

**FCC - TEST REPORT**Report Number : **68.760.14.187.01** Date of Issue: December 11, 2014

Model : AV13021-W, AV13021-B

Product Type : Tablet based monitor

Applicant : Excel Medical Electronics LLC

Address : 801 Maplewood Dr Ste 26 Jupiter, FL 33458 United States

Production Facility : Excel Medical Electronics LLC

Address : 801 Maplewood Dr Ste 26 Jupiter, FL 33458 United States

Test Result : ☒ **Positive** ☐ **Negative**Total pages including  
Appendices : 28

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## 2 Details about the Test Laboratory

### Details about the Test Laboratory

Company name: TÜV SÜD Certification and Testing (China) Co., Ltd. Shenzhen Branch  
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#### Test Site 2

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Nantou, Shenzhen,  
Guangdong,  
China

Telephone: 86 755 2663 9496  
Fax: 86 755 2663 2877

### 3 Description of the Equipment Under Test

Product:	Tablet based monitor
Model no.:	AV13021-B, AV13021-W
FCC ID:	2ADHJ-AV13021
Options and accessories:	AC/DC SWITCHING ADAPTOR MODEL NO: GSM40A05 INPUT: 100-240VAC,50/60Hz, 1.0-0.5A
Rating:	5.0A, 25W MAX
RF Transmission Frequency:	2412MHz-2462MHz
No. of Operated Channel:	11
Modulation:	DSSS, DBPSK, DQPSK, CCK and OFDM
Antenna Type:	FPC
Antenna Gain:	2dBi
Description of the EUT:	The EUT is a mobile computer.

## 4 Summary of Test Standards

Test Standards	
FCC Part 15 Subpart B 10-1-14 Edition	Unintentional Radiators

## 5 Summary of Test Results

Emission Tests					
FCC Part 15 Subpart B 10-1-14 Edition					
Test Condition	Pages	Test Site	Test Result		
			Pass	Fail	N/A
Conducted Emission on AC 150kHz to 30MHz	8	Site 2	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Radiated Emission 30MHz to 6000MHz	12	Site 2	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## 6 General Remarks

### Remarks

This submittal(s) (test report) complies with Section 15.107, 15.109 of the FCC Part 15, Subpart B Rules.

AV13021-B is identical to AV13021-W except for the exterior color.

### SUMMARY:

All tests according to the regulations cited on page 5 were

■ - Performed

□ - **Not** Performed

The Equipment under Test

■ - **Fulfills** the general approval requirements.

□ - **Does not** fulfill the general approval requirements.

Sample Received Date: March 12, 2014

Testing Start Date: March 13, 2014

Testing End Date: November 15, 2014

- TÜV SÜD Certification and Testing (China) Co., Ltd. Shenzhen Branch -

Reviewed by:

Prepared by:

Tested by:



Phoebe Hu  
EMC Project Manager



Felix Li  
EMC Project Engineer



Leo Li  
EMC Test Engineer

## 7 Technical Requirement

### 7.1 Conducted Emission Test

#### Test Method

1. The EUT was placed on a table, which is 0.8m above ground plane
2. The power line of the EUT is connected to the AC mains through a Artificial Mains Network (A.M.N.).
3. Maximum procedure was performed to ensure EUT compliance
4. A EMI test receiver is used to test the emissions from both sides of AC line

#### Limit

According to §15.107, conducted emissions limit as below:

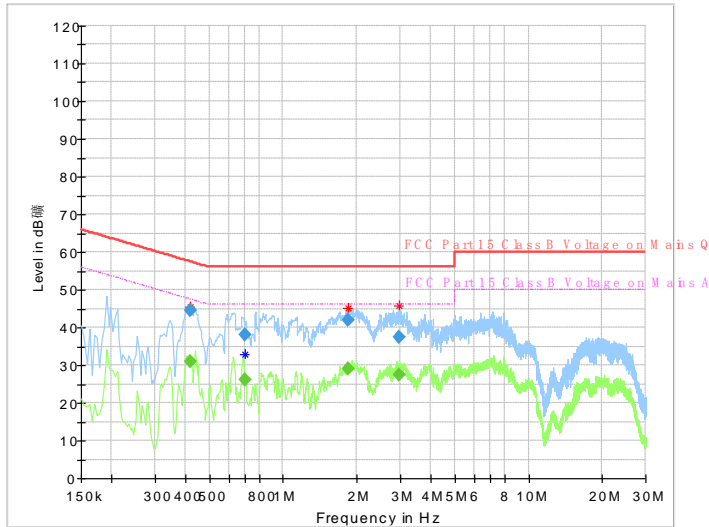
Frequency MHz	QP Limit dB $\mu$ V	AV Limit dB $\mu$ V
0.150-0.500	66-56*	56-46*
0.500-5	56	46
5-30	60	50

Decreasing linearly with logarithm of the frequency



## Conducted Emission

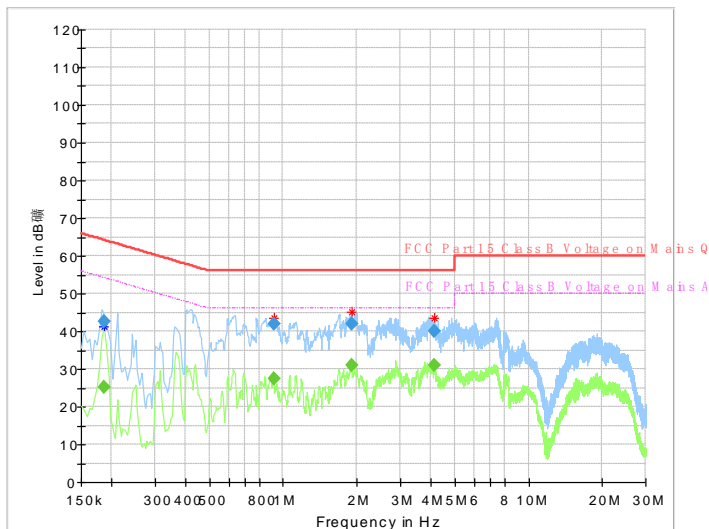
Product Type : Tablet based monitor  
M/N : AV13021-W  
Operating Condition : Running  
Test Specification : AC 120V/60Hz, Live



Frequency (MHz)	MaxPeak (dBμV)	Average (dBμV)	Limit (dBμV)	Margin (dB)	Line	Corr. (dB)
0.418500	45.44	---	57.57	12.13	L1	10.1
0.694500	---	32.82	46.00	13.18	L1	10.0
1.849500	45.01	---	56.00	10.99	L1	9.8
2.981500	45.84	---	56.00	10.16	L1	9.8

## Conducted Emission

Product Type : Tablet based monitor  
 M/N : AV13021-W  
 Operating Condition : Running  
 Test Specification : AC 120V/60Hz, Neutral



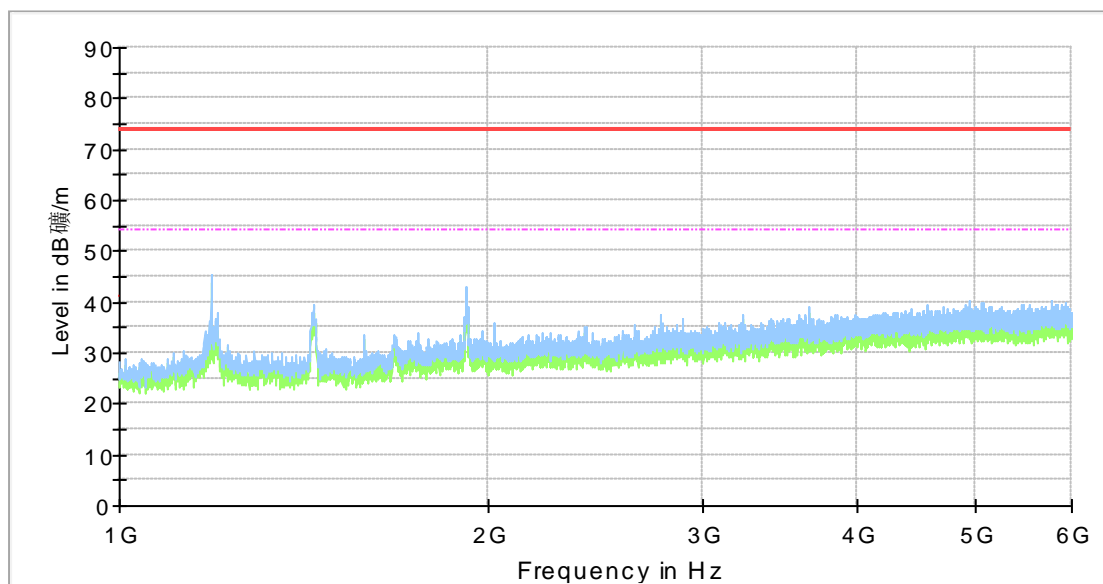
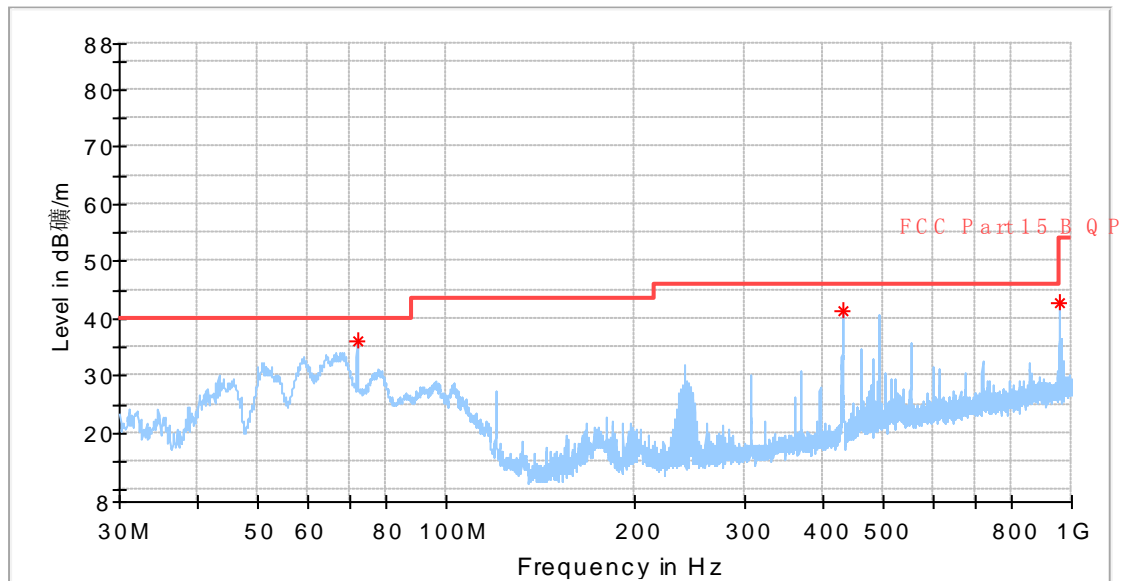
Frequency (MHz)	MaxPeak (dBμV)	Average (dBμV)	Limit (dBμV)	Margin (dB)	Line	Corr. (dB)
0.185500	---	41.35	54.21	12.86	N	9.7
0.913500	43.39	---	56.00	12.61	N	9.8
1.901500	45.06	---	56.00	10.94	N	9.8
4.121500	43.56	---	56.00	12.44	N	9.8

**Test Equipment List****Conducted emission test**

<b>Equipment</b>	<b>Manufacturer</b>	<b>Model No.</b>	<b>Serial No.</b>	<b>Cal. due. date</b>
Test Receiver	Rohde & Schwarz	ESHS10	838693/001	Oct.31, 2015
L.I.S.N.#1	Rohde & Schwarz	ESH2-Z5	834066/011	Oct.31, 2015
Terminator	Hubersuhner	50Ω	No. 1	May.08, 2015
Terminator	Hubersuhner	50Ω	No. 2	May.08, 2015
RF Cable	Fujikura	3D-2W	No.1	May.08, 2015
Coaxial Switch	Anritsu	MP59B	M50564	May.08, 2015
Pulse Limiter	Rohde & Schwarz	ESH3-Z2	100341	May.08, 2015

## 7.2 Radiated Emission Test 30MHz – 6000MHz

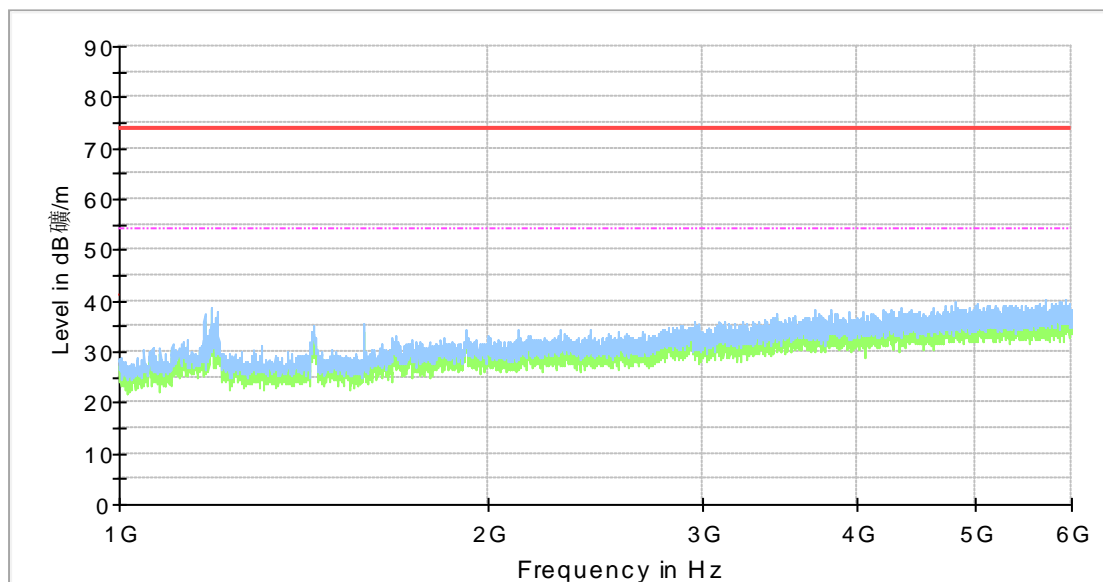
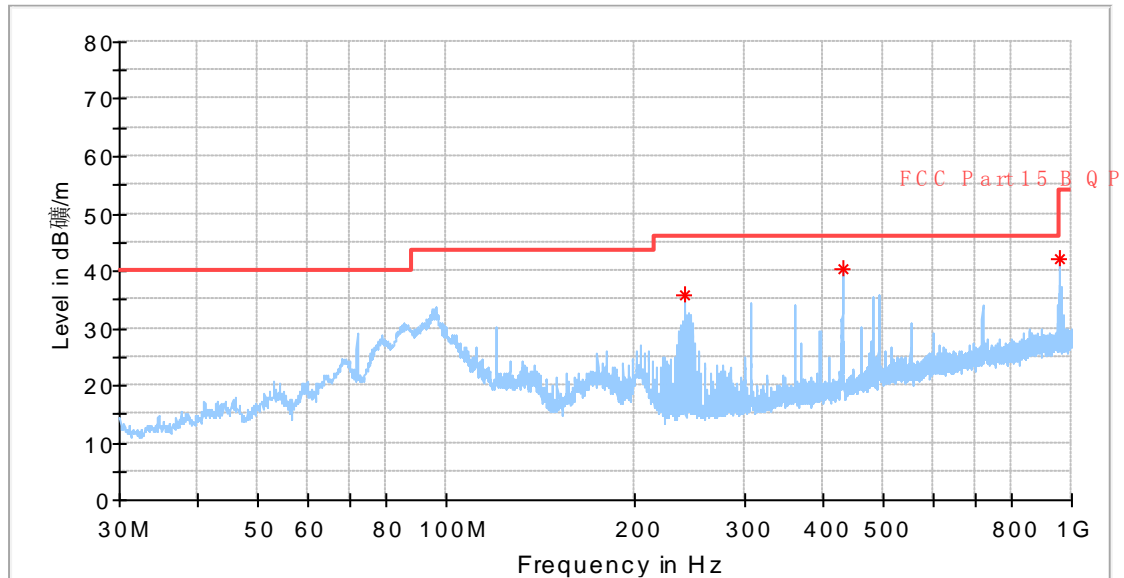
Product Type : Tablet based monitor  
 M/N : AV13021-W  
 Operating Condition : Running  
 Ant. Polarity : Vertical  
 Comment : 30-6000MHz



Frequency (MHz)	QuasiPeak (dB $\mu$ V/m)	Limit (dB $\mu$ V/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
71.952500	36.24	40.00	3.76	---	---	200.0	V	154.0	10.4
429.700625	41.28	46.00	4.72	---	---	100.0	V	320.0	18.3
960.048125	42.67	54.00	11.33	---	---	100.0	V	351.0	25.9

## 7.2 Radiated Emission Test 30MHz – 6000MHz

Product Type : Tablet based monitor  
 M/N : AV13021-W  
 Operating Condition : Running  
 Ant. Polarity : Horizontal  
 Comment : 30-6000MHz



Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
240.005000	35.79	46.00	10.21	---	---	100.0	H	298.0	14.2
429.640000	40.50	46.00	5.50	---	---	100.0	H	335.0	18.3
960.048125	42.17	54.00	11.83	---	---	100.0	H	79.0	25.9

**Test Equipment List****Radiated Emission Test**

DESCRIPTION	MANUFACTURER	MODEL NO.	SERIAL NO.	CAL. DUE DATE
EMI Spectrum	Agilent	E4407B	MY41440292	May 07, 2015
Test Receiver	Rohde & Schwarz	ESVS10	834468/011	May 07, 2015
Amplifier	HP	8447D	2648A04738	May 07, 2015
Bilog Antenna	Schaffner	CBL6111C	2598	Dec.13, 2015
RF Cable	MIYAZAKI	8D-FB	3# Chamber No.1	May 07, 2015
Coaxial Switch	Anritsu	MP59B	M73989	May 07, 2015

## 8 Photographs of Test Set-ups



Conducted emission test



Radiated emission test



## 9 Photographs of EUT











