Spot Check Verification

1. Customer

   • Name (FCC) : Point Mobile Co., LTD.

   • Address (FCC) : B-9F, Kabul Great Valley 32 Digital-ro 9-gil, Geumcheon-gu Seoul South Korea 153-709

2. Product Name / Model Name : Mobile Computer / PM90G1
   FCC ID : V2X-PM90G1

3. Date of Test : 2019.08.05 ~ 2019.08.12

Affirmation	Tested by Name : Inhee Bae (Signature)	Reviewed by Name : HyunSu Son (Signature)

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1. Introduction

1.1 Reference EUT Description

Reference FCC ID: V2X-PM90G

Equipment Class	FCC Part	Technology	Band	Note
PCE	Part 22, 24	GSM	850/1900	Reuse
PCE	Part 22, 24, 27	WCDMA	850/1700/1900	Reuse
PCE	Part 22, 24, 27, 90	LTE	B2/4/5/7/12/13/14/17/25/26/41	Reuse
PCE	Part 90	LTE	B26	Reuse
DSS	Part 15.247	Bluetooth	2402 ~ 2480 MHz	Reuse
DTS	Part 15.247	BLE	2402 ~ 2480 MHz	Reuse
DTS	Part 15.247	WLAN	2412 ~ 2462 MHz	Reuse
NII	Part 15.407	WLAN	5180 ~ 5240 MHz, 5260 ~ 5320 MHz, 5500 ~ 5720 MHz, 5745 ~ 5825 MHz	Reuse
DXX	Part 15.225	NFC	13.56 MHz	NA

The applicant takes full responsibility that the test data as referenced in section 4 represents compliance for FCC ID: V2X-PM90G1.

2. Explain the Differences

FCC ID: V2X-PM90G1 is same the internal printed circuit board with FCC ID: V2X-PM90G. The difference between the two product is that the NFC chipset is changed and the MSR(non transmitter) portion is removed.

3. Spot Check Verification Data

3.1 Test results

Equipment Class	FCC Part	Technology	Mode	Tx Freq. (MHz)	Test item	Reference FCC ID: V2X-PM90G		Separated FCC ID: V2X-PM90G1		Limit (dBm)	Deviation (dB)
						Frequency (MHz)	Result (dBm)	Frequency (MHz)	Result (dBm)		
PCE	Part 22	GSM850	Voice	824.2	ERP	-	32.03	-	30.78	38.45	-1.25
PCE	Part 22	GSM850	Voice	824.2	Spurious emission	2473.00	-41.62	2473.05	-43.38	-13.00	-1.76
PCE	Part 22	WCDMA850	RMC	826.4	ERP	-	22.12	-	20.59	38.45	-1.53
PCE	Part 22	WCDMA850	RMC	826.4	Spurious emission	2482.47	-45.01	2481.97	-47.69	-13.00	-2.68
PCE	Part 24	GSM1900	Voice	1850.2	EIRP	-	32.54	-	31.41	33.01	-1.13
PCE	Part 24	GSM1900	Voice	1850.2	Spurious emission	5550.52	-36.36	5551.84	-38.00	-13.00	-1.64
PCE	Part 24	WCDMA1900	RMC	1852.4	EIRP	-	26.61	-	25.37	33.01	-1.24
PCE	Part 24	WCDMA1900	RMC	1852.4	Spurious emission	3705.38	-44.97	3704.19	-45.04	-13.00	-0.07
PCE	Part 27	WCDMA1700	RMC	1752.6	EIRP	-	26.02	-	24.75	30.00	-1.27
PCE	Part 27	WCDMA1700	RMC	1752.6	Spurious emission	3505.32	-46.86	3504.75	-46.09	-13.00	0.77

Equipment Class	FCC Part	Technology	Mode (BW)	RB Size/ offset	Tx Freq. (MHz)	Test item	Reference FCC ID: V2X-PM90G		Separated FCC ID: V2X-PM90G1		Limit (dBm)	Deviation (dB)
							Frequency (MHz)	Result (dBm)	Frequency (MHz)	Result (dBm)		
PCE	Part 27	LTE B12	QPSK (10MHz)	1/25	711	ERP	-	19.18	-	19.08	34.77	-0.10
PCE	Part 27	LTE B12	QPSK (10MHz)	1/25	711	Spurious emission	2133.30	-45.05	2132.19	-45.35	-13.00	-0.30
PCE	Part 27	LTE B13	QPSK (10MHz)	1/25	782	ERP	-	20.54	-	19.71	34.77	-0.83
PCE	Part 27	LTE B13	QPSK (10MHz)	1/25	782	Spurious emission	2346.54	-45.57	2346.73	-45.40	-13.00	0.17
PCE	Part 90	LTE B14	QPSK (10MHz)	1/0	793	ERP	-	21.26	-	19.60	34.77	-1.66
PCE	Part 90	LTE B14	QPSK (10MHz)	1/0	793	Spurious emission	2365.74	-45.45	2380.10	-45.88	-13.00	-0.43
PCE	Part 22	LTE B26	QPSK (15MHz)	1/36	831.5	ERP	-	21.32	-	22.11	38.45	0.79
PCE	Part 22	LTE B26	QPSK (15MHz)	1/36	831.5	Spurious emission	2494.06	-39.77	2495.73	-41.30	-13.00	-1.53
PCE	Part 90	LTE B26	QPSK (5MHz)	1/36	821.5	ERP	-	19.51		21.23	38.45	1.72
PCE	Part 90	LTE B26	QPSK (5MHz)	1/36	821.5	Spurious emission	2464.45	-48.31	2463.31	-46.93	-13.00	1.38
PCE	Part 27	LTE B4	QPSK (20MHz)	1/50	1720	EIRP	-	24.80	-	25.17	30.00	0.37
PCE	Part 27	LTE B4	QPSK (20MHz)	1/50	1720	Spurious emission	5160.27	-38.14	5159.75	-40.67	-13.00	-2.53
PCE	Part 24	LTE B25	QPSK (20MHz)	1/50	1860	EIRP	-	25.60	-	25.47	33.01	-0.13
PCE	Part 24	LTE B25	QPSK (20MHz)	1/50	1860	Spurious emission	9300.28	-27.10	9300.68	-29.84	-13.00	-2.74
PCE	Part 27	LTE B7	QPSK (20MHz)	1/50	2535	EIRP	-	24.23	-	22.12	33.01	-2.11
PCE	Part 27	LTE B7	QPSK (20MHz)	1/50	2535	Spurious emission	5070.11	-42.50	5070.98	-44.45	-25.00	-1.95
PCE	Part 27	LTE B41	QPSK (20MHz)	1/0	2506	EIRP	-	24.49	-	22.89	33.01	-1.60
PCE	Part 27	LTE B41	QPSK (20MHz)	1/0	2506	Spurious emission	4991.55	-42.96	4993.77	-45.62	-25.00	-2.66

Equipment Class	FCC Part	Technology	Mode	Tx Freq. (MHz)	Test item	Detector Mode	Reference FCC ID: V2X-PM90G		Separated FCC ID: V2X-PM90G1		Limit (dBuV/m)	Deviation (dB)
							Frequency (MHz)	Result (dBuV/m)	Frequency (MHz)	Result (dBuV/m)		
DSS	Part 15.247	Bluetooth	3Mbps	2480	Radiated Band edge	Peak	2483.54	55.69	2484.30	55.12	74.00	-0.57
						Average	2483.54	30.90	2484.30	30.33	54.00	-0.57
			1Mbps	2441	Radiated Spurious emission	Peak	4881.81	52.66	4881.70	52.63	74.00	-0.03
						Average	4881.81	27.87	4881.70	27.84	54.00	-0.03
DTS	Part 15.247	BLE	2Mbps	2402	Radiated Band edge	Peak	2389.74	55.90	2386.07	55.09	74.00	-0.81
						Average	2389.62	46.26	2386.06	44.60	54.00	-1.66
			1Mbps	2441	Radiated Spurious emission	Peak	4880.18	51.20	4880.29	50.80	74.00	-0.40
						Average	4880.18	40.97	4879.78	40.86	54.00	-0.11
		WLAN	802.11n (HT40)	2422	Radiated Band edge	Peak	2389.87	61.99	2389.77	61.54	74.00	-0.45
						Average	2389.74	50.85	2389.74	51.25	54.00	0.40
			802.11n (HT40)	2437	Radiated Spurious emission	Peak	4873.86	51.58	4873.84	52.52	74.00	0.94
						Average	4874.00	43.36	4874.20	43.29	54.00	-0.07
NII	Part 15.407	WLAN	802.11n (HT40)	5190	Radiated Band edge	Peak	5149.68	61.76	5149.97	62.54	74.00	0.78
						Average	5149.75	51.00	5149.97	53.25	54.00	2.25
			802.11a	5240	Radiated Spurious emission	Peak	10479.74	52.86	10480.40	52.87	68.20	0.01
			802.11n (HT40)	5310	Radiated Band edge	Peak	5351.02	62.38	5351.15	61.63	74.00	-0.75
						Average	5350.08	51.11	5350.36	51.09	54.00	-0.02
			802.11a	5300	Radiated Spurious emission	Peak	10600.46	52.36	10600.02	53.45	74.00	1.09
						Average	10600.10	42.49	10600.16	43.48	54.00	0.99
			802.11n (HT40)	5510	Radiated Band edge	Peak	5458.76	63.61	5458.78	61.23	74.00	-2.38
						Average	5459.69	49.82	5459.99	50.05	54.00	0.23
						Peak	5469.82	65.59	5466.31	62.91	68.20	-2.68
			802.11ac (VTH80)	5690	Radiated Spurious emission	Peak	11379.74	54.33	11380.15	56.16	74.00	1.83
						Average	11380.38	44.57	11380.04	44.93	54.00	0.36
			802.11n (HT40)	5795	Radiated Band edge	Peak	5854.38	66.38	5851.56	65.18	68.20	-1.20
						Peak	5863.18	65.34	5864.18	62.12	78.20	-3.22
			802.11a	5825	Radiated Spurious emission	Peak	11650.14	55.60	11650.35	54.82	74.00	-0.78
						Average	11650.38	44.74	11650.25	44.54	54.00	-0.20

Note1: The spot check were performed based on worst-case results reported in the original FCC report.
The spot check test results compared to the reference data show a good correlation. It also complies with the FCC limit.

4. Reference Section

Reference FCC ID: V2X-PM90G

Equipment Class	FCC Part	Technology	Band(MHz)	Exhibit type	Report title	Reference Sections
PCE	Part 22, 24	GSM	850/1900	Original Grant	PCE-GSM WCDMA	All
PCE	Part 22, 24, 27	WCDMA	850/1700/1900	Original Grant	PCE-GSM WCDMA	All
PCE	Part 22, 24, 27, 90	LTE	B2/4/5/7/12/13/14/17/25/26/41	Original Grant	PCE-LTE	All
PCE	Part 90	LTE	B26	Original Grant	PCE-LTE B26	All
DSS	Part 15.247	Bluetooth	2402 ~ 2480	Original Grant	DSS	All
DTS	Part 15.247	BLE	2402 ~ 2480	Original Grant	DTS-LE	All
DTS	Part 15.247	WLAN	2412 ~ 2462	Original Grant	DTS_WLAN	All
NII	Part 15.407	WLAN	5180 ~ 5240 5260 ~ 5320 5500 ~ 5720 5745 ~ 5825	Original Grant	UNII-WLAN, DFS	All
DXX	Part 15.247	NFC	13.56	Original Grant	DXX NFC	NA