

# RF EXPOSURE EVALUATION REPORT

APPLICANT	30	Testo Instruments (Shenzhen) Co., Ltd
PRODUCT NAME	•	testo 115i
MODEL NAME	:	testo 115i
TRADE NAME	:	testo
BRAND NAME	:	testo
FCC ID	:	2ACVD-1115
STANDARD(S)	;	47CFR 2.1093 KDB 447498 D01 General RF Exposure Guidance 057023
ISSUE DATE	:	Propertification Proved L SERVICE
		? 4. System Certifie

SHENZHEN MORLAB COMMUNICATIONS TECHNOLOGY Co., Ltd.

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	Change History			
	Issue	Date	Reason for change	
4	1.0	2015-11-17	First edition	
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## **TEST REPORT DECLARATION**

Applicant	Testo Instruments (Shenzhen) Co., Ltd	
Applicant Address	Block A, B4 Building, China Merchants Guangming Sci&Tech Park, No.3009 Guan Guang Road, Guangming New District, Shenzhen City	
Manufacturer	Testo Instruments (Shenzhen) Co., Ltd	
Manufacturer Address	Block A, B4 Building, China Merchants Guangming Sci&Tech Park, No.3009 Guan Guang Road, Guangming New District, Shenzhen City	
Product Name	testo 115i	
Model Name	testo 115i	
Brand Name	testo	
HW Version	V1.1	
SW Version	V1.0	
Test Standards	47CFR 2.1093; KDB 447498 D01 General RF Exposure Guidance v05r02	
Issue Date	2015-11-17	
SAR Evaluation	Not Required	

Tested by

Liu Jun

Reviewed by

Zhu Zhan

Zhu Zhan

Approved by

Zeng Dexin

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## **1. TECHNICAL INFORMATION**

Note: the following data is based on the information by the applicant.

## 1.1. Identification of Applicant

Company Name:	Testo Instruments (Shenzhen) Co., Ltd	
Address:	Block A, B4 Building, China Merchants Guangming Sci&Tech Park,	
AL MORL MO	No.3009 Guan Guang Road, Guangming New District, Shenzhen City	

#### 1.2. Identification of Manufacturer

Company Name: Testo Instruments (Shenzhen) Co., Ltd	
Address:	Block A, B4 Building, China Merchants Guangming Sci&Tech Park,
B ORLAN MORT	No.3009 Guan Guang Road, Guangming New District, Shenzhen City

## 1.3. Equipment Under Test (EUT)

Model Name:	testo 115i
Serial Number	49400761
Trade Name:	testo
Brand Name:	testo
Hardware Version:	V1.1
Software Version:	V1.0
Frequency Bands:	Bluetooth 4.0:2402-2480MHz;
Modulation Mode:	Bluetooth 4.0: GFSK;
Antenna type:	Fixed Internal Antenna
Development Stage:	Identical prototype

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- 1.3.1. Photographs of the EUT
- 1. EUT front view

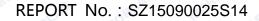


2. EUT rear view



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#### 1.3.2. Identification of all used EUT

The EUT identity consists of numerical and letter characters, the letter character indicates the test sample, and the following two numerical characters indicate the software version of the test sample.

	EUT Identity	Hardware Version	Software Version
<b>1</b> 0	1#	V1.1	V1.0

#### **1.4. Applied Reference Documents**

Leading reference documents for testing:

No.	Identity	Document Title	
1 ORLAS	47 CFR§2.1093	Radiofrequency Radiation Exposure Evaluation: portable devices	
2	KDB 447498 D01v05r02	General RF Exposure Guidance	

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# 2. DEVICE CATEGORY AND RF EXPOSURE LIMIT

Per user manual, this device is a Bluetooth device. Based on 47CFR 2.1093, this device belongs to portable device category with General Population/Uncontrolled exposure.

#### Portable Devices:

47CFR 2.1093(b)

For purposes of this section, a portable device is defined as a transmitting device designed to be used so that the radiating structure(s) of the device is/are within 20 centimeters of the body of the user.

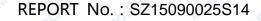
#### **GENERAL POPULATION / UNCONTROLLED EXPOSURE**

#### 47CFR 2.1093(d) (2)

Limits for General Population/Uncontrolled exposure: 0.08 W/kg as averaged over the whole-body and spatial peak SAR not exceeding 1.6 W/kg as averaged over any 1 gram of tissue (defined as a tissue volume in the shape of a cube). Exceptions are the hands, wrists, feet and ankles where the spatial peak SAR shall not exceed 4 W/kg, as averaged over any 10 grams of tissue (defined as a tissue volume in the shape of a cube). General Population/Uncontrolled limits apply when the general public may be exposed, or when persons that are exposed as a consequence of their employment may not be fully aware of the potential for exposure or do not exercise control over their exposure. Warning labels placed on consumer devices such as cellular telephones will not be sufficient reason to allow these devices to be evaluated subject to limits for occupational/controlled exposure in paragraph (d)(1) of this section.

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## 3. MEASUREMENT OF CONDUCTED PEAK OUTPUT POWER

#### . Bluetooth Average output power

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			Output
Band	Channel	Frequency	Power(dBm)
		(MHz)	GFSK
" aLAB	0	2402	-0.73
BT	19	2440	-1.16
LAB JOR	39 🎺	2480	-1.58

### 4. RF EXPOSURE EVALUATION

The device only incorporates a Bluetooth transmitter, so standalone SAR evaluation is required for Bluetooth and simultaneous SAR is not required.

Standalone transmission SAR evaluation

According to KDB 447498 section 4.3.1, the 1-g SAR test exclusion thresholds at test separation Distances  $\leq$  50 mm are determined by:

[(max. power of channel, including tune-up tolerance, mW)/(min. test separation distance, mm)]·[ $\sqrt{f}(GHz)$ ] ≤ 3.0

The maximum tune-up limit power is 0.89mW @ 2.402GHz

use 5mm as the most conservative minimum test separation distance,

[(max. power of channel, including tune-up tolerance, mW)/(min. test separation distance,

mm)]·[ $\sqrt{f(GHz)}$ ] =0.28  $\leq$  3.0

So SAR evaluation is not required for this device.



## ANNEX A GENERAL INFORMATION

#### 1. Identification of the Responsible Testing Laboratory

Company Name:	Shenzhen Morlab Communications Technology Co., Ltd.
Department:	Morlab Laboratory
Address:	FL.3, Building A, FeiYang Science Park, No.8 LongChang Road, Block 67, BaoAn District, ShenZhen, GuangDong Province, P. R. China
Responsible Test Lab Manager:	Mr. Su Feng
Telephone:	+86 755 36698555
Facsimile:	+86 755 36698525

#### 2. Identification of the Responsible Testing Location

Name:	Shenzhen Morlab Communications Technology Co., Ltd.
	Morlab Laboratory
Address:	FL.3, Building A, FeiYang Science Park, No.8 LongChang
	Road, Block 67, BaoAn District, ShenZhen, GuangDong
	Province, P. R. China

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

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