



BUREAU  
VERITAS

Test Report No.: FV190228W007



Certificate # 3939.01

## EMC TEST REPORT

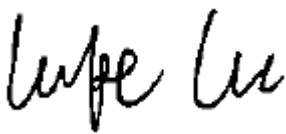
Applicant:	LINGDONG TECHNOLOGY (BEIJING) CO. LTD
Address:	1601-29, Floor 16, Linghang Building, No.68 Zhichun Road, Haidian District, Beijing

Manufacturer or Supplier:	LINGDONG TECHNOLOGY (BEIJING) CO. LTD
Address:	1601-29, Floor 16, Linghang Building, No.68 Zhichun Road, Haidian District, Beijing
Product:	OVIS
Brand Name:	FORWARDX
Model Name:	OVIS-01
FCC ID:	2AR7B-OVIS-01
Date of tests:	Feb. 29, 2019 ~ Jun. 22, 2019

The submitted sample of the above equipment has been tested for according to the requirements of the following standards:

FCC Part 15, Subpart B, Class B  
 ANSI C63.4:2014

**CONCLUSION: The submitted sample was found to COMPLY with the test requirement**

Issued by Alex Chen Engineer / Mobile Department	Approved by Luke Lu Manager / Mobile Department
 Date: Jun. 22, 2019	 Date: Jun. 22, 2019

This report is governed by, and incorporates by reference, CPS Conditions of Service as posted at the date of issuance of this report at <http://www.bureauveritas.com/home/about-us/our-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. 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 you unqualified acceptance of the completeness of this report, the tests conducted and the correctness of the report contents.



BUREAU  
VERITAS

Test Report No.: FV190228W007

## TABLE OF CONTENTS

<b>RELEASE CONTROL RECORD .....</b>	<b>3</b>
<b>1 GENERAL INFORMATION .....</b>	<b>4</b>
1.1 GENERAL DESCRIPTION OF EUT.....	4
1.2 SUMMARY OF TEST RESULTS.....	5
1.3 MEASUREMENT UNCERTAINTY .....	5
1.4 DESCRIPTION OF TEST MODES.....	6
<b>2 EMISSION TEST .....</b>	<b>7</b>
2.1 CONDUCTED EMISSION MEASUREMENT.....	7
2.1.1 LIMITS OF CONDUCTED EMISSION MEASUREMENT .....	7
2.1.2 TEST INSTRUMENTS.....	7
2.1.3 TEST PROCEDURES .....	8
2.1.4 DEVIATION FROM TEST STANDARD .....	8
2.1.5 TEST SETUP .....	9
2.1.6 EUT OPERATING CONDITIONS .....	9
2.1.7 TEST RESULTS .....	10
2.2 RADIATED EMISSION MEASUREMENT.....	12
2.2.1. LIMITS OF RADIATED EMISSION MEASUREMENT .....	12
2.2.2. TEST INSTRUMENTS.....	13
2.2.3. TEST PROCEDURE.....	14
2.2.4. DEVIATION FROM TEST STANDARD .....	15
2.2.5. TEST SETUP .....	16
2.2.6. EUT OPERATING CONDITIONS .....	16
2.2.7. TEST RESULTS .....	17
<b>3 APPENDIX A – MODIFICATIONS RECORDERS FOR ENGINEERING CHANGES TO THE EUT BY THE LAB .....</b>	<b>21</b>



BUREAU  
VERITAS

Test Report No.: FV190228W007

## RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
FV190228W007	Original release	Jun. 22, 2019



BUREAU  
VERITAS

Test Report No.: FV190228W007

## 1 GENERAL INFORMATION

### 1.1 GENERAL DESCRIPTION OF EUT

PRODUCT	OVIS	
BRAND NAME	FORWARDX	
MODEL NAME	OVIS-01	
NOMINAL VOLTAGE	21Vdc (adapter) 18Vdc (Li-ion, battery)	
BATTERY	Brand Name: OVIS Model Name: OVBP-01 Power Rating: DC 18V, 5200mAh, Li-ion	
MODULATION TYPE	WLAN	CCK, DQPSK, DBPSK for DSSS 64QAM, 16QAM, QPSK, BPSK for OFDM
	BT_LE	BT-LE(GFSK) for GFSK
	Bluetooth	GFSK, π/4-DQPSK, 8DPSK, LE
OPERATING FREQUENCY	WLAN	2412-2462MHz for 11b/g/n(HT20)
	Bluetooth/BT_LE	2402MHz ~ 2480MHz
HW VERSION	1.0	
SW VERSION	L130_v00	
I/O PORTS	Refer to user's manual	
ACCESSORY DEVICES	Refer to note as below	

#### NOTE:

1. For a more detailed features description, please refer to the manufacturer's specifications or the user's manual.
2. The EUT was powered by the following adapter:

ADAPTER	
BRAND:	XINSPower
MODEL:	A481
INPUT:	AC 100-240V, 1500mA
OUTPUT:	DC 21V, 2000mA

UWB WRIST STRAP BATTERY	
BRAND:	PATL
MODEL:	441422
POWER RATING:	DC 3.7V, 120mAh

3. For the test results, the EUT had been tested with all conditions. But only the worst case was shown in test report.



BUREAU  
VERITAS

Test Report No.: FV190228W007

## 1.2 SUMMARY OF TEST RESULTS

The EUT has been tested according to the following specifications:

APPLIED STANDARD: FCC Part 15, Subpart B			
Standard Section	Test Item	Result	Remark
FCC Part 15, Subpart B, Class B ANSI C63.4:2014	Conducted Test	PASS	Meets limits minimum passing margin is -17.23dB at 0.420000MHz.
	Radiated Emission Test (30MHz ~ 1GHz)	PASS	Meets Class B Limit Minimum passing margin is -3.02dB at 455.83MHz
	Radiated Emission Test (Above 1GHz)	PASS	Meets Class B Limit Minimum passing margin is -8.14dB at 3584MHz

## 1.3 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:

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

MEASUREMENT	FREQUENCY	UNCERTAINTY
Conducted emissions	150kHz ~ 30MHz	+/-2.66dB
Radiated emissions	30MHz ~ 1GHz	+/-3.26dB
	1GHz ~ 18GHz	+/-4.48dB



BUREAU  
VERITAS

Test Report No.: FV190228W007

## 1.4 DESCRIPTION OF TEST MODES

Test Mode	Test Condition
<b>Radiated emission test</b>	
1	Adapter + Battery + WIFI 2.4g Idle + BT Link + UWB
<b>Conducted emission test</b>	
1	Adapter + Battery + WIFI 2.4g Idle + BT Link + UWB

### NOTE:

1. For conducted emission test, test mode 1 was the worst case and only this mode was presented in this report.
2. For radiated emission test, test mode 1 was the worst case and only this mode was presented in this report.



BUREAU  
VERITAS

Test Report No.: FV190228W007

## 2 EMISSION TEST

### 2.1 CONDUCTED EMISSION MEASUREMENT

#### 2.1.1 LIMITS OF CONDUCTED EMISSION MEASUREMENT

TEST STANDARD: FCC Part 15, Subpart B (Section: 15.107)

FREQUENCY OF EMISSION (MHz)	CONDUCTED LIMIT (dB $\mu$ V)	
	Quasi-peak	Average
0.15 ~ 0.5	66 to 56	56 to 46
0.5 ~ 5	56	46
5 ~ 30	60	50

**NOTE:** 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 0.50MHz.  
3. All emanations from a class A/B digital device or system, including any network of conductors and apparatus connected thereto, shall not exceed the level of field strengths specified above.

#### 2.1.2 TEST INSTRUMENTS

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
EMI Test Receiver	Rohde&Schwarz	ESR3	101900	Feb. 26,19	Feb. 25, 20
EMC32 test software	Rohde&Schwarz	EMC32	NA	NA	NA
LISN network	Rohde&Schwarz	ENV216	101922	Feb. 26,19	Feb. 25, 20

**NOTE:** 1. The test was performed in CE shielded room.  
2. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to CEPREI/CHINA, GRT/CHINA and NIM/CHINA.



## 2.1.3 TEST PROCEDURES

- a. The EUT was 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/ 50uH 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 30MHz was searched. Emission levels under (Limit - 20dB) were not recorded.

**NOTE:** All modes of operation were investigated and the worst-case emissions are reported.

## 2.1.4 DEVIATION FROM TEST STANDARD

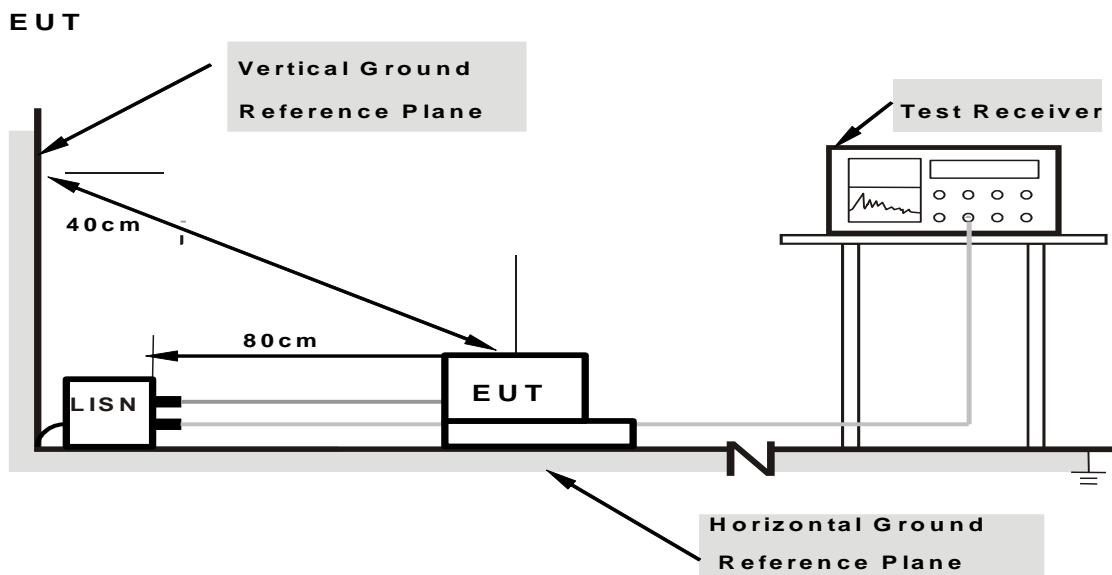
No deviation.



BUREAU  
VERITAS

Test Report No.: FV190228W007

## 2.1.5 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).

## 2.1.6 EUT OPERATING CONDITIONS

- Turned on the power and connected of all equipment.
- EUT was operated according to the use type described in the manufacturer's specifications or the user's manual.



BUREAU  
VERITAS

Test Report No.: FV190228W007

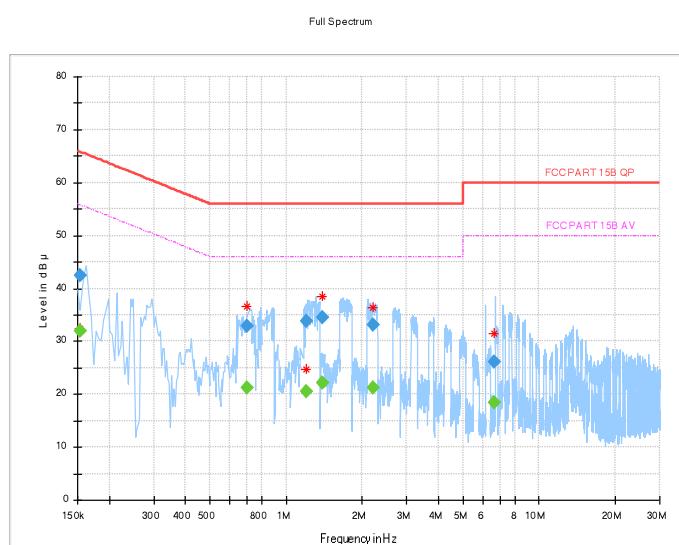
## 2.1.7 TEST RESULTS

TEST VOLTAGE	DC 21V From Adapter Input 120 Vac, 60 Hz	Detector Function & Resolution Bandwidth	Quasi-Peak (QP) / Average (AV), 9 kHz
ENVIRONMENTAL CONDITIONS	25deg. C, 52RH	TESTED BY	John Wen

Frequency (MHz)	QuasiPeak (dBuV)	CAverage (dBuV)	Limit (dBuV)	Margin (dB)	Line	Filter	Corr. (dB)
0.154000	---	31.94	55.78	-23.84	L	ON	9.6
0.154000	42.49	---	65.78	-23.29	L	ON	9.6
0.700000	---	21.15	46.00	-24.85	L	ON	9.6
0.700000	32.88	---	56.00	-23.12	L	ON	9.6
1.200000	---	20.60	46.00	-25.40	L	ON	9.7
1.200000	33.74	---	56.00	-22.26	L	ON	9.7
1.394000	---	22.21	46.00	-23.79	L	ON	9.7
1.394000	34.62	---	56.00	-21.38	L	ON	9.7
2.200000	---	21.33	46.00	-24.67	L	ON	9.7
2.200000	33.11	---	56.00	-22.89	L	ON	9.7
6.652000	---	18.41	50.00	-31.59	L	ON	9.8
6.652000	26.20	---	60.00	-33.80	L	ON	9.8

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

2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
3. The emission levels of other frequencies were very low against the limit.
4. Margin value = Emission level - Limit value
5. Correction factor = Insertion loss + Cable loss
6. Emission Level = Correction Factor + Reading Value.



BUREAU  
VERITAS

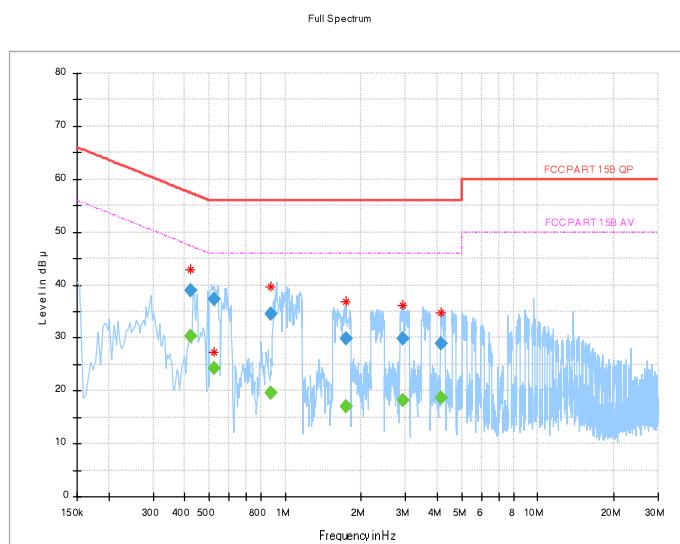
Test Report No.: FV190228W007

TEST VOLTAGE	DC 21V From Adapter Input 120 Vac, 60 Hz	Detector Function & Resolution Bandwidth	Quasi-Peak (QP) / Average (AV), 9 kHz
ENVIRONMENTAL CONDITIONS	25deg. C, 52RH	TESTED BY	John Wen

Frequency (MHz)	QuasiPeak (dBuV)	CAverage (dBuV)	Limit (dBuV)	Margin (dB)	Line	Filter	Corr. (dB)
0.420000	---	30.22	47.45	-17.23	N	ON	10.1
0.420000	38.98	---	57.45	-18.47	N	ON	10.1
0.520000	---	24.24	46.00	-21.76	N	ON	10.1
0.520000	37.30	---	56.00	-18.70	N	ON	10.1
0.880000	---	19.70	46.00	-26.30	N	ON	9.9
0.880000	34.61	---	56.00	-21.39	N	ON	9.9
1.736000	---	17.05	46.00	-28.95	N	ON	9.8
1.736000	29.84	---	56.00	-26.16	N	ON	9.8
2.932000	---	18.23	46.00	-27.77	N	ON	9.8
2.932000	29.88	---	56.00	-26.12	N	ON	9.8
4.156000	---	18.57	46.00	-27.43	N	ON	9.8
4.156000	28.98	---	56.00	-27.02	N	ON	9.8

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

2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
3. The emission levels of other frequencies were very low against the limit.
4. Margin value = Emission level - Limit value
5. Correction factor = Insertion loss + Cable loss
6. Emission Level = Correction Factor + Reading Value.





BUREAU  
VERITAS

Test Report No.: FV190228W007

## 2.2 RADIATED EMISSION MEASUREMENT

### 2.2.1. LIMITS OF RADIATED EMISSION MEASUREMENT

#### TEST STANDARD: FCC Part 15, Subpart B (Section: 15.109)

Emissions radiated outside of the specified bands, shall be according to the general radiated limits as following:

Radiated Emissions Limits at 10 meters (dB $\mu$ V/m)				
Frequencies (MHz)	FCC 15B/ICES-003, Class A	FCC 15B / ICES-003, Class B	CISPR 22, Class A	CISPR 22, Class B
30-88	39	29.5		
88-216	43.5	33.1	40	30
216-230				
230-960	46.4	35.6		
960-1000	49.5	43.5	47	37
1000-3000	Avg: 49.5	Avg: 43.5	Not defined	Not defined
3000+	Peak: 69.5	Peak: 63.5	Not defined	Not defined

Radiated Emissions Limits at 3 meters (dB $\mu$ V/m)				
Frequencies (MHz)	FCC 15B / ICES-003, Class A	FCC 15B / ICES-003, Class B	CISPR 22, Class A	CISPR 22, Class B
30-88	49.5	40		
88-216	54	43.5	50.5	40.5
216-230				
230-960	56.9	46		
960-1000	60	54	57.5	47.5
1000-3000			Avg: 56 Peak: 76	Avg: 50 Peak: 70
3000+	Avg: 60 Peak: 80	Avg: 54 Peak: 74	Avg: 60 Peak: 80	Avg: 54 Peak: 74

BUREAU  
VERITAS

Test Report No.: FV190228W007

**Frequency Range (For unintentional radiators)**

Highest frequency generated or used in the device or on which the device operates or tunes (MHz)	Upper frequency of measurement range (MHz)
Below 1.705	30
1.705-108	1000
108-500	2000
500-1000	5000
Above 1000	5 <sup>th</sup> harmonic of the highest frequency or 40GHz, whichever is lower

**NOTE:**

1. The lower limit shall apply at the transition frequencies.
2. Emission level (dBuV/m) = 20 log Emission level (uV/m).
3. As shown in 15.35(b), for frequencies above 1000MHz, the field strength limits are based on average detector, however, the peak field strength of any emission shall not exceed the maximum permitted average limits, specified above by more than 20dB under any condition of modulation.
4. QP detector shall be applied if not specified.

**2.2.2. TEST INSTRUMENTS****Frequency range below 1GHz**

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
3m Semi-anechoic Chamber	ETS-LINDGREN	9m*6m*6m	Euroshieldpn-CT0001143-1216	Feb. 26,19	Feb. 25,20
Bilog Antenna	ETS-LINDGREN	3143B	00161965	Feb. 26,19	Feb. 25,20
MXE EMI Receiver	KEYSIGHT	N9038A-544	MY54450026	Feb. 26,19	Feb. 25,20
Signal Pre-Amplifier	EMSI	EMC 9135	980249	Jun. 24,19	Jun. 23,20

**Frequency range above 1GHz**

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
3m Semi-anechoic Chamber	ETS-LINDGREN	9m*6m*6m	Euroshieldpn-CT0001143-1216	Feb. 26,19	Feb. 25,20
Horn Antenna	ETS-LINDGREN	3117	00168728	Feb. 26,19	Feb. 25,20
MXE EMI Receiver	KEYSIGHT	N9038A-544	MY54450026	Feb. 26,19	Feb. 25, 20
Signal Pre-Amplifier	EMSI	EMC 012645B	980257	Jun. 24,19	Jun. 23,20

**NOTE:**

1. The test was performed in 3m chamber.
2. The calibration interval of the above test instruments is 12 months or 24 months and the calibrations are traceable to CEPREI/CHINA, GRGT/CHINA and NIM/CHINA.
3. The FCC Site Registration No. is 525120; The Designation No. is CN1171.



BUREAU  
VERITAS

Test Report No.: FV190228W007

## 2.2.3. TEST PROCEDURE

### <Frequency Range below 1GHz>

The basic test procedure was in accordance with ANSI C63.4:2014 (section 12).

- a. The EUT was placed on the insulation material 10 mm above the ground at a 3 meter semi-anechoic chamber room. 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 1 meter to 4 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 1GHz.

#### NOTE:

1. The resolution bandwidth of test receiver/spectrum analyzer is 120kHz for Quasi-peak detection (QP) at frequency below 1GHz.
2. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
3. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB) (if the raw value not contains the amplifier);
4. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB) – Amplifier Gain(dB) (if the raw value contains the amplifier).
5. Margin value = Emission level – Limit value.



BUREAU  
VERITAS

Test Report No.: FV190228W007

### <Frequency Range above 1GHz>

- a. The EUT was placed on the insulation material 10 mm above the ground at a 3 meter fully-anechoic chamber room. 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. The bore sight should be used during the test above 1GHz.
- 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 peak and average detect function and specified bandwidth with maximum hold mode when the test frequency is above 1 GHz

#### NOTE:

1. The resolution bandwidth of test receiver/spectrum analyzer is 120kHz for Quasi-peak detection (QP) at frequency below 1GHz.
2. The resolution bandwidth is 1MHz and video bandwidth of test receiver/spectrum analyzer is 3MHz for Peak detection at frequency above 1GHz. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and video bandwidth of test receiver/spectrum analyzer is 1Hz for Average detection (AV) at frequency above 1GHz.
3. For measurement of frequency above 1000 MHz, the EUT was set 3 meters away from the receiver antenna.
4. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
5. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB) (if the raw value not contains the amplifier);
6. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB) – Amplifier Gain(dB) (if the raw value contains the amplifier)
7. Margin value = Emission level – Limit value.

### 2.2.4. DEVIATION FROM TEST STANDARD

No deviation.

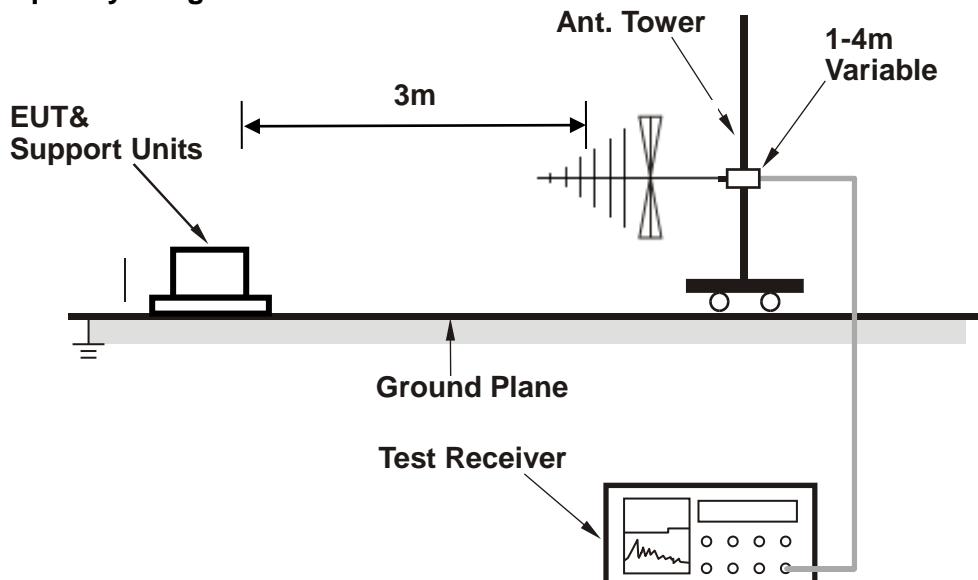


BUREAU  
VERITAS

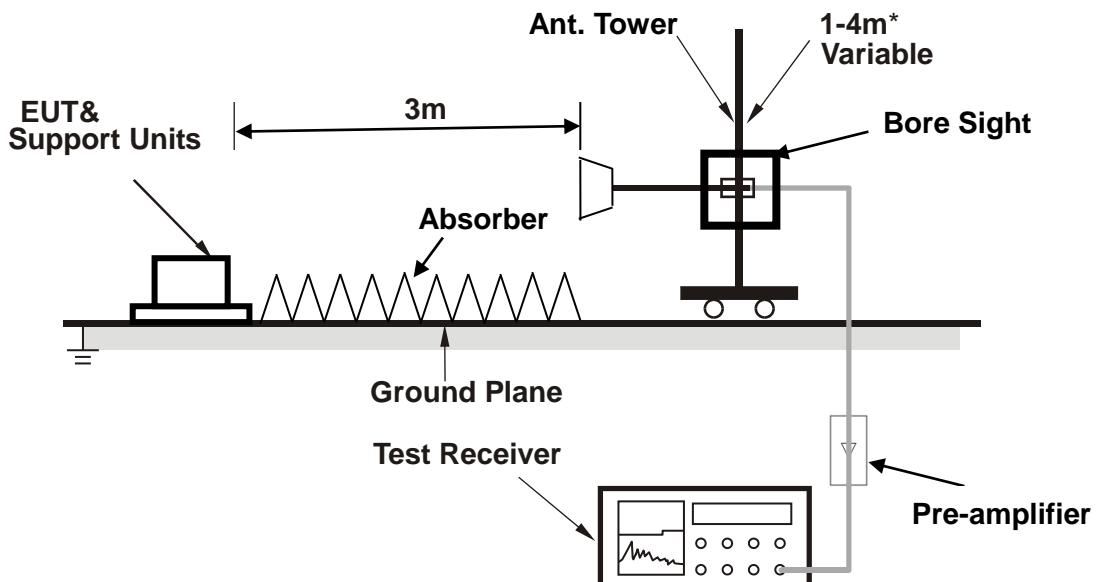
Test Report No.: FV190228W007

## 2.2.5. TEST SETUP

<Frequency Range below 1GHz>



<Frequency Range above 1GHz>



\* : depends on the EUT height and the antenna 3dB beamwidth both, refer to section 7.3 of CISPR 16-2-3.

## 2.2.6. EUT OPERATING CONDITIONS

Same as item 2.1.6.



BUREAU  
VERITAS

Test Report No.: FV190228W007

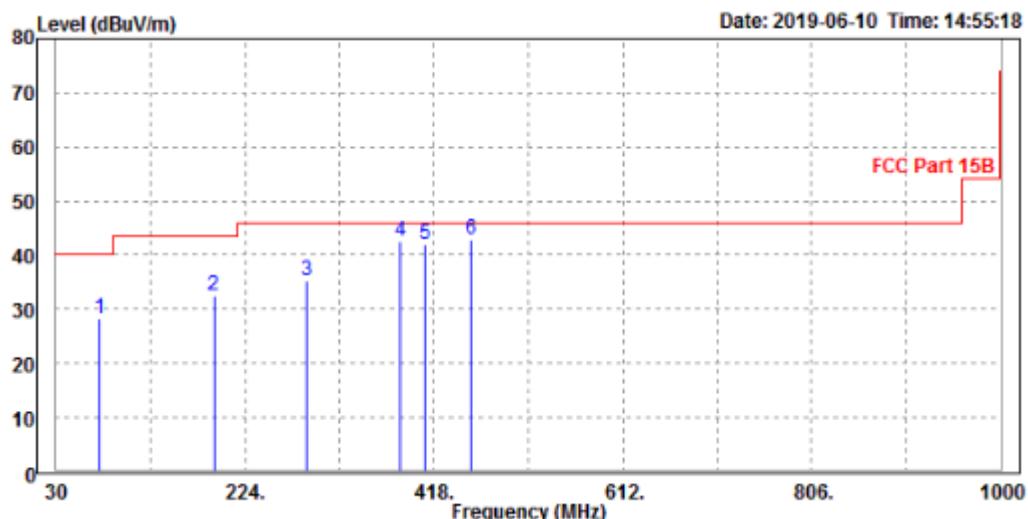
## 2.2.7. TEST RESULTS

TEST VOLTAGE	DC 21V From Adapter Input 120 Vac, 60 Hz	FREQUENCY RANGE	30-1000 MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70 %RH	DETECTOR FUNCTION & RESOLUTION BANDWIDTH	Quasi-Peak, 120 kHz
TESTED BY	Tony		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
74.62	28.3	56.51	40	-11.7	7.92	1.2	37.33	200	165	QP
191.99	32.68	56.88	43.5	-10.82	10.64	1.75	36.59	200	226	QP
288.02	35.38	55.98	46	-10.62	13.96	2.17	36.73	200	113	QP
384.05	42.55	60.01	46	-3.45	16.81	2.55	36.82	200	125	QP
408.3	41.98	58.75	46	-4.02	17.42	2.65	36.84	200	298	QP
<b>455.83</b>	<b>42.98</b>	<b>58.99</b>	<b>46</b>	<b>-3.02</b>	<b>18.08</b>	<b>2.83</b>	<b>36.92</b>	<b>200</b>	<b>37</b>	<b>QP</b>

**REMARKS:**

1. Peak detector quick scan is showed on the graph and final quasi-peak detector data is measured corresponding to relevant limit and recorded in the data table.
2. Negative sign (-) in the margin column signify levels below the limit.
3. Frequency range scanned: 30MHz to 1000MHz.
4. Only emissions significantly above equipment noise floor are reported.



BUREAU  
VERITAS

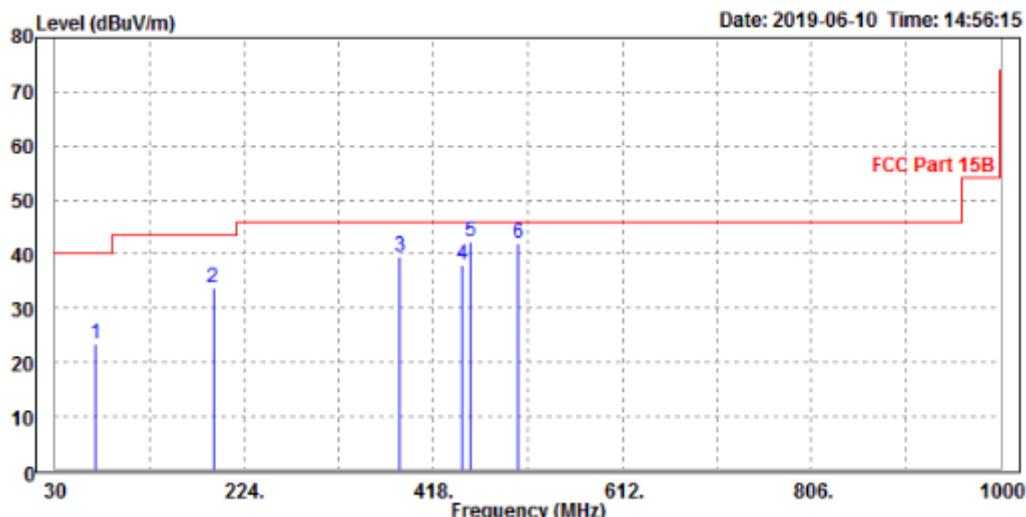
Test Report No.: FV190228W007

TEST VOLTAGE	DC 5V From Adapter Input 120 Vac, 60 Hz	FREQUENCY RANGE	30-1000 MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70 %RH	DETECTOR FUNCTION & RESOLUTION BANDWIDTH	Quasi-Peak, 120 kHz
TESTED BY	Tony		

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
71.71	23.4	51.93	40	-16.6	7.6	1.2	37.33	100	164	QP
191.99	33.85	58.09	43.5	-9.65	10.6	1.75	36.59	100	279	QP
384.05	39.56	57.12	46	-6.44	16.71	2.55	36.82	100	133	QP
448.07	37.96	54.25	46	-8.04	17.82	2.8	36.91	100	326	QP
455.83	42.41	58.57	46	-3.59	17.93	2.83	36.92	100	199	QP
504.33	42.08	57.53	46	-3.92	18.57	3	37.02	100	88	QP

**REMARKS:**

1. Peak detector quick scan is showed on the graph and final quasi-peak detector data is measured corresponding to relevant limit and recorded in the data table.
2. Negative sign (-) in the margin column signify levels below the limit.
3. Frequency range scanned: 30MHz to 1000MHz.
4. Only emissions significantly above equipment noise floor are reported.



BUREAU  
VERITAS

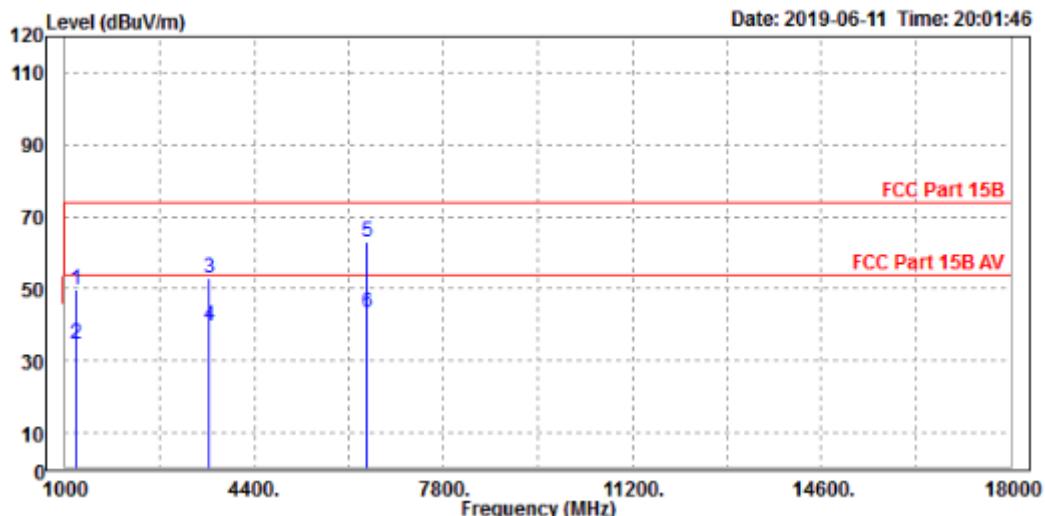
Test Report No.: FV190228W007

TEST VOLTAGE	DC 5V From Adapter Input 120 Vac, 60 Hz	FREQUENCY RANGE	1-18 GHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70 %RH	DETECTOR FUNCTION & RESOLUTION BANDWIDTH	Peak/Average, 1 MHz
TESTED BY	Tony		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
1204	49.75	58.94	74	-24.25	28.75	3.3	41.24	100	360	Peak
1204	34.65	43.84	54	-19.35	28.75	3.3	41.24	100	360	Average
3584	52.92	54.83	74	-21.08	33.89	5.95	41.75	100	360	Peak
3584	39.62	41.53	54	-14.38	33.89	5.95	41.75	100	360	Average
6440	63.02	61.31	74	-10.98	37.15	7.32	42.76	100	360	Peak
6440	43.29	41.58	54	-10.71	37.15	7.32	42.76	100	360	Average

**REMARKS:**

1. Peak detector quick scan is showed on the graph and final quasi-peak detector data is measured corresponding to relevant limit and recorded in the data table.
2. Negative sign (-) in the margin column signify levels below the limit.
3. Frequency range scanned: 1GHz to 18GHz.
4. Only emissions significantly above equipment noise floor are reported.



BUREAU  
VERITAS

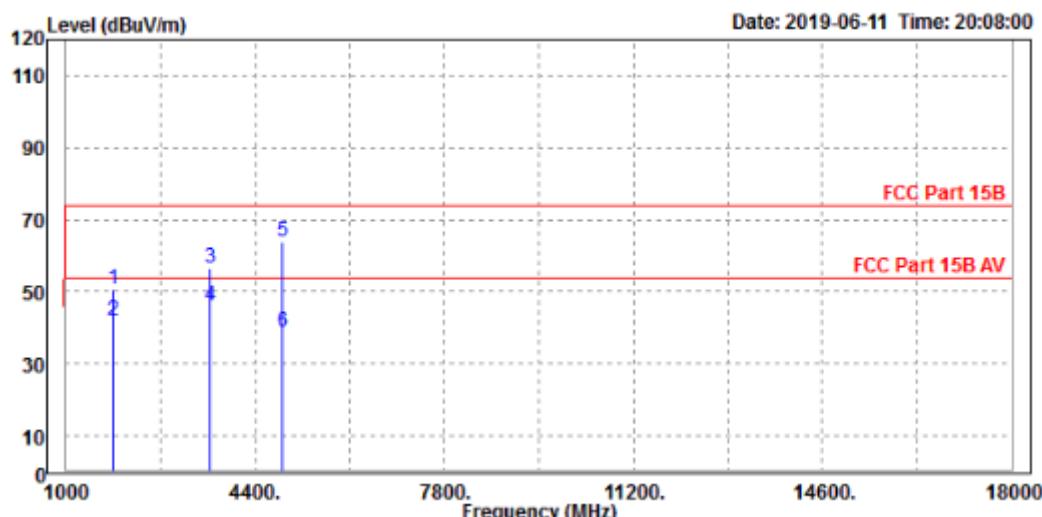
Test Report No.: FV190228W007

TEST VOLTAGE	DC 5V From Adapter Input 120 Vac, 60 Hz	FREQUENCY RANGE	1-18 GHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70 %RH	DETECTOR FUNCTION & RESOLUTION BANDWIDTH	Peak/Average, 1 MHz
TESTED BY	Tony		

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
1833	50.77	62.13	74	-23.23	31.1	-1.13	41.33	200	360	Peak
1833	41.77	53.13	54	-12.23	31.1	-1.13	41.33	200	360	Average
3584	56.42	56.9	74	-17.58	35.32	5.95	41.75	200	360	Peak
<b>3584</b>	<b>45.86</b>	<b>46.34</b>	<b>54</b>	<b>-8.14</b>	<b>35.32</b>	<b>5.95</b>	<b>41.75</b>	<b>200</b>	<b>360</b>	<b>Average</b>
4876	63.72	62.98	74	-10.28	35.7	6.95	41.91	200	360	Peak
4876	38.86	38.12	54	-15.14	35.7	6.95	41.91	200	360	Average

**REMARKS:**

1. Peak detector quick scan is showed on the graph and final quasi-peak detector data is measured corresponding to relevant limit and recorded in the data table.
2. Negative sign (-) in the margin column signify levels below the limit.
3. Frequency range scanned: 1GHz to 18GHz.
4. Only emissions significantly above equipment noise floor are reported.





BUREAU  
VERITAS

Test Report No.: FV190228W007

### 3 APPENDIX A – MODIFICATIONS RECORDERS FOR ENGINEERING CHANGES TO THE EUT BY THE LAB

No any modifications were made to the EUT by the lab during the test.

---END---