# FCC CERTIFICATION On Behalf of KOBIAN CANADA INC.

Hipstreet FM Transmitter Model No.: HS-FMT172LCD

FCC ID: YH5-HSFMT172

Prepared for : KOBIAN CANADA INC.

Address : 560 Denison Street, Unit#5, Markham, Ontario L3R 2M8,

Canada

Prepared by : Accurate Technology Co., Ltd.

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Date of Test : Nov 13- 21, 2012
Date of Report : Nov 21, 2012

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APPENDIX I (TEST CURVES) (9 pages)

**Test Report Certification** 

1.3.

# **Test Report Certification**

Applicant : KOBIAN CANADA INC.
 Manufacturer : KOBIAN CANADA INC.
 EUT Description : Hipstreet FM Transmitter

(A) MODEL No.: HS-FMT172LCD

(B) Brand Name: Hipstreet(C) Power Supply: DC 12V

Measurement Procedure Used:

#### FCC Rules and Regulations Part 15 Subpart C Section 15.239 ANSI 63.4: 2009

The device described above is tested by ACCURATE TECHNOLOGY CO. LTD to determine the maximum emission levels emanating from the device. The maximum emission levels are compared to the FCC Part 15 Subpart C Section15.239 limits. The measurement results are contained in this test report and ACCURATE TECHNOLOGY CO. LTD is assumed full responsibility for the accuracy and completeness of these measurements. Also, this report shows that the Equipment Under Test (EUT) is to be technically compliant with the FCC requirements.

This report applies to above tested sample only. This report shall not be reproduced in part without written approval of ACCURATE TECHNOLOGY CO. LTD.

Date of Test :	Nov 13-21, 2012
Prepared by :	Terry. Young
·	(Engineer)
Approved & Authorized Signer :	Lemb
	(Manager)

#### 1. GENERAL INFORMATION

1.1.Description of Device (EUT)

EUT : Hipstreet FM Transmitter

Model Number : HS-FMT172LCD

Brand Name : Hipstreet

Power Supply : DC 12V

Operate Frequency : 88.1-107.9MHz (step 0.2MHz)

Applicant : KOBIAN CANADA INC.

Address : 560 Denison Street, Unit#5, Markham, Ontario L3R 2M8,

Canada

Manufacturer : KOBIAN CANADA INC.

Address : 560 Denison Street, Unit#5, Markham, Ontario L3R 2M8,

Canada

Date of sample received: Nov 13, 2012

Date of Test : Nov 13-21, 2012

1.2.Description of Test Facility

EMC Lab : Accredited by TUV Rheinland Shenzhen

Listed by FCC

The Registration Number is 752051

Listed by Industry Canada

The Registration Number is 5077A-2

Accredited by China National Accreditation Committee

for Laboratories

The Certificate Registration Number is L3193

Name of Firm : ACCURATE TECHNOLOGY CO. LTD

Site Location : F1, Bldg. A, Changyuan New Material Port, Keyuan Rd.

Science & Industry Park, Nanshan, Shenzhen, Guangdong

P.R. China

# 1.3. Measurement Uncertainty

Conducted Emission Expanded Uncertainty = 2.23dB, k=2

Radiated emission expanded uncertainty = 3.08dB, k=2

(9kHz-30MHz)

Radiated emission expanded uncertainty = 4.42dB, k=2

(30MHz-1000MHz)

Radiated emission expanded uncertainty = 4.06dB, k=2

(Above 1GHz)

# 2. MEASURING DEVICE AND TEST EQUIPMENT

**Table 1: List of Test and Measurement Equipment** 

Kind of equipment	Manufacturer	Туре	S/N	Calibrated until
EMI Test Receiver	Rohde&Schwarz	ESCS30	100307	Jan. 15, 2012
EMI Test Receiver	Rohde&Schwarz	ESPI3	101526/003	Jan. 15, 2012
Spectrum Analyzer	Agilent	E7405A	MY45115511	Jan. 15, 2012
Pre-Amplifier	Rohde&Schwarz	CBLU118354 0-01	3791	Jan. 15, 2012
Loop Antenna	Schwarzbeck	FMZB1516	1516131	Jan. 15, 2012
Bilog Antenna	Schwarzbeck	VULB9163	9163-323	Jan. 15, 2012
Horn Antenna	Schwarzbeck	BBHA9120D	9120D-655	Jan. 15, 2012
Horn Antenna	Schwarzbeck	BBHA9170	9170-359	Jan. 15, 2012
LISN	Rohde&Schwarz	ESH3-Z5	100305	Jan. 15, 2012
LISN	Schwarzbeck	NSLK8126	8126431	Jan. 15, 2012
iPod	Apple	A1238	8K039T1Y9ZU	
Battery	CSB	F2	HR1234W	

# 3. SUMMARY OF TEST RESULTS

FCC Rules	<b>Description of Test</b>	Result
Section 15.207	Conducted Emission	N/A
Section 15.239(c) Section 15.209	Harmonics and Spurious Radiated Emission	Compliant
Section 15.239(b)	Fundamental Radiated Emission	Compliant
Section 15.239(a)	Occupied Bandwidth	Compliant
Section 15.239	Tuning Range	Compliant

Remark: "N/A" means "Not applicable".

# 4. HARMONICS AND SPURIOUS RADIATED EMISSION FOR FCC PART 15 SECTION 15.239(C)

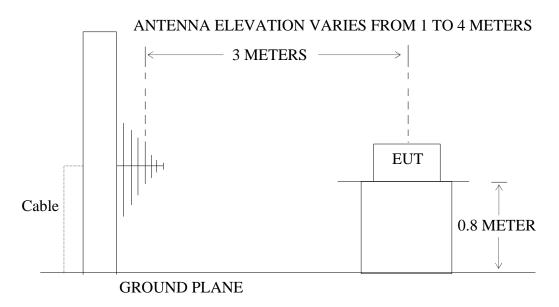
# 4.1.Block Diagram of Test Setup

4.1.1.Block diagram of connection between the EUT and simulators



(EUT: Hipstreet FM Transmitter)

4.1.2.Semi-Anechoic Chamber Test Setup Diagram



(EUT: Hipstreet FM Transmitter)

#### 4.2. The Emission Limit for section 15.239(c)

4.2.1. The field strength of any emissions radiated on any frequency outside of the specified 200 kHz band shall not exceed the general radiated emission limits in Section 15.209.

Radiation Emission Measurement Limits According to Section 15.209

		Limit,	
Frequency (MHz)	Field Strength of Quasi-peak Value (microvolts/m)	Field Strength of Quasi-peak Value (dBµV/m)	The final measurement in band 9-90kHz, 110-490kHz and above 1000MHz is
30 - 88	100	40	performed with Average detector.
88 - 216	150	43.5	Except those frequency bands mention above, the
216 - 960	200	46	final measurement for frequencies below 1000MHz is
Above 960	500	54	performed with Quasi Peak detector.

# 4.3. Configuration of EUT on Measurement

The following equipment are installed on Radiated Emission Measurement to meet the commission requirements and operating regulations in a manner which tends to maximize its emission characteristics in normal application.

4.3.1. Hipstreet FM Transmitter (EUT)

Model Number : HS-FMT172LCD

Serial Number : N/A

Manufacturer : KOBIAN CANADA INC.

## 4.4. Operating Condition of EUT

- 4.4.1. Setup the EUT and simulator as shown as Section 4.1.
- 4.4.2. Turn on the power of all equipment.
- 4.4.3. Let the EUT work in TX modes [Connect EUT use Auxiliary Equipment (iPod, USB memory disk and SD card) playing typical audio signal with a 2.5 kHz tone at a level 16 dB higher than that required to produce a frequency deviation of 75 kHz] measure it. The transmit frequency are 88.1-107.9MHz. We are select 88.1M, 98.1M, 107.9MHz TX frequency to transmit.

#### 4.5.Test Procedure

The EUT and its simulators are placed on a turntable, which is 0.8 meter high above ground. The turntable can rotate 360 degrees to determine the position of the maximum emission level. EUT is set 3.0 meters away from the receiving antenna, which is mounted on an antenna tower. The antenna can be moved up and down between 1.0 meter and 4 meters to find out the maximum emission level. Broadband antenna (calibrated bilog antenna) is used as receiving antenna. Both horizontal and vertical polarizations of the antenna are set on measurement. In order to find the maximum emission levels, all of the interface cables must be manipulated according to ANSI C63.4: 2009 on radiated emission measurement.

The bandwidth of test receiver is set at 120 kHz in 30-1000MHz.

The frequency range from 30MHz to 1000MHz is checked.

The final measurement for frequencies below 1000MHz is performed with Quasi Peak detector.

# 4.6. The Field Strength of Radiation Emission Measurement Results **PASS.**

The frequency range 30MHz to 1000MHz is investigated.

Date of Test: Nov 17, 2012 Temperature: 25°C

EUT: Hipstreet FM Transmitter Humidity: 50%

Model No.: HS-FMT172LCD Power Supply: DC 12V

Test Mode: TX 88.1MHz with Line in Test Engineer: Allen

Polarization	Frequency (MHz)	$\begin{array}{c} Reading(dB\mu V/m) \\ \\ QP \end{array}$	Factor Corr.( dB)	Result(dBµV/m) QP	$\begin{array}{c} Limits(dB\mu V/m) \\ QP \end{array}$	Margin(dB) QP
Horizontal	298.5932	20.98	16.74	37.72	46.00	-8.28
Horizontal	336.5932	19.02	17.91	36.93	46.00	-9.07
Vertical	166.6382	23.84	12.41	36.25	43.50	-7.25
Vertical	312.5482	22.80	17.13	39.93	43.50	-6.07

#### Bandedge

Polarization	Frequency (MHz)	Reading(dBµV/m)  QP	Factor Corr.( dB)	Result(dBμV/m)  QP	Limits(dBµV/m) QP	Margin(dB) QP
Horizontal	87.6931	20.21	13.72	33.93	40.00	-6.07
Horizontal	87.8000	16.35	13.72	30.07	40.00	-9.93
Vertical	87.6812	12.83	13.72	26.55	40.00	-13.45
Vertical	87.8000	6.21	13.72	19.93	40.00	-20.07

#### Note:

- 1. Emissions attenuated more than 20 dB below the permissible value are not reported.
- 2. The field strength is calculated by adding the antenna factor, high pass filter loss(if used) and cable loss, and subtracting the amplifier gain(if any)from the measured reading. The basic equation calculation is as follows:

Result = Reading + Corrected Factor

Where Corrected Factor = Antenna Factor + Cable Loss + High Pass Filter Loss - Amplifier Gain

Date of Test:	Nov 17, 2012	Temperature:	25°C
EUT:	Hipstreet FM Transmitter	Humidity:	50%
Model No.:	HS-FMT172LCD	Power Supply:	DC 12V
Test Mode:	TX 98.1MHz with Line in	Test Engineer:	Allen

Polarization	Frequency (MHz)	Reading(dBµV/m) QP	Factor Corr.( dB)	Result(dBµV/m) QP	Limits(dBµV/m) QP	Margin(dB) QP
Horizontal	292.3643	21.20	16.60	37.80	46.00	-8.20
Horizontal	336.4816	20.10	17.91	38.01	46.00	-7.99
Vertical	366.0865	20.87	18.60	39.47	46.00	-6.53
Vertical	617.9415	16.01	23.83	39.84	46.00	-6.16

#### Note:

- 1. Emissions attenuated more than 20 dB below the permissible value are not reported.
- 2. The field strength is calculated by adding the antenna factor, high pass filter loss(if used) and cable loss, and subtracting the amplifier gain(if any)from the measured reading. The basic equation calculation is as follows:

Result = Reading + Corrected Factor

Where Corrected Factor = Antenna Factor + Cable Loss + High Pass Filter Loss - Amplifier Gain

Date of Test:Nov 17, 2012Temperature:25°CEUT:Hipstreet FM TransmitterHumidity:50%Model No.:HS-FMT172LCDPower Supply:DC 12VTest Mode:TX 107.9MHz with Line inTest Engineer:Allen

Polarization	Frequency (MHz)	Reading(dBµV/m) QP	Factor Corr.( dB)	Result(dBµV/m) QP	Limits(dBµV/m) QP	Margin(dB) QP
Horizontal	298.5932	20.48	16.74	37.22	46.00	-8.78
Horizontal	617.9415	15.09	23.83	38.92	46.00	-7.08
Vertical	377.8480	21.80	18.80	40.60	46.00	-5.40
Vertical	520.2078	17.10	22.80	39.18	46.00	-6.82

#### Bandedge

Polarization	Frequency (MHz)	Reading(dBµV/m)  QP	Factor Corr.( dB)	Result(dBµV/m) QP	Limits(dBµV/m) QP	Margin(dB) QP
Horizontal	108.2000	12.64	26.59	26.59	43.50	-16.91
Horizontal	108.3144	15.32	29.27	29.27	43.50	-14.23
Vertical	108.2000	10.84	13.95	24.79	43.50	-18.71
Vertical	108.7376	13.68	13.96	27.64	43.50	-15.86

#### Note:

- 1. Emissions attenuated more than 20 dB below the permissible value are not reported.
- 2. The field strength is calculated by adding the antenna factor, high pass filter loss(if used) and cable loss, and subtracting the amplifier gain(if any)from the measured reading. The basic equation calculation is as follows:

Result = Reading + Corrected Factor

Where Corrected Factor = Antenna Factor + Cable Loss + High Pass Filter Loss - Amplifier Gain

Date of Test: Nov 17, 2012 Temperature: 25°C

EUT: Hipstreet FM Transmitter Humidity: 50%

Model No.: HS-FMT172LCD Power Supply: DC 12V

Test Mode: TX 88.1MHz with SD Card Test Engineer: Allen

Polarization	Frequency (MHz)	Reading(dBµV/m)  QP	Factor Corr.( dB)	Result(dBμV/m)  QP	Limits(dBµV/m) QP	Margin(dB) QP
Horizontal	260.3566	21.35	15.52	36.87	46.00	-9.13
Horizontal	827.1793	11.58	27.20	38.78	46.00	-7.22
Vertical	260.3566	19.25	15.52	34.77	46.00	-11.23
Vertical	298.5932	21.36	16.74	38.10	46.00	-7.90

#### Bandedge

Polarization	Frequency (MHz)	Reading(dBµV/m) QP	Factor Corr.( dB)	Result(dBµV/m) QP	Limits(dBµV/m) QP	Margin(dB) QP
Horizontal	87.2309	15.32	13.70	29.02	40.00	-10.98
Horizontal	87.8050	9.69	13.72	23.41	40.00	-16.59
Vertical	87.6890	16.32	13.72	30.04	40.00	-9.96
Vertical	87.8000	12.01	13.72	25.73	40.00	-14.27

#### Note:

- 1. Emissions attenuated more than 20 dB below the permissible value are not reported.
- 2. The field strength is calculated by adding the antenna factor, high pass filter loss(if used) and cable loss, and subtracting the amplifier gain(if any)from the measured reading. The basic equation calculation is as follows:

Result = Reading + Corrected Factor

Where Corrected Factor = Antenna Factor + Cable Loss + High Pass Filter Loss - Amplifier Gain

Date of Test:	Nov 17, 2012	Temperature:	25°C
EUT:	Hipstreet FM Transmitter	Humidity:	50%
Model No.:	HS-FMT172LCD	Power Supply:	DC 12V
Test Mode:	TX 98.1MHz with SD Card	Test Engineer:	Allen

Polarization	Frequency (MHz)	Reading(dBµV/m) QP	Factor Corr.( dB)	Result(dBµV/m) QP	Limits(dBµV/m) QP	Margin(dB) QP
Horizontal	167.2248	21.27	12.50	33.77	43.50	-9.73
Horizontal	312.5482	20.35	17.13	37.48	46.00	-8.52
Vertical	166.6383	21.61	12.41	34.02	43.50	-9.48
Vertical	322.5896	21.24	17.45	38.69	46.00	-7.31

#### Note:

- 1. Emissions attenuated more than 20 dB below the permissible value are not reported.
- 2. The field strength is calculated by adding the antenna factor, high pass filter loss(if used) and cable loss, and subtracting the amplifier gain(if any)from the measured reading. The basic equation calculation is as follows:

Result = Reading + Corrected Factor

Where Corrected Factor = Antenna Factor + Cable Loss + High Pass Filter Loss - Amplifier Gain

Date of Test:Nov 17, 2012Temperature:25°CEUT:Hipstreet FM TransmitterHumidity:50%Model No.:HS-FMT172LCDPower Supply:DC 12VTest Mode:TX 107.9MHz with SD CardTest Engineer:Allen

Polarization	Frequency (MHz)	Reading(dBµV/m) QP	Factor Corr.( dB)	Result(dBµV/m) QP	Limits(dBµV/m) QP	Margin(dB) QP
Horizontal	167.2249	24.23	12.50	36.73	43.50	-6.77
Horizontal	322.5896	21.98	17.45	39.43	46.00	-6.57
Vertical	336.4816	20.23	17.91	38.14	46.00	-7.86
Vertical	509.3559	17.98	21.83	39.81	46.00	-6.19

#### Bandedge

Polarization	Frequency (MHz)	Reading(dBµV/m)  QP	Factor Corr.( dB)	Result(dBµV/m) QP	Limits(dBµV/m) QP	Margin(dB) QP
Horizontal	108.2000	8.36	13.95	22.31	43.50	-21.19
Horizontal	108.6851	20.57	13.95	34.53	43.50	-8.97
Vertical	108.2000	6.65	13.95	20.60	43.50	-22.90
Vertical	108.7052	14.24	13.96	28.20	43.50	-15.30

#### Note:

- 1. Emissions attenuated more than 20 dB below the permissible value are not reported.
- 2. The field strength is calculated by adding the antenna factor, high pass filter loss(if used) and cable loss, and subtracting the amplifier gain(if any)from the measured reading. The basic equation calculation is as follows:

Result = Reading + Corrected Factor

Where Corrected Factor = Antenna Factor + Cable Loss + High Pass Filter Loss - Amplifier Gain

Date of Test: Nov 17, 2012

EUT: Hipstreet FM Transmitter

Model No.: HS-FMT172LCD

Test Mode: TX 88.1MHz with USB Port

Test Engineer: Allen

Polarization	Frequency (MHz)	Reading(dBµV/m)  QP	Factor Corr.( dB)	Result(dBµV/m) QP	Limits(dBµV/m) QP	Margin(dB) QP
Horizontal	298.5932	20.31	16.74	37.05	46.00	-8.95
Horizontal	827.1793	11.50	27.20	38.70	46.00	-7.30
Vertical	298.5932	21.24	16.74	37.98	46.00	-8.02
Vertical	336.4816	20.95	17.91	38.86	46.00	-7.14

#### Bandedge

Polarization	Frequency (MHz)	Reading(dBµV/m)  QP	Factor Corr.( dB)	Result(dBµV/m) QP	Limits(dBµV/m) QP	Margin(dB) QP
Horizontal	87.7249	18.69	13.72	32.41	40.00	-7.59
Horizontal	87.8000	12.98	13.72	26.70	40.00	-13.30
Vertical	87.7172	17.00	13.72	30.72	40.00	-9.28
Vertical	87.8000	11.57	13.72	25.29	40.00	-14.71

#### Note:

- 1. Emissions attenuated more than 20 dB below the permissible value are not reported.
- 2. The field strength is calculated by adding the antenna factor, high pass filter loss(if used) and cable loss, and subtracting the amplifier gain(if any)from the measured reading. The basic equation calculation is as follows:

Result = Reading + Corrected Factor

Where Corrected Factor = Antenna Factor + Cable Loss + High Pass Filter Loss - Amplifier Gain

Date of Test:	Nov 17, 2012	Temperature:	25°C
EUT:	Hipstreet FM Transmitter	Humidity:	50%
Model No.:	HS-FMT172LCD	Power Supply:	DC 12V
Test Mode:	TX 98.1MHz with USB Port	Test Engineer:	Allen

Polarization	Frequency (MHz)	Reading(dBµV/m) QP	Factor Corr.( dB)	Result(dBµV/m) QP	Limits(dBµV/m) QP	Margin(dB) QP
Horizontal	292.3643	20.25	16.60	36.85	46.00	-9.15
Horizontal	696.3523	13.21	24.82	38.03	46.00	-7.97
Vertical	167.2248	21.36	12.50	33.86	43.50	-9.64
Vertical	478.1394	17.36	20.96	38.32	46.00	-7.68

#### Note:

- 1. Emissions attenuated more than 20 dB below the permissible value are not reported.
- 2. The field strength is calculated by adding the antenna factor, high pass filter loss(if used) and cable loss, and subtracting the amplifier gain(if any)from the measured reading. The basic equation calculation is as follows:

Result = Reading + Corrected Factor

Where Corrected Factor = Antenna Factor + Cable Loss + High Pass Filter Loss - Amplifier Gain

Date of Test:Nov 17, 2012Temperature:25°CEUT:Hipstreet FM TransmitterHumidity:50%Model No.:HS-FMT172LCDPower Supply:DC 12VTest Mode:TX 107.9MHz with USB PortTest Engineer:Allen

Polarization	Frequency (MHz)	Reading(dBµV/m) QP	Factor Corr.( dB)	Result(dBµV/m) QP	Limits(dBµV/m) QP	Margin(dB) QP
Horizontal	298.5932	20.68	16.74	37.42	46.00	-8.58
Horizontal	716.2038	15.30	25.16	40.46	46.00	-5.54
Vertical	377.8480	20.68	18.80	39.48	46.00	-6.52
Vertical	520.2078	17.04	22.08	39.12	46.00	-6.88

#### Bandedge

Polarization	Frequency (MHz)	Reading(dBµV/m)  QP	Factor Corr.( dB)	Result(dBμV/m)  QP	Limits(dBµV/m) QP	Margin(dB) QP
Horizontal	108.2000	11.68	13.95	25.63	43.50	-17.87
Horizontal	108.6932	16.87	13.96	30.83	43.50	-12.67
Vertical	108.2021	7.05	13.95	21.00	43.50	-22.50
Vertical	108.6971	17.36	13.95	31.32	43.50	-12.18

#### Note:

- 1. Emissions attenuated more than 20 dB below the permissible value are not reported.
- 2. The field strength is calculated by adding the antenna factor, high pass filter loss(if used) and cable loss, and subtracting the amplifier gain(if any)from the measured reading. The basic equation calculation is as follows:

Result = Reading + Corrected Factor

Where Corrected Factor = Antenna Factor + Cable Loss + High Pass Filter Loss - Amplifier Gain

# 5. FUNDAMENTAL RADIATED EMISSION FOR FCC PART 15 SECTION 15.239(B)

#### 5.1.Block Diagram of Test Setup

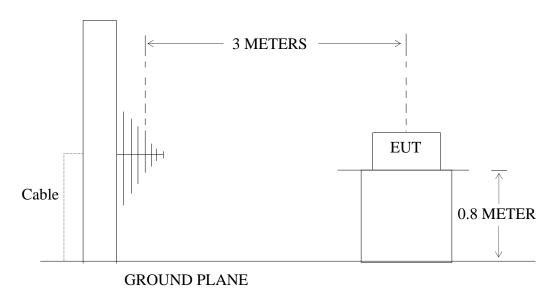
5.1.1.Block diagram of connection between the EUT and simulators



(EUT: Hipstreet FM Transmitter)

5.1.2.Semi-Anechoic Chamber Test Setup Diagram

#### ANTENNA ELEVATION VARIES FROM 1 TO 4 METERS



(EUT: Hipstreet FM Transmitter)

#### 5.2. The Emission Limit For Section 15.239(b)

5.2.1. The field strength of any emission within the permitted 200kHz band shall not exceed 250microvolts/meter at 3 meters. The emission limit in this paragraph is based on measurement instrumentation employing an average detector. The provisions in section 15.35 for limiting peak emissions apply.

#### 5.3.EUT Configuration on Measurement

The following equipment are installed on the emission Measurement to meet the commission requirements and operating regulations in a manner which tends to maximize its emission characteristics in normal application.

5.3.1.Hipstreet FM Transmitter (EUT)

Model Number : HS-FMT172LCD

Serial Number : N/A

Manufacturer : KOBIAN CANADA INC.

#### 5.4. Operating Condition of EUT

- 5.4.1. Setup the EUT and simulator as shown as Section 5.1.
- 5.4.2.Turn on the power of all equipment.
- 5.4.3. Let the EUT work in TX modes [Connect EUT use Auxiliary Equipment (iPod, USB memory disk and SD card) playing typical audio signal with a 2.5 kHz tone at a level 16 dB higher than that required to produce a frequency deviation of 75 kHz] measure it. The transmit frequency are 88.1-107.9MHz. We are select 88.1M, 98.1M, 107.9MHz TX frequency to transmit.

#### 5.5.Test Procedure

The EUT and its simulators are placed on a turntable, which is 0.8 meter high above ground. The turntable can rotate 360 degrees to determine the position of the maximum emission level. EUT is set 3.0 meters away from the receiving antenna, which is mounted on an antenna tower. The antenna can be moved up and down between 1.0 meter and 4 meters to find out the maximum emission level. Broadband antenna (calibrated bilog antenna) is used as receiving antenna. Both horizontal and vertical polarizations of the antenna are set on measurement. In order to find the maximum emission levels, all of the interface cables must be manipulated according to ANSI C63.4: 2009 on radiated emission measurement.

The bandwidth of test receiver is set at 300 kHz.

#### 5.6. The Emission Measurement Result

#### PASS.

Date of Test:	Nov 17, 2012	Temperature:	25°C
EUT:	Hipstreet FM Transmitter	Humidity:	50%
Model No.:	HS-FMT172LCD	Power Supply:	DC 12V
Test Mode:	TX 88.1MHz with Line in	Test Engineer:	Allen

#### **Fundamental Radiated Emissions**

Frequency	Reading(dBµV/m)		Factor (dB)	Result(dBμV/m)		Limit(dBµV/m)		Margin (dB)		
(MHz)	AV	PEAK	Corr.	AV	PEAK	AV	PEAK	AV	PEAK	Polarization
88.1000	24.88	25.45	13.75	38.63	39.20	48	68	-9.37	-28.80	Horizontal
88.1000	24.69	25.72	13.75	38.44	39.47	48	68	-9.56	-28.53	Vertical

#### Note:

- 1. Measurement was performed with modulated signal with average detector and peak detector.
- 2. The field strength is calculated by adding the antenna factor, high pass filter loss(if used) and cable loss, and subtracting the amplifier gain(if any)from the measured reading. The basic equation calculation is as follows:

Result = Reading + Corrected Factor

Where Corrected Factor = Antenna Factor + Cable Loss + High Pass Filter Loss - Amplifier Gain

Date of Test:Nov 17, 2012Temperature:25°CEUT:Hipstreet FM TransmitterHumidity:50%Model No.:HS-FMT172LCDPower Supply:DC 12VTest Mode:TX 98.1MHz with Line inTest Engineer:Allen

#### **Fundamental Radiated Emissions**

Frequency	Reading(	dBμV/m)	Factor (dB)	Result(dBµV/m)		Limit(dBµV/m)		Margin (dB)		
(MHz)	AV	PEAK	Corr.	AV	PEAK	AV	PEAK	AV	PEAK	Polarization
98.1000	24.01	25.13	14.52	38.53	39.65	48	68	-9.47	-28.35	Horizontal
98.1000	23.89	24.72	14.52	38.41	39.24	48	68	-9.59	-28.76	Vertical

#### Note:

- 1. Measurement was performed with modulated signal with average detector and peak detector.
- 2. The field strength is calculated by adding the antenna factor, high pass filter loss(if used) and cable loss, and subtracting the amplifier gain(if any)from the measured reading. The basic equation calculation is as follows:

Result = Reading + Corrected Factor

Where Corrected Factor = Antenna Factor + Cable Loss + High Pass Filter Loss - Amplifier Gain

Date of Test:Nov 17, 2012Temperature:25°CEUT:Hipstreet FM TransmitterHumidity:50%Model No.:HS-FMT172LCDPower Supply:DC 12VTest Mode:TX 107.9MHz with Line inTest Engineer:Allen

#### **Fundamental Radiated Emissions**

Frequency	Reading(	dBμV/m)	Factor (dB)	Result(dBµV/m)		Limit(dBµV/m)		Margin (dB)		
(MHz)	AV	PEAK	Corr.	AV	PEAK	AV	PEAK	AV	PEAK	Polarization
107.9000	24.84	25.93	13.95	38.79	39.88	48	68	-9.21	-28.12	Horizontal
107.9000	25.15	26.25	13.95	39.10	40.20	48	68	-8.90	-27.80	Vertical

#### Note:

- 1. Measurement was performed with modulated signal with average detector and peak detector.
- 2. The field strength is calculated by adding the antenna factor, high pass filter loss(if used) and cable loss, and subtracting the amplifier gain(if any)from the measured reading. The basic equation calculation is as follows:

Result = Reading + Corrected Factor

Where Corrected Factor = Antenna Factor + Cable Loss + High Pass Filter Loss - Amplifier Gain

Date of Test:Nov 17, 2012Temperature:25°CEUT:Hipstreet FM TransmitterHumidity:50%Model No.:HS-FMT172LCDPower Supply:DC 12VTest Mode:TX 88.1MHz with SD CardTest Engineer:Allen

#### **Fundamental Radiated Emissions**

Frequency	Reading(dBµV/m)		Factor (dB)	Result(dBµV/m)		Limit(dBµV/m)		Margin (dB)		
(MHz)	AV	PEAK	Corr.	AV	PEAK	AV	PEAK	AV	PEAK	Polarization
88.1000	25.61	26.95	13.75	39.36	40.70	48	68	-8.64	-27.30	Horizontal
88.1000	24.69	25.87	13.75	38.44	39.62	48	68	-9.56	-28.38	Vertical

#### Note:

- 1. Measurement was performed with modulated signal with average detector and peak detector.
- 2. The field strength is calculated by adding the antenna factor, high pass filter loss(if used) and cable loss, and subtracting the amplifier gain(if any)from the measured reading. The basic equation calculation is as follows:

Result = Reading + Corrected Factor

Where Corrected Factor = Antenna Factor + Cable Loss + High Pass Filter Loss - Amplifier Gain

Date of Test:Nov 17, 2012Temperature:25°CEUT:Hipstreet FM TransmitterHumidity:50%Model No.:HS-FMT172LCDPower Supply:DC 12VTest Mode:TX 98.1MHz with SD CardTest Engineer:Allen

#### **Fundamental Radiated Emissions**

Frequency	Reading(dBµV/m)		Factor (dB)	Result(dBµV/m)		Limit(dBµV/m)		Margin (dB)		
(MHz)	AV	PEAK	Corr.	AV	PEAK	AV	PEAK	AV	PEAK	Polarization
98.1000	26.01	27.13	14.52	40.53	41.65	48	68	-7.47	-26.35	Horizontal
98.1000	25.01	26.72	14.52	39.53	41.24	48	68	-8.47	-26.76	Vertical

#### Note:

- 1. Measurement was performed with modulated signal with average detector and peak detector.
- 2. The field strength is calculated by adding the antenna factor, high pass filter loss(if used) and cable loss, and subtracting the amplifier gain(if any)from the measured reading. The basic equation calculation is as follows:

Result = Reading + Corrected Factor

Where Corrected Factor = Antenna Factor + Cable Loss + High Pass Filter Loss - Amplifier Gain

Date of Test:Nov 17, 2012Temperature:25°CEUT:Hipstreet FM TransmitterHumidity:50%Model No.:HS-FMT172LCDPower Supply:DC 12VTest Mode:TX 107.9MHz SD CardTest Engineer:Allen

#### **Fundamental Radiated Emissions**

Frequency	Reading(	dBμV/m)	Factor (dB)	Result(dBµV/m)		Limit(dBµV/m)		Margin (dB)		
(MHz)	AV	PEAK	Corr.	AV	PEAK	AV	PEAK	AV	PEAK	Polarization
107.9000	25.21	26.43	13.95	39.16	40.38	48	68	-8.84	-27.62	Horizontal
107.9000	26.01	27.25	13.95	39.96	41.20	48	68	-8.04	-26.80	Vertical

#### Note:

- 1. Measurement was performed with modulated signal with average detector and peak detector.
- 2. The field strength is calculated by adding the antenna factor, high pass filter loss(if used) and cable loss, and subtracting the amplifier gain(if any)from the measured reading. The basic equation calculation is as follows:

Result = Reading + Corrected Factor

Where Corrected Factor = Antenna Factor + Cable Loss + High Pass Filter Loss - Amplifier Gain

Date of Test:Nov 17, 2012Temperature:25°CEUT:Hipstreet FM TransmitterHumidity:50%Model No.:HS-FMT172LCDPower Supply:DC 12VTest Mode:TX 88.1MHz with USB PortTest Engineer:Allen

#### **Fundamental Radiated Emissions**

Frequency	Reading(dBμV/m) Factor		Factor (dB)	Result(dBμV/m)		Limit(dBµV/m)		Margin (dB)		
(MHz)	AV	PEAK	Corr.	AV	PEAK	AV	PEAK	AV	PEAK	Polarization
88.1000	22.89	23.95	13.75	36.64	37.70	48	68	-11.36	-30.30	Horizontal
88.1000	20.95	25.72	13.75	37.95	39.47	48	68	-10.05	-30.53	Vertical

#### Note:

- 1. Measurement was performed with modulated signal with average detector and peak detector.
- 2. The field strength is calculated by adding the antenna factor, high pass filter loss(if used) and cable loss, and subtracting the amplifier gain(if any)from the measured reading. The basic equation calculation is as follows:

Result = Reading + Corrected Factor

Where Corrected Factor = Antenna Factor + Cable Loss + High Pass Filter Loss - Amplifier Gain

Date of Test:Nov 17, 2012Temperature:25°CEUT:Hipstreet FM TransmitterHumidity:50%Model No.:HS-FMT172LCDPower Supply:DC 12VTest Mode:TX 98.1MHz with USB PortTest Engineer:Allen

#### **Fundamental Radiated Emissions**

Frequency	Reading(	dBμV/m)	Factor (dB)	Result(dBµV/m)		Limit(dBµV/m)		Margin (dB)		
(MHz)	AV	PEAK	Corr.	AV	PEAK	AV	PEAK	AV	PEAK	Polarization
98.1000	23.01	24.13	14.52	37.53	38.65	48	68	-10.47	-29.35	Horizontal
98.1000	23.28	24.72	14.52	37.80	39.24	48	68	-5.70	-28.7	Vertical

#### Note:

- 1. Measurement was performed with modulated signal with average detector and peak detector.
- 2. The field strength is calculated by adding the antenna factor, high pass filter loss(if used) and cable loss, and subtracting the amplifier gain(if any)from the measured reading. The basic equation calculation is as follows:

Result = Reading + Corrected Factor

Where Corrected Factor = Antenna Factor + Cable Loss + High Pass Filter Loss - Amplifier Gain

Date of Test:Nov 17, 2012Temperature:25°CEUT:Hipstreet FM TransmitterHumidity:50%Model No.:HS-FMT172LCDPower Supply:DC 12VTest Mode:TX 107.9MHz with USB PortTest Engineer:Allen

#### **Fundamental Radiated Emissions**

Frequency	Reading(	dBμV/m)	Factor (dB)	Result(dBµV/m)		Limit(dBµV/m)		Margin (dB)		
(MHz)	AV	PEAK	Corr.	AV	PEAK	AV	PEAK	AV	PEAK	Polarization
107.9000	25.36	26.43	13.95	39.31	40.38	48	68	-8.69	-27.62	Horizontal
107.9000	24.32	25.75	13.95	38.27	39.70	48	68	-9.73	-28.30	Vertical

#### Note:

- 1. Measurement was performed with modulated signal with average detector and peak detector.
- 2. The field strength is calculated by adding the antenna factor, high pass filter loss(if used) and cable loss, and subtracting the amplifier gain(if any)from the measured reading. The basic equation calculation is as follows:

Result = Reading + Corrected Factor

Where Corrected Factor = Antenna Factor + Cable Loss + High Pass Filter Loss - Amplifier Gain

## 6. OCCUPIED BANDWIDTH FOR FCC PART 15 SECTION

## 15.239(A)

#### 6.1. The Requirement For Section 15.239(a)

6.1.1. Emission from the device shall be confined within a band 200 kHz wide centered on the operating frequency. The 200 kHz band shall lie wholly within the frequency range of 88-108MHz.

#### 6.2.EUT Configuration on Measurement

The following equipment are installed on the emission Measurement to meet the commission requirements and operating regulations in a manner which tends to maximize its emission characteristics in normal application.

6.2.1. Hipstreet FM Transmitter (EUT)

Model Number : HS-FMT172LCD

Serial Number : N/A

Manufacturer : KOBIAN CANADA INC.

## 6.3. Operating Condition of EUT

- 6.3.1. Setup the EUT and simulator as shown as Section 5.1.
- 6.3.2. Turn on the power of all equipment.
- 6.3.3. Let the EUT work in TX modes [Connect EUT use Auxiliary Equipment (iPod, USB memory disk and SD card) playing typical audio signal with a 2.5 kHz tone at a level 16 dB higher than that required to produce a frequency deviation of 75 kHz] measure it. The transmit frequency are 88.1-107.9MHz. We are select 88.1M, 98.1M, 107.9MHz TX frequency to transmit..

#### 6.4. Test Procedure

- 6.4.1. The EUT was placed on a turn table which is 0.8m above ground plane.
- 6.4.2. Set EUT as normal operation. Playing typical audio signal (the volume control was set to maximum.)
- 6.4.3. Set EMI test receiver Center Frequency = fundamental frequency, RBW= 3kHz, VBW= 10kHz, Span=500kHz.
- 6.4.4. Set EMI test receiver Max hold. Mark peak, -26dB.

#### 6.5. Test Result

#### The EUT does meet the FCC requirement.

TX with Line in FM 88.1MHz -26dB bandwidth = 147.6 kHz

FM 98.0MHz -26dB bandwidth = 149.4 kHz

FM 107.9MHz -26dB bandwidth = 149.4 kHz

TX with Line in FM 88.1MHz -26dB bandwidth = 147.6 kHz

FM 98.0MHz -26dB bandwidth = 148.2 kHz

FM 107.9MHz -26dB bandwidth = 150.6 kHz

TX with Line in FM 88.1MHz
-26dB bandwidth = 148.8 kHz

FM 98.0MHz -26dB bandwidth = 148.2 kHz

FM 107.9MHz -26dB bandwidth = 150.00 kHz

#### 7. TUNING RANGE

7.1. The Requirement For Section 15.239

88-108MHz

## 7.2.EUT Configuration on Measurement

The following equipment are installed on the emission Measurement to meet the commission requirements and operating regulations in a manner which tends to maximize its emission characteristics in normal application.

7.2.1. Hipstreet FM Transmitter (EUT)

Model Number : HS-FMT172LCD

Serial Number : N/A

Manufacturer : KOBIAN CANADA INC.

#### 7.3. Operating Condition of EUT

- 7.3.1. Setup the EUT and simulator as shown as Section 5.1.
- 7.3.2. Turn on the power of all equipment.
- 7.3.3. Let the EUT work in TX modes [Connect EUT use iPod playing typical audio signal ('Highway Blues' from sample music of windows XP) with maximum audio level] measure it. The transmit frequency are 88.1-107.9MHz. We are select 88.1M, 98.0M, 107.9MHz TX frequency to transmit.

#### 7.4.Test Procedure

- 7.4.1. The EUT was placed on a turn table which is 0.8m above ground plane.
- 7.4.2.Set the EUT working on the working frequency.
- 7.4.3. Set EMI test receiver center frequency = working frequency, RBW=3 kHz, VBW= 10 kHz, Span=300 kHz.
- 7.4.4.Measuring the working frequency.
- 7.4.5. The working frequency should be inside 88-108MHz.

# 7.5.Test Result

# The EUT does meet the FCC requirement.

Low Frequency = $88.100$ MHz	EUT LED display 88.1MHz
Mid Frequency = 98.100MHz	EUT LED display 98.0MHz
High Frequency = 107.900MHz	EUT LED display 107.9MHz

The working frequency rang is from 88.1 to 107.9MHz.

# APPENDIX I (Test Curves)



#### ACCURATE TECHNOLOGY CO., LTD.

F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park,Nanshan Shenzhen,P.R.China Site: 966 chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Job No.: ALEN #512

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

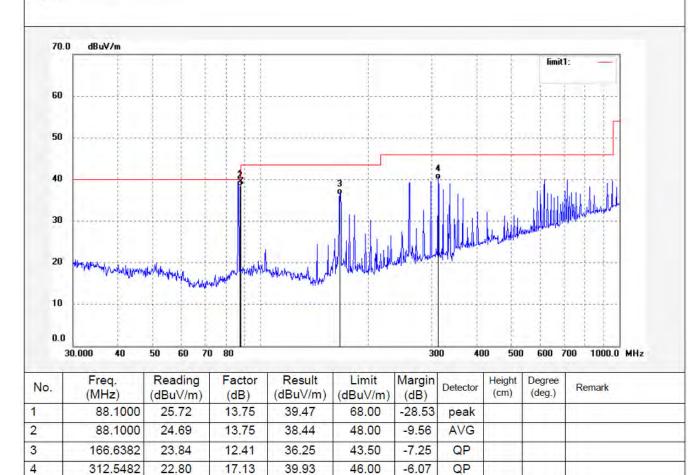
Temp.( C)/Hum.(%) 23 C / 49 %
EUT: Hipstreet FM Transmitter
Mode: FM 88.1MHz(LINE IN)

Model: HS-FMT172LCD Manufacturer: Kobian Polarization: Vertical

Power Source: DC 12V

Date: 12/11/17/ Time: 8/33/29 Engineer Signature: Distance: 3m

Note:





F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park,Nanshan Shenzhen,P.R.China Site: 966 chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Job No.: ALEN #513

Manufacturer: Kobian

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

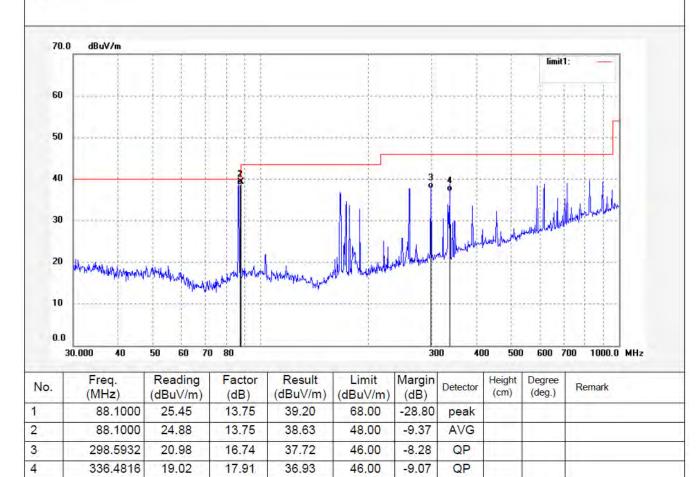
Temp.( C)/Hum.(%) 23 C / 49 %
EUT: Hipstreet FM Transmitter
Mode: FM 88.1MHz(LINE IN)
Model: HS-FMT172LCD

Polarization: Horizontal

Power Source: DC 12V

Date: 12/11/17/ Time: 8/34/22 Engineer Signature:

Distance: 3m





F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park,Nanshan Shenzhen,P.R.China Site: 966 chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Job No.: ALEN #514

Standard: FCC Class B 3M Radiated

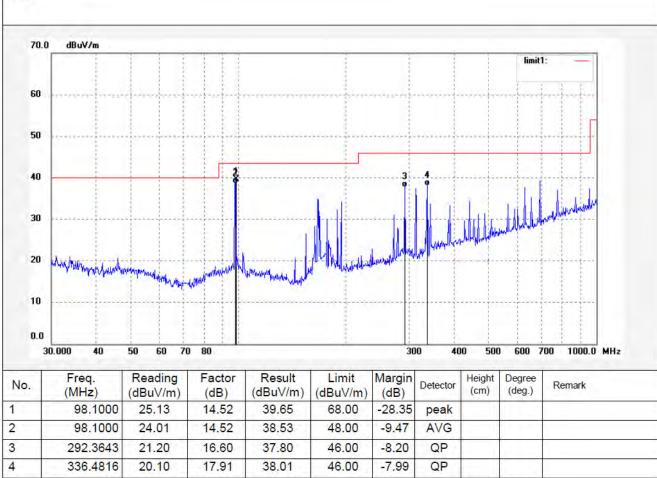
Test item: Radiation Test

Temp.( C)/Hum.(%) 23 C / 49 %
EUT: Hipstreet FM Transmitter
Mode: FM 98.1MHz(LINE IN)

Model: HS-FMT172LCD Manufacturer: Kobian Polarization: Horizontal Power Source: DC 12V

Date: 12/11/17/ Time: 8/36/08

Engineer Signature: Distance: 3m





F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park,Nanshan Shenzhen,P.R.China Site: 966 chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Job No.: ALEN #515

Standard: FCC Class B 3M Radiated

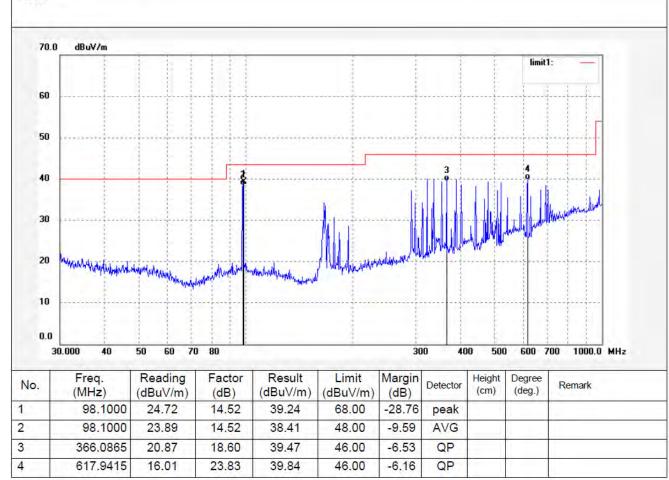
Test item: Radiation Test

Temp.( C)/Hum.(%) 23 C / 49 % EUT: Hipstreet FM Transmitter Mode: FM 98.1MHz(LINE IN)

Model: HS-FMT172LCD Manufacturer: Kobian Polarization: Vertical

Power Source: DC 12V

Date: 12/11/17/ Time: 8/37/14 Engineer Signature: Distance: 3m





F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park,Nanshan Shenzhen,P.R.China Site: 966 chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Job No.: ALEN #516

Standard: FCC Class B 3M Radiated

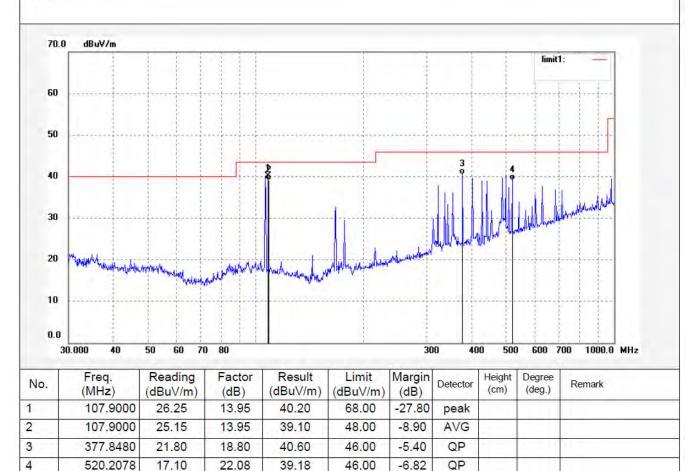
Test item: Radiation Test

Temp.( C)/Hum.(%) 23 C / 49 %
EUT: Hipstreet FM Transmitter
Mode: FM107.9MHz(Line in)
Model: HS-FMT172LCD

Model: HS-FM11/2LCI Manufacturer: Kobian Polarization: Vertical

Power Source: DC 12V

Date: 12/11/17/
Time: 8/39/01
Engineer Signature:
Distance: 3m





F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park,Nanshan Shenzhen,P.R.China Site: 966 chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Job No.: ALEN #517

Standard: FCC Class B 3M Radiated

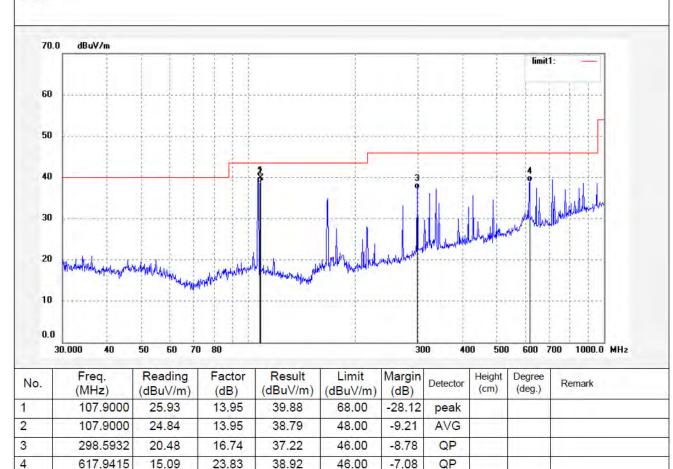
Test item: Radiation Test

Temp.( C)/Hum.(%) 23 C / 49 %
EUT: Hipstreet FM Transmitter
Mode: FM107.9MHz(LINE IN)

Model: HS-FMT172LCD Manufacturer: Kobian Polarization: Horizontal Power Source: DC 12V

Date: 12/11/17/ Time: 8/39/49 Engineer Signature:

Distance: 3m





F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park,Nanshan Shenzhen,P.R.China Site: 966 chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Job No.: ALEN #533

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.( C)/Hum.(%) 23 C / 49 % EUT: Hipstreet FM Transmitter

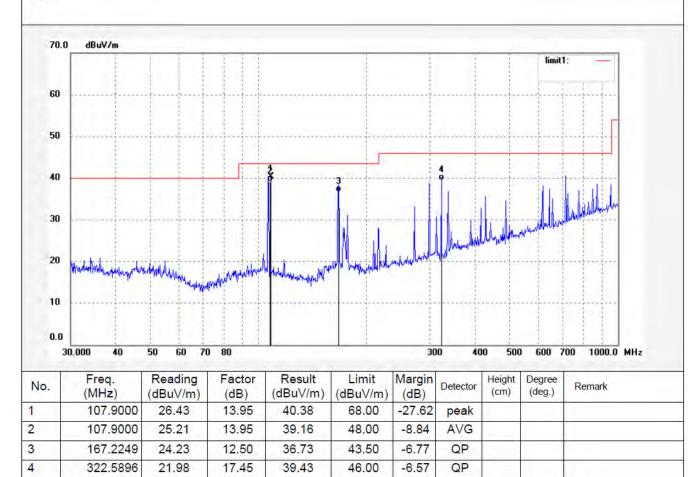
Mode: FM107.9MHz(SD)
Model: HS-FMT172LCD
Manufacturer: Kobian

Polarization: Horizontal

Power Source: DC 12V

Date: 12/11/17/ Time: 9/20/49 Engineer Signature:

Distance: 3m





F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park,Nanshan Shenzhen,P.R.China Site: 966 chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Job No.: ALEN #534

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.( C)/Hum.(%) 23 C / 49 % EUT: Hipstreet FM Transmitter

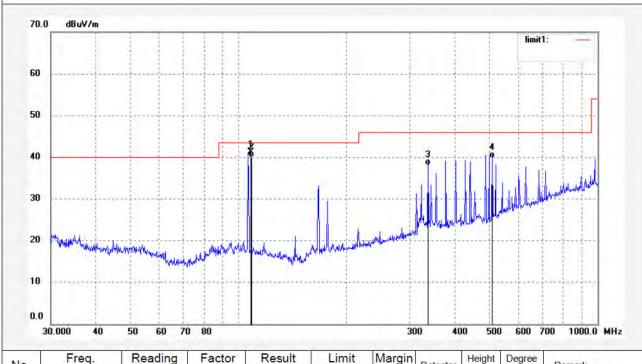
Mode: FM107.9MHz(SD)
Model: HS-FMT172LCD
Manufacturer: Kobian

Polarization: Vertical

Power Source: DC 12V

Date: 12/11/17/ Time: 9/21/01 Engineer Signature:

Distance: 3m



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark	
1	107.9000	27.25	13.95	41.20	68.00	-26.80	peak				
2	107.9000	26.01	13.95	39.96	48.00	-8.04	AVG				
3	336.4816	20.23	17.91	38.14	46.00	-7.86	QP				
4	509.3559	17.98	21.83	39.81	46.00	-6.19	QP	11			



F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park,Nanshan Shenzhen,P.R.China Site: 966 chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Job No.: ALEN #535

Standard: FCC Class B 3M Radiated

Test item: Radiation Test
Temp.( C)/Hum.(%) 23 C / 49 %

EUT: Hipstreet FM Transmitter

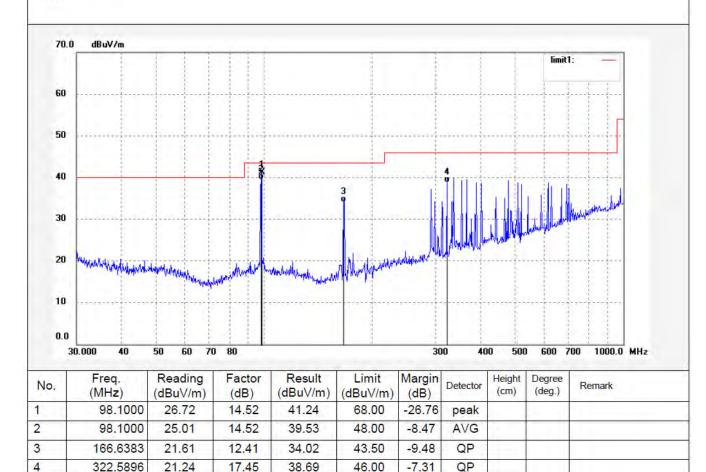
Mode: FM 98.1MHz(SD)
Model: HS-FMT172LCD
Manufacturer: Kobian

Polarization: Vertical

Power Source: DC 12V

Date: 12/11/17/ Time: 9/23/14 Engineer Signature:

Distance: 3m





F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park,Nanshan Shenzhen,P.R.China Site: 966 chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Job No.: ALEN #536

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.( C)/Hum.(%) 23 C / 49 % EUT: Hipstreet FM Transmitter

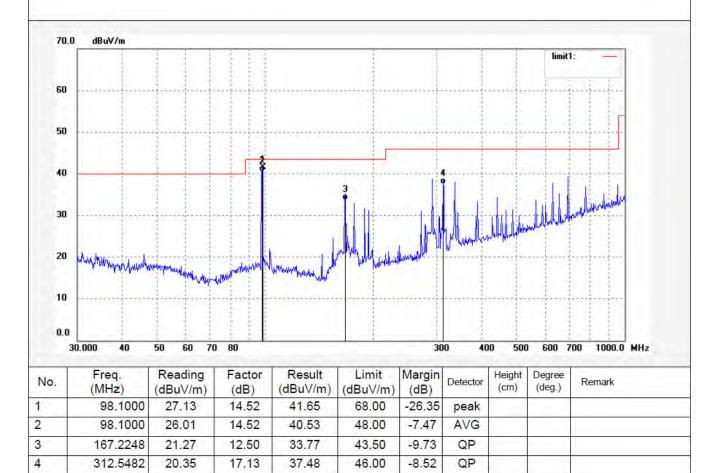
Mode: FM 98.1MHz(SD)
Model: HS-FMT172LCD
Manufacturer: Kobian

Polarization: Horizontal

Power Source: DC 12V

Date: 12/11/17/
Time: 9/25/08
Engineer Signature:
Distance: 3m

Distance: 5m





F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park,Nanshan Shenzhen,P.R.China Site: 966 chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Job No.: ALEN #537

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

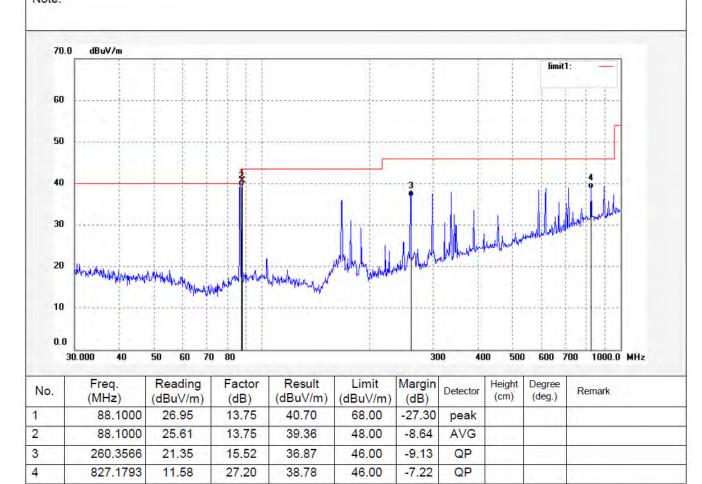
Temp.( C)/Hum.(%) 23 C / 49 % EUT: Hipstreet FM Transmitter

Mode: FM 88.1MHz(SD)
Model: HS-FMT172LCD
Manufacturer: Kobian

Polarization: Horizontal

Power Source: DC 12V

Date: 12/11/17/ Time: 9/28/22 Engineer Signature: Distance: 3m





F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park,Nanshan Shenzhen,P.R.China Site: 966 chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Job No.: ALEN #538

Standard: FCC Class B 3M Radiated

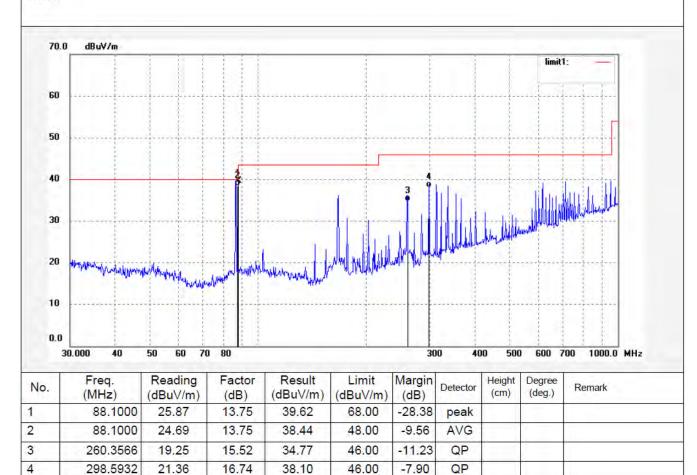
Test item: Radiation Test

Temp.( C)/Hum.(%) 23 C / 49 % EUT: Hipstreet FM Transmitter

Mode: FM 88.1MHz(SD)
Model: HS-FMT172LCD
Manufacturer: Kobian

Polarization: Vertical Power Source: DC 12V

Date: 12/11/17/ Time: 9/30/29 Engineer Signature: Distance: 3m





F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park,Nanshan Shenzhen,P.R.China Site: 966 chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Job No.: ALEN #539

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

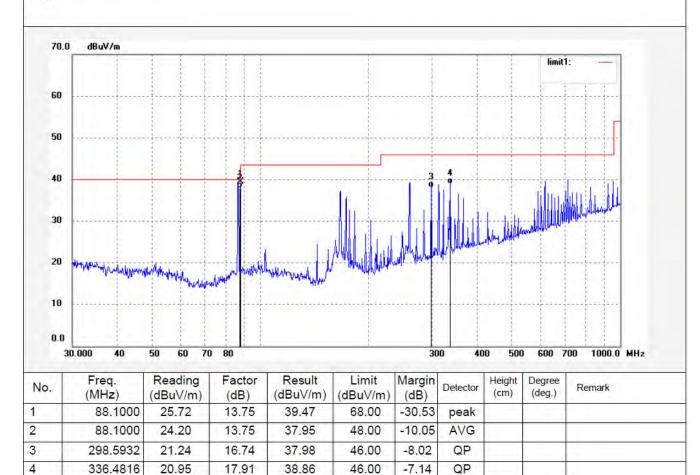
Temp.( C)/Hum.(%) 23 C / 49 % EUT: Hipstreet FM Transmitter

Mode: FM 88.1MHz(USB)
Model: HS-FMT172LCD
Manufacturer: Kobian

Polarization: Vertical
Power Source: DC 12V

Date: 12/11/17/ Time: 9/33/29 Engineer Signature:

Distance: 3m





F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park,Nanshan Shenzhen,P.R.China Site: 966 chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Job No.: ALEN #540

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

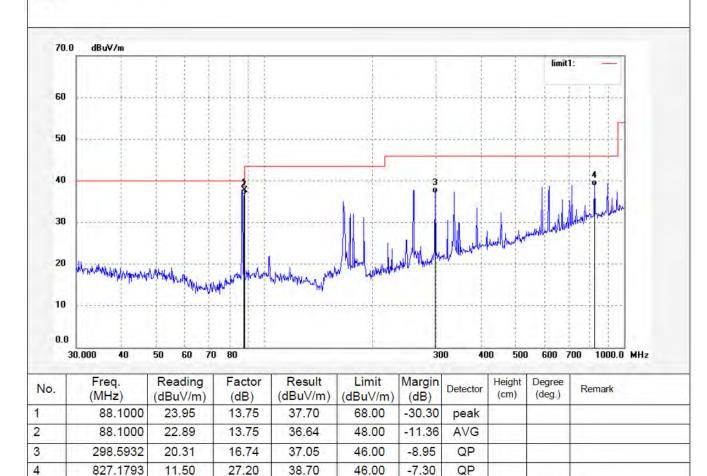
Temp.( C)/Hum.(%) 23 C / 49 % EUT: Hipstreet FM Transmitter

Mode: FM 88.1MHz(USB)
Model: HS-FMT172LCD
Manufacturer: Kobian

Polarization: Horizontal

Power Source: DC 12V

Date: 12/11/17/ Time: 9/34/22 Engineer Signature: Distance: 3m





F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park,Nanshan Shenzhen,P.R.China Site: 966 chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Job No.: ALEN #541

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.( C)/Hum.(%) 23 C / 49 % EUT: Hipstreet FM Transmitter

Mode: FM 98.1MHz(USB)
Model: HS-FMT172LCD
Manufacturer: Kobian

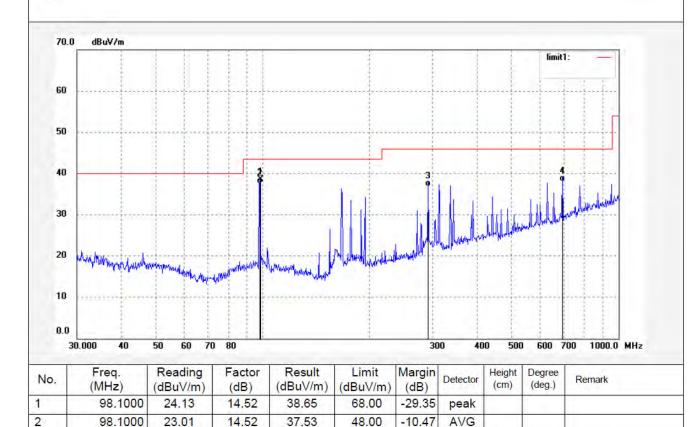
Polarization: Horizontal

Power Source: DC 12V

Date: 12/11/17/ Time: 9/36/08 Engineer Signature:

Distance: 3m

Note:



46.00

46.00

QP

QP

-9.15

-7.97

3

4

292,3643

696.3523

20.25

13.21

16.60

24.82

36.85

38.03



F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park,Nanshan Shenzhen,P.R.China Site: 966 chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Job No.: ALEN #542

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.( C)/Hum.(%) 23 C / 49 % EUT: Hipstreet FM Transmitter

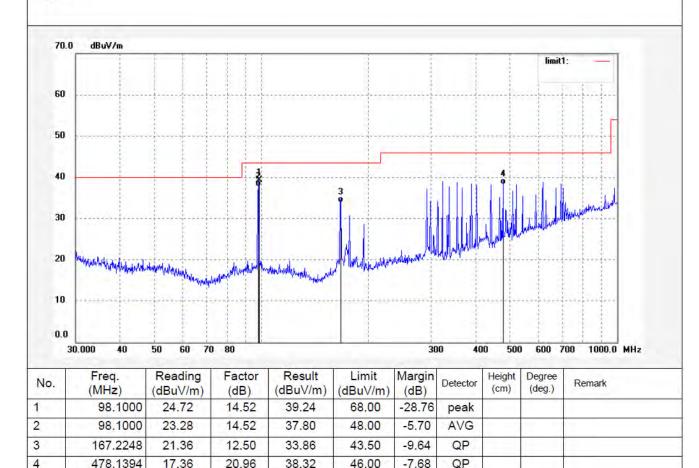
Model: FM 98.1MHz(USB)
Model: HS-FMT172LCD
Manufacturer: Kobian

Polarization: Vertical

Power Source: DC 12V

Date: 12/11/17/ Time: 9/37/14 Engineer Signature:

Distance: 3m





F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park,Nanshan Shenzhen,P.R.China Site: 966 chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Job No.: ALEN #543

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

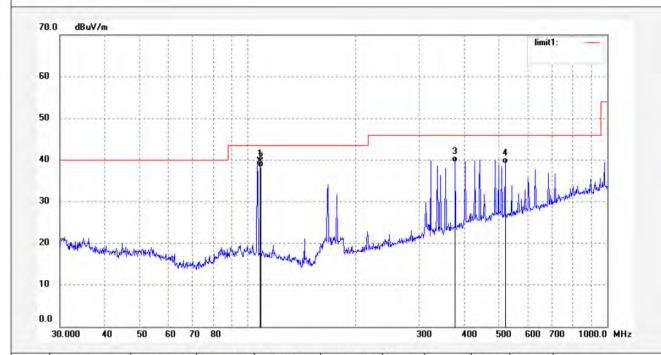
Temp.( C)/Hum.(%) 23 C / 49 % EUT: Hipstreet FM Transmitter Mode: FM107.9MHz(USB)

Mode: FM107.9MHz(USB)
Model: HS-FMT172LCD
Manufacturer: Kobian

Polarization: Vertical Power Source: DC 12V

Date: 12/11/17/ Time: 9/39/01 Engineer Signature:

Distance: 3m



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark	
1	107.9000	25.75	13.95	39.70	68.00	-28.30	peak				
2	107.9000	24.32	13.95	38.27	48.00	-9.73	AVG				
3	377.8480	20.68	18.80	39.48	46.00	-6.52	QP				
4	520.2078	17.04	22.08	39.12	46.00	-6.88	QP	11			



F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park,Nanshan Shenzhen,P.R.China Site: 966 chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Job No.: ALEN #544

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.( C)/Hum.(%) 23 C / 49 %
EUT: Hipstreet FM Transmitter
Mode: FM107.9MHz(USB)
Model: HS-FMT172LCD

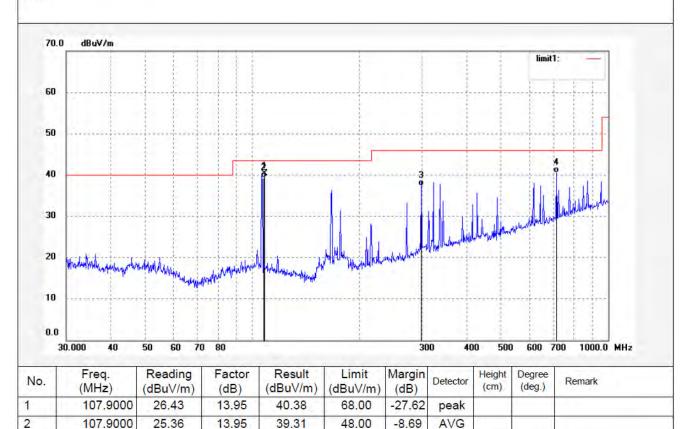
Manufacturer: Kobian

Polarization: Horizontal Power Source: DC 12V

Date: 12/11/17/ Time: 9/40/49 Engineer Signature:

Distance: 3m

Note:



46.00

46.00

-8.58

-5.54

QP

QP

3

4

298.5932

716.2038

20.68

15.30

16.74

25.16

37.42

40.46



F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park,Nanshan Shenzhen,P.R.China Site: 966 chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Job No.: ALEN #610

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

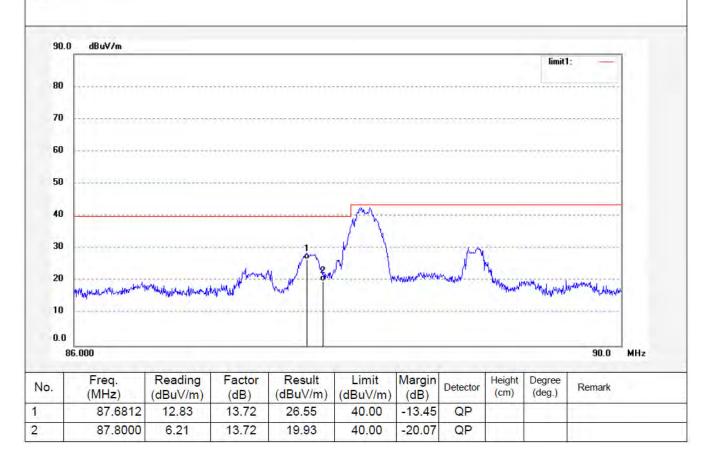
Temp.( C)/Hum.(%) 23 C / 49 % EUT: Hipstreet FM Transmitter Mode: FM 88.1MHz(Line in)

Model: HS-FMTI72LCD Manufacturer: Kobian Polarization: Vertical

Power Source: DC 12V Date: 12/11/17/

Time: 9/31/01 Engineer Signature:

Distance: 3m





F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park,Nanshan Shenzhen,P.R.China

uan Rd, Tel:+86-0755-26503290 P.R.China Fax:+86-0755-26503396

Site: 966 chamber

Job No.: ALEN #609

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.( C)/Hum.(%) 23 C / 49 % EUT: Hipstreet FM Transmitter Mode: FM 88.1MHz(Line in)

Model: HS-FMTI72LCD Manufacturer: Kobian Polarization: Horizontal Power Source: DC 12V

Date: 12/11/17/ Time: 9/30/31 Engineer Signature:

Distance: 3m





F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park,Nanshan Shenzhen,P.R.China Site: 966 chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Job No.: ALEN #608

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.( C)/Hum.(%) 23 C / 49 %
EUT: Hipstreet FM Transmitter
Mode: FM 107.9MHz(Line in)

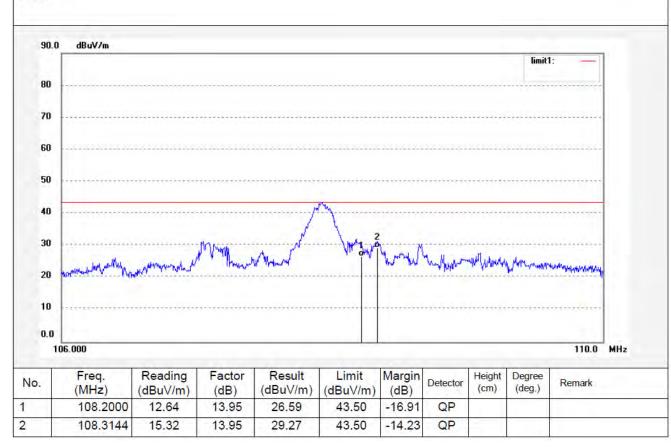
Model: HS-FMTI72LCD
Manufacturer: Kobian

Polarization: Horizontal

Power Source: DC 12V

Date: 12/11/17/ Time: 10/29/16 Engineer Signature:

Distance: 3m





F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park,Nanshan Shenzhen,P.R.China Site: 966 chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Job No.: ALEN #607

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

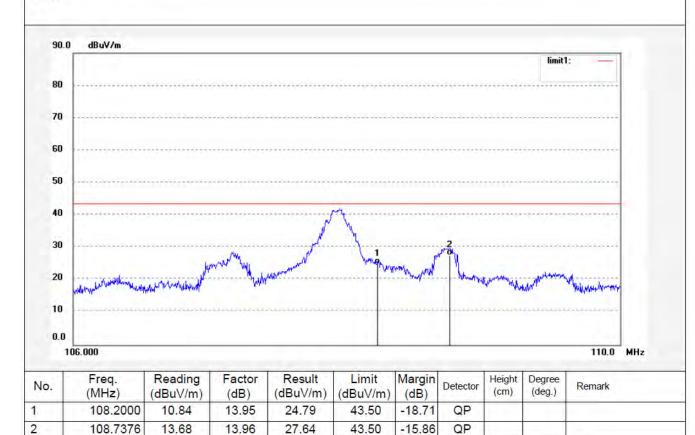
Temp.( C)/Hum.(%) 23 C / 49 %
EUT: Hipstreet FM Transmitter
Mode: FM 107.9MHz(Line in)

Model: HS-FMTI72LCD Manufacturer: Kobian Polarization: Vertical

Power Source: DC 12V

Date: 12/11/17/ Time: 10/28/45 Engineer Signature:

Distance: 3m





F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park,Nanshan Shenzhen,P.R.China Site: 966 chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Job No.: ALEN #597

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.( C)/Hum.(%) 23 C / 49 % EUT: Hipstreet FM Transmitter

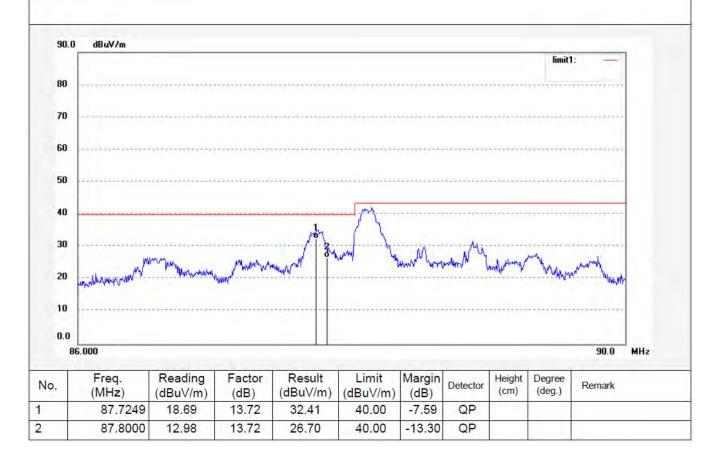
Mode: FM 88.1MHz(USB)
Model: HS-FMTI72LCD
Manufacturer: Kobian

Polarization: Horizontal

Power Source: DC 12V

Date: 12/11/17/
Time: 9/31/54
Engineer Signature:
Distance: 3m

HS-FMITIZECD





F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park,Nanshan Shenzhen,P.R.China Site: 966 chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Job No.: ALEN #598

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.( C)/Hum.(%) 23 C / 49 %
EUT: Hipstreet FM Transmitter
Mode: FM 88.1MHz(USB)

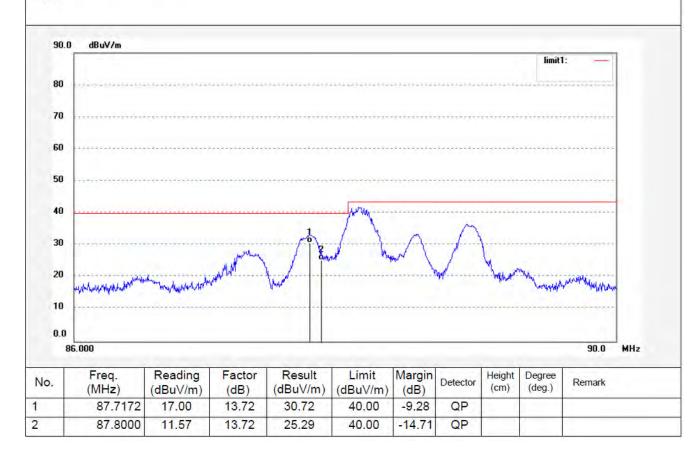
Model: HS-FMTI72LCD
Manufacturer: Kobian

Polarization: Vertical

Power Source: DC 12V

Date: 12/11/17/ Time: 9/33/12 Engineer Signature:

Distance: 3m





F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park,Nanshan Shenzhen,P.R.China Site: 966 chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Job No.: ALEN #599

Manufacturer: Kobian

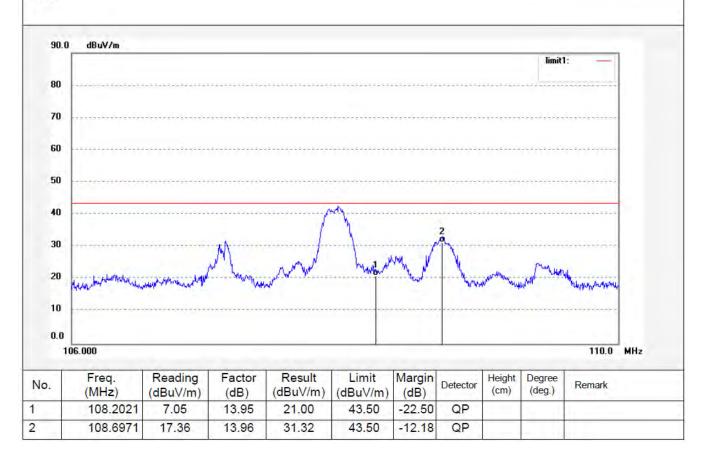
Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.( C)/Hum.(%) 23 C / 49 %
EUT: Hipstreet FM Transmitter
Mode: FM 107.9MHz(USB)
Model: HS-FMTI72LCD

Polarization: Vertical Power Source: DC 12V

Date: 12/11/17/ Time: 9/35/09 Engineer Signature: Distance: 3m





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Site: 966 chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.( C)/Hum.(%) 23 C / 49 % EUT: Hipstreet FM Transmitter

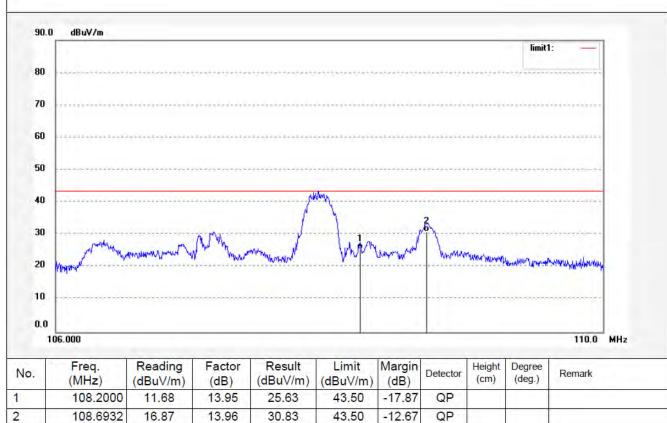
Mode: FM 107.9MHz(USB) Model: HS-FMTI72LCD Manufacturer: Kobian

Polarization: Horizontal Power Source: DC 12V

Date: 12/11/17/ Time: 9/35/39

Engineer Signature:

Distance: 3m





F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park,Nanshan Shenzhen,P.R.China Site: 966 chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Job No.: ALEN #595

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.( C)/Hum.(%) 23 C / 49 % EUT: Hipstreet FM Transmitter

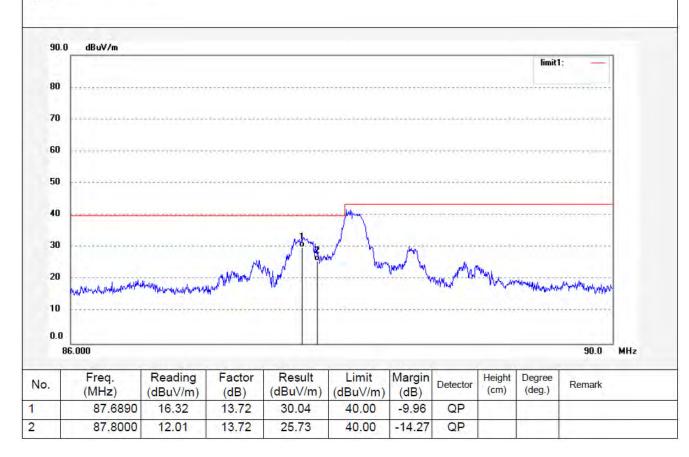
Mode: FM 88.1MHz(SD)
Model: HS-FMTI72LCD
Manufacturer: Kobian

Polarization: Vertical

Power Source: DC 12V

Date: 12/11/17/ Time: 9/30/03 Engineer Signature:

Distance: 3m





F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park,Nanshan Shenzhen,P.R.China Site: 966 chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Job No.: ALEN #596

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.( C)/Hum.(%) 23 C / 49 % EUT: Hipstreet FM Transmitter

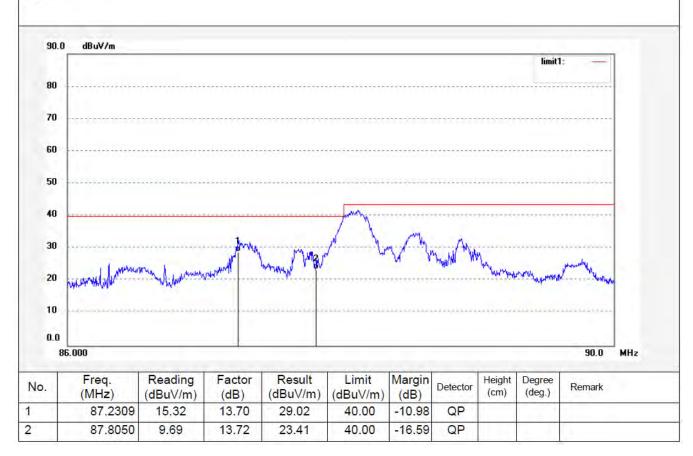
Mode: FM 88.1MHz(SD)
Model: HS-FMTI72LCD
Manufacturer: Kobian

Polarization: Horizontal

Power Source: DC 12V

Date: 12/11/17/ Time: 9/30/39 Engineer Signature:

Distance: 3m





F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park,Nanshan Shenzhen,P.R.China Site: 966 chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Job No.: ALEN #594

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.( C)/Hum.(%) 23 C / 49 % EUT: Hipstreet FM Transmitter

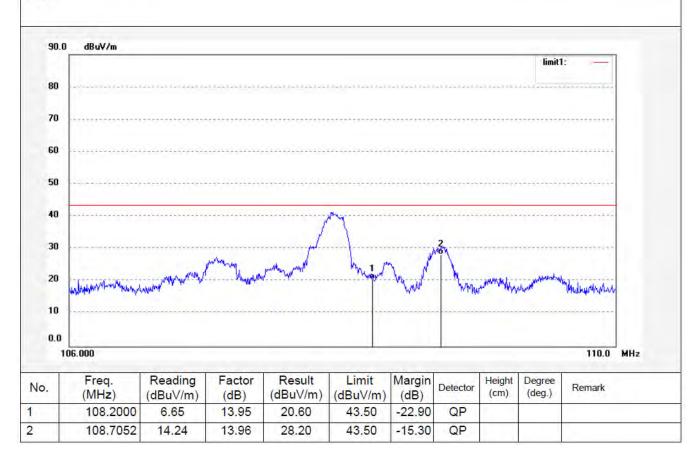
Mode: FM 107.9MHz(SD)
Model: HS-FMTI72LCD
Manufacturer: Kobian

Polarization: Vertical

Power Source: DC 12V

Date: 12/11/17/ Time: 9/27/48 Engineer Signature:

Distance: 3m





F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park,Nanshan Shenzhen,P.R.China Site: 966 chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Job No.: ALEN #593

Standard: FCC Class B 3M Radiated

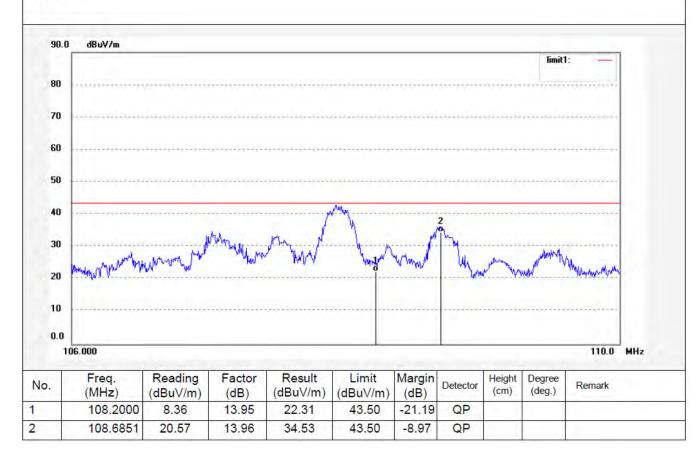
Test item: Radiation Test

Temp.( C)/Hum.(%) 23 C / 49 % EUT: Hipstreet FM Transmitter

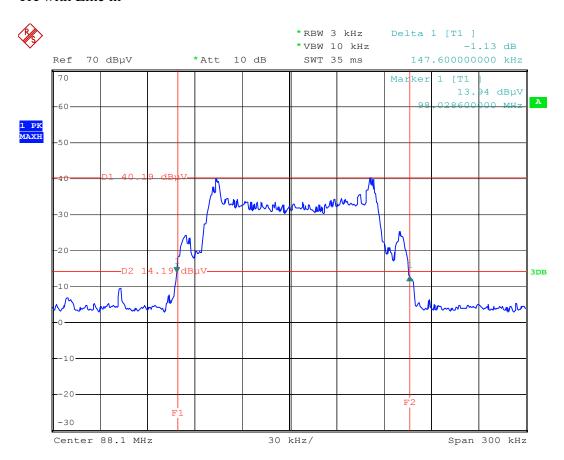
Mode: FM 107.9MHz(SD)
Model: HS-FMTI72LCD
Manufacturer: Kobian

Polarization: Horizontal Power Source: DC 12V

Date: 12/11/17/
Time: 9/27/17
Engineer Signature:
Distance: 3m

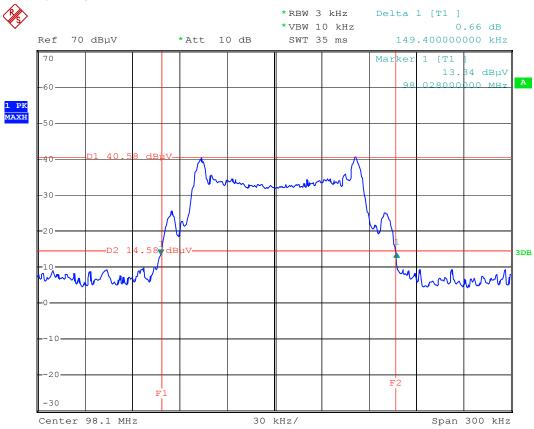


#### TX with Line in



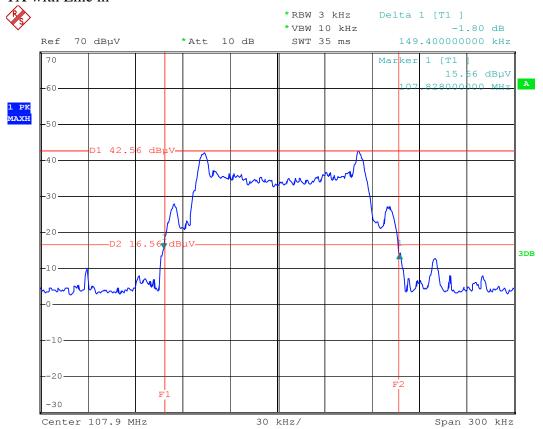
Date: 21.NOV.2012 17:23:18

# TX with Line in



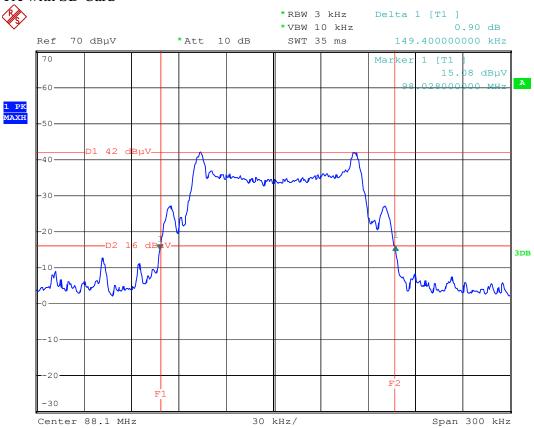
Date: 21.NOV.2012 17:07:40

#### TX with Line in



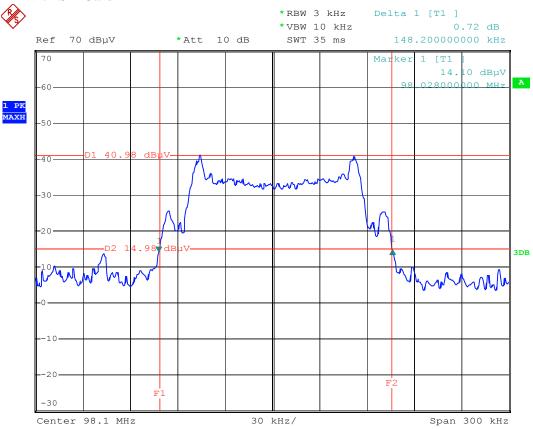
Date: 21.NOV.2012 16:14:11

#### TX with SD Card

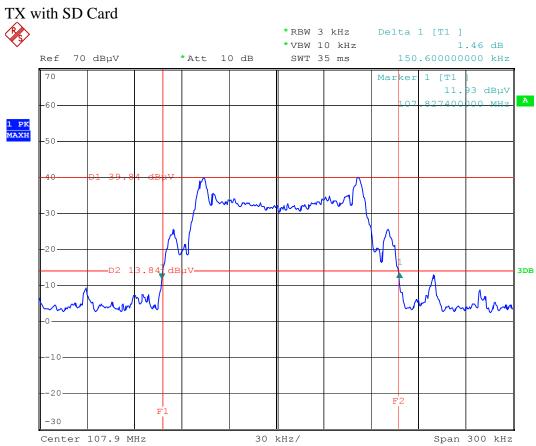


Date: 21.NOV.2012 17:25:20

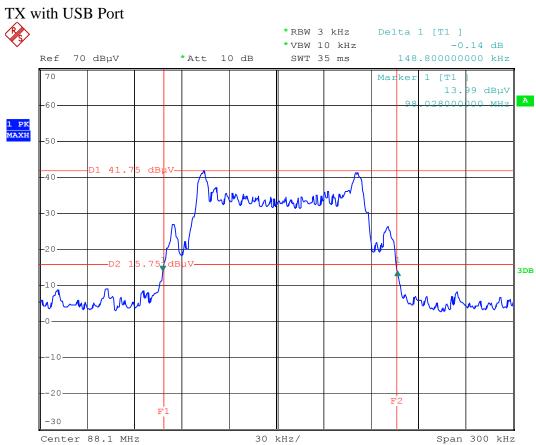
# TX with SD Card



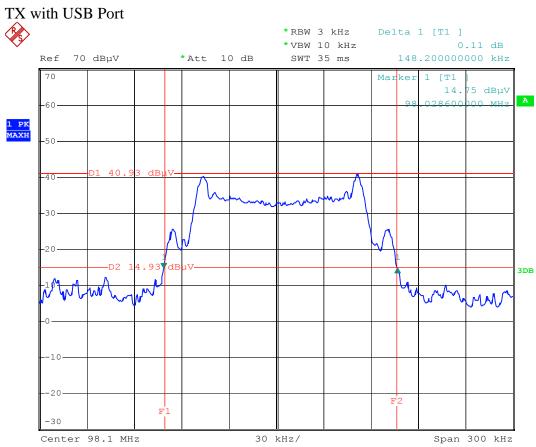
Date: 21.NOV.2012 17:09:40



Date: 21.NOV.2012 16:16:15

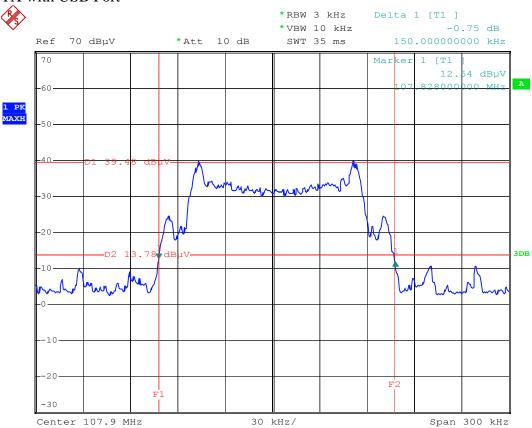


Date: 21.NOV.2012 17:27:19



Date: 21.NOV.2012 17:11:31

#### TX with USB Port



Date: 21.NOV.2012 16:20:42