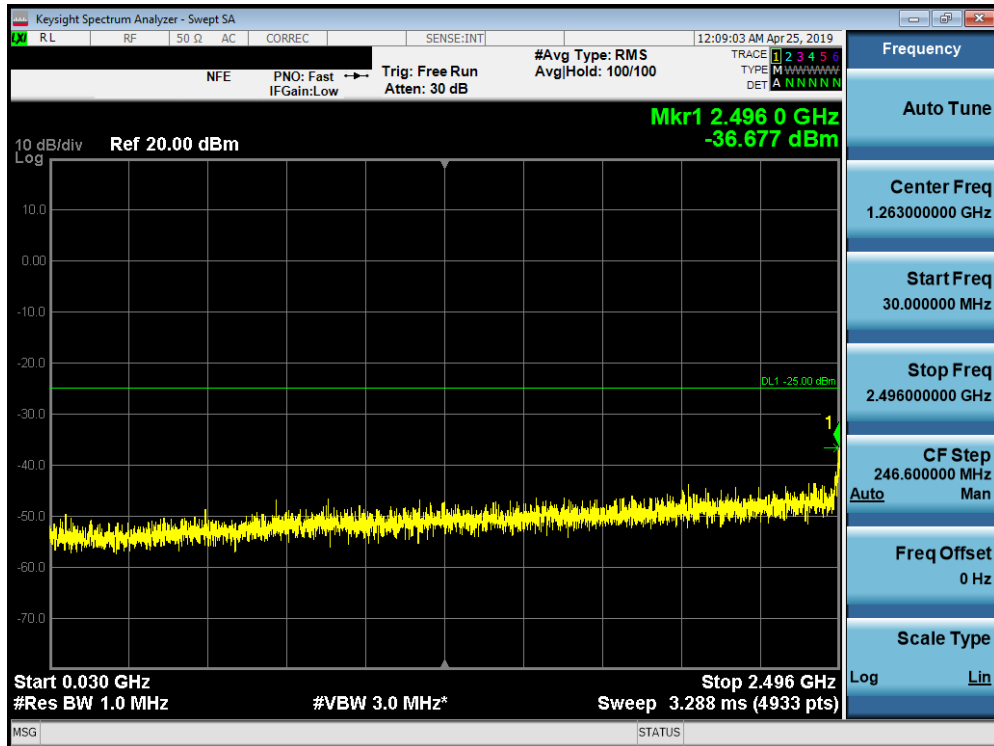
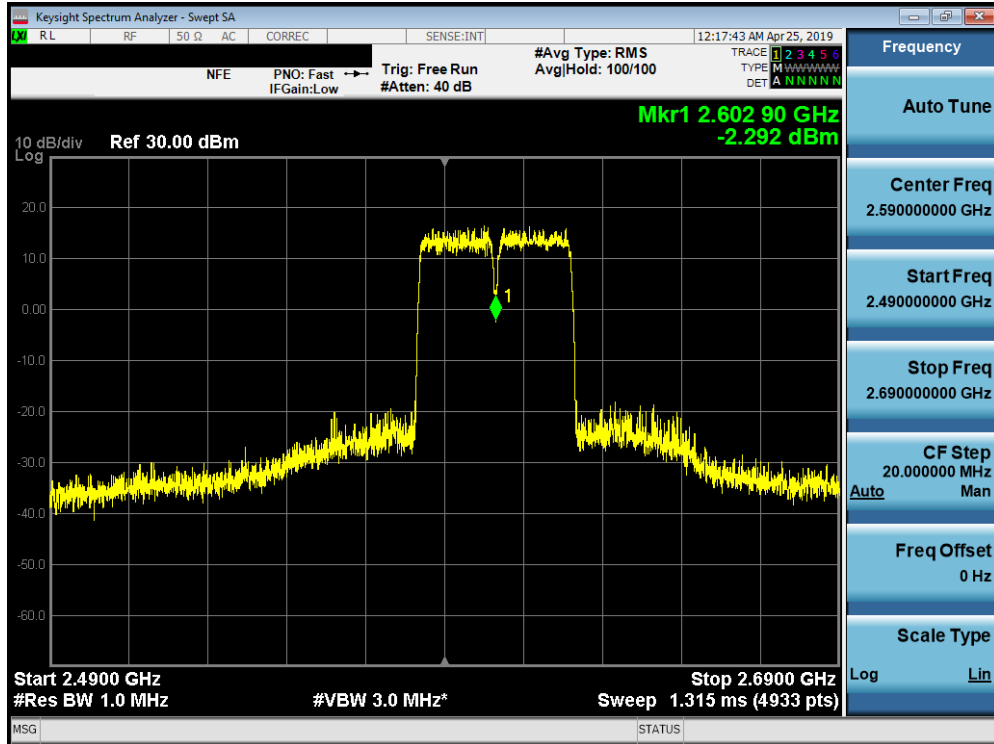


Plot 7-421. Conducted Spurious Plot (Band 41C – 20.0MHz QPSK – PCC 1/99 SCC 1/0 – Mid Channel)

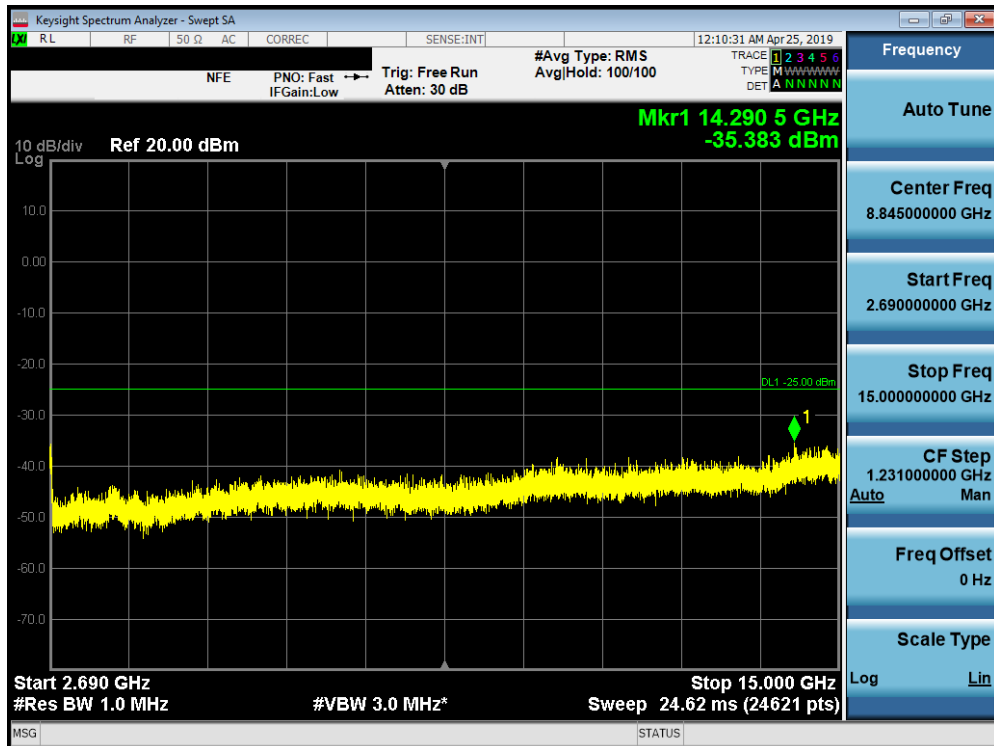


Plot 7-422. Conducted Spurious Plot (Band 41C – 20.0MHz QPSK – PCC 100/0 SCC 100/0 – Mid Channel)

FCC ID: A3LSMG977T		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1903060032-03.A3L	Test Dates: 01/22 - 05/08/2019	EUT Type: Portable Handset		Page 243 of 348

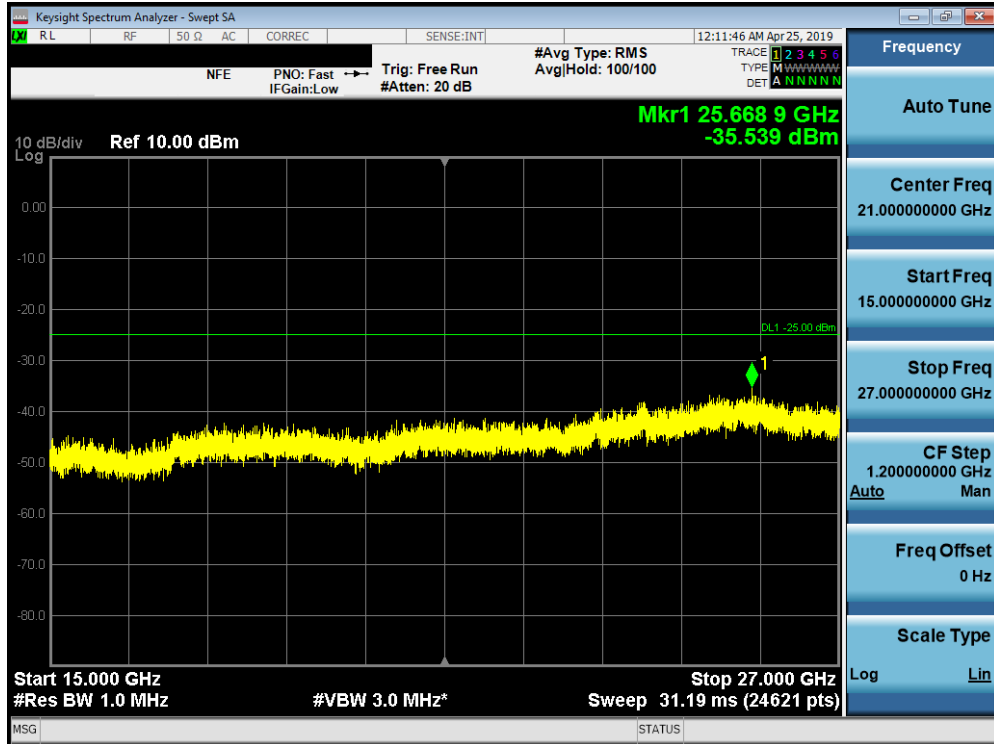


Plot 7-423. Conducted Spurious Plot (Band 41C – 20.0MHz QPSK – PCC 100/0 SCC 100/0 – Mid Channel)

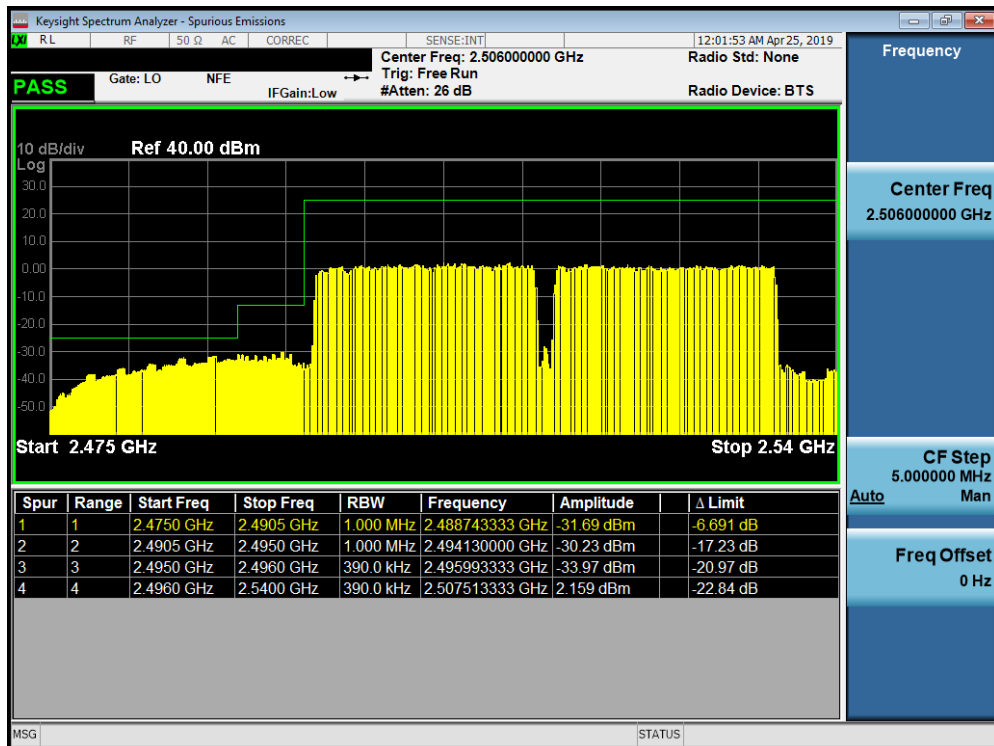


Plot 7-424. Conducted Spurious Plot (Band 41C – 20.0MHz QPSK – PCC 100/0 SCC 100/0 – Mid Channel)

FCC ID: A3LSMG977T		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1903060032-03.A3L	Test Dates: 01/22 - 05/08/2019	EUT Type: Portable Handset		Page 244 of 348

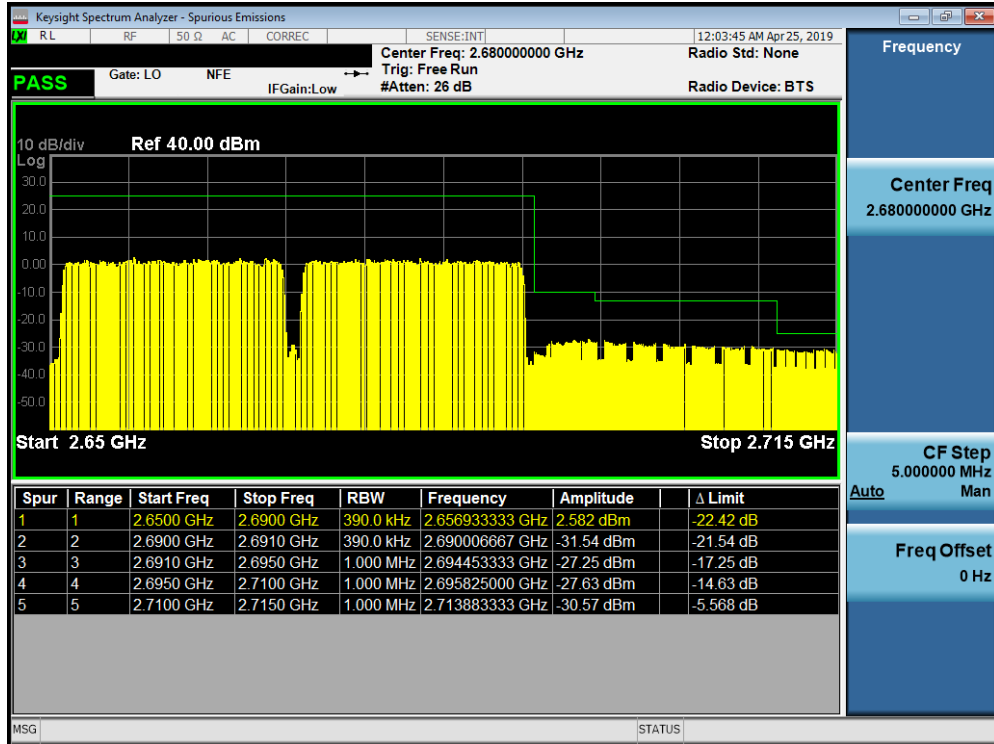


Plot 7-425. Conducted Spurious Plot (Band 41C – 20.0MHz QPSK – PCC 100/0 SCC 100/0 – Mid Channel)



Plot 7-426. Lower ACP Plot (Band 41C – 20.0MHz QPSK – PCC 100/0 SCC 100/0 – Mid Channel)

FCC ID: A3LSMG977T		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1903060032-03.A3L	Test Dates: 01/22 - 05/08/2019	EUT Type: Portable Handset		Page 245 of 348



Plot 7-427. Upper ACP Plot (Band 41C – 20.0MHz QPSK – PCC 100/0 SCC 100/0 – Mid Channel)

FCC ID: A3LSMG977T		<b>MEASUREMENT REPORT (CERTIFICATION)</b>		Approved by: Quality Manager
Test Report S/N: 1M1903060032-03.A3L	Test Dates: 01/22 - 05/08/2019	EUT Type: Portable Handset		Page 246 of 348

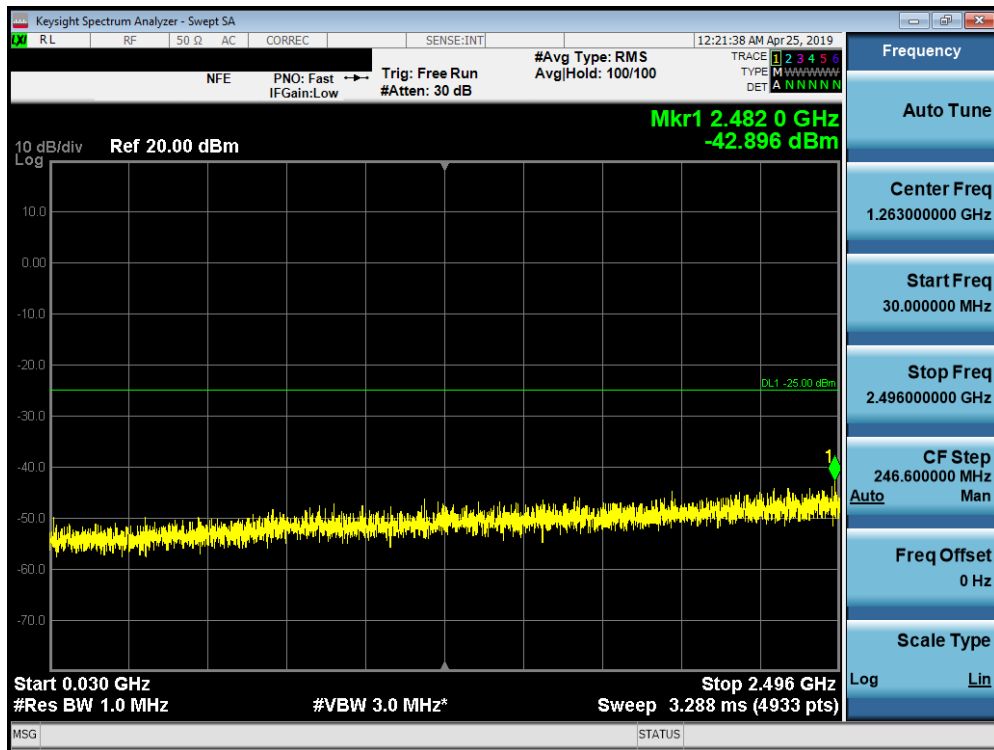
## Uplink CA Configuration 41C PC2

Power State	PCC							SCC							Power ULCA Tx.Power (dBm)
	PCC Band	PCC Bandwidth [MHz]	PCC (UL) Channel	PCC (UL) Frequency [MHz]	Modulation	PCC UL# RB	PCC UL RB Offset	SCC Band	SCC Bandwidth [MHz]	SCC (UL) Channel	SCC (UL) Frequency [MHz]	Modulation	PCC UL# RB	PCC UL RB Offset	
Max	LTE B41	20	39750	2506	QPSK	1	99	LTE B41	20	39948	2525.8	QPSK	1	0	26.96
Max	LTE B41	20	40620	2593	QPSK	1	99	LTE B41	20	40818	2612.8	QPSK	1	0	27.26
Max	LTE B41	20	41490	2680	QPSK	1	0	LTE B41	20	41292	2660.2	QPSK	1	99	27.02

Table 7-6. Conducted Powers (41C PC2 – 20MHz + 20MHz - RB Size 1 - Offset 0/99)

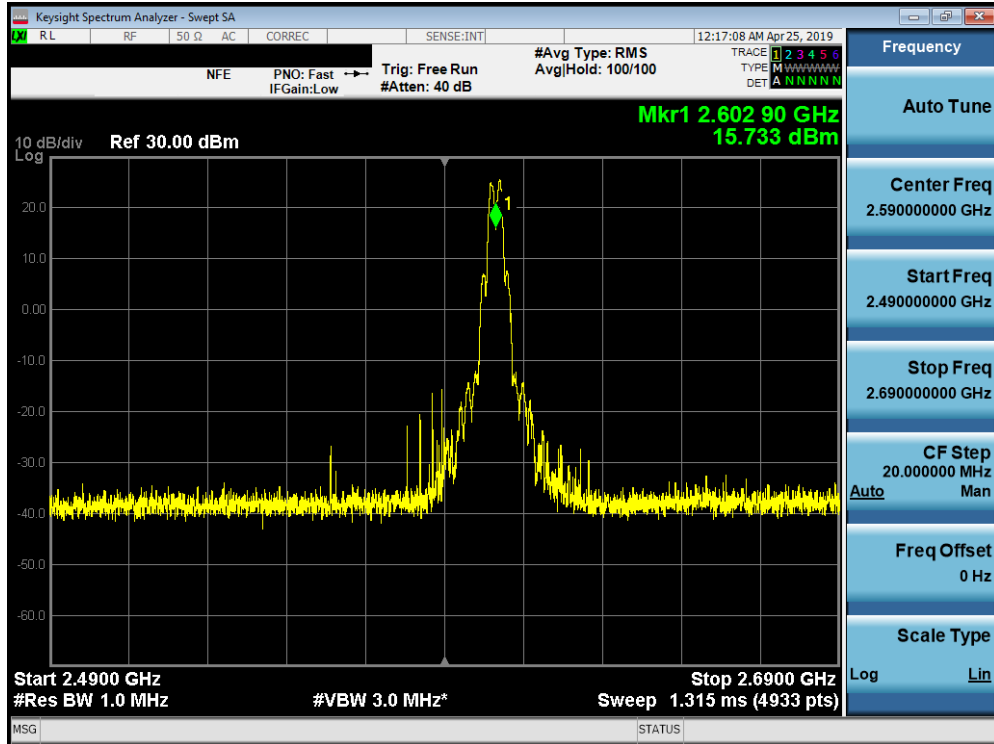
Power State	PCC							SCC							Power ULCA Tx.Power (dBm)
	PCC Band	PCC Bandwidth [MHz]	PCC (UL) Channel	PCC (UL) Frequency [MHz]	Modulation	PCC UL# RB	PCC UL RB Offset	SCC Band	SCC Bandwidth [MHz]	SCC (UL) Channel	SCC (UL) Frequency [MHz]	Modulation	PCC UL# RB	PCC UL RB Offset	
Max	LTE B41	20	40620	2593	QPSK	100	0	LTE B41	20	40818	2612.8	QPSK	100	0	25.62
Max	LTE B41	20	40620	2593	16-QAM	100	0	LTE B41	20	40818	2612.8	16-QAM	100	0	24.71
Max	LTE B41	20	40620	2593	64-QAM	100	0	LTE B41	20	40818	2612.8	64-QAM	100	0	24.69
Max	LTE B41	20	40620	2593	256-QAM	100	0	LTE B41	20	40818	2612.8	256-QAM	100	0	22.71

Table 7-7. Conducted Powers (41C PC2 20MHz + 20MHz Bandwidth - Additional Modulations)

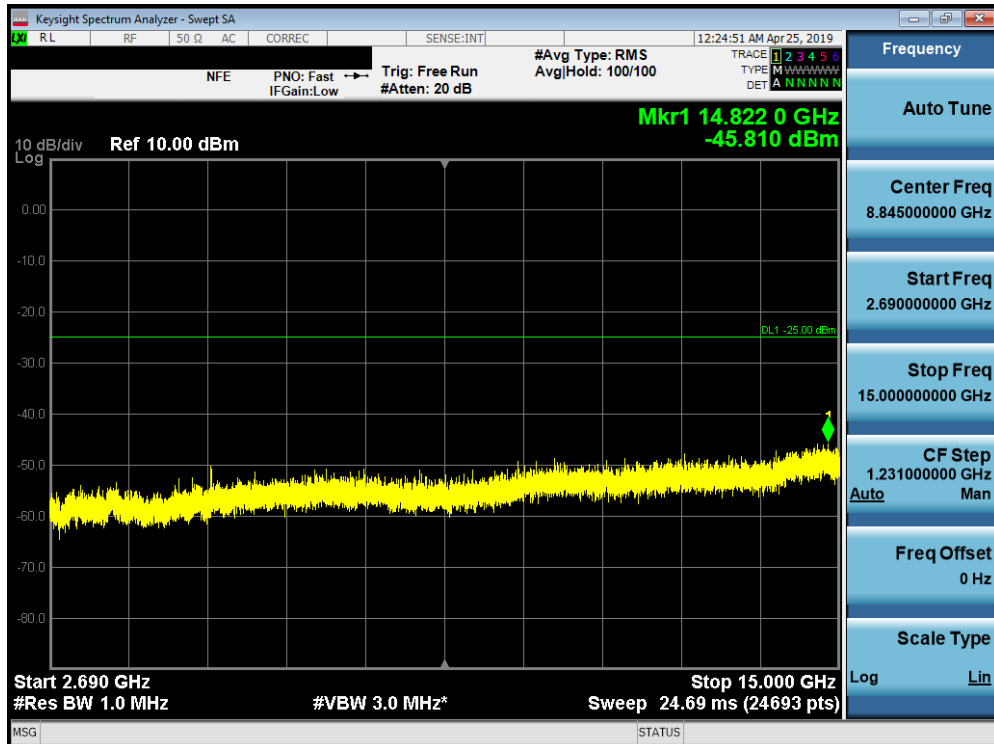


Plot 7-428. Conducted Spurious Plot (Band 41C – 20.0MHz QPSK – PCC 1/99 SCC 1/0 – Mid Channel)

FCC ID: A3LSMG977T		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1903060032-03.A3L	Test Dates: 01/22 - 05/08/2019	EUT Type: Portable Handset		Page 247 of 348

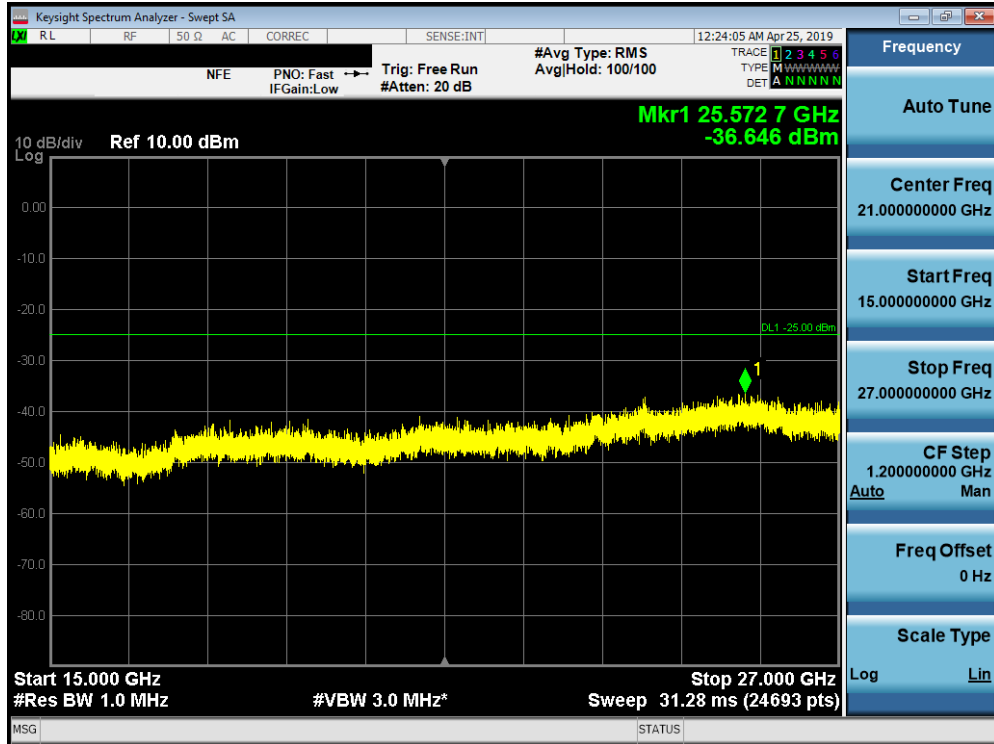


Plot 7-429. Conducted Spurious Plot (Band 41C – 20.0MHz QPSK – PCC 1/99 SCC 1/0 – Mid Channel)

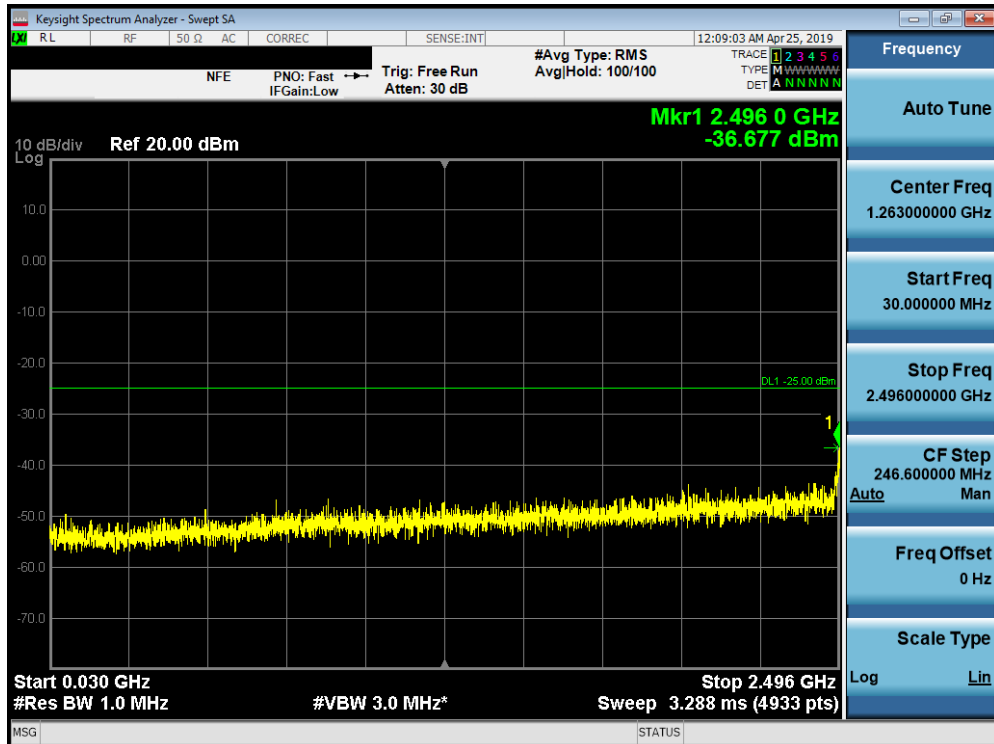


Plot 7-430. Conducted Spurious Plot (Band 41C – 20.0MHz QPSK – PCC 1/99 SCC 1/0 – Mid Channel)

FCC ID: A3LSMG977T		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1903060032-03.A3L	Test Dates: 01/22 - 05/08/2019	EUT Type: Portable Handset		Page 248 of 348

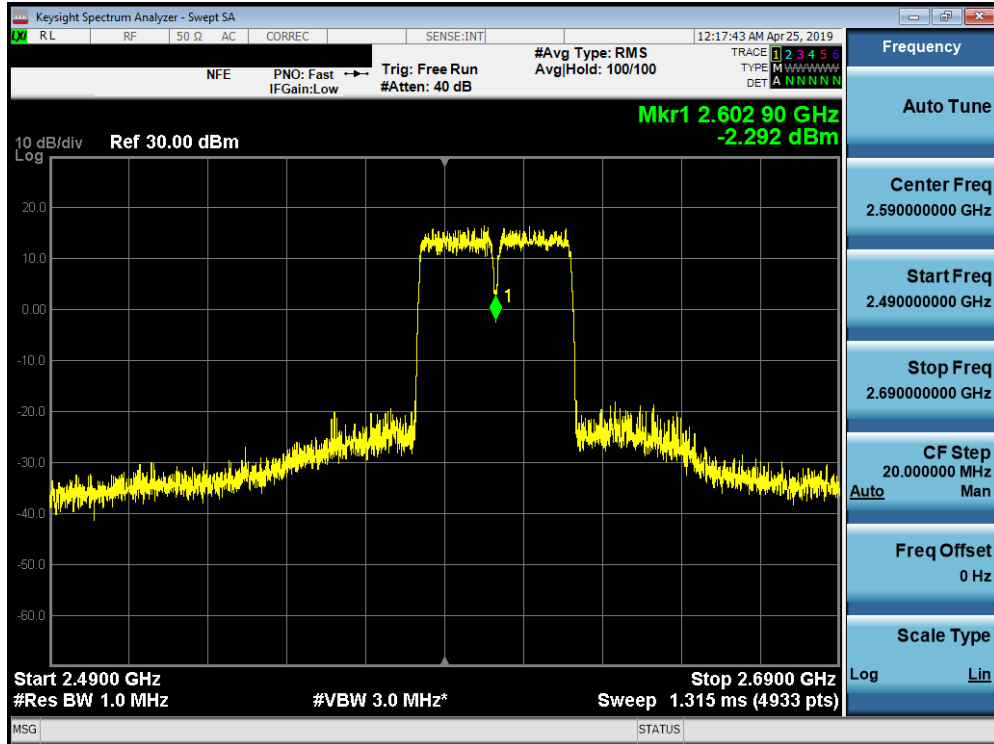


Plot 7-431. Conducted Spurious Plot (Band 41C – 20.0MHz QPSK – PCC 1/99 SCC 1/0 – Mid Channel)

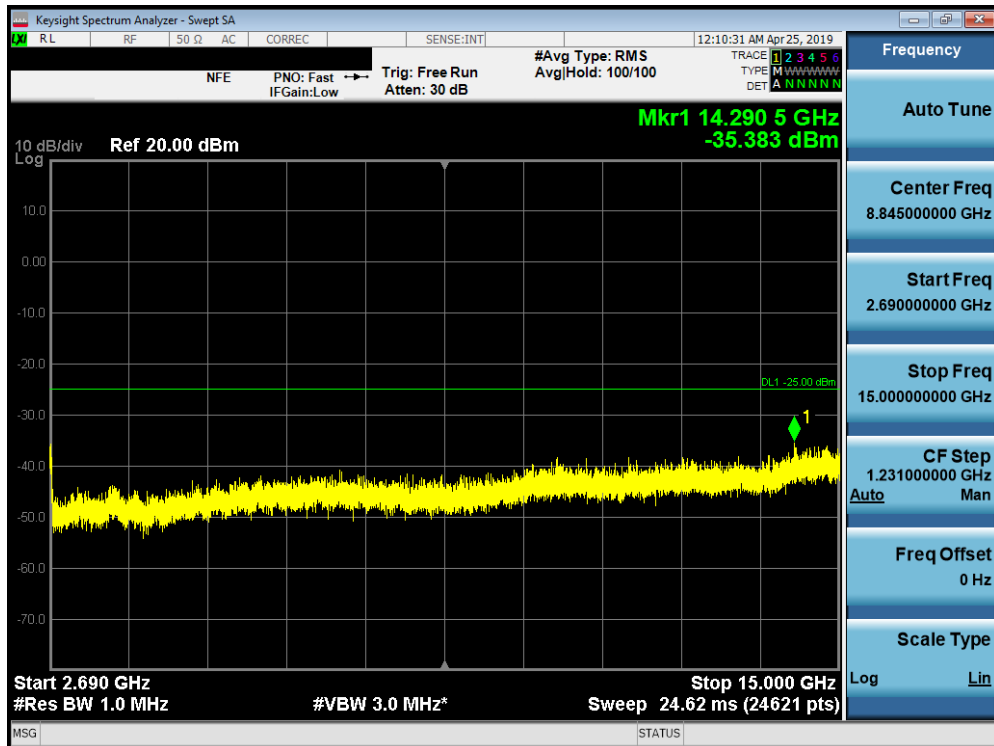


Plot 7-432. Conducted Spurious Plot (Band 41C – 20.0MHz QPSK – PCC 100/0 SCC 100/0 – Mid Channel)

FCC ID: A3LSMG977T		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1903060032-03.A3L	Test Dates: 01/22 - 05/08/2019	EUT Type: Portable Handset		Page 249 of 348



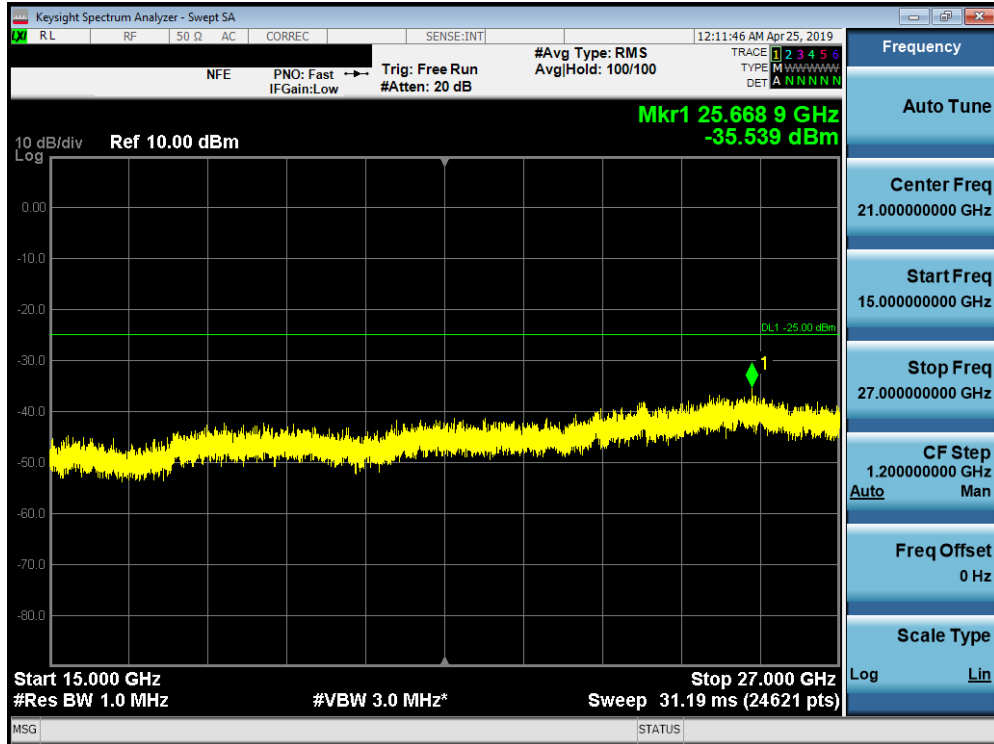
Plot 7-433. Conducted Spurious Plot (Band 41C – 20.0MHz QPSK – PCC 100/0 SCC 100/0 – Mid Channel)



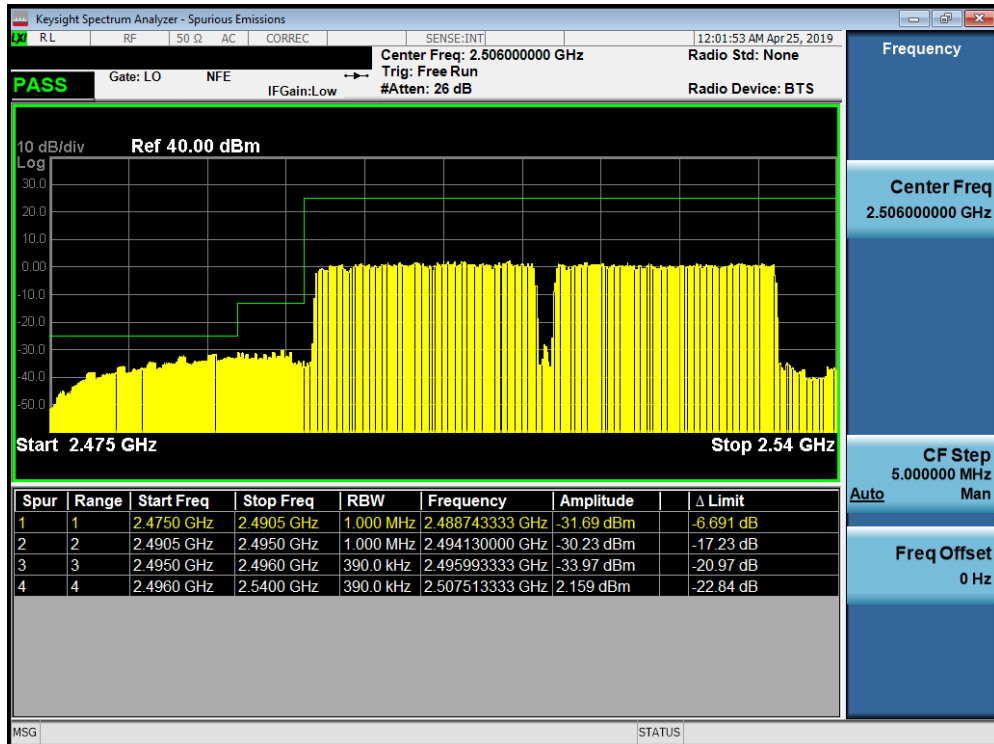
Plot 7-434. Conducted Spurious Plot (Band 41C – 20.0MHz QPSK – PCC 100/0 SCC 100/0 – Mid Channel)

FCC ID: A3LSMG977T		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1903060032-03.A3L	Test Dates: 01/22 - 05/08/2019	EUT Type: Portable Handset		Page 250 of 348



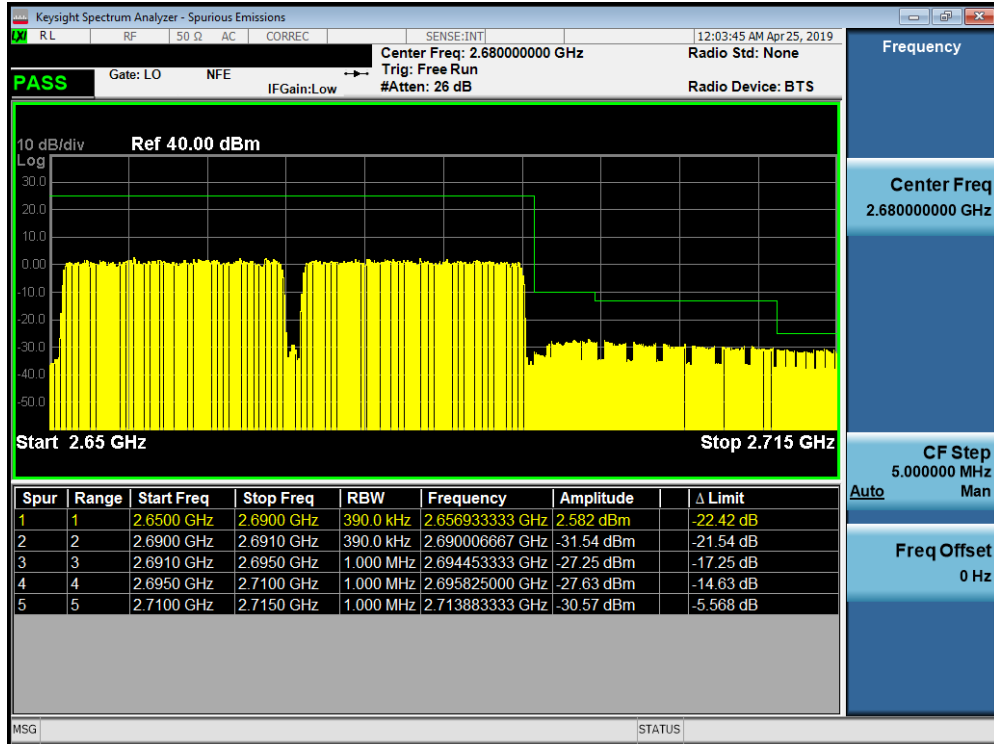


Plot 7-435. Conducted Spurious Plot (Band 41C – 20.0MHz QPSK – PCC 100/0 SCC 100/0 – Mid Channel)



Plot 7-436. Lower ACP Plot (Band 41C – 20.0MHz QPSK – PCC 100/0 SCC 100/0 – Mid Channel)

FCC ID: A3LSMG977T		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1903060032-03.A3L	Test Dates: 01/22 - 05/08/2019	EUT Type: Portable Handset		Page 251 of 348



Plot 7-437. Upper ACP Plot (Band 41C – 20.0MHz QPSK – PCC 100/0 SCC 100/0 – Mid Channel)

FCC ID: A3LSMG977T		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1903060032-03.A3L	Test Dates: 01/22 - 05/08/2019	EUT Type: Portable Handset		Page 252 of 348

## 7.8 Radiated Power (ERP/EIRP)

### Test Overview

Effective Radiated Power (ERP) and Equivalent Isotropic Radiated Power (EIRP) measurements are performed using the substitution method described in ANSI/TIA-603-E-2016 with the EUT transmitting into an integral antenna. Measurements on signals operating below 1GHz are performed using vertically and horizontally polarized tuned dipole antennas. Measurements on signals operating above 1GHz are performed using vertically and horizontally polarized broadband horn antennas. All measurements are performed as RMS average measurements while the EUT is operating at its maximum duty cycle, at maximum power, and at the appropriate frequencies.

### Test Procedures Used

KDB 971168 D01 v03r01 – Section 5.2.1

ANSI/TIA-603-E-2016 – Section 2.2.17

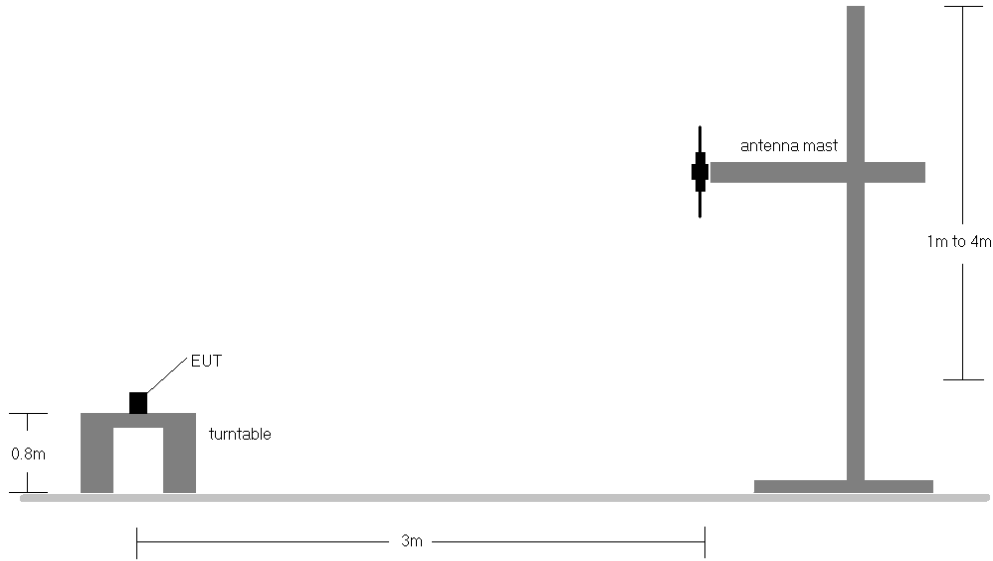
### Test Settings

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

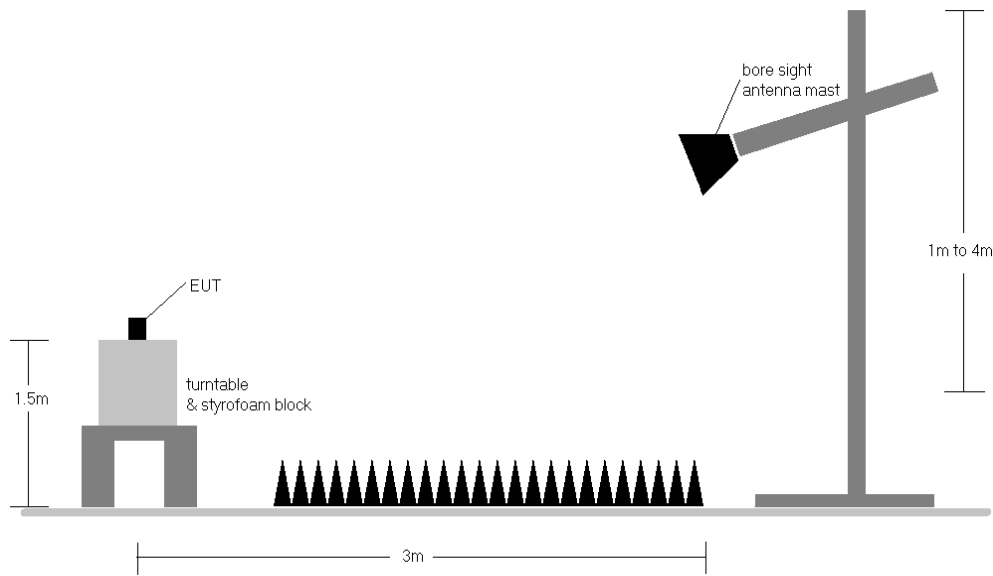
FCC ID: A3LSMG977T		MEASUREMENT REPORT (CERTIFICATION)	 Approved by: Quality Manager
Test Report S/N: 1M1903060032-03.A3L	Test Dates: 01/22 - 05/08/2019	EUT Type: Portable Handset	Page 253 of 348

**Test Setup**

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



**Figure 7-7. Radiated Test Setup <1GHz**



**Figure 7-8. Radiated Test Setup >1GHz**

**Test Notes**

- 1) The EUT was tested in three orthogonal planes and in all possible test configurations and positioning. The worst case emissions are reported with the EUT positioning, modulations, RB sizes and offsets, and channel bandwidth configurations shown in the tables below.
- 2) This unit was tested with its standard battery.

FCC ID: A3LSMG977T		<b>MEASUREMENT REPORT (CERTIFICATION)</b>		Approved by: Quality Manager
Test Report S/N: 1M1903060032-03.A3L	Test Dates: 01/22 - 05/08/2019	EUT Type: Portable Handset		Page 254 of 348

Frequency [MHz]	Channel Bandwidth [MHz]	Mod.	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	RB Size/Offset	Substitute Level [dBm]	Ant. Gain [dBi]	ERP [dBm]	ERP [Watts]	ERP Limit [dBm]	Margin [dB]
665.50	5	QPSK	H	101	96	1 / 24	15.29	5.14	18.28	0.067	34.77	-16.49
680.50	5	QPSK	H	105	103	1 / 24	15.50	5.14	<b>18.49</b>	0.071	34.77	-16.28
695.50	5	QPSK	H	99	108	1 / 24	14.83	5.14	17.82	0.061	34.77	-16.95
680.50	5	16-QAM	H	105	103	1 / 24	14.39	5.14	<b>17.38</b>	0.055	34.77	-17.39
680.50	5	64-QAM	H	105	103	1 / 24	13.57	5.14	<b>16.56</b>	0.045	34.77	-18.21
680.50	5	256-QAM	H	105	103	1 / 24	12.50	5.14	15.49	0.035	34.77	-19.28
668.00	10	QPSK	H	101	96	1 / 49	15.28	5.14	18.27	0.067	34.77	-16.50
680.50	10	QPSK	H	105	103	1 / 49	15.76	5.14	<b>18.75</b>	0.075	34.77	-16.02
693.00	10	QPSK	H	99	108	1 / 49	14.90	5.14	17.89	0.062	34.77	-16.88
680.50	10	16-QAM	H	105	103	1 / 49	14.92	5.14	<b>17.91</b>	0.062	34.77	-16.86
680.50	10	64-QAM	H	105	103	1 / 49	13.94	5.14	<b>16.93</b>	0.049	34.77	-17.84
680.50	10	256-QAM	H	105	103	1 / 49	12.05	5.14	<b>15.04</b>	<b>0.032</b>	34.77	-19.73
670.50	15	QPSK	H	101	96	1 / 74	15.39	5.14	18.38	0.069	34.77	-16.39
680.50	15	QPSK	H	105	103	1 / 74	15.87	5.14	<b>18.86</b>	0.077	34.77	-15.91
690.50	15	QPSK	H	99	108	1 / 74	14.95	5.14	17.94	0.062	34.77	-16.83
680.50	15	16-QAM	H	105	103	1 / 74	14.95	5.14	<b>17.94</b>	0.062	34.77	-16.83
680.50	15	64-QAM	H	105	103	1 / 74	13.93	5.14	<b>16.92</b>	0.049	34.77	-17.85
680.50	15	256-QAM	H	105	103	1 / 74	12.07	5.14	<b>15.06</b>	<b>0.032</b>	34.77	-19.71
673.00	20	QPSK	H	100	97	1 / 0	16.33	5.14	<b>19.32</b>	<b>0.086</b>	34.77	-15.45
680.50	20	QPSK	H	102	98	1 / 99	15.98	5.14	18.97	0.079	34.77	-15.80
688.00	20	QPSK	H	100	107	1 / 0	15.25	5.14	18.24	0.067	34.77	-16.53
680.50	20	16-QAM	H	102	98	1 / 99	15.16	5.14	<b>18.15</b>	0.065	34.77	-16.62
680.50	20	64-QAM	H	102	98	1 / 99	14.20	5.14	<b>17.19</b>	0.052	34.77	-17.58
680.50	20	256-QAM	H	102	98	1 / 99	12.67	5.14	<b>15.66</b>	<b>0.037</b>	34.77	-19.11
20.00	QPSK	H	V	100	269	1 / 0	16.08	5.14	19.07	<b>0.081</b>	34.77	-15.70
20.00	QPSK (WCP)	H	H	182	81	1 / 0	9.85	5.14	12.84	0.019	34.77	-21.93

Table 7-8. ERP Data (Band 71)

FCC ID: A3LSMG977T		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1903060032-03.A3L	Test Dates: 01/22 - 05/08/2019	EUT Type: Portable Handset	Page 255 of 348	

Frequency [MHz]	Channel Bandwidth [MHz]	Mod.	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	RB Size/Offset	Substitute Level [dBm]	Ant. Gain [dBi]	ERP [dBm]	ERP [Watts]	ERP Limit [dBm]	Margin [dB]	EIRP [dBm]	EIRP [Watts]	EIRP Limit [dBm]	Margin [dB]	
699.70	1.4	QPSK	H	181	96	3 / 2	19.44	5.19	<b>22.48</b>	<b>0.177</b>	34.77	-12.29	<b>24.63</b>	<b>0.290</b>	36.99	-12.36	
707.50	1.4	QPSK	H	185	98	3 / 2	18.79	5.19	21.83	0.153	34.77	-12.94	23.98	0.250	36.99	-13.01	
715.30	1.4	QPSK	H	167	97	3 / 2	18.07	5.26	21.18	0.131	34.77	-13.60	23.33	0.215	36.99	-13.66	
699.70	1.4	16-QAM	H	181	96	3 / 2	18.49	5.19	<b>21.53</b>	0.142	34.77	-13.24	<b>23.68</b>	0.233	36.99	-13.31	
707.50	1.4	64-QAM	H	185	98	3 / 2	16.86	5.19	<b>19.90</b>	0.098	34.77	-14.87	<b>22.05</b>	0.160	36.99	-14.94	
699.70	1.4	256-QAM	H	181	96	3 / 2	16.02	5.19	<b>19.06</b>	<b>0.081</b>	34.77	-15.71	<b>21.21</b>	<b>0.132</b>	36.99	-15.78	
700.50	3	QPSK	H	194	92	1 / 0	19.17	5.14	<b>22.16</b>	0.164	34.77	-12.61	<b>24.31</b>	0.270	36.99	-12.68	
707.50	3	QPSK	H	182	96	1 / 0	18.74	5.19	21.78	0.151	34.77	-12.99	23.93	0.247	36.99	-13.06	
714.50	3	QPSK	H	187	107	1 / 0	18.06	5.25	21.16	0.131	34.77	-13.61	23.31	0.214	36.99	-13.68	
700.50	3	16-QAM	H	194	92	1 / 0	18.30	5.14	<b>21.29</b>	0.135	34.77	-13.48	<b>23.44</b>	0.221	36.99	-13.55	
707.50	3	64-QAM	H	182	96	1 / 0	16.92	5.19	<b>19.96</b>	0.099	34.77	-14.81	<b>22.11</b>	0.163	36.99	-14.88	
700.50	3	256-QAM	H	194	92	1 / 0	15.98	5.14	<b>18.97</b>	<b>0.079</b>	34.77	-15.80	<b>21.12</b>	<b>0.129</b>	36.99	-15.87	
701.50	5	QPSK	H	186	110	1 / 0	18.92	5.15	<b>21.92</b>	0.155	34.77	-12.85	<b>24.07</b>	0.255	36.99	-12.92	
707.50	5	QPSK	H	184	100	1 / 0	18.55	5.19	21.59	0.144	34.77	-13.18	23.74	0.237	36.99	-13.25	
713.50	5	QPSK	H	173	86	1 / 0	18.12	5.24	21.21	0.132	34.77	-13.56	23.36	0.217	36.99	-13.63	
707.50	5	16-QAM	H	184	100	1 / 0	18.16	5.19	<b>21.20</b>	0.132	34.77	-13.57	<b>23.35</b>	0.217	36.99	-13.64	
707.50	5	64-QAM	H	184	100	1 / 0	16.93	5.19	<b>19.97</b>	0.099	34.77	-14.80	<b>22.12</b>	0.163	36.99	-14.87	
701.50	5	256-QAM	H	186	110	1 / 0	16.01	5.15	<b>19.01</b>	<b>0.080</b>	34.77	-15.76	<b>21.16</b>	<b>0.131</b>	36.99	-15.83	
704.00	10	QPSK	H	174	99	1 / 0	18.85	5.17	21.87	0.154	34.77	-12.90	24.02	0.252	36.99	-12.97	
707.50	10	QPSK	H	186	101	1 / 0	18.93	5.19	<b>21.97</b>	0.158	34.77	-12.80	<b>24.12</b>	0.259	36.99	-12.87	
711.00	10	QPSK	H	191	107	1 / 0	18.50	5.22	21.57	0.144	34.77	-13.20	23.72	0.236	36.99	-13.27	
707.50	10	16-QAM	H	186	101	1 / 0	18.09	5.19	<b>21.13</b>	0.130	34.77	-13.64	<b>23.28</b>	0.213	36.99	-13.71	
711.00	10	64-QAM	H	191	107	1 / 0	16.76	5.22	<b>19.83</b>	0.096	34.77	-14.94	<b>21.98</b>	0.158	36.99	-15.01	
707.50	10	256-QAM	H	186	101	1 / 0	16.14	5.19	<b>19.18</b>	<b>0.083</b>	34.77	-15.59	<b>21.33</b>	<b>0.136</b>	36.99	-15.66	
699.70	1.4	QPSK	V	202	71		19.44	17.10	5.19	20.14	0.103	34.77	-14.63	22.29	0.169	36.99	-14.70
1.40	QPSK (WCP)	H	H	209	105		19.44	14.38	5.19	17.42	0.055	34.77	-17.35	19.57	0.091	36.99	-17.42

Table 7-9. ERP Data (Band 12)

FCC ID: A3LSMG977T		MEASUREMENT REPORT (CERTIFICATION)			Approved by: Quality Manager
Test Report S/N: 1M1903060032-03.A3L	Test Dates: 01/22 - 05/08/2019	EUT Type: Portable Handset		Page 256 of 348	

Frequency [MHz]	Channel Bandwidth [MHz]	Mod.	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	RB Size/Offset	Substitute Level [dBm]	Ant. Gain [dBi]	ERP [dBm]	ERP [Watts]	ERP Limit [dBm]	Margin [dB]	EIRP [dBm]	EIRP [Watts]	EIRP Limit [dBm]	Margin [dB]	
779.50	5	QPSK	H	155	111	1 / 24	16.37	6.09	20.31	0.107	34.77	-14.46	22.46	0.176	36.99	-14.53	
782.00	5	QPSK	H	156	111	1 / 24	16.69	6.13	<b>20.67</b>	0.117	34.77	-14.10	<b>22.82</b>	0.192	36.99	-14.16	
784.50	5	QPSK	H	153	114	1 / 24	16.50	6.18	20.53	0.113	34.77	-14.24	22.68	0.185	36.99	-14.31	
782.00	5	16-QAM	H	156	111	1 / 24	15.81	6.13	<b>19.79</b>	0.095	34.77	-14.98	<b>21.94</b>	0.156	36.99	-15.04	
782.00	5	64-QAM	H	156	111	1 / 24	15.04	6.13	<b>19.02</b>	0.080	34.77	-15.75	<b>21.17</b>	0.131	36.99	-15.81	
782.00	5	256-QAM	H	156	111	1 / 24	13.31	6.13	<b>17.29</b>	<b>0.054</b>	34.77	-17.48	<b>19.44</b>	<b>0.088</b>	36.99	-17.54	
782.00	10	QPSK	H	160	108	1 / 49	16.96	6.13	<b>20.94</b>	<b>0.124</b>	34.77	-13.83	<b>23.09</b>	<b>0.204</b>	36.99	-13.89	
782.00	10	16-QAM	H	160	108	1 / 49	16.12	6.13	<b>20.10</b>	0.102	34.77	-14.67	<b>22.25</b>	0.168	36.99	-14.73	
782.00	10	64-QAM	H	160	108	1 / 49	15.09	6.13	<b>19.07</b>	0.081	34.77	-15.70	<b>21.22</b>	0.133	36.99	-15.76	
782.00	10	256-QAM	H	160	108	1 / 49	13.55	6.13	<b>17.53</b>	<b>0.057</b>	34.77	-17.24	<b>19.68</b>	<b>0.093</b>	36.99	-17.30	
10.00	QPSK	H	V	321	259		16.96	14.20	6.13	18.18	0.066	34.77	-16.59	20.33	0.108	36.99	-16.65
10.00	QPSK (WCP)	H	H	348	284		16.96	13.60	6.13	17.58	0.057	34.77	-17.19	19.73	0.094	36.99	-17.25

Table 7-10. ERP Data (Band 13)

Frequency [MHz]	Channel Bandwidth [MHz]	Mod.	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	RB Size/Offset	Substitute Level [dBm]	Ant. Gain [dBi]	ERP [dBm]	ERP [Watts]	ERP Limit [dBm]	Margin [dB]	EIRP [dBm]	EIRP [Watts]	EIRP Limit [dBm]	Margin [dB]
824.70	1.4	QPSK	V	146	59	1 / 5	13.30	7.12	18.27	0.067	38.45	-20.18	20.42	0.110	40.61	-20.19
836.50	1.4	QPSK	V	162	61	1 / 5	13.02	7.34	18.21	0.066	38.45	-20.24	20.36	0.109	40.61	-20.25
848.30	1.4	QPSK	V	280	66	1 / 5	14.10	7.55	<b>19.50</b>	0.089	38.45	-18.95	<b>21.65</b>	0.146	40.61	-18.95
848.30	1.4	16-QAM	V	280	66	1 / 5	13.05	7.55	<b>18.45</b>	0.070	38.45	-20.00	<b>20.60</b>	0.115	40.61	-20.00
848.30	1.4	64-QAM	V	280	66	1 / 5	11.82	7.55	<b>17.22</b>	0.053	38.45	-21.23	<b>19.37</b>	0.087	40.61	-21.23
848.30	1.4	256-QAM	V	280	66	1 / 5	9.75	7.55	<b>15.15</b>	<b>0.033</b>	38.45	-23.30	<b>17.30</b>	<b>0.054</b>	40.61	-23.30
825.50	3	QPSK	V	146	59	1 / 14	13.41	7.13	18.39	0.069	38.45	-20.06	20.54	0.113	40.61	-20.06
836.50	3	QPSK	V	162	61	1 / 14	12.98	7.34	18.17	0.066	38.45	-20.28	20.32	0.108	40.61	-20.29
847.50	3	QPSK	V	280	66	1 / 14	14.16	7.54	<b>19.55</b>	0.090	38.45	-18.90	<b>21.70</b>	0.148	40.61	-18.91
847.50	3	16-QAM	V	280	66	1 / 14	13.12	7.54	<b>18.51</b>	0.071	38.45	-19.94	<b>20.66</b>	0.116	40.61	-19.95
847.50	3	64-QAM	V	280	66	1 / 14	11.46	7.54	<b>16.85</b>	0.048	38.45	-21.60	<b>19.00</b>	0.079	40.61	-21.61
847.50	3	256-QAM	V	280	66	1 / 14	9.90	7.54	<b>15.29</b>	<b>0.034</b>	38.45	-23.16	<b>17.44</b>	<b>0.055</b>	40.61	-23.17
826.50	5	QPSK	V	146	59	1 / 24	13.44	7.15	18.44	0.070	38.45	-20.01	20.59	0.115	40.61	-20.01
836.50	5	QPSK	V	162	61	1 / 24	13.08	7.34	18.27	0.067	38.45	-20.18	20.42	0.110	40.61	-20.19
846.50	5	QPSK	V	280	66	1 / 24	14.13	7.52	<b>19.50</b>	0.089	38.45	-18.95	<b>21.65</b>	0.146	40.61	-18.96
846.50	5	16-QAM	V	280	66	1 / 24	13.22	7.52	<b>18.59</b>	0.072	38.45	-19.86	<b>20.74</b>	0.119	40.61	-19.87
846.50	5	64-QAM	V	280	66	1 / 24	11.56	7.52	<b>16.93</b>	0.049	38.45	-21.52	<b>19.08</b>	0.081	40.61	-21.53
846.50	5	256-QAM	V	280	66	1 / 24	9.62	7.52	<b>14.99</b>	<b>0.032</b>	38.45	-23.46	<b>17.14</b>	<b>0.052</b>	40.61	-23.47
829.00	10	QPSK	V	146	59	1 / 49	13.42	7.20	18.47	0.070	38.45	-19.98	20.62	0.115	40.61	-19.99
836.50	10	QPSK	V	162	61	1 / 49	13.06	7.34	18.25	0.067	38.45	-20.20	20.40	0.110	40.61	-20.21
844.00	10	QPSK	V	280	66	1 / 49	14.10	7.47	<b>19.42</b>	0.088	38.45	-19.03	<b>21.57</b>	0.144	40.61	-19.03
844.00	10	16-QAM	V	280	66	1 / 49	13.30	7.47	<b>18.62</b>	0.073	38.45	-19.83	<b>20.77</b>	0.120	40.61	-19.83
844.00	10	64-QAM	V	280	66	1 / 49	11.64	7.47	<b>16.96</b>	0.050	38.45	-21.49	<b>19.11</b>	0.082	40.61	-21.49
844.00	10	256-QAM	V	280	66	1 / 49	9.75	7.47	<b>15.07</b>	<b>0.032</b>	38.45	-23.38	<b>17.22</b>	<b>0.053</b>	40.61	-23.38

Table 7-11. ERP Data (Band 26/5)

FCC ID: A3LSMG977T		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1903060032-03.A3L	Test Dates: 01/22 - 05/08/2019	EUT Type: Portable Handset	Page 257 of 348	

Frequency [MHz]	Channel Bandwidth [MHz]	Mod.	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	RB Size/Offset	Substitute Level [dBm]	Ant. Gain [dBi]	ERP [dBm]	ERP [Watts]	ERP Limit [dBm]	Margin [dB]	EIRP [dBm]	EIRP [Watts]	EIRP Limit [dBm]	Margin [dB]
831.50	15	QPSK	V	146	59	1 / 74	13.58	7.24	18.67	0.074	38.45	-19.78	20.82	0.121	40.61	-19.78
836.50	15	QPSK	V	162	61	1 / 0	13.65	7.34	18.84	0.077	38.45	-19.61	20.99	0.126	40.61	-19.62
841.50	15	QPSK	V	280	66	1 / 74	14.35	7.43	<b>19.63</b>	<b>0.092</b>	38.45	-18.82	<b>21.78</b>	<b>0.151</b>	40.61	-18.83
841.50	15	16-QAM	V	280	66	1 / 74	13.65	7.43	<b>18.93</b>	0.078	38.45	-19.52	<b>21.08</b>	0.128	40.61	-19.53
841.50	15	64-QAM	V	280	66	1 / 74	11.89	7.43	<b>17.17</b>	0.052	38.45	-21.28	<b>19.32</b>	0.085	40.61	-21.29
836.50	15	256-QAM	V	162	61	1 / 0	9.74	7.34	<b>14.93</b>	<b>0.031</b>	38.45	-23.52	<b>17.08</b>	<b>0.051</b>	40.61	-23.53
841.50	15	QPSK	H	135	121	14.35	13.64	7.43	18.92	0.078	38.45	-19.53	21.07	0.128	40.61	-19.54
841.50	15 (WCP)	QPSK	V	147	145	14.35	11.55	7.43	16.83	0.048	38.45	-21.62	18.98	0.079	40.61	-21.63

**Table 7-12. ERP Data (Band 26)**

FCC ID: A3LSMG977T		<b>MEASUREMENT REPORT (CERTIFICATION)</b>			Approved by: Quality Manager
Test Report S/N: 1M1903060032-03.A3L	Test Dates: 01/22 - 05/08/2019	EUT Type: Portable Handset		Page 258 of 348	



Frequency [MHz]	Channel Bandwidth [MHz]	Mod.	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	RB Size/Offset	Substitute Level [dBm]	Ant. Gain [dBi]	EIRP [dBm]	EIRP [Watts]	EIRP Limit [dBm]	Margin [dB]
1710.70	1.4	QPSK	V	149	353	1 / 0	14.50	9.60	<b>24.10</b>	0.257	30.00	-5.90
1745.00	1.4	QPSK	V	156	348	1 / 0	13.87	9.48	23.35	0.216	30.00	-6.65
1779.30	1.4	QPSK	V	136	358	1 / 0	13.95	9.34	23.29	0.213	30.00	-6.71
1710.70	1.4	16-QAM	V	149	353	1 / 0	13.21	9.60	<b>22.81</b>	0.191	30.00	-7.19
1710.70	1.4	64-QAM	V	149	353	1 / 0	12.39	9.60	<b>21.99</b>	0.158	30.00	-8.01
1779.30	1.4	256-QAM	V	136	358	1 / 0	12.12	9.34	<b>21.46</b>	<b>0.140</b>	30.00	-8.54
1711.50	3	QPSK	V	152	347	1 / 0	14.52	9.60	<b>24.12</b>	0.258	30.00	-5.88
1745.00	3	QPSK	V	138	343	1 / 0	14.05	9.48	23.53	0.226	30.00	-6.47
1778.50	3	QPSK	V	167	362	1 / 0	13.99	9.34	23.33	0.215	30.00	-6.67
1745.00	3	16-QAM	V	138	343	1 / 14	13.37	9.48	<b>22.85</b>	0.193	30.00	-7.15
1711.50	3	64-QAM	V	152	347	1 / 14	12.81	9.60	<b>22.41</b>	0.174	30.00	-7.59
1745.00	3	256-QAM	V	138	343	1 / 14	12.57	9.48	<b>22.05</b>	<b>0.160</b>	30.00	-7.95
1712.50	5	QPSK	V	143	343	1 / 24	14.49	9.59	24.08	0.256	30.00	-5.92
1745.00	5	QPSK	V	139	341	1 / 24	14.93	9.48	<b>24.41</b>	0.276	30.00	-5.59
1777.50	5	QPSK	V	130	356	1 / 24	14.16	9.35	23.51	0.224	30.00	-6.49
1745.00	5	16-QAM	V	139	341	1 / 24	13.79	9.48	<b>23.27</b>	0.212	30.00	-6.73
1712.50	5	64-QAM	V	143	343	1 / 24	12.98	9.59	<b>22.57</b>	0.181	30.00	-7.43
1712.50	5	256-QAM	V	143	343	1 / 24	12.63	9.59	<b>22.22</b>	<b>0.167</b>	30.00	-7.78
1715.00	10	QPSK	V	144	352	1 / 49	14.96	9.59	24.55	0.285	30.00	-5.45
1745.00	10	QPSK	V	134	340	1 / 49	15.13	9.48	<b>24.61</b>	0.289	30.00	-5.39
1775.00	10	QPSK	V	135	354	1 / 49	13.96	9.36	23.32	0.215	30.00	-6.68
1745.00	10	16-QAM	V	134	340	1 / 49	14.15	9.48	<b>23.63</b>	0.231	30.00	-6.37
1715.00	10	64-QAM	V	144	352	1 / 49	13.73	9.59	<b>23.32</b>	0.215	30.00	-6.68
1715.00	10	256-QAM	V	144	352	1 / 49	13.27	9.59	<b>22.86</b>	<b>0.193</b>	30.00	-7.14
1717.50	15	QPSK	V	146	325	1 / 74	14.51	9.58	24.09	0.256	30.00	-5.91
1745.00	15	QPSK	V	132	332	1 / 74	15.17	9.48	<b>24.65</b>	0.292	30.00	-5.35
1772.50	15	QPSK	V	131	339	1 / 0	14.00	9.37	23.37	0.217	30.00	-6.63
1745.00	15	16-QAM	V	132	332	1 / 74	14.32	9.48	<b>23.80</b>	0.240	30.00	-6.20
1717.50	15	256-QAM	V	146	325	1 / 74	13.35	9.58	<b>22.93</b>	<b>0.196</b>	30.00	-7.07
1720.00	20	QPSK	V	141	353	1 / 0	14.28	9.57	23.85	0.243	30.00	-6.15
1745.00	20	QPSK	V	137	338	1 / 99	15.86	9.48	<b>25.34</b>	<b>0.342</b>	30.00	-4.66
1770.00	20	QPSK	V	127	351	1 / 0	14.74	9.38	24.12	0.258	30.00	-5.88
1745.00	20	16-QAM	V	137	338	1 / 99	14.71	9.48	<b>24.19</b>	0.263	30.00	-5.81
1745.00	20	64-QAM	V	137	338	1 / 99	12.99	9.48	22.47	0.177	30.00	-7.53
1770.00	20	256-QAM	V	127	351	1 / 0	13.76	9.38	<b>23.14</b>	<b>0.206</b>	30.00	-6.86
1745.00	20	QPSK	H	101	6	15.86	13.80	9.48	23.28	0.213	30.00	-6.72
1745.00	QPSK (WCP)	QPSK	V	100	230	15.86	9.55	9.48	19.03	0.080	30.00	-10.97

**Table 7-13. EIRP Data (Band 66/4)**

FCC ID: A3LSMG977T		<b>MEASUREMENT REPORT (CERTIFICATION)</b>			Approved by: Quality Manager
Test Report S/N: 1M1903060032-03.A3L	Test Dates: 01/22 - 05/08/2019	EUT Type: Portable Handset		Page 259 of 348	

Frequency [MHz]	Channel Bandwidth [MHz]	Mod.	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	RB Size/Offset	Substitute Level [dBm]	Ant. Gain [dBi]	EIRP [dBm]	EIRP [Watts]	EIRP Limit [dBm]	Margin [dB]
1850.70	1.4	QPSK	V	261	102	1 / 0	15.59	9.06	24.65	0.292	33.01	-8.36
1882.50	1.4	QPSK	V	149	166	1 / 5	15.97	9.09	<b>25.06</b>	0.321	33.01	-7.95
1914.30	1.4	QPSK	V	149	26	1 / 5	14.99	9.19	24.18	0.262	33.01	-8.83
1850.70	1.4	16-QAM	V	261	102	1 / 5	15.28	9.06	<b>24.34</b>	0.272	33.01	-8.67
1850.70	1.4	64-QAM	V	261	102	1 / 5	13.22	9.06	<b>22.28</b>	0.169	33.01	-10.73
1850.70	1.4	256-QAM	V	261	102	1 / 5	10.93	9.06	19.99	0.100	33.01	-13.02
1851.50	3	QPSK	V	155	42	1 / 14	15.16	9.06	24.22	0.264	33.01	-8.79
1882.50	3	QPSK	V	155	168	1 / 0	15.33	9.09	<b>24.42</b>	0.277	33.01	-8.59
1913.50	3	QPSK	V	154	27	1 / 14	14.61	9.19	23.80	0.240	33.01	-9.21
1851.50	3	16-QAM	V	155	42	1 / 14	13.72	9.06	<b>22.78</b>	0.190	33.01	-10.23
1851.50	3	64-QAM	V	155	42	1 / 14	12.50	9.06	<b>21.56</b>	0.143	33.01	-11.45
1851.50	3	256-QAM	V	155	42	1 / 14	10.84	9.06	19.90	0.098	33.01	-13.11
1852.50	5	QPSK	V	118	346	1 / 0	15.01	9.06	24.07	0.255	33.01	-8.94
1882.50	5	QPSK	V	133	355	1 / 24	15.47	9.09	<b>24.56</b>	0.286	33.01	-8.45
1912.50	5	QPSK	V	108	356	1 / 24	14.90	9.18	24.08	0.256	33.01	-8.93
1852.50	5	16-QAM	V	118	346	1 / 0	13.93	9.06	<b>22.99</b>	0.199	33.01	-10.02
1852.50	5	64-QAM	V	118	346	1 / 0	12.63	9.06	<b>21.69</b>	0.148	33.01	-11.32
1852.50	5	256-QAM	V	118	346	1 / 0	10.79	9.06	19.85	0.097	33.01	-13.16
1855.00	10	QPSK	V	146	36	1 / 49	15.06	9.06	24.12	0.258	33.01	-8.89
1882.50	10	QPSK	V	144	32	1 / 0	15.58	9.09	<b>24.67</b>	0.293	33.01	-8.34
1910.00	10	QPSK	V	118	358	1 / 0	15.36	9.17	24.53	0.284	33.01	-8.48
1882.50	10	16-QAM	V	144	32	1 / 0	13.31	9.09	<b>22.40</b>	0.174	33.01	-10.61
1882.50	10	64-QAM	V	144	32	1 / 0	12.11	9.09	<b>21.20</b>	0.132	33.01	-11.81
1882.50	10	256-QAM	V	144	32	1 / 0	10.62	9.09	19.71	0.094	33.01	-13.30
1857.50	15	QPSK	V	121	18	1 / 74	15.14	9.07	24.21	0.263	33.01	-8.80
1882.50	15	QPSK	V	136	22	1 / 0	16.03	9.09	<b>25.12</b>	0.325	33.01	-7.89
1907.50	15	QPSK	V	108	20	1 / 0	15.27	9.15	24.42	0.277	33.01	-8.59
1882.50	15	16-QAM	V	136	22	1 / 0	15.30	9.09	<b>24.39</b>	0.275	33.01	-8.62
1882.50	15	64-QAM	V	136	22	1 / 0	12.61	9.09	21.70	0.148	33.01	-11.31
1882.50	15	256-QAM	V	136	22	1 / 0	10.96	9.09	20.05	0.101	33.01	-12.96
1860.00	20	QPSK	V	308	86	1 / 99	16.48	9.07	<b>25.55</b>	<b>0.359</b>	33.01	-7.46
1882.50	20	QPSK	V	307	89	1 / 0	16.30	9.09	25.39	0.346	33.01	-7.62
1905.00	20	QPSK	V	168	28	1 / 0	14.81	9.14	23.95	0.248	33.01	-9.06
1860.00	20	16-QAM	V	308	86	1 / 99	15.66	9.07	<b>24.73</b>	0.297	33.01	-8.28
1860.00	20	64-QAM	V	308	86	1 / 99	13.51	9.07	22.58	0.181	33.01	-10.43
1860.00	20	256-QAM	V	308	86	1 / 99	11.73	9.07	20.80	0.120	33.01	-12.21
1860.00	QPSK	V	H	110	354	16.48	15.53	9.07	24.60	0.288	33.01	-8.41
1860.00	QPSK (WCP)	V	V	108	224	16.48	12.58	9.07	21.65	0.146	33.01	-11.36

**Table 7-14. EIRP Data (Band 25/2)**

FCC ID: A3LSMG977T		<b>MEASUREMENT REPORT (CERTIFICATION)</b>			Approved by: Quality Manager
Test Report S/N: 1M1903060032-03.A3L	Test Dates: 01/22 - 05/08/2019	EUT Type: Portable Handset			Page 260 of 348

Frequency [MHz]	Channel Bandwidth [MHz]	Mod.	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	RB Size/Offset	Substitute Level [dBm]	Ant. Gain [dBi]	EIRP [dBm]	EIRP [Watts]	EIRP Limit [dBm]	Margin [dB]
2502.50	5	QPSK	H	102	222	1 / 0	11.23	8.34	19.57	0.091	33.01	-13.44
2535.00	5	QPSK	H	122	223	1 / 24	11.40	8.28	19.68	0.093	33.01	-13.33
2567.50	5	QPSK	H	102	223	1 / 24	12.08	8.17	<b>20.25</b>	0.106	33.01	-12.76
2567.50	5	16-QAM	H	102	223	1 / 24	10.91	8.17	<b>19.08</b>	0.081	33.01	-13.93
2567.50	5	64-QAM	H	102	223	1 / 24	9.85	8.17	<b>18.02</b>	0.063	33.01	-14.99
2567.50	5	256-QAM	H	102	223	1 / 24	8.01	8.17	<b>16.18</b>	<b>0.041</b>	33.01	-16.83
2505.00	10	QPSK	H	111	223	1 / 0	11.14	8.33	19.47	0.089	33.01	-13.54
2535.00	10	QPSK	H	118	219	1 / 49	11.80	8.28	20.08	0.102	33.01	-12.93
2565.00	10	QPSK	H	113	223	1 / 49	12.61	8.18	<b>20.79</b>	0.120	33.01	-12.22
2565.00	10	16-QAM	H	113	223	1 / 49	11.34	8.18	<b>19.52</b>	0.090	33.01	-13.49
2565.00	10	64-QAM	H	113	223	1 / 49	10.29	8.18	<b>18.47</b>	0.070	33.01	-14.54
2565.00	10	256-QAM	H	113	223	1 / 49	8.41	8.18	<b>16.59</b>	<b>0.046</b>	33.01	-16.42
2507.50	15	QPSK	H	118	221	1 / 0	11.51	8.33	19.84	0.096	33.01	-13.17
2535.00	15	QPSK	H	113	225	1 / 74	12.65	8.28	20.93	0.124	33.01	-12.08
2562.50	15	QPSK	H	111	221	1 / 0	12.86	8.19	<b>21.05</b>	0.127	33.01	-11.96
2562.50	15	16-QAM	H	111	221	1 / 0	11.81	8.19	<b>20.00</b>	0.100	33.01	-13.01
2562.50	15	64-QAM	H	111	221	1 / 74	11.25	8.19	<b>19.44</b>	0.088	33.01	-13.57
2562.50	15	256-QAM	H	111	221	1 / 74	9.19	8.19	<b>17.38</b>	<b>0.055</b>	33.01	-15.63
2510.00	20	QPSK	H	122	221	1 / 0	11.46	8.33	19.79	0.095	33.01	-13.22
2535.00	20	QPSK	H	116	221	1 / 99	12.89	8.28	21.17	0.131	33.01	-11.84
2560.00	20	QPSK	H	115	226	1 / 0	13.14	8.21	<b>21.35</b>	<b>0.136</b>	33.01	-11.66
2560.00	20	16-QAM	H	115	226	1 / 0	11.91	8.21	<b>20.12</b>	0.103	33.01	-12.89
2560.00	20	64-QAM	H	115	226	1 / 99	11.24	8.21	<b>19.45</b>	0.088	33.01	-13.56
2560.00	20	256-QAM	H	115	226	1 / 99	9.07	8.21	<b>17.28</b>	<b>0.053</b>	33.01	-15.73
2560.00	20	QPSK	V	393	317	1 / 99	11.98	8.37	20.35	0.108	33.01	-12.66
2560.00	20 (WCP)	QPSK	H	149	221	1 / 0	10.99	8.21	19.20	0.083	33.01	-13.81

**Table 7-15. EIRP Data (Band 7)**

FCC ID: A3LSMG977T		<b>MEASUREMENT REPORT (CERTIFICATION)</b>			Approved by: Quality Manager
Test Report S/N: 1M1903060032-03.A3L	Test Dates: 01/22 - 05/08/2019	EUT Type: Portable Handset		Page 261 of 348	

Frequency [MHz]	Channel Bandwidth [MHz]	Mod.	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	RB Size/Offset	Substitute Level [dBm]	Ant. Gain [dBi]	EIRP [dBm]	EIRP [Watts]	EIRP Limit [dBm]	Margin [dB]
2498.50	5	QPSK	H	105	228	1 / 0	15.11	8.35	23.46	0.222	33.01	-9.55
2593.00	5	QPSK	H	110	218	1 / 24	15.54	8.04	<b>23.58</b>	0.228	33.01	-9.43
2687.50	5	QPSK	H	102	219	1 / 0	14.37	7.94	22.31	0.170	33.01	-10.70
2498.50	5	16-QAM	H	105	228	1 / 0	13.48	8.35	<b>21.83</b>	0.152	33.01	-11.18
2498.50	5	64-QAM	H	105	228	1 / 0	12.33	8.35	<b>20.68</b>	0.117	33.01	-12.33
2498.50	5	256-QAM	H	105	228	1 / 0	9.71	8.35	<b>18.06</b>	<b>0.064</b>	33.01	-14.95
2501.00	10	QPSK	H	108	230	1 / 0	14.47	8.34	22.81	0.191	33.01	-10.20
2593.00	10	QPSK	H	108	218	1 / 0	15.37	8.04	<b>23.41</b>	0.219	33.01	-9.60
2685.00	10	QPSK	H	124	219	1 / 49	14.20	7.93	22.13	0.163	33.01	-10.88
2593.00	10	16-QAM	H	108	218	1 / 0	13.98	8.04	<b>22.02</b>	0.159	33.01	-10.99
2593.00	10	64-QAM	H	108	218	1 / 0	12.86	8.04	<b>20.90</b>	0.123	33.01	-12.11
2593.00	10	256-QAM	H	108	218	1 / 0	10.04	8.04	<b>18.08</b>	<b>0.064</b>	33.01	-14.93
2503.50	15	QPSK	H	102	229	1 / 0	14.82	8.34	23.16	0.207	33.01	-9.85
2593.00	15	QPSK	H	140	223	1 / 36	15.19	8.04	<b>23.23</b>	0.210	33.01	-9.78
2682.50	15	QPSK	H	100	228	1 / 36	14.57	7.92	22.49	0.177	33.01	-10.52
2593.00	15	16-QAM	H	140	223	1 / 36	13.82	8.04	<b>21.86</b>	0.153	33.01	-11.15
2593.00	15	64-QAM	H	140	223	1 / 36	12.26	8.04	<b>20.30</b>	0.107	33.01	-12.71
2503.50	15	256-QAM	H	102	229	1 / 0	9.96	8.34	<b>18.30</b>	<b>0.068</b>	33.01	-14.71
2506.00	20	QPSK	H	100	226	1 / 0	14.63	8.33	22.96	0.198	33.01	-10.05
2593.00	20	QPSK	H	110	224	1 / 50	15.74	8.04	<b>23.78</b>	<b>0.239</b>	33.01	-9.23
2680.00	20	QPSK	H	102	231	1 / 99	14.39	7.91	22.30	0.170	33.01	-10.71
2506.00	20	16-QAM	H	100	226	1 / 0	13.24	8.33	<b>21.57</b>	0.144	33.01	-11.44
2506.00	20	64-QAM	H	100	226	1 / 0	12.90	8.33	<b>21.23</b>	0.133	33.01	-11.78
2506.00	20	256-QAM	H	100	226	1 / 0	9.83	8.33	<b>18.16</b>	<b>0.066</b>	33.01	-14.85
2593.00	20	QPSK	V	299	340	15.74	13.70	8.42	22.12	0.163	33.01	-10.89
2593.00	20 (WCP)	QPSK	H	105	226	15.74	15.37	8.04	23.41	0.219	33.01	-9.60

**Table 7-16. EIRP Data (Band 41 PC3)**

FCC ID: A3LSMG977T		<b>MEASUREMENT REPORT (CERTIFICATION)</b>			Approved by: Quality Manager
Test Report S/N: 1M1903060032-03.A3L	Test Dates: 01/22 - 05/08/2019	EUT Type: Portable Handset		Page 262 of 348	

Frequency [MHz]	Channel Bandwidth [MHz]	Mod.	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	RB Size/Offset	Substitute Level [dBm]	Ant. Gain [dBi]	EIRP [dBm]	EIRP [Watts]	EIRP Limit [dBm]	Margin [dB]
2498.50	5	QPSK	H	108	226	1 / 24	15.90	8.35	24.25	0.266	33.01	-8.76
2593.00	5	QPSK	H	113	213	1 / 0	15.05	8.04	23.09	0.204	33.01	-9.92
2687.50	5	QPSK	H	100	223	1 / 0	16.46	7.94	<b>24.40</b>	0.275	33.01	-8.61
2498.50	5	16-QAM	H	108	226	1 / 24	14.96	8.35	<b>23.31</b>	0.214	33.01	-9.70
2498.50	5	64-QAM	H	108	226	1 / 24	13.69	8.35	<b>22.04</b>	0.160	33.01	-10.97
2593.00	5	256-QAM	H	113	213	1 / 0	12.12	8.04	<b>20.16</b>	<b>0.104</b>	33.01	-12.85
2501.00	10	QPSK	H	105	221	1 / 49	16.42	8.34	24.76	0.299	33.01	-8.25
2593.00	10	QPSK	H	108	212	1 / 49	17.11	8.04	25.15	0.327	33.01	-7.86
2685.00	10	QPSK	H	100	226	1 / 49	17.59	7.93	<b>25.52</b>	<b>0.356</b>	33.01	-7.49
2685.00	10	16-QAM	H	100	226	1 / 49	16.56	7.93	<b>24.49</b>	0.281	33.01	-8.52
2685.00	10	64-QAM	H	100	226	1 / 49	15.49	7.93	<b>23.42</b>	0.220	33.01	-9.59
2685.00	10	256-QAM	H	100	226	1 / 49	13.28	7.93	<b>21.21</b>	<b>0.132</b>	33.01	-11.80
2503.50	15	QPSK	H	108	224	1 / 36	16.19	8.34	24.53	0.284	33.01	-8.48
2593.00	15	QPSK	H	108	212	1 / 36	16.80	8.04	24.84	0.305	33.01	-8.17
2682.50	15	QPSK	H	100	221	1 / 0	17.49	7.92	<b>25.41</b>	0.347	33.01	-7.60
2682.50	15	16-QAM	H	100	221	1 / 0	16.18	7.92	<b>24.10</b>	0.257	33.01	-8.91
2682.50	15	64-QAM	H	100	221	1 / 0	14.79	7.92	<b>22.71</b>	0.187	33.01	-10.30
2682.50	15	256-QAM	H	100	221	1 / 0	13.08	7.92	<b>21.00</b>	<b>0.126</b>	33.01	-12.01
2506.00	20	QPSK	H	110	223	1 / 50	16.46	8.33	24.79	0.302	33.01	-8.22
2593.00	20	QPSK	H	110	213	1 / 99	17.22	8.04	25.26	0.336	33.01	-7.75
2680.00	20	QPSK	H	100	222	1 / 0	17.46	7.91	<b>25.37</b>	0.344	33.01	-7.64
2593.00	20	16-QAM	H	110	213	1 / 99	16.51	8.04	<b>24.55</b>	0.285	33.01	-8.46
2593.00	20	64-QAM	H	110	213	1 / 99	15.19	8.04	<b>23.23</b>	0.210	33.01	-9.78
2680.00	20	256-QAM	H	100	222	1 / 0	13.03	7.91	<b>20.94</b>	<b>0.124</b>	33.01	-12.07
2685.00	10	QPSK	V	313	277	17.59	16.76	8.66	25.42	0.348	33.01	-7.59
2685.00	10 (WCP)	QPSK	H	100	220	17.59	16.53	7.93	24.46	0.279	33.01	-8.55

Table 7-17. EIRP Data (Band 41 PC2)

FCC ID: A3LSMG977T		MEASUREMENT REPORT (CERTIFICATION)			Approved by: Quality Manager
Test Report S/N: 1M1903060032-03.A3L	Test Dates: 01/22 - 05/08/2019	EUT Type: Portable Handset		Page 263 of 348	

## 7.9 Radiated Spurious Emissions Measurements

### Test Overview

Radiated spurious emissions measurements are performed using the substitution method described in ANSI/TIA-603-E-2016 with the EUT transmitting into an integral antenna. Measurements on signals operating below 1GHz are performed using vertically and horizontally polarized tuned dipole antennas. Measurements on signals operating above 1GHz are performed using vertically and horizontally polarized broadband horn antennas.

### Test Procedures Used

KDB 971168 D01 v03r01 – Section 5.8

ANSI/TIA-603-E-2016 – Section 2.2.12

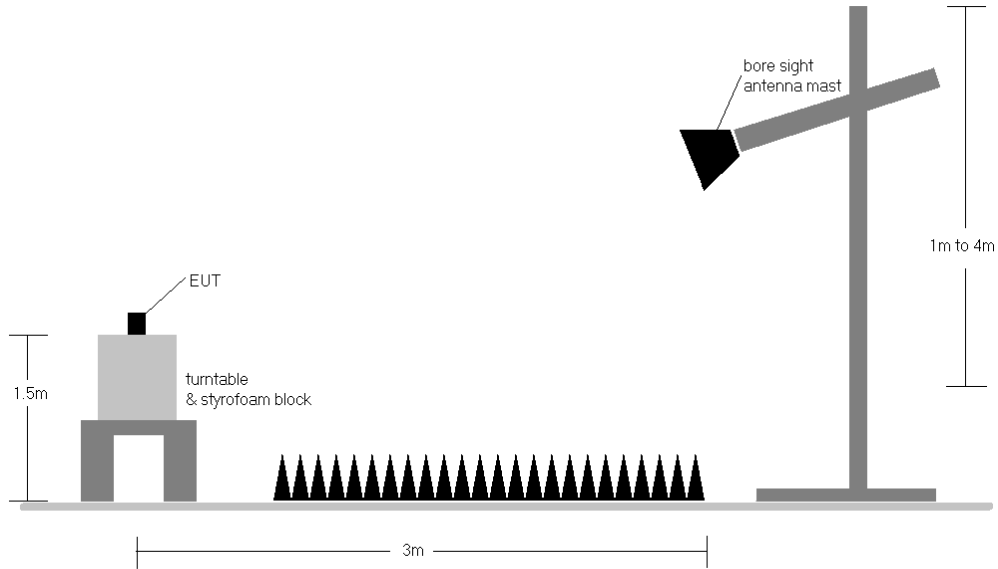
### Test Settings

1. RBW = 100kHz for emissions below 1GHz and 1MHz for emissions above 1GHz
2. VBW  $\geq 3 \times$  RBW
3. Span = 1.5 times the OBW
4. No. of sweep points  $\geq 2 \times$  span / RBW
5. Detector = RMS
6. Trace mode = Average (Max Hold for pulsed emissions)
7. The trace was allowed to stabilize

FCC ID: A3LSMG977T		<b>MEASUREMENT REPORT (CERTIFICATION)</b>		<b>Approved by:</b> Quality Manager
<b>Test Report S/N:</b> 1M1903060032-03.A3L	<b>Test Dates:</b> 01/22 - 05/08/2019	<b>EUT Type:</b> Portable Handset	Page 264 of 348	

**Test Setup**

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



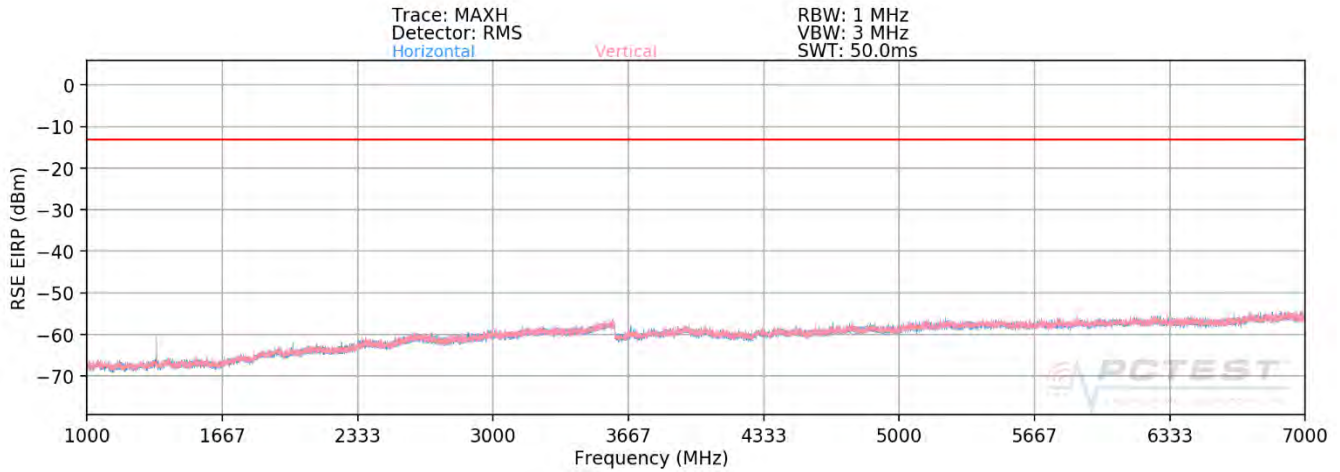
**Figure 7-9. Test Instrument & Measurement Setup**

**Test Notes**

- 1) The EUT was tested in three orthogonal planes and in all possible test configurations and positioning. The worst case emissions are reported with the EUT positioning, modulations, RB sizes and offsets, and channel bandwidth configurations shown in the tables below.
- 2) This unit was tested with its standard battery.
- 3) The spectrum is measured from 9kHz to the 10th harmonic of the fundamental frequency of the transmitter. The worst-case emissions are reported.
- 4) Emissions below 18GHz were measured at a 3 meter test distance while emissions above 18GHz were measured at a 1 meter test distance with the application of a distance correction factor.
- 5) The "-" shown in the following RSE tables are used to denote a noise floor measurement.

FCC ID: A3LSMG977T		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1903060032-03.A3L	Test Dates: 01/22 - 05/08/2019	EUT Type: Portable Handset		Page 265 of 348

### Band 71



**Plot 7-438. Radiated Spurious Plot above 1GHz (Band 71)**

OPERATING FREQUENCY: 673.00 MHz  
 MODULATION SIGNAL: QPSK  
 BANDWIDTH: 20.0 MHz  
 DISTANCE: 3 meters  
 LIMIT: -13 dBm

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
1346.00	H	211	173	-57.81	2.91	-54.90	-41.9
2019.00	H	170	306	-65.67	2.82	-62.85	-49.8
2692.00	H	-	-	-65.60	4.53	-61.07	-48.1
3365.00	H	-	-	-66.62	6.10	-60.52	-47.5

**Table 7-18. Radiated Spurious Data (Band 71 – Low Channel)**

FCC ID: A3LSMG977T		MEASUREMENT REPORT (CERTIFICATION)			Approved by: Quality Manager
Test Report S/N: 1M1903060032-03.A3L	Test Dates: 01/22 - 05/08/2019	EUT Type: Portable Handset		Page 266 of 348	



OPERATING FREQUENCY: 680.50 MHz  
 MODULATION SIGNAL: QPSK  
 BANDWIDTH: 20.0 MHz  
 DISTANCE: 3 meters  
 LIMIT: -13 dBm

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
1361.00	H	168	331	-62.32	2.88	-59.45	-46.4
2041.50	H	133	73	-62.85	2.73	-60.13	-47.1
2722.00	H	-	-	-65.18	4.63	-60.56	-47.6
3402.50	H	-	-	-66.19	6.26	-59.93	-46.9

Table 7-19. Radiated Spurious Data (Band 71 – Mid Channel)

OPERATING FREQUENCY: 688.00 MHz  
 MODULATION SIGNAL: QPSK  
 BANDWIDTH: 20.0 MHz  
 DISTANCE: 3 meters  
 LIMIT: -13 dBm

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
1376.00	H	114	205	-57.59	2.64	-54.95	-42.0
2064.00	H	-	-	-64.83	2.82	-62.01	-49.0
2752.00	H	-	-	-65.08	4.60	-60.48	-47.5

Table 7-20. Radiated Spurious Data (Band 71 – High Channel)

FCC ID: A3LSMG977T		MEASUREMENT REPORT (CERTIFICATION)			Approved by: Quality Manager
Test Report S/N: 1M1903060032-03.A3L	Test Dates: 01/22 - 05/08/2019	EUT Type: Portable Handset		Page 267 of 348	

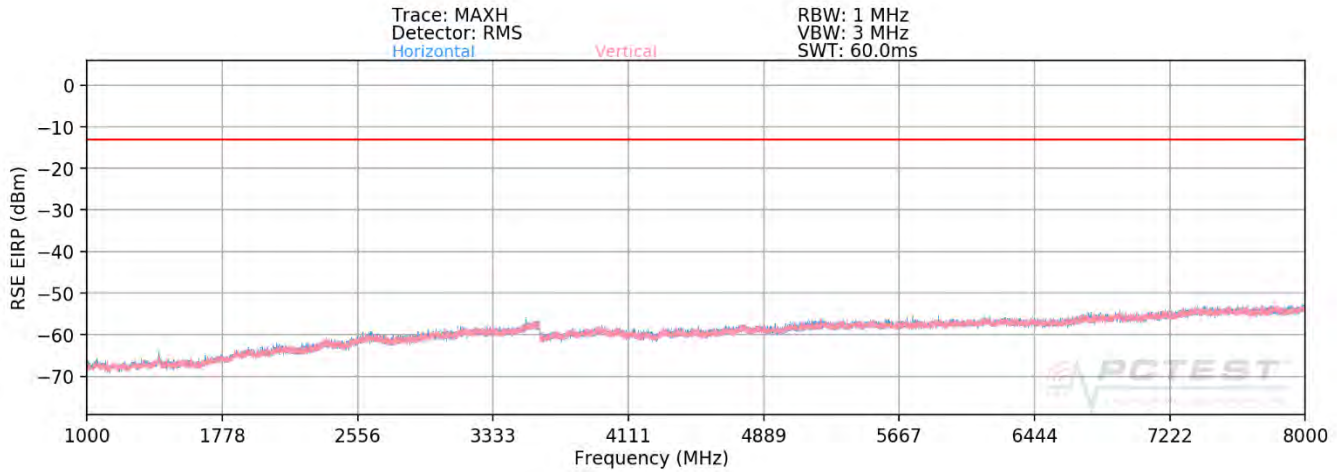
OPERATING FREQUENCY: 673.00 MHz  
 MODULATION SIGNAL: QPSK  
 BANDWIDTH: 20.0 MHz  
 DISTANCE: 3 meters  
 LIMIT: -13 dBm

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
1346.00	H	161	326	-62.62	2.91	-59.71	-46.7
2019.00	H	348	196	-65.64	2.82	-62.82	-49.8
2692.00	H	-	-	-65.44	4.53	-60.91	-47.9
3365.00	H	-	-	-66.63	6.10	-60.53	-47.5

Table 7-21. Radiated Spurious Data with WCP (Band 71 – Low Channel)

FCC ID: A3LSMG977T		MEASUREMENT REPORT (CERTIFICATION)			Approved by: Quality Manager
Test Report S/N: 1M1903060032-03.A3L	Test Dates: 01/22 - 05/08/2019	EUT Type: Portable Handset		Page 268 of 348	

### Band 12



**Plot 7-439. Radiated Spurious Plot above 1GHz (Band 12)**

OPERATING FREQUENCY: 699.70 MHz  
 MODULATION SIGNAL: QPSK  
 BANDWIDTH: 1.4 MHz  
 DISTANCE: 3 meters  
 LIMIT: -13 dBm

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
1399.40	V	122	309	-65.56	7.44	-58.12	-45.1
2099.10	V	-	-	-72.54	8.83	-63.71	-50.7
2798.80	V	-	-	-72.11	10.15	-61.97	-49.0
3498.50	V	-	-	-70.02	9.92	-60.09	-47.1

**Table 7-22. Radiated Spurious Data (Band 12 – Low Channel)**

FCC ID: A3LSMG977T		MEASUREMENT REPORT (CERTIFICATION)			Approved by: Quality Manager
Test Report S/N: 1M1903060032-03.A3L	Test Dates: 01/22 - 05/08/2019	EUT Type: Portable Handset		Page 269 of 348	

OPERATING FREQUENCY: 707.50 MHz  
 MODULATION SIGNAL: QPSK  
 BANDWIDTH: 1.4 MHz  
 DISTANCE: 3 meters  
 LIMIT: -13 dBm

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
1415.00	V	119	14	-74.79	7.63	-67.15	-54.2
2122.50	V	-	-	-72.62	8.86	-63.76	-50.8
2830.00	V	-	-	-72.00	10.10	-61.91	-48.9
3537.50	V	-	-	-69.36	9.90	-59.47	-46.5

Table 7-23. Radiated Spurious Data (Band 12 – Mid Channel)

OPERATING FREQUENCY: 715.30 MHz  
 MODULATION SIGNAL: QPSK  
 BANDWIDTH: 1.4 MHz  
 DISTANCE: 3 meters  
 LIMIT: -13 dBm

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
1430.60	V	121	13	-68.82	7.83	-60.99	-48.0
2145.90	V	-	-	-72.59	8.89	-63.70	-50.7
2861.20	V	-	-	-72.16	10.04	-62.12	-49.1
3576.50	V	-	-	-70.15	9.93	-60.21	-47.2

Table 7-24. Radiated Spurious Data (Band 12 – High Channel)

FCC ID: A3LSMG977T		MEASUREMENT REPORT (CERTIFICATION)			Approved by: Quality Manager
Test Report S/N: 1M1903060032-03.A3L	Test Dates: 01/22 - 05/08/2019	EUT Type: Portable Handset		Page 270 of 348	

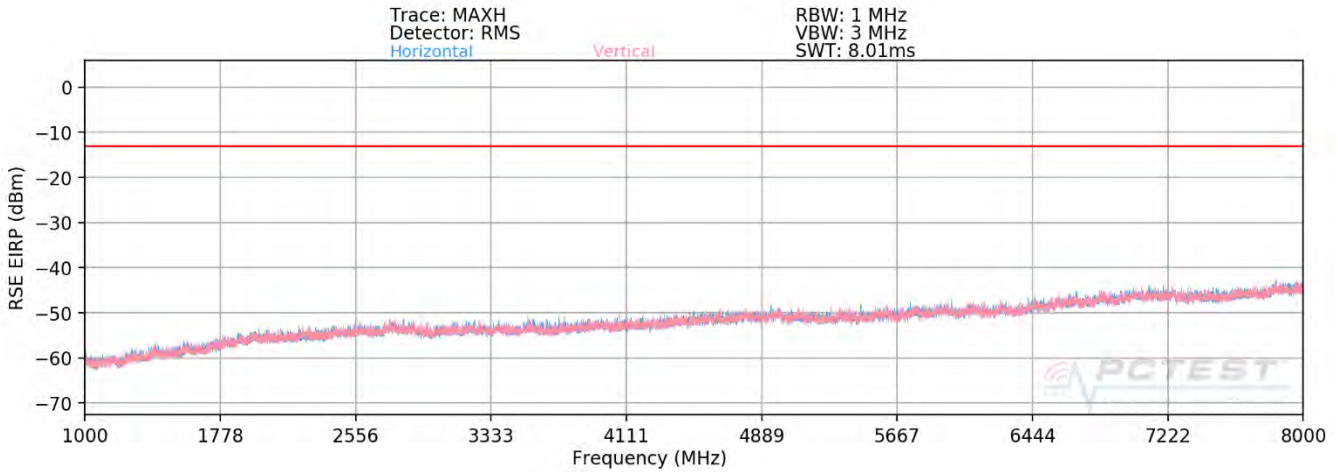
OPERATING FREQUENCY: 699.70 MHz  
 MODULATION SIGNAL: QPSK  
 BANDWIDTH: 1.4 MHz  
 DISTANCE: 3 meters  
 LIMIT: -13 dBm

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
1399.40	V	150	326	-69.75	7.44	-62.31	-49.3
2099.10	V	-	-	-73.03	8.83	-64.20	-51.2
2798.80	V	-	-	-72.73	10.15	-62.59	-49.6
3498.50	V	-	-	-70.04	9.92	-60.11	-47.1

Table 7-25. Radiated Spurious Data with WCP (Band 12 – Low Channel)

FCC ID: A3LSMG977T		MEASUREMENT REPORT (CERTIFICATION)			Approved by: Quality Manager
Test Report S/N: 1M1903060032-03.A3L	Test Dates: 01/22 - 05/08/2019	EUT Type: Portable Handset		Page 271 of 348	

### Band 13



**Plot 7-440. Radiated Spurious Plot above 1GHz (Band 13)**

OPERATING FREQUENCY: 782.00 MHz  
 MODULATION SIGNAL: QPSK  
 BANDWIDTH: 10.0 MHz  
 DISTANCE: 3 meters  
 LIMIT: -13 dBm

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
2346.00	H	366	91	-72.05	9.43	-62.61	-49.6
3128.00	H	-	-	-70.19	9.34	-60.85	-47.9
3910.00	H	-	-	-71.54	9.37	-62.17	-49.2
4692.00	H	-	-	-70.73	10.93	-59.80	-46.8

**Table 7-26. Radiated Spurious Data (Band 13 – Mid Channel)**

FCC ID: A3LSMG977T		MEASUREMENT REPORT (CERTIFICATION)			Approved by: Quality Manager
Test Report S/N: 1M1903060032-03.A3L	Test Dates: 01/22 - 05/08/2019	EUT Type: Portable Handset		Page 272 of 348	

MODULATION SIGNAL: QPSK  
 BANDWIDTH: 10.00 MHz  
 DISTANCE: 3 meters  
 NARROWBAND EMISSION LIMIT: -50 dBm  
 WIDEBAND EMISSION LIMIT: -40 dBm/MHz

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
1564.00	H	389	176	-74.66	8.53	-66.13	-26.1

**Table 7-27. Radiated Spurious Data (Band 13 – 1559-1610MHz Band)**

OPERATING FREQUENCY: 782.00 MHz  
 MODULATION SIGNAL: QPSK  
 BANDWIDTH: 10.0 MHz  
 DISTANCE: 3 meters  
 LIMIT: -13 dBm

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
2346.00	H	114	249	-70.45	9.43	-61.01	-48.0
3128.00	H	-	-	-69.66	9.34	-60.32	-47.3
3910.00	H	-	-	-71.92	9.37	-62.55	-49.5
4692.00	H	-	-	-75.30	10.93	-64.37	-51.4

**Table 7-28. Radiated Spurious Data with WCP (Band 13 – Mid Channel)**

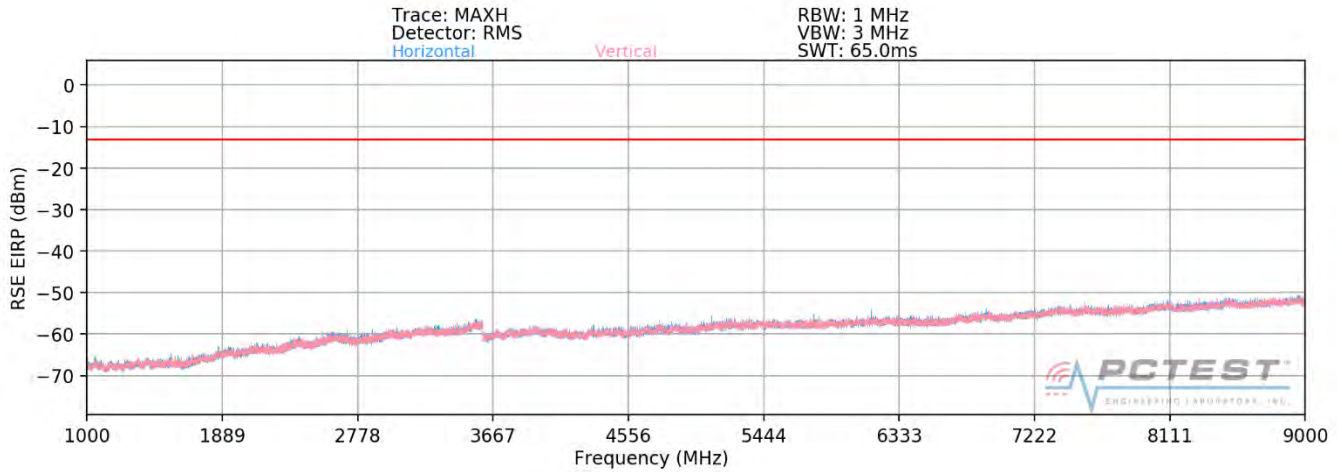
MODULATION SIGNAL: QPSK  
 BANDWIDTH: 10.00 MHz  
 DISTANCE: 3 meters  
 NARROWBAND EMISSION LIMIT: -50 dBm  
 WIDEBAND EMISSION LIMIT: -40 dBm/MHz

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
1564.00	H	118	241	-72.66	8.53	-64.13	-24.1

**Table 7-29. Radiated Spurious Data with WCP (Band 13 – 1559-1610MHz Band)**

FCC ID: A3LSMG977T		MEASUREMENT REPORT (CERTIFICATION)			Approved by: Quality Manager
Test Report S/N: 1M1903060032-03.A3L	Test Dates: 01/22 - 05/08/2019	EUT Type: Portable Handset		Page 273 of 348	

### Band 26/5



**Plot 7-441. Radiated Spurious Plot above 1GHz (Band 26/5)**

OPERATING FREQUENCY: 831.50 MHz  
 MODULATION SIGNAL: QPSK  
 BANDWIDTH: 15.0 MHz  
 DISTANCE: 3 meters  
 LIMIT: -13 dBm

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
1663.00	H	-	-	-74.75	8.95	-65.80	-52.8
2494.50	H	-	-	-71.56	9.73	-61.83	-48.8
3326.00	H	-	-	-68.61	9.59	-59.01	-46.0
4157.50	H	-	-	-71.98	10.25	-61.72	-48.7

**Table 7-30. Radiated Spurious Data (Band 26/5 – Low Channel)**

FCC ID: A3LSMG977T		MEASUREMENT REPORT (CERTIFICATION)			Approved by: Quality Manager
Test Report S/N: 1M1903060032-03.A3L	Test Dates: 01/22 - 05/08/2019	EUT Type: Portable Handset		Page 274 of 348	



OPERATING FREQUENCY: 836.50 MHz  
 MODULATION SIGNAL: QPSK  
 BANDWIDTH: 15.0 MHz  
 DISTANCE: 3 meters  
 LIMIT: -13 dBm

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
1673.00	H	-	-	-74.10	8.95	-65.15	-52.2
2509.50	H	-	-	-71.64	9.75	-61.89	-48.9
3346.00	H	-	-	-68.50	9.60	-58.89	-45.9
4182.50	H	-	-	-72.32	10.34	-61.97	-49.0

Table 7-31. Radiated Spurious Data (Band 26/5 – Mid Channel)

OPERATING FREQUENCY: 841.50 MHz  
 MODULATION SIGNAL: QPSK  
 BANDWIDTH: 15.0 MHz  
 DISTANCE: 3 meters  
 LIMIT: -13 dBm

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
1683.00	H	-	-	-74.37	8.95	-65.42	-52.4
2524.50	H	-	-	-71.69	9.75	-61.94	-48.9
3366.00	H	-	-	-68.95	9.67	-59.28	-46.3
4207.50	H	-	-	-72.53	10.44	-62.09	-49.1

Table 7-32. Radiated Spurious Data (Band 26/5 – High Channel)

FCC ID: A3LSMG977T		MEASUREMENT REPORT (CERTIFICATION)			Approved by: Quality Manager
Test Report S/N: 1M1903060032-03.A3L	Test Dates: 01/22 - 05/08/2019	EUT Type: Portable Handset		Page 275 of 348	

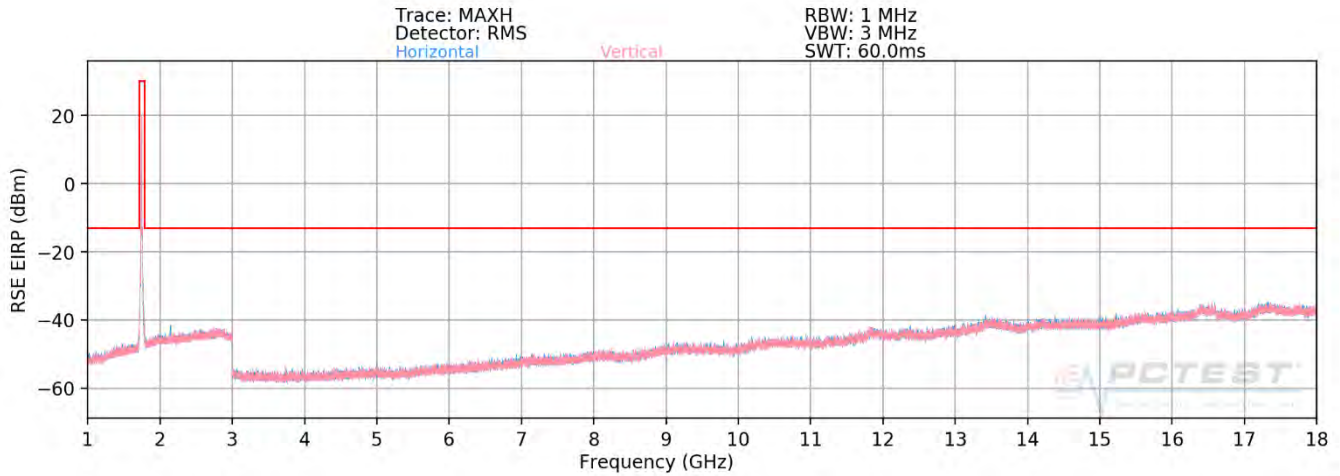
OPERATING FREQUENCY: 841.50 MHz  
 MODULATION SIGNAL: QPSK  
 BANDWIDTH: 15.0 MHz  
 DISTANCE: 3 meters  
 LIMIT: -13 dBm

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
1683.00	H	-	-	-74.90	8.95	-65.95	-52.9
2524.50	H	-	-	-71.32	9.75	-61.57	-48.6
3366.00	H	-	-	-68.92	9.67	-59.25	-46.3

Table 7-33. Radiated Spurious Data with WCP (Band 26/5 – High Channel)

FCC ID: A3LSMG977T		MEASUREMENT REPORT (CERTIFICATION)			Approved by: Quality Manager
Test Report S/N: 1M1903060032-03.A3L	Test Dates: 01/22 - 05/08/2019	EUT Type: Portable Handset		Page 276 of 348	

### Band 66/4



**Plot 7-442. Radiated Spurious Plot above 1GHz (Band 66/4)**

OPERATING FREQUENCY: 1720.00 MHz  
 MODULATION SIGNAL: QPSK  
 BANDWIDTH: 20.0 MHz  
 DISTANCE: 3 meters  
 LIMIT: -13 dBm

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
3440.00	H	114	325	-63.88	6.28	-57.60	-44.6
5160.00	H	-	-	-67.18	8.98	-58.20	-45.2
6880.00	H	-	-	-64.04	9.42	-54.62	-41.6

**Table 7-34. Radiated Spurious Data (Band 66/4 – Low Channel)**

FCC ID: A3LSMG977T		MEASUREMENT REPORT (CERTIFICATION)			Approved by: Quality Manager
Test Report S/N: 1M1903060032-03.A3L	Test Dates: 01/22 - 05/08/2019	EUT Type: Portable Handset		Page 277 of 348	

OPERATING FREQUENCY: 1745.00 MHz  
 MODULATION SIGNAL: QPSK  
 BANDWIDTH: 20.0 MHz  
 DISTANCE: 3 meters  
 LIMIT: -13 dBm

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
3490.00	H	-	-	-66.37	6.47	-59.90	-46.9
5235.00	H	-	-	-66.96	8.97	-57.99	-45.0

**Table 7-35. Radiated Spurious Data (Band 66/4 – Mid Channel)**

OPERATING FREQUENCY: 1770.00 MHz  
 MODULATION SIGNAL: QPSK  
 BANDWIDTH: 20.0 MHz  
 DISTANCE: 3 meters  
 LIMIT: -13 dBm

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
3540.00	H	-	-	-66.28	6.45	-59.83	-46.8
5310.00	H	-	-	-67.08	9.09	-57.98	-45.0

**Table 7-36. Radiated Spurious Data (Band 66/4 – High Channel)**

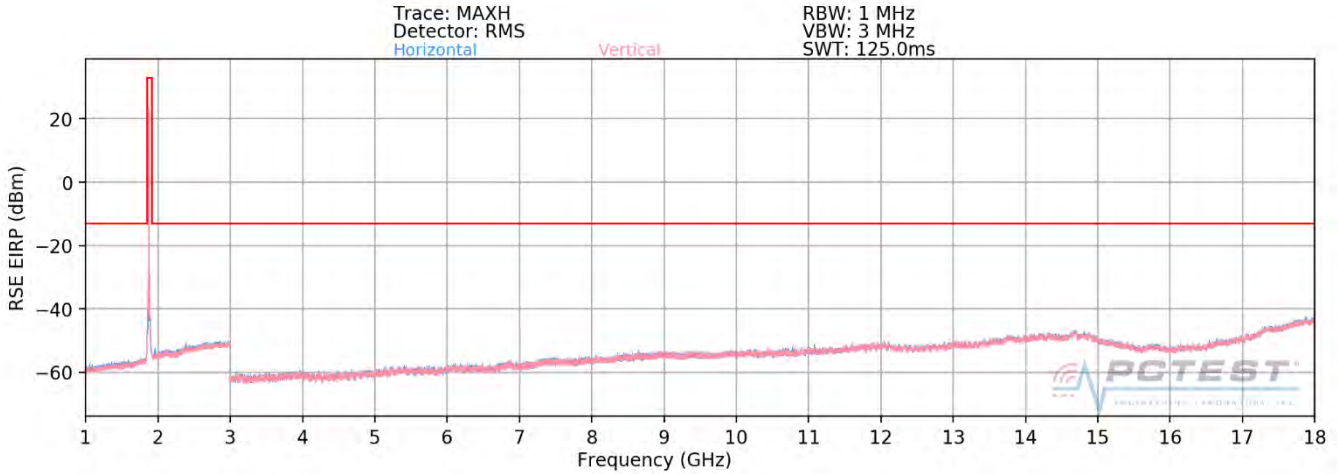
OPERATING FREQUENCY: 1745.00 MHz  
 MODULATION SIGNAL: QPSK  
 BANDWIDTH: 20.0 MHz  
 DISTANCE: 3 meters  
 LIMIT: -13 dBm

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
3490.00	H	-	-	-66.51	6.47	-60.04	-47.0
5235.00	H	-	-	-67.04	8.97	-58.07	-45.1

**Table 7-37. Radiated Spurious Data with WCP (Band 66/4 – Mid Channel)**

FCC ID: A3LSMG977T		MEASUREMENT REPORT (CERTIFICATION)			Approved by: Quality Manager
Test Report S/N: 1M1903060032-03.A3L	Test Dates: 01/22 - 05/08/2019	EUT Type: Portable Handset		Page 278 of 348	

**Band 25/2**



**Plot 7-443. Radiated Spurious Plot above 1GHz (Band 25/2)**

OPERATING FREQUENCY: 1860.00 MHz  
 MODULATION SIGNAL: QPSK  
 BANDWIDTH: 20.0 MHz  
 DISTANCE: 3 meters  
 LIMIT: -13 dBm

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
3720.00	V	-	-	-66.89	6.90	-59.99	-47.0
5580.00	V	-	-	-66.36	9.06	-57.30	-44.3
7440.00	V	-	-	-62.65	9.26	-53.39	-40.4

**Table 7-38. Radiated Spurious Data (Band 25/2 – Low Channel)**

FCC ID: A3LSMG977T		<b>MEASUREMENT REPORT (CERTIFICATION)</b>			Approved by: Quality Manager
Test Report S/N: 1M1903060032-03.A3L	Test Dates: 01/22 - 05/08/2019	EUT Type: Portable Handset		Page 279 of 348	

OPERATING FREQUENCY: 1882.50 MHz  
 MODULATION SIGNAL: QPSK  
 BANDWIDTH: 20.0 MHz  
 DISTANCE: 3 meters  
 LIMIT: -13 dBm

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
3765.00	V	-	-	-66.96	6.94	-60.02	-47.0
5647.50	V	-	-	-66.66	9.17	-57.50	-44.5
7530.00	V	-	-	-63.16	9.31	-53.85	-40.9

Table 7-39. Radiated Spurious Data (Band 25/2 – Mid Channel)

OPERATING FREQUENCY: 1905.00 MHz  
 MODULATION SIGNAL: QPSK  
 BANDWIDTH: 20.0 MHz  
 DISTANCE: 3 meters  
 LIMIT: -13 dBm

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
3810.00	V	-	-	-66.89	7.07	-59.83	-46.8
5715.00	V	-	-	-66.03	9.04	-56.99	-44.0
7620.00	V	-	-	-62.01	9.27	-52.74	-39.7

Table 7-40. Radiated Spurious Data (Band 25/2 – High Channel)

FCC ID: A3LSMG977T		MEASUREMENT REPORT (CERTIFICATION)			Approved by: Quality Manager
Test Report S/N: 1M1903060032-03.A3L	Test Dates: 01/22 - 05/08/2019	EUT Type: Portable Handset		Page 280 of 348	

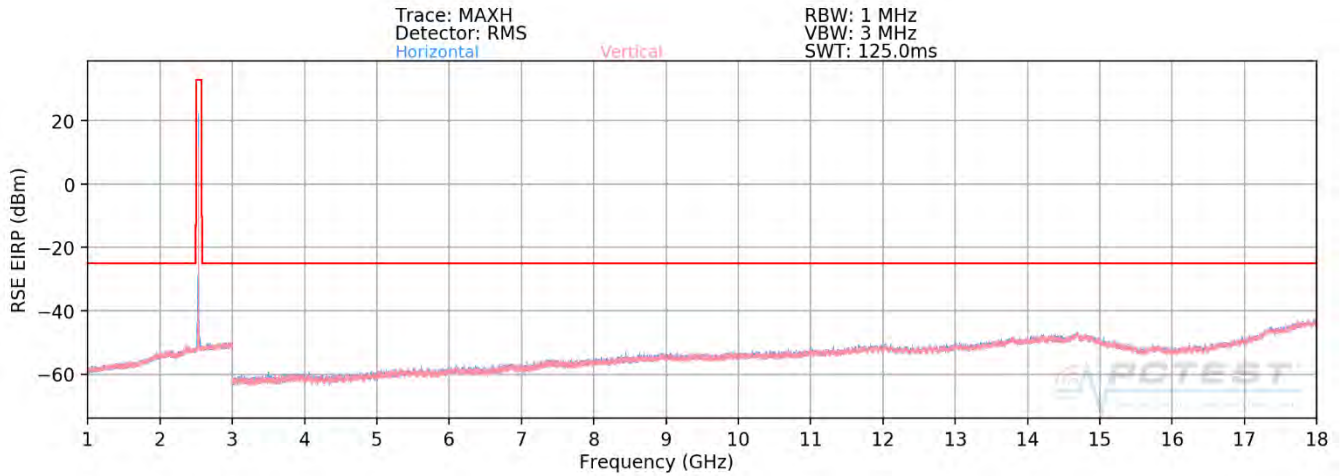
OPERATING FREQUENCY: 1882.50 MHz  
 MODULATION SIGNAL: QPSK  
 BANDWIDTH: 20.0 MHz  
 DISTANCE: 3 meters  
 LIMIT: -13 dBm

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
3765.00	V	-	-	-67.28	6.94	-60.33	-47.3
5647.50	V	-	-	-66.15	9.17	-56.99	-44.0
7530.00	V	-	-	-62.92	9.31	-53.62	-40.6

Table 7-41. Radiated Spurious Data with WCP (Band 25/2 – Mid Channel)

FCC ID: A3LSMG977T		MEASUREMENT REPORT (CERTIFICATION)			Approved by: Quality Manager
Test Report S/N: 1M1903060032-03.A3L	Test Dates: 01/22 - 05/08/2019	EUT Type: Portable Handset			Page 281 of 348

**Band 7**



**Plot 7-444. Radiated Spurious Plot above 1GHz (Band 7)**

OPERATING FREQUENCY: 2510.00 MHz  
 MODULATION SIGNAL: QPSK  
 BANDWIDTH: 20.0 MHz  
 DISTANCE: 3 meters  
 LIMIT: -25 dBm

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
5020.00	V	141	343	-67.46	8.56	-58.90	-33.9
7530.00	V	-	-	-65.46	8.46	-57.00	-32.0

**Table 7-42. Radiated Spurious Data (Band 7 – Low Channel)**

FCC ID: A3LSMG977T		MEASUREMENT REPORT (CERTIFICATION)			Approved by: Quality Manager
Test Report S/N: 1M1903060032-03.A3L	Test Dates: 01/22 - 05/08/2019	EUT Type: Portable Handset		Page 282 of 348	



OPERATING FREQUENCY: 2535.00 MHz  
 MODULATION SIGNAL: QPSK  
 BANDWIDTH: 20.0 MHz  
 DISTANCE: 3 meters  
 LIMIT: -25 dBm

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
5070.00	V	149	60	-67.72	8.60	-59.12	-34.1
7605.00	V	-	-	-64.96	8.48	-56.47	-31.5
10140.00	V	-	-	-64.37	9.78	-54.59	-29.6

Table 7-43. Radiated Spurious Data (Band 7 – Mid Channel)

OPERATING FREQUENCY: 2560.00 MHz  
 MODULATION SIGNAL: QPSK  
 BANDWIDTH: 20.0 MHz  
 DISTANCE: 3 meters  
 LIMIT: -25 dBm

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
5120.00	V	195	10	-68.10	8.66	-59.44	-34.4
7680.00	V	-	-	-65.35	8.58	-56.77	-31.8

Table 7-44. Radiated Spurious Data (Band 7 – High Channel)

FCC ID: A3LSMG977T		MEASUREMENT REPORT (CERTIFICATION)			Approved by: Quality Manager
Test Report S/N: 1M1903060032-03.A3L	Test Dates: 01/22 - 05/08/2019	EUT Type: Portable Handset		Page 283 of 348	

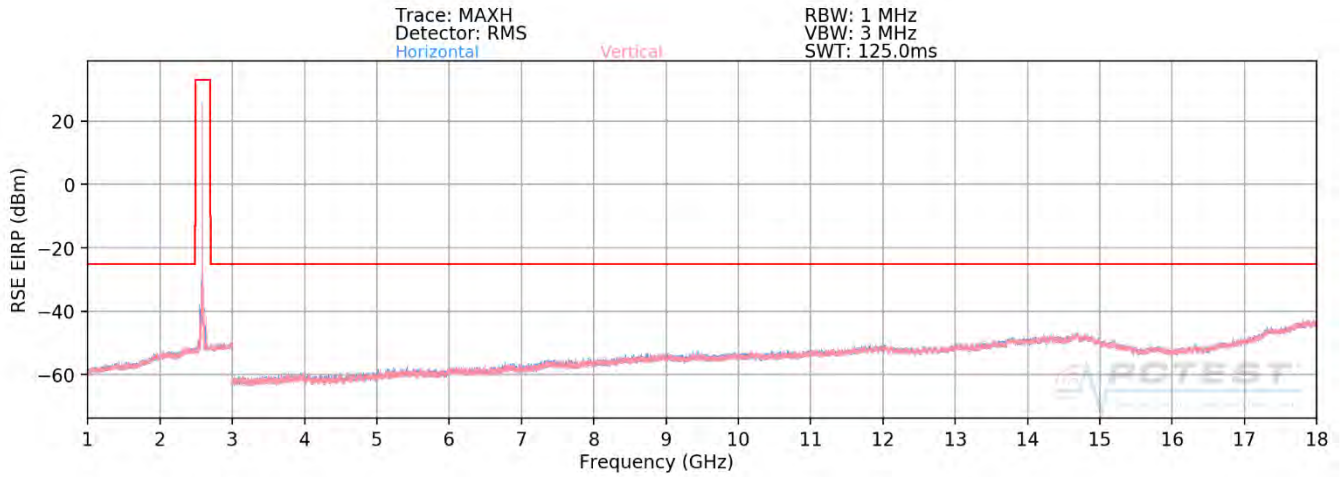
OPERATING FREQUENCY: 2510.00 MHz  
 MODULATION SIGNAL: QPSK  
 BANDWIDTH: 20.0 MHz  
 DISTANCE: 3 meters  
 LIMIT: -25 dBm

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
5020.00	V	111	25	-59.12	0.00	-59.12	-34.1
7530.00	V	234	14	-56.13	0.00	-56.13	-31.1
10040.00	V	-	-	-54.67	0.00	-54.67	-29.7

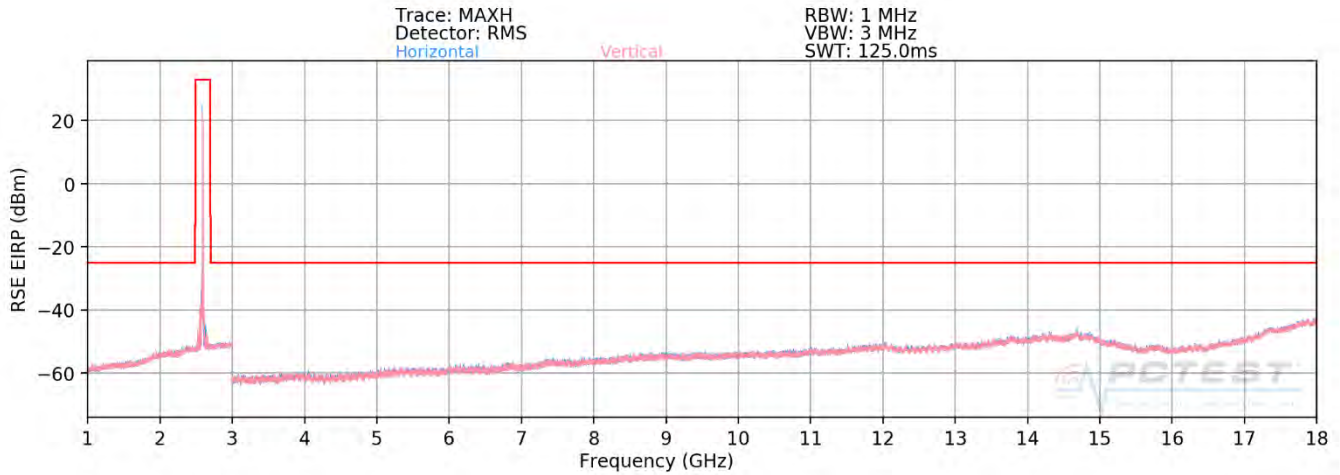
Table 7-45. Radiated Spurious Data with WCP (Band 7 – Mid Channel)

FCC ID: A3LSMG977T		MEASUREMENT REPORT (CERTIFICATION)			Approved by: Quality Manager
Test Report S/N: 1M1903060032-03.A3L	Test Dates: 01/22 - 05/08/2019	EUT Type: Portable Handset			Page 284 of 348

**Band 41**



**Plot 7-445. Radiated Spurious Plot above 1GHz (Band 41 PC2)**



**Plot 7-446. Radiated Spurious Plot above 1GHz (Band 41 PC3)**

<b>FCC ID:</b> A3LSMG977T	 <b>MEASUREMENT REPORT (CERTIFICATION)</b> 		<b>Approved by:</b> Quality Manager
<b>Test Report S/N:</b> 1M1903060032-03.A3L	<b>Test Dates:</b> 01/22 - 05/08/2019	<b>EUT Type:</b> Portable Handset	Page 285 of 348

OPERATING FREQUENCY: 2505.00 MHz  
 MODULATION SIGNAL: QPSK  
 BANDWIDTH: 10.0 MHz  
 DISTANCE: 3 meters  
 LIMIT: -25 dBm

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
5010.00	V	100	24	-62.39	8.56	-53.83	-28.8
7515.00	V	111	39	-62.01	8.50	-53.51	-28.5
10020.00	V	303	359	-62.24	9.85	-52.39	-27.4
12525.00	V	-	-	-59.06	9.07	-49.99	-25.0

Table 7-46. Radiated Spurious Data (Band 41 PC2 – Low Channel)

OPERATING FREQUENCY: 2593.00 MHz  
 MODULATION SIGNAL: QPSK  
 BANDWIDTH: 10.0 MHz  
 DISTANCE: 3 meters  
 LIMIT: -25 dBm

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
5186.00	V	133	60	-62.53	8.70	-53.83	-28.8
7779.00	V	303	346	-61.56	8.69	-52.87	-27.9
10372.00	V	277	7	-62.45	9.62	-52.82	-27.8
12965.00	V	-	-	-58.39	8.99	-49.40	-24.4

Table 7-47. Radiated Spurious Data (Band 41 PC2 – Mid Channel)

FCC ID: A3LSMG977T		MEASUREMENT REPORT (CERTIFICATION)			Approved by: Quality Manager
Test Report S/N: 1M1903060032-03.A3L	Test Dates: 01/22 - 05/08/2019	EUT Type: Portable Handset		Page 286 of 348	

OPERATING FREQUENCY: 2685.00 MHz  
 MODULATION SIGNAL: QPSK  
 BANDWIDTH: 10.0 MHz  
 DISTANCE: 3 meters  
 LIMIT: -25 dBm

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
5370.00	V	277	110	-59.60	8.69	-50.91	-25.9
8055.00	V	108	1	-63.03	8.97	-54.06	-29.1
10740.00	V	400	22	-60.84	9.30	-51.54	-26.5
13425.00	V	-	-	-57.45	8.75	-48.70	-23.7

Table 7-48. Radiated Spurious Data (Band 41 PC2 – High Channel)

OPERATING FREQUENCY: 2685.00 MHz  
 MODULATION SIGNAL: QPSK  
 BANDWIDTH: 10.0 MHz  
 DISTANCE: 3 meters  
 LIMIT: -25 dBm

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
5370.00	V	133	355	-60.91	8.69	-52.22	-27.2
8055.00	V	218	11	-63.49	8.97	-54.52	-29.5
10740.00	V	400	185	-61.07	9.30	-51.77	-26.8
13425.00	V	-	-	-57.32	8.75	-48.57	-23.6

Table 7-49. Radiated Spurious Data with WCP (Band 41 PC2 – Low Channel)

FCC ID: A3LSMG977T		MEASUREMENT REPORT (CERTIFICATION)			Approved by: Quality Manager
Test Report S/N: 1M1903060032-03.A3L	Test Dates: 01/22 - 05/08/2019	EUT Type: Portable Handset		Page 287 of 348	

## 7.10 Uplink Carrier Aggregation Radiated Measurements

§22.917(a) §27.53(h)

### Test Overview

Radiated spurious emissions measurements are performed using the substitution method described in ANSI/TIA-603-E-2016 with the EUT transmitting into an integral antenna. Measurements on signals operating below 1GHz are performed using vertically and horizontally polarized tuned dipole antennas. Measurements on signals operating above 1GHz are performed using vertically and horizontally polarized broadband horn antennas. All measurements are performed as peak measurements while the EUT is operating at its maximum duty cycle, at maximum power, and at the appropriate frequencies.

### Test Procedures Used

KDB 971168 D01 v02r02 – Section 5.8

ANSI/TIA-603-E-2016 – Section 2.2.12

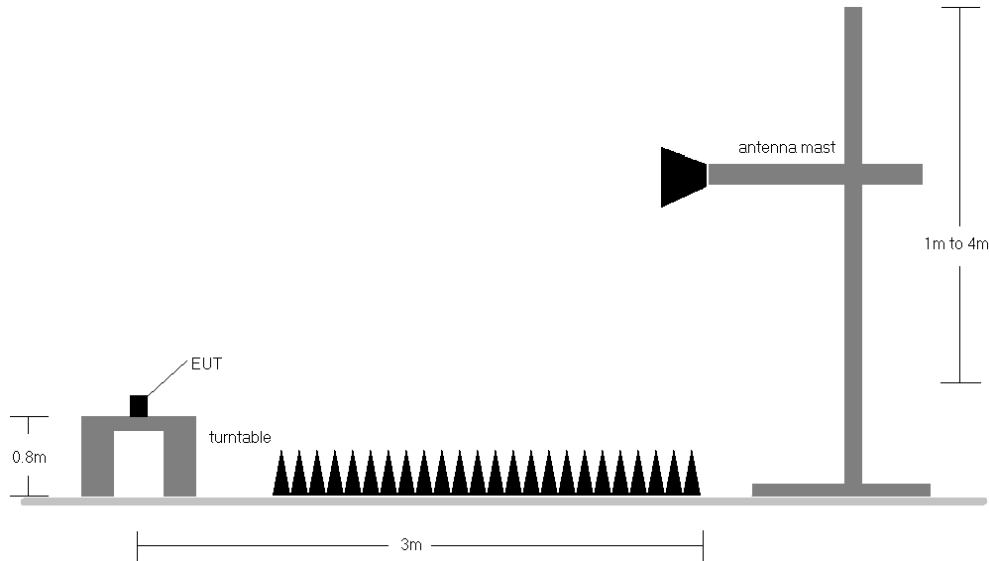
### Test Settings

1. RBW = 100kHz for emissions below 1GHz and 1MHz for emissions above 1GHz
2. VBW  $\geq$  3 x RBW
3. No. of sweep points  $\geq$  2 x span / RBW
4. Detector = RMS
5. Trace mode = trace average for continuous emissions, max hold for pulse emissions
6. The trace was allowed to stabilize

FCC ID: A3LSMG977T	 <b>MEASUREMENT REPORT (CERTIFICATION)</b> 		Approved by: Quality Manager
Test Report S/N: 1M1903060032-03.A3L	Test Dates: 01/22 - 05/08/2019	EUT Type: Portable Handset	Page 288 of 348

**Test Setup**

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



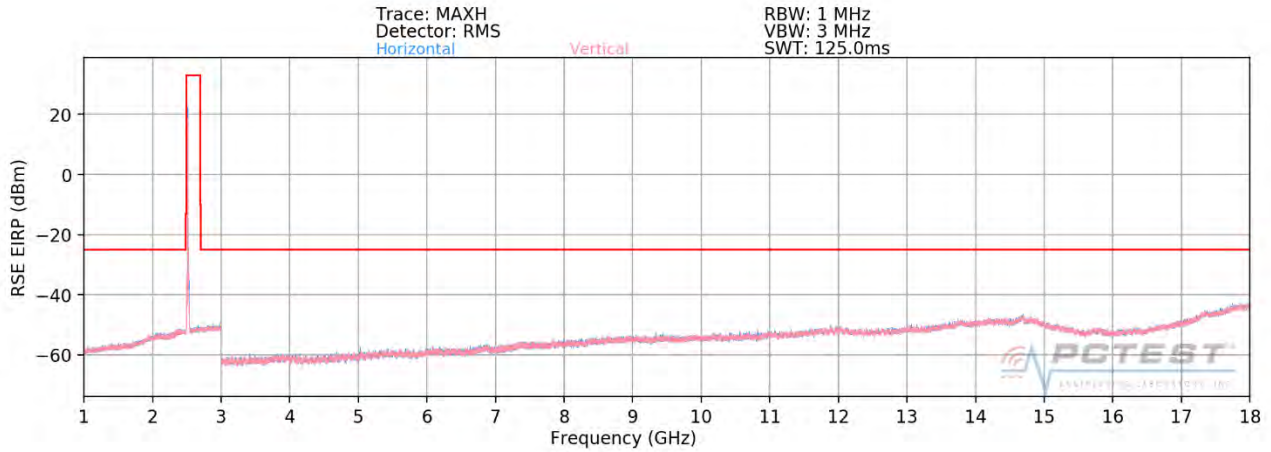
**Figure 7-10. Test Instrument & Measurement Setup**

**Test Notes**

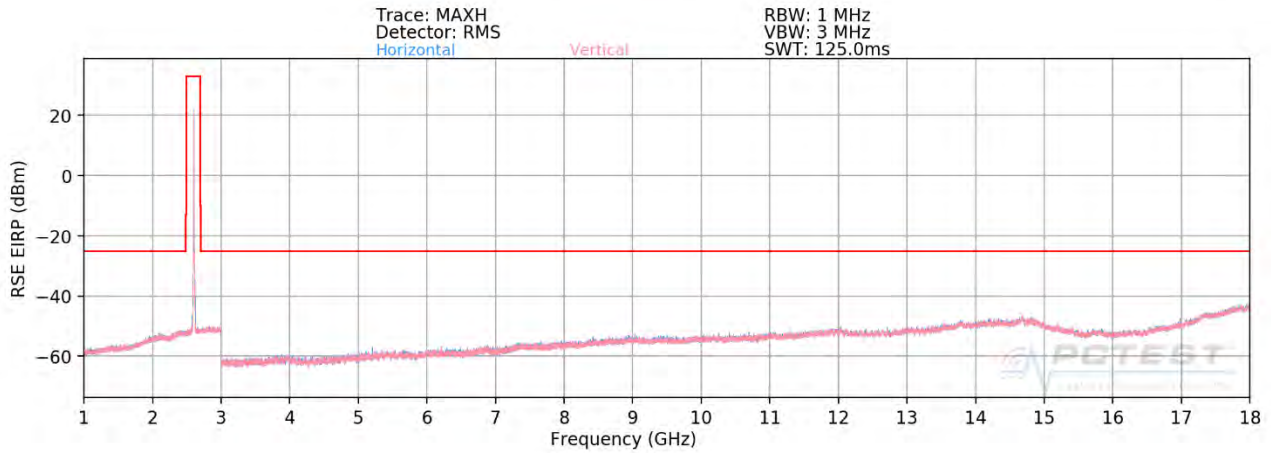
- 1) The EUT was tested in three orthogonal planes and in all possible test configurations and positioning. The worst case emissions are reported with the EUT positioning, modulations, RB sizes and offsets, and channel bandwidth configurations shown in the tables below.
- 2) This unit was tested with its standard battery.
- 3) Radiated spurious emissions measurements were evaluated for the two contiguous channels using various combinations of RB size, RB offset, modulation, and channel bandwidth. The worst case (highest) emissions were found while operating with QPSK modulation with both carriers set to transmit using 1RB.
- 4) The spectrum is measured from 9kHz to the 10th harmonic of the fundamental frequency of the transmitter. The worst-case emissions are reported.
- 5) Emissions below 18GHz were measured at a 3 meter test distance while emissions above 18GHz were measured at a 1 meter test distance with the application of a distance correction factor.
- 6) No significant emissions were found as a result of two uplink carriers operating contiguously.

FCC ID: A3LSMG977T		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1903060032-03.A3L	Test Dates: 01/22 - 05/08/2019	EUT Type: Portable Handset		Page 289 of 348

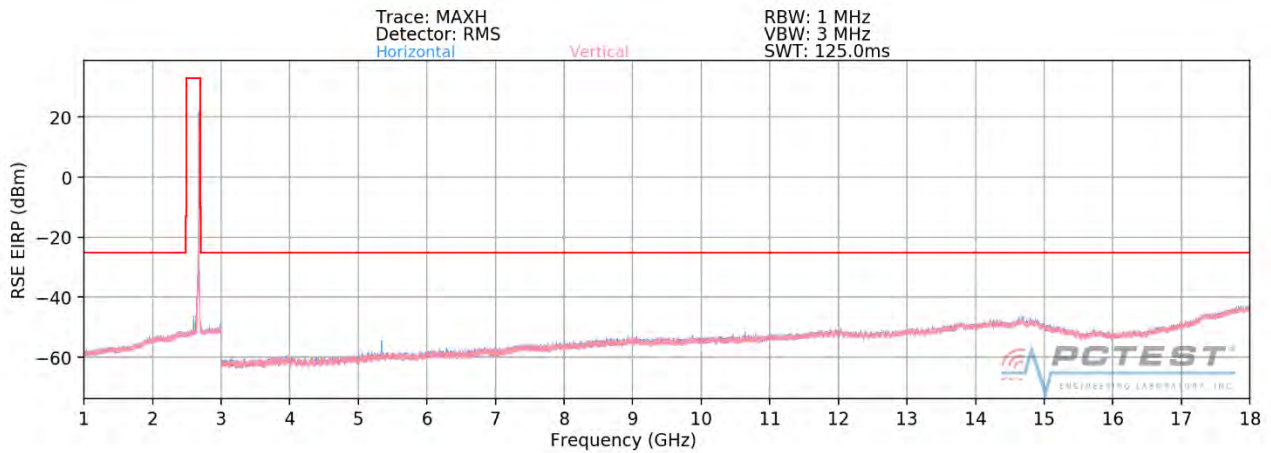
## Uplink CA Configuration 41C (PC3)



**Plot 7-447. Radiated Spurious Plot (ULCA 41C PCC: RB 1 Offset 99, SCC: RB 1 Offset 0 – Low Channel)**



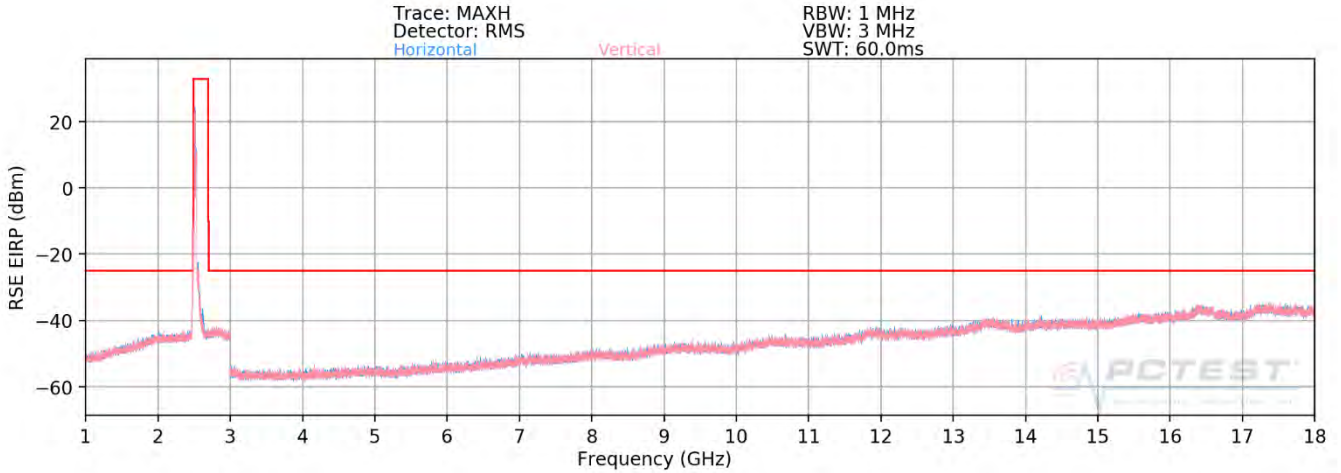
**Plot 7-448. Radiated Spurious Plot (ULCA 41C PCC: RB 1 Offset 99, SCC: RB 1 Offset 0 – Mid Channel)**



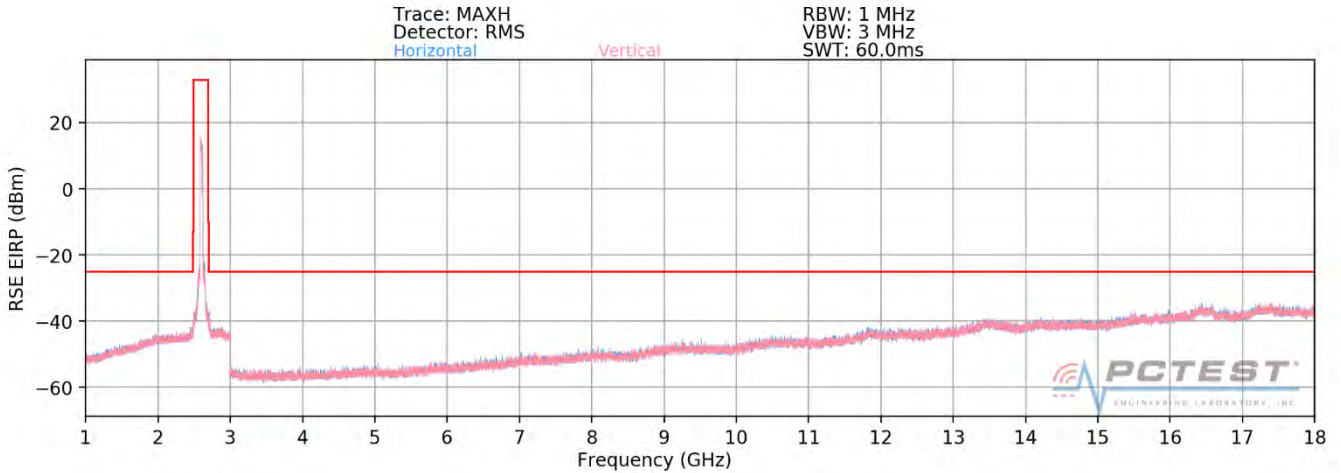
**Plot 7-449. Radiated Spurious Plot (ULCA 41C PCC: RB 1 Offset 0, SCC: RB 1 Offset 99 – High Channel)**

FCC ID: A3LSMG977T		<b>MEASUREMENT REPORT (CERTIFICATION)</b>		Approved by: Quality Manager
Test Report S/N: 1M1903060032-03.A3L	Test Dates: 01/22 - 05/08/2019	EUT Type: Portable Handset		Page 290 of 348

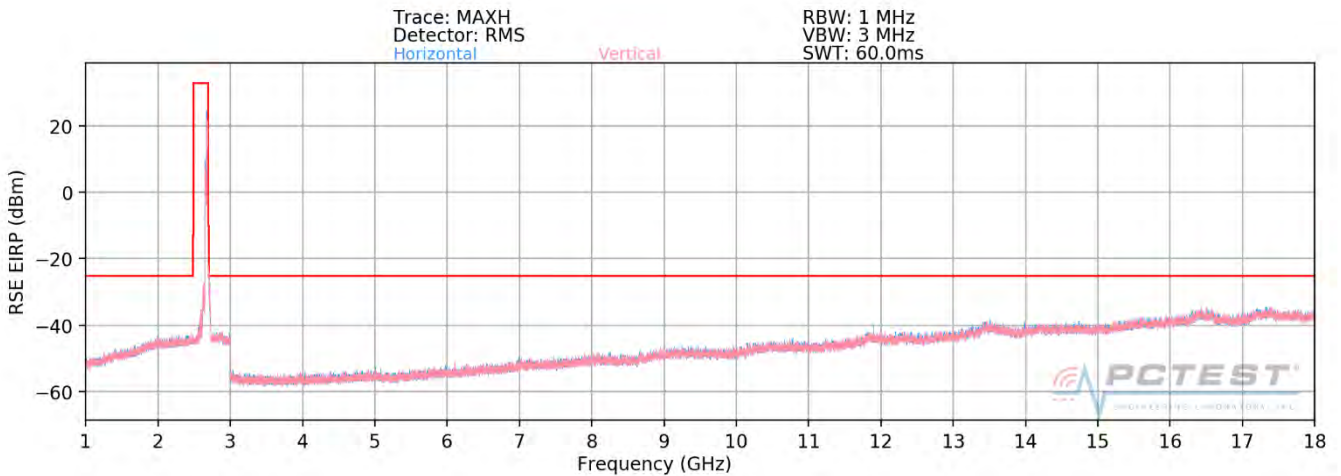




**Plot 7-450. Radiated Spurious Plot (ULCA 41C PCC: RB 100 Offset 0, SCC: RB 100 Offset 0 – Low Channel)**



**Plot 7-451. Radiated Spurious Plot (ULCA 41C PCC: RB 100 Offset 0, SCC: RB 100 Offset 0 – Mid Channel)**



**Plot 7-452. Radiated Spurious Plot (ULCA 41C PCC: RB 100 Offset 0, SCC: RB 100 Offset 0 – High Channel)**

FCC ID: A3LSMG977T		<b>MEASUREMENT REPORT (CERTIFICATION)</b>		Approved by: Quality Manager
Test Report S/N: 1M1903060032-03.A3L	Test Dates: 01/22 - 05/08/2019	EUT Type: Portable Handset		Page 291 of 348

OPERATING FREQUENCY (PCC): \_\_\_\_\_ 2506.00 MHz  
 OPERATING FREQUENCY (SCC): \_\_\_\_\_ 2525.80 MHz  
 CHANNEL (PCC): \_\_\_\_\_ 39750  
 CHANNEL (SCC): \_\_\_\_\_ 39948  
 MODULATION SIGNAL: \_\_\_\_\_ QPSK  
 BANDWIDTH: \_\_\_\_\_ 20.0 MHz  
 DISTANCE: \_\_\_\_\_ 3 meters  
 LIMIT: \_\_\_\_\_ -25 dBm

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
5012.00	H	121	318	-57.34	8.75	-48.59	-23.6
7518.00	H	-	-	-57.96	9.32	-48.65	-23.6
10024.00	H	-	-	-54.99	9.80	-45.19	-20.2

Table 7-50. Radiated Spurious Data (ULCA 41C- PC3 - PCC: RB 1 Offset 99, SCC: RB 1 Offset 0 – Low Channel)

OPERATING FREQUENCY (PCC): \_\_\_\_\_ 2593.00 MHz  
 OPERATING FREQUENCY (SCC): \_\_\_\_\_ 2612.80 MHz  
 CHANNEL (PCC): \_\_\_\_\_ 2593  
 CHANNEL (SCC): \_\_\_\_\_ 40818  
 MODULATION SIGNAL: \_\_\_\_\_ QPSK  
 BANDWIDTH: \_\_\_\_\_ 20.0 MHz  
 DISTANCE: \_\_\_\_\_ 3 meters  
 LIMIT: \_\_\_\_\_ -25 dBm

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
5186.00	H	111	303	-57.94	9.03	-48.91	-23.9
7779.00	H	-	-	-55.58	9.29	-46.29	-21.3
10372.00	H	-	-	-53.97	9.50	-44.47	-19.5

Table 7-51. Radiated Spurious Data (ULCA 41C- PC3 - PCC: RB 1 Offset 99, SCC: RB 1 Offset 0 – Mid Channel)

FCC ID: A3LSMG977T		MEASUREMENT REPORT (CERTIFICATION)			Approved by: Quality Manager
Test Report S/N: 1M1903060032-03.A3L	Test Dates: 01/22 - 05/08/2019	EUT Type: Portable Handset		Page 292 of 348	

OPERATING FREQUENCY (PCC): \_\_\_\_\_ 2680.00 MHz  
 OPERATING FREQUENCY (SCC): \_\_\_\_\_ 2660.20 MHz  
 CHANNEL (PCC): \_\_\_\_\_ 41490  
 CHANNEL (SCC): \_\_\_\_\_ 41292  
 MODULATION SIGNAL: \_\_\_\_\_ QPSK  
 BANDWIDTH: \_\_\_\_\_ 20.0 MHz  
 DISTANCE: \_\_\_\_\_ 3 meters  
 LIMIT: \_\_\_\_\_ -25 dBm

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
5360.00	H	108	319	-56.12	8.99	-47.13	-22.1
8040.00	H	-	-	-56.54	9.35	-47.19	-22.2
10720.00	H	-	-	-52.80	9.39	-43.40	-18.4

Table 7-52. Radiated Spurious Data (ULCA 41C – PC3 - PCC: RB 1 Offset 0, SCC: RB 1 Offset 99 – High Channel)

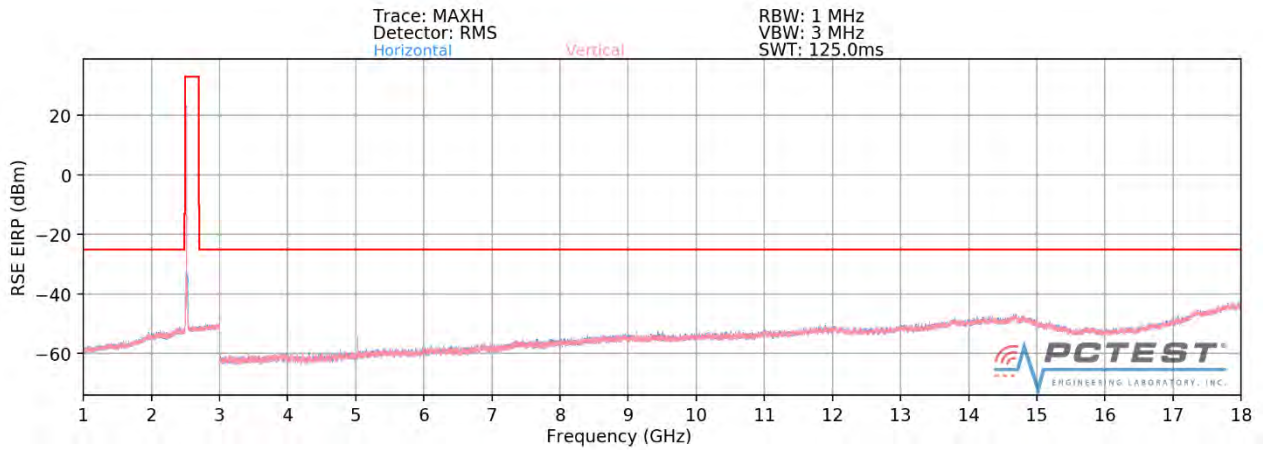
OPERATING FREQUENCY (PCC): \_\_\_\_\_ 2680.00 MHz  
 OPERATING FREQUENCY (SCC): \_\_\_\_\_ 2660.20 MHz  
 CHANNEL (PCC): \_\_\_\_\_ 41490  
 CHANNEL (SCC): \_\_\_\_\_ 41292  
 MODULATION SIGNAL: \_\_\_\_\_ QPSK  
 BANDWIDTH: \_\_\_\_\_ 20.0 MHz  
 DISTANCE: \_\_\_\_\_ 3 meters  
 LIMIT: \_\_\_\_\_ -25 dBm

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
5360.00	H	161	227	-57.02	8.99	-48.03	-23.0
8040.00	H	-	-	-56.58	9.35	-47.23	-22.2
10720.00	H	-	-	-52.66	9.39	-43.26	-18.3

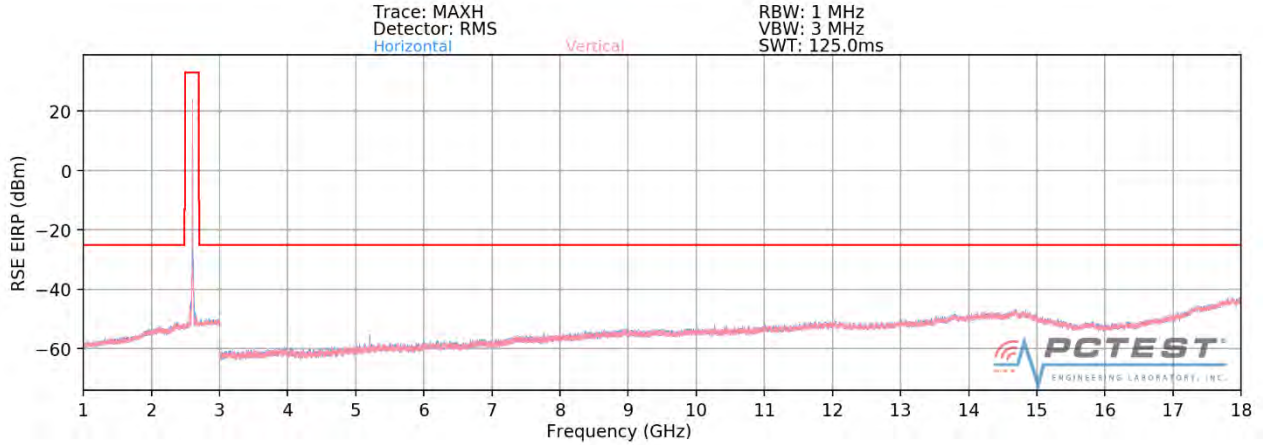
Table 7-53. Radiated Spurious Data with WCP (ULCA 41C- PC3 - PCC: RB 1 Offset 99, SCC: RB 1 Offset 0 – High Channel)

FCC ID: A3LSMG977T		MEASUREMENT REPORT (CERTIFICATION)			Approved by: Quality Manager
Test Report S/N: 1M1903060032-03.A3L	Test Dates: 01/22 - 05/08/2019	EUT Type: Portable Handset		Page 293 of 348	

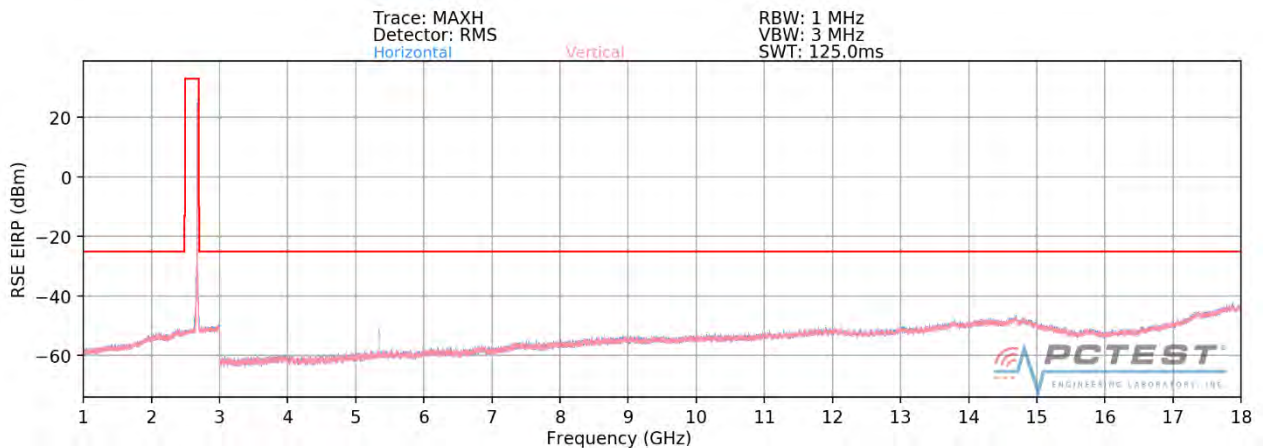
## Uplink CA Configuration 41C (PC2)



**Plot 7-453. Radiated Spurious Plot (ULCA 41C PCC: RB 1 Offset 99, SCC: RB 1 Offset 0 – Low Channel )**

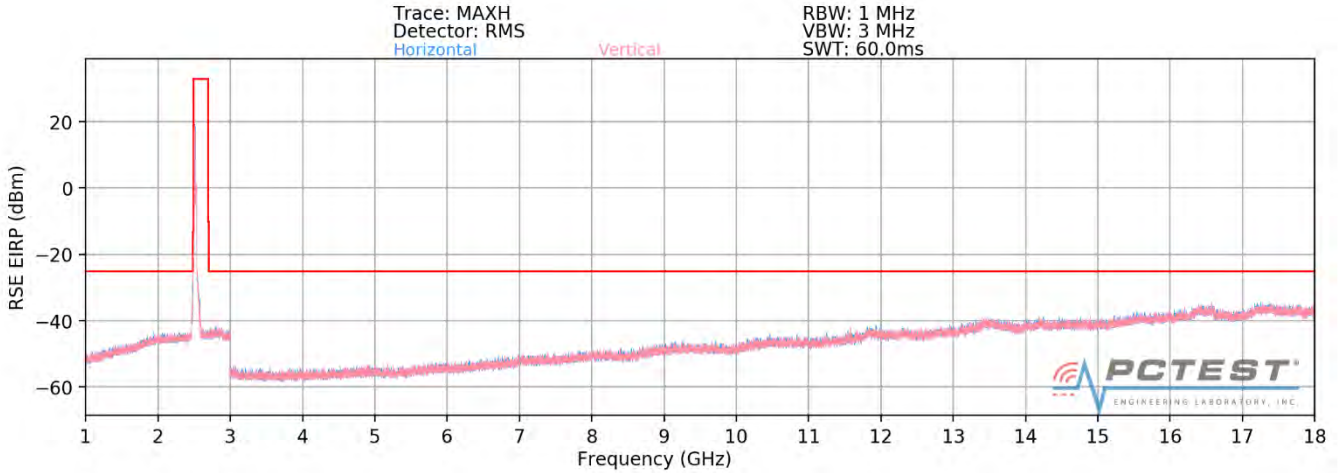


**Plot 7-454. Radiated Spurious Plot (ULCA 41C PCC: RB 1 Offset 99, SCC: RB 1 Offset 0 – Mid Channel)**

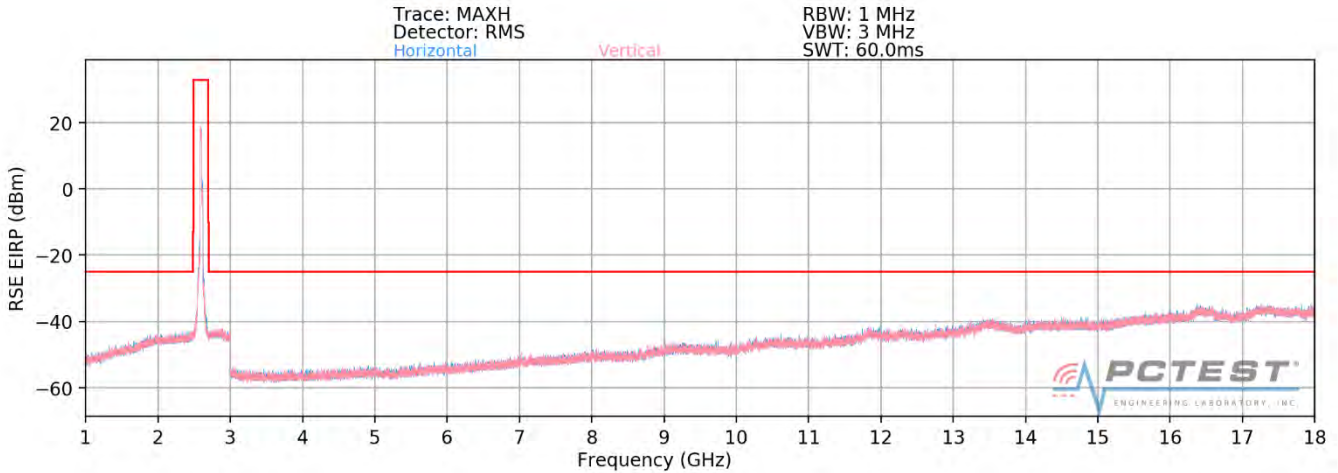


**Plot 7-455. Radiated Spurious Plot (ULCA 41C PCC: RB 1 Offset 0, SCC: RB 1 Offset 99 – High Channel)**

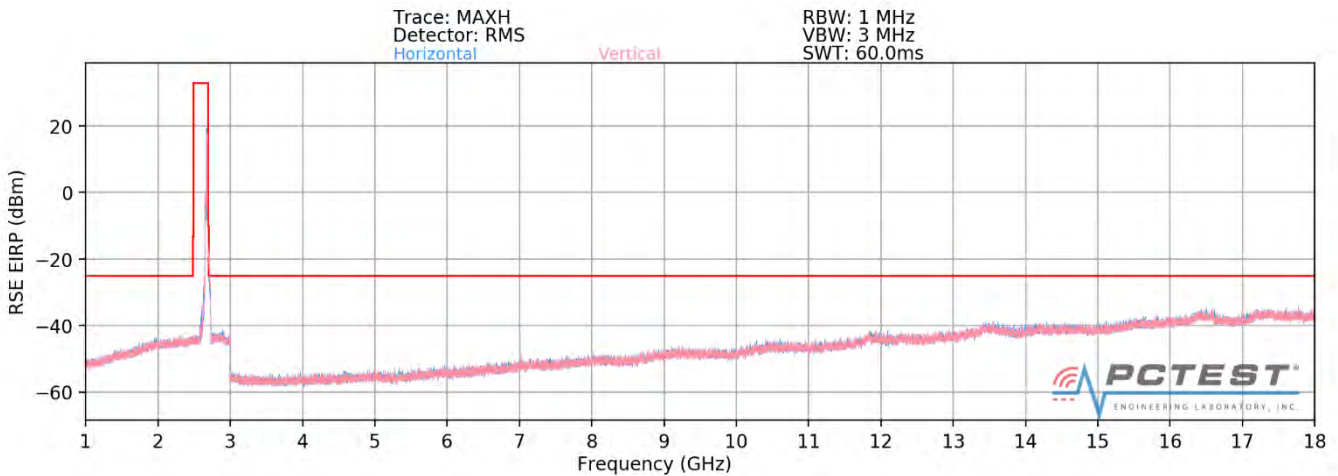
FCC ID: A3LSMG977T		<b>MEASUREMENT REPORT (CERTIFICATION)</b>		Approved by: Quality Manager
Test Report S/N: 1M1903060032-03.A3L	Test Dates: 01/22 - 05/08/2019	EUT Type: Portable Handset		Page 294 of 348



**Plot 7-456. Radiated Spurious Plot (ULCA 41C PCC: RB 100 Offset 0, SCC: RB 100 Offset 0 – Low Channel)**



**Plot 7-457. Radiated Spurious Plot (ULCA 41C PCC: RB 100 Offset 0, SCC: RB 100 Offset 0 – Mid Channel)**



**Plot 7-458. Radiated Spurious Plot (ULCA 41C PCC: RB 100 Offset 0, SCC: RB 100 Offset 0 – High Channel)**

FCC ID: A3LSMG977T		<b>MEASUREMENT REPORT (CERTIFICATION)</b>		Approved by: Quality Manager
Test Report S/N: 1M1903060032-03.A3L	Test Dates: 01/22 - 05/08/2019	EUT Type: Portable Handset		Page 295 of 348

OPERATING FREQUENCY (PCC): \_\_\_\_\_ 2506.00 \_\_\_\_\_ MHz  
 OPERATING FREQUENCY (SCC): \_\_\_\_\_ 2525.80 \_\_\_\_\_ MHz  
 CHANNEL (PCC): \_\_\_\_\_ 39750 \_\_\_\_\_  
 CHANNEL (SCC): \_\_\_\_\_ 39948 \_\_\_\_\_  
 MODULATION SIGNAL: \_\_\_\_\_ QPSK \_\_\_\_\_  
 BANDWIDTH: \_\_\_\_\_ 20.0 \_\_\_\_\_ MHz  
 DISTANCE: \_\_\_\_\_ 3 \_\_\_\_\_ meters  
 LIMIT: \_\_\_\_\_ -25 \_\_\_\_\_ dBm

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
5012.00	H	106	329	-55.66	8.75	-46.91	-21.9
7518.00	H	104	48	-56.05	9.32	-46.74	-21.7
10024.00	H	-	-	-55.39	9.80	-45.59	-20.6
12530.00	H	-	-	-49.38	8.87	-40.51	-15.5

Table 7-54. Radiated Spurious Data (ULCA 41C- PC2 - PCC: RB 1 Offset 99, SCC: RB 1 Offset 0 – Low Channel)

OPERATING FREQUENCY (PCC): \_\_\_\_\_ 2593.00 \_\_\_\_\_ MHz  
 OPERATING FREQUENCY (SCC): \_\_\_\_\_ 2612.80 \_\_\_\_\_ MHz  
 CHANNEL (PCC): \_\_\_\_\_ 2593 \_\_\_\_\_  
 CHANNEL (SCC): \_\_\_\_\_ 40818 \_\_\_\_\_  
 MODULATION SIGNAL: \_\_\_\_\_ QPSK \_\_\_\_\_  
 BANDWIDTH: \_\_\_\_\_ 20.0 \_\_\_\_\_ MHz  
 DISTANCE: \_\_\_\_\_ 3 \_\_\_\_\_ meters  
 LIMIT: \_\_\_\_\_ -25 \_\_\_\_\_ dBm

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
5186.00	H	102	307	-56.27	9.03	-47.24	-22.2
7779.00	H	-	-	-56.63	9.29	-47.34	-22.3
10372.00	H	-	-	-52.79	9.50	-43.29	-18.3

Table 7-55. Radiated Spurious Data (ULCA 41C- PC2 - PCC: RB 1 Offset 99, SCC: RB 1 Offset 0 – Mid Channel)

FCC ID: A3LSMG977T		MEASUREMENT REPORT (CERTIFICATION)			Approved by: Quality Manager
Test Report S/N: 1M1903060032-03.A3L	Test Dates: 01/22 - 05/08/2019	EUT Type: Portable Handset		Page 296 of 348	

OPERATING FREQUENCY (PCC): \_\_\_\_\_ 2680.00 MHz  
 OPERATING FREQUENCY (SCC): \_\_\_\_\_ 2660.20 MHz  
 CHANNEL (PCC): \_\_\_\_\_ 41490  
 CHANNEL (SCC): \_\_\_\_\_ 41292  
 MODULATION SIGNAL: \_\_\_\_\_ QPSK  
 BANDWIDTH: \_\_\_\_\_ 20.0 MHz  
 DISTANCE: \_\_\_\_\_ 3 meters  
 LIMIT: \_\_\_\_\_ -25 dBm

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
5360.00	H	108	359	-53.75	8.99	-44.76	-19.8
8040.00	H	-	-	-56.61	9.35	-47.26	-22.3
10720.00	H	-	-	-52.70	9.39	-43.30	-18.3

Table 7-56. Radiated Spurious Data (ULCA 41C - PC2 - PCC: RB 1 Offset 0, SCC: RB 1 Offset 99 – High Channel)

OPERATING FREQUENCY (PCC): \_\_\_\_\_ 2680.00 MHz  
 OPERATING FREQUENCY (SCC): \_\_\_\_\_ 2660.20 MHz  
 CHANNEL (PCC): \_\_\_\_\_ 41490  
 CHANNEL (SCC): \_\_\_\_\_ 41292  
 MODULATION SIGNAL: \_\_\_\_\_ QPSK  
 BANDWIDTH: \_\_\_\_\_ 20.0 MHz  
 DISTANCE: \_\_\_\_\_ 3 meters  
 LIMIT: \_\_\_\_\_ -25 dBm

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
5360.00	H	128	227	-55.40	8.99	-46.41	-21.4
8040.00	H	-	-	-56.63	9.35	-47.28	-22.3
10720.00	H	-	-	-52.34	9.39	-42.94	-17.9

Table 7-57. Radiated Spurious Data with WCP (ULCA 41C- PC2 - PCC: RB 1 Offset 99, SCC: RB 1 Offset 0 – High Channel)

FCC ID: A3LSMG977T		MEASUREMENT REPORT (CERTIFICATION)			Approved by: Quality Manager
Test Report S/N: 1M1903060032-03.A3L	Test Dates: 01/22 - 05/08/2019	EUT Type: Portable Handset		Page 297 of 348	

## 7.11 Frequency Stability / Temperature Variation

### Test Overview and Limit

Frequency stability testing is performed in accordance with the guidelines of ANSI/TIA-603-E-2016. The frequency stability of the transmitter is measured by:

- a.) **Temperature:** The temperature is varied from -30°C to +50°C in 10°C increments using an environmental chamber.
- b.) **Primary Supply Voltage:** The primary supply voltage is varied from 85% to 115% of the nominal value for non hand-carried battery and AC powered equipment. For hand-carried, battery-powered equipment, primary supply voltage is reduced to the battery operating end point which shall be specified by the manufacturer.

***For Part 22, the frequency stability of the transmitter shall be maintained within ±0.00025% (±2.5 ppm) of the center frequency. For Part 24, Part 27, the frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency block.***

### Test Procedure Used

ANSI/TIA-603-E-2016

### Test Settings

1. The carrier frequency of the transmitter is measured at room temperature (20°C to provide a reference).
2. The equipment is turned on in a “standby” condition for fifteen minutes before applying power to the transmitter. Measurement of the carrier frequency of the transmitter is made within one minute after applying power to the transmitter.
3. Frequency measurements are made at 10°C intervals ranging from -30°C to +50°C. A period of at least one half-hour is provided to allow stabilization of the equipment at each temperature level.

### Test Setup

The EUT was connected via an RF cable to a spectrum analyzer with the EUT placed inside an environmental chamber.

### Test Notes

None

FCC ID: A3LSMG977T		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1903060032-03.A3L	Test Dates: 01/22 - 05/08/2019	EUT Type: Portable Handset	Page 298 of 348	



## Band 71 Frequency Stability Measurements

OPERATING FREQUENCY: 680,500,000 Hz  
 CHANNEL: 133297  
 REFERENCE VOLTAGE: 4.31 VDC

VOLTAGE (%)	POWER (VDC)	TEMP (°C)	FREQUENCY (Hz)	Freq. Dev. (Hz)	Deviation (%)
100 %	4.31	- 30	680,499,998	-2	-0.0000003
100 %		- 20	680,499,693	-307	-0.0000451
100 %		- 10	680,499,770	-230	-0.0000338
100 %		0	680,500,003	3	0.0000004
100 %		+ 10	680,499,596	-404	-0.0000594
100 %		+ 20	680,500,097	97	0.0000143
100 %		+ 30	680,499,882	-118	-0.0000173
100 %		+ 40	680,500,080	80	0.0000118
100 %		+ 50	680,500,096	96	0.0000141
BATT. ENDPOINT		3.44	+ 20	680,500,091	91

**Table 7-58. Frequency Stability Data (Band 71)**

**Note:**

Based on the results of the frequency stability test at the center channel the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency deviation noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

FCC ID: A3LSMG977T		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1903060032-03.A3L	Test Dates: 01/22 - 05/08/2019	EUT Type: Portable Handset	Page 299 of 348	

## Band 71 Frequency Stability Measurements

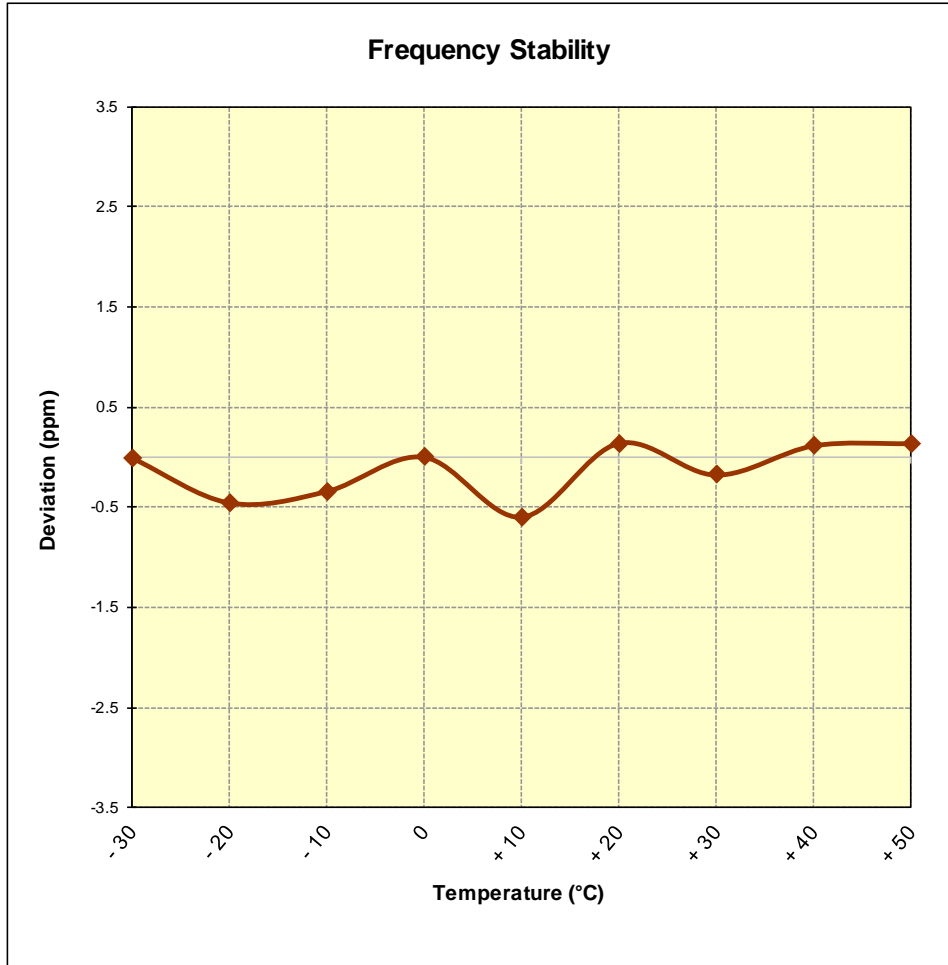


Figure 7-11. Frequency Stability Graph (Band 71)

FCC ID: A3LSMG977T		<b>MEASUREMENT REPORT (CERTIFICATION)</b>		Approved by: Quality Manager
Test Report S/N: 1M1903060032-03.A3L	Test Dates: 01/22 - 05/08/2019	EUT Type: Portable Handset		Page 300 of 348

## Band 12 Frequency Stability Measurements

OPERATING FREQUENCY: 707,500,000 Hz  
 CHANNEL: 23790  
 REFERENCE VOLTAGE: 4.31 VDC

VOLTAGE (%)	POWER (VDC)	TEMP (°C)	FREQUENCY (Hz)	Freq. Dev. (Hz)	Deviation (%)
100 %	4.31	- 30	707,500,009	9	0.0000013
100 %		- 20	707,500,075	75	0.0000106
100 %		- 10	707,500,039	39	0.0000055
100 %		0	707,500,368	368	0.0000520
100 %		+ 10	707,500,060	60	0.0000085
100 %		+ 20	707,500,091	91	0.0000129
100 %		+ 30	707,499,742	-258	-0.0000365
100 %		+ 40	707,500,023	23	0.0000033
100 %		+ 50	707,499,663	-337	-0.0000476
BATT. ENDPOINT		3.44	+ 20	707,499,951	-49

**Table 7-59. Frequency Stability Data (Band 12)**

**Note:**

Based on the results of the frequency stability test at the center channel the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency deviation noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

FCC ID: A3LSMG977T		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1903060032-03.A3L	Test Dates: 01/22 - 05/08/2019	EUT Type: Portable Handset	Page 301 of 348	

## Band 12 Frequency Stability Measurements

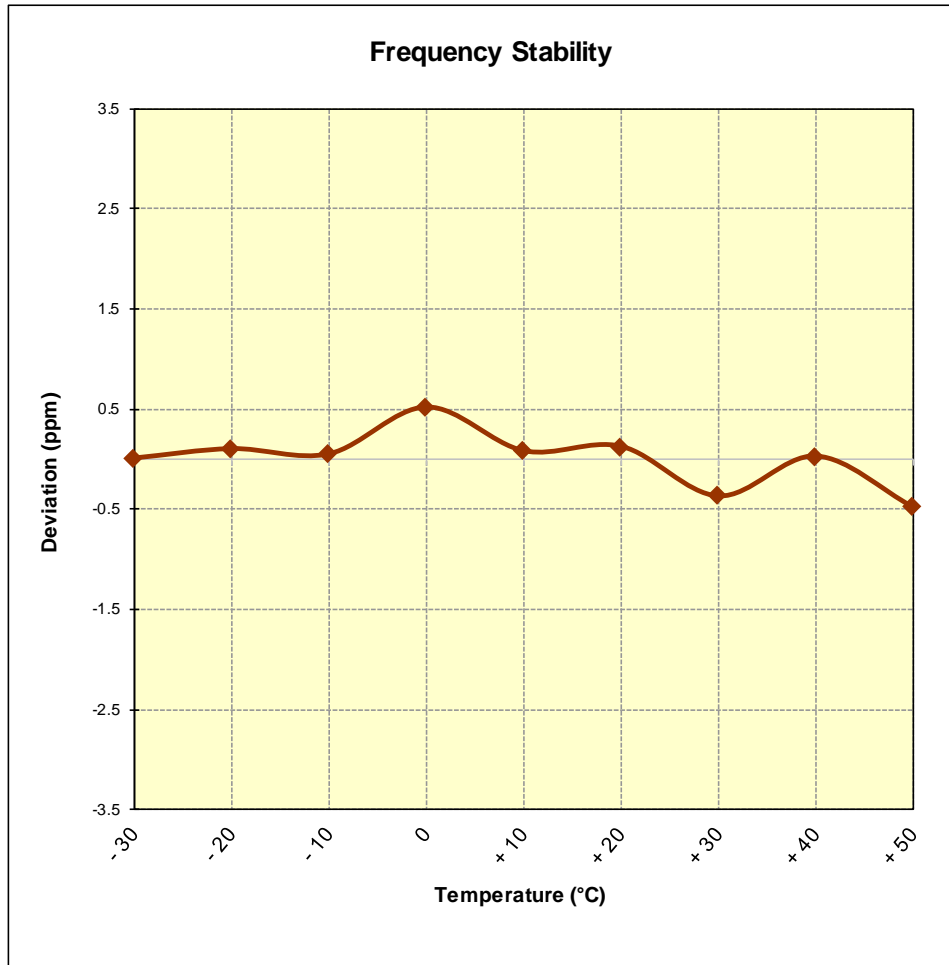


Figure 7-12. Frequency Stability Graph (Band 12)

FCC ID: A3LSMG977T		<b>MEASUREMENT REPORT (CERTIFICATION)</b>		Approved by: Quality Manager
Test Report S/N: 1M1903060032-03.A3L	Test Dates: 01/22 - 05/08/2019	EUT Type: Portable Handset		Page 302 of 348

## Band 13 Frequency Stability Measurements

OPERATING FREQUENCY: 782,000,000 Hz  
 CHANNEL: 23230  
 REFERENCE VOLTAGE: 4.31 VDC

VOLTAGE (%)	POWER (VDC)	TEMP (°C)	FREQUENCY (Hz)	Freq. Dev. (Hz)	Deviation (%)
100 %	4.31	- 30	782,000,384	384	0.0000491
100 %		- 20	781,999,809	-191	-0.0000244
100 %		- 10	781,999,972	-28	-0.0000036
100 %		0	781,999,756	-244	-0.0000312
100 %		+ 10	782,000,190	190	0.0000243
100 %		+ 20	781,999,710	-290	-0.0000371
100 %		+ 30	781,999,645	-355	-0.0000454
100 %		+ 40	781,999,911	-89	-0.0000114
100 %		+ 50	782,000,161	161	0.0000206
BATT. ENDPOINT		3.44	+ 20	782,000,174	174

**Table 7-60. Frequency Stability Data (Band 13)**

**Note:**

Based on the results of the frequency stability test at the center channel the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency deviation noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

FCC ID: A3LSMG977T		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1903060032-03.A3L	Test Dates: 01/22 - 05/08/2019	EUT Type: Portable Handset	Page 303 of 348	

## Band 13 Frequency Stability Measurements

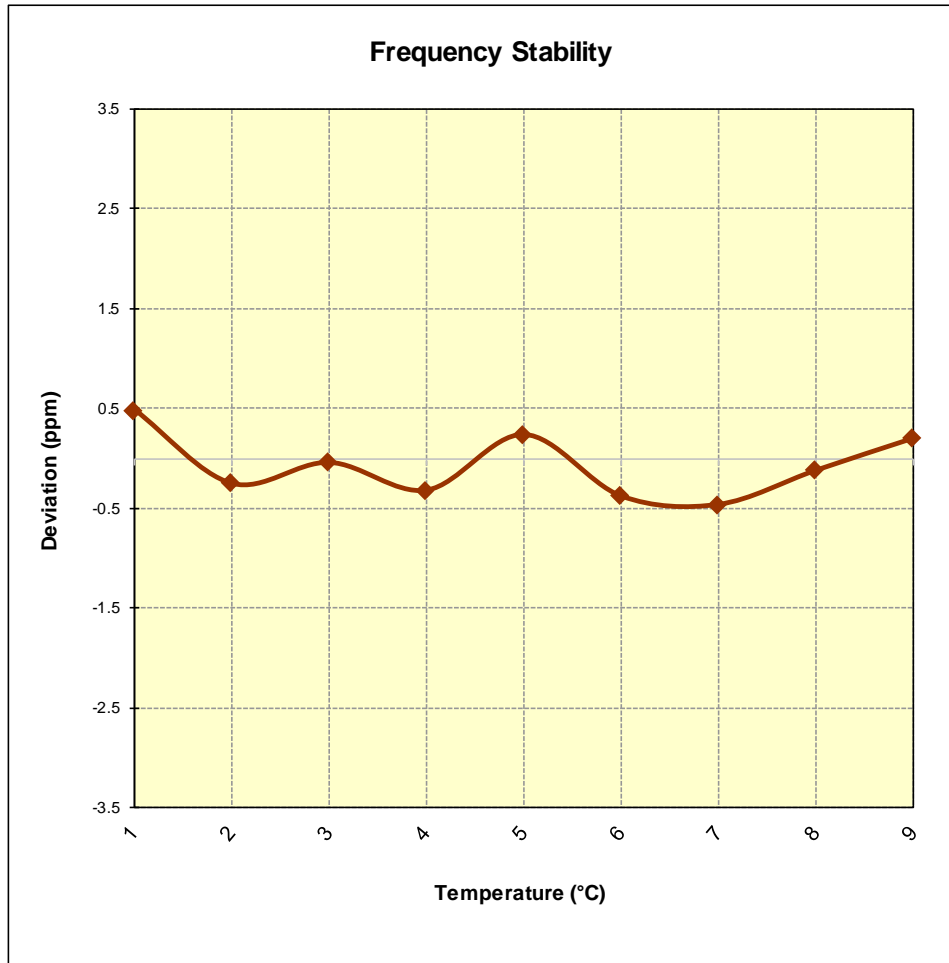


Figure 7-13. Frequency Stability Graph (Band 13)

FCC ID: A3LSMG977T		<b>MEASUREMENT REPORT (CERTIFICATION)</b>		Approved by: Quality Manager
Test Report S/N: 1M1903060032-03.A3L	Test Dates: 01/22 - 05/08/2019	EUT Type: Portable Handset		Page 304 of 348

## Band 26/5 Frequency Stability Measurements

OPERATING FREQUENCY: 831,500,000 Hz  
 CHANNEL: 26865  
 REFERENCE VOLTAGE: 4.31 VDC

VOLTAGE (%)	POWER (VDC)	TEMP (°C)	FREQUENCY (Hz)	Freq. Dev. (Hz)	Deviation (%)
100 %	4.31	- 30	831,499,916	-84	-0.0000101
100 %		- 20	831,500,069	69	0.0000083
100 %		- 10	831,499,735	-265	-0.0000319
100 %		0	831,500,024	24	0.0000029
100 %		+ 10	831,500,024	24	0.0000029
100 %		+ 20	831,500,021	21	0.0000025
100 %		+ 30	831,499,727	-273	-0.0000328
100 %		+ 40	831,500,270	270	0.0000325
100 %		+ 50	831,499,855	-145	-0.0000174
BATT. ENDPOINT		3.44	+ 20	831,500,084	84

**Table 7-61. Frequency Stability Data (Band 26/5)**

FCC ID: A3LSMG977T		MEASUREMENT REPORT (CERTIFICATION)			Approved by: Quality Manager
Test Report S/N: 1M1903060032-03.A3L	Test Dates: 01/22 - 05/08/2019	EUT Type: Portable Handset		Page 305 of 348	

## Band 26/5 Frequency Stability Measurements

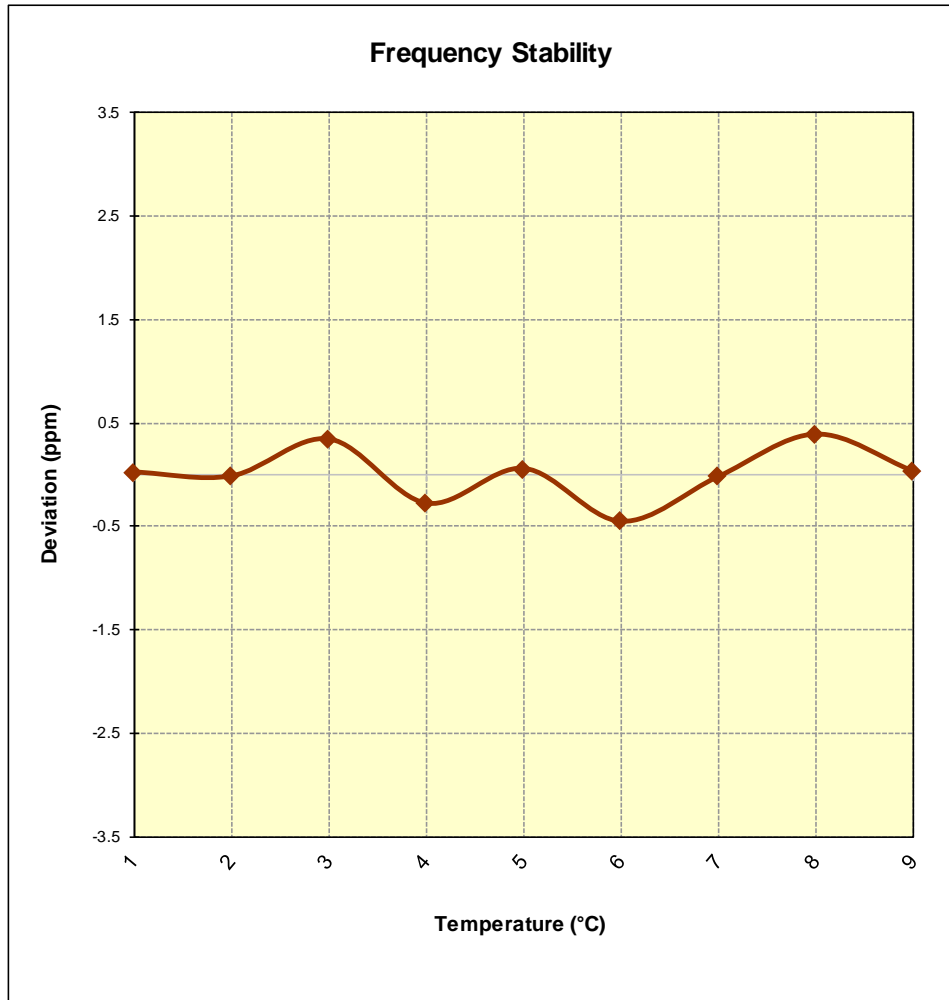


Figure 7-14. Frequency Stability Graph (Band 26/5)

FCC ID: A3LSMG977T		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1903060032-03.A3L	Test Dates: 01/22 - 05/08/2019	EUT Type: Portable Handset	Page 306 of 348	



## Band 66/4 Frequency Stability Measurements

OPERATING FREQUENCY: 1,745,000,000 Hz  
 CHANNEL: 132322  
 REFERENCE VOLTAGE: 4.31 VDC

VOLTAGE (%)	POWER (VDC)	TEMP (°C)	FREQUENCY (Hz)	Freq. Dev. (Hz)	Deviation (%)
100 %	4.31	- 30	1,744,999,826	-174	-0.0000100
100 %		- 20	1,744,999,948	-52	-0.0000030
100 %		- 10	1,744,999,871	-129	-0.0000074
100 %		0	1,744,999,971	-29	-0.0000017
100 %		+ 10	1,744,999,794	-206	-0.0000118
100 %		+ 20	1,745,000,190	190	0.0000109
100 %		+ 30	1,745,000,108	108	0.0000062
100 %		+ 40	1,745,000,128	128	0.0000073
100 %		+ 50	1,744,999,592	-408	-0.0000234
BATT. ENDPOINT		3.44	+ 20	1,744,999,990	-10

**Table 7-62. Frequency Stability Data (Band 66/4)**

**Note:**

Based on the results of the frequency stability test at the center channel the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency deviation noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

FCC ID: A3LSMG977T		MEASUREMENT REPORT (CERTIFICATION)			Approved by: Quality Manager
Test Report S/N: 1M1903060032-03.A3L	Test Dates: 01/22 - 05/08/2019	EUT Type: Portable Handset		Page 307 of 348	

## Band 66/4 Frequency Stability Measurements

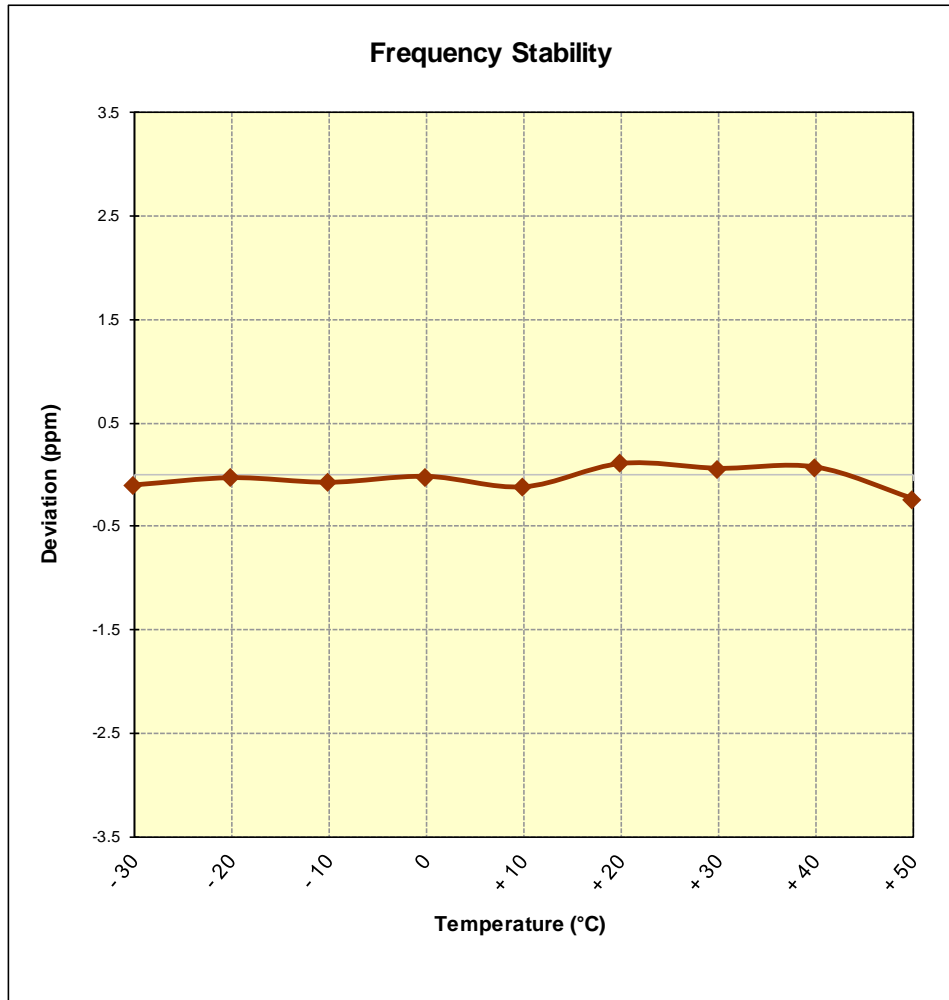


Figure 7-15. Frequency Stability Graph (Band 66/4)

FCC ID: A3LSMG977T		<b>MEASUREMENT REPORT (CERTIFICATION)</b>		Approved by: Quality Manager
Test Report S/N: 1M1903060032-03.A3L	Test Dates: 01/22 - 05/08/2019	EUT Type: Portable Handset		Page 308 of 348

## Band 25/2 Frequency Stability Measurements

OPERATING FREQUENCY: 1,882,500,000 Hz  
 CHANNEL: 26365  
 REFERENCE VOLTAGE: 4.31 VDC

VOLTAGE (%)	POWER (VDC)	TEMP (°C)	FREQUENCY (Hz)	Freq. Dev. (Hz)	Deviation (%)
100 %	4.31	- 30	1,882,500,017	17	0.0000009
100 %		- 20	1,882,499,783	-217	-0.0000115
100 %		- 10	1,882,500,254	254	0.0000135
100 %		0	1,882,499,763	-237	-0.0000126
100 %		+ 10	1,882,499,892	-108	-0.0000057
100 %		+ 20	1,882,499,621	-379	-0.0000201
100 %		+ 30	1,882,500,066	66	0.0000035
100 %		+ 40	1,882,500,171	171	0.0000091
100 %		+ 50	1,882,499,774	-226	-0.0000120
BATT. ENDPOINT		3.44	+ 20	1,882,499,879	-121

**Table 7-63. Frequency Stability Data (Band 2)**

**Note:**

Based on the results of the frequency stability test at the center channel the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency deviation noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

FCC ID: A3LSMG977T		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1903060032-03.A3L	Test Dates: 01/22 - 05/08/2019	EUT Type: Portable Handset	Page 309 of 348	

## Band 25/2 Frequency Stability Measurements

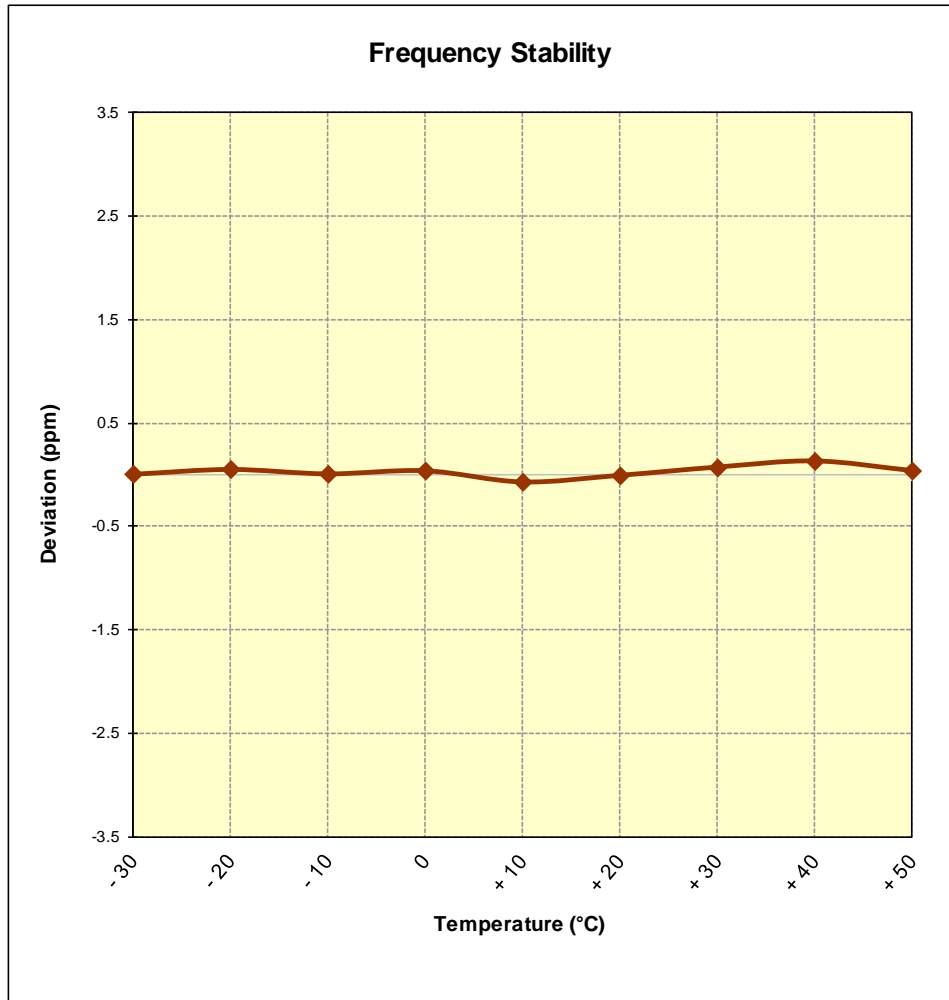


Figure 7-16. Frequency Stability Graph (Band 2)

FCC ID: A3LSMG977T		<b>MEASUREMENT REPORT (CERTIFICATION)</b>		Approved by: Quality Manager
Test Report S/N: 1M1903060032-03.A3L	Test Dates: 01/22 - 05/08/2019	EUT Type: Portable Handset		Page 310 of 348

## Band 7 Frequency Stability Measurements

OPERATING FREQUENCY: 2,535,000,000 Hz  
 CHANNEL: 21100  
 REFERENCE VOLTAGE: 4.31 VDC

VOLTAGE (%)	POWER (VDC)	TEMP (°C)	FREQUENCY (Hz)	Freq. Dev. (Hz)	Deviation (%)
100 %	4.31	- 30	2,535,000,410	410	0.0000162
100 %		- 20	2,534,999,719	-281	-0.0000111
100 %		- 10	2,534,999,609	-391	-0.0000154
100 %		0	2,534,999,827	-173	-0.0000068
100 %		+ 10	2,534,999,725	-275	-0.0000108
100 %		+ 20	2,534,999,855	-145	-0.0000057
100 %		+ 30	2,534,999,906	-94	-0.0000037
100 %		+ 40	2,534,999,937	-63	-0.0000025
100 %		+ 50	2,534,999,656	-344	-0.0000136
BATT. ENDPOINT		3.44	+ 20	2,535,000,142	142

**Table 7-64. Frequency Stability Data (Band 7)**

**Note:**

Based on the results of the frequency stability test at the center channel the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency deviation noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

FCC ID: A3LSMG977T		MEASUREMENT REPORT (CERTIFICATION)			Approved by: Quality Manager
Test Report S/N: 1M1903060032-03.A3L	Test Dates: 01/22 - 05/08/2019	EUT Type: Portable Handset		Page 311 of 348	

## Band 7 Frequency Stability Measurements

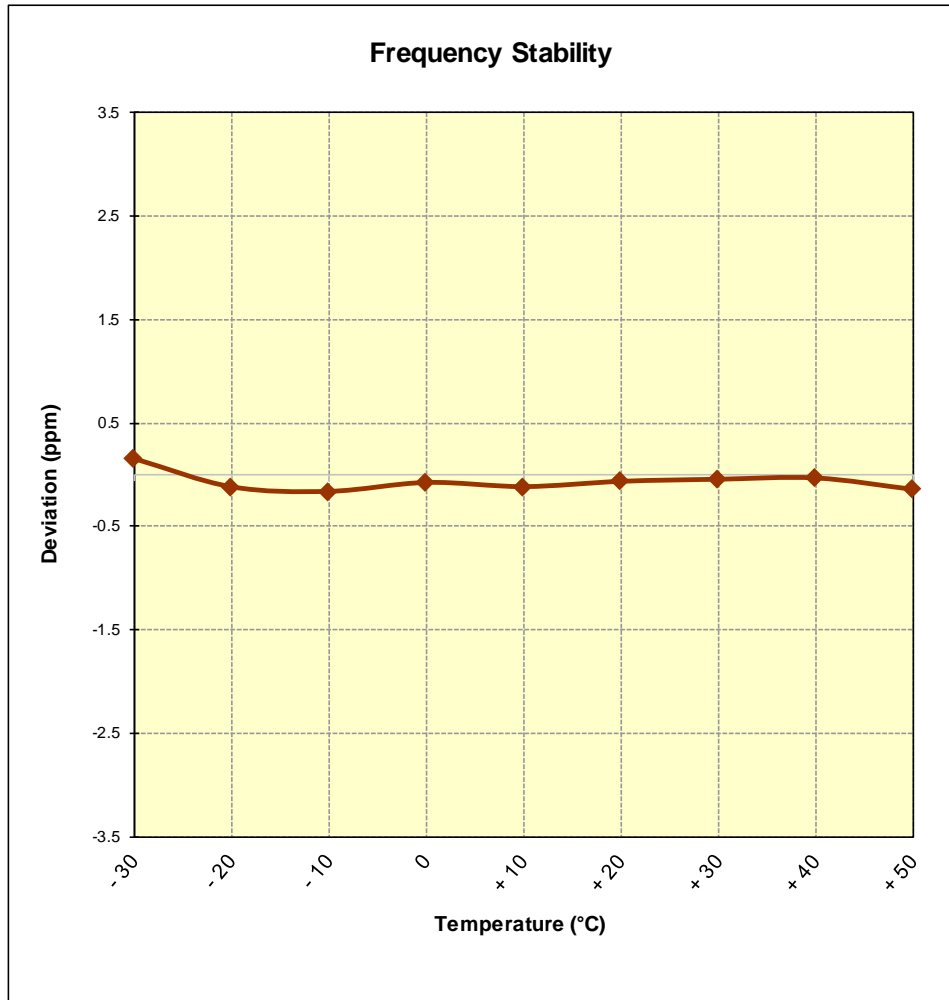


Figure 7-17. Frequency Stability Graph (Band 7)

FCC ID: A3LSMG977T		<b>MEASUREMENT REPORT (CERTIFICATION)</b>		Approved by: Quality Manager
Test Report S/N: 1M1903060032-03.A3L	Test Dates: 01/22 - 05/08/2019	EUT Type: Portable Handset		Page 312 of 348

## Band 41 Frequency Stability Measurements

OPERATING FREQUENCY: 2,593,000,000 Hz  
 CHANNEL: 40620  
 REFERENCE VOLTAGE: 4.31 VDC

VOLTAGE (%)	POWER (VDC)	TEMP (°C)	FREQUENCY (Hz)	Freq. Dev. (Hz)	Deviation (%)
100 %	4.31	- 30	2,593,000,049	49	0.0000019
100 %		- 20	2,592,999,970	-30	-0.0000012
100 %		- 10	2,593,000,078	78	0.0000030
100 %		0	2,593,000,114	114	0.0000044
100 %		+ 10	2,593,000,402	402	0.0000155
100 %		+ 20	2,592,999,911	-89	-0.0000034
100 %		+ 30	2,593,000,021	21	0.0000008
100 %		+ 40	2,593,000,142	142	0.0000055
100 %		+ 50	2,593,000,221	221	0.0000085
BATT. ENDPOINT		3.44	+ 20	2,592,999,827	-173

**Table 7-65. Frequency Stability Data (Band 41)**

**Note:**

Based on the results of the frequency stability test at the center channel the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency deviation noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

FCC ID: A3LSMG977T		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1903060032-03.A3L	Test Dates: 01/22 - 05/08/2019	EUT Type: Portable Handset	Page 313 of 348	

## Band 41 Frequency Stability Measurements

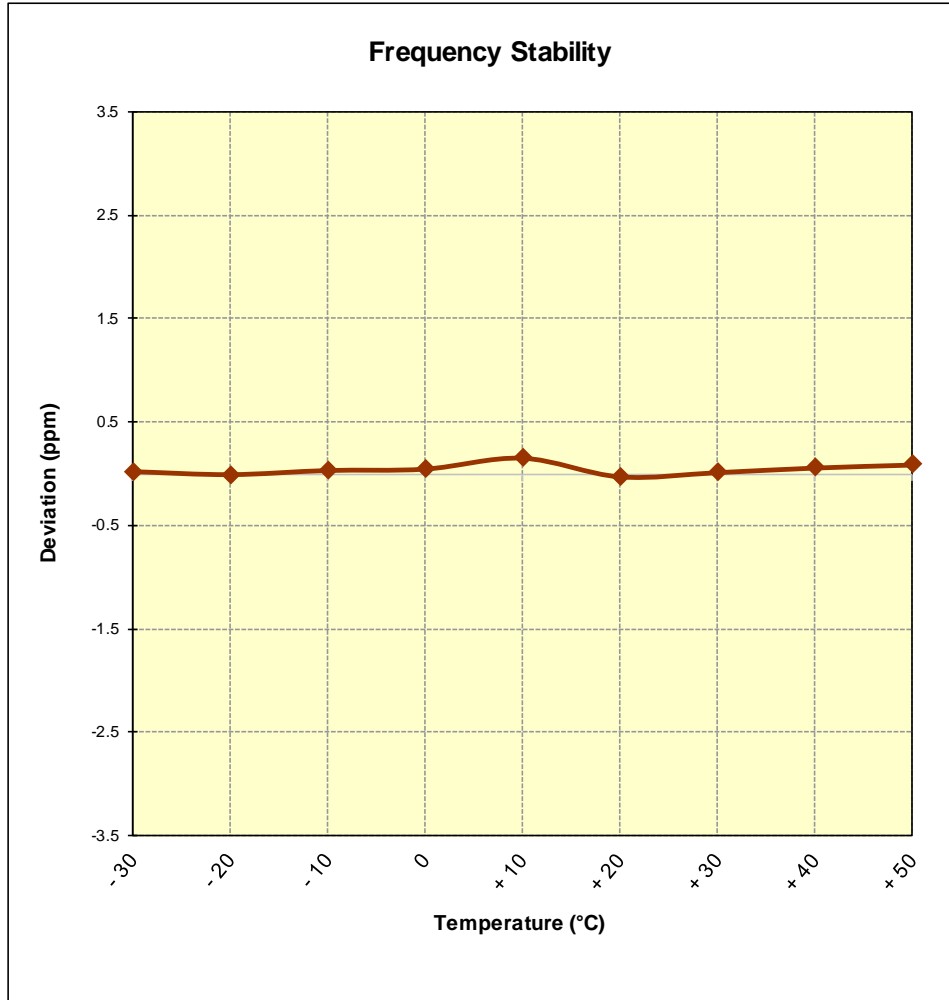


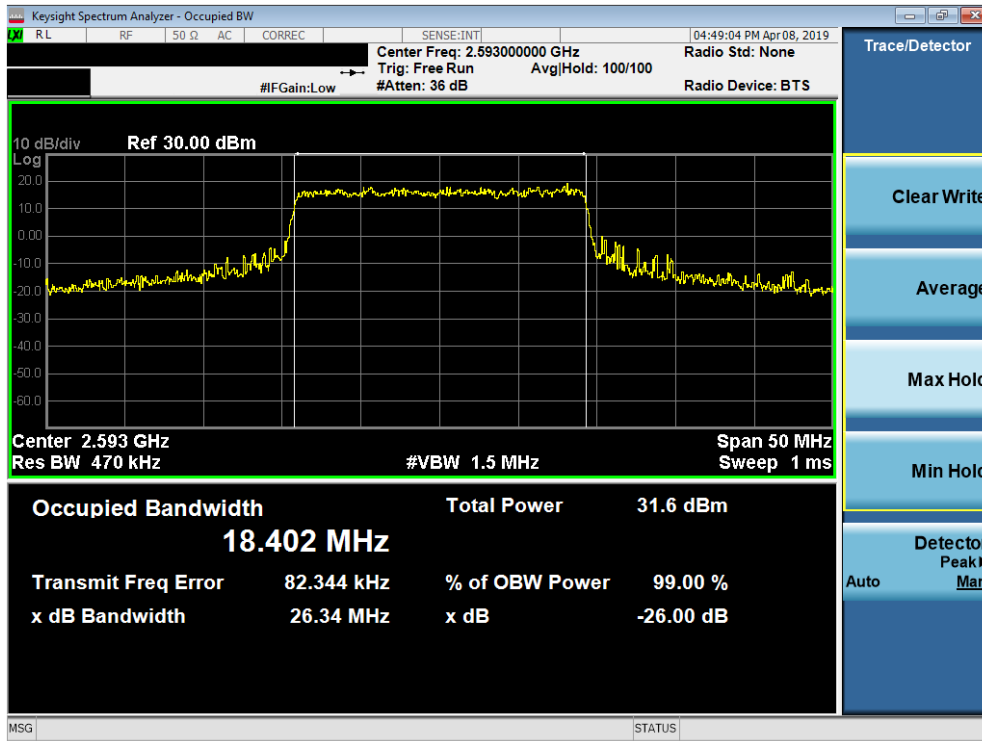
Figure 7-18. Frequency Stability Graph (Band 41)

FCC ID: A3LSMG977T		<b>MEASUREMENT REPORT (CERTIFICATION)</b>		Approved by: Quality Manager
Test Report S/N: 1M1903060032-03.A3L	Test Dates: 01/22 - 05/08/2019	EUT Type: Portable Handset		Page 314 of 348



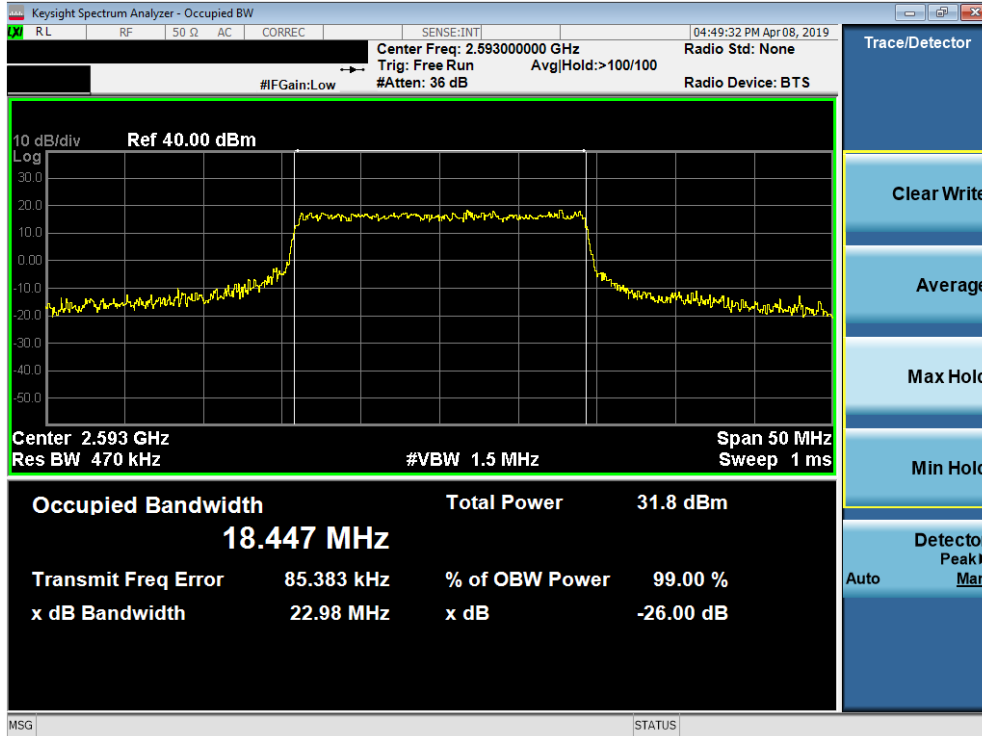
## 7.12 n41 (EN-DC) Test Results

### Occupied Bandwidth

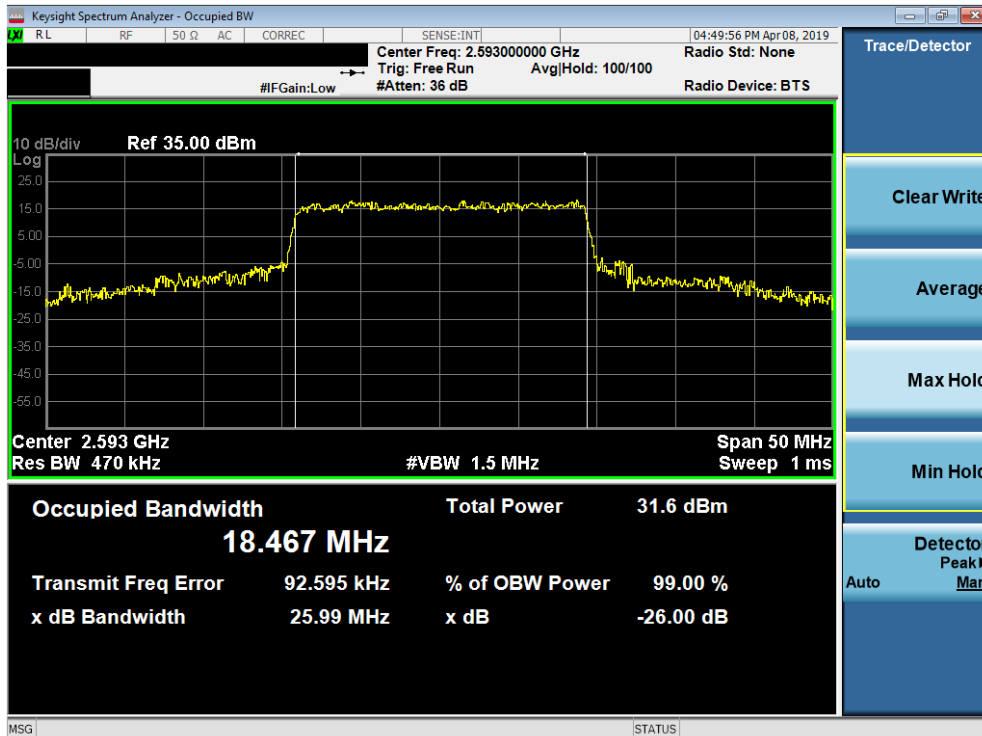


Plot 459. Occupied Bandwidth Plot (n41 20MHz CP-QPSK - Full RB Configuration)

FCC ID: A3LSMG977T		<b>MEASUREMENT REPORT (CERTIFICATION)</b>		Approved by: Quality Manager
Test Report S/N: 1M1903060032-03.A3L	Test Dates: 01/22 - 05/08/2019	EUT Type: Portable Handset		Page 315 of 348

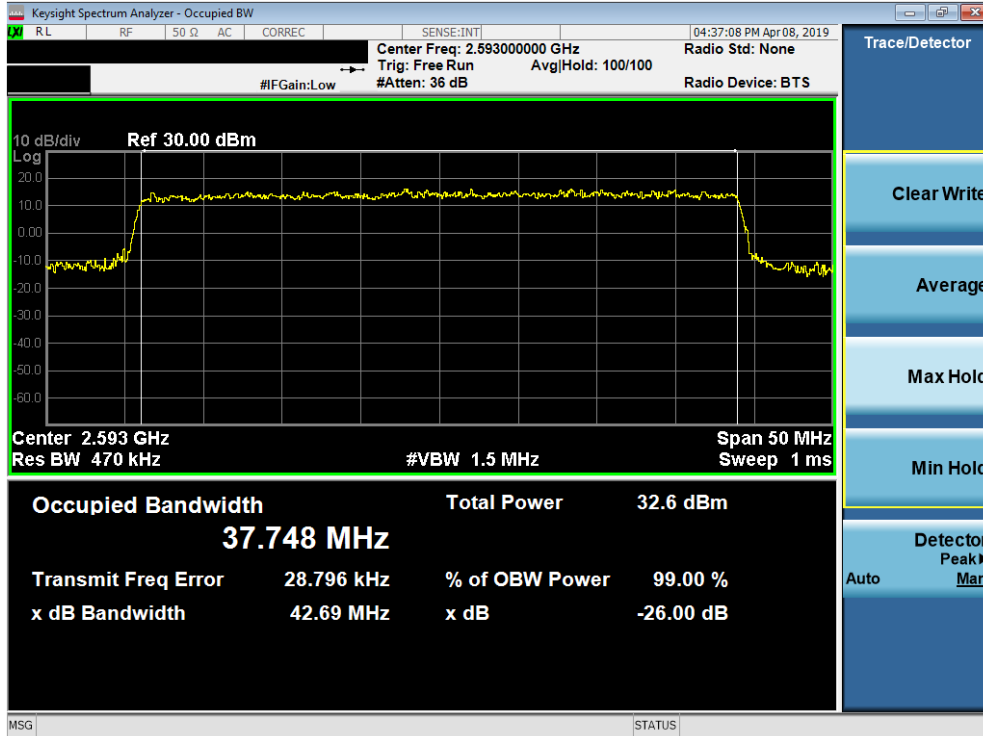


Plot 460. Occupied Bandwidth Plot (n41 20MHz CP-16QAM - Full RB Configuration)

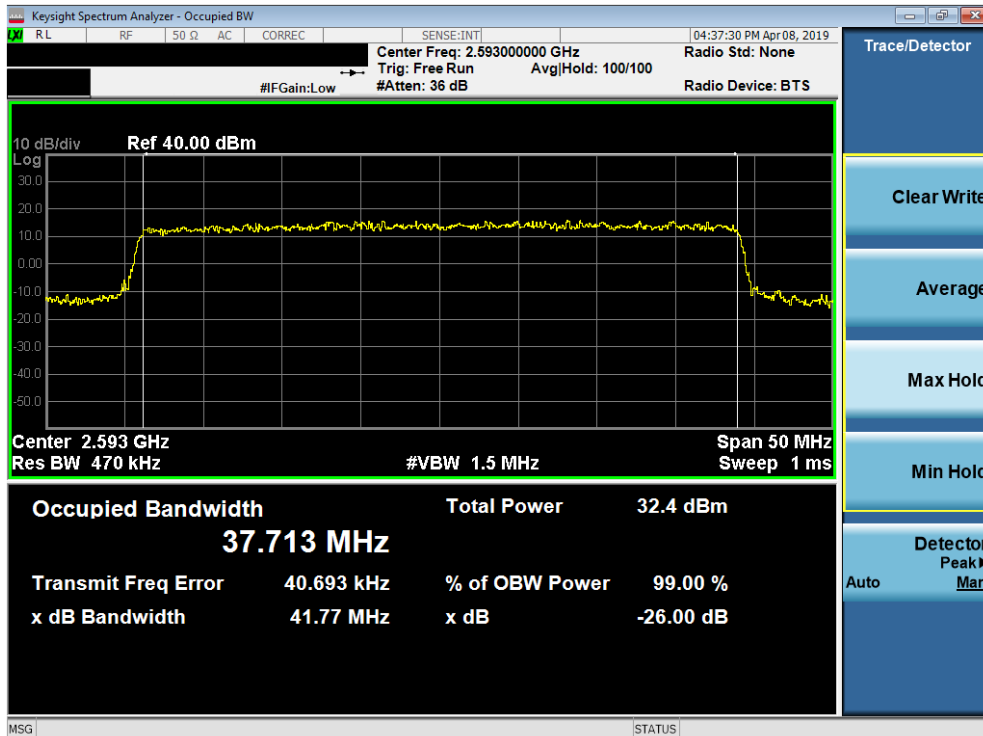


Plot 461. Occupied Bandwidth Plot (n41 20MHz CP-64QAM- Full RB Configuration)

FCC ID: A3LSMG977T		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1903060032-03.A3L	Test Dates: 01/22 - 05/08/2019	EUT Type: Portable Handset		Page 316 of 348

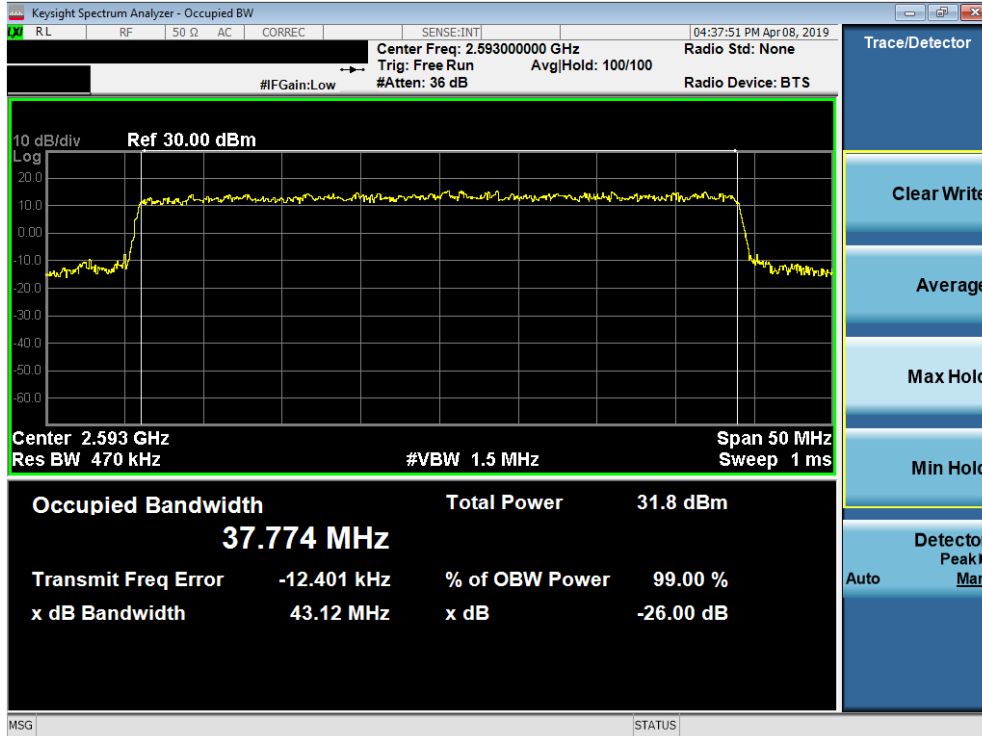


Plot 462. Occupied Bandwidth Plot (n41 40MHz CP-QPSK - Full RB Configuration)

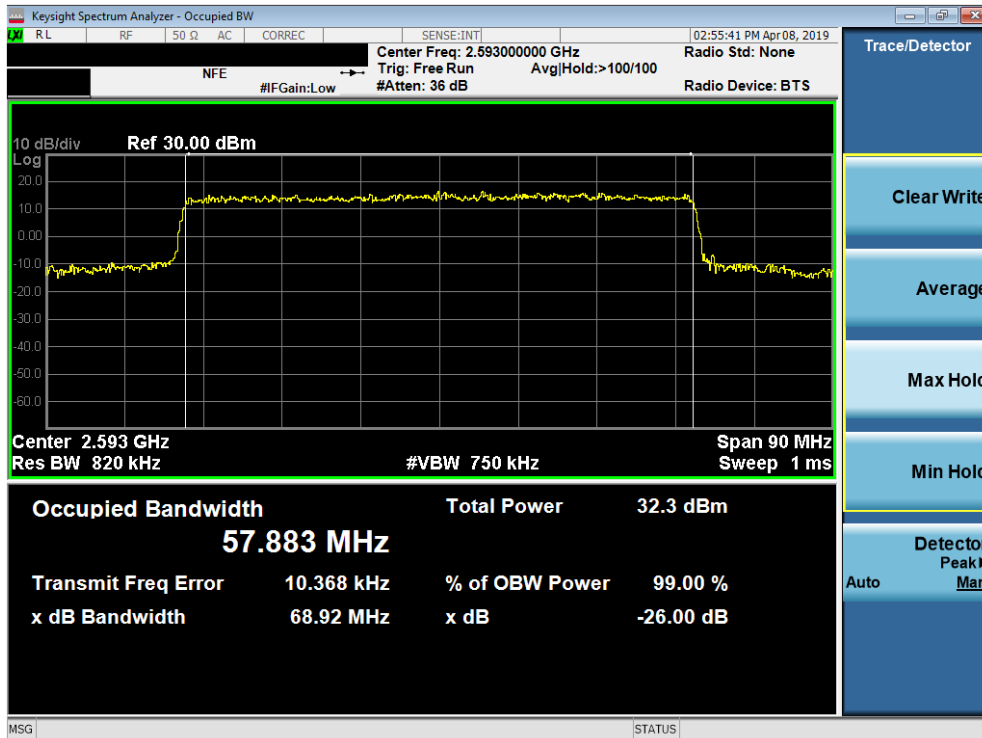


Plot 463. Occupied Bandwidth Plot (n41 40MHz CP-16QAM - Full RB Configuration)

FCC ID: A3LSMG977T		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1903060032-03.A3L	Test Dates: 01/22 - 05/08/2019	EUT Type: Portable Handset		Page 317 of 348

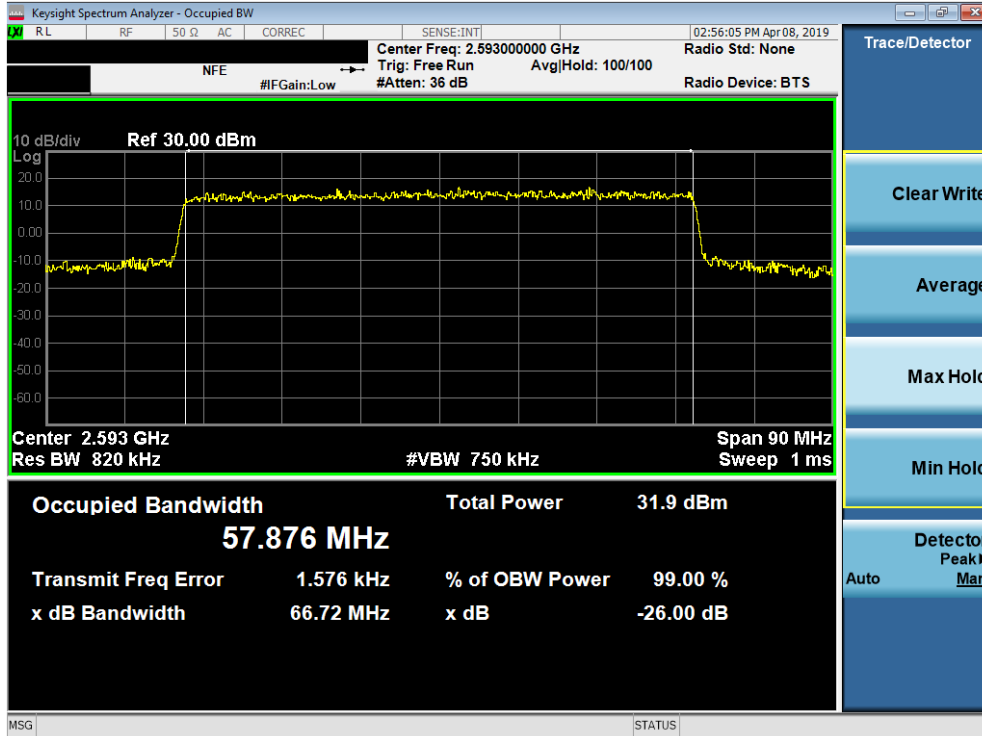


Plot 464. Occupied Bandwidth Plot (n41 40MHz CP-64QAM- Full RB Configuration)

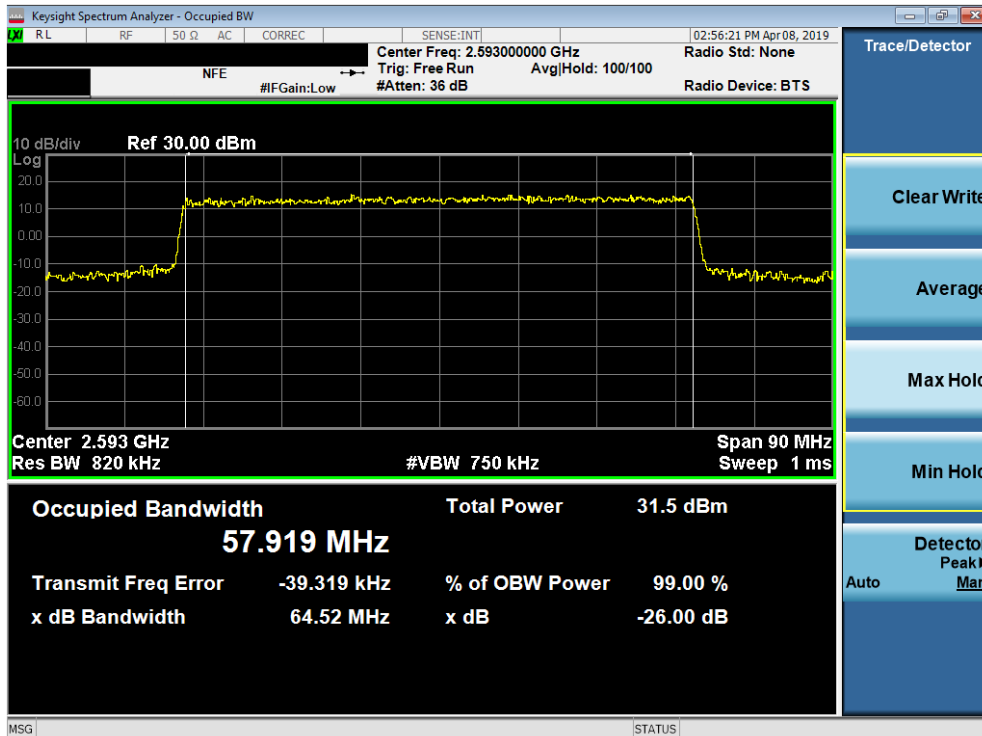


Plot 465. Occupied Bandwidth Plot (n41 60MHz CP-QPSK - Full RB Configuration)

FCC ID: A3LSMG977T		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1903060032-03.A3L	Test Dates: 01/22 - 05/08/2019	EUT Type: Portable Handset		Page 318 of 348

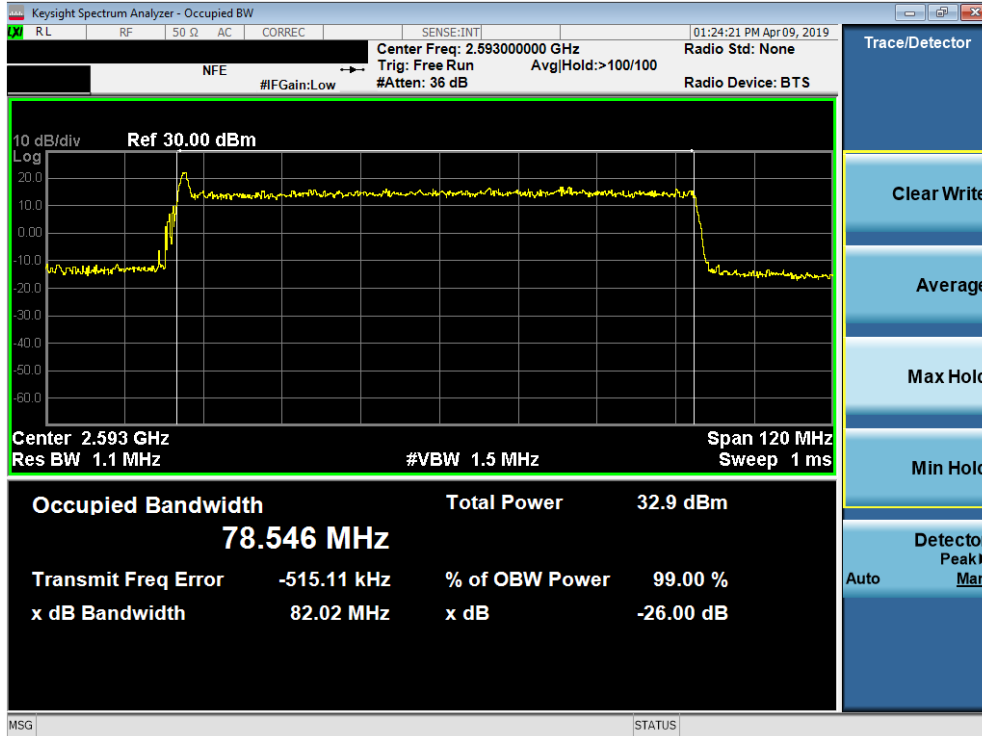


Plot 466. Occupied Bandwidth Plot (n41 60MHz CP-16QAM - Full RB Configuration)

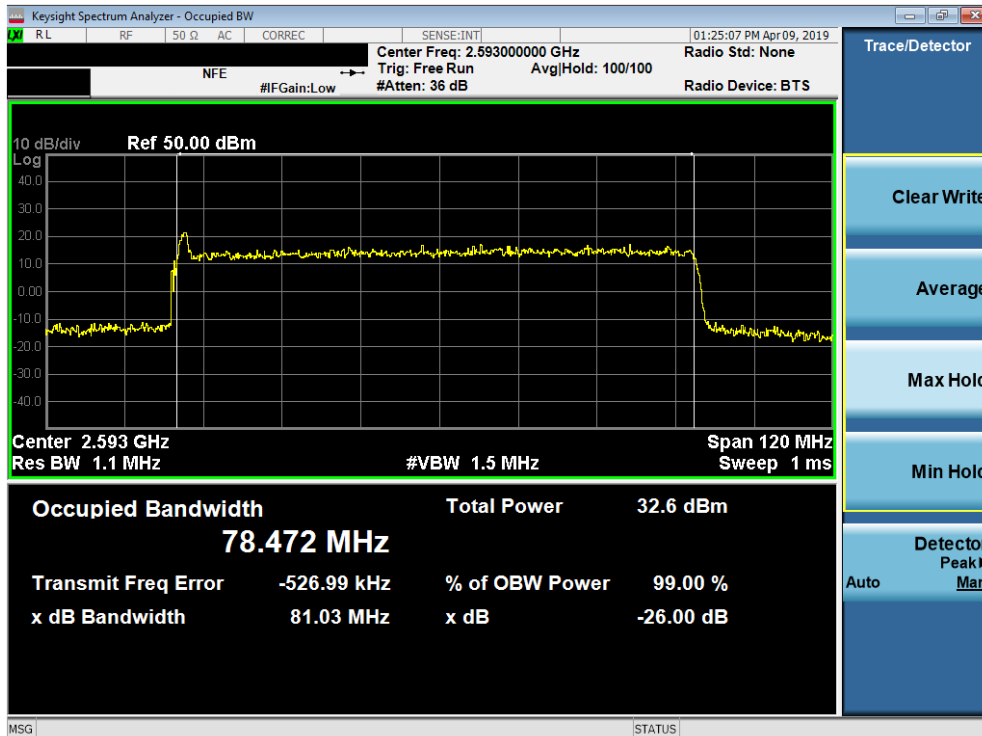


Plot 467. Occupied Bandwidth Plot (n41 60MHz CP-64QAM - Full RB Configuration)

FCC ID: A3LSMG977T		<b>MEASUREMENT REPORT (CERTIFICATION)</b>		Approved by: Quality Manager
Test Report S/N: 1M1903060032-03.A3L	Test Dates: 01/22 - 05/08/2019	EUT Type: Portable Handset		Page 319 of 348

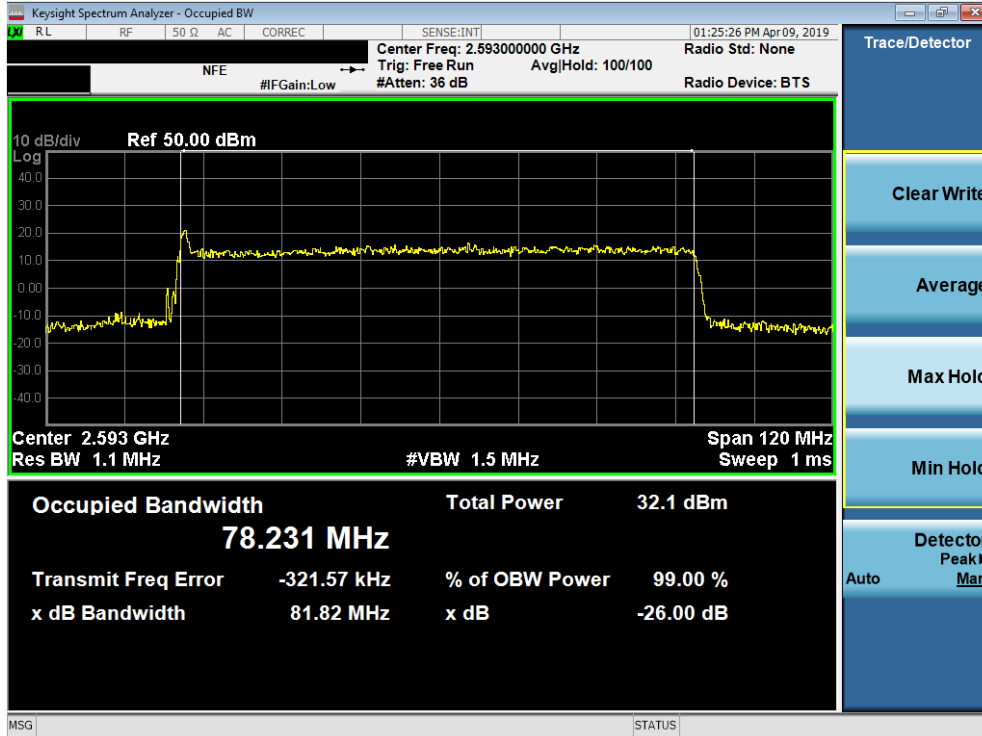


Plot 468. Occupied Bandwidth Plot (n41 80MHz CP-QPSK - Full RB Configuration)

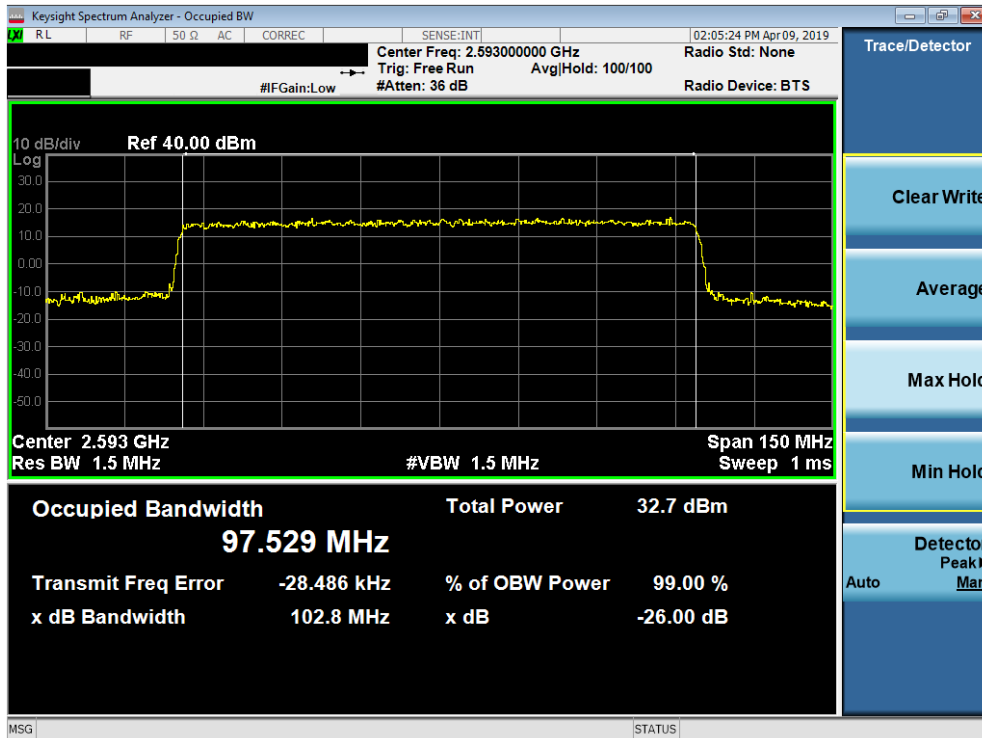


Plot 469. Occupied Bandwidth Plot (n41 80MHz CP-16QAM - Full RB Configuration)

FCC ID: A3LSMG977T		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1903060032-03.A3L	Test Dates: 01/22 - 05/08/2019	EUT Type: Portable Handset		Page 320 of 348

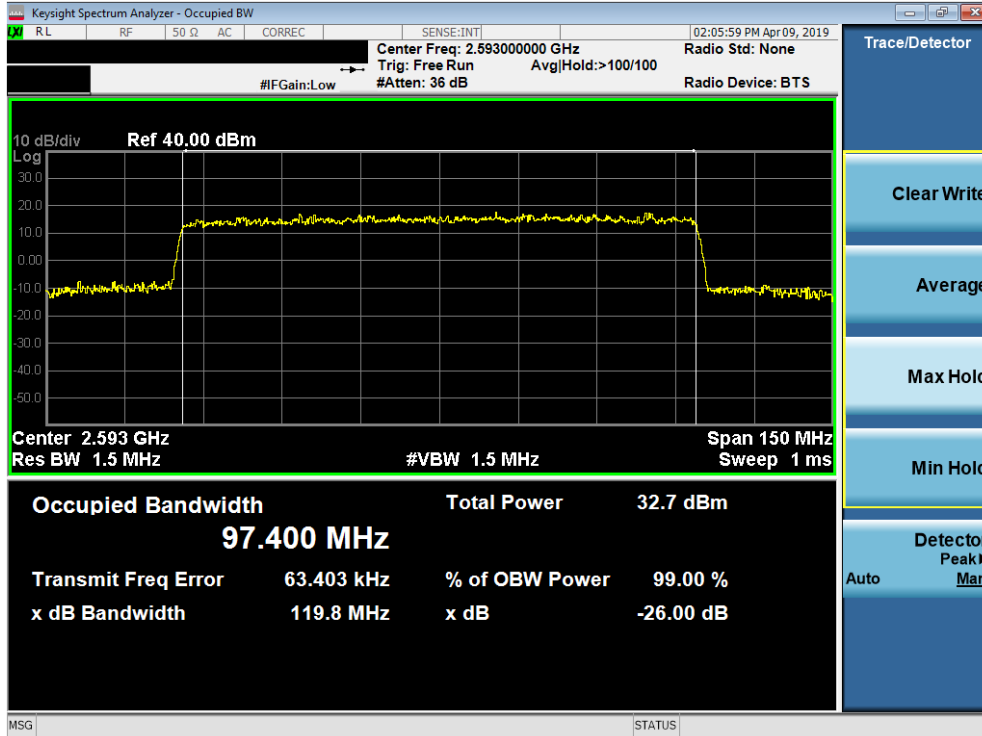


Plot 470. Occupied Bandwidth Plot (n41 80MHz CP-64QAM - Full RB Configuration)

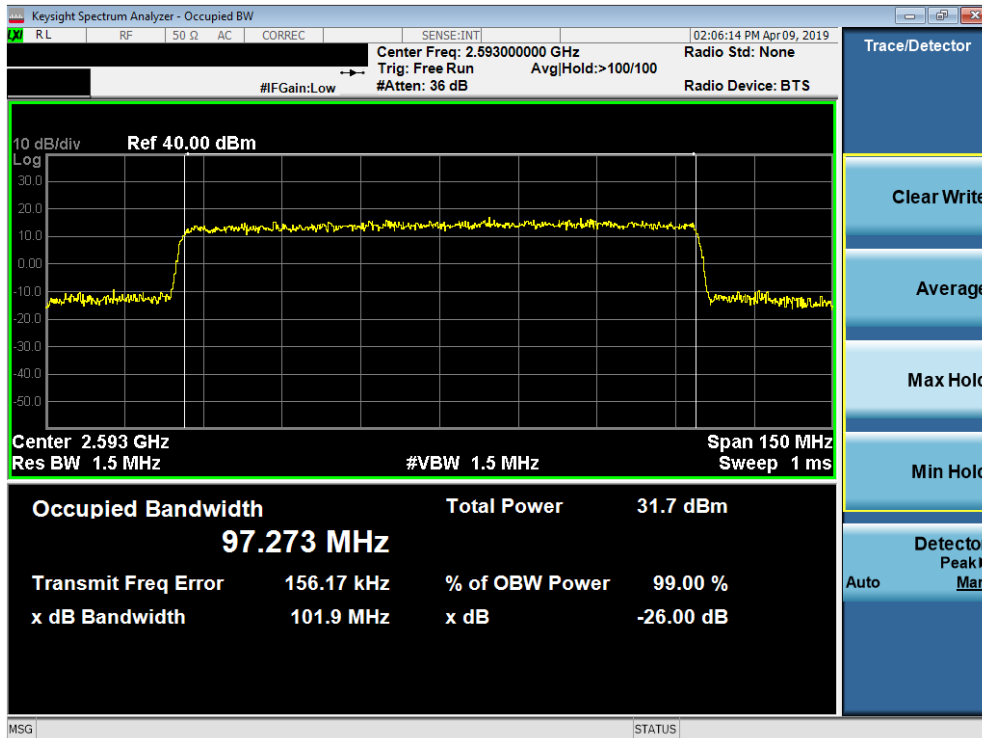


Plot 471. Occupied Bandwidth Plot (n41 100MHz CP-QPSK - Full RB Configuration)

FCC ID: A3LSMG977T		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1903060032-03.A3L	Test Dates: 01/22 - 05/08/2019	EUT Type: Portable Handset		Page 321 of 348



Plot 472. Occupied Bandwidth Plot (n41 100MHz CP-16QAM - Full RB Configuration)

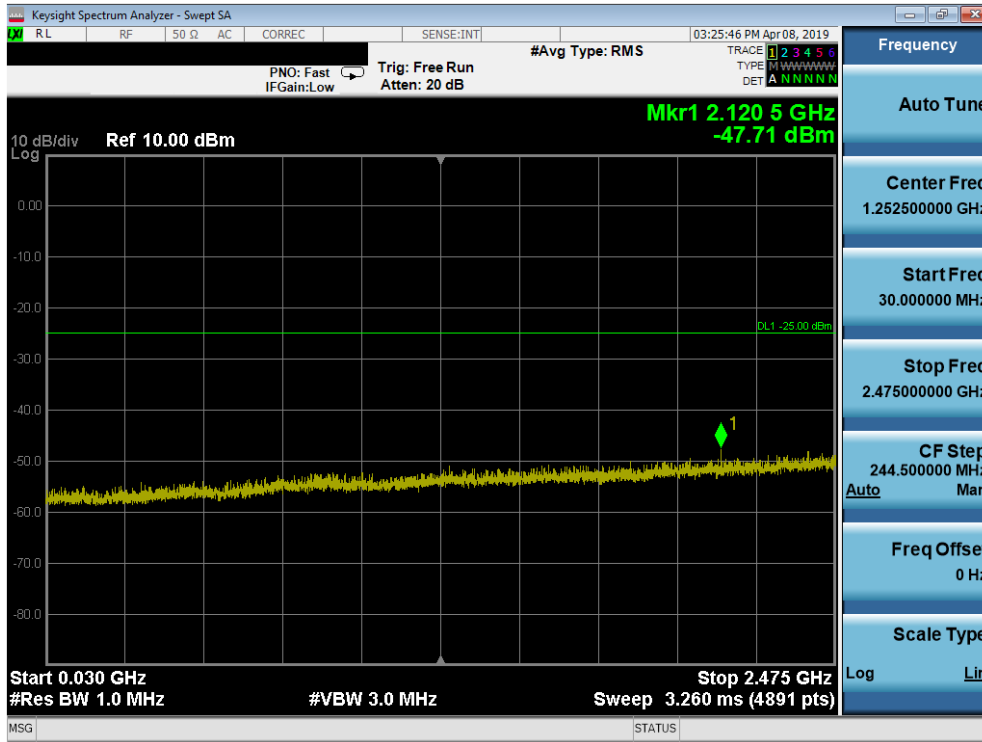


Plot 473. Occupied Bandwidth Plot (n41 100MHz CP-64QAM - Full RB Configuration)

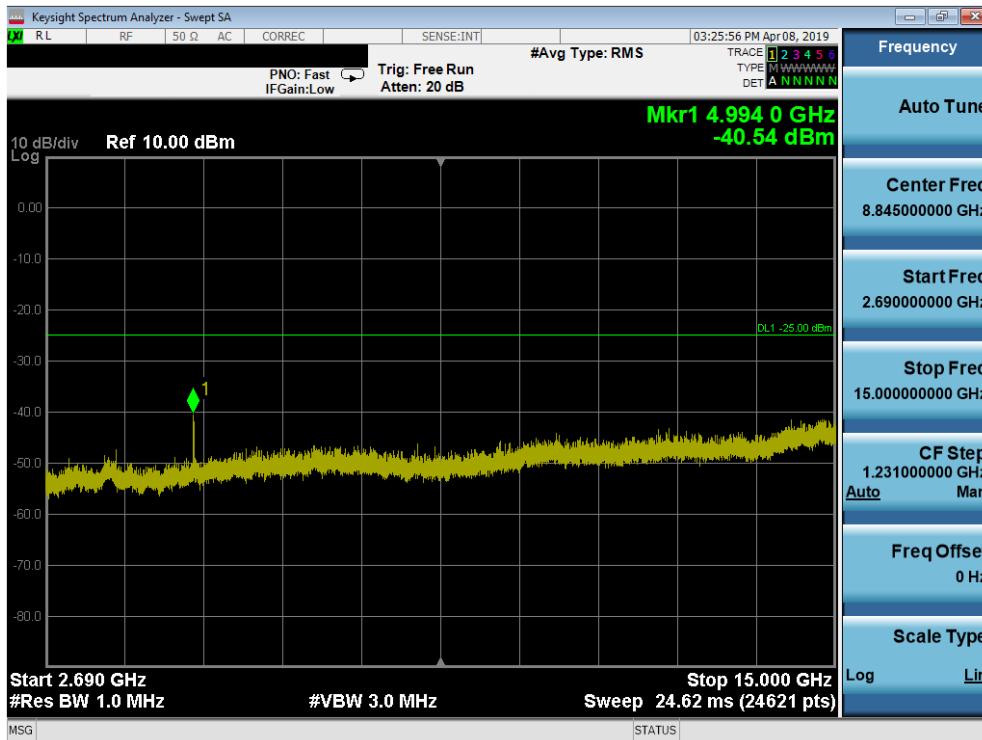
FCC ID: A3LSMG977T		<b>MEASUREMENT REPORT (CERTIFICATION)</b>		Approved by: Quality Manager
Test Report S/N: 1M1903060032-03.A3L	Test Dates: 01/22 - 05/08/2019	EUT Type: Portable Handset		Page 322 of 348



## Spurious and Harmonic Emissions at the Antenna Terminal

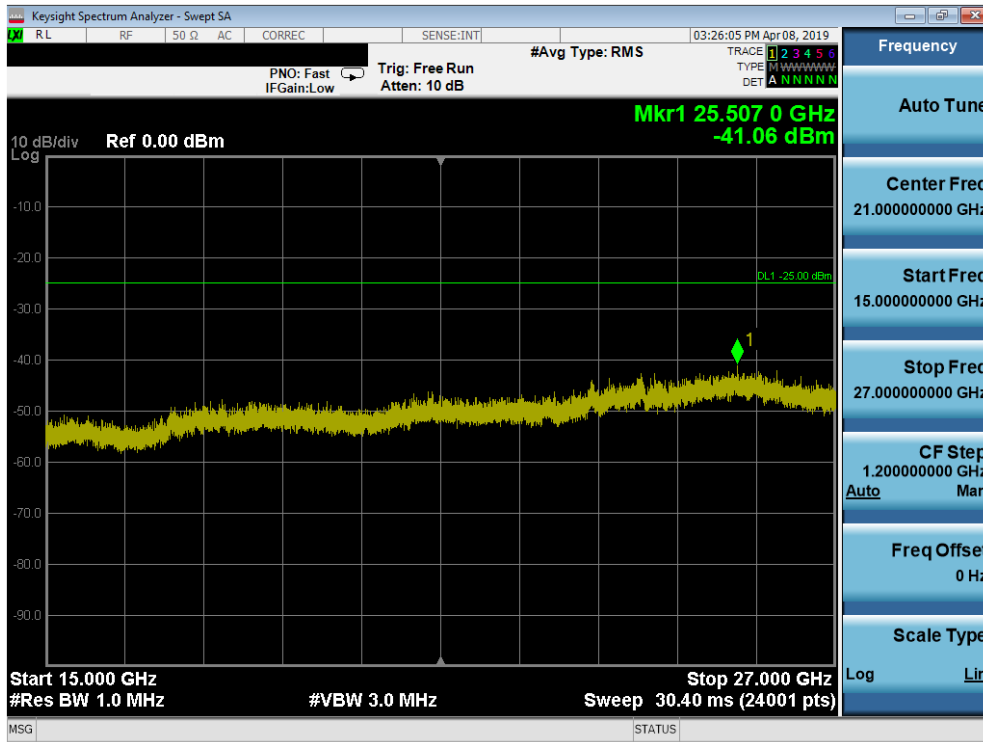


Plot 474. Conducted Spurious Plot (n41 - 60MHz CP-QPSK - RB Size 1, RB Offset 81 - Low Channel)

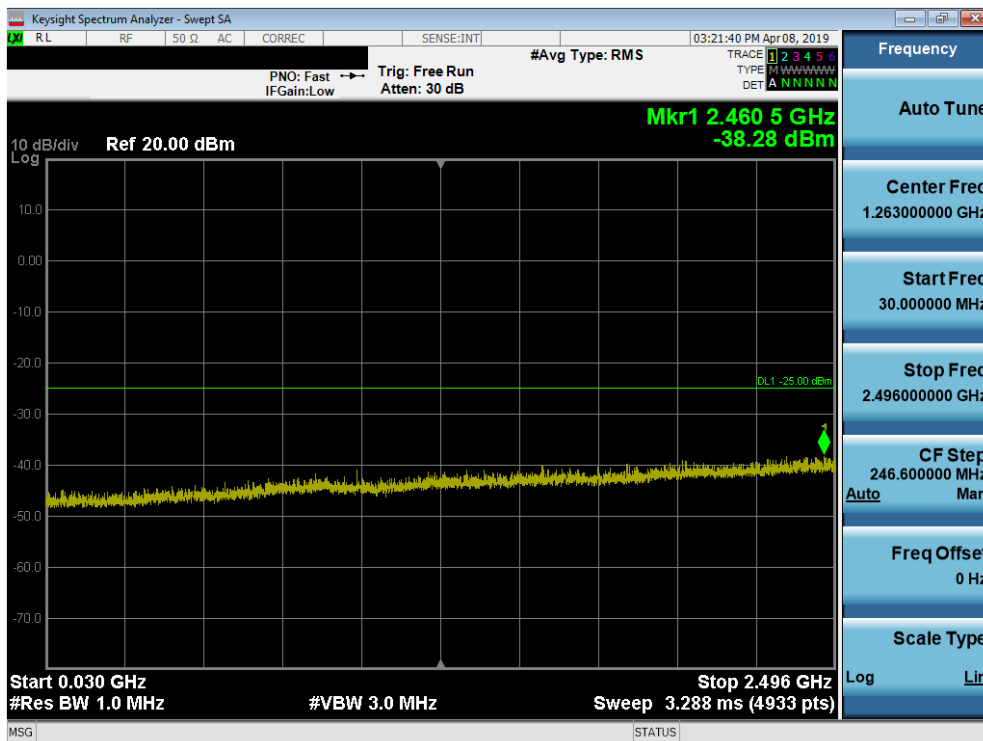


Plot 475. Conducted Spurious Plot (n41 - 60MHz CP-QPSK - RB Size 1, RB Offset 81 - Low Channel)

FCC ID: A3LSMG977T		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1903060032-03.A3L	Test Dates: 01/22 - 05/08/2019	EUT Type: Portable Handset		Page 323 of 348

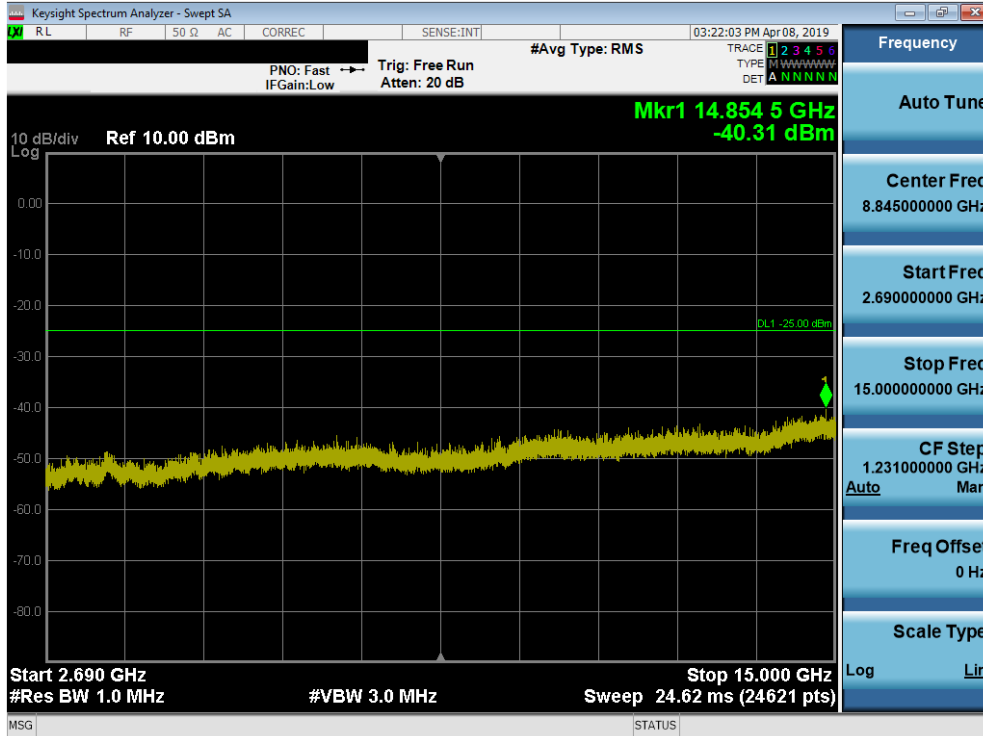


Plot 476. Conducted Spurious Plot (n41 - 60MHz CP-QPSK - RB Size 1, RB Offset 81 – Low Channel)

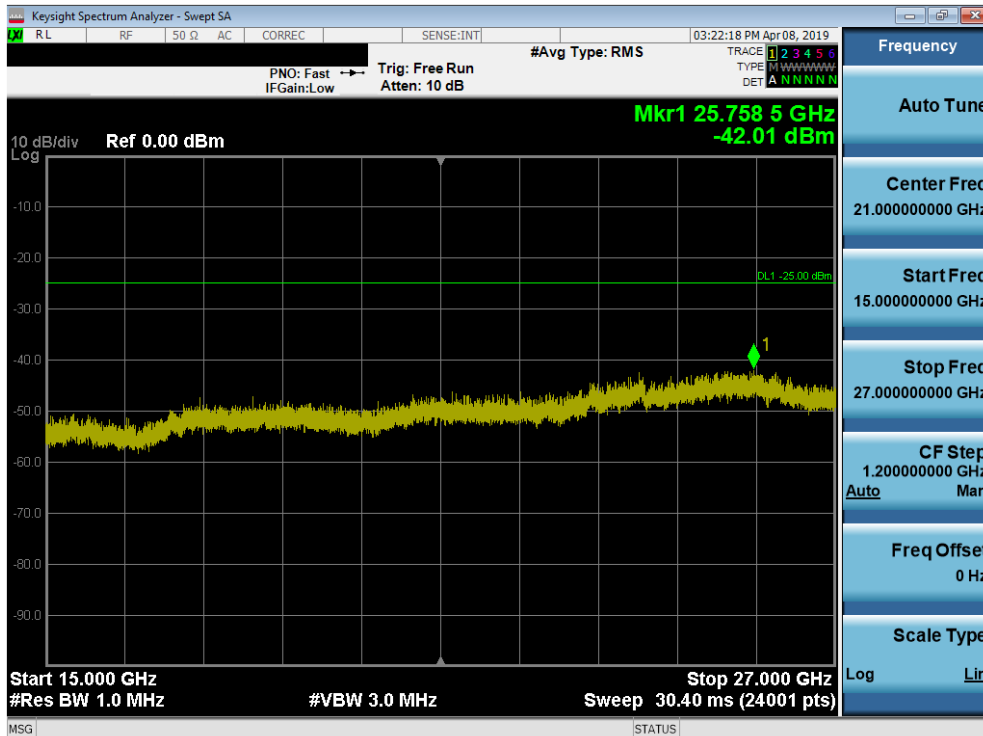


Plot 477. Conducted Spurious Plot (n41 - 60MHz CP-QPSK - RB Size 1, RB Offset 81 - Mid Channel)

FCC ID: A3LSMG977T		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1903060032-03.A3L	Test Dates: 01/22 - 05/08/2019	EUT Type: Portable Handset		Page 324 of 348

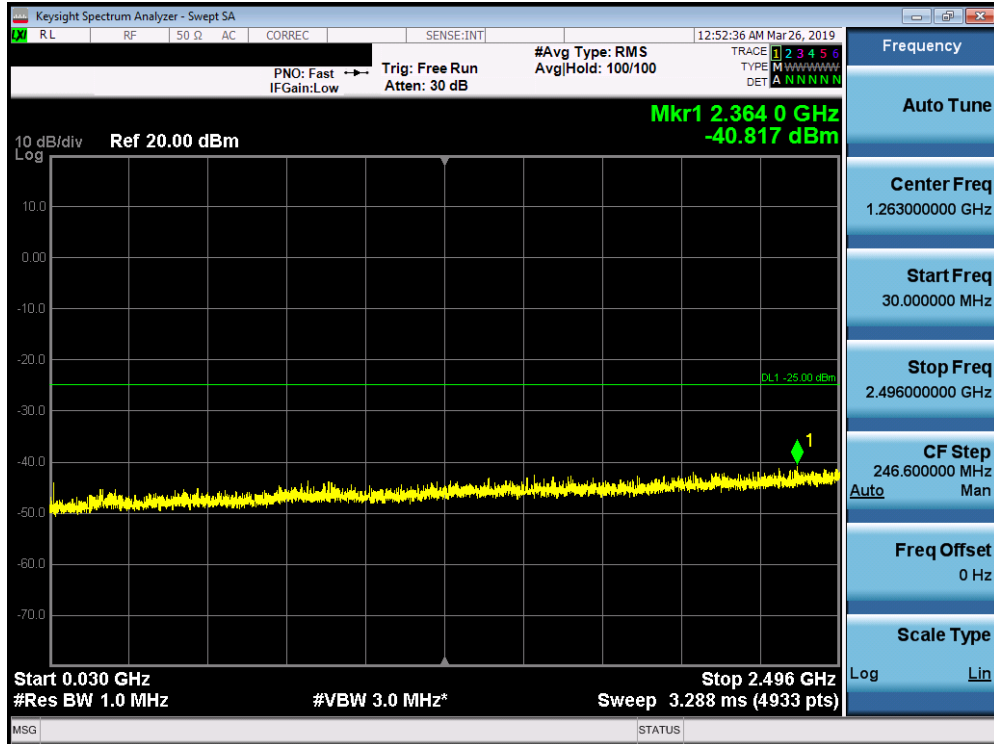


Plot 478. Conducted Spurious Plot (n41 - 60MHz CP-QPSK - RB Size 1, RB Offset 81 – Mid Channel)

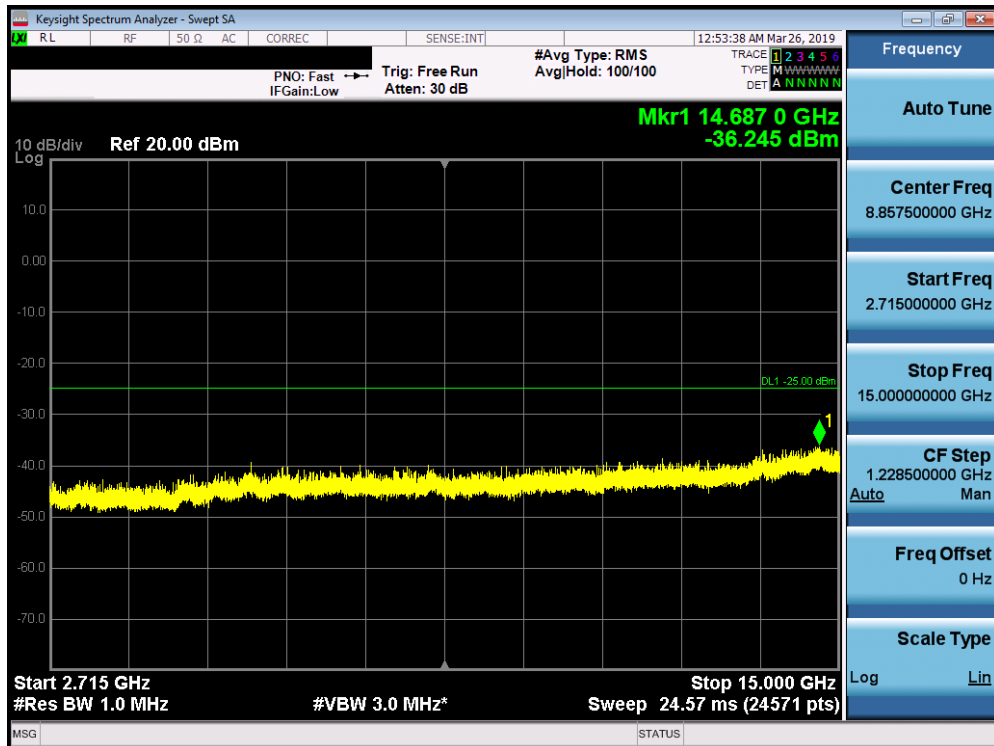


Plot 479. Conducted Spurious Plot (n41 - 60MHz CP-QPSK - RB Size 1, RB Offset 81 – Mid Channel)

FCC ID: A3LSMG977T		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1903060032-03.A3L	Test Dates: 01/22 - 05/08/2019	EUT Type: Portable Handset		Page 325 of 348

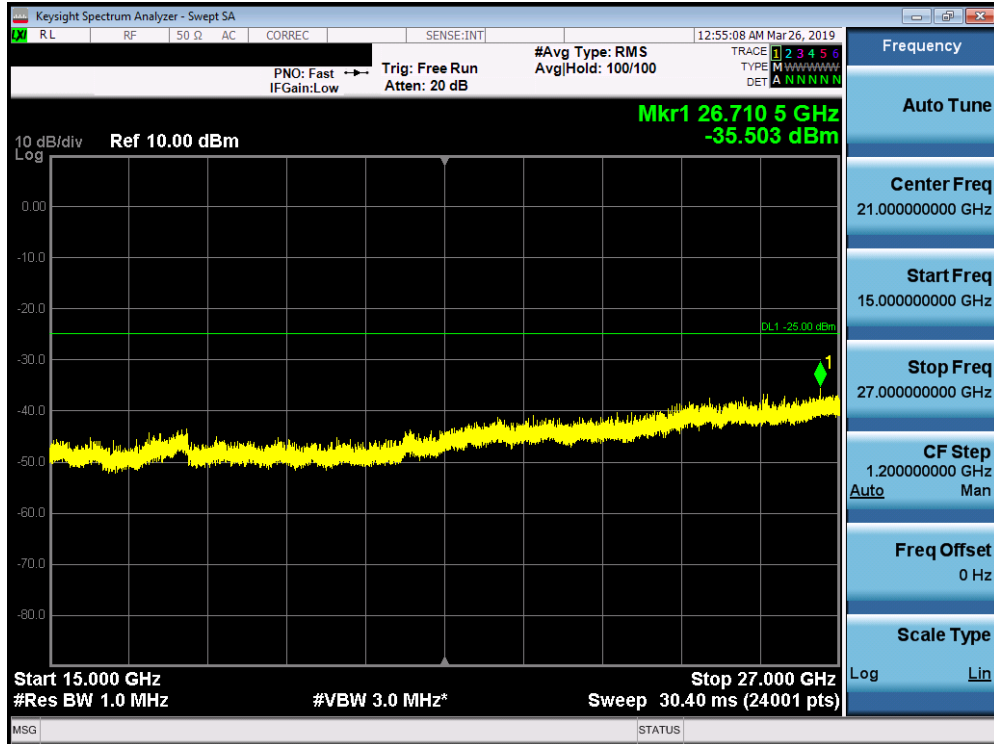


**Plot 480. Conducted Spurious Plot (n41 - 60MHz CP-QPSK - RB Size 1, RB Offset 81 - High Channel)**



**Plot 481. Conducted Spurious Plot (n41 - 60MHz CP-QPSK - RB Size 1, RB Offset 81 - High Channel)**

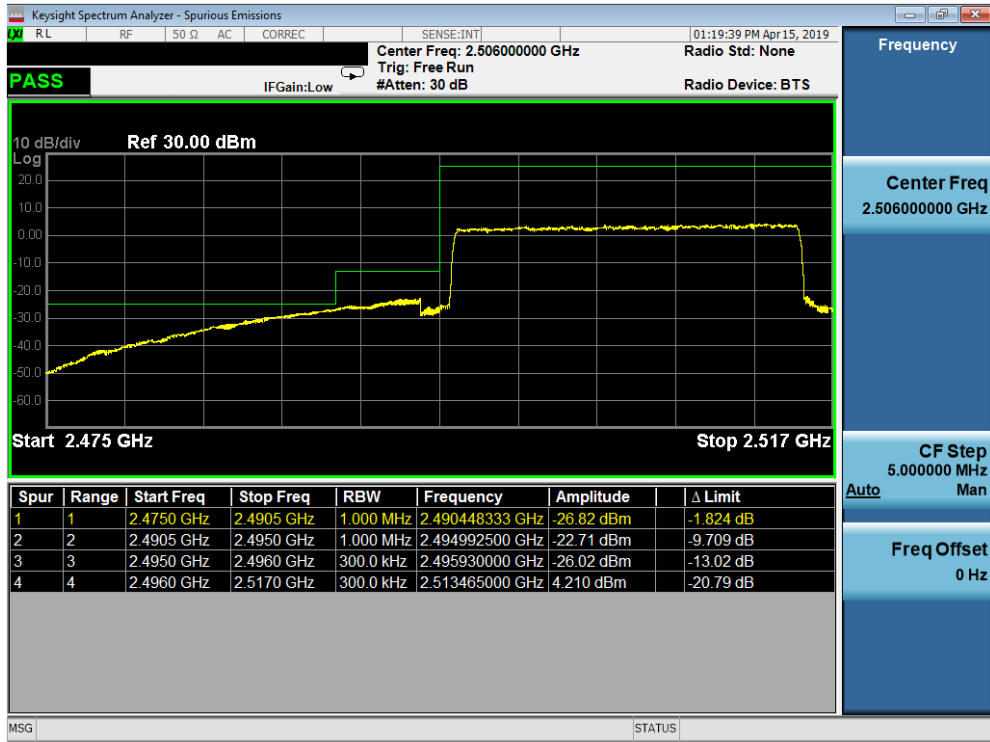
FCC ID: A3LSMG977T		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1903060032-03.A3L	Test Dates: 01/22 - 05/08/2019	EUT Type: Portable Handset		Page 326 of 348



Plot 482. Conducted Spurious Plot (n41 - 60MHz CP-QPSK - RB Size 1, RB Offset 81 – High Channel)

FCC ID: A3LSMG977T		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1903060032-03.A3L	Test Dates: 01/22 - 05/08/2019	EUT Type: Portable Handset		Page 327 of 348

# Band Edge Emissions at the Antenna Terminal

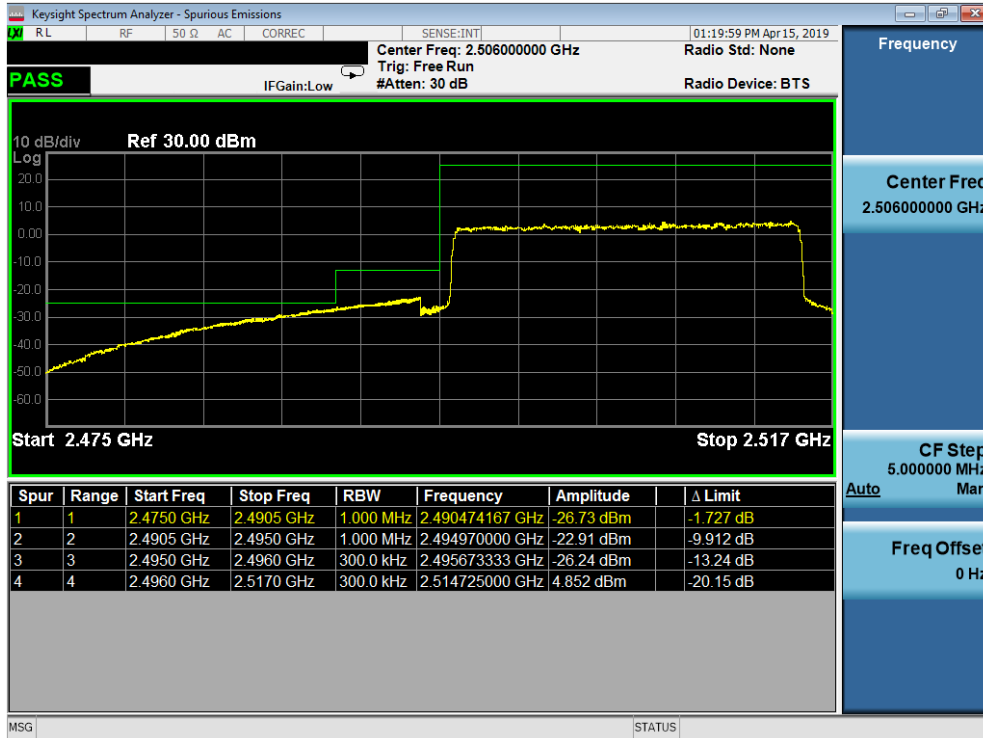


Plot 483. Lower Band Edge Plot (n41 - 20MHz CP-QPSK - Full RB Configuration)

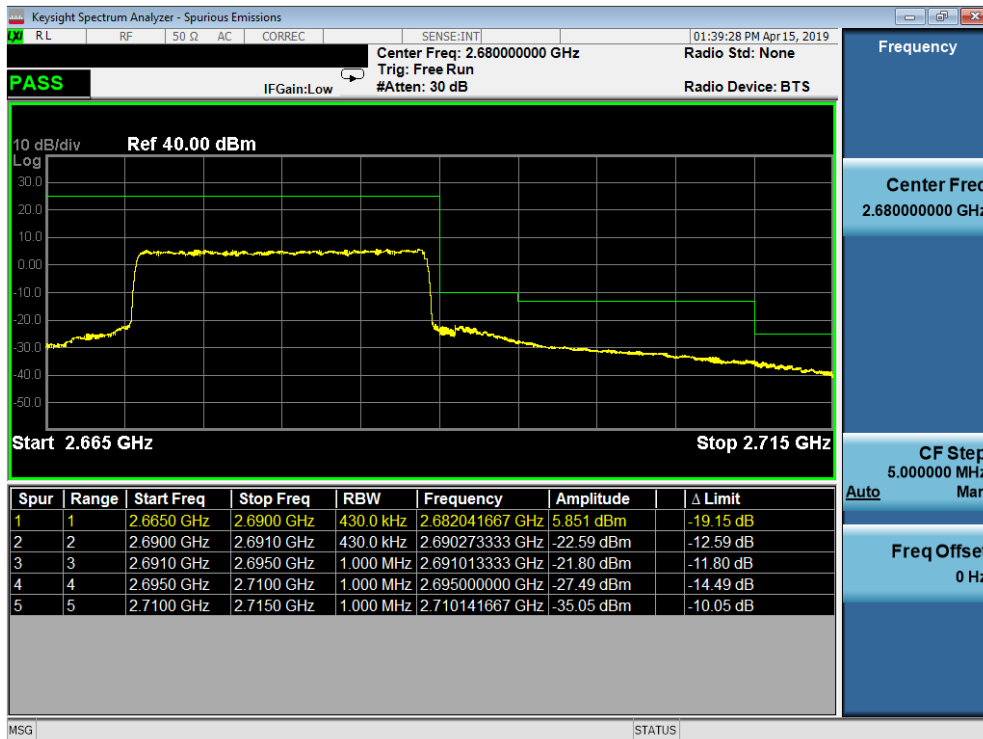


Plot 484. Upper Band Edge Plot (n41 - 20MHz CP-QPSK - Full RB Configuration)

FCC ID: A3LSMG977T		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1903060032-03.A3L	Test Dates: 01/22 - 05/08/2019	EUT Type: Portable Handset		Page 328 of 348



Plot 485. Lower Band Edge Plot (n41 - 20MHz CP-16QAM - Full RB Configuration)



Plot 486. Upper Band Edge Plot (n41 - 20MHz CP-16QAM - Full RB Configuration)

FCC ID: A3LSMG977T		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1903060032-03.A3L	Test Dates: 01/22 - 05/08/2019	EUT Type: Portable Handset		Page 329 of 348



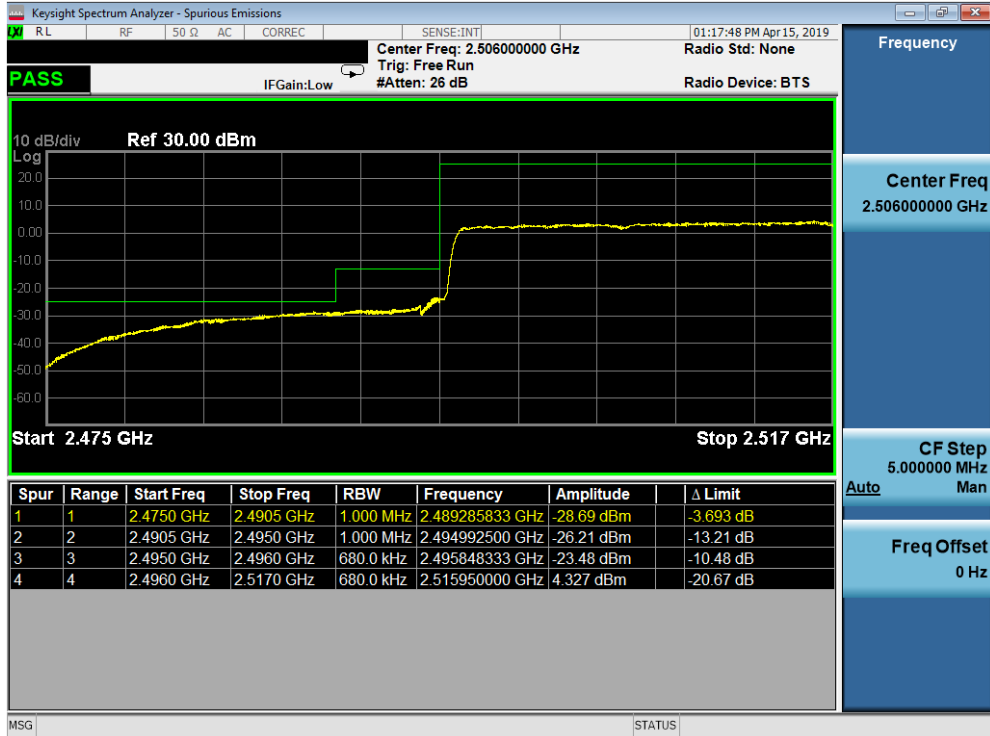
Plot 487. Lower Band Edge Plot (n41 - 20MHz CP-64QAM - Full RB Configuration)



Plot 488. Upper Band Edge Plot (n41 - 20MHz CP-64QAM - Full RB Configuration)

FCC ID: A3LSMG977T		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1903060032-03.A3L	Test Dates: 01/22 - 05/08/2019	EUT Type: Portable Handset		Page 330 of 348





**Plot 489. Lower Band Edge Plot (n41 - 40MHz CP-QPSK - Full RB Configuration)**



**Plot 490. Upper Band Edge Plot (n41 - 40MHz CP-QPSK - Full RB Configuration)**

FCC ID: A3LSMG977T		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1903060032-03.A3L	Test Dates: 01/22 - 05/08/2019	EUT Type: Portable Handset		Page 331 of 348

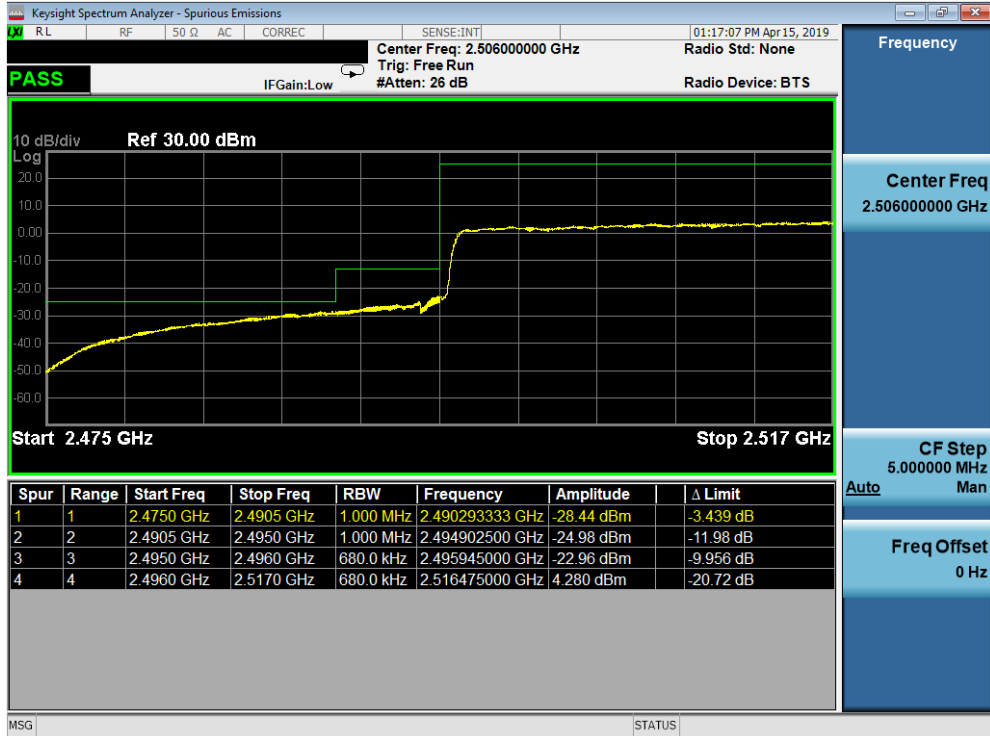


Plot 491. Lower Band Edge Plot (n41 - 40MHz CP-16QAM - Full RB Configuration)



Plot 492. Upper Band Edge Plot (n41 - 40MHz CP-16QAM - Full RB Configuration)

FCC ID: A3LSMG977T		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1903060032-03.A3L	Test Dates: 01/22 - 05/08/2019	EUT Type: Portable Handset		Page 332 of 348

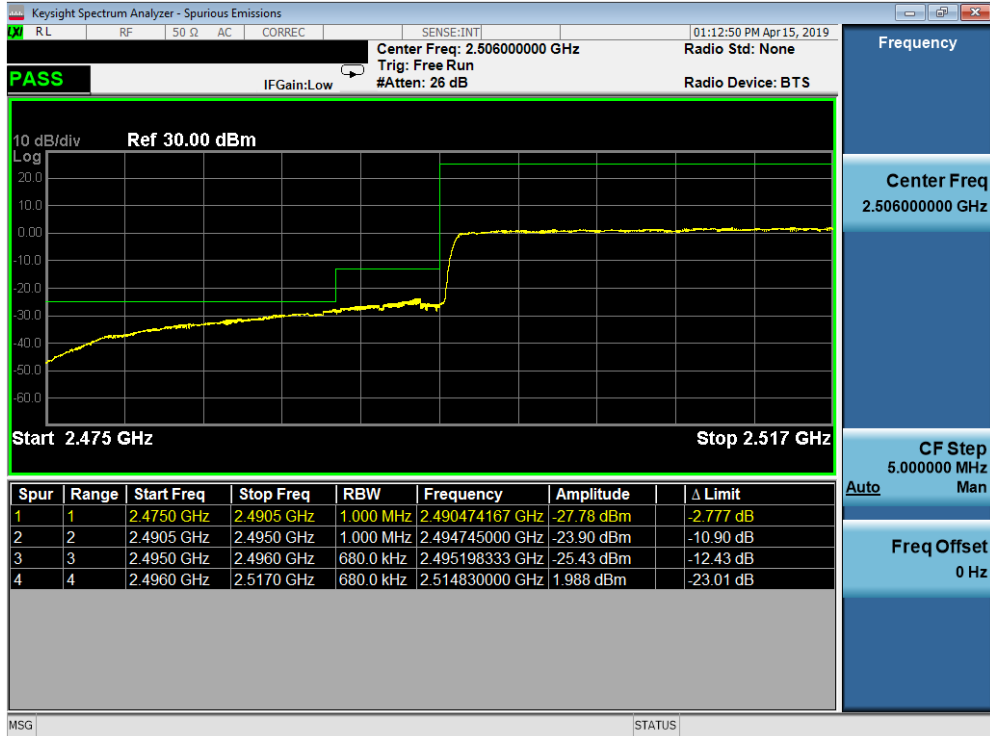


Plot 493. Lower Band Edge Plot (n41 - 40MHz CP-64QAM - Full RB Configuration)

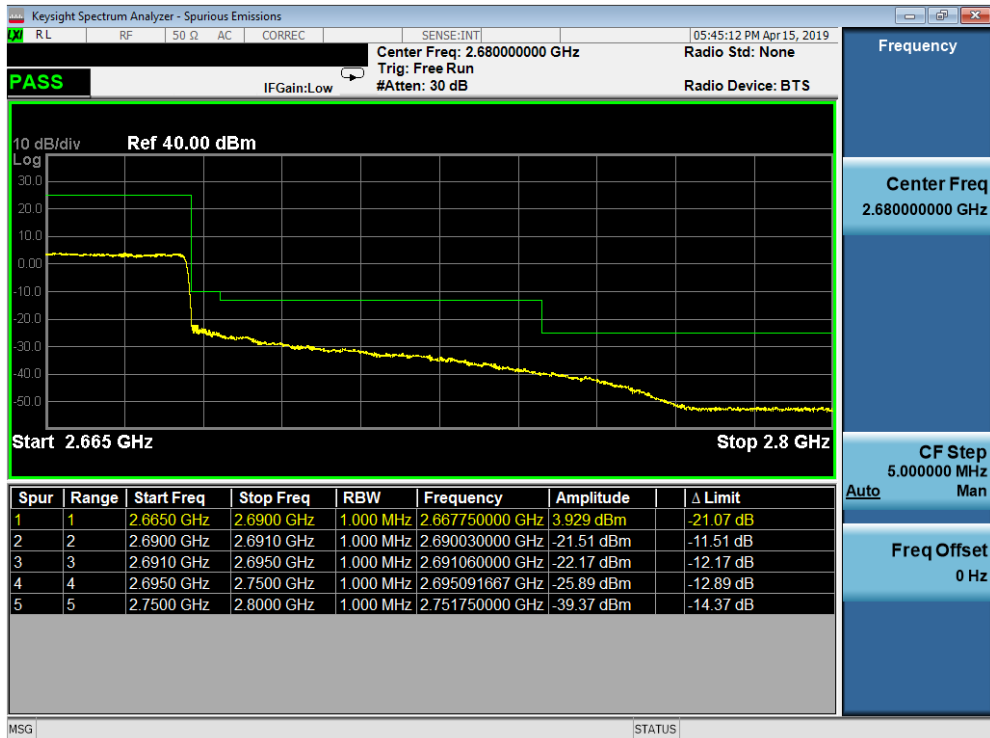


Plot 494. Upper Band Edge Plot (n41 - 40MHz CP-64QAM - Full RB Configuration)

FCC ID: A3LSMG977T		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1903060032-03.A3L	Test Dates: 01/22 - 05/08/2019	EUT Type: Portable Handset		Page 333 of 348

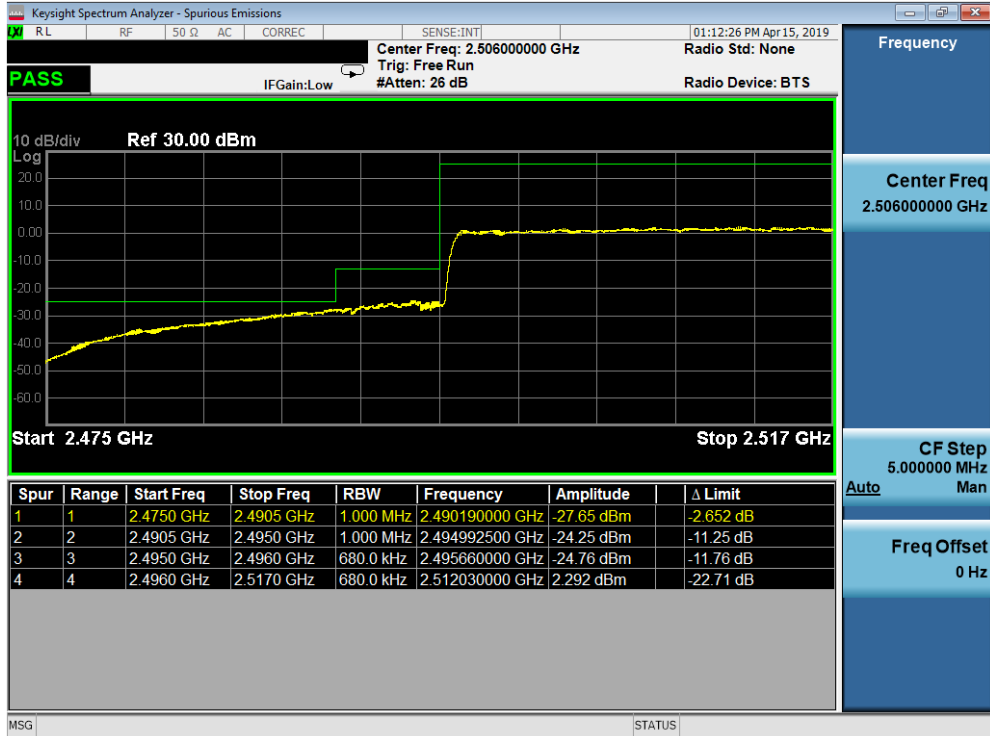


Plot 495. Lower Band Edge Plot (n41 - 60MHz CP-QPSK - Full RB Configuration)



Plot 496. Upper Band Edge Plot (n41 - 60MHz CP-QPSK - Full RB Configuration)

FCC ID: A3LSMG977T		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1903060032-03.A3L	Test Dates: 01/22 - 05/08/2019	EUT Type: Portable Handset		Page 334 of 348



Plot 497. Lower Band Edge Plot (n41 - 60MHz CP-16QAM - Full RB Configuration)

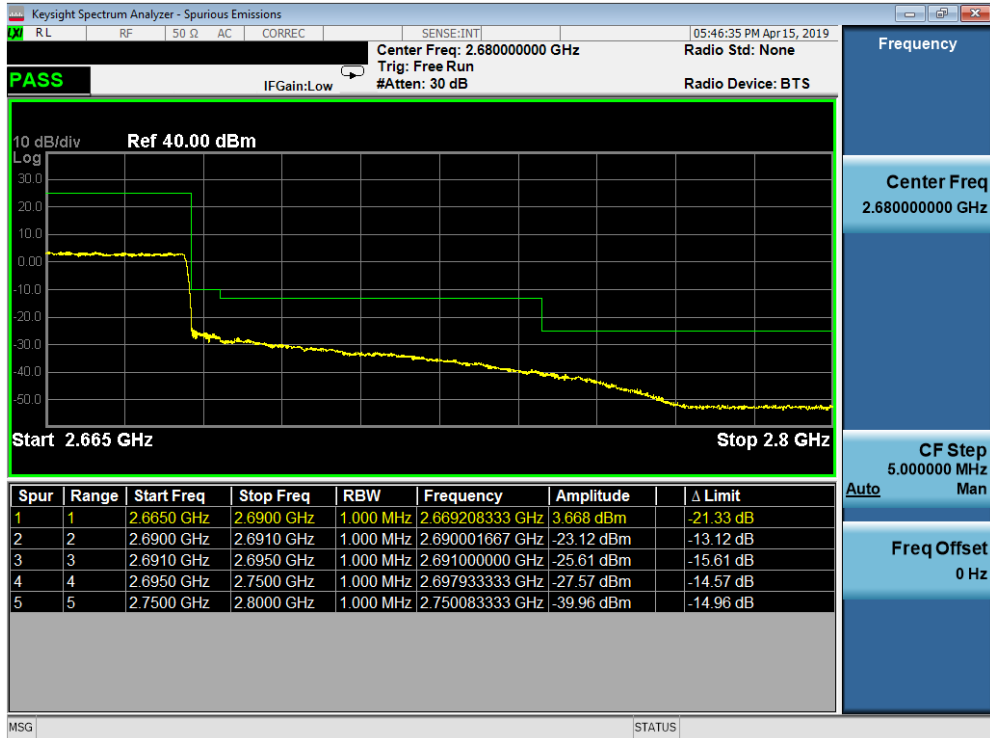


Plot 498. Upper Band Edge Plot (n41 - 60MHz CP-16QAM - Full RB Configuration)

FCC ID: A3LSMG977T		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1903060032-03.A3L	Test Dates: 01/22 - 05/08/2019	EUT Type: Portable Handset		Page 335 of 348

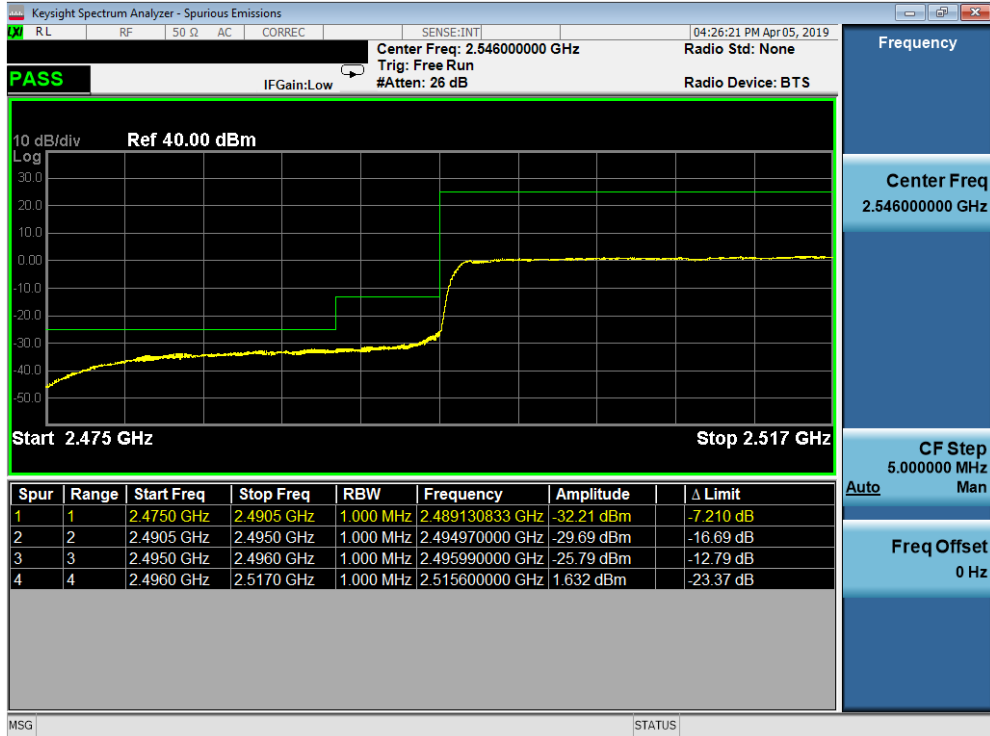


Plot 499. Lower Band Edge Plot (n41 - 60MHz CP-64QAM - Full RB Configuration)



Plot 500. Upper Band Edge Plot (n41 - 60MHz CP-64QAM - Full RB Configuration)

FCC ID: A3LSMG977T		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1903060032-03.A3L	Test Dates: 01/22 - 05/08/2019	EUT Type: Portable Handset		Page 336 of 348



Plot 501. Lower Band Edge Plot (n41 - 80MHz CP-QPSK - Full RB Configuration)



Plot 502. Upper Band Edge Plot (n41 - 80MHz CP-QPSK - Full RB Configuration)

FCC ID: A3LSMG977T		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1903060032-03.A3L	Test Dates: 01/22 - 05/08/2019	EUT Type: Portable Handset		Page 337 of 348



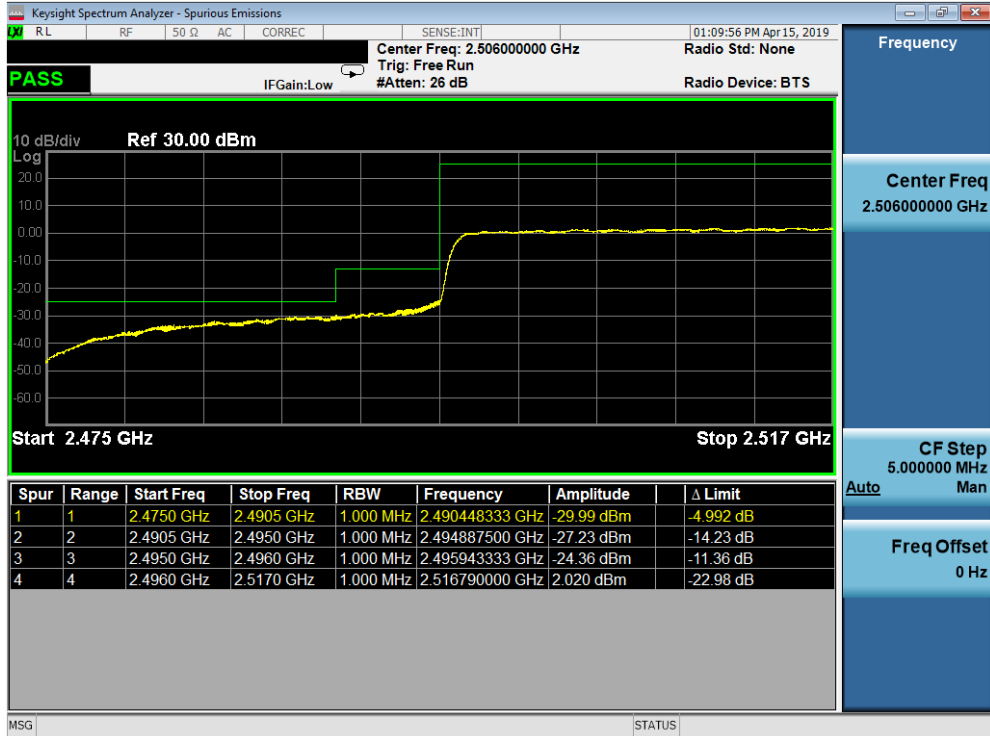
Plot 503. Lower Band Edge Plot (n41 - 80MHz CP-16QAM - Full RB Configuration)



Plot 504. Upper Band Edge Plot (n41 - 80MHz CP-16QAM - Full RB Configuration)

FCC ID: A3LSMG977T		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1903060032-03.A3L	Test Dates: 01/22 - 05/08/2019	EUT Type: Portable Handset		Page 338 of 348



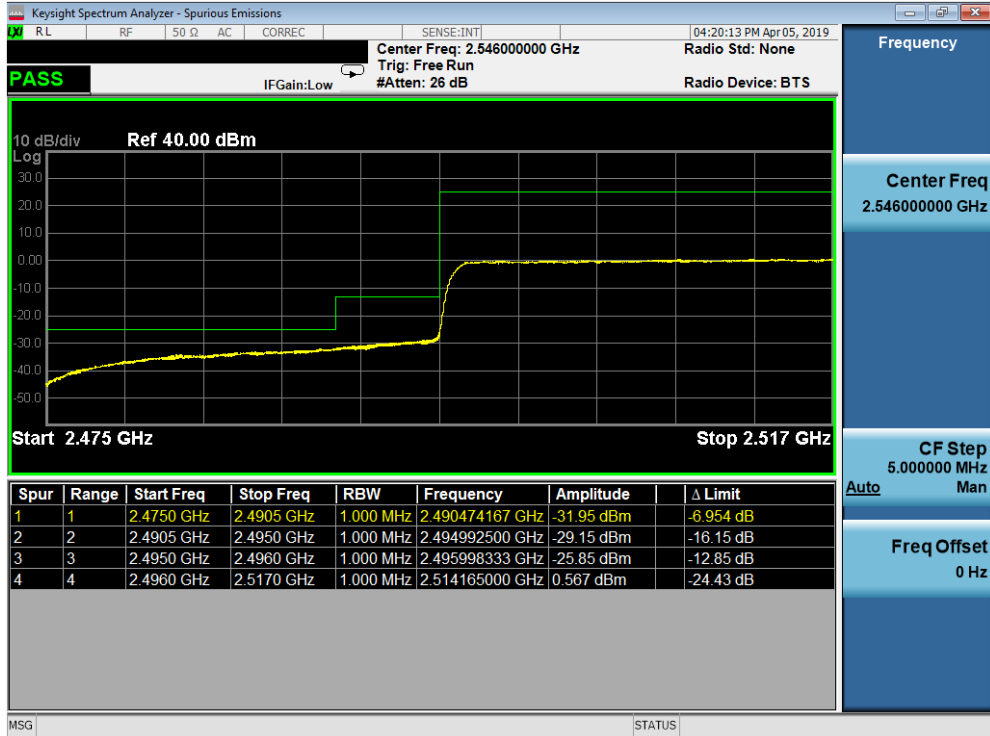


Plot 505. Lower Band Edge Plot (n41 - 80MHz CP-64QAM - Full RB Configuration)



Plot 506. Upper Band Edge Plot (n41 - 80MHz CP-64QAM - Full RB Configuration)

FCC ID: A3LSMG977T		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1903060032-03.A3L	Test Dates: 01/22 - 05/08/2019	EUT Type: Portable Handset		Page 339 of 348



Plot 507. Lower Band Edge Plot (n41 - 100MHz CP-QPSK - Full RB Configuration)



Plot 508. Upper Band Edge Plot (n41 - 100MHz CP-QPSK - Full RB Configuration)

FCC ID: A3LSMG977T		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1903060032-03.A3L	Test Dates: 01/22 - 05/08/2019	EUT Type: Portable Handset		Page 340 of 348

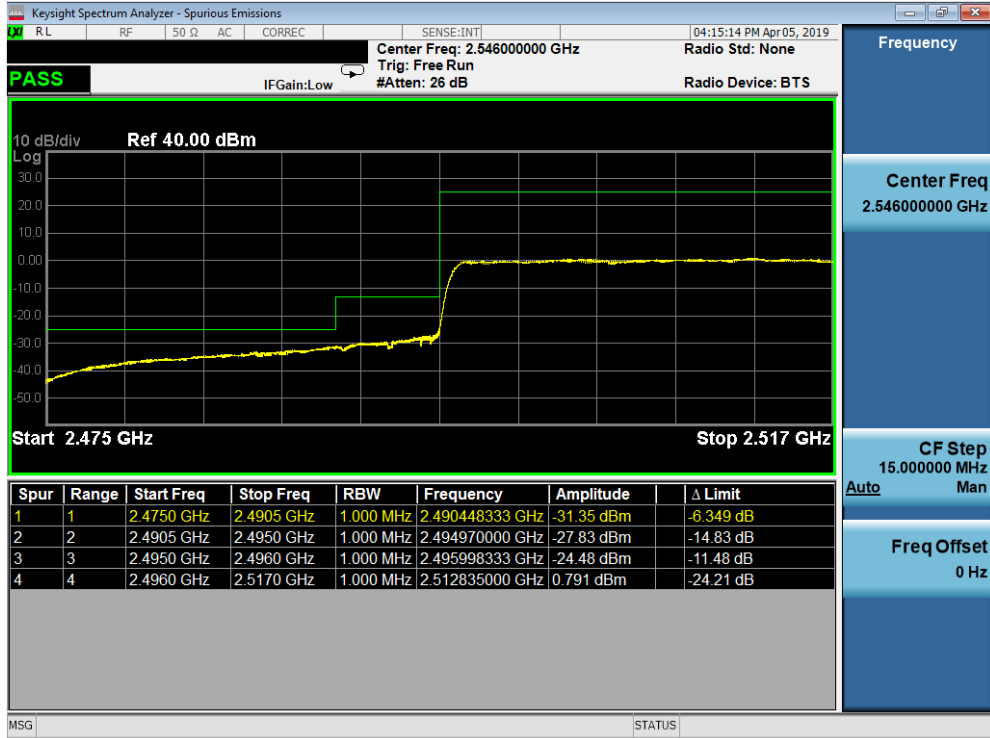


Plot 509. Lower Band Edge Plot (n41 - 100MHz CP-16QAM - Full RB Configuration)



Plot 510. Upper Band Edge Plot (n41 - 100MHz CP-16QAM - Full RB Configuration)

FCC ID: A3LSMG977T		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1903060032-03.A3L	Test Dates: 01/22 - 05/08/2019	EUT Type: Portable Handset		Page 341 of 348



Plot 511. Lower Band Edge Plot (n41 - 100MHz CP-64QAM - Full RB Configuration)



Plot 512. Upper Band Edge Plot (n41 - 100MHz CP-64QAM - Full RB Configuration)

FCC ID: A3LSMG977T		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1903060032-03.A3L	Test Dates: 01/22 - 05/08/2019	EUT Type: Portable Handset		Page 342 of 348

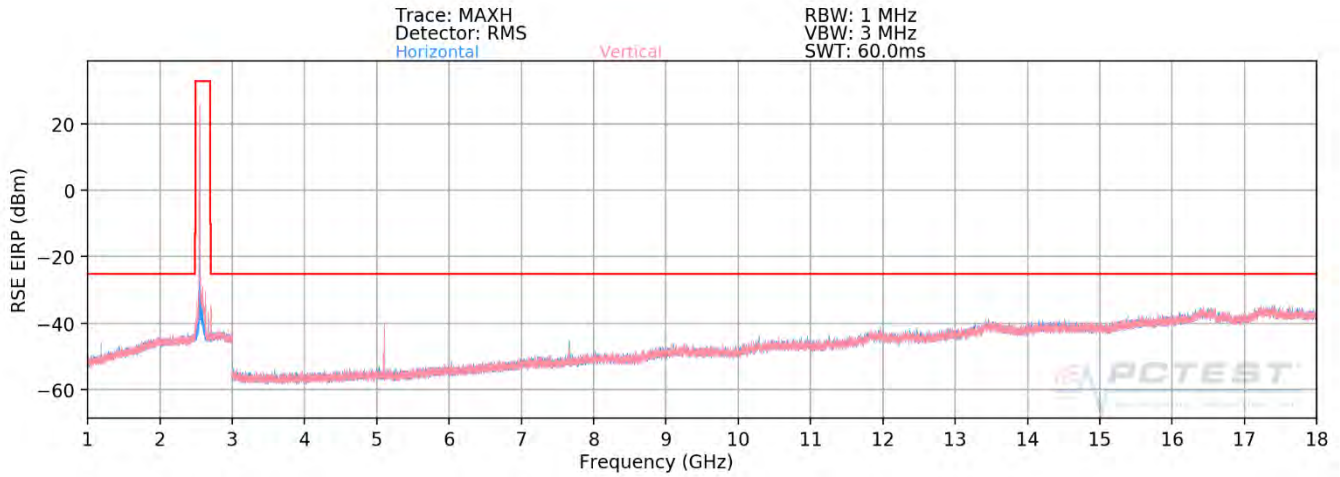
## Radiated Power (EIRP)

Frequency [MHz]	Channel Bandwidth [MHz]	Mod.	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	RB Size/Offset	Substitute Level [dBm]	Ant. Gain [dBi]	EIRP [dBm]	EIRP [Watts]	EIRP Limit [dBm]	Margin [dB]
2506.02	20	QPSK	H	119	138	1 / 26	12.09	8.37	20.46	0.111	33.01	-12.55
2593.02	20	QPSK	H	117	142	1 / 26	13.41	8.26	<b>21.67</b>	0.147	33.01	-11.34
2679.99	20	QPSK	H	146	319	1 / 26	13.05	8.05	21.10	0.129	33.01	-11.91
2593.02	20	16-QAM	H	117	142	1 / 26	13.37	8.26	<b>21.63</b>	0.146	33.01	-11.38
2593.02	20	64-QAM	H	117	142	1 / 26	13.07	8.26	<b>21.33</b>	<b>0.136</b>	33.01	-11.68
2516.01	40	QPSK	H	150	137	1 / 53	11.93	8.37	20.30	0.107	33.01	-12.71
2593.20	40	QPSK	H	113	139	1 / 53	13.17	8.26	<b>21.43</b>	0.139	33.01	-11.58
2670.00	40	QPSK	H	150	331	1 / 53	12.85	8.05	20.90	0.123	33.01	-12.11
2593.02	40	16-QAM	H	113	139	1 / 53	13.21	8.26	<b>21.47</b>	0.140	33.01	-11.54
2593.02	40	64-QAM	H	113	139	1 / 53	12.82	8.26	<b>21.08</b>	0.128	33.01	-11.93
2526.00	60	QPSK	H	151	326	1 / 160	13.07	8.37	21.44	0.139	33.01	-11.57
2593.02	60	QPSK	H	102	338	1 / 81	13.33	8.26	<b>21.59</b>	0.144	33.01	-11.42
2659.98	60	QPSK	H	173	348	1 / 81	12.97	8.05	21.02	0.126	33.01	-11.99
2593.02	60	16-QAM	H	102	338	1 / 81	13.45	8.26	<b>21.71</b>	<b>0.148</b>	33.01	-11.30
2593.02	60	64-QAM	H	102	338	1 / 81	13.09	8.26	<b>21.35</b>	<b>0.136</b>	33.01	-11.66
2536.02	80	QPSK	H	155	311	1 / 108	13.27	8.37	21.64	0.146	33.01	-11.37
2593.02	80	QPSK	H	142	141	1 / 108	13.78	8.26	<b>22.04</b>	<b>0.160</b>	33.01	-10.97
2649.98	80	QPSK	H	166	341	1 / 0	13.41	8.05	21.46	0.140	33.01	-11.55
2593.02	80	16-QAM	H	142	141	1/108	13.71	8.26	<b>21.97</b>	0.157	33.01	-11.04
2593.02	80	64-QAM	H	142	141	1 / 108	13.29	8.26	<b>21.55</b>	0.143	33.01	-11.46
2546.01	100	QPSK	H	142	301	1 / 136	12.72	8.37	21.09	0.129	33.01	-11.92
2593.02	100	QPSK	H	103	134	1 / 136	13.22	8.26	<b>21.48</b>	<b>0.141</b>	33.01	-11.53
2639.98	100	QPSK	H	156	333	1 / 0	12.82	8.05	20.87	0.122	33.01	-12.14
2593.02	100	16-QAM	H	103	134	1 / 136	13.18	8.26	<b>21.44</b>	0.139	33.01	-11.57
2593.02	100	64-QAM	H	103	134	1 / 136	12.95	8.26	<b>21.21</b>	0.132	33.01	-11.80
2593.02	80 (WCP)	16-QAM	H	196	301	13.45	9.73	8.26	17.99	0.063	33.01	-15.02

Table 66. EIRP Data (n41)

FCC ID: A3LSMG977T		MEASUREMENT REPORT (CERTIFICATION)			Approved by: Quality Manager
Test Report S/N: 1M1903060032-03.A3L	Test Dates: 01/22 - 05/08/2019	EUT Type: Portable Handset		Page 343 of 348	

# Radiated Spurious Emissions



**Plot 513. Radiated Spurious Plot above 1GHz (n41 EN-DC)**

OPERATING FREQUENCY: 2536.00 MHz  
 MODULATION SIGNAL: QPSK  
 BANDWIDTH: 80.0 MHz  
 DISTANCE: 3 meters  
 LIMIT: -25 dBm

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
5072.00	V	103	332	-52.10	8.89	-43.21	-18.2
7608.00	V	169	42	-57.63	9.25	-48.38	-23.4
10144.00	V	-	-	-62.93	9.75	-53.17	-28.2
12680.00	V	-	-	-59.59	8.89	-50.69	-25.7

**Table 67. Radiated Spurious Data (n41 – Low Channel)**

FCC ID: A3LSMG977T		MEASUREMENT REPORT (CERTIFICATION)			Approved by: Quality Manager
Test Report S/N: 1M1903060032-03.A3L	Test Dates: 01/22 - 05/08/2019	EUT Type: Portable Handset		Page 344 of 348	

OPERATING FREQUENCY: 2593.00 MHz  
 MODULATION SIGNAL: QPSK  
 BANDWIDTH: 80.0 MHz  
 DISTANCE: 3 meters  
 LIMIT: -25 dBm

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
5186.00	V	117	331	-52.97	9.03	-43.94	-18.9
7779.00	V	237	15	-61.88	9.29	-52.59	-27.6
10372.00	V	-	-	-63.51	9.50	-54.01	-29.0
12965.00	V	-	-	-59.69	8.75	-50.93	-25.9

**Table 68. Radiated Spurious Data (n41 – Mid Channel)**

OPERATING FREQUENCY: 2650.00 MHz  
 CHANNEL: QPSK  
 MODULATION SIGNAL: QPSK  
 BANDWIDTH: 80.0 MHz  
 DISTANCE: 3 meters  
 LIMIT: -25 dBm

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
5300.00	V	121	15	-56.81	8.69	-48.12	-23.1
7950.00	V	104	6	-61.95	8.97	-52.98	-28.0
10600.00	V	-	-	-62.52	9.30	-53.22	-28.2
13250.00	V	-	-	-57.87	8.75	-49.12	-24.1

**Table 69. Radiated Spurious Data (n41 – High Channel)**

FCC ID: A3LSMG977T		MEASUREMENT REPORT (CERTIFICATION)			Approved by: Quality Manager
Test Report S/N: 1M1903060032-03.A3L	Test Dates: 01/22 - 05/08/2019	EUT Type: Portable Handset		Page 345 of 348	

## n41 (EN-DC) Frequency Stability Measurements

OPERATING FREQUENCY: 2,593,000,000 Hz  
 CHANNEL: 518600  
 REFERENCE VOLTAGE: 4.31 VDC

VOLTAGE (%)	POWER (VDC)	TEMP (°C)	FREQUENCY (Hz)	Freq. Dev. (Hz)	Deviation (%)
100 %	4.31	- 30	2,592,999,600	-400	-0.0000154
100 %		- 20	2,592,999,889	-111	-0.0000043
100 %		- 10	2,593,000,197	197	0.0000076
100 %		0	2,592,999,691	-309	-0.0000119
100 %		+ 10	2,592,999,855	-145	-0.0000056
100 %		+ 20	2,593,000,099	99	0.0000038
100 %		+ 30	2,592,999,699	-301	-0.0000116
100 %		+ 40	2,593,000,145	145	0.0000056
100 %		+ 50	2,593,000,012	12	0.0000005
BATT. ENDPOINT		3.44	+ 20	2,593,000,175	175

**Table 7-70. Frequency Stability Data (Band 41)**

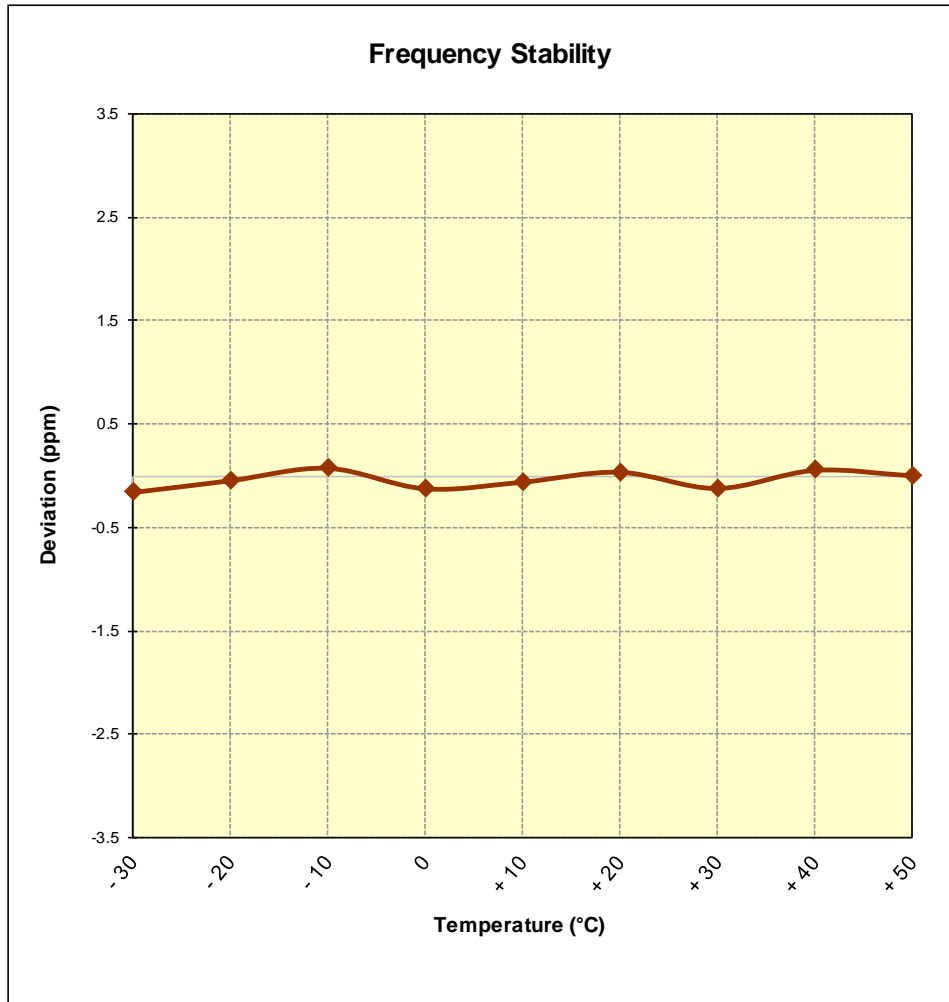
**Note:**

Based on the results of the frequency stability test at the center channel the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency deviation noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

FCC ID: A3LSMG977T		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1903060032-03.A3L	Test Dates: 01/22 - 05/08/2019	EUT Type: Portable Handset	Page 346 of 348	



**n41 (EN-DC) Frequency Stability Measurements**



**Figure 7-19. Frequency Stability Graph (Band 41)**

<b>FCC ID:</b> A3LSMG977T		<b>MEASUREMENT REPORT (CERTIFICATION)</b>	 <b>Approved by:</b> Quality Manager
<b>Test Report S/N:</b> 1M1903060032-03.A3L	<b>Test Dates:</b> 01/22 - 05/08/2019	<b>EUT Type:</b> Portable Handset	Page 347 of 348

## 8.0 CONCLUSION

The data collected relate only to the item(s) tested and show that the **Samsung Portable Handset FCC ID: A3LSMG977T** complies with all the requirements of Part 22, 24, & 27 of the FCC Rules for LTE operation only.

FCC ID: A3LSMG977T		<b>MEASUREMENT REPORT (CERTIFICATION)</b>	 <b>Approved by:</b> Quality Manager
<b>Test Report S/N:</b> 1M1903060032-03.A3L	<b>Test Dates:</b> 01/22 - 05/08/2019	<b>EUT Type:</b> Portable Handset	Page 348 of 348