

FCC AND ISED TEST REPORT FOR CERTIFICATION  
On Behalf of

INMUSIC BRANDS INC

CD player

Model Number: DN-700CB

Additional Model: DP30

FCC ID:Y4O-DP30

IC: 11215A-DP30

Prepared for:	INMUSIC BRANDS INC
	200 SCENIC VIEW DRIVE, SUITE 201, CUMBERLAND, RI 02864,
	U.S.A
Prepared By:	EST Technology Co., Ltd.
	Chilingxiang, Qishantou, Santun, Houjie, Dongguan, Guangdong, China
	Tel: 86-769-83081888-808

Report Number:	ESTE-R1809085
Date of Test:	September 06 ~ 26, 2018
Date of Report:	September 28, 2018

# TABLE OF CONTENTS

Description	Page
TEST REPORT VERIFICATION.....	3
1. GENERAL INFORMATION.....	5
1.1. Description of Device (EUT) .....	5
2. SUMMARY OF TEST .....	6
2.1. Summary of test result.....	6
2.2. Test Facilities .....	7
2.3. Measurement uncertainty .....	8
2.4. Assistant equipment used for test.....	8
2.5. Block Diagram .....	8
2.6. Test mode .....	9
2.7. Channel List .....	9
2.8. Test Equipment.....	10
3. POWER LINE CONDUCTED EMISSION TEST.....	12
3.1. Limit.....	12
3.2. Test Procedure.....	12
3.3. Test Result.....	12
3.4. Test Data .....	13
4. RADIATED EMISSION TEST .....	19
4.1. Limit.....	19
4.2. Block Diagram of Test setup.....	20
4.3. Test Procedure.....	21
4.4. Test Result.....	21
4.5. Test Data .....	22
5. BAND EDGE COMPLIANCE TEST .....	48
5.1. Limit.....	48
5.2. Block Diagram of Test setup.....	48
5.3. Test Procedure.....	48
5.4. Test Result.....	48
5.5. Test Data .....	49
6. 6dB Bandwidth Test.....	57
6.1. Limit.....	57
6.2. Test Procedure.....	57
6.3. Test Result.....	57
6.4. Test Data .....	58
7. 99% BANDWIDTH .....	60
7.1. Limit.....	60
7.2. Test Procedure.....	60
7.3. Test Result.....	60
7.4. Test Data .....	61
8. OUTPUT POWER TEST .....	63
8.1. Limit.....	63
8.2. Test Procedure.....	63
8.3. Test Result.....	63
8.4. Test Data .....	64

9    POWER SPECTRAL DENSITY TEST .....66

    9.1    Limit .....66

    9.2    Test Procedure .....66

    9.3    Test Result.....66

    9.4    Test Data .....67

10   ANTENNA REQUIREMENTS .....69




    10.1   Limit .....69

    10.2   Result.....69

11   TEST SETUP PHOTO .....70

12   PHOTO EUT.....73

## EST Technology Co., Ltd.

<b>Applicant:</b>	INMUSIC BRANDS INC		
<b>Address:</b>	200 SCENIC VIEW DRIVE, SUITE 201, CUMBERLAND, RI 02864,U.S.A		
<b>Manufacturer:</b>	INMUSIC BRANDS INC		
<b>Address:</b>	200 SCENIC VIEW DRIVE, SUITE 201, CUMBERLAND, RI 02864,U.S.A		
<b>E.U.T:</b>	CD player		
<b>Model Number:</b>	DN-700CB		
<b>Additional Model:</b>	DP30 Note: They are identical to each other, only except for model name, appearance in color or decorating parts and silkscreen for marketing purpose.		
<b>Power Supply:</b>	AC 100-240V ~ 50/60Hz, 20W		
<b>Test Voltage:</b>	AC 120V/60Hz AC 240V/60Hz		
<b>Trade Name:</b>	Denon professional	<b>Serial No.:</b>	-----
<b>Date of Receipt:</b>	August 30, 2018	<b>Date of Test:</b>	September 06 ~ 26, 2018
<b>Test Specification:</b>	FCC Rules and Regulations Part 15 Subpart C:2017 ANSI C63.10:2013 RSS 247 Issue 2.0 February 2017 RSS GEN Issue 5, April 2018		
<b>Test Result:</b>	<p>The device described above is tested by EST Technology Co., Ltd.. The measurement results were contained in this test report and EST Technology Co., Ltd. was assumed full responsibility for the accuracy and completeness of these measurements. Also, this report shows that the EUT to be technically compliance with the Regulations Part 15 Subpart C and RSS-247 requirements.</p> <p>This report applies to above tested sample only and shall not be reproduced in part without written approval of EST Technology Co., Ltd.</p> <p style="text-align: right;"><b>Date:</b> September 28, 2018</p>		
<b>Prepared by:</b>	<b>Reviewed by:</b>	<b>Approved by:</b>	
 <hr/> Ring / Assistant	 <hr/> Tony / Engineer	 <hr/> Iceman Hu / Manager	
<b>Other Aspects:</b>	None.		
Abbreviations: OK/P=passed    fail/F=failed    n.a/N=not applicable    E.U.T=equipment under tested			
This test report is based on a single evaluation of one sample of above mentioned products ,It is not permitted to be duplicated in extracts without written approval of EST Technology Co., Ltd.			

# 1. GENERAL INFORMATION

## 1.1. Description of Device (EUT)

Product Name	:	CD player			
Model Number	:	DN-700CB			
FCC ID	:	Y4O-DP30			
IC	:	11215A-DP30			
Operation frequency	:	2402MHz~2480MHz			
Number of channel	:	79		40	
Antenna	:	Antenna	M/N	Type	Gain
		1	AN13-04	External Antenna	2.5 dBi
		2	TQC-2400-1.8DXBNC		2.5 dBi
		Note: The device has one BNC jack, and include two antennas for customers to choose one to use.			
Modulation	:	Dual-mode Bluetooth 4.0 BT BDR: GFSK BT EDR: $\pi/4$ -DQPSK BT EDR: 8-DPSK		Dual-mode Bluetooth 4.0 BLE: GFSK	
Product Software Version	:	V1.07			
Product Hardware Version	:	HMS1			
Radio Software Version	:	BT V0101			
Radio Hardware Version	:	OTS1			
RF power setting in test SW	:	7			
Test SW Version	:	RTK BT MP TOOL			

## 2. SUMMARY OF TEST

### 2.1. Summary of test result

Description of Test Item	Standard	Results
Power Line Conducted Emission	FCC Part 15: 15.207 ANSI C63.10:2013 RSS Gen Issue 5 Section8.8	PASS
Radiated Emissions	FCC Part 15: 15.209 ANSI C63.10:2013 KDB 558074 RSS 247 Issue 2 Section5.5 RSS Gen Issue 5 Section8.9 RSS Gen Issue 5 Section8.10	PASS
Band Edge Compliance Test	FCC Part 15: 15.247 ANSI C63.10:2013 KDB 558074 RSS Gen Issue 5 Section6.6	PASS
6dB Bandwidth	FCC Part 15: 15.247 ANSI C63.10:2013 KDB 558074 RSS 247 Issue 2 Section5.2 (a)	PASS
99% Bandwidth	RSS Gen Issue 5 Section6.6	PASS
Peak Output Power	FCC Part 15: 15.247 ANSI C63.10:2013 KDB 558074 RSS Gen Issue 5 Section8.6	PASS
Power Spectral Density	FCC Part 15: 15.247 ANSI C63.10:2013 KDB 558074 RSS 247 Issue 2 Section5.2 (b)	PASS
Antenna requirement	FCC Part 15: 15.203	PASS
Note: KDB 558074 D01 15.247 Meas Guidance v05		

## 2.2. Test Facilities

EMC Lab	:	<p>Certificated by CNAS, CHINA Registration No.: L5288 Date of registration: November 13, 2017</p> <p>Certificated by A2LA, USA Registration No.: 4366.01 Date of registration: November 07, 2017</p> <p>Certificated by FCC, USA Designation Number: CN1215 Registration No.: 722932 Date of registration: November 21, 2017</p> <p>Certificated by Industry Canada Registration No.: 9405A Date of registration: December 03, 2015</p> <p>Certificated by VCCI, Japan Registration No.: R-13663; C-14103 Date of registration: July 25, 2017 This Certificate is valid until: July 24, 2020</p> <p>Certificated by TUV Rheinland, Germany Registration No.: UA 50195514 0001 Date of registration: February 07, 2015</p> <p>Certificated by TUV/PS, Shenzhen Registration No.: SCN1017 Date of registration: January 27, 2011</p> <p>Certificated by Intertek ETL SEMKO Registration No.: 2011-RTL-L2-64 Date of registration: April 28, 2011</p> <p>Certificated by Nemko, Hong Kong Registration No.: 175193 Date of registration: May 4, 2011</p>
Name of Firm	:	EST Technology Co., Ltd.
Site Location	:	Chilingxiang, Qishantou, Santun, Houjie, Dongguan, Guangdong, China

## 2.3. Measurement uncertainty

Test Item	Uncertainty
Uncertainty for Conduction emission test	$\pm 3.48\text{dB}$
Uncertainty for spurious emissions test (30MHz-1GHz)	$\pm 4.60\text{ dB(Polarize: H)}$
	$\pm 4.68\text{ dB(Polarize: V)}$
Uncertainty for spurious emissions test (1GHz to 18GHz)	$\pm 4.96\text{dB}$
Uncertainty for radio frequency	$7 \times 10^{-8}$
Uncertainty for conducted RF Power	$0.20\text{dB}$
Uncertainty for Power density test	$0.26\text{dB}$

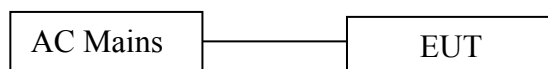
Note: This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of  $k=2$ .

## 2.4. Assistant equipment used for test

2.4.1. N/A

## 2.5. Block Diagram

For radiated emissions test: EUT was placed on a turn table, which is 0.8 (or 1.5) meter high above ground. EUT was be set into Bluetooth test mode by software before test.



(EUT: CD player)



## 2.6. Test mode

A special test software was used to control EUT work in Continuous TX mode(100% duty cycle), and select test channel, wireless mode and data rate.

Mode	Channel	Frequency
BT 4.0-BLE GFSK	Low	2402MHz
	Middle	2440MHz
	High	2480MHz

## 2.7. Channel List

Channel No.	Frequency (MHz)	Channel No.	Frequency (MHz)
1	2402	2	2404
3	2406	4	2408
5	2410	6	2412
7	2414	8	2416
9	2418	10	2420
11	2422	12	2424
13	2426	14	2428
15	2430	16	2432
17	2434	18	2436
19	2438	20	2440
21	2442	22	2444
23	2446	24	2448
25	2450	26	2452
27	2454	28	2456
29	2458	30	2460
31	2462	32	2464
33	2466	34	2468
35	2470	36	2472
37	2474	38	2476
39	2478	40	2480

## 2.8. Test Equipment

### 2.8.1. For conducted emission test

Equipment	Manufacturer	Model No.	Serial No.	Calibration Body	Last Cal.	Next Cal.
EMI Test Receiver	Rohde & Schwarz	ESHS30	832354	CEPREI	June 15,18	1 Year
Artificial Mains Network	Rohde & Schwarz	ENV216	101260	CEPREI	June 15,18	1 Year
Pulse Limiter	Rohde & Schwarz	ESH3-Z2	101100	CEPREI	June 15,18	1 Year
Test Software	Audix	e3-6.111221a	N/A	N/A	N/A	N/A

### 2.8.2. For radiated emission test(9 kHz-30MHz)

Equipment	Manufacturer	Model No.	Serial No.	Calibration Body	Last Cal.	Next Cal.
EMI Test Receiver	Rohde & Schwarz	ESR7	101780	CEPREI	June 15,18	1 Year
Active Loop Antenna	SCHWARZB ECK	FMZB1519	1519-038	CEPREI	October 08,17	1 Year
Test Software	Audix	e3-6.111221a	N/A	N/A	N/A	N/A

### 2.8.3. For radiated emissions test (30-1000MHz)

Equipment	Manufacturer	Model No.	Serial No.	Calibration Body	Last Cal.	Next Cal.
EMI Test Receiver	Rohde & Schwarz	ESR7	101780	CEPREI	June 15,18	1 Year
Bilog Antenna	Teseq	CBL 6111D	27090	CEPREI	June 15,18	1 Year
Test Software	Audix	e3-6.111221a	N/A	N/A	N/A	N/A

### 2.8.4. For radiated emission test(above 1GHz)

Equipment	Manufacturer	Model No.	Serial No.	Calibration Body	Last Cal.	Next Cal.
Horn Antenna	SCHWARZB ECK	BBHA 9120 D	BBHA912 0D1002	CEPREI	June 18,18	1 Year
Horn Antenna	SCHWARZB ECK	BBHA9170	BBHA917 0242	CEPREI	June 18,18	1 Year
Signal Amplifier	SCHWARZB ECK	BBV9718	9718-212	CEPREI	June 15,18	1 Year
Spectrum Analyzer	Rohde &Schwarz	FSV	103173	CEPREI	June 15,18	1 Year
PSA Series Spertrum Analyzer	Agilent	E4447A	MY50180 031	CEPREI	June 15,18	1 Year
Test Software	Audix	e3-6.111221a	N/A	N/A	N/A	N/A

## 2.8.5. For connect EUT antenna terminal test

Equipment	Manufacturer	Model No.	Serial No.	Calibration Body	Last Cal.	Next Cal.
Spectrum Analyzer	Rohde & Schwarz	FSV	103173	CEPREI	June 15,18	1 Year
Spectrum Analyzer	Agilent	E4408B	MY44211 139	CEPREI	June 15,18	1 Year

### 3 POWER LINE CONDUCTED EMISSION TEST

#### 3.1. Limit

Frequency	Maximum RF Line Voltage	
	Quasi-Peak Level dB( $\mu$ V)	Average Level dB( $\mu$ V)
150kHz ~ 500kHz	66 ~ 56*	56 ~ 46*
500kHz ~ 5MHz	56	46
5MHz ~ 30MHz	60	50

Notes: 1. \* Decreasing linearly with logarithm of frequency.

2. The lower limit shall apply at the transition frequencies.

#### 3.2 Test Procedure

The EUT was placed on a non-metallic table, 80cm above the ground plane. The EUT Power connected to the power mains through a line impedance stabilization network (L.I.S.N. 1#). This provides a 50 ohm coupling impedance for the EUT (Please refer the block diagram of the test setup and photographs). The AC line are checked to find out the maximum conducted emission. In order to find the maximum emission levels, the relative positions of equipment and all of the interface cables shall be changed according to ANSI C63.10: 2013 on Conducted Emission Test.

The bandwidth of test receiver (R & S ESHS30) is set at 10kHz.

The frequency range from 150kHz to 30MHz is checked.

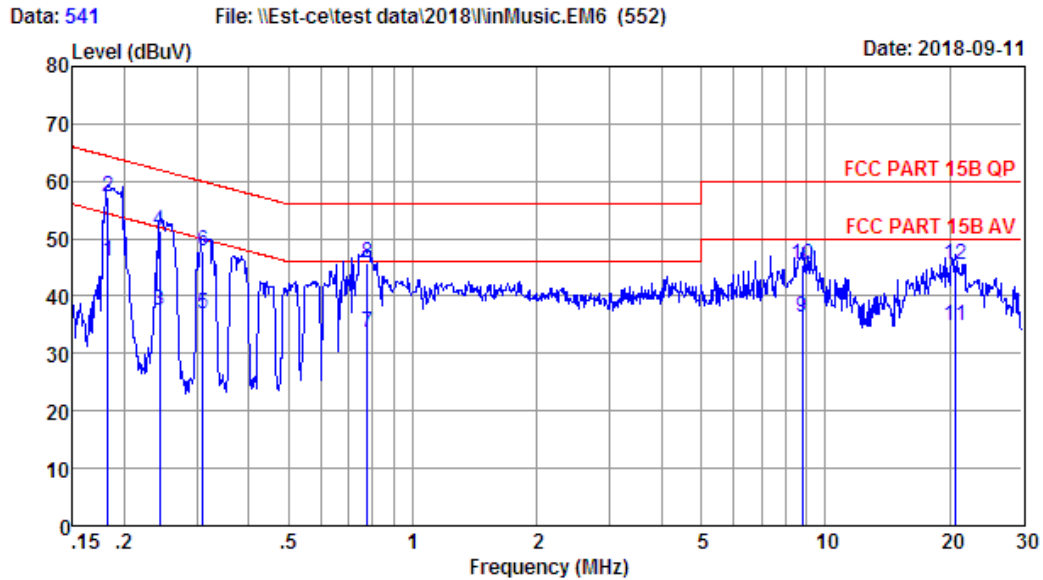
#### 3.3. Test Result

**PASS.** (All emissions not reported below are too low against the prescribed limits.)

## 3.4. Test Data

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Site no : 844 Shield Room Data no. : 541  
 Env. / Ins. : Temp:23.4°C Humi:49% Press:101.50kPa LINE Phase : LINE  
 Limit : FCC PART 15B QP  
 Engineer : Viking  
 EUT : CD player  
 Power : AC 120V/60Hz  
 M/N : DN-700CB  
 Test Mode : TX Mode

	Freq. (MHz)	LISN Factor (dB)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV)	Limits (dBuV)	Margin (dB)	Remark
1	0.182	9.73	9.77	26.43	45.93	54.37	8.44	Average
2	0.182	9.73	9.77	37.69	57.19	64.37	7.18	QP
3	0.243	9.72	9.92	17.90	37.54	52.00	14.46	Average
4	0.243	9.72	9.92	31.81	51.45	62.00	10.55	QP
5	0.310	9.72	9.92	17.30	36.94	49.97	13.03	Average
6	0.310	9.72	9.92	28.23	47.87	59.97	12.10	QP
7	0.775	9.72	9.93	13.93	33.58	46.00	12.42	Average
8	0.775	9.72	9.93	26.24	45.89	56.00	10.11	QP
9	8.776	9.81	10.05	16.43	36.29	50.00	13.71	Average
10	8.776	9.81	10.05	25.63	45.49	60.00	14.51	QP
11	20.594	10.07	10.16	14.67	34.90	50.00	15.10	Average
12	20.594	10.07	10.16	25.09	45.32	60.00	14.68	QP

Remarks: 1. Emission Level= LISN Factor + Cable Loss + Reading.  
 2. Margin= Limit - Emission Level.  
 3. If the average limit is met when using a quasi-peak detector,  
 the EUT shall be deemed to meet both limits and measurement  
 with average detector is unnecessary.

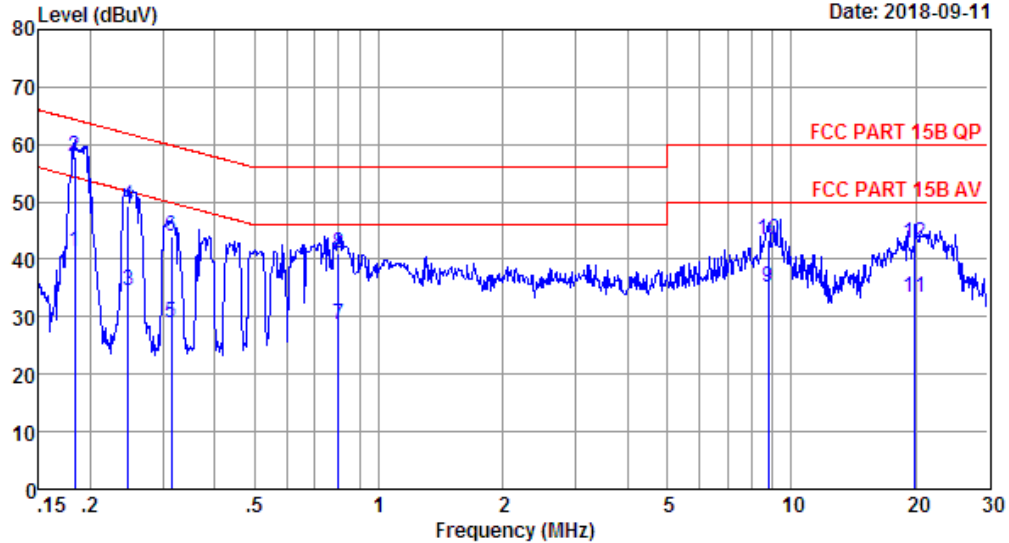
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Data: 543

File: \\Est-ce\test data\2018\WinMusic.EM6 (552)

Date: 2018-09-11



Site no : 844 Shield Room Data no. : 543  
Env. / Ins. : Temp:23.4°C Humi:49% Press:101.50kPa LINE Phase : NEUTRAL  
Limit : FCC PART 15B QP  
Engineer : Viking  
EUT : CD player  
Power : AC 120V/60Hz  
M/N : DN-700CB  
Test Mode : TX Mode

	Freq. (MHz)	LISN Factor (dB)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV)	Limits (dBuV)	Margin (dB)	Remark
1	0.183	9.62	9.77	22.04	41.43	54.33	12.90	Average
2	0.183	9.62	9.77	38.40	57.79	64.33	6.54	QP
3	0.247	9.62	9.92	14.90	34.44	51.86	17.42	Average
4	0.247	9.62	9.92	29.83	49.37	61.86	12.49	QP
5	0.315	9.63	9.92	9.30	28.85	49.84	20.99	Average
6	0.315	9.63	9.92	24.44	43.99	59.84	15.85	QP
7	0.800	9.70	9.93	8.93	28.56	46.00	17.44	Average
8	0.800	9.70	9.93	21.54	41.17	56.00	14.83	QP
9	8.776	10.00	10.05	15.06	35.11	50.00	14.89	Average
10	8.776	10.00	10.05	23.36	43.41	60.00	16.59	QP
11	19.950	10.18	10.16	13.15	33.49	50.00	16.51	Average
12	19.950	10.18	10.16	22.60	42.94	60.00	17.06	QP

Remarks: 1. Emission Level= LISN Factor + Cable Loss + Reading.  
2. Margin= Limit - Emission Level.  
3. If the average limit is met when using a quasi-peak detector,  
the EUT shall be deemed to meet both limits and measurement  
with average detector is unnecessary.

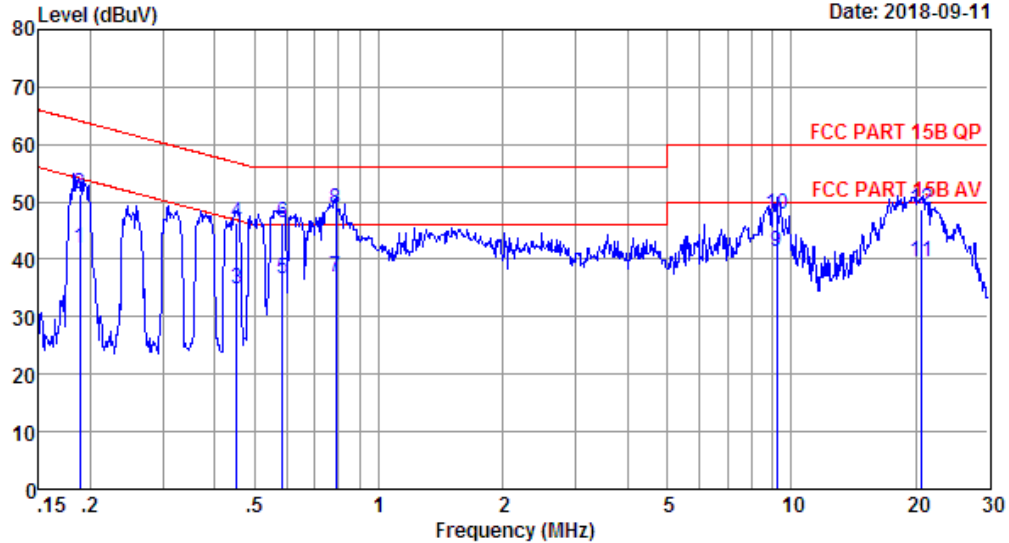
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Data: 545

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Date: 2018-09-11



Site no : 844 Shield Room Data no. : 545  
Env. / Ins. : Temp:23.4°C Humi:49% Press:101.50kPa LINE Phase : LINE  
Limit : FCC PART 15B QP  
Engineer : Viking  
EUT : CD player  
Power : AC 240V/60Hz  
M/N : DN-700CB  
Test Mode : TX Mode

	Freq. (MHz)	LISN Factor (dB)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV)	Limits (dBuV)	Margin (dB)	Remark
1	0.188	9.73	9.77	22.43	41.93	54.11	12.18	Average
2	0.188	9.73	9.77	31.97	51.47	64.11	12.64	QP
3	0.452	9.72	9.92	15.20	34.84	46.85	12.01	Average
4	0.452	9.72	9.92	26.62	46.26	56.85	10.59	QP
5	0.585	9.72	9.92	17.05	36.69	46.00	9.31	Average
6	0.585	9.72	9.92	26.75	46.39	56.00	9.61	QP
7	0.788	9.72	9.93	17.33	36.98	46.00	9.02	Average
8	0.788	9.72	9.93	28.98	48.63	56.00	7.37	QP
9	9.204	9.81	10.06	21.59	41.46	50.00	8.54	Average
10	9.204	9.81	10.06	27.97	47.84	60.00	12.16	QP
11	20.704	10.07	10.15	19.20	39.42	50.00	10.58	Average
12	20.704	10.07	10.15	28.58	48.80	60.00	11.20	QP

Remarks: 1. Emission Level= LISN Factor + Cable Loss + Reading.  
2. Margin= Limit - Emission Level.  
3. If the average limit is met when using a quasi-peak detector,  
the EUT shall be deemed to meet both limits and measurement  
with average detector is unnecessary.

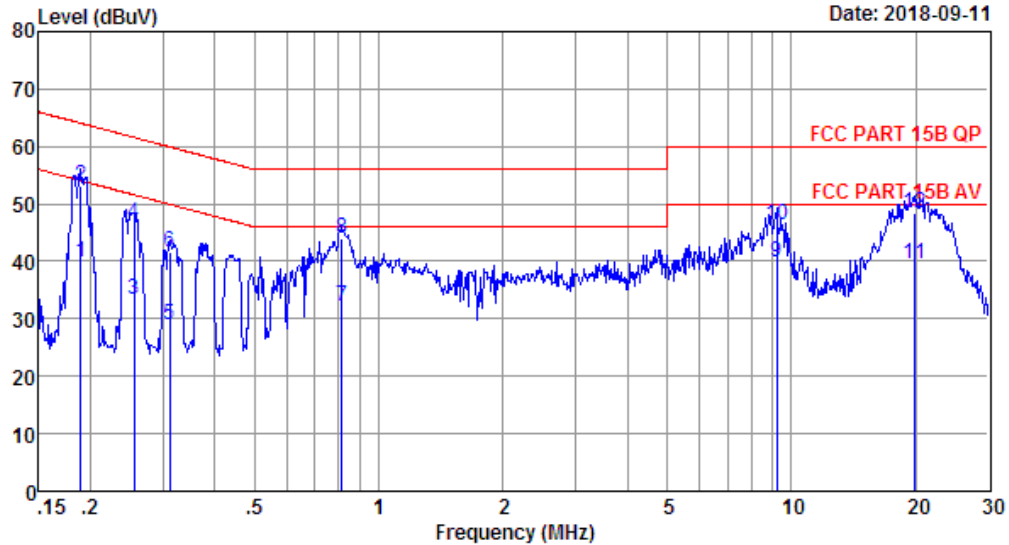
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Data: 547

File: \\Est-ce\test data\2018\WinMusic.EM6 (552)

Date: 2018-09-11



Site no : 844 Shield Room Data no. : 547  
Env. / Ins. : Temp:23.4°C Humi:49% Press:101.50kPa LINE Phase : NEUTRAL  
Limit : FCC PART 15B QP  
Engineer : Viking  
EUT : CD player  
Power : AC 240V/60Hz  
M/N : DN-700CB  
Test Mode : TX Mode

	Freq. (MHz)	LISN Factor (dB)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV)	Limits (dBuV)	Margin (dB)	Remark
1	0.189	9.62	9.77	20.43	39.82	54.06	14.24	Average
2	0.189	9.62	9.77	33.70	53.09	64.06	10.97	QP
3	0.255	9.62	9.92	13.90	33.44	51.60	18.16	Average
4	0.255	9.62	9.92	27.01	46.55	61.60	15.05	QP
5	0.312	9.63	9.92	9.30	28.85	49.93	21.08	Average
6	0.312	9.63	9.92	22.16	41.71	59.93	18.22	QP
7	0.813	9.70	9.93	12.57	32.20	46.00	13.80	Average
8	0.813	9.70	9.93	24.30	43.93	56.00	12.07	QP
9	9.204	10.00	10.06	19.69	39.75	50.00	10.25	Average
10	9.204	10.00	10.06	26.38	46.44	60.00	13.56	QP
11	19.950	10.18	10.16	19.15	39.49	50.00	10.51	Average
12	19.950	10.18	10.16	27.99	48.33	60.00	11.67	QP

Remarks: 1. Emission Level= LISN Factor + Cable Loss + Reading.  
2. Margin= Limit - Emission Level.  
3. If the average limit is met when using a quasi-peak detector,  
the EUT shall be deemed to meet both limits and measurement  
with average detector is unnecessary.



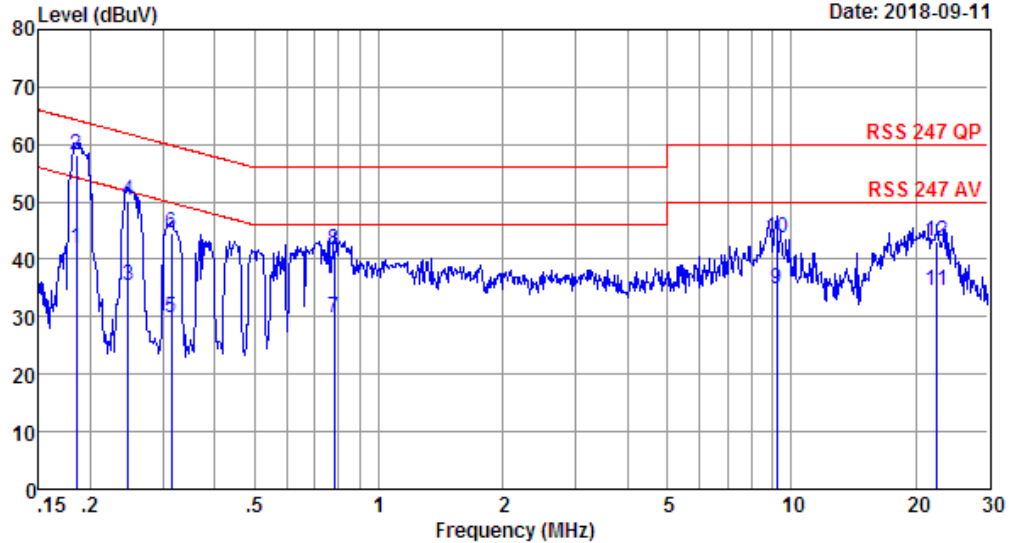
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Data: 549

File: \\Est-ce\test data\2018\11\inMusic.EM6 (552)

Date: 2018-09-11



Site no : 844 Shield Room Data no. : 549  
Env. / Ins. : Temp:23.4°C Humi:49% Press:101.50kPa LINE Phase : NEUTRAL  
Limit : RSS 247 QP  
Engineer : Viking  
EUT : CD player  
Power : AC 120V/60Hz  
M/N : DN-700CB  
Test Mode : RX Mode

	Freq. (MHz)	LISN Factor (dB)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV)	Limits (dBuV)	Margin (dB)	Remark
1	0.185	9.62	9.77	22.43	41.82	54.24	12.42	Average
2	0.185	9.62	9.77	38.80	58.19	64.24	6.05	QP
3	0.247	9.62	9.92	15.90	35.44	51.86	16.42	Average
4	0.247	9.62	9.92	30.77	50.31	61.86	11.55	QP
5	0.315	9.63	9.92	10.30	29.85	49.84	19.99	Average
6	0.315	9.63	9.92	25.02	44.57	59.84	15.27	QP
7	0.779	9.70	9.93	10.26	29.89	46.00	16.11	Average
8	0.779	9.70	9.93	21.92	41.55	56.00	14.45	QP
9	9.204	10.00	10.06	14.69	34.75	50.00	15.25	Average
10	9.204	10.00	10.06	23.50	43.56	60.00	16.44	QP
11	22.535	10.20	10.16	14.22	34.58	50.00	15.42	Average
12	22.535	10.20	10.16	22.61	42.97	60.00	17.03	QP

Remarks: 1. Emission Level= LISN Factor + Cable Loss + Reading.  
2. Margin= Limit - Emission Level.  
3. If the average limit is met when using a quasi-peak detector,  
the EUT shall be deemed to meet both limits and measurement  
with average detector is unnecessary.

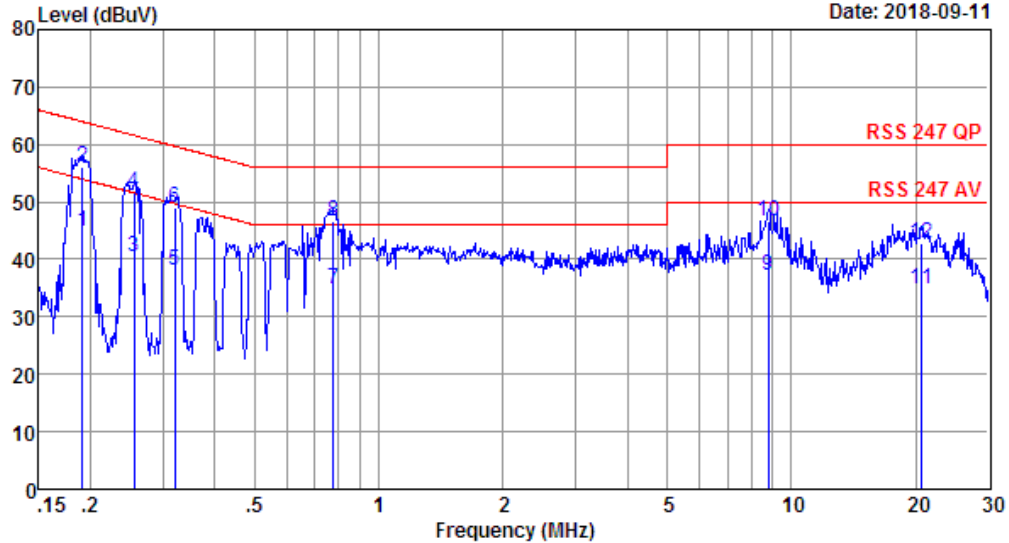
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Data: 551

File: \\Est-ce\test data\2018\WinMusic.EM6 (552)

Date: 2018-09-11



Site no : 844 Shield Room Data no. : 551  
Env. / Ins. : Temp:23.4°C Humi:49% Press:101.50kPa LINE Phase : LINE  
Limit : RSS 247 QP  
Engineer : Viking  
EUT : CD player  
Power : AC 120V/60Hz  
M/N : DN-700CB  
Test Mode : RX Mode

	Freq. (MHz)	LISN Factor (dB)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV)	Limits (dBuV)	Margin (dB)	Remark
1	0.191	9.73	9.77	25.43	44.93	53.98	9.05	Average
2	0.191	9.73	9.77	36.55	56.05	63.98	7.93	QP
3	0.255	9.72	9.92	20.90	40.54	51.60	11.06	Average
4	0.255	9.72	9.92	32.13	51.77	61.60	9.83	QP
5	0.320	9.72	9.92	18.33	37.97	49.71	11.74	Average
6	0.320	9.72	9.92	29.23	48.87	59.71	10.84	QP
7	0.775	9.72	9.93	15.33	34.98	46.00	11.02	Average
8	0.775	9.72	9.93	26.94	46.59	56.00	9.41	QP
9	8.776	9.81	10.05	17.43	37.29	50.00	12.71	Average
10	8.776	9.81	10.05	26.83	46.69	60.00	13.31	QP
11	20.594	10.07	10.16	14.67	34.90	50.00	15.10	Average
12	20.594	10.07	10.16	22.67	42.90	60.00	17.10	QP

Remarks: 1. Emission Level= LISN Factor + Cable Loss + Reading.  
2. Margin= Limit - Emission Level.  
3. If the average limit is met when using a quasi-peak detector,  
the EUT shall be deemed to meet both limits and measurement  
with average detector is unnecessary.

## 4 RADIATED EMISSION TEST

### 4.1 Limit

#### 4.1.1 15.209 limits

Frequency (MHz)	Field Strength( $\mu\text{V/m}$ )	Distance(m)
0.009-0.490	2400/F(kHz)	300
0.490-1.705	24000/F(kHz)	30
1.705-30	30	30
30-88	100	3
88-216	150	3
216-960	200	3
Above 960	500	3

Remark : (1) Emission level  $\text{dB}\mu\text{V} = 20 \log \text{Emission level } \mu\text{V/m}$

(2) The smaller limit shall apply at the cross point between two frequency bands.

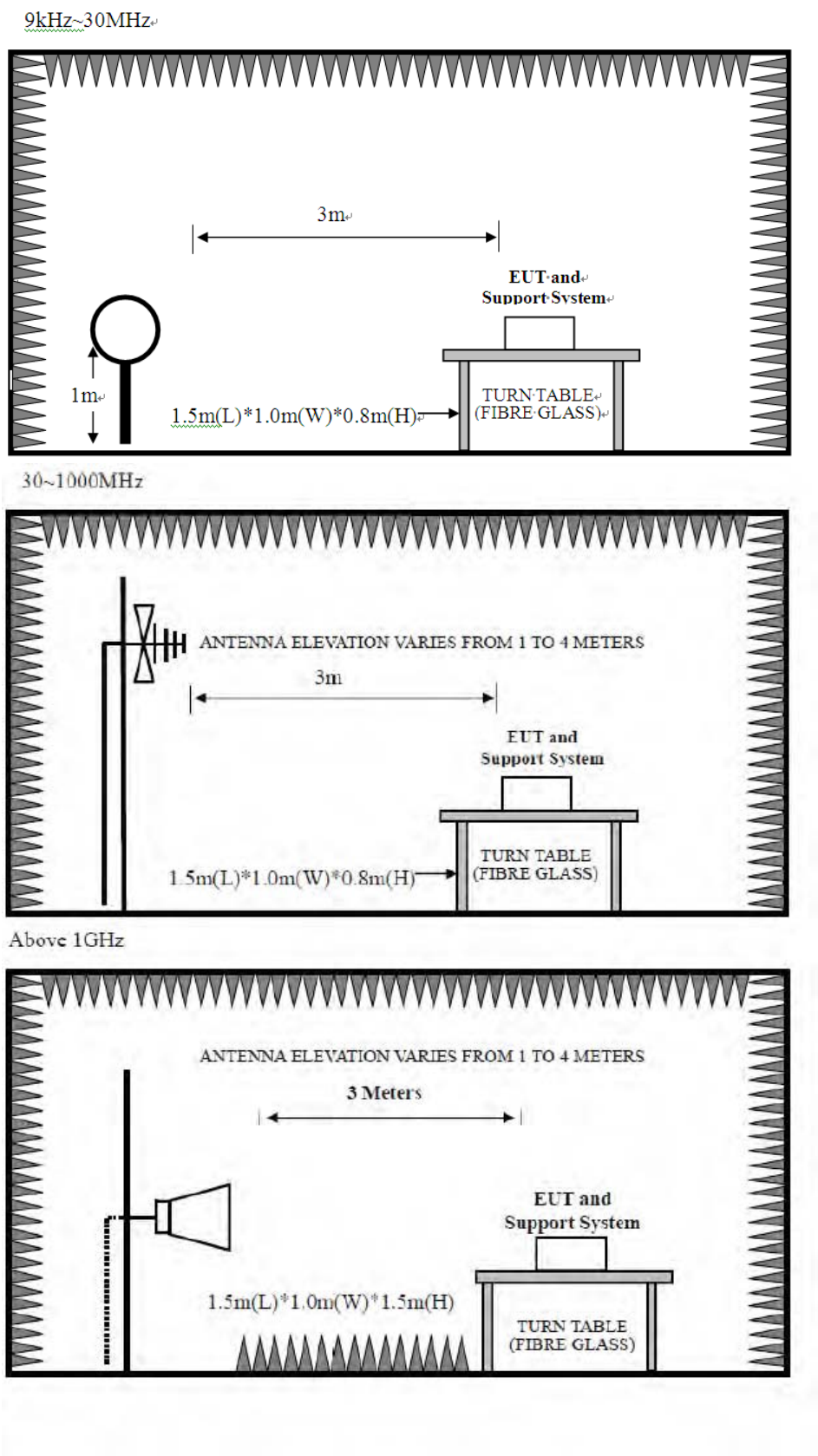
(3) Distance is the distance in meters between the measuring instrument, antenna and the closest point of any part of the device or system.

#### 4.1.2 15.205 Restricted bands of operation

MHz	MHz	MHz	GHz
0.090 - 0.110	16.42 - 16.423	399.9 - 410	4.5 - 5.15
<sup>1</sup> 0.495 - 0.505	16.69475 - 16.69525	608 - 614	5.35 - 5.46
2.1735 - 2.1905	16.80425 - 16.80475	960 - 1240	7.25 - 7.75
4.125 - 4.128	25.5 - 25.67	1300 - 1427	8.025 - 8.5
4.17725 - 4.17775	37.5 - 38.25	1435 - 1626.5	9.0 - 9.2
4.20725 - 4.20775	73 - 74.6	1645.5 - 1646.5	9.3 - 9.5
6.215 - 6.218	74.8 - 75.2	1660 - 1710	10.6 - 12.7
6.26775 - 6.26825	108 - 121.94	1718.8 - 1722.2	13.25 - 13.4
6.31175 - 6.31225	123 - 138	2200 - 2300	14.47 - 14.5
8.291 - 8.294	149.9 - 150.05	2310 - 2390	15.35 - 16.2
8.362 - 8.366	156.52475 - 156.52525	2483.5 - 2500	17.7 - 21.4
8.37625 - 8.38675	156.7 - 156.9	2690 - 2900	22.01 - 23.12
8.41425 - 8.41475	162.0125 - 167.17	3260 - 3267	23.6 - 24.0
12.29 - 12.293	167.72 - 173.2	3332 - 3339	31.2 - 31.8
12.51975 - 12.52025	240 - 285	3345.8 - 3358	36.43 - 36.5
12.57675 - 12.57725	322 - 335.4	3600 - 4400	( <sup>2</sup> )

All the emissions appearing within 15.205 restricted frequency bands shall not exceed the limits shown in 15.209, all the other emissions shall be at least 20dB below the fundamental emissions, or comply with 15.209 limits.

4.2. Block Diagram of Test setup



### 4.3. Test Procedure

EUT was placed on a turn table, which is 0.8 meter high above ground for 30~1000MHz test, and which is 1.5 meter high above ground for above 1GHz test. The turn table can rotate 360 degrees to determine the position of the maximum emission level. Power on the EUT and let it working in test mode, then test it. EUT is set 3 meters away from the receiving antenna, which is mounted on a antenna tower. The antenna can be moved up and down between 1 meter and 4 meters to find out the maximum emission level. Both horizontal and vertical polarization of the antenna are set on test.

The bandwidth of the EMI test receiver is set at 120kHz for frequency range from 30MHz to 1000 MHz.

The bandwidth of the Spectrum's VBW is set at 3MHz and RBW is set at 1MHz for peak emissions measurement above 1GHz and 1MHz RBW, 10Hz VBW for average emissions measure above 1GHz

PEAK detector, 1MHz/1MHz for PAEK measurement,  
PEAK detector, 1MHz/10Hz for Average measurement

The frequency range from 30MHz to 10<sup>th</sup> harmonic (25GHz) are checked.

### 4.4. Test Result

**PASS.**

All the emissions from 30MHz to 25 GHz were comply with 15.209 limits.

Note: 1、 For emissions above 1GHz, if peak level comply with average limit, then the average level is deemed to comply with average limit.

2、 The frequency 2402MHz 、 2440MHz and 2480MHz is fundamental frequency which no limit, the limit on plots is automatically generated by the software, it's not fundamental limit, we can't remove it.

#### 4.5. Test Data

9 kHz – 30 MHz

Pass

Note: The amplitude of spurious emission that is attenuated by more than 20dB below the permissible limit has no need to be reported.

30-1000 MHz

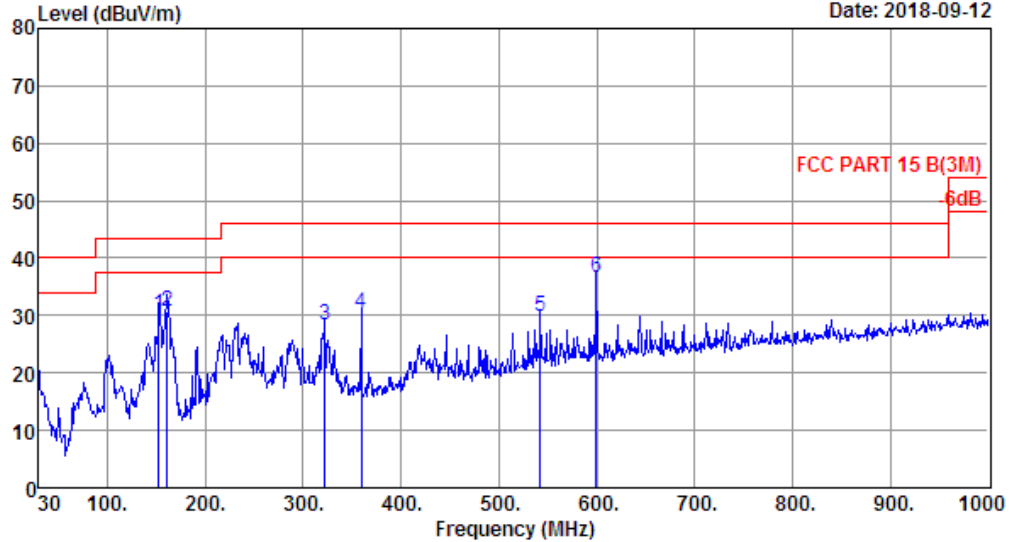
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Data: 235

File: \\Emc-966-1\test data\2018\RF\Inmusic.EM6 (250)

Date: 2018-09-12



Site no. : 1# 966 Chamber Data no. : 235  
 Dis. / Ant. : 3m 37062 Ant. pol. : VERTICAL  
 Limit : FCC PART 15 B(3M)  
 Env. / Ins. : Temp:23.2';Humi:53%;Press:101.52kPa  
 Engineer : Viking  
 EUT : CD player  
 Power : AC 120V/60Hz  
 M/N : DN-700CB  
 Test Mode : TX Mode  
 Antenna:AN13-04

	Freq. (MHz)	ANT Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	152.22	11.56	1.32	17.20	30.08	43.50	13.42	QP
2	160.95	11.02	1.36	18.21	30.59	43.50	12.91	QP
3	321.97	14.24	2.13	12.12	28.49	46.00	17.51	QP
4	359.80	15.20	2.37	12.77	30.34	46.00	15.66	QP
5	542.16	19.04	3.01	7.69	29.74	46.00	16.26	QP
6	599.39	20.17	3.19	13.15	36.51	46.00	9.49	QP

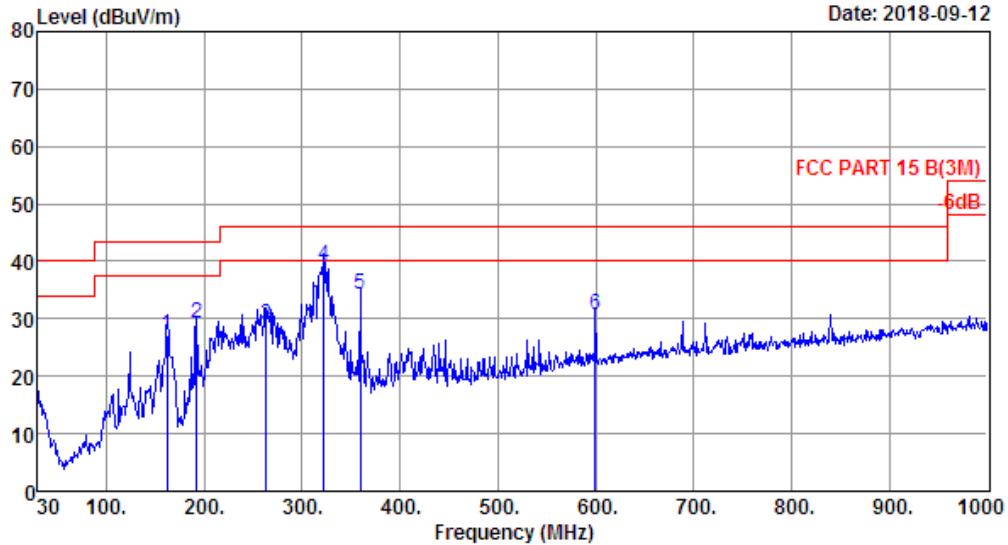
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.  
 2. Margin= Limit - Emission Level.  
 3. The emission levels that are 20dB below the official limit are not reported.

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Data: 236 File: \\Emc-966-1\test data\2018\RF\Inmusic.EM6 (250)

Date: 2018-09-12



Site no. : 1# 966 Chamber Data no. : 236  
Dis. / Ant. : 3m 37062 Ant. pol. : HORIZONTAL  
Limit : FCC PART 15 B(3M)  
Env. / Ins. : Temp:23.2'; Humi:53%; Press:101.52kPa  
Engineer : Viking  
EUT : CD player  
Power : AC 120V/60Hz  
M/N : DN-700CB  
Test Mode : TX Mode  
Antenna: AN13-04

	Freq. (MHz)	ANT Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	161.92	10.84	1.37	15.06	27.27	43.50	16.23	QP
2	191.99	8.52	1.45	19.35	29.32	43.50	14.18	QP
3	263.77	13.48	1.91	13.57	28.96	46.00	17.04	QP
4	321.97	14.24	2.13	22.87	39.24	46.00	6.76	QP
5	359.80	15.20	2.37	16.66	34.23	46.00	11.77	QP
6	599.39	20.17	3.19	7.25	30.61	46.00	15.39	QP

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.  
2. Margin= Limit - Emission Level.  
3. The emission levels that are 20dB below the official limit are not reported.



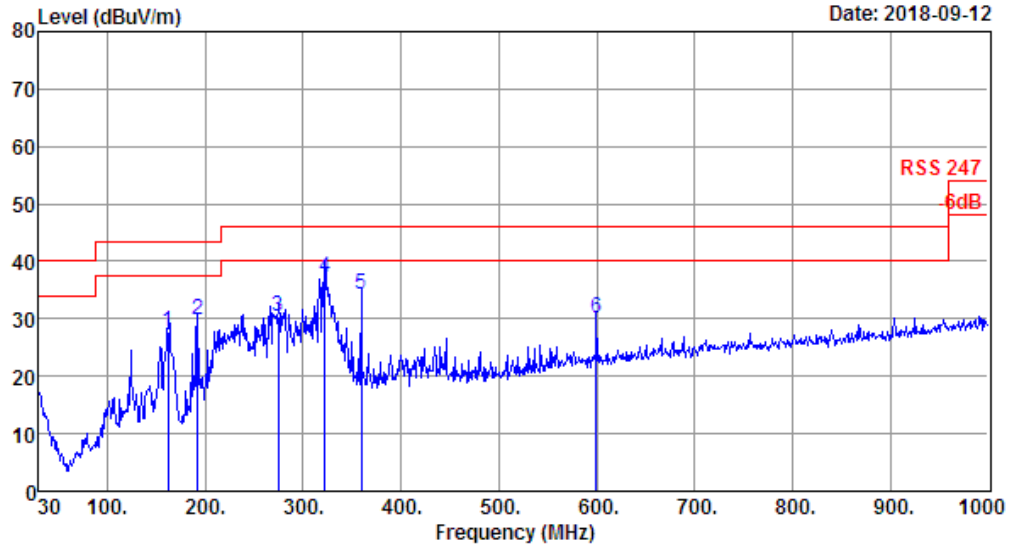
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Data: 237

File: \\Emc-966-1\test data\2018\RF\Inmusic.EM6 (250)

Date: 2018-09-12



Site no. : 1# 966 Chamber Data no. : 237  
 Dis. / Ant. : 3m 37062 Ant. pol. : HORIZONTAL  
 Limit : RSS 247  
 Env. / Ins. : Temp:23.2';Humi:53%;Press:101.52kPa  
 Engineer : Viking  
 EUT : CD player  
 Power : AC 120V/60Hz  
 M/N : DN-700CB  
 Test Mode : RX Mode  
 Antenna:AN13-04

	Freq. (MHz)	ANT Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	161.92	10.84	1.37	15.56	27.77	43.50	15.73	QP
2	191.99	8.52	1.45	19.90	29.87	43.50	13.63	QP
3	274.44	12.77	1.95	15.69	30.41	46.00	15.59	QP
4	321.97	14.24	2.13	20.82	37.19	46.00	8.81	QP
5	359.80	15.20	2.37	16.55	34.12	46.00	11.88	QP
6	599.39	20.17	3.19	6.69	30.05	46.00	15.95	QP

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.  
 2. Margin= Limit - Emission Level.  
 3. The emission levels that are 20dB below the official limit are not reported.

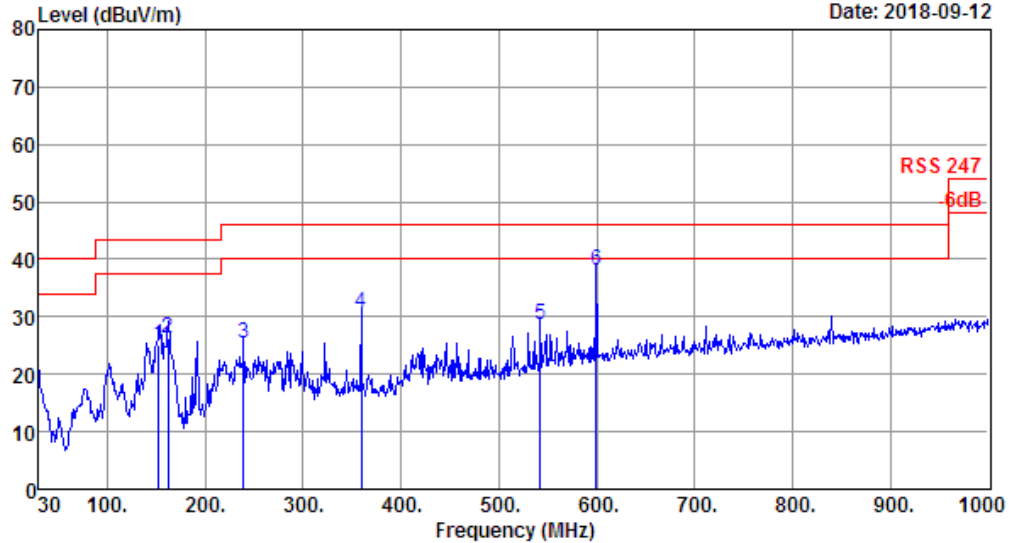
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Data: 238

File: \\Emc-966-1\test data\2018\RF\Inmusic.EM6 (250)

Date: 2018-09-12



Site no. : 1# 966 Chamber Data no. : 238  
 Dis. / Ant. : 3m 37062 Ant. pol. : VERTICAL  
 Limit : RSS 247  
 Env. / Ins. : Temp:23.2'; Humi:53%; Press:101.52kPa  
 Engineer : Viking  
 EUT : CD player  
 Power : AC 120V/60Hz  
 M/N : DN-700CB  
 Test Mode : RX Mode  
 Antenna: AN13-04

	Freq. (MHz)	ANT Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	152.22	11.56	1.32	12.29	25.17	43.50	18.33	QP
2	161.92	10.84	1.37	14.01	26.22	43.50	17.28	QP
3	239.52	11.00	1.78	12.62	25.40	46.00	20.60	QP
4	359.80	15.20	2.37	13.13	30.70	46.00	15.30	QP
5	542.16	19.04	3.01	6.58	28.63	46.00	17.37	QP
6	599.39	20.17	3.19	14.74	38.10	46.00	7.90	QP

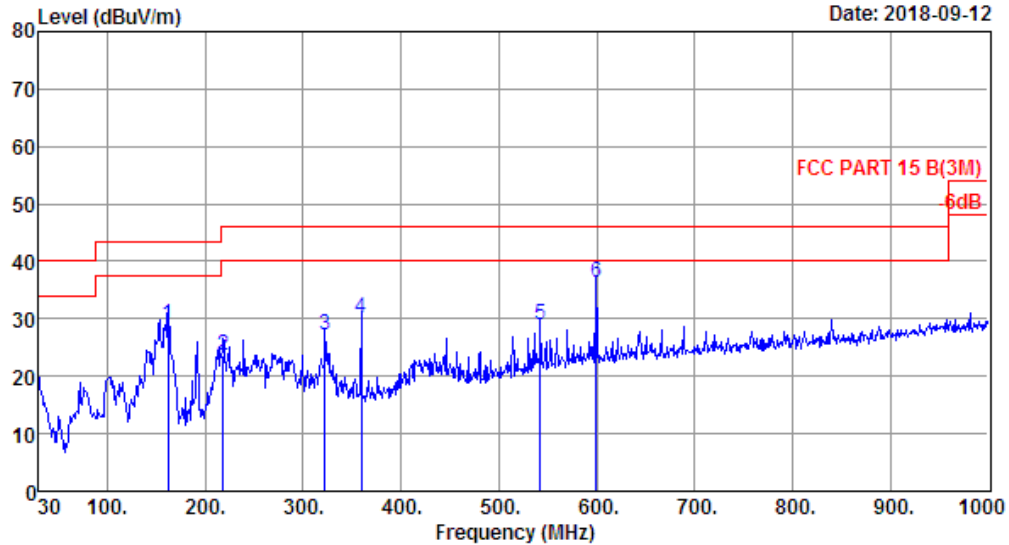
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.  
 2. Margin= Limit - Emission Level.  
 3. The emission levels that are 20dB below the official limit are not reported.

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Data: 239 File: \\Emc-966-1\test data\2018\RF\Inmusic.EM6 (250)

Date: 2018-09-12



Site no. : 1# 966 Chamber Data no. : 239  
 Dis. / Ant. : 3m 37062 Ant. pol. : VERTICAL  
 Limit : FCC PART 15 B(3M)  
 Env. / Ins. : Temp:23.2'; Humi:53%; Press:101.52kPa  
 Engineer : Viking  
 EUT : CD player  
 Power : AC 120V/60Hz  
 M/N : DN-700CB  
 Test Mode : TX Mode  
 Antenna: TQC-2400-1.8DXBNC

	Freq. (MHz)	ANT Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	161.92	10.84	1.37	16.83	29.04	43.50	14.46	QP
2	218.18	9.52	1.62	12.45	23.59	46.00	22.41	QP
3	321.97	14.24	2.13	10.74	27.11	46.00	18.89	QP
4	359.80	15.20	2.37	12.62	30.19	46.00	15.81	QP
5	542.16	19.04	3.01	6.81	28.86	46.00	17.14	QP
6	599.39	20.17	3.19	13.01	36.37	46.00	9.63	QP

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.  
 2. Margin= Limit - Emission Level.  
 3. The emission levels that are 20dB below the official limit are not reported.

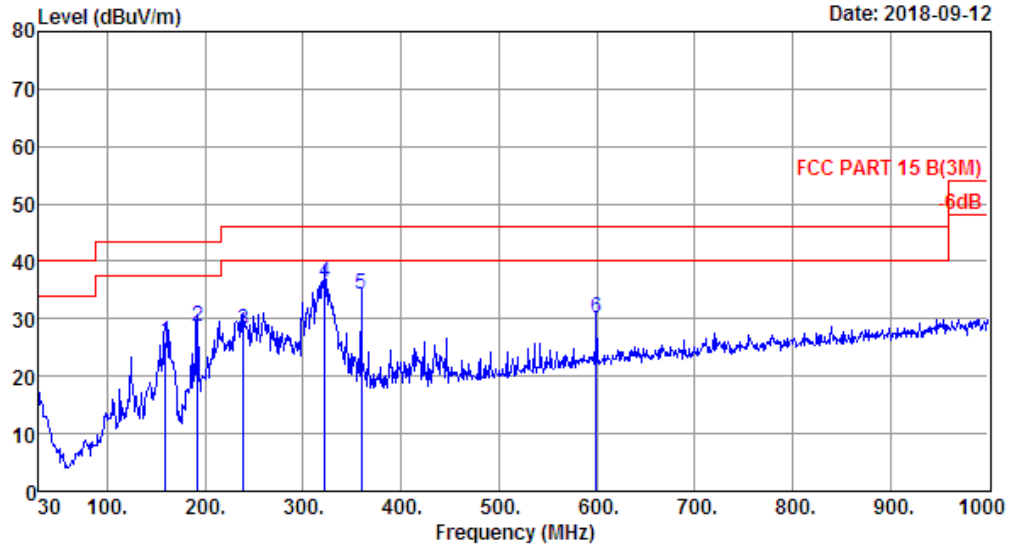
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Data: 240

File: \\Emc-966-1\test data\2018\RF\Inmusic.EM6 (250)

Date: 2018-09-12



Site no. : 1# 966 Chamber Data no. : 240  
 Dis. / Ant. : 3m 37062 Ant. pol. : HORIZONTAL  
 Limit : FCC PART 15 B(3M)  
 Env. / Ins. : Temp:23.2'; Humi:53%; Press:101.52kPa  
 Engineer : Viking  
 EUT : CD player  
 Power : AC 120V/60Hz  
 M/N : DN-700CB  
 Test Mode : TX Mode  
 Antenna: TQC-2400-1.8DXBNC

	Freq. (MHz)	ANT Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	159.01	11.26	1.36	13.41	26.03	43.50	17.47	QP
2	191.99	8.52	1.45	18.68	28.65	43.50	14.85	QP
3	239.52	11.00	1.78	15.30	28.08	46.00	17.92	QP
4	321.97	14.24	2.13	19.99	36.36	46.00	9.64	QP
5	359.80	15.20	2.37	16.79	34.36	46.00	11.64	QP
6	599.39	20.17	3.19	6.82	30.18	46.00	15.82	QP

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.  
 2. Margin= Limit - Emission Level.  
 3. The emission levels that are 20dB below the official limit are not reported.

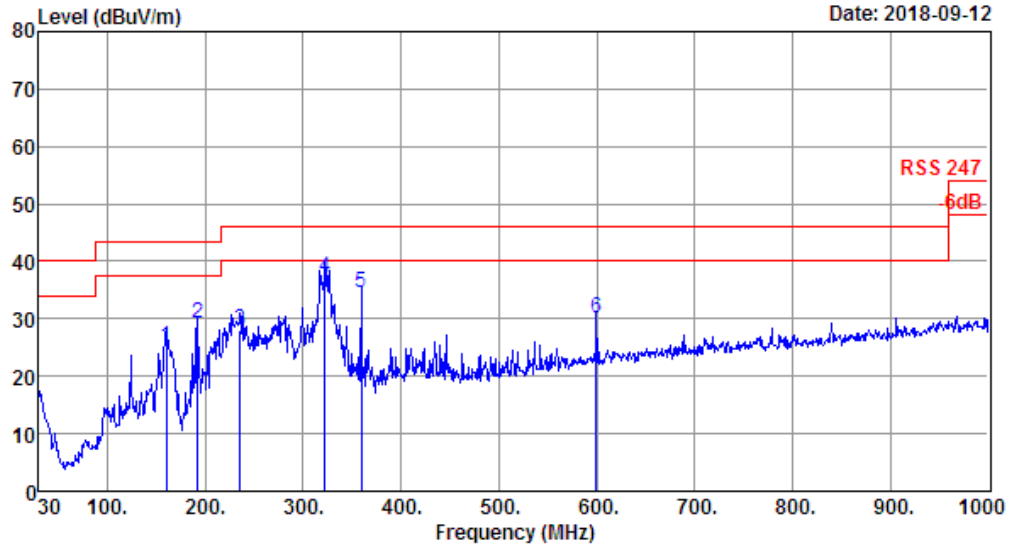
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Data: 241

File: \\Emc-966-1\test data\2018\RF\Inmusic.EM6 (250)

Date: 2018-09-12



Site no. : 1# 966 Chamber Data no. : 241  
 Dis. / Ant. : 3m 37062 Ant. pol. : HORIZONTAL  
 Limit : RSS 247  
 Env. / Ins. : Temp:23.2'; Humi:53%; Press:101.52kPa  
 Engineer : Viking  
 EUT : CD player  
 Power : AC 120V/60Hz  
 M/N : DN-700CB  
 Test Mode : RX Mode  
 Antenna: TQC-2400-1.8DXBNC

	Freq. (MHz)	ANT Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	159.98	11.20	1.36	12.56	25.12	43.50	18.38	QP
2	191.99	8.52	1.45	19.32	29.29	43.50	14.21	QP
3	235.64	10.68	1.75	15.53	27.96	46.00	18.04	QP
4	321.97	14.24	2.13	20.73	37.10	46.00	8.90	QP
5	359.80	15.20	2.37	16.87	34.44	46.00	11.56	QP
6	599.39	20.17	3.19	6.64	30.00	46.00	16.00	QP

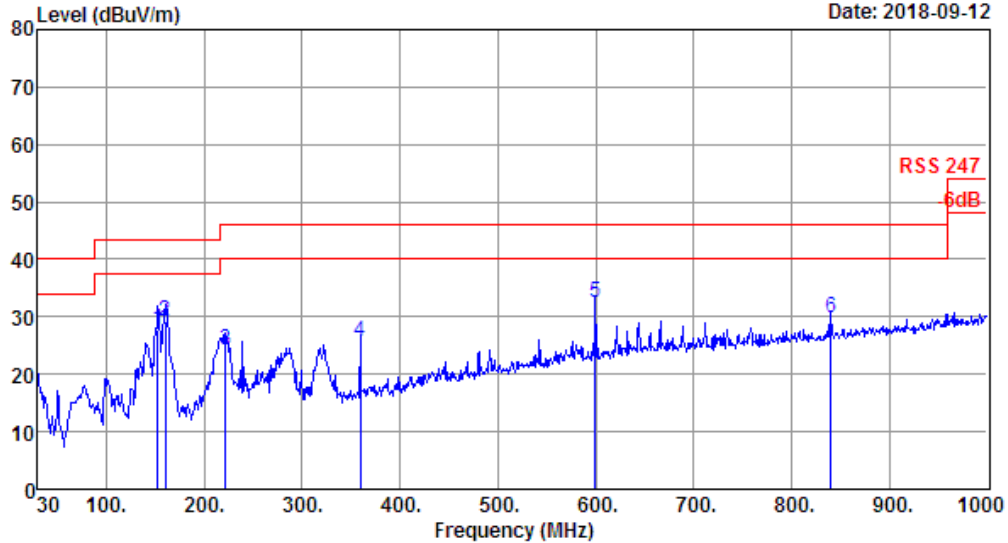
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.  
 2. Margin= Limit - Emission Level.  
 3. The emission levels that are 20dB below the official limit are not reported.

## EST Technology

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Data: 242 File: \\Emc-966-1\test data\2018\RF\Inmusic.EM6 (250)

Date: 2018-09-12



Site no. : 1# 966 Chamber Data no. : 242  
Dis. / Ant. : 3m 37062 Ant. pol. : VERTICAL  
Limit : RSS 247  
Env. / Ins. : Temp:23.2';Humi:53%;Press:101.52kPa  
Engineer : Viking  
EUT : CD player  
Power : AC 120V/60Hz  
M/N : DN-700CB  
Test Mode : RX Mode  
Antenna: TQC-2400-1.8DXBNC

	Freq. (MHz)	ANT Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	152.22	11.56	1.32	14.86	27.74	43.50	15.76	QP
2	159.98	11.20	1.36	16.52	29.08	43.50	14.42	QP
3	222.06	9.92	1.68	12.48	24.08	46.00	21.92	QP
4	359.80	15.20	2.37	8.18	25.75	46.00	20.25	QP
5	599.39	20.17	3.19	9.09	32.45	46.00	13.55	QP
6	839.95	23.20	3.89	2.59	29.68	46.00	16.32	QP

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.  
2. Margin= Limit - Emission Level.  
3. The emission levels that are 20dB below the official limit are not reported.

1000-18000MHz

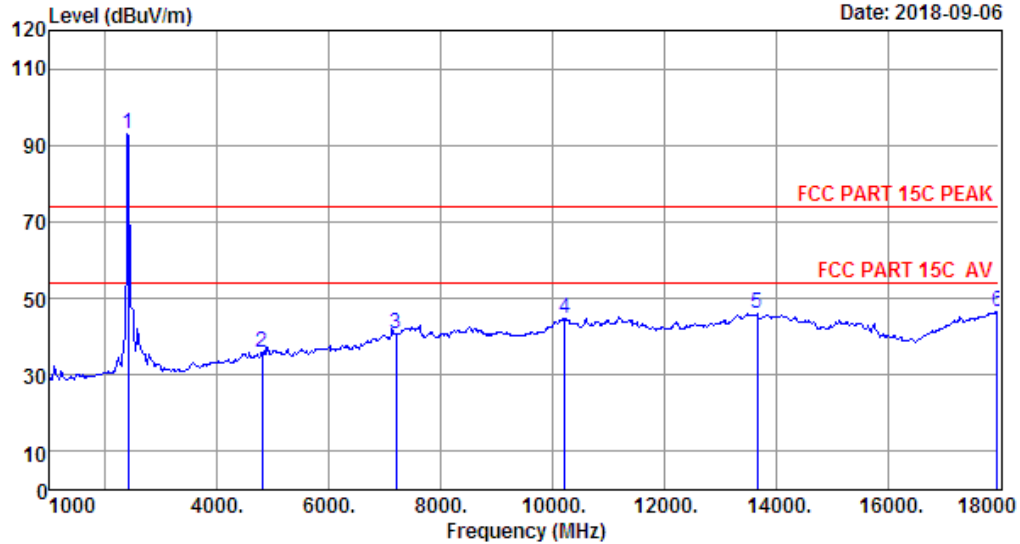
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Data: 171

File: \\Emc-966-1\test data\2018\RF\Inmusic.EM6 (234)

Date: 2018-09-06



Site no. : 1# 966 Chamber Data no. : 171  
 Dis. / Ant. : 3m ANT9120D 1-18G Ant. pol. : VERTICAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : Temp:23.9';Humi:52%;Press:101.52kPa  
 Engineer : Viking  
 EUT : CD player  
 Power : AC 120V/60Hz  
 M/N : DN-700CB  
 Test Mode : GFSK TX 2402MHz  
 Antenna:AN13-04

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2402.00	27.35	3.21	34.94	97.56	93.18	74.00	-19.18	Peak
2	4804.00	32.06	4.67	35.06	34.11	35.78	74.00	38.22	Peak
3	7206.00	36.56	5.99	33.45	31.53	40.63	74.00	33.37	Peak
4	10214.00	39.19	9.77	34.43	30.38	44.91	74.00	29.09	Peak
5	13665.00	41.43	9.89	32.62	27.30	46.00	74.00	28.00	Peak
6	17966.00	44.61	12.57	31.48	20.94	46.64	74.00	27.36	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.  
 2. Margin= Limit - Emission Level.  
 3. The emission levels that are 20dB below the official limit are not reported.

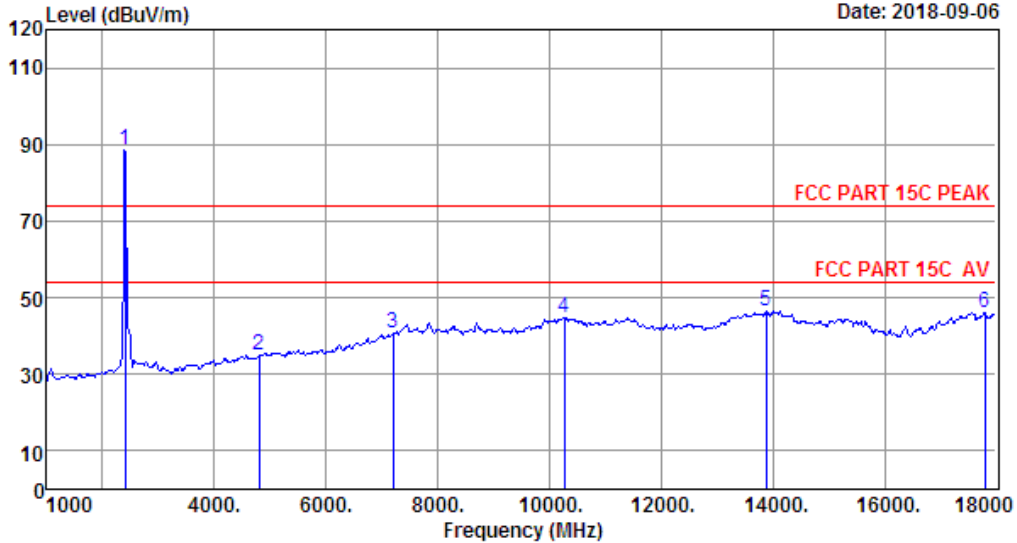
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Data: 172

File: \\Emc-966-1\test data\2018\RF\Inmusic.EM6 (234)

Date: 2018-09-06



Site no. : 1# 966 Chamber Data no. : 172  
 Dis. / Ant. : 3m ANT9120D 1-18G Ant. pol. : HORIZONTAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : Temp:23.9'; Humi:52%; Press:101.52kPa  
 Engineer : Viking  
 EUT : CD player  
 Power : AC 120V/60Hz  
 M/N : DN-700CB  
 Test Mode : GFSK TX 2402MHz  
 Antenna: AN13-04

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2402.00	27.35	3.21	34.94	92.94	88.56	74.00	-14.56	Peak
2	4804.00	32.06	4.67	35.06	33.27	34.94	74.00	39.06	Peak
3	7206.00	36.56	5.99	33.45	31.44	40.54	74.00	33.46	Peak
4	10265.00	39.21	9.98	34.39	30.02	44.82	74.00	29.18	Peak
5	13886.00	41.61	10.11	32.80	27.65	46.57	74.00	27.43	Peak
6	17796.00	44.16	12.19	31.13	20.89	46.11	74.00	27.89	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.  
 2. Margin= Limit - Emission Level.  
 3. The emission levels that are 20dB below the official limit are not reported.

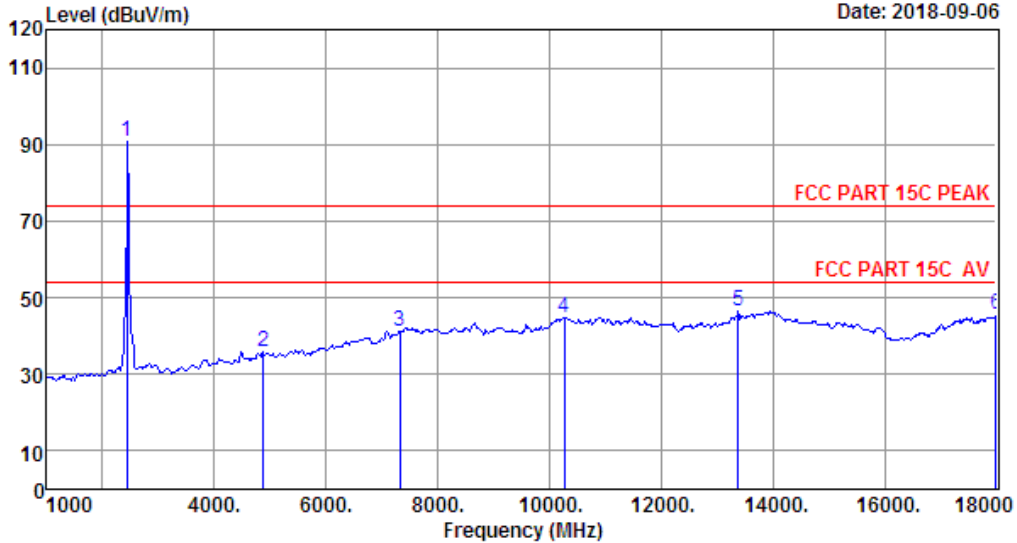


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Data: 173 File: \\Emc-966-1\test data\2018\RF\Inmusic.EM6 (234)

Date: 2018-09-06



Site no. : 1# 966 Chamber Data no. : 173  
Dis. / Ant. : 3m ANT9120D 1-18G Ant. pol. : HORIZONTAL  
Limit : FCC PART 15C PEAK  
Env. / Ins. : Temp:23.9'; Humi:52%; Press:101.52kPa  
Engineer : Viking  
EUT : CD player  
Power : AC 120V/60Hz  
M/N : DN-700CB  
Test Mode : GFSK TX 2440MHz  
Antenna: AN13-04

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2440.00	27.48	3.26	35.07	94.93	90.60	74.00	-16.60	Peak
2	4880.00	32.18	4.73	35.14	33.93	35.70	74.00	38.30	Peak
3	7320.00	36.82	6.10	33.28	31.58	41.22	74.00	32.78	Peak
4	10265.00	39.21	9.98	34.39	29.86	44.66	74.00	29.34	Peak
5	13376.00	41.01	9.50	32.62	28.50	46.39	74.00	27.61	Peak
6	18000.00	44.70	12.64	31.56	19.63	45.41	74.00	28.59	Peak

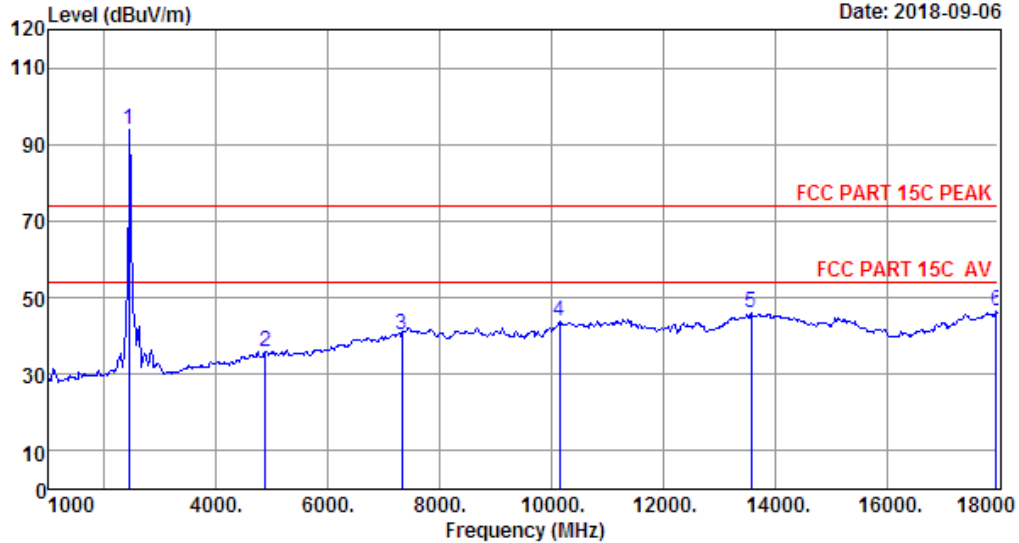
Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.  
2. Margin= Limit - Emission Level.  
3. The emission levels that are 20dB below the official limit are not reported.

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Data: 174 File: \\Emc-966-1\test data\2018\RF\Inmusic.EM6 (234)

Date: 2018-09-06



Site no. : 1# 966 Chamber Data no. : 174  
 Dis. / Ant. : 3m ANT9120D 1-18G Ant. pol. : VERTICAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : Temp:23.9'; Humi:52%; Press:101.52kPa  
 Engineer : Viking  
 EUT : CD player  
 Power : AC 120V/60Hz  
 M/N : DN-700CB  
 Test Mode : GFSK TX 2440MHz  
 Antenna: AN13-04

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2440.00	27.48	3.26	35.07	98.35	94.02	74.00	-20.02	Peak
2	4880.00	32.18	4.73	35.14	34.07	35.84	74.00	38.16	Peak
3	7320.00	36.82	6.10	33.28	30.71	40.35	74.00	33.65	Peak
4	10146.00	39.16	9.48	34.51	29.79	43.92	74.00	30.08	Peak
5	13580.00	41.37	9.78	32.57	27.47	46.05	74.00	27.95	Peak
6	17966.00	44.61	12.57	31.48	20.94	46.64	74.00	27.36	Peak

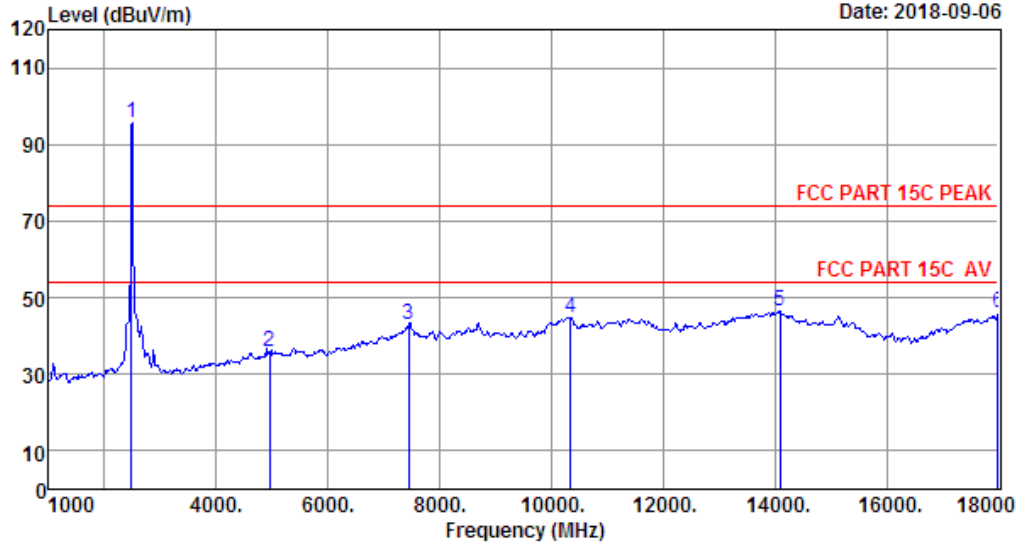
Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.  
 2. Margin= Limit - Emission Level.  
 3. The emission levels that are 20dB below the official limit are not reported.

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Data: 175 File: \\Emc-966-1\test data\2018\RF\Inmusic.EM6 (234)

Date: 2018-09-06



Site no. : 1# 966 Chamber Data no. : 175  
 Dis. / Ant. : 3m ANT9120D 1-18G Ant. pol. : VERTICAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : Temp:23.9'; Humi:52%; Press:101.52kPa  
 Engineer : Viking  
 EUT : CD player  
 Power : AC 120V/60Hz  
 M/N : DN-700CB  
 Test Mode : GFSK TX 2480MHz  
 Antenna: AN13-04

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2480.00	27.56	3.29	35.21	100.09	95.73	74.00	-21.73	Peak
2	4960.00	32.34	4.80	35.24	34.01	35.91	74.00	38.09	Peak
3	7440.00	37.09	6.13	33.08	32.94	43.08	74.00	30.92	Peak
4	10350.00	39.24	10.10	34.30	29.88	44.92	74.00	29.08	Peak
5	14090.00	41.61	10.14	32.99	27.59	46.35	74.00	27.65	Peak
6	18000.00	44.70	12.64	31.56	20.30	46.08	74.00	27.92	Peak

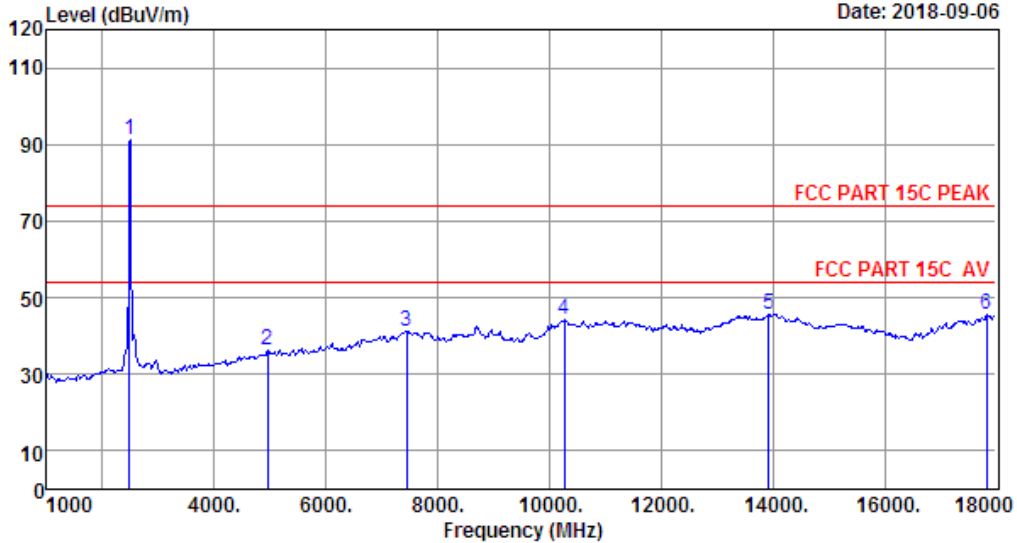
Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.  
 2. Margin= Limit - Emission Level.  
 3. The emission levels that are 20dB below the official limit are not reported.

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Data: 176 File: \\Emc-966-1\test data\2018\RF\Inmusic.EM6 (234)

Date: 2018-09-06



Site no. : 1# 966 Chamber Data no. : 176  
 Dis. / Ant. : 3m ANT9120D 1-18G Ant. pol. : HORIZONTAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : Temp:23.9'; Humi:52%; Press:101.52kPa  
 Engineer : Viking  
 EUT : CD player  
 Power : AC 120V/60Hz  
 M/N : DN-700CB  
 Test Mode : GFSK TX 2480MHz  
 Antenna: AN13-04

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2480.00	27.56	3.29	35.21	95.43	91.07	74.00	-17.07	Peak
2	4960.00	32.34	4.80	35.24	34.59	36.49	74.00	37.51	Peak
3	7440.00	37.09	6.13	33.08	31.09	41.23	74.00	32.77	Peak
4	10265.00	39.21	9.98	34.39	29.37	44.17	74.00	29.83	Peak
5	13920.00	41.63	10.11	32.83	26.68	45.59	74.00	28.41	Peak
6	17830.00	44.25	12.27	31.21	20.29	45.60	74.00	28.40	Peak

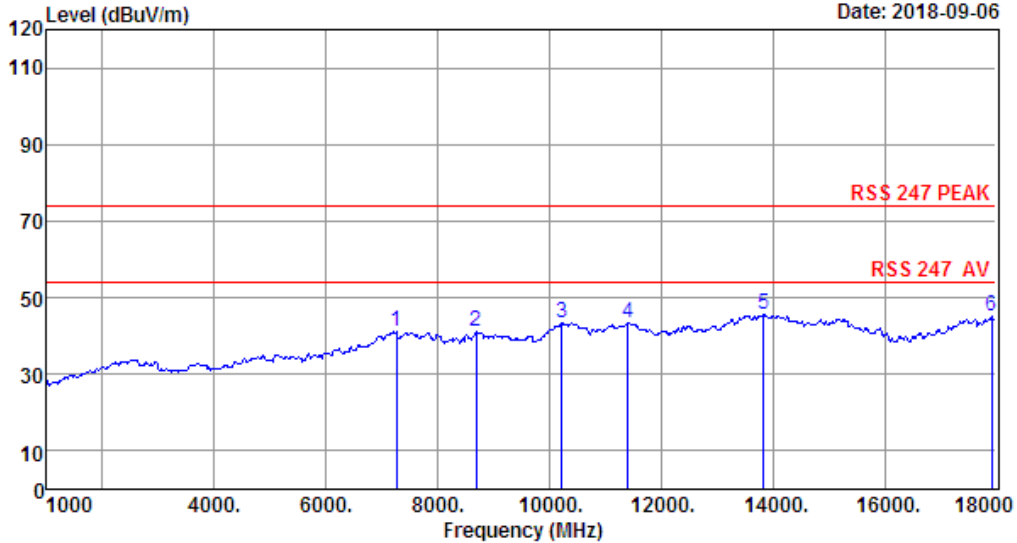
Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.  
 2. Margin= Limit - Emission Level.  
 3. The emission levels that are 20dB below the official limit are not reported.

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Data: 153 File: \\Emc-966-1\test data\2018\RF\Inmusic.EM6 (234)

Date: 2018-09-06



Site no. : 1# 966 Chamber Data no. : 153  
 Dis. / Ant. : 3m ANT9120D 1-18G Ant. pol. : VERTICAL  
 Limit : RSS 247 PEAK  
 Env. / Ins. : Temp:23.9';Humi:52%;Press:101.52kPa  
 Engineer : Viking  
 EUT : CD player  
 Power : AC 120V/60Hz  
 M/N : DN-700CB  
 Test Mode : RX Mode  
 Antenna:AN13-04

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	7256.00	36.67	6.04	33.39	31.90	41.22	74.00	32.78	Peak
2	8684.00	37.46	6.90	33.06	29.92	41.22	74.00	32.78	Peak
3	10214.00	39.19	9.77	34.43	28.93	43.46	74.00	30.54	Peak
4	11404.00	40.06	8.29	32.71	27.87	43.51	74.00	30.49	Peak
5	13835.00	41.57	10.10	32.76	26.61	45.52	74.00	28.48	Peak
6	17915.00	44.48	12.45	31.40	19.51	45.04	74.00	28.96	Peak

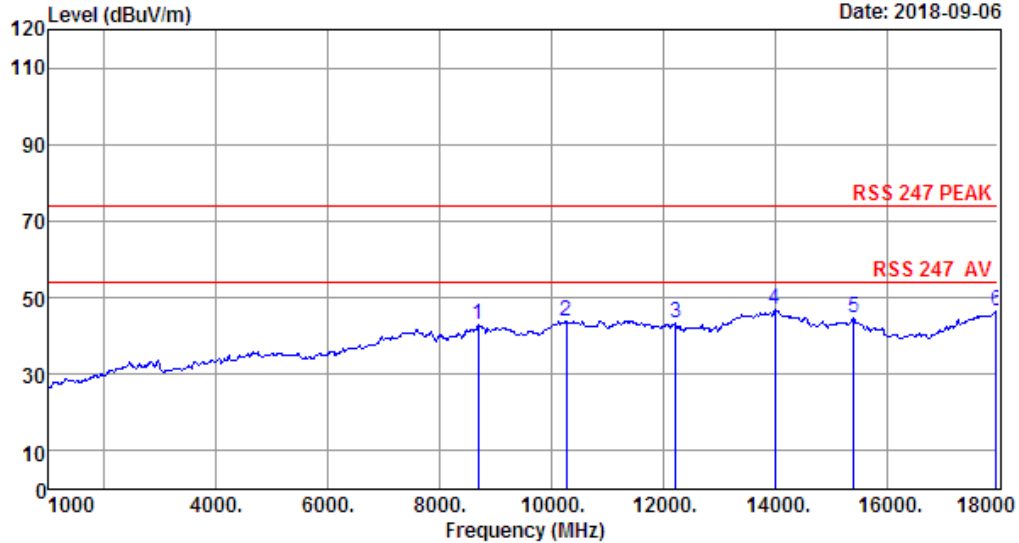
Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.  
 2. Margin= Limit - Emission Level.  
 3. The emission levels that are 20dB below the official limit are not reported.

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Data: 154 File: \\Emc-966-1\test data\2018\RF\Inmusic.EM6 (234)

Date: 2018-09-06



Site no. : 1# 966 Chamber Data no. : 154  
 Dis. / Ant. : 3m ANT9120D 1-18G Ant. pol. : HORIZONTAL  
 Limit : RSS 247 PEAK  
 Env. / Ins. : Temp:23.9'; Humi:52%; Press:101.52kPa  
 Engineer : Viking  
 EUT : CD player  
 Power : AC 120V/60Hz  
 M/N : DN-700CB  
 Test Mode : RX Mode  
 Antenna: AN13-04

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	8684.00	37.46	6.90	33.06	31.67	42.97	74.00	31.03	Peak
2	10265.00	39.21	9.98	34.39	29.14	43.94	74.00	30.06	Peak
3	12220.00	39.36	8.39	32.60	28.04	43.19	74.00	30.81	Peak
4	14005.00	41.70	10.13	32.88	27.93	46.88	74.00	27.12	Peak
5	15416.00	39.64	10.90	32.53	26.87	44.88	74.00	29.12	Peak
6	17966.00	44.61	12.57	31.48	20.79	46.49	74.00	27.51	Peak

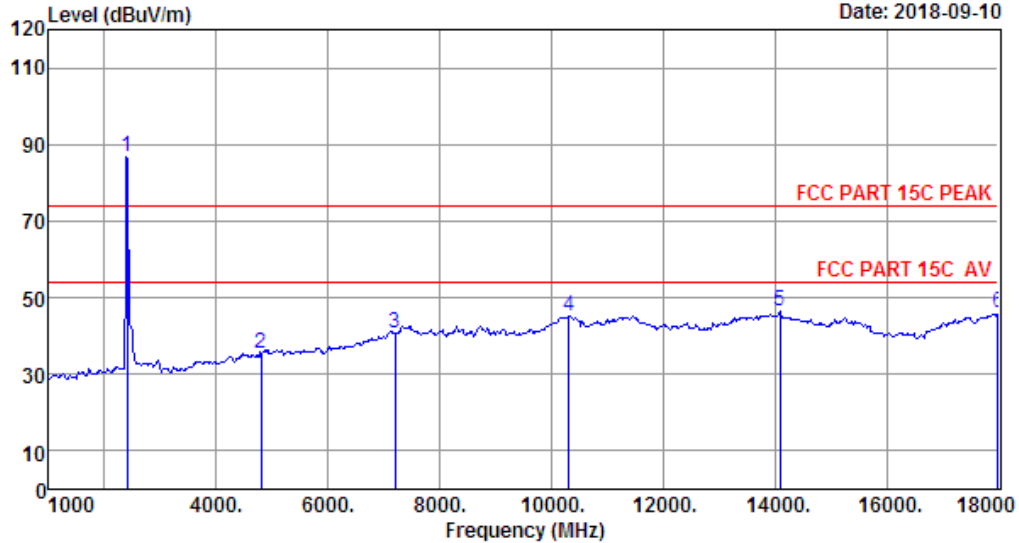
Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.  
 2. Margin= Limit - Emission Level.  
 3. The emission levels that are 20dB below the official limit are not reported.

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Data: 225 File: \\Emc-966-1\test data\2018\RF\Inmusic.EM6 (234)

Date: 2018-09-10



Site no. : 1# 966 Chamber Data no. : 225  
 Dis. / Ant. : 3m ANT9120D 1-18G Ant. pol. : HORIZONTAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : Temp:24.3'; Humi:50%; Press:101.52kPa  
 Engineer : Viking  
 EUT : CD player  
 Power : AC 120V/60Hz  
 M/N : DN-700CB  
 Test Mode : GFSK TX 2402MHz  
 Antenna: TQC-2400-1.8DXBNC

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2402.00	27.35	3.21	34.94	91.21	86.83	74.00	-12.83	Peak
2	4804.00	32.06	4.67	35.06	33.67	35.34	74.00	38.66	Peak
3	7206.00	36.56	5.99	33.45	31.42	40.52	74.00	33.48	Peak
4	10316.00	39.23	10.20	34.34	30.04	45.13	74.00	28.87	Peak
5	14090.00	41.61	10.14	32.99	27.85	46.61	74.00	27.39	Peak
6	18000.00	44.70	12.64	31.56	20.30	46.08	74.00	27.92	Peak

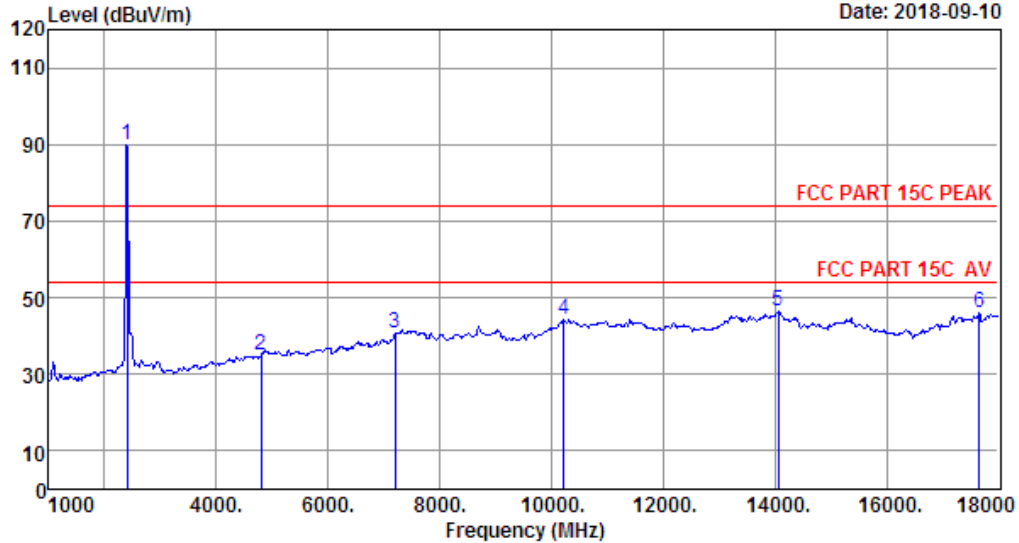
Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.  
 2. Margin= Limit - Emission Level.  
 3. The emission levels that are 20dB below the official limit are not reported.

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Data: 226 File: \\Emc-966-1\test data\2018\RF\Inmusic.EM6 (234)

Date: 2018-09-10



Site no. : 1# 966 Chamber Data no. : 226  
Dis. / Ant. : 3m ANT9120D 1-18G Ant. pol. : VERTICAL  
Limit : FCC PART 15C PEAK  
Env. / Ins. : Temp:24.3'; Humi:50%; Press:101.52kPa  
Engineer : Viking  
EUT : CD player  
Power : AC 120V/60Hz  
M/N : DN-700CB  
Test Mode : GFSK TX 2402MHz  
Antenna: TQC-2400-1.8DXBNC

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2402.00	27.35	3.21	34.94	94.25	89.87	74.00	-15.87	Peak
2	4804.00	32.06	4.67	35.06	33.49	35.16	74.00	38.84	Peak
3	7206.00	36.56	5.99	33.45	31.60	40.70	74.00	33.30	Peak
4	10214.00	39.19	9.77	34.43	29.71	44.24	74.00	29.76	Peak
5	14056.00	41.65	10.13	32.95	27.51	46.34	74.00	27.66	Peak
6	17660.00	43.80	11.90	31.25	21.72	46.17	74.00	27.83	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.  
2. Margin= Limit - Emission Level.  
3. The emission levels that are 20dB below the official limit are not reported.



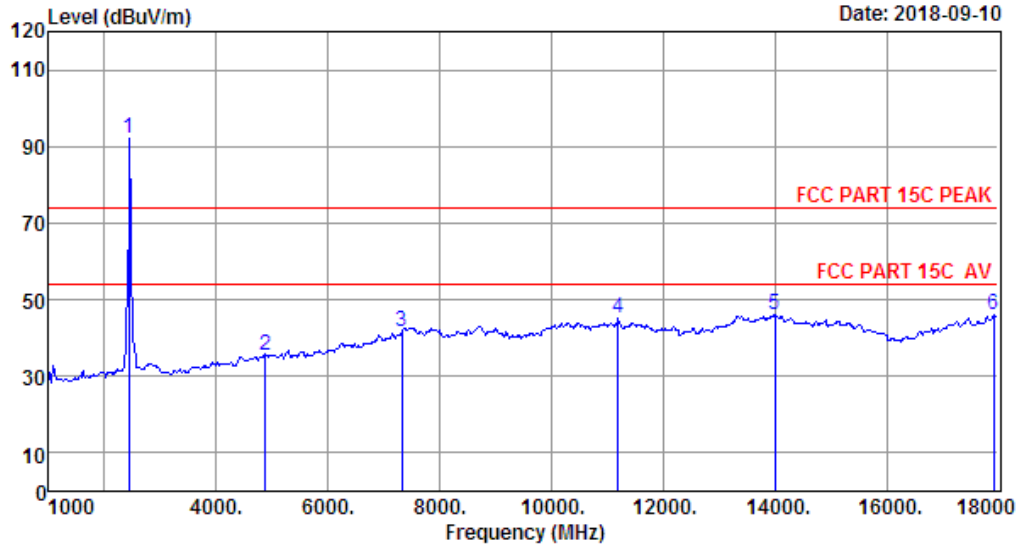
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Data: 227

File: \\Emc-966-1\test data\2018\RF\Inmusic.EM6 (234)

Date: 2018-09-10



Site no. : 1# 966 Chamber Data no. : 227  
 Dis. / Ant. : 3m ANT9120D 1-18G Ant. pol. : VERTICAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : Temp:24.3'; Humi:50%; Press:101.52kPa  
 Engineer : Viking  
 EUT : CD player  
 Power : AC 120V/60Hz  
 M/N : DN-700CB  
 Test Mode : GFSK TX 2440MHz  
 Antenna: TQC-2400-1.8DXBNC

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2440.00	27.48	3.26	35.07	96.42	92.09	74.00	-18.09	Peak
2	4880.00	32.18	4.73	35.14	33.70	35.47	74.00	38.53	Peak
3	7320.00	36.82	6.10	33.28	31.85	41.49	74.00	32.51	Peak
4	11200.00	39.98	8.43	33.10	29.72	45.03	74.00	28.97	Peak
5	14005.00	41.70	10.13	32.88	27.08	46.03	74.00	27.97	Peak
6	17915.00	44.48	12.45	31.40	20.48	46.01	74.00	27.99	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.  
 2. Margin= Limit - Emission Level.  
 3. The emission levels that are 20dB below the official limit are not reported.

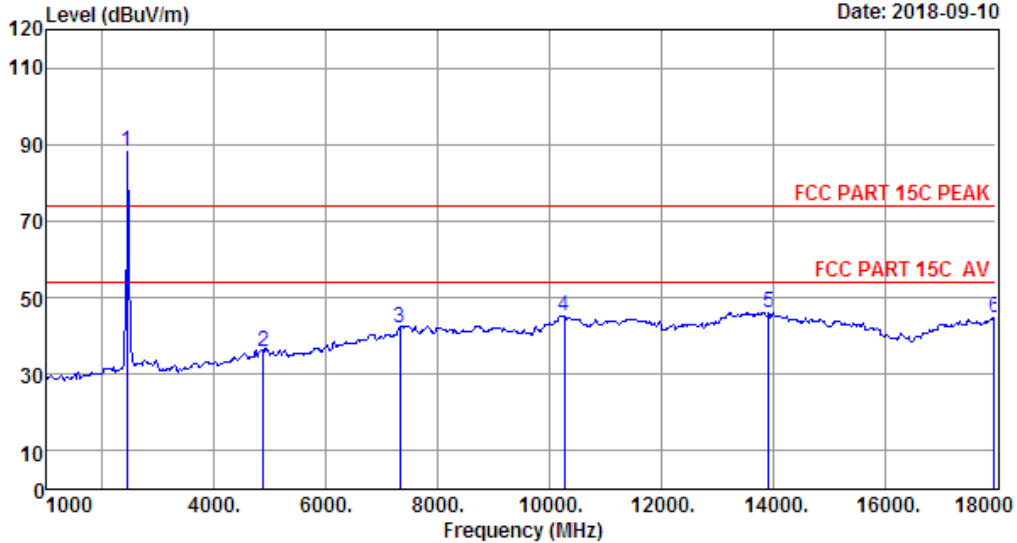
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Data: 228

File: \\Emc-966-1\test data\2018\RF\Inmusic.EM6 (234)

Date: 2018-09-10



Site no. : 1# 966 Chamber Data no. : 228  
 Dis. / Ant. : 3m ANT9120D 1-18G Ant. pol. : HORIZONTAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : Temp:24.3'; Humi:50%; Press:101.52kPa  
 Engineer : Viking  
 EUT : CD player  
 Power : AC 120V/60Hz  
 M/N : DN-700CB  
 Test Mode : GFSK TX 2440MHz  
 Antenna: TQC-2400-1.8DXBNC

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2440.00	27.48	3.26	35.07	92.27	87.94	74.00	-13.94	Peak
2	4880.00	32.18	4.73	35.14	34.26	36.03	74.00	37.97	Peak
3	7320.00	36.82	6.10	33.28	32.33	41.97	74.00	32.03	Peak
4	10265.00	39.21	9.98	34.39	30.48	45.28	74.00	28.72	Peak
5	13920.00	41.63	10.11	32.83	27.28	46.19	74.00	27.81	Peak
6	17966.00	44.61	12.57	31.48	19.00	44.70	74.00	29.30	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.  
 2. Margin= Limit - Emission Level.  
 3. The emission levels that are 20dB below the official limit are not reported.

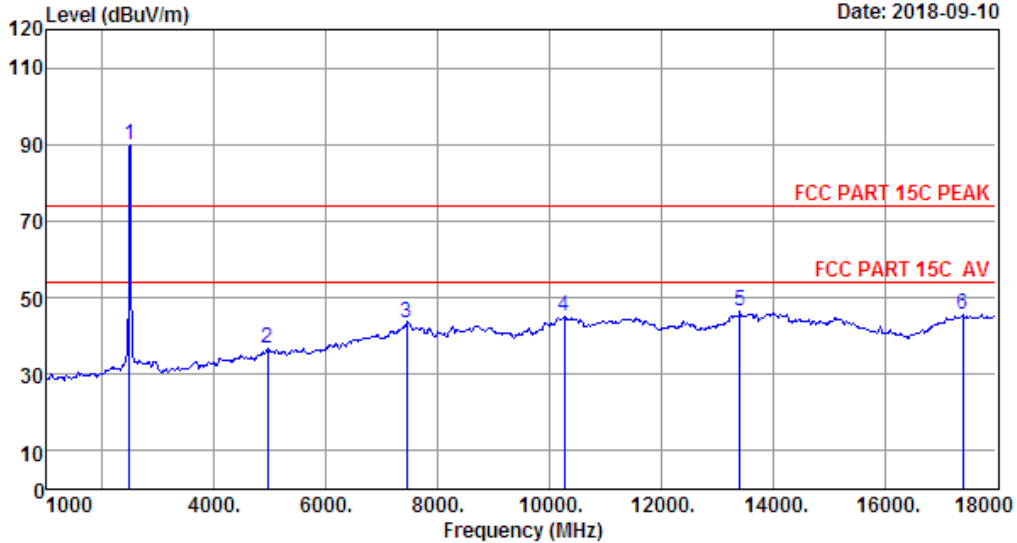
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Data: 229

File: \\Emc-966-1\test data\2018\RF\Inmusic.EM6 (234)

Date: 2018-09-10



Site no. : 1# 966 Chamber Data no. : 229  
 Dis. / Ant. : 3m ANT9120D 1-18G Ant. pol. : HORIZONTAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : Temp:24.3'; Humi:50%; Press:101.52kPa  
 Engineer : Viking  
 EUT : CD player  
 Power : AC 120V/60Hz  
 M/N : DN-700CB  
 Test Mode : GFSK TX 2480MHz  
 Antenna: TQC-2400-1.8DXBNC

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2480.00	27.56	3.29	35.21	94.22	89.86	74.00	-15.86	Peak
2	4960.00	32.34	4.80	35.24	34.79	36.69	74.00	37.31	Peak
3	7440.00	37.09	6.13	33.08	33.19	43.33	74.00	30.67	Peak
4	10265.00	39.21	9.98	34.39	30.31	45.11	74.00	28.89	Peak
5	13410.00	41.09	9.55	32.61	28.24	46.27	74.00	27.73	Peak
6	17405.00	43.02	11.33	30.96	22.13	45.52	74.00	28.48	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.  
 2. Margin= Limit - Emission Level.  
 3. The emission levels that are 20dB below the official limit are not reported.

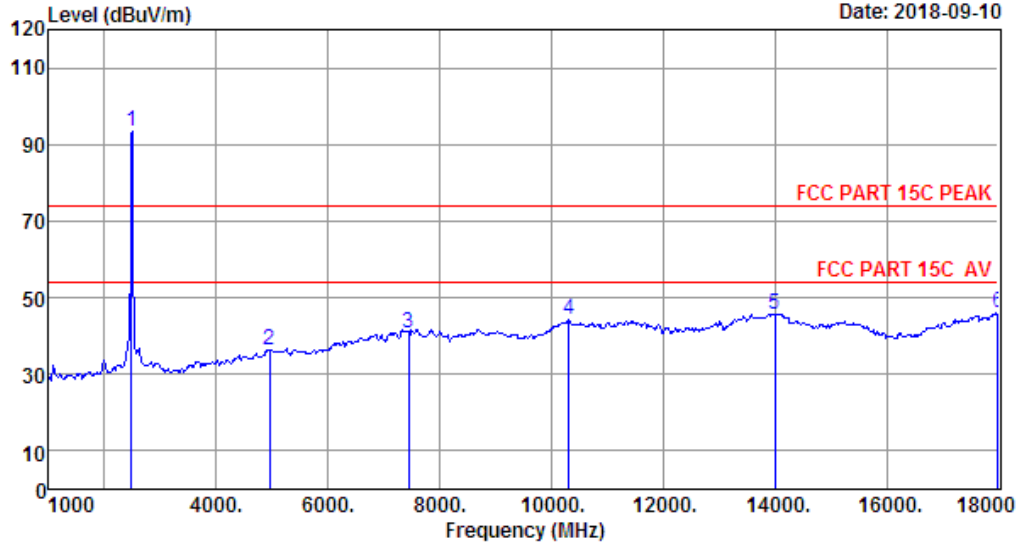
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Data: 230

File: \\Emc-966-1\test data\2018\RF\Inmusic.EM6 (234)

Date: 2018-09-10



Site no. : 1# 966 Chamber Data no. : 230  
 Dis. / Ant. : 3m ANT9120D 1-18G Ant. pol. : VERTICAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : Temp:24.3'; Humi:50%; Press:101.52kPa  
 Engineer : Viking  
 EUT : CD player  
 Power : AC 120V/60Hz  
 M/N : DN-700CB  
 Test Mode : GFSK TX 2480MHz  
 Antenna: TQC-2400-1.8DXBNC

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2480.00	27.56	3.29	35.21	97.97	93.61	74.00	-19.61	Peak
2	4960.00	32.34	4.80	35.24	34.41	36.31	74.00	37.69	Peak
3	7440.00	37.09	6.13	33.08	30.47	40.61	74.00	33.39	Peak
4	10316.00	39.23	10.20	34.34	29.14	44.23	74.00	29.77	Peak
5	14005.00	41.70	10.13	32.88	26.77	45.72	74.00	28.28	Peak
6	18000.00	44.70	12.64	31.56	20.19	45.97	74.00	28.03	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.  
 2. Margin= Limit - Emission Level.  
 3. The emission levels that are 20dB below the official limit are not reported.

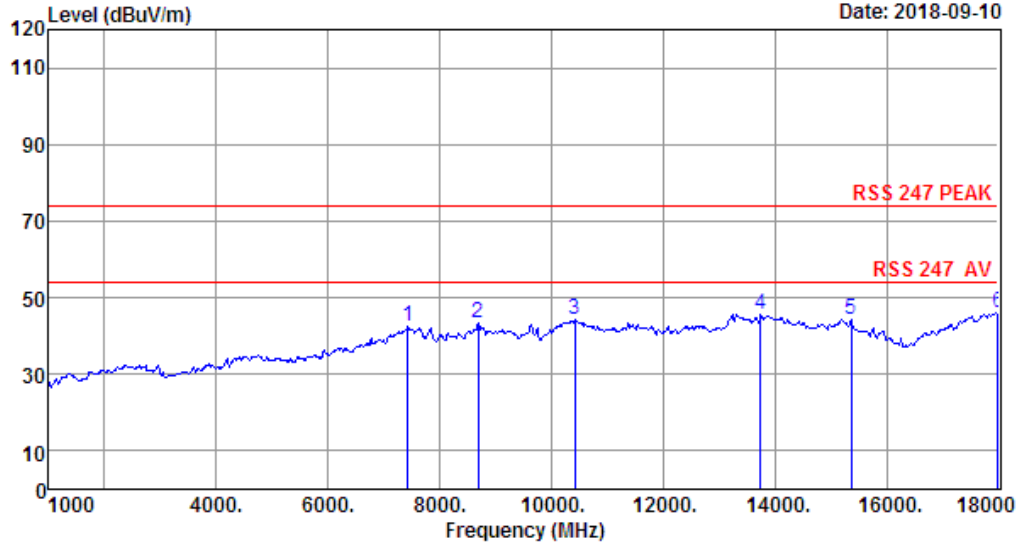
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Data: 207

File: \\Emc-966-1\test data\2018\RF\Inmusic.EM6 (234)

Date: 2018-09-10



Site no. : 1# 966 Chamber Data no. : 207  
 Dis. / Ant. : 3m ANT9120D 1-18G Ant. pol. : HORIZONTAL  
 Limit : RSS 247 PEAK  
 Env. / Ins. : Temp:24.3'; Humi:50%; Press:101.52kPa  
 Engineer : Viking  
 EUT : CD player  
 Power : AC 120V/60Hz  
 M/N : DN-700CB  
 Test Mode : RX Mode  
 Antenna: TQC-2400-1.8DXBNC

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	7426.00	37.05	6.13	33.11	32.24	42.31	74.00	31.69	Peak
2	8684.00	37.46	6.90	33.06	32.22	43.52	74.00	30.48	Peak
3	10418.00	39.27	9.90	34.22	29.29	44.24	74.00	29.76	Peak
4	13750.00	41.50	10.01	32.69	26.90	45.72	74.00	28.28	Peak
5	15365.00	39.72	10.93	32.64	26.46	44.47	74.00	29.53	Peak
6	18000.00	44.70	12.64	31.56	20.40	46.18	74.00	27.82	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.  
 2. Margin= Limit - Emission Level.  
 3. The emission levels that are 20dB below the official limit are not reported.

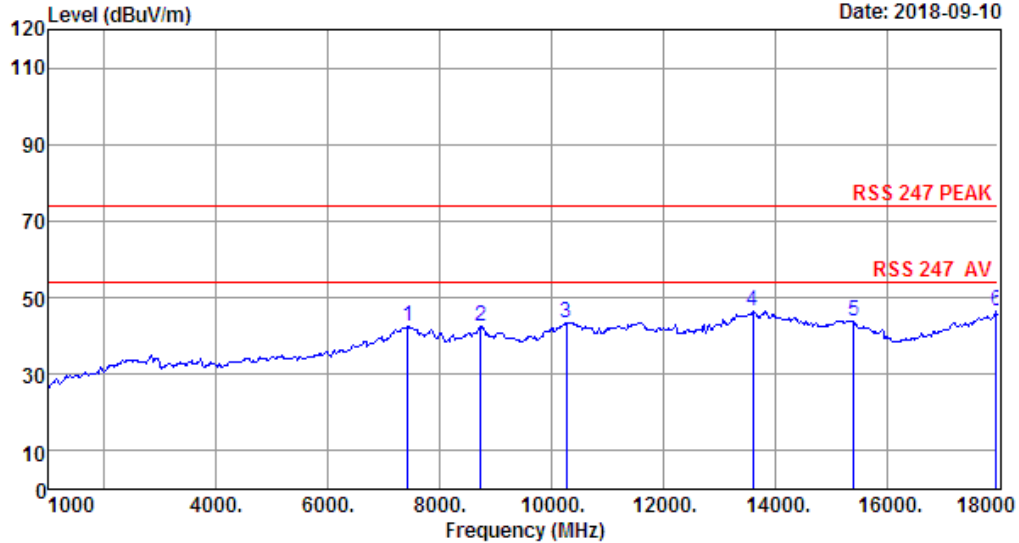
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Data: 208

File: \\Emc-966-1\test data\2018\RF\Inmusic.EM6 (234)

Date: 2018-09-10



Site no. : 1# 966 Chamber Data no. : 208  
 Dis. / Ant. : 3m ANT9120D 1-18G Ant. pol. : VERTICAL  
 Limit : RSS 247 PEAK  
 Env. / Ins. : Temp:24.3'; Humi:50%; Press:101.52kPa  
 Engineer : Viking  
 EUT : CD player  
 Power : AC 120V/60Hz  
 M/N : DN-700CB  
 Test Mode : RX Mode  
 Antenna: TQC-2400-1.8DXBNC

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	7426.00	37.05	6.13	33.11	32.37	42.44	74.00	31.56	Peak
2	8735.00	37.53	6.90	32.88	30.95	42.50	74.00	31.50	Peak
3	10265.00	39.21	9.98	34.39	28.59	43.39	74.00	30.61	Peak
4	13614.00	41.39	9.82	32.59	27.91	46.53	74.00	27.47	Peak
5	15416.00	39.64	10.90	32.53	25.79	43.80	74.00	30.20	Peak
6	17966.00	44.61	12.57	31.48	20.67	46.37	74.00	27.63	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.  
 2. Margin= Limit - Emission Level.  
 3. The emission levels that are 20dB below the official limit are not reported.

**18000MHz – 25000MHz**

Pass

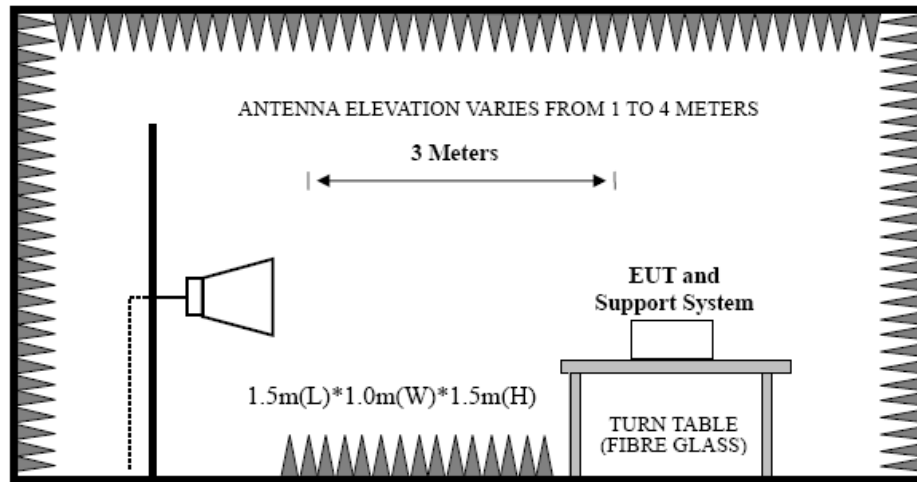
Note: The amplitude of spurious emission that is attenuated by more than 20dB below the permissible limit has no need to be reported.

## 5 BAND EDGE COMPLIANCE TEST

### 5.1 Limit

All the lower and upper band-edges emissions appearing within 2310MHz to 2390MHz and 2483.5MHz to 2500MHz restricted frequency bands shall not exceed the limits shown in 15.209, all the other emissions outside operation frequency band 2400MHz to 2483.5MHz shall be at least 20dB below the fundamental emissions, or comply with 15.209 limits.

### 5.2 Block Diagram of Test setup



### 5.3 Test Procedure

1. The EUT is placed on a turntable, which is 1.5m above the ground plane and worked at highest radiated power.
2. The turntable was rotated for 360 degrees to determine the position of maximum emission level.
3. EUT is set 3m away from the receiving antenna, which is varied from 1m to 4m to find out the highest emission.
4. Set the spectrum analyzer in the following setting in order to capture the lower and upper band-edges of the emission:
  - (a) Peak : RBW = 1MHz, VBW = 1MHz, Detector=PEAK detector, Sweep time = auto
  - (b) AV : RBW = 1MHz, VBW = 10Hz, Detector=PEAK detector, Sweep time = auto

### 5.4 Test Result

Pass (The testing data was attached in the next pages.)

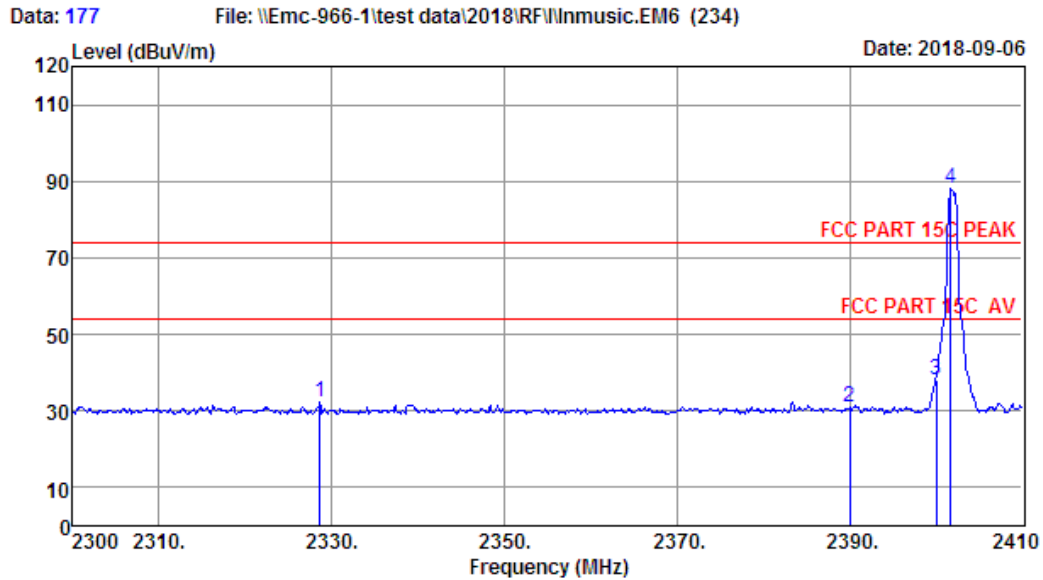
- Note:
- 1、 For emissions above 1GHz, if peak level comply with average limit, then the average level is deemed to comply with average limit.
  - 2、 The frequency 2402MHz and 2480 MHz is fundamental frequency which no limit, the limit on plots is automatically generated by the software, it's not fundamental limit, we can't remove it.



## 5.5 Test Data

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Site no. : 1# 966 Chamber Data no. : 177  
 Dis. / Ant. : 3m ANT9120D 1-18G Ant. pol. : HORIZONTAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : Temp:23.9'; Humi:52%; Press:101.52kPa  
 Engineer : Viking  
 EUT : CD player  
 Power : AC 120V/60Hz  
 M/N : DN-700CB  
 Test Mode : GFSK TX 2402MHz  
 Antenna: AN13-04

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2328.60	27.19	3.15	34.67	36.71	32.38	74.00	41.62	Peak
2	2390.00	27.35	3.21	34.87	35.09	30.78	74.00	43.22	Peak
3	2400.00	27.35	3.21	34.94	42.41	38.03	74.00	35.97	Peak
4	2401.75	27.35	3.21	34.94	92.40	88.02	74.00	-14.02	Peak

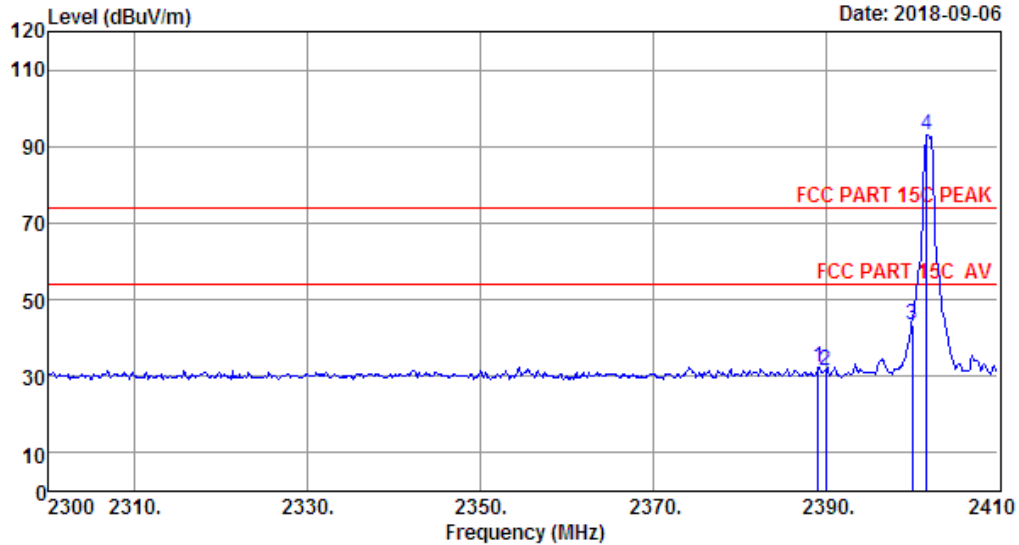
Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.  
 2. Margin= Limit - Emission Level.  
 3. The emission levels that are 20dB below the official limit are not reported.

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Data: 178 File: \\Emc-966-1\test data\2018\RF\Inmusic.EM6 (234)

Date: 2018-09-06



Site no. : 1# 966 Chamber Data no. : 178  
 Dis. / Ant. : 3m ANT9120D 1-18G Ant. pol. : VERTICAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : Temp:23.9'; Humi:52%; Press:101.52kPa  
 Engineer : Viking  
 EUT : CD player  
 Power : AC 120V/60Hz  
 M/N : DN-700CB  
 Test Mode : GFSK TX 2402MHz  
 Antenna: AN13-04

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2389.10	27.35	3.21	34.87	36.78	32.47	74.00	41.53	Peak
2	2390.00	27.35	3.21	34.87	35.90	31.59	74.00	42.41	Peak
3	2400.00	27.35	3.21	34.94	47.78	43.40	74.00	30.60	Peak
4	2401.75	27.35	3.21	34.94	97.50	93.12	74.00	-19.12	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.  
 2. Margin= Limit - Emission Level.  
 3. The emission levels that are 20dB below the official limit are not reported.

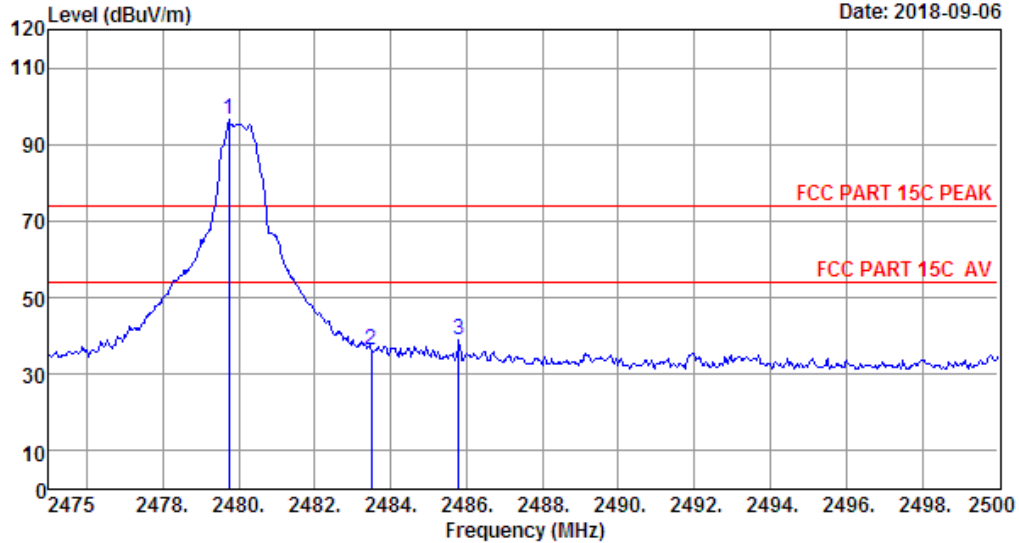
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Data: 179

File: \\Emc-966-1\test data\2018\RF\Inmusic.EM6 (234)

Date: 2018-09-06



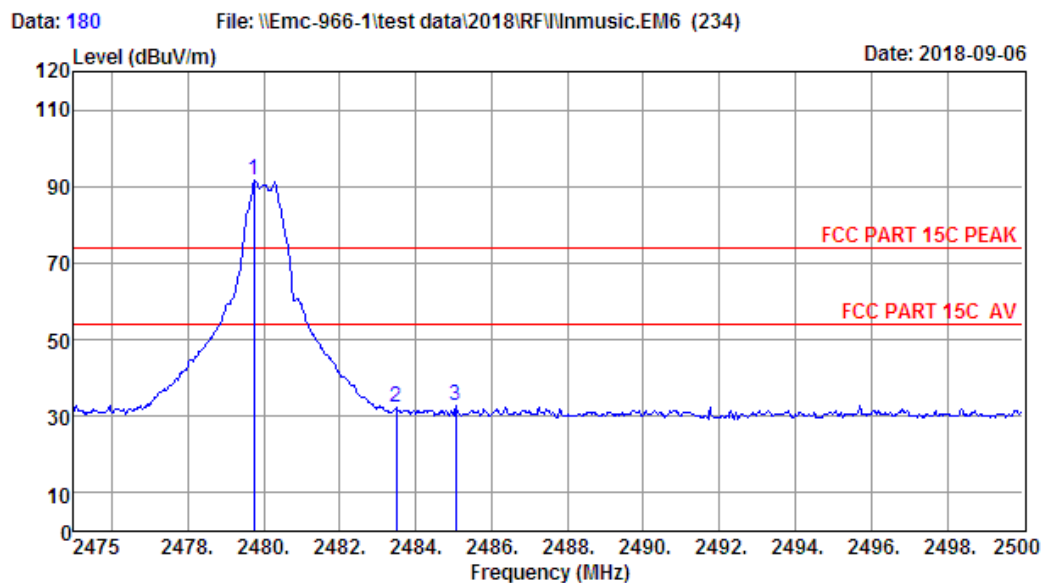
Site no. : 1# 966 Chamber Data no. : 179  
 Dis. / Ant. : 3m ANT9120D 1-18G Ant. pol. : VERTICAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : Temp:23.9';Humi:52%;Press:101.52kPa  
 Engineer : Viking  
 EUT : CD player  
 Power : AC 120V/60Hz  
 M/N : DN-700CB  
 Test Mode : GFSK TX 2480MHz  
 Antenna:AN13-04

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2479.75	27.56	3.29	35.21	101.02	96.66	74.00	-22.66	Peak
2	2483.50	27.56	3.29	35.21	40.63	36.27	74.00	37.73	Peak
3	2485.80	27.56	3.29	35.21	43.28	38.92	74.00	35.08	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.  
 2. Margin= Limit - Emission Level.  
 3. The emission levels that are 20dB below the official limit are not reported.

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Site no. : 1# 966 Chamber Data no. : 180  
 Dis. / Ant. : 3m ANT9120D 1-18G Ant. pol. : HORIZONTAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : Temp:23.9';Humi:52%;Press:101.52kPa  
 Engineer : Viking  
 EUT : CD player  
 Power : AC 120V/60Hz  
 M/N : DN-700CB  
 Test Mode : GFSK TX 2480MHz  
 Antenna:AN13-04

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2479.75	27.56	3.29	35.21	96.06	91.70	74.00	-17.70	Peak
2	2483.50	27.56	3.29	35.21	36.73	32.37	74.00	41.63	Peak
3	2485.05	27.56	3.29	35.21	37.12	32.76	74.00	41.24	Peak

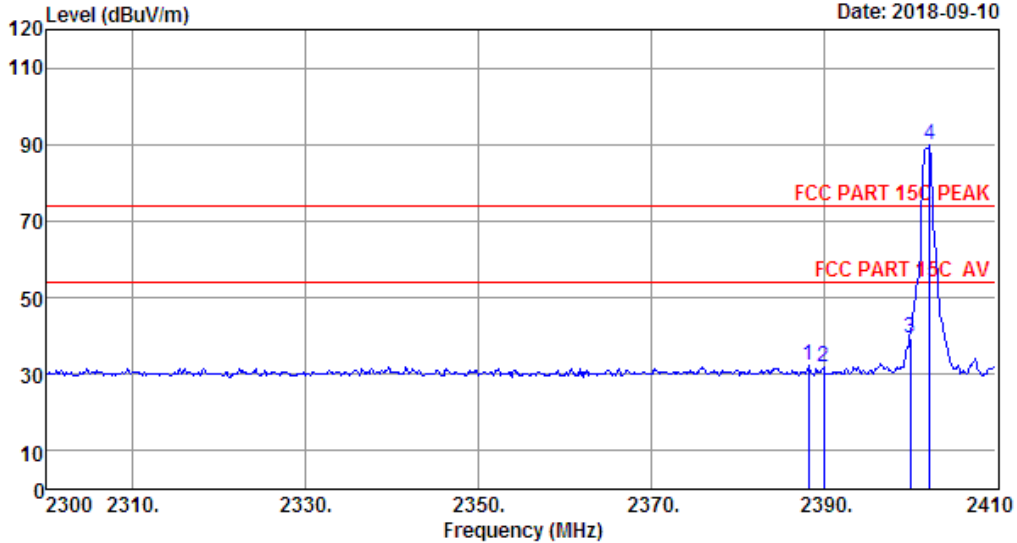
Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.  
 2. Margin= Limit - Emission Level.  
 3. The emission levels that are 20dB below the official limit are not reported.

## EST Technology

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Data: 231 File: \\Emc-966-1\test data\2018\RF\Inmusic.EM6 (234)

Date: 2018-09-10



Site no. : 1# 966 Chamber Data no. : 231  
 Dis. / Ant. : 3m ANT9120D 1-18G Ant. pol. : VERTICAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : Temp:24.3'; Humi:50%; Press:101.52kPa  
 Engineer : Viking  
 EUT : CD player  
 Power : AC 120V/60Hz  
 M/N : DN-700CB  
 Test Mode : GFSK TX 2402MHz  
 Antenna: TQC-2400-1.8DXBNC

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2388.22	27.35	3.21	34.87	36.44	32.13	74.00	41.87	Peak
2	2390.00	27.35	3.21	34.87	36.29	31.98	74.00	42.02	Peak
3	2400.00	27.35	3.21	34.94	43.69	39.31	74.00	34.69	Peak
4	2402.30	27.35	3.21	34.94	94.07	89.69	74.00	-15.69	Peak

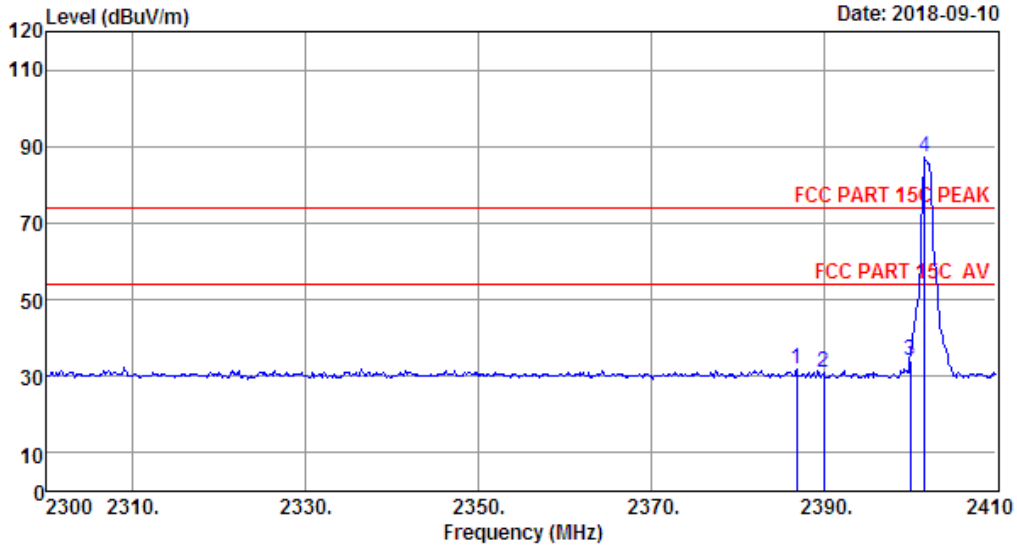
Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.  
 2. Margin= Limit - Emission Level.  
 3. The emission levels that are 20dB below the official limit are not reported.

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Data: 232 File: \\Emc-966-1\test data\2018\RF\Inmusic.EM6 (234)

Date: 2018-09-10



Site no. : 1# 966 Chamber Data no. : 232  
 Dis. / Ant. : 3m ANT9120D 1-18G Ant. pol. : HORIZONTAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : Temp:24.3'; Humi:50%; Press:101.52kPa  
 Engineer : Viking  
 EUT : CD player  
 Power : AC 120V/60Hz  
 M/N : DN-700CB  
 Test Mode : GFSK TX 2402MHz  
 Antenna: TQC-2400-1.8DXBNC

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2386.90	27.35	3.21	34.87	36.24	31.93	74.00	42.07	Peak
2	2390.00	27.35	3.21	34.87	35.36	31.05	74.00	42.95	Peak
3	2400.00	27.35	3.21	34.94	38.62	34.24	74.00	39.76	Peak
4	2401.75	27.35	3.21	34.94	91.46	87.08	74.00	-13.08	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.  
 2. Margin= Limit - Emission Level.  
 3. The emission levels that are 20dB below the official limit are not reported.

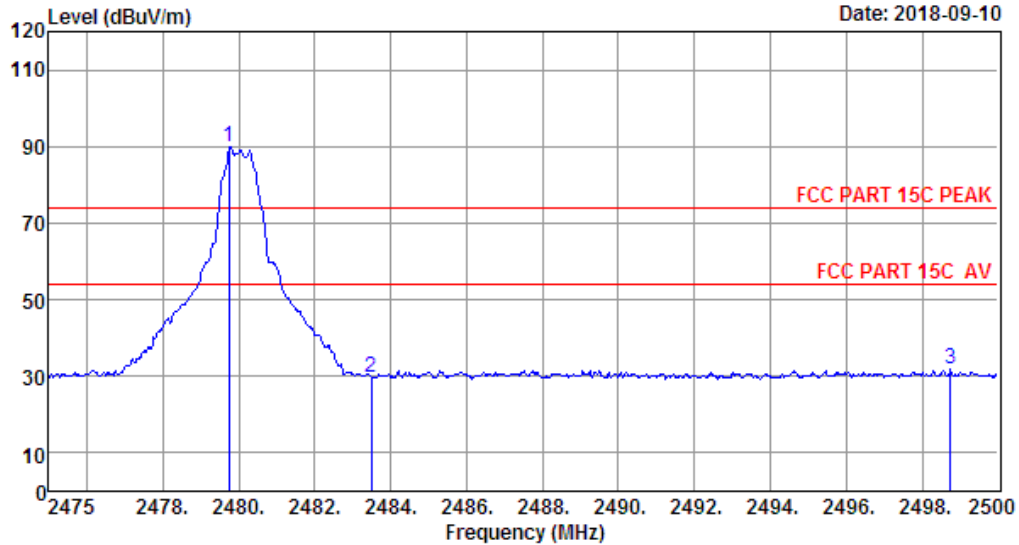
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Data: 233

File: \\Emc-966-1\test data\2018\RF\Inmusic.EM6 (234)

Date: 2018-09-10



Site no. : 1# 966 Chamber Data no. : 233  
 Dis. / Ant. : 3m ANT9120D 1-18G Ant. pol. : HORIZONTAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : Temp:24.3'; Humi:50%; Press:101.52kPa  
 Engineer : Viking  
 EUT : CD player  
 Power : AC 120V/60Hz  
 M/N : DN-700CB  
 Test Mode : GFSK TX 2480MHz  
 Antenna: TQC-2400-1.8DXBNC

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2479.75	27.56	3.29	35.21	94.29	89.93	74.00	-15.93	Peak
2	2483.50	27.56	3.29	35.21	34.05	29.69	74.00	44.31	Peak
3	2498.75	27.60	3.30	35.27	36.05	31.68	74.00	42.32	Peak

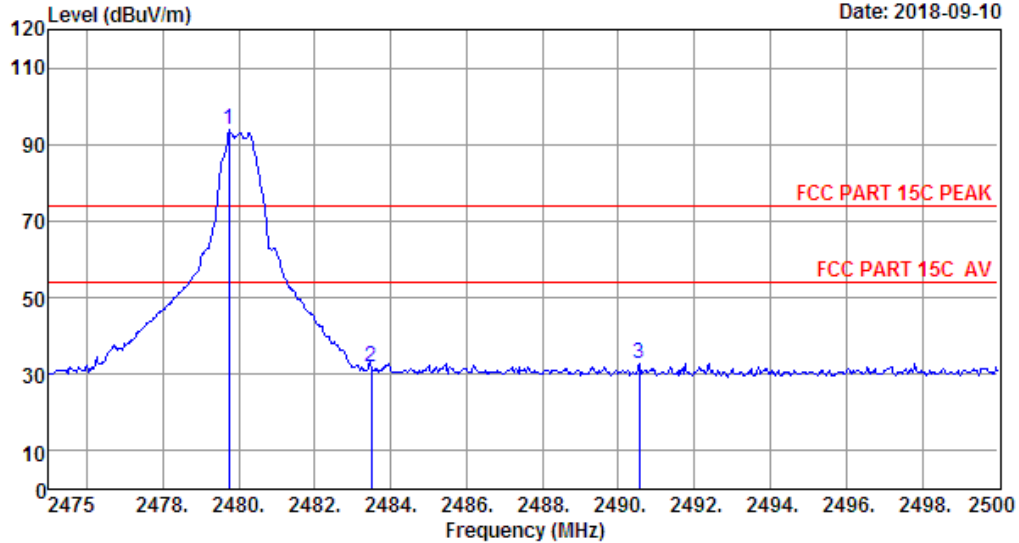
Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.  
 2. Margin= Limit - Emission Level.  
 3. The emission levels that are 20dB below the official limit are not reported.

## EST Technology

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Data: 234 File: \\Emc-966-1\test data\2018\RF\Inmusic.EM6 (234)

Date: 2018-09-10



Site no. : 1# 966 Chamber Data no. : 234  
 Dis. / Ant. : 3m ANT9120D 1-18G Ant. pol. : VERTICAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : Temp:24.3'; Humi:50%; Press:101.52kPa  
 Engineer : Viking  
 EUT : CD player  
 Power : AC 120V/60Hz  
 M/N : DN-700CB  
 Test Mode : GFSK TX 2480MHz  
 Antenna: TQC-2400-1.8DXBNC

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2479.75	27.56	3.29	35.21	98.31	93.95	74.00	-19.95	Peak
2	2483.50	27.56	3.29	35.21	36.16	31.80	74.00	42.20	Peak
3	2490.55	27.60	3.30	35.27	37.23	32.86	74.00	41.14	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.  
 2. Margin= Limit - Emission Level.  
 3. The emission levels that are 20dB below the official limit are not reported.



## 6 6dB Bandwidth Test

### 6.1 Limit

For direct sequence systems, the minimum 6dB bandwidth shall be at least 500kHz

### 6.2 Test Procedure

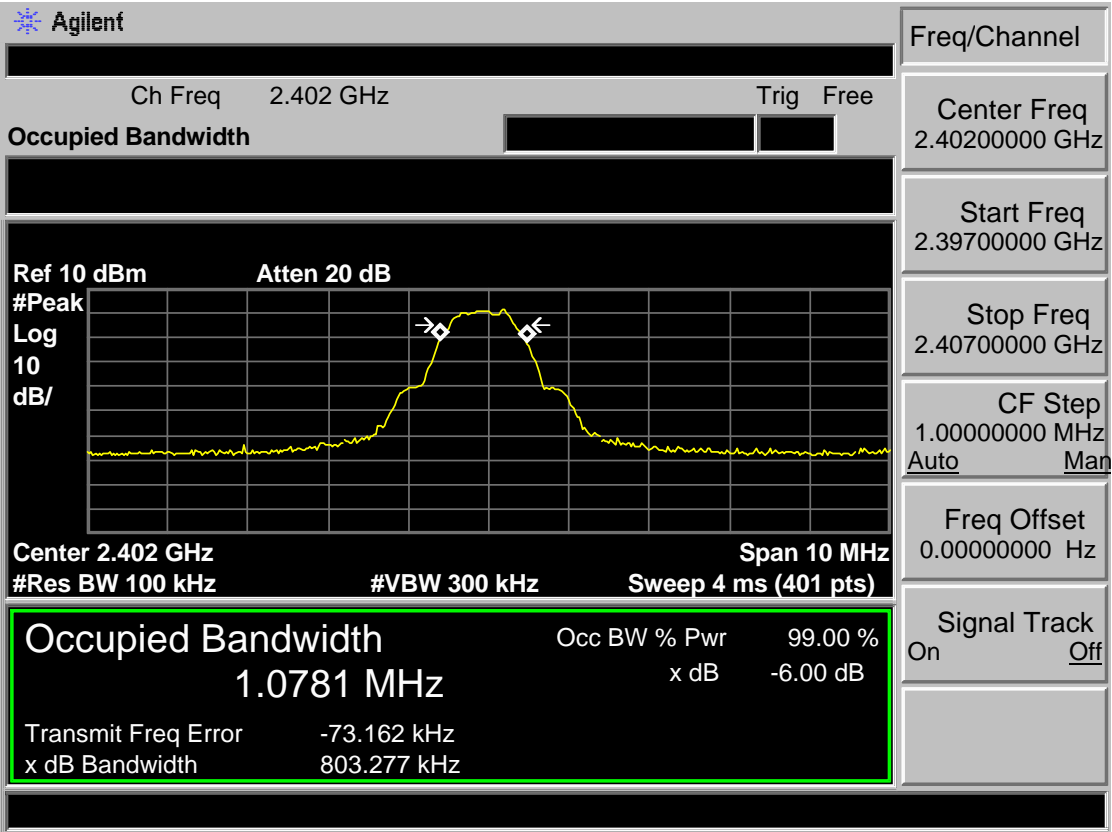
- 1, The transmitter output (antenna port) was connected to the spectrum analyzer. Connect EUT antenna terminal to the spectrum analyzer with a low loss SMA cable.
- 2, Follow the test procedure as described in KDB 558074
  - (1). Set resolution bandwidth (RBW) = 100 kHz.
  - (2). Set the video bandwidth (VBW)  $\geq 3 \times$  RBW.
  - (3). Detector = Peak.
  - (4). Trace mode = max hold.
  - (5). Sweep = auto couple.
  - (6). Allow the trace to stabilize.
  - (7). Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

### 6.3 Test Result

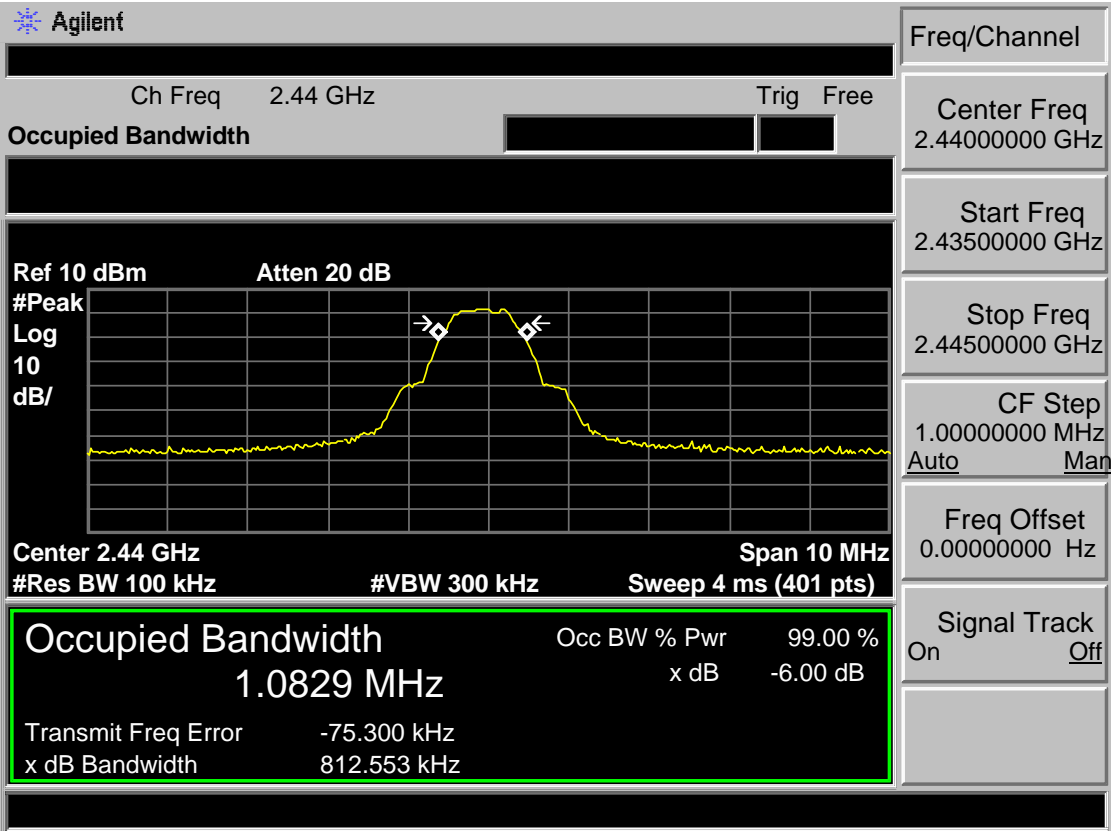
EUT: CD player			
M/N: DN-700CB			
Test date: 2018-09-14		Test site: RF Site	Tested by: Tony
Test Mode	CH	6dB bandwidth ( MHz )	Limit (KHz)
BT 4.0-BLE GFSK	CH1	0.803	>500
	CH20	0.813	>500
	CH40	0.817	>500
Conclusion : PASS			

6.4      Test Data

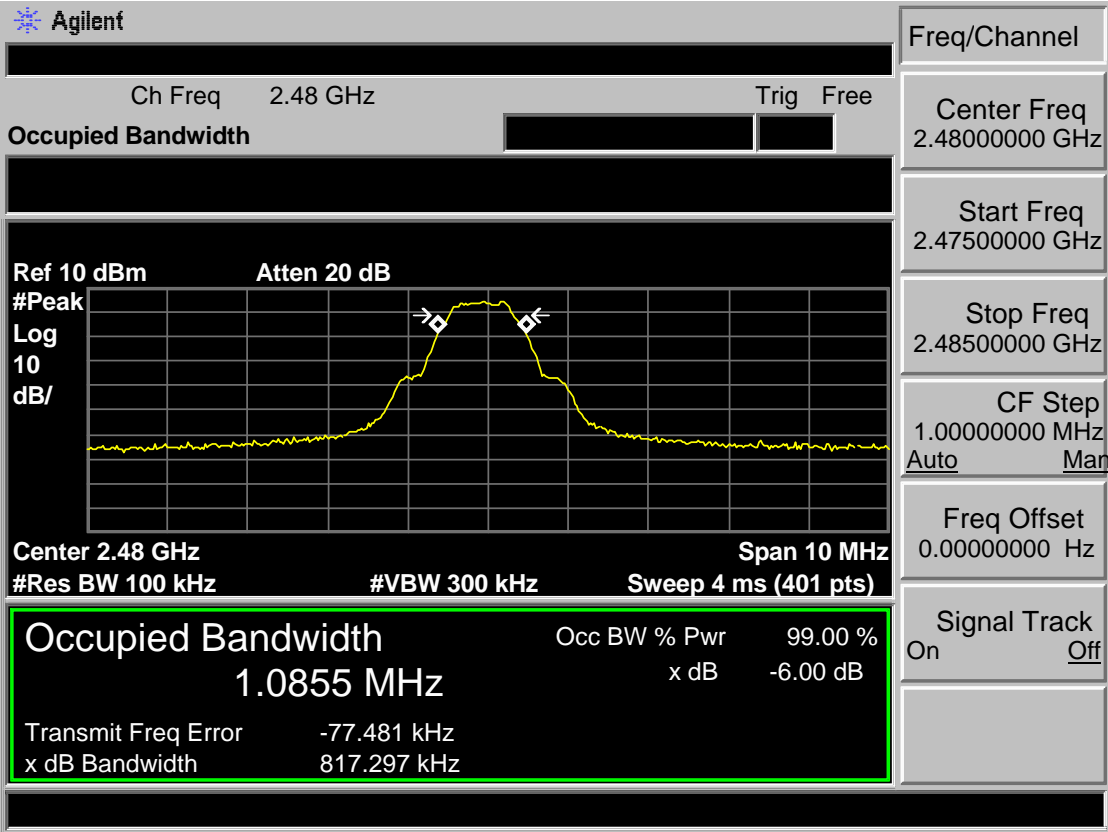
Test Mode: BT 4.0-BLE GFSK 2402MHz



Test Mode: BT 4.0-BLE GFSK 2440MHz



Test Mode: BT 4.0-BLE GFSK 2480MHz



## 7 99% BANDWIDTH

### 7.1 Limit

N/A

### 7.2 Test Procedure

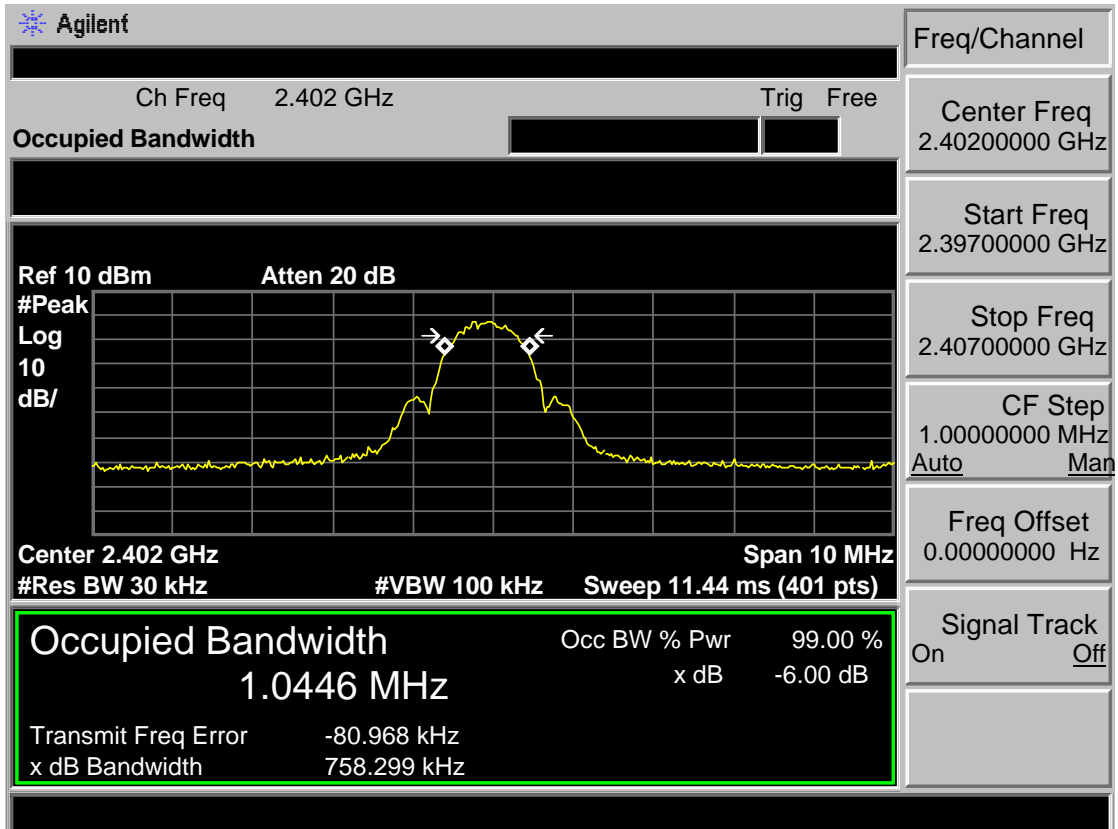
- 1, The transmitter output (antenna port) was connected to the spectrum analyzer. Connect EUT antenna terminal to the spectrum analyzer with a low loss SMA cable.
- 2, Follow the test procedure
  - (1). RBW used must be at least 1-5% of OBW.
  - (2). Set the video bandwidth (VBW) = 3 x RBW.
  - (3). Detector = Peak.
  - (4). Trace mode = max hold.
  - (5). Sweep = auto couple.

### 7.3 Test Result

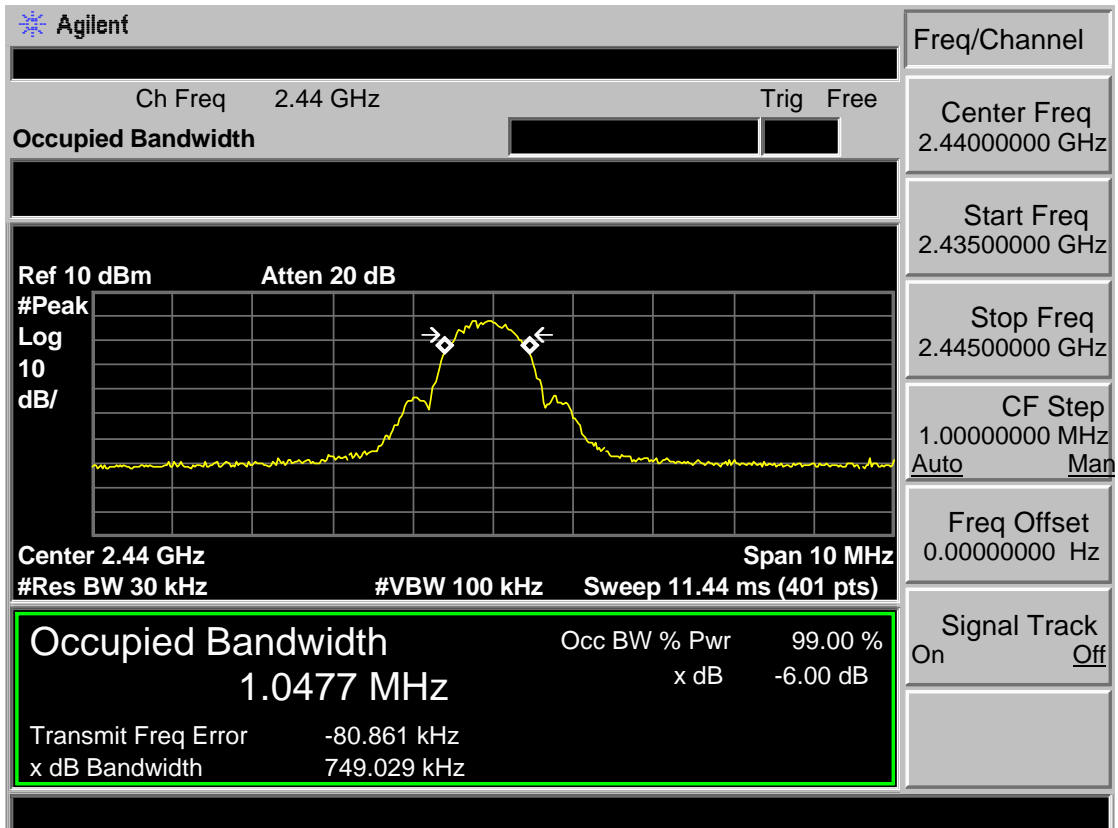
EUT: CD player			
M/N: DN-700CB			
Test date: 2018-09-14		Test site: RF Site	Tested by: Tony
Test Mode	CH	99% bandwidth ( MHz )	Limit (KHz)
BT 4.0-BLE GFSK	CH1	1.045	/
	CH20	1.048	/
	CH40	1.051	/
Conclusion : PASS			

## 7.4 Test Data

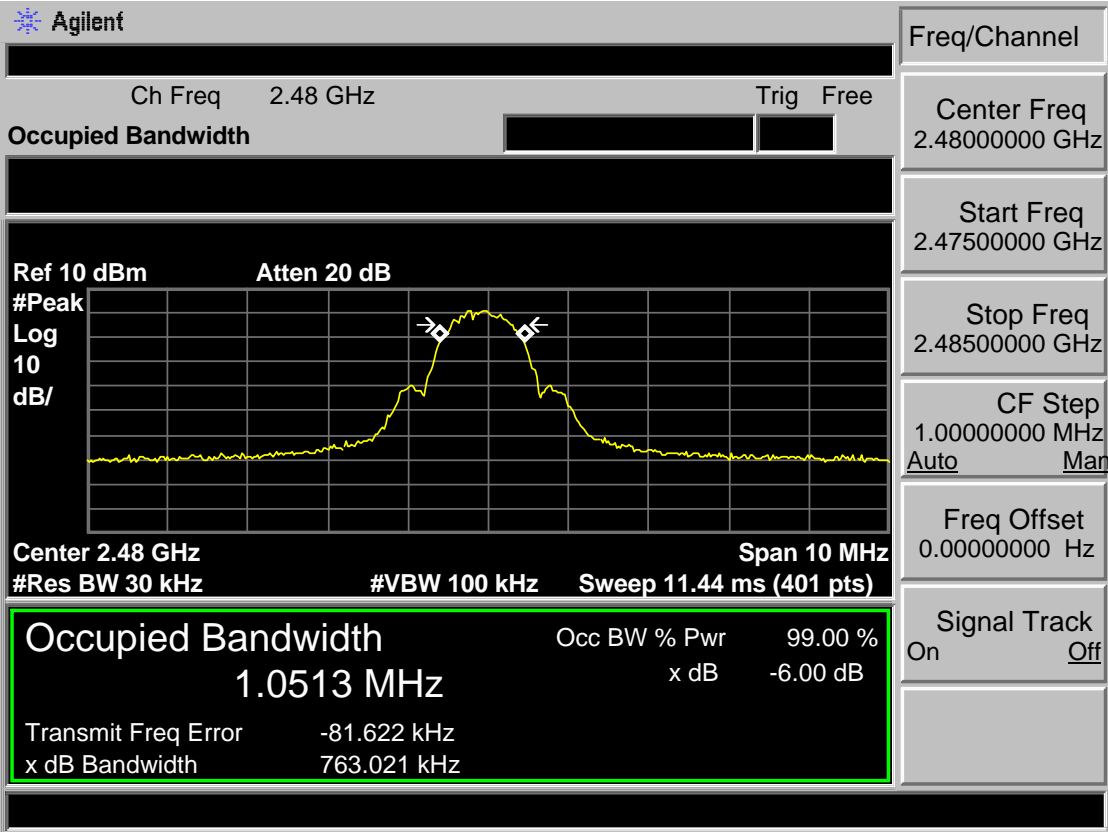
Test Mode: BT 4.0-BLE GFSK 2402MHz



Test Mode: BT 4.0-BLE GFSK 2440MHz



Test Mode: BT 4.0-BLE GFSK 2480MHz



## 8 OUTPUT POWER TEST

### 8.1 Limit

For systems using digital modulation in the 2400—2483.5MHz, The Peak output Power shall not exceed 1W(30dBm)

### 8.2 Test Procedure

- 1, The transmitter output (antenna port) was connected to the spectrum analyzer. Connect EUT antenna terminal to the spectrum analyzer with a low loss SMA cable.
- 2, Follow the test procedure as described in KDB 558074
  - (1). Set the RBW  $\geq$  DTS bandwidth.
  - (2). Set VBW  $\geq 3 \times$  RBW.
  - (3). Set span  $\geq 3 \times$  RBW.
  - (4). Sweep time = auto couple.
  - (5). Detector = peak.
  - (6). Trace mode = max hold.
  - (7). Allow trace to fully stabilize.
  - (8). Use peak marker function to determine the peak amplitude level.

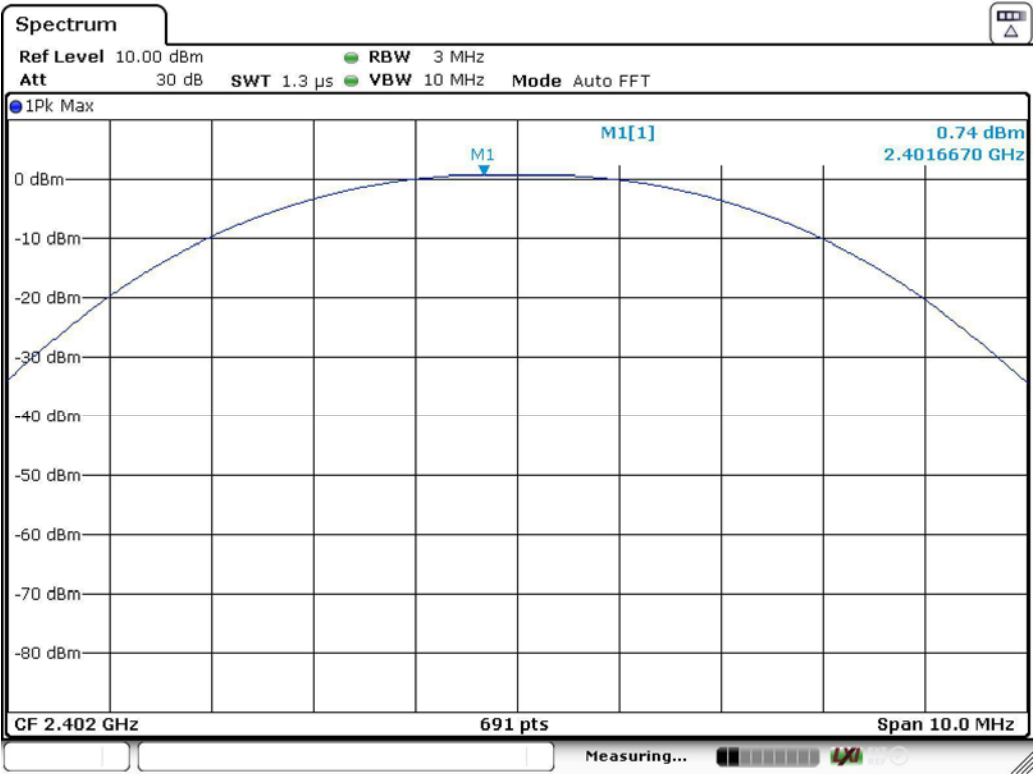
Note: The cable loss and attenuator loss were offset into measure device as an amplitude offset.

### 8.3 Test Result

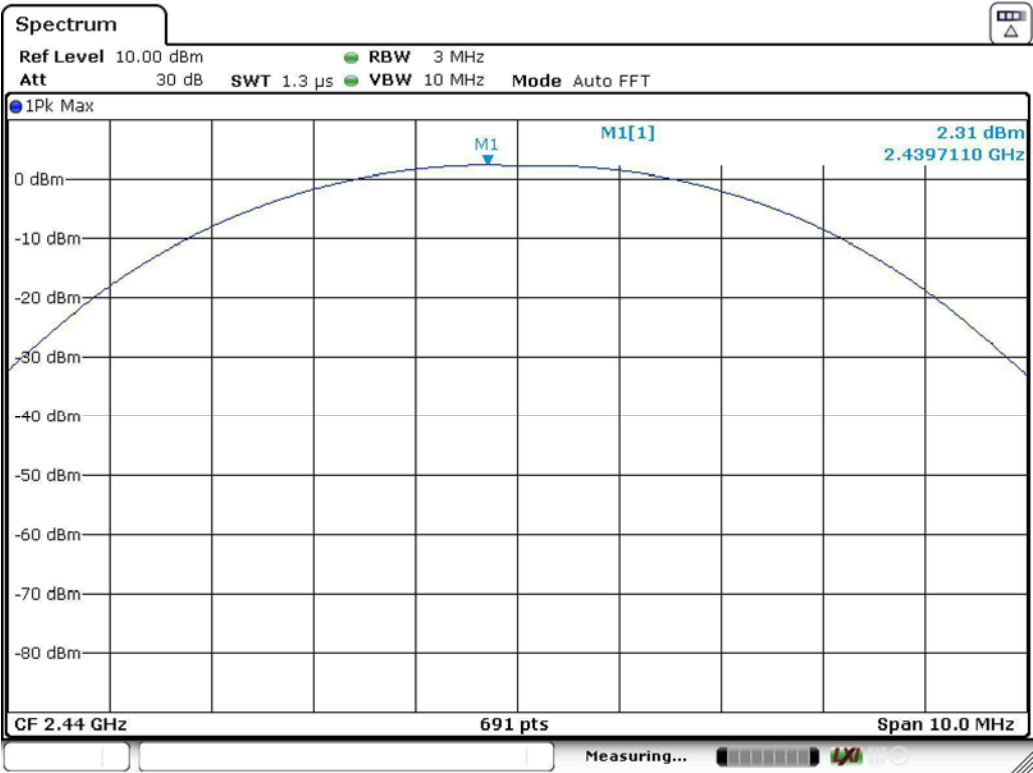
EUT:CD player			
M/N:DN-700CB			
Test date: 2018-09-14		Test site: RF Site	Tested by: Tony
Pass			
Test Mode	CH	Peak output Power ( dBm )	Limit (dBm)
BT 4.0-BLE GFSK	CH1	0.74	30
	CH20	2.31	30
	CH40	3.95	30
Conclusion : PASS			

8.4     Test Data

Test Mode: BT 4.0-BLE GFSK 2402MHz

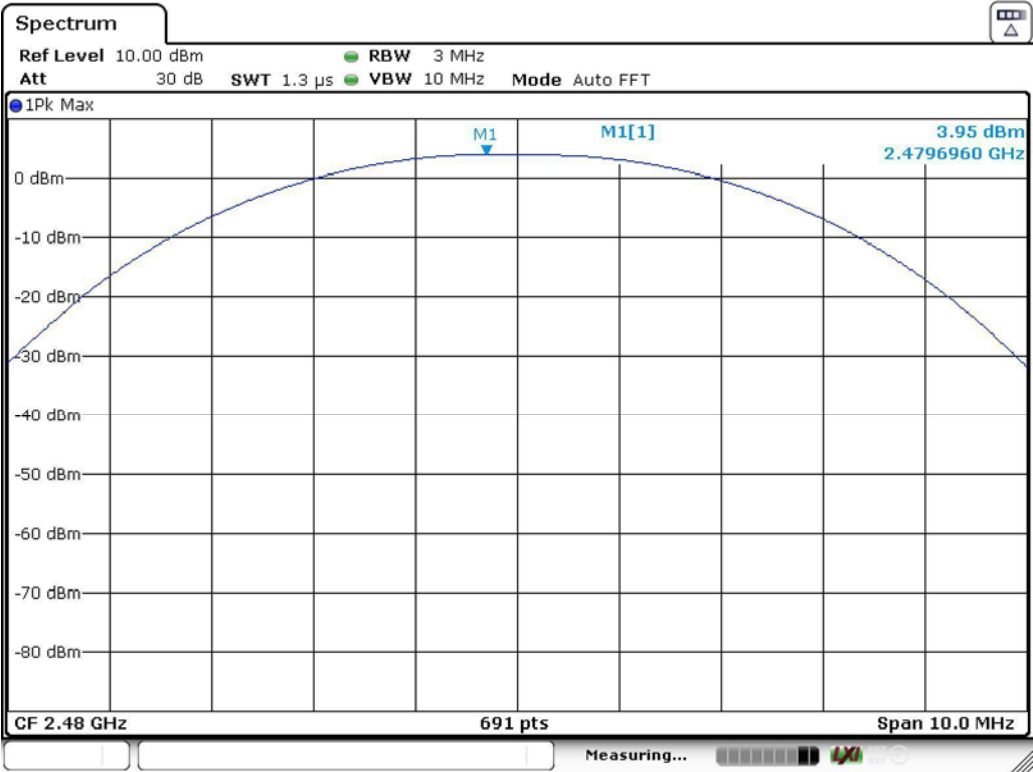


Test Mode: BT 4.0-BLE GFSK 2440MHz





Test Mode: BT 4.0-BLE GFSK 2480MHz



## 9 POWER SPECTRAL DENSITY TEST

### 9.1 Limit

For digitally modulated systems, the power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8dBm in any 3kHz band during any time interval of continuous transmission.

### 9.2 Test Procedure

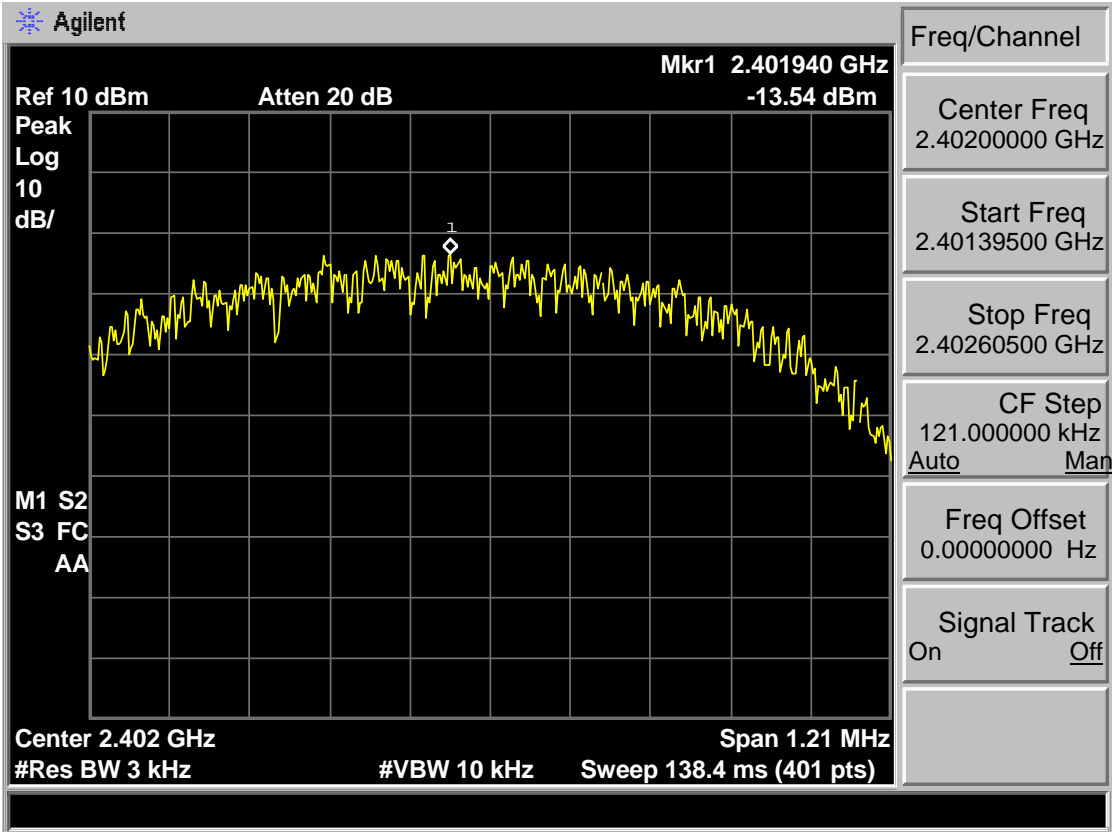
- 1, The transmitter output (antenna port) was connected to the spectrum analyzer. Connect EUT antenna terminal to the spectrum analyzer with a low loss SMA cable.
- 2, Follow the test procedure as described in KDB 558074
  - (1). Set analyzer center frequency to DTS channel center frequency.
  - (2). Set the span to 1.5 times the DTS bandwidth.
  - (3). Set the RBW to:  $3 \text{ kHz} \leq \text{RBW} \leq 100 \text{ kHz}$ .
  - (4). Set the VBW  $\geq 3 \text{ RBW}$ .
  - (5). Detector = peak.
  - (6). Sweep time = auto couple.
  - (7). Trace mode = max hold.
  - (8). Allow trace to fully stabilize.
  - (9). Use the peak marker function to determine the maximum amplitude level.
  - (10). If measured value exceeds limit, reduce RBW (no less than 3 kHz) and repeat.

### 9.3 Test Result

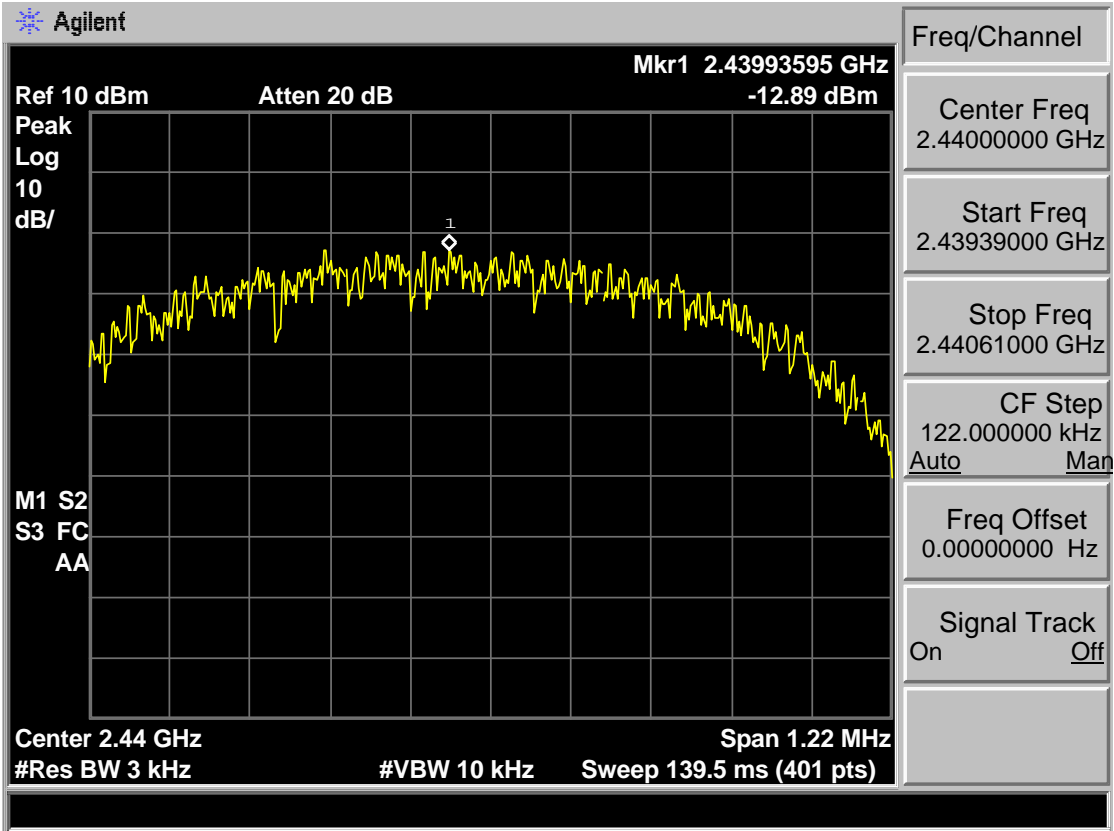
EUT: CD player			
M/N: DN-700CB			
Test date: 2018-09-14		Test site: RF Site	Tested by: Tony
Pass			
Test Mode	CH	Power density (dBm/3kHz)	Limit (dBm/3kHz)
BT 4.0-BLE GFSK	CH1	-13.54	8
	CH20	-12.89	8
	CH40	-10.27	8
Conclusion : PASS			

9.4      Test Data

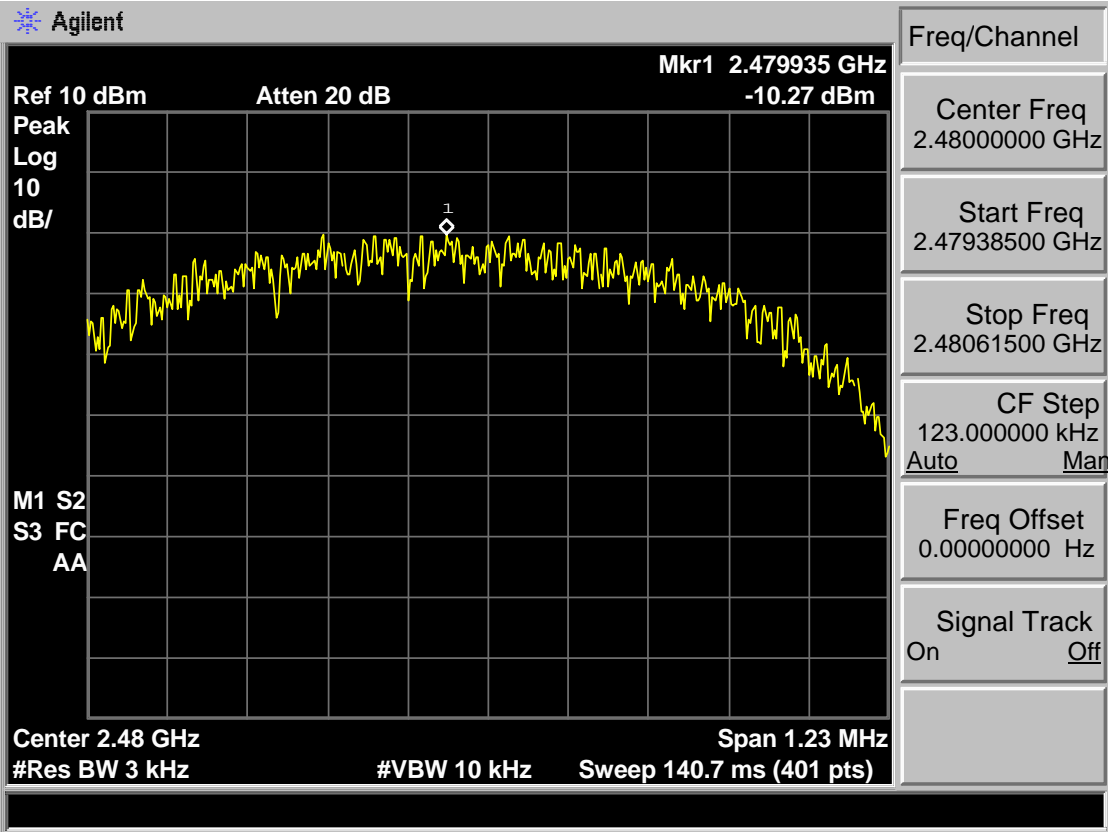
Test Mode: BT 4.0-BLE GFSK 2402MHz



Test Mode: BT 4.0-BLE GFSK 2440MHz



Test Mode: BT 4.0-BLE GFSK 2480MHz



## 10 ANTENNA REQUIREMENTS

### 10.1 Limit

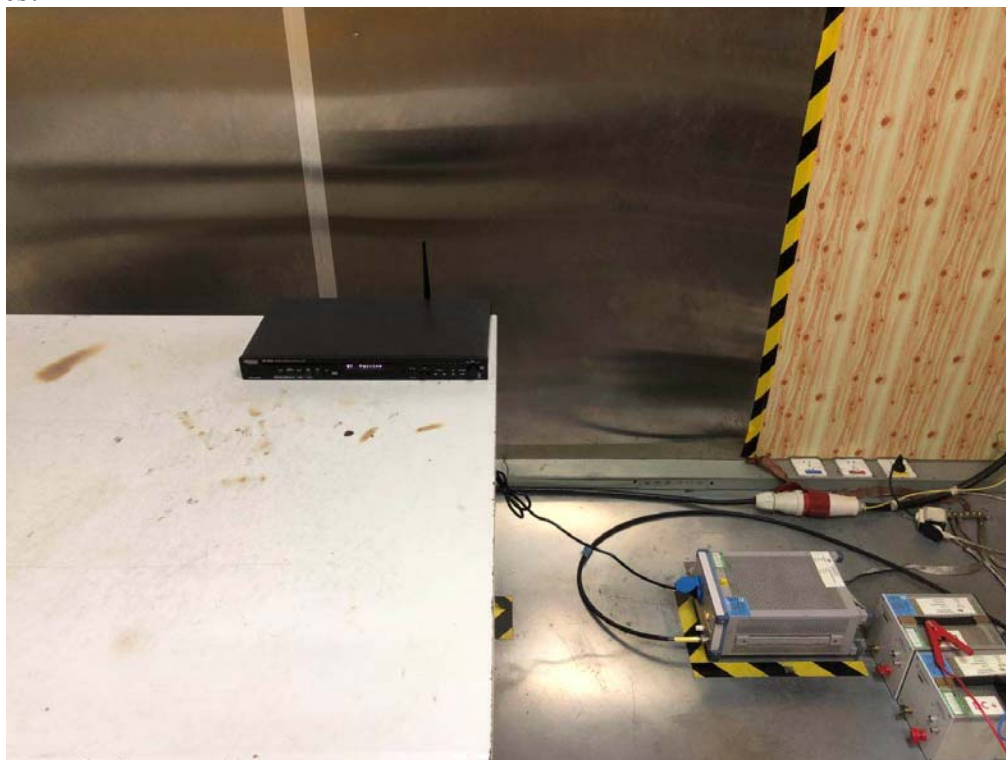
For intentional device, according to FCC 47 CFR Section 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. And according to FCC 47 CFR Section 15.247 (b), if transmitting antennas of directional gain greater than 6dBi are used, the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6dBi.

### 10.2 Result

The antennas used for this product are External antenna and that no antenna other than that furnished by the responsible party shall be used with the device, the maximum peak gain of the transmit antenna is only 2.5dBi.

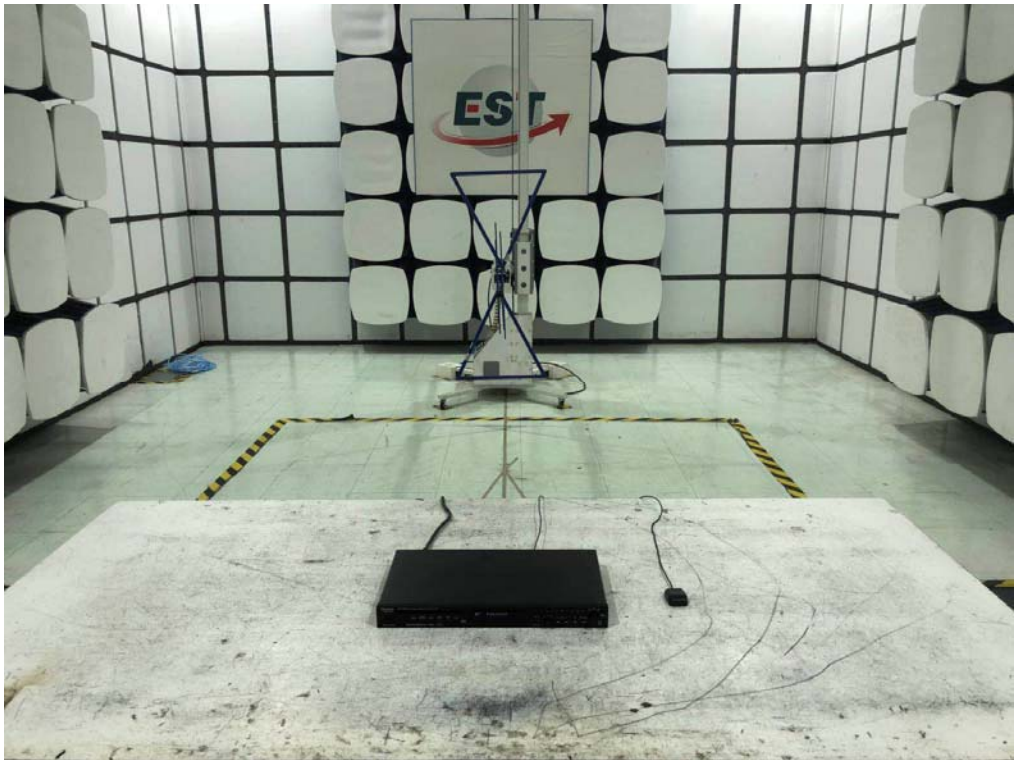
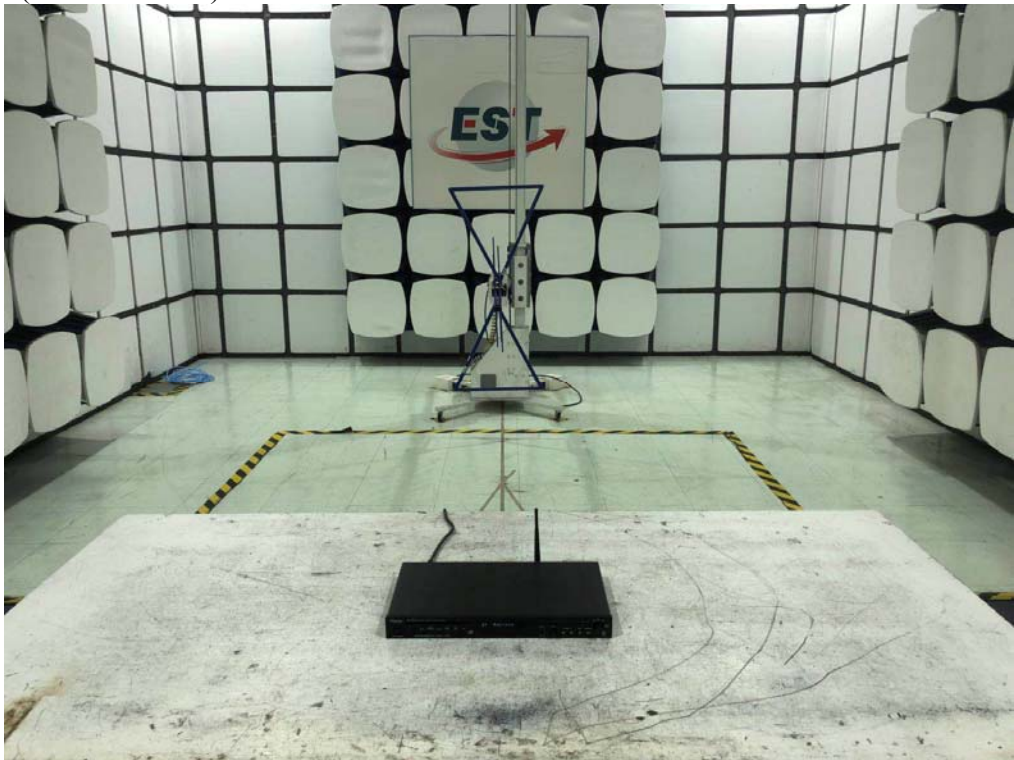
## 11 TEST SETUP PHOTO

Conducted Test





Radiated Test (30-1000 MHz)



Radiated Test (Above 1GHz)



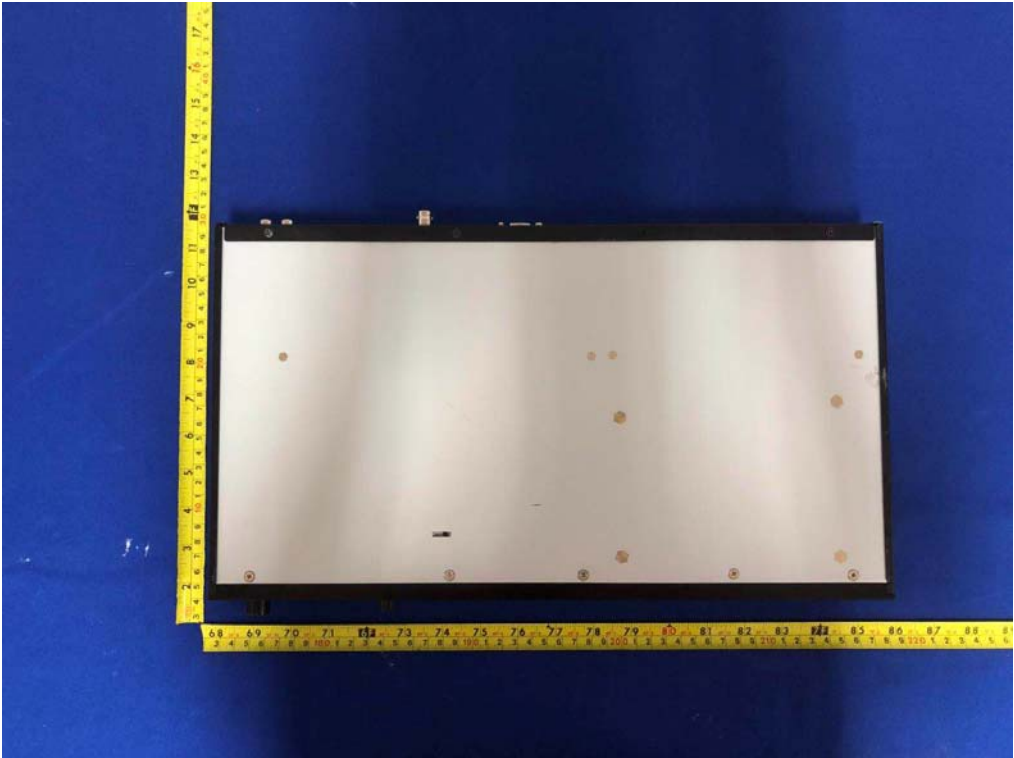
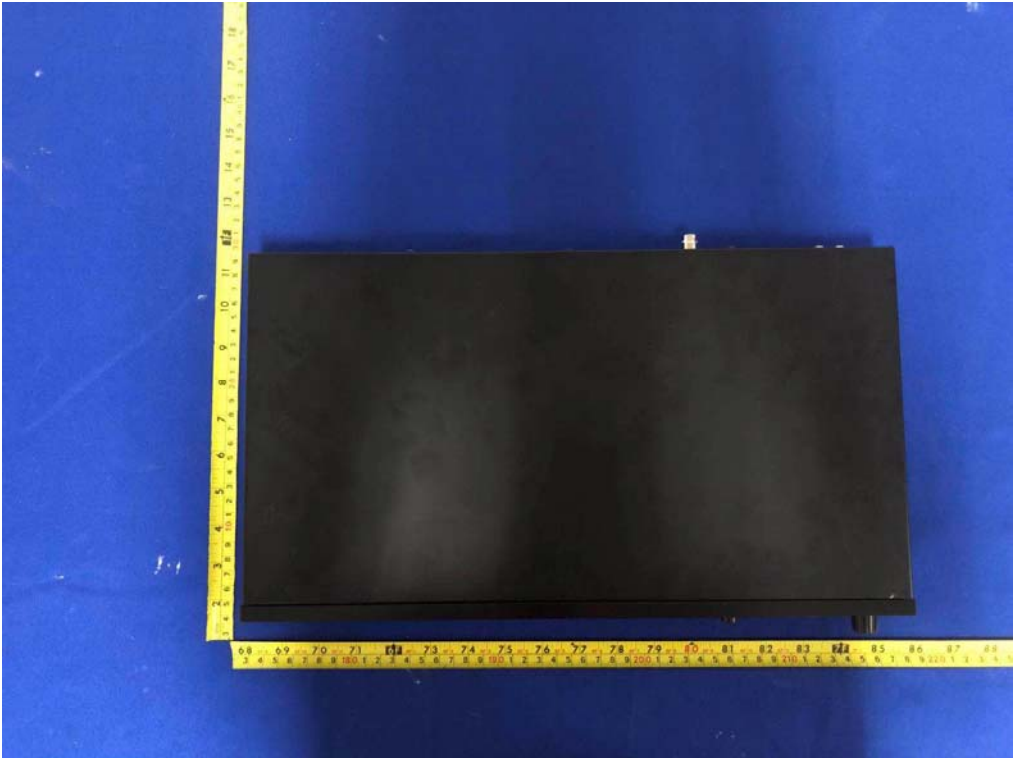


12PHOTO EUT

External Photos  
M/N: DN-700CB



External Photos  
M/N: DN-700CB



**External Photos**  
M/N: DN-700CB

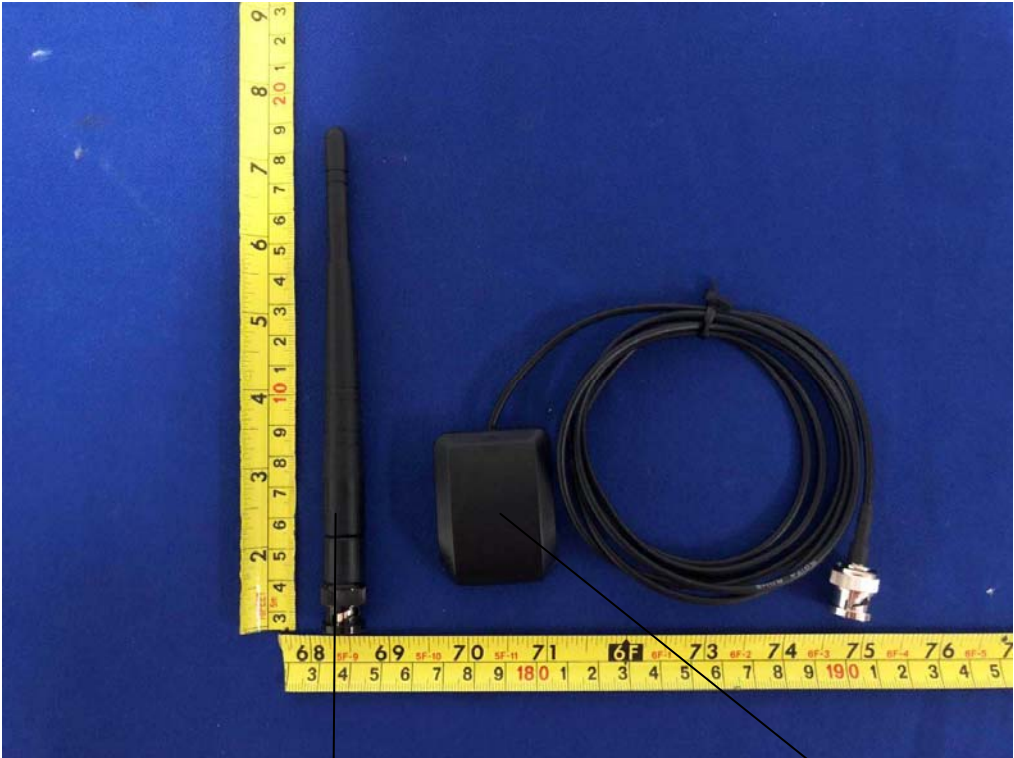




**External Photos**  
M/N: DN-700CB

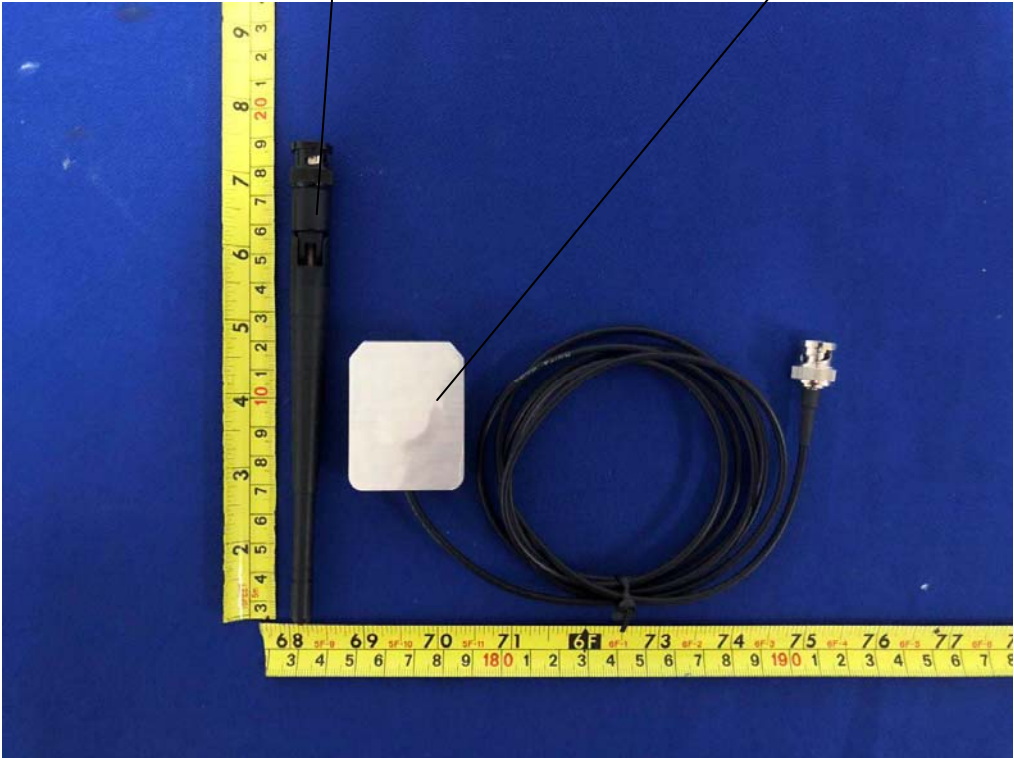


External Photos  
M/N: DN-700CB

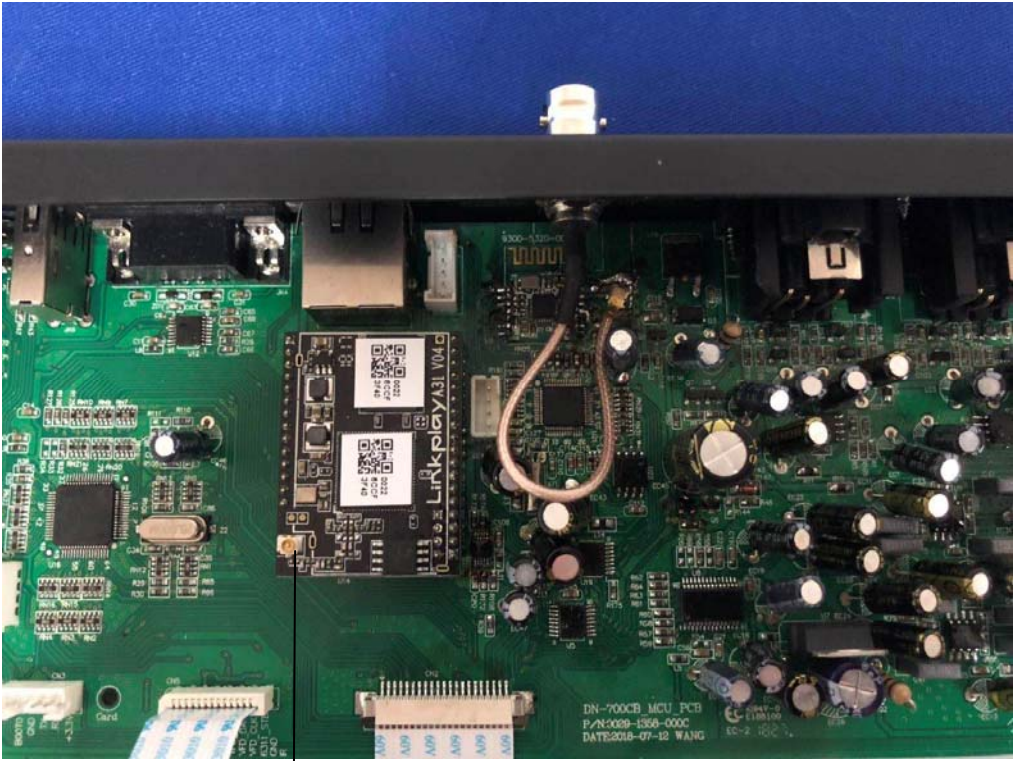


Antenna 1

Antenna 2



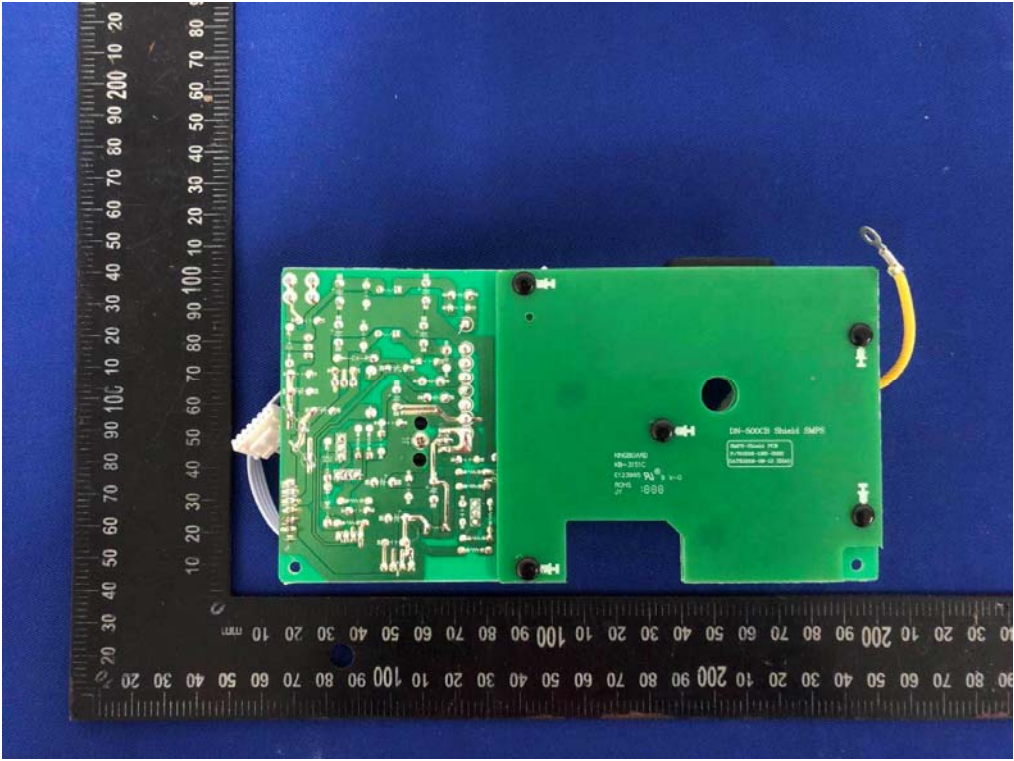
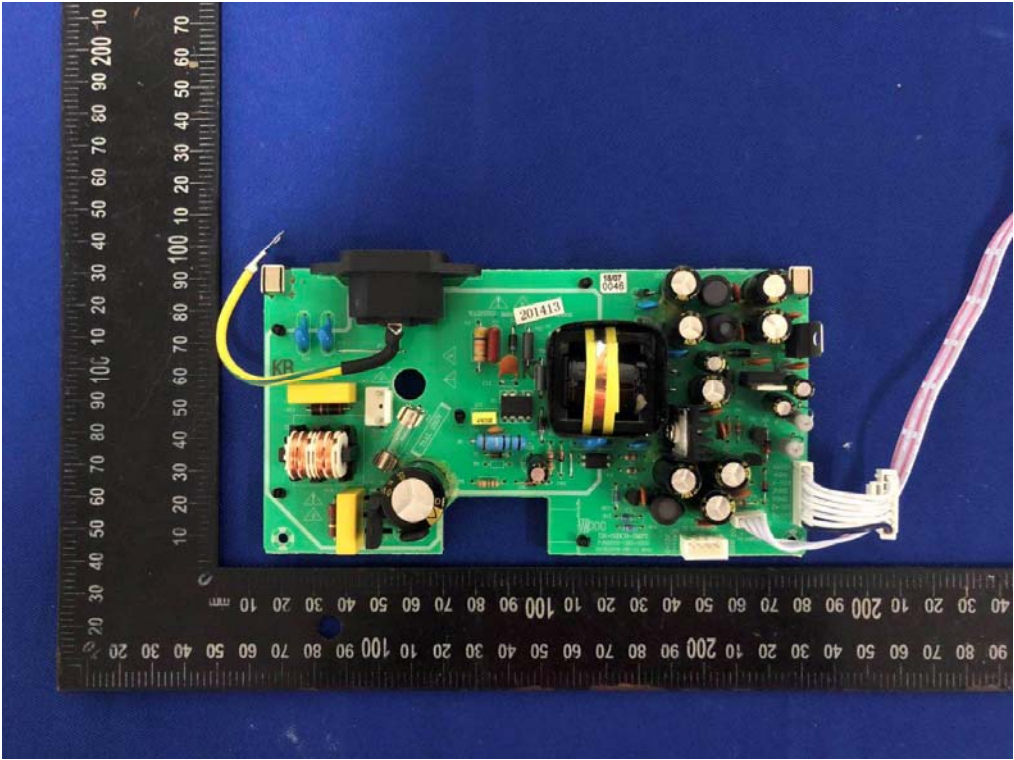
**Internal Photos**  
M/N: DN-700CB



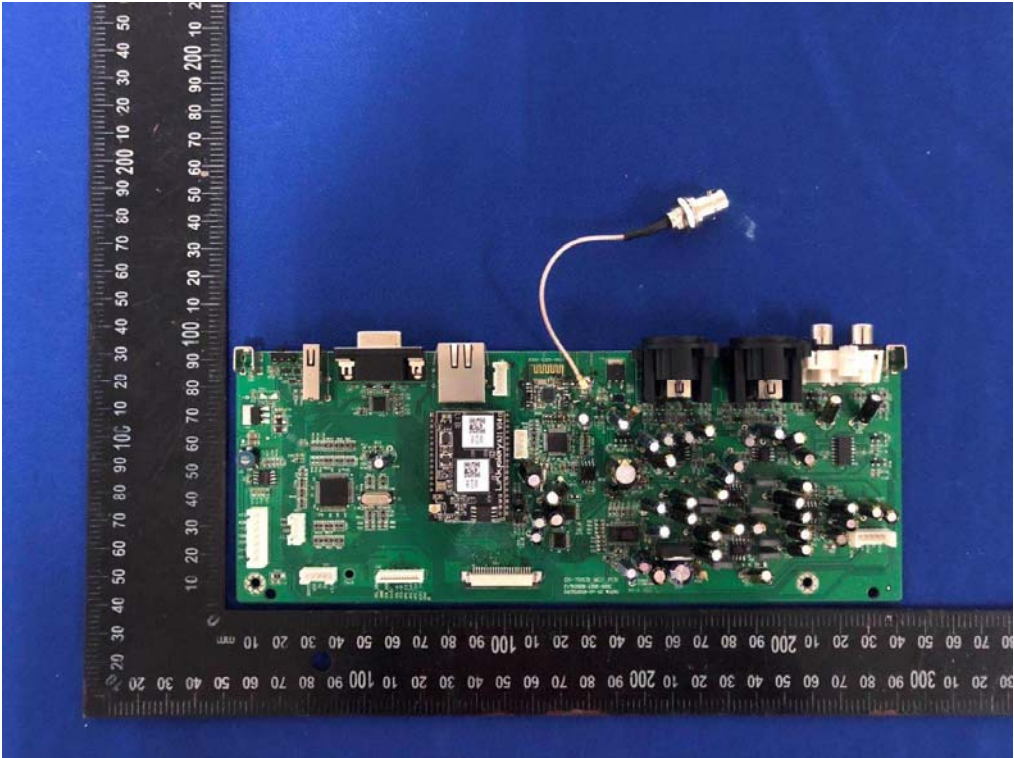
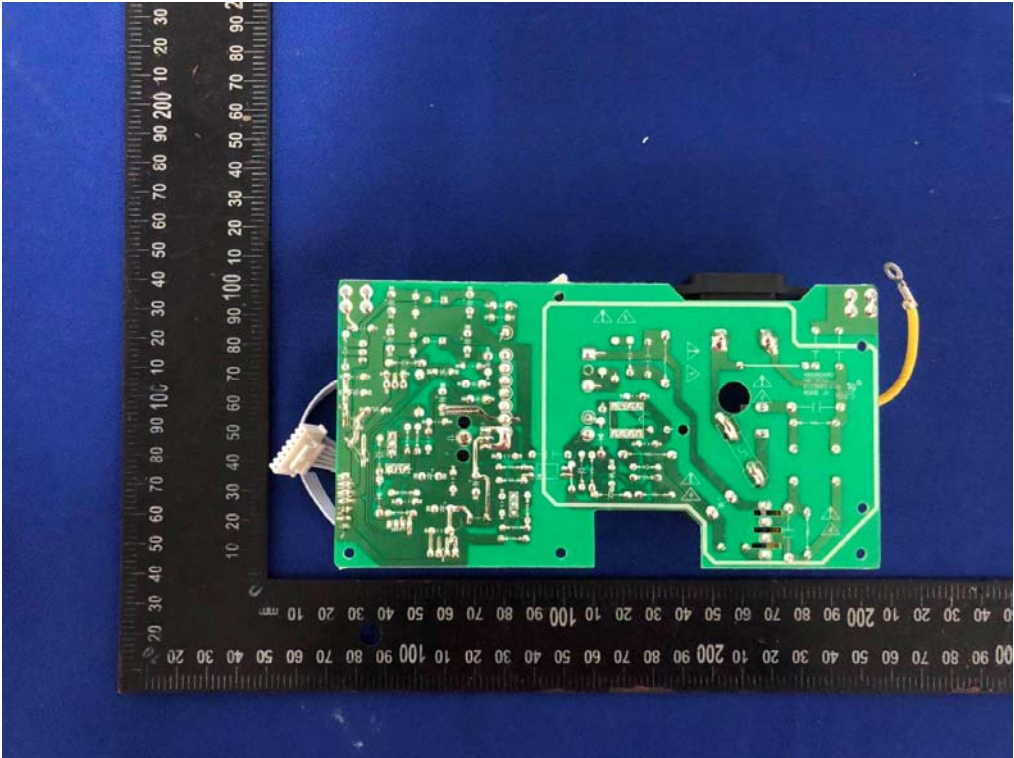
This is Wi-Fi module, But closed Wi-Fi function on this product, only used the RJ45 ethernet function. The Wi-Fi function has been closed, and this ipex connector have not used.



Internal Photos  
M/N: DN-700CB

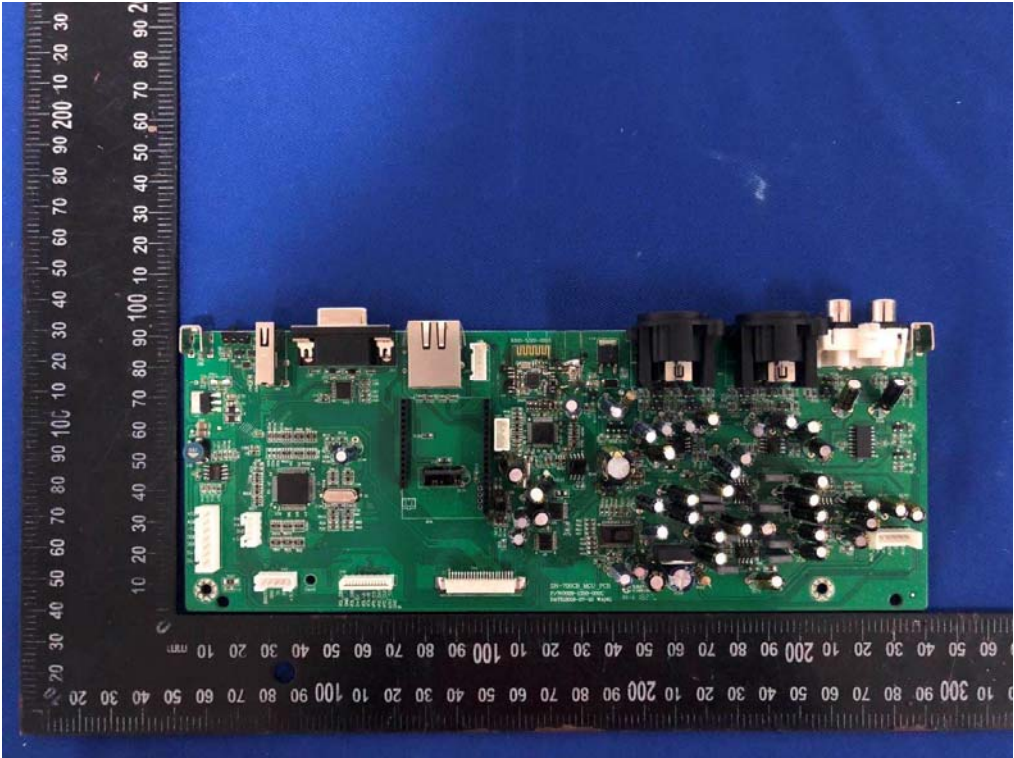
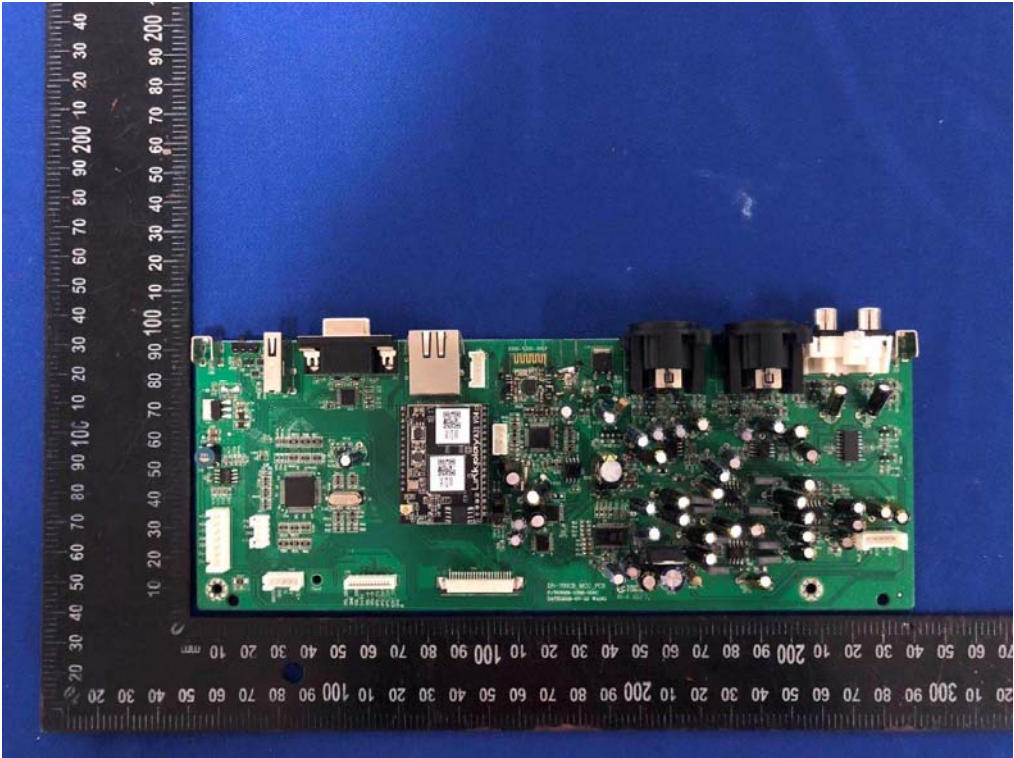


**Internal Photos**  
M/N: DN-700CB

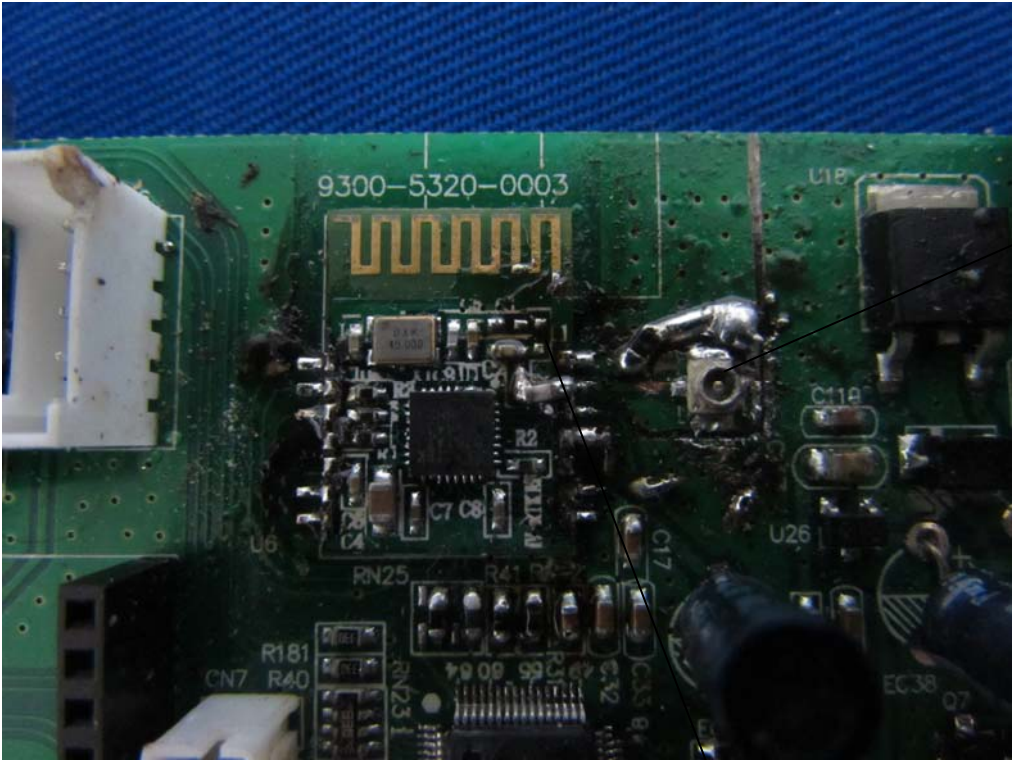




**Internal Photos**  
M/N: DN-700CB



**Internal Photos**  
M/N: DN-700CB



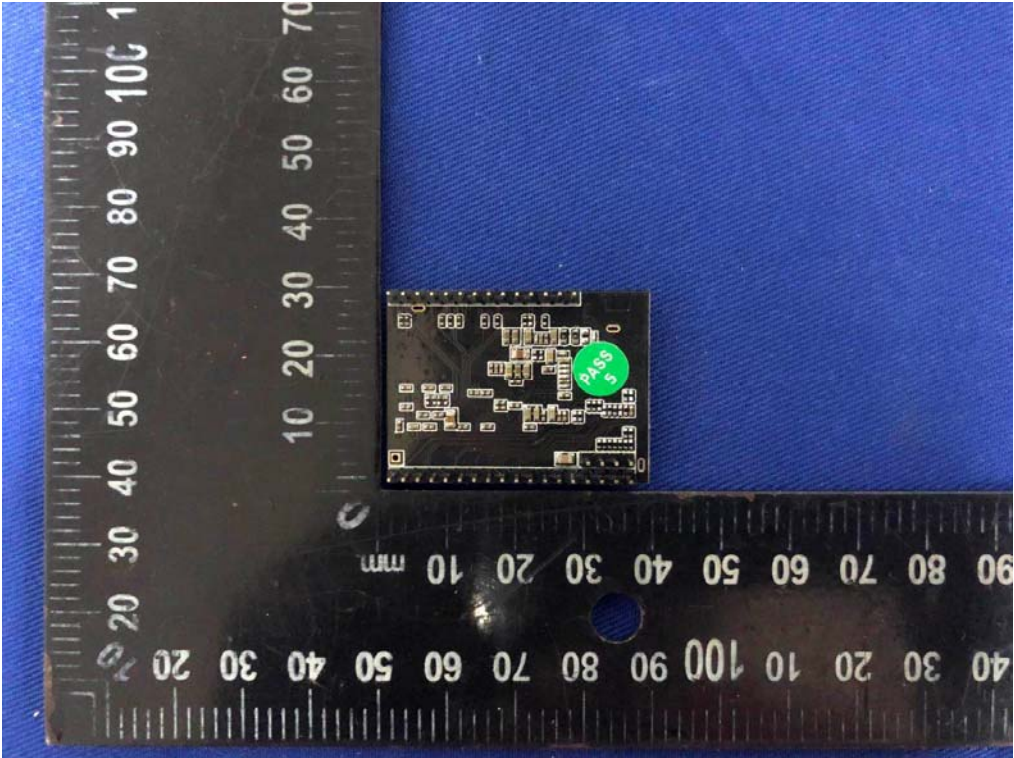
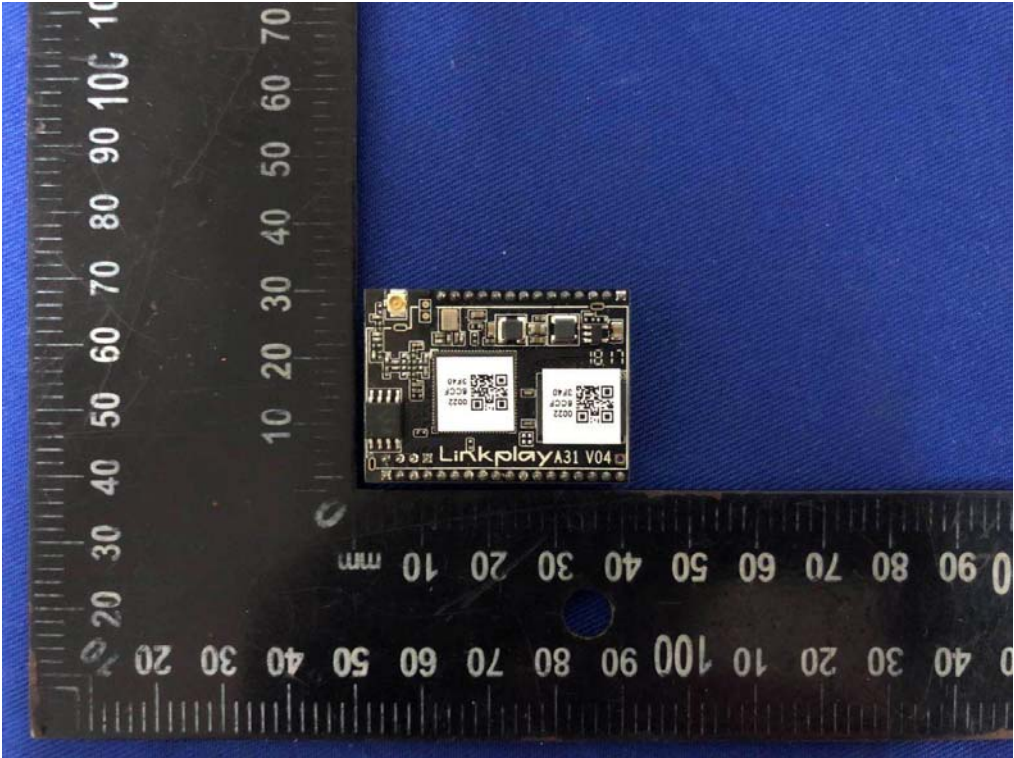
Bluetooth  
iPex  
connector

L1 chip inductor has been deleted, so the PCB antenna has not been used.

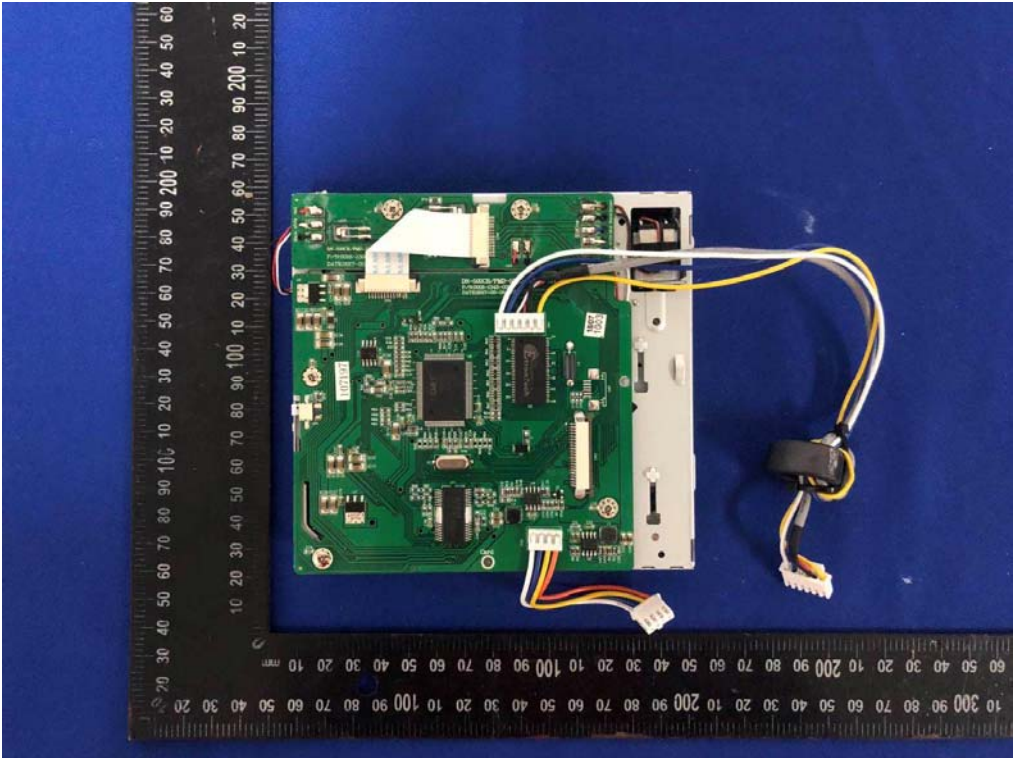
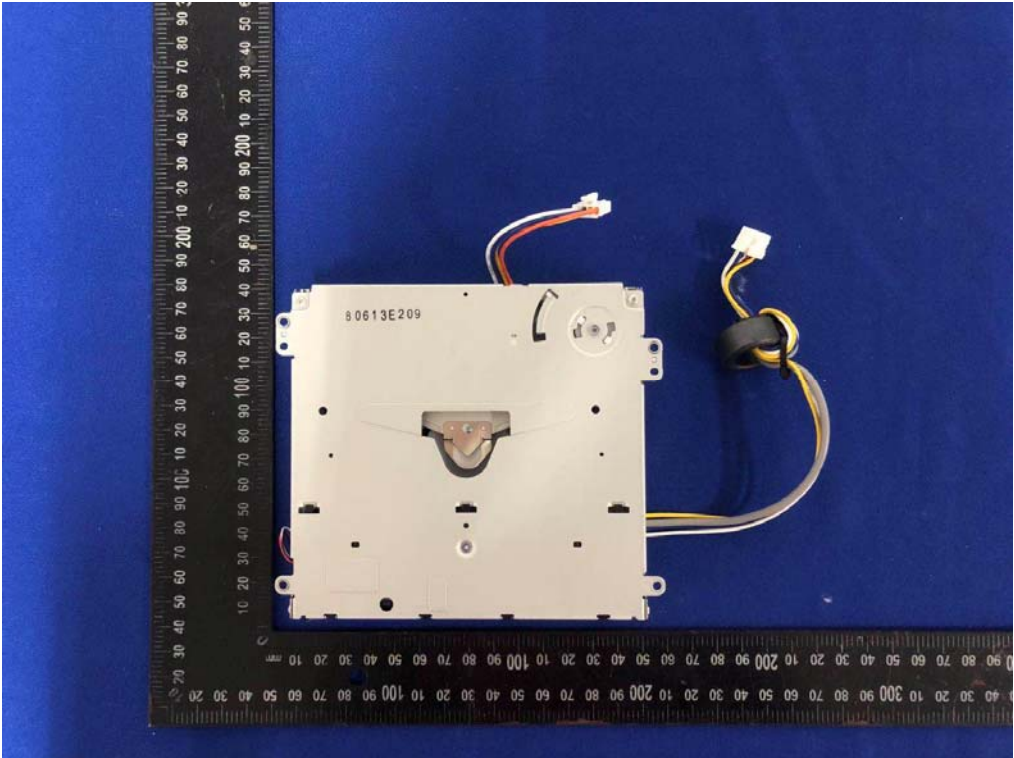




Internal Photos  
M/N: DN-700CB

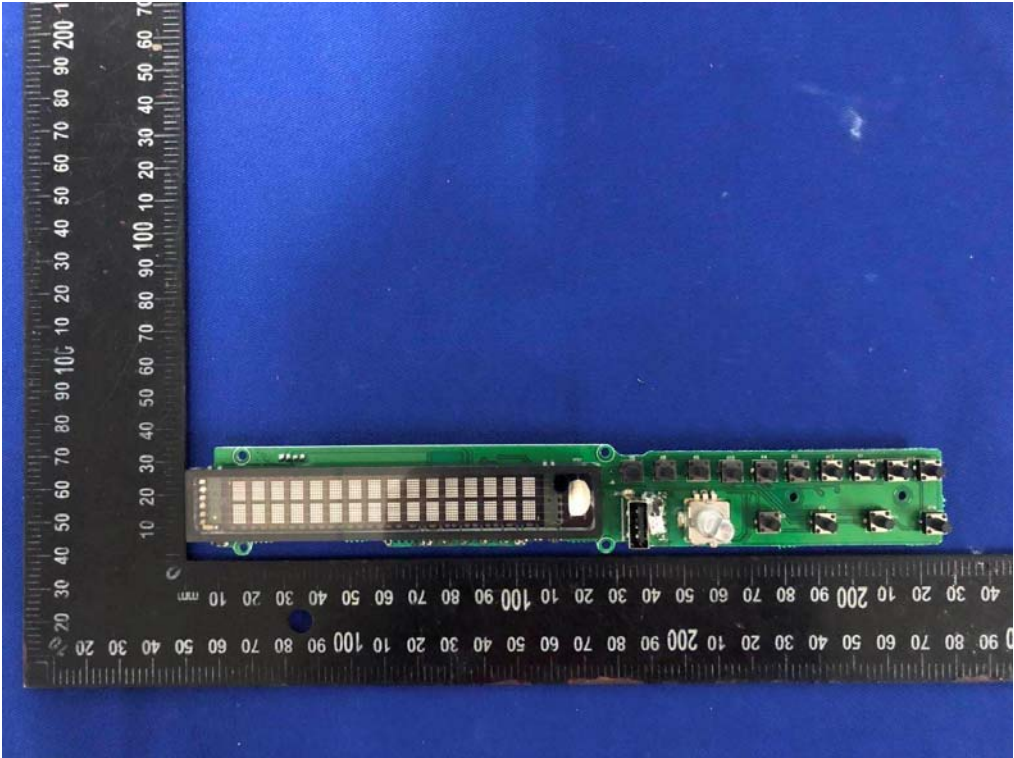
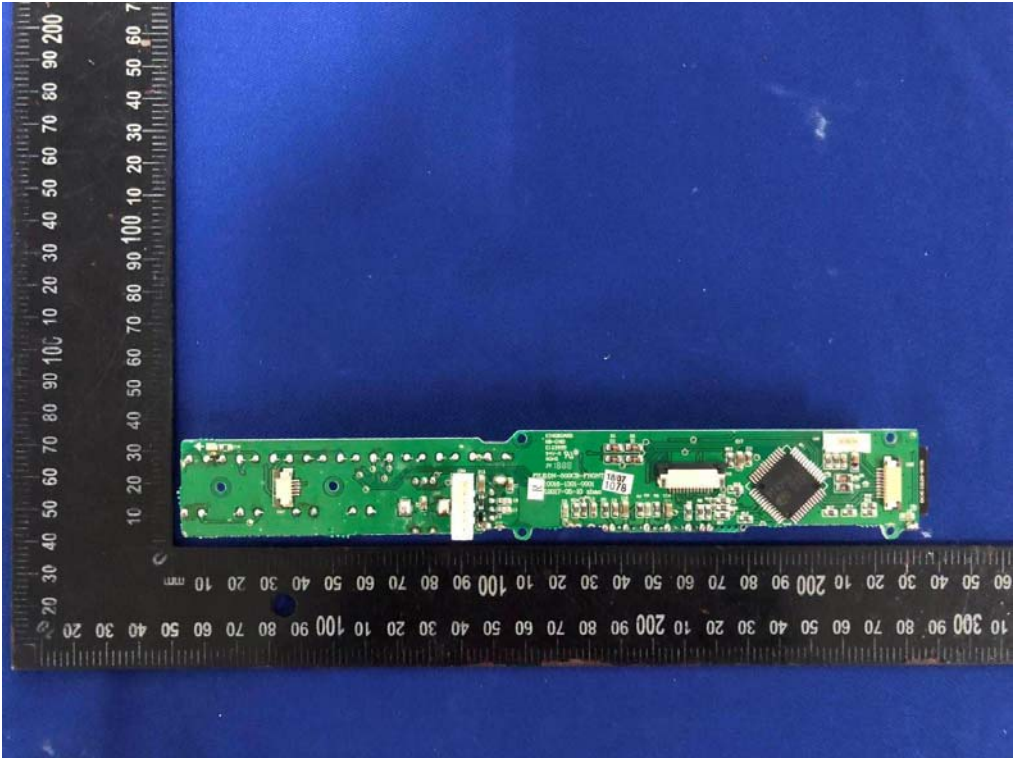


**Internal Photos**  
M/N: DN-700CB

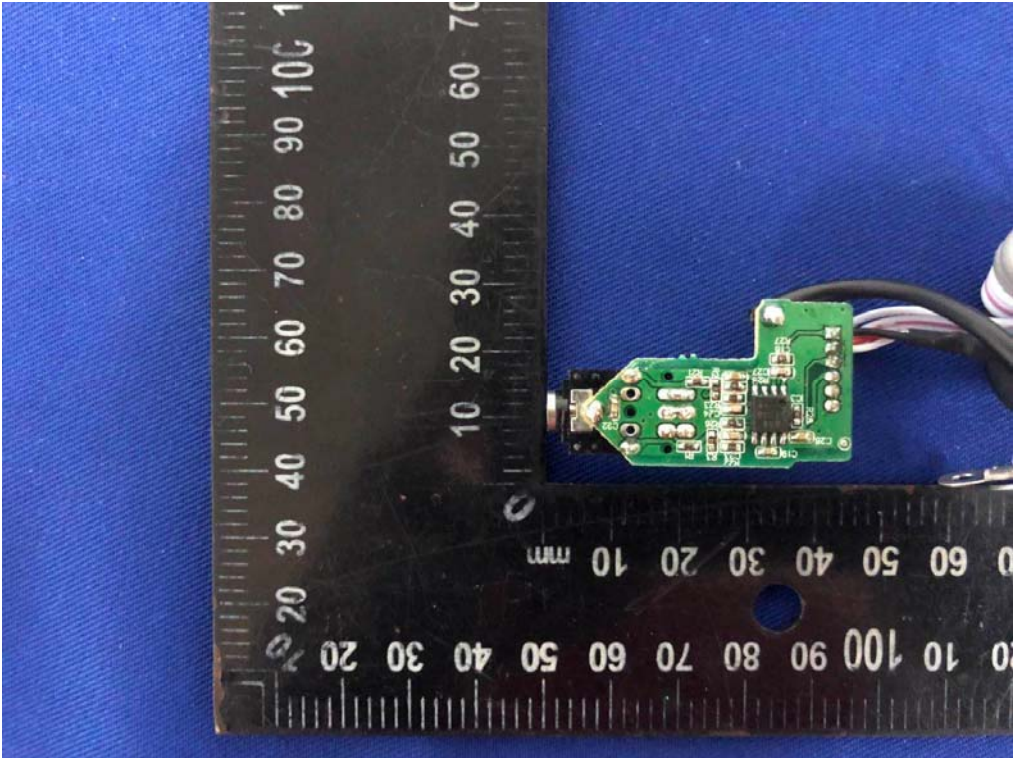
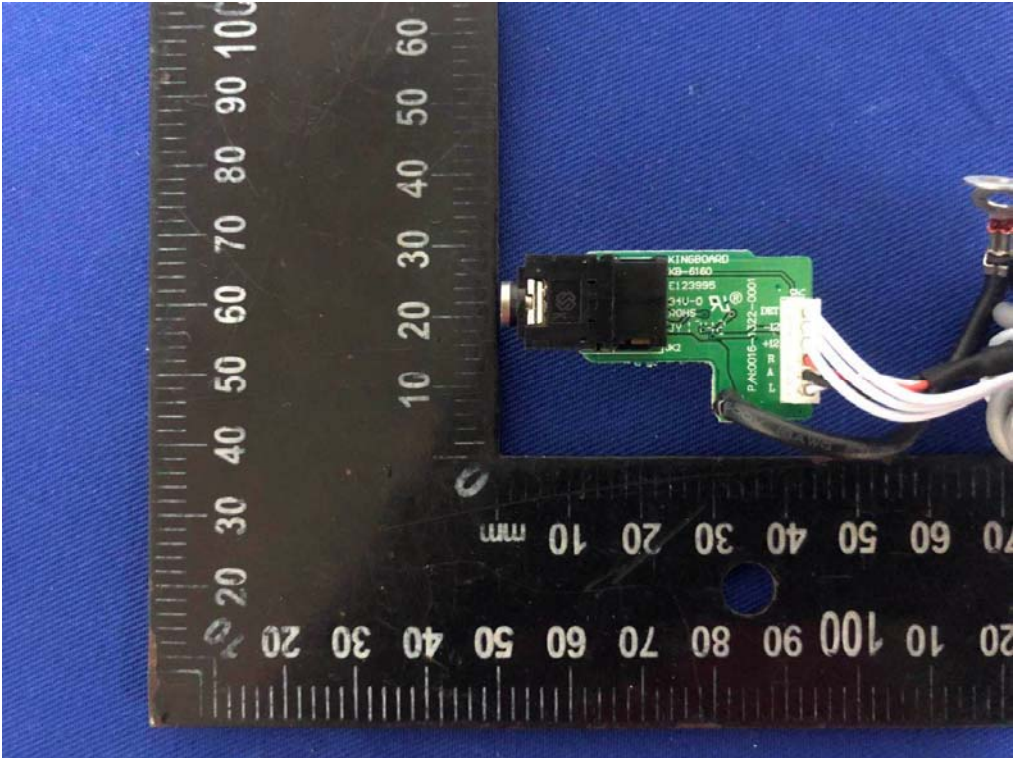




**Internal Photos**  
M/N: DN-700CB



**Internal Photos**  
M/N: DN-700CB





**Internal Photos**  
M/N: DN-700CB

