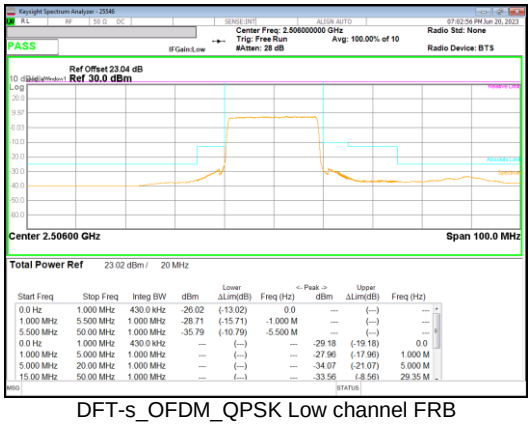
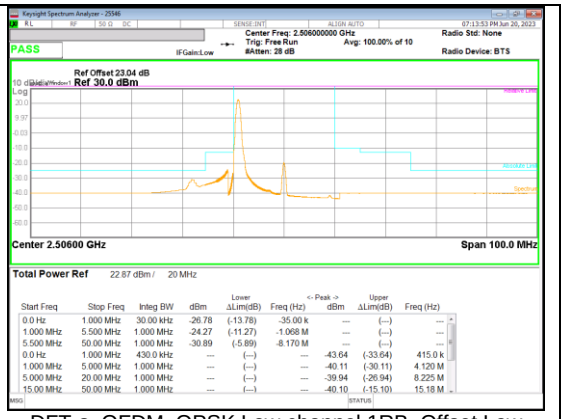
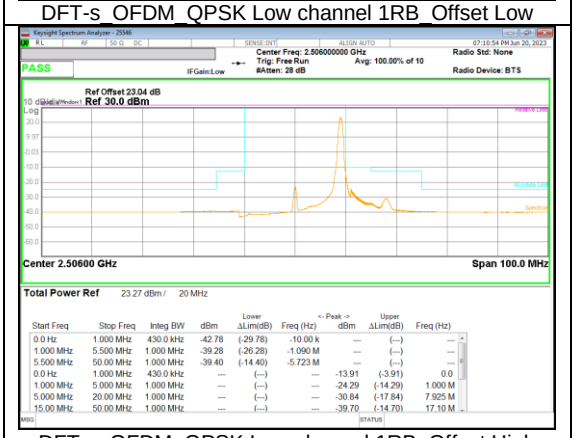
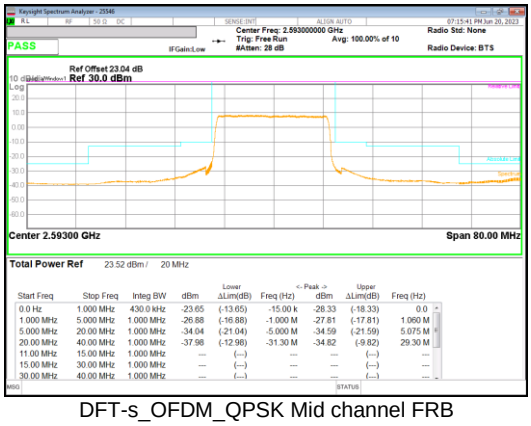
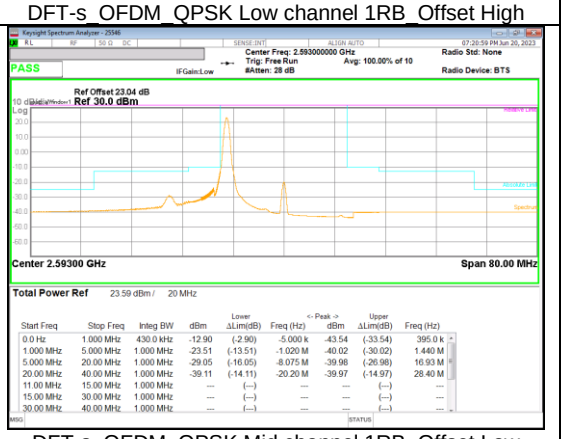
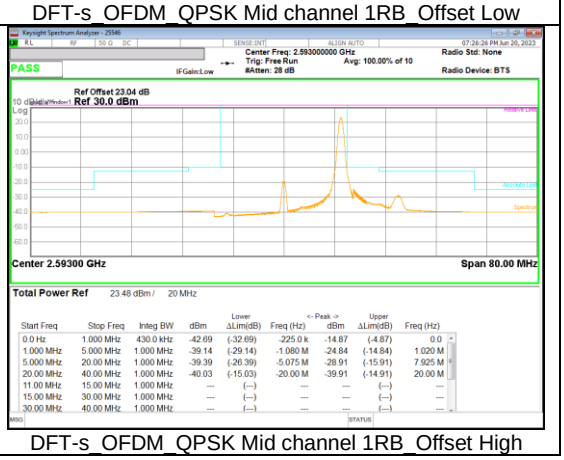
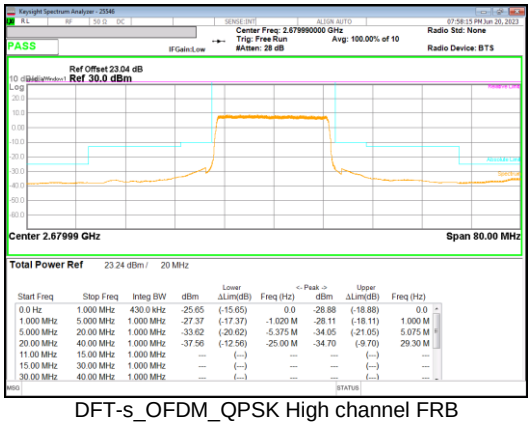
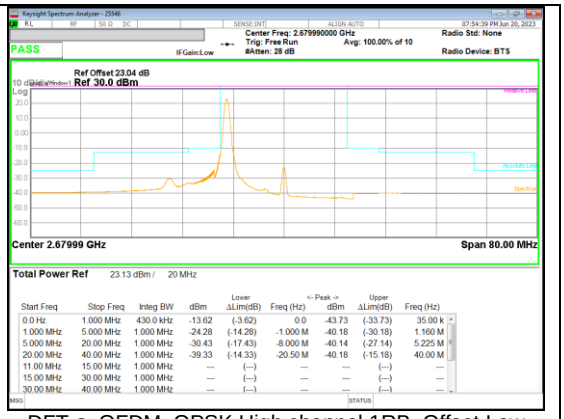
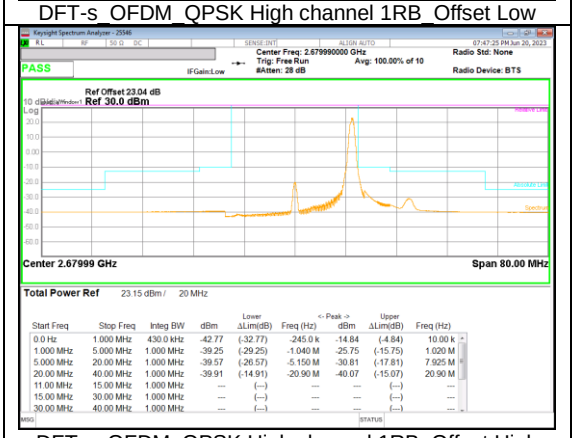
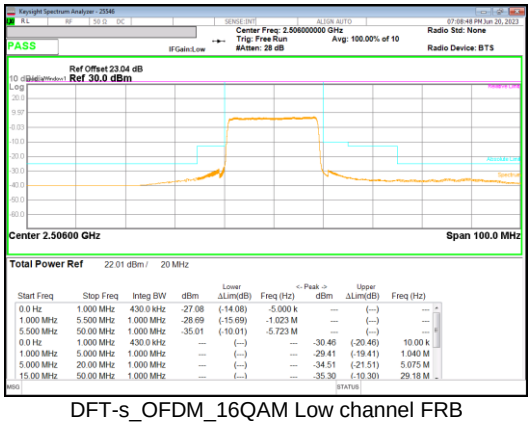
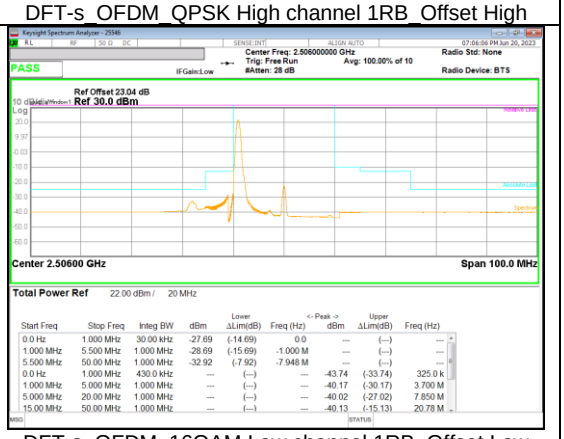
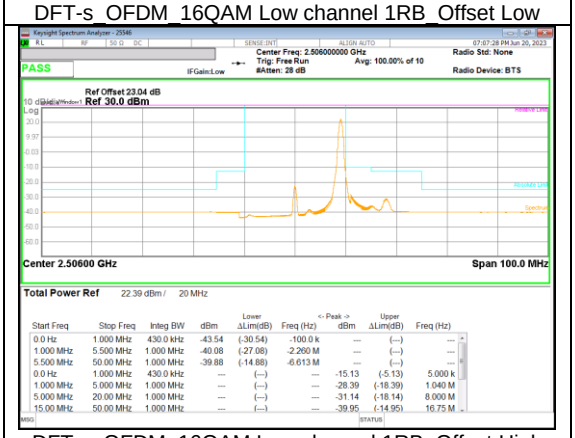
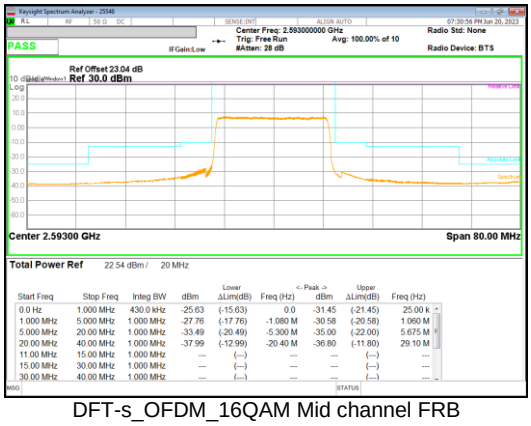
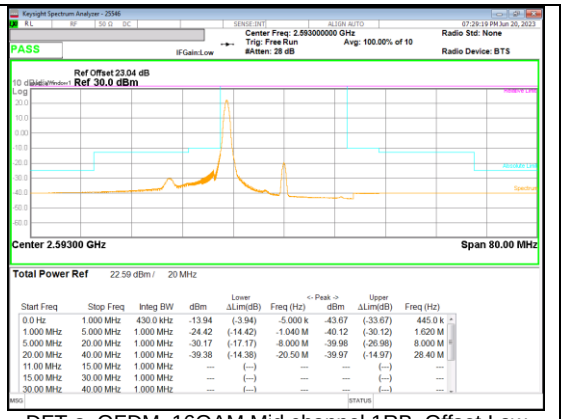
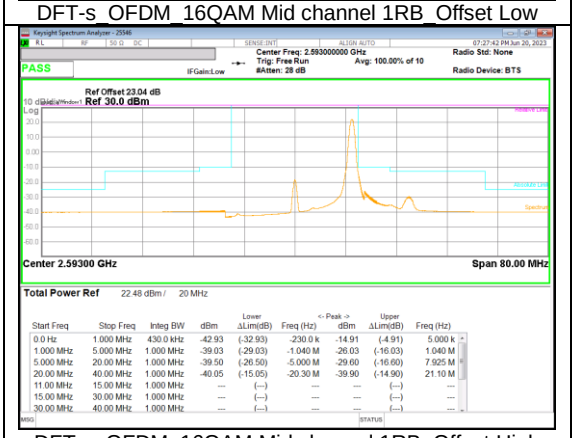
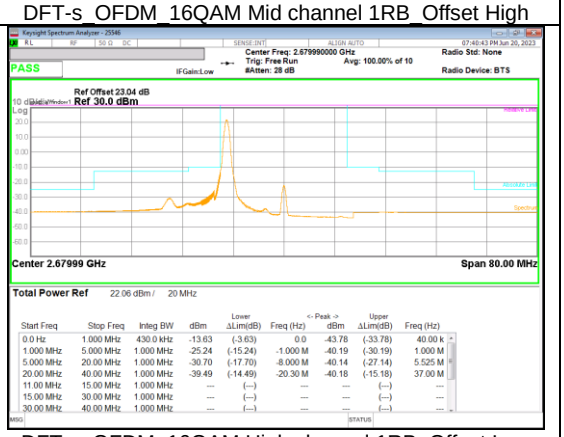
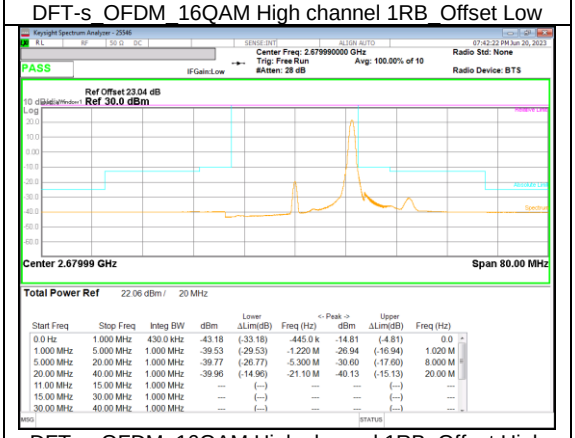
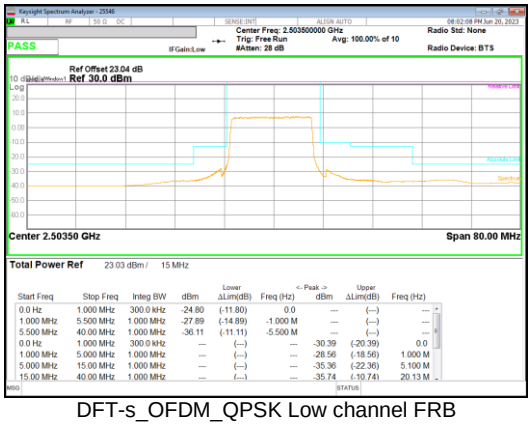
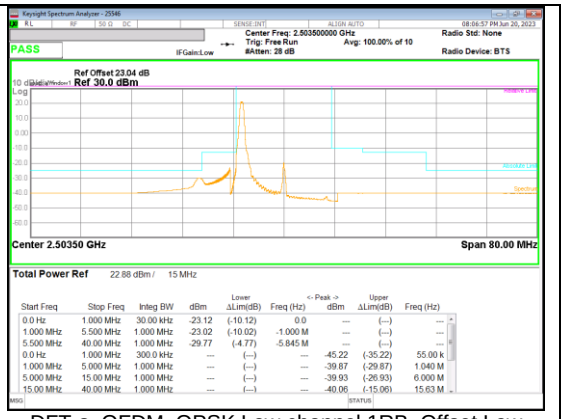
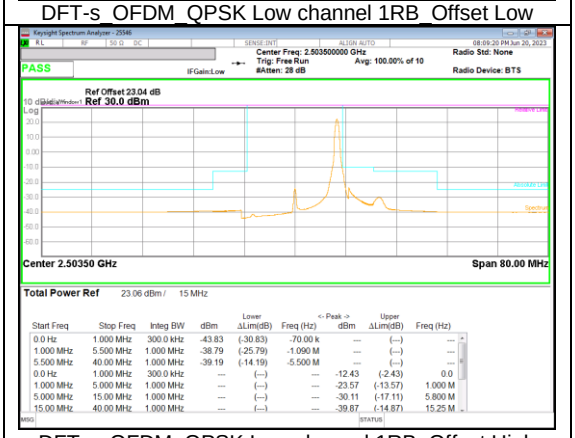
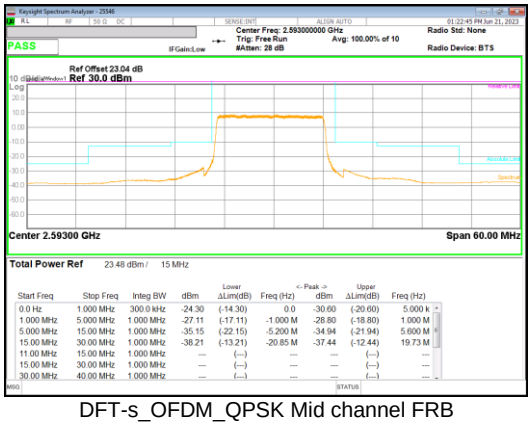
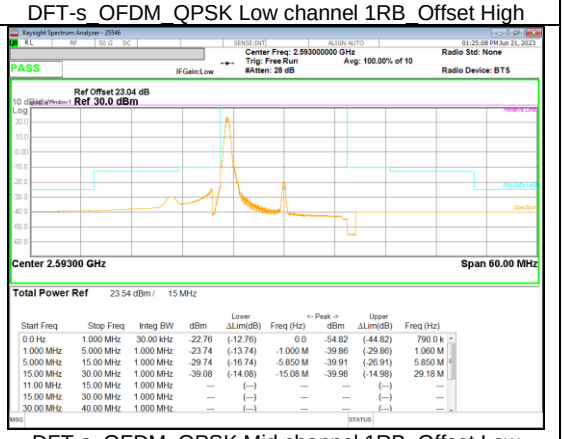
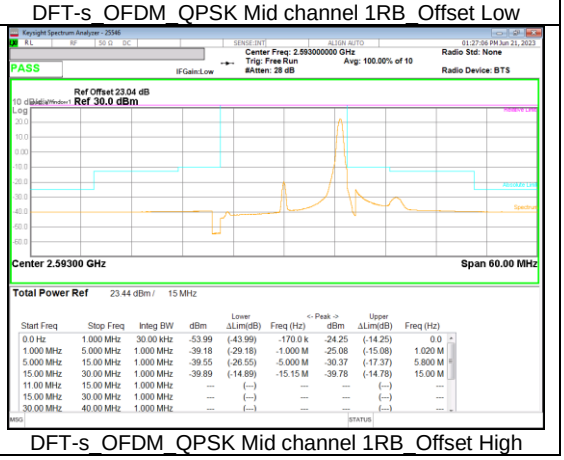
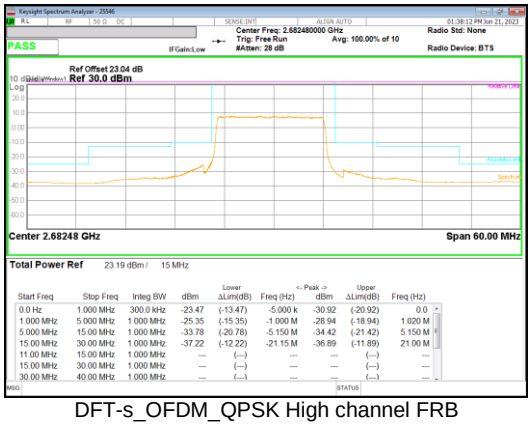
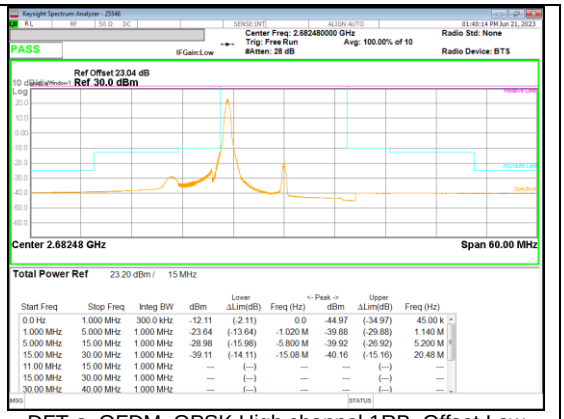
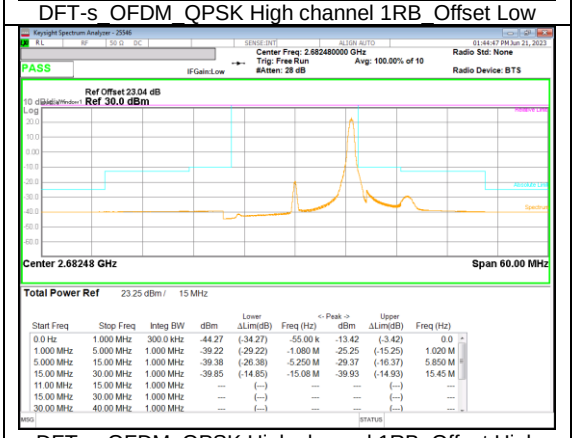
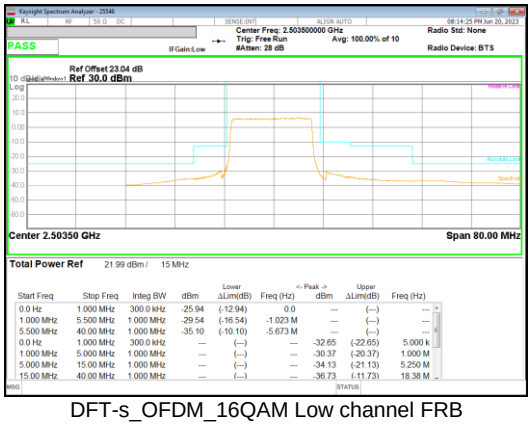
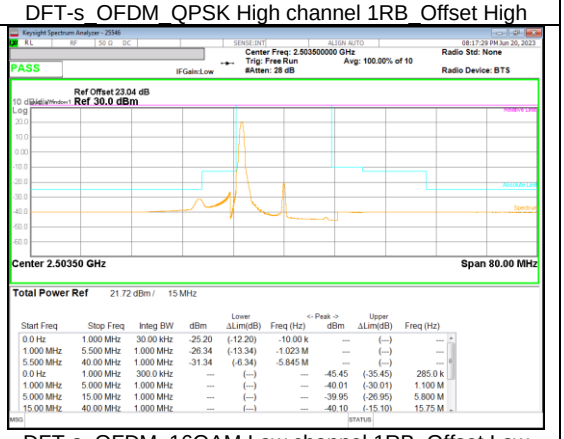
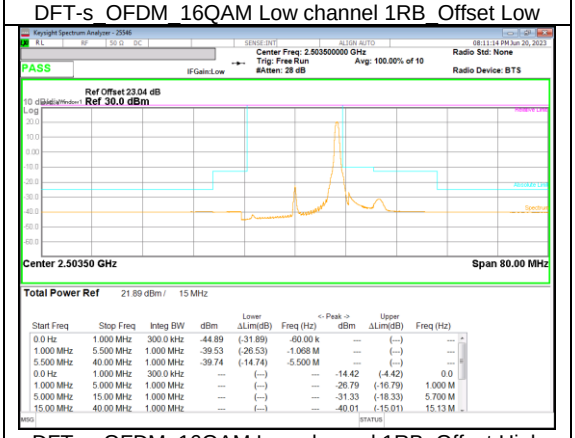
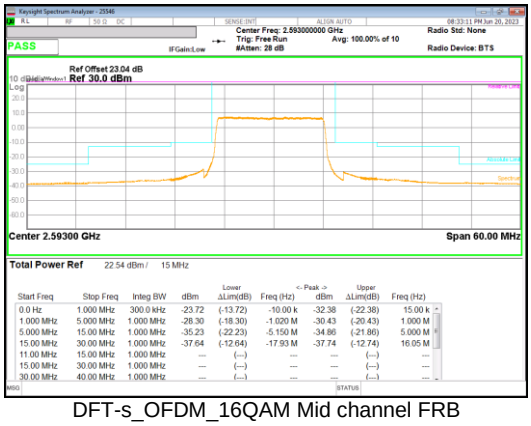
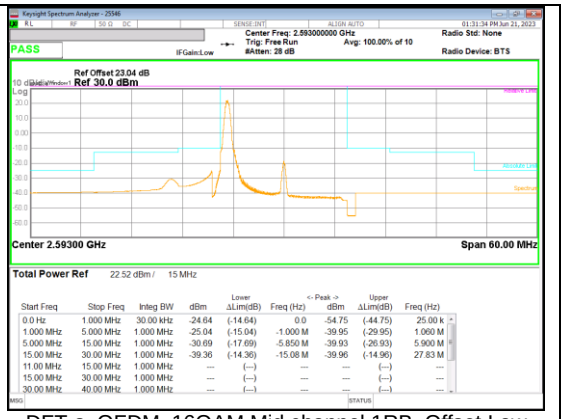
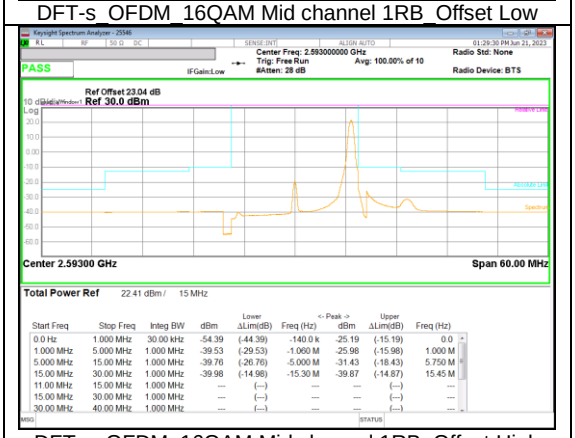
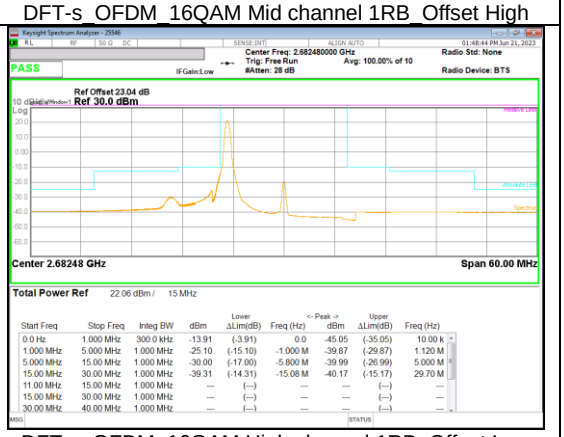
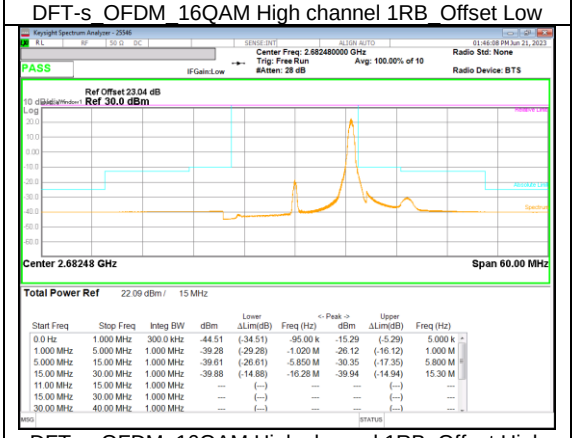
20MHz QPSK	 DFT-s_OFDM_QPSK Low channel FRB	 DFT-s_OFDM_QPSK Low channel 1RB_Offset Low
		 DFT-s_OFDM_QPSK Low channel 1RB_Offset High
	 DFT-s_OFDM_QPSK Mid channel FRB	 DFT-s_OFDM_QPSK Mid channel 1RB_Offset Low
		 DFT-s_OFDM_QPSK Mid channel 1RB_Offset High

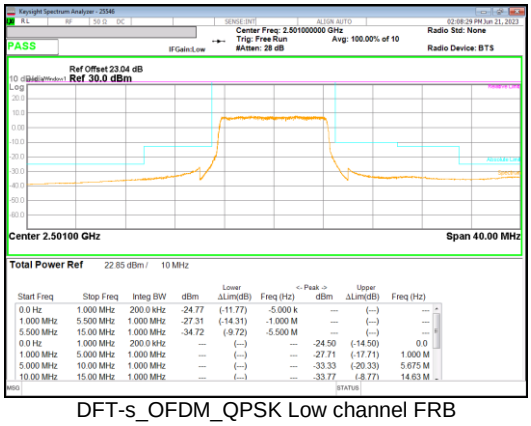
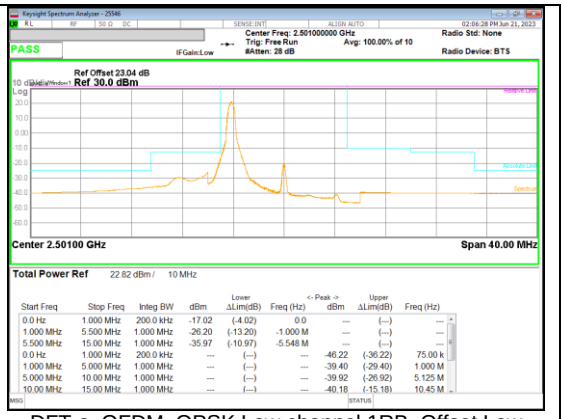
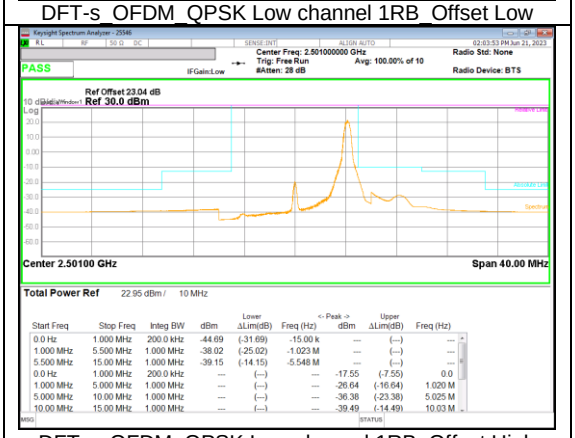
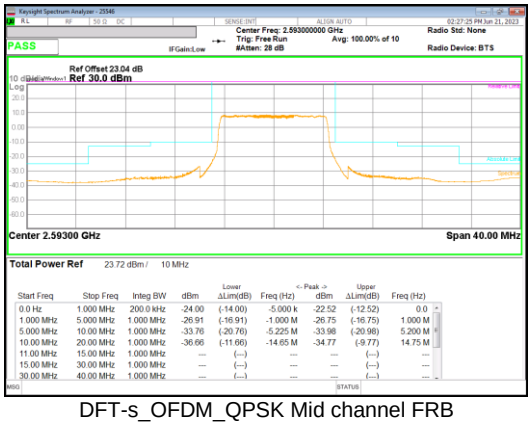
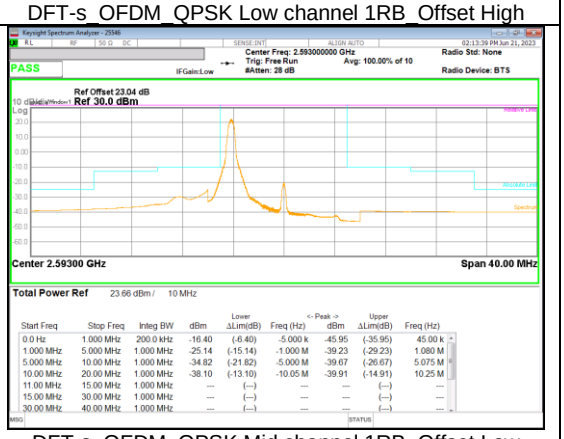
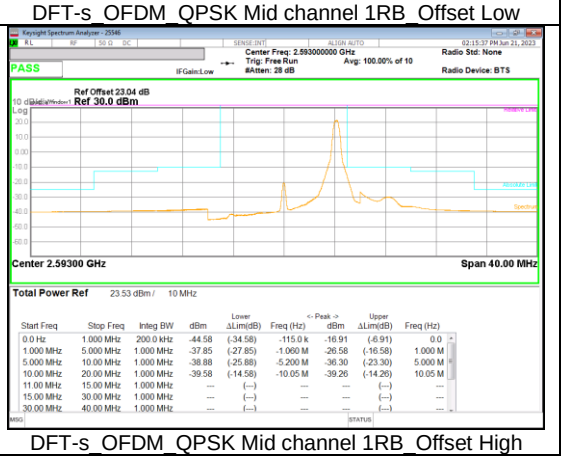
20MHz QPSK	 DFT-s_OFDM_QPSK High channel FRB	 DFT-s_OFDM_QPSK High channel 1RB_Offset Low  DFT-s_OFDM_QPSK High channel 1RB_Offset High
20MHz 16QAM	 DFT-s_OFDM_16QAM Low channel FRB	 DFT-s_OFDM_16QAM Low channel 1RB_Offset Low  DFT-s_OFDM_16QAM Low channel 1RB_Offset High

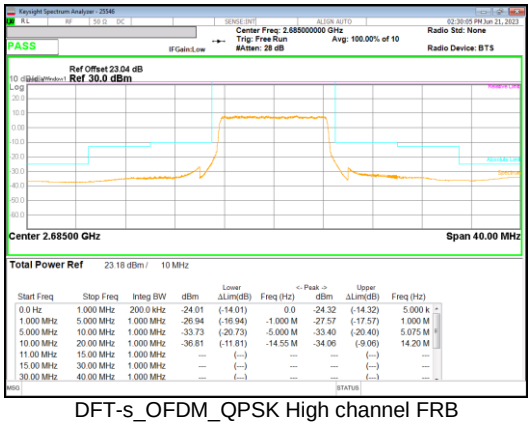
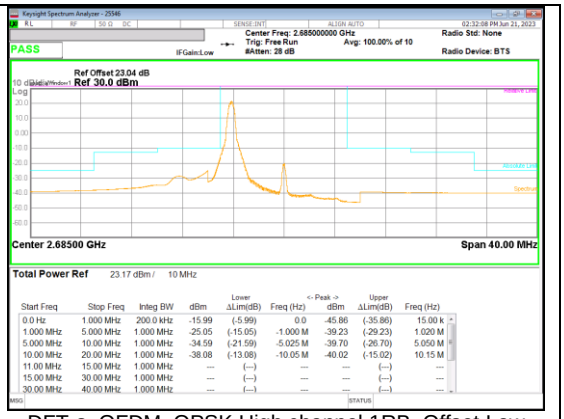
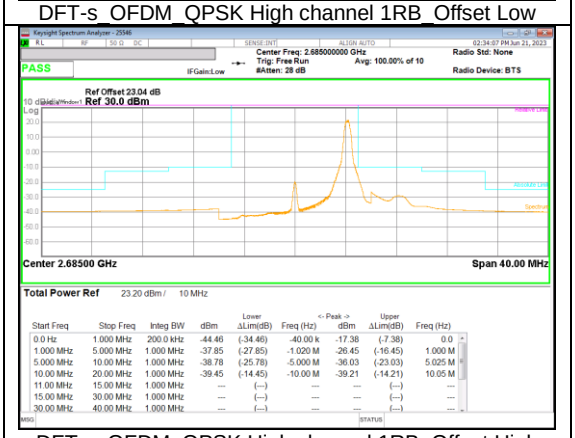
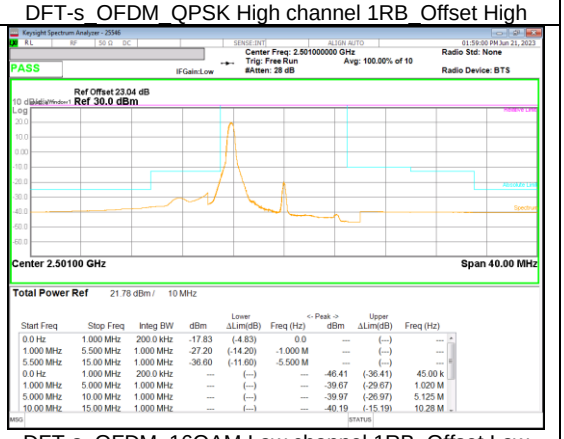
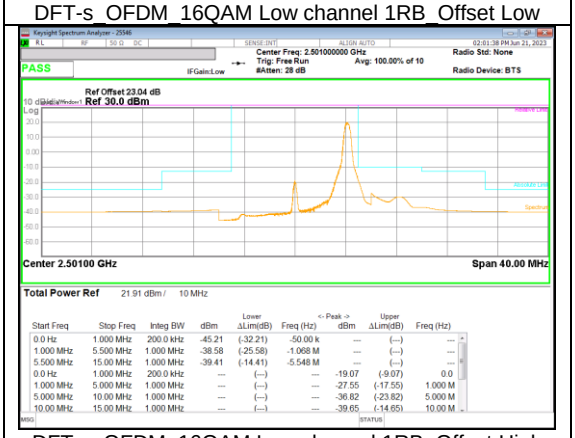
20MHz 16QAM	 DFT-s_OFDM_16QAM Mid channel FRB	 DFT-s_OFDM_16QAM Mid channel 1RB_Offset Low
		 DFT-s_OFDM_16QAM Mid channel 1RB_Offset High
	 16QAM High channel FRB	 DFT-s_OFDM_16QAM High channel 1RB_Offset Low
		 DFT-s_OFDM_16QAM High channel 1RB_Offset High

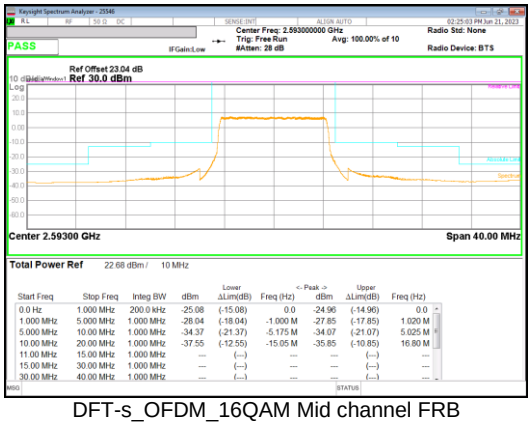
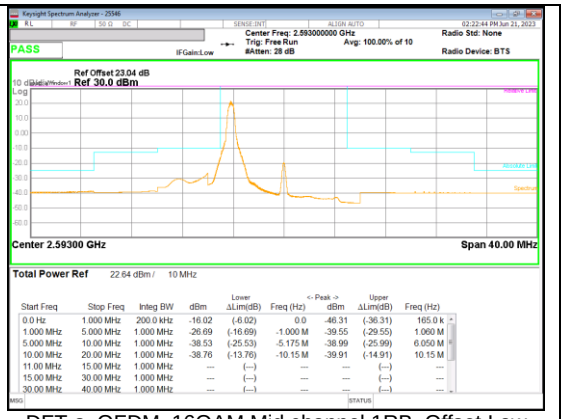
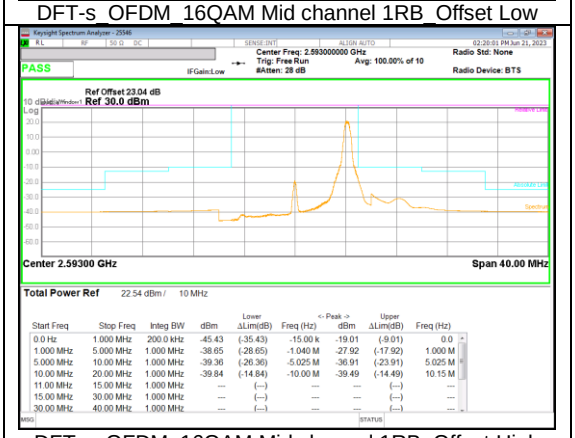
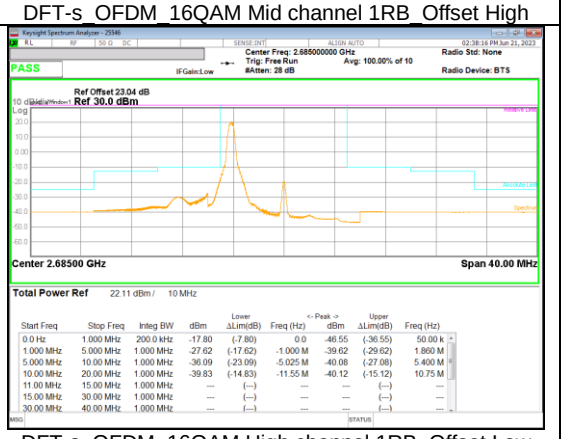
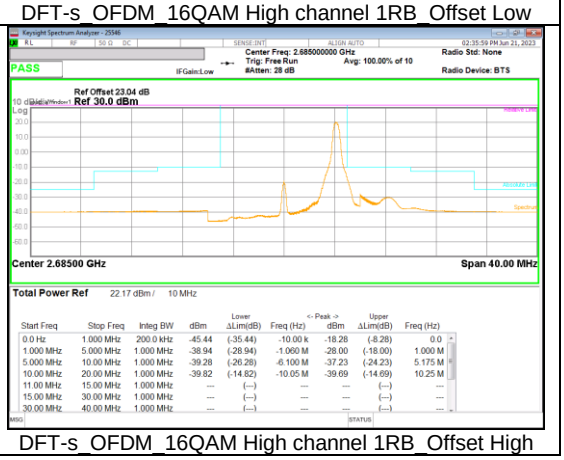
15MHz QPSK	 DFT-s_OFDM_QPSK Low channel FRB	 DFT-s_OFDM_QPSK Low channel 1RB_Offset Low
		 DFT-s_OFDM_QPSK Low channel 1RB_Offset High
	 DFT-s_OFDM_QPSK Mid channel FRB	 DFT-s_OFDM_QPSK Mid channel 1RB_Offset Low
		 DFT-s_OFDM_QPSK Mid channel 1RB_Offset High

15MHz QPSK	 DFT-s_OFDM_QPSK High channel FRB	 DFT-s_OFDM_QPSK High channel 1RB_Offset Low  DFT-s_OFDM_QPSK High channel 1RB_Offset High
15MHz 16QAM	 DFT-s_OFDM_16QAM Low channel FRB	 DFT-s_OFDM_16QAM Low channel 1RB_Offset Low  DFT-s_OFDM_16QAM Low channel 1RB_Offset High

15MHz 16QAM	 DFT-s_OFDM_16QAM Mid channel FRB	 DFT-s_OFDM_16QAM Mid channel 1RB_Offset Low
		 DFT-s_OFDM_16QAM Mid channel 1RB_Offset High
	 DFT-s_OFDM_16QAM High channel FRB	 DFT-s_OFDM_16QAM High channel 1RB_Offset Low
		 DFT-s_OFDM_16QAM High channel 1RB_Offset High

10MHz QPSK	 DFT-s_OFDM_QPSK Low channel FRB	 DFT-s_OFDM_QPSK Low channel 1RB_Offset Low
		 DFT-s_OFDM_QPSK Low channel 1RB_Offset High
	 DFT-s_OFDM_QPSK Mid channel FRB	 DFT-s_OFDM_QPSK Mid channel 1RB_Offset Low
		 DFT-s_OFDM_QPSK Mid channel 1RB_Offset High

10MHz QPSK	 DFT-s_OFDM_QPSK High channel FRB	 DFT-s_OFDM_QPSK High channel 1RB_Offset Low  DFT-s_OFDM_QPSK High channel 1RB_Offset High
10MHz 16QAM	 DFT-s_OFDM_16QAM Low channel FRB	 DFT-s_OFDM_16QAM Low channel 1RB_Offset Low  DFT-s_OFDM_16QAM Low channel 1RB_Offset High

10MHz 16QAM	 DFT-s_OFDM_16QAM Mid channel FRB	 DFT-s_OFDM_16QAM Mid channel 1RB_Offset Low
		 DFT-s_OFDM_16QAM Mid channel 1RB_Offset High
	 DFT-s_OFDM_16QAM High channel FRB	 DFT-s_OFDM_16QAM High channel 1RB_Offset Low
		 DFT-s_OFDM_16QAM High channel 1RB_Offset High

8.5. CONDUCTED SPURIOUS EMISSIONS

RULE PART(S)

FCC: §27.53

LIMITS

Part 27.53:
(c)(2) On any frequency outside the 776-788 MHz band, the power of any emission shall be attenuated outside the band below the transmitter power (P) by at least 43 + 10 log (P) dB.

(g) For operations in the 600 MHz band and the 698-746 MHz band, the power of any emission outside a licensee's frequency band(s) of operation shall be attenuated below the transmitter power (P) within the licensed band(s) of operation, measured in watts, by at least 43 + 10 log (P) dB.

(h) The power of any emission outside a licensee's frequency block shall be attenuated below the transmitter power (P) in watts by at least $43 + 10 \log_{10}$ (P) dB.

(m) (4) For mobile digital stations, the attenuation factor shall be not less than 40 + 10 log (P) dB on all frequencies between the channel edge and 5 megahertz from the channel edge, 43 + 10 log (P) dB on all frequencies between 5 megahertz and X megahertz from the channel edge, and 55 + 10 log (P) dB on all frequencies more than X megahertz from the channel edge, where X is the greater of 6 megahertz or the actual emission bandwidth as defined in paragraph (m)(6) of this section. In addition, the attenuation factor shall not be less that 43 + 10 log (P) dB on all frequencies between 2490.5 MHz and 2496 MHz and 55 + 10 log (P) dB at or below 2490.5 MHz. Mobile Satellite Service licensees operating on frequencies below 2495 MHz may also submit a documented interference complaint against BRS licensees operating on channel BRS Channel 1 on the same terms and conditions as adjacent channel BRS or EBS licensees.

UL KOREA LTD. Suwon Laboratory FORM ID: FCC_27(05)
218 Maeyeong-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, 16675, Korea TEL: (031) 337-9902 FAX: (031) 213-5433

TEST PROCEDURE

Per KDB 971168 D01 Power Meas License Digital Systems v03r01
The RF output of the transmitter was connected to a spectrum analyzer through a calibrated coaxial cable. Sufficient scans were taken to show the out-of-band Emissions, if any, up to 10th harmonic. Multiple sweeps were recorded in maximum hold Mode using a peak detector to ensure that the worst-case emissions were caught.

a) Set the RBW = 100 kHz for emission below 1 GHz and 1 MHz for emissions above 1 GHz
(Tests were performed 1MHz [Worst case], to sweep 1 time for all frequency range)
b) Set VBW ≥ 3 × RBW;
c) Set span ≥ 1.5 times the OBW;
d) Sweep time = auto couple;
e) Detector = rms;
f) Ensure that the number of measurement points = Max (40001);
g) Trace Mode = average(WCDMA, LTE FDD, 5G NR FDD),
Max hold(LTE TDD, 5G NR TDD);

NOTE1

5G NR: All Waveforms (CP-OFDM vs DFT-s_OFDM) and modulations (π/2 BPSK, QPSK, 16QAM, 64QAM, 256QAM) 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.

NOTE2

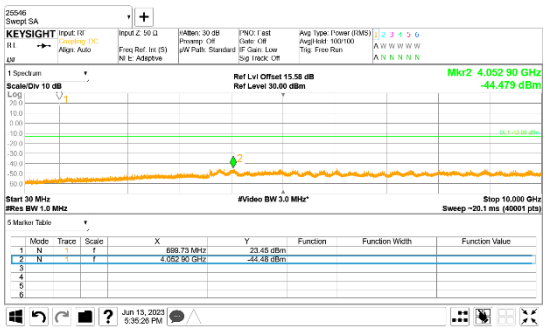
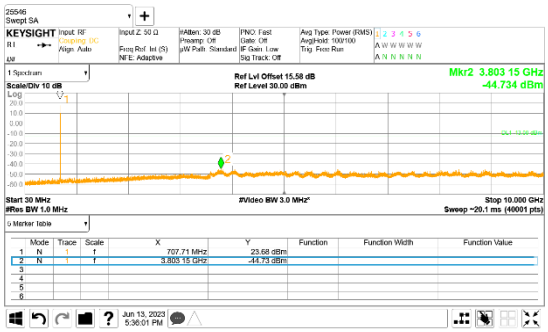
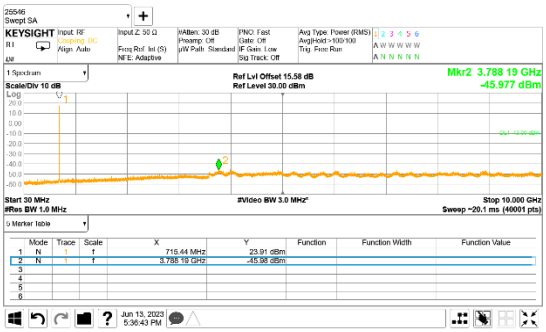
Please refer to section 5.4 for bandwidth and RB setting about LTE, 5G NR bands.

RESULTS

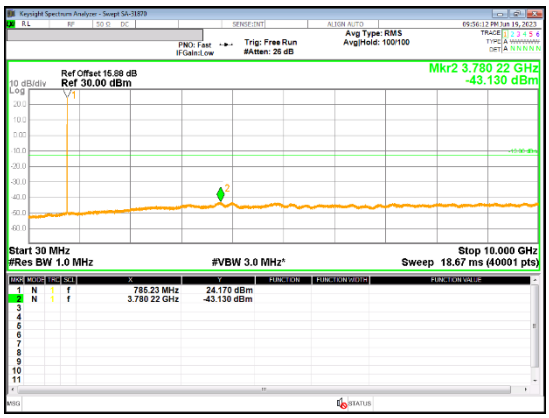
See the following pages.

8.5.1. OUT OF BAND EMISSIONS RESULT

LTE Band 12

1.4 MHz QPSK	 Low channel	 Mid channel
	 High channel	

LTE Band 13

5 MHz QPSK	 Low channel	 Mid channel
	 High channel	

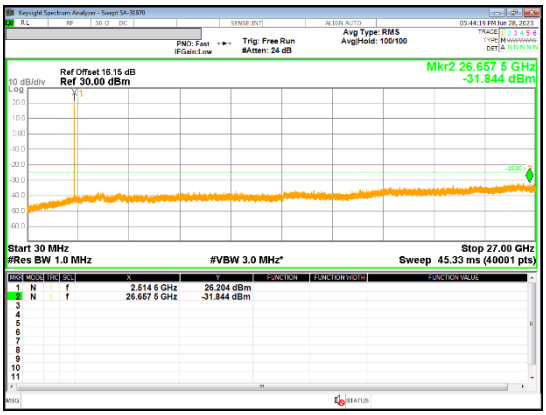
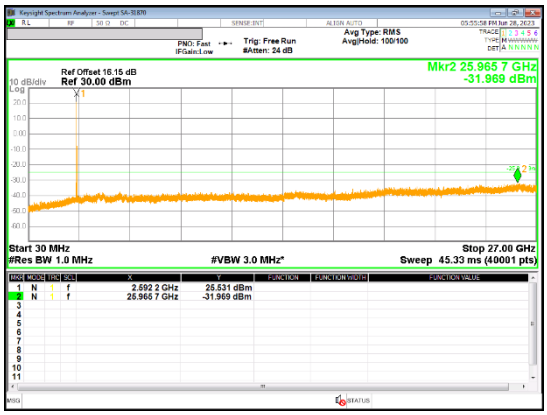
LTE Band 41 (ANT B)

5 MHz QPSK	 Low channel	 Mid channel
	 High channel	

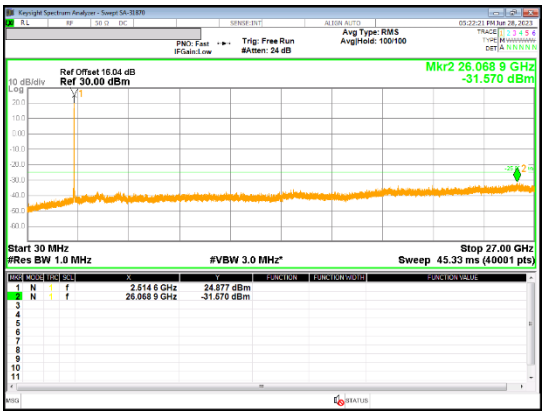
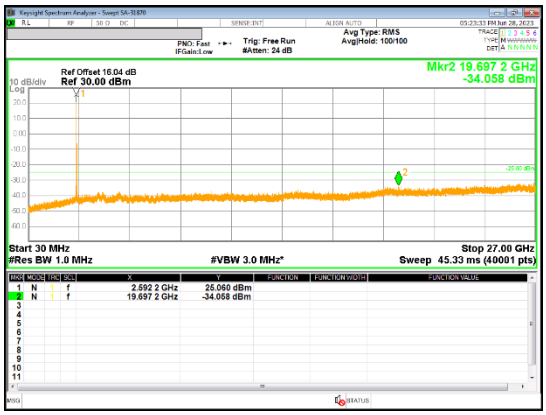
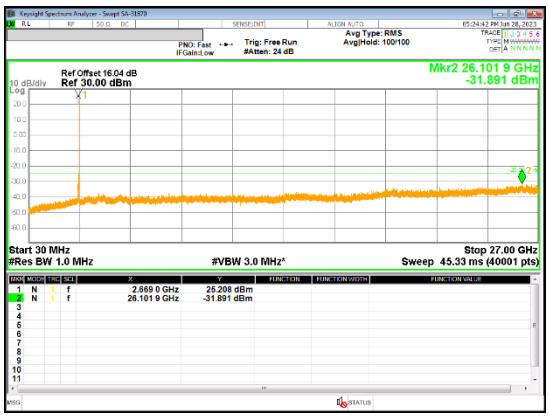
LTE Band 41 (ANT F)

5 MHz QPSK	 Low channel	 Mid channel
	 High channel	

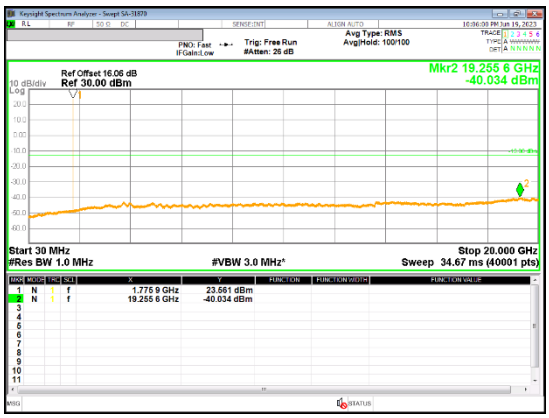
LTE Band 41C (UL CA, ANT B)

20+20 MHz QPSK	 Low channel	 Mid channel
	 High channel	

LTE Band 41C (UL CA, ANT F)

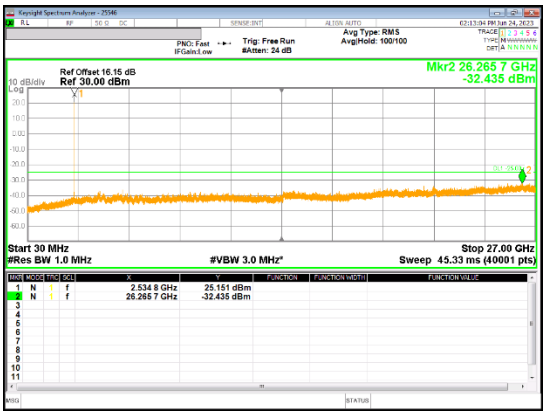
20+20 MHz QPSK	 Low channel	 Mid channel
	 High channel	

LTE Band 66 (ANT B)

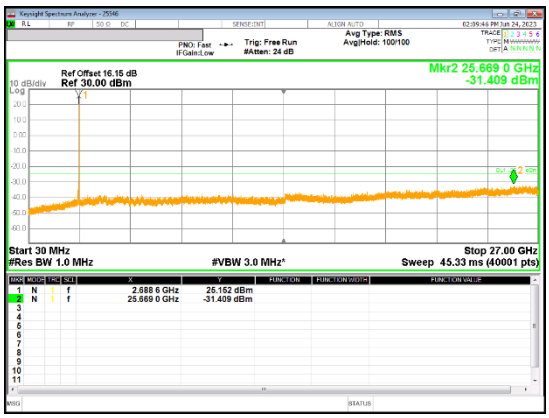
10 MHz QPSK	 Low channel	 Mid channel
	 High channel	

NR Band n41 (ANT B)

<table>
<tr><td rowspan="2">40 MHz

QPSK</td><td> 

DFT-s_OFDM_Low channel</td><td> 

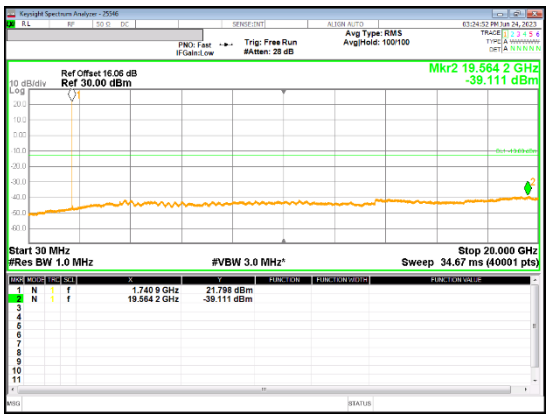
DFT-s_OFDM_Mid channel</td></tr>
<tr><td colspan="2"> 

DFT-s_OFDM_High channel</td></tr>
</table>

NR Band n41 (ANT F)

40 MHz QPSK	 DFT-s_OFDM_Low channel	 DFT-s_OFDM_Mid channel
	 DFT-s_OFDM_High channel	

NR Band n66 (ANT B)

40 MHz QPSK	 DFT-s_OFDM_Low channel	 DFT-s_OFDM_Mid channel
	 DFT-s_OFDM_High channel	

8.6. FREQUENCY STABILITY

RULE PART(S)

FCC: §2.1055, §27.54

LIMITS

§27.54 - The frequency stability shall be sufficient to ensure that the fundamental emissions stay within the authorized bands of operation.

TEST PROCEDURE

Per KDB 971168 D01 Power Meas License Digital Systems v03r01

RESULTS

See the following pages.

NOTE

Test were performed each lowest or highest frequency on the modulation condition of more wide bandwidth.(Please refer to section 9.1.1 OBW results)

UL KOREA LTD. Suwon Laboratory FORM ID: FCC_27(05)
218 Maeyeong-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, 16675, Korea TEL: (031) 337-9902 FAX: (031) 213-5433

8.6.1. FREQUENCY STABILITY RESULTS

LTE Band 12 (Lowest Frequency: QPSK / Highest Frequency: QPSK)

Test Date	2023-06-13
Test Engineer	47989

Limit		699	716	Delta (Hz)	Frequency Stability (ppm)
Condition		F low @ End of OBW	F high @ End of OBW		
Temperature	Voltage	(MHz)	(MHz)		
Normal (20ºC)	Normal	699.1536	715.8460		
Extreme (50ºC)		699.1536	715.8460	22.1	0.031
Extreme (40ºC)		699.1536	715.8460	7.3	0.010
Extreme (30ºC)		699.1536	715.8460	8.9	0.013
Extreme (10ºC)		699.1536	715.8460	23.4	0.033
Extreme (0ºC)		699.1536	715.8460	8.7	0.012
Extreme (-10ºC)		699.1536	715.8460	15.6	0.022
Extreme (-20ºC)		699.1536	715.8460	14.4	0.020
Extreme (-30ºC)		699.1536	715.8460	24.0	0.034
20ºC	15%	699.1536	715.8460	19.0	0.027
	-15%	699.1536	715.8460	15.7	0.022
	End Point	699.1536	715.8460	16.5	0.023

LTE Band 13 (Lowest Frequency: QPSK / Highest Frequency: 16QAM)

Test Date	2023-06-14
Test Engineer	47989

Limit		777	787	Delta (Hz)	Frequency Stability (ppm)
Condition		F low @ End of OBW	F high @ End of OBW		
Temperature	Voltage	(MHz)	(MHz)		
Normal (20ºC)	Normal	777.2547	786.7463		
Extreme (50ºC)		777.2547	786.7463	5.1	0.007
Extreme (40ºC)		777.2547	786.7463	4.8	0.006
Extreme (30ºC)		777.2547	786.7463	15.9	0.020
Extreme (10ºC)		777.2547	786.7463	7.8	0.010
Extreme (0ºC)		777.2547	786.7463	7.4	0.010
Extreme (-10ºC)		777.2547	786.7463	7.0	0.009
Extreme (-20ºC)		777.2547	786.7463	6.0	0.008
Extreme (-30ºC)		777.2547	786.7463	7.6	0.010
20ºC	15%	777.2547	786.7463	8.6	0.011
	-15%	777.2547	786.7463	4.1	0.005
	End Point	777.2547	786.7463	5.5	0.007

LTE Band 41 (Lowest Frequency: QPSK / Highest Frequency: QPSK)

Test Date	2023-06-15
Test Engineer	47989

Limit		2496	2690	Delta (Hz)	Frequency Stability (ppm)
Condition		F low @ End of OBW	F high @ End of OBW		
Temperature	Voltage	(MHz)	(MHz)		
Normal (20ºC)		2496.2509	2689.7522		
Extreme (50ºC)		2496.2509	2689.7522	11.1	0.004
Extreme (40ºC)		2496.2509	2689.7522	13.4	0.005
Extreme (30ºC)		2496.2509	2689.7522	13.5	0.005
Extreme (10ºC)	Normal	2496.2509	2689.7522	13.1	0.005
Extreme (0ºC)		2496.2509	2689.7522	9.3	0.004
Extreme (-10ºC)		2496.2509	2689.7522	11.2	0.004
Extreme (-20ºC)		2496.2509	2689.7522	8.5	0.003
Extreme (-30ºC)		2496.2509	2689.7522	9.1	0.004
	15%	2496.2509	2689.7522	10.1	0.004
20ºC	-15%	2496.2509	2689.7522	11.6	0.004
	End Point	2496.2509	2689.7522	15.4	0.006

LTE Band 66 (Lowest Frequency: 16QAM / Highest Frequency: 16QAM)

Test Date	2023-06-16
Test Engineer	47989

Limit		1710	1780	Delta (Hz)	Frequency Stability (ppm)
Condition		F low @ End of OBW	F high @ End of OBW		
Temperature	Voltage	(MHz)	(MHz)		
Normal (20ºC)		1710.1520	1779.8450		
Extreme (50ºC)		1710.1520	1779.8450	7.4	0.004
Extreme (40ºC)		1710.1520	1779.8450	18.1	0.010
Extreme (30ºC)		1710.1520	1779.8450	20.3	0.012
Extreme (10ºC)	Normal	1710.1520	1779.8450	16.8	0.010
Extreme (0ºC)		1710.1520	1779.8450	8.3	0.005
Extreme (-10ºC)		1710.1520	1779.8450	7.7	0.004
Extreme (-20ºC)		1710.1520	1779.8450	12.1	0.007
Extreme (-30ºC)		1710.1520	1779.8450	6.9	0.004
	15%	1710.1520	1779.8450	17.7	0.010
20ºC	-15%	1710.1520	1779.8450	18.3	0.010
	End Point	1710.1520	1779.8450	21.5	0.012

5G NR Band n41 (Lowest Frequency: 16QAM / Highest Frequency: QPSK)

Test Date	2023-06-20
Test Engineer	47989

Normal (20C)		2496	2690	Delta (Hz)	Frequency Stability (ppm)
Condition		F low @ End of OBW	F high @ End of OBW		
Temperature	Voltage	(MHz)	(MHz)		
Normal (20ºC)	Normal	2496.7113	2689.3000		
Extreme (50ºC)		2496.7113	2689.3000	12.3	0.005
Extreme (40ºC)		2496.7113	2689.3000	6.8	0.003
Extreme (30ºC)		2496.7113	2689.3000	13.6	0.005
Extreme (10ºC)		2496.7113	2689.3000	18.5	0.007
Extreme (0ºC)		2496.7113	2689.3000	5.7	0.002
Extreme (-10ºC)		2496.7113	2689.3000	13.4	0.005
Extreme (-20ºC)		2496.7113	2689.3000	17.5	0.007
Extreme (-30ºC)		2496.7113	2689.3000	19.5	0.008
20ºC	15%	2496.7113	2689.3000	20.2	0.008
	-15%	2496.7113	2689.3000	21.0	0.008
	End Point	2496.7113	2689.3000	16.5	0.006

5G NR Band n66 (Lowest Frequency: 16QAM / Highest Frequency: 16QAM)

Test Date	2023-06-21
Test Engineer	47989

Limit		1710	1780	Delta (Hz)	Frequency Stability (ppm)
Condition		F low @ End of OBW	F high @ End of OBW		
Temperature	Voltage	(MHz)	(MHz)		
Normal (20ºC)	Normal	1710.2588	1779.7413		
Extreme (50ºC)		1710.2603	1779.7428	1549.0	0.888
Extreme (40ºC)		1710.2602	1779.7427	1407.7	0.807
Extreme (30ºC)		1710.2603	1779.7427	1468.6	0.842
Extreme (10ºC)		1710.2603	1779.7428	1533.1	0.879
Extreme (0ºC)		1710.2602	1779.7426	1356.5	0.777
Extreme (-10ºC)		1710.2603	1779.7427	1493.0	0.856
Extreme (-20ºC)		1710.2603	1779.7428	1514.0	0.868
Extreme (-30ºC)		1710.2604	1779.7428	1560.0	0.894
20ºC	15%	1710.2603	1779.7428	1584.0	0.908
	-15%	1710.2602	1779.7428	1523.0	0.873
	End Point	1710.2603	1779.7427	1439.0	0.825

9. RADIATED RESULTS

9.1. RADIATED POWER (ERP & EIRP)

RULE PART(S)

FCC: §2.1046, §27.50

LIMITS

27.50:

(b)(10) Portable stations (hand-held devices) transmitting in the 746-757 MHz, 776-788 MHz, and 805-806 MHz bands are limited to 3 watts ERP.

(c) (10) - Portable stations (hand-held devices) in the 600 MHz uplink band and the 698-746 MHz band, and fixed and mobile stations in the 600 MHz uplink band are limited to 3 watts ERP.

(d)(4) Fixed, mobile, and portable (hand-held) stations operating in the 1710-1755 MHz band and mobile and portable stations operating in the 1695-1710 MHz and 1755-1780 MHz bands are limited to 1 watt EIRP.

(h) The following power limits shall apply in the BRS and EBS:

(2) Mobile stations are limited to 2.0 watts EIRP. All user stations are limited to 2.0 watts transmitter output power.

TEST PROCEDURE

ANSI / TIA / EIA 603 E Clause 2.2.17; ESU40 setting reference to 971168 D01 v03r01

For radiated output power measurement with a ESU40:

a) Set the RBW ≥ OBW;
b) Set VBW ≥ 3 × RBW;
c) Set span ≥ 2 x RBW;
d) Sweep time = auto couple or 1 second;
e) Detector = rms;
f) Ensure that the number of measurement points ≥ span/RBW;
g) Trace Mode = max hold(WCDMA), average(LTE, 5G NR);

NOTE1

5G NR: All Waveforms (CP-OFDM vs DFT-s_OFDM) and modulations (π/2 BPSK, QPSK, 16QAM, 64QAM, 256QAM) were investigated to determine the worst case configuration. All Modes of operation were investigated and the worst case configuration results are reported in this section.

TEST RESULTS

See the following pages.

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9.1.1. ERP/EIRP Results

LTE Band 12 (ANT A+B)

BW (MHz)	Modulation	f (MHz)	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	ERP (mW)	Limit (dBm)	Delta (dB)	RB
10	QPSK	704.00	23.73	V	2.79	-1.34	19.60	91.20	34.77	-15.17	1/0
		707.50	22.36	V	2.79	-1.34	18.23	66.53	34.77	-16.54	1/0
		711.00	22.62	V	2.80	-1.33	18.49	70.63	34.77	-16.28	1/49
	16-QAM	704.00	22.75	V	2.79	-1.34	18.62	72.78	34.77	-16.15	1/0
		707.50	21.05	V	2.79	-1.34	16.92	49.20	34.77	-17.85	1/0
		711.00	21.68	V	2.80	-1.33	17.55	56.92	34.77	-17.22	1/49
5	QPSK	701.50	23.69	V	2.78	-1.35	19.56	90.36	34.77	-15.21	1/12
		707.50	22.48	V	2.79	-1.34	18.35	68.39	34.77	-16.42	1/24
		713.50	23.00	V	2.81	-1.32	18.88	77.27	34.77	-15.89	1/12
	16-QAM	701.50	22.73	V	2.78	-1.35	18.60	72.44	34.77	-16.17	1/12
		707.50	21.29	V	2.79	-1.34	17.16	52.00	34.77	-17.61	1/24
		713.50	21.92	V	2.81	-1.32	17.80	60.26	34.77	-16.97	1/12
3	QPSK	700.50	23.57	V	2.78	-1.35	19.44	87.90	34.77	-15.33	1/8
		707.50	22.21	V	2.79	-1.34	18.08	64.27	34.77	-16.69	1/14
		714.50	22.78	V	2.81	-1.32	18.65	73.28	34.77	-16.12	1/14
	16-QAM	700.50	22.59	V	2.78	-1.35	18.46	70.15	34.77	-16.31	1/8
		707.50	21.11	V	2.79	-1.34	16.98	49.89	34.77	-17.79	1/14
		714.50	21.83	V	2.81	-1.32	17.70	58.88	34.77	-17.07	1/14
1.4	QPSK	699.70	23.47	V	2.78	-1.35	19.34	85.90	34.77	-15.43	1/3
		707.50	22.45	V	2.79	-1.34	18.32	67.92	34.77	-16.45	1/3
		715.30	22.70	V	2.81	-1.32	18.57	71.94	34.77	-16.20	1/3
	16-QAM	699.70	22.27	V	2.78	-1.35	18.14	65.16	34.77	-16.63	1/3
		707.50	21.30	V	2.79	-1.34	17.17	52.12	34.77	-17.60	1/5
		715.30	21.69	V	2.81	-1.32	17.56	57.02	34.77	-17.21	1/3

LTE Band 12 (ANT A)

BW (MHz)	Modulation	f (MHz)	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	ERP (mW)	Limit (dBm)	Delta (dB)	RB
10	QPSK	704.00	21.63	V	2.79	-1.34	17.50	56.23	34.77	-17.27	1/0
		707.50	21.65	V	2.79	-1.34	17.52	56.49	34.77	-17.25	1/49
		711.00	21.56	V	2.80	-1.33	17.43	55.34	34.77	-17.34	1/49
	16-QAM	704.00	20.61	V	2.79	-1.34	16.48	44.46	34.77	-18.29	1/0
		707.50	20.66	V	2.79	-1.34	16.53	44.98	34.77	-18.24	1/0
		711.00	20.66	V	2.80	-1.33	16.53	44.98	34.77	-18.24	1/49
5	QPSK	701.50	21.59	V	2.78	-1.35	17.46	55.72	34.77	-17.31	1/12
		707.50	21.64	V	2.79	-1.34	17.51	56.36	34.77	-17.26	1/24
		713.50	21.70	V	2.81	-1.32	17.58	57.28	34.77	-17.19	1/12
	16-QAM	701.50	20.43	V	2.78	-1.35	16.30	42.66	34.77	-18.47	1/12
		707.50	20.49	V	2.79	-1.34	16.36	43.25	34.77	-18.41	1/24
		713.50	20.77	V	2.81	-1.32	16.65	46.24	34.77	-18.12	1/12
3	QPSK	700.50	21.70	V	2.78	-1.35	17.57	57.15	34.77	-17.20	1/8
		707.50	21.25	V	2.79	-1.34	17.12	51.52	34.77	-17.65	1/14
		714.50	21.52	V	2.81	-1.32	17.39	54.83	34.77	-17.38	1/14
	16-QAM	700.50	20.69	V	2.78	-1.35	16.56	45.29	34.77	-18.21	1/8
		707.50	20.32	V	2.79	-1.34	16.19	41.59	34.77	-18.58	1/14
		714.50	20.52	V	2.81	-1.32	16.39	43.55	34.77	-18.38	1/14
1.4	QPSK	699.70	21.62	V	2.78	-1.35	17.49	56.10	34.77	-17.28	1/3
		707.50	21.58	V	2.79	-1.34	17.45	55.59	34.77	-17.32	1/3
		715.30	21.75	V	2.81	-1.32	17.62	57.81	34.77	-17.15	1/3
	16-QAM	699.70	20.65	V	2.78	-1.35	16.52	44.87	34.77	-18.25	1/3
		707.50	20.38	V	2.79	-1.34	16.25	42.17	34.77	-18.52	1/5
		715.30	20.73	V	2.81	-1.32	16.60	45.71	34.77	-18.17	1/3

LTE Band 13(ANT A+B)

BW (MHz)	Modulation	f (MHz)	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	ERP (mW)	Limit (dBm)	Delta (dB)	RB
10	QPSK	782.00	23.15	V	2.93	-1.19	19.03	79.98	34.77	-15.74	1/0
	16-QAM	782.00	22.12	V	2.93	-1.19	18.00	63.10	34.77	-16.77	1/0
5	QPSK	779.50	23.70	V	2.93	-1.19	19.58	90.78	34.77	-15.19	1/0
		782.00	23.55	V	2.93	-1.19	19.43	87.70	34.77	-15.34	1/0
		784.50	23.90	V	2.94	-1.18	19.78	95.06	34.77	-14.99	1/0
	16-QAM	779.50	22.73	V	2.93	-1.19	18.61	72.61	34.77	-16.16	1/0
		782.00	22.46	V	2.93	-1.19	18.34	68.23	34.77	-16.43	1/0
		784.50	22.82	V	2.94	-1.18	18.70	74.13	34.77	-16.07	1/0

LTE Band 13(ANT A)

BW (MHz)	Modulation	f (MHz)	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	ERP (mW)	Limit (dBm)	Delta (dB)	RB
10	QPSK	782.00	22.13	V	2.93	-1.19	18.01	63.24	34.77	-16.76	1/0
	16-QAM	782.00	21.11	V	2.93	-1.19	16.99	50.00	34.77	-17.78	1/0
5	QPSK	779.50	21.53	V	2.93	-1.19	17.40	54.95	34.77	-17.37	1/0
		782.00	21.99	V	2.93	-1.19	17.87	61.24	34.77	-16.90	1/0
		784.50	22.24	V	2.94	-1.18	18.12	64.86	34.77	-16.65	1/0
	16-QAM	779.50	20.45	V	2.93	-1.19	16.32	42.85	34.77	-18.45	1/0
		782.00	20.92	V	2.93	-1.19	16.80	47.86	34.77	-17.97	1/0
		784.50	21.20	V	2.94	-1.18	17.08	51.05	34.77	-17.69	1/0

LTE Band 41 (ANT B)

BW (MHz)	Modulation	f (MHz)	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	EIRP (mW)	Limit (dBm)	Delta (dB)	RB
20	QPSK	2506.00	17.49	H	5.25	10.07	22.23	167.11	33.00	-10.69	1/99
		2593.00	19.75	H	5.34	9.97	24.38	274.16	33.00	-8.62	1/99
		2680.00	19.00	H	5.43	10.04	23.61	229.61	33.00	-9.39	1/99
	16-QAM	2506.00	16.92	H	5.25	10.07	21.74	149.28	33.00	-11.26	1/49
		2593.00	19.36	H	5.34	9.97	23.99	250.61	33.00	-9.01	1/99
		2680.00	18.57	H	5.43	10.04	23.18	207.97	33.00	-9.82	1/99
15	QPSK	2503.50	17.43	H	5.24	10.07	22.26	168.27	33.00	-10.74	1/37
		2593.00	19.65	H	5.34	9.97	24.28	267.92	33.00	-8.72	1/37
		2682.50	19.24	H	5.43	10.05	23.86	243.22	33.00	-9.14	1/37
	16-QAM	2503.50	16.80	H	5.24	10.07	21.63	145.55	33.00	-11.37	1/0
		2593.00	18.88	H	5.34	9.97	23.51	224.39	33.00	-9.49	1/74
		2682.50	18.67	H	5.43	10.05	23.29	213.30	33.00	-9.71	1/37
10	QPSK	2501.00	17.86	H	5.24	10.07	22.70	186.21	33.00	-10.30	1/0
		2593.00	19.79	H	5.34	9.97	24.42	276.69	33.00	-8.58	1/25
		2685.00	19.25	H	5.43	10.05	23.87	243.78	33.00	-9.13	1/49
	16-QAM	2501.00	17.13	H	5.24	10.07	21.97	157.40	33.00	-11.03	1/49
		2593.00	19.00	H	5.34	9.97	23.63	230.67	33.00	-9.37	1/25
		2685.00	18.73	H	5.43	10.05	23.35	216.27	33.00	-9.65	1/25
5	QPSK	2498.50	18.54	H	5.23	10.07	23.38	217.77	33.00	-9.62	1/0
		2593.00	19.88	H	5.34	9.97	24.51	282.49	33.00	-8.49	1/24
		2687.50	18.45	H	5.44	10.06	23.07	202.77	33.00	-9.93	1/12
	16-QAM	2498.50	17.97	H	5.23	10.07	22.81	190.99	33.00	-10.19	1/0
		2593.00	19.02	H	5.34	9.97	23.65	231.74	33.00	-9.35	1/24
		2687.50	17.88	H	5.44	10.06	22.50	177.83	33.00	-10.50	1/12

LTE Band 41 (ANT F)

BW (MHz)	Modulation	f (MHz)	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	EIRP (mW)	Limit (dBm)	Delta (dB)	RB
20	QPSK	2506.00	16.06	H	5.25	9.99	20.80	120.23	33.00	-12.20	1/99
		2593.00	16.29	H	5.34	9.91	20.87	122.18	33.00	-12.13	1/99
		2680.00	13.69	H	5.43	9.87	18.13	65.01	33.00	-14.87	1/99
	16-QAM	2506.00	15.35	H	5.25	9.99	20.09	102.09	33.00	-12.91	1/99
		2593.00	15.52	H	5.34	9.91	20.10	102.33	33.00	-12.90	1/49
		2680.00	13.06	H	5.43	9.87	17.50	56.23	33.00	-15.50	1/99
15	QPSK	2503.50	16.05	H	5.24	9.99	20.80	120.23	33.00	-12.20	1/74
		2593.00	16.32	H	5.34	9.91	20.90	123.03	33.00	-12.10	1/74
		2682.50	14.04	H	5.43	9.87	18.49	70.63	33.00	-14.51	1/37
	16-QAM	2503.50	15.35	H	5.24	9.99	20.10	102.33	33.00	-12.90	1/37
		2593.00	15.84	H	5.34	9.91	20.42	110.15	33.00	-12.58	1/74
		2682.50	13.60	H	5.43	9.87	18.05	63.83	33.00	-14.95	1/0
10	QPSK	2501.00	16.62	H	5.24	10.00	21.37	137.09	33.00	-11.63	1/25
		2593.00	16.74	H	5.34	9.91	21.32	135.52	33.00	-11.68	1/25
		2685.00	14.01	H	5.43	9.87	18.45	69.98	33.00	-14.55	1/49
	16-QAM	2501.00	16.32	H	5.24	10.00	21.07	127.94	33.00	-11.93	1/0
		2593.00	15.56	H	5.34	9.91	20.14	103.28	33.00	-12.86	1/49
		2685.00	13.32	H	5.43	9.87	17.76	59.70	33.00	-15.24	1/49
5	QPSK	2498.50	16.73	H	5.23	10.00	21.50	141.25	33.00	-11.50	1/12
		2593.00	16.83	H	5.34	9.91	21.41	138.36	33.00	-11.59	1/12
		2687.50	14.14	H	5.44	9.87	18.57	71.94	33.00	-14.43	1/0
	16-QAM	2498.50	16.03	H	5.23	10.00	20.80	120.23	33.00	-12.20	1/12
		2593.00	16.37	H	5.34	9.91	20.95	124.45	33.00	-12.05	1/12
		2687.50	13.30	H	5.44	9.87	17.73	59.29	33.00	-15.27	1/24

LTE Band 66 (ANT B)

BW (MHz)	Modulation	f (MHz)	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	EIRP (mW)	Limit (dBm)	Delta (dB)	RB
20	QPSK	1720.00	17.95	H	4.32	9.55	23.18	207.97	30.00	-6.82	1/99
		1745.00	18.34	H	4.35	9.66	23.65	231.74	30.00	-6.35	1/0
		1770.00	17.22	H	4.38	9.68	22.52	178.65	30.00	-7.48	1/49
	16-QAM	1720.00	17.32	H	4.32	9.55	22.55	179.89	30.00	-7.45	1/0
		1745.00	16.89	H	4.35	9.66	22.20	165.96	30.00	-7.80	1/49
		1770.00	16.53	H	4.38	9.68	21.83	152.41	30.00	-8.17	1/49
15	QPSK	1717.50	19.07	H	4.31	9.53	24.29	268.53	30.00	-5.71	1/74
		1745.00	18.13	H	4.35	9.66	23.44	220.80	30.00	-6.56	1/74
		1772.50	16.92	H	4.38	9.68	22.22	166.72	30.00	-7.78	1/37
	16-QAM	1717.50	18.45	H	4.31	9.53	23.67	232.81	30.00	-6.33	1/74
		1745.00	17.63	H	4.35	9.66	22.94	196.79	30.00	-7.06	1/0
		1772.50	16.31	H	4.38	9.68	21.61	144.88	30.00	-8.39	1/37
10	QPSK	1715.00	19.00	H	4.31	9.52	24.21	263.63	30.00	-5.79	1/0
		1745.00	18.27	H	4.35	9.66	23.58	228.03	30.00	-6.42	1/0
		1775.00	16.74	H	4.38	9.68	22.04	159.96	30.00	-7.96	1/25
	16-QAM	1715.00	18.38	H	4.31	9.52	23.59	228.56	30.00	-6.41	1/0
		1745.00	17.07	H	4.35	9.66	22.38	172.98	30.00	-7.62	1/25
		1775.00	15.98	H	4.38	9.68	21.28	134.28	30.00	-8.72	1/49
5	QPSK	1712.50	18.59	H	4.31	9.51	23.79	239.33	30.00	-6.21	1/0
		1745.00	17.81	H	4.35	9.66	23.12	205.12	30.00	-6.88	1/12
		1777.50	17.17	H	4.39	9.68	22.46	176.20	30.00	-7.54	1/0
	16-QAM	1712.50	18.10	H	4.31	9.51	23.30	213.80	30.00	-6.70	1/0
		1745.00	17.09	H	4.35	9.66	22.40	173.78	30.00	-7.60	1/12
		1777.50	16.42	H	4.39	9.68	21.71	148.25	30.00	-8.29	1/12
3	QPSK	1711.50	18.52	H	4.31	9.51	23.72	235.50	30.00	-6.28	1/0
		1745.00	18.17	H	4.35	9.66	23.48	222.84	30.00	-6.52	1/8
		1778.50	17.15	H	4.39	9.68	22.44	175.39	30.00	-7.56	1/8
	16-QAM	1711.50	18.08	H	4.31	9.51	23.28	212.81	30.00	-6.72	1/0
		1745.00	17.28	H	4.35	9.66	22.59	181.55	30.00	-7.41	1/8
		1778.50	16.51	H	4.39	9.68	21.80	151.36	30.00	-8.20	1/8
1.4	QPSK	1710.70	17.67	H	4.31	9.50	22.87	193.64	30.00	-7.13	1/0
		1745.00	17.77	H	4.35	9.66	23.08	203.24	30.00	-6.92	1/0
		1779.30	17.12	H	4.39	9.68	22.41	174.18	30.00	-7.59	1/0
	16-QAM	1710.70	17.27	H	4.31	9.50	22.47	176.60	30.00	-7.53	1/0
		1745.00	16.97	H	4.35	9.66	22.28	169.04	30.00	-7.72	1/3
		1779.30	16.40	H	4.39	9.68	21.69	147.57	30.00	-8.31	1/3

5G NR n41(ANT B)

BW (MHz)	Modulation	f (MHz)	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	EIRP (mW)	Limit (dBm)	Delta (dB)	RB
100	QPSK	2546.01	16.34	V	5.29	9.91	20.96	124.74	33.00	-12.04	1/271
		2592.99	17.64	V	5.34	9.91	22.22	166.72	33.00	-10.78	1/271
		2640.00	17.28	V	5.39	9.88	21.76	149.97	33.00	-11.24	1/137
	16-QAM	2546.01	15.35	V	5.29	9.91	19.97	99.31	33.00	-13.03	1/271
		2592.99	16.79	V	5.34	9.91	21.37	137.09	33.00	-11.63	1/271
		2640.00	16.54	V	5.39	9.88	21.02	126.47	33.00	-11.98	1/137
90	QPSK	2541.00	16.29	V	5.28	9.92	20.93	123.88	33.00	-12.07	1/243
		2592.99	17.60	V	5.34	9.91	22.18	165.20	33.00	-10.82	1/243
		2644.98	17.84	V	5.40	9.87	22.32	170.61	33.00	-10.68	1/123
	16-QAM	2541.00	15.57	V	5.28	9.92	20.21	104.95	33.00	-12.79	1/243
		2592.99	16.60	V	5.34	9.91	21.18	131.22	33.00	-11.82	1/243
		2644.98	16.74	V	5.40	9.87	21.22	132.43	33.00	-11.78	1/123
80	QPSK	2536.02	16.00	V	5.28	9.93	20.66	116.41	33.00	-12.34	1/215
		2592.99	16.81	V	5.34	9.91	21.39	137.72	33.00	-11.61	1/215
		2649.99	17.53	V	5.41	9.87	21.99	158.12	33.00	-11.01	1/109
	16-QAM	2536.02	15.20	V	5.28	9.93	19.86	96.83	33.00	-13.14	1/215
		2592.99	15.97	V	5.34	9.91	20.55	113.50	33.00	-12.45	1/215
		2649.99	16.50	V	5.41	9.87	20.96	124.74	33.00	-12.04	1/109
70	QPSK	2531.01	15.94	V	5.28	9.94	20.61	115.08	33.00	-12.39	1/95
		2593.99	16.95	V	5.34	9.91	21.53	142.23	33.00	-11.47	1/188
		2655.00	16.82	V	5.41	9.87	21.28	134.28	33.00	-11.72	1/1
	16-QAM	2531.01	14.98	V	5.28	9.94	19.65	92.26	33.00	-13.35	1/95
		2593.99	15.99	V	5.34	9.91	20.57	114.02	33.00	-12.43	1/188
		2655.00	15.81	V	5.41	9.87	20.27	106.41	33.00	-12.73	1/1
60	QPSK	2526.00	15.78	V	5.27	9.95	20.47	111.43	33.00	-12.53	1/81
		2592.99	16.97	V	5.34	9.91	21.55	142.89	33.00	-11.45	1/160
		2659.98	17.85	V	5.41	9.87	22.31	170.22	33.00	-10.69	1/81
	16-QAM	2526.00	15.33	V	5.27	9.95	20.02	100.46	33.00	-12.98	1/81
		2592.99	16.29	V	5.34	9.91	20.87	122.18	33.00	-12.13	1/160
		2659.98	17.09	V	5.41	9.87	21.55	142.89	33.00	-11.45	1/81
50	QPSK	2521.02	15.90	V	5.26	9.96	20.60	114.82	33.00	-12.40	1/67
		2592.99	16.99	V	5.34	9.91	21.57	143.55	33.00	-11.43	1/131
		2664.99	17.71	V	5.42	9.87	22.16	164.44	33.00	-10.84	1/1
	16-QAM	2521.02	14.79	V	5.26	9.96	19.49	88.92	33.00	-13.51	1/67
		2592.99	15.93	V	5.34	9.91	20.51	112.46	33.00	-12.49	1/131
		2664.99	16.83	V	5.42	9.87	21.28	134.28	33.00	-11.72	1/1
40	QPSK	2516.01	15.97	V	5.26	9.97	20.68	116.95	33.00	-12.32	1/104
		2592.99	16.52	V	5.34	9.91	21.10	128.82	33.00	-11.90	1/104
		2670.00	15.66	V	5.43	9.87	20.10	102.33	33.00	-12.90	1/104
	16-QAM	2516.01	15.10	V	5.26	9.97	19.81	95.72	33.00	-13.19	1/104
		2592.99	15.49	V	5.34	9.91	20.07	101.62	33.00	-12.93	1/104
		2670.00	14.71	V	5.43	9.87	19.15	82.22	33.00	-13.85	1/104
30	QPSK	2511.00	15.99	V	5.25	9.98	20.72	118.03	33.00	-12.28	1/39
		2592.99	17.15	V	5.34	9.91	21.73	148.94	33.00	-11.27	1/76
		2674.98	17.85	V	5.43	9.87	22.30	169.82	33.00	-10.70	1/1
	16-QAM	2511.00	15.00	V	5.25	9.98	19.73	93.97	33.00	-13.27	1/39
		2592.99	16.27	V	5.34	9.91	20.85	121.62	33.00	-12.15	1/76
		2674.98	16.81	V	5.43	9.87	21.26	133.66	33.00	-11.74	1/1
20	QPSK	2506.02	16.06	V	5.25	9.99	20.80	120.23	33.00	-12.20	1/1
		2592.99	16.91	V	5.34	9.91	21.49	140.93	33.00	-11.51	1/1
		2679.99	17.80	V	5.43	9.87	22.24	167.49	33.00	-10.76	1/1
	16-QAM	2506.02	14.94	V	5.25	9.99	19.68	92.90	33.00	-13.32	1/1
		2592.99	16.09	V	5.34	9.91	20.67	116.68	33.00	-12.33	1/1
		2679.99	16.80	V	5.43	9.87	21.24	133.05	33.00	-11.76	1/1
15	QPSK	2503.50	15.91	V	5.24	9.99	20.66	116.41	33.00	-12.34	1/36
		2592.99	16.89	V	5.34	9.91	21.47	140.28	33.00	-11.53	1/36
		2682.50	17.78	V	5.43	9.87	22.22	166.72	33.00	-10.78	1/1
	16-QAM	2503.50	14.99	V	5.24	9.99	19.74	94.19	33.00	-13.26	1/36
		2592.99	15.88	V	5.34	9.91	20.46	111.17	33.00	-12.54	1/36
		2682.48	16.78	V	5.43	9.87	21.22	132.43	33.00	-11.78	1/1
10	QPSK	2501.01	15.68	V	5.24	10.00	20.44	110.66	33.00	-12.56	1/22
		2592.99	16.90	V	5.34	9.91	21.48	140.60	33.00	-11.52	1/12
		2685.00	17.53	V	5.43	9.87	21.97	157.40	33.00	-11.03	1/1
	16-QAM	2501.01	14.75	V	5.24	10.00	19.51	89.33	33.00	-13.49	1/22
		2592.99	16.06	V	5.34	9.91	20.64	115.88	33.00	-12.36	1/12
		2685.00	16.52	V	5.43	9.87	20.96	124.74	33.00	-12.04	1/1

5G NR n41(ANT F)

BW (MHz)	Modulation	f (MHz)	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	EIRP (mW)	Limit (dBm)	Delta (dB)	RB
100	QPSK	2546.01	17.10	H	5.29	9.91	21.72	148.59	33.00	-11.28	1/37
		2592.99	17.16	H	5.34	9.91	21.74	149.28	33.00	-11.26	1/1
		2640.00	17.03	H	5.39	9.88	21.52	141.91	33.00	-11.48	1/1
	16-QAM	2546.01	16.27	H	5.29	9.91	20.89	122.74	33.00	-12.11	1/37
		2592.99	16.33	H	5.34	9.91	20.91	123.31	33.00	-12.09	1/1
		2640.00	15.97	H	5.39	9.88	20.46	111.17	33.00	-12.54	1/1
90	QPSK	2541.00	17.09	H	5.28	9.92	21.73	148.94	33.00	-11.27	1/243
		2592.99	17.07	H	5.34	9.91	21.65	146.22	33.00	-11.35	1/1
		2644.98	16.51	H	5.40	9.87	20.99	125.60	33.00	-12.01	1/1
	16-QAM	2541.00	16.14	H	5.28	9.92	20.78	119.67	33.00	-12.22	1/243
		2592.99	16.19	H	5.34	9.91	20.77	119.40	33.00	-12.23	1/1
		2644.98	15.65	H	5.40	9.87	20.13	103.04	33.00	-12.87	1/1
80	QPSK	2536.02	17.02	H	5.28	9.93	21.68	147.23	33.00	-11.32	1/215
		2592.99	17.15	H	5.34	9.91	21.73	148.94	33.00	-11.27	1/1
		2649.99	16.05	H	5.41	9.87	20.51	112.46	33.00	-12.49	1/1
	16-QAM	2536.02	16.05	H	5.28	9.93	20.71	117.76	33.00	-12.29	1/215
		2592.99	16.18	H	5.34	9.91	20.76	119.12	33.00	-12.24	1/1
		2649.99	15.07	H	5.41	9.87	19.53	89.74	33.00	-13.47	1/1
70	QPSK	2531.01	17.10	H	5.28	9.94	21.77	150.31	33.00	-11.23	1/95
		2593.99	17.34	H	5.34	9.91	21.82	152.05	33.00	-11.08	1/1
		2655.00	15.70	H	5.41	9.87	20.16	103.75	33.00	-12.84	1/1
	16-QAM	2531.01	16.10	H	5.28	9.94	20.77	119.40	33.00	-12.23	1/95
		2593.99	16.34	H	5.34	9.91	20.92	123.59	33.00	-12.08	1/1
		2655.00	14.85	H	5.41	9.87	19.31	85.31	33.00	-13.69	1/1
60	QPSK	2526.00	16.91	H	5.27	9.95	21.60	144.54	33.00	-11.40	1/160
		2592.99	17.24	H	5.34	9.91	21.82	152.05	33.00	-11.18	1/1
		2659.98	15.27	H	5.41	9.87	19.72	93.76	33.00	-13.28	1/1
	16-QAM	2526.00	15.94	H	5.27	9.95	20.63	115.61	33.00	-12.37	1/160
		2592.99	16.24	H	5.34	9.91	20.82	120.78	33.00	-12.18	1/1
		2659.98	14.53	H	5.41	9.87	18.98	79.07	33.00	-14.02	1/1
50	QPSK	2521.02	16.91	H	5.26	9.96	21.61	144.88	33.00	-11.39	1/131
		2592.99	17.14	H	5.34	9.91	21.72	148.59	33.00	-11.28	1/1
		2664.99	13.32	H	5.42	9.87	17.76	59.70	33.00	-15.24	1/131
	16-QAM	2521.02	15.92	H	5.26	9.96	20.62	115.35	33.00	-12.38	1/131
		2592.99	16.05	H	5.34	9.91	20.63	115.61	33.00	-12.37	1/1
		2664.99	12.21	H	5.42	9.87	16.65	46.24	33.00	-16.35	1/131
40	QPSK	2516.01	17.01	H	5.26	9.97	21.72	148.59	33.00	-11.28	1/104
		2592.99	17.39	H	5.34	9.91	21.97	157.40	33.00	-11.03	1/1
		2670.00	13.80	H	5.43	9.87	18.25	66.83	33.00	-14.75	1/1
	16-QAM	2516.01	16.07	H	5.26	9.97	20.78	119.67	33.00	-12.22	1/104
		2592.99	16.47	H	5.34	9.91	21.05	127.35	33.00	-11.95	1/1
		2670.00	12.95	H	5.43	9.87	17.40	54.95	33.00	-15.60	1/1
30	QPSK	2511.00	16.95	H	5.25	9.98	21.67	146.89	33.00	-11.33	1/1
		2592.99	17.16	H	5.34	9.91	21.74	149.28	33.00	-11.26	1/1
		2674.98	13.54	H	5.43	9.87	17.99	62.95	33.00	-15.01	1/1
	16-QAM	2511.00	15.82	H	5.25	9.98	20.54	113.24	33.00	-12.46	1/1
		2592.99	16.40	H	5.34	9.91	20.97	125.03	33.00	-12.02	1/1
		2674.98	12.35	H	5.43	9.87	16.80	47.86	33.00	-16.20	1/1
20	QPSK	2506.02	16.79	H	5.25	9.99	21.53	142.23	33.00	-11.47	1/49
		2592.99	17.12	H	5.34	9.91	21.70	147.91	33.00	-11.30	1/1
		2679.99	13.23	H	5.43	9.87	17.67	58.48	33.00	-15.33	1/49
	16-QAM	2506.02	15.83	H	5.25	9.99	20.57	114.02	33.00	-12.43	1/49
		2592.99	16.23	H	5.34	9.91	20.81	120.50	33.00	-12.19	1/1
		2679.99	12.20	H	5.43	9.87	16.64	46.13	33.00	-16.36	1/49
15	QPSK	2503.50	16.79	H	5.24	9.99	21.54	142.56	33.00	-11.46	1/36
		2592.99	17.00	H	5.34	9.91	21.58	143.88	33.00	-11.42	1/1
		2682.50	13.24	H	5.43	9.87	17.69	58.75	33.00	-15.31	1/19
	16-QAM	2503.50	15.74	H	5.24	9.99	20.49	111.94	33.00	-12.51	1/36
		2592.99	15.94	H	5.34	9.91	20.52	112.72	33.00	-12.48	1/1
		2682.48	12.23	H	5.43	9.87	16.68	46.56	33.00	-16.32	1/19
10	QPSK	2501.01	16.57	H	5.24	10.00	21.32	135.52	33.00	-11.68	1/22
		2592.99	16.81	H	5.34	9.91	21.39	137.72	33.00	-11.61	1/1
		2685.00	13.43	H	5.43	9.87	17.87	61.24	33.00	-15.13	1/1
	16-QAM	2501.01	15.76	H	5.24	10.00	20.51	112.46	33.00	-12.49	1/22
		2592.99	16.15	H	5.34	9.91	20.73	118.30	33.00	-12.27	1/1
		2685.00	12.66	H	5.43	9.87	17.10	51.29	33.00	-15.90	1/1

5G NR n66 (ANT B)

BW (MHz)	Modulation	f (MHz)	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	EIRP (mW)	Limit (dBm)	Delta (dB)	RB
40	QPSK	1730.00	17.54	H	4.33	9.59	22.80	190.55	30.00	-7.20	1/214
		1745.00	17.25	H	4.35	9.66	22.56	180.30	30.00	-7.44	1/108
		1760.00	16.10	H	4.37	9.68	21.42	138.68	30.00	-8.58	1/1
	16-QAM	1730.00	16.53	H	4.33	9.59	21.79	151.01	30.00	-8.21	1/214
		1745.00	16.57	H	4.35	9.66	21.88	154.17	30.00	-8.12	1/108
		1760.00	15.41	H	4.37	9.68	20.73	118.30	30.00	-9.27	1/1
30	QPSK	1725.00	17.26	H	4.32	9.57	22.51	178.24	30.00	-7.49	1/80
		1745.00	17.34	H	4.35	9.66	22.65	184.08	30.00	-7.35	1/80
		1765.00	17.67	H	4.37	9.68	22.98	198.61	30.00	-7.02	1/80
	16-QAM	1725.00	16.14	H	4.32	9.57	21.39	137.72	30.00	-8.61	1/80
		1745.00	16.70	H	4.35	9.66	22.01	158.85	30.00	-7.99	1/80
		1765.00	16.95	H	4.37	9.68	22.26	168.27	30.00	-7.74	1/80
25	QPSK	1722.50	15.40	H	4.32	9.56	20.64	115.88	30.00	-9.36	1/67
		1745.00	15.38	H	4.35	9.66	20.69	117.22	30.00	-9.31	1/67
		1767.50	15.35	H	4.38	9.68	20.65	116.14	30.00	-9.35	1/1
	16-QAM	1722.50	14.84	H	4.32	9.56	20.08	101.86	30.00	-9.92	1/67
		1745.00	14.38	H	4.35	9.66	19.69	93.11	30.00	-10.31	1/67
		1767.50	14.62	H	4.38	9.68	19.92	98.17	30.00	-10.08	1/1
20	QPSK	1720.00	15.54	H	4.32	9.55	20.77	119.40	30.00	-9.23	1/53
		1745.00	15.52	H	4.35	9.66	20.83	121.06	30.00	-9.17	1/53
		1770.00	15.36	H	4.38	9.68	20.66	116.41	30.00	-9.34	1/53
	16-QAM	1720.00	14.57	H	4.32	9.55	19.80	95.50	30.00	-10.20	1/53
		1745.00	14.93	H	4.35	9.66	20.24	105.68	30.00	-9.76	1/53
		1770.00	14.29	H	4.38	9.68	19.59	90.99	30.00	-10.41	1/53
15	QPSK	1717.50	15.23	H	4.31	9.53	20.45	110.92	30.00	-9.55	1/77
		1745.00	15.43	H	4.35	9.66	20.74	118.58	30.00	-9.26	1/40
		1772.50	15.28	H	4.38	9.68	20.58	114.29	30.00	-9.42	1/77
	16-QAM	1717.50	13.95	H	4.31	9.53	19.17	82.60	30.00	-10.83	1/77
		1745.00	14.59	H	4.35	9.66	19.90	97.72	30.00	-10.10	1/40
		1772.50	13.99	H	4.38	9.68	19.29	84.92	30.00	-10.71	1/77
10	QPSK	1715.00	14.94	H	4.31	9.52	20.15	103.51	30.00	-9.85	1/26
		1745.00	15.46	H	4.35	9.66	20.78	119.67	30.00	-9.22	1/50
		1775.00	14.27	H	4.38	9.68	19.57	90.57	30.00	-10.43	1/1
	16-QAM	1715.00	13.90	H	4.31	9.52	19.11	81.47	30.00	-10.89	1/26
		1745.00	14.48	H	4.35	9.66	19.79	95.28	30.00	-10.21	1/50
		1775.00	13.57	H	4.38	9.68	18.87	77.09	30.00	-11.13	1/1
5	QPSK	1712.50	15.86	H	4.31	9.51	21.06	127.64	30.00	-8.94	1/13
		1745.00	15.28	H	4.35	9.66	20.59	114.55	30.00	-9.41	1/13
		1777.50	14.24	H	4.39	9.68	19.53	89.74	30.00	-10.47	1/1
	16-QAM	1712.50	14.97	H	4.31	9.51	20.18	104.23	30.00	-9.82	1/13
		1745.00	14.43	H	4.35	9.66	19.74	94.19	30.00	-10.26	1/13
		1777.50	13.26	H	4.39	9.68	18.55	71.61	30.00	-11.45	1/1

9.2. RADIATIED SPURIOUS EMISSION

RULE PART(S)

FCC: §2.1053, §27. 53

LIMIT

Part 27.53(h) The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least 43 + 10 log (P) dB.

Part 27.53:
(c)(2) On any frequency outside the 776-788 MHz band, the power of any emission shall be attenuated outside the band below the transmitter power (P) by at least 43 + 10 log (P) dB.

(g) For operations in the 600 MHz band and the 698-746 MHz band, the power of any emission outside a licensee's frequency band(s) of operation shall be attenuated below the transmitter power (P) within the licensed band(s) of operation, measured in watts, by at least 43 + 10 log (P) dB.

(h) The power of any emission outside a licensee's frequency block shall be attenuated below the transmitter power (P) in watts by at least $43 + 10 \log_{10}$ (P) dB.

(m) (4) For mobile digital stations, the attenuation factor shall be not less than 40 + 10 log (P) dB on all frequencies between the channel edge and 5 megahertz from the channel edge, 43 + 10 log (P) dB on all frequencies between 5 megahertz and X megahertz from the channel edge, and 55 + 10 log (P) dB on all frequencies more than X megahertz from the channel edge, where X is the greater of 6 megahertz or the actual emission bandwidth as defined in paragraph (m)(6) of this section. In addition, the attenuation factor shall not be less that 43 + 10 log (P) dB on all frequencies between 2490.5 MHz and 2496 MHz and 55 + 10 log (P) dB at or below 2490.5 MHz. Mobile Satellite Service licensees operating on frequencies below 2495 MHz may also submit a documented interference complaint against BRS licensees operating on channel BRS Channel 1 on the same terms and conditions as adjacent channel BRS or EBS licensees.

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TEST PROCEDURE

ANSI / TIA / EIA 603 E Clause 2.2.12; ESU40 setting reference to 971168 D01 v03r01

For peak power measurement with a ESU40:

a) Set the RBW = 100 kHz for emission below 1 GHz and 1 MHz for emissions above 1 GHz
b) Set VBW ≥ 3 × RBW;
c) Set span ≥ 1.5 times the OBW;
d) Sweep time = auto couple;
e) Detector = rms;
f) Ensure that the number of measurement points ≥ span/RBW;
g) Trace Mode = average(WCDMA, LTE FDD, 5G NR FDD), Maxhold(LTE TDD, 5G NR TDD);

NOTE1

5G NR: All Waveforms (CP-OFDM vs DFT-s_OFDM) and modulations (π/2 BPSK, QPSK, 16QAM, 64QAM, 256QAM) 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.

NOTE2

Please refer to section 5.4 for bandwidth and RB setting about LTE, 5G NR bands.

RESULTS

See the following pages.

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