



# Spot Check Evaluation

**FCC ID** : PY7-48130K  
**Equipment** : GSM/WCDMA/LTE Phone with BT, DTS/UNII  
a/b/g/n/ac, GPS and NFC  
**Brand Name** : Sony  
**Applicant** : Sony Mobile Communications Inc.  
4-12-3 Higashi-Shinagawa, Shinagawa-ku,  
Tokyo, 140-0002, Japan  
**Manufacturer** : Sony Mobile Communications Inc.  
4-12-3 Higashi-Shinagawa, Shinagawa-ku,  
Tokyo, 140-0002, Japan  
**Standard** : 47 CFR Part 2, 22(H), 24(E), 27(L)  
FCC Part 15 Subpart C §15.247  
FCC Part 15 Subpart C §15.225  
FCC Part 15 Subpart E §15.407

The product was received on Nov. 01, 2018 and testing was started from Apr. 15, 2019 and completed on Apr. 26, 2019. We, SPORTON INTERNATIONAL INC. EMC & Wireless Communications 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 report must not be used by the client to claim product certification, approval, or endorsement by TAF or any agency of government.

The test results in this report apply exclusively to the tested model / sample. Without written approval of SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory, the test report shall not be reproduced except in full.

Approved by: Jones Tsai / Manager



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## TABLE OF CONTENTS

History of this test report.....	3
1. Introduction Section .....	4
2. Difference Section .....	5
3. Spot Check Verification Data Section .....	6
4. Reference detail Section .....	8



### History of this test report

Version	Description	Issued Date
01	Initial issue of report	May 07, 2019
02	Remove Appendix A. Spot Check Test Result and update description	May 16, 2019
03	update description	May 16, 2019



## **1. Introduction Section**

PY7-24117P (parent model) and PY7-48130K (data reuse model) is HW identical for  
GSM/WCDMA/LTE/WLAN/BT/NFC



## **2. Difference Section**

The difference between PY7-24117P (parent model) and PY7-48130K (data reuse model) is the power of cellular LTE B2/B4/B25/B66. The power is increased by SW and hence a new FCC ID is required and data re-use strategy is used for PY7-48130K.

For the cellular LTE bands not only LTE B2/B4/B25/B66, but all bands have been fully tested per customer request.



### 3. Spot Check Verification Data Section

Radiated spurious emission 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.

Summary of the spot check:

Test Item	MIMO Mode	PY7-24117P Worst Result	PY7-48130K Worst Result	Difference (dB)
Average Conducted Power (dBm)	802.11b	17.12	17.02	0.1
	802.11g	17.57	17.47	0.1
	11n HT20	17.67	17.32	0.35
	BT (1Mbps)	11.35	11.05	0.3
	BT (2Mbps)	7.71	7.78	-0.07
	BT (3Mbps)	7.68	7.82	-0.14
	BT-LE(1Mbps)	5.20	5.30	-0.1
	BT-LE(2Mbps)	5.10	5.40	-0.3
	11a, 5.2GHz	15.84	15.74	0.1
	11n HT20, 5.2GHz	16.02	15.92	0.1
	11n HT40, 5.2GHz	16.02	15.86	0.16
	11ac VHT20, 5.2GHz	15.92	15.82	0.1
	11ac VHT40, 5.2GHz	15.92	15.76	0.16
	11ac VHT80, 5.2GHz	15.97	15.87	0.1
	11a, 5.3GHz	15.99	15.89	0.1
	11n HT20, 5.3GHz	16.09	15.92	0.17
	11n HT40, 5.3GHz	16.02	15.89	0.13
	11ac VHT20, 5.3GHz	16.02	15.89	0.13
	11ac VHT40, 5.3GHz	15.92	15.82	0.1
	11ac VHT80, 5.3GHz	16.09	15.85	0.24
	11a, 5.5GHz	15.95	15.75	0.2
	11n HT20, 5.5GHz	16.12	16.02	0.1
	11n HT40, 5.5GHz	16.02	15.86	0.16
	11ac VHT20, 5.5GHz	15.92	15.79	0.13
	11ac VHT40, 5.5GHz	15.92	15.79	0.13
	11ac VHT80, 5.5GHz	16.05	15.92	0.13
	11a, 5.8GHz	16.09	15.82	0.27
	11n HT20, 5.8GHz	15.99	15.82	0.17
	11n HT40, 5.8GHz	15.96	15.74	0.22
	11ac VHT20, 5.8GHz	15.89	15.72	0.17
	11ac VHT40, 5.8GHz	15.86	15.76	0.1
	11ac VHT80, 5.8GHz	15.80	15.66	0.14
	S/N of test sample	BH97006BFU	QV71006R1S	
	Test date	2019/01/31~2019/03/13	2019/04/15~2019/04/16	
	GSM 850 (GPRS)	31.31	31.23	0.08
	GSM 850 (EDGE)	26.87	26.76	0.11
	GSM1900(GPRS)	27.65	27.65	0
	GSM1900(EDGE)	25.93	26.11	-0.18
	UMTS B2 (RMC 12.2Kbps)	19.05	18.97	0.08
	UMTS B4 (RMC 12.2Kbps)	19.44	19.49	-0.05
UMTS B5 (RMC 12.2Kbps)	24.18	24.07	0.11	
S/N of test sample	BH97002AFU	BH97007BFR		
Test date	2019/02/20~2019/02/21	2019/04/17~2019/04/20		



Test Item	MIMO Mode	PY7-24117P Worst Result	PY7-48130K Worst Result	Difference (dB)
Peak Radiated Spurious Emission (Band Edge) (dBuV/m)	802.11b	57.05	52.84	4.21
	802.11g	70.31	68.12	2.19
	BT (2Mbps)	59.85	49.91	9.94
	BT-LE (2Mbps)	59.71	56.77	2.94
	802.11n HT40 5.2GHz	55.21	49.92	5.29
	802.11ac VHT80, 5.3GHz	62.51	62.95	-0.44
	802.11n HT20, 5.5GHz	64.65	62.05	2.6
	802.11ac VHT80, 5.8GHz	59.60	60.21	-0.61
	S/N of test sample	BH9700K3FU	QV71002F1S QV71007L1S	
Test date	2019/02/20~2019/02/27	2019/04/19~2019/04/26		
Average Radiated Spurious Emission (Band Edge) (dBuV/m)	802.11b	50.51	43.07	7.44
	802.11g	50.86	49.67	1.19
	BT (2Mbps)	35.06	25.15	9.91
	BT-LE (2Mbps)	46.82	43.09	3.73
	802.11n HT40 5.2GHz	46.87	40.53	6.34
	802.11ac VHT80, 5.3GHz	49.63	50.80	-1.17
	S/N of test sample	BH9700K3FU	QV71002F1S QV71007L1S	
	Test date	2019/02/20~2019/02/27	2019/04/19~2019/04/26	
	Radiated Spurious Emission (Harmonic) (dBuV/m)	802.11b	45.24	44.03
802.11g		43.45	44.10	-0.65
BT (2Mbps)		45.66	43.38	2.28
BT-LE (2Mbps)		41.43	36.42	5.01
802.11n HT40 5.2GHz		47.56	47.77	-0.21
802.11ac VHT80, 5.3GHz		46.96	46.85	0.11
802.11n HT20, 5.5GHz		48.07	48.02	0.05
802.11ac VHT80, 5.8GHz		50.02	48.73	1.29
S/N of test sample		BH9700K3FU	QV71002F1S QV71007L1S	
Test date	2019/02/20~2019/02/27	2019/04/19~2019/04/26		
NFC (dBuV/m)	RSE (30MHz to1GHz)	37.09	35.08	2.01
	S/N of test sample	BH97006GFR	BH97006GFR	
	Test date	2019/02/22	2019/04/13	
WWAN				
Radiated Spurious Emission (Harmonic) (dBuV/m)	GSM 850 (GPRS)	-45.45	-44.50	-0.95
	GSM 850 (EDGE)	-52.53	-57.27	4.74
	GSM1900(GPRS)	-48.50	-49.61	1.11
	GSM1900(EDGE)	-48.89	-49.86	0.97
	UMTS B2 (RMC 12.2Kbps)	-48.93	-49.90	0.97
	UMTS B4 (RMC 12.2Kbps)	-50.25	-50.66	0.41
	UMTS B5 (RMC 12.2Kbps)	-55.39	-57.95	2.56
	S/N of test sample	BH9700G3FR	QV71005J1S	
	Test date	2019/02/15~2019/02/18	2019/04/09~2019/04/23	



### 4. Reference detail Section

Rule Part	Equipment Class	Wireless Technology	Frequency Band (MHz)	Reference FCC ID	Type Grant/Permissive Change	Reference Report Title	Reference Application	Reference Report Sections
15C	DTS	Bluetooth – LE Wii-Fi	2400~2483.5	PY7-24117P	Original Grant	FCC RF Test Report	PY7-48130K	Part 15C (FR802417-03B, FR802417-03C)
	DSS	Bluetooth	2400~2483.5	PY7-24117P	Original Grant	FCC RF Test Report	PY7-48130K	Part 15C (FR802417-03A)
	DXX	NFC	13.56	PY7-24117P	Original Grant	FCC RF Test Report	PY7-43143E	Part 15C (FR802417-03D)
15E	NII	Wi-Fi	5150~5250 5250~5350 5470~5725 5725~5850	PY7-24117P	Original Grant	FCC RF Test Report	PY7-43143E	Part 15E (FR802417-03E, FR802417-03F )
Part 22.24.27	PCE	GSM /WCDMA	GSM 850/1900 WCDMA B2/B4/B5	PY7-24117P	Original Grant	FCC RF Test Report	PY7-43143E	Part 22.24.27 (FG802417-03A )

End of this report