# FCC Part 15B Measurement and Test Report

# For

## Kobian Canada Inc.

560 Denison Street, Unit#5 Markham, Ontario, Canada

FCC ID: YH5HS-7DTB6

Test Standards: FCC Part 15 Subpart B

Product Description: MID

Tested Model: <u>HS-7DTB6</u>

**Report No.:** <u>STR12088131I-2</u>

**Tested Date:** <u>2012-08-09 to 2012-08-22</u>

**Issued Date**: <u>2012-08-22</u>

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Note: This test report is limited to the above client company and the product model only. It may not be duplicated without prior permitted by SEM.Test Compliance Service Co., Ltd

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# 1. GENERAL INFORMATION

# 1.1 Product Description for Equipment Under Test (EUT)

**Client Information** 

Applicant: Kabian Canada Inc.

Address of applicant: 560 Denison Street, Unit#5 Markham, Ontario,

Canada

Manufacturer: SHENZHEN GAOXINQI TECHNOLOGY CO., LTD Address of manufacturer: GaoXinQi industrial park, liuxian 1 st road, district 67,

Baoan, Shenzhen .P.R China

General Description of EUT		
Product Name:	MID	
Trade Name:	hipstreet	
Model No.:	HS-7DTB6	
Adding Model(s):	1	
Note: The test data is gathered from a production sample, provided by the manufacturer.		

Technical Characteristics of EUT	
Rated Voltage:	DC 3.7V Battery, Adapter Charging: DC 5V
Rated Current:	0.3A
Rated Power:	15W
Power Adapter Model:	FYAD-15W-0502000
Highest Internal Frequency:	512MHz
Classification of ITE:	В
Support Interface:	USB

#### 1.2 Test Standards

The following report is prepared on behalf of the Kobian Canada 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 C63.4-2003, 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.: 994117

SEM.Test Compliance Services 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 994117.

#### • Industry Canada (IC) Registration No.: 7673A

The 3m Semi-anechoic chamber of SEM.Test Compliance Services Co., Ltd. has been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 7673A.

#### • CNAS Registration No.: L4062

Shenzhen SEM. Test Electronics Service 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 3/F, Jinbao Commerce Building, Xin'an Fanshen Road, Bao'an District, Shenzhen, P.R.C (518101)

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# 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	Playing	Color Bar with 1kHz Video-signal
TM2	Downloading	Connect to PC
TM3	/	/
TM4	/	/

#### **EUT Cable List and Details**

Cable Description	Length (M)	Shielded/Unshielded	With Core/Without Core
USB Cable	1.0	Shielded	Without Core
Earphone Cable	1.2	Unshielded	Without Core
Power Cable	1.2	Unshielded	Without Core

# Auxiliary Equipment List and Details

Description	Manufacturer	Model	Serial Number
Notebook	SAMSUNG	NP-R20	124V93FP300082V

#### Special Cable List and Details

Cable Description	Length (M)	Shielded/Unshielded	With Core/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  $\pm 2.88$  dB.

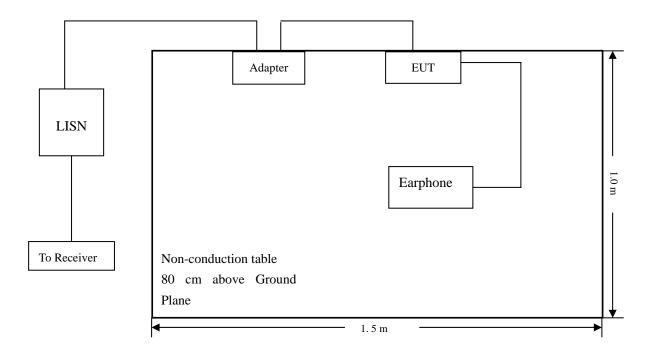
# 3.2 Test Equipment List and Details

Description	Manufacturer	Model	Serial Number	Cal. Date	Due. Date
EMI Test Receiver	Rohde & Schwarz	ESPI	101611	2012-03-28	2013-03-27
L.I.S.N	Schwarz beck	NSLK8126	8126-224	2012-03-28	2013-03-27
Pulse Limiter	Rohde & Schwarz	ESH3-Z2	100911	2012-03-28	2013-03-27

#### 3.3 Test Procedure

Test is conducting under the description of ANSI C63.4-2003, 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 <u>complied with the FCC Part 15.107(a)</u> Conducted margin for a Class B device, with the *worst* margin reading of:

-3.44  $dB\mu V$  at 0.19 MHz in the Line, Peak detector, 0.15-30MHz

# 3.7 Conducted Emissions Test Data

#### **Plot of Conducted Emissions Test Data**

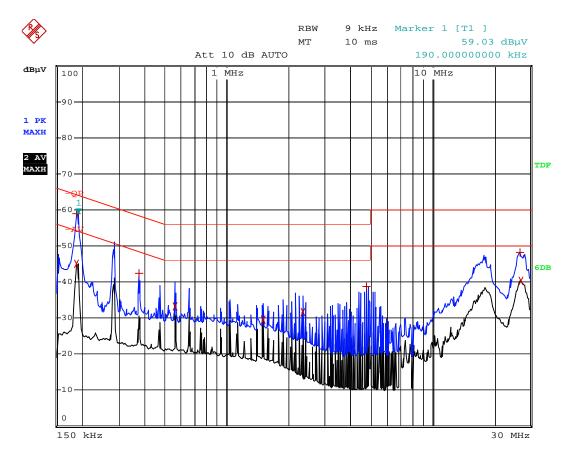
EUT: MID

Tested Model: HS-7DTB6

Operating Condition: Charging and Playing

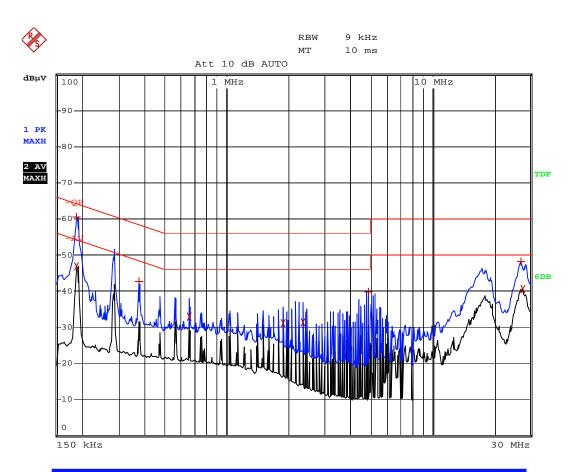
Comment: Color Bar with 1kHz Video-signal

Test Specification: Neutral



	EDIT PEAK LIST (	Prescan Results)	
Trace1:	-QP		
Trace2:	-AV		
Trace3:			
TRACE	FREQUENCY	LEVEL dBµV	DELTA LIMIT dB
1 Max Peak	190 kHz	59.02	-5.00
2 Average	190 kHz	45.13	-8.89
1 Max Peak	374 kHz	42.37	-16.03
2 Average	562 kHz	33.17	-12.83
2 Average	1.502 MHz	29.64	-16.35
2 Average	2.346 MHz	31.65	-14.34
1 Max Peak	4.786 MHz	38.79	-17.20
1 Max Peak	26.63 MHz	48.05	-11.95
2 Average	26.906 MHz	40.34	-9.65

Test Specification: Line



EDIT PEAK LIST (Prescan Results)				
Tracel:	−QP			
Trace2:	-AV	-AV		
Trace3:				
TRACE	FREQUENCY	LEVEL dBµV	DELTA LIMIT dB	
1 Max Peak	190 kHz	60.59	-3.44	
2 Average	190 kHz	46.86	-7.17	
1 Max Peak	374 kHz	42.77	-15.63	
2 Average	658 kHz	32.84	-13.15	
2 Average	1.882 MHz	31.00	-14.99	
2 Average	2.35 MHz	31.47	-14.52	
1 Max Peak	4.886 MHz	39.85	-16.14	
1 Max Peak	27.046 MHz	48.08	-11.91	
2 Average	27.418 MHz	40.65	-9.34	

# 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  $\pm$  5.10 dB.

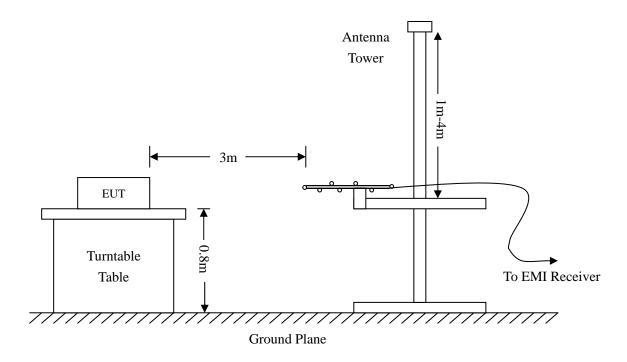
# **4.2 Test Equipment List and Details**

Description	Manufacturer	Model	Serial Number	Cal. Date	Due. Date
Spectrum Analyzer	R&S	FSP	836079/035	2012-03-28	2013-03-27
EMI Test Receiver	R&S	ESVB	825471/005	2012-03-28	2013-03-27
Pre-amplifier	Agilent	8447F	3113A06717	2012-03-28	2013-03-27
Pre-amplifier	Compliance Direction	PAP-0118	24002	2012-03-28	2013-03-27
Trilog Broadband Antenna	SCHWARZBECK	VULB9163	9163-333	2012-02-25	2013-02-24
Horn Antenna	ETS	3117	00086197	2012-02-25	2013-02-24

## **4.3 Test Procedure**

The setup of EUT is according with per ANSI C63.4-2003 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

During the radiated emission test for above 1GHz, the test receiver was set with the following configurations:

For peak detector:

RBW = 1000kHz, VBW = 3000kHz, Sweep Time = Auto

For average detector:

RBW = 1000kHz, VBW = 10Hz, Sweep Time = Auto

## 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  $-6dB\mu V$  means the emission is  $6dB\mu V$  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:

-3.55 dBμV at 30.000 MHz in the Vertical polarization, Playing and Charging Mode, 30 MHz to 1 GHz, 3Meters

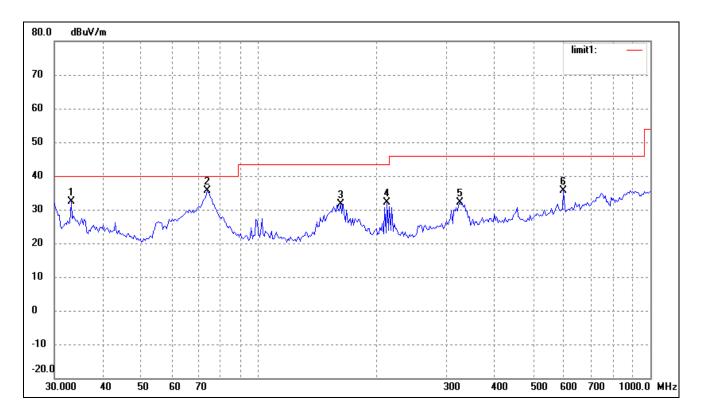
#### **Plot of Radiated Emissions Test Data**

EUT: MID

Tested Model: HS-7DTB6

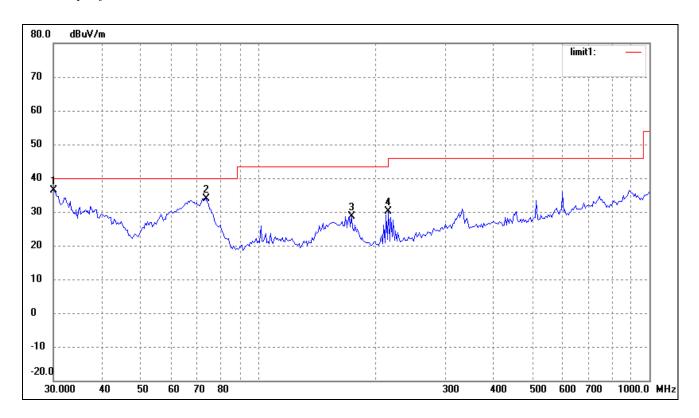
Operating Condition: Charging and Playing

Comment: Color Bar with 1kHz Video-signal, 30MHz~1GHz



No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV/m)	Factor(dB)	(dBuV/m)	(dBuV/m)	(dB)	(•)	(cm)	
1	33.0950	23.84	8.56	32.40	40.00	-7.60	58	150	QP
2	73.6170	33.50	2.10	35.60	40.00	-4.40	326	100	QP
3	161.4742	28.00	3.66	31.66	43.50	-11.84	29	120	QP
4	212.2695	26.66	5.44	32.10	43.50	-11.40	209	100	peak
5	325.5958	21.73	10.38	32.11	46.00	-13.89	359	200	peak
6	599.3212	20.78	14.76	35.54	46.00	-10.46	359	100	peak

Test Specification: Vertical



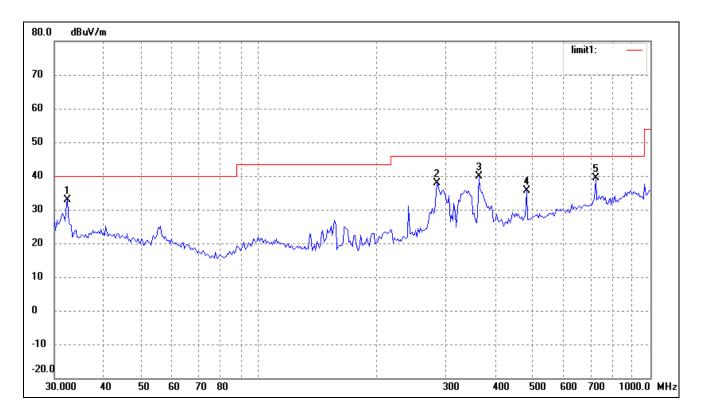
No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV/m)	Factor(dB)	(dBuV/m)	(dBuV/m)	(dB)	(•)	(cm)	
1	30.0000	28.41	8.04	36.45	40.00	-3.55	51	100	peak
2	73.6170	31.80	2.10	33.90	40.00	-6.10	308	100	peak
3	173.2051	25.03	3.72	28.75	43.50	-14.75	120	100	peak
4	215.2678	24.52	5.62	30.14	43.50	-13.36	359	100	peak

#### **Plot of Radiated Emissions Test Data**

EUT: MID

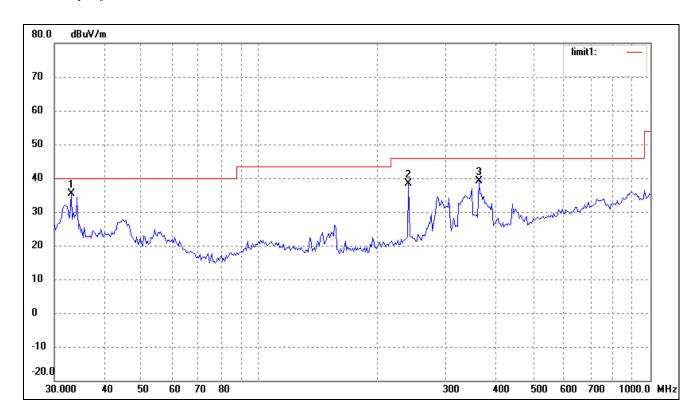
Tested Model: HS-7DTB6
Operating Condition: Downloading

Comment: Connect to PC, 30MHz~1GHz



No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV/m)	Factor(dB)	(dBuV/m)	(dBuV/m)	(dB)	(•)	(cm)	
1	32.4059	24.33	8.44	32.77	40.00	-7.23	58	150	QP
2	284.9767	28.40	9.47	37.87	46.00	-8.13	326	100	QP
3	364.2595	29.08	10.68	39.76	46.00	-6.24	29	120	QP
4	482.2156	24.17	11.49	35.66	46.00	-10.34	359	100	QP
5	724.2611	22.40	16.93	39.33	46.00	-6.67	359	100	QP

Test Specification: Vertical



No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV/m)	Factor(dB)	(dBuV/m)	(dBuV/m)	(dB)	(•)	(cm)	
1	33.0950	26.75	8.56	35.31	40.00	-4.69	51	100	peak
2	240.8304	31.24	7.02	38.26	46.00	-7.74	308	100	peak
3	364.2595	28.43	10.68	39.11	46.00	-6.89	120	100	peak

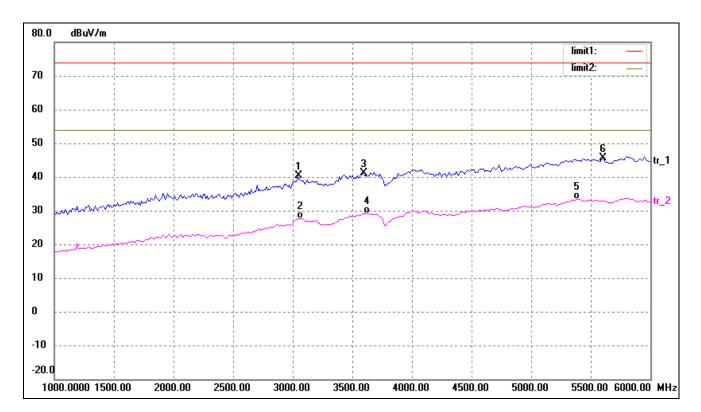
#### **Plot of Radiated Emissions Test Data**

EUT: MID

Tested Model: HS-7DTB6

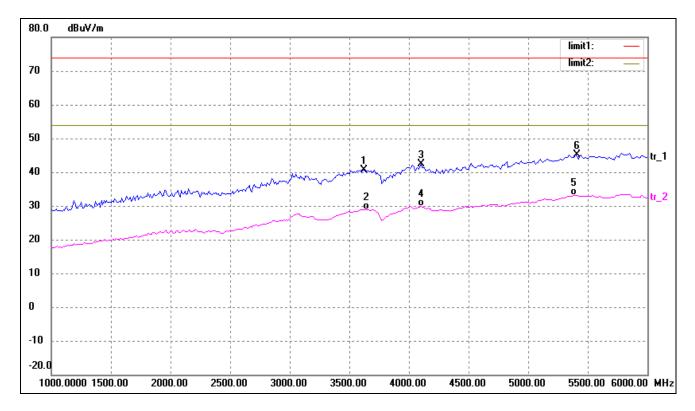
Operating Condition: Charging and Playing

Comment: Color Bar with 1kHz Video-signal, Above 1G



No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV/m)	Factor(dB)	(dBuV/m)	(dBuV/m)	(dB)	(•)	(cm)	
1	3047.966	48.01	-7.71	40.30	74.00	-33.70	58	150	peak
2	3069.889	35.25	-7.66	27.59	54.00	-26.41	326	100	AVG
3	3594.181	47.23	-6.22	41.01	74.00	-32.99	29	120	peak
4	3620.034	35.16	-6.13	29.03	54.00	-24.97	209	100	AVG
5	5388.429	35.32	-1.94	33.38	54.00	-20.62	359	200	AVG
6	5605.076	47.22	-1.61	45.61	74.00	-28.39	359	100	peak

Test Specification: Vertical



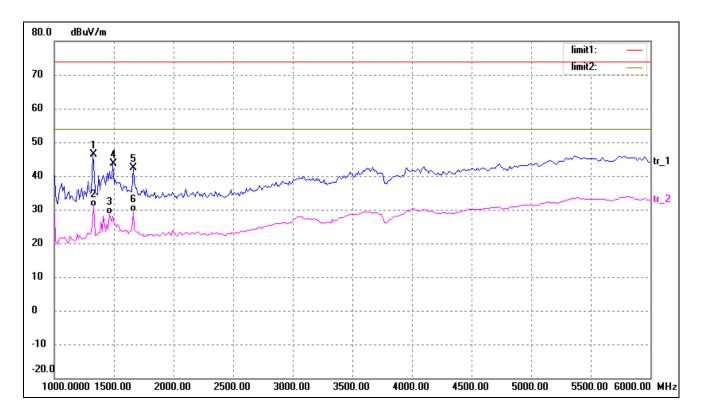
No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV/m)	Factor(dB)	(dBuV/m)	(dBuV/m)	(dB)	(•)	(cm)	
1	3620.034	46.86	-6.13	40.73	74.00	-33.27	51	100	peak
2	3646.072	35.02	-6.05	28.97	54.00	-25.03	308	100	AVG
3	4103.772	47.24	-4.93	42.31	74.00	-31.69	120	100	peak
4	4103.772	34.84	-4.93	29.91	54.00	-24.09	359	100	AVG
5	5388.429	35.09	-1.94	33.15	54.00	-20.85	359	100	AVG
6	5407.773	47.11	-1.87	45.24	74.00	-28.76	359	100	peak

#### **Plot of Radiated Emissions Test Data**

EUT: MID

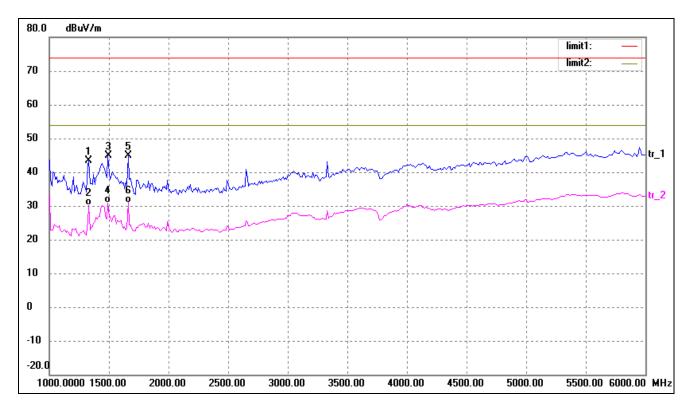
Tested Model: HS-7DTB6
Operating Condition: Downloading

Comment: Connect to PC, Above 1G



No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV/m)	Factor(dB)	(dBuV/m)	(dBuV/m)	(dB)	(•)	(cm)	
1	1327.235	61.65	-15.36	46.29	74.00	-27.71	58	150	peak
2	1332.000	46.31	-15.34	30.97	54.00	-23.03	326	100	AVG
3	1467.318	43.28	-14.66	28.62	54.00	-25.38	29	120	AVG
4	1499.209	58.21	-14.50	43.71	74.00	-30.29	209	100	peak
5	1663.393	55.83	-13.56	42.27	74.00	-31.73	359	200	peak
6	1663.393	42.93	-13.56	29.37	54.00	-24.63	359	100	AVG

Test Specification: Vertical



No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV/m)	Factor(dB)	(dBuV/m)	(dBuV/m)	(dB)	(•)	(cm)	
1	1332.000	58.75	-15.34	43.41	74.00	-30.59	51	100	peak
2	1332.000	45.56	-15.34	30.22	54.00	-23.78	308	100	AVG
3	1493.846	59.48	-14.53	44.95	74.00	-29.05	120	100	peak
4	1499.209	45.28	-14.50	30.78	54.00	-23.22	359	100	AVG
5	1663.393	58.38	-13.56	44.82	74.00	-29.18	359	100	peak
6	1663.393	44.56	-13.56	31.00	54.00	-23.00	359	100	AVG

# \*\*\*\*\* END OF REPORT \*\*\*\*\*