



Microtest
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Test Report

Report No.: MTi201225006-02E1

Date of issue: Mar. 12, 2021

Applicant: Beijing Veikk E-commerce Co., Ltd

Product name: Pen Tablet

Model(s): VK1060PRO

Shenzhen Microtest Co., Ltd.
<http://www.mtitest.com>





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TEST RESULT CERTIFICATION

Applicant's name	Beijing Veikk E-commerce Co., Ltd
Address	Room 302, Building 10, Machikou Village, Machikou Town, Changping District, Beijing, China
Manufacturer's Name	Shenzhen Hezon Lito Technology Co., Ltd.
Address	C3, No. 45 Shasan Road, Shasan Community, Shajing Street, Baoan District, Shenzhen, China

Product description

Product name	Pen Tablet
Trademark	VEIKK
Model Name	VK1060PRO
Serial Model.....	N/A
Standards	FCC Part 15 Subpart B
Test methods	ANSI C63.4-2014

Date of Test

Date (s) of performance of tests.....	Jan. 05, 2021 ~ Mar. 12, 2021
Test Result	Pass

This device described above has been tested by Shenzhen Microtest Co., Ltd. and the test results show that the equipment under test (EUT) is in compliance with the FCC requirements. And it is applicable only to the tested sample identified in the report.

Testing Engineer

:

Bill Zhu

(Bill Zhu)

Technical Manager

:

Leo Su

(Leo Su)

Authorized Signatory

:

Tom Xue

(Tom Xue)



1 General description

1.1 Description of EUT

Product name:	Pen Tablet
Model name:	VK1060PRO
Series Model:	N/A
Different of series model:	N/A
Power supply:	DC 5V from PC
Adapter information:	N/A

1.2 Test mode

To investigate the maximum EMI emission characteristics generates from EUT, the test system was pre-scanning tested base on the consideration of following EUT operation mode or test configuration mode which possible have effect on EMI emission level. Each of these EUT operation mode(s) or test configuration mode(s) mentioned above was evaluated respectively.

Test mode	Description
Mode 1	Painting
Note: The test modes were carried out for all operation modes. The final test mode of the EUT was the worst test mode for EMI, and its test data is showed.	

1.3 EUT test setup

See photographs of the test setup in the report for the actual setup and connections between EUT and support equipment.

1.4 Ancillary equipment

Equipment	Model	S/N	Manufacturer
Laptop	E485	/	Lenovo



2 Summary of Test Result

Item	Description of Test	Result
FCC Part 15 Subpart B		
1	Conducted emission	Pass
2	Radiated emission	Pass

N/A: Mean not applicable.



3 Test Facilities and Accreditations

3.1 Test laboratory

Test Site	Shenzhen Microtest Co., Ltd.
Test Site Location	101, No. 7, Zone 2, Xinxing Industrial Park, Fuhai Avenue, Xinhe Community, Fuhai Street, Bao' an District, Shenzhen, Guangdong, China.
Telephone:	(86-755)88850135
Fax:	(86-755)88850136
CNAS Registration No.:	CNAS L5868
FCC Registration No.:	448573

3.2 Environmental conditions

During the measurement the environmental conditions were within the listed ranges:

Temperature:	15°C~35°C
Humidity	20%~75%
Atmospheric pressure	98kPa~101kPa

3.3 Measurement uncertainty

Measurement Uncertainty for a Level of Confidence of 95 %, $U=2 \times U_c(y)$

Conducted emission(150kHz~30MHz)	± 2.5 dB
Radiated emission(30MHz~1GHz)	± 4.2 dB
Radiated emission (above 1GHz)	± 4.3 dB
Temperature	± 1 degree
Humidity	± 5 %

3.4 Test software

Software name	Manufacturer	Model	Version
EMI Measurement Software	Farad	EZ-EMC	V1.1.4.2



4 List of test equipment

Radiation emission							
Item	Equipment name	Equipment No.	Manufacturer	Model	Serial No.	Calibration date	Due date
1	EMI Test Receiver	MTI-E043	Rohde&schwarz	ESPI7	101166	2020/06/04	2021/06/03
2	Broadband antenna	MTI-E044	schwarzbeck	VULB9163	9163-1338	2020/06/05	2021/06/04
3	Horn antenna	MTI-E045	schwarzbeck	BBHA9120D	9120D-2278	2020/06/05	2021/06/04
4	amplifier	MTI-E047	Hewlett-Packard	8447D	3113A06150	2020/06/04	2021/06/03
5	1GHz-26.5 GHz Amplifier	MTI-E048	Agilent	8449B	3008A02400	2020/07/03	2021/07/02
Conduction emission							
Item	Equipment name	Equipment No.	Manufacturer	Model	Serial No.	Calibration date	Due date
1	Artificial power network	MTI-E023	Schwarzbeck	NSLK8127	NSLK8127#841	2020/06/04	2021/06/03
2	EMI Test Receiver	MTI-E021	Rohde&schwarz	ESC S30	100210	2020/06/04	2021/06/03
3	8-wire Impedance Stabilization Network	MTI-E026	Schwarzbeck	NTFM 8158	NTFM 8158 #199	2020/06/04	2021/06/03
4	Artificial power network	MTI-E025	Schwarzbeck	NSLK8127	8127183	2020/06/03	2021/06/02

Note: the calibration interval of the above test instruments is 12 months and the calibrations are traceable to international system unit (SI).



5 EMC emission test

5.1 Conducted emission

5.1.1 Limits

Frequency (MHz)	Class A (dB μ V)		Class B (dB μ V)	
	Quasi-peak	Average	Quasi-peak	Average
0.15 -0.5	79	66	66 - 56 *	56 - 46 *
0.5 -5	73	60	56	46
5 -30	73	60	60	50

Note :

1. the tighter limit applies at the band edges.
2. the limit of " * " marked band means the limitation decreases linearly with the logarithm of the frequency in the range.

5.1.2 Test Procedures

The EUT was placed 0.8 meters from the horizontal ground plane with EUT being connected to the power mains through a line impedance stabilization network (LISN). All other support equipment powered from additional LISN(s). The LISN provide 50 Ohm/ 50uH of coupling impedance for the measuring instrument.

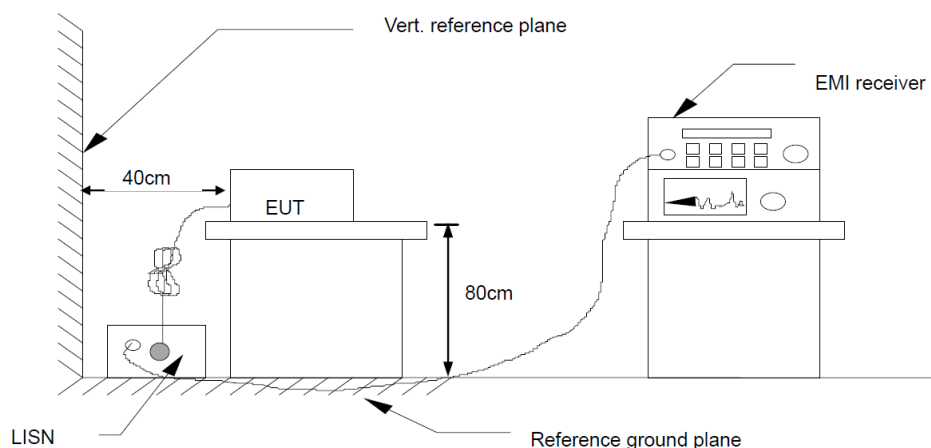
Interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth in the center forming a bundle 30 to 40 cm long.

I/O cables that are not connected to a peripheral shall be bundled in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. The overall length shall not exceed 1 m.

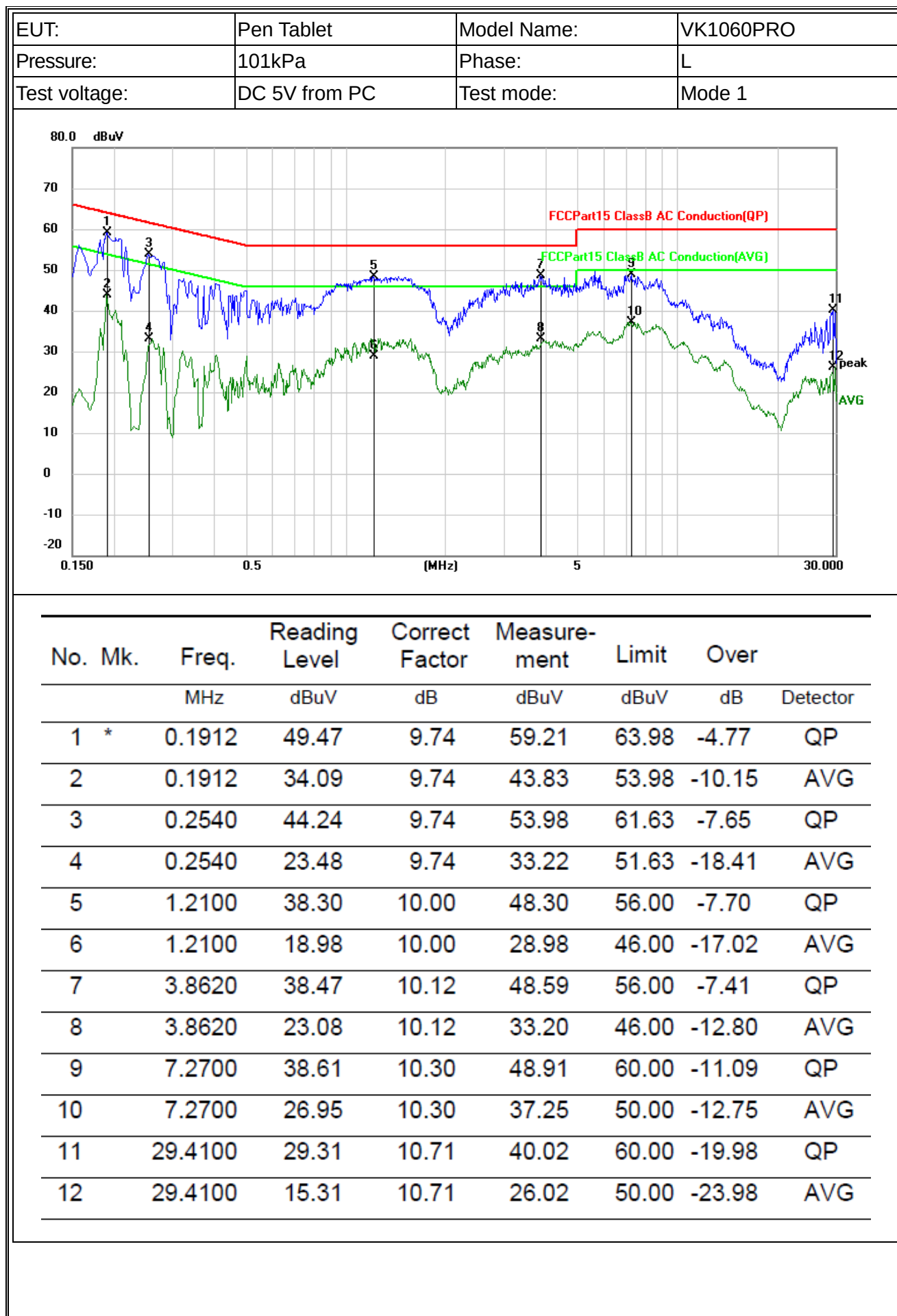
LISN is at least 80 cm from nearest part of EUT chassis.

For the actual test configuration, please refer to the related Item – photographs of the test setup.

5.1.3 Test Setup

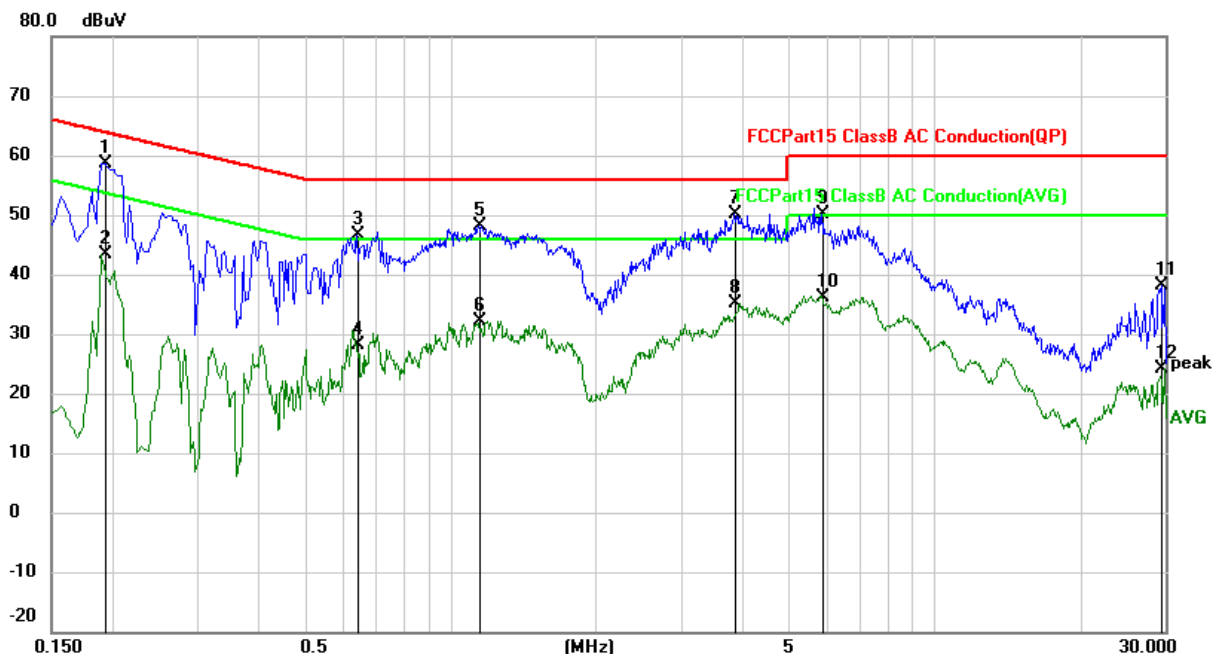


5.1.4 Test Result





EUT:	Pen Tablet	Model Name:	VK1060PRO
Pressure:	101kPa	Phase:	N
Test voltage:	DC 5V from PC	Test mode:	Mode 1



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector
1	*	0.1940	49.01	9.74	58.75	63.86	-5.11	QP
2		0.1940	33.59	9.74	43.33	53.86	-10.53	AVG
3		0.6419	36.57	9.95	46.52	56.00	-9.48	QP
4		0.6419	18.07	9.95	28.02	46.00	-17.98	AVG
5		1.1418	38.25	9.99	48.24	56.00	-7.76	QP
6		1.1418	22.08	9.99	32.07	46.00	-13.93	AVG
7		3.8620	39.97	10.12	50.09	56.00	-5.91	QP
8		3.8620	24.92	10.12	35.04	46.00	-10.96	AVG
9		5.8459	39.89	10.23	50.12	60.00	-9.88	QP
10		5.8459	25.89	10.23	36.12	50.00	-13.88	AVG
11		29.4100	27.31	10.71	38.02	60.00	-21.98	QP
12		29.4100	13.31	10.71	24.02	50.00	-25.98	AVG



5.2 Radiated emission

5.2.1 Limits

Limits of radiated emission measurement

Frequency (MHz)	Class B device (at 3m) dB μ V/m	Class A device (at 3m) dB μ V/m	Detector
30-88	40	49	QP
88-216	43.5	53.5	QP
216-960	46	56.4	QP
960-1000	54	59.5	QP
Above 1000	54	59.5	AV
Above 1000	74	79.5	PK

5.2.2 Test Procedures

The radiated emission tests were performed in the 3 meters.

The EUT was placed on the top of a rotating table 0.8 meters above the ground. The table was rotated 360 degrees to determine the position of the highest radiation.

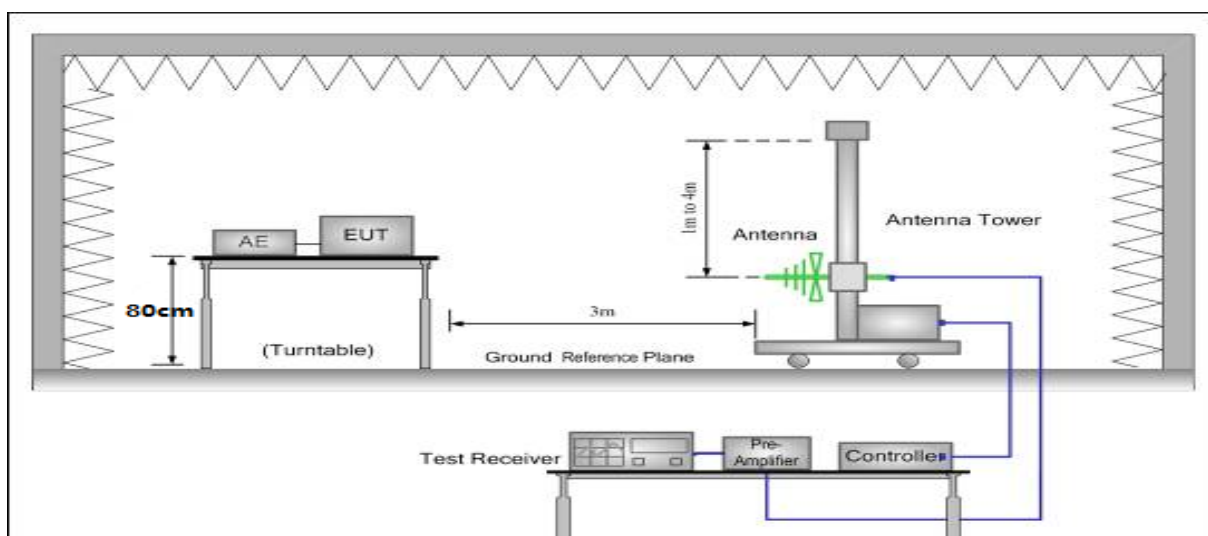
The height of the test antenna shall vary between 1m to 4m. Both horizontal and vertical polarizations of the antenna are set to make the measurement.

If the peak mode measured value compliance with and lower than quasi peak mode limit, the EUT shall be deemed to meet QP limits and then no additional QP mode measurement performed.

If the peak mode measured value compliance with and lower than average mode limit, the EUT shall be deemed to meet average limits and then no additional average mode measurement performed.

For the actual test configuration, please refer to the related item – EUT test photos.

5.2.3 Test Setup



5.2.4 Test Result

Note: the highest working frequency of EUT is below 108MHz.

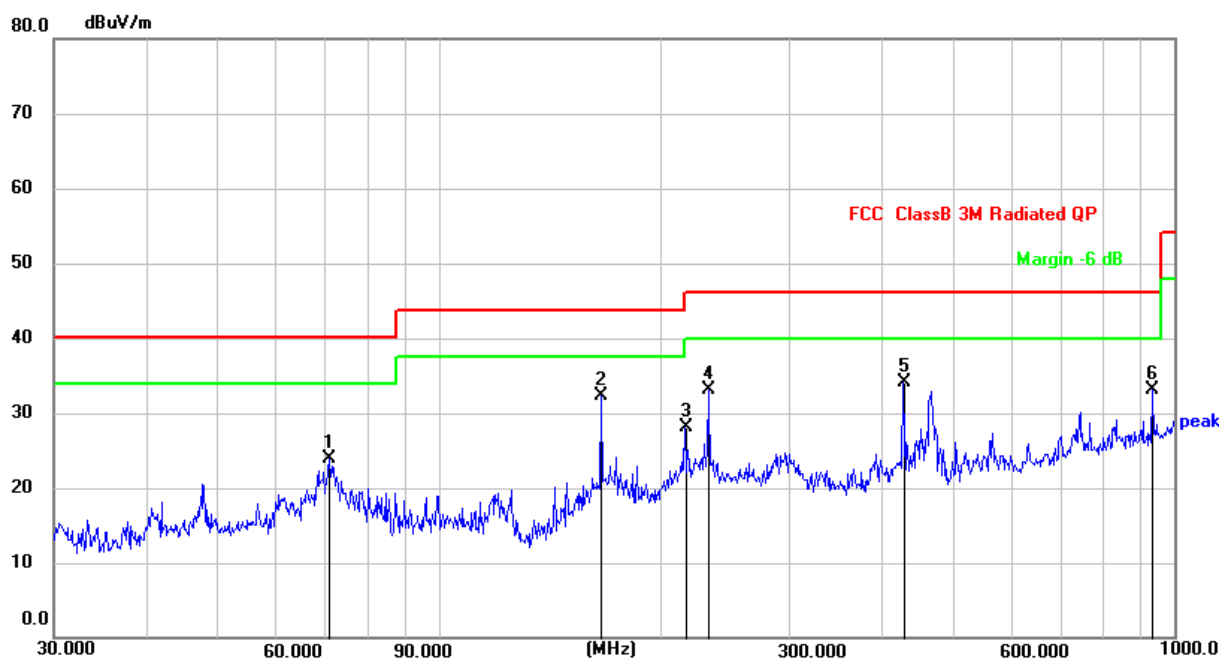
Formula:

Measurement Level (dB μ V/m) = Reading Level (dB μ V/m) + Correct Factor (dB μ V/m)

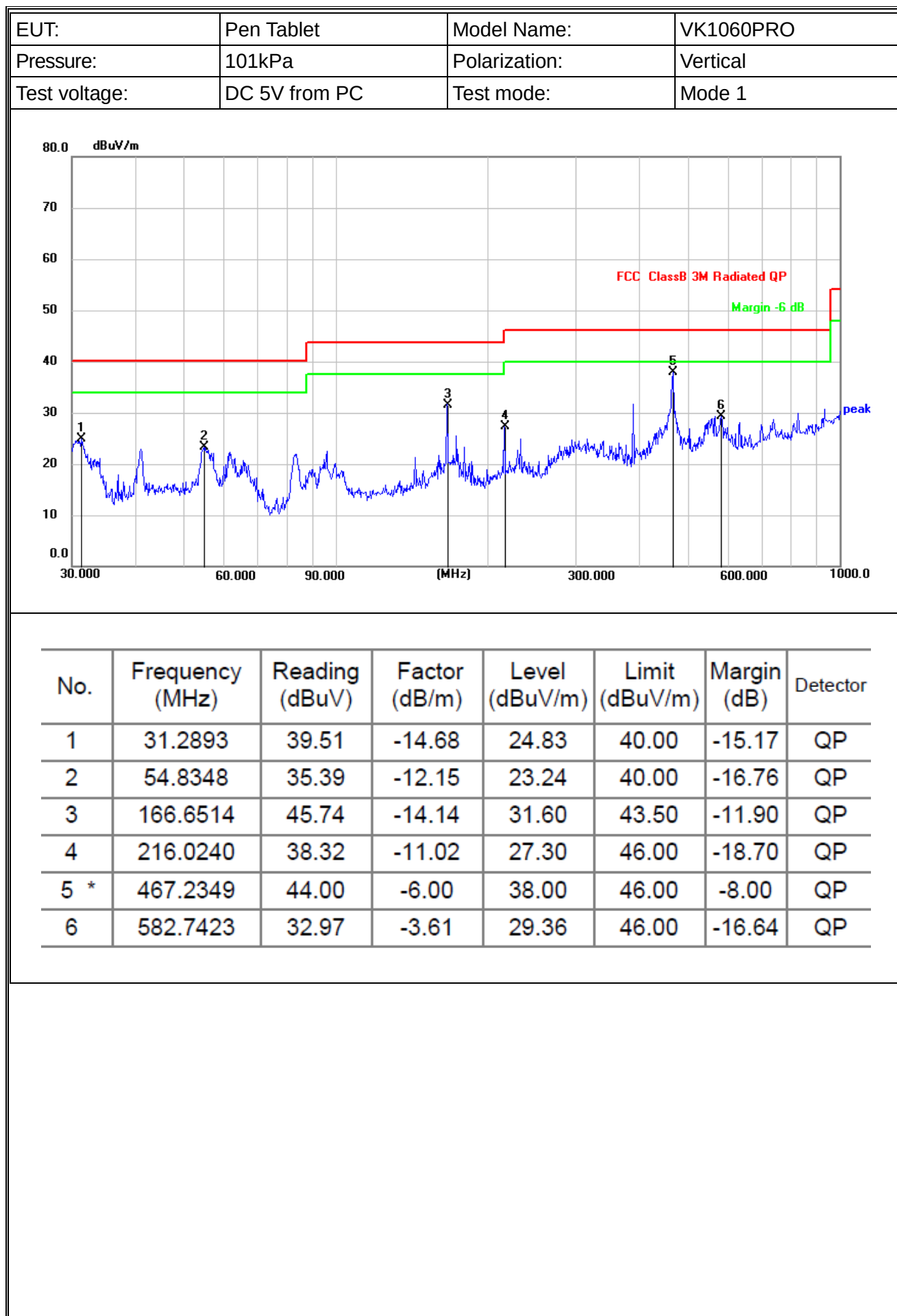
Margin Level (dB μ V/m) = Measurement Level (dB μ V/m) – Limit Level (dB μ V/m)



EUT:	Pen Tablet	Model Name:	VK1060PRO
Pressure:	101kPa	Polarization:	Horizontal
Test voltage:	DC 5V from PC	Test mode:	Mode 1



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	71.0802	39.57	-15.69	23.88	40.00	-16.12	QP
2 *	166.0680	46.42	-14.17	32.25	43.50	-11.25	QP
3	216.0240	39.05	-11.02	28.03	46.00	-17.97	QP
4	232.5318	43.54	-10.39	33.15	46.00	-12.85	QP
5	428.0193	40.91	-6.77	34.14	46.00	-11.86	QP
6	932.2715	31.06	1.95	33.01	46.00	-12.99	QP





Photographs of the Test Setup

Radiated emission below 1GHz



Conducted emission





Photographs of the EUT

See the APPENDIX 1- EUT PHOTO.

----End of Report----