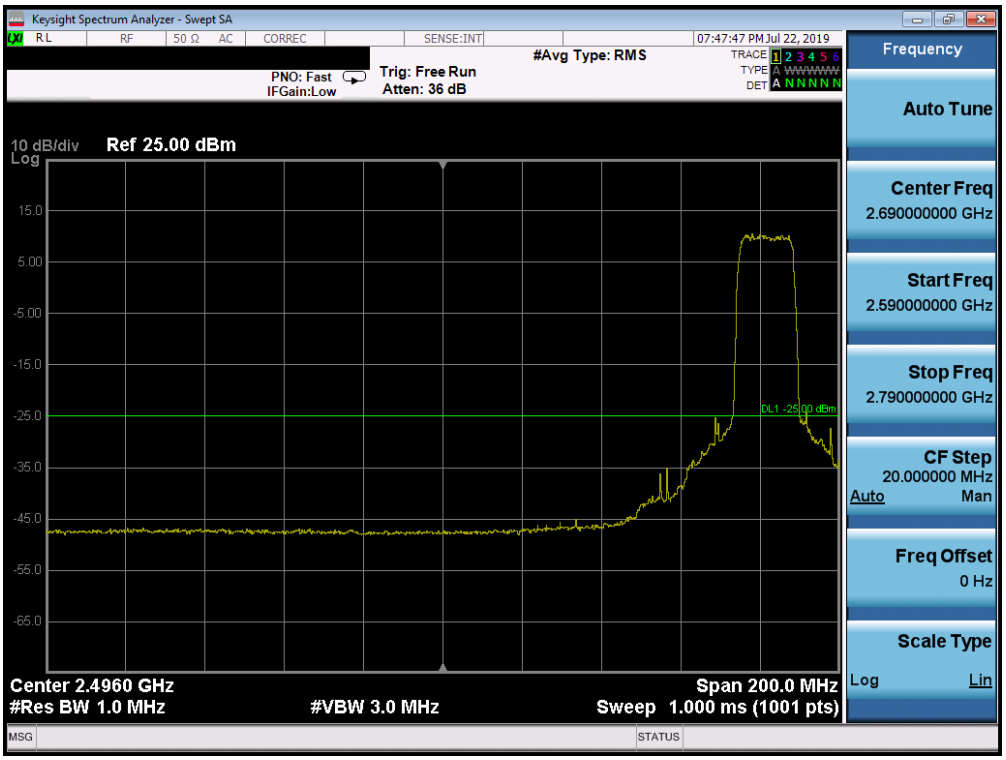
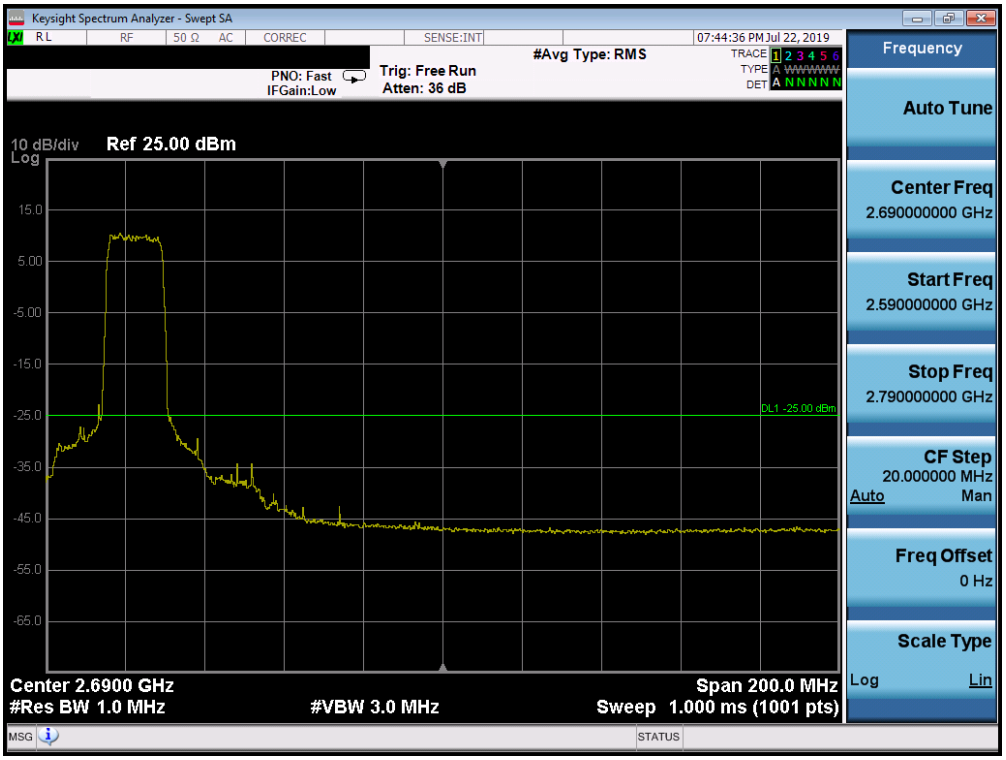


Plot 7-350. Lower Band Edge Plot (Band 38 - 15.0MHz QPSK - Full RB Configuration)



Plot 7-351. Upper Band Edge Plot (Band 38 - 15.0MHz QPSK - Full RB Configuration)

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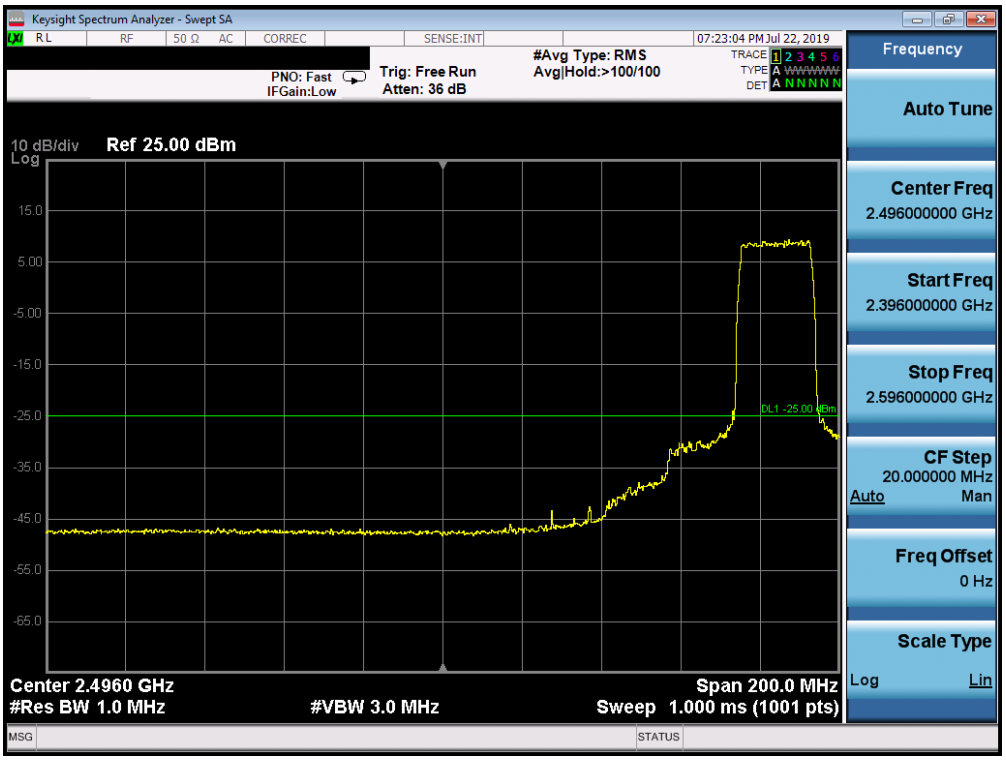
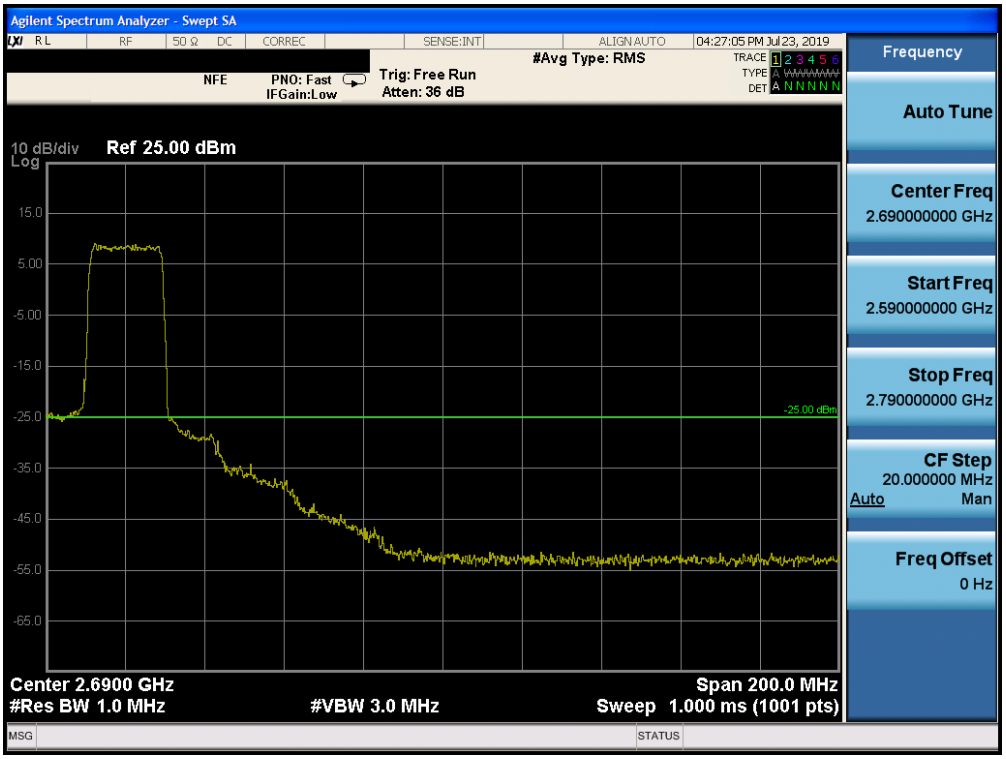


Plot 7-352. Lower Band Edge Plot (Band 38 - 20.0MHz QPSK - Full RB Configuration)



Plot 7-353. Upper Band Edge Plot (Band 38 - 20.0MHz QPSK - Full RB Configuration)

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7.5 Peak-Average Ratio

Test Overview

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

Test Procedure Used

KDB 971168 D01 v03r01 – Section 5.7.1

Test Settings

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

Test Setup

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

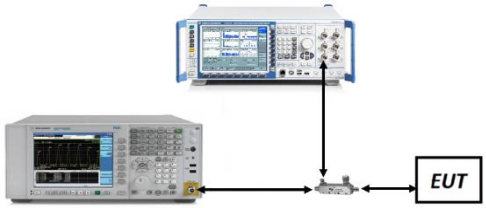

Figure 7-4. Test Instrument & Measurement Setup

Test Notes

None.

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Mode	BW (MHz)	Modulation	Average Power [dBm]	PAR at 0.1% [dB]	Limit [dB]	Margin [dB]
LTE Band 4	1.4	QPSK	24.65	5.92	13	-7.08
LTE Band 4	1.4	16QAM	23.67	6.55	13	-6.45
LTE Band 4	1.4	64QAM	22.66	6.60	13	-6.4
LTE Band 4	3	QPSK	24.63	5.9	13	-7.1
LTE Band 4	3	16QAM	23.61	6.56	13	-6.44
LTE Band 4	3	64QAM	22.59	6.59	13	-6.41
LTE Band 4	5	QPSK	24.63	5.88	13	-7.12
LTE Band 4	5	16QAM	23.59	6.47	13	-6.53
LTE Band 4	5	64QAM	22.57	6.55	13	-6.45
LTE Band 4	10	QPSK	24.63	5.82	13	-7.18
LTE Band 4	10	16QAM	23.60	6.43	13	-6.57
LTE Band 4	10	64QAM	22.57	6.51	13	-6.49
LTE Band 4	15	QPSK	24.72	6.08	13	-6.92
LTE Band 4	15	16QAM	23.67	6.46	13	-6.54
LTE Band 4	15	64QAM	22.65	6.52	13	-6.48
LTE Band 4	20	QPSK	24.72	5.77	13	-7.23
LTE Band 4	20	16QAM	23.67	6.42	13	-6.58
LTE Band 4	20	64QAM	22.66	6.56	13	-6.44
LTE Band 66	1.4	QPSK	24.63	6.16	13	-6.84
LTE Band 66	1.4	16QAM	23.68	6.83	13	-6.17
LTE Band 66	1.4	64QAM	22.61	6.90	13	-6.1
LTE Band 66	3	QPSK	24.63	6.05	13	-6.95
LTE Band 66	3	16QAM	23.64	6.77	13	-6.23
LTE Band 66	3	64QAM	22.57	6.80	13	-6.2
LTE Band 66	5	QPSK	24.57	6.06	13	-6.94
LTE Band 66	5	16QAM	23.57	6.65	13	-6.35
LTE Band 66	5	64QAM	22.57	6.75	13	-6.25
LTE Band 66	10	QPSK	24.61	5.95	13	-7.05
LTE Band 66	10	16QAM	23.58	6.61	13	-6.39
LTE Band 66	10	64QAM	22.53	6.71	13	-6.29
LTE Band 66	15	QPSK	24.59	5.81	13	-7.19
LTE Band 66	15	16QAM	23.58	6.51	13	-6.49
LTE Band 66	15	64QAM	22.53	6.64	13	-6.36
LTE Band 66	20	QPSK	24.60	5.81	13	-7.19
LTE Band 66	20	16QAM	23.58	6.50	13	-6.5
LTE Band 66	20	64QAM	22.53	6.66	13	-6.34
LTE Band 2	1.4	QPSK	24.14	5.98	13	-7.02
LTE Band 2	1.4	16QAM	23.18	6.61	13	-6.39
LTE Band 2	1.4	64QAM	22.17	6.63	13	-6.37
LTE Band 2	3	QPSK	24.19	5.80	13	-7.2
LTE Band 2	3	16QAM	23.20	6.52	13	-6.48
LTE Band 2	3	64QAM	22.18	6.62	13	-6.38
LTE Band 2	5	QPSK	24.21	5.83	13	-7.17
LTE Band 2	5	16QAM	23.20	6.42	13	-6.58
LTE Band 2	5	64QAM	22.19	6.59	13	-6.41
LTE Band 2	10	QPSK	24.17	5.85	13	-7.15
LTE Band 2	10	16QAM	23.22	6.48	13	-6.52
LTE Band 2	10	64QAM	22.22	6.64	13	-6.36
LTE Band 2	15	QPSK	24.26	6.03	13	-6.97
LTE Band 2	15	16QAM	23.27	6.54	13	-6.46
LTE Band 2	15	64QAM	22.23	6.65	13	-6.35
LTE Band 2	20	QPSK	24.24	5.75	13	-7.25
LTE Band 2	20	16QAM	23.24	6.47	13	-6.53
LTE Band 2	20	64QAM	22.21	6.65	13	-6.35
LTE Band 25	1.4	QPSK	24.05	5.80	13	-7.2
LTE Band 25	1.4	16QAM	23.15	6.49	13	-6.51
LTE Band 25	1.4	64QAM	22.13	6.65	13	-6.35
LTE Band 25	3	QPSK	24.12	5.81	13	-7.19
LTE Band 25	3	16QAM	23.11	6.55	13	-6.45
LTE Band 25	3	64QAM	22.10	6.64	13	-6.36
LTE Band 25	5	QPSK	24.14	5.83	13	-7.17
LTE Band 25	5	16QAM	23.13	6.45	13	-6.55
LTE Band 25	5	64QAM	22.14	6.61	13	-6.39
LTE Band 25	10	QPSK	24.14	5.85	13	-7.15
LTE Band 25	10	16QAM	23.15	6.48	13	-6.52
LTE Band 25	10	64QAM	22.12	6.66	13	-6.34
LTE Band 25	15	QPSK	24.13	6.06	13	-6.94
LTE Band 25	15	16QAM	23.12	6.54	13	-6.46
LTE Band 25	15	64QAM	22.10	6.69	13	-6.31
LTE Band 25	20	QPSK	24.26	5.76	13	-7.24
LTE Band 25	20	16QAM	23.25	6.47	13	-6.53
LTE Band 25	20	64QAM	22.32	6.67	13	-6.33

Table 7-6. PAR Table

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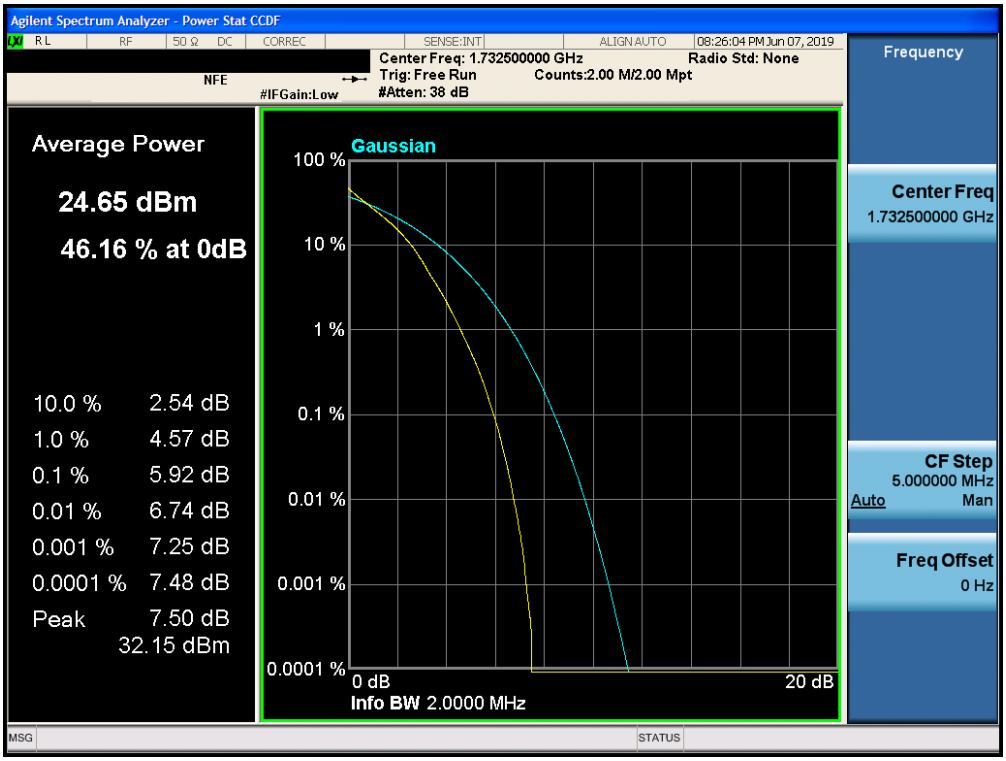
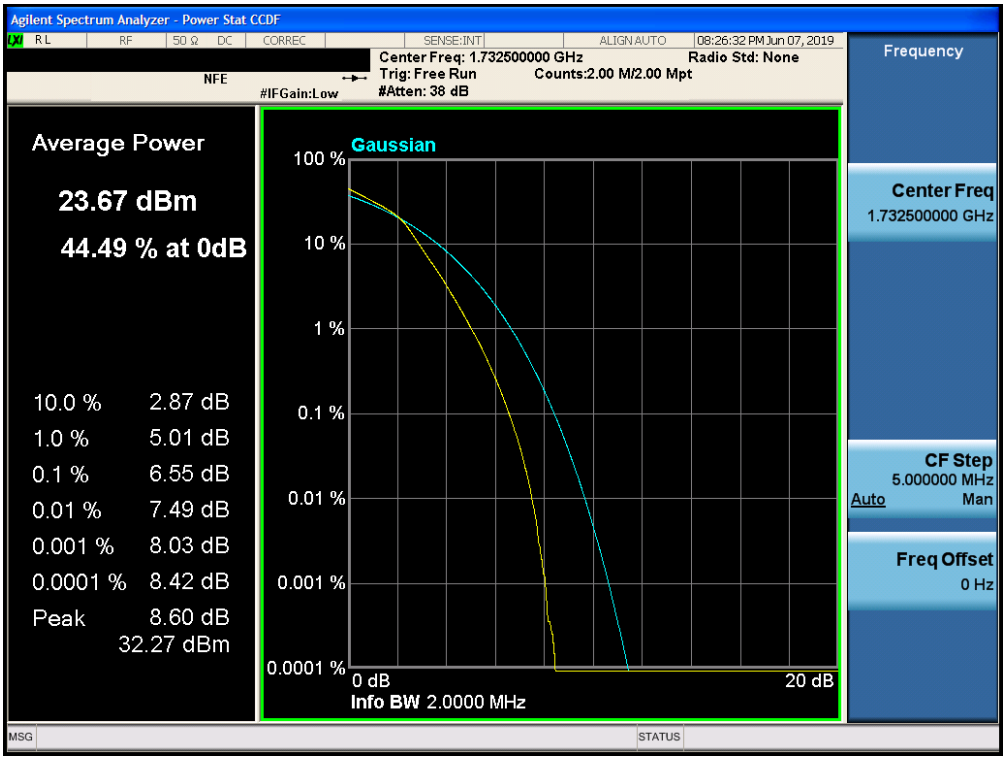
Band 4



Plot 7-354. PAR Plot (Band 4 - 1.4MHz QPSK - Full RB Configuration)



Plot 7-355. PAR Plot (Band 4 - 1.4MHz 16-QAM - Full RB Configuration)

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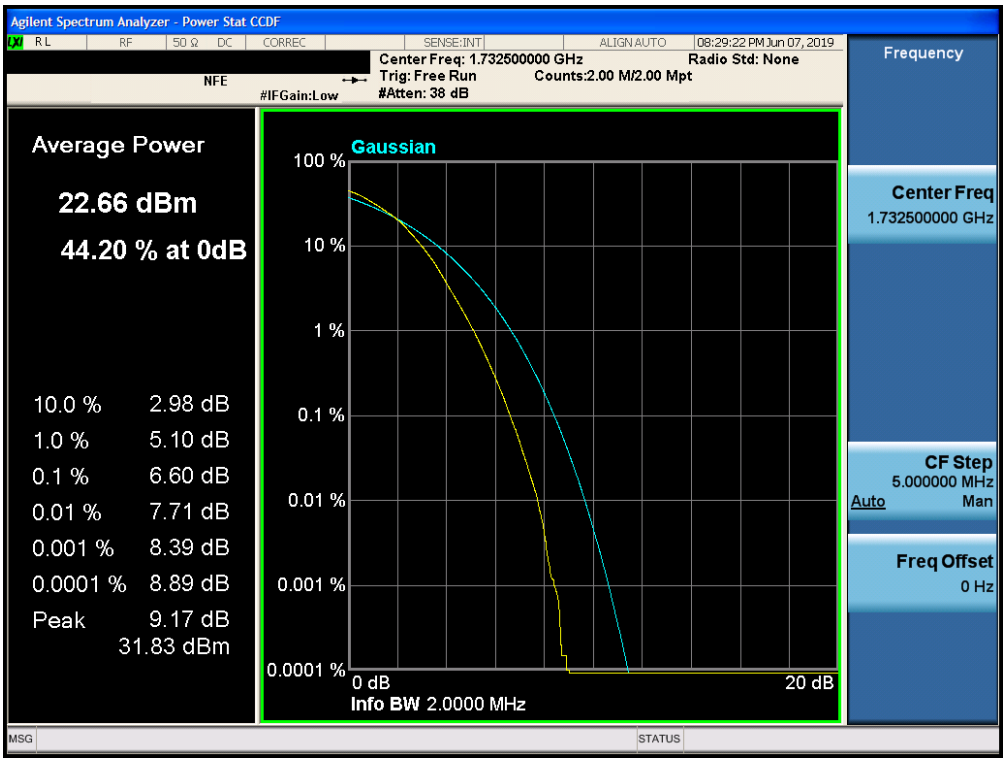
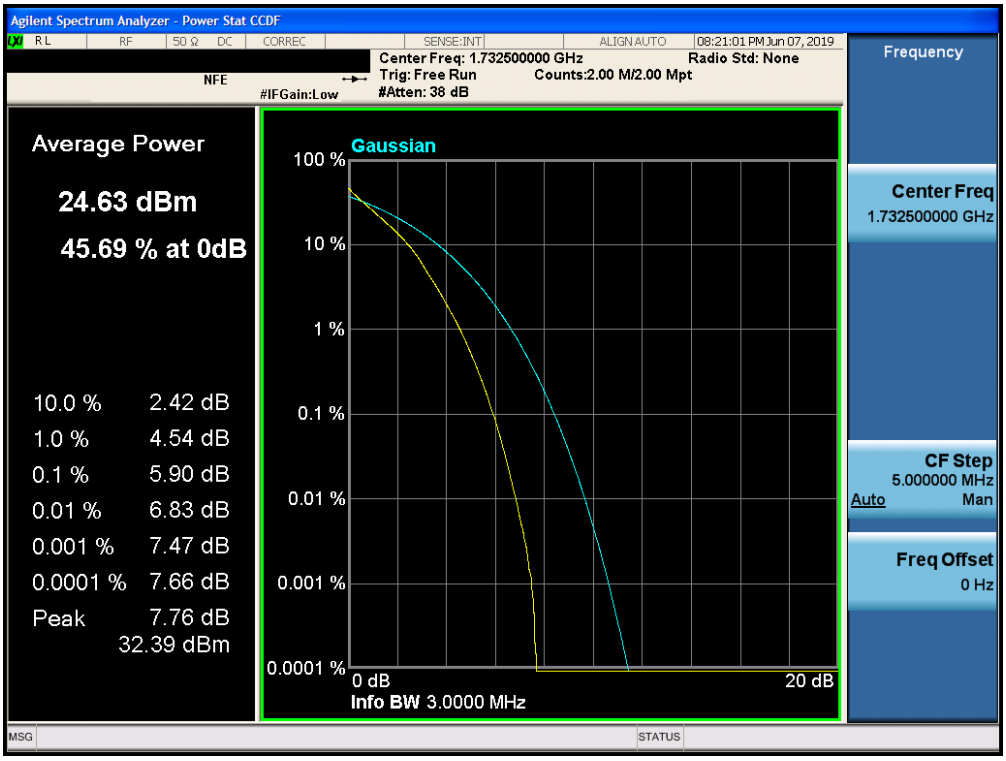


Plot 7-356. PAR Plot (Band 4 - 1.4MHz 64-QAM - Full RB Configuration)



Plot 7-357. PAR Plot (Band 4 - 3.0MHz QPSK - Full RB Configuration)

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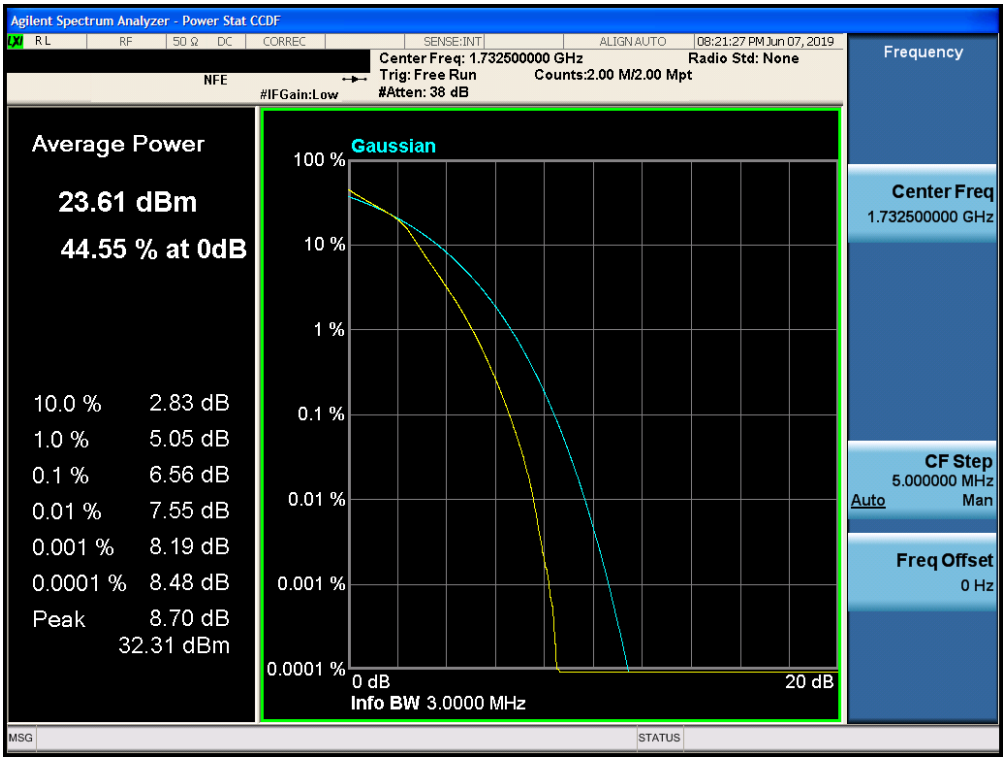
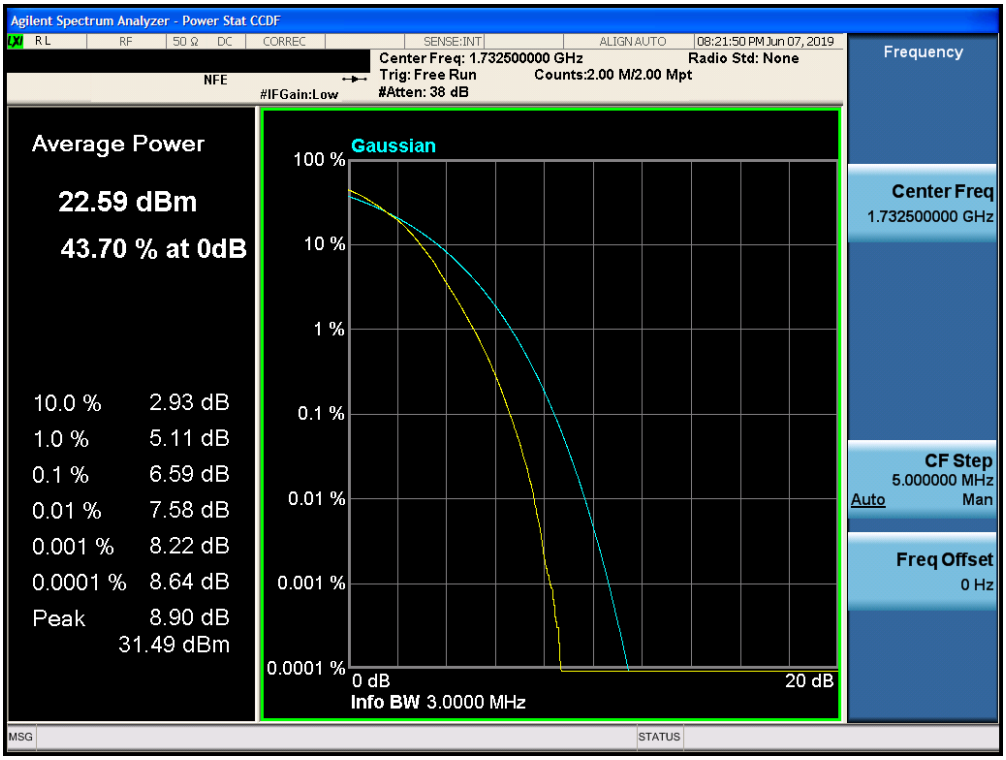


Plot 7-358. PAR Plot (Band 4 - 3.0MHz 16-QAM - Full RB Configuration)



Plot 7-359. PAR Plot (Band 4 - 3.0MHz 64-QAM - Full RB Configuration)

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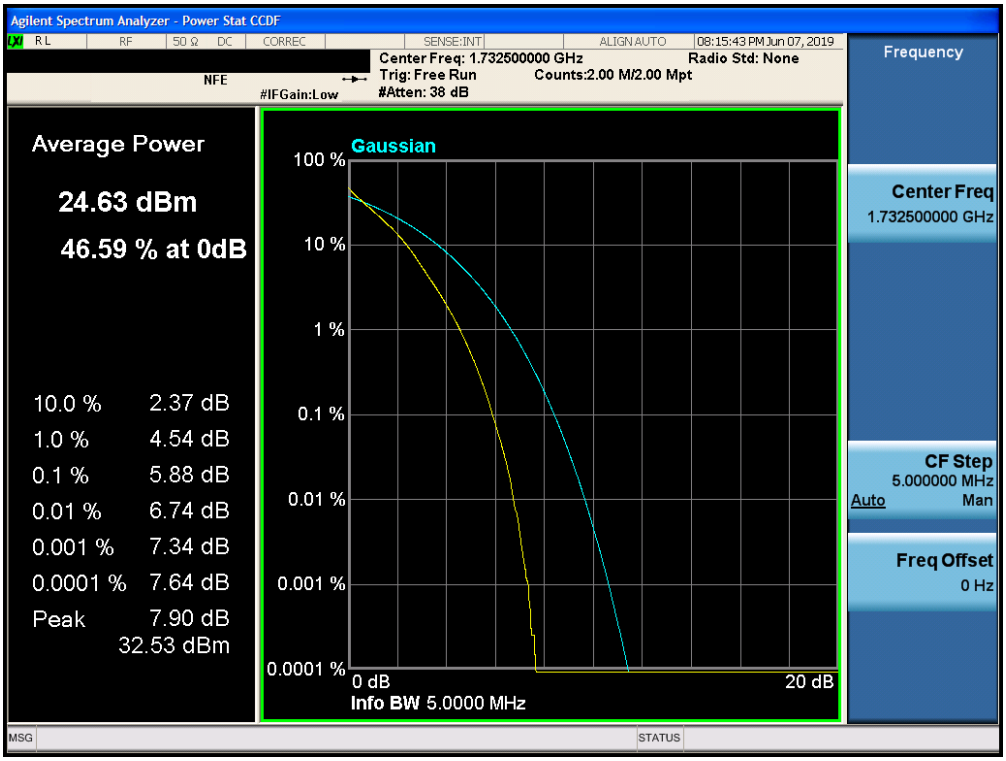
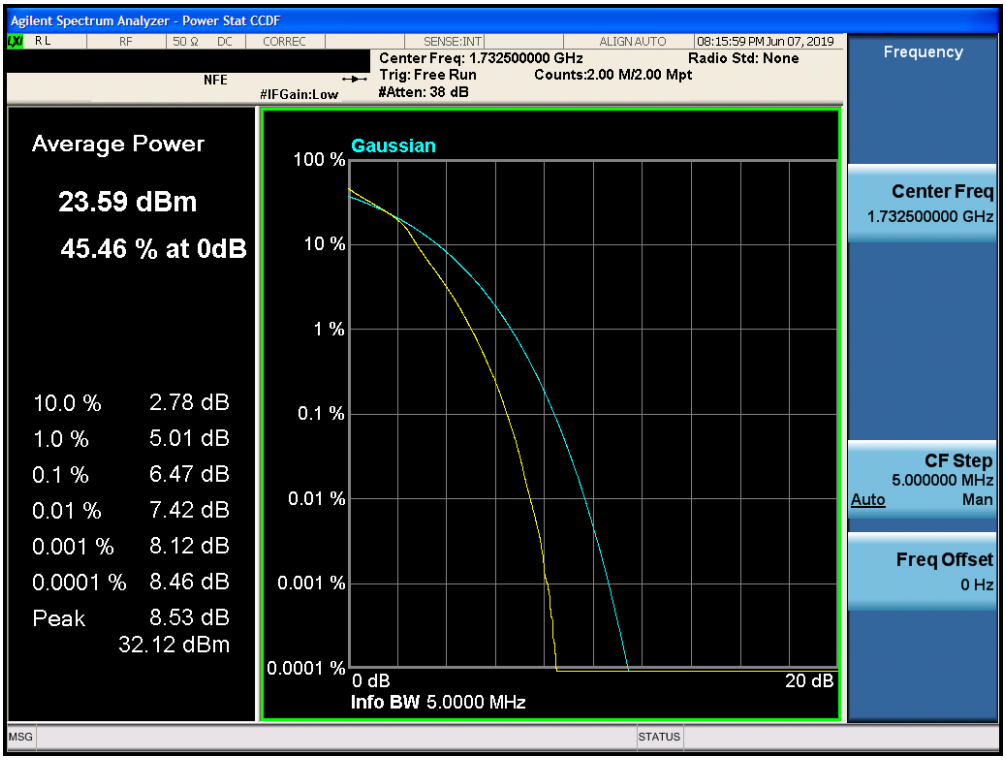


Plot 7-360. PAR Plot (Band 4 - 5.0MHz QPSK - Full RB Configuration)



Plot 7-361. PAR Plot (Band 4 - 5.0MHz 16-QAM - Full RB Configuration)

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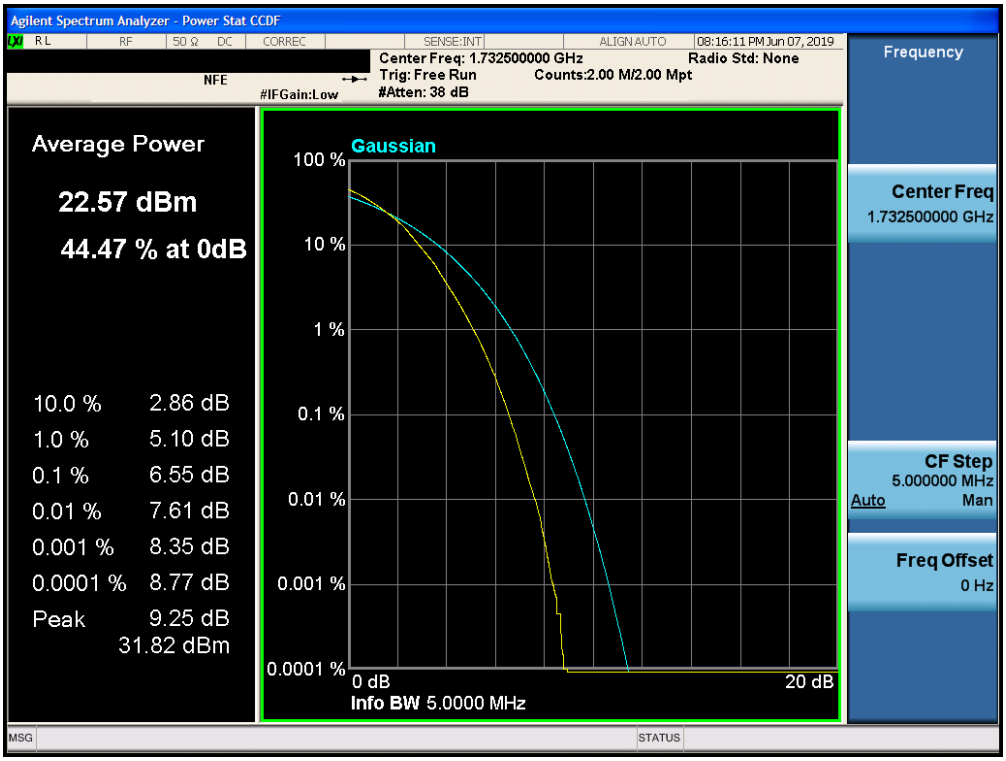
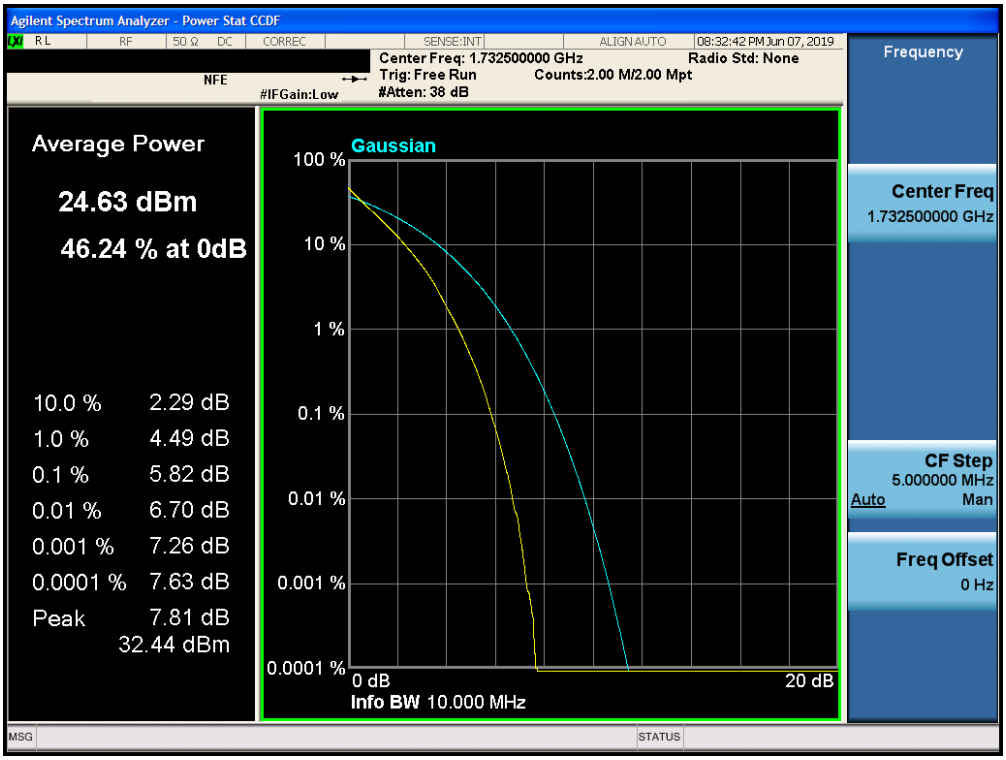


Plot 7-362. PAR Plot (Band 4 - 5.0MHz 64-QAM - Full RB Configuration)



Plot 7-363. PAR Plot (Band 4 - 10.0MHz QPSK - Full RB Configuration)

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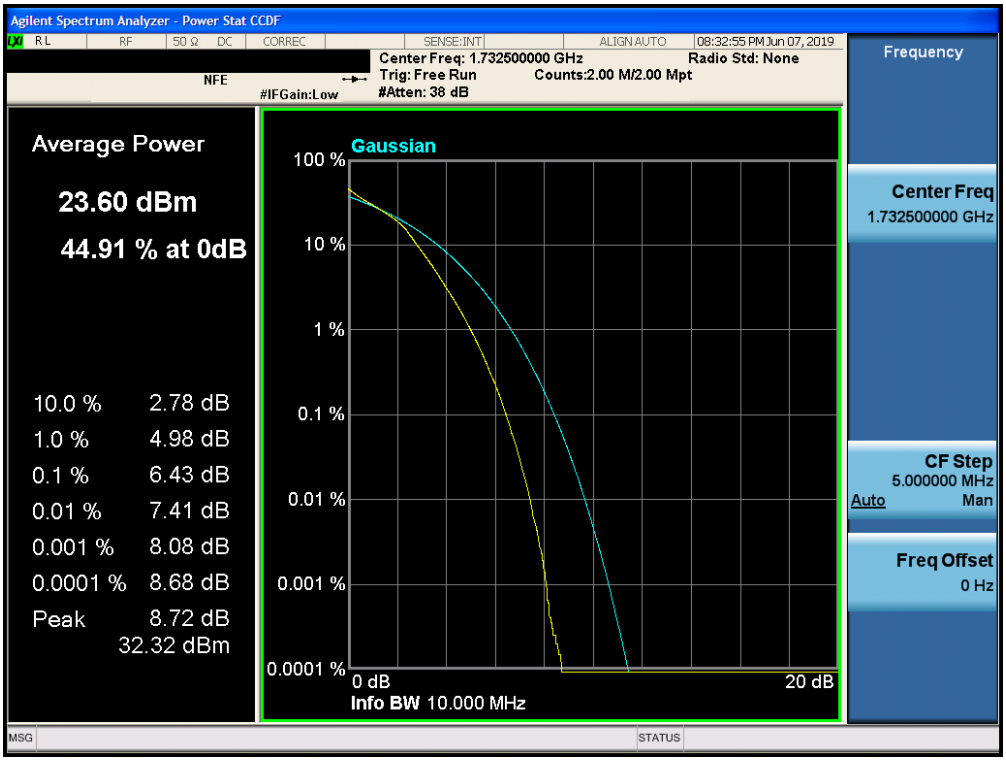
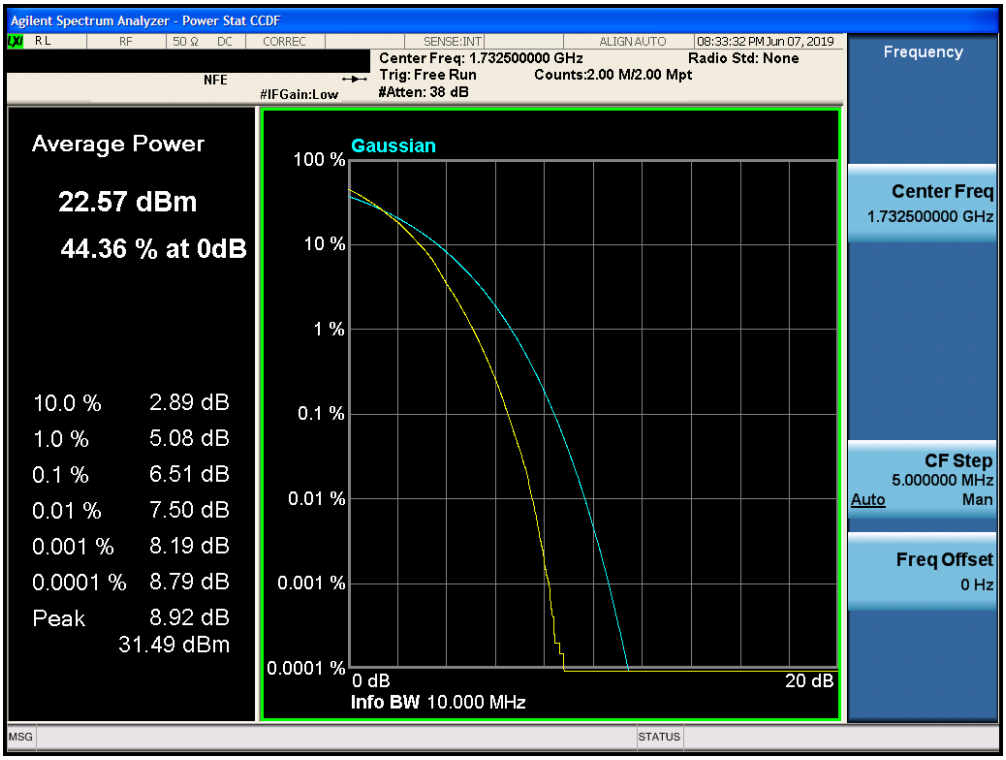


Plot 7-364. PAR Plot (Band 4 - 10.0MHz 16-QAM - Full RB Configuration)



Plot 7-365. PAR Plot (Band 4 - 10.0MHz 64-QAM - Full RB Configuration)

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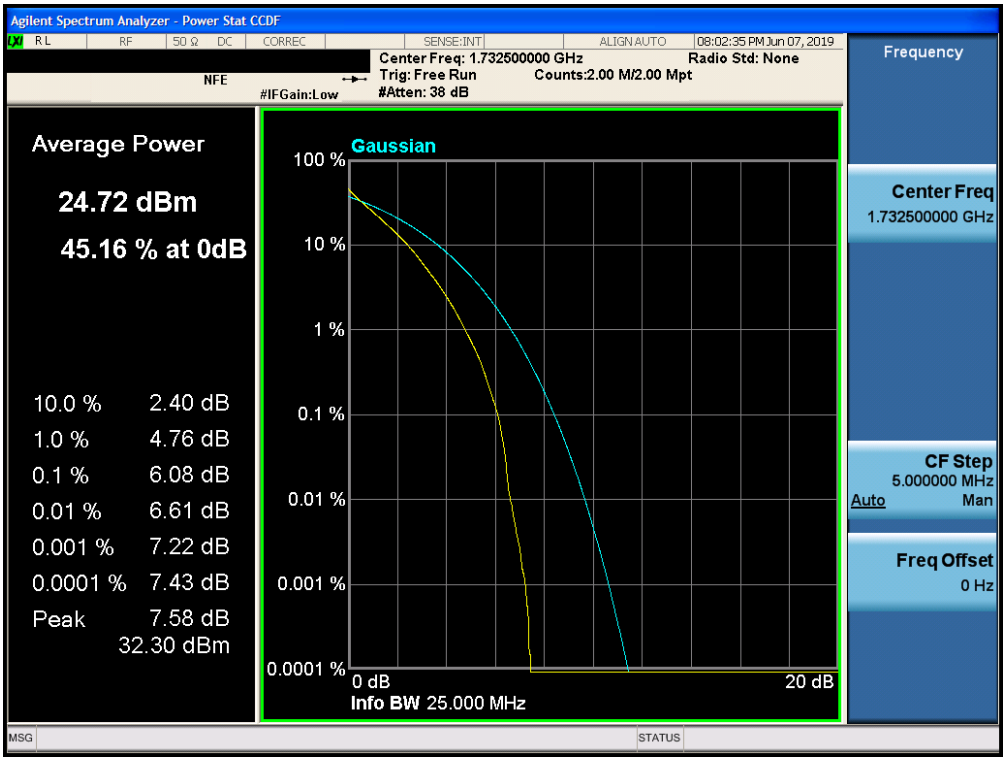
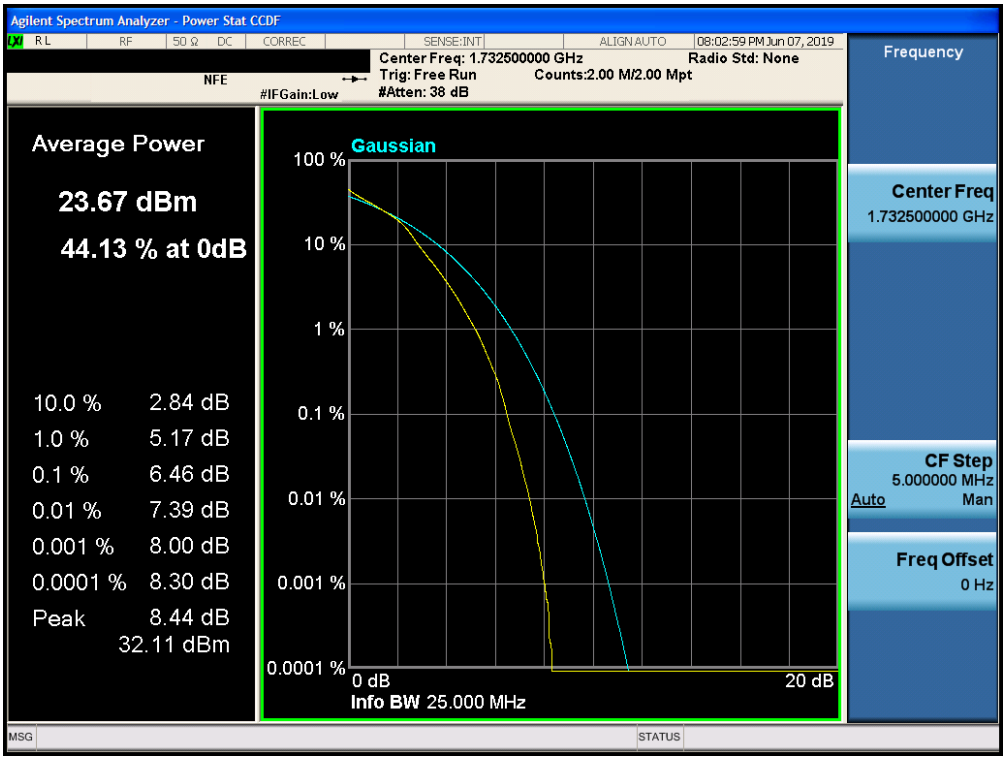


Plot 7-366. PAR Plot (Band 4 - 15.0MHz QPSK - Full RB Configuration)



Plot 7-367. PAR Plot (Band 4 - 15.0MHz 16-QAM - Full RB Configuration)

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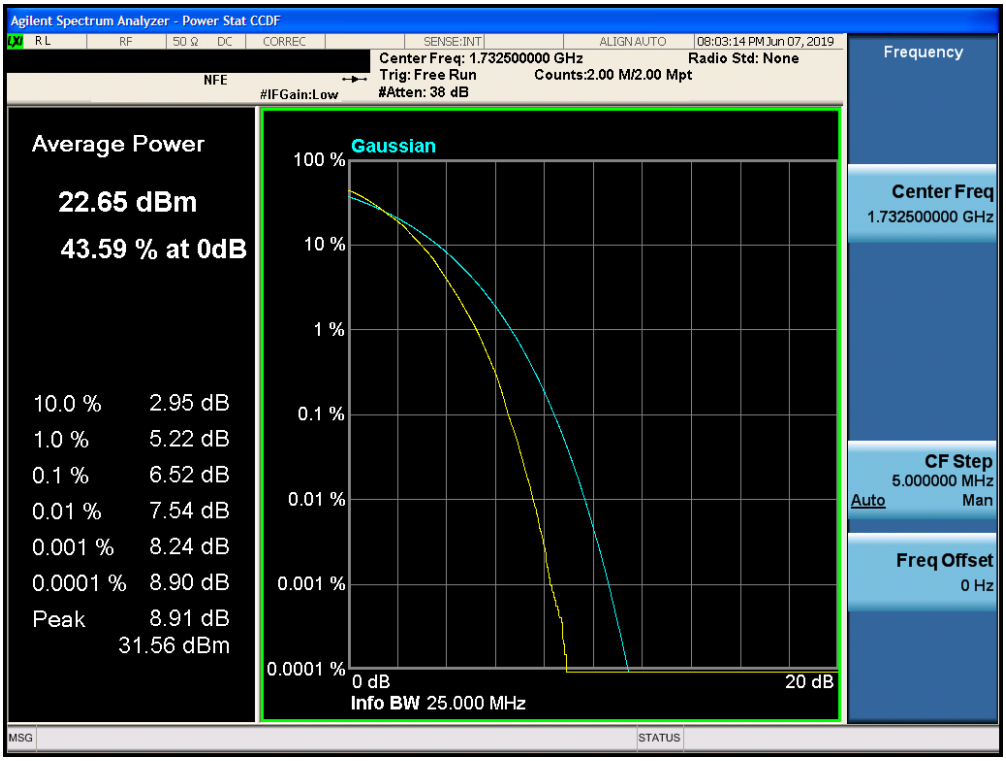
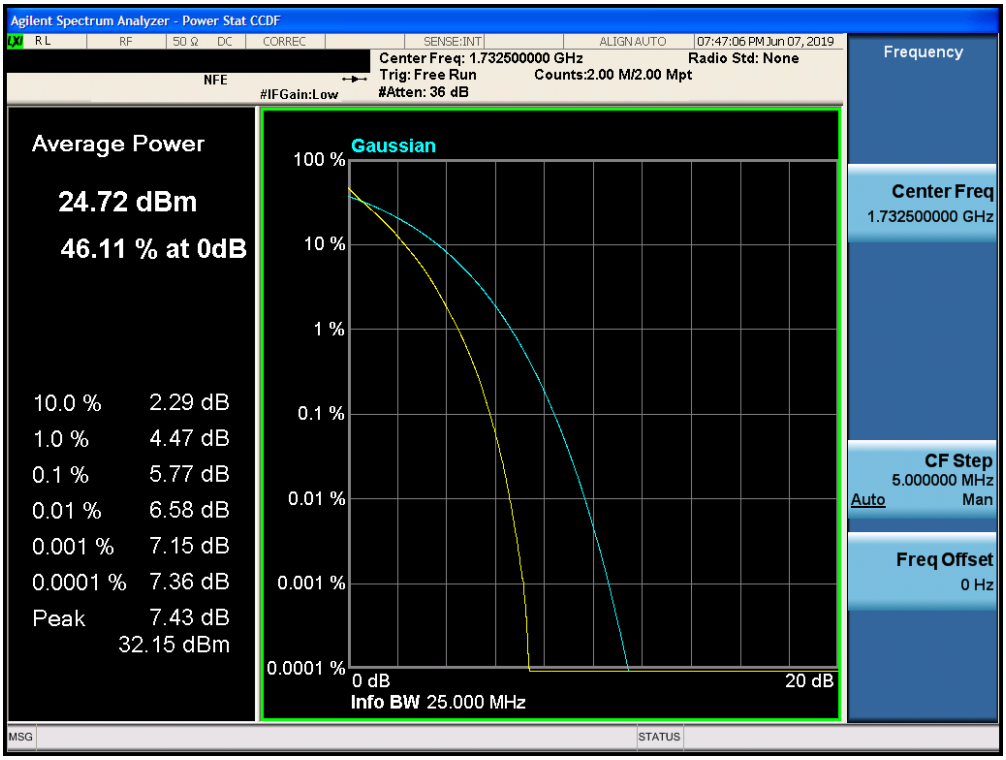


Plot 7-368. PAR Plot (Band 4 - 15.0MHz 64-QAM - Full RB Configuration)



Plot 7-369. PAR Plot (Band 4 - 20.0MHz QPSK - Full RB Configuration)

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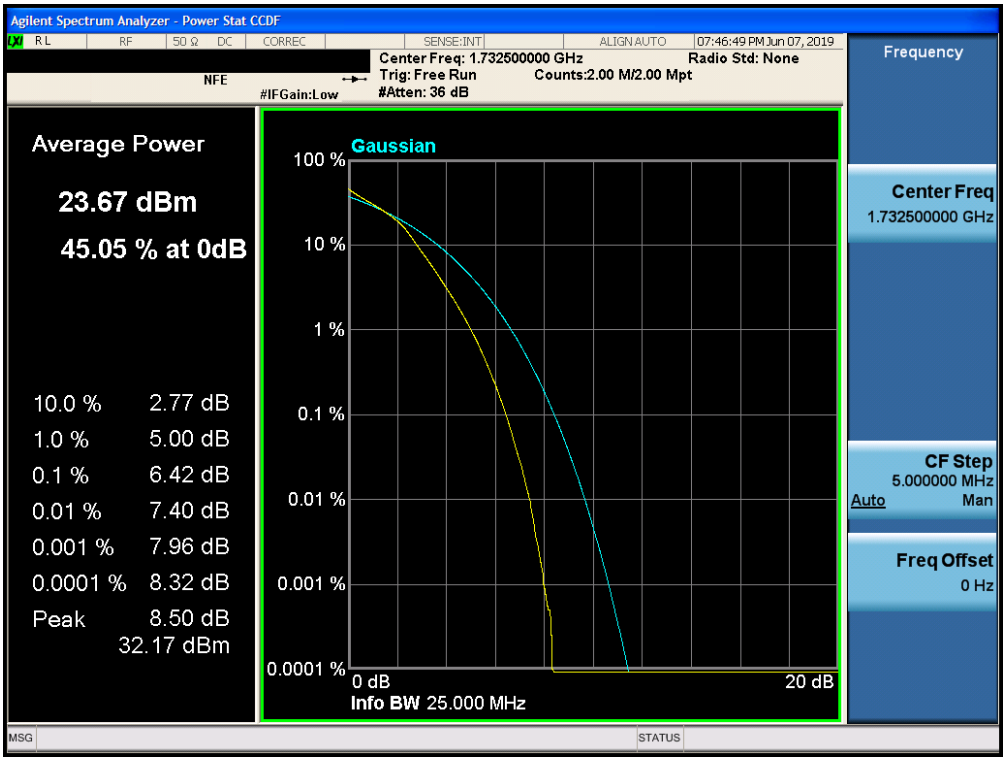
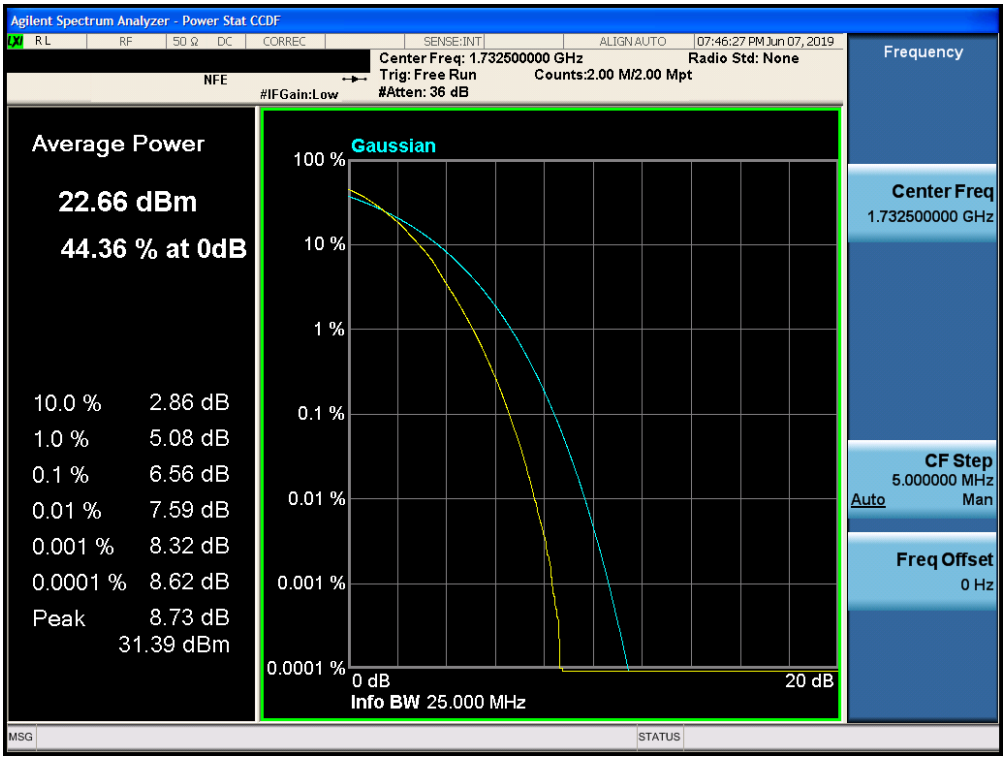


Plot 7-370. PAR Plot (Band 4 - 20.0MHz 16-QAM - Full RB Configuration)



Plot 7-371. PAR Plot (Band 4 - 20.0MHz 64-QAM - Full RB Configuration)

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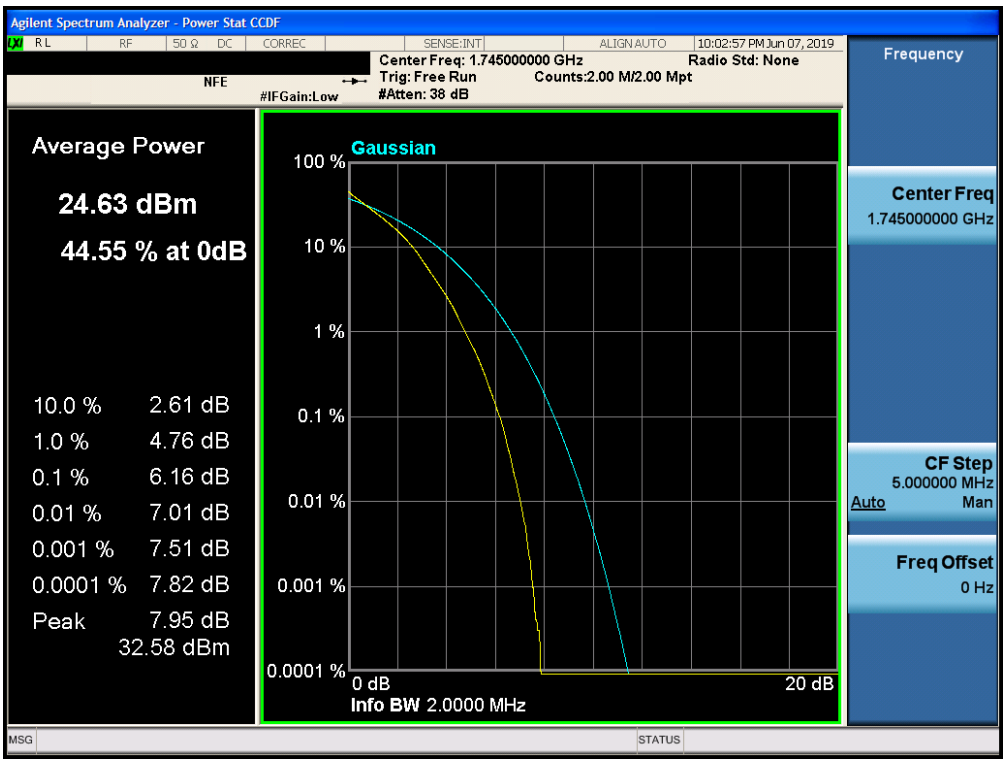
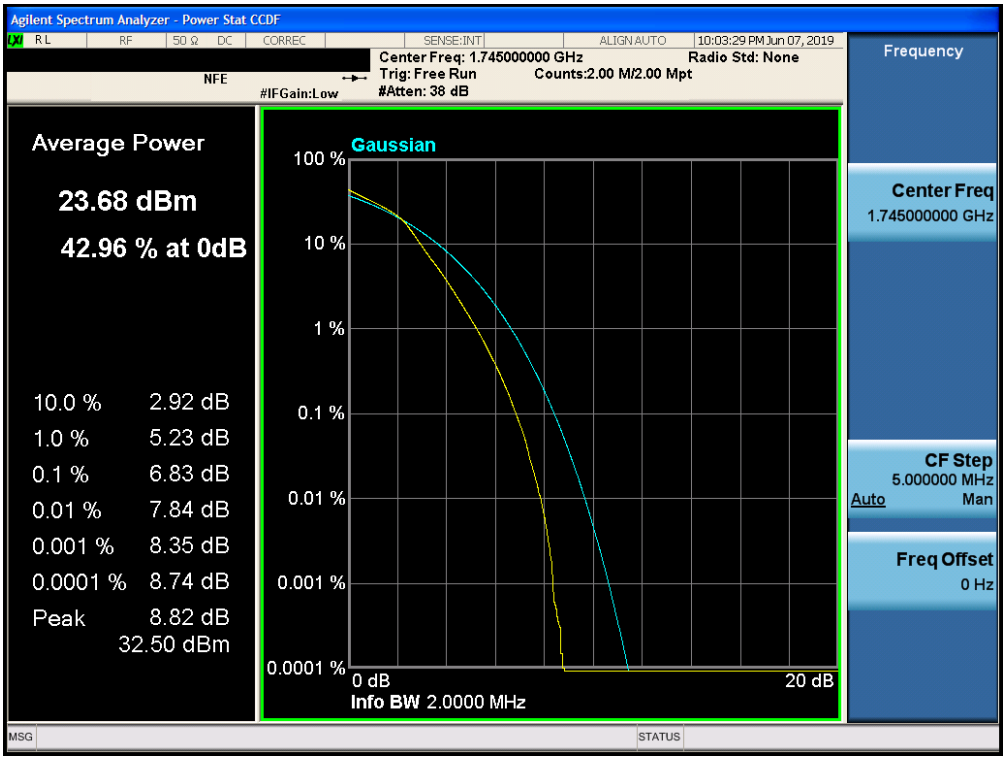
Band 66



Plot 7-372. PAR Plot (Band 66 - 1.4MHz QPSK - Full RB Configuration)



Plot 7-373. PAR Plot (Band 66 - 1.4MHz 16-QAM - Full RB Configuration)

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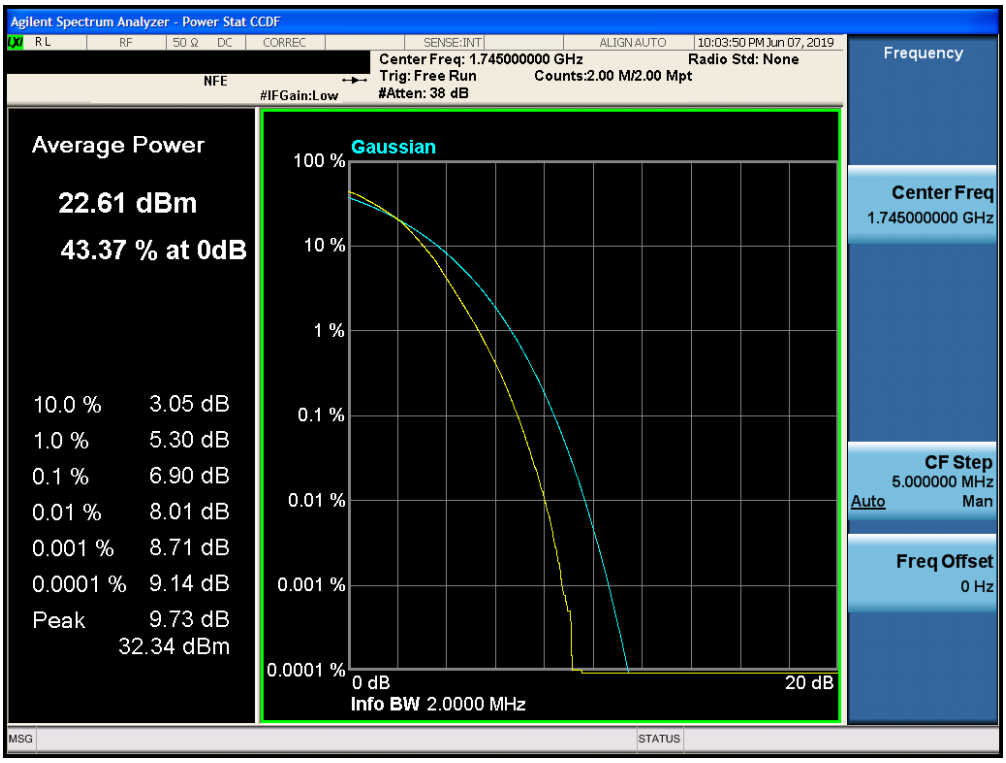
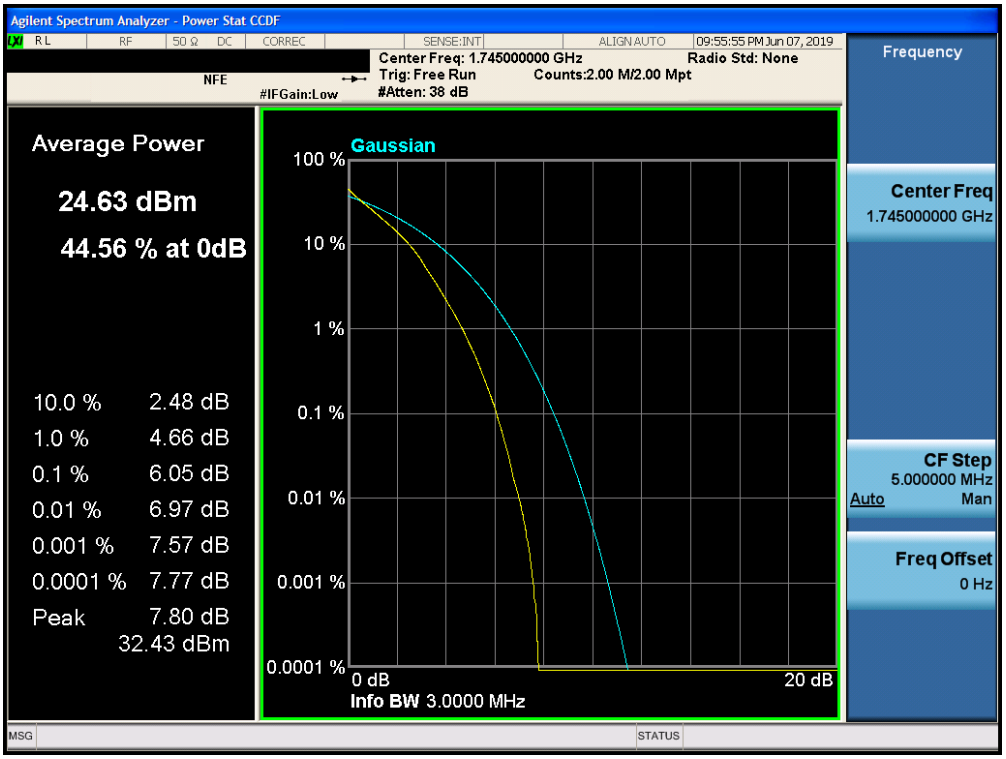


Plot 7-374. PAR Plot (Band 66 - 1.4MHz 64-QAM - Full RB Configuration)



Plot 7-375. PAR Plot (Band 66 - 3.0MHz QPSK - Full RB Configuration)

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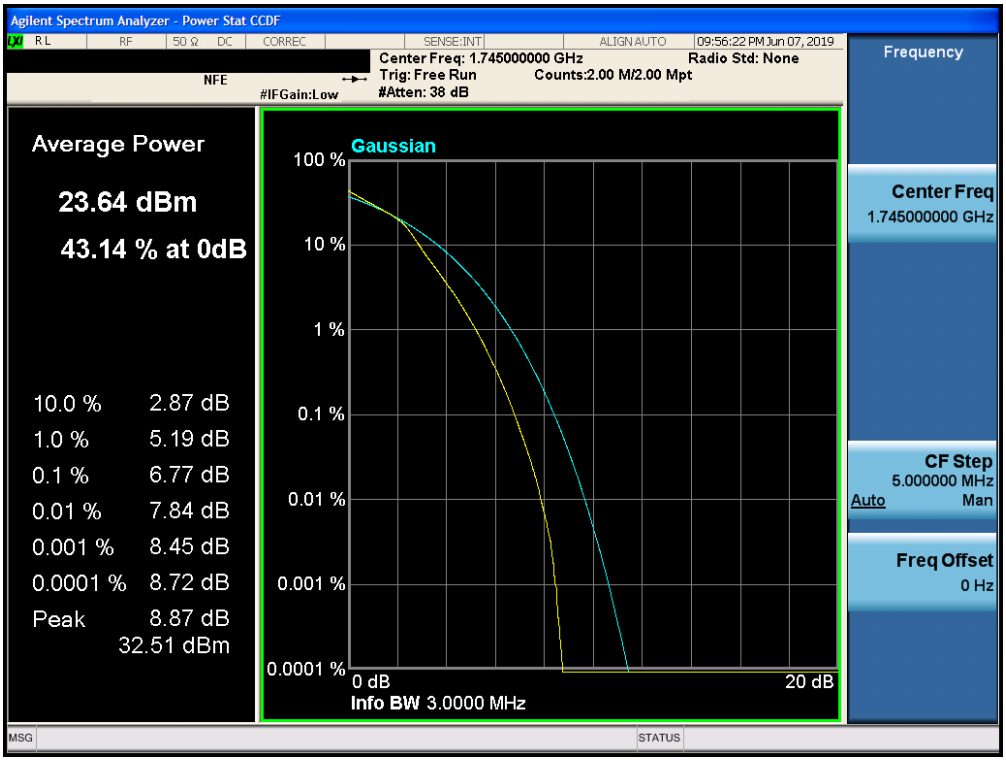
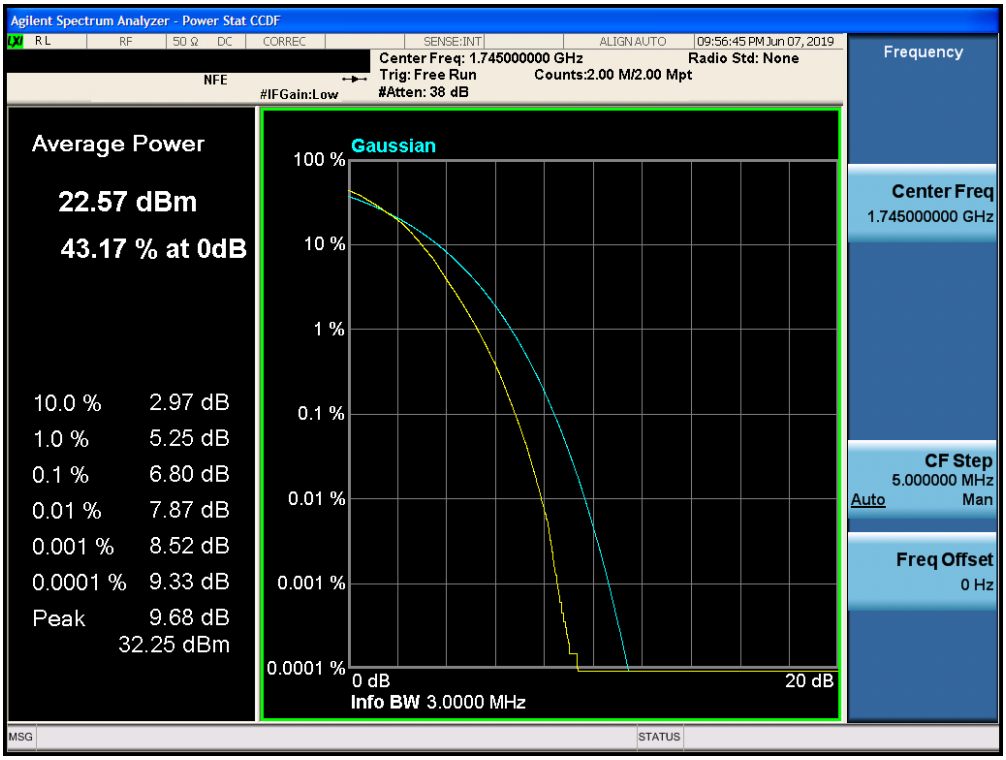


Plot 7-376. PAR Plot (Band 66 - 3.0MHz 16-QAM - Full RB Configuration)



Plot 7-377. PAR Plot (Band 66 - 3.0MHz 64-QAM - Full RB Configuration)

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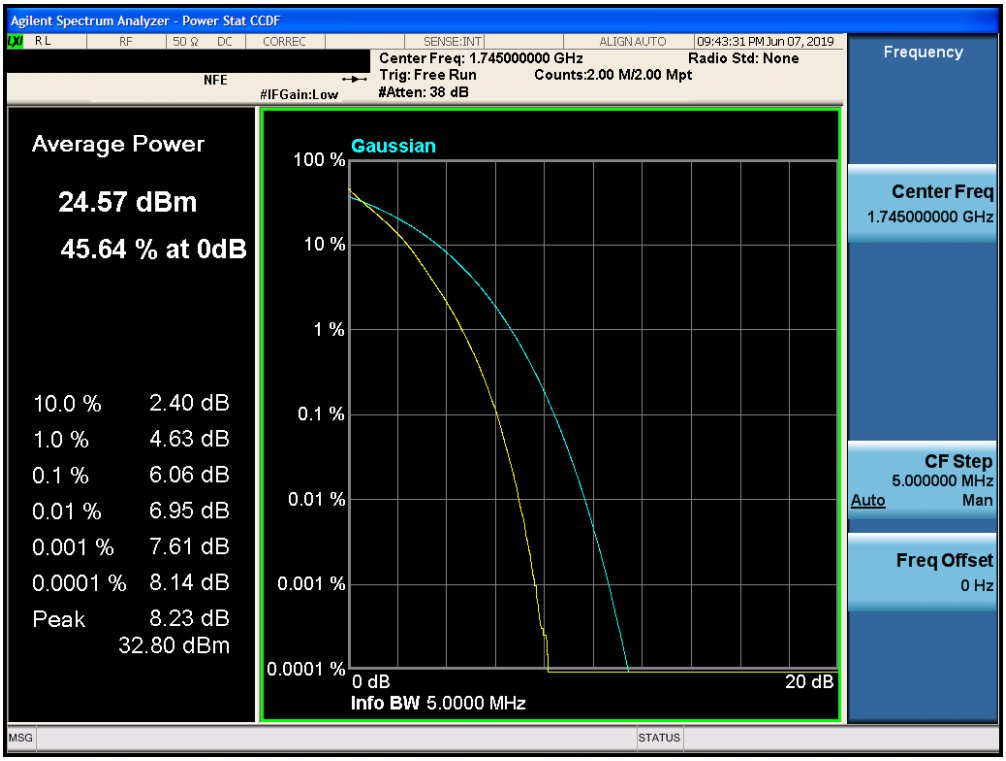
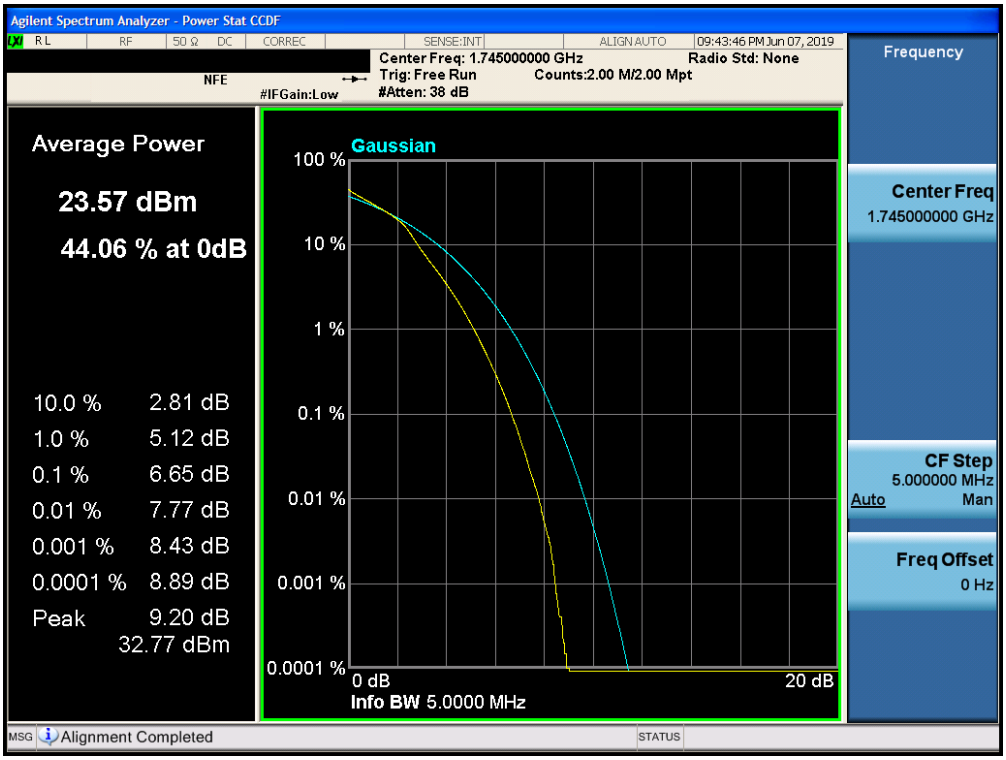


Plot 7-378. PAR Plot (Band 66 - 5.0MHz QPSK - Full RB Configuration)



Plot 7-379. PAR Plot (Band 66 - 5.0MHz 16-QAM - Full RB Configuration)

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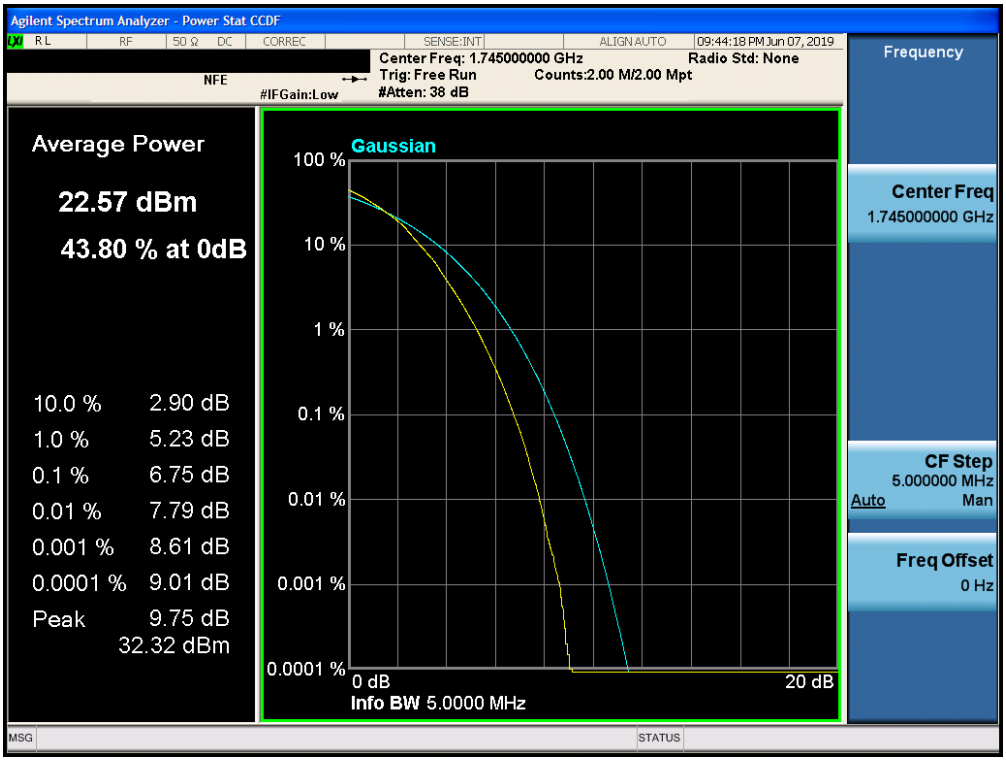
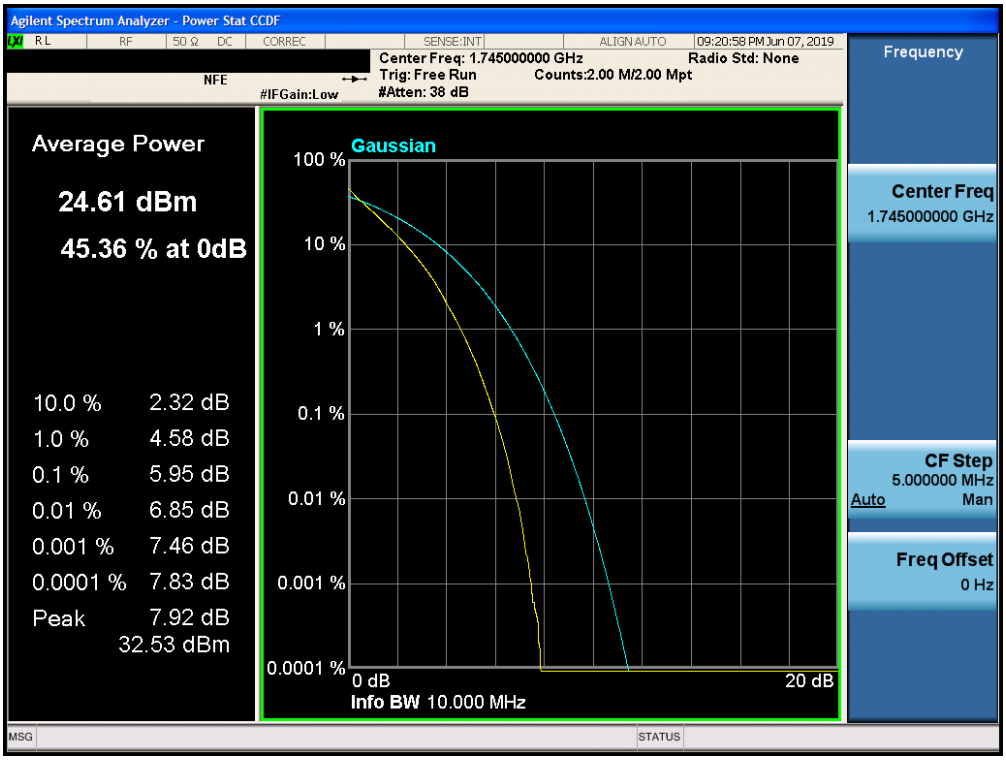


Plot 7-380. PAR Plot (Band 66 - 5.0MHz 64-QAM - Full RB Configuration)



Plot 7-381. PAR Plot (Band 66 - 10.0MHz QPSK - Full RB Configuration)

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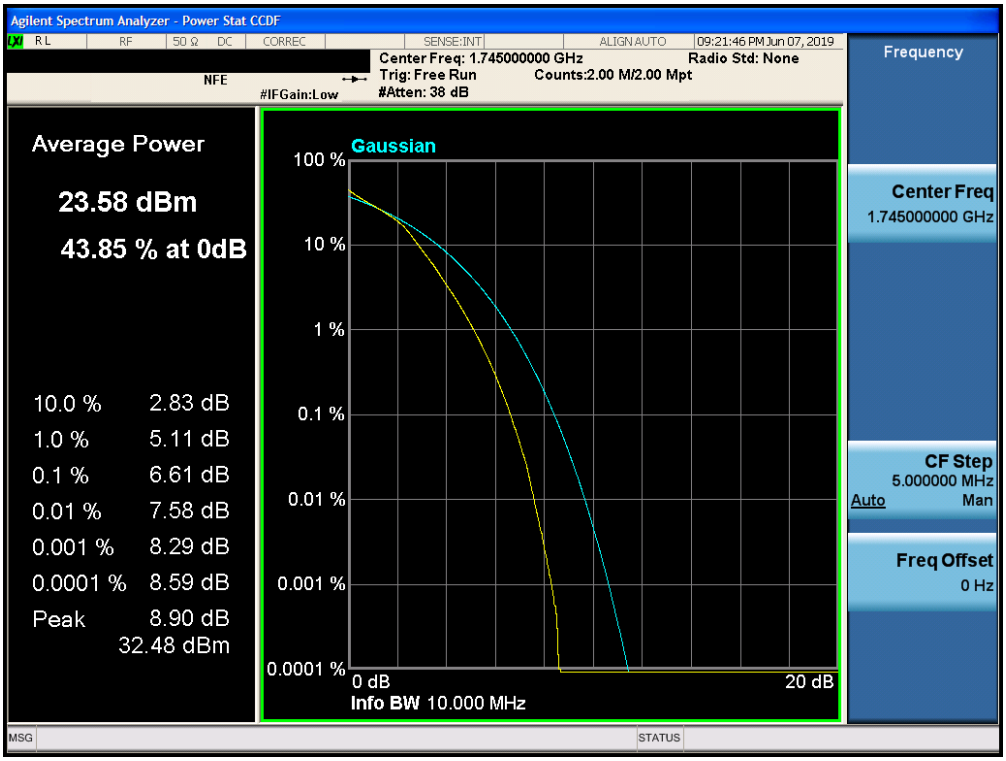
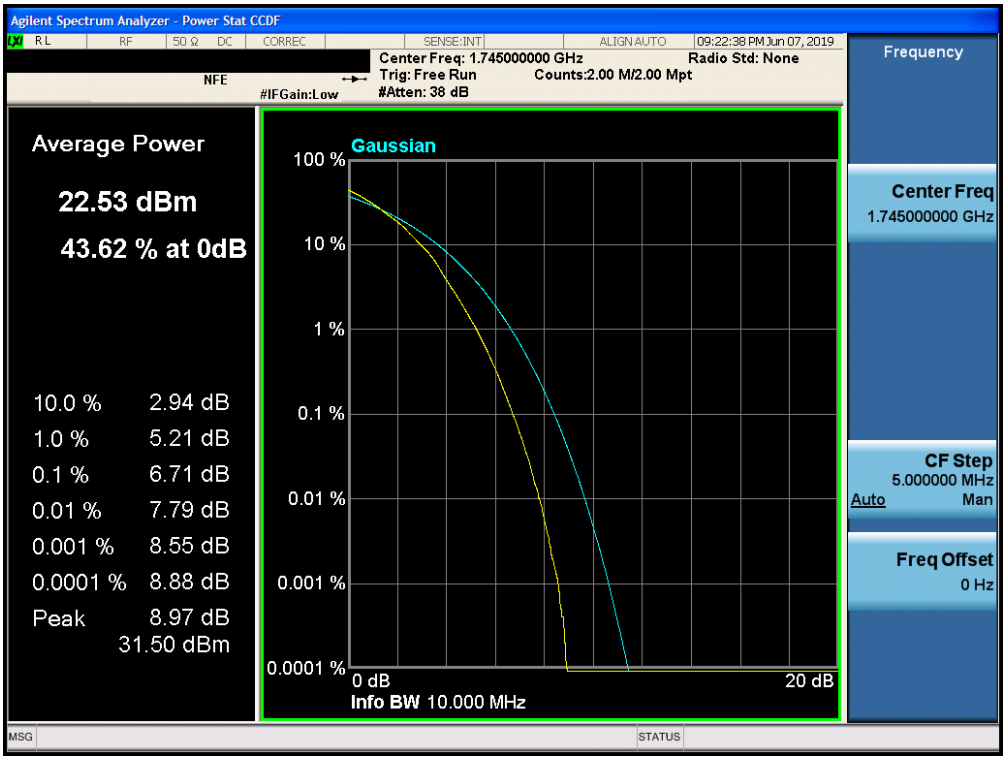


Plot 7-382. PAR Plot (Band 66 - 10.0MHz 16-QAM - Full RB Configuration)



Plot 7-383. PAR Plot (Band 66 - 10.0MHz 64-QAM - Full RB Configuration)

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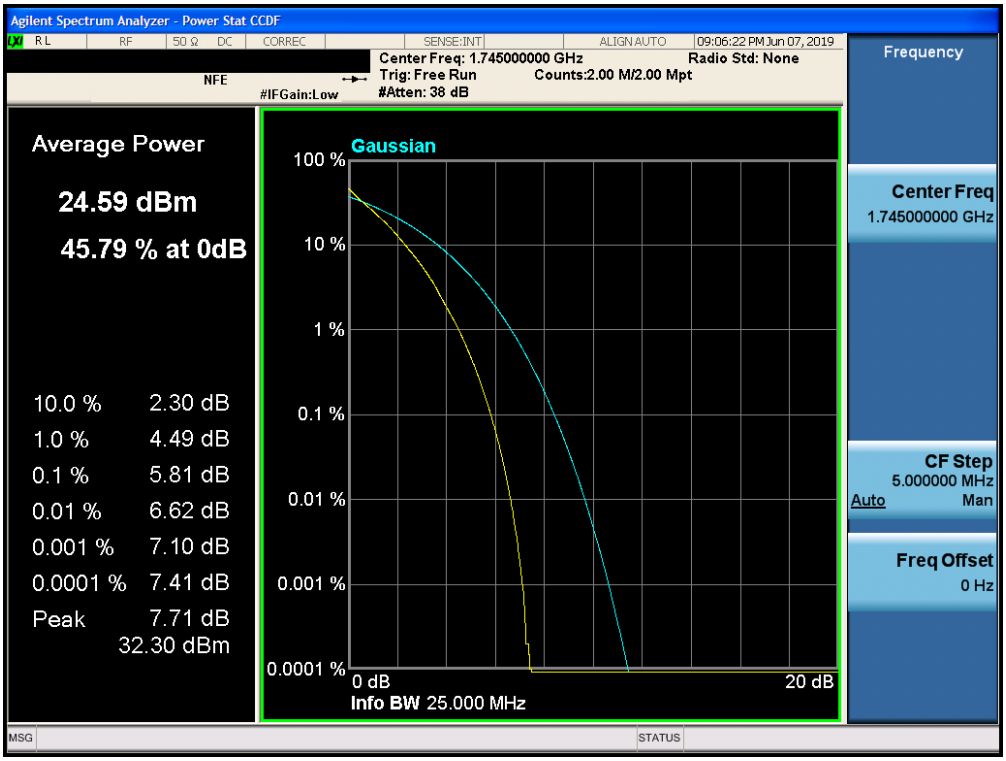
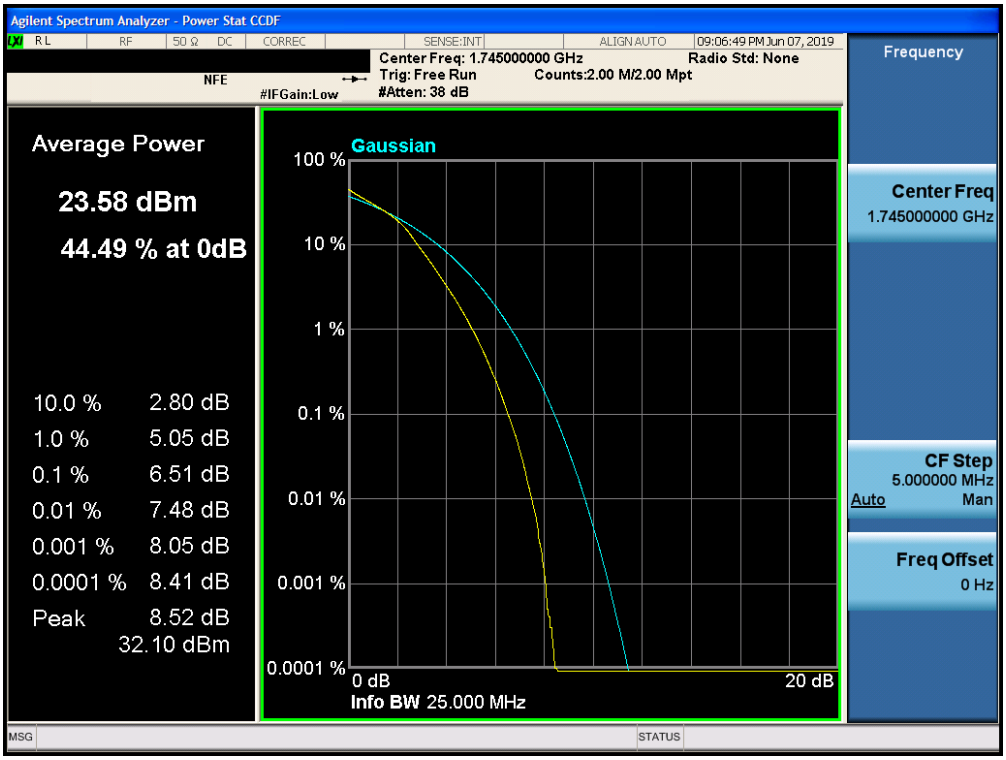


Plot 7-384. PAR Plot (Band 66 - 15.0MHz QPSK - Full RB Configuration)



Plot 7-385. PAR Plot (Band 66 - 15.0MHz 16-QAM - Full RB Configuration)

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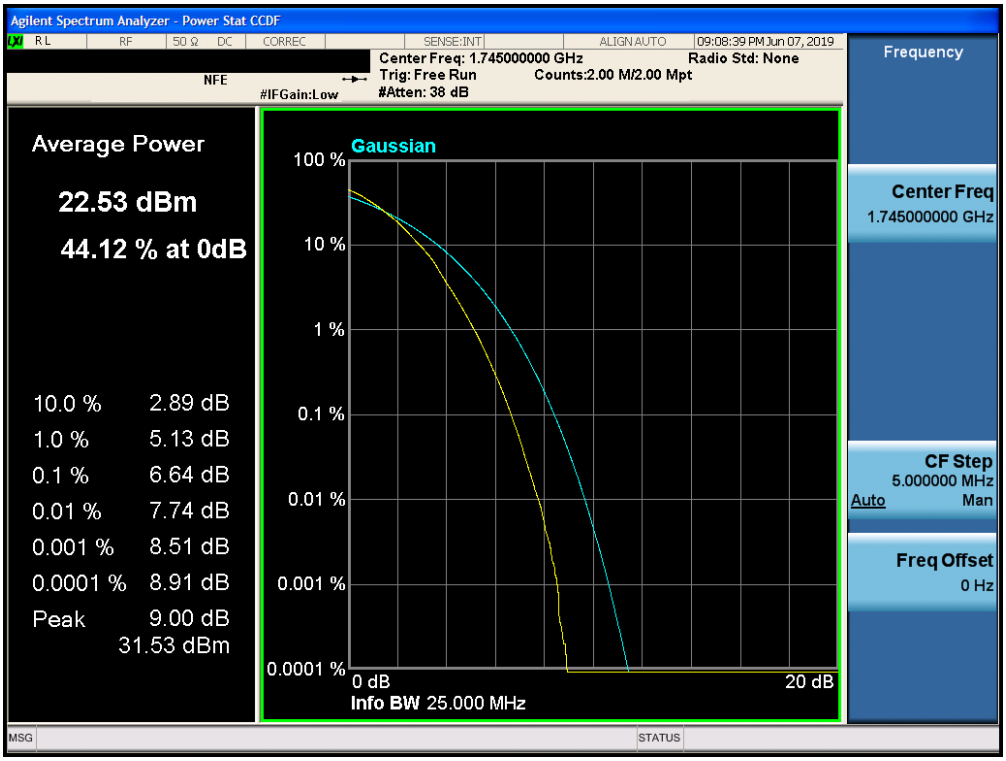
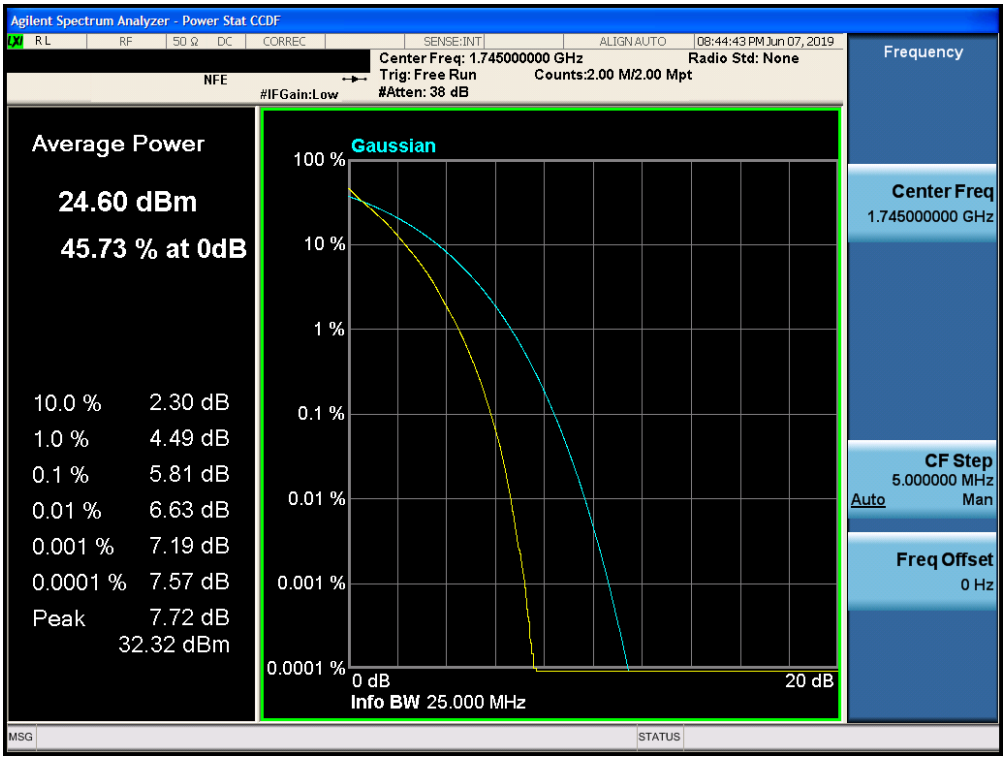


Plot 7-386. PAR Plot (Band 66 - 15.0MHz 64-QAM - Full RB Configuration)



Plot 7-387. PAR Plot (Band 66 - 20.0MHz QPSK - Full RB Configuration)

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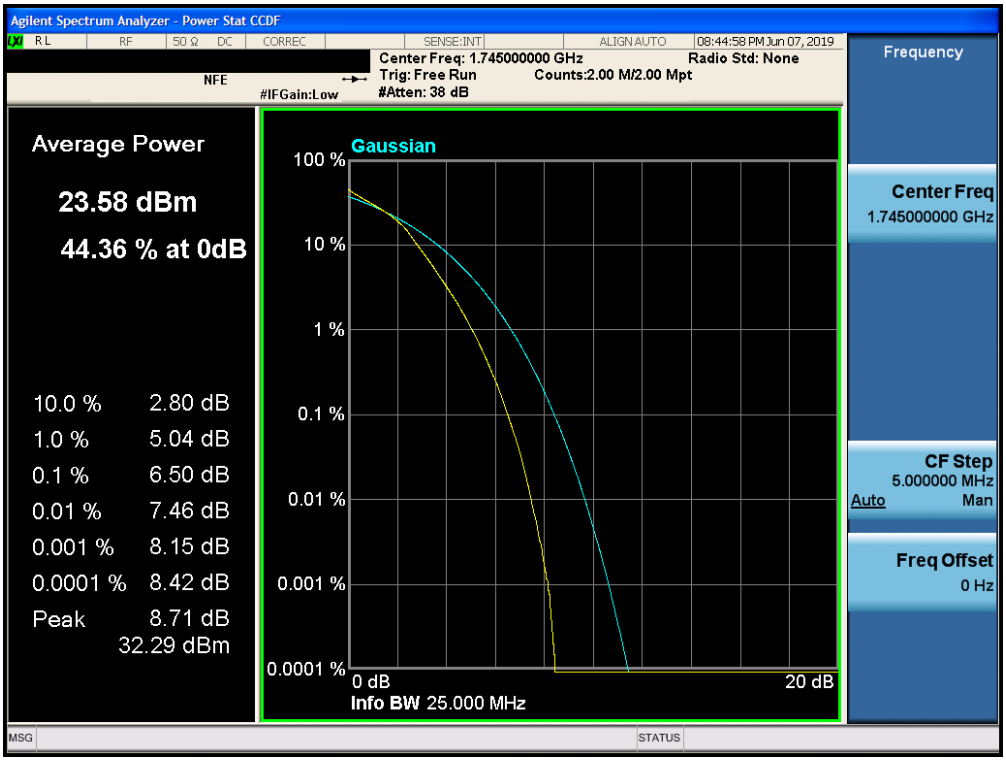
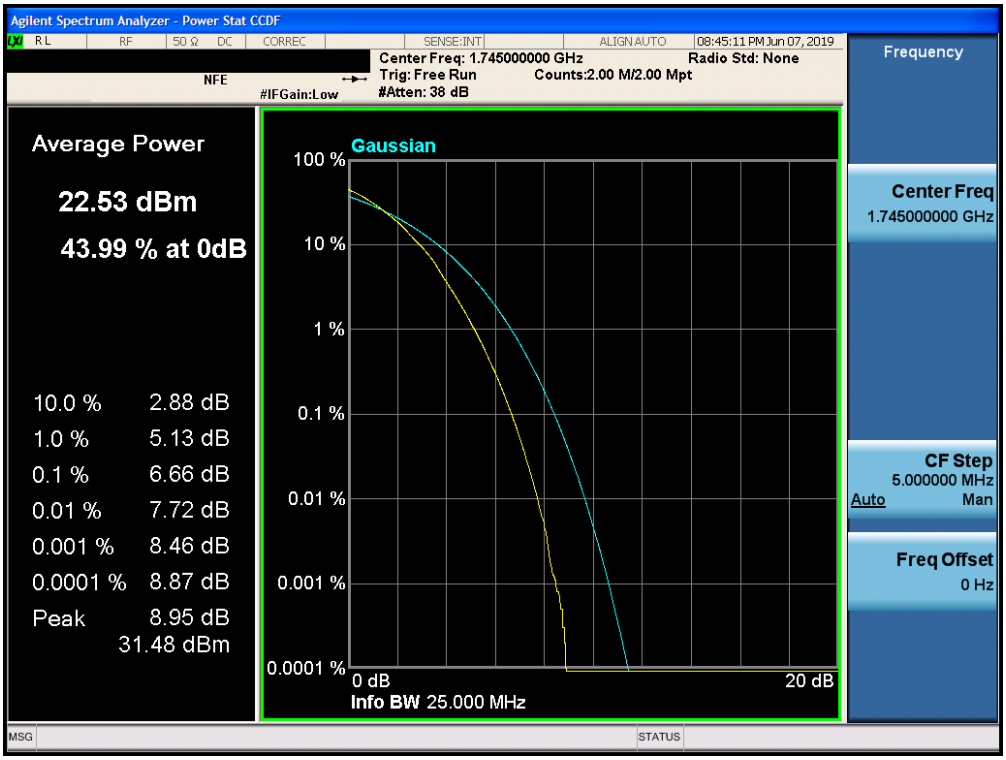


Plot 7-388. PAR Plot (Band 66 - 20.0MHz 16-QAM - Full RB Configuration)



Plot 7-389. PAR Plot (Band 66 - 20.0MHz 64-QAM - Full RB Configuration)

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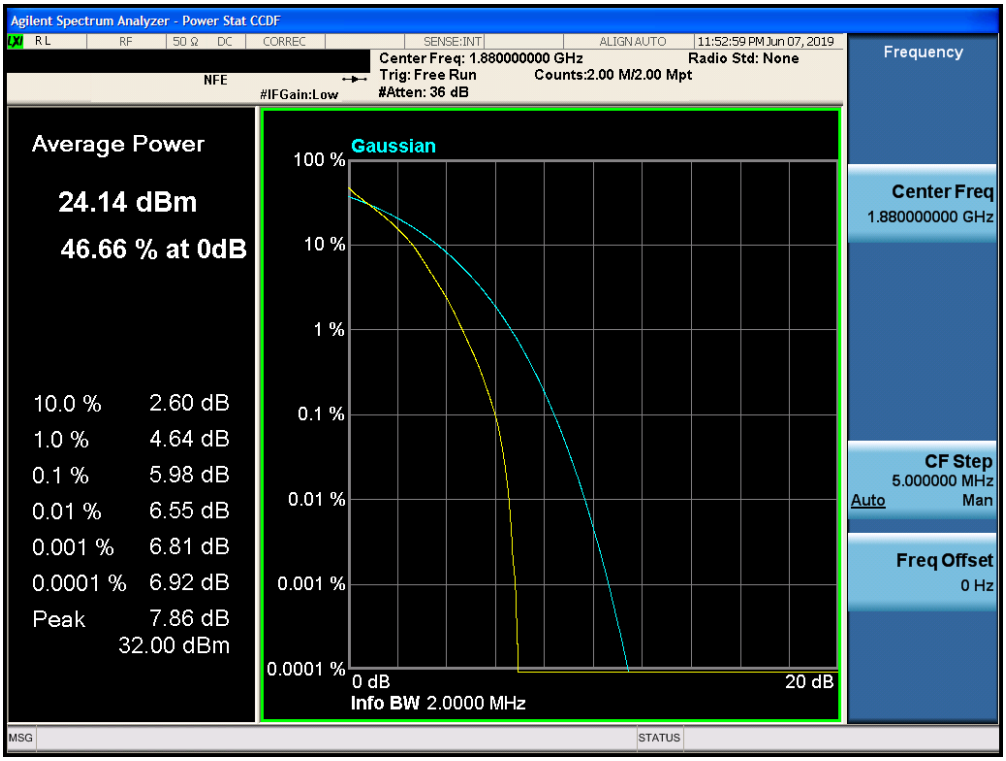
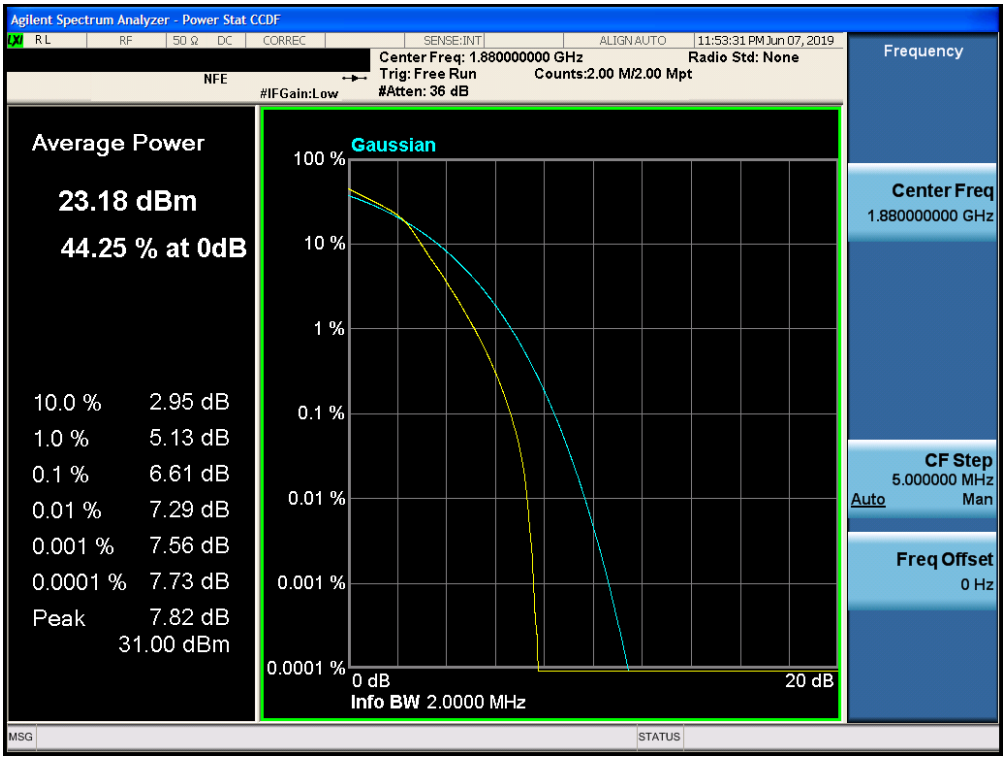
Band 2



Plot 7-390. PAR Plot (Band 2 - 1.4MHz QPSK - Full RB Configuration)



Plot 7-391. PAR Plot (Band 2 - 1.4MHz 16-QAM - Full RB Configuration)

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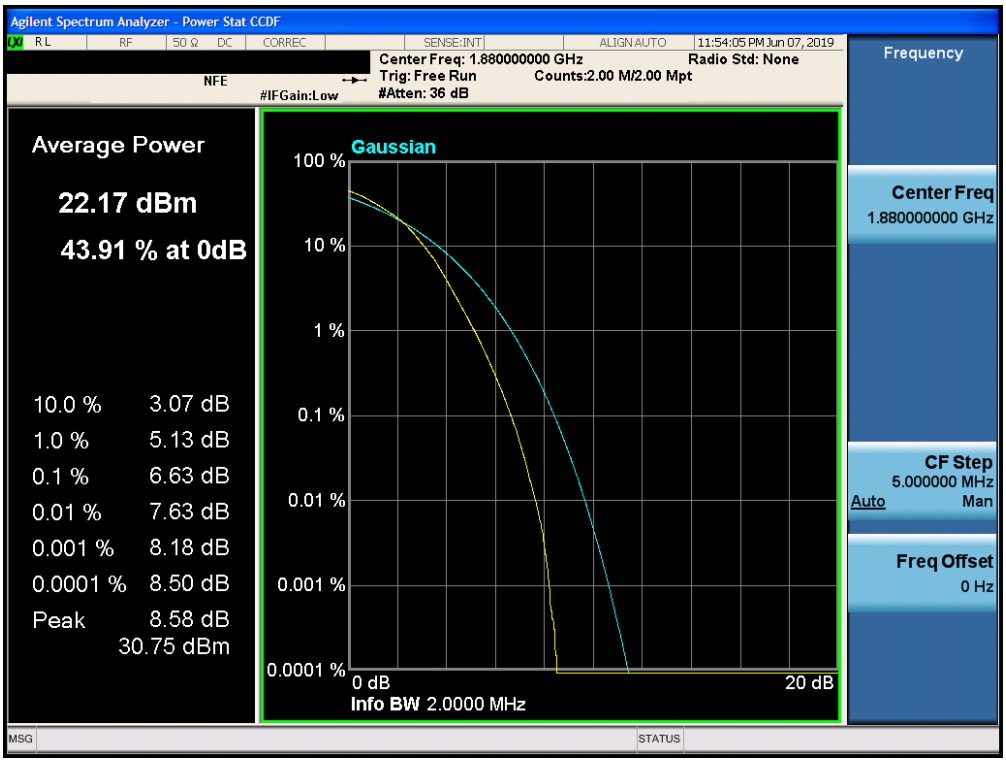
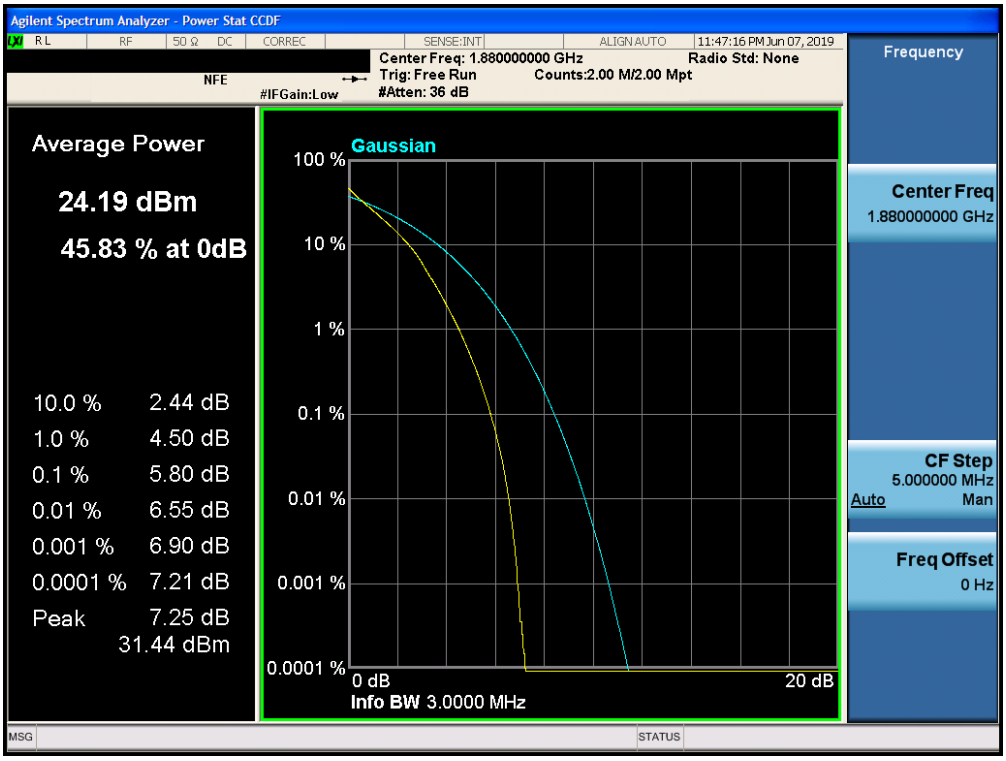


Plot 7-392. PAR Plot (Band 2 - 1.4MHz 64-QAM - Full RB Configuration)



Plot 7-393. PAR Plot (Band 2 - 3.0MHz QPSK - Full RB Configuration)

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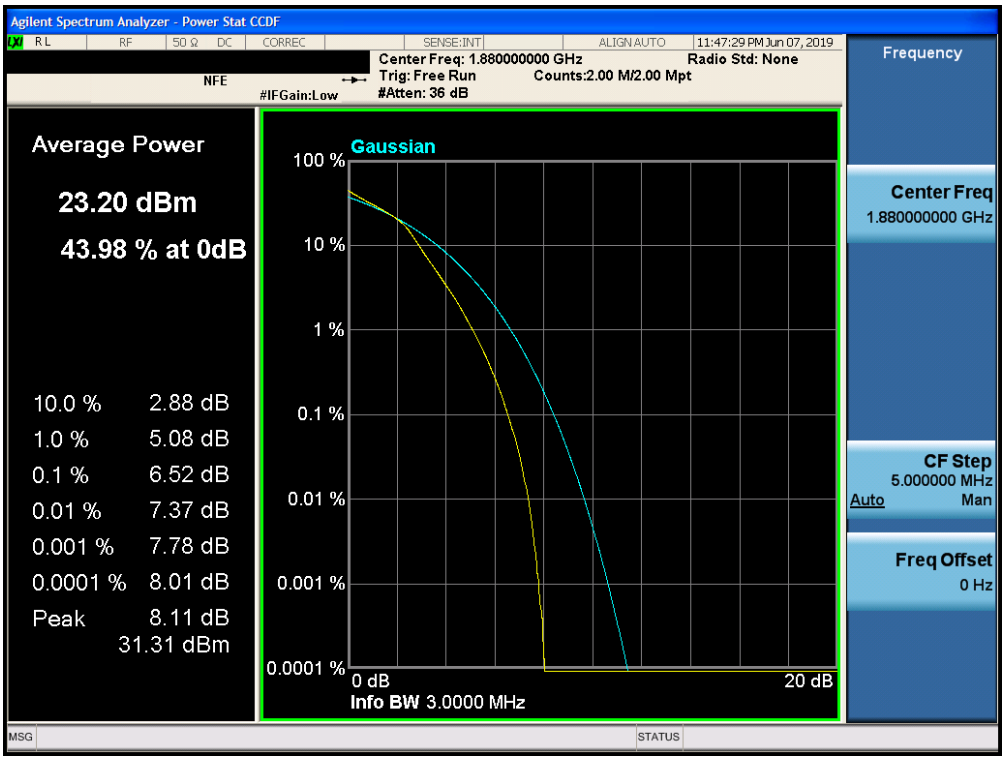
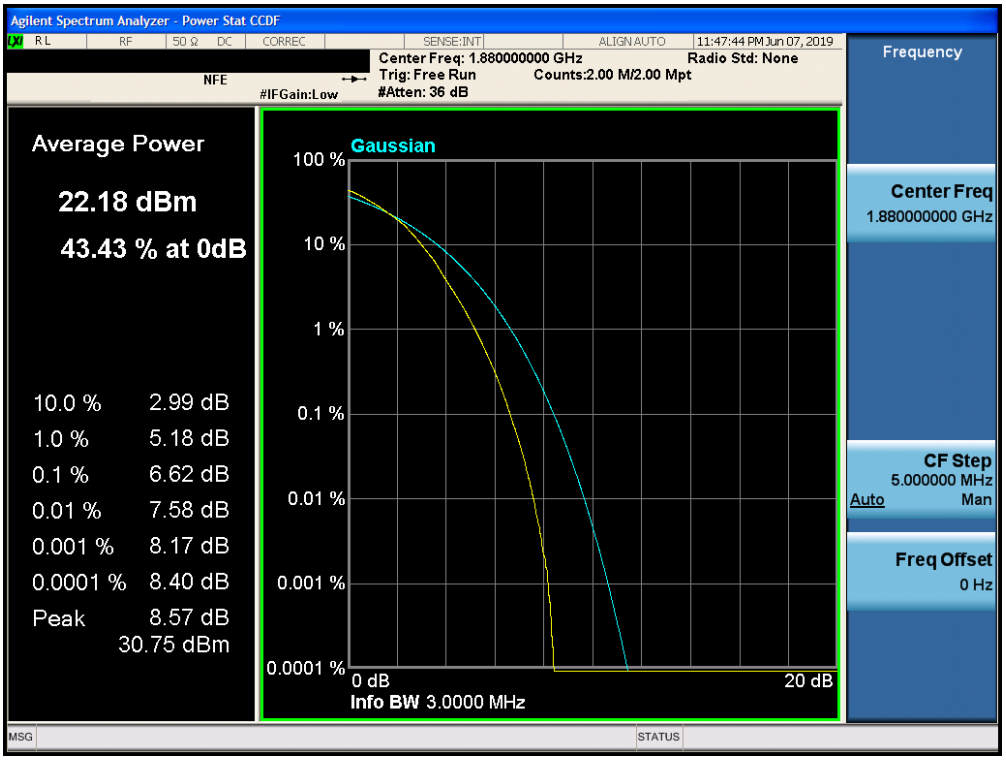


Plot 7-394. PAR Plot (Band 2 - 3.0MHz 16-QAM - Full RB Configuration)



Plot 7-395. PAR Plot (Band 2 - 3.0MHz 64-QAM - Full RB Configuration)

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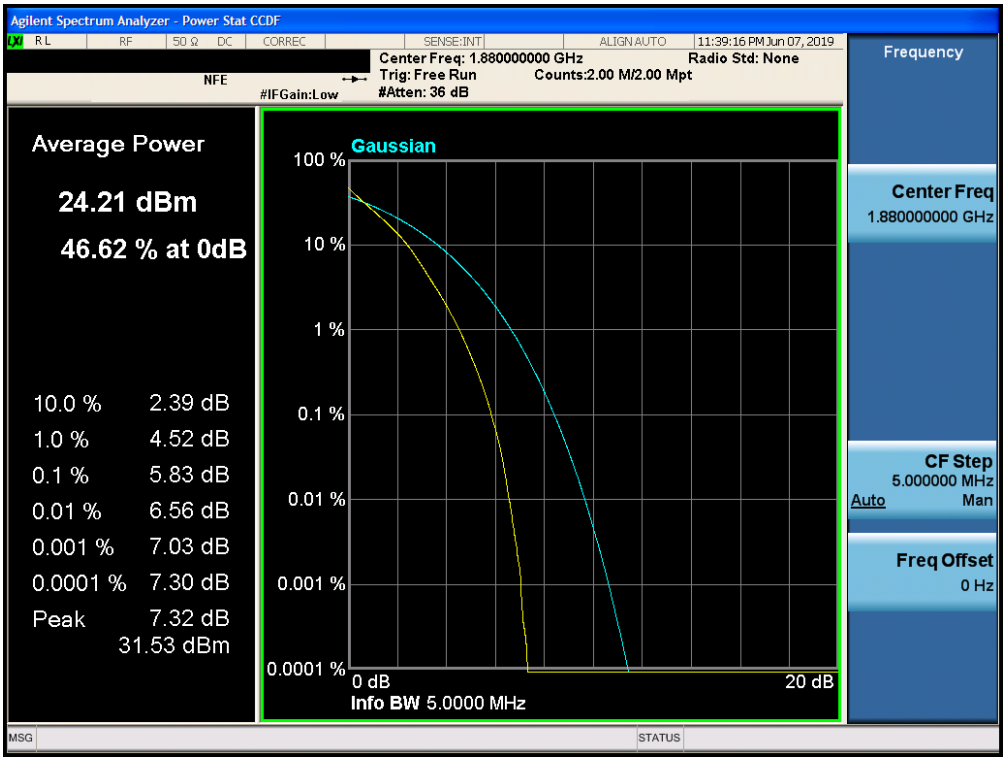
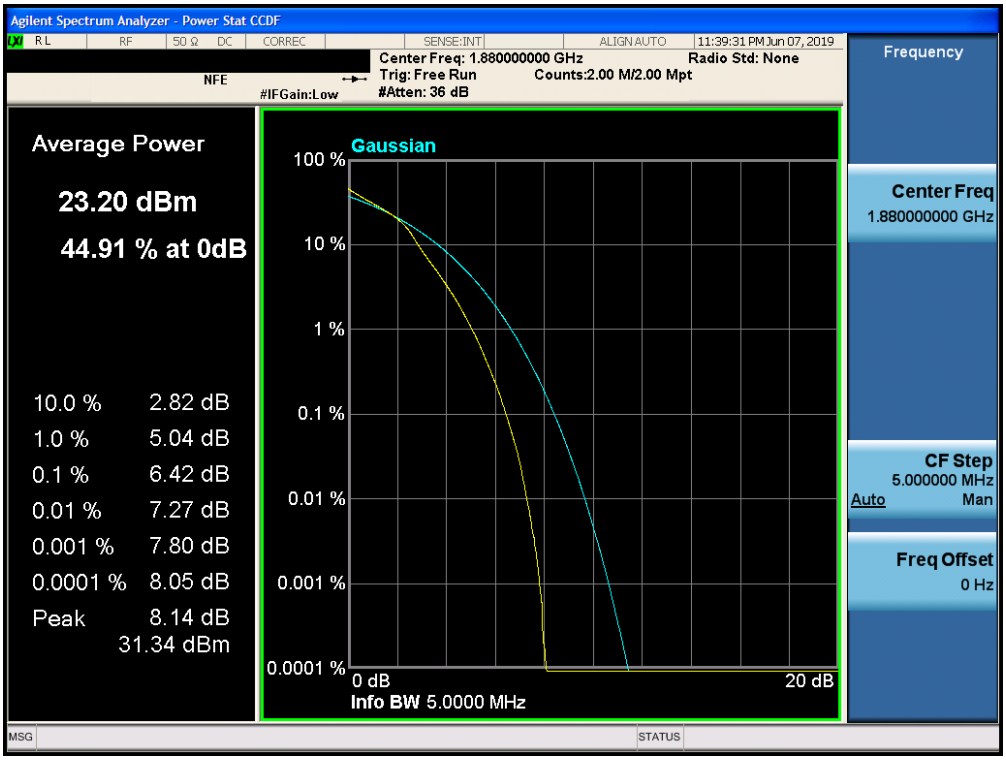


Plot 7-396. PAR Plot (Band 2 - 5.0MHz QPSK - Full RB Configuration)



Plot 7-397. PAR Plot (Band 2 - 5.0MHz 16-QAM - Full RB Configuration)

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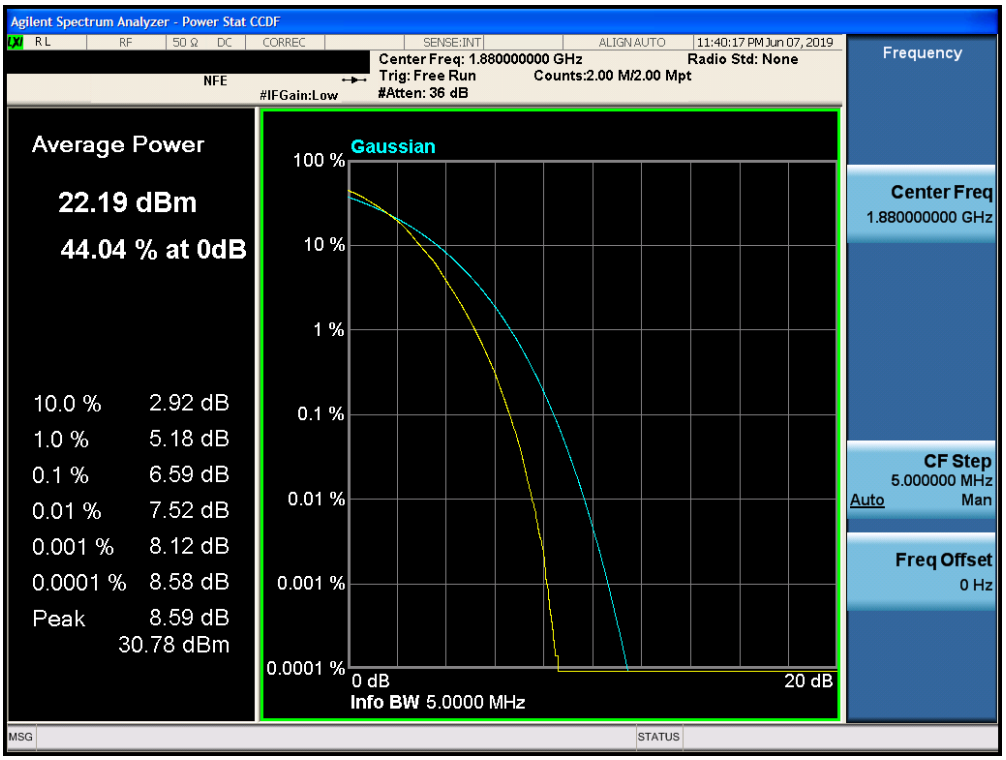
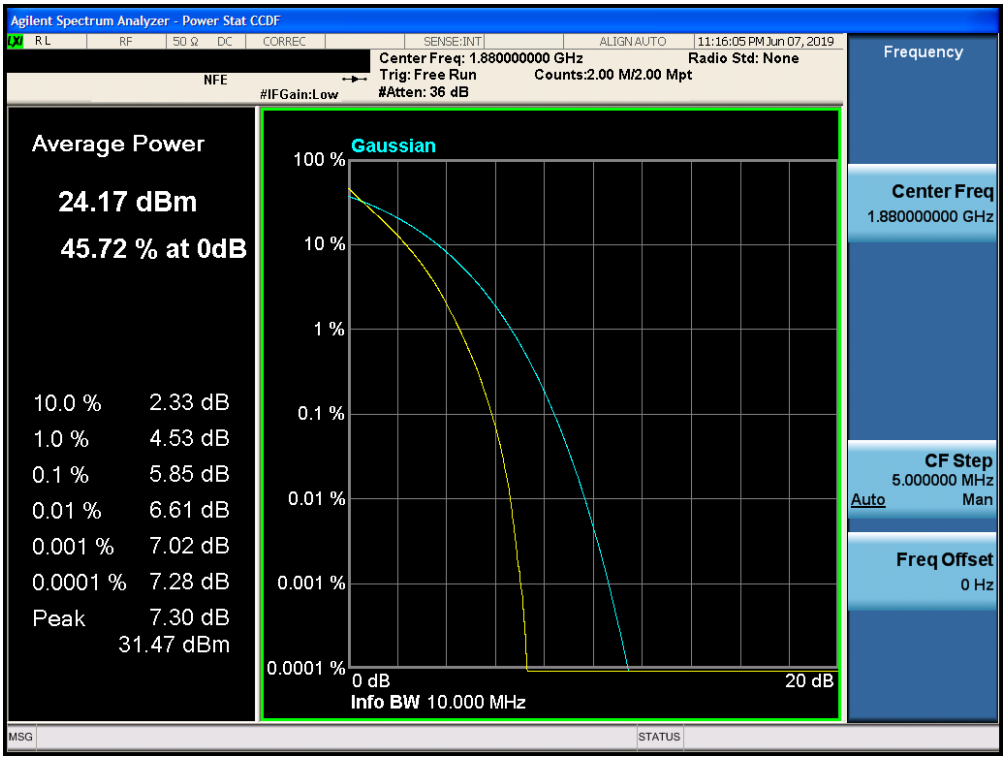


Plot 7-398. PAR Plot (Band 2 - 5.0MHz 64-QAM - Full RB Configuration)



Plot 7-399. PAR Plot (Band 2 - 10.0MHz QPSK - Full RB Configuration)

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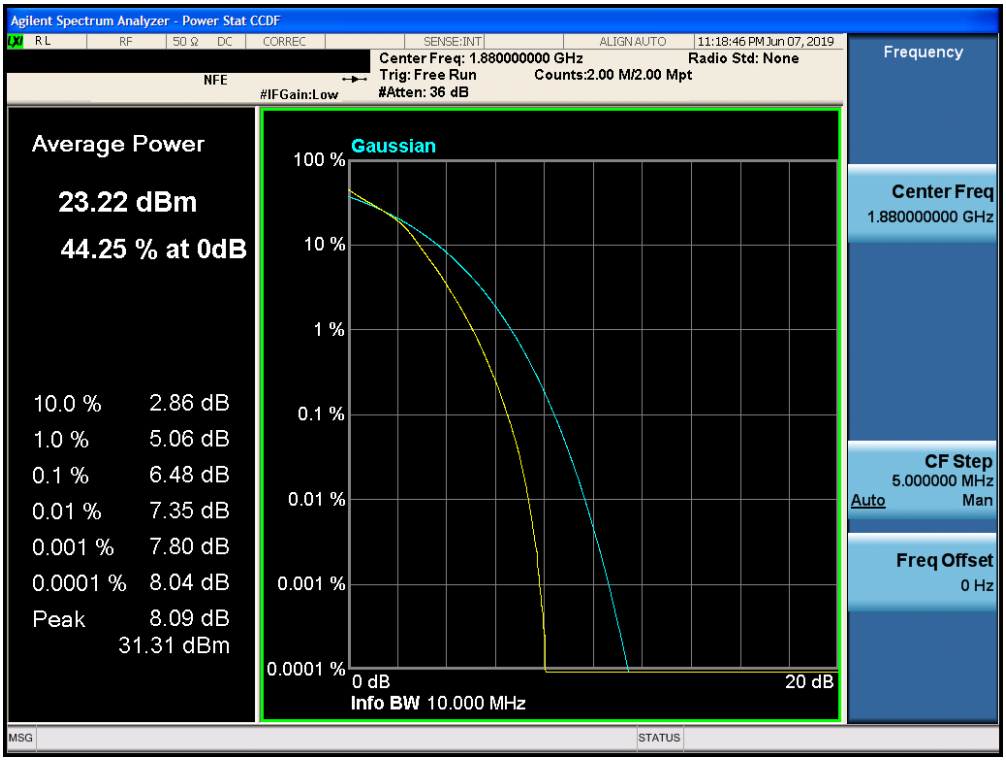
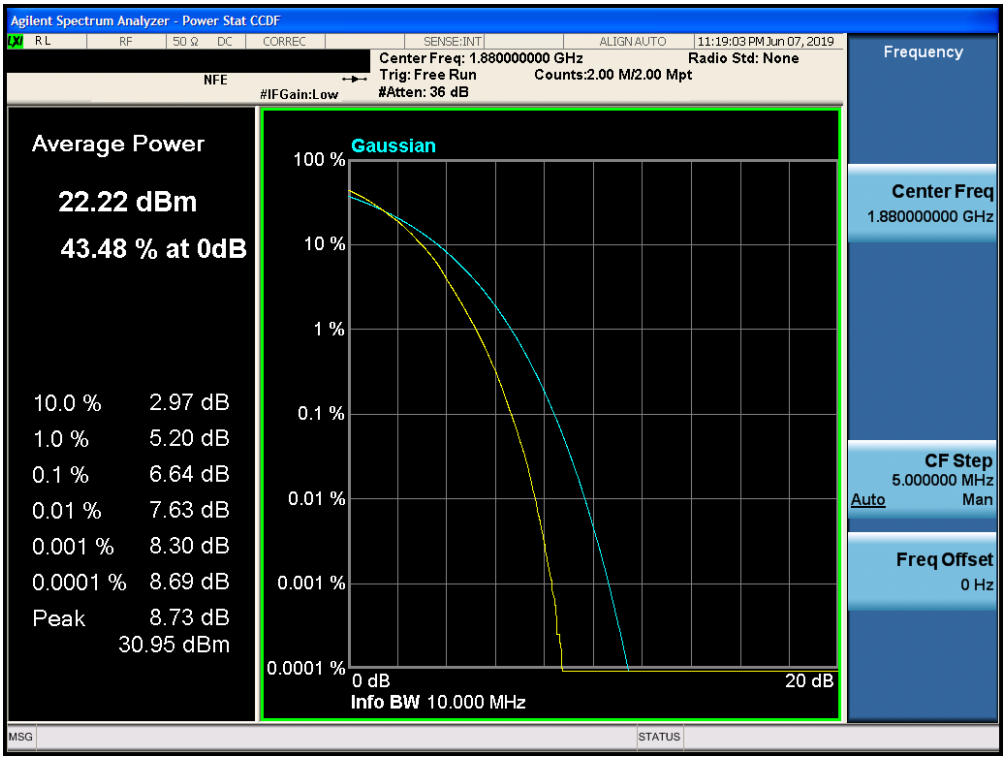


Plot 7-400. PAR Plot (Band 2 - 10.0MHz 16-QAM - Full RB Configuration)



Plot 7-401. PAR Plot (Band 2 - 10.0MHz 64-QAM - Full RB Configuration)

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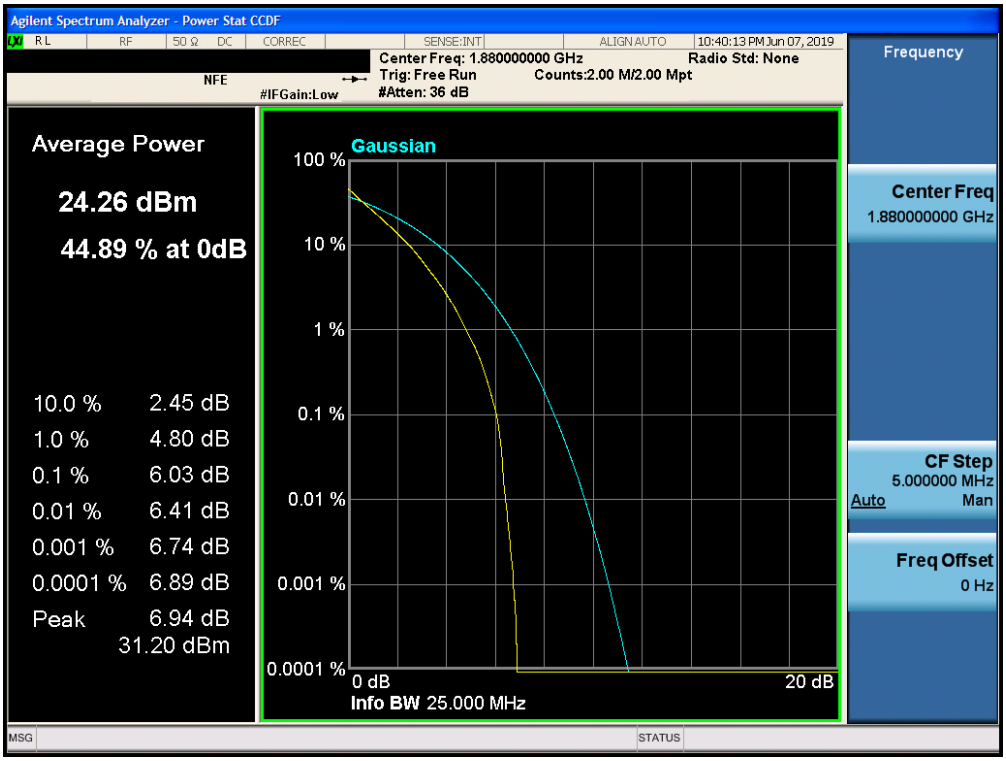
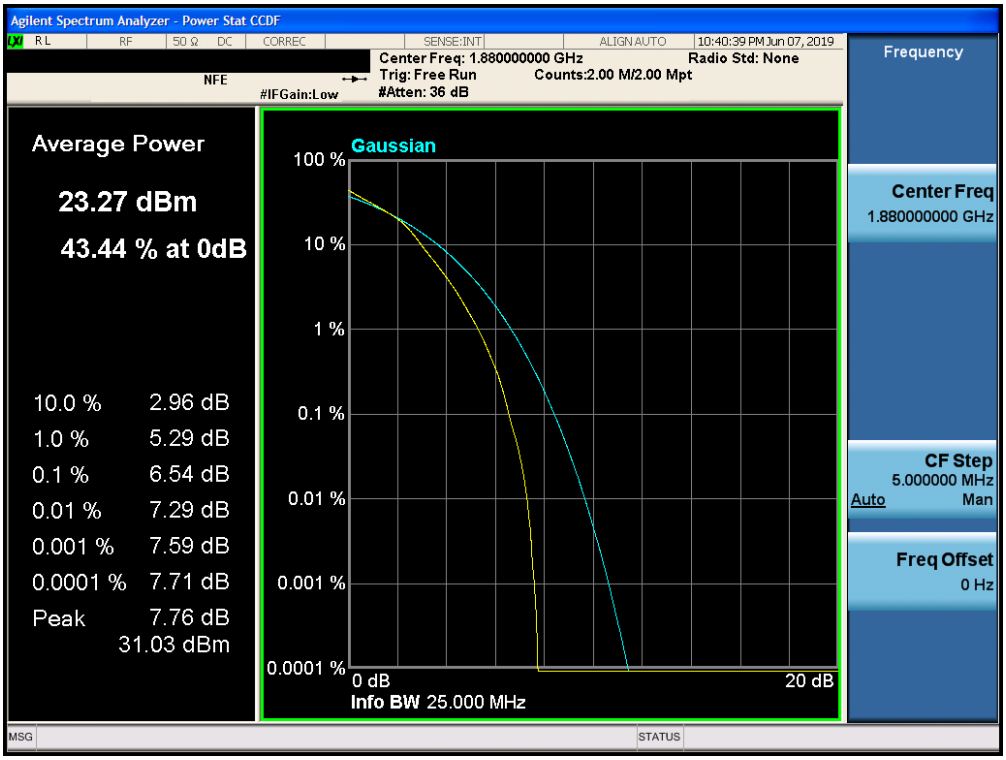


Plot 7-402. PAR Plot (Band 2 - 15.0MHz QPSK - Full RB Configuration)



Plot 7-403. PAR Plot (Band 2 - 15.0MHz 16-QAM - Full RB Configuration)

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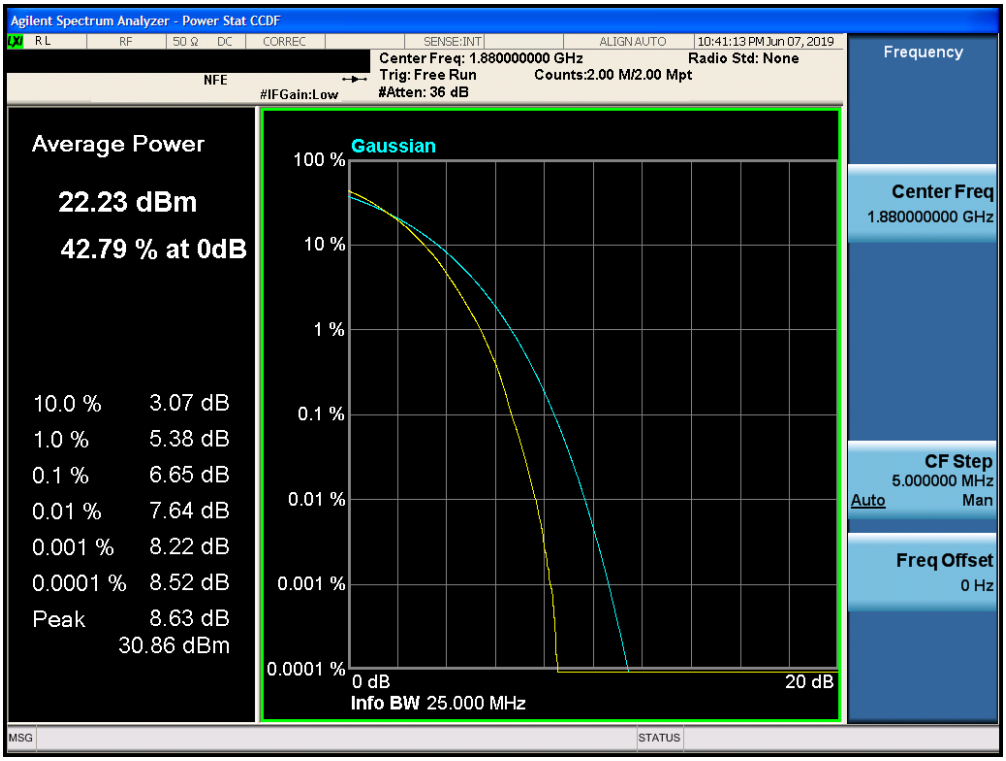
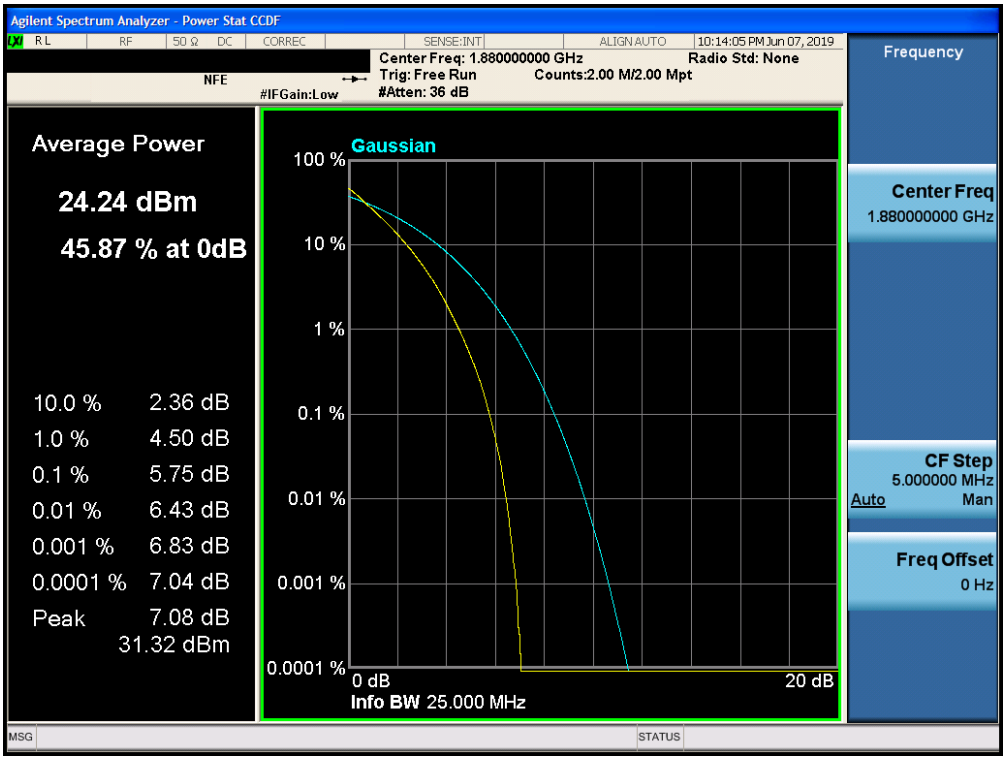


Plot 7-404. PAR Plot (Band 2 - 15.0MHz 64-QAM - Full RB Configuration)



Plot 7-405. PAR Plot (Band 2 - 20.0MHz QPSK - Full RB Configuration)

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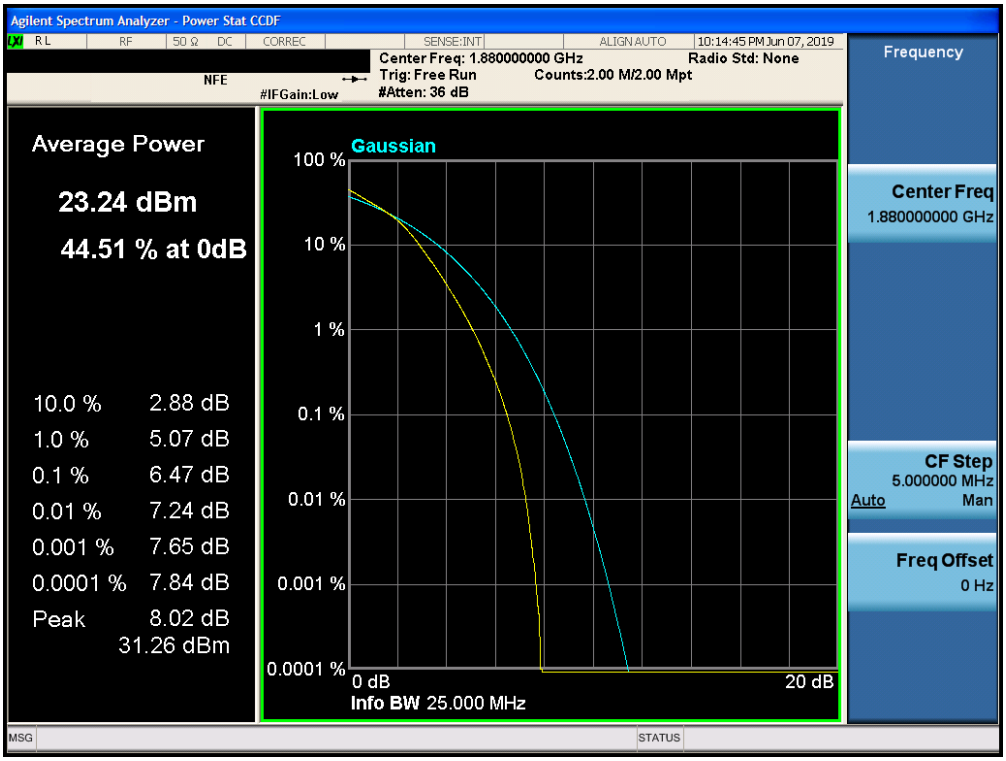
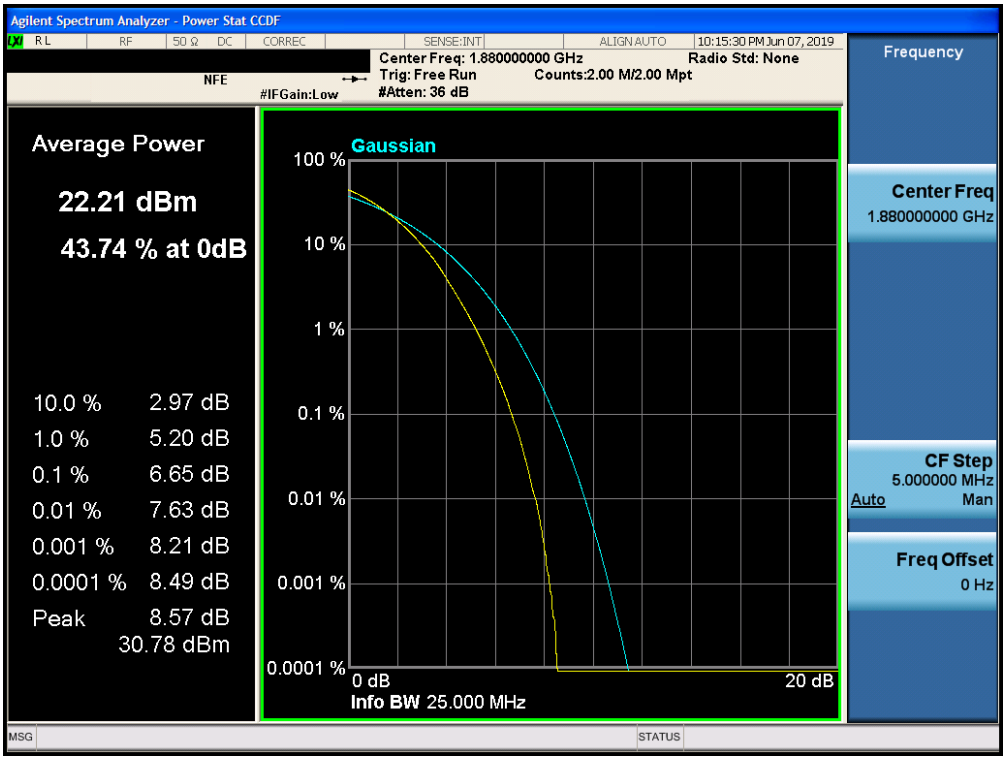


Plot 7-406. PAR Plot (Band 2 - 20.0MHz 16-QAM - Full RB Configuration)



Plot 7-407. PAR Plot (Band 2 - 20.0MHz 64-QAM - Full RB Configuration)

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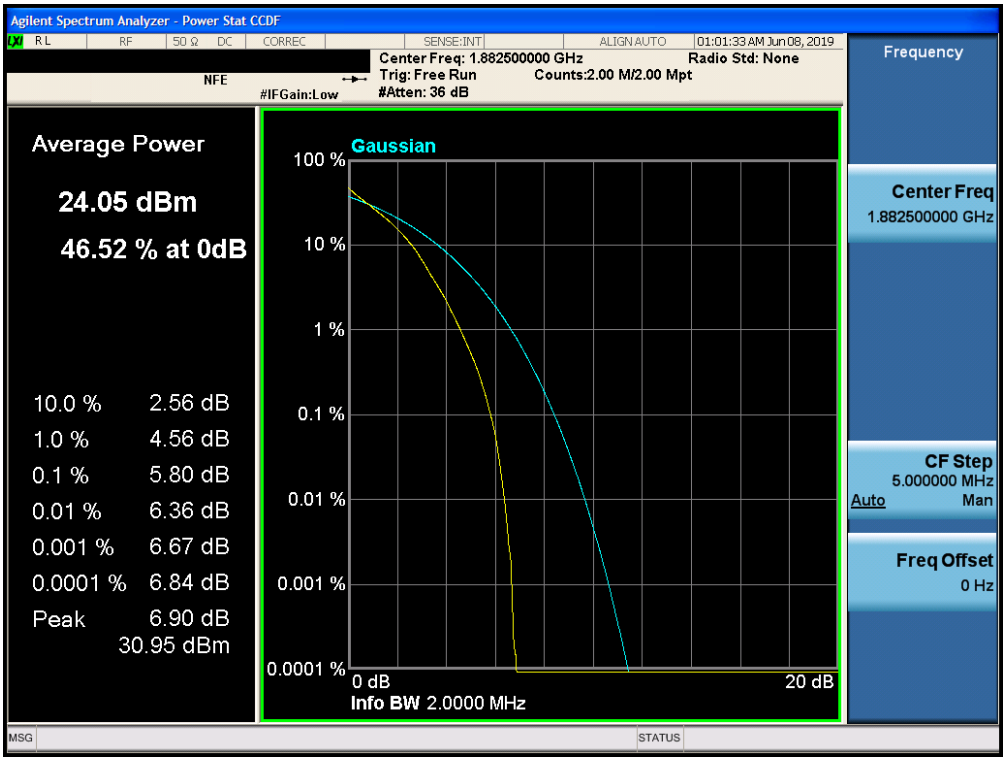
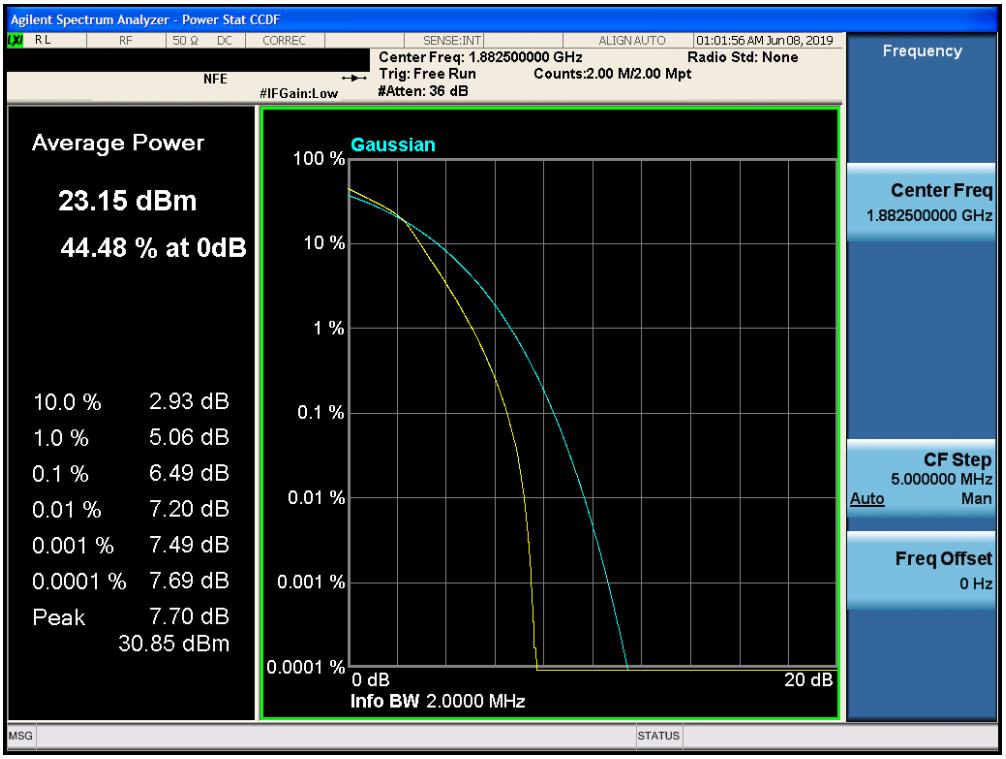


Plot 7-408. PAR Plot (Band 25 - 1.4MHz QPSK - Full RB Configuration)



Plot 7-409. PAR Plot (Band 25 - 1.4MHz 16-QAM - Full RB Configuration)

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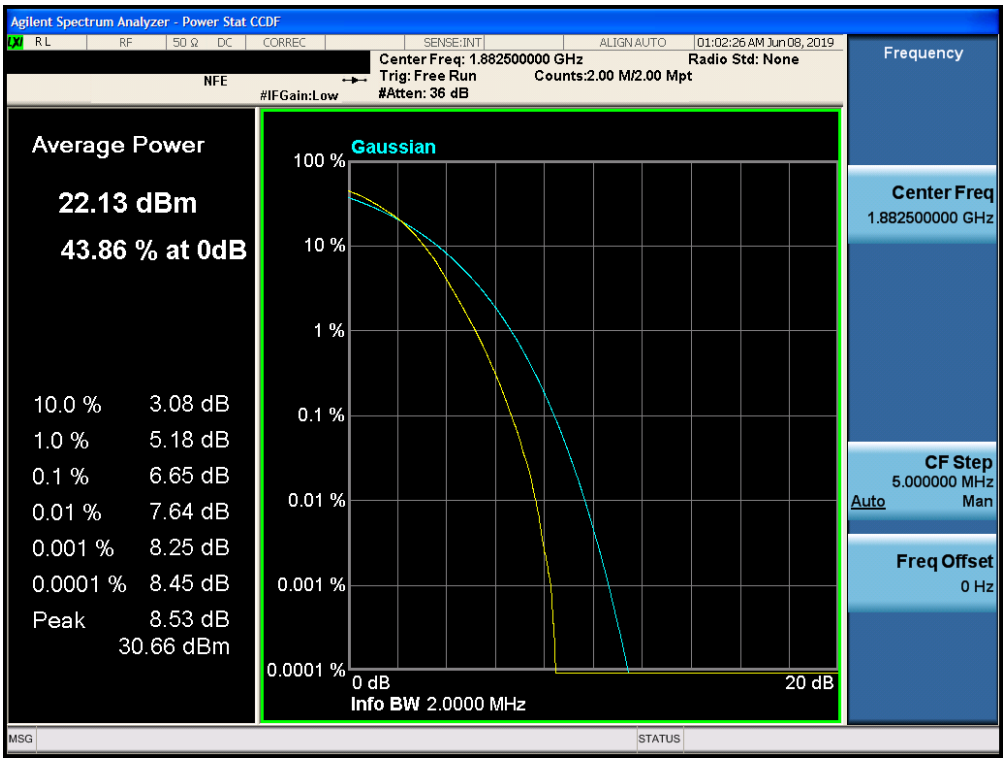
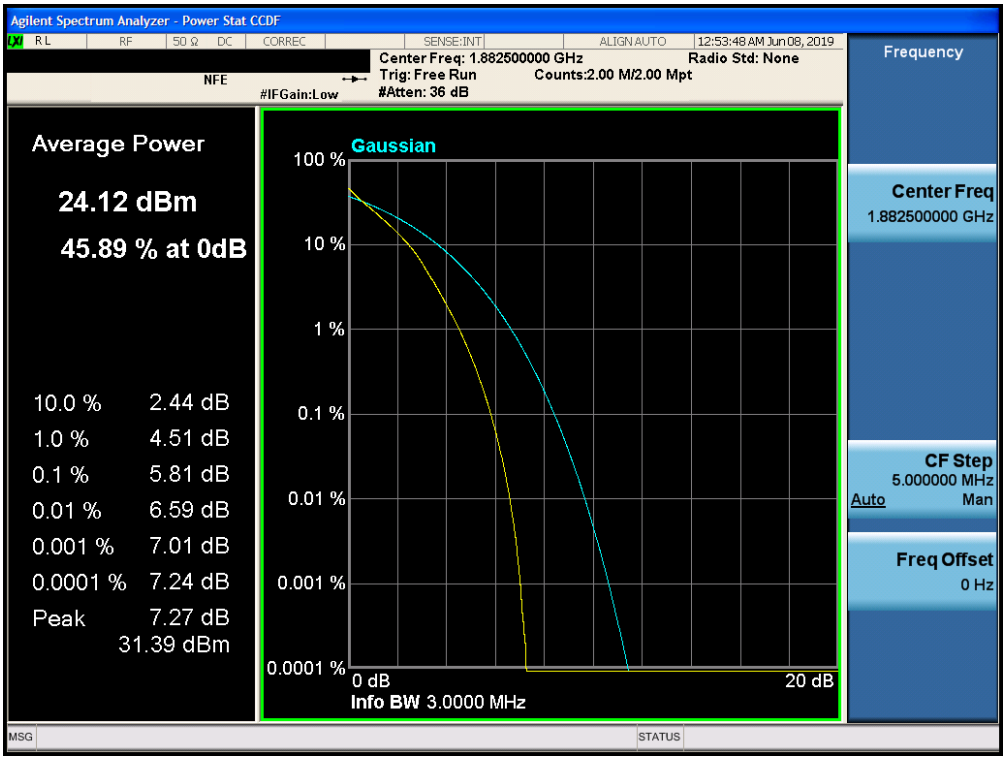


Plot 7-410. PAR Plot (Band 25 - 1.4MHz 64-QAM - Full RB Configuration)



Plot 7-411. PAR Plot (Band 25 - 3.0MHz QPSK - Full RB Configuration)

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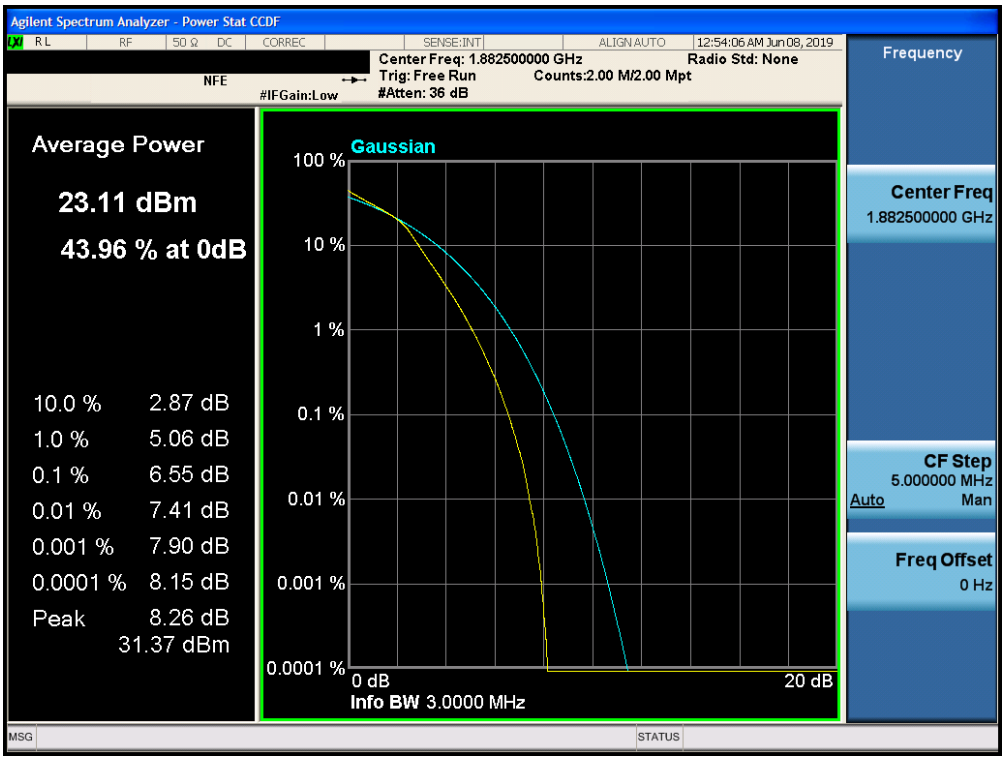
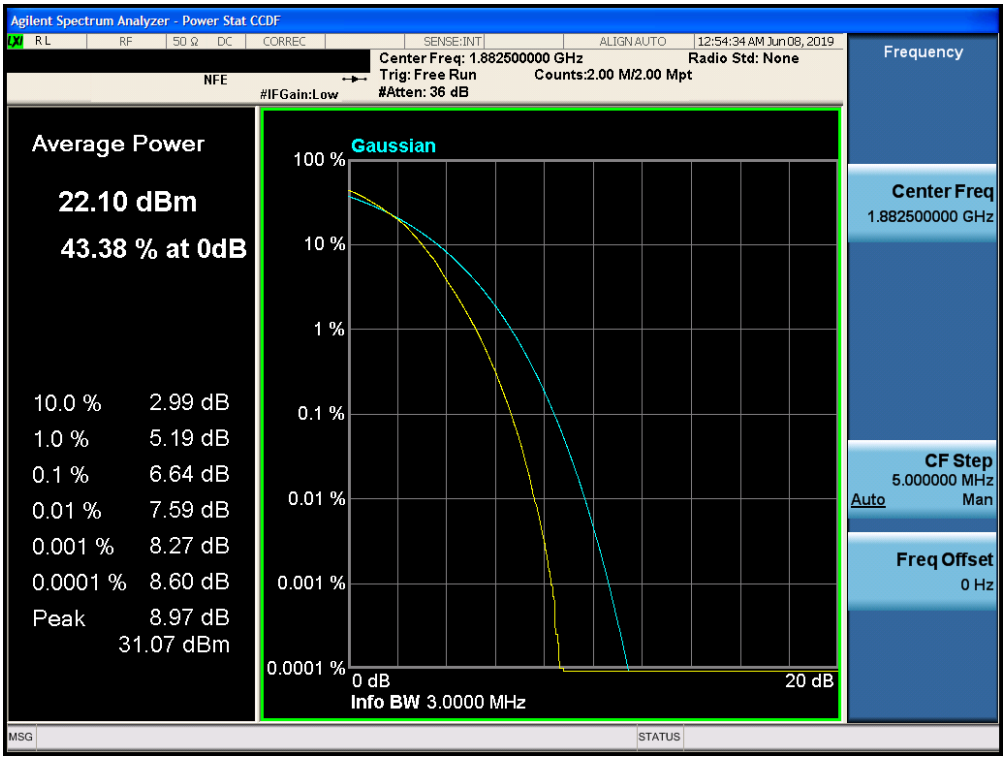


Plot 7-412. PAR Plot (Band 25 - 3.0MHz 16-QAM - Full RB Configuration)



Plot 7-413. PAR Plot (Band 25 - 3.0MHz 64-QAM - Full RB Configuration)

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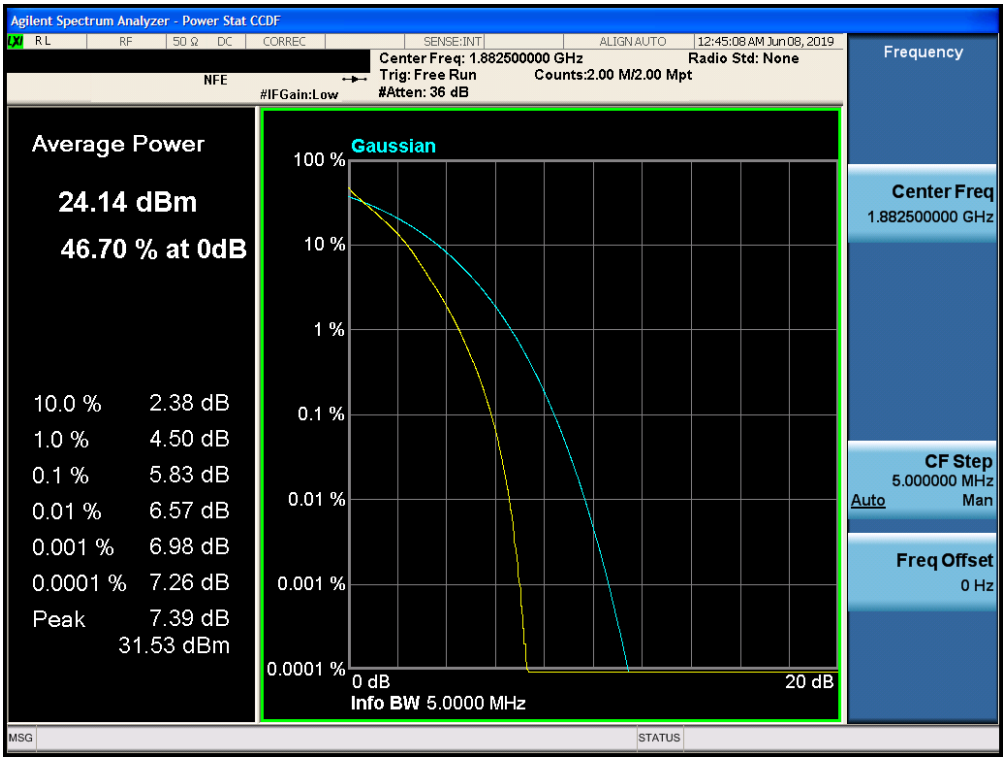
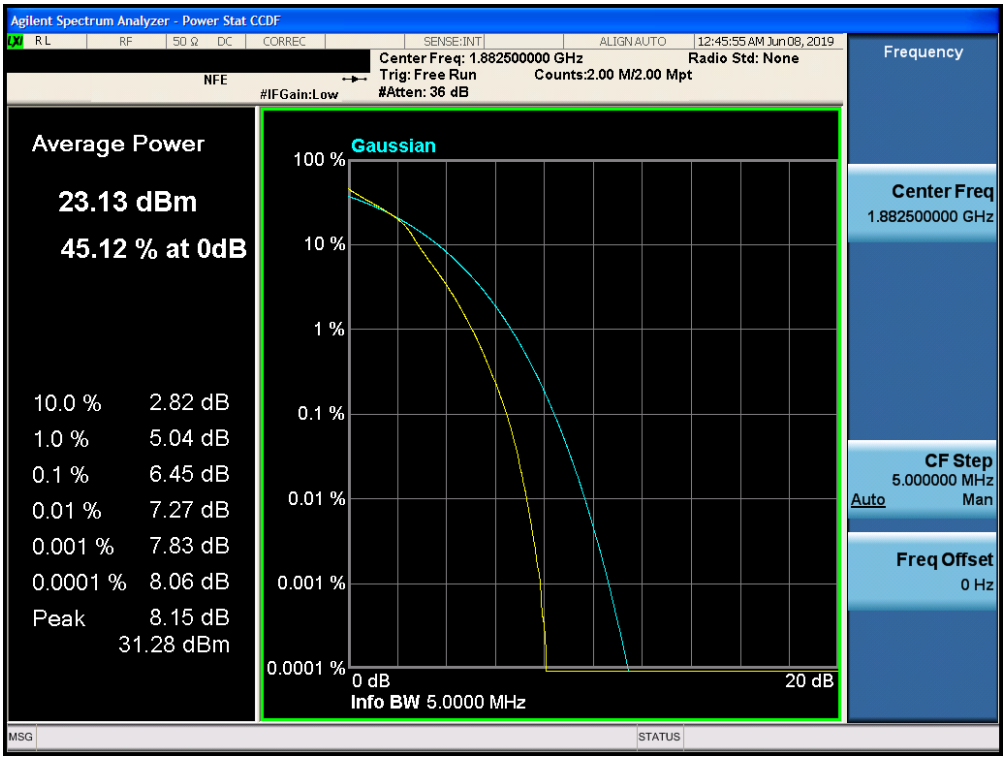


Plot 7-414. PAR Plot (Band 25 - 5.0MHz QPSK - Full RB Configuration)



Plot 7-415. PAR Plot (Band 25 - 5.0MHz 16-QAM - Full RB Configuration)

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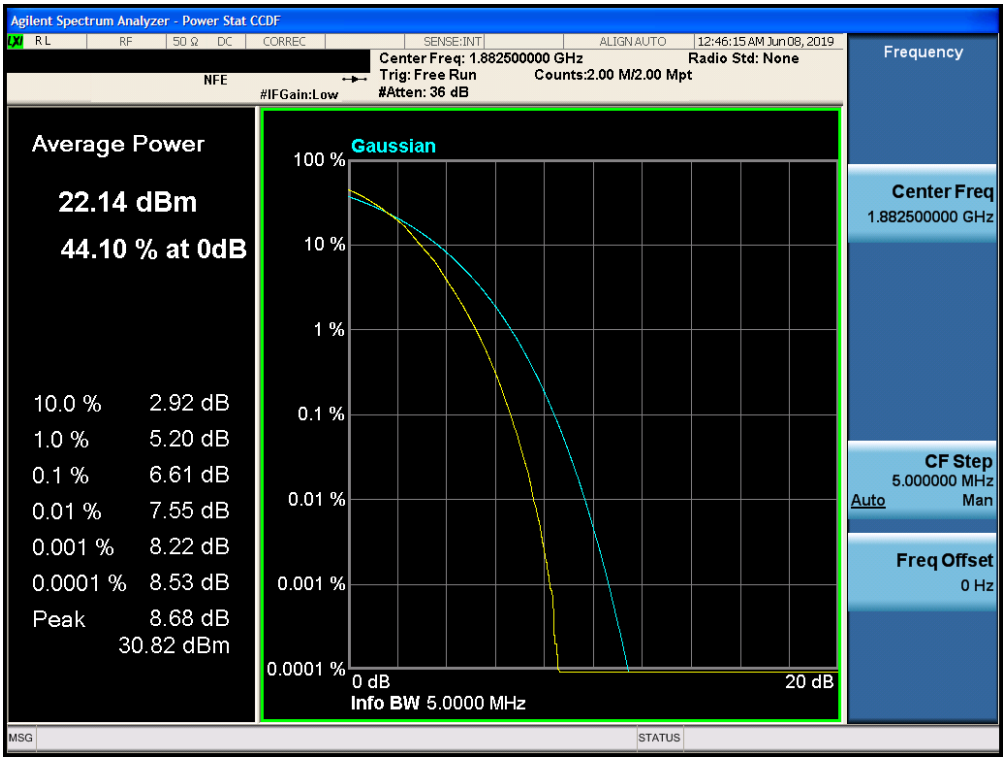
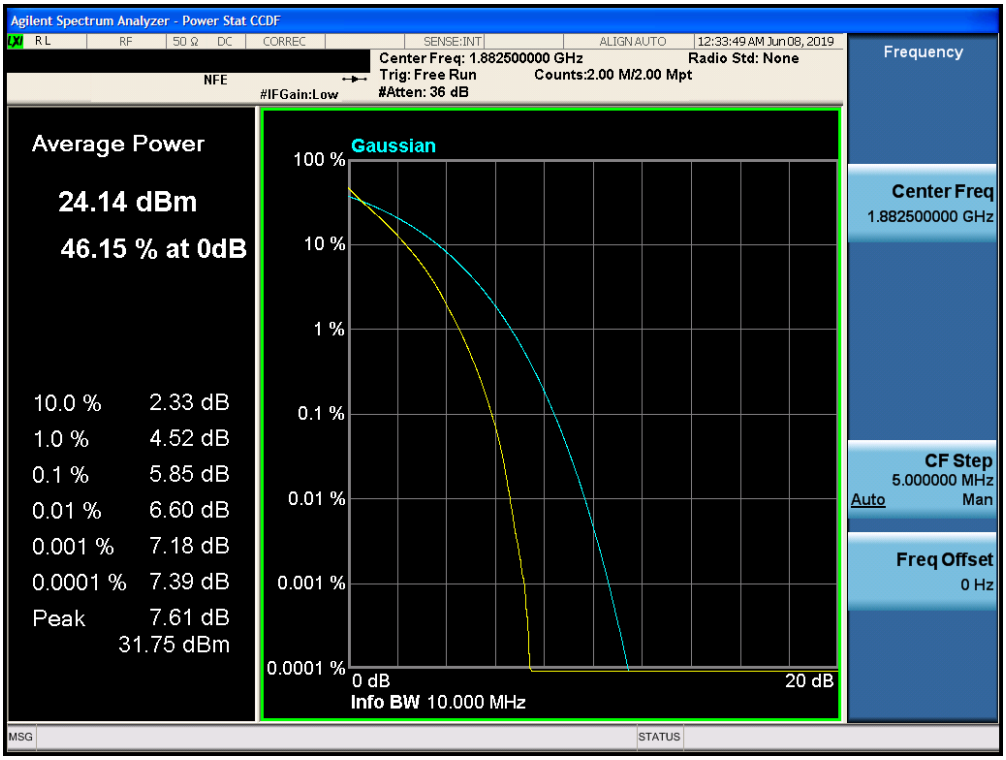


Plot 7-416. PAR Plot (Band 25 - 5.0MHz 64-QAM - Full RB Configuration)



Plot 7-417. PAR Plot (Band 25 - 10.0MHz QPSK - Full RB Configuration)

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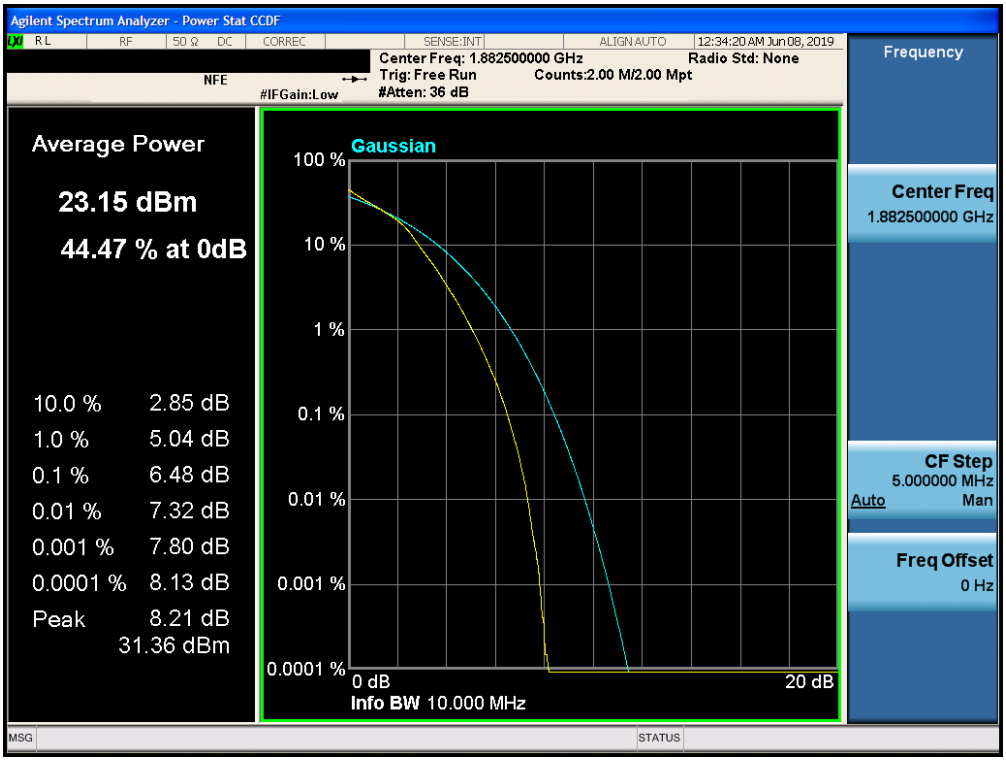
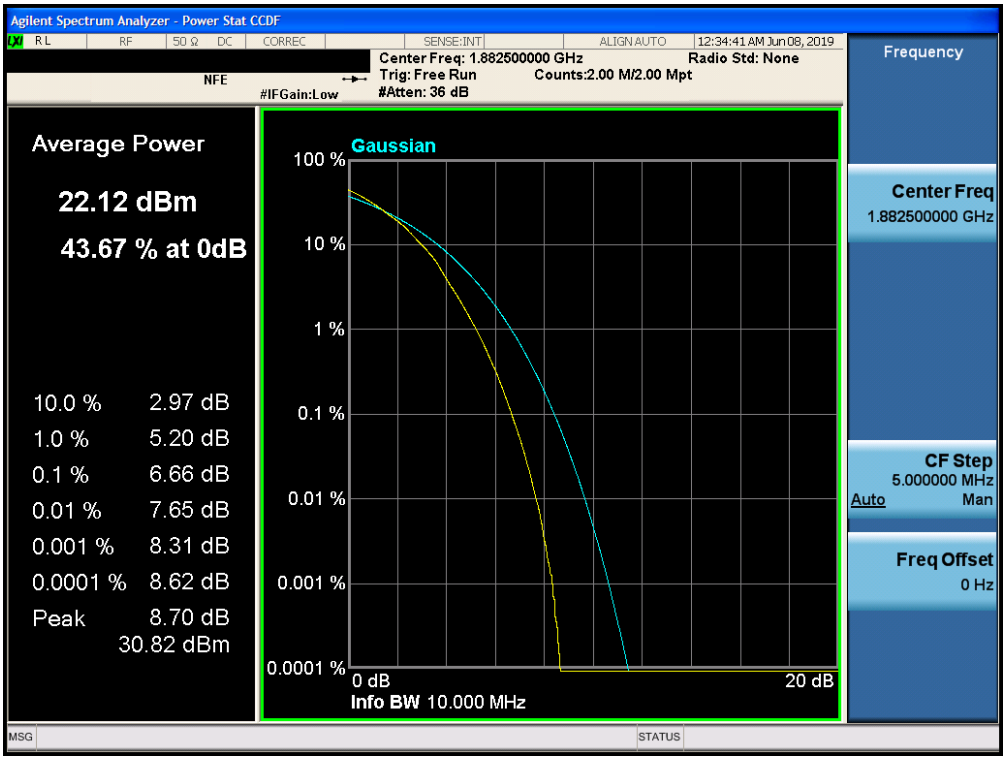


Plot 7-418. PAR Plot (Band 25 - 10.0MHz 16-QAM - Full RB Configuration)



Plot 7-419. PAR Plot (Band 25 - 10.0MHz 64-QAM - Full RB Configuration)

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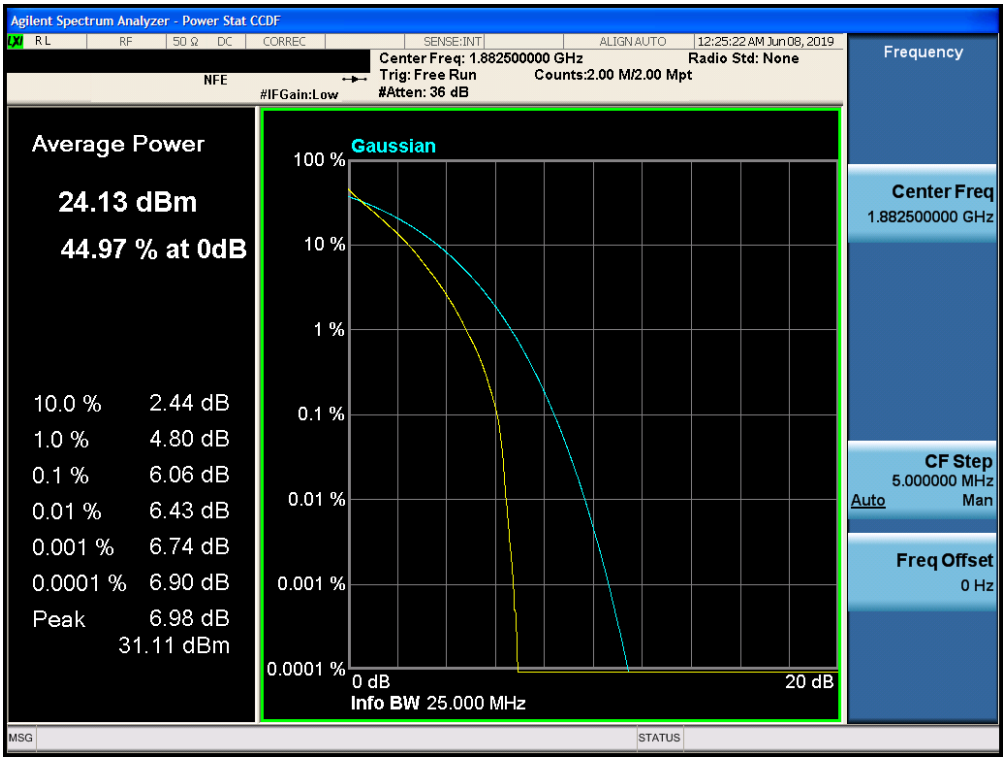
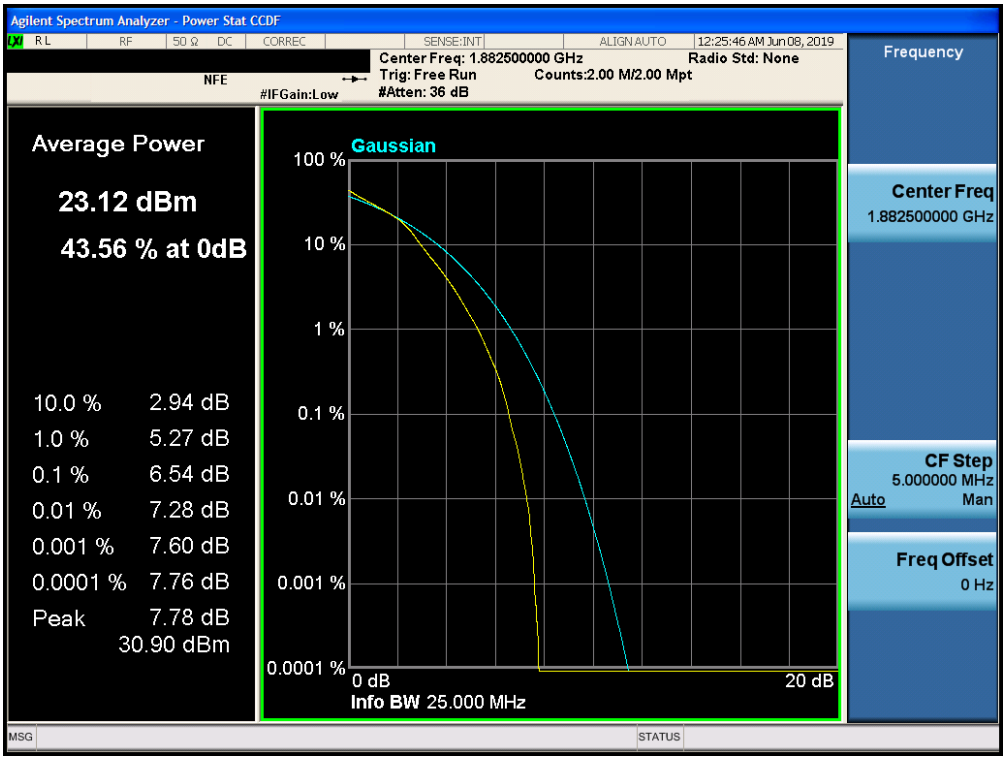


Plot 7-420. PAR Plot (Band 25 - 15.0MHz QPSK - Full RB Configuration)



Plot 7-421. PAR Plot (Band 25 - 15.0MHz 16-QAM - Full RB Configuration)

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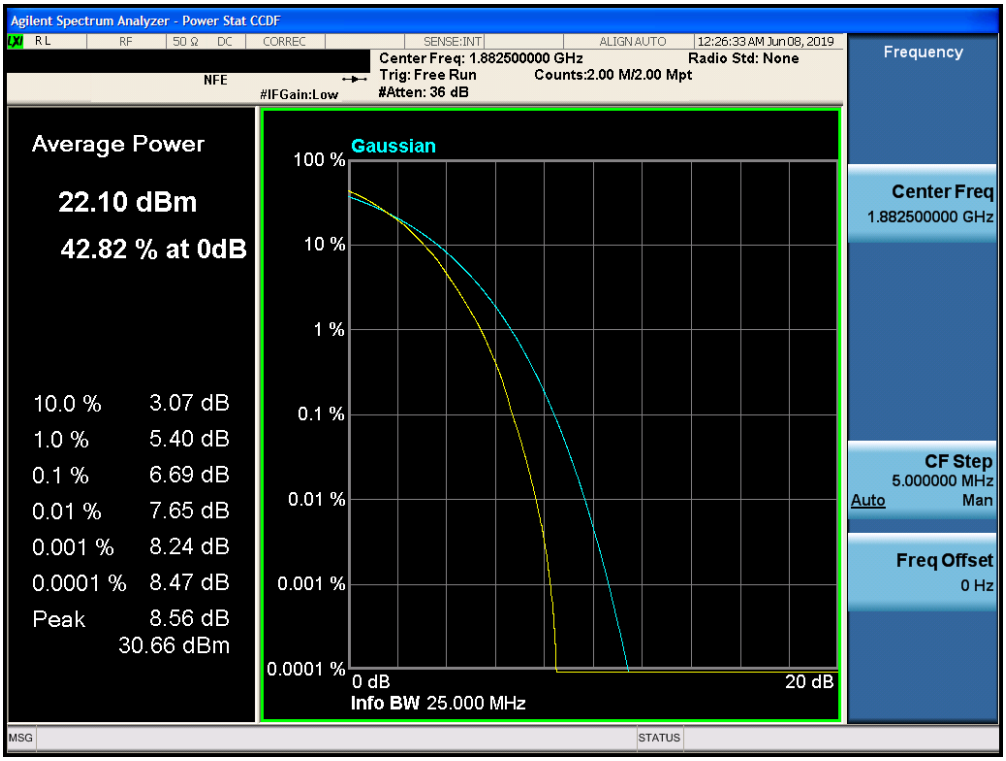
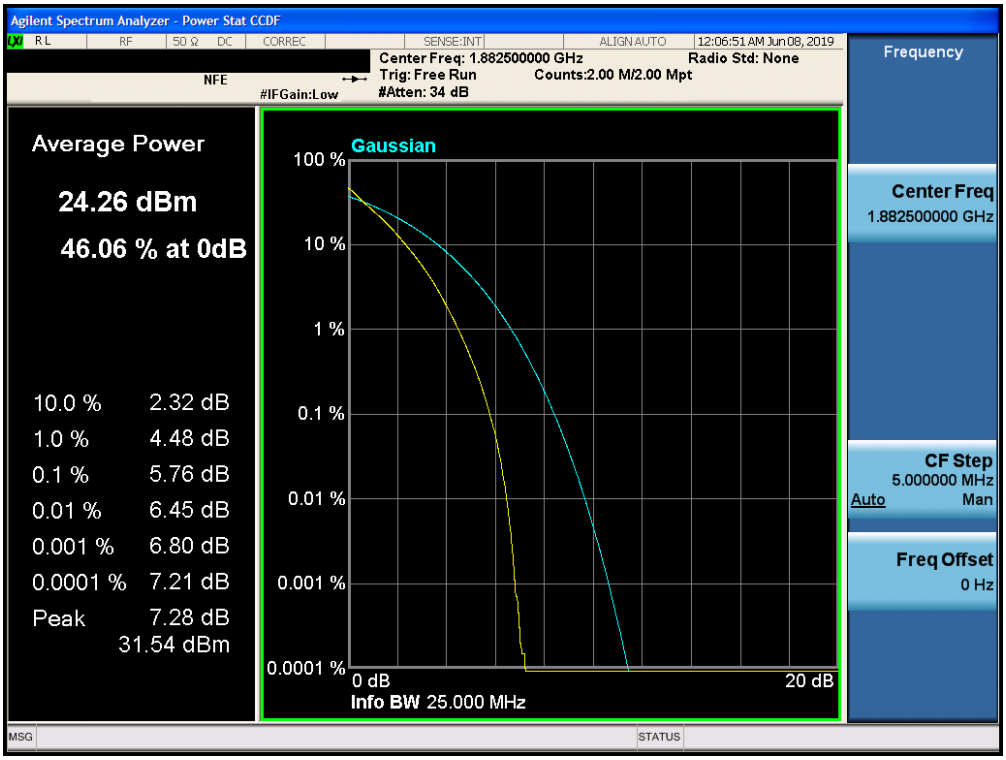


Plot 7-422. PAR Plot (Band 25 - 15.0MHz 64-QAM - Full RB Configuration)



Plot 7-423. PAR Plot (Band 25 - 20.0MHz QPSK - Full RB Configuration)

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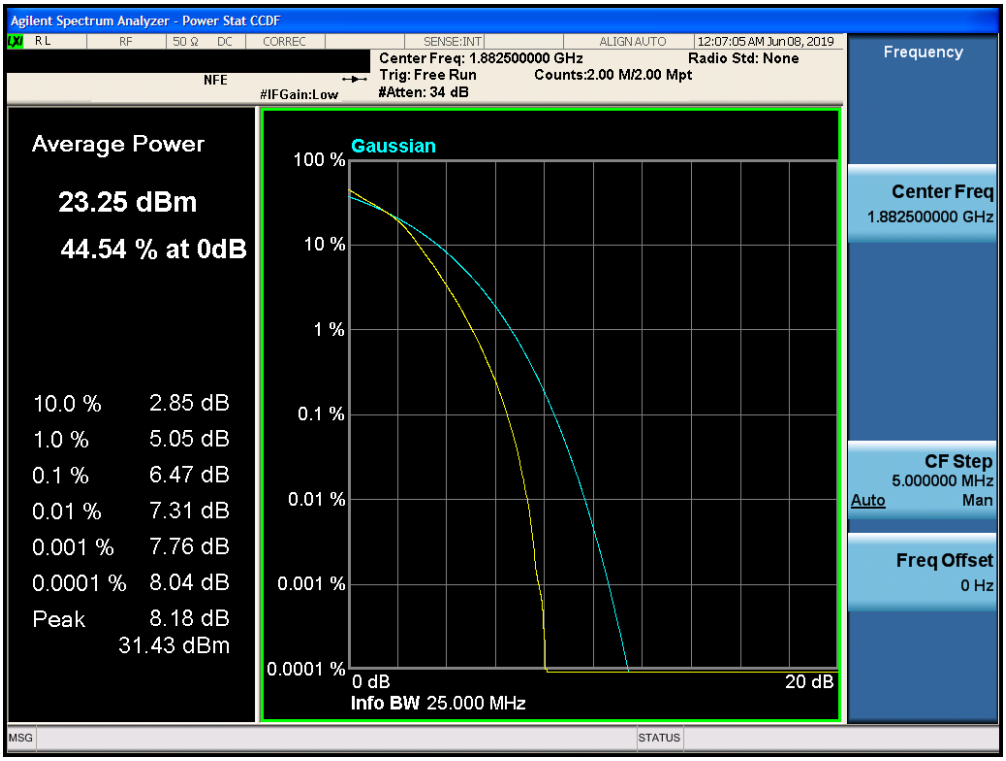
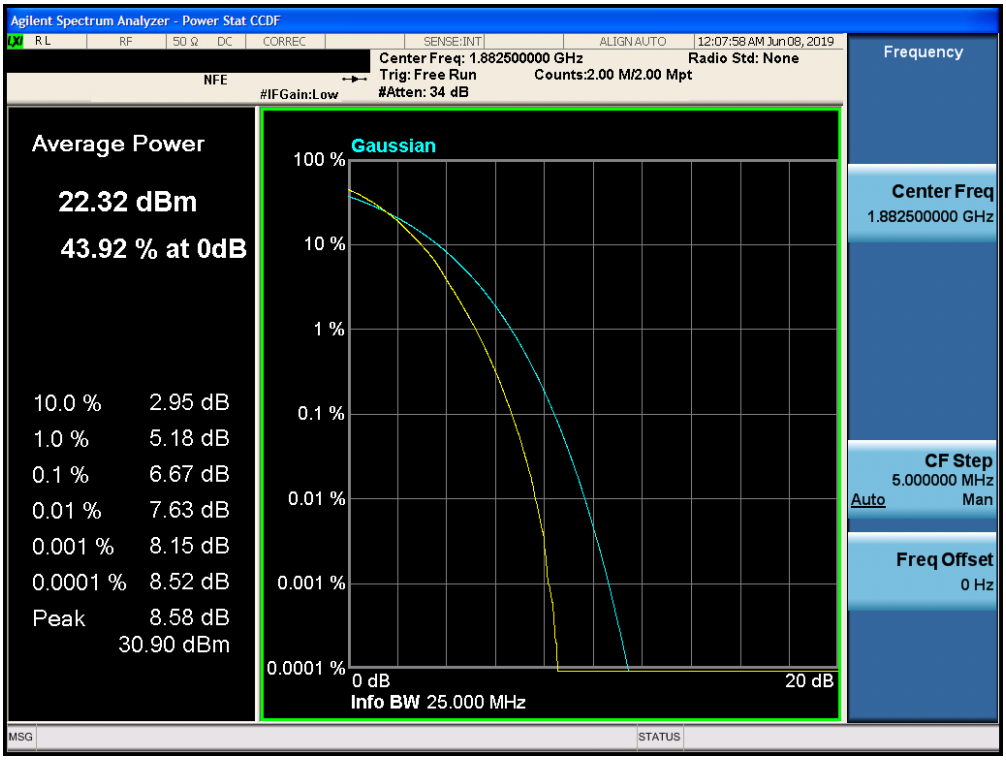


Plot 7-424. PAR Plot (Band 25 - 20.0MHz 16-QAM - Full RB Configuration)



Plot 7-425. PAR Plot (Band 25 - 20.0MHz 64-QAM - Full RB Configuration)

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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. Conducted power measurements are performed to measure the average output power of the EUT. The averaging is to be performed only over duration of active transmissions at maximum output power level. The average measurements do not include averaging over periods when the transmitter is quiescent or when operating at reduced power level.

Test Procedure Used

KDB 971168 D01 v03

Test Setup

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

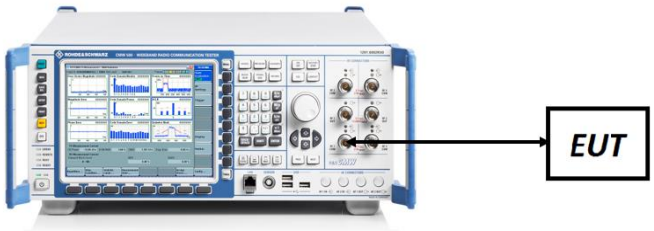

Figure 7-5. Conducted Power Measurement Setup

Test Notes

None.

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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]	Lowest Typical Power [dBm]	Delta [dB]
1	01	312	530	5	39675	2498.5	QPSK	1	0	0	≤ 3	24.73	23.5	**1.23**
							16-QAM			≤ 1		24.42	22.5	**1.92**
							64-QAM			≤ 2		23.41	21.5	**1.91**
2				5	39675	2498.5	QPSK	1	9	0	0	26.72	26.5	**0.22**
							16-QAM			≤ 1		26.41	25.5	**0.91**
							64-QAM			≤ 2		25.34	24.5	**0.84**
3				10	39700	2501	QPSK	1	0	0	≤ 5	23.78	21.5	**2.28**
							16-QAM	1	0	≤ 1		23.30	20.5	**2.80**
							64-QAM	1	0	≤ 2		22.21	19.5	**2.71**
4				10	39700	2501	QPSK	20	0	0	≤ 2	24.64	23.5	**1.14**
							16-QAM	20	0	≤ 1		23.66	22.5	**1.16**
							64-QAM	20	0	≤ 2		22.66	21.5	**1.16**
5				10	39700	2501	QPSK	50	0	0	≤ 3	23.61	22.5	**1.11**
							16-QAM	50	0	≤ 1		22.58	21.5	**1.08**
							64-QAM	50	0	≤ 2		21.58	20.5	**1.08**
6				10	39700	2501	QPSK	25	20	0	≤ 1	24.61	24.5	**0.11**
							16-QAM	25	20	≤ 1		23.61	23.5	**0.11**
							64-QAM	25	20	≤ 2		22.62	22.5	**0.12**
7				10	39700	2501	QPSK	1	36	0	0	26.73	26.5	**0.23**
							16-QAM	1	36	≤ 1		26.33	25.5	**0.83**
							64-QAM	1	36	≤ 2		25.26	24.5	**0.76**
8				15	39725	2503.5	QPSK	1	0	0	≤ 5	23.62	21.5	**2.12**
							16-QAM	1	0	≤ 1		23.08	20.5	**2.58**
							64-QAM	1	0	≤ 2		22.16	19.5	**2.66**
9				15	39725	2503.5	QPSK	20	0	0	≤ 2	24.60	23.5	**1.10**
							16-QAM	20	0	≤ 1		23.62	22.5	**1.12**
							64-QAM	20	0	≤ 2		22.57	21.5	**1.07**
10				15	39725	2503.5	QPSK	75	0	0	≤ 4	22.55	21.5	**1.05**
							16-QAM	75	0	≤ 1		21.55	20.5	**1.05**
							64-QAM	75	0	≤ 2		20.51	19.5	**1.01**
11				15	39725	2503.5	QPSK	50	15	0	≤ 3	24.52	22.5	**2.02**
							16-QAM	50	15	≤ 1		23.52	21.5	**2.02**
							64-QAM	50	15	≤ 2		22.50	20.5	**2.00**
12				15	39725	2503.5	QPSK	1	60	0	0	26.67	26.5	**0.17**
							16-QAM	1	60	≤ 1		26.12	25.5	**0.62**
							64-QAM	1	60	≤ 2		25.11	24.5	**0.61**
13				20	39750	2506	QPSK	1	0	0	≤ 5	23.55	21.5	**2.05**
							16-QAM	1	0	≤ 1		23.18	20.5	**2.68**
							64-QAM	1	0	≤ 2		22.17	19.5	**2.67**
14				20	39750	2506	QPSK	20	0	0	≤ 2	24.52	23.5	**1.02**
							16-QAM	20	0	≤ 1		23.60	22.5	**1.10**
							64-QAM	20	0	≤ 2		22.55	21.5	**1.05**
15				20	39750	2506	QPSK	100	0	0	≤ 4	22.51	21.5	**1.01**
							16-QAM	100	0	≤ 1		21.50	20.5	**1.00**
							64-QAM	100	0	≤ 2		20.43	19.5	**0.93**
16				20	39750	2506	QPSK	75	24	0	≤ 3	24.54	22.5	**2.04**
							16-QAM	75	24	≤ 1		23.53	21.5	**2.03**
							64-QAM	75	24	≤ 2		22.50	20.5	**2.00**
17				20	39750	2506	QPSK	1	77	0	0	26.64	26.5	**0.14**
							16-QAM	1	77	≤ 1		26.19	25.5	**0.69**
							64-QAM	1	77	≤ 2		25.13	24.5	**0.63**
18	01	311	490	5	39675	2498.5	QPSK	1	0	0	≤ 3	24.70	23.5	**1.20**
							16-QAM			≤ 1		24.33	22.5	**1.83**
							64-QAM			≤ 2		23.21	21.5	**1.71**
19	01	001	01	5	39675	2498.5	QPSK	1	0	0	0	26.73	26.5	**0.23**
							16-QAM			≤ 1		26.35	25.5	**0.85**
							64-QAM			≤ 2		25.32	24.5	**0.82**

Table 7-7. A-MPR Conducted Power Measurements

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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 + 10 $\log_{10}(P_{[Watts]})$.

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.

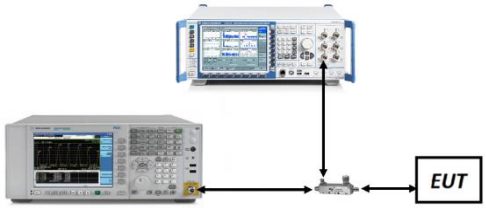

Figure 7-6. Test Instrument & Measurement Setup

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Test Notes

1. Uplink carrier aggregation is only supported in this EUT while operating in Power Class 3.

2. 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 the tables below, with both carriers set to transmit using 1RB.

3. 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.

4. All ports were tested and only the worst case data were reported.

5. Refer to Table 2-1 Section 2.3 of this test report for correlation between Antennas and Ports.

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Port A

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 B7	10	20800	2505	QPSK	1	49	LTE B7	20	20944	2519.4	QPSK	1	0	25.00
Max	LTE B7	15	20825	2507.5	QPSK	1	74	LTE B7	10	20945	2519.5	QPSK	1	0	24.95
Max	LTE B7	15	20825	2507.5	QPSK	1	74	LTE B7	15	20975	2522.5	QPSK	1	0	24.77
Max	LTE B7	15	20825	2507.5	QPSK	1	74	LTE B7	20	20996	2524.6	QPSK	1	0	24.94
Max	LTE B7	20	20850	2510	QPSK	1	99	LTE B7	10	20994	2524.4	QPSK	1	0	25.00
Max	LTE B7	20	20850	2510	QPSK	1	99	LTE B7	15	21021	2527.1	QPSK	1	0	24.96
Max	LTE B7	20	20850	2510	QPSK	1	99	LTE B7	20	21048	2529.8	QPSK	1	0	24.96
Max	LTE B7	10	21100	2535	QPSK	1	49	LTE B7	20	21244	2549.4	QPSK	1	0	24.97
Max	LTE B7	15	21100	2535	QPSK	1	74	LTE B7	10	21220	2547	QPSK	1	0	24.85
Max	LTE B7	15	21100	2535	QPSK	1	74	LTE B7	15	21250	2550	QPSK	1	0	24.71
Max	LTE B7	15	21100	2535	QPSK	1	74	LTE B7	20	21271	2552.1	QPSK	1	0	24.91
Max	LTE B7	20	21100	2535	QPSK	1	99	LTE B7	10	21244	2549.4	QPSK	1	0	24.73
Max	LTE B7	20	21100	2535	QPSK	1	99	LTE B7	15	21271	2552.1	QPSK	1	0	24.97
Max	LTE B7	20	21100	2535	QPSK	1	99	LTE B7	20	21298	2554.8	QPSK	1	0	25.00
Max	LTE B7	10	21400	2565	QPSK	1	0	LTE B7	20	21256	2550.6	QPSK	1	99	24.97
Max	LTE B7	15	21375	2562.5	QPSK	1	0	LTE B7	10	21255	2550.5	QPSK	1	49	24.72
Max	LTE B7	15	21375	2562.5	QPSK	1	0	LTE B7	15	21225	2547.5	QPSK	1	74	24.96
Max	LTE B7	15	21375	2562.5	QPSK	1	0	LTE B7	20	21204	2545.4	QPSK	1	99	24.92
Max	LTE B7	20	21350	2560	QPSK	1	0	LTE B7	10	21206	2545.6	QPSK	1	49	24.87
Max	LTE B7	20	21350	2560	QPSK	1	0	LTE B7	15	21179	2542.9	QPSK	1	74	25.00
Max	LTE B7	20	21350	2560	QPSK	1	0	LTE B7	20	21152	2540.2	QPSK	1	99	24.99

Table 7-8. Conducted Powers (B7 – PCC: RB Size 1 Offset Max SCC: RB Size 1 Offset 0)

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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 B7	20	20850	2510	QPSK	1	0	LTE B7	20	21048	2529.8	QPSK	1	0	20.37
Max	LTE B7	20	20850	2510	16-QAM	1	0	LTE B7	20	21048	2529.8	16-QAM	1	0	20.52
Max	LTE B7	20	20850	2510	64-QAM	1	0	LTE B7	20	21048	2529.8	64-QAM	1	0	20.68
Max	LTE B7	20	20850	2510	QPSK	1	99	LTE B7	20	21048	2529.8	QPSK	1	99	20.07
Max	LTE B7	20	20850	2510	QPSK	1	0	LTE B7	20	21048	2529.8	QPSK	1	99	16.21
Max	LTE B7	20	20850	2510	QPSK	1	50	LTE B7	20	21048	2529.8	QPSK	1	50	20.23
Max	LTE B7	20	20850	2510	QPSK	1	99	LTE B7	20	21048	2529.8	QPSK	1	0	24.92
Max	LTE B7	20	20850	2510	QPSK	100	0	LTE B7	20	21048	2529.8	QPSK	100	0	22.77
Max	LTE B7	20	20850	2510	16-QAM	100	0	LTE B7	20	21048	2529.8	16-QAM	100	0	21.74
Max	LTE B7	20	20850	2510	64-QAM	100	0	LTE B7	20	21048	2529.8	64-QAM	100	0	21.73

Table 7-9. Conducted Powers (B7 with Various Combinations for 20MHz Channel Bandwidth)

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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	24.63
Max	LTE B41	10	39700	2501	QPSK	1	49	LTE B41	15	39820	2513	QPSK	1	0	24.97
Max	LTE B41	10	39700	2501	QPSK	1	49	LTE B41	20	39844	2515.4	QPSK	1	0	24.99
Max	LTE B41	15	39725	2503.5	QPSK	1	74	LTE B41	10	39845	2515.5	QPSK	1	0	24.85
Max	LTE B41	15	39725	2503.5	QPSK	1	74	LTE B41	15	39875	2518.5	QPSK	1	0	24.89
Max	LTE B41	15	39725	2503.5	QPSK	1	74	LTE B41	20	39896	2520.6	QPSK	1	0	24.91
Max	LTE B41	20	39750	2506	QPSK	1	99	LTE B41	5	39867	2517.7	QPSK	1	0	24.70
Max	LTE B41	20	39750	2506	QPSK	1	99	LTE B41	10	39894	2520.4	QPSK	1	0	24.82
Max	LTE B41	20	39750	2506	QPSK	1	99	LTE B41	15	39921	2523.1	QPSK	1	0	24.96
Max	LTE B41	20	39750	2506	QPSK	1	99	LTE B41	20	39948	2525.8	QPSK	1	0	24.93
Max	LTE B41	10	40620	2593	QPSK	1	49	LTE B41	15	40740	2605	QPSK	1	0	24.83
Max	LTE B41	10	40620	2593	QPSK	1	49	LTE B41	20	40764	2607.4	QPSK	1	0	24.86
Max	LTE B41	15	40620	2593	QPSK	1	74	LTE B41	10	40740	2605	QPSK	1	0	24.75
Max	LTE B41	15	40620	2593	QPSK	1	74	LTE B41	15	40770	2608	QPSK	1	0	24.93
Max	LTE B41	15	40620	2593	QPSK	1	74	LTE B41	20	40791	2610.1	QPSK	1	0	24.87
Max	LTE B41	20	40620	2593	QPSK	1	99	LTE B41	5	40737	2604.7	QPSK	1	0	24.65
Max	LTE B41	20	40620	2593	QPSK	1	99	LTE B41	10	40764	2607.4	QPSK	1	0	24.73
Max	LTE B41	20	40620	2593	QPSK	1	99	LTE B41	15	40791	2610.1	QPSK	1	0	24.75
Max	LTE B41	20	40620	2593	QPSK	1	99	LTE B41	20	40818	2612.8	QPSK	1	0	24.88
Max	LTE B41	5	41565	2687.5	QPSK	1	0	LTE B41	20	41448	2675.8	QPSK	1	99	24.67
Max	LTE B41	10	41540	2685	QPSK	1	0	LTE B41	15	41420	2673	QPSK	1	74	24.73
Max	LTE B41	10	41540	2685	QPSK	1	0	LTE B41	20	41396	2670.6	QPSK	1	99	24.78
Max	LTE B41	15	41515	2682.5	QPSK	1	0	LTE B41	10	41395	2670.5	QPSK	1	49	24.68
Max	LTE B41	15	41515	2682.5	QPSK	1	0	LTE B41	15	41365	2667.5	QPSK	1	74	24.66
Max	LTE B41	15	41515	2682.5	QPSK	1	0	LTE B41	20	41344	2665.4	QPSK	1	99	24.83
Max	LTE B41	20	41490	2680	QPSK	1	0	LTE B41	5	41373	2668.3	QPSK	1	24	24.65
Max	LTE B41	20	41490	2680	QPSK	1	0	LTE B41	10	41346	2665.6	QPSK	1	49	24.61
Max	LTE B41	20	41490	2680	QPSK	1	0	LTE B41	15	41319	2662.9	QPSK	1	74	24.67
Max	LTE B41	20	41490	2680	QPSK	1	0	LTE B41	20	41292	2660.2	QPSK	1	99	24.75

Table 7-10. Conducted Powers (B41 – PCC: RB Size 1 Offset Max SCC: RB Size 1 Offset 0)

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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	20.25
Max	LTE B41	20	39750	2506	16-QAM	1	0	LTE B41	20	39948	2525.8	16-QAM	1	0	20.12
Max	LTE B41	20	39750	2506	64-QAM	1	0	LTE B41	20	39948	2525.8	64-QAM	1	0	20.27
Max	LTE B41	20	39750	2506	QPSK	1	99	LTE B41	20	39948	2525.8	QPSK	1	99	20.21
Max	LTE B41	20	39750	2506	QPSK	1	0	LTE B41	20	39948	2525.8	QPSK	1	99	16.19
Max	LTE B41	20	39750	2506	QPSK	1	50	LTE B41	20	39948	2525.8	QPSK	1	50	20.16
Max	LTE B41	20	39750	2506	QPSK	1	99	LTE B41	20	39948	2525.8	QPSK	1	0	25.00
Max	LTE B41	20	39750	2506	QPSK	100	0	LTE B41	20	39948	2525.8	QPSK	100	0	22.83
Max	LTE B41	20	39750	2506	16-QAM	100	0	LTE B41	20	39948	2525.8	16-QAM	100	0	21.88
Max	LTE B41	20	39750	2506	64-QAM	100	0	LTE B41	20	39948	2525.8	64-QAM	100	0	21.89

Table 7-11. Conducted Powers (B41 with Various Combinations for 20MHz Channel Bandwidth)

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Port B

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 B7	10	20800	2505	QPSK	1	49	LTE B7	20	20944	2519.4	QPSK	1	0	22.49
Max	LTE B7	15	20825	2507.5	QPSK	1	74	LTE B7	10	20945	2519.5	QPSK	1	0	22.45
Max	LTE B7	15	20825	2507.5	QPSK	1	74	LTE B7	15	20975	2522.5	QPSK	1	0	22.50
Max	LTE B7	15	20825	2507.5	QPSK	1	74	LTE B7	20	20996	2524.6	QPSK	1	0	22.56
Max	LTE B7	20	20850	2510	QPSK	1	99	LTE B7	10	20994	2524.4	QPSK	1	0	22.42
Max	LTE B7	20	20850	2510	QPSK	1	99	LTE B7	15	21021	2527.1	QPSK	1	0	22.44
Max	LTE B7	20	20850	2510	QPSK	1	99	LTE B7	20	21048	2529.8	QPSK	1	0	22.53
Max	LTE B7	10	21100	2535	QPSK	1	49	LTE B7	20	21244	2549.4	QPSK	1	0	22.66
Max	LTE B7	15	21100	2535	QPSK	1	74	LTE B7	10	21220	2547	QPSK	1	0	22.41
Max	LTE B7	15	21100	2535	QPSK	1	74	LTE B7	15	21250	2550	QPSK	1	0	22.49
Max	LTE B7	15	21100	2535	QPSK	1	74	LTE B7	20	21271	2552.1	QPSK	1	0	22.59
Max	LTE B7	20	21100	2535	QPSK	1	99	LTE B7	10	21244	2549.4	QPSK	1	0	22.53
Max	LTE B7	20	21100	2535	QPSK	1	99	LTE B7	15	21271	2552.1	QPSK	1	0	22.54
Max	LTE B7	20	21100	2535	QPSK	1	99	LTE B7	20	21298	2554.8	QPSK	1	0	22.45
Max	LTE B7	10	21400	2565	QPSK	1	0	LTE B7	20	21256	2550.6	QPSK	1	99	22.57
Max	LTE B7	15	21375	2562.5	QPSK	1	0	LTE B7	10	21255	2550.5	QPSK	1	49	22.43
Max	LTE B7	15	21375	2562.5	QPSK	1	0	LTE B7	15	21225	2547.5	QPSK	1	74	22.40
Max	LTE B7	15	21375	2562.5	QPSK	1	0	LTE B7	20	21204	2545.4	QPSK	1	99	22.34
Max	LTE B7	20	21350	2560	QPSK	1	0	LTE B7	10	21206	2545.6	QPSK	1	49	22.57
Max	LTE B7	20	21350	2560	QPSK	1	0	LTE B7	15	21179	2542.9	QPSK	1	74	22.46
Max	LTE B7	20	21350	2560	QPSK	1	0	LTE B7	20	21152	2540.2	QPSK	1	99	22.59

Table 7-12. Conducted Powers (B7 – PCC: RB Size 1 Offset Max SCC: RB Size 1 Offset 0)

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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 B7	20	20850	2510	QPSK	1	0	LTE B7	20	21048	2529.8	QPSK	1	0	18.15
Max	LTE B7	20	20850	2510	16-QAM	1	0	LTE B7	20	21048	2529.8	16-QAM	1	0	18.44
Max	LTE B7	20	20850	2510	64-QAM	1	0	LTE B7	20	21048	2529.8	64-QAM	1	0	18.48
Max	LTE B7	20	20850	2510	QPSK	1	99	LTE B7	20	21048	2529.8	QPSK	1	99	18.01
Max	LTE B7	20	20850	2510	QPSK	1	0	LTE B7	20	21048	2529.8	QPSK	1	99	14.15
Max	LTE B7	20	20850	2510	QPSK	1	50	LTE B7	20	21048	2529.8	QPSK	1	50	18.08
Max	LTE B7	20	20850	2510	QPSK	1	99	LTE B7	20	21048	2529.8	QPSK	1	0	22.49
Max	LTE B7	20	20850	2510	QPSK	100	0	LTE B7	20	21048	2529.8	QPSK	100	0	20.21
Max	LTE B7	20	20850	2510	16-QAM	100	0	LTE B7	20	21048	2529.8	16-QAM	100	0	19.19
Max	LTE B7	20	20850	2510	64-QAM	100	0	LTE B7	20	21048	2529.8	64-QAM	100	0	19.16

Table 7-13. Conducted Powers (B7 with Various Combinations for 20MHz Channel Bandwidth)

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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	22.41
Max	LTE B41	10	39700	2501	QPSK	1	49	LTE B41	15	39820	2513	QPSK	1	0	22.39
Max	LTE B41	10	39700	2501	QPSK	1	49	LTE B41	20	39844	2515.4	QPSK	1	0	22.35
Max	LTE B41	15	39725	2503.5	QPSK	1	74	LTE B41	10	39845	2515.5	QPSK	1	0	22.31
Max	LTE B41	15	39725	2503.5	QPSK	1	74	LTE B41	15	39875	2518.5	QPSK	1	0	22.32
Max	LTE B41	15	39725	2503.5	QPSK	1	74	LTE B41	20	39896	2520.6	QPSK	1	0	22.40
Max	LTE B41	20	39750	2506	QPSK	1	99	LTE B41	5	39867	2517.7	QPSK	1	0	22.39
Max	LTE B41	20	39750	2506	QPSK	1	99	LTE B41	10	39894	2520.4	QPSK	1	0	22.57
Max	LTE B41	20	39750	2506	QPSK	1	99	LTE B41	15	39921	2523.1	QPSK	1	0	22.43
Max	LTE B41	20	39750	2506	QPSK	1	99	LTE B41	20	39948	2525.8	QPSK	1	0	22.41
Max	LTE B41	10	40620	2593	QPSK	1	49	LTE B41	15	40740	2605	QPSK	1	0	22.46
Max	LTE B41	10	40620	2593	QPSK	1	49	LTE B41	20	40764	2607.4	QPSK	1	0	22.51
Max	LTE B41	15	40620	2593	QPSK	1	74	LTE B41	10	40740	2605	QPSK	1	0	22.33
Max	LTE B41	15	40620	2593	QPSK	1	74	LTE B41	15	40770	2608	QPSK	1	0	22.42
Max	LTE B41	15	40620	2593	QPSK	1	74	LTE B41	20	40791	2610.1	QPSK	1	0	22.51
Max	LTE B41	20	40620	2593	QPSK	1	99	LTE B41	5	40737	2604.7	QPSK	1	0	22.26
Max	LTE B41	20	40620	2593	QPSK	1	99	LTE B41	10	40764	2607.4	QPSK	1	0	22.32
Max	LTE B41	20	40620	2593	QPSK	1	99	LTE B41	15	40791	2610.1	QPSK	1	0	22.40
Max	LTE B41	20	40620	2593	QPSK	1	99	LTE B41	20	40818	2612.8	QPSK	1	0	22.43
Max	LTE B41	5	41565	2687.5	QPSK	1	0	LTE B41	20	41448	2675.8	QPSK	1	99	22.25
Max	LTE B41	10	41540	2685	QPSK	1	0	LTE B41	15	41420	2673	QPSK	1	74	22.30
Max	LTE B41	10	41540	2685	QPSK	1	0	LTE B41	20	41396	2670.6	QPSK	1	99	22.27
Max	LTE B41	15	41515	2682.5	QPSK	1	0	LTE B41	10	41395	2670.5	QPSK	1	49	22.28
Max	LTE B41	15	41515	2682.5	QPSK	1	0	LTE B41	15	41365	2667.5	QPSK	1	74	22.29
Max	LTE B41	15	41515	2682.5	QPSK	1	0	LTE B41	20	41344	2665.4	QPSK	1	99	22.36
Max	LTE B41	20	41490	2680	QPSK	1	0	LTE B41	5	41373	2668.3	QPSK	1	24	22.25
Max	LTE B41	20	41490	2680	QPSK	1	0	LTE B41	10	41346	2665.6	QPSK	1	49	22.28
Max	LTE B41	20	41490	2680	QPSK	1	0	LTE B41	15	41319	2662.9	QPSK	1	74	22.46
Max	LTE B41	20	41490	2680	QPSK	1	0	LTE B41	20	41292	2660.2	QPSK	1	99	22.47

Table 7-14. Conducted Powers (B41 – PCC: RB Size 1 Offset Max SCC: RB Size 1 Offset 0)

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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	17.94
Max	LTE B41	20	39750	2506	16-QAM	1	0	LTE B41	20	39948	2525.8	16-QAM	1	0	18.26
Max	LTE B41	20	39750	2506	64-QAM	1	0	LTE B41	20	39948	2525.8	64-QAM	1	0	18.25
Max	LTE B41	20	39750	2506	QPSK	1	99	LTE B41	20	39948	2525.8	QPSK	1	99	17.79
Max	LTE B41	20	39750	2506	QPSK	1	0	LTE B41	20	39948	2525.8	QPSK	1	99	13.67
Max	LTE B41	20	39750	2506	QPSK	1	50	LTE B41	20	39948	2525.8	QPSK	1	50	17.86
Max	LTE B41	20	39750	2506	QPSK	1	99	LTE B41	20	39948	2525.8	QPSK	1	0	22.56
Max	LTE B41	20	39750	2506	QPSK	100	0	LTE B41	20	39948	2525.8	QPSK	100	0	20.53
Max	LTE B41	20	39750	2506	16-QAM	100	0	LTE B41	20	39948	2525.8	16-QAM	100	0	19.45
Max	LTE B41	20	39750	2506	64-QAM	100	0	LTE B41	20	39948	2525.8	64-QAM	100	0	19.47

Table 7-15. Conducted Powers (B41 with Various Combinations for 20MHz Channel Bandwidth)

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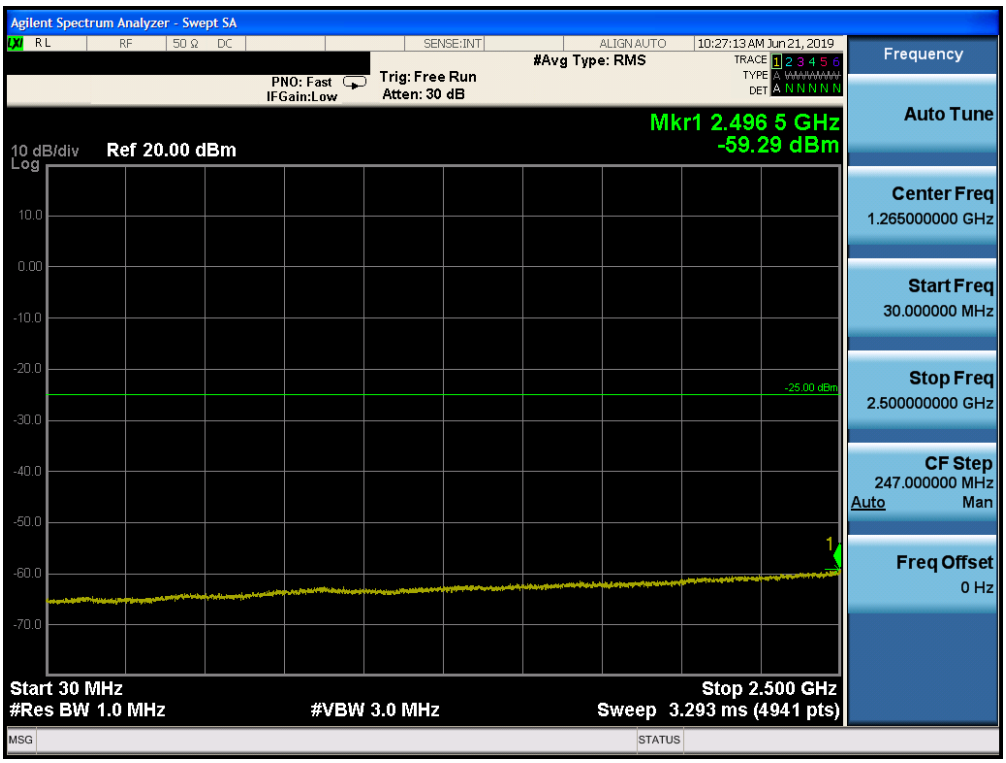
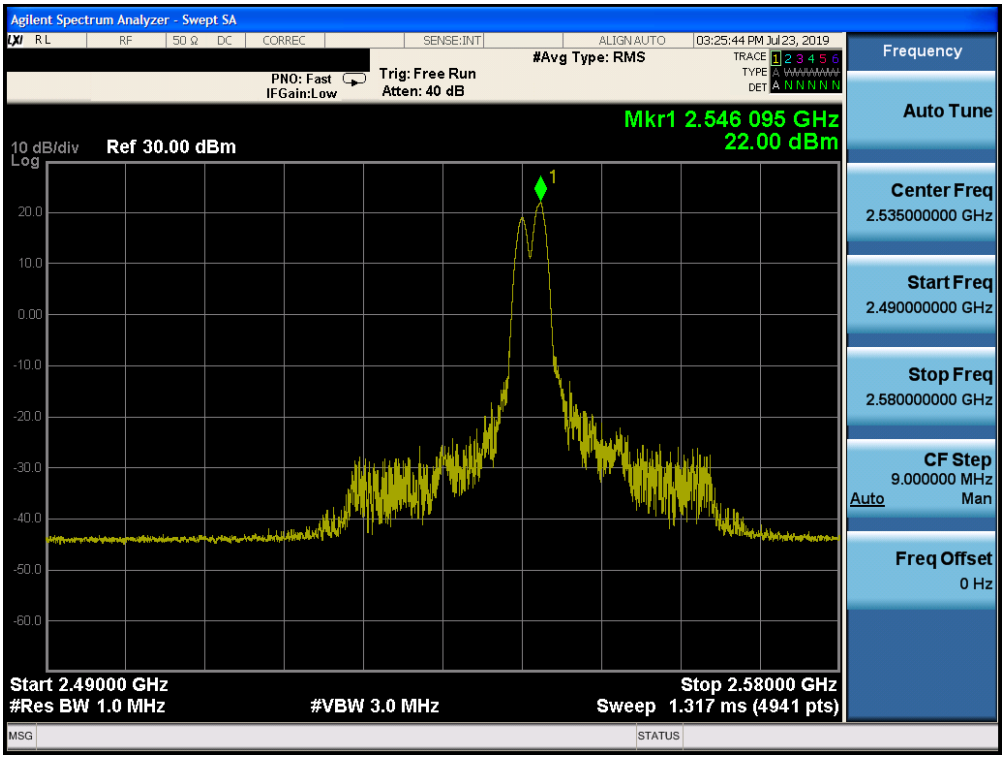
Band 7



Plot 7-426. Conducted Spurious Plot (Band 7 – 20.0MHz QPSK – PCC 1/99 SCC 1/0 – Mid Channel)



Plot 7-427. Conducted Spurious Plot (Band 7 – 20.0MHz QPSK – PCC 1/99 SCC 1/0 – Mid Channel)

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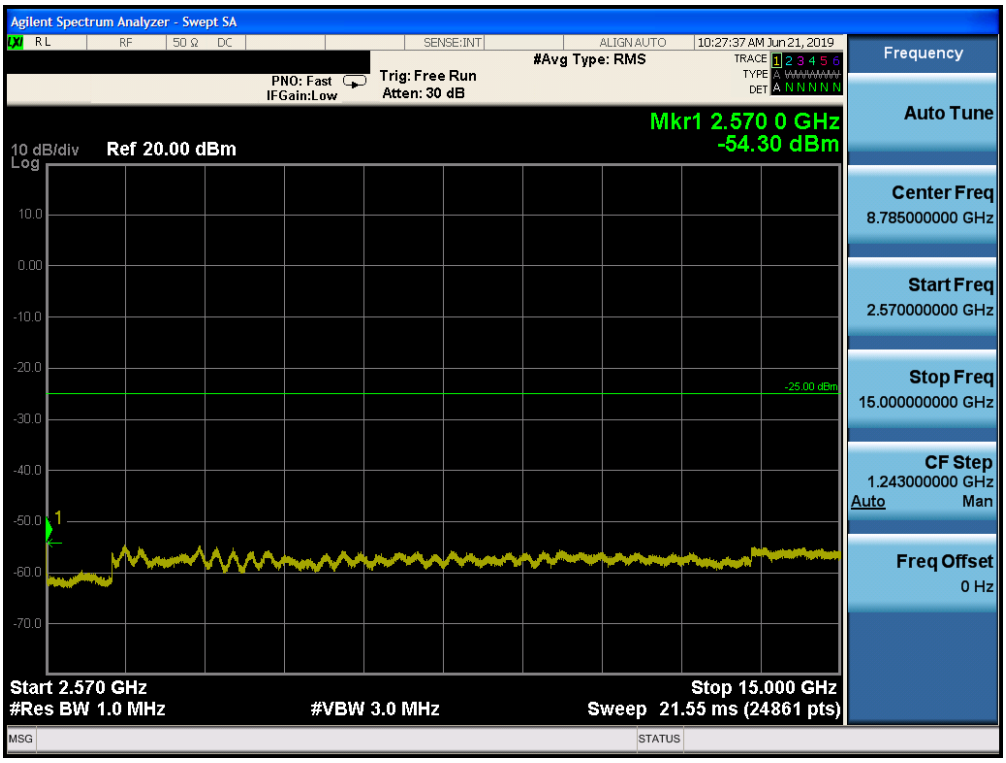
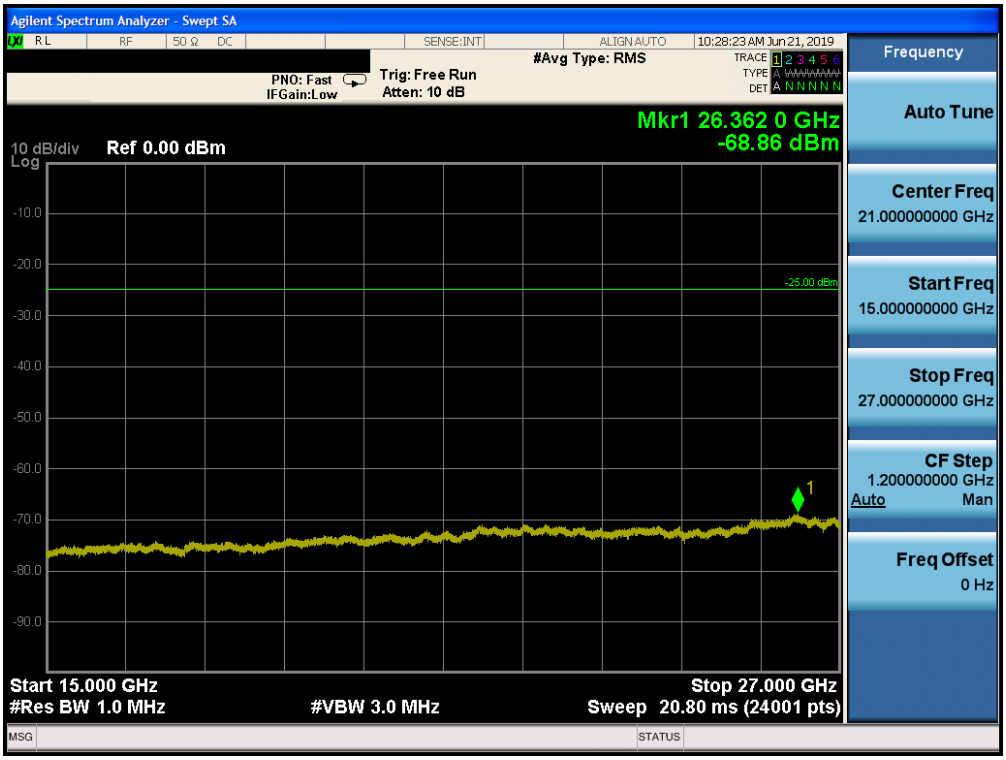


Plot 7-428. Conducted Spurious Plot (Band 7 – 20.0MHz QPSK – PCC 1/99 SCC 1/0 – Mid Channel)



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

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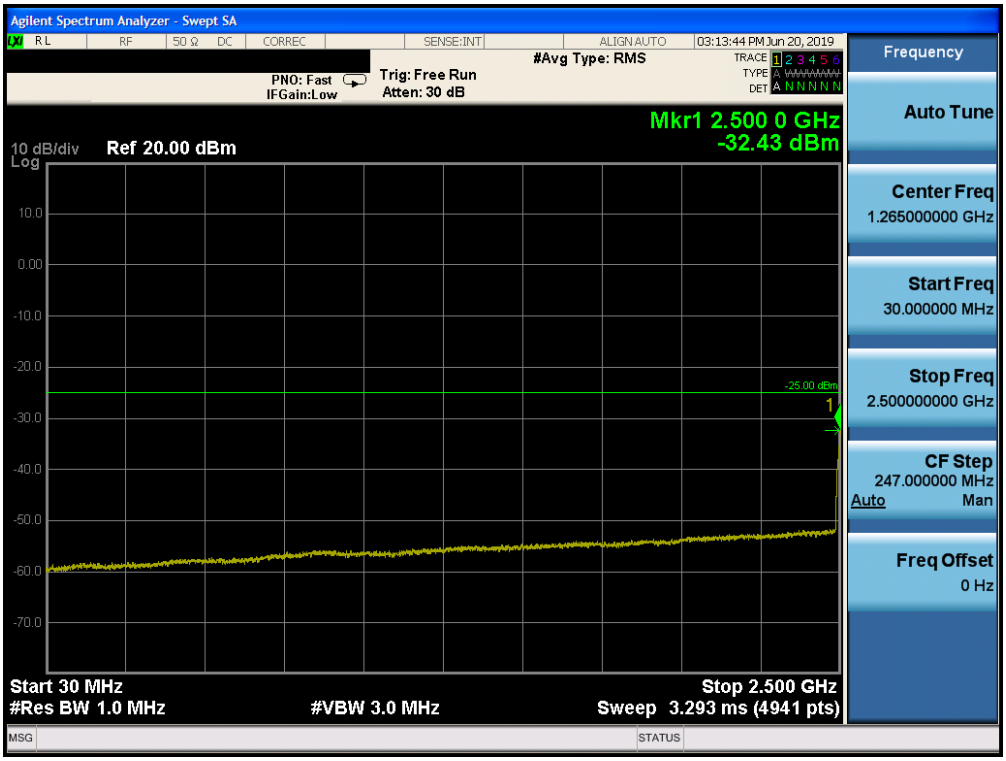
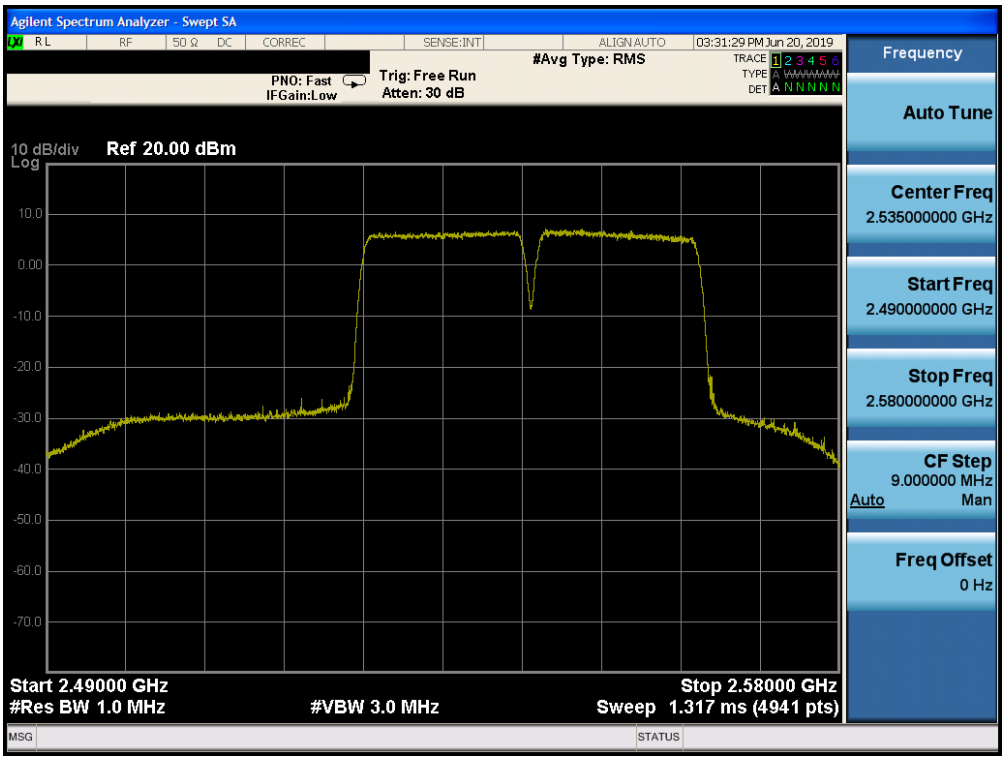


Plot 7-430. Conducted Spurious Plot (Band 7 – 20.0MHz QPSK – PCC 100/0 SCC 100/0 – Mid Channel)



Plot 7-431. Conducted Spurious Plot (Band 7 – 20.0MHz QPSK – PCC 100/0 SCC 100/0 – Mid Channel)

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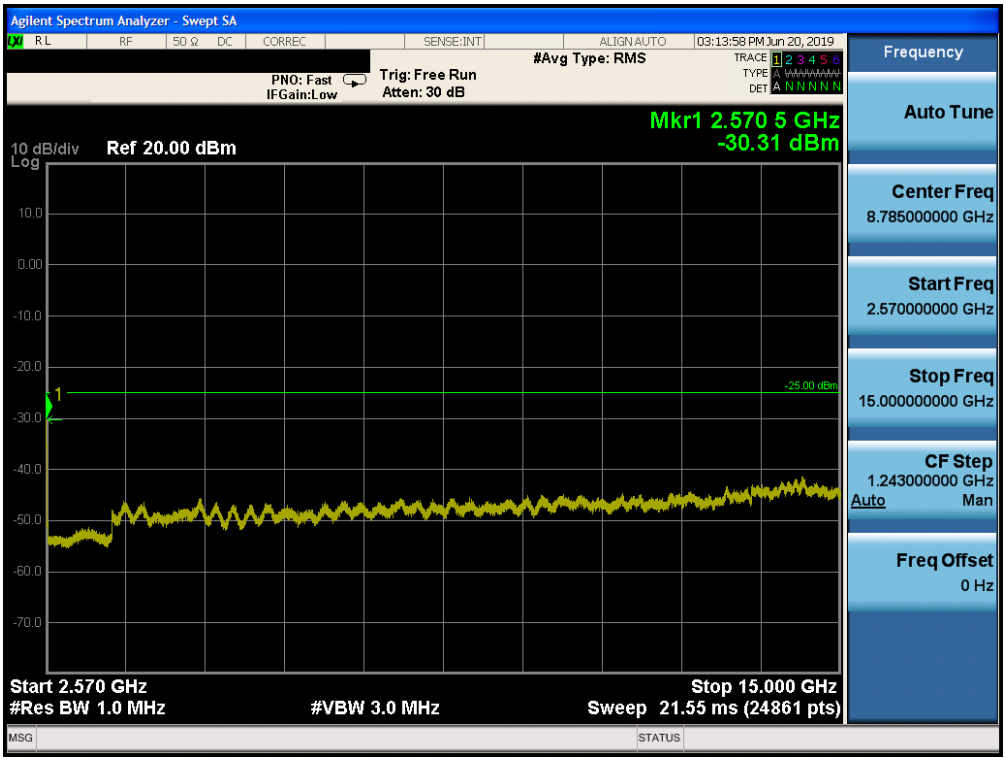
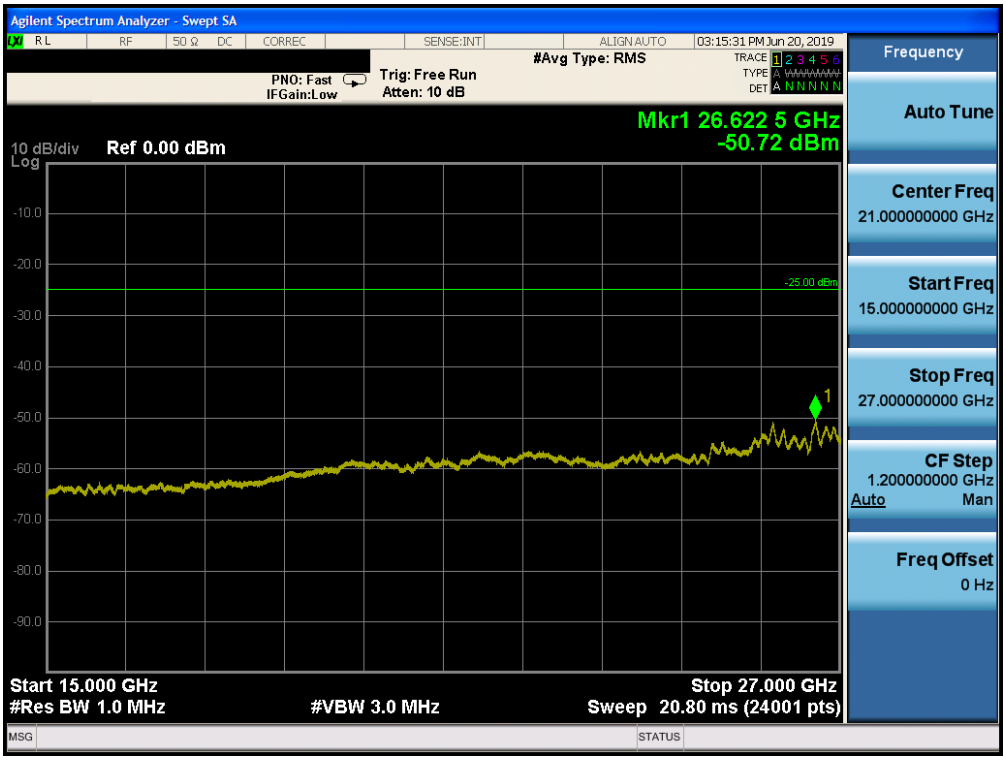


Plot 7-432. Conducted Spurious Plot (Band 7 – 20.0MHz QPSK – PCC 100/0 SCC 100/0 – Mid Channel)



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

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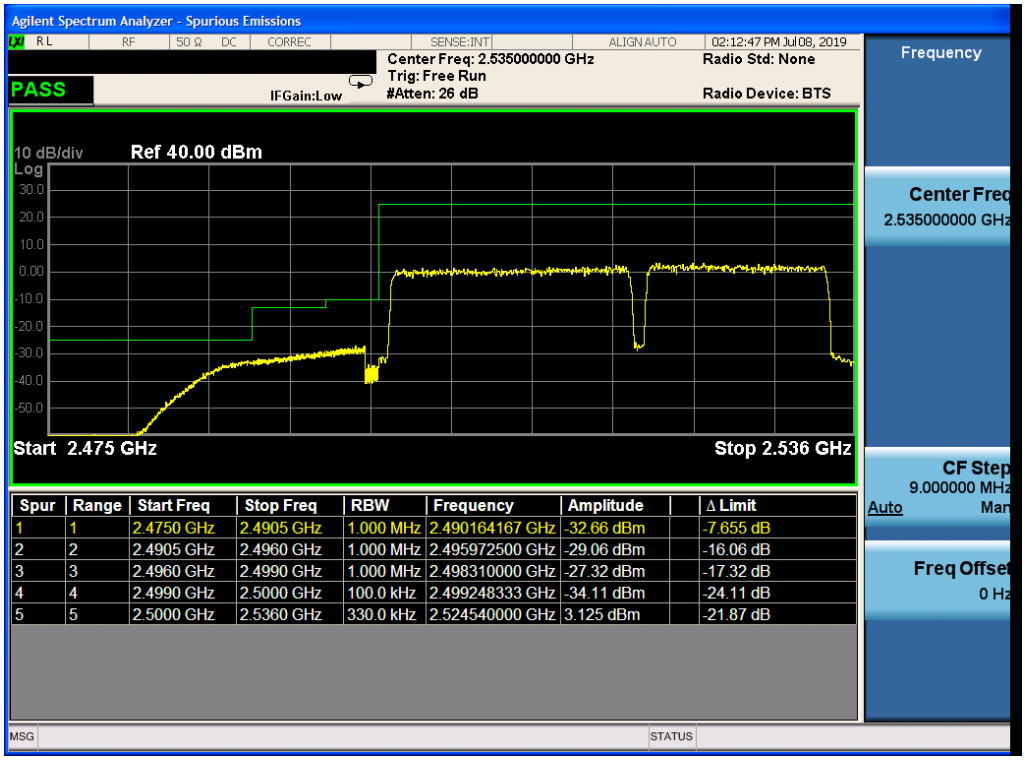

Plot 7-434. Lower ACP Plot (Band 7 QPSK – PCC:15 MHz SCC:20 MHz – Full RB)

Plot 7-435. Upper ACP Plot (Band 7 QPSK – PCC:15 MHz SCC:20 MHz – Full RB)

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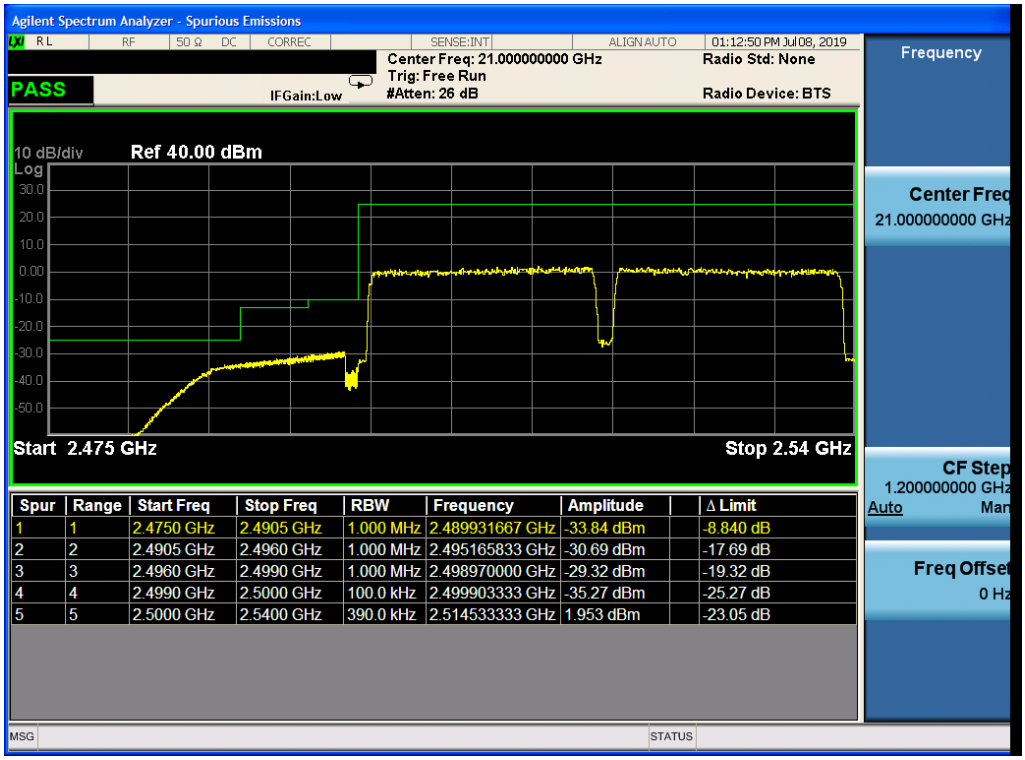
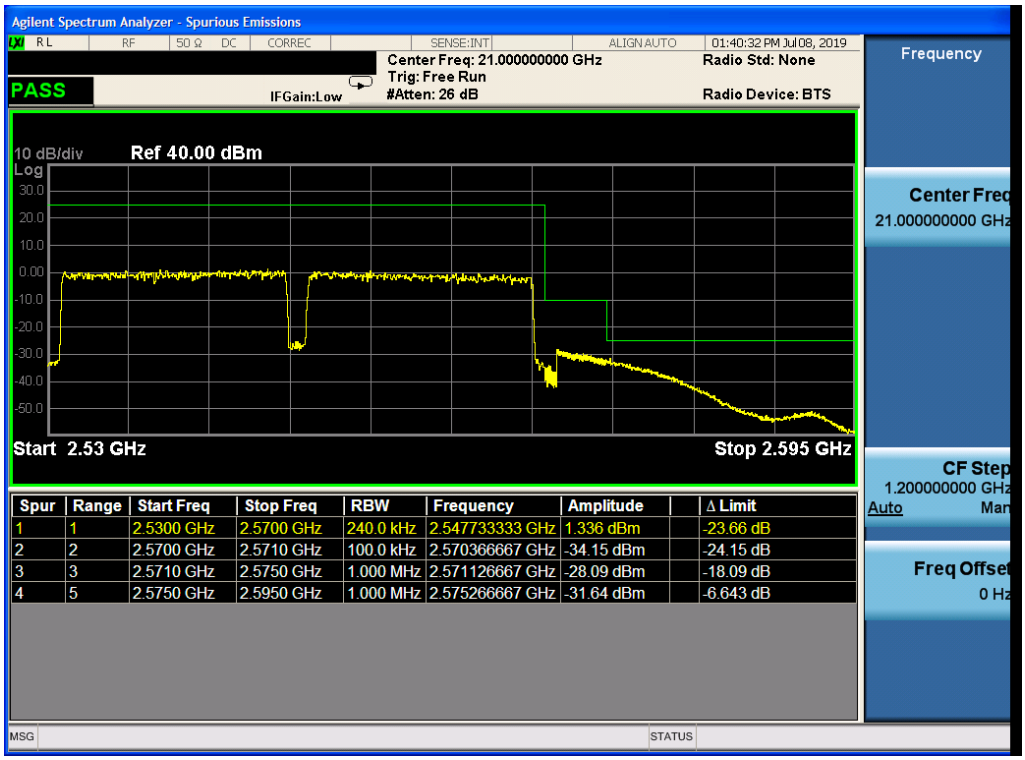


Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	2.4750 GHz	2.4905 GHz	1.000 MHz	2.489931667 GHz	-33.84 dBm	-8.840 dB
2	2	2.4905 GHz	2.4960 GHz	1.000 MHz	2.495165833 GHz	-30.69 dBm	-17.69 dB
3	3	2.4960 GHz	2.4990 GHz	1.000 MHz	2.498970000 GHz	-29.32 dBm	-19.32 dB
4	4	2.4990 GHz	2.5000 GHz	100.0 kHz	2.499903333 GHz	-35.27 dBm	-25.27 dB
5	5	2.5000 GHz	2.5400 GHz	390.0 kHz	2.514533333 GHz	1.953 dBm	-23.05 dB

Plot 7-436. Lower ACP Plot (Band 7 QPSK – PCC:20 MHz SCC:20 MHz – Full RB)



Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	2.5300 GHz	2.5700 GHz	240.0 kHz	2.547733333 GHz	1.336 dBm	-23.66 dB
2	2	2.5700 GHz	2.5710 GHz	100.0 kHz	2.570366667 GHz	-34.15 dBm	-24.15 dB
3	3	2.5710 GHz	2.5750 GHz	1.000 MHz	2.571126667 GHz	-28.09 dBm	-18.09 dB
4	5	2.5750 GHz	2.5950 GHz	1.000 MHz	2.575266667 GHz	-31.64 dBm	-6.643 dB

Plot 7-437. Upper ACP Plot (Band 7 QPSK – PCC:20 MHz SCC:20 MHz – Full RB)

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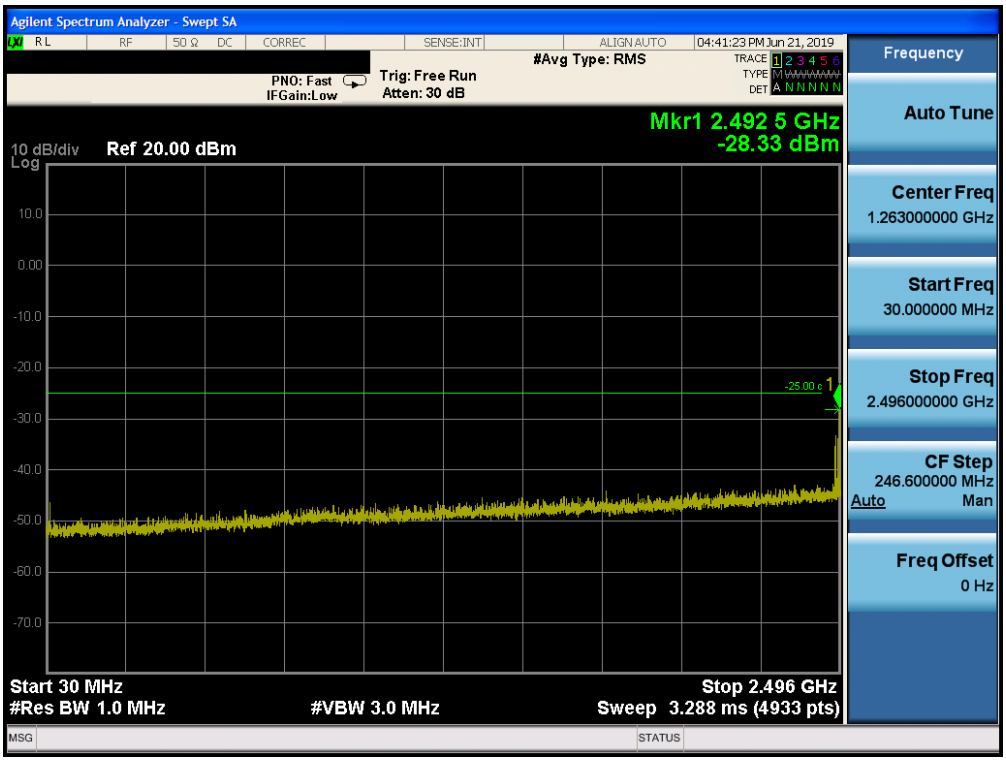
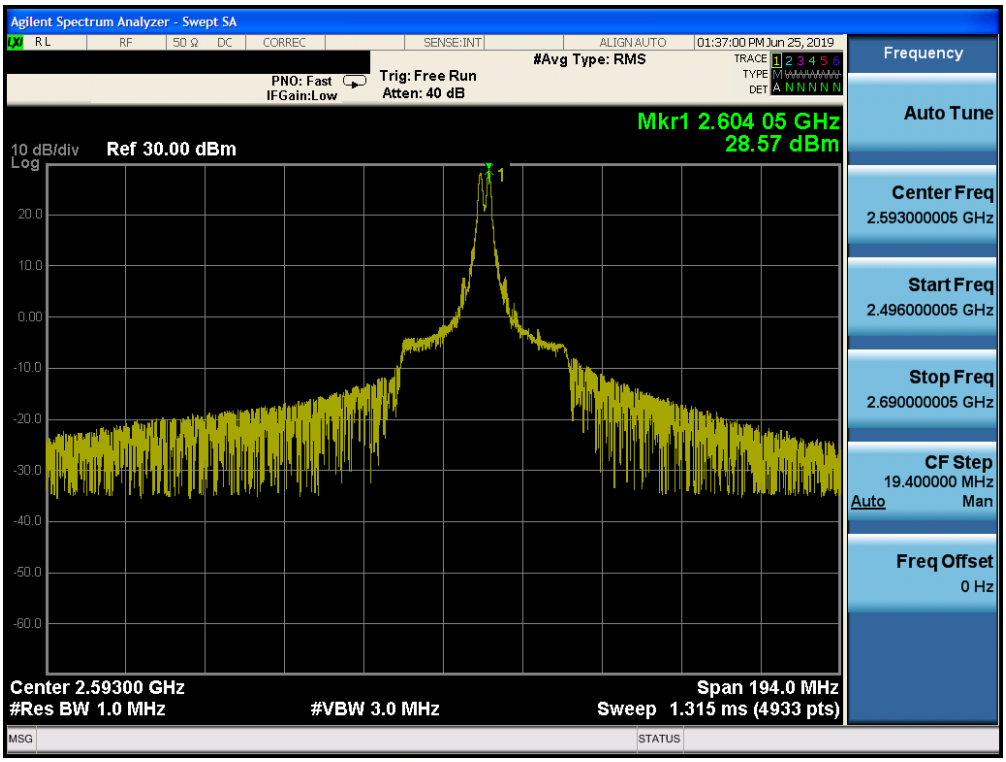
Band 41



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



Plot 7-439. Conducted Spurious Plot (Band 41 – 20.0MHz QPSK – PCC 1/99 SCC 1/0 – Mid Channel)

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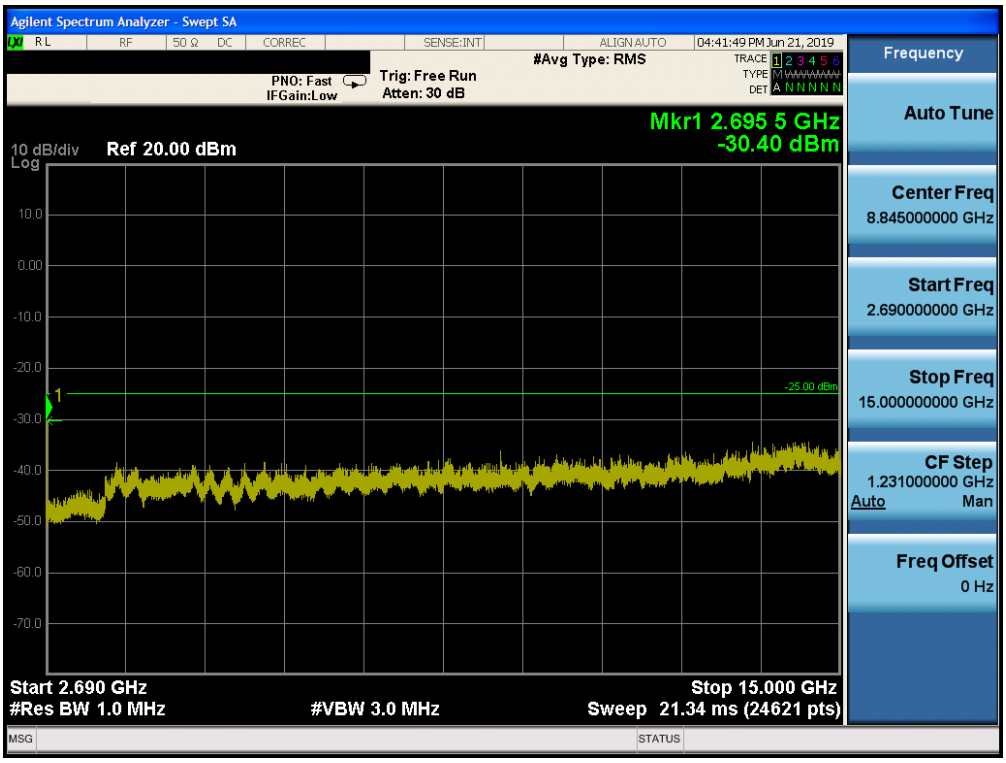
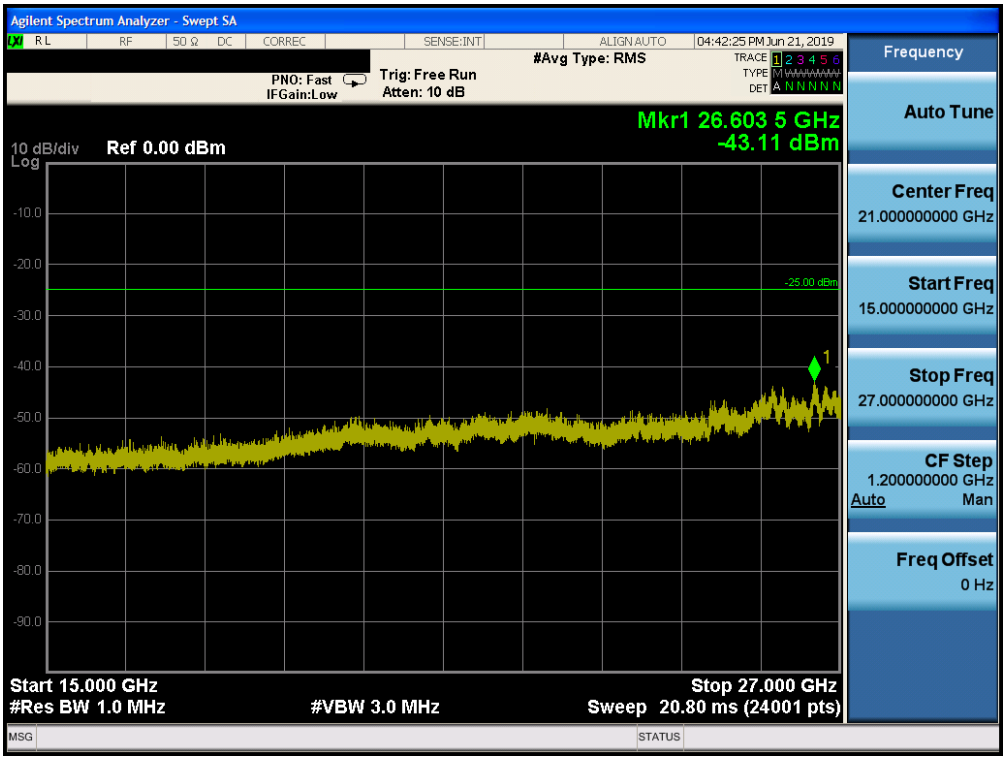


Plot 7-440. Conducted Spurious Plot (Band 41 – 20.0MHz QPSK – PCC 1/99 SCC 1/0 – Mid Channel)



Plot 7-441. Conducted Spurious Plot (Band 41 – 20.0MHz QPSK – PCC 1/99 SCC 1/0 – Mid Channel)

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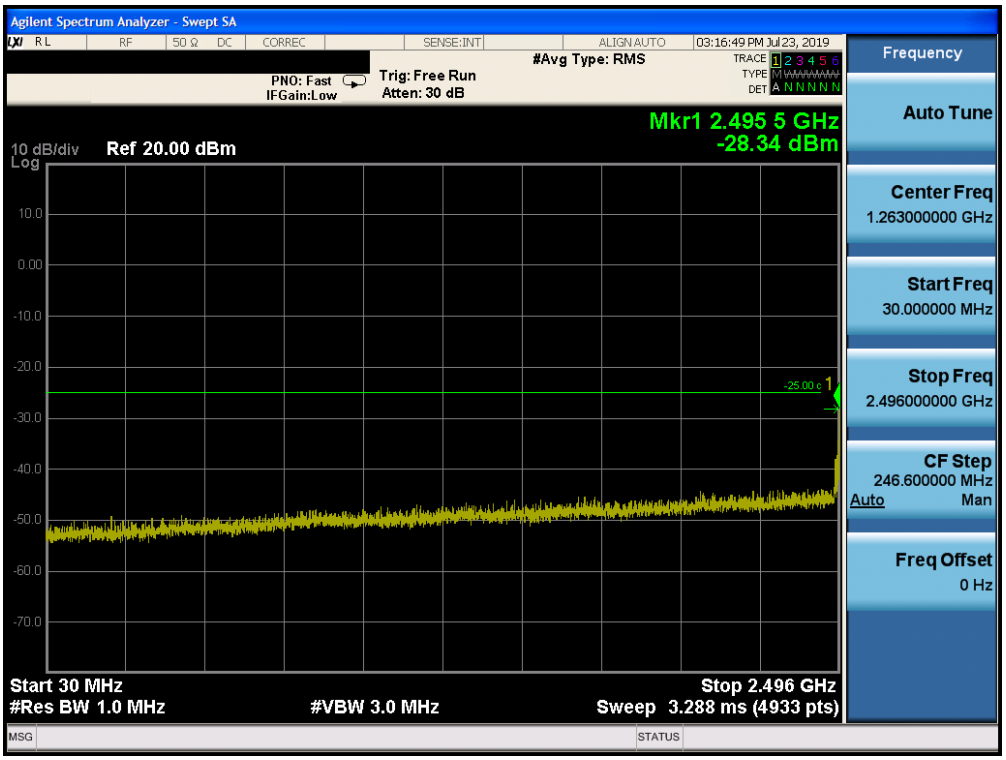
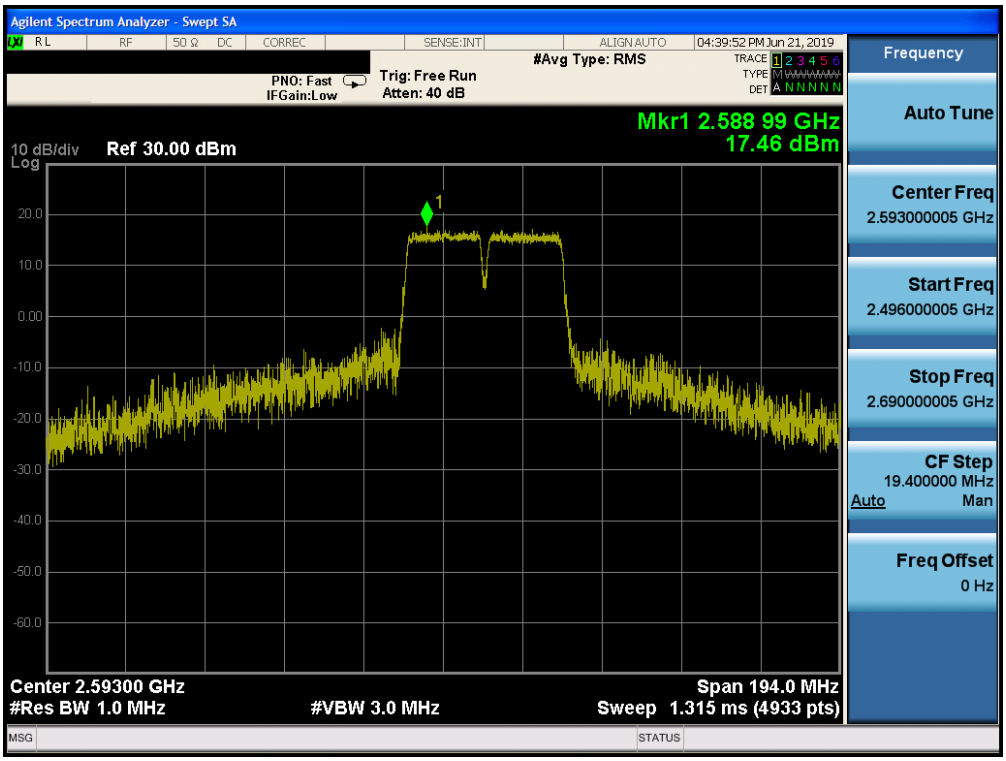


Plot 7-442. Conducted Spurious Plot (Band 41 – 20.0MHz QPSK – PCC 100/0 SCC 100/0 – Mid Channel)



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

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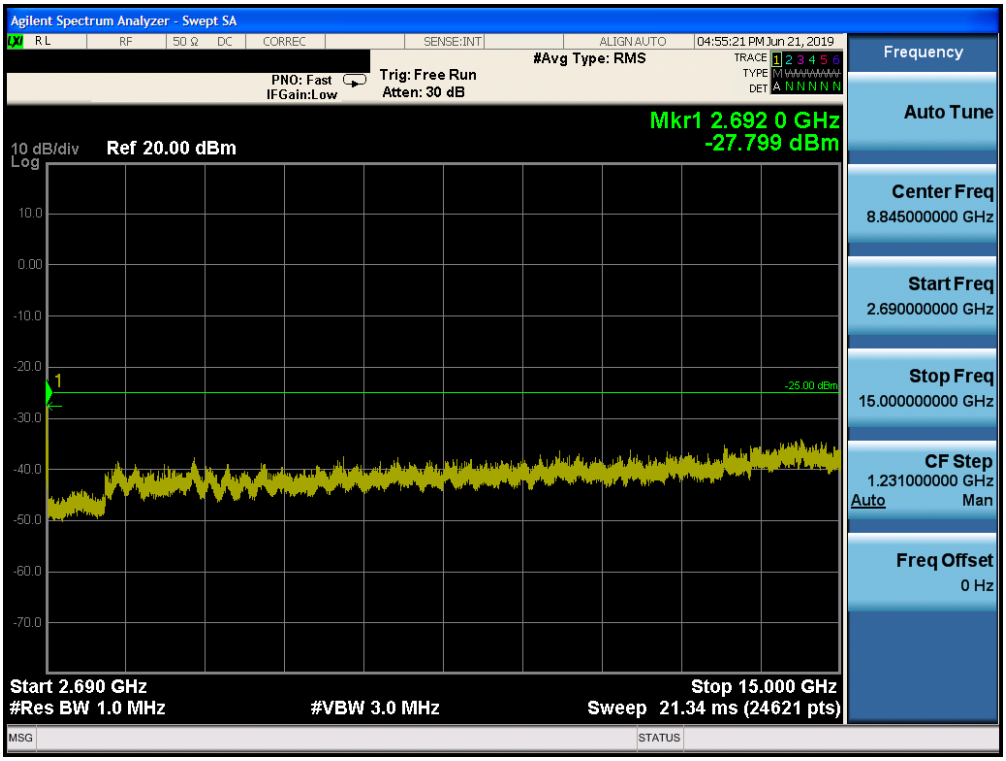
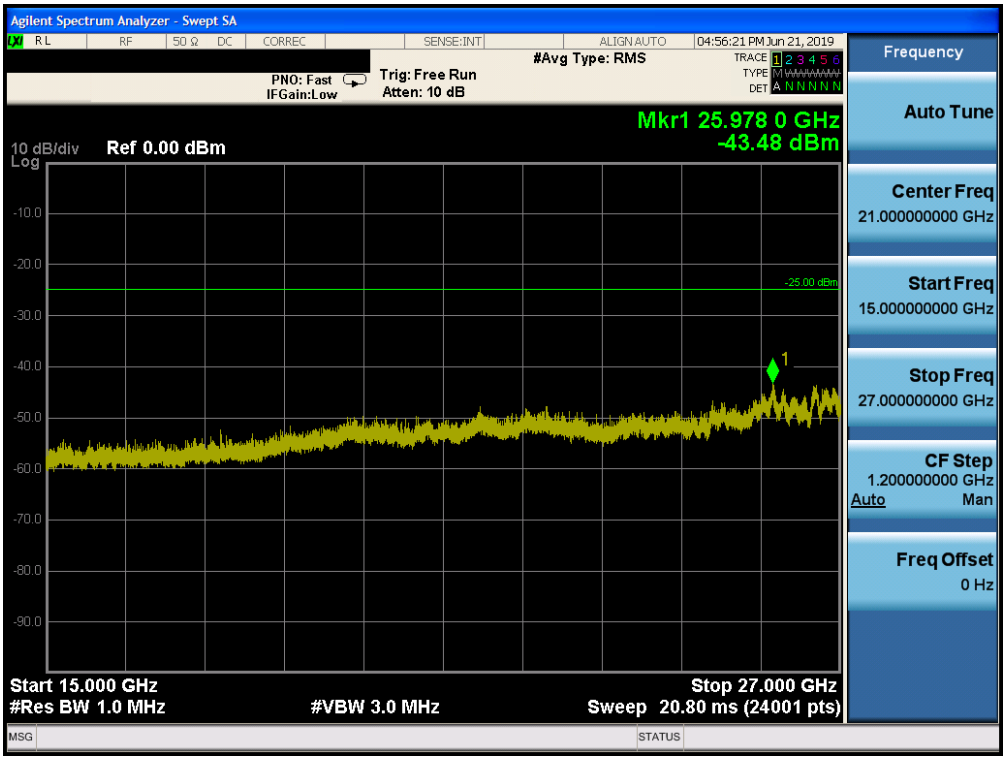


Plot 7-444. Conducted Spurious Plot (Band 41 – 20.0MHz QPSK – PCC 100/0 SCC 100/0 – Mid Channel)



Plot 7-445. Conducted Spurious Plot (Band 41 – 20.0MHz QPSK – PCC 100/0 SCC 100/0 – Mid Channel)

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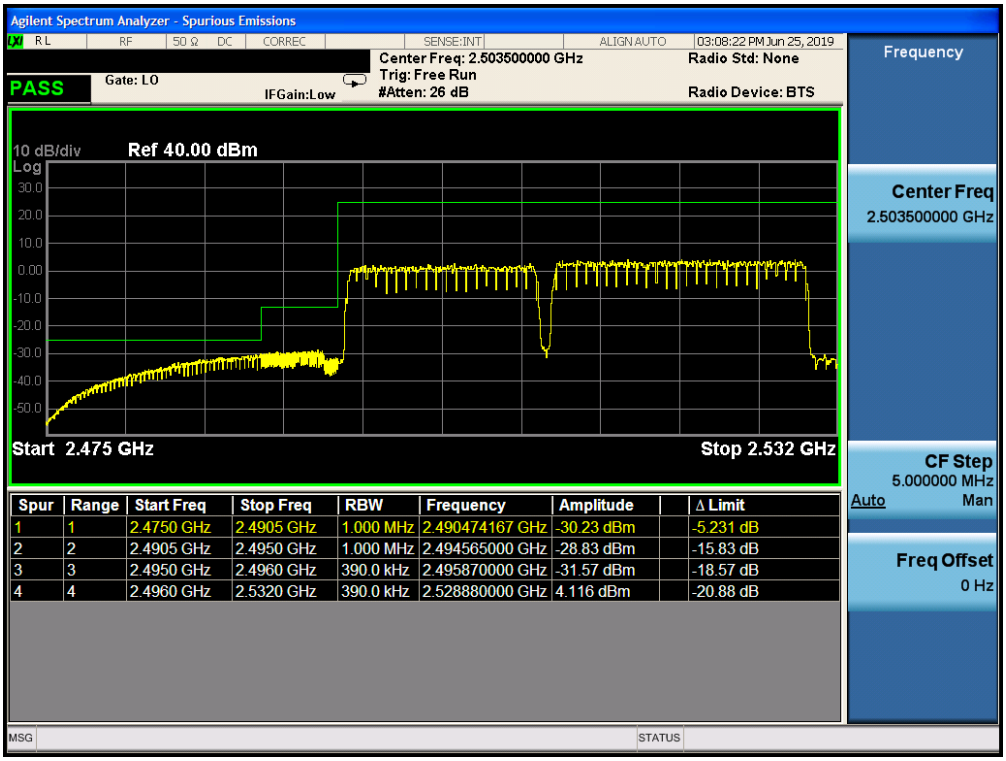
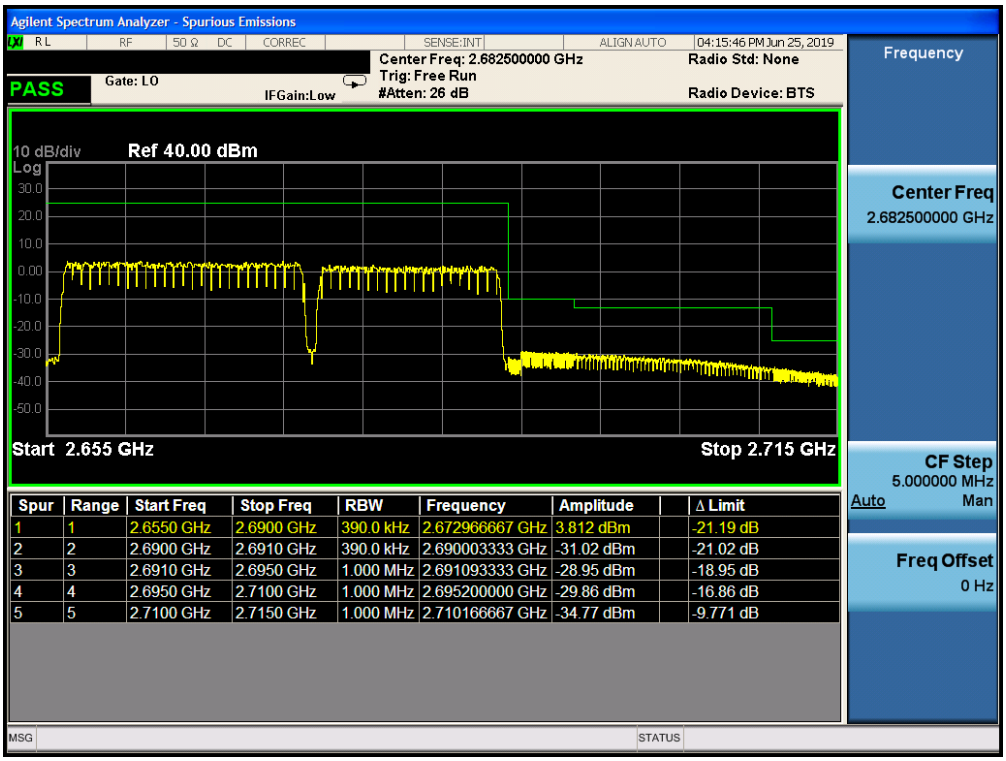


Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	2.4750 GHz	2.4905 GHz	1.000 MHz	2.490474167 GHz	-30.23 dBm	-5.231 dB
2	2	2.4905 GHz	2.4950 GHz	1.000 MHz	2.494565000 GHz	-28.83 dBm	-15.83 dB
3	3	2.4950 GHz	2.4960 GHz	390.0 kHz	2.495870000 GHz	-31.57 dBm	-18.57 dB
4	4	2.4960 GHz	2.5320 GHz	390.0 kHz	2.528880000 GHz	4.116 dBm	-20.88 dB

Plot 7-446. Lower ACP Plot (Band 41 QPSK – PCC:15 MHz SCC:20 MHz – Full RB)



Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	2.6550 GHz	2.6900 GHz	390.0 kHz	2.672966667 GHz	3.812 dBm	-21.19 dB
2	2	2.6900 GHz	2.6910 GHz	390.0 kHz	2.690003333 GHz	-31.02 dBm	-21.02 dB
3	3	2.6910 GHz	2.6950 GHz	1.000 MHz	2.691093333 GHz	-28.95 dBm	-18.95 dB
4	4	2.6950 GHz	2.7100 GHz	1.000 MHz	2.695200000 GHz	-29.86 dBm	-16.86 dB
5	5	2.7100 GHz	2.7150 GHz	1.000 MHz	2.710166667 GHz	-34.77 dBm	-9.771 dB

Plot 7-447. Upper ACP Plot (Band 41 QPSK – PCC:15 MHz SCC:20 MHz – Full RB)

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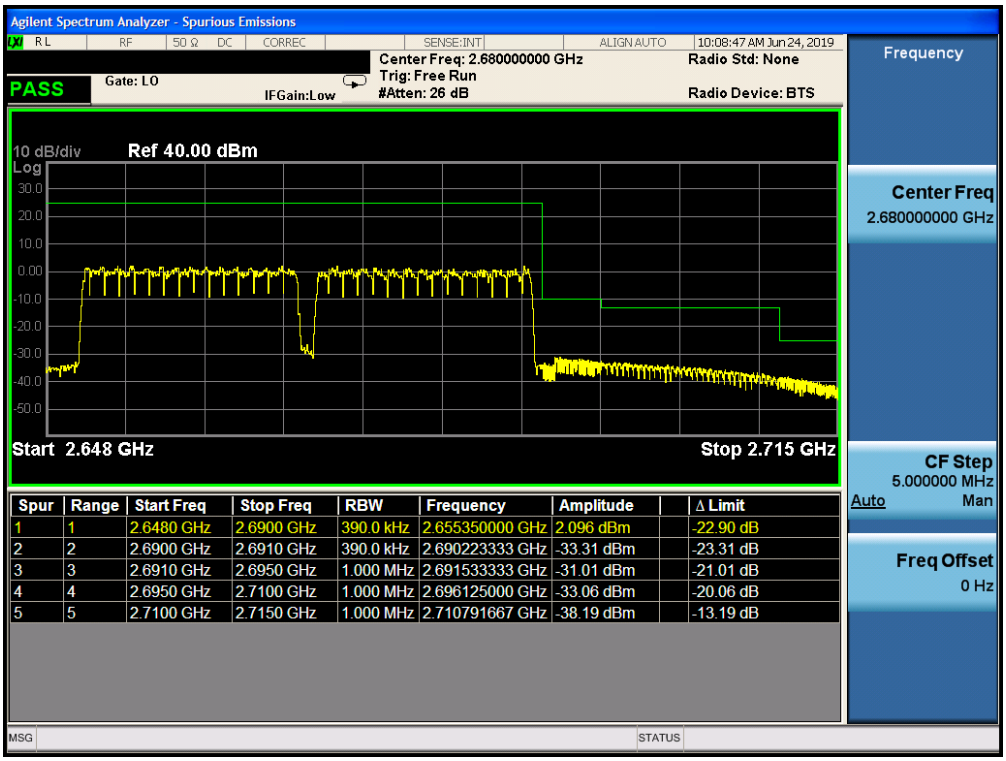
Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	2.4750 GHz	2.4905 GHz	1.000 MHz	2.490448333 GHz	-31.47 dBm	-6.468 dB
2	2	2.4905 GHz	2.4950 GHz	1.000 MHz	2.494977500 GHz	-30.03 dBm	-17.03 dB
3	3	2.4950 GHz	2.4960 GHz	390.0 kHz	2.495856667 GHz	-32.62 dBm	-19.62 dB
4	4	2.4960 GHz	2.5380 GHz	390.0 kHz	2.533380000 GHz	2.423 dBm	-22.58 dB

Plot 7-448. Lower ACP Plot (Band 41 QPSK – PCC:20 MHz SCC:20 MHz – Full RB)



Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	2.6480 GHz	2.6900 GHz	390.0 kHz	2.655350000 GHz	2.096 dBm	-22.90 dB
2	2	2.6900 GHz	2.6910 GHz	390.0 kHz	2.690223333 GHz	-33.31 dBm	-23.31 dB
3	3	2.6910 GHz	2.6950 GHz	1.000 MHz	2.691533333 GHz	-31.01 dBm	-21.01 dB
4	4	2.6950 GHz	2.7100 GHz	1.000 MHz	2.696125000 GHz	-33.06 dBm	-20.06 dB
5	5	2.7100 GHz	2.7150 GHz	1.000 MHz	2.710791667 GHz	-38.19 dBm	-13.19 dB

Plot 7-449. Upper ACP Plot (Band 41 QPSK – PCC:20 MHz SCC:20 MHz – Full RB)

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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

Test Settings

The relevant equation for determining the ERP or EIRP from the conducted RF output power measured is:

ERP/EIRP = PMeas – LC + GT

Where:

ERP/EIRP = effective or equivalent radiated power, respectively (expressed in the same units as PMeas, typically dBW or dBm)

PMeas = measured transmitter output power or PSD, in dBW or dBm

LC = signal attenuation in the connecting cable between the transmitter and antenna in dB

GT = gain of the transmitting antenna, in dBd (ERP) or dBi (EIRP)

Test Setup

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

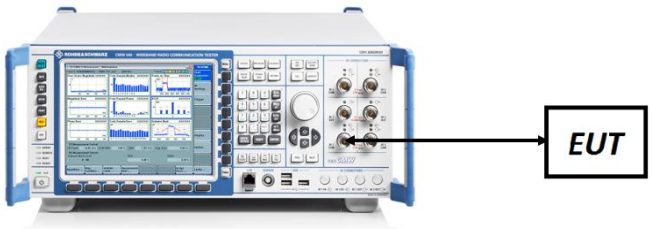

Figure 7-7. ERP/EIRP Measurement Setup

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.

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3) The Level (dBm) readings in the table were taken with a correction table loaded into the base station simulator. The correction table was used to account for the signal attenuation in the connecting cable between the transmitter and antenna.

4) The Ant. Gains (GT) are listed in dBi.

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7.8.1 Port A Radiated Power (ERP/EIRP)

Frequency [MHz]	Channel Bandwidth [MHz]	Mod.	RB Size/Offset	Conducted Power [dBm]	Ant. Gain [dBi]	ERP [dBm]	ERP [Watts]	ERP Limit [dBm]	Margin [dB]
665.50	5	QPSK	1 / 24	25.50	-0.50	**22.85**	**0.193**	34.77	-11.92
680.50	5	QPSK	1 / 0	25.49	-0.50	22.84	0.192	34.77	-11.93
695.50	5	QPSK	1 / 0	25.43	-0.50	22.78	0.190	34.77	-11.99
680.50	5	16-QAM	1 / 0	24.74	-0.50	**22.09**	0.162	34.77	-12.68
665.50	5	64-QAM	1 / 24	23.68	-0.50	**21.03**	0.127	34.77	-13.74
668.00	10	QPSK	1 / 0	25.49	-0.50	22.84	0.192	34.77	-11.93
680.50	10	QPSK	1 / 0	25.50	-0.50	**22.85**	**0.193**	34.77	-11.92
693.00	10	QPSK	1 / 0	25.48	-0.50	22.83	0.192	34.77	-11.94
680.50	10	16-QAM	1 / 0	24.77	-0.50	**22.12**	0.163	34.77	-12.65
680.50	10	64-QAM	1 / 0	23.72	-0.50	**21.07**	0.128	34.77	-13.70
670.50	15	QPSK	1 / 0	25.50	-0.50	**22.85**	**0.193**	34.77	-11.92
680.50	15	QPSK	1 / 0	25.41	-0.50	22.76	0.189	34.77	-12.01
690.50	15	QPSK	1 / 0	25.41	-0.50	22.76	0.189	34.77	-12.01
670.50	15	16-QAM	1 / 0	24.65	-0.50	**22.00**	0.158	34.77	-12.77
680.50	15	64-QAM	1 / 0	23.58	-0.50	**20.93**	0.124	34.77	-13.84
673.00	20	QPSK	1 / 0	25.50	-0.50	**22.85**	**0.193**	34.77	-11.92
680.50	20	QPSK	1 / 0	25.50	-0.50	**22.85**	**0.193**	34.77	-11.92
688.00	20	QPSK	1 / 0	25.48	-0.50	22.83	0.192	34.77	-11.94
680.50	20	16-QAM	1 / 0	24.56	-0.50	**21.91**	0.155	34.77	-12.86
673.00	20	64-QAM	1 / 0	23.62	-0.50	**20.97**	0.125	34.77	-13.80

Table 7-16. ERP Data (Band 71)

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Frequency [MHz]	Channel Bandwidth [MHz]	Mod.	RB Size/Offset	Conducted Power [dBm]	Ant. Gain [dBi]	ERP [dBm]	ERP [Watts]	ERP Limit [dBm]	Margin [dB]	EIRP [dBm]	EIRP [Watts]	EIRP Limit [dBm]	Margin [dB]
699.70	1.4	QPSK	1 / 0	25.44	-0.80	22.49	0.177	34.77	-12.28	24.64	0.291	36.99	-12.35
707.50	1.4	QPSK	1 / 0	25.50	-0.80	**22.55**	**0.180**	34.77	-12.22	**24.70**	**0.295**	36.99	-12.29
715.30	1.4	QPSK	1 / 5	25.50	-0.80	**22.55**	**0.180**	34.77	-12.22	**24.70**	**0.295**	36.99	-12.29
699.70	1.4	16-QAM	1 / 0	24.64	-0.80	**21.69**	0.148	34.77	-13.08	**23.84**	0.242	36.99	-13.15
707.50	1.4	64-QAM	1 / 0	23.48	-0.80	**20.53**	0.113	34.77	-14.24	**22.68**	0.185	36.99	-14.31
700.50	3	QPSK	1 / 0	25.35	-0.80	22.40	0.174	34.77	-12.37	24.55	0.285	36.99	-12.44
707.50	3	QPSK	1 / 14	25.48	-0.80	22.53	0.179	34.77	-12.24	24.68	0.294	36.99	-12.31
714.50	3	QPSK	1 / 14	25.50	-0.80	**22.55**	**0.180**	34.77	-12.22	**24.70**	**0.295**	36.99	-12.29
707.50	3	16-QAM	1 / 0	24.54	-0.80	**21.59**	0.144	34.77	-13.18	**23.74**	0.237	36.99	-13.25
707.50	3	64-QAM	1 / 14	23.44	-0.80	**20.49**	0.112	34.77	-14.28	**22.64**	0.184	36.99	-14.35
701.50	5	QPSK	1 / 24	25.47	-0.80	22.52	0.179	34.77	-12.25	24.67	0.293	36.99	-12.32
707.50	5	QPSK	1 / 24	25.46	-0.80	22.51	0.178	34.77	-12.26	24.66	0.292	36.99	-12.33
713.50	5	QPSK	1 / 0	25.50	-0.80	**22.55**	**0.180**	34.77	-12.22	**24.70**	**0.295**	36.99	-12.29
701.50	5	16-QAM	1 / 0	24.56	-0.80	**21.61**	0.145	34.77	-13.16	**23.76**	0.238	36.99	-13.23
713.50	5	64-QAM	1 / 24	23.56	-0.80	**20.61**	0.115	34.77	-14.16	**22.76**	0.189	36.99	-14.23
704.00	10	QPSK	1 / 0	25.49	-0.80	22.54	0.179	34.77	-12.23	24.69	0.294	36.99	-12.30
707.50	10	QPSK	1 / 0	25.50	-0.80	**22.55**	**0.180**	34.77	-12.22	**24.70**	**0.295**	36.99	-12.29
711.00	10	QPSK	1 / 49	25.50	-0.80	**22.55**	**0.180**	34.77	-12.22	**24.70**	**0.295**	36.99	-12.29
711.00	10	16-QAM	1 / 0	24.61	-0.80	**21.66**	0.147	34.77	-13.11	**23.81**	0.240	36.99	-13.18
711.00	10	64-QAM	1 / 0	23.64	-0.80	**20.69**	0.117	34.77	-14.08	**22.84**	0.192	36.99	-14.15

Table 7-17. ERP Data (Band 12)

Frequency [MHz]	Channel Bandwidth [MHz]	Mod.	RB Size/Offset	Conducted Power [dBm]	Ant. Gain [dBi]	ERP [dBm]	ERP [Watts]	ERP Limit [dBm]	Margin [dB]	EIRP [dBm]	EIRP [Watts]	EIRP Limit [dBm]	Margin [dB]
706.50	5	QPSK	1 / 24	25.50	-0.80	**22.55**	**0.180**	34.77	-12.22	**24.70**	**0.295**	36.99	-12.29
710.00	5	QPSK	1 / 0	25.42	-0.80	22.47	0.177	34.77	-12.30	24.62	0.290	36.99	-12.37
713.50	5	QPSK	1 / 24	25.50	-0.80	**22.55**	**0.180**	34.77	-12.22	**24.70**	**0.295**	36.99	-12.29
706.50	5	16-QAM	1 / 0	24.59	-0.80	**21.64**	0.146	34.77	-13.13	**23.79**	0.239	36.99	-13.20
713.50	5	64-QAM	1 / 24	23.66	-0.80	**20.71**	0.118	34.77	-14.06	**22.86**	0.193	36.99	-14.13
709.00	10	QPSK	1 / 0	25.48	-0.80	22.53	0.179	34.77	-12.24	24.68	0.294	36.99	-12.31
710.00	10	QPSK	1 / 0	25.50	-0.80	**22.55**	**0.180**	34.77	-12.22	**24.70**	**0.295**	36.99	-12.29
711.00	10	QPSK	1 / 49	25.45	-0.80	22.50	0.178	34.77	-12.27	24.65	0.292	36.99	-12.34
710.00	10	16-QAM	1 / 0	24.68	-0.80	**21.73**	0.149	34.77	-13.04	**23.88**	0.244	36.99	-13.11
711.00	10	64-QAM	1 / 0	23.54	-0.80	**20.59**	0.115	34.77	-14.18	**22.74**	0.188	36.99	-14.25

Table 7-18. ERP Data (Band 17)

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Frequency [MHz]	Channel Bandwidth [MHz]	Mod.	RB Size/Offset	Conducted Power [dBm]	Ant. Gain [dBi]	ERP [dBm]	ERP [Watts]	ERP Limit [dBm]	Margin [dB]	EIRP [dBm]	EIRP [Watts]	EIRP Limit [dBm]	Margin [dB]
779.50	5	QPSK	1 / 0	25.50	-0.80	**22.55**	**0.180**	34.77	-12.22	**24.70**	**0.295**	36.99	-12.29
782.00	5	QPSK	1 / 24	25.48	-0.80	22.53	0.179	34.77	-12.24	24.68	0.294	36.99	-12.31
784.50	5	QPSK	1 / 24	25.49	-0.80	22.54	0.179	34.77	-12.23	24.69	0.294	36.99	-12.30
779.50	5	16-QAM	1 / 0	24.71	-0.80	**21.76**	0.150	34.77	-13.01	**23.91**	0.246	36.99	-13.08
779.50	5	64-QAM	1 / 0	23.69	-0.80	**20.74**	0.119	34.77	-14.03	**22.89**	0.195	36.99	-14.10
782.00	10	QPSK	1 / 0	25.50	-0.80	**22.55**	**0.180**	34.77	-12.22	**24.70**	**0.295**	36.99	-12.29
782.00	10	16-QAM	1 / 0	24.56	-0.80	**21.61**	0.145	34.77	-13.16	**23.76**	0.238	36.99	-13.23
782.00	10	64-QAM	1 / 0	23.57	-0.80	**20.62**	0.115	34.77	-14.15	**22.77**	0.189	36.99	-14.22

Table 7-19. ERP Data (Band 13)

Frequency [MHz]	Channel Bandwidth [MHz]	Mod.	RB Size/Offset	Conducted Power [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	1 / 0	25.50	-0.80	**22.55**	**0.180**	38.45	-15.90	**24.70**	**0.295**	40.61	-15.91
836.50	1.4	QPSK	3 / 2	25.49	-0.80	22.54	0.179	38.45	-15.91	24.69	0.294	40.61	-15.92
848.30	1.4	QPSK	1 / 0	25.50	-0.80	**22.55**	**0.180**	38.45	-15.90	**24.70**	**0.295**	40.61	-15.91
836.50	1.4	16-QAM	1 / 0	24.61	-0.80	**21.66**	0.147	38.45	-16.79	**23.81**	0.240	40.61	-16.80
848.30	1.4	64-QAM	1 / 0	23.63	-0.80	**20.68**	0.117	38.45	-17.77	**22.83**	0.192	40.61	-17.78
825.50	3	QPSK	1 / 14	25.49	-0.80	22.54	0.179	38.45	-15.91	24.69	0.294	40.61	-15.92
836.50	3	QPSK	1 / 14	25.50	-0.80	**22.55**	**0.180**	38.45	-15.90	**24.70**	**0.295**	40.61	-15.91
847.50	3	QPSK	1 / 14	25.47	-0.80	22.52	0.179	38.45	-15.93	24.67	0.293	40.61	-15.94
847.50	3	16-QAM	1 / 14	24.67	-0.80	**21.72**	0.149	38.45	-16.73	**23.87**	0.244	40.61	-16.74
825.50	3	64-QAM	1 / 0	23.63	-0.80	**20.68**	0.117	38.45	-17.77	**22.83**	0.192	40.61	-17.78
826.50	5	QPSK	1 / 0	25.50	-0.80	**22.55**	**0.180**	38.45	-15.90	**24.70**	**0.295**	40.61	-15.91
836.50	5	QPSK	1 / 0	25.48	-0.80	22.53	0.179	38.45	-15.92	24.68	0.294	40.61	-15.93
846.50	5	QPSK	1 / 0	25.50	-0.80	**22.55**	**0.180**	38.45	-15.90	**24.70**	**0.295**	40.61	-15.91
836.50	5	16-QAM	1 / 0	24.69	-0.80	**21.74**	0.149	38.45	-16.71	**23.89**	0.245	40.61	-16.72
846.50	5	64-QAM	1 / 0	23.72	-0.80	**20.77**	0.119	38.45	-17.68	**22.92**	0.196	40.61	-17.69
829.00	10	QPSK	1 / 49	25.50	-0.80	**22.55**	**0.180**	38.45	-15.90	**24.70**	**0.295**	40.61	-15.91
836.50	10	QPSK	1 / 49	25.50	-0.80	**22.55**	**0.180**	38.45	-15.90	**24.70**	**0.295**	40.61	-15.91
844.00	10	QPSK	1 / 49	25.49	-0.80	22.54	0.179	38.45	-15.91	24.69	0.294	40.61	-15.92
829.00	10	16-QAM	1 / 0	24.62	-0.80	**21.67**	0.147	38.45	-16.78	**23.82**	0.241	40.61	-16.79
844.00	10	64-QAM	1 / 49	23.59	-0.80	**20.64**	0.116	38.45	-17.81	**22.79**	0.190	40.61	-17.82

Table 7-20. ERP Data (Band 5)

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Frequency [MHz]	Channel Bandwidth [MHz]	Mod.	RB Size/Offset	Conducted Power [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	3 / 2	25.50	-0.80	**22.55**	**0.180**	38.45	-15.90	**24.70**	**0.295**	40.61	-15.91
836.50	1.4	QPSK	3 / 2	25.50	-0.80	**22.55**	**0.180**	38.45	-15.90	**24.70**	**0.295**	40.61	-15.91
848.30	1.4	QPSK	1 / 0	25.50	-0.80	**22.55**	**0.180**	38.45	-15.90	**24.70**	**0.295**	40.61	-15.91
836.50	1.4	16-QAM	1 / 0	24.60	-0.80	**21.65**	0.146	38.45	-16.80	**23.80**	0.240	40.61	-16.81
836.50	1.4	64-QAM	1 / 0	23.53	-0.80	**20.58**	0.114	38.45	-17.87	**22.73**	0.187	40.61	-17.88
825.50	3	QPSK	1 / 0	25.49	-0.80	22.54	0.179	38.45	-15.91	24.69	0.294	40.61	-15.92
836.50	3	QPSK	1 / 0	25.49	-0.80	22.54	0.179	38.45	-15.91	24.69	0.294	40.61	-15.92
847.50	3	QPSK	1 / 14	25.50	-0.80	**22.55**	**0.180**	38.45	-15.90	**24.70**	**0.295**	40.61	-15.91
847.50	3	16-QAM	1 / 0	24.64	-0.80	**21.69**	0.148	38.45	-16.76	**23.84**	0.242	40.61	-16.77
825.50	3	64-QAM	1 / 0	23.53	-0.80	**20.58**	0.114	38.45	-17.87	**22.73**	0.187	40.61	-17.88
826.50	5	QPSK	1 / 0	25.50	-0.80	**22.55**	**0.180**	38.45	-15.90	**24.70**	**0.295**	40.61	-15.91
836.50	5	QPSK	1 / 24	25.50	-0.80	**22.55**	**0.180**	38.45	-15.90	**24.70**	**0.295**	40.61	-15.91
846.50	5	QPSK	1 / 0	25.50	-0.80	**22.55**	**0.180**	38.45	-15.90	**24.70**	**0.295**	40.61	-15.91
826.50	5	16-QAM	1 / 0	24.73	-0.80	**21.78**	0.151	38.45	-16.67	**23.93**	0.247	40.61	-16.68
826.50	5	64-QAM	1 / 0	23.46	-0.80	**20.51**	0.112	38.45	-17.94	**22.66**	0.185	40.61	-17.95
829.00	10	QPSK	1 / 0	25.50	-0.80	**22.55**	**0.180**	38.45	-15.90	**24.70**	**0.295**	40.61	-15.91
836.50	10	QPSK	1 / 49	25.50	-0.80	**22.55**	**0.180**	38.45	-15.90	**24.70**	**0.295**	40.61	-15.91
844.00	10	QPSK	1 / 0	25.49	-0.80	22.54	0.179	38.45	-15.91	24.69	0.294	40.61	-15.92
829.00	10	16-QAM	1 / 0	24.57	-0.80	**21.62**	0.145	38.45	-16.83	**23.77**	0.238	40.61	-16.84
836.50	10	64-QAM	1 / 49	23.70	-0.80	**20.75**	0.119	38.45	-17.70	**22.90**	0.195	40.61	-17.71

Table 7-21. ERP Data (Band 26)

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Frequency [MHz]	Channel Bandwidth [MHz]	Mod.	RB Size/Offset	Conducted Power [dBm]	Ant. Gain [dBi]	EIRP [dBm]	EIRP [Watts]	EIRP Limit [dBm]	Margin [dB]
1710.70	1.4	QPSK	3 / 2	25.50	1.40	**26.90**	**0.490**	30.00	-3.10
1732.50	1.4	QPSK	3 / 2	25.49	1.40	26.89	0.489	30.00	-3.11
1754.30	1.4	QPSK	1 / 5	25.50	1.40	**26.90**	**0.490**	30.00	-3.10
1710.70	1.4	16-QAM	1 / 0	24.57	1.40	**25.97**	0.395	30.00	-4.03
1710.70	1.4	64-QAM	1 / 5	23.63	1.40	**25.03**	0.318	30.00	-4.97
1711.50	3	QPSK	1 / 14	25.49	1.40	26.89	0.489	30.00	-3.11
1732.50	3	QPSK	1 / 14	25.50	1.40	**26.90**	**0.490**	30.00	-3.10
1753.50	3	QPSK	1 / 0	25.50	1.40	**26.90**	**0.490**	30.00	-3.10
1711.50	3	16-QAM	1 / 0	24.82	1.40	**26.22**	0.419	30.00	-3.78
1732.50	3	64-QAM	1 / 14	23.58	1.40	**24.98**	0.315	30.00	-5.02
1712.50	5	QPSK	1 / 24	25.42	1.40	26.82	0.481	30.00	-3.18
1732.50	5	QPSK	1 / 0	25.48	1.40	26.88	0.488	30.00	-3.12
1752.50	5	QPSK	1 / 0	25.49	1.40	**26.89**	0.489	30.00	-3.11
1752.50	5	16-QAM	1 / 0	24.60	1.40	**26.00**	0.398	30.00	-4.00
1712.50	5	64-QAM	1 / 0	23.85	1.40	**25.25**	0.335	30.00	-4.75
1715.00	10	QPSK	1 / 49	25.49	1.40	26.89	0.489	30.00	-3.11
1732.50	10	QPSK	1 / 0	25.50	1.40	**26.90**	**0.490**	30.00	-3.10
1750.00	10	QPSK	1 / 49	25.47	1.40	26.87	0.486	30.00	-3.13
1715.00	10	16-QAM	1 / 0	25.17	1.40	**26.57**	0.454	30.00	-3.43
1715.00	10	64-QAM	1 / 0	23.93	1.40	**25.33**	0.341	30.00	-4.67
1717.50	15	QPSK	1 / 74	25.47	1.40	26.87	0.486	30.00	-3.13
1732.50	15	QPSK	1 / 74	25.49	1.40	26.89	0.489	30.00	-3.11
1747.50	15	QPSK	1 / 0	25.50	1.40	**26.90**	**0.490**	30.00	-3.10
1747.50	15	16-QAM	1 / 0	24.94	1.40	**26.34**	0.431	30.00	-3.66
1732.50	15	64-QAM	1 / 74	24.01	1.40	**25.41**	0.348	30.00	-4.59
1720.00	20	QPSK	1 / 99	25.50	1.40	**26.90**	**0.490**	30.00	-3.10
1732.50	20	QPSK	1 / 0	25.49	1.40	26.89	0.489	30.00	-3.11
1745.00	20	QPSK	1 / 0	25.48	1.40	26.88	0.488	30.00	-3.12
1720.00	20	16-QAM	1 / 0	25.21	1.40	**26.61**	0.458	30.00	-3.39
1720.00	20	64-QAM	1 / 0	24.20	1.40	**25.60**	0.363	30.00	-4.40

Table 7-22. EIRP Data (Band 4)

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Frequency [MHz]	Channel Bandwidth [MHz]	Mod.	RB Size/Offset	Conducted Power [dBm]	Ant. Gain [dBi]	EIRP [dBm]	EIRP [Watts]	EIRP Limit [dBm]	Margin [dB]
1710.70	1.4	QPSK	1 / 5	25.50	1.40	**26.90**	**0.490**	30.00	-3.10
1745.00	1.4	QPSK	3 / 2	25.50	1.40	**26.90**	**0.490**	30.00	-3.10
1779.30	1.4	QPSK	1 / 0	25.49	1.40	26.89	0.489	30.00	-3.11
1710.70	1.4	16-QAM	1 / 0	24.67	1.40	**26.07**	0.405	30.00	-3.93
1710.70	1.4	64-QAM	3 / 2	23.50	1.40	**24.90**	0.309	30.00	-5.10
1711.50	3	QPSK	1 / 14	25.50	1.40	**26.90**	**0.490**	30.00	-3.10
1745.00	3	QPSK	1 / 14	25.47	1.40	26.87	0.486	30.00	-3.13
1778.50	3	QPSK	1 / 14	25.50	1.40	**26.90**	**0.490**	30.00	-3.10
1745.00	3	16-QAM	1 / 0	24.60	1.40	**26.00**	0.398	30.00	-4.00
1745.00	3	64-QAM	1 / 0	23.46	1.40	**24.86**	0.306	30.00	-5.14
1712.50	5	QPSK	1 / 24	25.50	1.40	**26.90**	**0.490**	30.00	-3.10
1745.00	5	QPSK	1 / 0	25.50	1.40	**26.90**	**0.490**	30.00	-3.10
1777.50	5	QPSK	1 / 24	25.50	1.40	**26.90**	**0.490**	30.00	-3.10
1777.50	5	16-QAM	1 / 24	24.70	1.40	**26.10**	0.407	30.00	-3.90
1712.50	5	64-QAM	1 / 0	23.63	1.40	**25.03**	0.318	30.00	-4.97
1715.00	10	QPSK	1 / 0	25.48	1.40	26.88	0.488	30.00	-3.12
1745.00	10	QPSK	1 / 0	25.50	1.40	**26.90**	**0.490**	30.00	-3.10
1775.00	10	QPSK	1 / 0	25.49	1.40	26.89	0.489	30.00	-3.11
1745.00	10	16-QAM	1 / 0	24.69	1.40	**26.09**	0.406	30.00	-3.91
1715.00	10	64-QAM	50 / 0	23.65	1.40	**25.05**	0.320	30.00	-4.95
1717.50	15	QPSK	1 / 74	25.50	1.40	**26.90**	**0.490**	30.00	-3.10
1745.00	15	QPSK	1 / 0	25.50	1.40	**26.90**	**0.490**	30.00	-3.10
1772.50	15	QPSK	1 / 74	25.50	1.40	**26.90**	**0.490**	30.00	-3.10
1717.50	15	16-QAM	1 / 0	24.61	1.40	**26.01**	0.399	30.00	-3.99
1745.00	15	64-QAM	1 / 0	23.54	1.40	**24.94**	0.312	30.00	-5.06
1720.00	20	QPSK	1 / 0	25.50	1.40	**26.90**	**0.490**	30.00	-3.10
1745.00	20	QPSK	1 / 0	25.50	1.40	**26.90**	**0.490**	30.00	-3.10
1770.00	20	QPSK	1 / 0	25.49	1.40	26.89	0.489	30.00	-3.11
1720.00	20	16-QAM	1 / 0	24.64	1.40	**26.04**	0.402	30.00	-3.96
1745.00	20	64-QAM	1 / 0	23.58	1.40	**24.98**	0.315	30.00	-5.02

Table 7-23. EIRP Data (Band 66)

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Frequency [MHz]	Channel Bandwidth [MHz]	Mod.	RB Size/Offset	Conducted Power [dBm]	Ant. Gain [dBi]	EIRP [dBm]	EIRP [Watts]	EIRP Limit [dBm]	Margin [dB]
1850.70	1.4	QPSK	1 / 0	25.50	2.30	**27.80**	**0.603**	33.01	-5.21
1880.00	1.4	QPSK	1 / 5	25.30	2.30	27.60	0.575	33.01	-5.41
1909.30	1.4	QPSK	1 / 5	25.29	2.30	27.59	0.574	33.01	-5.42
1850.70	1.4	16-QAM	1 / 0	24.60	2.30	**26.90**	0.490	33.01	-6.11
1850.70	1.4	64-QAM	1 / 0	23.63	2.30	**25.93**	0.392	33.01	-7.08
1851.50	3	QPSK	1 / 0	25.50	2.30	**27.80**	**0.603**	33.01	-5.21
1880.00	3	QPSK	1 / 0	25.24	2.30	27.54	0.568	33.01	-5.47
1908.50	3	QPSK	1 / 14	25.27	2.30	27.57	0.571	33.01	-5.44
1851.50	3	16-QAM	1 / 0	24.61	2.30	**26.91**	0.491	33.01	-6.10
1851.50	3	64-QAM	1 / 0	23.59	2.30	**25.89**	0.388	33.01	-7.12
1852.50	5	QPSK	1 / 0	25.50	2.30	**27.80**	**0.603**	33.01	-5.21
1880.00	5	QPSK	1 / 24	25.32	2.30	27.62	0.578	33.01	-5.39
1907.50	5	QPSK	1 / 24	25.33	2.30	27.63	0.579	33.01	-5.38
1852.50	5	16-QAM	1 / 0	24.69	2.30	**26.99**	0.500	33.01	-6.02
1852.50	5	64-QAM	1 / 0	23.61	2.30	**25.91**	0.390	33.01	-7.10
1855.00	10	QPSK	1 / 0	25.50	2.30	**27.80**	**0.603**	33.01	-5.21
1880.00	10	QPSK	1 / 49	25.33	2.30	27.63	0.579	33.01	-5.38
1905.00	10	QPSK	1 / 0	25.36	2.30	27.66	0.583	33.01	-5.35
1905.00	10	16-QAM	1 / 0	24.57	2.30	**26.87**	0.486	33.01	-6.14
1905.00	10	64-QAM	1 / 49	23.45	2.30	**25.75**	0.376	33.01	-7.26
1857.50	15	QPSK	1 / 0	25.47	2.30	**27.77**	0.598	33.01	-5.24
1880.00	15	QPSK	1 / 0	25.39	2.30	27.69	0.587	33.01	-5.32
1902.50	15	QPSK	1 / 0	25.43	2.30	27.73	0.593	33.01	-5.28
1902.50	15	16-QAM	1 / 0	24.51	2.30	**26.81**	0.480	33.01	-6.20
1857.50	15	64-QAM	1 / 0	23.56	2.30	**25.86**	0.385	33.01	-7.15
1860.00	20	QPSK	1 / 0	25.50	2.30	**27.80**	**0.603**	33.01	-5.21
1880.00	20	QPSK	1 / 0	25.50	2.30	**27.80**	**0.603**	33.01	-5.21
1900.00	20	QPSK	1 / 0	25.38	2.30	27.68	0.586	33.01	-5.33
1880.00	20	16-QAM	1 / 0	24.61	2.30	**26.91**	0.491	33.01	-6.10
1880.00	20	64-QAM	1 / 0	23.59	2.30	**25.89**	0.388	33.01	-7.12

Table 7-24. EIRP Data (Band 2)

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Frequency [MHz]	Channel Bandwidth [MHz]	Mod.	RB Size/Offset	Conducted Power [dBm]	Ant. Gain [dBi]	EIRP [dBm]	EIRP [Watts]	EIRP Limit [dBm]	Margin [dB]
1850.70	1.4	QPSK	1 / 0	25.50	2.30	**27.80**	**0.603**	33.01	-5.21
1882.50	1.4	QPSK	1 / 5	25.32	2.30	27.62	0.578	33.01	-5.39
1914.30	1.4	QPSK	1 / 0	25.50	2.30	**27.80**	**0.603**	33.01	-5.21
1850.70	1.4	16-QAM	1 / 0	24.58	2.30	**26.88**	0.488	33.01	-6.13
1914.30	1.4	64-QAM	1 / 0	23.62	2.30	**25.92**	0.391	33.01	-7.09
1851.50	3	QPSK	1 / 0	25.50	2.30	**27.80**	**0.603**	33.01	-5.21
1882.50	3	QPSK	1 / 0	25.32	2.30	27.62	0.578	33.01	-5.39
1913.50	3	QPSK	1 / 14	25.49	2.30	27.79	0.601	33.01	-5.22
1913.50	3	16-QAM	1 / 0	24.56	2.30	**26.86**	0.485	33.01	-6.15
1851.50	3	64-QAM	1 / 0	23.54	2.30	**25.84**	0.384	33.01	-7.17
1852.50	5	QPSK	1 / 0	25.50	2.30	**27.80**	**0.603**	33.01	-5.21
1882.50	5	QPSK	1 / 0	25.30	2.30	27.60	0.575	33.01	-5.41
1912.50	5	QPSK	1 / 24	25.50	2.30	**27.80**	**0.603**	33.01	-5.21
1852.50	5	16-QAM	1 / 0	24.57	2.30	**26.87**	0.486	33.01	-6.14
1912.50	5	64-QAM	1 / 24	23.58	2.30	**25.88**	0.387	33.01	-7.13
1855.00	10	QPSK	1 / 0	25.50	2.30	**27.80**	**0.603**	33.01	-5.21
1882.50	10	QPSK	1 / 49	25.40	2.30	27.70	0.589	33.01	-5.31
1910.00	10	QPSK	1 / 49	25.50	2.30	**27.80**	**0.603**	33.01	-5.21
1855.00	10	16-QAM	1 / 0	24.58	2.30	**26.88**	0.488	33.01	-6.13
1910.00	10	64-QAM	1 / 49	23.50	2.30	**25.80**	0.380	33.01	-7.21
1857.50	15	QPSK	1 / 0	25.45	2.30	27.75	0.596	33.01	-5.26
1882.50	15	QPSK	1 / 74	25.40	2.30	27.70	0.589	33.01	-5.31
1907.50	15	QPSK	1 / 74	25.50	2.30	**27.80**	**0.603**	33.01	-5.21
1907.50	15	16-QAM	1 / 0	24.51	2.30	**26.81**	0.480	33.01	-6.20
1857.50	15	64-QAM	1 / 0	23.66	2.30	**25.96**	0.394	33.01	-7.05
1860.00	20	QPSK	1 / 0	25.50	2.30	**27.80**	**0.603**	33.01	-5.21
1882.50	20	QPSK	1 / 0	25.41	2.30	27.71	0.590	33.01	-5.30
1905.00	20	QPSK	1 / 0	25.48	2.30	27.78	0.600	33.01	-5.23
1905.00	20	16-QAM	1 / 0	24.63	2.30	**26.93**	0.493	33.01	-6.08
1882.50	20	64-QAM	1 / 99	23.56	2.30	**25.86**	0.385	33.01	-7.15

Table 7-25. EIRP Data (Band 25)

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Frequency [MHz]	Channel Bandwidth [MHz]	Mod.	RB Size/Offset	Conducted Power [dBm]	Ant. Gain [dBi]	EIRP [dBm]	EIRP [Watts]	EIRP Limit [dBm]	Margin [dB]
2307.50	5	QPSK	1 / 0	21.80	1.40	**23.20**	**0.209**	23.98	-0.78
2312.50	5	QPSK	1 / 24	21.78	1.40	23.18	0.208	23.98	-0.80
2312.50	5	16-QAM	1 / 0	20.93	1.40	**22.33**	0.171	23.98	-1.65
2307.50	5	64-QAM	1 / 24	20.12	1.40	**21.52**	0.142	23.98	-2.46
2310.00	10	QPSK	1 / 0	21.78	1.40	**23.18**	0.208	23.98	-0.80
2310.00	10	16-QAM	1 / 0	21.04	1.40	**22.44**	0.175	23.98	-1.54
2310.00	10	64-QAM	1 / 0	20.22	1.40	**21.62**	0.145	23.98	-2.36

Table 7-26. EIRP Data (Band 30)

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Frequency [MHz]	Channel Bandwidth [MHz]	Mod.	RB Size/Offset	Conducted Power [dBm]	Ant. Gain [dBi]	EIRP [dBm]	EIRP [Watts]	EIRP Limit [dBm]	Margin [dB]
2502.50	5	QPSK	1 / 0	25.40	1.40	26.80	0.479	33.01	-6.21
2535.00	5	QPSK	1 / 24	25.27	1.70	**26.97**	0.498	33.01	-6.04
2567.50	5	QPSK	1 / 0	25.22	1.70	26.92	0.492	33.01	-6.09
2567.50	5	16-QAM	1 / 0	24.49	1.70	**26.19**	0.416	33.01	-6.82
2535.00	5	64-QAM	1 / 24	23.54	1.70	**25.24**	0.334	33.01	-7.77
2505.00	10	QPSK	1 / 0	25.20	1.40	26.60	0.457	33.01	-6.41
2535.00	10	QPSK	1 / 49	25.30	1.70	27.00	0.501	33.01	-6.01
2565.00	10	QPSK	1 / 49	25.37	1.70	**27.07**	0.509	33.01	-5.94
2565.00	10	16-QAM	1 / 49	24.45	1.70	**26.15**	0.412	33.01	-6.86
2565.00	10	64-QAM	1 / 49	23.45	1.70	**25.15**	0.327	33.01	-7.86
2507.50	15	QPSK	1 / 0	25.37	1.40	26.77	0.475	33.01	-6.24
2535.00	15	QPSK	1 / 74	25.36	1.70	**27.06**	0.508	33.01	-5.95
2562.50	15	QPSK	1 / 74	25.31	1.70	27.01	0.502	33.01	-6.00
2562.50	15	16-QAM	1 / 0	24.57	1.70	**26.27**	0.424	33.01	-6.74
2562.50	15	64-QAM	1 / 74	23.49	1.70	**25.19**	0.330	33.01	-7.82
2510.00	20	QPSK	1 / 0	25.42	1.40	26.82	0.481	33.01	-6.19
2535.00	20	QPSK	1 / 99	25.40	1.70	**27.10**	**0.513**	33.01	-5.91
2560.00	20	QPSK	1 / 99	25.37	1.70	27.07	0.509	33.01	-5.94
2535.00	20	16-QAM	1 / 0	24.50	1.70	**26.20**	0.417	33.01	-6.81
2560.00	20	64-QAM	1 / 0	23.62	1.70	**25.32**	0.340	33.01	-7.69

Table 7-27. EIRP Data (Band 7)

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Frequency [MHz]	Channel Bandwidth [MHz]	Mod.	RB Size/Offset	Conducted Power [dBm]	Ant. Gain [dBi]	EIRP [dBm]	EIRP [Watts]	EIRP Limit [dBm]	Margin [dB]
2498.50	5	QPSK	1 / 0	27.00	1.40	28.40	0.692	33.01	-4.61
2593.00	5	QPSK	1 / 0	26.98	1.70	28.68	0.738	33.01	-4.33
2687.50	5	QPSK	1 / 0	26.99	1.70	**28.69**	0.740	33.01	-4.32
2593.00	5	16-QAM	1 / 0	26.17	1.70	**27.87**	0.612	33.01	-5.14
2593.00	5	64-QAM	1 / 0	25.13	1.70	**26.83**	0.482	33.01	-6.18
2501.00	10	QPSK	1 / 0	27.00	1.40	28.40	0.692	33.01	-4.61
2593.00	10	QPSK	1 / 0	27.00	1.70	**28.70**	**0.741**	33.01	-4.31
2685.00	10	QPSK	1 / 0	26.99	1.70	28.69	0.740	33.01	-4.32
2685.00	10	16-QAM	1 / 0	25.99	1.70	**27.69**	0.587	33.01	-5.32
2593.00	10	64-QAM	1 / 49	24.93	1.70	**26.63**	0.460	33.01	-6.38
2503.50	15	QPSK	1 / 74	27.00	1.40	28.40	0.692	33.01	-4.61
2593.00	15	QPSK	1 / 0	26.99	1.70	**28.69**	0.740	33.01	-4.32
2682.50	15	QPSK	1 / 74	26.92	1.70	28.62	0.728	33.01	-4.39
2593.00	15	16-QAM	1 / 0	25.84	1.70	**27.54**	0.568	33.01	-5.47
2593.00	15	64-QAM	1 / 0	24.90	1.70	**26.60**	0.457	33.01	-6.41
2506.00	20	QPSK	1 / 0	27.00	1.40	28.40	0.692	33.01	-4.61
2593.00	20	QPSK	1 / 0	27.00	1.70	**28.70**	**0.741**	33.01	-4.31
2680.00	20	QPSK	1 / 99	27.00	1.70	**28.70**	**0.741**	33.01	-4.31
2593.00	20	16-QAM	1 / 0	26.12	1.70	**27.82**	0.605	33.01	-5.19
2593.00	20	64-QAM	1 / 0	25.02	1.70	**26.72**	0.470	33.01	-6.29

Table 7-28. EIRP Data (Band 41)

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7.8.2 Port B Radiated Power (ERP/EIRP)

Frequency [MHz]	Channel Bandwidth [MHz]	Mod.	RB Size/Offset	Conducted Power [dBm]	Ant. Gain [dBi]	ERP [dBm]	ERP [Watts]	ERP Limit [dBm]	Margin [dB]
665.50	5	QPSK	1 / 24	24.50	-0.70	**21.65**	**0.146**	34.77	-13.12
680.50	5	QPSK	1 / 0	24.49	-0.70	21.64	0.146	34.77	-13.13
695.50	5	QPSK	1 / 0	24.49	-0.70	21.64	0.146	34.77	-13.13
680.50	5	16-QAM	1 / 0	23.79	-0.70	**20.94**	0.124	34.77	-13.83
695.50	5	64-QAM	1 / 0	22.67	-0.70	**19.82**	0.096	34.77	-14.95
668.00	10	QPSK	1 / 49	24.48	-0.70	21.63	0.146	34.77	-13.14
680.50	10	QPSK	1 / 0	24.49	-0.70	21.64	0.146	34.77	-13.13
693.00	10	QPSK	1 / 0	24.50	-0.70	**21.65**	**0.146**	34.77	-13.12
680.50	10	16-QAM	1 / 0	23.71	-0.70	**20.86**	0.122	34.77	-13.91
680.50	10	64-QAM	1 / 0	22.70	-0.70	**19.85**	0.097	34.77	-14.92
670.50	15	QPSK	1 / 0	24.49	-0.70	21.64	0.146	34.77	-13.13
680.50	15	QPSK	1 / 0	24.50	-0.70	**21.65**	**0.146**	34.77	-13.12
690.50	15	QPSK	1 / 0	24.50	-0.70	**21.65**	**0.146**	34.77	-13.12
690.50	15	16-QAM	1 / 0	23.63	-0.70	**20.78**	0.120	34.77	-13.99
670.50	15	64-QAM	1 / 0	22.55	-0.70	**19.70**	0.093	34.77	-15.07
673.00	20	QPSK	1 / 0	24.50	-0.70	**21.65**	**0.146**	34.77	-13.12
680.50	20	QPSK	1 / 0	24.49	-0.70	21.64	0.146	34.77	-13.13
688.00	20	QPSK	1 / 0	24.48	-0.70	21.63	0.146	34.77	-13.14
673.00	20	16-QAM	1 / 0	23.77	-0.70	**20.92**	0.124	34.77	-13.85
688.00	20	64-QAM	1 / 0	22.81	-0.70	**19.96**	0.099	34.77	-14.81

Table 7-29. ERP Data (Band 71)

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Frequency [MHz]	Channel Bandwidth [MHz]	Mod.	RB Size/Offset	Conducted Power [dBm]	Ant. Gain [dBi]	ERP [dBm]	ERP [Watts]	ERP Limit [dBm]	Margin [dB]	EIRP [dBm]	EIRP [Watts]	EIRP Limit [dBm]	Margin [dB]
699.70	1.4	QPSK	1 / 0	24.41	-0.70	21.56	0.143	34.77	-13.21	23.71	0.235	36.99	-13.28
707.50	1.4	QPSK	1 / 0	24.47	-0.70	21.62	0.145	34.77	-13.15	23.77	0.238	36.99	-13.22
715.30	1.4	QPSK	1 / 0	24.50	-0.70	**21.65**	**0.146**	34.77	-13.12	**23.80**	**0.240**	36.99	-13.19
715.30	1.4	16-QAM	1 / 0	23.80	-0.70	**20.95**	0.124	34.77	-13.82	**23.10**	0.204	36.99	-13.89
707.50	1.4	64-QAM	1 / 0	22.77	-0.70	**19.92**	0.098	34.77	-14.85	**22.07**	0.161	36.99	-14.92
700.50	3	QPSK	1 / 0	24.40	-0.70	21.55	0.143	34.77	-13.22	23.70	0.234	36.99	-13.29
707.50	3	QPSK	1 / 14	24.50	-0.70	**21.65**	**0.146**	34.77	-13.12	**23.80**	**0.240**	36.99	-13.19
714.50	3	QPSK	1 / 14	24.50	-0.70	**21.65**	**0.146**	34.77	-13.12	**23.80**	**0.240**	36.99	-13.19
714.50	3	16-QAM	1 / 0	23.73	-0.70	**20.88**	0.122	34.77	-13.89	**23.03**	0.201	36.99	-13.96
714.50	3	64-QAM	1 / 14	22.61	-0.70	**19.76**	0.095	34.77	-15.01	**21.91**	0.155	36.99	-15.08
701.50	5	QPSK	1 / 24	24.50	-0.70	**21.65**	**0.146**	34.77	-13.12	**23.80**	**0.240**	36.99	-13.19
707.50	5	QPSK	1 / 24	24.44	-0.70	21.59	0.144	34.77	-13.18	23.74	0.237	36.99	-13.25
713.50	5	QPSK	1 / 0	24.50	-0.70	**21.65**	**0.146**	34.77	-13.12	**23.80**	**0.240**	36.99	-13.19
713.50	5	16-QAM	1 / 0	23.75	-0.70	**20.90**	0.123	34.77	-13.87	**23.05**	0.202	36.99	-13.94
701.50	5	64-QAM	1 / 24	22.77	-0.70	**19.92**	0.098	34.77	-14.85	**22.07**	0.161	36.99	-14.92
704.00	10	QPSK	1 / 49	24.50	-0.70	**21.65**	**0.146**	34.77	-13.12	**23.80**	**0.240**	36.99	-13.19
707.50	10	QPSK	1 / 0	24.50	-0.70	**21.65**	**0.146**	34.77	-13.12	**23.80**	**0.240**	36.99	-13.19
711.00	10	QPSK	1 / 0	24.50	-0.70	**21.65**	**0.146**	34.77	-13.12	**23.80**	**0.240**	36.99	-13.19
711.00	10	16-QAM	1 / 0	23.66	-0.70	**20.81**	0.121	34.77	-13.96	**22.96**	0.198	36.99	-14.03
711.00	10	64-QAM	1 / 0	22.65	-0.70	**19.80**	0.095	34.77	-14.97	**21.95**	0.157	36.99	-15.04

Table 7-30. ERP Data (Band 12)

Frequency [MHz]	Channel Bandwidth [MHz]	Mod.	RB Size/Offset	Conducted Power [dBm]	Ant. Gain [dBi]	ERP [dBm]	ERP [Watts]	ERP Limit [dBm]	Margin [dB]	EIRP [dBm]	EIRP [Watts]	EIRP Limit [dBm]	Margin [dB]
706.50	5	QPSK	1 / 24	24.50	-0.70	**21.65**	**0.146**	34.77	-13.12	**23.80**	**0.240**	36.99	-13.19
710.00	5	QPSK	1 / 0	24.45	-0.70	21.60	0.145	34.77	-13.17	23.75	0.237	36.99	-13.24
713.50	5	QPSK	1 / 24	24.48	-0.70	21.63	0.146	34.77	-13.14	23.78	0.239	36.99	-13.21
710.00	5	16-QAM	1 / 0	23.63	-0.70	**20.78**	0.120	34.77	-13.99	**22.93**	0.196	36.99	-14.06
706.50	5	64-QAM	1 / 24	22.68	-0.70	**19.83**	0.096	34.77	-14.94	**21.98**	0.158	36.99	-15.01
709.00	10	QPSK	1 / 0	24.47	-0.70	21.62	0.145	34.77	-13.15	23.77	0.238	36.99	-13.22
710.00	10	QPSK	1 / 49	24.50	-0.70	**21.65**	**0.146**	34.77	-13.12	**23.80**	**0.240**	36.99	-13.19
711.00	10	QPSK	1 / 0	24.50	-0.70	**21.65**	**0.146**	34.77	-13.12	**23.80**	**0.240**	36.99	-13.19
711.00	10	16-QAM	1 / 0	23.72	-0.70	**20.87**	0.122	34.77	-13.90	**23.02**	0.200	36.99	-13.97
711.00	10	64-QAM	1 / 49	22.71	-0.70	**19.86**	0.097	34.77	-14.91	**22.01**	0.159	36.99	-14.98

Table 7-31. ERP Data (Band 17)

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Frequency [MHz]	Channel Bandwidth [MHz]	Mod.	RB Size/Offset	Conducted Power [dBm]	Ant. Gain [dBi]	ERP [dBm]	ERP [Watts]	ERP Limit [dBm]	Margin [dB]	EIRP [dBm]	EIRP [Watts]	EIRP Limit [dBm]	Margin [dB]
779.50	5	QPSK	1 / 0	24.50	-0.70	**21.65**	**0.146**	34.77	-13.12	**23.80**	**0.240**	36.99	-13.19
782.00	5	QPSK	1 / 0	24.50	-0.70	**21.65**	**0.146**	34.77	-13.12	**23.80**	**0.240**	36.99	-13.19
784.50	5	QPSK	1 / 0	24.47	-0.70	21.62	0.145	34.77	-13.15	23.77	0.238	36.99	-13.22
779.50	5	16-QAM	1 / 0	23.56	-0.70	**20.71**	0.118	34.77	-14.06	**22.86**	0.193	36.99	-14.13
779.50	5	64-QAM	1 / 24	22.69	-0.70	**19.84**	0.096	34.77	-14.93	**21.99**	0.158	36.99	-15.00
782.00	10	QPSK	1 / 0	24.50	-0.70	**21.65**	**0.146**	34.77	-13.12	**23.80**	**0.240**	36.99	-13.19
782.00	10	16-QAM	1 / 0	23.51	-0.70	**20.66**	0.116	34.77	-14.11	**22.81**	0.191	36.99	-14.18
782.00	10	64-QAM	1 / 49	22.70	-0.70	**19.85**	0.097	34.77	-14.92	**22.00**	0.158	36.99	-14.99

Table 7-32. ERP Data (Band 13)

Frequency [MHz]	Channel Bandwidth [MHz]	Mod.	RB Size/Offset	Conducted Power [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	1 / 0	24.50	-0.60	**21.75**	**0.150**	38.45	-16.70	**23.90**	**0.245**	40.61	-16.71
836.50	1.4	QPSK	1 / 0	24.48	-0.60	21.73	0.149	38.45	-16.72	23.88	0.244	40.61	-16.73
848.30	1.4	QPSK	1 / 0	24.48	-0.60	21.73	0.149	38.45	-16.72	23.88	0.244	40.61	-16.73
848.30	1.4	16-QAM	1 / 0	23.71	-0.60	**20.96**	0.125	38.45	-17.49	**23.11**	0.205	40.61	-17.50
824.70	1.4	64-QAM	1 / 0	22.59	-0.60	**19.84**	0.096	38.45	-18.61	**21.99**	0.158	40.61	-18.62
825.50	3	QPSK	1 / 0	24.47	-0.60	21.72	0.149	38.45	-16.73	23.87	0.244	40.61	-16.74
836.50	3	QPSK	1 / 0	24.50	-0.60	**21.75**	**0.150**	38.45	-16.70	**23.90**	**0.245**	40.61	-16.71
847.50	3	QPSK	1 / 0	24.49	-0.60	21.74	0.149	38.45	-16.71	23.89	0.245	40.61	-16.72
825.50	3	16-QAM	1 / 0	23.56	-0.60	**20.81**	0.121	38.45	-17.64	**22.96**	0.198	40.61	-17.65
825.50	3	64-QAM	1 / 14	22.51	-0.60	**19.76**	0.095	38.45	-18.69	**21.91**	0.155	40.61	-18.70
826.50	5	QPSK	1 / 0	24.50	-0.60	**21.75**	**0.150**	38.45	-16.70	**23.90**	**0.245**	40.61	-16.71
836.50	5	QPSK	1 / 0	24.50	-0.60	**21.75**	**0.150**	38.45	-16.70	**23.90**	**0.245**	40.61	-16.71
846.50	5	QPSK	1 / 24	24.50	-0.60	**21.75**	**0.150**	38.45	-16.70	**23.90**	**0.245**	40.61	-16.71
846.50	5	16-QAM	1 / 0	23.57	-0.60	**20.82**	0.121	38.45	-17.63	**22.97**	0.198	40.61	-17.64
846.50	5	64-QAM	1 / 24	22.60	-0.60	**19.85**	0.097	38.45	-18.60	**22.00**	0.158	40.61	-18.61
829.00	10	QPSK	1 / 0	24.50	-0.60	**21.75**	**0.150**	38.45	-16.70	**23.90**	**0.245**	40.61	-16.71
836.50	10	QPSK	1 / 0	24.48	-0.60	21.73	0.149	38.45	-16.72	23.88	0.244	40.61	-16.73
844.00	10	QPSK	1 / 49	24.50	-0.60	**21.75**	**0.150**	38.45	-16.70	**23.90**	**0.245**	40.61	-16.71
829.00	10	16-QAM	1 / 0	23.64	-0.60	**20.89**	0.123	38.45	-17.56	**23.04**	0.201	40.61	-17.57
829.00	10	64-QAM	1 / 0	22.58	-0.60	**19.83**	0.096	38.45	-18.62	**21.98**	0.158	40.61	-18.63

Table 7-33. ERP Data (Band 5)

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Frequency [MHz]	Channel Bandwidth [MHz]	Mod.	RB Size/Offset	Conducted Power [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	1 / 0	24.50	-0.60	**21.75**	0.150	38.45	-16.70	**23.90**	0.245	40.61	-16.71
836.50	1.4	QPSK	1 / 5	24.48	-0.60	21.73	0.149	38.45	-16.72	23.88	0.244	40.61	-16.73
848.30	1.4	QPSK	1 / 0	24.49	-0.60	21.74	0.149	38.45	-16.71	23.89	0.245	40.61	-16.72
848.30	1.4	16-QAM	1 / 0	23.65	-0.60	**20.90**	0.123	38.45	-17.55	**23.05**	0.202	40.61	-17.56
824.70	1.4	64-QAM	1 / 5	22.56	-0.60	**19.81**	0.096	38.45	-18.64	**21.96**	0.157	40.61	-18.65
825.50	3	QPSK	1 / 0	24.50	-0.60	**21.75**	0.150	38.45	-16.70	**23.90**	0.245	40.61	-16.71
836.50	3	QPSK	1 / 14	24.49	-0.60	21.74	0.149	38.45	-16.71	23.89	0.245	40.61	-16.72
847.50	3	QPSK	1 / 0	24.48	-0.60	21.73	0.149	38.45	-16.72	23.88	0.244	40.61	-16.73
836.50	3	16-QAM	1 / 14	23.70	-0.60	**20.95**	0.124	38.45	-17.50	**23.10**	0.204	40.61	-17.51
825.50	3	64-QAM	1 / 0	22.61	-0.60	**19.86**	0.097	38.45	-18.59	**22.01**	0.159	40.61	-18.60
826.50	5	QPSK	1 / 0	24.50	-0.60	**21.75**	0.150	38.45	-16.70	**23.90**	0.245	40.61	-16.71
836.50	5	QPSK	1 / 24	24.50	-0.60	**21.75**	0.150	38.45	-16.70	**23.90**	0.245	40.61	-16.71
846.50	5	QPSK	1 / 0	24.49	-0.60	21.74	0.149	38.45	-16.71	23.89	0.245	40.61	-16.72
836.50	5	16-QAM	1 / 24	23.68	-0.60	**20.93**	0.124	38.45	-17.52	**23.08**	0.203	40.61	-17.53
826.50	5	64-QAM	1 / 0	22.72	-0.60	**19.97**	0.099	38.45	-18.48	**22.12**	0.163	40.61	-18.49
829.00	10	QPSK	1 / 0	24.49	-0.60	21.74	0.149	38.45	-16.71	23.89	0.245	40.61	-16.72
836.50	10	QPSK	1 / 49	24.50	-0.60	**21.75**	0.150	38.45	-16.70	**23.90**	0.245	40.61	-16.71
844.00	10	QPSK	1 / 0	24.50	-0.60	**21.75**	0.150	38.45	-16.70	**23.90**	0.245	40.61	-16.71
836.50	10	16-QAM	1 / 49	23.61	-0.60	**20.86**	0.122	38.45	-17.59	**23.01**	0.200	40.61	-17.60
844.00	10	64-QAM	1 / 0	22.84	-0.60	**20.09**	0.102	38.45	-18.36	**22.24**	0.167	40.61	-18.37

Table 7-34. ERP Data (Band 26)

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Frequency [MHz]	Channel Bandwidth [MHz]	Mod.	RB Size/Offset	Conducted Power [dBm]	Ant. Gain [dBi]	EIRP [dBm]	EIRP [Watts]	EIRP Limit [dBm]	Margin [dB]
1710.70	1.4	QPSK	3 / 2	23.49	2.00	25.49	0.354	30.00	-4.51
1732.50	1.4	QPSK	1 / 0	23.50	2.00	**25.50**	**0.355**	30.00	-4.50
1754.30	1.4	QPSK	1 / 5	23.48	2.00	25.48	0.353	30.00	-4.52
1710.70	1.4	16-QAM	1 / 0	22.62	2.00	**24.62**	0.290	30.00	-5.38
1732.50	1.4	64-QAM	1 / 0	21.97	2.00	**23.97**	0.249	30.00	-6.03
1711.50	3	QPSK	1 / 0	23.49	2.00	25.49	0.354	30.00	-4.51
1732.50	3	QPSK	1 / 14	23.50	2.00	**25.50**	**0.355**	30.00	-4.50
1753.50	3	QPSK	1 / 0	23.48	2.00	25.48	0.353	30.00	-4.52
1732.50	3	16-QAM	1 / 0	22.62	2.00	**24.62**	0.290	30.00	-5.38
1732.50	3	64-QAM	1 / 0	21.74	2.00	**23.74**	0.237	30.00	-6.26
1712.50	5	QPSK	1 / 0	23.48	2.00	25.48	0.353	30.00	-4.52
1732.50	5	QPSK	1 / 24	23.50	2.00	**25.50**	**0.355**	30.00	-4.50
1752.50	5	QPSK	1 / 0	23.50	2.00	**25.50**	**0.355**	30.00	-4.50
1752.50	5	16-QAM	1 / 24	22.60	2.00	**24.60**	0.288	30.00	-5.40
1732.50	5	64-QAM	1 / 24	21.91	2.00	**23.91**	0.246	30.00	-6.09
1715.00	10	QPSK	1 / 0	23.50	2.00	**25.50**	**0.355**	30.00	-4.50
1732.50	10	QPSK	1 / 49	23.45	2.00	25.45	0.351	30.00	-4.55
1750.00	10	QPSK	1 / 0	23.47	2.00	25.47	0.352	30.00	-4.53
1715.00	10	16-QAM	1 / 49	22.63	2.00	**24.63**	0.290	30.00	-5.37
1732.50	10	64-QAM	1 / 49	21.74	2.00	**23.74**	0.237	30.00	-6.26
1717.50	15	QPSK	1 / 0	23.47	2.00	25.47	0.352	30.00	-4.53
1732.50	15	QPSK	1 / 74	23.49	2.00	25.49	0.354	30.00	-4.51
1747.50	15	QPSK	1 / 0	23.50	2.00	**25.50**	**0.355**	30.00	-4.50
1747.50	15	16-QAM	1 / 0	22.58	2.00	**24.58**	0.287	30.00	-5.42
1717.50	15	64-QAM	1 / 0	21.80	2.00	**23.80**	0.240	30.00	-6.20
1720.00	20	QPSK	1 / 0	23.48	2.00	25.48	0.353	30.00	-4.52
1732.50	20	QPSK	1 / 99	23.50	2.00	**25.50**	**0.355**	30.00	-4.50
1745.00	20	QPSK	1 / 0	23.50	2.00	**25.50**	**0.355**	30.00	-4.50
1732.50	20	16-QAM	1 / 99	22.54	2.00	**24.54**	0.284	30.00	-5.46
1720.00	20	64-QAM	1 / 0	21.88	2.00	**23.88**	0.244	30.00	-6.12

Table 7-35. EIRP Data (Band 4)

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Frequency [MHz]	Channel Bandwidth [MHz]	Mod.	RB Size/Offset	Conducted Power [dBm]	Ant. Gain [dBi]	EIRP [dBm]	EIRP [Watts]	EIRP Limit [dBm]	Margin [dB]
1710.70	1.4	QPSK	3 / 2	23.49	2.00	25.49	0.354	30.00	-4.51
1745.00	1.4	QPSK	1 / 0	23.50	2.00	**25.50**	**0.355**	30.00	-4.50
1779.30	1.4	QPSK	3 / 2	23.48	2.00	25.48	0.353	30.00	-4.52
1710.70	1.4	16-QAM	1 / 0	22.67	2.00	**24.67**	0.293	30.00	-5.33
1745.00	1.4	64-QAM	3 / 2	21.65	2.00	**23.65**	0.232	30.00	-6.35
1711.50	3	QPSK	8 / 4	23.49	2.00	25.49	0.354	30.00	-4.51
1745.00	3	QPSK	8 / 4	23.48	2.00	25.48	0.353	30.00	-4.52
1778.50	3	QPSK	1 / 0	23.50	2.00	**25.50**	**0.355**	30.00	-4.50
1711.50	3	16-QAM	1 / 0	22.58	2.00	**24.58**	0.287	30.00	-5.42
1711.50	3	64-QAM	1 / 0	21.63	2.00	**23.63**	0.231	30.00	-6.37
1712.50	5	QPSK	1 / 0	23.50	2.00	**25.50**	**0.355**	30.00	-4.50
1745.00	5	QPSK	1 / 0	23.49	2.00	25.49	0.354	30.00	-4.51
1777.50	5	QPSK	1 / 24	23.49	2.00	25.49	0.354	30.00	-4.51
1712.50	5	16-QAM	1 / 0	22.67	2.00	**24.67**	0.293	30.00	-5.33
1745.00	5	64-QAM	1 / 24	21.72	2.00	**23.72**	0.236	30.00	-6.28
1715.00	10	QPSK	1 / 49	23.49	2.00	25.49	0.354	30.00	-4.51
1745.00	10	QPSK	1 / 0	23.50	2.00	**25.50**	**0.355**	30.00	-4.50
1775.00	10	QPSK	1 / 0	23.50	2.00	**25.50**	**0.355**	30.00	-4.50
1745.00	10	16-QAM	1 / 49	22.59	2.00	**24.59**	0.288	30.00	-5.41
1745.00	10	64-QAM	1 / 0	21.52	2.00	**23.52**	0.225	30.00	-6.48
1717.50	15	QPSK	1 / 74	23.49	2.00	25.49	0.354	30.00	-4.51
1745.00	15	QPSK	1 / 0	23.47	2.00	25.47	0.352	30.00	-4.53
1772.50	15	QPSK	1 / 0	23.50	2.00	**25.50**	**0.355**	30.00	-4.50
1745.00	15	16-QAM	1 / 0	22.70	2.00	**24.70**	0.295	30.00	-5.30
1745.00	15	64-QAM	1 / 0	21.68	2.00	**23.68**	0.233	30.00	-6.32
1720.00	20	QPSK	1 / 99	23.49	2.00	25.49	0.354	30.00	-4.51
1745.00	20	QPSK	1 / 0	23.50	2.00	**25.50**	**0.355**	30.00	-4.50
1770.00	20	QPSK	1 / 99	23.47	2.00	25.47	0.352	30.00	-4.53
1745.00	20	16-QAM	1 / 0	22.54	2.00	**24.54**	0.284	30.00	-5.46
1745.00	20	64-QAM	1 / 99	21.54	2.00	**23.54**	0.226	30.00	-6.46

Table 7-36. EIRP Data (Band 66)

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Frequency [MHz]	Channel Bandwidth [MHz]	Mod.	RB Size/Offset	Conducted Power [dBm]	Ant. Gain [dBi]	EIRP [dBm]	EIRP [Watts]	EIRP Limit [dBm]	Margin [dB]
1850.70	1.4	QPSK	1 / 5	23.50	2.60	**26.10**	**0.407**	33.01	-6.91
1880.00	1.4	QPSK	1 / 5	23.39	2.60	25.99	0.397	33.01	-7.02
1909.30	1.4	QPSK	1 / 5	23.31	2.60	25.91	0.390	33.01	-7.10
1880.00	1.4	16-QAM	1 / 0	22.64	2.60	**25.24**	0.334	33.01	-7.77
1850.70	1.4	64-QAM	1 / 5	21.63	2.60	**24.23**	0.265	33.01	-8.78
1851.50	3	QPSK	1 / 0	23.45	2.60	**26.05**	0.403	33.01	-6.96
1880.00	3	QPSK	1 / 14	23.34	2.60	25.94	0.393	33.01	-7.07
1908.50	3	QPSK	1 / 0	23.38	2.60	25.98	0.396	33.01	-7.03
1851.50	3	16-QAM	1 / 0	22.63	2.60	**25.23**	0.333	33.01	-7.78
1851.50	3	64-QAM	1 / 0	21.54	2.60	**24.14**	0.259	33.01	-8.87
1852.50	5	QPSK	1 / 0	23.48	2.60	**26.08**	0.406	33.01	-6.93
1880.00	5	QPSK	1 / 0	23.35	2.60	25.95	0.394	33.01	-7.06
1907.50	5	QPSK	1 / 0	23.37	2.60	25.97	0.395	33.01	-7.04
1852.50	5	16-QAM	1 / 0	22.47	2.60	**25.07**	0.321	33.01	-7.94
1852.50	5	64-QAM	1 / 0	21.58	2.60	**24.18**	0.262	33.01	-8.83
1855.00	10	QPSK	1 / 0	23.50	2.60	**26.10**	**0.407**	33.01	-6.91
1880.00	10	QPSK	1 / 0	23.41	2.60	26.01	0.399	33.01	-7.00
1905.00	10	QPSK	1 / 0	23.50	2.60	**26.10**	**0.407**	33.01	-6.91
1905.00	10	16-QAM	1 / 0	22.64	2.60	**25.24**	0.334	33.01	-7.77
1855.00	10	64-QAM	1 / 49	21.53	2.60	**24.13**	0.259	33.01	-8.88
1857.50	15	QPSK	1 / 0	23.50	2.60	**26.10**	**0.407**	33.01	-6.91
1880.00	15	QPSK	1 / 0	23.45	2.60	26.05	0.403	33.01	-6.96
1902.50	15	QPSK	1 / 0	23.46	2.60	26.06	0.404	33.01	-6.95
1857.50	15	16-QAM	1 / 0	22.63	2.60	**25.23**	0.333	33.01	-7.78
1857.50	15	64-QAM	1 / 74	21.58	2.60	**24.18**	0.262	33.01	-8.83
1860.00	20	QPSK	1 / 99	23.50	2.60	**26.10**	**0.407**	33.01	-6.91
1880.00	20	QPSK	1 / 0	23.50	2.60	**26.10**	**0.407**	33.01	-6.91
1900.00	20	QPSK	1 / 0	23.42	2.60	26.02	0.400	33.01	-6.99
1880.00	20	16-QAM	1 / 0	22.56	2.60	**25.16**	0.328	33.01	-7.85
1860.00	20	64-QAM	1 / 0	21.56	2.60	**24.16**	0.261	33.01	-8.85

Table 7-37. EIRP Data (Band 2)

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Frequency [MHz]	Channel Bandwidth [MHz]	Mod.	RB Size/Offset	Conducted Power [dBm]	Ant. Gain [dBi]	EIRP [dBm]	EIRP [Watts]	EIRP Limit [dBm]	Margin [dB]
1850.70	1.4	QPSK	1 / 0	23.50	2.60	**26.10**	**0.407**	33.01	-6.91
1882.50	1.4	QPSK	1 / 0	23.40	2.60	26.00	0.398	33.01	-7.01
1914.30	1.4	QPSK	1 / 0	23.50	2.60	**26.10**	**0.407**	33.01	-6.91
1914.30	1.4	16-QAM	1 / 0	22.73	2.60	**25.33**	0.341	33.01	-7.68
1850.70	1.4	64-QAM	1 / 0	21.69	2.60	**24.29**	0.269	33.01	-8.72
1851.50	3	QPSK	1 / 0	23.47	2.60	**26.07**	0.405	33.01	-6.94
1882.50	3	QPSK	1 / 0	23.32	2.60	25.92	0.391	33.01	-7.09
1913.50	3	QPSK	1 / 14	23.47	2.60	**26.07**	0.405	33.01	-6.94
1851.50	3	16-QAM	1 / 0	22.56	2.60	**25.16**	0.328	33.01	-7.85
1851.50	3	64-QAM	1 / 14	21.39	2.60	**23.99**	0.251	33.01	-9.02
1852.50	5	QPSK	1 / 24	23.50	2.60	**26.10**	**0.407**	33.01	-6.91
1882.50	5	QPSK	1 / 0	23.49	2.60	26.09	0.406	33.01	-6.92
1912.50	5	QPSK	1 / 24	23.47	2.60	26.07	0.405	33.01	-6.94
1852.50	5	16-QAM	1 / 0	22.62	2.60	**25.22**	0.333	33.01	-7.79
1852.50	5	64-QAM	1 / 24	21.53	2.60	**24.13**	0.259	33.01	-8.88
1855.00	10	QPSK	1 / 49	23.50	2.60	**26.10**	**0.407**	33.01	-6.91
1882.50	10	QPSK	1 / 0	23.49	2.60	26.09	0.406	33.01	-6.92
1910.00	10	QPSK	1 / 49	23.50	2.60	**26.10**	**0.407**	33.01	-6.91
1910.00	10	16-QAM	1 / 0	22.70	2.60	**25.30**	0.339	33.01	-7.71
1855.00	10	64-QAM	1 / 49	21.70	2.60	**24.30**	0.269	33.01	-8.71
1857.50	15	QPSK	1 / 0	23.50	2.60	**26.10**	**0.407**	33.01	-6.91
1882.50	15	QPSK	1 / 0	23.48	2.60	26.08	0.406	33.01	-6.93
1907.50	15	QPSK	1 / 74	23.49	2.60	26.09	0.406	33.01	-6.92
1857.50	15	16-QAM	1 / 0	22.67	2.60	**25.27**	0.337	33.01	-7.74
1857.50	15	64-QAM	1 / 74	21.64	2.60	**24.24**	0.265	33.01	-8.77
1860.00	20	QPSK	1 / 0	23.49	2.60	**26.09**	0.406	33.01	-6.92
1882.50	20	QPSK	1 / 0	23.48	2.60	26.08	0.406	33.01	-6.93
1905.00	20	QPSK	1 / 0	23.47	2.60	26.07	0.405	33.01	-6.94
1860.00	20	16-QAM	1 / 0	22.67	2.60	**25.27**	0.337	33.01	-7.74
1860.00	20	64-QAM	1 / 99	21.70	2.60	**24.30**	0.269	33.01	-8.71

Table 7-38. EIRP Data (Band 25)

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Frequency [MHz]	Channel Bandwidth [MHz]	Mod.	RB Size/Offset	Conducted Power [dBm]	Ant. Gain [dBi]	EIRP [dBm]	EIRP [Watts]	EIRP Limit [dBm]	Margin [dB]
2307.50	5	QPSK	1 / 24	21.30	1.90	**23.20**	**0.209**	23.98	-0.78
2312.50	5	QPSK	1 / 0	21.30	1.90	**23.20**	**0.209**	23.98	-0.78
2312.50	5	16-QAM	1 / 24	20.32	1.90	**22.22**	0.167	23.98	-1.76
2307.50	5	64-QAM	1 / 0	19.64	1.90	**21.54**	0.143	23.98	-2.44
2310.00	10	QPSK	1 / 0	21.25	1.90	**23.15**	0.207	23.98	-0.83
2310.00	10	16-QAM	1 / 0	20.39	1.90	**22.29**	0.169	23.98	-1.69
2310.00	10	64-QAM	1 / 49	19.52	1.90	**21.42**	0.139	23.98	-2.56

Table 7-39. EIRP Data (Band 30)

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Frequency [MHz]	Channel Bandwidth [MHz]	Mod.	RB Size/Offset	Conducted Power [dBm]	Ant. Gain [dBi]	EIRP [dBm]	EIRP [Watts]	EIRP Limit [dBm]	Margin [dB]
2502.50	5	QPSK	1 / 24	23.02	1.90	24.92	0.310	33.01	-8.09
2535.00	5	QPSK	1 / 0	22.95	2.00	24.95	0.313	33.01	-8.06
2567.50	5	QPSK	1 / 0	23.08	2.00	**25.08**	0.322	33.01	-7.93
2567.50	5	16-QAM	1 / 0	22.30	2.00	**24.30**	0.269	33.01	-8.71
2535.00	5	64-QAM	1 / 24	21.34	2.00	**23.34**	0.216	33.01	-9.67
2505.00	10	QPSK	1 / 49	23.15	1.90	25.05	0.320	33.01	-7.96
2535.00	10	QPSK	1 / 49	23.10	2.00	25.10	0.324	33.01	-7.91
2565.00	10	QPSK	1 / 0	23.15	2.00	**25.15**	0.327	33.01	-7.86
2565.00	10	16-QAM	1 / 0	22.32	2.00	**24.32**	0.270	33.01	-8.69
2535.00	10	64-QAM	1 / 49	21.20	2.00	**23.20**	0.209	33.01	-9.81
2507.50	15	QPSK	1 / 74	23.13	1.90	25.03	0.318	33.01	-7.98
2535.00	15	QPSK	1 / 74	23.02	2.00	25.02	0.318	33.01	-7.99
2562.50	15	QPSK	1 / 74	23.15	2.00	**25.15**	0.327	33.01	-7.86
2535.00	15	16-QAM	1 / 74	22.27	2.00	**24.27**	0.267	33.01	-8.74
2562.50	15	64-QAM	1 / 74	21.25	2.00	**23.25**	0.211	33.01	-9.76
2510.00	20	QPSK	1 / 99	23.04	1.90	24.94	0.312	33.01	-8.07
2535.00	20	QPSK	1 / 99	23.19	2.00	**25.19**	**0.330**	33.01	-7.82
2560.00	20	QPSK	1 / 0	23.11	2.00	25.11	0.324	33.01	-7.90
2535.00	20	16-QAM	1 / 99	22.41	2.00	**24.41**	0.276	33.01	-8.60
2535.00	20	64-QAM	1 / 99	21.35	2.00	**23.35**	0.216	33.01	-9.66

Table 7-40. EIRP Data (Band 7)

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Frequency [MHz]	Channel Bandwidth [MHz]	Mod.	RB Size/Offset	Conducted Power [dBm]	Ant. Gain [dBi]	EIRP [dBm]	EIRP [Watts]	EIRP Limit [dBm]	Margin [dB]
2498.50	5	QPSK	1 / 24	24.66	1.90	26.56	0.453	33.01	-6.45
2593.00	5	QPSK	1 / 24	24.58	2.00	26.58	0.455	33.01	-6.43
2687.50	5	QPSK	1 / 24	24.59	2.00	**26.59**	0.456	33.01	-6.42
2498.50	5	16-QAM	1 / 24	23.42	1.90	**25.32**	**0.340**	33.01	-7.69
2593.00	5	64-QAM	1 / 0	22.51	2.00	**24.51**	0.282	33.01	-8.50
2501.00	10	QPSK	1 / 0	24.75	1.90	26.65	0.462	33.01	-6.36
2593.00	10	QPSK	1 / 49	24.70	2.00	26.70	0.468	33.01	-6.31
2685.00	10	QPSK	1 / 0	24.75	2.00	**26.75**	**0.473**	33.01	-6.26
2685.00	10	16-QAM	1 / 0	23.56	2.00	**25.56**	0.360	33.01	-7.45
2685.00	10	64-QAM	1 / 0	22.47	2.00	**24.47**	0.280	33.01	-8.54
2503.50	15	QPSK	1 / 0	24.68	1.90	26.58	0.455	33.01	-6.43
2593.00	15	QPSK	1 / 0	24.70	2.00	26.70	0.468	33.01	-6.31
2682.50	15	QPSK	1 / 0	24.74	2.00	**26.74**	0.472	33.01	-6.27
2503.50	15	16-QAM	1 / 0	23.60	1.90	**25.50**	**0.355**	33.01	-7.51
2503.50	15	64-QAM	1 / 74	22.40	1.90	**24.30**	**0.269**	33.01	-8.71
2506.00	20	QPSK	1 / 0	24.72	1.90	26.62	0.459	33.01	-6.39
2593.00	20	QPSK	1 / 0	24.67	2.00	26.67	0.465	33.01	-6.34
2680.00	20	QPSK	1 / 0	24.74	2.00	**26.74**	0.472	33.01	-6.27
2680.00	20	16-QAM	1 / 0	23.47	2.00	**25.47**	0.352	33.01	-7.54
2593.00	20	64-QAM	1 / 0	22.45	2.00	**24.45**	0.279	33.01	-8.56

Table 7-41. EIRP Data (Band 41)

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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

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Test Setup

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

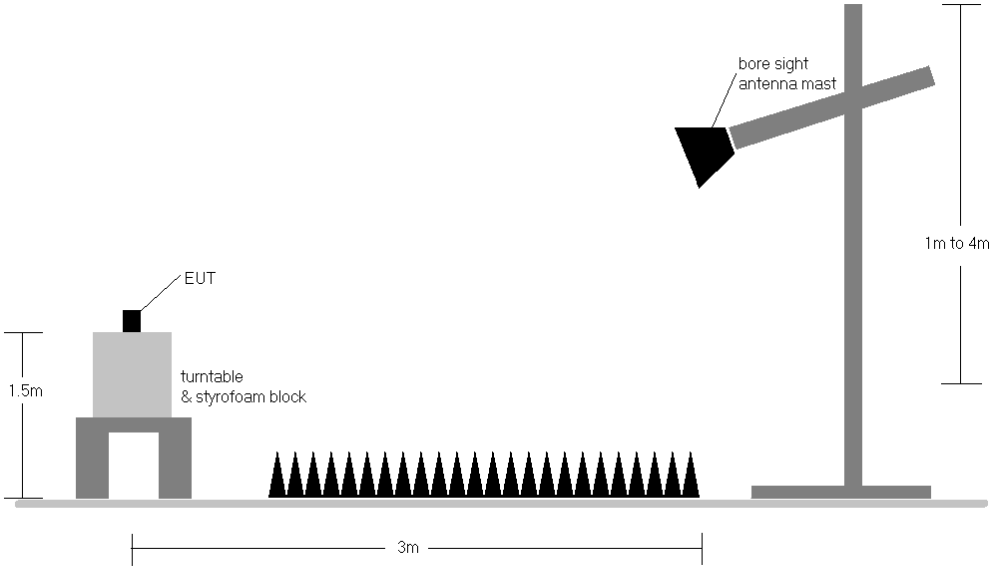

Figure 7-8. Test Instrument & Measurement Setup

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.

6) For LTE Band 30 pre-scans above 1GHz, the RBW is set to 1MHz and VBW to 30kHz. For final measurements above 1GHz, the RBW is set to 1MHz and VBW to 3MHz when measuring with an RMS detector and trace averaging.

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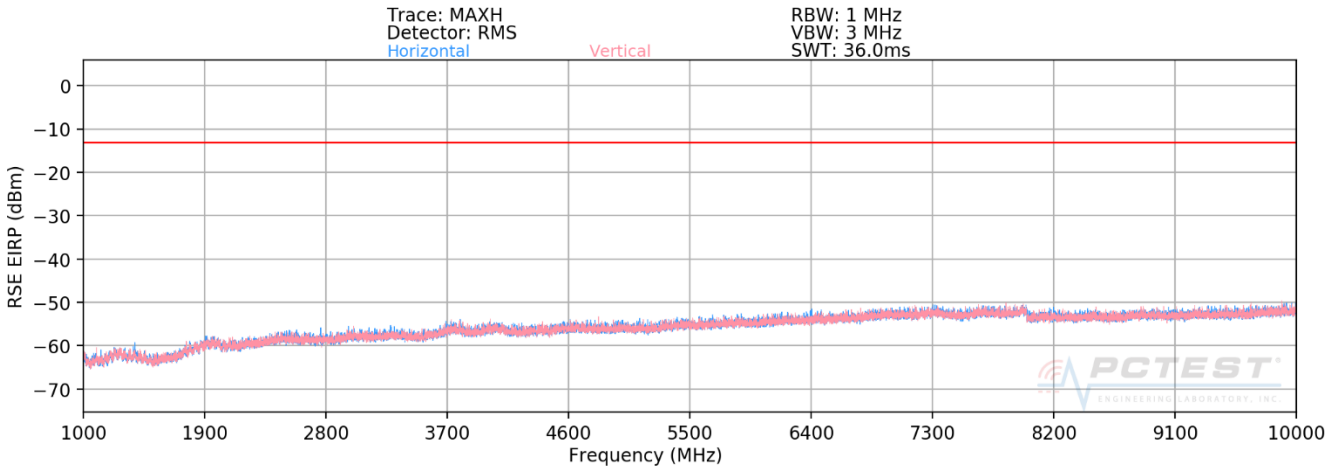
7.9.1 ANT WF3 (Port A) Radiated Spurious Emissions Measurements Band 71



Plot 7-450. Radiated Spurious Plot above 1GHz (Band 71)

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

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
1346.00	H	-	-	-74.38	3.46	-70.92	-57.9
2019.00	H	-	-	-72.16	4.27	-67.89	-54.9
2692.00	H	-	-	-73.19	6.52	-66.67	-53.7

Table 7-42. Radiated Spurious Data (Band 71 – Low Channel)

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

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
1361.00	H	-	-	-70.67	3.46	-67.20	-54.2
2041.50	H	-	-	-67.59	4.27	-63.32	-50.3
2722.00	H	-	-	-66.02	6.52	-59.50	-46.5

Table 7-43. Radiated Spurious Data (Band 71 – Mid Channel)

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

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
1376.00	H	-	-	-74.14	3.71	-70.43	-57.4
2064.00	H	-	-	-72.34	4.58	-67.76	-54.8
2752.00	H	-	-	-73.58	6.67	-66.91	-53.9

Table 7-44. Radiated Spurious Data (Band 71 – High Channel)

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