



# EN 62479: 2010 ASSESSMENT REPORT

For

# Yealink (Xiamen) Network Technology Co., Ltd.

4th-5th Floor, South Building, NO. 63 WangHai Road, 2nd Software Park, Xiamen, China

Model: W52P, W52H, W52Duo

Report Type: **Product Type:** IP DECT Phone Original Report Henry . Jing Test Engineer: Henry Ding **Report Number:** RSZ120919006 **Report Date:** 2012-12-04 Alvin Huang **Reviewed By:** RF Leader **Test Laboratory:** 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 Yealink (Xiamen) Network Technology Co., Ltd.'s product, model number: W52P or the "EUT" in this report is a IP DECT Phone, the EUT was measured approximately 15.5 cm (L) x 11.0 cm (W) x 5.0 cm (H) for base and 14.5 cm (L) x 5.0 cm (W) x 2.0 cm (H) for handset, Rated input voltage: DC 5V adapter for base and DC 2.4V battery or DC 5V from adapter for charger.

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Adapter Information: AC/DC SWITCHING ADAPTER

Model: OH-1048A0500600U2-VDE Input: 100-240V~50/60Hz 250mA

Output: 5VDC 600mA

Note: The product IP DECT Phone, the model W52P, W52H and W52Duo are different in model number due to different combinations, the base unit of these three models is the same, the handset unit of these three models is the same, and W52P was selected to test, which was explained in the attached declaration letter.

\* All measurement and test data in this report was gathered from production sample serial number: 1209094 (Assigned by BACL, Shenzhen). The EUT supplied by the applicant was received on 2012-09-19.

# **Objective**

This report is prepared on behalf of *Yealink (Xiamen) Network 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 December 06, 2010. The facility also complies with the radiated and AC line conducted test site criteria set forth in ANSI C63.4-2009.

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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.

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Additionally, Bay Area Compliance Laboratories Corp. (Shenzhen) is an ISO/IEC 17025 accredited laboratory, and is accredited by National Voluntary Laboratory Accredited Program (Lab Code 200707-0).



The current scope of accreditations can be found at <a href="http://ts.nist.gov/Standards/scopes/2007070.htm">http://ts.nist.gov/Standards/scopes/2007070.htm</a>

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# **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.

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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.

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#### 2.2 Low-power exclusion level (Pmax)

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 Pmax.

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Annex A contains example values for Pmax 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 Pmax values given in Annex A, the alternative Pmax values (called Pmax'), 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  $P_{\rm max}$  for some cases described by ICNIRP, IEEE Std C95.1-1999 and IEEE Std C95.1-2005

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

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# 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)

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f	BW	Example air	P <sub>max</sub> ' mW			
GHz	%	interface	s = 5 r	mm	s = 2	5 mm
			m = 1 g	m = 10 g	m = 1 g	m = 10 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

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# EN 62479:2010 §4.1 & §4.2 - MAXIMUM EMITTED AVERAGE POWER

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#### **Test Procedure**

Refer to EN 62479:2010 §4.1 & §4.2

# **Test Equipment List and Details**

Manufacturer Description		Model	Serial Number	Calibration Date	Calibration Due Date
Rohde & Schwarz	Signal Analyzer	FSIQ26	8386001028	2011-11-24	2012-11-23

<sup>\*</sup> Statement of Traceability: Bay Area Compliance Laboratories Corp. attests that all calibrations have been performed in accordance to NVLAP requirements, traceable to National Institute of Metrology (NIM).

# **Test Data**

### **Environmental Conditions**

Temperature:	25 °C
Relative Humidity:	56 %
ATM Pressure:	100.0 kPa

The test data was performed by Henry Ding on 2012-11-16.

Test Mode: Transmitting (worst case)

For Base Unit:

Channel Freq. (MHz)	Peak Output Power (dBm)	Average Output Power (dBm)	Antenna Gain (dBi)	EIRP (mW)	Limit (mW)	Result Pass
1881.792	19.5	8.71	0	7.43	20	Pass

### For Handset Unit:

Channel Freq. (MHz)	Peak Output Power (dBm)	Average Output Power (dBm)	Antenna Gain (dBi)	EIRP (mW)	Limit (mW)	Result Pass
1888.704	18.8	8.01	0	6.32	20	Pass

Note: Average power=Peak output power/12 slot EIRP = Average power (dBm) + antenna gain (dBi)

## **Conclusion:**

SAR or MPE test is not required.

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# **EXHIBIT A - EUT PHOTOGRAPHS**

**EUT – All View** 

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**EUT (Base) – Front View** 



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**EUT (Base) - Top View** 



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**EUT (Base) – Left Side View** 



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**EUT (Base) – Right Side View** 



**EUT (Base) – Cover off View** 



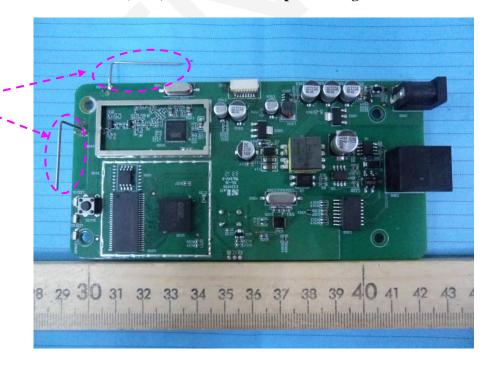
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Antenna

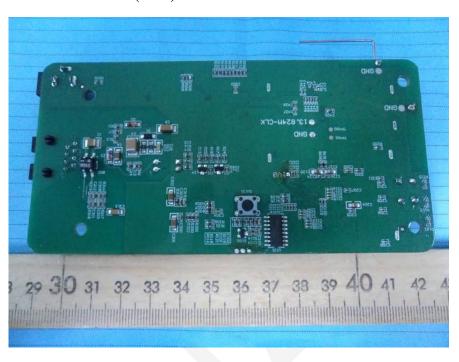
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**EUT (Base) – Main Board Top Shielding off View** 



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**EUT (Handset) – Front View** 



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**EUT (Handset) – Rear View** 



**EUT (Handset) – Top View** 



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**EUT (Handset) – Left Side View** 



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**EUT (Handset) – Battery off View** 



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# **EUT (Handset) – Cover off View 1**

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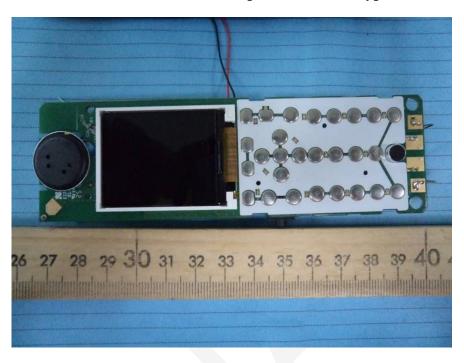


**EUT (Handset) – Cover off View 2** 

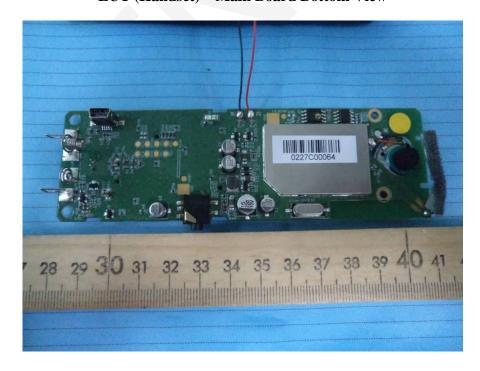


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EUT (Handset) – Main Board Top with LCD & Keypad View

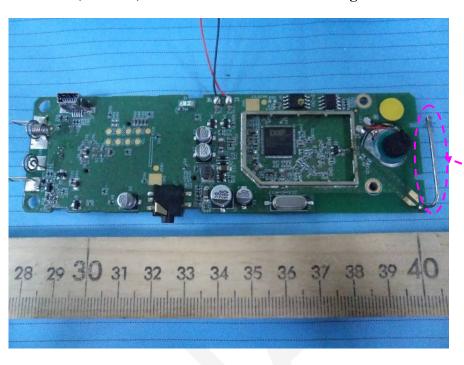


**EUT (Handset) - Main Board Bottom View** 



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Antenna



**EUT (Charger) – Top View** 



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**EUT (Charger) – Bottom View** 

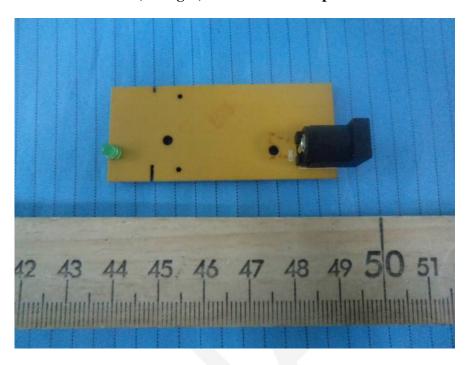


**EUT (Charger) – Cover off View** 

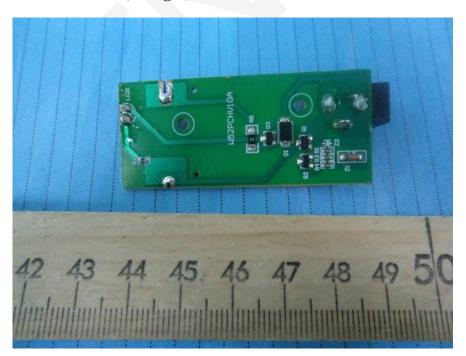


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**EUT (Charger) – Main Board Top View** 



**EUT (Charger) – Main Board Bottom View** 



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**EUT (Charger) – Adapter Label View** 



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# PRODUCT SIMILARITY DECLARATION LETTER



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2012-11-20

# **Product Similarity Declaration Letter**

To Whom It May Concern,

We, Yealink (Xiamen) Network Technology Co.,Ltd. hereby declare that our product IP DECT Phone, the model W52P, W52H, W52Duo, the difference is W52P has one base and one handset, W52H has only one handset, and W52Duo has one base and two handsets. Model W52P was tested by BACL.

Please contact me if you have any question.

Signature:

Stone Lu:

Vice General Manager

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

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