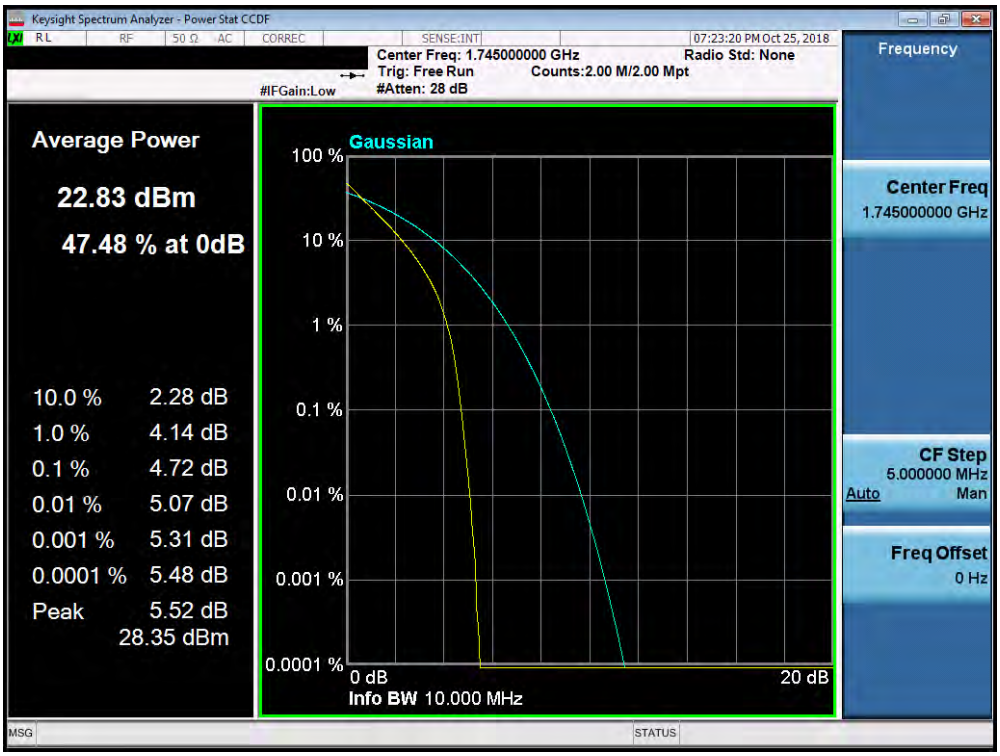
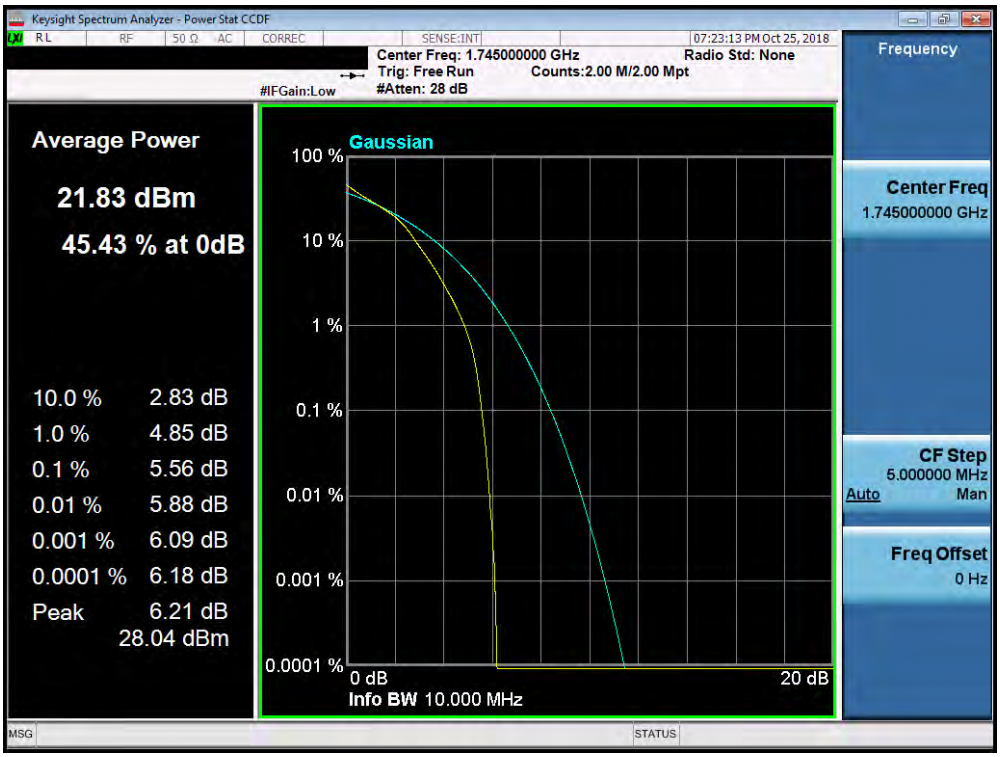
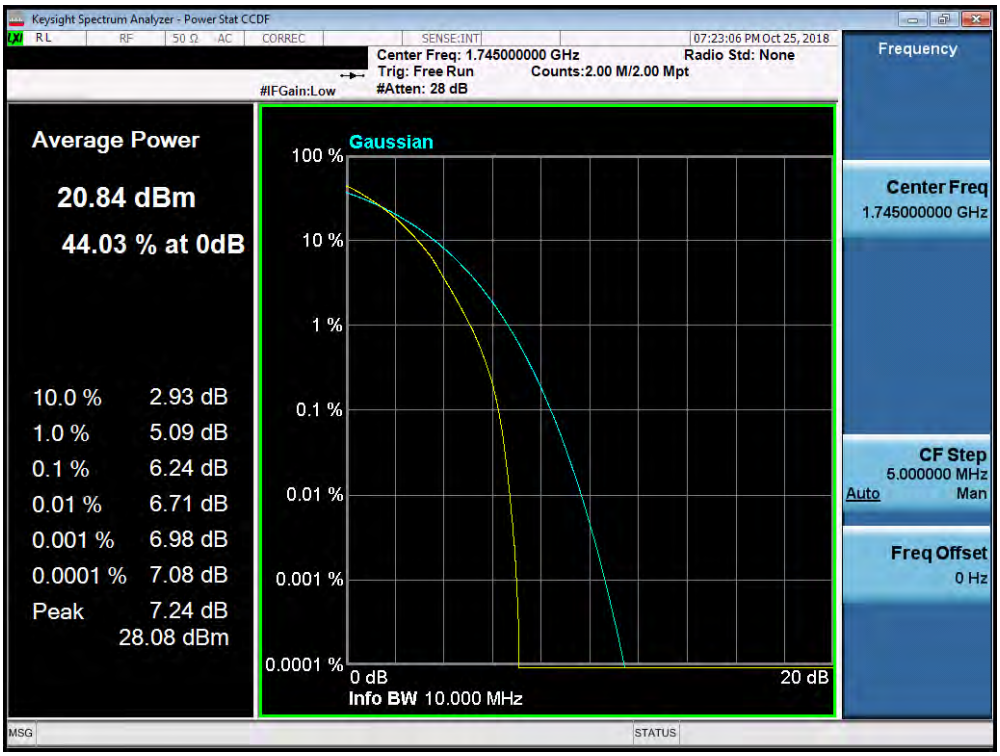


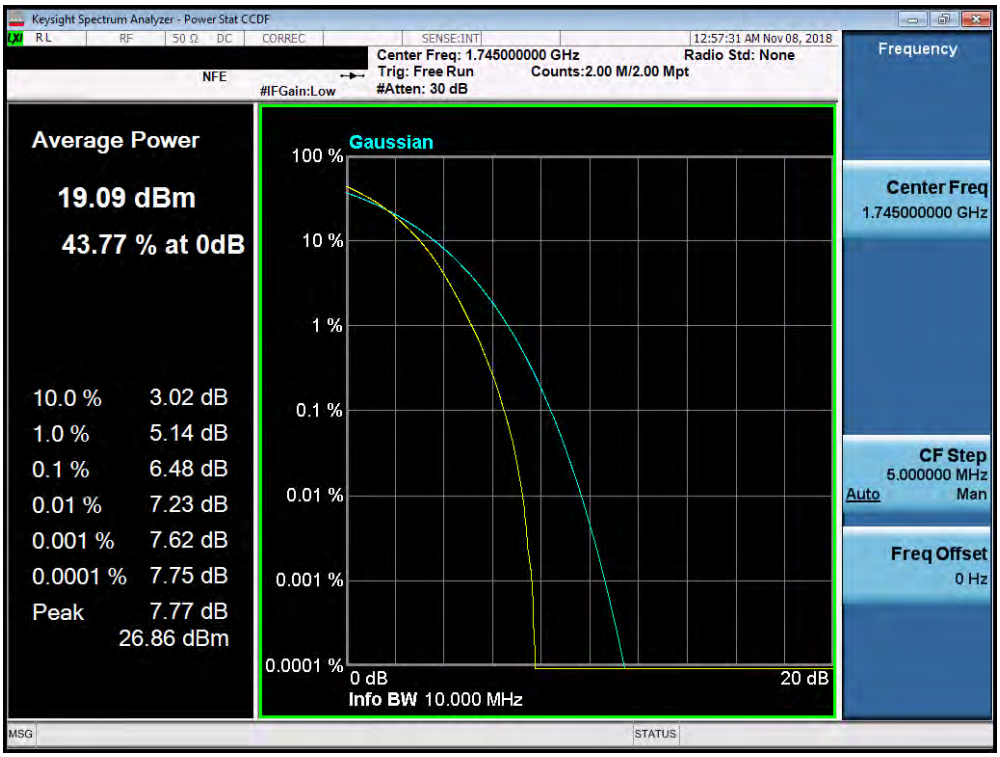
Plot 7-399. PAR Plot (Band 66/4 - 10.0MHz QPSK - Full RB Configuration)



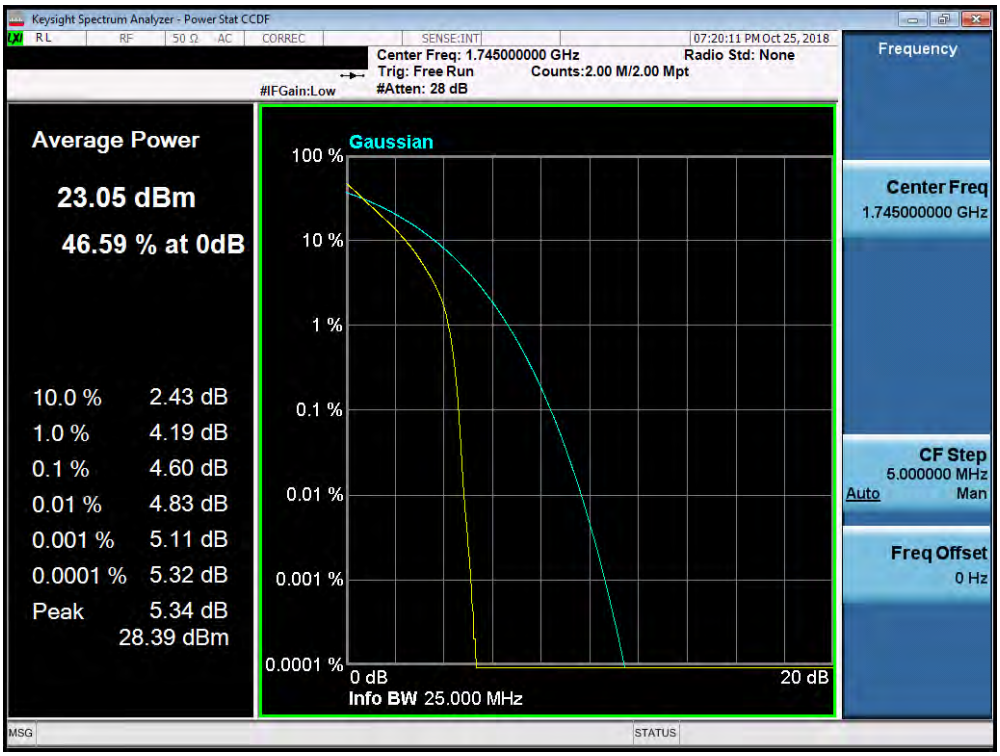
Plot 7-400. PAR Plot (Band 66/4 - 10.0MHz 16-QAM - Full RB Configuration)



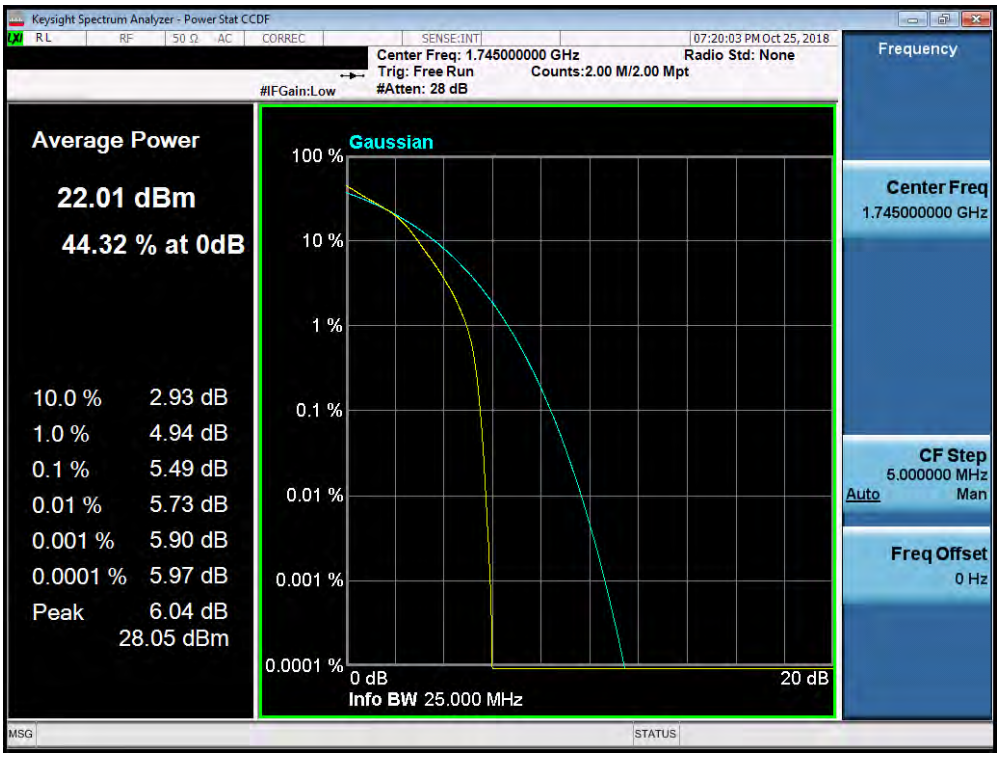
Plot 7-401. PAR Plot (Band 66/4 - 10.0MHz 64-QAM - Full RB Configuration)



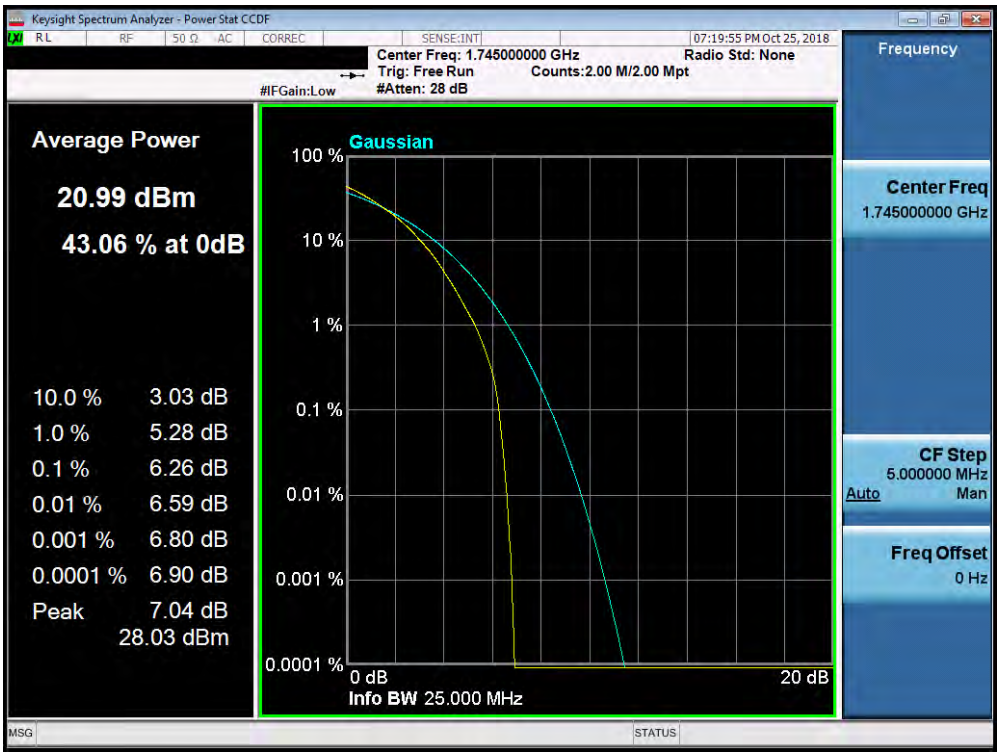
Plot 7-402. PAR Plot (Band 66/4 - 10.0MHz 256-QAM - Full RB Configuration)



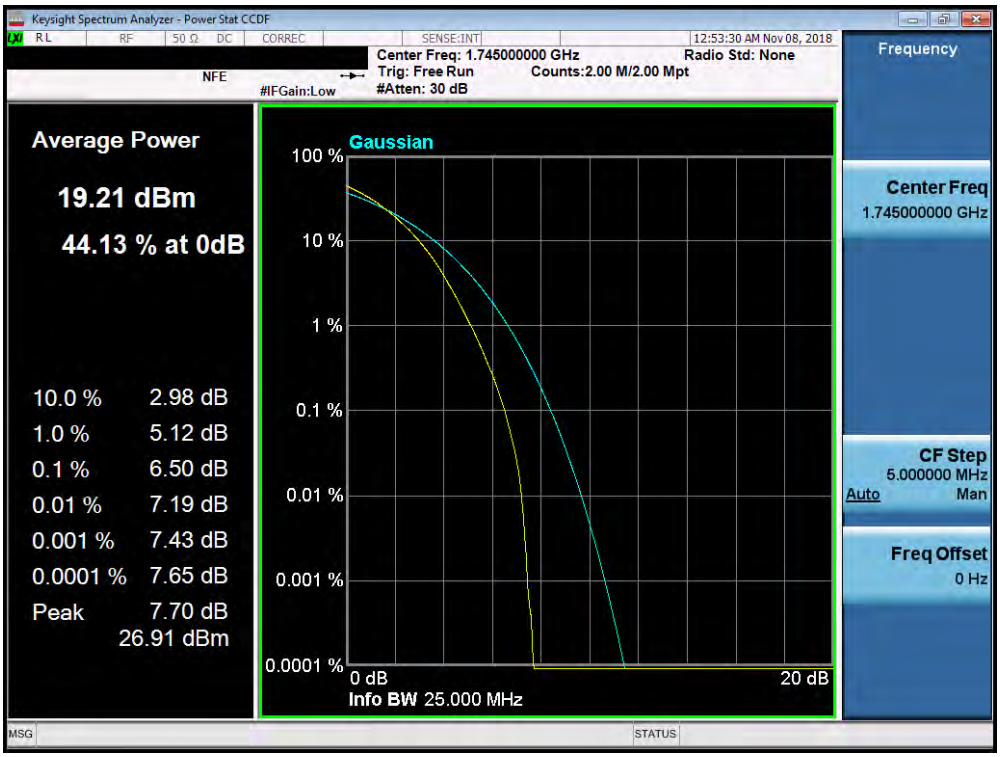
Plot 7-403. PAR Plot (Band 66/4 - 15.0MHz QPSK - Full RB Configuration)



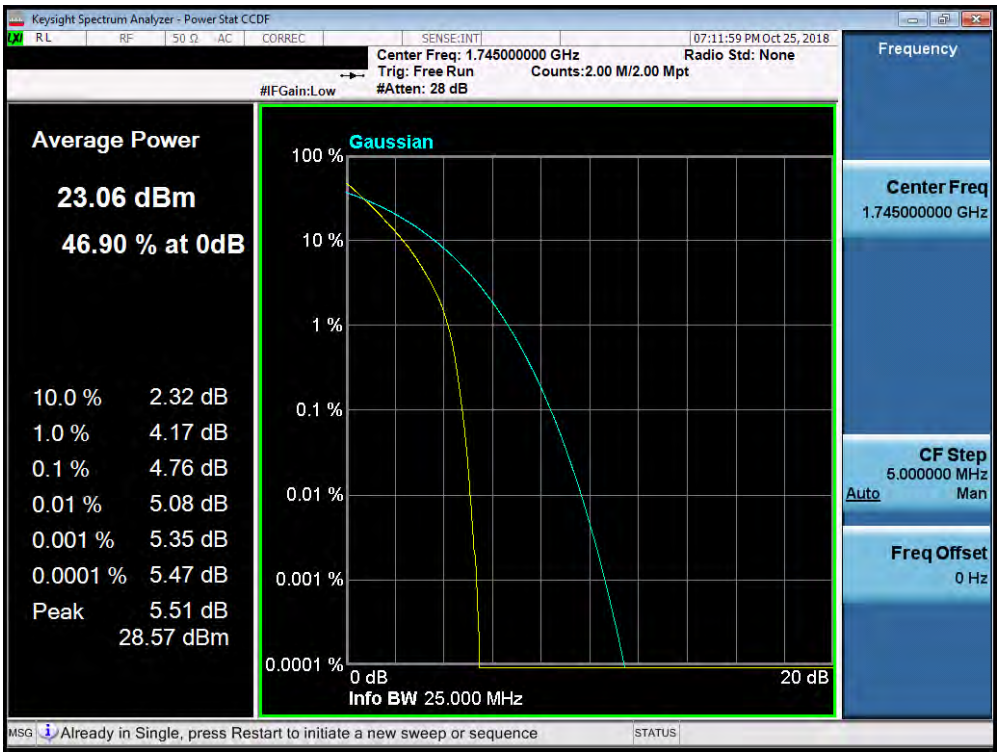
Plot 7-404. PAR Plot (Band 66/4 - 15.0MHz 16-QAM - Full RB Configuration)



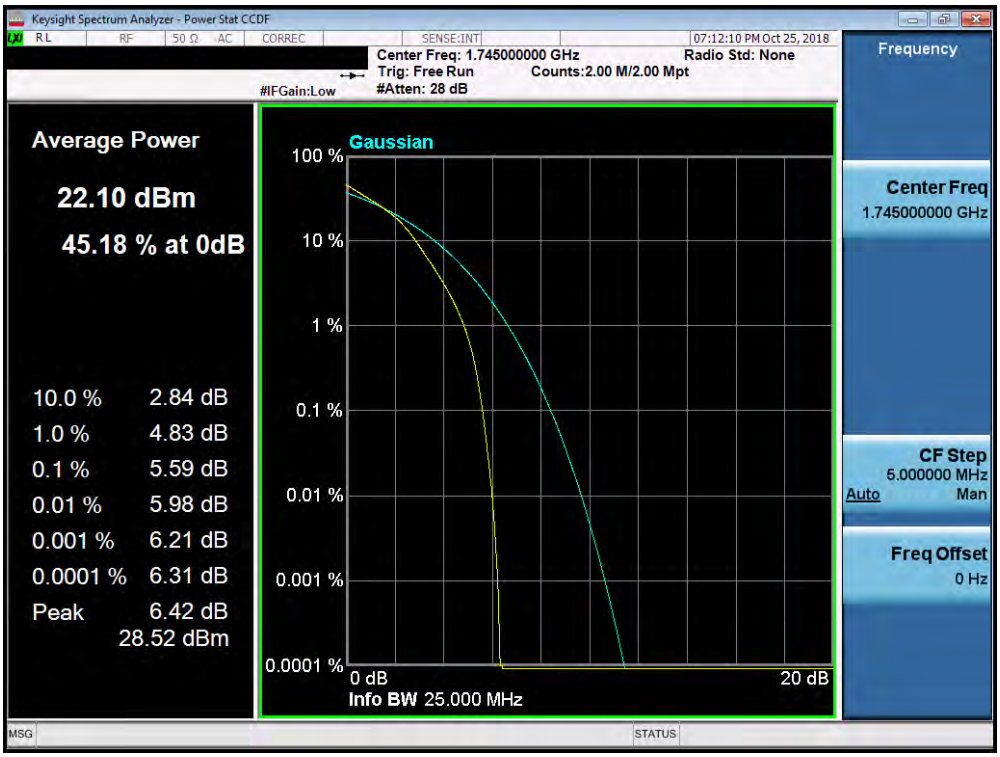
Plot 7-405. PAR Plot (Band 66/4 - 15.0MHz 64-QAM - Full RB Configuration)



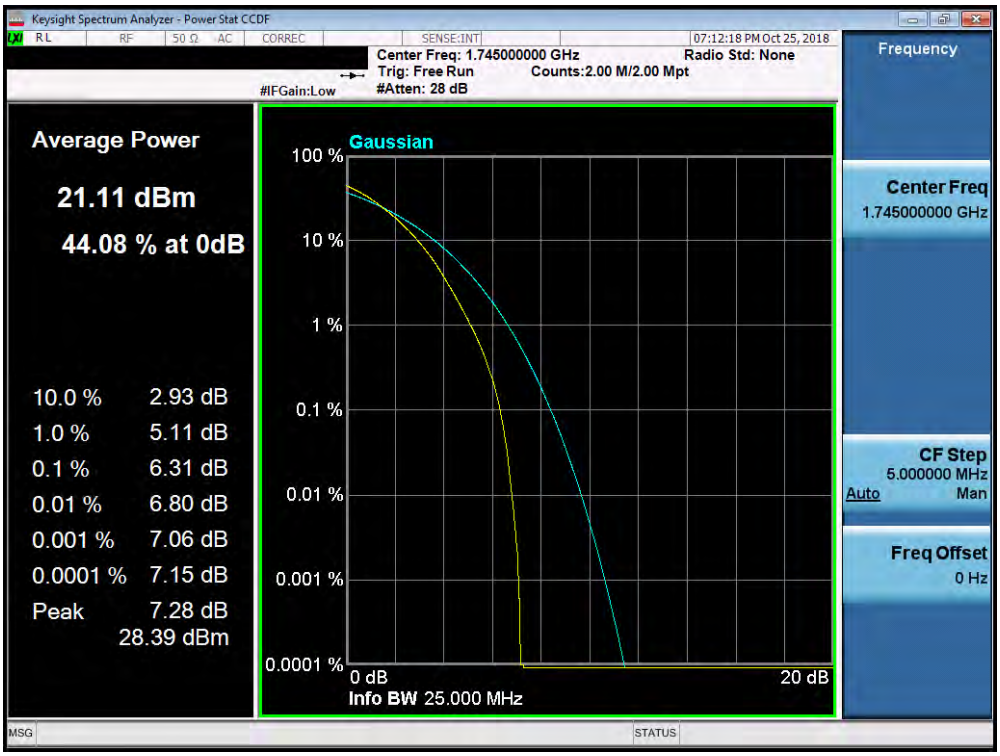
Plot 7-406. PAR Plot (Band 66/4 - 15.0MHz 256-QAM - Full RB Configuration)



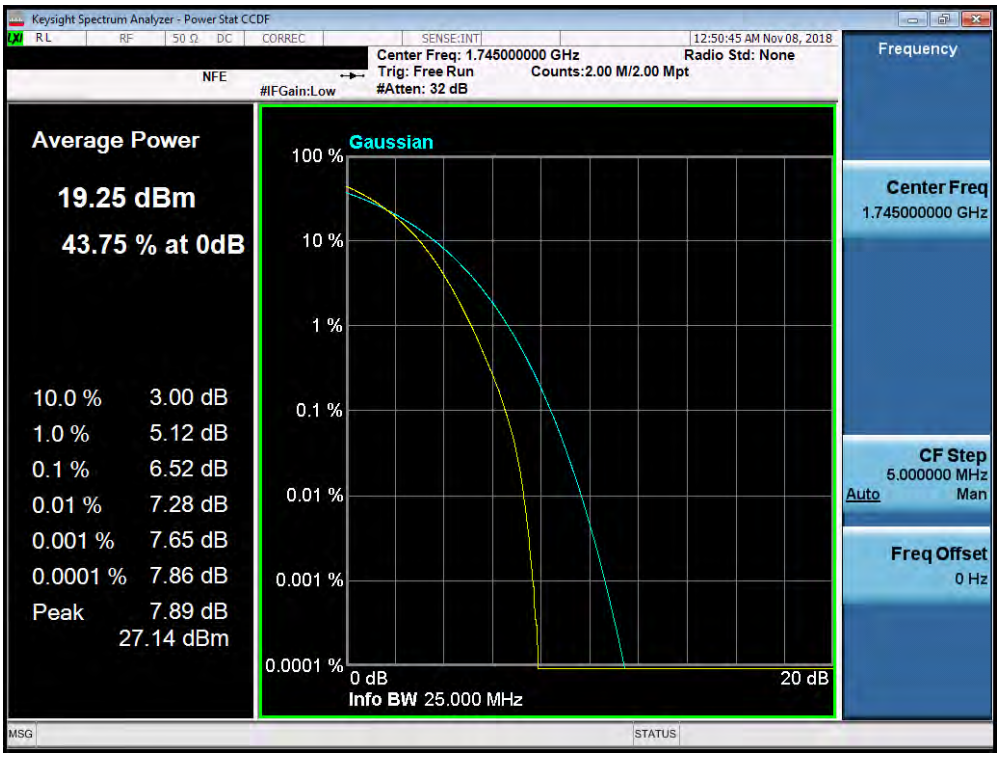
Plot 7-407. PAR Plot (Band 66/4 - 20.0MHz QPSK - Full RB Configuration)



Plot 7-408. PAR Plot (Band 66/4 - 20.0MHz 16-QAM - Full RB Configuration)

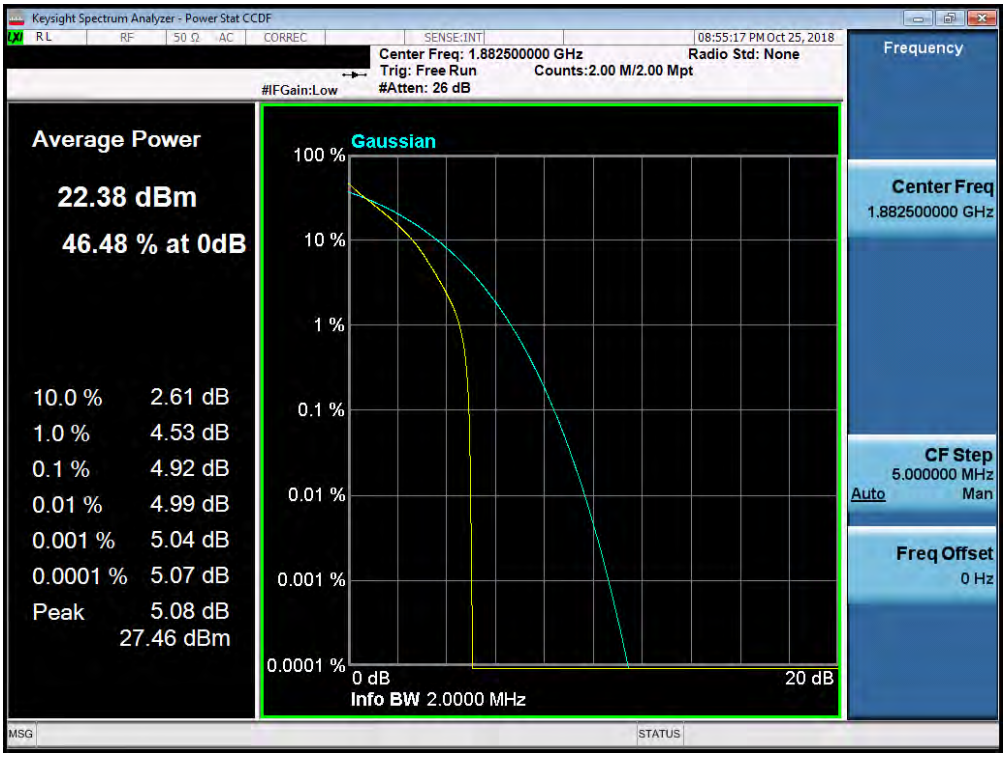


Plot 7-409. PAR Plot (Band 66/4 - 20.0MHz 64-QAM - Full RB Configuration)

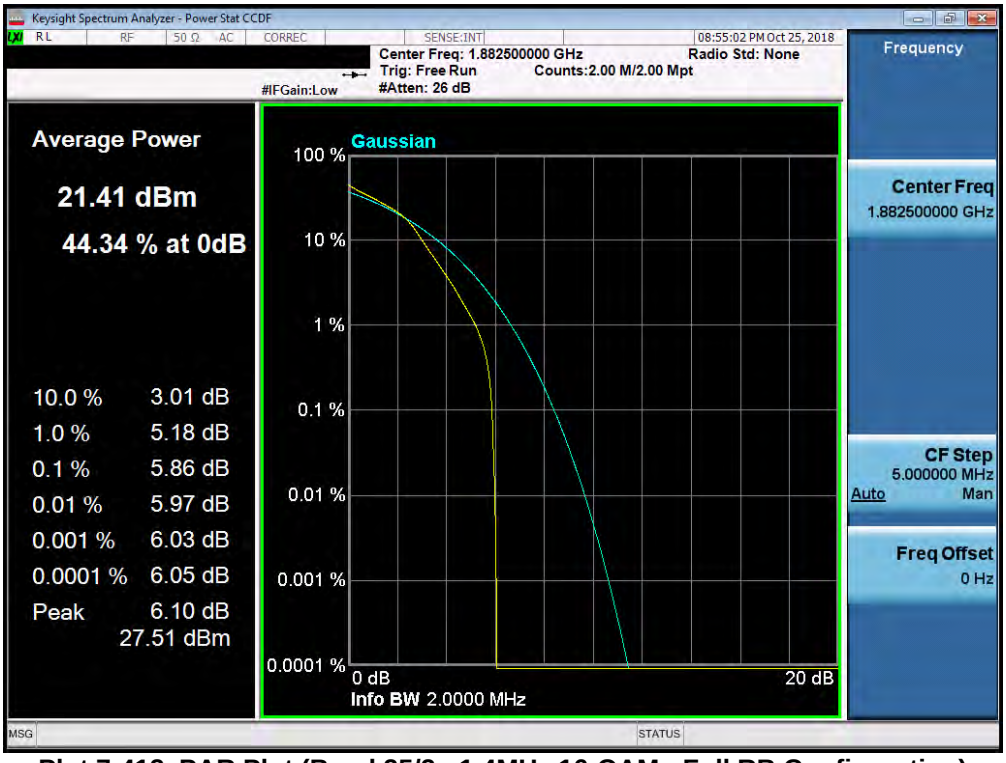


Plot 7-410. PAR Plot (Band 66/4 - 20.0MHz 256-QAM - Full RB Configuration)

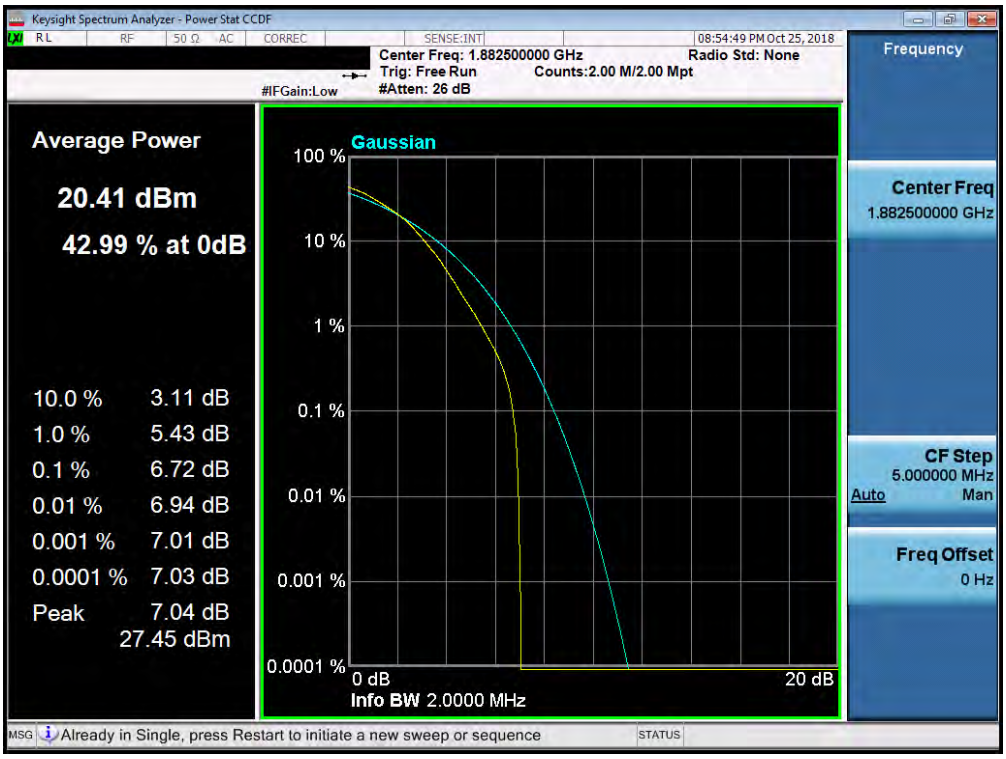
Band 25/2



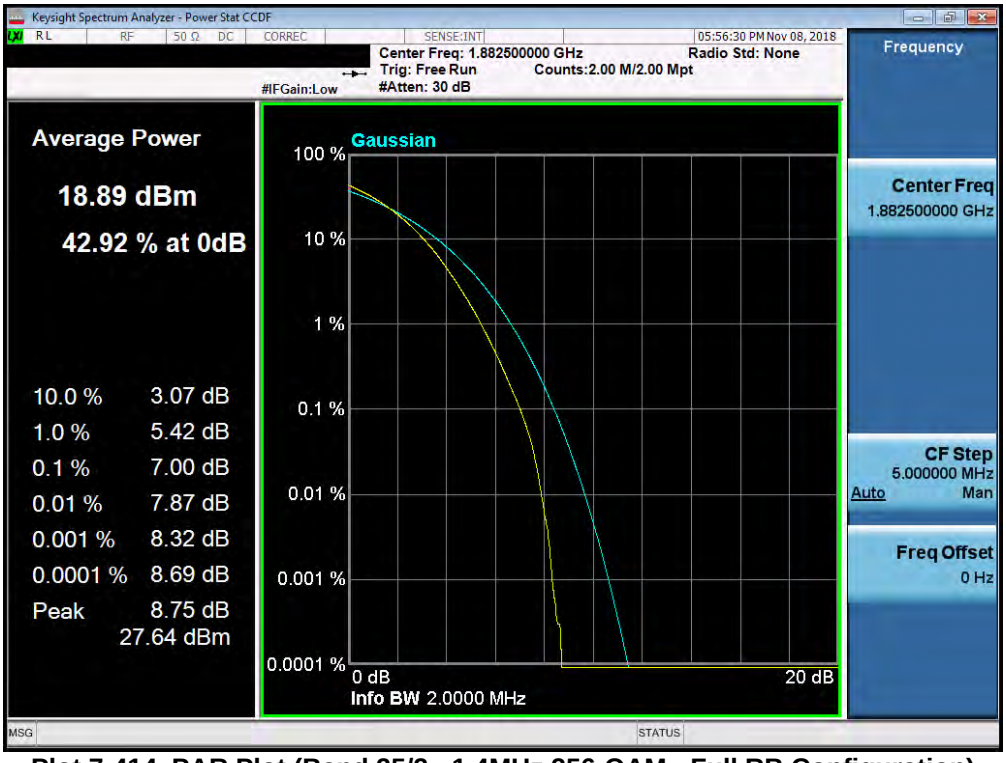
Plot 7-411. PAR Plot (Band 25/2 - 1.4MHz QPSK - Full RB Configuration)



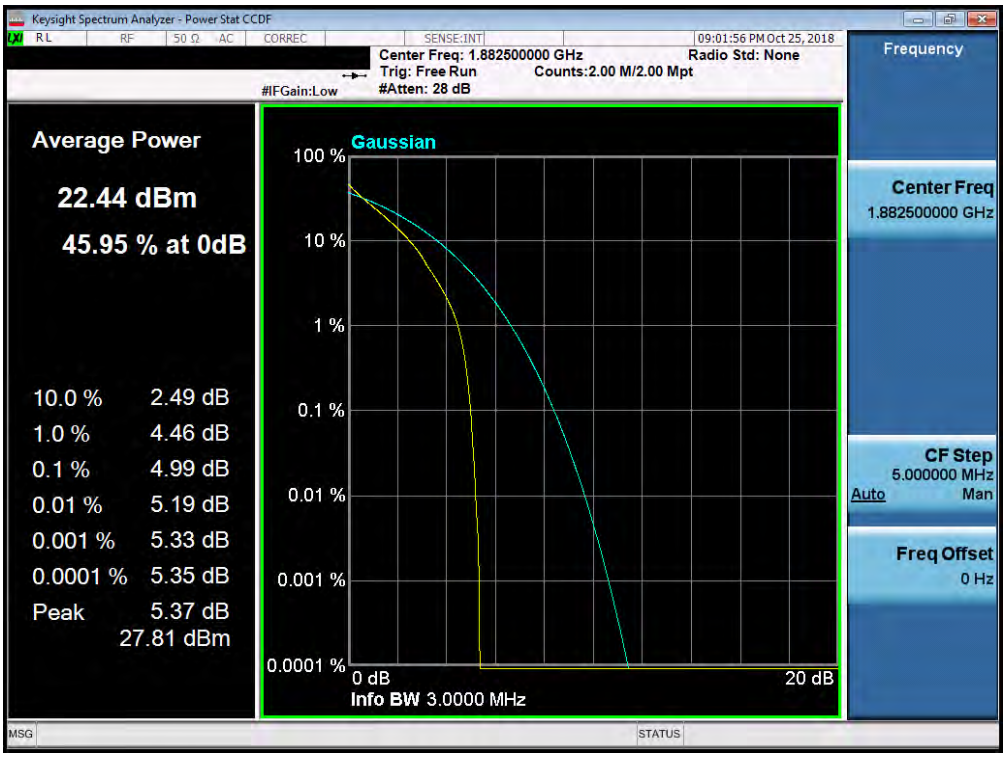
Plot 7-412. PAR Plot (Band 25/2 - 1.4MHz 16-QAM - Full RB Configuration)



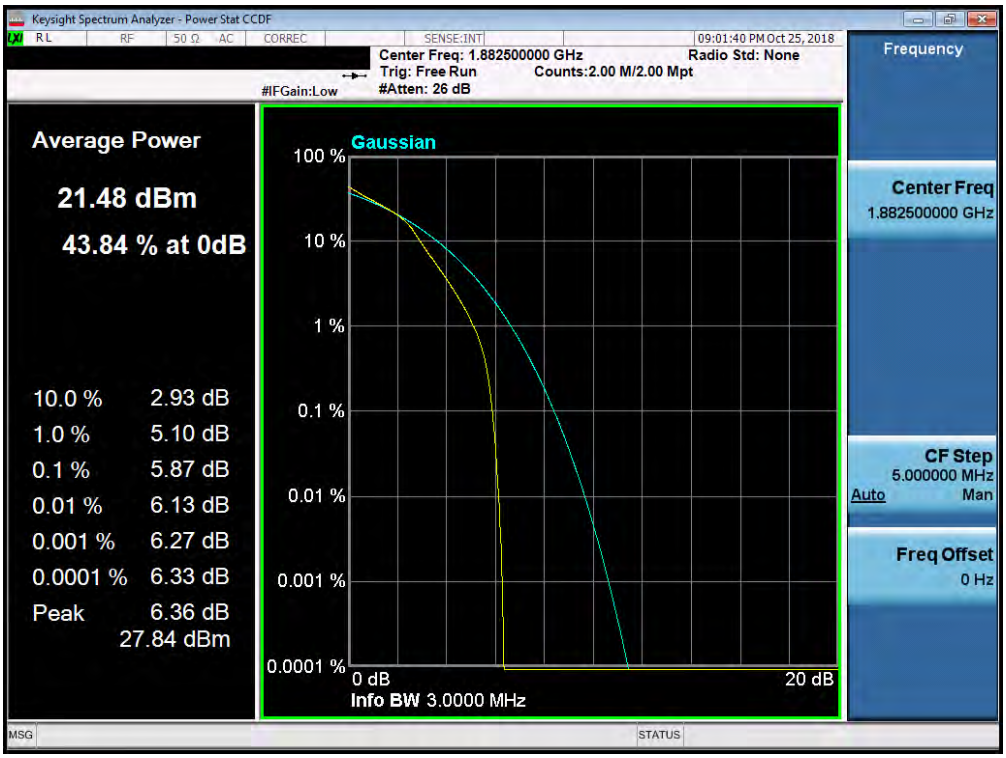
Plot 7-413. PAR Plot (Band 25/2 - 1.4MHz 64-QAM - Full RB Configuration)



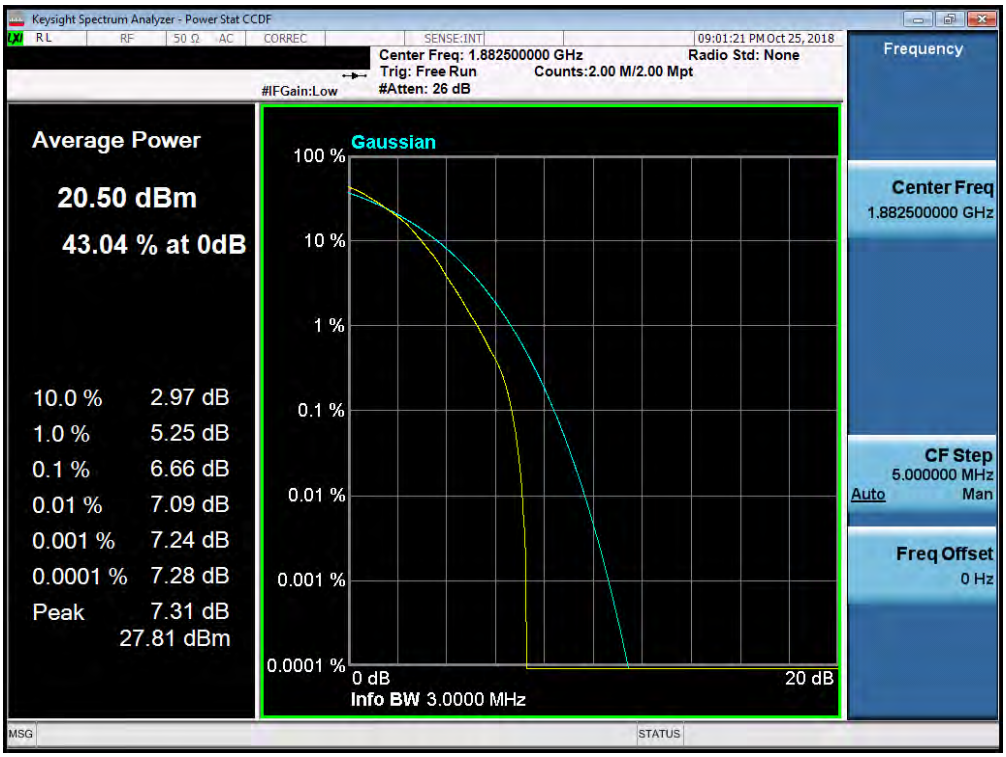
Plot 7-414. PAR Plot (Band 25/2 - 1.4MHz 256-QAM - Full RB Configuration)



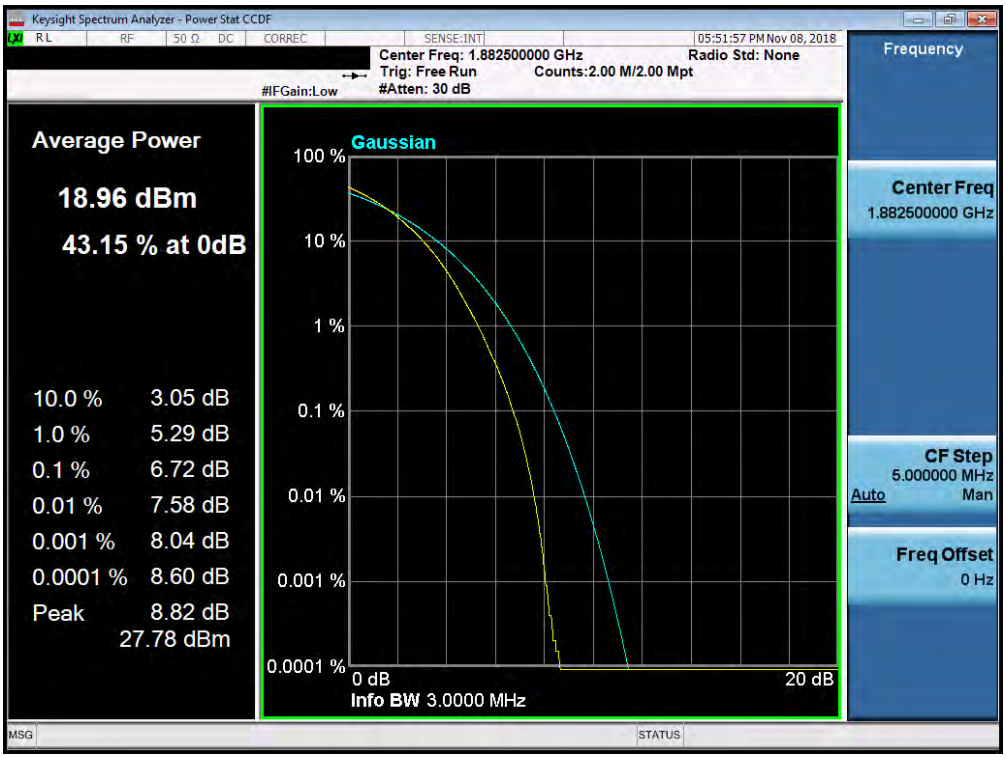
Plot 7-415. PAR Plot (Band 25/2 - 3.0MHz QPSK - Full RB Configuration)



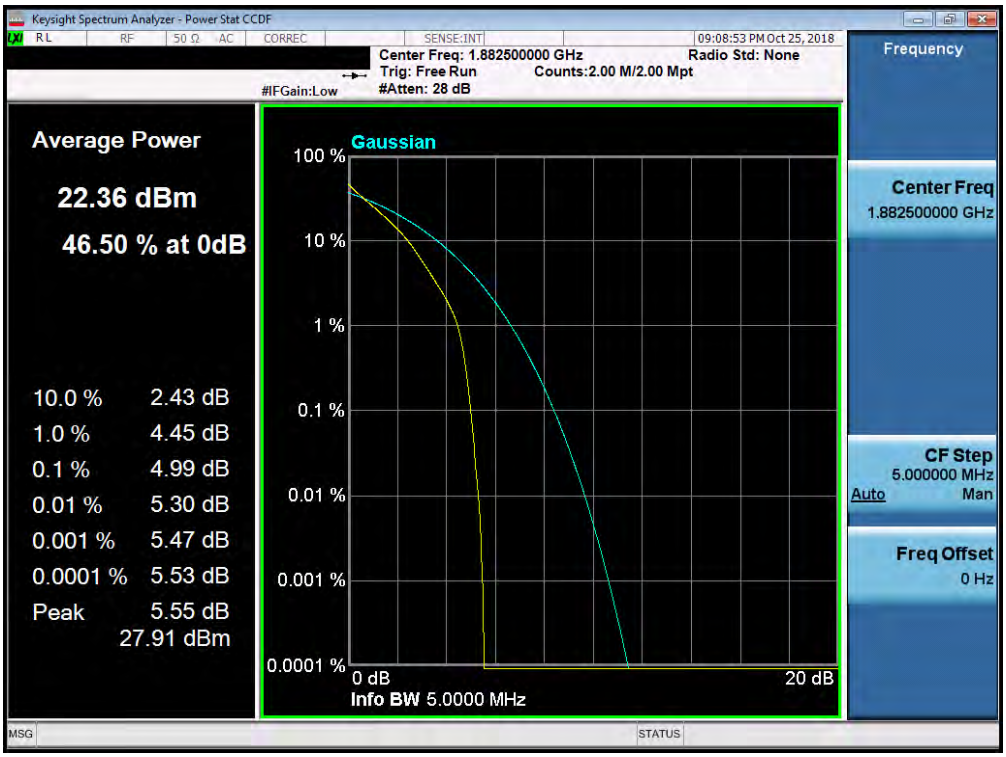
Plot 7-416. PAR Plot (Band 25/2 - 3.0MHz 16-QAM - Full RB Configuration)



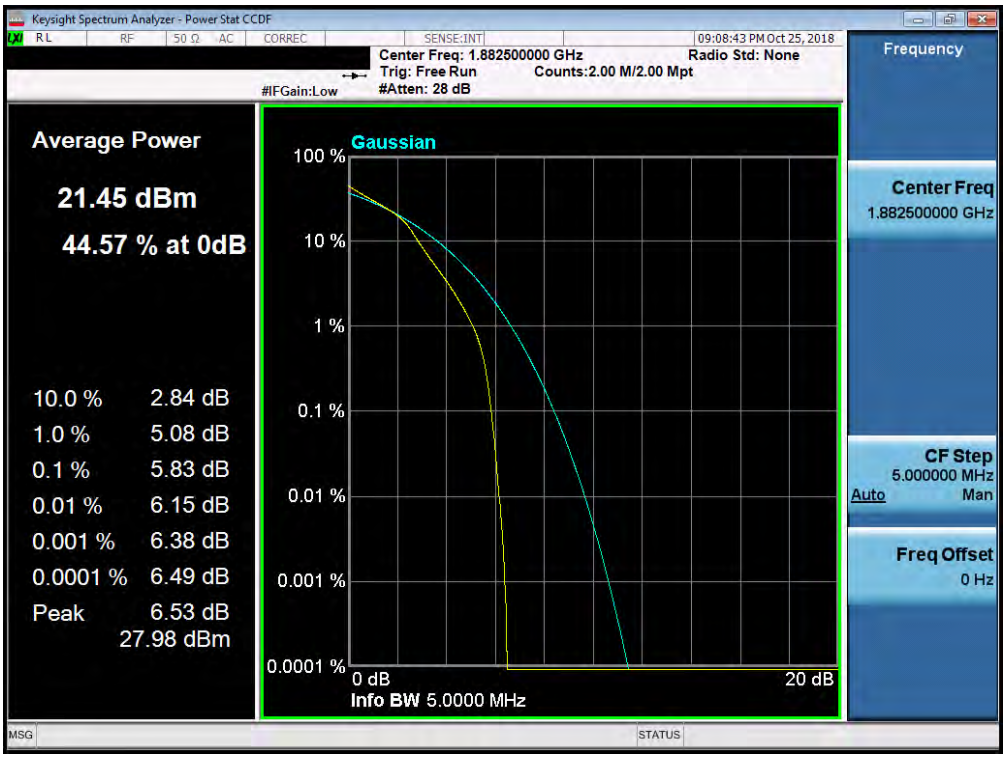
Plot 7-417. PAR Plot (Band 25/2 - 3.0MHz 64-QAM - Full RB Configuration)



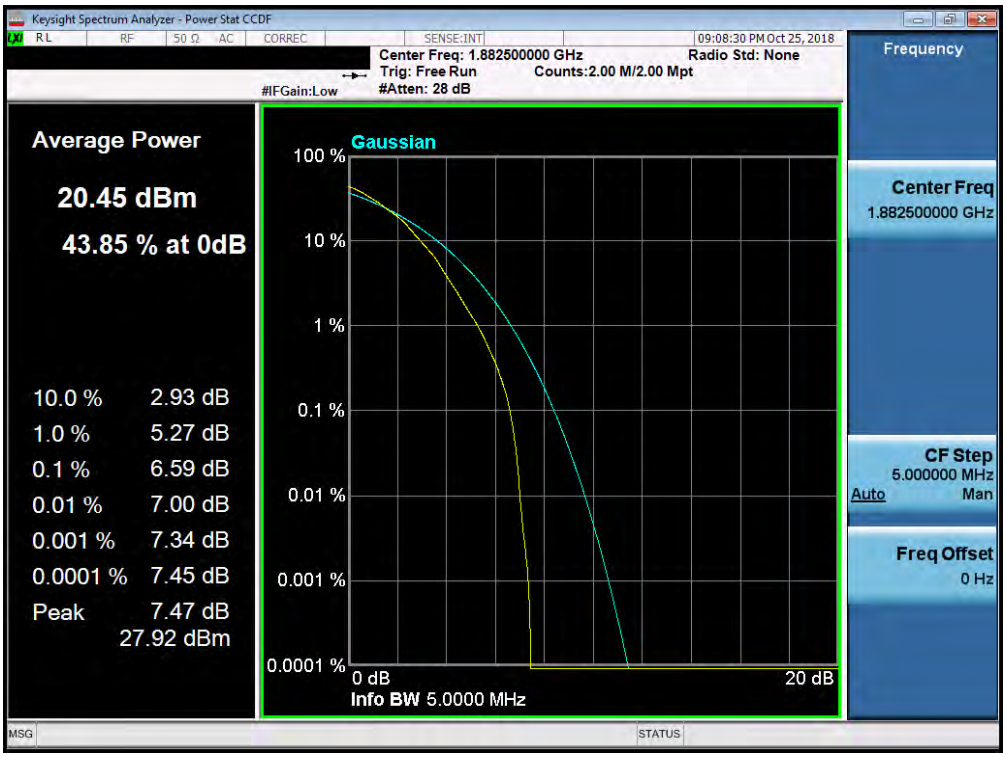
Plot 7-418. PAR Plot (Band 25/2 - 3.0MHz 256-QAM - Full RB Configuration)



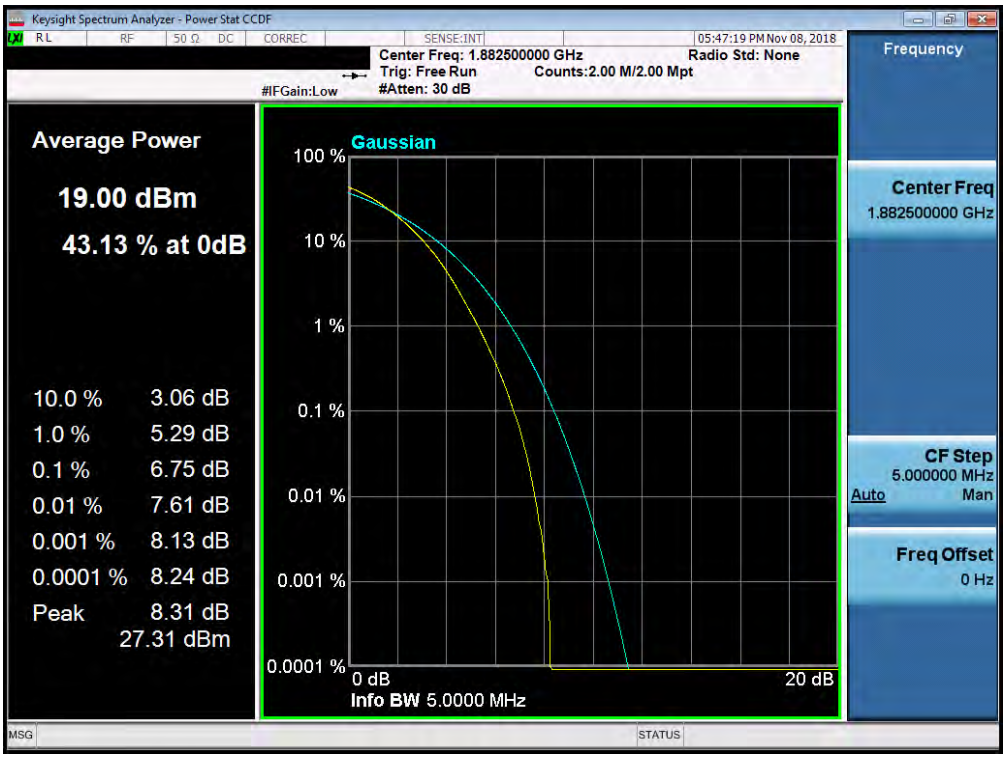
Plot 7-419. PAR Plot (Band 25/2 - 5.0MHz QPSK - Full RB Configuration)



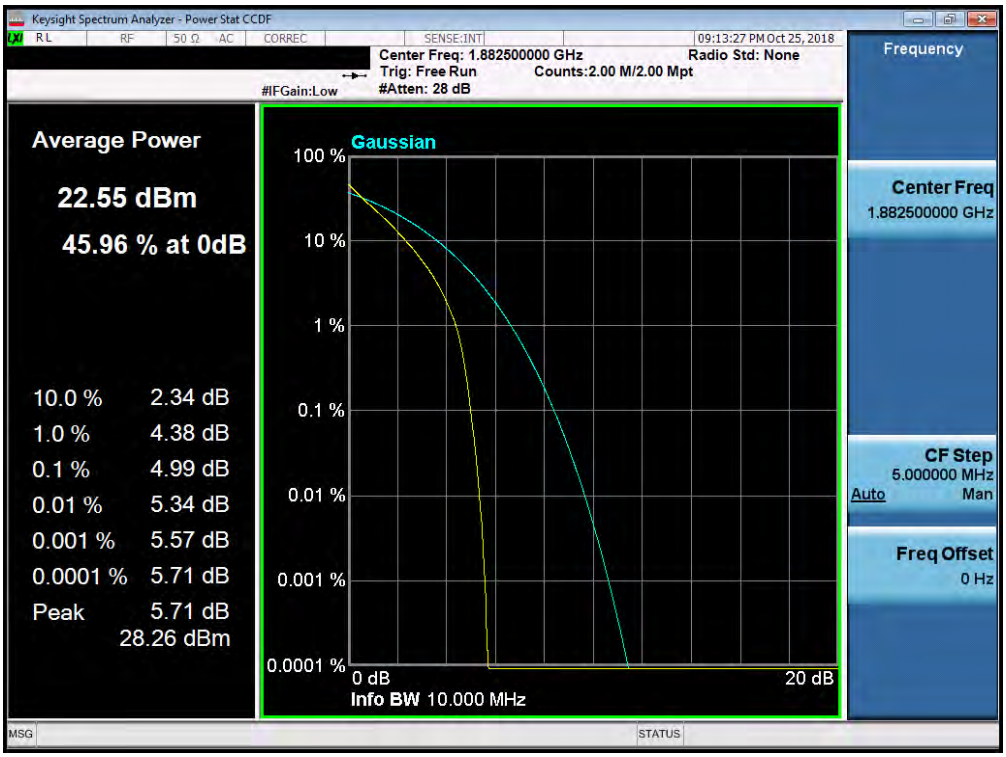
Plot 7-420. PAR Plot (Band 25/2 - 5.0MHz 16-QAM - Full RB Configuration)



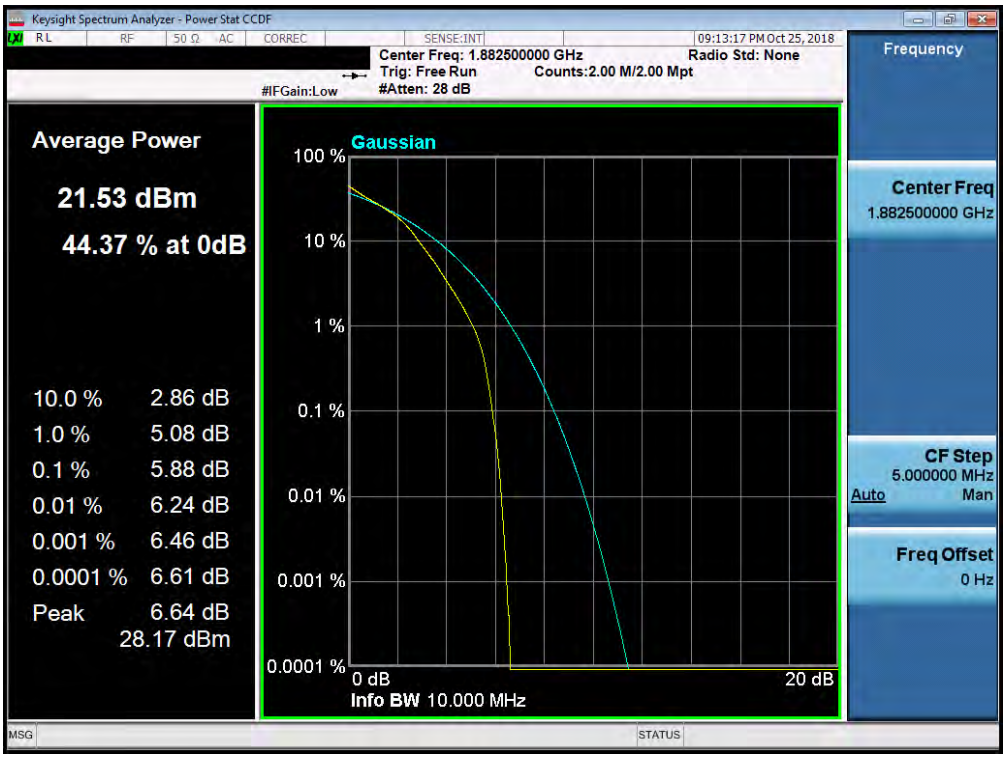
Plot 7-421. PAR Plot (Band 25/2 - 5.0MHz 64-QAM - Full RB Configuration)



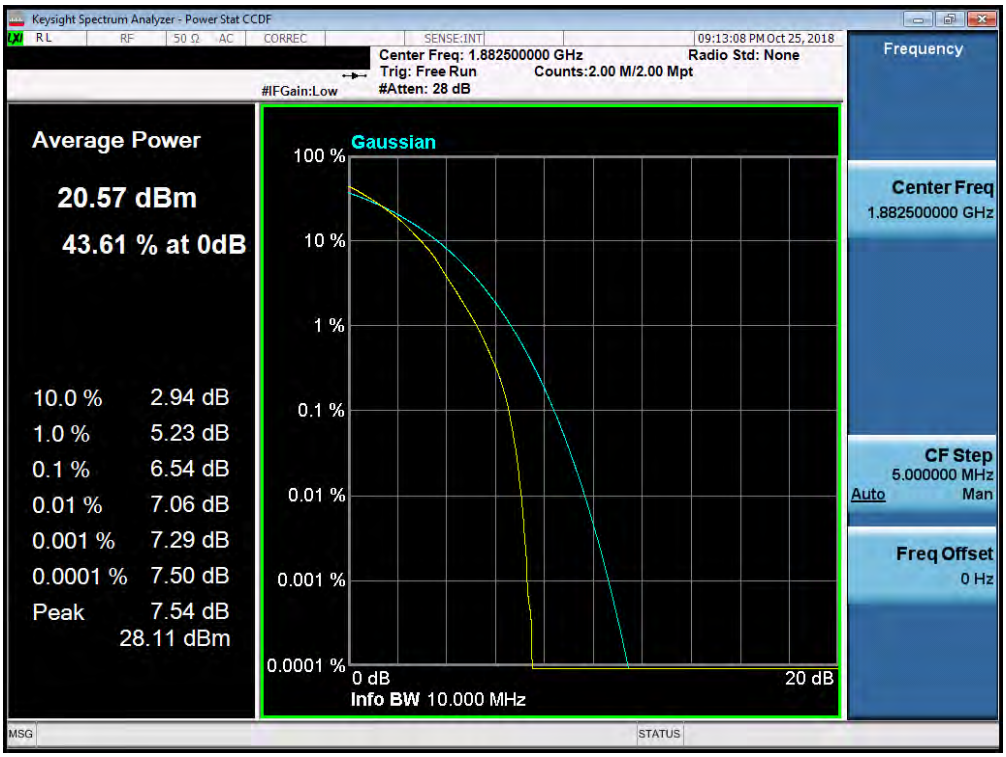
Plot 7-422. PAR Plot (Band 25/2 - 5.0MHz 256-QAM - Full RB Configuration)



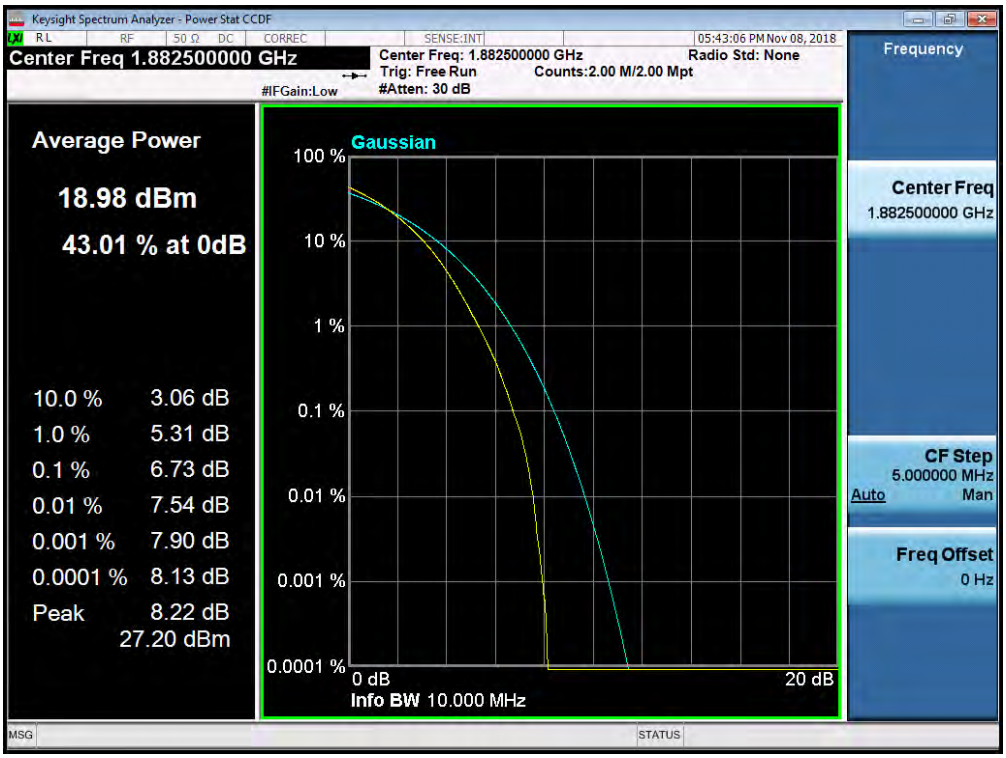
Plot 7-423. PAR Plot (Band 25/2 - 10.0MHz QPSK - Full RB Configuration)



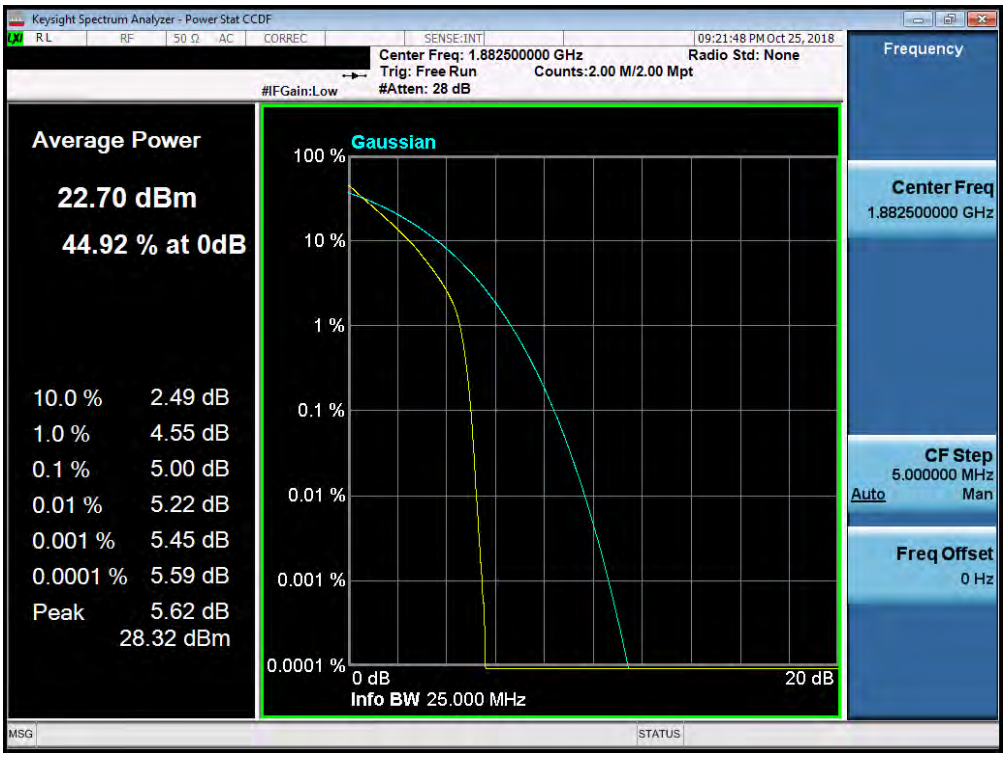
Plot 7-424. PAR Plot (Band 25/2 - 10.0MHz 16-QAM - Full RB Configuration)



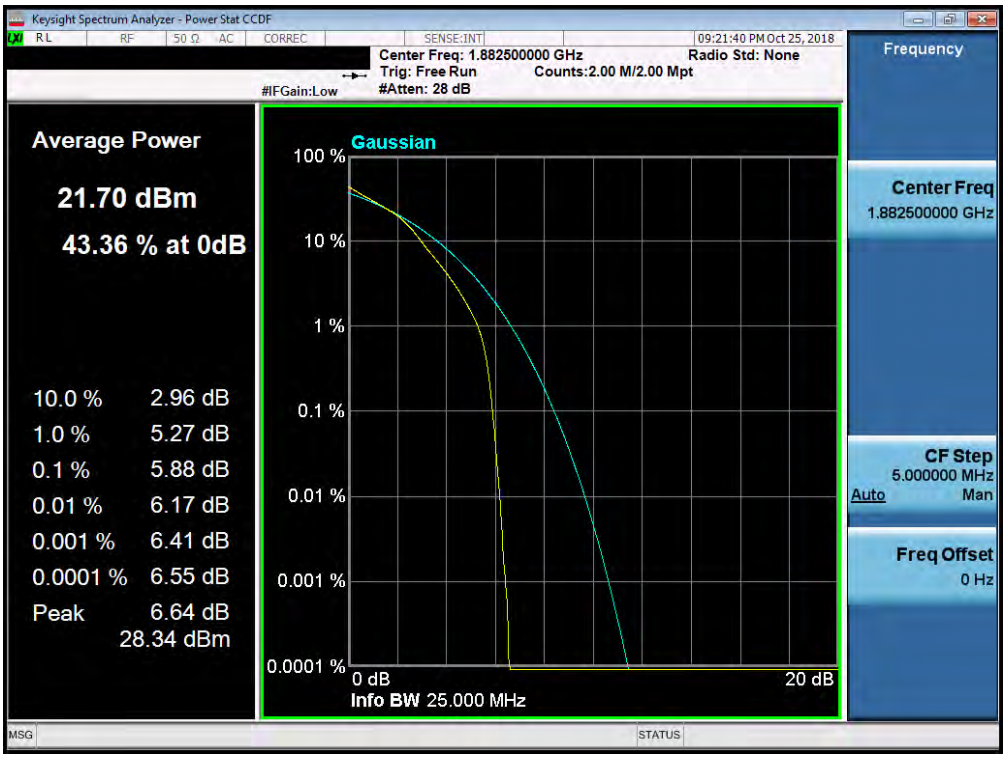
Plot 7-425. PAR Plot (Band 25/2 - 10.0MHz 64-QAM - Full RB Configuration)



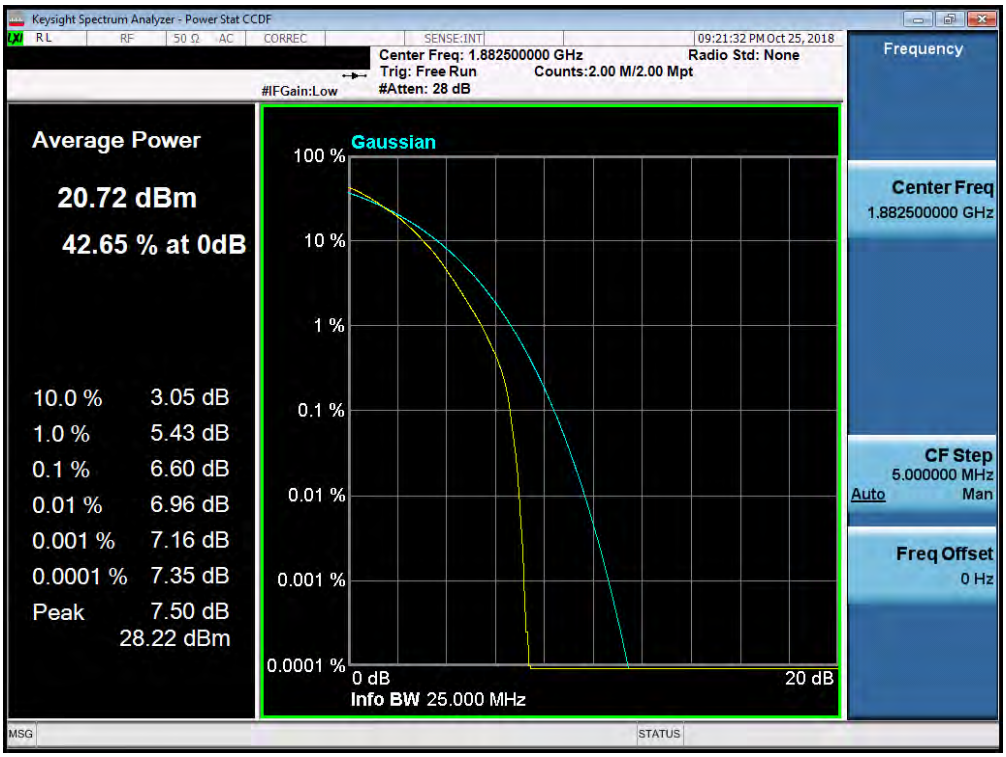
Plot 7-426. PAR Plot (Band 25/2 - 10.0MHz 256-QAM - Full RB Configuration)



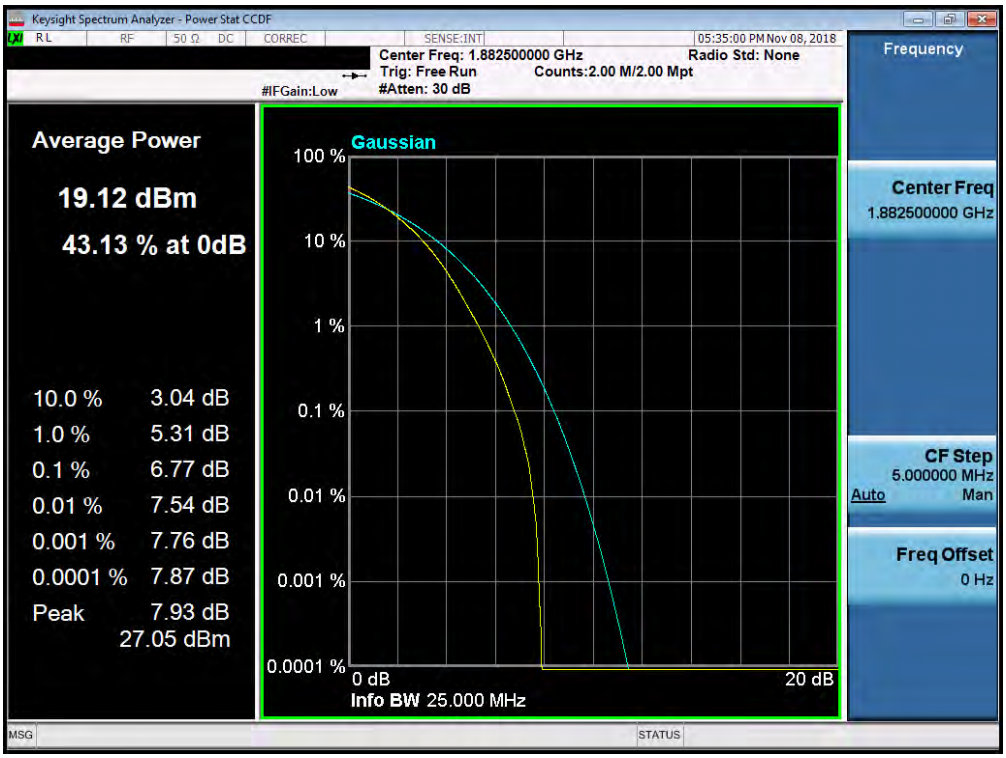
Plot 7-427. PAR Plot (Band 25/2 - 15.0MHz QPSK - Full RB Configuration)



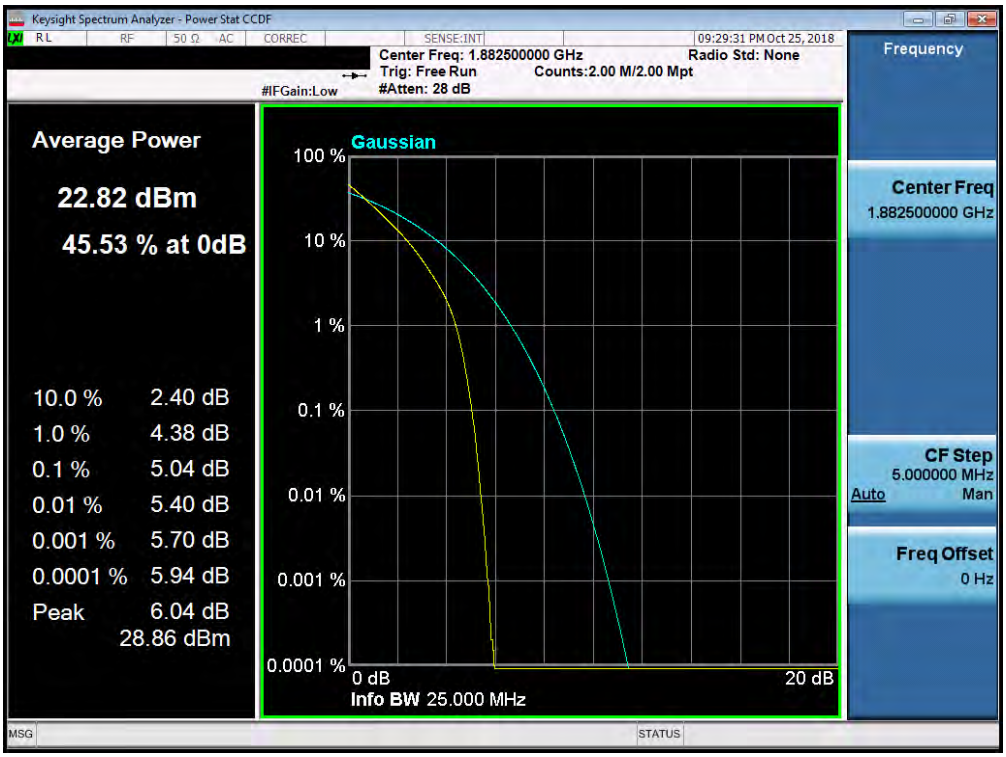
Plot 7-428. PAR Plot (Band 25/2 - 15.0MHz 16-QAM - Full RB Configuration)



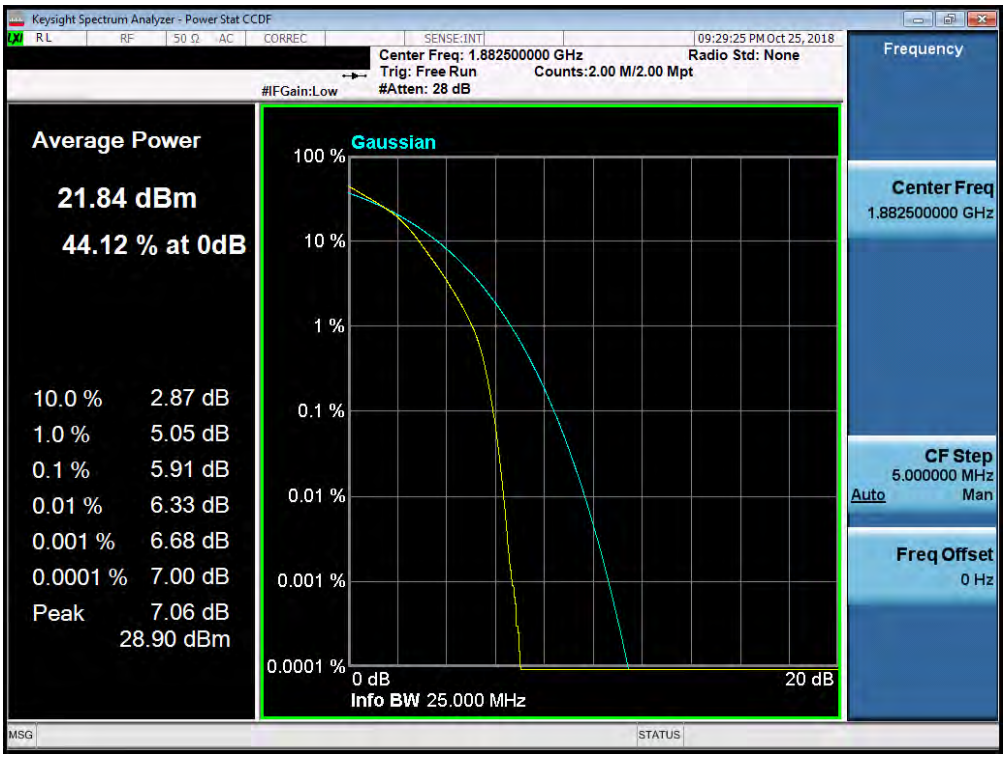
Plot 7-429. PAR Plot (Band 25/2 - 15.0MHz 64-QAM - Full RB Configuration)



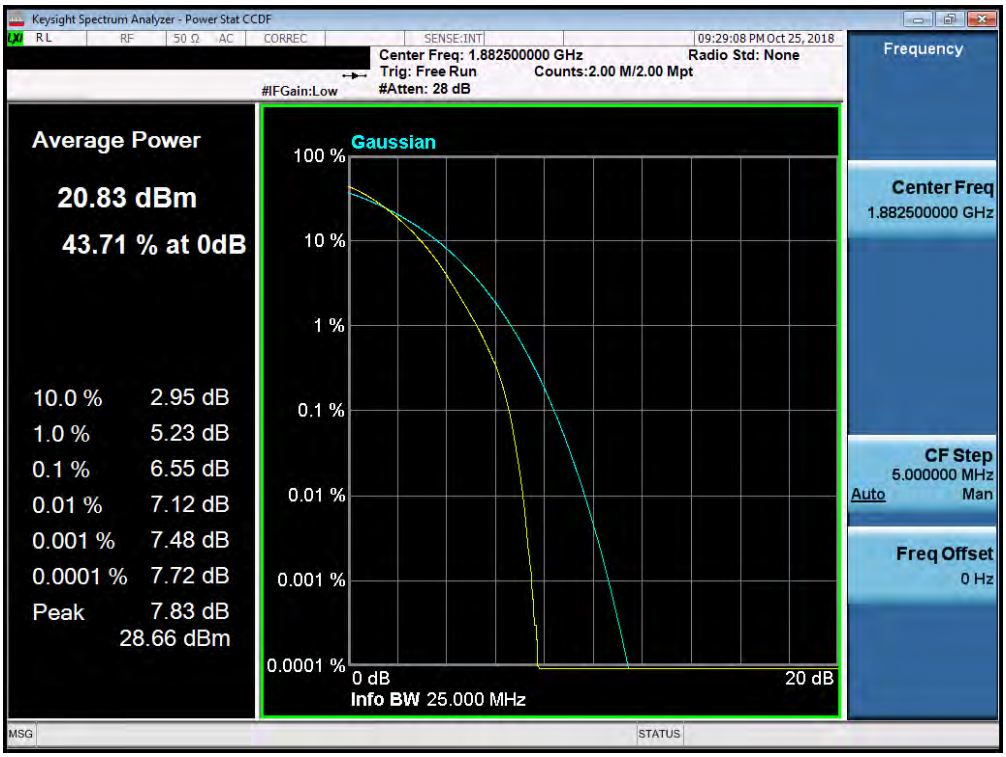
Plot 7-430. PAR Plot (Band 25/2 - 15.0MHz 256-QAM - Full RB Configuration)



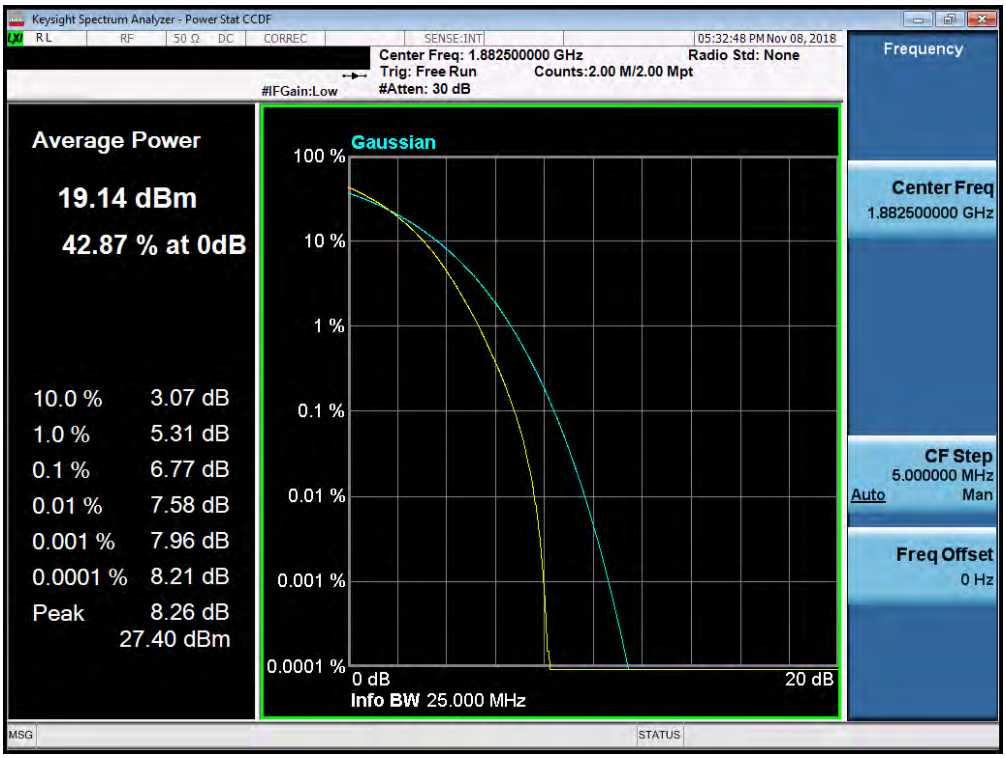
Plot 7-431. PAR Plot (Band 25/2 - 20.0MHz QPSK - Full RB Configuration)



Plot 7-432. PAR Plot (Band 25/2 - 20.0MHz 16-QAM - Full RB Configuration)



Plot 7-433. PAR Plot (Band 25/2 - 20.0MHz 64-QAM - Full RB Configuration)



Plot 7-434. PAR Plot (Band 25/2 - 20.0MHz 256-QAM - Full RB Configuration)

7.6 Additional Maximum Power Reduction (A-MPR)

§2.1046

Test Overview

A-MPR is implemented in this device when operating at Power Class 2 in LTE Band 41 per the A-MPR specification in 3GPP TS 36.101. The conducted powers are shown herein to cover the different A-MPR levels specified in the standard. Measurement equipment was set up with triggering/gating on the spectrum analyzer such that powers were measured only during the on-time of the signal.

Test Procedure Used

KDB 971168 D01 v03r01 – Section 5.2.2

Test Settings

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

Test Setup

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

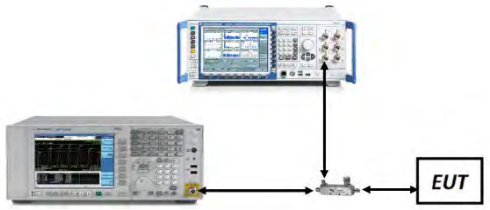


Figure 7-5. Test Instrument & Measurement Setup

Test Notes

None.

Test Case	NS	MCC	MNC	Channel BW [MHz]	Channel Number	Channel Frequency [MHz]	Modulation	RB Size	RB Offset	MPR [dB]	A-MPR [dB]	Measured Power [dBm]
1	01	312	530	5	39675	2498.5	QPSK	1	0	0	≤ 3	24.00
							16-QAM	1	0	≤ 1		23.34
							64-QAM	1	0	≤ 2		22.64
							256-QAM	1	0	≤ 4		19.62
2				5	39675	2498.5	QPSK	1	9	0	0	27.15
							16-QAM	1	9	≤ 1		26.46
							64-QAM	1	9	≤ 2		25.70
							256-QAM	1	9	≤ 4		22.55
3				10	39700	2501	QPSK	1	0	0	≤ 5	27.01
							16-QAM	1	0	≤ 1		26.22
							64-QAM	1	0	≤ 2		25.23
							256-QAM	1	0	≤ 4		22.01
4				10	39700	2501	QPSK	20	0	0	≤ 2	24.00
							16-QAM	20	0	≤ 1		23.01
							64-QAM	20	0	≤ 2		21.99
							256-QAM	20	0	≤ 4		19.91
5				10	39700	2501	QPSK	50	0	0	≤ 3	22.91
							16-QAM	50	0	≤ 1		21.90
							64-QAM	50	0	≤ 2		20.89
							256-QAM	50	0	≤ 4		18.78
6				10	39700	2501	QPSK	25	20	0	≤ 1	24.94
							16-QAM	25	20	≤ 1		23.93
							64-QAM	25	20	≤ 2		22.96
							256-QAM	25	20	≤ 4		20.88
7				10	39700	2501	QPSK	1	36	0	0	26.95
							16-QAM	1	36	≤ 1		26.16
							64-QAM	1	36	≤ 2		25.15
							256-QAM	1	36	≤ 4		22.71
8				15	39725	2503.5	QPSK	1	0	0	≤ 5	27.15
							16-QAM	1	0	≤ 1		26.45
							64-QAM	1	0	≤ 2		25.43
							256-QAM	1	0	≤ 4		22.41
9				15	39725	2503.5	QPSK	20	0	0	≤ 2	24.22
							16-QAM	20	0	≤ 1		23.21
							64-QAM	20	0	≤ 2		22.15
							256-QAM	20	0	≤ 4		19.83
10				15	39725	2503.5	QPSK	75	0	0	≤ 4	22.20
							16-QAM	75	0	≤ 1		21.16
							64-QAM	75	0	≤ 2		20.15
							256-QAM	75	0	≤ 4		17.72
11				15	39725	2503.5	QPSK	50	15	0	≤ 3	23.15
							16-QAM	50	15	≤ 1		22.09
							64-QAM	50	15	≤ 2		21.05
							256-QAM	50	15	≤ 4		18.82
12				15	39725	2503.5	QPSK	1	60	0	0	27.06
							16-QAM	1	60	≤ 1		26.35
							64-QAM	1	60	≤ 2		25.30
							256-QAM	1	60	≤ 4		22.55
13				20	39750	2506	QPSK	1	0	0	≤ 5	27.32
							16-QAM	1	0	≤ 1		26.55
							64-QAM	1	0	≤ 2		25.90
							256-QAM	1	0	≤ 4		22.73
14				20	39750	2506	QPSK	20	0	0	≤ 2	24.29
							16-QAM	20	0	≤ 1		23.36
							64-QAM	20	0	≤ 2		22.34
							256-QAM	20	0	≤ 4		19.93
15				20	39750	2506	QPSK	100	0	0	≤ 4	22.09
							16-QAM	100	0	≤ 1		21.20
							64-QAM	100	0	≤ 2		20.16
							256-QAM	75	21			18.93
16				20	39750	2506	QPSK	75	24	0	≤ 3	22.71
							16-QAM	75	24	≤ 1		21.71
							64-QAM	75	24	≤ 2		20.70
							256-QAM	75	24	≤ 4		18.72
17				20	39750	2506	QPSK	1	77	0	0	27.22
							16-QAM	1	77	≤ 1		26.45
							64-QAM	1	77	≤ 2		25.78
							256-QAM	1	77	≤ 4		22.51
19	01	001	01	5	39675	2498.5	QPSK	1	0	0	0	27.05
							16-QAM			≤ 1		26.40
							64-QAM			≤ 2		25.01
							256-QAM			≤ 4		22.53

Table 7-3. A-MPR Conducted Power Measurements

7.7 Uplink Carrier Aggregation

§27.53(m)

Test Overview

The EUT is set up to transmit two contiguous LTE channels. The power level of both carriers and the various conducted spurious and harmonic frequencies is measured by means of a calibrated spectrum analyzer. The spectrum is scanned from the lowest frequency generated in the equipment up to a frequency including its 10th harmonic. All out of band emissions are measured with a spectrum analyzer connected to the antenna terminal of the EUT while the EUT is operating at its maximum duty cycle, at maximum power, and at the appropriate frequencies. All data rates were investigated to determine the worst case configuration. All modes of operation were investigated and the worst case configuration results are reported in this section.

For Band 38/41, the minimum permissible attenuation level of any spurious emission is 55 + 10log$_{10}$(P$_{[Watts]}$).

For Band 5 and 66, the minimum permissible attenuation level of any spurious emission is 43 + 10log$_{10}$(P$_{[Watts]}$).

Test Procedure Used

KDB 971168 D01 v03r01 – Section 6.0

Test Settings

1. Start frequency was set to 30MHz and stop frequency was set to at least 10 * the fundamental frequency (separated into at least two plots per channel)
2. Detector = RMS
3. Trace mode = trace average for continuous emissions, max hold for pulse emissions
4. Sweep time = auto couple
5. The trace was allowed to stabilize
6. Please see test notes below for RBW and VBW settings

Test Setup

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

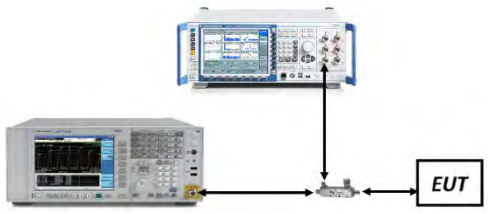


Figure 7-6. Test Instrument & Measurement Setup

Test Notes

1. Conducted power and spurious emissions measurements were evaluated for the two contiguous channels using various combinations of RB size, RB offset, modulation, and channel bandwidth. Channel bandwidth data is shown in the tables below based only on the channel bandwidths that were supported in this device. The worst case (highest) powers were found while operating with QPSK modulation, as shown in Table 7-503 and 7-504 below, with both carriers set to transmit using 1RB.

2. Compliance with the applicable limits is based on the use of measurement instrumentation employing a resolution bandwidth of 100 kHz or greater for frequencies less than 1 GHz and 1 MHz or greater for frequencies greater than 1 GHz. However, in the 1 MHz bands immediately outside and adjacent to the frequency block a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed.

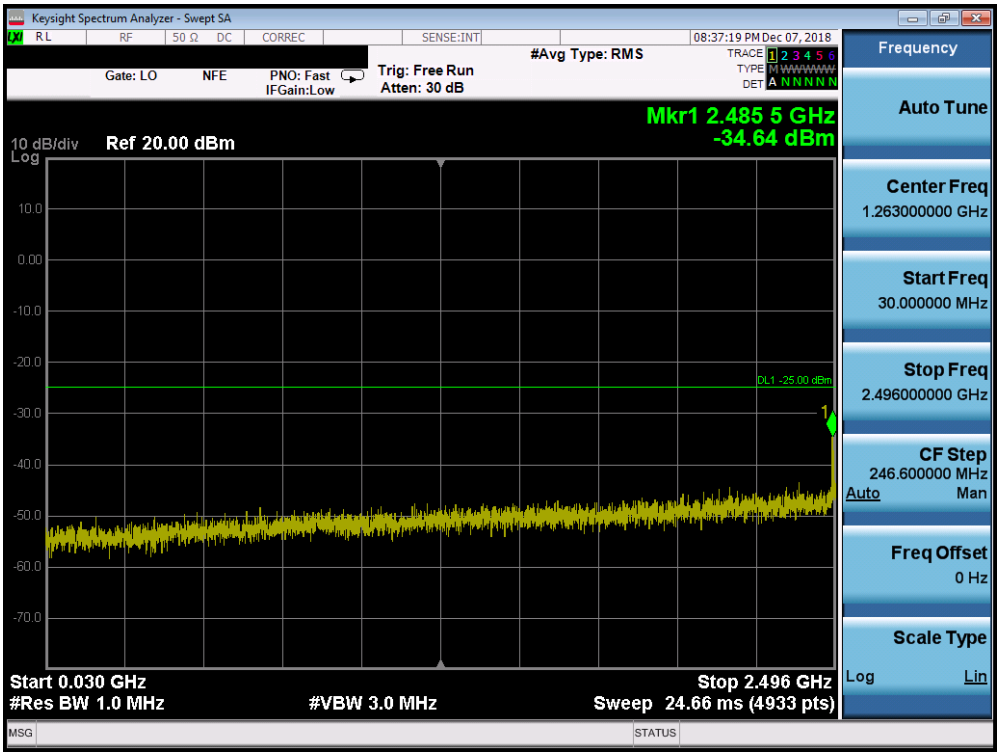
Uplink CA Configuration 41C (PC3)

Power State	PCC							SCC							Power
	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	ULCA Tx.Power (dBm)
Max	LTE B41	5	39675	2498.5	QPSK	1	24	LTE B41	20	39792	2510.2	QPSK	1	0	24.67
Max	LTE B41	10	39700	2501	QPSK	1	49	LTE B41	15	39820	2513	QPSK	1	0	23.62
Max	LTE B41	10	39700	2501	QPSK	1	49	LTE B41	20	39844	2515.4	QPSK	1	0	24.21
Max	LTE B41	15	39725	2503.5	QPSK	1	74	LTE B41	10	39845	2515.5	QPSK	1	0	24.26
Max	LTE B41	15	39725	2503.5	QPSK	1	74	LTE B41	15	39875	2518.5	QPSK	1	0	24.22
Max	LTE B41	15	39725	2503.5	QPSK	1	74	LTE B41	20	39896	2520.6	QPSK	1	0	24.25
Max	LTE B41	20	39750	2506	QPSK	1	99	LTE B41	5	39867	2517.7	QPSK	1	0	24.27
Max	LTE B41	20	39750	2506	QPSK	1	99	LTE B41	10	39894	2520.4	QPSK	1	0	24.30
Max	LTE B41	20	39750	2506	QPSK	1	99	LTE B41	15	39921	2523.1	QPSK	1	0	23.78
Max	LTE B41	20	39750	2506	QPSK	1	99	LTE B41	20	39948	2525.8	QPSK	1	0	24.74
Max	LTE B41	5	40620	2593	QPSK	1	24	LTE B41	20	40737	2604.7	QPSK	1	0	24.59
Max	LTE B41	10	40620	2593	QPSK	1	49	LTE B41	15	40740	2605	QPSK	1	0	24.23
Max	LTE B41	10	40620	2593	QPSK	1	49	LTE B41	20	40764	2607.4	QPSK	1	0	24.45
Max	LTE B41	15	40620	2593	QPSK	1	74	LTE B41	10	40740	2605	QPSK	1	0	24.26
Max	LTE B41	15	40620	2593	QPSK	1	74	LTE B41	15	40770	2608	QPSK	1	0	24.14
Max	LTE B41	15	40620	2593	QPSK	1	74	LTE B41	20	40791	2610.1	QPSK	1	0	24.24
Max	LTE B41	20	40620	2593	QPSK	1	99	LTE B41	5	40737	2604.7	QPSK	1	0	24.33
Max	LTE B41	20	40620	2593	QPSK	1	99	LTE B41	10	40764	2607.4	QPSK	1	0	24.29
Max	LTE B41	20	40620	2593	QPSK	1	99	LTE B41	15	40791	2610.1	QPSK	1	0	24.14
Max	LTE B41	20	40620	2593	QPSK	1	99	LTE B41	20	40818	2612.8	QPSK	1	0	24.77
Max	LTE B41	5	41565	2687.5	QPSK	1	0	LTE B41	20	41448	2675.8	QPSK	1	99	24.21
Max	LTE B41	10	41540	2685	QPSK	1	0	LTE B41	15	41420	2673	QPSK	1	74	23.85
Max	LTE B41	10	41540	2685	QPSK	1	0	LTE B41	20	41396	2670.6	QPSK	1	99	24.10
Max	LTE B41	15	41515	2682.5	QPSK	1	0	LTE B41	10	41395	2670.5	QPSK	1	49	23.73
Max	LTE B41	15	41515	2682.5	QPSK	1	0	LTE B41	15	41365	2667.5	QPSK	1	74	23.71
Max	LTE B41	15	41515	2682.5	QPSK	1	0	LTE B41	20	41344	2665.4	QPSK	1	99	23.63
Max	LTE B41	20	41490	2680	QPSK	1	0	LTE B41	5	41373	2668.3	QPSK	1	24	23.42
Max	LTE B41	20	41490	2680	QPSK	1	0	LTE B41	10	41346	2665.6	QPSK	1	49	23.71
Max	LTE B41	20	41490	2680	QPSK	1	0	LTE B41	15	41319	2662.9	QPSK	1	74	23.68
Max	LTE B41	20	41490	2680	QPSK	1	0	LTE B41	20	41292	2660.2	QPSK	1	99	24.23

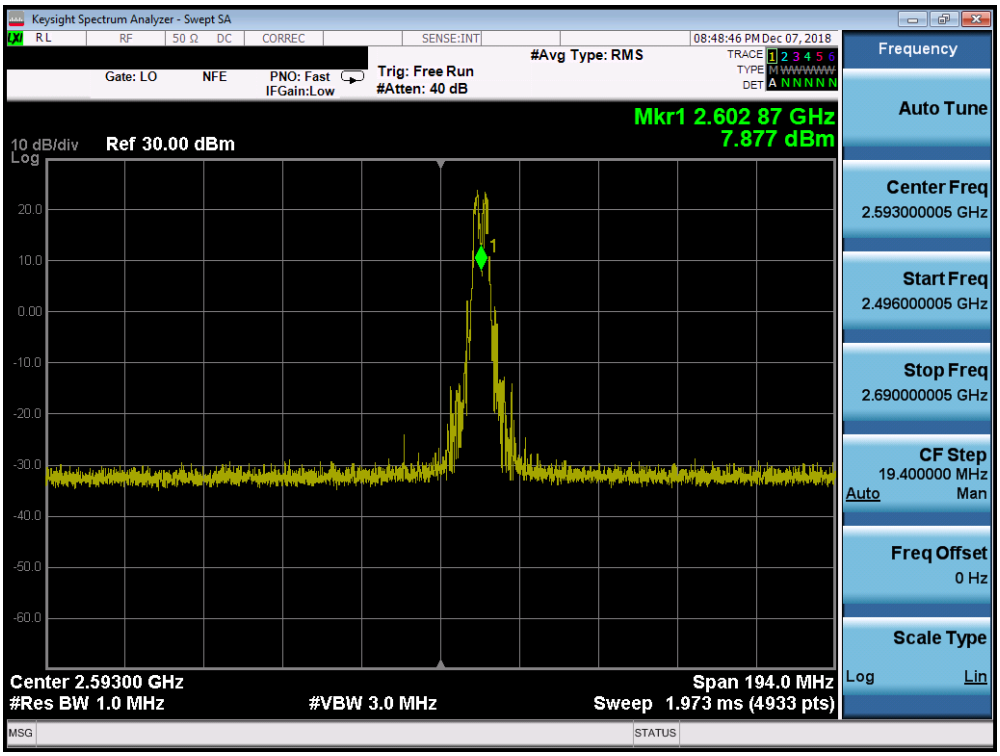
Table 7-4. Conducted Powers (41C – PC3)

Power State	PCC							SCC							Power
	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	ULCA Tx.Power (dBm)
Max	LTE B41	20	39750	2506	QPSK	1	0	LTE B41	20	39948	2525.8	QPSK	1	0	20.98
Max	LTE B41	20	39750	2506	QPSK	1	99	LTE B41	20	39948	2525.8	QPSK	1	99	21.46
Max	LTE B41	20	39750	2506	QPSK	1	0	LTE B41	20	39948	2525.8	QPSK	1	99	18.64
Max	LTE B41	20	39750	2506	QPSK	1	50	LTE B41	20	39948	2525.8	QPSK	1	50	22.70
Max	LTE B41	20	39750	2506	QPSK	1	99	LTE B41	20	39948	2525.8	QPSK	1	0	25.62
Max	LTE B41	20	39750	2506	QPSK	100	0	LTE B41	20	39948	2525.8	QPSK	100	0	25.12
Max	LTE B41	20	39750	2506	16-QAM	100	0	LTE B41	20	39948	2525.8	16-QAM	100	0	24.12
Max	LTE B41	20	39750	2506	64-QAM	100	0	LTE B41	20	39948	2525.8	64-QAM	100	0	23.32
Max	LTE B41	20	39750	2506	256-QAM	100	0	LTE B41	20	39948	2525.8	256-QAM	100	0	22.05

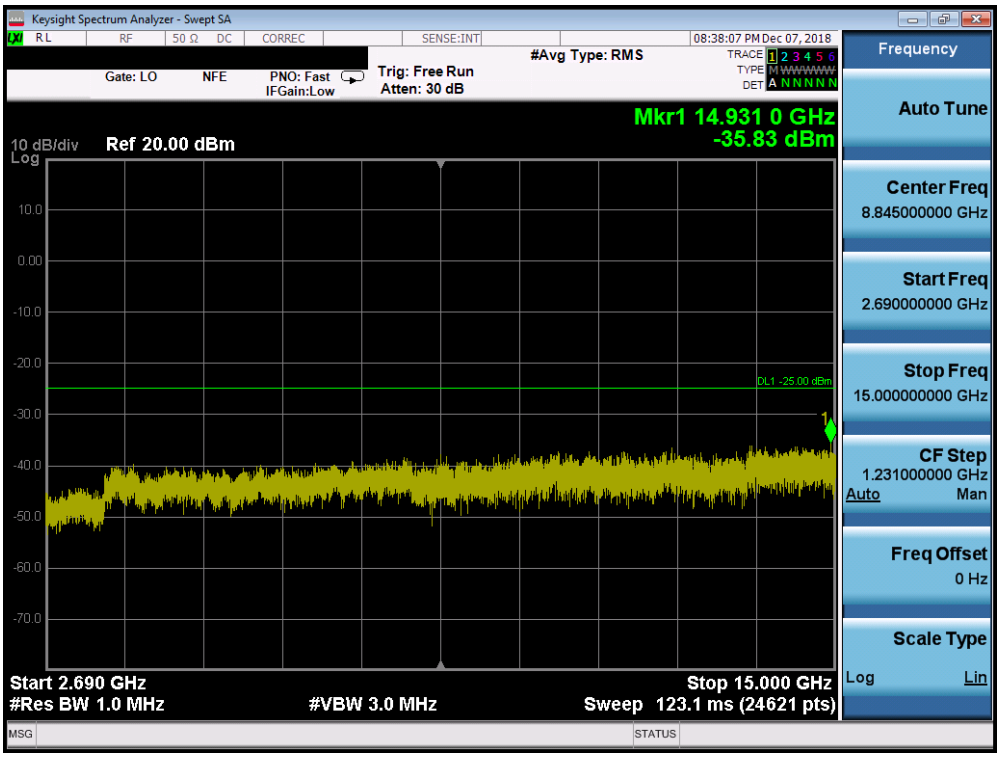
Table 7-5. Conducted Powers (41C – PC3 with Various Combinations for 20MHz Channel Bandwidth)



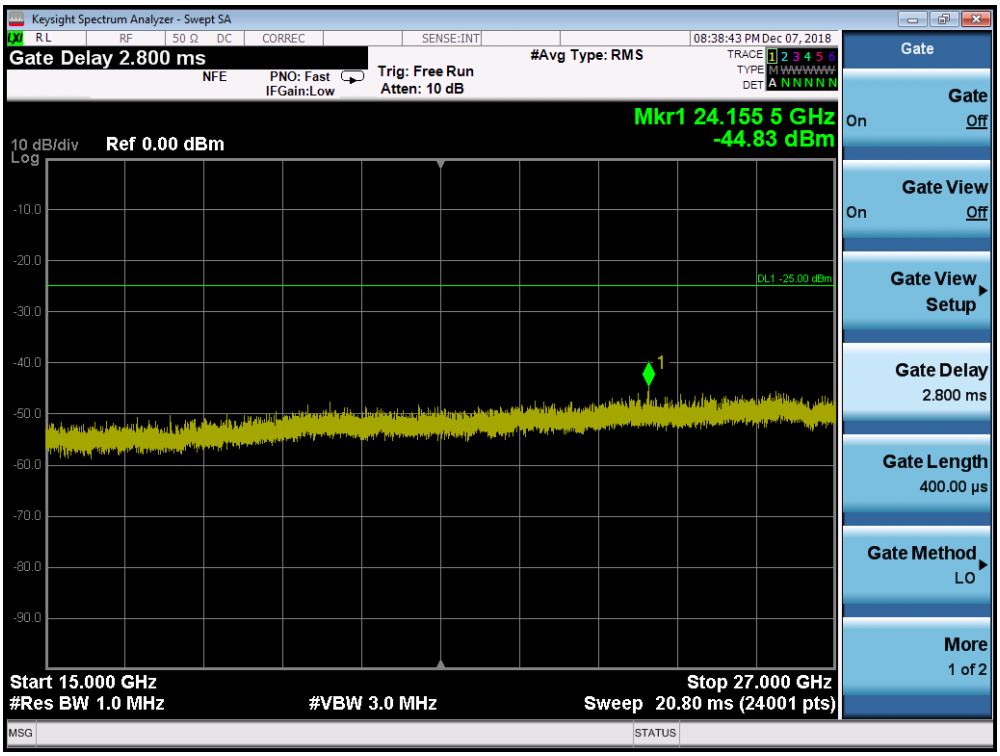
Plot 7-435. Conducted Spurious Plot (Band 41C – 20.0MHz QPSK – PCC 1/99 SCC 1/0 – Mid Channel)



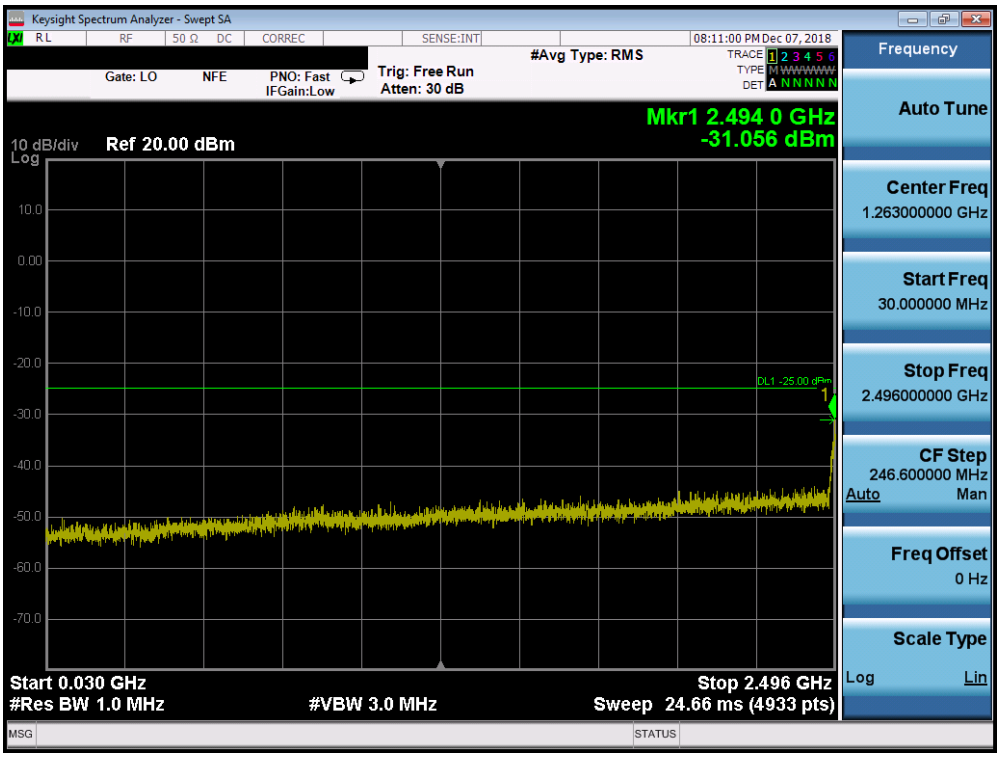
Plot 7-436. Conducted Spurious Plot (Band 41C – 20.0MHz QPSK – PCC 1/99 SCC 1/0 – Mid Channel)



Plot 7-437. Conducted Spurious Plot (Band 41C – 20.0MHz QPSK – PCC 1/99 SCC 1/0 – Mid Channel)

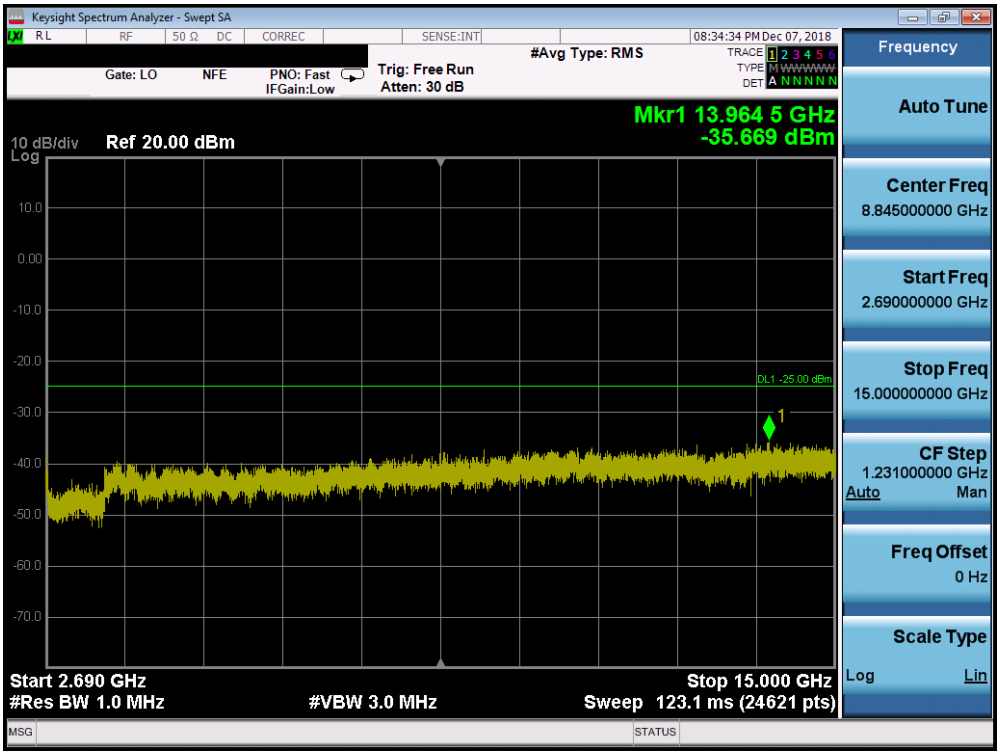


Plot 7-438. Conducted Spurious Plot (Band 41C – 20.0MHz QPSK – PCC 1/99 SCC 1/0 – Mid Channel)



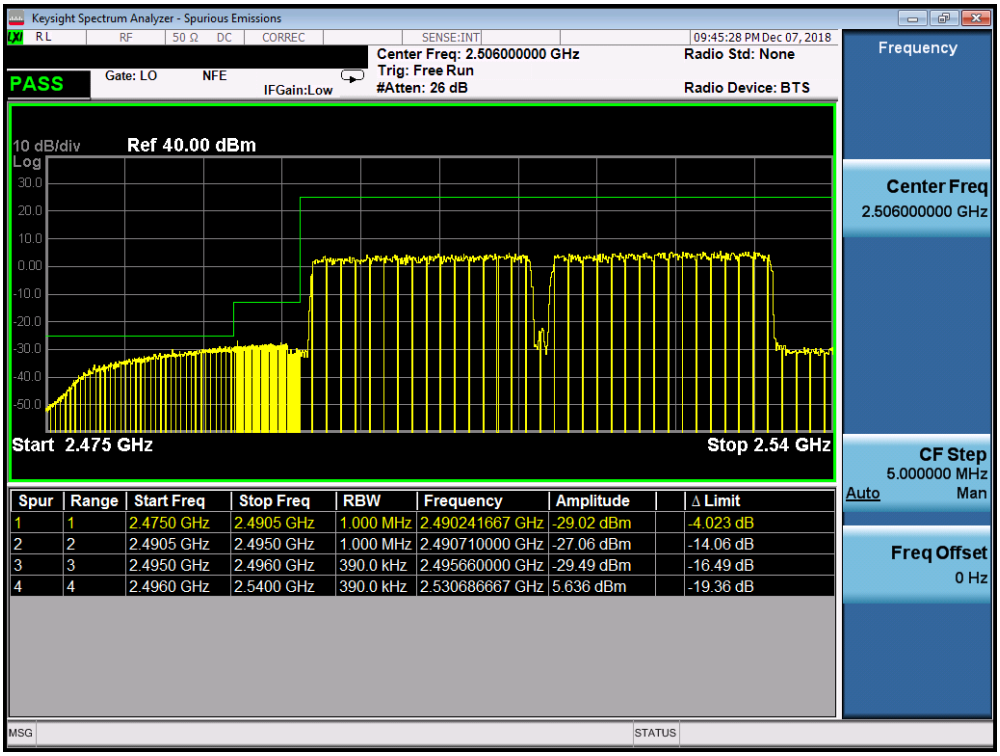
Plot 7-439. Conducted Spurious Plot (Band 41C – 20.0MHz QPSK – PCC 100/0 SCC 100/0 – Mid Channel)

Plot 7-440. Conducted Spurious Plot (Band 41C – 20.0MHz QPSK – PCC 100/0 SCC 100/0 – Mid Channel)

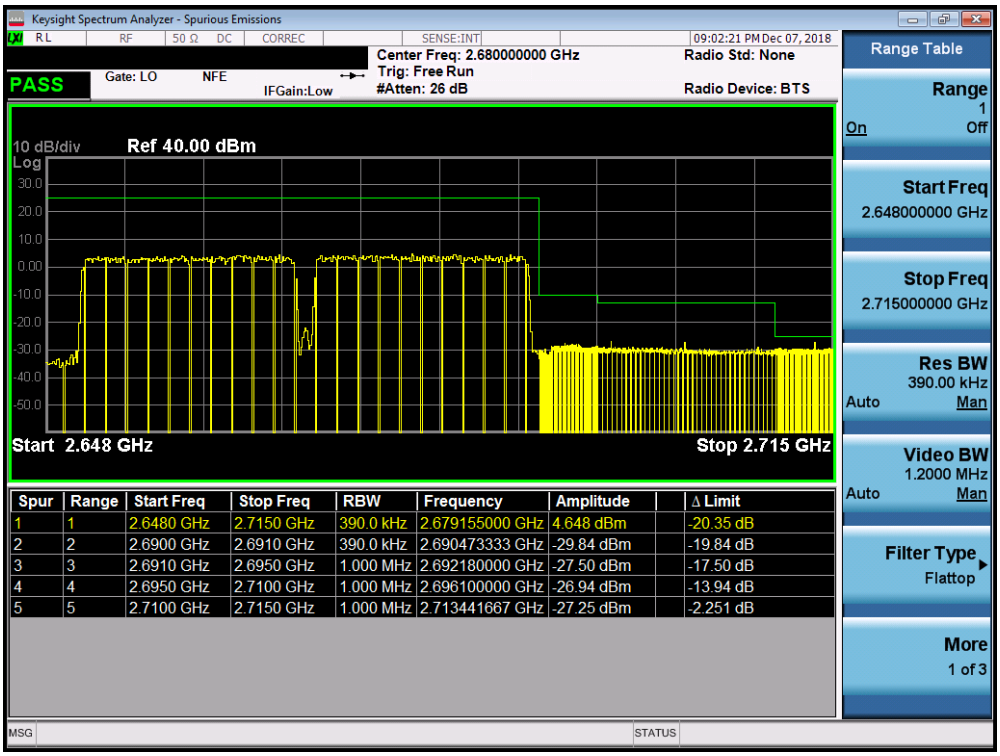


Plot 7-441. Conducted Spurious Plot (Band 41C – 20.0MHz QPSK – PCC 100/0 SCC 100/0 – Mid Channel)

Plot 7-442. Conducted Spurious Plot (Band 41C – 20.0MHz QPSK – PCC 100/0 SCC 100/0 – Mid Channel)



Plot 7-443. Lower ACP Plot (Band 41C – 20.0MHz QPSK – PCC 100/0 SCC 100/0 – Mid Channel)



Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	2.6480 GHz	2.7150 GHz	390.0 kHz	2.679155000 GHz	4.648 dBm	-20.35 dB
2	2	2.6900 GHz	2.6910 GHz	390.0 kHz	2.690473333 GHz	-29.84 dBm	-19.84 dB
3	3	2.6910 GHz	2.6950 GHz	1.000 MHz	2.692180000 GHz	-27.50 dBm	-17.50 dB
4	4	2.6950 GHz	2.7100 GHz	1.000 MHz	2.696100000 GHz	-26.94 dBm	-13.94 dB
5	5	2.7100 GHz	2.7150 GHz	1.000 MHz	2.713441667 GHz	-27.25 dBm	-2.251 dB

Plot 7-444. Upper ACP Plot (Band 41C – 20.0MHz QPSK – PCC 100/0 SCC 100/0 – Mid Channel)

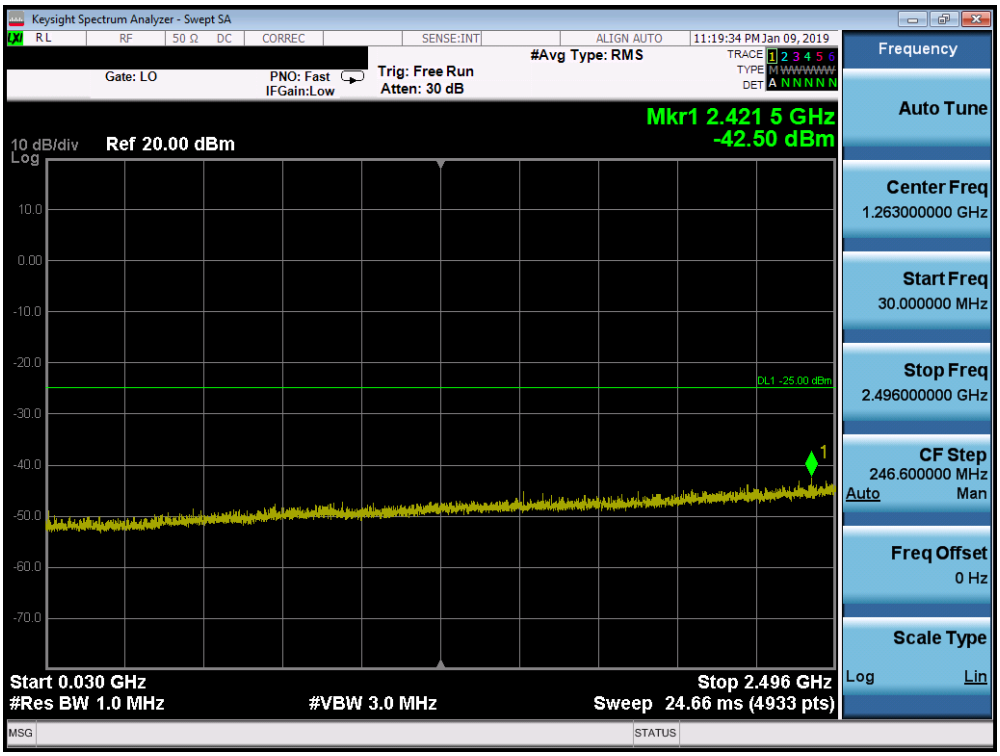
Uplink CA Configuration 41C (PC2)

Power State	PCC							SCC							Power
	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	ULCA Tx.Power (dBm)
Max	LTE B41	5	39675	2498.5	QPSK	1	24	LTE B41	20	39792	2510.2	QPSK	1	0	26.61
Max	LTE B41	10	39700	2501	QPSK	1	49	LTE B41	15	39820	2513	QPSK	1	0	27.23
Max	LTE B41	10	39700	2501	QPSK	1	49	LTE B41	20	39844	2515.4	QPSK	1	0	27.19
Max	LTE B41	15	39725	2503.5	QPSK	1	74	LTE B41	10	39845	2515.5	QPSK	1	0	27.36
Max	LTE B41	15	39725	2503.5	QPSK	1	74	LTE B41	15	39875	2518.5	QPSK	1	0	27.22
Max	LTE B41	15	39725	2503.5	QPSK	1	74	LTE B41	20	39896	2520.6	QPSK	1	0	27.25
Max	LTE B41	20	39750	2506	QPSK	1	99	LTE B41	5	39867	2517.7	QPSK	1	0	27.27
Max	LTE B41	20	39750	2506	QPSK	1	99	LTE B41	10	39894	2520.4	QPSK	1	0	27.26
Max	LTE B41	20	39750	2506	QPSK	1	99	LTE B41	15	39921	2523.1	QPSK	1	0	27.32
Max	LTE B41	20	39750	2506	QPSK	1	99	LTE B41	20	39948	2525.8	QPSK	1	0	27.38
Max	LTE B41	5	40620	2593	QPSK	1	24	LTE B41	20	40737	2604.7	QPSK	1	0	26.87
Max	LTE B41	10	40620	2593	QPSK	1	49	LTE B41	15	40740	2605	QPSK	1	0	27.11
Max	LTE B41	10	40620	2593	QPSK	1	49	LTE B41	20	40764	2607.4	QPSK	1	0	27.08
Max	LTE B41	15	40620	2593	QPSK	1	74	LTE B41	10	40740	2605	QPSK	1	0	26.76
Max	LTE B41	15	40620	2593	QPSK	1	74	LTE B41	15	40770	2608	QPSK	1	0	26.70
Max	LTE B41	15	40620	2593	QPSK	1	74	LTE B41	20	40791	2610.1	QPSK	1	0	26.72
Max	LTE B41	20	40620	2593	QPSK	1	99	LTE B41	5	40737	2604.7	QPSK	1	0	26.98
Max	LTE B41	20	40620	2593	QPSK	1	99	LTE B41	10	40764	2607.4	QPSK	1	0	26.89
Max	LTE B41	20	40620	2593	QPSK	1	99	LTE B41	15	40791	2610.1	QPSK	1	0	26.87
Max	LTE B41	20	40620	2593	QPSK	1	99	LTE B41	20	40818	2612.8	QPSK	1	0	27.42
Max	LTE B41	5	41565	2687.5	QPSK	1	0	LTE B41	20	41448	2675.8	QPSK	1	99	26.68
Max	LTE B41	10	41540	2685	QPSK	1	0	LTE B41	15	41420	2673	QPSK	1	74	27.18
Max	LTE B41	10	41540	2685	QPSK	1	0	LTE B41	20	41396	2670.6	QPSK	1	99	27.10
Max	LTE B41	15	41515	2682.5	QPSK	1	0	LTE B41	10	41395	2670.5	QPSK	1	49	27.25
Max	LTE B41	15	41515	2682.5	QPSK	1	0	LTE B41	15	41365	2667.5	QPSK	1	74	27.20
Max	LTE B41	15	41515	2682.5	QPSK	1	0	LTE B41	20	41344	2665.4	QPSK	1	99	27.13
Max	LTE B41	20	41490	2680	QPSK	1	0	LTE B41	5	41373	2668.3	QPSK	1	24	27.15
Max	LTE B41	20	41490	2680	QPSK	1	0	LTE B41	10	41346	2665.6	QPSK	1	49	27.17
Max	LTE B41	20	41490	2680	QPSK	1	0	LTE B41	15	41319	2662.9	QPSK	1	74	27.16
Max	LTE B41	20	41490	2680	QPSK	1	0	LTE B41	20	41292	2660.2	QPSK	1	99	27.35

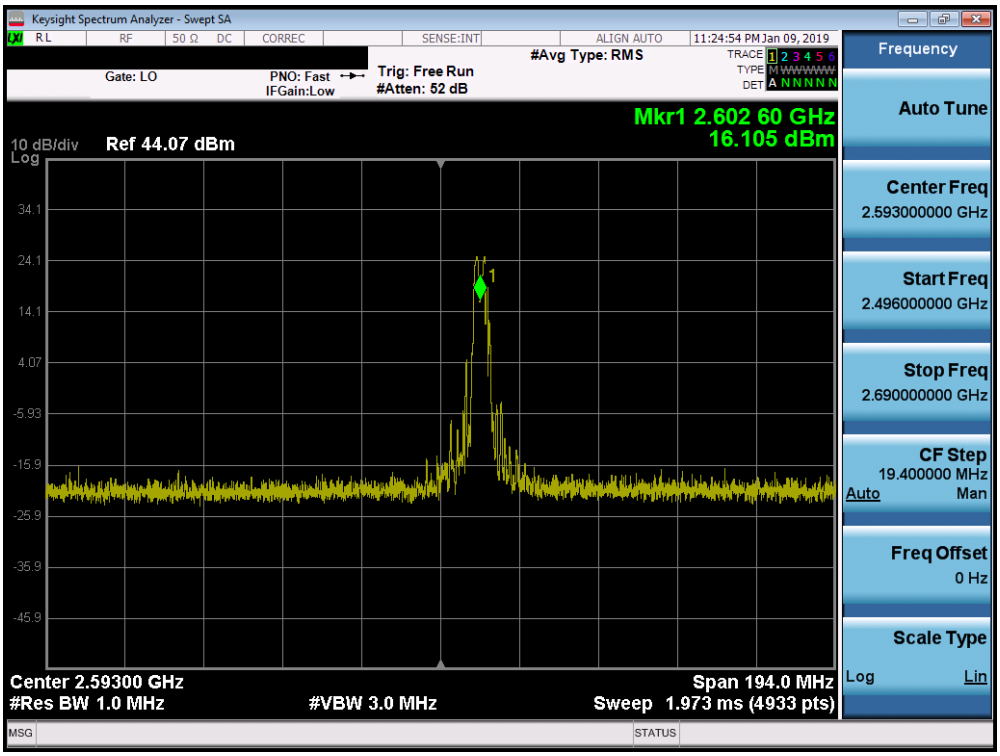
Table 7-6. Conducted Powers (41C – PC2)

Power State	PCC							SCC							Power
	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	ULCA Tx.Power (dBm)
Max	LTE B41	20	40620	2593	QPSK	1	0	LTE B41	20	40818	2612.8	QPSK	1	0	21.51
Max	LTE B41	20	40620	2593	QPSK	1	99	LTE B41	20	40818	2612.8	QPSK	1	99	18.34
Max	LTE B41	20	40620	2593	QPSK	1	0	LTE B41	20	40818	2612.8	QPSK	1	99	16.12
Max	LTE B41	20	40620	2593	QPSK	1	50	LTE B41	20	40818	2612.8	QPSK	1	50	22.81
Max	LTE B41	20	40620	2593	QPSK	1	99	LTE B41	20	40818	2612.8	QPSK	1	0	27.40
Max	LTE B41	20	40620	2593	QPSK	100	0	LTE B41	20	40818	2612.8	QPSK	100	0	24.19
Max	LTE B41	20	40620	2593	16-QAM	100	0	LTE B41	20	40818	2612.8	16-QAM	100	0	23.33
Max	LTE B41	20	40620	2593	64-QAM	100	0	LTE B41	20	40818	2612.8	64-QAM	100	0	22.53
Max	LTE B41	20	40620	2593	256-QAM	100	0	LTE B41	20	40818	2612.8	256-QAM	100	0	21.24

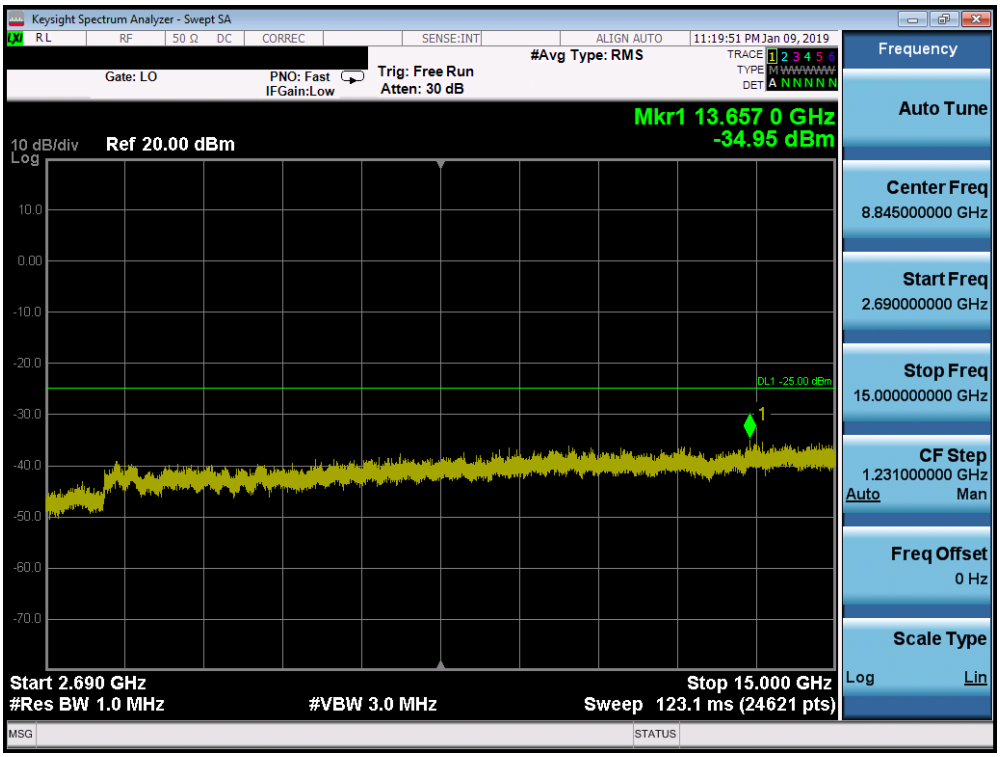
Table 7-7. Conducted Powers (41C – PC2 with Various Combinations for 20MHz Channel Bandwidth)



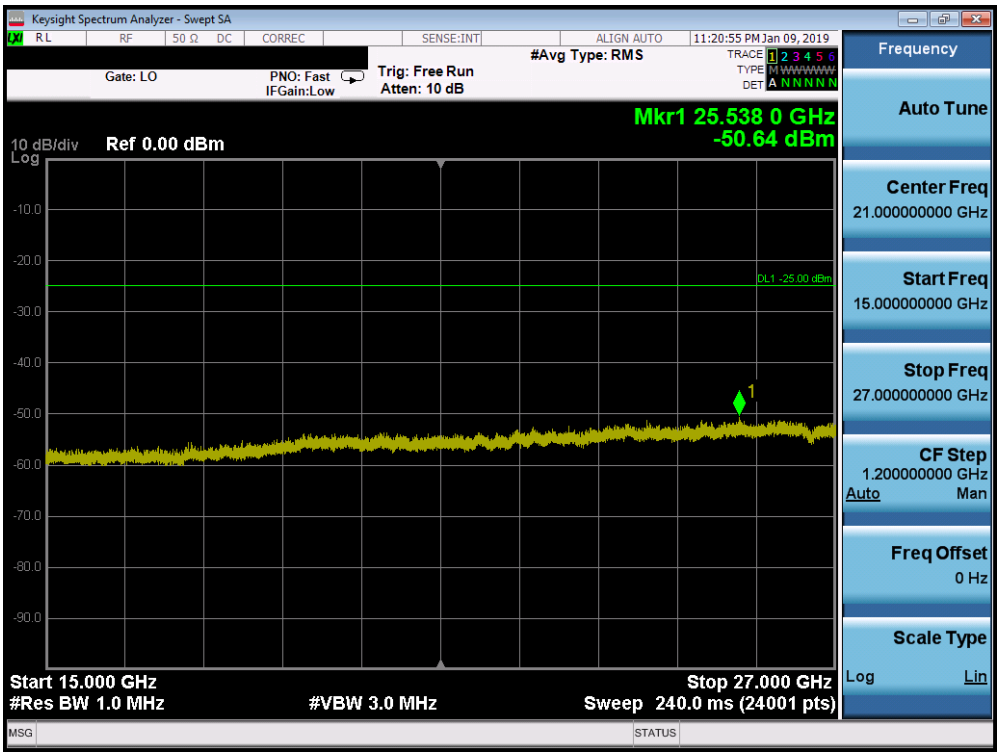
Plot 7-445. Conducted Spurious Plot (Band 41C – 20.0MHz QPSK – PCC 1/99 SCC 1/0 – Mid Channel)



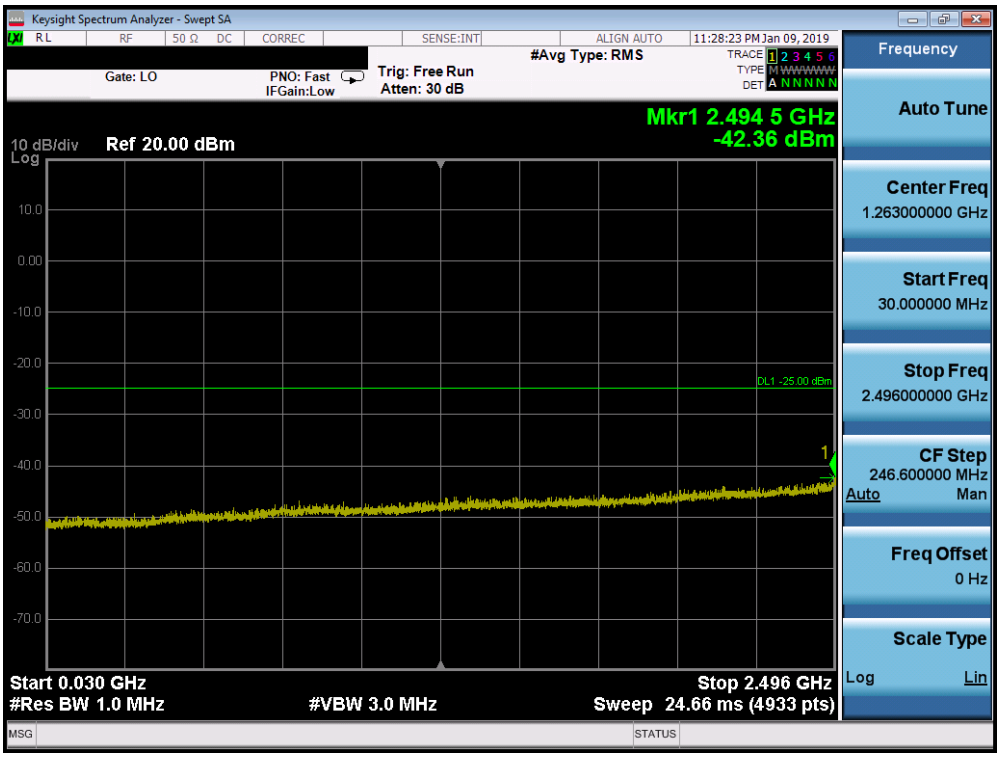
Plot 7-446. Conducted Spurious Plot (Band 41C – 20.0MHz QPSK – PCC 1/99 SCC 1/0 – Mid Channel)



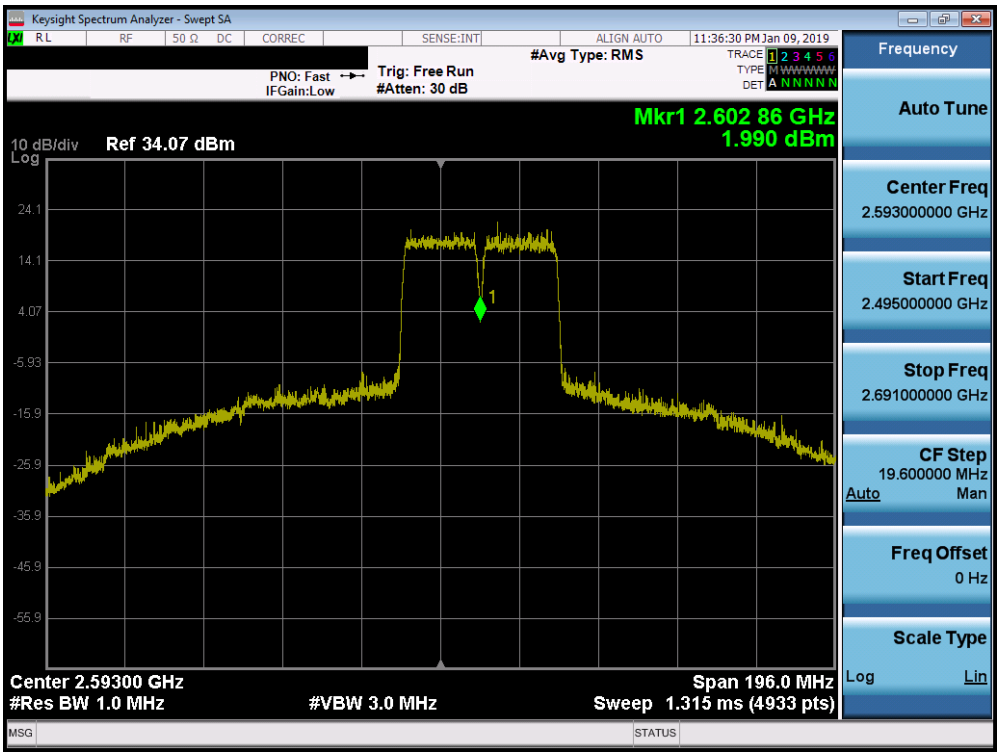
Plot 7-447. Conducted Spurious Plot (Band 41C – 20.0MHz QPSK – PCC 1/99 SCC 1/0 – Mid Channel)



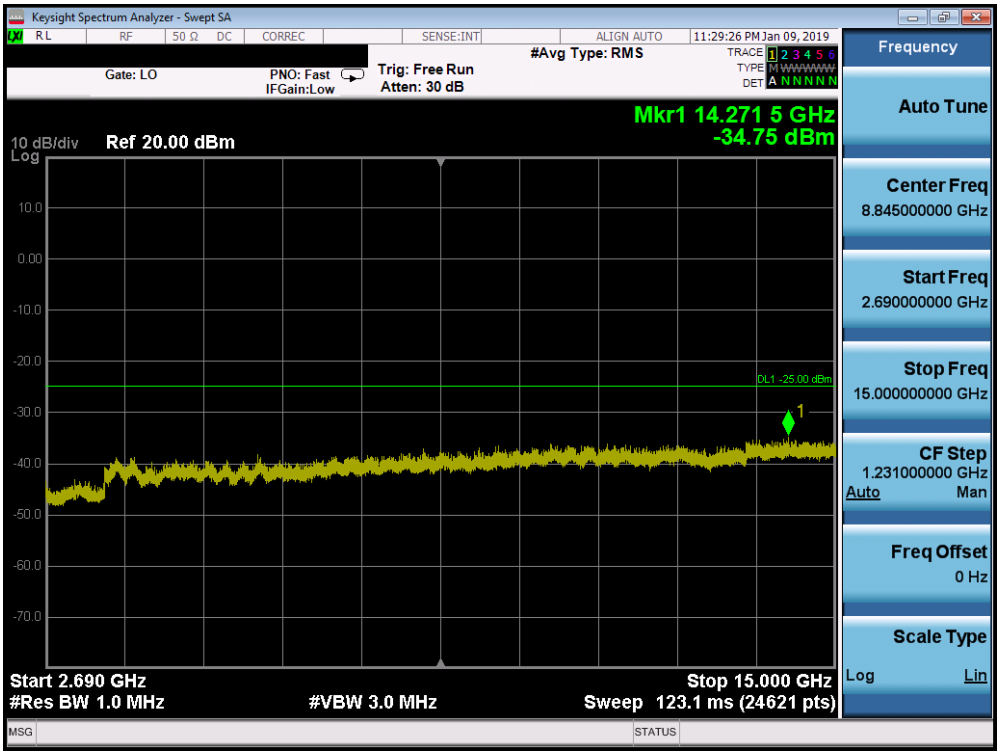
Plot 7-448. Conducted Spurious Plot (Band 41C – 20.0MHz QPSK – PCC 1/99 SCC 1/0 – Mid Channel)



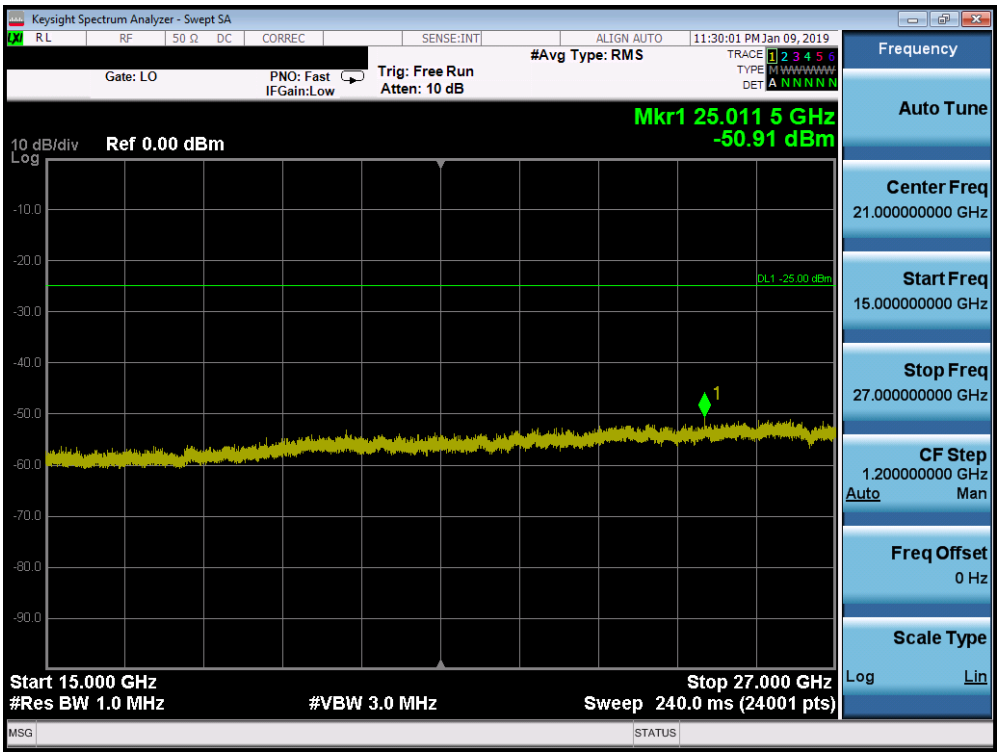
Plot 7-449. Conducted Spurious Plot (Band 41C – 20.0MHz QPSK – PCC 100/0 SCC 100/0 – Mid Channel)



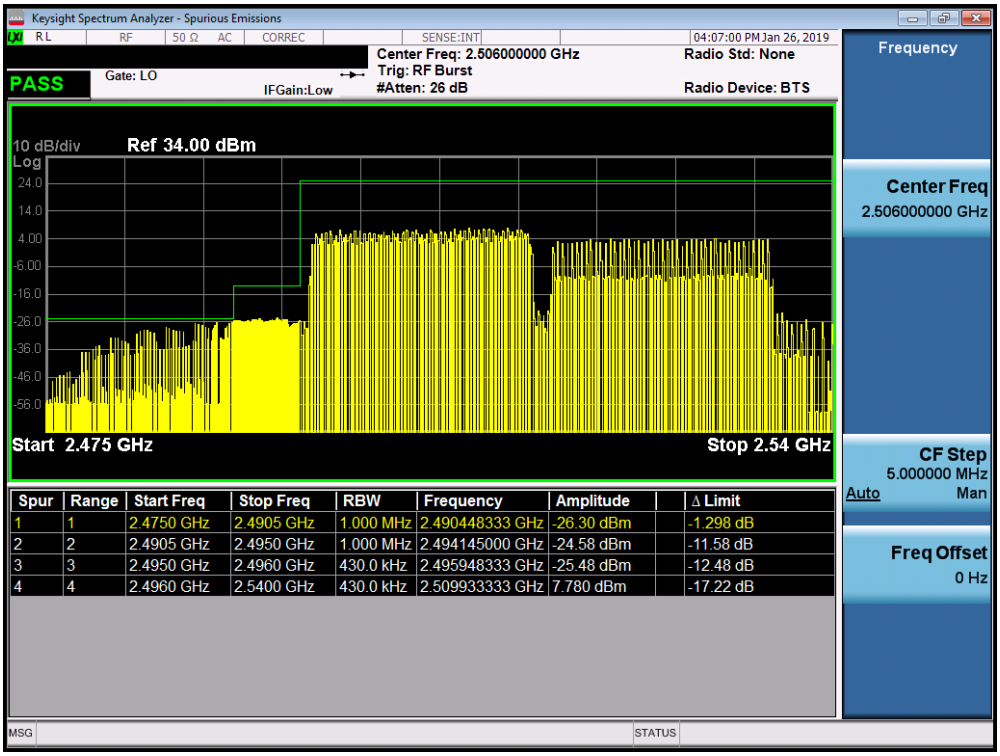
Plot 7-450. Conducted Spurious Plot (Band 41C – 20.0MHz QPSK – PCC 100/0 SCC 100/0 – Mid Channel)



Plot 7-451. Conducted Spurious Plot (Band 41C – 20.0MHz QPSK – PCC 100/0 SCC 100/0 – Mid Channel)

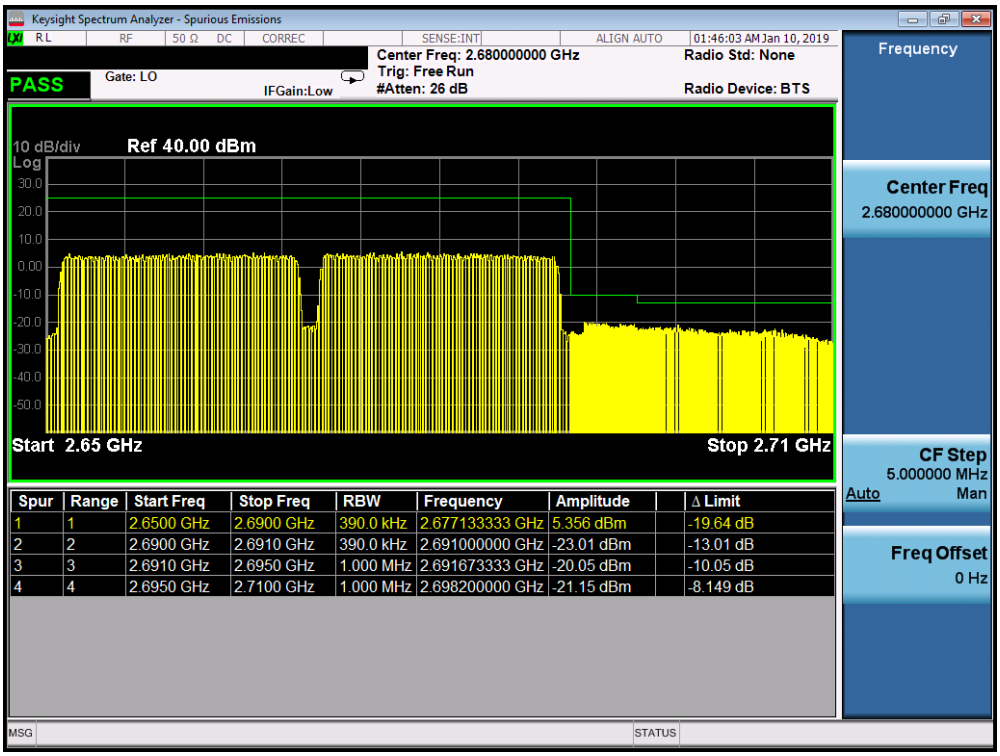


Plot 7-452. Conducted Spurious Plot (Band 41C – 20.0MHz QPSK – PCC 100/0 SCC 100/0 – Mid Channel)



Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	2.4750 GHz	2.4905 GHz	1.000 MHz	2.490448333 GHz	-26.30 dBm	-1.298 dB
2	2	2.4905 GHz	2.4950 GHz	1.000 MHz	2.494145000 GHz	-24.58 dBm	-11.58 dB
3	3	2.4950 GHz	2.4960 GHz	430.0 kHz	2.495948333 GHz	-25.48 dBm	-12.48 dB
4	4	2.4960 GHz	2.5400 GHz	430.0 kHz	2.509933333 GHz	7.780 dBm	-17.22 dB

Plot 7-453. Lower ACP Plot (Band 41C – 20.0MHz QPSK – PCC 100/0 SCC 100/0 – Mid Channel)



Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	2.6500 GHz	2.6900 GHz	390.0 kHz	2.677133333 GHz	5.356 dBm	-19.64 dB
2	2	2.6900 GHz	2.6910 GHz	390.0 kHz	2.691000000 GHz	-23.01 dBm	-13.01 dB
3	3	2.6910 GHz	2.6950 GHz	1.000 MHz	2.691673333 GHz	-20.05 dBm	-10.05 dB
4	4	2.6950 GHz	2.7100 GHz	1.000 MHz	2.698200000 GHz	-21.15 dBm	-8.149 dB

Plot 7-454. Upper ACP Plot (Band 41C – 20.0MHz QPSK – PCC 100/0 SCC 100/0 – Mid Channel)

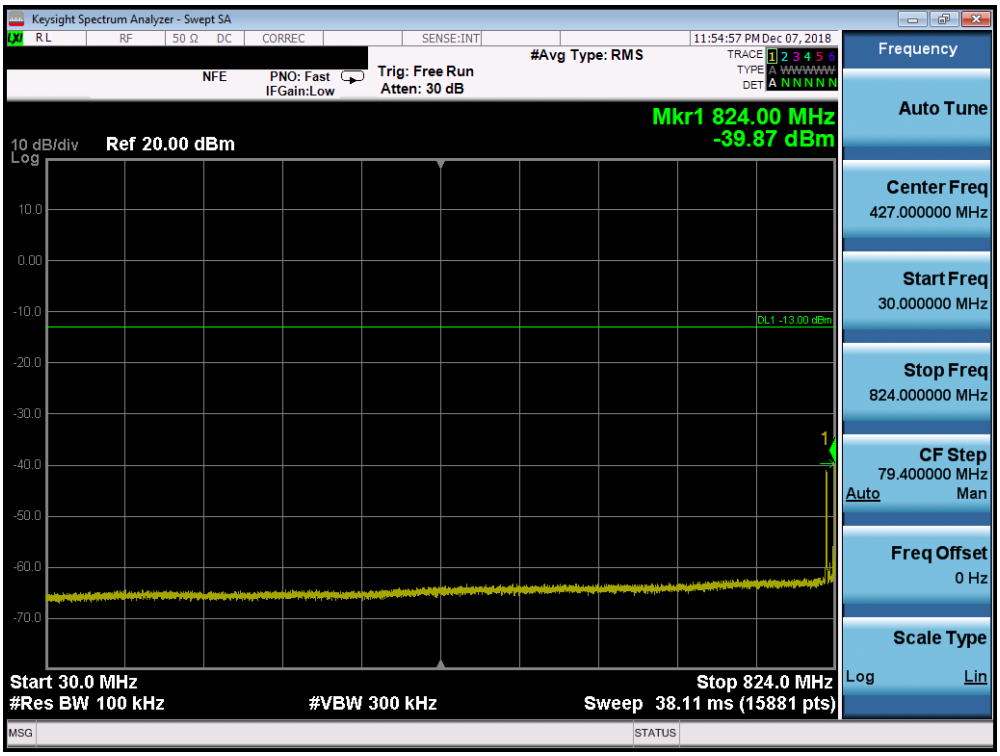
Uplink CA Configuration 5B

Power State	PCC							SCC							Power
	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	ULCA Tx.Power (dBm)
Max	LTE B5	3	20415	825.5	QPSK	1	14	LTE B5	5	20454	829.4	QPSK	1	0	23.41
Max	LTE B5	5	20425	826.5	QPSK	1	24	LTE B5	3	20464	830.4	QPSK	1	0	23.52
Max	LTE B5	5	20425	826.5	QPSK	1	24	LTE B5	10	20497	833.7	QPSK	1	0	25.63
Max	LTE B5	10	20450	829	QPSK	1	49	LTE B5	5	20522	836.2	QPSK	1	0	25.70
Max	LTE B5	10	20450	829	QPSK	1	49	LTE B5	10	20549	838.9	QPSK	1	0	25.86
Max	LTE B5	3	20525	836.5	QPSK	1	14	LTE B5	5	20564	840.4	QPSK	1	0	23.22
Max	LTE B5	5	20525	836.5	QPSK	1	24	LTE B5	3	20564	840.4	QPSK	1	0	24.37
Max	LTE B5	5	20525	836.5	QPSK	1	24	LTE B5	10	20597	843.7	QPSK	1	0	25.55
Max	LTE B5	10	20525	836.5	QPSK	1	49	LTE B5	5	20597	843.7	QPSK	1	0	25.65
Max	LTE B5	3	20635	847.5	QPSK	1	0	LTE B5	5	20596	843.6	QPSK	1	24	18.22
Max	LTE B5	5	20625	846.5	QPSK	1	0	LTE B5	3	20586	842.6	QPSK	1	14	23.05
Max	LTE B5	5	20625	846.5	QPSK	1	0	LTE B5	10	20553	839.3	QPSK	1	49	25.36
Max	LTE B5	10	20600	844	QPSK	1	0	LTE B5	5	20528	836.8	QPSK	1	24	25.41
Max	LTE B5	10	20600	844	QPSK	1	0	LTE B5	10	20501	834.1	QPSK	1	49	25.60

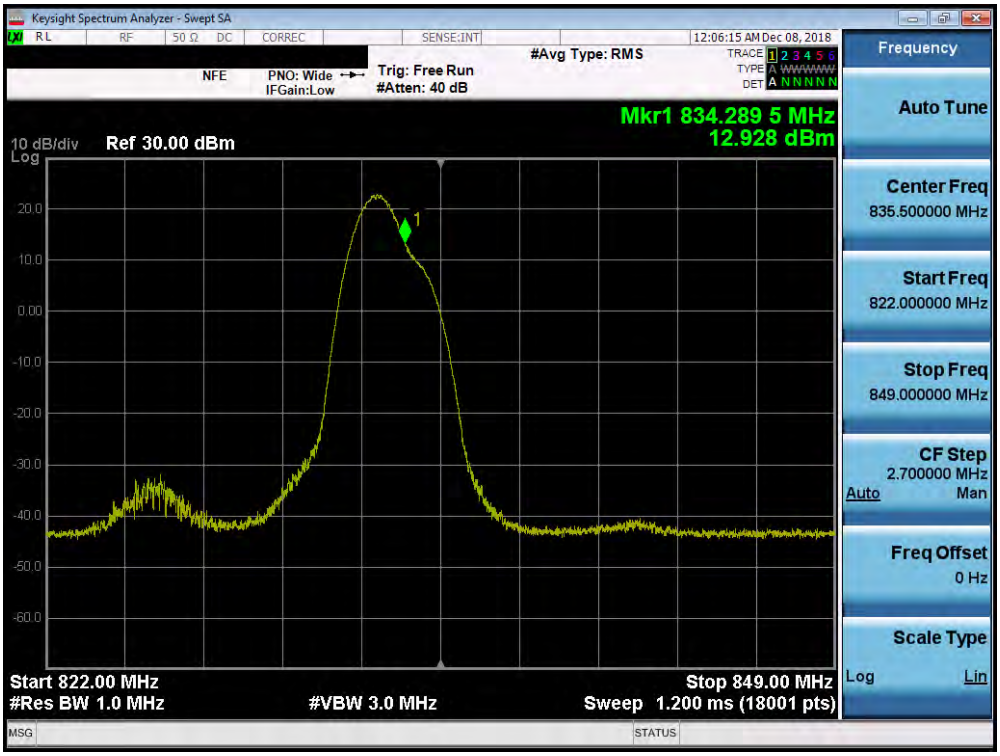
Table 7-8. Conducted Powers (5B)

Power State	PCC							SCC							Power
	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	ULCA Tx.Power (dBm)
Max	LTE B5	10	20450	829	QPSK	1	0	LTE B5	10	20549	838.9	QPSK	1	0	17.70
Max	LTE B5	10	20450	829	QPSK	1	49	LTE B5	10	20549	838.9	QPSK	1	49	17.71
Max	LTE B5	10	20450	829	QPSK	1	0	LTE B5	10	20549	838.9	QPSK	1	49	17.21
Max	LTE B5	10	20450	829	QPSK	1	25	LTE B5	10	20549	838.9	QPSK	1	25	17.91
Max	LTE B5	10	20450	829	QPSK	1	49	LTE B5	10	20549	838.9	QPSK	1	0	25.85
Max	LTE B5	10	20450	829	QPSK	50	0	LTE B5	10	20549	838.9	QPSK	50	0	23.71
Max	LTE B5	10	20450	829	16-QAM	50	0	LTE B5	10	20549	838.9	16-QAM	50	0	22.75
Max	LTE B5	10	20450	829	64-QAM	50	0	LTE B5	10	20549	838.9	64-QAM	50	0	22.70
Max	LTE B5	10	20450	829	256-QAM	50	0	LTE B5	10	20549	838.9	256-QAM	50	0	20.83

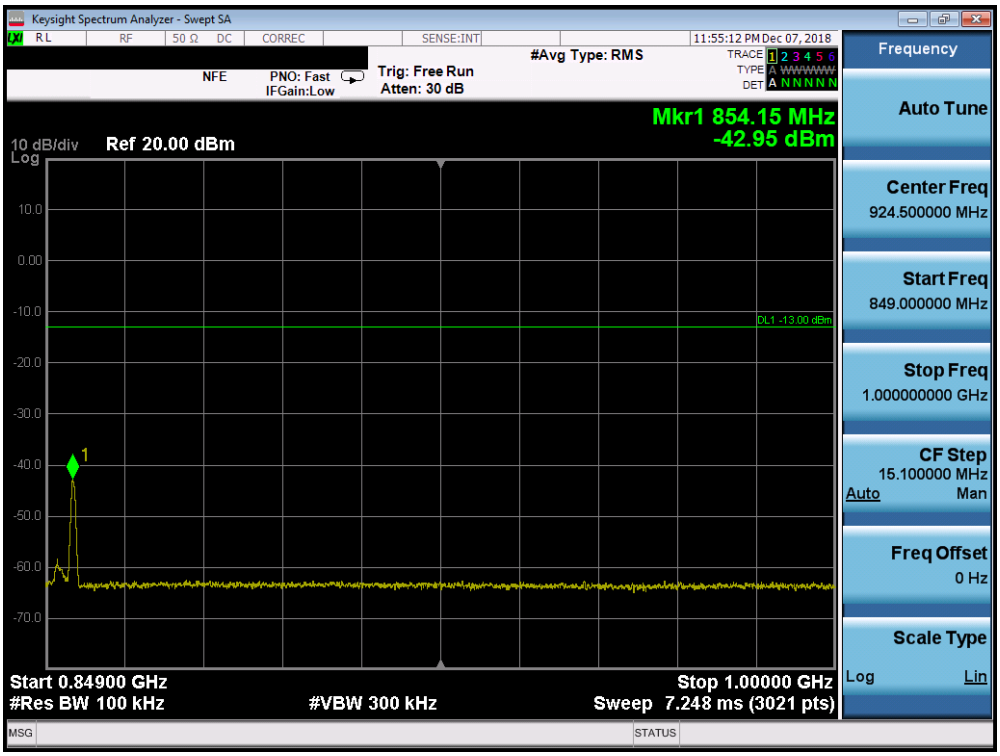
Table 7-9. Conducted Powers (5B with Various Combinations for 10MHz Channel Bandwidth)



Plot 7-455. Conducted Spurious Plot (Band 5B – 10.0MHz QPSK – PCC 1/49 SCC 1/0 – Mid Channel)

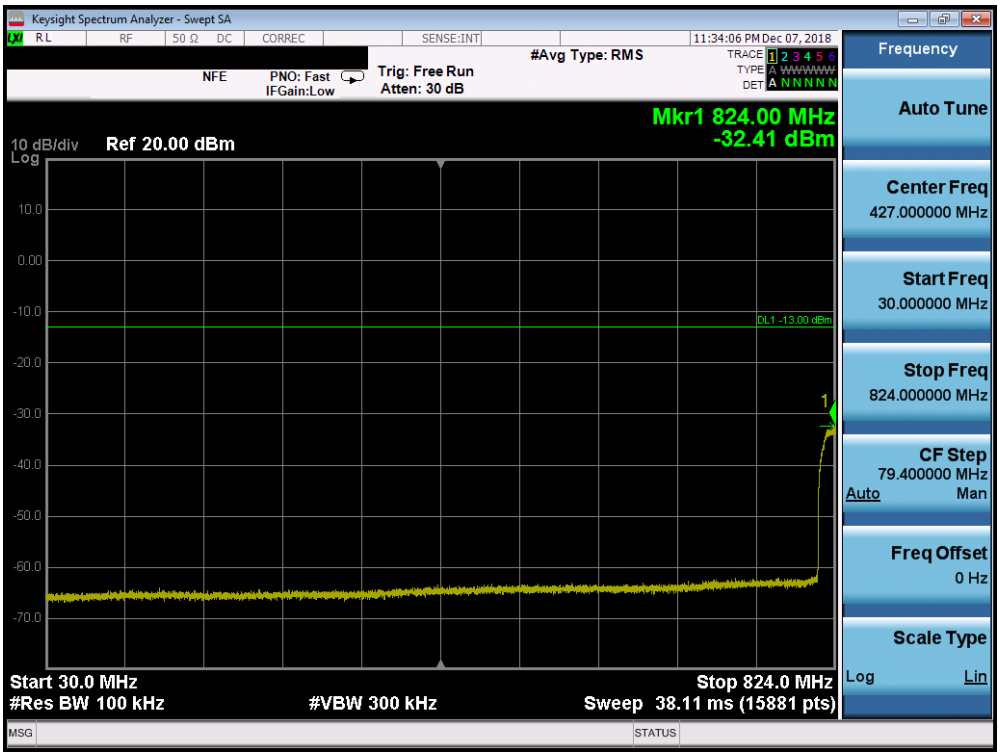


Plot 7-456. Conducted Spurious Plot (Band 5B – 10.0MHz QPSK – PCC 1/49 SCC 1/0 – Mid Channel)

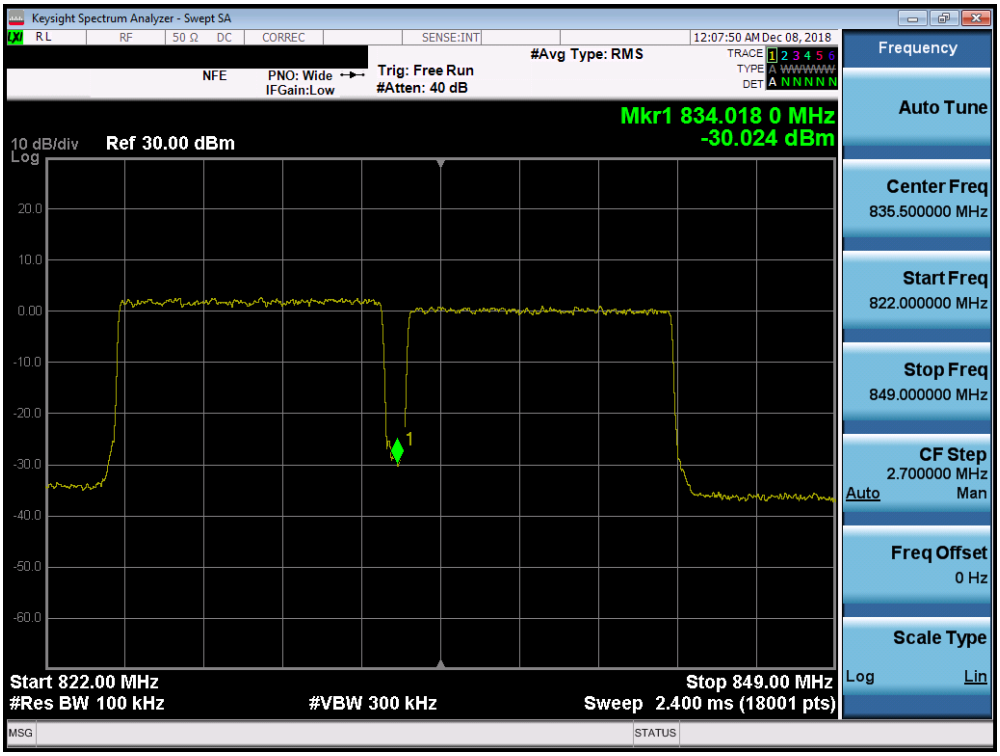


Plot 7-457. Conducted Spurious Plot (Band 5B – 10.0MHz QPSK – PCC 1/49 SCC 1/0 – Mid Channel)

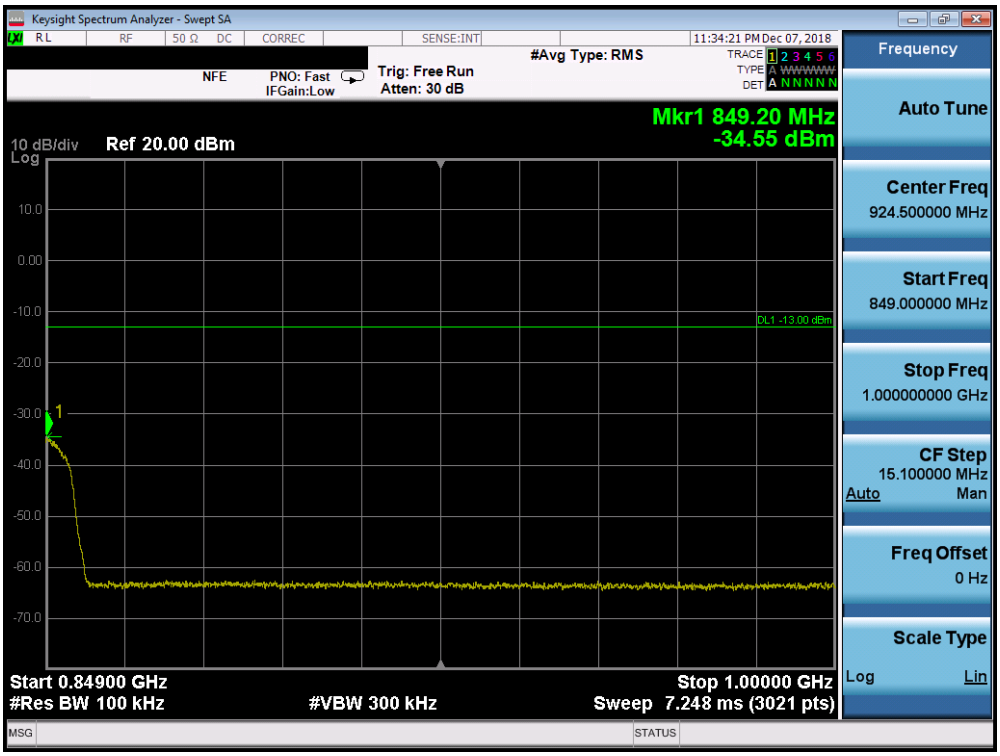
Plot 7-458. Conducted Spurious Plot (Band 5B – 10.0MHz QPSK – PCC 1/49 SCC 1/0 – Mid Channel)



Plot 7-459. Conducted Spurious Plot (Band 5B – 10.0MHz QPSK – PCC 50/0 SCC 50/0 – Mid Channel)



Plot 7-460. Conducted Spurious Plot (Band 5B – 10.0MHz QPSK – PCC 50/0 SCC 50/0 – Mid Channel)



Plot 7-461. Conducted Spurious Plot (Band 5B – 10.0MHz QPSK – PCC 50/0 SCC 50/0 – Mid Channel)

Plot 7-462. Conducted Spurious Plot (Band 5B – 10.0MHz QPSK – PCC 50/0 SCC 50/0 – Mid Channel)

Plot 7-463. Lower Band Edge Plot (Band 5B QPSK – PCC:10 MHz SCC:10 MHz – Full RB)

Plot 7-464. Upper Band Edge Plot (Band 5B QPSK – PCC:10 MHz SCC:10 MHz – Full RB)

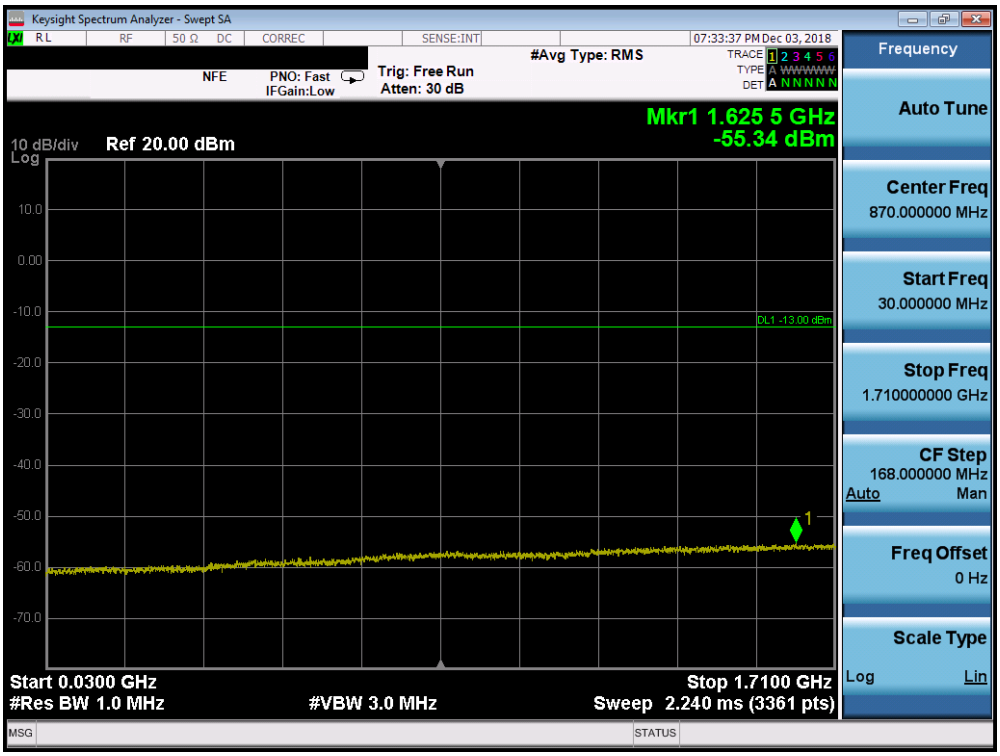
Uplink CA Configuration 66B

Power State	PCC							SCC							Power
	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	ULCA Tx.Power (dBm)
Max	LTE B66	5	131997	1712.5	QPSK	1	24	LTE B66	5	132045	1717.3	QPSK	1	0	24.54
Max	LTE B66	5	131997	1712.5	QPSK	1	24	LTE B66	10	132069	1719.7	QPSK	1	0	23.42
Max	LTE B66	5	131997	1712.5	QPSK	1	24	LTE B66	15	132090	1721.8	QPSK	1	0	24.47
Max	LTE B66	10	132022	1715	QPSK	1	49	LTE B66	5	132094	1722.2	QPSK	1	0	24.66
Max	LTE B66	10	132022	1715	QPSK	1	49	LTE B66	10	132121	1724.9	QPSK	1	0	24.87
Max	LTE B66	15	132047	1717.5	QPSK	1	74	LTE B66	5	132140	1726.8	QPSK	1	0	24.77
Max	LTE B66	5	132322	1745	QPSK	1	24	LTE B66	5	132370	1749.8	QPSK	1	0	24.60
Max	LTE B66	5	132322	1745	QPSK	1	24	LTE B66	10	132394	1752.2	QPSK	1	0	24.10
Max	LTE B66	5	132322	1745	QPSK	1	24	LTE B66	15	132415	1754.3	QPSK	1	0	24.31
Max	LTE B66	10	132322	1745	QPSK	1	49	LTE B66	5	132394	1752.2	QPSK	1	0	24.29
Max	LTE B66	10	132322	1745	QPSK	1	49	LTE B66	10	132421	1754.9	QPSK	1	0	24.89
Max	LTE B66	15	132322	1745	QPSK	1	74	LTE B66	5	132415	1754.3	QPSK	1	0	24.86
Max	LTE B66	5	132647	1777.5	QPSK	1	0	LTE B66	5	132599	1772.7	QPSK	1	24	24.44
Max	LTE B66	5	132647	1777.5	QPSK	1	0	LTE B66	10	132575	1770.3	QPSK	1	49	24.46
Max	LTE B66	5	132647	1777.5	QPSK	1	0	LTE B66	15	132554	1768.2	QPSK	1	74	24.02
Max	LTE B66	10	132622	1775	QPSK	1	0	LTE B66	5	132550	1767.8	QPSK	1	24	24.62
Max	LTE B66	10	132622	1775	QPSK	1	0	LTE B66	10	132523	1765.1	QPSK	1	49	24.83
Max	LTE B66	15	132597	1772.5	QPSK	1	0	LTE B66	5	132504	1763.2	QPSK	1	24	24.60

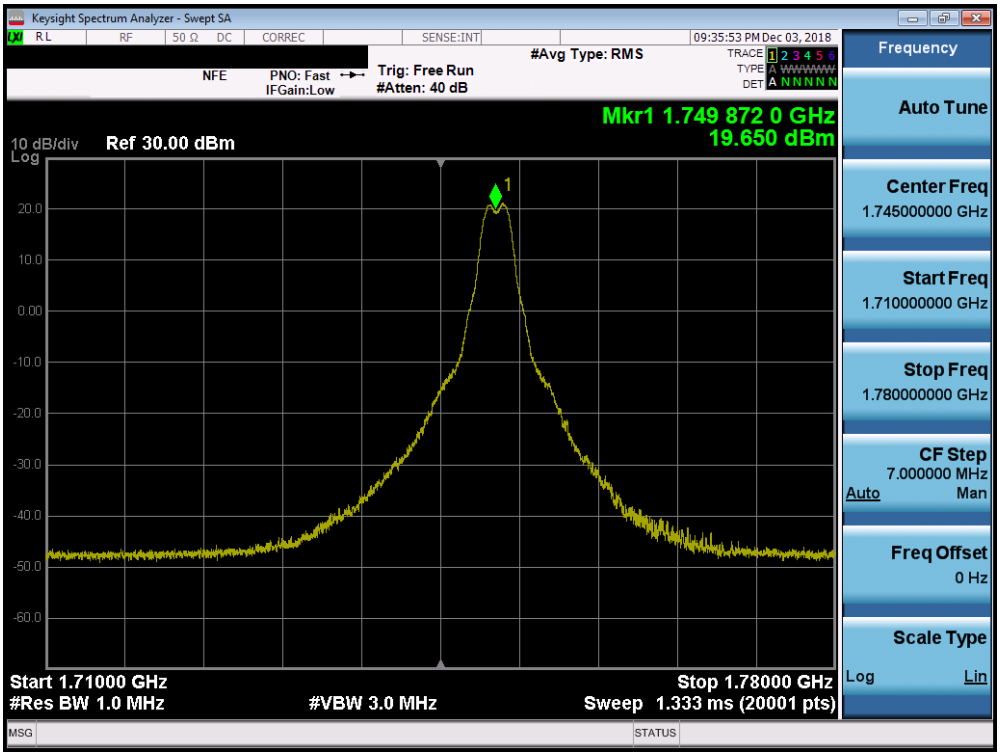
Table 7-10. Conducted Powers (66B)

Power State	PCC							SCC							Power
	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	ULCA Tx.Power (dBm)
Max	LTE B66	10	132022	1715	QPSK	1	0	LTE B66	10	132121	1724.9	QPSK	1	0	17.11
Max	LTE B66	10	132022	1715	QPSK	1	49	LTE B66	10	132121	1724.9	QPSK	1	49	17.01
Max	LTE B66	10	132022	1715	QPSK	1	0	LTE B66	10	132121	1724.9	QPSK	1	49	16.75
Max	LTE B66	10	132022	1715	QPSK	1	25	LTE B66	10	132121	1724.9	QPSK	1	25	16.66
Max	LTE B66	10	132022	1715	QPSK	1	49	LTE B66	10	132121	1724.9	QPSK	1	0	25.06
Max	LTE B66	10	132022	1715	QPSK	50	0	LTE B66	10	132121	1724.9	QPSK	50	0	24.48
Max	LTE B66	10	132022	1715	16-QAM	50	0	LTE B66	10	132121	1724.9	16-QAM	50	0	23.50
Max	LTE B66	10	132022	1715	64-QAM	50	0	LTE B66	10	132121	1724.9	64-QAM	50	0	23.32
Max	LTE B66	10	132022	1715	64-QAM	50	0	LTE B66	10	132121	1724.9	256-QAM	50	0	21.66

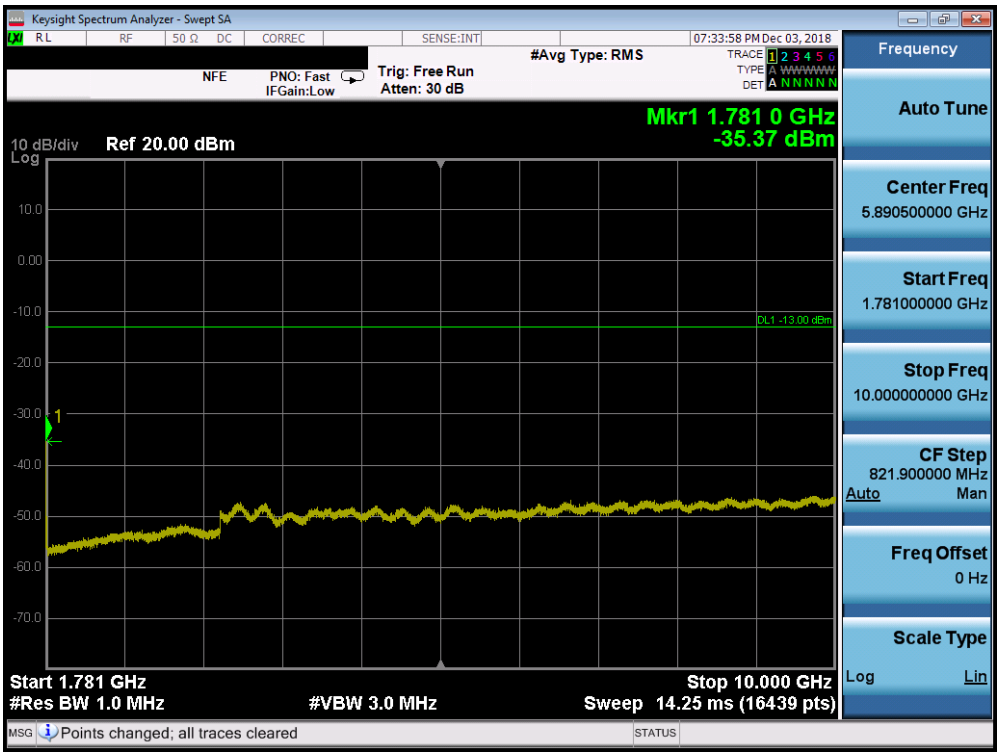
Table 7-11. Conducted Powers (66B with Various Combinations for 20MHz Channel Bandwidth)



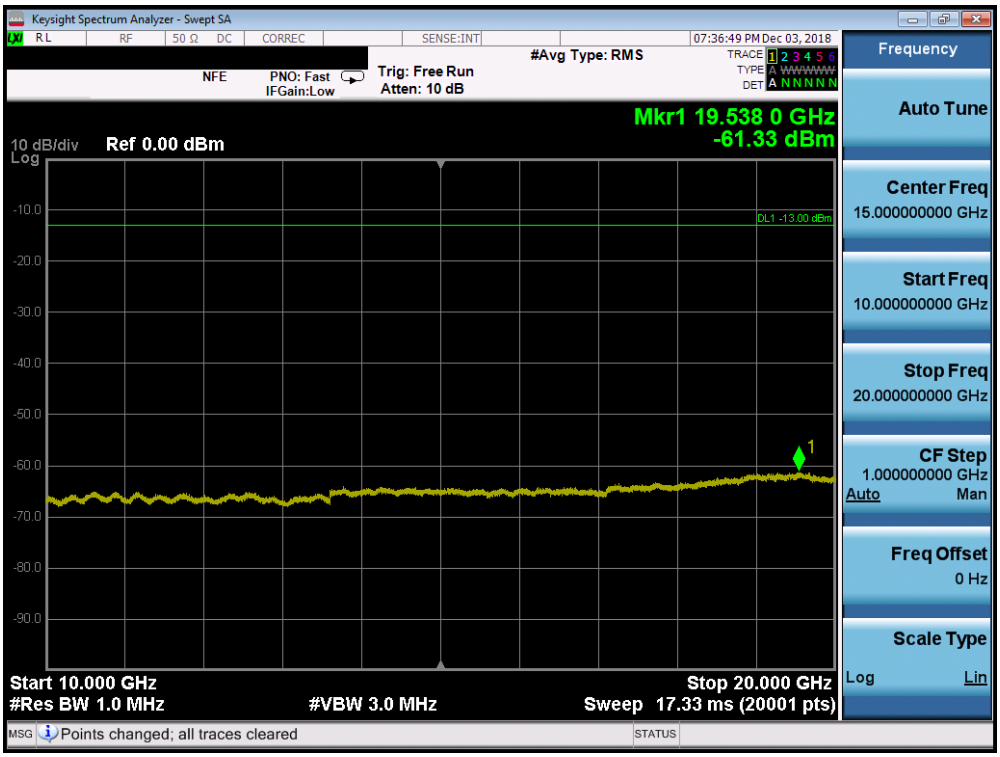
Plot 7-465. Conducted Spurious Plot (Band 66B – 10.0MHz QPSK – PCC 1/49 SCC 1/0 – Mid Channel)



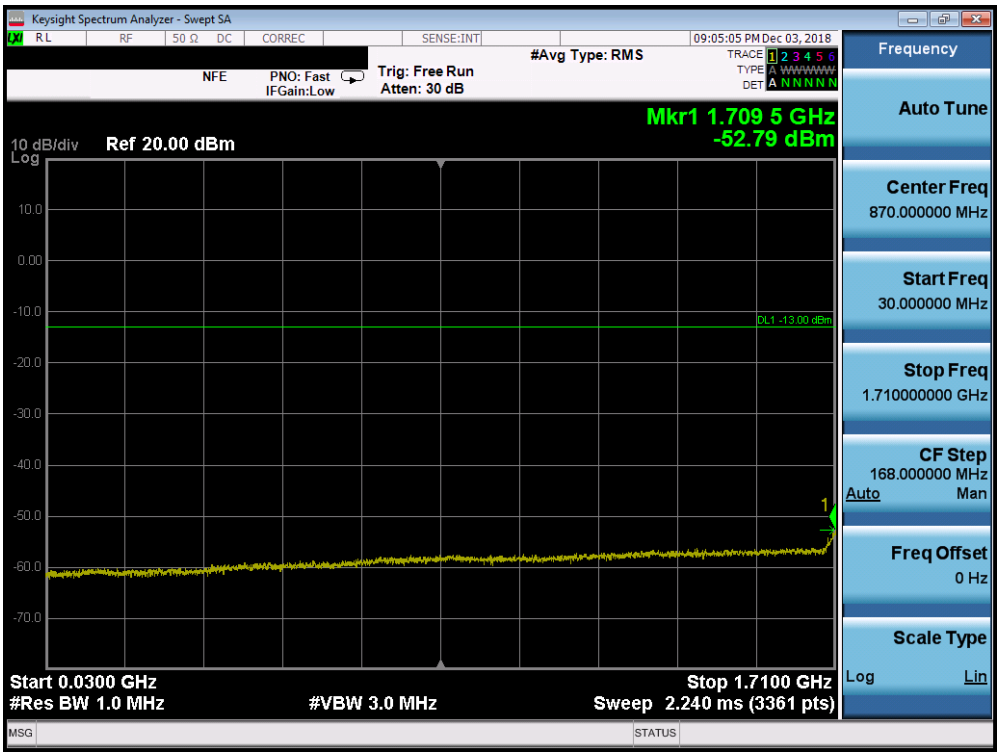
Plot 7-466. Conducted Spurious Plot (Band 66B – 10.0MHz QPSK – PCC 1/49 SCC 1/0 – Mid Channel)



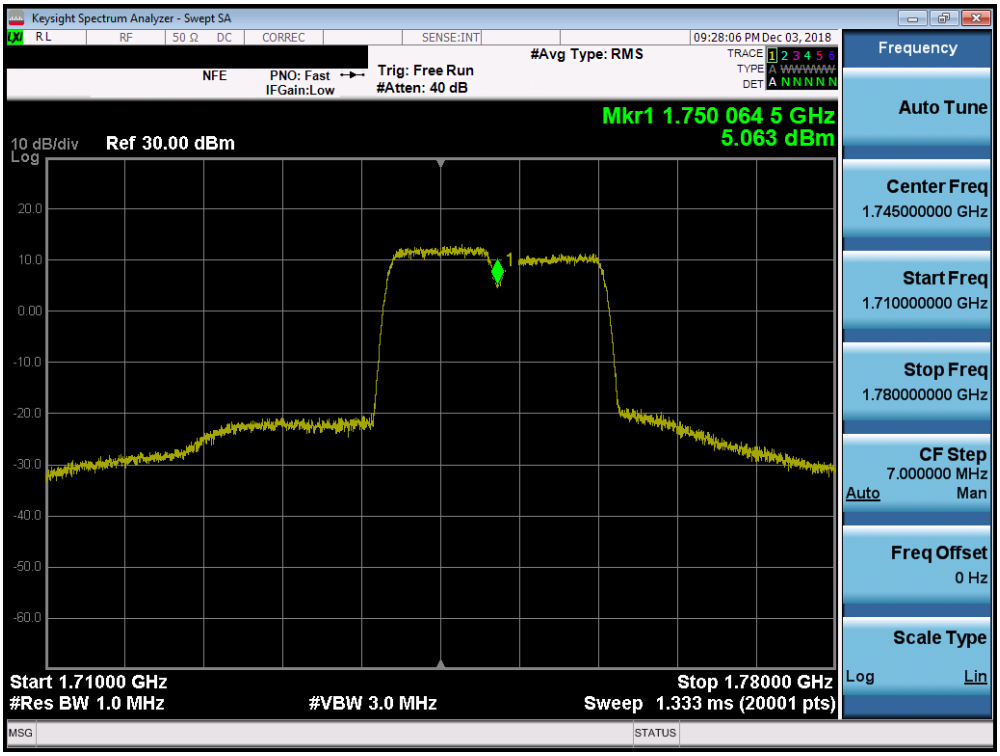
Plot 7-467. Conducted Spurious Plot (Band 66B – 10.0MHz QPSK – PCC 1/49 SCC 1/0 – Mid Channel)



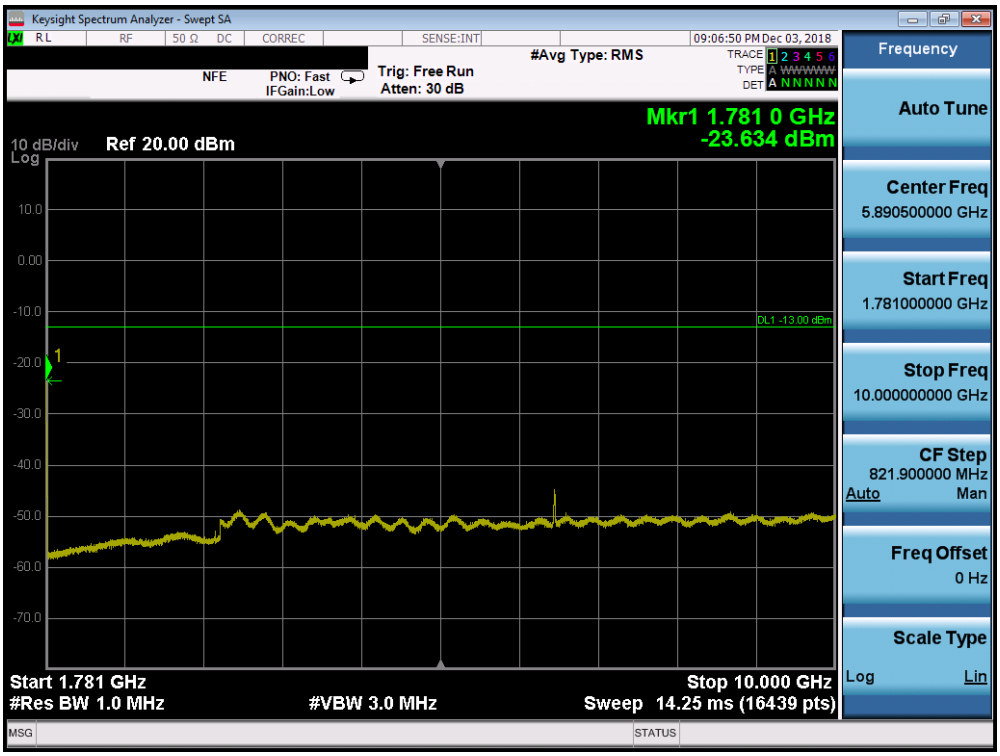
Plot 7-468. Conducted Spurious Plot (Band 66B – 10.0MHz QPSK – PCC 1/49 SCC 1/0 – Mid Channel)



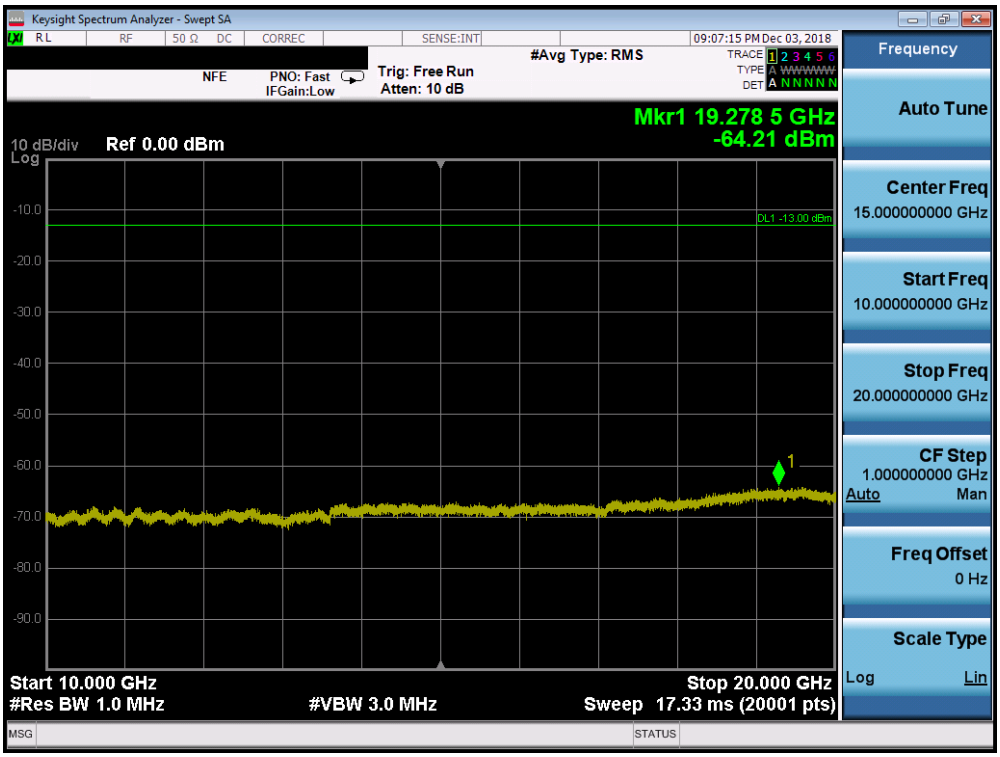
Plot 7-469. Conducted Spurious Plot (Band 66B – 10.0MHz QPSK – PCC 50/0 SCC 50/0 – Mid Channel)



Plot 7-470. Conducted Spurious Plot (Band 66B – 10.0MHz QPSK – PCC 50/0 SCC 50/0 – Mid Channel)

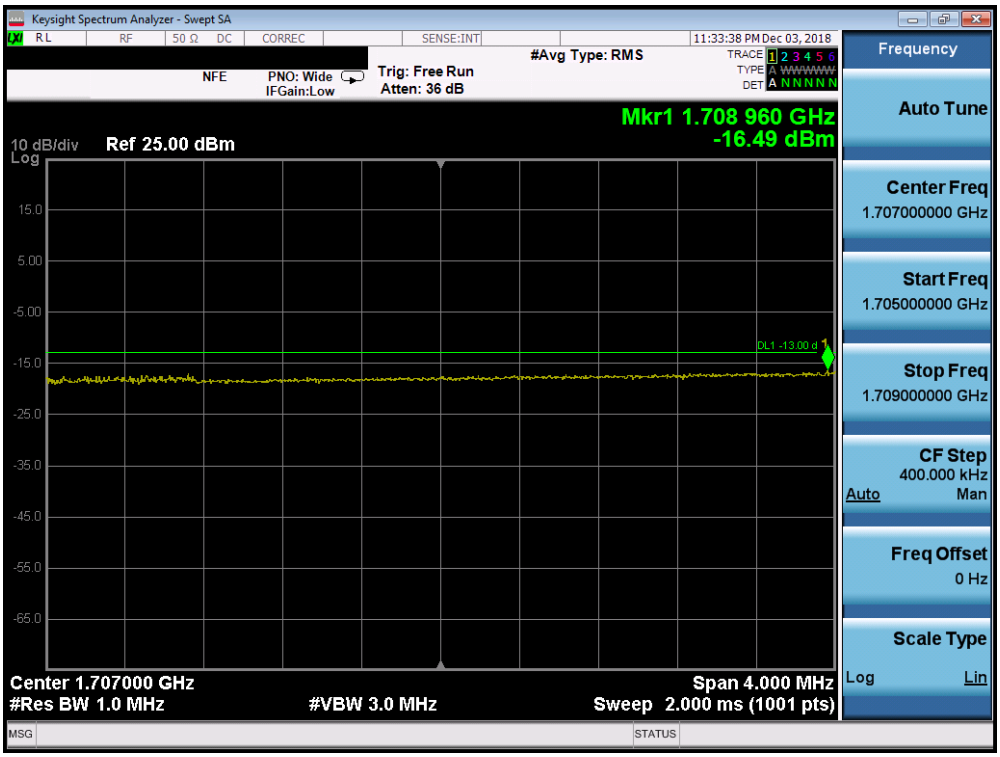


Plot 7-471. Conducted Spurious Plot (Band 66B – 10.0MHz QPSK – PCC 50/0 SCC 50/0 – Mid Channel)



Plot 7-472. Conducted Spurious Plot (Band 66B – 10.0MHz QPSK – PCC 50/0 SCC 50/0 – Mid Channel)

Plot 7-473. Lower Band Edge Plot (Band 66B QPSK – PCC:10.0MHz SCC:10.0MHz – Full RB)



Plot 7-474. Lower Extended Band Edge Plot (Band 66B QPSK – PCC:10.0MHz SCC:10.0MHz – Full RB)

Plot 7-475. Upper Band Edge Plot (Band 66B QPSK – PCC:10.0MHz SCC:10.0MHz – Full RB)

Plot 7-476. Upper Extended Band Edge Plot (Band 66B QPSK – PCC:10.0MHz SCC:10.0MHz – Full RB)

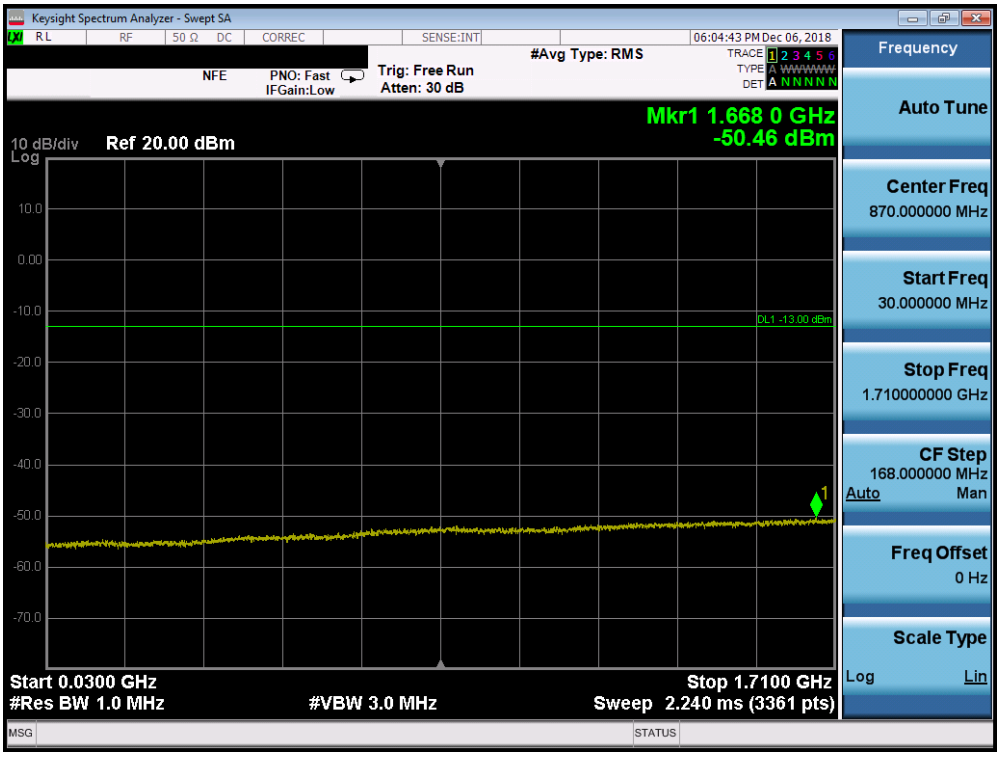
Uplink CA Configuration 66C

Power State	PCC							SCC							Power
	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	ULCA Tx.Power (dBm)
Max	LTE B66	5	131997	1712.5	QPSK	1	24	LTE B66	20	132114	1724.2	QPSK	1	0	22.57
Max	LTE B66	10	132022	1715	QPSK	1	49	LTE B66	15	132142	1727	QPSK	1	0	24.56
Max	LTE B66	10	132022	1715	QPSK	1	49	LTE B66	20	132166	1729.4	QPSK	1	0	25.58
Max	LTE B66	15	132047	1717.5	QPSK	1	74	LTE B66	10	132167	1729.5	QPSK	1	0	24.59
Max	LTE B66	15	132047	1717.5	QPSK	1	74	LTE B66	15	132197	1732.5	QPSK	1	0	24.60
Max	LTE B66	15	132047	1717.5	QPSK	1	74	LTE B66	20	132218	1734.6	QPSK	1	0	24.72
Max	LTE B66	20	132072	1720	QPSK	1	99	LTE B66	5	132189	1731.7	QPSK	1	0	24.13
Max	LTE B66	20	132072	1720	QPSK	1	99	LTE B66	10	132216	1734.4	QPSK	1	0	24.16
Max	LTE B66	20	132072	1720	QPSK	1	99	LTE B66	15	132243	1737.1	QPSK	1	0	24.15
Max	LTE B66	20	132072	1720	QPSK	1	99	LTE B66	20	132270	1739.8	QPSK	1	0	25.78
Max	LTE B66	10	132322	1745	QPSK	1	49	LTE B66	15	132442	1757	QPSK	1	0	24.79
Max	LTE B66	10	132322	1745	QPSK	1	49	LTE B66	20	132466	1759.4	QPSK	1	0	24.83
Max	LTE B66	15	132322	1745	QPSK	1	74	LTE B66	10	132442	1757	QPSK	1	0	24.66
Max	LTE B66	15	132322	1745	QPSK	1	74	LTE B66	15	132472	1760	QPSK	1	0	24.55
Max	LTE B66	15	132322	1745	QPSK	1	74	LTE B66	20	132493	1762.1	QPSK	1	0	24.98
Max	LTE B66	20	132322	1745	QPSK	1	99	LTE B66	5	132439	1756.7	QPSK	1	0	24.83
Max	LTE B66	20	132322	1745	QPSK	1	99	LTE B66	10	132466	1759.4	QPSK	1	0	24.84
Max	LTE B66	20	132322	1745	QPSK	1	99	LTE B66	15	132493	1762.1	QPSK	1	0	24.80
Max	LTE B66	20	132322	1745	QPSK	1	99	LTE B66	20	132520	1764.8	QPSK	1	0	25.01
Max	LTE B66	5	132647	1777.5	QPSK	1	0	LTE B66	20	132530	1765.8	QPSK	1	99	23.06
Max	LTE B66	10	132622	1775	QPSK	1	0	LTE B66	15	132502	1763	QPSK	1	74	24.40
Max	LTE B66	10	132622	1775	QPSK	1	0	LTE B66	20	132478	1760.6	QPSK	1	99	24.52
Max	LTE B66	15	132597	1772.5	QPSK	1	0	LTE B66	10	132477	1760.5	QPSK	1	49	24.66
Max	LTE B66	15	132597	1772.5	QPSK	1	0	LTE B66	15	132447	1757.5	QPSK	1	74	24.81
Max	LTE B66	15	132597	1772.5	QPSK	1	0	LTE B66	20	132426	1755.4	QPSK	1	99	24.53
Max	LTE B66	20	132572	1770	QPSK	1	0	LTE B66	5	132455	1758.3	QPSK	1	24	24.35
Max	LTE B66	20	132572	1770	QPSK	1	0	LTE B66	10	132428	1755.6	QPSK	1	49	24.26
Max	LTE B66	20	132572	1770	QPSK	1	0	LTE B66	15	132401	1752.9	QPSK	1	74	24.60
Max	LTE B66	20	132572	1770	QPSK	1	0	LTE B66	20	132374	1750.2	QPSK	1	99	24.99

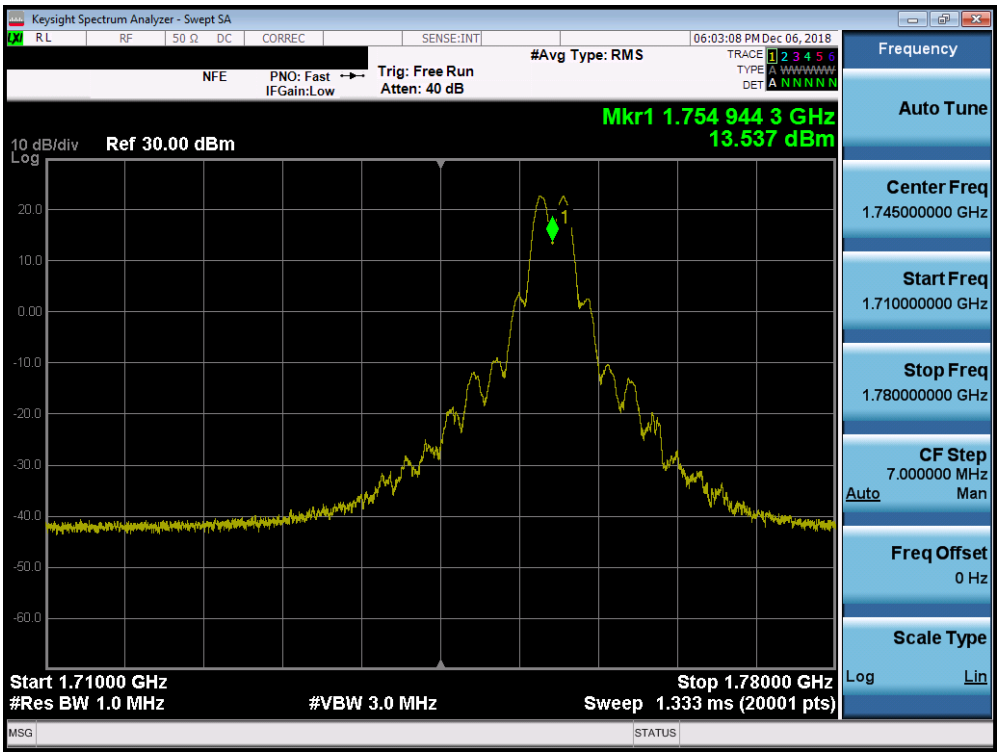
Table 7-12. Conducted Powers (66C)

Power State	PCC							SCC							Power
	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	ULCA Tx.Power (dBm)
Max	LTE B66	20	132072	1720	QPSK	1	0	LTE B66	20	132270	1739.8	QPSK	1	0	21.16
Max	LTE B66	20	132072	1720	QPSK	1	99	LTE B66	20	132270	1739.8	QPSK	1	99	21.18
Max	LTE B66	20	132072	1720	QPSK	1	0	LTE B66	20	132270	1739.8	QPSK	1	99	18.75
Max	LTE B66	20	132072	1720	QPSK	1	50	LTE B66	20	132270	1739.8	QPSK	1	50	21.06
Max	LTE B66	20	132072	1720	QPSK	1	99	LTE B66	20	132270	1739.8	QPSK	1	0	25.30
Max	LTE B66	20	132072	1720	QPSK	100	0	LTE B66	20	132270	1739.8	QPSK	100	0	24.44
Max	LTE B66	20	132072	1720	16-QAM	100	0	LTE B66	20	132270	1739.8	16-QAM	100	0	23.34
Max	LTE B66	20	132072	1720	64-QAM	100	0	LTE B66	20	132270	1739.8	64-QAM	100	0	23.25
Max	LTE B66	20	132072	1720	256-QAM	100	0	LTE B66	20	132270	1739.8	256-QAM	100	0	21.25

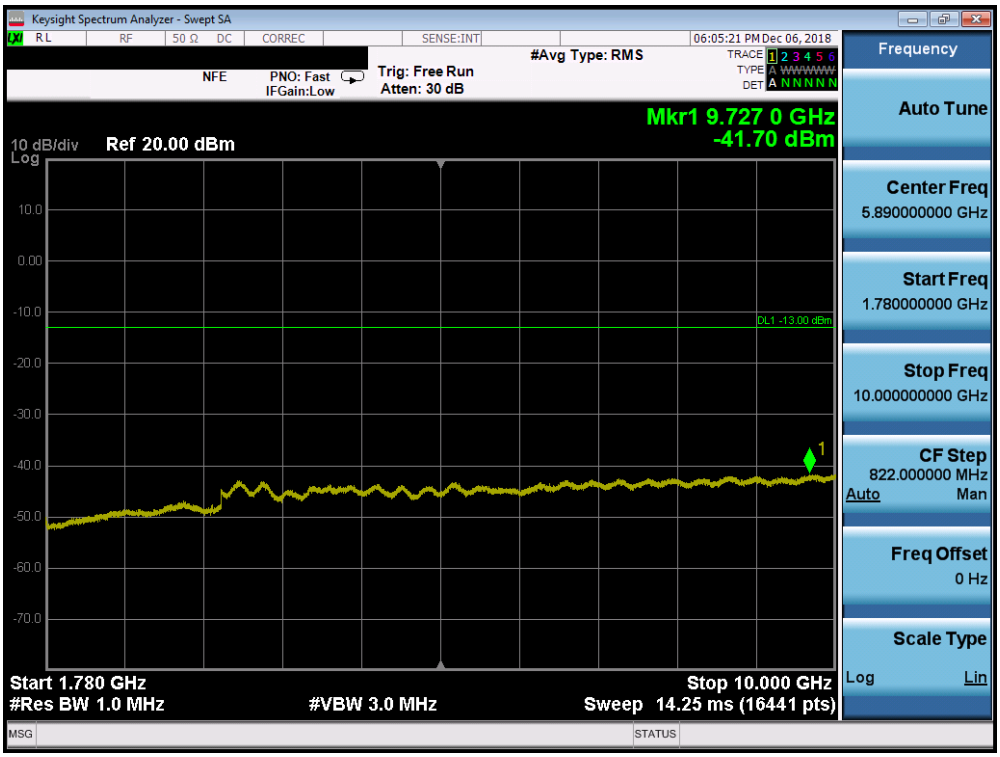
Table 7-13. Conducted Powers (66C with Various Combinations for 20MHz Channel Bandwidth)



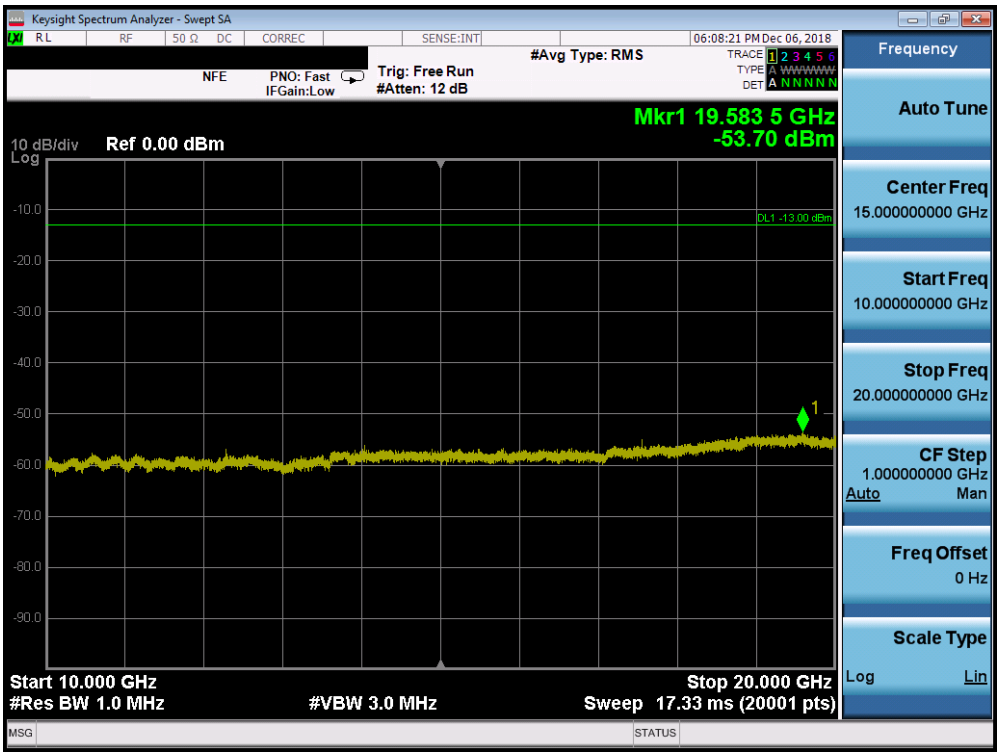
Plot 7-477. Conducted Spurious Plot (Band 66C – 20.0MHz QPSK – PCC 1/99 SCC 1/0 – Mid Channel)



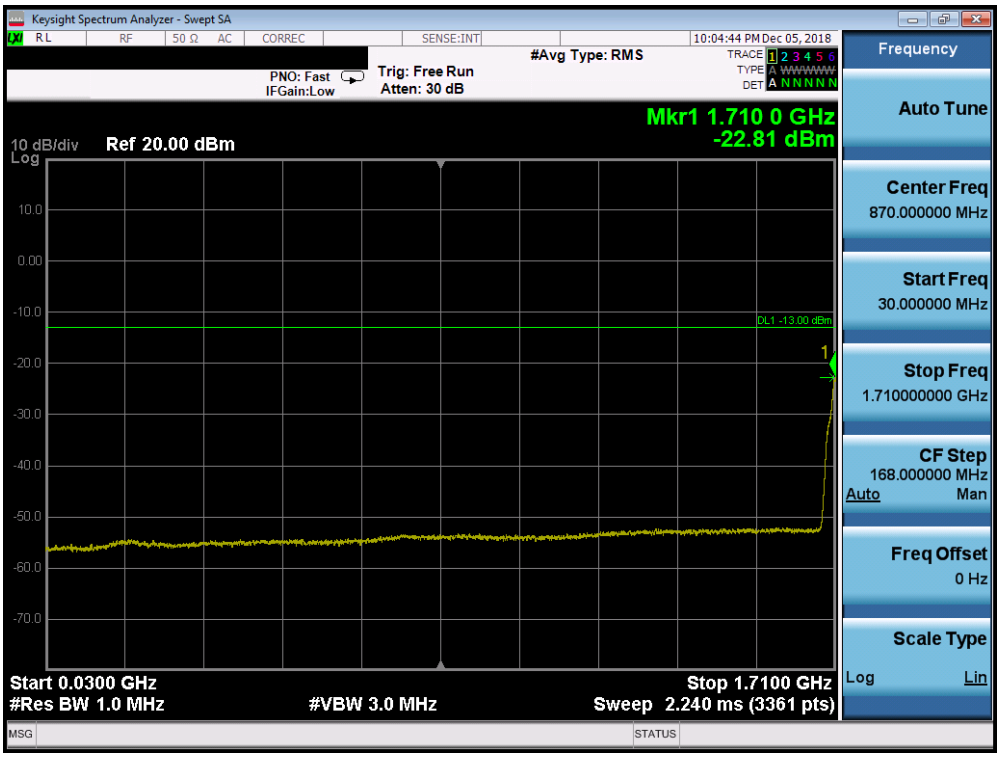
Plot 7-478. Conducted Spurious Plot (Band 66C – 20.0MHz QPSK – PCC 1/99 SCC 1/0 – Mid Channel)



Plot 7-479. Conducted Spurious Plot (Band 66C – 20.0MHz QPSK – PCC 1/99 SCC 1/0 – Mid Channel)

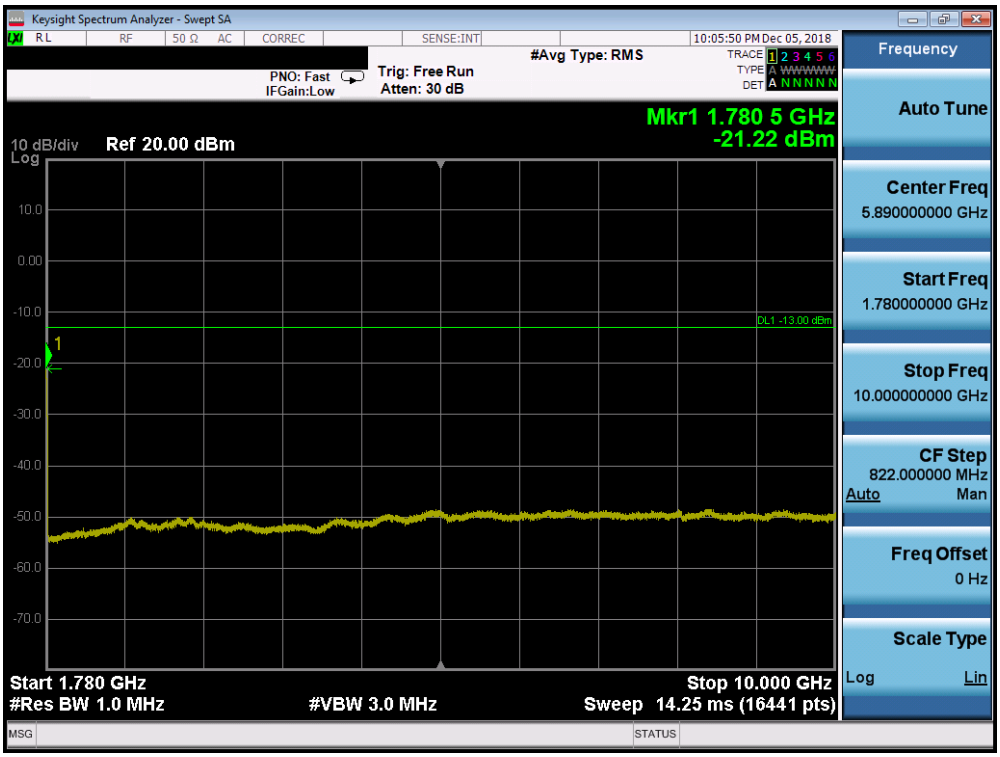


Plot 7-480. Conducted Spurious Plot (Band 66C – 20.0MHz QPSK – PCC 1/99 SCC 1/0 – Mid Channel)



Plot 7-481. Conducted Spurious Plot (Band 66C – 20.0MHz QPSK – PCC 100/0 SCC 100/0 – Mid Channel)

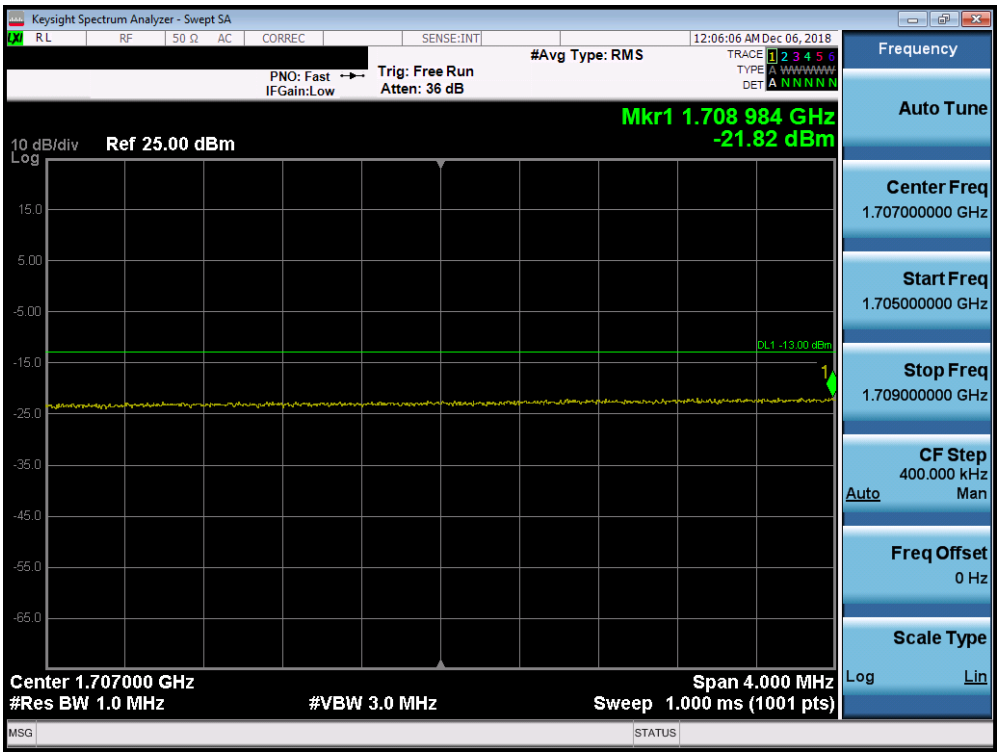
Plot 7-482. Conducted Spurious Plot (Band 66C – 20.0MHz QPSK – PCC 100/0 SCC 100/0 – Mid Channel)



Plot 7-483. Conducted Spurious Plot (Band 66C – 20.0MHz QPSK – PCC 100/0 SCC 100/0 – Mid Channel)

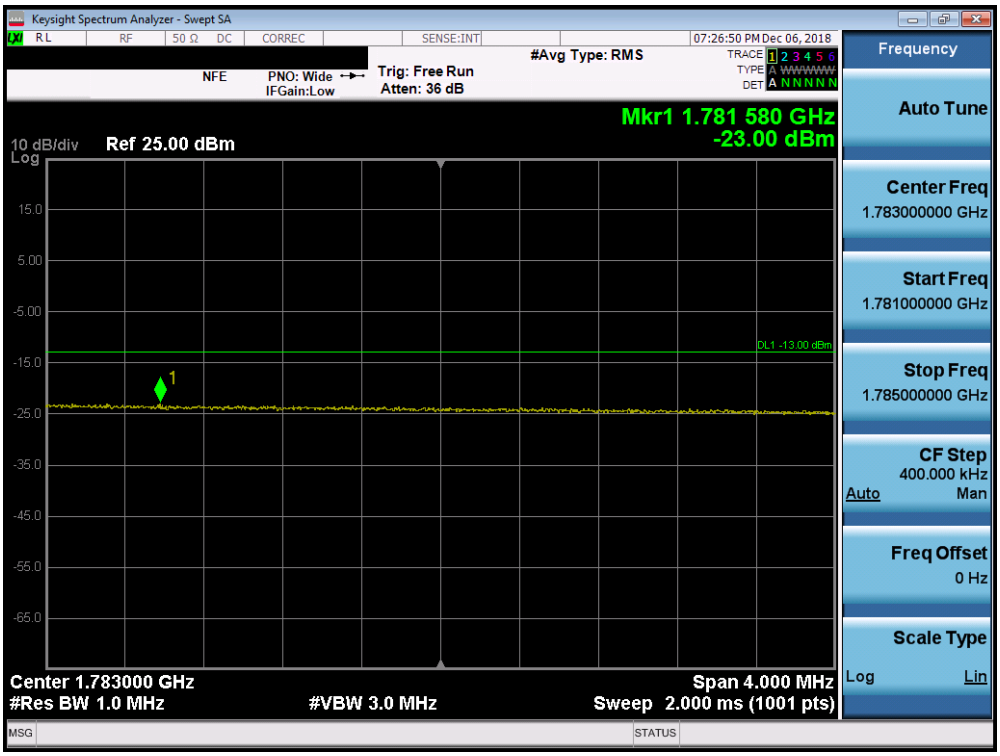
Plot 7-484. Conducted Spurious Plot (Band 66C – 20.0MHz QPSK – PCC 100/0 SCC 100/0 – Mid Channel)

Plot 7-485. Lower Band Edge Plot (Band 66C QPSK – PCC:20.0MHz SCC:20.0MHz – Full RB)



Plot 7-486. Lower Extended Band Edge Plot (Band 66C QPSK – PCC:20.0MHz SCC:20.0MHz – Full RB)

Plot 7-487. Upper Band Edge Plot (Band 66C QPSK – PCC:20.0MHz SCC:20.0MHz – Full RB)



Plot 7-488. Upper Extended Band Edge Plot (Band 66C QPSK – PCC:20.0MHz SCC:20.0MHz – Full RB)

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. For signals with burst transmission, the signal analyzer's "time domain power" measurement capability is used
2. RBW = 1 – 5% of the expected OBW, not to exceed 1MHz
3. VBW ≥ 3 x RBW
4. Span = 1.5 times the OBW
5. No. of sweep points ≥ 2 x span / RBW
6. Detector = RMS
7. Trigger is set to "free run" for signals with continuous operation with the sweep times set to "auto". Trigger is set to enable triggering only on full power bursts with the sweep time set less than or equal to the transmission burst duration
8. The integration bandwidth was roughly set equal to the measured OBW of the signal for signals with continuous operation. For signals with burst transmission, the "gating" function was enabled to ensure that measurements are performed during times in which the transmitter is operating at its maximum power
9. Trace mode = trace averaging (RMS) over 100 sweeps
10. The trace was allowed to stabilize

Test Setup

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

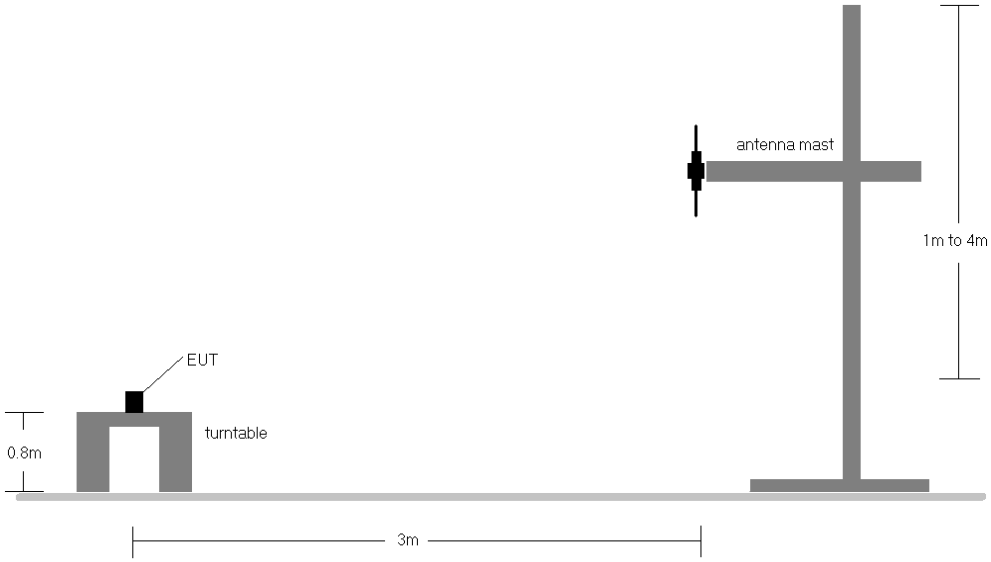


Figure 7-7. Radiated Test Setup <1GHz

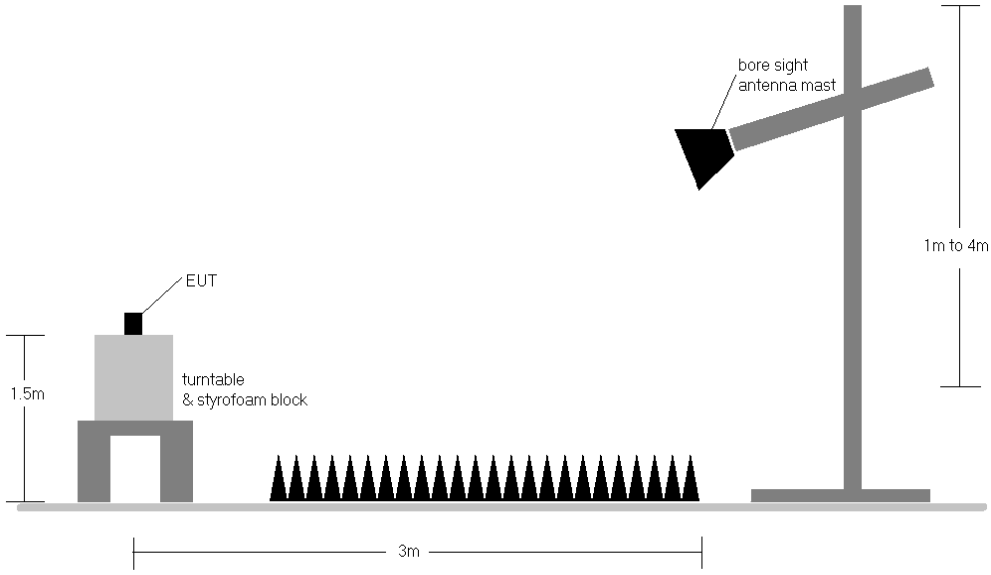


Figure 7-8. Radiated Test Setup >1GHz

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.

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	135	235	1 / 24	20.56	3.84	22.25	0.168	34.77	-12.53
680.50	5	QPSK	H	135	235	1 / 0	20.65	3.91	**22.41**	0.174	34.77	-12.36
695.50	5	QPSK	H	135	235	1 / 24	20.46	3.98	22.29	0.169	34.77	-12.48
680.50	5	16-QAM	H	135	235	1 / 24	19.94	3.91	**21.70**	0.148	34.77	-13.07
680.50	5	64-QAM	H	135	235	1 / 24	19.12	3.91	**20.88**	0.122	34.77	-13.89
665.50	5	256-QAM	H	135	235	1 / 24	16.45	3.84	18.14	0.065	34.77	-16.64
668.00	10	QPSK	H	133	233	1 / 49	21.31	3.85	**23.01**	0.200	34.77	-11.76
680.50	10	QPSK	H	133	233	1 / 0	20.85	3.91	22.61	0.182	34.77	-12.16
693.00	10	QPSK	H	133	233	1 / 0	20.00	3.97	21.82	0.152	34.77	-12.95
668.00	10	16-QAM	H	133	233	1 / 49	20.78	3.85	**22.48**	0.177	34.77	-12.29
668.00	10	64-QAM	H	133	233	1 / 49	20.01	3.85	**21.71**	0.148	34.77	-13.06
668.00	10	256-QAM	H	133	233	1 / 49	17.31	3.85	**19.01**	**0.080**	34.77	-15.76
670.50	15	QPSK	H	135	235	1 / 74	21.43	3.86	**23.14**	**0.206**	34.77	-11.63
680.50	15	QPSK	H	135	235	1 / 0	20.77	3.91	22.53	0.179	34.77	-12.24
690.50	15	QPSK	H	135	235	1 / 0	20.36	3.96	22.17	0.165	34.77	-12.61
670.50	15	16-QAM	H	135	235	1 / 74	20.68	3.86	**22.39**	0.173	34.77	-12.38
670.50	15	64-QAM	H	135	235	1 / 74	19.91	3.86	**21.62**	0.145	34.77	-13.15
670.50	15	256-QAM	H	135	235	1 / 74	17.31	3.86	**19.02**	**0.080**	34.77	-15.75
673.00	20	QPSK	H	135	233	1 / 99	21.05	3.87	**22.77**	0.189	34.77	-12.00
680.50	20	QPSK	H	135	233	1 / 0	20.53	3.91	22.29	0.169	34.77	-12.48
688.00	20	QPSK	H	135	233	1 / 0	20.94	3.94	22.73	0.188	34.77	-12.04
673.00	20	16-QAM	H	135	233	1 / 0	19.96	3.87	**21.68**	0.147	34.77	-13.09
673.00	20	64-QAM	H	135	233	1 / 0	19.17	3.87	**20.89**	0.123	34.77	-13.88
673.00	20	256-QAM	H	135	233	1 / 0	16.32	3.87	**18.04**	**0.064**	34.77	-16.73
670.50	15	QPSK	V	102	230	1 / 74	15.41	3.61	16.87	0.049	34.77	-17.90
670.50	15 (WCP)	QPSK	H	135	235	1 / 74	19.77	3.86	21.48	0.141	34.77	-13.29

Table 7-14. ERP Data (Band 71)

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]
699.70	1.4	QPSK	H	264	244	1 / 0	15.82	4.00	17.67	0.058	34.77	-17.10
707.50	1.4	QPSK	H	264	244	1 / 0	16.58	4.22	18.65	0.073	34.77	-16.13
715.30	1.4	QPSK	H	264	244	1 / 0	17.89	4.44	**20.18**	0.104	34.77	-14.59
715.30	1.4	16-QAM	H	264	244	1 / 0	16.69	4.44	**18.98**	0.079	34.77	-15.79
715.30	1.4	64-QAM	H	264	244	1 / 0	15.22	4.44	**17.51**	0.056	34.77	-17.26
715.30	1.4	256-QAM	H	264	244	1 / 0	12.92	4.44	**15.21**	**0.033**	34.77	-19.56
700.50	3	QPSK	H	264	243	1 / 14	16.92	4.01	18.78	0.076	34.77	-15.99
707.50	3	QPSK	H	264	243	1 / 14	17.68	4.22	19.75	0.094	34.77	-15.03
714.50	3	QPSK	H	264	243	1 / 0	17.94	4.41	**20.20**	0.105	34.77	-14.57
714.50	3	16-QAM	H	264	243	1 / 14	16.47	4.41	**18.73**	0.075	34.77	-16.04
714.50	3	64-QAM	H	264	243	1 / 14	15.76	4.41	**18.02**	0.063	34.77	-16.75
714.50	3	256-QAM	H	264	243	1 / 14	13.47	4.41	**15.73**	**0.037**	34.77	-19.04
701.50	5	QPSK	H	267	256	1 / 0	16.93	4.04	18.82	0.076	34.77	-15.95
707.50	5	QPSK	H	267	256	1 / 24	17.61	4.22	**19.68**	0.093	34.77	-15.10
713.50	5	QPSK	H	267	256	1 / 0	17.39	4.39	19.63	0.092	34.77	-15.14
707.50	5	16-QAM	H	267	256	1 / 24	16.73	4.22	**18.80**	0.076	34.77	-15.98
707.50	5	64-QAM	H	267	256	1 / 24	15.29	4.22	**17.36**	0.054	34.77	-17.42
707.50	5	256-QAM	H	267	256	1 / 24	12.70	4.22	**14.77**	**0.030**	34.77	-20.01
704.00	10	QPSK	H	265	235	1 / 49	18.89	4.12	20.86	0.122	34.77	-13.92
707.50	10	QPSK	H	265	235	1 / 49	19.16	4.22	**21.23**	**0.133**	34.77	-13.55
711.00	10	QPSK	H	265	235	1 / 49	17.89	4.32	20.06	0.101	34.77	-14.72
707.50	10	16-QAM	H	265	235	1 / 49	18.28	4.22	**20.35**	0.108	34.77	-14.43
707.50	10	64-QAM	H	265	235	1 / 49	16.84	4.22	**18.91**	0.078	34.77	-15.87
707.50	10	256-QAM	H	265	235	1 / 49	14.25	4.22	**16.32**	**0.043**	34.77	-18.46
707.50	10	QPSK	V	418	312	1 / 49	14.36	3.90	16.11	0.041	34.77	-18.66
707.50	10 (WCP)	QPSK	H	255	234	1 / 49	17.19	4.22	19.26	0.084	34.77	-15.52

Table 7-15. ERP Data (Band 12)

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]
779.50	5	QPSK	H	335	95	1 / 24	19.94	1.32	19.11	0.081	34.77	-15.66
782.00	5	QPSK	H	349	97	1 / 24	20.54	1.33	**19.72**	**0.094**	34.77	-15.05
784.50	5	QPSK	H	324	103	1 / 24	20.42	1.34	19.61	0.091	34.77	-15.16
782.00	5	16-QAM	H	349	97	1 / 24	19.95	1.33	**19.13**	0.082	34.77	-15.64
782.00	5	64-QAM	H	349	97	1 / 24	19.04	1.33	**18.22**	0.066	34.77	-16.55
782.00	5	256-QAM	H	349	97	1 / 24	16.40	1.33	**15.58**	**0.036**	34.77	-19.19
782.00	10	QPSK	H	351	84	1 / 49	20.30	1.33	**19.48**	0.089	34.77	-15.29
782.00	10	16-QAM	H	351	84	1 / 49	19.40	1.33	**18.58**	0.072	34.77	-16.19
782.00	10	64-QAM	H	351	84	1 / 49	18.55	1.33	**17.73**	0.059	34.77	-17.04
782.00	10	256-QAM	H	351	84	1 / 49	15.91	1.33	**15.09**	**0.032**	34.77	-19.68
782.00	5	QPSK	V	73	316	1 / 24	9.08	1.33	8.26	0.007	34.77	-26.51
782.00	5 (WCP)	QPSK	H	363	283	1 / 24	19.74	1.33	18.92	0.078	34.77	-15.85

Table 7-16. 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	H	347	10	1 / 0	20.26	1.50	**19.61**	0.091	38.45	-18.84	**21.76**	0.150	40.61	-18.85
836.50	1.4	QPSK	H	1	4	3 / 2	20.23	1.50	19.58	0.091	38.45	-18.87	21.73	0.149	40.61	-18.88
848.30	1.4	QPSK	H	332	3	3 / 2	19.69	1.50	19.04	0.080	38.45	-19.41	21.19	0.132	40.61	-19.42
824.70	1.4	16-QAM	H	347	10	1 / 5	19.79	1.50	**19.14**	0.082	38.45	-19.31	**21.29**	0.135	40.61	-19.32
824.70	1.4	64-QAM	H	347	10	1 / 0	18.62	1.50	**17.97**	0.063	38.45	-20.48	**20.12**	0.103	40.61	-20.49
824.70	1.4	256-QAM	H	347	10	1 / 0	16.67	1.50	**16.02**	**0.040**	38.45	-22.43	**18.17**	**0.066**	40.61	-22.44
825.50	3	QPSK	H	1	11	1 / 0	20.36	1.50	**19.71**	0.094	38.45	-18.74	**21.86**	0.153	40.61	-18.75
836.50	3	QPSK	H	358	13	1 / 14	19.93	1.50	19.28	0.085	38.45	-19.17	21.43	0.139	40.61	-19.18
847.50	3	QPSK	H	356	6	1 / 0	20.28	1.50	19.63	0.092	38.45	-18.82	21.78	0.151	40.61	-18.83
825.50	3	16-QAM	H	1	11	1 / 14	19.66	1.50	**19.01**	0.080	38.45	-19.44	**21.16**	0.131	40.61	-19.45
825.50	3	64-QAM	H	1	11	1 / 14	18.79	1.50	**18.14**	0.065	38.45	-20.31	**20.29**	0.107	40.61	-20.32
825.50	3	256-QAM	H	1	11	1 / 14	17.80	1.50	**17.15**	**0.052**	38.45	-21.30	**19.30**	**0.085**	40.61	-21.31
826.50	5	QPSK	H	5	4	1 / 24	20.74	1.50	20.09	0.102	38.45	-18.36	22.24	0.167	40.61	-18.37
836.50	5	QPSK	H	1	6	1 / 0	20.85	1.50	**20.20**	**0.105**	38.45	-18.25	**22.35**	**0.172**	40.61	-18.26
846.50	5	QPSK	H	5	4	1 / 0	20.24	1.50	19.59	0.091	38.45	-18.86	21.74	0.149	40.61	-18.87
836.50	5	16-QAM	H	1	6	1 / 24	19.89	1.50	**19.24**	0.084	38.45	-19.21	**21.39**	0.138	40.61	-19.22
836.50	5	64-QAM	H	1	6	1 / 0	19.14	1.50	**18.49**	0.071	38.45	-19.96	**20.64**	0.116	40.61	-19.97
836.50	5	256-QAM	H	1	6	1 / 24	17.78	1.50	**17.13**	**0.052**	38.45	-21.32	**19.28**	**0.085**	40.61	-21.33
829.00	10	QPSK	H	1	10	1 / 0	20.74	1.50	**20.09**	0.102	38.45	-18.36	**22.24**	0.167	40.61	-18.37
836.50	10	QPSK	H	4	4	1 / 0	20.72	1.50	20.07	0.102	38.45	-18.38	22.22	0.167	40.61	-18.39
844.00	10	QPSK	H	355	362	1 / 49	20.24	1.50	19.59	0.091	38.45	-18.86	21.74	0.149	40.61	-18.87
829.00	10	16-QAM	H	1	10	1 / 0	20.03	1.50	**19.38**	0.087	38.45	-19.07	**21.53**	0.142	40.61	-19.08
829.00	10	64-QAM	H	1	10	1 / 49	19.00	1.50	**18.35**	0.068	38.45	-20.10	**20.50**	0.112	40.61	-20.11
829.00	10	256-QAM	H	1	10	1 / 49	17.01	1.50	**16.36**	**0.043**	38.45	-22.09	**18.51**	**0.071**	40.61	-22.10
831.50	15	QPSK	H	354	9	1 / 74	20.22	1.50	19.57	0.091	38.45	-18.88	21.72	0.149	40.61	-18.89
836.50	15	QPSK	H	4	9	1 / 74	20.37	1.50	**19.72**	0.094	38.45	-18.73	**21.87**	0.154	40.61	-18.74
841.50	15	QPSK	H	8	11	1 / 0	20.15	1.50	19.50	0.089	38.45	-18.95	21.65	0.146	40.61	-18.96
836.50	15	16-QAM	H	4	9	1 / 74	19.58	1.50	**18.93**	0.078	38.45	-19.52	**21.08**	0.128	40.61	-19.53
836.50	15	64-QAM	H	4	9	1 / 74	18.52	1.50	**17.87**	0.061	38.45	-20.58	**20.02**	0.100	40.61	-20.59
836.50	15	256-QAM	H	4	9	1 / 74	16.51	1.50	**15.86**	**0.039**	38.45	-22.59	**18.01**	**0.063**	40.61	-22.60
836.50	5	QPSK	V	120	289	1 / 0	17.95	1.50	17.30	0.054	38.45	-21.15	19.45	0.088	40.61	-21.16
836.50	5 (WCP)	QPSK	H	1	6	1 / 0	18.99	1.50	18.34	0.068	38.45	-20.11	20.49	0.112	40.61	-20.12

Table 7-17. ERP Data (Band 26/5)

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]
831.50	15	QPSK	H	354	9	1 / 74	20.22	1.50	19.57	0.091	38.45	-18.88
836.50	15	QPSK	H	4	9	1 / 74	20.37	1.50	**19.72**	0.094	38.45	-18.73
841.50	15	QPSK	H	8	11	1 / 0	20.15	1.50	19.50	0.089	38.45	-18.95
836.50	15	16-QAM	H	4	9	1 / 74	19.58	1.50	**18.93**	0.078	38.45	-19.52
836.50	15	64-QAM	H	4	9	1 / 74	18.52	1.50	**17.87**	0.061	38.45	-20.58
836.50	15	256-QAM	H	4	9	1 / 74	16.51	1.50	**15.86**	**0.039**	38.45	-22.59

Table 7-18. ERP Data (Band 26)

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	H	186	209	1 / 0	13.10	8.16	21.26	0.134	30.00	-8.74
1745.00	1.4	QPSK	H	217	201	1 / 5	13.23	8.19	21.42	0.139	30.00	-8.58
1779.30	1.4	QPSK	H	118	204	1 / 5	13.63	8.25	**21.88**	0.154	30.00	-8.12
1779.30	1.4	16-QAM	H	118	204	1 / 5	12.62	8.25	**20.87**	0.122	30.00	-9.13
1779.30	1.4	64-QAM	H	118	204	1 / 5	11.57	8.25	**19.82**	0.096	30.00	-10.18
1745.00	1.4	256-QAM	H	217	201	1 / 5	8.62	8.19	**16.81**	**0.048**	30.00	-13.19
1711.50	3	QPSK	H	171	214	1 / 14	14.05	8.16	22.21	0.166	30.00	-7.79
1745.00	3	QPSK	H	218	212	1 / 14	13.93	8.19	22.12	0.163	30.00	-7.88
1778.50	3	QPSK	H	119	205	1 / 14	14.37	8.25	**22.62**	0.183	30.00	-7.38
1778.50	3	16-QAM	H	119	205	1 / 14	13.36	8.25	**21.61**	0.145	30.00	-8.39
1778.50	3	64-QAM	H	119	205	1 / 14	12.31	8.25	**20.56**	0.114	30.00	-9.44
1778.50	3	256-QAM	H	119	205	1 / 14	10.32	8.25	**18.57**	**0.072**	30.00	-11.43
1712.50	5	QPSK	H	175	199	1 / 24	14.80	8.16	**22.96**	0.198	30.00	-7.04
1745.00	5	QPSK	H	227	213	1 / 24	14.19	8.19	22.38	0.173	30.00	-7.62
1777.50	5	QPSK	H	131	200	1 / 0	14.35	8.25	22.60	0.182	30.00	-7.40
1712.50	5	16-QAM	H	175	199	1 / 24	13.82	8.16	**21.98**	0.158	30.00	-8.02
1712.50	5	64-QAM	H	175	199	1 / 24	12.72	8.16	**20.88**	0.122	30.00	-9.12
1712.50	5	256-QAM	H	175	199	1 / 24	10.74	8.16	**18.90**	**0.078**	30.00	-11.10
1715.00	10	QPSK	H	176	211	1 / 49	14.65	8.16	**22.81**	0.191	30.00	-7.19
1745.00	10	QPSK	H	220	208	1 / 49	14.20	8.19	22.39	0.174	30.00	-7.61
1775.00	10	QPSK	H	135	210	1 / 0	14.42	8.24	22.66	0.185	30.00	-7.34
1715.00	10	16-QAM	H	176	211	1 / 49	13.67	8.16	**21.83**	0.152	30.00	-8.17
1715.00	10	64-QAM	H	176	211	1 / 49	12.57	8.16	**20.73**	0.118	30.00	-9.27
1715.00	10	256-QAM	H	176	211	1 / 49	10.62	8.16	**18.78**	**0.076**	30.00	-11.22
1717.50	15	QPSK	H	177	196	1 / 74	14.83	8.16	22.99	0.199	30.00	-7.01
1745.00	15	QPSK	H	218	197	1 / 74	14.11	8.19	22.30	0.170	30.00	-7.70
1772.50	15	QPSK	H	133	196	1 / 0	15.08	8.24	**23.32**	**0.215**	30.00	-6.68
1772.50	15	16-QAM	H	133	196	1 / 0	13.85	8.24	**22.09**	0.162	30.00	-7.91
1772.50	15	64-QAM	H	133	196	1 / 0	13.08	8.24	**21.32**	0.135	30.00	-8.68
1772.50	15	256-QAM	H	133	196	1 / 74	11.62	8.24	**19.86**	**0.097**	30.00	-10.14
1720.00	20	QPSK	H	174	189	1 / 0	14.72	8.17	22.89	0.194	30.00	-7.11
1745.00	20	QPSK	H	138	184	1 / 99	14.04	8.19	22.23	0.167	30.00	-7.77
1770.00	20	QPSK	H	133	195	1 / 0	14.67	8.23	**22.90**	0.195	30.00	-7.10
1770.00	20	16-QAM	H	133	195	1 / 0	13.87	8.23	**22.10**	0.162	30.00	-7.90
1770.00	20	64-QAM	H	133	195	1 / 0	12.67	8.23	**20.90**	0.123	30.00	-9.10
1770.00	20	256-QAM	H	133	195	1 / 99	11.65	8.23	**19.88**	**0.097**	30.00	-10.12
1772.50	15	QPSK	V	400	260	1 / 0	8.38	8.24	16.62	0.046	30.00	-13.38
1772.50	15 (WCP)	QPSK	H	136	184	1 / 0	14.82	8.24	23.06	0.202	30.00	-6.94

Table 7-19. EIRP Data (Band 66/4)

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	H	118	3	1 / 5	14.85	8.37	23.22	0.210	33.01	-9.79
1882.50	1.4	QPSK	H	105	8	1 / 5	15.37	8.42	**23.79**	0.239	33.01	-9.22
1914.30	1.4	QPSK	H	102	7	1 / 5	14.23	8.47	22.70	0.186	33.01	-10.31
1882.50	1.4	16-QAM	H	105	8	1 / 5	14.43	8.42	**22.85**	0.193	33.01	-10.16
1882.50	1.4	64-QAM	H	105	8	1 / 0	13.58	8.42	**22.00**	0.158	33.01	-11.01
1882.50	1.4	256-QAM	H	105	8	1 / 0	10.84	8.42	**19.26**	**0.084**	33.01	-13.75
1851.50	3	QPSK	H	115	8	1 / 14	14.09	8.37	22.46	0.176	33.01	-10.55
1882.50	3	QPSK	H	109	358	1 / 14	14.61	8.42	**23.03**	0.201	33.01	-9.98
1913.50	3	QPSK	H	105	10	1 / 14	13.47	8.47	21.94	0.156	33.01	-11.07
1882.50	3	16-QAM	H	109	358	1 / 14	14.06	8.42	**22.48**	0.177	33.01	-10.53
1882.50	3	64-QAM	H	109	358	1 / 0	12.97	8.42	**21.39**	0.138	33.01	-11.62
1882.50	3	256-QAM	H	109	358	1 / 0	10.17	8.42	**18.59**	**0.072**	33.01	-14.42
1852.50	5	QPSK	H	115	4	1 / 24	14.21	8.37	22.58	0.181	33.01	-10.43
1882.50	5	QPSK	H	105	8	1 / 0	15.05	8.42	**23.47**	0.222	33.01	-9.54
1912.50	5	QPSK	H	101	6	1 / 24	13.85	8.47	22.32	0.170	33.01	-10.69
1882.50	5	16-QAM	H	105	8	1 / 24	14.48	8.42	**22.90**	0.195	33.01	-10.11
1882.50	5	64-QAM	H	105	8	1 / 24	13.56	8.42	**21.98**	0.158	33.01	-11.03
1882.50	5	256-QAM	H	105	8	1 / 24	10.46	8.42	**18.88**	**0.077**	33.01	-14.13
1855.00	10	QPSK	H	118	8	1 / 49	15.00	8.37	**23.37**	0.217	33.01	-9.64
1882.50	10	QPSK	H	133	359	1 / 49	12.83	8.42	21.25	0.133	33.01	-11.76
1910.00	10	QPSK	H	119	349	1 / 0	13.41	8.46	21.87	0.154	33.01	-11.14
1855.00	10	16-QAM	H	118	8	1 / 49	14.13	8.37	**22.50**	0.178	33.01	-10.51
1855.00	10	64-QAM	H	118	8	1 / 49	13.23	8.37	**21.60**	0.145	33.01	-11.41
1855.00	10	256-QAM	H	118	8	1 / 49	10.12	8.37	**18.49**	**0.071**	33.01	-14.52
1857.50	15	QPSK	H	118	3	1 / 74	15.53	8.38	**23.91**	0.246	33.01	-9.10
1882.50	15	QPSK	H	110	7	1 / 74	15.38	8.42	23.80	0.240	33.01	-9.21
1907.50	15	QPSK	H	113	3	1 / 0	14.83	8.46	23.29	0.213	33.01	-9.72
1857.50	15	16-QAM	H	118	3	1 / 74	14.91	8.38	**23.29**	0.213	33.01	-9.72
1857.50	15	64-QAM	H	118	3	1 / 74	14.14	8.38	**22.52**	0.179	33.01	-10.49
1882.50	15	256-QAM	H	110	7	1 / 74	11.05	8.42	**19.47**	**0.088**	33.01	-13.54
1860.00	20	QPSK	H	114	7	1 / 99	14.87	8.38	23.25	0.211	33.01	-9.76
1882.50	20	QPSK	H	120	359	1 / 0	15.46	8.42	**23.88**	0.244	33.01	-9.13
1905.00	20	QPSK	H	113	1	1 / 0	15.22	8.45	23.67	0.233	33.01	-9.34
1882.50	20	16-QAM	H	120	359	1 / 0	13.77	8.42	**22.19**	0.166	33.01	-10.82
1882.50	20	64-QAM	H	120	359	1 / 0	13.18	8.42	**21.60**	0.144	33.01	-11.41
1882.50	20	256-QAM	H	120	359	1 / 0	10.28	8.42	**18.70**	**0.074**	33.01	-14.31
1857.50	15	QPSK	V	230	273	1 / 74	19.30	8.38	27.68	**0.586**	33.01	-5.33
1857.50	15 (WCP)	QPSK	H	154	20	1 / 74	13.62	8.38	22.00	0.158	33.01	-11.01

Table 7-20. EIRP Data (Band 25/2)

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]
2307.50	5	QPSK	H	100	205	1 / 24	12.99	7.90	20.89	0.123	23.98	-3.09
2312.50	5	QPSK	H	100	205	1 / 24	13.40	7.90	**21.30**	**0.135**	23.98	-2.68
2312.50	5	16-QAM	H	100	205	1 / 24	12.64	7.90	**20.54**	0.113	23.98	-3.44
2312.50	5	64-QAM	H	100	205	1 / 24	11.70	7.90	**19.60**	0.091	23.98	-4.38
2307.50	5	256-QAM	H	100	205	1 / 24	8.58	7.90	**16.48**	**0.044**	23.98	-7.50
2310.00	10	QPSK	H	142	206	1 / 0	13.38	7.90	**21.28**	0.134	23.98	-2.70
2310.00	10	16-QAM	H	142	206	1 / 0	12.54	7.90	20.44	0.111	23.98	-3.54
2310.00	10	64-QAM	H	142	206	1 / 0	11.48	7.90	19.38	0.087	23.98	-4.60
2310.00	10	256-QAM	H	142	206	1 / 0	9.14	7.90	**17.04**	**0.051**	23.98	-6.94
2312.50	5	QPSK	V	127	213	1 / 24	13.16	7.90	21.06	0.128	23.98	-2.92
2312.50	5 (WCP)	QPSK	H	115	30	1 / 24	11.36	7.90	19.26	0.084	23.98	-4.72

Table 7-21. EIRP Data (Band 30)

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	109	117	1 / 0	11.21	7.89	**19.10**	0.081	33.01	-13.91
2535.00	5	QPSK	H	139	98	1 / 0	10.55	7.83	18.38	0.069	33.01	-14.63
2567.50	5	QPSK	H	111	103	1 / 0	9.78	7.76	17.54	0.057	33.01	-15.47
2502.50	5	16-QAM	H	109	117	1 / 0	10.22	7.89	**18.11**	0.065	33.01	-14.90
2502.50	5	64-QAM	H	109	117	1 / 0	9.28	7.89	**17.17**	0.052	33.01	-15.84
2502.50	5	256-QAM	H	109	117	1 / 0	6.11	7.89	**14.00**	**0.025**	33.01	-19.01
2505.00	10	QPSK	H	109	115	1 / 0	11.89	7.89	**19.78**	0.095	33.01	-13.23
2535.00	10	QPSK	H	139	101	1 / 0	11.52	7.83	19.35	0.086	33.01	-13.66
2565.00	10	QPSK	H	105	107	1 / 0	10.13	7.77	17.90	0.062	33.01	-15.11
2505.00	10	16-QAM	H	109	115	1 / 49	11.22	7.89	**19.11**	0.081	33.01	-13.90
2505.00	10	64-QAM	H	109	115	1 / 49	10.43	7.89	**18.32**	0.068	33.01	-14.69
2505.00	10	256-QAM	H	109	115	1 / 49	7.26	7.89	**15.15**	**0.033**	33.01	-17.86
2507.50	15	QPSK	H	141	155	1 / 74	12.38	7.88	20.26	0.106	33.01	-12.75
2535.00	15	QPSK	H	125	168	1 / 74	12.73	7.83	**20.56**	0.114	33.01	-12.45
2562.50	15	QPSK	H	115	153	1 / 74	11.86	7.77	19.63	0.092	33.01	-13.38
2535.00	15	16-QAM	H	125	168	1 / 74	12.07	7.83	**19.90**	0.098	33.01	-13.11
2535.00	15	64-QAM	H	125	168	1 / 74	10.99	7.83	**18.82**	0.076	33.01	-14.19
2535.00	15	256-QAM	H	125	168	1 / 74	7.82	7.83	**15.65**	**0.037**	33.01	-17.36
2510.00	20	QPSK	H	103	151	1 / 0	12.87	7.88	**20.75**	**0.119**	33.01	-12.26
2535.00	20	QPSK	H	101	149	1 / 0	12.77	7.83	20.60	0.115	33.01	-12.41
2560.00	20	QPSK	H	145	147	1 / 0	12.65	7.78	20.43	0.110	33.01	-12.58
2510.00	20	16-QAM	H	103	151	1 / 0	12.10	7.88	**19.98**	0.100	33.01	-13.03
2510.00	20	64-QAM	H	103	151	1 / 0	11.08	7.88	**18.96**	0.079	33.01	-14.05
2510.00	20	256-QAM	H	103	151	1 / 0	7.77	7.88	**15.65**	**0.037**	33.01	-17.36
2510.00	20	QPSK	V	107	100	1 / 0	10.02	7.88	17.90	0.062	33.01	-15.11
2510.00	20 (WCP)	QPSK	H	115	30	1 / 0	7.74	7.88	15.62	0.036	33.01	-17.39

Table 7-22. EIRP Data (Band 7 – ANT B)

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	134	169	1 / 24	10.71	7.89	18.60	0.073	33.01	-14.41
2535.00	5	QPSK	H	142	155	1 / 24	11.60	7.83	**19.43**	0.088	33.01	-13.58
2567.50	5	QPSK	H	140	165	1 / 24	10.14	7.76	17.90	0.062	33.01	-15.11
2535.00	5	16-QAM	H	142	155	1 / 24	9.98	7.83	**17.81**	0.060	33.01	-15.20
2535.00	5	64-QAM	H	142	155	1 / 24	8.80	7.83	**16.63**	0.046	33.01	-16.38
2535.00	5	256-QAM	H	142	155	1 / 24	5.74	7.83	**13.57**	**0.023**	33.01	-19.44
2505.00	10	QPSK	H	118	171	1 / 49	10.52	7.89	18.41	0.069	33.01	-14.60
2535.00	10	QPSK	H	122	175	1 / 49	10.80	7.83	18.63	0.073	33.01	-14.38
2565.00	10	QPSK	H	121	173	1 / 49	11.56	7.77	**19.33**	0.086	33.01	-13.68
2565.00	10	16-QAM	H	121	173	1 / 49	10.42	7.77	**18.19**	0.066	33.01	-14.82
2565.00	10	64-QAM	H	121	173	1 / 49	9.77	7.77	**17.54**	0.057	33.01	-15.47
2565.00	10	256-QAM	H	121	173	1 / 49	6.76	7.77	**14.53**	**0.028**	33.01	-18.48
2507.50	15	QPSK	H	116	170	1 / 74	10.98	7.88	18.86	0.077	33.01	-14.15
2535.00	15	QPSK	H	113	156	1 / 74	11.10	7.83	18.93	0.078	33.01	-14.08
2562.50	15	QPSK	H	116	170	1 / 74	12.60	7.77	**20.37**	**0.109**	33.01	-12.64
2562.50	15	16-QAM	H	116	170	1 / 74	11.40	7.77	**19.17**	0.083	33.01	-13.84
2562.50	15	64-QAM	H	116	170	1 / 74	10.32	7.77	**18.09**	0.064	33.01	-14.92
2562.50	15	256-QAM	H	116	170	1 / 74	7.48	7.77	**15.25**	**0.034**	33.01	-17.76
2510.00	20	QPSK	H	119	155	1 / 99	10.70	7.88	18.58	0.072	33.01	-14.43
2535.00	20	QPSK	H	114	155	1 / 99	11.87	7.83	**19.70**	0.093	33.01	-13.31
2560.00	20	QPSK	H	100	166	1 / 99	10.54	7.78	18.32	0.068	33.01	-14.69
2560.00	20	16-QAM	H	100	166	1 / 99	10.57	7.78	**18.35**	0.068	33.01	-14.66
2560.00	20	64-QAM	H	100	166	1 / 99	9.44	7.78	**17.22**	0.053	33.01	-15.79
2560.00	20	256-QAM	H	100	166	1 / 99	6.85	7.78	**14.63**	**0.029**	33.01	-18.38
2562.50	15	QPSK	V	130	79	1 / 74	11.40	7.77	19.17	0.083	33.01	-13.84
2562.50	15 (WCP)	QPSK	H	135	178	1 / 74	9.34	7.77	17.11	0.051	33.01	-15.90

Table 7-23. EIRP Data (Band 7 - ANT A)

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	148	114	1 / 24	16.16	7.89	24.05	0.254	33.01	-8.96
2593.00	5	QPSK	H	148	114	1 / 0	17.13	7.71	**24.84**	0.305	33.01	-8.17
2687.50	5	QPSK	H	148	114	1 / 0	16.08	7.52	23.60	0.229	33.01	-9.41
2593.00	5	16-QAM	H	148	114	1 / 0	16.01	7.71	**23.72**	0.235	33.01	-9.29
2502.50	5	64-QAM	H	148	114	1 / 24	14.46	7.89	**22.35**	0.172	33.01	-10.66
2502.50	5	256-QAM	H	148	114	1 / 24	11.76	7.89	**19.65**	**0.092**	33.01	-13.36
2505.00	10	QPSK	H	104	305	1 / 49	15.94	7.89	23.83	0.242	33.01	-9.18
2593.00	10	QPSK	H	104	305	1 / 49	16.41	7.71	**24.12**	0.258	33.01	-8.89
2685.00	10	QPSK	H	104	305	1 / 0	15.41	7.53	22.94	0.197	33.01	-10.07
2593.00	10	16-QAM	H	104	305	1 / 49	15.38	7.71	**23.09**	0.204	33.01	-9.92
2505.00	10	64-QAM	H	104	305	1 / 49	14.25	7.89	**22.14**	0.164	33.01	-10.87
2593.00	10	256-QAM	H	104	305	1 / 49	11.97	7.71	**19.68**	**0.093**	33.01	-13.33
2507.50	15	QPSK	H	104	288	1 / 0	16.23	7.88	24.11	0.258	33.01	-8.90
2593.00	15	QPSK	H	104	288	1 / 0	17.22	7.71	**24.93**	**0.311**	33.01	-8.08
2682.50	15	QPSK	H	104	288	1 / 0	15.96	7.53	23.49	0.223	33.01	-9.52
2593.00	15	16-QAM	H	104	288	1 / 0	16.32	7.71	**24.03**	0.253	33.01	-8.98
2593.00	15	64-QAM	H	104	288	1 / 0	15.45	7.71	**23.16**	0.207	33.01	-9.85
2593.00	15	256-QAM	H	104	288	1 / 0	12.71	7.71	**20.42**	**0.110**	33.01	-12.59
2510.00	20	QPSK	H	104	289	1 / 99	16.99	7.88	**24.87**	0.307	33.01	-8.14
2593.00	20	QPSK	H	104	289	1 / 0	16.42	7.71	24.13	0.259	33.01	-8.88
2680.00	20	QPSK	H	104	289	1 / 99	15.75	7.54	23.29	0.213	33.01	-9.73
2510.00	20	16-QAM	H	104	289	1 / 99	15.88	7.88	**23.76**	0.238	33.01	-9.25
2510.00	20	64-QAM	H	104	289	1 / 99	15.04	7.88	**22.92**	0.196	33.01	-10.09
2510.00	20	256-QAM	H	104	289	1 / 99	12.75	7.88	**20.63**	**0.116**	33.01	-12.38
2593.00	15	QPSK	V	110	75	1 / 0	13.59	7.71	21.30	0.135	33.01	-11.71
2593.00	15 (WCP)	QPSK	H	106	59	1 / 0	15.54	7.71	23.25	0.211	33.01	-9.76

Table 7-24. EIRP Data (Band 41 – PC2)

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	105	295	1 / 0	14.83	7.71	**22.54**	0.179	33.01	-10.47
2593.00	5	QPSK	H	110	301	1 / 0	14.47	7.52	21.99	0.158	33.01	-11.02
2687.50	5	QPSK	H	110	301	1 / 0	14.00	7.90	21.90	0.155	33.01	-11.11
2502.50	5	16-QAM	H	105	295	1 / 0	14.50	7.71	**22.21**	0.166	33.01	-10.80
2502.50	5	64-QAM	H	105	295	1 / 0	14.01	7.71	**21.72**	0.149	33.01	-11.29
2502.50	5	256-QAM	H	105	295	1 / 0	12.01	7.71	**19.72**	**0.094**	33.01	-13.29
2505.00	10	QPSK	H	102	294	1 / 49	15.36	7.71	**23.07**	0.203	33.01	-9.94
2593.00	10	QPSK	H	110	299	1 / 49	14.86	7.53	22.39	0.173	33.01	-10.62
2685.00	10	QPSK	H	110	299	1 / 0	14.42	7.90	22.32	0.171	33.01	-10.69
2505.00	10	16-QAM	H	102	294	1 / 49	14.91	7.71	**22.62**	0.183	33.01	-10.39
2505.00	10	64-QAM	H	102	294	1 / 0	14.37	7.71	**22.08**	0.161	33.01	-10.93
2505.00	10	256-QAM	H	102	294	1 / 0	12.16	7.71	**19.87**	**0.097**	33.01	-13.14
2507.50	15	QPSK	H	104	298	1 / 0	15.52	7.71	**23.23**	**0.210**	33.01	-9.78
2593.00	15	QPSK	H	110	300	1 / 74	14.55	7.53	22.08	0.161	33.01	-10.93
2682.50	15	QPSK	H	110	300	1 / 0	14.15	7.89	22.04	0.160	33.01	-10.97
2507.50	15	16-QAM	H	104	298	1 / 74	14.65	7.71	**22.36**	0.172	33.01	-10.65
2507.50	15	64-QAM	H	104	298	1 / 0	13.88	7.71	21.59	0.144	33.01	-11.42
2507.50	15	256-QAM	H	104	298	1 / 0	11.72	7.71	19.43	0.088	33.01	-13.58
2510.00	20	QPSK	H	104	297	1 / 99	14.79	7.71	**22.50**	0.178	33.01	-10.51
2593.00	20	QPSK	H	114	295	1 / 0	14.19	7.54	21.73	0.149	33.01	-11.29
2680.00	20	QPSK	H	114	295	1 / 0	14.08	7.89	21.97	0.157	33.01	-11.04
2510.00	20	16-QAM	H	104	297	1 / 99	14.14	7.71	**21.85**	0.153	33.01	-11.16
2510.00	20	64-QAM	H	104	297	1 / 0	13.60	7.71	**21.31**	0.135	33.01	-11.70
2680.00	20	256-QAM	H	270	306	1 / 0	12.34	7.66	**20.00**	**0.100**	33.01	-13.01
2507.50	15	QPSK	H	126	69	1 / 0	12.61	7.88	20.49	0.112	33.01	-12.52
2507.50	15 (WCP)	QPSK	H	119	251	1 / 0	14.09	7.71	21.80	0.151	33.01	-11.21

Table 7-25. EIRP Data (Band 41/38 – PC3)

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 ≥ 3 x RBW
3. Span = 1.5 times the OBW
4. No. of sweep points ≥ 2 x span / RBW
5. Detector = RMS
6. Trace mode = Average (Max Hold for pulsed emissions)
7. The trace was allowed to stabilize

Test Setup

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

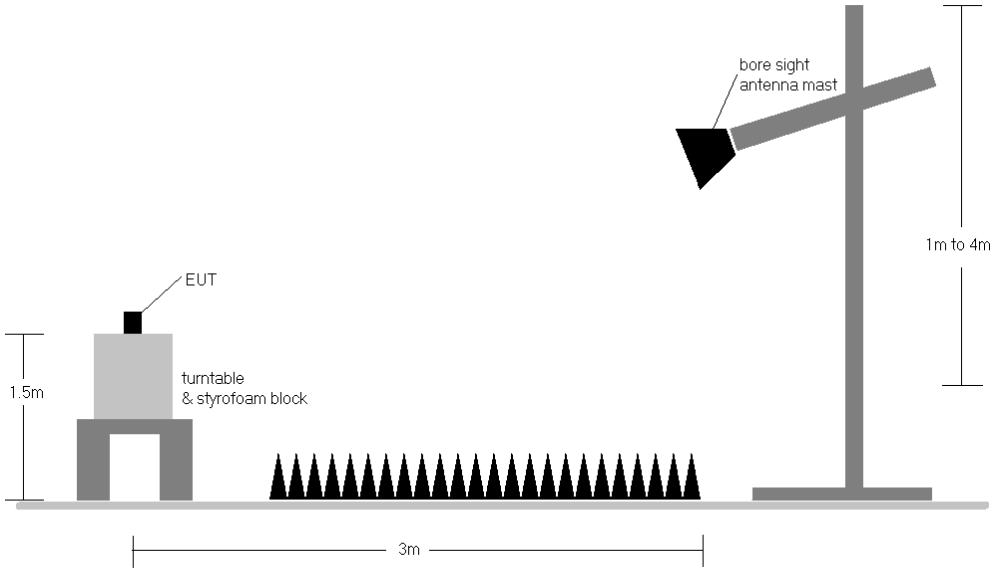


Figure 7-9. Test Instrument & Measurement Setup

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.

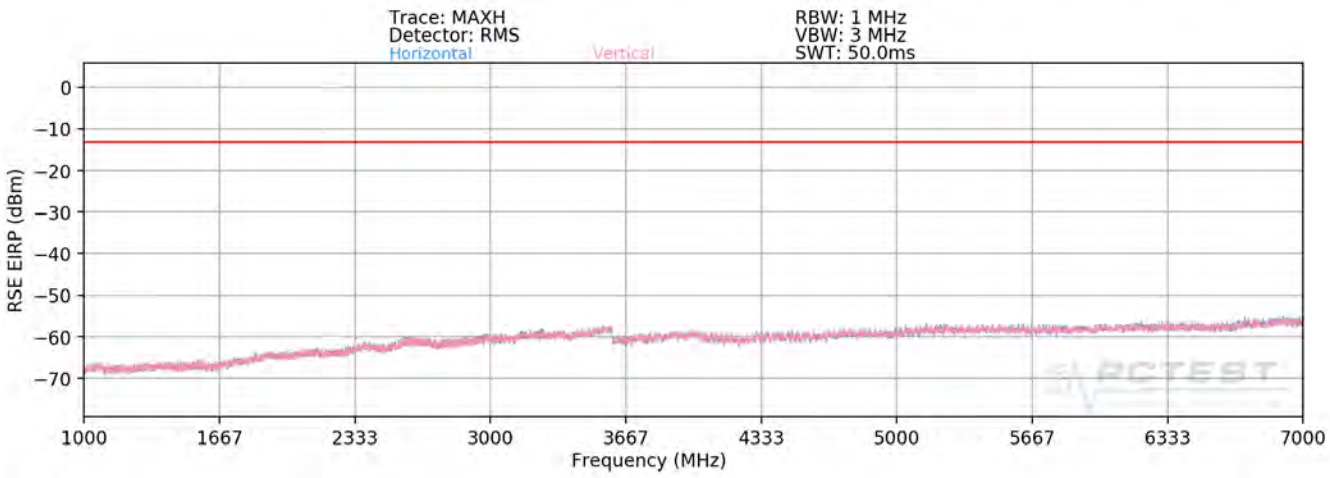
2) This unit was tested with its standard battery.

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.

Band 71



Plot 7-489. Radiated Spurious Plot above 1GHz (Band 71)

OPERATING FREQUENCY:	670.50	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]
1341.00	H	179	348	-68.95	2.88	-66.08	-53.1
2011.50	H	-	-	-68.17	2.71	-65.46	-52.5
2682.00	H	-	-	-68.54	4.50	-64.04	-51.0

Table 7-26. Radiated Spurious Data (Band 71 – Low Channel)

OPERATING FREQUENCY:	680.50	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]
1361.00	H	238	347	-69.75	2.88	-66.87	-53.9
2041.50	H	-	-	-67.94	2.73	-65.21	-52.2
2722.00	H	-	-	-68.41	4.63	-63.78	-50.8

Table 7-27. Radiated Spurious Data (Band 71 – Mid Channel)

OPERATING FREQUENCY:	690.50	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]
1381.00	H	-	-	-70.22	2.60	-67.62	-54.6
2071.50	H	-	-	-66.47	2.85	-63.61	-50.6

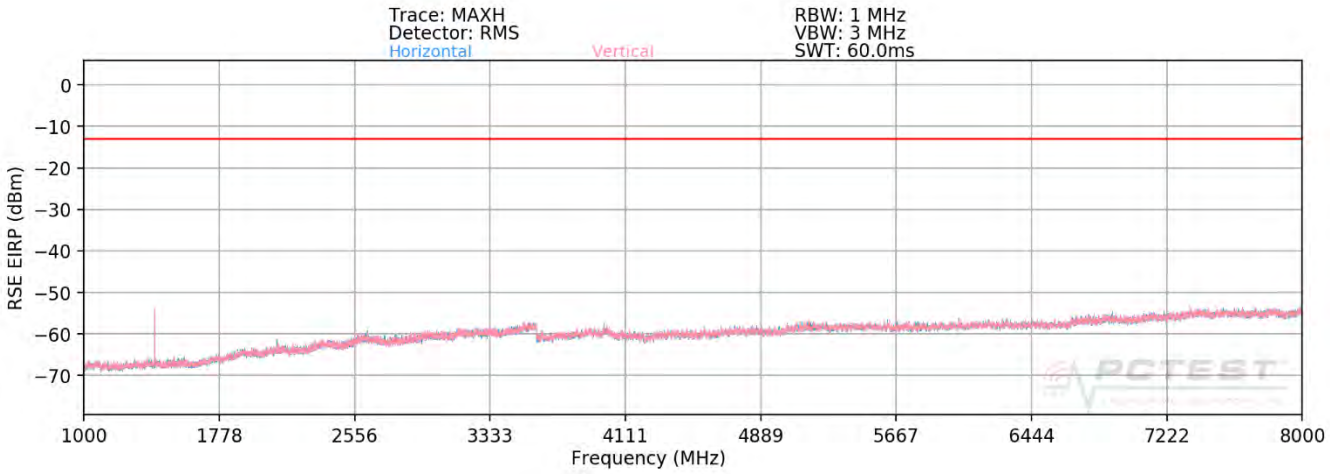
Table 7-28. Radiated Spurious Data (Band 71 – High Channel)

OPERATING FREQUENCY:	670.50	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]
1341.00	H	-	-	-71.09	2.88	-68.22	-55.2
2011.50	H	-	-	-68.04	2.71	-65.33	-52.3
2682.00	H	-	-	-68.28	4.50	-63.78	-50.8

Table 7-29. Radiated Spurious Data with WCP (Band 71 –Low Channel)

Band 12



Plot 7-490. Radiated Spurious Plot above 1GHz (Band 12)

OPERATING FREQUENCY:	704.00	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]
1408.00	H	149	202	-60.93	2.30	-58.63	-45.6
2112.00	H	-	-	-66.92	3.12	-63.80	-50.8
2816.00	H	-	-	-68.53	4.82	-63.71	-50.7

Table 7-30. Radiated Spurious Data (Band 12 – Low Channel)

OPERATING FREQUENCY:	707.50	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]
1415.00	H	151	199	-58.46	2.39	-56.06	-43.1
2122.50	H	-	-	-67.15	3.14	-64.01	-51.0
2830.00	H	-	-	-68.29	4.87	-63.43	-50.4

Table 7-31. Radiated Spurious Data (Band 12 – Mid Channel)

OPERATING FREQUENCY:	711.00	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]
1422.00	H	139	193	-58.18	2.53	-55.66	-42.7
2133.00	H	-	-	-67.40	3.11	-64.29	-51.3
2844.00	H	-	-	-68.00	4.91	-63.09	-50.1

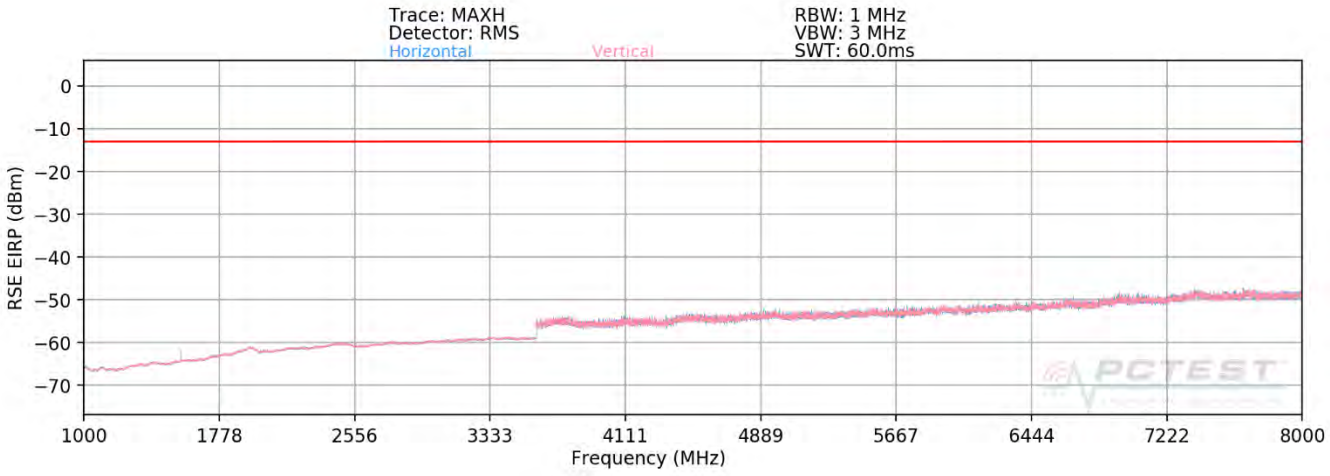
Table 7-32. Radiated Spurious Data (Band 12 – High Channel)

OPERATING FREQUENCY:	711.00	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]
1422.00	H	156	1711	-58.71	2.53	-56.19	-43.2
2133.00	H	-	-	-67.64	3.11	-64.53	-51.5
2844.00	H	-	-	-68.06	4.91	-63.15	-50.1

Table 7-33. Radiated Spurious Data with WCP (Band 12 – High Channel)

Band 13



Plot 7-491. Radiated Spurious Plot above 1GHz (Band 13)

OPERATING FREQUENCY:	779.50	MHz
MODULATION SIGNAL:	QPSK	
BANDWIDTH:	5.0	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]
2338.50	H	-	-	-66.60	3.61	-62.99	-50.0
3118.00	H	-	-	-68.04	5.71	-62.34	-49.3

Table 7-34. Radiated Spurious Data (Band 13 – Low Channel)

OPERATING FREQUENCY:	782.00	MHz
MODULATION SIGNAL:	QPSK	
BANDWIDTH:	5.0	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	-	-	-67.71	3.64	-64.07	-51.1
3128.00	H	-	-	-68.10	5.73	-62.37	-49.4

Table 7-35. Radiated Spurious Data (Band 13 – Mid Channel)

OPERATING FREQUENCY:	784.50	MHz
MODULATION SIGNAL:	QPSK	
BANDWIDTH:	5.0	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]
2353.50	H	-	-	-67.60	3.66	-63.94	-50.9
3138.00	H	-	-	-68.59	5.76	-62.83	-49.8

Table 7-36. Radiated Spurious Data (Band 13 – High Channel)

MODULATION SIGNAL:	QPSK	
BANDWIDTH:	5.00	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]
1559.00	H	199	205	-69.00	3.00	-66.00	-26.0
1564.00	H	240	194	-67.86	2.93	-64.92	-24.9
1569.00	H	-	-	-70.42	2.86	-67.56	-27.6

Table 7-37. Radiated Spurious Data (Band 13 – 1559-1610MHz Band)

OPERATING FREQUENCY:	782.00	MHz
MODULATION SIGNAL:	QPSK	
BANDWIDTH:	5.0	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	-	-	-68.05	3.64	-64.41	-51.4
3128.00	H	-	-	-68.16	5.73	-62.43	-49.4

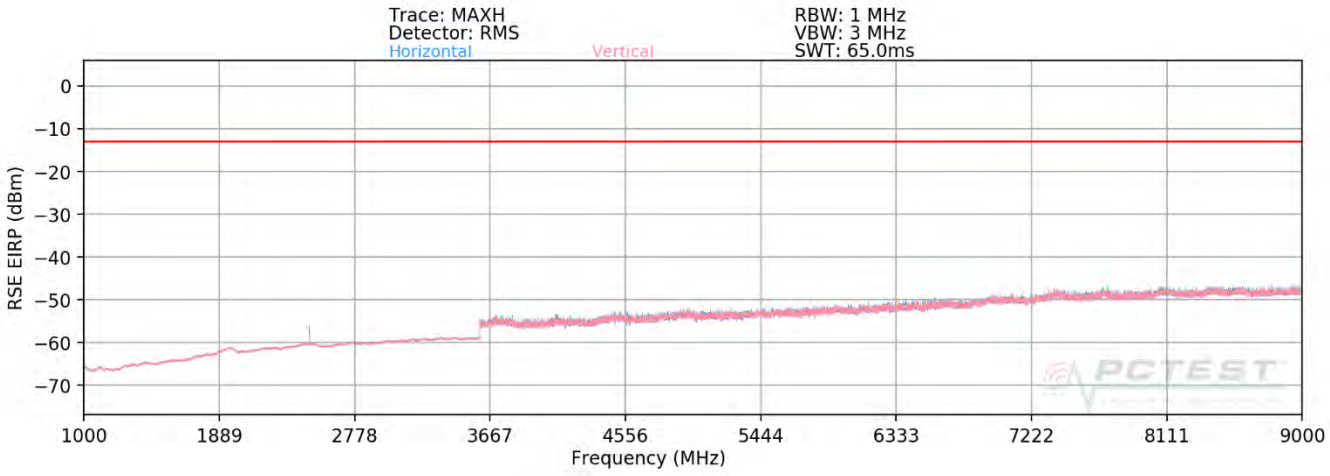
Table 7-38. Radiated Spurious Data with WCP (Band 13 –Mid Channel)

MODULATION SIGNAL:	QPSK	
BANDWIDTH:	5.00	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	121	11	-68.91	2.93	-65.97	-26.0

Table 7-39. Radiated Spurious Data wit WCP (Band 13 – 1559-1610MHz Band)

Band 26/5



Plot 7-492. Radiated Spurious Plot above 1GHz (Band 26/5)

OPERATING FREQUENCY:	826.50	MHz
MODULATION SIGNAL:	QPSK	
BANDWIDTH:	5.0	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]
1653.00	V	-	-	-69.34	3.61	-65.73	-52.7
2479.50	V	-	-	-67.26	4.23	-63.03	-50.0
3306.00	V	-	-	-67.65	5.80	-61.85	-48.9

Table 7-40. Radiated Spurious Data (Band 26/5 – Low Channel)

OPERATING FREQUENCY:	836.50	MHz
MODULATION SIGNAL:	QPSK	
BANDWIDTH:	5.0	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	V	-	-	-69.34	3.62	-65.72	-52.7
2509.50	V	-	-	-66.75	4.33	-62.41	-49.4
3346.00	V	-	-	-67.50	5.92	-61.58	-48.6

Table 7-41. Radiated Spurious Data (Band 26/5 – Mid Channel)

OPERATING FREQUENCY:	846.50	MHz
MODULATION SIGNAL:	QPSK	
BANDWIDTH:	5.0	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]
1693.00	V	-	-	-69.32	3.63	-65.69	-52.7
2539.50	V	-	-	-67.50	4.52	-62.99	-50.0
3386.00	V	-	-	-67.76	6.09	-61.67	-48.7

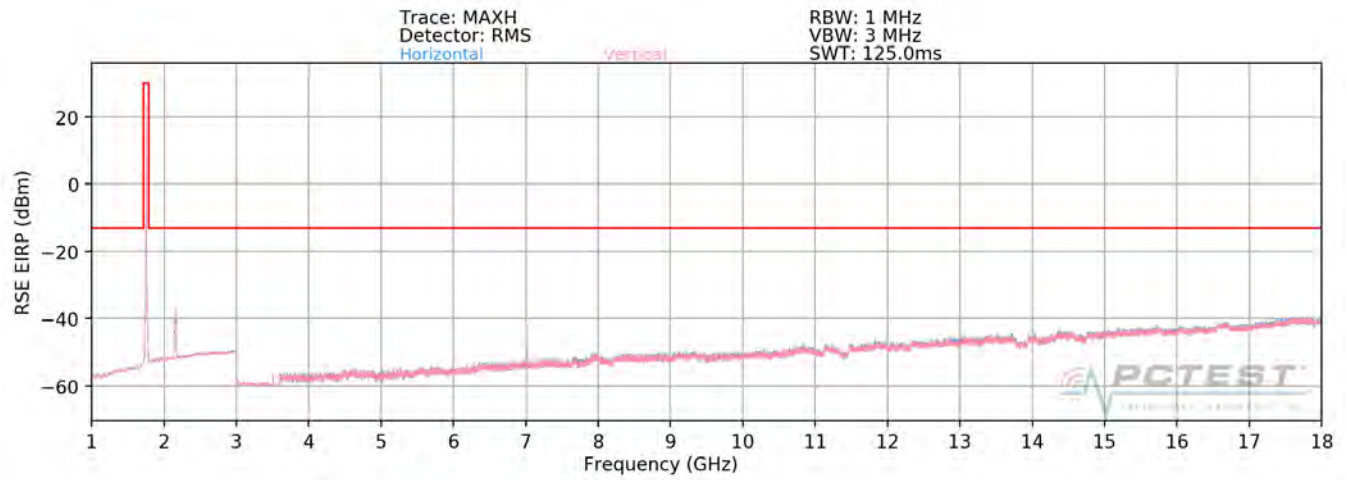
Table 7-42. Radiated Spurious Data (Band 26/5 – High Channel)

OPERATING FREQUENCY:	836.50	MHz
MODULATION SIGNAL:	QPSK	
BANDWIDTH:	5.0	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	V	-	-	-70.22	3.62	-66.60	-53.6
2509.50	V	-	-	-66.84	4.33	-62.50	-49.5

Table 7-43. Radiated Spurious Data with WCP (Band 26/5 – Mid Channel)

Band 66/4



Plot 7-493. Radiated Spurious Plot above 1GHz (Band 66/4)

OPERATING FREQUENCY:	1717.50	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]
3435.00	V	115	122	-63.95	9.84	-54.11	-41.1
5152.50	V	169	225	-64.16	10.70	-53.46	-40.5
6870.00	V	222	301	-57.07	11.67	-45.40	-32.4
8587.50	V	-	-	-65.06	11.10	-53.96	-41.0

Table 7-44. Radiated Spurious Data (Band 66/4 – Low Channel)

OPERATING FREQUENCY:	1745.00	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]
3490.00	V	125	149	-66.56	9.91	-56.65	-43.6
5235.00	V	139	201	-65.48	10.73	-54.75	-41.7
6980.00	V	113	71	-62.14	11.82	-50.32	-37.3
8725.00	V	-	-	-66.74	11.00	-55.74	-42.7
10470.00	V	-	-	-66.98	12.58	-54.39	-41.4

Table 7-45. Radiated Spurious Data (Band 66/4 – Mid Channel)

OPERATING FREQUENCY:	1772.50	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]
3545.00	V	-	-	-69.34	9.89	-59.45	-46.4
5317.50	V	-	-	-67.38	10.69	-56.69	-43.7

Table 7-46. Radiated Spurious Data (Band 66/4 – High Channel)