

EN 62479:2010  
ASSESSMENT REPORT

For

**Advanced Technologies SRL**

Ion Heliade Radulescu nr 26, Bucharest 021255, ROMANIA

**Tested Model: Xylo Q**  
**Multiple Model: Xylo X**

<b>Report Type:</b> Original Report	<b>Product Type:</b> Smartphone Xylo
<b>Test Engineer:</b> <u>Sonia Zhou</u>	<i>Sonia Zhou</i>
<b>Report Number:</b> <u>RSZ160309002</u>	
<b>Report Date:</b> <u>2016-03-30</u>	
<b>Reviewed By:</b> <u>Rocky Kang</u> RF Engineer	<i>Rocky Kang</i>
<b>Prepared By:</b> 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 <a href="http://www.baclcorp.com.cn">www.baclcorp.com.cn</a>	

**Note:** This test report is prepared for the customer shown above and for the equipment described herein. It may not be duplicated or used in part without prior written consent from Bay Area Compliance Laboratories Corp. This report is valid only with a valid digital signature. The digital signature may be available only under the Adobe software above version 7.0.

**TABLE OF CONTENTS**

**GENERAL INFORMATION.....3**

    PRODUCT DESCRIPTION FOR EQUIPMENT UNDER TEST (EUT) .....3

    OBJECTIVE .....3

    RELATED SUBMITTAL(S)/GRANT(S).....3

    TEST METHODOLOGY .....3

    TEST FACILITY .....3

    RF EXPOSURE MEASUREMENT .....4

**EN 62479:2010 §4.1 & §4.2 - MAXIMUM EMITTED AVERAGE POWER.....7**

    TEST PROCEDURE .....7

    TEST DATA .....7

**EXHIBIT A - CE PRODUCT LABELING.....9**

    PROPOSED CE LABEL FORMAT .....9

    PROPOSED LABEL LOCATION ON EUT .....9

**EXHIBIT B - EUT PHOTOGRAPHS .....10**

    EUT – FRONT VIEW .....10

    EUT – REAR VIEW .....10

    EUT – TOP VIEW .....11

    EUT – BOTTOM VIEW .....11

    EUT –LEFT SIDE VIEW .....12

    EUT – RIGHT SIDE VIEW .....12

    EUT –COVER OFF VIEW 1 .....13

    EUT –COVER OFF VIEW 2 .....13

    EUT –COVER OFF VIEW 3 .....14

    EUT –COVER OFF VIEW 4 .....14

    EUT – MAIN BOARD TOP VIEW .....15

    EUT – MAIN BOARD TOP SHIELDING OFF VIEW .....15

    EUT – MAIN BOARD BOTTOM VIEW .....16

    EUT – IC CHIP VIEW .....16

    EUT – ANTENNA VIEW .....17

    EUT – BATTERY TOP VIEW .....17

    EUT – BATTERY BOTTOM VIEW .....18

    EUT – FRONT VIEW .....18

    EUT – REAR VIEW .....19

    EUT – TOP VIEW .....19

    EUT – BOTTOM VIEW .....20

    EUT –LEFT SIDE VIEW .....20

    EUT – RIGHT SIDE VIEW .....21

    EUT –COVER OFF VIEW 1 .....21

    EUT –COVER OFF VIEW 2 .....22

    EUT –COVER OFF VIEW 3 .....22

    EUT –COVER OFF VIEW 4 .....23

    EUT – MAIN BOARD TOP VIEW .....23

    EUT – MAIN BOARD TOP SHIELDING OFF VIEW .....24

    EUT – MAIN BOARD BOTTOM VIEW .....24

    EUT – IC CHIP VIEW .....25

    EUT – ANTENNA VIEW .....25

    EUT – BATTERY TOP VIEW .....26

    EUT – BATTERY BOTTOM VIEW .....26

**PRODUCT SIMILARITY DECLARATION LETTER.....27**

## GENERAL INFORMATION

### Product Description for Equipment under Test (EUT)

The *Advanced Technologies SRL's* product, model number: *Xylo Q* (or the "EUT") in this report is a *Smartphone Xylo*. The EUT was measured approximately: 126.9 mm (L) × 64.1 mm (W) × 10.35 mm (H), rated with input voltage: DC 3.7V rechargeable Li-ion battery.

*Note: The series product, model Xylo X and Xylo Q. Model Xylo Q was selected for fully testing, which was explained detailedly in the attached product similarity declaration letter.*

*\*All measurement and test data in this report was gathered from production sample serial number: 1601567 (Assigned by BACL, Shenzhen). The EUT supplied by the applicant was received on 2016-03-09.*

### Objective

This report is prepared on behalf of *Advanced Technologies SRL* 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.

## 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<sub>max</sub>)

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<sub>max</sub>.

Annex A contains example values for P<sub>max</sub> 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<sub>max</sub> values given in Annex A, the alternative P<sub>max</sub> values (called P<sub>max'</sub>), 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 <sup>a</sup>	Region of body <sup>a</sup>
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
	20	10	200	Controlled environment	Hands, wrists, feet and ankles
IEEE Std C95.1-2005 [3]	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

<sup>a</sup> Consult the appropriate standard for more information and definitions of terms.

## 3.2 Annex B

**Table B.1 – Some typical frequency bands of portable wireless devices and corresponding low-power exclusion levels  $P_{\max}'$  predicted using Equations (B.1) through (B.9)**

$f$ GHz	$BW$ %	Example air interface	$P_{\max}'$ mW			
			$s = 5 \text{ mm}$		$s = 25 \text{ mm}$	
			$m = 1 \text{ g}$	$m = 10 \text{ g}$	$m = 1 \text{ g}$	$m = 10 \text{ g}$
0,393	3,8	TETRA	97	292	265	526
0,420	4,8	TETRA	98	293	274	541
0,461	3,3	GSM	80	244	233	468
0,485	14,4	APCO	117	337	347	660
0,838	7,6	iDEN	48	148	198	399
0,859	8,1	IS-136	47	145	198	398
0,884	16,7	PDC	54	162	233	456
0,896	5,7	TETRA	40	127	176	360
0,918	4,8	iDEN	37	118	165	342
0,925	7,6	GSM	41	129	185	375
1,465	4,9	PDC	17	60	128	281
1,795	9,5	GSM	13	50	139	308
1,920	7,3	GSM	11	44	132	302
2,045	12,2	UMTS	11	44	146	330
2,350	4,3	WiBro	7,9	34	130	323
2,442	3,4	802.11b	7,3	32	130	328
3,550	14,1	WiMAX	6,7	37	244	657
5,250	3,8	WiMAX	6,8	53	258	845
5,788	1,3	WiMAX	6,2	52	164	564

**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**

<b>Temperature:</b>	25 °C
<b>Relative Humidity:</b>	50 %
<b>ATM Pressure:</b>	101.0 kPa

The testing was performed by Sonia Zhou on 2016-03-24.

Test Mode: Transmitting(BT3.0)

Radio	Average-time base power (dBm)	Average-time base power (mW)	Limit (mW)	Result
Bluetooth	5.53	3.573	20	Note <sup>1</sup>

Test Mode: Transmitting (BLE)

Radio	Average-time base power (dBm)	Average-time base power (mW)	Limit (mW)	Result
Bluetooth BLE	-2.21	0.601	20	Note <sup>1</sup>

Test Mode: Transmitting(WIFI)

Radio	Average-time base power (dBm)	Average-time base power (mW)	Limit (mW)	Result
Wi-Fi	8.83	7.638	20	Note <sup>1</sup>

Test Mode: Transmitting (GSM)

Test Band	Average-time base power (dBm)	Average-time base power (mW)	Limit (mW)	Result
GSM 900	32.80	1905	20	Note <sup>2</sup>
DCS 1800	29.50	891	20	Note <sup>2</sup>

*Test Mode: Transmitting (WCDMA)*

<b>Test Band</b>	<b>Average-time base power (dBm)</b>	<b>Average-time base power (mW)</b>	<b>Limit (mW)</b>	<b>Result</b>
Band 1	22.07	161.06	20	Note 2
Band 8	22.51	178.24	20	Note 2

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

Note <sup>2</sup> : – This radio, stand alone SAR need to test, the SAR report please refer to RSZ160309002-20.



## 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



Model: Xylo Q

Model: Xylo X

## EXHIBIT B - EUT PHOTOGRAPHS

Model: Xylo Q

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**

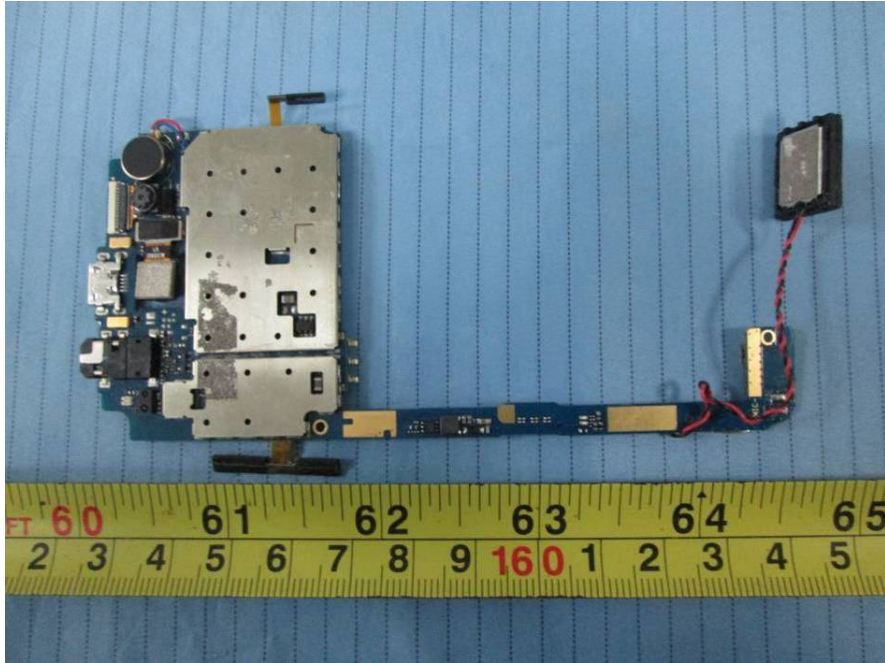


**EUT –Cover off View 4**

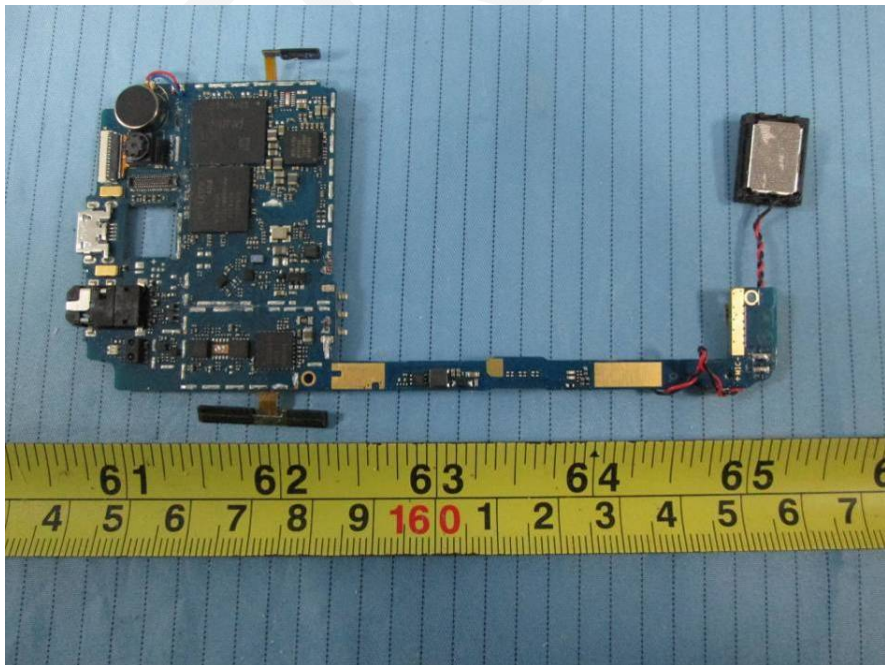




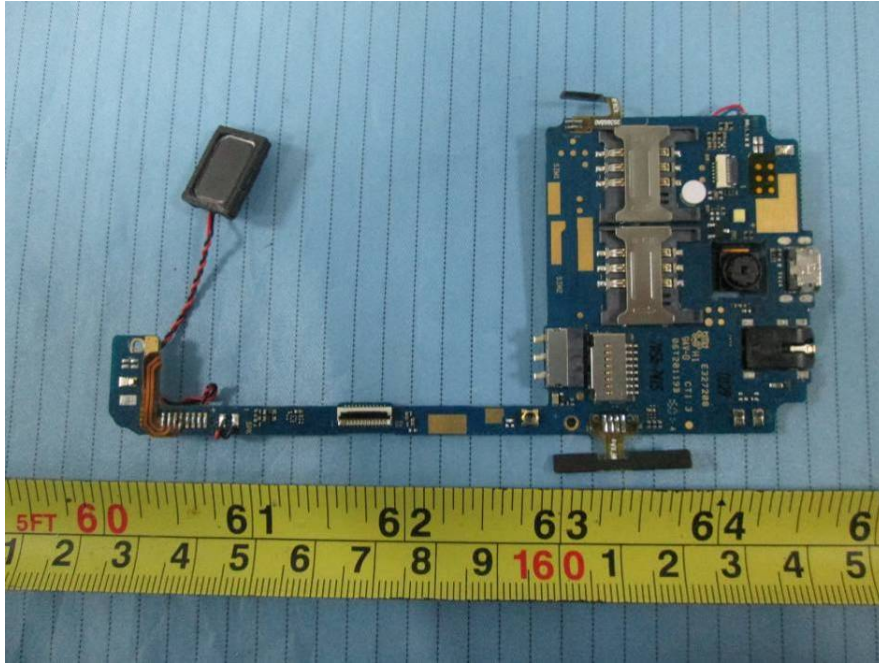
**EUT – Main Board Top View**



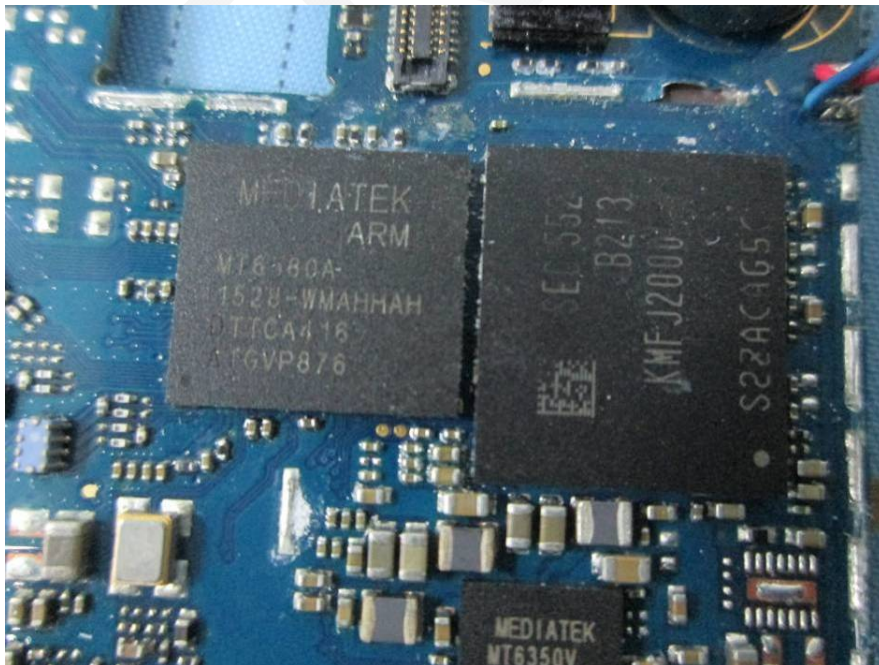
**EUT – Main Board Top Shielding off View**



**EUT – Main Board Bottom View**

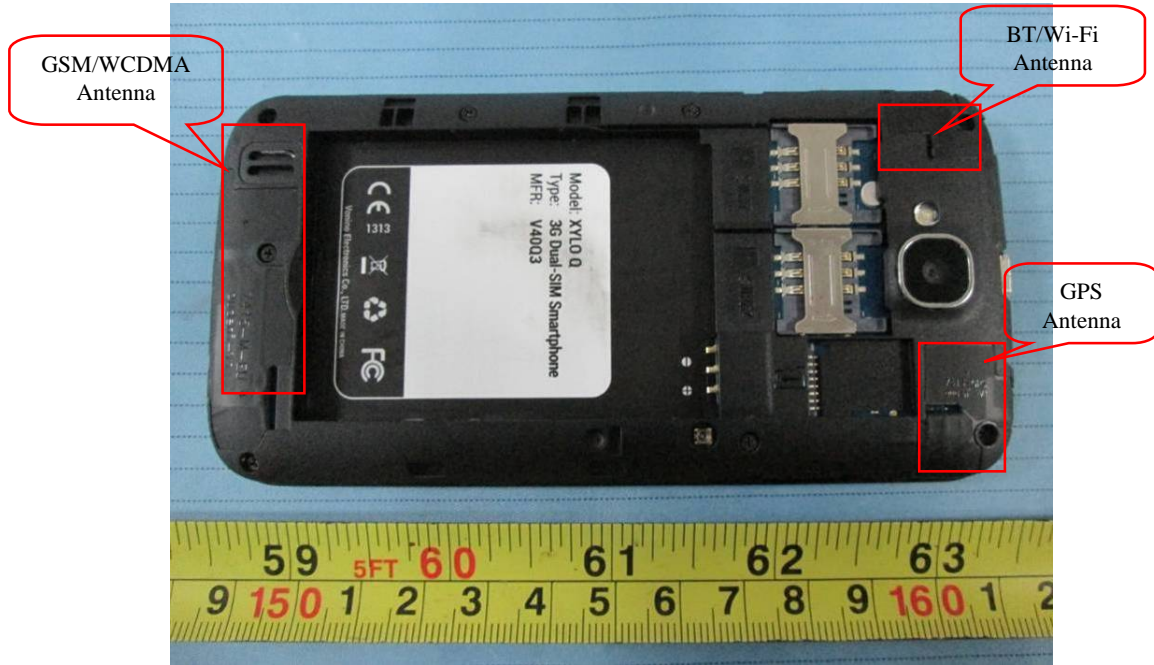


**EUT – IC Chip View**





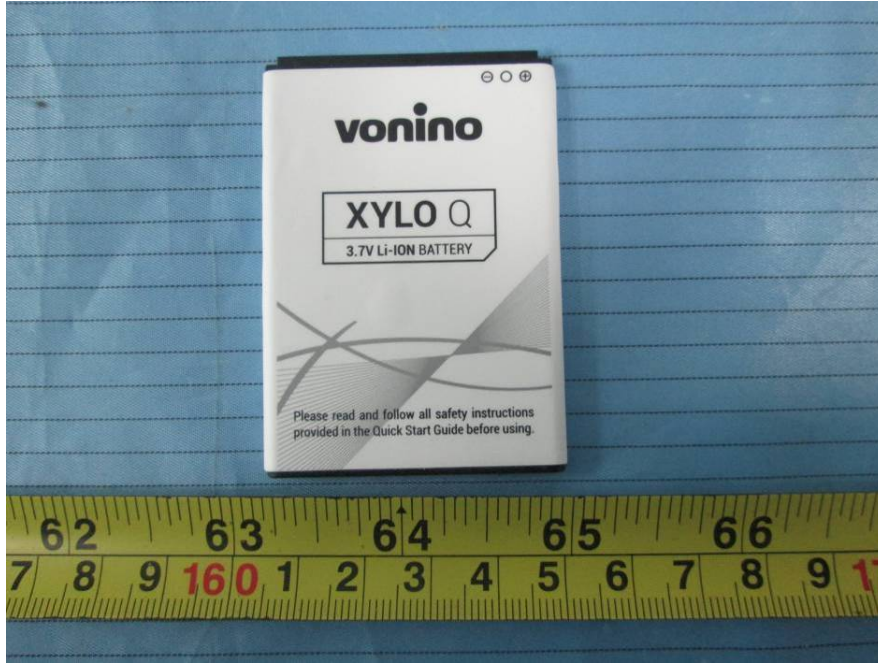
**EUT – Antenna View**



**EUT – Battery Top View**

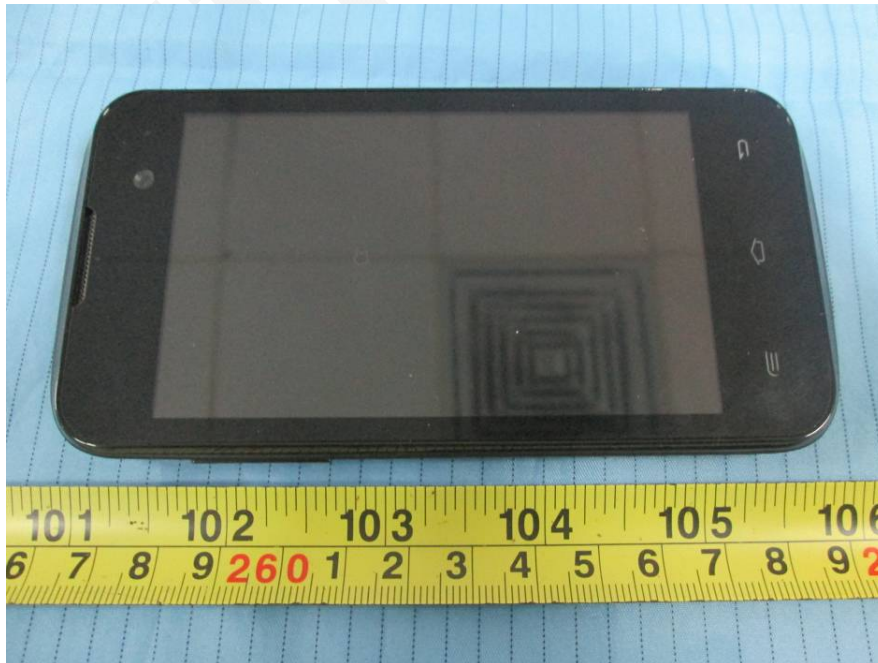


**EUT – Battery Bottom View**



**Model: Xylo X**

**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**

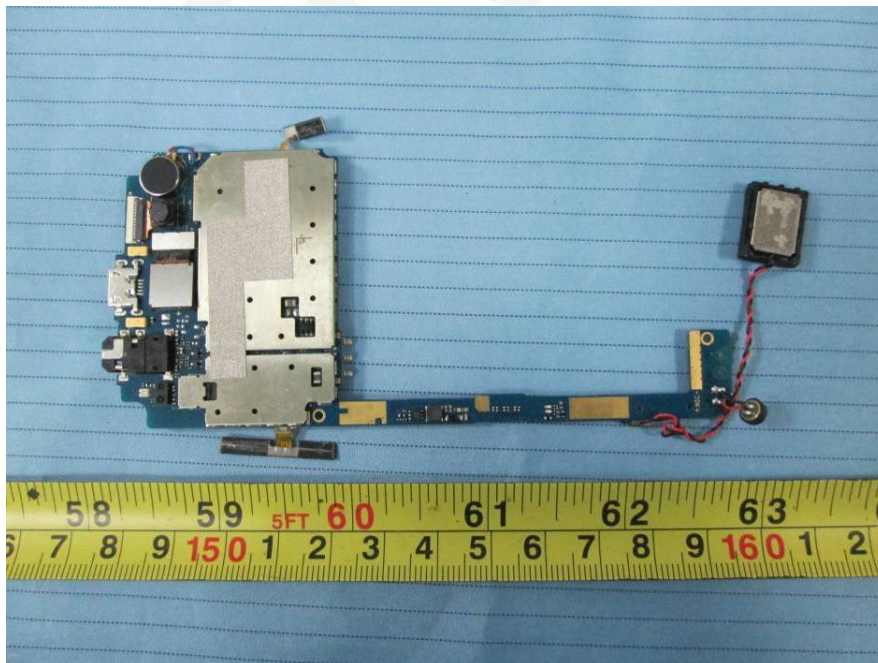




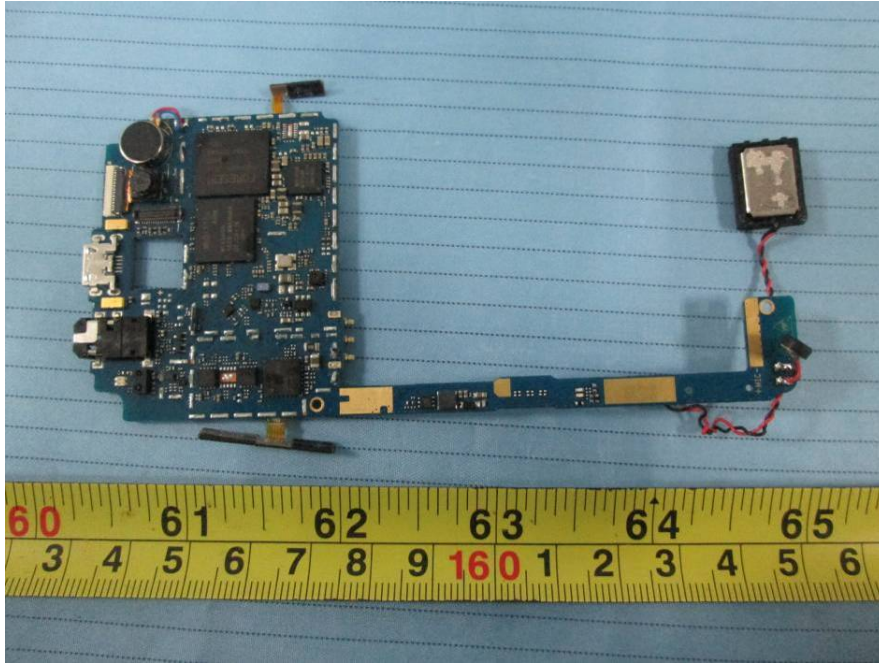
**EUT –Cover off View 4**



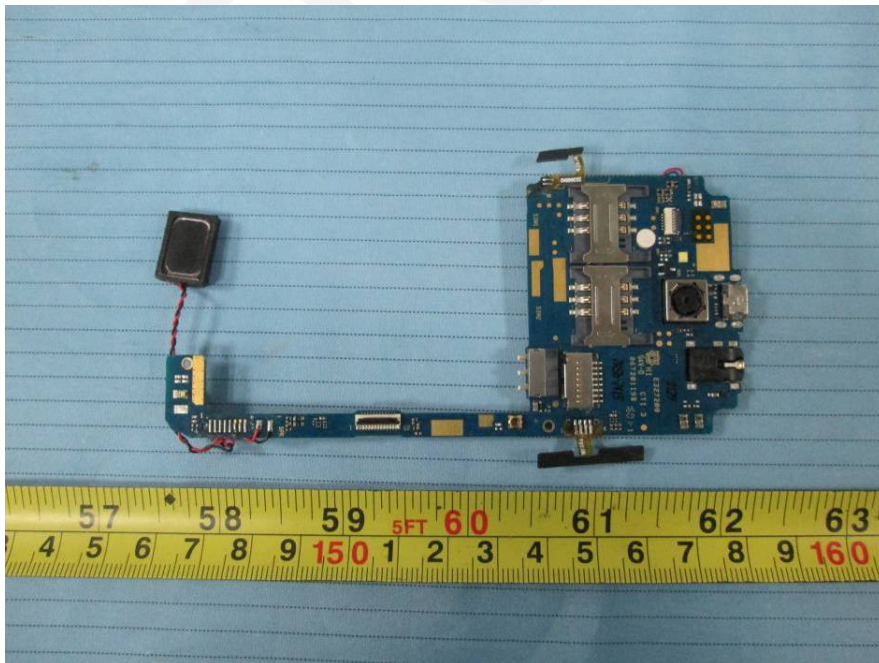
**EUT – Main Board Top View**



**EUT – Main Board Top Shielding off View**

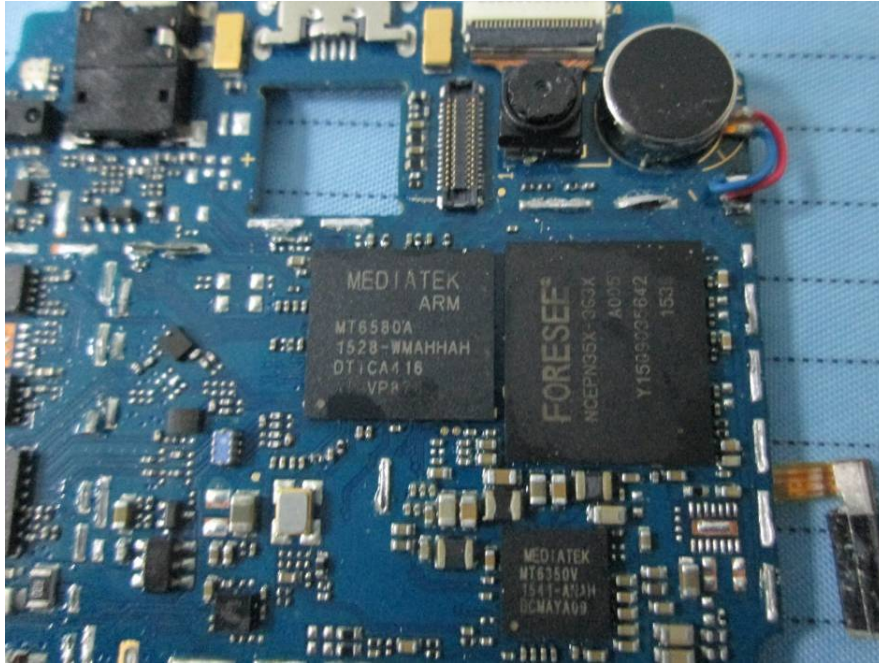


**EUT – Main Board Bottom View**

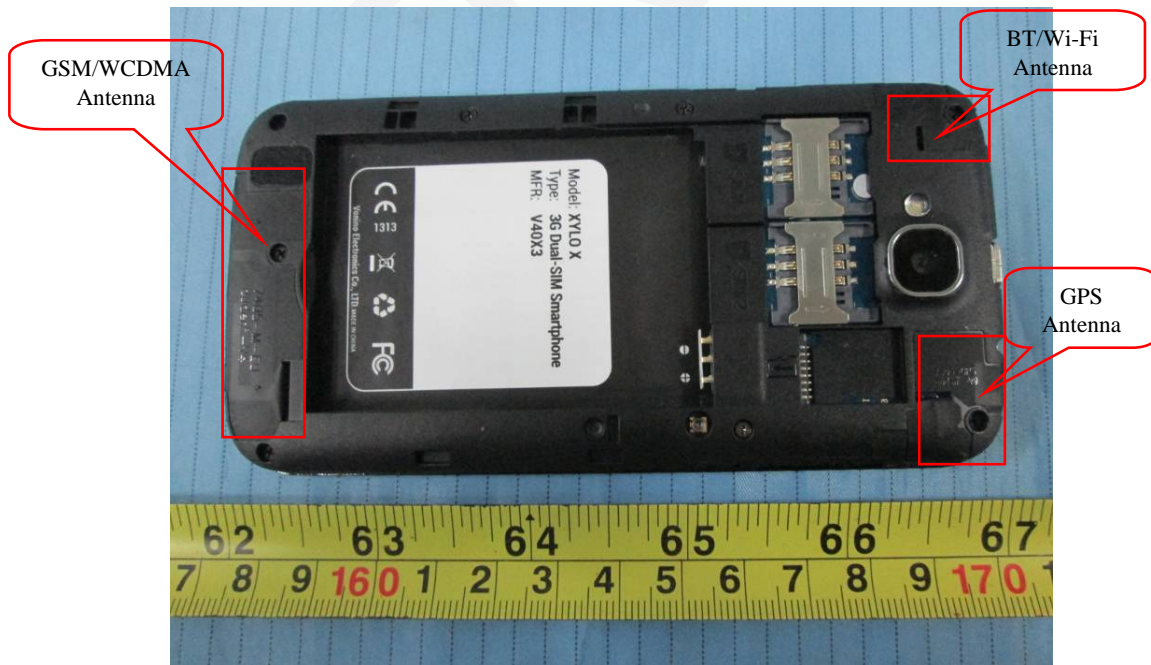




### EUT – IC Chip View



### EUT – Antenna View



**EUT – Battery Top View**



**EUT – Battery Bottom View**



## **PRODUCT SIMILARITY DECLARATION LETTER**

Advanced Technologies SRL  
Address: Ion Heliade Radulescu nr 26, Bucharest 021255, ROMANIA  
Tel: +40 (21) 569 85 33/34 Fax: +40 (31) 814 61 12  
E-mail: marius.chirca@advanced.ro

2016-3-30

### **Product Similarity Declaration**

To Whom It May Concern,

We, Advanced Technologies SRL, hereby declare that we have a product named as Smartphone Xylo (Model number: Xylo Q) was tested by BACL, meanwhile, for our marketing purpose, we would like to list a series models (Xylo X) on reports and certificate, the difference of these models is the memory of flash, since the model Xylo Q is 512M and Xylo X is 1G. The pixels of camera are different since Xylo Q is equipped with 200W and Xylo X is equipped with 500W. 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:

Marius

Purchasing Manager

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