

# FCC 47 CFR PART 15 SUBPART B TEST REPORT

for

## AC ADAPTER

**MODEL: KTPS05-03315U-VI; KTPS05-05010U-VI;  
KTPS05-05015U-VI; KTPS05-06012U-VI; KTPS05-07510U-VI;  
KTPS05-09006U-VI; KTPS05-12006U-VI; KTPS05-15005U-VI;  
KTPS05-18033U-VI; KTPS05-24025U-VI**

Test Report Number:  
T170419D01-D

Issued to:

**KAGA ELECTRONICS (USA) INC.**

**780 Montague Expy, Suite 403 San Jose, CA 95131 USA**

Issued by:

**Compliance Certification Services Inc.**

**Xindian Lab.**

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**Issued Date: April 21, 2017**



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**Revision History**

Rev.	Issue Date	Revisions	Effect Page	Revised By
00	September 17, 2015	Initial Issue	ALL	Linda Wu
01	December 3, 2015	Add two Models	ALL	Linda Wu
02	March 6, 2017	Update Standard	ALL	Linda Wu
03	April 21, 2017	Copy Report	ALL	Linda Wu

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# 1 TEST RESULT CERTIFICATION

**Product:** AC ADAPTER

**Model:** KTPS05-03315U-VI; KTPS05-05010U-VI; KTPS05-05015U-VI;  
KTPS05-06012U-VI; KTPS05-07510U-VI; KTPS05-09006U-VI;  
KTPS05-12006U-VI; KTPS05-15005U-VI; KTPS05-18033U-VI;  
KTPS05-24025U-VI

**Brand:** 

**Applicant:** **KAGA ELECTRONICS (USA) INC.**  
780 Montague Expy, Suite 403 San Jose, CA 95131 USA

**Manufacturer:** **KAGA ELECTRONICS (USA) INC.**  
780 Montague Expy, Suite 403 San Jose, CA 95131 USA

**Tested:** September 11, 2015 ~ December 2, 2015

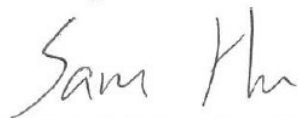
EMISSION			
Standard	Item	Result	Remarks
FCC 47 CFR Part 15 Subpart B, ICES-003 Issue 6-2016 ANSI C63.4-2014	Conducted (Power Port)	PASS	Meet Class B limit
	Radiated	PASS	Meet Class B limit

- Note:**
1. The statements of test result on the above are decided by the request of test standard only; the measurement uncertainties are not factored into this compliance determination.
  2. The information of measurement uncertainty is available upon the customer's request.

Deviation from Applicable Standard
None

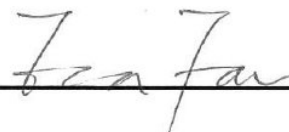
The above equipment has been tested by Compliance Certification Services Inc., and found compliance with the requirements set forth in the technical standards mentioned above. The results of testing in this report apply only to the product/system, which was tested. Other similar equipment will not necessarily produce the same results due to production tolerance and measurement uncertainties.

**Approved by:**




Sam Hu  
Assistant Manager

**Reviewed by:**



Eva Fan  
Supervisor of report document dept.

## 2 EUT DESCRIPTION

<b>Product</b>	AC ADAPTER
<b>Brand Name</b>	
<b>Model</b>	KTPS05-03315U-VI; KTPS05-05010U-VI; KTPS05-05015U-VI; KTPS05-06012U-VI; KTPS05-07510U-VI; KTPS05-09006U-VI; KTPS05-12006U-VI; KTPS05-15005U-VI; KTPS05-18033U-VI; KTPS05-24025U-VI
<b>Applicant</b>	KAGA ELECTRONICS (USA) INC.
<b>Housing material</b>	Plastic
<b>Identify Number</b>	T150806D06
<b>Received Date</b>	August 6, 2015
<b>EUT Power Rating</b>	Please see the model differences
<b>AC Power During Test</b>	120VAC / 60Hz

### Model Differences

Model Name	Input Rating	Output Rating	Test (Check)
KTPS05-03315U-VI	100-240VAC, 50-60Hz, 0.19A Max	3.30VDC, 1.50A, 4.950W	<input checked="" type="checkbox"/>
KTPS05-05010U-VI		5.00VDC, 1.00A, 5.000W	<input checked="" type="checkbox"/>
KTPS05-05015U-VI		5.00VDC, 1.50A, 7.500W	<input checked="" type="checkbox"/>
KTPS05-06012U-VI		5.90VDC, 1.20A, 7.080W	<input checked="" type="checkbox"/>
KTPS05-07510U-VI		7.50VDC, 1.00A, 7.500W	<input checked="" type="checkbox"/>
KTPS05-09006U-VI		9.00VDC, 0.67A, 6.030W	<input checked="" type="checkbox"/>
KTPS05-12006U-VI		12.00VDC, 0.60A, 7.200W	<input checked="" type="checkbox"/>
KTPS05-15005U-VI		15.00VDC, 0.50A, 7.500W	<input checked="" type="checkbox"/>
KTPS05-18033U-VI		18.00VDC, 0.33A, 5.940W	<input checked="" type="checkbox"/>
KTPS05-24025U-VI		24.00VDC, 0.25A, 6.000W	<input checked="" type="checkbox"/>

### I/O PORT

I/O PORT TYPES	Q'TY	TESTED WITH

**Note:** None.

### 3 TEST METHODOLOGY

#### 3.1. DECISION OF FINAL TEST MODE

The EUT was tested together with the below additional components, and a configuration, which produced the worst emission levels, was selected and recorded in this report.

The test configuration/ modes are as the following:

**Modes:**

1	KTPS05-03315U-VI	Full Rated Load Mode
2	KTPS05-05010U-VI	Full Rated Load Mode
3	KTPS05-05015U-VI	Full Rated Load Mode
4	KTPS05-06012U-VI	Full Rated Load Mode
5	KTPS05-07510U-VI	Full Rated Load Mode
6	KTPS05-09006U-VI	Full Rated Load Mode
7	KTPS05-12006U-VI	Full Rated Load Mode
8	KTPS05-15005U-VI	Full Rated Load Mode
9	KTPS05-18033U-VI	Full Rated Load Mode
10	KTPS05-24025U-VI	Full Rated Load Mode

**Worst:**

**Conduction:** Mode 7

**Radiation:** Mode 9

#### 3.2. EUT SYSTEM OPERATION

1. To adjust variable resistor to test EUT.

**Note:** Test program is self-repeating throughout the test.

## 4 SETUP OF EQUIPMENT UNDER TEST

### 4.1. DESCRIPTION OF SUPPORT UNITS

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

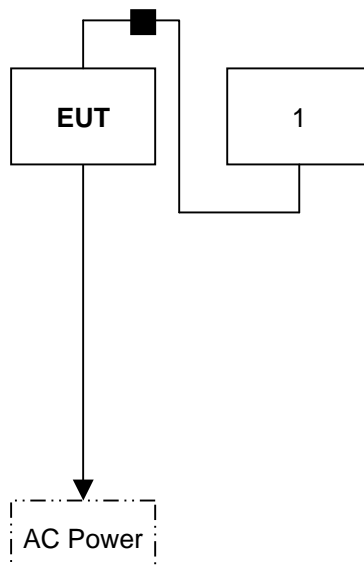
#### Peripherals Devices:

No.	Equipment	Model No.	Serial No.	FCC ID / BSMI ID	Brand Name	Data Cable	Power Cord
1	Variable Resistor	N/A	N/A	N/A	N/A	N/A	Unshielded, 1.5m with a core

#### Note:

- 1) All the equipment/cables were placed in the worst-case configuration to maximize the emission during the test.
- 2) Grounding was established in accordance with the manufacturer's requirements and conditions for the intended use.

### 4.2. CONFIGURATION OF SYSTEM UNDER TEST



## 5 FACILITIES AND ACCREDITATIONS

### 5.1. FACILITIES

All measurement facilities used to collect the measurement data are located at CCSrf Taiwan Xindian Lab. at No.163-1, Jhongsheng Rd., Xindian Dist., New Taipei City, 23151 Taiwan.

The sites are constructed in conformance with the requirements of ANSI C63.4 and CISPR Publication 22. All receiving equipment conforms to CISPR 16-1-1, CISPR 16-1-2, CISPR 16-1-3, CISPR 16-1-4 and CISPR 16-1-5.

### 5.2. ACCREDITATIONS

Our laboratories are accredited and approved by the following accreditation body according to ISO/IEC 17025.

<b>Taiwan</b>	TAF
<b>USA</b>	A2LA

The measuring facility of laboratories has been authorized or registered by the following approval agencies.

<b>Canada</b>	Industry Canada
<b>Norway</b>	Nemko
<b>Japan</b>	VCCI
<b>Taiwan</b>	BSMI
<b>USA</b>	FCC

Copies of granted accreditation certificates are available for downloading from our web site, <http://www.ccsrf.com>

### 5.3. MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2:

Measurement	Frequency	Uncertainty
Conducted emissions	0.15MHz ~ 30MHz	± 1.59
Radiated emissions	30MHz ~ 1000MHz	± 4.12

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

Consistent with industry standard (e.g. CISPR 22: 2005, clause 11, Measurement Uncertainty) determining compliance with the limits shall be based on the results of the compliance measurement. Consequently the measured emissions being less than the maximum allowed emission result in this being a compliant test or passing test.

The acceptable measurement uncertainty value without requiring revision of the compliance statement is based on conducted and radiated emissions being less than  $U_{CISPR}$  which is 3.6dB and 5.2dB respectively. CCS values (called  $U_{Lab}$  in CISPR 16-4-2) is less than  $U_{CISPR}$  as shown in the table above. Therefore, MU need not be considered for compliance.



## 6 CONDUCTED EMISSION MEASUREMENT

### 6.1. LIMITS OF CONDUCTED EMISSION MEASUREMENT

FREQUENCY (MHz)	Class A (dBuV)		Class B (dBuV)	
	Quasi-peak	Average	Quasi-peak	Average
0.15 - 0.5	79	66	66 - 56	56 - 46
0.50 - 5.0	73	60	56	46
5.0 - 30.0	73	60	60	50

**NOTE:**

- (1) The lower limit shall apply at the transition frequencies.
- (2) The limit decreases in line with the logarithm of the frequency in the range 0.15 to 0.50 MHz.
- (3) All emanations from a class A/B digital device or system, including any network of conductors and apparatus connected thereto, shall not exceed the level of field strengths specified above.

### 6.2. TEST INSTRUMENTS

Conducted Emission room # A				
Name of Equipment	Manufacturer	Model	Serial Number	Calibration Due
TEST RECEIVER	R&S	ESCI	101201	08/21/2016
LISN (EUT)	SCHWARZBECK	NSLK 8127	8127527	08/23/2016
LISN	SCHWARZBECK	NSLK 8127	8127526	08/23/2016
BNC CABLE	EMCI	CFD300-NL	BNC#A8	05/19/2016
Pulse Limiter	R&S	ESH3Z2	SD-C002	08/23/2016
THERMO-HYGRO METER	WISEWIND	201A	No. 02	05/10/2016
Test S/W	EZ-EMC			

- NOTE:** 1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.  
2. N.C.R = No Calibration Request.

### **6.3. TEST PROCEDURES** (please refer to measurement standard or CCS SOP PA-031)

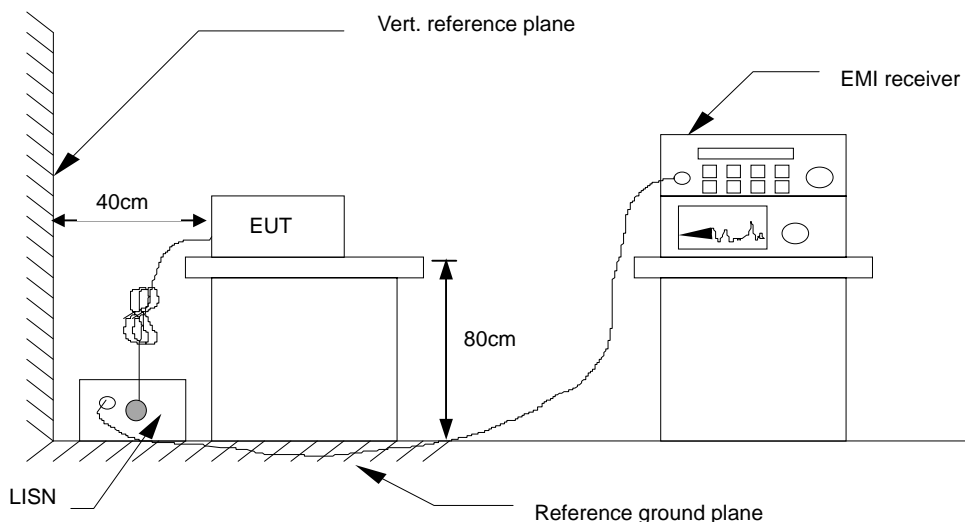
#### **Procedure of Preliminary Test**

- The EUT and support equipment, if needed, were set up as per the test configuration to simulate typical usage per the user's manual. When the EUT is a tabletop system, a wooden table with a height of 0.8 meters is used and is placed on the ground plane as per ANSI C63.4 (see Test Facility for the dimensions of the ground plane used). When the EUT is a floor standing equipment, it is placed on the ground plane, which has a 12 mm non-conductive covering to insulate the EUT from the ground plane.
- All I/O cables were positioned to simulate typical actual usage as per ANSI C63.4.
- The test equipment EUT installed by AC 120VAC/60Hz main power, through a Line Impedance Stabilization Network (LISN), which was supplied power source and was grounded to the ground plane.
- All support equipment power by from a second LISN.
- The test program of the EUT was started. Emissions were measured on each current carrying line of the EUT using an EMI Test Receiver connected to the LISN powering the EUT.
- The Receiver scanned from 150kHz to 30MHz for emissions in each of the test modes.
- During the above scans, the emissions were maximized by cable manipulation.
- The test mode(s) described in Item 3.1 were scanned during the preliminary test.
- After the preliminary scan, we found the test mode described in Item 3.1 producing the highest emission level.
- The worst configuration of EUT and cable of the above highest emission level were recorded for reference of the final test.

#### **Procedure of Final Test**

- EUT and support equipment were set up on the test bench as per the configuration with highest emission level in the preliminary test.
- A scan was taken on both power lines, Line 1 and Line 2, recording at least the six highest emissions. Emission frequency and amplitude were recorded into a computer in which correction factors were used to calculate the emission level and compare reading to the applicable limit.
- The test data of the worst-case condition(s) was recorded.

### 6.4. TEST SETUP



- For the actual test configuration, please refer to the related item - Photographs of the Test Configuration.

### 6.5. DATA SAMPLE

Freq. (MHz)	Reading (dBuV)	Factor (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector (P/Q/A)	Line (L1/L2)
x.xx	42.95	0.55	43.50	56	-12.50	Q	L1

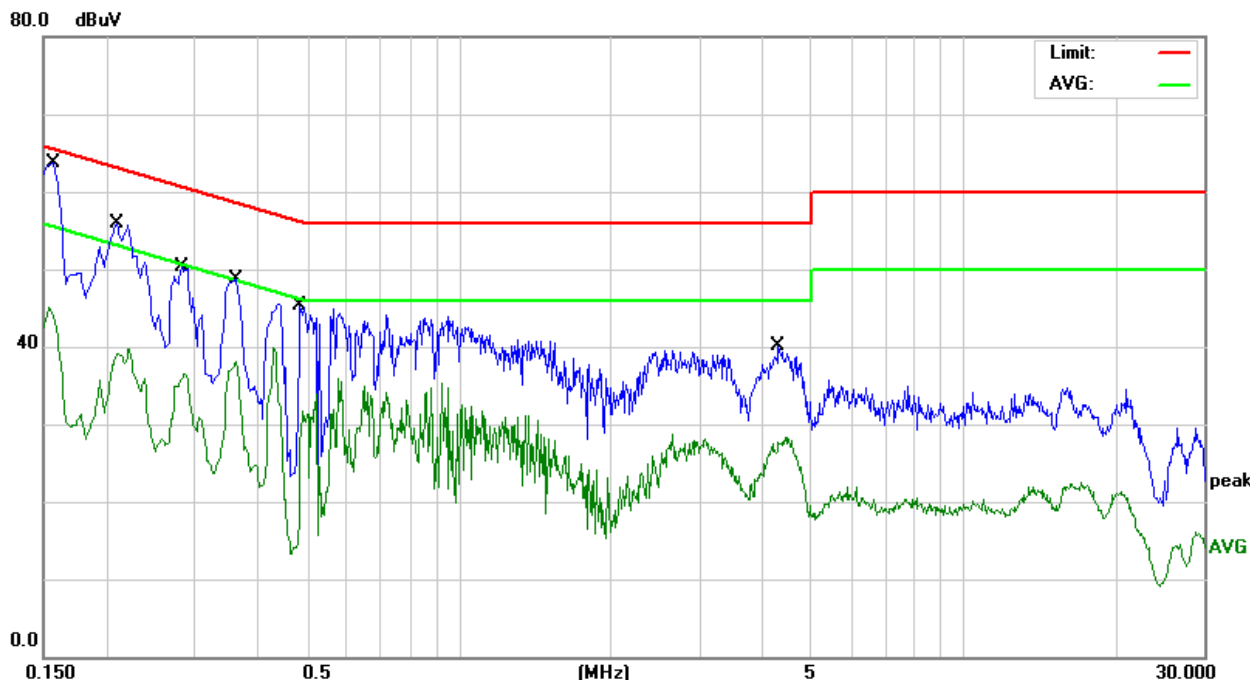
- Freq. = Emission frequency in MHz
- Reading = Uncorrected Analyzer/Receiver reading
- Factor = Insertion loss of LISN + Cable Loss + Pulse Limit
- Result = Reading + Factor
- Limit = Limit stated in standard
- Margin = Reading in reference to limit
- P = Peak Reading
- Q = Quasi-peak Reading
- A = Average Reading
- L1 = Hot side
- L2 = Neutral side

#### Calculation Formula

Margin (dB) = Result (dBuV) – Limit (dBuV)

### 6.6. TEST RESULTS

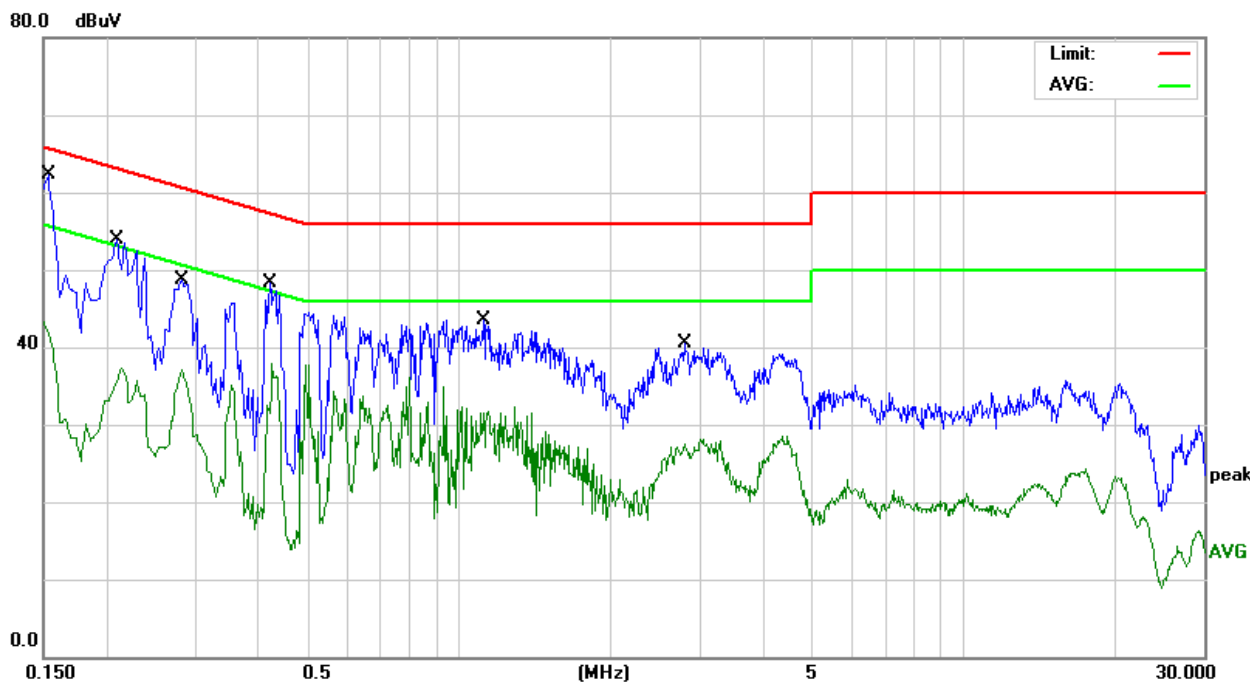
<b>Model No.</b>	KTPS05-03315U-VI	<b>6dB Bandwidth</b>	9 kHz
<b>Environmental Conditions</b>	24°C, 58% RH	<b>Test Mode</b>	Mode 1
<b>Tested by</b>	David Cheng	<b>Phase</b>	L1
<b>Standard</b>	FCC CLASS B		



Conducted Emission Readings							
Frequency Range Investigated				150 kHz to 30 MHz			
Freq. (MHz)	Reading (dBuV)	Factor (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector (P/Q/A)	Line (L1/L2)
0.1580	47.75	10.05	57.80	65.56	-7.76	Q	L1
0.1580	35.09	10.05	45.14	55.56	-10.42	A	L1
0.2100	39.41	10.07	49.48	63.20	-13.72	Q	L1
0.2100	29.66	10.07	39.73	53.20	-13.47	A	L1
0.2819	35.32	10.08	45.40	60.76	-15.36	Q	L1
0.2819	26.45	10.08	36.53	50.76	-14.23	A	L1
0.3620	34.54	10.09	44.63	58.68	-14.05	Q	L1
0.3620	27.99	10.09	38.08	48.68	-10.60	A	L1
0.4860	31.80	10.09	41.89	56.24	-14.35	Q	L1
0.4860	23.89	10.09	33.98	46.24	-12.26	A	L1
4.2940	24.43	10.30	34.73	56.00	-21.27	Q	L1
4.2940	18.07	10.30	28.37	46.00	-17.63	A	L1

**Note:** L1 = Line One (Live Line) / L2 = Line Two (Neutral Line).

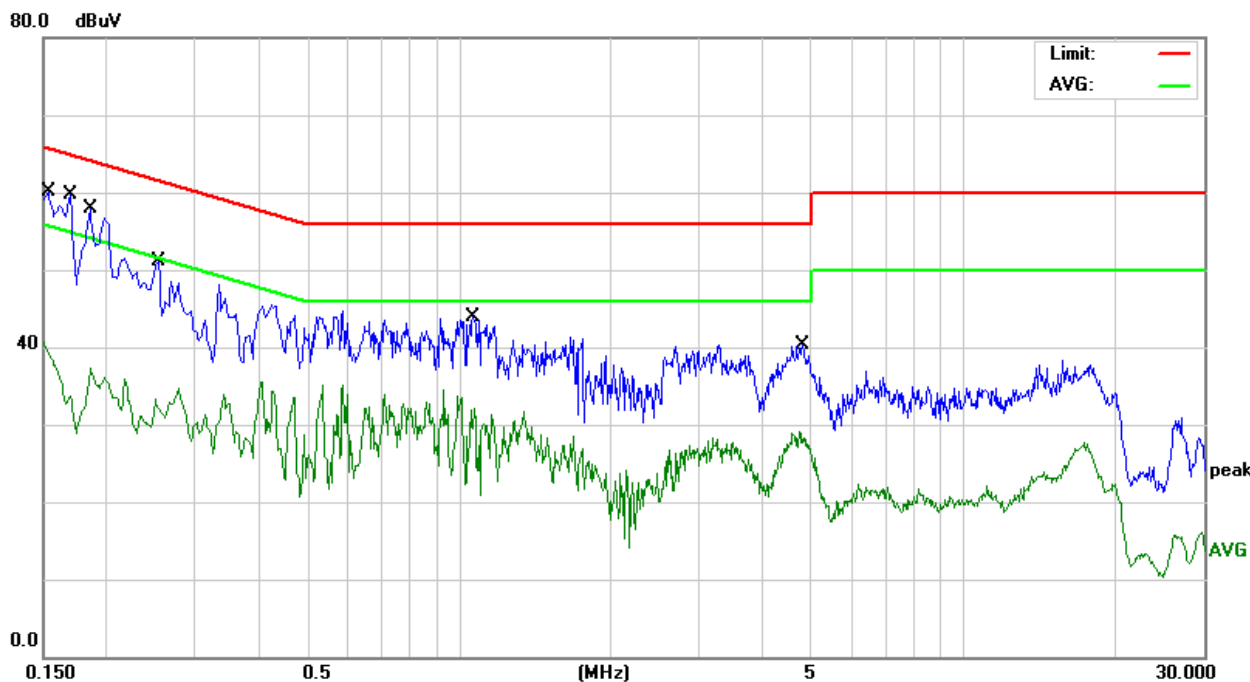
<b>Model No.</b>	KTPS05-03315U-VI	<b>6dB Bandwidth</b>	9 kHz
<b>Environmental Conditions</b>	24°C, 58% RH	<b>Test Mode</b>	Mode 1
<b>Tested by</b>	David Cheng	<b>Phase</b>	L2
<b>Standard</b>	FCC CLASS B		



Conducted Emission Readings							
Frequency Range Investigated				150 kHz to 30 MHz			
Freq. (MHz)	Reading (dBuV)	Factor (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector (P/Q/A)	Line (L1/L2)
0.1539	46.08	10.05	56.13	65.78	-9.65	Q	L2
0.1539	33.21	10.05	43.26	55.78	-12.52	A	L2
0.2100	38.08	10.07	48.15	63.20	-15.05	Q	L2
0.2100	27.25	10.07	37.32	53.20	-15.88	A	L2
0.2819	34.14	10.08	44.22	60.76	-16.54	Q	L2
0.2819	26.93	10.08	37.01	50.76	-13.75	A	L2
0.4220	32.22	10.08	42.30	57.41	-15.11	Q	L2
0.4220	27.89	10.08	37.97	47.41	-9.44	A	L2
1.1220	29.30	10.12	39.42	56.00	-16.58	Q	L2
1.1220	21.68	10.12	31.80	46.00	-14.20	A	L2
2.8060	24.87	10.22	35.09	56.00	-20.91	Q	L2
2.8060	17.96	10.22	28.18	46.00	-17.82	A	L2

**Note:** L1 = Line One (Live Line) / L2 = Line Two (Neutral Line).

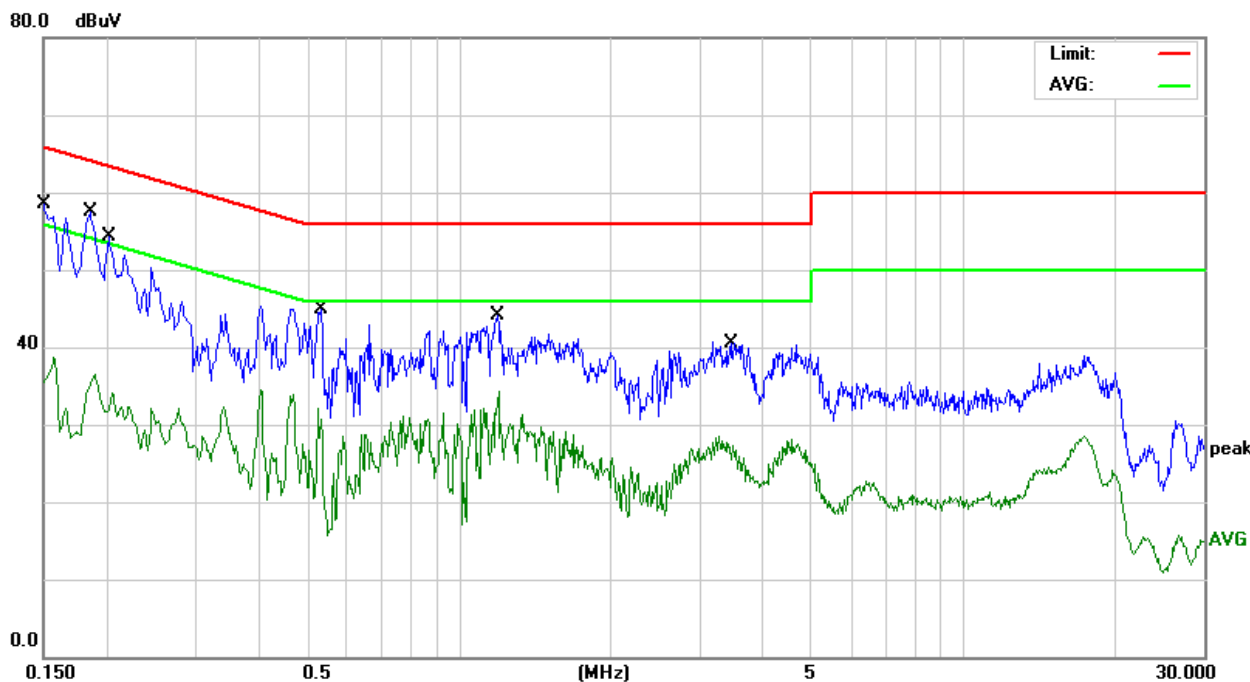
<b>Model No.</b>	KTPS05-05010U-VI	<b>6dB Bandwidth</b>	9 kHz
<b>Environmental Conditions</b>	24°C, 58% RH	<b>Test Mode</b>	Mode 2
<b>Tested by</b>	David Cheng	<b>Phase</b>	L1
<b>Standard</b>	FCC CLASS B		



Conducted Emission Readings							
Frequency Range Investigated				150 kHz to 30 MHz			
Freq. (MHz)	Reading (dBuV)	Factor (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector (P/Q/A)	Line (L1/L2)
0.1539	44.76	10.05	54.81	65.78	-10.97	Q	L1
0.1539	30.73	10.05	40.78	55.78	-15.00	A	L1
0.1700	38.19	10.05	48.24	64.96	-16.72	Q	L1
0.1700	22.10	10.05	32.15	54.96	-22.81	A	L1
0.1864	42.77	10.07	52.84	64.19	-11.35	Q	L1
0.1864	27.20	10.07	37.27	54.19	-16.92	A	L1
0.2540	32.62	10.08	42.70	61.62	-18.92	Q	L1
0.2540	24.71	10.08	34.79	51.62	-16.83	A	L1
1.0660	30.46	10.13	40.59	56.00	-15.41	Q	L1
1.0660	23.38	10.13	33.51	46.00	-12.49	A	L1
4.7980	24.45	10.33	34.78	56.00	-21.22	Q	L1
4.7980	18.81	10.33	29.14	46.00	-16.86	A	L1

**Note:** L1 = Line One (Live Line) / L2 = Line Two (Neutral Line).

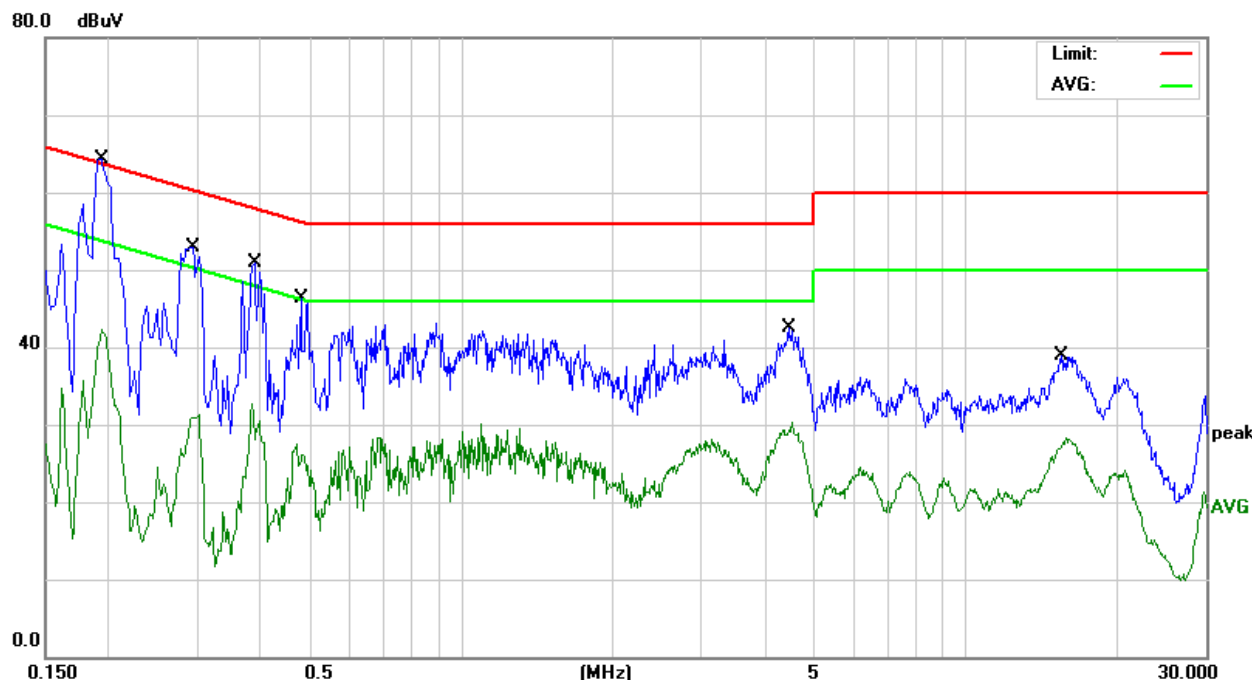
<b>Model No.</b>	KTPS05-05010U-VI	<b>6dB Bandwidth</b>	9 kHz
<b>Environmental Conditions</b>	24°C, 58% RH	<b>Test Mode</b>	Mode 2
<b>Tested by</b>	David Cheng	<b>Phase</b>	L2
<b>Standard</b>	FCC CLASS B		



Conducted Emission Readings							
Frequency Range Investigated				150 kHz to 30 MHz			
Freq. (MHz)	Reading (dBuV)	Factor (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector (P/Q/A)	Line (L1/L2)
0.1500	41.70	10.05	51.75	65.99	-14.24	Q	L2
0.1500	28.75	10.05	38.80	55.99	-17.19	A	L2
0.1860	40.07	10.07	50.14	64.21	-14.07	Q	L2
0.1860	22.08	10.07	32.15	54.21	-22.06	A	L2
0.2020	36.83	10.07	46.90	63.52	-16.62	Q	L2
0.2020	26.17	10.07	36.24	53.52	-17.28	A	L2
0.5340	32.38	10.08	42.46	56.00	-13.54	Q	L2
0.5340	21.98	10.08	32.06	46.00	-13.94	A	L2
1.1940	31.09	10.13	41.22	56.00	-14.78	Q	L2
1.1940	24.10	10.13	34.23	46.00	-11.77	A	L2
3.4900	23.70	10.24	33.94	56.00	-22.06	Q	L2
3.4900	17.27	10.24	27.51	46.00	-18.49	A	L2

**Note:** L1 = Line One (Live Line) / L2 = Line Two (Neutral Line).

<b>Model No.</b>	KTPS05-05015U-VI	<b>6dB Bandwidth</b>	9 kHz
<b>Environmental Conditions</b>	24°C, 58% RH	<b>Test Mode</b>	Mode 3
<b>Tested by</b>	David Cheng	<b>Phase</b>	L1
<b>Standard</b>	FCC CLASS B		

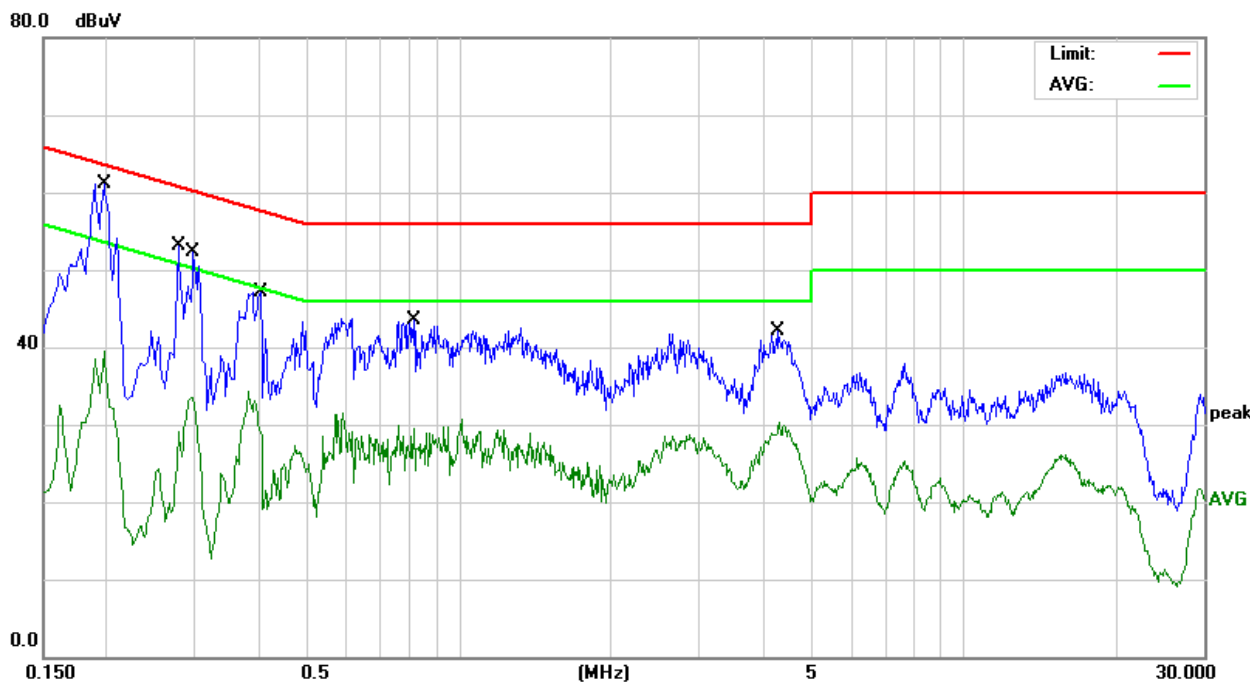


Conducted Emission Readings							
Frequency Range Investigated				150 kHz to 30 MHz			
Freq. (MHz)	Reading (dBuV)	Factor (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector (P/Q/A)	Line (L1/L2)
0.1940	48.06	10.07	58.13	63.86	-5.73	Q	L1
0.1940	32.18	10.07	42.25	53.86	-11.61	A	L1
0.2940	35.64	10.08	45.72	60.41	-14.69	Q	L1
0.2940	21.27	10.08	31.35	50.41	-19.06	A	L1
0.3899	31.16	10.09	41.25	58.06	-16.81	Q	L1
0.3899	22.70	10.09	32.79	48.06	-15.27	A	L1
0.4820	27.47	10.09	37.56	56.30	-18.74	Q	L1
0.4820	17.37	10.09	27.46	46.30	-18.84	A	L1
4.4620	26.12	10.30	36.42	56.00	-19.58	Q	L1
4.4620	19.96	10.30	30.26	46.00	-15.74	A	L1
15.4940	21.26	10.82	32.08	60.00	-27.92	Q	L1
15.4940	17.41	10.82	28.23	50.00	-21.77	A	L1

**Note:** L1 = Line One (Live Line) / L2 = Line Two (Neutral Line).



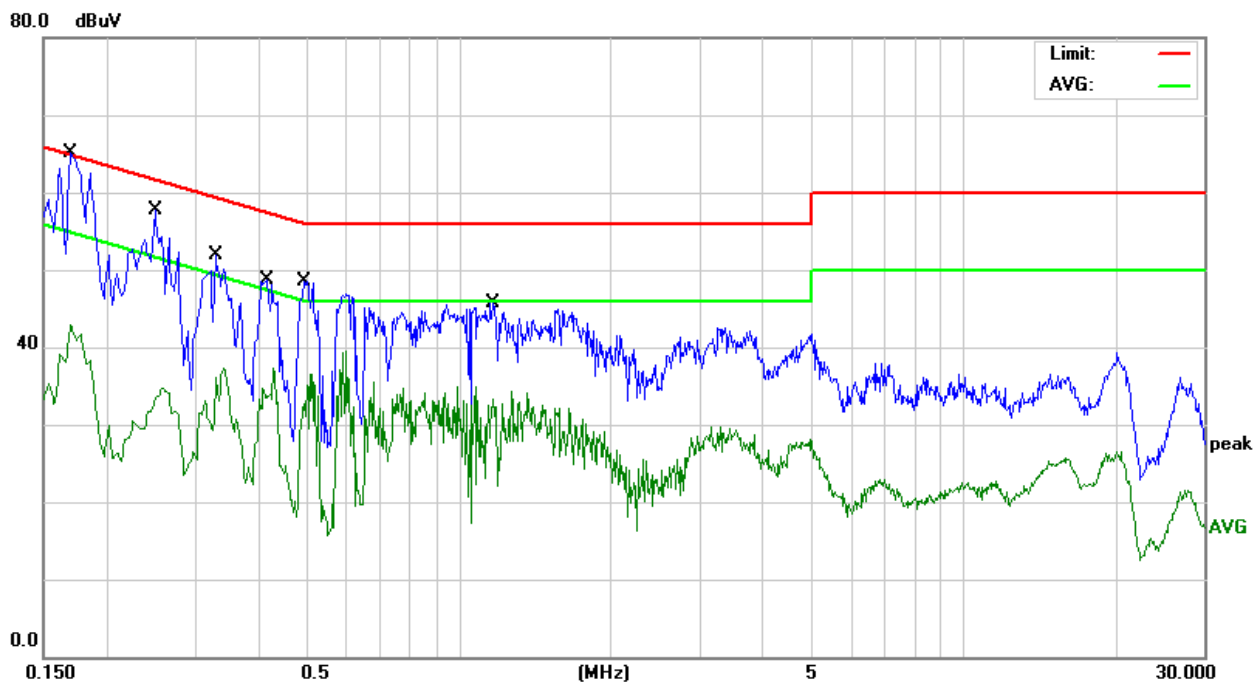
<b>Model No.</b>	KTPS05-05015U-VI	<b>6dB Bandwidth</b>	9 kHz
<b>Environmental Conditions</b>	24°C, 58% RH	<b>Test Mode</b>	Mode 3
<b>Tested by</b>	David Cheng	<b>Phase</b>	L2
<b>Standard</b>	FCC CLASS B		



Conducted Emission Readings							
Frequency Range Investigated				150 kHz to 30 MHz			
Freq. (MHz)	Reading (dBuV)	Factor (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector (P/Q/A)	Line (L1/L2)
0.1980	45.66	10.07	55.73	63.69	-7.96	Q	L2
0.1980	29.37	10.07	39.44	53.69	-14.25	A	L2
0.2779	33.12	10.08	43.20	60.88	-17.68	Q	L2
0.2779	21.04	10.08	31.12	50.88	-19.76	A	L2
0.2980	35.24	10.08	45.32	60.30	-14.98	Q	L2
0.2980	23.37	10.08	33.45	50.30	-16.85	A	L2
0.4060	30.39	10.08	40.47	57.73	-17.26	Q	L2
0.4060	24.20	10.08	34.28	47.73	-13.45	A	L2
0.8139	29.19	10.10	39.29	56.00	-16.71	Q	L2
0.8139	19.63	10.10	29.73	46.00	-16.27	A	L2
4.3140	26.00	10.27	36.27	56.00	-19.73	Q	L2
4.3140	18.50	10.27	28.77	46.00	-17.23	A	L2

**Note:** L1 = Line One (Live Line) / L2 = Line Two (Neutral Line).

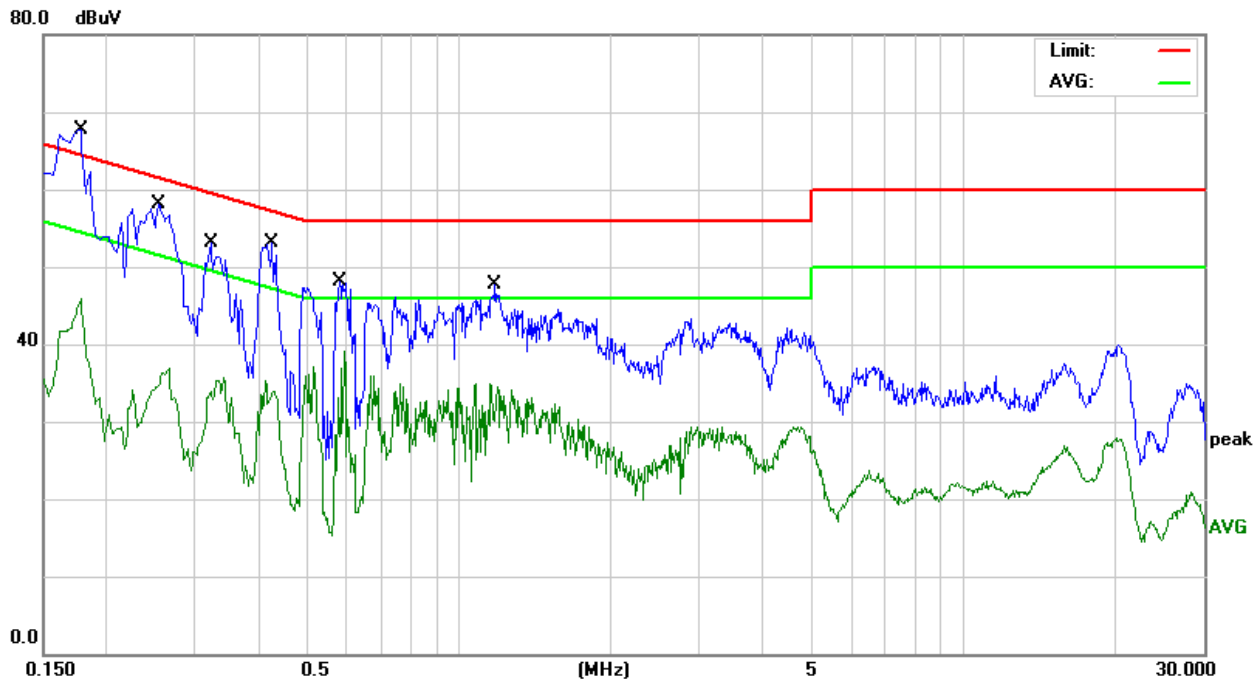
<b>Model No.</b>	KTPS05-06012U-VI	<b>6dB Bandwidth</b>	9 kHz
<b>Environmental Conditions</b>	24°C, 58% RH	<b>Test Mode</b>	Mode 4
<b>Tested by</b>	David Cheng	<b>Phase</b>	L1
<b>Standard</b>	FCC CLASS B		



Conducted Emission Readings							
Frequency Range Investigated				150 kHz to 30 MHz			
Freq. (MHz)	Reading (dBuV)	Factor (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector (P/Q/A)	Line (L1/L2)
0.1700	49.42	10.05	59.47	64.96	-5.49	Q	L1
0.1700	32.87	10.05	42.92	54.96	-12.04	A	L1
0.2500	36.93	10.08	47.01	61.75	-14.74	Q	L1
0.2500	24.70	10.08	34.78	51.75	-16.97	A	L1
0.3300	33.54	10.09	43.63	59.45	-15.82	Q	L1
0.3300	27.25	10.09	37.34	49.45	-12.11	A	L1
0.4180	31.99	10.09	42.08	57.49	-15.41	Q	L1
0.4180	27.14	10.09	37.23	47.49	-10.26	A	L1
0.4940	34.30	10.09	44.39	56.10	-11.71	Q	L1
0.4940	26.42	10.09	36.51	46.10	-9.59	A	L1
1.1700	31.95	10.14	42.09	56.00	-13.91	Q	L1
1.1700	23.09	10.14	33.23	46.00	-12.77	A	L1

**Note:** L1 = Line One (Live Line) / L2 = Line Two (Neutral Line).

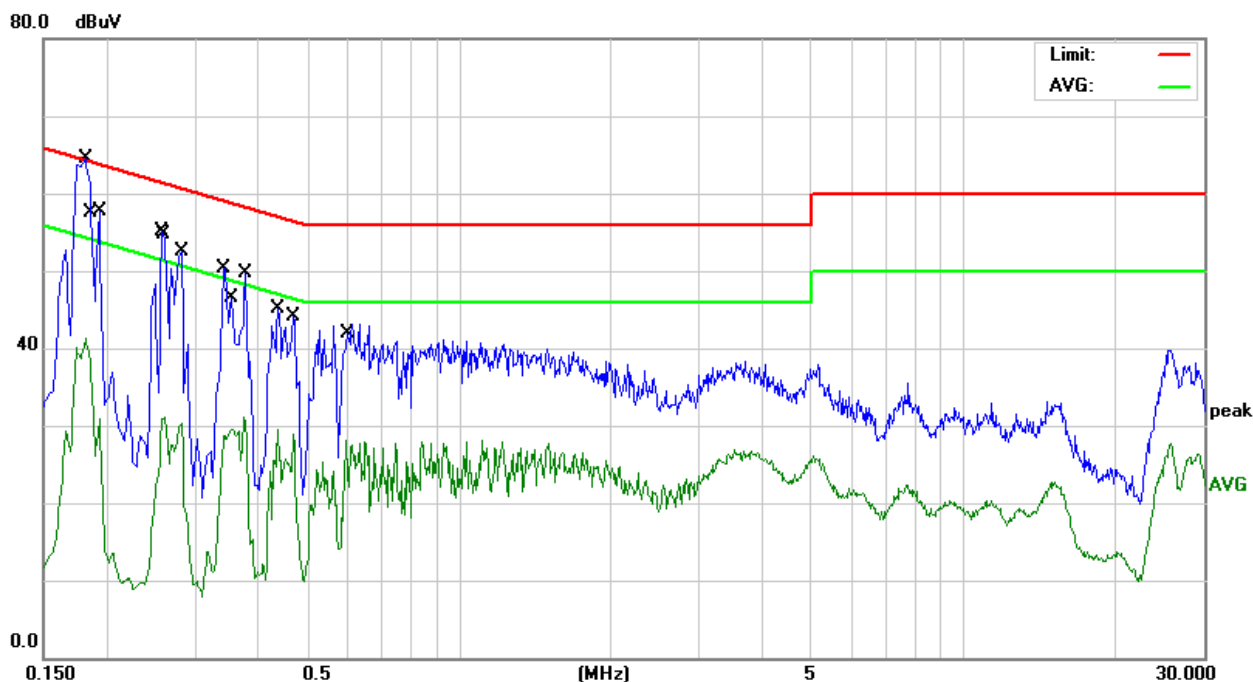
<b>Model No.</b>	KTPS05-06012U-VI	<b>6dB Bandwidth</b>	9 kHz
<b>Environmental Conditions</b>	24°C, 58% RH	<b>Test Mode</b>	Mode 4
<b>Tested by</b>	David Cheng	<b>Phase</b>	L2
<b>Standard</b>	FCC CLASS B		



Conducted Emission Readings							
Frequency Range Investigated				150 kHz to 30 MHz			
Freq. (MHz)	Reading (dBuV)	Factor (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector (P/Q/A)	Line (L1/L2)
0.1780	50.73	10.07	60.80	64.57	-3.77	Q	L2
0.1780	35.83	10.07	45.90	54.57	-8.67	A	L2
0.2540	40.79	10.08	50.87	61.62	-10.75	Q	L2
0.2540	26.92	10.08	37.00	51.62	-14.62	A	L2
0.3220	35.98	10.08	46.06	59.65	-13.59	Q	L2
0.3220	25.56	10.08	35.64	49.65	-14.01	A	L2
0.4260	33.84	10.08	43.92	57.33	-13.41	Q	L2
0.4260	25.17	10.08	35.25	47.33	-12.08	A	L2
0.5820	34.74	10.09	44.83	56.00	-11.17	Q	L2
0.5820	26.75	10.09	36.84	46.00	-9.16	A	L2
1.1820	35.28	10.13	45.41	56.00	-10.59	Q	L2
1.1820	24.84	10.13	34.97	46.00	-11.03	A	L2

**Note:** L1 = Line One (Live Line) / L2 = Line Two (Neutral Line).

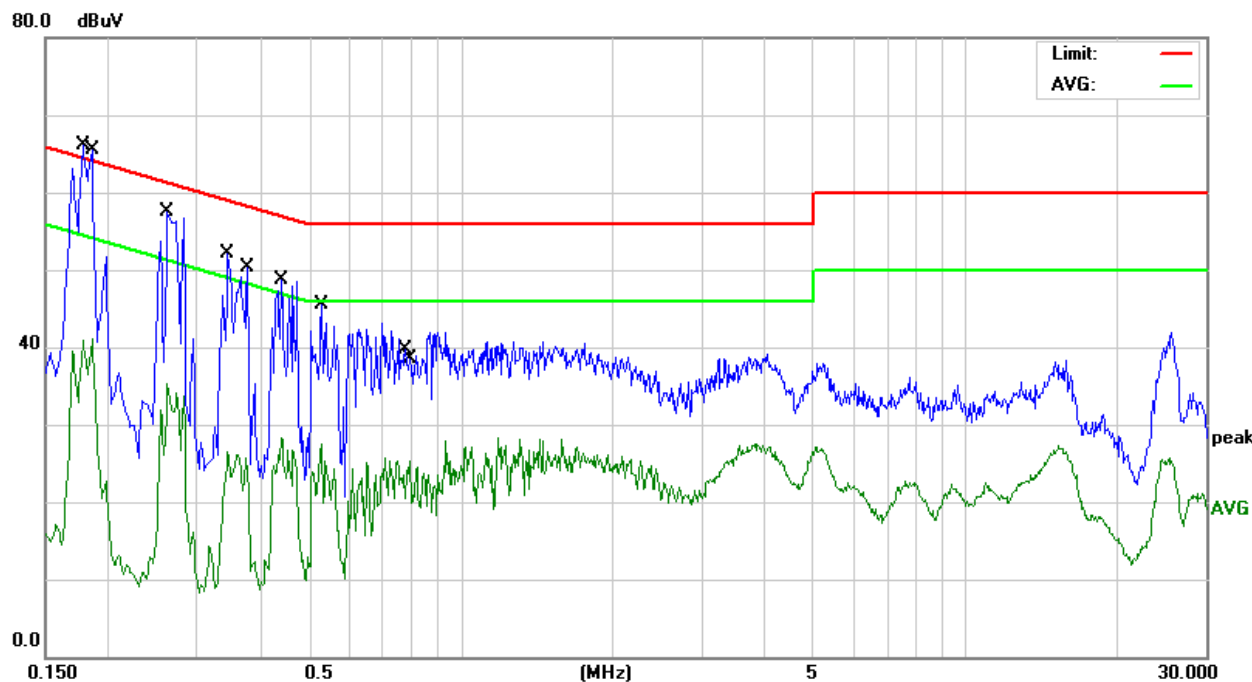
<b>Model No.</b>	KTPS05-07510U-VI	<b>6dB Bandwidth</b>	9 kHz
<b>Environmental Conditions</b>	25°C, 58% RH	<b>Test Mode</b>	Mode 5
<b>Tested by</b>	Pipo Hou	<b>Phase</b>	L1
<b>Standard</b>	FCC CLASS B		



Conducted Emission Readings							
Frequency Range Investigated				150 kHz to 30 MHz			
Freq. (MHz)	Reading (dBuV)	Factor (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector (P/Q/A)	Line (L1/L2)
0.1819	47.36	10.07	57.43	64.39	-6.96	Q	L1
0.1819	31.14	10.07	41.21	54.39	-13.18	A	L1
0.1874	23.99	10.07	34.06	54.15	-20.09	A	L1
0.1940	38.99	10.07	49.06	63.86	-14.80	Q	L1
0.2580	37.18	10.08	47.26	61.49	-14.23	Q	L1
0.2620	21.01	10.08	31.09	51.36	-20.27	A	L1
0.2819	35.76	10.08	45.84	60.76	-14.92	Q	L1
0.2819	20.20	10.08	30.28	50.76	-20.48	A	L1
0.3420	30.72	10.09	40.81	59.15	-18.34	Q	L1
0.3540	19.48	10.09	29.57	48.87	-19.30	A	L1
0.3740	20.95	10.09	31.04	48.41	-17.37	A	L1
0.3780	31.80	10.09	41.89	58.32	-16.43	Q	L1
0.4380	19.41	10.09	29.50	47.10	-17.60	A	L1
0.4700	28.70	10.09	38.79	56.51	-17.72	Q	L1
0.5980	27.79	10.10	37.89	56.00	-18.11	Q	L1
0.5980	17.94	10.10	28.04	46.00	-17.96	A	L1

**Note:** L1 = Line One (Live Line) / L2 = Line Two (Neutral Line).

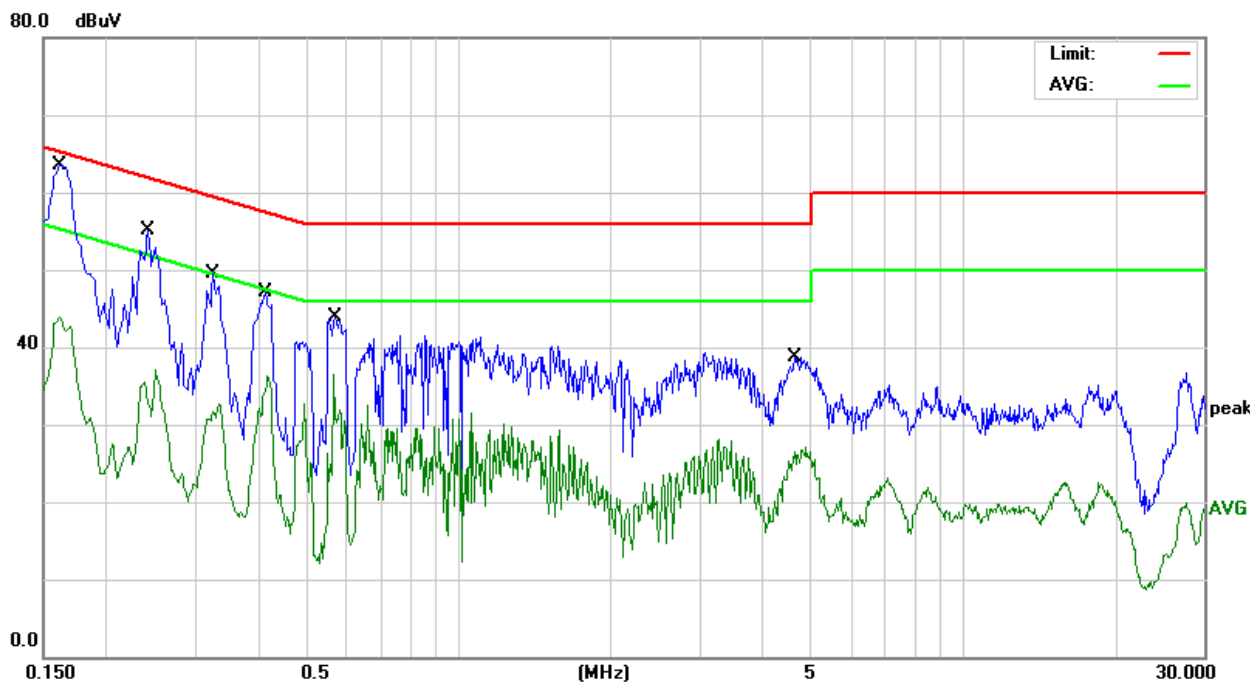
<b>Model No.</b>	KTPS05-07510U-VI	<b>6dB Bandwidth</b>	9 kHz
<b>Environmental Conditions</b>	25°C, 58% RH	<b>Test Mode</b>	Mode 5
<b>Tested by</b>	Pipo Hou	<b>Phase</b>	L2
<b>Standard</b>	FCC CLASS B		



Conducted Emission Readings							
Frequency Range Investigated				150 kHz to 30 MHz			
Freq. (MHz)	Reading (dBuV)	Factor (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector (P/Q/A)	Line (L1/L2)
0.1780	50.32	10.07	60.39	64.57	-4.18	Q	L2
0.1860	30.96	10.07	41.03	54.21	-13.18	A	L2
0.2620	40.16	10.08	50.24	61.36	-11.12	Q	L2
0.2620	25.20	10.08	35.28	51.36	-16.08	A	L2
0.3460	32.74	10.08	42.82	59.06	-16.24	Q	L2
0.3460	16.48	10.08	26.56	49.06	-22.50	A	L2
0.3740	15.54	10.08	25.62	48.41	-22.79	A	L2
0.3780	31.77	10.08	41.85	58.32	-16.47	Q	L2
0.4420	29.01	10.08	39.09	57.02	-17.93	Q	L2
0.4420	18.15	10.08	28.23	47.02	-18.79	A	L2
0.5299	25.98	10.08	36.06	56.00	-19.94	Q	L2
0.5299	17.41	10.08	27.49	46.00	-18.51	A	L2
0.7780	23.67	10.10	33.77	56.00	-22.23	Q	L2
0.7940	15.26	10.10	25.36	46.00	-20.64	A	L2

**Note:** L1 = Line One (Live Line) / L2 = Line Two (Neutral Line).

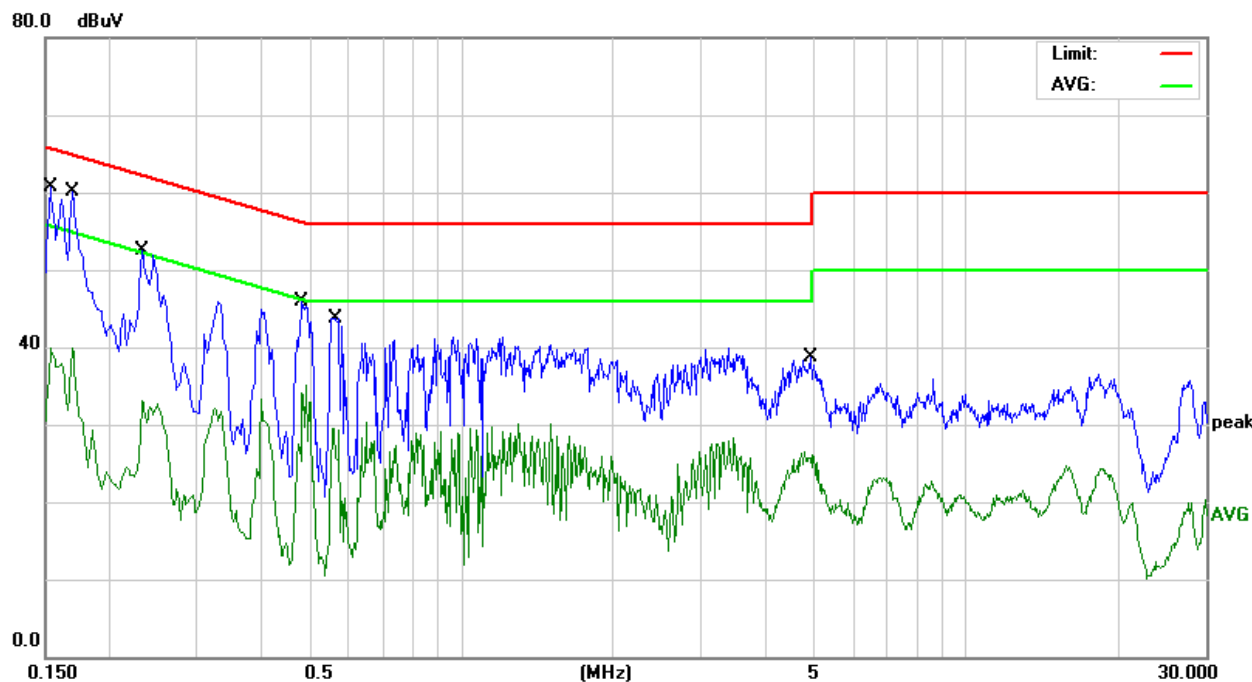
<b>Model No.</b>	KTPS05-09006U-VI	<b>6dB Bandwidth</b>	9 kHz
<b>Environmental Conditions</b>	24°C, 58% RH	<b>Test Mode</b>	Mode 6
<b>Tested by</b>	David Cheng	<b>Phase</b>	L1
<b>Standard</b>	FCC CLASS B		



Conducted Emission Readings							
Frequency Range Investigated				150 kHz to 30 MHz			
Freq. (MHz)	Reading (dBuV)	Factor (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector (P/Q/A)	Line (L1/L2)
0.1620	48.72	10.05	58.77	65.36	-6.59	Q	L1
0.1620	33.78	10.05	43.83	55.36	-11.53	A	L1
0.2420	39.15	10.07	49.22	62.02	-12.80	Q	L1
0.2420	27.01	10.07	37.08	52.02	-14.94	A	L1
0.3260	32.36	10.09	42.45	59.55	-17.10	Q	L1
0.3260	22.69	10.09	32.78	49.55	-16.77	A	L1
0.4140	33.17	10.09	43.26	57.57	-14.31	Q	L1
0.4140	26.28	10.09	36.37	47.57	-11.20	A	L1
0.5700	31.12	10.10	41.22	56.00	-14.78	Q	L1
0.5700	26.44	10.10	36.54	46.00	-9.46	A	L1
4.6260	23.61	10.33	33.94	56.00	-22.06	Q	L1
4.6260	16.77	10.33	27.10	46.00	-18.90	A	L1

**Note:** L1 = Line One (Live Line) / L2 = Line Two (Neutral Line).

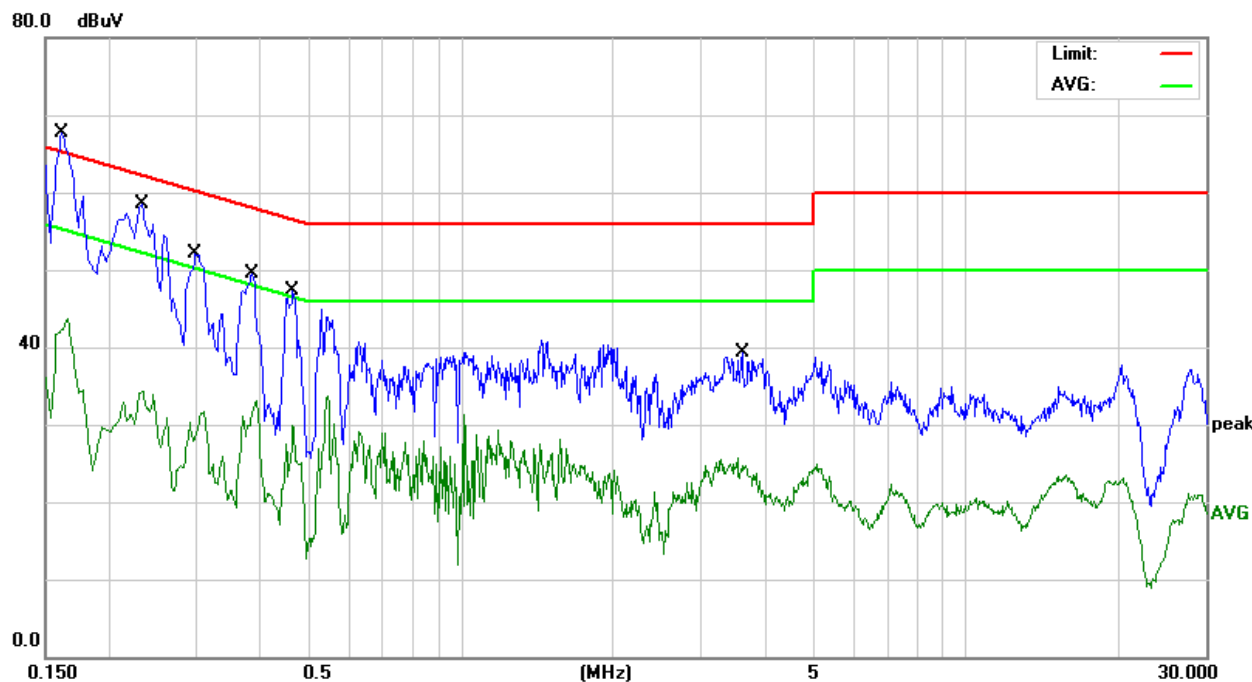
<b>Model No.</b>	KTPS05-09006U-VI	<b>6dB Bandwidth</b>	9 kHz
<b>Environmental Conditions</b>	24°C, 58% RH	<b>Test Mode</b>	Mode 6
<b>Tested by</b>	David Cheng	<b>Phase</b>	L2
<b>Standard</b>	FCC CLASS B		



Conducted Emission Readings							
Frequency Range Investigated				150 kHz to 30 MHz			
Freq. (MHz)	Reading (dBuV)	Factor (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector (P/Q/A)	Line (L1/L2)
0.1539	45.02	10.05	55.07	65.78	-10.71	Q	L2
0.1539	29.76	10.05	39.81	55.78	-15.97	A	L2
0.1700	44.14	10.05	54.19	64.96	-10.77	Q	L2
0.1700	29.90	10.05	39.95	54.96	-15.01	A	L2
0.2340	35.96	10.07	46.03	62.30	-16.27	Q	L2
0.2340	22.98	10.07	33.05	52.30	-19.25	A	L2
0.4860	30.57	10.08	40.65	56.24	-15.59	Q	L2
0.4860	25.00	10.08	35.08	46.24	-11.16	A	L2
0.5660	31.29	10.09	41.38	56.00	-14.62	Q	L2
0.5660	19.39	10.09	29.48	46.00	-16.52	A	L2
4.9420	22.94	10.31	33.25	56.00	-22.75	Q	L2
4.9420	16.20	10.31	26.51	46.00	-19.49	A	L2

**Note:** L1 = Line One (Live Line) / L2 = Line Two (Neutral Line).

<b>Model No.</b>	KTPS05-12006U-VI	<b>6dB Bandwidth</b>	9 kHz
<b>Environmental Conditions</b>	24°C, 58% RH	<b>Test Mode</b>	Mode 7 / Worst
<b>Tested by</b>	David Cheng	<b>Phase</b>	L1
<b>Standard</b>	FCC CLASS B		

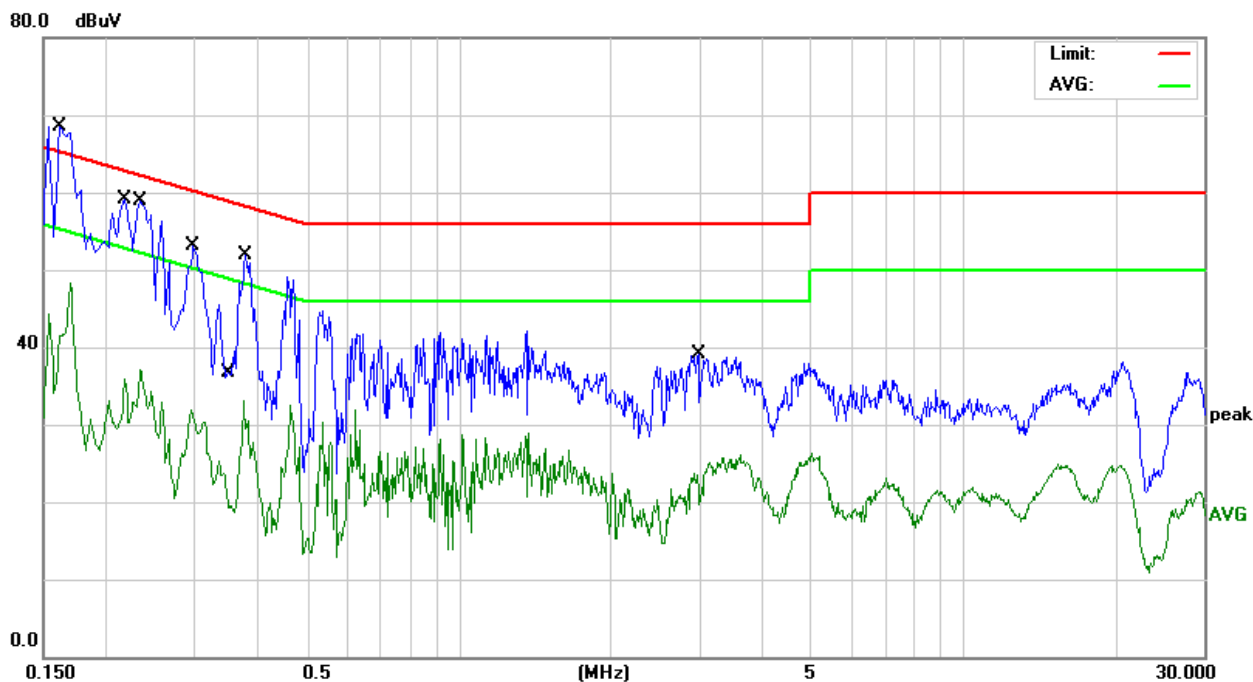


Conducted Emission Readings							
Frequency Range Investigated				150 kHz to 30 MHz			
Freq. (MHz)	Reading (dBuV)	Factor (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector (P/Q/A)	Line (L1/L2)
0.1620	50.39	10.05	60.44	65.36	-4.92	Q	L1
0.1620	33.60	10.05	43.65	55.36	-11.71	A	L1
0.2340	39.14	10.07	49.21	62.30	-13.09	Q	L1
0.2340	24.20	10.07	34.27	52.30	-18.03	A	L1
0.2980	35.63	10.08	45.71	60.30	-14.59	Q	L1
0.2980	21.69	10.08	31.77	50.30	-18.53	A	L1
0.3860	33.31	10.09	43.40	58.15	-14.75	Q	L1
0.3860	21.77	10.09	31.86	48.15	-16.29	A	L1
0.4660	29.58	10.09	39.67	56.58	-16.91	Q	L1
0.4660	19.82	10.09	29.91	46.58	-16.67	A	L1
3.6140	22.36	10.27	32.63	56.00	-23.37	Q	L1
3.6140	15.46	10.27	25.73	46.00	-20.27	A	L1

**Note:** L1 = Line One (Live Line) / L2 = Line Two (Neutral Line).



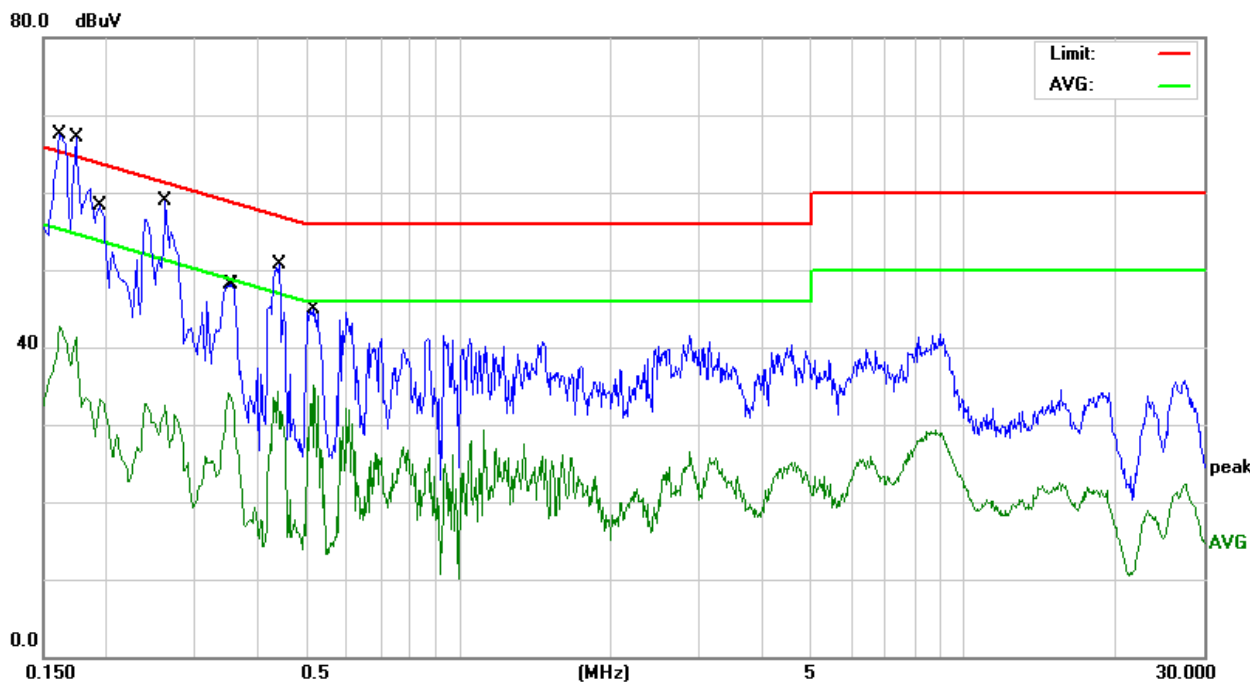
<b>Model No.</b>	KTPS05-12006U-VI	<b>6dB Bandwidth</b>	9 kHz
<b>Environmental Conditions</b>	24°C, 58% RH	<b>Test Mode</b>	Mode 7 / Worst
<b>Tested by</b>	David Cheng	<b>Phase</b>	L2
<b>Standard</b>	FCC CLASS B		



Conducted Emission Readings							
Frequency Range Investigated				150 kHz to 30 MHz			
Freq. (MHz)	Reading (dBuV)	Factor (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector (P/Q/A)	Line (L1/L2)
0.1620	52.00	10.05	62.05	65.36	-3.31	Q	L2
0.1620	38.27	10.05	48.32	55.36	-7.04	A	L2
0.2180	43.44	10.07	53.51	62.89	-9.38	Q	L2
0.2180	25.82	10.07	35.89	52.89	-17.00	A	L2
0.2340	41.30	10.07	51.37	62.30	-10.93	Q	L2
0.2340	26.97	10.07	37.04	52.30	-15.26	A	L2
0.2980	37.23	10.08	47.31	60.30	-12.99	Q	L2
0.2980	21.80	10.08	31.88	50.30	-18.42	A	L2
0.3480	23.03	10.08	33.11	49.01	-15.90	A	L2
0.3780	34.41	10.08	44.49	58.32	-13.83	Q	L2
2.9820	23.63	10.22	33.85	56.00	-22.15	Q	L2
2.9820	14.81	10.22	25.03	46.00	-20.97	A	L2

**Note:** L1 = Line One (Live Line) / L2 = Line Two (Neutral Line).

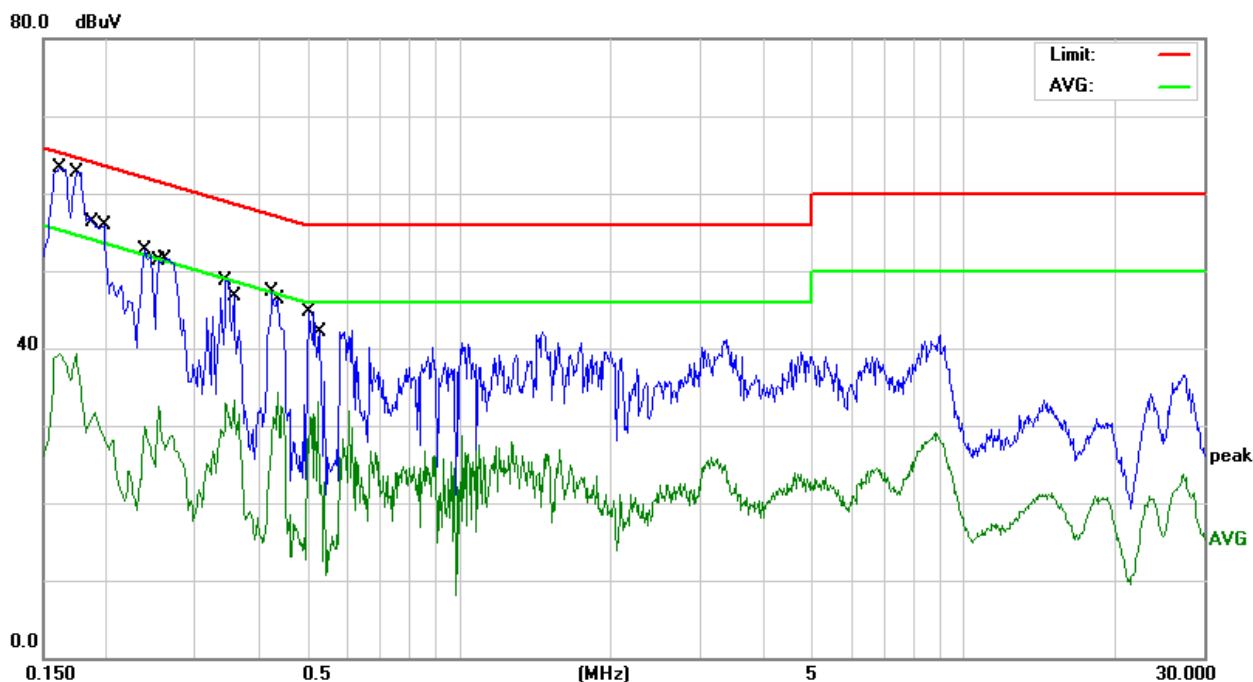
<b>Model No.</b>	KTPS05-15005U-VI	<b>6dB Bandwidth</b>	9 kHz
<b>Environmental Conditions</b>	24°C, 58% RH	<b>Test Mode</b>	Mode 8
<b>Tested by</b>	David Cheng	<b>Phase</b>	L1
<b>Standard</b>	FCC CLASS B		



Conducted Emission Readings							
Frequency Range Investigated				150 kHz to 30 MHz			
Freq. (MHz)	Reading (dBuV)	Factor (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector (P/Q/A)	Line (L1/L2)
0.1620	50.66	10.05	60.71	65.36	-4.65	Q	L1
0.1620	32.62	10.05	42.67	55.36	-12.69	A	L1
0.1740	49.74	10.05	59.79	64.76	-4.97	Q	L1
0.1740	31.31	10.05	41.36	54.76	-13.40	A	L1
0.1940	40.23	10.07	50.30	63.86	-13.56	Q	L1
0.1940	23.31	10.07	33.38	53.86	-20.48	A	L1
0.2620	39.14	10.08	49.22	61.36	-12.14	Q	L1
0.2620	22.37	10.08	32.45	51.36	-18.91	A	L1
0.3500	23.91	10.09	34.00	48.96	-14.96	A	L1
0.3540	32.94	10.09	43.03	58.87	-15.84	Q	L1
0.4380	24.26	10.09	34.35	47.10	-12.75	A	L1
0.4420	32.12	10.09	42.21	57.02	-14.81	Q	L1
0.5180	31.98	10.09	42.07	56.00	-13.93	Q	L1
0.5180	24.96	10.09	35.05	46.00	-10.95	A	L1

**Note:** L1 = Line One (Live Line) / L2 = Line Two (Neutral Line).

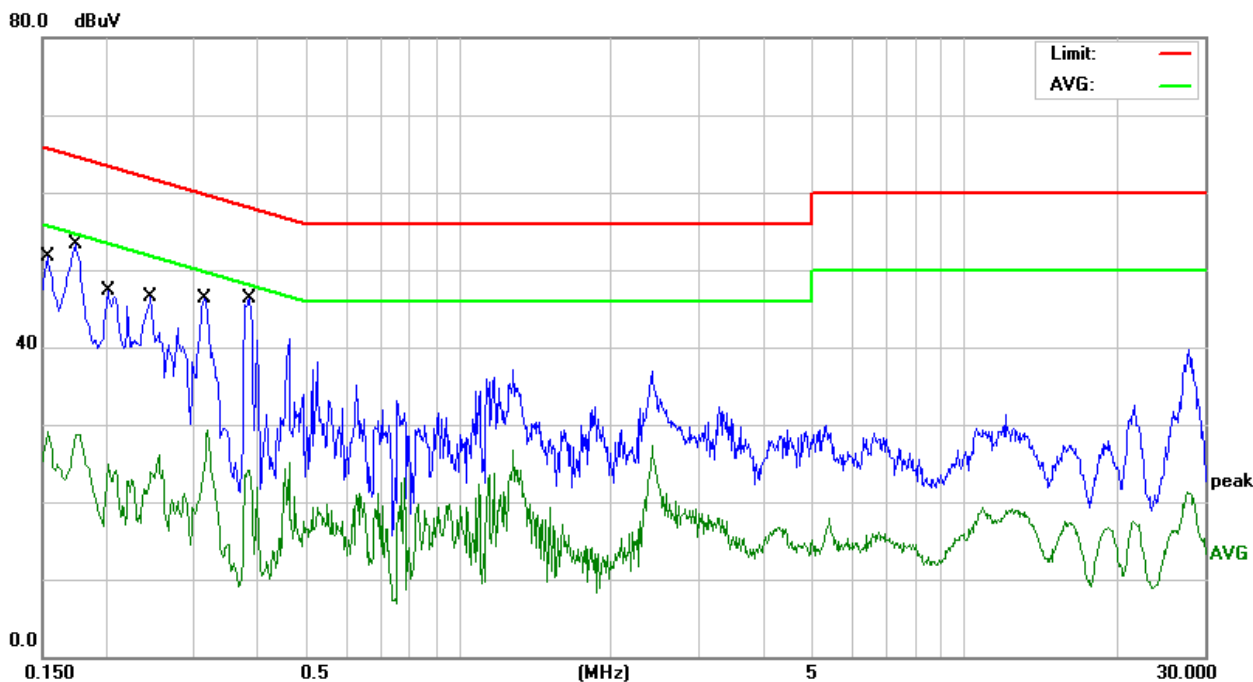
<b>Model No.</b>	KTPS05-15005U-VI	<b>6dB Bandwidth</b>	9 kHz
<b>Environmental Conditions</b>	24°C, 58% RH	<b>Test Mode</b>	Mode 8
<b>Tested by</b>	David Cheng	<b>Phase</b>	L2
<b>Standard</b>	FCC CLASS B		



Conducted Emission Readings							
Frequency Range Investigated				150 kHz to 30 MHz			
Freq. (MHz)	Reading (dBuV)	Factor (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector (P/Q/A)	Line (L1/L2)
0.1620	48.39	10.05	58.44	65.36	-6.92	Q	L2
0.1620	29.25	10.05	39.30	55.36	-16.06	A	L2
0.1740	46.91	10.05	56.96	64.76	-7.80	Q	L2
0.1740	29.27	10.05	39.32	54.76	-15.44	A	L2
0.1900	21.59	10.07	31.66	54.03	-22.37	A	L2
0.1980	35.63	10.07	45.70	63.69	-17.99	Q	L2
0.2380	36.34	10.07	46.41	62.16	-15.75	Q	L2
0.2380	19.91	10.07	29.98	52.16	-22.18	A	L2
0.2540	22.47	10.08	32.55	51.62	-19.07	A	L2
0.2620	37.42	10.08	47.50	61.36	-13.86	Q	L2
0.3460	31.96	10.08	42.04	59.06	-17.02	Q	L2
0.3580	23.20	10.08	33.28	48.77	-15.49	A	L2
0.4260	33.63	10.08	43.71	57.33	-13.62	Q	L2
0.4380	24.15	10.08	34.23	47.10	-12.87	A	L2
0.5060	29.94	10.08	40.02	56.00	-15.98	Q	L2
0.5260	22.98	10.08	33.06	46.00	-12.94	A	L2

**Note:** L1 = Line One (Live Line) / L2 = Line Two (Neutral Line).

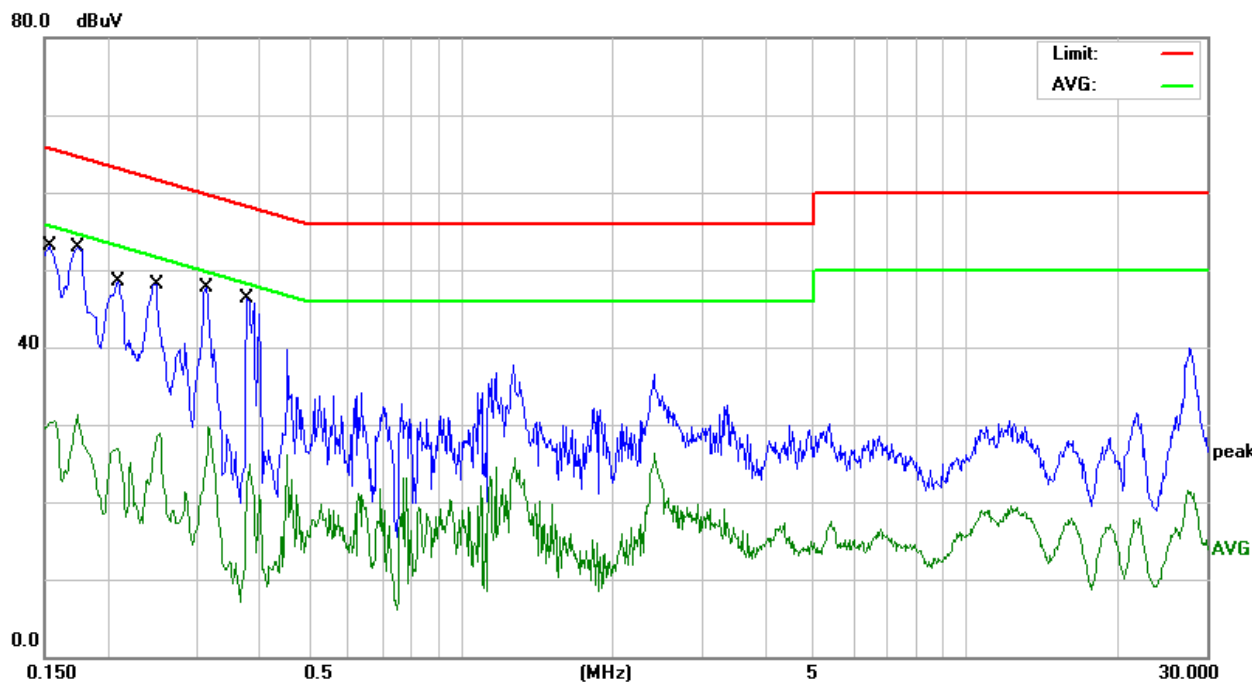
<b>Model No.</b>	KTPS05-18033U-VI	<b>6dB Bandwidth</b>	9 kHz
<b>Environmental Conditions</b>	20°C, 58% RH	<b>Test Mode</b>	Mode 9
<b>Tested by</b>	Bonny Tsai	<b>Phase</b>	L1
<b>Standard</b>	FCC CLASS B		



Conducted Emission Readings							
Frequency Range Investigated				150 kHz to 30 MHz			
Freq. (MHz)	Reading (dBuV)	Factor (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector (P/Q/A)	Line (L1/L2)
0.1539	34.04	10.05	44.09	65.78	-21.69	Q	L1
0.1539	19.10	10.05	29.15	55.78	-26.63	A	L1
0.1740	38.56	10.05	48.61	64.76	-16.15	Q	L1
0.1740	17.51	10.05	27.56	54.76	-27.20	A	L1
0.2020	30.25	10.07	40.32	63.52	-23.20	Q	L1
0.2020	12.38	10.07	22.45	53.52	-31.07	A	L1
0.2460	32.47	10.07	42.54	61.89	-19.35	Q	L1
0.2460	13.93	10.07	24.00	51.89	-27.89	A	L1
0.3140	27.68	10.08	37.76	59.86	-22.10	Q	L1
0.3140	14.61	10.08	24.69	49.86	-25.17	A	L1
0.3860	24.46	10.08	34.54	58.15	-23.61	Q	L1
0.3860	13.96	10.08	24.04	48.15	-24.11	A	L1

**Note:** L1 = Line One (Live Line) / L2 = Line Two (Neutral Line).

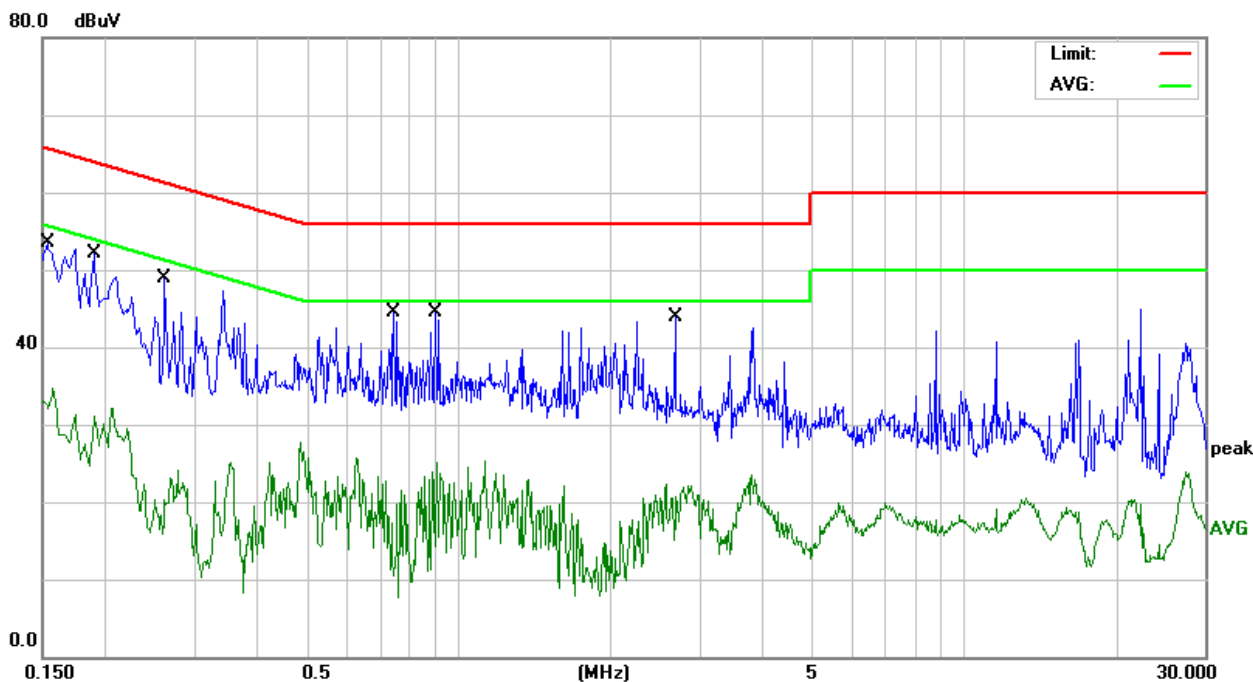
<b>Model No.</b>	KTPS05-18033U-VI	<b>6dB Bandwidth</b>	9 kHz
<b>Environmental Conditions</b>	20°C, 58% RH	<b>Test Mode</b>	Mode 9
<b>Tested by</b>	Bonny Tsai	<b>Phase</b>	L2
<b>Standard</b>	FCC CLASS B		



Conducted Emission Readings							
Frequency Range Investigated				150 kHz to 30 MHz			
Freq. (MHz)	Reading (dBuV)	Factor (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector (P/Q/A)	Line (L1/L2)
0.1539	33.98	10.05	44.03	65.78	-21.75	Q	L2
0.1539	20.17	10.05	30.22	55.78	-25.56	A	L2
0.1740	38.78	10.05	48.83	64.76	-15.93	Q	L2
0.1740	20.54	10.05	30.59	54.76	-24.17	A	L2
0.2100	31.61	10.07	41.68	63.20	-21.52	Q	L2
0.2100	16.81	10.07	26.88	53.20	-26.32	A	L2
0.2500	30.02	10.08	40.10	61.75	-21.65	Q	L2
0.2500	18.50	10.08	28.58	51.75	-23.17	A	L2
0.3140	28.45	10.08	38.53	59.86	-21.33	Q	L2
0.3140	15.45	10.08	25.53	49.86	-24.33	A	L2
0.3780	24.97	10.08	35.05	58.32	-23.27	Q	L2
0.3780	12.39	10.08	22.47	48.32	-25.85	A	L2

**Note:** L1 = Line One (Live Line) / L2 = Line Two (Neutral Line).

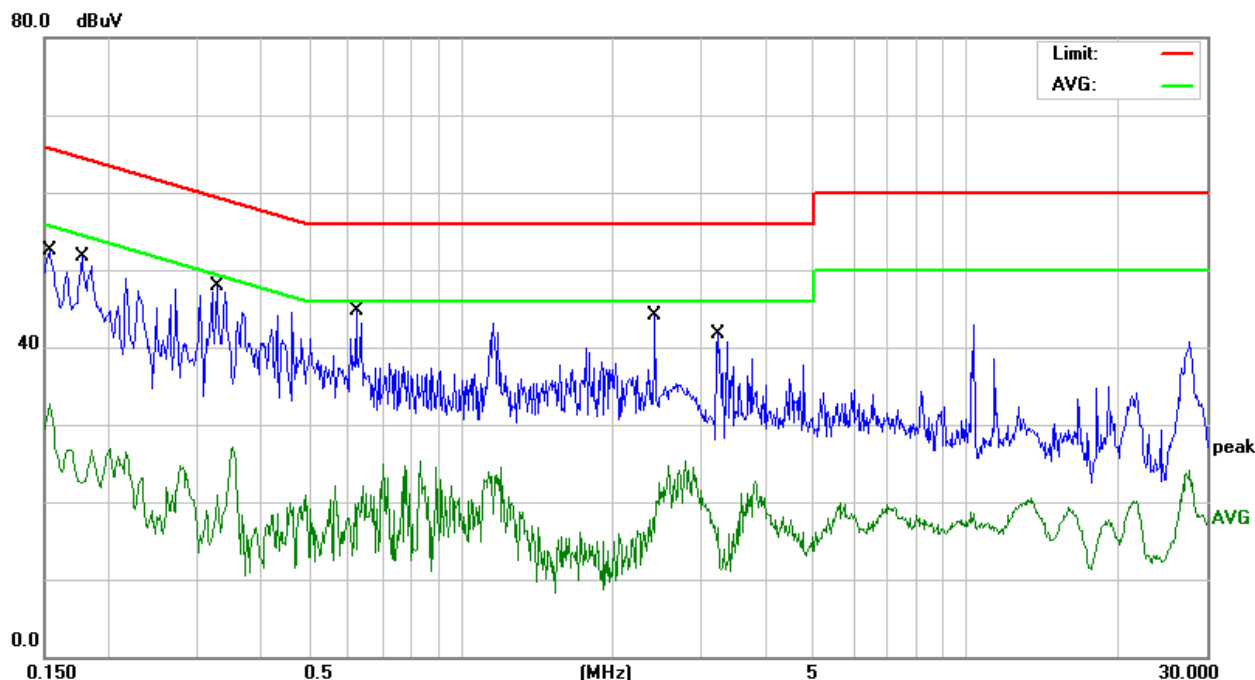
<b>Model No.</b>	KTPS05-24025U-VI	<b>6dB Bandwidth</b>	9 kHz
<b>Environmental Conditions</b>	20°C, 58% RH	<b>Test Mode</b>	Mode 10
<b>Tested by</b>	Bonny Tsai	<b>Phase</b>	L1
<b>Standard</b>	FCC CLASS B		



Conducted Emission Readings							
Frequency Range Investigated				150 kHz to 30 MHz			
Freq. (MHz)	Reading (dBuV)	Factor (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector (P/Q/A)	Line (L1/L2)
0.1539	35.65	10.05	45.70	65.78	-20.08	Q	L1
0.1539	22.03	10.05	32.08	55.78	-23.70	A	L1
0.1900	39.45	10.07	49.52	64.03	-14.51	Q	L1
0.1900	20.61	10.07	30.68	54.03	-23.35	A	L1
0.2620	26.08	10.08	36.16	61.36	-25.20	Q	L1
0.2620	10.25	10.08	20.33	51.36	-31.03	A	L1
0.7460	16.37	10.11	26.48	56.00	-29.52	Q	L1
0.7460	0.40	10.11	10.51	46.00	-35.49	A	L1
0.9020	19.73	10.13	29.86	56.00	-26.14	Q	L1
0.9020	4.27	10.13	14.40	46.00	-31.60	A	L1
2.6900	17.05	10.24	27.29	56.00	-28.71	Q	L1
2.6900	10.54	10.24	20.78	46.00	-25.22	A	L1

**Note:** L1 = Line One (Live Line) / L2 = Line Two (Neutral Line).

<b>Model No.</b>	KTPS05-24025U-VI	<b>6dB Bandwidth</b>	9 kHz
<b>Environmental Conditions</b>	20°C, 58% RH	<b>Test Mode</b>	Mode 10
<b>Tested by</b>	Bonny Tsai	<b>Phase</b>	L2
<b>Standard</b>	FCC CLASS B		



Conducted Emission Readings							
Frequency Range Investigated				150 kHz to 30 MHz			
Freq. (MHz)	Reading (dBuV)	Factor (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector (P/Q/A)	Line (L1/L2)
0.1539	38.50	10.05	48.55	65.78	-17.23	Q	L2
0.1539	21.35	10.05	31.40	55.78	-24.38	A	L2
0.1780	37.94	10.07	48.01	64.57	-16.56	Q	L2
0.1780	12.47	10.07	22.54	54.57	-32.03	A	L2
0.3300	32.05	10.09	42.14	59.45	-17.31	Q	L2
0.3300	10.44	10.09	20.53	49.45	-28.92	A	L2
0.6220	26.01	10.10	36.11	56.00	-19.89	Q	L2
0.6220	8.60	10.10	18.70	46.00	-27.30	A	L2
2.4219	19.18	10.22	29.40	56.00	-26.60	Q	L2
2.4219	5.87	10.22	16.09	46.00	-29.91	A	L2
3.2260	12.60	10.25	22.85	56.00	-33.15	Q	L2
3.2260	6.43	10.25	16.68	46.00	-29.32	A	L2

**Note:** L1 = Line One (Live Line) / L2 = Line Two (Neutral Line).

## 7 RADIATED EMISSION MEASUREMENT

### 7.1. LIMITS OF RADIATED EMISSION MEASUREMENT

**Below 1GHz (for digital device)**

FREQUENCY (MHz)	dBuV/m (At 10m)	
	Class A	Class B
30 ~ 230	40	30
230 ~ 1000	47	37

**Limit tables for non-digital device:**

**Class A Radiated Emission limit at 10m (for others)**

Frequency (MHZ)	Field Strength Limit (uV/m)Q.P.	Field Strength Limit (dBuV/m)Q.P.
30 - 88	90	39
88 - 216	150	43.5
216 – 960	210	46.4
Above 960	300	49.5

**Class B Radiated Emission limit at 3m (for others)**

Frequency (MHZ)	Field Strength Limit (uV/m)Q.P.	Field Strength Limit (dBuV/m)Q.P.
30 - 88	100	40
88 - 216	150	43.5
216 – 960	200	46
Above 960	500	54

**Above 1GHz(for all device)**

Frequency (MHZ)	Class A (dBuV/m) (At 10m)		Class B (dBuV/m) (At 3m)	
	Average	Peak	Average	Peak
Above 1000	49.5	69.5	54	74

- NOTE:** (1) The lower limit shall apply at the transition frequencies.  
 (2) Emission level (dBuV/m) = 20 log Emission level (uV/m).  
 (3) The measurement above 1GHz is at close-in distances 3m, and determine the limit **L2** corresponding to the close-in distance **d2** by applying the following relation: **L2 = L1 (d1/d2)**, where **L1** is the specified limit in microvolts per metre (**uV/m**) at the distance **d1 (10m)**, **L2** is the new limit for distance **d2 (3m)**.  
 So the new Class A limit above 1GHz at 3m is as following table:

Frequency (MHZ)	Class A (dBuV/m) (At 3m)	
	Average	Peak
Above 1000	60	80



According to FCC Part 15.33 (b), for an unintentional radiator, including a digital device, the spectrum shall be investigated from the lowest radio frequency signal generated or used in the device, without going below the lowest frequency for which a radiated emission limit is specified, up to the frequency shown in the following table:

Highest frequency generated or used in the device or on which the device operates or tunes (MHz)	Upper frequency of measurement range (MHz)
Below 1.705	30
1.705-108	1000
108-500	2000
500-1000	5000
Above 1000	5 <sup>th</sup> harmonic of the highest frequency or 40GHz, whichever is lower

## 7.2. TEST INSTRUMENTS

Open Area Test Site # H				
Name of Equipment	Manufacturer	Model	Serial Number	Calibration Due
EMI Test Receiver	R&S	ESCI	101340	04/07/2016
Bilog Antenna	Sunol	JB1	A061711	08/05/2016
Pre-Amplifier	HP	8447D	1937A01554	10/01/2016
CABLE	EMCI	CFD400-E	N-Type#H10	04/08/2016
Thermo-Hygro Meter	Wisewind	201A	No. 03	06/02/2016
Test S/W	EZ-EMC			

- NOTE:** 1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.  
2. N.C.R = No Calibration Request.

### **7.3. TEST PROCEDURES** (please refer to measurement standard or CCS SOP PA-031)

#### **Procedure of Preliminary Test**

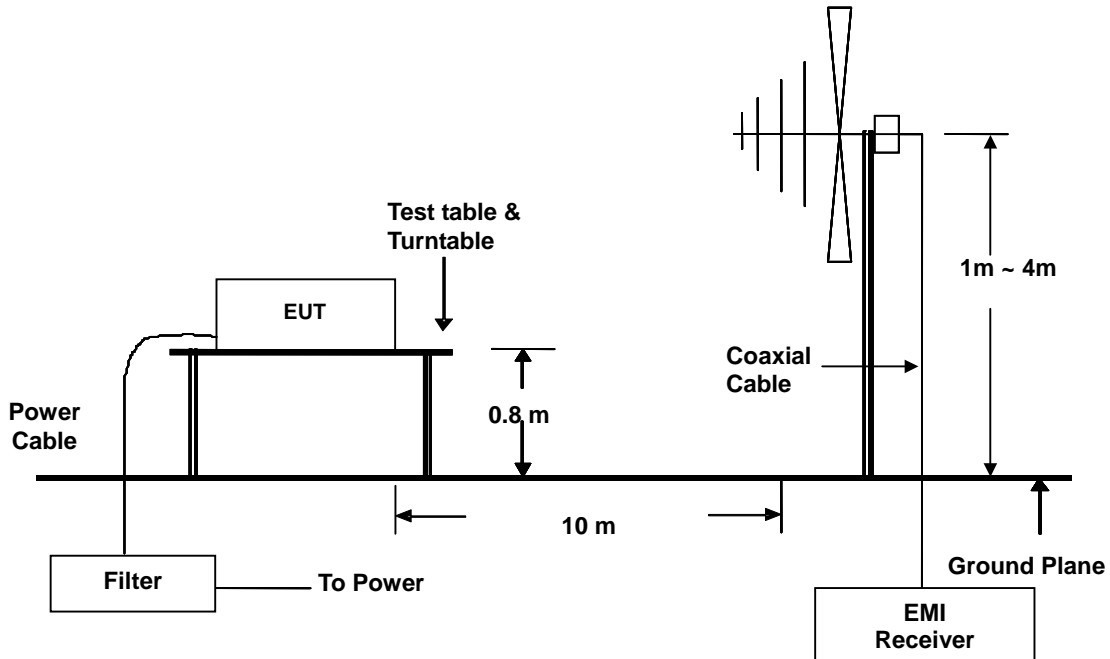
- The equipment was set up as per the test configuration to simulate typical usage per the user's manual. When the EUT is a tabletop system, a wooden turntable with a height of 0.8 meters is used which is placed on the ground plane. When the EUT is a floor standing equipment, it is placed on the ground plane which has a 12 mm non-conductive covering to insulate the EUT from the ground plane.
- Support equipment, if needed, was placed as per ANSI C63.4.
- All I/O cables were positioned to simulate typical usage as per ANSI C63.4.
- The EUT received AC 120VAC/60Hz power source from the outlet socket under the turntable. All support equipment power received from another socket under the turntable.
- The antenna was placed at 3 or 10 meter away from the EUT as stated in ANSI C63.4. The antenna connected to the Spectrum Analyzer via a cable and at times a pre-amplifier would be used.
- The Analyzer / Receiver quickly scanned from 30MHz to 40GHz. The EUT test program was started. Emissions were scanned and measured rotating the EUT to 360 degrees and positioning the antenna 1 to 4 meters above the ground plane, in both the vertical and the horizontal polarization, to maximize the emission reading level.
- The test mode(s) described in Item 3.1 were scanned during the preliminary test:
- After the preliminary scan, we found the test mode described in Item 3.1 producing the highest emission level.
- The worst configuration of EUT and cable of the above highest emission level were recorded for reference of the final test.

#### **Procedure of Final Test**

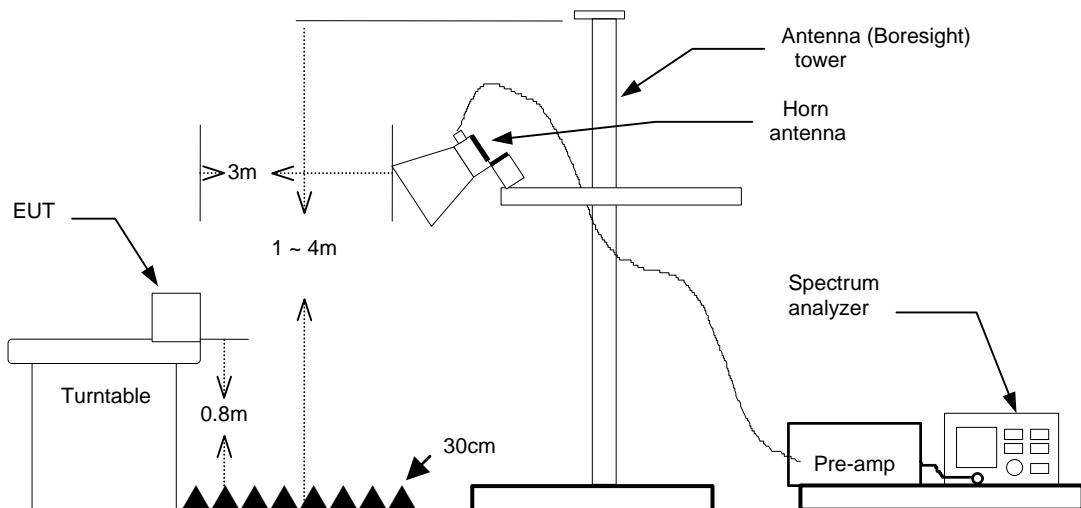
- EUT and support equipment were set up on the turntable as per the configuration with highest emission level in the preliminary test.
- The Analyzer / Receiver scanned from 30MHz to 40GHz. Emissions were scanned and measured rotating the EUT to 360 degrees, varying cable placement and positioning the antenna 1 or 1 to 4 meters above the ground plane, in both the vertical and the horizontal polarization, to maximize the emission reading level.
- Recording at least the six highest emissions. Emission frequency, amplitude, antenna position, polarization and turntable position were recorded into a computer in which correction factors were used to calculate the emission level and compare reading to the applicable limit. Below 1GHz the Q.P. reading and above 1GHz the Peak and Average reading are presented.
- The test data of the worst-case condition(s) was recorded.

## 7.4. TEST SETUP

### Below 1GHz



### Above 1GHz



- For the actual test configuration, please refer to the related item - Photographs of the Test Configuration.

## 7.5. DATA SAMPLE

### Below 1GHz

Freq. (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector (P/Q)	Pol. (H/V)
x.xx	14.0	12.2	26.2	30	-3.8	Q	H

### Above 1GHz

Freq. (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector (P/A)	Pol. (H/V)
x.xx	42.95	0.55	43.50	54	-10.50	A	H

- Freq. = Emission frequency in MHz
- Reading = Uncorrected Analyzer/Receiver reading
- Factor = Antenna Factor + Cable Loss - Amplifier Gain
- Result = Reading + Factor
- Limit = Limit stated in standard
- Margin = Reading in reference to limit
- P = Peak Reading
- Q = Quasi-peak Reading
- A = Average Reading
- H = Antenna Polarization: Horizontal
- V = Antenna Polarization: Vertical

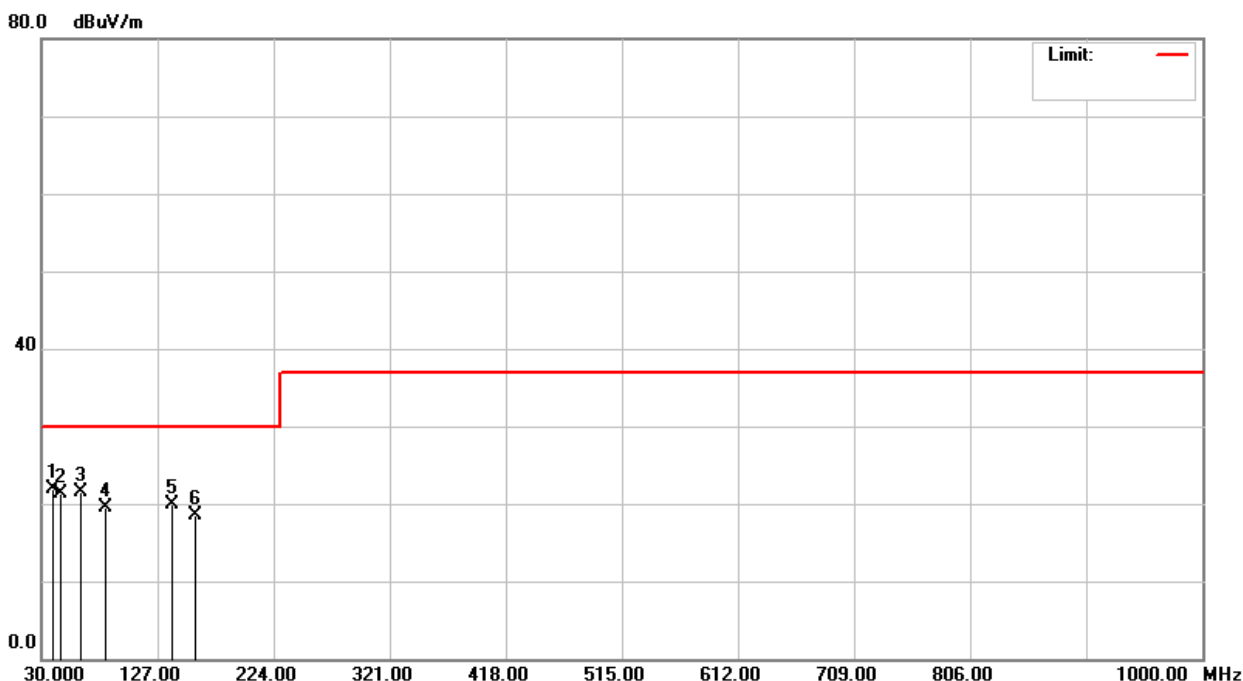
### Calculation Formula

Margin (dB) = Result (dBuV/m) – Limit (dBuV/m)

## 7.6. TEST RESULTS

### Below 1GHz

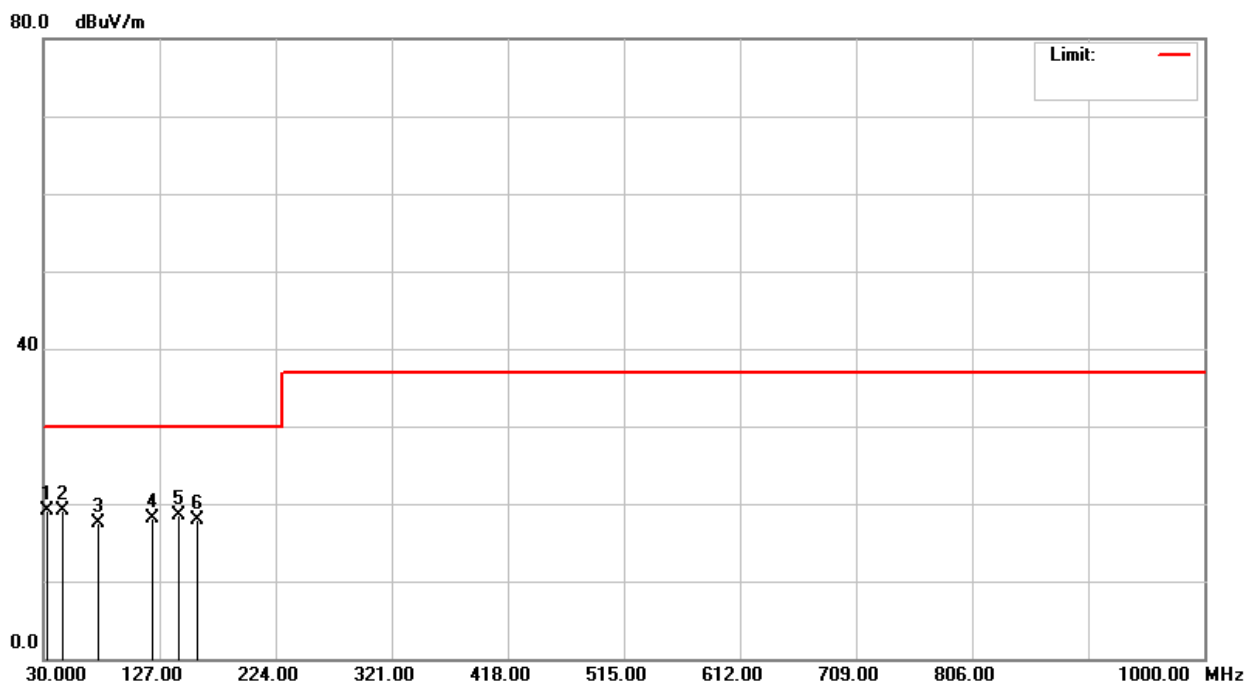
<b>Model No.</b>	KTPS05-03315U-VI	<b>Test Mode</b>	Mode 1
<b>Environmental Conditions</b>	23°C, 76% RH	<b>6dB Bandwidth</b>	120 kHz
<b>Antenna Pole</b>	Vertical	<b>Antenna Distance</b>	10m
<b>Detector Function</b>	Quasi-peak.	<b>Tested by</b>	Stanley Cheng
<b>Standard</b>	FCC CLASS B W/ CISPR 22 CLASS B LIMIT		



Radiated Emission Readings									
Frequency Range Investigated				30 MHz to 1000 MHz at 10m					
Freq. (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (°)	Detector (P/Q)	Pol. (H/V)
39.9800	35.00	-13.08	21.92	30.00	-8.08	100	109	Q	V
45.5200	38.10	-16.81	21.29	30.00	-8.71	100	87	Q	V
62.5800	40.50	-19.01	21.49	30.00	-8.51	100	115	Q	V
84.1500	38.10	-18.56	19.54	30.00	-10.46	100	312	Q	V
139.5600	32.80	-12.89	19.91	30.00	-10.09	100	47	Q	V
158.3200	32.10	-13.64	18.46	30.00	-11.54	100	151	Q	V

**Note:** 1. 30MHz to 1000MHz test is Applicable CISPR 22 standard.  
2. P= Peak Reading; Q= Quasi-peak Reading.

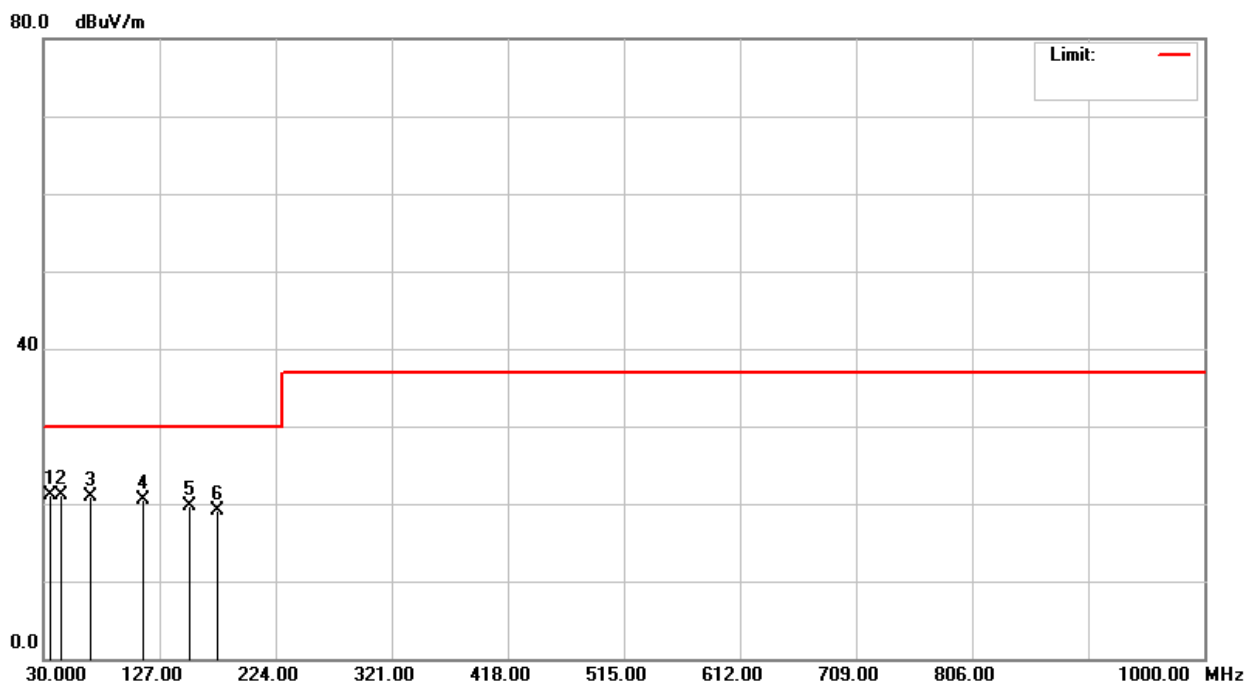
<b>Model No.</b>	KTPS05-03315U-VI	<b>Test Mode</b>	Mode 1
<b>Environmental Conditions</b>	23°C, 76% RH	<b>6dB Bandwidth</b>	120 kHz
<b>Antenna Pole</b>	Horizontal	<b>Antenna Distance</b>	10m
<b>Detector Function</b>	Quasi-peak.	<b>Tested by</b>	Stanley Cheng
<b>Standard</b>	FCC CLASS B W/ CISPR 22 CLASS B LIMIT		



Radiated Emission Readings									
Frequency Range Investigated				30 MHz to 1000 MHz at 10m					
Freq. (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (°)	Detector (P/Q)	Pol. (H/V)
32.9800	26.80	-7.78	19.02	30.00	-10.98	400	87	Q	H
46.1800	36.20	-17.06	19.14	30.00	-10.86	400	109	Q	H
75.6300	35.90	-18.43	17.47	30.00	-12.53	400	154	Q	H
121.4800	30.50	-12.35	18.15	30.00	-11.85	400	301	Q	H
142.9800	31.50	-13.02	18.48	30.00	-11.52	400	45	Q	H
158.4600	31.50	-13.65	17.85	30.00	-12.15	400	145	Q	H

**Note:** 1. 30MHz to 1000MHz test is Applicable CISPR 22 standard.  
2. P= Peak Reading; Q= Quasi-peak Reading.

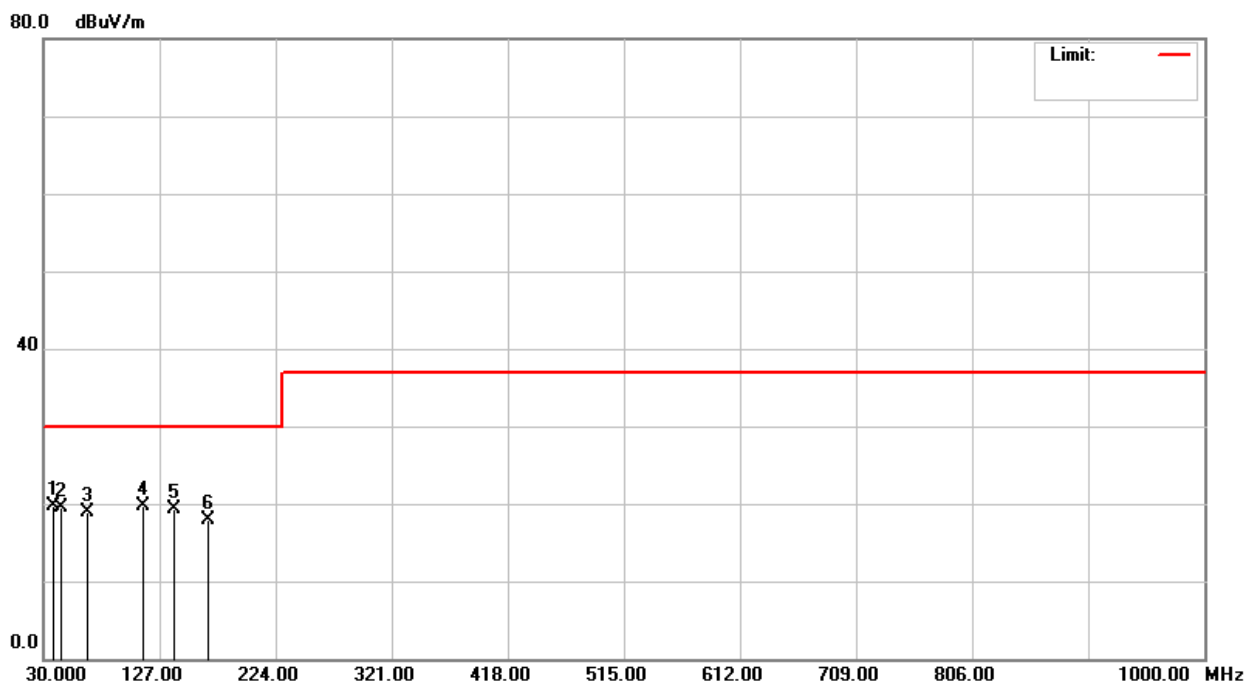
<b>Model No.</b>	KTPS05-05010U-VI	<b>Test Mode</b>	Mode 2
<b>Environmental Conditions</b>	23°C, 76% RH	<b>6dB Bandwidth</b>	120 kHz
<b>Antenna Pole</b>	Vertical	<b>Antenna Distance</b>	10m
<b>Detector Function</b>	Quasi-peak.	<b>Tested by</b>	Stanley Cheng
<b>Standard</b>	FCC CLASS B W/ CISPR 22 CLASS B LIMIT		



Radiated Emission Readings									
Frequency Range Investigated				30 MHz to 1000 MHz at 10m					
Freq. (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (°)	Detector (P/Q)	Pol. (H/V)
36.1200	31.50	-10.30	21.20	30.00	-8.80	100	198	Q	V
44.8500	37.60	-16.51	21.09	30.00	-8.91	100	25	Q	V
69.5600	39.20	-18.38	20.82	30.00	-9.18	100	145	Q	V
113.4700	34.00	-13.45	20.55	30.00	-9.45	100	310	Q	V
151.6300	33.10	-13.37	19.73	30.00	-10.27	100	45	Q	V
175.5800	33.20	-14.19	19.01	30.00	-10.99	100	71	Q	V

**Note:** 1. 30MHz to 1000MHz test is Applicable CISPR 22 standard.  
2. P= Peak Reading; Q= Quasi-peak Reading.

<b>Model No.</b>	KTPS05-05010U-VI	<b>Test Mode</b>	Mode 2
<b>Environmental Conditions</b>	23°C, 76% RH	<b>6dB Bandwidth</b>	120 kHz
<b>Antenna Pole</b>	Horizontal	<b>Antenna Distance</b>	10m
<b>Detector Function</b>	Quasi-peak.	<b>Tested by</b>	Stanley Cheng
<b>Standard</b>	FCC CLASS B W/ CISPR 22 CLASS B LIMIT		

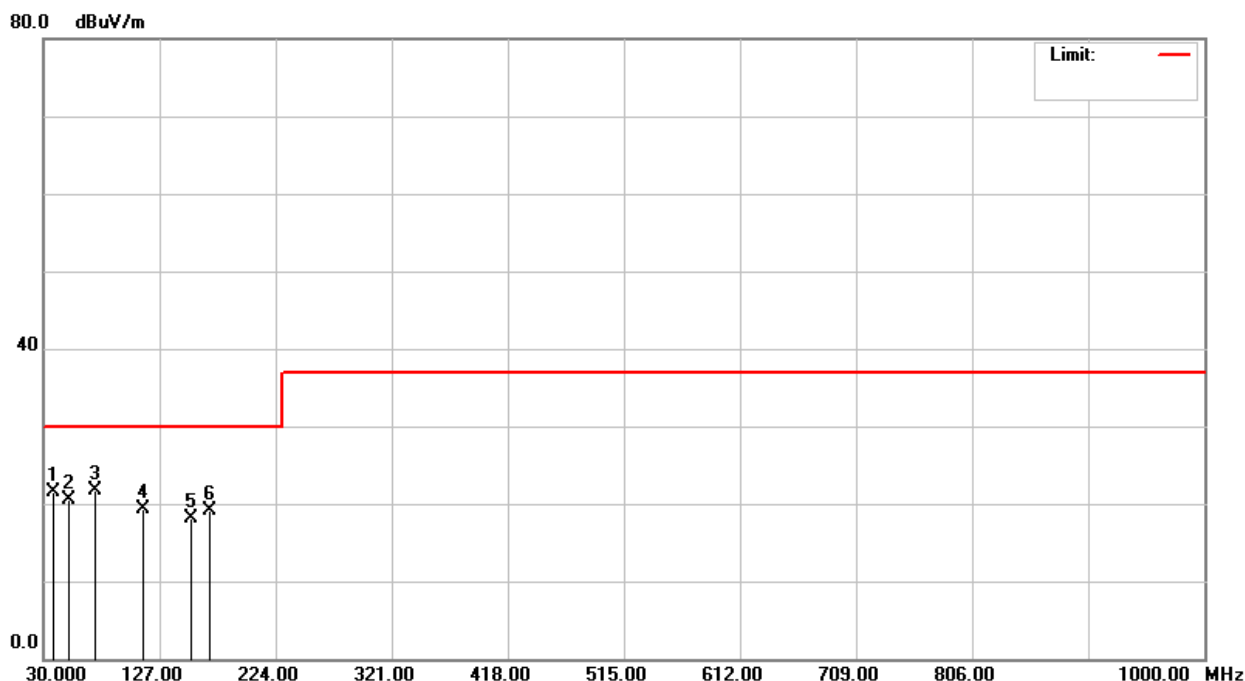


Radiated Emission Readings									
Frequency Range Investigated				30 MHz to 1000 MHz at 10m					
Freq. (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (°)	Detector (P/Q)	Pol. (H/V)
38.5600	31.80	-12.06	19.74	30.00	-10.26	400	106	Q	H
45.3900	36.20	-16.76	19.44	30.00	-10.56	400	98	Q	H
66.7400	37.50	-18.63	18.87	30.00	-11.13	400	145	Q	H
113.7800	33.10	-13.40	19.70	30.00	-10.30	400	135	Q	H
139.5800	32.10	-12.89	19.21	30.00	-10.79	400	36	Q	H
167.4500	31.80	-13.94	17.86	30.00	-12.14	400	128	Q	H

**Note:** 1. 30MHz to 1000MHz test is Applicable CISPR 22 standard.  
2. P= Peak Reading; Q= Quasi-peak Reading.



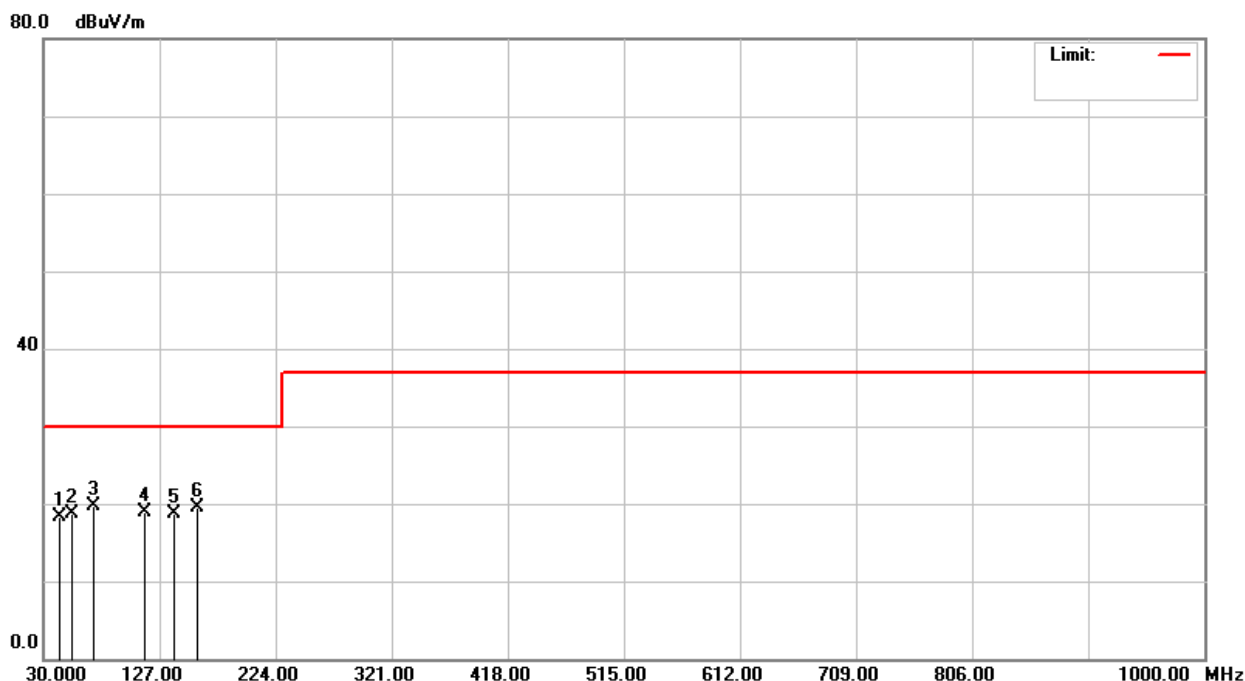
<b>Model No.</b>	KTPS05-05015U-VI	<b>Test Mode</b>	Mode 3
<b>Environmental Conditions</b>	23°C, 76% RH	<b>6dB Bandwidth</b>	120 kHz
<b>Antenna Pole</b>	Vertical	<b>Antenna Distance</b>	10m
<b>Detector Function</b>	Quasi-peak.	<b>Tested by</b>	Stanley Cheng
<b>Standard</b>	FCC CLASS B W/ CISPR 22 CLASS B LIMIT		



Radiated Emission Readings									
Frequency Range Investigated				30 MHz to 1000 MHz at 10m					
Freq. (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (°)	Detector (P/Q)	Pol. (H/V)
38.6500	33.60	-12.12	21.48	30.00	-8.52	100	177	Q	V
51.6900	39.10	-18.60	20.50	30.00	-9.50	100	163	Q	V
73.6900	40.20	-18.40	21.80	30.00	-8.20	100	221	Q	V
113.4700	32.80	-13.45	19.35	30.00	-10.65	100	87	Q	V
152.9800	31.60	-13.43	18.17	30.00	-11.83	100	163	Q	V
168.4100	33.10	-13.97	19.13	30.00	-10.87	100	58	Q	V

**Note:** 1. 30MHz to 1000MHz test is Applicable CISPR 22 standard.  
2. P= Peak Reading; Q= Quasi-peak Reading.

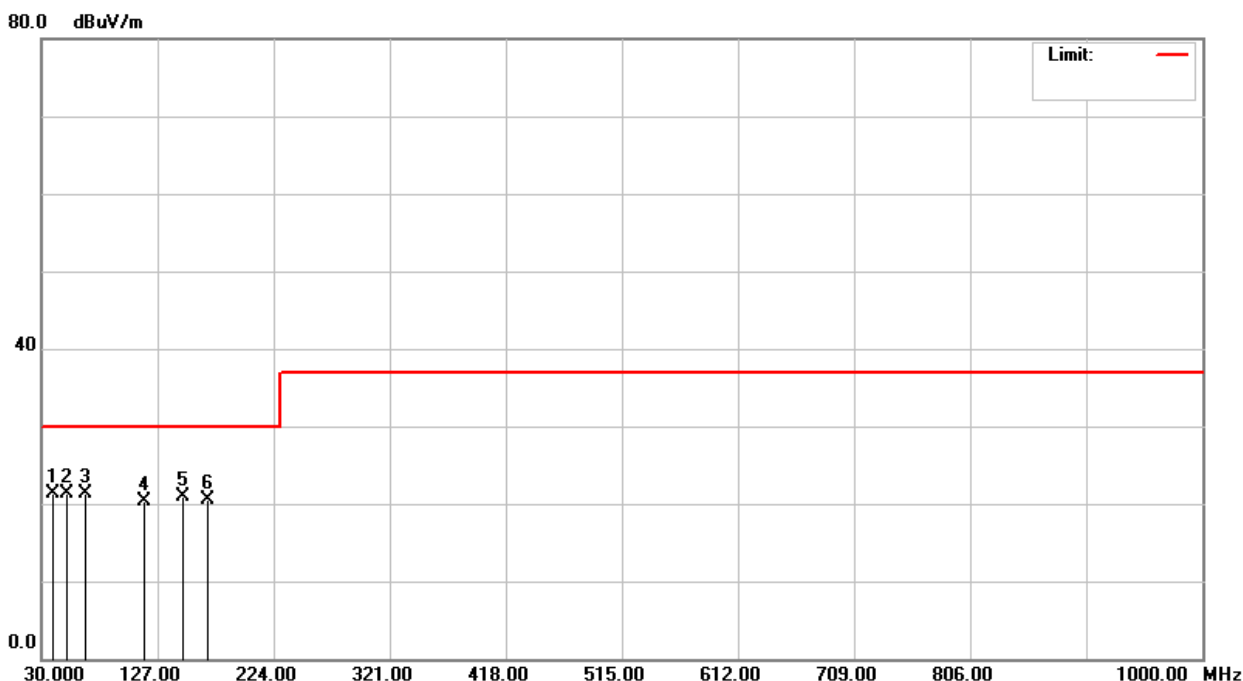
<b>Model No.</b>	KTPS05-05015U-VI	<b>Test Mode</b>	Mode 3
<b>Environmental Conditions</b>	23°C, 76% RH	<b>6dB Bandwidth</b>	120 kHz
<b>Antenna Pole</b>	Horizontal	<b>Antenna Distance</b>	10m
<b>Detector Function</b>	Quasi-peak.	<b>Tested by</b>	Stanley Cheng
<b>Standard</b>	FCC CLASS B W/ CISPR 22 CLASS B LIMIT		



Radiated Emission Readings									
Frequency Range Investigated				30 MHz to 1000 MHz at 10m					
Freq. (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (°)	Detector (P/Q)	Pol. (H/V)
43.5600	33.90	-15.60	18.30	30.00	-11.70	400	219	Q	H
53.9800	37.50	-18.78	18.72	30.00	-11.28	400	52	Q	H
71.6500	38.10	-18.37	19.73	30.00	-10.27	400	164	Q	H
114.7900	32.20	-13.22	18.98	30.00	-11.02	400	301	Q	H
139.2500	31.50	-12.88	18.62	30.00	-11.38	400	78	Q	H
158.4600	33.20	-13.65	19.55	30.00	-10.45	400	145	Q	H

**Note:** 1. 30MHz to 1000MHz test is Applicable CISPR 22 standard.  
2. P= Peak Reading; Q= Quasi-peak Reading.

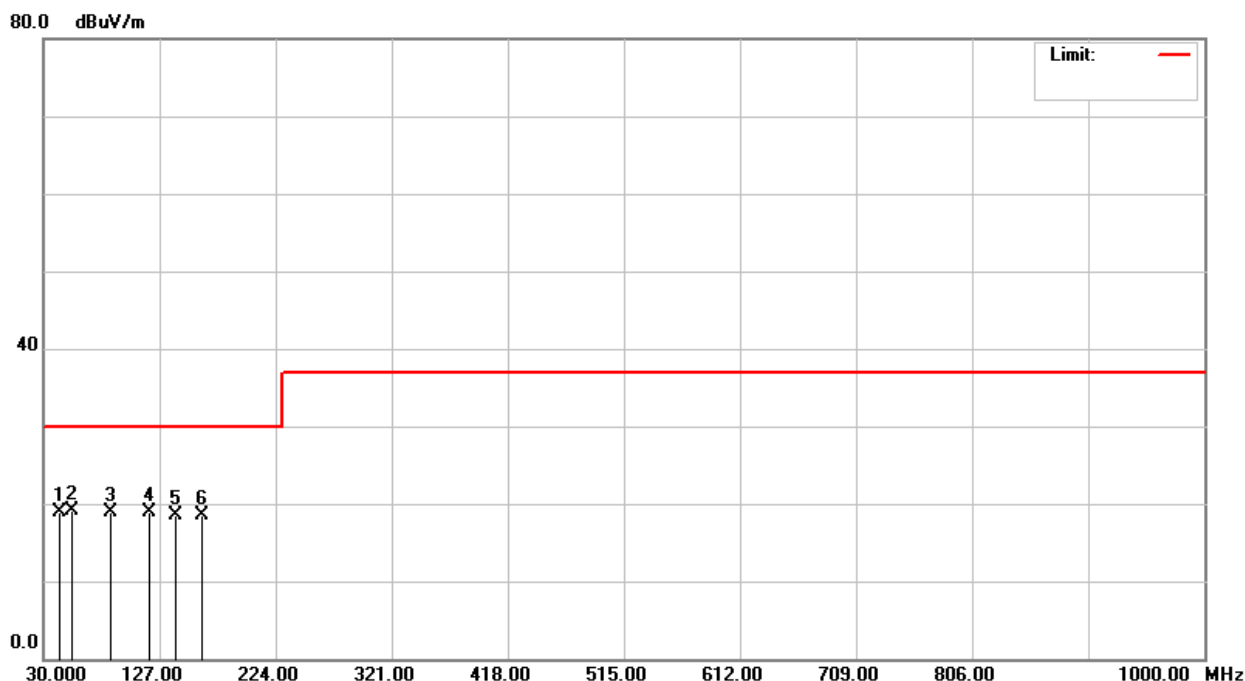
<b>Model No.</b>	KTPS05-06012U-VI	<b>Test Mode</b>	Mode 4
<b>Environmental Conditions</b>	23°C, 76% RH	<b>6dB Bandwidth</b>	120 kHz
<b>Antenna Pole</b>	Vertical	<b>Antenna Distance</b>	10m
<b>Detector Function</b>	Quasi-peak.	<b>Tested by</b>	Stanley Cheng
<b>Standard</b>	FCC CLASS B W/ CISPR 22 CLASS B LIMIT		



Radiated Emission Readings									
Frequency Range Investigated				30 MHz to 1000 MHz at 10m					
Freq. (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (°)	Detector (P/Q)	Pol. (H/V)
39.6800	34.10	-12.86	21.24	30.00	-8.76	100	261	Q	V
51.6900	39.90	-18.60	21.30	30.00	-8.70	100	87	Q	V
66.4900	40.00	-18.66	21.34	30.00	-8.66	100	146	Q	V
115.3600	33.50	-13.12	20.38	30.00	-9.62	100	315	Q	V
148.7400	34.20	-13.25	20.95	30.00	-9.05	100	78	Q	V
169.5200	34.50	-14.01	20.49	30.00	-9.51	100	145	Q	V

**Note:** 1. 30MHz to 1000MHz test is Applicable CISPR 22 standard.  
2. P= Peak Reading; Q= Quasi-peak Reading.

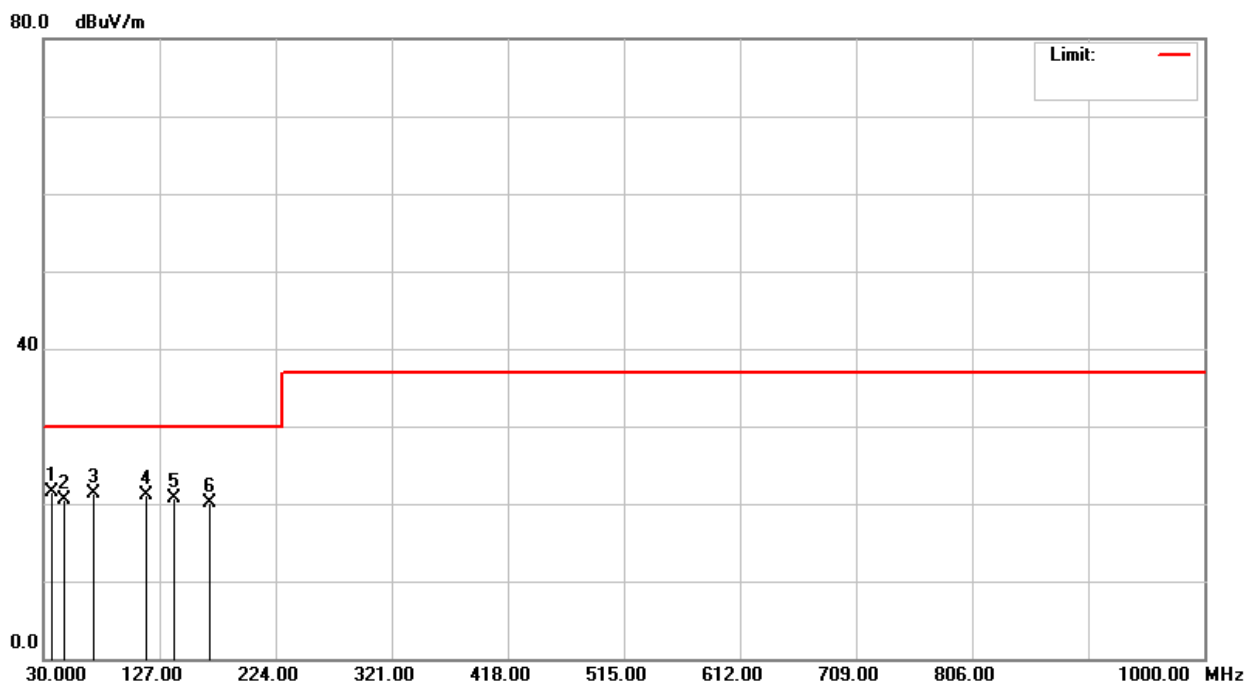
<b>Model No.</b>	KTPS05-06012U-VI	<b>Test Mode</b>	Mode 4
<b>Environmental Conditions</b>	23°C, 76% RH	<b>6dB Bandwidth</b>	120 kHz
<b>Antenna Pole</b>	Horizontal	<b>Antenna Distance</b>	10m
<b>Detector Function</b>	Quasi-peak.	<b>Tested by</b>	Stanley Cheng
<b>Standard</b>	FCC CLASS B W/ CISPR 22 CLASS B LIMIT		



Radiated Emission Readings									
Frequency Range Investigated				30 MHz to 1000 MHz at 10m					
Freq. (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (°)	Detector (P/Q)	Pol. (H/V)
43.9800	34.90	-15.90	19.00	30.00	-11.00	400	219	Q	H
53.4700	37.90	-18.74	19.16	30.00	-10.84	400	51	Q	H
86.3100	37.50	-18.59	18.91	30.00	-11.09	400	315	Q	H
118.5600	31.50	-12.56	18.94	30.00	-11.06	400	135	Q	H
140.7899	31.50	-12.93	18.57	30.00	-11.43	400	229	Q	H
162.7400	32.30	-13.79	18.51	30.00	-11.49	400	54	Q	H

**Note:** 1. 30MHz to 1000MHz test is Applicable CISPR 22 standard.  
2. P= Peak Reading; Q= Quasi-peak Reading.

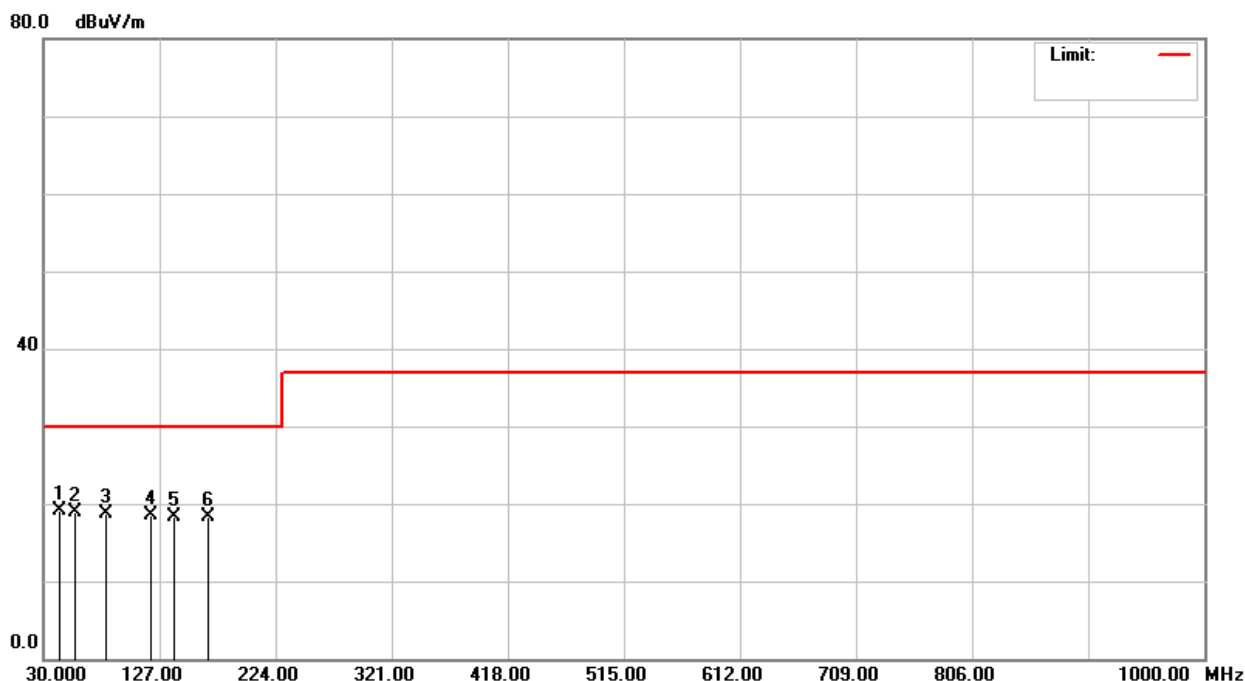
<b>Model No.</b>	KTPS05-07510U-VI	<b>Test Mode</b>	Mode 5
<b>Environmental Conditions</b>	23°C, 76% RH	<b>6dB Bandwidth</b>	120 kHz
<b>Antenna Pole</b>	Vertical	<b>Antenna Distance</b>	10m
<b>Detector Function</b>	Quasi-peak.	<b>Tested by</b>	Stanley Cheng
<b>Standard</b>	FCC CLASS B W/ CISPR 22 CLASS B LIMIT		



Radiated Emission Readings									
Frequency Range Investigated				30 MHz to 1000 MHz at 10m					
Freq. (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (°)	Detector (P/Q)	Pol. (H/V)
37.6500	32.90	-11.40	21.50	30.00	-8.50	100	169	Q	V
46.8500	37.90	-17.30	20.60	30.00	-9.40	100	331	Q	V
71.9800	39.60	-18.37	21.23	30.00	-8.77	100	45	Q	V
115.3600	34.20	-13.12	21.08	30.00	-8.92	100	151	Q	V
139.4500	33.50	-12.88	20.62	30.00	-9.38	100	310	Q	V
169.2500	34.10	-14.00	20.10	30.00	-9.90	100	98	Q	V

**Note:** 1. 30MHz to 1000MHz test is Applicable CISPR 22 standard.  
2. P= Peak Reading; Q= Quasi-peak Reading.

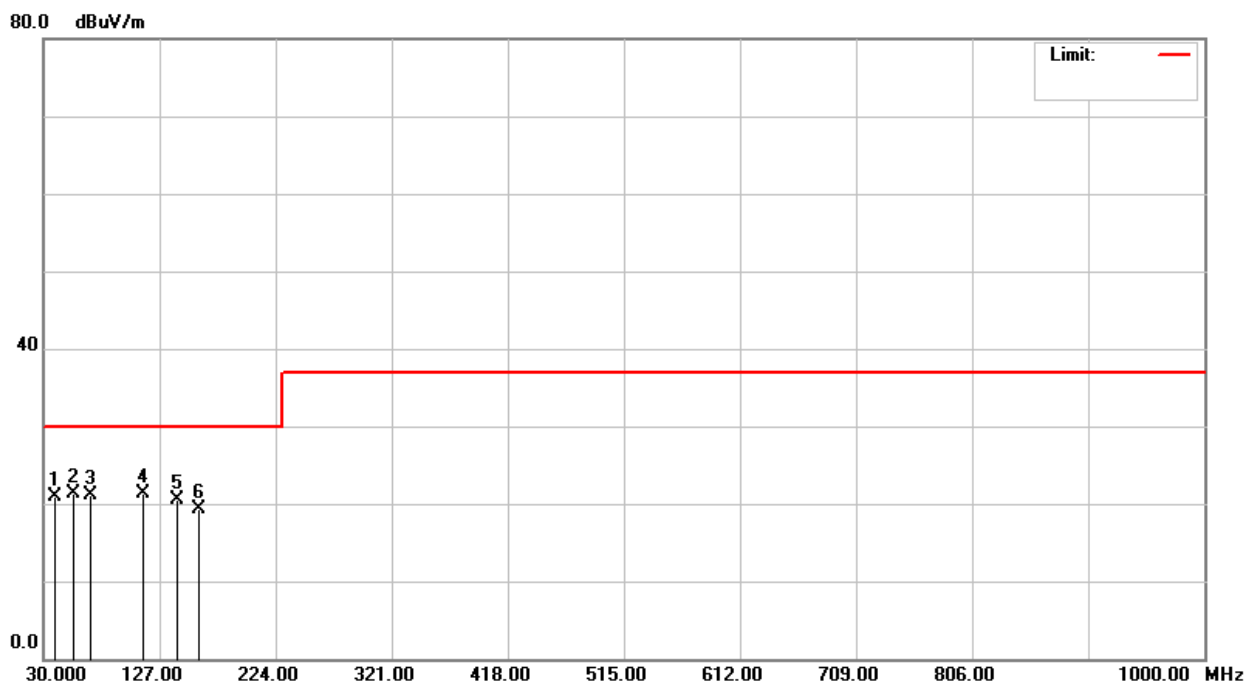
<b>Model No.</b>	KTPS05-07510U-VI	<b>Test Mode</b>	Mode 5
<b>Environmental Conditions</b>	23°C, 76% RH	<b>6dB Bandwidth</b>	120 kHz
<b>Antenna Pole</b>	Horizontal	<b>Antenna Distance</b>	10m
<b>Detector Function</b>	Quasi-peak.	<b>Tested by</b>	Stanley Cheng
<b>Standard</b>	FCC CLASS B W/ CISPR 22 CLASS B LIMIT		



Radiated Emission Readings									
Frequency Range Investigated				30 MHz to 1000 MHz at 10m					
Freq. (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (°)	Detector (P/Q)	Pol. (H/V)
43.9800	35.10	-15.90	19.20	30.00	-10.80	400	106	Q	H
56.3600	37.80	-18.96	18.84	30.00	-11.16	400	198	Q	H
81.8500	37.20	-18.53	18.67	30.00	-11.33	400	115	Q	H
119.2500	31.00	-12.44	18.56	30.00	-11.44	400	312	Q	H
138.6500	31.20	-12.86	18.34	30.00	-11.66	400	41	Q	H
167.1400	32.30	-13.93	18.37	30.00	-11.63	400	181	Q	H

**Note:** 1. 30MHz to 1000MHz test is Applicable CISPR 22 standard.  
2. P= Peak Reading; Q= Quasi-peak Reading.

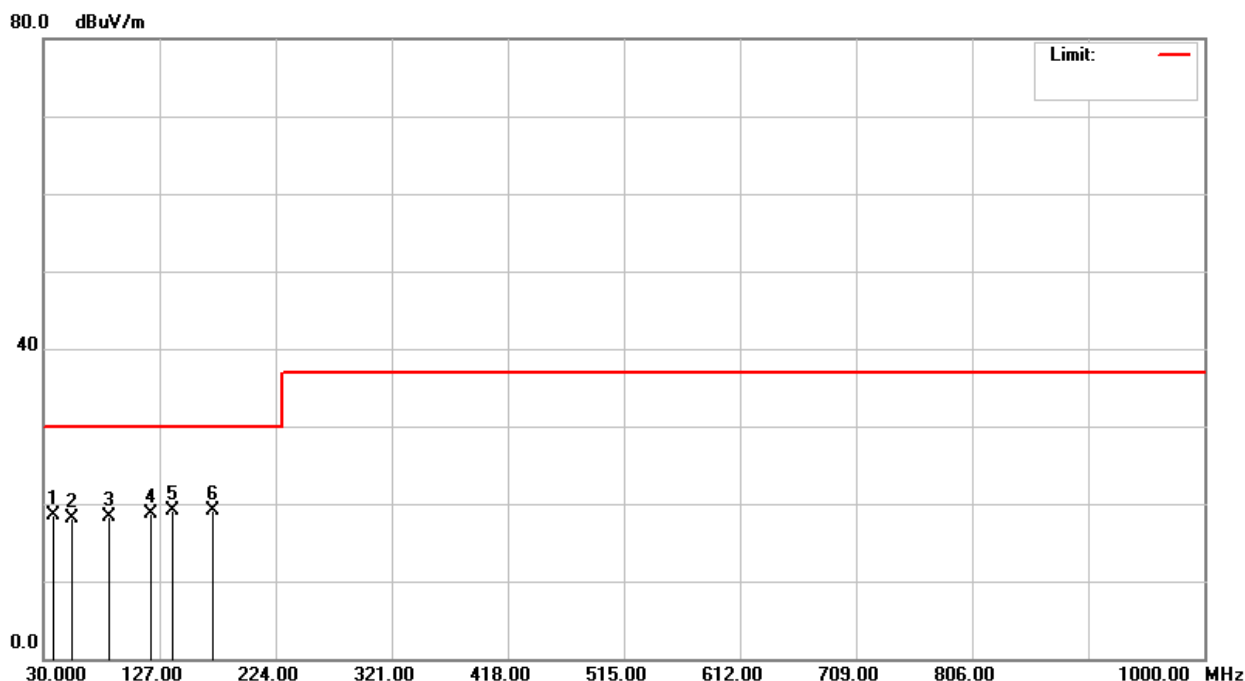
<b>Model No.</b>	KTPS05-09006U-VI	<b>Test Mode</b>	Mode 6
<b>Environmental Conditions</b>	23°C, 76% RH	<b>6dB Bandwidth</b>	120 kHz
<b>Antenna Pole</b>	Vertical	<b>Antenna Distance</b>	10m
<b>Detector Function</b>	Quasi-peak.	<b>Tested by</b>	Stanley Cheng
<b>Standard</b>	FCC CLASS B W/ CISPR 22 CLASS B LIMIT		



Radiated Emission Readings									
Frequency Range Investigated				30 MHz to 1000 MHz at 10m					
Freq. (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (°)	Detector (P/Q)	Pol. (H/V)
39.6100	33.80	-12.81	20.99	30.00	-9.01	100	298	Q	V
54.7900	40.10	-18.84	21.26	30.00	-8.74	100	104	Q	V
69.4100	39.50	-18.39	21.11	30.00	-8.89	100	65	Q	V
113.4900	34.80	-13.45	21.35	30.00	-8.65	100	178	Q	V
141.7800	33.50	-12.97	20.53	30.00	-9.47	100	226	Q	V
159.6300	33.10	-13.70	19.40	30.00	-10.60	100	144	Q	V

**Note:** 1. 30MHz to 1000MHz test is Applicable CISPR 22 standard.  
2. P= Peak Reading; Q= Quasi-peak Reading.

<b>Model No.</b>	KTPS05-09006U-VI	<b>Test Mode</b>	Mode 6
<b>Environmental Conditions</b>	23°C, 76% RH	<b>6dB Bandwidth</b>	120 kHz
<b>Antenna Pole</b>	Horizontal	<b>Antenna Distance</b>	10m
<b>Detector Function</b>	Quasi-peak.	<b>Tested by</b>	Stanley Cheng
<b>Standard</b>	FCC CLASS B W/ CISPR 22 CLASS B LIMIT		

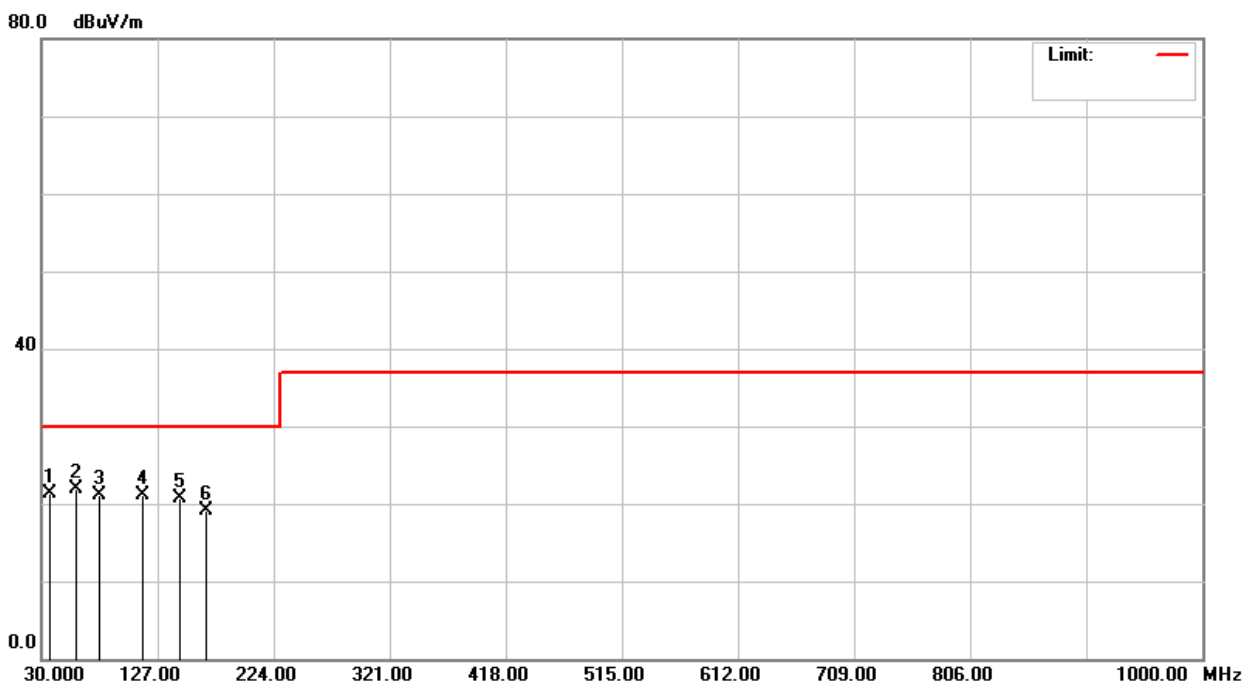


Radiated Emission Readings									
Frequency Range Investigated				30 MHz to 1000 MHz at 10m					
Freq. (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (°)	Detector (P/Q)	Pol. (H/V)
38.9800	30.80	-12.36	18.44	30.00	-11.56	400	219	Q	H
54.3600	36.90	-18.81	18.09	30.00	-11.91	400	87	Q	H
84.7500	36.80	-18.57	18.23	30.00	-11.77	400	146	Q	H
119.6200	31.10	-12.38	18.72	30.00	-11.28	400	315	Q	H
138.4500	31.90	-12.85	19.05	30.00	-10.95	400	136	Q	H
171.6200	33.10	-14.07	19.03	30.00	-10.97	400	54	Q	H

**Note:** 1. 30MHz to 1000MHz test is Applicable CISPR 22 standard.  
2. P= Peak Reading; Q= Quasi-peak Reading.



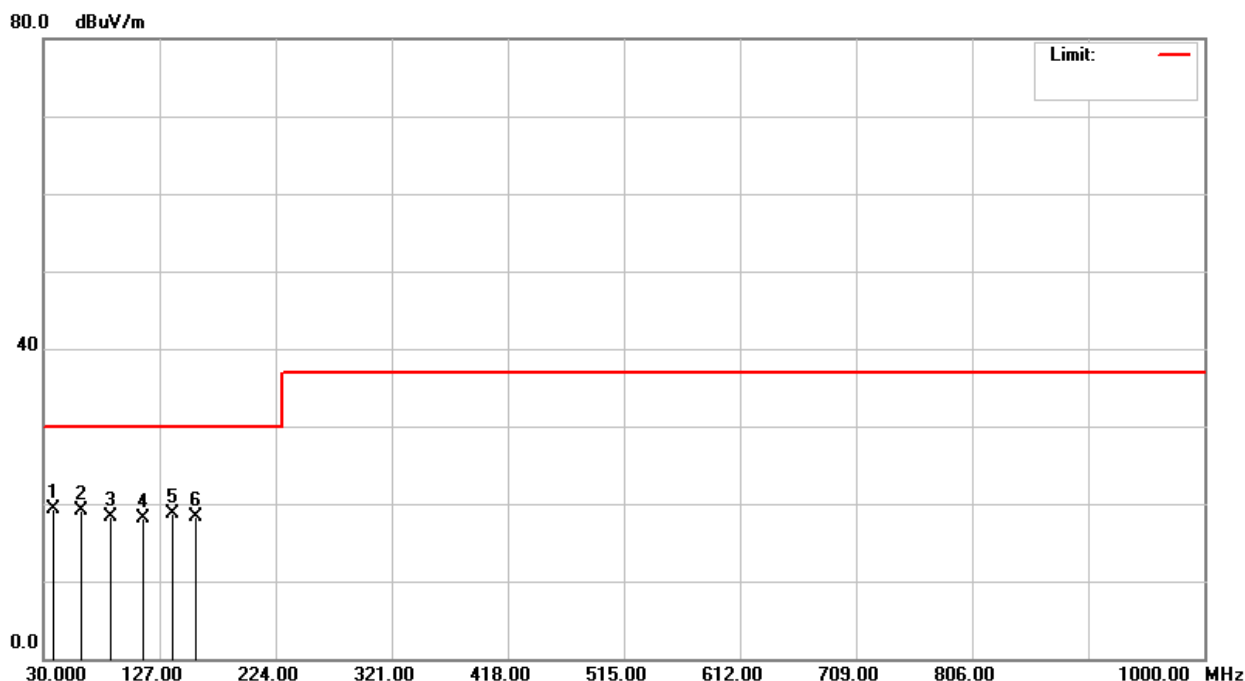
<b>Model No.</b>	KTPS05-12006U-VI	<b>Test Mode</b>	Mode 7
<b>Environmental Conditions</b>	23°C, 76% RH	<b>6dB Bandwidth</b>	120 kHz
<b>Antenna Pole</b>	Vertical	<b>Antenna Distance</b>	10m
<b>Detector Function</b>	Quasi-peak.	<b>Tested by</b>	Stanley Cheng
<b>Standard</b>	FCC CLASS B W/ CISPR 22 CLASS B LIMIT		



Radiated Emission Readings									
Frequency Range Investigated				30 MHz to 1000 MHz at 10m					
Freq. (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (°)	Detector (P/Q)	Pol. (H/V)
36.7900	32.10	-10.79	21.31	30.00	-8.69	100	133	Q	V
58.4600	41.10	-19.12	21.98	30.00	-8.02	100	258	Q	V
78.6900	39.50	-18.48	21.02	30.00	-8.98	100	115	Q	V
115.1600	34.20	-13.15	21.05	30.00	-8.95	100	178	Q	V
145.8900	33.90	-13.14	20.76	30.00	-9.24	100	136	Q	V
167.4500	33.10	-13.94	19.16	30.00	-10.84	100	51	Q	V

**Note:** 1. 30MHz to 1000MHz test is Applicable CISPR 22 standard.  
2. P= Peak Reading; Q= Quasi-peak Reading.

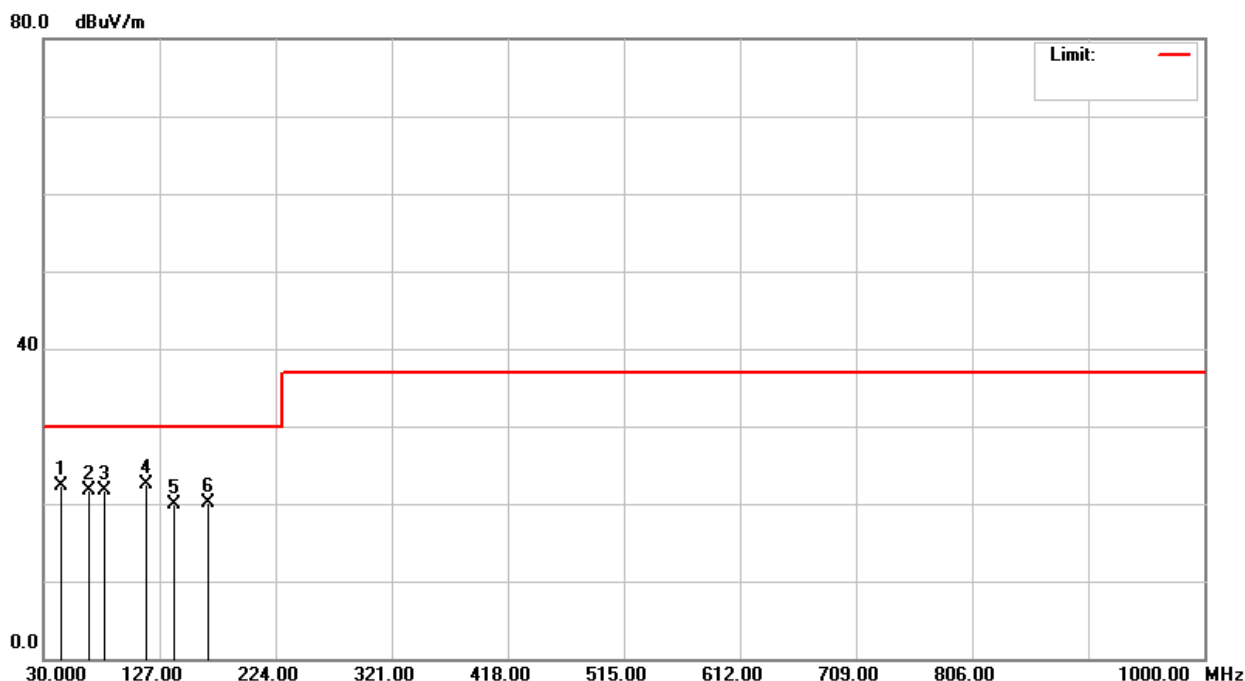
<b>Model No.</b>	KTPS05-12006U-VI	<b>Test Mode</b>	Mode 7
<b>Environmental Conditions</b>	23°C, 76% RH	<b>6dB Bandwidth</b>	120 kHz
<b>Antenna Pole</b>	Horizontal	<b>Antenna Distance</b>	10m
<b>Detector Function</b>	Quasi-peak.	<b>Tested by</b>	Stanley Cheng
<b>Standard</b>	FCC CLASS B W/ CISPR 22 CLASS B LIMIT		



Radiated Emission Readings									
Frequency Range Investigated				30 MHz to 1000 MHz at 10m					
Freq. (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (°)	Detector (P/Q)	Pol. (H/V)
38.6200	31.50	-12.10	19.40	30.00	-10.60	400	261	Q	H
61.8100	38.20	-19.08	19.12	30.00	-10.88	400	298	Q	H
86.3200	36.80	-18.59	18.21	30.00	-11.79	400	54	Q	H
113.4900	31.50	-13.45	18.05	30.00	-11.95	400	130	Q	H
138.6200	31.50	-12.86	18.64	30.00	-11.36	400	158	Q	H
157.5500	31.90	-13.61	18.29	30.00	-11.71	400	106	Q	H

**Note:** 1. 30MHz to 1000MHz test is Applicable CISPR 22 standard.  
2. P= Peak Reading; Q= Quasi-peak Reading.

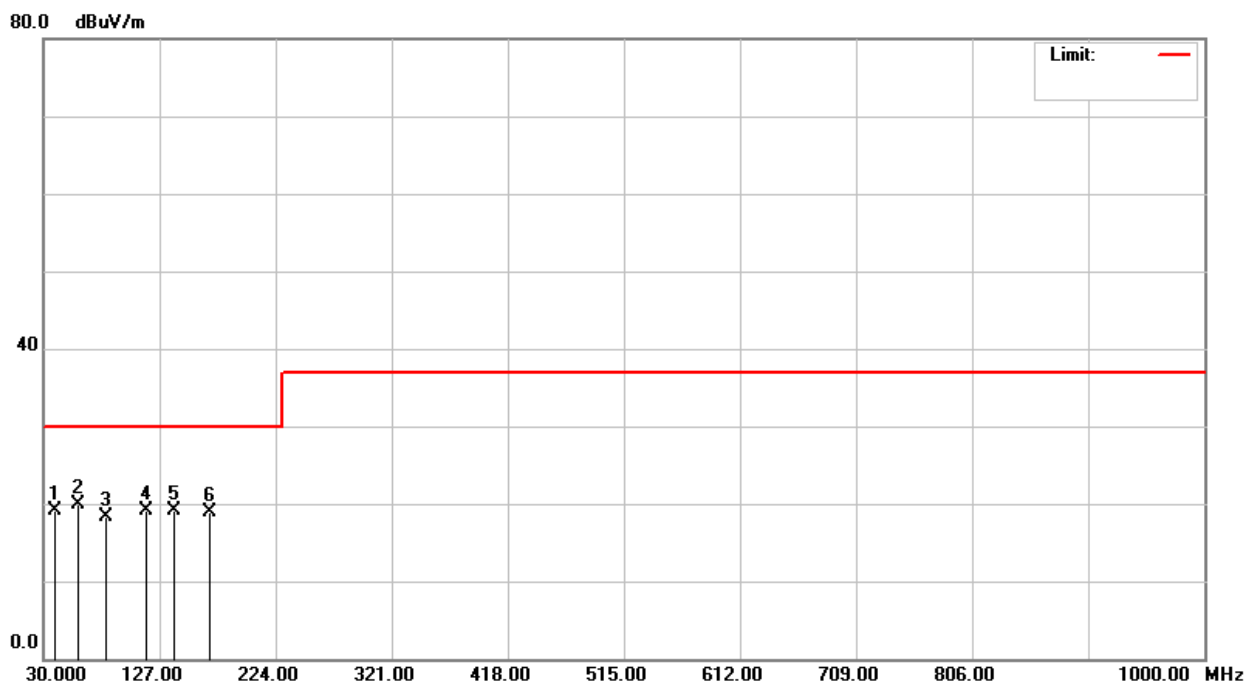
<b>Model No.</b>	KTPS05-15005U-VI	<b>Test Mode</b>	Mode 8
<b>Environmental Conditions</b>	23°C, 76% RH	<b>6dB Bandwidth</b>	120 kHz
<b>Antenna Pole</b>	Vertical	<b>Antenna Distance</b>	10m
<b>Detector Function</b>	Quasi-peak.	<b>Tested by</b>	Stanley Cheng
<b>Standard</b>	FCC CLASS B W/ CISPR 22 CLASS B LIMIT		



Radiated Emission Readings									
Frequency Range Investigated				30 MHz to 1000 MHz at 10m					
Freq. (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (°)	Detector (P/Q)	Pol. (H/V)
45.1000	38.90	-16.66	22.24	30.00	-7.76	100	161	Q	V
68.5000	40.10	-18.47	21.63	30.00	-8.37	100	133	Q	V
81.2300	40.20	-18.52	21.68	30.00	-8.32	100	181	Q	V
115.6400	35.50	-13.07	22.43	30.00	-7.57	100	221	Q	V
139.8600	32.80	-12.90	19.90	30.00	-10.10	100	49	Q	V
168.2200	34.10	-13.96	20.14	30.00	-9.86	100	154	Q	V

**Note:** 1. 30MHz to 1000MHz test is Applicable CISPR 22 standard.  
2. P= Peak Reading; Q= Quasi-peak Reading.

<b>Model No.</b>	KTPS05-15005U-VI	<b>Test Mode</b>	Mode 8
<b>Environmental Conditions</b>	23°C, 76% RH	<b>6dB Bandwidth</b>	120 kHz
<b>Antenna Pole</b>	Horizontal	<b>Antenna Distance</b>	10m
<b>Detector Function</b>	Quasi-peak.	<b>Tested by</b>	Stanley Cheng
<b>Standard</b>	FCC CLASS B W/ CISPR 22 CLASS B LIMIT		



Radiated Emission Readings									
Frequency Range Investigated				30 MHz to 1000 MHz at 10m					
Freq. (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (°)	Detector (P/Q)	Pol. (H/V)
39.9800	32.10	-13.08	19.02	30.00	-10.98	400	103	Q	H
59.1600	39.00	-19.18	19.82	30.00	-10.18	400	228	Q	H
82.5600	36.90	-18.54	18.36	30.00	-11.64	400	165	Q	H
115.7800	32.10	-13.05	19.05	30.00	-10.95	400	298	Q	H
139.6500	32.00	-12.89	19.11	30.00	-10.89	400	46	Q	H
168.4100	32.80	-13.97	18.83	30.00	-11.17	400	195	Q	H

**Note:** 1. 30MHz to 1000MHz test is Applicable CISPR 22 standard.  
2. P= Peak Reading; Q= Quasi-peak Reading.

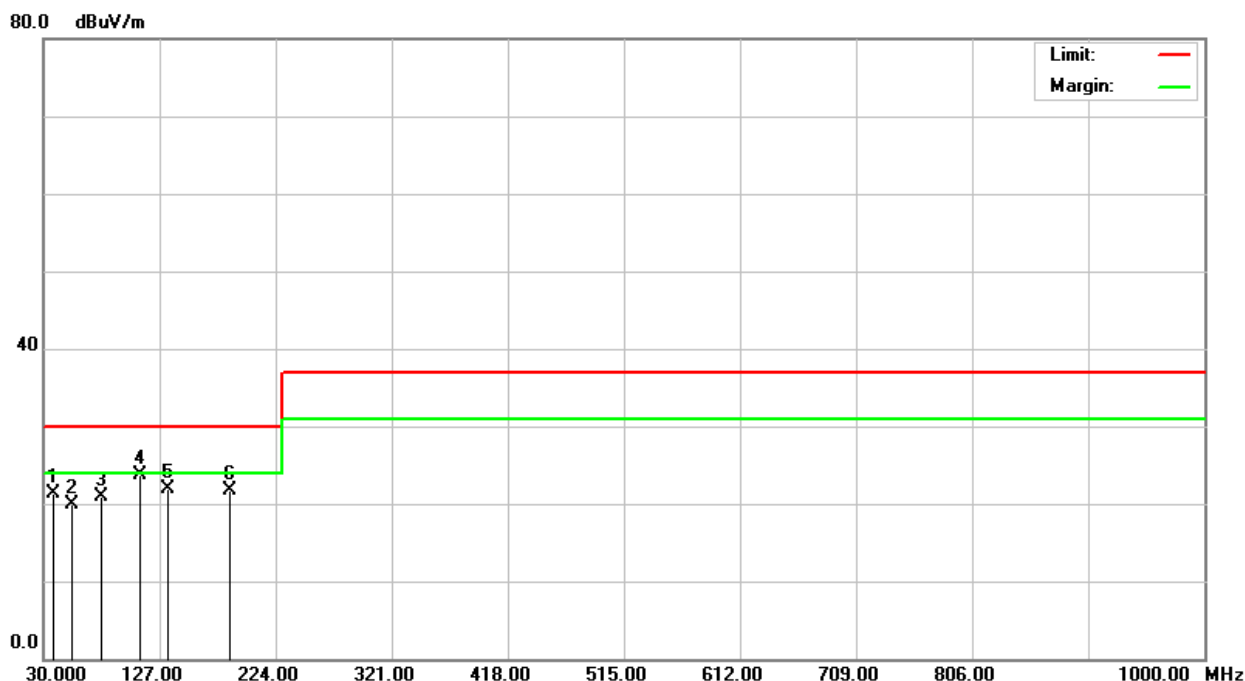
<b>Model No.</b>	KTPS05-18033U-VI	<b>Test Mode</b>	Mode 9 / Worst
<b>Environmental Conditions</b>	25°C, 66% RH	<b>6dB Bandwidth</b>	120 kHz
<b>Antenna Pole</b>	Vertical	<b>Antenna Distance</b>	10m
<b>Detector Function</b>	Quasi-peak.	<b>Tested by</b>	Bonny Tsai
<b>Standard</b>	FCC CLASS B W/ CISPR 22 CLASS B LIMIT		



Radiated Emission Readings									
Frequency Range Investigated				30 MHz to 1000 MHz at 10m					
Freq. (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (°)	Detector (P/Q)	Pol. (H/V)
32.8300	30.20	-9.53	20.67	30.00	-9.33	100	221	Q	V
40.3700	36.90	-14.98	21.92	30.00	-8.08	100	204	Q	V
70.6600	41.20	-19.15	22.05	30.00	-7.95	100	76	Q	V
83.5400	40.80	-19.80	21.00	30.00	-9.00	100	311	Q	V
120.7700	35.10	-13.03	22.07	30.00	-7.93	100	57	Q	V
144.6500	35.00	-13.66	21.34	30.00	-8.66	100	83	Q	V

**Note:** 1. 30MHz to 1000MHz test is Applicable CISPR 22 standard.  
2. P= Peak Reading; Q= Quasi-peak Reading.

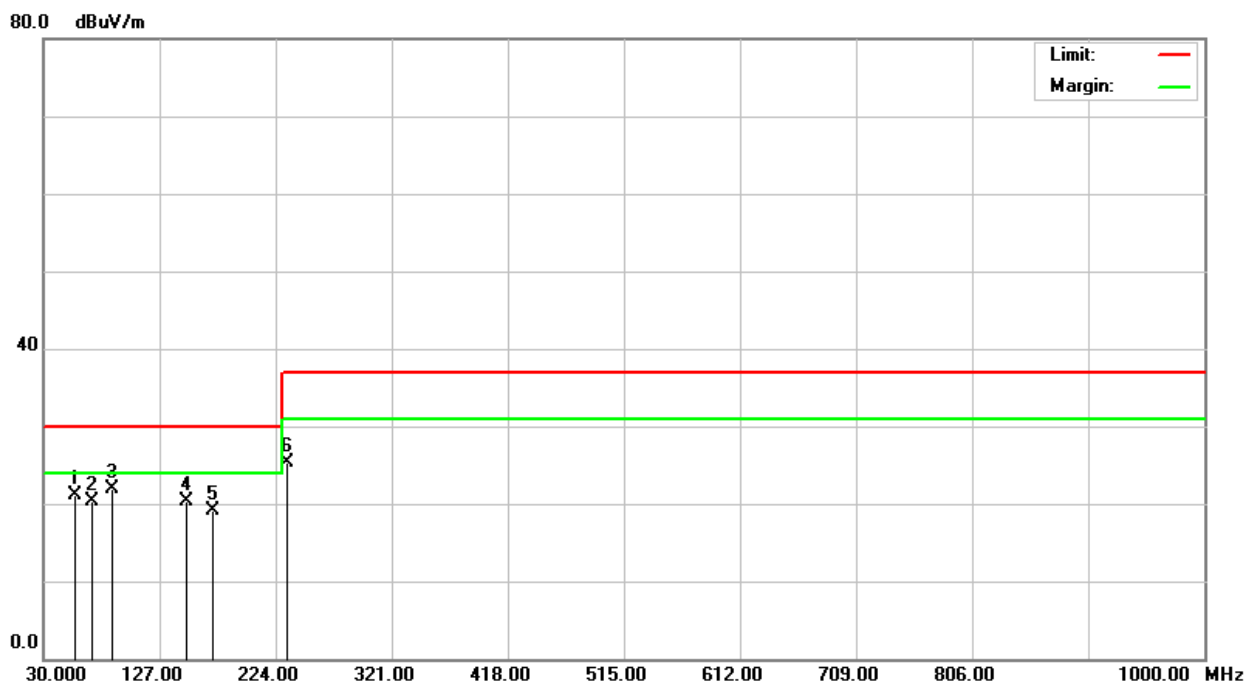
<b>Model No.</b>	KTPS05-18033U-VI	<b>Test Mode</b>	Mode 9 / Worst
<b>Environmental Conditions</b>	25°C, 66% RH	<b>6dB Bandwidth</b>	120 kHz
<b>Antenna Pole</b>	Horizontal	<b>Antenna Distance</b>	10m
<b>Detector Function</b>	Quasi-peak.	<b>Tested by</b>	Bonny Tsai
<b>Standard</b>	FCC CLASS B W/ CISPR 22 CLASS B LIMIT		



Radiated Emission Readings									
Frequency Range Investigated				30 MHz to 1000 MHz at 10m					
Freq. (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (°)	Detector (P/Q)	Pol. (H/V)
38.7599	35.10	-13.85	21.25	30.00	-8.75	400	160	Q	H
53.4400	39.77	-19.86	19.91	30.00	-10.09	400	277	Q	H
78.2800	40.62	-19.78	20.84	30.00	-9.16	400	10	Q	H
110.5600	38.50	-14.72	23.78	30.00	-6.22	400	158	Q	H
133.7500	35.10	-13.29	21.81	30.00	-8.19	400	334	Q	H
185.2600	36.50	-14.85	21.65	30.00	-8.35	400	200	Q	H

**Note:** 1. 30MHz to 1000MHz test is Applicable CISPR 22 standard.  
2. P= Peak Reading; Q= Quasi-peak Reading.

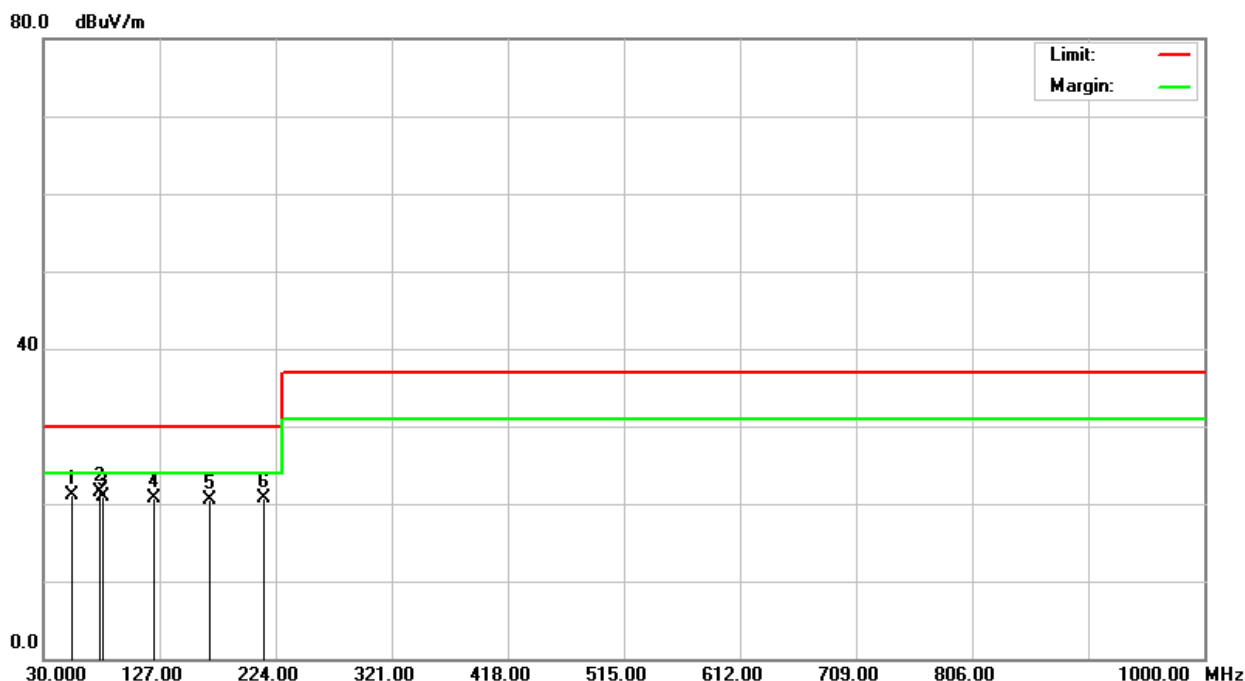
<b>Model No.</b>	KTPS05-24025U-VI	<b>Test Mode</b>	Mode 10
<b>Environmental Conditions</b>	25°C, 66% RH	<b>6dB Bandwidth</b>	120 kHz
<b>Antenna Pole</b>	Vertical	<b>Antenna Distance</b>	10m
<b>Detector Function</b>	Quasi-peak.	<b>Tested by</b>	Bonny Tsai
<b>Standard</b>	FCC CLASS B W/ CISPR 22 CLASS B LIMIT		



Radiated Emission Readings									
Frequency Range Investigated				30 MHz to 1000 MHz at 10m					
Freq. (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (°)	Detector (P/Q)	Pol. (H/V)
56.8800	40.88	-19.84	21.04	30.00	-8.96	100	141	Q	V
70.6200	39.43	-19.15	20.28	30.00	-9.72	100	89	Q	V
87.0230	41.56	-19.69	21.87	30.00	-8.13	100	170	Q	V
149.5300	34.29	-13.91	20.38	30.00	-9.62	100	228	Q	V
171.7800	33.84	-14.79	19.05	30.00	-10.95	100	60	Q	V
233.6300	40.33	-15.00	25.33	37.00	-11.67	100	152	Q	V

**Note:** 1. 30MHz to 1000MHz test is Applicable CISPR 22 standard.  
2. P= Peak Reading; Q= Quasi-peak Reading.

<b>Model No.</b>	KTPS05-24025U-VI	<b>Test Mode</b>	Mode 10
<b>Environmental Conditions</b>	25°C, 66% RH	<b>6dB Bandwidth</b>	120 kHz
<b>Antenna Pole</b>	Horizontal	<b>Antenna Distance</b>	10m
<b>Detector Function</b>	Quasi-peak.	<b>Tested by</b>	Bonny Tsai
<b>Standard</b>	FCC CLASS B W/ CISPR 22 CLASS B LIMIT		



Radiated Emission Readings									
Frequency Range Investigated				30 MHz to 1000 MHz at 10m					
Freq. (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (°)	Detector (P/Q)	Pol. (H/V)
54.1900	40.90	-19.85	21.05	30.00	-8.95	400	136	Q	H
77.4600	41.20	-19.71	21.49	30.00	-8.51	400	69	Q	H
79.8200	40.89	-19.91	20.98	30.00	-9.02	400	255	Q	H
122.4100	33.76	-13.06	20.70	30.00	-9.30	400	200	Q	H
169.3500	35.20	-14.72	20.48	30.00	-9.52	400	178	Q	H
214.5700	35.97	-15.17	20.80	30.00	-9.20	400	90	Q	H

**Note:** 1. 30MHz to 1000MHz test is Applicable CISPR 22 standard.  
2. P= Peak Reading; Q= Quasi-peak Reading.



**Above 1GHz**

<b>Model No.</b>	KTPS05-18033U-VI	<b>Test Mode</b>	N/A
<b>Environmental Conditions</b>	N/A	<b>6dB Bandwidth</b>	N/A
<b>Antenna Pole</b>	N/A	<b>Antenna Distance</b>	N/A
<b>Highest frequency generated or used</b>	108KHz	<b>Upper frequency</b>	See note
<b>Detector Function</b>	N/A	<b>Tested by</b>	N/A

**Note:** No applicable, when the highest frequency of the internal sources of the EUT is less than 108MHz, the measurement shall only be made up to 1 GHz.

## 8 PHOTOGRAPHS OF THE TEST CONFIGURATION CONDUCTED EMISSION TEST



## RADIATED EMISSION TEST

