

RF EXPOSURE REPORT

Product: LENOVO CAST

Model Name: WD200

FCC ID: O57WD200

Applicant: Lenovo (Shanghai) Electronics Technology Co., Ltd.

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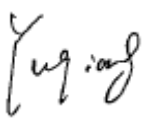
RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
SA150414N009	Original release	May 06, 2015

1 CERTIFICATION

PRODUCT: LENOVO CAST
BRAND NAME: Lenovo
MODEL NAME: WD200
APPLICANT: Lenovo (Shanghai) Electronics Technology Co., Ltd.
TESTED: Apr. 15, 2015 ~ May 05, 2015
TEST SAMPLE: Production Unit
STANDARDS: **FCC Part 2 (Section 2.1091)**
FCC OET Bulletin 65, Supplement C (01-01)
IEEE C95.1

The above equipment has been tested by **Bureau Veritas Shenzhen Co., Ltd. Dongguan Branch** and found compliance with the requirement of the above standards. The test record, data evaluation & Equipment Under Test (EUT) configurations represented herein are true and accurate accounts of the measurements of the sample's EMC characteristics under the conditions specified in this report.

PREPARED BY :  , **DATE:** May 06, 2015
(Yuqiang Yin / Engineer)

APPROVED BY :  , **DATE:** May 06, 2015
(Glyn He / Supervisor)

2 GENERAL INFORMATI

2.1 GENERAL DESCRIPTION OF EUT

PRODUCT	LENOVO CAST	
MODEL NAME	WD200	
FCC ID	O57WD200	
NOMINAL VOLTAGE	5.0Vdc (adapter or host equipment)	
OPERATING TEMPERATURE RANGE	-10 ~ 45°C	
MODULATION TECHNOLOGY	DSSS, OFDM	
MODULATION TYPE	CCK, DQPSK, DBPSK for DSSS 64QAM, 16QAM, QPSK, BPSK for OFDM	
OPERATING FREQUENCY	WIFI 2.4G	2412~ 2462MHz for 11b/g/n(HT20) 2422~ 2452MHz for 11b/g/n(HT40)
	WIFI 5G	5180 ~ 5240MHz, 5260 ~ 5320MHz 5500 ~ 5700MHz, 5745 ~ 5825MHz
ANTENNA TYPE	PCB Antenna with 2dBi gain	
HW VERSION	V2.0	
SW VERSION	V1.1	
I/O PORTS	Refer to user's manual	
CABLE SUPPLIED	USB Cable: Shielded, Detachable, 1.0m HDMI Cable: Shielded, Detachable, 1.0m	

NOTE:

- For a more detailed features description, please refer to the manufacturer's specifications or the user's manual.
- The EUT provides completed transmitters and receivers.

MODULATION MODE	TX FUNCTION
802.11a	1TX/1RX
802.11b	1TX/1RX
802.11g	1TX/1RX
802.11n (HT20)	2TX/2RX
802.11n (HT40)	2TX/2RX

- For the test results, the EUT had been tested with all conditions. But only the worst case was shown in test report.



3 RF EXPOSURE

3.1 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

3.2 MPE CALCULATION FORMULA

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

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

3.3 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 **Module Approval**.



3.4 CONDUCTED POWER

CALCULATION FOR MAXIMUM E.I.R.P.

WIFI 2.4G

OPERATING BAND(MHz)	Output Power E.I.R.P. (dBm)	Output Power E.I.R.P. (mW)	Power Density (mW/cm ²)	limit (mW/cm ²)	PASS / FAIL
2412~2472	23.03	200.909	0.040	1.00	PASS

WIFI 5G

OPERATING BAND(MHz)	Output Power E.I.R.P. (dBm)	Output Power E.I.R.P. (mW)	Power Density (mW/cm ²)	limit (mW/cm ²)	PASS / FAIL
5180 ~ 5240	14.64	29.107	0.006	1.00	PASS
5260 ~ 5320	14.50	28.184	0.006	1.00	PASS
5500 ~ 5700	14.89	30.832	0.006	1.00	PASS
5745 ~ 5825	14.51	28.249	0.006	1.00	PASS