

LTE Band 2 (ANT F)

BW (MHz)	Modulation	Frequency (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	1860.00	17.25	V	4.51	9.39	22.13	163.31	33.00	-10.87	1/99
		1880.00	17.53	V	4.53	9.20	22.20	165.96	33.00	-10.80	1/49
		1900.00	17.53	V	4.55	9.01	21.99	158.12	33.00	-11.01	1/0
	16-QAM	1860.00	16.48	V	4.51	9.39	21.36	136.77	33.00	-11.64	1/99
		1880.00	16.81	V	4.53	9.20	21.48	140.60	33.00	-11.52	1/49
		1900.00	16.85	V	4.55	9.01	21.31	135.21	33.00	-11.69	1/0
15	QPSK	1857.50	17.07	V	4.50	9.41	21.98	157.76	33.00	-11.02	1/74
		1880.00	17.47	V	4.53	9.20	22.14	163.68	33.00	-10.86	1/74
		1902.50	17.68	V	4.56	8.97	22.10	162.18	33.00	-10.90	1/0
	16-QAM	1857.50	16.55	V	4.50	9.41	21.46	139.96	33.00	-11.54	1/74
		1880.00	16.96	V	4.53	9.20	21.63	145.55	33.00	-11.37	1/37
		1902.50	16.63	V	4.56	8.97	21.05	127.35	33.00	-11.95	1/37
10	QPSK	1855.00	16.93	V	4.50	9.43	21.86	153.46	33.00	-11.14	1/49
		1880.00	17.39	V	4.53	9.20	22.06	160.69	33.00	-10.94	1/0
		1905.00	17.70	V	4.56	8.93	22.07	161.06	33.00	-10.93	1/0
	16-QAM	1855.00	16.13	V	4.50	9.43	21.06	127.64	33.00	-11.94	1/0
		1880.00	17.19	V	4.53	9.20	21.86	153.46	33.00	-11.14	1/0
		1905.00	17.02	V	4.56	8.93	21.39	137.72	33.00	-11.61	1/49
5	QPSK	1852.50	16.82	V	4.50	9.46	21.78	150.66	33.00	-11.22	1/24
		1880.00	17.37	V	4.53	9.20	22.04	159.96	33.00	-10.96	1/24
		1907.50	17.67	V	4.56	8.89	22.00	158.49	33.00	-11.00	1/24
	16-QAM	1852.50	16.38	V	4.50	9.46	21.34	136.14	33.00	-11.66	1/12
		1880.00	16.99	V	4.53	9.20	21.66	146.55	33.00	-11.34	1/24
		1907.50	16.95	V	4.56	8.89	21.28	134.28	33.00	-11.72	1/24
3	QPSK	1851.50	16.61	V	4.50	9.47	21.58	143.88	33.00	-11.42	1/8
		1880.00	17.47	V	4.53	9.20	22.14	163.68	33.00	-10.86	1/0
		1908.50	17.76	V	4.56	8.88	22.08	161.44	33.00	-10.92	1/0
	16-QAM	1851.50	16.07	V	4.50	9.47	21.04	127.06	33.00	-11.96	1/0
		1880.00	17.17	V	4.53	9.20	21.84	152.76	33.00	-11.16	1/8
		1908.50	16.89	V	4.56	8.88	21.21	132.13	33.00	-11.79	1/14
1.4	QPSK	1850.70	16.66	V	4.50	9.48	21.64	145.88	33.00	-11.36	1/3
		1880.00	17.41	V	4.53	9.20	22.08	161.44	33.00	-10.92	1/0
		1909.30	17.69	V	4.57	8.87	21.99	158.12	33.00	-11.01	1/5
	16-QAM	1850.70	15.79	V	4.50	9.48	20.77	119.40	33.00	-12.23	1/5
		1880.00	17.16	V	4.53	9.20	21.83	152.41	33.00	-11.17	1/3
		1909.30	16.90	V	4.57	8.87	21.20	131.83	33.00	-11.80	1/5
20	QPSK	1860.00	16.13	V	4.51	9.39	21.01	126.18	33.00	-11.99	100/0
		1880.00	16.43	V	4.53	9.20	21.10	128.82	33.00	-11.90	100/0
		1900.00	16.60	V	4.56	8.93	20.97	125.03	33.00	-12.03	100/0
10	16-QAM	1855.00	15.15	V	4.50	9.43	20.08	101.86	33.00	-12.92	50/0
		1880.00	16.12	V	4.53	9.20	20.79	119.95	33.00	-12.21	50/0
		1905.00	16.15	V	4.56	8.93	20.52	112.72	33.00	-12.48	50/0

LTE Band 25 (ANT B)

BW (MHz)	Modulation	Frequency (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	1860.00	19.29	V	4.51	9.39	24.17	261.22	33.00	-8.83	1/49
		1882.50	19.68	V	4.53	9.17	24.32	270.40	33.00	-8.68	1/0
		1905.00	20.10	V	4.56	8.93	24.47	279.90	33.00	-8.53	1/0
	16-QAM	1860.00	18.63	V	4.51	9.39	23.51	224.39	33.00	-9.49	1/49
		1882.50	18.71	V	4.53	9.17	23.35	216.27	33.00	-9.65	1/49
		1905.00	19.03	V	4.56	8.93	23.40	218.78	33.00	-9.60	1/49
15	QPSK	1857.50	19.04	V	4.50	9.41	23.95	248.31	33.00	-9.05	1/74
		1882.50	19.65	V	4.53	9.17	24.29	268.53	33.00	-8.71	1/74
		1907.50	20.19	V	4.56	8.89	24.52	283.14	33.00	-8.48	1/0
	16-QAM	1857.50	18.60	V	4.50	9.41	23.51	224.39	33.00	-9.49	1/74
		1882.50	18.81	V	4.53	9.17	23.45	221.31	33.00	-9.55	1/74
		1907.50	19.26	V	4.56	8.89	23.59	228.56	33.00	-9.41	1/37
10	QPSK	1855.00	19.10	V	4.50	9.43	24.03	252.93	33.00	-8.97	1/0
		1882.50	19.62	V	4.53	9.17	24.26	266.69	33.00	-8.74	1/0
		1910.00	20.16	V	4.57	8.85	24.45	278.61	33.00	-8.55	1/0
	16-QAM	1855.00	18.54	V	4.50	9.43	23.47	222.33	33.00	-9.53	1/49
		1882.50	18.59	V	4.53	9.17	23.23	210.38	33.00	-9.77	1/49
		1910.00	19.26	V	4.57	8.85	23.55	226.46	33.00	-9.45	1/25
5	QPSK	1852.50	18.82	V	4.50	9.46	23.78	238.78	33.00	-9.22	1/0
		1882.50	19.72	V	4.53	9.17	24.36	272.90	33.00	-8.64	1/0
		1912.50	20.16	V	4.57	8.82	24.41	276.06	33.00	-8.59	1/0
	16-QAM	1852.50	18.43	V	4.50	9.46	23.39	218.27	33.00	-9.61	1/12
		1882.50	18.75	V	4.53	9.17	23.39	218.27	33.00	-9.61	1/12
		1912.50	19.06	V	4.57	8.82	23.31	214.29	33.00	-9.69	1/0
3	QPSK	1851.50	18.85	V	4.50	9.47	23.82	240.99	33.00	-9.18	1/0
		1882.50	19.53	V	4.53	9.17	24.17	261.22	33.00	-8.83	1/14
		1913.50	20.13	V	4.57	8.80	24.37	273.53	33.00	-8.63	1/0
	16-QAM	1851.50	18.19	V	4.50	9.47	23.16	207.01	33.00	-9.84	1/14
		1882.50	18.76	V	4.53	9.17	23.40	218.78	33.00	-9.60	1/0
		1913.50	19.28	V	4.57	8.80	23.52	224.91	33.00	-9.48	1/0
1.4	QPSK	1850.70	18.77	V	4.50	9.48	23.75	237.14	33.00	-9.25	1/0
		1882.50	19.66	V	4.53	9.17	24.30	269.15	33.00	-8.70	1/0
		1914.30	19.60	V	4.57	8.79	23.82	240.99	33.00	-9.18	1/0
	16-QAM	1850.70	18.40	V	4.50	9.48	23.38	217.77	33.00	-9.62	1/0
		1882.50	18.74	V	4.53	9.17	23.38	217.77	33.00	-9.62	1/5
		1914.30	18.90	V	4.57	8.79	23.12	205.12	33.00	-9.88	1/0
15	QPSK	1857.50	17.92	V	4.50	9.41	22.83	191.87	33.00	-10.17	75/0
		1882.50	18.45	V	4.53	9.17	23.09	203.70	33.00	-9.91	75/0
		1907.50	19.11	V	4.56	8.89	23.44	220.80	33.00	-9.56	75/0
	16-QAM	1857.50	17.79	V	4.50	9.41	22.70	186.21	33.00	-10.30	75/0
		1882.50	17.96	V	4.53	9.17	22.60	181.97	33.00	-10.40	75/0
		1907.50	18.22	V	4.56	8.89	22.55	179.89	33.00	-10.45	75/0

LTE Band 25 (ANT F)

BW (MHz)	Modulation	Frequency (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	1860.00	15.34	H	4.51	9.39	20.22	105.20	33.00	-12.78	1/99
		1882.50	16.10	H	4.53	9.17	20.74	118.58	33.00	-12.26	1/0
		1905.00	16.16	H	4.56	8.93	20.53	112.98	33.00	-12.47	1/0
	16-QAM	1860.00	14.46	H	4.51	9.39	19.34	85.90	33.00	-13.66	1/99
		1882.50	15.01	H	4.53	9.17	19.65	92.26	33.00	-13.35	1/49
		1905.00	15.26	H	4.56	8.93	19.63	91.83	33.00	-13.37	1/49
15	QPSK	1857.50	15.04	H	4.50	9.41	19.95	98.86	33.00	-13.05	1/74
		1882.50	16.11	H	4.53	9.17	20.75	118.85	33.00	-12.25	1/0
		1907.50	16.10	H	4.56	8.89	20.43	110.41	33.00	-12.57	1/0
	16-QAM	1857.50	14.63	H	4.50	9.41	19.54	89.95	33.00	-13.46	1/74
		1882.50	15.18	H	4.53	9.17	19.82	95.94	33.00	-13.18	1/37
		1907.50	15.34	H	4.56	8.89	19.67	92.68	33.00	-13.33	1/37
10	QPSK	1855.00	15.12	H	4.50	9.43	20.05	101.16	33.00	-12.95	1/49
		1882.50	16.15	H	4.53	9.17	20.79	119.95	33.00	-12.21	1/49
		1910.00	16.07	H	4.57	8.85	20.36	108.64	33.00	-12.64	1/0
	16-QAM	1855.00	14.41	H	4.50	9.43	19.34	85.90	33.00	-13.66	1/49
		1882.50	15.02	H	4.53	9.17	19.66	92.47	33.00	-13.34	1/25
		1910.00	15.38	H	4.57	8.85	19.67	92.68	33.00	-13.33	1/0
5	QPSK	1852.50	14.91	H	4.50	9.46	19.87	97.05	33.00	-13.13	1/24
		1882.50	16.16	H	4.53	9.17	20.80	120.23	33.00	-12.20	1/0
		1912.50	16.21	H	4.57	8.82	20.45	110.92	33.00	-12.55	1/0
	16-QAM	1852.50	14.48	H	4.50	9.46	19.44	87.90	33.00	-13.56	1/24
		1882.50	14.95	H	4.53	9.17	19.59	90.99	33.00	-13.41	1/24
		1912.50	15.50	H	4.57	8.82	19.74	94.19	33.00	-13.26	1/24
3	QPSK	1851.50	14.78	H	4.50	9.47	19.75	94.41	33.00	-13.25	1/0
		1882.50	16.17	H	4.53	9.17	20.81	120.50	33.00	-12.19	1/14
		1913.50	16.03	H	4.57	8.80	20.26	106.17	33.00	-12.74	1/0
	16-QAM	1851.50	14.25	H	4.50	9.47	19.22	83.56	33.00	-13.78	1/0
		1882.50	14.90	H	4.53	9.17	19.54	89.95	33.00	-13.46	1/0
		1913.50	15.68	H	4.57	8.80	19.91	97.95	33.00	-13.09	1/14
1.4	QPSK	1850.70	14.72	H	4.50	9.48	19.70	93.33	33.00	-13.30	1/3
		1882.50	16.08	H	4.53	9.17	20.72	118.03	33.00	-12.28	1/3
		1914.30	15.89	H	4.57	8.79	20.11	102.57	33.00	-12.89	1/3
	16-QAM	1850.70	14.07	H	4.50	9.48	19.05	80.35	33.00	-13.95	1/0
		1882.50	14.86	H	4.53	9.17	19.50	89.13	33.00	-13.50	1/3
		1914.30	14.56	H	4.57	8.79	18.78	75.51	33.00	-14.22	1/5
3	QPSK	1851.50	13.35	H	4.50	9.47	18.32	67.92	33.00	-14.68	15/0
		1882.50	13.81	H	4.53	9.17	18.45	69.98	33.00	-14.55	15/0
		1913.50	14.76	H	4.57	8.80	18.99	79.25	33.00	-14.01	15/0
	16-QAM	1851.50	13.31	H	4.50	9.47	18.28	67.30	33.00	-14.72	15/0
		1882.50	13.95	H	4.53	9.17	18.59	72.28	33.00	-14.41	15/0
		1913.50	14.35	H	4.57	8.80	18.58	72.11	33.00	-14.42	15/0

NR Band n25 DFT-s OFDM (ANT B)

BW (MHz)	Modulation	Frequency (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	1870.00	19.20	V	4.52	9.29	23.98	250.03	33.00	-9.02	1/214
		1882.50	19.56	V	4.53	9.17	24.20	263.03	33.00	-8.80	1/107
		1895.00	19.20	V	4.55	9.05	23.71	234.96	33.00	-9.29	1/214
	16-QAM	1870.00	18.19	V	4.52	9.29	22.97	198.15	33.00	-10.03	1/214
		1882.50	18.71	V	4.53	9.17	23.35	216.27	33.00	-9.65	1/1
		1895.00	18.33	V	4.55	9.05	22.84	192.31	33.00	-10.16	1/214
30	QPSK	1865.00	18.96	V	4.51	9.34	23.79	239.33	33.00	-9.21	1/79
		1882.50	19.45	V	4.53	9.17	24.09	256.45	33.00	-8.91	1/79
		1900.00	19.26	V	4.55	9.01	23.72	235.50	33.00	-9.28	1/79
	16-QAM	1865.00	18.07	V	4.51	9.34	22.90	194.98	33.00	-10.10	1/79
		1882.50	18.56	V	4.53	9.17	23.20	208.93	33.00	-9.80	1/79
		1900.00	18.40	V	4.55	9.01	22.86	193.20	33.00	-10.14	1/79
25	QPSK	1862.50	18.69	V	4.51	9.36	23.55	226.46	33.00	-9.45	1/131
		1882.50	19.23	V	4.53	9.17	23.87	243.78	33.00	-9.13	1/1
		1902.50	18.98	V	4.56	8.97	23.40	218.78	33.00	-9.60	1/1
	16-QAM	1862.50	17.75	V	4.51	9.36	22.61	182.39	33.00	-10.39	1/131
		1882.50	18.37	V	4.53	9.17	23.01	199.99	33.00	-9.99	1/131
		1902.50	18.11	V	4.56	8.97	22.53	179.06	33.00	-10.47	1/1
20	QPSK	1860.00	18.68	V	4.51	9.39	23.56	226.99	33.00	-9.44	1/52
		1882.50	19.32	V	4.53	9.17	23.96	248.89	33.00	-9.04	1/52
		1905.00	19.15	V	4.56	8.93	23.52	224.91	33.00	-9.48	1/52
	16-QAM	1860.00	17.76	V	4.51	9.39	22.64	183.65	33.00	-10.36	1/52
		1882.50	18.50	V	4.53	9.17	23.14	206.06	33.00	-9.86	1/52
		1905.00	18.32	V	4.56	8.93	22.69	185.78	33.00	-10.31	1/52
15	QPSK	1857.50	18.67	V	4.50	9.41	23.58	228.03	33.00	-9.42	1/77
		1882.50	19.21	V	4.53	9.17	23.85	242.66	33.00	-9.15	1/77
		1907.50	19.20	V	4.56	8.89	23.53	225.42	33.00	-9.47	1/1
	16-QAM	1857.50	17.86	V	4.50	9.41	22.77	189.23	33.00	-10.23	1/77
		1882.50	18.45	V	4.53	9.17	23.09	203.70	33.00	-9.91	1/77
		1907.50	18.33	V	4.56	8.89	22.66	184.50	33.00	-10.34	1/1
10	QPSK	1855.00	18.65	V	4.50	9.43	23.58	228.03	33.00	-9.42	1/25
		1882.50	19.07	V	4.53	9.17	23.71	234.96	33.00	-9.29	1/25
		1910.00	19.25	V	4.57	8.85	23.54	225.94	33.00	-9.46	1/25
	16-QAM	1855.00	17.72	V	4.50	9.43	22.65	184.08	33.00	-10.35	1/25
		1882.50	18.24	V	4.53	9.17	22.88	194.09	33.00	-10.12	1/25
		1910.00	18.26	V	4.57	8.85	22.55	179.89	33.00	-10.45	1/25
5	QPSK	1852.50	18.15	V	4.50	9.46	23.11	204.64	33.00	-9.89	1/23
		1882.50	19.26	V	4.53	9.17	23.90	245.47	33.00	-9.10	1/1
		1912.50	18.70	V	4.57	8.82	22.95	197.24	33.00	-10.05	1/1
	16-QAM	1852.50	17.22	V	4.50	9.46	22.18	165.20	33.00	-10.82	1/23
		1882.50	18.08	V	4.53	9.17	22.72	187.07	33.00	-10.28	1/1
		1912.50	17.99	V	4.57	8.82	22.24	167.49	33.00	-10.76	1/1
40	QPSK	1870.00	18.53	V	4.52	9.29	23.31	214.29	33.00	-9.69	216/0
		1882.50	18.98	V	4.53	9.17	23.62	230.14	33.00	-9.38	216/0
		1895.00	18.62	V	4.55	9.05	23.13	205.59	33.00	-9.87	216/0
	16-QAM	1870.00	17.34	V	4.52	9.29	22.12	162.93	33.00	-10.88	216/0
		1882.50	17.96	V	4.53	9.17	22.60	181.97	33.00	-10.40	216/0
		1895.00	17.62	V	4.55	9.05	22.13	163.31	33.00	-10.87	216/0

NR Band n25 DFT-s OFDM (ANT F)

BW (MHz)	Modulation	Frequency (MHz)	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	EIRP (mW)	Limit (dBm)	Delta (dB)	RB
40	π/2 BPSK	1870.00	15.11	H	4.52	9.29	19.89	97.50	33.00	-13.11	1/107
		1882.50	16.04	H	4.53	9.17	20.68	116.95	33.00	-12.32	1/1
		1895.00	15.76	H	4.55	9.05	20.26	106.17	33.00	-12.74	1/1
	16-QAM	1870.00	14.49	H	4.52	9.29	19.27	84.53	33.00	-13.73	1/214
		1882.50	15.32	H	4.53	9.17	19.96	99.08	33.00	-13.04	1/1
		1895.00	15.46	H	4.55	9.05	19.96	99.08	33.00	-13.04	1/214
30	π/2 BPSK	1865.00	15.21	H	4.51	9.34	20.04	100.93	33.00	-12.96	1/158
		1882.50	16.20	H	4.53	9.17	20.84	121.34	33.00	-12.16	1/79
		1900.00	16.03	H	4.55	9.01	20.48	111.69	33.00	-12.52	1/158
	16-QAM	1865.00	14.47	H	4.51	9.34	19.30	85.11	33.00	-13.70	1/79
		1882.50	15.59	H	4.53	9.17	20.23	105.44	33.00	-12.77	1/79
		1900.00	15.58	H	4.55	9.01	20.03	100.69	33.00	-12.97	1/79
25	π/2 BPSK	1862.50	15.06	H	4.51	9.36	19.92	98.17	33.00	-13.08	1/131
		1882.50	16.13	H	4.53	9.17	20.77	119.40	33.00	-12.23	1/131
		1902.50	16.00	H	4.56	8.97	20.41	109.90	33.00	-12.59	1/1
	16-QAM	1862.50	14.41	H	4.51	9.36	19.27	84.53	33.00	-13.73	1/131
		1882.50	15.56	H	4.53	9.17	20.20	104.71	33.00	-12.80	1/131
		1902.50	15.57	H	4.56	8.97	19.98	99.54	33.00	-13.02	1/1
20	π/2 BPSK	1860.00	15.15	H	4.51	9.39	20.03	100.69	33.00	-12.97	1/52
		1882.50	16.15	H	4.53	9.17	20.79	119.95	33.00	-12.21	1/52
		1905.00	16.20	H	4.56	8.93	20.57	114.02	33.00	-12.43	1/1
	16-QAM	1860.00	14.48	H	4.51	9.39	19.36	86.30	33.00	-13.64	1/52
		1882.50	15.68	H	4.53	9.17	20.32	107.65	33.00	-12.68	1/52
		1905.00	15.68	H	4.56	8.93	20.05	101.16	33.00	-12.95	1/52
15	π/2 BPSK	1857.50	14.92	H	4.50	9.41	19.83	96.16	33.00	-13.17	1/77
		1882.50	16.13	H	4.53	9.17	20.77	119.40	33.00	-12.23	1/1
		1907.50	16.20	H	4.56	8.89	20.53	112.98	33.00	-12.47	1/1
	16-QAM	1857.50	14.24	H	4.50	9.41	19.15	82.22	33.00	-13.85	1/77
		1882.50	15.44	H	4.53	9.17	20.08	101.86	33.00	-12.92	1/1
		1907.50	15.69	H	4.56	8.89	20.02	100.46	33.00	-12.98	1/1
10	π/2 BPSK	1855.00	15.01	H	4.50	9.43	19.94	98.63	33.00	-13.06	1/50
		1882.50	16.16	H	4.53	9.17	20.80	120.23	33.00	-12.20	1/1
		1910.00	16.25	H	4.57	8.85	20.54	113.24	33.00	-12.46	1/1
	16-QAM	1855.00	14.22	H	4.50	9.43	19.15	82.22	33.00	-13.85	1/25
		1882.50	15.53	H	4.53	9.17	20.17	103.99	33.00	-12.83	1/25
		1910.00	15.75	H	4.57	8.85	20.04	100.93	33.00	-12.96	1/25
5	π/2 BPSK	1852.50	14.33	H	4.50	9.46	19.29	84.92	33.00	-13.71	1/1
		1882.50	15.61	H	4.53	9.17	20.25	105.93	33.00	-12.75	1/1
		1912.50	15.68	H	4.57	8.82	19.92	98.17	33.00	-13.08	1/1
	16-QAM	1852.50	14.07	H	4.50	9.46	19.03	79.98	33.00	-13.97	1/23
		1882.50	15.46	H	4.53	9.17	20.10	102.33	33.00	-12.90	1/1
		1912.50	15.62	H	4.57	8.82	19.86	96.83	33.00	-13.14	1/1
30	π/2 BPSK	1865.00	14.53	H	4.51	9.34	19.36	86.30	33.00	-13.64	160/0
		1882.50	15.53	H	4.53	9.17	20.17	103.99	33.00	-12.83	160/0
		1900.00	15.32	H	4.55	9.01	19.77	94.84	33.00	-13.23	160/0
20	16-QAM	1860.00	13.97	H	4.51	9.39	18.85	76.74	33.00	-14.15	100/0
		1882.50	14.96	H	4.53	9.17	19.60	91.20	33.00	-13.40	100/0
		1905.00	15.11	H	4.56	8.93	19.48	88.72	33.00	-13.52	100/0

9.2. RADIATED SPURIOUS EMISSION

RULE PART(S)

FCC: §2.1053, §24.238

LIMIT

24.238(a)

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.

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 = 1 MHz for emissions above 1 GHz
- b) Set VBW $\geq 3 \times$ 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 $\geq 2 \times$ span/RBW;
- g) Trace Mode = average(WCDMA, LTE, 5G NR), Maxhold(GSM);

NOTE1

GSM : It was tested at GPRS as worst case (the highest output power and density).

UMTS: It was tested at REL 99 as worst case (the highest output power and density).

LTE: It was tested at 1RB QPSK as worst case (the highest output power and density).

5G NR: All Waveforms (CP-OFDM vs DFT-s_OFDM) and modulations ($\pi/2$ 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.

9.2.1. SPURIOUS RADIATION RESULT

GSM1900

UL Verification Services, Inc. Above 1GHz High Frequency Substitution Measurement									
Company:		Samsung							
Project #:		4791724269							
Date:		2025-04-25							
Test Engineer:		24542							
Configuration:		EUT / AC Adapter, X-Position							
Location:		Chamber 1							
Mode:		GPRS 1900 MHz Harmonics							
Test Voltage:		AC 120 V, 60 Hz							
f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 1850.2MHz									
3700.40	-4.9	V	3.0	44.2	1.0	-48.1	-13.0	-35.1	
5550.60	-2.9	V	3.0	44.6	1.0	-46.5	-13.0	-33.5	
7400.80	0.0	V	3.0	44.8	1.0	-43.8	-13.0	-30.8	
3700.40	-4.8	H	3.0	44.2	1.0	-48.0	-13.0	-35.0	
5550.60	0.7	H	3.0	44.6	1.0	-42.9	-13.0	-29.9	
7400.80	0.1	H	3.0	44.8	1.0	-43.7	-13.0	-30.7	
Mid Ch, 1880MHz									
3760.00	-4.3	V	3.0	44.3	1.0	-47.6	-13.0	-34.6	
5640.00	-1.3	V	3.0	44.7	1.0	-44.9	-13.0	-31.9	
7520.00	0.2	V	3.0	44.7	1.0	-43.5	-13.0	-30.5	
3760.00	-5.4	H	3.0	44.3	1.0	-48.7	-13.0	-35.7	
5640.00	-1.9	H	3.0	44.7	1.0	-45.5	-13.0	-32.5	
7520.00	0.0	H	3.0	44.7	1.0	-43.7	-13.0	-30.7	
High Ch, 1909.8MHz									
3819.60	-5.2	V	3.0	44.4	1.0	-48.6	-13.0	-35.6	
5729.40	1.4	V	3.0	44.7	1.0	-42.2	-13.0	-29.2	
7639.20	0.7	V	3.0	44.6	1.0	-42.9	-13.0	-29.9	
3819.60	-5.2	H	3.0	44.4	1.0	-48.6	-13.0	-35.6	
5729.40	0.5	H	3.0	44.7	1.0	-43.2	-13.0	-30.2	
7639.20	0.6	H	3.0	44.6	1.0	-43.1	-13.0	-30.1	

WCDMA Band 2

REL99

ANT B

UL Verification Services, Inc.
Above 1GHz High Frequency Substitution Measurement

Company: Samsung

Project #: 4791724269

Date: 2025-04-24

Test Engineer: 26087

Configuration: EUT / AC Adapter, Y-Position

Location: Chamber 1

Mode: Rel99 Band 2 Harmonics

Test Votage: AC 120 V, 60 Hz

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 1852.4MHz									
3704.80	-8.5	V	3.0	44.2	1.0	-51.7	-13.0	-38.7	
5557.20	-5.9	V	3.0	44.6	1.0	-49.6	-13.0	-36.6	
7409.60	-2.7	V	3.0	44.8	1.0	-46.5	-13.0	-33.5	
3704.80	-8.6	H	3.0	44.2	1.0	-51.8	-13.0	-38.8	
5557.20	-5.9	H	3.0	44.6	1.0	-49.5	-13.0	-36.5	
7409.60	-2.7	H	3.0	44.8	1.0	-46.5	-13.0	-33.5	
Mid Ch, 1880MHz									
3760.00	-8.1	V	3.0	44.3	1.0	-51.4	-13.0	-38.4	
5640.00	-5.5	V	3.0	44.7	1.0	-49.1	-13.0	-36.1	
7520.00	-2.7	V	3.0	44.7	1.0	-46.4	-13.0	-33.4	
3760.00	-8.2	H	3.0	44.3	1.0	-51.6	-13.0	-38.6	
5640.00	-5.6	H	3.0	44.7	1.0	-49.3	-13.0	-36.3	
7520.00	-2.6	H	3.0	44.7	1.0	-46.3	-13.0	-33.3	
High Ch, 1907.6MHz									
3815.20	-8.1	V	3.0	44.4	1.0	-51.5	-13.0	-38.5	
5722.80	-5.4	V	3.0	44.7	1.0	-49.1	-13.0	-36.1	
7630.40	-2.2	V	3.0	44.6	1.0	-45.8	-13.0	-32.8	
3815.20	-8.2	H	3.0	44.4	1.0	-51.6	-13.0	-38.6	
5722.80	-5.5	H	3.0	44.7	1.0	-49.2	-13.0	-36.2	
7630.40	-2.2	H	3.0	44.6	1.0	-45.8	-13.0	-32.8	

LTE Band 2

UL Verification Services, Inc. Above 1GHz High Frequency Substitution Measurement									
Company:		Samsung							
Project #:		4791724269							
Date:		2025-05-07							
Test Engineer:		24542							
Configuration:		EUT / AC Adapter, Z-Position							
Location:		Chamber 1							
Mode:		LTE_QPSK Band 2 Harmonics, 15MHz Bandwidth							
Test Votage:		AC 120 V, 60 Hz							
f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamplifier (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 1857.5MHz									
3715.00	-8.1	V	3.0	44.3	1.0	-51.3	-13.0	-38.3	
5572.50	4.5	V	3.0	44.6	1.0	-39.2	-13.0	-26.2	
7430.00	-2.4	V	3.0	44.8	1.0	-46.2	-13.0	-33.2	
9287.50	0.2	V	3.0	44.2	1.0	-43.0	-13.0	-30.0	
11145.00	4.7	V	3.0	42.9	1.0	-37.2	-13.0	-24.2	
3715.00	-8.1	H	3.0	44.3	1.0	-51.4	-13.0	-38.4	
5572.50	2.1	H	3.0	44.6	1.0	-41.5	-13.0	-28.5	
7430.00	-2.4	H	3.0	44.8	1.0	-46.1	-13.0	-33.1	
9287.50	0.7	H	3.0	44.2	1.0	-42.5	-13.0	-29.5	
11145.00	4.6	H	3.0	42.9	1.0	-37.3	-13.0	-24.3	
Mid Ch, 1880MHz									
3760.00	-8.4	V	3.0	44.3	1.0	-51.7	-13.0	-38.7	
5640.00	5.2	V	3.0	44.7	1.0	-38.4	-13.0	-25.4	
7520.00	-2.2	V	3.0	44.7	1.0	-45.9	-13.0	-32.9	
9400.00	0.6	V	3.0	44.0	1.0	-42.4	-13.0	-29.4	
11280.00	4.3	V	3.0	42.9	1.0	-37.6	-13.0	-24.6	
3760.00	-8.5	H	3.0	44.3	1.0	-51.8	-13.0	-38.8	
5640.00	5.1	H	3.0	44.7	1.0	-38.6	-13.0	-25.6	
7520.00	-2.3	H	3.0	44.7	1.0	-46.0	-13.0	-33.0	
9400.00	0.8	H	3.0	44.0	1.0	-42.2	-13.0	-29.2	
11280.00	4.5	H	3.0	42.9	1.0	-37.4	-13.0	-24.4	
High Ch, 1902.5MHz									
3805.00	-7.8	V	3.0	44.4	1.0	-51.2	-13.0	-38.2	
5707.50	-5.0	V	3.0	44.7	1.0	-48.7	-13.0	-35.7	
7610.00	-1.9	V	3.0	44.7	1.0	-45.6	-13.0	-32.6	
9512.50	0.8	V	3.0	43.8	1.0	-41.9	-13.0	-28.9	
11415.00	4.8	V	3.0	42.9	1.0	-37.1	-13.0	-24.1	
3805.00	-8.2	H	3.0	44.4	1.0	-51.6	-13.0	-38.6	
5707.50	-5.2	H	3.0	44.7	1.0	-48.9	-13.0	-35.9	
7610.00	-1.7	H	3.0	44.7	1.0	-45.4	-13.0	-32.4	
9512.50	0.8	H	3.0	43.8	1.0	-42.0	-13.0	-29.0	
11415.00	4.5	H	3.0	42.9	1.0	-37.4	-13.0	-24.4	

15 MHz
QPSK
ANT B

LTE Band 25

15 MHz QPSK ANT B	UL Verification Services, Inc. Above 1GHz High Frequency Substitution Measurement									
	Company: Samsung									
	Project #: 4791724269									
	Date: 2025-04-24									
	Test Engineer: 26087									
	Configuration: EUT / AC Adapter, Z-Position									
	Location: Chamber 1									
	Mode: LTE_QPSK Band 25 Harmonics, 15MHz Bandwidth									
	Test Votage: AC 120 V, 60 Hz									
	f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
	Low Ch, 1857.5MHz									
	3715.00	-8.2	V	3.0	44.3	1.0	-51.5	-13.0	-38.5	
	5572.50	-5.9	V	3.0	44.6	1.0	-49.5	-13.0	-36.5	
	7430.00	-2.6	V	3.0	44.8	1.0	-46.4	-13.0	-33.4	
	3715.00	-8.3	H	3.0	44.3	1.0	-51.6	-13.0	-38.6	
	5572.50	-5.9	H	3.0	44.6	1.0	-49.5	-13.0	-36.5	
	7430.00	-2.7	H	3.0	44.8	1.0	-46.5	-13.0	-33.5	
	Mid Ch, 1882.5MHz									
	3765.00	-8.2	V	3.0	44.3	1.0	-51.5	-13.0	-38.5	
	5647.50	-5.4	V	3.0	44.7	1.0	-49.1	-13.0	-36.1	
7530.00	-2.5	V	3.0	44.7	1.0	-46.3	-13.0	-33.3		
3765.00	-8.2	H	3.0	44.3	1.0	-51.5	-13.0	-38.5		
5647.50	-5.5	H	3.0	44.7	1.0	-49.2	-13.0	-36.2		
7530.00	-2.5	H	3.0	44.7	1.0	-46.2	-13.0	-33.2		
High Ch, 1907.5MHz										
3815.00	-7.9	V	3.0	44.4	1.0	-51.3	-13.0	-38.3		
5722.50	-5.1	V	3.0	44.7	1.0	-48.8	-13.0	-35.8		
7630.00	-2.2	V	3.0	44.7	1.0	-45.9	-13.0	-32.9		
3815.00	-8.3	H	3.0	44.4	1.0	-51.7	-13.0	-38.7		
5722.50	-5.2	H	3.0	44.7	1.0	-48.9	-13.0	-35.9		
7630.00	-2.2	H	3.0	44.7	1.0	-45.9	-13.0	-32.9		
3 MHz QPSK ANT F	UL Verification Services, Inc. Above 1GHz High Frequency Substitution Measurement									
	Company: Samsung									
	Project #: 4791724269									
	Date: 2025-04-23									
	Test Engineer: 24542									
	Configuration: EUT / AC Adapter, Z-Position									
	Location: Chamber 1									
	Mode: LTE_QPSK Band 25 Harmonics, 3MHz Bandwidth									
	Test Votage: AC 120 V, 60 Hz									
	f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
	Low Ch, 1851.5MHz									
	3703.00	-8.2	V	3.0	44.2	1.0	-51.5	-13.0	-38.5	
	5554.50	-5.7	V	3.0	44.6	1.0	-49.3	-13.0	-36.3	
	7406.00	-2.6	V	3.0	44.8	1.0	-46.5	-13.0	-33.5	
	3703.00	-8.2	H	3.0	44.2	1.0	-51.5	-13.0	-38.5	
	5554.50	-5.4	H	3.0	44.6	1.0	-49.0	-13.0	-36.0	
	7406.00	-2.6	H	3.0	44.8	1.0	-46.4	-13.0	-33.4	
	Mid Ch, 1882.5MHz									
	3765.00	-8.2	V	3.0	44.3	1.0	-51.5	-13.0	-38.5	
	5647.50	-5.1	V	3.0	44.7	1.0	-48.7	-13.0	-35.7	
7530.00	-2.6	V	3.0	44.7	1.0	-46.3	-13.0	-33.3		
3765.00	-8.3	H	3.0	44.3	1.0	-51.7	-13.0	-38.7		
5647.50	-5.3	H	3.0	44.7	1.0	-49.0	-13.0	-36.0		
7530.00	-2.6	H	3.0	44.7	1.0	-46.3	-13.0	-33.3		
High Ch, 1913.5MHz										
3827.00	-8.2	V	3.0	44.4	1.0	-51.6	-13.0	-38.6		
5740.50	-5.0	V	3.0	44.7	1.0	-48.6	-13.0	-35.6		
7654.00	-2.0	V	3.0	44.6	1.0	-45.7	-13.0	-32.7		
3827.00	-8.4	H	3.0	44.4	1.0	-51.8	-13.0	-38.8		
5740.50	-5.1	H	3.0	44.7	1.0	-48.7	-13.0	-35.7		
7654.00	-2.0	H	3.0	44.6	1.0	-45.7	-13.0	-32.7		

NR Band n25 DFT-s OFDM

40 MHz QPSK ANT B	UL Verification Services, Inc. Above 1GHz High Frequency Substitution Measurement									
	Company: Samsung									
	Project #: 4791724269									
	Date: 2025-04-26									
	Test Engineer: 24542									
	Configuration: EUT / AC Adapter, X-Position									
	Location: Chamber 1									
	Mode: 5G NR_QPSK NR n25 Harmonics, 40MHz Bandwidth									
	Test Votage: AC 120 V, 60 Hz									
	f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
	Low Ch, 1870MHz									
	3740.00	-8.3	V	3.0	44.3	1.0	-51.6	-13.0	-38.6	
	5610.00	-5.7	V	3.0	44.6	1.0	-49.4	-13.0	-36.4	
	7480.00	-2.5	V	3.0	44.8	1.0	-46.2	-13.0	-33.2	
	3740.00	-8.2	H	3.0	44.3	1.0	-51.5	-13.0	-38.5	
	5610.00	-5.3	H	3.0	44.6	1.0	-49.0	-13.0	-36.0	
	7480.00	-2.5	H	3.0	44.8	1.0	-46.3	-13.0	-33.3	
	Mid Ch, 1882.5MHz									
	3765.00	-8.1	V	3.0	44.3	1.0	-51.4	-13.0	-38.4	
	5647.50	-5.5	V	3.0	44.7	1.0	-49.2	-13.0	-36.2	
	7530.00	-2.2	V	3.0	44.7	1.0	-46.0	-13.0	-33.0	
	3765.00	-8.3	H	3.0	44.3	1.0	-51.6	-13.0	-38.6	
	5647.50	-5.6	H	3.0	44.7	1.0	-49.3	-13.0	-36.3	
	7530.00	-2.5	H	3.0	44.7	1.0	-46.2	-13.0	-33.2	
	High Ch, 1895MHz									
	3790.00	-7.9	V	3.0	44.4	1.0	-51.3	-13.0	-38.3	
	5685.00	-5.1	V	3.0	44.7	1.0	-48.7	-13.0	-35.7	
7580.00	-2.3	V	3.0	44.7	1.0	-46.0	-13.0	-33.0		
3790.00	-8.1	H	3.0	44.4	1.0	-51.5	-13.0	-38.5		
5685.00	-5.1	H	3.0	44.7	1.0	-48.8	-13.0	-35.8		
7580.00	-2.3	H	3.0	44.7	1.0	-46.0	-13.0	-33.0		