



XonTel Technology Trd. Co. W.L.L

CE REPORT

Prepared For :	XonTel Technology Trd. Co. W.L.L Kuwait City, Qibla, Aladel Tower, F21, state of Kuwait.
Product Name:	Smoke Detector
Trademark:	XonTel
Main Test Model:	SD-01
Prepared By :	BST Testing (Shenzhen) Co.,Ltd. No.7, New Era Industrial Zone, Guantian, Bao'an District, Shenzhen, Guangdong, China
Test Date:	May 22, 2023 to Jun. 02, 2023
Date of Report:	Jun. 02, 2023
Report No.:	BSTXD230522462101MR



RF Exposure Measurement and Test Report

Applicant	:	XonTel Technology Trd. Co. W.L.L
Address	:	Kuwait City, Qibla, Aladel Tower, F21, state of Kuwait.
EUT Description	:	Smoke Detector
Model Number	:	SD-01

Test Standards:

EN IEC 62311:2020



1. GENERAL INFORMATION

1.1 Product Description for Equipment Under Test (EUT)

Client Information

Manufacturer: XonTel Technology Trd. Co. W.L.L
Address of manufacturer: Kuwait City, Qibla, Aladel Tower, F21, state of Kuwait.

General Description of EUT	
Product Name:	Smoke Detector
Trade Name:	XonTel
Model No.:	SD-01
Adding Model(s):	/
Rated Voltage:	Battery: 2xLR03 AAA 1.5V
Battery Capacity:	/
Software Version:	/
Hardware Version:	/
<i>Note: The test data is gathered from a production sample, provided by the manufacturer.</i>	



1.2 Compliance Standards

The tests were performed according to following standards:

EN 62311:2008 Assessment of electronic and electrical equipment related to human exposure restrictions for electromagnetic fields (0 Hz – 300 GHz), and EN IEC 62311:2020, 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).

Maintenance of compliance is the responsibility of the manufacturer. Any modification of the product maybe which result in lowering the emission/immunity should be checked to ensure compliance has been maintained

1.3 Test Methodology

All measurements contained in this report were conducted with EN 62311,
The equipment under test (EUT) was configured to measure its highest possible emission level. For more detail refer to the Operating Instructions.

1.4 Test Facility



2. RF EXPOSURE REFERENCE LEVELS

2.1 Standard Applicable

This International Standard applies to electronic and electrical equipment for which no dedicated product- or product family standard regarding human exposure to electromagnetic fields applies. The frequency range covered is 0 Hz to 300 GHz.

The object of this generic standard is to provide assessment methods and criteria to evaluate such equipment against basic restrictions or reference levels on exposure of the general public related to electric, magnetic and electromagnetic fields and induced and contact current.

Normative reference

EN IEC 62311:2020, Assessment of electronic and electrical equipment related to human exposure restrictions for electromagnetic fields (0 Hz – 300 GHz).

Council Recommendation 1999/519/EC of 12 July 1999 on the limitation of exposure of the general public to the electromagnetic fields (0Hz to 300GHz) (Official Journal L 197 of 30 July 1999).

2.2 Reference Levels Limit

According to the EN IEC 62311:2020, the criteria listed in the following table shall be used to evaluate the environmental impact of human exposure to radio-frequency (RF) radiation as specified 1999/519/EC.

Reference levels of electric, magnetic, and electromagnetic fields
(0MHz to 300GHz, imperturbed rms values)

Frequency range	E-field strength (V/m)	H-field strength (A/m)	B-field (nT)	Equivalent plane wave power density S_{Eq} (W/m ²)
0-1Hz	—	3.2×10^4	4×10^4	—
1-8Hz	10000	$3.2 \times 10^4 / f^2$	$4 \times 10^4 / f^2$	—
8-25Hz	10000	$4000 / f$	$5000 / f$	—
0.025-0.8kHz	$250 / f$	$4 / f$	$5 / f$	—
0.8-3kHz	$250 / f$	5	6.25	—
3-150kHz	87	5	6.25	—
0.15-1MHz	87	$0.73 / f$	$0.92 / f$	—
1-10MHz	$87 / f^{1/2}$	$0.73 / f$	$0.92 / f$	—
10-400MHz	28	0.073	0.092	2
400-2000MHz	$1,375 f^{1/2}$	$0.0037 f^{1/2}$	$0.0046 f^{1/2}$	$f / 200$
2-300GHz	61	0.16	0.20	10

**Note:**

1. f as indicated in the frequency range column
2. For frequencies between 100 kHz and 10 GHz, S_{Eq} , E^2 , H^2 , and B^2 are to be averaged over any sixty-minute period.
3. 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 (f in GHz).
4. No E-field value is provided for frequencies <1 Hz, which are effectively static electric fields. For most people the annoying perception of surface electric charges will not occur at field strengths less than 25 kV/m, Spark discharges causing stress or annoyance should be avoided.

2.3 Evaluation Methods

The antenna of the product, under normal use condition is at least 20 cm away from the body of the user. Warning statement to the user to keeping at least 20 cm separation distance and the prohibition of operating to a person has been printed on the user's manual. So, this product under normal use is located on electromagnetic far field between the human body.

Far Field Calculation Formula

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

G=antenna gain relative to an isotropic antenna

θ, ϕ =elevation and azimuth angles to point of investigation

r=distance from observation point to the antenna

η_0 =Characteristic impedance of free space



2.4 Evaluation Results

Channel	Frequency (MHz)	EIRP (dBm)	E-field Strength (V/m)	E-field Strength Limit (V/m)	Result Pass/Fail
802.11b					
1	2412	15.79	5.33	61	Pass
7	2442	16.79	5.98	61	Pass
13	2472	16.90	6.06	61	Pass
802.11g					
1	2412	11.79	3.37	61	Pass
7	2442	13.33	4.02	61	Pass
13	2472	14.79	4.75	61	Pass
802.11n-HT20					
1	2412	11.83	3.38	61	Pass
7	2442	13.50	4.10	61	Pass
13	2472	13.74	4.21	61	Pass
802.11n-HT40					
3	2422	11.47	3.24	61	Pass
7	2442	11.95	3.43	61	Pass
11	2462	12.62	3.70	61	Pass

Since the maximum E-field strength of this device based on 20cm separation distance cannot exceed the E-field strength of reference levels limit. It is deemed to full fit the requirement of RF exposure basic restriction specified in EC Council Recommendation (1999/519/EC).



EXHIBIT 1 - PRODUCT LABELING



Photo 1

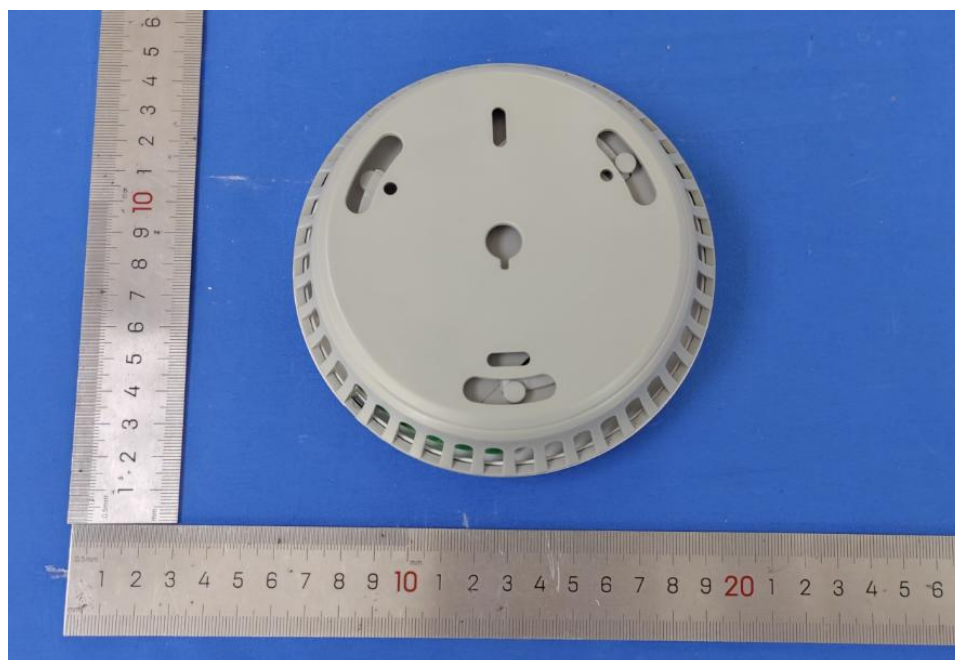


Photo 2

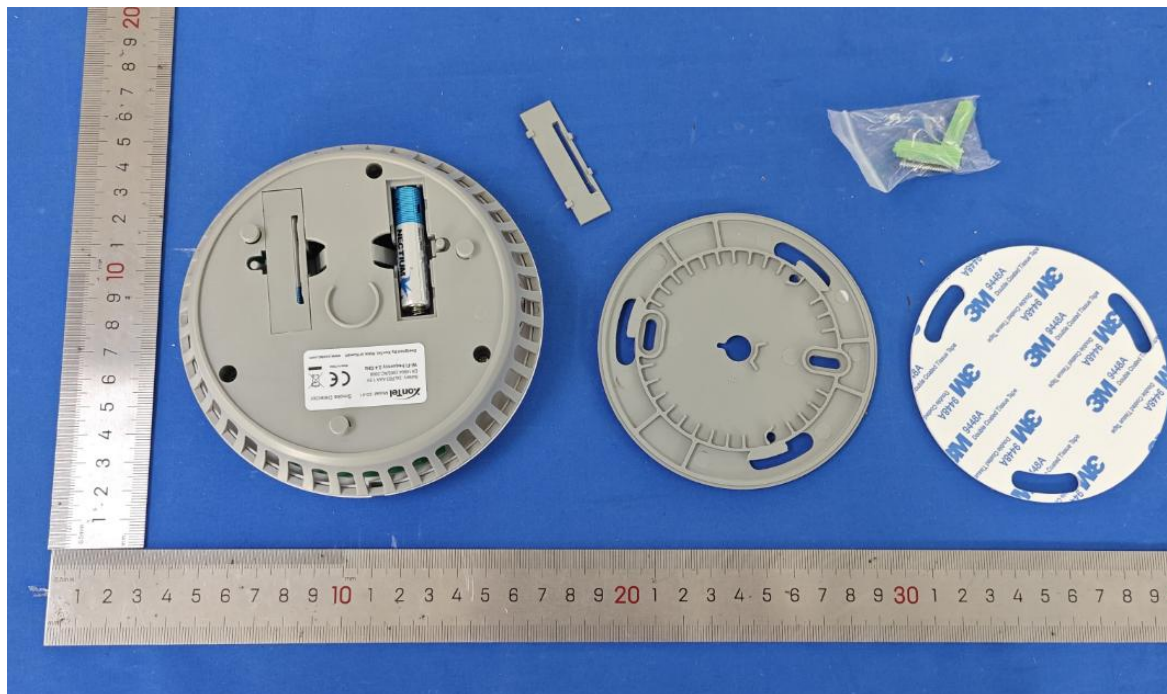


Photo 3

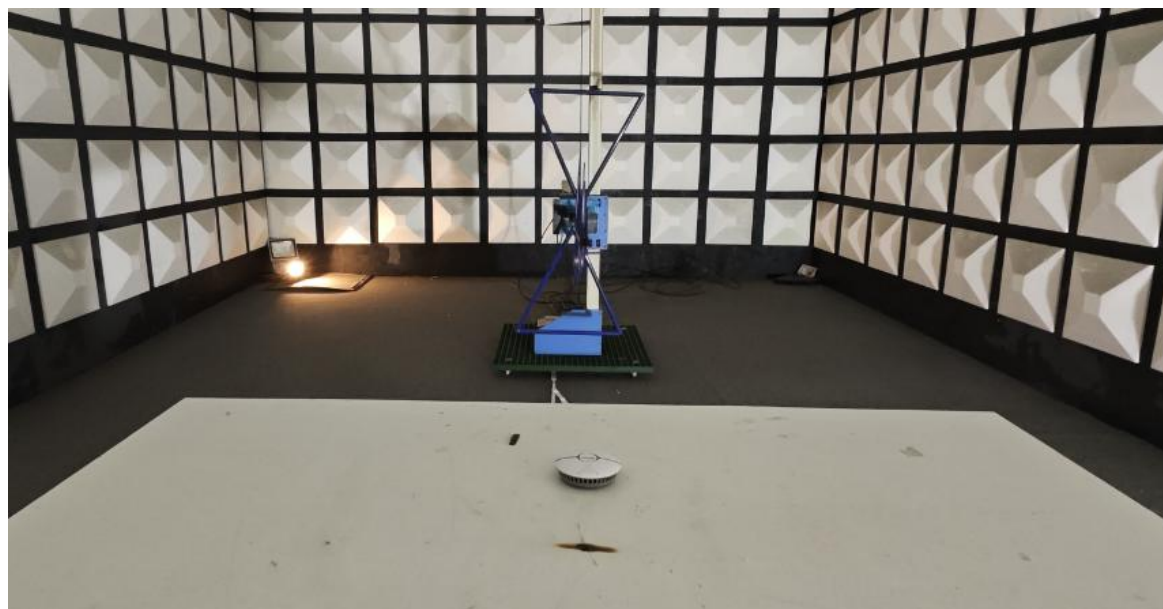


Photo 4

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