



# TEST REPORT

**Report No.** .....: **CTC2024287508**


**Applicant** .....: **XonTel Technology Trd. Co. W.L.L**

**Address**.....: Office 21 - Justice Tower - Ali Al Salem St. - Qibla - Kuwait City - State Of Kuwait

**Manufacturer**.....: XonTel Technology Trd. Co. W.L.L

**Address**.....: Office 21 - Justice Tower - Ali Al Salem St. - Qibla - Kuwait City - State Of Kuwait

**Product Name** .....: **Prime Business Phone**

**Trade Mark** .....: 

**Model/Type reference**.....: XT-24G

**Listed Model(s)** .....: /

**Standard** .....: **EN IEC 62311: 2020**

**Test Report Form No** .....: CTC-TR-047\_A1

**Master TRF** .....: Dated 2024-09-20

**Date of receipt of test sample...**: Jan. 18, 2022

**Date of testing**.....: Jan. 19, 2022 ~ Feb. 21, 2022

**Date of issue**.....: Dec. 20, 2024

**Result**.....: **PASS**

Compiled by:  
(Printed name+signature)                  Jim Jiang                  

Supervised by:  
(Printed name+signature)                  Eric Zhang                  

Approved by:  
(Printed name+signature)                  Totti Zhao                  



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# 1. TEST SUMMARY

## 1.1. Test Standards

The tests were performed according to following standards:

[EN IEC 62311: 2020](#) - Assessment of electronic and electrical equipment related to human exposure restrictions for electromagnetic fields (0 Hz to 300 GHz) (IEC 62311:2019)

## 1.2. Report version

Revised No.	Report No.	Date of issue	Description
01	CTC2024287508	Dec. 20, 2024	On the basis of the original report CTC20220136E13, update the applicant, manufacturer, trademark and model number., no testing involved.





### 1.3. Test Facility

#### Address of the report laboratory

##### CTC Laboratories, Inc.

Add: Room 101 of Building B, Room 107, 108, 207, 208 of Building A, No. 7, Lanqing 1st Road, Luh Community, Guanhu Subdistrict, Longhua District, Shenzhen, Guangdong, China

#### Laboratory accreditation

The test facility is recognized, certified, or accredited by the following organizations:

##### **A2LA-Lab Cert. No.: 4340.01**

CTC Laboratories, Inc. EMC Laboratory has been accredited by A2LA for technical competence in the field of electrical testing, and proved to be in compliance with ISO/IEC 17025:2017 General Requirements for the Competence of Testing and Calibration Laboratories and any additional program requirements in the identified field of testing.

##### **Industry Canada (Registration No.: 9783A, CAB Identifier: CN0029)**

CTC Laboratories, Inc. EMC Laboratory has been registered by Certification and Engineer Bureau of Industry Canada for the performance of with Registration NO.: 9783A on Jan, 2016.

##### **FCC (Registration No.: 951311, Designation Number CN1208)**

CTC Laboratories, Inc. EMC Laboratory has been registered and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in our files. Registration 951311, Aug 26, 2017.

### 1.4. Measurement Uncertainty

The data and results referenced in this document are true and accurate. The reader is cautioned that there may be errors within the calibration limits of the equipment and facilities. The measurement uncertainty was calculated for all measurements listed in this test report acc. to TR-100028-01 "Electromagnetic compatibility and Radio spectrum Matters (ERM); Uncertainties in the measurement of mobile radio equipment characteristics; Part 1" and TR-100028-02 "Electromagnetic compatibility and Radio spectrum Matters (ERM); Uncertainties in the measurement of mobile radio equipment characteristics; Part 2" and is documented in the CTC Laboratories, Inc. quality system acc. to DIN EN ISO/IEC 17025. Furthermore, component and process variability of devices similar to that tested may result in additional deviation. The manufacturer has the sole responsibility of continued compliance of the device.

Below is the best measurement capability for CTC Laboratories, Inc.



## 2. GENERAL INFORMATION

### 2.1. Client Information

Applicant:	XonTel Technology Trd. Co. W.L.L
Address:	Office 21 - Justice Tower - Ali Al Salem St. - Qibla - Kuwait City - State Of Kuwait
Manufacturer:	XonTel Technology Trd. Co. W.L.L
Address:	Office 21 - Justice Tower - Ali Al Salem St. - Qibla - Kuwait City - State Of Kuwait

### 2.2. General Description of EUT

Product Name:	Prime Business Phone		
Trade Mark:			
Model/Type reference:	XT-24G		
Listed Model(s):	/		
Power supply:	5Vdc/2A from AC/DC Adapter 48Vdc/0.3A from POE		
Adapter 1 Model:	F12W8-050200SPAV Input: 100-240V~ 50/60Hz 0.6A Output: 5Vdc/2A		
Adapter 2 Model:	F12W8-050200SPAB Input: 100-240V~ 50/60Hz 0.6A Output: 5Vdc/2A		
Adapter 3 Model:	F12W8-050200SPAS Input: 100-240V~ 50/60Hz 0.6A Output: 5Vdc/2A		
Adapter Difference:	All these models are identical in the same PCB, Layout and electrical circuit, The only difference is plugs.		
Hardware version:	V1.0		
Software version:	T0.0.9.5.1		
<b>Technical index for Bluetooth</b>			
Modulation:	GFSK(BLE), $\pi/4$ -DQPSK, 8-DPSK		
Operation frequency:	2402MHz~2480MHz		
Antenna gain:	5dBi		
<b>Technical index for WIFI</b>			
Supported type:	<input checked="" type="checkbox"/> 802.11b	<input checked="" type="checkbox"/> 802.11g	<input checked="" type="checkbox"/> 802.11n(HT20) <input type="checkbox"/> 802.11n(HT40)
Modulation:	DSSS for 802.11b OFDM for 802.11g/802.11n(HT20)		
Operation frequency:	2412MHz~2472MHz for 802.11b/802.11g/802.11n(HT20)		
Antenna gain:	5dBi		
<b>Technical Index RLAN</b>			
Support Type:	<input checked="" type="checkbox"/> 802.11a	<input checked="" type="checkbox"/> 802.11n	<input checked="" type="checkbox"/> 802.11ac

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Support Bandwidth:	802.11a	<input checked="" type="checkbox"/>	20MHz			
	802.11n	<input checked="" type="checkbox"/>	20MHz	<input checked="" type="checkbox"/>	40MHz	
	802.11ac	<input checked="" type="checkbox"/>	20MHz	<input checked="" type="checkbox"/>	40MHz	<input checked="" type="checkbox"/> 80MHz <input type="checkbox"/> 160MHz
Operation Frequency:	<input checked="" type="checkbox"/> Lower Band: 5150-5250MHz					
	<input checked="" type="checkbox"/> Higher Band: 5725-5850MHz					
Modulation:	<input checked="" type="checkbox"/> BPSK	<input checked="" type="checkbox"/> QPSK	<input checked="" type="checkbox"/> 16QAM	<input checked="" type="checkbox"/> 64QAM		
Antenna gain:	5.8dBi					





### 3. TEST ITEM AND RESULTS

#### 3.1. RF Exposure

##### Limit

Reference levels for electric, magnetic and electromagnetic fields  
(0 Hz to 300 GHz, unperturbed rms values)

Frequency range	E-field strength (V/m)	H-field strength (A/m)	B-field (μT)	Equivalent plane wave power density $S_{eq}$ (W/m <sup>2</sup> )
0-1 Hz	—	$3,2 \times 10^4$	$4 \times 10^4$	—
1-8 Hz	10 000	$3,2 \times 10^4/f^2$	$4 \times 10^4/f^2$	—
8-25 Hz	10 000	$4\,000/f$	$5\,000/f$	—
0,025-0,8 kHz	$250/f$	$4/f$	$5/f$	—
0,8-3 kHz	$250/f$	5	6,25	—
3-150 kHz	87	5	6,25	—
0,15-1 MHz	87	$0,73/f$	$0,92/f$	—
1-10 MHz	$87/f^{1/2}$	$0,73/f$	$0,92/f$	—
10-400 MHz	28	0,073	0,092	2
400-2 000 MHz	$1,375 f^{1/2}$	$0,0037 f^{1/2}$	$0,0046 f^{1/2}$	$f/200$
2-300 GHz	61	0,16	0,20	10

##### Notes:

- As indicated in the frequency range column.
- For frequencies between 100kHz and 10GHz,  $S_{eq}$ ,  $E^2$ ,  $H^2$  and  $B^2$  are to be averaged over any six-minute period.
- For frequencies exceeding 10GHz,  $S_{eq}$ ,  $E^2$ ,  $H^2$  and  $B^2$  are to be averaged over any  $68/f^{1.05}$ -minute period (.in GHz).
- No E-field value is provided for frequencies <1Hz, which are effectively static electric fields. For most people the annoying perception of surface electric charges will not occur at field strengths less than 20kV/m. Spark discharges causing stress or annoyance should be avoided.

##### MPE Calculation Method

The MPE was calculated at 20 cm to show compliance with the power density limit. The following formula was used to calculate the E-field:

$$E = \eta_0 H = \frac{\sqrt{30PG(\theta, \phi)}}{r}$$

Where:

E: E-field strength (V/m)

P: power input to antenna (Watt)

G: is the antenna gain relative to an isotropic antenna;

$\theta, \phi$ : are elevation and azimuth angles to point of investigation;

r: is the distance from observation point to the antenna;

$\eta_0$ : is the characteristic impedance of free space.

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**TEST RESULTS**

Band	Frequency (MHz)	Antenna Gain (dBi)	Maximum Power EIRP(dBm)	Tune up tolerance (dBm)	Max. Tune up Power (dBm)	E-field strength at 20cm (V/m)	Limit (V/m)
GFSK	/	5.0	9.27	9±1	10	4.870	61
$\pi$ /4-DQPSK	/	5.0	9.58	9±1	10	4.870	61
8-DPSK	/	5.0	9.51	9±1	10	4.870	61
GFSK(BLE)	2402	5.0	9.72	10±1	11	5.464	61
WLAN 802.11b	2412	5.0	16.40	16±1	17	10.903	61
WLAN 802.11g	2412	5.0	15.71	16±1	17	10.903	61
WLAN 802.11n(HT20)	2472	5.0	15.70	16±1	17	10.903	61
RLAN U-NII-1 802.11a	5180	5.8	17.66	17±1	18	13.413	61
RLAN U-NII-1 802.11n(HT20)	5180	5.8	17.53	17±1	18	13.413	61
RLAN U-NII-1 802.11n(HT40)	5190	5.8	17.92	18±1	19	15.050	61
RLAN U-NII-1 802.11ac(VHT20)	5180	5.8	18.05	18±1	19	15.050	61
RLAN U-NII-1 802.11ac(VHT40)	5190	5.8	18.11	18±1	19	15.050	61
RLAN U-NII-1 802.11ac(VHT80)	5210	5.8	18.20	18±1	19	15.050	61
RLAN U-NII-3 802.11a	5745	5.8	11.86	12±1	13	7.543	61
RLAN U-NII-3 802.11n(HT20)	5745	5.8	11.55	12±1	13	7.543	61
RLAN U-NII-3 802.11n(HT40)	5755	5.8	11.68	12±1	13	7.543	61
RLAN U-NII-3 802.11ac(VHT20)	5745	5.8	11.52	12±1	13	7.543	61
RLAN U-NII-3 802.11ac(VHT40)	5755	5.8	11.96	12±1	13	7.543	61
RLAN U-NII-3 802.11ac(VHT80)	5775	5.8	11.41	12±1	13	7.543	61

The RLAN and BT can transmit simultaneously.

RLAN E-field strength at 20cm (V/m)	BT E-field strength at 20cm (V/m)	Total E-field strength at 20cm (V/m)	Limit (V/m)
15.050	5.464	20.514	61

Note: r is the distance from observation point to the antenna which is declared by the applicant.

\*\*\*\*\*THE END\*\*\*\*\*

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