

Prüfbericht-Nr.: <i>Test Report No.:</i>	16085910 001	Auftrags-Nr.: <i>Order No.:</i>	174067570	Seite 1 von 28 <i>Page 1 of 28</i>
Kunden-Referenz-Nr.: <i>Client Reference No.:</i>	440253	Auftragsdatum: <i>Order date.:</i>	16 Jun, 2017	
Auftraggeber: <i>Client:</i>	Dongguan Alllike Electronics Co., Ltd. Chuanacha Development Zone, Machong Town 523141 P.R. China			
Prüfgegenstand: <i>Test item:</i>	Sobro TV Dongle	FCC ID: <i>FCC ID:</i>	BUQ-SOACC021BTBK	
Bezeichnung / Typ-Nr.: <i>Identification / Type No.:</i>	SOACC021BTBK			
Auftrags-Inhalt: <i>Order content:</i>	TUV Rheinland - EMC service			
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 FCC KDB Publication 447498 D01 v06			
Wareneingangsdatum: <i>Date of receipt:</i>	16 Jun, 2017			
Prüfmuster-Nr.: <i>Test sample No.:</i>	174067570-001			
Prüfzeitraum: <i>Testing period:</i>	Refer to test report			
Ort der Prüfung: <i>Place of testing:</i>	Refer to section 2.1			
Prüflaboratorium: <i>Testing laboratory:</i>	TÜV Rheinland (Guangdong) Ltd.			
Prüfergebnis*: <i>Test result*:</i>	Pass			
geprüft von / tested by:		kontrolliert von / reviewed by:		
				
08 Jul, 2017	Storm Shu / Assistant Project Manager	10 Jul, 2017	Max Y. C. Yao/ TC	
Datum <i>Date</i>	Name/Stellung <i>Name/Position</i>	Unterschrift <i>Signature</i>	Datum <i>Date</i>	Name/Stellung <i>Name/Position</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>	
* Legende: 1 = sehr gut 2 = gut 3 = befriedigend P(ass) = entspricht o.g. Prüfgrundlage(n) F(ail) = entspricht nicht o.g. Prüfgrundlage(n)			4 = ausreichend 5 = mangelhaft N/A = nicht anwendbar N/T = nicht getestet	
Legend: 1 = very good 2 = good 3 = satisfactory P(ass) = passed a.m. test specifications(s) F(ail) = failed a.m. test specifications(s)			4 = sufficient 5 = poor N/A = not applicable N/T = not tested	
Dieser Prüfbericht bezieht sich nur auf das o.g. Prüfmuster und darf ohne Genehmigung der Prüfstelle auszugsweise vervielfältigt werden. Dieser Bericht berechtigt nicht zur Verwendung eines <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: Passed

5.1.2 PEAK OUTPUT POWER

RESULT: Passed

5.1.3 CONDUCTED SPURIOUS EMISSIONS MEASURED IN 100 kHz BANDWIDTH

RESULT: Passed

5.1.4 SPURIOUS EMISSION

RESULT: Passed

5.1.5 20dB BANDWIDTH

RESULT: Passed

5.1.6 FREQUENCY SEPARATION

RESULT: Passed

5.1.7 NUMBER OF HOPPING FREQUENCY

RESULT: Passed

5.1.8 TIME OF OCCUPANCY

RESULT: Passed

5.1.9 CONDUCTED EMISSIONS

RESULT: Passed

6.1.1 ELECTROMAGNETIC FIELDS

RESULT: Passed

Contents

1	GENERAL REMARKS	5
1.1	COMPLEMENTARY MATERIALS	5
2	TEST SITES.....	5
2.1	TEST FACILITIES.....	5
2.2	LIST OF TEST AND MEASUREMENT INSTRUMENTS.....	6
2.3	TRACEABILITY	7
2.4	CALIBRATION.....	7
2.5	MEASUREMENT UNCERTAINTY	7
2.6	LOCATION OF ORIGINAL DATA.....	7
2.7	STATUS OF FACILITY USED FOR TESTING.....	7
3	GENERAL PRODUCT INFORMATION	8
3.1	PRODUCT FUNCTION AND INTENDED USE	8
3.2	RATINGS AND SYSTEM DETAILS	8
3.3	INDEPENDENT OPERATION MODES.....	10
3.4	NOISE GENERATING AND NOISE SUPPRESSING PARTS	10
3.5	SUBMITTED DOCUMENTS	10
4	TEST SET-UP AND OPERATION MODES	11
4.1	PRINCIPLE OF CONFIGURATION SELECTION.....	11
4.2	TEST OPERATION AND TEST SOFTWARE	11
4.3	SPECIAL ACCESSORIES AND AUXILIARY EQUIPMENT	11
4.4	COUNTERMEASURES TO ACHIEVE EMC COMPLIANCE	11
4.5	TEST SET-UP.....	12
5	TEST RESULTS	14
5.1	TRANSMITTER REQUIREMENT & TEST SUITES.....	14
5.1.1	<i>Antenna Requirement.....</i>	<i>14</i>
5.1.2	<i>Peak Output Power.....</i>	<i>15</i>
5.1.3	<i>Conducted Spurious Emissions Measured in 100 kHz Bandwidth</i>	<i>17</i>
5.1.4	<i>Spurious Emission.....</i>	<i>18</i>
5.1.5	<i>20dB Bandwidth.....</i>	<i>19</i>
5.1.6	<i>Frequency Separation</i>	<i>20</i>
5.1.7	<i>Number of Hopping Frequency</i>	<i>21</i>
5.1.8	<i>Time of Occupancy</i>	<i>22</i>
5.1.9	<i>Conducted Emissions</i>	<i>24</i>
6	SAFETY HUMAN EXPOSURE	25
6.1	RADIO FREQUENCY EXPOSURE COMPLIANCE	25

6.1.1	Electromagnetic Fields	25
7	PHOTOGRAPHS OF THE TEST SET-UP	26
8	LIST OF TABLES	28
9	LIST OF PHOTOGRAPHS	28

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

BZT Testing Technology Co., Ltd

Buliding 17,Xinghua Road Xingwei industrial Park Fuyong,Baoan District,
Shenzhen,Guangdong,China

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

2.2 List of Test and Measurement Instruments

Table 1: List of Test and Measurement Equipment

Name of Equipment	Manufacturer	Model	Serial Number	Calibration Due
carrier frequencies separated/ hopping channel number/ dwell time/ maximum peak output power/100kHz bandwidth of frequency band edge/ Spurious Emissions at Antenna Port/ Restricted Bands				
Spectrum Analyzer	Agilent	E4407B	MY50140340	2017-10-22
Conducted Emissions				
EMI Receiver	R&S	ESCI	100529	2018-03-24
L.I.S.N	SCHWARZBECK	NSLK 8127	8127450	2018-08-18
Radiated Spurious Emissions				
Receiver	R&S	ESU26	100526	2018-03-08
Loop antenna	R&S	HFH2-Z2	881058/58	2018-04-17
Biconical Log-periodic Antenna	ETS.LINDGREN	3142C	00075971	2018-04-17
Horn antenna	SCHWARZBECK	BBHA9120D	D752	2018-03-03
Biconical Log-periodic Antenna	TESEQ	CBL6111D	45873	2017-10-24
Horn Antenna	Schwarzbeck	BBHA 9120D	9120D-1344	2018-03-06
Per-Amplifier (0.1-26.5GHz)	Compliance Directions systems Inc.	PAP-0126	25002	2018-01-03

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

Uncertainty for conducted emissions measurements is 2.40dB.

Uncertainty for radiated emissions measurements is 4.40dB (30M-1GHz) and 4.40dB (> 1GHz).

The reported expanded uncertainty is based on a standard uncertainty multiply by a coverage factor $k=2$, providing a level of confidence of approximately 95%.

2.6 Location of original data

The original copies of test data taken during actual testing were attached at Appendix 1 of this report and delivered to the applicant. A copy has been retained in the TÜV Rheinland (Guangdong) file for certification follow-up purposes.

2.7 Status of facility used for testing

Buliding 17,Xinghua Road Xingwei industrial Park Fuyong,Baoan District,
Shenzhen,Guangdong,China

3 General Product Information

3.1 Product Function and Intended Use

The submit sample SOACC021BTBK is Sobro TV Dongle with Bluetooth 2.1 +EDR. They can be used in following electromagnetic environment: residential, commercial and light industrial, urban outdoors.

According to the above information, full tests were performed on model SOACC021BTBK.

3.2 Ratings and System Details

Table 2: Rating of EUT

Kind of Equipment	Sobro TV Dongle
Type Designation	SOACC021BTBK
FCC ID	BUQ-SOACC021BTBK

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

Technical Specification	Value
Operating Frequency band	2402 – 2480 MHz
Bluetooth Core Version	2.1+EDR
Channel separation	1MHz
Extreme Temperature Range	-10°C to +40°C
Operation Voltage	DC 5V, 1A
Operation Voltage (Adapter SW0501000-A04)	100~240Vac, 50/60Hz;
Modulation	GFSK, 8DPSK, $\pi/4$ DQPSK
Antenna Type	Internal Antenna, Non-User Replaceable
Antenna Gain	0 dBi

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

RF Channel	Frequency (MHz)	RF Channel	Frequency (MHz)	RF Channel	Frequency (MHz)	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	/	/

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, Traditional Bluetooth on Hopping channel
- C. On, Bluetooth connecting mode
- D. Off

3.4 Noise Generating and Noise Suppressing Parts

Refer to the Circuit Diagram.

3.5 Submitted Documents

- 1. Block Diagram
- 2. Circuit Diagram
- 3. Operation Description
- 4. PCB Layout
- 5. BOM
- 6. FCC label and location
- 7. User Manual
- 8. Internal Photos
- 9. External Photos
- 10. Application form

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: 2014 & ANSI C63.10: 2013.

4.3 Special Accessories and Auxiliary Equipment

The product has been tested together with the following additional accessories:

Kind of Equipment	Manufacturer	Model Name	S/N
Notebook	Lenovo	E46A	EB24320428
AC/DC Adapter	Yingna	YN6W-050100UU	/
iPhone	Apple	A1586	/

4.4 Countermeasures to achieve EMC Compliance

The test sample, which has been tested, contained the noise suppression parts as described in the technical document. No additional measures were employed to achieve compliance.

4.5 Test set-up

Diagram of Measurement Configuration for Radiation Test

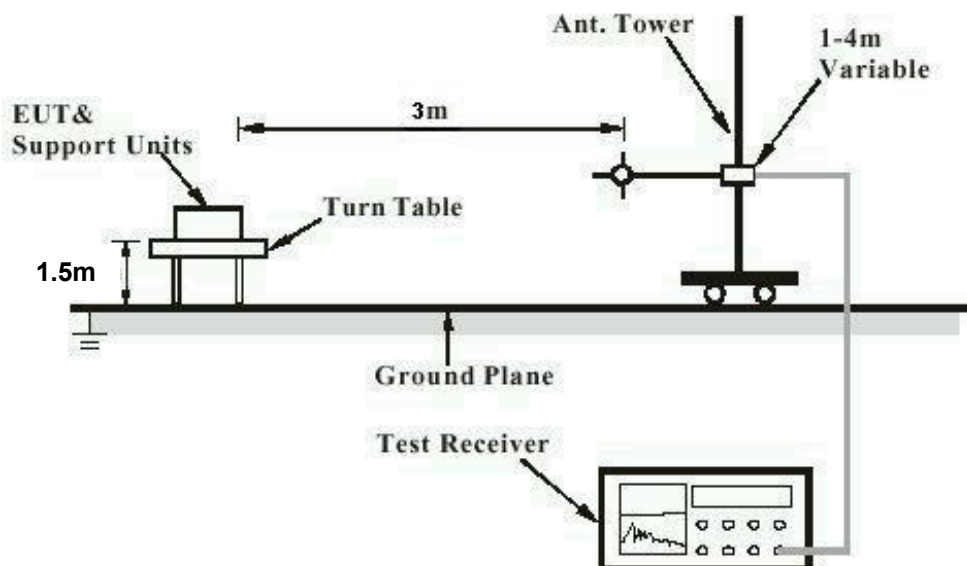


Diagram of Measurement Configuration for Mains Conduction Measurement

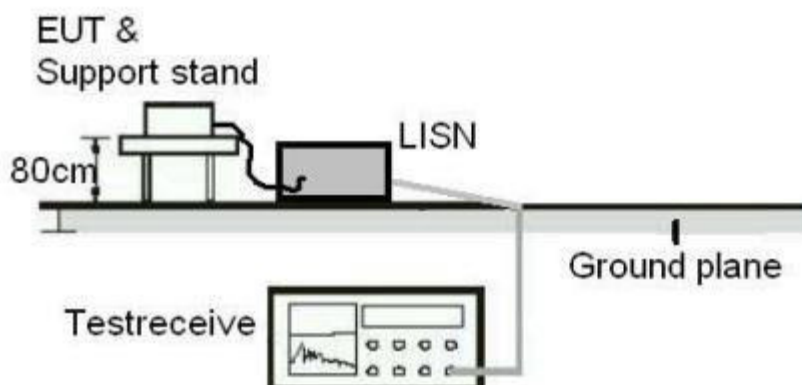
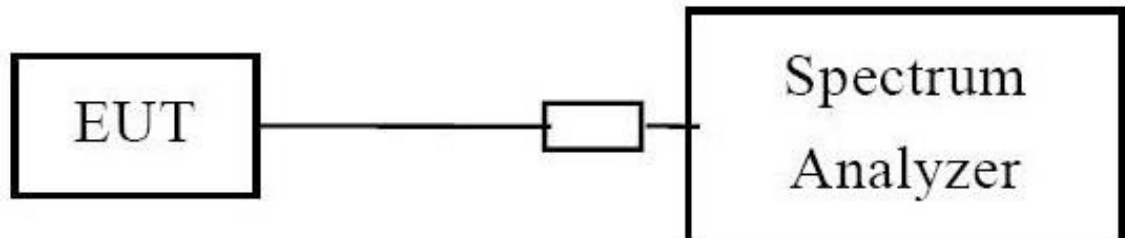


Diagram of Measurement Configuration for Conducted Transmitter Measurement



5 Test Results

5.1 Transmitter Requirement & Test Suites

5.1.1 Antenna Requirement

RESULT:

Passed

Test Specification

Test standard	: FCC Part 15.247(b)(4) and Part 15.203
Limits	: 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 0 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.

For more details, refer to EUT photo.

5.1.2 Peak Output Power

RESULT:

Passed

Test Specification

Test standard	: FCC Part 15.247(b)(1) & (b)(3)
Basic standard	: ANSI C63.10: 2013
Limits	: BDR/ EDR: 0.125 Watts
Kind of test site	: Shielded Room

Test Setup

Date of testing	: 11 Jul, 2017
Power supply	: 120Vac, 60Hz
Operation mode	: A (See 3.3)
Test channel	: Low / Middle / High
Ambient temperature	: 23.2 °C
Relative Humidity	: 55 %
Atmospheric pressure	: 101 kPa

Table 5: Test result of Peak Output Power, GFSK

Channel	Channel Frequency (MHz)	Peak Output Power		Limit
		(dBm)	(W)	(W)
Low Channel	2402	-1.50	0.00071	0.125
Middle Channel	2441	-2.50	0.00056	0.125
High Channel	2480	-3.40	0.00046	0.125

Table 6: Test result of Peak Output Power, $\pi/4$ DQPSK

Channel	Channel Frequency (MHz)	Peak Output Power		Limit
		(dBm)	(W)	(W)
Low Channel	2402	-4.80	0.00033	0.125
Middle Channel	2441	-5.70	0.00027	0.125
High Channel	2480	-6.60	0.00022	0.125

Table 7: Test result of Peak Output Power, 8DPSK

Channel	Channel Frequency (MHz)	Peak Output Power		Limit
		(dBm)	(W)	(W)
Low Channel	2402	-4.80	0.00033	0.125
Middle Channel	2441	-5.80	0.00026	0.125
High Channel	2480	-6.70	0.00021	0.125

Maximum Measured Value: -1.5 dBm (**0.00071W**).

5.1.3 Conducted Spurious Emissions Measured in 100 kHz Bandwidth

RESULT:

Passed

Test Specification

Test standard	: FCC Part 15.247(d)
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);

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	: Shielded Room
-------------------	-----------------

Test Setup

Date of testing	: 11 Jul, 2017
Power supply	: 120Vac, 60Hz
Operation mode	: A (See 3.3)
Test channel	: Low / Middle / High
Ambient temperature	: 23.2 °C
Relative Humidity	: 61 %
Atmospheric pressure	: 101 kPa

All emissions are more than 20dB below fundamental, compliance is achieved as well.

For the measurement records, refer to the appendix 1.

5.1.4 Spurious Emission

RESULT:

Passed

Test Specification

Test standard	: FCC Part 15.247(d), FCC Part 15.205
Basic standard	: ANSI C63.10: 2013
Limits	: Refer to 15.209(a) of FCC part 15.247(d)
Kind of test site	: 3m Semi-anechoic chamber

Test Setup

Date of testing	: 02 and 05 Jul, 2017
Power supply	: 120Vac, 60Hz
Operation mode	: A(See 3.3)
Test channel	: Low / Middle / High
Ambient temperature	: Refer to the appendix 1.
Relative Humidity	: Refer to the appendix 1.
Atmospheric pressure	: Refer to the appendix 1.

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.

The band-edge emissions were lowest as data in appendix1, so it were not tested.

Testing was carried out within frequency range 9kHz to the tenth harmonic. For details refer to appendix 1. The Radiated Emissions testing was performed in the X, Y and Z axis orientation. The worst-case Axis orientation is recorded in this test report. Due to the small size of the product and that there are no inductive components of significant size, 9kHz to 30MHz frequency range is not tested based on technical judgment.

For the measurement records, refer to the appendix 1.

5.1.5 20dB Bandwidth

RESULT:

Passed

Test Specification

Test standard : FCC Part 15.247(a)(1)
Basic standard : ANSI C63.10: 2013
Kind of test site : Shielded Room

Test Setup

Date of testing : 11 Jul, 2017
Power supply : 120Vac, 60Hz
Operation mode : A (See 3.3)
Test channel : Low / Middle / High
Ambient temperature : 25 °C
Relative Humidity : 55 %
Atmospheric pressure : 101 kPa

Table 8: Test result of 20dB Bandwidth, GFSK mode

Channel	Channel Frequency (MHz)	20dB Bandwidth (kHz)	Limit (MHz)	Result
Low Channel	2402	1050	/	Pass
Mid Channel	2441	1089	/	Pass
High Channel	2480	1070	/	Pass

Table 9: Test result of 20dB Bandwidth, 8DPSK

Channel	Channel Frequency (MHz)	20dB Bandwidth (kHz)	Limit (MHz)	Result
Low Channel	2402	1358	/	Pass
Mid Channel	2441	1356	/	Pass
High Channel	2480	1358	/	Pass

5.1.6 Frequency Separation

RESULT:

Passed

Test Specification

Test standard : FCC Part 15.247(a)(1)
Basic standard : ANSI C63.10: 2013
Limits : $\geq 25\text{kHz}$ or $2/3$ of 20dB bandwidth, whichever is greater
Kind of test site : Shielded Room

Test Setup

Date of testing : 11 Jul, 2017
Power supply : 120Vac, 60Hz
Operation mode : A (See 3.3)
Test channel : Low / Middle / High
Ambient temperature : $23.2\text{ }^{\circ}\text{C}$
Relative Humidity : 55 %
Atmospheric pressure : 101 kPa

Table 10: Test result of Frequency Separation

Channel	Channel Frequency (MHz)	Measured Channel Separation (MHz)	Limit (kHz)	Result
Low Channel	2402	1.005	≥ 25kHz or 2/3 of 20dB bandwidth	Pass
Adjacency Channel	2403			
Mid Channel	2441	1.005		Pass
Adjacency Channel	2442			
High Channel	2480	1.000		Pass
Adjacency Channel	2479			

5.1.7 Number of Hopping Frequency

RESULT:

Passed

Test Specification

Test standard : FCC part 15.247(a)(1)(iii)
Basic standard : ANSI C63.10: 2013
Limits : ≥ 15 non-overlapping channels
Kind of test site : Shielded Room

Test Setup

Date of testing : 11 Jul, 2017
Power supply : 120Vac, 60Hz
Operation mode : B (See 3.3)
Ambient temperature : 23.2 °C
Relative Humidity : 61 %
Atmospheric pressure : 101 kPa

Table 11: Test result of Number of hopping frequency

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

5.1.8 Time of Occupancy

RESULT:

Passed

Test Specification

Test standard : FCC part 15.247(a)(1)(iii)
Basic standard : ANSI C63.10: 2013
Limits : 0.4s
Kind of test site : Shielded Room

Test Setup

Date of testing : 11 Jul, 2017
Power supply : 120Vac, 60Hz
Operation mode : A (See 3.3)
Test channel : Low / Middle / High
Ambient temperature : 23.2 °C
Relative Humidity : 61 %
Atmospheric pressure : 101 kPa

Table 12: Test result of Time of Occupancy, 8DPSK mode

Channel	Data Mode	Pulse width (ms)	Measured Dwell time (s)	Limit (s)	Result
Low Channel	DH1	0.42	0.134	0.4	Pass
	DH3	1.60	0.256	0.4	Pass
	DH5	2.80	0.299	0.4	Pass
Mid Channel	DH1	0.42	0.134	0.4	Pass
	DH3	1.60	0.256	0.4	Pass
	DH5	2.80	0.299	0.4	Pass
High Channel	DH1	0.42	0.134	0.4	Pass
	DH3	1.60	0.256	0.4	Pass
	DH5	2.80	0.299	0.4	Pass

Table 13: Test result of Time of Occupancy, GFSK mode

Channel	Data Mode	Pulse width (ms)	Measured Dwell time (s)	Limit (s)	Result
Low Channel	DH1	0.40	0.128	0.4	Pass
	DH3	1.60	0.256	0.4	Pass
	DH5	2.79	0.298	0.4	Pass
Mid Channel	DH1	0.40	0.128	0.4	Pass
	DH3	1.60	0.256	0.4	Pass
	DH5	2.79	0.298	0.4	Pass
High Channel	DH1	0.40	0.128	0.4	Pass
	DH3	1.60	0.256	0.4	Pass
	DH5	2.79	0.298	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

5.1.9 Conducted Emissions

RESULT:

Passed

Test Specification

Test standard	: FCC part 15.207
Basic standard	: ANSI C63.4: 2014
Frequency range	: 0.15 – 30MHz
Limits	: FCC Part 15.207(a)
Kind of test site	: Shielded Room

Test Setup

Date of testing	: 11 Jul, 2017
Power supply	: 120Vac, 60Hz
Operation mode	: D (See 3.3)
Earthing	: Not connected
Ambient temperature	: 23.2 °C
Relative Humidity	: 61 %
Atmospheric pressure	: 101 kPa

For the measurement records, refer to the appendix 1.

6 Safety Human exposure

6.1 Radio Frequency Exposure Compliance

6.1.1 Electromagnetic Fields

RESULT:

Passed

Test Specification

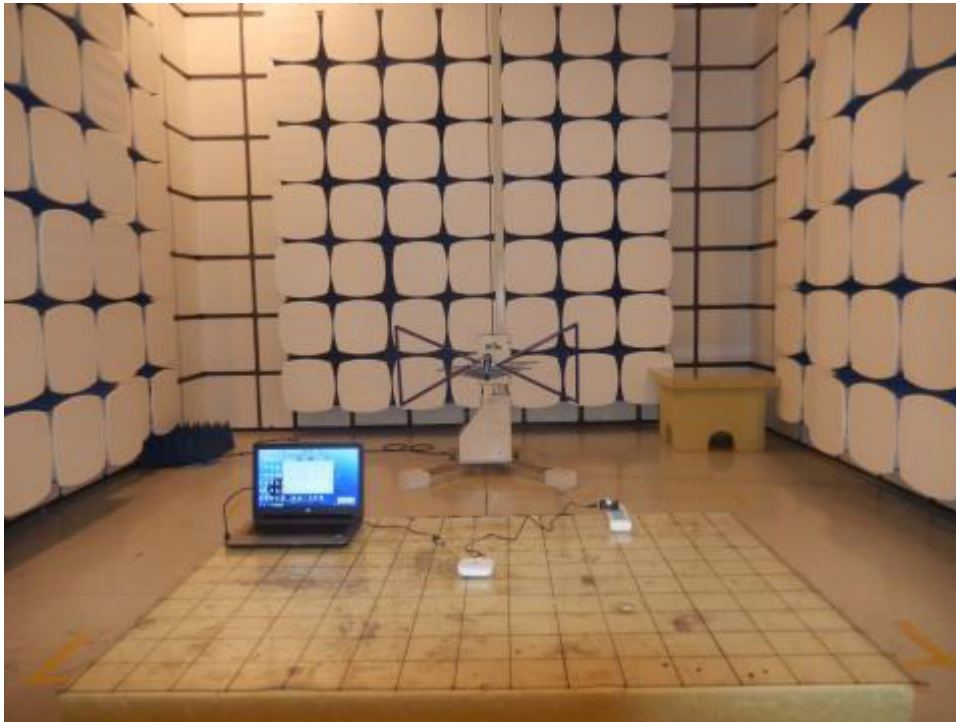
Test standard : FCC KDB Publication 447498 v06

The minimum distance for the EUT is less than 5mm.
Since as the customer declared maximum peak output power of the transmitter is 1 mW (0dBm) <10 mW.

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

7 Photographs of the Test Set-Up

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



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



Photograph 3: Set-up for Conducted Emissions



8 List of Tables

Table 1: List of Test and Measurement Equipment.....	6
Table 2: Rating of EUT	8
Table 3: Technical Specification of Bluetooth (BDR & EDR).....	9
Table 4: RF channel and frequency of Bluetooth (BDR & EDR mode).....	9
Table 5: Test result of Peak Output Power, GFSK.....	16
Table 6: Test result of Peak Output Power, $\pi/4$ DQPSK.....	16
Table 7: Test result of Peak Output Power, 8DPSK.....	16
Table 8: Test result of 20dB Bandwidth, GFSK mode.....	19
Table 9: Test result of 20dB Bandwidth, 8DPSK.....	19
Table 10: Test result of Frequency Separation	20
Table 11: Test result of Number of hopping frequency	21
Table 12: Test result of Time of Occupancy, 8DPSK mode	22
Table 13: Test result of Time of Occupancy, GFSK mode	23

9 List of Photographs

Photograph 1: Set-up for Spurious Emissions (30MHz-1GHz).....	26
Photograph 2: Set-up for Spurious Emissions (above 1GHz)	26
Photograph 3: Set-up for Conducted Emissions	27

Prüfbericht - Nr.:

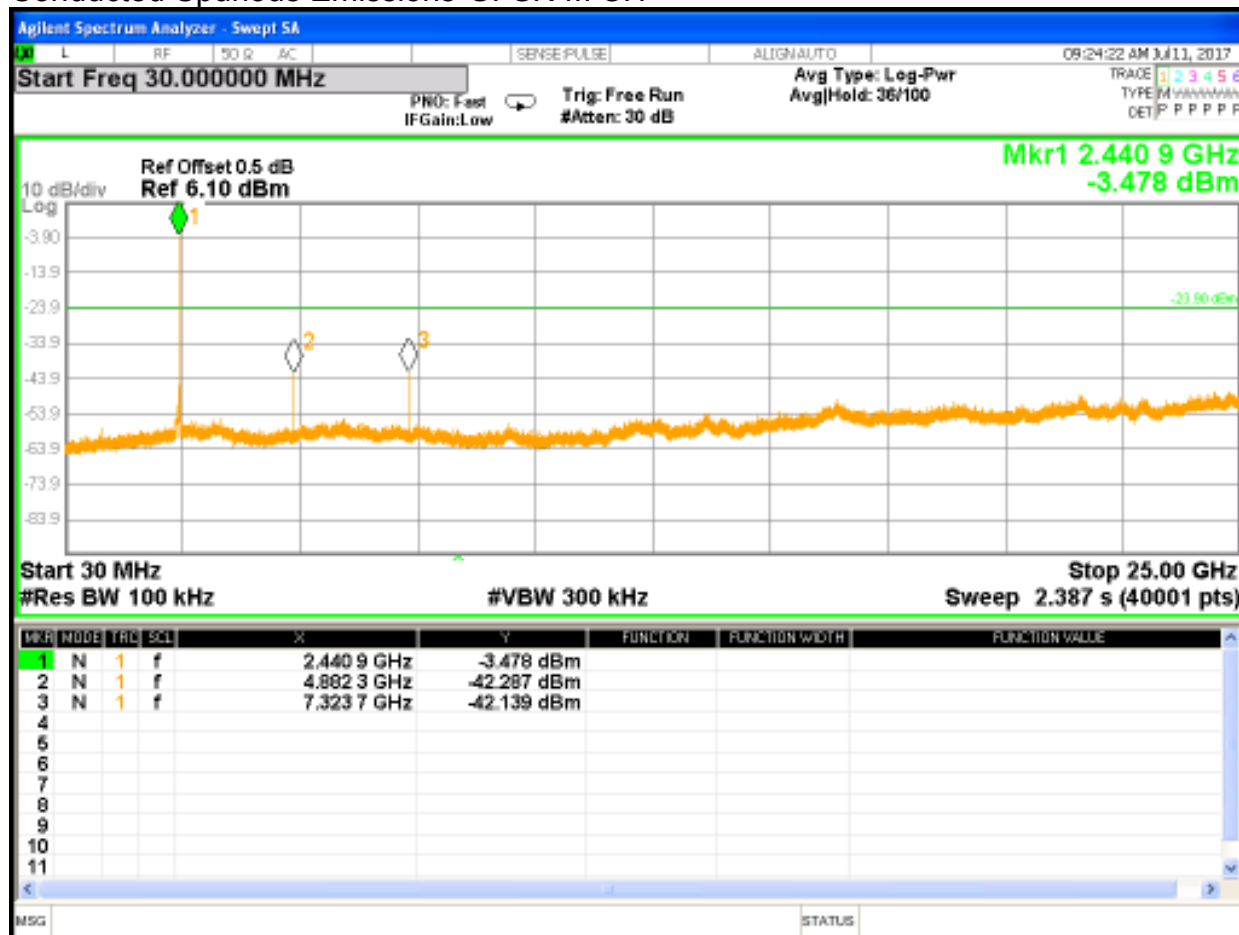
16085910 001

Seite 2 von 60

Page 2 of 60

Test Report No.

Conducted Spurious Emissions-GFSK-M CH



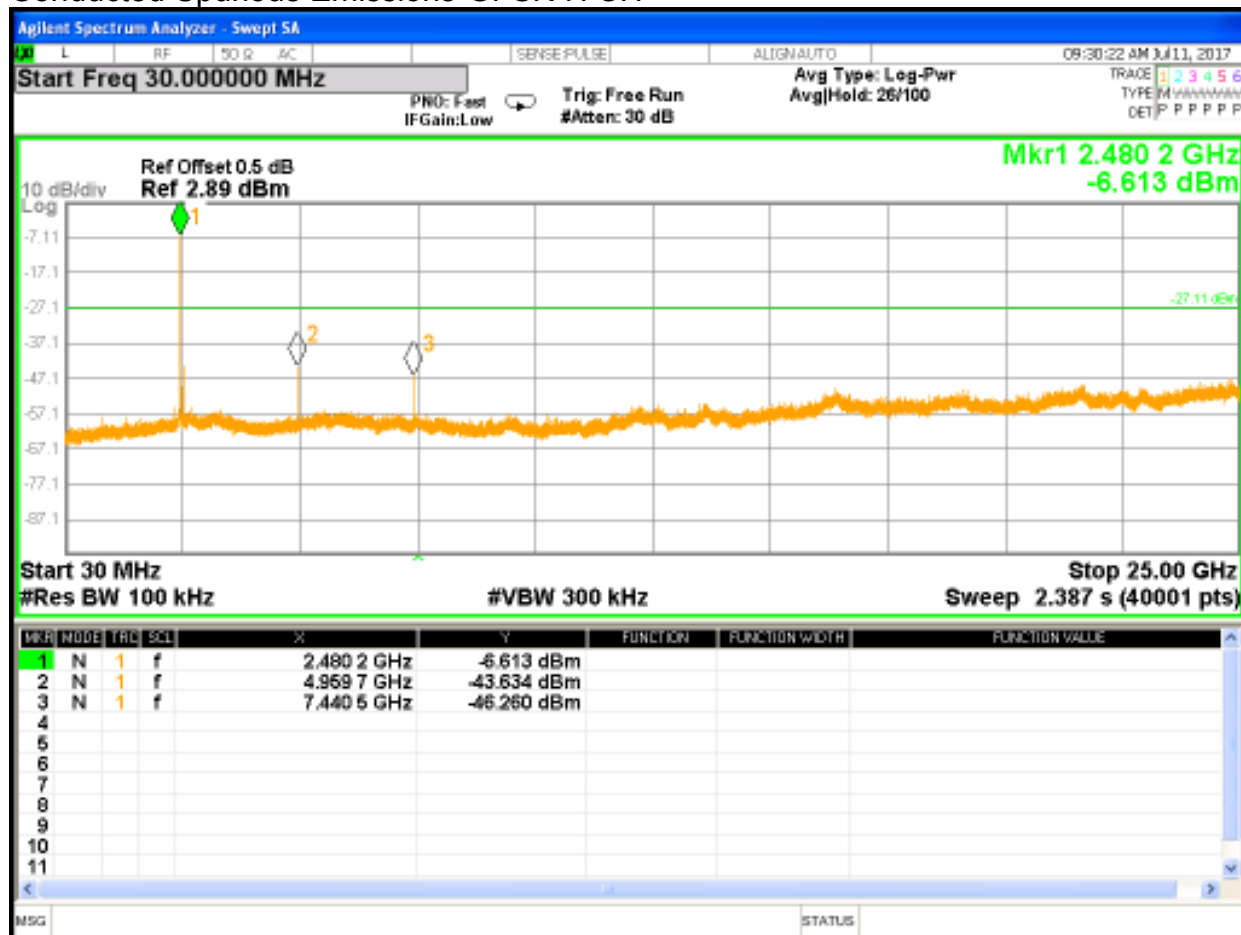
Prüfbericht - Nr.:

16085910 001

Seite 3 von 60

Page 3 of 60

Conducted Spurious Emissions-GFSK-H CH



Prüfbericht - Nr.:

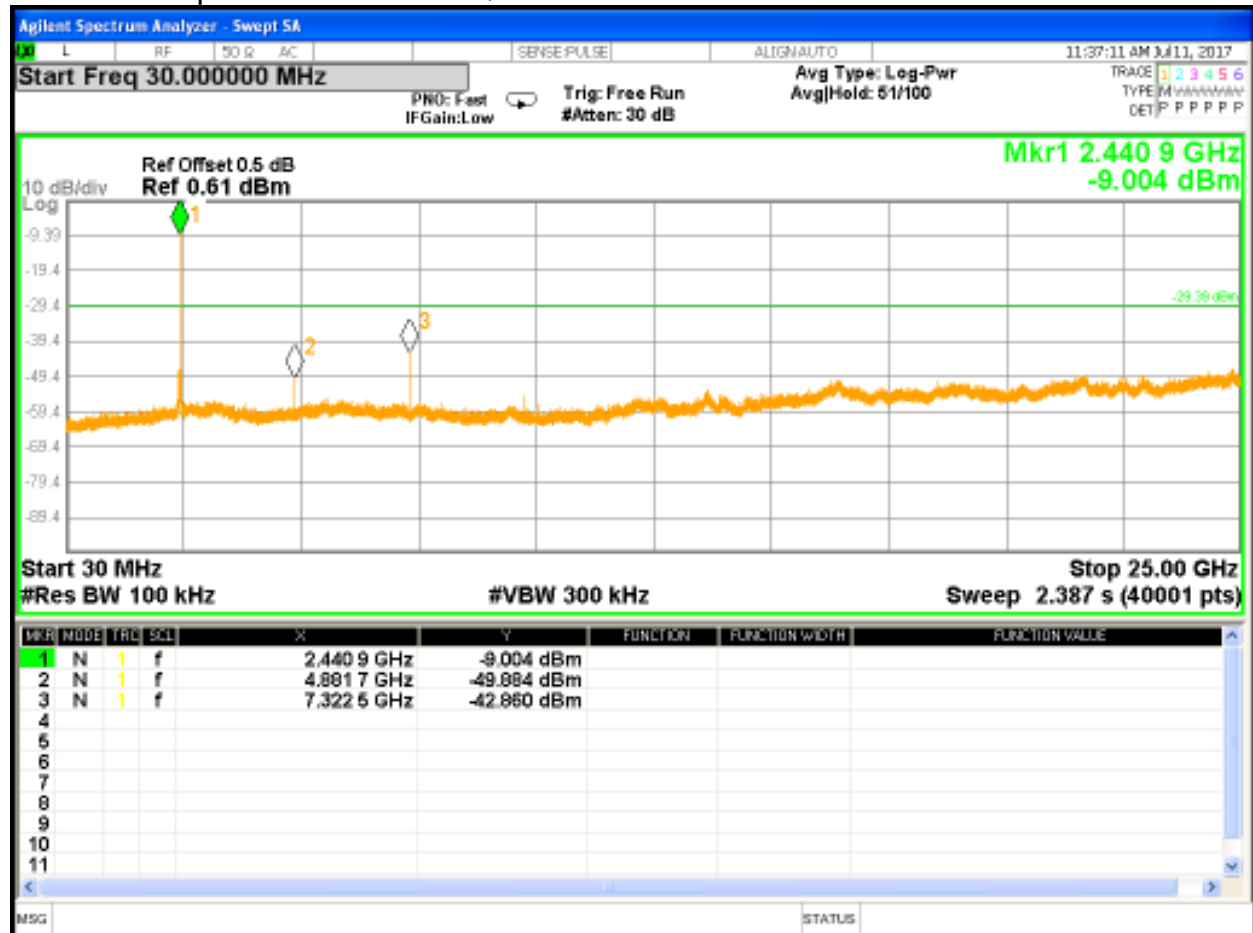
16085910 001

Test Report No.

Seite 5 von 60

Page 5 of 60

Conducted Spurious Emissions-QPSK-M CH



Prüfbericht - Nr.:

16085910 001

Seite 6 von 60

Page 6 of 60

Test Report No.

Conducted Spurious Emissions-QPSK-H CH



Prüfbericht - Nr.:

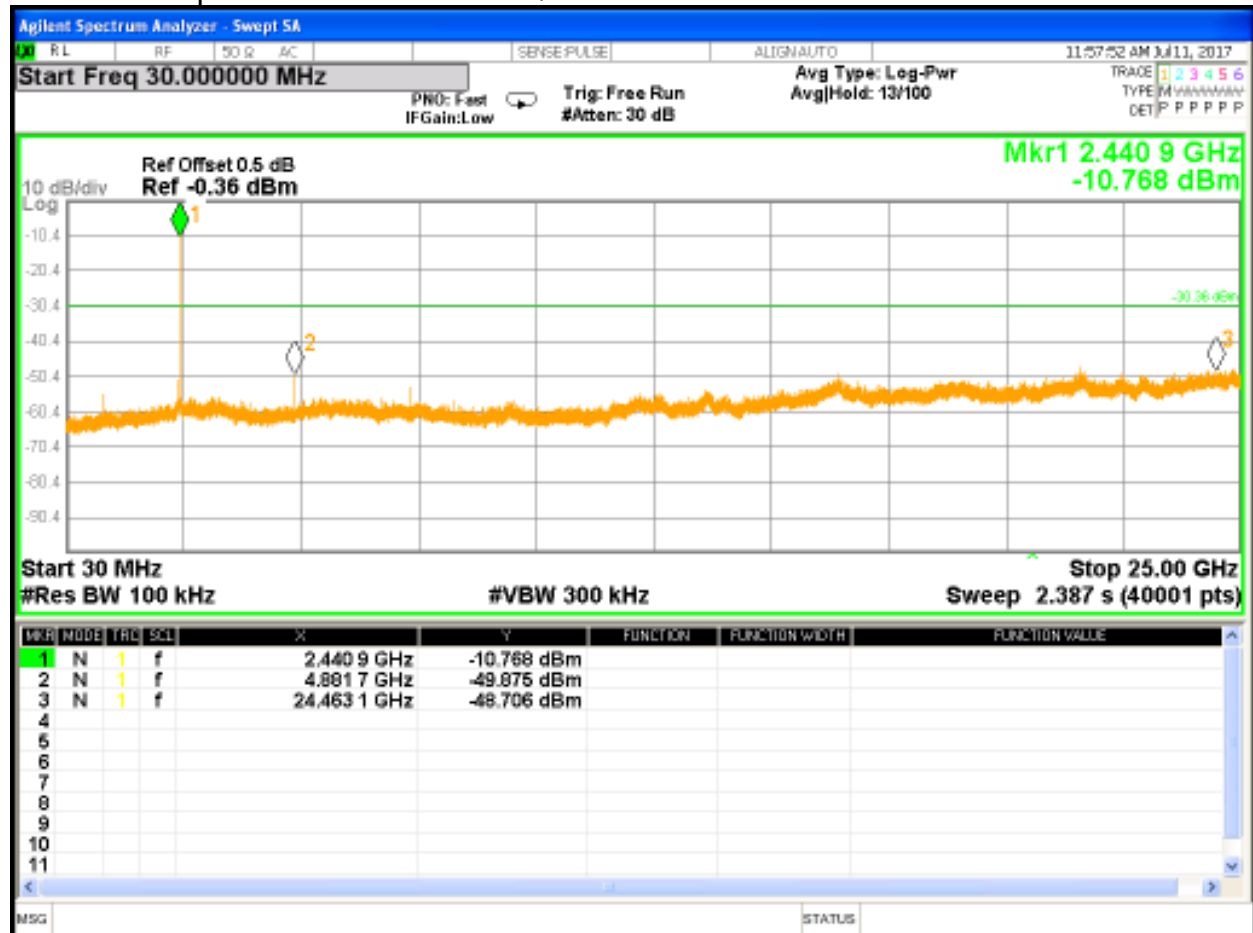
16085910 001

Test Report No.

Seite 8 von 60

Page 8 of 60

Conducted Spurious Emissions-8-DQPSK-M CH



Prüfbericht - Nr.:

16085910 001

Seite 9 von 60

Page 9 of 60

Test Report No.

Conducted Spurious Emissions-8-DQPSK-H CH



Prüfbericht - Nr.:

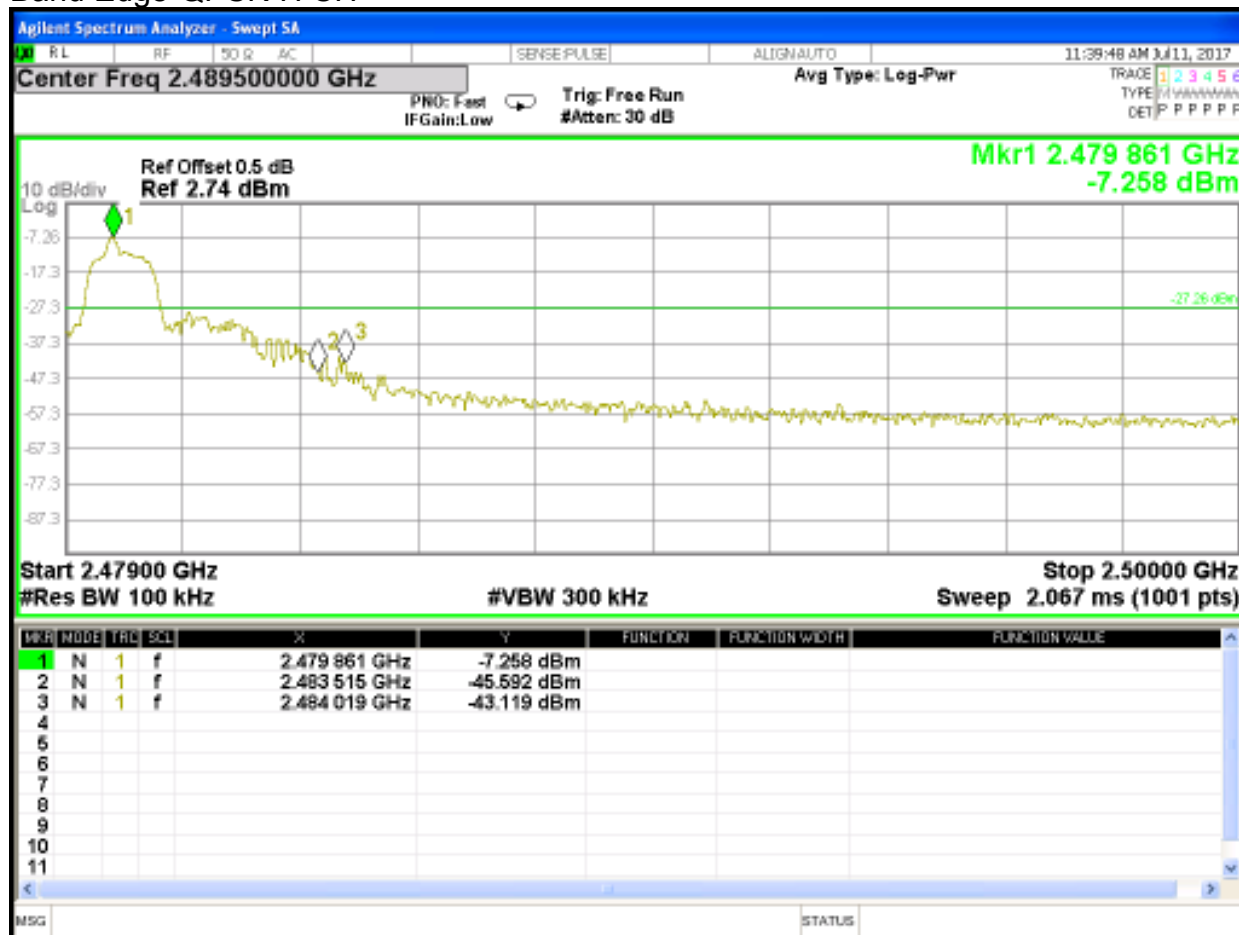
16085910 001

Seite 13 von 60

Page 13 of 60

Test Report No.

Band Edge-QPSK-H CH



Prüfbericht - Nr.:

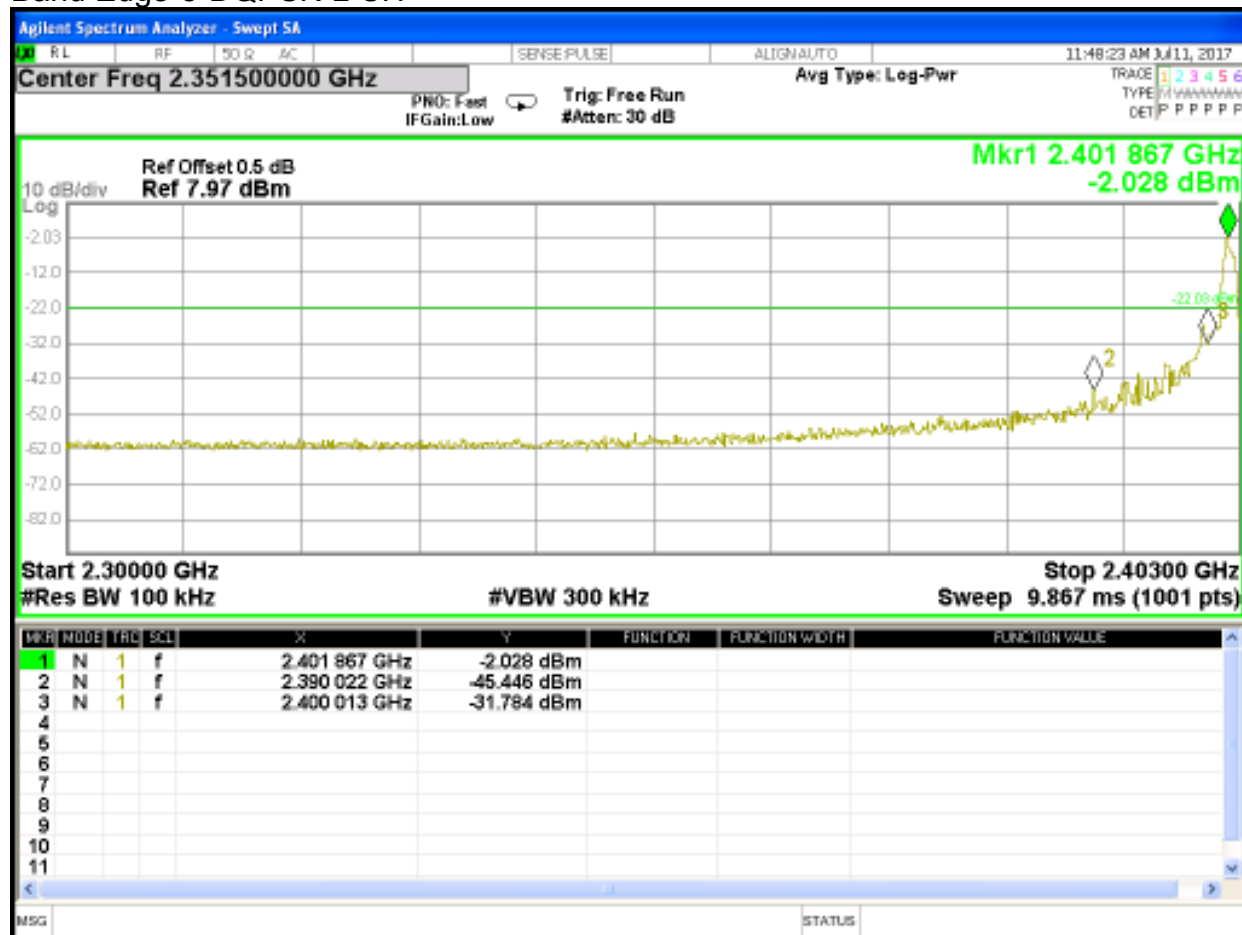
16085910 001

Seite 14 von 60

Test Report No.

Page 14 of 60

Band Edge-8-DQPSK-L CH



Prüfbericht - Nr.:

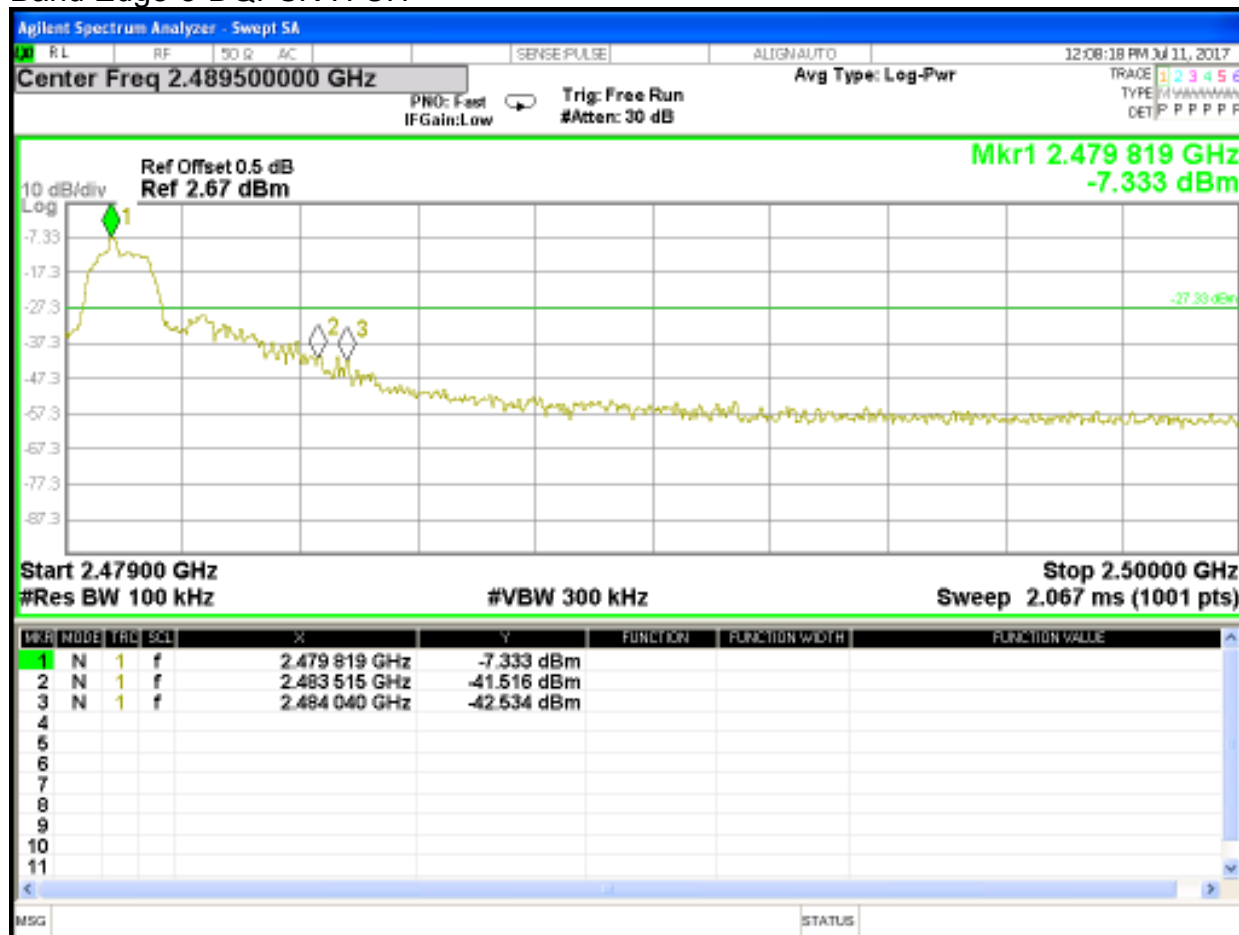
16085910 001

Seite 15 von 60

Page 15 of 60

Test Report No.

Band Edge-8-DQPSK-H CH



Prüfbericht - Nr.:

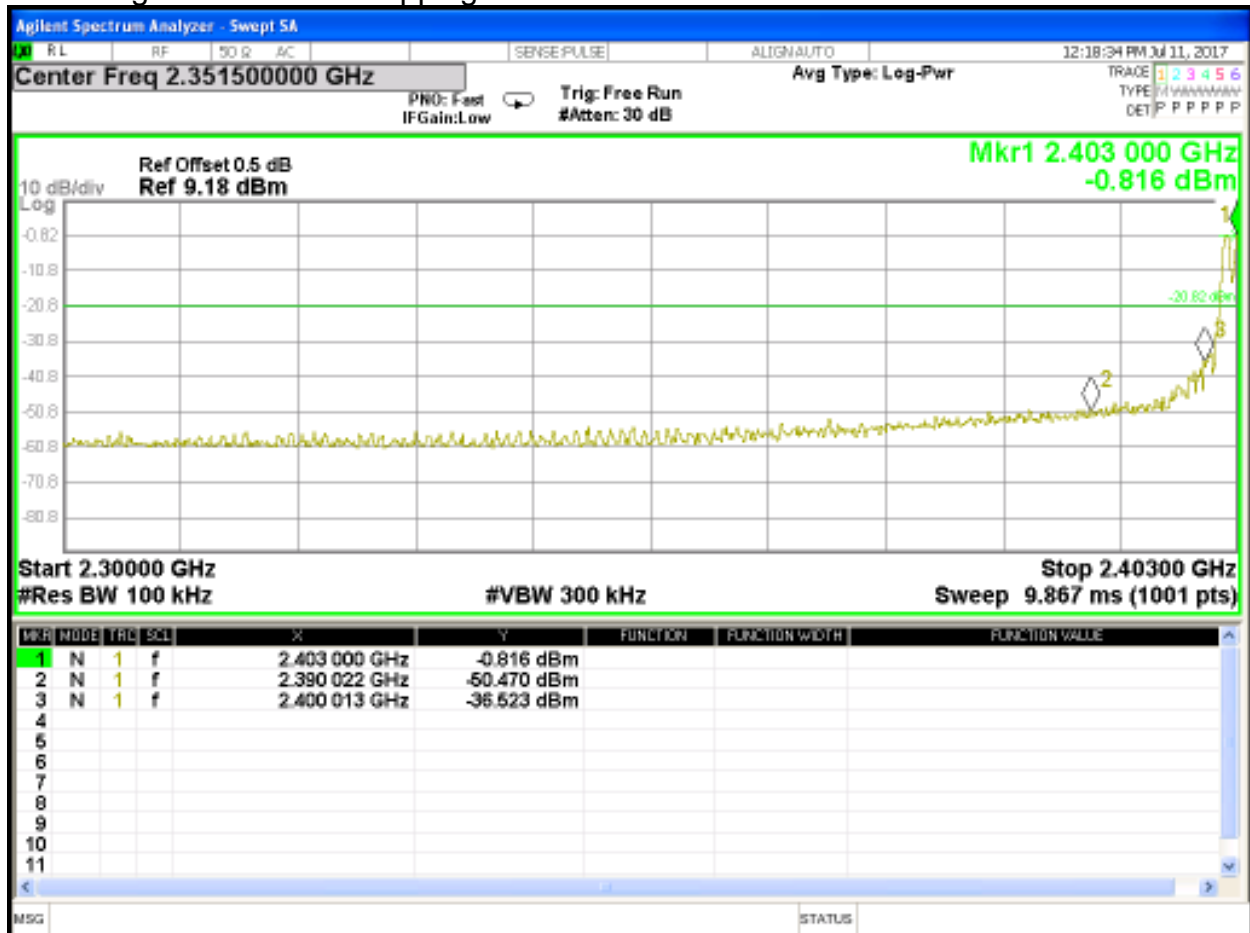
16085910 001

Test Report No.

Seite 18 von 60

Page 18 of 60

Band Edge-GFSK-L CH-Hopping mode



Prüfbericht - Nr.:

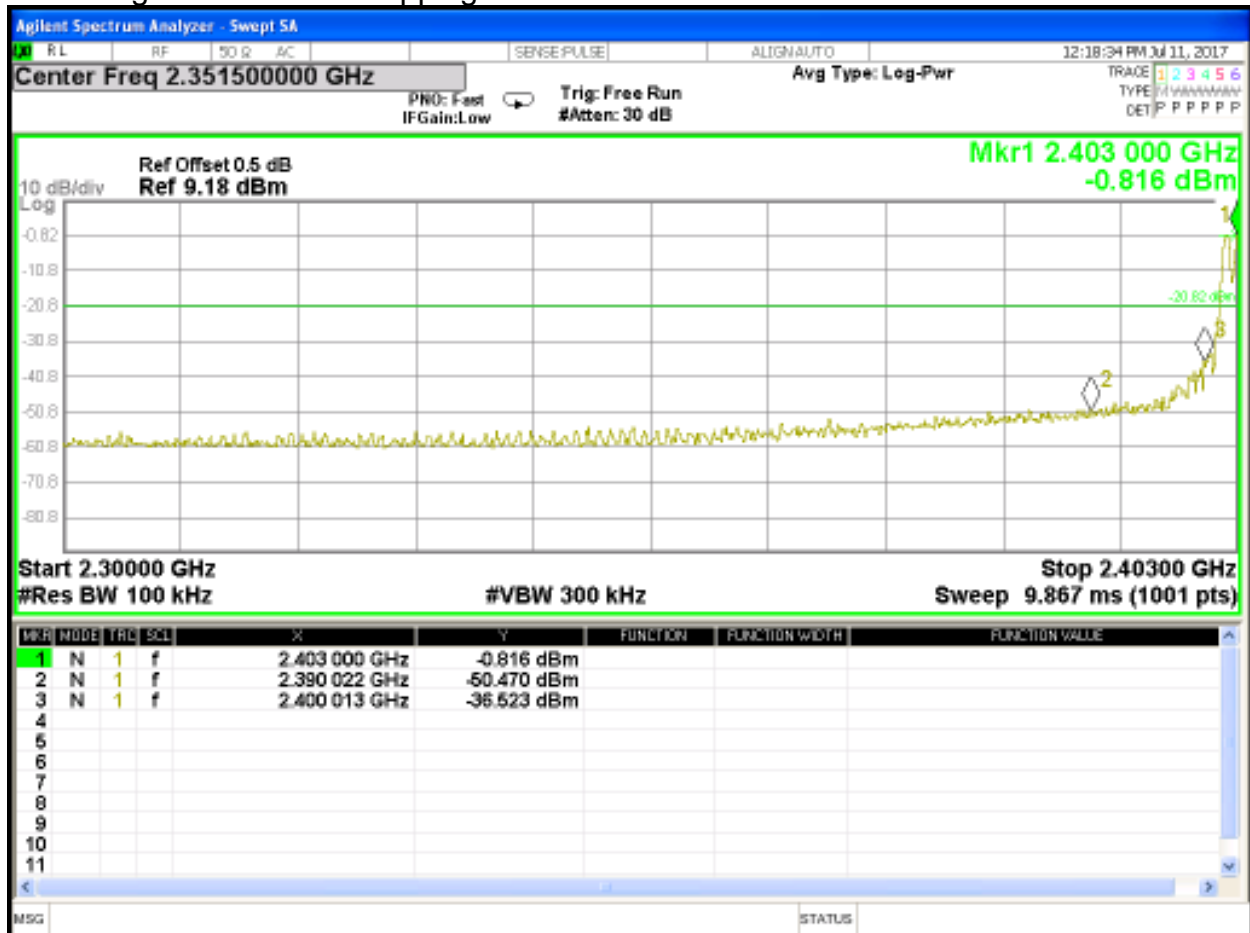
16085910 001

Test Report No.

Seite 19 von 60

Page 19 of 60

Band Edge-GFSK-L CH-Hopping mode



Prüfbericht - Nr.:

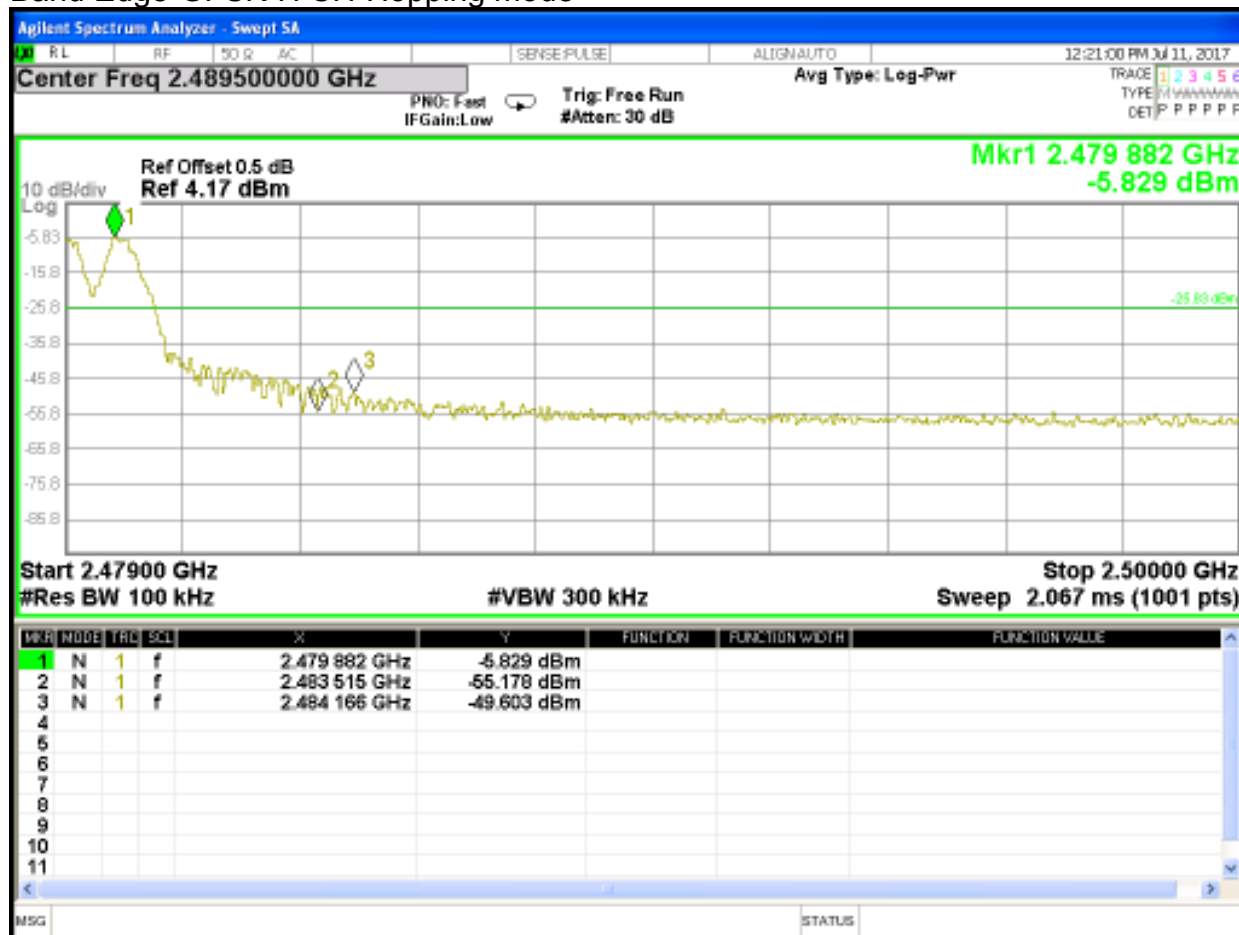
16085910 001

Seite 20 von 60

Page 20 of 60

Test Report No.

Band Edge-GFSK-H CH-Hopping mode



Prüfbericht - Nr.:

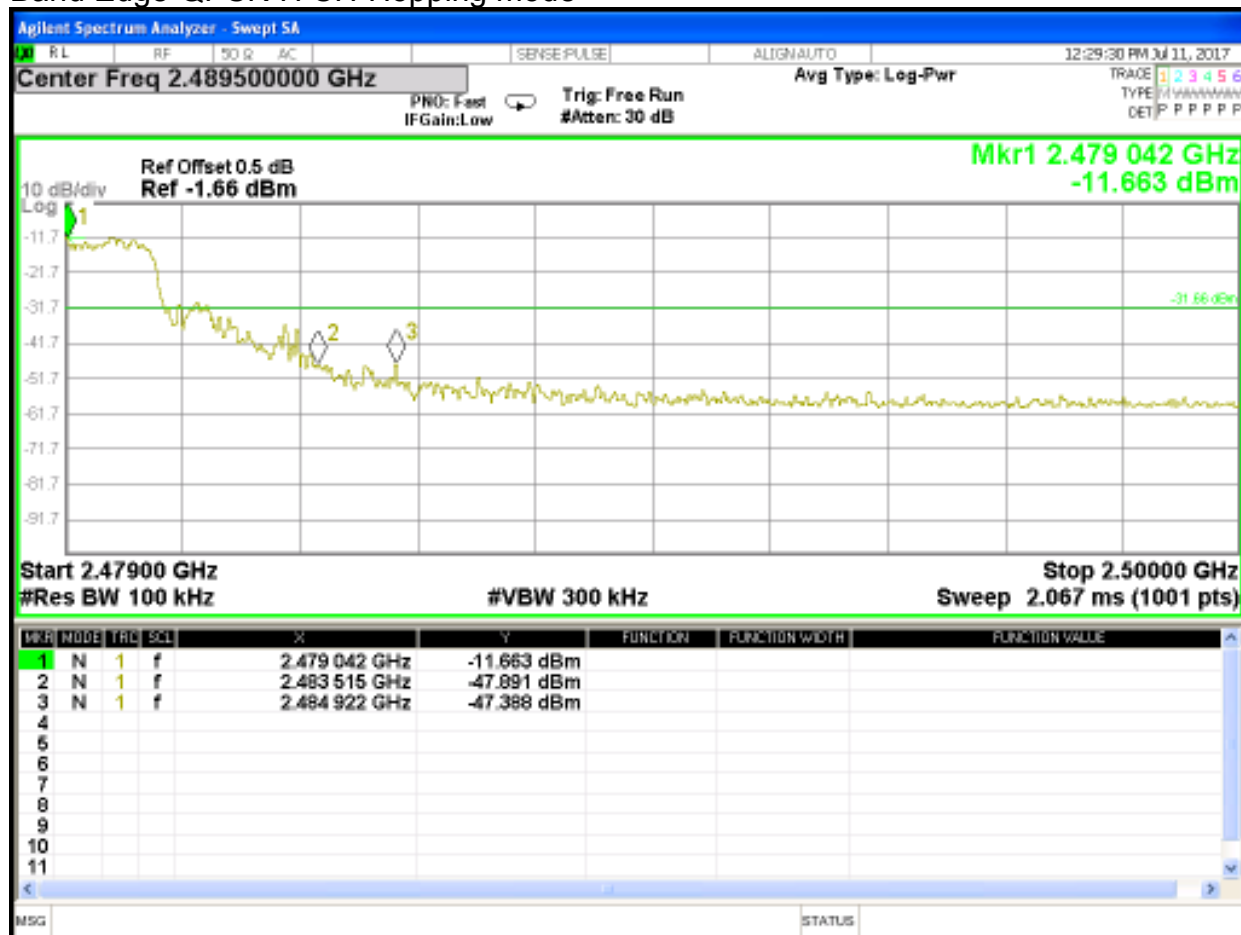
16085910 001

Seite 22 von 60

Page 22 of 60

Test Report No.

Band Edge-QPSK-H CH-Hopping mode



Prüfbericht - Nr.:

16085910 001

Seite 23 von 60

Test Report No.

Page 23 of 60

Job No.:	STS1707014	Ant.Polar.:	Vertical
Standard:	FCC_PART15_B_03m_QP	Date:	2017/7/5 Time: 23:49:55
Test item:	Radiated Emission	Distance:	
EUT:	蓝牙板	Temp.(C)/Hum.(%RH):	26 (C) / 60 %RH
Model:	/	Power:	AC 120V/60Hz
Mode:	8DPSK-H	Test By :	
Description:			



No.	Frequency (MHz)	Reading (dBuV)	Correction (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (deg.)	Height (cm)	Remark
1	38.3581	39.71	-15.48	24.23	40.00	-15.77	360	100	QP
2	45.5621	49.14	-19.19	29.95	40.00	-10.05	360	100	QP
3	97.1148	59.82	-19.48	40.34	43.50	-3.16			QP
4	170.1947	49.51	-19.33	30.18	43.50	-13.32			QP
5	204.2376	50.68	-19.99	30.69	43.50	-12.81			QP
6	267.5455	43.25	-15.38	27.87	46.00	-18.13			QP

Prüfbericht - Nr.:

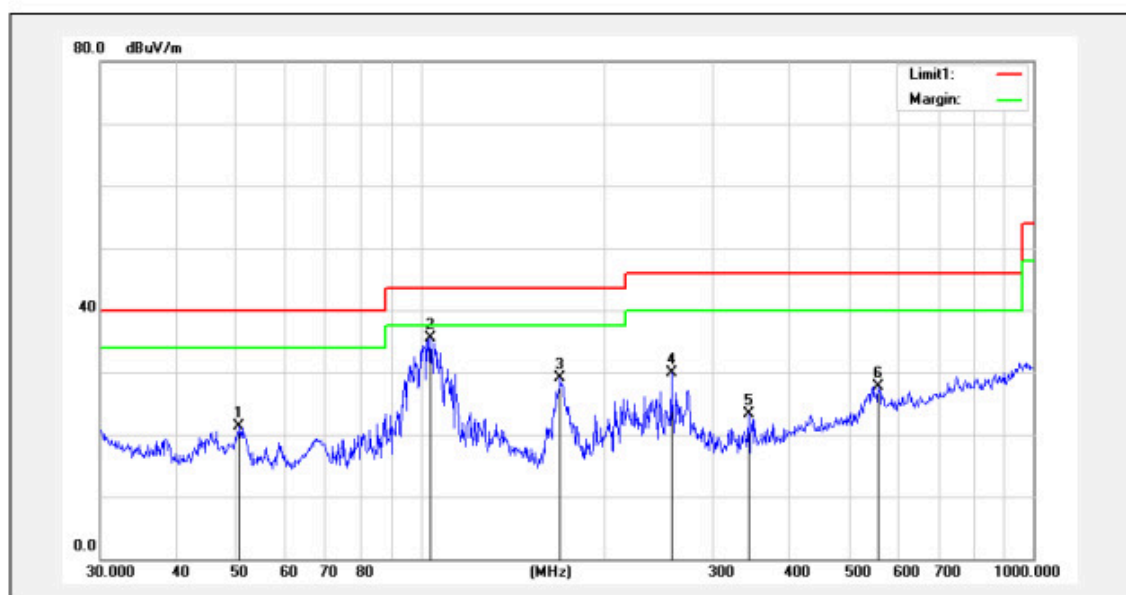
16085910 001

Test Report No.

Seite 24 von 60

Page 24 of 60

Job No.:	STS1707014	Ant.Polar.:	Horizontal
Standard:	FCC_PART15_B_03m_QP	Date:	2017/7/5 Time: 23:58:05
Test item:	Radiated Emission	Distance:	
EUT:	蓝牙板	Temp.(C)/Hum.(%RH):	26 (C) / 60 %RH
Model:	/	Power:	AC 120V/60Hz
Mode:	8DPSK-H	Test By :	
Description:			



No.	Frequency (MHz)	Reading (dBuV)	Correction (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (deg.)	Height (cm)	Remark
1	50.5860	42.89	-21.65	21.24	40.00	-18.76			QP
2	103.8055	54.37	-18.87	35.50	43.50	-8.00			QP
3	169.0054	48.42	-19.24	29.18	43.50	-14.32			QP
4	256.5211	45.34	-15.50	29.84	46.00	-16.16			QP
5	343.1800	37.22	-13.88	23.34	46.00	-22.66			QP
6	558.7302	34.34	-6.59	27.75	46.00	-18.25			QP

Prüfbericht - Nr.:

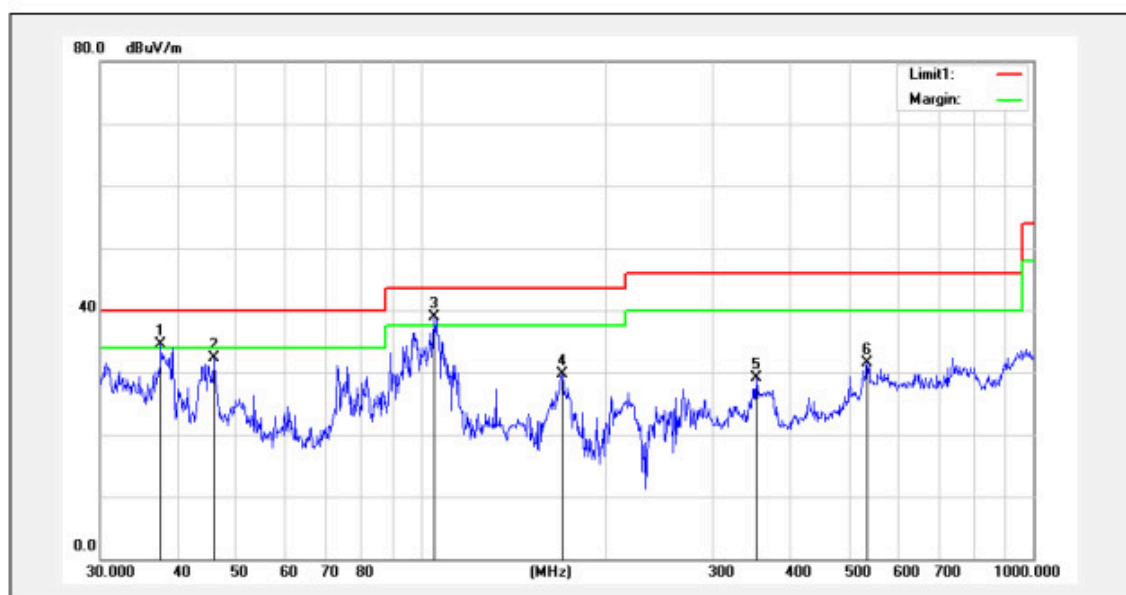
16085910 001

Seite 25 von 60

Test Report No.

Page 25 of 60

Job No.:	STS1707014	Ant.Polar.:	Vertical
Standard:	FCC_PART15_B_03m_QP	Date:	2017/7/2
Test item:	Radiated Emission	Time:	21:16:34
EUT:	蓝牙板	Distance:	
Model:	/	Temp.(C)/Hum.(%RH):	26 (C) / 60 %RH
Mode:	8DPSK-L	Power:	AC 120V/60Hz
		Test By :	
Description:			



No.	Frequency (MHz)	Reading (dBuV)	Correction (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (deg.)	Height (cm)	Remark
1	37.6798	49.58	-15.13	34.45	40.00	-5.55			QP
2	46.0162	51.75	-19.43	32.32	40.00	-7.68			QP
3	105.2716	57.63	-18.74	38.89	43.50	-4.61			QP
4	170.1947	49.01	-19.33	29.68	43.50	-13.82			QP
5	352.9433	42.46	-13.45	29.01	46.00	-16.99			QP
6	535.7073	39.01	-7.41	31.60	46.00	-14.40			QP

Prüfbericht - Nr.:

16085910 001

Test Report No.

Seite 26 von 60

Page 26 of 60

Job No.:	STS1707014	Ant.Polar.:	Horizontal
Standard:	FCC_PART15_B_03m_QP	Date:	2017/7/2 Time: 21:18:22
Test item:	Radiated Emission	Distance:	
EUT:	蓝牙耳机	Temp.(C)/Hum.(%RH):	26 (C) / 60 %RH
Model:	/	Power:	AC 120V/60Hz
Mode:	8DPSK-L	Test By :	
Description:			



No.	Frequency (MHz)	Reading (dBuV)	Correction (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (deg.)	Height (cm)	Remark
1	31.8427	39.50	-12.14	27.36	40.00	-12.64			QP
2	97.7980	54.86	-19.41	35.45	43.50	-8.05			QP
3	169.0054	49.92	-19.24	30.68	43.50	-12.82			QP
4	392.0951	38.72	-11.77	26.95	46.00	-19.05			QP
5	547.0977	38.05	-6.85	31.20	46.00	-14.80			QP
6	948.7610	34.54	-0.45	34.09	46.00	-11.91			QP

Prüfbericht - Nr.:

16085910 001

Test Report No.

Seite 27 von 60

Page 27 of 60

Job No.:	STS1707014	Ant.Polar.:	Vertical
Standard:	FCC_PART15_B_03m_QP	Date:	2017/7/2 Time: 21:20:54
Test item:	Radiated Emission	Distance:	
EUT:	蓝牙板	Temp.(C)/Hum.(%RH):	26 (C) / 60 %RH
Model:	/	Power:	AC 120V/60Hz
Mode:	8DPSK-M	Test By :	
Description:			



No.	Frequency (MHz)	Reading (dBuV)	Correction (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (deg.)	Height (cm)	Remark
1	30.6372	44.98	-11.52	33.46	40.00	-6.54			QP
2	37.6798	48.58	-15.13	33.45	40.00	-6.55			QP
3	97.1148	56.32	-19.48	36.84	43.50	-6.66			QP
4	267.5455	47.25	-15.38	31.87	46.00	-14.13			QP
5	352.9433	45.46	-13.45	32.01	46.00	-13.99			QP
6	975.7527	34.26	-0.14	34.12	54.00	-19.88			QP

Prüfbericht - Nr.:

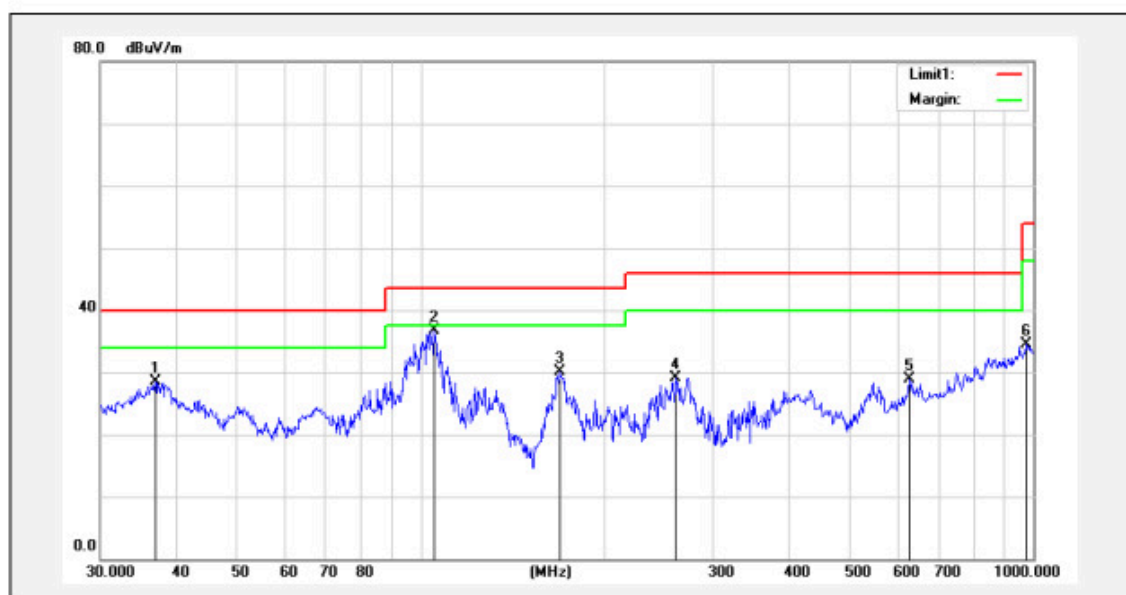
16085910 001

Test Report No.

Seite 28 von 60

Page 28 of 60

Job No.:	STS1707014	Ant.Polar.:	Horizontal
Standard:	FCC_PART15_B_03m_QP	Date:	2017/7/2 Time: 21:23:43
Test item:	Radiated Emission	Distance:	
EUT:	蓝牙板	Temp.(C)/Hum.(%RH):	26 (C) / 60 %RH
Model:	/	Power:	AC 120V/60Hz
Mode:	8DPSK-M	Test By :	
Description:			



No.	Frequency (MHz)	Reading (dBuV)	Correction (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (deg.)	Height (cm)	Remark
1	36.8952	43.15	-14.73	28.42	40.00	-11.58			QP
2	105.2716	55.43	-18.74	36.69	43.50	-6.81			QP
3	169.0054	49.42	-19.24	30.18	43.50	-13.32			QP
4	261.0581	44.26	-15.09	29.17	46.00	-16.83			QP
5	627.2738	35.29	-6.42	28.87	46.00	-17.13			QP
6	972.3374	34.60	-0.14	34.46	54.00	-19.54			QP

Prüfbericht - Nr.:

16085910 001

Test Report No.

Seite 29 von 60

Page 29 of 60

Job No.:	STS1707014	Ant.Polar.:	Horizontal
Standard:	FCC_PART15_B_03m_QP	Date:	2017/7/2 Time: 21:25:38
Test item:	Radiated Emission	Distance:	
EUT:	蓝牙板	Temp.(C)/Hum.(%RH):	26 (C) / 60 %RH
Model:	/	Power:	AC 120V/60Hz
Mode:	GFSK-L	Test By :	
Description:			



No.	Frequency (MHz)	Reading (dBuV)	Correction (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (deg.)	Height (cm)	Remark
1	30.1051	35.91	-11.24	24.67	40.00	-15.33			QP
2	51.4806	43.72	-21.90	21.82	40.00	-18.18			QP
3	97.7980	55.36	-19.41	35.95	43.50	-7.55			QP
4	177.5090	51.01	-19.41	31.60	43.50	-11.90			QP
5	192.4182	52.26	-20.24	32.02	43.50	-11.48			QP
6	948.7610	34.04	-0.45	33.59	46.00	-12.41			QP

Prüfbericht - Nr.:

16085910 001

Test Report No.

Seite 30 von 60

Page 30 of 60

Job No.:	STS1707014	Ant.Polar.:	Vertical
Standard:	FCC_PART15_B_03m_QP	Date:	2017/7/2 Time: 21:27:49
Test item:	Radiated Emission	Distance:	
EUT:	蓝牙耳机	Temp.(C)/Hum.(%RH):	26 (C) / 60 %RH
Model:	/	Power:	AC 120V/60Hz
Mode:	GFSK-L	Test By :	
Description:			



No.	Frequency (MHz)	Reading (dBuV)	Correction (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (deg.)	Height (cm)	Remark
1	30.6371	44.48	-11.52	32.96	40.00	-7.04			QP
2	44.5867	53.93	-18.70	35.23	40.00	-4.77			QP
3	105.2716	55.63	-18.74	36.89	43.50	-6.61			QP
4	170.1947	52.51	-19.33	33.18	43.50	-10.32			QP
5	267.5455	47.75	-15.38	32.37	46.00	-13.63			QP
6	975.7527	32.26	-0.14	32.12	54.00	-21.88			QP

Prüfbericht - Nr.:

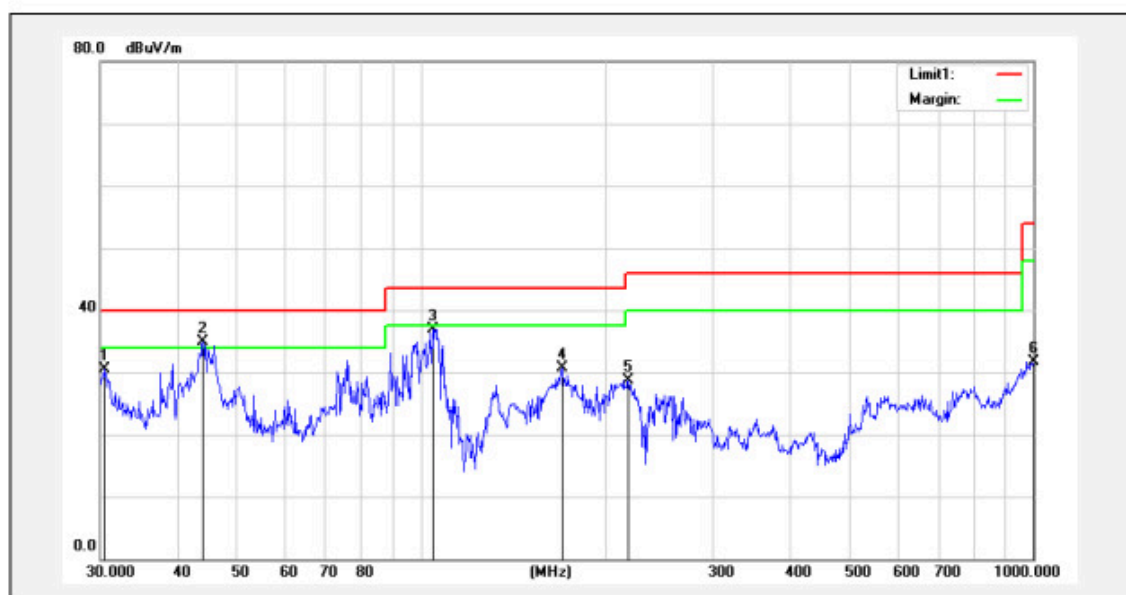
16085910 001

Seite 31 von 60

Test Report No.

Page 31 of 60

Job No.:	STS1707014	Ant.Polar.:	Vertical
Standard:	FCC_PART15_B_03m_QP	Date:	2017/7/2 Time: 21:29:56
Test item:	Radiated Emission	Distance:	
EUT:	蓝牙板	Temp.(C)/Hum.(%RH):	26 (C) / 60 %RH
Model:	/	Power:	AC 120V/60Hz
Mode:	GFSK-H	Test By :	
Description:			



No.	Frequency (MHz)	Reading (dBuV)	Correction (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (deg.)	Height (cm)	Remark
1	30.5304	41.92	-11.47	30.45	40.00	-9.55			QP
2	44.1200	53.33	-18.45	34.88	40.00	-5.12			QP
3	104.5361	55.74	-18.81	36.93	43.50	-6.57			QP
4	170.1947	50.01	-19.33	30.68	43.50	-12.82			QP
5	218.3085	47.87	-19.22	28.65	46.00	-17.35			QP
6	1000.0000	31.78	-0.07	31.71	54.00	-22.29			QP

Prüfbericht - Nr.:

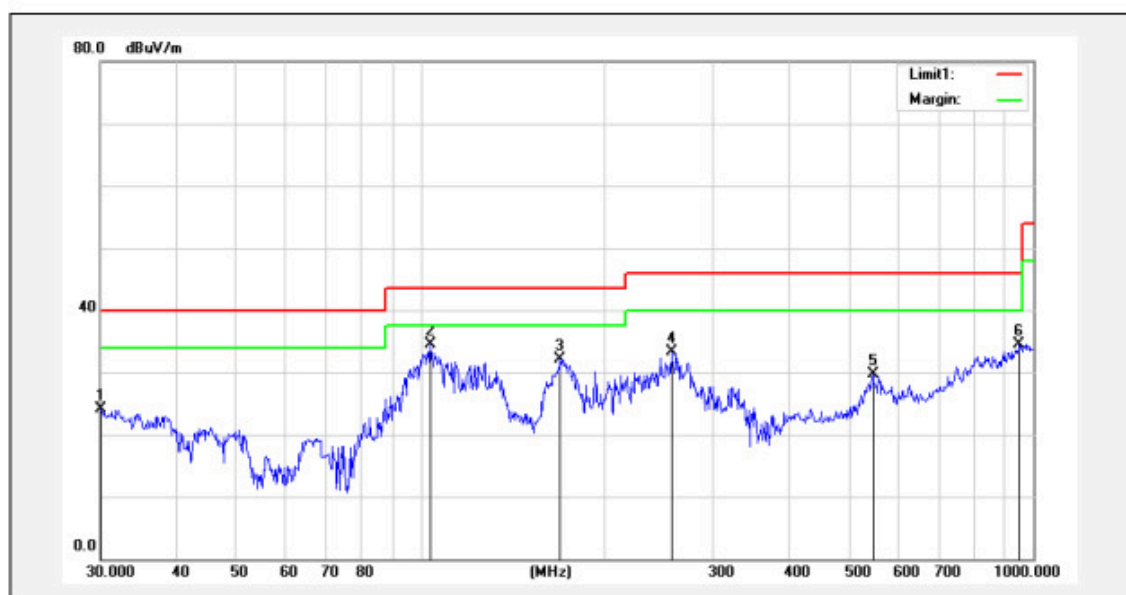
16085910 001

Test Report No.

Seite 32 von 60

Page 32 of 60

Job No.:	STS1707014	Ant.Polar.:	Horizontal
Standard:	FCC_PART15_B_03m_QP	Date:	2017/7/2
Test item:	Radiated Emission	Time:	21:31:48
EUT:	蓝牙耳机	Distance:	
Model:	/	Temp.(C)/Hum.(%RH):	26 (C) / 60 %RH
Mode:	GFSK-H	Power:	AC 120V/60Hz
		Test By :	
Description:			



No.	Frequency (MHz)	Reading (dBuV)	Correction (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (deg.)	Height (cm)	Remark
1	30.1051	35.41	-11.24	24.17	40.00	-15.83			QP
2	103.8054	53.37	-18.87	34.50	43.50	-9.00			QP
3	169.0054	51.43	-19.24	32.19	43.50	-11.31			QP
4	256.5210	48.84	-15.50	33.34	46.00	-12.66			QP
5	547.0977	36.55	-6.85	29.70	46.00	-16.30			QP
6	948.7610	35.04	-0.45	34.59	46.00	-11.41			QP

Prüfbericht - Nr.:

16085910 001

Seite 33 von 60

Test Report No.

Page 33 of 60

Job No.:	STS1707014	Ant.Polar.:	Horizontal
Standard:	FCC_PART15_B_03m_QP	Date:	2017/7/2 Time: 21:33:35
Test item:	Radiated Emission	Distance:	
EUT:	蓝牙耳机	Temp.(C)/Hum.(%RH):	26 (C) / 60 %RH
Model:	/	Power:	AC 120V/60Hz
Mode:	GFSK-M	Test By :	
Description:			



No.	Frequency (MHz)	Reading (dBuV)	Correction (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (deg.)	Height (cm)	Remark
1	37.9450	42.14	-15.26	26.88	40.00	-13.12			QP
2	51.6613	49.36	-21.95	27.41	40.00	-12.59			QP
3	100.2286	54.35	-19.17	35.18	43.50	-8.32			QP
4	181.2834	51.77	-19.55	32.22	43.50	-11.28			QP
5	256.5210	45.84	-15.50	30.34	46.00	-15.66			QP
6	948.7610	33.54	-0.45	33.09	46.00	-12.91			QP

Prüfbericht - Nr.:

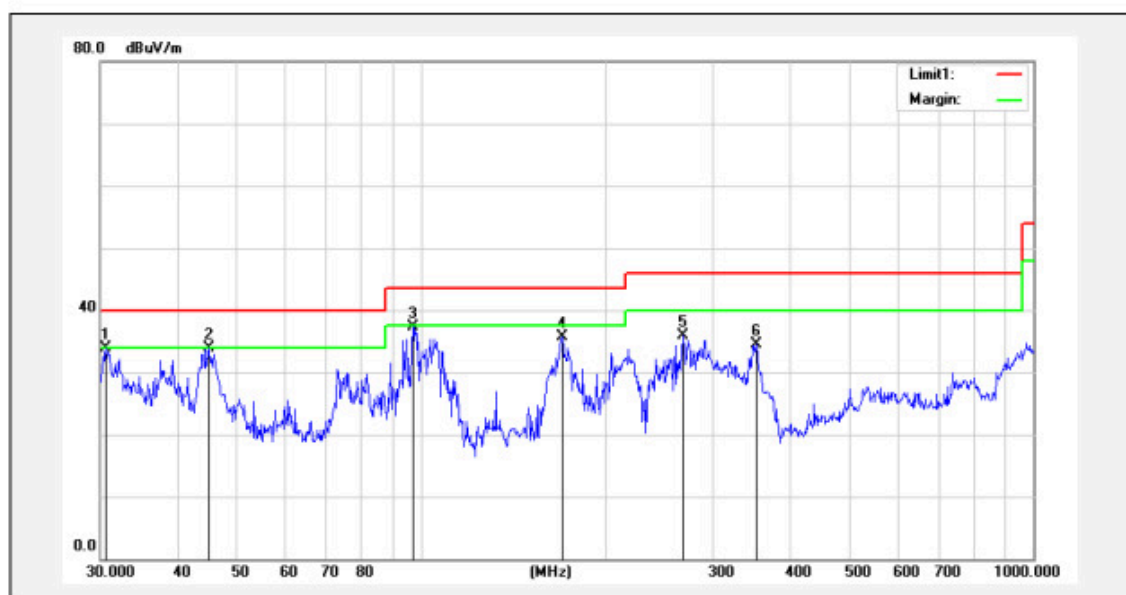
16085910 001

Seite 34 von 60

Test Report No.

Page 34 of 60

Job No.:	STS1707014	Ant.Polar.:	Vertical
Standard:	FCC_PART15_B_03m_QP	Date:	2017/7/2 Time: 21:35:10
Test item:	Radiated Emission	Distance:	
EUT:	蓝牙板	Temp.(C)/Hum.(%RH):	26 (C) / 60 %RH
Model:	/	Power:	AC 120V/60Hz
Mode:	GFSK-M	Test By :	
Description:			



No.	Frequency (MHz)	Reading (dBuV)	Correction (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (deg.)	Height (cm)	Remark
1	30.6371	45.48	-11.52	33.96	40.00	-6.04			QP
2	45.0583	52.82	-18.93	33.89	40.00	-6.11			QP
3	97.1148	56.82	-19.48	37.34	43.50	-6.16			QP
4	170.1947	55.01	-19.33	35.68	43.50	-7.82			QP
5	267.5455	51.25	-15.38	35.87	46.00	-10.13			QP
6	352.9433	47.96	-13.45	34.51	46.00	-11.49			QP

Prüfbericht - Nr.:

16085910 001

Seite 35 von 60

Test Report No.

Page 35 of 60

Job No.:	STS1707014	Ant.Polar.:	Vertical
Standard:	FCC_PART15_B_03m_QP	Date:	2017/7/2 Time: 21:37:27
Test item:	Radiated Emission	Distance:	
EUT:	蓝牙板	Temp.(C)/Hum.(%RH):	26 (C) / 60 %RH
Model:	/	Power:	AC 120V/60Hz
Mode:	QPSK-H	Test By :	
Description:			



No.	Frequency (MHz)	Reading (dBuV)	Correction (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (deg.)	Height (cm)	Remark
1	30.8535	45.44	-11.62	33.82	40.00	-6.18			QP
2	46.0162	55.75	-19.43	36.32	40.00	-3.68			QP
3	105.2716	57.63	-18.74	38.89	43.50	-4.61			QP
4	267.5455	49.25	-15.38	33.87	46.00	-12.13			QP
5	535.7073	41.01	-7.41	33.60	46.00	-12.40			QP
6	975.7527	34.76	-0.14	34.62	54.00	-19.38			QP

Prüfbericht - Nr.:

16085910 001

Test Report No.

Seite 36 von 60

Page 36 of 60

Job No.:	STS1707014	Ant.Polar.:	Horizontal
Standard:	FCC_PART15_B_03m_QP	Date:	2017/7/2
Test item:	Radiated Emission	Time:	21:39:42
EUT:	蓝牙板	Distance:	
Model:	/	Temp.(C)/Hum.(%RH):	26 (C) / 60 %RH
Mode:	QPSK-H	Power:	AC 120V/60Hz
		Test By :	
Description:			



No.	Frequency (MHz)	Reading (dBuV)	Correction (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (deg.)	Height (cm)	Remark
1	67.9128	53.48	-24.15	29.33	40.00	-10.67			QP
2	103.8054	55.87	-18.87	37.00	43.50	-6.50			QP
3	169.0054	53.93	-19.24	34.69	43.50	-8.81			QP
4	192.4182	55.76	-20.24	35.52	43.50	-7.98			QP
5	394.8543	42.76	-11.58	31.18	46.00	-14.82			QP
6	948.7610	32.54	-0.45	32.09	46.00	-13.91			QP

Prüfbericht - Nr.:

16085910 001

Seite 37 von 60

Test Report No.

Page 37 of 60

Job No.:	STS1707014	Ant.Polar.:	Horizontal
Standard:	FCC_PART15_B_03m_QP	Date:	2017/7/2 Time: 21:41:53
Test item:	Radiated Emission	Distance:	
EUT:	蓝牙板	Temp.(C)/Hum.(%RH):	26 (C) / 60 %RH
Model:	/	Power:	AC 120V/60Hz
Mode:	QPSK-L	Test By :	
Description:			



No.	Frequency (MHz)	Reading (dBuV)	Correction (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (deg.)	Height (cm)	Remark
1	42.8997	49.53	-17.83	31.70	40.00	-8.30			QP
2	102.3597	57.65	-18.99	38.66	43.50	-4.84			QP
3	192.4182	53.26	-20.24	33.02	43.50	-10.48			QP
4	212.2692	52.03	-19.60	32.43	43.50	-11.07			QP
5	375.9384	40.40	-12.73	27.67	46.00	-18.33			QP
6	948.7610	34.04	-0.45	33.59	46.00	-12.41			QP

Prüfbericht - Nr.:

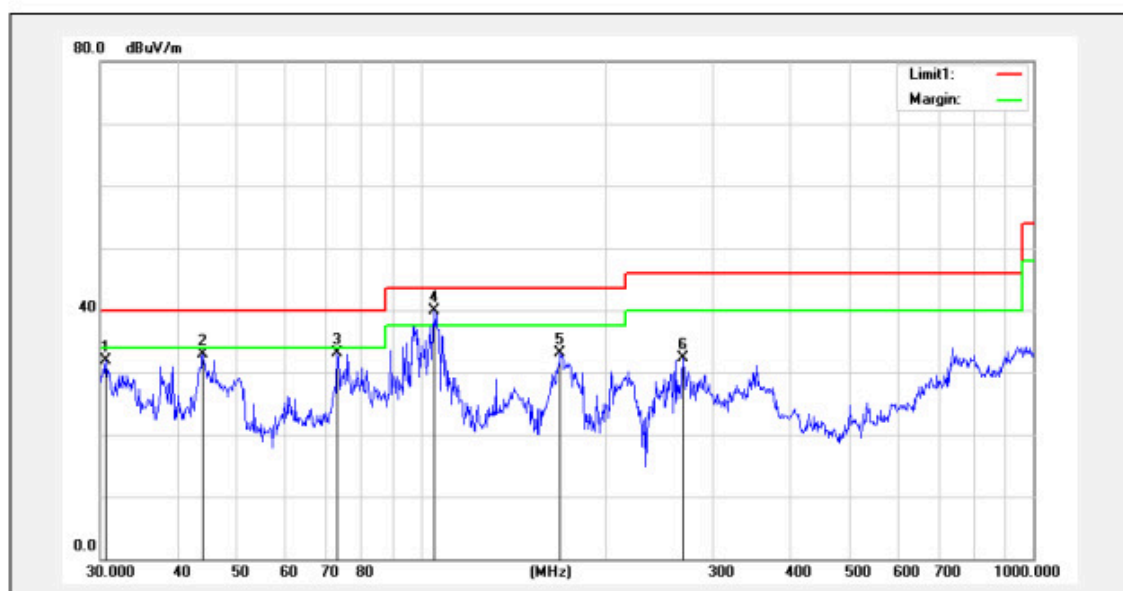
16085910 001

Seite 38 von 60

Test Report No.

Page 38 of 60

Job No.:	STS1707014	Ant.Polar.:	Vertical
Standard:	FCC_PART15_B_03m_QP	Date:	2017/7/2 Time: 21:43:18
Test item:	Radiated Emission	Distance:	
EUT:	蓝牙板	Temp.(C)/Hum.(%RH):	26 (C) / 60 %RH
Model:	/	Power:	AC 120V/60Hz
Mode:	QPSK-L	Test By :	
Description:			



No.	Frequency (MHz)	Reading (dBuV)	Correction (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (deg.)	Height (cm)	Remark
1	30.6371	43.48	-11.52	31.96	40.00	-8.04			QP
2	44.1200	51.33	-18.45	32.88	40.00	-7.12			QP
3	73.1025	56.73	-23.66	33.07	40.00	-6.93			QP
4	105.2716	58.63	-18.74	39.89	43.50	-3.61			QP
5	169.0054	52.37	-19.24	33.13	43.50	-10.37			QP
6	267.5455	47.75	-15.38	32.37	46.00	-13.63			QP

Prüfbericht - Nr.:

16085910 001

Test Report No.

Seite 39 von 60

Page 39 of 60

Job No.:	STS1707014	Ant.Polar.:	Horizontal
Standard:	FCC_PART15_B_03m_QP	Date:	2017/7/2 Time: 21:45:46
Test item:	Radiated Emission	Distance:	
EUT:	蓝牙耳机	Temp.(C)/Hum.(%RH):	26 (C) / 60 %RH
Model:	/	Power:	AC 120V/60Hz
Mode:	QPSK-M	Test By :	
Description:			



No.	Frequency (MHz)	Reading (dBuV)	Correction (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (deg.)	Height (cm)	Remark
1	49.7068	52.37	-21.33	31.04	40.00	-8.96			QP
2	100.9340	58.92	-19.12	39.80	43.50	-3.70			QP
3	212.2692	57.03	-19.60	37.43	43.50	-6.07			QP
4	392.0951	40.22	-11.77	28.45	46.00	-17.55			QP
5	465.5994	39.36	-9.93	29.43	46.00	-16.57			QP
6	948.7610	36.54	-0.45	36.09	46.00	-9.91			QP

Prüfbericht - Nr.:

16085910 001

Test Report No.

Seite 40 von 60

Page 40 of 60

Job No.:	STS1707014	Ant.Polar.:	Vertical
Standard:	FCC_PART15_B_03m_QP	Date:	2017/7/2 Time: 21:48:51
Test item:	Radiated Emission	Distance:	
EUT:	蓝牙耳机	Temp.(C)/Hum.(%RH):	26 (C) / 60 %RH
Model:	/	Power:	AC 120V/60Hz
Mode:	QPSK-M	Test By :	
Description:			



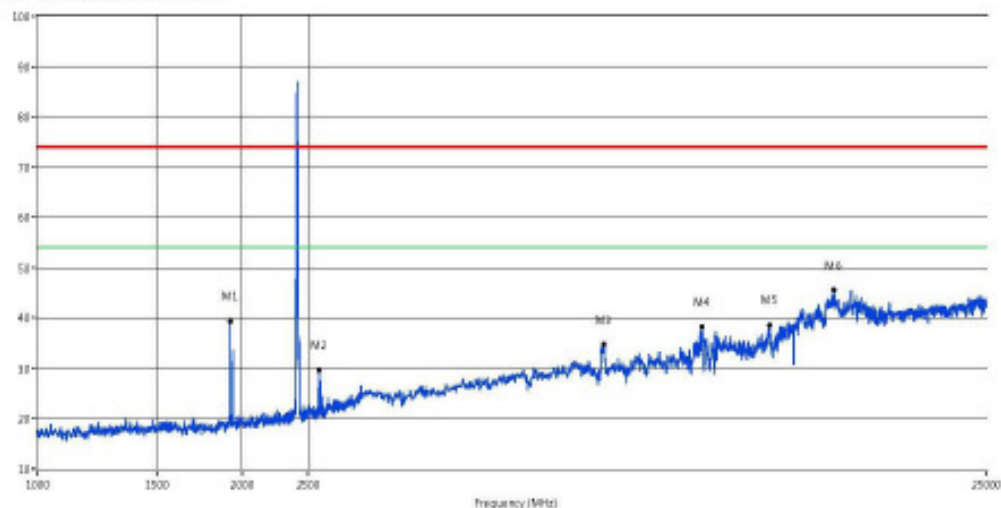
No.	Frequency (MHz)	Reading (dBuV)	Correction (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (deg.)	Height (cm)	Remark
1	44.1200	52.83	-18.45	34.38	40.00	-5.62			QP
2	73.1025	57.73	-23.66	34.07	40.00	-5.93			QP
3	97.1148	56.32	-19.48	36.84	43.50	-6.66			QP
4	169.0054	54.37	-19.24	35.13	43.50	-8.37			QP
5	268.4852	55.14	-15.41	39.73	46.00	-6.27			QP
6	948.7610	36.74	-0.45	36.29	46.00	-9.71			QP

Prüfbericht - Nr.:
Test Report No.

16085910 001

Seite 41 von 60
Page 41 of 60

85_FCC Test Case_3480_FCC 35C 1GHz-25GHz-H



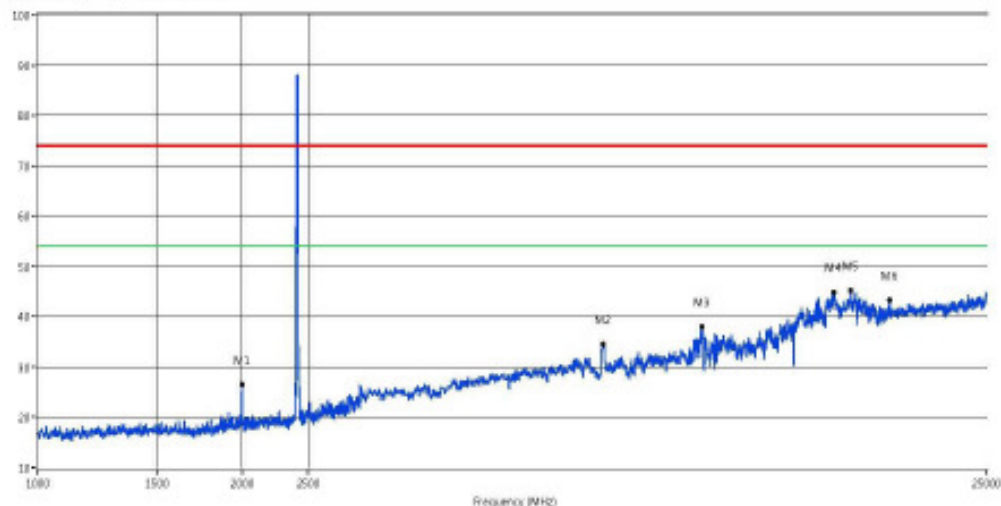
No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (s)	Height (cm)	ANT	Verdict
1	1921.079	39.38	-17.92	74.0	34.64	Peak	360.00	100	Horizontal	Pass
2	2596.404	29.85	-15.05	74.0	44.35	Peak	268.90	100	Horizontal	Pass
3	6826.174	34.78	-18.95	74.0	39.24	Peak	61.60	100	Horizontal	Pass
4	9503.497	38.22	-12.39	74.0	35.78	Peak	298.30	100	Horizontal	Pass
5	11971.029	38.60	-13.92	74.0	35.40	Peak	178.60	100	Horizontal	Pass
6	14882.118	45.58	-9.26	74.0	28.44	Peak	312.50	100	Horizontal	Pass

Prüfbericht - Nr.:
Test Report No.

16085910 001

Seite 42 von 60
Page 42 of 60

RF_FCC Test Case_3480_FCC 25C 10Hz-250Hz-V



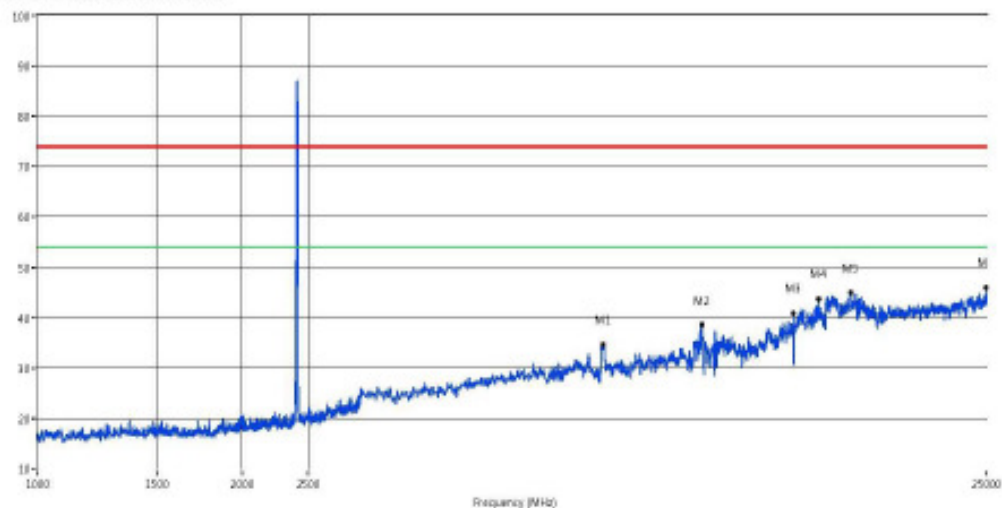
No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (o)	Height (cm)	ANT	Verdict
1	2000.999	26.52	-17.23	74.0	47.48	Peak	209.00	100	Vertical	Pass
2	6796.204	34.50	-19.07	74.0	39.50	Peak	346.70	100	Vertical	Pass
3	9503.497	37.97	-12.39	74.0	36.03	Peak	0.00	100	Vertical	Pass
4	14882.118	44.89	-9.26	74.0	29.11	Peak	245.80	100	Vertical	Pass
5	15781.219	45.11	-8.57	74.0	28.89	Peak	360.00	100	Vertical	Pass
6	17987.013	43.25	-10.13	74.0	30.75	Peak	316.80	100	Vertical	Pass

Prüfbericht - Nr.:
Test Report No.

16085910 001

Seite 43 von 60
Page 43 of 60

RE_FCC Test Case_3880_FCC 35C 1GHz-25GHz-H



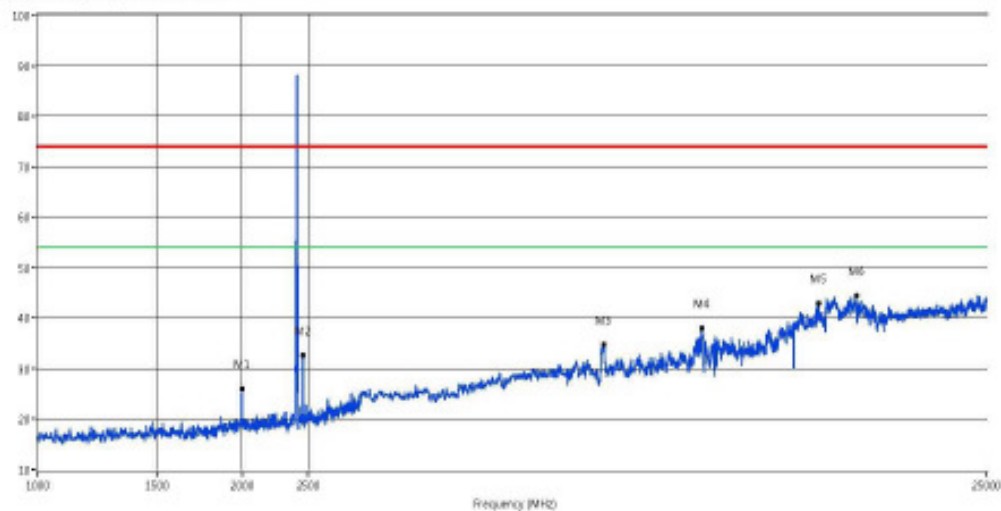
No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (o)	Height (cm)	ANT	Verdict
1	6806.194	34.71	-18.99	74.0	39.29	Peak	278.80	100	Horizon tal	Pass
2	9513.487	36.57	-13.37	74.0	35.43	Peak	156.70	100	Horizon tal	Pass
3	12980.020	40.82	-12.43	74.0	33.18	Peak	114.30	100	Horizon tal	Pass
4	14114.885	43.70	-10.34	74.0	30.30	Peak	78.80	100	Horizon tal	Pass
5	15781.219	45.00	-8.57	74.0	29.00	Peak	359.00	100	Horizon tal	Pass
6	24940.060	46.00	-11.69	74.0	28.00	Peak	193.70	100	Horizon tal	Pass

Prüfbericht - Nr.:
Test Report No.

16085910 001

Seite 44 von 60
Page 44 of 60

81_FCC Test Case_3480_FCC 25C 10Hz-250Hz-V



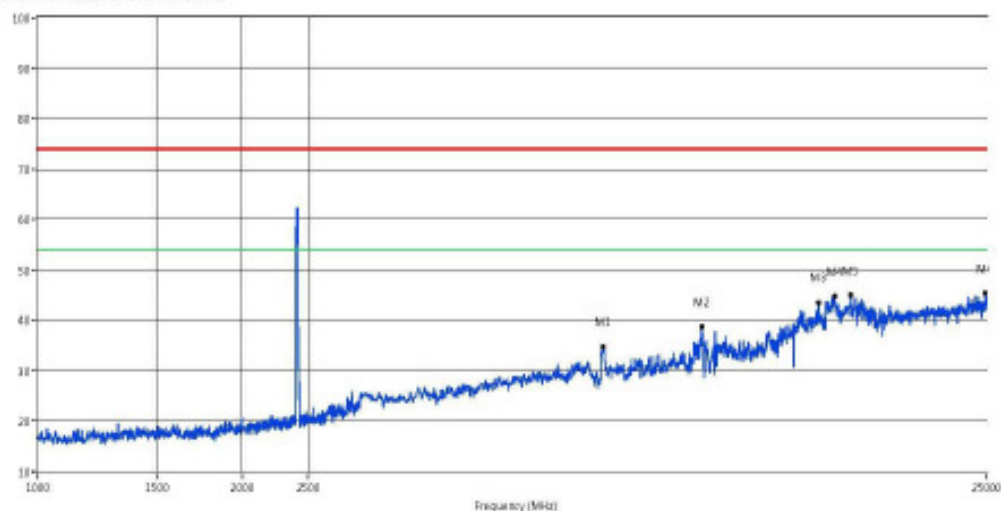
No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (e)	Height (cm)	ANT	Verdict
1	2000.999	26.01	-17.23	74.0	47.99	Peak	199.50	100	Vertical	Pass
2	2460.539	32.57	-15.80	74.0	41.43	Peak	360.00	100	Vertical	Pass
3	6826.174	34.77	-18.95	74.0	39.23	Peak	188.90	100	Vertical	Pass
4	9513.487	37.97	-13.37	74.0	36.03	Peak	352.40	100	Vertical	Pass
5	14126.873	42.95	-10.45	74.0	31.05	Peak	344.30	100	Vertical	Pass
6	16056.943	44.38	-8.78	74.0	29.62	Peak	82.70	100	Vertical	Pass

Prüfbericht - Nr.:
Test Report No.

16085910 001

Seite 45 von 60
Page 45 of 60

RELPC Test Case_2480_PCC 15C 1GHz-25GHz-H



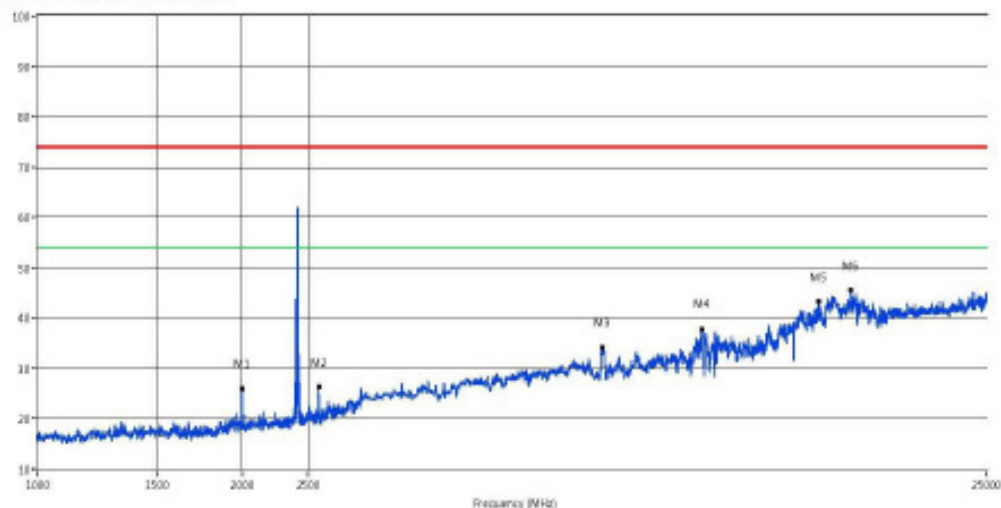
No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (o)	Height (cm)	ANT	Verdict
1	6806.194	34.83	-18.99	74.0	39.17	Peak	356.60	100	Horizon tail	Pass
2	9503.497	38.69	-12.39	74.0	35.31	Peak	13.70	100	Horizon tail	Pass
3	14126.873	43.46	-10.45	74.0	30.54	Peak	93.60	100	Horizon tail	Pass
4	14906.094	44.86	-9.54	74.0	29.14	Peak	354.20	100	Horizon tail	Pass
5	15761.219	44.97	-8.57	74.0	29.03	Peak	186.40	100	Horizon tail	Pass
6	24880.120	45.40	-11.70	74.0	28.60	Peak	4.40	100	Horizon tail	Pass

Prüfbericht - Nr.:
Test Report No.

16085910 001

Seite 46 von 60
Page 46 of 60

REL_FCC Test Case_2480_FCC 35C 1GHz-25GHz-V

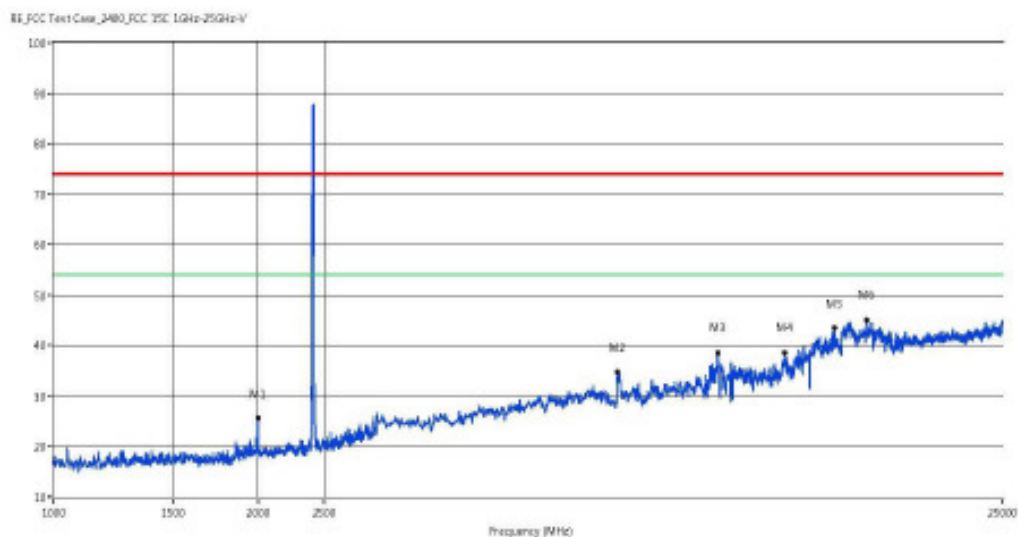


No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (e)	Height (cm)	ANT	Verdict
1	1999.001	26.03	-17.24	74.0	47.97	Peak	207.90	100	Vertical	Pass
2	2594.406	26.33	-15.07	74.0	47.67	Peak	350.80	100	Vertical	Pass
3	6786.214	34.23	-19.06	74.0	39.77	Peak	122.40	100	Vertical	Pass
4	9503.497	37.85	-12.39	74.0	36.15	Peak	212.30	100	Vertical	Pass
5	14126.873	43.28	-10.45	74.0	30.72	Peak	318.00	100	Vertical	Pass
6	15781.219	45.53	-8.57	74.0	28.47	Peak	340.30	100	Vertical	Pass

Prüfbericht - Nr.:
Test Report No.

16085910 001

Seite 47 von 60
Page 47 of 60



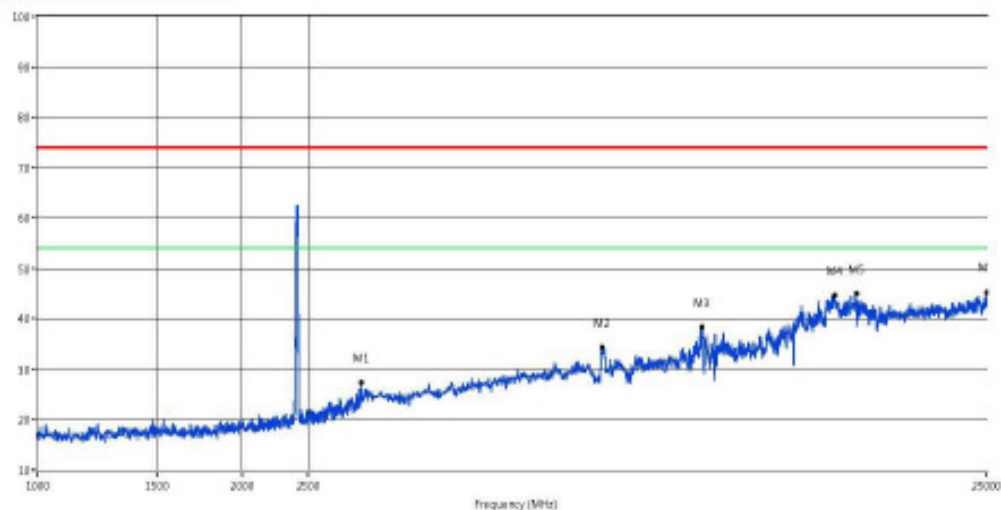
No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (e)	Height (cm)	ANT	Verdict
1	2000.999	25.64	-17.23	74.0	48.36	Peak	208.40	100	Vertical	Pass
2	6766.234	34.68	-19.22	74.0	39.32	Peak	0.00	100	Vertical	Pass
3	9503.497	38.60	-12.39	74.0	35.40	Peak	308.70	100	Vertical	Pass
4	11921.079	38.51	-13.33	74.0	35.49	Peak	0.70	100	Vertical	Pass
5	14114.885	43.45	-10.34	74.0	30.55	Peak	97.20	100	Vertical	Pass
6	15769.231	45.06	-9.11	74.0	28.94	Peak	217.60	100	Vertical	Pass

Prüfbericht - Nr.:
Test Report No.

16085910 001

Seite 48 von 60
Page 48 of 60

RF_FCC Test Case_3480_FCC 35C 1GHz-25GHz-H



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (s)	Height (cm)	ANT	Verdict
1	2998.002	27.31	-10.97	74.0	46.69	Peak	1.30	100	Horizontal	Pass
2	6786.214	34.38	-19.06	74.0	39.64	Peak	63.10	100	Horizontal	Pass
3	9503.497	38.34	-12.39	74.0	35.66	Peak	223.10	100	Horizontal	Pass
4	14930.070	44.59	-9.30	74.0	29.41	Peak	177.00	100	Horizontal	Pass
5	16056.943	44.92	-8.78	74.0	29.08	Peak	95.20	100	Horizontal	Pass
6	24976.024	45.18	-11.68	74.0	28.84	Peak	352.20	100	Horizontal	Pass

Prüfbericht - Nr.:

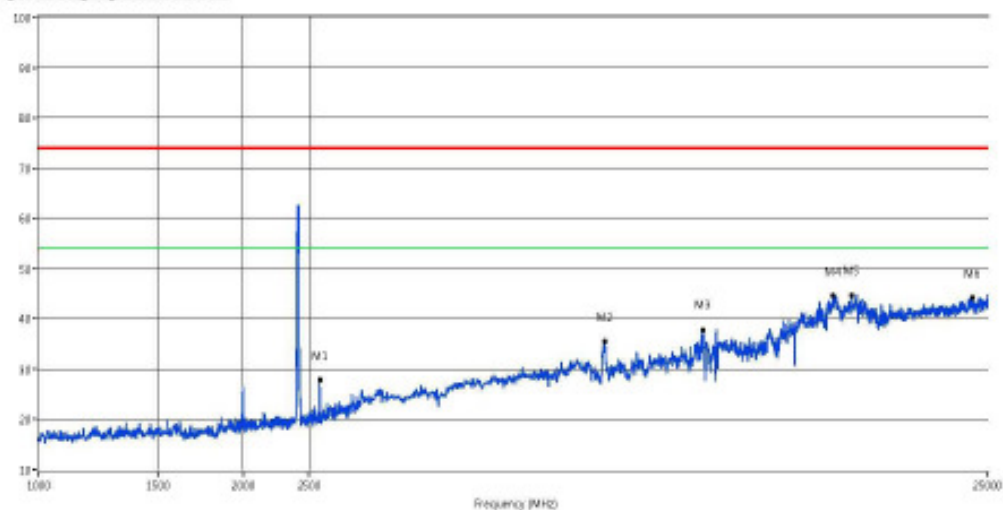
16085910 001

Test Report No.

Seite 49 von 60

Page 49 of 60

EE_PCC Test Case_3480_PCC_25C_10Hz-250Hz-V



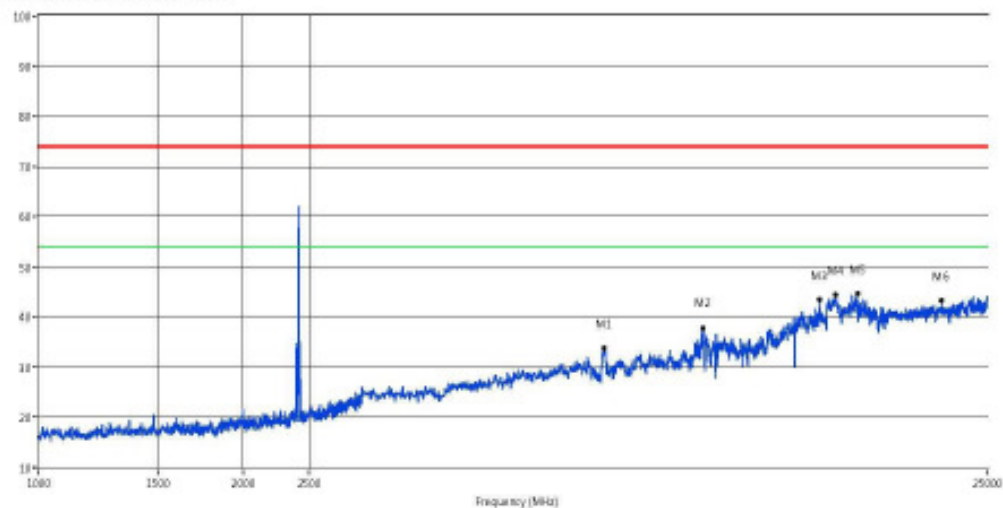
No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (s)	Height (cm)	ANT	Verdict
1	2594.406	27.89	-15.07	74.0	46.11	Peak	120.10	100	Vertical	Pass
2	8816.184	35.49	-18.88	74.0	38.51	Peak	162.60	100	Vertical	Pass
3	9503.497	37.87	-12.39	74.0	36.13	Peak	66.10	100	Vertical	Pass
4	14798.202	44.59	-9.14	74.0	29.41	Peak	195.60	100	Vertical	Pass
5	15781.219	44.80	-8.57	74.0	29.40	Peak	305.40	100	Vertical	Pass
6	23717.283	44.17	-11.93	74.0	29.83	Peak	267.10	100	Vertical	Pass

Prüfbericht - Nr.:
Test Report No.

16085910 001

Seite 50 von 60
Page 50 of 60

RE_FCC Test Case_3880_FCC 35C 1GHz-25GHz-H



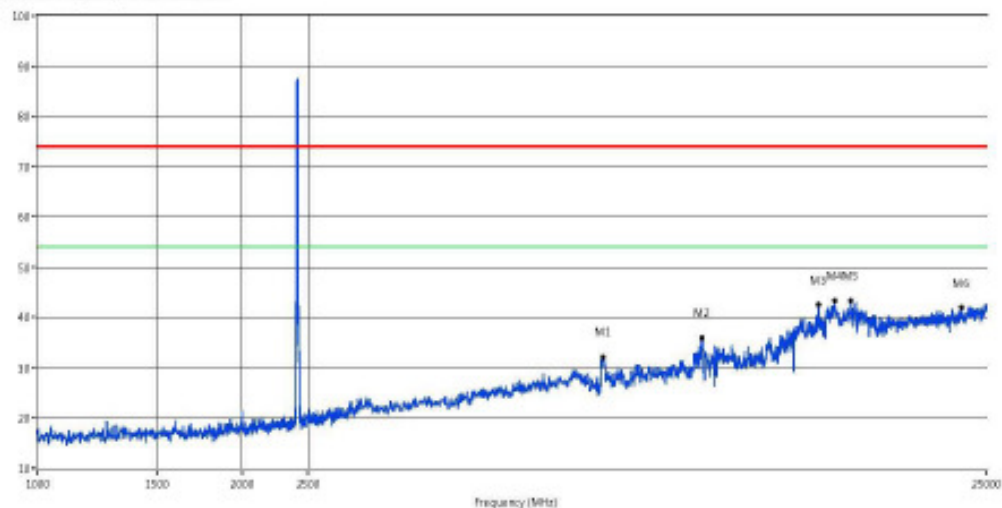
No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (°)	Height (cm)	ANT	Verdict
1	6796.204	33.71	-19.07	74.0	40.29	Peak	233.50	100	Horizon tal	Pass
2	9513.487	37.87	-13.37	74.0	36.13	Peak	334.40	100	Horizon tal	Pass
3	14114.885	43.46	-10.34	74.0	30.54	Peak	358.60	100	Horizon tal	Pass
4	14942.058	44.42	-9.47	74.0	29.58	Peak	74.20	100	Horizon tal	Pass
5	16056.943	44.58	-8.78	74.0	29.42	Peak	157.10	100	Horizon tal	Pass
6	21367.632	43.23	-11.71	74.0	30.77	Peak	52.70	100	Horizon tal	Pass

Prüfbericht - Nr.:
Test Report No.

16085910 001

Seite 51 von 60
Page 51 of 60

RF_FCC Test Case_3480_FCC 35C 1GHz-25GHz-H



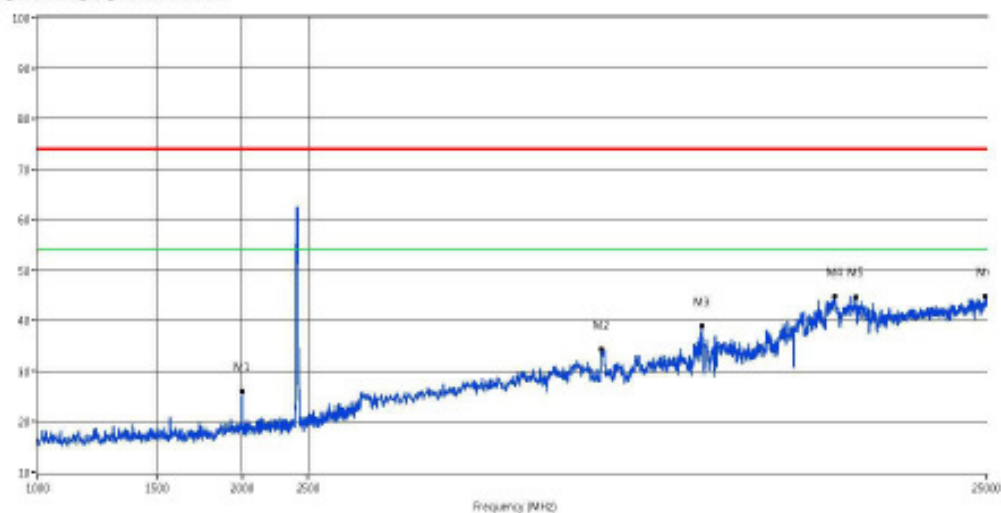
No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (°)	Height (cm)	ANT	Verdict
1	6796.204	32.16	-19.07	74.0	41.84	Peak	298.70	100	Horizon tal	Pass
2	9503.497	35.93	-12.39	74.0	38.07	Peak	358.80	100	Horizon tal	Pass
3	14126.873	42.45	-10.45	74.0	31.55	Peak	46.40	100	Horizon tal	Pass
4	14942.058	43.24	-9.47	74.0	30.76	Peak	117.70	100	Horizon tal	Pass
5	15781.219	43.38	-8.57	74.0	30.62	Peak	325.50	100	Horizon tal	Pass
6	22938.062	41.90	-11.86	74.0	32.10	Peak	244.10	100	Horizon tal	Pass

Prüfbericht - Nr.:
Test Report No.

16085910 001

Seite 52 von 60
Page 52 of 60

RF_FCC Test Case_3480_FCC_35C_10Hz-250Hz-V



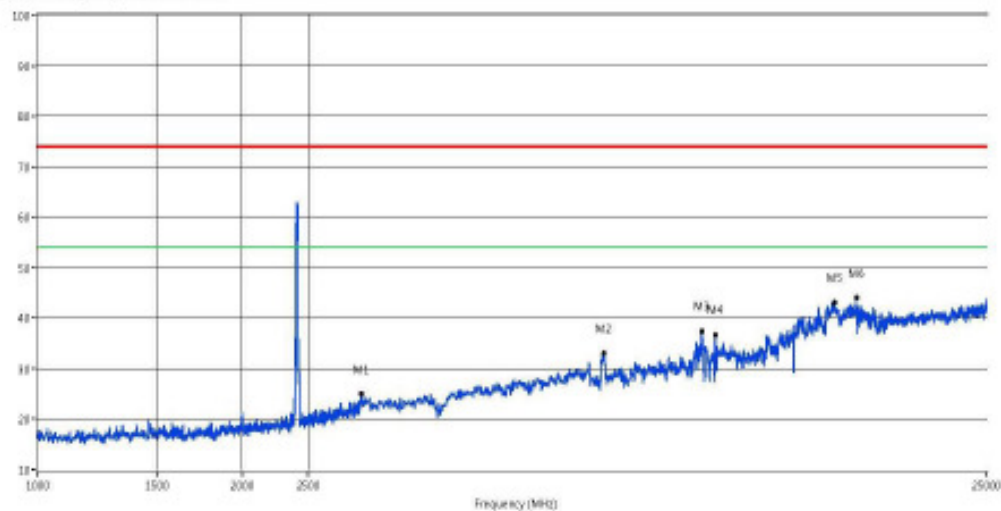
No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (e)	Height (cm)	ANT	Verdict
1	2000.999	25.90	-17.23	74.0	48.10	Peak	213.50	100	Vertical	Pass
2	6766.234	34.38	-19.22	74.0	39.62	Peak	170.30	100	Vertical	Pass
3	9503.497	38.89	-12.39	74.0	35.11	Peak	159.10	100	Vertical	Pass
4	14930.070	44.79	-9.30	74.0	29.21	Peak	135.40	100	Vertical	Pass
5	16044.955	44.72	-9.27	74.0	29.28	Peak	70.10	100	Vertical	Pass
6	24856.144	44.85	-11.71	74.0	29.15	Peak	206.70	100	Vertical	Pass

Prüfbericht - Nr.:
Test Report No.

16085910 001

Seite 53 von 60
Page 53 of 60

RF_FCC Test Case_3480_FCC 35C 10Hz-250Hz-H



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (o)	Height (cm)	ANT	Verdict
1	2996.002	25.03	-10.97	74.0	48.97	Peak	165.10	100	Horizon tal	Pass
2	6816.184	33.05	-18.86	74.0	40.95	Peak	332.80	100	Horizon tal	Pass
3	9505.497	37.47	-12.39	74.0	36.53	Peak	168.60	100	Horizon tal	Pass
4	9963.037	36.62	-14.41	74.0	37.38	Peak	359.30	100	Horizon tal	Pass
5	14918.082	43.13	-9.27	74.0	30.87	Peak	242.90	100	Horizon tal	Pass
6	16056.943	43.99	-8.78	74.0	30.01	Peak	165.10	100	Horizon tal	Pass

Prüfbericht - Nr.:

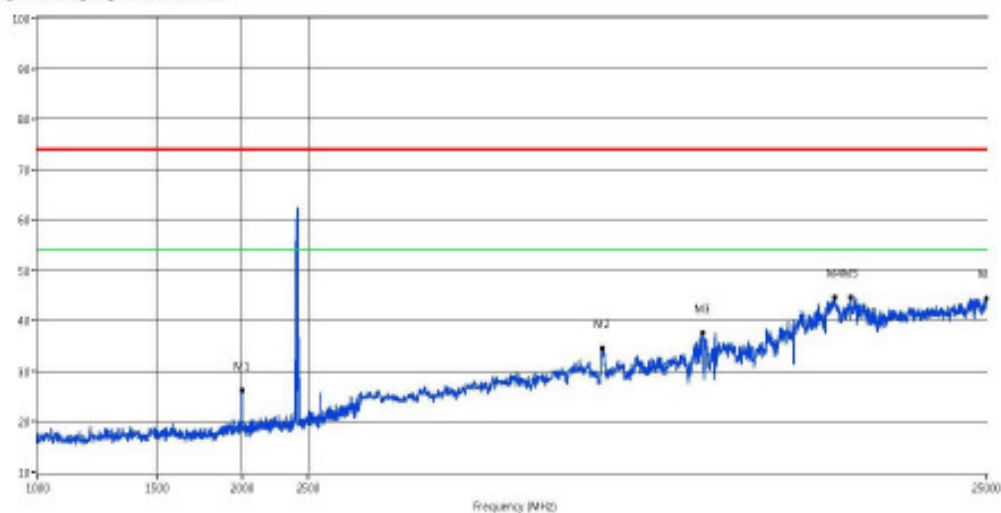
16085910 001

Test Report No.

Seite 54 von 60

Page 54 of 60

RF_FCC Test Case_3480_FCC_25C_10Hz-250Hz-V



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (o)	Height (cm)	ANT	Verdict
1	1999.001	26.18	-17.24	74.0	47.82	Peak	210.60	100	Vertical	Pass
2	6776.224	34.46	-19.10	74.0	39.54	Peak	6.10	100	Vertical	Pass
3	9533.467	37.61	-14.24	74.0	36.39	Peak	200.10	100	Vertical	Pass
4	14918.082	44.57	-9.27	74.0	29.43	Peak	359.20	100	Vertical	Pass
5	15781.219	44.57	-8.57	74.0	29.43	Peak	205.00	100	Vertical	Pass
6	24988.012	44.39	-11.67	74.0	29.61	Peak	319.70	100	Vertical	Pass

Prüfbericht - Nr.:

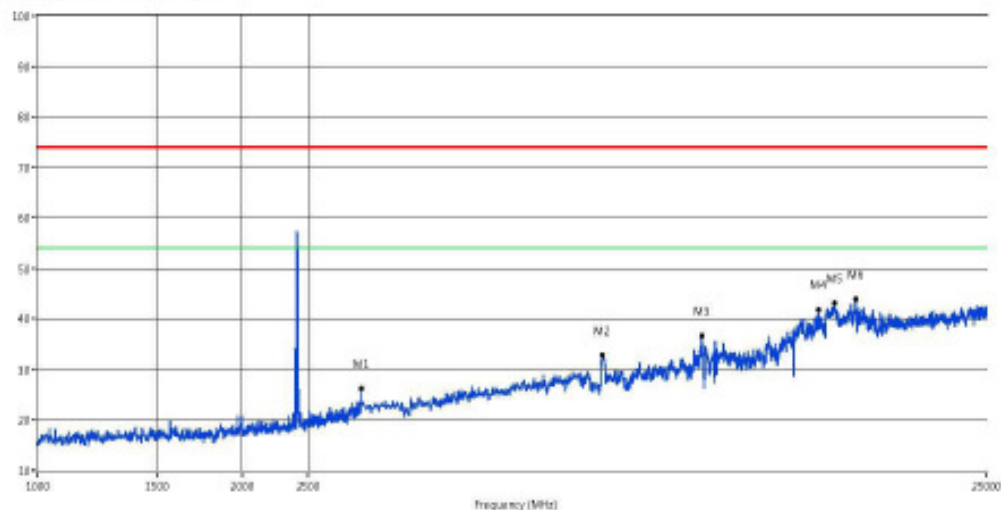
16085910 001

Test Report No.

Seite 55 von 60

Page 55 of 60

EE_FCC Test Case_3480_FCC 25C 1GHz-25GHz-H



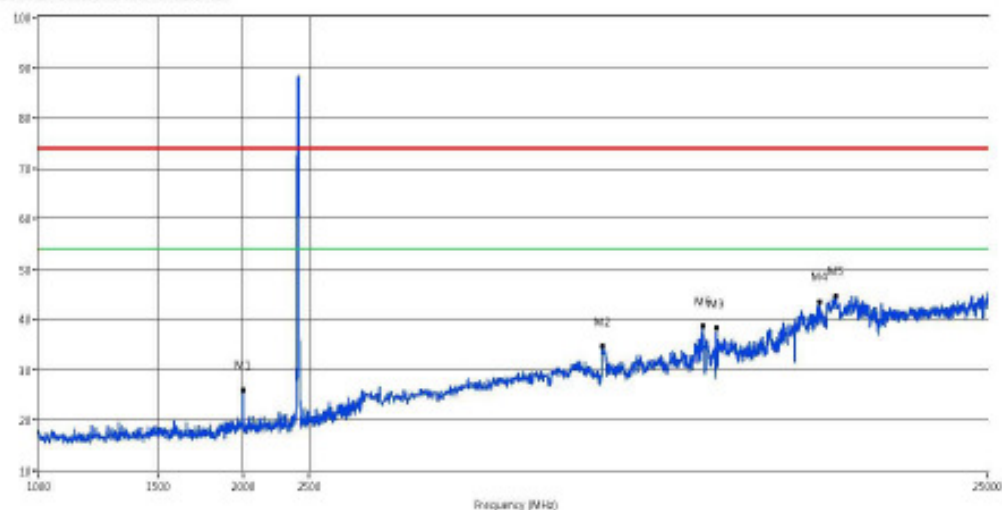
No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (e)	Height (cm)	ANT	Verdict
1	2998.002	26.21	-10.97	74.0	47.79	Pesk	326.90	100	Horizon tal	Pass
2	6786.214	32.79	-19.08	74.0	41.21	Pesk	304.30	100	Horizon tal	Pass
3	9503.497	36.59	-12.39	74.0	37.41	Pesk	245.80	100	Horizon tal	Pass
4	14114.885	41.71	-10.34	74.0	32.29	Pesk	280.40	100	Horizon tal	Pass
5	14942.058	43.15	-9.47	74.0	30.85	Pesk	27.80	100	Horizon tal	Pass
6	16020.979	43.79	-8.46	74.0	30.21	Pesk	72.00	100	Horizon tal	Pass

Prüfbericht - Nr.:
Test Report No.

16085910 001

Seite 56 von 60
Page 56 of 60

RELPOC Test Case_2480_POC_35C_1GHz-25GHz-V



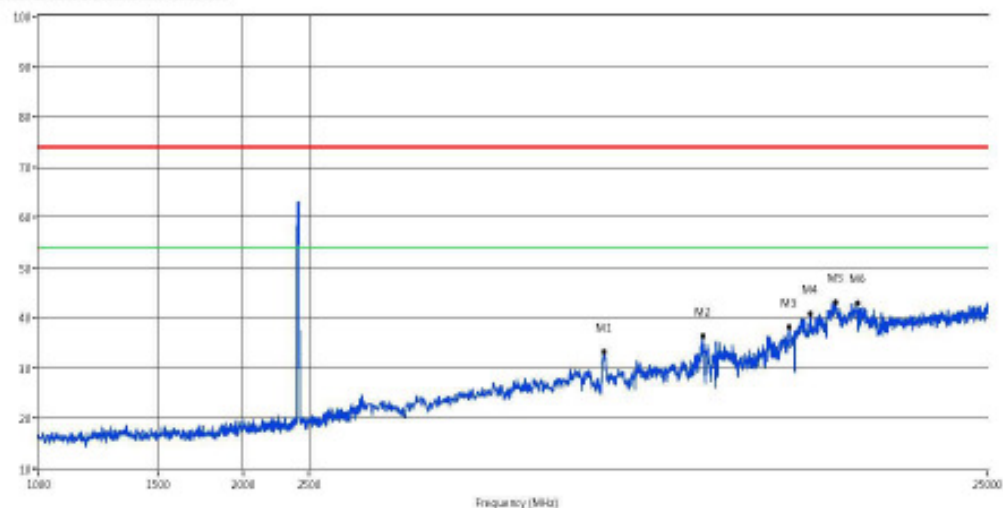
No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (o)	Height (cm)	ANT	Verdict
1	1999.001	26.05	-17.24	74.0	47.95	Peak	214.60	100	Vertical	Pass
2	6766.234	34.77	-19.22	74.0	39.23	Peak	6.90	100	Vertical	Pass
3	9963.037	38.32	-14.41	74.0	35.68	Peak	222.00	100	Vertical	Pass
4	14114.885	43.42	-10.34	74.0	30.58	Peak	359.10	100	Vertical	Pass
5	14942.058	44.88	-9.47	74.0	29.32	Peak	265.50	100	Vertical	Pass
6	9513.487	38.70	-13.37	74.0	35.30	Peak	4.40	100	Vertical	Pass

Prüfbericht - Nr.:
Test Report No.

16085910 001

Seite 57 von 60
Page 57 of 60

RELPOC Test Case_2490_POC_35C_1GHz-25GHz-H



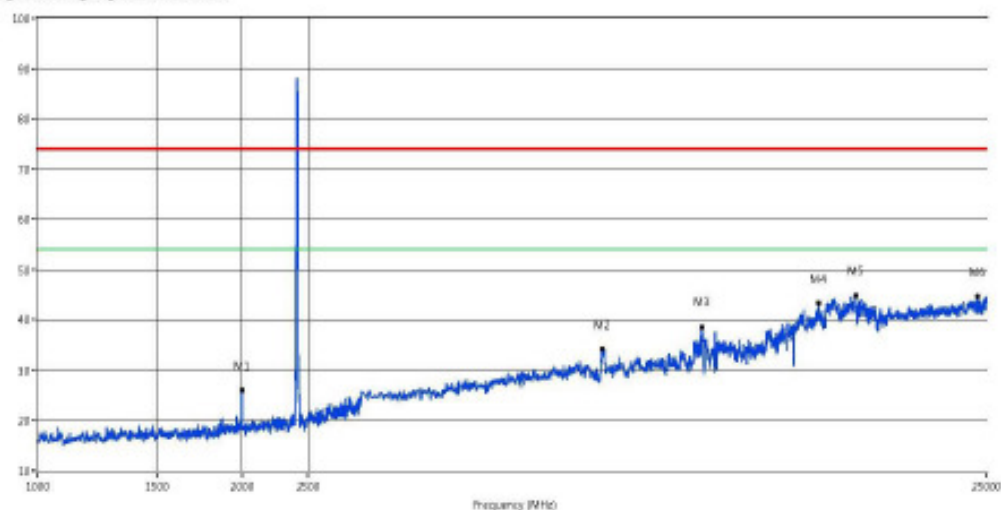
No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (e)	Height (cm)	ANT	Verdict
1	6806.194	33.17	-18.99	74.0	40.83	Peak	292.00	100	Horizon tal	Pass
2	9513.487	36.42	-13.37	74.0	37.58	Peak	85.10	100	Horizon tal	Pass
3	12740.260	38.15	-12.95	74.0	35.85	Peak	354.10	100	Horizon tal	Pass
4	13707.293	40.81	-13.59	74.0	33.19	Peak	313.50	100	Horizon tal	Pass
5	14918.082	43.08	-9.27	74.0	30.92	Peak	351.10	100	Horizon tal	Pass
6	16056.943	42.92	-8.78	74.0	31.08	Peak	209.30	100	Horizon tal	Pass

Prüfbericht - Nr.:
Test Report No.

16085910 001

Seite 58 von 60
Page 58 of 60

RF_FCC Test Case_3480_FCC 35C 1GHz-25GHz-V



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (a)	Height (cm)	ANT	Verdict
1	1999.001	25.90	-17.24	74.0	48.10	Peak	192.20	100	Vertical	Pass
2	6786.214	34.20	-19.06	74.0	39.80	Peak	198.40	100	Vertical	Pass
3	9503.497	36.80	-12.39	74.0	35.40	Peak	47.20	100	Vertical	Pass
4	14126.873	43.31	-10.45	74.0	30.69	Peak	236.90	100	Vertical	Pass
5	16020.979	44.89	-8.46	74.0	29.11	Peak	83.90	100	Vertical	Pass
6	24220.779	44.58	-11.90	74.0	29.42	Peak	51.50	100	Vertical	Pass

Prüfbericht - Nr.:

16085910 001

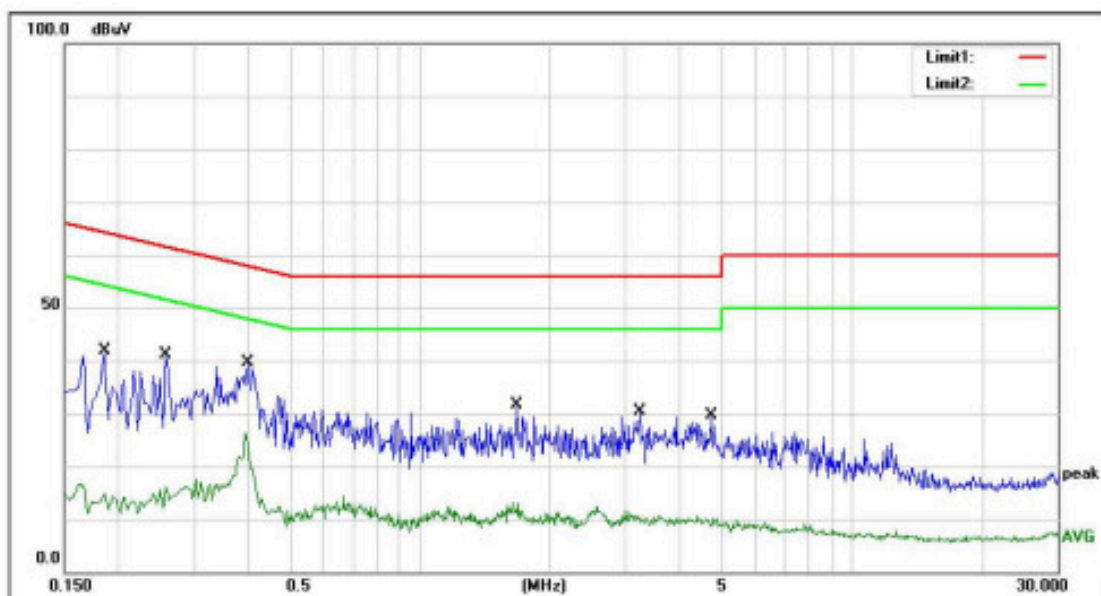
Test Report No.

Seite 59 von 60

Page 59 of 60

Conducted Emissions

Job No.:	STS1707014	Ant.Polar.:	L1
Standard:	FCC Part15 CE-Class B_QP	Date:2017/7/7	Time:8:50:32
Test item:	Conducted Emission	Distance:	
Company:	蓝牙板	Temp.(C)/Hum.(%RH):	25.4(C)/81%RH
Model:	/	Power:	AC 120V/60Hz
Mode:	BT	Test By:	
Description:			



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	0.1860	32.06	9.78	41.84	64.21	-22.37			QP
2	0.1860	4.75	9.78	14.53	54.21	-39.68			AVG
3	0.2580	31.02	10.04	41.06	61.50	-20.44			QP
4	0.2580	6.10	10.04	16.14	51.50	-35.36			AVG
5	0.3980	29.58	10.03	39.61	57.90	-18.29			QP
6	0.3980	13.44	10.03	23.47	47.90	-24.43			AVG
7	1.6740	21.72	9.79	31.51	56.00	-24.49			QP
8	1.6740	2.36	9.79	12.15	46.00	-33.85			AVG
9	3.2300	20.68	9.81	30.49	56.00	-25.51			QP
10	3.2300	0.38	9.81	10.19	46.00	-35.81			AVG
11	4.7380	19.80	9.85	29.65	56.00	-26.35			QP
12	4.7380	-1.11	9.85	8.74	46.00	-37.26			AVG

Prüfbericht - Nr.:

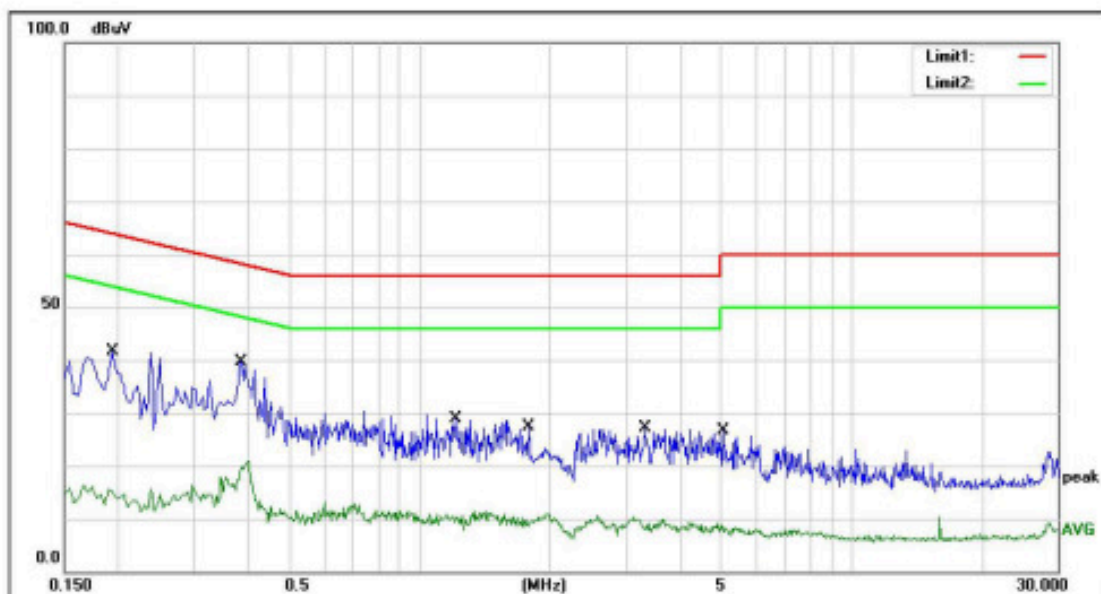
16085910 001

Test Report No.

Seite 60 von 60

Page 60 of 60

Job No.:	STS1707014	Ant.Polar.:	N
Standard:	FCC Part15 CE-Class B_QP	Date:2017/7/7	Time:8:54:51
Test item:	Conducted Emission	Distance:	
Company:	蓝牙板	Temp.(C)/Hum.(%RH):	25.4(C)/61%RH
Model:	/	Power:	AC 120V/60Hz
Mode:	BT	Test By:	
Description:			



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	0.1940	31.86	9.86	41.72	63.86	-22.14			QP
2	0.1940	5.08	9.86	14.94	53.86	-38.92			AVG
3	0.3860	29.59	10.09	39.68	58.15	-18.47			QP
4	0.3860	9.82	10.09	19.91	48.15	-28.24			AVG
5	1.2100	19.03	9.81	28.84	56.00	-27.16			QP
6	1.2100	0.59	9.81	10.40	46.00	-35.60			AVG
7	1.7860	17.57	9.86	27.43	56.00	-28.57			QP
8	1.7860	-1.33	9.86	8.53	46.00	-37.47			AVG
9	3.3180	17.20	9.92	27.12	56.00	-28.88			QP
10	3.3380	-1.87	9.92	8.05	46.00	-37.95			AVG
11	5.0340	16.60	9.92	26.52	60.00	-33.48			QP
12	5.0340	-2.42	9.92	7.50	50.00	-42.50			AVG

E:\2017 开案\7 月\STS1707014\STS1707014.db #2