



BUREAU
VERITAS

Test Report No.: FV170711W005



EMC TEST REPORT

Applicant:	TCL Communication Ltd.
Address:	5F, C-Tower, No.232, Liangjing Road, Zhangjiang High-tech Park, Pudong, Shanghai, China

Manufacturer or Supplier	TCL Communication Ltd.
Address	5F, C-Tower, No.232, Liangjing Road, Zhangjiang High-tech Park, Pudong, Shanghai, China
Product	MOVETIME Family Watch
Brand Name	TCL/Alcatel
Model Name	MT30W
FCC ID	2ACCJB097
Date of tests	Jul. 15, 2017 ~ Jul. 30, 2017

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 Eric Shi Engineer / Mobile Department	Approved by Bill Yao Manager / Mobile Department

Date: Jul. 31, 2017

Date: Jul. 31, 2017

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RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
FV170711W005	Original release	Jul. 31, 2017



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1 GENERAL INFORMATION

1.1 GENERAL DESCRIPTION OF EUT

PRODUCT	MOVETIME Family Watch	
BRAND NAME	TCL/Alcatel	
MODEL NAME	MT30W	
NOMINAL VOLTAGE	5.0Vdc (adapter or host equipment) 3.85Vdc (Li-polymer, battery)	
BATTERY	Brand Name: BYD Model Name: TLP004E1 Power Rating: DC 3.85V, 450mAh, Li-polymer	
MODULATION TYPE	WIFI(RX)	CCK, DQPSK, DBPSK for DSSS 64QAM, 16QAM, QPSK, BPSK for OFDM
	BT_LE	DTS
	GSM/EDGE	GMSK, 8PSK
	WCDMA	BPSK/QPSK
	GPS/ GLONASS	C/A code
OPERATING FREQUENCY	WIFI(RX)	2412 ~ 2462MHz for 11b/g/n(HT20) 2422 ~ 2452MHz for 11n(HT40)
	BT_LE	2402MHz ~ 2480MHz
	GSM/EDGE	824.2MHz ~ 848.8MHz (FOR GSM 850) 1850.2MHz ~ 1909.8MHz (FOR PCS 1900)
	WCDMA	1852.4MHz ~ 1907.6MHz (FOR WCDMA Band2) 826.4MHz ~ 846.6MHz (FOR WCDMA Band5)
	GPS	1575.42MHz
	GLONASS	1602MHz
HW VERSION	V0.2	
SW VERSION	MT30_A1_00.01_01	
I/O PORTS	Refer to user's manual	
CABLE	N/A	
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.



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2. The EUT was powered by the following adapter:

ADAPTER	
BRAND:	TCL
MODEL:	UC11US
INPUT:	AC 100-240V, 200mA
OUTPUT:	DC 5V, 1000mA
MANUFACTURER	TENPAO

3. This product has two brands for different markets requirement.

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



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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 -11.15dB at 0.440000MHz.
	Radiated Emission Test (30MHz ~ 1GHz)	PASS	Meets Class B Limit Minimum passing margin is -11.37dB at 74.62MHz
	Radiated Emission Test (Above 1GHz)	PASS	Meets Class B Limit Minimum passing margin is -14.13dB at 3480MHz

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



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1.4 DESCRIPTION OF TEST MODES

Test Mode	Test Condition
Radiated emission test	
1	GSM850 Idle+ Adapter + USB cable+ BT Idle+ WIFI Idle(2.4G)+ GPS Rx
2	GSM1900 Idle+ Adapter+ USB cable+ BT Idle+ WIFI Idle(2.4G)+ GLONASS Rx
3	WCDMA850 Idle + Adapter + USB cable+ BT Idle+ WIFI Idle(2.4G)+ GPS Rx
4	WCDMA1900 Idle + Adapter + USB cable+ BT Idle+ WIFI Idle(2.4G)+ GLONASS Rx+ mp3
Conducted emission test	
1	GSM850 Idle+ Adapter + USB cable+ BT Idle+ WIFI Idle(2.4G)+ GPS Rx
2	GSM1900 Idle+ Adapter+ USB cable+ BT Idle+ WIFI Idle(2.4G)+ GLONASS Rx
3	WCDMA850 Idle + Adapter + USB cable+ BT Idle+ WIFI Idle(2.4G)+ GPS Rx
4	WCDMA1900 Idle + Adapter + USB cable+ BT Idle+ WIFI Idle(2.4G)+ GLONASS Rx+ mp3

NOTE:

1. For conducted emission test, test mode 4 was the worst case and only this mode was presented in this report.
2. For radiated emission test, test mode 4 was the worst case and only this mode was presented in this report.



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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
5	USB cable	N/A	N/A	N/A	N/A
6	Mobile Phone	HTC	A53	N/A	N/A

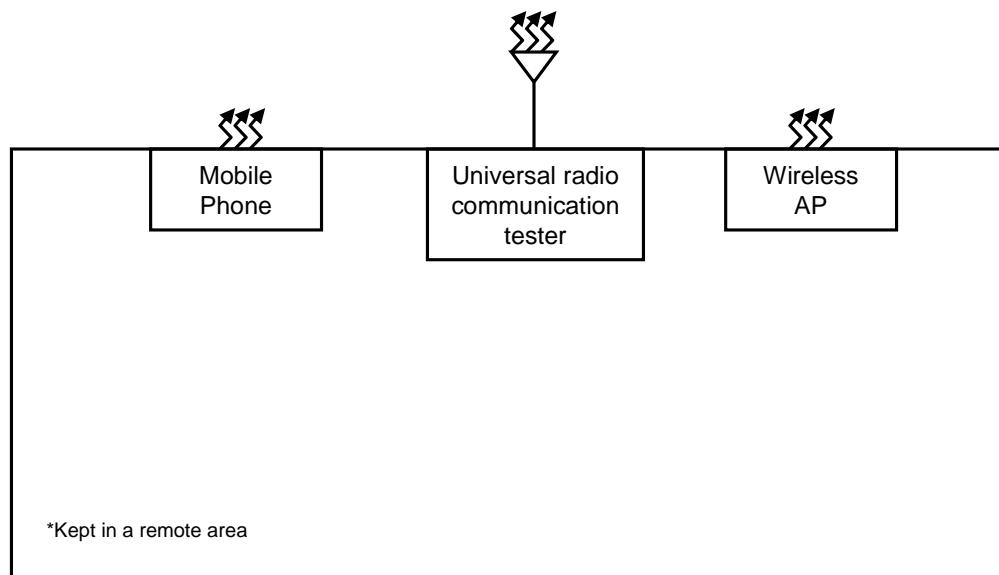
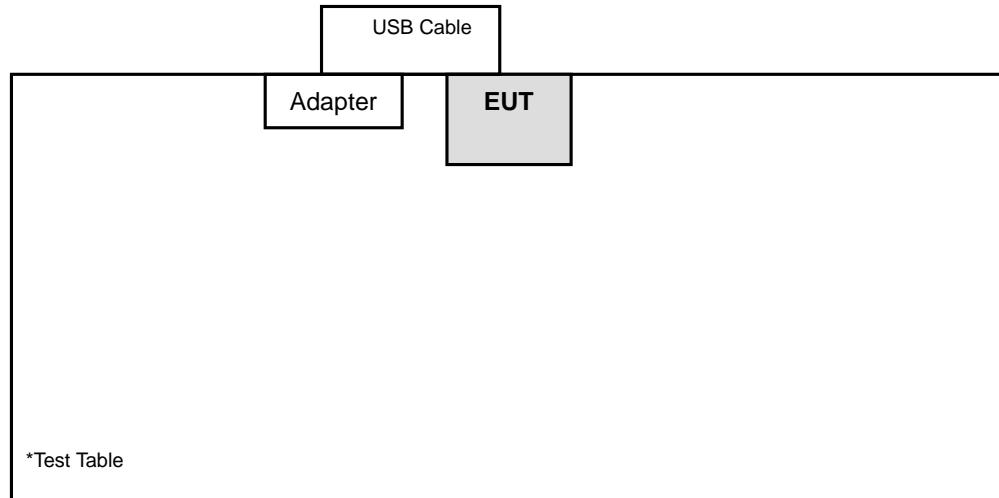
NO.	SIGNAL CABLE DESCRIPTION OF THE ABOVE SUPPORT UNITS
1	N/A
2	DC Line: Unshielded, Undetachable, 2.0m
3	USB Line: Shielded, Detachable 1.5m;
4	USB Line: Unshielded, Undetachable 1.8m;
5	N/A
6	N/A



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1.6 CONFIGURATION OF SYSTEM UNDER TEST





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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. 21, 16	Sep. 20, 17

NOTE: 1. 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. The test was performed in Shielded Room 553.



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

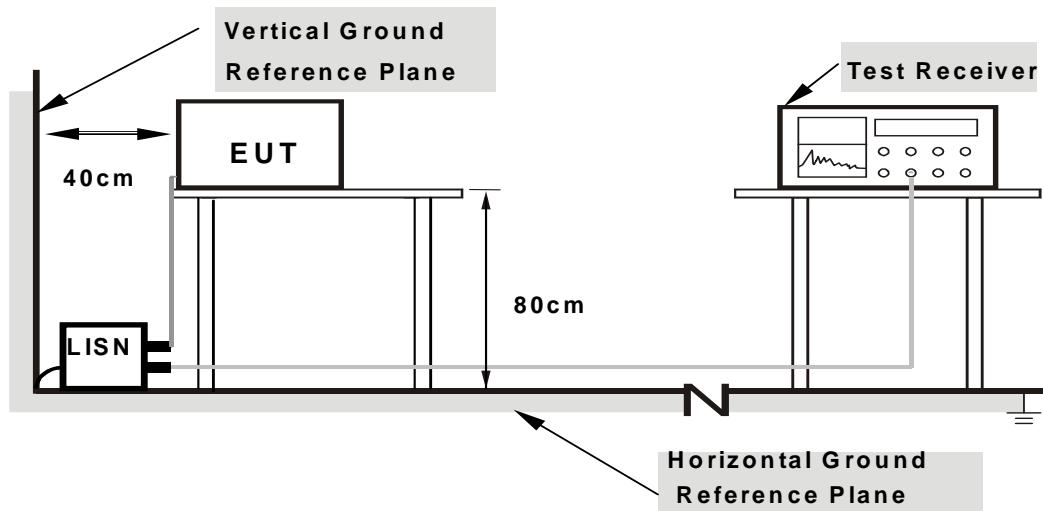
No deviation.



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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 cm 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.



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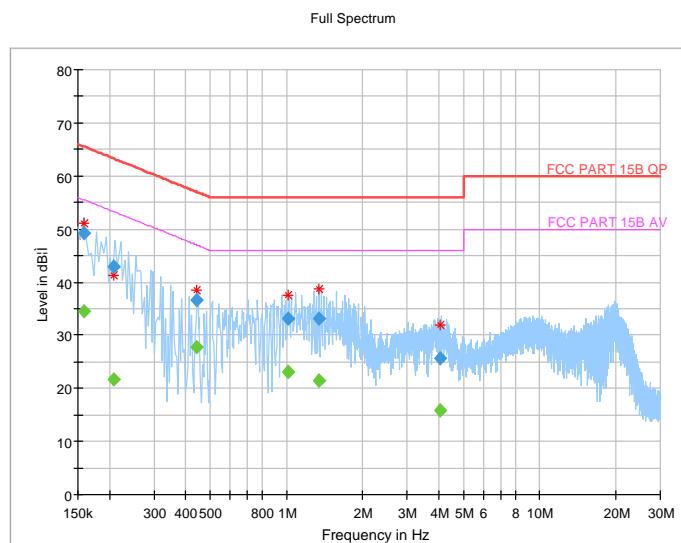
2.1.7 TEST RESULTS

TEST VOLTAGE	DC 5V From Adapter Input 120 Vac, 60 Hz	Detector Function & Resolution Bandwidth	Quasi-Peak (QP) / Average (AV), 9 kHz
ENVIRONMENTAL CONDITIONS	24deg. C, 55RH	TESTED BY	Jocan Guo

Frequency (MHz)	QuasiPeak (dB μ V)	CAverage (dB μ V)	Limit (dB μ V)	Margin (dB)	Line	Filter	Corr. (dB)
0.158000	---	34.48	55.57	-21.09	L	ON	9.6
0.158000	49.15	---	65.57	-16.42	L	ON	9.6
0.208000	---	21.60	53.28	-31.68	L	ON	9.7
0.208000	42.92	---	63.28	-20.36	L	ON	9.7
0.444000	---	27.78	46.99	-19.21	L	ON	9.7
0.444000	36.65	---	56.99	-20.34	L	ON	9.7
1.020000	---	23.05	46.00	-22.95	L	ON	9.7
1.020000	33.05	---	56.00	-22.95	L	ON	9.7
1.340000	---	21.56	46.00	-24.44	L	ON	9.7
1.340000	33.10	---	56.00	-22.90	L	ON	9.7
4.052000	---	15.90	46.00	-30.10	L	ON	9.7
4.052000	25.64	---	56.00	-30.36	L	ON	9.7

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.



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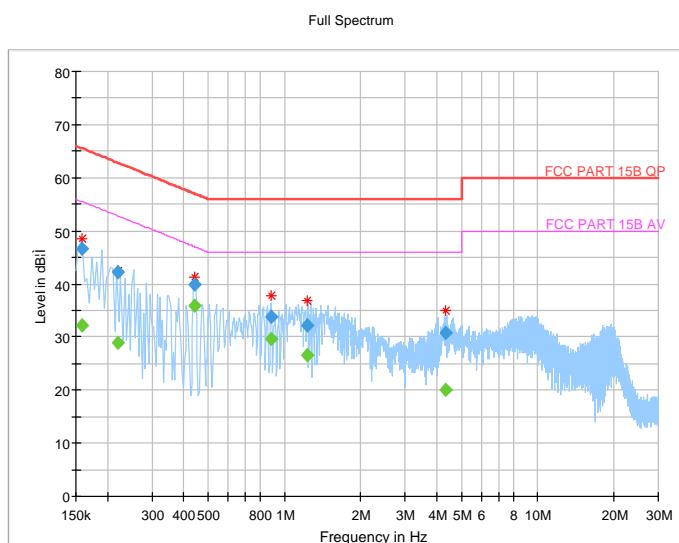
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TEST VOLTAGE	DC 5V From Adapter Input 120 Vac, 60 Hz	Detector Function & Resolution Bandwidth	Quasi-Peak (QP) / Average (AV), 9 kHz
ENVIRONMENTAL CONDITIONS	24deg. C, 55RH	TESTED BY	Jocan Guo

Frequency (MHz)	QuasiPeak (dBuV)	CAverage (dBuV)	Limit (dBuV)	Margin (dB)	Line	Filter	Corr. (dB)
0.158000	---	32.27	55.57	-23.30	N	ON	10.1
0.158000	46.66	---	65.57	-18.91	N	ON	10.1
0.220000	---	28.85	52.82	-23.97	N	ON	9.9
0.220000	42.11	---	62.82	-20.71	N	ON	9.9
0.440000	---	35.91	47.06	-11.15	N	ON	10.1
0.440000	39.83	---	57.06	-17.23	N	ON	10.1
0.888000	---	29.51	46.00	-16.49	N	ON	9.9
0.888000	33.87	---	56.00	-22.13	N	ON	9.9
1.236000	---	26.60	46.00	-19.40	N	ON	9.9
1.236000	32.15	---	56.00	-23.85	N	ON	9.9
4.348000	---	20.06	46.00	-25.94	N	ON	9.8
4.348000	30.74	---	56.00	-25.26	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.





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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		
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 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		
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: 60	Avg: 54	Avg: 56	Avg: 50
3000+	Peak: 80	Peak: 74	Peak: 76	Peak: 70
			Avg: 60	Avg: 54
			Peak: 80	Peak: 74



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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 (dB_uV/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.



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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.
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, GRRG/CHINA and NIM/CHINA.



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. 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.



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<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 3MHz 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.

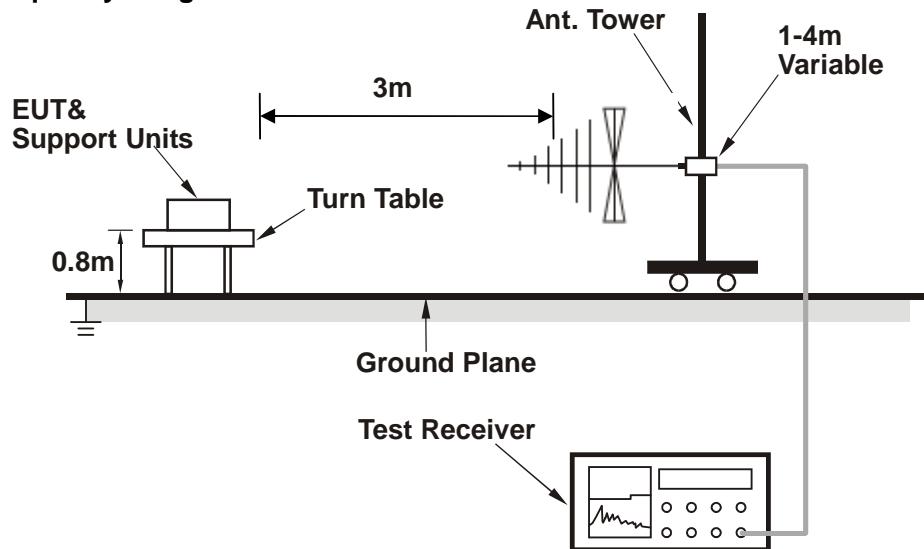


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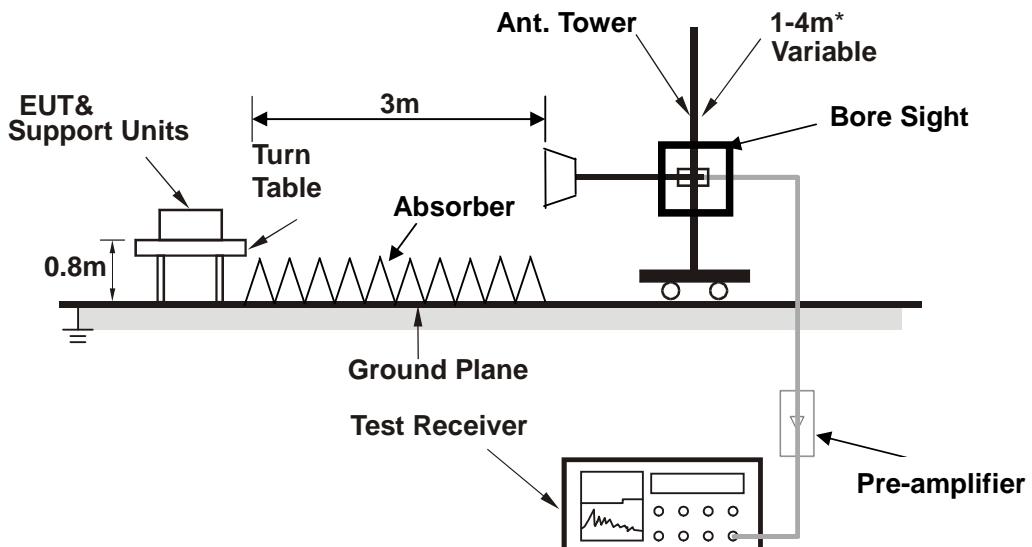
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2.2.5 TEST SETUP

<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.



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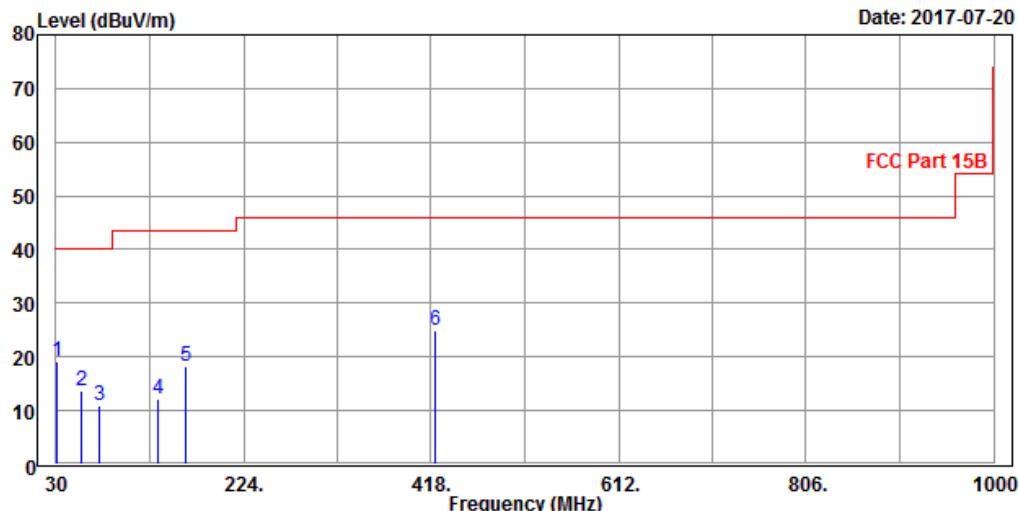
2.2.7 TEST RESULTS

TEST VOLTAGE	DC 5V From Adapter Input 120 Vac, 60 Hz	FREQUENCY RANGE	30-1000 MHz
ENVIRONMENTAL CONDITIONS	24deg. C, 58 %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
30.97	19.13	39.45	40	-20.87	16.43	0.8	37.55	100	96	QP
56.19	13.65	43.41	40	-26.35	6.44	1.14	37.34	100	315	QP
74.62	10.88	40	40	-29.12	6.76	1.33	37.21	100	35	QP
135.73	12.21	39.45	43.5	-31.29	7.83	1.79	36.86	100	230	QP
164.83	18.39	43.03	43.5	-25.11	10.13	1.96	36.73	100	165	QP
422.85	24.8	40.88	46	-21.2	17.47	3.22	36.77	100	206	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.



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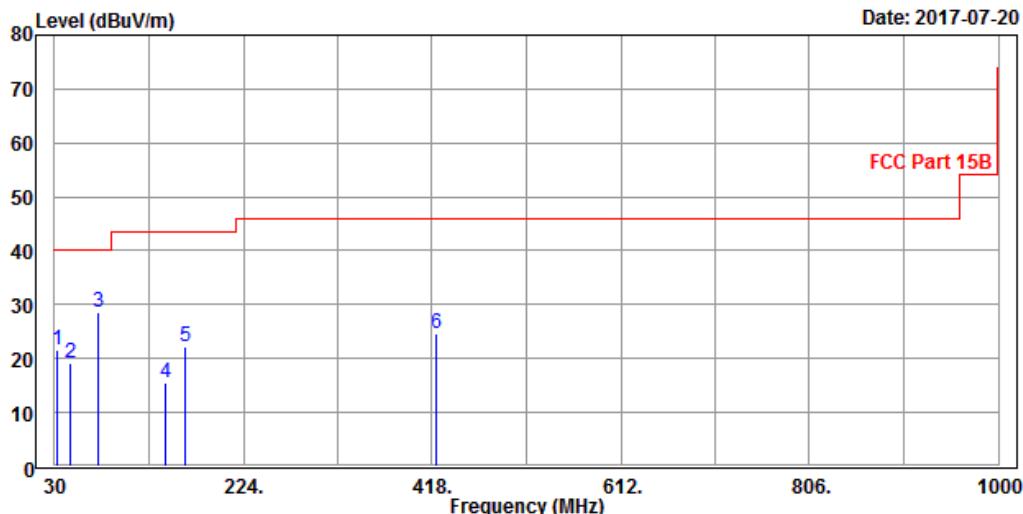
Test Report No.: FV170711W005

TEST VOLTAGE	DC 5V From Adapter Input 120 Vac, 60 Hz	FREQUENCY RANGE	30-1000 MHz
ENVIRONMENTAL CONDITIONS	24deg. C, 58 %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
32.91	21.5	43.11	40	-18.5	15.09	0.84	37.54	100	35	QP
46.49	19.3	47.89	40	-20.7	7.8	1.03	37.42	100	130	QP
74.62	28.63	57.75	40	-11.37	6.76	1.33	37.21	100	278	QP
144.46	15.63	42.06	43.5	-27.87	8.54	1.85	36.82	100	66	QP
164.83	22.26	46.9	43.5	-21.24	10.13	1.96	36.73	100	175	QP
422.85	24.52	40.6	46	-21.48	17.47	3.22	36.77	100	214	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.





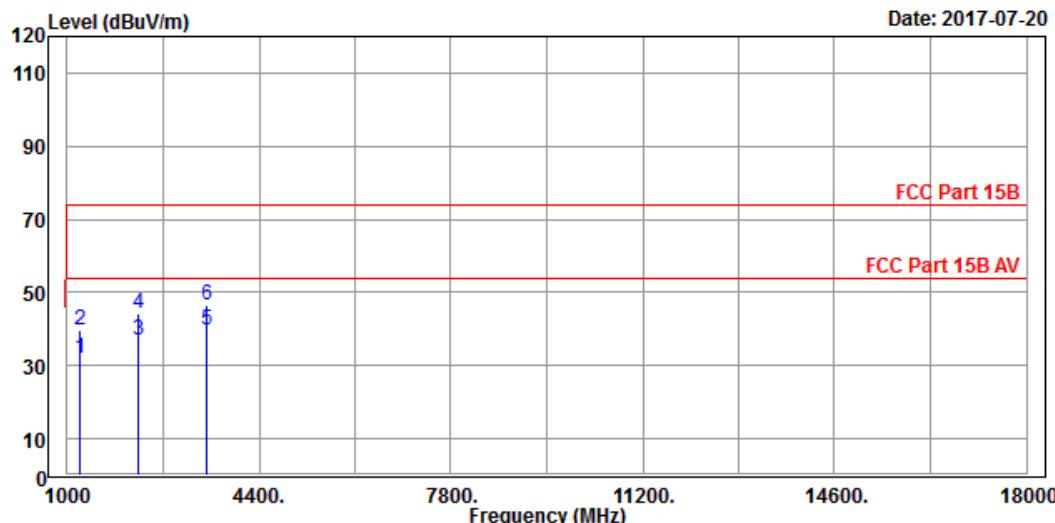
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Test Report No.: FV170711W005

TEST VOLTAGE	DC 5V From Adapter Input 120 Vac, 60 Hz	FREQUENCY RANGE	1-18 GHz
ENVIRONMENTAL CONDITIONS	20deg. C, 58 %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
1230	32.06	43.62	54	-21.94	28.97	5.69	46.22	100	65	Average
1230	39.82	51.38	74	-34.18	28.97	5.69	46.22	100	65	Peak
2255	37.1	43	54	-16.9	32.15	7.91	45.96	100	325	Average
2255	44.21	50.11	74	-29.79	32.15	7.91	45.96	100	325	Peak
3480	39.87	42.78	54	-14.13	33	9.92	45.83	100	156	Average
3480	46.44	49.35	74	-27.56	33	9.92	45.83	100	156	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.





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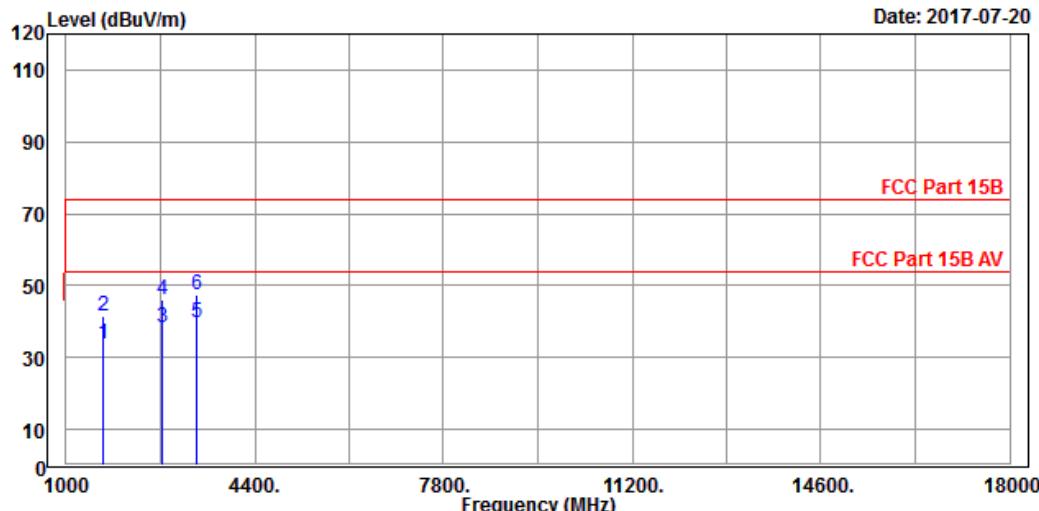
Test Report No.: FV170711W005

TEST VOLTAGE	DC 5V From Adapter Input 120 Vac, 60 Hz	FREQUENCY RANGE	1-18 GHz
ENVIRONMENTAL CONDITIONS	20deg. C, 58 %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
1670	33.81	43.44	54	-20.19	29.79	6.7	46.12	100	98	Average
1670	41.63	51.26	74	-32.37	29.79	6.7	46.12	100	98	Peak
2720	38.32	42.83	54	-15.68	32.62	8.73	45.86	100	223	Average
2720	45.89	50.4	74	-28.11	32.62	8.73	45.86	100	223	Peak
3350	39.71	42.84	54	-14.29	32.97	9.73	45.83	100	166	Average
3350	47.39	50.52	74	-26.61	32.97	9.73	45.83	100	166	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.





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VERITAS** Test Report No.: FV170711W005

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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