

EN 62479:2010
ASSESSMENT REPORT

For

Advanced Technologies SRL.

Ion Heliade Radulescu nr 26, Bucharest 021255, ROMANIA

Model: ZUN X

Report Type: Amended Report	Product Type: Smartphone
Test Engineer: Haiguo Li	<i>haiguo li</i>
Report Number: RSZ160302004A1	
Report Date: 2016-03-17	
Reviewed By: RF Engineer	<i>Bell Hu</i>
Prepared By:	Bay Area Compliance Laboratories Corp. (Shenzhen) 6/F, the 3rd Phase of WanLi Industrial Building ShiHua Road, FuTian Free Trade Zone Shenzhen, Guangdong, China Tel: +86-755-33320018 Fax: +86-755-33320008 www.baclcorp.com.cn

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DOCUMENT REVISION HISTORY

Revision Number	Report Number	Description of Revision	Date of Revision
0	RSZ151208012	Original Report	2015-12-30
1	RSZ160302004A1	Amended Report	2016-03-17

Note: This is an amended report based on the original report RSZ151208012 issued on 2015-12-30, the detailed differences between the original device and the current one were as below:

(1) Changing the applicant from “Shenzhen East Xinyi Electronic Techonology Co., Ltd.” with address “Room 20A, TAIBANG Techonology bldg, High-Tech Park, Nanshan District, Shenzhen, China” to “Advanced Technologies SRL.” with address “Ton Heliade Radulescu nr 26, Bucharest 021255, ROMANIA”.

(2) Changing the model number from “EX8535, EX8537” to “ZUN X”.

(3) Changing the product name from “Brondi 530 4G HD” to “Smartphone”.

(4) Changing the trade name from “East Xinyi” to “vonino”.

(5) Changing the silk screen of EUT appearance.

(6) Changing the flash from 1G to 2G memory.

(7) Changing the device’s storage from 8G to 16G memory.

(8) Changing the pixels of the rear camera from 2.0M to 5.0M.

(9) Changing adapter and the battery label.

(10) Adding LTE band 38 through a software operation.

(11) Upgrading the standard from “ETSI EN 301 908-1 V6.2.1 (2013-04)” to “ETSI EN 301 908-1 V7.1.1 (2015-03)”.

Based on the above difference, it will not affect the test data. We just updated the EUT photos, the other photos and all test data please refer to the original report RSZ151208012 issued on 2015-12-30.

EXHIBIT A - CE PRODUCT LABELING

Proposed CE Label Format

CE 1313

Specifications: The marking set out above must be affixed to the apparatus or to its data plate and have a minimum height of 5 mm. The elements should be easily readable and indelible. They may be placed anywhere on the apparatus case or in its battery compartment. No tool should be needed to view the marking. 1313: 4 digit notified body number.

Note: The label should contain the below content:

- ① The name of the manufacturer or the person responsible for placing the apparatus on the market
- ② Type
- ③ Batch and/or serial numbers

Proposed Label Location on EUT



EXHIBIT B - EUT PHOTOGRAPHS

EUT – All View



EUT – Front View



EUT – Rear View



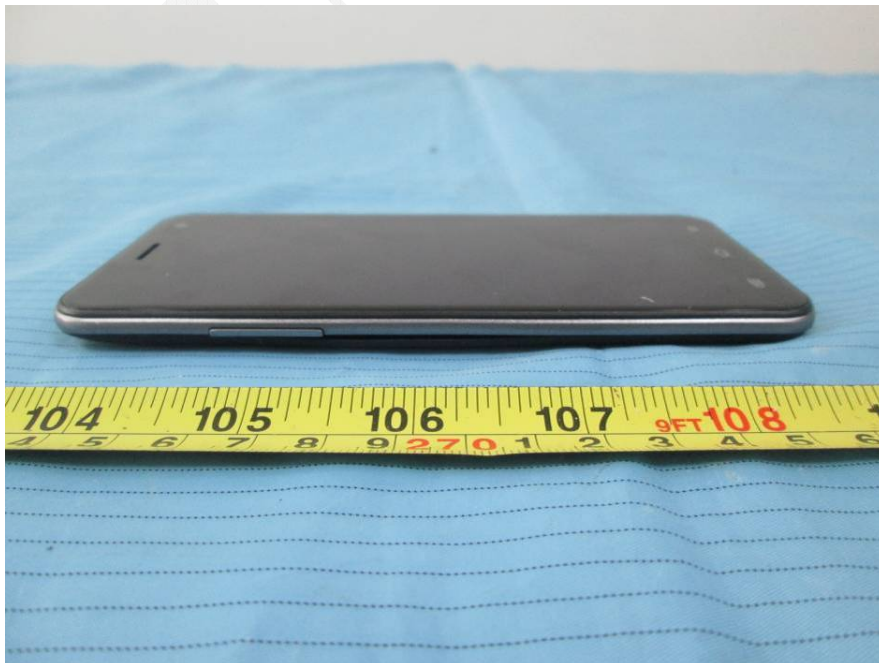
EUT – Top View



EUT – Bottom View



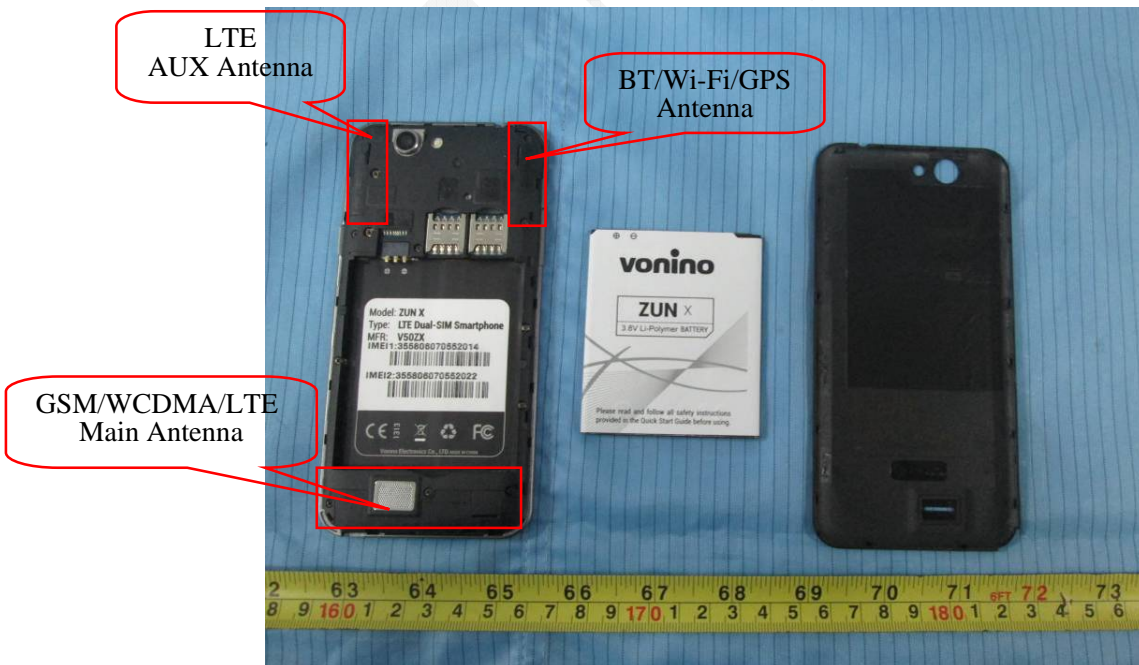
EUT – Left Side View



EUT – Right Side View



EUT –Cover off View 1



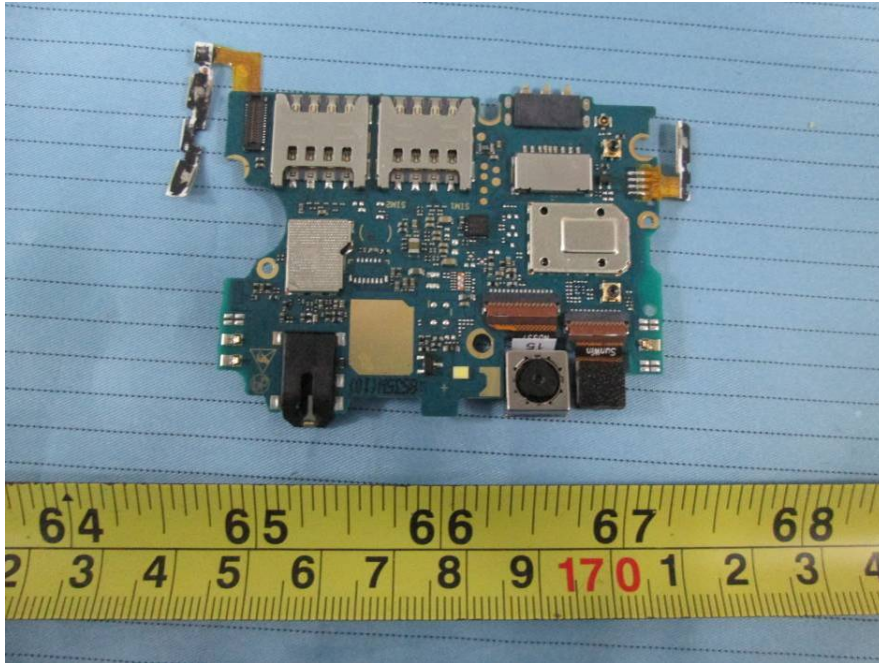
EUT –Cover off View 2



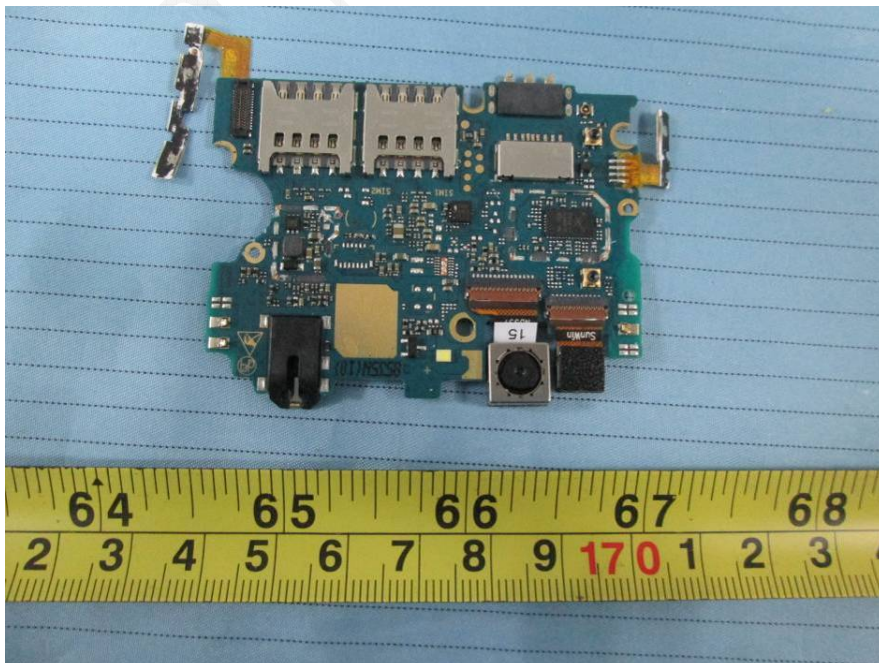
EUT –Cover off View 3



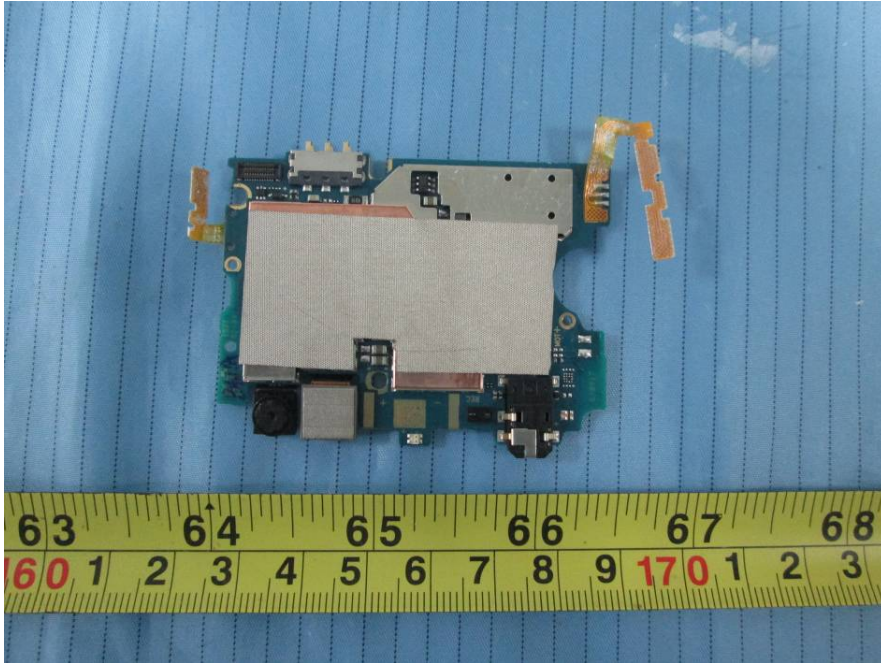
EUT – Main Board Top View



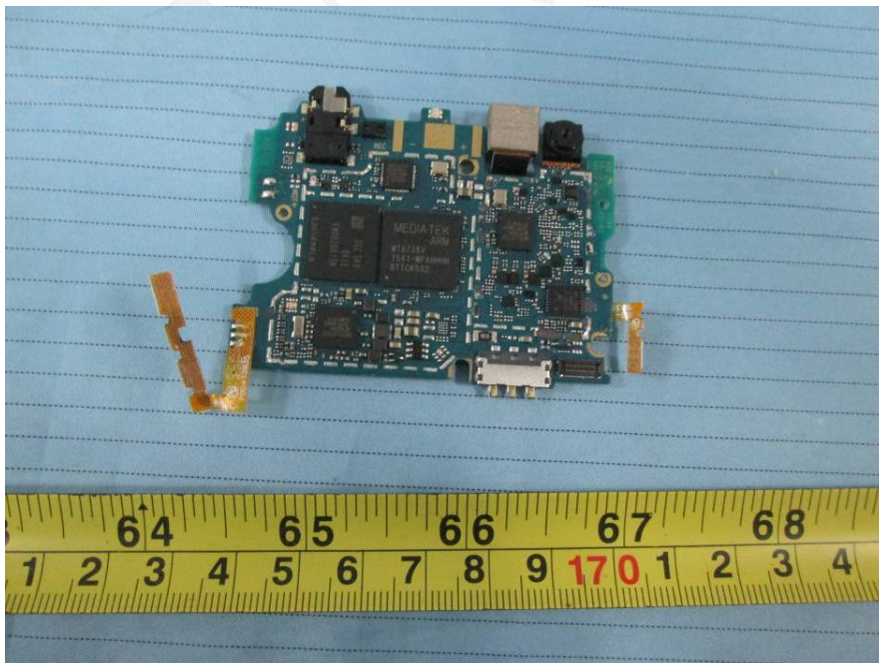
EUT – Main Board Top Shielding off View



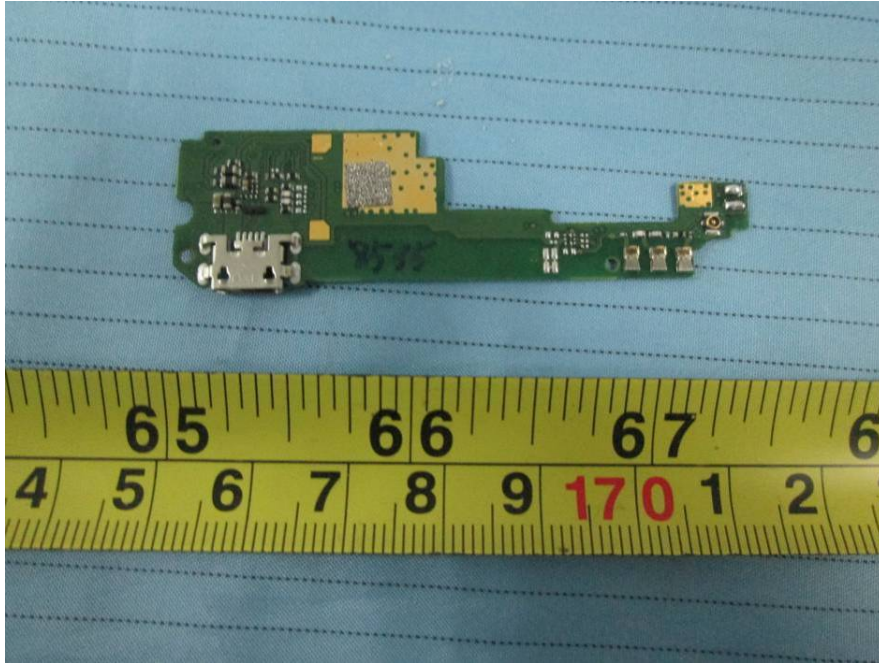
EUT – Main Board Bottom View



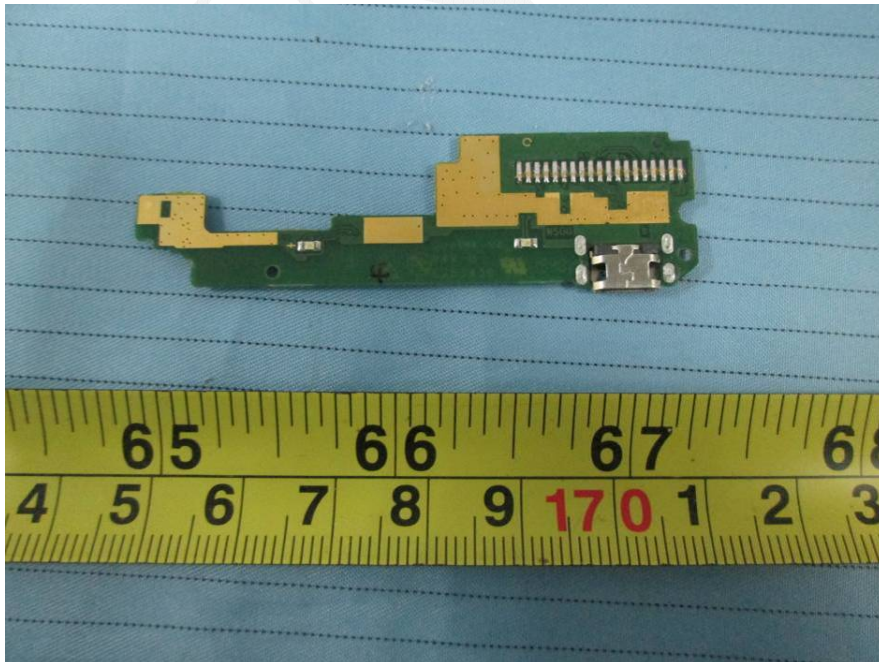
EUT – Main Board Bottom Shielding off View



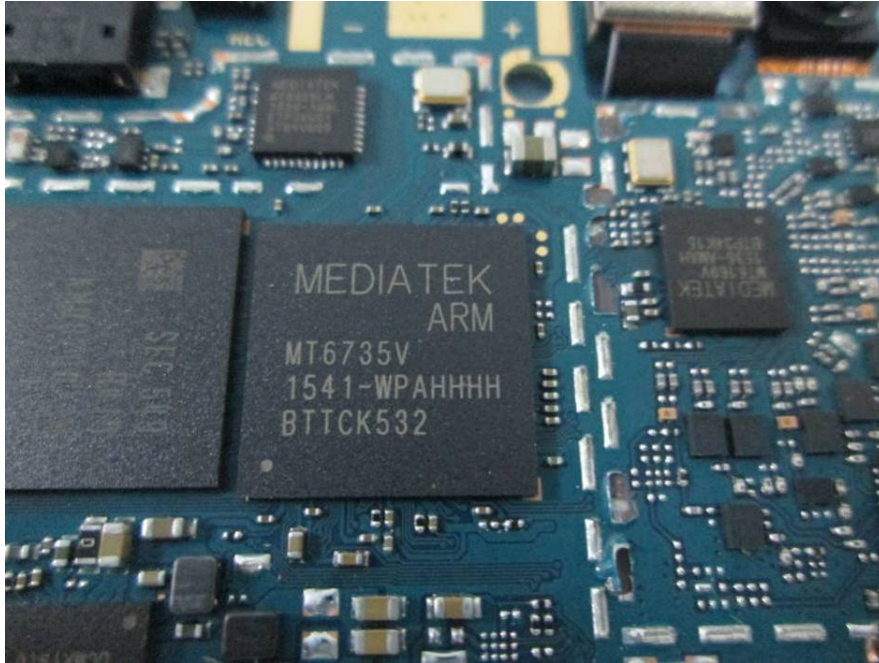
EUT – Sub Board Top View



EUT – Sub Board Bottom View



EUT – IC Chip View



EUT – Battery Top View



EUT – Battery Bottom View



EUT – USB Cable & Adapter View



EUT – Adapter Label View



EUT – Earphone View



BELOW IS THE ORIGINAL REPORT

EN 62479:2010
ASSESSMENT REPORT

For

Shenzhen East Xinyi Electronic Technology Co., Ltd.

Room 20A, TAIBANG Technology bldg, High-Tech Park, Nanshan District, Shenzhen, China

Tested Model: EX8535
Multiple Model: EX8537

Report Type: Original Report	Product Type: Brondi 530 4G HD
Test Engineer: Haiguo Li	<i>haiguo li</i>
Report Number: RSZ151208012	
Report Date: 2015-12-30	
Reviewed By: RF Engineer	Candy Li <i>Candy . Li</i>
Prepared By:	Bay Area Compliance Laboratories Corp. (Shenzhen) 6/F, the 3rd Phase of WanLi Industrial Building ShiHua Road, FuTian Free Trade Zone Shenzhen, Guangdong, China Tel: +86-755-33320018 Fax: +86-755-33320008 www.baclcorp.com.cn

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GENERAL INFORMATION

Product Description for Equipment under Test (EUT)

The *Shenzhen East Xinyi Electronic Technology Co., Ltd.*'s product, model number: *EX8535* or the "EUT" in this report was a *Brondi 530 4G HD*, which was measured approximately: 143 mm (L) × 72 mm (W) × 8 mm (H), rated with input voltage: DC 3.8V rechargeable Li-ion battery or DC 5.0V from the adapter.

Adapter Information:

Model: KS15002R

Input: AC 100-240V, 50/60Hz, 0.2A

Output: DC 5.0V, 1000mA

Note: The series product, model EX8537 and EX8535 are electrically identical, they are just different from model number and process of rear cover due to marketing purposes. Detailed information is stated and guaranteed by the applicant which was explained in the attached declaration letter.

**All measurement and test data in this report was gathered from production sample serial number: 1507305 (Assigned by BACL, Shenzhen). The EUT supplied by the applicant was received on 2015-12-08.*

Objective

This report is prepared on behalf of *Shenzhen East Xinyi Electronic Technology Co., Ltd.* in accordance with EN 62479: 2010 Assessment of the compliance of low power electronic and electrical equipment with the basic restrictions related to human exposure to electromagnetic fields (10 MHz to 300 GHz).

The objective is to determine the compliance of EUT with EN 62479: 2010.

Related Submittal(s)/Grant(s)

No related submittal(s).

Test Methodology

All measurements contained in this report were conducted with EN 62479: 2010.

Test Facility

The test site used by Bay Area Compliance Laboratories Corp. (Shenzhen) to collect test data is located on the 6/F, the 3rd Phase of WanLi Industrial Building, ShiHua Road, FuTian Free Trade Zone Shenzhen, Guangdong, China.

Test site at Bay Area Compliance Laboratories Corp. (Shenzhen) has been fully described in reports submitted to the Federal Communication Commission (FCC). The details of these reports have been found to be in compliance with the requirements of Section 2.948 of the FCC Rules on October 31, 2013. The facility also complies with the radiated and AC line conducted test site criteria set forth in ANSI C63.4-2014.

The Federal Communications Commission has the reports on file and is listed under FCC Registration No.: 382179. The test site has been approved by the FCC for public use and is listed in the FCC Public Access Link (PAL) database.

Additionally, Bay Area Compliance Laboratories Corp. (Shenzhen) is an ISO/IEC 17025 accredited laboratory, and is accredited by China National Accreditation Service for Conformity Assessment (CNAS L2408).

RF Exposure Measurement

1. Introduction

This generic standard applies to low power electronic and electrical apparatus for which no dedicated product – or product family standard regarding human exposure to electromagnetic fields applies.

The frequency range covered is 10 MHz to 300 GHz.

The object of this standard is to demonstrate the compliance of such apparatus with the basic restrictions on exposure of the general public to electric, magnetic and electromagnetic fields and contact current.

2. Compliance Criteria

2.1 General considerations

Compliance of electromagnetic emissions from electronic and electrical equipment with the basic restrictions usually is determined by measurements and, in some cases, calculation of the exposure level. If the electrical power used by or radiated by the equipment is sufficiently low, the electromagnetic fields emitted will be incapable of producing exposures that exceed the basic restrictions. This standard provides simple EMF assessment procedures for this low power equipment.

Any relevant compliance assessment procedure which is consistent with the state of the art, reproducible and gives valid results can be used.

For transmitters intended for use with more than one antenna configuration option, the combination of transmitter and antenna(s) which generates the highest available antenna power and/or average total radiated power shall be assessed.

Four routes, which as described as follows, can be used to demonstrate compliance with this standard:

A Typical usage, installation and the physical characteristics of equipment make it inherently compliant with the applicable EMF exposure levels such as those listed in the bibliography. This low-power equipment includes unintentional (or non-intentional) radiators, for example incandescent light bulbs and audio/visual (A/V) equipment, information technology equipment (ITE) and multimedia equipment (MME) that does not contain radio transmitters. NOTE Equipment is described as A/V equipment, ITE or MME if its main use is playback/recording of music, voice or images, or processing of digital information.

B The input power level to electrical or electronic components that are capable of radiating electromagnetic energy in the relevant frequency range is so low that the available antenna power and/or the average total radiated power cannot exceed the low-power exclusion level defined in 2.2.

C The available antenna power and/or the average total radiated power are limited by product standards for transmitters to levels below the low-power exclusion level defined in 2.2.

D Measurements or calculations show that the available antenna power and/or the average total radiated power are below the low-power exclusion level defined in 2.2.

If none of these routes can be used, then the equipment is deemed to be out of the scope of this standard and EMF assessment for conformity assessment purposes shall be made according to other standards, such as IEC 62311 or other EMF product standards.

2.2 Low-power exclusion level (P_{max})

Low-power electronic and electrical equipment is deemed to comply with the provisions of this standard if it can be demonstrated using routes B, C or D that the available antenna power and/or the average total radiated power is less than or equal to the applicable low-power exclusion level P_{max}.

Annex A contains example values for P_{max} derived from existing exposure limits listed in the bibliography, such as the ICNIRP guidelines [1], IEEE Std C95.1-1999 [2], and IEEE Std C95.1-2005 [3].

For wireless devices operated close to a person's body with available antenna powers and/or average total radiated powers higher than the P_{max} values given in Annex A, the alternative P_{max} values (called P_{max}'), described in Annex B can also be used.

For low power equipment using pulsed signals, other limits may apply in addition to those considered in Annex A and Annex B. Both ICNIRP guidelines [1] and IEEE standards [2], [3] have specific restrictions on exposures to pulsed fields, and the requirements of those standards with respect to exposure to pulses shall be met. Annex C discusses this topic further.

2.3 Exposure to multiple transmitting sources

If equipment under test (EUT) is equipped with multiple intentional radiators, the overall conformity assessment might require more than just the assessment of conformity of each one of the radiators separately. The effect of multiple intentional radiators should be considered in the conformity assessment process.

Technical Report IEC 62630 [8] provides generic guidance on how to assess the EMFs generated by multiple intentional radiators.

3. Limit

3.1 Annex A

Table A.1 – Example values of SAR-based P_{max} for some cases described by ICNIRP, IEEE Std C95.1-1999 and IEEE Std C95.1-2005

Guideline / Standard	SAR limit, SAR_{max} W/kg	Averaging mass, m g	P_{max} mW	Exposure tier ^a	Region of body ^a
ICNIRP [1]	2	10	20	General public	Head and trunk
	4	10	40	General public	Limbs
	10	10	100	Occupational	Head and trunk
	20	10	200	Occupational	Limbs
IEEE Std C95.1-1999 [2]	1,6	1	1,6	Uncontrolled environment	Head, trunk, arms, legs
	4	10	40	Uncontrolled environment	Hands, wrists, feet and ankles
	8	1	8	Controlled environment	Head, trunk, arms, legs
IEEE Std C95.1-2005 [3]	20	10	200	Controlled environment	Hands, wrists, feet and ankles
	2	10	20	Action level	Body except extremities and pinnae
	4	10	40	Action level	Extremities and pinnae
	10	10	100	Controlled environment	Body except extremities and pinnae
	20	10	200	Controlled environment	Extremities and pinnae

^a Consult the appropriate standard for more information and definitions of terms.

3.2 Annex B

$$P_{\max}' = \exp \left[A s + B s^2 + C \ln(BW) + D \right] \quad (\text{B.1})$$

For compliance with the SAR limit of $SAR_{\max} = 2 \text{ W/kg}$ averaged over $m = 10 \text{ g}$ in ICNIRP Guidelines [1] and IEEE Std C95.1-2005 [3], use Equations (B.2) to (B.5) in Equation (B.1):

$$A = (-0,4588f^3 + 4,407f^2 - 6,112f + 2,497)/100 \quad (\text{B.2})$$

$$B = (0,1160f^3 - 1,402f^2 + 3,504f - 0,4367)/1000 \quad (\text{B.3})$$

$$C = (-0,1333f^3 + 11,89f^2 - 110,8f + 301,4)/1000 \quad (\text{B.4})$$

$$D = -0,03540f^3 + 0,5023f^2 - 2,297f + 6,104 \quad (\text{B.5})$$

EN 62479:2010 §4.1 & §4.2 - MAXIMUM EMITTED AVERAGE POWER**Test Procedure**

Refer to EN 62479:2010 §4.1 & §4.2

Test Data**Environmental Conditions**

Temperature:	25 °C
Relative Humidity:	51 %
ATM Pressure:	101.0 kPa

The testing was performed by Haiguo Li on 2015-12-30.

For worst case:

Test Mode: Transmitting (BT3.0)

Radio	Average-time base power (dBm)	Average-time base power (mW)	Limit (mW)	Result
Bluetooth	6.58	4.55	20	Note ¹

Test Mode: Transmitting (BLE)

Radio	Average-time base power (dBm)	Average-time base power (mW)	Limit (mW)	Result
Bluetooth BLE	2.85	1.93	20	Note ¹

Test Mode: Transmitting (WIFI)

Radio	Average-time base power (dBm)	Average-time base power (mW)	Limit (mW)	Result
Wi-Fi	8.63	7.29	20	Note ¹

Test Mode: Transmitting (GSM)

Test Band	Average-time base power (dBm)	Average-time base power (mW)	Limit (mW)	Result
GSM 900	32.10	1621.81	20	Note ²
DCS 1800	29.10	812.83	20	Note ²

Test Mode: Transmitting (EDGE)

Test Band	Average-time base power (dBm)	Average-time base power (mW)	Limit (mW)	Result
EGPRS 900	27.48	559.76	20	Note ²
EGPRS 1800	27.08	510.50	20	Note ²

Test Mode: Transmitting (WCDMA)

Test Band	Average-time base power (dBm)	Average-time base power (mW)	Limit (mW)	Result
Band 1	21.98	157.76	20	Note 2
Band 8	22.29	169.43	20	Note 2

Test Mode: Transmitting (LTE)

Test Band	Average-time base power (dBm)	Average-time base power (mW)	Limit (mW)	Result
Band 3	22.76	188.80	20	Note 2
Band 7	22.85	192.75	20	Note 2
Band 20	22.96	197.70	20	Note 2

Note ¹ : – This radio, stand alone SAR or MPE not need to test.

Note ² : – This radio, stand alone SAR need to test, the SAR report please refer to RSZ151208012-20.

EXHIBIT A - CE PRODUCT LABELING

Proposed CE Label Format

CE 1313

Specifications: The marking set out above must be affixed to the apparatus or to its data plate and have a minimum height of 5 mm. The elements should be easily readable and indelible. They may be placed anywhere on the apparatus case or in its battery compartment. No tool should be needed to view the marking. 1313: 4 digit notified body number.

Note: The label should contain the below content:

- ① The name of the manufacturer or the person responsible for placing the apparatus on the market
- ② Type
- ③ Batch and/or serial numbers

Proposed Label Location on EUT



EXHIBIT B - EUT PHOTOGRAPHS

EUT – All View



EUT – Front View



EUT – Rear View



EUT – Top View



EUT – Bottom View



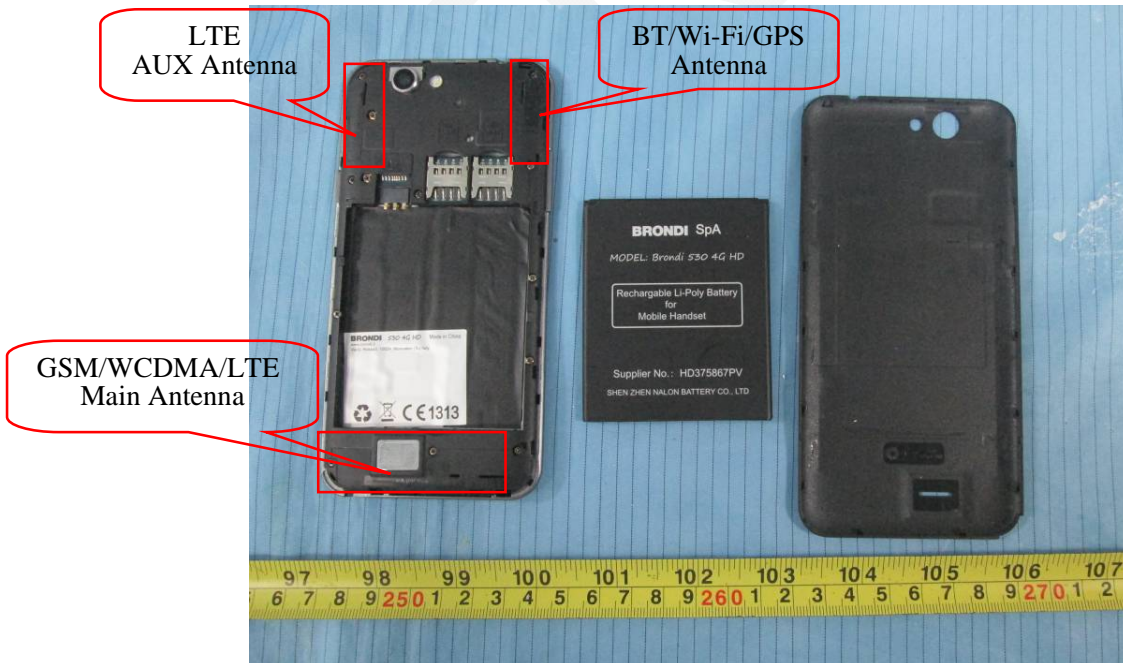
EUT –Left Side View



EUT – Right Side View



EUT –Cover off View 1



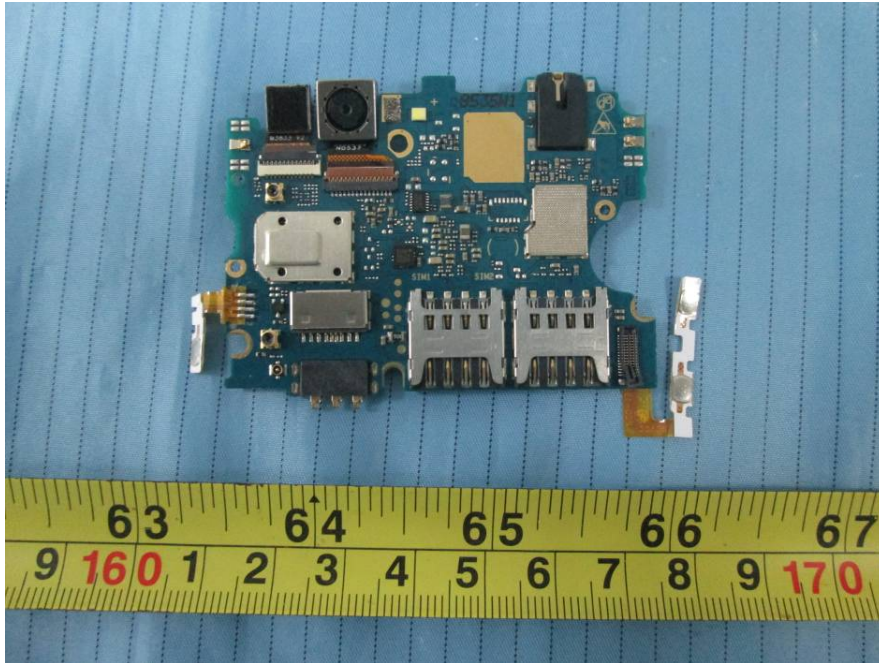
EUT –Cover off View 2



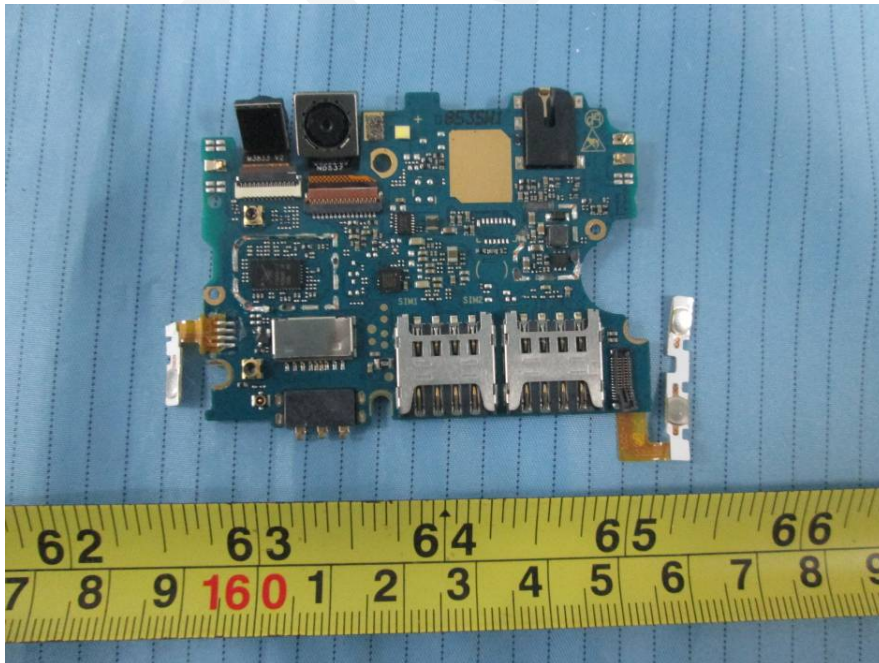
EUT –Cover off View 3



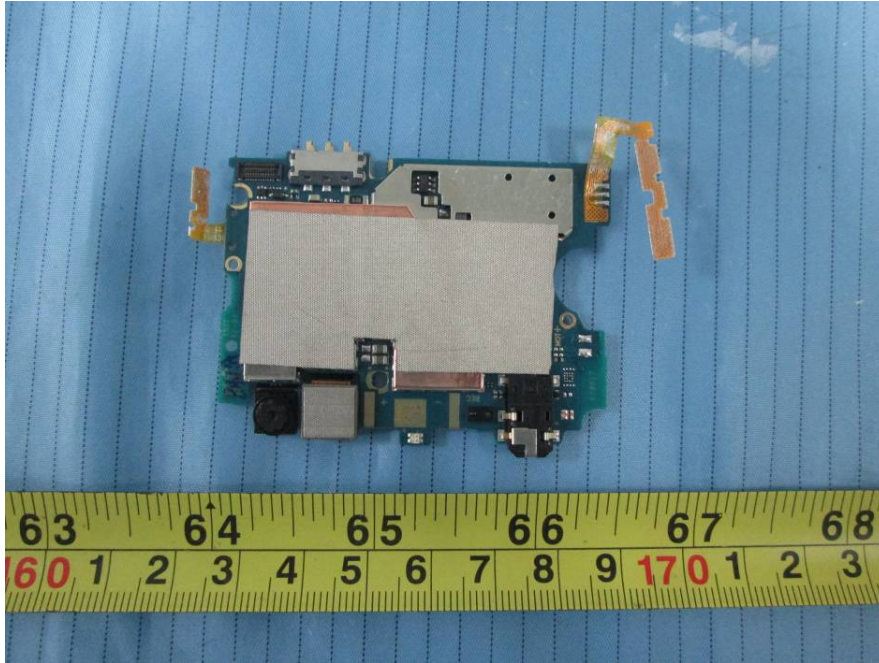
EUT – Main Board Top View



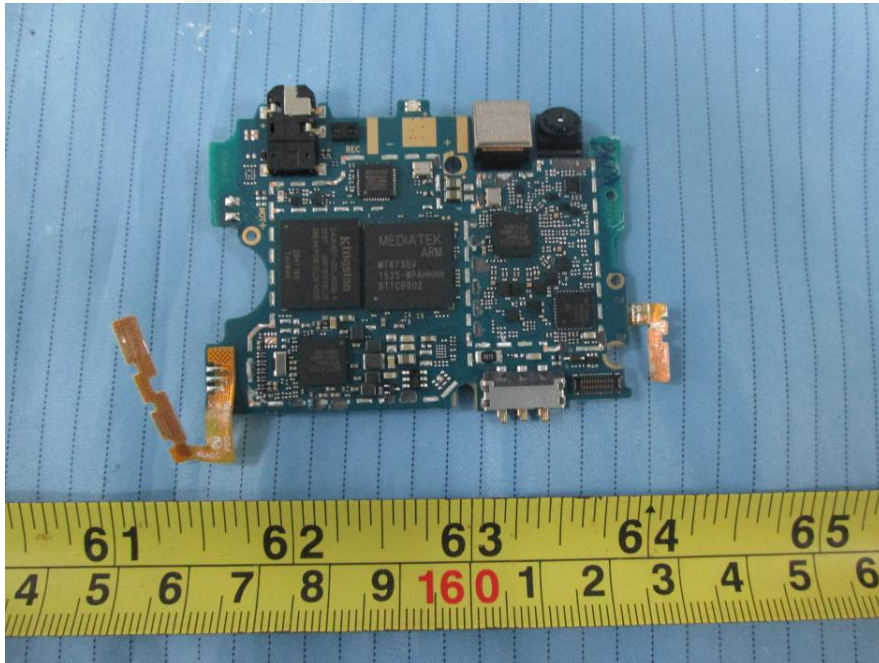
EUT – Main Board Top Shielding off View



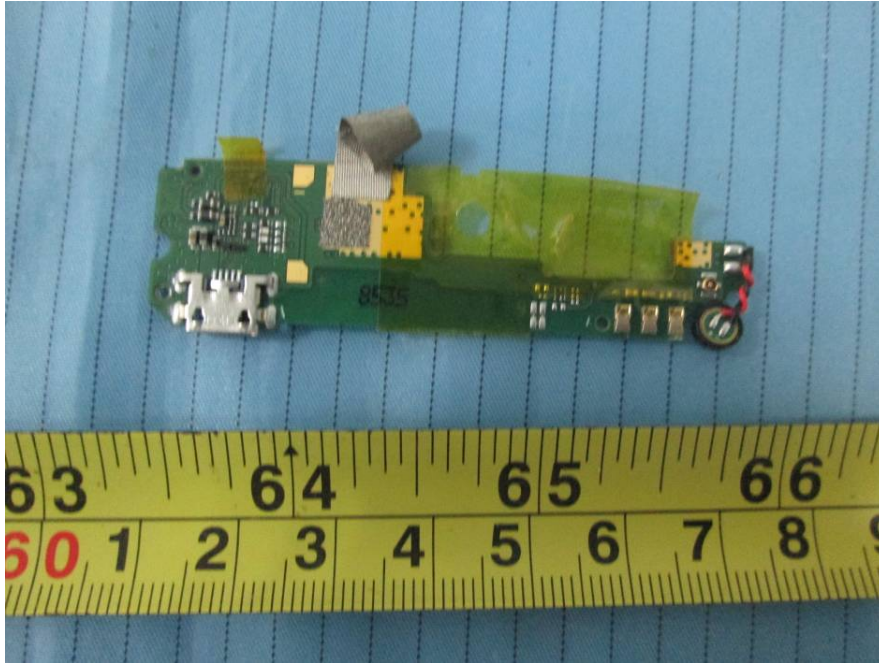
EUT – Main Board Bottom View



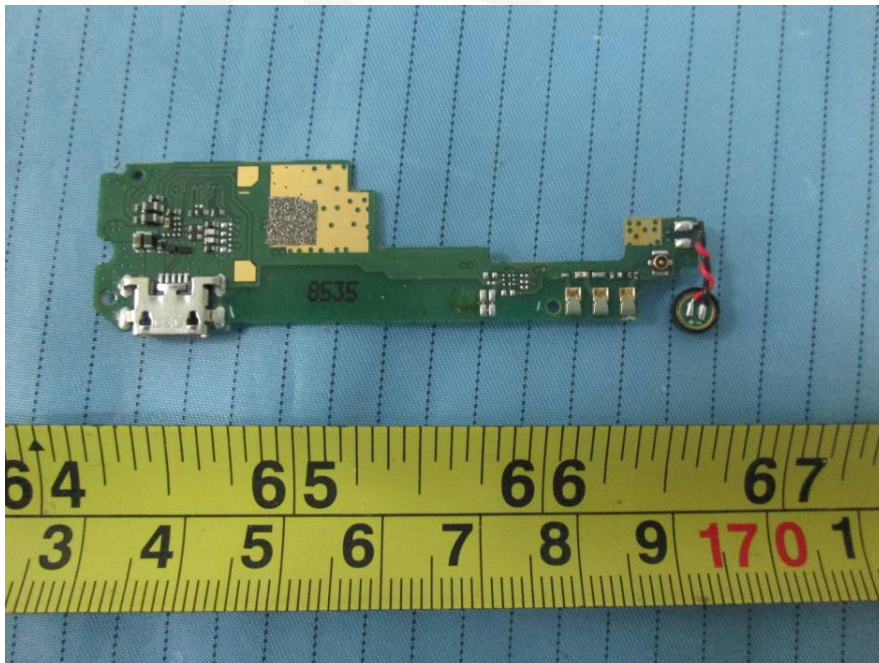
EUT – Main Board Bottom Shielding off View



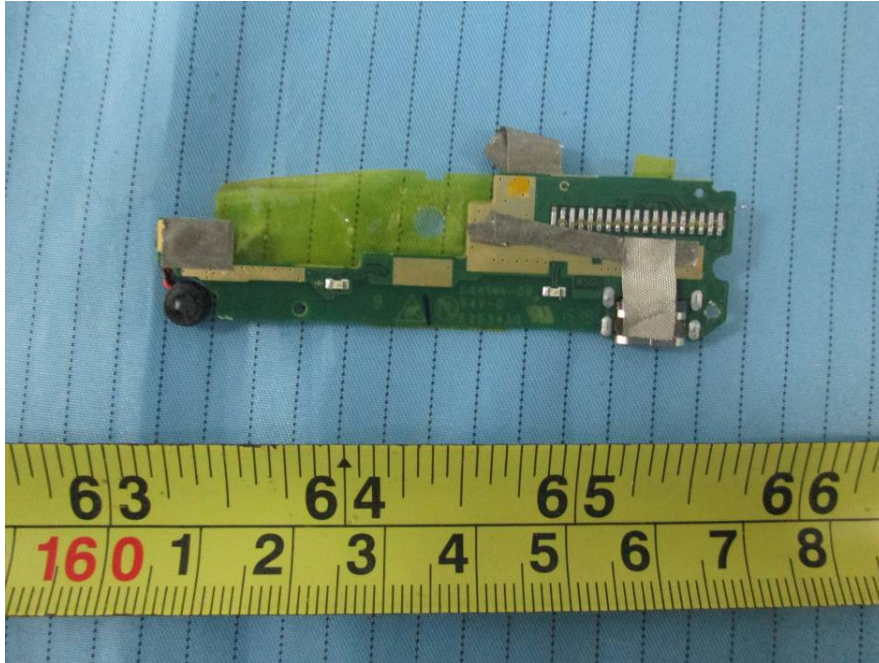
EUT – Sub Board Top View



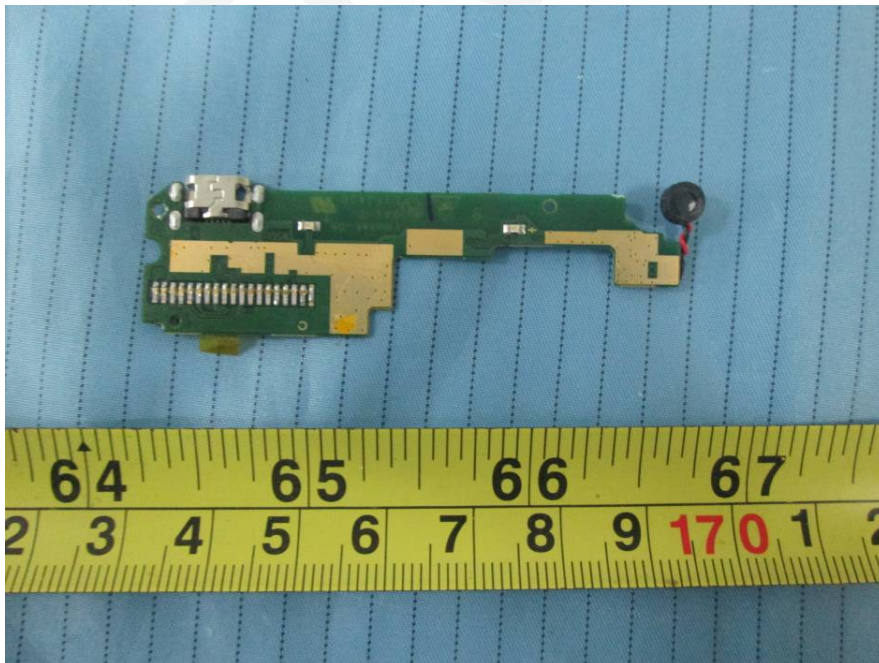
EUT – Sub Board Top Shielding off View



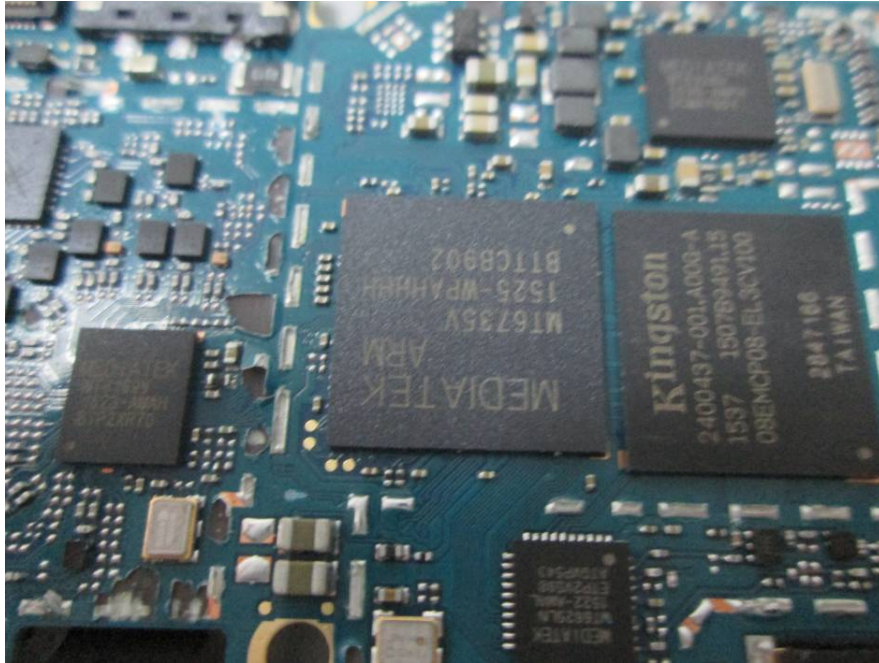
EUT – Sub Board Bottom View



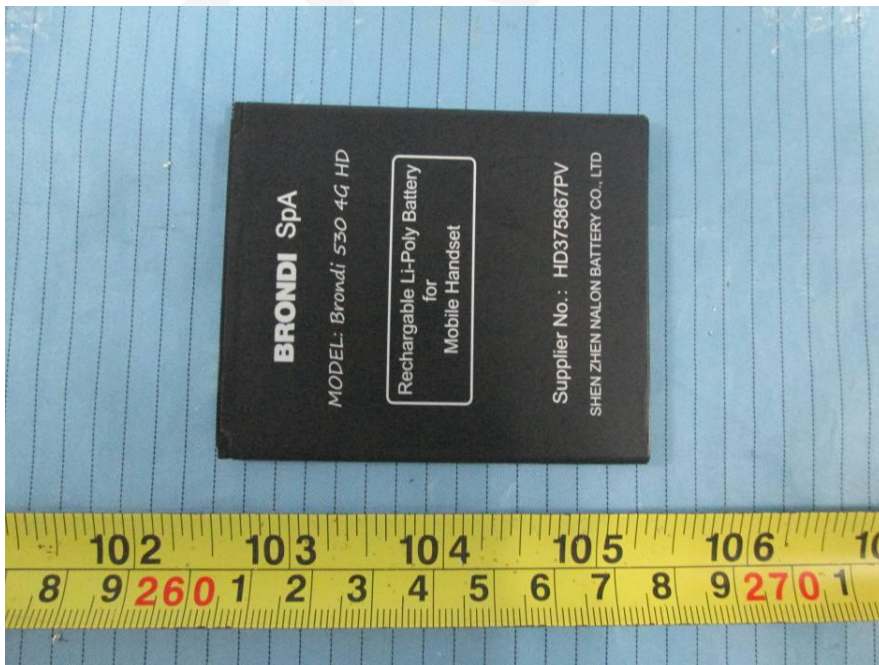
EUT – Main Board Bottom Shielding off View



EUT – IC Chip View



EUT – Battery Top View



EUT – Battery Bottom View



EUT – USB Cable & Adapter View



EUT – USB Cable View



EUT – Adapter Label View



Model: KS15002R

Input: 100-240V ~ 50/60Hz 0.2A

Output: 5.0V --- 1000mA

Shenzhen Kosun Industrial Co., Ltd

BRONDI SpA Made in China

PRODUCT SIMILARITY DECLARATION LETTER

Shenzhen East Xinyi Electronic Technology Co., Ltd.
Room 20A, TAIBANG Technology bldg, High-Tech Park, Nanshan District, Shenzhen, China
Tel: +86 13534231610 Fax: +86 755 2533 3622

12/30/2015

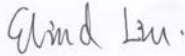
Product Similarity Declaration

To Whom It May Concern,

We, Shenzhen East Xinyi Electronic Technology Co., Ltd. hereby declare that we have a product named as Brondi 530 4G HD (Model number: EX8535) was tested by BACL, meanwhile, for our marketing purpose, we would like to list a series models (EX8537) on reports and certificate, only model number different and the rear cover process different, don't affect the electromagnetic compatibility. No other changes are made to them.

We confirm that all information above is true, and we'll be responsible for all the consequences. Please contact me if you have any question.

Signature:



Elind Liu
Sales Manager

***** END OF REPORT *****