

Test Report No.:
FCC2021-0008-H2

Test Report

EUT : LC300 LTE CPE
MODEL : LC300,LC300SV,LC300CA, LC300A,
LC300B, LC300C, LC300D
BRAND NAME : sunvot
CLIENT : Ningbo Sunvot Technology Co., Ltd
Classification Of Test : Commission Test

Vkan Certification & Testing Co., Ltd.



Client	Name : Ningbo Sunvot Technology Co., Ltd Address : Building 3,NO 55 Longtan Shan Road, Beilun Daqi, Ningbo, Zhejiang		
Manufacturer	Name : Ningbo Sunvot Technology Co., Ltd Address : Building 3,NO 55 Longtan Shan Road, Beilun Daqi, Ningbo, Zhejiang		
Equipment Under Test	Name : LC300 LTE CPE Model/Type: LC300,LC300SV,LC300CA, LC300A, LC300B, LC300C, LC300D Trade mark : sunvot Serial NO.:N/A Sample NO.:1-1		
Date of Receipt.	2021.04.27	Date of Testing	2021.03.19~2021.04.27
Test Specification		Test Result	
FCC Part 2 (Section 2.1091) KDB 447498 D01 IEEE C95.1		PASS	
Evaluation of Test Result	The equipment under test was found to comply with the requirements of the standards applied. Issue Date: 2021.04.27		
Tested by: <u>Zhu Yulin</u> <u>Zhu Yu Lin</u> Name Signature	Reviewed by: <u>Cheng Xiaochuan</u> <u>Cheng Xiao Chuan</u> Name Signature	Approved by: <u>Dong Sanbi</u> <u>Dong San Bi</u> Name Signature	
Other Aspects: NONE.			
Abbreviations:OK, Pass= passed Fail = failed N/A= not applicable EUT= equipment, sample(s) under tested			

This test report relates only to the EUT, and shall not be reproduced except in full, without written approval of CVC.



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RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
FCC2021-0008-H2	Original release	Apr. 27, 2021

1. GERTIFICATION

FCC ID	2AZGN-LC300-202103
PRODUCT	LC300 LTE CPE
BRAND	sunvot
MODEL	LC300
ADDITIONAL MODEL	LC300SV,LC300CA, LC300A, LC300B, LC300C, LC300D
APPLICANT	Ningbo Sunvot Technology Co., Ltd
STANDARDS	FCC Part 2 (Section 2.1091)
	KDB 447498 D01
	IEEE C95.1

Additional models (see about table) are identical with the test model LC300 except the color of the appearance and model name for trading purpose.

2. RF EXPOSURE LIMIT

LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (MPE)

FREQUENCY RANGE(MHz)	ELECTRIC FIELD STRENGTH (V/m)	MAGNETIC FIELD STRENGTH (A/m)	POWER DENSITY(mW/cm ²)	AVERAGE TIME(minutes)
LIMITS FOR GENERAL POPULATION / UNCONTROLLED EXPOSURE				
300-1500	...	...	F/1500	30
1500-100,000	...	...	1.0	30

F = Frequency in MHz

3. MPE CALCULATION FORMULA

$$P_d = (P_{out} \cdot G) / (4 \cdot \pi \cdot r^2)$$

where

P_d = power density in mW/cm²

P_{out} = output power to antenna in mW

G = gain of antenna in linear scale

π = 3.1416

R = distance between observation point and center of the radiator in cm

4. CLASSIFICATION

The antenna of this product, under normal use condition, is at least 20cm away from the body of the user. So, this device is classified as **Mobile Device**.

5. ANTENNA GAIN

The antennas provided to the EUT, please refer to the following table:

Frequency Band	Antenna Gain (dBi)	Antenna Type
LTE Band2	3	External PCB antenna
LTE Band4	4	External PCB antenna
LTE Band5	0	External PCB antenna
LTE Band7	7	External PCB antenna
LTE Band38	7	External PCB antenna

6. CALCULATION RESULT OF MAXIMUM CONDUCTED AV POWER

The tuned conducted Average Power (declared by client)

Mode	Frequency (MHz)	Target Power (dBm)	Tolerance (dBm)	Lower Tolerance (dBm)	Upper Tolerance (dBm)
LTE Band 2 Channel Bandwidth: 1.4MHz	1850.7MHz ~ 1909.3MHz	22.5	+1	21.5	23.5
LTE Band 2 Channel Bandwidth: 3MHz	1851.5MHz ~ 1908.5MHz	20.5	+1	19.5	21.5
LTE Band 2 Channel Bandwidth: 5MHz	1852.5MHz ~ 1907.5MHz	20	+1	19	21
LTE Band 2 Channel Bandwidth: 10MHz	1855.0MHz ~ 1905.0MHz	20.7	+1	19.7	21.7
LTE Band 2 Channel Bandwidth: 15MHz	1857.5MHz ~ 1902.5MHz	20.5	+1	19.5	21.5
LTE Band 2 Channel Bandwidth: 20MHz	1860.0MHz ~ 1900.0MHz	20.5	+1	19.5	21.5
LTE Band 4 Channel Bandwidth:	1710.7MHz ~ 1754.3MHz	20.7	+1	19.7	21.7



1.4MHz					
LTE Band 4 Channel Bandwidth: 3MHz	1711.5MHz ~ 1753.5MHz	20.9	+ -1	19.9	21.9
LTE Band 4 Channel Bandwidth: 5MHz	1712.5MHz ~ 1752.5MHz	20.2	+ -1	19.2	21.2
LTE Band 4 Channel Bandwidth: 10MHz	1715.0MHz ~ 1750.0MHz	21	+ -1	20	22
LTE Band 4 Channel Bandwidth: 15MHz	1717.5MHz ~ 1747.5MHz	22	+ -1	21	23
LTE Band 4 Channel Bandwidth: 20MHz	1720.0MHz ~ 1745.0MHz	20.9	+ -1	19.9	21.9
LTE Band 5 (Channel Bandwidth: 1.4MHz)	824.7MHz ~ 848.3MHz	24	+ -1	23	25
LTE Band 5 (Channel Bandwidth: 3MHz)	825.5MHz ~ 847.5MHz	23	+ -1	22	24
LTE Band 5 (Channel Bandwidth: 5MHz)	826.5MHz ~ 846.5MHz	23	+ -1	22	24
LTE Band 5 (Channel Bandwidth: 10MHz)	829MHz ~ 844MHz	23.5	+ -1	22.5	24.5
LTE Band 7 Channel Bandwidth: 5MHz	2502.5MHz ~ 2567.5MHz	22.9	+ -1	21.9	23.9
LTE Band 7 Channel Bandwidth: 10MHz	2505.0MHz ~ 2565.0MHz	22.8	+ -1	21.8	23.8
LTE Band 7 Channel Bandwidth: 15MHz	2507.5MHz ~ 2562.5MHz	23.2	+ -1	22.2	24.2
LTE Band 7 Channel Bandwidth: 20MHz	2510.0MHz ~ 2560.0MHz	24	+ -1	23	25
LTE Band 38 Channel Bandwidth: 5MHz	2572.5MHz ~ 2617.5MHz	20.5	+ -1	19.5	21.5

LTE Band 38 Channel Bandwidth: 10MHz	2575.0MHz ~ 2615.0MHz	23	+1	22	24
LTE Band 38 Channel Bandwidth: 15MHz	2577.5MHz ~ 2612.5MHz	24	+1	23	25
LTE Band 38 Channel Bandwidth: 20MHz	2580.0MHz ~ 2610.0MHz	24	+1	23	25

The measured conducted Average Power

Mode	Frequency (MHz)	Averaged Power (dBm)
LTE Band 2 Channel Bandwidth: 1.4MHz	1880	23.01
LTE Band 2 Channel Bandwidth: 3MHz	1880	21.04
LTE Band 2 Channel Bandwidth: 5MHz	1880	20.77
LTE Band 2 Channel Bandwidth: 10MHz	1905	21.62
LTE Band 2 Channel Bandwidth: 15MHz	1902.5	21.26
LTE Band 2 Channel Bandwidth: 20MHz	1900	20.83
LTE Band 4 Channel Bandwidth: 1.4MHz	1754.3	21.67
LTE Band 4 Channel Bandwidth: 3MHz	1753.5	21.89
LTE Band 4 Channel Bandwidth: 5MHz	1712.5	21.13
LTE Band 4 Channel Bandwidth: 10MHz	1715	21.73
LTE Band 4 Channel Bandwidth: 15MHz	1717.5	22.83
LTE Band 4 Channel Bandwidth: 20MHz	1720	21.71
LTE Band 5 (Channel Bandwidth: 1.4MHz)	824.7	24.4



LTE Band 5 (Channel Bandwidth: 3MHz)	825.5	23.77
LTE Band 5 (Channel Bandwidth: 5MHz)	846.5	23.6
LTE Band 5 (Channel Bandwidth: 10MHz)	836.5	24.26
LTE Band 7 Channel Bandwidth: 5MHz	2502.5	23.75
LTE Band 7 Channel Bandwidth: 10MHz	2565	23.7
LTE Band 7 Channel Bandwidth: 15MHz	2562.5	24.05
LTE Band 7 Channel Bandwidth: 20MHz	2560	24.66
LTE Band 38 Channel Bandwidth: 5MHz	2572.5	20.13
LTE Band 38 Channel Bandwidth: 10MHz	2575	23.54
LTE Band 38 Channel Bandwidth: 15MHz	2612.5	24.58
LTE Band 38 Channel Bandwidth: 20MHz	2580	24.68

FREQUENCY BAND (MHz)	MAX POWER (mW)	ANTENNA GAIN (dBi)	DISTANCE (cm)	POWER DENSITY (mW/cm²)	LIMIT (mW/cm²)
LTE Band2	223.8721	3	20	0.088864669	1.0
LTE Band4	199.5262	4	20	0.099707799	1.0
LTE Band5	316.2278	0	20	0.062911368	0.5498
LTE Band7	316.2278	7	20	0.315303745	1.0
LTE Band38	316.2278	7	20	0.315303745	1.0

Important

- (1) The test report is valid with the official seal of the laboratory and the signatures of Test engineer, Author and Reviewer simultaneously.
- (2) The test report is invalid if altered.
- (3) Any photocopies or part photocopies in the test report are forbidden without the written permission from the laboratory.
- (4) Objections to the test report must be submitted to the laboratory within 15 days.
- (5) Generally, commission test is responsible for the tested samples only.

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