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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 300 328 V2.2.2 (2019-07)

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-3-2403G103	R00	This is a supplementary report to the original test report (BTL-ETSP-3-2108C114). 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-3-2108C114), 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:

Parameter	**Uncertainty**
Output Power	±0.95 dB
Temperature	±0.08 °C
Time	±0.58 %
Supply voltages	±0.3 %

1.3 TEST ENVIRONMENT CONDITIONS

Test Item	Temperature	Humidity	Test Voltage	Tested By	Test Date
RF Output Power	Normal & Extreme	54%	DC 12V	Andrew Jaing	Apr. 26, 2024

1.4 TEST CHANNEL

IEEE 802.11b / IEEE 802.11g / IEEE 802.11n(HT20)		
Test Channel	EUT Channel	Test Frequency
low	CH01	2412 MHz
middle	CH07	2442 MHz
high	CH13	2472 MHz

Note:
(1) The technical requirements of the present document apply under the environmental profile for operation of the equipment, which shall be stated by the supplier.

1.5 TEST METHODOLOGY AND RESULT

Harmonised Standard ETSI EN 300 328					
Essential Requirement			Requirement Conditionality		Result
No	Description	Reference: Clause No	U/C	Condition	
1	RF Output Power	4.3.1.2 or 4.3.2 2	U	-	Pass
2	Power Spectral Density	4.3.2.3	C	Only for non-FHSS equipment	N/A
3	Duty cycle, Tx-Sequence, Tx-gap	4.3.1.3 or 4.3.2.4	C	Only for non-Adaptive equipment	N/A
4	Accumulated Transmit time, Frequency Occupation & Hopping Sequence	4.3.1.4	C	Only for FHSS equipment	N/A
5	Hopping Frequency Separation	4.3.1.5	C	Only for FHSS equipment	N/A
6	Medium Utilization	4.3.1.6 or 4.3.2.5	C	Only for non-Adaptive equipment	N/A
7	Adaptivity	4.3.1.7 or 4.3.2.6	C	Only for Adaptive equipment	N/A
8	Occupied Channel Bandwidth	4.3.1.8 or 4.3.2.7	U	-	N/A
9	Transmitter unwanted emissions in the OOB domain	4.3.1.9 or 4.3.2.8	U	-	N/A
10	Transmitter unwanted emissions in the spurious domain	4.3.1.10 or 4.3.2.9	U	-	N/A
11	Receiver spurious emissions	4.3.1.11 or 4.3.2.10	U	-	N/A
12	Receiver Blocking	4.3.1.12 or 4.3.2.11	U	-	N/A
13	Geo-location capability	4.3.1.13 or 4.3.2.12	C	Only for equipment with geo-location capability	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. 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	2412 MHz ~ 2472 MHz
Modulation Technology	IEEE 802.11b: DSSS IEEE 802.11g: OFDM IEEE 802.11n: OFDM
Bit Rate of Transmitter	IEEE 802.11b: 11/5.5/2/1 Mbps IEEE 802.11g: 54/48/36/24/18/12/9/6 Mbps IEEE 802.11n: up to 72.2 Mbps
Max. e.i.r.p.	IEEE 802.11b: 17.34 dBm (54.20 mW) IEEE 802.11g: 18.39 dBm (69.02 mW) IEEE 802.11n(HT20): 18.71 dBm (74.30 mW)
Categorization	☒Receiver category 1 ☐Receiver category 2 ☐Receiver category 3

Note:

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

2. Channel List:

CH01 - CH13 for IEEE 802.11b,IEEE 802.11g,IEEE 802.11n(HT20)					
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
01	2412	06	2437	11	2462
02	2417	07	2442	12	2467
03	2422	08	2447	13	2472
04	2427	09	2452		
05	2432	10	2457		

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	3.0

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 Items	Mode / Modulation Type	Data Rate	Channel
RF Output Power	IEEE 802.11b/CCK	1 Mbps	01/07/13
	IEEE 802.11g/BPSK	6 Mbps	01/07/13
	IEEE 802.11n(HT20)/BPSK	MCS 0	01/07/13

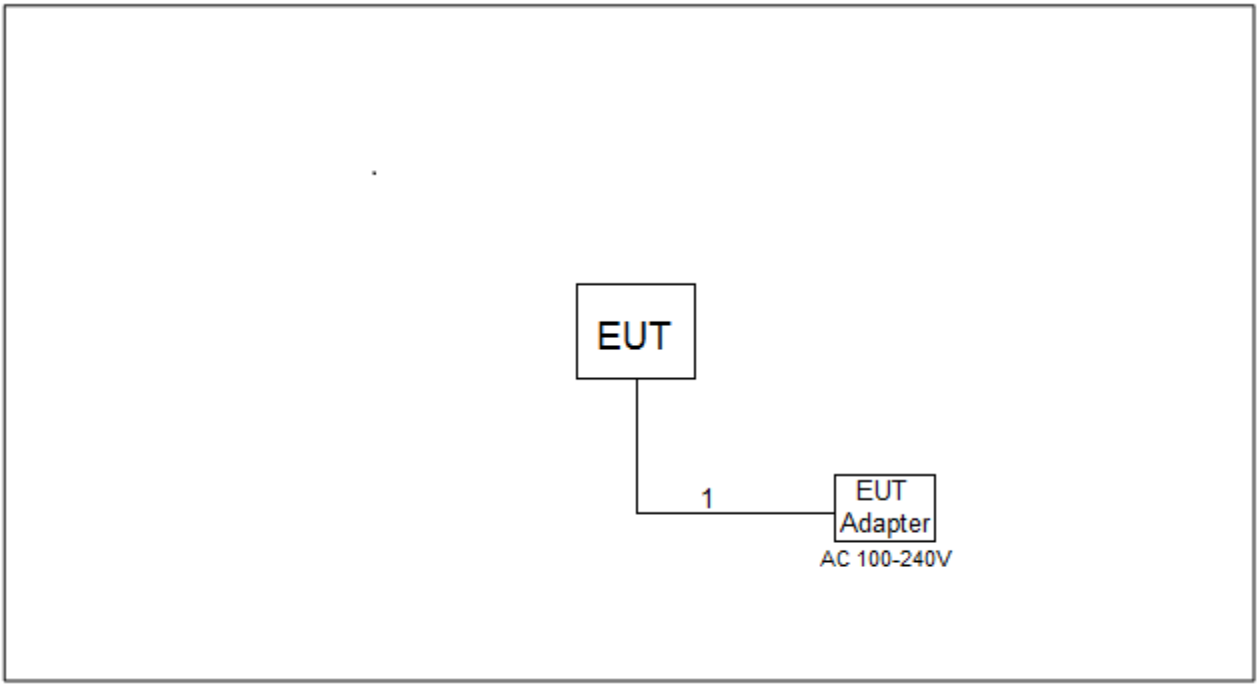
Note:
1) All adapters are differ in plug, so tested with EU plug.

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)	2412	2442	2472
IEEE 802.11b	13	13	12
IEEE 802.11g	15	14	14
IEEE 802.11n(HT20)	15	15	15

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

3. RF OUTPUT POWER

3.1 APPLIED PROCEDURES / LIMIT

Clause	4.3.2.2
Test Item	RF output power
Limit	The RF output power for non-FHSS equipment shall be equal to or less than 20 dBm. NOTE: For Non-adaptive FHSS equipment, the manufacturer may have declared a reduced RF Output Power (see clause 5.4.1 m) and associated Duty Cycle (see clause 5.4.1 e) that will ensure that the equipment meets the requirement for the Medium Utilization (MU) factor further described in clause 4.3.2.5. This is verified by the conformance test referred to in clause 4.3.2.5.4. For non-adaptive non-FHSS equipment, where the manufacturer has declared an RF output power of less than 20 dBm e.i.r.p., the RF output power shall be equal to or less than that declared value. This limit shall apply for any combination of power level and intended antenna assembly.

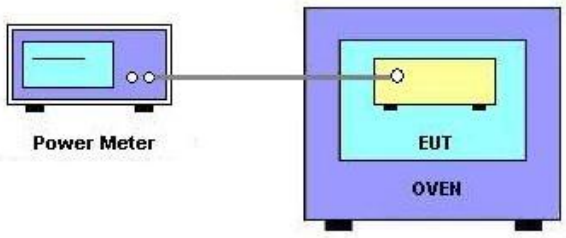
3.2 TEST PROCEDURES

Refer to ETSI EN 300 328, chapter 5.4.2.2.1.

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:	TX Mode_ IEEE 802.11b Mode

Test Conditions		e.i.r.p. (dBm)			Number Of Bursts		
		CH01	CH07	CH13	CH01	CH07	CH13
T nom (°C)	24	16.78	17.07	16.36	13	13	13
T min (°C)	0	16.19	16.63	16.01	13	13	13
T max (°C)	45	17.01	17.34	16.36	13	13	13
Max. e.i.r.p.		17.34			Min Number		13
Limits		20dBm			≥ 10		
Result		Complies			Complies		

Test Mode:	TX Mode_ IEEE 802.11g Mode

Test Conditions		e.i.r.p. (dBm)			Number Of Bursts		
		CH01	CH07	CH13	CH01	CH07	CH13
T nom (°C)	24	18.33	17.93	17.90	15	15	15
T min (°C)	0	17.77	17.39	17.35	15	15	15
T max (°C)	45	18.39	17.94	17.92	15	15	15
Max. e.i.r.p.		18.39			Min Number		15
Limits		20dBm			≥ 10		
Result		Complies			Complies		

Test Mode:	TX Mode_ IEEE 802.11n(HT20) Mode

Test Conditions		e.i.r.p. (dBm)			Number Of Bursts		
		CH01	CH07	CH13	CH01	CH07	CH13
T nom (°C)	24	18.04	18.26	18.27	16	16	16
T min (°C)	0	17.29	17.83	17.90	16	16	16
T max (°C)	45	18.03	18.42	18.71	16	16	16
Max. e.i.r.p.		18.71			Min Number		16
Limits		20dBm			≥ 10		
Result		Complies			Complies		

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

End of Test Report