# FEDERAL COMMUNICATIONS COMMISSION Declaration of Conformity (DoC)

The following equipment:

Product Name : Advanced Box PC

Trade	Name	:	Vecow

Model Number Vecow ABP Series; ABP-XXXX; ABP-2845

is herewith confirmed to comply with the requirements of FCC Part 15 Rules

The operation is subject to the following two conditions:

- (1) This device may not cause harmful interference, and
- (2) This device must accept any interference received, including interference

that may cause undesire operation.

The result of electromagnetic emission has been evaluated by ETC EMI Laboratory (NVLAP

LAB CODE:200133-0 / FCC Designation Number: TW1060) and showed in the

test report: 14-04-RBO-054-03

It is understood that each unit marketed is identical to the device as tested, and any changes to the device which could adversely affect the emission characteristics will require retest.

The following importer/manufacturer is responsible for this declaration:

Company Name <u>: Vecow</u>

Company Address	: 12F., No. 111, Zhongcheng Rd., Tucheng Dist., New
Taipei City 23674	Taiwan (R. O. C.)

Telephone : Facsin

Facsimile <u>:</u>

Person in responsible for marking this declaration:

Name (Full Name)

Position/Title

Legal Signature)

Date

自我符合宣告書請依上述文件製作

宣告者須在美國當地,故所填之公司地址、電話、傳真必須是在美國當地。

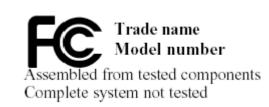
FCC Doc Label 樣本參考

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一般產品或系統標示如下

若產品需與其他已認可之部品裝配使用則標示如下





# EMI TEST REPORT of

- E.U.T. : Advanced Box PC
- Model : Vecow ABP Series; ABP-XXXX; ABP-2845

# for

APPLICANT	•	Vecow
ADDRESS	:	12F., No. 111, Zhongcheng Rd., Tucheng Dist., New
		Taipei City 23674 Taiwan (R. O. C.)

Test Performed by

# **ELECTRONICS TESTING CENTER (ETC), TAIWAN**

NO. 34. LIN 5. DINGFU, LINKOU DIST., NEW TAIPEI CITY, TAIWAN, 24442, R.O.C. TEL : (02)26023052 FAX : (02)26010910 http:// www.etc.org.tw ; e-mail:emc@etc.org.tw

Report Number : 14-04-RBO-054-03

# **TEST REPORT**

Applicant	· Vecow
	12F., No. 111, Zhongcheng Rd., Tucheng Dist., New Taipei City
	23674 Taiwan (R. O. C.)
Manufacturer	· Vecow
	12F., No. 111, Zhongcheng Rd., Tucheng Dist., New Taipei City
	23674 Taiwan (R. O. C.)
Description of Device	:
a) Type of EUT	: Advanced Box PC
b) Trade Name	: Vecow
c) Model No.	: Vecow ABP Series; ABP-XXXX; ABP-2845
d) Serial Model	:
e) Power Supply	: AC 120V , 60Hz
f) Highest working Frequency	: 1.91GHz
Regulation Applied	: FCC Rules and Regulations Part 15 Subpart B/ CISPR 22 ET Docket No. 95-19 (DoC Procedure)

I HEREBY CERTIFY THAT: The data shown in this report were made in accordance with the procedures given in ANSI C63.4 and the energy emitted by the device was founded to be within the limits applicable. I assume full responsibility for accuracy and completeness of these data.

Note: 1. The result of the testing report relate only to the item tested.

- 2. The testing report shall not be reproduced expect in full, without the written approval of ETC.
- 3. The report must not be used by the client to claim product endorsement by NVLAP or any agency of the U.S. Government.



ETC Report No. :14-04-RBO-054-03

Date Test Item Received Date Test Campaign Completed Date of Issue

*Apr* 28, 2014 *May* 13, 2014 *May* 16, 2014

:

:



Test Engineer

(Sky Kuo, Engineer)

Checked

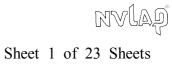
Approve & Authorized

Licher Chen

Andersón Ku, Section Manager EMC Dept. II of ELECTRONICS TESTING CENTER, TAIWAN

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ETC Report No. : 14-04-RBO-054-03



# **1 GENERAL INFORMATION**

#### 1.1 Product Description and Operation

a) Type of EUT	: Advanced Box PC
b) Trade Name	: Vecow
c) Model No.	: Vecow ABP Series; ABP-XXXX; ABP-2845
d) Serial Model	:
e) Power Supply	: AC 120V , 60Hz
f) Highest working	
Frequency	: 1.91GHz

#### **1.2** Characteristics of Device

Advanced Box PC

#### 1.3 Test Methodology

For EUT, both conducted and radiated emissions were performed according to the procedures in ANSI C63.4 (2003).

#### 1.4 Test Facility

The open area test site and the conducted measurement facility used to collect the test data is located at NO. 34. LIN 5. DINGFU, LINKOU DIST., NEW TAIPEI CITY, TAIWAN, 24442, R.O.C.

This site is accredited for measuring devices subject to Declaration of Conformity (DOC) under Parts 15 & 18 via APEC TEL MRA.

FCC Designation Number: TW1060

Expiration date: Oct. 08, 2014.

This site is accredited by the National Voltuntary Laboratory Accreditiation Porgram in accordance with the recognized International Standard ISO/IEC 17025:2005.

NVLAP LAB CODE : 200133-0

The effective date Jun. 30, 2014.

#### **2 PROVISIONS APPLICABLE**

#### 2.1 Definition

#### Unintentional radiator:

A device that intentionally generates and radio frequency energy for use within the device, or that sends radio frequency signals by conduction to associated equipment via connecting wiring, but which is not intended to emit RF energy by radiation or induction.

#### **Class A Digital Device:**

A digital device which is marketed for use in commercial or business environment; exclusive of a device which is marketed for use by the general public, or which is intended to be used in the home.

#### **Class B Digital Device:**

A digital device which is marketed for use in a residential environment notwithstanding use in a commercial, business and industrial environment. Examples of such devices include, but are not limited to, personal computers, calculators, and similar electronic devices that are marketed for use by the general public.

Note: A manufacturer may also qualify a device intended to be marketed in a commercial, business, or industrial environment as a Class B digital device, and in fact is encouraged to do so, provided the device complies with the technical specifications for a Class B Digital Device. In the event that a particular type of device has been found to repeatedly cause harmful interference to radio communications, the Commission may classify such a digital device as a Class B Digital Device, Regardless of its intended use.

# 2.2 Requirement for Compliance

#### (1) Conducted Emission Requirement

For unintentional device, according to **FCC§15.107(b)** Line Conducted Emission Limits class A is as following:

Frequency MHz	Quasi Peak dB µ V	Average dB μ V
0.15 - 0.5	79	66
0.5 - 5.0	73	60
5.0 - 30.0	73	60

For unintentional device, according to **CISPR 22** Line Conducted Emission Limits class A is as following:

Frequency MHz	Quasi Peak dB µ V	Average dBμV
0.15 - 0.5	79	66
0.5 - 5.0	73	60
5.0 - 30.0	73	60

For unintentional device, according to **AS/NZS 3548** Line Conducted Emission Limits class A is as following:

Frequency MHz	Quasi Peak dB µ V	Average dB μ V
0.15 - 0.5	79	66
0.5 - 5.0	73	60
5.0 - 30.0	73	60

For unintentional device, according to **FCC§15.107(a)** Line Conducted Emission Limits class B is as following:

Frequency MHz	Quasi Peak dB µ V	Average dB μ V
0.15 - 0.5	66-56	56-46
0.5 - 5.0	56	46
5.0 - 30.0	60	50

Sheet 4 of 23 Sheets

Frequency MHz	Quasi Peak dB µ V	Average dB μ V
0.15 - 0.5	66-56	56-46
0.5 - 5.0	56	46
5.0 - 30.0	60	50

For unintentional device, according to **CISPR 22** Line Conducted Emission Limits class B is as following:

For unintentional device, according to AS/NZS 3548 Line Conducted Emission Limits class B is as following:

Frequency MHz	Quasi Peak dB µ V	Average dB μ V
0.15 - 0.5	66-56	56-46
0.5 - 5.0	56	46
5.0 - 30.0	60	50

#### (2) Radiated Emission Requirement

For unintentional device, according to FCC §15.109(b), the field strength of radiated emissions from class A unintentional radiators at a distance of 10 meters shall not exceed the following values:

Frequency MHz	Distance Meters	Radiated μV/m	Radiated dB μ V/m
30 - 88	10	90	39.0
88 - 216	10	150	43.5
216 - 960	10	210	46.4
above 960	10	300	49.5

For unintentional device, according to **CISPR 22** Radiated Emission Limits class A is as following:

Frequency MHz	Distance Meters	Radiated dB μ V/m
30 to 230	10	40
230 to 1000	10	47

Sheet 5 of 23 Sheets

For unintentional device, according to AS/ NZS 3548 Radiated Emission Limits class A is as following:

Frequency MHz	Distance Meters	Radiated dBμV/m
30 to 230	10	40
230 to 1000	10	47

For unintentional device, according to FCC §15.109(a), the field strength of radiated emissions from unintentional radiators at except for class A digital devices a distance of 3 meters shall not exceed the following values:

Frequency MHz	Distance Meters	Radiated μV/m	Radiated dB μ V/m
30 - 88	3	100	40.0
88 - 216	3	150	43.5
216 - 960	3	200	46.0
above 960	3	500	54.0

For unintentional device, according to **CISPR 22** Radiated Emission Limits class B is as following:

Frequency MHz	Distance Meters	Radiated dB μ V/m
30 to 230	10	30
230 to 1000	10	37

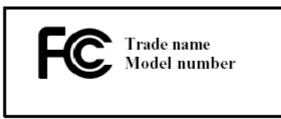
For unintentional device, according to AS/ NZS 3548 Radiated Emission Limits class B is as following:

Frequency MHz	Distance Meters	Radiated dB μ V/m
30 to 230	10	30
230 to 1000	10	37

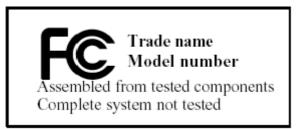
# 2.3 Labeling Requirement

Products sjubject to authorization under a Declaration of Conformity shall be labeled as follows:

(1) The label shall be located in a conspicuous location on the device and shall contain the unique identification described in Section 2.1074 of this chapter and the following logo:(i) IF the product is authorized based on testing of the product or system:



(ii) If the product is authorized based on assembly using separately authorized components, in accordance with Section 15.101(c)(2) or (c)(3), and the resulting product is not separately tested:



- (2) Label text and information should be in a size of type large enough to be readily legible, consistent with the dimensions of the equipment and the label. However, the type size for the text is not required to be larger than eight point.
- (3) When the device is so small or for such used that it is not practicable to place the statement specified under paragraph (b)(1) of this section on it, such as for a CPU board or a plug-in circuit board peripheral device, the text associated with the logo may be placed in a prominent location in the instruction manual or pamphlet supplied to the user. However, the unique identification (trade name and model number) and the logo must be displayed on the device.
- (4) The label shall not be a stick-on, paper label. The labelon these products shall be permanently affixed to the product and shall be readily visible to the purchaser at the time of purchase, as described in Section 2.925(d) of this chapter. "Permanently affixed" means that the label is etched, engraved, stamped, silkscreened, indelibly printed, or otherwise permanently marked on a permanently attached part of the equipment or an a nameplate of metal, plastic, or other material fastened to the equipment by welding, riveting, or a permanent adhesive. The label must be designed to the last the expected lifetime of the equipment in the environment in which the equipment may be operated and must not be readily detachable.

#### 2.4 User Information

The users manual or instruction manual for an intentional or unintentional radiator shall caution the user that changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

For a Class B digital device or peripheral, the instructions furnished the user shall include the following or similar statement, placed in a prominent location in the text of the manual.

The Federal Communications Commission Radio Frequency Interference Statement includes the following paragraph.

This equipment has been tested and found to comply with the limits for a Class B Digital Device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instruction may cause harmful interference to radio communication. However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- -- Reorient or relocate the receiving antenna.
- -- Increase the separation between the equipment and receiver.
- -- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- -- Consult the dealer or an experienced radio / TV technician for help.

#### **3. SYSTEM TEST CONFIGURATION**

#### 3.1 Justification

The system was configured for testing in a typical fashion, as a customer would QPly use it.

For radiated emission measuring, the EUT was rotated to obtain the maximum level of radiated emissions. The antenna was varied in height from 1 to 4 meters above ground to obtain the maximum signal strength. Measurement was performed under the condition that a computer program was exercised to simulate data communication of EUT. Three highest emissions were verified with varying placement of the connected cable to maximize the emission from EUT.

#### **3.2 Devices for Tested System**

Product	Manufacturer	Model No.	I/O Cable
		Vecow ABP Series;	
Advanced Box PC*	Vecow	ABP-XXXX; ABP-	
		2845	
Mouse	DELL	MS111-L	1.5m Unshielded Cable
KeyBoard	M056UC	DELL	1.5m Shielded Cable
LCD TV	SONY	KDL-22EX420	1.6m Unshielded AC Power Cord
Earphone			0.6m Unshielded Cable
2.5吋HDD*2	WD	C4B	0.4m Unshielded USB Cable
2.5吋HDD	BUFFALO	HD-PCT500U3B	0.2m Unshielded USB Cable
HDMI Cable			1.0m Unshielded Cable
Network Cable			3.0m Unshielded Cable

Remark "\*" means equipment under test.

#### 3.3 Configuration of Tested System

Please Refer to test setup photos.

#### 3.4 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	150kHz ~ 30MHz	2.5dB(Mains)
Conducted emission at		2.22dB(Voltage)
telecommunication ports	150kHz ~ 30MHz	2.88dB(Current)
		$3.90$ dB $(30$ MHz $\leq f \leq 300$ MHz $)$
	30MHz ~ 1GHz	$3.95$ dB $(300$ MHz $<$ f $\leq$ 1GHz $)$
Radiated emissions		$4.42 dB(1GHz \le f \le 18GHz)$
	Above 1GHz	$4.86 dB(18 GHz \leq f \leq 40 GHz)$

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

# 3.5 Deviation Statement

(If any deviation from additions to or exclusions from test method must be stated)

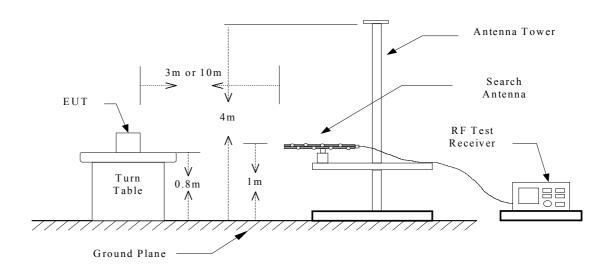
#### **4 RADIATED EMISSION MEASUREMENT**

#### 4.1 Applicable Standard

For unintentional radiator digital devices, the radiated emission shall comply with §15.109(a). And according to §15.109 (g), as an alternative to the radiated emission limits is CISPR 22.

#### 4.2 Measurement Procedure

- 1. Setup the configuration per figure 1.
- 2. For emission frequencies measured below 1 GHz, a pre-scan is performed in a shielded chamber to determine the accurate frequencies of higher emissions will be checked on a open test site.
- 3. The search antenna is to be raised and lowered over a range from 1 to 4 meters in horizontally polarized orientation. Position the highness when the highest value is indicated on spectrum analyzer, then change the orientation of EUT on test table over a range from 0° to 360° with a speed as slow as possible, and keep the azimuth that highest emission is indicated on the spectrum analyzer. Vary the antenna position again and record the highest value as a final reading. A RF test receiver is also used to confirm emissions measured.
- 4. Repeat step 3 until all frequencies need to be measured were complete.
- 5. Repeat step 4 with search antenna in vertical polarized orientations.
- 6. Check the three frequencies of highest emission with varying the placement of cables associated with EUT to obtain the worse case and record the result.



#### Figure 1 : Frequencies measured below 1 GHz configuration

# 4.3 Measuring Instrument

The following instrument are used for radiated emissions measurement :

Equipment	Manufacturer	Model No.	<b>Calibration Date</b>	Next Cal. Date
EMI Test Receiver	Rohde & Schwarz	ESCI	2013/07/15	2014/07/14
EMI Test Receiver	Rohde & Schwarz	ESL	2013/07/30	2014/07/29
Bi-Log Antenna	ETC	MCTD 2756	2014/01/03	2015/01/02
Double Ridged Antenna	EMCO	3115	2014/04/29	2015/04/28
Amplifier	HP	83051A	2014/05/06	2015/05/05
Amplifier	HP	8447D	2014/05/03	2015/05/02

Note: The standards used to perform this calibration are traceable to NML/ROC, NIST/USA and NPL/UK.

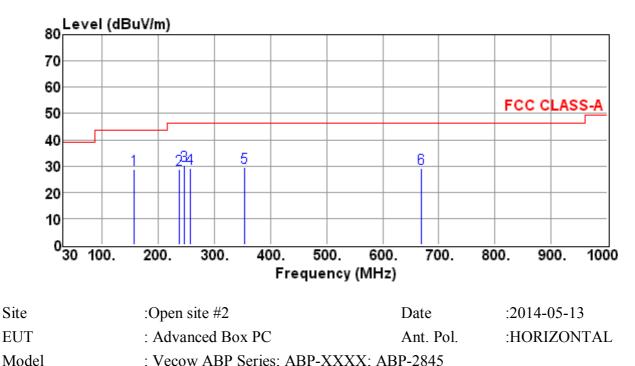
Measuring instrument	setup in measure	d frequency ban	d when specified	detector function is used :

Frequency Band	Instrument	Function	Resolution	Video
(MHz)	mstrument	i unetion	bandwidth	Bandwidth
30 to 1000	RF Test Receiver	Quasi-Peak	120 kHz	1 MHz
50 10 1000	Spectrum Analyzer	Peak	100 kHz	100 kHz
Above 1000	Spectrum Analyzer	Peak	1 MHz	1 MHz
	Spectrum Analyzer	Average	1 MHz	10Hz

#### 4.4 Radiated Emission Data

A. Other spurious emissions.

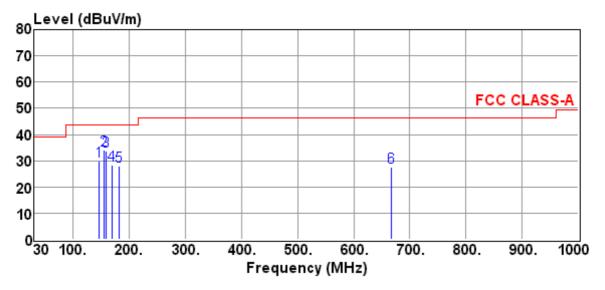
(30MHz to 1GHz)



WIGGET		JI -20+3	
Detector	:QP		
Power Rating	:120V60Hz	Engineer	:Sky Kuo
Limit	:FCC CLASS-A	Temp.	:26 °C
Memo	:Operation mode	Humi.	:58 %

Freq	Reading	Correction	Result	Limits	Over limit
		Factor			dB
MHz	dBuV	dB	dBuV/m	dBuV/m	
157.6100	15.23	13.55	28.78	43.50	-14.72
237.3700	13.93	14.76	28.69	46.40	-17.71
245.6700	14.77	15.36	30.13	46.40	-16.27
256.8900	12.44	16.77	29.21	46.40	-17.19
353.1300	10.65	18.92	29.57	46.40	-16.83
668.4100	1.72	27.31	29.03	46.40	-17.37

- 1. Result = Reading + Corrected Factor
- 2. Corrected Factor = Antenna Factor + Cable Loss
- 3. The margin value=Limit Result

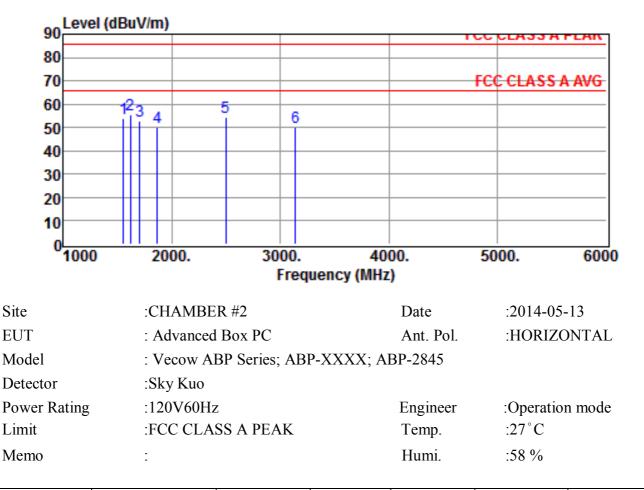


#### (Above 1GHz)

Site	:Open site #2	Date	:2014-05-13
EUT	: Advanced Box PC	Ant. Pol.	:VERTICAL
Model	: Vecow ABP Series; ABP-XXXX; AB	3P-2845	
Detector	:QP		
Power Rating	:120V60Hz	Engineer	:Sky Kuo
Limit	:FCC CLASS-A	Temp.	:26 °C
Memo	:Operation mode	Humi.	:58 %

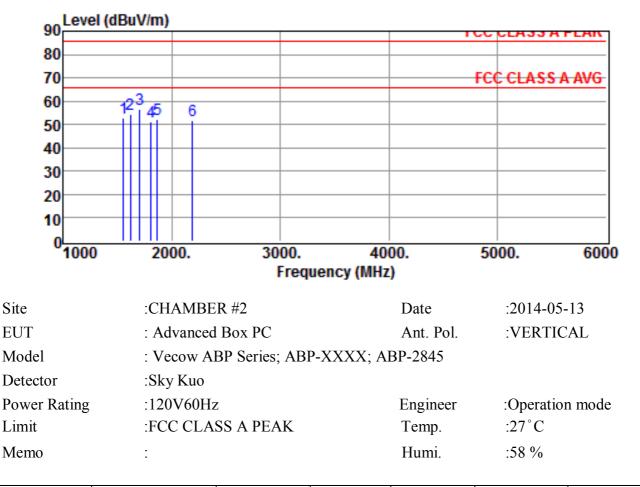
Freq	Reading	Correction	Result	Limits	Over limit
		Factor			dB
MHz	dBuV	dB	dBuV/m	dBuV/m	
146.2600	16.26	13.78	30.04	43.50	-13.46
154.3700	20.59	13.63	34.22	43.50	-9.28
158.7100	20.33	13.52	33.85	43.50	-9.65
169.3600	14.75	13.40	28.15	43.50	-15.35
181.4300	14.89	13.22	28.11	43.50	-15.39
667.3200	0.39	27.28	27.67	46.40	-18.73

- 1. Result = Reading + Corrected Factor
- 2. Corrected Factor = Antenna Factor + Cable Loss
- 3. The margin value=Limit Result



Freq	Reading	Correction	Result	Limits	Over limit	Detector
		Factor				
MHz	dBuV	dB	dBuV/m	dBuV/m	dB	
1560.0000	63.5	-9.4	54.1	85.5	-31.4	Peak
1620.0000	64.6	-9.1	55.5	85.5	-30.0	Peak
1710.0000	61.2	-8.6	52.6	85.5	-32.9	Peak
1870.0000	57.5	-7.6	49.9	85.5	-35.6	Peak
2500.0000	59.7	-5.4	54.3	85.5	-31.2	Peak
3140.0000	53.2	-3.0	50.2	85.5	-35.3	Peak

- 1. Result = Reading + Corrected Factor
- 2. Corrected Factor = Antenna Factor + Cable Loss
- 3. The margin value=Limit Result



Freq	Reading	Correction	Result	Limits	Over limit	Detector
		Factor				
MHz	dBuV	dB	dBuV/m	dBuV/m	dB	
1560.0000	62.5	-9.4	53.1	85.5	-32.4	Peak
1620.0000	63.4	-9.1	54.3	85.5	-31.2	Peak
1710.0000	64.9	-8.6	56.3	85.5	-29.2	Peak
1810.0000	59.3	-8.0	51.3	85.5	-34.2	Peak
1870.0000	59.8	-7.6	52.2	85.5	-33.3	Peak
2190.0000	58.3	-6.3	52.0	85.5	-33.5	Peak

- 1. Result = Reading + Corrected Factor
- 2. Corrected Factor = Antenna Factor + Cable Los
- 3. The margin value=Limit Result

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# 4.5 Field Strength Calculation

The field strength is calculated by adding the Antenna Factor, High Pass Filter Loss and Cable Loss, and subtracting the Amplifier Gain (if any) from the measured reading. The basic equation calculation is as follows:

#### **Result = Reading + Corrected Factor**

where

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

# 4.6 Photos of Radiation Measuring Setup

# (30MHz to 1GHz)



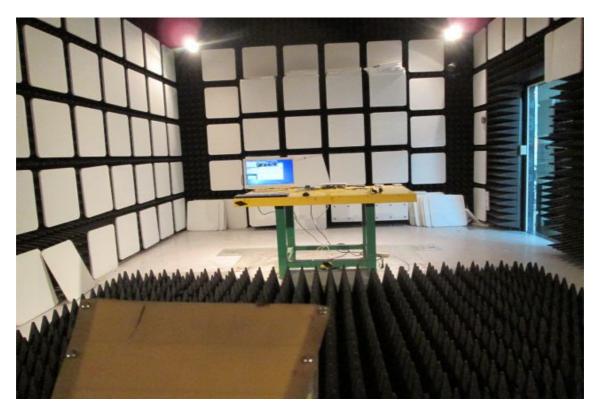




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#### **5 CONDUCTED EMISSION MEASUREMENT**

#### 5.1 Description

For unintentional and intentional device, Line Conducted Emission Limits are in accordance to §15.107(a) and §15.207(a) respectively. Both Limits are identical specification.

#### 5.2 Measurement Procedure

- 1. Setup the configuration per figure 3.
- 2. A preliminary scan with a spectrum monitor is performed to identify the frequency of emission that has the highest amplitude relative to the limit by operating the EUT in selected modes of operation, typical cable positions, and with a typical system configuration.
- 3. Record the 6 or 8 highest emissions relative to the limit.
- 4. Measure each frequency obtained from step 3 by a test receiver set on quasi peak detector function, and then record the accuracy frequency and emission level. If all emissions measured in the specified band are attenuated more than 20 dB from the limit, this step would be ignored, and the peak detector function would be used.
- 5. Confirm the highest three emissions with variation of the EUT cable configuration and record the final data.
- 6. Repeat all above procedures on measuring each operation mode of EUT.

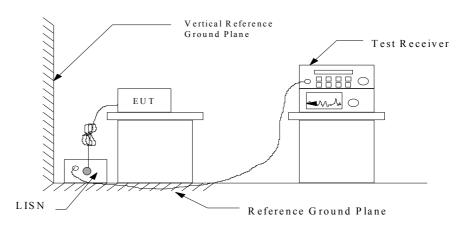


Figure 3 : Conducted emissions measurement configuration

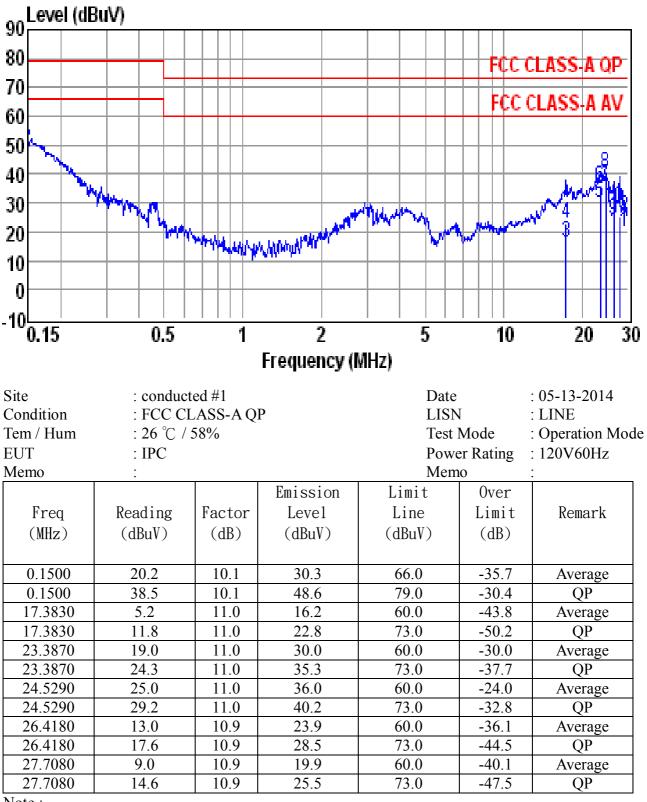
# 5.3 Conducted Emission Data

90 Level (dE	BuV)					
80					-	
					FLL	LASS-A QP
70					FCC (	LASS-A AV
60					1001	
50						
40	<b>4</b>					1 all a lake
30	M			Mary Mary		ANA BAN
20			and the second second	1 M N A	1 minut	Ϋ́35 11₹
		****	wheel and the state of the stat	- I M	M	
10						
0						
_						
.10 <u>.15</u>	0.5	1	2	5	10	20 30
	0.0	•	Frequency (	-		
			riequency (	IYII 1 <i>2 j</i>		
Site	: conduct	ed #1		Date		: 05-13-2014
Condition	: FCC CI	LASS-AQ	Р	LISN	N	: NEUTRAL
Гет / Hum	: 26 °C /			Test		: Operation Mod
EUT		ed Box PC			U	: 120V60Hz
Memo	: Vecow A	ABP Series	; ABP-XXXX;		1	Memo
_			Emission	Limit	0ver	
Freq	Reading	Factor	Level	Line	Limit	Remark
(MHz)	(dBuV)	(dB)	(dBuV)	(dBuV)	(dB)	
0.4.500	15.0	10.5	• • •			
0.1500	17.9	10.2	28.1	66.0	-37.9	Average
0.1500	38.8	10.2	49.0	79.0	-30.0	QP
17.3830	6.3	10.9	17.2	60.0	-42.8	Average
17.3830	12.9	10.9	23.8	73.0	-49.2	QP
<u>19.2240</u> 19.2240	9.3 14.8	10.9 10.9	20.2 25.7	60.0 73.0	-39.8 -47.3	Average QP
23.6360	20.1	10.9	30.9	60.0	-47.3	`
23.6360	20.1	10.8	30.9	73.0	-29.1	Average QP
23.0300	15.6	10.8	26.4	60.0	-38.0	`
24.7900	20.9	10.8	31.7	73.0	-33.0	Average QP
27.7080	8.3	10.8	19.0	60.0	-41.3	Average
27.7080	12.8	10.7	23.5	73.0	-41.0	QP
27.7000	12.0	10.7	43.3	73.0	-+9.5	L VI

Note :

1. Result = Reading + Factor 2. Factor = LISN Factor + Cable Loss

:



Note :

1. Result = Reading + Factor

2. Factor = LISN Factor + Cable Loss

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#### 5.4 Result Data Calculation

The result data is calculated by adding the LISN Factor to the measured reading. The basic equation with a sample calculation is as follows:

#### **RESULT = READING + LISN FACTOR**

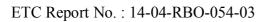
Assume a receiver reading of 22.5 dB  $\mu$  V is obtained, and LISN Factor is 0.1 dB, then the total of disturbance voltage is 22.6 dB  $\mu$  V.

RESULT =  $22.5 + 0.1 = 22.6 \text{ dB } \mu \text{ V}$ Level in  $\mu \text{ V}$  = Common Antilogarithm[( $22.6 \text{ dB } \mu \text{ V}$ )/20] =  $13.48 \ \mu \text{ V}$ 

#### 5.5 Conducted Measurement Equipment

The following test equipment are used during the conducted test .

Equipment	Manufacturer	Model No.	Calibration Date	Next Cal. Date
EMI Test Receiver	Rohde & Schwarz	ESCI	2013/07/15	2014/07/14
LISN	EMCO	3625/2	2014/05/07	2015/05/06
LISN	Rohde & Schwarz	ESH2-Z5	2014/04/12	2015/04/11



# 5.6 Photos of Conduction Measuring Setup



qalvn

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Sheet 1 of 12 Sheets

# Sheet 1 of 12 S

# **CONSTRUCTED PHOTOS of EUT**

1. Outside view 1 of EUT





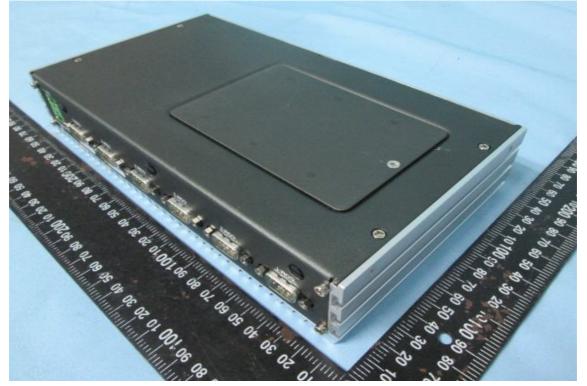


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# **CONSTRUCTED PHOTOS of EUT**

3. Outside view 3 of EUT



4. Outside view 4 of EUT



Sheet 3 of 12 Sheets



# **CONSTRUCTED PHOTOS of EUT**

5. Outside view 5 of EUT



- 6. Outside view 6 of EUT

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RV

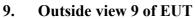
# **CONSTRUCTED PHOTOS of EUT**

- 8. Outside view 8 of EUT



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#### **CONSTRUCTED PHOTOS of EUT**





10. Outside view 10 of EUT



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# **CONSTRUCTED PHOTOS of EUT**

#### 11. Outside view 11 of EUT



#### 12. Inside view 1 of EUT



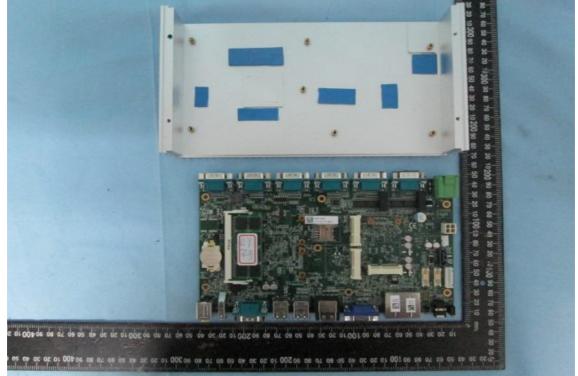
QAIVN

#### **CONSTRUCTED PHOTOS of EUT**

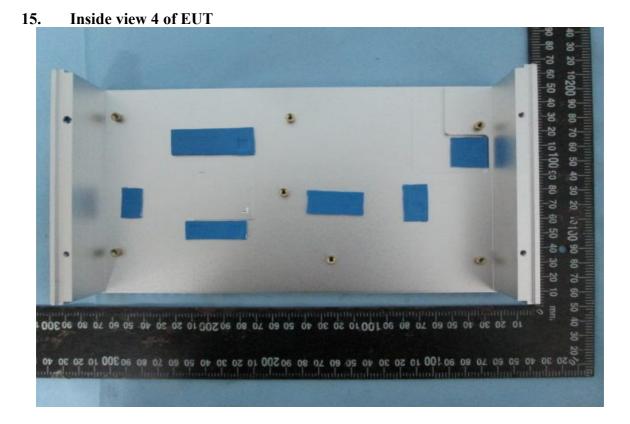
#### 13. Inside view 2 of EUT



#### 14. Inside view 3 of EUT



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#### **CONSTRUCTED PHOTOS of EUT**

#### 16. Inside view 5 of EUT



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# **CONSTRUCTED PHOTOS of EUT**

#### 17. Inside view 6 of EUT



18. Inside view 7 of EUT



Sheet 10 of 12 Sheets

# **CONSTRUCTED PHOTOS of EUT**

19.	Inside view 7 of EUT
	P
	Memo STUPPUS
	Micdel MASAJAA128GTW25100
	Capacity:256GB Size :2.5"
E.	FW :MRV1.71E DC :5V 2A MAX
-	
	SN : A128TW1D270024
	www.memoright.com *Warranty VOID If REMOVE
3 miles	



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# **CONSTRUCTED PHOTOS of EUT**

#### 20. Front view of PCB 1



#### 21. Rear view of PCB 1

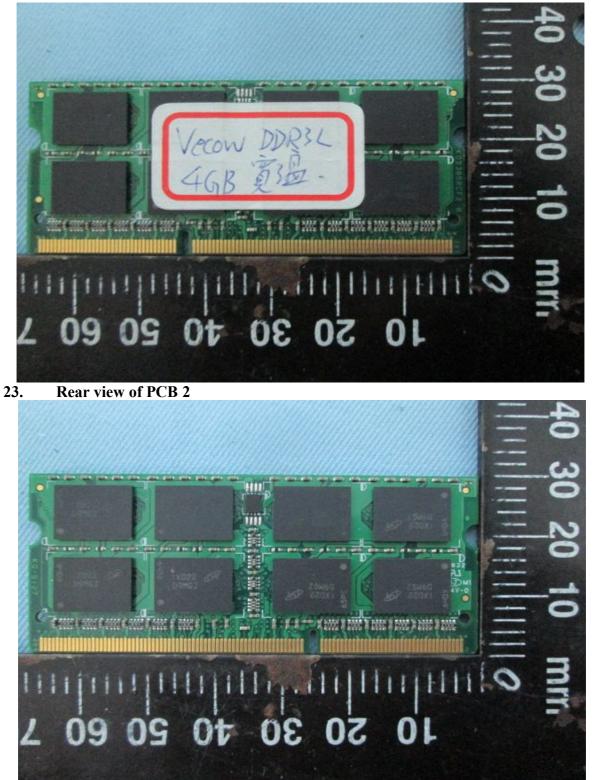




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# **CONSTRUCTED PHOTOS of EUT**

#### 22. Front view of PCB 2



Sheet 1 of 1 Sheets

R

# ANNEX B

#### DIFFERENCE INFORMATIONS OF SERIES MODEL

- 1. Test Model (Main Model): ABP-2845
- 2. Test Model (Series Model):
- 3. The Model without test (Series Model): Vecow ABP Series ABP-XXXXX(X=0-9,

#### 4. The Difference Information:

A~Z)

Model No.	Main Model:	Series Model:	Series Model
Difference	ABP-2845	Vecow ABP Series	ABP-XXXXX
PCB Layout and The Circuit Diagram	0	o	0
Components	0	0	0
Material	0	0	0
Function	Software 不同	Software 不问	Software 不同
Shape & Color	0	0	0
Other	0	0	0

Remark: 1. The multiple listing recognized without test basis is according to information supplied by manufacturer.

> The manufacturer or supplier's quality system shall ensure that the tested model or apparatus is representative of the series-produced apparatus concerned.

#### Manufacturer / Supplier

Company Name : <u>Veco</u>	W
Signature :	(2014.04.29) WilliamChen
Name : William.Chen	Date :2014/4/29