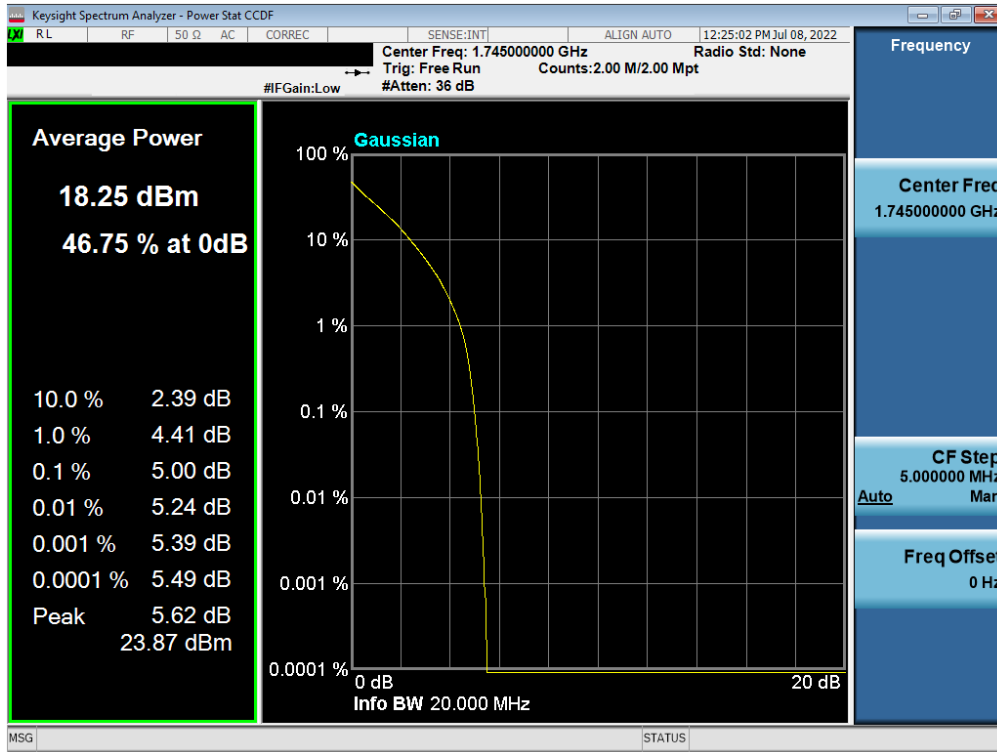
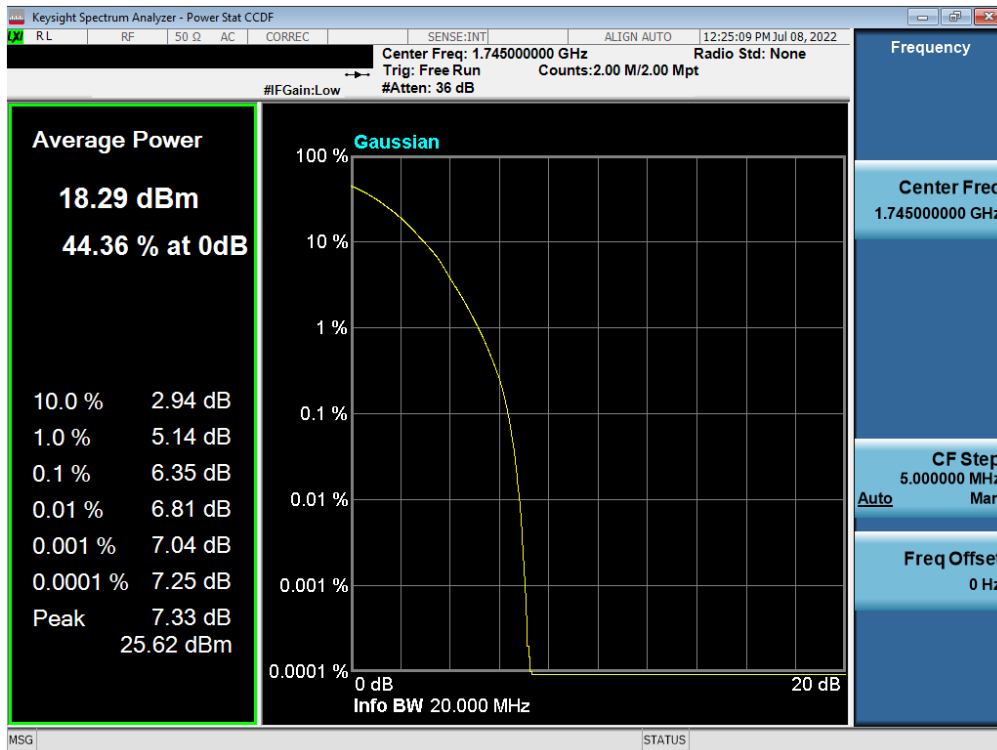


# LTE Band 66/4

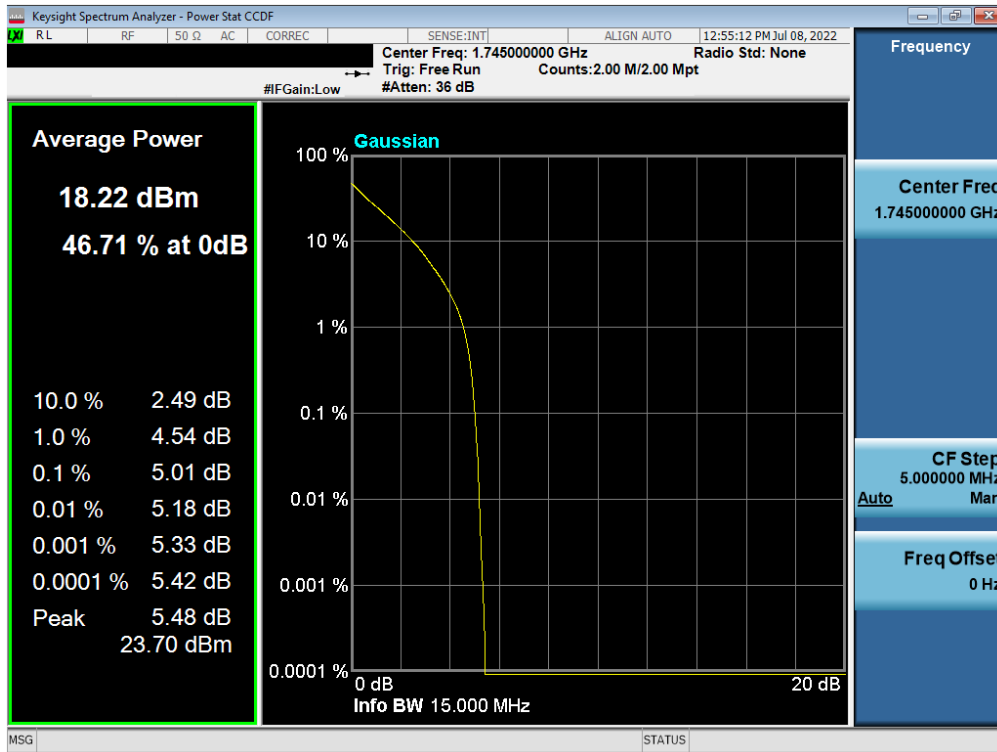


Plot 7-127. PAR Plot (LTE Band 66/4 - 20MHz QPSK - Full RB)

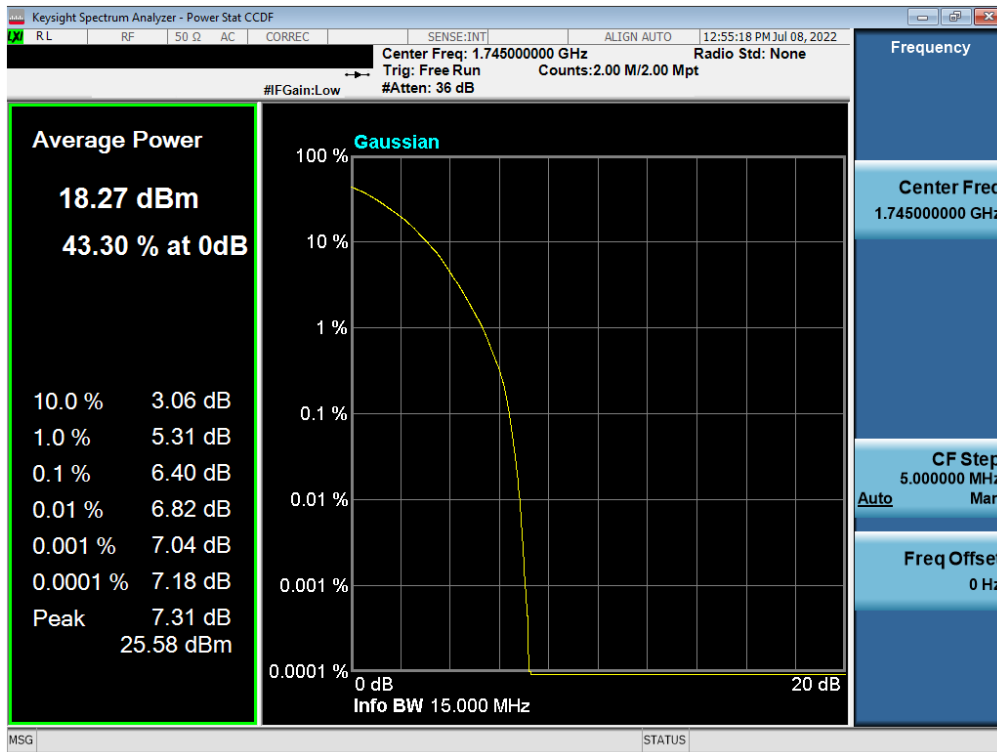


Plot 7-128. PAR Plot (LTE Band 66/4 - 20MHz 64-QAM - Full RB)

FCC ID: PY7-58692W		PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2207200079-03.PY7	Test Dates: 6/8/2022 - 7/27/2022	EUT Type: Portable Handset	Page 83 of 109	

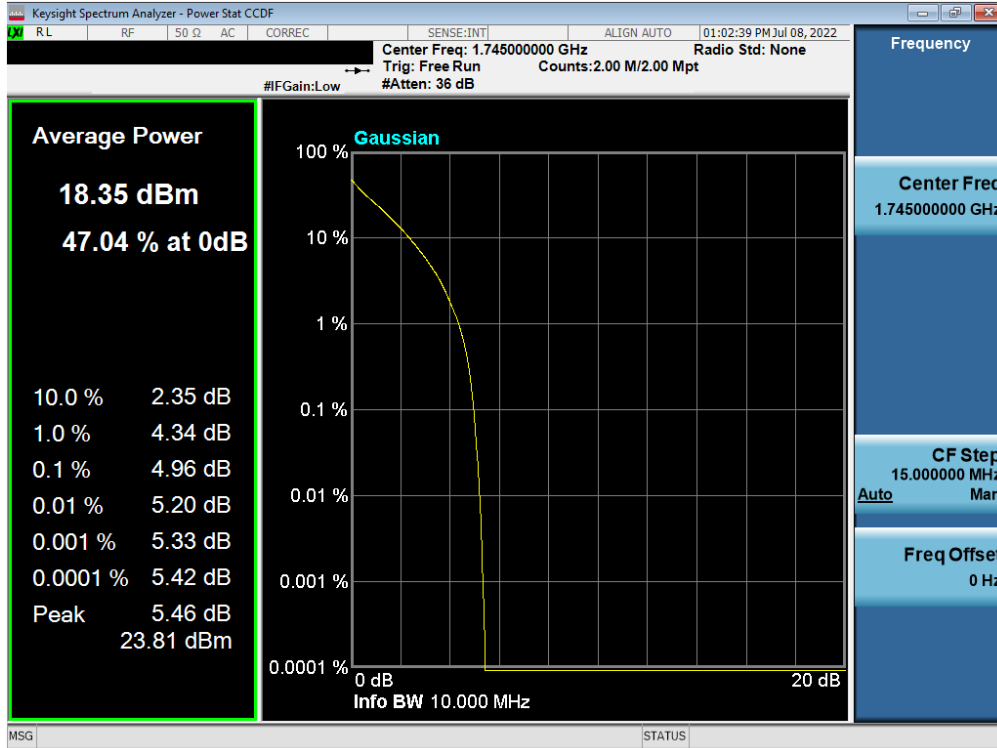


Plot 7-129. PAR Plot (LTE Band 66/4 - 15MHz QPSK - Full RB)

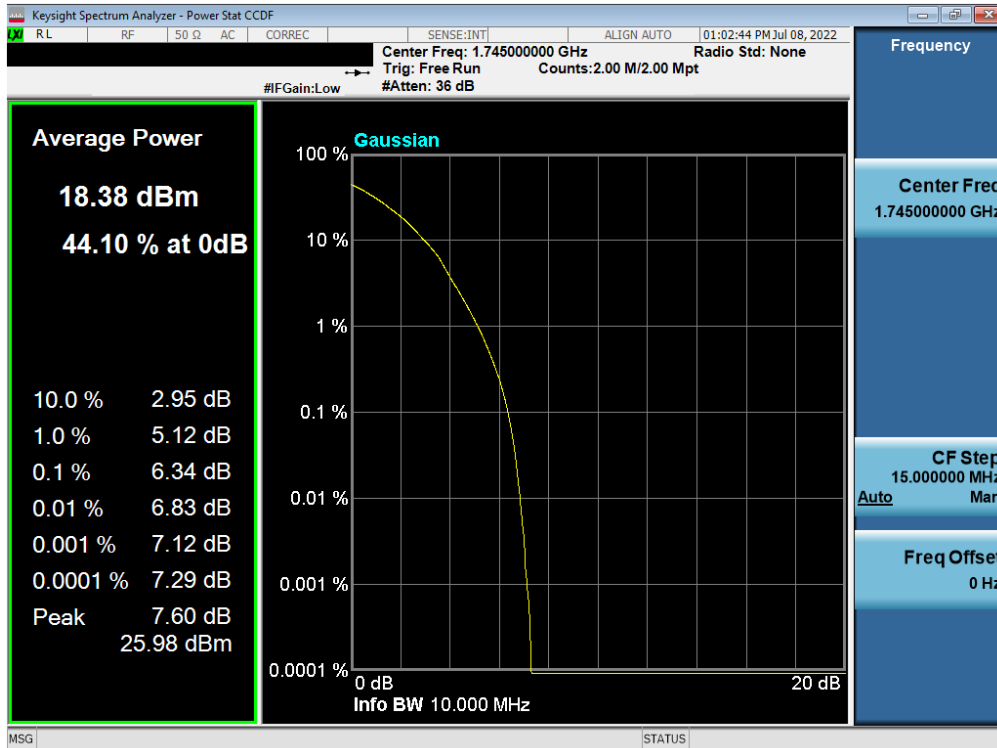


Plot 7-130. PAR Plot (LTE Band 66/4 - 15MHz 64-QAM - Full RB)

FCC ID: PY7-58692W	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2207200079-03.PY7	Test Dates: 6/8/2022 - 7/27/2022	EUT Type: Portable Handset	Page 84 of 109

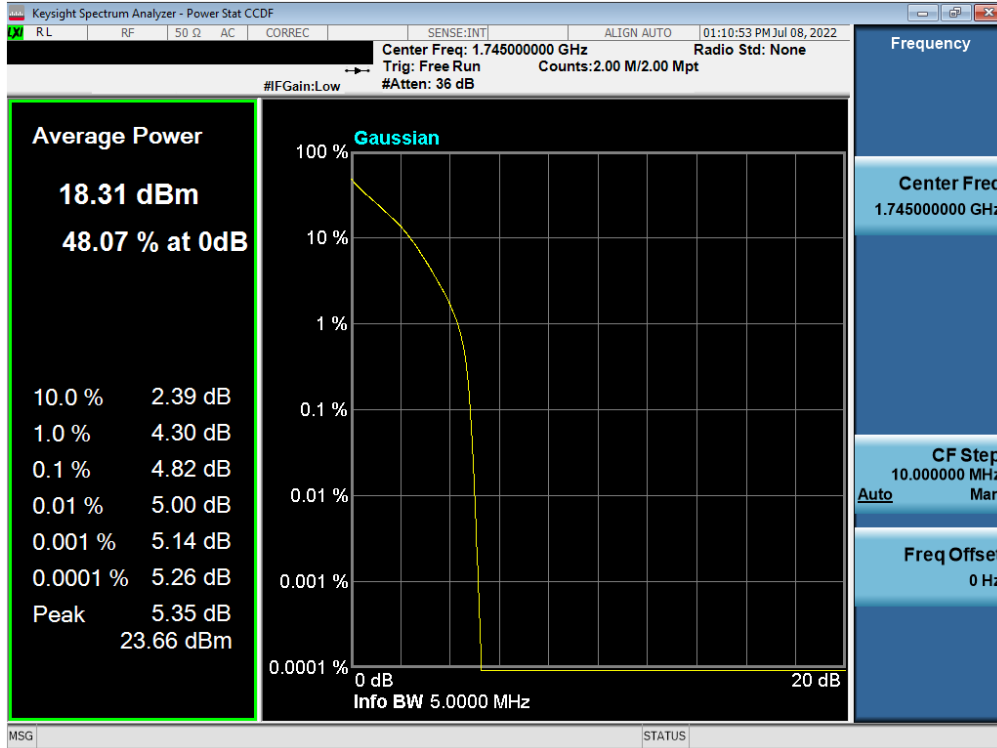


Plot 7-131. PAR Plot (LTE Band 66/4 - 10MHz QPSK - Full RB)

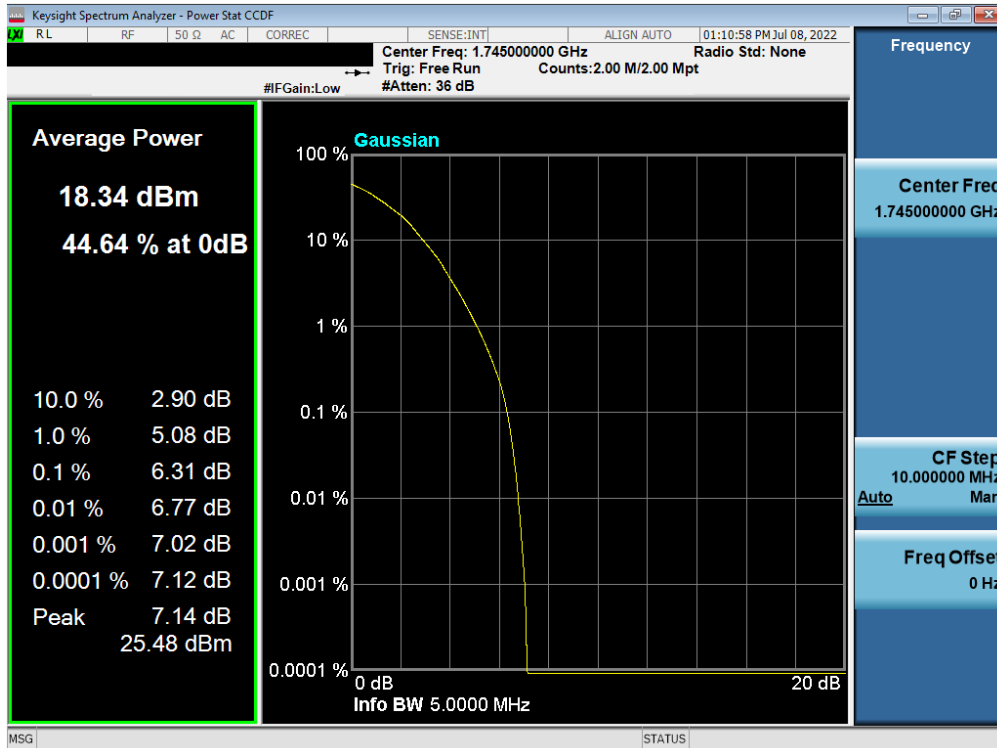


Plot 7-132. PAR Plot (LTE Band 66/4 - 10MHz 64-QAM - Full RB)

FCC ID: PY7-58692W	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2207200079-03.PY7	Test Dates: 6/8/2022 - 7/27/2022	EUT Type: Portable Handset	Page 85 of 109

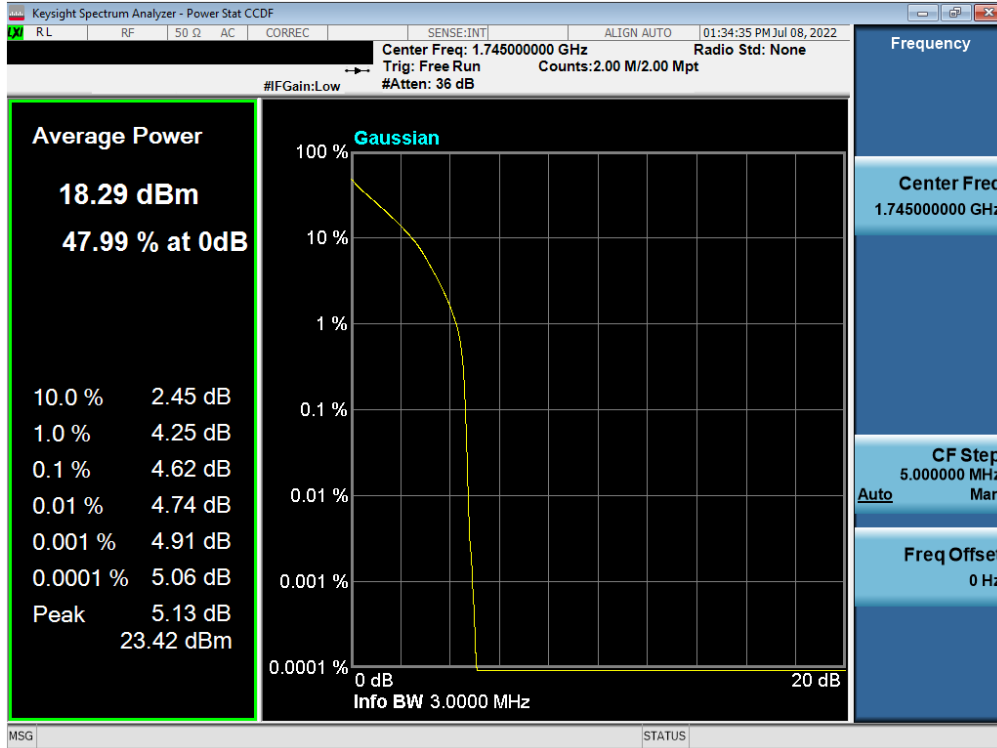


Plot 7-133. PAR Plot (LTE Band 66/4 - 5MHz QPSK - Full RB)

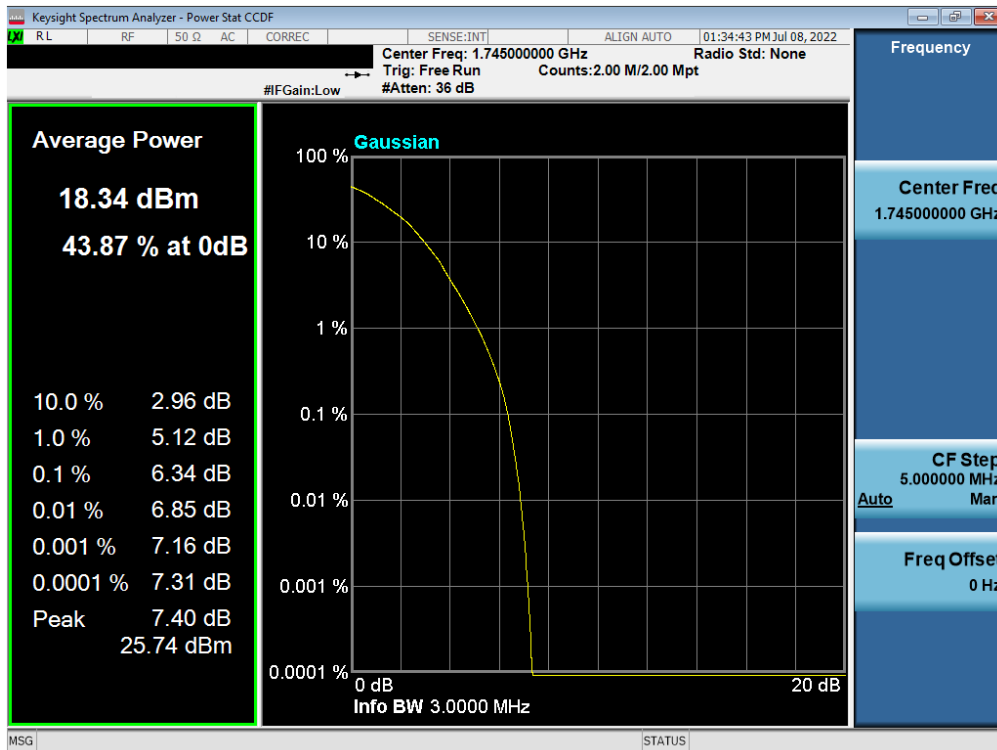


Plot 7-134. PAR Plot (LTE Band 66/4 - 5MHz 64-QAM - Full RB)

FCC ID: PY7-58692W	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2207200079-03.PY7	Test Dates: 6/8/2022 - 7/27/2022	EUT Type: Portable Handset	Page 86 of 109

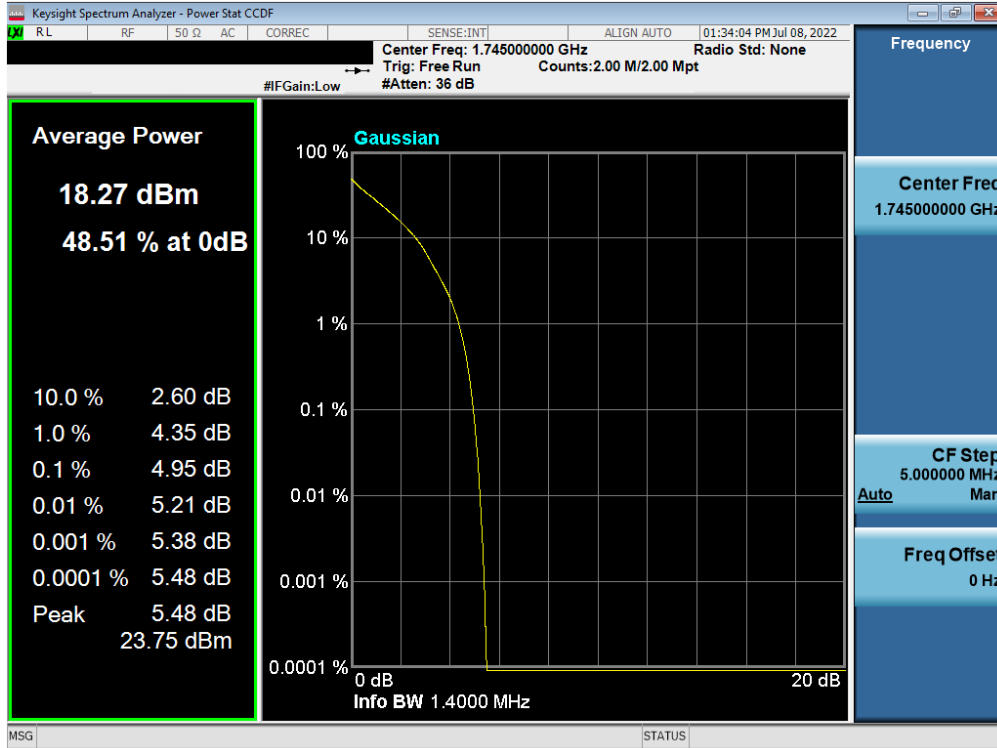


Plot 7-135. PAR Plot (LTE Band 66/4 - 3MHz QPSK - Full RB)

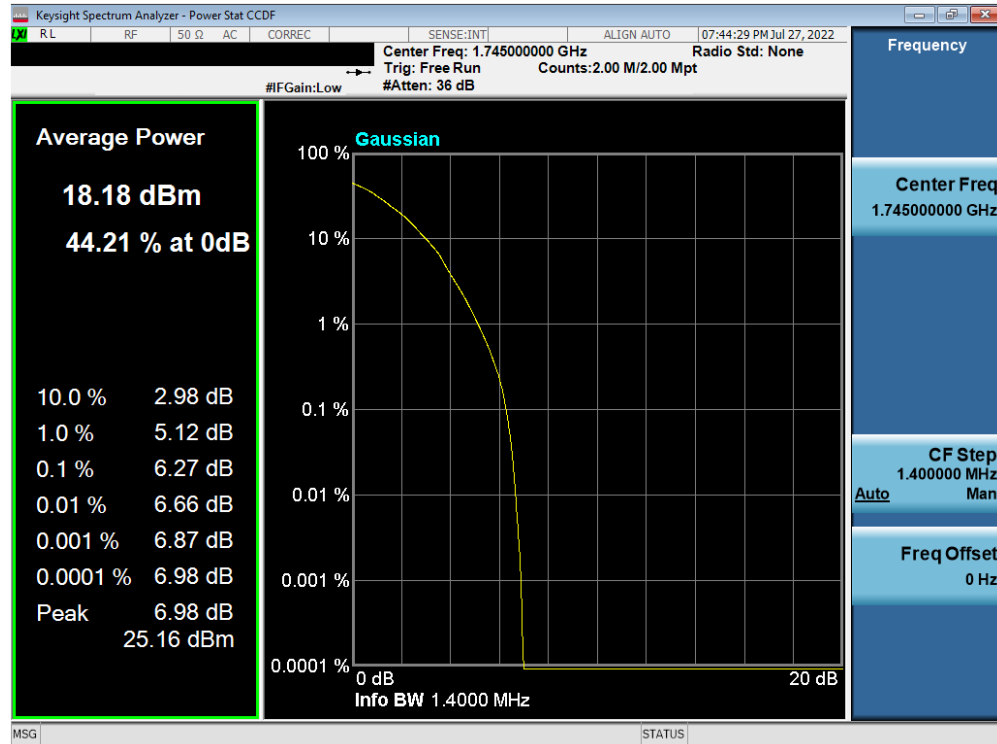


Plot 7-136. PAR Plot (LTE Band 66/4 - 3MHz 64-QAM - Full RB)

FCC ID: PY7-58692W	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2207200079-03.PY7	Test Dates: 6/8/2022 - 7/27/2022	EUT Type: Portable Handset	Page 87 of 109



Plot 7-137. PAR Plot (LTE Band 66/4 - 1.4MHz QPSK - Full RB)



Plot 7-138. PAR Plot (LTE Band 66/4 - 1.4MHz 64-QAM - Full RB)

FCC ID: PY7-58692W	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2207200079-03.PY7	Test Dates: 6/8/2022 - 7/27/2022	EUT Type: Portable Handset	Page 88 of 109

## 7.6 Radiated Power (ERP/EIRP)

### Test Overview

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

### Test Procedures Used

ANSI C63.26-2015 – Section 5.2.4.4

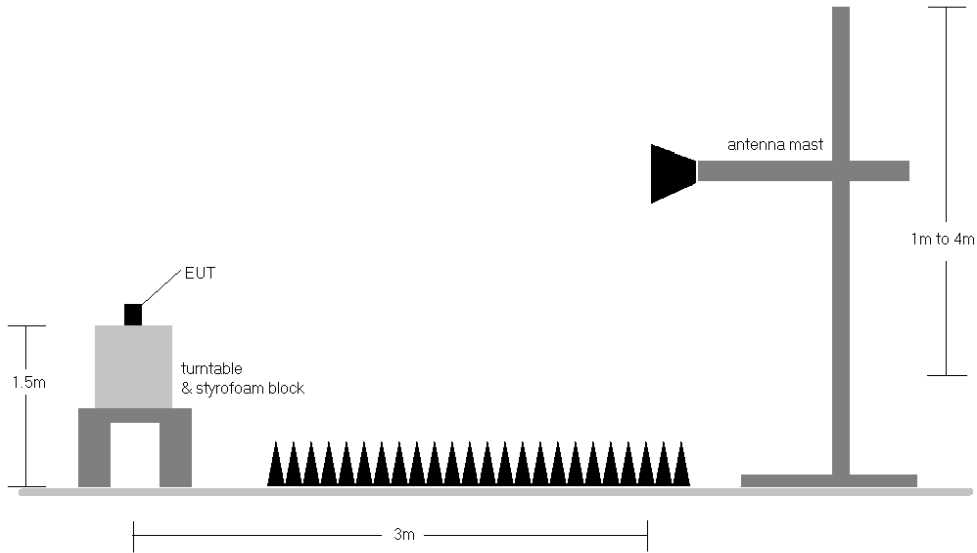
### Test Settings

1. Radiated power measurements are performed using the signal analyzer's "channel power" measurement capability for signals with continuous operation.
2. RBW = 1 – 5% of the expected OBW, not to exceed 1MHz
3. VBW  $\geq$  3 x RBW
4. Span = 1.5 times the OBW
5. No. of sweep points  $\geq$  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

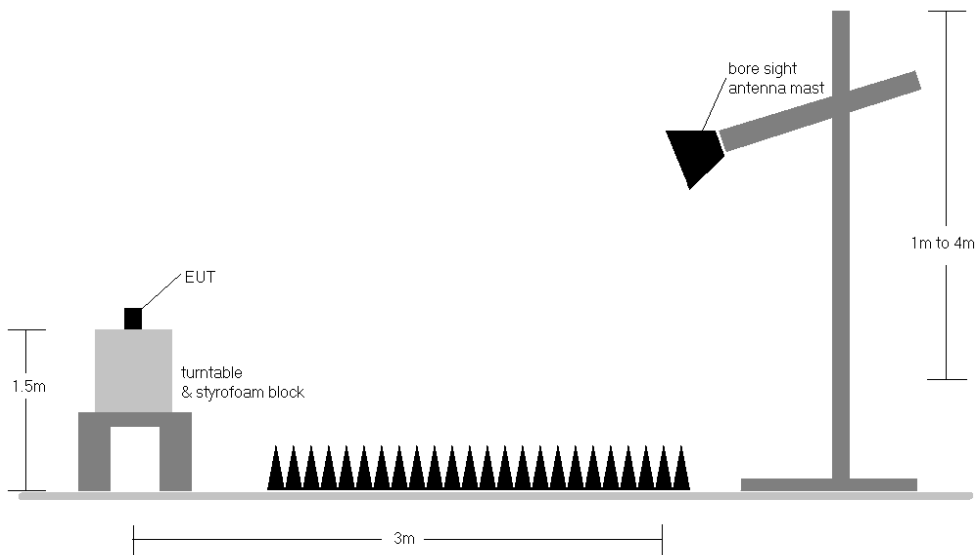
FCC ID: PY7-58692W	<b>PART 27 MEASUREMENT REPORT</b>		Approved by: Technical Manager
Test Report S/N: 1M2207200079-03.PY7	Test Dates: 6/8/2022 - 7/27/2022	EUT Type: Portable Handset	Page 89 of 109

**Test Setup**

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



**Figure 7-5. Radiated Test Setup <1GHz**



**Figure 7-6. 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.

<b>FCC ID:</b> PY7-58692W	<b>PART 27 MEASUREMENT REPORT</b>		<b>Approved by:</b> Technical Manager
<b>Test Report S/N:</b> 1M2207200079-03.PY7	<b>Test Dates:</b> 6/8/2022 - 7/27/2022	<b>EUT Type:</b> Portable Handset	Page 90 of 109



Bandwidth	Mod.	Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Ant. Gain [dBi]	RB Size/Offset	Substitute Level [dBm]	EIRP [dBm]	EIRP [Watts]	EIRP Limit [dBm]	Margin [dB]	ERP [dBm]	ERP [Watts]	ERP Limit [dBm]	Margin [dB]
10 MHz	QPSK	704.0	V	172	291	3.58	1 / 0	11.44	15.02	0.032	36.99	-21.97	12.87	0.019	34.77	-21.90
	QPSK	707.5	V	173	295	3.62	1 / 0	11.51	15.13	0.033	36.99	-21.86	12.98	0.020	34.77	-21.79
	QPSK	711.0	V	161	305	3.67	1 / 49	12.16	<b>15.83</b>	0.038	36.99	-21.16	<b>13.68</b>	0.023	34.77	-21.09
	16-QAM	711.0	V	161	305	3.67	1 / 49	11.94	15.61	0.036	36.99	-21.38	13.46	0.022	34.77	-21.31
5 MHz	64-QAM	711.0	V	161	305	3.67	1 / 49	11.31	14.98	0.031	36.99	-22.01	12.83	0.019	34.77	-21.94
	QPSK	701.5	V	172	291	3.55	1 / 12	11.41	14.96	0.031	36.99	-22.03	12.81	0.019	34.77	-21.96
	QPSK	707.5	V	173	295	3.62	1 / 12	11.40	15.02	0.032	36.99	-21.97	12.87	0.019	34.77	-21.90
	QPSK	713.5	V	161	305	3.80	1 / 12	12.17	15.97	0.040	36.99	-21.02	<b>13.82</b>	0.024	34.77	-20.95
3 MHz	16-QAM	713.5	V	161	305	3.80	1 / 12	11.77	15.56	0.036	36.99	-21.43	13.41	0.022	34.77	-21.36
	64-QAM	713.5	V	161	305	3.80	1 / 0	11.05	14.85	0.031	36.99	-22.14	12.70	0.019	34.77	-22.07
	QPSK	700.5	V	172	291	3.54	1 / 0	11.57	15.11	0.032	36.99	-21.88	12.96	0.020	34.77	-21.81
	QPSK	707.5	V	173	295	3.62	1 / 7	11.39	15.02	0.032	36.99	-21.97	12.87	0.019	34.77	-21.90
1.4 MHz	QPSK	714.5	V	161	305	3.81	1 / 0	12.04	<b>15.85</b>	0.038	36.99	-21.14	<b>13.70</b>	0.023	34.77	-21.07
	16-QAM	714.5	V	161	305	3.81	1 / 7	11.70	15.51	0.036	36.99	-21.48	13.36	0.022	34.77	-21.41
	64-QAM	714.5	V	161	305	3.81	1 / 0	11.14	14.94	0.031	36.99	-22.05	12.79	0.019	34.77	-21.98
	QPSK	699.7	V	172	291	3.53	1 / 0	11.46	14.98	0.032	36.99	-22.01	12.83	0.019	34.77	-21.94
10 MHz	QPSK	707.5	V	173	295	3.62	1 / 0	11.29	14.92	0.031	36.99	-22.07	12.77	0.019	34.77	-22.00
	QPSK	715.3	V	161	305	3.85	1 / 3	11.93	<b>15.78</b>	0.038	36.99	-21.21	<b>13.63</b>	0.023	34.77	-21.14
	16-QAM	715.3	V	161	305	3.85	1 / 3	11.60	15.45	0.035	36.99	-21.54	13.30	0.021	34.77	-21.47
	64-QAM	715.3	V	161	305	3.85	1 / 3	10.94	14.79	0.030	36.99	-22.20	12.64	0.018	34.77	-22.13
10 MHz	Opposite Pol.	711.0	H	263	294	3.67	1/49	10.68	14.35	0.027	36.99	-22.64	12.20	0.017	34.77	-22.57
	WCP	711.0	H	255	290	3.67	1/49	8.55	12.22	0.017	36.99	-24.77	10.07	0.010	34.77	-24.70

Table 7-2. ERP Data (LTE Band 12/17)

Bandwidth	Mod.	Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Ant. Gain [dBi]	RB Size/Offset	Substitute Level [dBm]	EIRP [dBm]	EIRP [Watts]	EIRP Limit [dBm]	Margin [dB]	ERP [dBm]	ERP [Watts]	ERP Limit [dBm]	Margin [dB]
10 MHz	QPSK	782.0	H	104	280	6.09	1 / 0	9.93	<b>16.02</b>	0.040	36.99	-20.97	<b>13.87</b>	0.024	34.77	-20.90
	16-QAM	782.0	H	104	280	6.09	1 / 0	9.82	15.91	0.039	36.99	-21.08	13.76	0.024	34.77	-21.01
	64-QAM	782.0	H	104	280	6.09	1 / 0	8.86	14.95	0.031	36.99	-22.04	12.80	0.019	34.77	-21.97
5 MHz	QPSK	779.5	H	104	280	5.97	1 / 0	10.27	<b>16.24</b>	0.042	36.99	-20.75	<b>14.09</b>	0.026	34.77	-20.69
	QPSK	782.0	H	104	280	6.09	1 / 0	9.98	16.07	0.040	36.99	-20.92	13.92	0.025	34.77	-20.85
	QPSK	784.5	H	104	280	6.17	1 / 12	9.99	16.16	0.041	36.99	-20.83	14.01	0.025	34.77	-20.76
	16-QAM	784.5	H	104	280	6.17	1 / 12	9.83	16.00	0.040	36.99	-20.99	13.85	0.024	34.77	-20.92
	64-QAM	779.5	H	104	280	5.97	1 / 12	9.27	15.23	0.033	36.99	-21.76	13.08	0.020	34.77	-21.69
10 MHz	Opposite Pol.	782.0	V	153	265	6.09	1/0	8.90	14.99	0.032	36.99	-22.00	12.84	0.019	34.77	-21.93
	WCP	782.0	H	102	273	6.09	1/0	7.01	13.10	0.020	36.99	-23.89	10.95	0.012	34.77	-23.82

Table 7-3. ERP Data (LTE Band 13)

Frequency [MHz]	Mode	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Substitute Level [dBm]	Ant. Gain [dBi]	EIRP [dBm]	EIRP [Watts]	EIRP Limit [dBm]	Margin [dB]
1712.40	WCDMA1700	V	171	150	4.28	9.49	13.77	0.024	30.00	-16.23
1732.60	WCDMA1700	V	156	135	7.01	9.16	<b>16.17</b>	<b>0.041</b>	30.00	-13.83
1752.60	WCDMA1700	V	171	150	5.92	9.05	14.97	0.031	30.00	-15.03
1732.60	WCDMA1700	H	179	171	5.91	9.49	15.40	0.035	30.00	-14.60
1732.60	WCDMA1700 (WCP)	H	165	137	4.66	9.49	14.15	0.026	30.00	-15.85

Table 7-4. EIRP Data (WCDMA AWS)

FCC ID: PY7-58692W	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2207200079-03.PY7	Test Dates: 6/8/2022 - 7/27/2022	EUT Type: Portable Handset	Page 91 of 109



Bandwidth	Mod.	Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Ant. Gain [dBi]	RB Size/Offset	Substitute Level [dBm]	EIRP [dBm]	EIRP [Watts]	EIRP Limit [dBm]	Margin [dB]
20 MHz	QPSK	1720.0	V	124	220	9.33	1 / 0	5.39	14.72	0.030	30.00	-15.28
	QPSK	1745.0	V	136	218	9.03	1 / 50	7.26	<b>16.29</b>	0.043	30.00	-13.71
	QPSK	1770.0	V	123	233	9.10	1 / 0	7.09	16.19	0.042	30.00	-13.81
	16-QAM	1770.0	V	123	233	9.10	1 / 0	7.00	16.10	0.041	30.00	-13.90
15 MHz	64-QAM	1770.0	V	123	233	9.10	1 / 99	6.66	15.76	0.038	30.00	-14.24
	QPSK	1717.5	V	124	220	9.38	1 / 37	5.21	14.59	0.029	30.00	-15.41
	QPSK	1745.0	V	136	218	9.03	1 / 0	7.16	<b>16.19</b>	0.042	30.00	-13.81
	QPSK	1772.5	V	123	233	9.11	1 / 37	7.05	16.16	0.041	30.00	-13.84
10 MHz	16-QAM	1772.5	V	123	233	9.11	1 / 74	6.84	15.95	0.039	30.00	-14.05
	64-QAM	1772.5	V	123	233	9.11	1 / 0	6.51	15.62	0.037	30.00	-14.38
	QPSK	1715.0	V	124	220	9.42	1 / 49	5.42	14.84	0.030	30.00	-15.16
	QPSK	1745.0	V	136	218	9.03	1 / 0	7.28	16.31	0.043	30.00	-13.69
5 MHz	QPSK	1775.0	V	123	233	9.13	1 / 0	7.19	<b>16.32</b>	0.043	30.00	-13.68
	16-QAM	1775.0	V	123	233	9.13	1 / 25	7.01	16.14	0.041	30.00	-13.86
	64-QAM	1775.0	V	123	233	9.13	1 / 0	6.75	15.88	0.039	30.00	-14.12
	QPSK	1712.5	V	124	220	9.47	1 / 24	5.35	14.82	0.030	30.00	-15.18
3 MHz	QPSK	1745.0	V	136	218	9.03	1 / 0	7.28	16.31	0.043	30.00	-13.69
	QPSK	1777.5	V	123	233	9.15	1 / 0	7.19	<b>16.34</b>	0.043	30.00	-13.66
	16-QAM	1777.5	V	123	233	9.15	1 / 24	6.95	16.10	0.041	30.00	-13.90
	64-QAM	1777.5	V	123	233	9.15	1 / 0	6.63	15.78	0.038	30.00	-14.22
1.4 MHz	QPSK	1711.5	V	124	220	9.49	1 / 0	5.26	14.75	0.030	30.00	-15.25
	QPSK	1745.0	V	136	218	9.03	1 / 7	7.34	<b>16.38</b>	0.043	30.00	-13.62
	QPSK	1778.5	V	123	233	9.15	1 / 0	7.15	16.31	0.043	30.00	-13.69
	16-QAM	1778.5	V	123	233	9.15	1 / 7	6.97	16.12	0.041	30.00	-13.88
20 MHz	64-QAM	1778.5	V	123	233	9.15	1 / 0	6.73	15.88	0.039	30.00	-14.12
	QPSK	1710.7	V	124	220	9.50	1 / 3	5.29	14.79	0.030	30.00	-15.21
	QPSK	1745.0	V	136	218	9.03	1 / 0	7.35	16.38	0.043	30.00	-13.62
	QPSK	1779.3	V	123	233	9.16	3.22	7.26	<b>16.42</b>	0.044	30.00	-13.58
20 MHz	16-QAM	1779.3	V	123	233	9.16	1 / 0	6.96	16.12	0.041	30.00	-13.88
	64-QAM	1779.3	V	123	233	9.16	1 / 3	6.76	15.92	0.039	30.00	-14.08
20 MHz	Opposite Pol.	1745.0	H	131	160	9.48	1/0	6.57	16.05	0.040	30.00	-13.95
	WCP	1745.0	H	131	160	9.48	1/0	5.15	14.63	0.029	30.00	-15.37

Table 7-5. EIRP Data (LTE Band 66/4)

FCC ID: PY7-58692W	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2207200079-03.PY7	Test Dates: 6/8/2022 - 7/27/2022	EUT Type: Portable Handset	Page 92 of 109

## 7.7 Radiated Spurious Emissions Measurements

### Test Overview

Radiated spurious emissions measurements are performed using the field strength conversion method described in ANSI C63.26-2015 with the EUT transmitting into an integral antenna. Measurements on signals operating below 1GHz are performed using hybrid (biconical/log) antennas. Measurements on signals operating above 1GHz are performed using vertically and horizontally polarized broadband horn antennas. All measurements are performed as RMS measurements while the EUT is operating at maximum power, and at the appropriate frequencies.

### Test Procedures Used

ANSI C63.26-2015 – Section 5.5.4

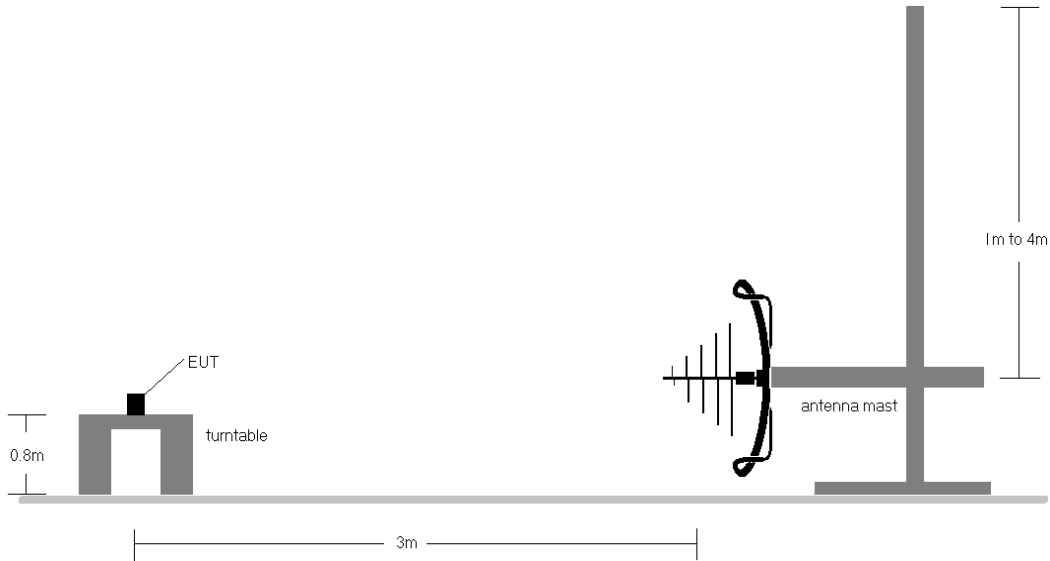
### Test Settings

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

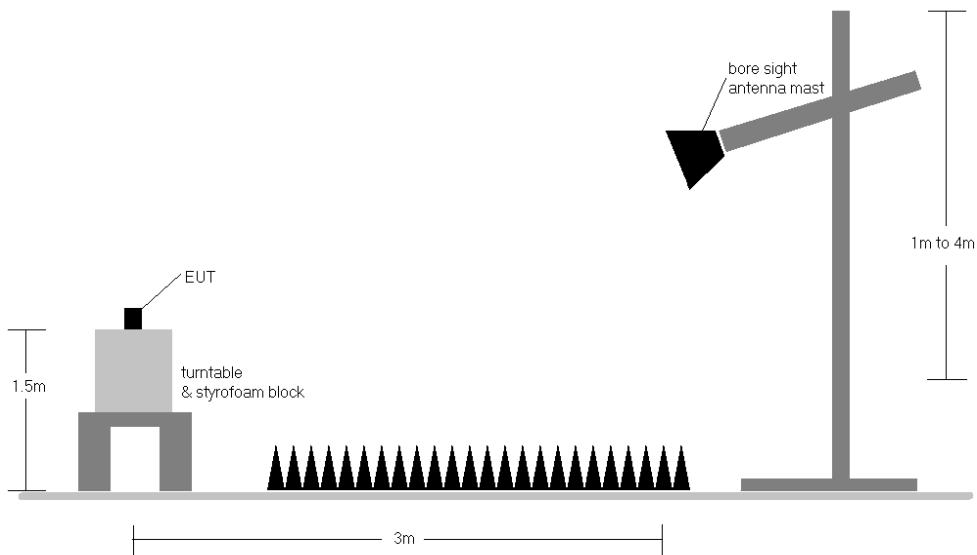
FCC ID: PY7-58692W	<b>PART 27 MEASUREMENT REPORT</b>		Approved by: Technical Manager
Test Report S/N: 1M2207200079-03.PY7	Test Dates: 6/8/2022 - 7/27/2022	EUT Type: Portable Handset	Page 93 of 109

**Test Setup**

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



**Figure 7-7. Test Instrument & Measurement Setup < 1GHz**



**Figure 7-8. Test Instrument & Measurement Setup > 1GHz**

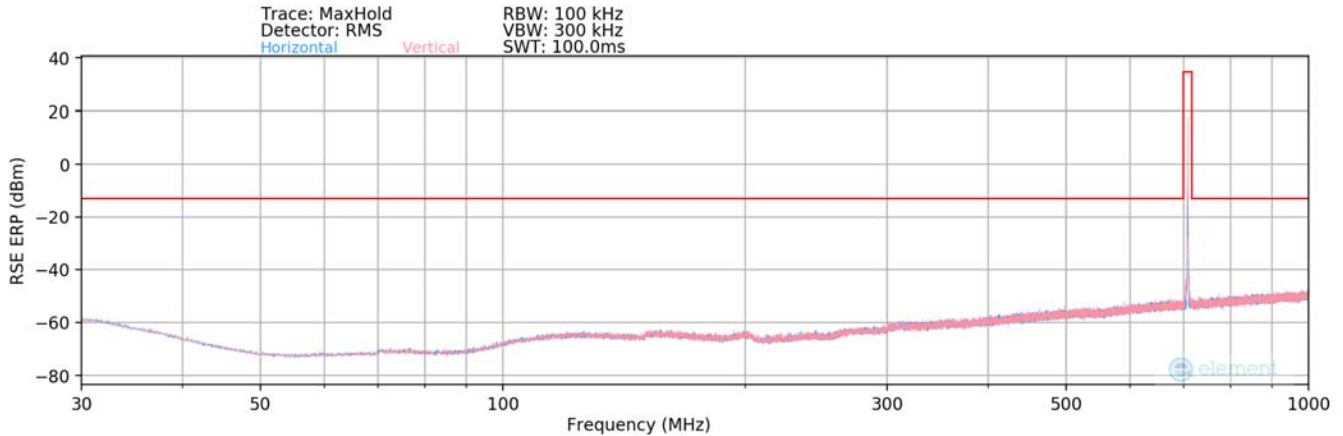
<b>FCC ID:</b> PY7-58692W	<b>PART 27 MEASUREMENT REPORT</b>		<b>Approved by:</b> Technical Manager
<b>Test Report S/N:</b> 1M2207200079-03.PY7	<b>Test Dates:</b> 6/8/2022 - 7/27/2022	<b>EUT Type:</b> Portable Handset	Page 94 of 109

**Test Notes**

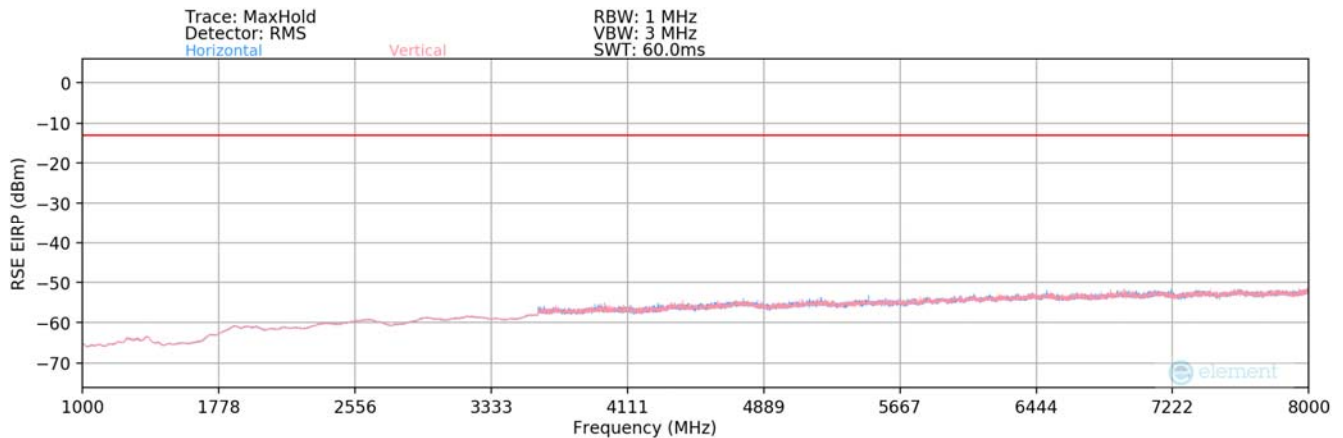
- 1) Field strengths are calculated using the Measurement quantity conversions in ANSI C63.26-2015 Section 5.2.7:
  - a)  $E(\text{dB}\mu\text{V}/\text{m}) = \text{Measured amplitude level (dBm)} + 107 + \text{Cable Loss (dB)} + \text{Antenna Factor (dB/m)}$
  - b)  $\text{EIRP (dBm)} = E(\text{dB}\mu\text{V}/\text{m}) + 20\log D - 104.8$ ; where D is the measurement distance in meters.
- 2) 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.
- 3) This unit was tested with its standard battery.
- 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) The "-" shown in the following RSE tables are used to denote a noise floor measurement.

<b>FCC ID:</b> PY7-58692W	<b>PART 27 MEASUREMENT REPORT</b>		<b>Approved by:</b> Technical Manager
<b>Test Report S/N:</b> 1M2207200079-03.PY7	<b>Test Dates:</b> 6/8/2022 - 7/27/2022	<b>EUT Type:</b> Portable Handset	Page 95 of 109

## LTE Band 12/17



**Plot 7-139. Radiated Spurious Plot Below 1GHz (LTE Band 12/17)**



**Plot 7-140. Radiated Spurious Plot (LTE Band 12/17)**

Bandwidth (MHz):	10
Frequency (MHz):	707.5
RB / Offset:	1 / 25

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	ERP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
418.50	V	-	-	-90.67	23.94	40.27	-57.14	-13.00	-44.14

**Table 7-6. Radiated Spurious Data Below 1GHz (LTE Band 12/17 – Mid Channel)**

FCC ID: PY7-58692W	PART 27 MEASUREMENT REPORT			Approved by: Technical Manager
Test Report S/N: 1M2207200079-03.PY7	Test Dates: 6/8/2022 - 7/27/2022	EUT Type: Portable Handset	Page 96 of 109	



Bandwidth (MHz):	10
Frequency (MHz):	704
RB / Offset:	1 / 25

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
1408.00	V	-	-	-77.36	-3.80	25.84	-69.42	-13.00	-56.42
2112.00	V	-	-	-77.97	-0.50	28.53	-66.72	-13.00	-53.72
2816.00	V	-	-	-77.70	0.60	29.90	-65.35	-13.00	-52.35

**Table 7-7. Radiated Spurious Data (LTE Band 12/17 – Low Channel)**

Bandwidth (MHz):	10
Frequency (MHz):	707.5
RB / Offset:	1 / 25

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
1415.00	V	-	-	-76.94	-3.90	26.16	-69.10	-13.00	-56.10
2122.50	V	-	-	-77.90	-0.41	28.69	-66.56	-13.00	-53.56
2830.00	V	-	-	-78.46	0.72	29.26	-66.00	-13.00	-53.00

**Table 7-8. Radiated Spurious Data (LTE Band 12/17 – Mid Channel)**

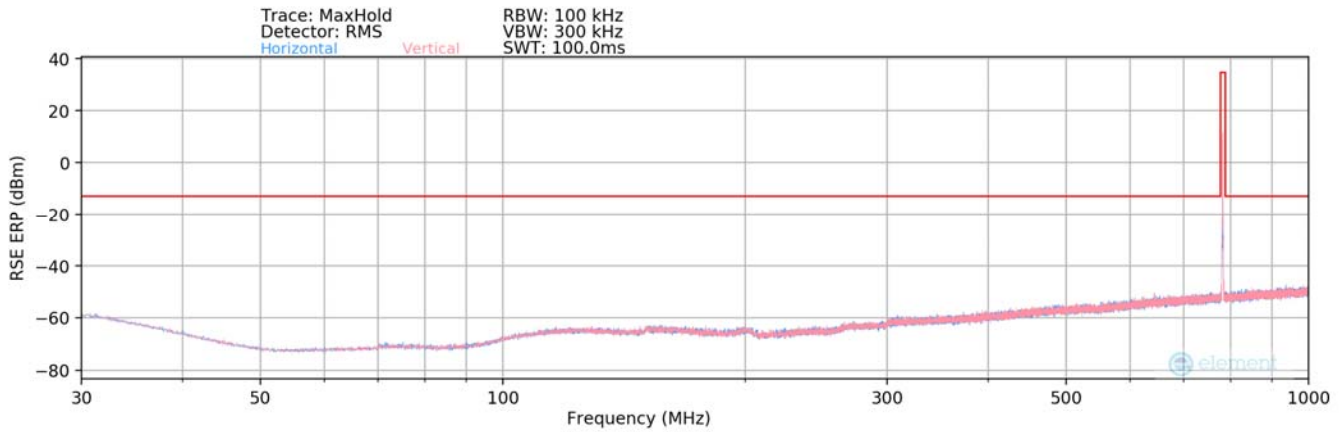
Bandwidth (MHz):	10
Frequency (MHz):	711
RB / Offset:	1 / 25

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
1422.00	V	-	-	-76.67	-3.98	26.35	-68.91	-13.00	-55.91
2133.00	V	-	-	-77.73	-0.28	28.99	-66.27	-13.00	-53.27
2844.00	V	-	-	-78.30	0.89	29.59	-65.67	-13.00	-52.67

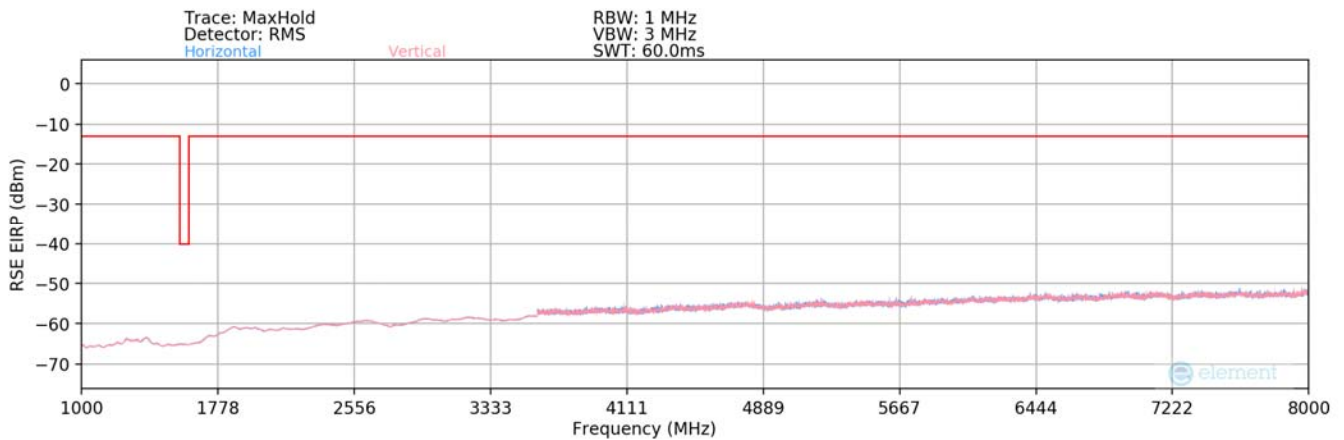
**Table 7-9. Radiated Spurious Data (LTE Band 12/17 – High Channel)**

FCC ID: PY7-58692W	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2207200079-03.PY7	Test Dates: 6/8/2022 - 7/27/2022	EUT Type: Portable Handset	Page 97 of 109

# LTE Band 13



**Plot 7-141. Radiated Spurious Plot Below 1GHz (LTE Band 13)**



**Plot 7-142. Radiated Spurious Plot (LTE Band 13)**

Bandwidth (MHz):	10
Frequency (MHz):	782
RB / Offset:	1 / 25

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	ERP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
598.60	V	-	-	-90.22	27.13	43.91	-53.50	-13.00	-40.50

**Table 7-10. Radiated Spurious Data Below 1GHz (LTE Band 13 – Mid Channel)**

FCC ID: PY7-58692W	PART 27 MEASUREMENT REPORT			Approved by: Technical Manager
Test Report S/N: 1M2207200079-03.PY7	Test Dates: 6/8/2022 - 7/27/2022	EUT Type: Portable Handset	Page 98 of 109	





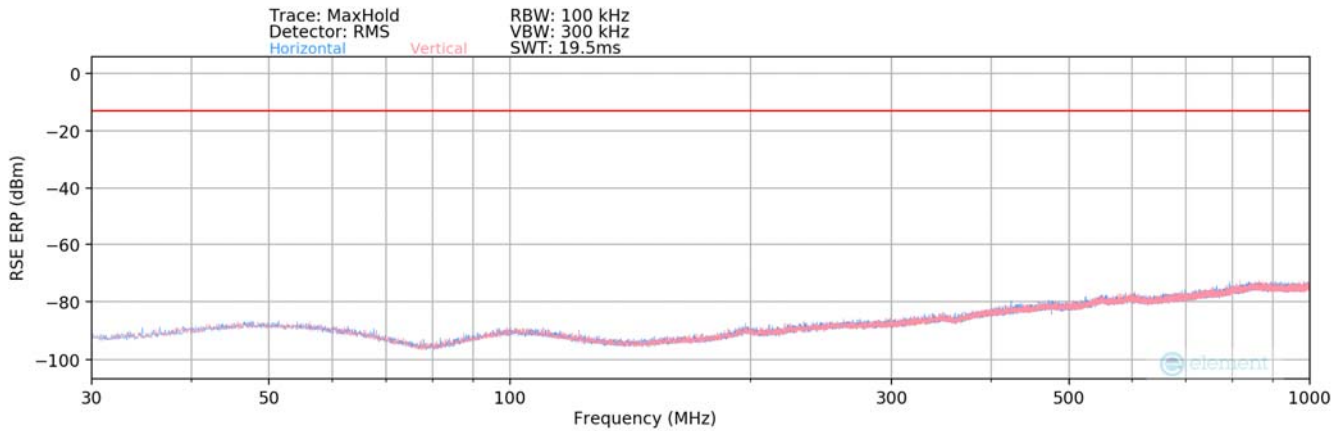
Bandwidth (MHz):	10
Frequency (MHz):	782
RB / Offset:	1 / 25

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
1564.00	V	-	-	-77.21	-4.11	25.68	-69.57	-40.00	-29.57
2346.00	V	-	-	-78.57	0.50	28.93	-66.32	-13.00	-53.32
3128.00	V	-	-	-78.81	1.83	30.02	-65.24	-13.00	-52.24

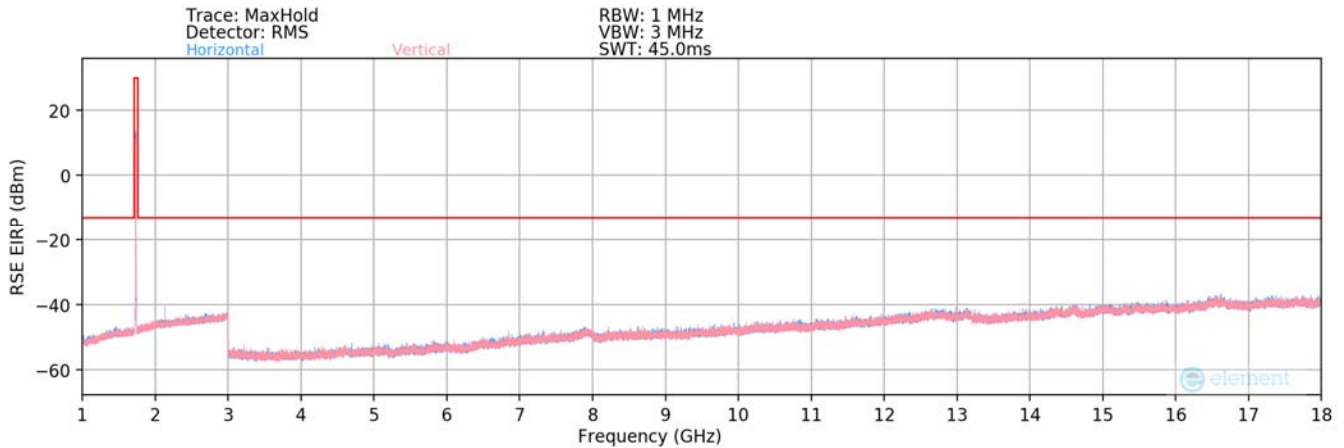
**Table 7-11. Radiated Spurious Data (LTE Band 13 – Mid Channel)**

FCC ID: PY7-58692W	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2207200079-03.PY7	Test Dates: 6/8/2022 - 7/27/2022	EUT Type: Portable Handset	Page 99 of 109

## WCDMA AWS



**Plot 7-143. Radiated Spurious Plot Below 1GHz (WCDMA AWS)**



**Plot 7-144. Radiated Spurious Plot (WCDMA AWS)**

Mode:	WCDMA RMC
Channel:	1413
Frequency (MHz):	1732.6

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	ERP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
195.88	V	-	-	-100.74	19.64	25.90	-71.50	-13.00	-58.50

**Table 7-12. Radiated Spurious Data Below 1GHz (WCDMA AWS – Mid Channel)**

FCC ID: PY7-58692W	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2207200079-03.PY7	Test Dates: 6/8/2022 - 7/27/2022	EUT Type: Portable Handset	Page 100 of 109



Mode:	WCDMA RMC
Channel:	1312
Frequency (MHz):	1712.4

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
3424.80	V	-	-	-78.08	2.83	31.75	-63.51	-13.00	-50.51
5137.20	V	-	-	-79.13	4.87	32.74	-62.52	-13.00	-49.52
6849.60	V	-	-	-80.55	7.63	34.08	-61.18	-13.00	-48.18

**7-13. Radiated Spurious Data (WCDMA AWS – Low Channel)**

Mode:	WCDMA RMC
Channel:	1413
Frequency (MHz):	1732.6

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
3465.20	V	-	-	-77.82	2.71	31.89	-63.37	-13.00	-50.37
5197.80	V	-	-	-79.61	5.08	32.47	-62.79	-13.00	-49.79
6930.40	V	-	-	-80.14	7.35	34.21	-61.05	-13.00	-48.05

**Table 7-14. Radiated Spurious Data (WCDMA AWS – Mid Channel)**

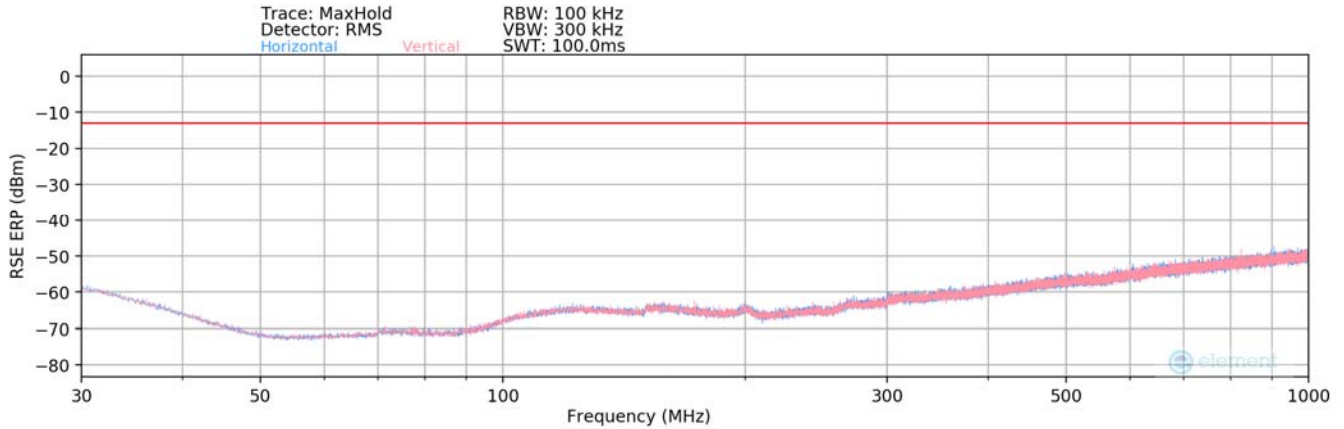
Mode:	WCDMA RMC
Channel:	1513
Frequency (MHz):	1752.6

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
3505.20	V	-	-	-77.48	2.45	31.97	-63.29	-13.00	-50.29
5257.80	V	-	-	-79.22	4.79	32.57	-62.69	-13.00	-49.69
7010.40	V	-	-	-79.32	6.76	34.44	-60.81	-13.00	-47.81

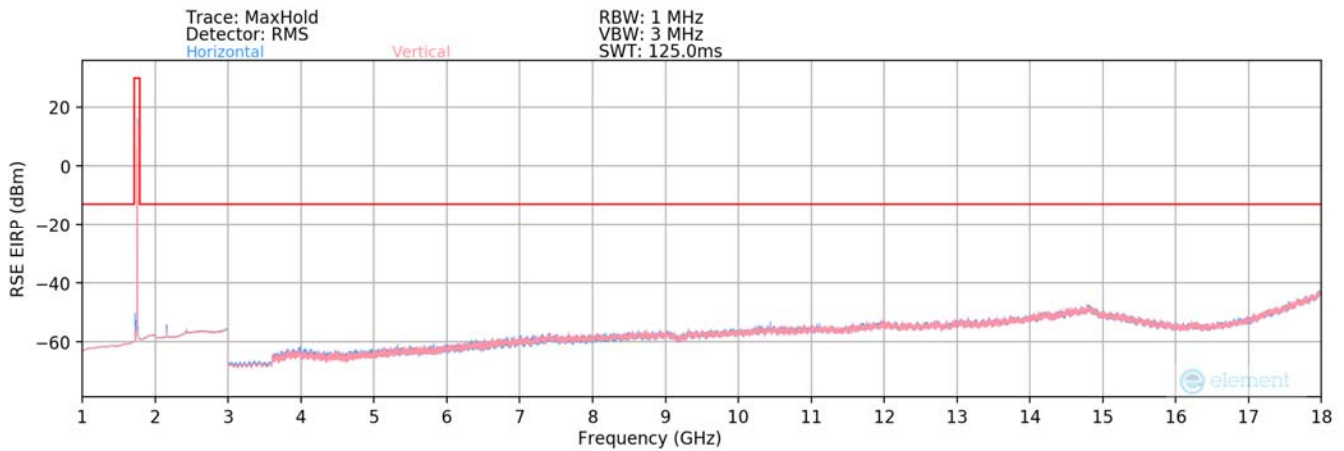
**Table 7-15. Radiated Spurious Data (WCDMA AWS – High Channel)**

FCC ID: PY7-58692W	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2207200079-03.PY7	Test Dates: 6/8/2022 - 7/27/2022	EUT Type: Portable Handset	Page 101 of 109

## LTE Band 66/4



**Plot 7-145. Radiated Spurious Plot Below 1GHz (LTE Band 66/4)**



**Plot 7-146. Radiated Spurious Plot (LTE Band 66/4)**

Bandwidth (MHz):	20
Frequency (MHz):	1745
RB / Offset:	1 / 50

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	ERP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
897.40	V	-	-	-89.52	31.39	48.87	-48.54	-13.00	-35.54

**Table 7-16. Radiated Spurious Data Below 1GHz (LTE Band 66/4 – Mid Channel)**

FCC ID: PY7-58692W	PART 27 MEASUREMENT REPORT			Approved by: Technical Manager
Test Report S/N: 1M2207200079-03.PY7	Test Dates: 6/8/2022 - 7/27/2022	EUT Type: Portable Handset	Page 102 of 109	



Bandwidth (MHz):	20
Frequency (MHz):	1720
RB / Offset:	1 / 50

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
3440.00	V	-	-	-78.30	2.97	31.67	-63.59	-13.00	-50.59
5160.00	V	-	-	-79.47	4.90	32.43	-62.83	-13.00	-49.83
6880.00	V	-	-	-80.21	7.61	34.40	-60.86	-13.00	-47.86

**Table 7-17. Radiated Spurious Data (LTE Band 66/4 – Low Channel)**

Bandwidth (MHz):	20
Frequency (MHz):	1745
RB / Offset:	1 / 50

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
3490.00	V	-	-	-78.27	2.52	31.25	-64.01	-13.00	-51.01
5235.00	V	-	-	-79.27	4.98	32.71	-62.55	-13.00	-49.55
6980.00	V	-	-	-79.27	6.86	34.59	-60.66	-13.00	-47.66

**Table 7-18. Radiated Spurious Data (LTE Band 66/4 – Mid Channel)**

Bandwidth (MHz):	20
Frequency (MHz):	1770
RB / Offset:	1 / 50

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
3540.00	V	-	-	-77.77	2.44	31.67	-63.59	-13.00	-50.59
5310.00	V	-	-	-79.17	4.75	32.58	-62.67	-13.00	-49.67
7080.00	V	-	-	-79.45	7.05	34.60	-60.66	-13.00	-47.66

**Table 7-19. Radiated Spurious Data (LTE Band 66/4 – High Channel)**

FCC ID: PY7-58692W	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2207200079-03.PY7	Test Dates: 6/8/2022 - 7/27/2022	EUT Type: Portable Handset	Page 103 of 109



## 7.8 Frequency Stability / Temperature Variation

### Test Overview and Limit

Frequency stability testing is performed in accordance with the guidelines of ANSI C63.26-2015. 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 27, the frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency block.***

### Test Procedure Used

ANSI C63.26-2015 – Section 5.6

### 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

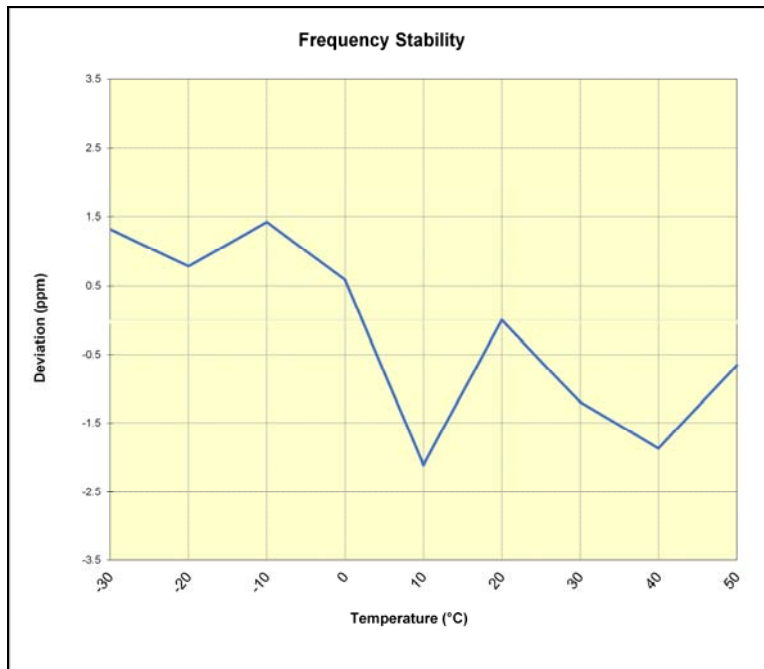
None

FCC ID: PY7-58692W	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2207200079-03.PY7	Test Dates: 6/8/2022 - 7/27/2022	EUT Type: Portable Handset	Page 104 of 109

## Frequency Stability / Temperature Variation

LTE Band 12/17					
		Operating Frequency (Hz):		707,500,000	
		Ref. Voltage (VDC):		4.28	
Voltage (%)	Power (VDC)	Temp (°C)	Frequency (Hz)	Freq. Dev. (Hz)	Deviation (%)
100 %	4.28	- 30	707,591,869	938	0.0001326
		- 20	707,591,484	553	0.0000782
		- 10	707,591,941	1,010	0.0001427
		0	707,591,344	413	0.0000584
		+ 10	707,589,439	-1,492	-0.0002109
		+ 20 (Ref)	707,590,931	0	0.0000000
		+ 30	707,590,086	-845	-0.0001194
		+ 40	707,589,606	-1,325	-0.0001873
Battery Endpoint	3.69	+ 50	707,590,468	-463	-0.0000654
		+ 20	707,591,564	633	0.0000895

Table 7-20. LTE Band 12/17 Frequency Stability Data



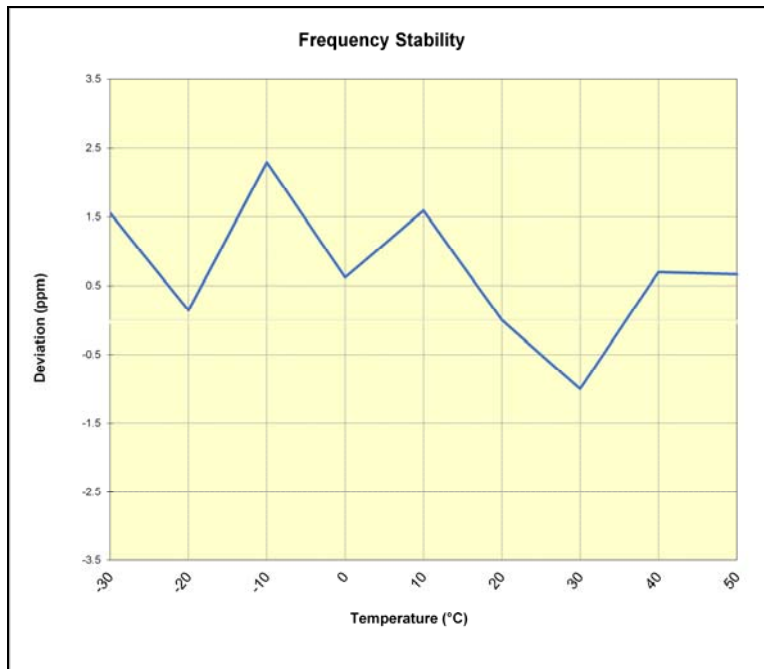
Plot 7-147. LTE Band 12/17 Frequency Stability Chart

FCC ID: PY7-58692W	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2207200079-03.PY7	Test Dates: 6/8/2022 - 7/27/2022	EUT Type: Portable Handset	Page 105 of 109

## Frequency Stability / Temperature Variation

LTE Band 13					
		Operating Frequency (Hz):		782,000,000	
		Ref. Voltage (VDC):		4.28	
Voltage (%)	Power (VDC)	Temp (°C)	Frequency (Hz)	Freq. Dev. (Hz)	Deviation (%)
100 %	4.28	- 30	782,091,157	1,215	0.0001554
		- 20	782,090,049	107	0.0000137
		- 10	782,091,738	1,796	0.0002296
		0	782,090,428	486	0.0000621
		+ 10	782,091,188	1,246	0.0001593
		+ 20 (Ref)	782,089,942	0	0.0000000
		+ 30	782,089,159	-783	-0.0001001
		+ 40	782,090,486	544	0.0000696
Battery Endpoint	3.69	+ 50	782,090,461	519	0.0000664
		+ 20	782,091,584	1,642	0.0002100

Table 7-21. LTE Band 13 Frequency Stability Data



Plot 7-148. LTE Band 13 Frequency Stability Chart

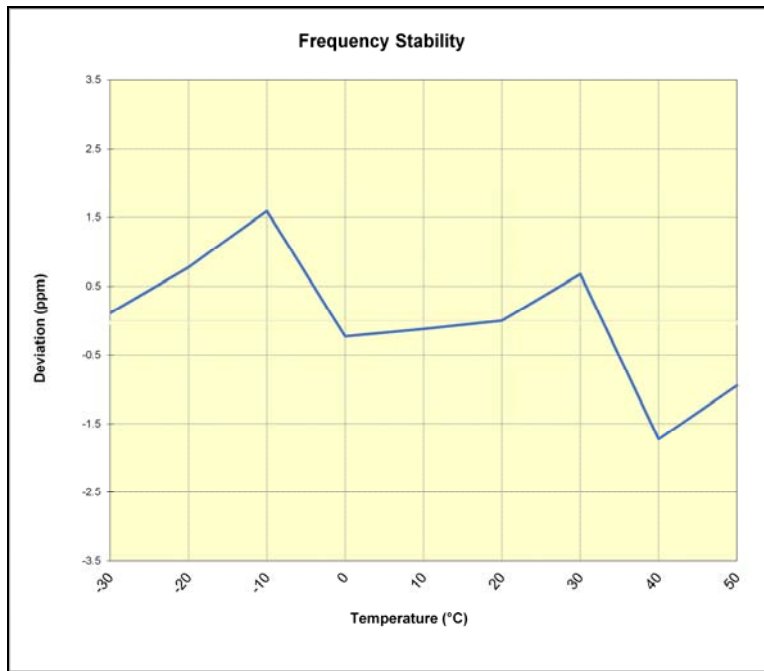
FCC ID: PY7-58692W	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2207200079-03.PY7	Test Dates: 6/8/2022 - 7/27/2022	EUT Type: Portable Handset	Page 106 of 109



## Frequency Stability / Temperature Variation

WCDMA AWS					
		Operating Frequency (Hz):		1,732,600,000	
		Ref. Voltage (VDC):		4.28	
Voltage (%)	Power (VDC)	Temp (°C)	Frequency (Hz)	Freq. Dev. (Hz)	Deviation (%)
100 %	4.28	- 30	1,732,606,682	194	0.0000112
		- 20	1,732,607,824	1,336	0.0000771
		- 10	1,732,609,245	2,757	0.0001591
		0	1,732,606,084	-404	-0.0000233
		+ 10	1,732,606,275	-213	-0.0000123
		+ 20 (Ref)	1,732,606,488	0	0.0000000
		+ 30	1,732,607,658	1,170	0.0000675
		+ 40	1,732,603,498	-2,990	-0.0001726
		+ 50	1,732,604,846	-1,642	-0.0000948
Battery Endpoint	3.69	+ 20	1,732,607,155	667	0.0000385

**Table 7-22. WCDMA AWS Frequency Stability Data**



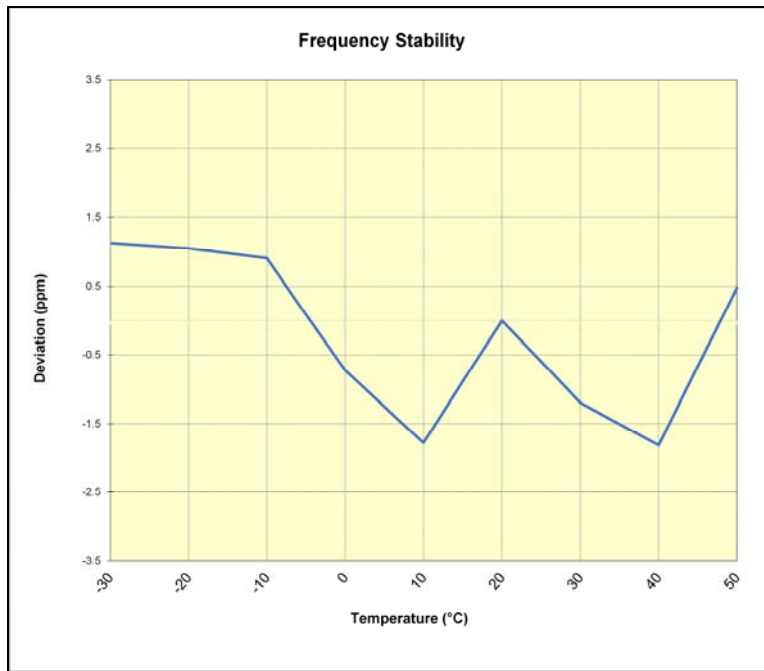
**Plot 7-149. WCDMA AWS Frequency Stability Chart**

FCC ID: PY7-58692W	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2207200079-03.PY7	Test Dates: 6/8/2022 - 7/27/2022	EUT Type: Portable Handset	Page 107 of 109

## Frequency Stability / Temperature Variation

LTE Band 66/4					
Operating Frequency (Hz):		1,745,000,000			
Ref. Voltage (VDC):		4.28			
Voltage (%)	Power (VDC)	Temp (°C)	Frequency (Hz)	Freq. Dev. (Hz)	Deviation (%)
100 %	4.28	- 30	1,745,099,284	1,963	0.0001125
		- 20	1,745,099,148	1,827	0.0001047
		- 10	1,745,098,902	1,581	0.0000906
		0	1,745,096,051	-1,270	-0.0000728
		+ 10	1,745,094,216	-3,105	-0.0001779
		+ 20 (Ref)	1,745,097,321	0	0.0000000
		+ 30	1,745,095,230	-2,091	-0.0001198
		+ 40	1,745,094,157	-3,164	-0.0001813
		+ 50	1,745,098,154	833	0.0000477
Battery Endpoint	3.69	+ 20	1,745,099,434	2,113	0.0001211

**Table 7-23. LTE Band 66/4 Frequency Stability Data**



**Plot 7-150. LTE Band 66/4 Frequency Stability Chart**

FCC ID: PY7-58692W	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2207200079-03.PY7	Test Dates: 6/8/2022 - 7/27/2022	EUT Type: Portable Handset	Page 108 of 109

## 8.0 CONCLUSION

The data collected relate only to the item(s) tested and show that the **Sony Corporation Portable Handset FCC ID: PY7-58692W** complies with all the requirements of Part 27 of the FCC rules.

<b>FCC ID:</b> PY7-58692W	<b>PART 27 MEASUREMENT REPORT</b>		<b>Approved by:</b> Technical Manager
<b>Test Report S/N:</b> 1M2207200079-03.PY7	<b>Test Dates:</b> 6/8/2022 - 7/27/2022	<b>EUT Type:</b> Portable Handset	Page 109 of 109