
TEST REPORT

Report No.: SRTC2017-9003(F)-0011
Product Name: Mobile Phone
Model Name: Hisense L675 PRO
Applicant: Hisense International Co., Ltd.
Manufacturer: Hisense Communications Co., Ltd.
Specification: FCC Part15B (2017 edition)
FCC ID: 2ADOBL675PRO

The State Radio_monitoring_center Testing Center (SRTC)
15th Building, No.30 Shixing Street, Shijingshan District,
Beijing, China

Tel: 86-10-57996183 Fax: 86-10-57996388

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1. General information

1.1 Notes of the test report

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The test results relate only to individual items of the samples which have been tested.

1.2 Information about the testing laboratory

Company: The State Radio_monitoring_center Testing Center (SRTC)
Address: 15th Building, No.30 Shixing Street, Shijingshan District
City: Beijing
Country or Region: China
Contacted person: Liu Jia
Tel: +86 10 57996183
Fax: +86 10 57996388
Email: liujiaf@srtc.org.cn

1.3Applicant's details

Company: Hisense International Co., Ltd.
Address: Floor 22, Hisense Tower, 17 Donghai Xi Road, Qingdao, 266071, China
Country or Region: P.R.China
Contacted person: Zhang Hanhan
Tel: 86-532-55753706
Fax: ---
Email: zhanghanhan@hisense.com

1.4Manufacturer's details

Company: Hisense Communications Co., Ltd.
Address: 218 Qianwangang Road, Economic & Technological Development Zone, Qingdao, Shandong Province, P.R. China
City: Qingdao
Country or Region: P.R.China
Contacted person: Li Xin
Tel: 86-532-55755993
Fax: ---
Email: linxin12@hisense.com

1.5 Application details

Date of reception of test sample: 28th November 2017

Date of test: 28th November 2017 to 7th December 2017

1.6 Reference specification

FCC Part 15B, 2017 (Certification)

1.7 Information of EUT

1.7.1 General information

Name of EUT	Mobile Phone
FCC ID	2ADOBL675PRO
Modulation Type	GSM/GPRS:GMSK EDGE:GMSK WCDMA:QPSK LTE:QPSK; 16QAM
Equipment Class	Class B
Antenna Type	PIFA Antenna
Power Supply	Battery or Charger
Rated Power Supply Voltage	3.8V
Extreme Voltage	Minimum: 3.5V Maximum: 4.35V
HW Version	V1.00
SW Version	L1402.6.01.00.MX05

1.7.2 EUT details

Product Name	Model Name	IMEI
Mobile Phone	Hisense L675 PRO	002101541722314

1.7.3 Auxiliary equipment details

AE (Auxiliary Equipment) 1#: Charger

Equipment	TRAVELCHARGER
Manufacturer	DONGGUAN AOHAI POWER TECHNOLOGY CO.,LTD.
Model Number	A31-501000
Input Voltage	100V-240V AC
Output Voltage	5.0V DC
Frequency	50/60Hz

AE (Auxiliary Equipment) 2-1#: Battery

Equipment	Battery
Manufacturer	TMB
Model Number	LIW38238
S/N	/
Rated Voltage	3.8V

AE (Auxiliary Equipment) 2-2#: Battery

Equipment	Battery
Manufacturer	VEKEN
Model Number	LIW38238
S/N	/
Rated Voltage	3.8V

AE (Auxiliary Equipment) 3#: Headset

Equipment	Headset
Manufacturer	DONGGUAN HETONG INDUSTRIAL CO.,LTD
Model Number	PY-1309102-05KD45

AE (Auxiliary Equipment) 4-1#: USB Cable

Equipment	USB Cable
Manufacturer	FKY
Model Number	FKYM1-2828L08WHR

AE (Auxiliary Equipment) 4-2#: USB Cable

Equipment	USB Cable
Manufacturer	KOAR
Model Number	FKYM1-2828L08WHR

Note :The equipment is an variation device, add secondary source with Memory. After assessment, select the worst configuration with charger to perform conducted and radiated emission testing(30MHz-1GHz). The original test report refer to report

No.:BTL-FCCE-1-1705C280B.

2. Test information

2.1 Summary of the test results

No.	Test case	FCC reference	Verdict
1	Conducted emissions	15.107	Pass
2	Radiated emissions	15.109	Pass

Approved by Mr. Liu Wei Director of the test department 刘巍	Checked by Mr. He Jia Project manager of the test department 何佳
Tested by: Mr. Chen Huaiwei Test engineer 陈怀蔚	Issued date: 2017.12.12

2.2 Test result

2.2.1 Conducted Emissions-FCC Part15.107

Ambient condition:

Temperature	Relative humidity	Pressure
23.8°C	45.8%	100.8kPa

Test Setup with charger:

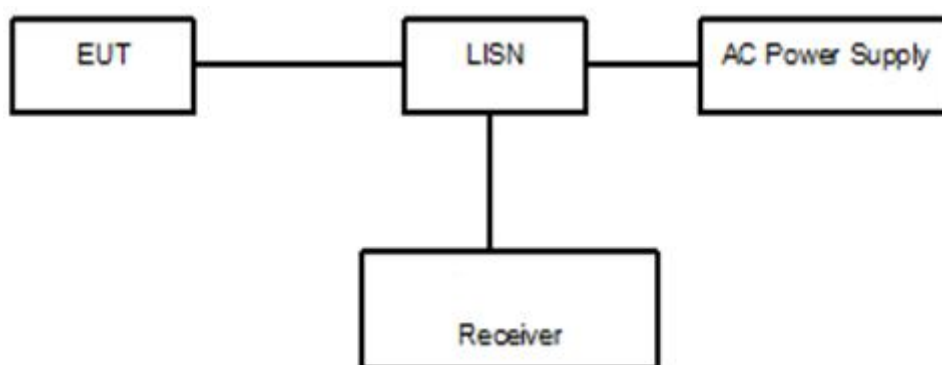


Figure 1

Test Procedure:

The EUT is placed on a non-metallic table 0.8m above the horizontal metal reference ground plane. The EUT is connected with LISN via the charger. The LISN is connected to the reference ground. The accessories of the EUT are connected with the EUT such as headset etc.

The test set-up and the test methods are performed according to ANSI C63.4:2014. Then start the test software EMC 32. Sweep the whole frequency band through the range from 150 KHz to 30 MHz . The measurement should be done for both L line and N line. During pre-test, the receiver uses both peak detector and average detector. And the final test, the receiver uses both average detector and Quasi-peak detector.

The data of cable loss has been calibrated in full testing frequency range before the testing.

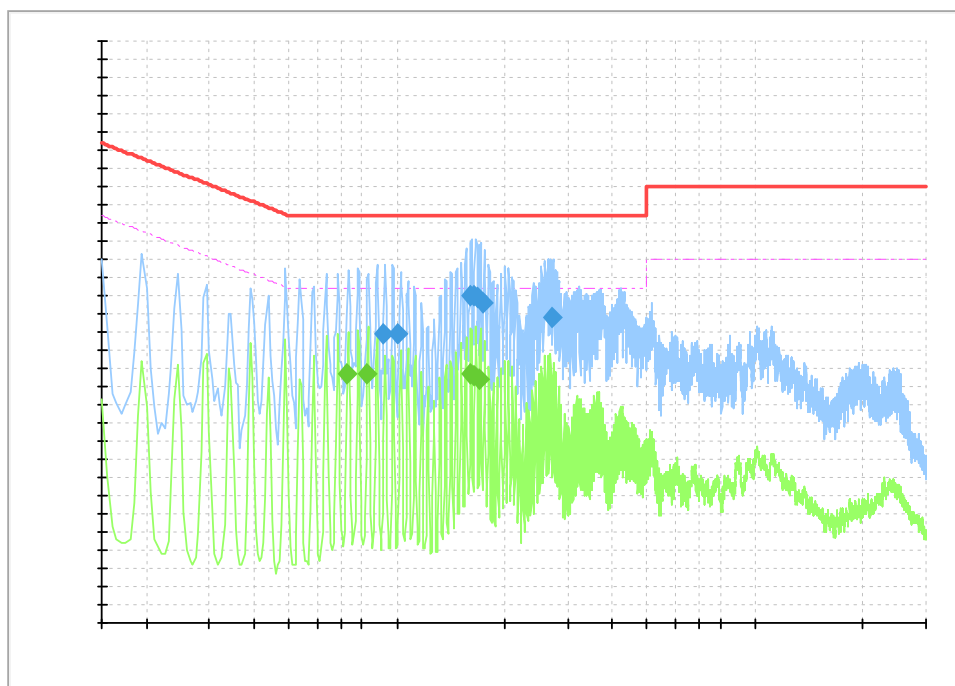
Limit:

Frequency of Emission(MHz)	Limits(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: * Decreases with the logarithm of the frequency

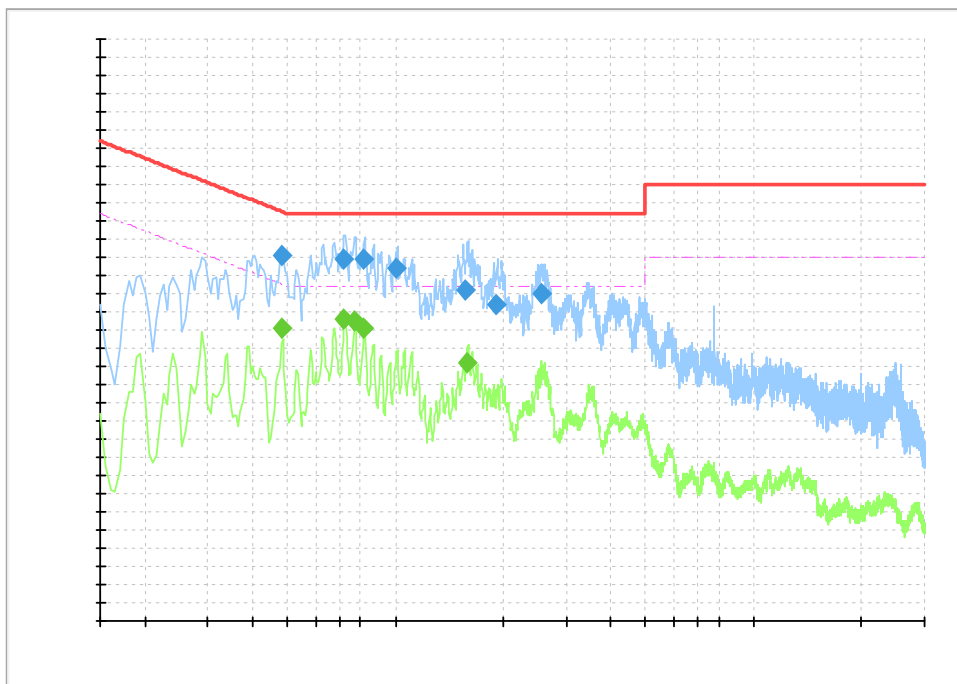
Test result:

EUT+Charger



Pic1.Conducted emission L Line

Frequency (MHz)	QuasiPeak (dB μ V)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dB μ V)	Comment
0.920000	39.8	100.0	9.000	On	L1	9.9	16.2	56.0	
1.010000	39.8	100.0	9.000	On	L1	9.8	16.2	56.0	
1.600000	45.0	100.0	9.000	On	L1	9.8	11.0	56.0	
1.640000	45.1	100.0	9.000	On	L1	9.8	10.9	56.0	
1.680000	44.7	100.0	9.000	On	L1	9.8	11.3	56.0	
1.740000	43.9	100.0	9.000	On	L1	9.8	12.1	56.0	
2.710000	42.0	100.0	9.000	On	L1	9.8	14.0	56.0	



Pic2.Conducted emission N Line

Frequency (MHz)	QuasiPeak (dB μ V)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dB μ V)	Comment
0.480000	50.2	100.0	9.000	On	N	10.1	6.2	56.3	
0.715000	49.6	100.0	9.000	On	N	10.0	6.4	56.0	
0.815000	49.8	100.0	9.000	On	N	10.0	6.2	56.0	
1.010000	48.6	100.0	9.000	On	N	9.9	7.4	56.0	
1.575000	45.4	100.0	9.000	On	N	9.8	10.6	56.0	
1.915000	43.5	100.0	9.000	On	N	9.8	12.5	56.0	
2.555000	45.0	100.0	9.000	On	N	9.8	11.0	56.0	

Frequency (MHz)	Average (dB μ V)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dB μ V)	Comment
0.480000	40.2	100.0	9.000	On	N	10.1	6.1	46.3	
0.720000	41.4	100.0	9.000	On	N	10.0	4.6	46.0	
0.765000	41.2	100.0	9.000	On	N	10.0	4.8	46.0	
0.815000	40.2	100.0	9.000	On	N	10.0	5.8	46.0	
1.590000	35.4	100.0	9.000	On	N	9.8	10.6	46.0	

2.2.2 RadiatedEmissions-FCC Part15.109

Ambient condition:

Temperature	Relative humidity	Pressure
24.9°C	43.7%	100.8kPa

Test Setup:

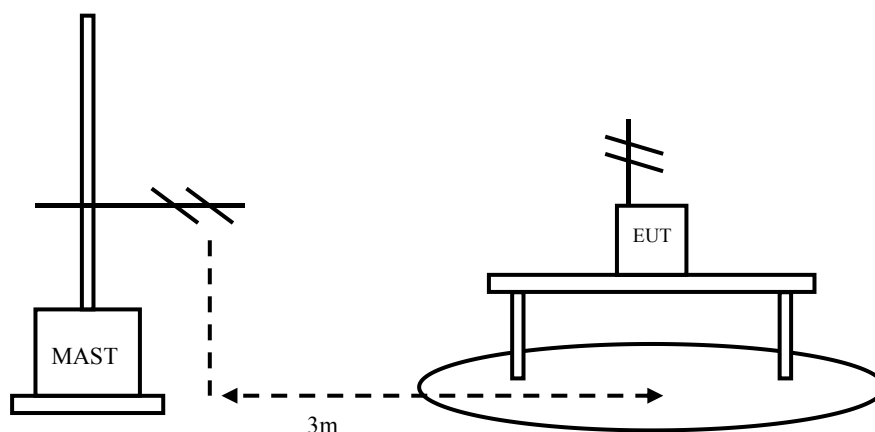


Figure 2

Test Procedure:

EUT+Charger:

The EUT should be placed on a non-metallic table 80cm above the ground plane. The receive antennas shall be moved from 1 to 4 meters. The distance between EUT and receive antenna should be 3 meters.

The EUT should work in idle mode. The accessories of the EUT are connected with the EUT such as headset etc. The test set-up and the test methods are performed according to ANSI C63.4:2014.

Then start the test software EMC 32. Sweep the whole frequency band through the range from 30MHz to 1GHz, using receive log period antenna HL562.

During the test, the height of receive antenna shall be moved from 1 to 4 meters, and the antenna shall be performed under horizontal and vertical polarization. The turn table shall be rotated from 0 to 360 degrees for detecting the maximum of radiated spurious signal level. The measurements shall be repeated with orthogonal polarization of the test antenna. The EUT is laid in two modes as follow:
1. put the EUT in horizontal direction; 2. put the EUT in vertical direction.

The data of cable loss and antenna factor have been calibrated in full testing

frequency range before the testing.

A “reference path loss” is established and the A_{Rpl} is the attenuation of “reference path loss”, and including the gain of receive antenna, the gain of the preamplifier, the cable loss.

The measurement results are obtained as described below:

$$\text{Result} = P_{\text{mea}} + A_{Rpl}$$

Limit:

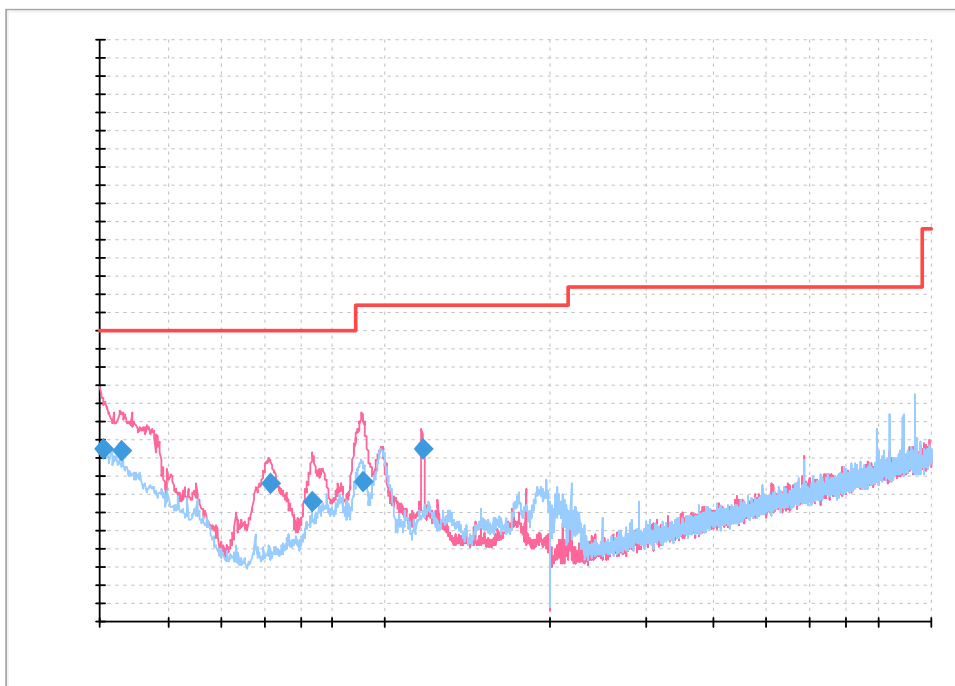
Frequency of Emission(MHz)	Limits	
	Detector	Unit (dB μ V/m)
30~88	Quasi-peak	40
88~216	Quasi-peak	43.5
216~960	Quasi-peak	46
960~1000	Quasi-peak	54
1000~5th harmonic of the highest frequency or 40GHz, whichever is lower	Average	54
	Peak	74

Test result:

EUT+Charger

Frequency(MHz)	Result(dBuV/m)	ARpl (dB)	Pmea (dBuV/m)	Polarity
30.420000	23.9	8.2	15.7	Vertical
32.775331	23.5	8.2	15.3	Vertical
61.462285	19.0	9.4	9.6	Vertical
73.566974	16.5	10.7	5.8	Vertical
90.711202	19.2	11.7	7.5	Vertical
117.233267	23.7	15.2	8.5	Vertical

EUT+Charger:

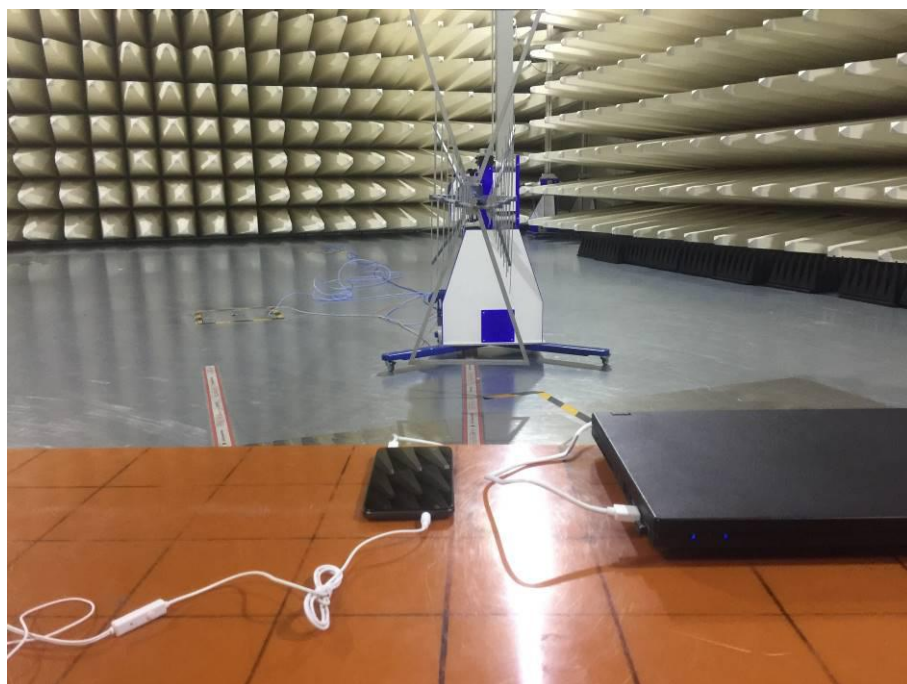


Pic3.Radiated emission

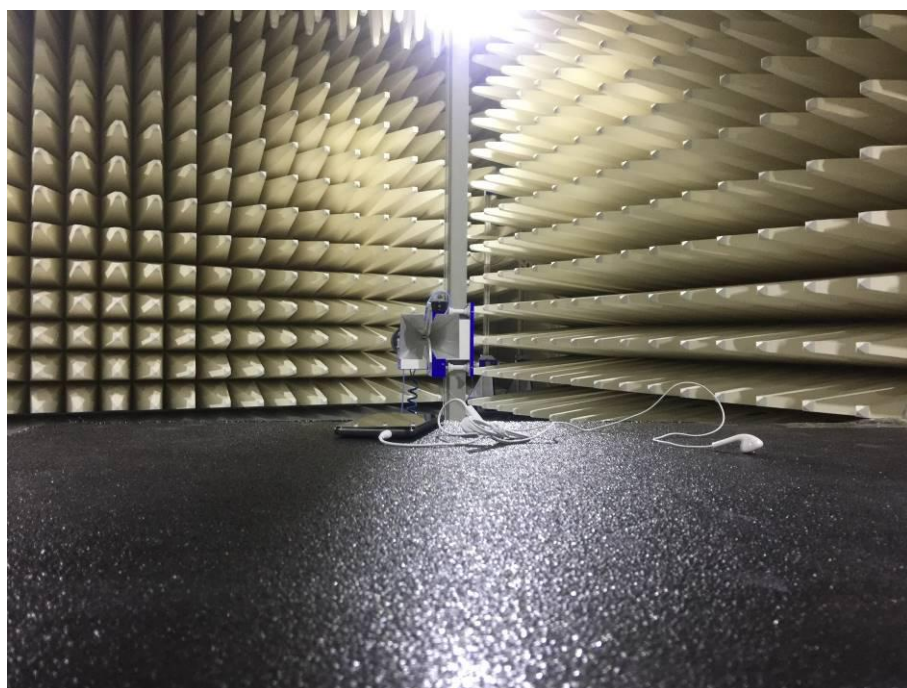
2.3. List of test equipment

No.	Name/Model	Manufacturer	S/N	Calibration Date	Calibration Due Date
1	23.18m×16.88m×9.60m Semi-Anechoic Chamber	FRANKONIA	-----	2017.8.20	2018.8.19
2	ESI 40EMI test receiver	R&S	100015	2017.8.20	2018.8.19
3	E5515C(8960) Mobile Station Tester	Agilent	GB44050904	2017.8.20	2018.8.19
4	9.080m×5.255m×3.525m Shielding room	FRANKONIA	-----	2017.8.20	2018.8.19
5	ESCS30EMI test receiver	R&S	100029	2017.8.20	2018.8.19
6	HL562Ultra log test antenna	R&S	100016	2017.8.20	2018.8.19
7	ESH3-Z2 Pulse limiter	R&S	10002	2017.8.20	2018.8.19
8	ENV216 AMN	R&S	3560.6550.12	2017.8.20	2018.8.19
9	ESH2Z11 LISN	R&S	50FH-020-10	2017.8.20	2018.8.19
10	HF 906 Double-Ridged Waveguide Horn Antenna	R&S	100030	2017.8.20	2018.8.19
11	PS2000 Turn Table	FRANKONIA	-----	-----	-----
12	MA260 Antenna Master	FRANKONIA	-----	-----	-----
13	EMC 32 EMI test software	R&S	-----	-----	-----

Appendix1 Test Setup



Radiated Emissions Test Setup (with computer)



Radiated Emissions Test Setup (with charger)



Conducted Emissions Test Setup (with charger)