



SPOT CHECK EVALUATION

FCC ID : PU5-TP00139A
Equipment : Notebook Computer
Model Name : TP00139A
Applicant : Wistron Corporation
21F, No. 88, Sec. 1, Hsin Tai Wu Rd.,
Hsichih Dist, New Taipei City
221, Taiwan
Standard : FCC Part 15 Subpart C §15.247
FCC Part 15 Subpart E §15.407

The product was received on Jan. 06 ,2022 and testing was started from Jan.08, 2022 and completed on Feb. 22, 2022. We, Sporton International Inc. Wensan Laboratory, 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 spot check data report apply exclusively to the tested model / sample. Without written approval of Sporton International Inc. Wensan Laboratory, the test report shall not be reproduced except in full.

Louis Wu

Approved by: Louis Wu

Sporton International Inc. Wensan Laboratory



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History of this test report

Version	Description	Issued Date
01	Initial issue of report	Mar. 02, 2022
02	1. Revise Equipment List test date 2. Add 6XD information in Reference detail Section	Mar. 03, 2022
03	3. Revise information in Reference detail section	Mar. 04, 2022



1. Introduction Section

Wistron Corporation will take full responsibility for reuse the test data.

Wistron Corporation, hereby declares that the WLAN and Bluetooth hardware of PU5-TP00139A are HW identical to PU5-TP00139AS (lead). In addition, PU5-TP00139A digital circuit is identical to PU5-TP00139AS (lead). Therefore the following report of PU5-TP00139AS (lead) may be used as reference test data for PU5-TP00139A , along with the spot check verification data following the FCC KDB 484596 D01 v01.

- WLAN
- Bluetooth



2. Difference Section

Difference between PU5-TP00139AS (lead) and PU5-TP00139A:

Wistron Corporation, hereby declares that PU5-TP00139AS and PU5-TP00139A are electrical identical except PU5-TP00139AS has the WWAN function. Therefore the WLAN/Bluetooth report/data of PU5-TP00139AS (lead) may represent for PU5-TP00139A.



3. Spot Check Verification Data Section

Conducted power and radiated spurious emission test against the variant model based on the worst-case condition from the original model was performed in this filing and the verification test results were consistence with the original FCC ID. Detail spot check test result can be found in the variant model report, please refer to detail section table in section 4.

Summary of the spot check:

Test Item	Mode	PU5-TP00139AS (lead) Worst Result	PU5-TP00139A Worst Result	Difference (dB)
Average Conducted Power (dBm)	BT2.0	8.97	8.88	-0.09
	BT5.0	5.45	5.42	-0.03
	WLAN 2.4G	16.86	16.81	-0.05
	WLAN 5G U-NII-1	15.71	15.66	-0.05
	WLAN 5G U-NII-2A	15.91	15.91	0
	WLAN 5G U-NII-2C	15.92	15.92	0
	WLAN 5G U-NII-3	15.86	15.81	-0.05
	WLAN6G U-NII-5	11.61	11.51	-0.1
	WLAN6G U-NII-6	12.27	12.27	0
	WLAN6G U-NII-7	11.61	11.56	-0.05
	WLAN6G U-NII-8	11.41	11.36	-0.05
Radiated Spurious Emission (Band Edge) (dBuV/m)	BT2.0	25.18	28.15	2.97
	BT5.0	42.24	41.99	-0.25
	WLAN 2.4G	50.5	51.63	1.12
	WLAN 5G U-NII-1	46.39	39.24	-7.15
	WLAN 5G U-NII-2A	41.48	37.85	-3.63
	WLAN 5G U-NII-2C	39.54	37.9	-1.64
	WLAN 5G U-NII-3	50.39	48.58	-1.81
	WLAN6G U-NII-8	67.5	67.4	-0.1
Radiated Spurious Emission (Harmonic) (dBuV/m)	BT2.0	55.58	54.91	-0.67
	BT5.0	45.87	45.68	-0.19
	WLAN 2.4G	50.92	46.39	-4.53
	WLAN 5G U-NII-1	43.51	43.08	-0.43
	WLAN 5G U-NII-2A	44.05	43.36	-0.69
	WLAN 5G U-NII-2C	43.79	42.82	-0.97
	WLAN 5G U-NII-3	42.92	43.27	0.35
	WLAN6G U-NII-5	45.55	45.91	0.36
	WLAN6G U-NII-6	45.91	45.62	-0.29
	WLAN6G U-NII-7	45.77	43.38	-2.39



4. Reference detail Section

Rule Part	Equipment Class	Wireless Technology	Frequency Band (MHz)	Original FCC ID	Original Report	Variant Model FCC ID	Variant Model Report
15C	DTS	Bluetooth – LE WLAN	2400 – 2483.5	PU5-TP00139AS	Part 15C (FR1D1645-01B, FR1D1645-01C)	PU5-TP00139A	Part 15C (FR1N0803B, FR1N0803C)
	DSS	Bluetooth	2400 – 2483.5	PU5-TP00139AS	Part 15C (FR1D1645-01A)	PU5-TP00139A	Part 15C (FR1N0803A)
15E	NII	WLAN	5150 – 5250 5250 – 5350 5470 – 5725 5725 - 5850	PU5-TP00139AS	Part 15E (FR1D1645-01D, FR1D1645-01E, , FZ1D1645-01)	PU5-TP00139A	Part 15E (FR1N0803D, FR1N0803E, , FZ1N0803)
	6XD		5925 – 6425 6425 – 6525 6525 – 6875 6875 – 7125	PU5-TP00139AS	Part 15E FR1D1645-01F	PU5-TP00139A	Part 15E FR1N0803F



5. Equipment List

Instrument	Brand Name	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
EMI Test Receiver	Keysight	N9010B	MY60241055	10Hz~44GHz	Jul. 12, 2021	Feb. 14, 2022~ Feb. 17, 2022	Jul. 11, 2022	Radiation (03CH20-HY)
Preamplifier	COM-POWER	PAM-103	18020201	1MHz-1000MHz	Jan. 03, 2022	Feb. 14, 2022~ Feb. 17, 2022	Jan. 02, 2023	Radiation (03CH20-HY)
Amplifier	EMCI	EMC118A45S E	980792	N/A	Nov. 15, 2021	Feb. 14, 2022~ Feb. 17, 2022	Nov. 14, 2022	Radiation (03CH20-HY)
Preamplifier	EMEC	EM18G40G	060801	18GHz~40GHz	Jun. 22, 2021	Feb. 14, 2022~ Feb. 17, 2022	Jun. 21, 2022	Radiation (03CH20-HY)
Horn Antenna	SCHWARZBE CK	BBHA 9120 D	9120D-02294	1GHz~18GHz	Jun. 23, 2021	Feb. 14, 2022~ Feb. 17, 2022	Jun. 22, 2022	Radiation (03CH20-HY)
SHF-EHF Horn Antenna	SCHWARZBE CK	BBHA9170	00991	18GHz-40GHz	May 12, 2021	Feb. 14, 2022~ Feb. 17, 2022	May 11, 2022	Radiation (03CH20-HY)
Hygrometer	TECPEL	DTM-303B	TP200728	N/A	Mar. 09, 2021	Feb. 14, 2022~ Feb. 17, 2022	Mar. 08, 2022	Radiation (03CH20-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	519229/2,804 015/2,804027 /2	N/A	Jan. 19, 2022	Feb. 14, 2022~ Feb. 17, 2022	Jan. 18, 2023	Radiation (03CH20-HY)
1.53GHz Low Pass Filter	Wainwright	WLK4-1000-15 30-8000-40SS	SN27	N/A	May 25, 2021	Feb. 14, 2022~ Feb. 17, 2022	May 24, 2022	Radiation (03CH20-HY)
Filter	Wainwright	WHKX8-6090- 7000-18000-40 SS	SN99	N/A	Nov. 04, 2021	Feb. 14, 2022~ Feb. 17, 2022	Nov. 03, 2022	Radiation (03CH20-HY)
Filter	Wainwright	WRCQV14-54 25-5825-6525- 6925-60SS	SN2	N/A	Jan. 07, 2022	Feb. 14, 2022~ Feb. 17, 2022	Jan. 06, 2023	Radiation (03CH20-HY)
Filter	Wainwright	WRCQV14-60 25-6425-7125- 7525-60SS	SN1	N/A	Jan. 07, 2022	Feb. 14, 2022~ Feb. 17, 2022	Jan. 06, 2023	Radiation (03CH20-HY)
Filter	Wainwright	WHW2-7100-1 0000-18000-40 CC	SN3	N/A	May 25, 2021	Feb. 14, 2022~ Feb. 17, 2022	May 24, 2022	Radiation (03CH20-HY)
Software	Audix	E3 6.2009-8-24	RK-002156	N/A	N/A	Feb. 14, 2022~ Feb. 17, 2022	N/A	Radiation (03CH20-HY)
Antenna Mast	EMEC	AM-BS-4500-B	N/A	1m~4m	N/A	Feb. 14, 2022~ Feb. 17, 2022	N/A	Radiation (03CH20-HY)
Turn Table	EMEC	TT2000	N/A	0~360 Degree	N/A	Feb. 14, 2022~ Feb. 17, 2022	N/A	Radiation (03CH20-HY)
Controller	EMEC	EM1000	N/A	Control Turn table & Ant Mast	N/A	Feb. 14, 2022~ Feb. 17, 2022	N/A	Radiation (03CH20-HY)
Loop Antenna	Rohde & Schwarz	HFH2-Z2	100488	9 kHz~30 MHz	Sep. 09, 2021	Feb.22, 2022	Sep. 08, 2022	Radiation (03CH15-HY)
Bilog Antenna	TESEQ	CBL 6111D & 00800N1D01N-0 6	41912 & 05	30MHz~1GHz	Feb. 06, 2022	Feb.22, 2022	Feb. 05, 2023	Radiation (03CH15-HY)



Instrument	Brand Name	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Amplifier	SONOMA	310N	363440	9kHz~1GHz	Dec. 27, 2021	Feb.22, 2022	Dec. 26, 2022	Radiation (03CH15-HY)
Horn Antenna	SCHWARZBECK	BBHA 9120 D	9120D-01620	1GHz~18GHz	Oct. 25, 2021	Feb.22, 2022	Oct. 24, 2022	Radiation (03CH15-HY)
SHF-EHF Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA9170251	18GHz~40GHz	Nov. 30, 2021	Feb.22, 2022	Nov. 29, 2022	Radiation (03CH15-HY)
Preamplifier	Jet-Power	JPA0118-55-303	1710001800055006	1GHz~18GHz	May. 06, 2021	Feb.22, 2022	May. 05, 2022	Radiation (03CH15-HY)
Preamplifier	Keysight	83017A	MY53270195	1GHz~26.5GHz	Aug. 19, 2021	Feb.22, 2022	Aug. 18, 2022	Radiation (03CH15-HY)
Preamplifier	EMEC	EM18G40G	060801	18-40GHz	Jun. 22, 2021	Feb.22, 2022	Jun. 21, 2022	Radiation (03CH15-HY)
EMI Test Receiver	Keysight	N9038A(MXE)	MY54130085	20MHz~8.4GHz	Oct. 21, 2021	Feb.22, 2022	Oct. 20, 2022	Radiation (03CH15-HY)
Spectrum Analyzer	Agilent	E4446A	MY50180136	3Hz~44GHz	May. 07, 2021	Feb.22, 2022	May. 06, 2022	Radiation (03CH15-HY)
Antenna Mast	ChainTek	MBS-520-1	N/A	1m~4m	N/A	Feb.22, 2022	N/A	Radiation (03CH15-HY)
Turn Table	ChainTek	T-200-S-1	N/A	0~360 Degree	N/A	Feb.22, 2022	N/A	Radiation (03CH15-HY)
Software	Audix	E3 6.2009-8-24(k5)	RK-000451	N/A	N/A	Feb.22, 2022	N/A	Radiation (03CH15-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 104, 102E	MY36980/4, MY9838/4PE, 508405/2E	30MHz~18G	Nov. 15, 2021	Feb.22, 2022	Nov. 14, 2022	Radiation (03CH15-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	804011/2,804012/2	30MHz-40GHz	Jan. 04, 2022	Feb.22, 2022	Jan. 03, 2023	Radiation (03CH15-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 104	MY9837/4PE	9kHz~30MHz	Mar. 11, 2021	Feb.22, 2022	Mar. 10, 2022	Radiation (03CH15-HY)
Filter	Wainwright	WLJ4-1000-1530-6000-40ST	SN4	1.53GHz Low Pass Filter	Jul. 02, 2021	Feb.22, 2022	Jul. 01, 2022	Radiation (03CH15-HY)
Filter	Wainwright	WHKX8-5872.5-6750-18000-40ST	SN6	6.75GHz High Pass Filter	Jun. 30, 2021	Feb.22, 2022	Jun. 29, 2022	Radiation (03CH15-HY)



Instrument	Brand Name	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Hygrometer	TECPEL	DTM-303A	TP201996	N/A	Nov. 16, 2021	Jan. 08, 2022~ Feb. 13, 2022	Nov. 15, 2022	Conducted (TH05-HY)
Power Meter	DARE	RPR3006W	16I00054SNO 12 (NO:113)	10MHz~6GHz	Dec. 16, 2021	Jan. 08, 2022~ Feb. 13, 2022	Dec. 15, 2022	Conducted (TH05-HY)
Spectrum Analyzer	Rohde & Schwarz	FSP40	100057	9kHz-40GHz	Dec. 30, 2021	Jan. 08, 2022~ Feb. 13, 2022	Dec. 29, 2022	Conducted (TH05-HY)
Signal Analyzer	Rohde & Schwarz	FSV40	101566	10Hz~40GHz	Aug. 30, 2021	Jan. 08, 2022~ Feb. 13, 2022	Aug. 29, 2022	Conducted (TH05-HY)
Switch Control Manframe	E-IUSTRUMENT	ETF-1405-0	EC1900067 (BOX7)	N/A	Aug. 12, 2021	Jan. 08, 2022~ Feb. 13, 2022	Aug. 11, 2022	Conducted (TH05-HY)

END of this report