



# Spot Check Evaluation

APPLICANT : Lenovo(Shanghai) Electronics Technology Co., Ltd.  
EQUIPMENT : Portable Tablet Computer  
BRAND NAME : Lenovo  
MODEL NAME : TB336FU  
FCC ID : O57TB336FU  
STANDARD : 47 CFR Part 15 Subpart C §15.247  
47 CFR Part 15 Subpart E §15.407  
TEST DATE(S) : Feb. 20, 2025 ~ Mar. 23, 2025

We, Sporton International Inc. (Kunshan), would like to declare that the tested sample has been evaluated in accordance with the test procedures and has been in compliance with the applicable technical standards.

The test results in this report apply exclusively to the tested model / sample. Without written approval of Sporton International Inc. (Kunshan), the test report shall not be reproduced except in full.

Jason Jia

Approved by: Jason Jia



**Sporton International Inc. (Kunshan)**

No. 1098, Pengxi North Road, Kunshan Economic Development Zone Jiangsu Province 215300  
People's Republic of China



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# 1 General Description

## 1.1 Applicant

Lenovo(Shanghai) Electronics Technology Co., Ltd.

Section 304-305, Building No. 4, # 222, Meiyue Road, China (Shanghai) Pilot Free Trade Zone

## 1.2 Manufacturer

Lenovo PC HK Limited

23/F, Lincoln House, Taikoo Place 979 King's Road, Quarry Bay, Hong Kong, China

## 1.3 Product Feature of Equipment Under Test

Product Feature	
Equipment	Portable Tablet Computer
Brand Name	Lenovo
Model Name	TB336FU
FCC ID	O57TB336FU
SN Code	Conducted/DFS: HA24K3ZS Radiation: 8SSP69A6R402HA29526001Z Conduction: HA24L4S2
HW Version	TB336FU
SW Version	Lenovo ZUI 17.0
EUT Stage	Identical Prototype

Remark: The above EUT's information was declared by manufacturer. Please refer to the specifications or user's manual for more detailed description.

## 1.4 Modification of EUT

No modifications are made to the EUT during all test items.



### 1.5 Testing Site

Sporton International Inc. (Kunshan) is accredited to ISO/IEC 17025:2017 by American Association for Laboratory Accreditation with Certificate Number 5145.02.

<b>Test Firm</b>	Sporton International Inc. (Kunshan)		
<b>Test Site Location</b>	No. 1098, Pengxi North Road, Kunshan Economic Development Zone Jiangsu Province 215300 People's Republic of China TEL : +86-512-57900158		
<b>Test Site No.</b>	<b>Sporton Site No.</b>	<b>FCC Designation No.</b>	<b>FCC Test Firm Registration No.</b>
	CO01-KS 03CH05-KS TH01-KS DFS01-KS	CN1257	314309

### 1.6 Test Software

Item	Site	Manufacturer	Name	Version
1.	TH01-KS	Tonscend	JS1120-3 test system China_210602	3.3.10
2.	03CH05-KS	AUDIX	E3	210616
3.	DFS01-KS	Sporton	Test Tools	1.0
4.	CO01-KS	AUDIX	E3	6.2009-8-24

### 1.7 Applicable Standards

According to the specifications of the manufacturer, the EUT must comply with the requirements of the following standards:

- ♦ FCC KDB 484596 D01 Referencing Test Data v02r03
- ♦ 47 CFR Part 15 Subpart C §15.247
- ♦ 47 CFR Part 15 Subpart E §15.407
- ♦ ANSI C63.10-2013



## 2 Re-use of Measured Data

### 2.1 Introduction Section

This application re-uses data collected on a similar device. The subject device of this application (Model: TB336FU, FCC ID: O57TB336FU) is electrically identical to the reference device (Model: TB336ZU, FCC ID: O57TB336ZU) for the portions of the circuitry corresponding to the data being re-used, following the FCC KDB 484596 D01 Referencing Test Data v02r03.

ECR Data Referencing Inquiry has been approved by FCC, and the data referencing and spot check test plan includes RF/EMC, the details are presented in section 2.3 of this report, and for SAR Reference detail, please refer to FCC SAR report FA512509.

The criteria set in section 3 of KDB 484596 D01 v02r03 is followed to determine whether the data referencing is justified. For SAR, the higher between the referenced value and the spot check value is used to determine compliance in both standalone and simultaneous transmission conditions

The applicant takes full responsibility that the test data as referenced in this report represent compliance for this FCC ID: O57TB336FU .

### 2.2 Model Difference Information

The **main** difference between FCC ID: O57TB336ZU and FCC ID: O57TB336FU is as below:

- Disabled cellular function and cellular related components were removed.

Other differences and all the details of similarity and difference can be found in the confidential documents (O57TB336FU Operational Description of Product Equality Declaration).



### 2.3 Reference detail Section:

Rule Part	Equipment Class	Frequency Band (MHz)	Reference FCC ID (Parent)	Reference on test	Reference Title	FCC ID Filling (Variant)	Test on the variant	Data Referencing (Y/N)
15C	DSS (BR/EDR)	2400~2483.5	O57TB336ZU	Full test	FR512510A	O57TB336FU	Spot check	Y, All test items
	DTS (BLE)	2400~2483.5	O57TB336ZU	Full test	FR512510B	O57TB336FU	Spot check	Y, All test items
	DTS (WLAN)	2400~2483.5	O57TB336ZU	Full test	FR512510C	O57TB336FU	Spot check	Y, All test items
15E	U-NII	5180~5240	O57TB336ZU	Full test	FR512510D	O57TB336FU	Spot check	Y, All test items
		5260~5320	O57TB336ZU	Full test	FR512510D	O57TB336FU	Spot check	Y, All test items
		5500~5720	O57TB336ZU	Full test	FR512510D	O57TB336FU	Spot check	Y, All test items
		5745~5825	O57TB336ZU	Full test	FR512510D	O57TB336FU	Spot check	Y, All test items
		5260~5320 5500~5720	O57TB336ZU	Full test	FZ512510	O57TB336FU	Spot check	Y, All test items

Y: Pointer to spot-check exhibit; N: Pointer to full test exhibit

### 2.4 Spot Check Verification Data Section

All test items test against the variant model based on the worst-case condition from the original model was performed in this filing to demonstrate the test data from original model remains representative for the variant model.

All test procedures follow the related section of parent report.

Spot-check measurements, while being always compliant with the applicable rule part(s) for the test under consideration, show a deviation  $d_{dB}$  from the reference data no larger than 3 dB:

$$d_{dB} = |V_{dB} - R_{dB}| \leq 3 \text{ dB} \tag{1}$$

$V_{dB}$ , the variant spot-check level

$R_{dB}$ , the corresponding measurement level for the reference model

An alternative to the limit of eq. (1) is available, and is based on considering how far the reference data  $R_{dB}$  is from the compliance threshold  $C_{dB}$  (also expressed in dB), for the particular test under consideration. In this case, if  $M_{dB} = |C_{dB} - R_{dB}|$  is the margin in dB from the compliance limit, a spot check may be considered acceptable when the deviation  $d_{dB}$  from the reference data satisfies the following condition:

$$d_{dB} = |V_{dB} - R_{dB}| \leq (3 + M_{dB} / 20) \text{ dB} , \text{ for } 0 \leq M_{dB} \leq 60 \text{ dB} \tag{2}$$

$$d_{dB} = |V_{dB} - R_{dB}| = 6 \text{ dB} , \text{ for } M_{dB} > 60 \text{ dB}$$

where “| |” is the absolute value of the measured quantity.

When using the option in eq. (2),  $d_{dB}$  increases linearly from 3 dB to 6 dB.



Summary for spot check for each rule entry and technology is listed as below:

Mode	Test Item	O57TB336ZU Parent Worst mode Test Result	O57TB336FU Variant Check Test Result	Deviation (dB)	Deviation Limit (dB)
BT 1Mbps (CH78)	Number of Channels	79	79	0	3
	Hopping Channel Separation	1.004	1.017	0.013	3
	Dwell Time of Each Channel	0.31	0.31	0	3
	20dB Bandwidth	0.86	0.86	0	3
	99% Bandwidth	0.761	0.758	0.003	3
	Conducted Band Edges	-49.26	-48.92	0.34	3
	Conducted Spurious Emission	-47.53	-47.03	0.5	3
BT 1Mbps (CH78)	Radiated Band Edges and Radiated Spurious Emission	53.83	54.94	1.11	3
BT	AC Conducted Emission	7.31	7.81	0.5	3
BLE 2Mbps (CH38)	6dB Bandwidth	1.17	1.18	0.01	3
	99% Bandwidth	2.054	2.066	0.012	3
	Power Spectral Density	-18.94	-19.1	0.16	3
	Conducted Band Edges	-54.57	-54.88	0.31	3
	Conducted Spurious Emission	-48.12	-48.16	0.04	3
BLE 2Mbps (CH38)	Radiated Band Edges and Spurious Emission	42.26	39.97	2.29	3
BLE	AC Conducted Emission	7.31	7.81	0.5	3
WIFI 2.4G (802.11b CH01)	6dB Bandwidth	8.48	8.04	0.44	3
	99% Bandwidth	13.164	12.827	0.337	3
	Power Spectral Density	-5.04	-5.47	0.43	3
	Conducted Band Edges	-32.53	-33.43	0.9	3
	Conducted Spurious Emission	-40.59	-41.47	0.88	3
WIFI 2.4G (802.11g CH11)	Radiated Band Edges and Spurious Emission	50.98	49.71	1.27	3
WIFI 2.4G	AC Conducted Emission	7.31	7.81	0.5	3
WIFI 5G (802.11a CH165)	26dB Bandwidth	20.2	19.82	0.38	3
	99% Bandwidth	17.345	17.162	0.183	3
	Power Spectral Density	2.16	1.98	0.18	3
WIFI 5G (802.11a CH100)	Unwanted Emissions	65.2	62.77	2.43	3
WIFI 5G (802.11ax HE80 CH106)	DFS	0.927231	0.767992	0.16	3
WIFI 5G	AC Conducted Emission	6.61	9.11	2.5	3



Test Item	Mode	O57TB336ZU Parent Worst mode Test Result	O57TB336FU Variant Check Test Result	Deviation (dB)	Deviation Limit (dB)
Conducted Power (dBm)	BT BR/EDR	12.69	12.53	0.16	3
	BLE 1Mbps	-0.14	-0.21	0.07	3
	BLE 2Mbps	-0.12	-0.23	0.11	3
	11b, 2.4GHz	19.94	19.87	0.07	3
	11g, 2.4GHz	25.74	25.67	0.07	3
	11n HT20, 2.4GHz	25.74	25.65	0.09	3
	11n HT40, 2.4GHz	25.31	25.27	0.04	3
	11a, 5.2GHz	16.03	15.98	0.05	3
	11a, 5.3GHz	16.04	15.94	0.1	3
	11a, 5.5GHz	16.1	16.03	0.07	3
	11a, 5.8GHz	15.84	15.7	0.14	3
	11n HT20, 5.2GHz	15.95	15.84	0.11	3
	11n HT20, 5.3GHz	15.96	15.92	0.04	3
	11n HT20, 5.5GHz	16.18	16.09	0.09	3
	11n HT20, 5.8GHz	15.69	15.54	0.15	3
	11ac VHT20, 5.2GHz	15.88	15.81	0.07	3
	11ac VHT20, 5.3GHz	15.93	15.88	0.05	3
	11ac VHT20, 5.5GHz	16.11	16.03	0.08	3
	11ac VHT20, 5.8GHz	15.64	15.54	0.1	3
	11n HT40, 5.2GHz	16.02	15.97	0.05	3
	11n HT40, 5.3GHz	16	15.92	0.08	3
	11n HT40, 5.5GHz	16.31	16.16	0.15	3
	11n HT40, 5.8GHz	15.82	15.71	0.11	3
	11ac VHT40, 5.2GHz	15.94	15.9	0.04	3
	11ac VHT40, 5.3GHz	15.97	15.89	0.08	3
	11ac VHT40, 5.5GHz	16.26	16.19	0.07	3
	11ac VHT40, 5.8GHz	15.77	15.71	0.06	3
	11ac VHT80, 5.2GHz	12.61	12.46	0.15	3
11ac VHT80, 5.3GHz	12.23	12.08	0.15	3	
11ac VHT80, 5.5GHz	16.06	15.91	0.15	3	
11ac VHT80, 5.8GHz	15.65	15.54	0.11	3	

Conclusion:

All test items test against the variant model based on the worst-case condition from the original model was performed in this filing to demonstrate the test data from original model remains representative for the variant model.

Based on the spot check test result, the test data from the original model is representative for the variant model. All spot check test data are shown within expected level compliant to limit line.

We are using power and ERP/EIRP measurements from the original parent model reports to list on the grant.

We confirm that the test data referencing policy of FCC KDB 484596 D01 Referencing Test Data v02r03 has been followed and the test data as referenced from the parent model report represents compliance with new FCC ID.



### 3 List of Measuring Equipment

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Spectrum Analyzer	R&S	FSV40	101040	10Hz~40GHz	Oct. 10, 2024	Mar. 18, 2025	Oct. 09, 2025	Conducted (TH01-KS)
Pulse Power Sensor	Anritsu	MA2411B	0917070	300MHz~40GHz	Jan. 02, 2025	Mar. 18, 2025	Jan. 01, 2026	Conducted (TH01-KS)
Power Meter	Anritsu	ML2495A	1005002	50MHz Bandwidth	Jan. 02, 2025	Mar. 18, 2025	Jan. 01, 2026	Conducted (TH01-KS)
EMI Test Receiver	Keysight	N9038A	MY57290151	3Hz~8.5GHz;Max 30dBm	Jul. 04, 2024	Mar. 23, 2025	Jul. 03, 2025	Radiation (03CH05-KS)
EXA Spectrum Analyzer	Keysight	N9010B	MY60242126	10Hz~44G,MAX 30dB	Oct. 10, 2024	Mar. 23, 2025	Oct. 09, 2025	Radiation (03CH05-KS)
Loop Antenna	R&S	HFH2-Z2E	101125	9kHz~30MHz	Sep. 08, 2024	Mar. 23, 2025	Sep. 07, 2025	Radiation (03CH05-KS)
Bilog Antenna	TeseQ	CBL6111D	49921	30MHz~1GHz	Apr. 18, 2024	Mar. 23, 2025	Apr. 17, 2025	Radiation (03CH05-KS)
Double Ridge Horn Antenna	ETS-Lindgren	3117	00218642	1GHz~18GHz	Apr. 11, 2024	Mar. 23, 2025	Apr. 10, 2025	Radiation (03CH05-KS)
SHF-EHF Horn	Com-power	AH-840	101116	18GHz~40GHz	Oct. 22, 2024	Mar. 23, 2025	Oct. 21, 2025	Radiation (03CH05-KS)
Amplifier	SONOMA	310N	380826	9KHz~1GHz	Jul. 03, 2024	Mar. 23, 2025	Jul. 02, 2025	Radiation (03CH05-KS)
Amplifier	EM	EM18G40GA	060851	18~40GHz	Jan. 02, 2025	Mar. 23, 2025	Jan. 01, 2026	Radiation (03CH05-KS)
high gain Amplifier	EM	EM01G18GA	060843	1Ghz~18Ghz	Jan. 02, 2025	Mar. 23, 2025	Jan. 01, 2026	Radiation (03CH05-KS)
Amplifier	EM	EM01G18GA	060833	1Ghz~18Ghz	Jan. 02, 2025	Mar. 23, 2025	Jan. 01, 2026	Radiation (03CH05-KS)
AC Power Source	Chroma	61601	F104090004	N/A	NCR	Mar. 23, 2025	NCR	Radiation (03CH05-KS)
Turn Table	ChamPro	EM 1000-T	060762-T	0~360 degree	NCR	Mar. 23, 2025	NCR	Radiation (03CH05-KS)
Antenna Mast	ChamPro	EM 1000-A	060762-A	1 m~4 m	NCR	Mar. 23, 2025	NCR	Radiation (03CH05-KS)
EMI Receiver	R&S	ESCI7	100768	9kHz~7GHz;	Apr. 18, 2024	Mar. 11, 2025	Apr. 17, 2025	Conduction (CO01-KS)
AC LISN (for auxiliary equipment)	MessTec	AN3016	060103	9kHz~30MHz	Aug. 20, 2024	Mar. 11, 2025	Aug. 19, 2025	Conduction (CO01-KS)
AC LISN	MessTec	AN3016	060105	9kHz~30MHz	Apr. 18, 2024	Mar. 11, 2025	Apr. 17, 2025	Conduction (CO01-KS)
AC Power Source	Chroma	61602	ABP00000811	AC 0V~300V, 45Hz~1000Hz	Oct. 09, 2024	Mar. 11, 2025	Oct. 08, 2025	Conduction (CO01-KS)
Signal Analyzer	R&S	FSV7	101472	10Hz~7GHz	Jan. 02, 2025	Feb. 20, 2025	Jan. 01, 2026	Conducted (DFS01-KS)
MXG-B RF Vector Signal Generator	Keysight	5182B /5182BX07	MY56200417 /MY59360210	9kHz~7.2GHz	Apr. 17, 2024	Feb. 20, 2025	Apr. 16, 2025	Conducted (DFS01-KS)
Combiner	MTJ Cooperation	MTJ7112	N/A	0.4-6GHz	NCR	Feb. 20, 2025	NCR	Conducted (DFS01-KS)

NCR: No Calibration Required.

## 4 Measurement Uncertainty

The measurement uncertainties shown below were calculated in accordance with the requirements of ANSI 63.26-2015. All the measurement uncertainty value were shown with a coverage K=2 to indicate 95% level of confidence. The measurement data show herein meets or exceeds the CISPR measurement uncertainty values specified in CISPR 16-4-2 and can be compared directly to specified limit to determine compliance.

### Uncertainty of Conducted Measurement

Test Item	Uncertainty
Conducted Spurious Emission & Bandedge	±2.22 dB
Occupied Channel Bandwidth	±0.1 %
Conducted Power	±0.50 dB
Conducted Power Spectral Density	±0.90 dB
Frequency	±0.04ppm

### Uncertainty of Conducted Measurement (DFS)

Test Item	Uncertainty
Conducted Generated signal Levels	±0.56 dB
Conducted Time	0.38%

### Uncertainty of AC Conducted Emission Measurement (0.15 MHz ~ 30 MHz)

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	2.84 dB
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### Uncertainty of Radiated Emission Measurement (9 KHz ~ 30 MHz)

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	3.30 dB
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### Uncertainty of Radiated Emission Measurement (30 MHz ~ 1000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	6.02 dB
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### Uncertainty of Radiated Emission Measurement (1 GHz ~ 18 GHz)

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	5.22 dB
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### Uncertainty of Radiated Emission Measurement (18 GHz ~ 40 GHz)

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	5.34 dB
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-THE END-