

LTE Band 12 - Ant A



Plot 7-93. Lower Band Edge Plot (LTE Band 12 - 1.4MHz QPSK - Full RB - Ant A)

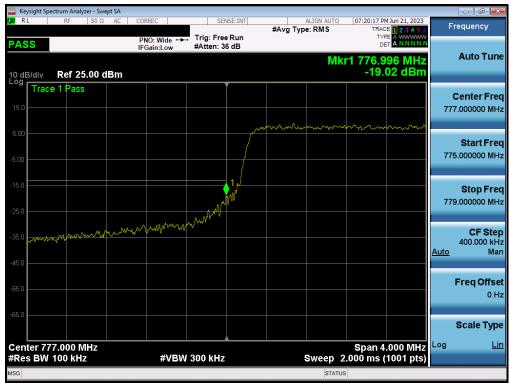


Plot 7-94. Upper Band Edge Plot (LTE Band 12 - 1.4MHz QPSK - Full RB - Ant A)

FCC ID: A3LSMF731JPN	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Page 76 of 134
1M2304260059-05.A3L	6/15/2023 - 7/13/2023	Portable Handset	Page 70 01 134



LTE Band 13 - Ant A



Plot 7-95. Lower Band Edge Plot (LTE Band 13 - 5MHz QPSK - Full RB - Ant A)



Plot 7-96. Lower Emission Mask Plot (LTE Band 13 - 5MHz QPSK - Full RB - Ant A)

FCC ID: A3LSMF731JPN	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Page 77 of 134
1M2304260059-05.A3L	6/15/2023 - 7/13/2023	Portable Handset	Page 77 01 134





Plot 7-97. Upper Band Edge Plot (LTE Band 13 - 5MHz QPSK - Full RB - Ant A)



Plot 7-98. Upper Emission Mask Plot (LTE Band 13 - 5MHz QPSK - Full RB - Ant A)

FCC ID: A3LSMF731JPN	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Page 78 of 134
1M2304260059-05.A3L	6/15/2023 - 7/13/2023	Portable Handset	Page 76 01 134

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V3.0 1/5/2022

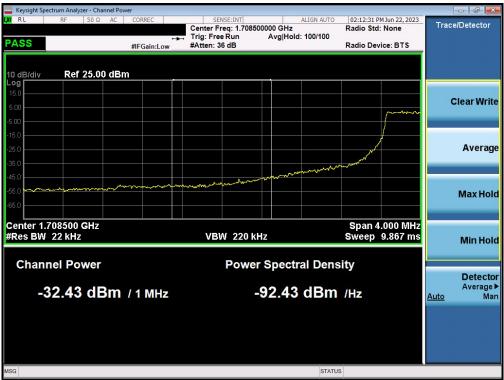
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LTE Band 66/4 - Ant A



Plot 7-99. Lower Band Edge Plot (LTE Band 66/4 - 3MHz QPSK - Full RB - Ant A)



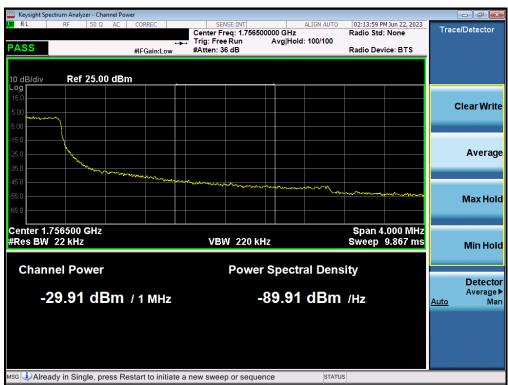
Plot 7-100. Lower Extended Band Edge Plot (LTE Band 66/4 - 3MHz QPSK - Full RB - Ant A)

FCC ID: A3LSMF731JPN	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Page 79 of 134
1M2304260059-05.A3L	6/15/2023 - 7/13/2023	Portable Handset	Page 79 01 134





Plot 7-101. Upper Band Edge Plot (LTE Band 4 - 3MHz QPSK - Full RB - Ant A)



Plot 7-102. Upper Extended Band Edge Plot (LTE Band 4 - 3MHz QPSK - Full RB - Ant A)

FCC ID: A3LSMF731JPN	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Page 80 of 134
1M2304260059-05.A3L	6/15/2023 - 7/13/2023	Portable Handset	Page 60 01 134

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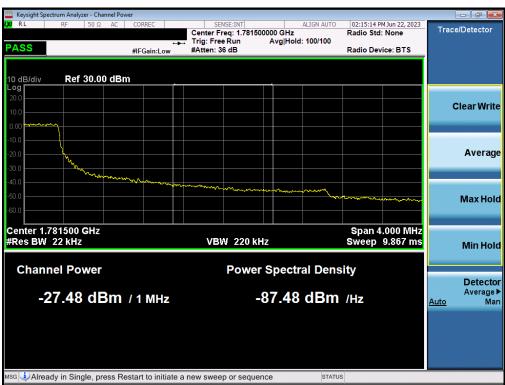
V3.0 1/5/2022

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Plot 7-103. Upper Band Edge Plot (LTE Band 66 - 3MHz QPSK - Full RB - Ant A)



Plot 7-104. Upper Extended Band Edge Plot (LTE Band 66 - 3MHz QPSK - Full RB - Ant A)

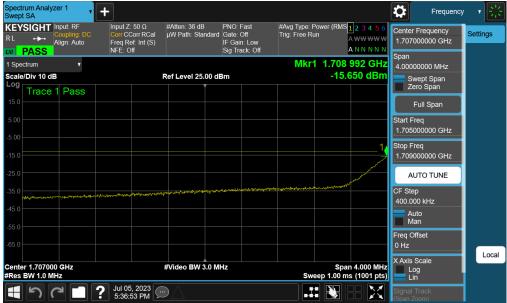
FCC ID: A3LSMF731JPN	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Page 81 of 134
1M2304260059-05.A3L	6/15/2023 - 7/13/2023	Portable Handset	Page of Of 134



NR Band n66 - Ant A



Plot 7-105. Lower Band Edge Plot (NR Band n66 - 5.0MHz - Full RB - Ant A)



Plot 7-106. Lower Extended Band Edge Plot (NR Band n66 - 5.0MHz - Full RB - Ant A)

FCC ID: A3LSMF731JPN		Approved by: Technical Manager	
Test Report S/N:	Test Dates:	EUT Type:	Dogo 92 of 124
1M2304260059-05.A3L	6/15/2023 - 7/13/2023	Portable Handset	Page 82 of 134

2023 ELEMENT V3.0 1/5/2022





Plot 7-107. Upper Band Edge Plot (NR Band n66 - 5.0MHz - Full RB - Ant A)



Plot 7-108. Upper Extended Band Edge Plot (NR Band n66 – 5.0MHz - Full RB – Ant A)

FCC ID: A3LSMF731JPN		Approved by: Technical Manager	
Test Report S/N:	Test Dates:	EUT Type:	Page 83 of 134
1M2304260059-05.A3L	6/15/2023 - 7/13/2023	Portable Handset	



Mode	Bandwidth	Channel	Test Case	Level [dBm]	Limit [dBm]	Margin [dB]
		Low	Band Edge	-23.25	-13	-10.25
		Low	Extended	-20.89	-13	-7.89
	20MHz	High (B4)	Band Edge	-27.72	-13	-14.72
	ZUIVITZ	High (B4)	Extended	-26.29	-13	-13.29
		High (B66)	Band Edge	-26.54	-13	-13.54
		High (B66)	Extended	-24.46	-13	-11.46
		Low	Band Edge	-22.16	-13	-9.16
		Low	Extended	-18.42	-13	-5.42
	15MHz	High (B4)	Band Edge	-26.10	-13	-13.10
	ISIVITZ	High (B4)	Extended	-22.57	-13	-9.57
		High (B66)	Band Edge	-26.74	-13	-13.74
		High (B66)	Extended	-22.60	-13	-9.60
		Low	Band Edge	-23.79	-13	-10.79
	10MHz	Low	Extended	-20.21	-13	-7.21
		High (B4)	Band Edge	-26.52	-13	-13.52
		High (B4)	Extended	-25.07	-13	-12.07
		High (B66)	Band Edge	-27.00	-13	-14.00
LTE Band 66/4		High (B66)	Extended	-22.25	-13	-9.25
LIE Dallu 00/4		Low	Band Edge	-20.13	-13	-7.13
		Low	Extended	-18.47	-13	-5.47
	5MHz	High (B4)	Band Edge	-23.76	-13	-10.76
	SIVINZ	High (B4)	Extended	-23.49	-13	-10.49
		High (B66)	Band Edge	-21.69	-13	-8.69
		High (B66)	Extended	-22.86	-13	-9.86
		Low	Band Edge	-18.81	-13	-5.81
		Low	Extended	-18.48	-13	-5.48
	3MHz	High (B4)	Band Edge	-21.02	-13	-8.02
	SIVITZ	High (B4)	Extended	-23.39	-13	-10.39
		High (B66)	Band Edge	-19.70	-13	-6.70
		High (B66)	Extended	-21.85	-13	-8.85
		Low	Band Edge	-20.39	-13	-7.39
		Low	Extended	-27.99	-13	-14.99
	1.4MHz	High (B4)	Band Edge	-22.96	-13	-9.96
	1.41∀1□∠	High (B4)	Extended	-28.50	-13	-15.50
		High (B66)	Band Edge	-22.10	-13	-9.10
		High (B66)	Extended	-26.50	-13	-13.50

Table 7-13. Band Edge Test Results - LTE B66/4 - Ant I

FCC ID: A3LSMF731JPN	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Dogg 04 of 124
1M2304260059-05.A3L	6/15/2023 - 7/13/2023	Portable Handset	Page 84 of 134



Mode	Bandwidth	Channel	Test Case	Level [dBm]	Limit [dBm]	Margin [dB]
		Low	Band Edge	-24.34	-13	-11.34
	40 MHz	Low	Extended	-21.57	-13	-8.57
	40 MHZ	High	Band Edge	-20.97	-13	-7.97
		High	Extended	-19.69	-13	-6.69
		Low	Band Edge	-22.69	-13	-9.69
	30 MHz	Low	Extended	-21.24	-13	-8.24
	30 IVITZ	High	Band Edge	-23.66	-13	-10.66
		High	Extended	-22.39	-13	-9.39
		Low	Band Edge	-29.02	-13	-16.02
	25 MHz	Low	Extended	-22.96	-13	-9.96
	25 MHZ	High	Band Edge	-28.40	-13	-15.40
		High	Extended	-22.91	-13	-9.91
	20 MHz	Low	Band Edge	-24.28	-13	-11.28
NR Band n66		Low	Extended	-19.36	-13	-6.36
INIX Ballu 1100	ZU WITZ	High	Band Edge	-27.16	-13	-14.16
		High	Extended	-21.48	-13	-8.48
		Low	Band Edge	-23.47	-13	-10.47
	15 MHz	Low	Extended	-17.49	-13	-4.49
	15 MITZ	High	Band Edge	-24.69	-13	-11.69
		High	Extended	-18.92	-13	-5.92
		Low	Band Edge	-21.32	-13	-8.32
	10 MHz	Low	Extended	-15.25	-13	-2.25
	IO MINZ	High	Band Edge	-24.82	-13	-11.82
		High	Extended	-15.83	-13	-2.83
		Low	Band Edge	-21.42	-13	-8.42
	5 MHz	Low	Extended	-15.75	-13	-2.75
	5 IVITZ	High	Band Edge	-23.46	-13	-10.46
		High	Extended	-16.07	-13	-3.07

Table 7-14. Band Edge Test Results - NR n66 - Ant I

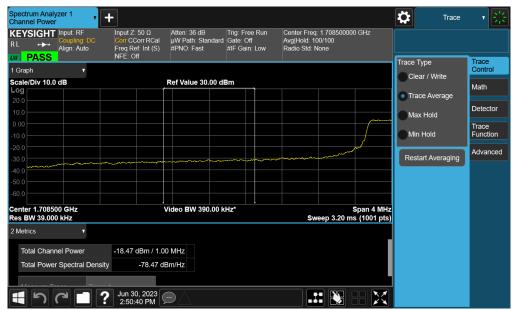
FCC ID: A3LSMF731JPN	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Page 85 of 134
1M2304260059-05.A3L	6/15/2023 - 7/13/2023	Portable Handset	



LTE Band 66/4 - Ant I



Plot 7-109. Lower Band Edge Plot (LTE Band 66/4 - 5MHz QPSK - Full RB - Ant I)



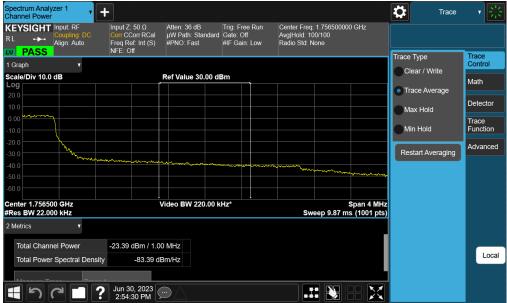
Plot 7-110. Lower Extended Band Edge Plot (LTE Band 66/4 - 5MHz QPSK - Full RB - Ant I)

FCC ID: A3LSMF731JPN	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Page 86 of 134
1M2304260059-05.A3L	6/15/2023 - 7/13/2023	Portable Handset	Page 60 01 134





Plot 7-111. Upper Band Edge Plot (LTE Band 4 - 3MHz QPSK - Full RB - Ant I)



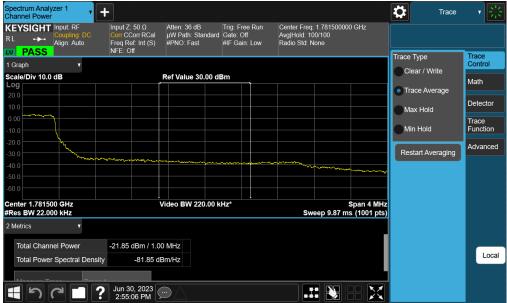
Plot 7-112. Upper Extended Band Edge Plot (LTE Band 4 - 3MHz QPSK - Full RB - Ant I)

FCC ID: A3LSMF731JPN	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Page 87 of 134
1M2304260059-05.A3L	6/15/2023 - 7/13/2023	Portable Handset	Page 67 01 134





Plot 7-113. Upper Band Edge Plot (LTE Band 66 - 3MHz QPSK - Full RB - Ant I)



Plot 7-114. Upper Extended Band Edge Plot (LTE Band 66 - 3MHz QPSK - Full RB - Ant I)

FCC ID: A3LSMF731JPN	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Page 88 of 134
1M2304260059-05.A3L	6/15/2023 - 7/13/2023	Portable Handset	Page 66 01 134



NR Band n66 - Ant I



Plot 7-115. Lower Band Edge Plot (NR Band n66 - 10.0MHz - Full RB - Ant I)



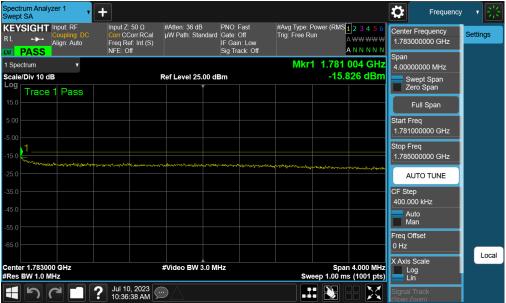
Plot 7-116. Lower Extended Band Edge Plot (NR Band n66 - 10.0MHz - Full RB - Ant I)

FCC ID: A3LSMF731JPN	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Page 89 of 134
1M2304260059-05.A3L	6/15/2023 - 7/13/2023	Portable Handset	Page 69 01 134





Plot 7-117. Upper Band Edge Plot (NR Band n66 - 10.0MHz - Full RB - Ant I)



Plot 7-118. Upper Extended Band Edge Plot (NR Band n66 - 10.0MHz - Full RB - Ant I)

FCC ID: A3LSMF731JPN	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Page 90 of 134
1M2304260059-05.A3L	6/15/2023 - 7/13/2023	Portable Handset	Fage 90 01 134



Peak-Average Ratio

Test Overview

A peak to average ratio measurement is performed at the conducted port of the EUT. The spectrum analyzers Complementary Cumulative Distribution Function (CCDF) measurement profile is used to determine the largest deviation between the average and the peak power of the EUT in a given bandwidth. The CCDF curve shows how much time the peak waveform spends at or above a given average power level. The percent of time the signal spends at or above the level defines the probability for that particular power level.

Test Procedure Used

ANSI C63.26-2015 - Section 5.2.3.4

Test Settings

- 1. The signal analyzer's CCDF measurement profile is enabled
- 2. Frequency = carrier center frequency
- 3. Measurement BW ≥ OBW or specified reference bandwidth
- 4. The signal analyzer was set to collect one million samples to generate the CCDF curve
- 5. The measurement interval was set depending on the type of signal analyzed. For continuous signals (>98% duty cycle), the measurement interval was set to 1ms. For burst transmissions, the spectrum analyzer is set to use an internal "RF Burst" trigger that is synced with an incoming pulse and the measurement interval is set to less than the duration of the "on time" of one burst to ensure that energy is only captured during a time in which the transmitter is operating at maximum power

Test Setup

The EUT and measurement equipment were set up as shown in the diagram below.



Figure 7-5. Test Instrument & Measurement Setup

Test Notes

For the QAM modulations, only the QAM that produced the worst-case peak-to-average ratio was included in this section.

FCC ID: A3LSMF731JPN	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Page 91 of 134
1M2304260059-05.A3L	6/15/2023 - 7/13/2023	Portable Handset	Fage 91 01 134

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Mode	Bandwidth	Modulation	Average Power [dBm]	PAR at 0.1% [dB]	PAR Lim it [dB]	Margin [dB]
	10 MHz	QPSK	22.07	4.84	13.00	-8.16
	IO IVITIZ	64QAM	21.11	6.38	13.00	-6.62
	5 MHz	QPSK	23.03	4.79	13.00	-8.21
LTE Band 12	2 MILZ	64QAM	21.09	6.37	13.00	-6.63
LIE Dallu 12	3 MHz	QPSK	23.05	4.56	13.00	-8.44
	3 IVITZ	64QAM	21.09	6.41	13.00	-6.59
	4.4.841.1=	QPSK	23.00	4.86	13.00	-8.14
	1.4 MHz	64QAM	21.06	6.39	13.00	-6.61
	40 MUI-	QPSK	22.44	4.84	13.00	-8.16
LTE Band 13	10 MHz	64QAM	21.45	6.39	13.00	-6.61
LIE Dand 13	E MI I=	QPSK	23.39	4.83	13.00	-8.17
	5 MHz	64QAM	21.42	6.42	13.00	-6.58

Table 7-15. PAR Test Results - Below 1GHz - Ant A

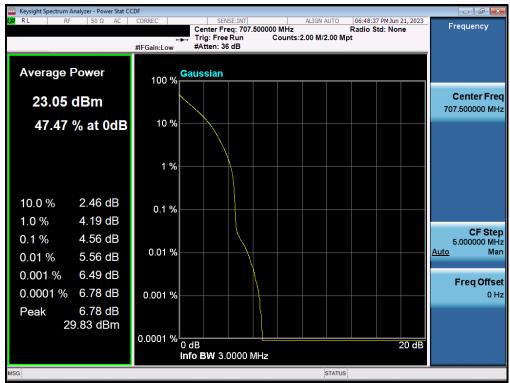
Mode	Bandwidth	Modulation	Average Power [dBm]	PAR at 0.1% [dB]	PAR Limit [dB]	Margin [dB]
	20 MHz	QPSK	21.65	4.78	13.00	-8.22
	ZU IVITZ	64QAM	19.68	6.44	13.00	-6.56
	15 MHz	QPSK	21.69	4.90	13.00	-8.10
	15 MHZ	64QAM	19.66	6.45	13.00	-6.55
	40 MHz	QPSK	20.74	4.90	13.00	-8.10
1.TE D 1.00/4	10 MHz	64QAM	19.79	6.48	13.00	-6.52
LTE Band 66/4	5.411	QPSK	21.73	4.79	13.00	-8.21
	5 MHz	64QAM	19.77	6.46	13.00	-6.54
		QPSK	21.73	4.65	13.00	-8.35
	3 MHz	64QAM	19.79	6.56	13.00	-6.44
		QPSK	21.70	4.96	13.00	-8.04
	1.4 MHz	64QAM	19.77	6.55	13.00	-6.45
	40 MHz	π/2 BPSK	21.62	4.76	13.00	-8.24
		QPSK	19.14	8.22	13.00	-4.78
		256QAM	15.68	8.32	13.00	-4.68
		π/2 BPSK	21.52	4.91	13.00	-8.09
	30 MHz	QPSK	19.06	8.44	13.00	-4.56
		256QAM	15.55	8.27	13.00	-4.73
	25 MHz	π/2 BPSK	22.07	4.79	13.00	-8.21
		QPSK	19.84	8.39	13.00	-4.61
		256QAM	16.16	8.41	13.00	-4.59
		π/2 BPSK	22.00	4.72	13.00	-8.28
NR Band n66	20 MHz	QPSK	19.53	8.34	13.00	-4.66
		256QAM	15.99	8.38	13.00	-4.62
		π/2 BPSK	22.05	4.84	13.00	-8.16
	15 MHz	QPSK	19.58	8.34	13.00	-4.66
		256QAM	16.06	8.23	13.00	-4.77
		π/2 BPSK	21.90	4.41	13.00	-8.59
	10 MHz	QPSK	19.39	8.50	13.00	-4.50
		256QAM	15.95	8.41	13.00	-4.59
		π/2 BPSK	21.87	5.00	13.00	-8.00
	5 MHz	QPSK	19.33	8.47	13.00	-4.53
		256QAM	15.92	8.22	13.00	-4.78

Table 7-16. PAR Test Results - Above 1GHz - Ant A

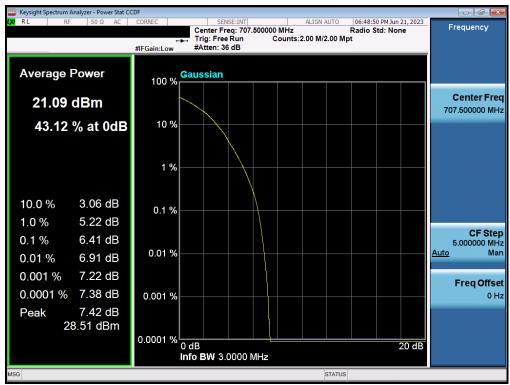
FCC ID: A3LSMF731JPN	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Page 92 of 134
1M2304260059-05.A3L	6/15/2023 - 7/13/2023	Portable Handset	Page 92 01 134



LTE Band 12 - Ant A



Plot 7-119. PAR Plot (LTE Band 12 - 3MHz QPSK - Full RB - Ant A)



Plot 7-120. PAR Plot (LTE Band 12 - 3MHz 64-QAM - Full RB - Ant A)

FCC ID: A3LSMF731JPN	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Page 93 of 134
1M2304260059-05.A3L	6/15/2023 - 7/13/2023	Portable Handset	Page 93 01 134

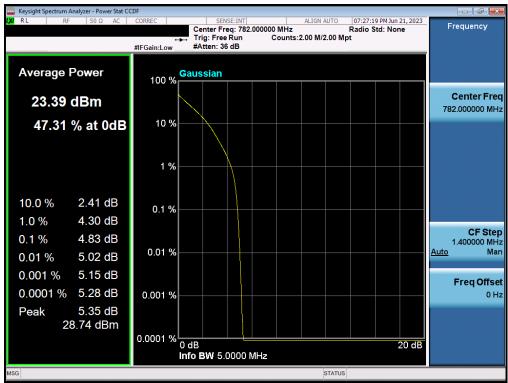
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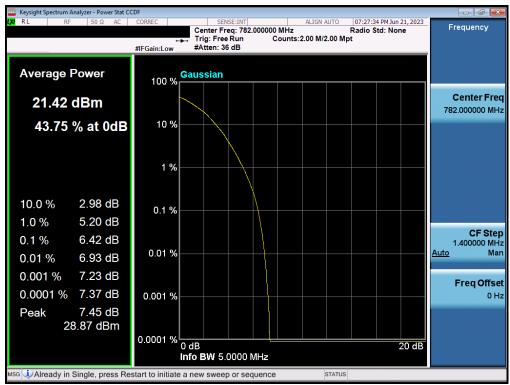
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LTE Band 13 - Ant A



Plot 7-121. PAR Plot (LTE Band 13 - 5MHz QPSK - Full RB - Ant A)



Plot 7-122. PAR Plot (LTE Band 13 - 5MHz 64-QAM - Full RB - Ant A)

FCC ID: A3LSMF731JPN	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Dago 04 of 124
1M2304260059-05.A3L	6/15/2023 - 7/13/2023	Portable Handset	Page 94 of 134

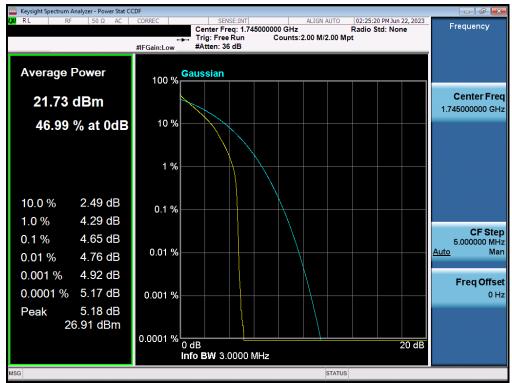
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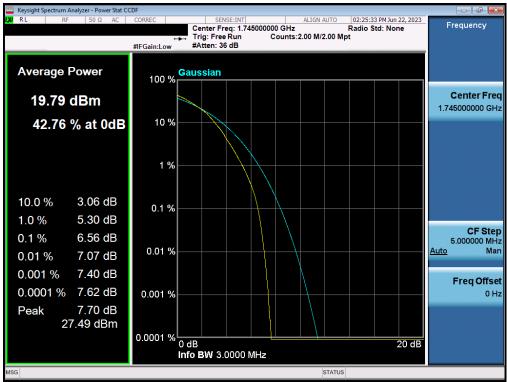
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LTE Band 66/4 - Ant A



Plot 7-123. PAR Plot (LTE Band 66/4 - 3MHz QPSK - Full RB - Ant A)



Plot 7-124. PAR Plot (LTE Band 66/4 - 3MHz 64-QAM - Full RB - Ant A)

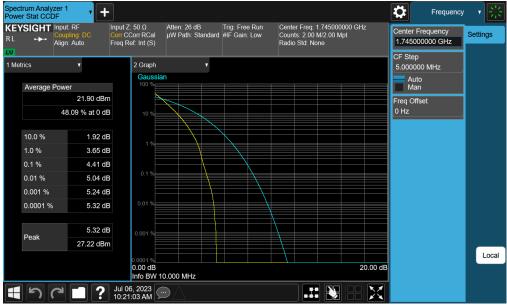
FCC ID: A3LSMF731JPN	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Page 95 of 134
1M2304260059-05.A3L	6/15/2023 - 7/13/2023	Portable Handset	Fage 95 01 154

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V3.0 1/5/2022
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NR Band n66 - Ant A



Plot 7-125. PAR Plot (NR Band n66 - 10.0MHz DFT-s-OFDM BPSK - Full RB - Ant A)



Plot 7-126. PAR Plot (NR Band n66 - 10.0MHz CP-OFDM QPSK - Full RB - Ant A)

FCC ID: A3LSMF731JPN		PART 27 MEASUREMENT REPORT					
Test Report S/N:	Test Dates:	EUT Type:	Dogo 06 of 124				
1M2304260059-05.A3L	6/15/2023 - 7/13/2023	Portable Handset	Page 96 of 134				





Plot 7-127. PAR Plot (NR Band n66 - 10.0MHz CP-OFDM 256-QAM - Full RB - Ant A)

FCC ID: A3LSMF731JPN		PART 27 MEASUREMENT REPORT					
Test Report S/N:	Test Dates:	EUT Type:	Dogo 07 of 124				
1M2304260059-05.A3L	6/15/2023 - 7/13/2023	Portable Handset	Page 97 of 134				



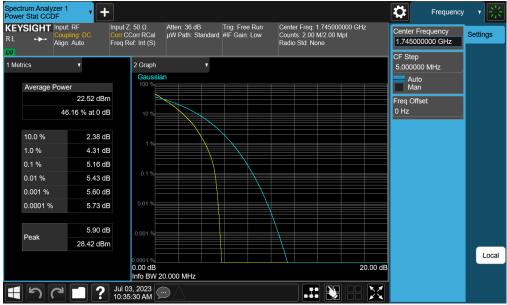
Mode	Bandwidth	Modulation	Average Power [dBm]	PAR at 0.1% [dB]	PAR Limit [dB]	Margin [dB]
	20 MHz	QPSK	22.52	5.16	13.00	-7.84
	20 MH2	64QAM	20.61	6.50	13.00	-6.50
	45 MH-	QPSK	22.55	5.23	13.00	-7.77
	15 MHz	64QAM	20.50	6.47	13.00	-6.53
	40 MHz	QPSK	21.62	5.43	13.00	-7.57
LTE D1 00/4	10 MHz	64QAM	20.55	6.43	13.00	-6.57
LTE Band 66/4	5 M I	QPSK	22.51	5.09	13.00	-7.91
	5 MHz	64QAM	20.59	6.41	13.00	-6.59
	0.841.1	QPSK	22.59	5.00	13.00	-8.00
	3 MHz	64QAM	20.56	6.43	13.00	-6.57
	4.4.841.1-	QPSK	22.50	5.05	13.00	-7.95
	1.4 MHz	64QAM	20.56	6.44	13.00	-6.56
	40 MHz	π/2 BPSK	22.35	3.07	13.00	-9.93
		QPSK	19.94	5.81	13.00	-7.19
		256QAM	16.40	7.60	13.00	-5.40
		π/2 BPSK	22.42	2.83	13.00	-10.17
	30 MHz	QPSK	19.91	5.69	13.00	-7.31
		256QAM	16.37	7.49	13.00	-5.51
		π/2 BPSK	23.07	2.96	13.00	-10.04
	25 MHz	QPSK	20.57	5.59	13.00	-7.41
		256QAM	17.17	7.47	13.00	-5.53
		π/2 BPSK	22.57	2.62	13.00	-10.38
NR Band n66	20 MHz	QPSK	20.34	5.52	13.00	-7.48
		256QAM	16.76	7.31	13.00	-5.69
		π/2 BPSK	22.71	2.78	13.00	-10.22
	15 MHz	QPSK	20.46	5.38	13.00	-7.62
		256QAM	16.80	7.24	13.00	-5.76
		π/2 BPSK	22.70	2.67	13.00	-10.33
	10 MHz	QPSK	20.26	5.54	13.00	-7.46
		256QAM	16.67	7.26	13.00	-5.74
		π/2 BPSK	22.66	2.67	13.00	-10.33
	5 MHz	QPSK	20.22	5.38	13.00	-7.62
		256QAM	16.70	7.11	13.00	-5.89

Table 7-17. PAR Test Results - Above 1GHz - Ant I

FCC ID: A3LSMF731JPN		PART 27 MEASUREMENT REPORT				
Test Report S/N:	Test Dates:	EUT Type:	Dogg 00 of 124			
1M2304260059-05.A3L	6/15/2023 - 7/13/2023 Portable Handset		Page 98 of 134			



LTE Band 66/4 - Ant I



Plot 7-128. PAR Plot (LTE Band 66/4 - 20MHz QPSK - Full RB - Ant I)

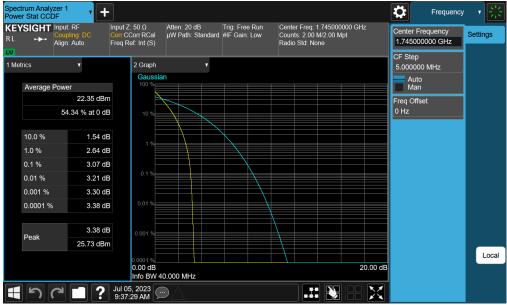


Plot 7-129. PAR Plot (LTE Band 66/4 - 20MHz 64-QAM - Full RB - Ant I)

FCC ID: A3LSMF731JPN		PART 27 MEASUREMENT REPORT					
Test Report S/N:	Test Dates:	EUT Type:	Page 99 of 134				
1M2304260059-05.A3L	6/15/2023 - 7/13/2023	Portable Handset	Fage 99 01 134				



NR Band n66 - Ant I



Plot 7-130. PAR Plot (NR Band n66 - 40.0MHz DFT-s-OFDM BPSK - Full RB - Ant I)



Plot 7-131. PAR Plot (NR Band n66 - 40.0MHz CP-OFDM QPSK - Full RB - Ant I)

FCC ID: A3LSMF731JPN		PART 27 MEASUREMENT REPORT					
Test Report S/N:	Test Dates:	EUT Type:	Dogo 100 of 124				
1M2304260059-05.A3L	6/15/2023 - 7/13/2023	Portable Handset	Page 100 of 134				





Plot 7-132. PAR Plot (NR Band n66 - 40.0MHz CP-OFDM 256-QAM - Full RB - Ant I)

FCC ID: A3LSMF731JPN		PART 27 MEASUREMENT REPORT					
Test Report S/N:	Test Dates:	EUT Type:	Dogo 101 of 124				
1M2304260059-05.A3L	6/15/2023 - 7/13/2023	Portable Handset	Page 101 of 134				



Radiated Power (ERP/EIRP)

Test Overview

Effective Radiated Power (ERP) and Equivalent Isotropic Radiated Power (EIRP) measurements are performed using the substitution method described in ANSI C63.26-2015 with the EUT transmitting into an integral antenna. Measurements are performed using vertically and horizontally polarized broadband horn antennas. All measurements are performed as RMS average measurements while the EUT is operating at maximum power, and at the appropriate frequencies.

Test Procedures Used

ANSI C63.26-2015 - Section 5.2.4.4

Test Settings

- 1. Radiated power measurements are performed using the signal analyzer's "channel power" measurement capability for signals with continuous operation.
- 2. RBW = 1 5% of the expected OBW, not to exceed 1MHz
- 3. VBW \geq 3 x RBW
- 4. Span = 1.5 times the OBW
- 5. No. of sweep points ≥ 2 x span / RBW
- 6. Detector = RMS
- 7. Trigger is set to "free run" for signals with continuous operation with the sweep times set to "auto".
- 8. The integration bandwidth was roughly set equal to the measured OBW of the signal for signals with continuous operation.
- 9. Trace mode = trace averaging (RMS) over 100 sweeps
- 10. The trace was allowed to stabilize

FCC ID: A3LSMF731JPN		PART 27 MEASUREMENT REPORT					
Test Report S/N:	Test Dates:	EUT Type:	Page 102 of 134				
1M2304260059-05.A3L	6/15/2023 - 7/13/2023	Portable Handset	Page 102 01 134				



Test Setup

The EUT and measurement equipment were set up as shown in the diagram below.

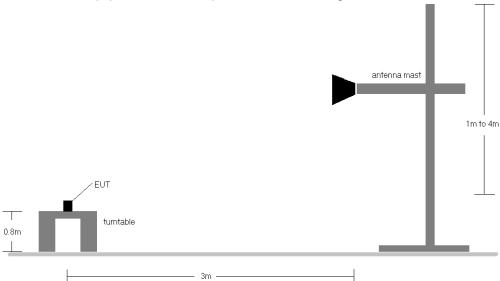


Figure 7-6. Radiated Test Setup <1GHz

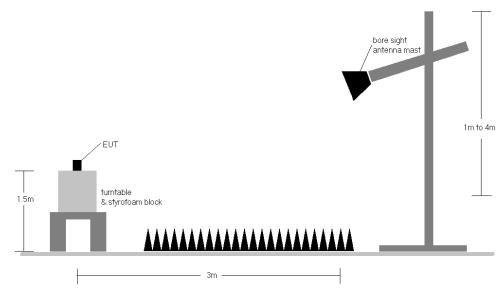


Figure 7-7. Radiated Test Setup >1GHz

FCC ID: A3LSMF731JPN		PART 27 MEASUREMENT REPORT					
Test Report S/N:	Test Dates:	EUT Type:	Dogo 102 of 124				
1M2304260059-05.A3L	6/15/2023 - 7/13/2023	Portable Handset	Page 103 of 134				

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Test Notes

- 1) The EUT was tested in three orthogonal planes and in all possible test configurations and positioning. The worst case emissions are reported with the EUT positioning, modulations, RB sizes and offsets, and channel bandwidth configurations shown in the tables below.
- 2) This unit was tested with its standard battery.
- 3) For NR operation, all subcarrier spacings (SCS) and transmission schemes (e.g. CP-OFDM and DFT-s-OFDM) were investigated to determine the worst case configuration. All modes of operation were investigated and the worst case configuration results are reported in this section.

FCC ID: A3LSMF731JPN		PART 27 MEASUREMENT REPORT					
Test Report S/N:	Test Dates:	EUT Type:	Dogo 104 of 124				
1M2304260059-05.A3L	6/15/2023 - 7/13/2023	Portable Handset	Page 104 of 134				



Bandwidth	Mod.	Frequency [MHz]	Ant. Pol. [H/V]	EUT Config	Antenna Height [cm]	Turntable Azimuth [degree]	Ant. Gain [dBi]	RB Size/Offset	Substitute Level [dBm]	EIRP [dBm]	EIRP [Watts]	EIRP Limit [dBm]	Margin [dB]	ERP [dBm]	ERP [Watts]	ERP Limit [dBm]	Margin [dB]
z	QPSK	704.0	Н	Open	130	169	1.34	1 / 0	17.84	19.18	0.083	36.99	-17.81	17.03	0.050	34.77	-17.74
MHz	QPSK	707.5	Н	Open	126	166	1.33	1 / 0	17.78	19.11	0.082	36.99	-17.88	16.96	0.050	34.77	-17.81
0	QPSK	711.0	Н	Open	126	170	1.33	1/0	17.34	18.67	0.074	36.99	-18.32	16.52	0.045	34.77	-18.26
-	16-QAM	704.0	Н	Open	130	169	1.34	1/0	17.00	18.34	0.068	36.99	-18.65	16.19	0.042	34.77	-18.58
N	QPSK	701.5	Н	Open	130	169	1.35	1 / 12	17.69	19.03	0.080	36.99	-17.96	16.88	0.049	34.77	-17.89
MHz	QPSK	707.5	Н	Open	126	166	1.33	1 / 12	17.75	19.09	0.081	36.99	-17.90	16.94	0.049	34.77	-17.84
2	QPSK	713.5	Н	Open	126	170	1.32	1 / 0	17.27	18.59	0.072	36.99	-18.40	16.44	0.044	34.77	-18.33
-7	16-QAM	707.5	Н	Open	126	166	1.33	1 / 12	17.30	18.63	0.073	36.99	-18.36	16.48	0.044	34.77	-18.29
N	QPSK	700.5	Н	Open	130	169	1.35	1/7	17.66	19.01	0.080	36.99	-17.98	16.86	0.049	34.77	-17.91
MHZ	QPSK	707.5	Н	Open	126	166	1.33	1 / 7	17.63	18.97	0.079	36.99	-18.02	16.82	0.048	34.77	-17.95
3 8	QPSK	714.5	Н	Open	126	170	1.32	1 / 0	17.15	18.46	0.070	36.99	-18.53	16.31	0.043	34.77	-18.46
**	16-QAM	700.5	Н	Open	130	169	1.35	1/7	16.69	18.04	0.064	36.99	-18.95	15.89	0.039	34.77	-18.88
Ž	QPSK	699.7	Н	Open	130	169	1.35	1 / 0	17.53	18.88	0.077	36.99	-18.11	16.73	0.047	34.77	-18.04
MHz	QPSK	707.5	Н	Open	126	166	1.33	1 / 0	17.67	19.01	0.080	36.99	-17.98	16.86	0.048	34.77	-17.91
4	QPSK	715.3	Н	Open	126	170	1.32	1 / 0	17.17	18.49	0.071	36.99	-18.50	16.34	0.043	34.77	-18.43
-	16-QAM	707.5	Н	Open	126	166	1.33	1/3	17.14	18.47	0.070	36.99	-18.52	16.32	0.043	34.77	-18.45
	QPSK (Opposite Pol.)	704.0	V	Open	151	344	1.34	1 / 0	17.16	18.50	0.071	36.99	-18.49	16.35	0.043	34.77	-18.42
10 MHz	QPSK (WCP)	704.0	H	Open	131	168	1.34	1/0	15.83	17.17	0.052	36.99	-19.82	15.02	0.032	34.77	-19.75
	QPSK	704.0	Н	Half	132	220	1.34	1 / 25	17.74	19.08	0.081	36.99	-17.91	16.93	0.049	34.77	-17.84

Table 7-18. ERP Data (LTE Band 12 - Ant A)

Bandwidth	Mod.	Frequency [MHz]	Ant. Pol. [H/V]	EUT Config	Antenna Height [cm]	Turntable Azimuth [degree]	Ant. Gain [dBi]	RB Size/Offset	Substitute Level [dBm]	EIRP [dBm]	EIRP [Watts]	EIRP Limit [dBm]	Margin [dB]	ERP [dBm]	ERP [Watts]	ERP Limit [dBm]	Margin [dB]
10 MHz	QPSK	782.0	V	Open	165	230	1.17	1/0	19.06	20.23	0.105	36.99	-16.76	18.08	0.064	34.77	-16.69
10 MHZ	16-QAM	782.0	V	Open	165	230	1.17	1/0	18.20	19.37	0.086	36.99	-17.62	17.22	0.053	34.77	-17.55
N.	QPSK	779.5	V	Open	165	230	1.17	1 / 12	19.18	20.35	0.108	36.99	-16.64	18.20	0.066	34.77	-16.57
프	QPSK	782.0	V	Open	165	230	1.17	1/0	19.01	20.18	0.104	36.99	-16.81	18.03	0.063	34.77	-16.75
≅ 9	QPSK	784.5	٧	Open	165	230	1.16	1/0	19.07	20.23	0.105	36.99	-16.76	18.08	0.064	34.77	-16.69
~ ~	16-QAM	779.5	V	Open	165	230	1.17	1 / 24	18.13	19.31	0.085	36.99	-17.68	17.16	0.052	34.77	-17.62
	QPSK (Opposite Pol.)	782.0	Н	Open	123	275	1.17	1/0	17.82	18.99	0.079	36.99	-18.00	16.84	0.048	34.77	-17.93
10 MHz	QPSK (WCP)	782.0	V	Open	145	310	1.17	1/0	14.34	15.51	0.036	36.99	-21.48	13.36	0.022	34.77	-21.41
	QPSK	782.0	V	Half	169	240	1.17	1/0	18.80	19.97	0.099	36.99	-17.02	17.82	0.061	34.77	-16.95

Table 7-19. ERP Data (LTE Band 13 - Ant A)

Bandwidth	Mod.	Frequency [MHz]	Ant. Pol. [H/V]	EUT Config	Antenna Height [cm]	Turntable Azimuth [degree]	Ant. Gain [dBi]	RB Size/Offset	Substitute Level [dBm]	EIRP [dBm]	EIRP [Watts]	EIRP Limit [dBm]	Margin [dB]
20 MHz	QPSK	1720.0	V	Half	144	305	4.44	1 / 99	15.55	19.99	0.100	30.00	-10.01
	QPSK	1745.0	V	Half	144	290	4.39	1/0	15.62	20.01	0.100	30.00	-9.99
	QPSK	1770.0	V	Half	159	319	4.53	1 / 50	13.95	18.48	0.070	30.00	-11.52
	16-QAM	1745.0	V	Half	144	290	4.39	1/0	14.85	19.24	0.084	30.00	-10.76
15 MHz	QPSK	1717.5	V	Half	144	305	4.39	1 / 37	15.63	20.02	0.101	30.00	-9.98
	QPSK	1745.0	V	Half	144	290	4.39	1/0	15.55	19.93	0.099	30.00	-10.07
	QPSK	1772.5	V	Half	159	319	4.51	1 / 74	14.11	18.62	0.073	30.00	-11.38
	16-QAM	1717.5	V	Half	144	305	4.39	1/0	14.67	19.06	0.081	30.00	-10.94
10 MHz	QPSK	1715.0	V	Half	144	305	4.34	1/0	15.83	20.18	0.104	30.00	-9.82
	QPSK	1745.0	V	Half	144	290	4.39	1 / 25	15.56	19.95	0.099	30.00	-10.05
	QPSK	1775.0	V	Half	159	319	4.49	1/0	14.31	18.80	0.076	30.00	-11.20
	16-QAM	1715.0	V	Half	144	305	4.34	1 / 25	14.73	19.07	0.081	30.00	-10.93
5 MHz	QPSK	1712.5	V	Half	144	305	4.30	1 / 12	15.82	20.12	0.103	30.00	-9.88
	QPSK	1745.0	V	Half	144	290	4.39	1 / 12	15.63	20.02	0.101	30.00	-9.98
	QPSK	1777.5	V	Half	159	319	4.47	1 / 12	14.52	18.99	0.079	30.00	-11.01
	16-QAM	1712.5	V	Half	144	305	4.30	1/0	14.78	19.08	0.081	30.00	-10.92
3 MHz	QPSK	1711.5	V	Half	144	305	4.28	1 / 14	16.03	20.30	0.107	30.00	-9.70
	QPSK	1745.0	V	Half	144	290	4.39	1/7	15.91	20.30	0.107	30.00	-9.70
	QPSK	1778.5	V	Half	159	319	4.47	1/7	14.40	18.86	0.077	30.00	-11.14
	16-QAM	1711.5	V	Half	144	305	4.28	1/7	14.70	18.98	0.079	30.00	-11.02
1.4 MHz	QPSK	1710.7	V	Half	144	305	4.26	1/3	15.93	20.19	0.104	30.00	-9.81
	QPSK	1745.0	V	Half	144	290	4.39	1/3	15.66	20.05	0.101	30.00	-9.95
	QPSK	1779.3	V	Half	159	319	4.46	1/0	14.40	18.86	0.077	30.00	-11.14
	16-QAM	1710.7	V	Half	144	305	4.26	1/5	14.90	19.17	0.083	30.00	-10.83
20 MHz	QPSK (Opposite Pol.)	1745.0	Н	Half	142	178	4.39	1/0	14.56	18.95	0.079	30.00	-11.05
	QPSK (WCP)	1745.0	V	Half	117	283	4.39	1/0	10.51	14.90	0.031	30.00	-15.10
	QPSK	1770.0	V	Open	142	306	4.53	1 / 50	14.98	19.51	0.089	30.00	-10.49

Table 7-20. EIRP Data (LTE Band 66/4 - Ant A)

FCC ID: A3LSMF731JPN		Approved by: Technical Manager		
Test Report S/N:	Test Dates:	EUT Type:	Page 105 of 134	
1M2304260059-05.A3L	6/15/2023 - 7/13/2023	Portable Handset		