

EMC TEST REPORT



Applicant:	Corporativo Lanix S.A. de C.V.
Address:	Carretera Internacional Hermosillo-Nogales Km 8.5, Hermosillo Sonora, Mexico

Manufacturer or Supplier	Corporativo Lanix S.A. de C.V.
Address	Carretera Internacional Hermosillo-Nogales Km 8.5, Hermosillo Sonora, Mexico
Product	Smartphone
Brand Name	LANIX
Model Name	Ilium M1
FCC ID	ZC4M1
Date of tests	Jan. 12, 2018 ~ Feb. 05, 2018

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 Yuqiang Yin Engineer / Mobile Department	Approved by Bill Yao Manager / Mobile Department
 Date: Feb. 06, 2018	 Date: Feb. 06, 2018

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**3 APPENDIX A – MODIFICATIONS RECORDERS FOR ENGINEERING CHANGES TO THE EUT
BY THE LAB 26**



**BUREAU
VERITAS**

Test Report No.: FV180112W002

RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
FV180112W002	Original release	Feb. 06, 2018



1 GENERAL INFORMATION

1.1 GENERAL DESCRIPTION OF EUT

PRODUCT	Smartphone	
BRAND NAME	LANIX	
MODEL NAME	Ilium M1	
NOMINAL VOLTAGE	5Vdc (adapter or host equipment) 3.8Vdc (Li-ion, battery)	
BATTERY	Brand Name: LANIX Model Name: Ilium M1-BAT Power Rating: DC 3.8V, 2200mAh, Li-ion	
MODULATION TYPE	Bluetooth	GFSK, $\pi/4$ -DQPSK, 8DPSK
	BT_LE	DTS
	WLAN	CCK, DQPSK, DBPSK for DSSS 64QAM, 16QAM, QPSK, BPSK for OFDM
	GSM	GMSK
	WCDMA	BPSK/QPSK
	GPS	C/A code
	FM	FSK
OPERATING FREQUENCY	Bluetooth/BT_LE	2402MHz ~ 2480MHz
	WLAN	2412 ~ 2462MHz for 11b/g/n(HT20) 2422 ~ 2452MHz for 11n(HT40)
	GSM	824.2MHz ~ 848.8MHz (FOR GSM 850) 1850.2MHz ~ 1909.8MHz (FOR GSM 1900)
	WCDMA	1852.4MHz ~ 1907.6MHz (FOR WCDMA 1900) 826.4MHz ~ 846.6MHz (FOR WCDMA 850)
	GPS	1575.42MHz
	FM	98MHz
HW VERSION	V1.0	
SW VERSION	Ilium M1_SW_01	
I/O PORTS	Refer to user's manual	
CABLE SUPPLIED	USB cable: non-shielded, detachable, 1.0meter Earphone cable: non-shielded, detachable, 1.2meter	
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:	LANIX
MODEL:	Ilium M1-C
INPUT:	AC 100-240V, 150mA
OUTPUT:	DC 5V, 1000mA

3. The EUT matched the following USB cable and Earphone:

USB CABLE	
BRAND:	LANIX
MODEL:	Ilium M1
SIGNAL LINE:	1.0 METER

EARPHONE	
BRAND:	LANIX
MODEL:	Ilium M1
SIGNAL LINE:	1.2 METER

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

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 -6.35dB at 4.936000MHz.
	Radiated Emission Test (30MHz ~ 1GHz)	PASS	Meets Class B Limit Minimum passing margin is -3.27dB at 42.61MHz
	Radiated Emission Test (Above 1GHz)	PASS	Meets Class B Limit Minimum passing margin is -15.97dB at 3150MHz

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



1.4 DESCRIPTION OF TEST MODES

Test Mode	Test Condition
Radiated emission test	
1	GSM850 Idle+ Adapter+ Earphone+ USB cable+ BT Idle+ WIFI 2.4g Idle+ GPS Rx+ Back camera on
2	GSM1900 Idle+ Adapter+ Earphone+ USB cable+ BT Idle+ WIFI 2.4g Idle+ GPS R + MPEG4
3	WCDMA 1900 Idle+ Adapter+ Earphone+ USB cable+ BT Idle+ WIFI 2.4g Idle+ GPS Rx+ FM Rx
4	WCDMA 850 Idle+ USB Link+ Earphone + BT Idle+ WIFI 2.4g Idle+ GPS Rx
Conducted emission test	
1	GSM850 Idle+ Adapter+ Earphone+ USB cable+ BT Idle+ WIFI 2.4g Idle+ GPS Rx+ Back camera on
2	GSM1900 Idle+ Adapter+ Earphone+ USB cable+ BT Idle+ WIFI 2.4g Idle+ GPS Rx+ MPEG4
3	WCDMA 1900 Idle+ Adapter+ Earphone+ USB cable+ BT Idle+ WIFI 2.4g Idle+ GPS Rx+ FM Rx
4	WCDMA 850 Idle+ USB Link+ Earphone + BT Idle+ WIFI 2.4g Idle+ GPS Rx

NOTE:

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

1.5 DESCRIPTION OF SUPPORT UNITS

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

FOR EMISSION TESTS

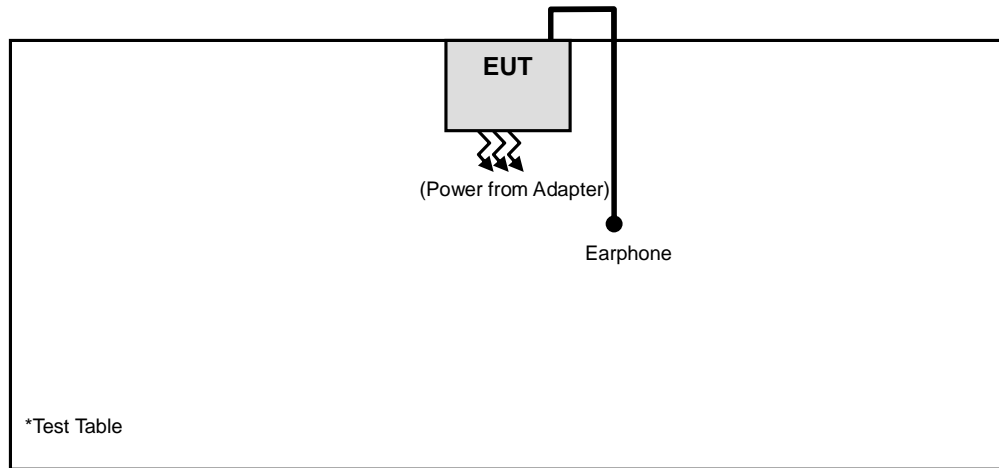
NO.	PRODUCT	BRAND	MODEL NO.	SERIAL NO.	FCC ID
1	Wireless AP	ABOCOM	WR224GR	060500749P	N/A
2	Notebook	DELL	E6420	9H12FS1	N/A
3	Printer	HP	hp LaserJet 1300	CNSJF75989	N/A
4	Mouse	DELL	M056UOA	01688082	N/A

NO.	SIGNAL CABLE DESCRIPTION OF THE ABOVE SUPPORT UNITS
1	N/A
2	DC Line: Unshielded, Undetachable, 2.0m
3	USB Line: Shielded, Detachable 1.5m;
4	USB Line: Unshielded, Undetachable 1.8m;

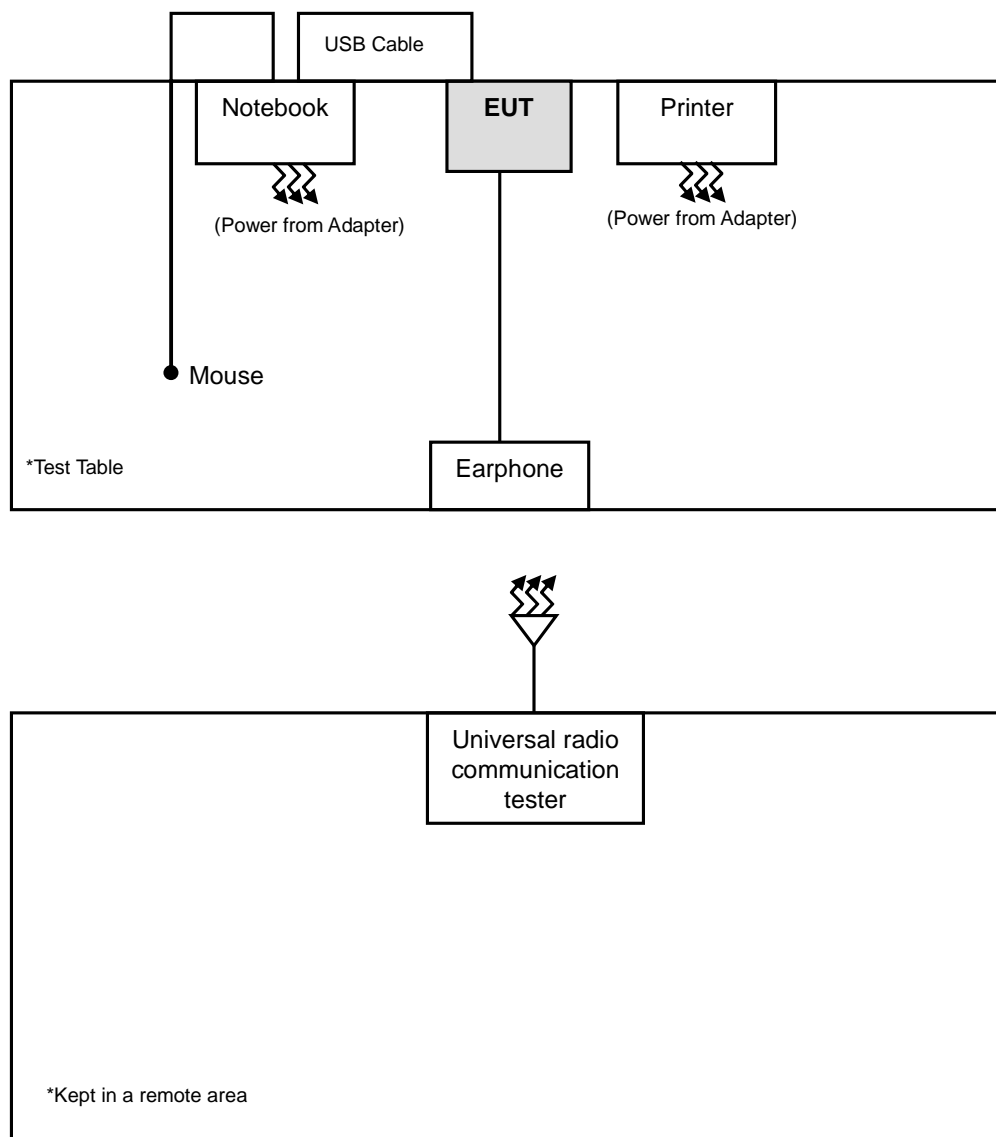


1.6 CONFIGURATION OF SYSTEM UNDER TEST

Test configuration 1



Test configuration 2



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 μ 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	Jun. 28,17	Jun. 27,18
EMC32 test software	Rohde&Schwarz	EMC32	NA	NA	NA
LISN network	Rohde&Schwarz	ENV216	101922	Sep. 18,17	Sep. 17,18

- 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, GRGT/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.

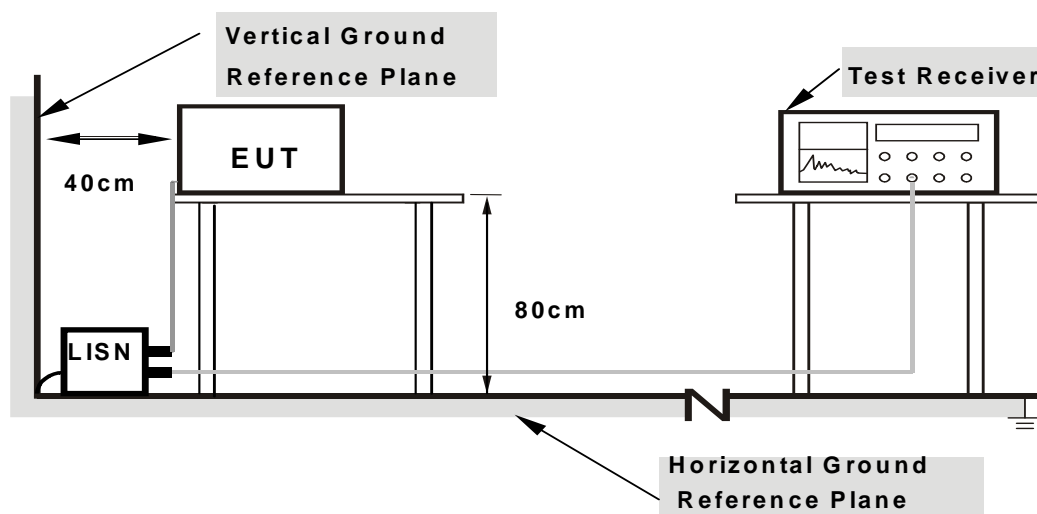
NOTE: All modes of operation were investigated and the worst-case emissions are reported.

2.1.4 DEVIATION FROM TEST STANDARD

No deviation.



2.1.5 TEST SETUP



- Note:**
- 1.Support units were connected to second LISN.
 - 2.Both of LISNs (AMN) are 80 cm from EUT and at least 80 from other units and other metal planes

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

2.1.6 EUT OPERATING CONDITIONS

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

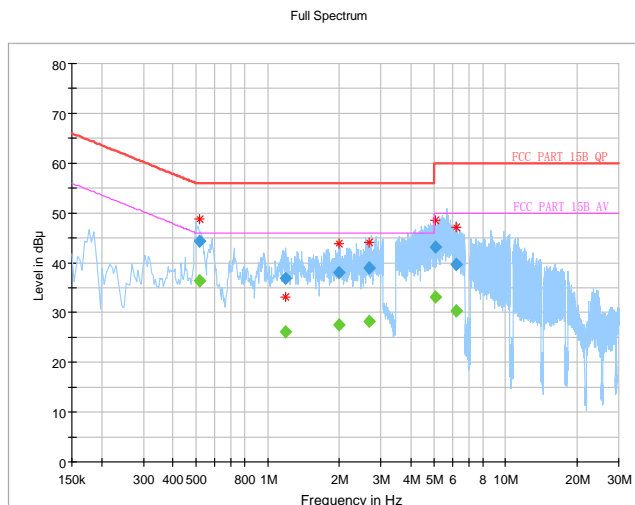


2.1.7 TEST RESULTS

TEST VOLTAGE	DC 5V From Adapter Input 120 Vac, 60 Hz	Detector Function & Resolution Bandwidth	Quasi-Peak (QP) / Average (AV), 9 kHz
ENVIRONMENTAL CONDITIONS	23deg. C, 52RH	TESTED BY	Jocan Guo

Frequency (MHz)	QuasiPeak (dBµV)	CAverage (dBµV)	Limit (dBµV)	Margin (dB)	Line	Filter	Corr. (dB)
0.516000	---	36.41	46.00	-9.59	L	ON	9.7
0.516000	44.29	---	56.00	-11.71	L	ON	9.7
1.192000	---	26.11	46.00	-19.89	L	ON	9.7
1.192000	36.96	---	56.00	-19.04	L	ON	9.7
1.992000	---	27.50	46.00	-18.50	L	ON	9.7
1.992000	38.11	---	56.00	-17.89	L	ON	9.7
2.672000	---	28.27	46.00	-17.73	L	ON	9.7
2.672000	38.95	---	56.00	-17.05	L	ON	9.7
5.072000	---	33.02	50.00	-16.98	L	ON	9.7
5.072000	43.16	---	60.00	-16.84	L	ON	9.7
6.196000	---	30.32	50.00	-19.68	L	ON	9.8
6.196000	39.69	---	60.00	-20.31	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.





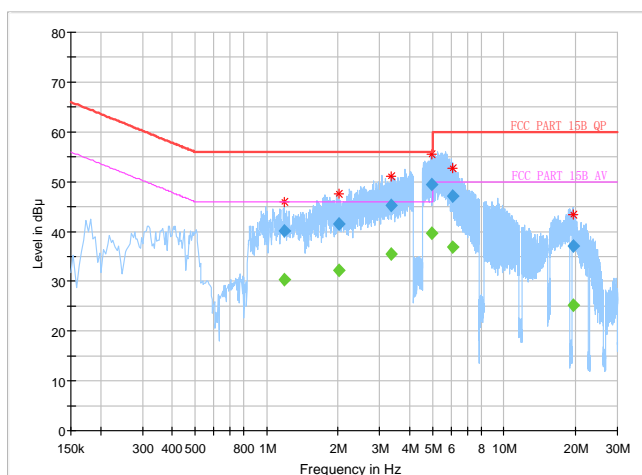
Test Report No.: FV180112W002

TEST VOLTAGE	DC 5V From Adapter Input 120 Vac, 60 Hz	Detector Function & Resolution Bandwidth	Quasi-Peak (QP) / Average (AV), 9 kHz
ENVIRONMENTAL CONDITIONS	23deg. C, 52RH	TESTED BY	Jocan Guo

Frequency (MHz)	QuasiPeak (dBuV)	CAverage (dBuV)	Limit (dBuV)	Margin (dB)	Line	Filter	Corr. (dB)
1.188000	---	30.26	46.00	-15.74	N	ON	9.9
1.188000	40.05	---	56.00	-15.95	N	ON	9.9
2.008000	---	32.21	46.00	-13.79	N	ON	9.8
2.008000	41.61	---	56.00	-14.39	N	ON	9.8
3.340000	---	35.40	46.00	-10.60	N	ON	9.8
3.340000	45.18	---	56.00	-10.82	N	ON	9.8
4.936000	---	39.65	46.00	-6.35	N	ON	9.8
4.936000	49.54	---	56.00	-6.46	N	ON	9.8
6.100000	---	36.78	50.00	-13.22	N	ON	9.8
6.100000	47.07	---	60.00	-12.93	N	ON	9.8
19.474000	---	25.27	50.00	-24.73	N	ON	10.0
19.474000	37.11	---	60.00	-22.89	N	ON	10.0

- 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.

Full Spectrum



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 μ 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	40	30
88-216	43.5	33.1		
216-230	46.4	35.6		
230-960			47	37
960-1000	49.5	43.5	Not defined	Not defined
1000-3000	Avg: 49.5	Avg: 43.5		
3000+	Peak: 69.5	Peak: 63.5	Not defined	Not defined

Radiated Emissions Limits at 3 meters (dB μ 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	50.5	40.5
88-216	54	43.5		
216-230	56.9	46		
230-960			57.5	47.5
960-1000	60	54	Avg: 56 Peak: 76	Avg: 50 Peak: 70
1000-3000	Avg: 60	Avg: 54		
3000+	Peak: 80	Peak: 74	Avg: 60 Peak: 80	Avg: 54 Peak: 74



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 th 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	May 06,17	May 05,18
Bilog Antenna	ETS-LINDGREN	3143B	00161965	Nov. 26,16	Nov. 25,18
MXE EMI Receiver	KEYSIGHT	N9038A-544	MY54450026	Mar. 10,17	Mar. 09,18
Signal Pre-Amplifier	EMSI	EMC 9135	980249	Jul. 24,17	Jul. 23,18

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	May 06,17	May 05,18
Horn Antenna	ETS-LINDGREN	3117	00168728	Nov. 26,16	Nov. 25,18
MXE EMI Receiver	KEYSIGHT	N9038A-544	MY54450026	Mar. 10,17	Mar. 09,18
Signal Pre-Amplifier	EMSI	EMC 012645B	980257	Jul. 24,17	Jul. 23,18

- 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.

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 top of a rotating table 0.8 meters 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. $\text{Emission level(dBuV/m)} = \text{Raw Value(dBuV)} + \text{Correction Factor(dB/m)}$
3. $\text{Correction Factor(dB/m)} = \text{Antenna Factor (dB/m)} + \text{Cable Factor (dB)}$ (if the raw value not contains the amplifier);
4. $\text{Correction Factor(dB/m)} = \text{Antenna Factor (dB/m)} + \text{Cable Factor (dB)} - \text{Amplifier Gain(dB)}$ (if the raw value contains the amplifier).
5. $\text{Margin value} = \text{Emission level} - \text{Limit value}$.

<Frequency Range above 1GHz>

- a. The EUT was placed on the top of a rotating table 0.8 meters 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:

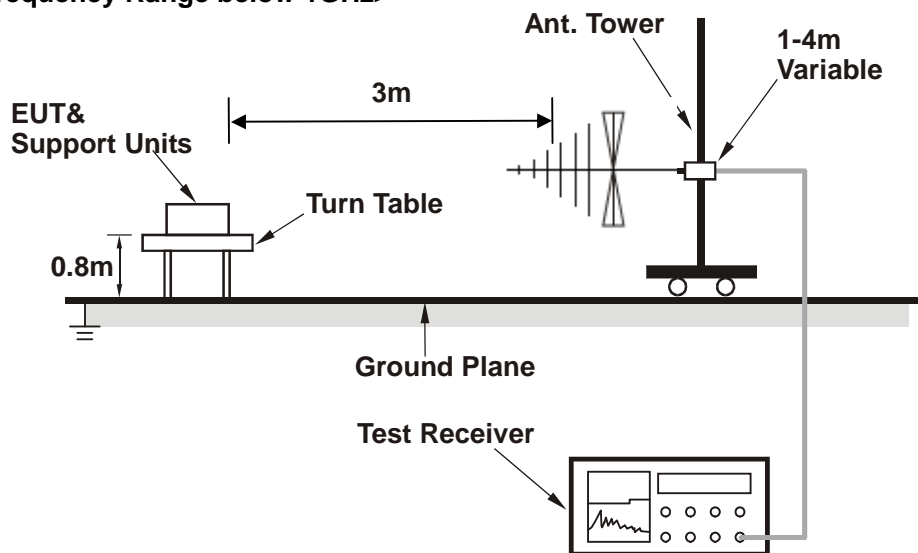
1. The resolution bandwidth of test receiver/spectrum analyzer is 120kHz for Quasi-peak detection (QP) at frequency below 1GHz.
2. The resolution bandwidth is 1MHz and video bandwidth of test receiver/spectrum analyzer is 3MHz for Peak detection at frequency above 1GHz. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and video bandwidth of test receiver/spectrum analyzer is 10Hz 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

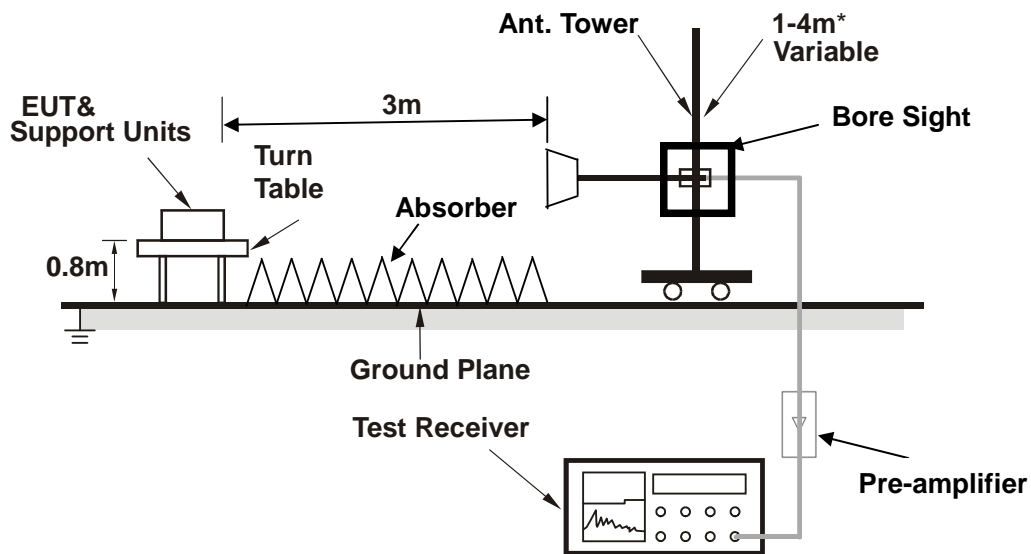
No deviation.

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

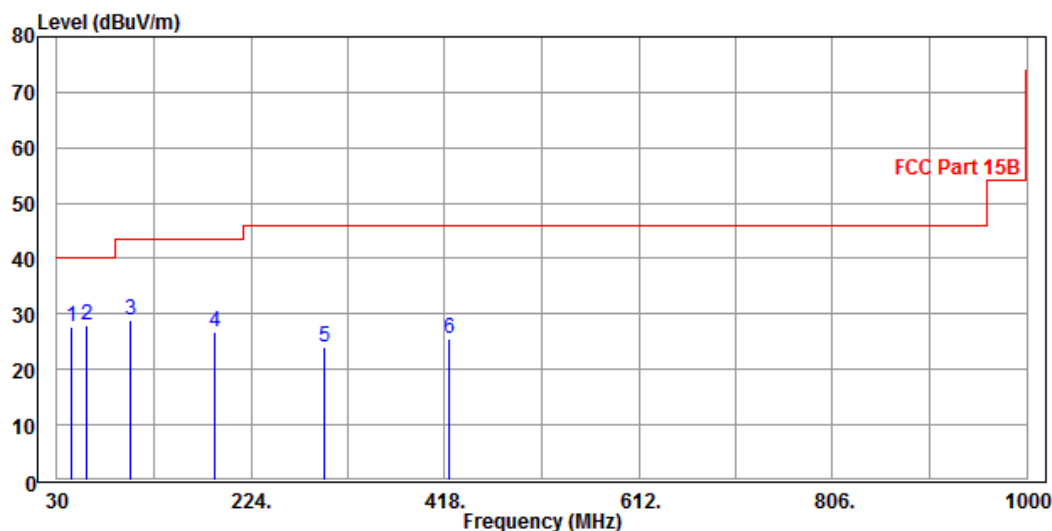
Same as item 2.1.6.

2.2.7 TEST RESULTS

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	Simon Yang		

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
43.58	27.61	55.19	40	-12.39	8.88	0.99	37.45	100	135	QP
59.1	28.02	57.77	40	-11.98	6.41	1.17	37.33	100	260	QP
102.75	28.98	56.5	43.5	-14.52	7.9	1.56	36.98	100	240	QP
188.11	26.88	51.43	43.5	-16.62	9.98	2.1	36.63	100	112	QP
296.75	24.07	44.91	46	-21.93	12.96	2.7	36.5	100	97	QP
422.85	25.6	41.68	46	-20.4	17.47	3.22	36.77	100	56	QP

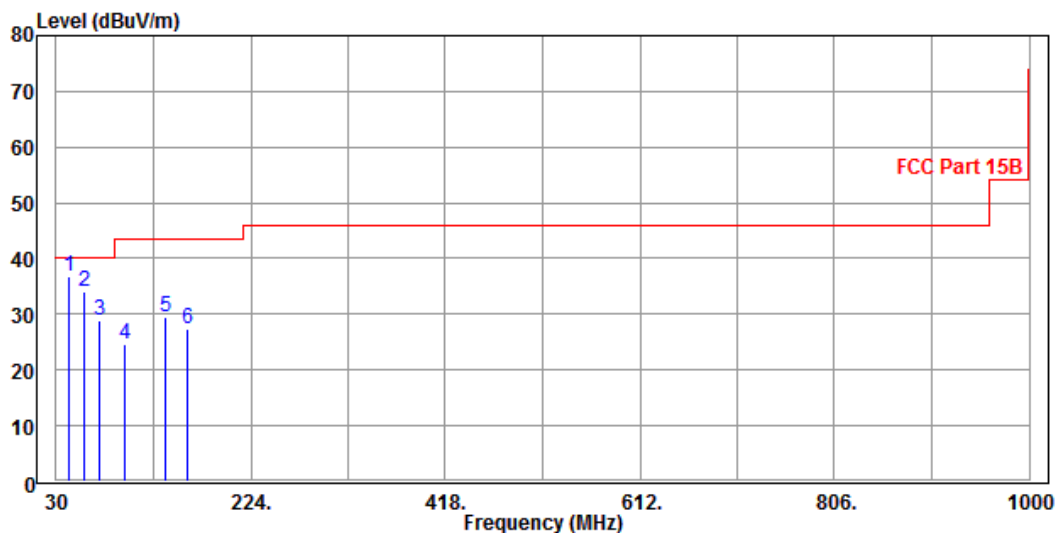
- REMARKS:**
1. Peak detector quick scan is showed on the graph and final quasi-peak detector data is measured corresponding to relevant limit and recorded in the data table.
 2. Negative sign (-) in the margin column signify levels below the limit.
 3. Frequency range scanned: 30MHz to 1000MHz.
 4.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



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	Simon Yang		

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
42.61	36.73	63.98	40	-3.27	9.23	0.98	37.46	200	308	QP
57.16	34.19	63.95	40	-5.81	6.43	1.15	37.34	200	96	QP
72.68	28.98	58.08	40	-11.02	6.82	1.31	37.23	200	145	QP
97.9	24.52	52.23	43.5	-18.98	7.77	1.52	37	200	187	QP
138.64	29.42	56.51	43.5	-14.08	7.95	1.81	36.85	200	50	QP
160.95	27.29	51.9	43.5	-16.21	10.19	1.94	36.74	200	256	QP

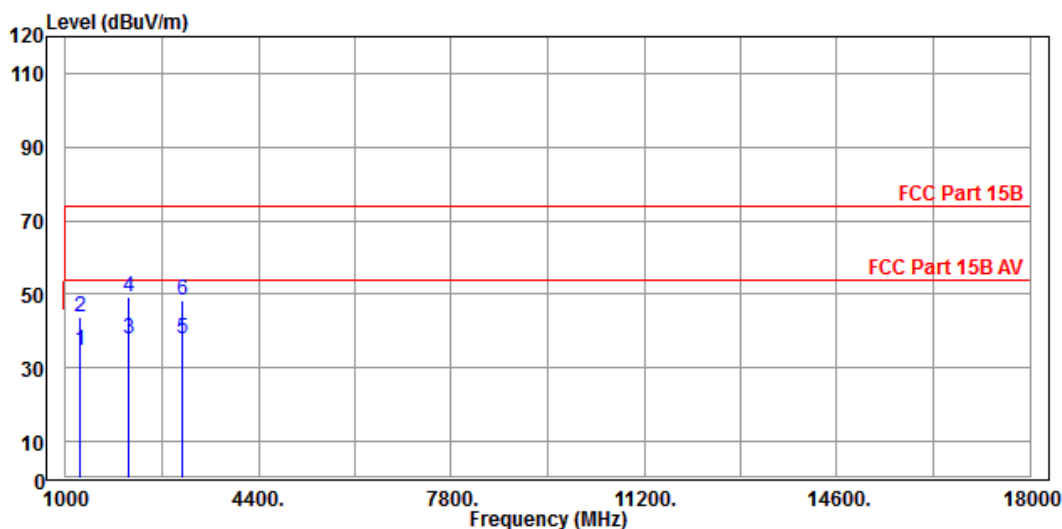
- REMARKS:**
1. Peak detector quick scan is showed on the graph and final quasi-peak detector data is measured corresponding to relevant limit and recorded in the data table.
 2. Negative sign (-) in the margin column signify levels below the limit.
 3. Frequency range scanned: 30MHz to 1000MHz.
 4.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



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	Simon Yang		

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
1250	34.64	48.31	54	-19.36	28.95	5.74	48.36	100	48	Average
1250	43.94	57.61	74	-30.06	28.95	5.74	48.36	100	48	Peak
2115	37.68	46.35	54	-16.32	32.01	7.66	48.34	100	110	Average
2115	49.17	57.84	74	-24.83	32.01	7.66	48.34	100	110	Peak
3050	37.99	44.14	54	-16.01	32.91	9.28	48.34	100	215	Average
3050	48.17	54.32	74	-25.83	32.91	9.28	48.34	100	215	Peak

- 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.





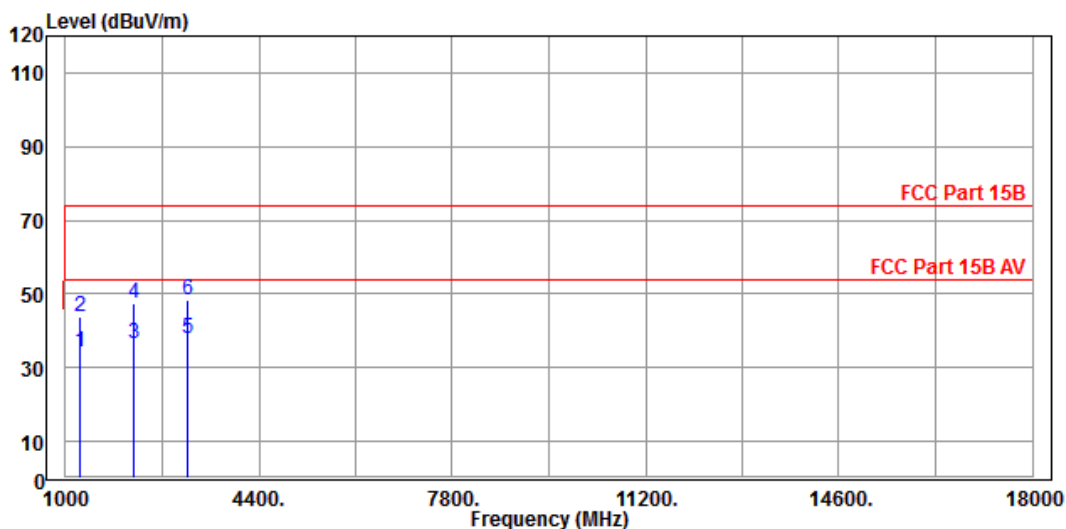
**BUREAU
VERITAS**

Test Report No.: FV180112W002

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	Simon Yang		

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
1260	34.22	47.88	54	-19.78	28.94	5.76	48.36	100	120	Average
1260	43.76	57.42	74	-30.24	28.94	5.76	48.36	100	120	Peak
2200	36.69	45.11	54	-17.31	32.1	7.81	48.33	100	80	Average
2200	47.62	56.04	74	-26.38	32.1	7.81	48.33	100	80	Peak
3150	38.03	44.02	54	-15.97	32.93	9.43	48.35	100	215	Average
3150	48.26	54.25	74	-25.74	32.93	9.43	48.35	100	215	Peak

- 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.





Test Report No.: FV180112W002

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.

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