

Report No.:14-04-RBO-054-01 EMC TESTING DEPARTMENT Page: 1/25



CONFORMANCE TEST REPORT FOR EN 50155 & EN 50121-3-2

Report No.: 14-04-RBO-054-01

	eport i ou i i o i i i i o o o o o	
According to: ■ Electromagnetic Compatibil □ Low Voltage Directive: 2006 □ Radio Equipment and Telec □ Machinery Directives: 98/37	5/95/EC ommunications Terminal Equi _l	pment: 1999/5/EC
Client: Product: Model No.: Comment Issues: Manufacturer/supplier:	Vecow Advanced Box PC Vecow ABP Series; ABP-X Vecow	XXX; ABP-2845
Date test item received: Date test campaign completed: Date of issue	2014/04/28 2014/05/13 2014/05/16	DEPARTITION
		TE IEMITA I III
Test Engineer	Checked By	Approved By
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Laboratory Introduction: Electronics Testing Center, Taiwan is recognized, filed and mutual recognition arrangement as following:

- ISO9001: TüV Product Service
- 2 ISO/IEC 17025: BSMI, CNLA, DGT, NVLAP, CCIBLAC, UL, Compliance
- 3 Filing: FCC, Industry Canada, VCCI
- 4 MRA: Australia, Hong Kong, New Zealand, Singapore, USA, Japan, Korea, China, APLAC through CNLA
- **5** FCC Registration Number: 90588, 91094, 91095

EMC TESTING DEPARTMENT

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1 TEST REPORT CERTIFICATION

Client : Vecow

Address : 12F., No. 111, Zhongcheng Rd., Tucheng Dist., New Taipei City 23674 Taiwan

(R. O. C.)

Manufacturer : Vecow

Address : 12F., No. 111, Zhongcheng Rd., Tucheng Dist., New Taipei City 23674 Taiwan

(R. O. C.)

EUT : Advanced Box PC

Trade Name : Vecow

Model No. : Vecow ABP Series; ABP-XXXX; ABP-2845

Comment Issues : ___

Test Standard : EN 50121-3-2:2006

Emissions Immunity

EN 50155:2007 EN 61000-4-2:2009

CISPR11:2009/A1: 2010 EN 61000-4-3:2006/A1:2008

EN 61000-4-4:2004/A1:2010/A:2012

EN 61000-4-5:2006 EN 61000-4-6:2013

The testing described in this report has been carried out to the best of our knowledge and ability, and our responsibility is limited to the exercise of reasonable care. This certification is not intended to believe the sellers from their legal and/or contractual obligations.

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2 GENERAL INFORMATIONS

2.1 Description of EUT:

Advanced Box PC

2.2 Related Information of EUT:

Power Supply : DC 9~28V

	Power Line	: Nonshielded \square Shielded \square None, length: $\underline{1.8}$	<u> </u>
	Signal Line	: ☐ Nonshielded ☐ Shielded ■ None, length:	m
	Control Line	: ☐ Nonshielded ☐ Shielded ■ None, length:	m
	* For more det	tailed features, please refer to User's Manual.	
2.3	Tested Config	iguration:	
The	EUT connected	d with the following peripheral devices.	

Following peripheral devices and interface cables were connected during the measurement:

Product	Manufacturer	Model No.	Power/Line
Advanced Box PC*	Vecow ABP Series; 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

2.4 Deviation Record:

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

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2.5 Modification Record:

No modifications were required. (That is the EUT complied with the requirement as tested.)

2.6 Note:

Implementation of the EN 50121-3-2 tests, This Product is no Ground Line.

2.7 Measurement Uncertainty

Electromagnetic Interference				
Measurement	Frequency	Uncertainty		
Conducted emissions	$150 kHz \sim 30 MHz$	±2.5dB(Mains)		
Conducted emission at telecommunication ports	150kHz ~ 30MHz	±2.22dB(Voltage)		
Conducted christian at telecommunication parts	130KHZ 30MHZ	± 2.88 dB(Current)		
Magnetic emissions	9kHz ~ 30MHz	±2.5dB		
	30MHz ∼ 1GHz	± 3.90 dB(30MHz \leq f \leq 300MHz)		
Radiated emissions	30MHZ ~ IGHZ	± 3.95 dB(300MHz $<$ f \leq 1GHz)		
Radiated emissions	Above 1GHz	± 4.42 dB(1GHz \leq f \leq 18GHz)		
	Above IGIIZ	± 4.86 dB(18GHz \leq f \leq 40GHz)		
Electromagnetic Susceptibility				
Measurement	Item	Uncertainty		
Electrostatic Discharges (ESD)		$\pm 0.22(A) \cdot 58.67(V)$		
Radiated RF electromagnetic Fields		$\pm 1.2 (dB\mu V)$		
Electrical Fast Transients and bursts		±2.95(V)		
Surges		±2.95(V)		
Conducted Disturbances, induced by RF fields		±0.7(dB)		
Power-frequency Magnetic Field		±1.49(dB)		
Voltage Dips, Interruptions, and variations		±4.18(V)		

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

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3 SUMMARY OF TEST RESULTS

3.1 Emissions:

3.1.1 Conducted Emissions

-PASS(Negative)

EMI value to the limit: -13.1 dB at 1.3380 MHz

-PASS(LINE)

EMI value to the limit: -15.5 dB at 1.3380 MHz

3.1.2 Radiated Emissions

(30MHz to 1GHz)

-PASS(Horizontal)

EMI value to the limit: -5.32 dB at 213.6500 MHz

-PASS(Vertical)

EMI value to the limit: -4.73 dB at 209.6500 MHz

Notes: The measured value lies in the limited range that is the limit plus or minus estimated measurement uncertainty. The judgment between pass or fail is decided by buyers.



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3.2 Immunity:

3.2.1 Immunity Criteria:

The results of all of the immunity tests performed on the EUT were evaluated according to the following criteria, and according to the manufacturer's specifications for the EUT:

Performance criterion A: The EUT continued to operate as intended. No degradation of performance or loss of function was allowed below a performance level specified by the manufacturer, when the EUT

was used as intended.

Performance criterion B: The EUT continued to operate as intended after the test. No

degradation of performance or loss of function was allowed below a performance level specified by the manufacturer, when the EUT was used as intended. During the test, degradation of performance was however allowed. No change of actual

operating state or stored data was allowed.

Performance criterion C: Temporary loss of function was allowed, provided the function

was self recoverable or could be restored by the operation of the

- Satisfies Criterion C

controls.

2	2	7	Floot	mostat	•	Dischar	uga Imn	aunitu
J	. Z.	·Z	-глесь	rostat	ıc	Discha	rge imn	AUNILV:

_	Requirement: Criterion B (or better)
- No Degradation of Function	- Satisfies Criterion A
- Distortion of Function	- Satisfies Criterion B

Error of Function

3.2.3 RF Radiated Fields Immunity:

·	Requirement: Criterion A
No Degradation of Function	- Satisfies Criterion A
☐ - Distortion of Function	- Satisfies Criterion B
Error of Function	- Satisfies Criterion C

3.2.4 EFT/Burst Immunity:

	Requirement: Criterion A
- No Degradation of Function	- Satisfies Criterion A
Distortion of Function	- Satisfies Criterion B
- Error of Function	- Satisfies Criterion C



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3.2.5 Surge Immunity:

Requirement: Criterion B (or better)

- No Degradation of Function
- Distortion of Function
- Error of Function
- Satisfies Criterion B
- Satisfies Criterion C

3.2.6 RF Common Mode Immunity:

Requirement: Criterion A

- No Degradation of Function
- Distortion of Function
- Error of Function
- Satisfies Criterion B
- Satisfies Criterion C

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4 TEST DATA & RELATED INFORMATIONS

4.1 Emissions:

4.1.1 Conducted Emissions Test:

4.1.1.1 Conducted Emissions Test Data:

A. Operating Conditions of the EUT: Operation

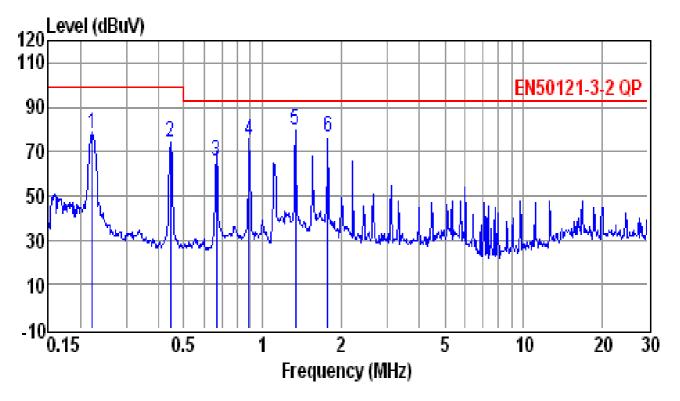
Test Date: Dec.17,2013

Test Specification	EN 50155 (CISPR11)		
Climatic Condition	Ambient Temperature:	<u>23</u> °C	Relative Humidity: <u>52 %</u> RH
Power Supply System	DC Power: 24 Vdc		

Test data see the next pages.



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Site : conducted #1 Date : 05-08-2014 Condition : EN50121-3-2 QP LISN : NEUTRAL

Tem / Hum : 22 $^{\circ}$ C / 58% Test Mode : Operation Mode (PV-)

EUT : Advanced Box PC Power Rating : DC 24V Memo : Vecow ABP Series; ABP-XXXX; ABP-2845 Memo

			Emission	Limit	0ver	
Freq	Reading	Factor	Level	Line	Limit	Remark
(MHz)	(dBuV)	(dB)	(dBuV)	(dBuV)	(dB)	
0.2232	67.7	10.2	77.9	99.0	-21.1	QP
0.4444	64.1	10.2	74.3	99.0	-24.7	QP
0.6648	55.6	10.2	65.8	93.0	-27.2	QP
0.8897	64.9	10.2	75.1	93.0	-17.9	QP
1.3380	69.6	10.3	79.9	93.0	-13.1	QP
1.7810	65.7	10.3	76.0	93.0	-17.0	QP

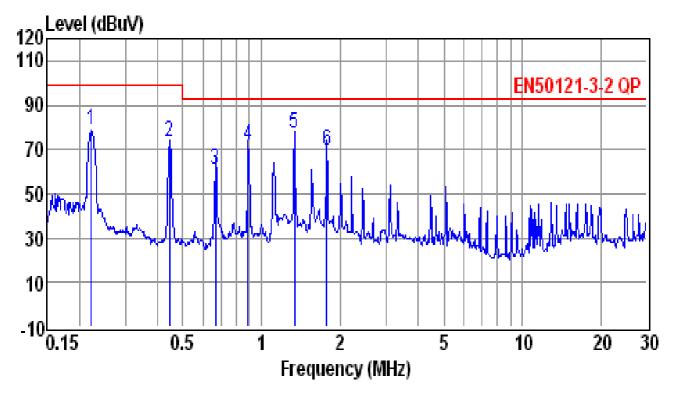
Note:

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



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Site : conducted #1 Date : 05-08-2014 Condition : EN50121-3-2 QP LISN : LINE

Tem / Hum : 22 °C / 58%

Test Mode : Operation Mode (PV+)

EUT : Advanced Box PC Power Rating : DC 24V Memo : Vecow ABP Series; ABP-XXXX; ABP-2845 Memo

Freq (MHz)	Reading (dBuV)	Factor (dB)	Emission Level (dBuV)	Limit Line (dBuV)	Over Limit (dB)	Remark
	, ,		, ,	, ,	, ,	
0.2232	68.7	10.1	78.8	99.0	-20.2	QP
0.4444	63.1	10.2	73.3	99.0	-25.7	QP
0.6648	50.3	10.2	60.5	93.0	-32.5	QP
0.8897	61.2	10.2	71.4	93.0	-21.6	QP
1.3380	67.2	10.3	77.5	93.0	-15.5	QP
1.7810	59.2	10.3	69.5	93.0	-23.5	QP

Note:

1. Result = Reading + Factor

2. Factor = LISN Factor + Cable Loss



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4.1.2 Radiated Emissions Test:

4.1.2.1 Radiated Emissions Test Data:

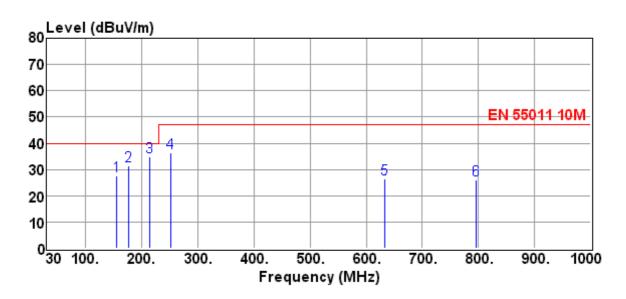
A. Operating Conditions of The EUT: Operation Mode

Test Date: May 13., 2014

Test Specification	EN 50155 (CISPR11)	
Climatic Condition	Ambient Temperature: <u>27</u> °C	Relative Humidity: <u>52 %</u> RH
Power Supply System	DC Power: 24 Vdc	

Test data see the next pages.

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Site :Open site #2 Date :2014-05-13
EUT : Advanced Box PC Ant. Pol. :HORIZONTAL

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

Detector :QP

Power Rating :DC 24V Engineer :Sky Kuo Limit :EN 55011 10M Temp. :27 °C Memo :Operation mode Humi. :52 %

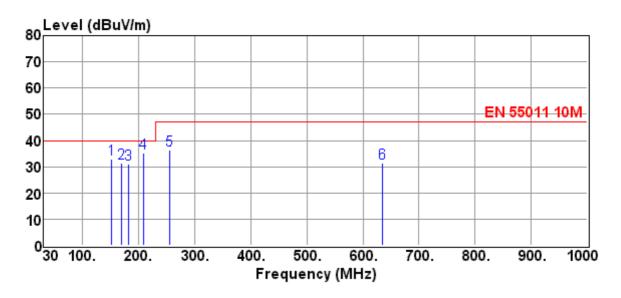
Freq	Reading	Correction	Result	Limits	Over limit
		Factor			dB
MHz	dBuV	dB	dBuV/m	dBuV/m	
154.3200	14.01	13.63	27.64	40.00	-12.36
176.7400	17.97	13.27	31.24	40.00	-8.76
213.6500	19.89	14.79	34.68	40.00	-5.32
252.4100	20.22	16.08	36.30	47.00	-10.70
633.3500	-0.22	26.46	26.24	47.00	-20.76
796.6100	-4.30	30.43	26.13	47.00	-20.87

Note:

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



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Site :Open site #2 Date :2014-05-13 EUT : Advanced Box PC Ant. Pol. :VERTICAL

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

Detector :QP

Power Rating :DC 24V Engineer :Sky Kuo Limit :EN 55011 10M Temp. :27 °C Memo :Operation mode Humi. :52 %

Freq	Reading	Correction	Result	Limits	Over limit
	4	Factor	4DX//	4	dB
MHz	dBuV	dB	dBuV/m	dBuV/m	
151.7100	19.25	13.69	32.94	40.00	-7.06
169.8400	17.82	13.40	31.22	40.00	-8.78
182.8100	17.78	13.26	31.04	40.00	-8.96
209.6500	20.27	15.00	35.27	40.00	-4.73
255.4300	19.81	16.50	36.31	47.00	-10.69
634.2100	4.95	26.47	31.42	47.00	-15.58

Note:

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

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4.2 Immunity:

4.2.1 Electrostatic Discharge Immunity Test:

4.2.1.1 Electrostatic Discharge Immunity Test Data:

A. Operating Conditions of the EUT: Operation Mode

Test Date: May 12, 2014

Test Specification	EN 61000-4-2	
Climatic Condition	Ambient Temperature: <u>27°</u> °C	Relative Humidity: <u>52 %</u> RH
	Atmospheric Pressure: <u>990</u> mbar	
Power Supply System	DC Power: 24 Vdc	

Energy-Storage Capacitor Discharge Resistor	: <u>150</u> : <u>330</u>							act Dis Dischar	_			25 tin 10 tin				
\ Discharge Mode			Con	tact	Disc	harg	e				A	ir Dis	char	ge		
\ESD Voltage	_2_	kV	4	kV	_6	kV		kV	_2_	kV	4	kV	8	kV		kV
\Points\Result\Polarity	+	_	+	_	+	_	+	_	+	_	+	_	+	_	+	_
VCP	A	A	A	A	A	A										
НСР	A	A	A	A	A	A										
P3 \ P5 \ P6 \ P9 \ P10 \ P16 \ P21 \ P23 \ P32	A	A	A	A	A	A										
P1 \ P2~P4 \ P7 \ P8 \ P11~P15 \ P22									A	A	A	A	A	A		

Result:	Complied	☐ Does not comply	
Criterion Required:	<u>B</u>	Criterion Met:	<u>A</u>



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TEST POINTS

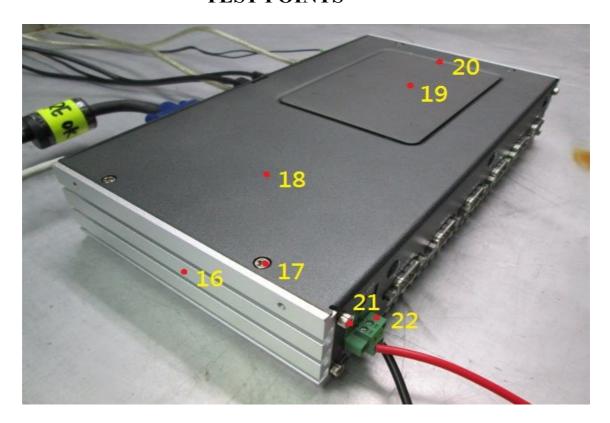


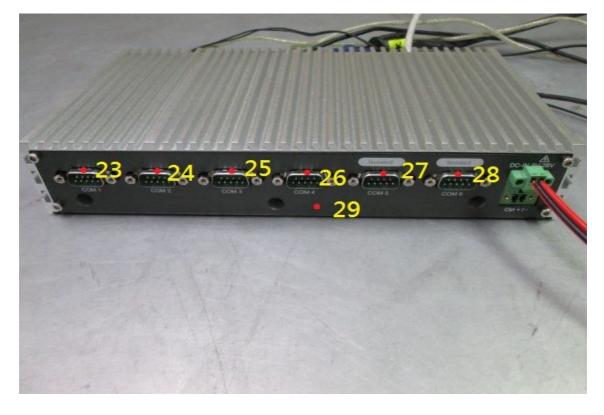


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TEST POINTS



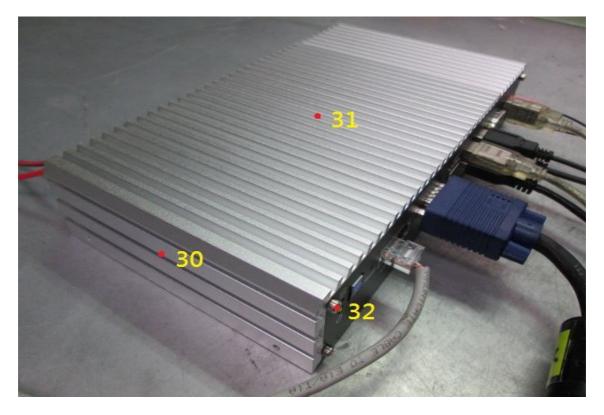




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TEST POINTS



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4.2.2 RF Radiated Fields Immunity Test:

4.2.2.1 RF Radiated Fields Immunity Test Data:

A. Operating Conditions of the EUT: Operation Mode

Test Date: Apr. 30, 2014

Test Specification	EN 61000-4-3	
Climatic Condition	Ambient Temperature: 25°°C	Relative Humidity: <u>58%</u> RH
Power Supply System	DC Power: <u>24</u> Vdc	

Frequency Range <u>80</u> MHz ~ 1	000 MHz Field St	rength 20 V/m Mo	odulation (AM 1kHz 80%)
Sweep Rate : $\leq 1.5 \times 10^{-3}$ ecades/s	Step Size : $\leq 1 \%$ of	preceding frequency valu	Dwell Time : 3 s
Frequency Range (MHz)	Polarization of Device	Directing of Device	Test Result
		Front	A
80 MHz ~ 1000 MHz	Horizontal	Rear	A
<u>80</u> MHz ~ 1000 MHz	пондонка	Left	A
		Right	A
		Front	A
80 MHz ~ 1000 MHz	Vertical	Rear	A
<u>80</u> WH2 ~ <u>1000</u> WH2	vertical	Left	A
		Right	A

Frequency Range <u>1400</u> MHz	~ <u>2100</u> MHz	Field Str	ength 10 V/m	Modula	tion (AM 1kHz 80%)
Sweep Rate : $\leq 1.5 \times 10^{-3}$ ecades/s	Step Size	Step Size $\therefore \le 1 \%$ of preceding frequency value			Dwell Time : 3 s
Frequency Range (MHz)	Polarization of	f Device	Directing of Device	e	Test Result
			Front		A
1400 MHz ~ 2100 MHz	Horizontal		Rear		A
$\frac{1400}{1} \text{ WiHz} \sim \frac{2100}{1} \text{ WiHz}$			Left		A
			Right		A
			Front		A
1400 MHz ~ 2100 MHz	Vertica	. 1	Rear		A
$\frac{1400}{100} \text{ IVITIZ} \sim \frac{2100}{100} \text{ IVITIZ}$	Vertica	11	Left		A
			Right		A

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Frequency Range 2100 MHz	~ <u>2500</u> MHz	Field Str	ength <u>5</u> V/m	Modula	tion (AM 1kHz 80%)	
Sweep Rate : $\leq 1.5 \times 10^{-3}$ ecades/s	Step Size :	Step Size $\therefore \le 1 \%$ of preceding frequency value			Dwell Time : 3 s	
Frequency Range (MHz)	Polarization of I	Device	Directing of Device	e	Test Result	
			Front		A	
2100 MHz ~ 2500 MHz	Horizontal		Rear		A	
$\frac{2100}{100}$ MHz $\sim \frac{2500}{100}$ MHz			Left		A	
			Right		A	
			Front		A	
2100 MHz ~ 2500 MHz	Vertical	1	Rear		A	
$\frac{2100}{100}$ MHz $\sim \frac{2500}{100}$ MHz	verticai	L	Left		A	
			Right		A	

Result:	Complied	☐ Does not comply	
Criterion Required:	<u>A</u>	Criterion Met:	<u>A</u>

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4.2.3 EFT/Burst Immunity Test:

4.2.3.1 EFT/Burst Immunity Test Data:

A. Operating Conditions of the EUT: Operation Mode

Test Date: Apr. 30, 2013

Test Specification	EN 61000-4-4
Climatic Condition	Ambient Temperature: <u>26</u> °C Relative Humidity: <u>56</u> %RH
	Atmospheric Pressure: <u>990</u> mbar
Power Supply System	DC Power: 24 Vdc

Pulse : 5 /5 Burst : 15r		Repetition Rate : <u>5kHz</u> Test time : <u>1</u> min/each cond		
Voltage\Polarity\Test Point\Mode\Result		<u>2.0 </u> kV		
1 omt wiode acesuit		+	-	
Power Line	PV+ to PV-	A	A	
Signal Line	LAN Cable	A	A	

Result:	Complied	☐ Does not comply	
Criterion Required:	<u>A</u>	Criterion Met:	<u>A</u>

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4.2.4 Surge Immunity Test:

4.2.4.1 Surge Immunity Test Data:

A. Operating Conditions of the EUT: Operation Mode

Test Date: May 12, 2014

Test Specification	EN 61000-4-5
Climatic Condition	Ambient Temperature: <u>27</u> °C Relative Humidity: <u>51</u> %RH
	Atmospheric Pressure: <u>990</u> mbar
Power Supply System	DC Power : <u>POWER OFF</u>

Waveform : 1.2/50μs(8/20μs)		ıs)	Repetition rate : <u>60</u> sec	Times: POWER _5_ time/each condition
Phase\Voltage \Mode \Polarity \Result				esult
1KV PV+ to PV-		+	A	
1KV	- TRV FV+ t0 FV-		A	

Result:	■ Complied	☐ Does not comply	
Criterion Required:	<u>B</u>	Criterion Met:	<u>A</u>

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4.2.5 RF Common Mode Immunity Test:

4.2.5.1 RF Common Mode Immunity Test Data:

A. Operating Conditions of the EUT: Operation Mode

Test Date: Apr 30, 2014

Test Specification	EN 61000-4-6		
Climatic Condition	Ambient Temperature:	<u>26</u> °C	Relative Humidity: <u>54</u> %RH
Power Supply System	DC Power: 24 Vdc		

Frequency Range <u>0.15</u> MHz ~80MHz			Test Level	<u>10</u> Vrms	Modulation (AM 1kHz	80%)
Sweep Rate	$\leq 1.5 \times 10^{-3} \text{ decades/s}$	Step Size	: ≤ 1 % of p	preceding free	quency value	Dwell Time	: <u>3</u> s
Frequency Range (MHz)		Tested Line		Test Result			
0.15MHz ~80MHz		CDN-M2		A			
0.15N	MHz ~80MHz		CDN-RJ4	15		A	

Result:	■ Complied	☐ Does not comply	
Criterion Required:	<u>A</u>	Criterion Met:	<u>A</u>

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5 EQUIPMENTS LIST FOR TESTING

Item	Name	Manufacturer	Model	Calibration Date	Recommended Recal. Date
1	EMI Test Receiver	Rohde & Schwarz	ESCI	2013/08/02	2014/08/01
2	LISN	EMCO	3625/2	2014/05/06	2015/05/06
3	LISN	Rohde & Schwarz	ESH2-Z5	2014/04/12	2015/04/11
4	Current Probe	Rohde & Schwarz	ESH2-Z1	2013/08/06	2014/08/05
5	ISN	FCC	FCC-TLISN-T2-02	2013/10/05	2014/10/04
6	ISN	FCC	FCC-TLISN-T4-02	2013/09/20	2014/09/19
7	Test Receiver	Rohde & Schwarz	ESVS30	2014/05/06	2015/05/05
8	Amplifier	НР	8447D	2013/08/08	2014/08/07
9	EMI Test Receiver	Rohde & Schwarz	ESL	2013/09/11	2014/09/10
10	Bi-Log Antenna	ETC	MCTD 2756	2014/01/03	2015//01/02
11	Test Receiver	Rohde & Schwarz	ESU40	2013/09/24	2014/09/23
12	Amplifier	НР	8449B	2014/01/15	2015/01/14
13	Horn Antenna	EMCO	3115	2013/08/02	2014/08/01
14	ESD Simulator	NoiseKen	ESS-2002	2013/07/30	2014/07/29
15	Antenna	Sunal Sciences	JB6	N/A	N/A
16	signal Generator	Aglient	EMC330	2014/03/13	2015/03/12
17	Amplifier	Ophir	5172	N/A	N/A
18	Amplifier	Ophir	5127	N/A	N/A
19	POWER METER	Booton	4232A	2013/09/27	2014/09/26
20	EMC Immunity tester	EMC-PARTNER	Harmonics-2000	2013/08/07	2014/08/06
21	CS TESTER	FRANKONIA	CIT-10	2014/05/06	2015/05/05
22	CDN-M2/M3	FRANKONIA	M2/M3	2014/05/10	2015/05/09
23	SCHAFFUER	CS-CLAMP	KEMZ801	2014/05/11	2015/05/10



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ANNEX A: PHOTOS

1. Conducted Emissions Test Setup Photos







EMC TESTING DEPARTMENT

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2. Radiated Emissions Test Setup Photos

(30MHz to 1GHz)







EMC TESTING DEPARTMENT

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3. Electrostatic Discharge Immunity Test Setup Photo

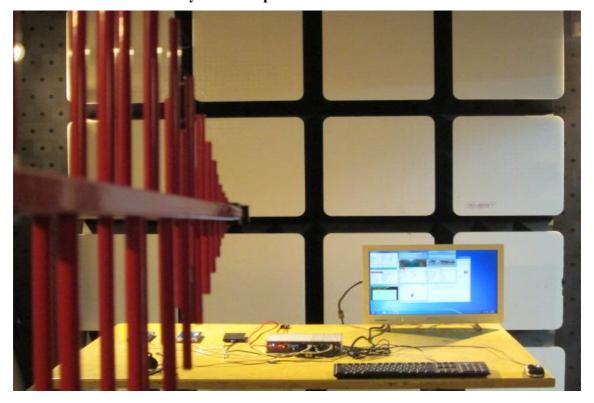




EMC TESTING DEPARTMENT

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4. RF Radiated Fields Immunity Test Setup Photo







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5. EFT/Burst Immunity Test Setup Photo TEST MODE: DC



TEST MODE: LAN





EMC TESTING DEPARTMENT

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6. Surge Immunity Test Setup Photo



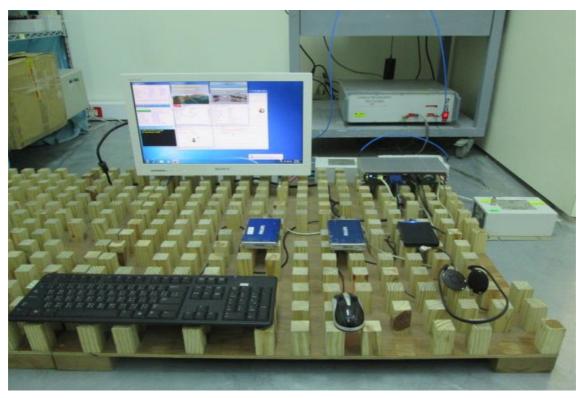


EMC TESTING DEPARTMENT

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7.RF Common Mode Immunity Test Setup Photo

TEST MODE:DC



TEST MODE:LAN





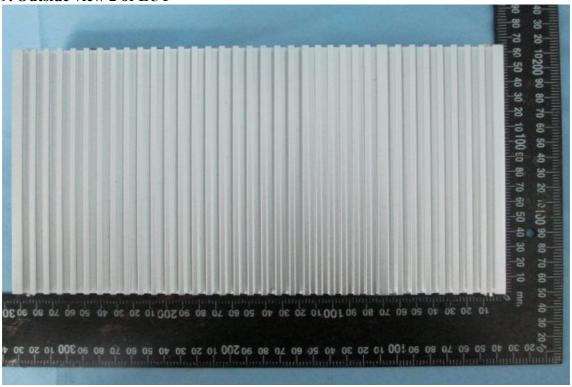
EMC TESTING DEPARTMENT

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8. Outside view 1 of EUT



9. Outside view 2 of EUT

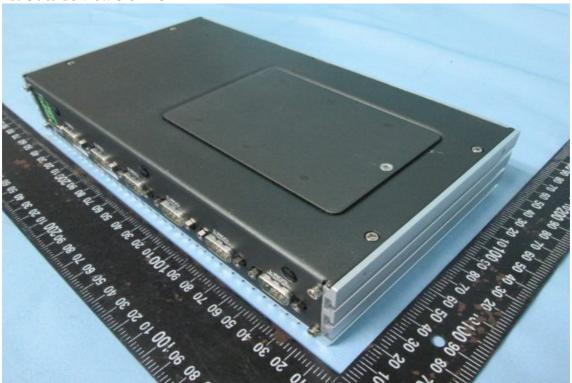




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10. Outside view 3 of EUT



11. Outside view 4 of EUT

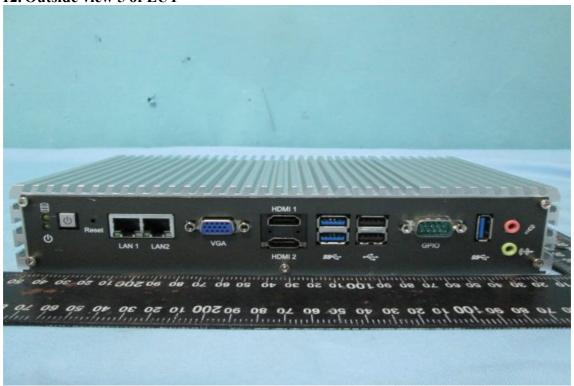




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12. Outside view 5 of EUT



13. Outside view 6 of EUT





EMC TESTING DEPARTMENT

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14. Outside view 7 of EUT



15. Outside view 8 of EUT





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16. Outside view 9 of EUT



17. Outside view 10 of EUT





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18. Outside view 11 of EUT



19. Inside view 1 of EUT



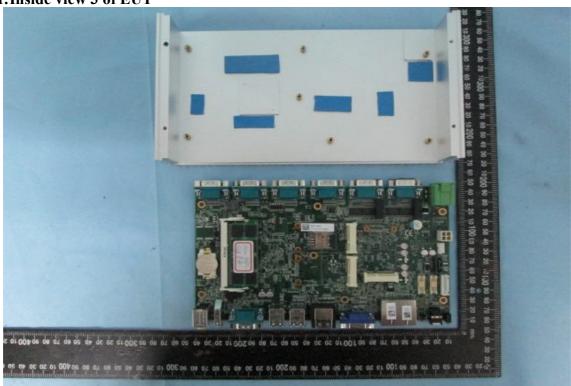


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20. Inside view 2 of EUT



21. Inside view 3 of EUT



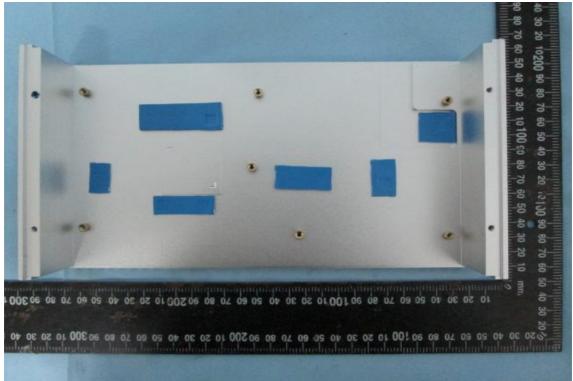


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EMC TESTING DEPARTMENT

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22. Inside view 4 of EUT



23.Inside view 5 of EUT





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24. Inside view 6 of EUT



25. Inside view 7 of EUT





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26.Inside view 7 of EUT





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27. Front view of PCB 1



28. Rear view of PCB 1





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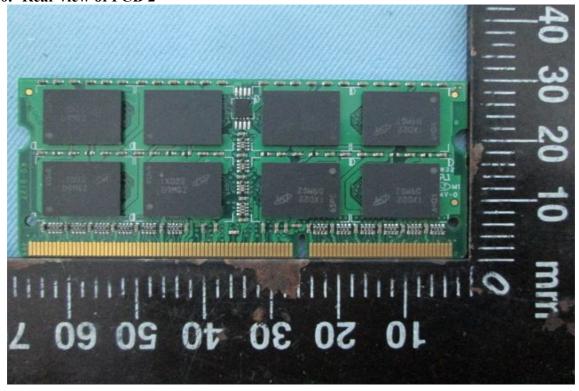
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29. Front view of PCB 2



30. Rear view of PCB 2



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ANNEX B

DIFFERENCE INFORMATIONS OF SERIES MODEL

1.	Test Model (Main Model): ABP-2845	
	45 929	
2.	Test Model (Series Model):	
	4.5 (C. 19.1) (1.0 (C. 19.1) (C. 19.1) (C. 19.1) (C. 19.1)	

The Model without test (Series Model): Vecow ABP Series ABP-XXXX(X=0-9.

A~Z)

4. The Difference Information:

Model No.	Main Model:	Series Model:	Series Model
Difference Item	ABP-2845	Vecow ABP Series	ABP-XXXX
PCB Layout and The Circuit Diagram	0	o	0
Components	0	0	0
Material	0	0	0
Function	Software 不同	Software 不同	Software 不刷
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.

(2) "X"means the item is different with main model. And please explain it.

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 : Veco	W	
Signature :	2014.04.29 WilliamChen	
Name : William.Chen	Date :2014/4/29	