

# TEST REPORT

**Application No.:** SHEM1907015395CR  
**FCC ID:** 2AGOFRC377C  
**Applicant:** HCS (Suzhou) Limited  
**Address of Applicant:** 19F-20F, Building B-3<sup>rd</sup>, No. 209 Zhuyuan Road, New District, Suzhou, P.R. China  
**Manufacturer:** HCS (Suzhou) Limited  
**Address of Manufacturer:** 19F-20F, Building B-3<sup>rd</sup>, No. 209 Zhuyuan Road, New District, Suzhou, P.R. China  
**Factory:** Wujiang Century Billion Electronic Technology Co.,Ltd  
**Address of Factory:** No.149 Tuncunwest Road, Tongli Town. Wujiang. Jiangsu Province. China  
**Equipment Under Test (EUT):**  
**EUT Name:** Remote Control  
**Model No.:** RC37737XX/XXBR ("XX"=00-99), RC8XV(X=0~9) □  
 □ Please refer to section 2 of this report which indicates which model was actually tested and which were electrically identical.  
**Standard(s) :** 47 CFR Part 15, Subpart B  
**Date of Receipt:** 2019-06-10  
**Date of Test:** 2019-06-17  
**Date of Issue:** 2019-07-26

<b>Test Result:</b>	<b>Pass*</b>
---------------------	--------------

\* In the configuration tested, the EUT complied with the standards specified above.

*Parlam Zhan*

Parlam Zhan  
E&E Section 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.



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**Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@sgs.com**



Revision Record			
Version	Description	Date	Remark
00	Add models	2019-07-26	Base on SHEM190601396001

Authorized for issue by:			
			
		<hr/> <b>Bill Wu / Project Engineer</b>	
			
		<hr/> <b>Parlam Zhan / Reviewer</b>	

## 2 Test Summary

Emission Part				
Item	Standard	Method	Requirement	Result
Radiated Emissions (30MHz-1GHz)	47 CFR Part 15, Subpart B	ANSI C63.4:2014	Class B	Pass
Radiated Emissions (above 1GHz)	47 CFR Part 15, Subpart B	ANSI C63.4:2014	Class B	Pass

InternalSource	UpperFrequency
Below 1.705MHz	30MHz
1.705MHz to 108MHz	1GHz
108MHz to 500MHz	2GHz
500MHz to 1GHz	5GHz
Above 1GHz	10th harmonic of the highest fundamental frequency or to 40 GHz, whichever is lower

Note: We add models RC37737XX/XXBR ("XX"=00-99), RC8XV(X=0~9) in this report. The new models mentioned in this report are the same as the RC3773701/01BR, in Electronic or Electrical characters. Which were already EMC tested in the report SHEM190601396001. So the new models in this report are deemed to fulfil the EMC requirements without testing.

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## 4 General Information

### 4.1 Details of E.U.T.

Power supply: DC 3V By 2\*AA size batteries

Test voltage: DC 3V

### 4.2 Description of Support Units

Description	Manufacturer	Model No.	Serial No.
Laptop	LENOVO	R400	/
Doogle	/	/	/

### 4.3 Measurement Uncertainty

No.	Item	Measurement Uncertainty
1	Conducted Emission at mains port using AMN	±2.6dB (9kHz to 150kHz)
		±2.3dB (150kHz to 30MHz)
2	Conducted Emission at mains port using VP	±1.9 dB (9kHz to 30MHz)
3	Conducted Emission at telecommunication port using AAN	±4.1 dB (150kHz to 30MHz)
4	Radiated Power	±3.0dB
5	Radiated emission	±4.4dB (30MHz-1GHz)
		±4.8dB (1GHz-6GHz)
		±5.2dB (6GHz-18GHz)

Note: The measurement uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

#### 4.4 Test Location

All tests were performed at:

SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd. E&E Lab

588 West Jindu Road, Xinqiao, Songjiang, 201612 Shanghai, China

Tel: +86 21 6191 5666

Fax: +86 21 6191 5678

No tests were sub-contracted.

#### 4.5 Test Facility

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

- **CNAS (No. CNAS L0599)**

CNAS has accredited SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd. 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.

- **NVLAP (Certificate No. 201034-0)**

SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd. is accredited by the National Voluntary Laboratory Accreditation Program (NVLAP). Certificate No. 201034-0.

- **FCC –Designation Number: CN5033**

SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd. has been recognized as an accredited testing laboratory.

Designation Number: CN5033. Test Firm Registration Number: 479755.

- **Innovation, Science and Economic Development Canada**

SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd. EMC Laboratory has been recognized by ISED as an accredited testing laboratory.

IC Registration No.: 8617A-1. CAB identifier: CN0020.

- **VCCI (Member No.: 3061)**

The 3m Semi-anechoic chamber and Shielded Room of SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd. has been registered in accordance with the Regulations for Voluntary Control Measures with Registration No.: R-13868, C-14336, T-12221, G-10830 respectively.

#### 4.6 Deviation from Standards

None

#### 4.7 Abnormalities from Standard Conditions

None

## 5 Equipment List

Radiated Emissions (30MHz-1GHz)					
Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date
EMI test receiver	Rohde & Schwarz	ESU40	SHEM051-1	2018-12-20	2019-12-19
CONTROLLER	INNCO	CO200	SHEM047-1	N/A	N/A
ANTENNA MAST	INNCO	MA400-EP	SHEM047-2	N/A	N/A
TURN DEVICE	INNCO	DE 3600-RH	SHEM047-3	N/A	N/A
Broadband UHF-VHF ANTENNA	SCHWARZBECK	VULB9168	SHEM048-1	2017-02-28	2020-02-27
Semi/Fully Anechoic	ST	11*6*6M	SHEM078-2	2017-07-22	2020-07-21
Low Amplifier	CLAVIIO	BDLNA-0001-412010	SHEM164-1	2018-08-13	2019-08-12

Radiated Emissions (above 1GHz)					
Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date
EMI test receiver	Rohde & Schwarz	ESU40	SHEM051-1	2018-12-20	2019-12-19
CONTROLLER	INNCO	CO200	SHEM047-1	N/A	N/A
ANTENNA MAST	INNCO	MA400-EP	SHEM047-2	N/A	N/A
TURN DEVICE	INNCO	DE 3600-RH	SHEM047-3	N/A	N/A
Double ridged broadband horn ANTENNA	SCHWARZBECK	BBHA9120D	SHEM050-1	2017-01-14	2020-01-13
High-amplifier	SCHWARZBECK	SCU-F0118-G40-BZ4-CS	SHEM050-2	2018-12-20	2019-12-19
Semi/Fully Anechoic	ST	11*6*6M	SHEM078-2	2017-07-22	2020-07-21
High Amplifier	CLAVIIO	BDLNA-0118-352810	SHEM165-1	2018-08-13	2019-08-12

General used equipment					
Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date
Digital pressure meter	YONGZHI	DYM3-01	SHEM082-1	2018-01-25	2021-01-24
Temperature&humidity recorder	ShangHai weather meter work	ZJ 1-2B	SHEM042-1~6	2018-08-31	2019-08-30
Digital Multimeter	FLUKE	17B	SHEM043-3	2018-09-03	2019-09-02
Autoformer regulator	Guangzhou bao de	TDGC2-5KVA	SHEM150-1	N/A	N/A
Multi-purpose tong tester	FLUKE	316	SHEM001-1	2018-12-20	2019-12-19

## 6 Emission Test Results

### 6.1 Radiated Emissions (30MHz-1GHz)

Test Requirement:	47 CFR Part 15, Subpart B
Test Method:	ANSI C63.4:2014
Frequency Range:	30MHz to 1GHz
Measurement Distance:	3m
Limit:	
30MHz -88MHz	40.0(dB $\mu$ V/m) quasi-peak
88MHz-216MHz	43.5(dB $\mu$ V/m) quasi-peak
216MHz-960MHz	46.0(dB $\mu$ V/m) quasi-peak
960MHz-1000MHz	54.0(dB $\mu$ V/m) quasi-peak
Detector:	Peak for pre-scan (120kHz resolution bandwidth) 30M to1000MHz

#### 6.1.1 E.U.T. Operation

Operating Environment:

Temperature: 22 °C Humidity: 50 % RH Atmospheric Pressure: 1020 mbar

Test mode a:IR mode:Pressing the IR Button to keep EUT working continuously with IR function

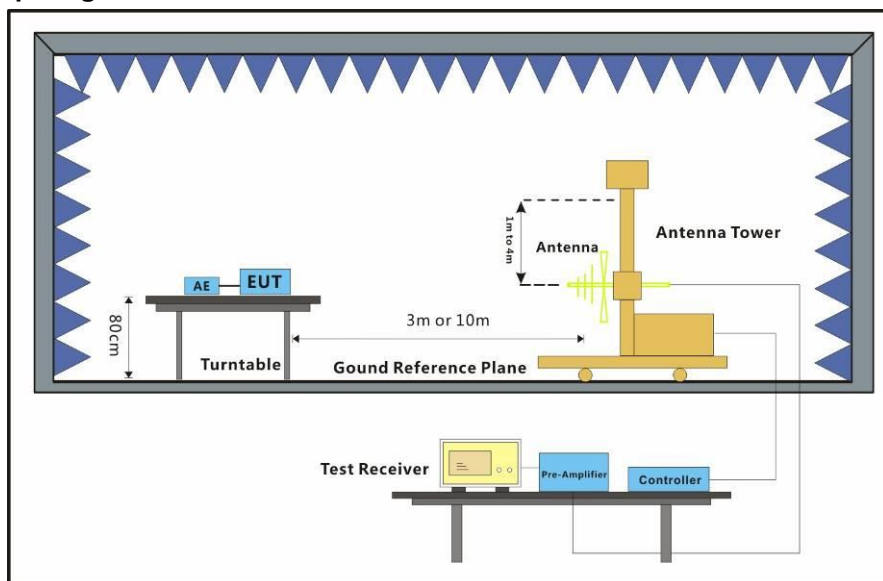
b:BLE key mode: Establish the communication between EUT and Doogle via BT function and pressing the BLE key.

c:BLE voice mode: Establish the communication between EUT and Doogle via BT function and pressing the voice key.

d:IR standby mode:Keep EUT power on and working on IR standby mode.

e:BLE standby mode: Keep EUT power on and working on BLE standby mode.

#### 6.1.2 Test Setup Diagram

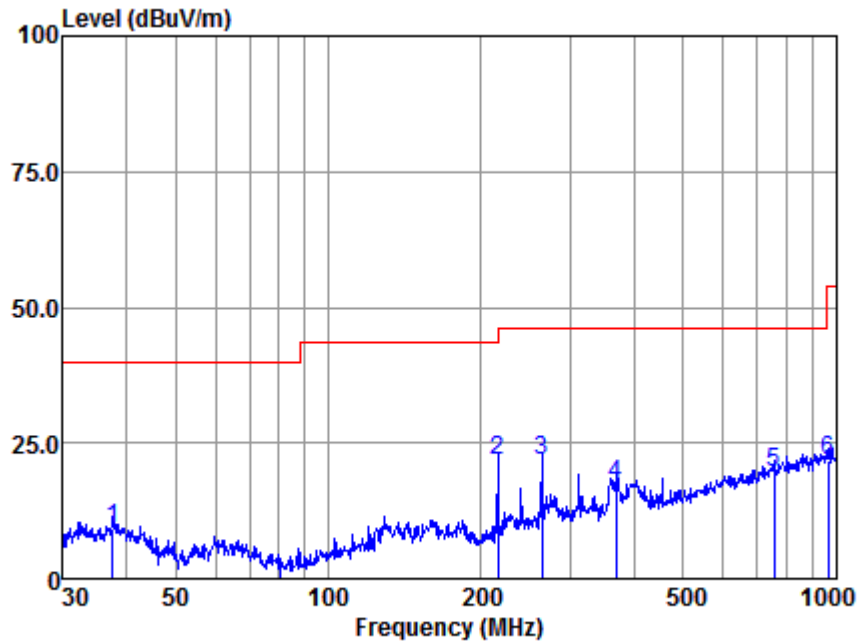


#### 6.1.3 Measurement Data

An initial pre-scan was performed in the chamber using the spectrum analyser in peak detection mode. Quasi-peak measurements were conducted based on the peak sweep graph. The EUT was measured by BiConiLog antenna with 2 orthogonal polarities.



Mode:a; Polarization:Horizontal

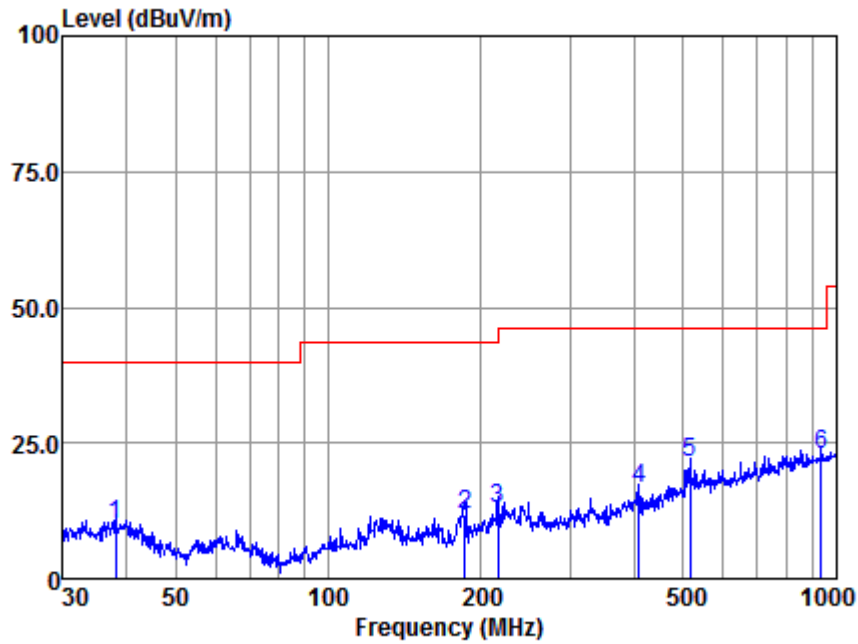


Antenna Polarity :HORIZONTAL  
EUT/Project :13960CR  
Test mode :a

	Read	Antenna	Cable	Preamp	Emission	Limit	Over	
-----	Level	Factor	Loss	Factor	Level	Line	Limit	Remark
-----	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	-----
1	37.680	16.09	0.49	42.34	9.32	40.00	-30.68	QP
2	216.024	10.13	1.89	42.15	21.86	46.00	-24.14	QP
3	263.819	11.99	2.21	42.11	21.71	46.00	-24.29	QP
4	368.112	14.55	3.09	41.93	17.43	46.00	-28.57	QP
5	755.387	21.20	4.22	41.99	19.66	46.00	-26.34	QP
6	965.542	23.45	4.71	41.27	21.93	54.00	-32.07	QP

Note:Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

Mode:a; Polarization:Vertical

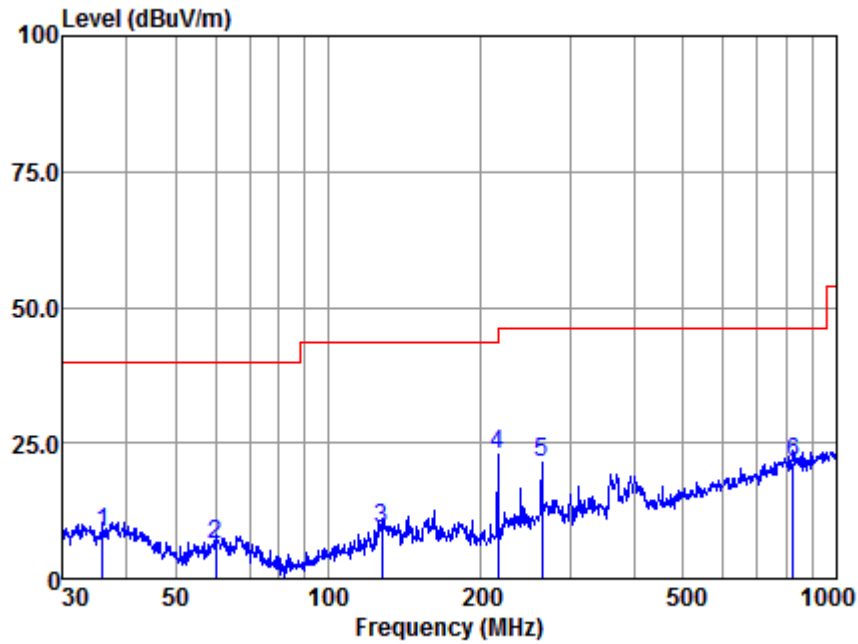


Antenna Polarity :VERTICAL  
EUT/Project :13960CR  
Test mode :a

	Read	Antenna	Cable	Preamp	Emission	Limit	Over		
Freq	Level	Factor	Loss	Factor	Level	Line	Limit	Remark	
MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	38.078	35.60	16.14	0.46	42.34	9.86	40.00	-30.14	QP
2	185.788	41.46	10.97	1.69	42.19	11.93	43.50	-31.57	QP
3	216.024	43.16	10.13	1.89	42.15	13.03	46.00	-32.97	QP
4	408.946	40.04	15.31	3.05	41.89	16.51	46.00	-29.49	QP
5	515.437	41.78	17.59	3.58	41.69	21.26	46.00	-24.74	QP
6	935.546	36.53	23.10	4.73	41.50	22.86	46.00	-23.14	QP

Note:Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

Mode:b; Polarization:Horizontal

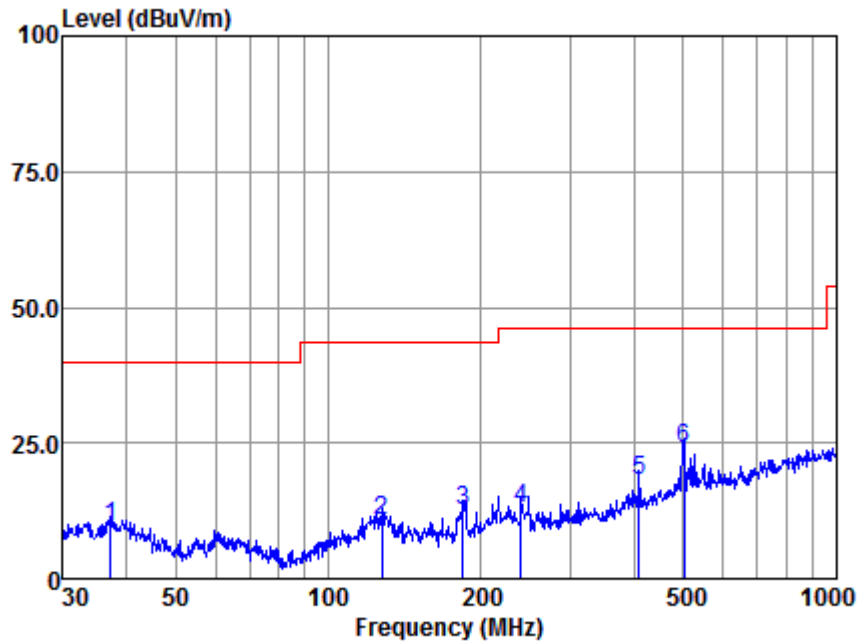


Antenna Polarity :HORIZONTAL  
EUT/Project :13960CR  
Test mode :b

	Read	Antenna	Cable	Preamp	Emission	Limit	Over	
-----	Level	Factor	Loss	Factor	Level	Line	Limit	Remark
-----	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	-----
1	35.875	34.44	15.93	0.41	42.35	8.43	40.00	-31.57 QP
2	60.069	35.26	12.60	0.59	42.33	6.12	40.00	-33.88 QP
3	127.218	37.81	12.14	1.41	42.27	9.09	43.50	-34.41 QP
4	216.024	52.97	10.13	1.89	42.15	22.84	46.00	-23.16 QP
5	263.819	49.24	11.99	2.21	42.11	21.33	46.00	-24.67 QP
6	824.597	36.91	22.12	4.40	41.91	21.52	46.00	-24.48 QP

Note:Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

Mode:b; Polarization:Vertical

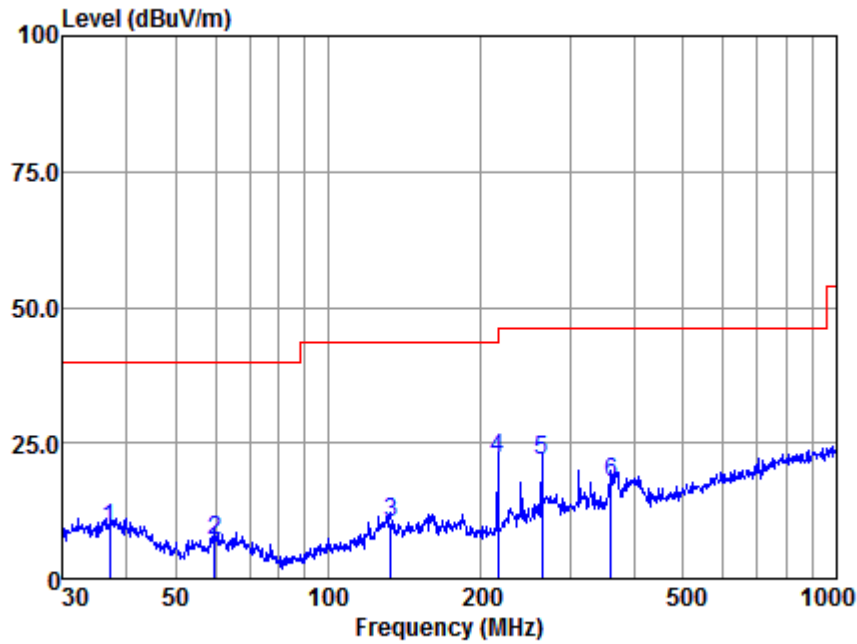


Antenna Polarity :VERTICAL  
EUT/Project :13960CR  
Test mode :b

	Read	Antenna	Cable	Preamp	Emission	Limit	Over	
-----	Level	Factor	Loss	Factor	Level	Line	Limit	Remark
-----	-----	-----	-----	-----	-----	-----	-----	-----
MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	37.285	35.40	16.06	0.42	42.34	9.54	40.00	-30.46 QP
2	127.665	39.50	12.14	1.41	42.27	10.78	43.50	-32.72 QP
3	184.490	41.83	11.23	1.68	42.19	12.55	43.50	-30.95 QP
4	239.147	41.94	11.08	2.17	42.12	13.07	46.00	-32.93 QP
5	408.946	41.56	15.31	3.05	41.89	18.03	46.00	-27.97 QP
6	501.179	44.95	17.20	3.50	41.69	23.96	46.00	-22.04 QP

Note:Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

Mode:c; Polarization:Horizontal

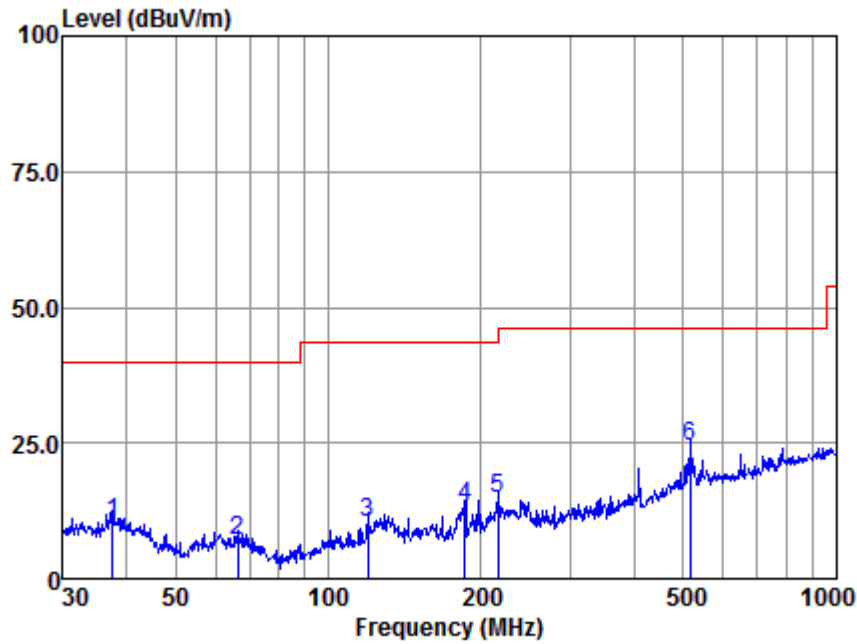


Antenna Polarity :HORIZONTAL  
EUT/Project :13960CR  
Test mode :c

	Read	Antenna	Cable	Preamp	Emission	Limit	Over	
-----	Level	Factor	Loss	Factor	Level	Line	Limit	Remark
-----	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	-----
1	37.155	16.04	0.42	42.34	9.21	40.00	-30.79	QP
2	59.859	12.55	0.59	42.33	7.05	40.00	-32.95	QP
3	132.685	12.36	1.41	42.26	10.28	43.50	-33.22	QP
4	216.024	10.13	1.89	42.15	22.21	46.00	-23.79	QP
5	263.819	11.99	2.21	42.11	21.84	46.00	-24.16	QP
6	360.448	14.43	3.00	41.94	17.82	46.00	-28.18	QP

Note:Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

Mode:c; Polarization:Vertical

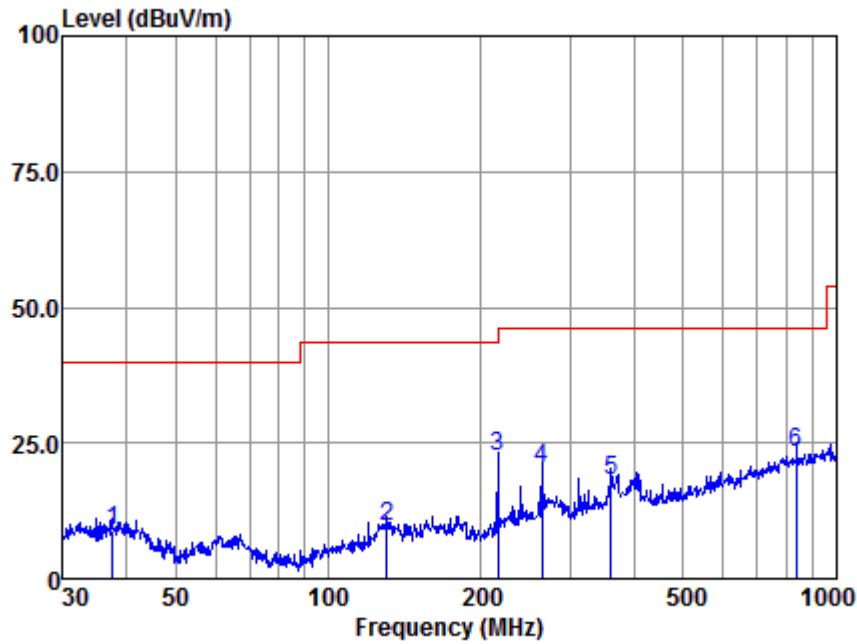


Antenna Polarity :VERTICAL  
EUT/Project :13960CR  
Test mode :c

	Read	Antenna	Cable	Preamp	Emission	Limit	Over		
-----	Level	Factor	Loss	Factor	Level	Line	Limit	Remark	
-----	-----	-----	-----	-----	-----	-----	-----	-----	
MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	37.680	36.13	16.09	0.49	42.34	10.37	40.00	-29.63	QP
2	66.266	36.67	11.84	0.62	42.29	6.84	40.00	-33.16	QP
3	119.856	41.20	10.00	1.33	42.28	10.25	43.50	-33.25	QP
4	185.788	42.98	10.97	1.69	42.19	13.45	43.50	-30.05	QP
5	216.024	44.91	10.13	1.89	42.15	14.78	46.00	-31.22	QP
6	515.437	44.83	17.59	3.58	41.69	24.31	46.00	-21.69	QP

Note:Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

Mode:d; Polarization:Horizontal

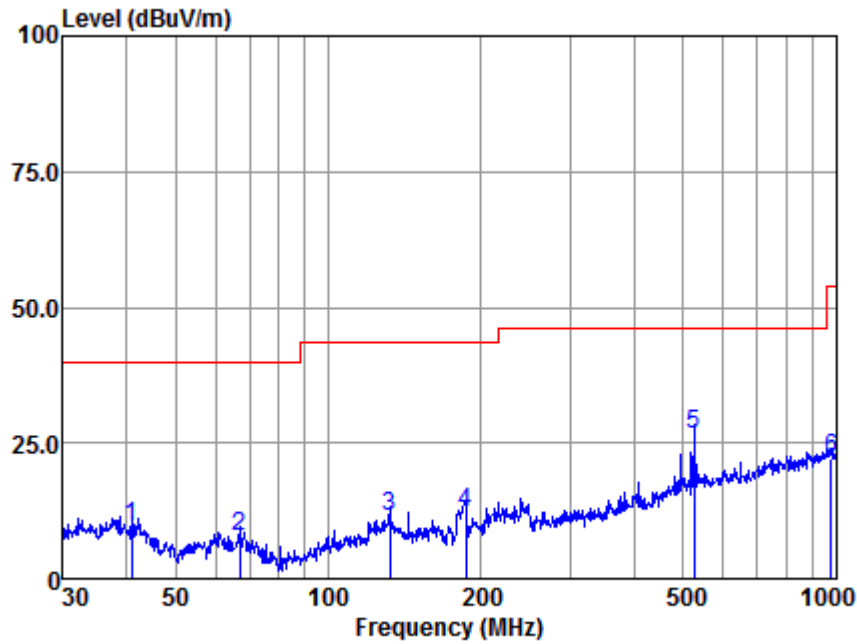


Antenna Polarity :HORIZONTAL  
EUT/Project :13960CR  
Test mode :d

	Read	Antenna	Cable	Preamp	Emission	Limit	Over		
-----	-----	-----	-----	-----	-----	-----	-----	-----	
Freq	Level	Factor	Loss	Factor	Level	Line	Limit	Remark	
-----	-----	-----	-----	-----	-----	-----	-----	-----	
MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	37.548	34.78	16.09	0.49	42.34	9.02	40.00	-30.98	QP
2	130.379	37.72	12.71	1.43	42.26	9.60	43.50	-33.90	QP
3	216.024	52.46	10.13	1.89	42.15	22.33	46.00	-23.67	QP
4	263.819	48.30	11.99	2.21	42.11	20.39	46.00	-25.61	QP
5	360.448	42.71	14.43	3.00	41.94	18.20	46.00	-27.80	QP
6	836.244	38.25	22.21	4.48	41.83	23.11	46.00	-22.89	QP

Note:Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

Mode:d; Polarization:Vertical



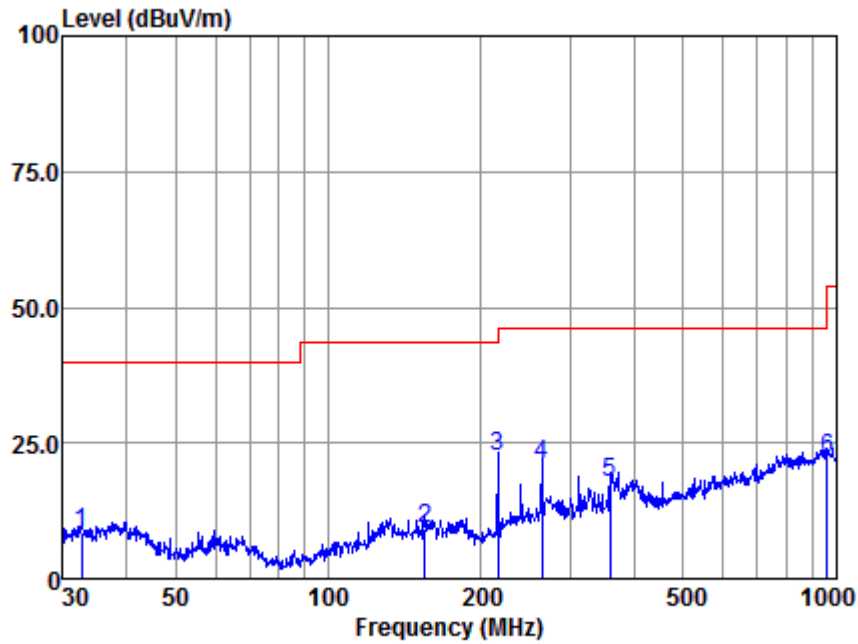
Antenna Polarity :VERTICAL  
EUT/Project :13960CR  
Test mode :d

	Read	Antenna	Cable	Preamp	Emission	Limit	Over	
-----	-----	-----	-----	-----	-----	-----	-----	-----
Freq	Level	Factor	Loss	Factor	Level	Line	Limit	Remark
-----	-----	-----	-----	-----	-----	-----	-----	-----
MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	40.988	36.00	15.60	0.34	42.33	9.61	40.00	-30.39 QP
2	66.967	37.54	11.76	0.62	42.28	7.64	40.00	-32.36 QP
3	132.221	39.72	12.45	1.42	42.26	11.33	43.50	-32.17 QP
4	186.441	41.81	10.83	1.69	42.19	12.14	43.50	-31.36 QP
5	524.554	46.83	17.75	3.60	41.69	26.49	46.00	-19.51 QP
6	979.180	34.83	23.60	4.81	41.17	22.07	54.00	-31.93 QP

Note:Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor



Mode:e; Polarization:Horizontal

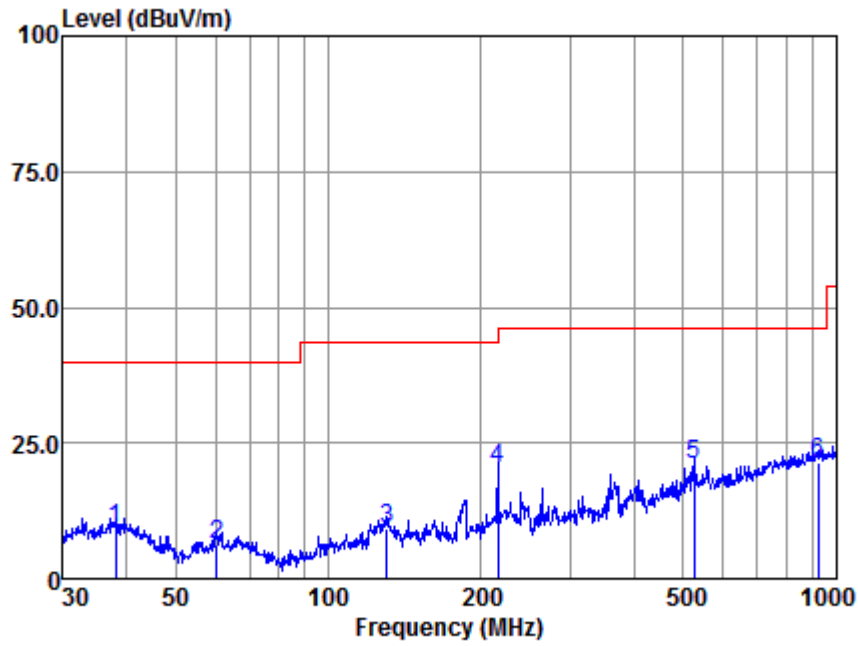


Antenna Polarity :HORIZONTAL  
EUT/Project :13960CR  
Test mode :e

	Read	Antenna	Cable	Preamp	Emission	Limit	Over		
-----	Level	Factor	Loss	Factor	Level	Line	Limit	Remark	
-----	-----	-----	-----	-----	-----	-----	-----	-----	
Freq	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
-----	-----	-----	-----	-----	-----	-----	-----	-----	
MHz									
1	32.634	34.88	15.59	0.39	42.37	8.49	40.00	-31.51	QP
2	154.821	37.59	12.50	1.40	42.23	9.26	43.50	-34.24	QP
3	216.024	52.56	10.13	1.89	42.15	22.43	46.00	-23.57	QP
4	263.819	49.12	11.99	2.21	42.11	21.21	46.00	-24.79	QP
5	359.186	42.26	14.40	3.00	41.94	17.72	46.00	-28.28	QP
6	962.162	35.25	23.40	4.71	41.27	22.09	54.00	-31.91	QP

Note:Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

Mode:e; Polarization:Vertical



Antenna Polarity :VERTICAL  
EUT/Project :13960CR  
Test mode :e

	Read	Antenna	Cable	Preamp	Emission	Limit	Over	
-----	Level	Factor	Loss	Factor	Level	Line	Limit	Remark
-----	-----	-----	-----	-----	-----	-----	-----	-----
MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	38.078	16.14	0.46	42.34	9.14	40.00	-30.86	QP
2	60.280	12.56	0.59	42.33	6.46	40.00	-33.54	QP
3	130.379	12.71	1.43	42.26	9.30	43.50	-34.20	QP
4	216.024	10.13	1.89	42.15	20.41	46.00	-25.59	QP
5	524.554	17.75	3.60	41.69	21.02	46.00	-24.98	QP
6	922.516	22.95	4.72	41.55	21.58	46.00	-24.42	QP

Note:Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

## 6.2 Radiated Emissions (above 1GHz)

Test Requirement:	47 CFR Part 15, Subpart B
Test Method:	ANSI C63.4:2014
Frequency Range:	Above 1GHz
Measurement Distance:	3m
Limit:	
Above 1GHz	74(dBμV/m) peak, 54(dBμV/m) average
Detector:	Peak for pre-scan (1000kHz resolution bandwidth) 1000M to18000MHz

### 6.2.1 E.U.T. Operation

Operating Environment:

Temperature: 22 °C Humidity: 50 % RH Atmospheric Pressure: 1020 mbar

Test mode a:IR mode:Pressing the IR Button to keep EUT working continuously with IR function

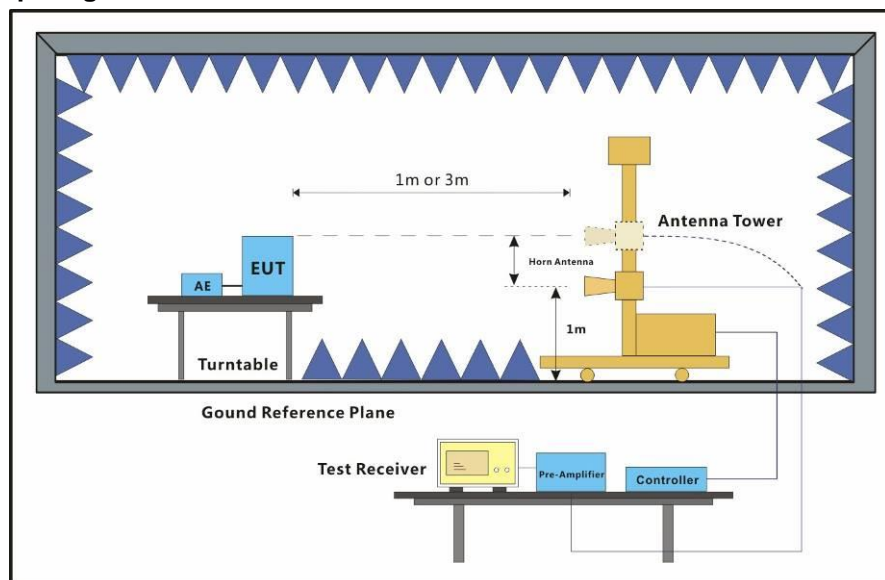
b:BLE key mode: Establish the communication between EUT and Doogle via BT function and pressing the BLE key.

c:BLE voice mode: Establish the communication between EUT and Doogle via BT function and pressing the voice key.

d:IR standby mode:Keep EUT power on and working on IR standby mode.

e:BLE standby mode: Keep EUT power on and working on BLE standby mode.

### 6.2.2 Test Setup Diagram

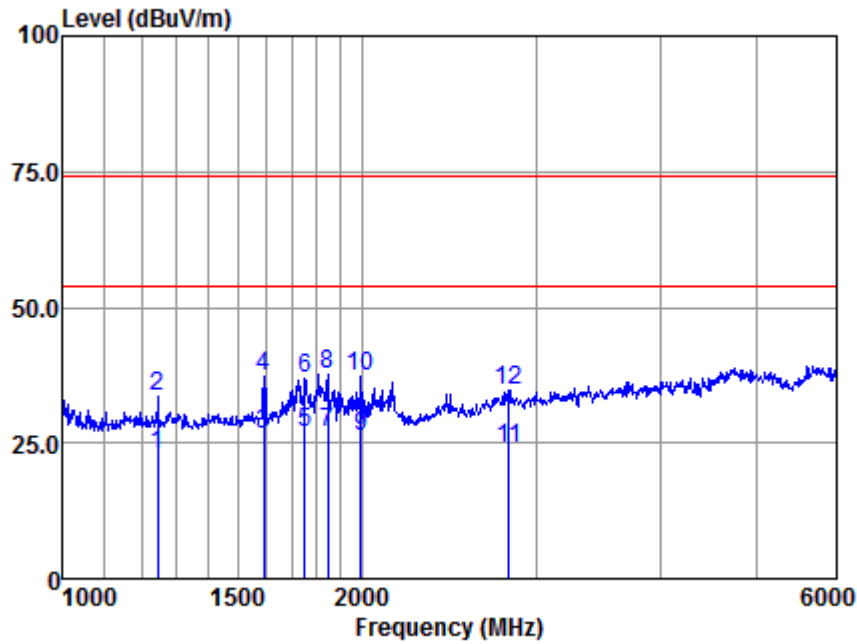


### 6.2.3 Measurement Data

An initial pre-scan was performed in the chamber using the spectrum analyser in peak detection mode. Average measurements were conducted based on the peak sweep graph. The EUT was measured by Horn antenna with 2 orthogonal polarities.

**Note:** Scan from 1GHz to 25GHz, the disturbance above 6GHz was very low. So only show the data from 1GHz to 6GHz.

Mode:a; Polarization:Horizontal

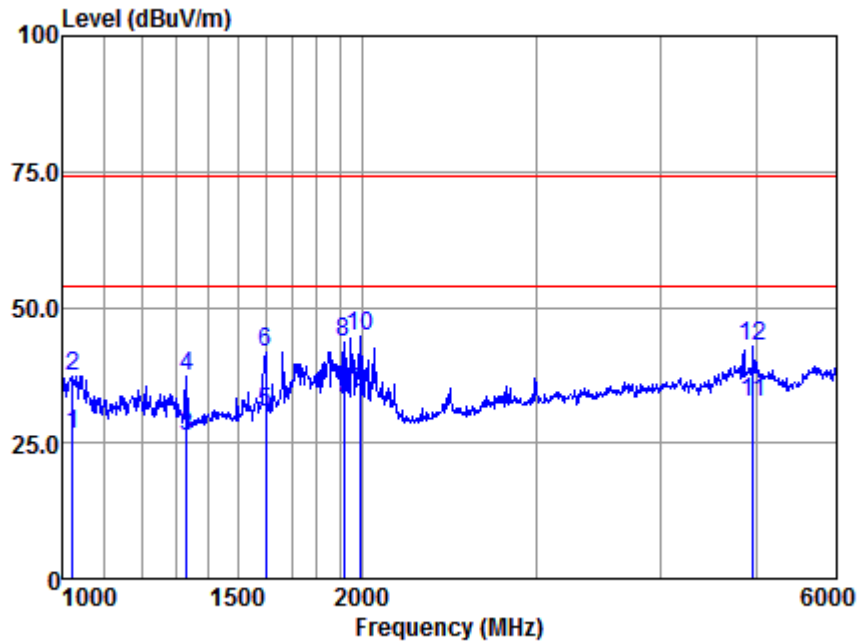


Antenna Polarity :HORIZONTAL  
EUT/Project :13960CR  
Test mode :a

	Read	Antenna	Cable	Preamp	Emission	Limit	Over		
-----	Level	Factor	Loss	Factor	Level	Line	Limit	Remark	
-----	-----	-----	-----	-----	-----	-----	-----	-----	
	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
-----	-----	-----	-----	-----	-----	-----	-----	-----	
MHz									
1	1246.558	35.25	24.70	5.33	42.46	22.82	54.00	-31.18	Average
2	1246.558	45.94	24.70	5.33	42.46	33.51	74.00	-40.49	Peak
3	1593.380	37.65	25.37	5.94	42.42	26.54	54.00	-27.46	Average
4	1593.380	48.50	25.37	5.94	42.42	37.39	74.00	-36.61	Peak
5	1752.110	37.48	25.63	6.32	42.40	27.03	54.00	-26.97	Average
6	1752.110	47.29	25.63	6.32	42.40	36.84	74.00	-37.16	Peak
7	1848.868	36.96	25.78	6.42	42.39	26.77	54.00	-27.23	Average
8	1848.868	48.00	25.78	6.42	42.39	37.81	74.00	-36.19	Peak
9	1993.371	35.84	25.99	6.69	42.37	26.15	54.00	-27.85	Average
10	1993.371	46.81	25.99	6.69	42.37	37.12	74.00	-36.88	Peak
11	2811.857	30.04	28.12	8.27	42.31	24.12	54.00	-29.88	Average
12	2811.857	40.62	28.12	8.27	42.31	34.70	74.00	-39.30	Peak

Note:Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

Mode:a; Polarization:Vertical

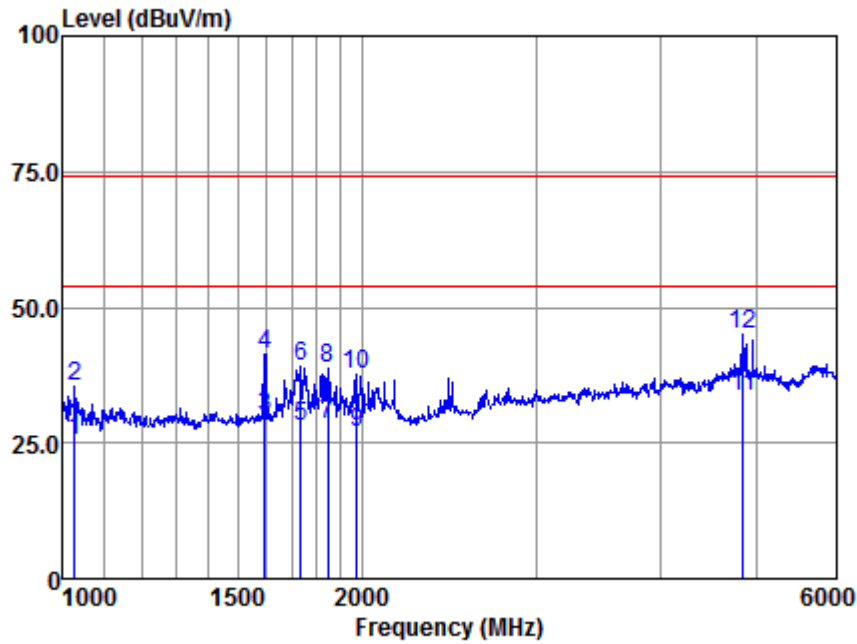


Antenna Polarity :VERTICAL  
EUT/Project :13960CR  
Test mode :a

	Read	Antenna	Cable	Preamp	Emission	Limit	Over	
-----	Level	Factor	Loss	Factor	Level	Line	Limit	Remark
-----	-----	-----	-----	-----	-----	-----	-----	-----
MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	1023.566	40.26	24.16	4.47	42.50	26.39	54.00	-27.61 Average
2	1023.566	51.25	24.16	4.47	42.50	37.38	74.00	-36.62 Peak
3	1332.000	38.62	24.88	5.32	42.45	26.37	54.00	-27.63 Average
4	1332.000	49.61	24.88	5.32	42.45	37.36	74.00	-36.64 Peak
5	1599.100	41.67	25.38	5.94	42.41	30.58	54.00	-23.42 Average
6	1599.100	52.89	25.38	5.94	42.41	41.80	74.00	-32.20 Peak
7	1916.324	43.05	25.88	6.57	42.38	33.12	54.00	-20.88 Average
8	1916.324	53.60	25.88	6.57	42.38	43.67	74.00	-30.33 Peak
9	1989.803	44.18	25.98	6.69	42.37	34.48	54.00	-19.52 Average
10	1989.803	54.47	25.98	6.69	42.37	44.77	74.00	-29.23 Peak
11	4953.236	30.85	31.52	12.63	42.50	32.50	54.00	-21.50 Average
12	4953.236	41.24	31.52	12.63	42.50	42.89	74.00	-31.11 Peak

Note:Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

Mode:b; Polarization:Horizontal

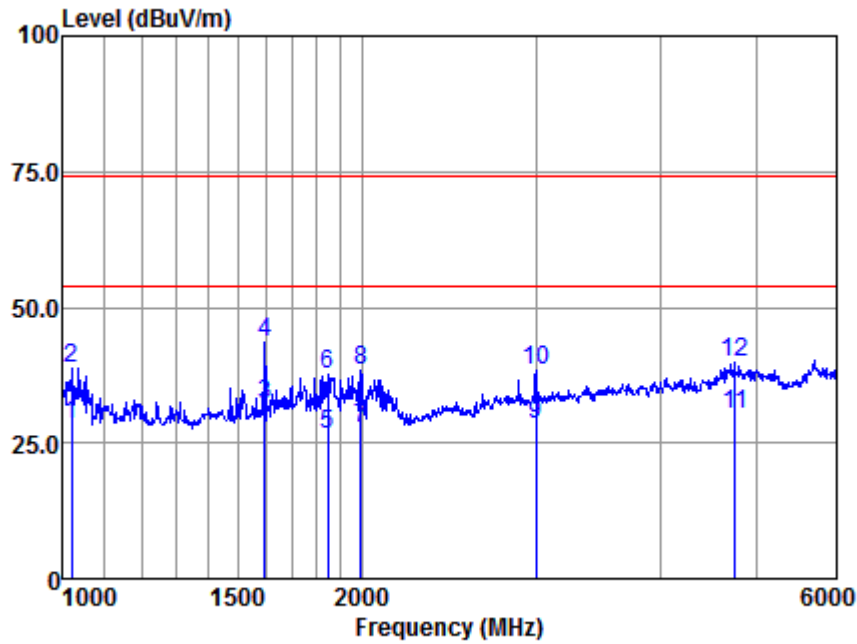


Antenna Polarity :HORIZONTAL  
EUT/Project :13960CR  
Test mode :b

	Read	Antenna	Cable	Preamp	Emission	Limit	Over		
-----	Level	Factor	Loss	Factor	Level	Line	Limit	Remark	
-----	-----	-----	-----	-----	-----	-----	-----	-----	
MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	1027.241	38.95	24.17	4.66	42.50	25.28	54.00	-28.72	Average
2	1027.241	49.19	24.17	4.66	42.50	35.52	74.00	-38.48	QP
3	1596.237	41.15	25.38	5.94	42.41	30.06	54.00	-23.94	Average
4	1596.237	52.51	25.38	5.94	42.41	41.42	74.00	-32.58	QP
5	1736.483	38.46	25.61	6.32	42.40	27.99	54.00	-26.01	Average
6	1736.483	49.56	25.61	6.32	42.40	39.09	74.00	-34.91	QP
7	1848.868	38.50	25.78	6.42	42.39	28.31	54.00	-25.69	Average
8	1848.868	48.99	25.78	6.42	42.39	38.80	74.00	-35.20	QP
9	1975.593	36.48	25.97	6.69	42.38	26.76	54.00	-27.24	Average
10	1975.593	47.20	25.97	6.69	42.38	37.48	74.00	-36.52	QP
11	4839.195	32.05	31.30	12.83	42.49	33.69	54.00	-20.31	Average
12	4839.195	43.53	31.30	12.83	42.49	45.17	74.00	-28.83	QP

Note:Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

Mode:b; Polarization:Vertical

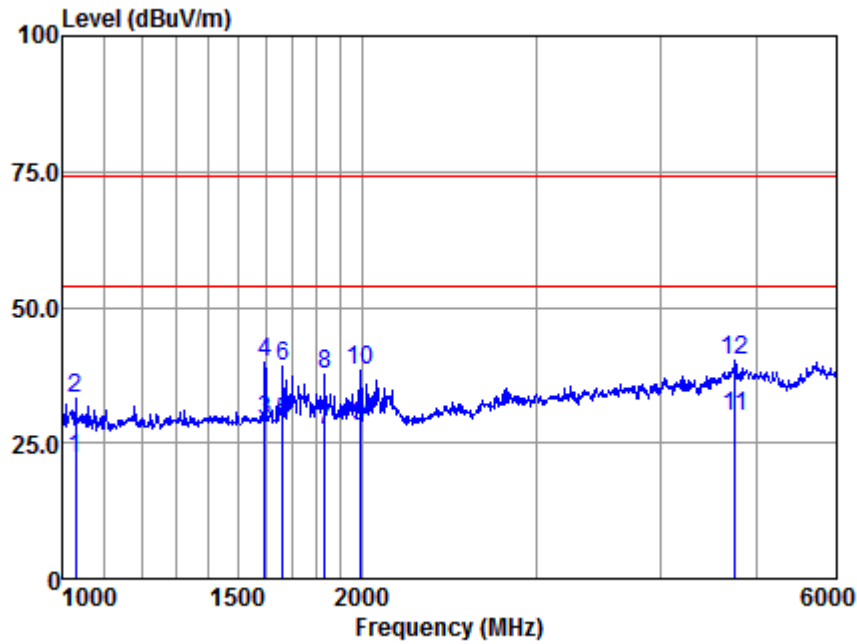


Antenna Polarity :VERTICAL  
EUT/Project :13960CR  
Test mode :b

	Read	Antenna	Cable	Preamp	Emission	Limit	Over	
-----	Level	Factor	Loss	Factor	Level	Line	Limit	Remark
-----	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	-----
MHz								
1	1019.905	42.25	24.16	4.47	42.50	28.38	54.00	-25.62 Average
2	1019.905	52.57	24.16	4.47	42.50	38.70	74.00	-35.30 Peak
3	1596.237	43.04	25.38	5.94	42.41	31.95	54.00	-22.05 Average
4	1596.237	54.51	25.38	5.94	42.41	43.42	74.00	-30.58 Peak
5	1848.868	36.85	25.78	6.42	42.39	26.66	54.00	-27.34 Average
6	1848.868	47.95	25.78	6.42	42.39	37.76	74.00	-36.24 Peak
7	1996.946	37.48	25.99	6.69	42.37	27.79	54.00	-26.21 Average
8	1996.946	48.16	25.99	6.69	42.37	38.47	74.00	-35.53 Peak
9	2993.840	33.62	28.48	8.52	42.30	28.32	54.00	-25.68 Average
10	2993.840	43.73	28.48	8.52	42.30	38.43	74.00	-35.57 Peak
11	4744.751	28.62	31.11	13.05	42.48	30.30	54.00	-23.70 Average
12	4744.751	38.05	31.11	13.05	42.48	39.73	74.00	-34.27 Peak

Note:Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

Mode:c; Polarization:Horizontal



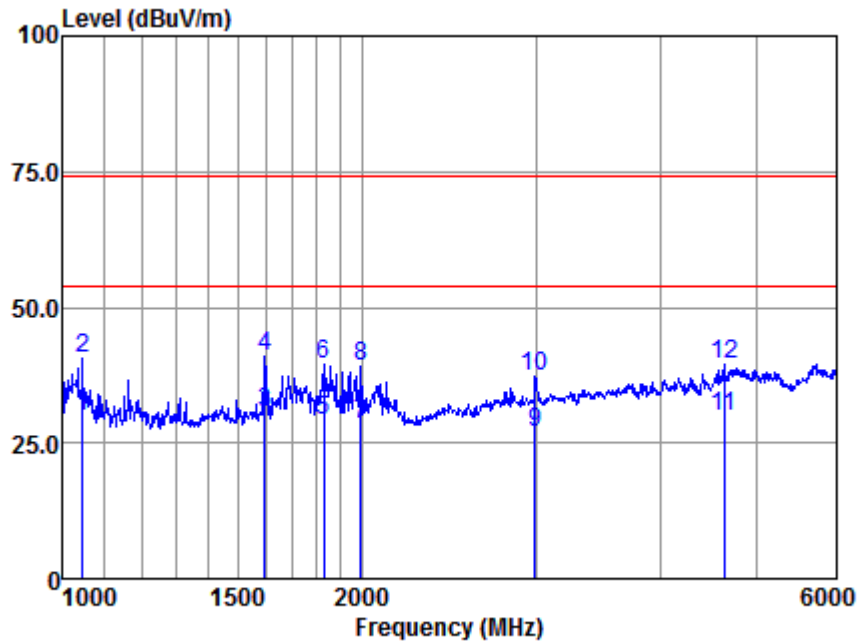
Antenna Polarity :HORIZONTAL  
EUT/Project :13960CR  
Test mode :c

	Read	Antenna	Cable	Preamp	Emission	Limit	Over		
-----	Level	Factor	Loss	Factor	Level	Line	Limit	Remark	
-----	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	-----	
MHz									
1	1029.083	35.84	24.18	4.66	42.49	22.19	54.00	-31.81	Average
2	1029.083	46.90	24.18	4.66	42.49	33.25	74.00	-40.75	Peak
3	1596.237	40.14	25.38	5.94	42.41	29.05	54.00	-24.95	Average
4	1596.237	50.97	25.38	5.94	42.41	39.88	74.00	-34.12	Peak
5	1663.393	39.74	25.49	6.03	42.41	28.85	54.00	-25.15	Average
6	1663.393	49.98	25.49	6.03	42.41	39.09	74.00	-34.91	Peak
7	1835.664	37.56	25.76	6.42	42.39	27.35	54.00	-26.65	Average
8	1835.664	47.91	25.76	6.42	42.39	37.70	74.00	-36.30	Peak
9	1989.803	37.58	25.98	6.69	42.37	27.88	54.00	-26.12	Average
10	1989.803	48.14	25.98	6.69	42.37	38.44	74.00	-35.56	Peak
11	4753.260	28.35	31.11	13.05	42.48	30.03	54.00	-23.97	Average
12	4753.260	38.41	31.11	13.05	42.48	40.09	74.00	-33.91	Peak

Note:Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor



Mode:c; Polarization:Vertical

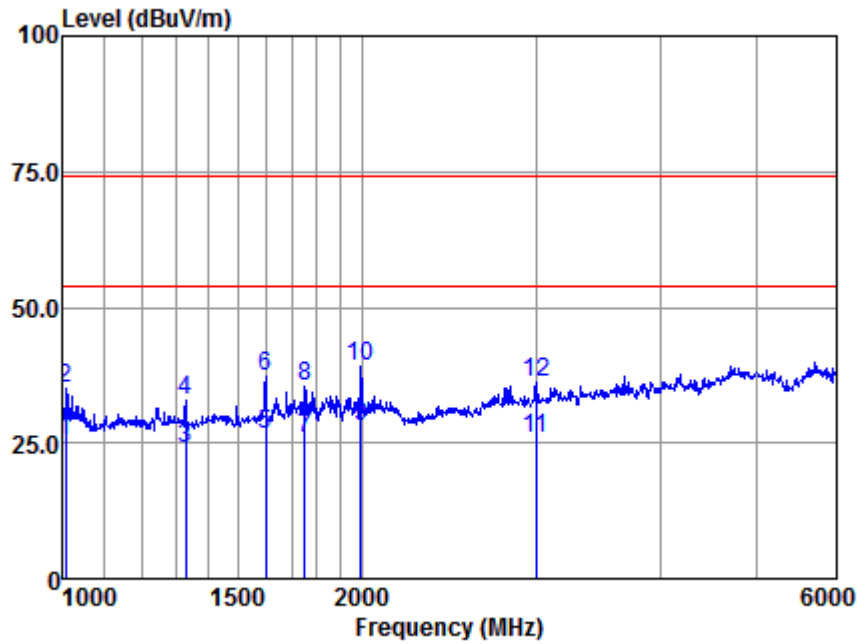


Antenna Polarity :VERTICAL  
EUT/Project :13960CR  
Test mode :c

	Read	Antenna	Cable	Preamp	Emission	Limit	Over		
-----	Level	Factor	Loss	Factor	Level	Line	Limit	Remark	
-----	-----	-----	-----	-----	-----	-----	-----	-----	
MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	1045.812	43.61	24.22	4.68	42.49	30.02	54.00	-23.98	Average
2	1045.812	54.16	24.22	4.68	42.49	40.57	74.00	-33.43	Peak
3	1596.237	41.57	25.38	5.94	42.41	30.48	54.00	-23.52	Average
4	1596.237	52.12	25.38	5.94	42.41	41.03	74.00	-32.97	Peak
5	1829.098	39.32	25.75	6.45	42.39	29.13	54.00	-24.87	Average
6	1829.098	49.85	25.75	6.45	42.39	39.66	74.00	-34.34	Peak
7	1996.946	37.95	25.99	6.69	42.37	28.26	54.00	-25.74	Average
8	1996.946	48.79	25.99	6.69	42.37	39.10	74.00	-34.90	Peak
9	2988.480	32.18	28.48	8.52	42.30	26.88	54.00	-27.12	Average
10	2988.480	42.58	28.48	8.52	42.30	37.28	74.00	-36.72	Peak
11	4627.211	28.68	30.87	12.65	42.47	29.73	54.00	-24.27	Average
12	4627.211	38.44	30.87	12.65	42.47	39.49	74.00	-34.51	Peak

Note:Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

Mode:d; Polarization:Horizontal

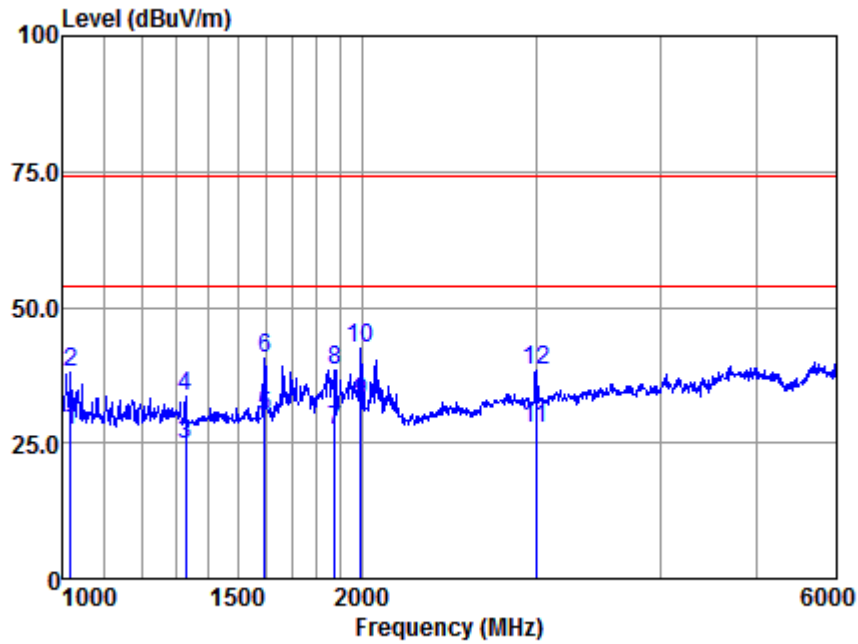


Antenna Polarity :HORIZONTAL  
EUT/Project :13960CR  
Test mode :d

	Read	Antenna	Cable	Preamp	Emission	Limit	Over		
-----	Level	Factor	Loss	Factor	Level	Line	Limit	Remark	
-----	-----	-----	-----	-----	-----	-----	-----	-----	
	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
MHz									
1	1007.193	39.55	24.12	4.33	42.50	25.50	54.00	-28.50	Average
2	1007.193	49.06	24.12	4.33	42.50	35.01	74.00	-38.99	Peak
3	1329.615	36.25	24.88	5.33	42.45	24.01	54.00	-29.99	Average
4	1329.615	45.10	24.88	5.33	42.45	32.86	74.00	-41.14	Peak
5	1599.100	37.58	25.38	5.94	42.41	26.49	54.00	-27.51	Average
6	1599.100	48.45	25.38	5.94	42.41	37.36	74.00	-36.64	Peak
7	1752.110	36.16	25.63	6.32	42.40	25.71	54.00	-28.29	Average
8	1752.110	45.96	25.63	6.32	42.40	35.51	74.00	-38.49	Peak
9	1996.946	37.56	25.99	6.69	42.37	27.87	54.00	-26.13	Average
10	1996.946	48.63	25.99	6.69	42.37	38.94	74.00	-35.06	Peak
11	2993.840	31.25	28.48	8.52	42.30	25.95	54.00	-28.05	Average
12	2993.840	41.61	28.48	8.52	42.30	36.31	74.00	-37.69	Peak

Note:Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

Mode:d; Polarization:Vertical

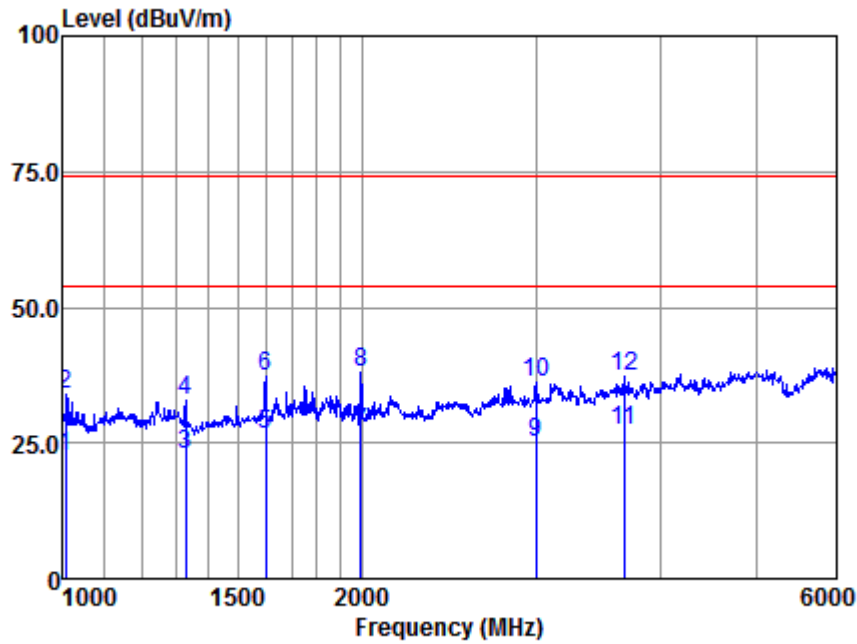


Antenna Polarity :VERTICAL  
EUT/Project :13960CR  
Test mode :d

	Read	Antenna	Cable	Preamp	Emission	Limit	Over	
-----	Level	Factor	Loss	Factor	Level	Line	Limit	Remark
-----	-----	-----	-----	-----	-----	-----	-----	-----
MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	1018.079	41.26	24.15	4.47	42.50	27.38	54.00	-26.62 Average
2	1018.079	52.01	24.15	4.47	42.50	38.13	74.00	-35.87 Peak
3	1329.615	36.85	24.88	5.33	42.45	24.61	54.00	-29.39 Average
4	1329.615	45.95	24.88	5.33	42.45	33.71	74.00	-40.29 Peak
5	1596.237	41.04	25.38	5.94	42.41	29.95	54.00	-24.05 Average
6	1596.237	51.66	25.38	5.94	42.41	40.57	74.00	-33.43 Peak
7	1878.924	37.59	25.82	6.46	42.39	27.48	54.00	-26.52 Average
8	1878.924	48.57	25.82	6.46	42.39	38.46	74.00	-35.54 Peak
9	1996.946	42.16	25.99	6.69	42.37	32.47	54.00	-21.53 Average
10	1996.946	52.28	25.99	6.69	42.37	42.59	74.00	-31.41 Peak
11	2993.840	32.87	28.48	8.52	42.30	27.57	54.00	-26.43 Average
12	2993.840	43.67	28.48	8.52	42.30	38.37	74.00	-35.63 Peak

Note:Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

Mode:e; Polarization:Horizontal

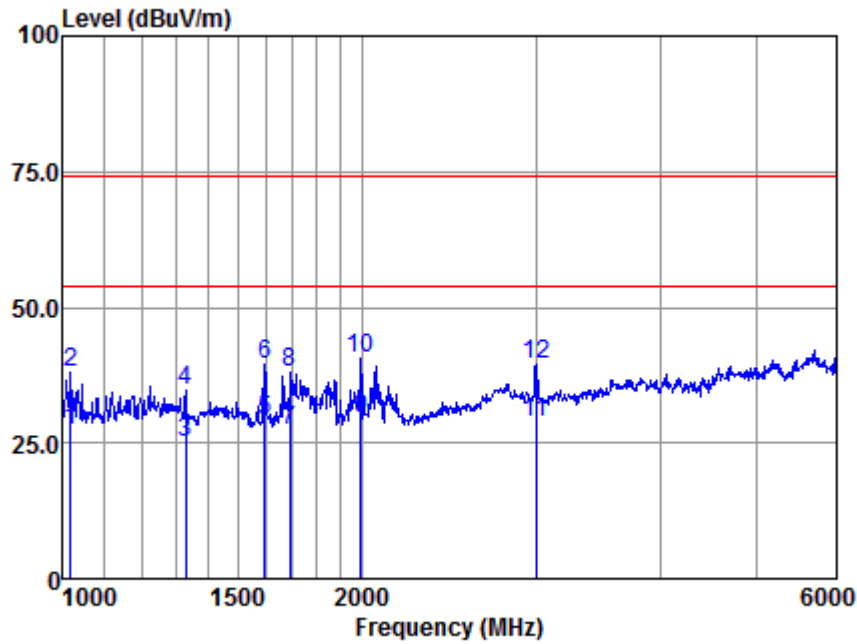


Antenna Polarity :HORIZONTAL  
EUT/Project :13960CR  
Test mode :e

	Read	Antenna	Cable	Preamp	Emission	Limit	Over	
-----	Level	Factor	Loss	Factor	Level	Line	Limit	Remark
-----	-----	-----	-----	-----	-----	-----	-----	-----
MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	1007.193	36.44	24.12	4.33	42.50	22.39	54.00	-31.61 Average
2	1007.193	48.06	24.12	4.33	42.50	34.01	74.00	-39.99 Peak
3	1329.615	35.26	24.88	5.33	42.45	23.02	54.00	-30.98 Average
4	1329.615	45.10	24.88	5.33	42.45	32.86	74.00	-41.14 Peak
5	1599.100	37.55	25.38	5.94	42.41	26.46	54.00	-27.54 Average
6	1599.100	48.45	25.38	5.94	42.41	37.36	74.00	-36.64 Peak
7	1996.946	36.48	25.99	6.69	42.37	26.79	54.00	-27.21 Average
8	1996.946	47.63	25.99	6.69	42.37	37.94	74.00	-36.06 Peak
9	2993.840	30.28	28.48	8.52	42.30	24.98	54.00	-29.02 Average
10	2993.840	41.61	28.48	8.52	42.30	36.31	74.00	-37.69 Peak
11	3672.297	30.15	29.13	10.40	42.38	27.30	54.00	-26.70 Average
12	3672.297	40.09	29.13	10.40	42.38	37.24	74.00	-36.76 Peak

Note:Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

Mode:e; Polarization:Vertical



Antenna Polarity :VERTICAL  
EUT/Project :13960CR  
Test mode :e

	Read	Antenna	Cable	Preamp	Emission	Limit	Over		
-----	Level	Factor	Loss	Factor	Level	Line	Limit	Remark	
-----	-----	-----	-----	-----	-----	-----	-----	-----	
Freq	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
-----	-----	-----	-----	-----	-----	-----	-----	-----	
MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	1018.079	41.35	24.15	4.47	42.50	27.47	54.00	-26.53	Average
2	1018.079	52.01	24.15	4.47	42.50	38.13	74.00	-35.87	Peak
3	1329.615	37.25	24.88	5.33	42.45	25.01	54.00	-28.99	Average
4	1329.615	46.95	24.88	5.33	42.45	34.71	74.00	-39.29	Peak
5	1596.237	40.14	25.38	5.94	42.41	29.05	54.00	-24.95	Average
6	1596.237	50.66	25.38	5.94	42.41	39.57	74.00	-34.43	Peak
7	1693.466	38.14	25.54	6.09	42.40	27.37	54.00	-26.63	Average
8	1693.466	48.62	25.54	6.09	42.40	37.85	74.00	-36.15	Peak
9	1996.946	39.12	25.99	6.69	42.37	29.43	54.00	-24.57	Average
10	1996.946	50.28	25.99	6.69	42.37	40.59	74.00	-33.41	Peak
11	2993.840	34.25	28.48	8.52	42.30	28.95	54.00	-25.05	Average
12	2993.840	44.67	28.48	8.52	42.30	39.37	74.00	-34.63	Peak

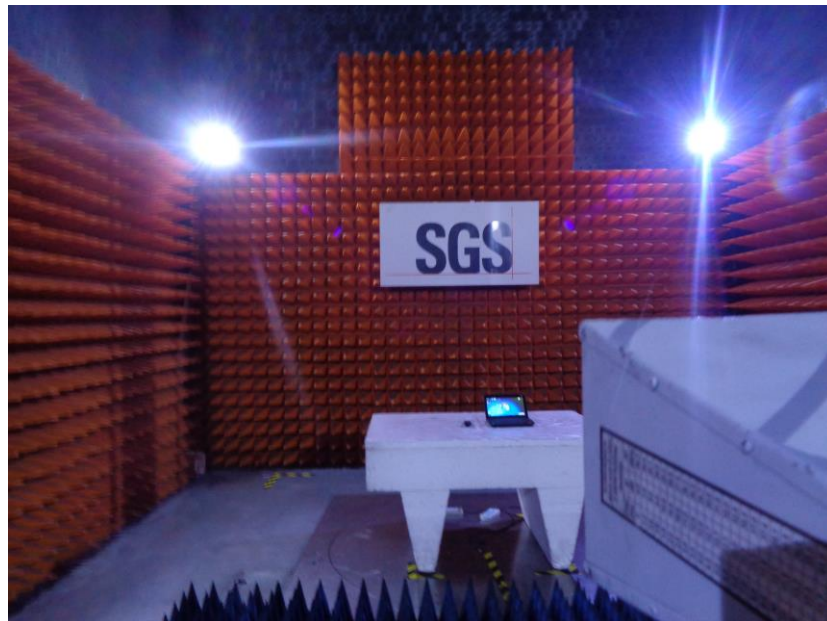
Note:Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

## 7 Photographs

### 7.1 Radiated Emissions (30MHz-1GHz) Test Setup



### 7.2 Radiated Emissions (above 1GHz) Test Setup

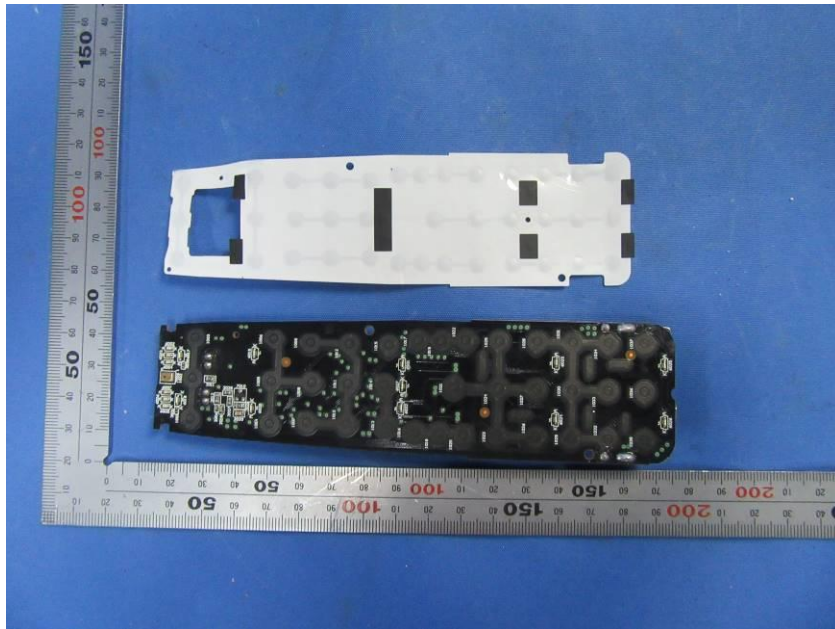


### 7.3 EUT Constructional Details (EUT Photos)











- End of the Report -