



**SGS-CSTC Standards Technical Services Ltd.
Shenzhen Branch**

No. 1 Workshop, M-10, Middle section, Science & Technology Park,
Shenzhen, Guangdong, China 518057

Telephone: +86 (0) 755 2601 2053
Fax: +86 (0) 755 2671 0594
Email: ee.shenzhen@sgs.com

Report No.: HKES160700136502
Page: 1 of 31

FCC REPORT

Application No.: HKES1607001365IT
Applicant: Qdes Works B.V
Manufacturer/Supplier: Qdes Works B.V
Agent: Qdes Works B.V
Product Name: Digital Wireless Audio system
Model No.(EUT): stageClix jack 5.8GHz V4
FCC ID: 2AJK5-TR001
Country of Origin: Netherlands
Country of Destination: Worldwide
Standards: 47 CFR Part 15, Subpart C (2015)
Date of Receipt: 2016-07-13
Date of Test: 2016-08-17 to 2016-10-11
Date of Issue: 2016-10-12

Test Result:	PASS *
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. * In the configuration tested, the EUT complied with the standards specified above.

Authorized Signature:



Jack Zhang
EMC Laboratory Manager

The manufacturer should ensure that all products in series production are in conformity with the product sample detailed in this report. If the product in this report is used in any configuration other than that detailed in the report, the manufacturer must ensure the new system complies with all relevant standards. Any mention of SGS International Electrical Approvals or testing done by SGS International Electrical Approvals in connection with, distribution or use of the product described in this report must be approved by SGS International Electrical Approvals in writing.



The report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the federal government. All test results in this report can be traceable to National or International Standards.

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2 Version

Revision Record				
Version	Chapter	Date	Modifier	Remark
00		2016-10-12		Original

Authorized for issue by:				
Tested By		 (Peter Geng) /Project Engineer		2016-10-11 Date
Checked By		 (Eric Fu) /Reviewer		2016-10-12 Date



3 Test Summary

Test Item	Test Requirement	Test method	Result
Antenna Requirement	47 CFR Part 15, Subpart C Section 15.203	ANSI C63.10 (2013)	PASS
Field Strength of the Fundamental Signal	47 CFR Part 15, Subpart C Section 15.249 (a)	ANSI C63.10 (2013)	PASS
Spurious Emissions	47 CFR Part 15, Subpart C Section 15.249 (a)/15.209	ANSI C63.10 (2013)	PASS
Restricted bands around fundamental frequency (Radiated Emission)	47 CFR Part 15, Subpart C Section 15.249(a)/15.205	ANSI C63.10 (2013)	PASS
20dB Occupied Bandwidth	47 CFR Part 15, Subpart C Section 15.215 (c)	ANSI C63.10 (2013)	PASS



4 Contents

	Page
1 COVER PAGE.....	1
2 VERSION	2
3 TEST SUMMARY	3
4 CONTENTS	4
5 GENERAL INFORMATION.....	5
5.1 CLIENT INFORMATION.....	5
5.2 GENERAL DESCRIPTION OF EUT	5
5.3 TEST ENVIRONMENT AND MODE	7
5.4 DESCRIPTION OF SUPPORT UNITS	7
5.5 TEST LOCATION	7
5.6 TEST FACILITY	8
5.7 DEVIATION FROM STANDARDS.....	8
5.8 ABNORMALITIES FROM STANDARD CONDITIONS	8
5.9 OTHER INFORMATION REQUESTED BY THE CUSTOMER	8
5.10 EQUIPMENT LIST	9
6 TEST RESULTS AND MEASUREMENT DATA.....	11
6.1 ANTENNA REQUIREMENT	11
6.2 RADIATED EMISSION.....	12
6.3 RESTRICTED BANDS AROUND FUNDAMENTAL FREQUENCY	21
6.4 20DB BANDWIDTH.....	27
7 PHOTOGRAPHS.....	30
7.1 RADIATED EMISSION TEST SETUP.....	30
7.2 EUT CONSTRUCTIONAL DETAILS	31



5 General Information

5.1 Client Information

Applicant:	Qdes Works B.V
Address of Applicant:	Kropaarstraat 12, 1032LA, Amsterdam
Manufacturer/Supplier:	Qdes Works B.V
Agent:	Qdes Works B.V

5.2 General Description of EUT

Name:	Digital Wireless Audio system
Model No.:	stageClix jack 5.8GHz V4
Frequency Range:	5736-5852MHz
Modulation Type:	GFSK
Number of Channels:	Channel Details please refer to the next page
Antenna Type:	Chip antenna
Antenna Gain:	3dBi
Battery:	DC 3.7V, 1000mAh



Note:

In section 15.31(m), regards to the operating frequency range over 10 MHz, the Lowest frequency, the middle frequency, and the highest frequency of channel were selected to perform the test, and the selected channel see below:

Channel	Frequency
The Lowest channel	5736MHz
The Middle channel	5800MHz
The Highest channel	5852MHz



5.3 Test Environment and Mode

Operating Environment:	
Temperature:	25.0 °C
Humidity:	52 % RH
Atmospheric Pressure:	1005 mbar
Test mode:	
Transmitting mode:	Keep the EUT in transmitting mode with modulation.

5.4 Description of Support Units

The EUT has been tested independent unit.

5.5 Test Location

All tests were performed at:

SGS-CSTC Standards Technical Services Co., Ltd., Shenzhen Branch

No. 1 Workshop, M-10, Middle Section, Science & Technology Park, Shenzhen, Guangdong, China.
518057.

Tel: +86 755 2601 2053 Fax: +86 755 2671 0594

No tests were sub-contracted.



5.6 Test Facility

The test facility is recognized, certified, or accredited by the following organizations:

- **CNAS (No. CNAS L2929)**

CNAS has accredited SGS-CSTC Standards Technical Services Co., Ltd. Shenzhen Branch EMC Lab to ISO/IEC 17025:2005 General Requirements for the Competence of Testing and Calibration Laboratories (CNAS-CL01 Accreditation Criteria for the Competence of Testing and Calibration Laboratories) for the competence in the field of testing.

- **A2LA (Certificate No. 3816.01)**

SGS-CSTC Standards Technical Services Co., Ltd., Shenzhen EMC Laboratory is accredited by the American Association for Laboratory Accreditation(A2LA). Certificate No. 3816.01.

- **VCCI**

The 10m Semi-anechoic chamber and Shielded Room of SGS-CSTC Standards Technical Services Co., Ltd. have been registered in accordance with the Regulations for Voluntary Control Measures with Registration No.: G-823, R-4188, T-1153 and C-2383 respectively.

- **FCC – Registration No.: 556682**

SGS-CSTC Standards Technical Services Co., Ltd., Shenzhen EMC Laboratory has been registered and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in our files. Registration No.: 556682.

- **Industry Canada (IC)**

Two 3m Semi-anechoic chambers and the 10m Semi-anechoic chamber of SGS-CSTC Standards Technical Services Co., Ltd. Shenzhen Branch EMC Lab have been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 4620C-1, 4620C-2, 4620C-3.

5.7 Deviation from Standards

None.

5.8 Abnormalities from Standard Conditions

None.

5.9 Other Information Requested by the Customer

None.



5.10 Equipment List

RF connected test						
Item	Test Equipment	Manufacturer	Model No.	Inventory No.	Cal. date (yyyy-mm-dd)	Cal.Due date (yyyy-mm-dd)
1	DC Power Supply	ZhaoXin	RXN-305D	SEM011-02	2016-10-09	2017-10-09
2	Spectrum Analyzer	Rohde & Schwarz	FSP	SEM004-06	2015-10-17	2016-10-17
3	Signal Generator	Rohde & Schwarz	SML03	SEM006-02	2016-04-25	2017-04-25
4	Power Meter	Rohde & Schwarz	NRVS	SEM014-02	2016-10-09	2017-10-09



SGS-CSTC Standards Technical Services Ltd. Shenzhen Branch

Report No.: HKES160700136502

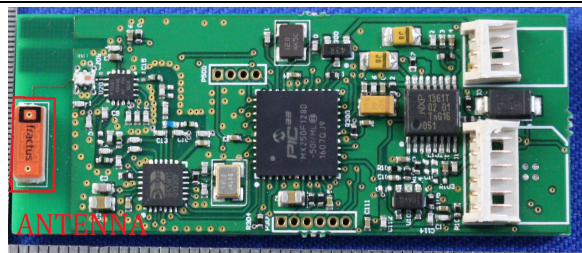
Page : 10 of 31

RE in Chamber						
Item	Test Equipment	Manufacturer	Model No.	Inventory No.	Cal. date (yyyy-mm-dd)	Cal.Due date (yyyy-mm-dd)
1	10m Semi-Anechoic Chamber	SAEMC	FSAC1018	SEM001-03	2016-05-13	2017-05-13
2	EMI Test Receiver (9k-3GHz)	Rohde & Schwarz	ESCI	SEM004-01	2016-04-25	2017-04-25
3	Trilog-Broadband Antenna(30M-1GHz)	Schwarzbeck	VULB9168	SEM003-18	2016-06-29	2019-06-29
4	Pre-amplifier	Sonoma Instrument Co	310N	SEM005-03	2016-07-06	2017-07-06
5	Loop Antenna	ETS-Lindgren	6502	SEM003-08	2015-08-14	2018-08-14

RE in Chamber						
Item	Test Equipment	Manufacturer	Model No.	Inventory No.	Cal. date (yyyy-mm-dd)	Cal.Due date (yyyy-mm-dd)
1	3m Semi-Anechoic Chamber	AUDIX	N/A	SEM001-02	2016-05-13	2017-05-13
2	EMI Test Receiver	Rohde & Schwarz	ESIB26	SEM004-04	2016-04-25	2017-04-25
3	BiConiLog Antenna (26-3000MHz)	ETS-Lindgren	3142C	SEM003-02	2014-11-15	2017-11-15
4	Amplifier (0.1-1300MHz)	HP	8447D	SEM005-02	2016-10-09	2017-10-09
5	Horn Antenna (1-18GHz)	Rohde & Schwarz	HF907	SEM003-07	2015-06-14	2018-06-14
6	Horn Antenna (18-26GHz)	ETS-Lindgren	3160	SEM003-12	2014-11-24	2017-11-24
7	Horn Antenna(26GHz-40GHz)	A.H.Systems, inc.	SAS-573	SEM003-13	2015-02-12	2018-02-12
8	Low Noise Amplifier	Black Diamond Series	BDLNA-0118-352810	SEM005-05	2016-10-09	2017-10-09
9	Band filter	Amindeon	Asi 3314	SEM023-01	N/A	N/A

6 Test results and Measurement Data

6.1 Antenna Requirement

Standard requirement:	47 CFR Part 15C Section 15.203
<p>15.203 requirement:</p> <p>An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator, the manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.</p>	
EUT Antenna:	
<p>The antenna is integrated on the main PCB and no consideration of replacement. The best case gain of the antenna is 3dBi.</p>	



6.2 Radiated Emission

Test Requirement:	47 CFR Part 15C Section 15.249 and 15.209				
Test Method:	ANSI C63.10: 2013				
Test Site:	Measurement Distance: 10m (Semi-Anechoic Chamber) Measurement Distance: 3m (Fully-Anechoic Chamber)				
Receiver Setup:	Frequency	Detector	RBW	VBW	Remark
	0.009MHz-0.090MHz	Peak	10kHz	30KHz	Peak
	0.009MHz-0.090MHz	Average	10kHz	30KHz	Average
	0.090MHz-0.110MHz	Quasi-peak	10kHz	30KHz	Quasi-peak
	0.110MHz-0.490MHz	Peak	10kHz	30KHz	Peak
	0.110MHz-0.490MHz	Average	10kHz	30KHz	Average
	0.490MHz -30MHz	Quasi-peak	10kHz	30kHz	Quasi-peak
	30MHz-1GHz	Quasi-peak	100 kHz	300KHz	Quasi-peak
	Above 1GHz	Peak	1MHz	3MHz	Peak
Peak		1MHz	10Hz	Average	
Limit: (Spurious Emissions)	Frequency	Field strength (microvolt/meter)	Limit (dBuV/m)	Remark	Measurement distance (m)
	0.009MHz-0.490MHz	2400/F(kHz)	-	-	300
	0.490MHz-1.705MHz	24000/F(kHz)	-	-	30
	1.705MHz-30MHz	30	-	-	30
	30MHz-88MHz	100	40.0	Quasi-peak	3
	88MHz-216MHz	150	43.5	Quasi-peak	3
	216MHz-960MHz	200	46.0	Quasi-peak	3
	960MHz-1GHz	500	54.0	Quasi-peak	3
	Above 1GHz	500	54.0	Average	3
			74.0	Peak	3
	Note: 15.35(b), Unless otherwise specified, the limit on peak radio frequency emissions is 20dB above the maximum permitted average emission limit applicable to the equipment under test. This peak limit applies to the total peak emission level radiated by the device.				
Limit: (Field strength of the fundamental signal)	Frequency	Limit (dBuV/m @3m)		Remark	
	2400MHz-2483.5MHz	94.0		Average Value	
		114.0		Peak Value	

Test Setup:

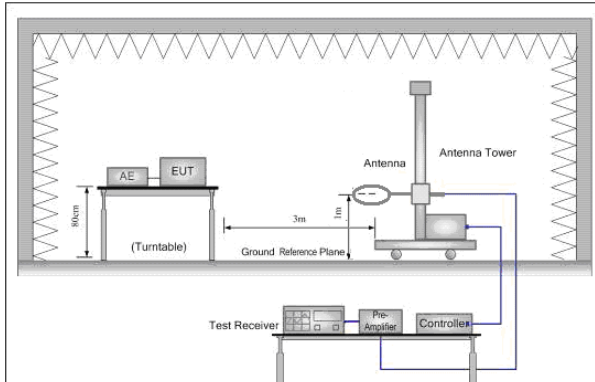


Figure 1. Below 30MHz

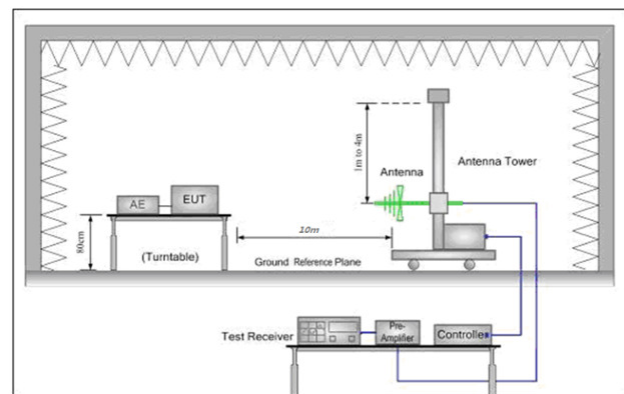


Figure 2. 30MHz to 1GHz

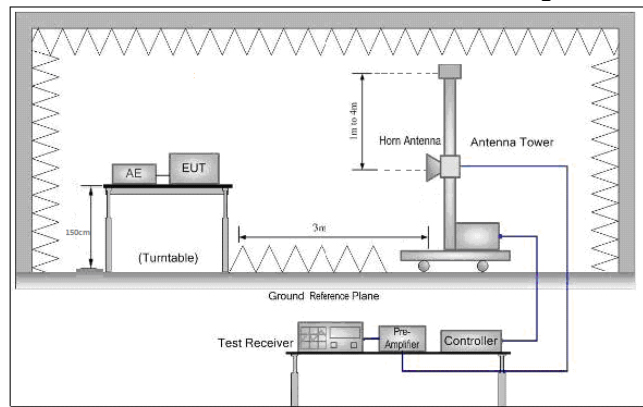


Figure 3. Above 1 GHz

Test Procedure:

- For below 1GHz, the EUT was placed on the top of a rotating table 0.8 meters above the ground at a 10meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
- For above 1GHz, the EUT was placed on the top of a rotating table 1.5 meters above the ground at a 3 meter Fully-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
- The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters (for the test frequency of below 30MHz, the antenna was tuned to heights 1 meter) and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.



SGS-CSTC Standards Technical Services Ltd. Shenzhen Branch

Report No.: HKES160700136502

Page : 14 of 31

	<p>g. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.</p> <p>h. Test the EUT in the lowest channel,the middle channel,the Highest channel</p> <p>i. The radiation measurements are performed in X, Y, Z axis positioning for Transmitting mode,And found the Z axis positioning which it is worse case .</p> <p>j. Repeat above procedures until all frequencies measured was complete.</p>
Final Test Mode:	Transmitting mode
Instruments Used:	Refer to section 5.10 for details
Test Results:	Pass



Measurement Data

6.2.1.1 Field Strength Of The Fundamental Signal

Peak value:

Frequency (MHz)	Cable Loss (dB)	Antenna Factor (dB/m)	Preamplifier Factor (dB)	Read Level (dBuV)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5736.00	8.48	34.54	39.03	102.46	106.45	114	7.55	Horizontal
5736.00	8.48	34.54	39.03	93.58	97.57	114	16.43	Vertical
5800.00	8.56	34.58	39.02	106.14	110.26	114	3.74	Horizontal
5800.00	8.56	34.58	39.02	93.37	97.49	114	16.51	Vertical
5852.00	8.61	34.61	39.01	102.31	106.52	114	7.48	Horizontal
5852.00	8.61	34.61	39.01	92.79	97.00	114	17.00	Vertical

Average value:

Frequency (MHz)	Cable Loss (dB)	Antenna Factor (dB/m)	Preamplifier Factor (dB)	Read Level (dBuV)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5736.00	8.48	34.54	39.03	84.13	88.12	94.00	5.88	Horizontal
5736.00	8.48	34.54	39.03	75.32	79.31	94.00	14.69	Vertical
5800.00	8.56	34.58	39.02	86.22	90.34	94.00	3.66	Horizontal
5800.00	8.56	34.58	39.02	74.81	78.93	94.00	15.07	Vertical
5852.00	8.61	34.61	39.01	82.92	87.13	94.00	6.87	Horizontal
5852.00	8.61	34.61	39.01	75.82	80.03	94.00	13.97	Vertical



6.2.1.2 Spurious Emissions

The test was performed at a 10m test site. According to below formulate and the test data at 10m test distance,

$$L_3 / L_{10} = D_{10} / D_3$$

Note:

L_3 : Level @ 3m distance. Unit: uV/m;

L_{10} : Level @ 10m distance. Unit: uV/m;

D_3 : 3m distance. Unit: m

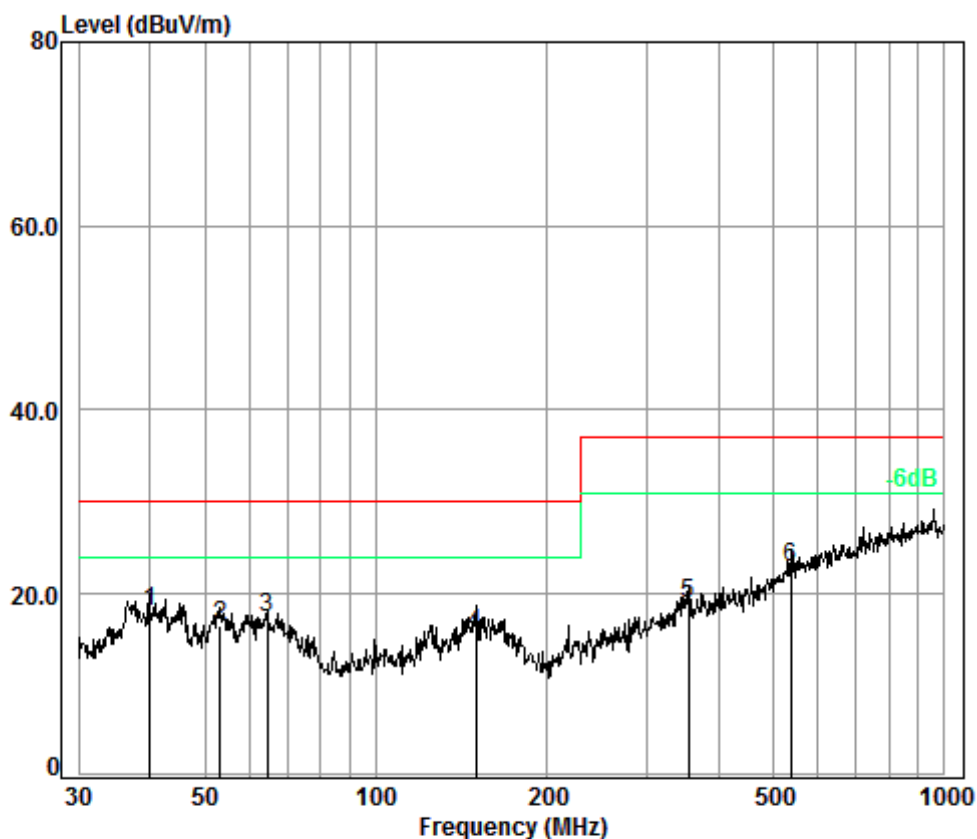
D_{10} : 10m distance. Unit: m

The level at 3m test distance is below:

Frequency (MHz)	Level @ 10m (dBuV/m)	Level @ 10m (uV/m)	Level @ 3m (uV/m)	Level @ 3m (dBuV/m)	Limit @ 3m (dBuV/m)	Margin (dB)	Ant. Polarization
39.99	18.08	8.02	26.72	28.54	40.00	-11.46	V
53.32	16.61	6.77	22.56	27.07	40.00	-12.93	V
64.43	17.34	7.36	24.54	27.80	40.00	-12.20	V
150.01	15.72	6.11	20.36	26.18	43.50	-17.32	V
354.18	18.97	8.88	29.61	29.43	46.00	-16.57	V
537.59	22.80	13.80	46.01	33.26	46.00	-12.74	V
42.45	13.52	4.74	15.81	23.98	40.00	-16.02	H
154.82	21.91	12.46	41.53	32.37	43.50	-11.13	H
344.39	16.23	6.48	21.60	26.69	46.00	-19.31	H
467.24	19.63	9.58	31.94	30.09	46.00	-15.91	H
706.70	24.03	15.90	53.01	34.49	46.00	-11.51	H
945.44	25.66	19.19	63.96	36.12	46.00	-9.88	H



30MHz~1GHz		
Test mode:	Transmitting	Vertical



Condition: 10m VERTICAL

Job No. : 1365IT

Test Mode: TX

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1 pp	39.99	6.80	13.32	32.99	30.95	18.08	30.00	-11.92
2	53.32	6.97	12.51	32.98	30.11	16.61	30.00	-13.39
3	64.43	7.00	11.11	32.93	32.16	17.34	30.00	-12.66
4	150.01	7.45	13.41	32.74	27.60	15.72	30.00	-14.28
5	354.18	8.27	13.93	32.60	29.37	18.97	37.00	-18.03
6	537.59	8.74	17.50	32.60	29.16	22.80	37.00	-14.20

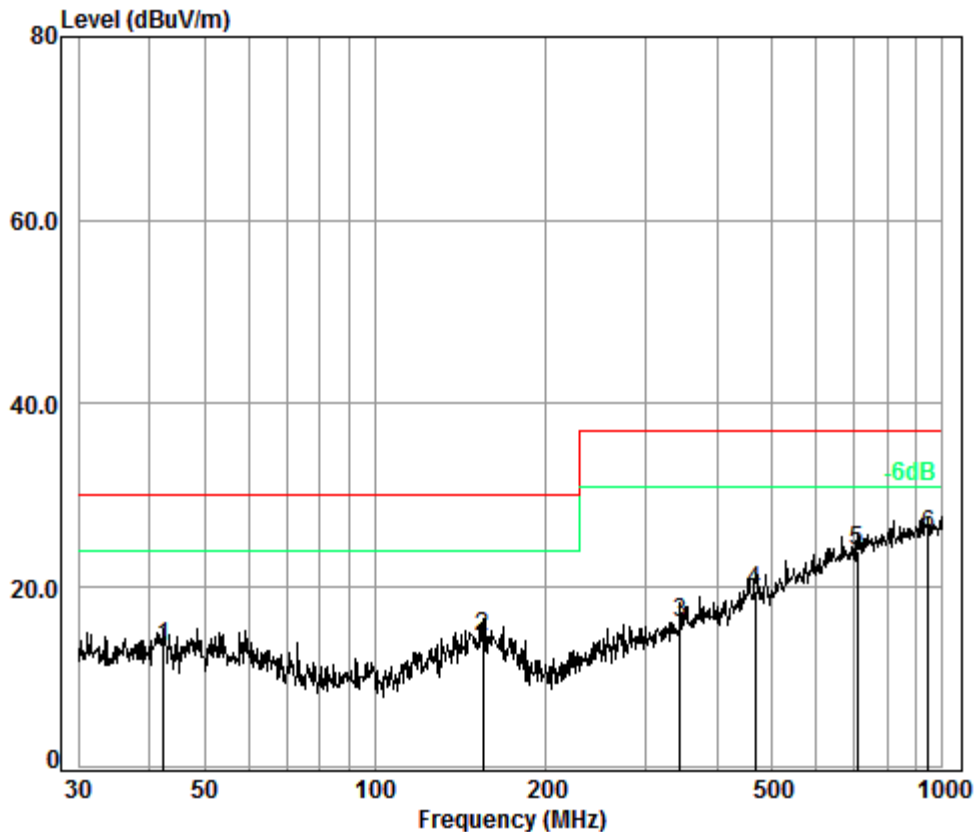


SGS-CSTC Standards Technical Services Ltd.
Shenzhen Branch

Report No.: HKES160700136502

Page : 18 of 31

Test mode:	Transmitting	Horizontal
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Condition: 10m HORIZONTAL

Job No. : 1365IT

Test Mode: TX

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1	42.45	6.80	13.11	32.99	26.60	13.52	30.00	-16.48
2	154.82	7.48	13.40	32.74	26.49	14.63	30.00	-15.37
3	344.39	8.22	13.74	32.60	26.87	16.23	37.00	-20.77
4	467.24	8.47	16.37	32.60	27.39	19.63	37.00	-17.37
5	706.70	9.17	20.21	32.60	27.25	24.03	37.00	-12.97
6 pp	945.44	9.56	22.70	32.50	25.90	25.66	37.00	-11.34



SGS-CSTC Standards Technical Services Ltd. Shenzhen Branch

Report No.: HKES160700136502

Page : 19 of 31

Above 1GHz								
Test mode:		Transmitting		Test channel:		Lowest		Remark:
Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Read Level (dBuV)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
11450	38.06	13.96	37.76	46.47	60.73	74	-13.27	Vertical
11450	38.06	13.96	37.76	38.77	53.03	74	-20.97	Horizontal

Test mode:		Transmitting		Test channel:		Lowest		Remark:
Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Read Level (dBuV)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
11450	38.06	13.96	37.76	34.5	48.76	54	-5.24	Vertical

Test mode:		Transmitting		Test channel:		Middle		Remark:
Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Read Level (dBuV)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
11600	38.2	14.13	37.91	46.12	60.54	74	-13.46	Vertical
11600	38.2	14.13	37.91	38.82	53.24	74	-20.76	Horizontal

Test mode:		Transmitting		Test channel:		Middle		Remark:
Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Read Level (dBuV)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
11600	38.2	14.13	37.91	33.83	48.25	54	-5.75	Vertical

Test mode:		Transmitting		Test channel:		Highest		Remark:
Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Read Level (dBuV)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
11704	38.31	14.24	38.01	45.81	60.35	74	-13.65	Vertical
11704	38.31	14.24	38.01	38.31	52.85	74	-21.15	Horizontal

Test mode:		Transmitting		Test channel:		Highest		Remark:
Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Read Level (dBuV)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
11704	38.31	14.24	38.01	33.25	47.79	54	-6.21	Vertical



SGS-CSTC Standards Technical Services Ltd. Shenzhen Branch

Report No.: HKES160700136502

Page : 20 of 31

Remark:

- 1) The field strength is calculated by adding the Antenna Factor, Cable Factor & Preamplifier. The basic equation with a sample calculation is as follows:
Final Test Level = Receiver Reading + Antenna Factor + Cable Factor – Preamplifier Factor
- 2) Scan from 9kHz to 25GHz, The disturbance above 13GHz and below 30MHz was very low, and the above harmonics were the highest point could be found when testing, so only the above harmonics had been displayed. The amplitude of spurious emissions from the radiator which are attenuated more than 20dB below the limit need not be reported .

6.3 Restricted bands around fundamental frequency

Test Requirement:	47 CFR Part 15C Section 15.209 and 15.205		
Test Method:	ANSI C63.10: 2013		
Test Site:	Measurement Distance: 3m (Fully-Anechoic Chamber)		
Limit(Band Edge):	Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 50 dB below the level of the fundamental or to the general radiated emission limits in Section 15.209, whichever is the lesser attenuation.		
	Frequency	Limit (dBuV/m @3m)	Remark
	30MHz-88MHz	40.0	Quasi-peak Value
	88MHz-216MHz	43.5	Quasi-peak Value
	216MHz-960MHz	46.0	Quasi-peak Value
	960MHz-1GHz	54.0	Quasi-peak Value
	Above 1GHz	54.0	Average Value
		74.0	Peak Value
Test Setup:			

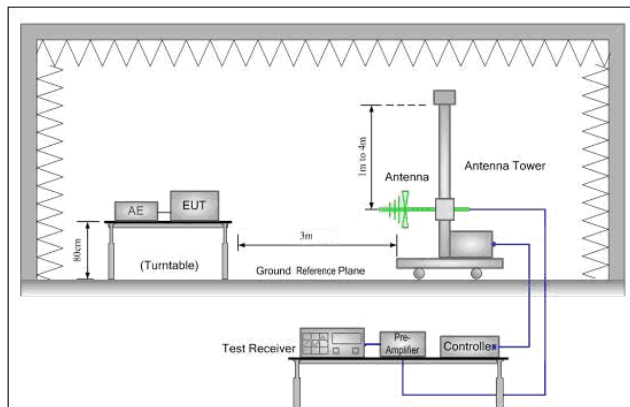


Figure 1. 30MHz to 1GHz

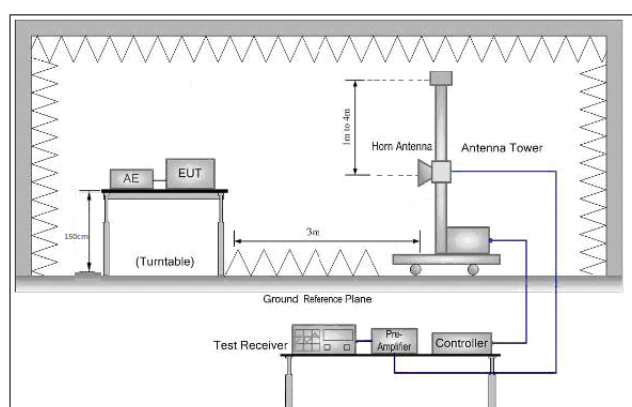


Figure 2. Above 1 GHz



SGS-CSTC Standards Technical Services Ltd. Shenzhen Branch

Report No.: HKES160700136502

Page : 22 of 31

Test Procedure:	<ul style="list-style-type: none">a. For below 1GHz, the EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.b. For above 1GHz, the EUT was placed on the top of a rotating table 1.5 meters above the ground at a 3 meter Fully-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.c. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.d. The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.e. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.f. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.g. Place a marker at the end of the restricted band closest to the transmit frequency to show compliance. Also measure any emissions in the restricted bands. Save the spectrum analyzer plot. Repeat for each power and modulation for lowest and highest channelh. Test the EUT in the lowest channel , the Highest channeli. The radiation measurements are performed in X, Y, Z axis positioning for Transmitting mode, And found the Z axis positioning which it is worse case.j. Repeat above procedures until all frequencies measured was complete.
Instruments Used:	Refer to section 5.10 for details
Final Test Mode:	Transmitting mode
Test Results:	Pass



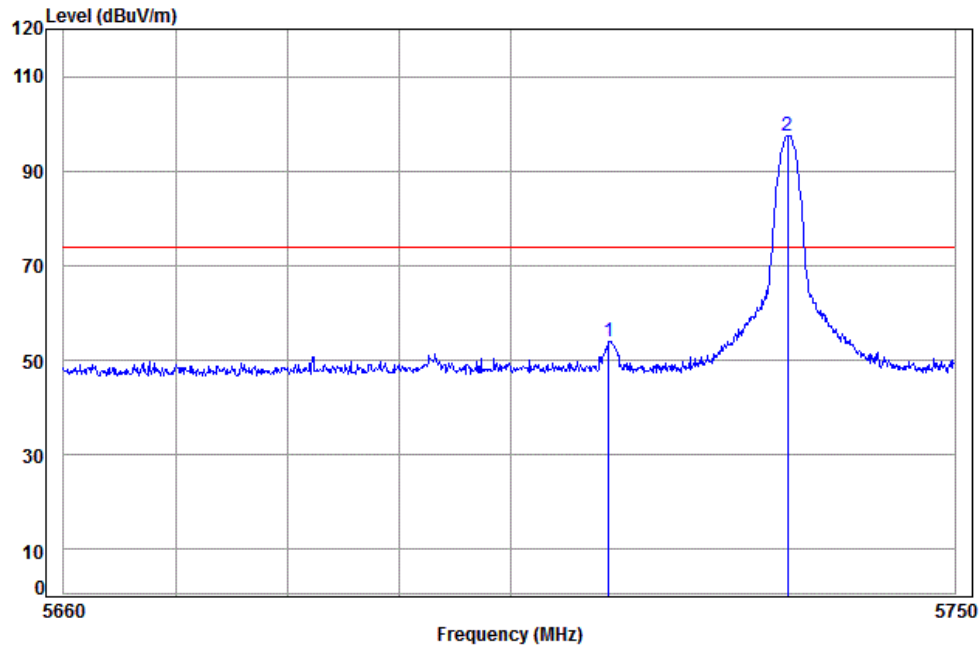
SGS-CSTC Standards Technical Services Ltd. Shenzhen Branch

Report No.: HKES160700136502

Page : 23 of 31

Test plot as follows:

Test mode:	Transmitting mode.	Test channel:	Lowest	Remark:	Peak	Vertical
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Condition: 3m Vertical

Job No: : 1365IT

Mode: : 5736 Band edge

		Cable	Ant	Preamp	Read		Limit	Over
	Freq	Loss	Factor	Factor	Level	Level	Line	Limit
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1	5708.827	8.46	34.53	39.03	49.97	53.93	74.00	-20.07
2 pp	5735.955	8.48	34.54	39.03	93.58	97.57	74.00	23.57

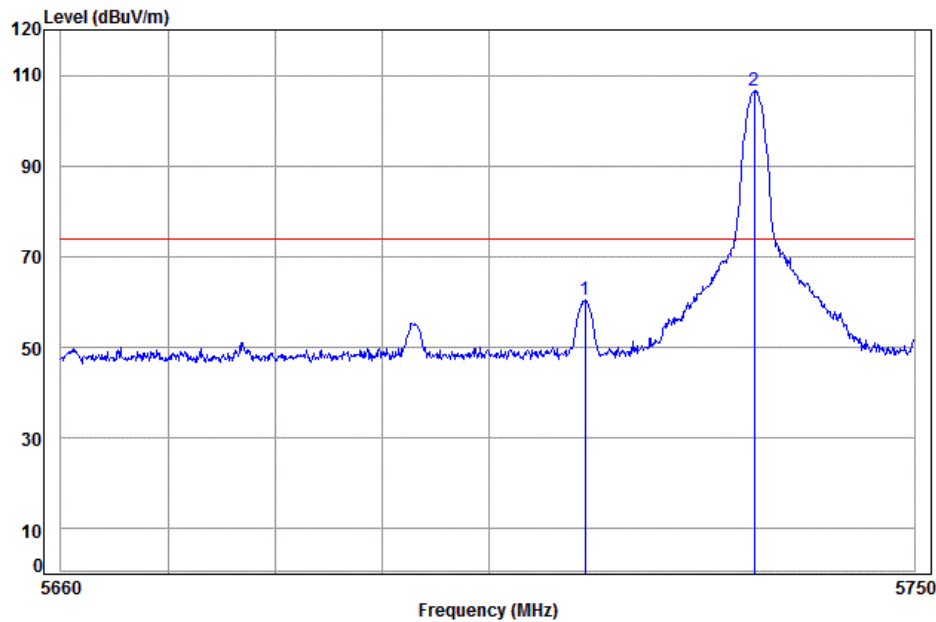


SGS-CSTC Standards Technical Services Ltd. Shenzhen Branch

Report No.: HKES160700136502

Page : 24 of 31

Test mode:	Transmitting mode.	Test channel:	Lowest	Remark:	Peak	Horizontal
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Condition: 3m Horizontal

Job No: : 1365IT

Mode: : 5736 Band edge

		Cable	Ant	Preamp	Read		Limit	Over
	Freq	Loss	Factor	Factor	Level	Level	Line	Limit
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1	5708.987	8.46	34.53	39.03	56.40	60.36	74.00	-13.64
2 pp	5735.955	8.48	34.54	39.03	102.46	106.45	74.00	32.45

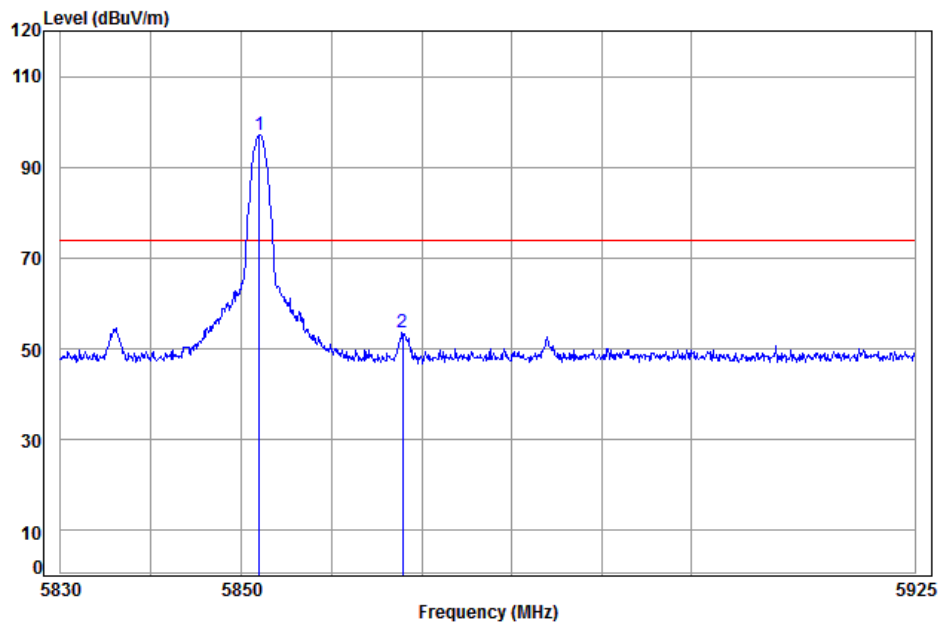


SGS-CSTC Standards Technical Services Ltd. Shenzhen Branch

Report No.: HKES160700136502

Page : 25 of 31

Test mode:	Transmitting mode.	Test channel:	Highest	Remark:	Peak	Vertical
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Condition: 3m Vertical

Job No: : 1365IT

Mode: : 5852 Band edge

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1 pp	5851.998	8.61	34.61	39.01	92.79	97.00	74.00	23.00	
2	5867.816	8.62	34.62	39.01	49.31	53.54	74.00	-20.46	

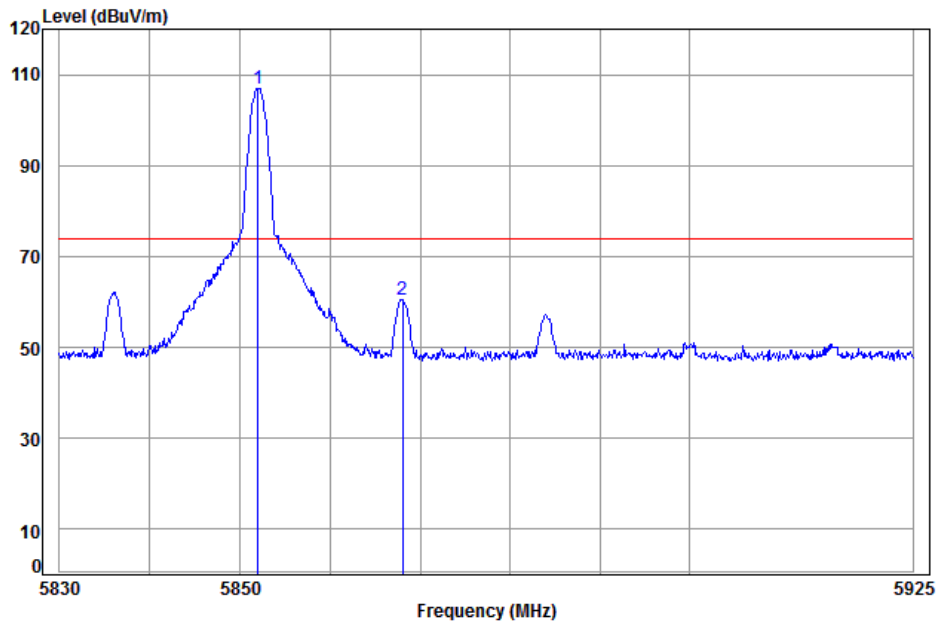


SGS-CSTC Standards Technical Services Ltd. Shenzhen Branch

Report No.: HKES160700136502

Page : 26 of 31

Test mode:	Transmitting mode.	Test channel:	Highest	Remark:	Peak	Horizontal
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Condition: 3m Horizontal
Job No: : 1365IT
Mode: : 5852 Band edge

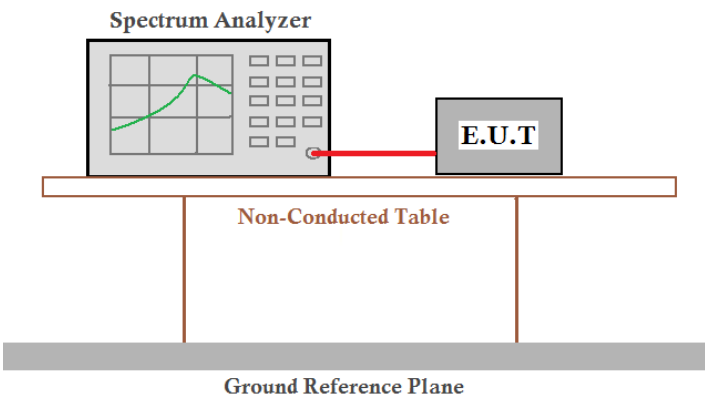
	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Limit Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1 pp	5851.998	8.61	34.61	39.01	102.75	106.96	74.00	32.96	
2	5868.005	8.62	34.62	39.01	56.31	60.54	74.00	-13.46	

Note:

The field strength is calculated by adding the Antenna Factor, Cable Factor & Preamplifier. The basic equation with a sample calculation is as follows:

$$\text{Final Test Level} = \text{Receiver Reading} + \text{Antenna Factor} + \text{Cable Factor} - \text{Preamplifier Factor}$$

6.4 20dB Bandwidth

Test Requirement:	47 CFR Part 15C Section 15.215
Test Method:	ANSI C63.10:2013
Test Setup:	
Test Mode:	Transmitter mode
Limit:	N/A
Instruments Used:	Refer to section 5.10 for details
Test Results:	Pass

Measurement Data

Test Channel	20dB bandwidth (MHz)	Results
Lowest	2.40	Pass
Middle	2.36	Pass
Highest	2.39	Pass



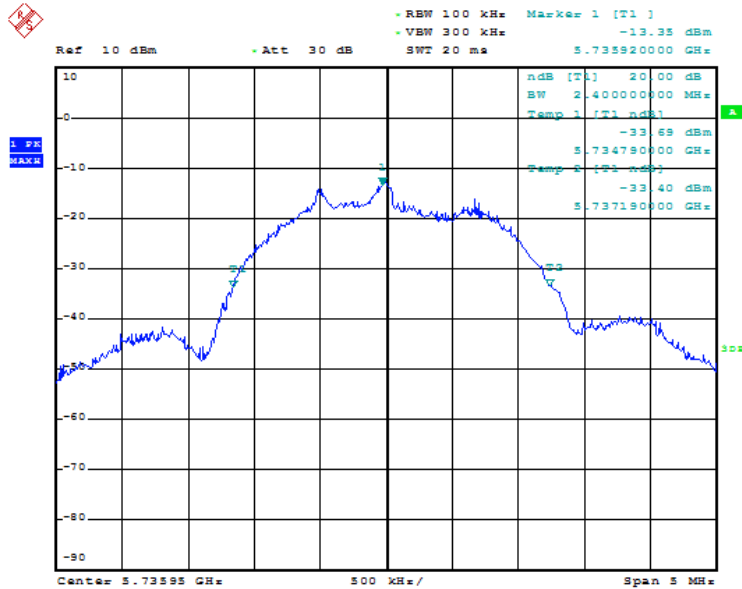
SGS-CSTC Standards Technical Services Ltd. Shenzhen Branch

Report No.: HKES160700136502

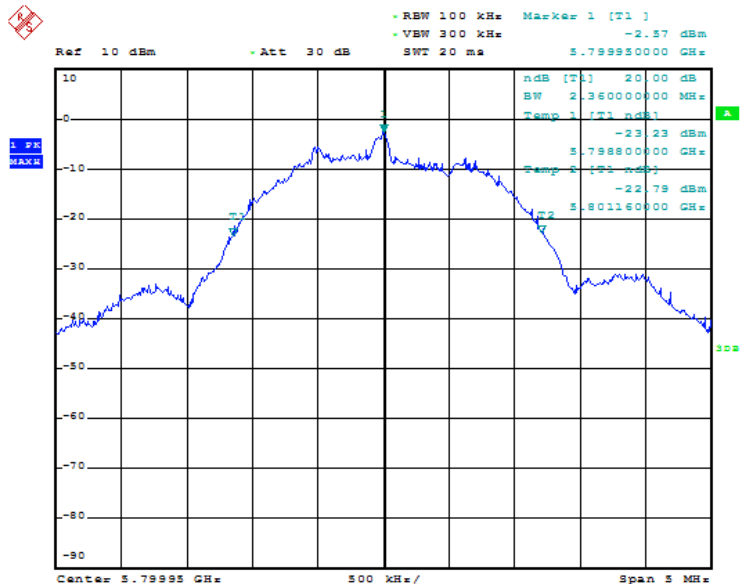
Page : 28 of 31

Test plot as follows:

Test channel:	Lowest
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Test channel:	Middle
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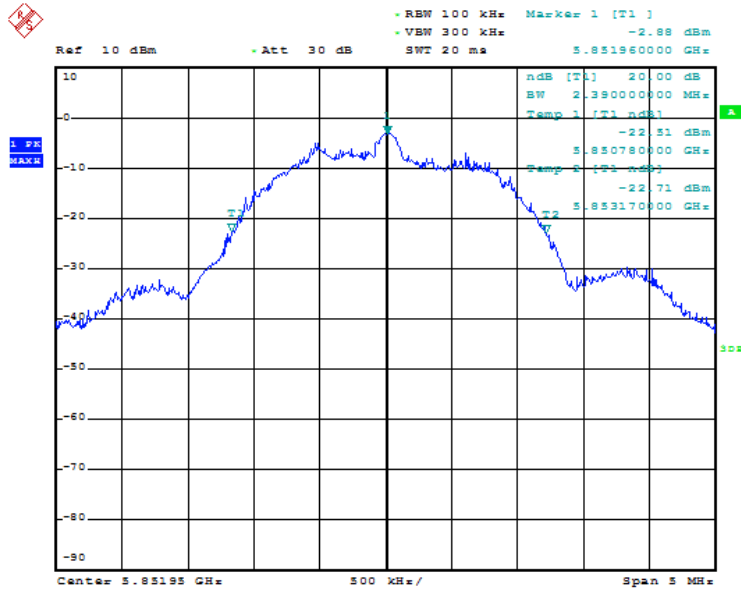


SGS-CSTC Standards Technical Services Ltd. Shenzhen Branch

Report No.: HKES160700136502

Page : 29 of 31

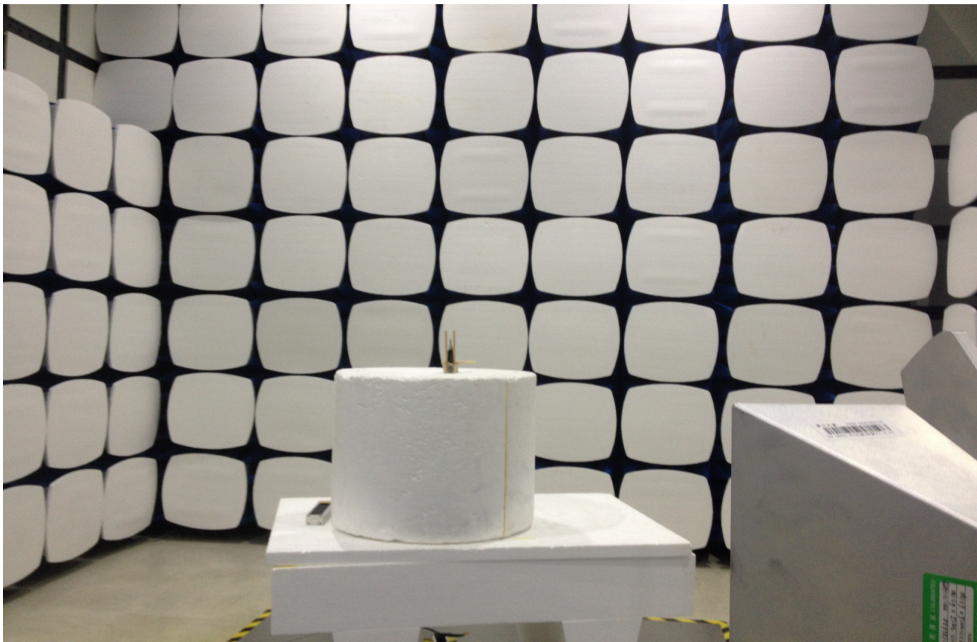
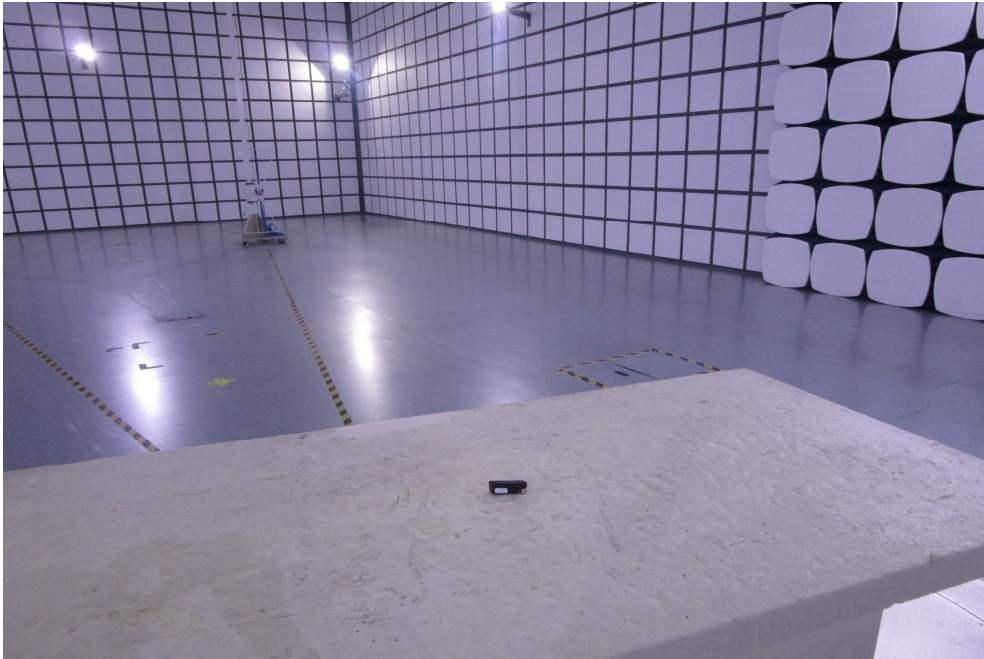
Test channel:	Highest
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7 Photographs

Test model No.: stageClix jack 5.8GHz V4

7.1 Radiated Emission Test Setup





7.2 EUT Constructional Details

Refer to Appendix A - Photographs of EUT Constructional Details for HKES1607001365IT.