

ELEMENT WASHINGTON DC LLC

7185 Oakland Mills Road, Columbia, MD 21046 USA Tel. 410.290.6652 / Fax 410.290.6654 http://www.element.com

PART 27 MEASUREMENT REPORT

Applicant Name:

Samsung Electronics Co., Ltd. 129, Samsung-ro, Yeongtong-gu, Suwon-si Gyeonggi-do, 16677, Korea

Date of Testing:

09/02/2022 - 11/20/2022 **Test Report Issue Date:** 11/21/2022 **Test Site/Location:** Element lab., Columbia, MD, USA **Test Report Serial No.:** 1M2209010097-04.A3L

FCC ID:

A3LSMS916U

Applicant Name:

Samsung Electronics Co., Ltd.

Application Type: Model: Additional Model(s): EUT Type: FCC Classification: FCC Rule Part: Test Procedure(s): Certification SM-S916U SM-S916U1 Portable Handset PCS Licensed Transmitter Held to Ear (PCE) 27 ANSI C63.26-2015, KDB 648474 D03 v01r04

This equipment has been shown to be capable of compliance with the applicable technical standards as indicated in the measurement report and was tested in accordance with the measurement procedures specified in §2.947. Test results reported herein relate only to the item(s) tested.

I attest to the accuracy of data. All measurements reported herein were performed by me or were made under my supervision and are correct to the best of my knowledge and belief. I assume full responsibility for the completeness of these measurements and vouch for the qualifications of all persons taking them.

RJ Ortanez Executive Vice President



FCC ID: A3LSMS916U	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager	
Test Report S/N:	Test Dates:	EUT Type:	Dage 1 of 270	
1M2209010097-04.A3L	09/02/2022 - 11/20/2022	Portable Handset	Page 1 of 379	
			1/44 0 0/44/2022	



TABLE OF CONTENTS

1.0	INTRO	ODUCTION	7
	1.1	Scope	7
	1.2	Element Test Location	7
	1.3	Test Facility / Accreditations	7
2.0	PROD	DUCT INFORMATION	8
	2.1	Equipment Description	8
	2.2	Device Capabilities	8
	2.3	Test Configuration	8
	2.4	Software and Firmware	8
	2.5	EMI Suppression Device(s)/Modifications	8
3.0	DESC	CRIPTION OF TESTS	9
	3.1	Evaluation Procedure	9
	3.2	Radiated Power and Radiated Spurious Emissions	9
4.0	MEAS	SUREMENT UNCERTAINTY	10
5.0	TEST	EQUIPMENT CALIBRATION DATA	11
6.0	SAMF	PLE CALCULATIONS	12
7.0	TEST	RESULTS	13
	7.1	Summary	13
	7.2	Transmitter Conducted Output Power	14
	7.3	Occupied Bandwidth	25
	7.4	Spurious and Harmonic Emissions at Antenna Terminal	116
	7.5	Band Edge Emissions at Antenna Terminal	205
	7.6	Radiated Power (EIRP)	295
	7.7	Radiated Spurious Emissions Measurements	
	7.8	Frequency Stability / Temperature Variation	
8.0	CON	CLUSION	

FCC ID: A3LSMS916U		Approved by: Technical Manager		
Test Report S/N:	Test Dates:	EUT Type:	Dage 2 of 270	
1M2209010097-04.A3L	09/02/2022 - 11/20/2022	Portable Handset	Page 2 of 379	
			V/44 0 0/44/2022	



PART 27 MEASUREMENT REPORT

				EIRP		
Mode	Bandwidth	Modulation	Tx Frequency Range [MHz]	Max. Power [W]	Max. Power [dBm]	Emission Designator
	10 MH-	QPSK	2310.0	0.162	22.11	9M07G7D
LTE Band 30		16QAM	2310.0	0.136	21.35	9M05W7D
ANT A		QPSK	2307.5 - 2312.5	0.166	22.19	4M57G7D
	5 IVIFIZ	16QAM	2307.5 - 2312.5	0.146	21.65	4M55W7D
	20 MH-	QPSK	2510.0 - 2560.0	0.243	23.85	18M0G7D
		16QAM	2510.0 - 2560.0	0.208	23.19	18M0W7D
	15 MHz	QPSK	2507.5 - 2562.5	0.246	23.90	13M6G7D
LTE Band 7		16QAM	2507.5 - 2562.5	0.206	23.14	13M6W7D
ANT B	10 MH-	QPSK	2505.0 - 2565.0	0.245	23.90	9M04G7D
	TUIMHZ	16QAM	2505.0 - 2565.0	0.210	23.23	9M05W7D
	5 MHz	QPSK	2502.5 - 2567.5	0.243	23.85	4M53G7D
		16QAM	2502.5 - 2567.5	0.202	23.04	4M53W7D
	20 MH-	QPSK	2506.0 - 2680.0	0.402	26.04	18M0G7D
	20 1011 12	16QAM	2506.0 - 2680.0	0.339	25.30	18M0W7D
	15 MHz	QPSK	2503.5 - 2682.5	0.377	25.77	13M5G7D
LTE Band 41(PC2)		16QAM	2503.5 - 2682.5	0.284	24.53	13M5W7D
ANT B	10 MHz	QPSK	2501.0 - 2685.0	0.392	25.94	9M00G7D
		16QAM	2501.0 - 2685.0	0.356	25.52	9M06W7D
	5 MH-7	QPSK	2498.5 - 2687.5	0.352	25.46	4M51G7D
	5 10112	16QAM	2498.5 - 2687.5	0.316	24.99	4M53W7D
	20 MH-7	QPSK	2506.0 - 2680.0	0.283	24.51	18M0G7D
	20 1011 12	16QAM	2506.0 - 2680.0	0.247	23.92	18M0W7D
	15 MH-7	QPSK	2503.5 - 2682.5	0.292	24.65	13M5G7D
LTE Band 41(PC3)/38		16QAM	2503.5 - 2682.5	0.243	23.86	13M5W7D
ANT B	10 MHz	QPSK	2501.0 - 2685.0	0.241	23.81	9M04G7D
		16QAM	2501.0 - 2685.0	0.212	23.27	9M04W7D
	5 MHz	QPSK	2498.5 - 2687.5	0.305	24.84	4M54G7D
		16QAM	2498.5 - 2687.5	0.242	23.84	4M53W7D

EUT Overview (LTE)

FCC ID: A3LSMS916U		Approved by: Technical Manager		
Test Report S/N:	Test Dates:	EUT Type:	Dage 2 of 270	
1M2209010097-04.A3L	09/02/2022 - 11/20/2022	Portable Handset	Page 5 0f 379	
			1/11 0 0/14/2022	



				EIRP		
Mode	Bandwidth	Modulation	Tx Frequency Range [MHz]	Max. Power [W]	Max. Power [dBm]	Emission Designator
		QPSK	2310.0	0.120	20.78	9M06G7D
LTE Dood 20 ANT E		16QAM	2310.0	0.098	19.91	9M05W7D
LTE BAILU SU ANT F	5 M⊔→	QPSK	2307.5 - 2312.5	0.146	21.64	4M54G7D
	5 IVITIZ	16QAM	2307.5 - 2312.5	0.116	20.63	4M55W7D
	20 MH-	QPSK	2510.0 - 2560.0	0.171	22.33	18M0G7D
		16QAM	2510.0 - 2560.0	0.144	21.59	18M0W7D
	15 MU-	QPSK	2507.5 - 2562.5	0.169	22.29	13M5G7D
LTE Bood 7 ANT E		16QAM	2507.5 - 2562.5	0.146	21.63	13M6W7D
LTE BANG / ANT F		QPSK	2505.0 - 2565.0	0.177	22.49	9M04G7D
	10 MHZ	16QAM	2505.0 - 2565.0	0.156	21.94	9M05W7D
	5 MHz	QPSK	2502.5 - 2567.5	0.182	22.60	4M54G7D
		16QAM	2502.5 - 2567.5	0.150	21.76	4M53W7D
	20 MHz	QPSK	2506.0 - 2680.0	0.367	25.65	18M0G7D
		16QAM	2506.0 - 2680.0	0.315	24.98	18M0W7D
	15 MHz	QPSK	2503.5 - 2682.5	0.387	25.88	13M6G7D
LTE Bond 41(DC2) ANT E		16QAM	2503.5 - 2682.5	0.339	25.30	13M5W7D
LTE Banu 41(PC2) ANT P	10 MHz -	QPSK	2501.0 - 2685.0	0.351	25.45	9M01G7D
		16QAM	2501.0 - 2685.0	0.302	24.80	9M04W7D
	5 MU-	QPSK	2498.5 - 2687.5	0.359	25.55	4M55G7D
	5 MHZ	16QAM	2498.5 - 2687.5	0.307	24.87	4M50W7D
	20 MH-	QPSK	2506.0 - 2680.0	0.225	23.52	18M1G7D
	20 10112	16QAM	2506.0 - 2680.0	0.185	22.66	18M0W7D
		QPSK	2503.5 - 2682.5	0.221	23.45	13M6G7D
		16QAM	2503.5 - 2682.5	0.183	22.62	13M6W7D
LTE Banu 41(PC3) ANT P		QPSK	2501.0 - 2685.0	0.232	23.66	9M06G7D
		16QAM	2501.0 - 2685.0	0.188	22.73	9M02W7D
	5 MU-7	QPSK	2498.5 - 2687.5	0.235	23.71	4M53G7D
	5 MHZ	16QAM	2498.5 - 2687.5	0.189	22.76	4M54W7D

EUT Overview (LTE)

FCC ID: A3LSMS916U		Approved by: Technical Manager		
Test Report S/N:	Test Dates:	EUT Type:	Dogo 4 of 270	
1M2209010097-04.A3L	09/02/2022 - 11/20/2022	Portable Handset	Page 4 of 379	
			1/11 0 0/14/2022	



				EI		
Mode	Bandwidth	Modulation	Tx Frequency Range [MHz]	Max. Power [W]	Max. Power [dBm]	Emission Designator
		π/2 BPSK	2310.0	0.147	21.67	9M04G7D
	10 MHz	QPSK	2310.0	0.140	IRP Emission Designato 4 21.67 9M04G7D 21.67 9M04G7D 21.46 9M37G7D 20.75 9M37W7D 21.87 4M58G7D 21.59 4M53W7D 21.59 4M53W7D 22.45 38M807D 22.45 38M807D 23.13 28M7G7D 23.37 28M8G7D 23.30 28M707D 23.13 28M707D 23.13 28M707D 23.30 28M707D 23.01 23M907D 23.02 23M907D 23.03 19M107D 23.04 13M507D 23.05 23.09 23.09 19M107D 23.09 19M107D 23.01 23M907D 23.02 14M207D 23.30 9M07G7D 23.30 9M3607D 23.30 9M3607D 23.30 9M3607D 23.30 9M3607D	9M37G7D
NR Band n30		16QAM	2310.0	0.119	20.75	9M37W7D
ANT A		π/2 BPSK	2307.5 - 2312.5	0.154	21.87	4M58G7D
	5 MHz	QPSK	2307.5 - 2312.5	0.144	21.59	4M52G7D
		16QAM	2307.5 - 2312.5	0.119	20.75	4M53W7D
		π/2 BPSK	2520.0 - 2550.0	0.208	23.18	38M7G7D
	40MHz	QPSK	2520.0 - 2550.0	0.196	22.93	38M8G7D
		16QAM	2520.0 - 2550.0	0.176	22.45	38M8W7D
		π/2 BPSK	2515.0 - 2555.0	0.218	23.37	28M8G7D
	30MHz	QPSK	2515.0 - 2555.0	0.206	23.13	28M/G/D
		16QAM	2515.0 - 2555.0	0.201	23.03	28M7W7D
	05141	π/2 BPSK	2512.5 - 2557.5	0.212	23.25	23M0G7D
	25MHZ	QPSK	2512.5 - 2557.5	0.204	23.10	23M9G7D
		16QAM	2512.5 - 2557.5	0.200	23.01	YM3/W/D 87 4M58G7D 59 4M52G7D 59 4M53W7D 75 4M53W7D 18 38M7G7D 93 38M8G7D 45 38M8G7D 13 28M7G7D 13 28M7G7D 13 28M7G7D 13 28M7G7D 10 23M9G7D 10 23M9G7D 11 23M9G7D 12 23M9G7D 13 19M1W7D 30 19M1G7D 30 13M5G7D 98 14M2G7D 30 9M36G7D 31 9M36G7D 32 4M55G7D 33 9M36G7D 34 9M36G7D 35 87M5G7D 36 97M2G7D 37 78M1G7D 38 88M1G7D 39 88M1G7D 39 88M1G7D 39 77M7G7D
NR Band n7	2014	II/2 BPSK	2510.0 - 2560.0	0.218	23.39	18M0G7D
ANT B	ZUIVIHZ	QPSK 160AM	2510.0 - 2560.0	0.204	23.09	19M1G7D
			2510.0 - 2560.0	0.195	22.89	12M5G7D
		ODSK	2507.5 - 2562.5	0.214	23.30	13W3G7D
	15 MHz		2507.5 - 2562.5	0.199	22.98	14W2G7D
			2507.5 - 2562.5	0.191	22.82	
		OPSK	2505.0 - 2565.0	0.214	23.30	9M07G7D
	TOWINZ		2505.0 - 2505.0	0.201	23.03	9M36G7D
			2502.5 - 2567.5	0.191	22.01	4M55G7D
	5 MHz	OPSK	2502.5 - 2567.5	0.215	23.32	4M53G7D
		160AM	2502.5 2567.5	0.204	23.10	4M50W7D
			2546.0 - 2640.0	0.204	25.11	97M2G7D
	100 MH7	OPSK	2546.0 - 2640.0	0.348	25.15	98M5G7D
	100 11112	160AM	2546.0 - 2640.0	0.299	24.76	98M2W7D
		π/2 BPSK	2541.0 - 2645.0	0.335	25.25	87M5G7D
	90 MHz	QPSK	2541.0 - 2645.0	0.346	25.39	88M1G7D
	00 11112	16QAM	2541.0 - 2645.0	0.292	24.66	88M2W7D
		π/2 BPSK	2536.0 - 2650.0	0.323	25.09	77M7G7D
	80 MHz	QPSK	2536.0 - 2650.0	0.344	25.37	78M1G7D
		16QAM	2536.0 - 2650.0	0.296	24.72	78M1W7D
		π/2 BPSK	2531.0 - 2655.0	0.332	25.21	64M9G7D
	70 MHz	QPSK	2531.0 - 2655.0	0.349	25.43	67M9G7D
		16QAM	2531.0 - 2655.0	0.290	24.63	67M9W7D
	60 MHz	π/2 BPSK	2526.0 - 2660.0	0.327	25.14	58M3G7D
		QPSK	2526.0 - 2660.0	0.350	25.44	58M4G7D
		16QAM	I 2526.0 - 2660.0 0.289	24.61	58M3W7D	
ND Bond p41(DC2)		π/2 BPSK	2521.0 - 2665.0	0.330	25.19	46M1G7D
Switching - ANT B	50 MHz	QPSK	2521.0 - 2665.0	0.347	25.40	47M8G7D
Ownerning ANT D		16QAM	2521.0 - 2665.0	0.286	24.57	47M9W7D
		π/2 BPSK	2516.0 - 2670.0	0.344	25.36	36M0G7D
	40 MHz	QPSK	2516.0 - 2670.0	0.356	25.52	38M1G7D
		16QAM	2516.0 - 2670.0	0.301	24.78	38M2W7D
		π/2 BPSK	2511.0 - 2675.0	0.336	25.26	27M0G7D
	30 MHz	QPSK	2511.0 - 2675.0	0.352	25.46	28M0G7D
		16QAM	2511.0 - 2675.0	0.293	24.67	28M0W7D
		π/2 BPSK	2506.0 - 2680.0	0.330	25.18	18M0G7D
	20 MHz	QPSK	2506.0 - 2680.0	0.348	25.41	18M4G7D
		16QAM	2506.0 - 2680.0	0.290	24.62	18M4W7D
		π/2 BPSK	2511.0 - 2675.0	0.333	25.23	13M0G7D
	15 MHz	QPSK	2511.0 - 2675.0	0.352	25.46	13M1G7D
		16QAM	2511.0 - 2675.0	0.301	24.79	13M1W7D
		π/2 BPSK	2506.0 - 2680.0	0.321	25.06	8M71G7D
	10 MHz	QPSK	2506.0 - 2680.0	0.338	25.29	8M72G7D
	<u> </u>	16QAM	2506.0 - 2680.0	0.290	24.63	8M70W7D

EUT Overview (NR Band)

FCC ID: A3LSMS916U	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Page 5 of 270
1M2209010097-04.A3L	09/02/2022 - 11/20/2022	Portable Handset	Fage 5 01 57 9



		EIRP		RP		
Mode	Bandwidth	Modulation	Tx Frequency Range [MHz]	Max. Power [W]	Max. Power [dBm]	Emission Designator
		π/2 BPSK	2310.0	0.139	21.44	9M03G7D
	10 MHz	QPSK	2310.0	0.142	21.54	9M36G7D
NR Band n30 ANT F		16QAM	2310.0	0.113	20.53	9M36W7D
		π/2 BPSK	2307.5 - 2312.5	0.149	21.72	4M54G7D
	5 MHz	QPSK	2307.5 - 2312.5	0.153	21.84	4M51G7D
		16QAM	2307.5 - 2312.5	0.119	20.74	4M53W7D
		OPSK	2520.0 - 2550.0	0.165	22.10	29M9C7D
	401/11/12		2520.0 - 2550.0	0.104	22.14	201/10/17
			2520.0 - 2550.0	0.137	21.30	29M9C7D
	30MH-	OPSK	2515.0 - 2555.0	0.167	22.24	28M7G7D
	30101112	1600M	2515.0 - 2555.0	0.109	22.27	28M7W/7D
			2513.0 - 2553.0	0.157	21.37	22007070
	25MU-		2512.5 - 2557.5	0.162	22.10	23100070
	23101112	QPSK 160AM	2512.5 - 2557.5	0.103	22.13	231019G7D
			2512.5 - 2557.5	0.131	21.17	23101907D
ND Dood of ANT F	2014	OPSK	2510.0 - 2560.0	0.163	22.17	19M0G7D
INR BANG N7 ANT F	20101112	1600M	2510.0 - 2560.0	0.104	22.14	19100370
			2507.5 - 2562.5	0.150	21.33	13M5G7D
	15 MU-7	OPSK	2507.5 - 2502.5	0.162	22.09	14M2C7D
			2507.5 - 2502.5	0.105	22.12	141012070
			2507.3 - 2502.3	0.135	21.31	01405070
	10MH-7	OPSK	2505.0 - 2565.0	0.164	22.14	91005G7D
	TOIVITIZ		2505.0 - 2505.0	0.161	22.00	910135070
			2505.0 - 2565.0	0.164	22.15	91VI36VV7D
	E MUL	II/2 BPSK	2502.5 - 2507.5	0.100	22.19	41VI55G7D
			2502.5 - 2507.5	0.161	22.08	410152G7D
			2502.5 - 2507.5	0.135	21.31	41VI52VV7D
	100 MHz	OPSK	2546.0 - 2640.0	0.283	24.50	98M1G7D
		160AM	2546.0 - 2640.0	0.203	24.52	97M9W7D
		T/2 BPSK	2541.0 - 2645.0	0.202	24.82	87M4G7D
	90 MHz	OPSK	2541.0 - 2645.0	0.303	24.02	87M8G7D
	00 10112	160AM	2541.0 - 2645.0	0.196	27.40	88M0W7D
		T/2 BPSK	2536.0 - 2650.0	0.190	24.72	77M6G7D
	80 MHz	OPSK	2536.0 - 2650.0	0.293	24.67	77M7G7D
	00 10112	160AM	2536.0 - 2650.0	0.295	24.07	77M8W7D
		T/2 BPSK	2531.0 - 2655.0	0.205	24.85	64M8G7D
	70 MHz	OPSK	2531.0 - 2655.0	0.308	24.89	67M7G7D
	70 10112	160AM	2531.0 - 2655.0	0.300	22.65	67M7W7D
		π/2 BPSK	2526.0 - 2660.0	0.313	24.96	58M0G7D
	60 MHz	OPSK	2526.0 - 2660.0	0.298	24.00	58M3G7D
	00.0012	16QAM	2526.0 - 2660.0	0.177	22.47	58M2W7D
		TT/2 BPSK	2521.0 - 2665.0	0.324	25.10	46M0G7D
NR Band n41(PC2) ANT F	50 MHz	QPSK	2521.0 - 2665.0	0.286	24 56	47M8G7D
		16QAM	2521.0 - 2665.0	0,185	22.67	47M7W7D
		T/2 BPSK	2516.0 - 2670.0	0.339	25.30	36M0G7D
	40 MHz	OPSK	2516.0 - 2670.0	0.294	24.68	38M0G7D
	40 10112	160AM	2516.0 - 2670.0	0.234	23.23	38M2W7D
		π/2 BPSK	2511.0 - 2675.0	0.322	25.08	27M0G7D
	30 MHz	QPSK	2511.0 - 2675.0	0.299	24 75	28M0G7D
	00.0012	16QAM	2511.0 - 2675.0	0.197	22.94	28M0W7D
		TT/2 BPSK	2506.0 - 2680.0	0,290	24.62	18M0G7D
	20 MH7	QPSK	2506.0 - 2680.0	0.336	25.26	18M4G7D
	20 .00 12	16QAM	2506.0 - 2680.0	0.000	23.00	18M3W7D
		TT/2 BPSK	2506.0 - 2680.0	0.278	24 44	13M1G7D
	15 MHz	QPSK	2506.0 - 2680.0	0.281	24.49	13M7G7D
		160AM	2506.0 - 2680.0	0.186	22.69	13M7W7D
		TT/2 BPSK	2506.0 - 2680.0	0.267	24.00	8M66G7D
	10 MHz	QPSK	2506.0 - 2680.0	0.242	23.83	8M70G7D
		160AM	2506.0 - 2680.0	0.170	22.31	8M71W7D
L			2000.0 2000.0	0.170	22.01	3

EUT Overview (NR Band)

FCC ID: A3LSMS916U	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Dage 6 of 270
1M2209010097-04.A3L	09/02/2022 - 11/20/2022	Portable Handset	Fage 6 01 379
			1/44 0 0/44/2022



1.0 INTRODUCTION

1.1 Scope

Measurement and determination of electromagnetic emissions (EMC) of radio frequency devices including intentional and/or unintentional radiators for compliance with the technical rules and regulations of the Federal Communications Commission and the Innovation, Science and Economic Development Canada.

1.2 Element Test Location

These measurement tests were conducted at the Element laboratory located at 7185 Oakland Mills Road, Columbia, MD 21046. The measurement facility is compliant with the test site requirements specified in ANSI C63.4-2014.

1.3 Test Facility / Accreditations

Measurements were performed at Element lab located in Columbia, MD 21046, U.S.A.

- Element Washington DC LLC is an ISO 17025-2017 accredited test facility under the American Association for Laboratory Accreditation (A2LA) with Certificate number 2041.01 for Specific Absorption Rate (SAR), Hearing Aid Compatibility (HAC) testing, where applicable, and Electromagnetic Compatibility (EMC) testing for FCC and Innovation, Science, and Economic Development Canada rules.
- Element Washington DC LLC TCB is a Telecommunication Certification Body (TCB) accredited to ISO/IEC 17065-2012 by A2LA (Certificate number 2041.03) in all scopes of FCC Rules and ISED Standards (RSS).
- Element Washington DC LLC facility is a registered (2451B) test laboratory with the site description on file with ISED.
- Element Washington DC LLC is a Recognized U.S. Certification Assessment Body (CAB # US0110) for ISED Canada as designated by NIST under the U.S. and Canada Mutual Recognition Agreement.

FCC ID: A3LSMS916U	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Page 7 of 270
1M2209010097-04.A3L	09/02/2022 - 11/20/2022	Portable Handset	Fage / 01 379
			1/44 0 0/44/2022

Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element. If you have any questions about this or have an inquiry about obtaining additional rights to this report or assembly of contents thereof, please contact ct.info@element.com.



2.0 PRODUCT INFORMATION

2.1 Equipment Description

The Equipment Under Test (EUT) is the **Samsung Portable Handset FCC ID: A3LSMS916U**. The test data contained in this report pertains only to the emissions due to the EUT's licensed transmitters that operate under the provisions of Part 27.

Test Device Serial No.: 0376M, 0613M, 0594M, 0597M, 2661M, 2659M, 2670M, 0381M, 2681M, 2655M, 2569M, 0632M, 2572M, 2650M, 0640M, 2690M, 2660M, 2612M, 2511M, 1554M, 2044M

2.2 Device Capabilities

This device contains the following capabilities:

850/1900 GSM/GPRS/EDGE, 850/1700/1900 WCDMA/HSPA, Multi-band LTE, Multi-band 5G NR (FR1 and FR2), 802.11b/g/n/ax WLAN, 802.11a/n/ac/ax UNII (5GHz and 6GHz), Bluetooth (1x, EDR, LE), NFC, UWB, Wireless Power Transfer

This device uses a tuner circuit that dynamically updates the antenna impedance parameters to optimize antenna performance for certain bands and modes of operation. The tuner for this device was set to simulate a "free space" condition where the transmit antenna is matched to the medium into which it is transmitting and, thus, the power is at its maximum level.

2.3 Test Configuration

The EUT was tested per the guidance of ANSI C63.26-2015. See Section 7.0 of this test report for a description of the radiated and antenna port conducted emissions tests.

The device has 2 Tx antenna for n41 data (Ant F & B) and 2 Rx antennas (Ant E, D). With SRS operations, all 4 antennas can transmit the SRS signal to check for the channel quality of n41. The antennas cannot simultaneously transmit. Only the single TX/RX antenna is used for Data transmission. The device is also capable of path switching for all antennas during n41 operation and data is provided to cover all possible paths.

This device supports wireless charging capability and, thus, is subject to the test requirements of KDB 648474 D03 v01r04. Additional radiated spurious emission measurements were performed with the EUT lying flat on an authorized wireless charging pad (WCP) Model: EP-N5100 while operating under normal conditions in a simulated call or data transmission configuration. The worst case radiated emissions data is shown in this report.

2.4 Software and Firmware

Testing was performed on device(s) using software/firmware version S916USQU0AVJS installed on the EUT.

2.5 EMI Suppression Device(s)/Modifications

No EMI suppression device(s) were added and no modifications were made during testing.

FCC ID: A3LSMS916U	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Dogo 9 of 270
1M2209010097-04.A3L	09/02/2022 - 11/20/2022	Portable Handset	Page 8 01 379
			V11.0 9/14/2022



3.0 DESCRIPTION OF TESTS

3.1 Evaluation Procedure

The measurement procedures described in the "American National Standard for Compliance Testing of Transmitters Used in Licensed Radio Services" (ANSI C63.26-2015) were used in the measurement of the EUT.

Deviation from Measurement Procedure......None

3.2 Radiated Power and Radiated Spurious Emissions

The radiated test facilities consisted of an indoor 3 meter semi-anechoic chamber used for final measurements and exploratory measurements, when necessary. The measurement area is contained within the semi-anechoic chamber which is shielded from any ambient interference. The test site inside the chamber is a 6m x 5.2m elliptical, obstruction-free area in accordance with Figure 5.7 of Clause 5 in ANSI C63.4-2014. Absorbers are arranged on the floor between the turn table and the antenna mast in such a way so as to maximize the reduction of reflections for measurements above 1GHz. For measurements below 1GHz, the absorbers are removed. A raised turntable is used for radiated measurement. The turn table is a continuously rotatable, remote-controlled, metallic turntable and 2 meters (6.56 ft.) in diameter. The turn table is flush with the raised floor of the chamber in order to maintain its function as a ground plane. An 80cm tall test table made of Styrodur is placed on top of the turn table. A Styrodur pedestal is placed on top of the test table to bring the total table height to 1.5m.

The equipment under test was transmitting while connected to its integral antenna and is placed on a turntable 3 meters from the receive antenna. The receive antenna height is adjusted between 1 and 4 meter height, the turntable is rotated through 360 degrees, and the EUT is manipulated through all orthogonal planes representative of its typical use to achieve the highest reading on the receive spectrum analyzer.

For radiated power measurements, substitution method is used per the guidance of ANSI C63.26-2015. For emissions below 1GHz, a half-wave dipole is substituted in place of the EUT. For emissions above 1GHz, a horn antenna is substituted in place of the EUT. The substitute antenna is driven by a signal generator with the level of the signal generator being adjusted to obtain the same receive spectrum analyzer level previously recorded from the spurious emission from the EUT. The power of the emission is calculated using the following formula:

 $P_{d [dBm]} = P_{g [dBm]} - cable loss [dB] + antenna gain [dBd/dBi];$

where P_d is the dipole equivalent power, P_g is the generator output into the substitution antenna, and the antenna gain is the gain of the substitute antenna used relative to either a half-wave dipole (dBd) or an isotropic source (dBi). The substitute level is equal to $P_{g [dBm]}$ – cable loss [dB].

For radiated spurious emissions measurements, the field strength conversion method is used per the formulas in Section 5.2.7 of ANSI C63.26-2015. Field Strength (EIRP) is calculated using the following formulas:

$$\begin{split} E_{[dB\mu V/m]} &= Measured \ amplitude \ level_{[dBm]} + 107 + Cable \ Loss_{[dB]} + Antenna \ Factor_{[dB/m]} \\ And \\ EIRP_{[dBm]} &= E_{[dB\mu V/m]} + 20logD - 104.8; \ where \ D \ is the measurement \ distance \ in \ meters. \end{split}$$

All radiated measurements are performed in a chamber that meets the site requirements per ANSI C63.4-2014. Additionally, radiated emissions below 30MHz are also validated on an Open Area Test Site to assert correlation with the chamber measurements per the requirements of KDB 414788 D01 v01r01.

Radiated power and radiated spurious emission levels are investigated with the receive antenna horizontally and vertically polarized per ANSI C63.26-2015.

FCC ID: A3LSMS916U	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Dogo 0 of 270
1M2209010097-04.A3L	09/02/2022 - 11/20/2022	Portable Handset	Fage 9 01 379
			V11.0 9/14/2022



4.0 MEASUREMENT UNCERTAINTY

The measurement uncertainties shown below were calculated in accordance with the requirements of ANSI C63.4-2014. All measurement uncertainty values are shown with a coverage factor of k = 2 to indicate a 95% level of confidence. The measurement uncertainty shown below meets or exceeds the U_{CISPR} measurement uncertainty values specified in CISPR 16-4-2 and, thus, can be compared directly to specified limits to determine compliance.

Contribution	Expanded Uncertainty (±dB)
Conducted Bench Top Measurements	1.13
Radiated Disturbance (<1GHz)	4.98
Radiated Disturbance (>1GHz)	5.07
Radiated Disturbance (>18GHz)	5.09

FCC ID: A3LSMS916U	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Dogo 10 of 270
1M2209010097-04.A3L	09/02/2022 - 11/20/2022	Portable Handset	Fage 10 01 3/9
			V11.0 9/14/2022



5.0 TEST EQUIPMENT CALIBRATION DATA

Test Equipment Calibration is traceable to the National Institute of Standards and Technology (NIST). Measurements antennas used during testing were calibrated in accordance to the requirements of ANSI C63.5-2017.

Manufacturer	Model	Description	Cal Date	Cal Interval	Cal Due	Serial Number
-	AP2	EMC Cable and Switch System	8/11/2022	Annual	8/11/2023	AP2
-	AP1	EMC Cable and Switch System	8/15/2022	Annual	8/15/2023	AP1
-	ETS	EMC Cable and Switch System	8/11/2022	Annual	8/11/2023	ETS
-	LTx1	Licensed Transmitter Cable Set	7/29/2022	Annual	7/29/2023	LTx1
-	LTx2	Licensed Transmitter Cable Set	8/15/2022	Annual	8/15/2023	LTx2
-	LTx3	LIcensed Transmitter Cable Set	8/15/2022	Annual	8/15/2023	LTx3
-	LTx4	Licensed Transmitter Cable Set	7/29/2022	Annual	7/29/2023	LTx4
-	LTx5	LIcensed Transmitter Cable Set	7/29/2022	Annual	7/29/2023	LTx5
Agilent	E5515C	Wireless Communications Test Set		N/A		GB45360985
Agilent	E5515C	Wireless Communications Test Set		N/A		GB46310798
Anritsu	MT8820C	Radio Communication Analyzer		N/A		6201300731
Anritsu	MT8821C	Radio Communication Analyzer		N/A		6201381794
Anritsu	MT8821C	Radio Communication Analyzer		N/A		6200901190
Anritsu	MT8821C	Radio Communication Analyzer		N/A		6201525694
Com-Power	AL-130R	Active Loop Antenna	1/19/2022	Biennial	1/19/2024	121085
Emco	3115	Horn Antenna (1-18GHz)	8/8/2022	Biennial	8/8/2024	9704-5182
Espec	ESX-2CA	Environmental Chamber	5/25/2022	Biennial	5/25/2024	17620
ETS Lindgren	3117	1-18 GHz DRG Horn (Medium)	4/20/2021	Biennial	4/20/2023	00125518
ETS Lindgren	3164-10	Quad Ridge Horn 400MHz - 10000MHz	5/10/2021	Biennial	5/10/2023	00166283
ETS Lindgren	3816/2NM	LISN	8/11/2022	Biennial	8/11/2024	00114451
Keysight Technologies	N9020A	MXA Signal Analyzer	3/15/2022	Annual	3/15/2023	MY54500644
Keysight Technologies	N9030A	PXA Signal Analyzer (44GHz)	8/18/2022	Annual	8/18/2023	MY49430494
Keysight Technologies	N9030A	PXA Signal Analyzer (44GHz)	2/14/2022	Annual	2/14/2023	MY52350166
Mini-Circuits	SSG-4000HP	Synthesized Signal Generator		N/A		11208010032
Mini-Circuits	SSG-4000HP	Synthesized Signal Generator	N/A		11403100002	
Rohde & Schwarz	CMU200	Base Station Simulator		N/A		836371/0079
Rohde & Schwarz	CMU200	Base Station Simulator		N/A		833855/0010
Rohde & Schwarz	CMU200	Base Station Simulator		N/A		107826
Rohde & Schwarz	CMU200	Base Station Simulator		N/A		109892
Rohde & Schwarz	CMU200	Base Station Simulator		N/A		836536/0005
Rohde & Schwarz	CMW500	Radio Communication Tester		N/A		100976
Rohde & Schwarz	CMW500	Radio Communication Tester		N/A		112347
Rohde & Schwarz	ESU26	EMI Test Receiver (26.5GHz)	8/29/2022	Annual	8/29/2023	100342
Rohde & Schwarz	ESU40	EMI Test Receiver (40GHz)	8/25/2022	Annual	8/25/2023	100348
Rohde & Schwarz	ESW44	EMI Test Receiver 2Hz to 44 GHz	3/28/2022	Annual	3/28/2023	101716
Rohde & Schwarz	FSW26	2Hz-26.5GHz Signal and Spectrum Analyzer	4/14/2022	Annual	4/14/2023	103187
Sunol	JB6	LB6 Antenna	11/13/2020	Biennial	11/13/2022	A082816

Table :	5-1.	Test	Equip	nent
---------	------	------	-------	------

Notes:

- 1. For equipment listed above that has a calibration date or calibration due date that falls within the test date range, care was taken to ensure that this equipment was used after the calibration date and before the calibration due date.
- 2. Equipment with a calibration date of "N/A" shown in this list was not used to make direct calibrated measurements.

FCC ID: A3LSMS916U	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Page 11 of 270
1M2209010097-04.A3L	09/02/2022 - 11/20/2022	Portable Handset	Fage IT 01 57 9
			V11.0 9/14/2022



6.0 SAMPLE CALCULATIONS

QPSK Modulation

Emission Designator = 8M62G7D

LTE BW = 8.62 MHz G = Phase Modulation 7 = Quantized/Digital Info D = Data transmission, telemetry, telecommand

QAM Modulation

Emission Designator = 8M45W7D

LTE BW = 8.45 MHz W = Amplitude/Angle Modulated 7 = Quantized/Digital Info D = Data transmission, telemetry, telecommand

Spurious Radiated Emission

Example: Spurious emission at 3700.40 MHz

The receive spectrum analyzer reading at 3 meters with the EUT on the turntable was -81.0 dBm. The gain of the substituted antenna is 8.1 dBi. The signal generator connected to the substituted antenna terminals is adjusted to produce a reading of -81.0 dBm on the spectrum analyzer. The loss of the cable between the signal generator and the terminals of the substituted antenna is 2.0 dB at 3700.40 MHz. So 6.1 dB is added to the signal generator reading of -30.9 dBm yielding -24.80 dBm. The fundamental EIRP was 25.50 dBm so this harmonic was 25.50 dBm -(-24.80) = 50.3 dBc.

FCC ID: A3LSMS916U	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager	
Test Report S/N:	Test Dates:	EUT Type:	Dogo 12 of 270	
1M2209010097-04.A3L	09/02/2022 - 11/20/2022	Portable Handset	Page 12 0f 379	
			1/11 0 0/14/2022	



7.0 TEST RESULTS

7.1 Summary

Company Name:	Samsung Electronics Co., Ltd.
FCC ID:	A3LSMS916U
FCC Classification:	PCS Licensed Transmitter Held to Ear (PCE)
Mode(s):	LTE/NR/ULCA

Test Condition	Test Description	FCC Part Section(s)	Test Limit	Test Result	Reference
	Transmitter Conducted Output Power*	2.1046(a), 2.1046(c)	N/A	PASS	Section 7.2
ED	Occupied Bandwidth	2.1049(h)	N/A	PASS	Section 7.3
NDUCT	Conducted Band Edge / Spurious Emissions (LTE Band 30; NR Band n30)	2.1051, 27.53(a)(4)	Undesirable emissions must meet the limits detailed in 27.53(a)(4)	PASS	Sections 7.4, 7.5
8	Conducted Band Edge / Spurious Emissions (LTE Band 7, 38, 41; NR Band n7, n38, n41)	2.1051, 27.53(m)(4)	Undesirable emissions must meet the limits detailed in 27.53(m)(4)	PASS	Sections 7.4, 7.5
	Frequency Stability	2.1055, 27.54	Fundamental emissions stay within authorized frequency block	PASS	Section 7.8
	Equivalent Isotropic Radiated Power (LTE Band 30; NR Band n30)	27.50(a)(3)	≤ 250mW / 5MHz max. EIRP	PASS	Section 7.6
АТЕР	Equivalent Isotropic Radiated Power (LTE Band 7, 38, 41; NR Band n7, n38, n41)	27.50(h)(2)	≤ 2 Watts max. EIRP	PASS	Section 7.6
RADI	Radiated Spurious Emissions (LTE Band 30; NR Band n30)	2.1053, 27.53(a)(4)	Undesirable emissions must meet the limits detailed in 27.53(a)(4)	PASS	Section 7.7
	Radiated Spurious Emissions (LTE Band 7, 38, 41; NR Band n7, n38, n41)	2.1053, 27.53(m)	Undesirable emissions must meet the limits detailed in 27.53(m)	PASS	Section 7.7

* The only transmitter output conducted powers included in this report are those where the Pmax value, per the tune-up document, is higher than any of the DSI power levels. For the remaining conducted power measurements, see the **RF Exposure Report**.

Table 7-1. Summary of Test Results

Notes:

- 1) All modes of operation and data rates were investigated. The test results shown in the following sections represent the worst case emissions.
- 2) The analyzer plots were all taken with a correction table loaded into the analyzer. The correction table was used to account for the losses of the cables, directional couplers, and attenuators used as part of the system to maintain a link between the call box and the EUT at all frequencies of interest.
- 3) All antenna port conducted emissions testing was performed on a test bench with the antenna port of the EUT connected to the spectrum analyzer through calibrated cables, attenuators, and couplers.
- All conducted emissions measurements are performed with automated test software to capture the corresponding plots necessary to show compliance. The measurement software utilized is EMC Software Tool v1.1.

FCC ID: A3LSMS916U	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Page 12 of 270
1M2209010097-04.A3L	09/02/2022 - 11/20/2022	Portable Handset	Fage 13 01 37 9
			V11.0 9/14/2022



7.2 Transmitter Conducted Output Power §2.1046

Test Overview

All emissions are measured with a spectrum analyzer connected to the antenna terminal of the EUT while the EUT is operating at its maximum duty cycle, at maximum power, and at the appropriate frequencies. All data rates 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.

Test Procedure Used

KDB 971168 D01 v03r01 - Section 6.0

Test Settings

- 1. Span = $2 \times OBW$ to $3 \times OBW$
- 2. RBW = 1% to 5% of the OBW
- 3. Number of measurement points in sweep \geq 2 x span / RBW
- 4. Sweep = auto-couple (less than transmission burst duration)
- 5. Detector = RMS (power)
- 6. Trigger was set to enable power measurements only on full power bursts
- 7. Trace was allowed to stabilize
- 8. Spectrum analyzer's "Channel Power" function was used to compute the power by integrating the spectrum across the OBW of the signal

Test Setup

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



Figure 7-1. Test Instrument & Measurement Setup

Test Notes

- 1. Uplink carrier aggregation is supported in this EUT while operating in Power Class 2 or 3.
- 2. Conducted power measurements were evaluated using various combinations of RB size, RB offset, modulation, and channel bandwidth. Channel bandwidth data is shown in the tables below based only on the channel bandwidths that were supported in this device.
- 3. All other conducted power measurements are contained in the RF exposure report for this filing.

FCC ID: A3LSMS916U	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Dogo 14 of 270
1M2209010097-04.A3L	09/02/2022 - 11/20/2022	Portable Handset	Fage 14 01 379
			1/44 0 0/44/2022



Bandwidth	Modulation	Channel	Frequency [MHz]	RB Size/Offset	Conducted Power [dBm]
10 MU-	QPSK	27710	2310.0	1 / 25	20.10
	16-QAM	27710	2310.0	1 / 25	19.38
		27685	2307.5	1 / 12	20.69
5 MHz	QPSK	27710	2310.0	1 / 12	20.97
		27735	2312.5	1 / 24	20.95
	16-QAM	27735	2312.5	1 / 24	20.10

Table 7-2. Conducted Power Output Data (LTE Band 30 – Ant F)

Bandwidth	Modulation	Channel	Frequency [MHz]	RB Size/Offset	Conducted Power [dBm]
Z		20850	2510.0	1 / 99	22.93
НИ	QPSK	21100	2535.0	1/0	22.99
0		21350	2560.0	1 / 99	23.00
7	16-QAM	21100	2535.0	1/0	22.17
N		20825	2507.5	1 / 74	22.94
НИ	QPSK	21100	2535.0	1 / 37	22.94
5 1		21375	2562.5	1 / 37	23.08
-	16-QAM	21100	2535.0	1 / 37	22.21
N		20800	2505.0	1 / 49	23.07
НИ	QPSK	21100	2535.0	1 / 49	23.14
0		21400	2565.0	1/0	23.08
	16-QAM	21400	2565.0	1/0	22.56
N		20775	2502.5	1 / 12	23.10
3 MHz	QPSK	21100	2535.0	1 / 24	23.26
		21425	2567.5	1 / 12	23.11
	16-QAM	21100	2535.0	1 / 24	22.34

Table 7-3. Conducted Power Output Data (LTE Band 7 – Ant F)

FCC ID: A3LSMS916U		PART 27 MEASUREMENT REPORT			
Test Report S/N:	Test Dates:	EUT Type:	Dogo 15 of 270		
1M2209010097-04.A3L	09/02/2022 - 11/20/2022	Portable Handset	Fage 15 01 579		
			V/11 0 0/14/2022		



Bandwidth	Modulation	Channel	Frequency [MHz]	RB Size/Offset	Conducted Power [dBm]
N		39750	2506.0	1 / 50	26.16
H	QPSK	40620	2593.0	1 / 99	26.36
0		41490	2680.0	1 / 99	26.34
	16-QAM	41490	2680.0	1 / 99	25.43
N		39725	2503.5	1 / 74	26.32
HN	QPSK	40620	2593.0	1 / 74	25.95
5		41515	2682.5	1 / 74	26.57
—	16-QAM	41515	2682.5	1 / 74	25.76
N		39700	2501.0	1 / 49	26.25
НИ	QPSK	40620	2593.0	1 / 49	26.22
0		41540	2685.0	1 / 49	26.14
—	16-QAM	41540	2685.0	1 / 49	25.25
N		39675	2498.5	1 / 12	26.09
IH	QPSK	40620	2593.0	1 / 12	26.18
2		41565	2687.5	1 / 12	26.24
	16-QAM	41565	2687.5	1 / 24	25.32

Table 7-4. Conducted Power Output Data (LTE Band 41 (PC2) – Ant F)

Bandwidth	Modulation	Channel	Frequency [MHz]	RB Size/Offset	Conducted Power [dBm]
N		39750	2506.0	1 / 99	23.15
H	QPSK	40620	2593.0	1/0	23.40
0		41490	2680.0	1/0	23.33
7	16-QAM	41490	2680.0	1 / 0	22.43
N		39725	2503.5	1 / 37	23.22
H	QPSK	40620	2593.0	1 / 37	23.31
5 1		41515	2682.5	1 / 74	23.26
	16-QAM	41515	2682.5	1 / 37	22.39
N		39700	2501.0	1 / 25	23.41
H	QPSK	40620	2593.0	1 / 25	23.55
0		41540	2685.0	1 / 25	23.47
	16-QAM	41540	2685.0	1 / 25	22.50
N		39675	2498.5	1 / 12	23.38
5 MHz	QPSK	40620	2593.0	1 / 12	23.58
		41565	2687.5	1 / 12	23.52
	16-QAM	41565	2687.5	1 / 12	22.53

Table 7-5. Conducted Power Output Data (LTE Band 41 (PC3)/38 – Ant F)

FCC ID: A3LSMS916U		PART 27 MEASUREMENT REPORT			
Test Report S/N:	Test Dates:	EUT Type:	Page 16 of 270		
1M2209010097-04.A3L	09/02/2022 - 11/20/2022	Portable Handset	Fage TO UI 3/9		



Bandwidth		PCC					scc				ULCA Tx.
(PCC + SCC)	Modulation	UL Channel	UL Frequency	UL # RB	UL RB Offset	Modulation	UL Channel	UL Frequency	UL # RB	UL RB Offset	[dBm]
QPSK		39750	2506.0	1	99	QPSK	39948	2525.8	1	0	25.52
	QPSK 40620 41490	40620	2593.0	1	99		40818	2612.8	1	0	25.29
		41490	2680.0	1	0		41292	2660.2	1	99	25.17
20MHz + 20MHz	QPSK	39750	2506.0	100	0	QPSK	39948	2525.8	100	0	23.72
	16-QAM	39750	2506.0	100	0	16-QAM	39948	2525.8	100	0	22.65
	64-QAM	39750	2506.0	100	0	64-QAM	39948	2525.8	100	0	22.59
	256-QAM	39750	2506.0	100	0	256-QAM	39948	2525.8	100	0	20.63

Table 7-6. Conducted Power Output Data (ULCA LTE Band 41 (PC2) – Ant B)

Bandwidth		PCC					scc				
(PCC + SCC)	Modulation	UL Channel	UL Frequency	UL # RB	UL RB Offset	Modulation	UL Channel	UL Frequency	UL # RB	UL RB Offset	Power [dBm]
QPS		39750	2506.0	1	99	QPSK	39948	2525.8	1	0	24.21
	QPSK	40620	2593.0	1	99		40818	2612.8	1	0	24.08
		41490	2680.0	1	0		41292	2660.2	1	99	24.01
20MHz + 20MHz	QPSK	39750	2506.0	100	0	QPSK	39948	2525.8	100	0	22.08
	16-QAM	39750	2506.0	100	0	16-QAM	39948	2525.8	100	0	21.11
	64-QAM	39750	2506.0	100	0	64-QAM	39948	2525.8	100	0	21.08
	256-QAM	39750	2506.0	100	0	256-QAM	39948	2525.8	100	0	19.09

Table 7-7. Conducted Power Output Data (ULCA LTE Band 41 (PC3) – Ant B)

Bandwidth		PCC					scc				ULCA Tx.
(PCC + SCC)	Modulation	UL Channel	UL Frequency	UL # RB	UL RB Offset	Modulation	UL Channel	UL Frequency	UL # RB	UL RB Offset	Power [dBm]
		39750	2506.0	1	99	QPSK	39948	2525.8	1	0	25.93
	QPSK	40620	2593.0	1	99		40818	2612.8	1	0	25.92
		41490	2680.0	1	0		41292	2660.2	1	99	25.72
20MHz + 20MHz	QPSK	39750	2506.0	100	0	QPSK	39948	2525.8	100	0	23.67
	16-QAM	39750	2506.0	100	0	16-QAM	39948	2525.8	100	0	22.66
	64-QAM	39750	2506.0	100	0	64-QAM	39948	2525.8	100	0	22.63
	256-QAM	39750	2506.0	100	0	256-QAM	39948	2525.8	100	0	20.66

Table 7-8. Conducted Power Output Data (ULCA LTE Band 41 (PC2) – Ant F)

Bandwidth			PCC			SCC				ULCA Tx.	
(PCC + SCC)	Modulation	UL Channel	UL Frequency	UL # RB	UL RB Offset	Modulation	UL Channel	UL Frequency	UL # RB	UL RB Offset	Power [dBm]
	QPSK	39750	2506.0	1	99	QPSK	39948	2525.8	1	0	23.95
		40620	2593.0	1	99		40818	2612.8	1	0	23.90
		41490	2680.0	1	0		41292	2660.2	1	99	23.77
20MHz + 20MHz	QPSK	39750	2506.0	100	0	QPSK	39948	2525.8	100	0	22.20
	16-QAM	39750	2506.0	100	0	16-QAM	39948	2525.8	100	0	21.14
-	64-QAM	39750	2506.0	100	0	64-QAM	39948	2525.8	100	0	21.09
	256-QAM	39750	2506.0	100	0	256-QAM	39948	2525.8	100	0	19.17

Table 7-9. Conducted Power Output Data (ULCA LTE Band 41 (PC3) – Ant F)

FCC ID: A3LSMS916U		PART 27 MEASUREMENT REPORT			
Test Report S/N:	Test Dates:	EUT Type:	Page 17 of 270		
1M2209010097-04.A3L	09/02/2022 - 11/20/2022	Portable Handset	Fage 17 01 57 9		
			1/44 0 0/44/2022		



Bandwidth	Modulation	Channel	Frequency [MHz]	RB Size/Offset	Conducted Power [dBm]
	π/2 BPSK	27710	2310.0	1 / 13	22.55
10 MHz	QPSK	27710	2310.0	1 / 13	22.53
	16-QAM	27710	2310.0	1 / 13	21.66
		27685	2307.5	1 / 12	22.83
	π/2 BPSK	27710	2310.0	1 / 6	22.75
		27735	2312.5	1 / 6	22.46
5 MHz		27685	2307.5	1 / 12	22.84
	QPSK	27710	2310.0	1 / 6	22.82
		27735	2312.5	1 / 6	22.53
	16-QAM	27685	2307.5	1 / 12	21.88

Table 7-10. Conducted Power Output Data (n30 – Ant F)

FCC ID: A3LSMS916U	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Dogo 19 of 270
1M2209010097-04.A3L	09/02/2022 - 11/20/2022	Portable Handset	Fage to 01 379
			1/11 0 0/14/2022



Bandwidth	Modulation	Channel	Frequency [MHz]	RB Size/Offset	Conducted Power [dBm]
		504000	2520.0	1 / 54	23.67
	π/2 BPSK	507000	2535.0	1 / 108	23.64
Hz		510000	2550.0	1 / 161	23.83
M		504000	2520.0	1 / 54	23.59
40	QPSK	507000	2535.0	1 / 108	23.66
		510000	2550.0	1 / 161	23.55
	16-QAM	504000	2520.0	1 / 54	22.68
		503000	2515.0	1 / 80	23.73
	π/2 BPSK	507000	2535.0	1 / 119	23.64
Hz		511000	2555.0	1 / 119	23.70
N		503000	2515.0	1 / 80	23.72
3(QPSK	507000	2535.0	1 / 119	23.55
		511000	2555.0	1 / 119	23.71
	16-QAM	503000	2515.0	1 / 80	22.67
		502500	2512.5	1 / 33	23.58
	π/2 BPSK	507000	2535.0	1 / 33	23.50
Hz		511500	2557.5	1 / 99	23.59
M		502500	2512.5	1 / 33	23.58
25	QPSK	507000	2535.0	1 / 33	23.27
		511500	2557.5	1 / 99	23.48
	16-QAM	502500	2512.5	1 / 33	22.47
	π/2 BPSK	502000	2510.0	1 / 79	23.66
		507000	2535.0	1 / 26	23.54
Hz		512000	2560.0	1 / 79	23.59
Z		502000	2510.0	1 / 79	23.59
20	QPSK	507000	2535.0	1 / 26	23.39
		512000	2560.0	1 / 79	23.49
	16-QAM	502000	2510.0	1 / 79	22.62
		501500	2507.5	1 / 58	23.58
	π/2 BPSK	507000	2535.0	1 / 39	23.45
Hz		512500	2562.5	1 / 58	23.53
2		501500	2507.5	1 / 58	23.57
1	QPSK	507000	2535.0	1 / 39	23.35
		512500	2562.5	1 / 58	23.51
	16-QAM	501500	2507.5	1 / 58	22.61
		501000	2505.0	1 / 13	23.63
N	π/2 BPSK	507000	2535.0	1 / 26	23.48
H		513000	2565.0	1 / 26	23.54
V 0	0001/	501000	2505.0	1 / 13	23.53
7	QPSK	507000	2535.0	1 / 26	23.41
	10.011	513000	2565.0	1 / 26	23.64
	16-QAM	501000	2505.0	1 / 13	22.59
		500500	2502.5	1 / 18	23.68
	π/2 BPSK	507000	2535.0	1 / 18	23.42
H		513500	2007.5	1/18	23.51
N N		500500	2502.5	1 / 18	23.53
	QPSK	507000	∠535.U	1 / 18	23.44
	40.0414	513500	2567.5	1 / 18	23.35
	16-QAM	500500	2502.5	1/18	22.61

Table 7-11. Conducted Power Output Data (n7 – Ant F)

FCC ID: A3LSMS916U	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Dogo 10 of 270
1M2209010097-04.A3L	09/02/2022 - 11/20/2022	Portable Handset	Page 19 01 379



Bandwidth	Modulation	Channel	Frequency [MHz]	RB Size/Offset	Conducted Power [dBm]
		509202	2546.01	1 / 136	26.07
	π/2 BPSK	518598	2592.99	1 / 68	26.25
		528000	2640.00	1 / 204	26.29
≥ 0		509202	2546.01	1 / 136	25.95
10	QPSK	518598	2592.99	1 / 68	26.22
		528000	2640.00	1 / 204	26.27
	16-QAM	509202	2546.01	1 / 136	25.35
	10.0001/	508200	2541.00	1 / 122	26.39
N	T/2 BPSK	518598	2592.99	1 / 122	26.13
Ŧ		528996	2644.98	1/122	26.14
0	ODSK	506200	2541.00	1/122	25.89
6	QFSK	528006	2092.99	1/122	20.00
	16-OAM	508200	2541.00	1 / 122	25.34
	10 00 101	507204	2536.02	1/54	26.29
	π/2 BPSK	518598	2592.99	1/54	26.71
우	11/2 21 011	529998	2649.99	1/54	26.23
MF		507204	2536.02	1/54	26.10
80	QPSK	518598	2592.99	1 / 54	26.40
		529998	2649.99	1 / 54	26.20
	16-QAM	507204	2536.02	1 / 54	25.50
		506202	2531.01	1 / 141	26.43
	π/2 BPSK	518598	2592.99	1 / 94	26.12
Ŧ		531000	2655.00	1 / 141	26.13
Σ		506202	2531.01	1 / 141	26.32
2	QPSK	518598	2592.99	1 / 94	26.16
		531000	2655.00	1 / 141	26.13
	16-QAM	506202	2531.01	1 / 141	24.95
		505200	2526.00	1 / 81	26.54
N	π/2 BPSK	518598	2592.99	1 / 40	26.80
H		531996	2659.98	1/40	26.72
0	ODSK	505200	2526.00	1/81	26.17
9	QFSK	531006	2592.99	1/40	20.37
	16-OAM	531990	2659.98	1/40	25.27
	10 00 101	504204	2521.02	1/66	26.68
	π/2 BPSK	518598	2592.99	1/66	26.00
부		532998	2664.99	1/33	26.61
Ψ.		504204	2521.02	1 / 66	25.99
50	QPSK	518598	2592.99	1 / 66	26.05
		532998	2664.99	1 / 33	26.09
	16-QAM	504204	2521.02	1 / 66	24.96
		503202	2516.01	1 / 53	26.87
	π/2 BPSK	518598	2592.99	1 / 53	26.61
		534000	2670.00	1 / 79	26.22
20	QPSK	503202	2516.01	1 / 53	26.11
4		518598	2592.99	1/53	26.20
	16-OAM	503202	2670.00	1/79	26.29
	10-QAIVI	503202	2510.01	1/00	20.00
	π/2 BPSK	518598	2592.00	1/39	20.00
N	III DI OK	534996	2674.98	1/10	26.74
Ę		502200	2511.00	1/39	26,18
8	QPSK	518598	2592.99	1/39	26.48
		534996	2674.98	1 / 19	26.27
	16-QAM	502200	2511.00	1 / 39	25.23
		501204	2506.02	50 / 0	26.20
	π/2 BPSK	518598	2592.99	1 / 13	26.36
보		535998	2679.99	1 / 37	26.49
Σ		501204	2506.02	1 / 25	26.69
ž	QPSK	518598	2592.99	1 / 13	26.35
	40.0111	535998	2679.99	1/37	26.57
	16-QAM	501204	2506.02	1/25	25.29
		500700	2503.50	1/3/	26.01
N	II/2 DPSK	536406	2092.99	1/13	20.12
Η		500700	2503.50	1/37	25.00
15	OPSK	518598	2592.99	1/13	26.05
` <u> </u>	S. 01	536496	2682.48	1/13	25.05
	16-QAM	500700	2503.50	1/37	24.99
		500202	2501.01	1/37	25.84
	π/2 BPSK	518598	2592.99	1/37	25.93
Ł		537000	2685.00	1 / 13	25.73
Σ		500202	2501.01	1 / 13	25.26
9	QPSK	518598	2592.99	1 / 37	25.82
		537000	2685.00	1 / 13	25.66
	16-QAM	500202	2501.01	1 / 37	24.61

Table 7-12. Conducted Power Output Data (n41 (PC2) – Ant F)

FCC ID: A3LSMS916U	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Page 20 of 270
1M2209010097-04.A3L	09/02/2022 - 11/20/2022	Portable Handset	Fage 20 01 37 9
			V11.0 9/14/2022



Bandwidth	Modulation	Channel	Frequency [MHz]	RB Size/Offset	Conducted Power [dBm]
		509202	2546.01	1 / 68	21.91
100 MHz	π/2 BPSK	518598	2592.99	1 / 68	20.87
		528000	2640.00	1 / 136	20.08
	QPSK	509202	2546.01	1 / 68	21.96
		518598	2592.99	1 / 68	21.16
		528000	2640.00	1 / 136	20.41
	16-QAM	528000	2640.00	1 / 136	18.91

Table 7-13. Conducted Power Output Data (n41 (PC2) – Ant B)

Bandwidth	Modulation	Channel	Frequency [MHz]	RB Size/Offset	Conducted Power [dBm]
		509202	2546.01	1 / 68	22.66
100 MHz	π/2 BPSK	518598	2592.99	1 / 68	22.16
		528000	2640.00	1 / 204	22.06
	QPSK	509202	2546.01	1 / 68	22.64
		518598	2592.99	1 / 68	22.08
		528000	2640.00	1 / 204	22.61
	16-QAM	528000	2640.00	1 / 204	21.32

 Table 7-14. Conducted Power Output Data (n41 (PC2) – Ant E)

Bandwidth	Modulation	Channel	Frequency [MHz]	RB Size/Offset	Conducted Power [dBm]
		509202	2546.01	1 / 204	17.92
100 MHz	π/2 BPSK	518598	2592.99	1 / 204	17.67
		528000	2640.00	1 / 204	17.91
	QPSK	509202	2546.01	1 / 204	17.85
		518598	2592.99	1 / 204	17.54
		528000	2640.00	1 / 204	17.46
	16-QAM	528000	2640.00	1 / 204	17.10

Table 7-15. Conducted Power Output Data (n41 (PC2) – Ant D)

FCC ID: A3LSMS916U	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager	
Test Report S/N:	Test Dates:	EUT Type:	Dogo 21 of 270	
1M2209010097-04.A3L	09/02/2022 - 11/20/2022	Portable Handset	Page 21 of 379	
			1/// 0.0/////0000	



Bandwidth	Modulation	Channel	Frequency [MHz]	RB Size/Offset	Conducted Power [dBm]
		509202	2546.01	1 / 68	25.62
	π/2 BPSK	518598	2592.99	1 / 204	25.81
포		528000	2640.00	1 / 68	25.78
N N N		509202	2546.01	1 / 68	25.59
100	QPSK	518598	2592.99	1 / 204	25.69
		528000	2640.00	1 / 68	25.73
	16-QAM	528000	2640.00	1 / 68	24.73
	π/2 BPSK	508200	2541.00	1 / 122	25.37
		518598	2592.99	1 / 61	25.67
E E		528996	2644.98	1 / 61	25.88
2		508200	2541.00	1 / 122	25.36
6	QPSK	518598	2592.99	1/61	25.68
	10.0414	528996	2644.98	1/61	25.71
	16-QAM	528996	2644.98	1/61	24.63
		507204	2536.02	1/54	25.45
N	II/2 DF SK	520008	2592.99	1/54	25.74
HW		507204	2536.02	1/54	25.12
l og	OPSK	518598	2592.99	1/34	25.40
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	GION	529998	2649.99	1/54	25.69
	16-QAM	529998	2649.99	1/54	24.69
	10 40 111	506202	2531.01	1 / 141	25.44
	π/2 BPSK	518598	2592.99	1/47	25.70
₽		531000	2655.00	1/47	25.84
ž		506202	2531.01	1 / 141	25.36
2	QPSK	518598	2592.99	1/47	25.62
		531000	2655.00	1/47	25.75
	16-QAM	531000	2655.00	1 / 47	24.60
		505200	2526.00	1 / 40	25.65
	π/2 BPSK	518598	2592.99	1 / 40	25.93
£		531996	2659.98	1 / 81	25.77
W		505200	2526.00	1 / 40	25.57
60	QPSK	518598	2592.99	1 / 40	25.82
		531996	2659.98	1 / 81	25.76
	16-QAM	531996	2659.98	1 / 81	24.58
		504204	2521.02	1 / 33	25.73
	π/2 BPSK	518598	2592.99	1 / 99	25.94
포		532998	2664.99	1 / 33	25.80
N N N		504204	2521.02	1 / 33	25.61
2(	QPSK	518598	2592.99	1 / 99	25.83
		532998	2664.99	1/33	25.72
	16-QAM	532998	2664.99	1/33	24.54
		503202	2516.01	1/79	25.71
N	II/2 DPSK	516596	2592.99	1/79	25.97
Ни		503202	2516.01	1/79	25.99
9	QPSK	518508	2502.00	1/79	25.03
7		534000	2670.00	1/79	25.84
	16-QAM	534000	2670.00	1/79	24.75
		502200	2511.00	1 / 58	25.78
	π/2 BPSK	518598	2592.99	1 / 58	26.04
₽		534996	2674.98	1 / 58	25.89
ž		502200	2511.00	1 / 58	25.66
30	QPSK	518598	2592.99	1 / 58	25.94
		534996	2674.98	1 / 58	25.78
	16-QAM	534996	2674.98	1 / 58	24.64
		501204	2506.02	1 / 37	25.53
	π/2 BPSK	518598	2592.99	1 / 25	25.81
포		535998	2679.99	1 / 37	25.81
N N		501204	2506.02	1 / 37	25.49
5(	QPSK	518598	2592.99	1 / 25	25.79
		535998	2679.99	1/37	25.73
	16-QAM	535998	2679.99	1/37	24.59
		519500	2503.50	1/3/	20.03
N	II/2 DPSK	536406	2592.99	1/25	25.87
H		500700	2503.50	1/37	25.00
5	OPSK	518598	2503.50	1/25	20.00
	Gr ON	536496	2682.33	1/20	25.00
	16-0AM	536496	2682.40	1/37	24.76
		500202	2501.01	1/37	25.56
	π/2 BPSK	518598	2592.99	1/37	25.80
₽		537000	2685.00	1 / 13	25.69
Σ		500202	2501.01	1/37	25.41
2	QPSK	518598	2592.99	1 / 37	25.73
		537000	2685.00	1 / 13	25.61
	16-QAM	537000	2685.00	1 / 13	24.60

Table 7-16. Conducted Power Output Data (n41 (PC2) – Switching - Ant B)

FCC ID: A3LSMS916U	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Page 22 of 270
1M2209010097-04.A3L	09/02/2022 - 11/20/2022	Portable Handset	Fage 22 01 379



Bandwidth	Modulation	Channel	Frequency [MHz]	RB Size/Offset	Conducted Power [dBm]
		509202	2546.01	1 / 136	19.68
	π/2 BPSK	518598	2592.99	1 / 68	19.56
100 MHz		528000	2640.00	1 / 204	19.24
	QPSK	509202	2546.01	1 / 136	19.92
		518598	2592.99	1 / 68	19.53
		528000	2640.00	1 / 204	19.79
	16-QAM	509202	2546.01	1 / 136	19.68
		518598	2592.99	1 / 68	19.51
		528000	2640.00	1 / 204	19.30

Table 7-17. Conducted Power Output Data (n41 (PC2) – Switching - Ant F)

Bandwidth	Modulation	Channel	Frequency [MHz]	RB Size/Offset	Conducted Power [dBm]
		509202	2546.01	1 / 68	22.60
	π/2 BPSK	518598	2592.99	1 / 204	22.78
Hz		528000	2640.00	1 / 136	22.87
		509202	2546.01	1 / 68	22.70
N C	QPSK	518598	2592.99	1 / 204	22.80
100		528000	2640.00	1 / 136	22.86
		509202	2546.01	1 / 68	21.60
	16-QAM	518598	2592.99	1 / 204	22.14
		528000	2640.00	1 / 136	22.03

 Table 7-18. Conducted Power Output Data (n41 (PC2) – Switching - Ant D)

Bandwidth	Modulation	Channel	Frequency [MHz]	RB Size/Offset	Conducted Power [dBm]
		509202	2546.01	1 / 136	20.45
Ηz	π/2 BPSK	518598	2592.99	1 / 136	20.08
		528000	2640.00	1 / 68	20.46
	QPSK	509202	2546.01	1 / 136	20.42
N C		518598	2592.99	1 / 136	20.45
100		528000	2640.00	1 / 68	20.29
		509202	2546.01	1 / 136	19.95
	16-QAM	518598	2592.99	1 / 136	19.64
		528000	2640.00	1 / 68	19.68

Table 7-19. Conducted Power Output Data (n41 (PC2) – Switching - Ant E)

FCC ID: A3LSMS916U		PART 27 MEASUREMENT REPORT	Approved by: Technical Manager	
Test Report S/N:	Test Dates:	EUT Type:	Page 23 of 379	
1M2209010097-04.A3L	09/02/2022 - 11/20/2022	Portable Handset		
			V11.0 9/14/2022	



		NR (S	CS 15kHz)						LTE			NR	LTE	EN-DC
NR Band	NR Bandwidth [MHz]	NR Channel	NR Frequency [MHz]	Mod.	NR RB#/Offset	LTE Band	LTE Bandwidth [MHz]	LTE Channel	LTE Frequency [MHz]	Mod.	LTE RB#/Offset	Conducted Power [dBm]	Conducted Power [dBm]	Total Tx. Power [dBm]
				QPSK	50/0					QPSK	50/0	16.70	22.76	23.72
				QPSK	50/0					QPSK	1/25	16.67	22.75	23.71
	10	Mid	2310	QPSK	1/26	B5	10	Mid	836.5	QPSK	50/0	16.62	22.73	23.68
ANTA				QPSK	1/26					QPSK	1/25	16.64	22.75	23.70
				16Q	50/0					16Q	50/0	18.15	22.21	23.65

Table 7-1. Conducted Power Data (EN-DC NR n30 [Ant A] + LTE B5 [Ant A])

		NR (S	CS 15kHz)						LTE			NR	LTE	EN-DC
NR Band	NR Bandwidth [MHz]	NR Channel	NR Frequency [MHz]	Mod.	NR RB#/Offset	LTE Band	LTE Bandwidth [MHz]	LTE Channel	LTE Frequency [MHz]	Mod.	LTE RB#/Offset	Conducted Power [dBm]	Conducted Power [dBm]	Total Tx. Power [dBm]
				QPSK	50/0					QPSK	50/0	16.72	22.68	23.66
- 20				QPSK	50/0					QPSK	1/25	16.63	22.78	23.72
	10	Mid	2310	QPSK	1/26	B5	10	Mid	836.5	QPSK	50/0	16.61	22.76	23.70
ANTE				QPSK	1/26					QPSK	1/25	16.65	22.85	23.78
				16Q	1/26					16Q	1/25	16.89	22.77	23.77

Table 7-2. Conducted Power Data (EN-DC NR n30 [Ant F] + LTE B5 [Ant A])

		NR (S	SCS 15kHz)		-				LTE			NR	LTE	EN-DC
NR Band	NR Bandwidth [MHz]	NR Channel	NR Frequency [MHz]	Mod.	NR RB#/Offset	LTE Band	LTE Bandwidth [MHz]	LTE Channel	LTE Frequency [MHz]	Mod.	LTE RB#/Offset	Conducted Power [dBm]	Conducted Power [dBm]	Total Tx. Power [dBm]
				QPSK	50/0					QPSK	100/0	18.52	21.61	23.34
-20				QPSK	50/0					QPSK	1/50	17.04	22.20	23.36
	10	Mid	2310	QPSK	1/26	B2	20	Mid	1880	QPSK	100/0	18.42	21.58	23.29
ANTE				QPSK	1/26					QPSK	1/50	16.95	22.11	23.27
				16Q	50/0					16Q	1/50	18.02	21.76	23.29

#### Table 7-3. Conducted Power Data (EN-DC NR n30 [Ant F] + LTE B2 [Ant A])

		NR (S	CS 30kHz)						LTE			NR	LTE	EN-DC
NR Band	NR Bandwidth [MHz]	NR Channel	NR Frequency [MHz]	Mod.	NR RB#/Offset	LTE Band	LTE Bandwidth [MHz]	LTE Channel	LTE Frequency [MHz]	Mod.	LTE RB#/Offset	Conducted Power [dBm]	Conducted Power [dBm]	Total Tx. Power [dBm]
				QPSK	270/0					QPSK	100/0	18.57	22.04	23.65
- 41				QPSK	270/0					QPSK	1/50	14.21	22.90	23.45
	100	Mid	2593	QPSK	1/136		20	Mid	1880	QPSK	100/0	18.36	21.98	23.55
ANTE				QPSK	1/136	ANT A				QPSK	1/50	14.08	22.82	23.36
[				160	270/0					160	100/0	20.26	20.95	23 63

Table 7-4. Conducted Power Data (EN-DC NR n41 (PC2) [Ant F] + LTE B2 [Ant A])

FCC ID: A3LSMS916U		PART 27 MEASUREMENT REPORT	Approved by: Technical Manager	
Test Report S/N:	Test Dates:	EUT Type:	Page 24 of 379	
1M2209010097-04.A3L	09/02/2022 - 11/20/2022	Portable Handset		
			V11.0 9/14/2022	



## 7.3 Occupied Bandwidth

#### **Test Overview**

The occupied bandwidth, that is the frequency bandwidth such that, below its lower and above its upper frequency limits, the mean powers radiated are each equal to 0.5 percent of the total mean power radiated by a given emission shall be measured. All modes of operation were investigated and the worst case configuration results are reported in this section.

#### Test Procedure Used

ANSI C63.26-2015 - Section 5.4.4

#### **Test Settings**

- 1. The signal analyzer's automatic bandwidth measurement capability was used to perform the 99% occupied bandwidth and the 26dB bandwidth. The bandwidth measurement was not influenced by any intermediate power nulls in the fundamental emission.
- 2. RBW = 1 5% of the expected OBW
- 3. VBW  $\geq$  3 x RBW
- 4. Detector = Peak
- 5. Trace mode = max hold
- 6. Sweep = auto couple
- 7. The trace was allowed to stabilize
- 8. If necessary, steps 2 7 were repeated after changing the RBW such that it would be within
  - 1-5% of the 99% occupied bandwidth observed in Step 7

#### Test Setup

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



Figure 7-2. Test Instrument & Measurement Setup

#### Test Notes

None.

FCC ID: A3LSMS916U		PART 27 MEASUREMENT REPORT	Approved by: Technical Manager	
Test Report S/N:	Test Dates:	EUT Type:	Dogo 25 of 270	
1M2209010097-04.A3L	09/02/2022 - 11/20/2022	Portable Handset	Fage 25 01 579	
			V11.0 9/14/2022	



## LTE Band 30 – Ant A

🔤 Keysight Spectrum Analyzer - Occupie	ed BW						- # <b>X</b>
LXI RL RF 50Ω A	AC CORREC	SENSE:INT	ALIGN A	UTO 05:58:47 A	M Sep 02, 2022	Trac	e/Detector
		Trig: Free Run	Avg Hold: 100/10	00	None		
	#IFGain:Low	#Atten: 36 dB		Radio Dev	ice: BTS		
10 dB/div Ref 40.00 d	lBm						
Log						_	
30.0							lear Write
20.0	memore		Auropan				
10.0		I a 2 a recorded a faith and the second streets					
0.00	/		<u> </u>				
-10.0	ــــــــــــــــــــــــــــــــــــــ		<u> </u>				Average
200 and a standard with	mandone		4 Words				Ŭ
20.0 North Martin Contraction				a warde walking how	mannaplana		
-30.0							
-40.0							Max Hold
-50.0							
				Onen 2	5 00 MH-		
Bee BW 240 kHz		#VRM 750 k	<b>U</b> 7	Span z	0.00 ₩HZ		
Res BW 240 RHZ		#VDVV / JOK	112	300	ep 1 ms		Min Hold
Occupied Bandwi	idth	Total P	ower	30.5 dBm			
occupica Ballan							
	9.0723 MH	Z					Detector
Transmit Fred Error	-10 462 kH	z % of OF	W Power	99 00 %		Auto	Peak⊫ Man
	-10.402 Ki			33.00 /0			
x dB Bandwidth	10.10 MF	z xdB		-26.00 dB			
MSG			9	STATUS		_	

Plot 7-5. Occupied Bandwidth Plot (LTE Band 30 - 10MHz QPSK - Full RB - Ant A)



Plot 7-6. Occupied Bandwidth Plot (LTE Band 30 - 10MHz 16-QAM - Full RB - Ant A)

FCC ID: A3LSMS916U		PART 27 MEASUREMENT REPORT	Approved by: Technical Manager	
Test Report S/N:	Test Dates:	EUT Type:	Page 26 of 270	
1M2209010097-04.A3L	09/02/2022 - 11/20/2022	Portable Handset	Fage 20 01 379	
			V11.0 9/14/2022	



www.www.www.com.com.com.com.com.com.com.com.com.com	BW				
LX4 RL RF 50Ω AC	CORREC	SENSE:INT	ALIGN AUTO 06	:18:01 AM Sep 02, 2022	Trace/Detector
	Cent Trig:	Free Run Aval Ha	d: 100/100	dio Sta: None	
	#IFGain:Low #Atte	en: 36 dB	Rad	dio Device: BTS	
10 dR/diu Bof 40.00 dB	tmo				
30.0					
20.0					Clear Write
10.0	monum	marken marken	<b>x</b>		
0.00	A		N. Internet		
0.00	1		1		•
-10.0					Average
-20.0 -20.0	ր-մ ^{ու}		- month	manne man anna	
-30.0				a construction	
-40.0					Max Hold
-50.0					Maxilola
Center 2.310000 GHz			S	pan 12.50 MHz	
Res BW 120 kHz		VBW 1.2 MHz		Sweep 1 ms	Min Hold
Occupied Bandwid	lth	Total Power	30.4 dE	Sm	
4	5748 MHz				Detector
					Peak►
Transmit Freq Error	-12.983 kHz	% of OBW Po	wer 99.00	%	Auto <u>Man</u>
x dB Bandwidth	5 210 MHz	v dB	-26 00 (	-IR	
	5.2 I 5 MILL	A db	-20.00 (		
MSG			STATUS		

Plot 7-7. Occupied Bandwidth Plot (LTE Band 30 - 5MHz QPSK - Full RB - Ant A)



Plot 7-8. Occupied Bandwidth Plot (LTE Band 30 - 5MHz 16-QAM - Full RB - Ant A)

FCC ID: A3LSMS916U	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Dogo 27 of 270
1M2209010097-04.A3L	09/02/2022 - 11/20/2022	Portable Handset	Page 27 01 379
	•		V11.0 9/14/2022



## LTE Band 30 – Ant F

www.www.www.www.www.www.www.www.www.ww	upied BW									
LXI RL RF 50 Ω	AC COR	REC	SEN	SE:INT a: 2.31000	0000 GHz	ALIGN AUTO	12:36:03 A Radio Std	M Sep 30, 2022	Trac	e/Detector
		<b>→</b> →	Trig: Free	Run	Avg Hol	d:>100/100				
	#IFG	ain:Low	#Atten: 36	dB			Radio Dev	ice: BTS		
10 dB/div Ref 40.0	0 dBm	· · · · ·								
30.0										
20.0										Clear Write
10.0		mann	and the seal of th	~~~lmlan~	ven mar					
0.00		<u> </u>								
-10.0	/					<u>\</u>				Average
-20.0	كمي م					Worker	and the second			Arenuge
-30.0 mm month mark month	1 Mini and Ma							that he the work		
-40.0										
-50.0										Max Hold
Center 2.31000 GHz							Span 2	5.00 MHz		
Res BW 240 KHz			#VB	W 750 K	HZ		SWe	ep 1 ms		Min Hold
Occupied Band	width			Total P	ower	28	5 dBm			
			<u> </u>							
	9.06	22 MH	Ζ							Detector
Transmit Freg Err	ror	24.595 kł	lz	% of O	3W Pov	ver 99	9.00 %		Auto	Peak▶
v dD Dandwidth		40 42 MI		u dD		26			Auto	<u>ivian</u>
X dB Bandwidth		10.13 MI	12	хав		-20	.00 dB			
MSG						STATU	2			
mod						STATU:				

Plot 7-9. Occupied Bandwidth Plot (LTE Band 30 - 10MHz QPSK - Full RB – Ant F)



Plot 7-10. Occupied Bandwidth Plot (LTE Band 30 - 10MHz 16-QAM - Full RB - Ant F)

FCC ID: A3LSMS916U		Approved by: Technical Manager	
Test Report S/N:	Test Dates:	EUT Type:	Dogo 29 of 270
1M2209010097-04.A3L	09/02/2022 - 11/20/2022	Portable Handset	Fage 20 01 379
			V11.0 9/14/2022



www.www.www.com Keysight Spectrum Analyzer - Occup	pied BW						- • •
<mark>LXI</mark> R L RF 50 Ω	AC CORREC	SENSE:INT	ALIGN AUTO	12:34:57 At	4 Sep 30, 2022	Trace	/Detector
		Trig: Free Run	Avg Hold: 100/100	Radio Stu.	None		
	#IFGain:Low	#Atten: 36 dB	<b>-</b> .	Radio Dev	ice: BTS		
10 dB/div Ref 40.00	dBm						
Log							
30.0						c	lear Write
20.0	-0~1						
10.0		A Designation of the second					
0.00	/		<u> </u>				
-10.0			<u>├                                    </u>				Average
-20.0	mangent			man have			
-30.0							
-40.0							
-50.0							Max Hold
Center 2.310000 GHz			1-	Span 1	2.50 MHz		
Res DW 120 KHZ			12	Swe	ep 1 ms		Min Hold
Occupied Bandy	width	Total P	ower 28.	6 dBm			
Cocupied Ballar		_					
	4.5392 MI	1Z					Detector
Transmit Freg Erro	or 6.583 k	Hz % of O	BW Power 9	9.00 %			Peak▶
	5 000 1					Auto	Man
x dB Bandwidth	5.282 M	HZ X dB	-26	.00 dB			
MSG			STATU	S			

Plot 7-11. Occupied Bandwidth Plot (LTE Band 30 - 5MHz QPSK - Full RB - Ant F)



Plot 7-12. Occupied Bandwidth Plot (LTE Band 30 - 5MHz 16-QAM - Full RB - Ant F)

FCC ID: A3LSMS916U	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Dogo 20 of 270
1M2209010097-04.A3L	09/02/2022 - 11/20/2022	Portable Handset	Fage 29 01 379
			V11.0 9/14/2022



## LTE Band 7 – Ant B

Keysight Spectrum Analyzer - Occupied BW - P 06:06:13 PM Sep 09, 2022 ALIGN AUTO Center Freq: 2.53500000 GHz Trig: Free Run Avg|Hol Trace/Detector Radio Std: None Avg|Hold: 100/100 #Atten: 36 dB Radio Device: BTS #IFGain:Low Ref 40.00 dBm 10 dB/div _00 **Clear Write** Average Max Hold Center 2.535 GHz Span 50 MHz Res BW 470 kHz VBW 5 MHz Sweep 1ms Min Hold Occupied Bandwidth Total Power 30.4 dBm 18.047 MHz Detector Peak▶ Transmit Freq Error 49.806 kHz % of OBW Power 99.00 % Auto Man x dB Bandwidth 20.01 MHz x dB -26.00 dB STATUS MSG

Plot 7-13. Occupied Bandwidth Plot (LTE Band 7 - 20MHz QPSK - Full RB - Ant B)



Plot 7-14. Occupied Bandwidth Plot (LTE Band 7 - 20MHz 16-QAM - Full RB - Ant B)

FCC ID: A3LSMS916U	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Page 20 of 270
1M2209010097-04.A3L	09/02/2022 - 11/20/2022	Portable Handset	Fage 50 01 57 9
			V11.0 9/14/2022



Keysight Spectrum Analyzer - Occ	cupied BW						- d ×
<b>LXI</b> RL RF 50 Ω	AC CORREC	SENSE:INT SOURC	CE OFF ALIGN AUTO	06:07:44 PM 9	Sep 09, 2022	Trac	e/Detector
		Trig: Free Run	Avg Hold: 100/100	Raulo sta	lone		
	#IFGain:Low	#Atten: 36 dB		Radio Devic	e: BTS		
10 dB/div Ref 40.00	0 dBm						
20.0	والمراجع المراجع						
20.0						(	Clear Write
20.0		Carlos	Angella				
10.0							
0.00							
-10.0							Average
-20.0	por fight and the		Կովսարավիլի	My Marine Marine Marine	A und alte		
-30.0	والمراجعة المراجعة				Net Carlot and the second		
-40.0	وهور ومعاد						Max Hold
-50.0	المتصور المسالم						
Center 2.535 GHz				Span 3	7.5 MHz		
Res BW 300 KHZ		VBW 4 Minz		Swee	p 1 ms		Min Hold
Occupied Band	width	Total Po	ower 30.4	1 dBm			
Occupied Dama							
	13.591 Mi	IZ					Detector Reak
Transmit Freg Err	or 53.866 k	Hz % of OE	SW Power 99	9.00 %		Auto	Man
dD Dendwidth	45 44 M		26				
x dB Bandwidth	15.11 W	Hz хав	-20.	00 aB			
MSG			STATU	s			

Plot 7-15. Occupied Bandwidth Plot (LTE Band 7 - 15MHz QPSK - Full RB - Ant B)



Plot 7-16. Occupied Bandwidth Plot (LTE Band 7 - 15MHz 16-QAM - Full RB - Ant B)

FCC ID: A3LSMS916U	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Dogo 21 of 270
1M2209010097-04.A3L	09/02/2022 - 11/20/2022	Portable Handset	Fage ST 01 379
			V11.0 9/14/2022



🤤 Keysight Spectrum Analyzer - Occi	upied BW				- 7 💌
<b>LX RL RF 50 Ω</b>	AC CORREC	SENSE:INT SOURCE OFF Center Freq: 2.535000000 GHz Trig: Free Run Avg Hol	ALIGN AUTO 06:08:37 P Radio Std d:>100/100	M Sep 09, 2022	Trace/Detector
	#IFGain:Low	#Atten: 36 dB	Radio Dev	/ice: B1 S	
10 dB/div Ref 40.00	0 dBm				
30.0	رصياكم				
20.0	ريصياكك				Clear Write
10.0	and the second s	and and a grad and a support			
0.00					
-10.0					Average
-20.0	wat for an allowed		What and have have been and ha	an Mar an Iran Ma	
-30.0					
-40.0	رصينكك				Max Hold
-50.0					
Center 2.535 GHz			Spa	n 25 MHz	
Res BW 240 kHz		VBW 2.4 MHz	Swe	eep 1 ms	Min Hold
Occupied Band	width	Total Power	30.4 dBm		
Coodpica Baila	0 0292 MH				Detector
	9.0392 With				Peak►
Transmit Freq Erre	or 32.926 kl	Iz % of OBW Pow	ver 99.00 %		Auto <u>Man</u>
x dB Bandwidth	10.16 MI	lz x dB	-26.00 dB		
MSC			STATUS		

Plot 7-17. Occupied Bandwidth Plot (LTE Band 7 - 10MHz QPSK - Full RB - Ant B)



Plot 7-18. Occupied Bandwidth Plot (LTE Band 7 - 10MHz 16-QAM - Full RB - Ant B)

FCC ID: A3LSMS916U	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Dogo 22 of 270
1M2209010097-04.A3L	09/02/2022 - 11/20/2022	Portable Handset	Fage 32 01 379
			\/11.0.0/14/2022



Keysight Spectrum Analyzer - Occur	pied BW					
<b>LX/</b> RL RF 50 Ω	AC CORREC	SENSE:INT SOUR	CE OFF ALIGN AUTO	06:09:28 PM Sep 0	9,2022	Trace/Detector
		Trig: Free Run	Avg Hold: 100/100			
	#IFGain:Low	#Atten: 36 dB		Radio Device: B	STS	
10 dB/div Ref 40.00	dBm					
30.0	ريدي المعلم					
20.0	ريدي المعام					Clear Write
20.0	mm	manyanyanyan	warnes w			
10.0						
0.00			la l			Average
-10.0						Average
-20.0	same and the second sec		100 miles	mann	- mar	
-30.0						
-40.0	المصيل المعاد					Max Hold
-50.0	وصياعكم					
Center 2.535 GHz				Span 12.5	MHZ	
Res BW 120 KH2			2	Sweep		Min Hold
Occupied Bandy	width	Total Po	ower 30.4	dBm		
	4 5222 ML					Detector
	4.5552 MI					Detector Peak
Transmit Freq Erro	or 9.885 k	Hz % of OE	3W Power 99	.00 %		Auto <u>Man</u>
x dB Bandwidth	5 199 M	Hz xdB	-26	00 dB		
	0.100-11		-201			
MSG			STATUS	3		

Plot 7-19. Occupied Bandwidth Plot (LTE Band 7 - 5MHz QPSK - Full RB - Ant B)



Plot 7-20. Occupied Bandwidth Plot (LTE Band 7 - 5MHz 16-QAM - Full RB - Ant B)

FCC ID: A3LSMS916U	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Dogo 22 of 270
1M2209010097-04.A3L	09/02/2022 - 11/20/2022	Portable Handset	Page 33 01 379
			V11.0 9/14/2022



## LTE Band 7 – Ant F



Plot 7-21. Occupied Bandwidth Plot (LTE Band 7 - 20MHz QPSK - Full RB - Ant F)



Plot 7-22. Occupied Bandwidth Plot (LTE Band 7 - 20MHz 16-QAM - Full RB - Ant F)

FCC ID: A3LSMS916U		PART 27 MEASUREMENT REPORT					
Test Report S/N:	Test Dates:	EUT Type:	Page 34 of 370				
1M2209010097-04.A3L	09/02/2022 - 11/20/2022	Portable Handset	Fage 34 01 37 9				
			V11.0 9/14/2022				



Keysight Spectrum Analyzer - Occupied	d BW						d X
💢 RL RF 50Ω AC	CORREC	SENSE:INT	ALIGN AUTO	11:22:41 PM Se	ep 28, 2022	Trace/Det	ector
		Center Freq: 2.03000 Trig: Free Run	AvalHold:>100/100	Radio Std: N	one		
	#IFGain:Low	#Atten: 36 dB		Radio Device	BTS		
10 JD/JE Dof 10 00 dl	Pm						
	<u></u>						
30.0							
20.0						Clea	r Write
10.0	Manananana		munarener				
10.0							
0.00			h.				
-10.0			<u> </u>			A	verage
-20.0	www		hurtym	test.do.			
30 0 mtd. marga Margan				" watelelver reg	Magun		
(0.0							
-40.0						Ma	x Hold
-50.0							
				0			
Center 2.53500 GHZ				Span 37.			
Res BW 300 KHZ				Swee	J TIIIS	Mi	n Hold
Occupied Bondwi	dth	Total P	ower 30.0	dBm			
Occupied Bandwi	aun 	Total I	<b>50.5</b>	<b>UB</b>			
	13.541 MH	Z				De	etector
							Peak▶
Transmit Freq Error	-214 F	z % of OE	3W Power 99	.00 %		Auto	Man
x dB Bandwidth	14.99 MH	z xdB	-26	00 dB			
	11100 1111		201				
MSG			STATUS	6			

Plot 7-23. Occupied Bandwidth Plot (LTE Band 7 - 15MHz QPSK - Full RB - Ant F)



Plot 7-24. Occupied Bandwidth Plot (LTE Band 7 - 15MHz 16-QAM - Full RB - Ant F)

FCC ID: A3LSMS916U		PART 27 MEASUREMENT REPORT					
Test Report S/N:	Test Dates:	EUT Type:	Dogo 25 of 270				
1M2209010097-04.A3L	09/02/2022 - 11/20/2022	Portable Handset	Page 35 01 379				
			V11.0 9/14/2022				



🔤 Keysight Spectrum Analyzer - Occu	ipied BW								
L <mark>X/</mark> R L RF 50 Ω	AC CORREC	SE	NSE:INT	0000 CH-	ALIGN AUTO	11:23:02 PI	M Sep 28, 2022	Trac	e/Detector
		Trig: Fre	e Run	AvalHold	: 100/100	Radio Std.	None		
	#IFGain:L	Low #Atten: 3	6 dB	0.		Radio Dev	ice: BTS		
10 dB/div Ref 40.00	dBm								
Log									
30.0									
20.0									Clear write
10.0	r	มการแห่ง <b>การ</b> กระจารโกรงส์โก	ᢞᠧᢧᡀᢛᠡᡳᢛᡮᠰᡅᠰᠶᠣ	monteren					
0.00	/			\ \					
49.0									Average
-10.0	Labora				L				Average
-20.0	and a second and a second					Mar Big Ing Strange	how Bernow at the		
-30.0							1 1000		
-40.0									Max Hold
-50.0									
Center 2.53500 GHz				-		Span 2	5.00 MHz		
Res BW 240 kHz		VBI	N 2.4 M⊩	Z		Swe	ep 1 ms		Min Hold
Occurried Dandy			Total D	owor	20.0	dDm			
Occupied Bandy	viatn		TOLATE	OWEI	50.8	UBIII			
	9.0420	) MHz							Detector
									Peak▶
Transmit Freq Erro	or 3.	241 kHz	% of OE	3W Pow	er 99	.00 %		Auto	<u>Man</u>
x dB Bandwidth	10	.26 MHz	x dB		-26.	00 dB			
MSG					STATUS	5			

Plot 7-25. Occupied Bandwidth Plot (LTE Band 7 - 10MHz QPSK - Full RB - Ant F)



Plot 7-26. Occupied Bandwidth Plot (LTE Band 7 - 10MHz 16-QAM - Full RB - Ant F)

FCC ID: A3LSMS916U		PART 27 MEASUREMENT REPORT					
Test Report S/N:	Test Dates:	EUT Type:	Dogo 26 of 270				
1M2209010097-04.A3L	09/02/2022 - 11/20/2022	Portable Handset	Page 36 01 379				
	•		V11.0 9/14/2022				



www.commonstance.common and the second secon							- 7
IXI RE S0Ω AC	CORREC	SENSE:INT	ALIG	GN AUTO 11:24:06	PM Sep 28, 2022	Trace	/Detector
	Tri	g: Free Run	Avg Hold:>10	00/100	u. None		
i	#IFGain:Low #A	tten: 36 dB		Radio D	evice: BTS		
10 dB/div Ref 40.00 dBm							
Log							
30.0						c	lear Write
20.0	mmmm	and man	may				
10.0							
0.00			1				
-10.0							Average
-20.0	×			have a state			
-30.0				· · · ·	Y VU harderson		
-40.0							Max Hold
-50.0							maxinoia
Center 2.535000 GHz			-	Span	12.50 MHz		
Res BW 120 KHZ		VBW 1.2 MF	12	Sv	veep 1 ms		Min Hold
Occupied Bandwidth		Total P	ower	31.1 dBm			
Occupied Bandwidth		i o car i i	01101				
4.5	400 MHZ						Detector
Transmit Freq Error	3.934 kHz	% of O	3W Power	99.00 %		Auto	Peak≱ <u>Man</u>
x dB Bandwidth	5 215 MHz	v dB		-26 00 dB			
	3.213 MINZ	X UB		-20.00 UB			
MSG				STATUS			

Plot 7-27. Occupied Bandwidth Plot (LTE Band 7 - 5MHz QPSK - Full RB - Ant F)



Plot 7-28. Occupied Bandwidth Plot (LTE Band 7 - 5MHz 16-QAM - Full RB - Ant F)

FCC ID: A3LSMS916U		PART 27 MEASUREMENT REPORT					
Test Report S/N:	Test Dates:	EUT Type:	Dege 27 of 270				
1M2209010097-04.A3L	09/02/2022 - 11/20/2022	Portable Handset	Page 37 of 379				
			V11.0 9/14/2022				



# LTE Band 41(PC2) – Ant B

Spectrun Occupied	n Analy d BW	zer 1	•	+											\$	Trace	v 🗦
KEYSI RL	GHT ⊶⊷	Input: RF Coupling: Align: Aut	DC to	Inpu Con Free NFF	ut Z:5 rCCo q Ref: ≕ Off	0 Ω rr Int (S)	Atten: 3	86 dB	Trig: F Gate: #IF G	Free Run Off ain: Low		Center Freq Avg Hold: 10 Radio Std: N	2.5930000 00/100 Ione	00 GHz	Trace Typ Clear	oe / Write	Trace Control
1 Graph	_	,													Trace	Average	Detector
Scale/Di Log 30.0	iv 10.0	dB					Ref Valı	ue 40.0	0 dBm						• Max H	Hold	
20.0 10.0 0.00						man	an a	wreek	าสาวารา	and North And					Min H Restar	t Max Hold	
-20.0		havelt	nd law	meran failte	4ml						Y	Umphikup-re _{vy}	Margan Lachard	PEA	<	t wax hold	
-50.0 Center 2	.59300	GHz				#	Video E	W 1.50	00 MHz					Span 50 MH	z		
Res BW 2 Metrics	470.00	) kHz										Sw	eep 1.00 r	ns (1001 pts	<u>5)</u>		
	Occup	oied Band	lwidth 17.9	91 MHz					Tota	l Power			31.5 0	dBm			
	Transi x dB E	mit Freq I Bandwidtł	Error 1		-2 1	6.795 kH 9.49 MH	z z		% of x dB	OBW Pov	we	r	99.0 -26.00	00 % D dB			
	า (			? Se	p 07, :29: <u>4</u>	2022 8 PM		7				-					

Plot 7-29. Occupied Bandwidth Plot (LTE Band 41(PC2) - 20MHz QPSK - Full RB - Ant B)

Spectrum A Occupied E	Analyzer 1 3W	• +									*	Trace	•	
KEYSIG	HT Input: RF Coupling: D Align: Auto	Input Z C Corr C Freq R NFE: (	2:50 Ω Corr tef:Int (S) Off	Atten: 36 dB	Trig: F Gate: #IF Ga	ree Run Off ain: Low	Ce Av Ra	enter Freq: vg Hold: 10 adio Std: N	2.593000000 0/100 ione	) GHz	Trace Typ Clear	oe / Write	Trace Contro	ol
1 Graph	•										Trace	Average	Delec	
Scale/Div	10.0 dB			Ref Value 40.00	dBm						<b>0</b> 1/1-11			
30.0														
20.0 10.0			and Marth	number	hybrith and a	matron					Min H	lold		
0.00		م مار مرا مسلم	/				۱ ۱	aa		PEAK	Restar	t Max Hold		
-30.0	a water and the	1746-11°FY - 1919					-	YAUTIYI, MUTANI	lander 19 june alle	ቍ ^ֈ ๛๚๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛				
-40.0														
Center 2.5 Res BW 47	9300 GHz 70.00 kHz		#\	/ideo BW 1.500	0 MHz	· · · ·		Sw	Si Si Si	pan 50 MHz s (1001 pts)				
2 Metrics	v													
0	occupied Bandwi 1	dth 7.971 MHz			Total	Power			30.6 dE	3m				
Т	ransmit Freg Err	or	-9.422 kH	z	% of	OBW Pov	/er		99.00	%				
x	dB Bandwidth		19.26 MH	Z	x dB				-26.00	dB				
•		Sep ( 9:30	07, 2022 0:10 PM											

Plot 7-30. Occupied Bandwidth Plot (LTE Band 41(PC2) - 20MHz 16-QAM - Full RB - Ant B)

FCC ID: A3LSMS916U		PART 27 MEASUREMENT REPORT			
Test Report S/N:	Test Dates:	EUT Type:	Dogo 28 of 270		
1M2209010097-04.A3L	09/02/2022 - 11/20/2022	Portable Handset	Fage 30 01 379		
			1/11 0 0/11/2022		





Plot 7-31. Occupied Bandwidth Plot (LTE Band 41(PC2) - 15MHz QPSK - Full RB - Ant B)



Plot 7-32. Occupied Bandwidth Plot (LTE Band 41(PC2) - 15MHz 16-QAM - Full RB - Ant B)

FCC ID: A3LSMS916U		PART 27 MEASUREMENT REPORT					
Test Report S/N:	Test Dates:	EUT Type:	Dogo 20 of 270				
1M2209010097-04.A3L	09/02/2022 - 11/20/2022	Portable Handset	Page 39 01 379				
			V11.0 9/14/2022				





Plot 7-33. Occupied Bandwidth Plot (LTE Band 41(PC2) - 10MHz QPSK - Full RB - Ant B)



Plot 7-34. Occupied Bandwidth Plot (LTE Band 41(PC2) - 10MHz 16-QAM - Full RB - Ant B)

FCC ID: A3LSMS916U		Approved by: Technical Manager	
Test Report S/N:	Test Dates:	EUT Type:	Dogo 40 of 270
1M2209010097-04.A3L	09/02/2022 - 11/20/2022	Portable Handset	Fage 40 01 379
			1/11 0 0/14/2022





Plot 7-35. Occupied Bandwidth Plot (LTE Band 41(PC2) - 5MHz QPSK - Full RB - Ant B)



Plot 7-36. Occupied Bandwidth Plot (LTE Band 41(PC2) - 5MHz 16-QAM - Full RB - Ant B)

FCC ID: A3LSMS916U		PART 27 MEASUREMENT REPORT				
Test Report S/N:	Test Dates:	EUT Type:	Page 41 of 379			
1M2209010097-04.A3L	09/02/2022 - 11/20/2022	Portable Handset				
			\/11.0.0/14/2022			



## LTE Band 41(PC2) – Ant F

Spectrur Occupie	n Analyz d BW	ter 1	•	+											\$	Frequenc	y <b>v</b>
RL	IGHT ·≁·	Input: RF Coupling: Align: Auto	DC D	Input Z Corr CC Freq Re NEE: C	: 50 Ω Corr ef: Int off	A (S)	tten: 36 dB		Trig: F Gate: #IF Ga	ree Run Off ain: Low		Center Freq Avg Hold: 1 Radio Std: 1	(: 2.59300000 00/100 None	0 GHz	Center Fr 2.59300	requency 0000 GHz	Settings
1 Graph		۲													Span 50.000 N	ЛНz	
Scale/D Log 30.0 20.0	iv 10.0 c					Re	f Value 40	.00 dE		an Sulfran a gara shallan Sa					CF Step 5.00000	0 MHz	
10.0 0.00 -10.0 -20.0	ىسىلەردەك ^ى ئۆرمەكىرىدىن	1-4-5-50	-anto	-Langelline							ľ	Winnergeway	Madrowboration	Marran	Man Freq Offs 0 Hz	et	
-30.0 -40.0 -50.0																	
Center 2 Res BW	2.59300 470.00	GHz kHz				#Vic	leo BW 1.	5000 N	1Hz			Sw	S veep 1.00 m	pan 50 MHz s (1001 pts)			
2 Metrics	;	T															
	Occupi	ed Band	width 18.0	35 MHz					Total	Power			33.1 d	Bm			
	Transm x dB Ba	nit Freq E andwidth	Error		-6.04 19.8	i6 kHz 6 MHz			% of x dB	OBW Po	we	ſ	99.00 -26.00	0 % dB			
	ら (			<b>?</b> Oct 0 3:40:	4, 202 15 AN	22	$\triangle$										

Plot 7-37. Occupied Bandwidth Plot (LTE Band 41(PC2) - 20MHz QPSK - Full RB - Ant F)



Plot 7-38. Occupied Bandwidth Plot (LTE Band 41(PC2) - 20MHz 16-QAM - Full RB - Ant F)

FCC ID: A3LSMS916U		PART 27 MEASUREMENT REPORT			
Test Report S/N:	Test Dates:	EUT Type:	Dogo 42 of 270		
1M2209010097-04.A3L	09/02/2022 - 11/20/2022	Portable Handset	Page 42 01 379		
			V11.0 9/14/2022		





Plot 7-39. Occupied Bandwidth Plot (LTE Band 41(PC2) - 15MHz QPSK - Full RB - Ant F)

Spectrum A Occupied B	nalyzer 1 3W	+				🗘 Fr	equency v 🔀
KEYSIG RL ↔	HT Input: RF Coupling: DC Align: Auto	Input Ζ: 50 Ω Corr CCorr Freq Ref: Int (S) NEE: Off	Atten: 36 dB	Trig: Free Run Gate: Off #IF Gain: Low	Center Freq: 2.593000000 GHz Avg Hold: 100/100 Radio Std: None	Center Freque 2.593000000	ncy Settings GHz
1 Graph						Span 37.500 MHz	
Scale/Div 7 Log 30.0 20.0 10.0 0.00	10.0 dB	Alexand Bu	Ref Value 40.00	dBm		CF Step 3.750000 MH: Auto Man	z
-10.0 -20.0 -30.0 -40.0 -50.0	n Marin Mana Mana an	ing and shark you the			hand and a second a	0 Hz	
Center 2.5 Res BW 36	9300 GHz 60.00 kHz	#	Video BW 1.1000	MHz	Span 37.5 M Sweep 1.00 ms (1001 p	IHz ots)	
2 Metrics O	▼ ccupied Bandwidth 13.5	46 MHz		Total Power	31.6 dBm		
Tr	ransmit Freq Error dB Bandwidth	12.656 kH 14.70 MH	z	% of OBW Powe x dB	99.00 % -26.00 dB		
		? Oct 04, 2022 3:37:32 AM					

Plot 7-40. Occupied Bandwidth Plot (LTE Band 41(PC2) - 15MHz 16-QAM - Full RB - Ant F)

FCC ID: A3LSMS916U		PART 27 MEASUREMENT REPORT				
Test Report S/N:	Test Dates:	EUT Type:	Page 42 of 270			
1M2209010097-04.A3L	7-04.A3L 09/02/2022 - 11/20/2022 Portable Handset		Fage 45 01 579			
			1/11 0 0/14/2022			





Plot 7-41. Occupied Bandwidth Plot (LTE Band 41(PC2) - 10MHz QPSK - Full RB - Ant F)



Plot 7-42. Occupied Bandwidth Plot (LTE Band 41(PC2) - 10MHz 16-QAM - Full RB - Ant F)

FCC ID: A3LSMS916U		PART 27 MEASUREMENT REPORT				
Test Report S/N:	Test Dates:	EUT Type:	Dogo 44 of 270			
1M2209010097-04.A3L	2209010097-04.A3L 09/02/2022 - 11/20/2022 Portable Handset		Fage 44 01 379			
			1/11 0 0/14/2022			





Plot 7-43. Occupied Bandwidth Plot (LTE Band 41(PC2) - 5MHz QPSK - Full RB - Ant F)



Plot 7-44. Occupied Bandwidth Plot (LTE Band 41(PC2) - 5MHz 16-QAM - Full RB - Ant F)

FCC ID: A3LSMS916U		PART 27 MEASUREMENT REPORT				
Test Report S/N:	Test Dates:	EUT Type:	Page 45 of 379			
1M2209010097-04.A3L	09/02/2022 - 11/20/2022	Portable Handset				
			V11.0 9/14/2022			



## LTE Band 41(PC3)/38 - Ant B

🔤 Keysight Spectrum Analyzer - Oc	cupied BW							_	
LXI RL RF 50Ω	AC COR	REC	SENSE:INT	0000 GHz	ALIGN AUTO	12:58:44 A Radio Std	M Oct 05, 2022	Trac	e/Detector
			Trig: Free Run	Avg Hold:	>100/100	D			
	#IFG	ain:Low	#Atten: 36 dB			Radio Dev	ICE: BIS		
10 dB/div Ref 40.0	0 dBm	_							
30.0									
20.0									Clear Write
10.0		and the star	ษาจาราสินหัวสุรียราสุการกรรมหา	harring					
0.00		<u> </u>		<u> </u>					
-10.0	ļ			<b>\</b>					Average
-20.0	may mark what				Humpstern	abbat a			Ŭ
30.0						and the later	havener		
-40.0									
50.0									Max Hold
-30.0									
Center 2.59300 GHz						Span 5	0.00 MHz		
Res BW 470 kHz			#VBW 1.5 N	IHz		Swe	ep 1 ms		Min Hold
Occupied Band	width		Total P	ower	31.3	dBm			
			i otur i		01.0				
	18.0 [′]	15 MH	Z						Detector
Transmit Freq Er	ror	10.771 kH	lz % of Ol	BW Powe	er 99	.00 %		Auto	Peak≱ <u>Man</u>
x dB Bandwidth		19.72 MF	z xdB		-26.	00 dB			
MSG					STATUS				
					STATUC				

Plot 7-45. Occupied Bandwidth Plot (LTE Band 41(PC3)/38 - 20MHz QPSK - Full RB - Ant B)



Plot 7-46. Occupied Bandwidth Plot (LTE Band 41(PC3)/38 - 20MHz 16-QAM - Full RB - Ant B)

FCC ID: A3LSMS916U		PART 27 MEASUREMENT REPORT					
Test Report S/N:	Test Dates:	EUT Type:	Page 46 of 270				
1M2209010097-04.A3L	09/02/2022 - 11/20/2022	Portable Handset	Fage 40 01 37 9				



- Ccc Keysight Spectrum Analyzer - Occ	upied BW								
L <mark>XI</mark> RL RF 50Ω	AC CORRE	c C	SENSE:INT		ALIGN AUTO	12:58:20 A	M Oct 05, 2022	Trac	e/Detector
		Center Trig: F	ree Run	AvalHold:	>100/100	Radio Std	None		
	#IFGai	n:Low #Atten	: 36 dB			Radio Dev	ice: BTS		
10 JD /J 00	dBm								
Log	JUBIII								
30.0									
20.0									Clear Write
10.0		mound	hummen	march					
0.00	1			h					
0.00	ſ			Ι Ì					
-10.0									Average
-20.0	uphalitin				Mundardfan	Hite Andreas			
-30.0							and a share the second second		
-40.0									
50.0									
30.0									
Center 2.59300 GHz						Span 3	7.50 MHz		
Res BW 360 kHz		#	VBW 1.1 M	IHz		Swe	ep 1 ms		Min Hold
									minnena
Occupied Band	width		Total P	ower	31.1	dBm			
	13 53	5 MHz							Detector
	10.00								Peak►
Transmit Freq Err	or	6.151 kHz	% of O	<b>3W Powe</b>	er 99	.00 %		Auto	Man
v dB Bandwidth	1	5 02 MH-	v dB		-26 (				
	•	3.03 WHZ	X UB		-20.0	00 UB			
MSG					STATUS				

Plot 7-47. Occupied Bandwidth Plot (LTE Band 41(PC3)/38 - 15MHz QPSK - Full RB - Ant B)



Plot 7-48. Occupied Bandwidth Plot (LTE Band 41(PC3)/38 - 15MHz 16-QAM - Full RB - Ant B)

FCC ID: A3LSMS916U		PART 27 MEASUREMENT REPORT				
Test Report S/N:	Test Dates:	EUT Type:	Page 47 of 379			
1M2209010097-04.A3L	09/02/2022 - 11/20/2022	Portable Handset				
			V11.0 9/14/2022			



🔤 Keysight Spectrum Analyzer - Occupied BW											
L <mark>XI</mark> RL RF 50Ω	AC CORR	EC	SEI	NSE:INT		Al	LIGN AUTO	12:59:24 A	M Oct 05, 2022	Tra	ce/Detector
			Center Fr	eq: 2.59300 Dun	0000 GHz	d: 1	100/100	Radio Std	: None		00/20100101
	#IEG	in:low	#Atten: 3	6 dB	Avginor	<b>u</b> .	100/100	Radio Dev	ice: BTS		
10 dB/div Ref 40.00	0 dBm										
Log											
30.0											Clear Write
20.0		14.0000	Manual M	where an other of	the second						Cicul Willie
10.0			ليقداك ومقاويتها يركاهم		1110-11-1						
0.00	<i>}</i>					ì					
0.00	5					l					
-10.0	. /					٦,					Average
-20.0	Mascallin					+	Mult may the	Market and and	. ho	_	
-30.0									ղալ⊸ռափուրեր		
40.0											
-40.0											Max Hold
-50.0											
								<b>A</b>	5 00 BALL		
Center 2.59300 GHz			-44) (15					Span 2	5.00 WHZ		
Res BW 240 KHz			#VE	SW 700 K	HZ			SW	ep 1 ms		Min Hold
				T-4-1 D			24.2	10			
Occupied Band	wiath			TOTAL	ower		31.2	авт			
	9 039	12 M⊦	7								Detector
	0.000	7-11/10									Peak▶
Transmit Freq Err	or	-3.069 k	Hz	% of OE	3W Pow	/ei	r 99	.00 %		Auto	Man
		40.00 M					26.0				
X dB Bandwidth		10.03 M	HZ	хав			-20.0	υσαΒ			
MSG							STATUS				

Plot 7-49. Occupied Bandwidth Plot (LTE Band 41(PC3)/38 - 10MHz QPSK - Full RB - Ant B)



Plot 7-50. Occupied Bandwidth Plot (LTE Band 41(PC3)/38 - 10MHz 16-QAM - Full RB - Ant B)

FCC ID: A3LSMS916U		Approved by: Technical Manager		
Test Report S/N:	Test Dates:	EUT Type:	Dogo 49 of 270	
1M2209010097-04.A3L	09/02/2022 - 11/20/2022	Portable Handset	Fage 40 01 37 9	
			\/11.0.0/14/2022	



www.commercenter.com/analyzer - Occupied BW								
LXI RL RF 50Ω AC	CORREC	SENSE:INT	A	ALIGN AUTO	12:59:53 AM	1 Oct 05, 2022	Trac	e/Detector
		Trig: Free Run	AvalHold:	100/100	Radio Std:	None		
	FGain:Low	#Atten: 36 dB			Radio Devi	ice: BTS		
40 JEVIN Dof 40 00 dBm								
30.0								
20.0								Clear Write
20.0	mmm	white man have the second	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~					
10.0								
0.00	- f'							
-10.0	<u>م</u>			ĥ				Average
-20.0	,			horaca				
and a start and a start and a start a				• • • •	$\sim$	mannolition		
-30.0								
-40.0								Max Hold
-50.0								
					<b>A</b>			
Center 2.593000 GHZ		#VDW 200			Span 1	2.50 WIHZ		
Res BW 120 KH2		#VEW 390	КПZ		Swe	ep 1 ms		Min Hold
Occupied Rendwidth		Total	Power	31.0	dBm			
Occupied Bandwidth		Total	Ower	51.0	ubiii			
4.5	366 MH	Z						Detector
								Peak►
Transmit Freq Error	-5.206 kl	Hz % of C	BW Powe	r 99.	00 %		Auto	Man
x dB Bandwidth	5.145 M	Hz xdB		-26.0	0 dB			
	01110 111			2010				
MSG				STATUS				

Plot 7-51. Occupied Bandwidth Plot (LTE Band 41(PC3)/38 - 5MHz QPSK - Full RB - Ant B)



Plot 7-52. Occupied Bandwidth Plot (LTE Band 41(PC3)/38 - 5MHz 16-QAM - Full RB - Ant B)

FCC ID: A3LSMS916U		PART 27 MEASUREMENT REPORT			
Test Report S/N:	Test Dates:	EUT Type:	Dogo 40 of 270		
1M2209010097-04.A3L	09/02/2022 - 11/20/2022	Portable Handset	Page 49 0f 3/9		
			V11.0 9/14/2022		



## LTE Band 41(PC3)/38 - Ant F



Plot 7-53. Occupied Bandwidth Plot (LTE Band 41(PC3)/38 - 20MHz QPSK - Full RB - Ant F)



Plot 7-54. Occupied Bandwidth Plot (LTE Band 41(PC3)/38 - 20MHz 16-QAM - Full RB - Ant F)

FCC ID: A3LSMS916U		Approved by: Technical Manager	
Test Report S/N:	Test Dates:	EUT Type:	Page 50 of 270
1M2209010097-04.A3L	09/02/2022 - 11/20/2022	Portable Handset	Fage 50 01 57 9
			V11.0 9/14/2022



Keysight Spectrum Analyzer - Occu	upied BW				
μ <b>X RL</b> RF 50 Ω	AC #IFGain:Low	SENSE:INT SOURCE OFF Inter Freq: 2.593000000 GHz ig: Free Run Avg Hold tten: 36 dB	ALIGN AUTO 08:01:52 Al Radio Std: 1: 100/100 Radio Dev	M Oct 07, 2022 : None ice: BTS	Trace/Detector
10 dB/div Ref 40.00					Clear Write
0.00 -10.0 -20.0					Average
-30.0 -40.0 -50.0			pontenaliseration	-MAnonyMan	Max Hold
Center 2.593 GHz Res BW 360 kHz Occupied Bandy	width	#VBW 1.1 MHz Total Power	Span Swe 21.4 dBm	37.5 MHz ep 1 ms	Min Hold
	13.570 MHz				Detector Peak▶
Transmit Freq Erro x dB Bandwidth	or -3.029 kHz 15.15 MHz	% of OBW Pow x dB	er 99.00 % -26.00 dB		Auto <u>Man</u>
MSG			STATUS		

Plot 7-55. Occupied Bandwidth Plot (LTE Band 41(PC3)/38 - 15MHz QPSK - Full RB - Ant F)



Plot 7-56. Occupied Bandwidth Plot (LTE Band 41(PC3)/38 - 15MHz 16-QAM - Full RB - Ant F)

FCC ID: A3LSMS916U		PART 27 MEASUREMENT REPORT			
Test Report S/N:	Test Dates:	EUT Type:	Dogo 51 of 270		
1M2209010097-04.A3L	09/02/2022 - 11/20/2022	Portable Handset	Fage 51 01 379		
			1/11 0 0/14/2022		



Keysight Spectrum Analyzer - Occupied	BW				- đ <b>-</b>
02 RL RF 50Ω AC	#IFGain:Low #Atter	SENSE:INT SOURCE OFF Pr Freq: 2.59300000 GHz Free Run Avg Hold n: 36 dB	ALIGN AUTO 08:07:23 A Radio Std :>100/100 Radio Dev	M Oct 07, 2022	Trace/Detector
20.0					Clear Write
-10.0					Average
-30.0 -40.0 -50.0			Mulline when when soll	A month and a month of the second	Max Hold
Center 2.593 GHz Res BW 240 kHz Occupied Bandwid	#	≭VBW 750 kHz Total Power	Spa Swe 20.3 dBm	n 25 MHz ep 1 ms	Min Hold
9	.0560 MHz				Detector Peak►
Transmit Freq Error x dB Bandwidth	-12.213 kHz 10.13 MHz	% of OBW Powe x dB	er 99.00 % -26.00 dB		Auto <u>Man</u>
MSG			STATUS		

Plot 7-57. Occupied Bandwidth Plot (LTE Band 41(PC3)/38 - 10MHz QPSK - Full RB - Ant F)



Plot 7-58. Occupied Bandwidth Plot (LTE Band 41(PC3)/38 - 10MHz 16-QAM - Full RB - Ant F)

FCC ID: A3LSMS916U		Approved by: Technical Manager		
Test Report S/N:	Test Dates:	EUT Type:	Dogo 52 of 270	
1M2209010097-04.A3L	09/02/2022 - 11/20/2022	Portable Handset	Page 52 of 379	
			V11.0 9/14/2022	



🔤 Keysight Spectrum Analyzer - Occu	upied BW				
<b>LXI</b> RL RF 50 Ω	AC	SENSE:INT SOU	RCE OFF ALIGN AUTO	08:12:01 AM Oct 07	,2022 Trace/Detector
	÷	Trig: Free Run	Avg Hold:>100/100	Radio Sta. Hone	
	#IFGain:Low	#Atten: 36 dB		Radio Device: B1	's
10 dB/div Ref 40.00	) dBm				
200					
20.0					Clear Write
20.0					
10.0	سهمتي	un hannen	many		
0.00	Ń				
-10.0			<u>\</u>		Average
-20.0	<u>م</u> ر		h.		
-30.0	harty and the former		Martin		
-40.0				a na anna anna an	Max Hold
-50.0					
				<b>0</b>	
Center 2.593 GHz		#VRM 3001		Span 12.5	WIHZ
RES DW 120 KHZ		#VDVV J901		Sweep	Min Hold
Occupied Bandy	width	Total F	ower 20.	0 dBm	
	1 5256 M	1 <b>L</b> 1-7			Detector
	4.5256 W	ΠΖ			Detector Peak►
Transmit Freq Erro	or -2.488	kHz % of O	BW Power 9	9.00 %	Auto <u>Man</u>
x dB Bandwidth	5 157	MHz xdB	-26	00 dB	
	5.101			.00 08	
MSG			STATU	JS	

Plot 7-59. Occupied Bandwidth Plot (LTE Band 41(PC3)/38 - 5MHz QPSK - Full RB - Ant F)



Plot 7-60. Occupied Bandwidth Plot (LTE Band 41(PC3)/38 - 5MHz 16-QAM - Full RB - Ant F)

FCC ID: A3LSMS916U		PART 27 MEASUREMENT REPORT			
Test Report S/N:	Test Dates:	EUT Type:	Dogo 52 of 270		
1M2209010097-04.A3L	09/02/2022 - 11/20/2022	Portable Handset	Fage 55 01 57 9		
			\/11.0.0/14/2022		



## NR Band n30 – Ant A

Spectrum A Occupied E	Analyz 3W	er 1	•	F											Trace	_ <b>-</b> 张
REYSIG	HT ►	nput: RF Coupling Align: Au	DC to	Input Z Corr C( Freq R	: 50 Ω Corr ef: Int (S)	Atten: 3	6 dB	Trig: F Gate: I #IF Ga	ree Run Off iin: Low		Center Freq Avg Hold: 10 Radio Std: N	: 2.31000000 )0/100 Ione	0 GHz	Trace Type Clear /	e ' Write	Trace Control
1 Graph		,		NFL. C	'II									Trace /	Average	Detector
Scale/Div	10.0 c	iB				Ref Valu	ie 40.00	dBm						Max H	old	
20.0 10.0														Min Ho	old	
0.00 -10.0 -20.0				J	/						n			Restart	Max Hold	
-30.0	·~~~~		~~~~	an grant							- Contraction		and and a second se			
Center 2.3 Res BW 24	1000 40.00	GHz kHz				#Video B	W 750.0	00 kHz			Sw	S eep 1.00 m	 pan 25 MHz s (1001 pts)			
2 Metrics		,	,													
0	)ccupi	ed Banc	lwidth					7-4-1	D			20.0 -	0			
т	ransm	nit Freq	9.035 Error	I MHZ	199.68 kl	Ηz		% of	OBW Po	we	r	30.0 di 99.00	Bm ) %			
×	aB Ba	andwidti	n		10.05 Mi	HZ		X dB				-26.00	αB			
	) (	1	]?	Sep 1 7:19:	1, 2022 26 PM	$\mathbb{D} \triangle$										

Plot 7-61. Occupied Bandwidth Plot (NR Band n30 - 10MHz π/2 BPSK - Full RB - Ant A)



Plot 7-62. Occupied Bandwidth Plot (NR Band n30 - 10MHz QPSK - Full RB - Ant A)

FCC ID: A3LSMS916U		PART 27 MEASUREMENT REPORT			
Test Report S/N:	Test Dates:	EUT Type:	Dogo 54 of 270		
1M2209010097-04.A3L	09/02/2022 - 11/20/2022	Portable Handset	Page 54 0f 379		
			V11.0 9/14/2022		





Plot 7-63. Occupied Bandwidth Plot (NR Band n30 - 10MHz 16-QAM - Full RB - Ant A)



Plot 7-64. Occupied Bandwidth Plot (NR Band n30 - 5MHz π/2 BPSK - Full RB - Ant A)

FCC ID: A3LSMS916U	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Dogo EE of 270
1M2209010097-04.A3L	09/02/2022 - 11/20/2022	Portable Handset	Fage 55 01 379
			1/11 0 0/14/2022





Plot 7-65. Occupied Bandwidth Plot (NR Band n30 - 5MHz QPSK - Full RB - Ant A)



Plot 7-66. Occupied Bandwidth Plot (NR Band n30 - 5MHz 16-QAM - Full RB - Ant A)

FCC ID: A3LSMS916U	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Dogo F6 of 270
1M2209010097-04.A3L	09/02/2022 - 11/20/2022	Portable Handset	Fage 50 01 57 9
			\/11.0.0/14/2022



## NR Band n30 – Ant F



Plot 7-67. Occupied Bandwidth Plot (NR Band n30 - 10MHz π/2 BPSK - Full RB - Ant F)

Spectrum Occupied	n Analyzer 1 I BW	+							*	Trace	- ※
KEYSI RL	GHT Input: RF Coupling: DC Align: Auto	Input Z: 50 Corr CCorr Freq Ref: In NFE: Off	Ω Atten: 36 nt (S)	∂dB Tr G #I	ig: Free Run ate: Off F Gain: Low	Center Fr Avg Hold Radio Sto	req: 2.310000000 : 100/100 d: None	) GHz	Trace Type Clear /	e Write	Trace Control
1 Graph	•								Trace A	verage	Delector
Scale/Di Log 30.0 20.0	v 10.0 dB		Ref Valu	e 40.00 dBm	1 				Max Ho	bld Id	
0.00 -10.0 -20.0 -30.0	and a second second second					handen	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	Restart	Max Hold	
-40.0 -50.0	.31000 GHz		#Video B	W 750.00 kH	z		S	oan 25 MHz			
Res BW	240.00 kHz						Sweep 1.00 ms	s (1001 pts)			
2 Metrics	v										
	Occupied Bandwid 9.3	th 3643 MHz		Т	lotal Power		28.4 dE	ßm			
	Transmit Freq Erro x dB Bandwidth	r <u>2</u> . 10	885 kHz .36 MHz	9 X	% of OBW Pow dB	ver	99.00 -26.00 d	% dB			
	<b>2 C</b>	Sep 30, 2 8:25:36	2022 PM 💬 🛆								

Plot 7-68. Occupied Bandwidth Plot (NR Band n30 - 10MHz QPSK - Full RB - Ant F)

FCC ID: A3LSMS916U	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager	
Test Report S/N:	Test Dates:	EUT Type:	Dogo EZ of 270	
1M2209010097-04.A3L	09/02/2022 - 11/20/2022	Portable Handset	Page 57 01 379	
			V11.0 9/14/2022	





Plot 7-69. Occupied Bandwidth Plot (NR Band n30 - 10MHz 16-QAM - Full RB - Ant F)



Plot 7-70. Occupied Bandwidth Plot (NR Band n30 - 5MHz π/2 BPSK - Full RB - Ant F)

FCC ID: A3LSMS916U	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Dogo 59 of 270
1M2209010097-04.A3L	09/02/2022 - 11/20/2022	Portable Handset	Fage 56 01 379
			1/11 0 0/14/2022





Plot 7-71. Occupied Bandwidth Plot (NR Band n30 - 5MHz QPSK - Full RB - Ant F)



Plot 7-72. Occupied Bandwidth Plot (NR Band n30 - 5MHz 16-QAM - Full RB - Ant F)

FCC ID: A3LSMS916U	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Dogo 50 of 270
1M2209010097-04.A3L	09/02/2022 - 11/20/2022	Portable Handset	Fage 59 01 379
			\/11.0.0/14/2022



## NR Band n7 – Ant B

Spectrum Occupied	Analyzer 1	+						Trace	· · 😹
RL .	GHT Input: RF ← Coupling: DC Align: Auto	Input Z: 50 Ω Corr CCorr Freq Ref: Int (S)	Atten: 36 dB	Trig: Free Run Gate: Off #IF Gain: Low	Center Freq Avg Hold: 1 Radio Std: 1	: 2.535000000 G 00/100 None	Hz	Trace Type Clear / Write	Trace Control
1 Granh	-							Trace Average	Detector
Scale/Div	v 10.0 dB		Ref Value 40.00	0 dBm				in a control ago	
Log 30.0		li l			1			Max Hold	
20.0 10.0				~~~~~				Min Hold	
0.00					- Kar			Restart Max Hold	
-30.0		- MI			Illen	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	and the second		
-40.0									
Center 2. #Res BW	.53500 GHz / 1.0000 MHz	ŀ	Video BW 8.000	00 MHz	Sw	Span veep 1.00 ms (	100 MHz 1001 pts)		
2 Metrics	•					`	. ,		
	Occupied Bandwidth						_		
	38.7	41 MHz		Total Power		31.5 dBm			
	Transmit Freq Error x dB Bandwidth	-52.617 kł 41.09 Mł	Hz Hz	% of OBW Pow x dB	er	99.00 % -26.00 dB			
	って「	Sep 11, 2022 8:29:59 PM	$\mathbb{D}$				$\mathbf{X}$		

Plot 7-73. Occupied Bandwidth Plot (NR Band n7 - 40MHz π/2 BPSK - Full RB - Ant B)



Plot 7-74. Occupied Bandwidth Plot (NR Band n7 - 40MHz QPSK - Full RB - Ant B)

FCC ID: A3LSMS916U	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager	
Test Report S/N:	Test Dates:	EUT Type:	Dogo 60 of 270	
1M2209010097-04.A3L	09/02/2022 - 11/20/2022	Portable Handset	Page 60 of 379	
			V11.0 9/14/2022	





Plot 7-75. Occupied Bandwidth Plot (NR Band n7 - 40MHz 16-QAM - Full RB - Ant B)



Plot 7-76. Occupied Bandwidth Plot (NR Band n7 - 30MHz π/2 BPSK - Full RB - Ant B)

FCC ID: A3LSMS916U	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Dogo 61 of 270
1M2209010097-04.A3L	09/02/2022 - 11/20/2022	Portable Handset	Fage of 01 379
			V/11 0 0/14/2022





Plot 7-77. Occupied Bandwidth Plot (NR Band n7 - 30MHz QPSK - Full RB - Ant B)



Plot 7-78. Occupied Bandwidth Plot (NR Band n7 - 30MHz 16-QAM - Full RB - Ant B)

FCC ID: A3LSMS916U	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager	
Test Report S/N:	Test Dates:	EUT Type:	Dogo 62 of 270	
1M2209010097-04.A3L	09/02/2022 - 11/20/2022	Portable Handset	Page 62 of 379	
			V11.0 9/14/2022	





Plot 7-79. Occupied Bandwidth Plot (NR Band n7 - 25MHz π/2 BPSK - Full RB - Ant B)



Plot 7-80. Occupied Bandwidth Plot (NR Band n7 - 25MHz QPSK - Full RB - Ant B)

FCC ID: A3LSMS916U	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager	
Test Report S/N:	Test Dates:	EUT Type:	Dogo 62 of 270	
1M2209010097-04.A3L	09/02/2022 - 11/20/2022	Portable Handset	Page 63 01 379	
			V11.0 9/14/2022	





Plot 7-81. Occupied Bandwidth Plot (NR Band n7 - 25MHz 16-QAM - Full RB - Ant B)



Plot 7-82. Occupied Bandwidth Plot (NR Band n7 - 20MHz π/2 BPSK - Full RB - Ant B)

FCC ID: A3LSMS916U	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Dogo 64 of 270
1M2209010097-04.A3L	09/02/2022 - 11/20/2022	Portable Handset	Fage 04 01 379
			V/11 0 0/14/2022





Plot 7-83. Occupied Bandwidth Plot (NR Band n7 - 20MHz QPSK - Full RB - Ant B)



Plot 7-84. Occupied Bandwidth Plot (NR Band n7 - 20MHz 16-QAM - Full RB - Ant B)

FCC ID: A3LSMS916U	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Daga 65 of 270
1M2209010097-04.A3L	09/02/2022 - 11/20/2022	Portable Handset	Fage 05 01 57 9
			\/11.0.0/14/2022





Plot 7-85. Occupied Bandwidth Plot (NR Band n7 - 15MHz π/2 BPSK - Full RB - Ant B)



Plot 7-86. Occupied Bandwidth Plot (NR Band n7 - 15MHz QPSK - Full RB - Ant B)

FCC ID: A3LSMS916U	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Dogo 66 of 270
1M2209010097-04.A3L	09/02/2022 - 11/20/2022	Portable Handset	Fage 00 01 379
			V11.0 9/14/2022