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检测
TESTING
CNAS L3163

CE RF Test Report

Project No.	:	2403G103
Equipment	:	Smart Video Phone
Brand Name	:	XONTEL
Test Model	:	XT-50G
Series Model	:	N/A
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
Date of Receipt	:	Apr. 15, 2024
Date of Test	:	Apr. 26, 2024
Issued Date	:	May 06, 2024
Report Version	:	R00
Test Sample	:	Engineering Sample No.: SSL2024041552.
Standard(s)	:	ETSI EN 301 893 V2.1.1 (2017-05)

The above equipment has been tested and found compliance with the requirement of the relative standards by BTL Inc.(Dongguan).

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Declaration

BTL represents to the client that testing is done in accordance with standard procedures as applicable and that test instruments used has been calibrated with standards traceable to international standard(s) and/or national standard(s).

BTL's reports apply only to the specific samples tested under conditions. It is manufacture's responsibility to ensure that additional production units of this model are manufactured with the identical electrical and mechanical components. BTL assumes no responsibility for the data provided by the customer, any statements, inferences or generalizations drawn by the customer or others from the reports issued by BTL.

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BTL's laboratory quality assurance procedures are in compliance with the ISO/IEC 17025: 2017 requirements, and accredited by the conformity assessment authorities listed in this test report.

BTL is not responsible for the sampling stage, so the results only apply to the sample as received.

The information, data and test plan are provided by manufacturer which may affect the validity of results, so it is manufacturer's responsibility to ensure that the apparatus meets the essential requirements of applied standards and in all the possible configurations as representative of its intended use.

Limitation

For the use of the authority's logo is limited unless the Test Standard(s)/Scope(s)/Item(s) mentioned in this test report is (are) included in the conformity assessment authorities acceptance respective.
Please note that the measurement uncertainty is provided for informational purpose only and are not use in determining the Pass/Fail results.

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REPORT ISSUED HISTORY

Report No.	Version	Description	Issued Date	Note
BTL-ETSP-4-2403G103	R00	This is a supplementary report to the original test report (BTL-ETSP-4-2108C114). 1. The brand name, model name, applicant and manufacturer information are changed. 2. Removed the factory information. 3. Verified the power due to logo conversion and recorded in this report. The other test results please refer to original report.	May 06, 2024	Valid

Remark: For the original report (BTL-ETSP-4-2108C114), the test data, data evaluation, and equipment configuration contained was accredited by the Authority of A2LA according to the ISO/IEC 17025 quality assessment standard and technical standard(s).

1. RF EMISSIONS MEASUREMENT

1.1 TEST FACILITY

The test facilities used to collect the test data in this report is **TR15** at the location of No.3, Jinshagang 1st Road, Dalang, Dongguan, Guangdong, China.

1.2 MEASUREMENT UNCERTAINTY

The measurement uncertainty figures shall be calculated according the methods described in the ETSI TR 100 028 and shall correspond to an expansion factor (coverage factor) k=1.96 or k=2(which provide confidence levels of respectively 95% and 95.45% in the case where the distributions characterizing the actual measurement uncertainties are normal (Gaussian)).
Measurement Uncertainty for a Level of Confidence of 95.45%, $U=2\times u_c(y)$.

The BTL measurement uncertainty as below table:

Item	**Uncertainty**
RF Power, Conducted	±0.95 dB
Temperature	±0.08 °C
Humidity	±1.5 %
Time	±0.58 %

1.3 TEST ENVIRONMENT CONDITIONS

Test Item	Temperature	Humidity	Test Voltage	Tested By	Test Date
RF output power	Normal & Extreme	57%	DC 12V	Andrew Jaing	Apr. 26, 2024

1.4 TEST CHANNEL

IEEE 802.11a / IEEE 802.11n(HT20) / IEEE 802.11ac(VHT20)		
Test Channel	EUT Channel	Test Frequency
Low	CH36	5180 MHz
High	CH48	5240 MHz

IEEE 802.11n(HT40) / IEEE 802.11ac(VHT40)		
Test Channel	EUT Channel	Test Frequency
Low	CH38	5190 MHz
High	CH46	5230 MHz

IEEE 802.11ac(VHT80)		
Test Channel	EUT Channel	Test Frequency
Low	CH42	5210 MHz

1.5 TEST METHODOLOGY AND RESULTS

Harmonised Standard ETSI EN 301 893					
Requirement			Requirement Conditionality		Observations
No	Description	Reference: Clause No	U/C	Condition	
1	Carrier frequencies	4.2.1	U	-	N/A
2	Nominal, and occupied channel bandwidth	4.2.2	U	-	N/A
3	RF output power	4.2.3	U	-	Pass
	Transmit Power Control (TPC)	4.2.3	C	1)Not required for channels whose nominal bandwidth falls completely within the band 5150 MHz to 5250 MHz. 2)Not required for devices that operate at a maximum mean e.i.r.p. of 20 dBm when operating in 5250 MHz to 5350 MHz or 27 dBm when operating in 5470 MHz to 5725 MHz.	N/A
	Power Density	4.2.3	U	-	N/A
4	Transmitter unwanted emissions outside the 5 GHz RLAN bands	4.2.4.1	U	-	N/A
5	Transmitter unwanted emissions within the 5 GHz RLAN bands	4.2.4.2	U	-	N/A
6	Receiver spurious emissions	4.2.5	U	-	N/A
7	Adaptivity	4.2.7	U	-	N/A
8	Receiver Blocking	4.2.8	U	-	N/A
9	User Access Restrictions	4.2.9	U	-	N/A
10	Geo-location capability	4.2.10	C	Where implemented by the manufacturer.	N/A

Note:

1. U/C Indicates whether the requirement is unconditionally applicable (U) or is conditional upon the manufacturer's claimed functionality of the equipment (C).
2. “N/A” indicates that it does not apply to this device.

2. GENERAL INFORMATION

2.1 GENERAL DESCRIPTION OF EUT

Equipment	Smart Video Phone
Brand Name	XONTEL
Test Model	XT-50G
Series Model	N/A
Model Difference(s)	N/A
Power Source	1# DC voltage supplied from AC adapter. Model: F18L16-120150SPAV (EU) Model: F18L18-120150SPAB (UK) 2# Supplied from PoE.
Power Rating	1# I/P: 100-240V~ 50/60Hz 0.6A O/P: 12.0V ⎓ 1.5A 2# DC 48V
Operation Frequency Band(s)	5150 MHz ~ 5250 MHz
Modulation Type	IEEE 802.11a/n/ac: OFDM
Bit Rate of Transmitter	IEEE 802.11a: 54/48/36/24/18/12/9/6 Mbps IEEE 802.11n: up to 150 Mbps IEEE 802.11ac: up to 433.3 Mbps
Max. e.i.r.p.	IEEE 802.11a: 19.11 dBm (81.47 mW) IEEE 802.11n(HT20): 19.70 dBm (93.33 mW) IEEE 802.11n(HT40): 19.72 dBm (93.76 mW) IEEE 802.11ac(VHT20): 19.74 dBm (94.19 mW) IEEE 802.11ac(VHT40): 19.84 dBm (96.38 mW) IEEE 802.11ac(VHT80): 19.84 dBm (96.38 mW)

Note:

1. For a more detailed features description, please refer to the manufacturer's specifications or the user's manual.

2. Channel List:

IEEE 802.11a IEEE 802.11n(HT20) IEEE 802.11ac(VHT20)		IEEE 802.11n(HT40) IEEE 802.11ac(VHT40)		IEEE 802.11ac(VHT80)	
Band 1		Band 1		Band 1	
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
36	5180	38	5190	42	5210
40	5200	46	5230		
44	5220				
48	5240				

3. Table for Filed Antenna:

Ant.	Brand	P/N	Antenna Type	Connector	Gain (dBi)
1	Dongguan YiJia Electronics Communication Technology Co.,Ltd.	YJL01.106.020.301A	FPC	IPEX	3.1

Note: The antenna gain is provided by the manufacturer.

2.2 DESCRIPTION OF TEST MODES

To investigate the maximum EMI emission characteristics generates from EUT, the test system was pre-scanning tested base on the consideration of following EUT operation mode or test configuration mode which possible have effect on EMI emission level. Each of these EUT operation mode(s) or test configuration mode(s) mentioned above was evaluated respectively.

Test	Clause	Test channels
		Lower sub-band (5150 MHz to 5350 MHz)
		5150 MHz to 5250 MHz
Power	5.4.4	C1

C1	The lowest declared channel for every declared Nominal Channel Bandwidth within this band. For the Power Density testing, it is sufficient to only perform this test using the lowest Nominal Channel Bandwidth.

Note :

(1) The measurements for RF Output Power are tested, the worst case are IEEE 802.11a mode, IEEE 802.11ac(VHT20) mode, IEEE 802.11ac(VHT40) mode, IEEE 802.11ac(VHT80) mode, only the worst cases are documented for other test items except Adaptivity and Receiver Blocking.

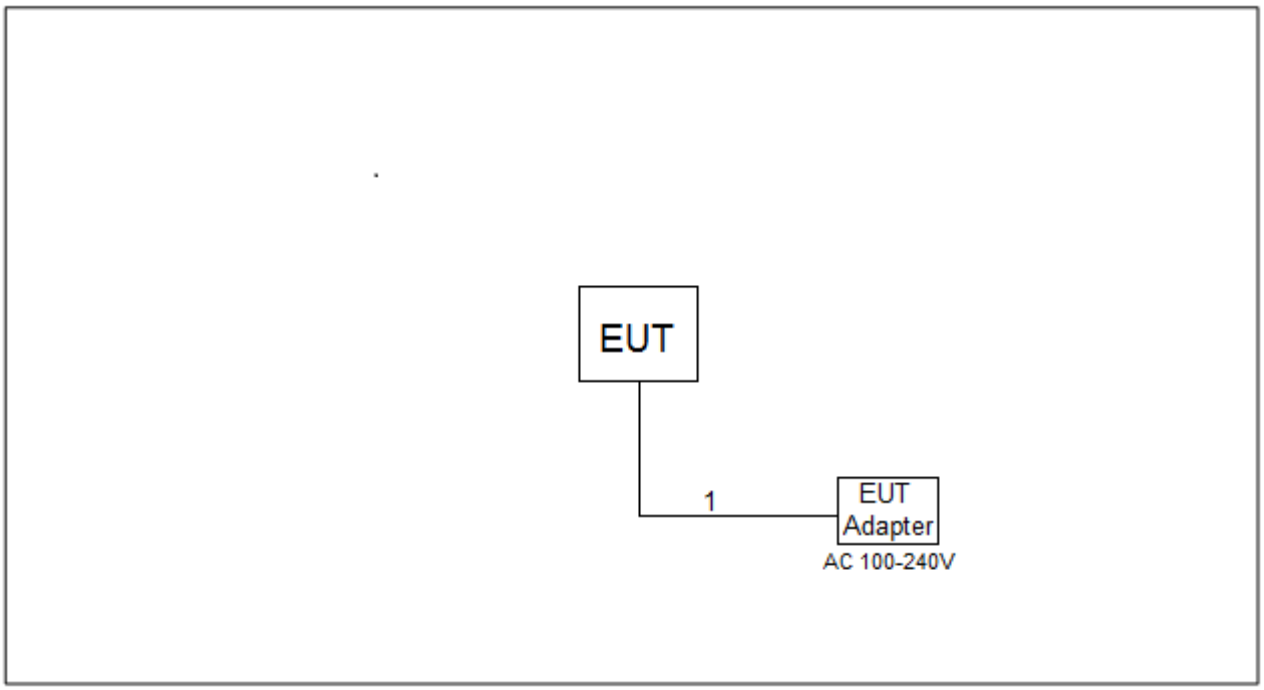
(2) All adapters are differ in plug, so tested with EU plug.

2.3 TABLE OF PARAMETERS OF TEST SOFTWARE SETTING

During testing channel & power controlling software provided by the customer was used to control the operating channel as well as the output power level.

Test Software Version	ADB	
Frequency (MHz)	5180	5240
IEEE 802.11a	16	16
IEEE 802.11n(HT20)	17	17
IEEE 802.11ac(VHT20)	17	17
Frequency (MHz)	5190	5230
IEEE 802.11n(HT40)	17	17
IEEE 802.11ac(VHT40)	17	17
Frequency (MHz)	5210	
IEEE 802.11ac(VHT80)	17	

2.4 BLOCK DIAGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED



2.5 DESCRIPTION OF SUPPORT UNITS

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

Item	Equipment	Brand	Model No.	Series No.
-	-	-	-	-

Item	Cable Type	Shielded Type	Ferrite Core	Length
1	DC Cable	NO	NO	1.2m

2.6 EUT OPERATING CONDITIONS

The EUT was configured for testing in a typical fashion (as a customer would normally use it). The EUT has been programmed to continuously transmit during test. This operating condition was tested and used to collect the included data.

3. RF OUTPUT POWER

3.1 LIMIT

Mean e.i.r.p. Limits for RF Output Power at the Highest Power Level		
Frequency Range (MHz)	Mean e.i.r.p. Limit for P_H (dBm)	
	With TPC	Without TPC
5150 to 5350	23	20/23 (see note1)

Note:	
(1)	The applicable limit is 20 dBm, except for transmissions whose nominal bandwidth falls completely within the band 5150 MHz to 5250 MHz, in which case the applicable limit is 23 dBm.

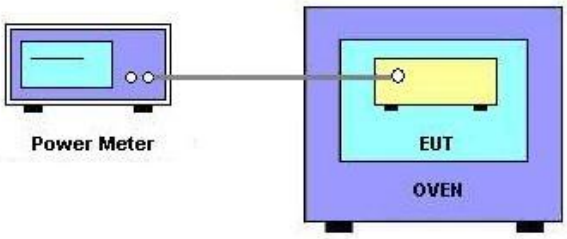
3.2 TEST PROCEDURES

Refer to ETSI EN 301 893, clause 5.4.4.2.1.

3.3 TEST SETUP LAYOUT

Normal Condition

Extreme Condition



3.4 TEST DEVIATION

There is no deviation with the original standard.

3.5 EUT OPERATION DURING TEST

The measurements shall be performed during continuously transmitting.

3.6 TEST RESULTS

Please refer to the Appendix A.

4. MEASUREMENT INSTRUMENTS LIST

RF Output Power					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Table top type high and low temperature test chamber	CEPREI	CEEC-M64T-40	15-008	Dec. 22, 2024
2	Power Sensor	Agilent	U2021XA	MY53320006	Jun. 17, 2024
3	Cable	RegalWay	20210802 014	RWP50-402-SMSM-1M	N/A
4	BTL TestSystem	BTL	TestSoftware	N/A	N/A
5	Attenuator	Talent Microwave	TA10A2-S-18	N/A	N/A

Remark: “N/A” denotes no model name, serial no. or calibration specified.
All calibration period of equipment list is one year.

APPENDIX A - RF OUTPUT POWER

Test Mode: IEEE 802.11a Mode at the Highest Power Level			
Test Conditions		e.i.r.p. (dBm)	
		5180MHz	5240MHz
T nom (°C)	24	18.91	18.83
T min (°C)	0	18.98	18.92
T max (°C)	45	19.11	19.08
Max. e.i.r.p.		19.11	19.08
Limits		23	23
Result		Pass	

Test Mode: IEEE 802.11n(HT20) Mode at the Highest Power Level			
Test Conditions		e.i.r.p. (dBm)	
		5180MHz	5240MHz
T nom (°C)	24	19.68	19.64
T min (°C)	0	19.51	19.47
T max (°C)	45	19.70	19.68
Max. e.i.r.p.		19.70	19.68
Limits		23	23
Result		Pass	

Test Mode: IEEE 802.11n(HT40) Mode at the Highest Power Level			
Test Conditions		e.i.r.p. (dBm)	
		5190MHz	5230MHz
T nom (°C)	24	19.71	19.67
T min (°C)	0	19.49	19.41
T max (°C)	45	19.72	19.68
Max. e.i.r.p.		19.72	19.68
Limits		23	23
Result		Pass	

Test Mode: IEEE 802.11ac(VHT20) Mode at the Highest Power Level			
Test Conditions		e.i.r.p. (dBm)	
		5180MHz	5240MHz
T nom (°C)	24	19.70	19.65
T min (°C)	0	19.59	19.53
T max (°C)	45	19.74	19.72
Max. e.i.r.p.		19.74	19.72
Limits		23	23
Result		Pass	

Test Mode: IEEE 802.11ac(VHT40) Mode at the Highest Power Level			
Test Conditions		e.i.r.p. (dBm)	
		5190MHz	5230MHz
T nom (°C)	24	19.72	19.69
T min (°C)	0	19.62	19.58
T max (°C)	45	19.84	19.81
Max. e.i.r.p.		19.84	19.81
Limits		23	23
Result		Pass	

Test Mode: IEEE 802.11ac(VHT80) Mode at the Highest Power Level		
Test Conditions		e.i.r.p. (dBm)
		5210MHz
T nom (°C)	24	19.66
T min (°C)	0	19.60
T max (°C)	45	19.84
Max. e.i.r.p.		19.84
Limits		23
Result		Pass

Note: e.i.r.p. = Conducted output power + G (Ant Gain)

End of Test Report