Prüfbericht - Produkte
Test Report - Products

TÜVRheinland®

Prüfbericht-Nr.: *Test report no.:*	**60429141 001**	**Auftrags-Nr.:** *Order no.*:	168283918	Seite 1 von 45 *Page 1 of 45*
Kunden-Referenz-Nr.: *Client reference no.:*	**N/A**	**Auftragsdatum:** *Order date:*	2020-09-26	
Auftraggeber: *Client:*	**Edifier International Limited** P.O. Box 6264 General Post Office Hong Kong			
Prüfgegenstand: *Test item:*	Multimedia Speaker			
Bezeichnung / Typ-Nr.: *Identification / Type no.:*	EDF100007 (Trademark: EDIFIER)			
Auftrags-Inhalt: *Order content*:	Type Test			
Prüfgrundlage: *Test specification:*	EN 62479:2010 EN 62368-1:2014+A11:2017 EN 55032:2015 EN 55035:2017		EN 301 489-1 V2.2.3 EN 301 489-17 V3.2.4 EN 300 328 V2.2.2	
Wareneingangsdatum: *Date of sample receipt:*	2020-09-27			
Prüfmuster-Nr.: *Test sample no:*	A002919127-001, 002, 003			
Prüfzeitraum: *Testing period:*	2020-10-14 – 2020-11-23			
Ort der Prüfung: *Place of testing:*	Refer to section 2.1			
Prüflaboratorium: *Testing laboratory:*	TÜV Rheinland (Shenzhen) Co., Ltd.			
Prüfergebnis*: *Test result*:*	Pass			



geprüft von: *tested by:*	X Alex Lan	**genehmigt von:** *authorized by:*	X Winnie Hou
Datum: *Date:* 2020-12-03	Signed by: Alex Lan	**Ausstellungsdatum:** *Issue date:* 2020-12-03	Signed by: Winnie Hou
Stellung / Position	Senior Project Engineer	**Stellung** / Position	Department Manager

Sonstiges / *Other:*	This report is for Article 3.2 Radio Spectrum, Article 3.1b EMC and Article 3.1a Health requirements only. Refer to TÜV Rheinland report 60418544 001 for details of Article 3.1a Electrical Safety requirements.
Zustand des Prüfgegenstandes bei Anlieferung: *Condition of the test item at delivery:*	Prüfmuster vollständig und unbeschädigt *Test item complete and undamaged*

* Legende:	1 = sehr gut	2 = gut	3 = befriedigend	4 = ausreichend	5 = mangelhaft
	P(ass) = entspricht o.g. Prüfgrundlage(n)		F(ail) = entspricht nicht o.g. Prüfgrundlage(n)	N/A = nicht anwendbar	N/T = nicht getestet
** Legend:*	*1 = very good*	*2 = good*	*3 = satisfactory*	*4 = sufficient*	*5 = poor*
	P(ass) = passed a.m. test specification(s)		*F(ail) = failed a.m. test specification(s)*	*N/A = not applicable*	*N/T = not tested*

Dieser Prüfbericht bezieht sich nur auf das o.g. Prüfmuster und darf ohne Genehmigung der Prüfstelle nicht auszugsweise vervielfältigt werden. Dieser Bericht berechtigt nicht zur Verwendung eines Prüfzeichens.
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.

TÜV Rheinland (Shenzhen) Co., Ltd. 1601 R&D Room, 1602-1604, 17-18F, Building 7 Site C, Vanke Cloud City Phase I, Xingke First Street, Xili Street, Xili Community, Nanshan District, Shenzhen 518052, P.R. China
Mail: service@de.tuv.com · Web: www.tuv.com

Test Summary

5.1.1 RF Output Power
RESULT: Pass

5.1.2 Duty Cycle, TX-sequence, TX-gap
RESULT: Not applicable

5.1.3 Accumulated Transmit Time, Frequency Occupation and Hopping Sequence
RESULT: Pass

5.1.4 Hopping Frequency Separation
RESULT: Pass

5.1.5 Medium Utilisation (MU) Factor
RESULT: Not applicable

5.1.6 Adaptivity
RESULT: Not applicable

5.1.7 Occupied Channel Bandwidth
RESULT: Pass

5.1.8 Transmitter Unwanted Emissions in the Out-of-band Domain
RESULT: Pass

5.1.9 Transmitter Unwanted Emissions in the Spurious Domain
RESULT: Pass

5.2.1 Receiver Spurious Emissions
RESULT: Pass

5.2.2 Receiver Blocking
RESULT: Pass

5.2.3 Geo-location Capability
RESULT: Not applicable

5.3.1 Harmonics Current Emission on AC Mains port
RESULT: Pass

5.3.2 Voltage Fluctuations and Flicker on AC Mains
RESULT: Pass

5.3.3 Conducted Emissions
RESULT: Pass

5.3.4 Radiated Emissions
RESULT: Pass

5.3.5 Electrostatic Discharges (ESD)
RESULT: Pass

5.3.6 Radio Frequency Electromagnetic Field (RS)
RESULT: Pass

5.3.8 Fast Transients (EFT)
RESULT: Pass

5.3.9 Surge
RESULT: Pass

5.3.10 Radio-Frequency Continuous Conducted (CS)
RESULT: Pass

5.3.11 Voltage Dips and Interruptions
RESULT: Pass

6.1.1 Electromagnetic Fields

RESULT: Pass

Contents

1 GENERAL REMARKS 6
1.1 COMPLEMENTARY MATERIALS 6
2 TEST SITES 6
2.1 TEST FACILITIES 6
2.2 LIST OF TEST AND MEASUREMENT INSTRUMENTS 7
2.3 UNCERTAINTY OF MEASUREMENT 10
3 GENERAL PRODUCT INFORMATION 11
3.1 PRODUCT FUNCTION AND INTENDED USE 11
3.2 RATINGS AND SYSTEM DETAILS 11
3.3 INDEPENDENT OPERATION MODES 13
3.4 NOISE GENERATING AND NOISE SUPPRESSING PARTS 13
3.5 SUBMITTED DOCUMENTS 13
4 TEST SET-UP AND OPERATION MODES 14
4.1 PRINCIPLE OF CONFIGURATION SELECTION 14
4.2 TEST OPERATION AND TEST SOFTWARE 14
4.3 SPECIAL ACCESSORIES AND AUXILIARY EQUIPMENT 14
4.4 COUNTERMEASURES TO ACHIEVE EMC COMPLIANCE 14
5 TEST RESULTS ERM 15
5.1 TRANSMITTER REQUIREMENT & TEST SUITES 15
5.1.1 RF Output Power 15
5.1.2 Duty Cycle, TX-sequence, TX-gap 16
5.1.3 Accumulated Transmit Time, Frequency Occupation and Hopping Sequence 17
5.1.4 Hopping Frequency Separation 18
5.1.5 Medium Utilisation (MU) Factor 19
5.1.6 Adaptivity 20
5.1.7 Occupied Channel Bandwidth 21
5.1.8 Transmitter Unwanted Emissions in the Out-of-band Domain 22
5.1.9 Transmitter Unwanted Emissions in the Spurious Domain 23
5.2 RECEIVER REQUIREMENT & TEST SUITES 24
5.2.1 Receiver Spurious Emissions 24
5.2.2 Receiver Blocking 25
5.2.3 Geo-location Capability 26
5.3 TEST RESULTS OF EMC REQUIREMENT 27
5.3.1 Harmonics Current Emission on AC Mains port 27
5.3.2 Voltage Fluctuations and Flicker on AC Mains 28
5.3.3 Conducted Emissions 29
5.3.4 Radiated Emissions 30
5.3.5 Electrostatic Discharges (ESD) 31
5.3.6 Radio Frequency Electromagnetic Field (RS) 32
5.3.8 Fast Transients (EFT) 34
5.3.9 Surge 35
5.3.10 Radio-Frequency Continuous Conducted (CS) 36
5.3.11 Voltage Dips and Interruptions 37

6 SAFETY HUMAN EXPOSURE 38

6.1 HUMAN EXPOSURE TO ELECTROMAGNETIC FIELDS 10MHZ-300GHZ 38

6.1.1 *Electromagnetic Fields 38*

7 PHOTOGRAPHS OF THE TEST SET-UP 39

8 LIST OF TABLES 45

9 LIST OF PHOTOGRAPHS 45

1 General Remarks

1.1 Complementary Materials

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

Appendix A: Test Results.

2 Test Sites

2.1 Test Facilities

TÜV Rheinland (Shenzhen) Co., Ltd. Testing Center
No. 362 Huanguan Road Middle, Longhua District, 518110, Shenzhen, P. R. China.

TÜV Rheinland (Guangdong) Ltd.
No.199 Kezhu Road, Guangzhou Science City, Guangzhou

Dongguan Dongdian Testing Service Co. , Ltd.
No. 17, Zongbu Road 2, Songshan Lake Sci&Tech, Industry Park, Dongguan City 523808, Guangdong Province, China

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

2.2 List of Test and Measurement Instruments

Table 1: List of Test and Measurement Equipment

TÜV Rheinland (Shenzhen) Co., Ltd. Testing Center

Equipment	Manufacturer	Model No.	Serial No.	Cal. Until
Radio Spectrum Test				
Wireless Connectivity Tester	Rohde & Schwarz	CMW270	101375	20.08.2021
Signal Analyzer	Rohde & Schwarz	FSV 40	101441	20.08.2021
Vector Signal Generator	Rohde & Schwarz	SMBV100A	263301	21.08.2021
Signal Generator	Rohde & Schwarz	SMB100A	115186	21.08.2021
OSP	Rohde & Schwarz	OSP 150	101017	20.12.2020
Control PC	DELL	OptiPlex 7050	FTJZ9P2	N/A
Test Software	Rohde & Schwarz	WMS32 (V10.40.10)	N/A	N/A
Power Meter	Rohde & Schwarz	NRP2	107105	20.12.2020
Wideband Power Sensor	Rohde & Schwarz	NRP-Z81	105350	20.12.2020
Humid & Temp Programmable Tester	BOST	NTH090-60	19040801	16.04.2021
Shielding Room 8#	Albatross	SR8	APC17151-SR8	23.07.2023
Spurious Emission				
EMI Test Receiver	Rohde & Schwarz	ESR 7	102021	19.08.2021
Signal Analyzer	Rohde & Schwarz	FSV 40	101439	21.08.2021
System Controller Interface	Rohde & Schwarz	SCI-100	S10010038	N/A
Filterbank	Rohde & Schwarz	Wlan	100759	21.08.2021
OSP	Rohde & Schwarz	OSP 120	102040	N/A
Pre-amplifier	Rohde & Schwarz	SCU08F1	08320031	20.08.2021
Amplifier	Rohde & Schwarz	SCU-18F	180070	20.08.2021
Amplifier	Rohde & Schwarz	SCU40A	100475	20.08.2021
Trilog Broadband Antenna (30 MHz - 1 GHz)	Schwarzbeck	VULB9162	193	02.09.2021
Double-Ridged Antenna (1 -18 GHz)	ETS-LINDGREN	3117	00218717	02.09.2021
Wideband Ridged Horn Antenna (18-40 GHz)	Steatite	QMS-00880	19067	02.09.2021
Active Loop Antenna	Schwarzbeck	FMZB 1513	302	01.09.2021
Wideband Ridged Horn Antenna (12-18 GHz)	Steatite	QMS-00208	18313	02.09.2021

Test software	Rohde & Schwarz	V10.40.10-EMC32	N/A	N/A
Control PC	Dell	OptiPlex 7050	36NV9P2	N/A
3m Semi-Anechoic Chamber	Albatross	SAC-3m	APC17151-SAC	07.06.2021

TÜV Rheinland (Guangdong) Ltd.

Equipment	Manufacturer	Model No.	Serial No.	Cal Until
Disturbance Voltage				
EMI Test Receiver	Rohde&Schwarz	ESCI 3	100314	15.03.2021
Two-Line V-Network	Rohde&Schwarz	ENV216	100195	01.06.0201
Harmonics & Flicker				
Harmonic and Flicker Analyzer	EM TEST	DPA 500	0304-01	26.04.2021
AC Source	EM TEST	ACS 500	0304-01	26.04.2021
Electrical Fast Transient(EFT)				
Ultra Compact Simulator	EM TEST	UCS 500-M4	V0707102252	15.03.2021
EFT Test Coupling Clamp	TESEQ	CDN 3425	1916	15.03.2021
Surge & Voltage dips and Interruption				
Ultra Compact Simulator	EM TEST	UCS 500-M4	V0707102252	15.03.2021
Motorised Variac	EM TEST	MV 2616	V0707102253	15.03.2021
Electrostatic Discharge				
ESD Gun	TESEQ	NSG 437	615	28.06.0201

Dongguan Dongdian Testing Service Co. , Ltd.

Equipment	Manufacturer	Model No.	Serial No.	Cal Until
Radiated disturbance test 1#chamber (9kHz-40GHz)				
EMI Test Receiver	R&S	ESU8	100316	24.09.2021
EMI Test Receiver	R&S	ESU8	100316	24.09.2021
Spectrum analyzer	Agilent	E4447A	MY50180031	01.07.2021
Trilog Broadband Antenna	Schwarzbeck	VULB9163	9163-462	13.11.2021
Active Loop antenna	Schwarzbeck	FMZB-1519	1519-038	18.11.2021
Double Ridged Horn Antenna	R&S	HF907	100276	13.11.2021
Broad Band Horn Antenna	Schwarzbeck	BBHA 9170	790	11.04.2021
Pre-amplifier	A.H.	PAM-0118	360	28.09.2021

Equipment	Manufacturer	Model No.	Serial No.	Cal Until
RF Cable	HUBSER	CP-X2+ CP-X1	W11.03+ W12.02	24.09.2021
RF Cable	N/A	5m+6m+1m	06270619	24.09.2021
MI Cable	HUBSER	C10-01-01-1M	1091629	30.09.2021
Test software	Audix	E3	V 6.11111b	N/A
Radiation 2#chamber (below 1G)				
EMI Test Receiver	R&S	ESCI	101028	15.10.2021
Spectrum analyzer	Agilent	E4447A	MY50180031	01.07.2021
Trilog Broadband Antenna	Schwarzbeck	VULB 9163	9163-994	19.09.2021
Active Loop antenna	Schwarzbeck	FMZB-1519	1519-038	15.11.2021
Double Ridged Horn Antenna	Schwarzbeck	BBHA9120	02108	11.07.2021
Broad Band Horn Antenna	Schwarzbeck	BBHA 9170	790	11.04.2021
Pre-amplifier	TERA-MW	TRLA-0040G35	101303	28.09.2021
RF Cable	N/A	14+1.5m	06270619	28.09.2021
Test software	Audix	E3	V 6.11111b	N/A
RF Cable	MI Cable	N/A	DDT-F02-233	28.09.2021
RF Cable	MI Cable	N/A	DDT-F02-234	28.09.2021
RF Cable	MI Cable	N/A	DDT-F02-235	28.09.2021
Conducted disturbance				
CONDUCTED IMMUNITY TEST SYSTEM	FRANKONIA	CIT-10	126B1207	01.07.2021
CDN	FRANKONIA	CDN M2+M3	A2210191	01.07.2021
Attenuation	BIRD	DAM75W (6dB)	1143	24.09.2021
EM lamp	FRANKONIA	EMCL	132A1143/2012	01.07.2021
Test Software	Dr. Hubert GmBh	IEC/EN61000-4-6	126B1207	N/A
RF Strength Susceptibility Test				
Signal Generator	Agilent	N5172B	MY53050018	24.09.2021
Amplifier	Wonder	HPA80M1000M500	101	10.07.2021
Amplifier	Wonder	HPA1000M2500M300	102	10.07.2021
Amplifier	Wonder	HPA2500M6000M200	103	10.07.2021
Power meter	Agilent	E4417A	MY45100568	24.09.2021
Power sensor	Agilent	E9323	MY44420907	24.09.2021

Equipment	Manufacturer	Model No.	Serial No.	Cal Until
Power sensor	Agilent	E9323	US40410405	24.09.2021
Log-periodic antenna	Schwarzbeck	STLP 9149	587	N/A
Log-periodic antenna	Schwarzbeck	STLP 9128D special	090	N/A
Field strength probe	PMM	EP-601	611WX80209	21.10.2021

2.3 Uncertainty of Measurement

The value of the measurement uncertainty of each parameter is listed as below:

Table 2: Maximum Measurement Uncertainty

Parameter	Uncertainty
Occupied Channel Bandwidth	±5.0 %
RF Output Power, Conducted	±1.5 dB
Power Spectral Density, Conducted	±3.0 dB
Unwanted Emission, Conducted	±3.0 dB
All Emissions, Radiated	±6.0 dB
Temperature	±1.0 °C
Supply voltages	±3.0 %
Time	±5.0 %

3 General Product Information

3.1 Product Function and Intended Use

The EUT is a Multimedia Speaker and it supports Bluetooth function used for audio entertainment in house or similar environment. It operates at 2.4GHz ISM frequency band.

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

3.2 Ratings and System Details

Table 3: Technical Specification of EUT

General Information of EUT	Value
Kind of Equipment	Multimedia Speaker
Type Designation	EDF100007
Trade Mark	EDIFIER
Operating Voltage	AC 100-240V, 50/60Hz, 500mA
Testing Voltage	AC 230V, 50Hz
Technical Specification of Bluetooth (BDR & EDR)	
Operating Frequency band	2402 – 2480 MHz
Bluetooth Core Version	5.0
Channel Number	79 channels
Channel separation	1MHz
Extreme Temperature Range	-20ºC to +35ºC
Modulation	GFSK, π/4DQPSK, 8DPSK
Antenna Type	Internal Antenna
Antenna Gain	2.59 dBi

Table 4: RF Channel and Frequency of Bluetooth (BDR & EDR)

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, Bluetooth mode (BDR & EDR)
   1. Transmitting mode
      a. Low channel
      b. Middle channel
      c. High channel
   2. Receiving mode
      a. Low channel
      d. Middle channel
      b. High channel

B. On, Bluetooth playing
C. On, Line in 1
D. On, Line in 2
E. On, optical
F. On, coaxial
G. On, sub out
H. Off

3.4 Noise Generating and Noise Suppressing Parts

For details refer to the Circuit Diagram.

3.5 Submitted Documents

- Block Diagram
- Schematics
- Rating Label
- User Manual

4 Test Set-up and Operation Modes

4.1 Principle of Configuration Selection

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

Immunity: The equipment under test (EUT) was configured to have its highest possible susceptibility against the tested phenomena. The test modes were adapted accordingly in reference to the instructions for use.

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

4.2 Test Operation and Test Software

Test operation refers to test setup in chapter 5 and chapter 7.

4.3 Special Accessories and Auxiliary Equipment

Table 5: List of Accessories and Auxiliary Equipment

Description	Manufacturer	Model	S/N
Notebook	Lenovo	ThinkPad 260	PC0GP71G
Mobile Phone	HTC	D626w	N/A
DVD Player	GIEC	BDP-G3606	N/A

4.4 Countermeasures to Achieve EMC Compliance

No additional measures were employed to achieve compliance.

5 Test Results ERM

5.1 Transmitter Requirement & Test Suites

5.1.1 RF Output Power

RESULT: **Pass**

Test Specification

Test standard	:	EN 300 328 V2.2.2
Test requirement	:	Clause 4.3.1.2 of EN 300 328
Limit	:	Clause 4.3.1.2.3 of EN 300 328
Test suites	:	Clause 5.4.2 of EN 300 328

Test Setup

Date of testing	:	27.10.2020
Test voltage	:	AC 230V, 50Hz
Test environment	:	Normal and extreme temperature
Operation mode	:	A1
Ambient temperature	:	23.2 ℃
Relative humidity	:	60 %
Atmospheric pressure	:	101 kPa

For the measurement records, refer to the appendix A.

5.1.2 Duty Cycle, TX-sequence, TX-gap

RESULT: **Not applicable**

Test Specification

Test standard	:	EN 300 328 V2.2.2
Test requirement	:	Clause 4.3.1.3 of EN 300 328
Limit	:	Clause 4.3.1.3.3 of EN 300 328
Test suites	:	Clause 5.4.2 of EN 300 328

Exemption Conditions:

☒ These requirements do not apply for equipment with a maximum declared RF Output power of less than 10 dBm e.i.r.p. or for equipment when operating in a mode where the RF Output power is less than 10 dBm e.i.r.p.

Conclusion:

The maximum declared RF output power is less than 10dBm e.i.r.p., hence this requirement is not applicable.

5.1.3 Accumulated Transmit Time, Frequency Occupation and Hopping Sequence

RESULT: **Pass**

Test Specification

Test standard	:	EN 300 328 V2.2.2
Test requirement	:	Clause 4.3.1.4 of EN 300 328
Limit	:	Clause 4.3.1.4.3 of EN 300 328
Test suites	:	Clause 5.4.4 of EN 300 328

Test Setup

Date of testing	:	27.10.2020
Test voltage	:	AC 230V, 50Hz
Test environment	:	Normal temperature
Operation mode	:	A1
Ambient temperature	:	23.2 ℃
Relative humidity	:	60 %
Atmospheric pressure	:	101 kPa

For the measurement records, refer to the appendix A.

5.1.4 Hopping Frequency Separation

RESULT: **Pass**

Test Specification

Test standard	:	EN 300 328 V2.2.2
Test requirement	:	Clause 4.3.1.5 of EN 300 328
Limit	:	Clause 4.3.1.5.3 of EN 300 328
Test suites	:	Clause 5.4.5 of EN 300 328

Test Setup

Date of testing	:	27.10.2020
Test voltage	:	AC 230V, 50Hz
Test environment	:	Normal temperature
Operation mode	:	A1
Ambient temperature	:	23.2 ℃
Relative humidity	:	60 %
Atmospheric pressure	:	101 kPa

For the measurement records, refer to the appendix A.

5.1.5 Medium Utilisation (MU) Factor

RESULT: **Not applicable**

Test Specification

Test standard	:	EN 300 328 V2.2.2
Test requirement	:	Clause 4.3.1.6 of EN 300 328
Limit	:	Clause 4.3.1.6.3 of EN 300 328
Test suites	:	Clause 5.4.2 of EN 300 328

Exemption Conditions:

☒ These requirements do not apply for equipment with a maximum declared RF Output power of less than 10 dBm e.i.r.p. or for equipment when operating in a mode where the RF Output power is less than 10 dBm e.i.r.p.

Conclusion:

The maximum declared RF output power is less than 10dBm e.i.r.p., hence this requirement is not applicable.

5.1.6 Adaptivity

RESULT: **Not applicable**

Test Specification

Test standard	:	EN 300 328 V2.2.2
Test requirement	:	Clause 4.3.1.7.2 of EN 300 328
Limit	:	Clause 4.3.1.7.2.2 of EN 300 328
Test suites	:	Clause 5.4.6 of EN 300 328

Exemption Conditions:

☒ These requirements do not apply for equipment with a maximum declared RF Output power of less than 10 dBm e.i.r.p. or for equipment when operating in a mode where the RF Output power is less than 10 dBm e.i.r.p.

Conclusion:

The maximum declared RF output power is less than 10dBm e.i.r.p., hence this requirement is not applicable.

5.1.7 Occupied Channel Bandwidth

RESULT: **Pass**

Test Specification

Test standard	:	EN 300 328 V2.2.2
Test requirement	:	Clause 4.3.1.8 of EN 300 328
Limit	:	Clause 4.3.1.8.3 of EN 300 328
Test suites	:	Clause 5.4.7 of EN 300 328

Test Setup

Date of testing	:	27.10.2020
Test voltage	:	AC 230V, 50Hz
Test environment	:	Normal temperature
Operation mode	:	A1
Ambient temperature	:	23.2 ℃
Relative humidity	:	60 %
Atmospheric pressure	:	101 kPa

For the measurement records, refer to the appendix A.

5.1.8 Transmitter Unwanted Emissions in the Out-of-band Domain

RESULT: **Pass**

Test Specification

Test standard	:	EN 300 328 V2.2.2
Test requirement	:	Clause 4.3.1.9 of EN 300 328
Limit	:	Clause 4.3.1.9.3 of EN 300 328
Test suites	:	Clause 5.4.8 of EN 300 328

Test Setup

Date of testing	:	27.10.2020
Test voltage	:	AC 230V, 50Hz
Test environment	:	Normal temperature
Operation mode	:	A1
Ambient temperature	:	23.2 ℃
Relative humidity	:	60 %
Atmospheric pressure	:	101 kPa

For the measurement records, refer to the appendix A.

5.1.9 Transmitter Unwanted Emissions in the Spurious Domain

RESULT: **Pass**

Test Specification

Test standard	:	EN 300 328 V2.2.2
Test requirement	:	Clause 4.3.1.10 of EN 300 328
Limit	:	Clause 4.3.1.10.3 of EN 300 328
Test suites	:	Clause 5.4.9 of EN 300 328

Test Setup

Date of testing	:	14.10.2020
Test voltage	:	AC 230V, 50Hz
Test environment	:	Normal temperature
Operation mode	:	A1
Ambient temperature	:	23.3 ℃
Relative humidity	:	52 %
Atmospheric pressure	:	101 kPa

For the measurement records, refer to the appendix A.

5.2 Receiver Requirement & Test Suites

5.2.1 Receiver Spurious Emissions

RESULT: **Pass**

Test Specification

Test standard	:	EN 300 328 V2.2.2
Test requirement	:	Clause 4.3.1.11 of EN 300 328
Limit	:	Clause 4.3.1.11.3 of EN 300 328
Test suites	:	Clause 5.4.10 of EN 300 328

Test Setup

Date of testing	:	14.10.2020
Test voltage	:	AC 230V, 50Hz
Test environment	:	Normal temperature
Operation mode	:	A2
Ambient temperature	:	23.3 ℃
Relative humidity	:	52 %
Atmospheric pressure	:	101 kPa

For the measurement records, refer to the appendix A.

5.2.2 Receiver Blocking

RESULT: **Pass**

Test Specification

Test standard	:	EN 300 328 V2.2.2
Test requirement	:	Clause 4.3.1.12 of EN 300 328
Limit	:	Clause 4.3.1.12.4 of EN 300 328
Test suites	:	Clause 5.4.11 of EN 300 328

Test Setup

Date of testing	:	27.10.2020
Test voltage	:	AC 230V, 50Hz
Test environment	:	Normal temperature
Operation mode	:	A2
Ambient temperature	:	23.2 ℃
Relative humidity	:	60 %
Atmospheric pressure	:	101 kPa

For the measurement records, refer to the appendix A.

5.2.3 Geo-location Capability

RESULT: **Not applicable**

Test Specification

Test standard	:	EN 300 328 V2.2.2
Test requirement	:	Clause 4.3.1.13 of EN 300 328

Exemption Conditions:

This requirement only applies to equipment with geo-location capability as defined in clause 4.3.1.13.2.

Conclusion:

The EUT is adaptive equipment and does not support geo-location capability, hence this requirement is not applicable.

5.3 Test Results of EMC Requirement

5.3.1 Harmonics Current Emission on AC Mains port

RESULT: **Pass**

Test Specification

Test standard	:	EN 301 489-17 V3.2.4
Basic standard	:	EN 301 489-1 V2.2.3 EN 61000-3-2: 2014
Test requirement	:	Clause 8.5 of EN 301 489-1 V2.2.3
Measured harmonics	:	2 - 40
Classification	:	Class A
Limit	:	Table 1 of EN 61000-3-2: 2014

Test Setup

Date of testing	:	02.11.2020
Test voltage	:	AC 230V, 50Hz
Operation mode	:	B, C, D, E, F, G
Earthing	:	Not connected
Ambient temperature	:	25 ℃
Relative humidity	:	56 %
Atmospheric pressure	:	101 kPa

For the measurement records, refer to the appendix A. (Only the worst case were recorded)

5.3.2 Voltage Fluctuations and Flicker on AC Mains

RESULT: **Pass**

Test Specification

Test standard	:	EN 301 489-17 V3.2.4
Basic standard	:	EN 301 489-1 V2.2.3 EN 61000-3-3: 2013
Test requirement	:	Clause 8.6 of EN 301 489-1 V2.2.3
Frequency range	:	0 – 2 kHz
Limit	:	Clause 5 of EN 61000-3-3: 2013

Test Setup

Date of testing	:	02.11.2020
Test voltage	:	AC 230V, 50Hz
Operation mode	:	B, C, D, E, F, G
Earthing	:	Not connected
Ambient temperature	:	25 ℃
Relative humidity	:	56 %
Atmospheric pressure	:	101 kPa

For the measurement records, refer to the appendix A. (Only the worst case were recorded)

5.3.3 Conducted Emissions

RESULT: **Pass**

Test Specification

Test standard	:	EN 301 489-1 V2.2.3 EN 301 489-17 V3.2.4 EN 55032: 2015
Frequency range	:	0.15 - 30MHz
Classification	:	Class B
Limit	:	Clause 8.4.3 of EN 301 489-1 V2.2.3 Table A.10 of EN 55032: 2012
Kind of test site	:	Shielded room

Test Setup

Date of testing	:	03.11.2020
Test voltage	:	AC 230V, 50Hz
Operation mode	:	B, C, D, E, F, G
Test ports	:	AC mains terminals
Earthing	:	Not connected
Test configuration	:	Table-top
Ambient temperature	:	21 ℃
Relative humidity	:	55 %
Atmospheric pressure	:	101 kPa

For the measurement records, refer to the appendix A.

5.3.4 Radiated Emissions

RESULT: **Pass**

Test Specification

Test standard	:	EN 301 489-1 V2.2.3 EN 301 489-17 V3.2.4 EN 55032: 2015
Frequency range	:	30 - 6000MHz
Classification	:	Class B
Limit	:	Clause 8.2.3 of EN 301 489-1 V2.2.3 Table A.4 and A.5 of EN 55032: 2015
Kind of test site	:	3m Semi-Anechoic Chamber & 3m Full-Anechoic Chamber
Test ports	:	Enclosure

Test Setup

Date of testing	:	02.11.2020 - 23.11.2020
Test voltage	:	AC 230V, 50Hz
Operation mode	:	B, C, D, E, F, G
Earthing	:	Not connected
Test configuration	:	Table-top
Ambient temperature	:	24.7 ℃
Relative humidity	:	56 %
Atmospheric pressure	:	101.4 kPa

For the measurement records, refer to the appendix A.

5.3.5 Electrostatic Discharges (ESD)

RESULT: **Pass**

Test Specification

Test standard	:	EN 301 489-1 V2.2.3 EN 301 489-17 V3.2.4 EN 55035:2017
Basic standard	:	EN 61000-4-2:2009
Test Requirement	:	Clause 9.3.1 of EN 301 489-1 V2.2.3 Table 1 of EN 55035:2017
Test level	:	Contact discharge: ± 2.0kV, ± 4.0kV Air discharge: ± 2.0kV, ± 4.0kV, ± 8.0kV
Position	:	All exposed surfaces
Criterion	:	Clause 6.4 of EN 301 489-17 V3.2.4 Clause 8 and Annex G of EN 55035:2017

Test Setup

Date of testing	:	03.11.2020
Test voltage	:	AC 230V, 50Hz
Operation mode	:	B, C, D, E, F, G
Earthing	:	Not connected
Test configuration	:	Table-top
Ambient temperature	:	22 ℃
Relative humidity	:	52 %
Atmospheric pressure	:	101 kPa

Table 6: Test result of Electrostatic Discharges (ESD)

Operation mode	Test Voltage	Location	Result
B, C, D, E, F, G	± 2.0kV, ± 4.0kV / Contact	HCP	A*
		VCP	A*
		Conducted Enclosure	A*
	± 2.0kV, ± 4.0kV, ± 8.0kV / Air	Non-conducted Enclosure	A*
		Button	A*
		Slot	A*

*Remark: No degradation was observed during and after the tests.

5.3.6 Radio Frequency Electromagnetic Field (RS)

RESULT: **Pass**

Test Specification

Test standard	:	EN 301 489-1 V2.2.3 EN 301 489-17 V3.2.4 EN 55035:2017
Basic standard	:	EN 61000-4-3:2006+A1+A2
Test Requirement	:	Clause 9.2.1 of EN 301 489-1 V2.2.3 Table 1 of EN 55035:2017
Test level	:	3V/m, (unmodulated, rms)
Modulation	:	80% AM by a sinusoidal signal of 1kHz
Frequency range	:	80MHz -6GHz
Criterion	:	Clause 6.3 of EN 301 489-17 V3.2.4 Clause 8 and Annex G of EN 55035:2017

Test Setup

Date of testing	:	05.11.2020
Test voltage	:	AC 230V, 50Hz
Operation mode	:	B, C, D, E, F, G
Earthing	:	Not connected
Test configuration	:	Table-top
Ambient temperature	:	23.5 ℃
Relative humidity	:	45.5 %
Atmospheric pressure	:	101 kPa

Table 7: Test result of Radio Frequency Electromagnetic Field (RS), for swept test

Test Frequency Band	Test port	Polarity	Location	Result
80MHz – 1000MHz	Enclosure	Vertical / Horizontal	Front	A*
			Rear	A*
			Left	A*
			Right	A*
Test Frequency Band	Test port	Polarity	Location	Result
1000MHz – 6000MHz	Enclosure	Vertical / Horizontal	Front	A*
			Rear	A*
			Left	A*
			Right	A*

Table 8: Test result of Radio Frequency Electromagnetic Field (RS), for spot test

Test Frequency	Test port	Polarity	Location	Result
1800MHz 2600MHz 3500MHz 5000MHz	Enclosure	Vertical / Horizontal	Front	A*
			Rear	A*
			Left	A*
			Right	A*

*Remark: No degradation was observed during and after the tests.

5.3.8 Fast Transients (EFT)

RESULT: **Pass**

Test Specification

Test standard	:	EN 301 489-1 V2.2.3 EN 301 489-17 V3.2.4 EN 55035: 2017
Basic standard	:	EN 61000-4-4: 2004
Test Requirement	:	Clause 9.4.1 of EN 301 489-1 V2.2.3 Table 4 of EN 55035:2017
Test level	:	±1kV
Test duration	:	≥60sec
Rise time	:	5/50ns
Repetition frequency	:	5kHz
Criterion	:	Clause 6.4 of EN 301 489-17 V3.2.4 Clause 8 and Annex G of EN 55035:2017

Test Setup

Date of testing	:	03.11.2020
Test voltage	:	AC 230V, 50Hz
Operation mode	:	B, C, D, E, F, G
Earthing	:	Not connected
Test configuration	:	Table-top
Ambient temperature	:	22 ℃
Relative humidity	:	52 %
Atmospheric pressure	:	101 kPa

Table 9: Test result of Electrical Fast Transients (EFT)

Test Mode	Coupling Method	Coupling Port	Test Level	Actual Performance
B, C, D, E, F, G	Direct Injection	Live + Neutral	±1kV on AC	A*

*Remark: No degradation was observed during and after the tests.

5.3.9 Surge

RESULT: **Pass**

Test Specification

Test standard	:	EN 301 489-1 V2.2.3 EN 301 489-17 V3.2.4 EN 55035: 2017
Basic standard		EN 61000-4-5: 2006
Test Requirement	:	Clause 9.8.1 of EN 301 489-1 V2.2.3 Table 4 of EN 55035:2017
Test level	:	±1kV
Number of surges	:	5 (for each combination of parameters)
Repetition rate	:	Max. 1/min
Criterion	:	Clause 6.4 of EN 301 489-17 V3.2.4 Clause 8 and Annex G of EN 55035:2017

Test Setup

Date of testing	:	03.11.2020
Test voltage	:	AC 230V, 50Hz
Operation mode	:	B, C, D, E, F, G
Earthing	:	Not connected
Test configuration	:	Table-top
Ambient temperature	:	22 ℃
Relative humidity	:	52 %
Atmospheric pressure	:	101 kPa

Table 10: Test result of Surge

Test Mode	Coupling Port	Test Level (±kV)	Coupling Phase	Actual Performance
B, C, D, E, F, G	AC mains power port	± 1.0 kV line to line	0	A*
			π/2	A*
			π	A*
			3π/2	A*

*Remark: No degradation was observed during and after the tests.

5.3.10 Radio-Frequency Continuous Conducted (CS)

RESULT: **Pass**

Test Specification

Test standard	:	EN 301 489-1 V2.2.3 EN 301 489-17 V3.2.4 EN 55035: 2017
Basic standard		EN 61000-4-6: 2007
Test Requirement	:	Clause 9.5.1 of EN 301 489-1 V2.2.3 Table 4 of EN 55035:2017
Frequency range	:	0.15 - 80 MHz
Source impedance	:	150Ω
Test level	:	For EN 301 489-1: 3V, (unmodulated, r.m.s.) For EN 55035: 3V (150KHz – 10MHz) 3 to 1V (10MHz – 30MHz), 1V (30MHz – 80MHz)
Modulation	:	AM 80%, 1kHz sine-wave
Sweep mode	:	automatic
Sweep rate	:	$<1.5\times10^{-3}$ decade / sec.
Criterion	:	Clause 6.3 of EN 301 489-17 V3.2.4 Clause 8 and Annex G of EN 55035:2017

Test Setup

Date of testing	:	05.11.2020
Test voltage	:	AC 230V, 50Hz
Operation mode	:	B, C, D, E, F, G
Earthing	:	Not connected
Test configuration	:	Table-top
Ambient temperature	:	23.7 °C
Relative humidity	:	42 %
Atmospheric pressure	:	101 kPa

Table 11: Test result of Injected Currents / Conducted Susceptibility (CS), for EN 301 489-1

Test Frequency Band	Coupling Method	Test Port	Test Level	Actual Performance
150KHz – 80MHz	Direct Injection	AC mains power port	3.0 V	A*

Table 12: Test result of Injected Currents / Conducted Susceptibility (CS), for EN 55035

Test Frequency Band	Coupling Method	Test Port	Test Level	Actual Performance
150KHz – 10MHz	Direct Injection	AC mains power port	3.0 V	A*
10MHz – 30MHz	Direct Injection	AC mains power port	3.0V to 1.0V	A*
30MHz – 80MHz	Direct Injection	AC mains power port	1.0 V	A*

*Remark: No degradation was observed during and after the tests.

5.3.11 Voltage Dips and Interruptions

RESULT: **Pass**

Test Specification

Test standard	:	EN 301 489-1 V2.2.3 EN 301 489-17 V3.2.4 EN 55035: 2017
Basic standard		EN 61000-4-11: 2004
Test Requirement	:	Clause 9.7.1 of EN 301 489-1 V2.2.3 Table 4 of EN 55035:2017
Test level and durations	:	Voltage Dips: 100% reduction for 0.5 period 100% reduction for 1 periods 30% reduction for 25 periods Voltage interruptions: 0% reduction for 250 period
Criterion	:	Clause 6.4 of EN 301 489-17 V3.2.4 Clause 8 and Annex G of EN 55035:2017

Test Setup

Date of testing	:	02.11.2020
Test voltage	:	AC 230V, 50Hz
Operation mode	:	B, C
Earthing	:	Not connected
Test configuration	:	Table-top
Ambient temperature	:	23 ℃
Relative humidity	:	60 %
Atmospheric pressure	:	101 kPa

Table 13: Test result of Voltage Dips and Interruptions

Test Mode	Coupling Port	Voltage Reduction (%)	Reduction Duration (in Period)	Actual Performance
B, C	AC mains power port	100%	0.5	A*
		100%	1	A*
		30%	25	A*
		100%	250	B**

*Remark: No degradation was observed during and after the tests.
**Remark: During the test, the EUT turned off. However, it could automatically restore after test.

6 Safety Human Exposure

6.1 Human Exposure to Electromagnetic Fields 10MHz-300GHz

6.1.1 Electromagnetic Fields

RESULT: **Pass**

Test Specification

Test standard : EN 62479: 2010

The maximum measured peak power of EUT is only 7.2 dBm (5.248mW).

According to EN 62479:2010 clause 4.2, if the average total radiated power emitted by apparatus operating in the frequency range 10MHz-300GHz is less than or equal to 13.01dBm(20mW), then the apparatus is deemed to comply with the basic restrictions without testing.

7 Photographs of the Test Set-Up

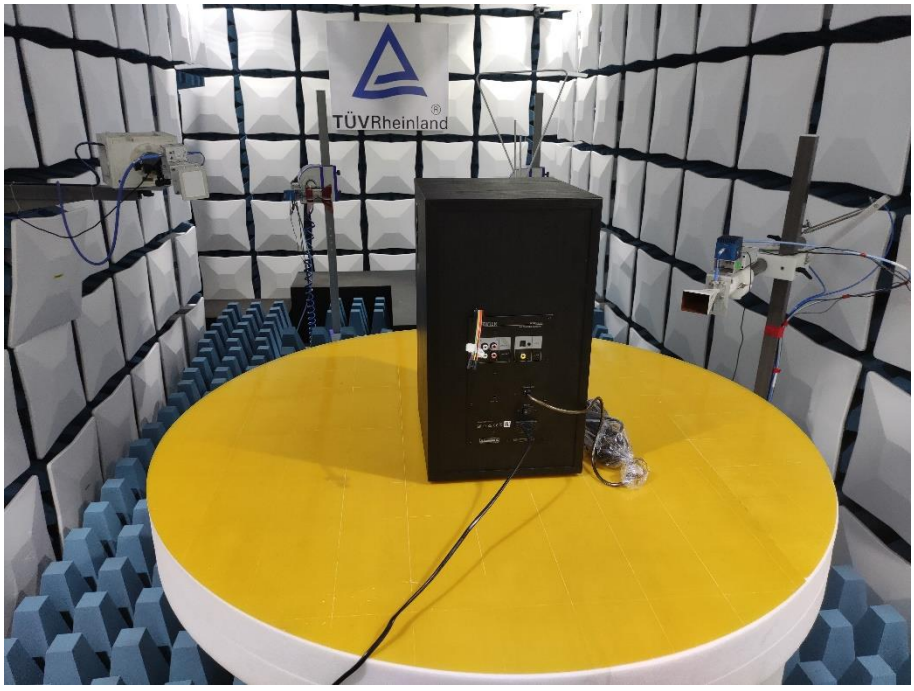
Photograph 1: Set-up for Radio Spectrum Testing, Normal Condition



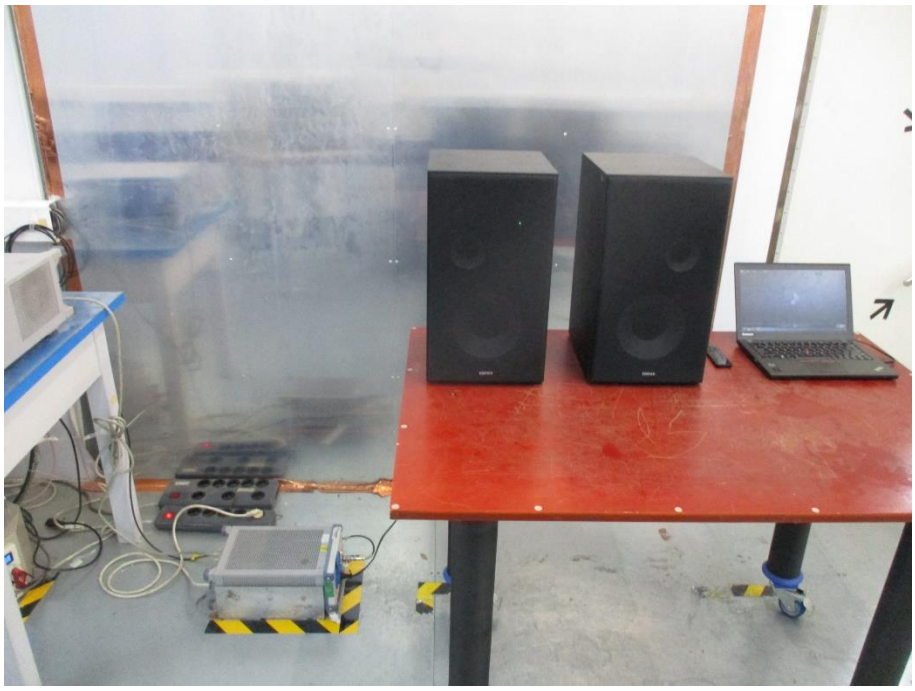
Photograph 2: Set-up for Radio Spectrum Testing, Extreme Condition



Photograph 3: Set-up for Transmitter & Receiver Spurious Emissions



Photograph 4: Set-up for Conducted Emission on AC Mains



Photograph 5: Set-up for Harmonics& Flicker



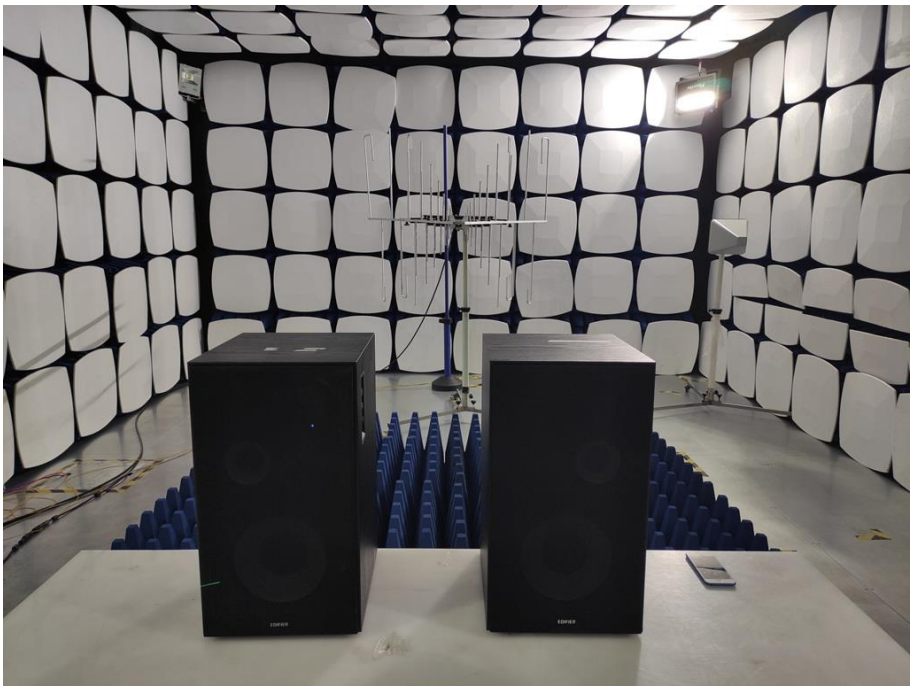
Photograph 6: Set-up for Radiated Emission, Below 1GHz



Photograph 7: Set-up for Radiated Emission, Above 1GHz



Photograph 8: Set-up for Radio Frequency Electromagnetic Fields (RS, 80MHz-1GHz)



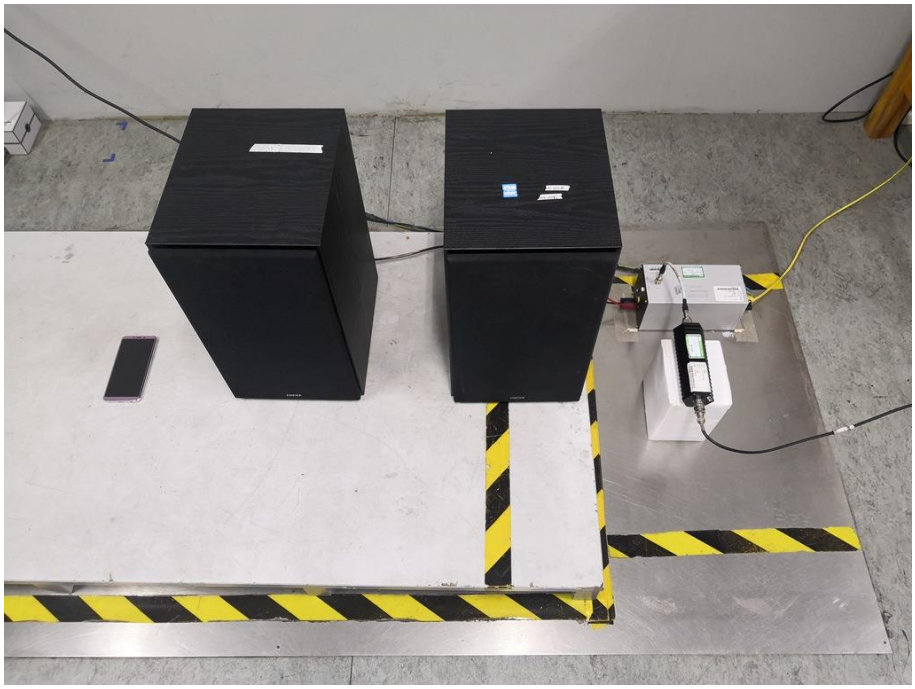
Photograph 9: Set-up for Radio Frequency Electromagnetic Fields (RS, 1GHz-6GHz)



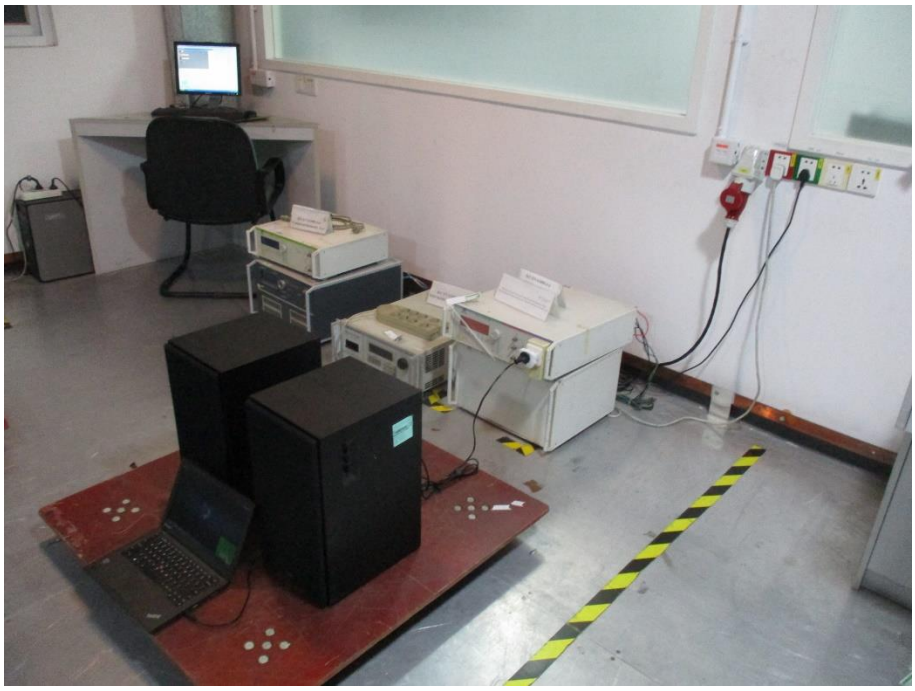
Photograph 10: Setup for Electrostatic Discharges (ESD)



Photograph 11: Setup for Radio-frequency continuous conducted (CS)



Photograph 12: Setup for Fast Transients (EFT), Surge& Voltage dips and interruptions



8 List of Tables

Table 1: List of Test and Measurement Equipment 7
Table 2: Maximum Measurement Uncertainty 10
Table 3: Technical Specification of EUT 11
Table 4: RF Channel and Frequency of Bluetooth (BDR & EDR) 12
Table 5: List of Accessories and Auxiliary Equipment 14
Table 6: Test result of Electrostatic Discharges (ESD) 31
Table 7: Test result of Radio Frequency Electromagnetic Field (RS), for swept test 33
Table 8: Test result of Radio Frequency Electromagnetic Field (RS), for spot test 33
Table 9: Test result of Electrical Fast Transients (EFT) 34
Table 10: Test result of Surge 35
Table 11: Test result of Injected Currents / Conducted Susceptibility (CS), for EN 301 489-1 36
Table 12: Test result of Injected Currents / Conducted Susceptibility (CS), for EN 55035 36
Table 13: Test result of Voltage Dips and Interruptions 37

9 List of Photographs

Photograph 1: Set-up for Radio Spectrum Testing, Normal Condition 39
Photograph 2: Set-up for Radio Spectrum Testing, Extreme Condition 39
Photograph 3: Set-up for Transmitter & Receiver Spurious Emissions 40
Photograph 4: Set-up for Conducted Emission on AC Mains 40
Photograph 5: Set-up for Harmonics& Flicker 41
Photograph 6: Set-up for Radiated Emission, Below 1GHz 41
Photograph 7: Set-up for Radiated Emission, Above 1GHz 42
Photograph 8: Set-up for Radio Frequency Electromagnetic Fields (RS, 80MHz-1GHz) 42
Photograph 9: Set-up for Radio Frequency Electromagnetic Fields (RS, 1GHz-6GHz) 43
Photograph 10: Setup for Electrostatic Discharges (ESD) 43
Photograph 11: Setup for Radio-frequency continuous conducted (CS) 44
Photograph 12: Setup for Fast Transients (EFT), Surge& Voltage dips and interruptions 44

Appendix A

Test results

Content

CONTENT 1
1 APPENDIX A.1 : RF OUTPUT POWER 2
2 APPENDIX A.2 : ACCUMULATED TRANSMIT TIME 3
3 APPENDIX A.3 : FREQUENCY OCCUPATION 6
4 APPENDIX A.4 : HOPPING SEQUENCE 9
5 APPENDIX A.5: HOPPING FREQUENCY SEPARATION 11
6 APPENDIX A.6: OCCUPIED CHANNEL BANDWIDTH 15
7 APPENDIX A.7: RECEIVER BLOCKING 19
8 APPENDIX A.8 : TX UNWANTED EMISSIONS IN THE OUT-OF-BAND DOMAIN 21
9 APPENDIX A.9 : TRANSMITTER UNWANTED EMISSIONS 23
10 APPENDIX A.10 : RECEIVER SPURIOUS EMISSIONS 35
11 APPENDIX A.11: TEST PLOTS OF HARMONICS CURRENT 43
12 APPENDIX A.12: TEST PLOTS OF VOLTAGE FLUCTUATIONS AND FLICKER 67
13 APPENDIX A.13: TEST PLOTS OF CONDUCTED EMISSION 72
14 APPENDIX A.14 : RADIATED EMISSIONS 77

1 Appendix A.1 : RF output power

The RF output power is the mean equivalent isotropically radiated power (EIRP) during a transmission burst.
Only the worst case for all test modes reported.

Test Mode	Test Conditions		Measured e.i.r.p. (dBm)
GFSK FHSS	Normal	+23.2℃	6.6
	Extreme	-20℃	7.02
		+35℃	6.25
	Maximum Measured Value		7.02
Limit			≤ 100mW (20dBm)
Test Mode	Test Conditions		Measured e.i.r.p. (dBm)
8DPSK FHSS	Normal	+23.2℃	6.7
	Extreme	-20℃	7.12
		+35℃	6.35
	Maximum Measured Value		7.12
Limit			≤ 100mW (20dBm)

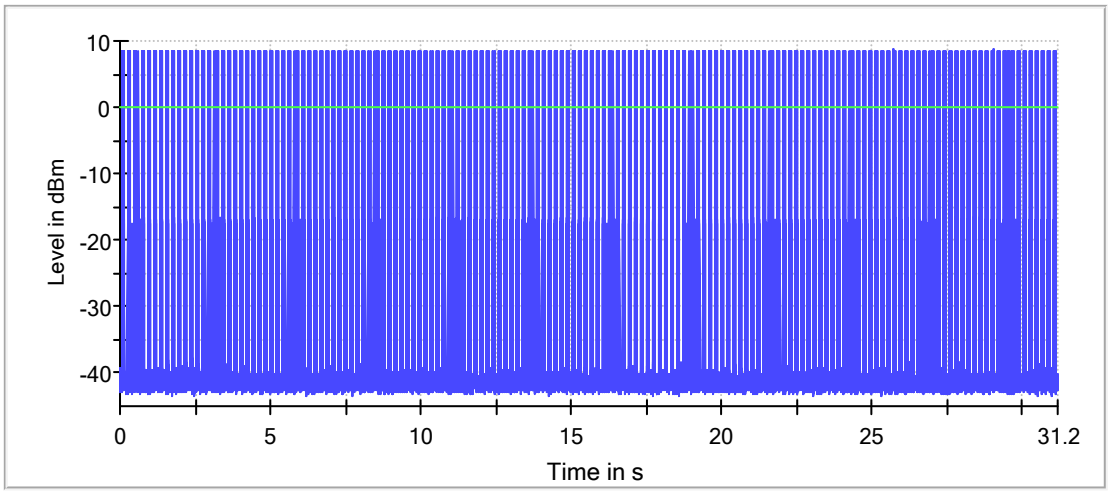
2 Appendix A.2 : Accumulated Transmit Time

BDR-GFSK, DH1

Result

DUT Frequency (MHz)	Result	Time (ms)	Limit Max (ms)	Limit Min (ms)	Threshold (dBm)
2441.000000	PASS	124.120	400.000	---	0.0

Accumulated Transmit Time

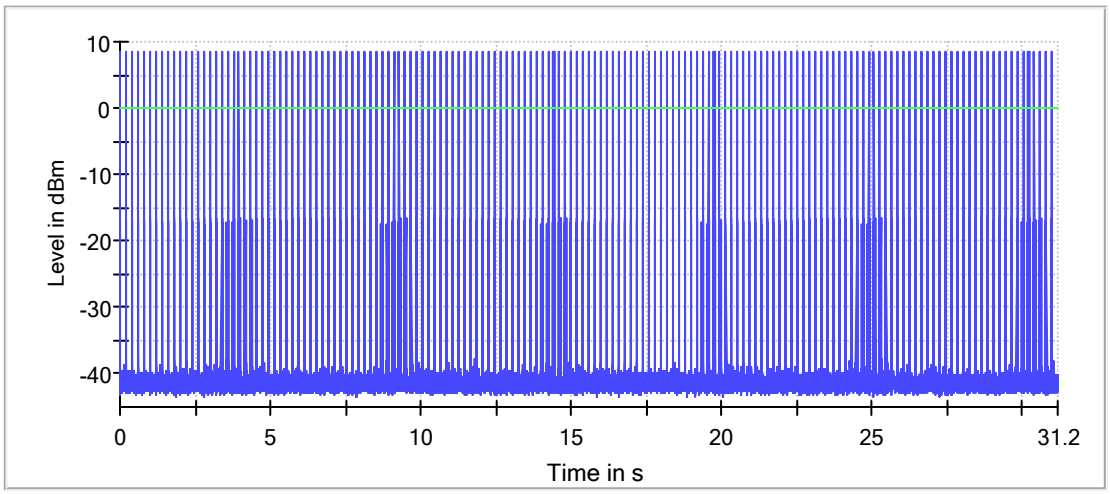


BDR-GFSK, DH3

Result

DUT Frequency (MHz)	Result	Time (ms)	Limit Max (ms)	Limit Min (ms)	Threshold (dBm)
2441.000000	PASS	260.470	400.000	---	0.0

Accumulated Transmit Time(2)

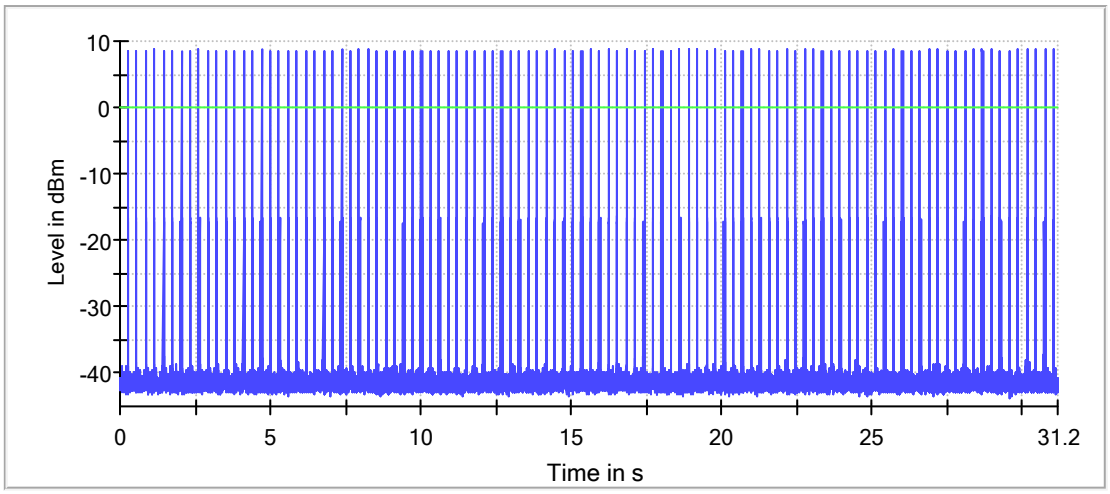


BDR-GFSK, DH5

Result

DUT Frequency (MHz)	Result	Time (ms)	Limit Max (ms)	Limit Min (ms)	Threshold (dBm)
2441.000000	PASS	304.110	400.000	---	0.0

Accumulated Transmit Time(3)



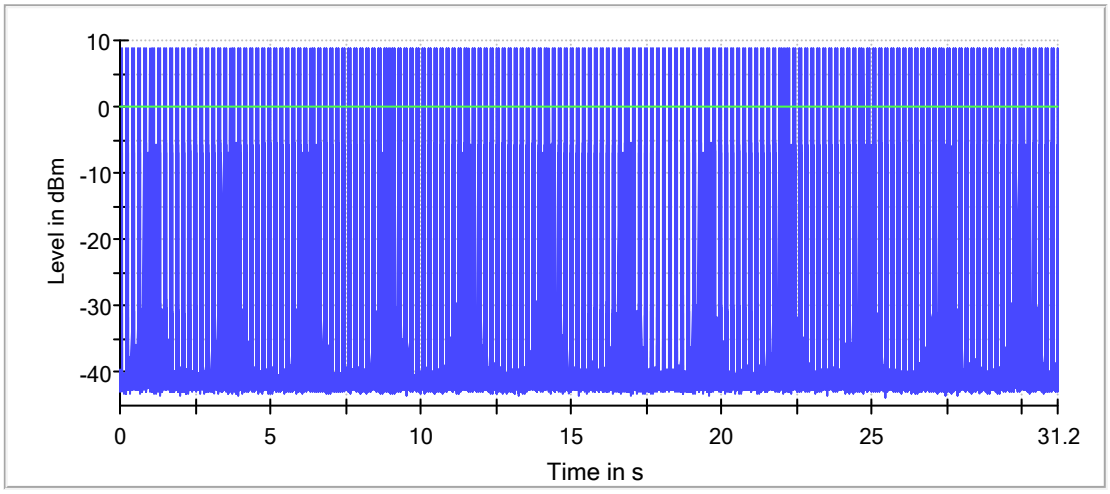
Trace Threshold

EDR- 8DPSK, 3DH1

Result

DUT Frequency (MHz)	Result	Time (ms)	Limit Max (ms)	Limit Min (ms)	Threshold (dBm)
2441.000000	PASS	127.150	400.000	---	0.0

Accumulated Transmit Time



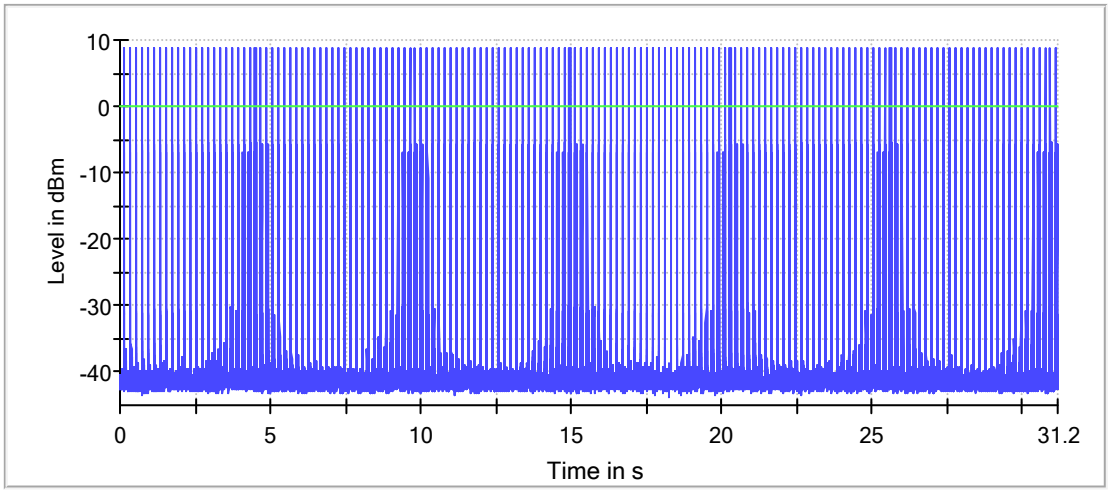
Trace Threshold

EDR- 8DPSK, 3DH3

Result

DUT Frequency (MHz)	Result	Time (ms)	Limit Max (ms)	Limit Min (ms)	Threshold (dBm)
2441.000000	PASS	260.260	400.000	---	0.0

Accumulated Transmit Time(2)



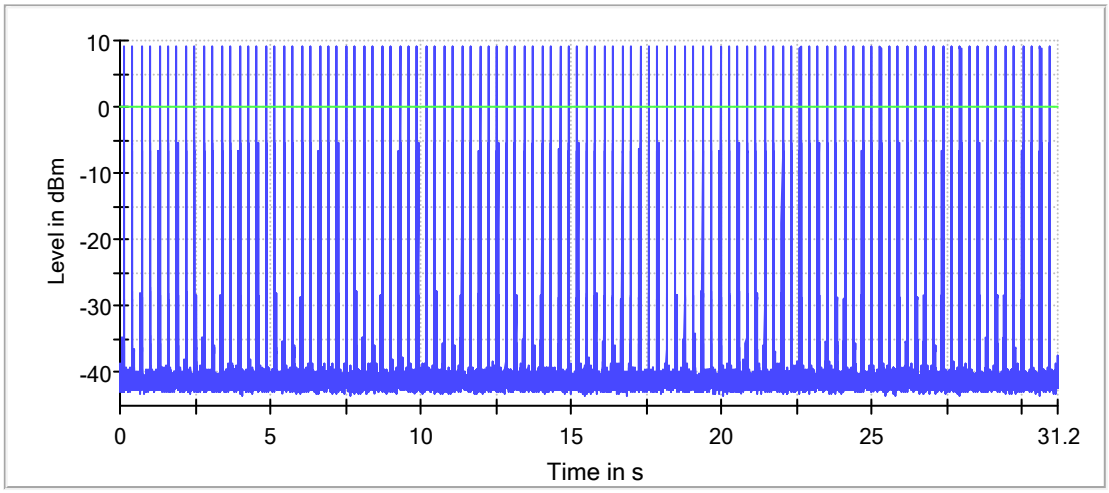
Trace Threshold

EDR- 8DPSK, 3DH5

Result

DUT Frequency (MHz)	Result	Time (ms)	Limit Max (ms)	Limit Min (ms)	Threshold (dBm)
2441.000000	PASS	304.330	400.000	---	0.0

Accumulated Transmit Time(3)



Trace Threshold

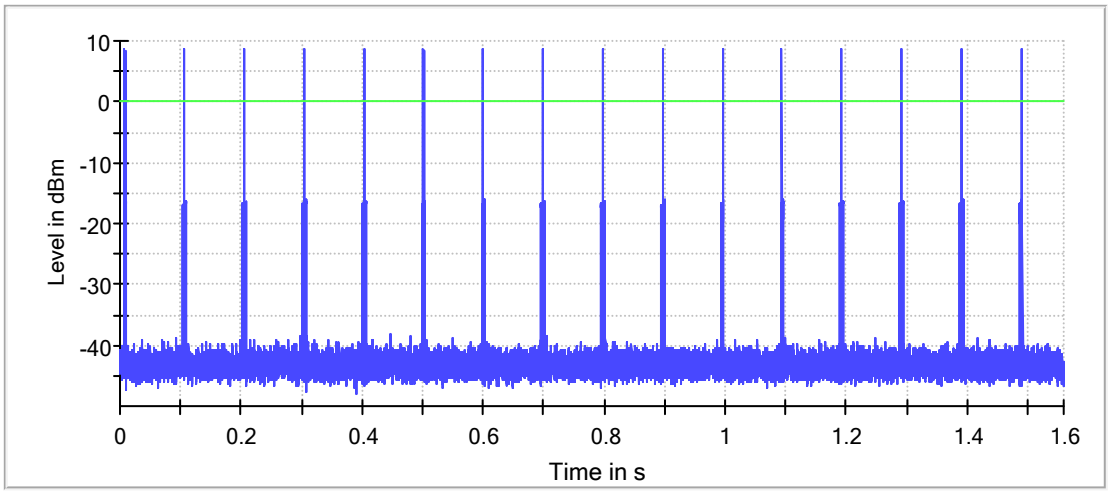
3 Appendix A.3 : Frequency Occupation

BDR-GFSK, DH1

Result

DUT Frequency (MHz)	Result	Time (ms)	Limit Max (ms)	Limit Min (ms)	Threshold (dBm)
2441.000000	PASS	6.137	---	0.000	0.0

Frequency Occupation



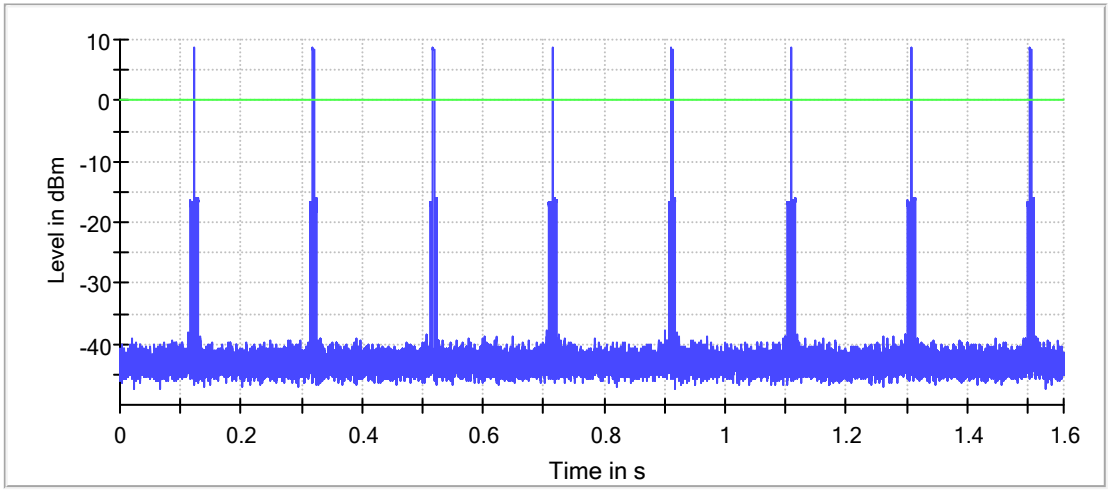
Trace Threshold

BDR-GFSK, DH3

Result

DUT Frequency (MHz)	Result	Time (ms)	Limit Max (ms)	Limit Min (ms)	Threshold (dBm)
2441.000000	PASS	13.117	---	0.000	0.0

Frequency Occupation(2)



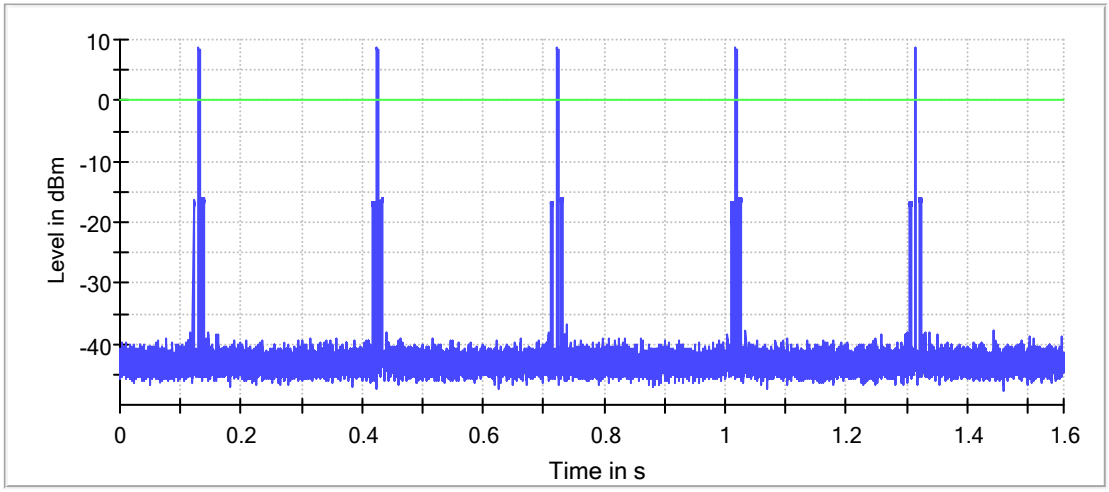
Trace Threshold

BDR-GFSK, DH5

Result

DUT Frequency (MHz)	Result	Time (ms)	Limit Max (ms)	Limit Min (ms)	Threshold (dBm)
2441.000000	PASS	14.437	---	0.000	0.0

Frequency Occupation(3)

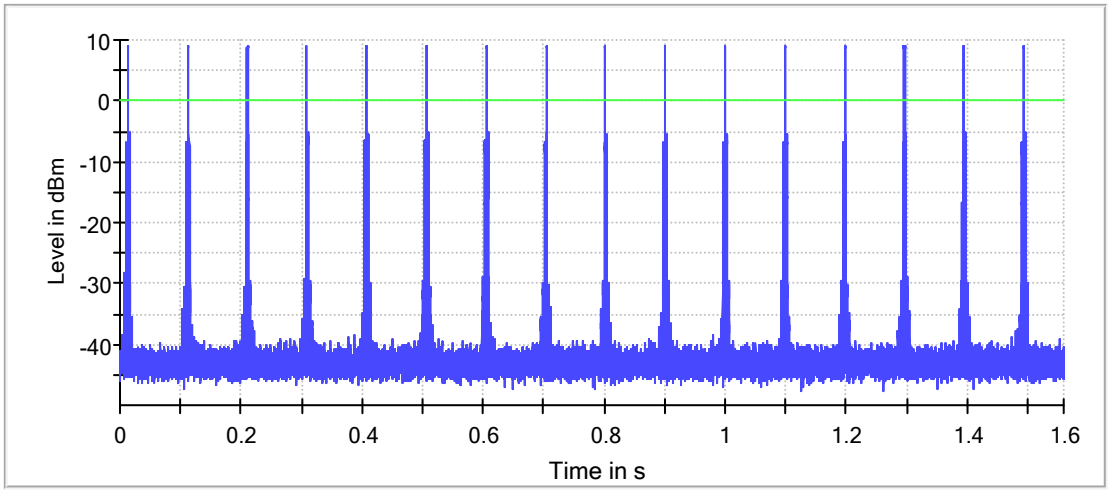


EDR- 8DPSK, 3DH1

Result

DUT Frequency (MHz)	Result	Time (ms)	Limit Max (ms)	Limit Min (ms)	Threshold (dBm)
2441.000000	PASS	6.220	---	0.000	0.0

Frequency Occupation

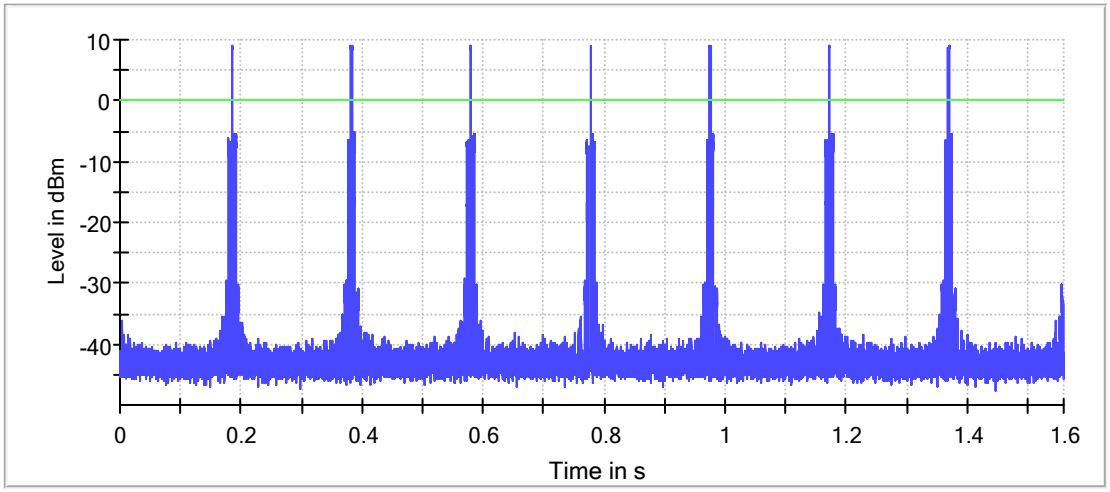


EDR- 8DPSK, 3DH3

Result

DUT Frequency (MHz)	Result	Time (ms)	Limit Max (ms)	Limit Min (ms)	Threshold (dBm)
2441.000000	PASS	11.259	---	0.000	0.0

Frequency Occupation(2)

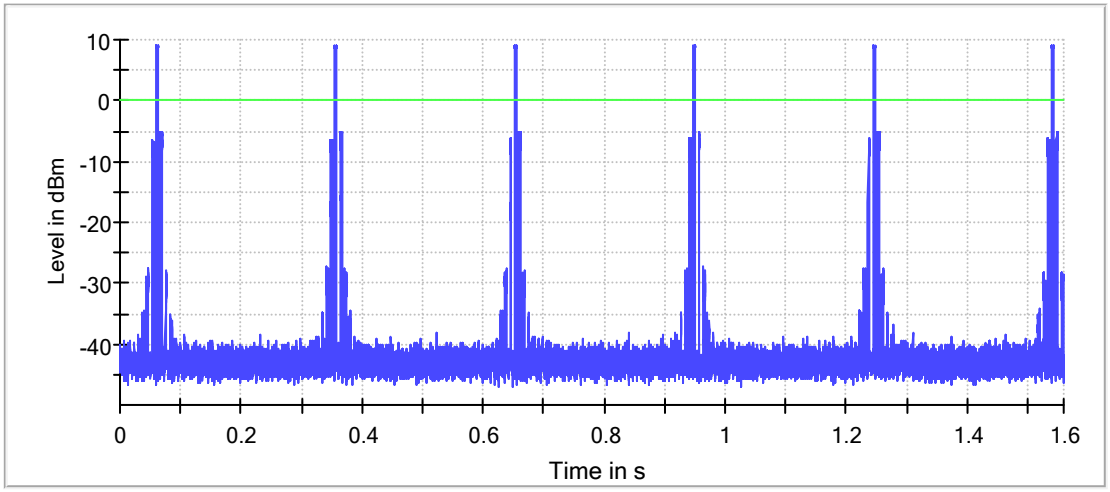


EDR- 8DPSK, 3DH5

Result

DUT Frequency (MHz)	Result	Time (ms)	Limit Max (ms)	Limit Min (ms)	Threshold (dBm)
2441.000000	PASS	17.097	---	0.000	0.0

Frequency Occupation(3)



4 Appendix A.4 : Hopping Sequence

BDR-GFSK:

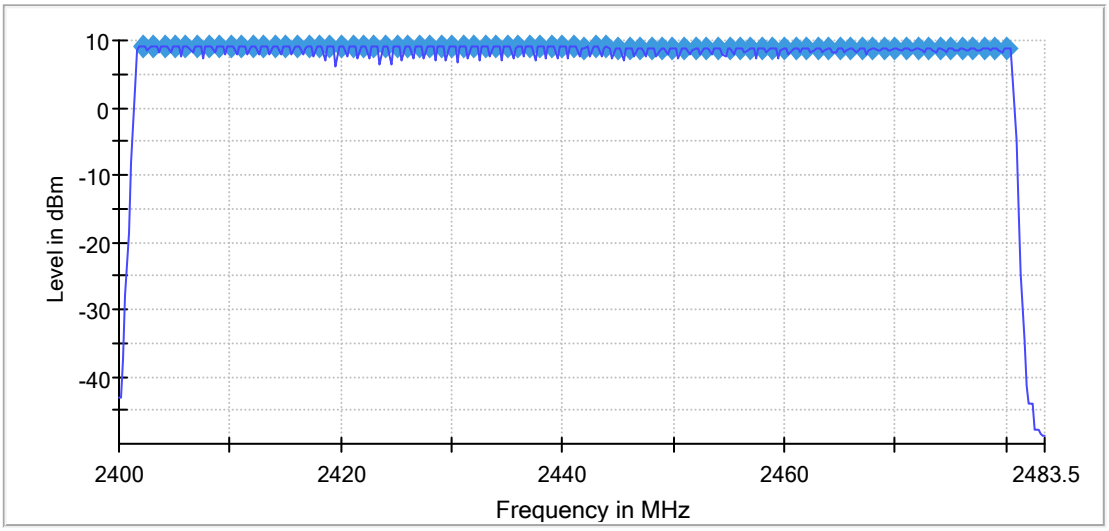
Hopping Frequencies

Hopping Frequencies	Limit Min	Limit Max	Result
79	15	---	PASS

Band Allocation

Band Allocation (MHz)	Band Allocation Low Frequency (MHz)	Band Allocation High Frequency (MHz)	Limit Min	Limit Max	Result
79.761194	2401.121642	2480.882836	58450000	---	PASS

Sequence



EDR- 8DPSK:

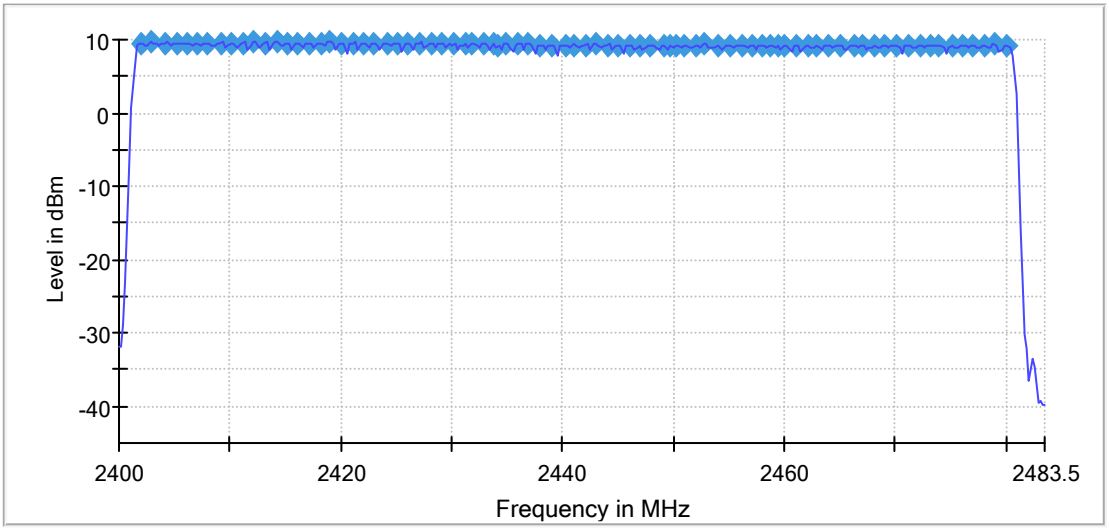
Hopping Frequencies

Hopping Frequencies	Limit Min	Limit Max	Result
82	15	---	PASS

Band Allocation

Band Allocation (MHz)	Band Allocation Low Frequency (MHz)	Band Allocation High Frequency (MHz)	Limit Min	Limit Max	Result
80.259702	2400.872388	2481.132090	58450000	---	PASS

Sequence



5 Appendix A.5: Hopping Frequency Separation

BDR-GFSK

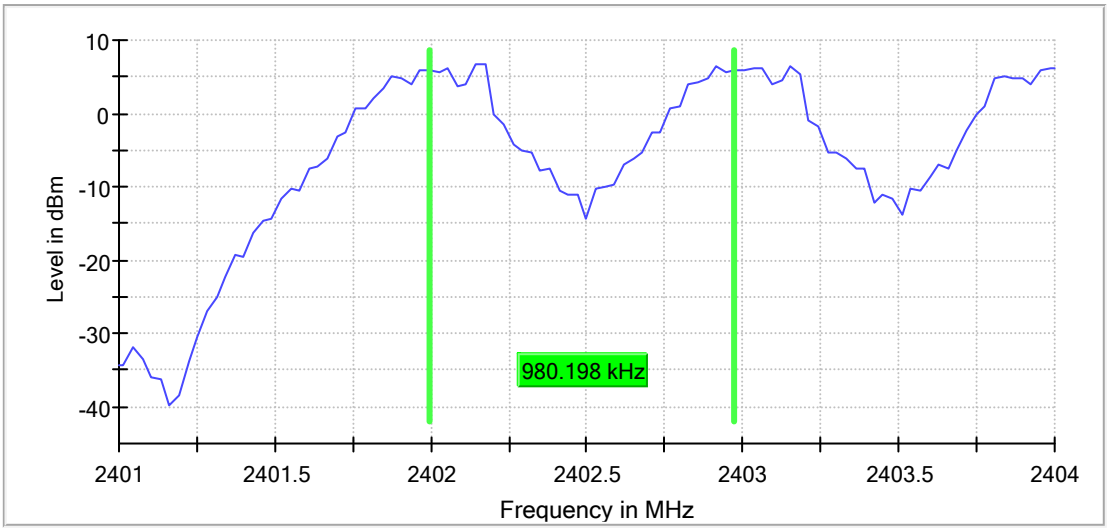
Result

DUT Frequency (MHz)	Frequency Separation (MHz)	Limit Min (MHz)	Limit Max (MHz)	Center Frequency low Channel (MHz)	Center Frequency high Channel (MHz)
2402.000000	0.980198	0.100000	---	2401.995050	2402.975248

(continuation of the "Result" table from column 6 ...)

DUT Frequency (MHz)	Result
2402.000000	PASS

HFS



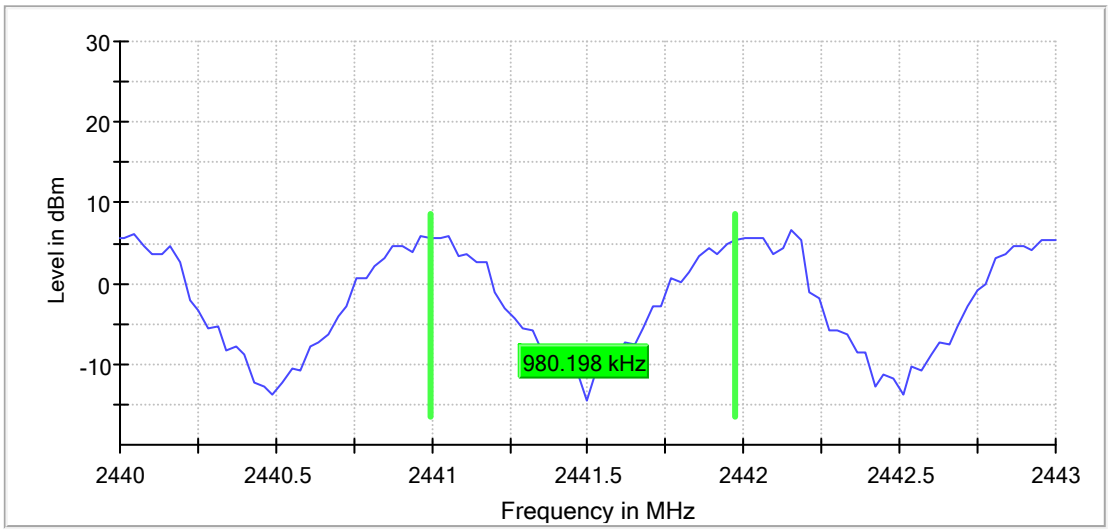
Result

DUT Frequency (MHz)	Frequency Separation (MHz)	Limit Min (MHz)	Limit Max (MHz)	Center Frequency low Channel (MHz)	Center Frequency high Channel (MHz)
2441.000000	0.980198	0.100000	---	2440.995050	2441.975248

(continuation of the "Result" table from column 6 ...)

DUT Frequency (MHz)	Result
2441.000000	PASS

HFS



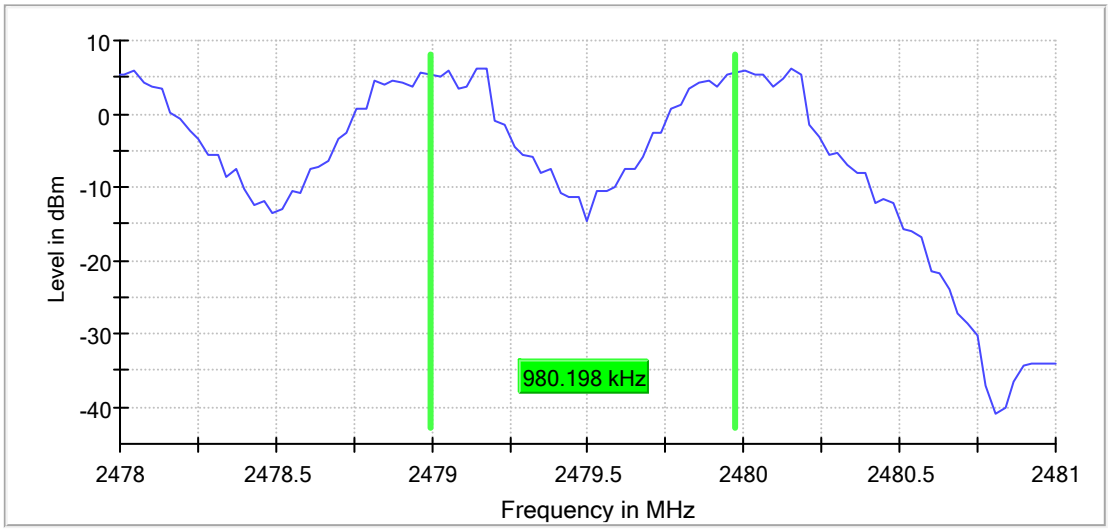
Result

DUT Frequency (MHz)	Frequency Separation (MHz)	Limit Min (MHz)	Limit Max (MHz)	Center Frequency low Channel (MHz)	Center Frequency high Channel (MHz)
2480.000000	0.980198	0.100000	---	2478.995050	2479.975248

(continuation of the "Result" table from column 6 ...)

DUT Frequency (MHz)	Result
2480.000000	PASS

HFS



EDR- 8DPSK

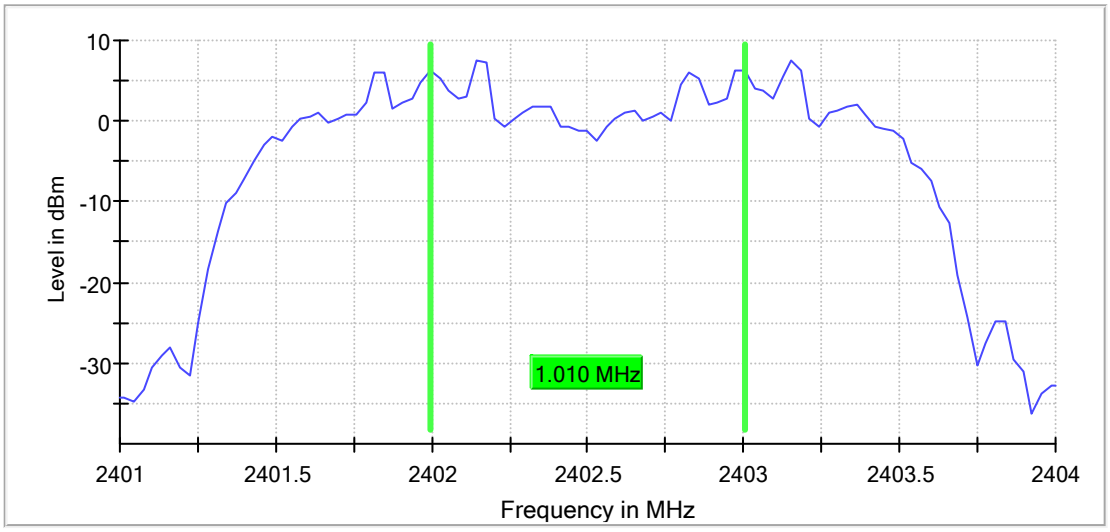
Result

DUT Frequency (MHz)	Frequency Separation (MHz)	Limit Min (MHz)	Limit Max (MHz)	Center Frequency low Channel (MHz)	Center Frequency high Channel (MHz)
2402.000000	1.009900	0.100000	---	2401.995050	2403.004950

(continuation of the "Result" table from column 6 ...)

DUT Frequency (MHz)	Result
2402.000000	PASS

HFS



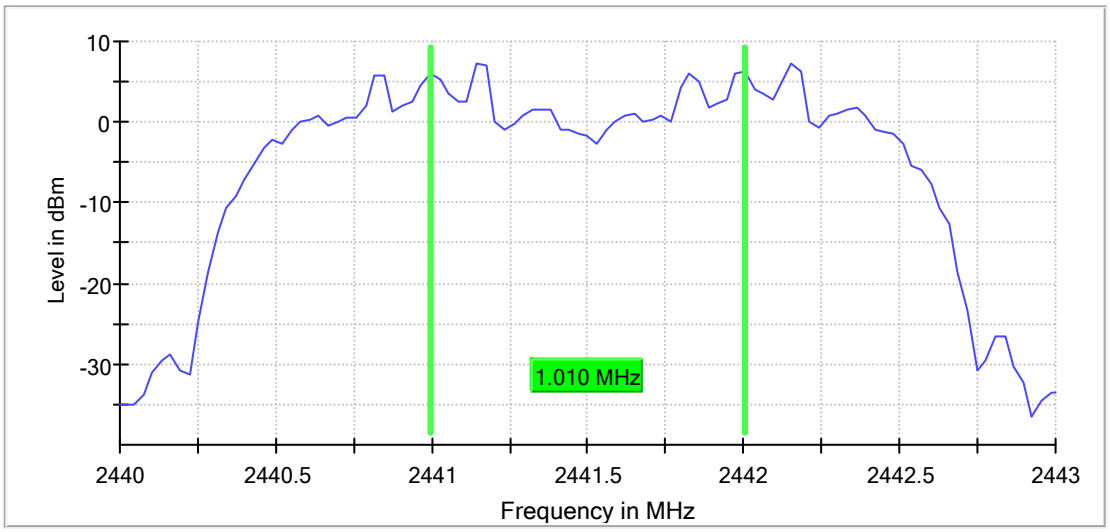
Result

DUT Frequency (MHz)	Frequency Separation (MHz)	Limit Min (MHz)	Limit Max (MHz)	Center Frequency low Channel (MHz)	Center Frequency high Channel (MHz)
2441.000000	1.009900	0.100000	---	2440.995050	2442.004950

(continuation of the "Result" table from column 6 ...)

DUT Frequency (MHz)	Result
2441.000000	PASS

HFS



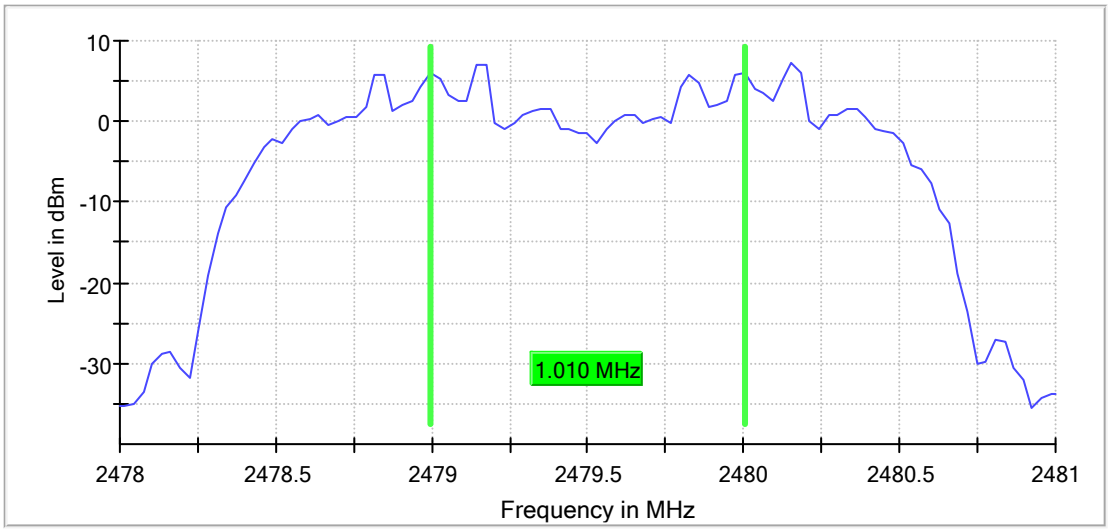
Result

DUT Frequency (MHz)	Frequency Separation (MHz)	Limit Min (MHz)	Limit Max (MHz)	Center Frequency low Channel (MHz)	Center Frequency high Channel (MHz)
2480.000000	1.009900	0.100000	---	2478.995050	2480.004950

(continuation of the "Result" table from column 6 ...)

DUT Frequency (MHz)	Result
2480.000000	PASS

HFS



6 Appendix A.6: Occupied Channel Bandwidth

BDR-GFSK

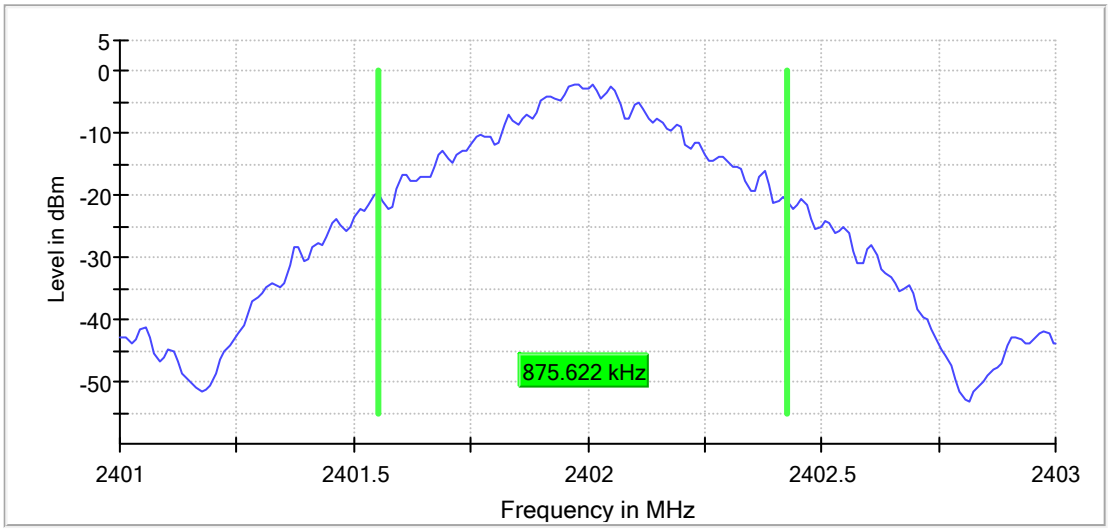
99 % Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Limit Min BE L (MHz)
2402.000000	0.875622	---	---	2401.552239	2400.000000

(continuation of the "99 % Bandwidth" table from column 6 ...)

DUT Frequency (MHz)	Band Edge Right (MHz)	Limit Max BE R (MHz)	Result
2402.000000	2402.427861	2483.500000	PASS

99 % Bandwidth



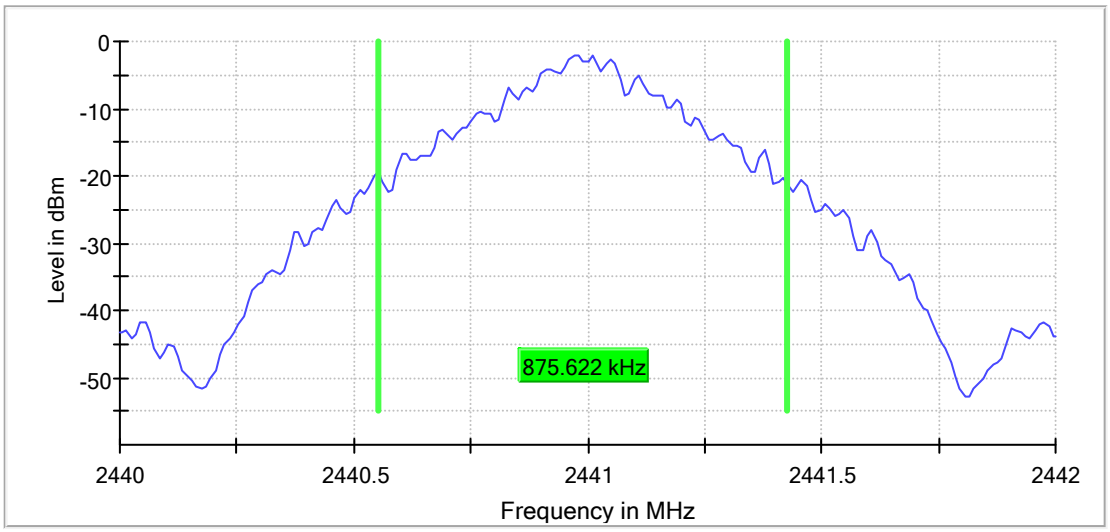
99 % Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Limit Min BE L (MHz)
2441.000000	0.875622	---	---	2440.552239	2400.000000

(continuation of the "99 % Bandwidth" table from column 6 ...)

DUT Frequency (MHz)	Band Edge Right (MHz)	Limit Max BE R (MHz)	Result
2441.000000	2441.427861	2483.500000	PASS

99 % Bandwidth



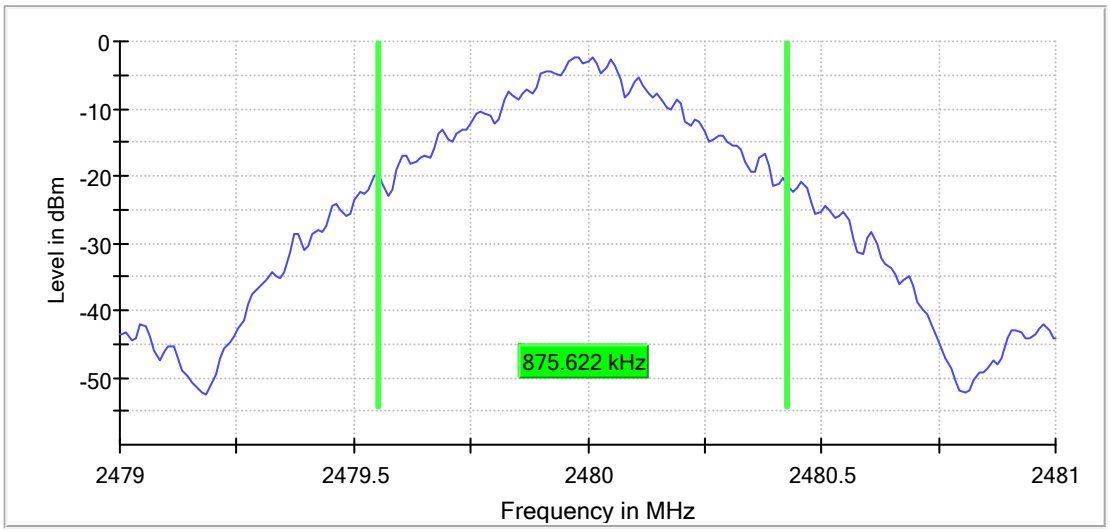
99 % Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Limit Min BE L (MHz)
2480.000000	0.875622	---	---	2479.552239	2400.000000

(continuation of the "99 % Bandwidth" table from column 6 ...)

DUT Frequency (MHz)	Band Edge Right (MHz)	Limit Max BE R (MHz)	Result
2480.000000	2480.427861	2483.500000	PASS

99 % Bandwidth



EDR- 8DPSK

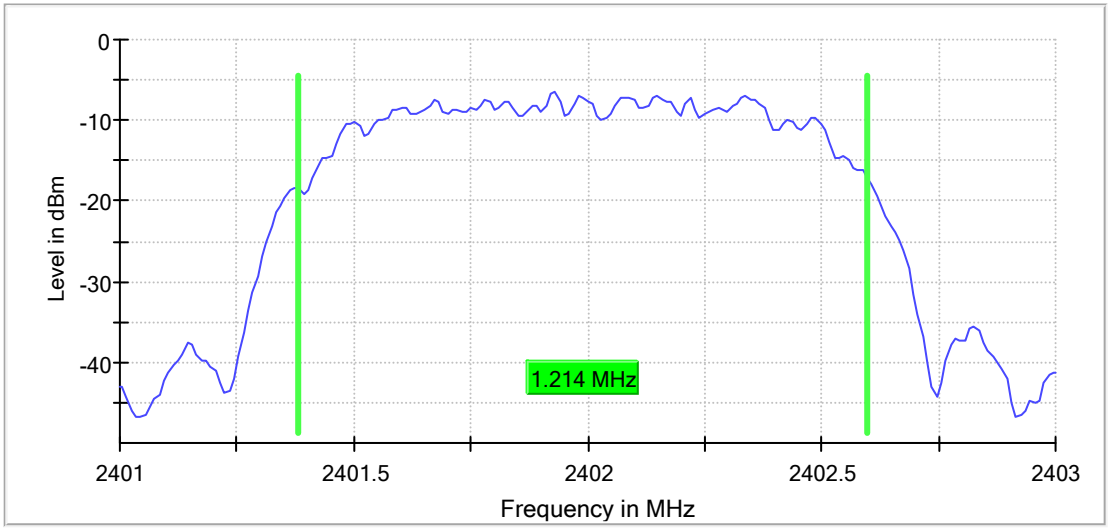
99 % Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Limit Min BE L (MHz)
2402.000000	1.213930	---	---	2401.383085	2400.000000

(continuation of the "99 % Bandwidth" table from column 6 ...)

DUT Frequency (MHz)	Band Edge Right (MHz)	Limit Max BE R (MHz)	Result
2402.000000	2402.597015	2483.500000	PASS

99 % Bandwidth



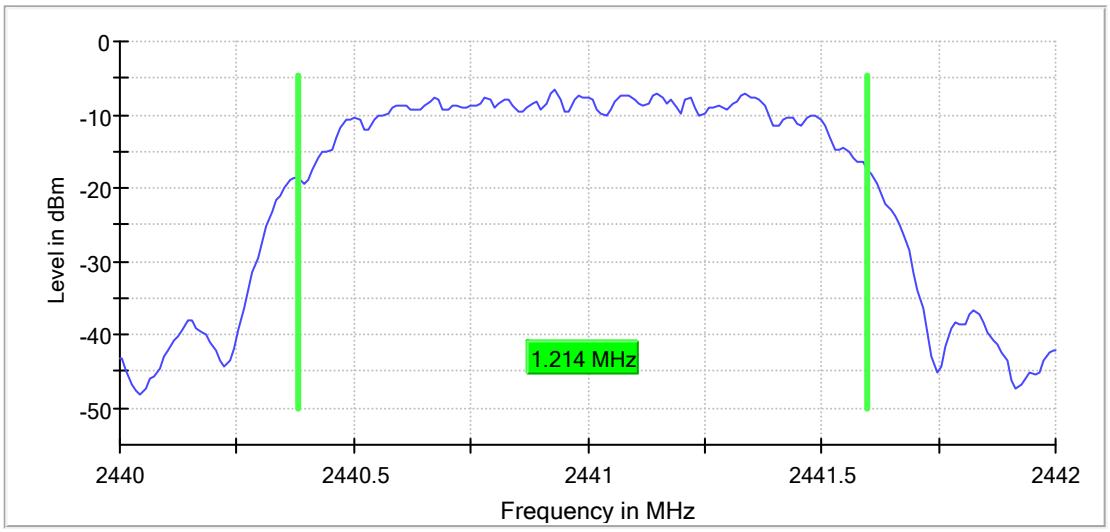
99 % Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Limit Min BE L (MHz)
2441.000000	1.213930	---	---	2440.383085	2400.000000

(continuation of the "99 % Bandwidth" table from column 6 ...)

DUT Frequency (MHz)	Band Edge Right (MHz)	Limit Max BE R (MHz)	Result
2441.000000	2441.597015	2483.500000	PASS

99 % Bandwidth



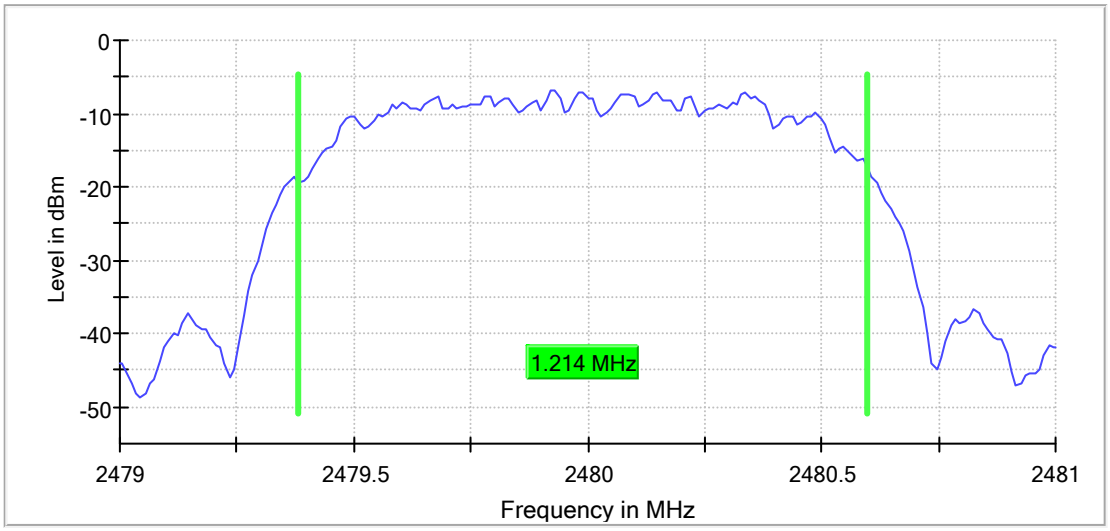
99 % Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Limit Min BE L (MHz)
2480.000000	1.213930	---	---	2479.383085	2400.000000

(continuation of the "99 % Bandwidth" table from column 6 ...)

DUT Frequency (MHz)	Band Edge Right (MHz)	Limit Max BE R (MHz)	Result
2480.000000	2480.597015	2483.500000	PASS

99 % Bandwidth



7 Appendix A.7: Receiver Blocking

Summary

DUT Frequency (MHz)	Receiver Category	Companion RMS burst power (dBm)	Result
2480.000000	2	---	PASS

Measurement Overview

Blocking Frequency (MHz)	Result no Offset	Result Offset 1	Result Offset 2	Result
2504.000000	PASS	not tested	not tested	PASS
2584.000000	PASS	not tested	not tested	PASS

Measurements

#	Blocking Frequency (MHz)	Blocking Frequency Offset (MHz)	Generator Frequency (MHz)	Blocking Level at DUT (dBm)	Generator Level (dBm)	Attenuation Generator to DUT (dB)
1	2504.000000	0.000000	2504.000000	-31.6	3.2	34.8
2	2504.000000	0.800995	---	---	---	---
3	2504.000000	-0.800995	---	---	---	---
4	2584.000000	0.000000	2584.000000	-31.6	2.9	34.5
5	2584.000000	0.800995	---	---	---	---
6	2584.000000	-0.800995	---	---	---	---

(continuation of the "Measurements" table from column 7 ...)

#	Level of Wanted Signal at DUT (dBm)	Wanted Level Offset (dB)	Attenuation Companion to DUT (dB)	Result
1	-67.6	0.0	47.8	PASS
2	-67.6	0.0	---	not tested
3	-67.6	0.0	---	not tested
4	-67.6	0.0	47.8	PASS
5	-67.6	0.0	---	not tested
6	-67.6	0.0	---	not tested

DUT Monitoring

#	Blocking Frequency (MHz)	Blocking Frequency Offset (MHz)	Name	Value	Limit Min	Limit Max	Result
1	2504.000000	0.000000	PER	0.299	---	100.000	PASS
2	2584.000000	0.000000	PER	0.200	---	100.000	PASS

Summary

DUT Frequency (MHz)	Receiver Category	Companion RMS burst power (dBm)	Result
2480.000000	2	---	PASS

Measurement Overview

Blocking Frequency (MHz)	Result no Offset	Result Offset 1	Result Offset 2	Result
2504.000000	PASS	not tested	not tested	PASS
2584.000000	PASS	not tested	not tested	PASS

Measurements

#	Blocking Frequency (MHz)	Blocking Frequency Offset (MHz)	Generator Frequency (MHz)	Blocking Level at DUT (dBm)	Generator Level (dBm)	Attenuation Generator to DUT (dB)
1	2504.000000	0.000000	2504.000000	-31.6	3.2	34.8
2	2504.000000	0.786070	---	---	---	---
3	2504.000000	-0.786070	---	---	---	---
4	2584.000000	0.000000	2584.000000	-31.6	2.9	34.5
5	2584.000000	0.786070	---	---	---	---
6	2584.000000	-0.786070	---	---	---	---

(continuation of the "Measurements" table from column 7 ...)

#	Level of Wanted Signal at DUT (dBm)	Wanted Level Offset (dB)	Attenuation Companion to DUT (dB)	Result
1	-67.7	0.0	47.8	PASS
2	-67.7	0.0	---	not tested
3	-67.7	0.0	---	not tested
4	-67.7	0.0	47.8	PASS
5	-67.7	0.0	---	not tested
6	-67.7	0.0	---	not tested

DUT Monitoring

#	Blocking Frequency (MHz)	Blocking Frequency Offset (MHz)	Name	Value	Limit Min	Limit Max	Result
1	2504.000000	0.000000	PER	0.498	---	100.000	PASS
2	2584.000000	0.000000	PER	0.299	---	100.000	PASS

Note; The EUT is categrory 2 receiver.

8 Appendix A.8 : Tx unwanted emissions in the out-of-band domain

BDR-GFSK:

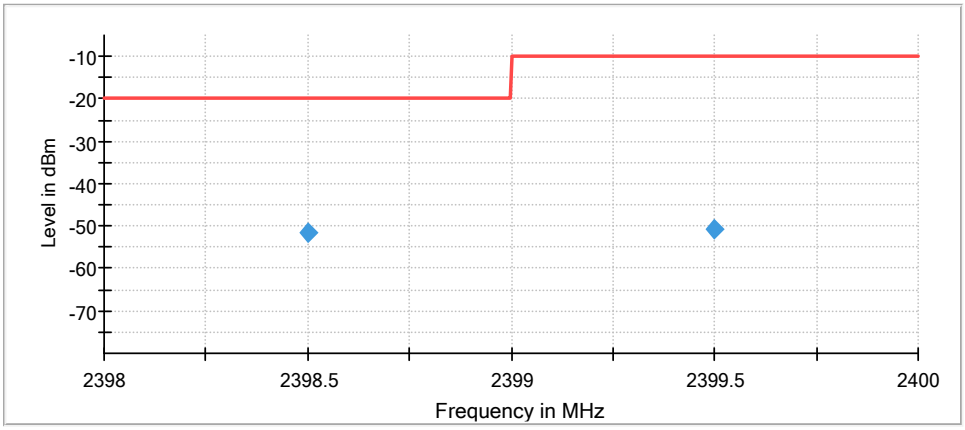
Summary

DUT Frequency (MHz)	FAIL	PASS	Result
hopping	0	4	PASS

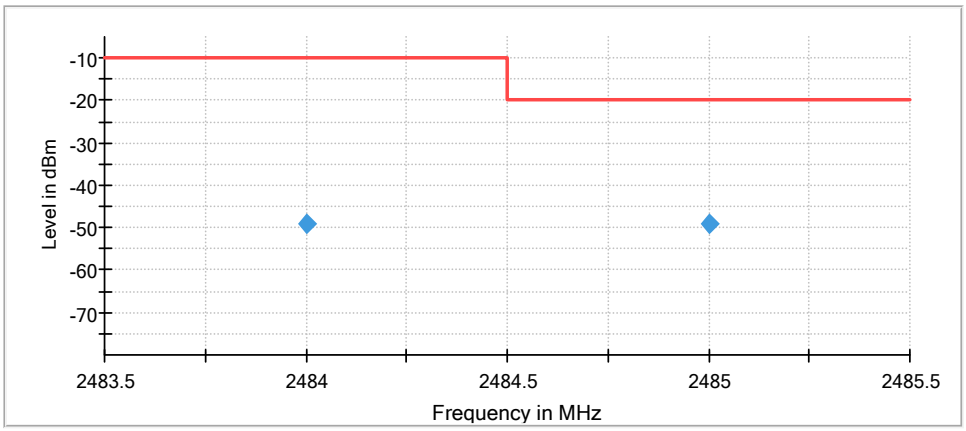
Measurements

Frequency (MHz)	level (dBm)	Limit (dBm)	Result
2398.500000	-51.6	-20.0	PASS
2399.500000	-50.7	-10.0	PASS
2484.000000	-49.1	-10.0	PASS
2485.000000	-48.9	-20.0	PASS

Out of band low



Out of band high



EDR- 8DPSK:

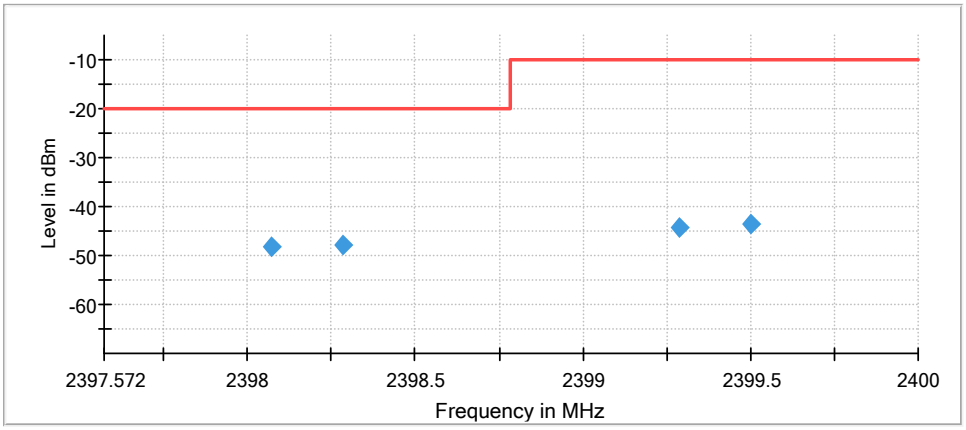
Summary

DUT Frequency (MHz)	FAIL	PASS	Result
hopping	0	8	PASS

Measurements

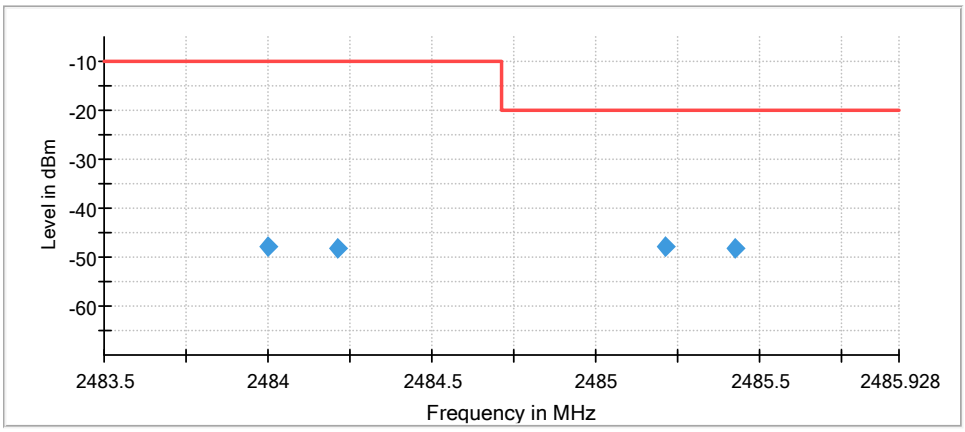
Frequency (MHz)	level (dBm)	Limit (dBm)	Result
2398.072140	-48.1	-20.0	PASS
2398.286070	-47.8	-20.0	PASS
2399.286070	-44.1	-10.0	PASS
2399.500000	-43.7	-10.0	PASS
2484.000000	-47.7	-10.0	PASS
2484.213930	-48.3	-10.0	PASS
2485.213930	-47.8	-20.0	PASS
2485.427860	-48.3	-20.0	PASS

Out of band low



Level Limit

Out of band high



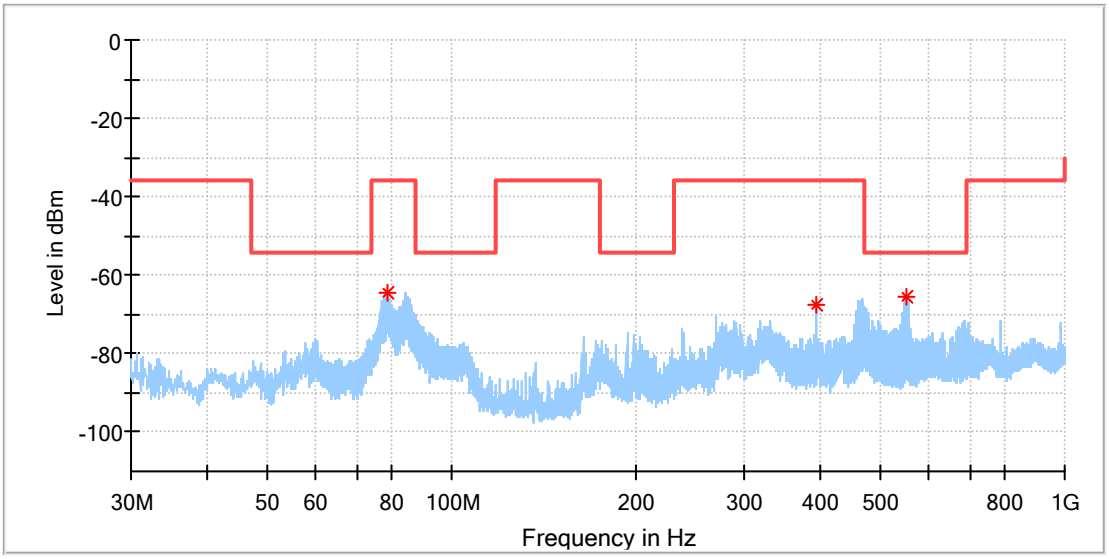
Level Limit

9 Appendix A.9 : Transmitter unwanted emissions

Note: The EUT without antenna connectors.

EUT Information

EUT Name:	Multimedia Speaker
Model:	EDF100007
Test Mode:	TX_DH5_Low channel
Test Voltage:	AC 230V/50Hz
Remark:	Temp:23.3;Humi:52%
Test standard:	EN 300328
Tested By:	XIqiang Ma
Reviewed by	Terry Yin

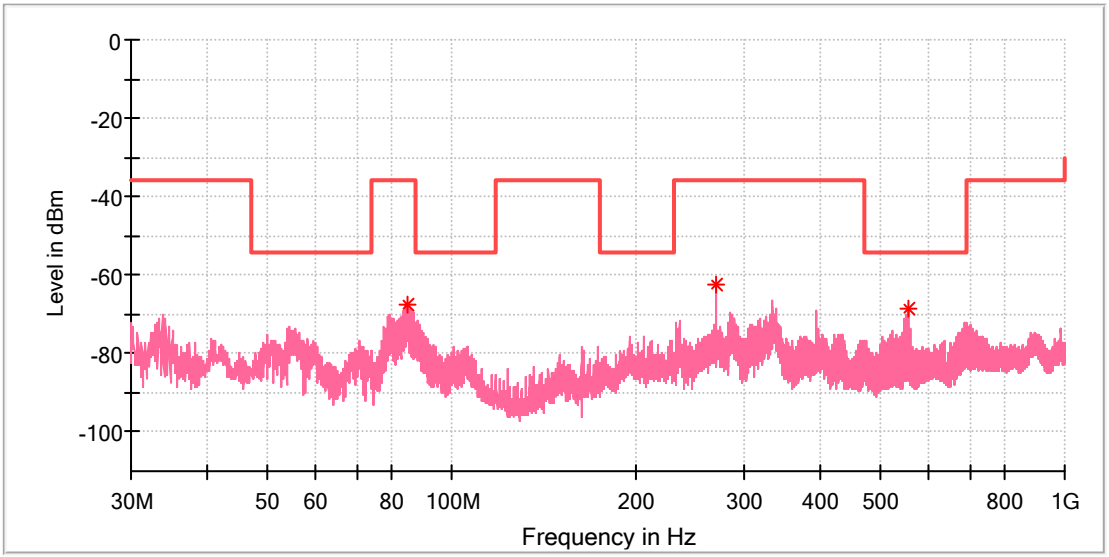


Critical_Freqs

Frequency (MHz)	RMS (dBm)	Limit (dBm)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)	Comment
78.808636	-64.34	-36.00	28.34	150.0	H	292.0	-123.6	
393.265000	-67.30	-36.00	31.30	150.0	H	145.0	-113.6	
551.992273	-65.36	-54.00	11.36	150.0	H	126.0	-111.7	

EUT Information

EUT Name:	Multimedia Speaker
Model:	EDF100007
Test Mode:	TX_DH5_Low channel
Test Voltage:	AC 230V/50Hz
Remark:	Temp:23.3;Humi:52%
Test standard:	EN 300328
Tested By:	Xlqiang Ma
Reviewed by	Terry Yin

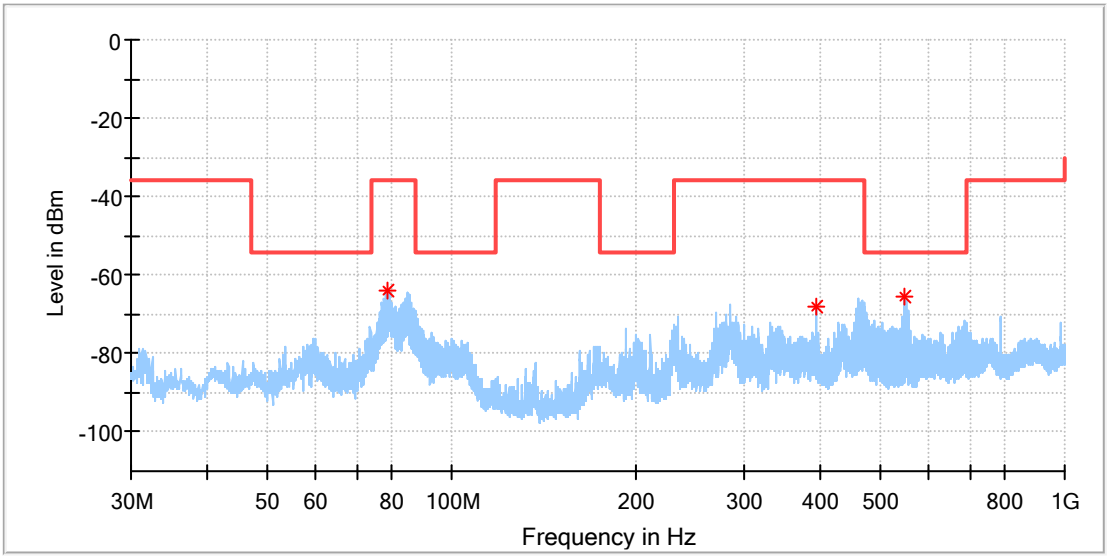


Critical_Freqs

Frequency (MHz)	RMS (dBm)	Limit (dBm)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)	Comment
84.584546	-67.42	-36.00	31.42	150.0	V	65.0	-121.6	
270.030909	-62.51	-36.00	26.51	150.0	V	6.0	-117.2	
556.004546	-68.57	-54.00	14.57	150.0	V	259.0	-111.4	

EUT Information

EUT Name:	Multimedia Speaker
Model:	EDF100007
Test Mode:	TX_DH5_High channel
Test Voltage:	AC 230V/50Hz
Remark:	Temp:23.3;Humi:52%
Test standard:	EN 300328
Tested By:	Xlqiang Ma
Reviewed by	Terry Yin

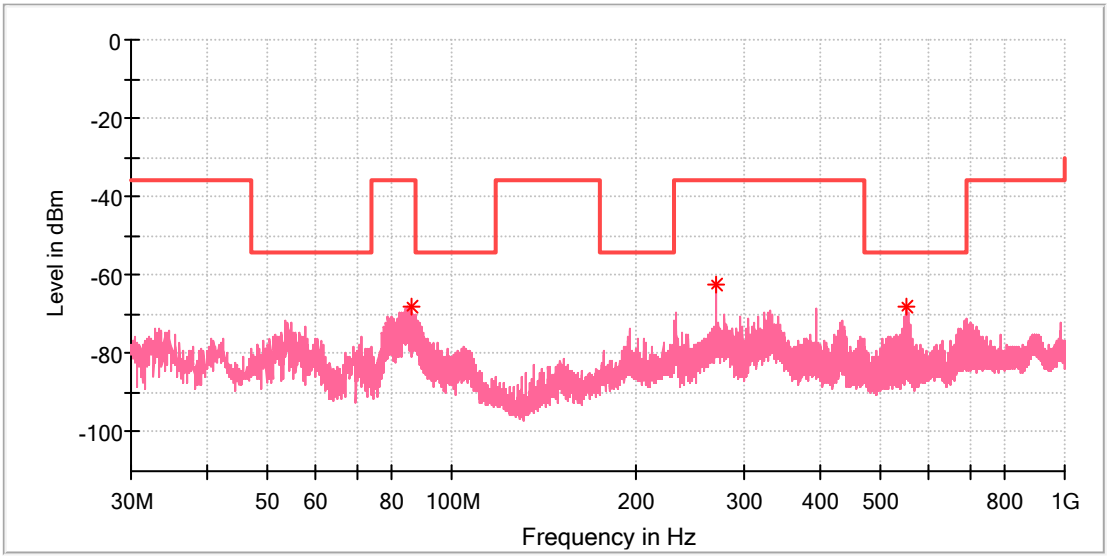


Critical_Freqs

Frequency (MHz)	RMS (dBm)	Limit (dBm)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)	Comment
78.852727	-63.79	-36.00	27.79	150.0	H	282.0	-123.6	
393.265000	-67.93	-36.00	31.93	150.0	H	146.0	-113.6	
547.980000	-65.46	-54.00	11.46	150.0	H	128.0	-111.7	

EUT Information

EUT Name:	Multimedia Speaker
Model:	EDF100007
Test Mode:	TX_DH5_High channel
Test Voltage:	AC 230V/50Hz
Remark:	Temp:23.3;Humi:52%
Test standard:	EN 300328
Tested By:	Xlqiang Ma
Reviewed by	Terry Yin

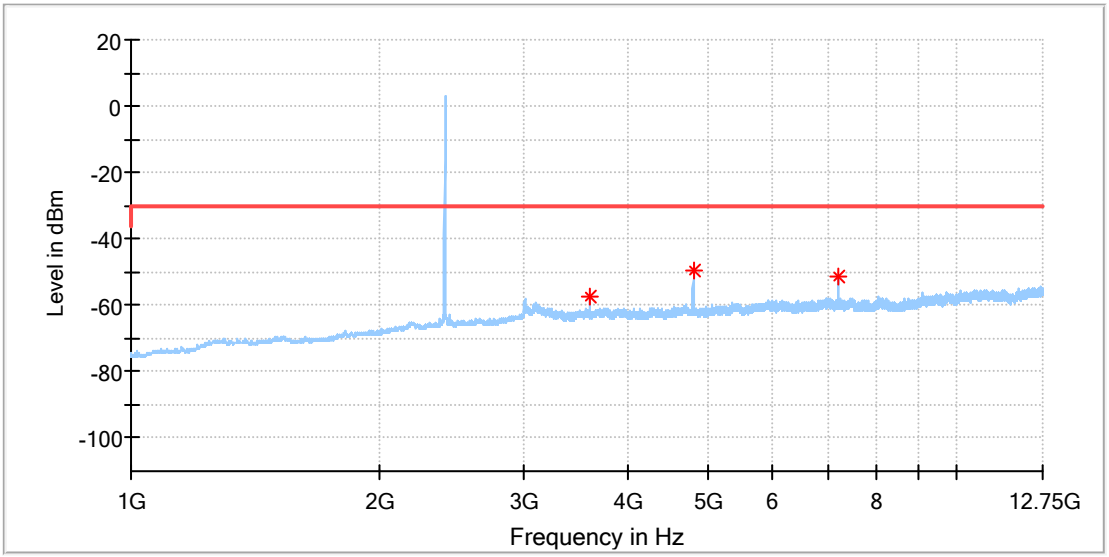


Critical_Freqs

Frequency (MHz)	RMS (dBm)	Limit (dBm)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)	Comment
85.730909	-68.03	-36.00	32.03	150.0	V	54.0	-121.1	
270.030909	-62.36	-36.00	26.36	150.0	V	2.0	-117.2	
551.992273	-68.23	-54.00	14.23	150.0	V	252.0	-111.5	

EUT Information

EUT Name:	Multimedia Speaker
Model:	EDF100007
Test Mode:	TX_DH5_Low channel
Test Voltage:	AC 230V/50Hz
Remark:	Temp:23.3;Humi:52%
Test standard:	EN 300328
Tested By:	Xlqiang Ma
Reviewed by	Terry Yin

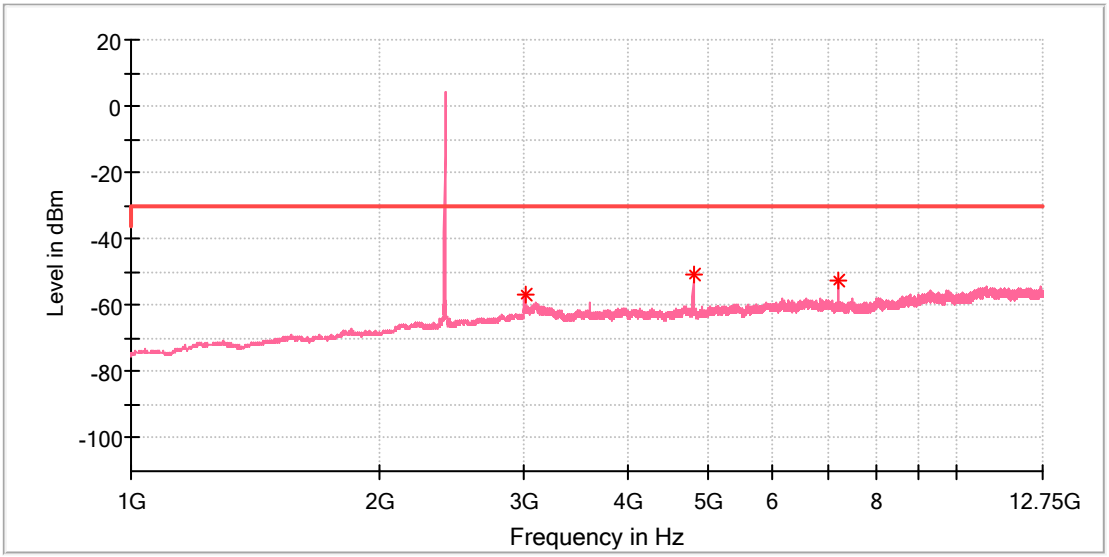


Critical_Freqs

Frequency (MHz)	RMS (dBm)	Limit (dBm)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)	Comment
3602.700000	-57.49	-30.00	27.49	150.0	H	284.0	-96.7	
4803.900000	-49.29	-30.00	19.29	150.0	H	292.0	-94.8	
7206.321429	-51.10	-30.00	21.10	150.0	H	87.0	-90.7	

EUT Information

EUT Name:	Multimedia Speaker
Model:	EDF100007
Test Mode:	TX_DH5_Low channel
Test Voltage:	AC 230V/50Hz
Remark:	Temp:23.3;Humi:52%
Test standard:	EN 300328
Tested By:	Xlqiang Ma
Reviewed by	Terry Yin

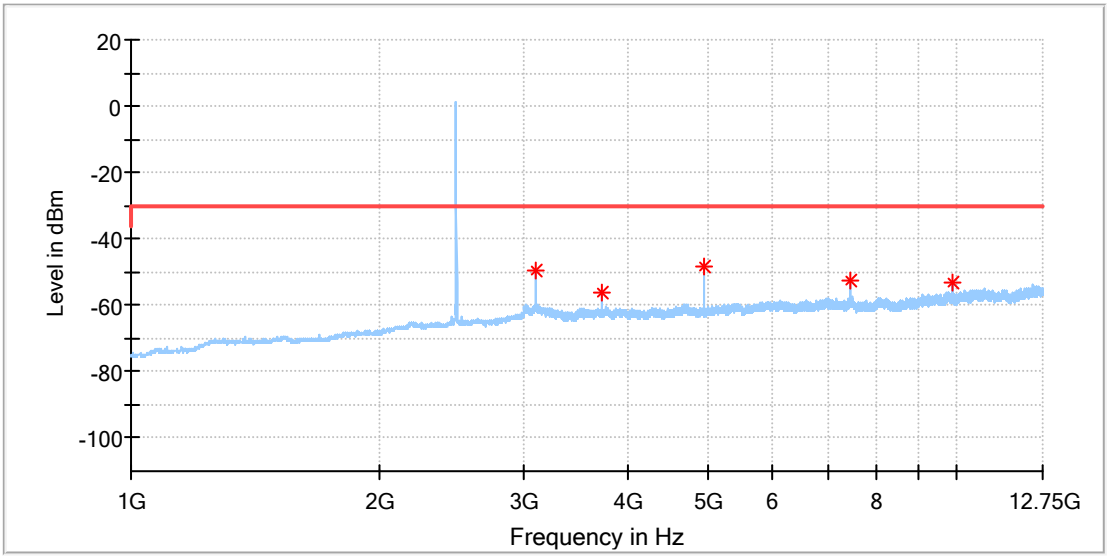


Critical_Freqs

Frequency (MHz)	RMS (dBm)	Limit (dBm)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)	Comment
3002.400000	-56.90	-30.00	26.90	150.0	V	296.0	-95.9	
4804.200000	-50.65	-30.00	20.65	150.0	V	209.0	-95.1	
7205.357143	-52.74	-30.00	22.74	150.0	V	50.0	-91.4	

EUT Information

EUT Name:	Multimedia Speaker
Model:	EDF100007
Test Mode:	TX_DH5_High channel
Test Voltage:	AC 230V/50Hz
Remark:	Temp:23.3;Humi:52%
Test standard:	EN 300328
Tested By:	Xlqiang Ma
Reviewed by	Terry Yin

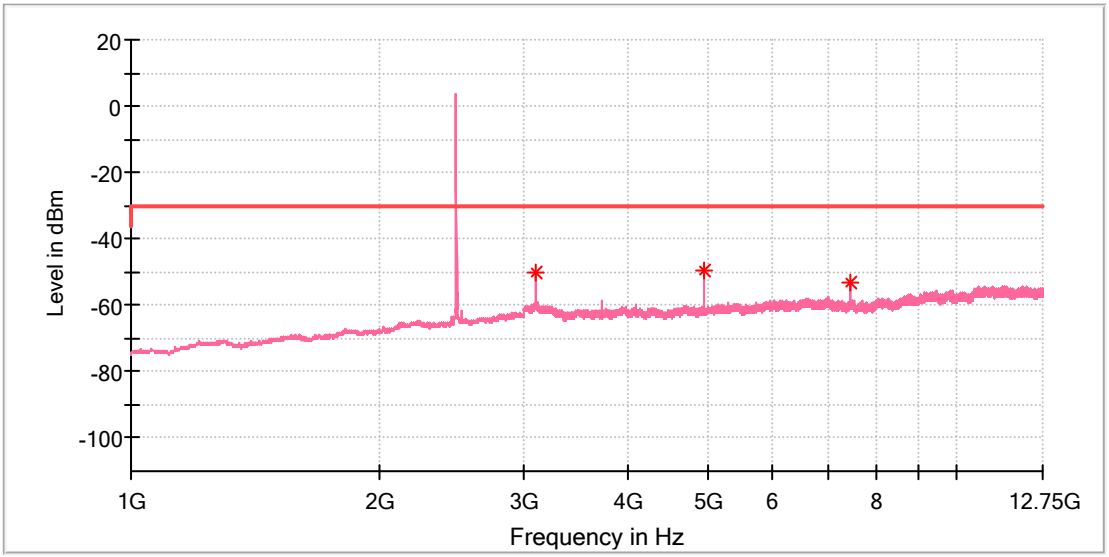


Critical_Freqs

Frequency (MHz)	RMS (dBm)	Limit (dBm)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)	Comment
3099.900000	-49.47	-30.00	19.47	150.0	H	103.0	-95.5	
3720.000000	-56.14	-30.00	26.14	150.0	H	285.0	-96.5	
4960.200000	-48.07	-30.00	18.07	150.0	H	217.0	-94.8	
7440.160714	-52.78	-30.00	22.78	150.0	H	88.0	-90.6	
9919.339286	-53.07	-30.00	23.07	150.0	H	58.0	-89.5	

EUT Information

EUT Name:	Multimedia Speaker
Model:	EDF100007
Test Mode:	TX_DH5_High channel
Test Voltage:	AC 230V/50Hz
Remark:	Temp:23.3;Humi:52%
Test standard:	EN 300328
Tested By:	Xlqiang Ma
Reviewed by	Terry Yin

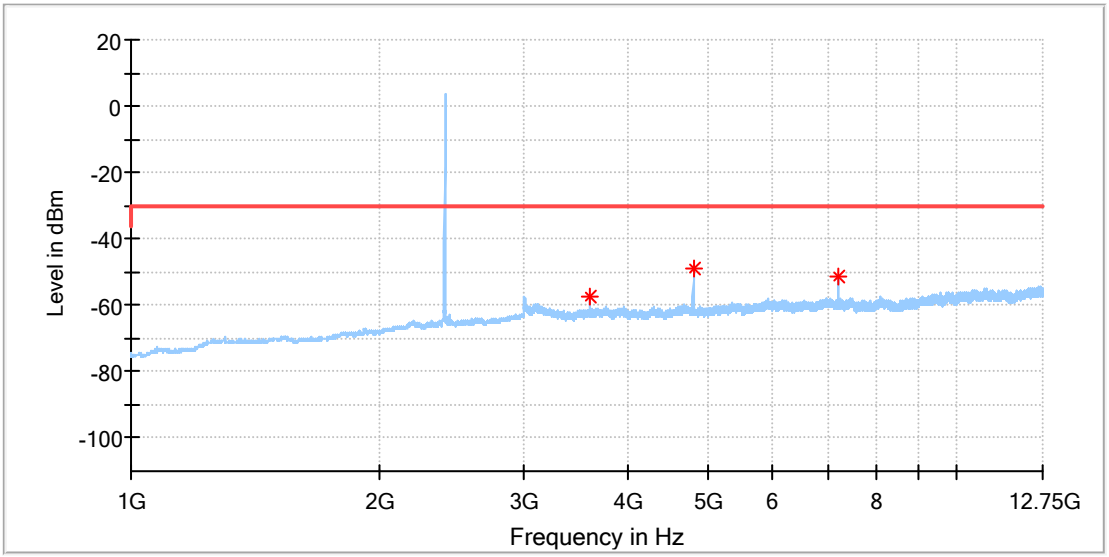


Critical_Freqs

Frequency (MHz)	RMS (dBm)	Limit (dBm)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)	Comment
3099.900000	-50.40	-30.00	20.40	150.0	V	28.0	-95.1	
7440.160714	-53.08	-30.00	23.08	150.0	V	46.0	-91.6	
4960.200000	-49.65	-30.00	19.65	150.0	V	163.0	-95.0	

EUT Information

EUT Name:	Multimedia Speaker
Model:	EDF100007
Test Mode:	TX_3DH5_Low channel
Test Voltage:	AC 230V/50Hz
Remark:	Temp:23.3;Humi:52%
Test standard:	EN 300328
Tested By:	Xlqiang Ma
Reviewed by	Terry Yin

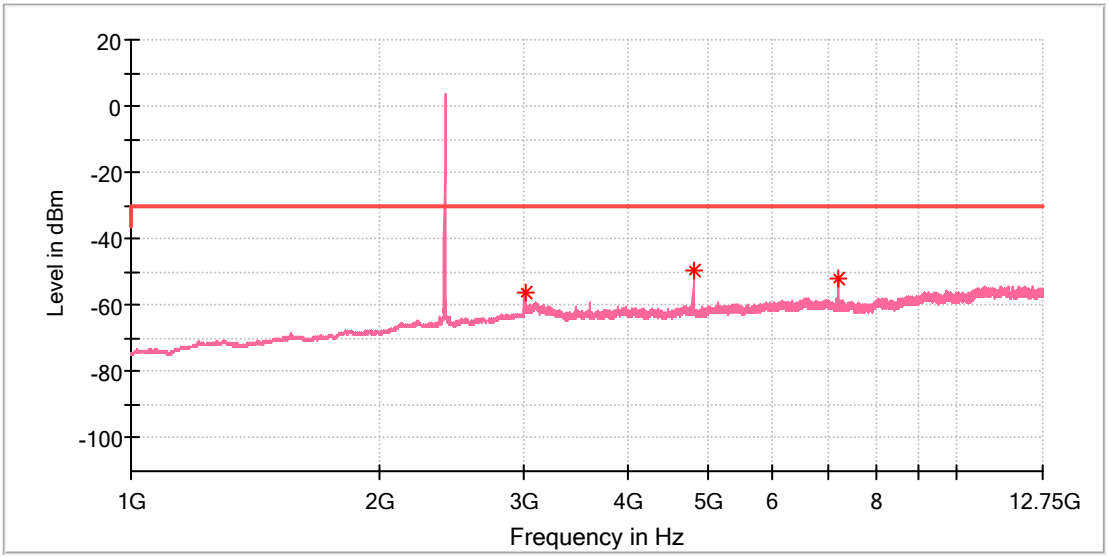


Critical_Freqs

Frequency (MHz)	RMS (dBm)	Limit (dBm)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)	Comment
3603.000000	-57.17	-30.00	27.17	150.0	H	300.0	-96.7	
4803.900000	-48.90	-30.00	18.90	150.0	H	230.0	-94.8	
7205.839286	-51.08	-30.00	21.08	150.0	H	85.0	-90.7	

EUT Information

EUT Name:	Multimedia Speaker
Model:	EDF100007
Test Mode:	TX_3DH5_Low channel
Test Voltage:	AC 230V/50Hz
Remark:	Temp:23.3;Humi:52%
Test standard:	EN 300328
Tested By:	Xlqiang Ma
Reviewed by	Terry Yin

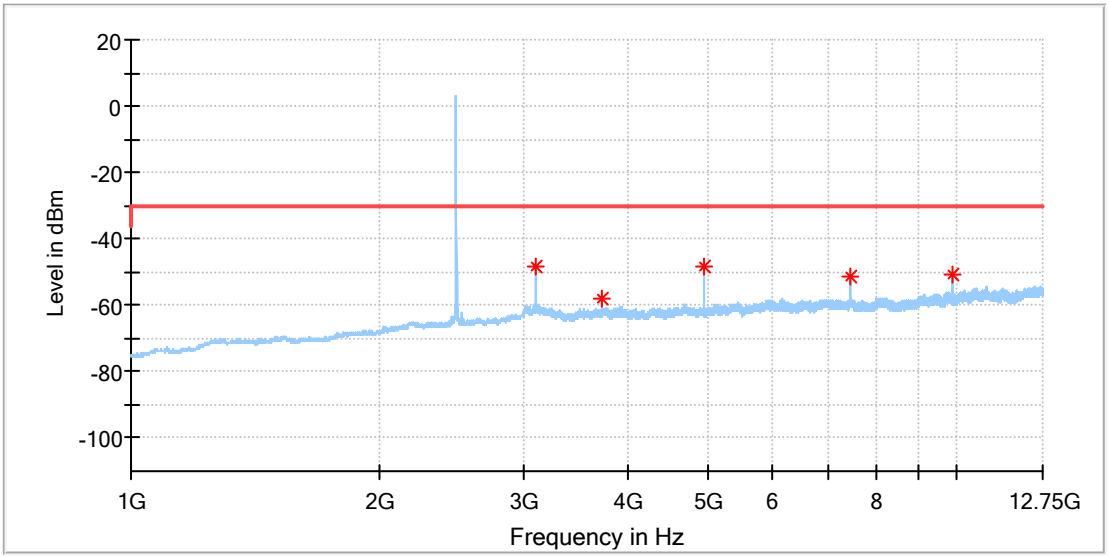


Critical_Freqs

Frequency (MHz)	RMS (dBm)	Limit (dBm)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)	Comment
3002.400000	-56.29	-30.00	26.29	150.0	V	294.0	-95.9	
4803.900000	-49.29	-30.00	19.29	150.0	V	169.0	-95.1	
7205.839286	-52.04	-30.00	22.04	150.0	V	62.0	-91.4	

EUT Information

EUT Name:	Multimedia Speaker
Model:	EDF100007
Test Mode:	TX_3DH5_High channel
Test Voltage:	AC 230V/50Hz
Remark:	Temp:23.3;Humi:52%
Test standard:	EN 300328
Tested By:	Xlqiang Ma
Reviewed by	Terry Yin

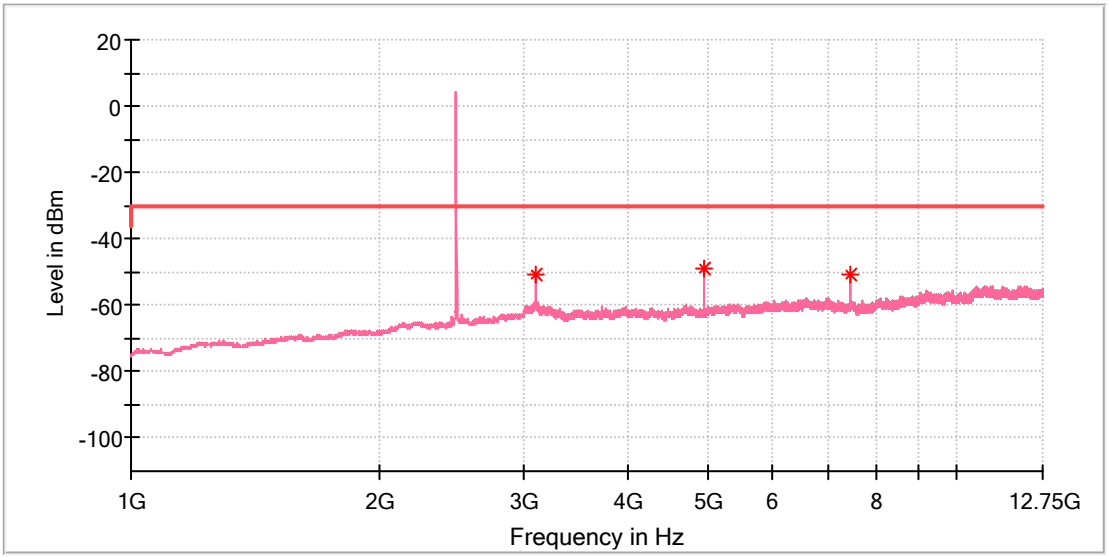


Critical_Freqs

Frequency (MHz)	RMS (dBm)	Limit (dBm)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)	Comment
3099.900000	-48.62	-30.00	18.62	150.0	H	104.0	-95.5	
3720.000000	-57.73	-30.00	27.73	150.0	H	38.0	-96.5	
4960.200000	-48.29	-30.00	18.29	150.0	H	66.0	-94.8	
7439.678572	-51.48	-30.00	21.48	150.0	H	86.0	-90.6	
9919.821429	-50.57	-30.00	20.57	150.0	H	56.0	-89.5	

EUT Information

EUT Name:	Multimedia Speaker
Model:	EDF100007
Test Mode:	TX_3DH5_High channel
Test Voltage:	AC 230V/50Hz
Remark:	Temp:23.3;Humi:52%
Test standard:	EN 300328
Tested By:	Xlqiang Ma
Reviewed by	Terry Yin



Critical_Freqs

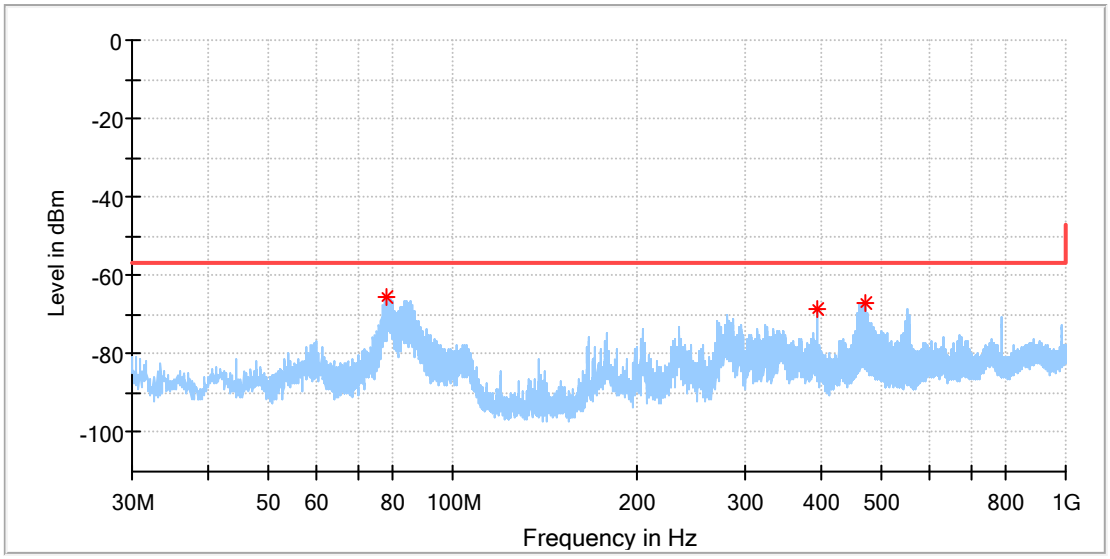
Frequency (MHz)	RMS (dBm)	Limit (dBm)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)	Comment
3099.600000	-50.59	-30.00	20.59	150.0	V	28.0	-95.1	
4959.900000	-48.77	-30.00	18.77	150.0	V	128.0	-95.0	
7439.678572	-50.98	-30.00	20.98	150.0	V	50.0	-91.6	

10 Appendix A.10 : Receiver spurious emissions

Note: This product without a temporary antenna, only the worst case were recorded in band 30MHz-12.75GHz.

EUT Information

EUT Name:	Multimedia Speaker
Model:	EDF100007
Test Mode:	RX_DH5_Low channel
Test Voltage:	AC 230V/50Hz
Remark:	Temp:23.3;Humi:52%
Test standard:	EN 300328
Tested By:	XIqiang Ma
Reviewed by	Terry Yin

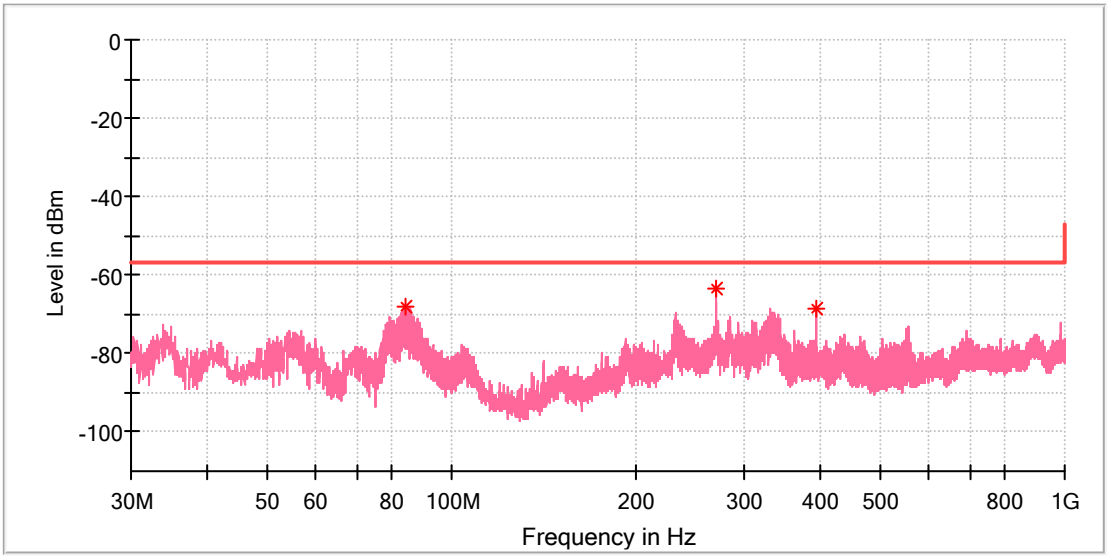


Critical_Freqs

Frequency (MHz)	RMS (dBm)	Limit (dBm)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)	Comment
77.724000	-65.29	-57.00	8.29	150.0	H	88.0	-123.6	
393.216500	-68.36	-57.00	11.36	150.0	H	144.0	-113.6	
469.992000	-66.83	-57.00	9.83	150.0	H	150.0	-109.2	

EUT Information

EUT Name:	Multimedia Speaker
Model:	EDF100007
Test Mode:	RX_DH5_Low channel
Test Voltage:	AC 230V/50Hz
Remark:	Temp:23.3;Humi:52%
Test standard:	EN 300328
Tested By:	Xlqiang Ma
Reviewed by	Terry Yin

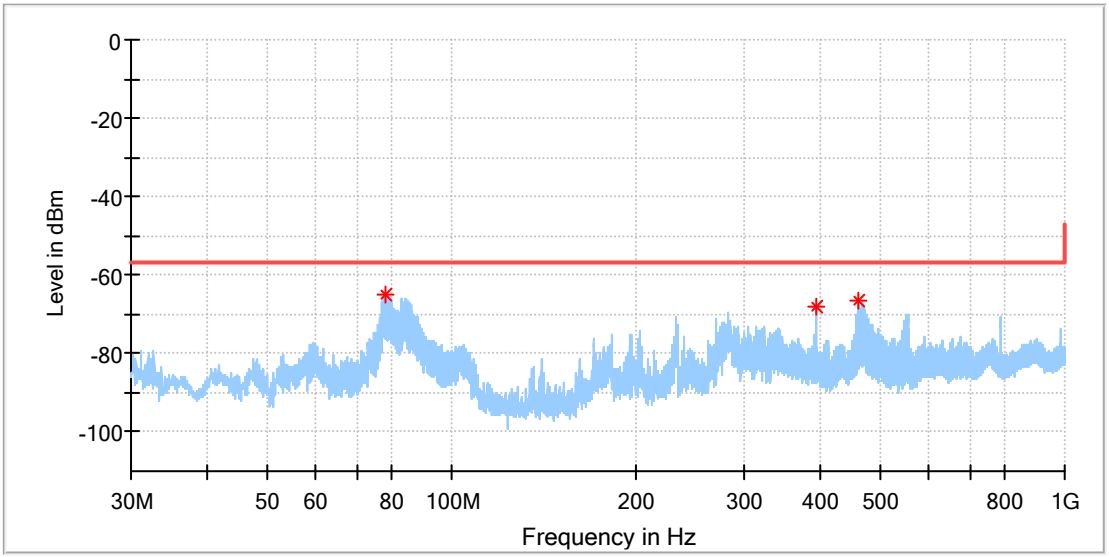


Critical_Freqs

Frequency (MHz)	RMS (dBm)	Limit (dBm)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)	Comment
83.980500	-68.04	-57.00	11.04	150.0	V	0.0	-121.9	
270.026500	-63.40	-57.00	6.40	150.0	V	5.0	-117.2	
393.265000	-68.75	-57.00	11.75	150.0	V	33.0	-112.2	

EUT Information

EUT Name:	Multimedia Speaker
Model:	EDF100007
Test Mode:	RX_DH5_High channel
Test Voltage:	AC 230V/50Hz
Remark:	Temp:23.3;Humi:52%
Test standard:	EN 300328
Tested By:	Xlqiang Ma
Reviewed by	Terry Yin

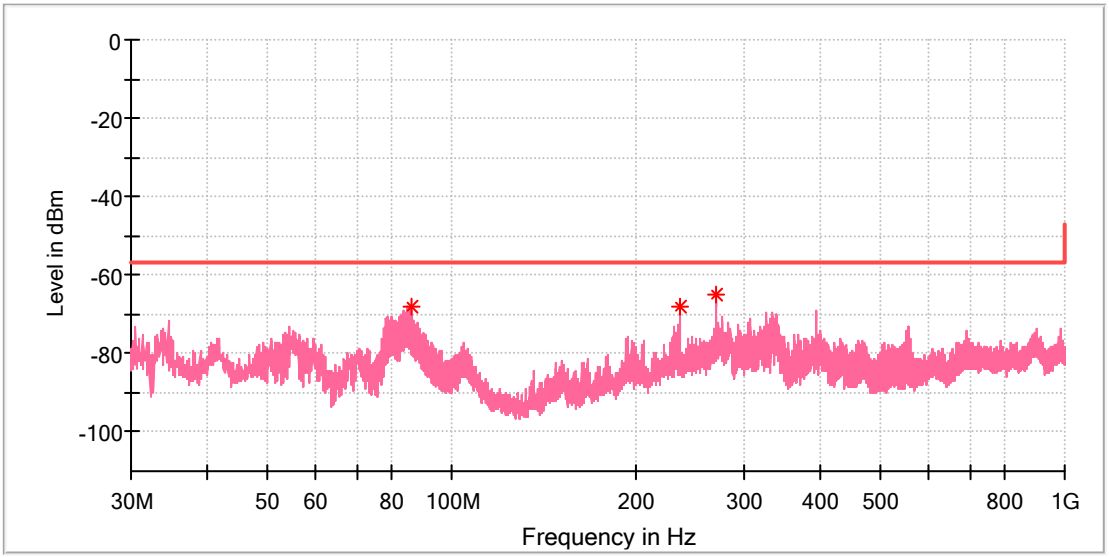


Critical_Freqs

Frequency (MHz)	RMS (dBm)	Limit (dBm)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)	Comment
78.257500	-65.16	-57.00	8.16	150.0	H	297.0	-123.6	
393.265000	-68.28	-57.00	11.28	150.0	H	151.0	-113.6	
461.989500	-66.54	-57.00	9.54	150.0	H	151.0	-109.8	

EUT Information

EUT Name:	Multimedia Speaker
Model:	EDF100007
Test Mode:	RX_DH5_High channel
Test Voltage:	AC 230V/50Hz
Remark:	Temp:23.3;Humi:52%
Test standard:	EN 300328
Tested By:	Xlqiang Ma
Reviewed by	Terry Yin

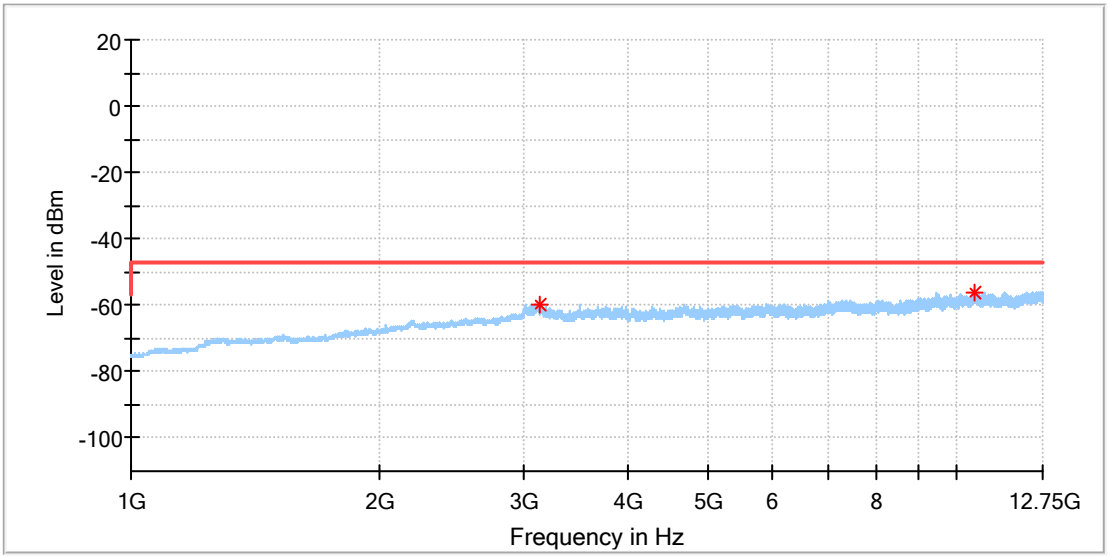


Critical_Freqs

Frequency (MHz)	RMS (dBm)	Limit (dBm)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)	Comment
85.726500	-68.02	-57.00	11.02	150.0	V	75.0	-121.1	
235.203500	-67.99	-57.00	10.99	150.0	V	150.0	-116.6	
269.978000	-64.92	-57.00	7.92	150.0	V	0.0	-117.2	

EUT Information

EUT Name:	Multimedia Speaker
Model:	EDF100007
Test Mode:	RX_DH5_Low channel
Test Voltage:	AC 230V/50Hz
Remark:	Temp:23.3;Humi:52%
Test standard:	EN 300328
Tested By:	Xlqiang Ma
Reviewed by	Terry Yin

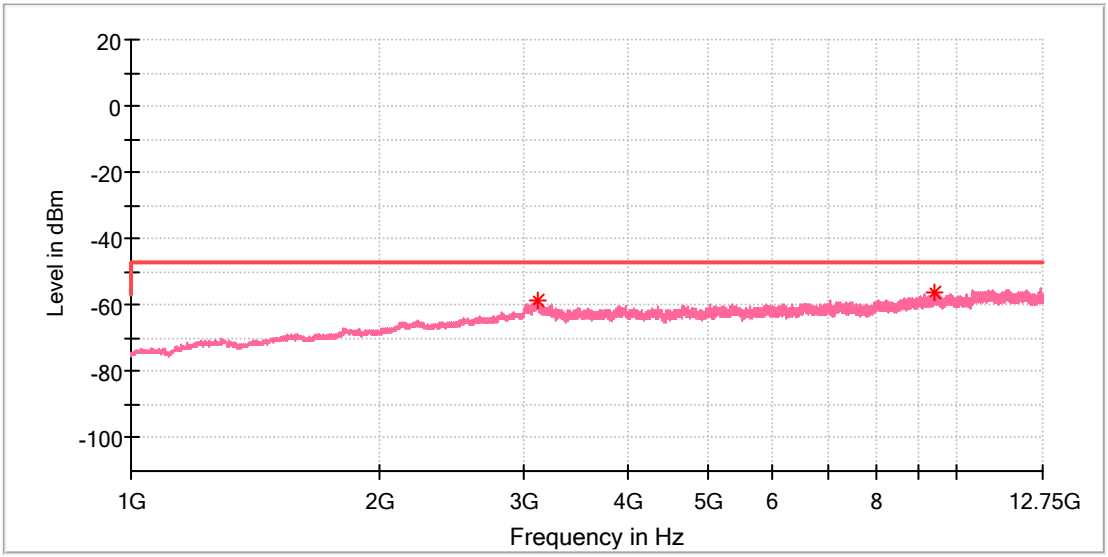


Critical_Freqs

Frequency (MHz)	RMS (dBm)	Limit (dBm)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)	Comment
3127.291667	-59.76	-47.00	12.76	150.0	H	16.0	-95.4	
10515.083333	-56.26	-47.00	9.26	150.0	H	159.0	-88.3	

EUT Information

EUT Name:	Multimedia Speaker
Model:	EDF100007
Test Mode:	RX_DH5_Low channel
Test Voltage:	AC 230V/50Hz
Remark:	Temp:23.3;Humi:52%
Test standard:	EN 300328
Tested By:	Xlqiang Ma
Reviewed by	Terry Yin

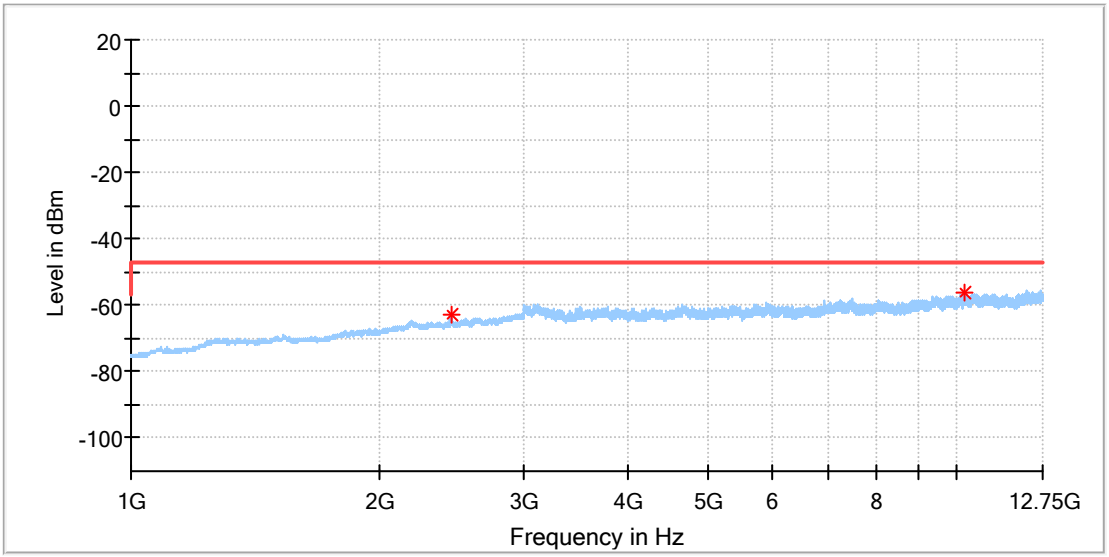


Critical_Freqs

Frequency (MHz)	RMS (dBm)	Limit (dBm)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)	Comment
3118.083333	-58.37	-47.00	11.37	150.0	V	202.0	-95.2	
9425.250000	-55.90	-47.00	8.90	150.0	V	129.0	-88.8	

EUT Information

EUT Name:	Multimedia Speaker
Model:	EDF100007
Test Mode:	RX_DH5_High channel
Test Voltage:	AC 230V/50Hz
Remark:	Temp:23.3;Humi:52%
Test standard:	EN 300328
Tested By:	Xlqiang Ma
Reviewed by	Terry Yin

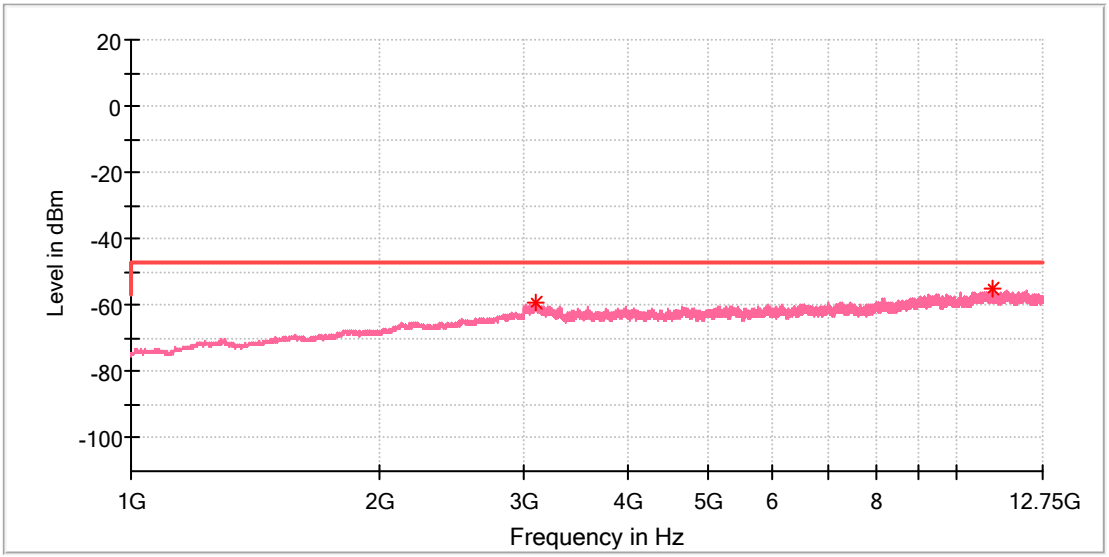


Critical_Freqs

Frequency (MHz)	RMS (dBm)	Limit (dBm)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)	Comment
2441.000000	-62.57	-47.00	15.57	150.0	H	0.0	-94.2	
10264.833333	-56.05	-47.00	9.05	150.0	H	290.0	-88.5	

EUT Information

EUT Name:	Multimedia Speaker
Model:	EDF100007
Test Mode:	RX_DH5_High channel
Test Voltage:	AC 230V/50Hz
Remark:	Temp:23.3;Humi:52%
Test standard:	EN 300328
Tested By:	Xlqiang Ma
Reviewed by	Terry Yin



Critical_Freqs

Frequency (MHz)	RMS (dBm)	Limit (dBm)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)	Comment
3101.291667	-59.04	-47.00	12.04	150.0	V	70.0	-95.1	
11078.416667	-55.26	-47.00	8.26	150.0	V	24.0	-87.5	

11 Appendix A.11: Test Plots of Harmonics Current

Line in 1

Check Harmonics 2..40 [exception odd 21..39]			
First detected harmonic order > 150 %			
Line 1:	None		
Harmonics orders > 150 %			
Line 1:	None		
Harmonics orders with average > 100 %			
Line 1:	None		

Check Odd Harmonics 21..39			
First detected time window with partial > partial limits			
	time window (time)	*measured value*	*limit*
Line 1:	None		0.251 A
Maximal time window with partial > partial limits			
	time window (time)	*measured value*	*limit*
Line 1:	None		0.251 A
First detected harmonic order > 150 %			
Line 1:	None		
Harmonics orders > 150 %			
Line 1:	None		
Harmonics orders with average > 150 %			
Line 1:	None		

Measured values			
Fundamental Current			
Line 1:	0.061 A		
Active input Power			
Line 1:	9.235 W *		
Circuit power factor			
Line 1:	0.353 *		

** Absolute value.*

Current Test Result

Average and Maximum harmonic current results									
Hn	Average (100% / 150% *)				Maximum (150%)				Harmonic Result
	Ieff [A]	of Limit [%]	Limit [A]	Result	Ieff [A]	of Limit [%]	Limit [A]	Result	
1	0.060				0.061				

Tested by Chris Liang Reviewed by Jacky chen

Date: 20201102 Date: 20201103

Voltage Source Verification

Harmonic voltage results				
Hn	Ueff [V]	Ueff [%]	Limit [%]	Result
1	230.197	100.086		
2	0.054	0.023	0.200	PASS
3	0.062	0.027	0.900	PASS
4	0.024	0.011	0.200	PASS
5	0.054	0.023	0.400	PASS
6	0.016	0.007	0.200	PASS
7	0.065	0.028	0.300	PASS
8	0.018	0.008	0.200	PASS
9	0.030	0.013	0.200	PASS
10	0.013	0.005	0.200	PASS
11	0.090	0.039	0.100	PASS
12	0.012	0.005	0.100	PASS
13	0.053	0.023	0.100	PASS
14	0.017	0.008	0.100	PASS
15	0.048	0.021	0.100	PASS
16	0.018	0.008	0.100	PASS
17	0.074	0.032	0.100	PASS
18	0.011	0.005	0.100	PASS
19	0.015	0.007	0.100	PASS
20	0.020	0.009	0.100	PASS
21	0.059	0.026	0.100	PASS
22	0.016	0.007	0.100	PASS
23	0.023	0.010	0.100	PASS
24	0.014	0.006	0.100	PASS
25	0.058	0.025	0.100	PASS
26	0.017	0.007	0.100	PASS
27	0.054	0.024	0.100	PASS
28	0.015	0.007	0.100	PASS
29	0.035	0.015	0.100	PASS
30	0.014	0.006	0.100	PASS
31	0.048	0.021	0.100	PASS
32	0.017	0.007	0.100	PASS
33	0.024	0.010	0.100	PASS
34	0.013	0.006	0.100	PASS
35	0.048	0.021	0.100	PASS
36	0.012	0.005	0.100	PASS
37	0.027	0.012	0.100	PASS

Tested by Chris Liang Reviewed by Jacky Chen

Date: 20201102 Date: 20201103

38	0.020	0.008	0.100	PASS
39	0.038	0.017	0.100	PASS
40	0.013	0.006	0.100	PASS

Maximum Harmonics

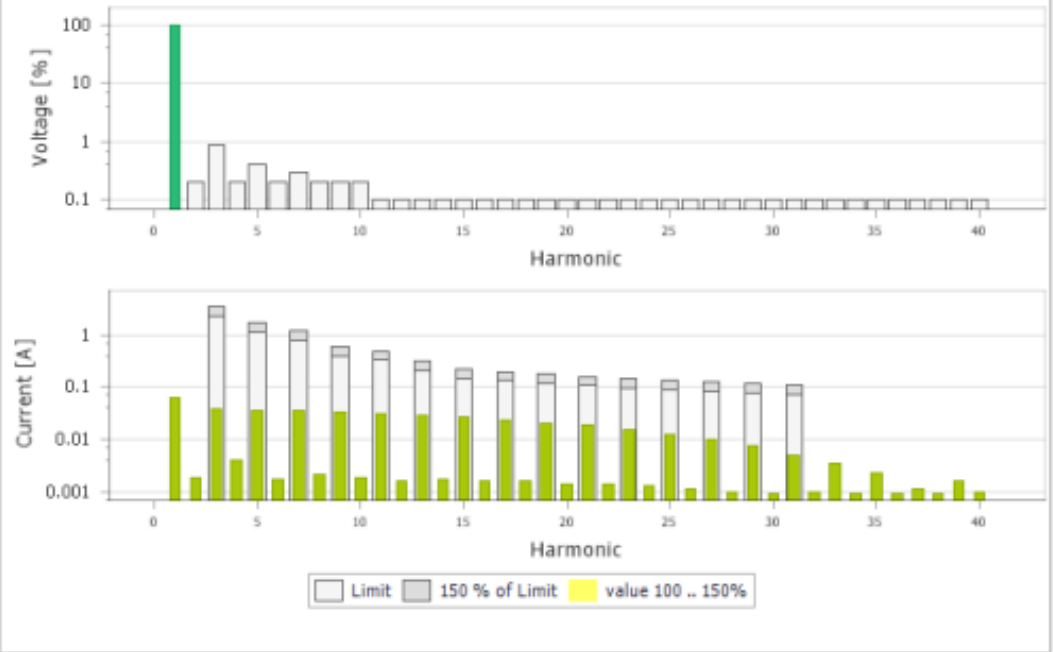
Maximum Harmonics (Line 1)

Harmonic	Frequency	Voltage					Current				
Order	[Hz]	eff [V]	eff [%]	of Limit [%]	Limit [%]	Time Window	eff [A]	eff[%]	of Limit [%]	Limit [A]	Time Window
1	50	230.197	100.086	-	-	71	0.061	100	-	-	467
2	100	0.054	0.023	11.651	0.2	433	*0.002*	3.025	*0.114*	*1.62*	141
3	150	0.062	0.027	3.014	0.9	120	0.037	60.772	1.072	3.45	140
4	200	0.024	0.011	5.264	0.2	425	*0.004*	6.454	*0.609*	*0.645*	316
5	250	0.054	0.023	5.852	0.4	293	0.036	59.473	2.117	1.71	380
6	300	0.016	0.007	3.395	0.2	188	*0.002*	2.824	*0.382*	*0.45*	42
7	350	0.065	0.028	9.47	0.3	418	0.035	57.124	3.011	1.155	9
8	400	0.018	0.008	3.93	0.2	413	*0.002*	3.622	*0.639*	*0.345*	314
9	450	0.03	0.013	6.458	0.2	98	0.033	54.41	5.521	0.6	133
10	500	0.013	0.005	2.723	0.2	336	*0.002*	3.163	*0.698*	*0.276*	33
11	550	0.09	0.039	39.079	0.1	321	0.031	51.178	6.294	0.495	746
12	600	0.012	0.005	5.317	0.1	575	*0.002*	2.725	*0.721*	*0.23*	319
13	650	0.053	0.023	23.078	0.1	90	0.029	46.999	9.083	0.315	504
14	700	0.017	0.008	7.532	0.1	619	*0.002*	2.951	*0.911*	*0.197*	301
15	750	0.048	0.021	21.01	0.1	266	0.026	42.738	11.563	0.225	528
16	800	0.018	0.008	8.039	0.1	332	*0.002*	2.627	*0.927*	*0.173*	243
17	850	0.074	0.032	32.135	0.1	548	0.023	38.469	11.796	0.199	302
18	900	0.011	0.005	4.673	0.1	72	*0.002*	2.601	*1.033*	*0.153*	364
19	950	0.015	0.007	6.729	0.1	115	0.021	34.43	11.8	0.178	561
20	1000	0.02	0.009	8.532	0.1	72	*0.001*	2.243	*0.989*	*0.138*	341
21	1050	0.059	0.026	25.806	0.1	412	0.018	30.153	11.422	0.161	702
22	1100	0.016	0.007	6.752	0.1	371	*0.001*	2.358	*1.144*	*0.125*	314
23	1150	0.023	0.01	10.092	0.1	584	0.015	24.659	10.23	0.147	686
24	1200	0.014	0.006	5.919	0.1	383	*0.001*	2.215	*1.173*	*0.115*	750
25	1250	0.058	0.025	25.062	0.1	261	0.012	20.018	9.027	0.135	720
26	1300	0.017	0.007	7.204	0.1	331	*0.001*	1.872	*1.074*	*0.106*	633
27	1350	0.054	0.024	23.51	0.1	106	0.01	16.355	7.965	0.125	702
28	1400	0.015	0.007	6.636	0.1	373	*0.001*	1.649	*1.018*	*0.099*	437

Tested by Chris Liang Reviewed by Jacky chen

Date: 20201102 Date: 20201103

29	1450	0.035	0.015	15.33	0.1	595	0.007	12.182	6.372	0.116	729
30	1500	0.014	0.006	6.034	0.1	71	*0.001*	1.553	*1.028*	*0.092*	437
31	1550	0.048	0.021	20.67	0.1	262	0.005	8.32	4.652	0.109	744
32	1600	0.017	0.007	7.449	0.1	332	*0.001*	1.606	*1.133*	*0.086*	631
33	1650	0.024	0.01	10.252	0.1	419	*0.004*	5.859	*3.488*	*0.102*	582
34	1700	0.013	0.006	5.742	0.1	334	*0.001*	1.576	*1.182*	*0.081*	436
35	1750	0.048	0.021	21.044	0.1	604	*0.002*	3.738	*2.36*	*0.096*	519
36	1800	0.012	0.005	5.157	0.1	330	*0.001*	1.518	*1.205*	*0.077*	436
37	1850	0.027	0.012	11.583	0.1	106	*0.001*	1.905	*1.271*	*0.091*	557
38	1900	0.02	0.008	8.484	0.1	330	*0.001*	1.543	*1.293*	*0.073*	631
39	1950	0.038	0.017	16.726	0.1	180	*0.002*	2.746	*1.932*	*0.087*	308
40	2000	0.013	0.006	5.817	0.1	547	*0.001*	1.646	*1.452*	*0.069*	631



Tested by Chris Liang

Date: 20201102

Reviewed by Jacky Chen

Date: 20201103

Line in 2

Check Harmonics 2..40 [exception odd 21..39]			
First detected harmonic order > 150 %			
Line 1:	None		
Harmonics orders > 150 %			
Line 1:	None		
Harmonics orders with average > 100 %			
Line 1:	None		

Check Odd Harmonics 21..39			
First detected time window with partial > partial limits			
	time window (time)	*measured value*	*limit*
Line 1:	None		0.251 A
Maximal time window with partial > partial limits			
	time window (time)	*measured value*	*limit*
Line 1:	None		0.251 A
First detected harmonic order > 150 %			
Line 1:	None		
Harmonics orders > 150 %			
Line 1:	None		
Harmonics orders with average > 150 %			
Line 1:	None		

Measured values			
Fundamental Current			
Line 1:	0.061 A		
Active input Power			
Line 1:	9.285 W *		
Circuit power factor			
Line 1:	0.352 *		

** Absolute value.*

Current Test Result

Average and Maximum harmonic current results									
Hn	Average (100% / 150% *)				Maximum (150%)				Harmonic Result
	Ieff [A]	of Limit [%]	Limit [A]	Result	Ieff [A]	of Limit [%]	Limit [A]	Result	
1	0.060				0.061				

Tested by Chris Liang Reviewed by Jacky chen

Date: 20201102 Date: 20201103

2	0.001	0.134	1.080	n/a	0.002	0.119	1.620	n/a	n/a
3	0.037	1.612	2.300	PASS	0.037	1.079	3.450	PASS	PASS
4	0.003	0.778	0.430	n/a	0.004	0.607	0.645	n/a	n/a
5	0.036	3.171	1.140	PASS	0.036	2.129	1.710	PASS	PASS
6	0.001	0.476	0.300	n/a	0.002	0.384	0.450	n/a	n/a
7	0.035	4.514	0.770	PASS	0.035	3.025	1.155	PASS	PASS
8	0.002	0.781	0.230	n/a	0.002	0.656	0.345	n/a	n/a
9	0.033	8.271	0.400	PASS	0.033	5.555	0.600	PASS	PASS
10	0.002	0.930	0.184	n/a	0.002	0.720	0.276	n/a	n/a
11	0.031	9.472	0.330	PASS	0.031	6.346	0.495	PASS	PASS
12	0.001	0.937	0.153	n/a	0.002	0.738	0.230	n/a	n/a
13	0.029	13.638	0.210	PASS	0.029	9.139	0.315	PASS	PASS
14	0.002	1.145	0.131	n/a	0.002	0.945	0.197	n/a	n/a
15	0.026	17.377	0.150	PASS	0.026	11.698	0.225	PASS	PASS
16	0.001	1.241	0.115	n/a	0.002	0.977	0.173	n/a	n/a
17	0.023	17.701	0.132	PASS	0.024	11.922	0.199	PASS	PASS
18	0.001	1.420	0.102	n/a	0.002	1.087	0.153	n/a	n/a
19	0.021	17.763	0.118	PASS	0.021	11.956	0.178	PASS	PASS
20	0.001	1.292	0.092	n/a	0.001	0.980	0.138	n/a	n/a
21	0.018	11.436	0.161	PASS	0.019	11.571	0.161	PASS	PASS
22	0.001	1.392	0.084	n/a	0.001	1.135	0.125	n/a	n/a
23	0.015	10.288	0.147	PASS	0.015	10.415	0.147	PASS	PASS
24	0.001	1.359	0.077	n/a	0.001	1.130	0.115	n/a	n/a
25	0.012	9.052	0.135	PASS	0.012	9.175	0.135	PASS	PASS
26	0.001	1.321	0.071	n/a	0.001	1.134	0.106	n/a	n/a
27	0.010	7.994	0.125	PASS	0.010	8.107	0.125	PASS	PASS
28	0.001	1.092	0.066	n/a	0.001	1.084	0.099	n/a	n/a
29	0.007	6.366	0.116	PASS	0.008	6.545	0.116	PASS	PASS
30	0.001	1.119	0.061	n/a	0.001	1.143	0.092	n/a	n/a
31	0.005	4.628	0.109	PASS	0.005	4.795	0.109	PASS	PASS
32	0.001	1.241	0.058	n/a	0.001	1.188	0.086	n/a	n/a
33	0.004	3.484	0.102	n/a	0.004	3.638	0.102	n/a	n/a
34	0.001	1.263	0.054	n/a	0.001	1.229	0.081	n/a	n/a
35	0.002	2.229	0.096	n/a	0.002	2.487	0.096	n/a	n/a
36	0.001	1.389	0.051	n/a	0.001	1.324	0.077	n/a	n/a
37	0.001	1.166	0.091	n/a	0.001	1.324	0.091	n/a	n/a
38	0.001	1.342	0.048	n/a	0.001	1.349	0.073	n/a	n/a
39	0.002	1.745	0.087	n/a	0.002	1.905	0.087	n/a	n/a
40	0.001	1.511	0.046	n/a	0.001	1.475	0.069	n/a	n/a

Note: Harmonic currents less than 0.6 % of the input current measured under the test conditions, or less than 5 mA, whichever is greater, are disregarded.
** Application of limits for average is 100% except for odd harmonics from 21 to 39, where 150% applies.*

Tested by Chris Liang Reviewed by Jacky chen

Date: 20201102 Date: 20201103

Voltage Source Verification

Harmonic voltage results				
Hn	Ueff [V]	Ueff [%]	Limit [%]	Result
1	230.195	100.085		
2	0.052	0.023	0.200	PASS
3	0.063	0.027	0.900	PASS
4	0.026	0.011	0.200	PASS
5	0.053	0.023	0.400	PASS
6	0.016	0.007	0.200	PASS
7	0.064	0.028	0.300	PASS
8	0.019	0.008	0.200	PASS
9	0.028	0.012	0.200	PASS
10	0.014	0.006	0.200	PASS
11	0.089	0.039	0.100	PASS
12	0.010	0.004	0.100	PASS
13	0.053	0.023	0.100	PASS
14	0.018	0.008	0.100	PASS
15	0.047	0.020	0.100	PASS
16	0.014	0.006	0.100	PASS
17	0.074	0.032	0.100	PASS
18	0.011	0.005	0.100	PASS
19	0.015	0.006	0.100	PASS
20	0.018	0.008	0.100	PASS
21	0.059	0.026	0.100	PASS
22	0.016	0.007	0.100	PASS
23	0.022	0.010	0.100	PASS
24	0.016	0.007	0.100	PASS
25	0.057	0.025	0.100	PASS
26	0.015	0.007	0.100	PASS
27	0.055	0.024	0.100	PASS
28	0.015	0.007	0.100	PASS
29	0.037	0.016	0.100	PASS
30	0.013	0.006	0.100	PASS
31	0.047	0.020	0.100	PASS
32	0.017	0.008	0.100	PASS
33	0.022	0.010	0.100	PASS
34	0.013	0.006	0.100	PASS
35	0.048	0.021	0.100	PASS
36	0.013	0.006	0.100	PASS
37	0.027	0.012	0.100	PASS

Tested by Chris Liang Reviewed by Jacky chen

Date: 20201102 Date: 20201103

38	0.019	0.008	0.100	PASS
39	0.036	0.016	0.100	PASS
40	0.013	0.006	0.100	PASS

Maximum Harmonics

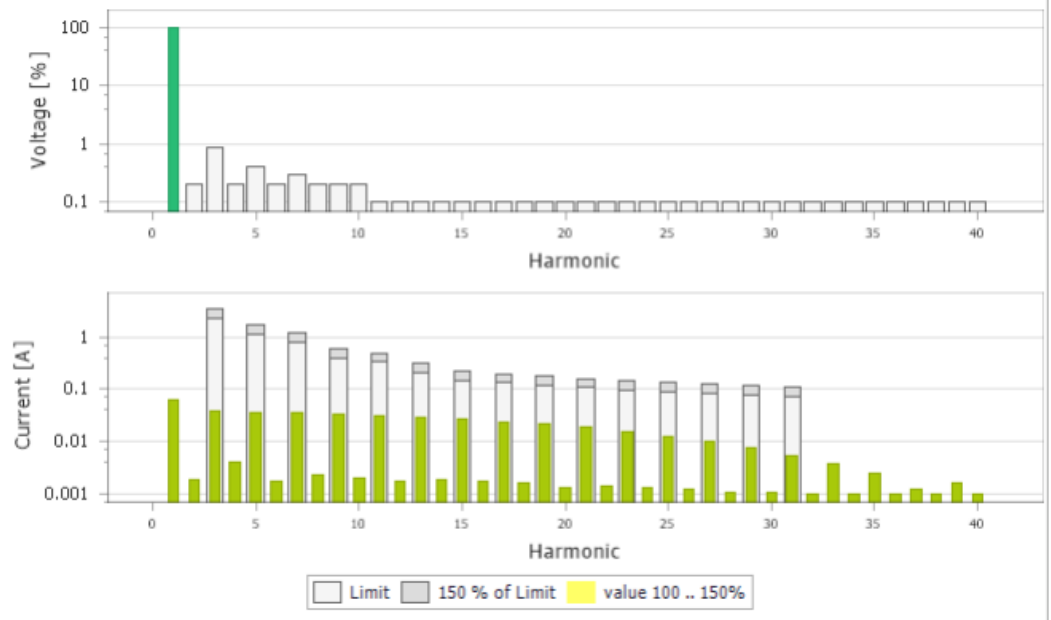
Maximum Harmonics (Line 1)

Harmonic	Frequency	Voltage					Current				
Order	[Hz]	eff [V]	eff [%]	of Limit [%]	Limit [%]	Time Window	eff [A]	eff[%]	of Limit [%]	Limit [A]	Time Window
1	50	230.195	100.085	-	-	33	0.061	100	-	-	684
2	100	0.052	0.023	11.339	0.2	545	*0.002*	3.146	*0.119*	*1.62*	211
3	150	0.063	0.027	3.051	0.9	744	0.037	60.996	1.079	3.45	735
4	200	0.026	0.011	5.719	0.2	228	*0.004*	6.419	*0.607*	*0.645*	200
5	250	0.053	0.023	5.786	0.4	155	0.036	59.65	2.129	1.71	524
6	300	0.016	0.007	3.431	0.2	676	*0.002*	2.834	*0.384*	*0.45*	336
7	350	0.064	0.028	9.252	0.3	219	0.035	57.246	3.025	1.155	338
8	400	0.019	0.008	4.036	0.2	222	*0.002*	3.708	*0.656*	*0.345*	510
9	450	0.028	0.012	6.106	0.2	749	0.033	54.607	5.555	0.6	505
10	500	0.014	0.006	2.943	0.2	729	*0.002*	3.255	*0.72*	*0.276*	417
11	550	0.089	0.039	38.656	0.1	526	0.031	51.467	6.346	0.495	565
12	600	0.01	0.004	4.427	0.1	13	*0.002*	2.783	*0.738*	*0.23*	734
13	650	0.053	0.023	23.008	0.1	419	0.029	47.169	9.139	0.315	336
14	700	0.018	0.008	7.8	0.1	559	*0.002*	3.052	*0.945*	*0.197*	504
15	750	0.047	0.02	20.242	0.1	7	0.026	43.125	11.698	0.225	426
16	800	0.014	0.006	6.041	0.1	44	*0.002*	2.761	*0.977*	*0.173*	423
17	850	0.074	0.032	32.114	0.1	474	0.024	38.779	11.922	0.199	502
18	900	0.011	0.005	4.704	0.1	268	*0.002*	2.731	*1.087*	*0.153*	201
19	950	0.015	0.006	6.354	0.1	173	0.021	34.797	11.956	0.178	732
20	1000	0.018	0.008	7.802	0.1	603	*0.001*	2.216	*0.98*	*0.138*	50
21	1050	0.059	0.026	25.703	0.1	160	0.019	30.469	11.571	0.161	604
22	1100	0.016	0.007	6.99	0.1	572	*0.001*	2.332	*1.135*	*0.125*	213
23	1150	0.022	0.01	9.66	0.1	172	0.015	25.041	10.415	0.147	607
24	1200	0.016	0.007	6.989	0.1	269	*0.001*	2.129	*1.13*	*0.115*	237
25	1250	0.057	0.025	24.644	0.1	166	0.012	20.294	9.175	0.135	687
26	1300	0.015	0.007	6.605	0.1	44	*0.001*	1.972	*1.134*	*0.106*	237
27	1350	0.055	0.024	23.843	0.1	5	0.01	16.604	8.107	0.125	427
28	1400	0.015	0.007	6.529	0.1	268	*0.001*	1.751	*1.084*	*0.099*	437

Tested by Chris Liang Reviewed by Jacky chen

Date: 20201102 Date: 20201103

29	1450	0.037	0.016	16.018	0.1	8	0.008	12.479	6.545	0.116	697
30	1500	0.013	0.006	5.635	0.1	272	*0.001*	1.723	*1.143*	*0.092*	436
31	1550	0.047	0.02	20.392	0.1	4	0.005	8.554	4.795	0.109	560
32	1600	0.017	0.008	7.511	0.1	367	*0.001*	1.679	*1.188*	*0.086*	436
33	1650	0.022	0.01	9.617	0.1	526	*0.004*	6.096	*3.638*	*0.102*	428
34	1700	0.013	0.006	5.821	0.1	259	*0.001*	1.635	*1.229*	*0.081*	437
35	1750	0.048	0.021	21.086	0.1	415	*0.002*	3.929	*2.487*	*0.096*	429
36	1800	0.013	0.006	5.805	0.1	365	*0.001*	1.663	*1.324*	*0.077*	435
37	1850	0.027	0.012	11.708	0.1	461	*0.001*	1.979	*1.324*	*0.091*	717
38	1900	0.019	0.008	8.122	0.1	365	*0.001*	1.605	*1.349*	*0.073*	433
39	1950	0.036	0.016	15.576	0.1	550	*0.002*	2.701	*1.905*	*0.087*	392
40	2000	0.013	0.006	5.864	0.1	641	*0.001*	1.667	*1.475*	*0.069*	433



Tested by Chris Liang Reviewed by Jacky chen

Date: 20201102 Date: 20201103

Optical in

Check Harmonics 2..40 [exception odd 21..39]			
First detected harmonic order > 150 %			
Line 1:	None		
Harmonics orders > 150 %			
Line 1:	None		
Harmonics orders with average > 100 %			
Line 1:	None		

Check Odd Harmonics 21..39			
First detected time window with partial > partial limits			
	time window (time)	*measured value*	*limit*
Line 1:	None		0.251 A
Maximal time window with partial > partial limits			
	time window (time)	*measured value*	*limit*
Line 1:	None		0.251 A
First detected harmonic order > 150 %			
Line 1:	None		
Harmonics orders > 150 %			
Line 1:	None		
Harmonics orders with average > 150 %			
Line 1:	None		

Measured values			
Fundamental Current			
Line 1:	0.061 A		
Active input Power			
Line 1:	9.376 W *		
Circuit power factor			
Line 1:	0.356 *		

** Absolute value.*

Current Test Result

Average and Maximum harmonic current results									
Hn	Average (100% / 150% *)				Maximum (150%)				Harmonic Result
	Ieff [A]	of Limit [%]	Limit [A]	Result	Ieff [A]	of Limit [%]	Limit [A]	Result	
1	0.060				0.061				

Tested by Chris Liang Reviewed by Jacky Chen

Date: 20201102 Date: 20201103

2	0.001	0.132	1.080	n/a	0.002	0.117	1.620	n/a	n/a
3	0.037	1.618	2.300	PASS	0.038	1.097	3.450	PASS	PASS
4	0.003	0.786	0.430	n/a	0.004	0.596	0.645	n/a	n/a
5	0.036	3.183	1.140	PASS	0.037	2.161	1.710	PASS	PASS
6	0.001	0.476	0.300	n/a	0.002	0.379	0.450	n/a	n/a
7	0.035	4.519	0.770	PASS	0.036	3.077	1.155	PASS	PASS
8	0.002	0.783	0.230	n/a	0.002	0.650	0.345	n/a	n/a
9	0.033	8.286	0.400	PASS	0.034	5.623	0.600	PASS	PASS
10	0.002	0.916	0.184	n/a	0.002	0.691	0.276	n/a	n/a
11	0.031	9.467	0.330	PASS	0.032	6.403	0.495	PASS	PASS
12	0.001	0.916	0.153	n/a	0.002	0.709	0.230	n/a	n/a
13	0.028	13.569	0.210	PASS	0.029	9.224	0.315	PASS	PASS
14	0.001	1.112	0.131	n/a	0.002	0.892	0.197	n/a	n/a
15	0.026	17.272	0.150	PASS	0.026	11.711	0.225	PASS	PASS
16	0.001	1.168	0.115	n/a	0.002	0.912	0.173	n/a	n/a
17	0.023	17.559	0.132	PASS	0.024	11.892	0.199	PASS	PASS
18	0.001	1.403	0.102	n/a	0.002	1.044	0.153	n/a	n/a
19	0.021	17.495	0.118	PASS	0.021	11.820	0.178	PASS	PASS
20	0.001	1.231	0.092	n/a	0.001	0.941	0.138	n/a	n/a
21	0.018	11.181	0.161	PASS	0.018	11.381	0.161	PASS	PASS
22	0.001	1.410	0.084	n/a	0.001	1.113	0.125	n/a	n/a
23	0.015	9.992	0.147	PASS	0.015	10.118	0.147	PASS	PASS
24	0.001	1.348	0.077	n/a	0.001	1.078	0.115	n/a	n/a
25	0.012	8.726	0.135	PASS	0.012	8.862	0.135	PASS	PASS
26	0.001	1.340	0.071	n/a	0.001	1.072	0.106	n/a	n/a
27	0.010	7.635	0.125	PASS	0.010	7.802	0.125	PASS	PASS
28	0.001	1.075	0.066	n/a	0.001	0.965	0.099	n/a	n/a
29	0.007	5.969	0.116	PASS	0.007	6.186	0.116	PASS	PASS
30	0.001	1.123	0.061	n/a	0.001	1.032	0.092	n/a	n/a
31	0.005	4.259	0.109	n/a	0.005	4.497	0.109	n/a	n/a
32	0.001	1.201	0.058	n/a	0.001	1.083	0.086	n/a	n/a
33	0.003	3.124	0.102	n/a	0.003	3.338	0.102	n/a	n/a
34	0.001	1.252	0.054	n/a	0.001	1.109	0.081	n/a	n/a
35	0.002	1.909	0.096	n/a	0.002	2.098	0.096	n/a	n/a
36	0.001	1.397	0.051	n/a	0.001	1.192	0.077	n/a	n/a
37	0.001	1.198	0.091	n/a	0.001	1.369	0.091	n/a	n/a
38	0.001	1.343	0.048	n/a	0.001	1.237	0.073	n/a	n/a
39	0.002	1.941	0.087	n/a	0.002	2.102	0.087	n/a	n/a
40	0.001	1.554	0.046	n/a	0.001	1.456	0.069	n/a	n/a

Note: Harmonic currents less than 0.6 % of the input current measured under the test conditions, or less than 5 mA, whichever is greater, are disregarded.
** Application of limits for average is 100% except for odd harmonics from 21 to 39, where 150% applies.*

Tested by Chris Liang Reviewed by Jacky chen

Date: 20201102 Date: 20201103

Voltage Source Verification

Harmonic voltage results				
Hn	Ueff [V]	Ueff [%]	Limit [%]	Result
1	230.196	100.085		
2	0.054	0.024	0.200	PASS
3	0.064	0.028	0.900	PASS
4	0.027	0.012	0.200	PASS
5	0.053	0.023	0.400	PASS
6	0.015	0.007	0.200	PASS
7	0.064	0.028	0.300	PASS
8	0.018	0.008	0.200	PASS
9	0.030	0.013	0.200	PASS
10	0.012	0.005	0.200	PASS
11	0.090	0.039	0.100	PASS
12	0.010	0.004	0.100	PASS
13	0.055	0.024	0.100	PASS
14	0.018	0.008	0.100	PASS
15	0.048	0.021	0.100	PASS
16	0.016	0.007	0.100	PASS
17	0.076	0.033	0.100	PASS
18	0.011	0.005	0.100	PASS
19	0.015	0.006	0.100	PASS
20	0.017	0.008	0.100	PASS
21	0.061	0.026	0.100	PASS
22	0.016	0.007	0.100	PASS
23	0.024	0.011	0.100	PASS
24	0.013	0.006	0.100	PASS
25	0.057	0.025	0.100	PASS
26	0.016	0.007	0.100	PASS
27	0.056	0.025	0.100	PASS
28	0.016	0.007	0.100	PASS
29	0.038	0.016	0.100	PASS
30	0.013	0.006	0.100	PASS
31	0.046	0.020	0.100	PASS
32	0.016	0.007	0.100	PASS
33	0.021	0.009	0.100	PASS
34	0.014	0.006	0.100	PASS
35	0.048	0.021	0.100	PASS
36	0.013	0.005	0.100	PASS
37	0.032	0.014	0.100	PASS

Tested by Chris Liang Reviewed by Jacky chen

Date: 20201102 Date: 20201103

38	0.019	0.008	0.100	PASS
39	0.037	0.016	0.100	PASS
40	0.012	0.005	0.100	PASS

Maximum Harmonics

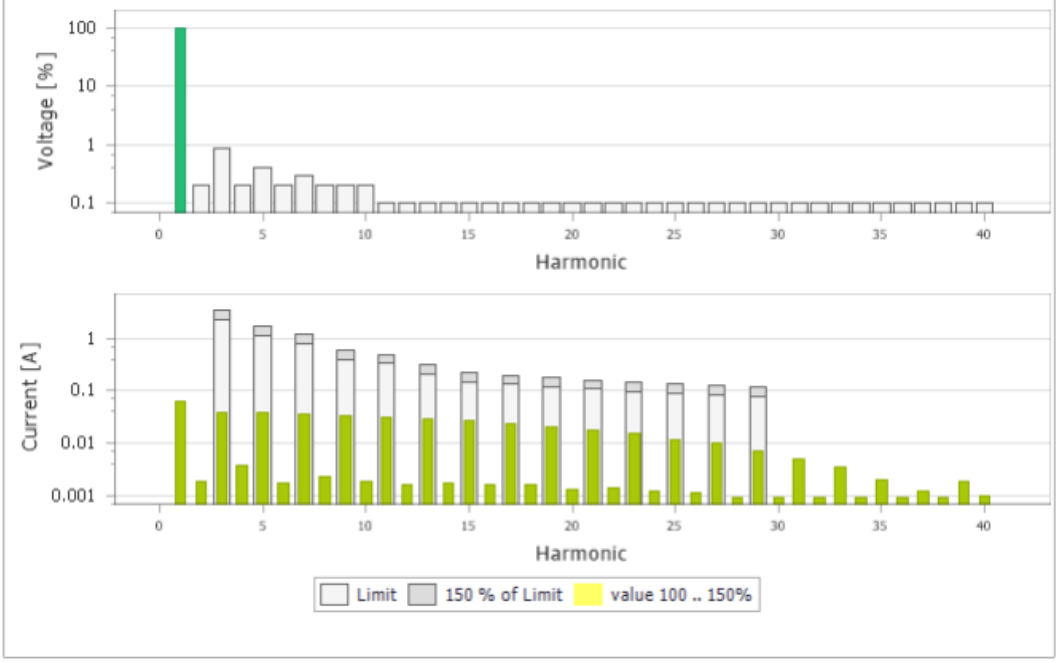
Maximum Harmonics (Line 1)

Harmonic	Frequency	Voltage					Current				
Order	[Hz]	eff [V]	eff [%]	of Limit [%]	Limit [%]	Time Window	eff [A]	eff[%]	of Limit [%]	Limit [A]	Time Window
1	50	230.196	100.085	-	-	730	0.061	100	-	-	76
2	100	0.054	0.024	11.769	0.2	444	*0.002*	3.09	*0.117*	*1.62*	18
3	150	0.064	0.028	3.07	0.9	655	0.038	61.653	1.097	3.45	419
4	200	0.027	0.012	5.827	0.2	278	*0.004*	6.257	*0.596*	*0.645*	222
5	250	0.053	0.023	5.793	0.4	154	0.037	60.183	2.161	1.71	194
6	300	0.015	0.007	3.294	0.2	430	*0.002*	2.778	*0.379*	*0.45*	91
7	350	0.064	0.028	9.205	0.3	328	0.036	57.889	3.077	1.155	419
8	400	0.018	0.008	3.945	0.2	477	*0.002*	3.653	*0.65*	*0.345*	231
9	450	0.03	0.013	6.437	0.2	553	0.034	54.953	5.623	0.6	645
10	500	0.012	0.005	2.584	0.2	89	*0.002*	3.106	*0.691*	*0.276*	621
11	550	0.09	0.039	38.971	0.1	326	0.032	51.623	6.403	0.495	419
12	600	0.01	0.004	4.401	0.1	252	*0.002*	2.655	*0.709*	*0.23*	223
13	650	0.055	0.024	23.819	0.1	517	0.029	47.324	9.224	0.315	419
14	700	0.018	0.008	7.773	0.1	283	*0.002*	2.863	*0.892*	*0.197*	226
15	750	0.048	0.021	21.044	0.1	305	0.026	42.917	11.711	0.225	644
16	800	0.016	0.007	6.911	0.1	240	*0.002*	2.564	*0.912*	*0.173*	130
17	850	0.076	0.033	33.047	0.1	173	0.024	38.454	11.892	0.199	193
18	900	0.011	0.005	4.606	0.1	180	*0.002*	2.607	*1.044*	*0.153*	485
19	950	0.015	0.006	6.39	0.1	55	0.021	34.198	11.82	0.178	647
20	1000	0.017	0.008	7.603	0.1	226	*0.001*	2.114	*0.941*	*0.138*	478
21	1050	0.061	0.026	26.376	0.1	264	0.018	29.792	11.381	0.161	625
22	1100	0.016	0.007	6.856	0.1	568	*0.001*	2.274	*1.113*	*0.125*	682
23	1150	0.024	0.011	10.615	0.1	508	0.015	24.183	10.118	0.147	750
24	1200	0.013	0.006	5.707	0.1	582	*0.001*	2.02	*1.078*	*0.115*	709
25	1250	0.057	0.025	24.739	0.1	280	0.012	19.486	8.862	0.135	675
26	1300	0.016	0.007	7.055	0.1	103	*0.001*	1.853	*1.072*	*0.106*	143
27	1350	0.056	0.025	24.562	0.1	509	0.01	15.885	7.802	0.125	592
28	1400	0.016	0.007	6.966	0.1	579	*0.001*	1.55	*0.965*	*0.099*	709

Tested by Chris Liang Reviewed by Jacky chen

Date: 20201102 Date: 20201103

29	1450	0.038	0.016	16.39	0.1	168	0.007	11.725	6.186	0.116	715
30	1500	0.013	0.006	5.851	0.1	240	*0.001*	1.546	*1.032*	*0.092*	142
31	1550	0.046	0.02	19.79	0.1	691	*0.005*	7.974	*4.497*	*0.109*	675
32	1600	0.016	0.007	6.86	0.1	239	*0.001*	1.521	*1.083*	*0.086*	142
33	1650	0.021	0.009	9.244	0.1	28	*0.003*	5.561	*3.338*	*0.102*	662
34	1700	0.014	0.006	5.94	0.1	240	*0.001*	1.467	*1.109*	*0.081*	708
35	1750	0.048	0.021	20.817	0.1	265	*0.002*	3.295	*2.098*	*0.096*	684
36	1800	0.013	0.005	5.473	0.1	63	*0.001*	1.489	*1.192*	*0.077*	142
37	1850	0.032	0.014	13.739	0.1	510	*0.001*	2.034	*1.369*	*0.091*	166
38	1900	0.019	0.008	8.2	0.1	238	*0.001*	1.463	*1.237*	*0.073*	531
39	1950	0.037	0.016	15.952	0.1	716	*0.002*	2.963	*2.102*	*0.087*	608
40	2000	0.012	0.005	5.334	0.1	238	*0.001*	1.636	*1.456*	*0.069*	141



Tested by Chris Liang

Date: 20201102

Reviewed by Jacky chen

Date: 20201103

Coaxial in

Check Harmonics 2..40 [exception odd 21..39]			
First detected harmonic order > 150 %			
Line 1:	None		
Harmonics orders > 150 %			
Line 1:	None		
Harmonics orders with average > 100 %			
Line 1:	None		

Check Odd Harmonics 21..39			
First detected time window with partial > partial limits			
	time window (time)	*measured value*	*limit*
Line 1:	None		0.251 A
Maximal time window with partial > partial limits			
	time window (time)	*measured value*	*limit*
Line 1:	None		0.251 A
First detected harmonic order > 150 %			
Line 1:	None		
Harmonics orders > 150 %			
Line 1:	None		
Harmonics orders with average > 150 %			
Line 1:	None		

Measured values			
Fundamental Current			
Line 1:	0.062 A		
Active input Power			
Line 1:	9.437 W *		
Circuit power factor			
Line 1:	0.359 *		

** Absolute value.*

Current Test Result

Average and Maximum harmonic current results									
Hn	Average (100% / 150% *)				Maximum (150%)				Harmonic Result
	Ieff [A]	of Limit [%]	Limit [A]	Result	Ieff [A]	of Limit [%]	Limit [A]	Result	
1	0.060				0.061				

Tested by Chris Liang Reviewed by Jacky chen

Date: 20201102 Date: 20201103

2	0.002	0.139	1.080	n/a	0.002	0.118	1.620	n/a	n/a
3	0.037	1.627	2.300	PASS	0.038	1.108	3.450	PASS	PASS
4	0.003	0.792	0.430	n/a	0.004	0.600	0.645	n/a	n/a
5	0.037	3.203	1.140	PASS	0.037	2.178	1.710	PASS	PASS
6	0.001	0.475	0.300	n/a	0.002	0.363	0.450	n/a	n/a
7	0.035	4.538	0.770	PASS	0.036	3.095	1.155	PASS	PASS
8	0.002	0.813	0.230	n/a	0.002	0.669	0.345	n/a	n/a
9	0.033	8.316	0.400	PASS	0.034	5.638	0.600	PASS	PASS
10	0.002	0.915	0.184	n/a	0.002	0.685	0.276	n/a	n/a
11	0.031	9.470	0.330	PASS	0.032	6.417	0.495	PASS	PASS
12	0.001	0.936	0.153	n/a	0.002	0.717	0.230	n/a	n/a
13	0.028	13.545	0.210	PASS	0.029	9.200	0.315	PASS	PASS
14	0.002	1.146	0.131	n/a	0.002	0.917	0.197	n/a	n/a
15	0.026	17.198	0.150	PASS	0.026	11.612	0.225	PASS	PASS
16	0.001	1.157	0.115	n/a	0.002	0.884	0.173	n/a	n/a
17	0.023	17.423	0.132	PASS	0.023	11.801	0.199	PASS	PASS
18	0.001	1.406	0.102	n/a	0.002	1.052	0.153	n/a	n/a
19	0.021	17.337	0.118	PASS	0.021	11.713	0.178	PASS	PASS
20	0.001	1.224	0.092	n/a	0.001	0.915	0.138	n/a	n/a
21	0.018	10.997	0.161	PASS	0.018	11.194	0.161	PASS	PASS
22	0.001	1.430	0.084	n/a	0.001	1.117	0.125	n/a	n/a
23	0.014	9.783	0.147	PASS	0.015	9.964	0.147	PASS	PASS
24	0.001	1.325	0.077	n/a	0.001	1.073	0.115	n/a	n/a
25	0.011	8.478	0.135	PASS	0.012	8.678	0.135	PASS	PASS
26	0.001	1.359	0.071	n/a	0.001	1.090	0.106	n/a	n/a
27	0.009	7.331	0.125	PASS	0.009	7.567	0.125	PASS	PASS
28	0.001	1.062	0.066	n/a	0.001	0.988	0.099	n/a	n/a
29	0.007	5.670	0.116	PASS	0.007	5.983	0.116	PASS	PASS
30	0.001	1.111	0.061	n/a	0.001	0.971	0.092	n/a	n/a
31	0.004	3.952	0.109	n/a	0.005	4.196	0.109	n/a	n/a
32	0.001	1.195	0.058	n/a	0.001	1.017	0.086	n/a	n/a
33	0.003	2.846	0.102	n/a	0.003	3.110	0.102	n/a	n/a
34	0.001	1.224	0.054	n/a	0.001	1.103	0.081	n/a	n/a
35	0.002	1.674	0.096	n/a	0.002	2.020	0.096	n/a	n/a
36	0.001	1.372	0.051	n/a	0.001	1.165	0.077	n/a	n/a
37	0.001	1.263	0.091	n/a	0.001	1.543	0.091	n/a	n/a
38	0.001	1.316	0.048	n/a	0.001	1.173	0.073	n/a	n/a
39	0.002	2.091	0.087	n/a	0.002	2.417	0.087	n/a	n/a
40	0.001	1.527	0.046	n/a	0.001	1.282	0.069	n/a	n/a

Note: Harmonic currents less than 0.6 % of the input current measured under the test conditions, or less than 5 mA, whichever is greater, are disregarded.
** Application of limits for average is 100% except for odd harmonics from 21 to 39, where 150% applies.*

Tested by Chris Liang Reviewed by Jacky chen

Date: 20201102 Date: 20201103

Voltage Source Verification

Harmonic voltage results				
Hn	Ueff [V]	Ueff [%]	Limit [%]	Result
1	230.202	100.088		
2	0.053	0.023	0.200	PASS
3	0.065	0.028	0.900	PASS
4	0.026	0.011	0.200	PASS
5	0.053	0.023	0.400	PASS
6	0.015	0.007	0.200	PASS
7	0.062	0.027	0.300	PASS
8	0.019	0.008	0.200	PASS
9	0.028	0.012	0.200	PASS
10	0.013	0.006	0.200	PASS
11	0.091	0.039	0.100	PASS
12	0.010	0.004	0.100	PASS
13	0.054	0.024	0.100	PASS
14	0.018	0.008	0.100	PASS
15	0.049	0.021	0.100	PASS
16	0.015	0.007	0.100	PASS
17	0.075	0.032	0.100	PASS
18	0.009	0.004	0.100	PASS
19	0.014	0.006	0.100	PASS
20	0.018	0.008	0.100	PASS
21	0.058	0.025	0.100	PASS
22	0.016	0.007	0.100	PASS
23	0.023	0.010	0.100	PASS
24	0.012	0.005	0.100	PASS
25	0.057	0.025	0.100	PASS
26	0.017	0.007	0.100	PASS
27	0.055	0.024	0.100	PASS
28	0.013	0.006	0.100	PASS
29	0.036	0.015	0.100	PASS
30	0.013	0.006	0.100	PASS
31	0.048	0.021	0.100	PASS
32	0.015	0.006	0.100	PASS
33	0.022	0.009	0.100	PASS
34	0.013	0.006	0.100	PASS
35	0.047	0.020	0.100	PASS
36	0.011	0.005	0.100	PASS
37	0.027	0.012	0.100	PASS

Tested by Chris Liang Reviewed by Jacky chen

Date: 20201102 Date: 20201103

38	0.018	0.008	0.100	PASS
39	0.035	0.015	0.100	PASS
40	0.014	0.006	0.100	PASS

Maximum Harmonics

Maximum Harmonics (Line 1)

Harmonic	Frequency	Voltage					Current				
Order	[Hz]	eff [V]	eff [%]	of Limit [%]	Limit [%]	Time Window	eff [A]	eff[%]	of Limit [%]	Limit [A]	Time Window
1	50	230.202	100.088	-	-	214	0.061	99.673	-	-	17
2	100	0.053	0.023	11.491	0.2	661	*0.002*	3.115	*0.118*	*1.62*	521
3	150	0.065	0.028	3.156	0.9	266	0.038	62.087	1.108	3.45	110
4	200	0.026	0.011	5.696	0.2	171	*0.004*	6.283	*0.6*	*0.645*	530
5	250	0.053	0.023	5.746	0.4	588	0.037	60.504	2.178	1.71	334
6	300	0.015	0.007	3.359	0.2	376	*0.002*	2.656	*0.363*	*0.45*	313
7	350	0.062	0.027	9.004	0.3	671	0.036	58.067	3.095	1.155	110
8	400	0.019	0.008	4.068	0.2	361	*0.002*	3.75	*0.669*	*0.345*	517
9	450	0.028	0.012	5.982	0.2	72	0.034	54.957	5.638	0.6	110
10	500	0.013	0.006	2.822	0.2	251	*0.002*	3.07	*0.685*	*0.276*	509
11	550	0.091	0.039	39.445	0.1	671	0.032	51.602	6.417	0.495	110
12	600	0.01	0.004	4.46	0.1	538	*0.002*	2.678	*0.717*	*0.23*	205
13	650	0.054	0.024	23.54	0.1	92	0.029	47.078	9.2	0.315	110
14	700	0.018	0.008	7.624	0.1	46	*0.002*	2.937	*0.917*	*0.197*	527
15	750	0.049	0.021	21.198	0.1	456	0.026	42.446	11.612	0.225	561
16	800	0.015	0.007	6.528	0.1	323	*0.002*	2.476	*0.884*	*0.173*	432
17	850	0.075	0.032	32.433	0.1	711	0.023	38.062	11.801	0.199	561
18	900	0.009	0.004	4.073	0.1	745	*0.002*	2.62	*1.052*	*0.153*	205
19	950	0.014	0.006	6.077	0.1	454	0.021	33.8	11.713	0.178	560
20	1000	0.018	0.008	7.697	0.1	373	*0.001*	2.051	*0.915*	*0.138*	318
21	1050	0.058	0.025	25.081	0.1	575	0.018	29.228	11.194	0.161	746
22	1100	0.016	0.007	6.951	0.1	566	*0.001*	2.277	*1.117*	*0.125*	312
23	1150	0.023	0.01	10.025	0.1	452	0.015	23.754	9.964	0.147	723
24	1200	0.012	0.005	5.372	0.1	508	*0.001*	2.005	*1.073*	*0.115*	662
25	1250	0.057	0.025	24.944	0.1	574	0.012	19.033	8.678	0.135	528
26	1300	0.017	0.007	7.317	0.1	40	*0.001*	1.88	*1.09*	*0.106*	355
27	1350	0.055	0.024	23.963	0.1	715	0.009	15.367	7.567	0.125	721
28	1400	0.013	0.006	5.712	0.1	378	*0.001*	1.582	*0.988*	*0.099*	355

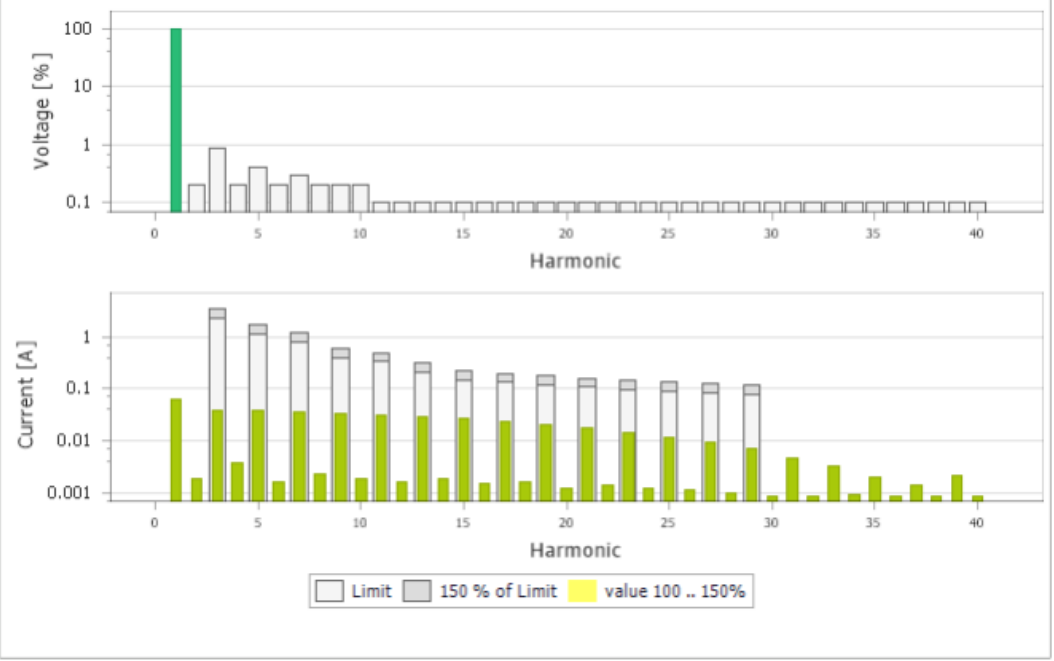
Tested by Chris Liang

Date: 20201102

Reviewed by Jacky chen

Date: 20201103

29	1450	0.036	0.015	15.453	0.1	455	0.007	11.312	5.983	0.116	658
30	1500	0.013	0.006	5.616	0.1	187	*0.001*	1.452	*0.971*	*0.092*	165
31	1550	0.048	0.021	20.802	0.1	451	*0.005*	7.421	*4.196*	*0.109*	708
32	1600	0.015	0.006	6.491	0.1	568	*0.001*	1.425	*1.017*	*0.086*	663
33	1650	0.022	0.009	9.388	0.1	668	*0.003*	5.168	*3.11*	*0.102*	625
34	1700	0.013	0.006	5.778	0.1	323	*0.001*	1.454	*1.103*	*0.081*	355
35	1750	0.047	0.02	20.336	0.1	29	*0.002*	3.165	*2.02*	*0.096*	600
36	1800	0.011	0.005	4.955	0.1	187	*0.001*	1.451	*1.165*	*0.077*	23
37	1850	0.027	0.012	11.678	0.1	78	*0.001*	2.287	*1.543*	*0.091*	26
38	1900	0.018	0.008	8.004	0.1	539	*0.001*	1.385	*1.173*	*0.073*	23
39	1950	0.035	0.015	15.431	0.1	651	*0.002*	3.398	*2.417*	*0.087*	22
40	2000	0.014	0.006	6.035	0.1	257	*0.001*	1.437	*1.282*	*0.069*	597



Tested by Chris Liang

Date: 20201102

Reviewed by Jacky chen

Date: 20201103

Bluetooth

Check Harmonics 2..40 [exception odd 21..39]			
First detected harmonic order > 150 %			
Line 1:	None		
Harmonics orders > 150 %			
Line 1:	None		
Harmonics orders with average > 100 %			
Line 1:	None		

Check Odd Harmonics 21..39			
First detected time window with partial > partial limits			
	time window (time)	*measured value*	*limit*
Line 1:	None		0.251 A
Maximal time window with partial > partial limits			
	time window (time)	*measured value*	*limit*
Line 1:	None		0.251 A
First detected harmonic order > 150 %			
Line 1:	None		
Harmonics orders > 150 %			
Line 1:	None		
Harmonics orders with average > 150 %			
Line 1:	None		

Measured values			
Fundamental Current			
Line 1:	0.061 A		
Active input Power			
Line 1:	9.304 W *		
Circuit power factor			
Line 1:	0.357 *		

** Absolute value.*

Current Test Result

Average and Maximum harmonic current results									
Hn	Average (100% / 150% *)				Maximum (150%)				Harmonic Result
	Ieff [A]	of Limit [%]	Limit [A]	Result	Ieff [A]	of Limit [%]	Limit [A]	Result	
1	0.060				0.061				

Tested by Chris Liang Reviewed by Jacky Chen

Date: 20201102 Date: 20201103

2	0.001	0.126	1.080	n/a	0.002	0.119	1.620	n/a	n/a
3	0.037	1.611	2.300	PASS	0.037	1.082	3.450	PASS	PASS
4	0.003	0.769	0.430	n/a	0.004	0.608	0.645	n/a	n/a
5	0.036	3.167	1.140	PASS	0.036	2.128	1.710	PASS	PASS
6	0.001	0.446	0.300	n/a	0.002	0.361	0.450	n/a	n/a
7	0.035	4.495	0.770	PASS	0.035	3.016	1.155	PASS	PASS
8	0.002	0.769	0.230	n/a	0.002	0.656	0.345	n/a	n/a
9	0.033	8.221	0.400	PASS	0.033	5.519	0.600	PASS	PASS
10	0.002	0.858	0.184	n/a	0.002	0.658	0.276	n/a	n/a
11	0.031	9.362	0.330	PASS	0.031	6.276	0.495	PASS	PASS
12	0.001	0.887	0.153	n/a	0.002	0.724	0.230	n/a	n/a
13	0.028	13.429	0.210	PASS	0.029	9.054	0.315	PASS	PASS
14	0.001	1.088	0.131	n/a	0.002	0.905	0.197	n/a	n/a
15	0.026	17.034	0.150	PASS	0.026	11.542	0.225	PASS	PASS
16	0.001	1.134	0.115	n/a	0.002	0.876	0.173	n/a	n/a
17	0.023	17.183	0.132	PASS	0.023	11.604	0.199	PASS	PASS
18	0.001	1.341	0.102	n/a	0.002	1.035	0.153	n/a	n/a
19	0.020	17.060	0.118	PASS	0.021	11.547	0.178	PASS	PASS
20	0.001	1.200	0.092	n/a	0.001	0.969	0.138	n/a	n/a
21	0.017	10.851	0.161	PASS	0.018	11.022	0.161	PASS	PASS
22	0.001	1.353	0.084	n/a	0.001	1.127	0.125	n/a	n/a
23	0.014	9.643	0.147	PASS	0.014	9.774	0.147	PASS	PASS
24	0.001	1.305	0.077	n/a	0.001	1.198	0.115	n/a	n/a
25	0.011	8.355	0.135	PASS	0.011	8.500	0.135	PASS	PASS
26	0.001	1.318	0.071	n/a	0.001	1.146	0.106	n/a	n/a
27	0.009	7.240	0.125	PASS	0.009	7.386	0.125	PASS	PASS
28	0.001	1.095	0.066	n/a	0.001	1.150	0.099	n/a	n/a
29	0.006	5.582	0.116	PASS	0.007	5.734	0.116	PASS	PASS
30	0.001	1.120	0.061	n/a	0.001	1.159	0.092	n/a	n/a
31	0.004	3.862	0.109	n/a	0.004	4.064	0.109	n/a	n/a
32	0.001	1.193	0.058	n/a	0.001	1.173	0.086	n/a	n/a
33	0.003	2.732	0.102	n/a	0.003	2.955	0.102	n/a	n/a
34	0.001	1.221	0.054	n/a	0.001	1.277	0.081	n/a	n/a
35	0.002	1.604	0.096	n/a	0.002	1.918	0.096	n/a	n/a
36	0.001	1.369	0.051	n/a	0.001	1.410	0.077	n/a	n/a
37	0.001	1.226	0.091	n/a	0.001	1.373	0.091	n/a	n/a
38	0.001	1.321	0.048	n/a	0.001	1.346	0.073	n/a	n/a
39	0.002	2.090	0.087	n/a	0.002	2.211	0.087	n/a	n/a
40	0.001	1.521	0.046	n/a	0.001	1.431	0.069	n/a	n/a

Note: Harmonic currents less than 0.6 % of the input current measured under the test conditions, or less than 5 mA, whichever is greater, are disregarded.
** Application of limits for average is 100% except for odd harmonics from 21 to 39, where 150% applies.*

Tested by Chris Liang Reviewed by Jacky chen

Date: 20201102 Date: 20201103

Voltage Source Verification

Harmonic voltage results				
Hn	Ueff [V]	Ueff [%]	Limit [%]	Result
1	230.202	100.088		
2	0.055	0.024	0.200	PASS
3	0.064	0.028	0.900	PASS
4	0.025	0.011	0.200	PASS
5	0.053	0.023	0.400	PASS
6	0.017	0.007	0.200	PASS
7	0.063	0.027	0.300	PASS
8	0.019	0.008	0.200	PASS
9	0.029	0.013	0.200	PASS
10	0.013	0.005	0.200	PASS
11	0.088	0.038	0.100	PASS
12	0.012	0.005	0.100	PASS
13	0.055	0.024	0.100	PASS
14	0.018	0.008	0.100	PASS
15	0.049	0.021	0.100	PASS
16	0.017	0.007	0.100	PASS
17	0.075	0.032	0.100	PASS
18	0.013	0.006	0.100	PASS
19	0.018	0.008	0.100	PASS
20	0.018	0.008	0.100	PASS
21	0.059	0.026	0.100	PASS
22	0.020	0.008	0.100	PASS
23	0.024	0.010	0.100	PASS
24	0.014	0.006	0.100	PASS
25	0.056	0.025	0.100	PASS
26	0.015	0.007	0.100	PASS
27	0.056	0.024	0.100	PASS
28	0.013	0.006	0.100	PASS
29	0.036	0.016	0.100	PASS
30	0.012	0.005	0.100	PASS
31	0.048	0.021	0.100	PASS
32	0.018	0.008	0.100	PASS
33	0.023	0.010	0.100	PASS
34	0.011	0.005	0.100	PASS
35	0.048	0.021	0.100	PASS
36	0.012	0.005	0.100	PASS
37	0.027	0.012	0.100	PASS

Tested by Chris Liang Reviewed by Jacky chen

Date: 20201102 Date: 20201103

38	0.017	0.008	0.100	PASS
39	0.037	0.016	0.100	PASS
40	0.013	0.005	0.100	PASS

Maximum Harmonics

Maximum Harmonics (Line 1)

Harmonic	Frequency	Voltage					Current				
Order	[Hz]	eff [V]	eff [%]	of Limit [%]	Limit [%]	Time Window	eff [A]	eff[%]	of Limit [%]	Limit [A]	Time Window
1	50	230.202	100.088	-	-	575	0.061	100	-	-	321
2	100	0.055	0.024	11.874	0.2	358	*0.002*	3.166	*0.119*	*1.62*	748
3	150	0.064	0.028	3.096	0.9	558	0.037	61.084	1.082	3.45	28
4	200	0.025	0.011	5.358	0.2	195	*0.004*	6.421	*0.608*	*0.645*	740
5	250	0.053	0.023	5.737	0.4	725	0.036	59.551	2.128	1.71	210
6	300	0.017	0.007	3.712	0.2	153	*0.002*	2.658	*0.361*	*0.45*	651
7	350	0.063	0.027	9.155	0.3	197	0.035	56.998	3.016	1.155	502
8	400	0.019	0.008	4.125	0.2	457	*0.002*	3.704	*0.656*	*0.345*	743
9	450	0.029	0.013	6.377	0.2	112	0.033	54.184	5.519	0.6	75
10	500	0.013	0.005	2.727	0.2	484	*0.002*	2.972	*0.658*	*0.276*	527
11	550	0.088	0.038	38.115	0.1	444	0.031	50.833	6.276	0.495	328
12	600	0.012	0.005	5.207	0.1	61	*0.002*	2.724	*0.724*	*0.23*	746
13	650	0.055	0.024	24.06	0.1	596	0.029	46.669	9.054	0.315	44
14	700	0.018	0.008	7.892	0.1	740	*0.002*	2.921	*0.905*	*0.197*	99
15	750	0.049	0.021	21.248	0.1	240	0.026	42.498	11.542	0.225	26
16	800	0.017	0.007	7.24	0.1	749	*0.002*	2.473	*0.876*	*0.173*	528
17	850	0.075	0.032	32.478	0.1	358	0.023	37.699	11.604	0.199	738
18	900	0.013	0.006	5.741	0.1	106	*0.002*	2.597	*1.035*	*0.153*	595
19	950	0.018	0.008	7.987	0.1	108	0.021	33.564	11.547	0.178	717
20	1000	0.018	0.008	8.001	0.1	490	*0.001*	2.188	*0.969*	*0.138*	370
21	1050	0.059	0.026	25.649	0.1	699	0.018	28.987	11.022	0.161	528
22	1100	0.02	0.008	8.485	0.1	106	*0.001*	2.313	*1.127*	*0.125*	744
23	1150	0.024	0.01	10.478	0.1	109	0.014	23.471	9.774	0.147	686
24	1200	0.014	0.006	6.169	0.1	65	*0.001*	2.254	*1.198*	*0.115*	443
25	1250	0.056	0.025	24.528	0.1	240	0.011	18.777	8.5	0.135	739
26	1300	0.015	0.007	6.613	0.1	2	*0.001*	1.991	*1.146*	*0.106*	442
27	1350	0.056	0.024	24.192	0.1	47	0.009	15.108	7.386	0.125	741
28	1400	0.013	0.006	5.633	0.1	750	*0.001*	1.855	*1.15*	*0.099*	361

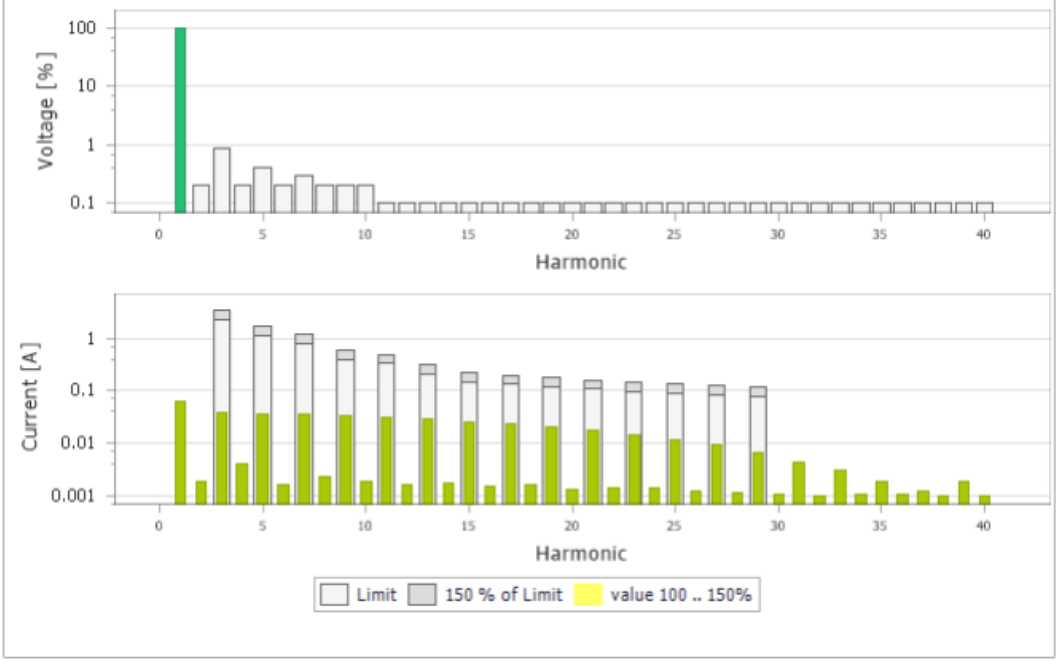
Tested by Chris Liang

Date: 20201102

Reviewed by Jacky Chen

Date: 20201103

29	1450	0.036	0.016	15.582	0.1	51	0.007	10.92	5.734	0.116	469
30	1500	0.012	0.005	5.424	0.1	67	*0.001*	1.745	*1.159*	*0.092*	362
31	1550	0.048	0.021	21.031	0.1	46	*0.004*	7.24	*4.064*	*0.109*	582
32	1600	0.018	0.008	7.637	0.1	2	*0.001*	1.655	*1.173*	*0.086*	363
33	1650	0.023	0.01	10.067	0.1	329	*0.003*	4.946	*2.955*	*0.102*	734
34	1700	0.011	0.005	4.923	0.1	2	*0.001*	1.696	*1.277*	*0.081*	364
35	1750	0.048	0.021	20.936	0.1	122	*0.002*	3.027	*1.918*	*0.096*	687
36	1800	0.012	0.005	5.018	0.1	749	*0.001*	1.769	*1.41*	*0.077*	362
37	1850	0.027	0.012	11.857	0.1	125	*0.001*	2.049	*1.373*	*0.091*	546
38	1900	0.017	0.008	7.529	0.1	749	*0.001*	1.6	*1.346*	*0.073*	365
39	1950	0.037	0.016	16.246	0.1	328	*0.002*	3.131	*2.211*	*0.087*	105
40	2000	0.013	0.005	5.483	0.1	314	*0.001*	1.616	*1.431*	*0.069*	439



Tested by Chris Liang

Date: 20201102

Reviewed by Jacky Chen

Date: 20201103

12 Appendix A.12: Test Plots of Voltage Fluctuations and Flicker

Line in 1

Operation Mode: A1	☒ DPA 500 ☒ ACS 500
Note:	
See page:	

	Test Result	Limit	Observation period
Short term flicker	**P_{ST}: /**	1.0	T_P=10min
Long term flicker	**P_{LT}: /**	0.65	T_P=2h
Maximum time duration	**T_{max}: 0.00 s**	0.5s	
Maximum relative voltage change	**d_{max}: 0.48 %**	6 %	
Relative steady state voltage change	**dc: 0.01 %**	3.3 %	

Tested by Chris Liang Reviewed by Jacky chen

Date: 20201102 Date: 20201103

Line in 2

Operation Mode: A2	☒ DPA 500 ☒ ACS 500
Note:	
See page:	

	Test Result	**Limit**	**Observation period**
Short term flicker	**P_{ST}: /**	1.0	T_P=10min
Long term flicker	**P_{LT}: /**	0.65	T_P=2h
Maximum time duration	**T_{max}: 0.00 s**	0.5s	
Maximum relative voltage change	**d_{max}: 0.51 %**	6 %	
Relative steady state voltage change	**dc: 0.01 %**	3.3 %	

Tested by Chris Liang Date: 20201102

Reviewed by Jacky chen Date: 20201103

Optical in

Operation Mode: A3	☒ DPA 500 ☒ ACS 500
Note:	
See page:	

	Test Result	Limit	Observation period
Short term flicker	**P_{ST}: /**	1.0	T_P=10min
Long term flicker	**P_{LT}: /**	0.65	T_P=2h
Maximum time duration	**T_{max}: 0.00 s**	0.5s	
Maximum relative voltage change	**d_{max}: 0.46 %**	6 %	
Relative steady state voltage change	**dc: 0.01 %**	3.3 %	

Tested by Chris Liang
Date: 20201102

Reviewed by Jacky chen
Date: 20201103

Coaxial in

Operation Mode: A4			☒ DPA 500 ☒ ACS 500
Note:			
See page:			
	Test Result	**Limit**	**Observation period**
Short term flicker	**P_{ST}: /**	1.0	T_P=10min
Long term flicker	**P_{LT}: /**	0.65	T_P=2h
Maximum time duration	**T_{max}: 0.00 s**	0.5s	
Maximum relative voltage change	**d_{max}: 0.56 %**	6 %	
Relative steady state voltage change	**dc: 0.01 %**	3.3 %	

Tested by Chris Liang
Date: 20201102

Reviewed by Jacky chen
Date: 20201103

Bluetooth

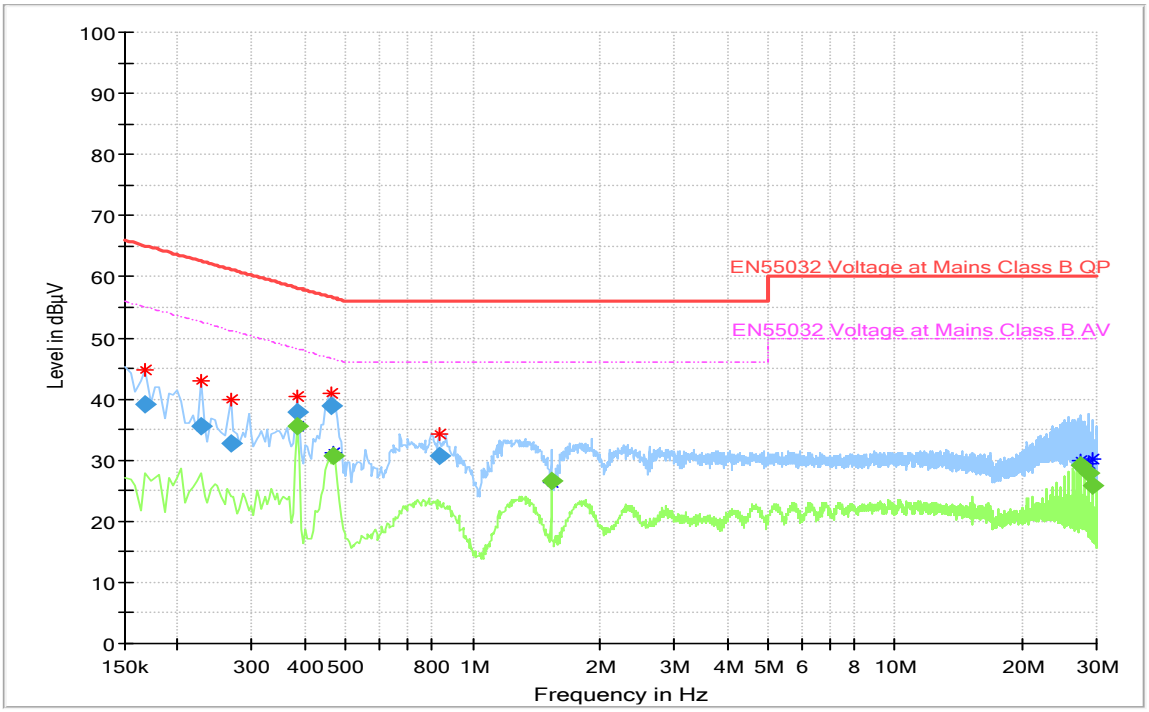
Operation Mode: A5	☒ DPA 500 ☒ ACS 500
Note:	
See page:	

	Test Result	**Limit**	**Observation period**
Short term flicker	**P_{ST}: /**	1.0	T_P=10min
Long term flicker	**P_{LT}: /**	0.65	T_P=2h
Maximum time duration	**T_{max}: 0.00 s**	0.5s	
Maximum relative voltage change	**d_{max}: 0.48 %**	6 %	
Relative steady state voltage change	**dc: 0.01 %**	3.3 %	

Tested by: Chris Liang Reviewed by: Jacky chen
Date: 20201102 Date: 20201103

13 Appendix A.13: Test Plots of Conducted Emission

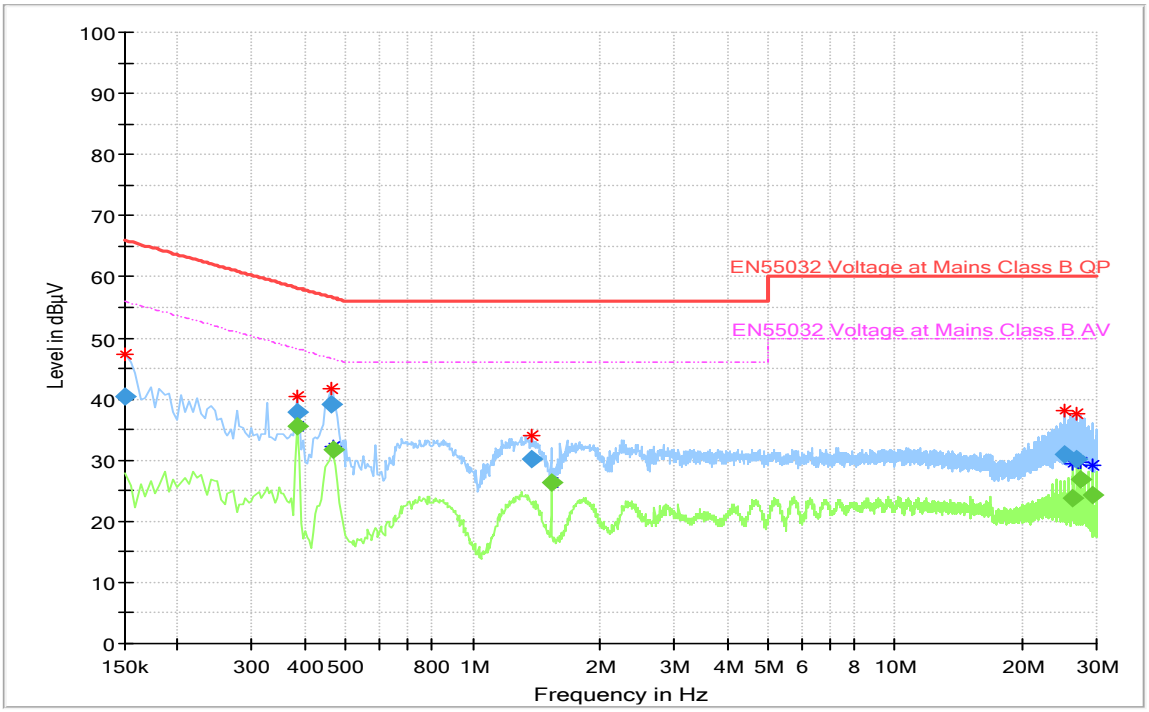
Line in 1



Final_Result

Frequency (MHz)	QuasiPeak (dBµV)	CAverage (dBµV)	Limit (dBµV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)
0.168000	39.03	---	65.06	26.02	1000.	9.000	N	9.6
0.226500	35.53	---	62.58	27.05	1000.	9.000	L1	9.6
0.267000	32.79	---	61.21	28.42	1000.	9.000	N	9.6
0.384000	---	35.65	48.19	12.54	1000.	9.000	L1	9.6
0.384000	37.77	---	58.19	20.42	1000.	9.000	L1	9.6
0.460500	38.84	---	56.68	17.84	1000.	9.000	N	9.6
0.469500	---	30.73	46.52	15.79	1000.	9.000	L1	9.7
0.829500	30.63	---	56.00	25.37	1000.	9.000	N	9.7
1.536000	---	26.53	46.00	19.47	1000.	9.000	L1	9.7
27.631500	---	29.10	50.00	20.90	1000.	9.000	N	10.4
28.810500	---	27.98	50.00	22.02	1000.	9.000	N	10.5
29.400000	---	25.75	50.00	24.25	1000.	9.000	N	10.5

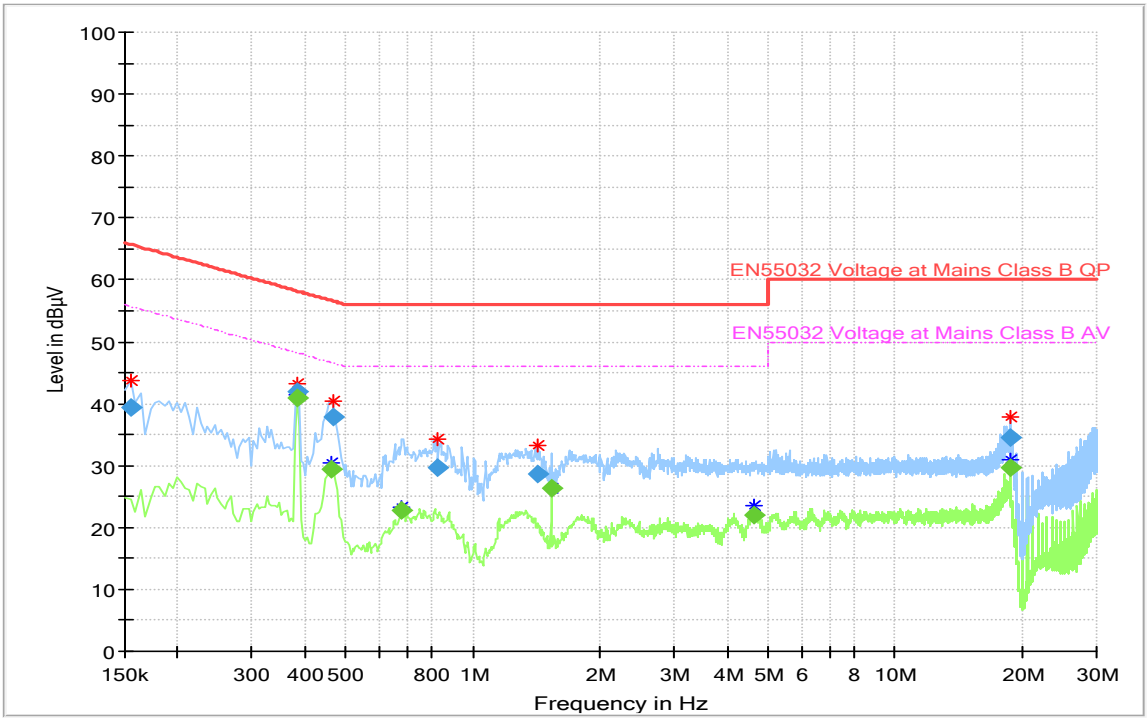
Line in 2



Final_Result

Frequency (MHz)	QuasiPeak (dBµV)	CAverage (dBµV)	Limit (dBµV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)
0.150000	40.45	---	66.00	25.55	1000.	9.000	N	9.6
0.384000	---	35.57	48.19	12.63	1000.	9.000	L1	9.6
0.384000	37.82	---	58.19	20.38	1000.	9.000	L1	9.6
0.460500	39.24	---	56.68	17.44	1000.	9.000	L1	9.7
0.465000	---	31.74	46.60	14.86	1000.	9.000	L1	9.7
1.383000	30.15	---	56.00	25.85	1000.	9.000	N	9.7
1.536000	---	26.22	46.00	19.78	1000.	9.000	L1	9.7
25.278000	30.99	---	60.00	29.01	1000.	9.000	N	10.4
26.457000	---	23.67	50.00	26.33	1000.	9.000	N	10.4
26.772000	30.07	---	60.00	29.93	1000.	9.000	N	10.4
27.631500	---	26.85	50.00	23.15	1000.	9.000	N	10.4
29.395500	---	24.23	50.00	25.77	1000.	9.000	N	10.5

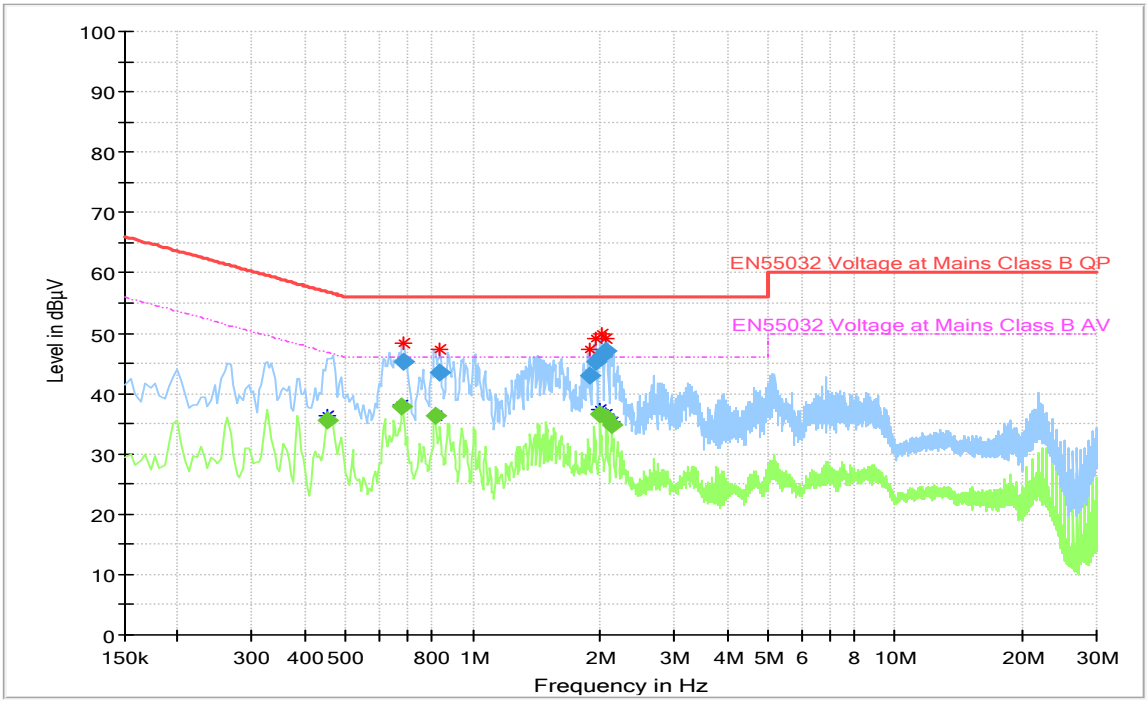
Optical in



Final_Result

Frequency (MHz)	QuasiPeak (dBµV)	CAverage (dBµV)	Limit (dBµV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)
0.154500	39.28	---	65.75	26.47	1000.	9.000	N	9.6
0.384000	41.85	---	58.19	16.34	1000.	9.000	N	9.6
0.384000	---	41.05	48.19	7.15	1000.	9.000	N	9.6
0.460500	---	29.33	46.68	17.35	1000.	9.000	N	9.6
0.465000	37.91	---	56.60	18.69	1000.	9.000	N	9.6
0.681000	---	22.80	46.00	23.20	1000.	9.000	L1	9.7
0.820500	29.76	---	56.00	26.24	1000.	9.000	L1	9.7
1.428000	28.64	---	56.00	27.36	1000.	9.000	L1	9.7
1.536000	---	26.30	46.00	19.70	1000.	9.000	L1	9.7
4.636500	---	22.01	46.00	23.99	1000.	9.000	N	9.9
18.816000	34.62	---	60.00	25.38	1000.	9.000	L1	10.5
18.816000	---	29.72	50.00	20.28	1000.	9.000	L1	10.5

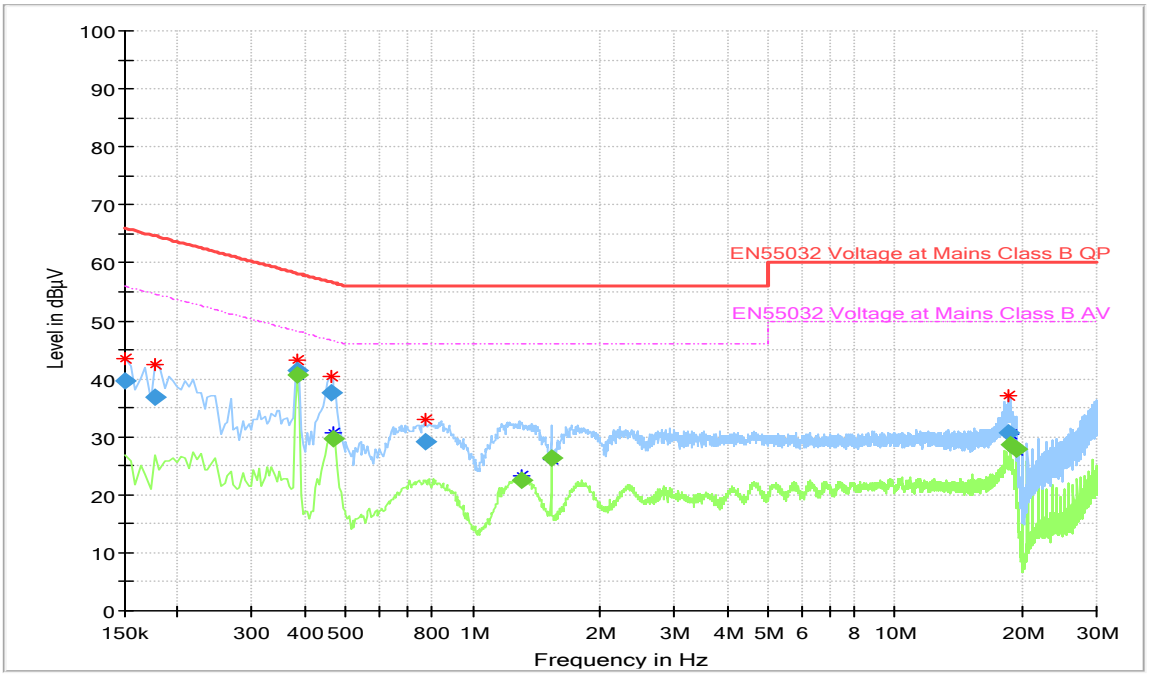
Coaxial in



Final_Result

Frequency (MHz)	QuasiPeak (dBµV)	CAverage (dBµV)	Limit (dBµV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)
0.451500	---	35.55	46.85	11.29	1000.	9.000	N	9.6
0.681000	---	37.77	46.00	8.23	1000.	9.000	N	9.7
0.685500	45.36	---	56.00	10.64	1000.	9.000	L1	9.7
0.811500	---	36.39	46.00	9.61	1000.	9.000	N	9.7
0.834000	43.50	---	56.00	12.50	1000.	9.000	L1	9.7
1.891500	42.88	---	56.00	13.12	1000.	9.000	N	9.7
1.954500	45.28	---	56.00	10.72	1000.	9.000	N	9.7
2.004000	---	36.65	46.00	9.35	1000.	9.000	N	9.7
2.022000	46.18	---	56.00	9.82	1000.	9.000	N	9.7
2.067000	47.02	---	56.00	8.98	1000.	9.000	L1	9.8
2.071500	---	35.95	46.00	10.05	1000.	9.000	N	9.8
2.134500	---	34.82	46.00	11.18	1000.	9.000	L1	9.8

Bluetooth



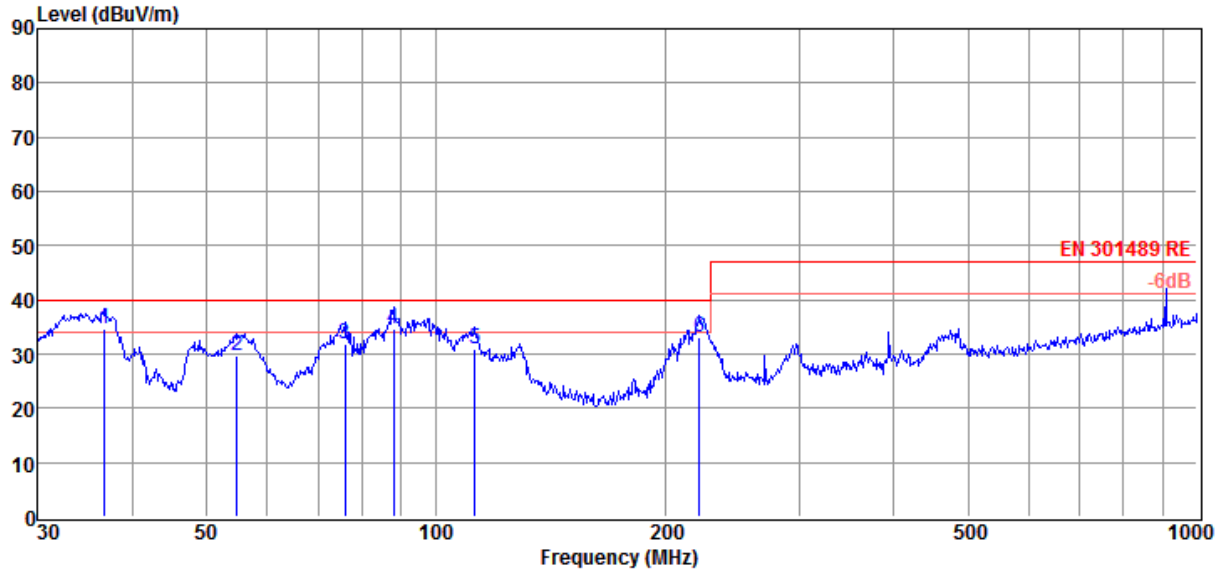
Final_Result

Frequency (MHz)	QuasiPeak (dBµV)	CAverage (dBµV)	Limit (dBµV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)
0.150000	39.73	---	66.00	26.27	1000.	9.000	N	9.6
0.177000	36.72	---	64.63	27.91	1000.	9.000	N	9.6
0.384000	41.46	---	58.19	16.73	1000.	9.000	N	9.6
0.384000	---	40.67	48.19	7.52	1000.	9.000	N	9.6
0.460500	37.67	---	56.68	19.01	1000.	9.000	N	9.6
0.465000	---	29.66	46.60	16.95	1000.	9.000	N	9.6
0.771000	29.16	---	56.00	26.84	1000.	9.000	L1	9.7
1.311000	---	22.45	46.00	23.55	1000.	9.000	N	9.7
1.536000	---	26.29	46.00	19.71	1000.	9.000	L1	9.7
18.586500	30.76	---	60.00	29.24	1000.	9.000	L1	10.5
18.811500	---	28.58	50.00	21.42	1000.	9.000	N	10.5
19.401000	---	27.88	50.00	22.12	1000.	9.000	L1	10.6

14 Appendix A.14 : Radiated Emissions

Test Site	:	DDT 3m Chamber 2#	D:\2020 RE2# Test Data\M\MANBUZHE\1102 RE.EM6		
Test Date	:	2020-11-02	**Tested By**	:	Chunchieh Huang
EUT	:	Speaker	**Model Number**	:	EDF100007
Power Supply	:	AC 240V/50Hz	**Test Mode**	:	BT mode
Condition	:	Temp:24.7°C,Humi:56%,Press:101.4kPa	**Antenna/Distance**	:	2019 VULB 9163 2#/3m/VERTICAL
Memo	:				

Data: 42

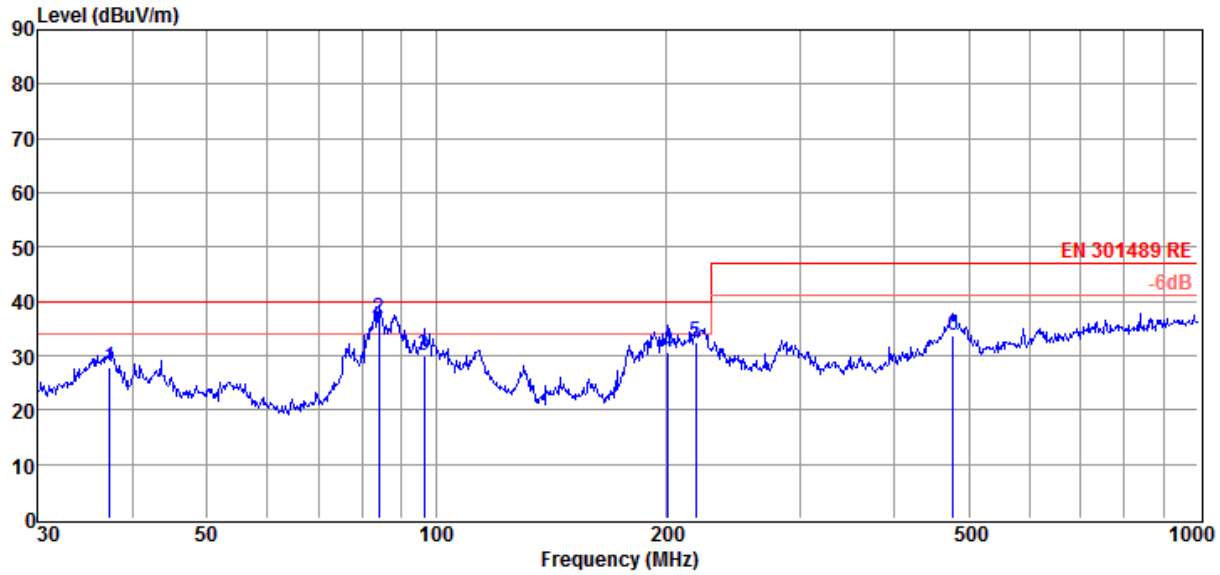


Item (Mark)	Freq. (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	36.77	16.99	13.83	3.68	34.50	40.00	-5.50	QP	VERTICAL
2	54.84	13.33	12.49	3.83	29.65	40.00	-10.35	QP	VERTICAL
3	75.98	19.00	8.85	4.01	31.86	40.00	-8.14	QP	VERTICAL
4	88.03	20.70	9.84	4.11	34.65	40.00	-5.35	QP	VERTICAL
5	112.52	15.55	11.21	4.30	31.06	40.00	-8.94	QP	VERTICAL
6	222.17	15.91	12.07	4.98	32.96	40.00	-7.04	QP	VERTICAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss.
2. If Peak Result complies with QP limit, QP Result is deemed to comply with QP limit.
3. Test setup: RBW: 120 kHz, VBW: 300 kHz, Sweep time: auto.

Test Site	: DDT 3m Chamber 2#	D:\2020 RE2# Test Data\M\MANBUZHE\1102 RE.EM6			
Test Date	: 2020-11-02	**Tested By**	: Chunchieh Huang		
EUT	: Speaker	**Model Number**	: EDF100007		
Power Supply	: AC 240V/50Hz	**Test Mode**	: BT mode		
Condition	: Temp:24.7°C,Humi:56%,Press:101.4kPa	**Antenna/Distance**	: 2019 VULB 9163 2#/3m/HORIZONTAL		
Memo	:				

Data: 43

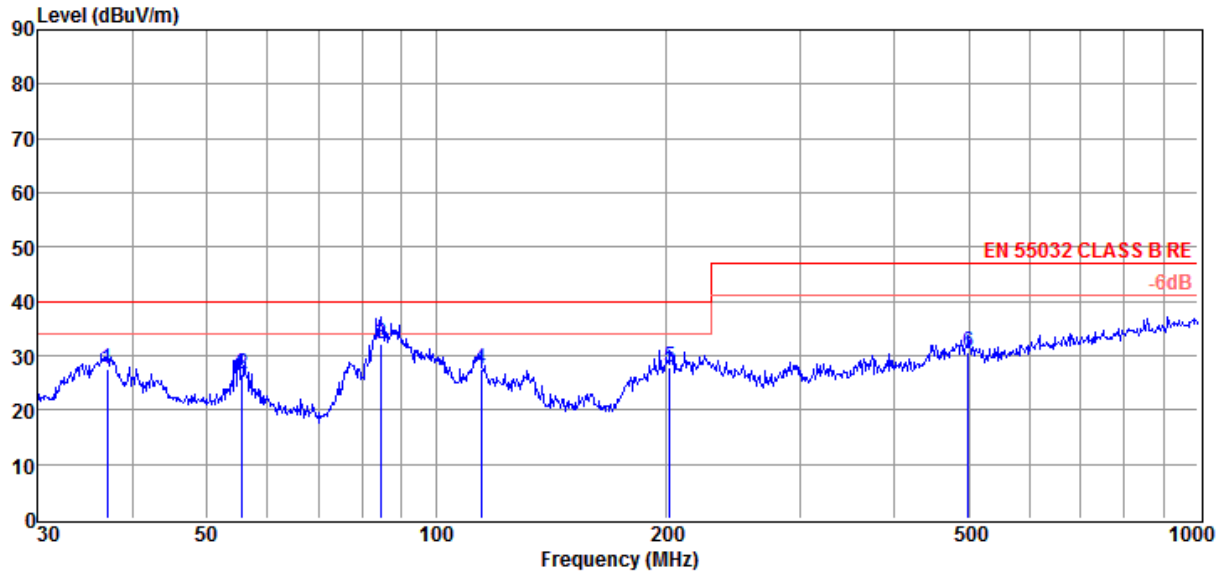


Item (Mark)	Freq. (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	37.29	10.31	13.94	3.68	27.93	40.00	-12.07	QP	HORIZONTAL
2	84.11	23.39	9.30	4.08	36.77	40.00	-3.23	QP	HORIZONTAL
3	96.44	14.66	11.15	4.17	29.98	40.00	-10.02	QP	HORIZONTAL
4	201.39	14.38	11.44	4.85	30.67	40.00	-9.33	QP	HORIZONTAL
5	219.08	15.47	11.98	4.96	32.41	40.00	-7.59	QP	HORIZONTAL
6	477.17	10.18	17.24	6.18	33.60	47.00	-13.40	QP	HORIZONTAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss.
2. If Peak Result complies with QP limit, QP Result is deemed to comply with QP limit.
3. Test setup: RBW: 120 kHz, VBW: 300 kHz, Sweep time: auto.

Test Site	: DDT 3m Chamber 2#	D:\2020 RE2# Test Data\M\MANBUZHE\1102 RE.EM6	
Test Date	: 2020-11-02	**Tested By**	: Chunchieh Huang
EUT	: Speaker	**Model Number**	: EDF100007
Power Supply	: AC 240V/50Hz	**Test Mode**	: Line in 1 mode
Condition	: Temp:24.7°C,Humi:56%,Press:101.4kPa	**Antenna/Distance**	: 2019 VULB 9163 2#/3m/HORIZONTAL
Memo	:		

Data: 44

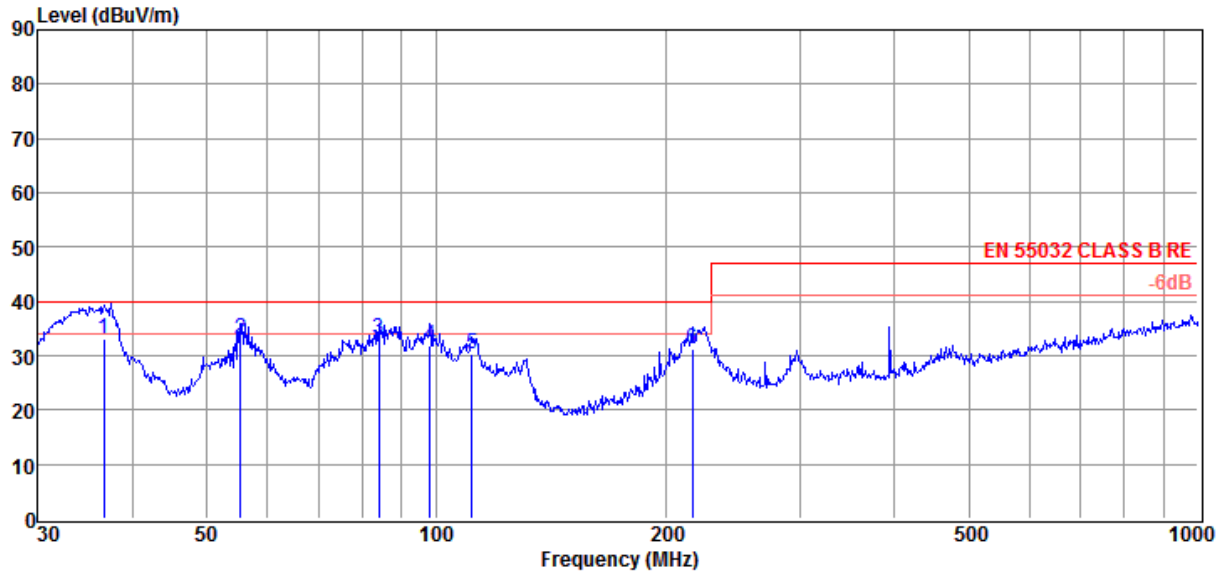


Item (Mark)	Freq. (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	37.03	9.96	13.88	3.68	27.52	40.00	-12.48	QP	HORIZONTAL
2	55.61	10.25	12.37	3.84	26.46	40.00	-13.54	QP	HORIZONTAL
3	84.70	18.60	9.38	4.08	32.06	40.00	-7.94	QP	HORIZONTAL
4	114.52	12.43	10.91	4.32	27.66	40.00	-12.34	QP	HORIZONTAL
5	202.81	11.57	11.49	4.86	27.92	40.00	-12.08	QP	HORIZONTAL
6	499.43	6.68	17.69	6.27	30.64	47.00	-16.36	QP	HORIZONTAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss.
2. If Peak Result complies with QP limit, QP Result is deemed to comply with QP limit.
3. Test setup: RBW: 120 kHz, VBW: 300 kHz, Sweep time: auto.

Test Site	: DDT 3m Chamber 2#	D:\2020 RE2# Test Data\M\MANBUZHE\1102 RE.EM6	
Test Date	: 2020-11-02	**Tested By**	: Chunchieh Huang
EUT	: Speaker	**Model Number**	: EDF100007
Power Supply	: AC 240V/50Hz	**Test Mode**	: Line in 1 mode
Condition	: Temp:24.7°C,Humi:56%,Press:101.4kPa	**Antenna/Distance**	: 2019 VULB 9163 2#/3m/VERTICAL
Memo	:		

Data: 45

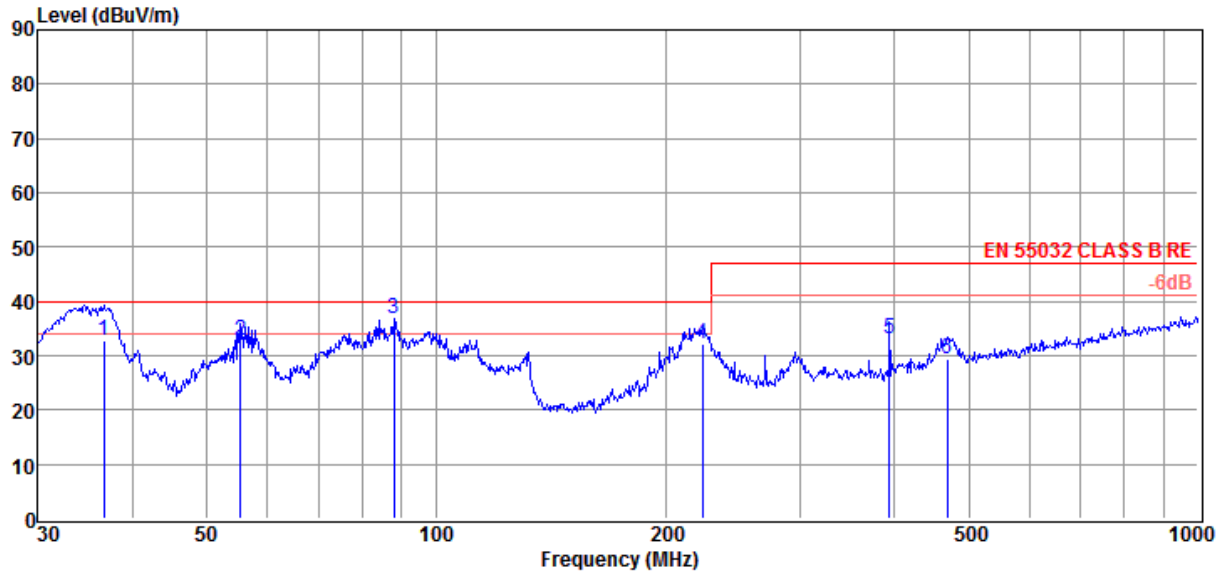


Item (Mark)	Freq. (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	36.64	15.70	13.80	3.67	33.17	40.00	-6.83	QP	VERTICAL
2	55.42	16.70	12.40	3.84	32.94	40.00	-7.06	QP	VERTICAL
3	84.11	19.60	9.30	4.08	32.98	40.00	-7.02	QP	VERTICAL
4	98.14	16.29	11.42	4.19	31.90	40.00	-8.10	QP	VERTICAL
5	111.35	14.64	11.39	4.29	30.32	40.00	-9.68	QP	VERTICAL
6	216.78	14.47	11.92	4.94	31.33	40.00	-8.67	QP	VERTICAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss.
2. If Peak Result complies with QP limit, QP Result is deemed to comply with QP limit.
3. Test setup: RBW: 120 kHz, VBW: 300 kHz, Sweep time: auto.

Test Site	: DDT 3m Chamber 2#	D:\2020 RE2# Test Data\M\MANBUZHE\1102 RE.EM6			
Test Date	: 2020-11-02	**Tested By**	: Chunchieh Huang		
EUT	: Speaker	**Model Number**	: EDF100007		
Power Supply	: AC 240V/50Hz	**Test Mode**	: Line in 2 mode		
Condition	: Temp:24.7°C,Humi:56%,Press:101.4kPa	**Antenna/Distance**	: 2019 VULB 9163 2#/3m/VERTICAL		
Memo	:				

Data: 46

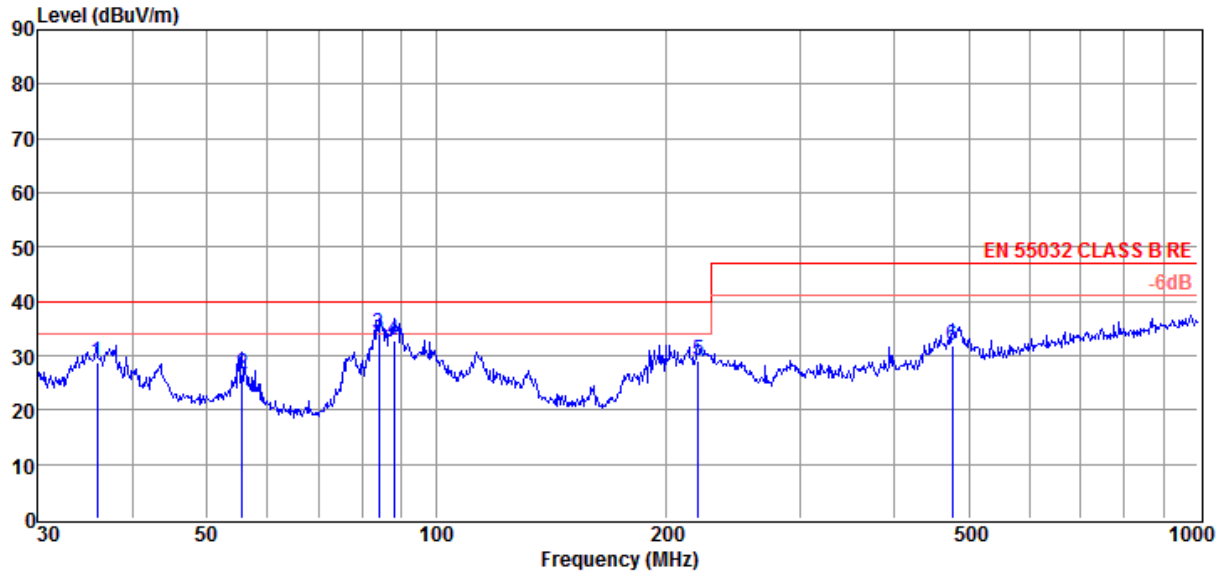


Item (Mark)	Freq. (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	36.64	15.40	13.80	3.67	32.87	40.00	-7.13	QP	VERTICAL
2	55.42	16.56	12.40	3.84	32.80	40.00	-7.20	QP	VERTICAL
3	88.03	22.93	9.84	4.11	36.88	40.00	-3.12	QP	VERTICAL
4	223.73	15.04	12.12	4.98	32.14	40.00	-7.86	QP	VERTICAL
5	393.47	11.98	15.41	5.80	33.19	47.00	-13.81	QP	VERTICAL
6	468.88	6.12	17.07	6.14	29.33	47.00	-17.67	QP	VERTICAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss.
2. If Peak Result complies with QP limit, QP Result is deemed to comply with QP limit.
3. Test setup: RBW: 120 kHz, VBW: 300 kHz, Sweep time: auto.

Test Site	: DDT 3m Chamber 2#	D:\2020 RE2# Test Data\M\MANBUZHE\1102 RE.EM6	
Test Date	: 2020-11-02	**Tested By**	: Chunchieh Huang
EUT	: Speaker	**Model Number**	: EDF100007
Power Supply	: AC 240V/50Hz	**Test Mode**	: Line in 2 mode
Condition	: Temp:24.7°C,Humi:56%,Press:101.4kPa	**Antenna/Distance**	: 2019 VULB 9163 2#/3m/HORIZONTAL
Memo	:		

Data: 47

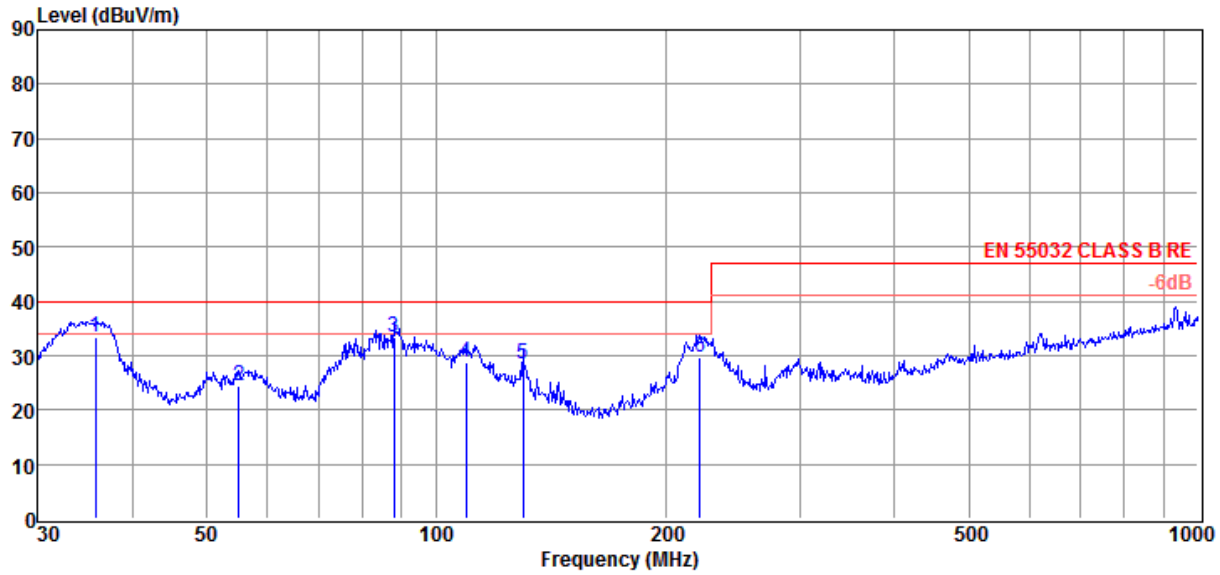


Item (Mark)	Freq. (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	35.88	11.55	13.63	3.67	28.85	40.00	-11.15	QP	HORIZONTAL
2	55.61	10.35	12.37	3.84	26.56	40.00	-13.44	QP	HORIZONTAL
3	84.11	20.50	9.30	4.08	33.88	40.00	-6.12	QP	HORIZONTAL
4	88.03	18.75	9.84	4.11	32.70	40.00	-7.30	QP	HORIZONTAL
5	220.62	12.01	12.03	4.97	29.01	40.00	-10.99	QP	HORIZONTAL
6	475.50	8.40	17.20	6.17	31.77	47.00	-15.23	QP	HORIZONTAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss.
2. If Peak Result complies with QP limit, QP Result is deemed to comply with QP limit.
3. Test setup: RBW: 120 kHz, VBW: 300 kHz, Sweep time: auto.

Test Site	: DDT 3m Chamber 2#	D:\2020 RE2# Test Data\M\MANBUZHE\1102 RE.EM6	
Test Date	: 2020-11-02	**Tested By**	: Chunchieh Huang
EUT	: Speaker	**Model Number**	: EDF100007
Power Supply	: AC 240V/50Hz	**Test Mode**	: OPT in mode
Condition	: Temp:24.7°C,Humi:56%,Press:101.4kPa	**Antenna/Distance**	: 2019 VULB 9163 2#/3m/VERTICAL
Memo	:		

Data: 48

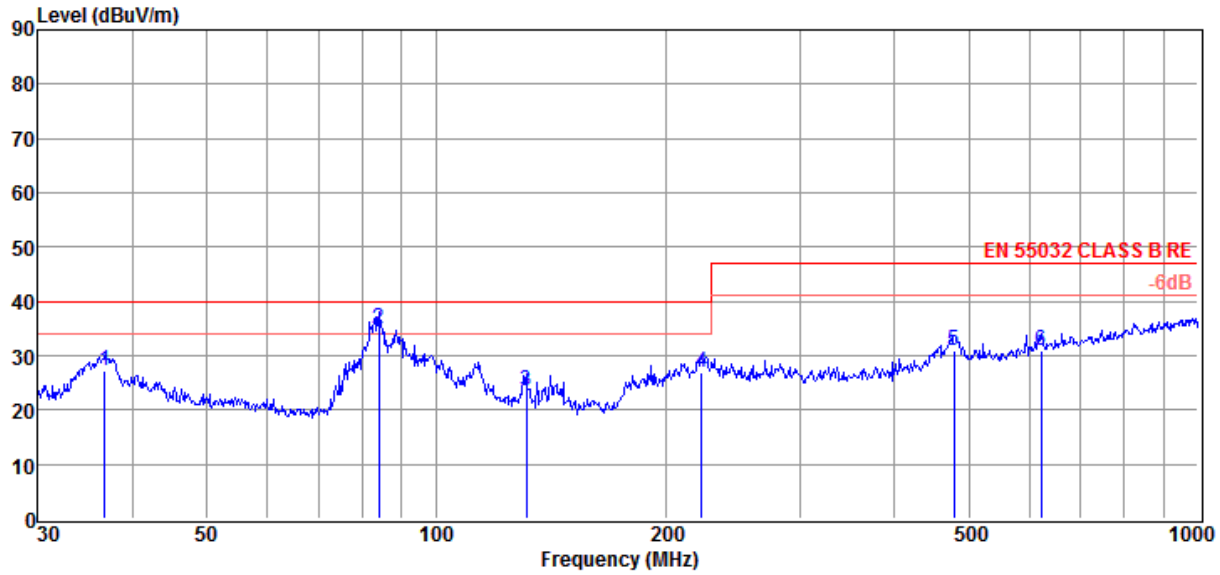


Item (Mark)	Freq. (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	35.75	16.05	13.60	3.67	33.32	40.00	-6.68	QP	VERTICAL
2	55.03	8.03	12.46	3.83	24.32	40.00	-15.68	QP	VERTICAL
3	88.03	19.38	9.84	4.11	33.33	40.00	-6.67	QP	VERTICAL
4	109.41	12.98	11.61	4.28	28.87	40.00	-11.13	QP	VERTICAL
5	129.92	15.14	8.81	4.42	28.37	40.00	-11.63	QP	VERTICAL
6	222.17	12.74	12.07	4.98	29.79	40.00	-10.21	QP	VERTICAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss.
2. If Peak Result complies with QP limit, QP Result is deemed to comply with QP limit.
3. Test setup: RBW: 120 kHz, VBW: 300 kHz, Sweep time: auto.

Test Site	: DDT 3m Chamber 2#	D:\2020 RE2# Test Data\M\MANBUZHE\1102 RE.EM6	
Test Date	: 2020-11-02	**Tested By**	: Chunchieh Huang
EUT	: Speaker	**Model Number**	: EDF100007
Power Supply	: AC 240V/50Hz	**Test Mode**	: OPT in mode
Condition	: Temp:24.7°C,Humi:56%,Press:101.4kPa	**Antenna/Distance**	: 2019 VULB 9163 2#/3m/HORIZONTAL
Memo	:		

Data: 49

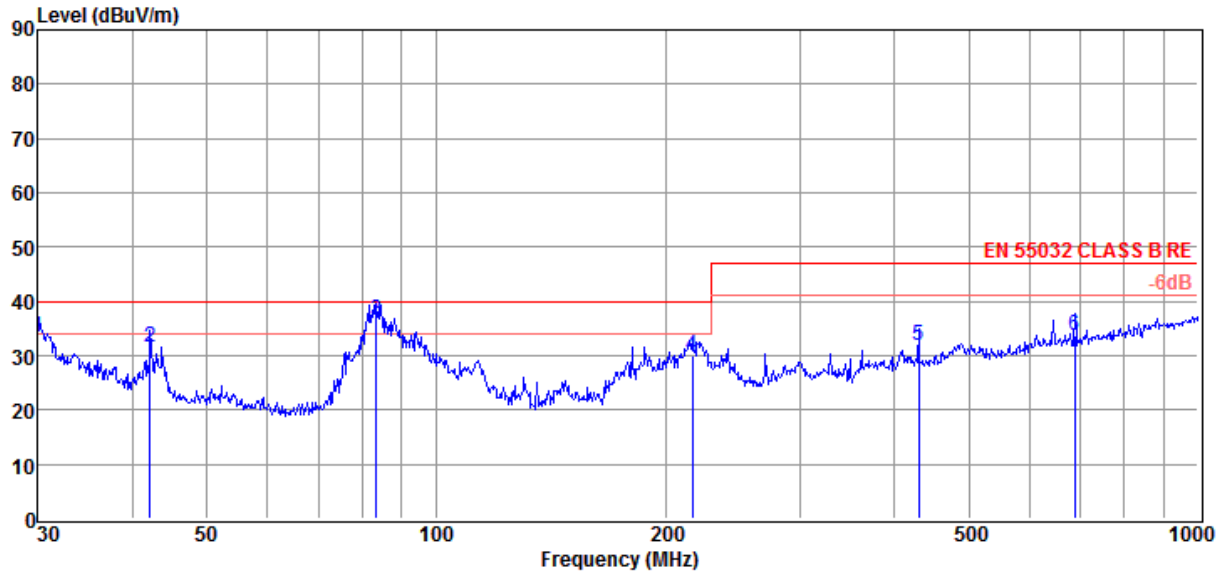


Item (Mark)	Freq. (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	36.77	9.58	13.83	3.68	27.09	40.00	-12.91	QP	HORIZONTAL
2	84.11	21.49	9.30	4.08	34.87	40.00	-5.13	QP	HORIZONTAL
3	131.30	10.29	8.73	4.43	23.45	40.00	-16.55	QP	HORIZONTAL
4	222.95	9.90	12.10	4.98	26.98	40.00	-13.02	QP	HORIZONTAL
5	478.85	7.36	17.27	6.18	30.81	47.00	-16.19	QP	HORIZONTAL
6	622.89	4.68	19.45	6.86	30.99	47.00	-16.01	QP	HORIZONTAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss.
2. If Peak Result complies with QP limit, QP Result is deemed to comply with QP limit.
3. Test setup: RBW: 120 kHz, VBW: 300 kHz, Sweep time: auto.

Test Site	: DDT 3m Chamber 2#	D:\2020 RE2# Test Data\M\MANBUZHE\1102 RE.EM6	
Test Date	: 2020-11-02	**Tested By**	: Chunchieh Huang
EUT	: Speaker	**Model Number**	: EDF100007
Power Supply	: AC 240V/50Hz	**Test Mode**	: COAX in mode
Condition	: Temp:24.7°C,Humi:56%,Press:101.4kPa	**Antenna/Distance**	: 2019 VULB 9163 2#/3m/HORIZONTAL
Memo	:		

Data: 50

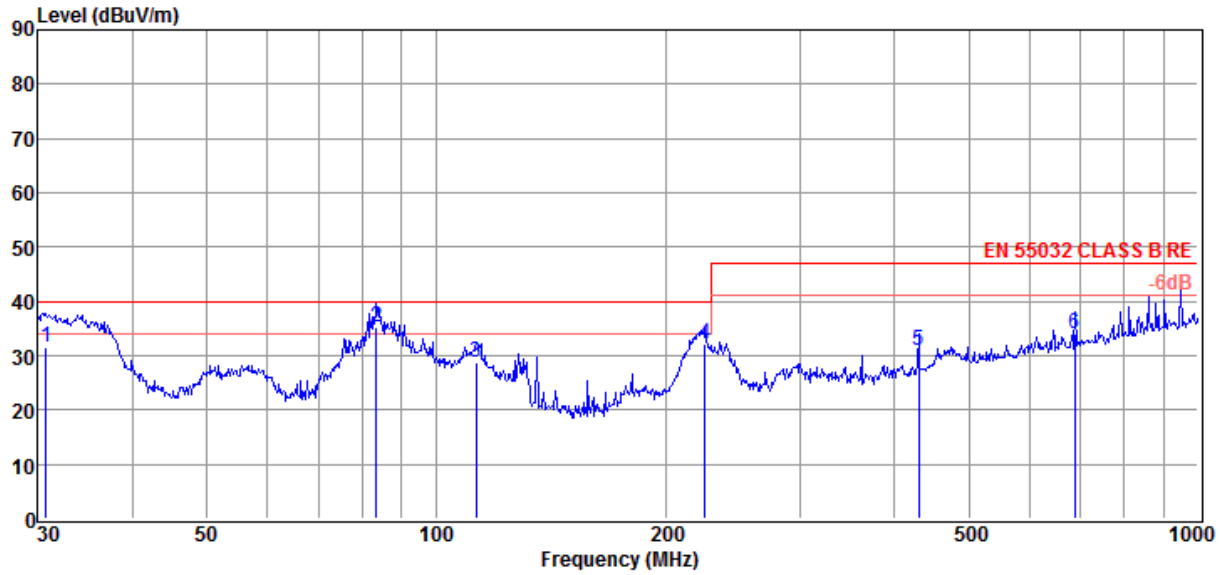


Item (Mark)	Freq. (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	30.00	17.69	12.20	3.61	33.50	40.00	-6.50	QP	HORIZONTAL
2	42.15	13.55	14.22	3.72	31.49	40.00	-8.51	QP	HORIZONTAL
3	83.52	23.30	9.21	4.07	36.58	40.00	-3.42	QP	HORIZONTAL
4	216.78	13.25	11.92	4.94	30.11	40.00	-9.89	QP	HORIZONTAL
5	429.52	9.67	16.20	5.97	31.84	47.00	-15.16	QP	HORIZONTAL
6	689.57	6.65	19.84	7.14	33.63	47.00	-13.37	QP	HORIZONTAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss.
2. If Peak Result complies with QP limit, QP Result is deemed to comply with QP limit.
3. Test setup: RBW: 120 kHz, VBW: 300 kHz, Sweep time: auto.

Test Site	: DDT 3m Chamber 2#	D:\2020 RE2# Test Data\M\MANBUZHE\1102 RE.EM6	
Test Date	: 2020-11-02	**Tested By**	: Chunchieh Huang
EUT	: Speaker	**Model Number**	: EDF100007
Power Supply	: AC 240V/50Hz	**Test Mode**	: COAX in mode
Condition	: Temp:24.7°C,Humi:56%,Press:101.4kPa	**Antenna/Distance**	: 2019 VULB 9163 2#/3m/VERTICAL
Memo	:		

Data: 51

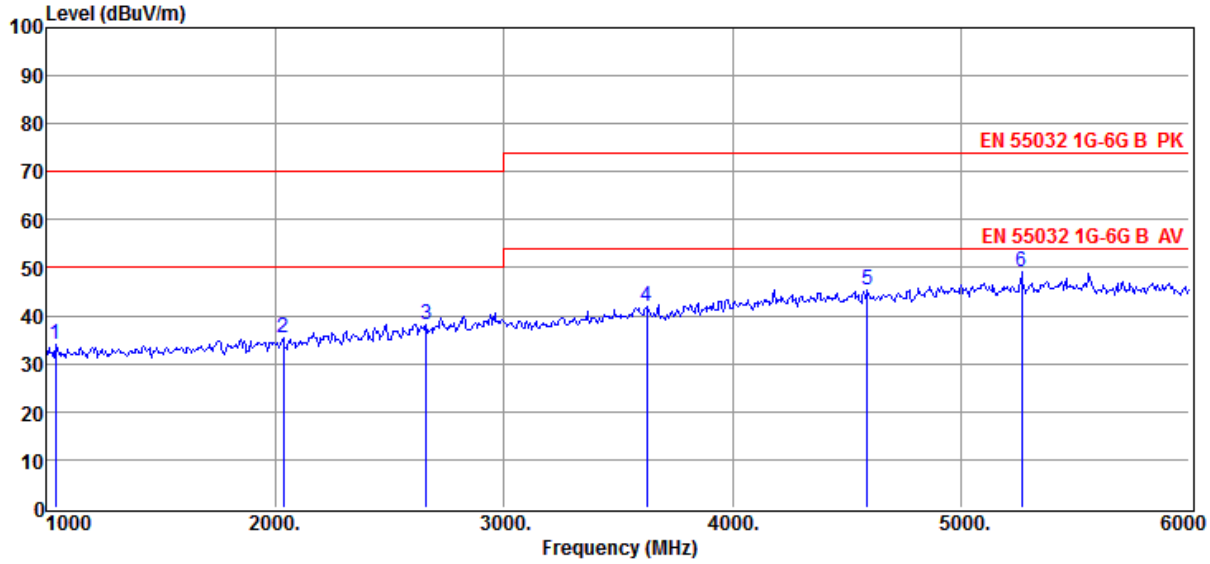


Item (Mark)	Freq. (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	30.75	15.39	12.40	3.62	31.41	40.00	-8.59	QP	VERTICAL
2	83.52	22.00	9.21	4.07	35.28	40.00	-4.72	QP	VERTICAL
3	112.92	13.16	11.15	4.31	28.62	40.00	-11.38	QP	VERTICAL
4	225.31	15.01	12.16	4.99	32.16	40.00	-7.84	QP	VERTICAL
5	429.52	8.91	16.20	5.97	31.08	47.00	-15.92	QP	VERTICAL
6	689.57	7.15	19.84	7.14	34.13	47.00	-12.87	QP	VERTICAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss.
2. If Peak Result complies with QP limit, QP Result is deemed to comply with QP limit.
3. Test setup: RBW: 120 kHz, VBW: 300 kHz, Sweep time: auto.

Test Site	:	DDT 3m Chamber 2#	D:\2020 RE2# Test Data\M\MANBUZHE\1123 RE-H.EM6		
Test Date	:	2020-11-23	**Tested By**	:	Vic Xie
EUT	:	Speaker	**Model Number**	:	EDF100007
Power Supply	:	AC 240V/50Hz	**Test Mode**	:	Line in 1 mode
Condition	:	Temp:24.5 °C,Humi:59%,Press:101.4kPa	**Antenna/Distance**	:	2019 BBHA9120D/3m/VERTICAL
Memo	:				

Data: 13

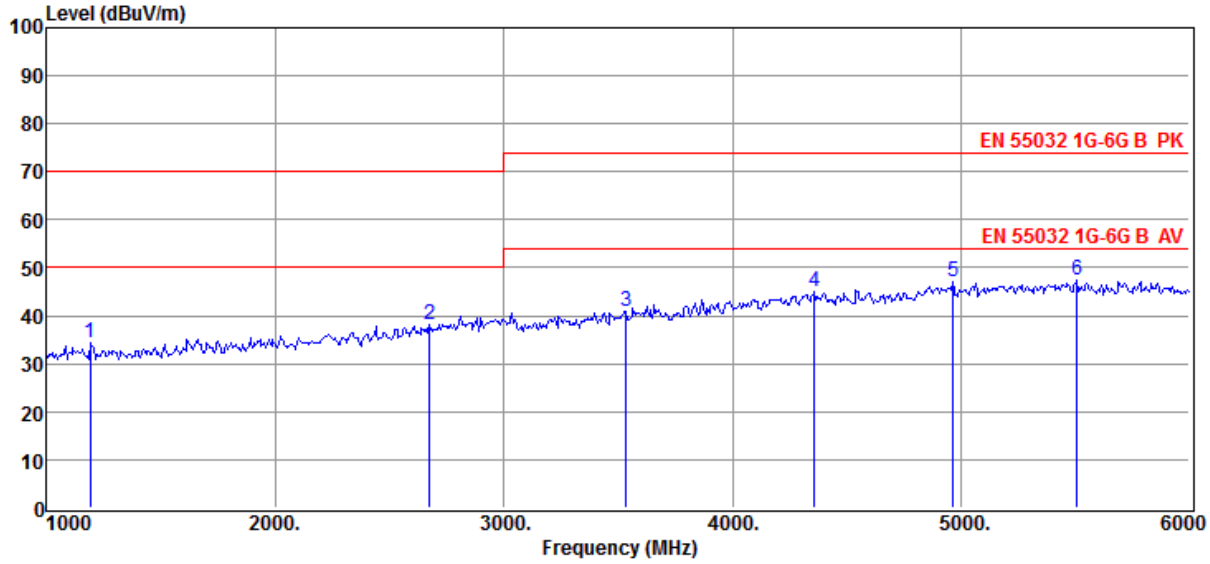


Item (Mark)	Freq. (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	1040.00	47.34	25.13	41.02	2.43	33.88	70.00	-36.12	Peak	VERTICAL
2	2035.00	47.96	26.77	43.02	3.69	35.40	70.00	-34.60	Peak	VERTICAL
3	2660.00	49.09	28.15	43.33	4.29	38.20	70.00	-31.80	Peak	VERTICAL
4	3625.00	50.62	29.62	43.69	5.29	41.84	74.00	-32.16	Peak	VERTICAL
5	4590.00	51.04	31.93	43.56	6.03	45.44	74.00	-28.56	Peak	VERTICAL
6	5265.00	53.24	32.61	43.33	6.46	48.98	74.00	-25.02	Peak	VERTICAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

Test Site	:	DDT 3m Chamber 2#	D:\2020 RE2# Test Data\M\MANBUZHE\1123 RE-H.EM6		
Test Date	:	2020-11-23	**Tested By**	:	Vic Xie
EUT	:	Speaker	**Model Number**	:	EDF100007
Power Supply	:	AC 240V/50Hz	**Test Mode**	:	Line in 1 mode
Condition	:	Temp:24.5 °C,Humi:59%,Press:101.4kPa	**Antenna/Distance**	:	2019 BBHA9120D/3m/HORIZONTAL
Memo	:				

Data: 14

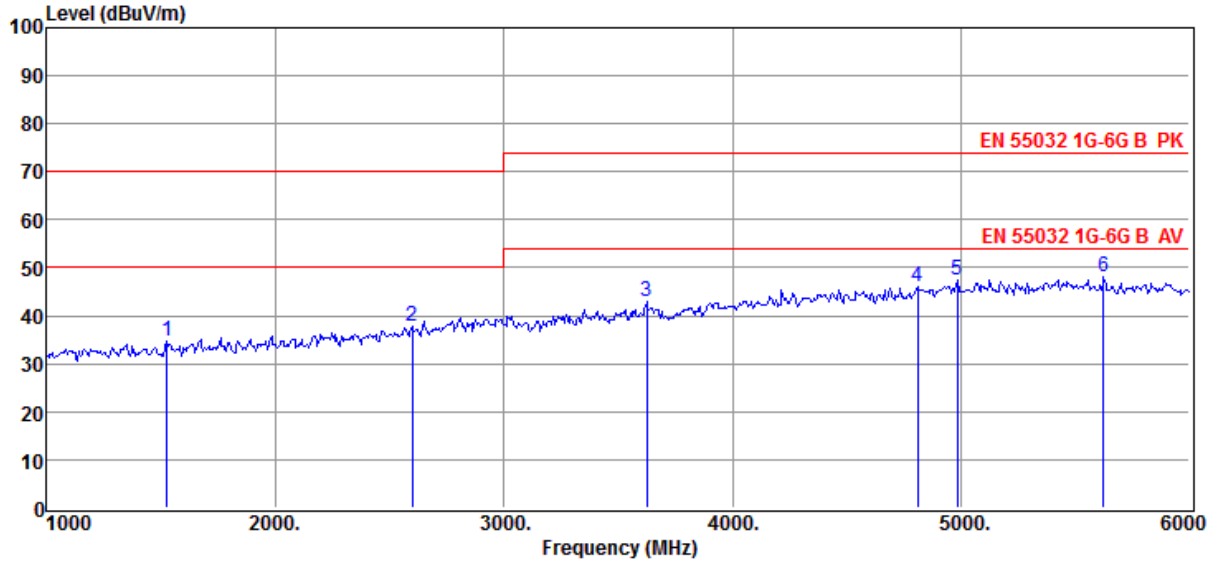


Item (Mark)	Freq. (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	1190.00	47.91	25.25	41.43	2.62	34.35	70.00	-35.65	Peak	HORIZONTAL
2	2675.00	48.84	28.19	43.34	4.31	38.00	70.00	-32.00	Peak	HORIZONTAL
3	3535.00	50.02	29.39	43.66	5.19	40.94	74.00	-33.06	Peak	HORIZONTAL
4	4360.00	51.31	31.46	43.65	5.90	45.02	74.00	-28.98	Peak	HORIZONTAL
5	4965.00	51.89	32.45	43.43	6.25	47.16	74.00	-26.84	Peak	HORIZONTAL
6	5510.00	51.26	32.71	43.25	6.63	47.35	74.00	-26.65	Peak	HORIZONTAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

Test Site	:	DDT 3m Chamber 2#	D:\2020 RE2# Test Data\M\MANBUZHE\1123 RE-H.EM6		
Test Date	:	2020-11-23	**Tested By**	:	Vic Xie
EUT	:	Speaker	**Model Number**	:	EDF100007
Power Supply	:	AC 240V/50Hz	**Test Mode**	:	Line in 2 mode
Condition	:	Temp:24.5 °C,Humi:59%,Press:101.4kPa	**Antenna/Distance**	:	2019 BBHA9120D/3m/HORIZONTAL
Memo	:				

Data: 15

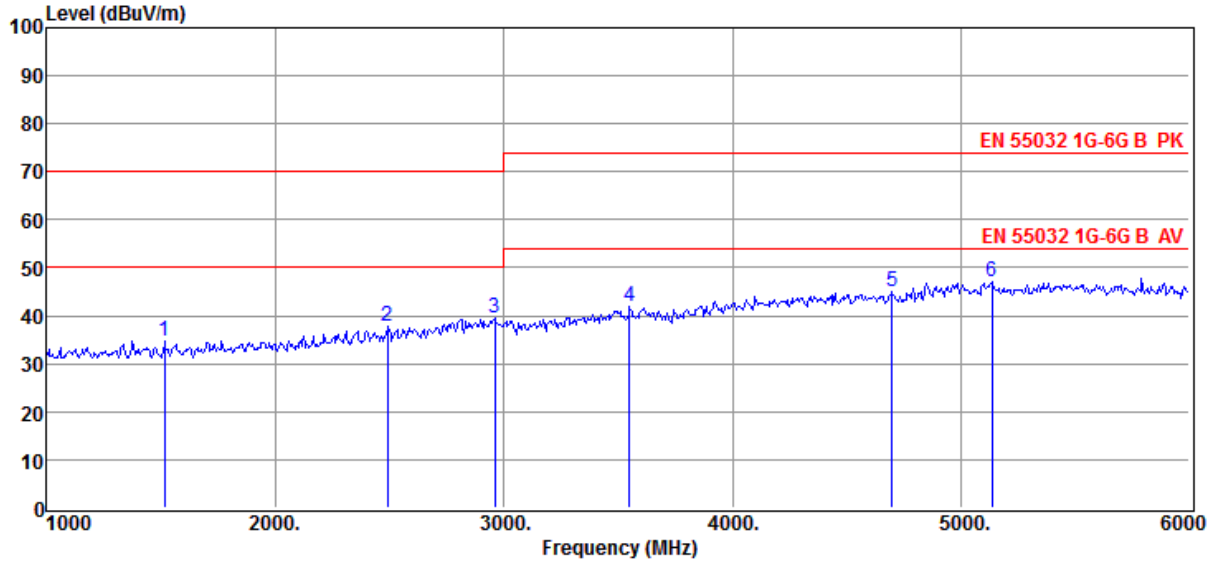


Item (Mark)	Freq. (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	1525.00	48.24	25.56	42.18	3.05	34.67	70.00	-35.33	Peak	HORIZONTAL
2	2600.00	48.77	27.98	43.30	4.24	37.69	70.00	-32.31	Peak	HORIZONTAL
3	3625.00	51.57	29.62	43.69	5.29	42.79	74.00	-31.21	Peak	HORIZONTAL
4	4810.00	51.17	32.23	43.48	6.16	46.08	74.00	-27.92	Peak	HORIZONTAL
5	4985.00	52.26	32.48	43.42	6.26	47.58	74.00	-26.42	Peak	HORIZONTAL
6	5625.00	51.91	32.83	43.21	6.71	48.24	74.00	-25.76	Peak	HORIZONTAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

Test Site	:	DDT 3m Chamber 2#	D:\2020 RE2# Test Data\M\MANBUZHE\1123 RE-H.EM6		
Test Date	:	2020-11-23	**Tested By**	:	Vic Xie
EUT	:	Speaker	**Model Number**	:	EDF100007
Power Supply	:	AC 240V/50Hz	**Test Mode**	:	Line in 2 mode
Condition	:	Temp:24.5 °C,Humi:59%,Press:101.4kPa	**Antenna/Distance**	:	2019 BBHA9120D/3m/VERTICAL
Memo	:				

Data: 16

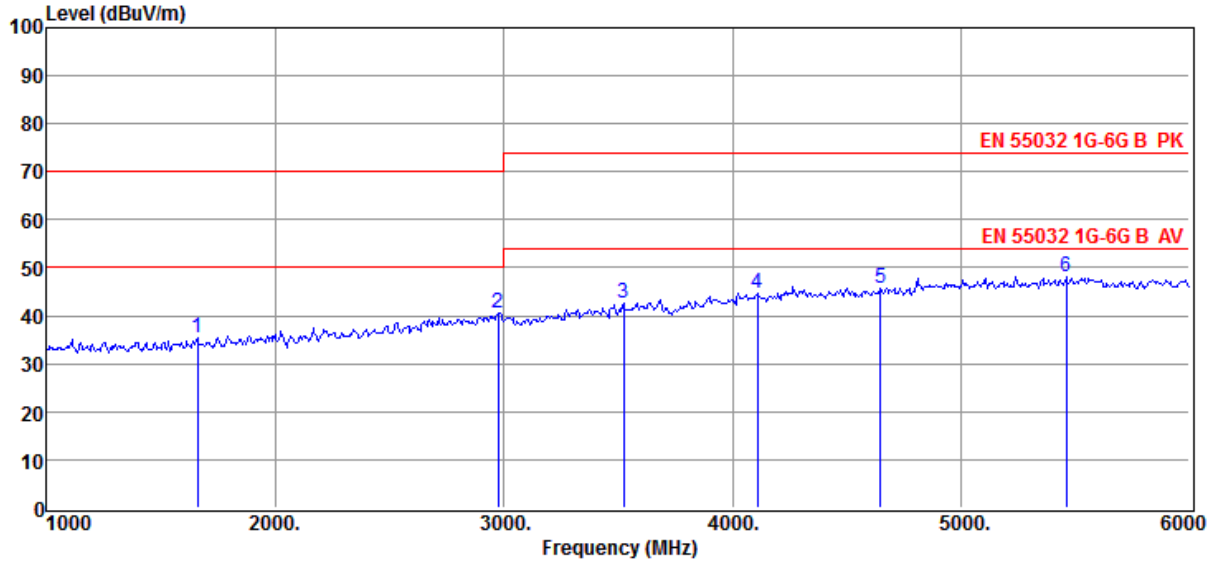


Item (Mark)	Freq. (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	1515.00	48.27	25.54	42.16	3.04	34.69	70.00	-35.31	Peak	VERTICAL
2	2490.00	49.29	27.68	43.25	4.13	37.85	70.00	-32.15	Peak	VERTICAL
3	2960.00	49.48	28.99	43.45	4.58	39.60	70.00	-30.40	Peak	VERTICAL
4	3550.00	50.91	29.43	43.66	5.21	41.89	74.00	-32.11	Peak	VERTICAL
5	4700.00	50.23	32.08	43.52	6.10	44.89	74.00	-29.11	Peak	VERTICAL
6	5135.00	51.69	32.55	43.37	6.36	47.23	74.00	-26.77	Peak	VERTICAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

Test Site	:	DDT 3m Chamber 2#	D:\2020 RE2# Test Data\M\MANBUZHE\1123 RE-H.EM6		
Test Date	:	2020-11-23	**Tested By**	:	Vic Xie
EUT	:	Speaker	**Model Number**	:	EDF100007
Power Supply	:	AC 240V/50Hz	**Test Mode**	:	OPT in mode
Condition	:	Temp:24.5 °C,Humi:59%,Press:101.4kPa	**Antenna/Distance**	:	2019 BBHA9120D/3m/VERTICAL
Memo	:				

Data: 17

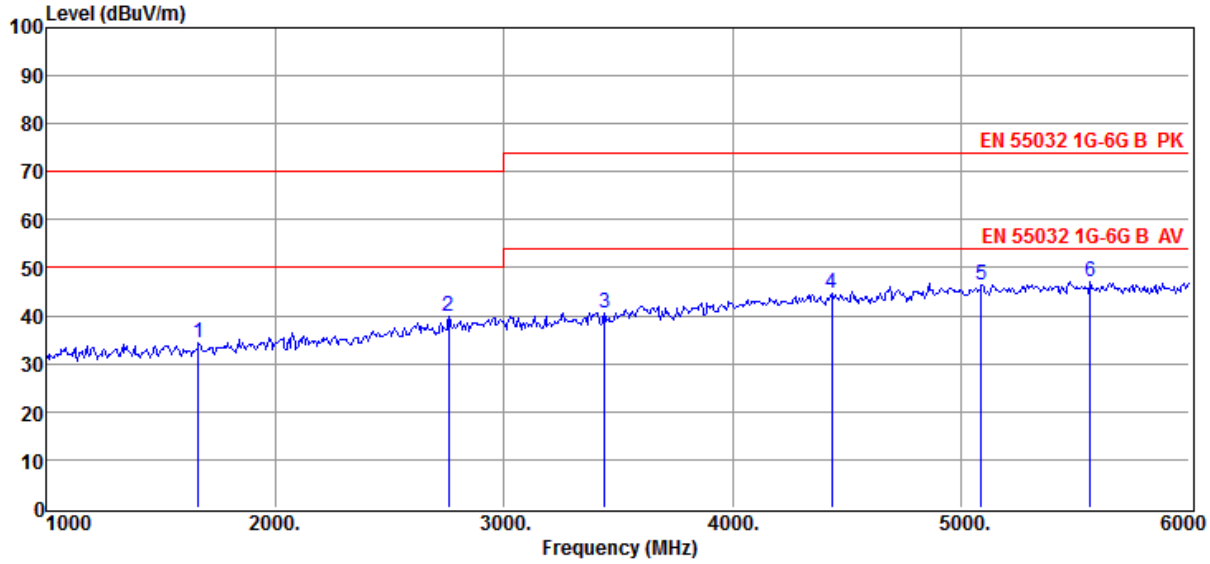


Item (Mark)	Freq. (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	1660.00	48.64	25.88	42.44	3.22	35.30	70.00	-34.70	Peak	VERTICAL
2	2975.00	50.43	29.03	43.46	4.60	40.60	70.00	-29.40	Peak	VERTICAL
3	3525.00	51.89	29.36	43.65	5.18	42.78	74.00	-31.22	Peak	VERTICAL
4	4110.00	51.82	30.86	43.75	5.75	44.68	74.00	-29.32	Peak	VERTICAL
5	4650.00	51.27	32.01	43.54	6.07	45.81	74.00	-28.19	Peak	VERTICAL
6	5460.00	51.96	32.68	43.26	6.59	47.97	74.00	-26.03	Peak	VERTICAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

Test Site	:	DDT 3m Chamber 2#	D:\2020 RE2# Test Data\M\MANBUZHE\1123 RE-H.EM6		
Test Date	:	2020-11-23	**Tested By**	:	Vic Xie
EUT	:	Speaker	**Model Number**	:	EDF100007
Power Supply	:	AC 240V/50Hz	**Test Mode**	:	OPT in mode
Condition	:	Temp:24.5 °C,Humi:59%,Press:101.4kPa	**Antenna/Distance**	:	2019 BBHA9120D/3m/HORIZONTAL
Memo	:				

Data: 18

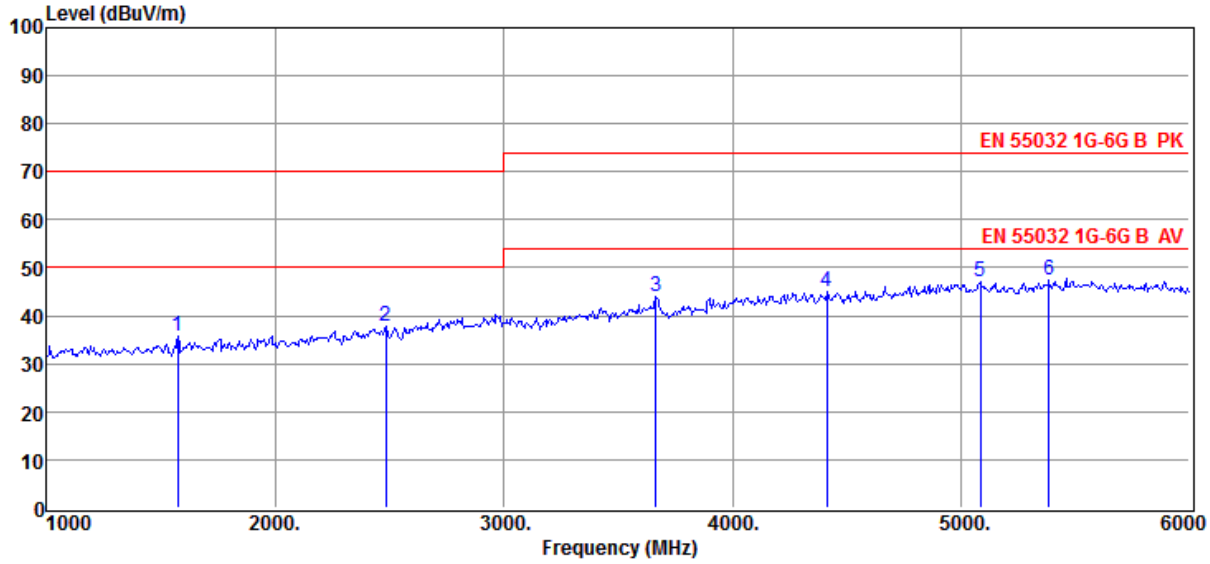


Item (Mark)	Freq. (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	1665.00	47.66	25.90	42.44	3.23	34.35	70.00	-35.65	Peak	HORIZONTAL
2	2760.00	50.26	28.43	43.37	4.39	39.71	70.00	-30.29	Peak	HORIZONTAL
3	3440.00	49.90	29.28	43.63	5.09	40.64	74.00	-33.36	Peak	HORIZONTAL
4	4435.00	50.58	31.64	43.62	5.94	44.54	74.00	-29.46	Peak	HORIZONTAL
5	5090.00	51.07	32.54	43.38	6.33	46.56	74.00	-27.44	Peak	HORIZONTAL
6	5565.00	50.88	32.76	43.23	6.67	47.08	74.00	-26.92	Peak	HORIZONTAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

Test Site	:	DDT 3m Chamber 2#	D:\2020 RE2# Test Data\M\MANBUZHE\1123 RE-H.EM6		
Test Date	:	2020-11-23	**Tested By**	:	Vic Xie
EUT	:	Speaker	**Model Number**	:	EDF100007
Power Supply	:	AC 240V/50Hz	**Test Mode**	:	COAX in mode
Condition	:	Temp:24.5 °C,Humi:59%,Press:101.4kPa	**Antenna/Distance**	:	2019 BBHA9120D/3m/HORIZONTAL
Memo	:				

Data: 19

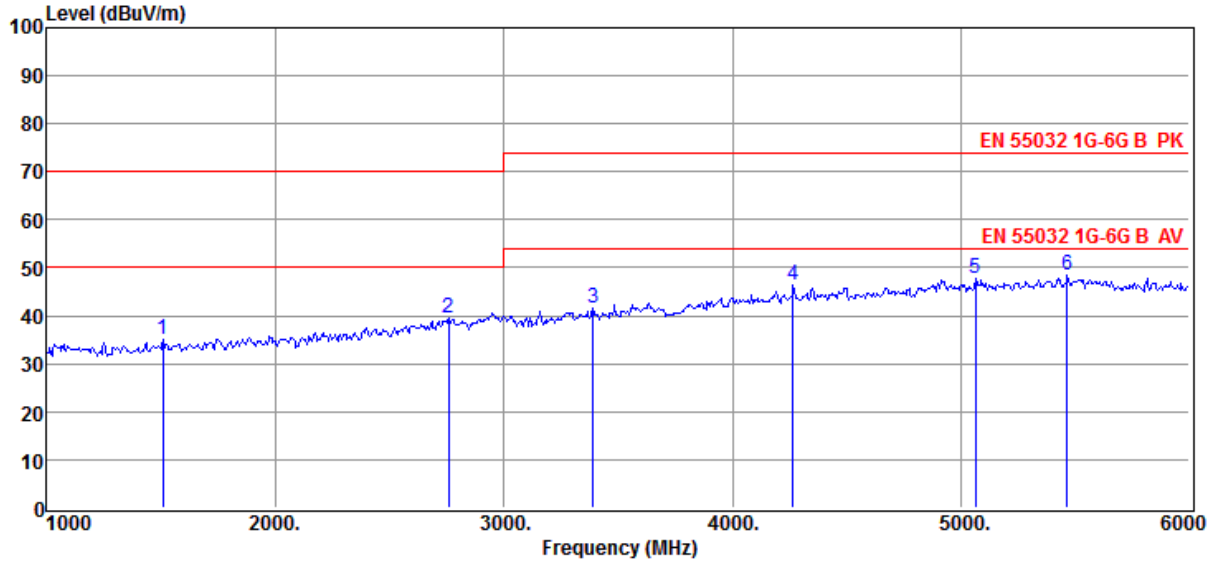


Item (Mark)	Freq. (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	1575.00	49.09	25.68	42.28	3.12	35.61	70.00	-34.39	Peak	HORIZONTAL
2	2485.00	49.37	27.67	43.25	4.13	37.92	70.00	-32.08	Peak	HORIZONTAL
3	3665.00	52.47	29.73	43.70	5.33	43.83	74.00	-30.17	Peak	HORIZONTAL
4	4415.00	51.12	31.60	43.63	5.93	45.02	74.00	-28.98	Peak	HORIZONTAL
5	5085.00	51.62	32.53	43.39	6.33	47.09	74.00	-26.91	Peak	HORIZONTAL
6	5385.00	51.47	32.65	43.29	6.54	47.37	74.00	-26.63	Peak	HORIZONTAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

Test Site	:	DDT 3m Chamber 2#	D:\2020 RE2# Test Data\M\MANBUZHE\1123 RE-H.EM6		
Test Date	:	2020-11-23	**Tested By**	:	Vic Xie
EUT	:	Speaker	**Model Number**	:	EDF100007
Power Supply	:	AC 240V/50Hz	**Test Mode**	:	COAX in mode
Condition	:	Temp:24.5 °C,Humi:59%,Press:101.4kPa	**Antenna/Distance**	:	2019 BBHA9120D/3m/VERTICAL
Memo	:				

Data: 20

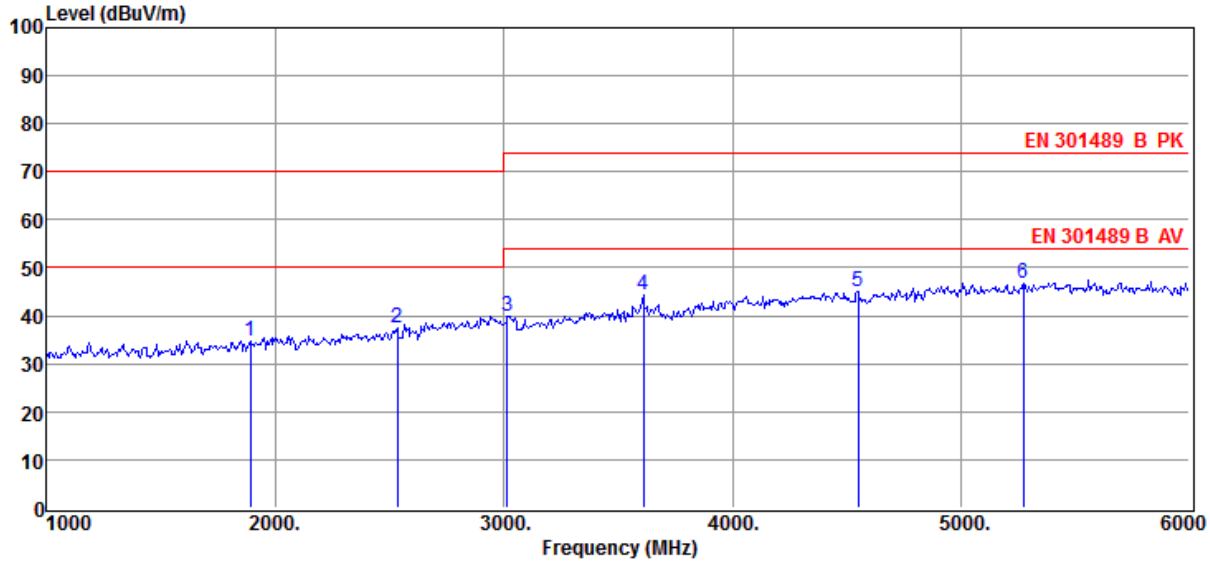


Item (Mark)	Freq. (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	1510.00	48.56	25.52	42.15	3.03	34.96	70.00	-35.04	Peak	VERTICAL
2	2760.00	50.19	28.43	43.37	4.39	39.64	70.00	-30.36	Peak	VERTICAL
3	3390.00	50.96	29.26	43.61	5.04	41.65	74.00	-32.35	Peak	VERTICAL
4	4265.00	53.17	31.24	43.69	5.84	46.56	74.00	-27.44	Peak	VERTICAL
5	5065.00	52.28	32.53	43.39	6.32	47.74	74.00	-26.26	Peak	VERTICAL
6	5465.00	52.43	32.69	43.26	6.60	48.46	74.00	-25.54	Peak	VERTICAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

Test Site	:	DDT 3m Chamber 2#	D:\2020 RE2# Test Data\M\MANBUZHE\1123 RE-H.EM6		
Test Date	:	2020-11-23	**Tested By**	:	Vic Xie
EUT	:	Speaker	**Model Number**	:	EDF100007
Power Supply	:	AC 240V/50Hz	**Test Mode**	:	BT mode
Condition	:	Temp:24.5 °C,Humi:59%,Press:101.4kPa	**Antenna/Distance**	:	2019 BBHA9120D/3m/HORIZONTAL
Memo	:	滤波			

Data: 23

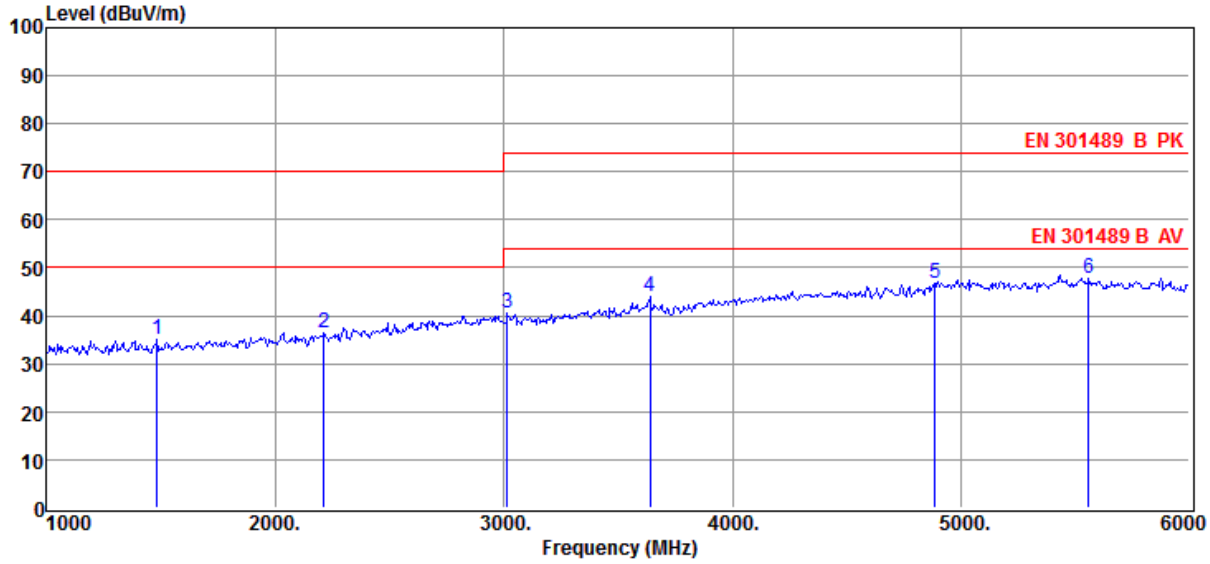


Item (Mark)	Freq. (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	1890.00	47.69	26.44	42.83	3.52	34.82	70.00	-35.18	Peak	HORIZONTAL
2	2535.00	48.61	27.80	43.27	4.17	37.31	70.00	-32.69	Peak	HORIZONTAL
3	3015.00	49.68	29.11	43.47	4.64	39.96	74.00	-34.04	Peak	HORIZONTAL
4	3610.00	53.29	29.59	43.68	5.27	44.47	74.00	-29.53	Peak	HORIZONTAL
5	4550.00	50.82	31.87	43.58	6.01	45.12	74.00	-28.88	Peak	HORIZONTAL
6	5275.00	51.08	32.61	43.32	6.46	46.83	74.00	-27.17	Peak	HORIZONTAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

Test Site	:	DDT 3m Chamber 2#	D:\2020 RE2# Test Data\M\MANBUZHE\1123 RE-H.EM6		
Test Date	:	2020-11-23	**Tested By**	:	Vic Xie
EUT	:	Speaker	**Model Number**	:	EDF100007
Power Supply	:	AC 240V/50Hz	**Test Mode**	:	BT mode
Condition	:	Temp:24.5 °C,Humi:59%,Press:101.4kPa	**Antenna/Distance**	:	2019 BBHA9120D/3m/VERTICAL
Memo	:	滤波			

Data: 24



Item (Mark)	Freq. (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	1485.00	48.58	25.49	42.10	3.00	34.97	70.00	-35.03	Peak	VERTICAL
2	2215.00	48.71	27.13	43.12	3.87	36.59	70.00	-33.41	Peak	VERTICAL
3	3015.00	50.17	29.11	43.47	4.64	40.45	74.00	-33.55	Peak	VERTICAL
4	3640.00	52.87	29.66	43.69	5.30	44.14	74.00	-29.86	Peak	VERTICAL
5	4885.00	51.57	32.34	43.45	6.20	46.66	74.00	-27.34	Peak	VERTICAL
6	5560.00	51.56	32.76	43.23	6.66	47.75	74.00	-26.25	Peak	VERTICAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.