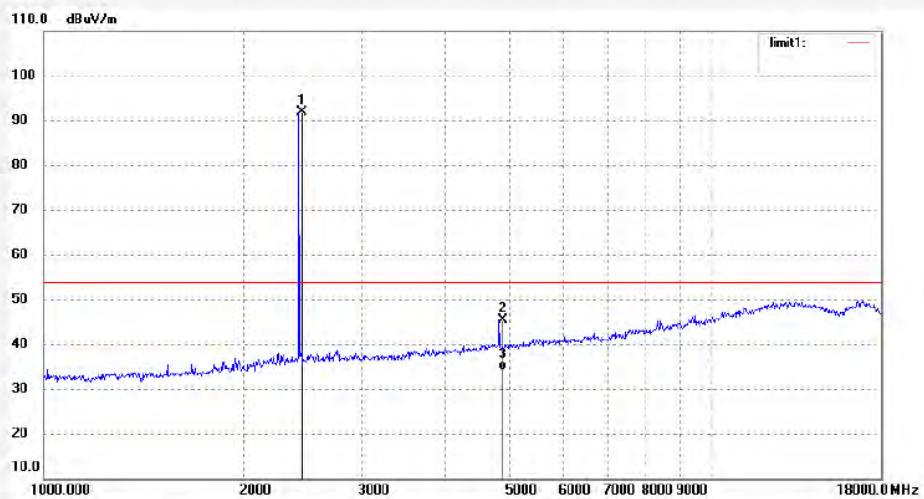


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Site: 2# Chamber
Tel:+86-0755-26503290
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Job No.: Ian2015-2 #416	Polarization: Vertical
Standard: FCC Class B 3M Radiated	Power Source: DC 3.7V
Test item: Radiation Test	Date: 15/04/02/
Temp.(C)/Hum.(%) 23 C / 48 %	Time:
EUT: Bluetooth In-ear Headset	Engineer Signature:
Mode: TX 2441MHz	Distance: 3m
Model: NS-CAHBTEB01	
Manufacturer:	
Note: Bluetooth 3.0	



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2441.000	99.16	-7.35	91.81	/	/	peak			
2	4882.024	45.36	0.14	45.50	74.00	-28.50	peak			
3	4882.024	34.05	0.14	34.19	54.00	-19.81	AVG			

Figure 15: Test figure of spurious emissions, mode A.2, Horizontal polarity (18GHz – 25GHz)



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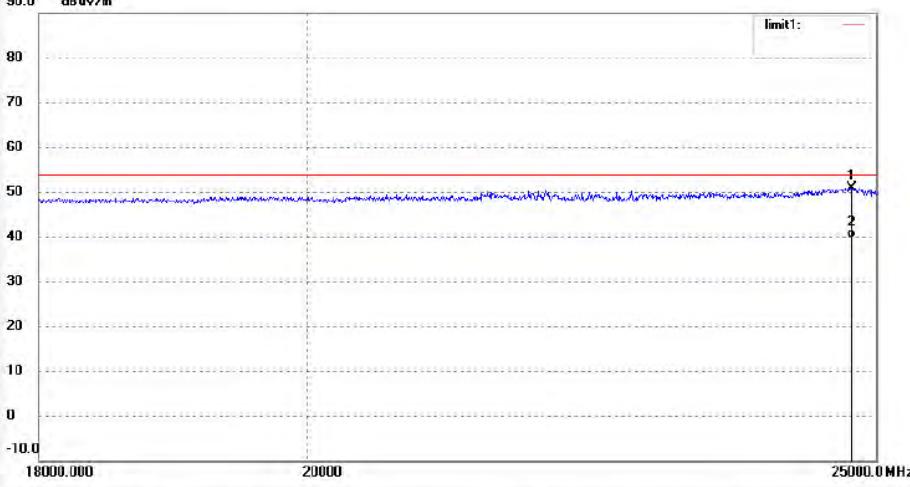
Job No.: Ian2015-2 #435	Polarization: Horizontal									
Standard: FCC Class B 3M Radiated	Power Source: DC 3.7V									
Test item: Radiation Test	Date: 15/04/02/									
Temp.(C)/Hum.(%) 23 C / 48 %	Time:									
EUT: Bluetooth In-ear Headset	Engineer Signature:									
Mode: TX 2441MHz	Distance: 3m									
Model: NS-CAHBTEB01										
Manufacturer:										
Note: Bluetooth 3.0										
										
No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	24770.645	34.32	16.65	50.97	74.00	-23.03	peak			
2	24770.645	23.05	16.65	39.70	54.00	-14.30	AVG			

Figure 16: Test figure of spurious emissions, mode A.2, Vertical polarity (18GHz – 25GHz)



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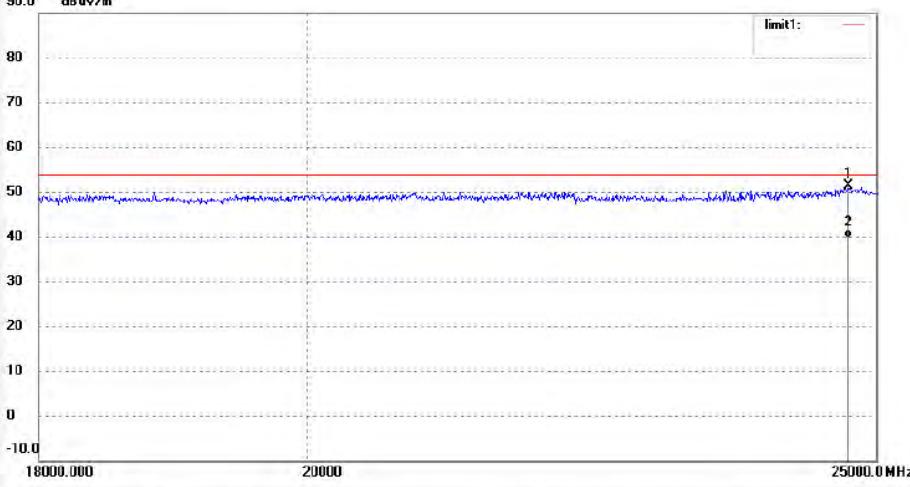
Job No.: Ian2015-2 #434	Polarization: Vertical									
Standard: FCC Class B 3M Radiated	Power Source: DC 3.7V									
Test item: Radiation Test	Date: 15/04/02/									
Temp.(C)/Hum.(%) 23 C / 48 %	Time:									
EUT: Bluetooth In-ear Headset	Engineer Signature:									
Mode: TX 2441MHz	Distance: 3m									
Model: NS-CAHBTEB01										
Manufacturer:										
Note: Bluetooth 3.0										
										
No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	24738.052	34.65	16.67	51.32	74.00	-22.68	peak			
2	24738.052	22.99	16.67	39.66	54.00	-14.34	AVG			

Figure 17: Test figure of spurious emissions, mode A.3, Horizontal polarity (9kHz – 30MHz)

ACCURATE TECHNOLOGY CO., LTD

FCC Class B 3M Radiated

EUT: Bluetooth In-ear Headset M/N: NS-CAHBTEB01
 Manufacturer:
 Operating Condition: TX 2480MHz
 Test Site: 2#Chamber
 Operator: LAN
 Test Specification: DC 3.7V
 Comment: X
 Start of Test: 2015-4-3 /

SCAN TABLE: "LFRE Fin"

Start	Stop	Step	Detector	Meas.	IF	Transducer
Frequency	Frequency	Width				
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

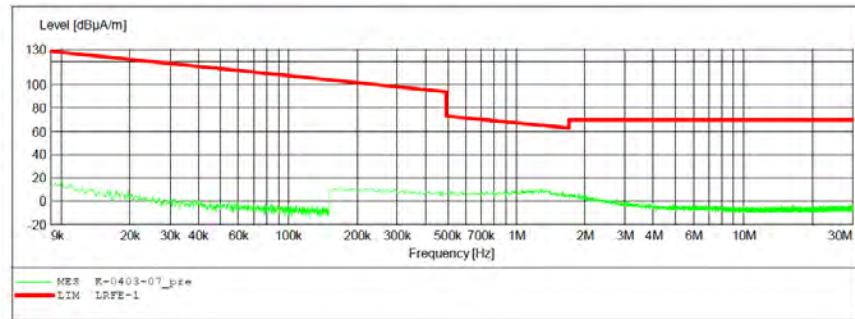


Figure 18: Test figure of spurious emissions, mode A.3, Vertical polarity (9kHz – 30MHz)

ACCURATE TECHNOLOGY CO., LTD

FCC Class B 3M Radiated

EUT: Bluetooth In-ear Headset M/N: NS-CAHBTEB01
 Manufacturer:
 Operating Condition: TX 2480MHz
 Test Site: 2#Chamber
 Operator: LAN
 Test Specification: DC 3.7V
 Comment: Y
 Start of Test: 2015-4-3 /

SCAN TABLE: "LFRE Fin"

Start	Stop	Step	Detector	Meas.	IF	Transducer
Frequency	Frequency	Width				
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

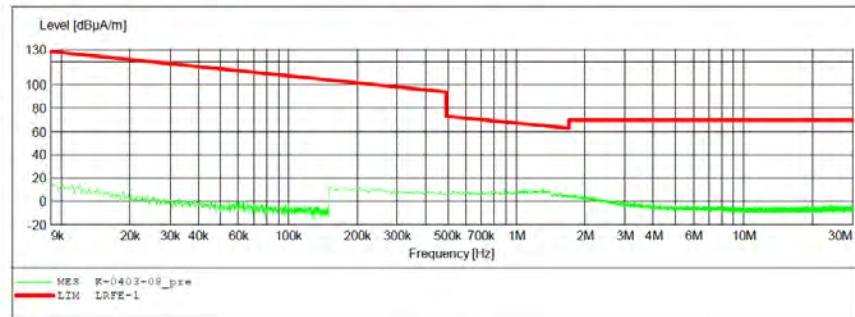


Figure 19: Test figure of spurious emissions, mode A.3, Horizontal polarity (30MHz – 1GHz)

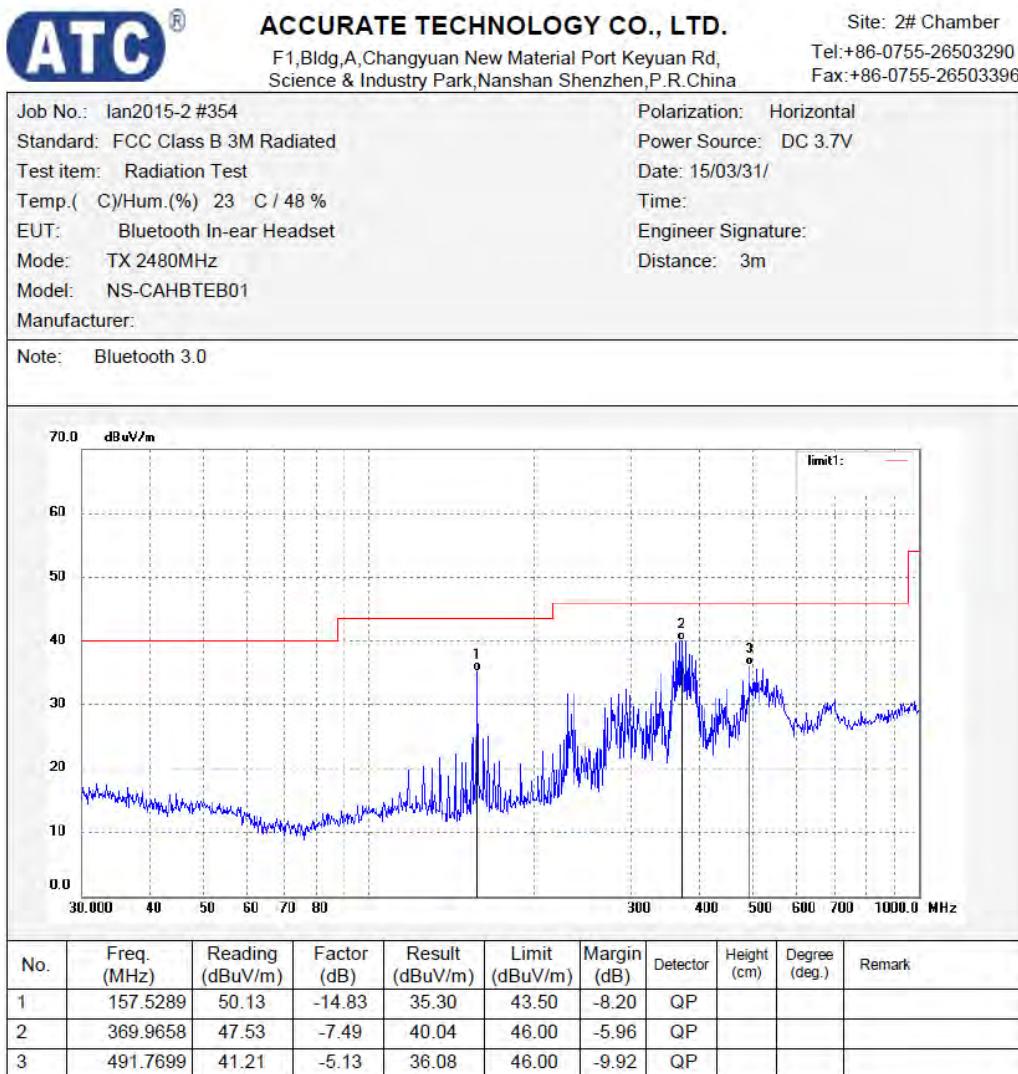


Figure 20: Test figure of spurious emissions, mode A.3, Vertical polarity (30MHz – 1GHz)

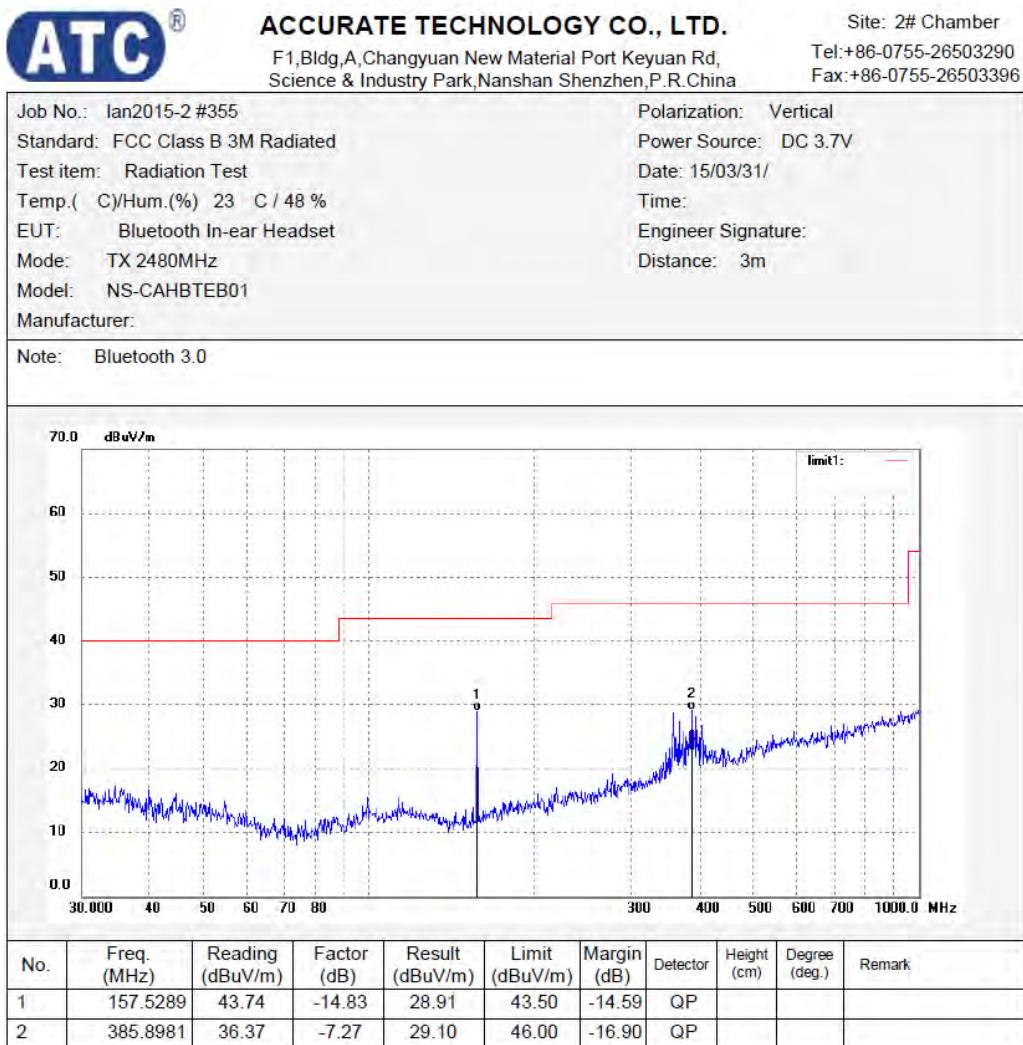


Figure 21: Test figure of spurious emissions, mode A.3, Horizontal polarity (1GHz –18GHz)



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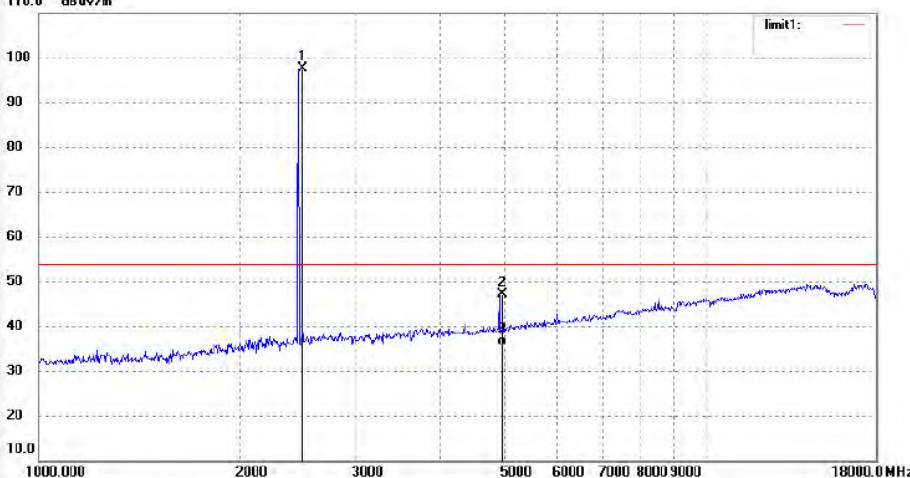
Job No.: Ian2015-2 #418	Polarization: Horizontal									
Standard: FCC Class B 3M Radiated	Power Source: DC 3.7V									
Test item: Radiation Test	Date: 15/04/02/									
Temp.(C)/Hum.(%) 23 C / 48 %	Time:									
EUT: Bluetooth In-ear Headset	Engineer Signature:									
Mode: TX 2480MHz	Distance: 3m									
Model: NS-CAHBTEB01										
Manufacturer:										
Note: Bluetooth 3.0										
										
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	104.99	-7.37	97.62	/	/	peak			
2	4960.030	46.73	0.52	47.25	74.00	-26.75	peak			
3	4960.030	35.02	0.52	35.54	54.00	-18.46	AVG			

Figure 22: Test figure of spurious emissions, mode A.3, Vertical polarity (1GHz – 18GHz)



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Job No.: Ian2015-2 #419

Polarization: Vertical

Standard: FCC Class B 3M Radiated

Power Source: DC 3.7V

Test item: Radiation Test

Date: 15/04/02/

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

Time:

EUT: Bluetooth In-ear Headset

Engineer Signature:

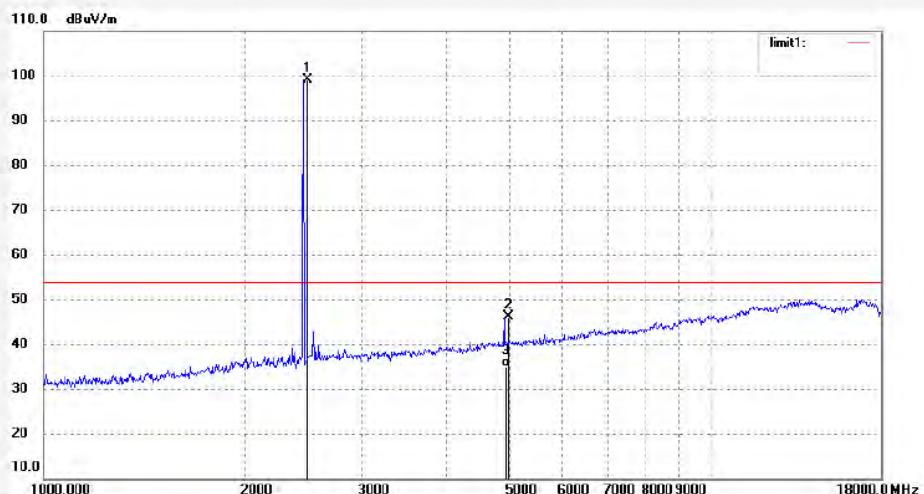
Mode: TX 2480MHz

Distance: 3m

Model: NS-CAHBTEB01

Manufacturer:

Note: Bluetooth 3.0



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	106.42	-7.37	99.05	/	/	peak			
2	4960.018	45.51	0.52	46.03	74.00	-27.97	peak			
3	4960.018	34.32	0.52	34.84	54.00	-19.16	AVG			

Figure 23: Test figure of spurious emissions, mode A.3, Horizontal polarity (18GHz –25GHz)

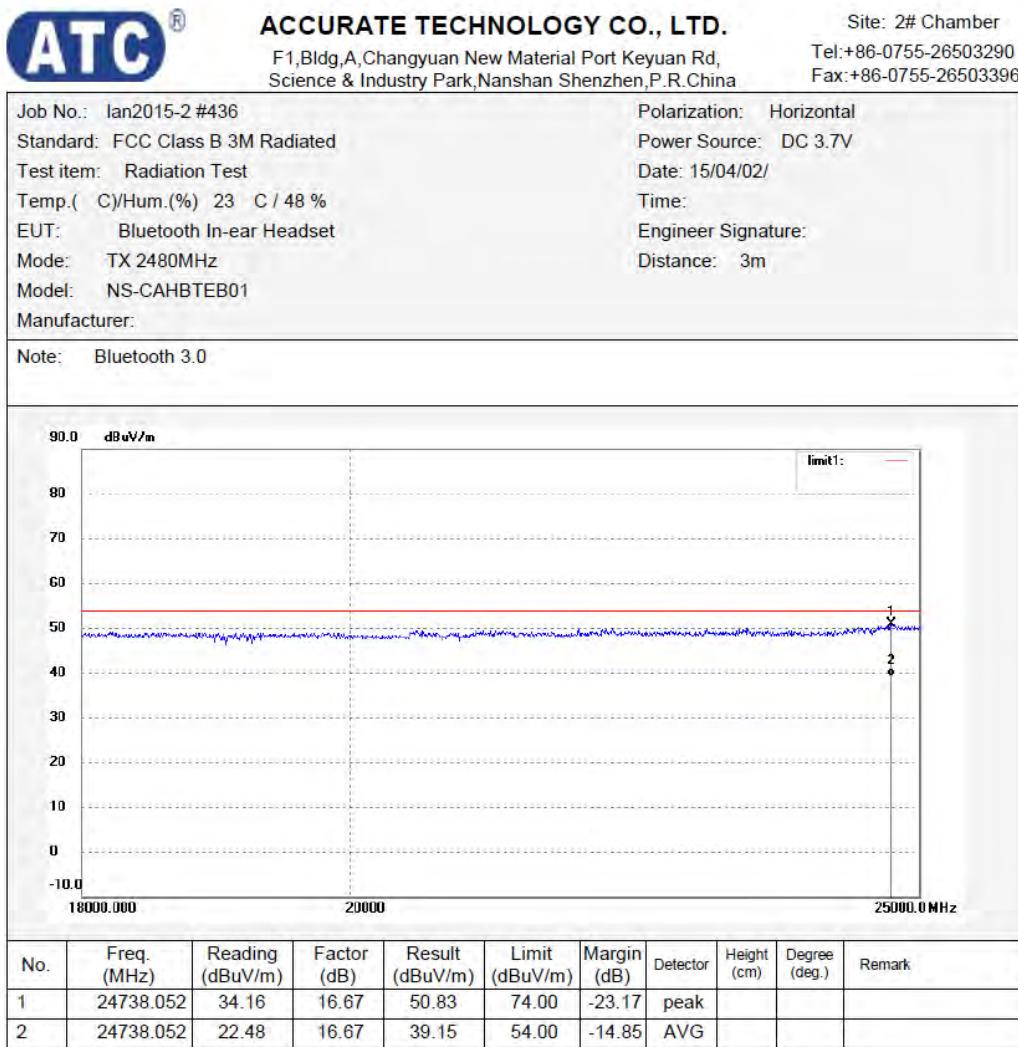


Figure 24: Test figure of spurious emissions, mode A.3, Vertical polarity (18GHz – 25GHz)



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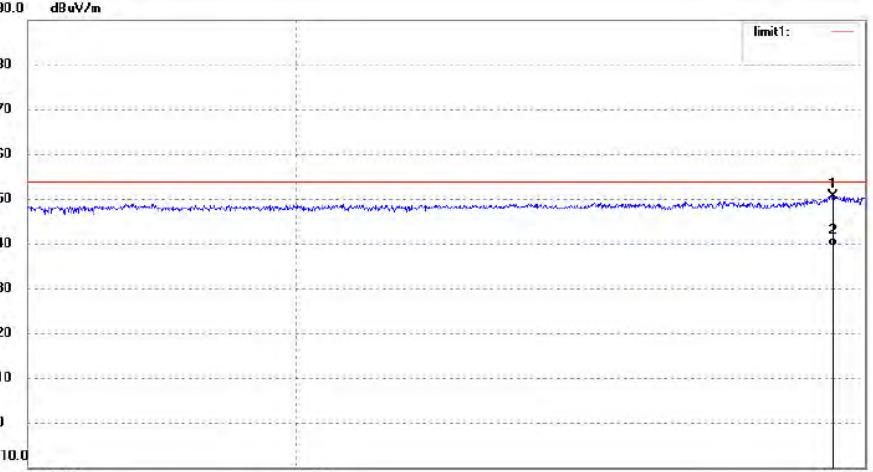
Job No.: Ian2015-2 #437	Polarization: Vertical									
Standard: FCC Class B 3M Radiated	Power Source: DC 3.7V									
Test item: Radiation Test	Date: 15/04/02/									
Temp.(C)/Hum.(%) 23 C / 48 %	Time:									
EUT: Bluetooth In-ear Headset	Engineer Signature:									
Mode: TX 2480MHz	Distance: 3m									
Model: NS-CAHBTEB01										
Manufacturer:										
Note: Bluetooth 3.0										
										
No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	24689.243	34.02	16.70	50.72	74.00	-23.28	peak			
2	24689.243	22.78	16.70	39.48	54.00	-14.52	AVG			

Figure 25: Test figure of spurious emissions, mode B.1, Horizontal polarity (9kHz – 30MHz)

ACCURATE TECHNOLOGY CO., LTD

FCC Class B 3M Radiated

EUT: Bluetooth In-ear Headset M/N: NS-CAHBTEB01
 Manufacturer:
 Operating Condition: TX 2402MHz
 Test Site: 2#Chamber
 Operator: LAN
 Test Specification: DC 3.7V
 Comment: X
 Start of Test: 2015-4-3 /

SCAN TABLE: "LFRE_Fin"

Start	Stop	Step	Detector	Meas.	IF	Transducer
Frequency	Frequency	Width				
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

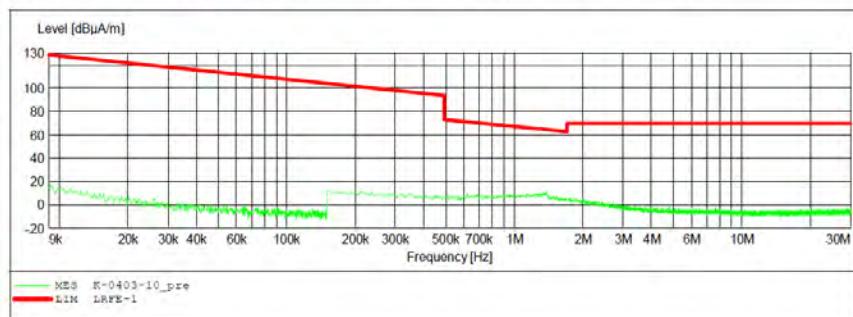


Figure 26: Test figure of spurious emissions, mode B.1, Vertical polarity (9kHz – 30MHz)

ACCURATE TECHNOLOGY CO., LTD

FCC Class B 3M Radiated

EUT: Bluetooth In-ear Headset M/N: NS-CAHBTEB01
 Manufacturer:
 Operating Condition: TX 2402MHz
 Test Site: 2#Chamber
 Operator: LAN
 Test Specification: DC 3.7V
 Comment: Y
 Start of Test: 2015-4-3 /

SCAN TABLE: "LFRE_Fin"

Start	Stop	Step	Detector	Meas.	IF	Transducer
Frequency	Frequency	Width				
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

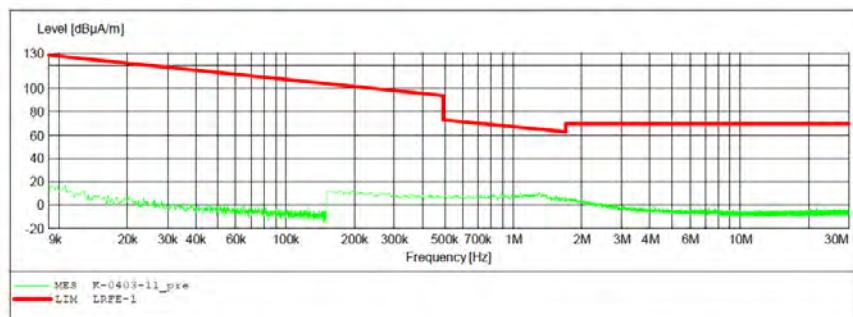


Figure 27: Test figure of spurious emissions, mode B.1, Horizontal polarity (30MHz – 1GHz)

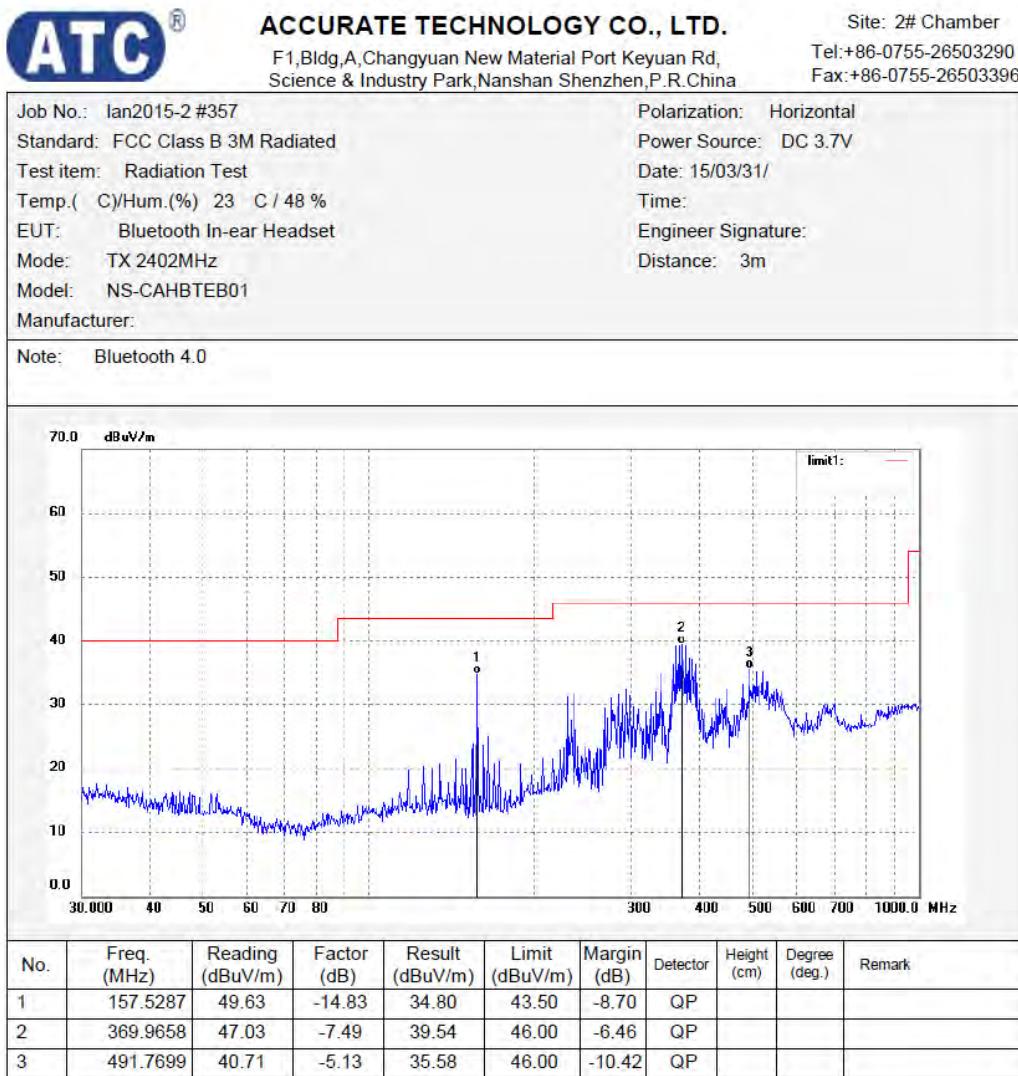


Figure 28: Test figure of spurious emissions, mode B.1, Vertical polarity (30MHz – 1GHz)

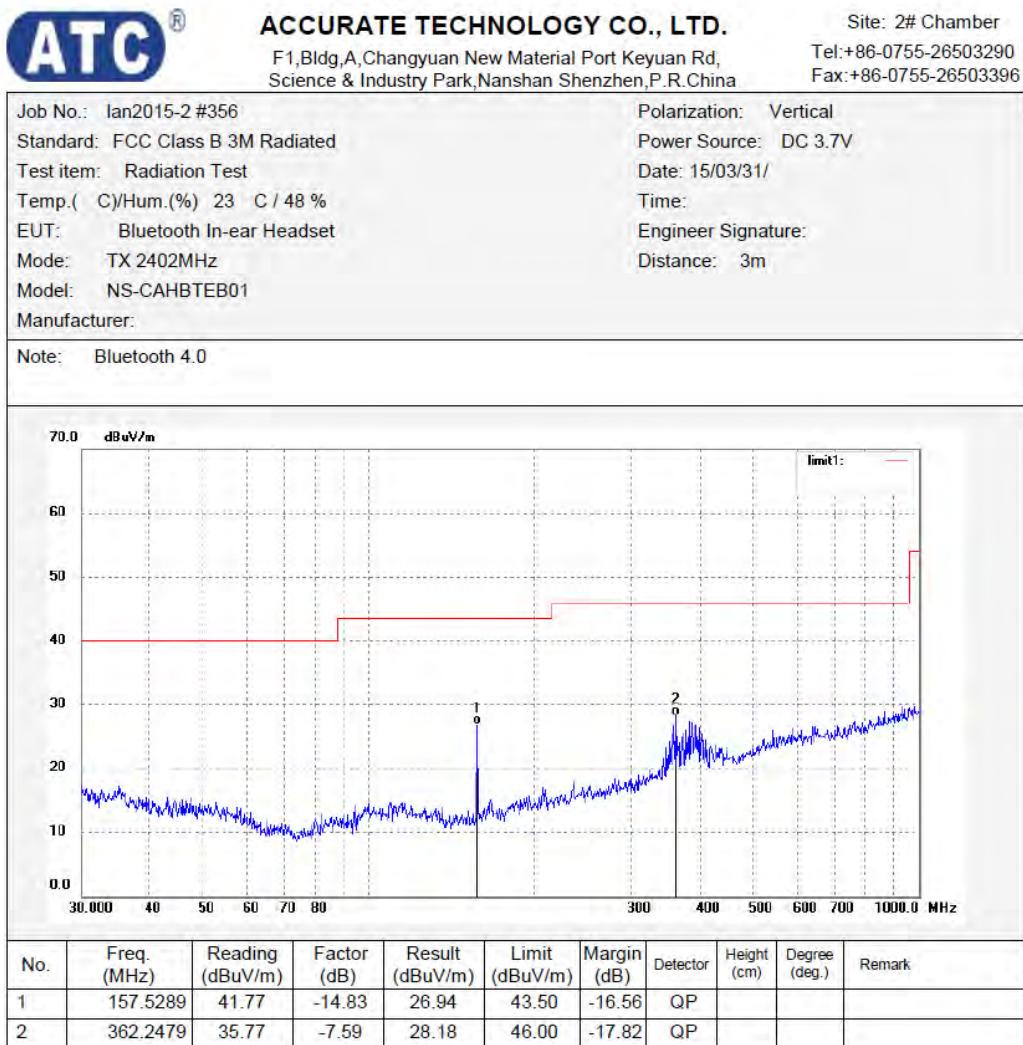


Figure 29: Test figure of spurious emissions, mode B.1, Horizontal polarity (1GHz –18GHz)

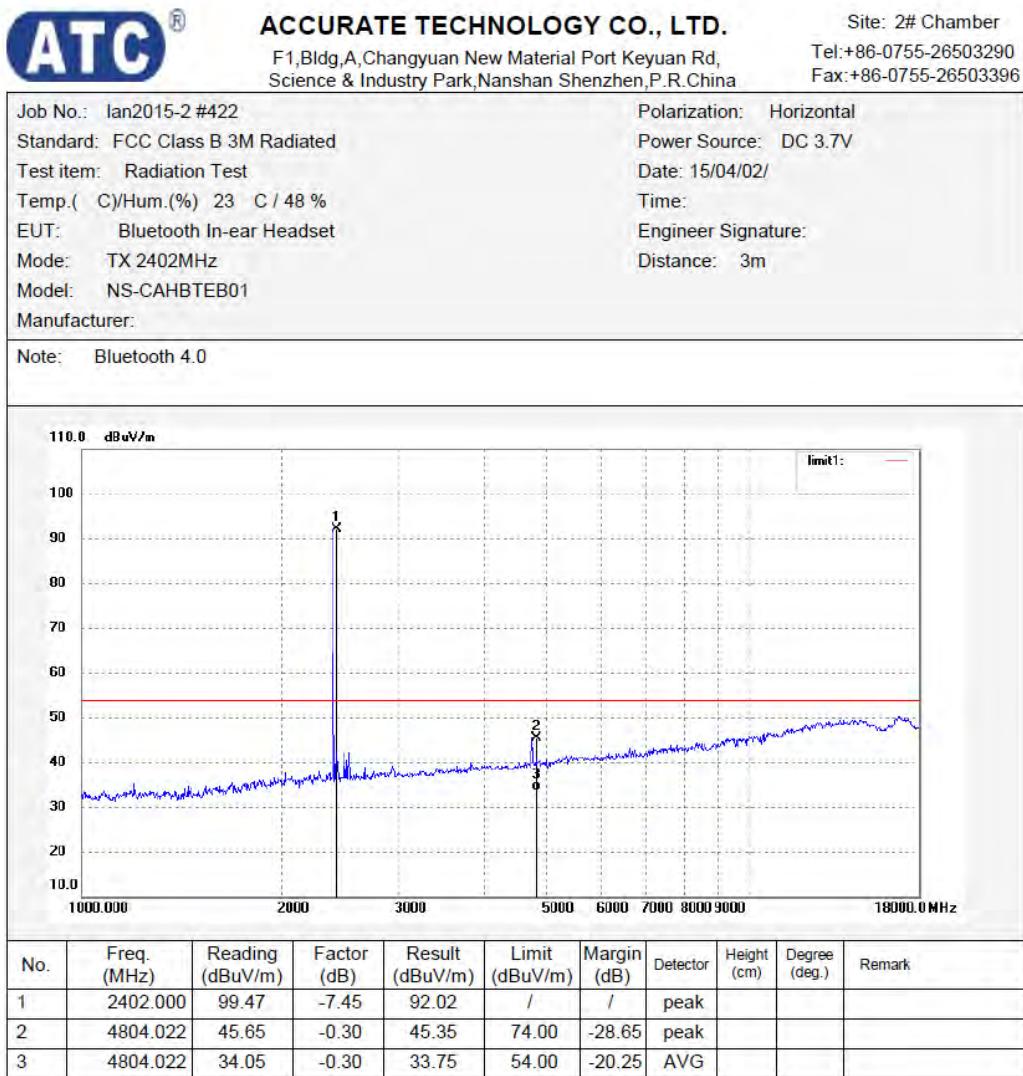


Figure 30: Test figure of spurious emissions, mode B.1, Vertical polarity (1GHz – 18GHz)



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Job No.: Ian2015-2 #423

Polarization: Vertical

Standard: FCC Class B 3M Radiated

Power Source: DC 3.7V

Test item: Radiation Test

Date: 15/04/02/

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

Time:

EUT: Bluetooth In-ear Headset

Engineer Signature:

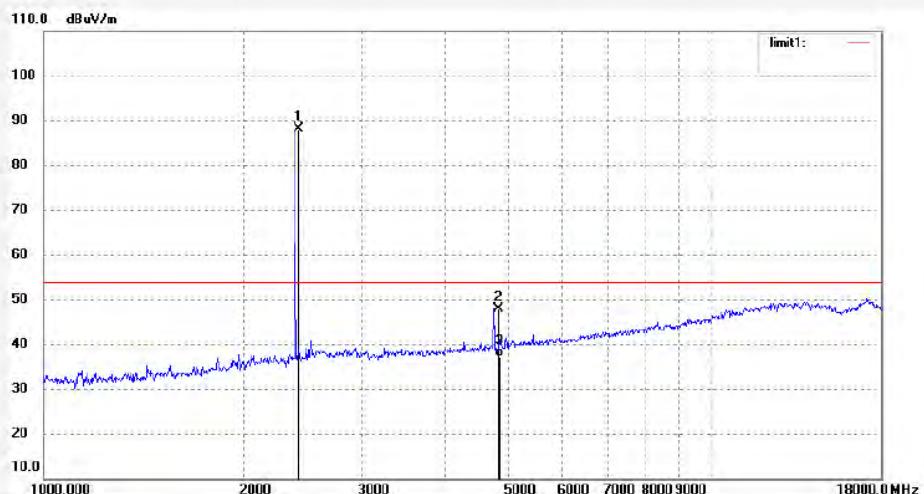
Mode: TX 2402MHz

Distance: 3m

Model: NS-CAHBTEB01

Manufacturer:

Note: Bluetooth 4.0



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	95.64	-7.45	88.19	/	/	peak			
2	4804.033	48.18	-0.30	47.88	74.00	-26.12	peak			
3	4804.033	37.43	-0.30	37.13	54.00	-16.87	AVG			

Figure 31: Test figure of spurious emissions, mode B.1, Horizontal polarity (18GHz –25GHz)

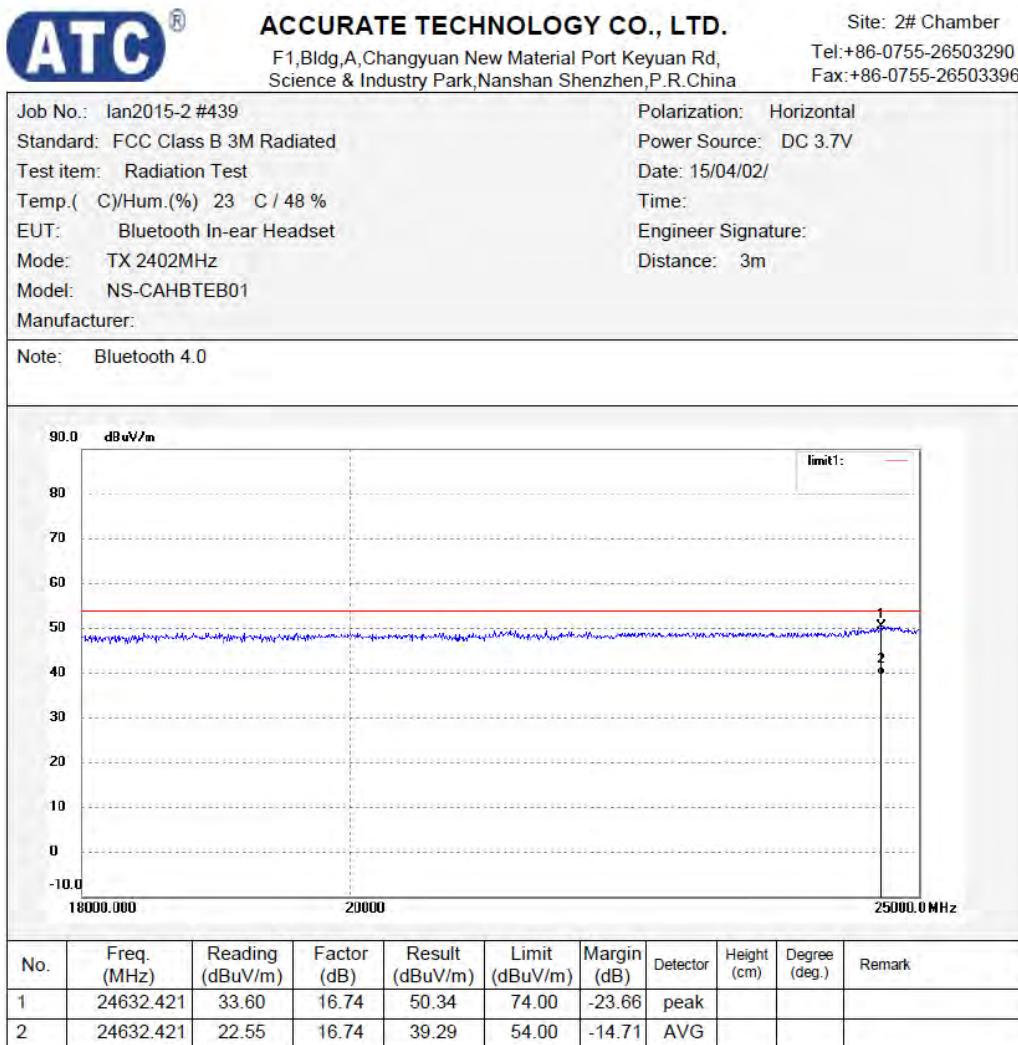


Figure 32: Test figure of spurious emissions, mode B.1, Vertical polarity (18GHz – 25GHz)

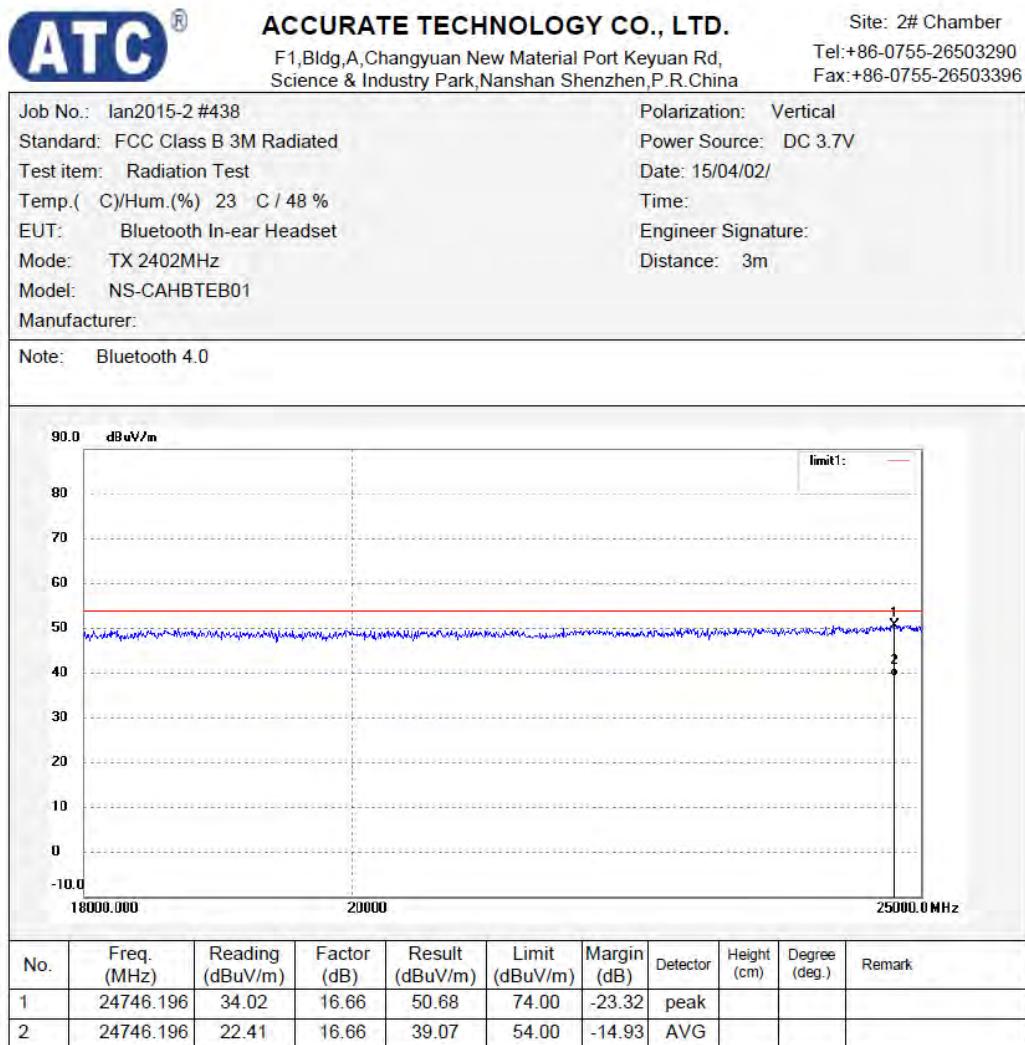


Figure 33: Test figure of spurious emissions, mode B.2, Horizontal polarity (9kHz – 30MHz)

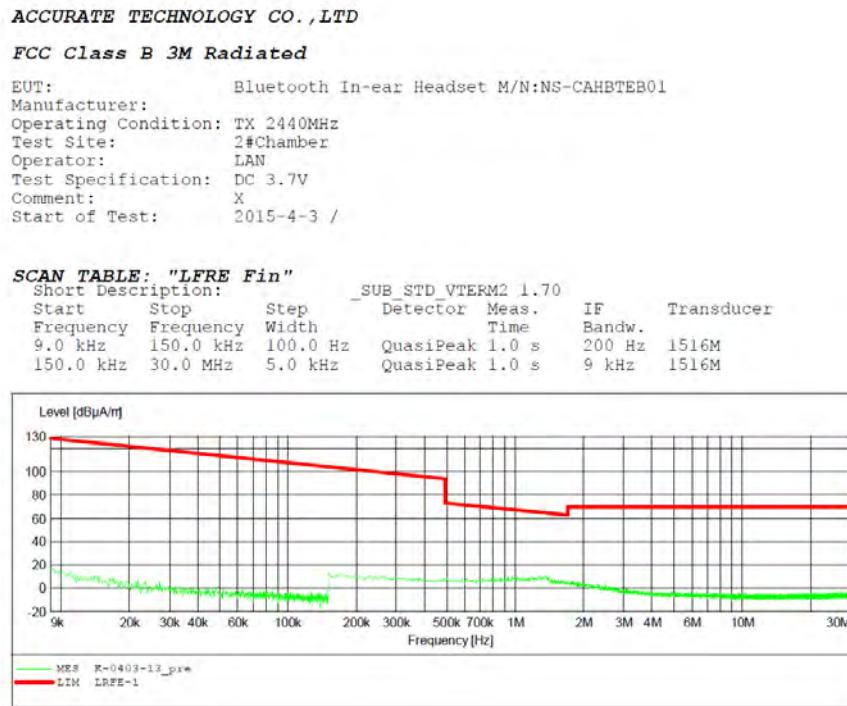


Figure 34: Test figure of spurious emissions, mode B.2, Vertical polarity (9kHz – 30MHz)

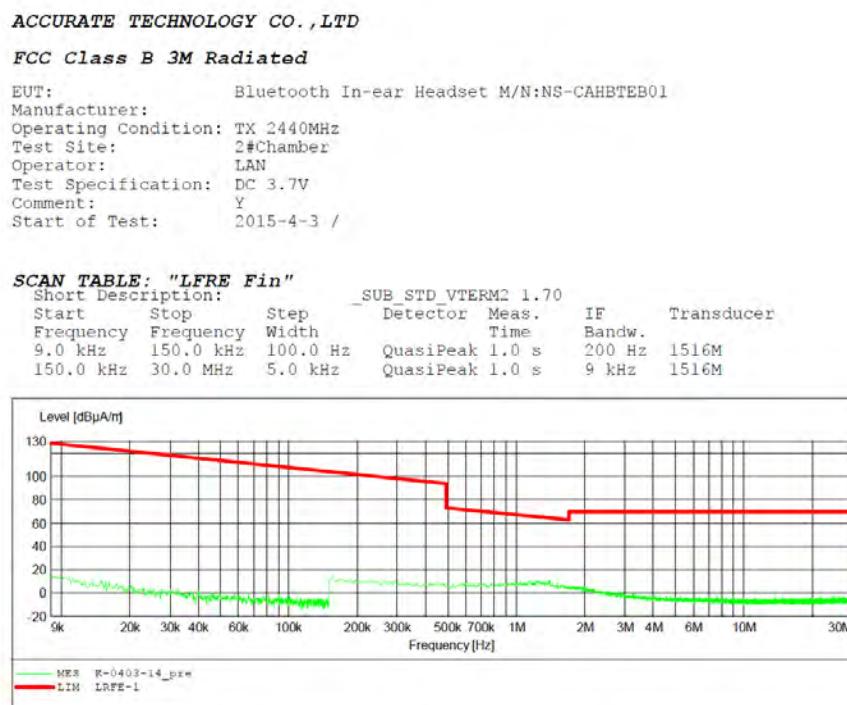


Figure 35: Test figure of spurious emissions, mode B.2, Horizontal polarity (30MHz – 1GHz)

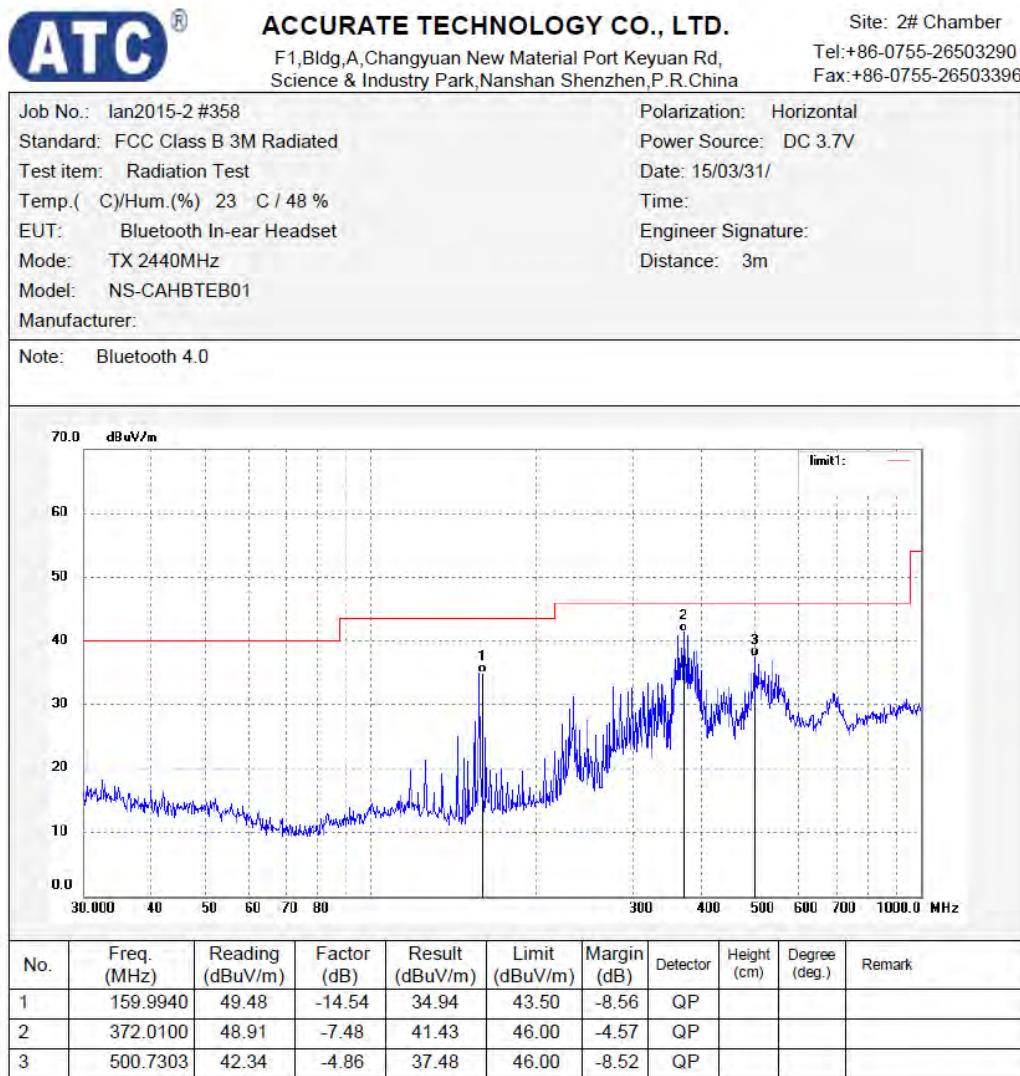


Figure 36: Test figure of spurious emissions, mode B.2, Vertical polarity (30MHz – 1GHz)

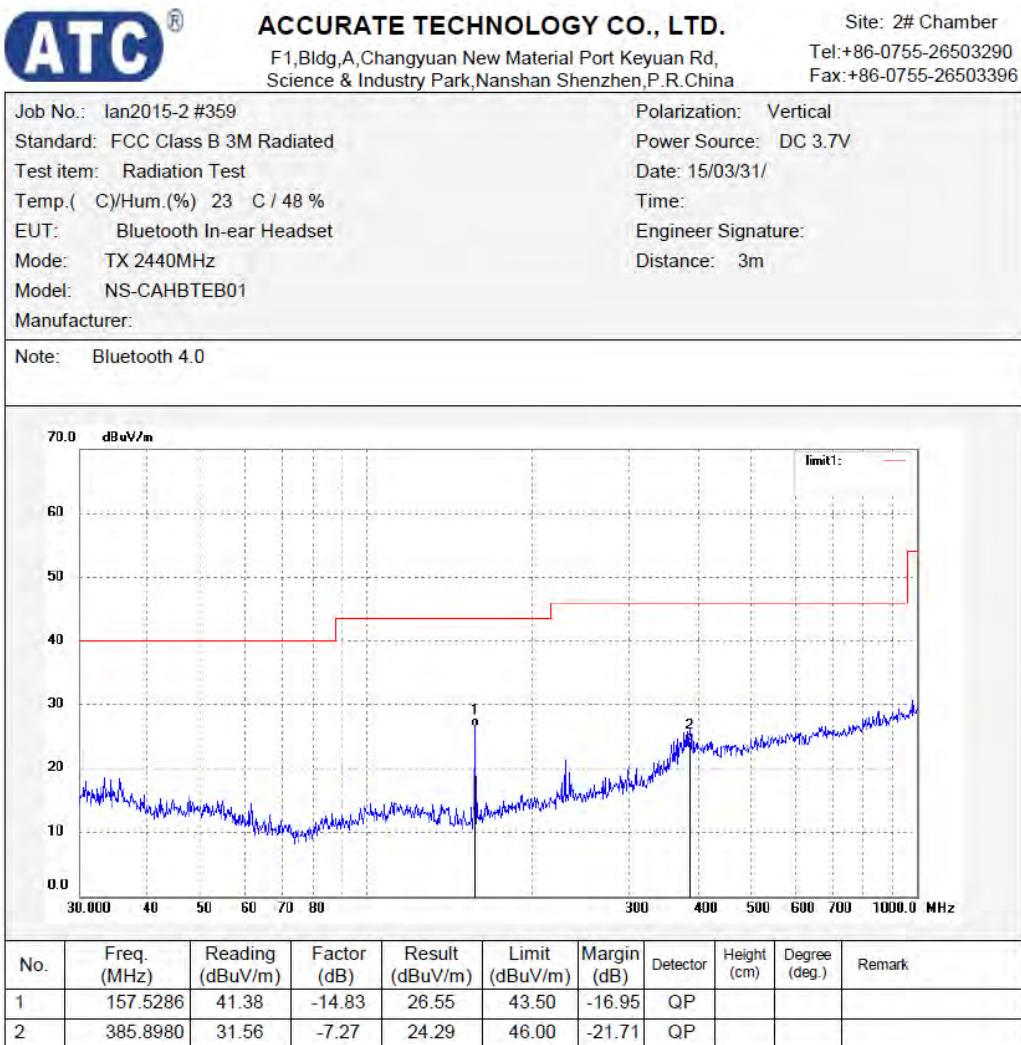


Figure 37: Test figure of spurious emissions, mode B.2, Horizontal polarity (1GHz – 18GHz)



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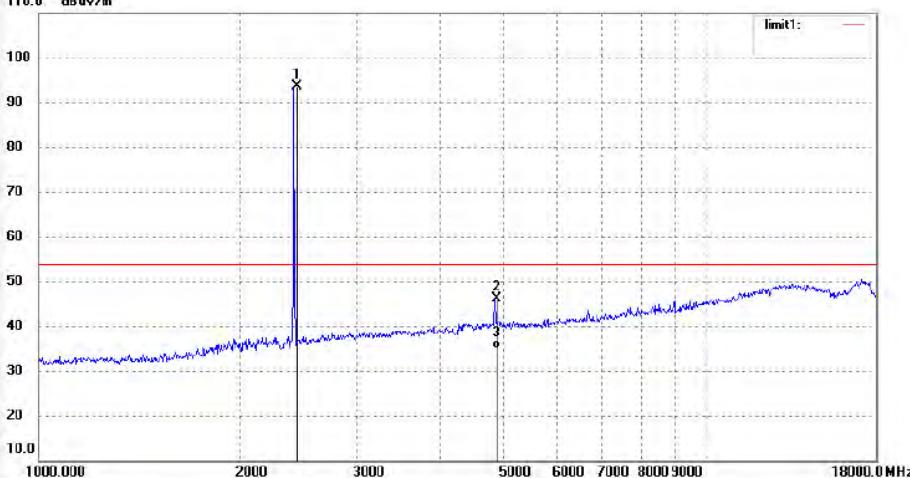
Job No.: Ian2015-2 #427	Polarization: Horizontal									
Standard: FCC Class B 3M Radiated	Power Source: DC 3.7V									
Test item: Radiation Test	Date: 15/04/02/									
Temp.(C)/Hum.(%) 23 C / 48 %	Time:									
EUT: Bluetooth In-ear Headset	Engineer Signature:									
Mode: TX 2440MHz	Distance: 3m									
Model: NS-CAHBTEB01										
Manufacturer:										
Note: Bluetooth 4.0										
										
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	101.04	-7.36	93.68	/	/	peak			
2	4880.011	46.07	0.13	46.20	74.00	-27.80	peak			
3	4880.011	34.86	0.13	34.99	54.00	-19.01	AVG			

Figure 38: Test figure of spurious emissions, mode B.2, Vertical polarity (1GHz – 18GHz)

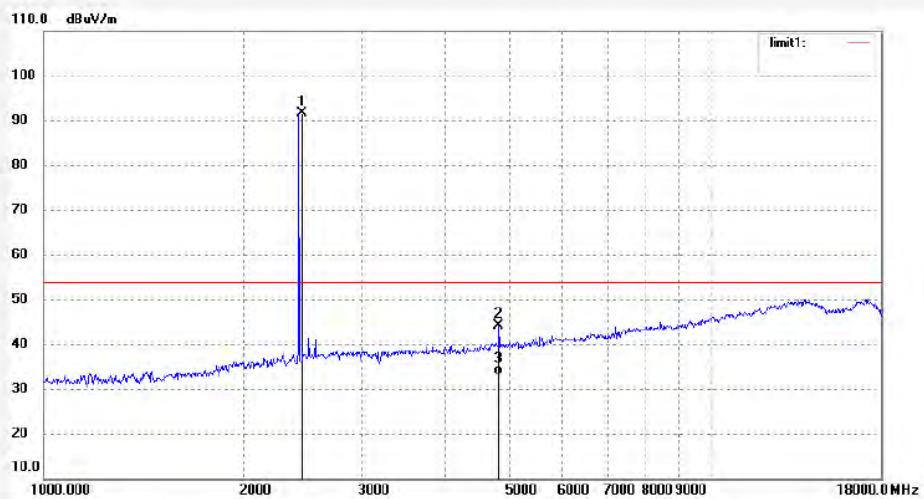


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Site: 2# Chamber
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Job No.: Ian2015-2 #426	Polarization: Vertical
Standard: FCC Class B 3M Radiated	Power Source: DC 3.7V
Test item: Radiation Test	Date: 15/04/02/
Temp.(C)/Hum.(%) 23 C / 48 %	Time:
EUT: Bluetooth In-ear Headset	Engineer Signature:
Mode: TX 2440MHz	Distance: 3m
Model: NS-CAHBTEB01	
Manufacturer:	
Note: Bluetooth 4.0	



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	98.88	-7.36	91.52	/	/	peak			
2	4880.032	44.39	-0.23	44.16	74.00	-29.84	peak			
3	4880.032	33.42	-0.23	33.19	54.00	-20.81	AVG			

Figure 39: Test figure of spurious emissions, mode B.2, Horizontal polarity (18GHz – 25GHz)

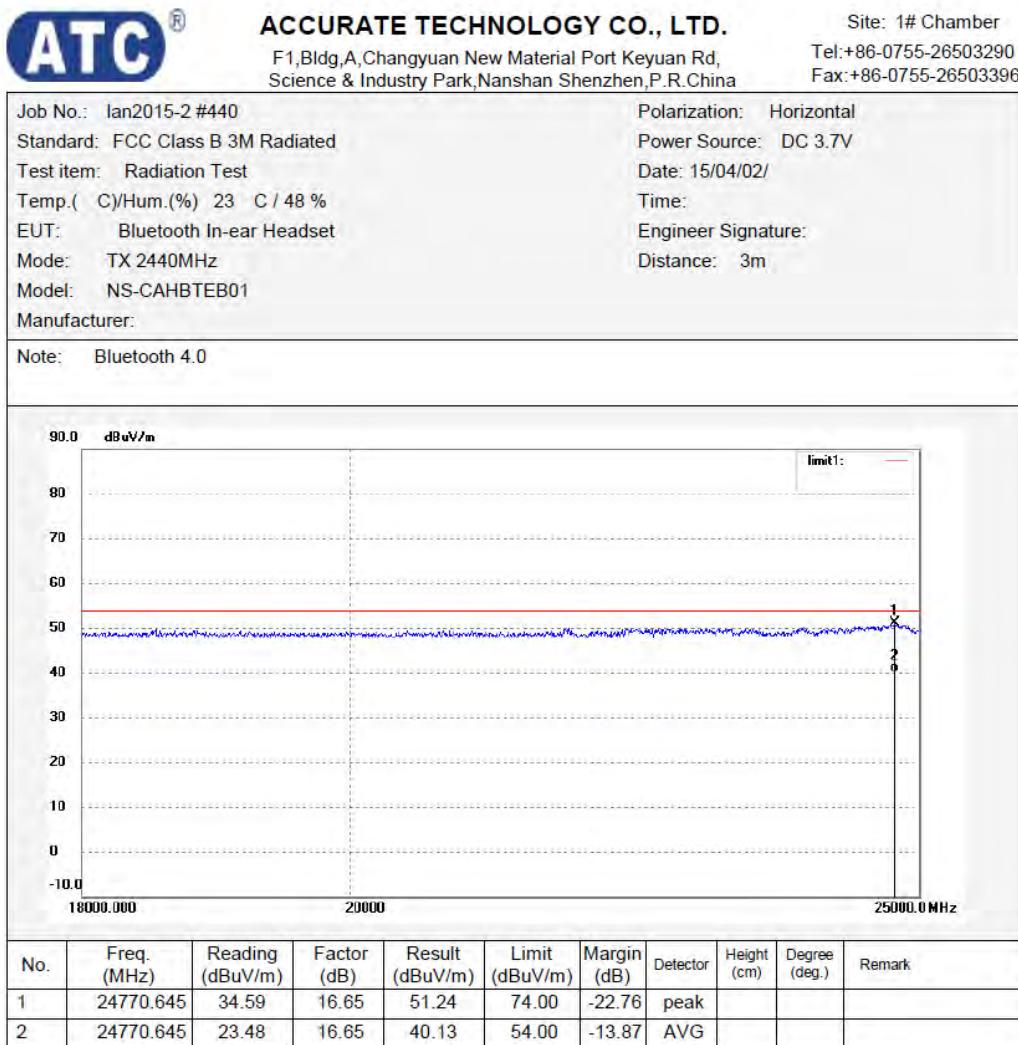


Figure 40: Test figure of spurious emissions, mode B.2, Vertical polarity (18GHz – 25GHz)



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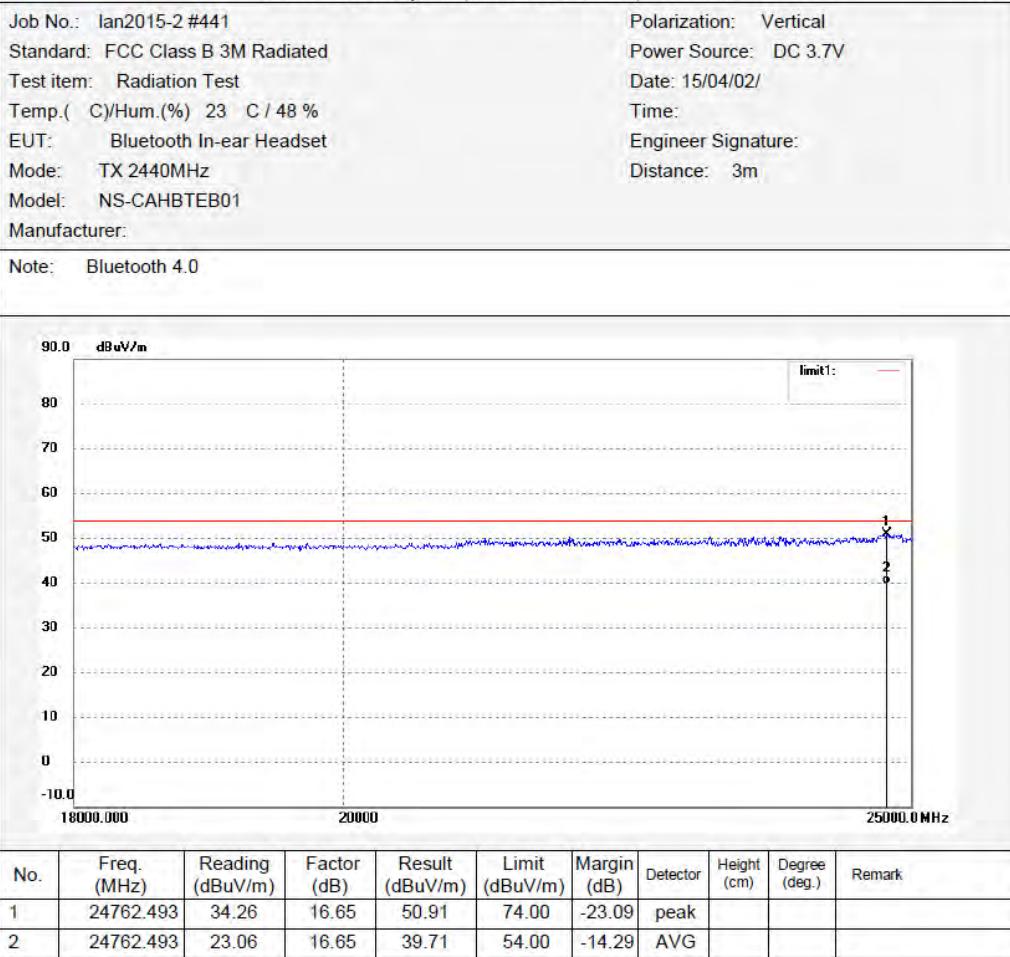


Figure 41: Test figure of spurious emissions, mode B.3, Horizontal polarity (9kHz – 30MHz)

ACCURATE TECHNOLOGY CO., LTD

FCC Class B 3M Radiated

EUT: Bluetooth In-ear Headset M/N: NS-CAHBTEB01
 Manufacturer:
 Operating Condition: TX 2480MHz
 Test Site: 2#Chamber
 Operator: LAN
 Test Specification: DC 3.7V
 Comment: X
 Start of Test: 2015-4-3 /

SCAN TABLE: "LFRE Fin"

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	1516M
150.0 kHz	30.0 MHz	5.0 kHz	QuasiPeak	1.0 s	9 kHz	1516M

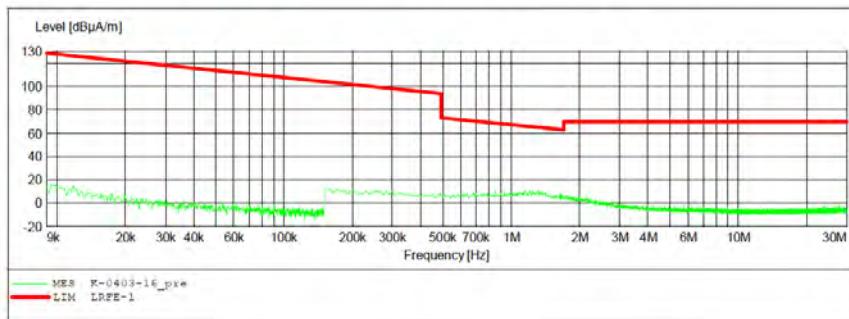


Figure 42: Test figure of spurious emissions, mode B.3, Vertical polarity (9kHz – 30MHz)

ACCURATE TECHNOLOGY CO., LTD

FCC Class B 3M Radiated

EUT: Bluetooth In-ear Headset M/N: NS-CAHBTEB01
 Manufacturer:
 Operating Condition: TX 2480MHz
 Test Site: 2#Chamber
 Operator: LAN
 Test Specification: DC 3.7V
 Comment: Y
 Start of Test: 2015-4-3 /

SCAN TABLE: "LFRE Fin"

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	1516M
150.0 kHz	30.0 MHz	5.0 kHz	QuasiPeak	1.0 s	9 kHz	1516M

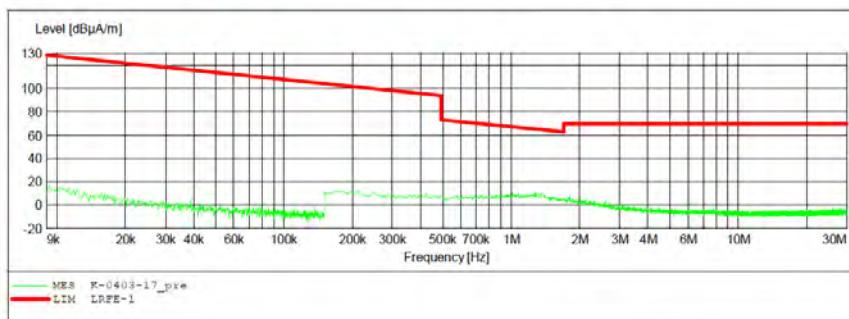


Figure 43: Test figure of spurious emissions, mode B.3, Horizontal polarity (30MHz – 1GHz)

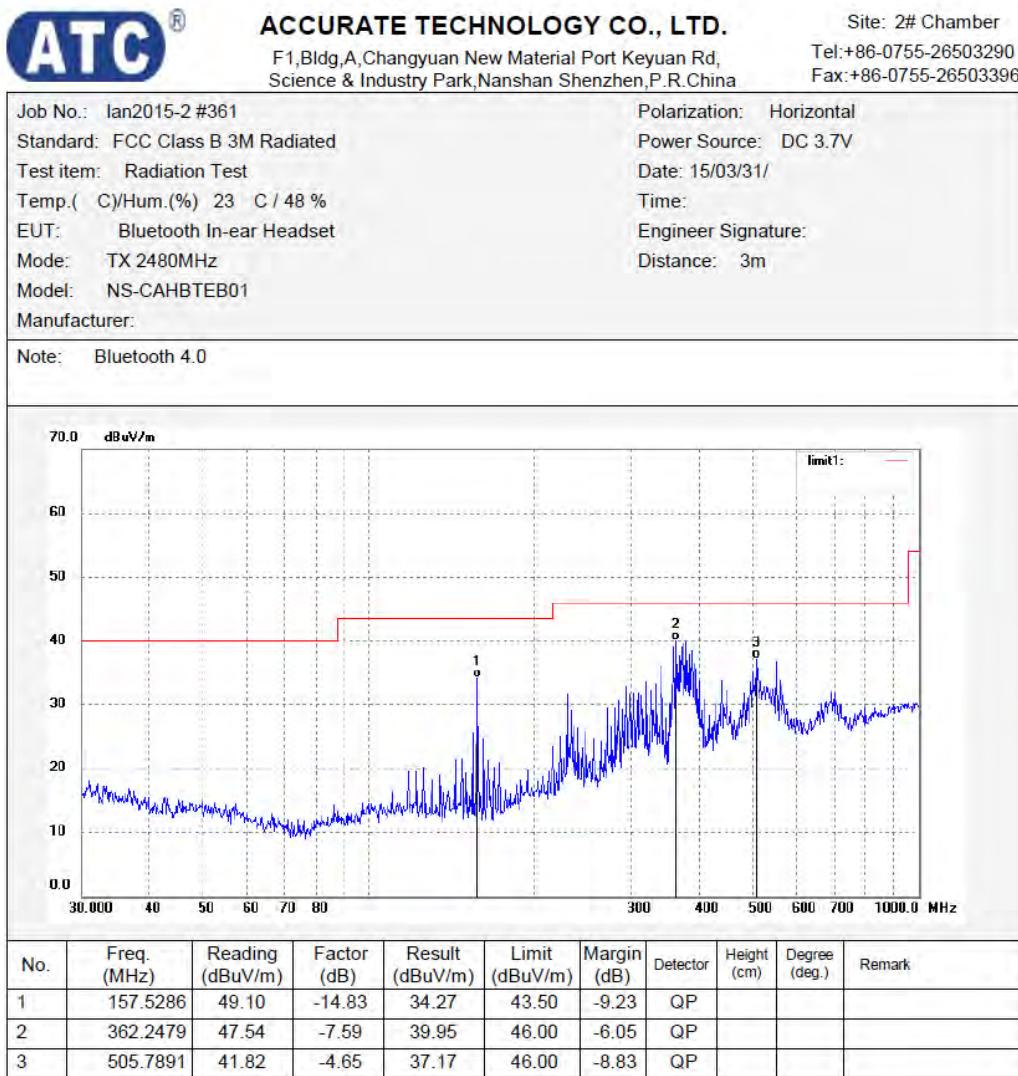


Figure 44: Test figure of spurious emissions, mode B.3, Vertical polarity (30MHz – 1GHz)

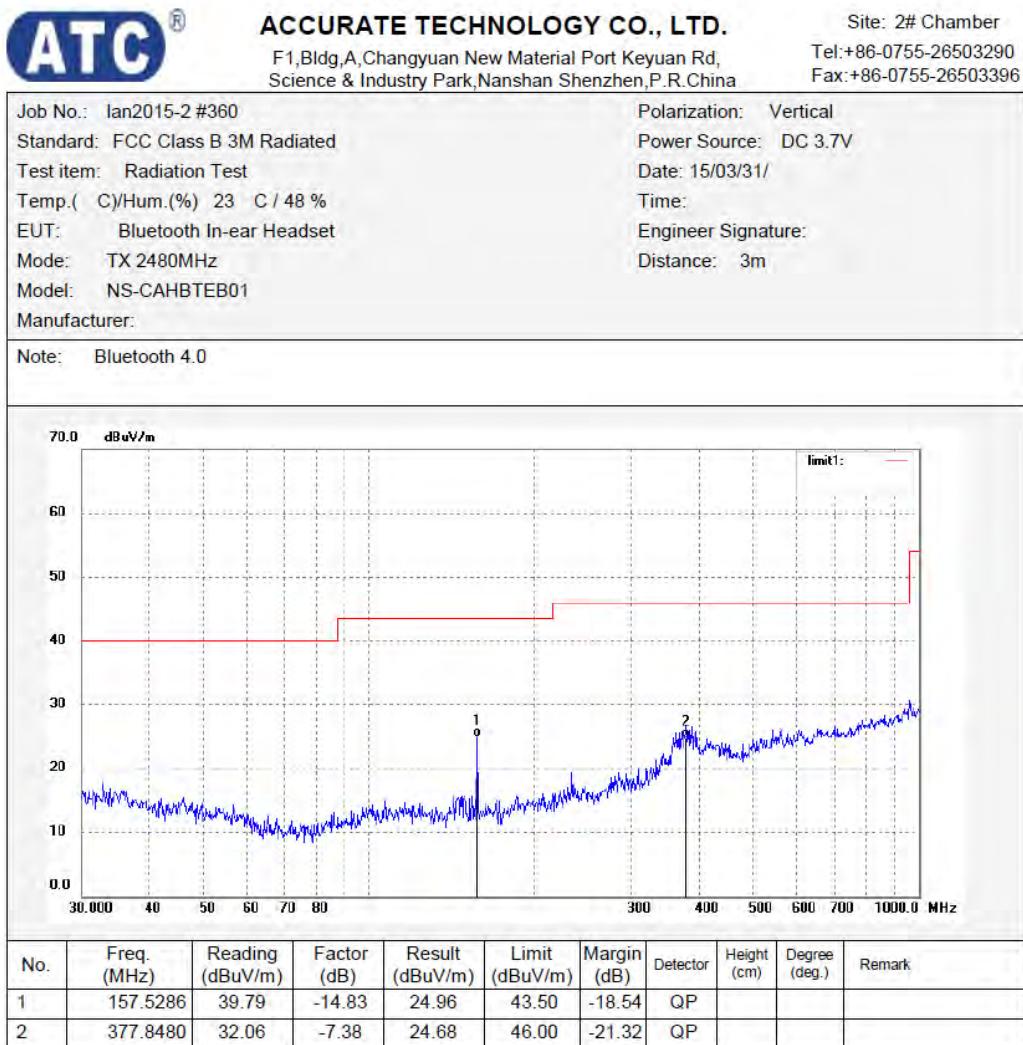


Figure 45: Test figure of spurious emissions, mode B.3, Horizontal polarity (1GHz –18GHz)



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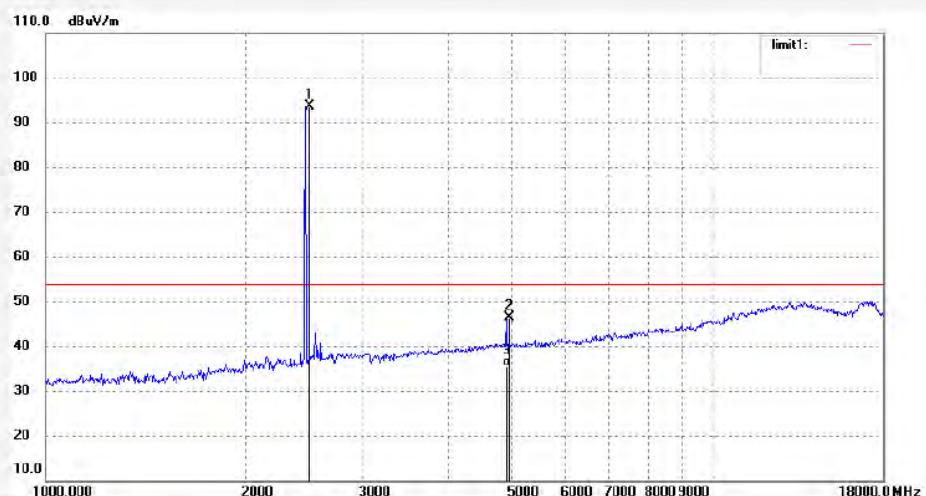
F1,Bldg,A,Changyuan New Material Port Keyuan Rd,
Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 2# Chamber

Tel:+86-0755-26503290

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Job No.: Ian2015-2 #428	Polarization: Horizontal
Standard: FCC Class B 3M Radiated	Power Source: DC 3.7V
Test item: Radiation Test	Date: 15/04/02/
Temp.(C)/Hum.(%) 23 C / 48 %	Time:
EUT: Bluetooth In-ear Headset	Engineer Signature:
Mode: TX 2480MHz	Distance: 3m
Model: NS-CAHBTEB01	
Manufacturer:	
Note: Bluetooth 4.0	



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	100.94	-7.37	93.57	/	/	peak			
2	4960.009	45.97	0.52	46.49	74.00	-27.51	peak			
3	4960.009	34.85	0.52	35.37	54.00	-18.63	AVG			

Figure 46: Test figure of spurious emissions, mode B.3, Vertical polarity (1GHz – 18GHz)



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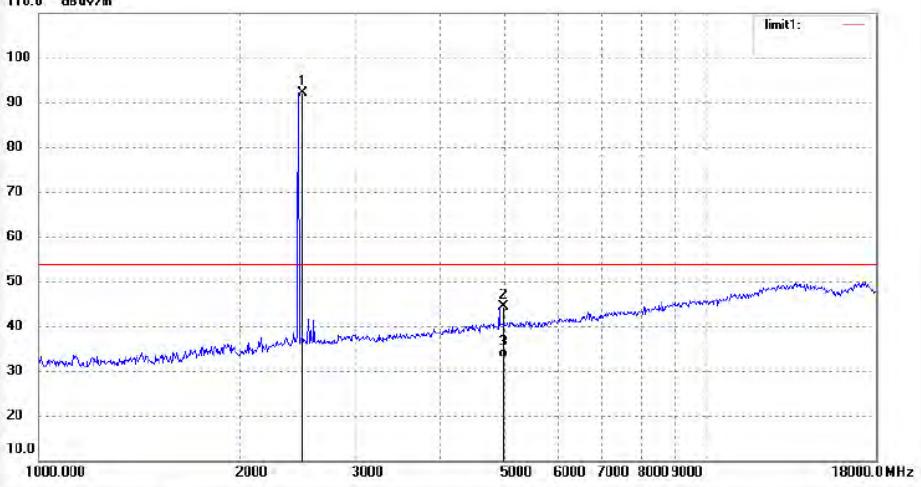
Job No.: Ian2015-2 #429	Polarization: Vertical									
Standard: FCC Class B 3M Radiated	Power Source: DC 3.7V									
Test item: Radiation Test	Date: 15/04/02/									
Temp.(C)/Hum.(%) 23 C / 48 %	Time:									
EUT: Bluetooth In-ear Headset	Engineer Signature:									
Mode: TX 2480MHz	Distance: 3m									
Model: NS-CAHBTEB01										
Manufacturer:										
Note: Bluetooth 4.0										
										
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	99.59	-7.37	92.22	/	/	peak			
2	4960.012	43.90	0.52	44.42	74.00	-29.58	peak			
3	4960.012	32.28	0.52	32.80	54.00	-21.20	AVG			

Figure 47: Test figure of spurious emissions, mode B.3, Horizontal polarity (18GHz –25GHz)

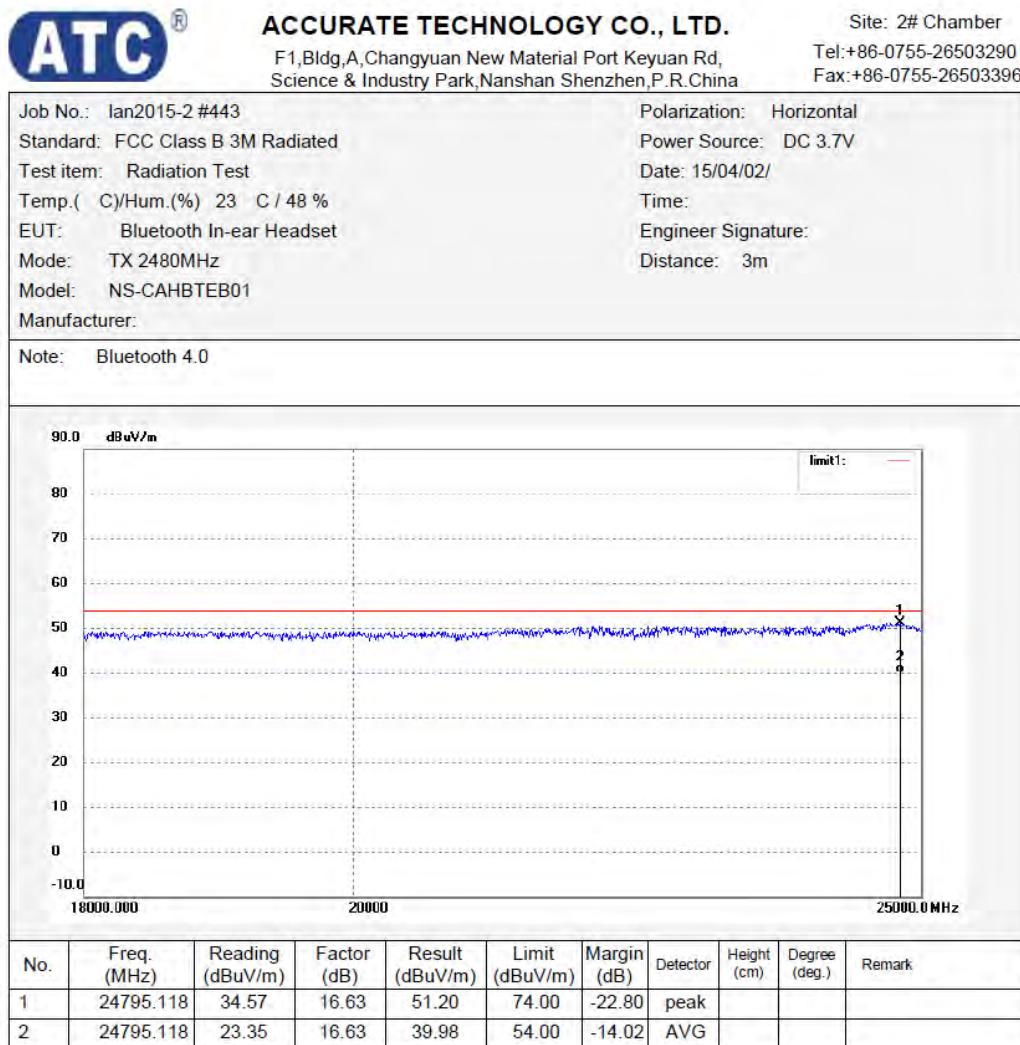


Figure 48: Test figure of spurious emissions, mode B.3, Vertical polarity (18GHz – 25GHz)

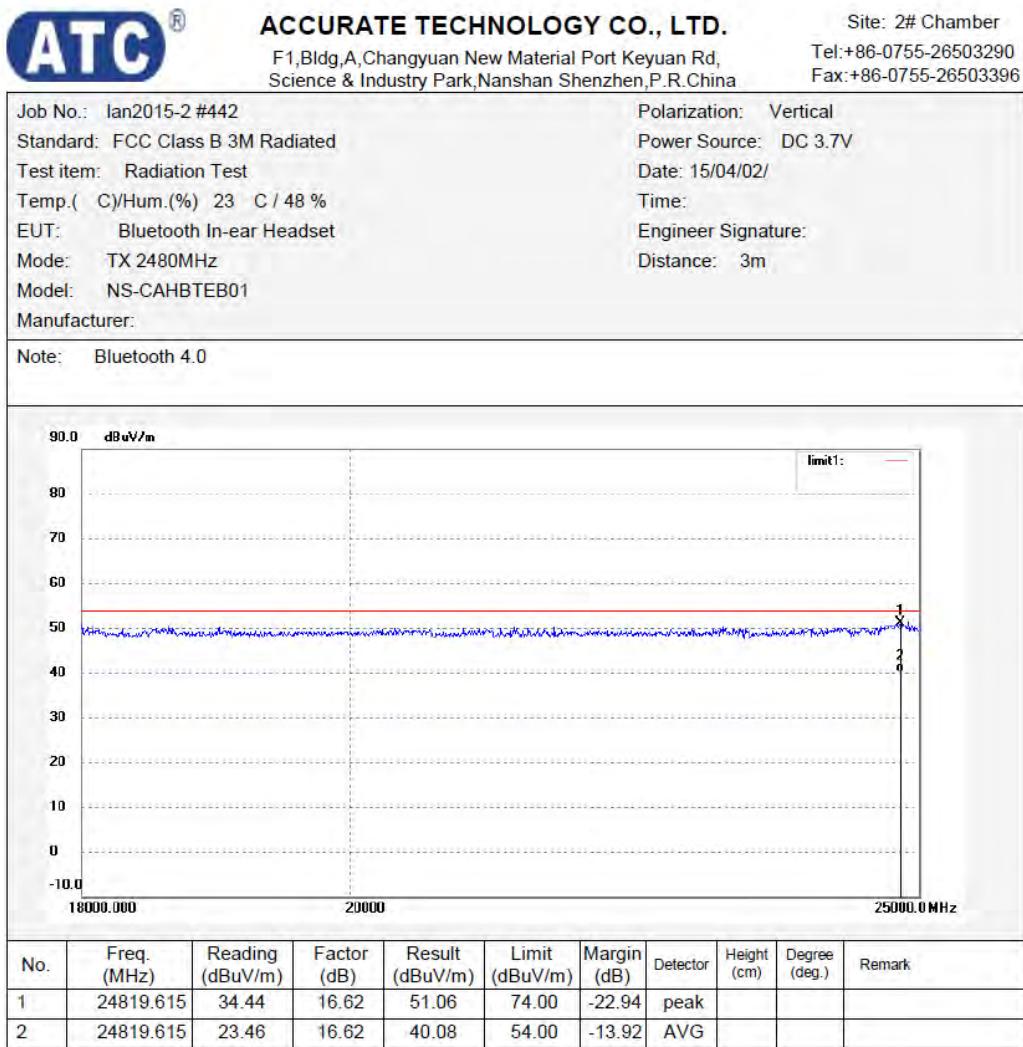


Figure 49: Test figure of Radiated emissions in restricted bands, Mode A.1, Horizontal



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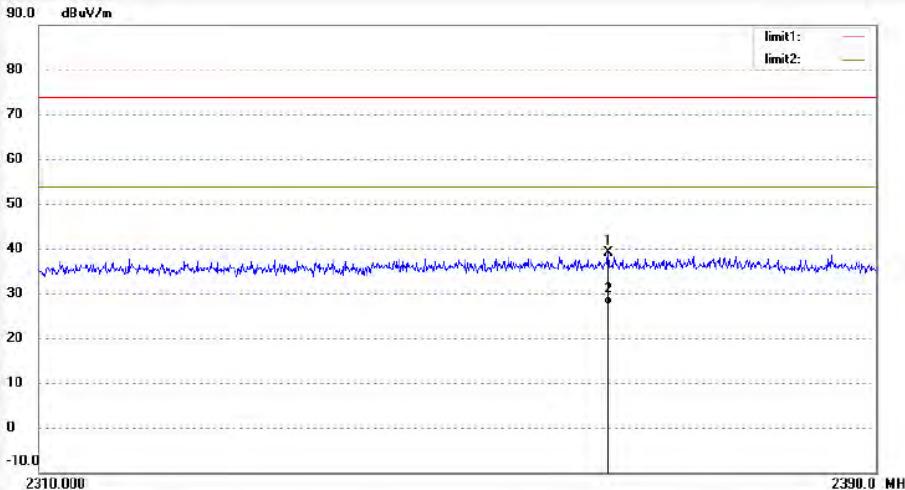
Job No.:	Ian2015-2 #414	Polarization:	Horizontal							
Standard:	FCC (Band Edge)	Power Source:	DC 3.7V							
Test item:	Radiation Test	Date:	15/04/02/							
Temp.(C)/Hum.(%)	23 C / 48 %	Time:								
EUT:	Bluetooth In-ear Headset	Engineer Signature:								
Mode:	TX 2402MHz	Distance:	3m							
Model:	NS-CAHBTEB01									
Manufacturer:										
Note:	Bluetooth 3.0									
										
No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2364.132	46.76	-7.69	39.07	74.00	-34.93	peak			
2	2364.132	35.14	-7.69	27.45	54.00	-26.55	AVG			

Figure 50: Test figure of Radiated emissions in restricted bands, Mode A.1, Vertical

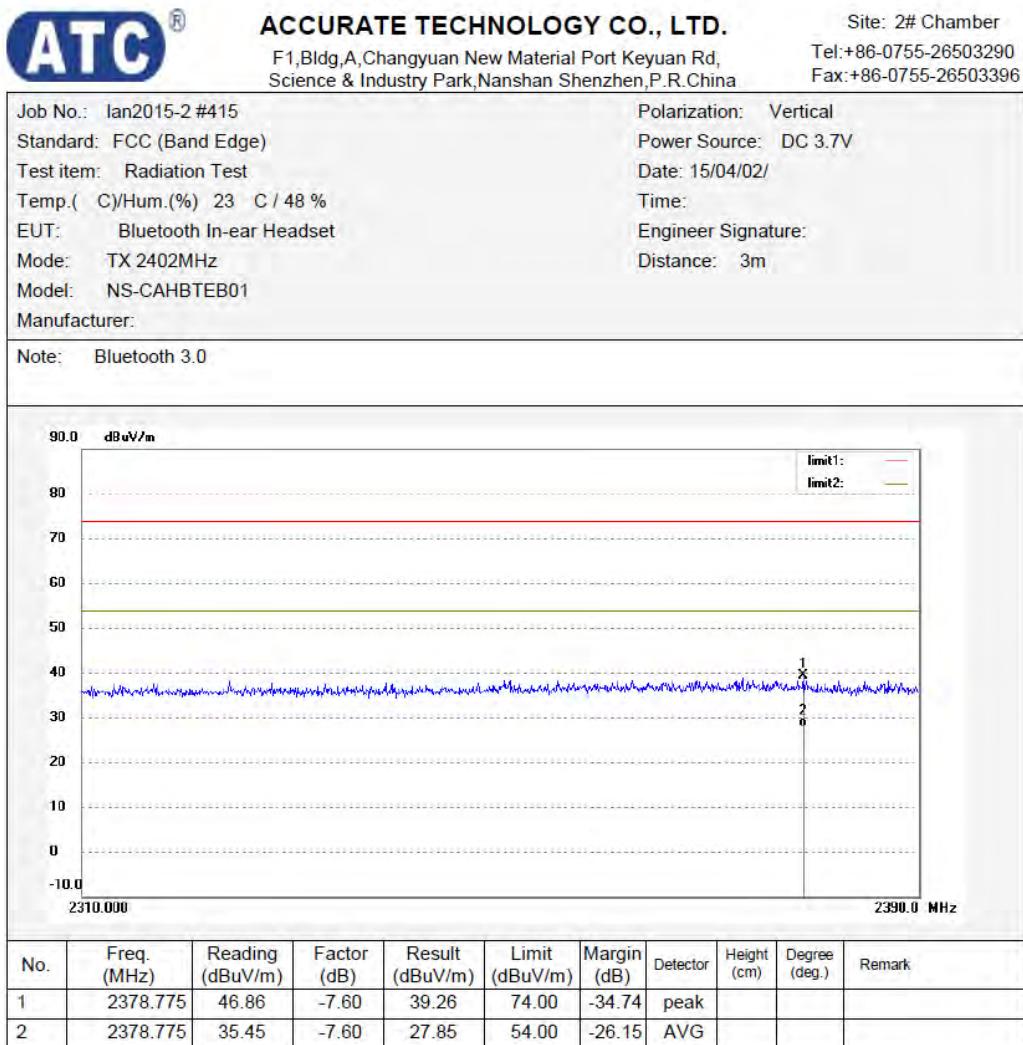


Figure 51: Test figure of Radiated emissions in restricted bands, Mode A.3, Horizontal

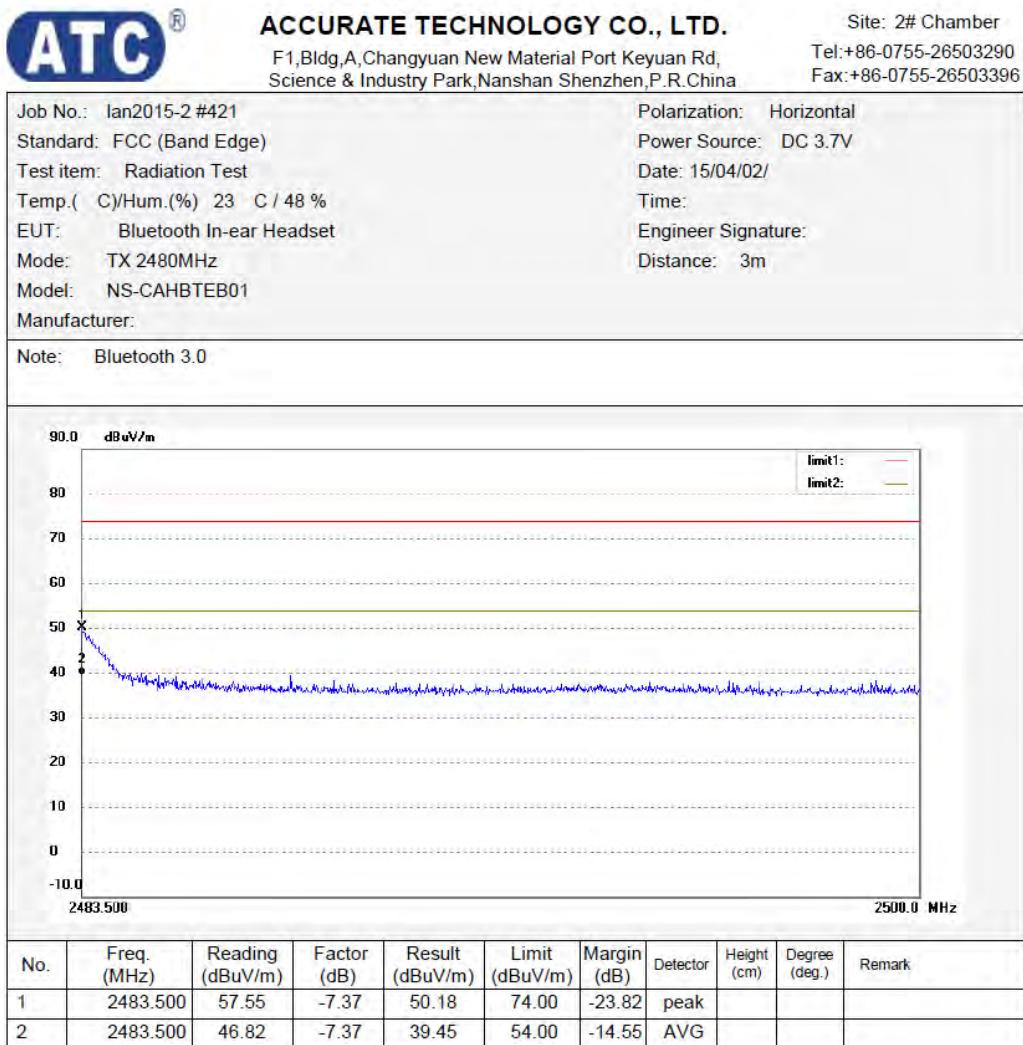


Figure 52: Test figure of Radiated emissions in restricted bands, Mode A.3, Vertical

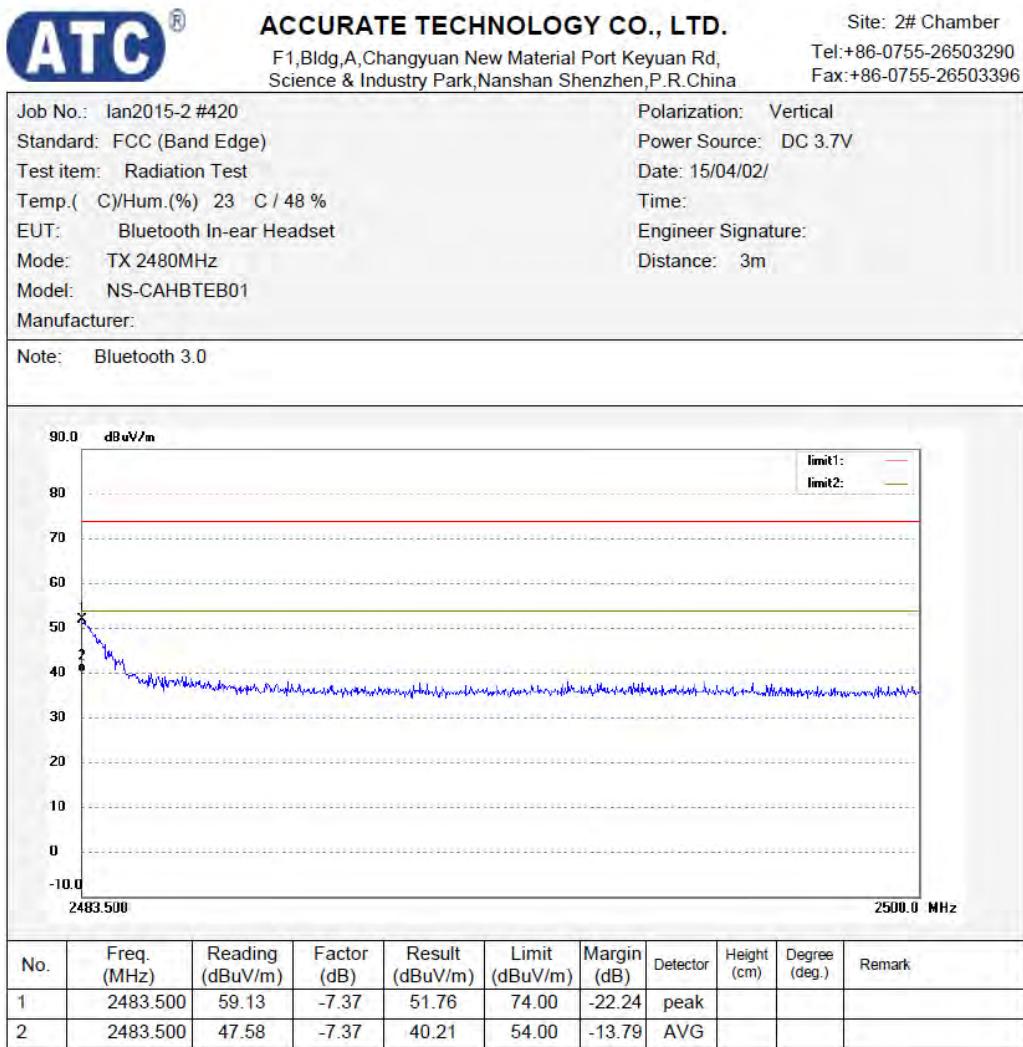


Figure 53: Test figure of Radiated emissions in restricted bands, Mode B.1, Horizontal

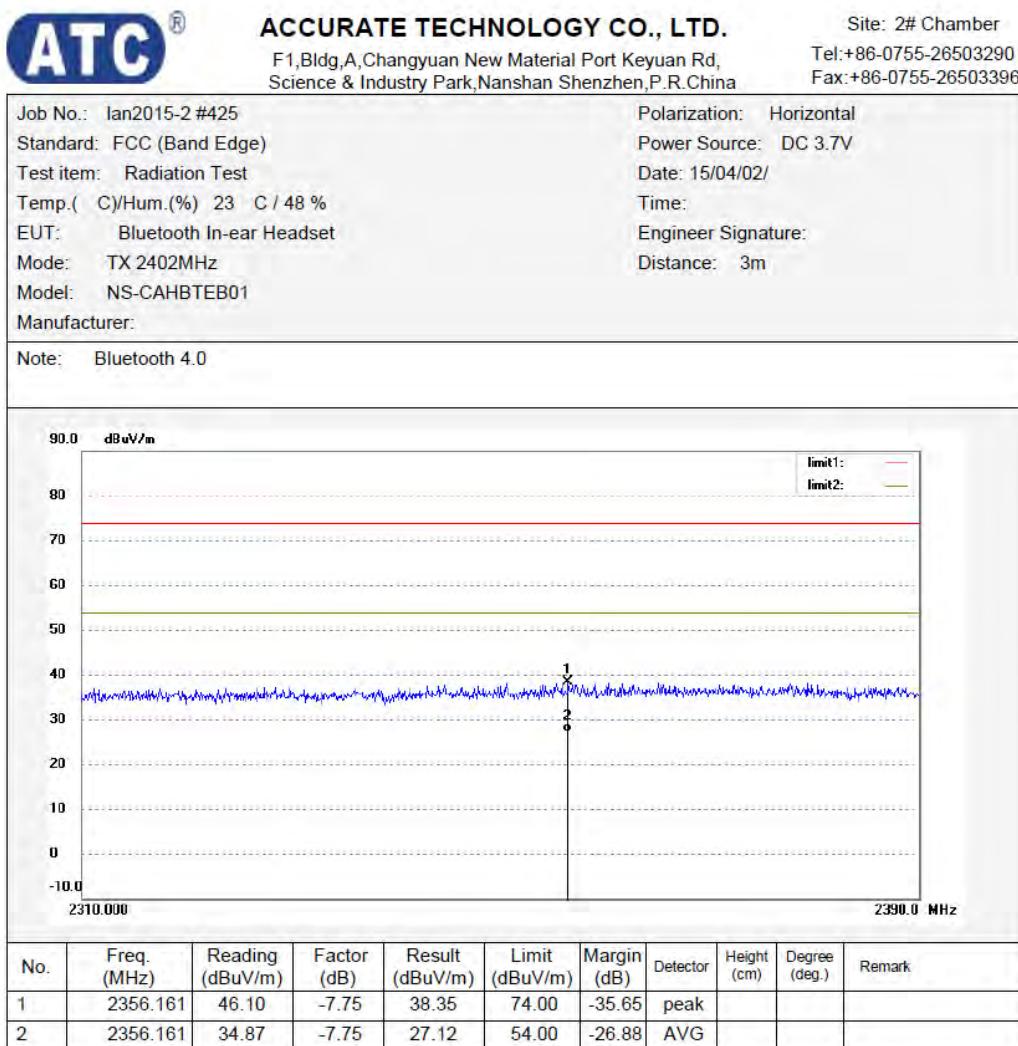


Figure 54: Test figure of Radiated emissions in restricted bands, Mode B.1, Vertical

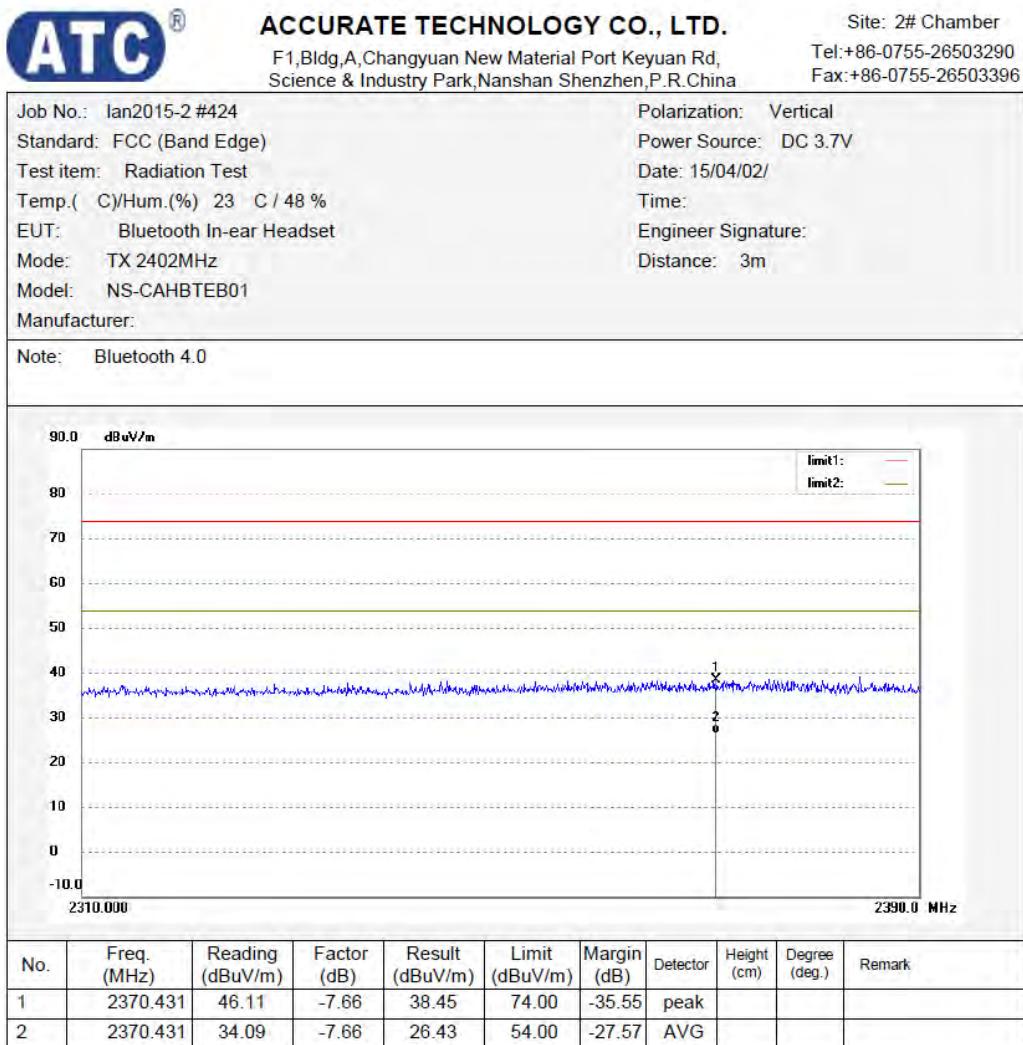


Figure 55: Test figure of Radiated emissions in restricted bands, Mode B.3, Horizontal



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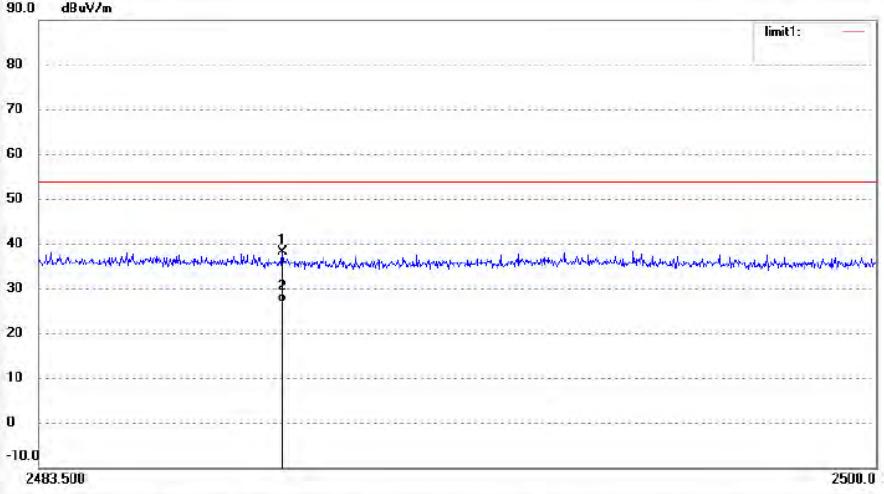
Job No.: Ian2015-2 #431	Polarization: Horizontal									
Standard: FCC (Band Edge)	Power Source: DC 3.7V									
Test item: Radiation Test	Date: 15/04/02/									
Temp.(C)/Hum.(%) 23 C / 48 %	Time:									
EUT: Bluetooth In-ear Headset	Engineer Signature:									
Mode: TX 2480MHz	Distance: 3m									
Model: NS-CAHBTEB01										
Manufacturer:										
Note: Bluetooth 4.0										
										
No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2488.300	45.47	-7.38	38.09	74.00	-35.91	peak			
2	2488.300	34.22	-7.38	26.84	54.00	-27.16	AVG			

Figure 56: Test figure of Radiated emissions in restricted bands, Mode B.3, Vertical



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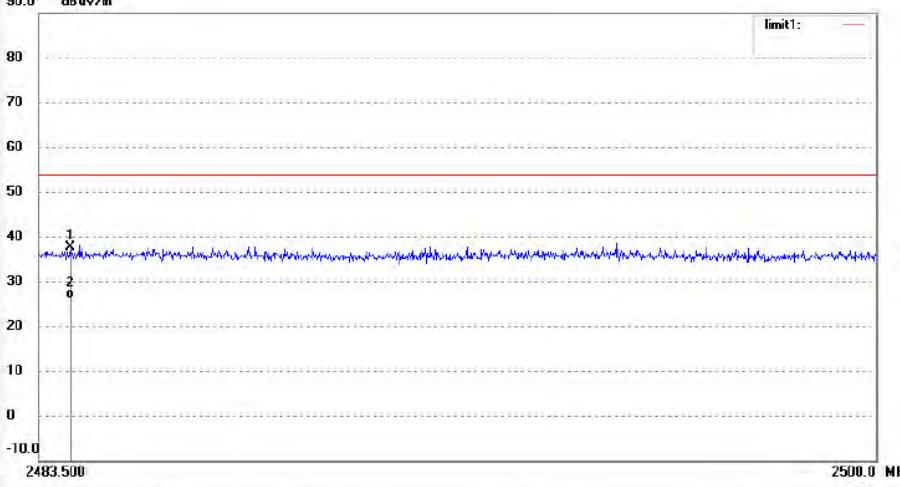
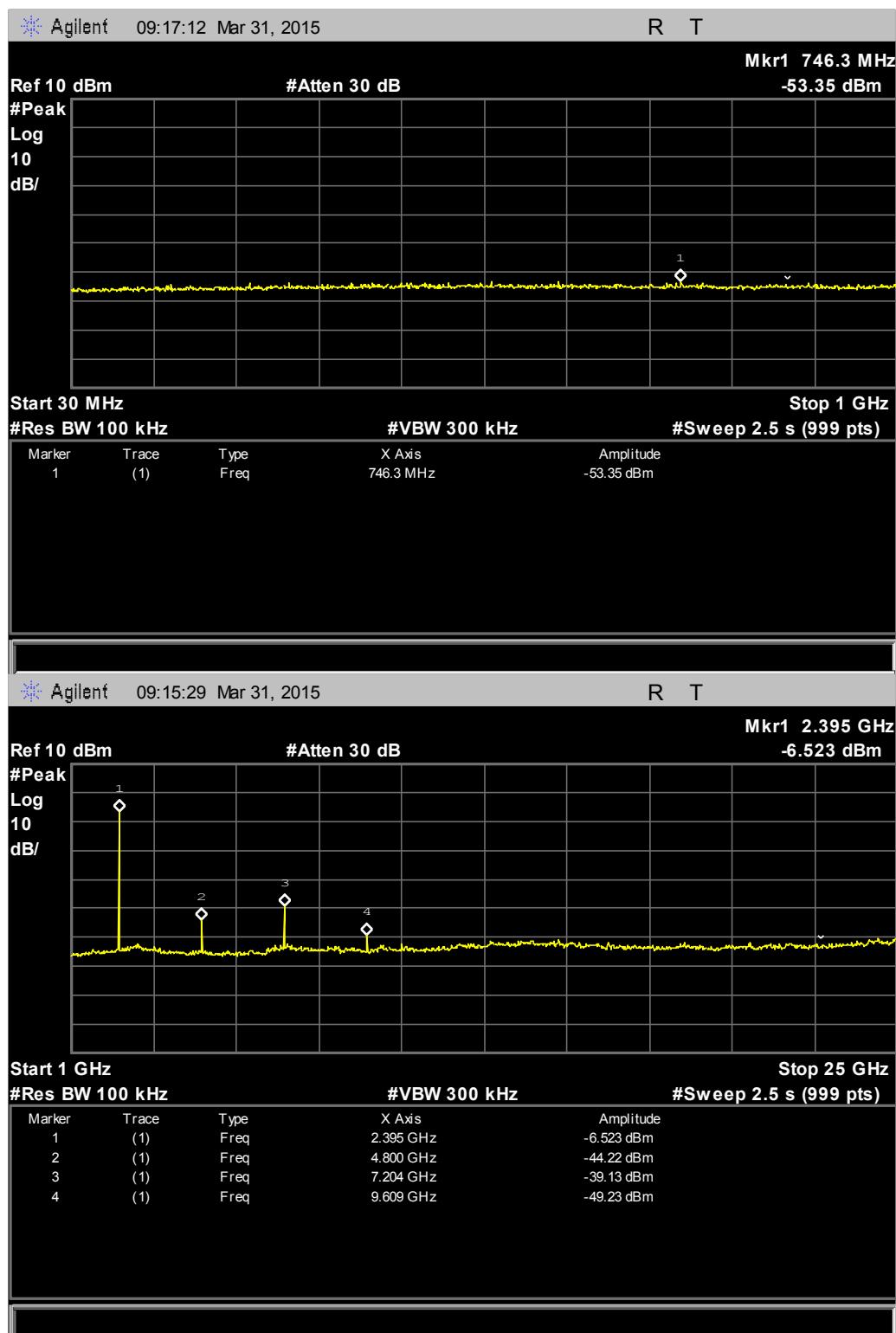
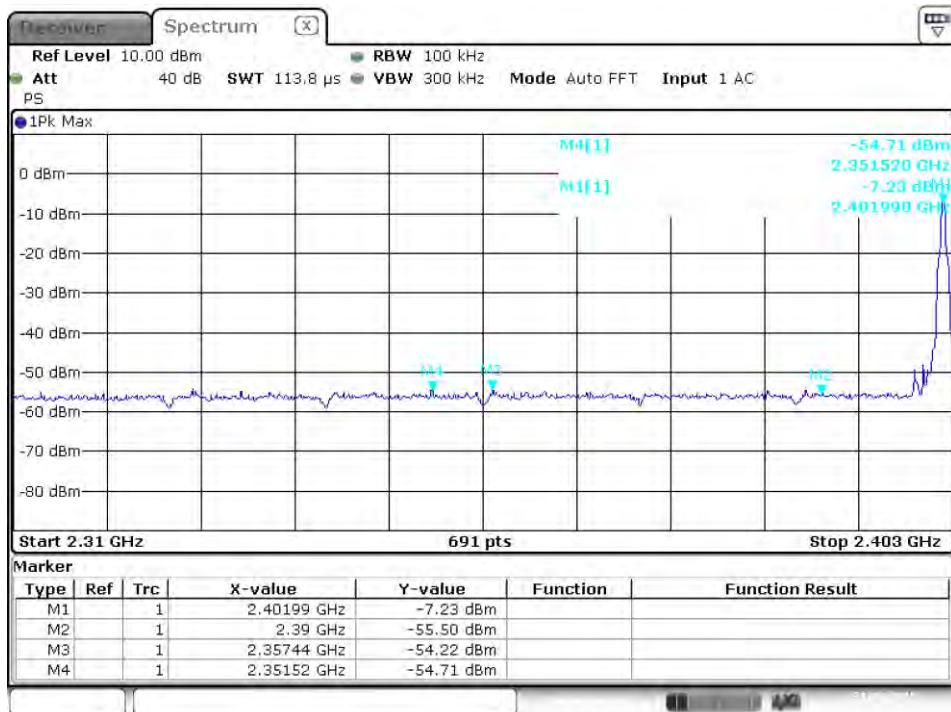
Job No.: Ian2015-2 #430	Polarization: Vertical									
Standard: FCC (Band Edge)	Power Source: DC 3.7V									
Test item: Radiation Test	Date: 15/04/02/									
Temp.(C)/Hum.(%) 23 C / 48 %	Time:									
EUT: Bluetooth In-ear Headset	Engineer Signature:									
Mode: TX 2480MHz	Distance: 3m									
Model: NS-CAHBTEB01										
Manufacturer:										
Note: Bluetooth 4.0										
										
No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2484.126	44.94	-7.38	37.56	74.00	-36.44	peak			
2	2484.126	33.47	-7.38	26.09	54.00	-27.91	AVG			

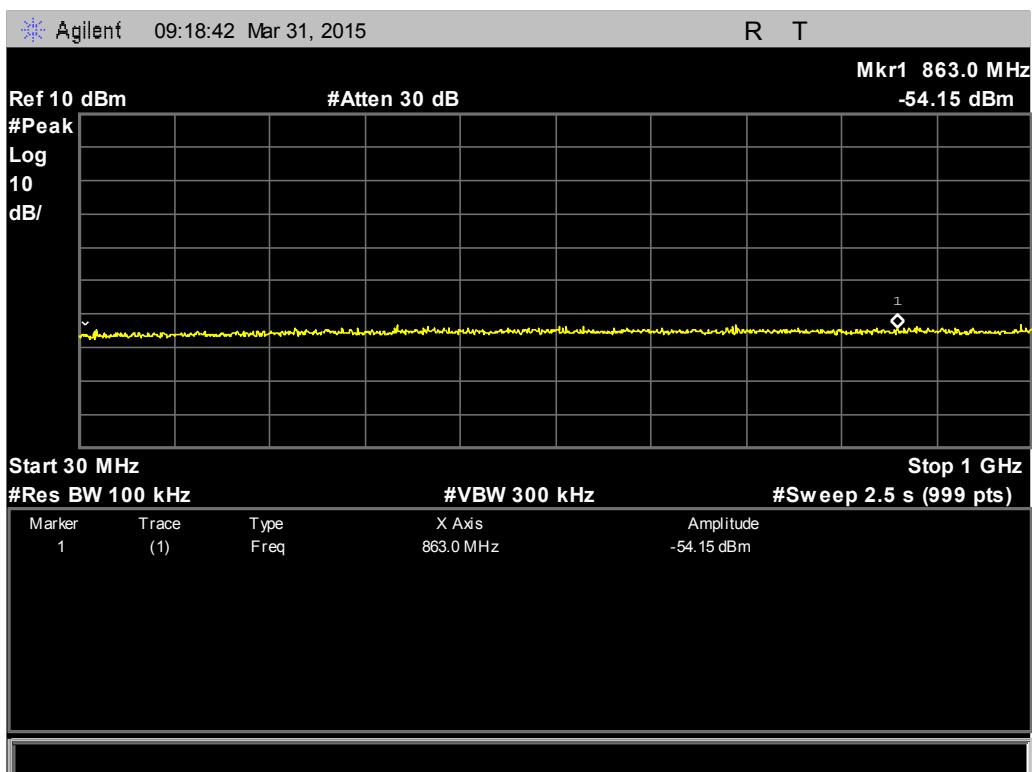
Figure 57: Test figure of conducted spurious emissions measured in 100kHz Bandwidth, Mode A.1, GFSK Modulation





Date: 31.MAR.2015 16:55:51

Figure 58: Test figure of conducted spurious emissions measured in 100kHz Bandwidth, Mode A.2, GFSK Modulation



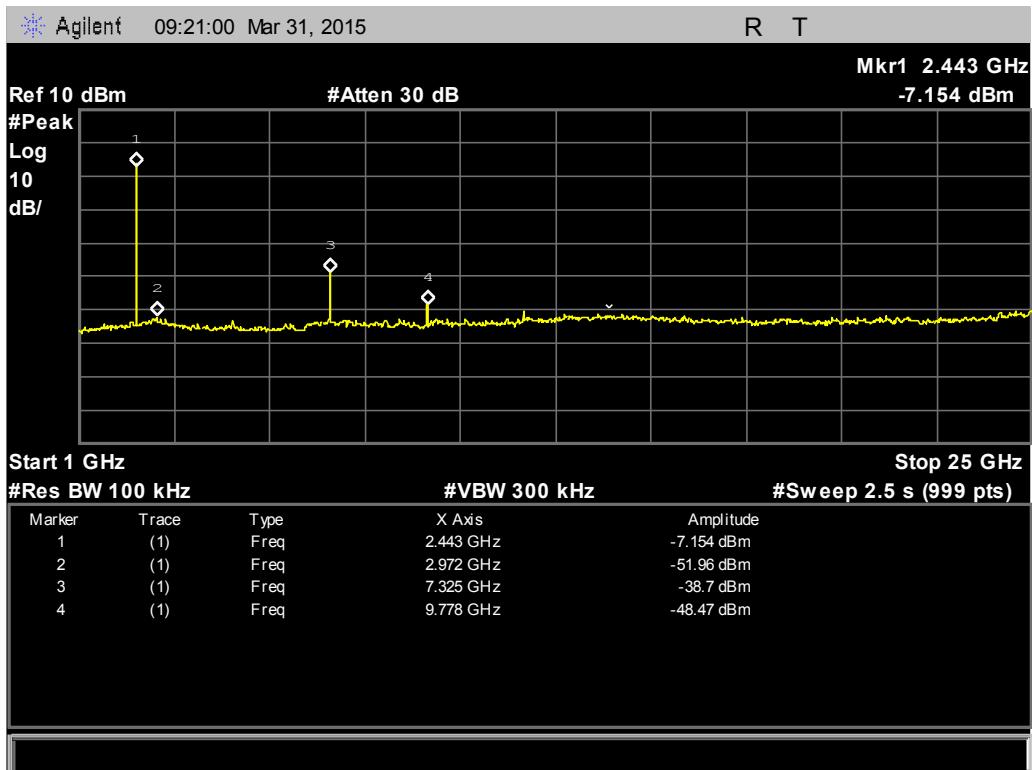
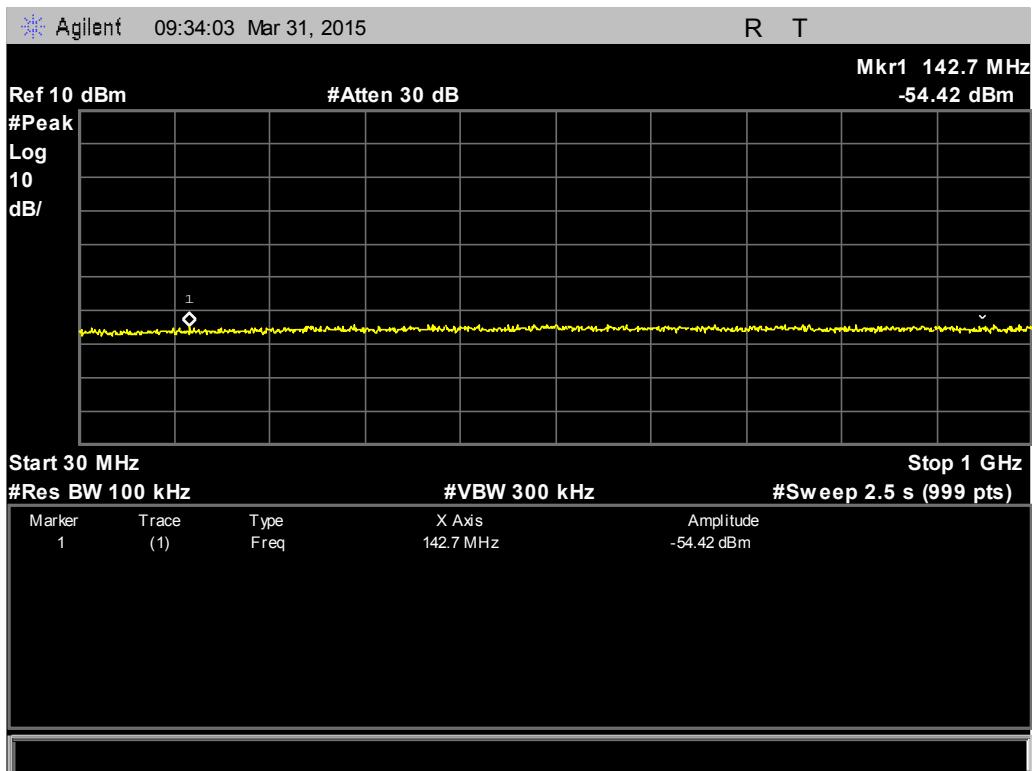


Figure 59: Test figure of conducted spurious emissions measured in 100kHz Bandwidth, Mode A.3, GFSK Modulation



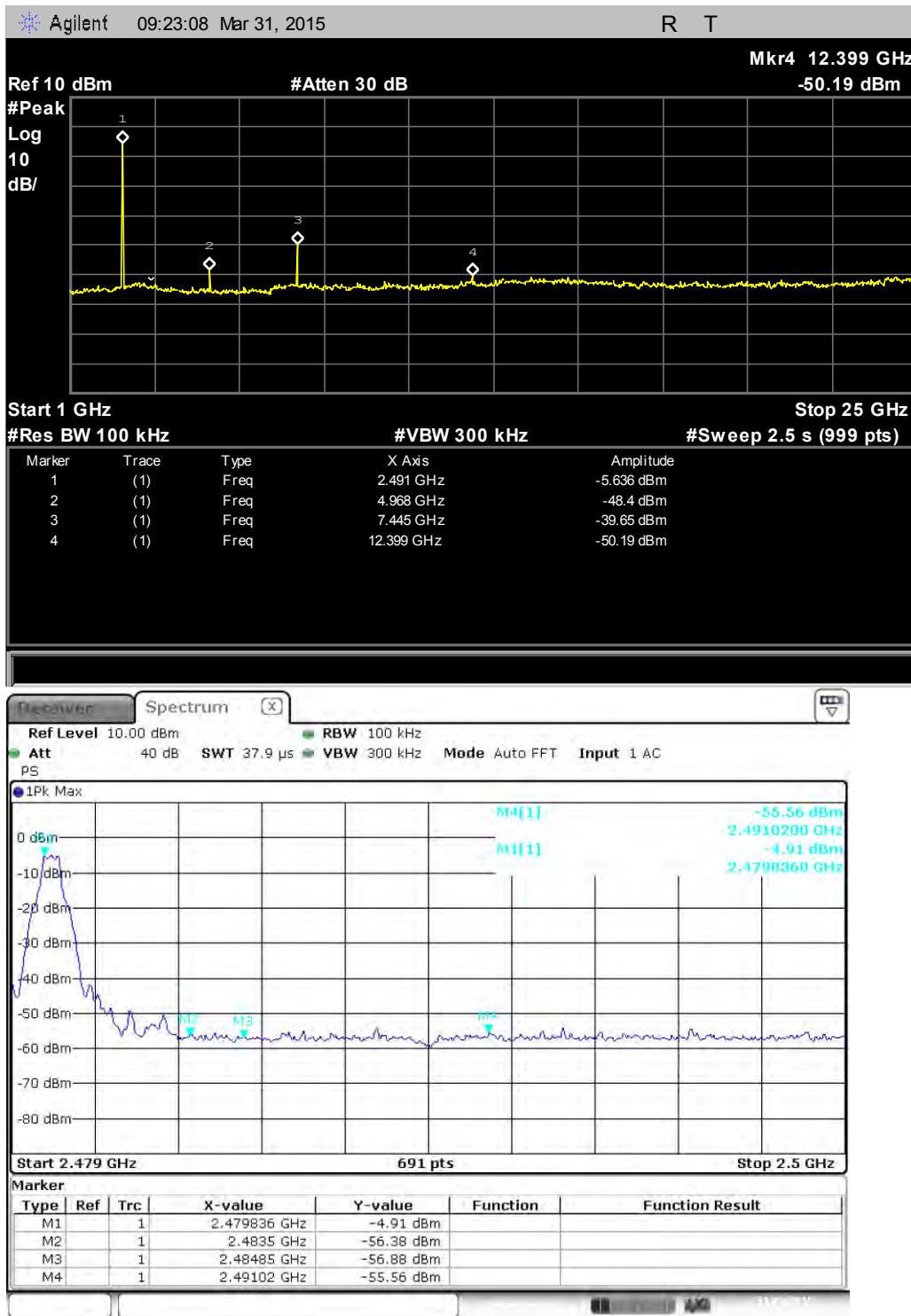
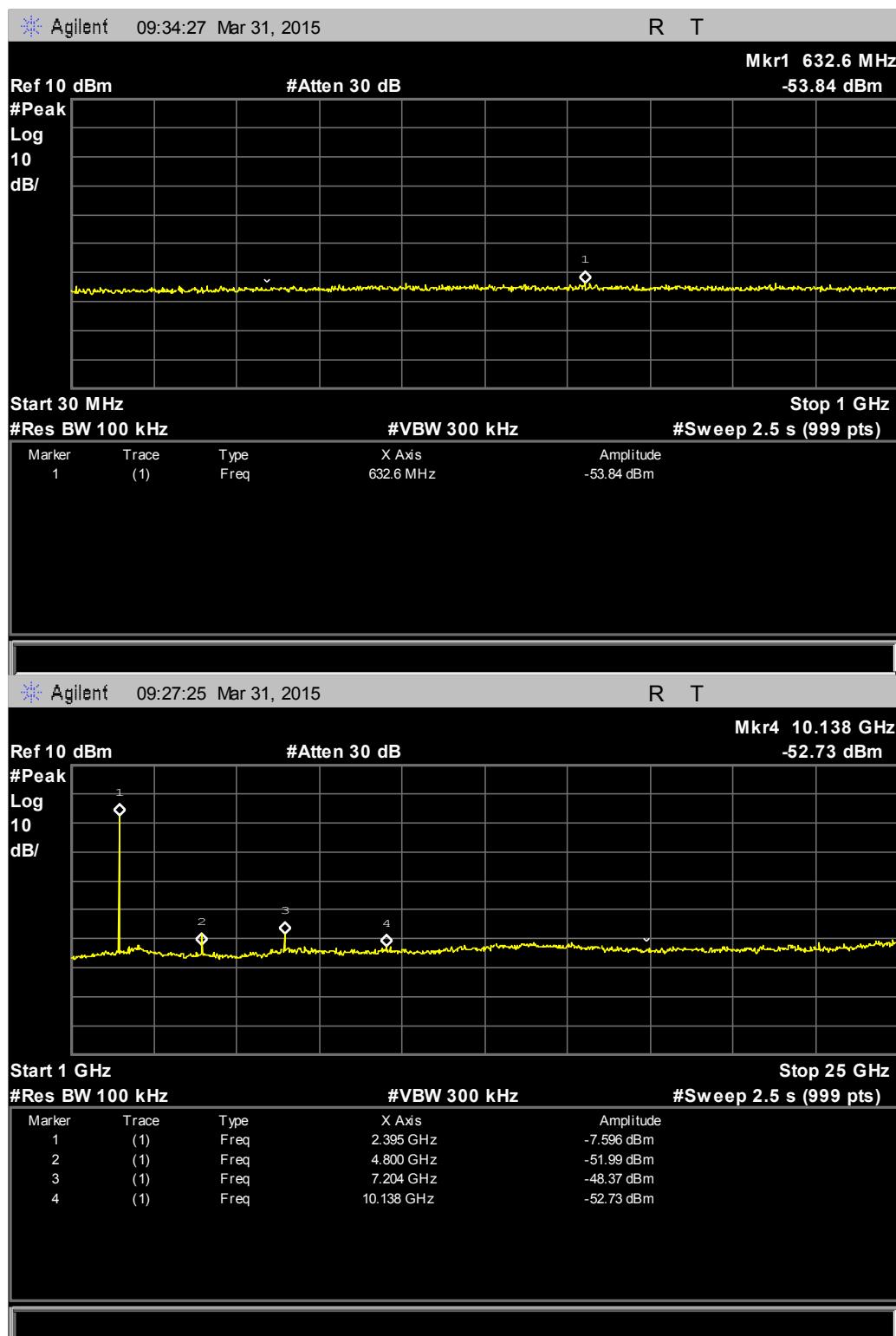


Figure 60: Test figure of conducted spurious emissions measured in 100kHz Bandwidth, Mode A.1, 8DPSK Modulation



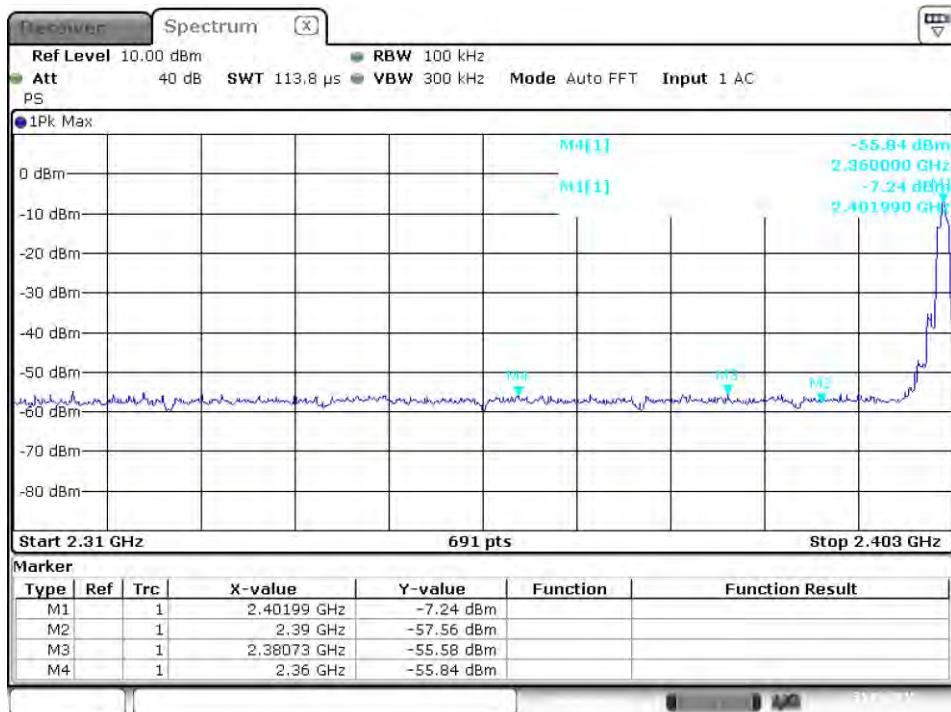
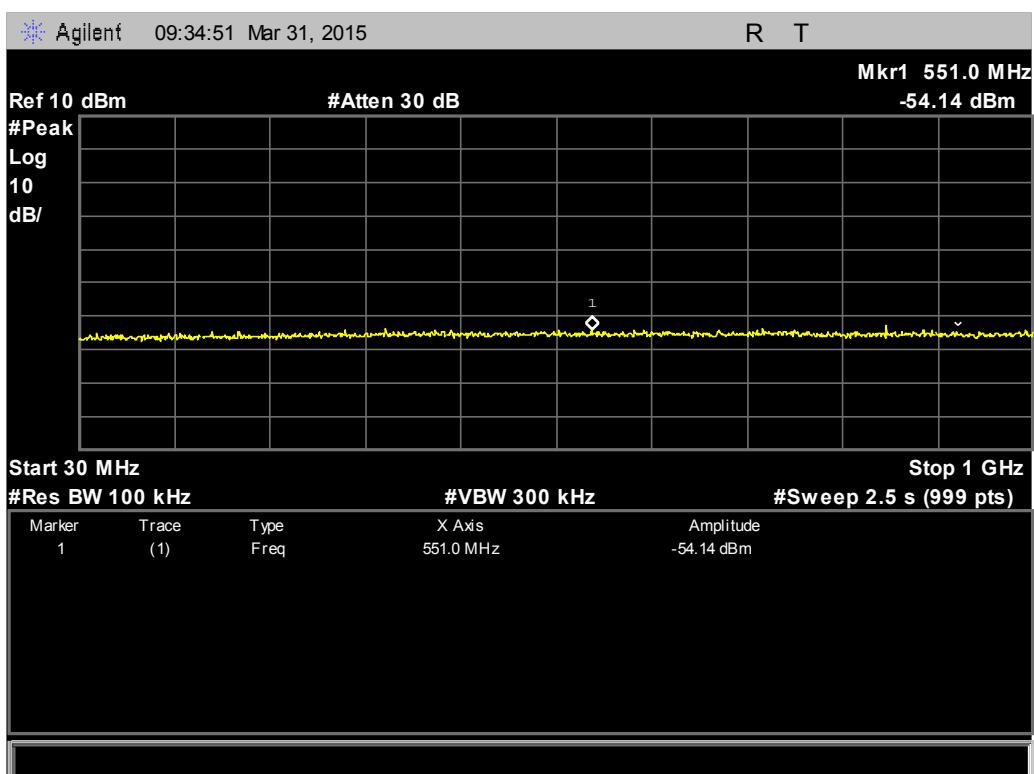


Figure 61: Test figure of conducted spurious emissions measured in 100kHz Bandwidth, Mode A.2, 8DPSK Modulation



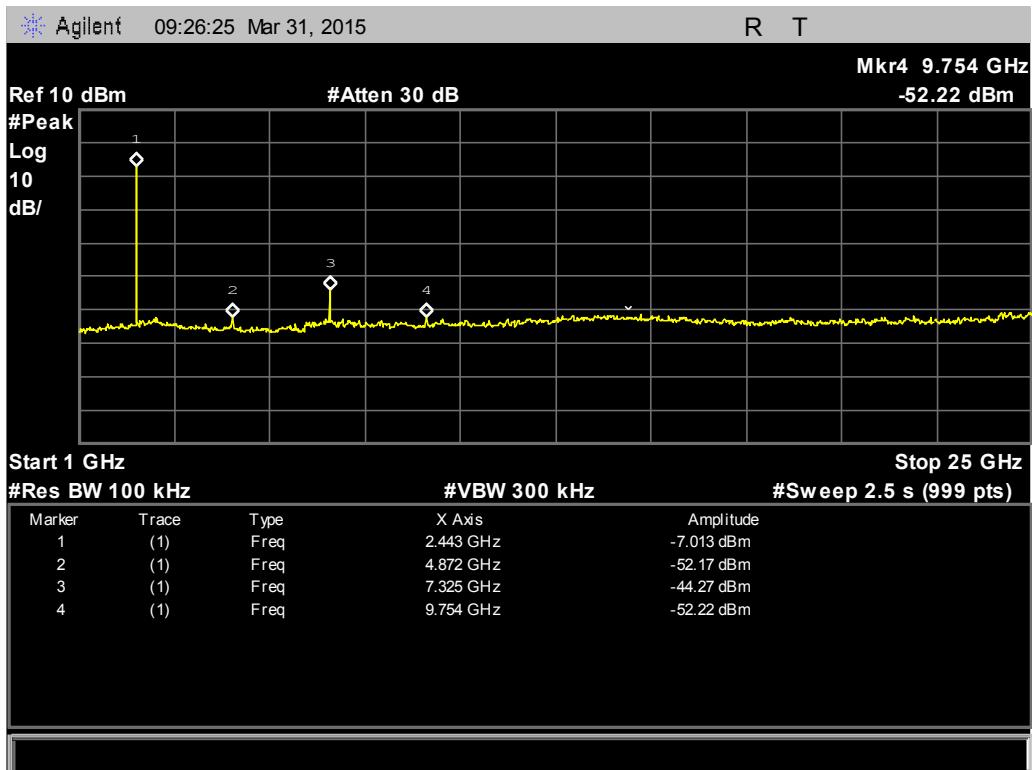
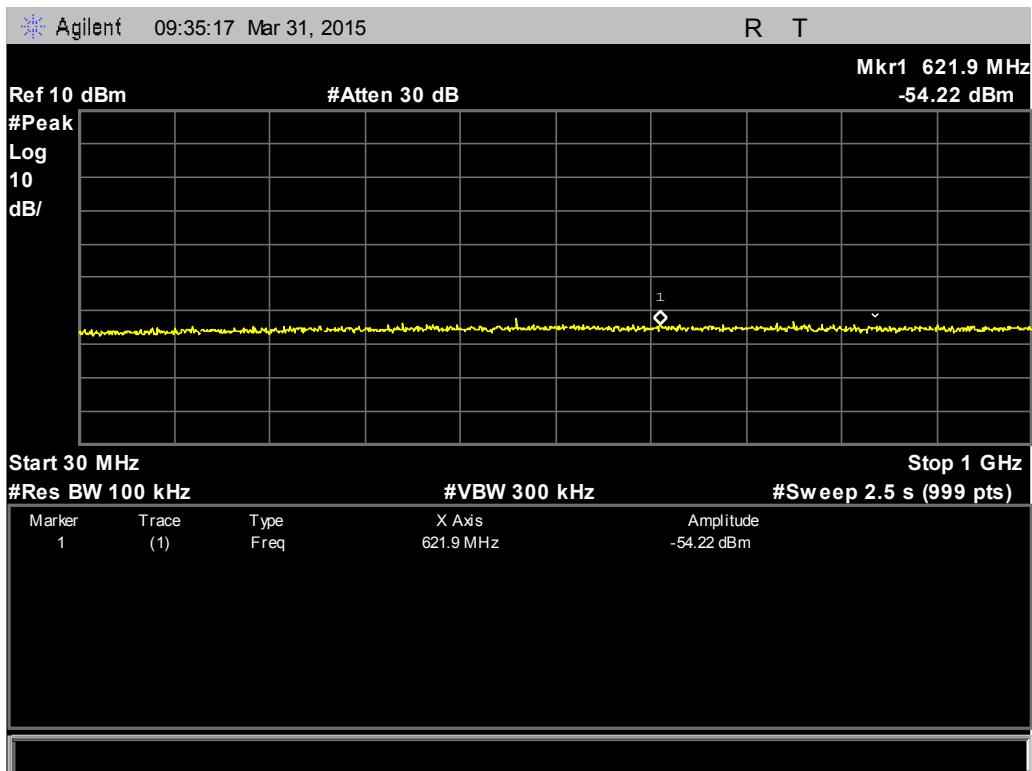
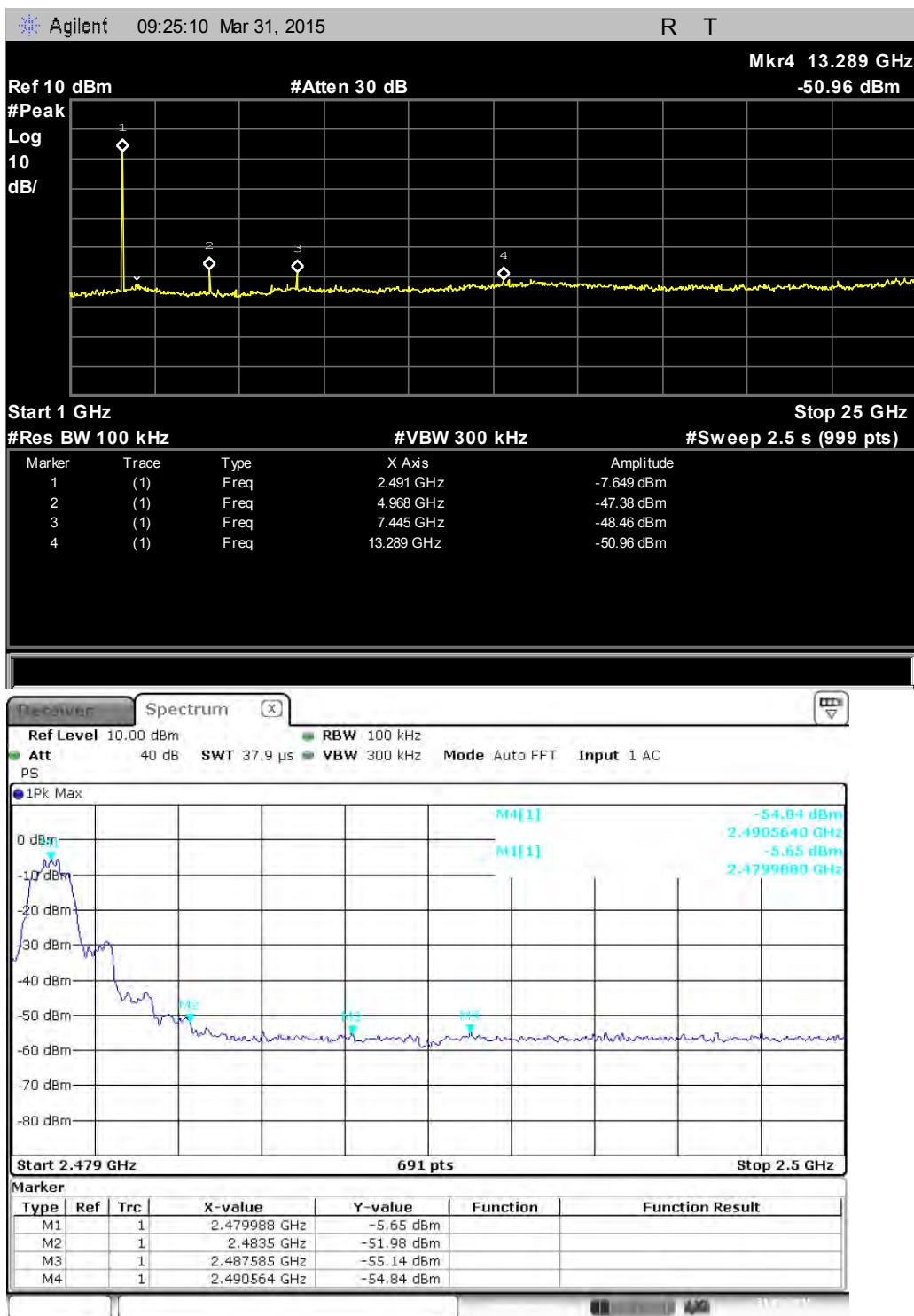


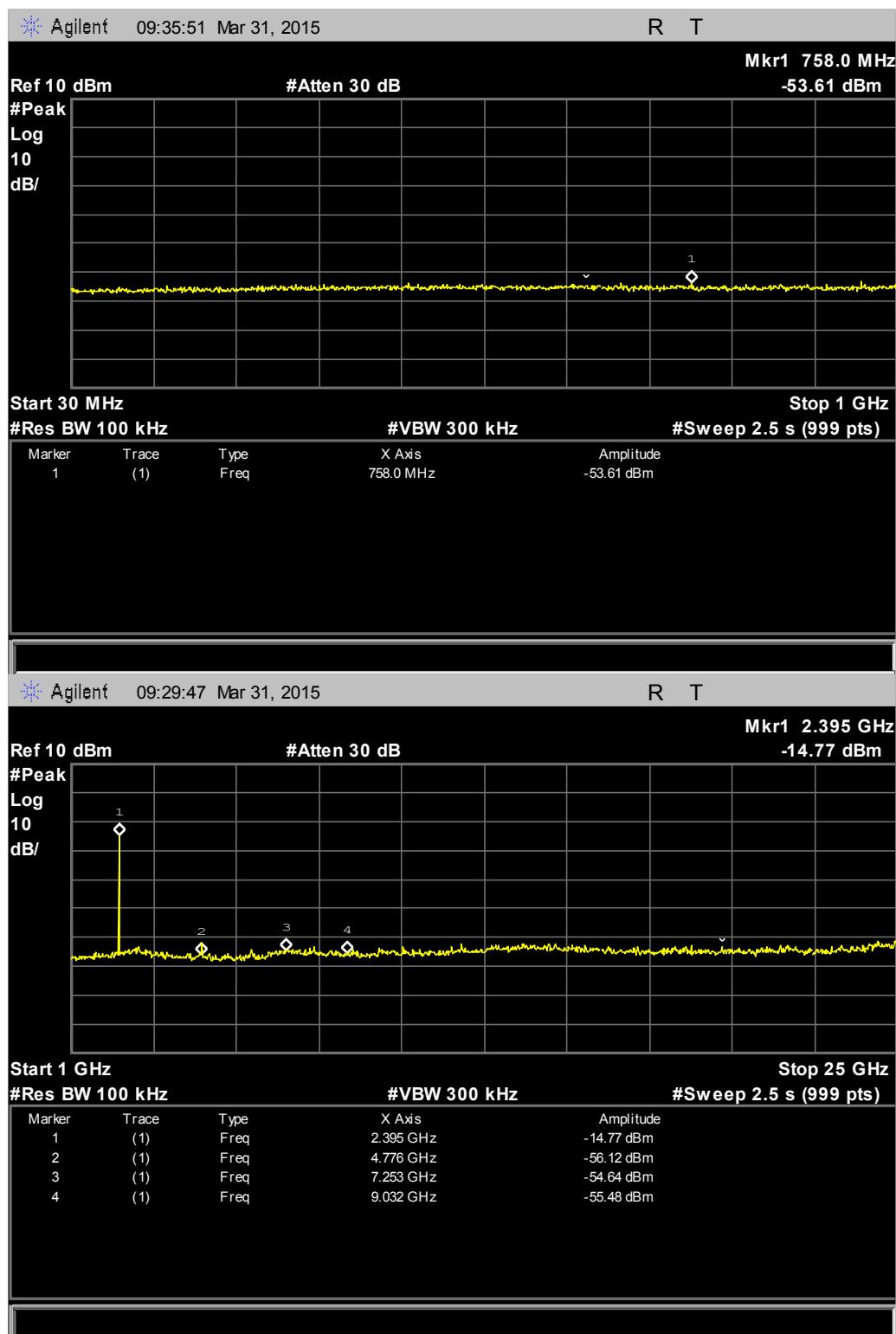
Figure 62: Test figure of conducted spurious emissions measured in 100kHz Bandwidth, Mode A.3, 8DPSK Modulation

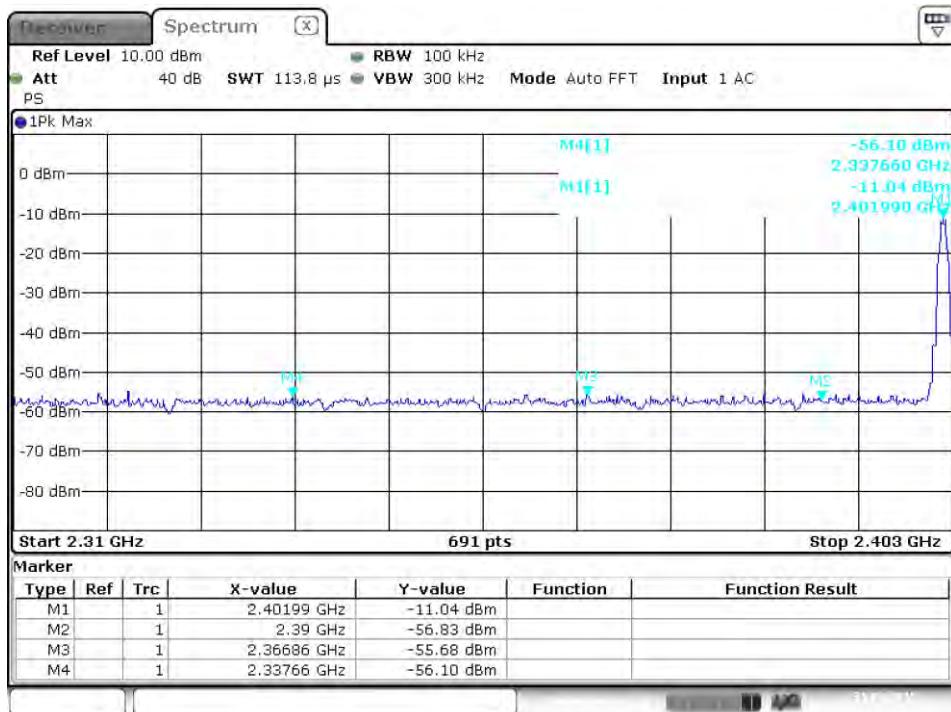




Date: 31.MAR.2015 16:58:09

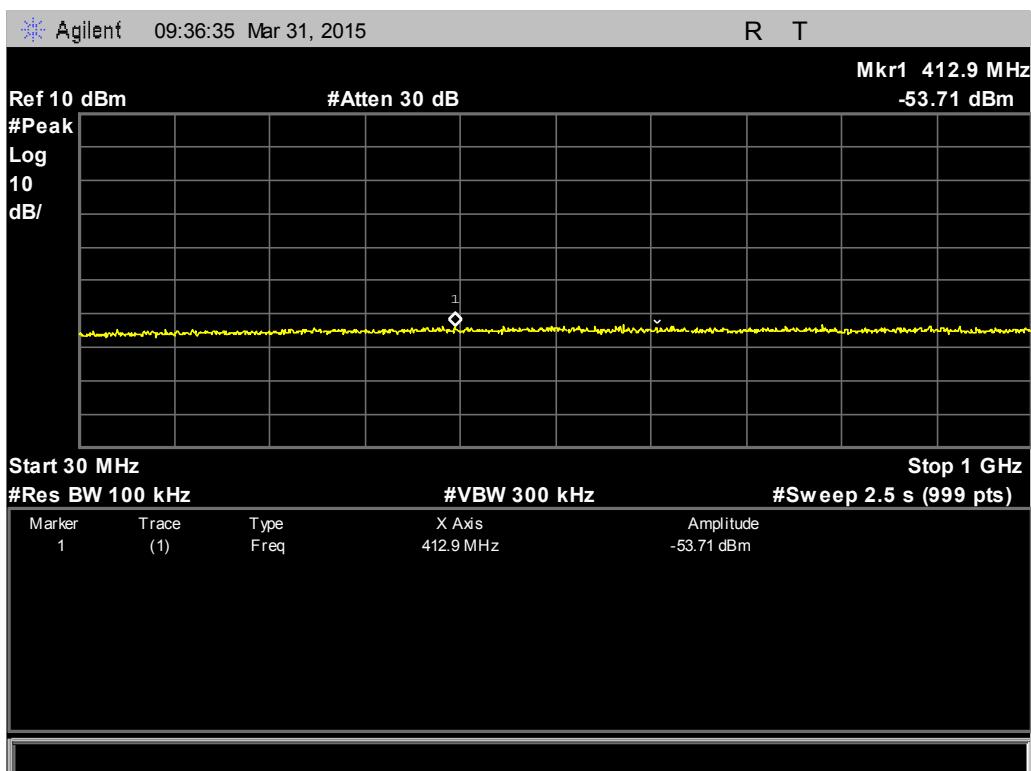
Figure 63: Test figure of conducted spurious emissions measured in 100kHz Bandwidth, Mode B.1





Date: 31.MAR.2015 17:00:45

Figure 64: Test figure of conducted spurious emissions measured in 100kHz Bandwidth, Mode B.2



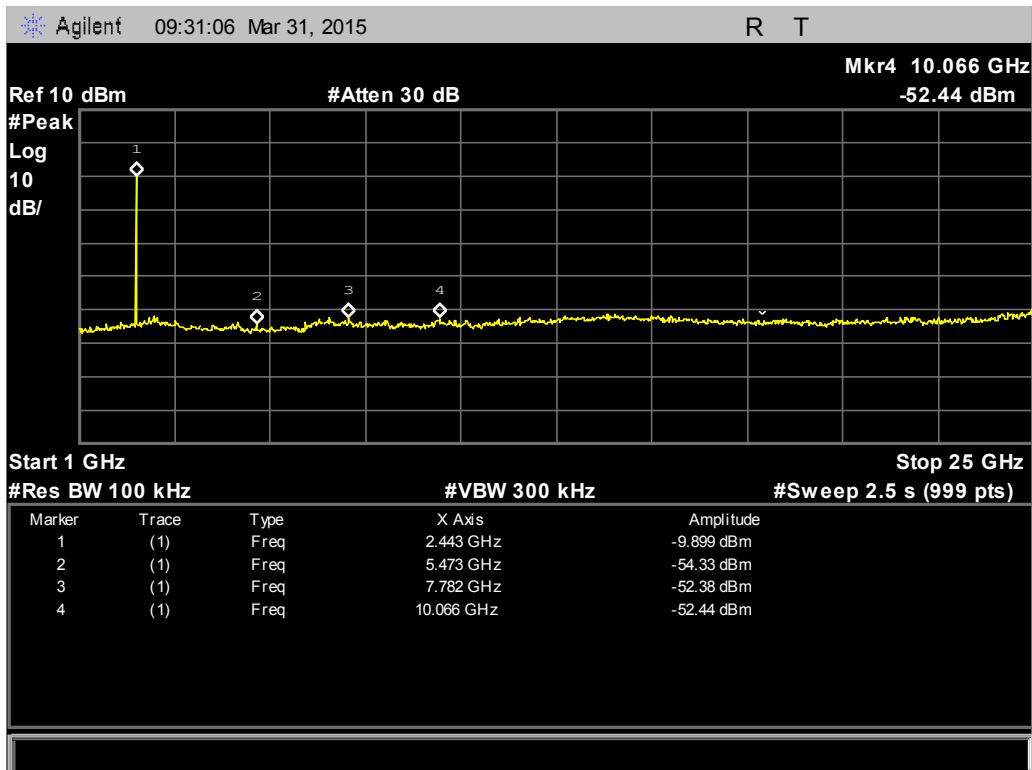
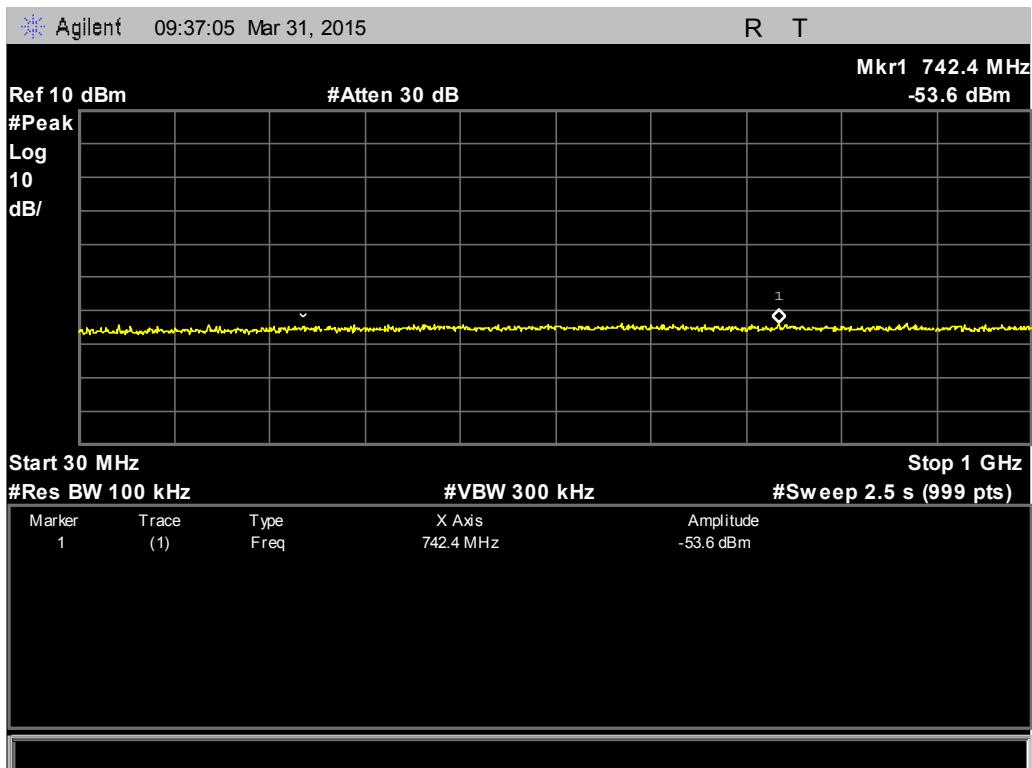
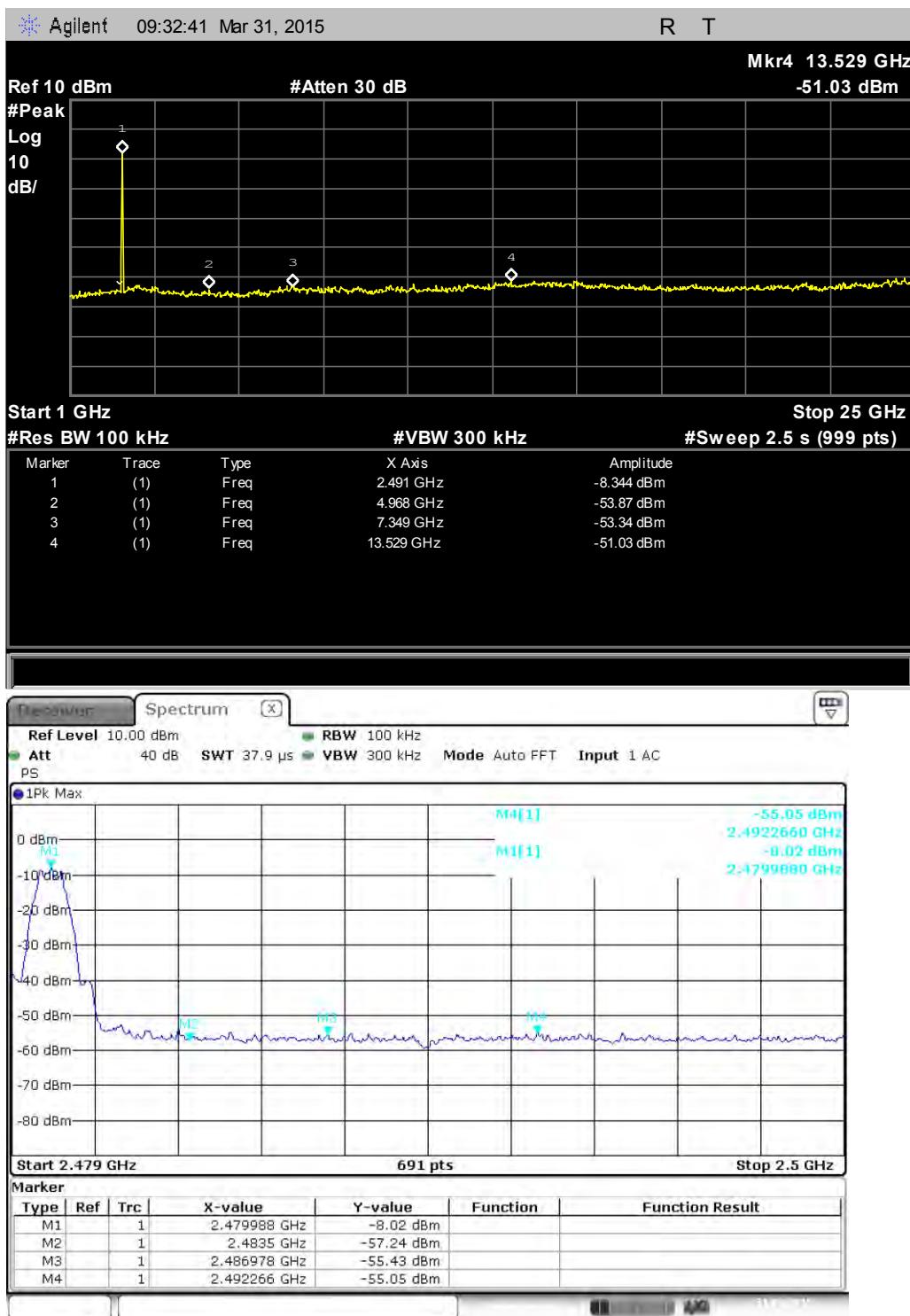


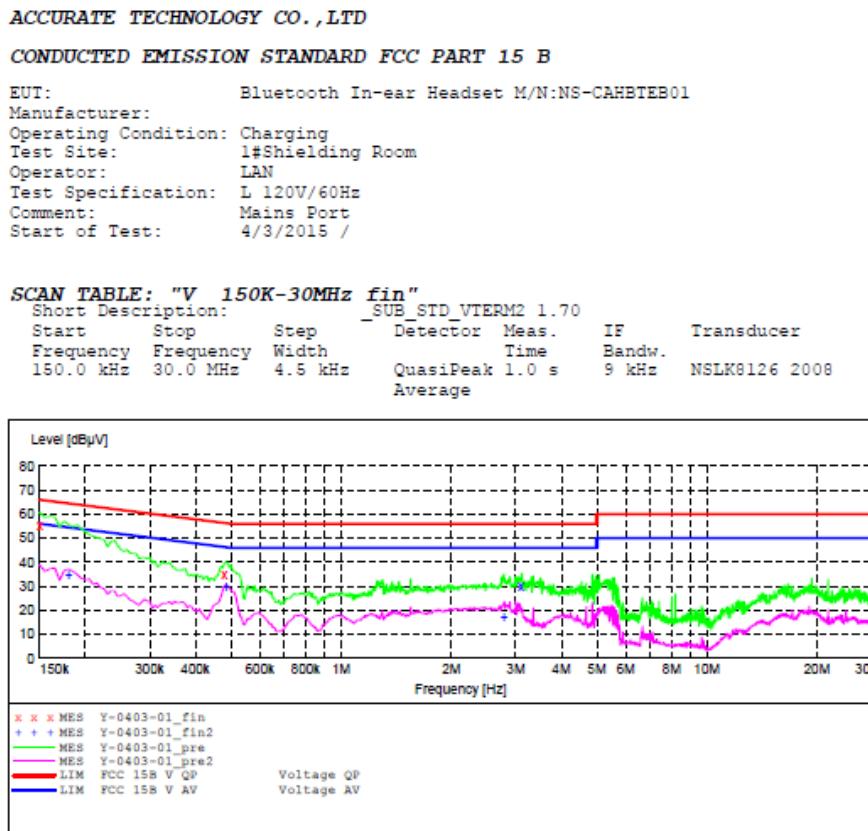
Figure 65: Test figure of conducted spurious emissions measured in 100kHz Bandwidth, Mode B.3





Date: 31.MAR.2015 16:59:37

Figure 66: Test figure of Conducted emissions, Mode C, line live



MEASUREMENT RESULT: "Y-0403-01_fin"

4/3/2015	Frequency	Level	Transd	Limit	Margin	Detector	Line	PE
	MHz	dB μ V	dB	dB μ V	dB			
	0.150000	55.50	10.5	66	10.5	QP	L1	GND
	0.480000	34.70	10.7	56	21.6	QP	L1	GND
	3.120000	31.90	11.1	56	24.1	QP	L1	GND

MEASUREMENT RESULT: "Y-0403-01_fin2"

4/3/2015	Frequency	Level	Transd	Limit	Margin	Detector	Line	PE
	MHz	dB μ V	dB	dB μ V	dB			
	0.180000	34.50	10.5	55	20.0	AV	L1	GND
	0.485000	30.20	10.7	46	16.1	AV	L1	GND
	2.790000	17.20	11.0	46	28.8	AV	L1	GND

Figure 67: Test figure of Conducted emissions, Mode C, line neutral

ACCURATE TECHNOLOGY CO., LTD

CONDUCTED EMISSION STANDARD FCC PART 15 B

EUT: Bluetooth In-ear Headset M/N: NS-CAHBTEB01

Manufacturer:

Operating Condition: Charging

Test Site: 1#Shielding Room

Operator: LAN

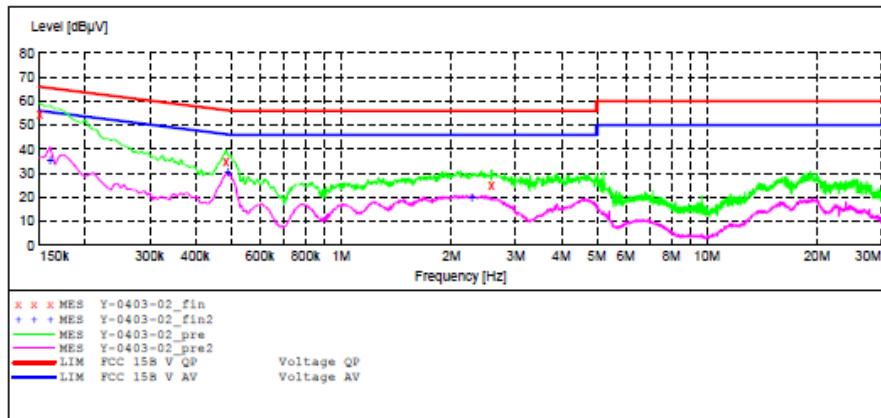
Test Specification: N 120V/60Hz

Comment: Mains Port

Start of Test: 4/3/2015 /

SCAN TABLE: "V 150K-30MHz fin"

Short Description: _SUB_STD_VTERM2 1.70
 Start Stop Step Detector Meas. IF Transducer
 Frequency Frequency Width Time Bandw.
 150.0 kHz 30.0 MHz 4.5 kHz QuasiPeak 1.0 s 9 kHz NSLK8126 2008
 Average



MEASUREMENT RESULT: "Y-0403-02_fin"

4/3/2015	Frequency	Level	Transd	Limit	Margin	Detector	Line	PE
	MHz	dB μ V	dB	dB μ V	dB			
	0.150000	54.60	10.5	66	11.4	QP	N	GND
	0.485000	34.90	10.7	56	21.4	QP	N	GND
	2.580000	24.60	11.0	56	31.4	QP	N	GND

MEASUREMENT RESULT: "Y-0403-02_fin2"

4/3/2015	Frequency	Level	Transd	Limit	Margin	Detector	Line	PE
	MHz	dB μ V	dB	dB μ V	dB			
	0.160000	35.80	10.5	56	19.7	AV	N	GND
	0.490000	30.30	10.7	46	15.9	AV	N	GND
	2.280000	20.40	11.0	46	25.6	AV	N	GND

Figure 68: Test figure of Radiated emissions, Mode C, Below 1GHz, Horizontal



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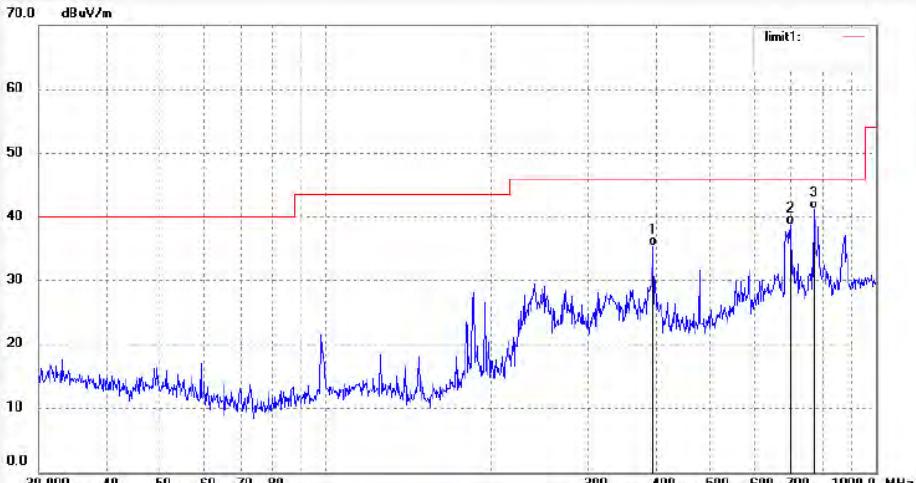
Job No.:	Ian2015-2 #348	Polarization:	Horizontal							
Standard:	FCC Class B 3M Radiated	Power Source:	DC 5V							
Test item:	Radiation Test	Date:	15/03/31/							
Temp.(C)/Hum.(%)	23 C / 48 %	Time:								
EUT:	Bluetooth In-ear Headset	Engineer Signature:								
Mode:	Charging	Distance:	3m							
Model:	NS-CAHBTEB01									
Manufacturer:										
Note:										
										
No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	394.1198	42.50	-7.06	35.44	46.00	-10.56	QP			
2	698.8034	40.50	-1.79	38.71	46.00	-7.29	QP			
3	771.0475	41.84	-0.66	41.18	46.00	-4.82	QP			

Figure 69: Test figure of Radiated emissions, Mode C, Below 1GHz, Vertical



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Fax:+86-0755-26503396

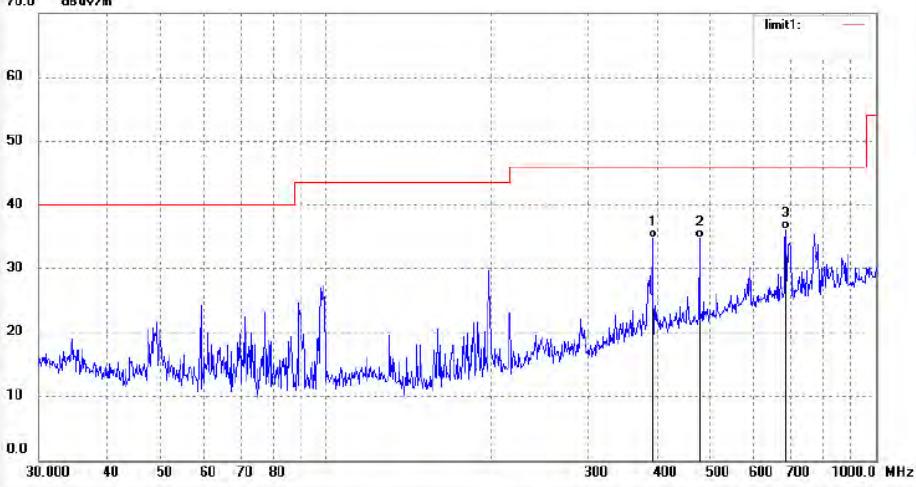
Job No.: Ian2015-2 #349	Polarization: Vertical									
Standard: FCC Class B 3M Radiated	Power Source: DC 5V									
Test item: Radiation Test	Date: 15/03/31/									
Temp.(C)/Hum.(%) 23 C / 48 %	Time:									
EUT: Bluetooth In-ear Headset	Engineer Signature:									
Mode: Charging	Distance: 3m									
Model: NS-CAHBTEB01										
Manufacturer:										
Note:										
										
No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	392.7375	41.88	-7.12	34.76	46.00	-11.24	QP			
2	478.1394	40.13	-5.38	34.75	46.00	-11.25	QP			
3	686.6341	38.09	-1.96	36.13	46.00	-9.87	QP			

Figure 70: Test figure of Radiated emissions, Mode C, Above 1GHz, Horizontal



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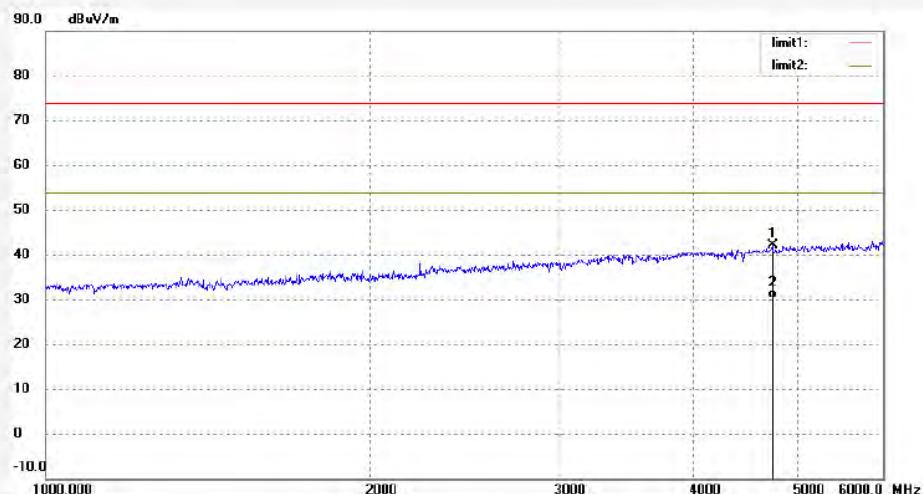
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Site: 1# Chamber
Tel:+86-0755-26503290
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Job No.: Ian2015-2 #447
Standard: FCC Class B 3M Radiated
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 55 %
EUT: Bluetooth In-ear Headset
Mode: Charging
Model: NS-CAHBTEB01
Manufacturer:

Polarization: Horizontal
Power Source: DC 5V
Date: 15/04/02/
Time:
Engineer Signature:
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	4738.033	42.09	-0.05	42.04	74.00	-31.96	peak			
2	4738.033	30.29	-0.05	30.24	54.00	-23.76	AVG			

Figure 71: Test figure of Radiated emissions, Mode C, Above 1GHz, Vertical



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