

Lenovo (Shanghai) Electronics Technology Co., Ltd.

Data Reuse Justification

To whom it may concern:

We are applying data reuse for FCC ID O57TB330XUP(Variant) of DSS/DTS/NII/PCB/SAR based on reference FCC ID O57TB330XU(Original).

FCC ID O57TB330XUP is the variant from O57TB330XU. They have the same dimension and share the same PCB layout, Antennas and components in WWAN. Only has below difference:

- 1, Add POGO PIN
2. Add an LED flash
3. Replace the BT/BLE/WiFi antenna, and the antenna gain is smaller than the original antenna
4. Change model, HW, SW version

According to change items, WWAN, WLAN and Bluetooth data of the original model remain representative for the variant model (DSS/DTS/NII/PCB/SAR) and test reports for original model plus test reports with the spot check data for variant model have been submitted. The power to be listed on F-731 and FCC grants for these are the values detailed in the original reports as the spot check data shows all values within expected tolerances of the original model.

Item	FCC ID	
	O57TB330XU (Original)	O57TB330XUP (Variant)
WWAN PCB	XEWM2309000447RG01	SEWM2312000502RG01
Bluetooth DTS	XEWM2309000447RG02	SEWM2312000502RG02
Bluetooth DSS	XEWM2309000447RG03	SEWM2312000502RG03
WiFi DTS	XEWM2309000447RG04	SEWM2312000502RG04
WiFi NII	XEWM2309000447RG05	SEWM2312000502RG05
SAR	XEWM2309000447RG11	SEWM2312000502RG06
JBP	SZCR230900288201	SZCR231200397801
Note	Indicated full set of test data. Values in these reports listed on grants	DTS/DSS/NII Radiated Spurious Emissions, DFS and SAR new testing, JPB new testing DTS/DSS/NII/PCB Spot check data used to confirm that original model data is representative for the variant model.

We confirm that test data reuse policy of KDB484596 D01 Referencing Test Data V02r01 has been followed and take full responsibility that the test data as referenced from the original model report represents compliance for the new FCC ID.

Declaration of Identity

Declaration of Identical Product

Hereby,

Name of manufacturer:	Lenovo PC HK Limited
Address:	23/F, Lincoln House, Taikoo Place 979 King's Road, Quarry Bay, Hong Kong, China
City:	Hong Kong
Country:	China

Declares that:

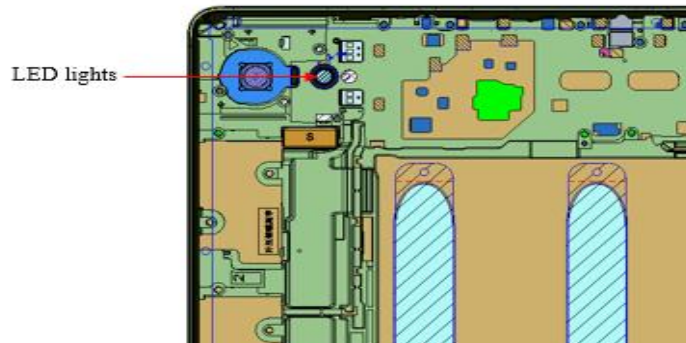
Product description:	Portable Tablet Computer
Type designation(s):	TB330XUP
FCC ID:	O57TB330XUP
Trademark:	Lenovo

The detail difference from the original model TB330XU (FCC ID: O57TB330XU) is:

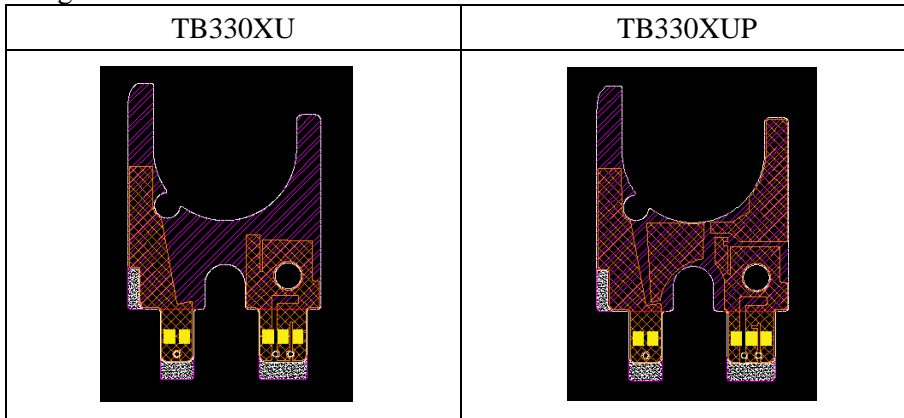
1. The hardware and software versions are updated as follows:
Hardware version: TB330XUP
Software version: TB330XUP_RF01_231121

2. Add LED lights

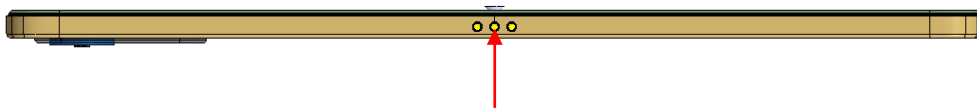
Leading provider:	Model
LIGHTING	LL828W1D-QR5T4
Suijing	SJ-TD2016QNX-5257



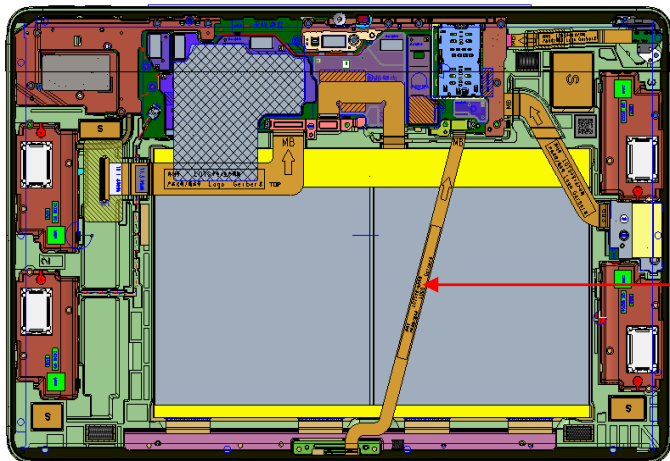
3. The wiring changes of WIFI antenna are as follows:



4. Add POGO PIN



Add the POGO PIN at the bottom



Add POGO PIN FPC

The above changes do not affect the RF function and power of the original device
 Except for the above modifications, the rest remains unchanged.

Date:	2023/12/06
City:	Hongkong
Name:	Spring Zhou
Signature:	<i>Spring Zhou</i>

Spot check measurements

DSS/DTS/NII conducted output power Spot check:

Test Item		O57TB330FU (Original)	O57TB330FUP (Variant)	Data Errors d _{dB}	Limit d _{dB}
Maximum conducted output power	BT	9.80	9.63	0.17	≤ 3 dB
	BLE	-1.38	-1.56	0.18	≤ 3 dB
	WIFI2.4G	24.62	23.98	0.64	≤ 3 dB
	WIFI 5G Band1	14.27	13.87	0.4	≤ 3 dB
	WIFI 5G Band2	14.32	13.82	0.5	≤ 3 dB
	WIFI 5G Band3	14.31	13.97	0.34	≤ 3 dB
	WIFI 5G Band4	14.53	13.94	0.59	≤ 3 dB

WWAN PCB RSE Spot check:

Test Item		O57TB330XU (Original)	O57TB330XUP (Variant)	Data Errors d _{dB}	Limit d _{dB}
Field Strength of Spurious Radiation	GSM850	22.71	24.84	2.13	≤ 3 dB
	GSM1900	11.62	10.19	1.43	≤ 3 dB
	WCDMA Band II	36.70	33.74	2.96	≤ 3 dB
	WCDMA Band IV	37.06	37.97	0.91	≤ 3 dB
	WCDMA Band V	37.67	37.41	0.26	≤ 3 dB
	LTE Band 2	36.58	39.21	2.63	≤ 3 dB
	LTE Band 4	36.73	36.33	0.4	≤ 3 dB
	LTE Band 5	35.23	34.11	1.12	≤ 3 dB
	LTE Band 7	24.56	23.98	0.58	≤ 3 dB
	LTE Band 12	37.43	34.63	2.8	≤ 3 dB
	LTE Band 13	25.60	25.47	0.13	≤ 3 dB
	LTE Band 14	19.78	20.85	1.07	≤ 3 dB
	LTE Band17	37.79	36.62	1.17	≤ 3 dB
	LTE Band 25	36.84	36.14	0.7	≤ 3 dB

	LTE Band 26	33.04	34.97	1.93	≤ 3 dB
	LTE Band 30	9.33	11.97	2.84	≤ 3 dB
	LTE Band 38	24.13	25.33	1.2	≤ 3 dB
	LTE Band 41	7.95	8.36	0.41	≤ 3 dB
	LTE Band 66	36.61	36.60	0.01	≤ 3 dB
	LTE Band 71	38.15	36.94	1.21	≤ 3 dB

SAR Spot Check:

Test Item		O57TB330XU (Original)	O57TB330XUP (Variant)	Data Errors d _{dB}	Limit d _{dB}
Body-worn	GSM850	0.43	0.38	0.05	≤ 3 dB
	GSM1900	1.09	0.98	0.11	≤ 3 dB
	WCDMA Band II	0.56	0.55	0.01	≤ 3 dB
	WCDMA Band IV	0.69	0.64	0.05	≤ 3 dB
	WCDMA Band V	0.41	0.20	0.21	≤ 3 dB
	LTE Band 7	0.43	0.42	0.01	≤ 3 dB
	LTE Band 12/17	0.41	0.24	0.17	≤ 3 dB
	LTE Band 13	0.42	0.40	0.02	≤ 3 dB
	LTE Band 14	0.43	0.31	0.12	≤ 3 dB
	LTE Band 25/2	0.42	0.36	0.06	≤ 3 dB
	LTE Band 26/5	0.40	0.29	0.11	≤ 3 dB
	LTE Band 30	0.34	0.30	0.04	≤ 3 dB
	LTE Band 41/38	0.36	0.44	0.08	≤ 3 dB
	LTE Band 66/4	0.35	0.44	0.09	≤ 3 dB
LTE Band 71	0.43	0.33	0.10	≤ 3 dB	

A: If the difference between the above values is less than 3dB, then it's deemed to fulfil the data referencing requirement.

B: Alternative in the case, if it's the following result, it's also meet the data referencing requirement.

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

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

When using the option in B, d_{dB} increases linearly from 3 dB to 6 dB (as shown in Fig. 1):

– for $M_{dB}=0$ dB, then $d_{dB}=3$ dB, that is when R_{dB} is right at the compliance threshold C_{dB} , thus the margin $M_{dB}=0$ and the variant can only be allowed to go lower than R_{dB});

– for $M_{dB}=60$ dB, then $d_{dB}=6$ dB, i.e., the reference model data is 60 dB below the compliance threshold M_{dB} .

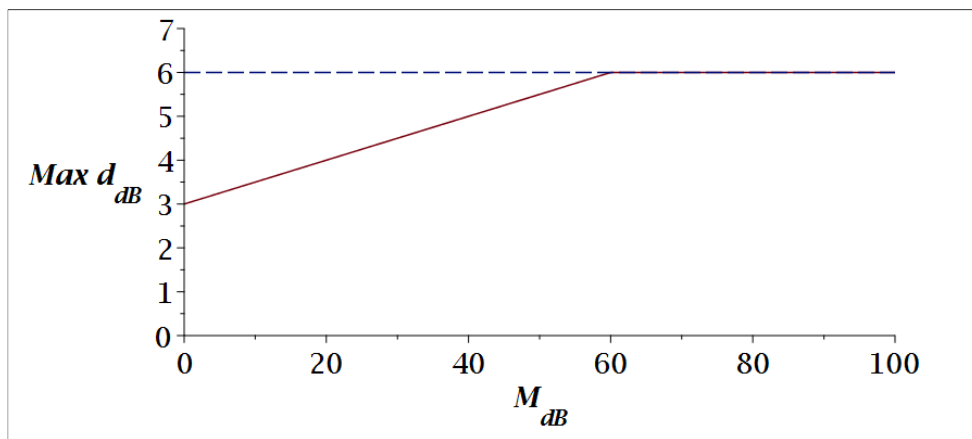


Figure 1