HYUNDAI CALIBRATION & CERTIFICATION TECH. CO., LTD.

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CERTIFICATE OF COMPLIANCE

FCC Part 15C Certification

KTF Technologies Co., Ltd.

9th Fl. Shinyoung Tower 265-3(4), Seohyun-Dong, Bundang-Gu, Sungnam-City, Kyunggi-Do, Korea 463-769

FRN: 0011287885

Date of Issue : January 09, 2006
Test Report No.: HCT-SAR06-0102
Test Site: HYUNDAI CALIBRATION & CERTIFICATION TECHNOLOGIES CO., LTD.
FRN: 0005866421

FCC ID : **SDJKTFT-UV100**
APPLICANT : KTF Technologies Co., Ltd

Applicant:	KTF Technologies Co., Ltd.
EUT:	Dual Band CDMA Phone with Bluetooth
Trade Name:	KTFT
Model:	KTFT-UV100
Frequency Range:	2402 — 2480 MHz (Bluetooth)
Max. RF Output Power:	0.0023W Bluetooth (3.66dBm)
Date of Test:	December 21, 2005- January 11, 2006
Application Type:	Certification

This equipment has been shown to be capable of compliance with the applicable technical standards as indicated in the measurement report and was tested in accordance with the measurement procedures specified in ∮ 2.947.

I attest to the accuracy of data. All measurements reported herein were performed by me or were made under my supervision and are correct to the best of my knowledge and belief. I assume full responsibility for the completeness of these measurements and vouch for the qualifications of all persons taking them.

Hyundai C-Tech Co., Ltd. Certifies that no party to this application has been denied FCC benefits pursuant to section 5301 of the Anti- Drug Abuse Act of 1998, 21 U.S. C. 853(a)

Report prepared by: Ki-Soo Kim

Manager of Product Compliance Team

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1. TEST RESULT CERTIFICATION

Applicant: KTF Technologies Co., Ltd.
9th Fl. Shinyoung Tower 265-3(4), Seohyun-Dong,
Bundang-Gu, Sungnam-City, Kyunggi-Do, 463-769 Korea

EUT: Dual Band CDMA Phone with Bluetooth

Trade Name: KTFT

Model: KTFT-UV100

Date of Test: December 21, 2005- January 11, 2006

2. EUT DESCRIPTION

Product	Dual Band CDMA Phone with Bluetooth
Trade Name	KTFT
Model	KTFT-UV100
Power Supply	DCV power from the battery
Frequency Range	2402 ~ 2480 MHz
Transmit Power	3.66 dBm
Modulation Technique	FHSS(GMSK)
Number of Channels	79 Channels
Antenna Specification	Built in Antenna Gain: -4.78 dBi (max)

3. TEST METHODOLOGY

The tests documented in this report were performed in accordance with ANSI C63.4. Radiated testing was performed at an antenna to EUT distance 3 meters.

3.1 EUT CONFIGURATION

The EUT configuration for testing is installed on RF field strength measurement to meet the Commissions requirement and operating in a manner that intends to maximize its emission characteristics in a continuous normal application.

3.2 EUT EXERCISE

The EUT was operated in the engineering mode to fix the Tx frequency that was for the purpose of the measurements. According to its specifications, the EUT must comply with the requirements of the Section 15.207, 15.209 and 15.247 under the FCC Rules Part 15 Subpart C.

3.3 GENERAL TEST PROCEDURES

Conducted Emissions

The EUT is placed on the turntable, which is 0.8 m above ground plane. According to the requirements in Section 13.1.4.1 of ANSI C63.4.Conducted emissions from the EUT measured in the frequency range between 0.15 MHz and 30MHz using CISPR Quasi-peak and average detector modes.

Radiated Emissions

The EUT is placed on a turn table, which is 0.8 m above ground plane. The turntable shall rotate 360 degrees to determine the position of maximum emission level. EUT is set 3m away from the receiving antenna, which varied from 1m to 4m to find out the highest emission. And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical. In order to find out the max. emission, the relative positions of this hand-held transmitter (EUT) was rotated through three orthogonal axes according to the requirements in Section 13.1.4.1 of ANSI C63.4.

3.4 DESCRIPTION OF TEST MODES

The EUT has been tested under operating condition. Test program used to control the EUT for staying in continuous transmitting and receiving mode is programmed.

Channel low, mid and high with highest data rate (worst case) are chosen for full testing.

4. INSTRUMENT CALIBRATION

The measuring equipment, which was utilized in performing the tests documented herein, has been calibrated in accordance with the manufacturer's recommendations for utilizing calibration equipment, which is traceable to recognized national standards.

5. FACILITIES AND ACCREDITATIONS

5.1 FACILITIES

The open area test site and conducted measurement facility used to collect the radiated data are located at the 254-1,Maekok-Ri, Hobup-Myun, Ichon-Si, Kyoungki-Do, 467-701, KOREA. The site is constructed in conformance with the requirements of ANSI C63.4 and CISPR Publication 22. Detailed description of test facility was submitted to the Commission and accepted dated July 23, 2003(Registration Number: 90661)

5.2 EQUIPMENT

Radiated emissions are measured with one or more of the following types of Linearly polarized antennas: tuned dipole, biconical, log periodic, bi-log, and/or ridged waveguide, horn. Spectrum analyzers with pre-selectors and quasi-peak detectors are used to perform radiated measurements.

Conducted emissions are measured with Line Impedance Stabilization Networks and EMI Test Receivers.

Calibrated wideband preamplifiers, coaxial cables, and coaxial attenuators are also used for making measurements.

All receiving equipment conforms to CISPR Publication 16-1, “Radio Interference Measuring Apparatus and Measurement Methods.”

6. SETUP OF EQUIPMENT UNDER TEST

6.1 SETUP CONFIGURATION OF EUT

See test photographs attached in Appendix 1 for the actual connections between EUT and support equipment.

7. FCC PART 15.247 REQUIREMENTS

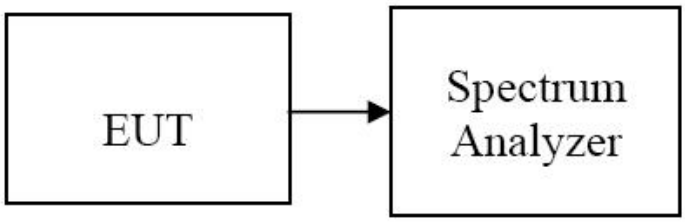
7.1 PEAK POWER

LIMIT

The maximum peak output power of the intentional radiator shall not exceed the following:

1. For systems using digital modulation in the bands of 902-928 MHz, 2400-2483.5 MHz, and 5725-5850 MHz: 1 watt.
2. Except as shown in paragraphs (b)(3) (i), (ii) and (iii) of this section, if transmitting antennas of directional gain greater than 6 dBi are used the peak output power from the intentional radiator shall be reduced below the stated values in paragraphs (b)(1) or (b)(2) of this section, as appropriate, by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

Test Configuration



TEST PROCEDURE

The transmitter output is connected to the RF Power Meter. The RF Power Meter is set to the peak power detection.

TEST RESULTS

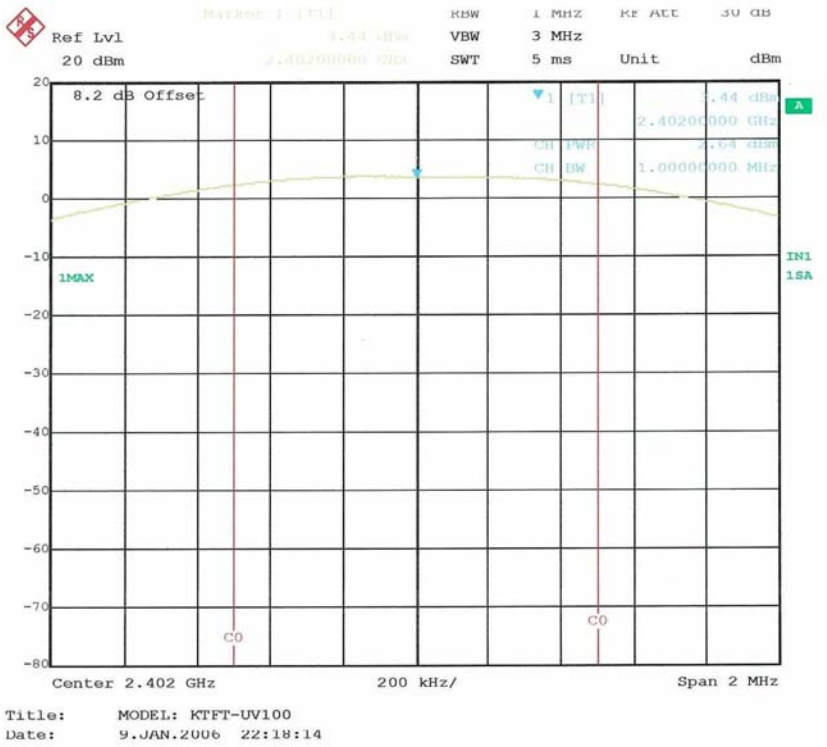
No non-compliance noted

Test Data

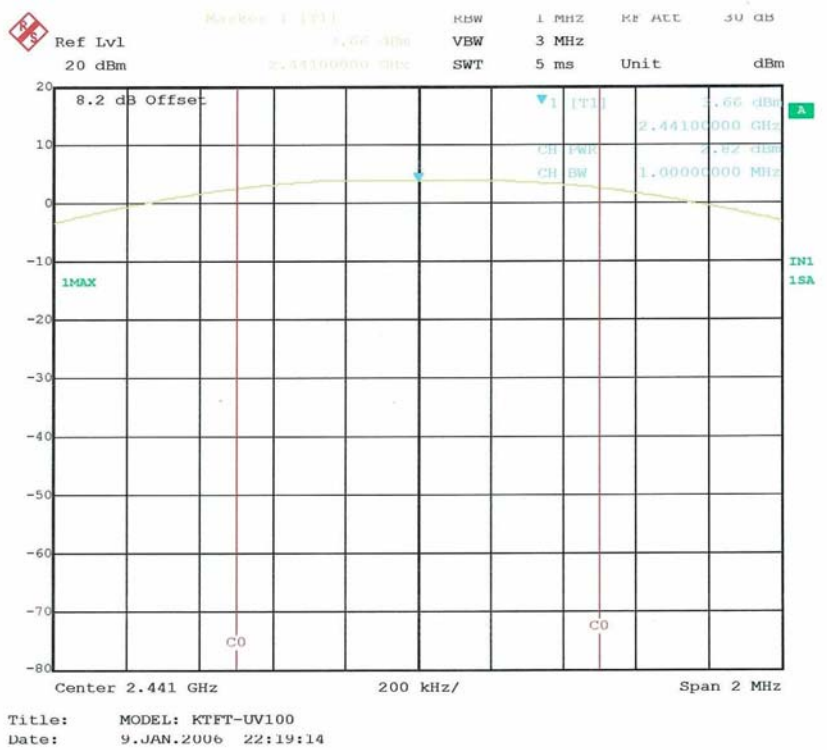
Channel	Frequency (MHz)	Reading Power (dBm)	Factor (dB)	Output Power (dBm)	Output Power (W)	Limit (W)	Result
Low	2402	-4.76	8.2	3.44	0.00221	1	PASS
Mid	2440	-4.54	8.2	3.66	0.00232		PASS
High	2480	-5.34	8.2	2.86	0.00193		PASS

Test Plot

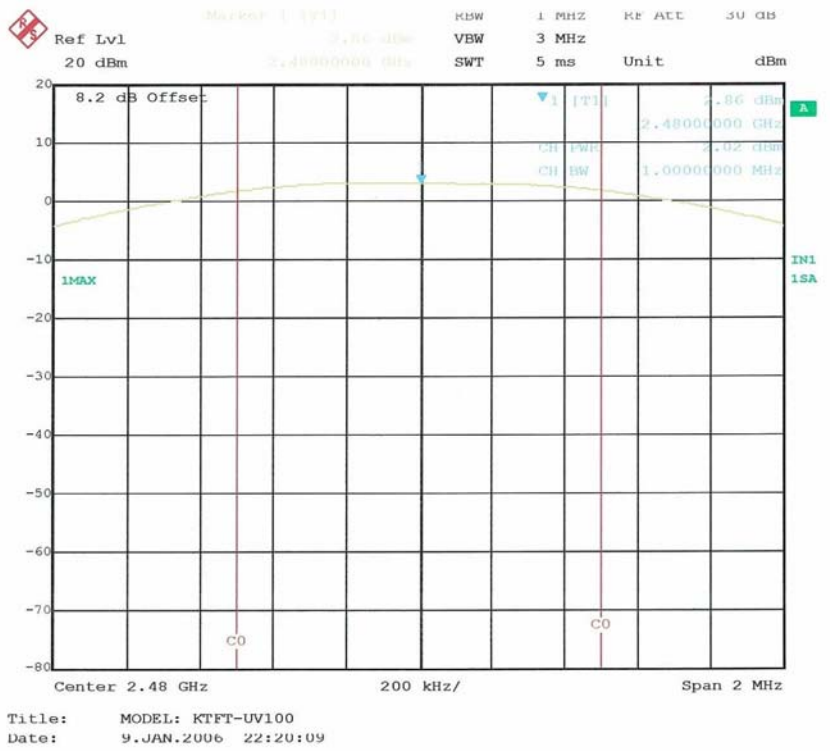
Peak Power (CH Low)



Peak Power (CH Mid)



Peak Power (CH High)

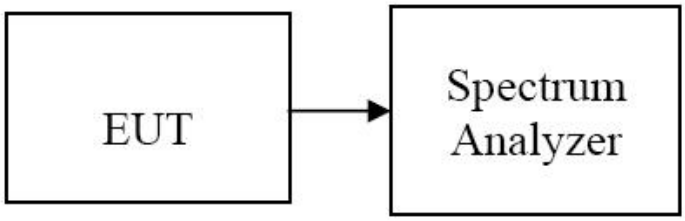


7.2 PEAK POWER SPECTRAL DENSITY

LIMIT

1. For direct sequence systems, the peak 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.
2. The direct sequence operating of the hybrid system, with the frequency hopping operation turned off, shall comply with the power density requirements of paragraph (d) of this section.

Test Configuration



TEST PROCEDURE

1. Place the EUT on the table and set it in transmitting mode.
2. Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to the spectrum analyzer.
3. Set the spectrum analyzer as RBW = 3kHz, VBW = 10kHz, Span = 300kHz, Sweep=100s
4. Record the max. reading.
5. Repeat the above procedure until the measurements for all frequencies are completed.

TEST RESULTS

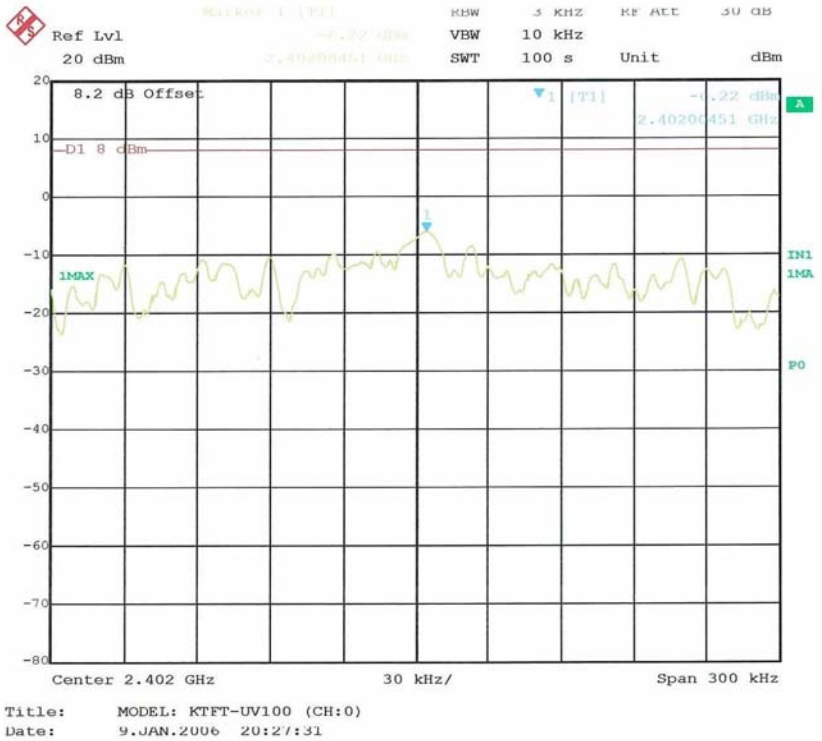
No non-compliance noted

Test Data

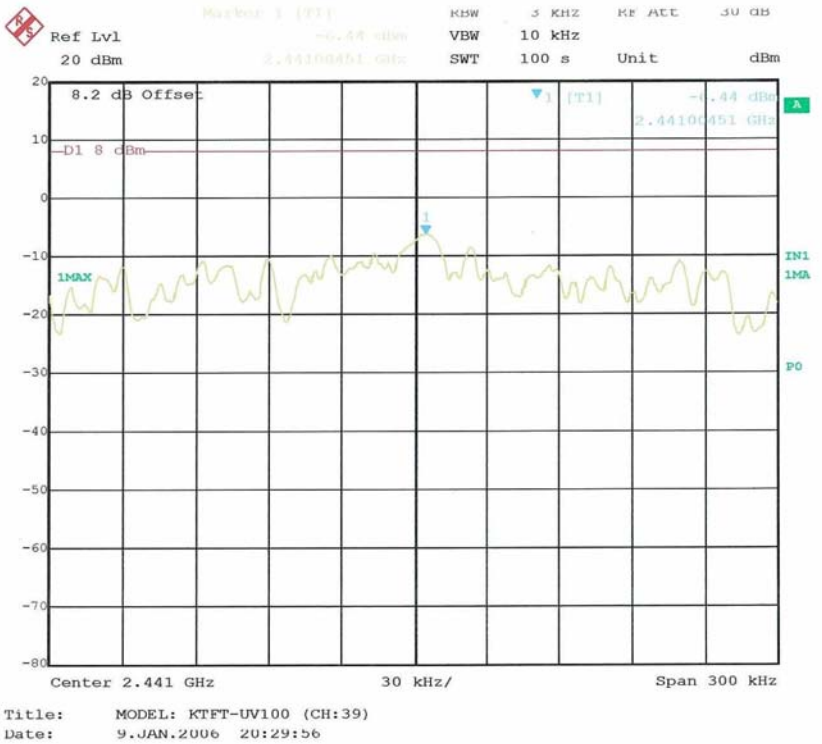
Channel	Frequency (MHz)	Reading Power (dBm)	Factor (dB)	Output Power (dBm)	Limit (dBm)	Result
Low	2402	-14.44	8.2	-6.22	8.0	PASS
Mid	2440	-14.64	8.2	-6.44		PASS
High	2480	-19.66	8.2	-7.46		PASS

Test Plot

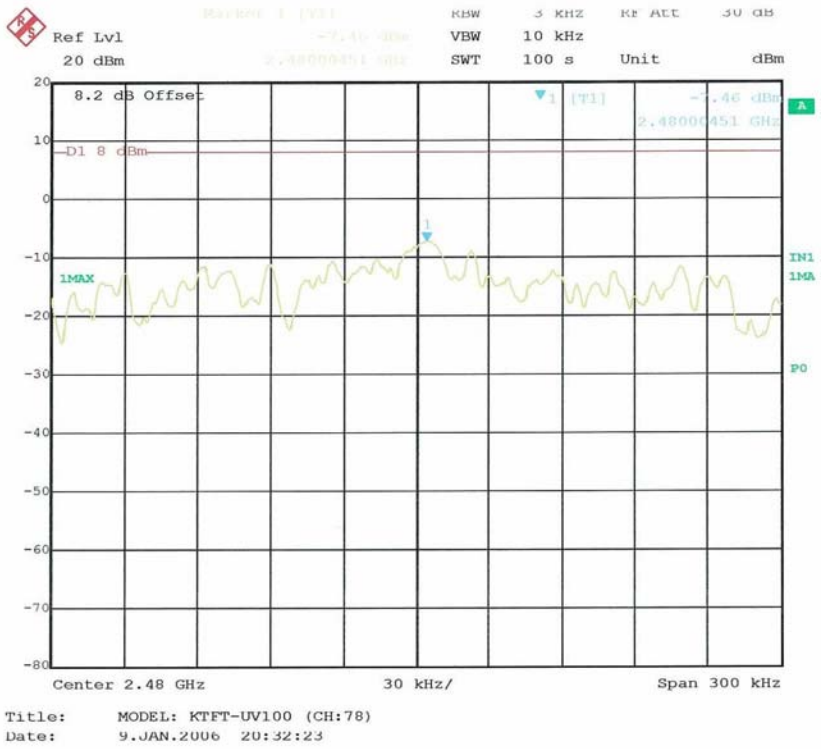
PPSD (CH Low)



PPSD (CH Mid)



PPSD (CH High)

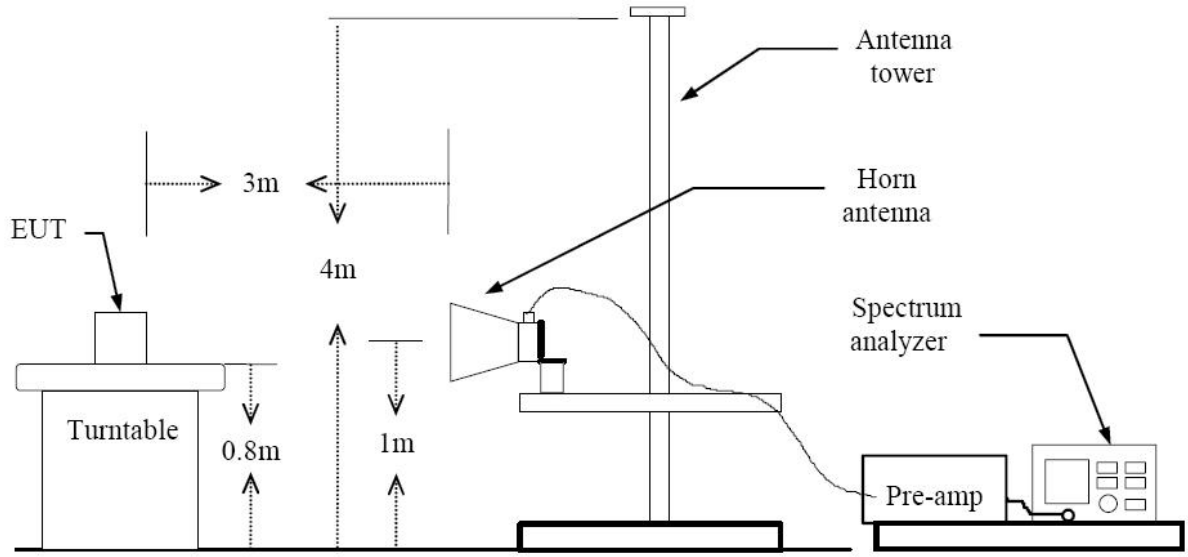

Ref Lvl
20 dBm
RBW 3 kHz
VBW 10 kHz
SWT 100 s
Unit dBm
8.2 dB Offset
D1 8 dBm
1MAX
Center 2.48 GHz
30 kHz/
Span 300 kHz
Title: MODEL: KTFT-UV100 (CH:78)
Date: 9.JAN.2006 20:32:23

7.3 BAND EDGES MEASUREMENT

LIMIT

According to §15.247(c), in any 100 kHz bandwidth outside the frequency bands in which the spread spectrum intentional radiator in operating, the radio frequency power that is produced by the intentional radiator shall be at least 20dB below that in the 100kHz bandwidth within the band that contains the highest level of the desired power, In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in15.209(a).

Test Configuration



TEST PROCEDURE

1. The EUT is placed on a turntable, which is 0.8m above the ground plane.
2. The turntable shall be 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=VBW=1MHz / Sweep=AUTO
   (b) AVERAGE: RBW=1MHz / VBW=10Hz / Sweep=AUTO
5. Repeat the procedures until all the PEAK and AVERAGE versus POLARIZATION are measured.

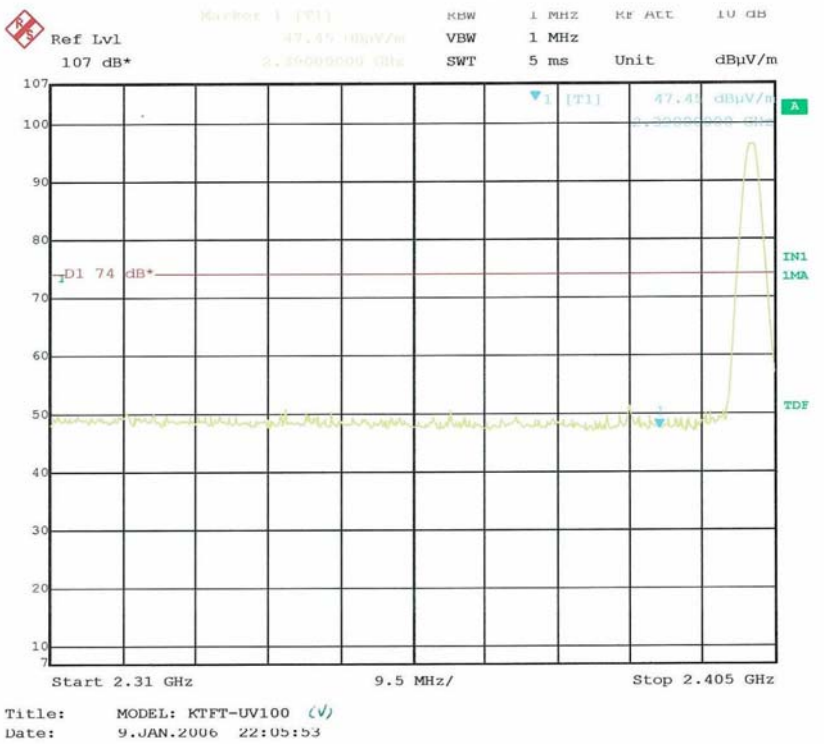
TEST RESULTS

Refer to attach spectrum analyzer data chart.

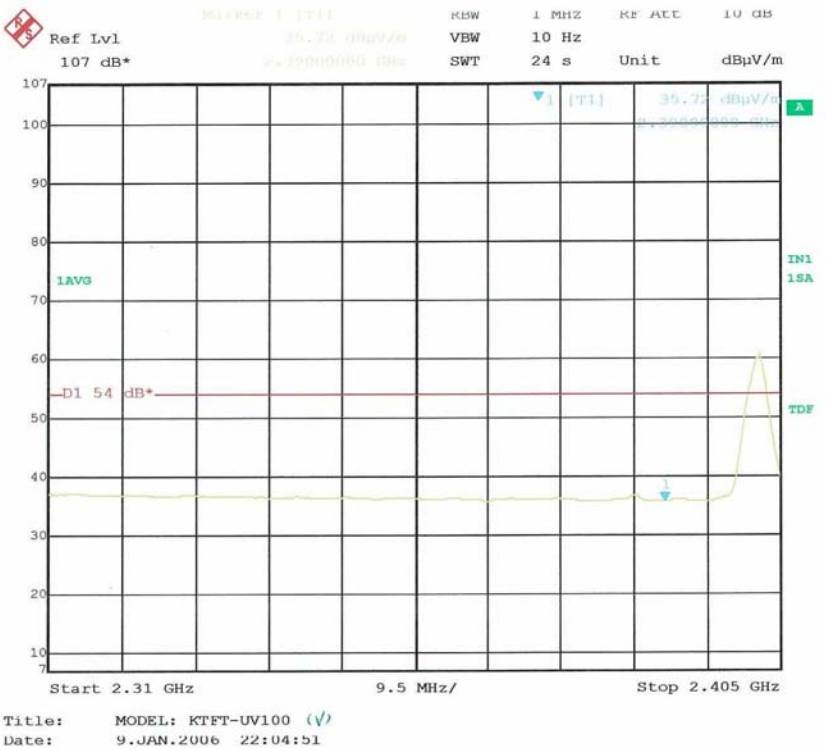
Test Data

Band Edges (CH-Low)

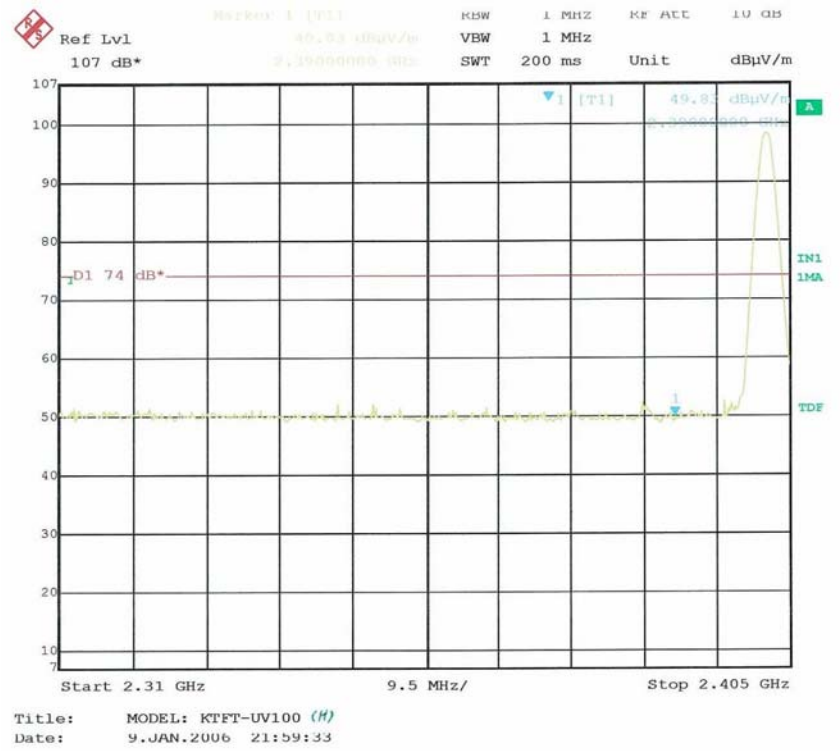
Detector mode: Peak **Polarity: Vertical**



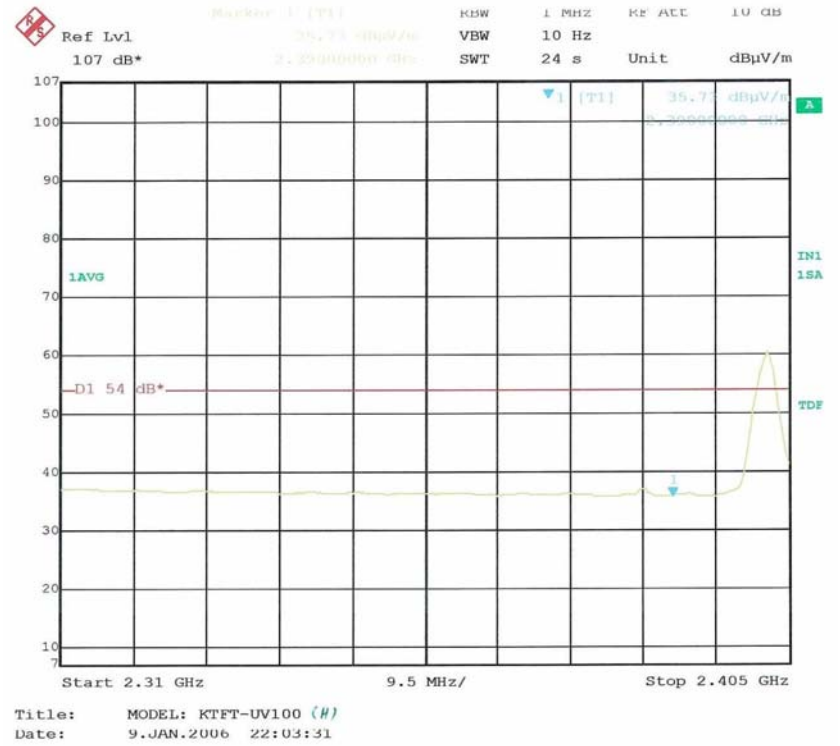
Detector mode: Average **Polarity: Vertical**



Detector mode: Peak **Polarity: Horizontal**

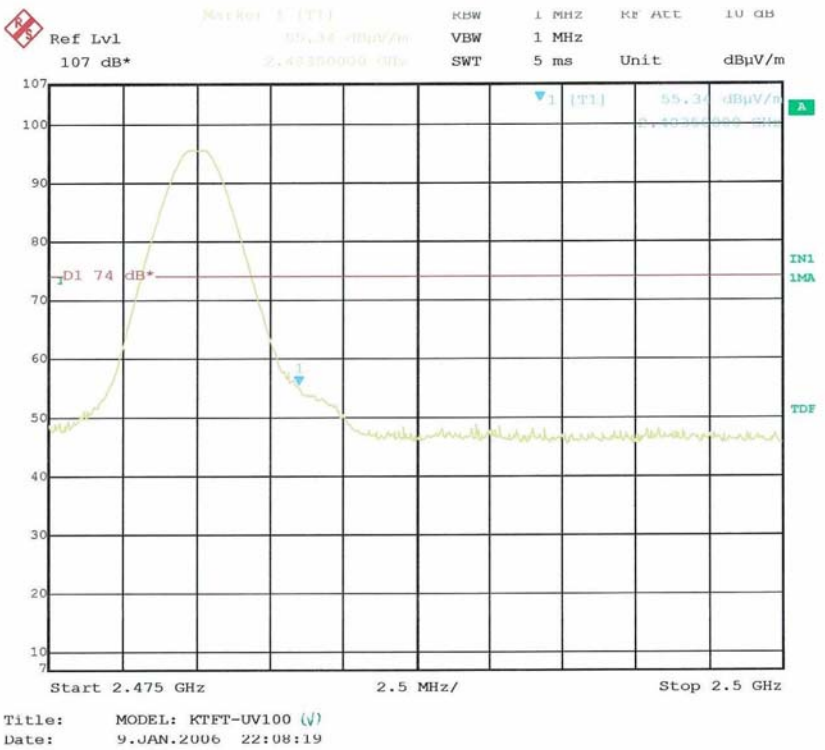


Detector mode: Average **Polarity: Horizontal**

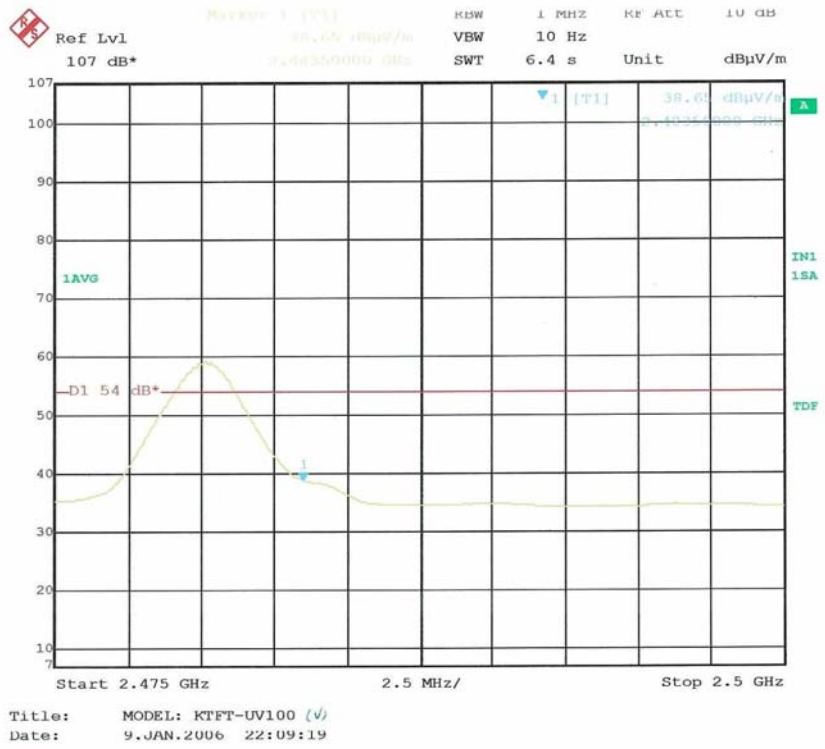


Band Edges (CH-High)

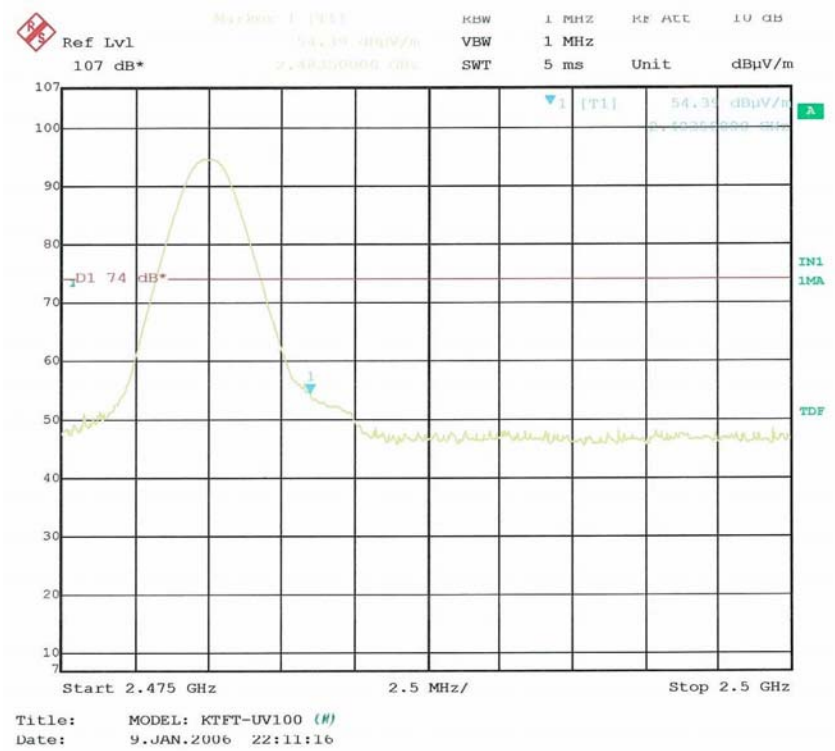
Detector mode: Peak **Polarity: Vertical**



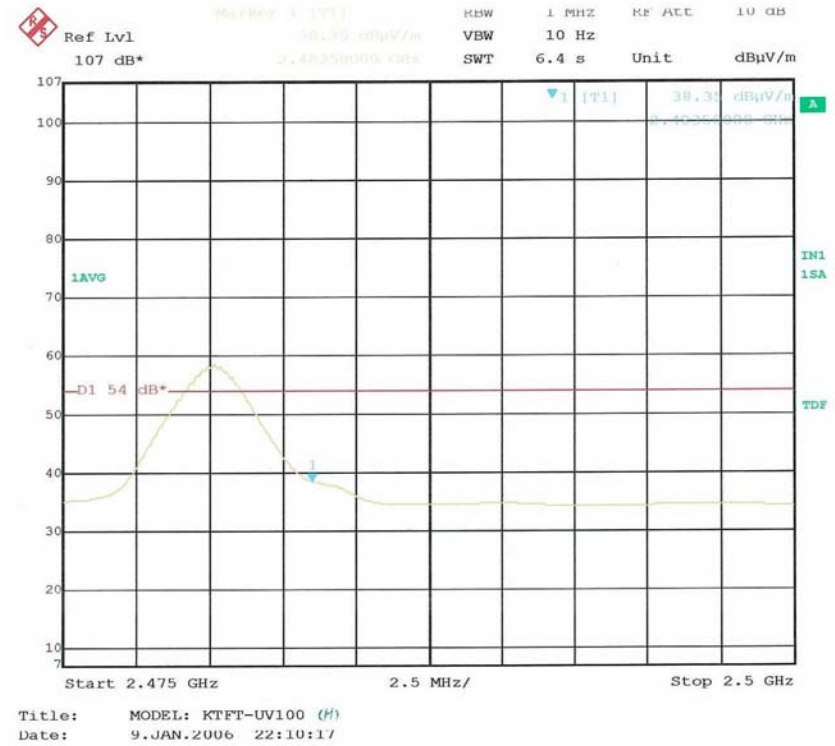
Detector mode: Average **Polarity: Vertical**



Detector mode: Peak **Polarity: Horizontal**



Detector mode: Average **Polarity: Horizontal**

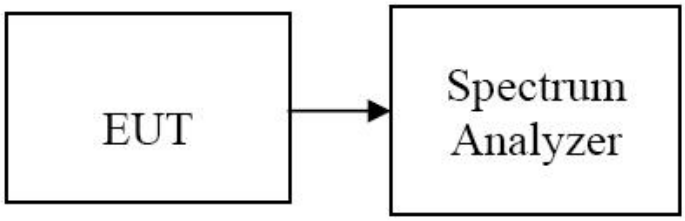


7.4 FREQUENCY SEPARATION

LIMIT

According to §15.247(a)(1), Frequency hopping systems shall have hopping channel carrier frequencies separated by minimum of 25kHz or the 20dB bandwidth of the hopping channel, whichever is greater.

Test Configuration



TEST PROCEDURE

1. Place the EUT on the table and set it in transmitting mode.
2. Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to the spectrum analyzer.
3. Set center frequency of spectrum analyzer = middle of hopping channel.
4. Set the spectrum analyzer as RBW, VBW=100kHz, Adjust Span to 5 MHz, Sweep = auto.
5. Max hold. Mark 3 Peaks of hopping channel and record the 3 peaks frequency.

TEST RESULTS

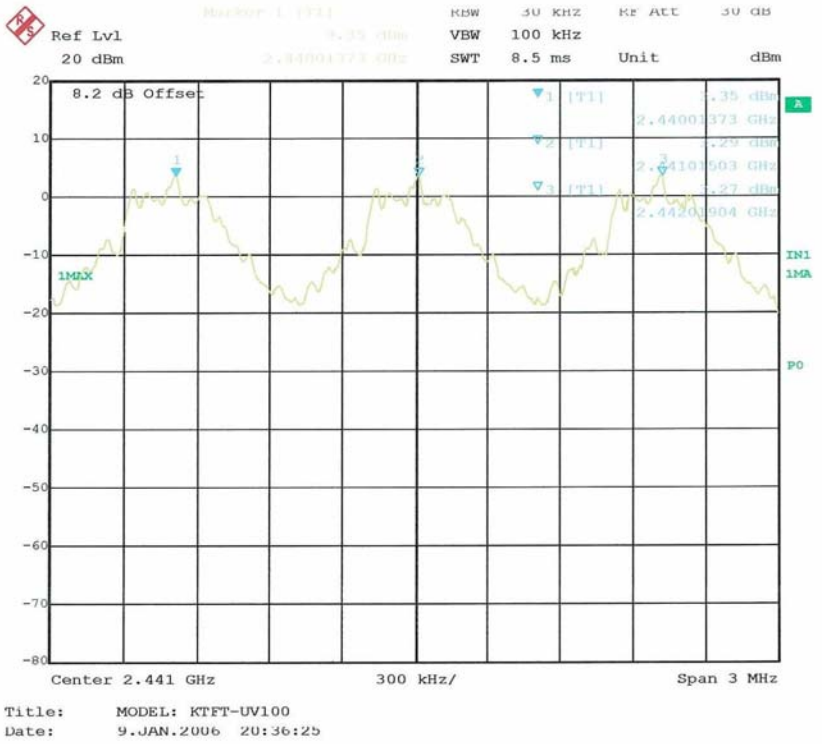
No non-compliance noted

Test Data

Channel Separation (MHz)	20dB Bandwith (kHz)	Limit (kHz)	Result
1.00	854	>25	Pass

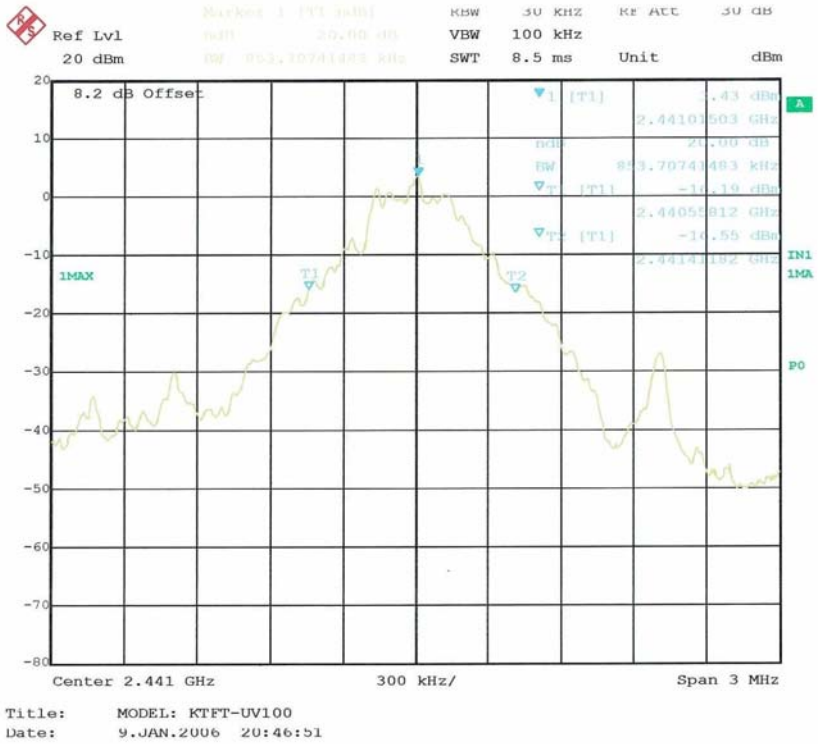
Test Plot

Measurement of Channel Separation



Test Plot

20 dB bandwidth

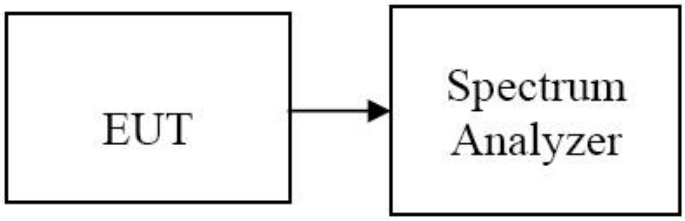


7.5 NUMBER OF HOPPING FREQUENCY

LIMIT

According to §15.247(a)(1)(ii), Frequency hopping systems operating in the 2400MHz-2483.5 MHz bands shall use at least 15 hopping frequencies.

Test Configuration



TEST PROCEDURE

1. Place the EUT on the table and set it in transmitting mode.
2. Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to the spectrum analyzer.
3. Set spectrum analyzer Start=2400MHz, Stop = 2441.5MHz, Sweep = 250s and Start=2441.5MHz,
   Stop = 2483.5MHz, Sweep = 250s.
4. Set the spectrum analyzer as RBW, VBW=100kHz,
5. Max hold, view and count how many channel in the band.

TEST RESULTS

No non-compliance noted

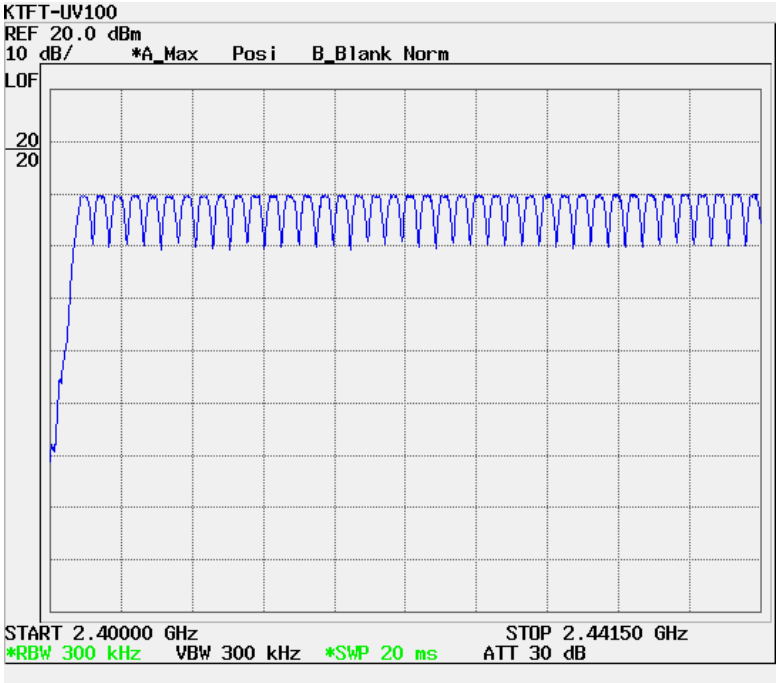
Test Data

Result (No. of CH)	Limit (No. of CH)	Result
79	>75	Pass

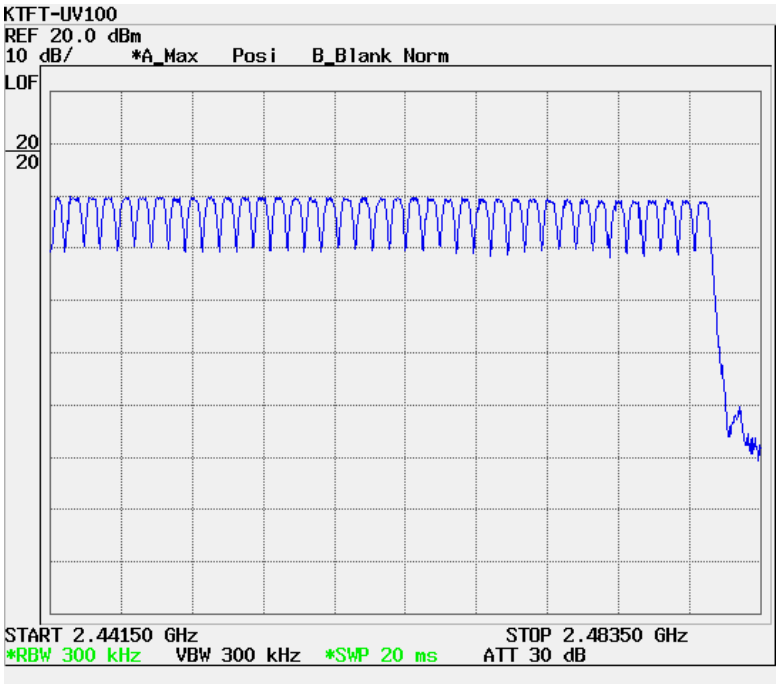
Test Plot

Channel Number

2.4 GHz – 2.441 GHz



2.441 GHz – 2.4835 GHz

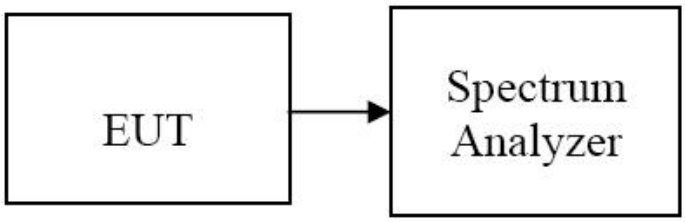


7.6TIME OF OCCUPANCY (DWELL TIME)

LIMIT

According to §15.247(a)(1)(iii), Frequency hopping systems operating in the 2400MHz-2483.5 MHz bands. The average time of occupancy on any channels shall not greater than 0.4 s within a period 0.4 s multiplied by the number of hopping channels employed.

Test Configuration



TEST PROCEDURE

1. Place the EUT on the table and set it in transmitting mode.
2. Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to the spectrum analyzer.
3. Set center frequency of spectrum analyzer = operating frequency.
4. Set the spectrum analyzer as RBW, VBW=1MHz, Span = 0Hz, Sweep = auto.
5. Repeat above procedures until all frequency measured were complete.

TEST RESULTS

No non-compliance noted

Test Data

DH 1

CH Low: 0.41 * (1600/2)/79 * 31.6 = 131.2 (ms)

CH Mid: 0.41 * (1600/2)/79 * 31.6 = 131.2 (ms)

CH High: 0.41 * (1600/2)/79 * 31.6 = 131.2 (ms)

Channel	Pulse Time (ms)	Total of Dwell (ms)	Period Time (s)	Limit (ms)	Result
Low	0.41	131.2	31.6	400	PASS
Mid	0.41	131.2	31.6		PASS
High	0.41	131.2	31.6		PASS

DH 3

CH Low: 1.67 * (1600/4)/79 * 31.6 = 267.2 (ms)

CH Mid: 1.66 * (1600/4)/79 * 31.6 = 265.6 (ms)

CH High: 1.67 * (1600/4)/79 * 31.6 = 267.2 (ms)

Channel	Pulse Time (ms)	Total of Dwell (ms)	Period Time (s)	Limit (ms)	Result
Low	1.02	267.2	31.6	400	PASS
Mid	1.02	265.6	31.6		PASS
High	1.02	267.2	31.6		PASS

DH 5

CH Low: 2.91 * (1600/6)/79 * 31.6 = 245.2 (ms)

CH Mid: 2.91 * (1600/6)/79 * 31.6 = 245.2 (ms)

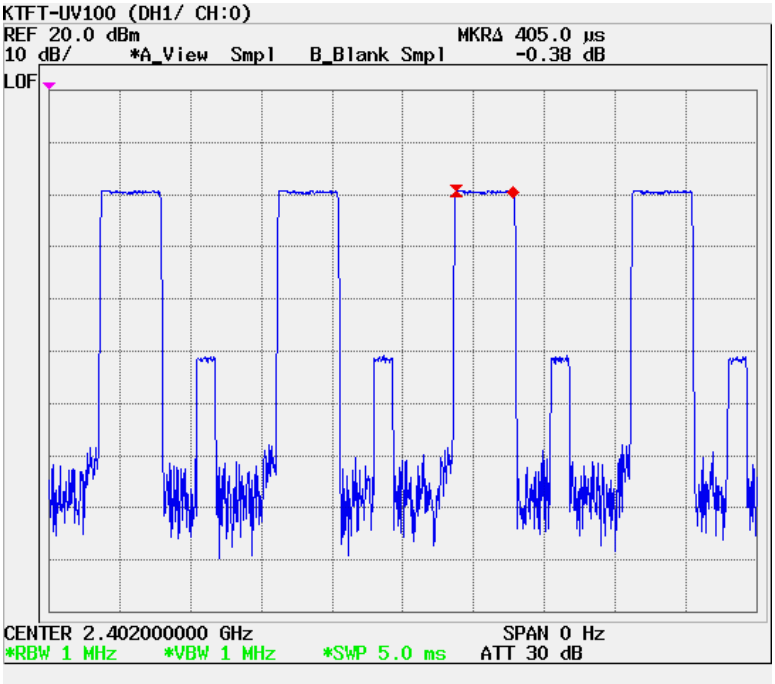
CH High: 2.91 * (1600/6)/79 * 31.6 = 245.2 (ms)

Channel	Pulse Time (ms)	Total of Dwell (ms)	Period Time (s)	Limit (ms)	Result
Low	2.91	245.2	31.6	400	PASS
Mid	2.91	245.2	31.6		PASS
High	2.91	245.2	31.6		PASS

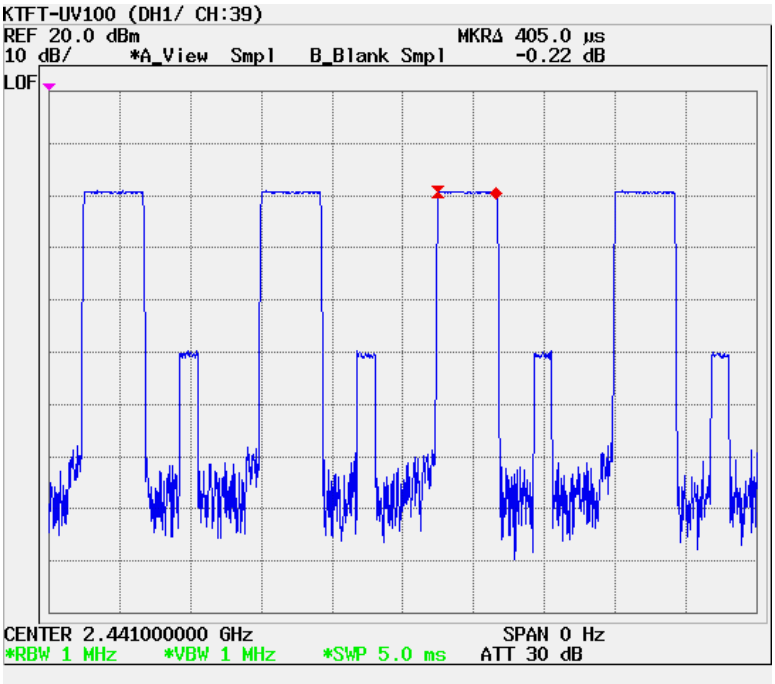
Test Plot

DH 1

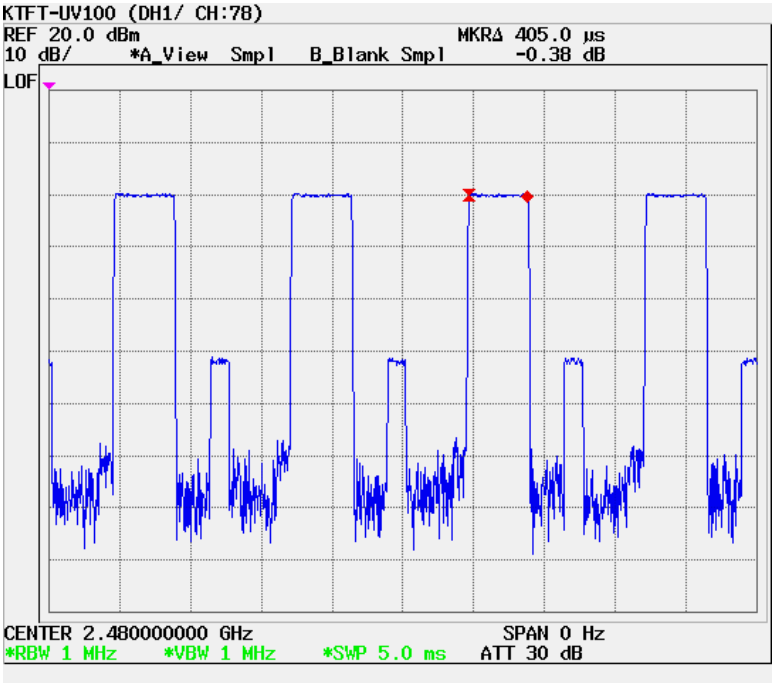
(CH Low)



(CH Mid)

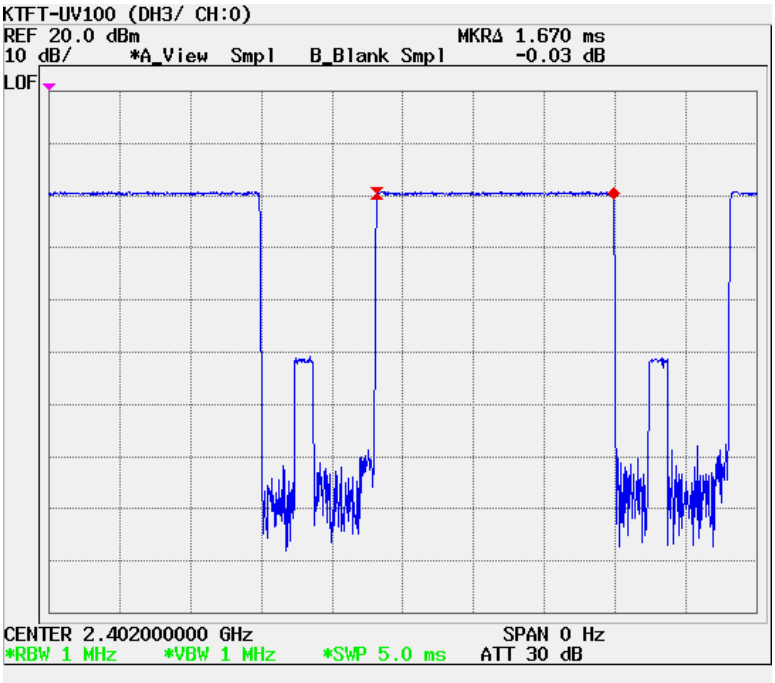


(CH High)

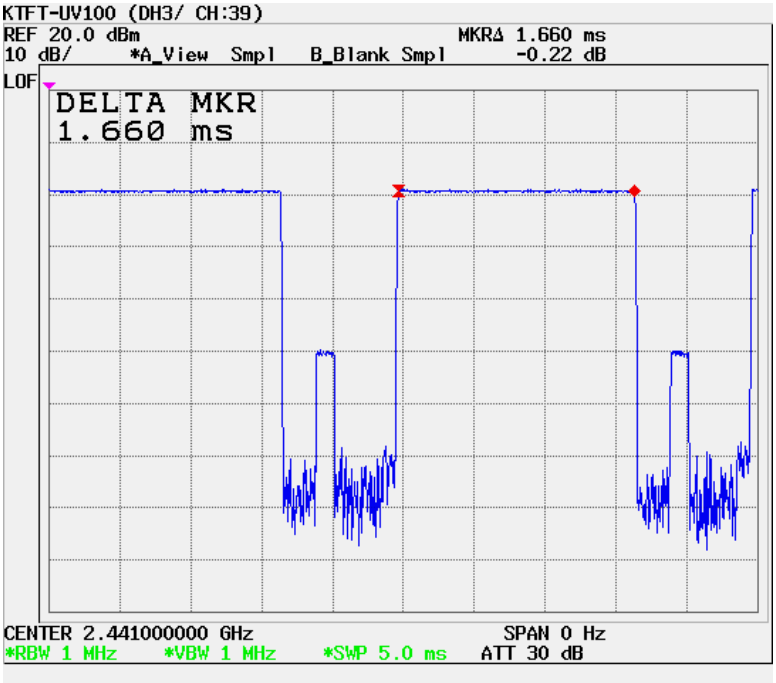


DH 3

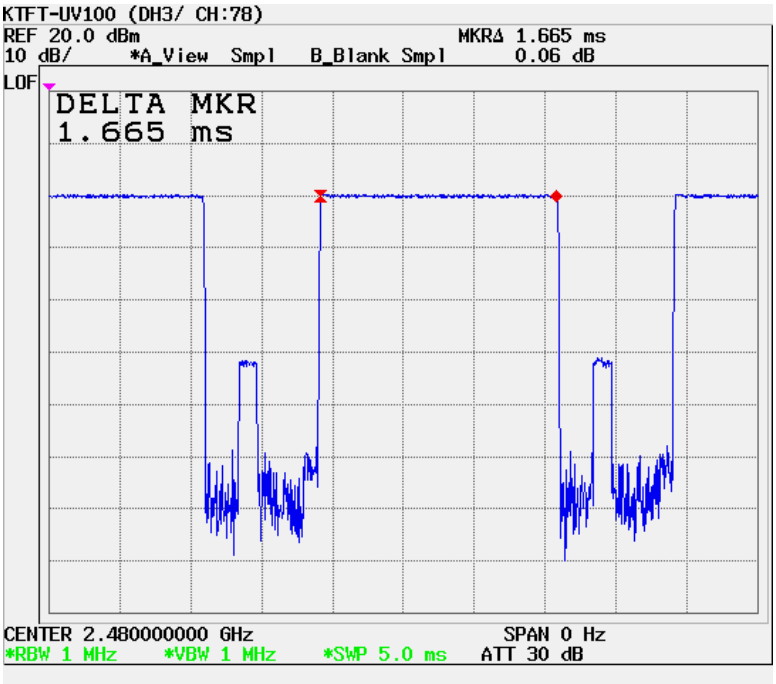
(CH Low)



(CH Mid)

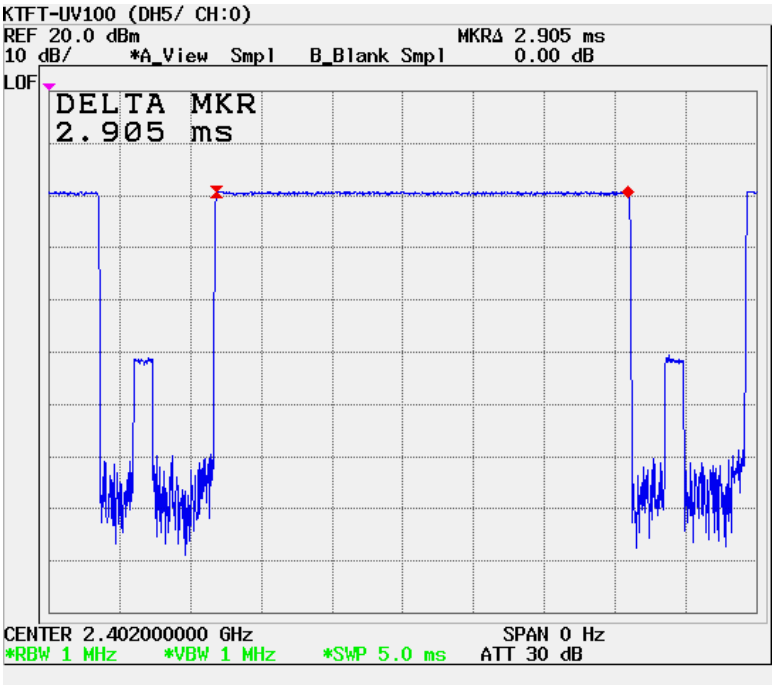


(CH High)

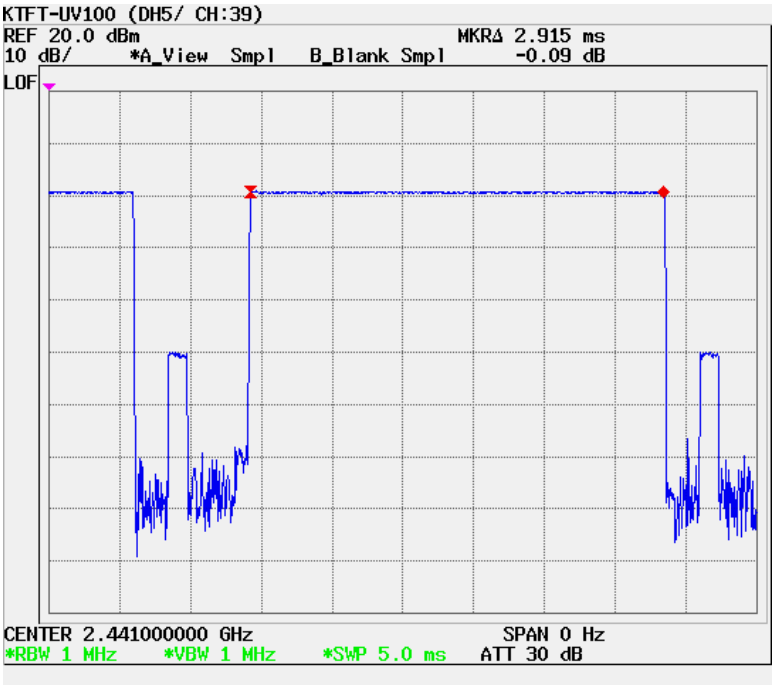


DH 5

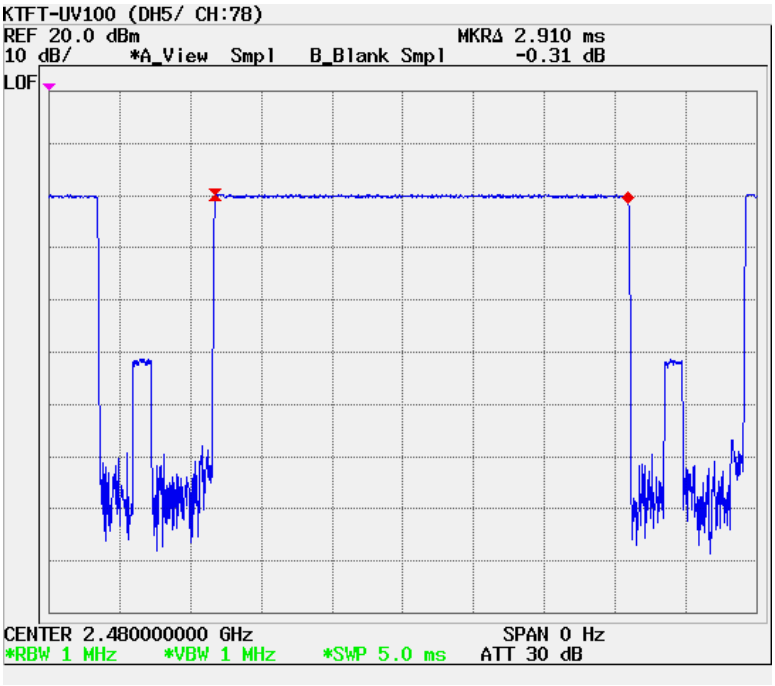
(CH Low)



(CH Mid)



(CH High)


KTFT-UV100 (DH5/ CH:78)
REF 20.0 dBm
MKRΔ 2.910 ms
10 dB/ *A_View Smpl B_Blank Smpl -0.31 dB
LOF
CENTER 2.480000000 GHz
SPAN 0 Hz
*RBW 1 MHz *VBW 1 MHz *SWP 5.0 ms ATT 30 dB

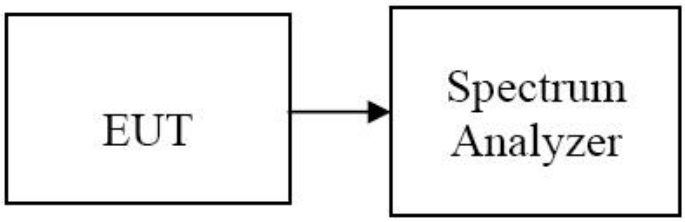
SPURIOUS EMISSIONS

7.7 Conducted Measurement

LIMIT

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement. Attenuation below the general limits specified in Section 15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a) (see Section 15.205(c)).

Test Configuration



TEST PROCEDURE

Conducted RF measurements of the transmitter output were made to confirm that the EUT antenna port conducted emissions meet the specified limit and to identify any spurious signals that require further investigation or measurements on the radiated emissions site.

The transmitter output is connected to the spectrum analyzer. The resolution bandwidth is set to 100 KHz. The video bandwidth is set to 100 KHz.

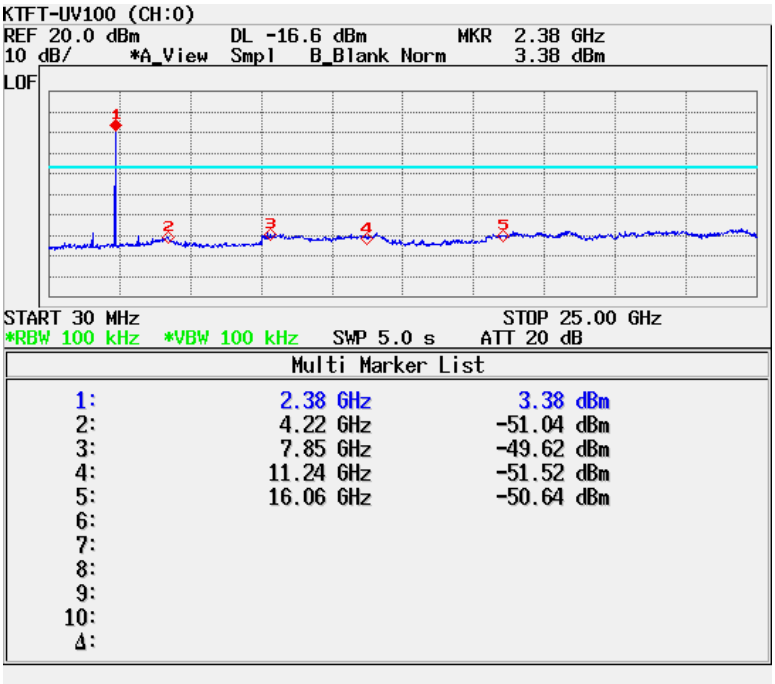
Measurements are made over the 30MHz to 26GHzrange with the transmitter set to the lowest, middle, and highest channels.

TEST RESULTS

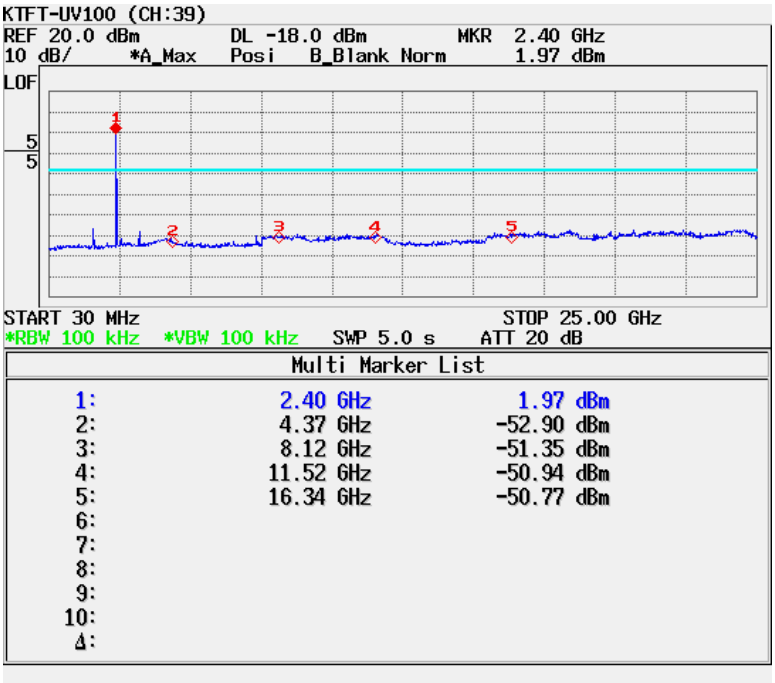
No non-compliance noted

Test Plot

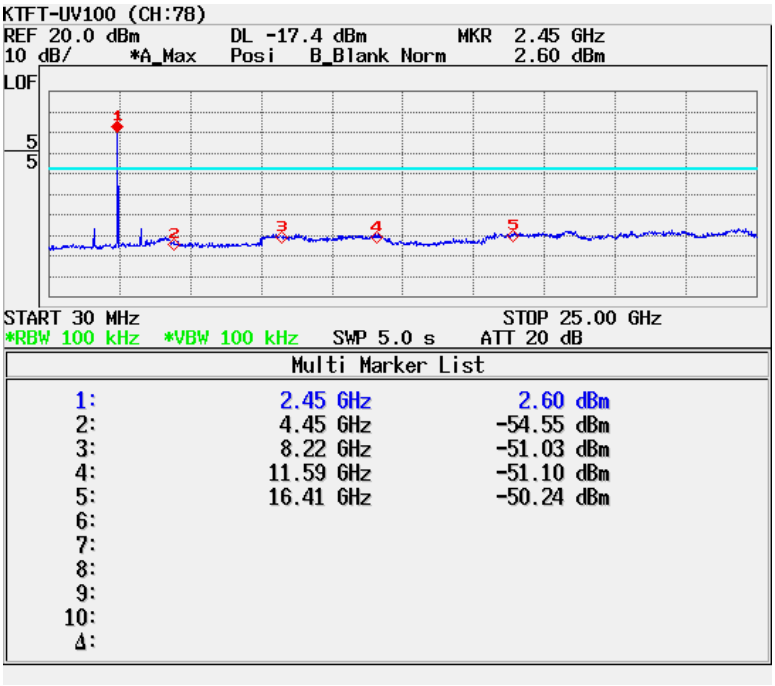
CH Low



CH Mid



CH High


KTFT-UV100 (CH:78)
REF 20.0 dBm
DL -17.4 dBm
MKR 2.45 GHz
10 dB/
*A_Max
Posi
B_Blank Norm
2.60 dBm
LOF
5
5
START 30 MHz
STOP 25.00 GHz
*RBW 100 kHz
*VBW 100 kHz
SWP 5.0 s
ATT 20 dB
Multi Marker List
1: 2.45 GHz 2.60 dBm
2: 4.45 GHz -54.55 dBm
3: 8.22 GHz -51.03 dBm
4: 11.59 GHz -51.10 dBm
5: 16.41 GHz -50.24 dBm
6:
7:
8:
9:
10:
Δ:

7.7.2 Radiated Emissions

LIMIT

1. Except as provided elsewhere in this Subpart, the emissions from an intentional radiator shall not exceed the field strength levels specified in the following table:

Frequency (MHz)	Field Strength (mV/m)	Measurement Distance (m)
30-88	100	3
88-216	150	3
216-960	200	3
Above 960	500	3

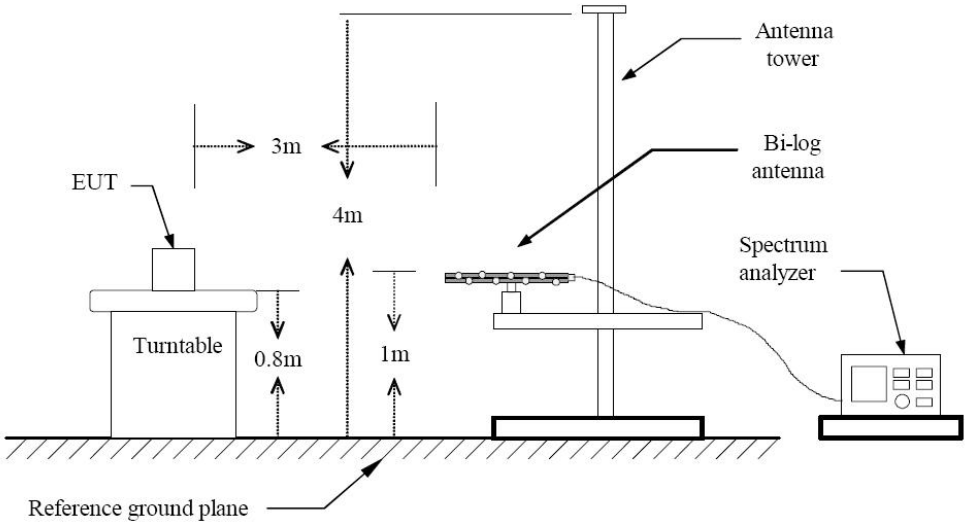
Note: *Except as provided in paragraph (g), fundamental emissions from intentional radiators operating under this Section shall not be located in the frequency bands 54-72 MHz, 76-88 MHz, 174-216 MHz or 470-806 MHz. However, operation within these frequency bands is permitted under other sections of this Part, e.g., Sections 15.231 and 15.241.*

2. In the above emission table, the tighter limit applies at the band edges.

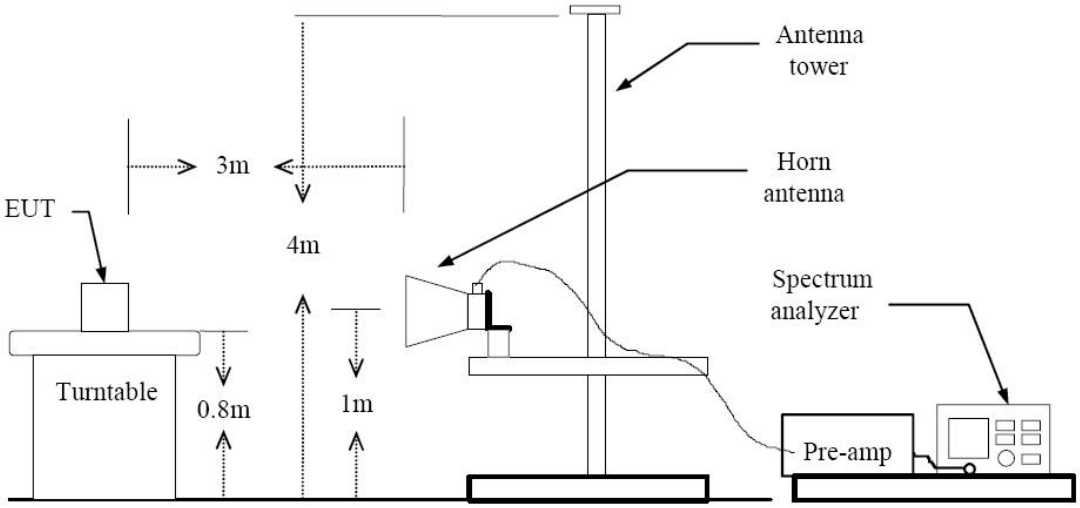
Frequency (MHz)	Field Strength (μV/m at 3-meter)	Field Strength (dBμV/m at 3-meter)
30-88	100	3
88-216	150	3
216-960	200	3
Above 960	500	3

Test Configuration

Below 1 GHz



Above 1 GHz



TEST PROCEDURE

1. The EUT is placed on a turntable, which is 0.8m above ground plane.
2. The turntable shall be 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 emissions.
4. Maximum procedure was performed on the six highest emissions to ensure EUT compliance.
5. And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical.
6. Repeat above procedures until the measurements for all frequencies are complete.

TEST RESULTS

Below 1 GHz

Operation Mode: Normal Link **Test Date:** December 26, 2005

Temperature: 20oC **Humidity:** 55 % RH

Frequency MHz	Reading dBuV	Ant. Factor dB	Cable Loss dB	ANT POL (H/V)	Total dBuV/m	Limit dBuV/m	Margin dB
40.50	16.5	15.0	1.3	V	32.8	40	-7.2
97.00	22.8	9.7	2.2	V	34.7	43.5	-8.8
159.20	18.1	15.4	2.9	V	36.4	43.5	-7.1
235.90	16.9	17.2	3.5	V	37.5	46	-8.5
287.40	15.6	18.9	3.9	V	38.4	46	-7.6
358.40	17.3	16.5	4.3	V	38.2	46	-7.8
120.40	22.6	12.8	2.4	H	37.8	43.5	-5.7
146.70	18.9	14.8	2.7	H	36.3	43.5	-7.2
154.20	17.3	15.2	2.8	H	35.2	43.5	-8.3
159.20	17.9	15.4	2.9	H	36.2	43.5	-7.3
192.40	17.6	16.1	3.1	H	36.8	43.5	-6.7
197.80	16.3	16.2	3.2	H	35.7	43.5	-7.8

Notes:

1. Measuring frequencies from 30 MHz to the 1GHz.

2. Radiated emissions measured in frequency range from 30 MHz to 1000MHz were made with an instrument using Peak detector mode.

3. Data of measurement within this frequency range shown " --- " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

4. The IF bandwidth of SPA between 30MHz to 1GHz was 100kHz.

Above 1 GHz

Operation Mode: CH Low **Test Date:** December 26, 2005

Temperature: 20oC **Humidity:** 60 % RH

Freq. (MHz)	Ant.Pol. H/V	Peak Reading (dBuV)	AV Reading (dBuV)	Ant. / CL CF (dB)	Actual Fs		Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Margin (dB)	Remark
					Peak (dBuV/m)	AV (dBuV/m)				
4805	V	Peak	55.07	4.04	59.47	-	74.00	54.00	-14.5	Peak
N/A										
4805	H	Peak	54.08	4.04	58.12	-	74.00	54.00	-15.8	Peak
N/A										

Notes:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.

2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.

3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.

4. Spectrum setting:

a. Peak Setting 1GHz - 26GHz, RBW = 1MHz, VBW = 1MHz, Sweep time = 200 ms.

b. AV Setting 1GH z- 26GHz, RBW = 1MHz, VBW = 10Hz, Sweep time = 200 ms.

Operation Mode: CH Mid **Test Date:** December 26, 2005

Temperature: 20oC **Humidity:** 60 % RH

Freq. (MHz)	Ant.Pol. H/V	Peak Reading (dBuV)	AV Reading (dBuV)	Ant. / CL CF (dB)	Actual Fs		Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Margin (dB)	Remark
					Peak (dBuV/m)	AV (dBuV/m)				
4883	V	Peak	57.71	4.04	61.75	-	74.00	54.00	-12.2	Peak
N/A										
4883	H	Peak	57.16	4.04	61.20	-	74.00	54.00	-12.8	Peak
N/A										

Notes:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.

2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.

3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.

4. Spectrum setting:

a. Peak Setting 1GHz - 26GHz, RBW = 1MHz, VBW = 1MHz, Sweep time = 200 ms.

b. AV Setting 1GH z- 26GHz, RBW = 1MHz, VBW = 10Hz, Sweep time = 200 ms.

Operation Mode: CH High **Test Date:** December 26, 2005

Temperature: 20oC **Humidity:** 60 % RH

Freq. (MHz)	Ant.Pol. H/V	Peak Reading (dBuV)	AV Reading (dBuV)	Ant. / CL CF (dB)	Actual Fs		Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Margin (dB)	Remark
					Peak (dBuV/m)	AV (dBuV/m)				
4959	V	Peak	57.53	4.04	61.57	-	74.00	54.00	-12.4	Peak
N/A										
4959	H	Peak	57.09	4.04	61.14	-	74.00	54.00	-12.8	Peak
N/A										

Notes:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.

2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.

3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.

4. Spectrum setting:

a. Peak Setting 1GHz - 26GHz, RBW = 1MHz, VBW = 1MHz, Sweep time = 200 ms.

b. AV Setting 1GH z- 26GHz, RBW = 1MHz, VBW = 10Hz, Sweep time = 200 ms.

7.8 POWERLINE CONDUCTED EMISSIONS

LIMIT

For an intentional radiator which is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies within the band 150 kHz to 30 MHz shall not exceed 250 microvolts (The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.50 MHz). The limits at specific frequency range is listed as follows:

Frequency Range (MHz)	Limits (dBμV)	
	Quasi-peak	Average
0.15 to 0.50	60 to 56	56 to 46
0.50 to 5	56	46
5 to 30	60	50

Compliance with this provision shall be based on the measurement of the radio frequency voltage between each power line (LINE and NEUTRAL) and ground at the power terminals.

Test Configuration

See test photographs attached in Appendix 1 for the actual connections between EUT and support equipment.

TEST PROCEDURE

1. The EUT was placed on a table, which is 0.8m above ground plane.
2. Maximum procedure was performed on the six highest emissions to ensure EUT compliance.
3. Repeat above procedures until all frequency measured were complete.

TEST RESULTS

The initial step in collecting conducted data is a spectrum analyzer peak scan of the measurement range. Significant peaks are then marked as shown on the following data page, and these signals are then quasi-peaked.

Operation Mode: Normal **Test Date:** December 22, 2005

Temperature: 22oC **Humidity:** 67% RH

Power Line Conducted Emissions				CISPR 22 CLASS B	
Frequency (MHz)	**Amplitude (dBuV)**	**Conductor**	**Result**	**Limit (dBuv)**	**Margin (dB)**
0.585	34.8	NEUTRAL	Quasi-Peak	56	21.2
0.585	24.9	NEUTRAL	Average	46	21.1
1.220	40.3	HOT	Quasi-Peak	56	15.7
0.525	33.2	HOT	Average	46	12.8

Line Conducted Emissions Tabulated Data

Test Plot

Conducted emissions (Line 1)

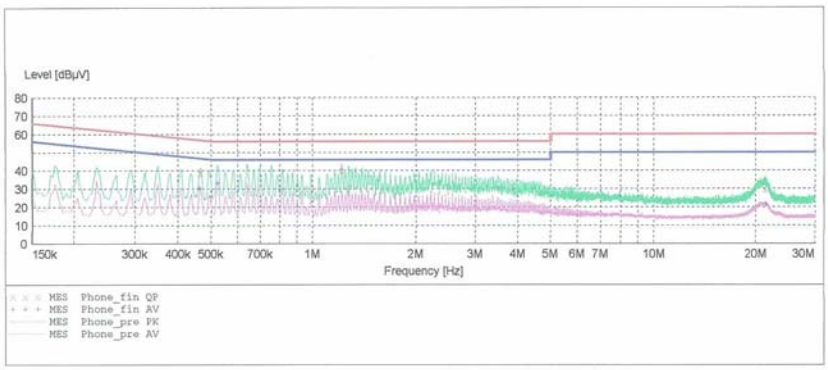
HCT

EMC TEST LAB

```
EUT:                    KTFT-UV100
Manufacturer:           KTFT
Operating Condition:    CHARGING MODE
Test Site:              SHIELD ROOM
Operator:               KEUN-HO PARK
Test Specification:     CISPR 22 CLASS B
Comment:                H
```

SCAN TABLE: "CISPR 22 Voltage"

```
Short Description:              CISPR 22 Voltage
Start      Stop       Step       Detector  Meas.     IF       Transducer
Frequency  Frequency  Width                Time      Bandw.
150.1 kHz  500.0 kHz  2.5 kHz    MaxPeak   10.0 ms   9 kHz    None
                                Average
500.0 kHz  5.0 MHz    5.0 kHz    MaxPeak   10.0 ms   9 kHz    None
                                Average
5.0 MHz    30.0 MHz   5.0 kHz    MaxPeak   10.0 ms   9 kHz    None
                                Average
```



MEASUREMENT RESULT: "Phone_fin QP"

12/22/2005 9:06AM

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Line	PE
0.465100	39.10	10.1	57	17.5	---	---
1.220000	40.30	10.2	56	15.7	---	---
21.325000	29.90	10.6	60	30.1	---	---

MEASUREMENT RESULT: "Phone_fin AV"

12/22/2005 9:06AM

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Line	PE
0.465100	30.20	10.1	47	16.4	---	---
0.525000	33.20	10.1	46	12.8	---	---
21.515000	21.20	10.6	50	28.8	---	---

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Conducted emissions (Line 2)

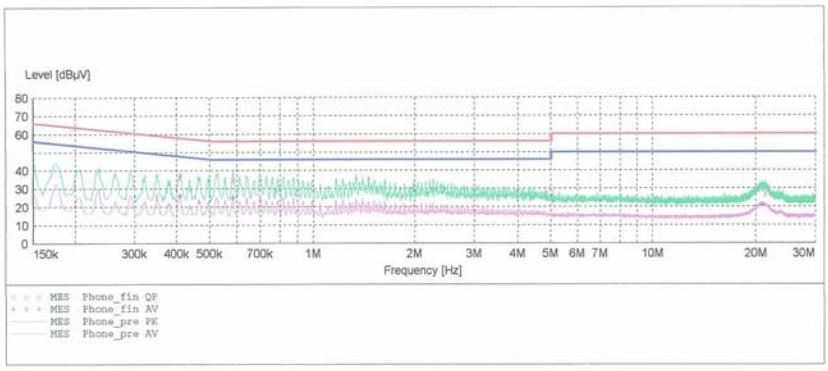
HCT

EMC TEST LAB

```
EUT:                    KTFT-UV100
Manufacturer:           KTFT
Operating Condition:    CHARGING MODE
Test Site:              SHIELD ROOM
Operator:               KEUN-HO PARK
Test Specification:     CISPR 22 CLASS B
Comment:                N
```

SCAN TABLE: "CISPR 22 Voltage"

```
Short Description:              CISPR 22 Voltage
Start      Stop       Step       Detector  Meas.     IF       Transducer
Frequency  Frequency  Width                Time      Bandw.
150.1 kHz  500.0 kHz  2.5 kHz     MaxPeak   10.0 ms   9 kHz    None
                                  Average
500.0 kHz  5.0 MHz    5.0 kHz     MaxPeak   10.0 ms   9 kHz    None
                                  Average
5.0 MHz    30.0 MHz   5.0 kHz     MaxPeak   10.0 ms   9 kHz    None
                                  Average
```



MEASUREMENT RESULT: "Phone_fin QP"

12/22/2005 9:03AM

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Line	PE
0.410100	36.20	10.1	58	21.5	---	---
0.585000	34.80	10.2	56	21.2	---	---
21.345000	27.20	10.6	60	32.8	---	---

MEASUREMENT RESULT: "Phone_fin AV"

12/22/2005 9:03AM

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Line	PE
0.410100	25.90	10.1	48	21.7	---	---
0.585000	24.90	10.2	46	21.1	---	---
20.950000	21.10	10.5	50	28.9	---	---

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8. LIST OF TEST EQUIPMENT

Type / Model	Calib. Date	S/N
Spectrum Analyzer (20Hz~40GHz) R&S ESI40	Dec. 05	1088.7410
Spectrum Analyzer(100Hz~26.5GHz) R3273	April 05	J04821
Signal Generator HP8373ED (10MHz ~ 20GHz)	July 05	US8710152
Power Meter(A) HP 438A	July 05	2822A05909
Power Sensor(A) HP8481B	July 05	3318A08777
Power Amp A0825-4343-R(800~2.5GHz) +43dB	Sep. 05	A00450
Modulation Analyzer HP8901A	June 05	3438A05231
Dipole Antenna UHAP	June 05	557
Dipole Antenna UHAP	June 05	558
AMF-4D-001180-26-10P(0.1~18GHz)	Feb.05	671009
AMF-4D-001180-26-10P(18~26.5GHz)	Feb.05	667624
AMF-4D-001180-26-10P(26~40GHz)	Feb.05	671314
Audio Analyzer HP 8903A	Feb.05	2433A04322
Function Generator HP 8116A	Feb.05	3001A08285
Horn Antenna BBHA 9120D(1~18GHz)	June 05	1099
Horn Antenna BBHA 9120D(1~18GHz)	March 05	1201
Horn Antenna BBHA 9170(15~40GHz)	Feb.05	BBHA9170124
EMI Test Receiver Rohde & Schwarz ESH3	June 05	335.8017
EMI Test Receiver Rohde & Schwarz ESVP	Feb. 05	354.3000
EMI Test Receiver Rohde & Schwarz ESVS30	June 05	826006/013
Spectrum Analyzer HP 8591EM	July 05	3509A00155
LISN EMCO 3825/2	July 05	9706-1070
LISN Rohde & Schwarz ESH2-Z5	July 05	9706-1071
Amplifier Hewlett-Packard 8447E	March 05	2805A03141
Biconical Antenna BBA-9106(30~1000MHz)	June 05	D6901
Log-Periodic Antenna UHALP-9107(300~1000MHz)	June 05	91071107
Antenna VULB9160 (25MHz~1800MHz)	June 05	91071107
Antenna Position Tower HD240	N.A	3241
Turn Table EMCO 1060-06	N.A	1253A
AC Power Source PACIFIC Magnetic Module	N.A	45321
AC Power Source PACIFIC 360AMX	N.A	22B87
Spectrum Analyzer (100MHz~26.5GHz) R3273	April 05	J004821
Bluetooth Tester TESCOM TC-300A	Dec. 05	3000A490112

APPENDIX 1
PHOTOGRPHS OF TEST SETUP

Radiated Emission Set up Photos

Conducted Emission Set Up Photos