FCC Part 15B
Measurement and Test Report

For

Hootoo.com Inc.

2880 Zanker Road STE 203 San Jose, CA95134

FCC ID: 2ACIP-TT-CD05

Test Rule(s):	FCC Part 15 Subpart B
Product Description:	Car DVR
Tested Model:	TT-CD05
Report No.:	STR15058071I
Tested Date:	2015-05-12 to 2015-06-10
Issued Date:	2015-06-10
Tested By:	Mark chen / Engineer
Reviewed By:	Lahm Peng / EMC Manager
Approved & Authorized By:	Jandy so / PSQ Manager

Prepared By:

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1. GENERAL INFORMATION

1.1 Product Description for Equipment Under Test (EUT)

Client Information

Applicant:	Hootoo.com Inc.
Address of applicant:	2880 Zanker Road STE 203 San Jose, CA95134
Manufacturer:	Hootoo.com Inc.
Address of manufacturer:	2/F,Block D, Minle Industrial Park, Meiban RD, Longhua District, Shenzhen, China 518131

General Description of EUT	
Product Name:	Car DVR
Trade Name:	TAOTRONICS
Model No.:	TT-CD05
Adding Model(s):	/
Note: The test data is gathered from a production sample, provided by the manufacturer.	

Technical Characteristics of EUT	
Rated Voltage:	DC 3.7V/400mAh battery DC 5V from Car charger, input DC 12V
Rated Current:	1500mA
Rated Power:	/
Power Adapter Model:	/
Lowest Internal Frequency:	32.768kHz
Highest Internal Frequency:	12MHz
Classification of ITE:	Class B

1.2 Test Standards

The following report is prepared on behalf of the Hootoo.com Inc. in accordance with Part 2, Subpart J, and Part 15, Subparts A and B of the Federal Communication Commissions rules.

The objective is to determine compliance with FCC Part 15, Subpart B, and section 15.205, 15.107, and 15.109 rules.

Maintenance of compliance is the responsibility of the manufacturer. Any modification of the product, which result in lowering the emission, should be checked to ensure compliance has been maintained.

1.3 Test Methodology

All measurements contained in this report were conducted with ANSI C63.4-2009, American National Standard for Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the range of 9 kHz to 40 GHz.

1.4 Test Facility

FCC – Registration No.: 934118

Shenzhen SEM.Test Technology Co., Ltd. EMC Laboratory has been registered and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in our files and the Registration is 934118.

Industry Canada (IC) Registration No.: 11464A

The 3m Semi-anechoic chamber of Shenzhen SEM.Test Technology Co., Ltd. has been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 11464A.

CNAS Registration No.: L4062

Shenzhen SEM.Test Technology Co., Ltd. is a testing organization accredited by China National Accreditation Service for Conformity Assessment (CNAS) according to ISO/IEC 17025. The accreditation certificate number is L4062. All measurement facilities used to collect the measurement data are located at 1/F, Building A, Hongwei Industrial Park, Liuxian 2nd Road, Bao'an District, Shenzhen, P.R.C (518101).

1.5 EUT Setup and Operation Mode

The equipment under test (EUT) was configured to measure its highest possible emission level. The test modes were adapted according to the operation manual for use, more detailed description as follows:

Test Mode List:

Test Mode	Description	Remark
TM1	Downloading	/
TM2	HDMI output	Connected to monitor
TM3	GPS+Charging	/

EUT Cable List and Details

Cable Description	Length (M)	Shielded/Unshielded	With Core/Without Core
USB Cable	0.7	Unshielded	Without Core

Auxiliary Equipment List and Details

Description	Manufacturer	Model	Serial Number
Notebook	lenovo	E10	/
Display	DELL	U2410f	/

Special Cable List and Details

Cable Description	Length (M)	Shielded/Unshielded	With Core/Without Core
HDMI Cable	0.8	Unshielded	Without Core

2. SUMMARY OF TEST RESULTS

FCC Rules	Description of Test Item	Result
§ 15.107 (a)	Conducted Emissions	Compliant
§ 15.109 (a)	Radiated Emissions	Compliant

N/A: not applicable

3. Conducted Emissions

3.1 Measurement Uncertainty

Base on NIS 81, The Treatment of Uncertainty in EMC Measurements, the best estimate of the uncertainty of any conducted emissions measurement is ± 2.88 dB.

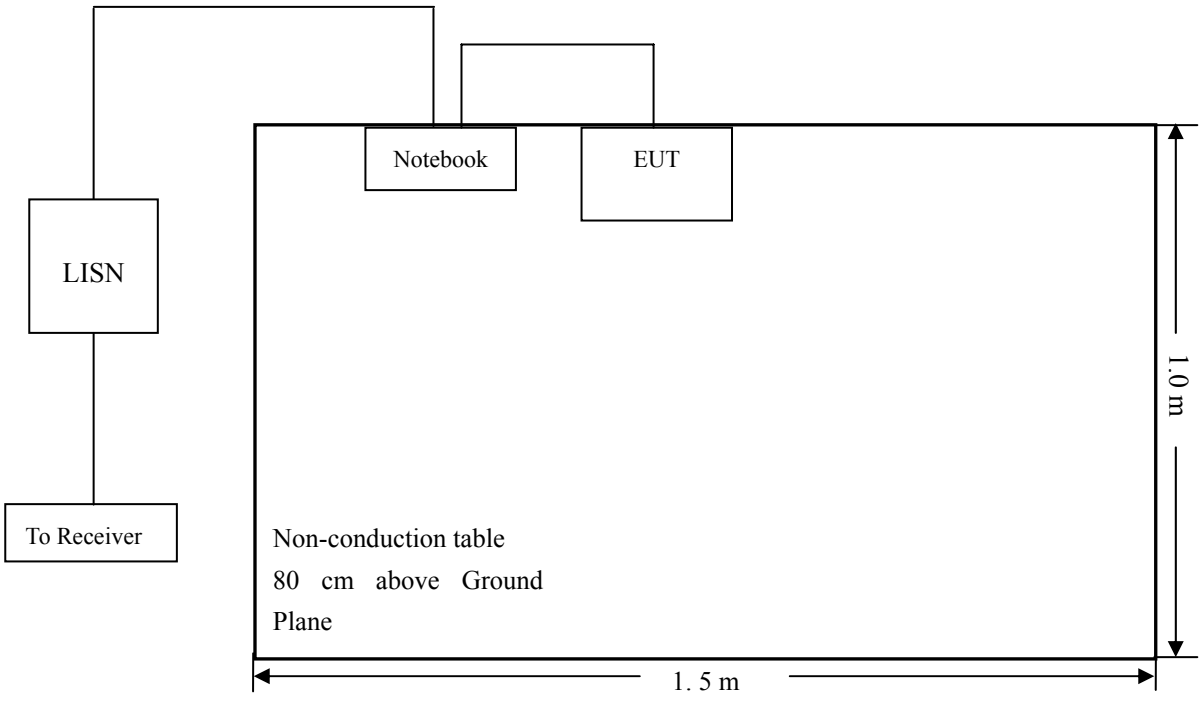
3.2 Test Equipment List and Details

Description	Manufacturer	Model	Serial Number	Cal. Date	Due. Date
EMI Test Receiver	Rohde & Schwarz	ESPI	101611	2015-05-28	2016-05-27
L.I.S.N	Schwarz beck	NSLK8126	8126-224	2015-05-28	2016-05-27
Pulse Limiter	Rohde & Schwarz	ESH3-Z2	100911	2015-05-28	2016-05-27

3.3 Test Procedure

Test is conducting under the description of ANSI C63.4-2009, American National Standard for Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the range of 9 kHz to 40 GHz.

3.4 Basic Test Setup Block Diagram



3.5 Environmental Conditions

Temperature:	23 °C
Relative Humidity:	52%
ATM Pressure:	1011 mbar

3.6 Summary of Test Results/Plots

According to the data in section 3.7, the EUT complied with the FCC Part 15.107(a) Conducted margin for a Class B device, with the *worst* margin reading of:

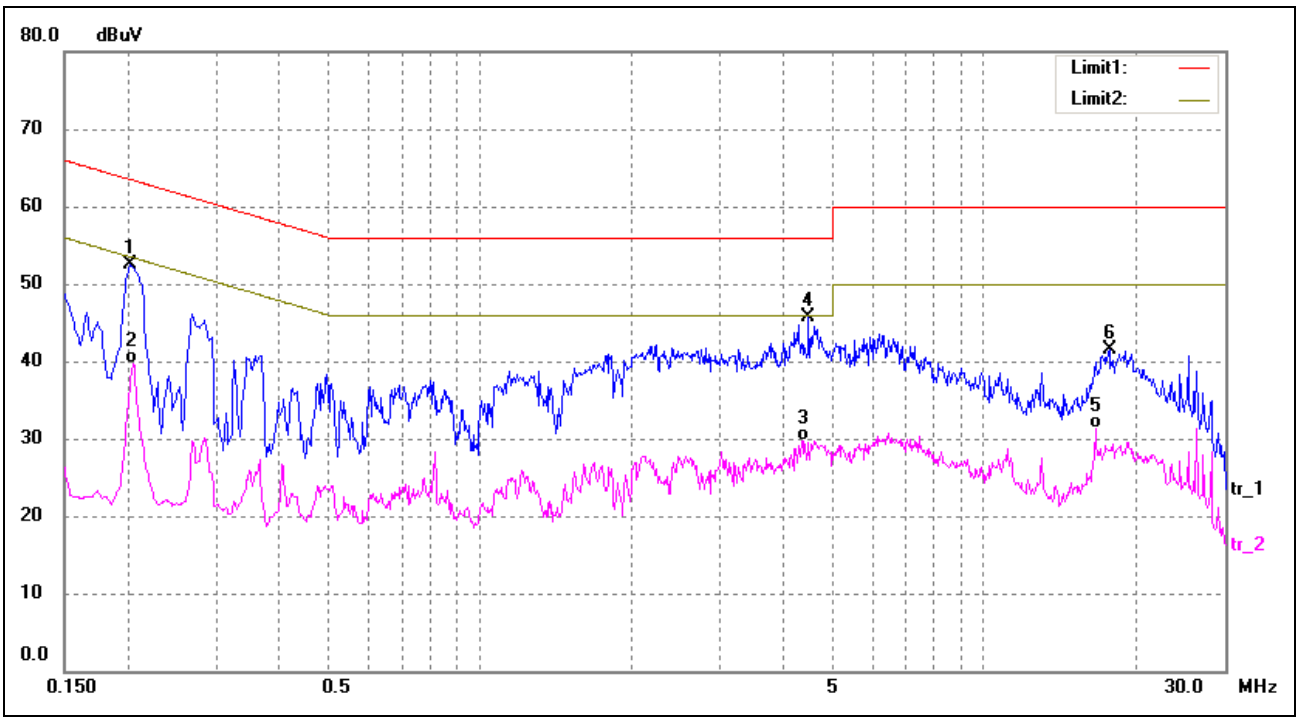
-10.32 dB at **4.4820 MHz** in the **Neutral**, **Peak** detector, 0.15-30MHz

3.7 Conducted Emissions Test Data

Plot of Conducted Emissions Test Data

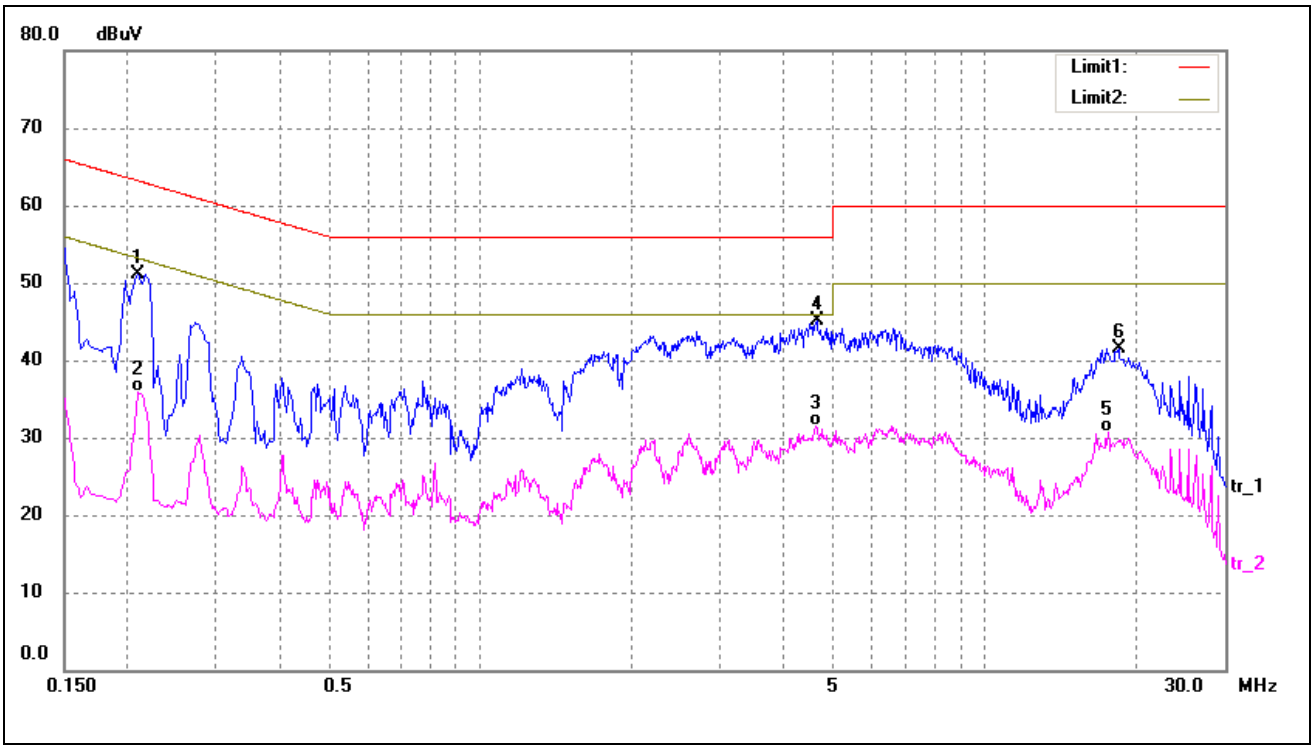
EUT: *Car DVR*
Tested Model: *TT-CD05*
Operating Condition: *TM1*
Comment: *AC 120V USB:5V*

Test Specification: *Neutral*



No.	Frequency	Reading	Correct	Result	Limit	Margin	Detector
	(MHz)	(dBuV)	(dB/m)	(dBuV)	(dBuV)	(dB)	
1	0.2020	42.98	9.50	52.48	63.53	-11.05	peak
2	0.2060	30.26	9.50	39.76	53.37	-13.61	AVG
3	4.4020	19.75	10.00	29.75	46.00	-16.25	AVG
4*	4.4820	35.68	10.00	45.68	56.00	-10.32	peak
5	16.6260	20.06	11.33	31.39	50.00	-18.61	AVG
6	17.7260	29.87	11.55	41.42	60.00	-18.58	peak

Test Specification: *Line*



No.	Frequency	Reading	Correct	Result	Limit	Margin	Detector
	(MHz)	(dBuV)	(dB/m)	(dBuV)	(dBuV)	(dB)	
1	0.2100	41.70	9.50	51.20	63.21	-12.01	peak
2	0.2100	26.31	9.50	35.81	53.21	-17.40	AVG
3	4.6260	21.54	10.00	31.54	46.00	-14.46	AVG
4*	4.6660	35.17	10.00	45.17	56.00	-10.83	peak
5	17.6220	19.22	11.52	30.74	50.00	-19.26	AVG
6	18.4460	29.84	11.69	41.53	60.00	-18.47	peak

4. Radiated Emissions

4.1 Measurement Uncertainty

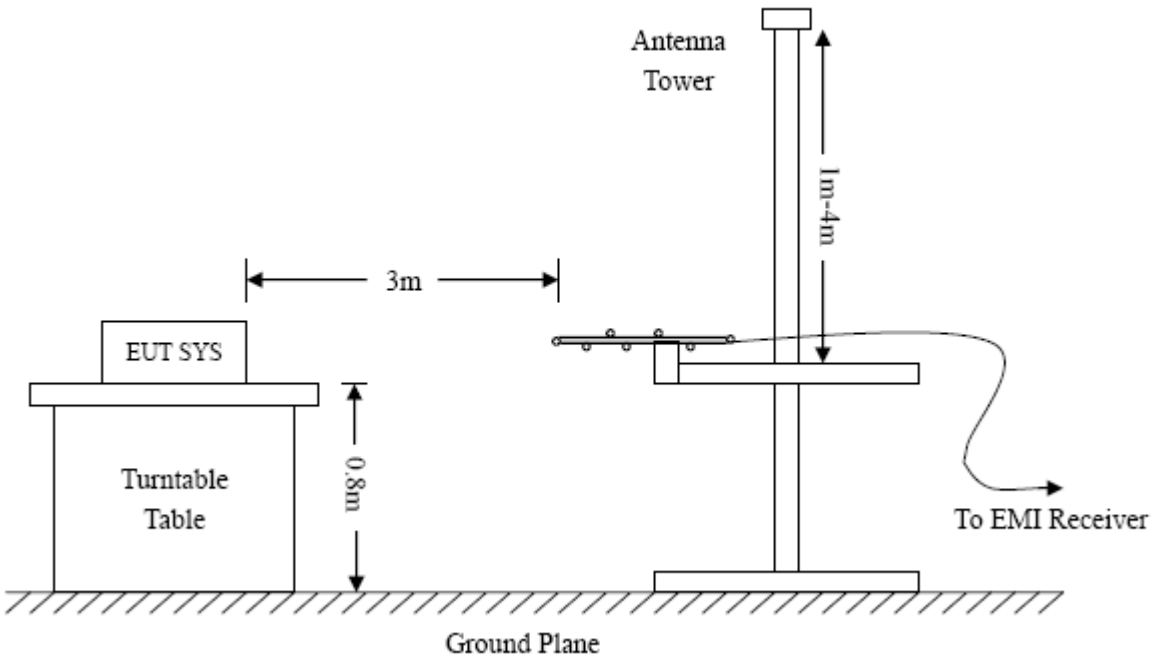
Base on NIS 81, The Treatment of Uncertainty in EMC Measurements, the best estimate of the uncertainty of any radiation emissions measurement is ± 5.10 dB.

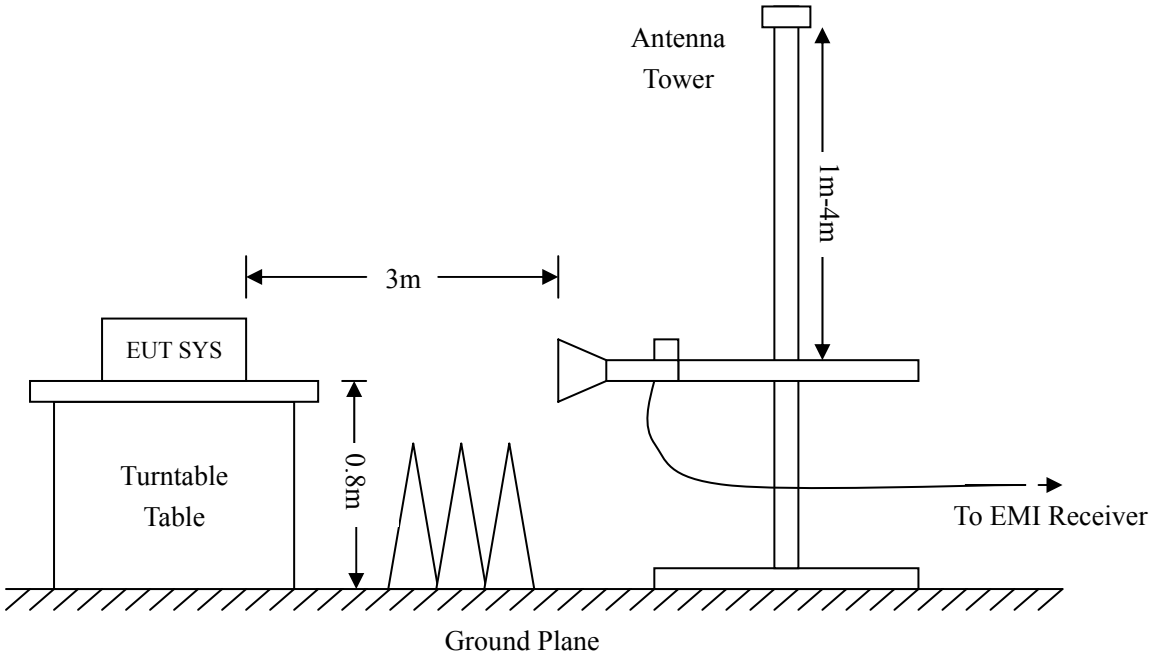
4.2 Test Equipment List and Details

Description	Manufacturer	Model	Serial Number	Cal. Date	Due. Date
Spectrum Analyzer	R&S	FSP	836079/035	2015-05-28	2016-05-27
EMI Test Receiver	R&S	ESVB	825471/005	2015-05-28	2016-05-27
Pre-amplifier	Agilent	8447F	3113A06717	2015-05-28	2016-05-27
Pre-amplifier	Compliance Direction	PAP-0118	24002	2015-05-28	2016-05-27
Trilog Broadband Antenna	SCHWARZBECK	VULB9163	9163-333	2015-05-24	2016-05-23
Horn Antenna	ETS	3117	00086197	2015-05-24	2016-05-23
Loop Antenna	SCHWARZECK	HFRA 5165	9365	2015-05-24	2016-05-23

4.3 Test Procedure

The setup of EUT is according with per ANSI C63.4-2009 measurement procedure. The specification used was with the FCC Part 15.109 Limit.
The external I/O cables were draped along the test table and formed a bundle 30 to 40 cm long in the middle.
The spacing between the peripherals was 10 cm.





4.4 Test Receiver Setup

Frequency :9kHz-30MHz	Frequency :30MHz-1GHz	Frequency :Above 1GHz
RBW=10KHz,	RBW=120KHz,	RBW=1MHz,
VBW =30KHz	VBW=300KHz	VBW=3MHz(Peak), 10Hz(AV)
Sweep time= Auto	Sweep time= Auto	Sweep time= Auto
Trace = max hold	Trace = max hold	Trace = max hold
Detector function = peak	Detector function = peak, QP	Detector function = peak, AV

4.5 Corrected Amplitude & Margin Calculation

The Corrected Amplitude is calculated by adding the Antenna Factor and the Cable Factor, and subtracting the Amplifier Gain from the Amplitude reading. The basic equation is as follows:

Corr. Ampl. = Indicated Reading – Corr. Factor

The "**Margin**" column of the following data tables indicates the degree of compliance with the applicable limit. For example, a margin of -6dBμV means the emission is 6dBμV below the maximum limit for a Class B device. The equation for margin calculation is as follows:

Margin = Corr. Ampl. – FCC Part 15.109(a) Limit

4.6 Environmental Conditions

Temperature:	23 °C
Relative Humidity:	55 %
ATM Pressure:	1011 mbar

4.7 Summary of Test Results/Plots

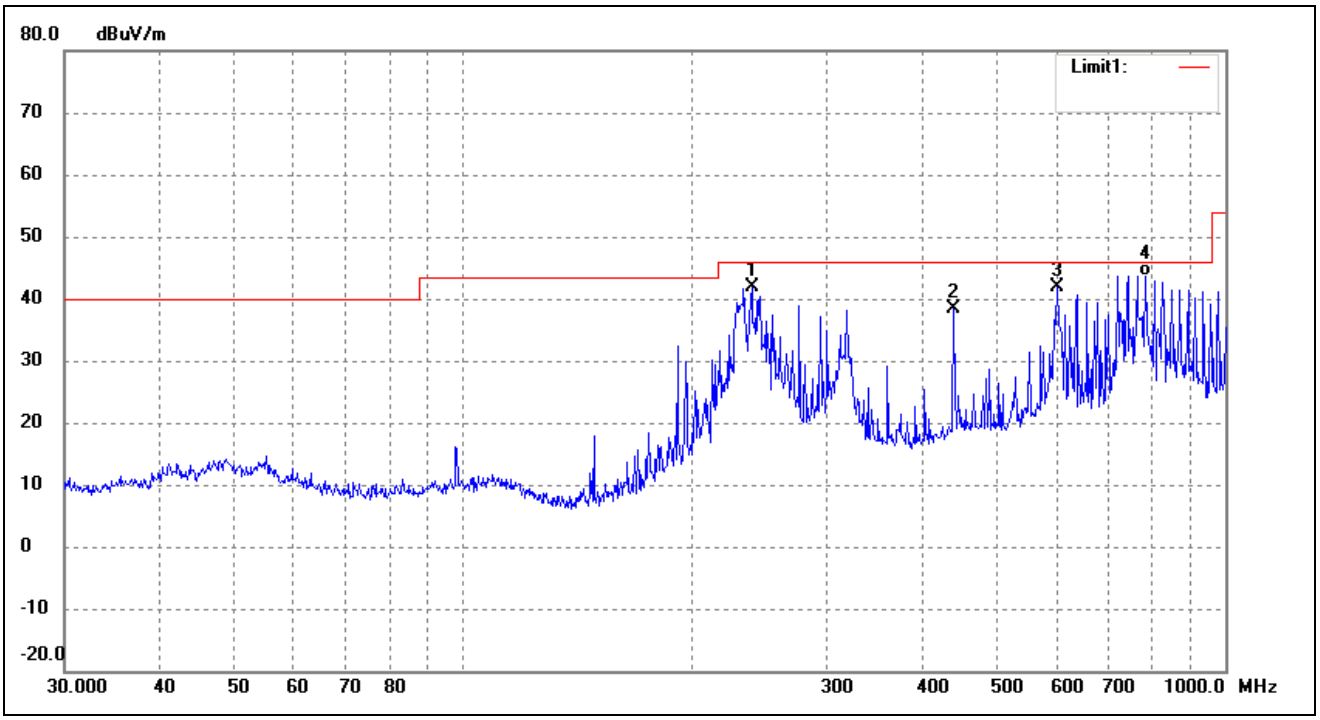
According to the data, the EUT complied with the FCC Part 15.109(a) rule, and had the worst margin of:

-2.26 dB at **785.0932 MHz** in the **Horizontal** polarization, **9 kHz** to **1 GHz**, **3Meters**

Plot of Radiated Emissions Test Data

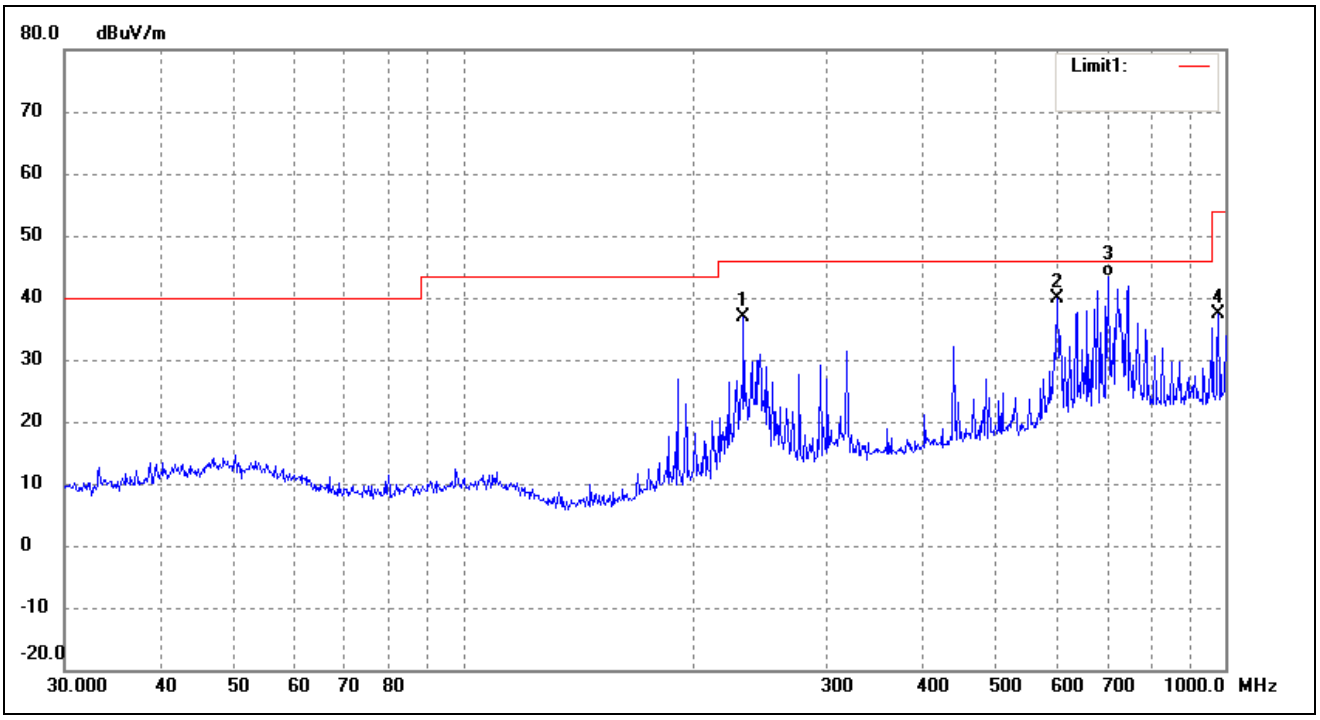
EUT: *Car DVR*
Tested Model: *TT-CD05*
Operating Condition: *TM1*
Comment: *AC 120V60Hz; USB 5V*

Test Specification: *Horizontal*



No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	( )	(cm)	
1	239.1473	50.60	-8.78	41.82	46.00	-4.18	124	100	peak
2	440.1963	42.50	-4.09	38.41	46.00	-7.59	149	100	peak
3	601.4265	42.62	-0.69	41.93	46.00	-4.07	166	100	peak
4	785.0932	42.07	1.67	43.74	46.00	-2.26	187	100	QP

Test Specification: *Vertical*

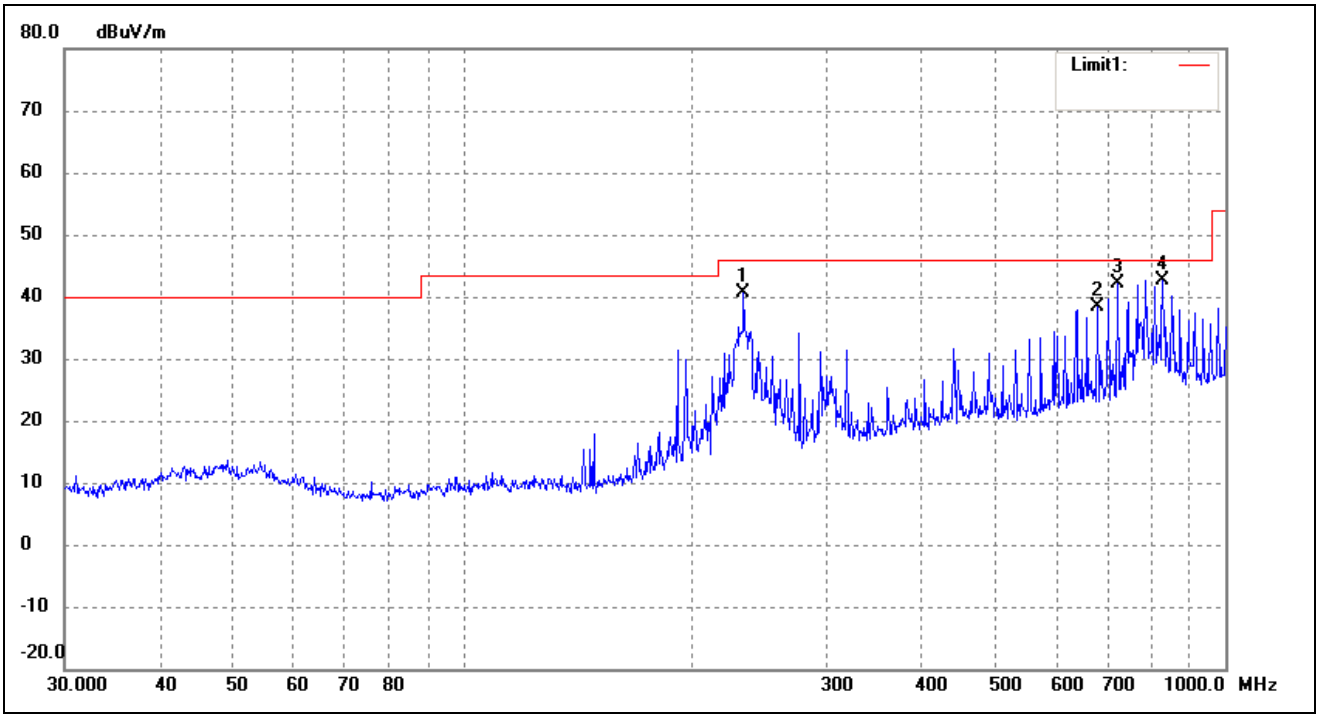


No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	( )	(cm)	
1	233.3487	45.94	-8.95	36.99	46.00	-9.01	102	100	peak
2	601.4265	40.66	-0.69	39.97	46.00	-6.03	149	100	peak
3	701.7608	42.96	0.39	43.35	46.00	-2.65	168	100	QP
4	979.1802	33.75	3.74	37.49	54.00	-16.51	224	100	peak

Plot of Radiated Emissions Test Data

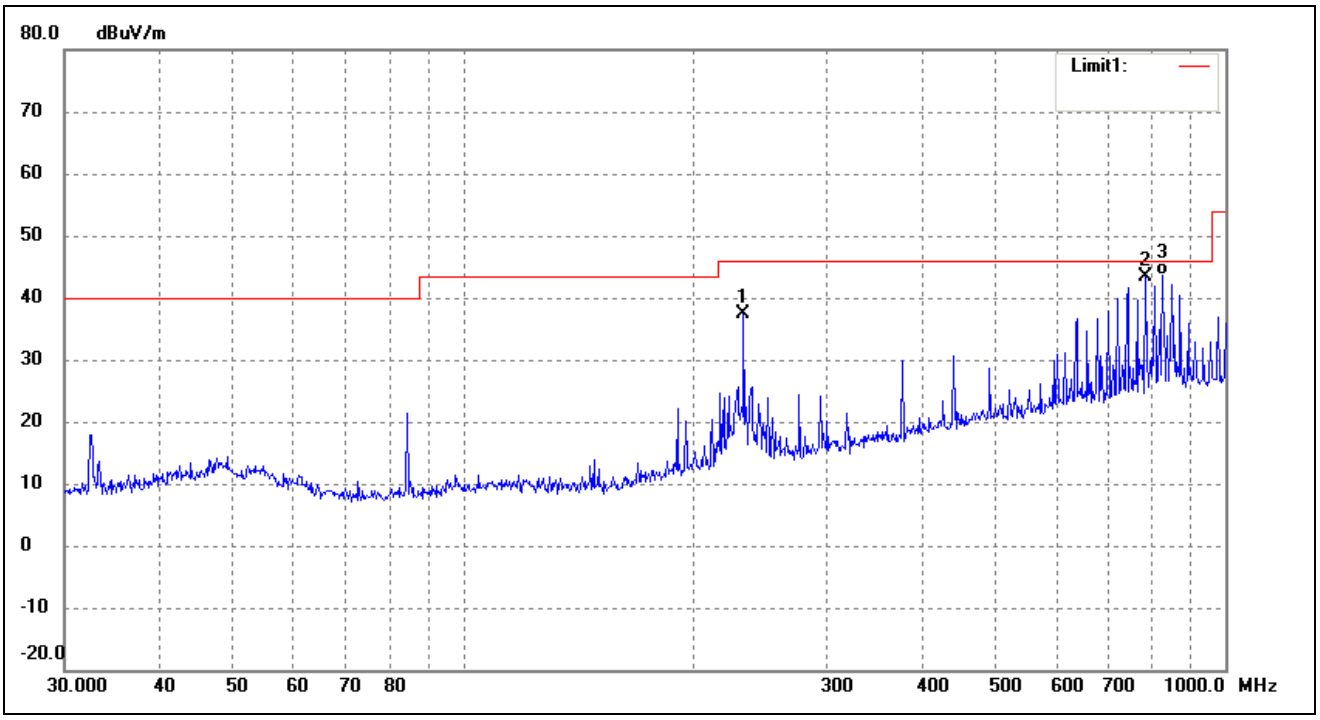
EUT: *Car DVR*
Tested Model: *TT-CD05*
Operating Condition: *TM2*
Comment: *DC 3.7V battery*

Test Specification: *Horizontal*



No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	( )	(cm)	
1	233.3487	47.35	-6.65	40.70	46.00	-5.30	124	100	peak
2	679.9600	35.78	2.60	38.38	46.00	-7.62	185	100	peak
3	721.7259	38.96	3.24	42.20	46.00	-3.80	194	100	peak
4	827.4932	38.08	4.56	42.64	46.00	-3.36	226	100	peak

Test Specification: *Vertical*

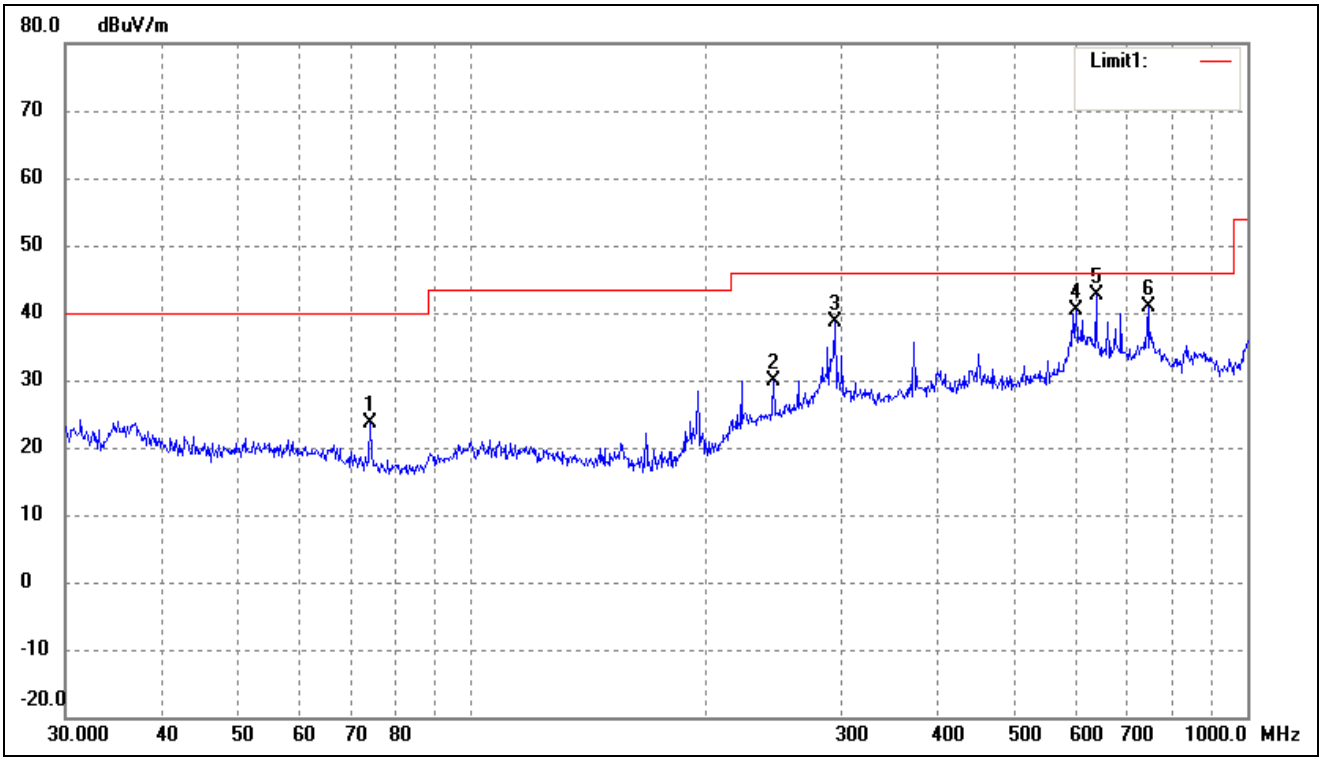


No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	( )	(cm)	
1	233.3487	44.11	-6.65	37.46	46.00	-8.54	124	100	peak
2	785.0934	39.22	4.17	43.39	46.00	-2.61	149	100	peak
3	827.4932	39.10	4.56	43.66	46.00	-2.34	166	100	QP

Plot of Radiated Emissions Test Data

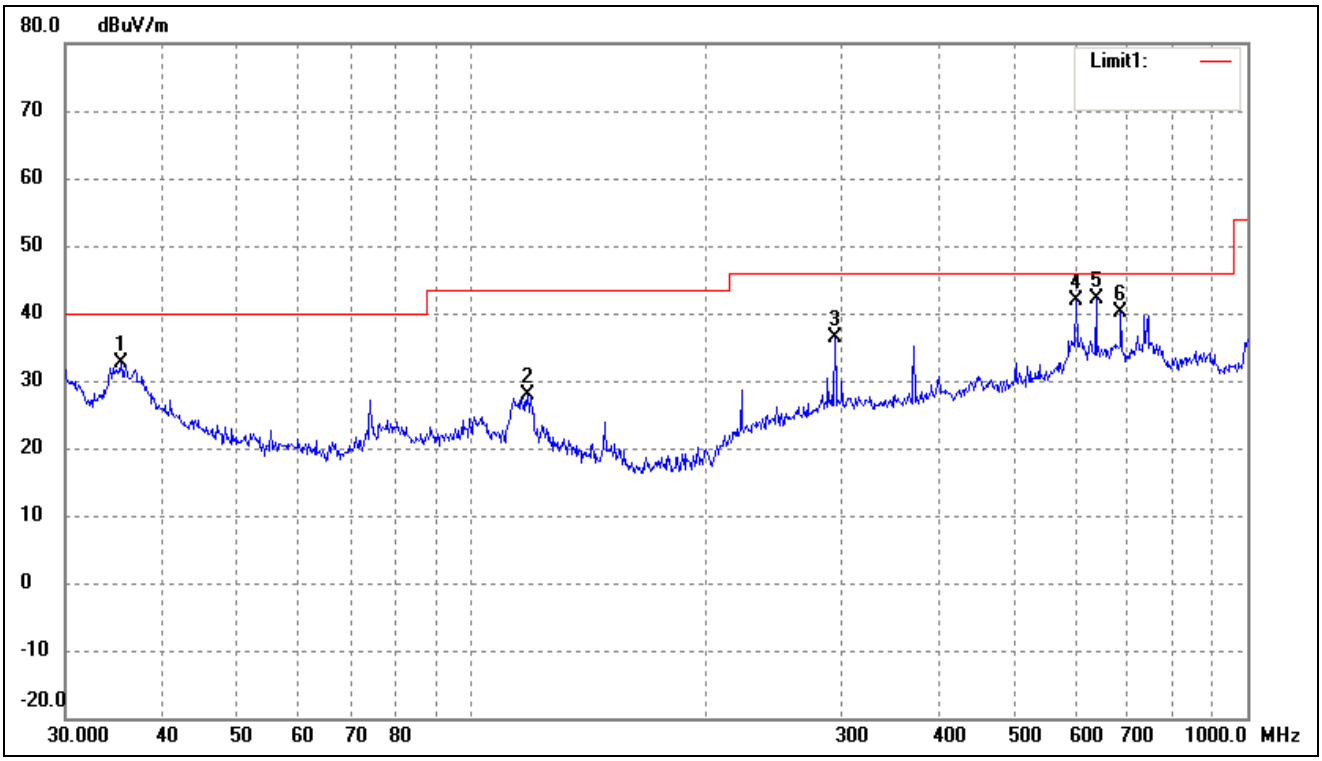
EUT: *Car DVR*
Tested Model: *TT-CD05*
Operating Condition: *TM3*
Comment: *DC 12V*

Test Specification: *Horizontal*



No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	( )	(cm)	
1	74.1351	20.85	2.70	23.55	40.00	-16.45	124	100	peak
2	245.0900	20.24	9.52	29.76	46.00	-16.24	159	100	peak
3	294.1137	26.64	11.94	38.58	46.00	-7.42	166	100	peak
4	601.4265	21.10	19.22	40.32	46.00	-5.68	174	100	peak
5	638.3686	24.02	18.56	42.58	46.00	-3.42	191	100	peak
6	744.8661	21.67	19.33	41.00	46.00	-5.00	224	100	peak

Test Specification: *Vertical*



No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	( )	(cm)	
1	35.3750	28.13	4.46	32.59	40.00	-7.41	124	100	peak
2	118.1862	22.87	5.03	27.90	43.50	-15.60	67	100	peak
3	294.1137	24.42	11.94	36.36	46.00	-9.64	66	100	peak
4	601.4265	22.75	19.22	41.97	46.00	-4.03	147	100	peak
5	638.3686	23.61	18.56	42.17	46.00	-3.83	58	100	peak
6	687.1507	21.39	18.72	40.11	46.00	-5.89	351	100	peak

Note: Testing is carried out with frequency rang 9kHz to the 6GHz, which above 1GHz is close to the noise base even antenna close up to 1meter distance according the measurement of ANSI C63.4.
The measurements greater than 20dB below the limit from 9kHz to 30MHz and test data are not provided.

******* END OF REPORT *******