

TEST REPORT

CERTIFICATE OF CONFORMITY

Standard:	47 CFR FCC Part 15, Subpart C (Section 15.247)
Report No.:	RFBCKS-WTW-P22080716B
FCC ID:	NKR-WNXL11BWL
Product:	AP
Brand:	WNC, Comcast, Cox, Charter
Model No.:	WNXL11BWL
Received Date:	2024/8/12
Test Date:	2024/8/15
Issued Date:	2024/8/29
Applicant:	Wistron NeWeb Corp.
Address:	20 Park Avenue II, Hsinchu Science Park, Hsinchu 308, Taiwan, R.O.C.
Issued By:	Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch
	Hsin Chu Laboratory
Lab Address:	E-2, No.1, Li Hsin 1st Road, Hsinchu Science Park, Hsinchu City 300, Taiwan
Test Location:	E-2, No.1, Li Hsin 1st Road, Hsinchu Science Park, Hsinchu City 300, Taiwan
FCC Registration /	723255 / TW2022
Designation Number:	

Approved by:

Date:

2024/8/29

May Chen / Manager

This test report consists of 21 pages in total. It may be duplicated completely for legal use with the approval of the applicant. It should not be reproduced except in full, without the written approval of our laboratory. The test results in the report only apply to the tested sample. The test results in this report are traceable to the national or international standards.



Prepared by: Vito Lung / Specialist

This report is governed by, and incorporates by reference, the Conditions of Testing as posted at the date of issuance of this report at http://www.bureauveritas.com/home/about-us/ver-business/cps/about-us/terms-conditions/ and is intended for your exclusive use. Any copying or replication of this report to or for any other person or entity, or use of our name or trademark, is permitted only with our prior written permission. This report sets forth our findings solely with respect to the test samples identified herein. The results set forth in this report are not indicative or representative of the quality or characteristics of the lot from which a test sample was taken or any similar or identical product unless specifically and expressly noted. Our report includes all of the tests requested by you and the results thereof based upon the information that you provided to us. Measurement uncertainty is only provided upon request for accredited tests. Statements of conformity are based on simple acceptance criteria without taking measurement uncertainty into account, unless otherwise requested in writing. You have 60 days from date of issuance of this report to notify us of any material error or omission caused by our negligence or if you require measurement uncertainty; provided, however, that such notice shall be in writing and shall specifically address the issue you wish to raise. A failure to raise such issue within the prescribed time shall constitute your unqualified acceptance of the report contents.



Table of Contents

Rele	ease Control Record	3
1	Certificate	4
2	Summary of Test Results	5
2. 2.2	· · · · · · · · · · · · · · · · · · ·	
3	General Information	6
3. 3. 3. 3. 3. 3. 3. 3.	 Antenna Description of EUT Channel List Test Mode Applicability and Tested Channel Detail Test Program Used and Operation Descriptions Connection Diagram of EUT and Peripheral Devices 	
4	Test Instruments	11
4. 4.		
5	Limits of Test Items	12
5. 5.2		
6	Test Arrangements	13
6. 6.2 6.2	1.1 Test Setup1.2 Test Procedure	
7	Test Results of Test Item	16
7. 7.		
8	Pictures of Test Arrangements	20
9	Information of the Testing Laboratories	21



Release Control Record

Issue No.	Description	Date Issued
RFBCKS-WTW-P22080716B	Original release.	2024/8/29



1 Certificate

Product:	AP
Brand:	WNC, Comcast, Cox, Charter
Test Model:	WNXL11BWL
Sample Status:	Engineering sample
Applicant:	Wistron NeWeb Corp.
Test Date:	2024/8/15
Standard:	47 CFR FCC Part 15, Subpart C (Section 15.247)
Measurement	ANSI C63.10-2013
procedure:	KDB 558074 D01 15.247 Meas Guidance v05r02

The above equipment has been tested by **Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch**, and found compliance with the requirement of the above standards. The test record, data evaluation & Equipment Under Test (EUT) configurations represented herein are true and accurate accounts of the measurements of the sample's RF characteristics under the conditions specified in this report.



2 Summary of Test Results

47 CFR FCC Part 15, Subpart C (Section 15.247)					
Standard / Clause Test Item Result Remark					
15.247(b)	RF Output Power	N/A	Refer to Note 1 below		
15.247(e)	Power Spectral Density	N/A	Refer to Note 1 below		
15.247(a)(2)	6 dB Bandwidth	N/A	Refer to Note 1 below		
15.247(d)	Conducted Out of Band Emissions	N/A	Refer to Note 1 below		
15.207	AC Power Conducted Emissions	Pass	Minimum passing margin is -13.61 dB at 0.15000 MHz		
15.205 / 15.209 / 15.247(d)	Unwanted Emissions below 1 GHz	Pass	Minimum passing margin is -4.3 dB at 35.55 MHz		
15.205 / 15.209 / 15.247(d)	Unwanted Emissions above 1 GHz	N/A	Refer to Note 1 below		
15.203	Antenna Requirement	Pass	Antenna connector is ipex(MHF) not a standard connector.		

Notes:

- 1. Only AC Power Conducted Emissions and Unwanted Emissions below 1 GHz test items were performed for this addendum. The others testing data refer to original test report.
- 2. Determining compliance based on the results of the compliance measurement, not taking into account measurement instrumentation uncertainty.

2.1 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:

Parameter	Specification	Uncertainty (±)	
AC Power Conducted Emissions	150 kHz ~ 30 MHz	1.9 dB	
Unwanted Emissions holey 1 CHz	9 kHz ~ 30 MHz	3.1 dB	
Unwanted Emissions below 1 GHz	30 MHz ~ 1 GHz	5.1 dB	

The other instruments specified are routine verified to remain within the calibrated levels, no measurement uncertainty is required to be calculated.

2.2 Supplementary Information

There is not any deviation from the test standards for the test method, and no modifications required for compliance.



3 General Information

3.1 General Description

Product	AP
Brand	WNC, Comcast, Cox, Charter
Test Model	WNXL11BWL
Status of EUT	Engineering sample
Power Supply Rating	Refer to Note
Modulation Type	CCK, DQPSK, DBPSK for DSSS 64QAM, 16QAM, QPSK, BPSK for OFDM 256QAM for OFDM in VHT mode 1024QAM for OFDMA in 11ax mode
Modulation Technology	DSSS, OFDM, OFDMA
Transfer Rate	802.11b: up to 11Mbps 802.11g: up to 54Mbps 802.11n: up to 300Mbps VHT: up to 400Mbps 802.11ax: up to 573.5Mbps
Operating Frequency	2412 ~ 2462 MHz
Number of Channel	802.11b, 802.11g, 802.11n (HT20), VHT20, 802.11ax (HE20): 11 802.11n (HT40), VHT40, 802.11ax (HE40): 7
Output Power	CDD Mode 505.925 mW (27.04 dBm) Beamforming Mode 324.365 mW (25.11 dBm)

Note:

- 1. This report is prepared for FCC Class II permissive change. The difference compared with the Report No.: RFBCKS-WTW-P22080716 design is as the following information:
 - Changed LTE module from QUECTEL EM06-A to Telit Cinterion LN920A6-NA (WWAN module FCC ID: RI7LN920NA).
- 2. According to above condition, only AC Power Conducted Emissions and Unwanted Emissions below 1 GHz needs to be performed. All data for meeting the requirement is verified.
- 3. The EUT contains certified WWAN module which FCC ID: RI7LN920NA (Brand: Telit Cinterion; Model: LN920A6-NA)
- 4. The EUT uses following accessories.

Item	Brand	Model	Specification
AC Adapter 1	EPS3	ML36-7120300-A1	AC Input: 100-120V, 50/60Hz, 1A DC Output: 12V, 3.0A DC Output Cable: 1.8m Plug: US
AC Adapter 2	EPS3 NBC36G120300VU		AC Input: 100-120V, 50/60Hz, 1A DC Output: 12V, 3.0A DC Output Cable: 1.8m Plug: US

5. The EUT has below radios as following table:

Radio 1	Radio 2	Radio 3	
WLAN 2.4GHz + BT-LE	WLAN 5GHz (Low Band)	WLAN 5GHz (High Band)	

6. Simultaneously transmission combination.

Combination	Technology					
1	WLAN 2.4GHz (Low Band)		n l anne n l BI-LE l LIE			
Note: The emission of the simultaneous operation has been evaluated and no non-compliance was found						

Note: The emission of the simultaneous operation has been evaluated and no non-compliance was found.

7. The above EUT information is declared by manufacturer and for more detailed features description, please refer to the manufacturer's specifications or user's manual.



3.2 Antenna Description of EUT

Antenna NO.	RF Chain NO.	Brand	Model	Antenna Net Gain(dBi)	Frequency range (GHz)	Antenna Type	Connector Type
2G ANT	Chain 0	WNC	XLE	4.00	2.4~2.4835	Dipole	ipex(MHF)
2G ANT	Chain 1	WNC	XLE	3.20	2.4~2.4835	Dipole	ipex(MHF)
	Chain 0	WNC	XLE	4.60	5.15~5.35	Dipole	ipex(MHF)
5GL ANT	Chain 1	WNC	XLE	4.70	5.15~5.35	Dipole	ipex(MHF)
	Chain 0	WNC	XLE	4.90	5.47~5850	Dipole	ipex(MHF)
COLLANIT	Chain 1	WNC	XLE	4.50	5.47~5850	Dipole	ipex(MHF)
5GH ANT	Chain 2	WNC	XLE	5.00	5.47~5850	Dipole	ipex(MHF)
	Chain 3	WNC	XLE	4.80	5.47~5850	Dipole	ipex(MHF)
BLE ANT	Chain 0	WNC	XLE	4.10	2.4~2.4835	PCB	ipex(MHF)

1. The antenna information is listed as below.

* Detail antenna specification please refer to antenna datasheet and/or antenna measurement report.

The directional antenna gain, please refer to the following table:

	5		1		
Frequency Range (GHz) Directional Antenna Gain (dBi)		Antenna Type	Antenna Connector		
2.4~2.4835 3.63					
5.15~5.24	5.68	5.68 Dipole			
5.725~5.85 4.89					
Note: Directional gain is the measured value according to KDB 662911 D03 Method of MIMO Antenna Gain					

Note: Directional gain is the measured value according to KDB 662911 D03 Method of MIMO Antenna Gain Measurement.

2. The EUT incorporates a MIMO function:

2.4 GHz Band				
Modulation Mode	TX & RX C	onfiguration		
802.11b	2TX	2RX		
802.11g	2TX	2RX		
802.11n (HT20)	2TX	2RX		
802.11n (HT40)	2TX	2RX		
VHT20	2TX	2RX		
VHT40	2TX	2RX		
802.11ax (HE20)	2TX	2RX		
802.11ax (HE40)	2TX	2RX		

Note:

1. All of modulation mode support beamforming function except 802.11b modulation mode.

2. The EUT support Beamforming and CDD mode, therefore both mode were investigated and the worst case scenario was identified. The worst case data were presented in test report.

3. The modulation and bandwidth are similar for 802.11n mode for 20 MHz (40 MHz) and VHT mode for 20 MHz (40 MHz) and 802.11ax mode for 20MHz (40MHz), therefore the manufacturer will control the power for 802.11n/VHT mode is the same as the 802.11ax or more lower than it and investigated worst case to representative mode in test report.



3.3 Channel List

11 channels are provided for 802.11b, 802.11g, 802.11n (HT20), VHT20 and 802.11ax (HE20):

Channel	Frequency	Channel	Frequency
1	2412 MHz	7	2442 MHz
2	2417 MHz	8	2447 MHz
3	2422 MHz	9	2452 MHz
4	2427 MHz	10	2457 MHz
5	2432 MHz	11	2462 MHz
6	2437 MHz		

7 channels are provided for 802.11n (HT40), VHT40 and 802.11ax (HE40):

Channel	Frequency	Channel	Frequency
3	2422 MHz	7	2442 MHz
4	2427 MHz	8	2447 MHz
5	2432 MHz	9	2452 MHz
6	2437 MHz		



3.4 Test Mode Applicability and Tested Channel Detail

Pre-Scan.	1. The AC Adapter has the following models: EPS3 ML36-7120300-A1/ EPS3 NBC36G120300VU. Pre-scan these models of AC Adapters and find the worst case as a representative test condition.
Worst Case:	1. AC Adapter Worst Condition:EPS3 ML36-7120300-A1

Following channel(s) was (were) selected for the final test as listed below:

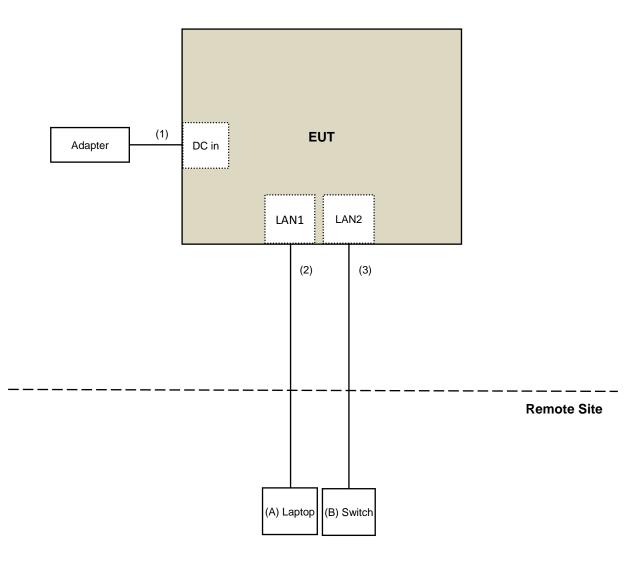
Test Item	Mode	Signal Mode	Tested Channel	Modulation	Data Rate Parameter
AC Power Conducted Emissions	802.11b	CDD	6	DBPSK	1Mb/s
Unwanted Emissions below 1 GHz	802.11b	CDD	6	DBPSK	1Mb/s



3.5 Test Program Used and Operation Descriptions

Controlling software (accessMTool_REL_3_2_1_5) has been activated to set the EUT under transmission condition continuously at specific channel frequency.

3.6 Connection Diagram of EUT and Peripheral Devices



3.7 Configuration of Peripheral Devices and Cable Connections

ID	Product	Brand	Model No.	Serial No.	FCC ID	Remarks
Α	Laptop	Dell	P92G	BM6Q4P2	N/A	Provided by Lab
В	Switch	D-Link	DGS-1005D	DR8WC92000523	N/A	Provided by Lab

ID	Cable Descriptions	Qty.	Length (m)	Shielding (Yes/No)	Cores (Qty.)	Remarks
1	DC Cable	1	1.8	No	0	Supplied by applicant
2	RJ-45 Cable	1	10	No	0	Provided by Lab
3	RJ-45 Cable	1	10	No	0	Provided by Lab



4 Test Instruments

The calibration interval of the all test instruments are 12 months and the calibrations are traceable to NML/ROC and NIST/USA.

4.1 AC Power Conducted Emissions

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
50 ohm terminal resistance Telegartner	50 ohm	3	2023/10/20	2024/10/19
EMI Test Receiver R&S	ESCS 30	847124/029	2023/10/18	2024/10/17
Fixed Attenuator STI	STI02-2200-10	005	2024/2/19	2025/2/18
LISN	ESH3-Z5	835239/001	2024/4/3	2025/4/2
R&S	E3H3-Z3	848773/004	2023/10/13	2024/10/12
RF Coaxial Cable JYEBAO	5D-FB	COCCAB-001	2024/2/19	2025/2/18
Software BVADT	BVADT_Cond_V7.3.7.4	N/A	N/A	N/A

Notes:

1. The test was performed in Conduction 1

2. Tested Date: 2024/8/15

4.2 Unwanted Emissions below 1 GHz

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
Bi_Log Antenna Schwarzbeck	VULB 9168	9168-0942	2023/10/12	2024/10/11
Boresight Antenna Tower & Turn Table Max-Full	MF-7802BS	MF780208530	N/A	N/A
Fixed Attenuator Mini-Circuits	UNAT-5+	PAD-ATT5-01	2024/5/16	2025/5/15
Loop Antenna Electro-Metrics	EM-6879	264	2024/2/23	2025/2/22
MXA Signal Analyzer Keysight	N9020B	MY60112410	2024/3/13	2025/3/12
MXE EMI Receiver Keysight	N9038A	MY59050100	2024/6/19	2025/6/18
Preamplifier	EMC330N	980852	2024/2/17	2025/2/16
EMCI	EMC001340	980142	2024/2/19	2025/2/18
RF Coaxial Cable		LOOPCAB-001	2024/2/19	2025/2/18
JYEBAO	5D-FB	LOOPCAB-002	2024/2/19	2025/2/18
		966-6-1	2024/5/16	2025/5/15
RF Coaxial Cable PEWC	8D	966-6-2	2024/5/16	2025/5/15
		966-6-3	2024/5/16	2025/5/15
Software	ADT_Radiated_V8.7.08	N/A	N/A	N/A

Notes:

1. The test was performed in 966 Chamber No. 6.

2. Tested Date: 2024/8/15



5 Limits of Test Items

5.1 AC Power Conducted Emissions

	Conducted Limit (dBuV)		
Frequency (MHz)	Quasi-peak	Average	
0.15 - 0.5	66 - 56	56 - 46	
0.50 - 5.0	56	46	
5.0 - 30.0	60	50	

Notes:

- 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 of 0.15 to 0.50 MHz.

5.2 Unwanted Emissions below 1 GHz

Radiated emissions up to 1 GHz which fall in the restricted bands must comply with the radiated emission limits specified as below table. Other emissions shall be at least 20 dB below the highest level of the desired power:

Frequencies (MHz)	Field Strength (microvolts/meter)	Measurement Distance (meters)
0.009 ~ 0.490	2400/F(kHz)	300
0.490 ~ 1.705	24000/F(kHz)	30
1.705 ~ 30.0	30	30
30 ~ 88	100	3
88 ~ 216	150	3
216 ~ 960	200	3
Above 960	500	3

Notes:

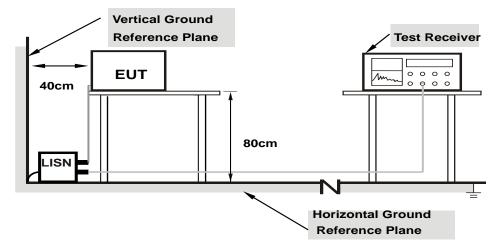
- 1. The lower limit shall apply at the transition frequencies.
- 2. Emission level (dBuV/m) = 20 log Emission level (uV/m).



6 Test Arrangements

6.1 AC Power Conducted Emissions

6.1.1 Test Setup



Note: 1.Support units were connected to second LISN.

For the actual test configuration, please refer to the attached file (Test Setup Photo).

6.1.2 Test Procedure

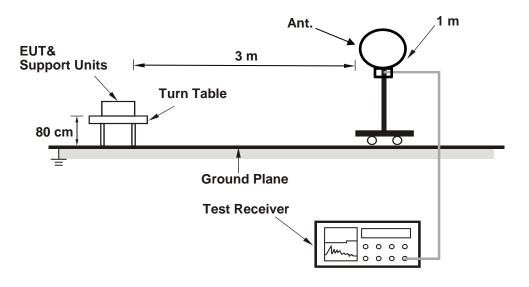
- a. The EUT was placed on a 0.8 meter to the top of table and placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The two LISNs provide 50 ohm/ 50 uH of coupling impedance for the measuring instrument.
- b. Both lines of the power mains connected to the EUT were checked for maximum conducted interference.
- c. The frequency range from 150 kHz to 30 MHz was searched. Emission levels under (Limit 20 dB) was not recorded.
- Note: The resolution bandwidth and video bandwidth of test receiver is 9 kHz for quasi-peak detection (QP) and average detection (AV) at frequency 0.15 MHz-30 MHz.



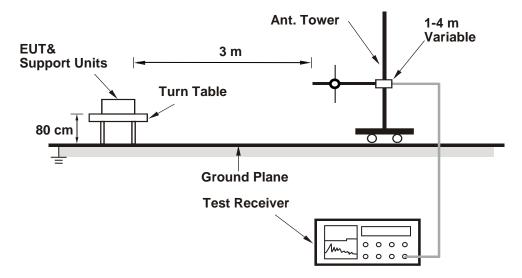
6.2 Unwanted Emissions below 1 GHz

6.2.1 Test Setup

For Radiated emission below 30 MHz



For Radiated emission above 30 MHz



For the actual test configuration, please refer to the attached file (Test Setup Photo).



6.2.2 Test Procedure

For Radiated emission below 30 MHz

- a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at 3 meter chamber room for test. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- c. Parallel, perpendicular, and ground-parallel orientations of the antenna are set to make the measurement.
- d. For each suspected emission, the EUT was arranged to its worst case and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- e. The test-receiver system was set to Quasi-Peak Detect Function and Specified Bandwidth with Maximum Hold Mode, except for the frequency band (9 kHz to 90 kHz and 110 kHz to 490 kHz) set to average detect function and peak detect function.

Notes:

- 1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 200 Hz at frequency below 150 kHz.
- 2. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 9 kHz or 10 kHz at frequency (150 kHz to 30 MHz).
- 3. All modes of operation were investigated and the worst-case emissions are reported.

For Radiated emission above 30 MHz

- a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at 3 meter chamber room for test. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- c. The height of antenna is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- e. The test-receiver system was set to quasi-peak detect function and specified bandwidth with maximum hold mode when the test frequency is below 1 GHz.

Notes:

- 1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120 kHz for Quasi-peak detection (QP) at frequency below 1 GHz.
- 2. All modes of operation were investigated and the worst-case emissions are reported.



7 Test Results of Test Item

7.1 AC Power Conducted Emissions

RF Mode	802.11b	Channel	CH 6:2437 MHz
Frequency Range	150 kHz ~ 30 MHz	Detector Function & Resolution Bandwidth	Quasi-Peak (QP) / Average (AV), 9 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	23 °C, 62 % RH
Tested By	Willy Lin		

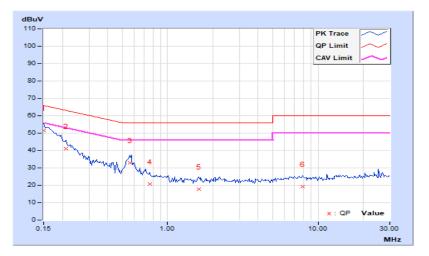
	Phase Of Power : Line (L)										
No	Frequency	Correction Factor	Reading Value (dBuV)		Emission Level (dBuV)		Limit (dBuV)		Margin (dB)		
	(MHz)	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	
1	0.15000	10.02	41.43	23.30	51.45	33.32	66.00	56.00	-14.55	-22.68	
2	0.21250	10.03	31.06	12.77	41.09	22.80	63.11	53.11	-22.02	-30.31	
3	0.56406	10.04	22.79	14.94	32.83	24.98	56.00	46.00	-23.17	-21.02	
4	0.76328	10.05	10.76	6.15	20.81	16.20	56.00	46.00	-35.19	-29.80	
5	1.61328	10.10	7.55	1.06	17.65	11.16	56.00	46.00	-38.35	-34.84	
6	7.89453	10.54	8.79	2.72	19.33	13.26	60.00	50.00	-40.67	-36.74	

Remarks:

1. Q.P. and AV. are abbreviations of quasi-peak and average individually.

2. The emission levels of other frequencies were very low against the limit.

- 3. Margin value = Emission level Limit value
- 4. Correction factor = Insertion loss + Cable loss
- 5. Emission Level = Correction Factor + Reading Value



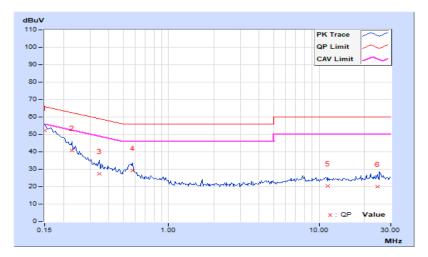


			· · · · · · · · · · · · · · · · · · ·
RF Mode	802.11b	Channel	CH 6:2437 MHz
Frequency Range	150 kHz ~ 30 MHz		Quasi-Peak (QP) / Average (AV), 9 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	23 °C, 62 % RH
Tested By	Willy Lin		

	Phase Of Power : Neutral (N)										
No	Frequency	Correction Factor	5		Limit (dBuV)		Margin (dB)				
	(MHz)	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	
1	0.15000	10.02	42.37	22.61	52.39	32.63	66.00	56.00	-13.61	-23.37	
2	0.22812	10.03	30.60	11.97	40.63	22.00	62.52	52.52	-21.89	-30.52	
3	0.34531	10.03	17.37	3.93	27.40	13.96	59.07	49.07	-31.67	-35.11	
4	0.57578	10.04	19.14	11.99	29.18	22.03	56.00	46.00	-26.82	-23.97	
5	11.43750	10.64	9.68	7.22	20.32	17.86	60.00	50.00	-39.68	-32.14	
6	24.40234	11.09	9.07	-0.95	20.16	10.14	60.00	50.00	-39.84	-39.86	

Remarks:

- 1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
- 2. The emission levels of other frequencies were very low against the limit.
- 3. Margin value = Emission level Limit value
- 4. Correction factor = Insertion loss + Cable loss
- 5. Emission Level = Correction Factor + Reading Value





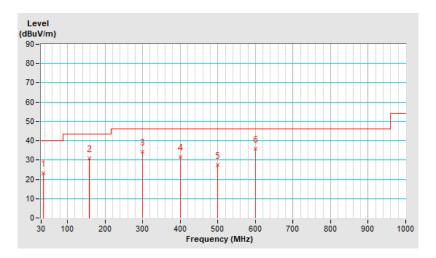
7.2 Unwanted Emissions below 1 GHz

RF Mode	802.11b	Channel	CH 6:2437 MHz		
Frequency Range	30 MHz ~ 1 GHz	Detector Function & Bandwidth	QP: RB=120kHz, DET=Quasi-Peak		
Input Power	120 Vac, 60 Hz Environmental Conditions		21 °C, 62 % RH		
Tested By	Willy Lin				

	Antenna Polarity & Test Distance : Horizontal at 3 m									
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)		
1	34.96	23.4 QP	40.0	-16.6	2.00 H	349	37.0	-13.6		
2	158.35	30.7 QP	43.5	-12.8	3.50 H	232	43.3	-12.6		
3	300.39	34.3 QP	46.0	-11.7	4.00 H	87	46.6	-12.3		
4	400.39	31.7 QP	46.0	-14.3	2.50 H	172	41.5	-9.8		
5	500.37	27.4 QP	46.0	-18.6	3.00 H	258	34.9	-7.5		
6	600.37	35.9 QP	46.0	-10.1	1.02 H	0	41.0	-5.1		

Remarks:

- 1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
- 2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) Pre-Amplifier Factor(dB)
- 3. Margin value = Emission Level Limit value
- 4. The other emission levels were very low against the limit of frequency range 30 MHz ~ 1 GHz.
- 5. The frequency range 9 kHz ~ 30 MHz: all emissions are more than 20 dB below the limit, therefore do not be recorded in this report.



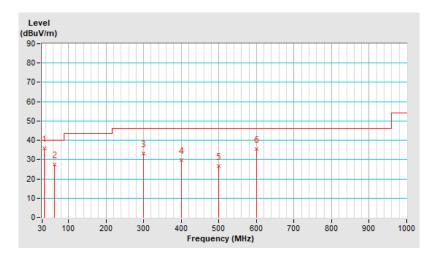


			VENTIAS		
RF Mode	802.11b	Channel	CH 6:2437 MHz		
Frequency Range	30 MHz ~ 1 GHz	Detector Function & Bandwidth	QP: RB=120kHz, DET=Quasi-Peak		
Input Power	120 Vac, 60 Hz	Environmental Conditions	21 °C, 62 % RH		
Tested By	Willy Lin				

	Antenna Polarity & Test Distance : Vertical at 3 m									
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)		
1	35.55	35.7 QP	40.0	-4.3	4.00 V	343	49.2	-13.5		
2	63.92	27.5 QP	40.0	-12.5	1.50 V	233	41.3	-13.8		
3	299.63	33.0 QP	46.0	-13.0	3.50 V	113	45.4	-12.4		
4	400.39	29.7 QP	46.0	-16.3	1.00 V	184	39.5	-9.8		
5	499.89	26.6 QP	46.0	-19.4	2.50 V	268	34.1	-7.5		
6	600.24	35.5 QP	46.0	-10.5	2.00 V	91	40.6	-5.1		

Remarks:

- 1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
- 2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) Pre-Amplifier Factor(dB)
- 3. Margin value = Emission Level Limit value
- 4. The other emission levels were very low against the limit of frequency range 30 MHz ~ 1 GHz.
- 5. The frequency range 9 kHz ~ 30 MHz: all emissions are more than 20 dB below the limit, therefore do not be recorded in this report.





8 Pictures of Test Arrangements

Please refer to the attached file (Test Setup Photo)



9 Information of the Testing Laboratories

We, Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch, were founded in 1988 to provide our best service in EMC, Radio, Telecom and Safety consultation. Our laboratories are FCC recognized accredited test firms and accredited according to ISO/IEC 17025.

If you have any comments, please feel free to contact us at the following:

Lin Kou EMC/RF Lab Tel: 886-2-26052180 Fax: 886-2-26051924

Hsin Chu EMC/RF/Telecom Lab Tel: 886-3-6668565 Fax: 886-3-6668323

Hwa Ya EMC/RF/Safety Lab

Tel: 886-3-3183232 Fax: 886-3-3270892

Email: <u>service.adt@bureauveritas.com</u> Web Site: <u>http://ee.bureauveritas.com.tw</u>

The address and road map of all our labs can be found in our web site also.

--- END ---