

**5G NR n70(ANT A)**

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
15	QPSK	1702.50	17.75	H	4.30	9.47	22.92	22.92	30.00	-7.08	1/1
	16-QAM	1702.50	17.18	H	4.30	9.47	22.35	22.35	30.00	-7.65	1/1
10	QPSK	1700.00	17.98	H	4.30	9.45	23.14	23.14	30.00	-6.86	1/50
		1702.50	18.19	H	4.30	9.47	23.36	23.36	30.00	-6.64	1/26
	1705.00	18.14	H	4.30	9.48	23.32	23.32	30.00	-6.68	1/1	
	16-QAM	1700.00	17.18	H	4.30	9.45	22.34	22.34	30.00	-7.66	1/50
		1702.50	17.19	H	4.30	9.47	22.36	22.36	30.00	-7.64	1/26
		1705.00	16.61	H	4.30	9.48	21.78	21.78	30.00	-8.22	1/1
5	QPSK	1697.50	17.85	H	4.29	9.44	23.00	23.00	30.00	-7.00	1/1
		1702.50	17.92	H	4.30	9.47	23.09	23.09	30.00	-6.91	1/1
	1707.50	18.20	H	4.30	9.49	23.38	23.38	30.00	-6.62	1/1	
	16-QAM	1697.50	16.79	H	4.29	9.44	21.94	21.94	30.00	-8.06	1/1
		1702.50	17.18	H	4.30	9.47	22.35	22.35	30.00	-7.65	1/1
		1707.50	17.01	H	4.30	9.49	22.19	22.19	30.00	-7.81	1/1

**5G NR n70(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
15	QPSK	1702.50	16.38	H	4.30	9.47	21.55	142.73	30.00	-8.45	1/77
	16-QAM	1702.50	15.24	H	4.35	9.66	20.55	113.56	30.00	-9.45	1/77
10	QPSK	1700.00	17.12	H	4.30	9.45	22.28	168.92	30.00	-7.72	1/26
		1702.50	16.59	H	4.30	9.47	21.76	149.80	30.00	-8.24	1/1
		1705.00	16.90	H	4.30	9.48	22.08	161.38	30.00	-7.92	1/1
	16-QAM	1700.00	16.10	H	4.30	9.45	21.26	133.56	30.00	-8.74	1/26
		1702.50	15.88	H	4.30	9.47	21.05	127.21	30.00	-8.95	1/1
		1705.00	15.94	H	4.30	9.48	21.12	129.38	30.00	-8.88	1/1
5	QPSK	1697.50	16.68	H	4.29	9.44	21.83	152.32	30.00	-8.17	1/13
		1702.50	16.99	H	4.30	9.47	22.16	164.26	30.00	-7.84	1/13
		1707.50	16.31	H	4.30	9.49	21.49	141.03	30.00	-8.51	1/13
	16-QAM	1697.50	15.79	H	4.29	9.44	20.94	124.10	30.00	-9.06	1/13
		1702.50	15.98	H	4.30	9.47	21.15	130.17	30.00	-8.85	1/13
		1707.50	15.61	H	4.30	9.49	20.79	120.03	30.00	-9.21	1/13

**5G NR n71 (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
20	QPSK	673.00	21.36	V	2.73	-1.43	17.20	52.48	34.77	-17.57	1/104
		680.50	21.17	V	2.74	-1.41	17.02	50.35	34.77	-17.75	1/1
		688.00	21.45	V	2.76	-1.39	17.31	53.83	34.77	-17.46	1/1
	16-QAM	673.00	20.07	V	2.73	-1.43	15.91	38.99	34.77	-18.86	1/104
		680.50	20.20	V	2.74	-1.41	16.05	40.27	34.77	-18.72	1/1
		688.00	20.37	V	2.76	-1.39	16.23	41.98	34.77	-18.54	1/1
15	QPSK	670.50	21.43	V	2.72	-1.44	17.27	53.33	34.77	-17.50	1/77
		680.50	21.59	V	2.74	-1.41	17.44	55.46	34.77	-17.33	1/1
		690.50	21.48	V	2.76	-1.38	17.33	54.08	34.77	-17.44	1/77
	16-QAM	670.50	20.31	V	2.72	-1.44	16.15	41.21	34.77	-18.62	1/77
		680.50	20.59	V	2.74	-1.41	16.44	44.06	34.77	-18.33	1/1
		690.50	20.54	V	2.76	-1.38	16.39	43.55	34.77	-18.38	1/77
10	QPSK	668.00	21.05	V	2.72	-1.45	16.89	48.87	34.77	-17.88	1/50
		680.50	21.37	V	2.74	-1.41	17.22	52.72	34.77	-17.55	1/1
		693.00	22.38	V	2.77	-1.37	18.24	66.68	34.77	-16.53	1/26
	16-QAM	668.00	19.94	V	2.72	-1.45	15.78	37.84	34.77	-18.99	1/50
		680.50	20.39	V	2.74	-1.41	16.24	42.07	34.77	-18.53	1/26
		693.00	21.11	V	2.77	-1.37	16.97	49.77	34.77	-17.80	1/26
5	QPSK	665.50	20.52	V	2.71	-1.45	16.35	43.15	34.77	-18.42	1/13
		680.50	21.72	V	2.74	-1.41	17.57	57.15	34.77	-17.20	1/1
		695.50	21.64	V	2.77	-1.36	17.51	56.36	34.77	-17.26	1/1
	16-QAM	665.50	19.51	V	2.71	-1.45	15.34	34.20	34.77	-19.43	1/13
		680.50	20.66	V	2.74	-1.41	16.51	44.77	34.77	-18.26	1/1
		695.50	20.61	V	2.77	-1.36	16.48	44.46	34.77	-18.29	1/1

**5G NR n71 (ANT E)**

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
20	QPSK	673.00	19.08	V	2.73	-1.43	14.92	31.04	34.77	-19.85	1/53
		680.50	20.29	V	2.74	-1.41	16.14	41.08	34.77	-18.63	1/53
		688.00	19.13	V	2.76	-1.39	14.99	31.55	34.77	-19.78	1/53
	16-QAM	673.00	17.90	V	2.73	-1.43	13.74	23.65	34.77	-21.03	1/53
		680.50	19.09	V	2.74	-1.41	14.94	31.16	34.77	-19.83	1/53
		688.00	17.89	V	2.76	-1.39	13.75	23.71	34.77	-21.02	1/53
15	QPSK	670.50	18.92	V	2.72	-1.44	14.76	29.89	34.77	-20.01	1/77
		680.50	19.88	V	2.74	-1.41	15.73	37.38	34.77	-19.04	1/77
		690.50	18.93	V	2.76	-1.38	14.78	30.09	34.77	-19.99	1/1
	16-QAM	670.50	17.64	V	2.72	-1.44	13.48	22.26	34.77	-21.29	1/77
		680.50	18.83	V	2.74	-1.41	14.68	29.35	34.77	-20.09	1/77
		690.50	17.65	V	2.76	-1.38	13.50	22.41	34.77	-21.27	1/1
10	QPSK	668.00	19.34	V	2.72	-1.45	15.18	32.95	34.77	-19.59	1/26
		680.50	19.99	V	2.74	-1.41	15.84	38.34	34.77	-18.93	1/1
		693.00	19.48	V	2.77	-1.37	15.34	34.23	34.77	-19.43	1/1
	16-QAM	668.00	17.95	V	2.72	-1.45	13.79	23.92	34.77	-20.98	1/26
		680.50	18.76	V	2.74	-1.41	14.61	28.88	34.77	-20.16	1/1
		693.00	18.28	V	2.77	-1.37	14.14	25.97	34.77	-20.63	1/1
5	QPSK	665.50	19.60	V	2.71	-1.45	15.43	34.92	34.77	-19.34	1/23
		680.50	19.53	V	2.74	-1.41	15.38	34.49	34.77	-19.39	1/13
		695.50	18.58	V	2.77	-1.36	14.45	27.83	34.77	-20.32	1/1
	16-QAM	665.50	18.48	V	2.71	-1.45	14.31	26.98	34.77	-20.46	1/23
		680.50	18.30	V	2.74	-1.41	14.15	25.98	34.77	-20.62	1/13
		695.50	17.51	V	2.77	-1.36	13.38	21.75	34.77	-21.39	1/1

**5G NR n77 (PC2, 3450-3550 MHz, 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	3499.98	20.62	H	6.21	10.67	25.08	322.18	30.00	-4.92	1/271
	16-QAM	3499.98	19.67	H	6.21	10.67	24.13	258.88	30.00	-5.87	1/271
90	QPSK	3495.00	20.46	H	6.21	10.66	24.91	310.03	30.00	-5.09	1/243
		3499.98	20.55	H	6.21	10.67	25.01	317.03	30.00	-4.99	1/243
		3504.99	20.44	H	6.21	10.68	24.91	309.90	30.00	-5.09	1/243
	16-QAM	3495.00	19.57	H	6.21	10.66	24.02	252.59	30.00	-5.98	1/243
		3499.98	19.46	H	6.21	10.67	23.92	246.66	30.00	-6.08	1/243
		3504.99	19.46	H	6.21	10.68	23.93	247.16	30.00	-6.07	1/243
80	QPSK	3490.02	20.43	H	6.20	10.66	24.89	308.61	30.00	-5.11	1/215
		3499.98	20.69	H	6.21	10.67	25.15	327.42	30.00	-4.85	1/215
		3510.00	20.43	H	6.22	10.69	24.89	308.65	30.00	-5.11	1/109
	16-QAM	3490.02	19.53	H	6.20	10.66	23.99	250.85	30.00	-6.01	1/215
		3499.98	19.48	H	6.21	10.67	23.94	247.80	30.00	-6.06	1/215
		3510.00	19.52	H	6.22	10.69	23.98	250.31	30.00	-6.02	1/109
70	QPSK	3485.01	19.51	H	6.20	10.65	23.96	249.00	30.00	-6.04	1/187
		3499.98	19.55	H	6.21	10.67	24.01	251.83	30.00	-5.99	1/95
		3514.98	19.51	H	6.22	10.70	23.98	250.01	30.00	-6.02	1/1
	16-QAM	3485.01	18.73	H	6.20	10.65	23.18	208.07	30.00	-6.82	1/187
		3499.98	18.61	H	6.21	10.67	23.07	202.82	30.00	-6.93	1/95
		3514.98	18.47	H	6.22	10.70	22.94	196.77	30.00	-7.06	1/1
60	QPSK	3480.00	19.63	H	6.19	10.65	24.09	256.27	30.00	-5.91	1/160
		3499.98	19.65	H	6.21	10.67	24.11	257.69	30.00	-5.89	1/160
		3519.98	19.58	H	6.23	10.71	24.05	254.40	30.00	-5.94	1/1
	16-QAM	3480.00	18.51	H	6.19	10.65	22.97	198.01	30.00	-7.03	1/160
		3499.98	18.29	H	6.21	10.67	22.75	188.41	30.00	-7.25	1/160
		3514.98	18.43	H	6.23	10.71	22.91	195.21	30.00	-7.09	1/1
50	QPSK	3475.02	19.57	H	6.18	10.64	24.03	252.89	30.00	-5.97	1/131
		3499.98	19.67	H	6.21	10.67	24.13	258.88	30.00	-5.87	1/131
		3525.00	19.75	H	6.23	10.71	24.23	264.90	30.00	-5.77	1/1
	16-QAM	3475.02	18.92	H	6.18	10.64	23.38	217.74	30.00	-6.62	1/131
		3499.98	18.64	H	6.21	10.67	23.10	204.22	30.00	-6.90	1/131
		3525.00	18.66	H	6.23	10.71	23.14	206.10	30.00	-6.86	1/1
40	QPSK	3470.01	19.52	H	6.18	10.63	23.97	249.60	30.00	-6.03	1/104
		3499.98	19.67	H	6.21	10.67	24.13	258.88	30.00	-5.87	1/53
		3529.98	19.53	H	6.23	10.72	24.01	252.05	30.00	-5.99	1/53
	16-QAM	3470.01	18.38	H	6.18	10.63	22.83	191.98	30.00	-7.17	1/104
		3499.98	18.74	H	6.21	10.67	23.20	208.98	30.00	-6.80	1/53
		3529.98	18.56	H	6.23	10.72	23.04	201.60	30.00	-6.96	1/53
30	QPSK	3465.00	19.53	H	6.17	10.63	23.98	250.26	30.00	-6.02	1/76
		3499.98	19.62	H	6.21	10.67	24.08	255.92	30.00	-5.92	1/39
		3535.02	19.63	H	6.24	10.73	24.12	258.43	30.00	-5.88	1/1
	16-QAM	3465.00	18.41	H	6.17	10.63	22.86	193.37	30.00	-7.14	1/76
		3499.98	18.53	H	6.21	10.67	22.99	199.11	30.00	-7.01	1/39
		3535.02	18.73	H	6.24	10.73	23.22	210.06	30.00	-6.78	1/1
25	QPSK	3462.51	19.58	H	6.17	10.62	24.03	252.99	30.00	-5.97	1/32
		3499.98	19.71	H	6.21	10.67	24.17	261.28	30.00	-5.83	1/32
		3537.48	19.62	H	6.24	10.74	24.12	258.01	30.00	-5.88	1/63
	16-QAM	3462.51	18.51	H	6.17	10.62	22.97	198.01	30.00	-7.03	1/32
		3499.98	18.70	H	6.21	10.67	23.16	207.06	30.00	-6.84	1/32
		3537.48	18.58	H	6.24	10.74	23.08	203.32	30.00	-6.92	1/63
20	QPSK	3460.02	19.80	H	6.17	10.62	24.25	266.30	30.00	-5.75	1/1
		3499.98	19.58	H	6.21	10.67	24.04	253.57	30.00	-5.96	1/1
		3540.00	19.56	H	6.24	10.74	24.06	254.77	30.00	-5.94	1/1
	16-QAM	3460.02	18.87	H	6.17	10.62	23.32	214.97	30.00	-6.68	1/1
		3499.98	18.47	H	6.21	10.67	22.93	196.38	30.00	-7.07	1/1
		3540.00	18.46	H	6.24	10.74	22.96	197.76	30.00	-7.04	1/1
15	QPSK	3457.50	19.55	H	6.17	10.62	24.00	251.29	30.00	-6.00	1/36
		3499.98	19.54	H	6.21	10.67	24.00	251.25	30.00	-6.00	1/1
		3542.49	19.61	H	6.24	10.75	24.12	257.94	30.00	-5.88	1/1
	16-QAM	3457.50	18.64	H	6.17	10.62	23.09	203.79	30.00	-6.91	1/36
		3499.98	18.56	H	6.21	10.67	23.02	200.49	30.00	-6.98	1/1
		3542.49	18.51	H	6.24	10.75	23.02	200.22	30.00	-6.98	1/1
10	QPSK	3455.01	19.77	H	6.16	10.61	24.22	264.40	30.00	-5.78	1/22
		3499.98	19.86	H	6.21	10.67	24.32	270.46	30.00	-5.68	1/1
		3544.98	19.81	H	6.24	10.75	24.31	270.07	30.00	-5.69	1/1
	16-QAM	3455.01	18.73	H	6.16	10.61	23.18	208.09	30.00	-6.82	1/22
		3499.98	18.63	H	6.21	10.67	23.09	203.75	30.00	-6.91	1/1
		3544.98	18.63	H	6.24	10.75	23.13	205.81	30.00	-6.87	1/1

**5G NR n77 (PC2, 3450-3550 MHz, ANT C, SRS1)**

BW (MHz)	f (MHz)	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	EIRP (mW)	Limit (dBm)	Delta (dB)
15	3457.50	16.32	H	6.17	10.62	20.77	119.45	30.00	-9.23
	3499.98	16.46	H	6.21	10.67	20.92	123.62	30.00	-9.08
	3542.52	16.01	H	6.24	10.75	20.52	112.59	30.00	-9.48

**5G NR n77 (PC2,3450-3550 MHz, ANT I, SRS2)**

BW (MHz)	f (MHz)	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	EIRP (mW)	Limit (dBm)	Delta (dB)
30	3465.00	17.23	H	6.17	10.63	21.68	147.36	30.00	-8.32
	3499.98	17.65	H	6.21	10.67	22.11	162.59	30.00	-7.89
	3535.02	19.12	H	6.24	10.73	23.61	229.80	30.00	-6.39

**5G NR n77 (PC2,3450-3550 MHz, ANT D, SRS3)**

BW (MHz)	f (MHz)	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	EIRP (mW)	Limit (dBm)	Delta (dB)
10	3455.01	16.25	H	6.16	10.61	20.70	117.56	30.00	-9.30
	3499.98	16.40	H	6.21	10.67	20.86	121.93	30.00	-9.14
	3544.98	16.24	H	6.24	10.75	20.74	118.71	30.00	-9.26

**5G NR n77(PC2,3700-3980 MHz, 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	3750.00	22.43	H	6.43	10.69	26.69	466.98	30.00	-3.31	1/1
		3840.00	20.56	H	6.50	10.58	24.63	290.53	30.00	-5.37	1/271
		3930.00	18.86	H	6.58	10.48	22.76	188.69	30.00	-7.24	1/271
	16-QAM	3750.00	21.17	H	6.43	10.69	25.43	349.38	30.00	-4.57	1/1
		3840.00	19.42	H	6.50	10.58	23.49	223.45	30.00	-5.51	1/271
		3930.00	17.86	H	6.58	10.48	21.76	149.88	30.00	-8.24	1/271
90	QPSK	3745.02	22.27	H	6.43	10.70	26.54	450.69	30.00	-3.46	1/1
		3840.00	22.20	H	6.50	10.58	26.27	423.82	30.00	-3.73	1/243
		3934.98	20.23	H	6.59	10.48	24.11	257.91	30.00	-5.89	1/243
	16-QAM	3745.02	21.60	H	6.43	10.70	25.88	386.96	30.00	-4.12	1/1
		3840.00	21.22	H	6.50	10.58	25.29	338.21	30.00	-4.71	1/243
		3934.98	19.73	H	6.59	10.48	23.62	230.27	30.00	-6.38	1/243
80	QPSK	3740.01	22.37	H	6.42	10.70	26.66	463.35	30.00	-3.34	1/1
		3840.00	22.24	H	6.50	10.58	26.31	427.75	30.00	-3.69	1/215
		3939.99	20.03	H	6.59	10.47	23.91	246.05	30.00	-6.09	1/215
	16-QAM	3740.01	21.64	H	6.42	10.70	25.93	391.68	30.00	-4.07	1/1
		3840.00	21.24	H	6.50	10.58	25.31	339.77	30.00	-4.69	1/215
		3939.99	19.36	H	6.59	10.47	23.24	210.87	30.00	-6.76	1/215
70	QPSK	3735.00	22.41	H	6.41	10.71	26.70	467.78	30.00	-3.30	1/1
		3840.00	22.10	H	6.50	10.58	26.17	414.18	30.00	-3.83	1/187
		3945.00	20.37	H	6.60	10.47	24.25	265.94	30.00	-5.75	1/187
	16-QAM	3735.00	21.68	H	6.41	10.71	25.97	395.41	30.00	-4.03	1/1
		3840.00	21.26	H	6.50	10.58	25.33	341.18	30.00	-4.67	1/187
		3945.00	19.30	H	6.60	10.47	23.18	207.87	30.00	-6.82	1/187
60	QPSK	3730.02	22.92	H	6.41	10.72	27.22	526.96	30.00	-2.78	1/1
		3840.00	21.93	H	6.50	10.58	26.01	398.83	30.00	-3.99	1/160
		3949.98	20.52	H	6.60	10.47	24.39	274.60	30.00	-5.61	1/160
	16-QAM	3730.02	21.86	H	6.41	10.72	26.16	412.84	30.00	-3.84	1/1
		3840.00	20.96	H	6.50	10.58	25.03	318.56	30.00	-4.97	1/160
		3949.98	19.69	H	6.60	10.47	23.56	226.83	30.00	-6.44	1/160
50	QPSK	3725.01	23.15	H	6.41	10.72	27.47	558.18	30.00	-2.53	1/1
		3840.00	21.81	H	6.50	10.58	25.88	387.42	30.00	-4.12	1/131
		3954.99	20.64	H	6.60	10.47	24.50	282.16	30.00	-5.50	1/67
	16-QAM	3725.01	22.02	H	6.41	10.72	26.34	430.30	30.00	-3.66	1/1
		3840.00	21.23	H	6.50	10.58	25.30	338.99	30.00	-4.70	1/131
		3954.99	19.66	H	6.60	10.47	23.52	225.16	30.00	-6.48	1/67
40	QPSK	3720.02	22.80	H	6.40	10.73	27.12	515.80	30.00	-2.88	1/1
		3840.00	21.60	H	6.50	10.58	25.68	369.65	30.00	-4.32	1/104
		3960.00	20.48	H	6.60	10.47	24.34	271.89	30.00	-5.66	1/53
	16-QAM	3720.02	21.84	H	6.40	10.73	26.17	413.55	30.00	-3.83	1/1
		3840.00	20.79	H	6.50	10.58	24.87	306.75	30.00	-5.13	1/104
		3960.00	20.04	H	6.60	10.47	23.90	245.69	30.00	-6.10	1/53
30	QPSK	3715.02	22.56	H	6.40	10.73	26.88	488.07	30.00	-3.12	1/1
		3840.00	21.45	H	6.50	10.58	25.52	356.36	30.00	-4.48	1/76
		3964.98	20.62	H	6.61	10.46	24.47	280.07	30.00	-5.53	1/76
	16-QAM	3715.02	21.52	H	6.40	10.73	25.86	385.05	30.00	-4.14	1/1
		3840.00	20.41	H	6.50	10.58	24.48	280.66	30.00	-5.52	1/76
		3964.98	19.55	H	6.61	10.46	23.40	218.91	30.00	-6.60	1/76
25	QPSK	3712.50	21.42	H	6.40	10.74	25.76	376.33	30.00	-4.24	1/63
		3840.00	21.30	H	6.50	10.58	25.37	344.50	30.00	-4.63	1/63
		3967.50	20.53	H	6.61	10.46	24.38	274.09	30.00	-5.62	1/63
	16-QAM	3712.50	21.21	H	6.40	10.74	25.55	358.57	30.00	-4.45	1/63
		3840.00	20.37	H	6.50	10.58	24.44	278.09	30.00	-5.56	1/63
		3969.99	19.48	H	6.61	10.46	23.33	215.22	30.00	-6.67	1/63
20	QPSK	3710.01	22.36	H	6.39	10.74	26.70	468.21	30.00	-3.30	1/1
		3840.00	21.16	H	6.50	10.58	25.23	333.57	30.00	-4.77	1/1
		3969.99	20.66	H	6.61	10.46	24.50	282.16	30.00	-5.50	1/1
	16-QAM	3710.01	21.12	H	6.39	10.74	25.46	351.92	30.00	-4.54	1/1
		3840.00	20.19	H	6.50	10.58	24.26	266.80	30.00	-5.74	1/1
		3969.99	19.53	H	6.61	10.46	23.38	217.77	30.00	-6.62	1/1
15	QPSK	3707.52	22.09	H	6.39	10.74	26.43	439.76	30.00	-3.57	1/36
		3840.00	21.09	H	6.50	10.58	25.16	328.24	30.00	-4.84	1/36
		3972.48	20.76	H	6.63	10.46	24.59	287.51	30.00	-5.41	1/36
	16-QAM	3707.52	21.13	H	6.39	10.74	25.47	352.62	30.00	-4.53	1/36
		3840.00	20.22	H	6.50	10.58	24.29	268.65	30.00	-5.71	1/36
		3972.48	19.78	H	6.63	10.46	23.61	229.44	30.00	-6.39	1/36
10	QPSK	3705.00	22.03	H	6.39	10.74	26.39	435.17	30.00	-3.61	1/22
		3840.00	21.05	H	6.50	10.58	25.12	325.23	30.00	-4.88	1/22
		3975.00	20.74	H	6.62	10.46	24.57	286.65	30.00	-5.43	1/22
	16-QAM	3705.00	20.87	H	6.39	10.74	25.23	333.24	30.00	-4.77	1/22
		3840.00	20.42	H	6.50	10.58	24.49	281.31	30.00	-5.51	1/22
		3975.00	19.57	H	6.62	10.46	23.40	218.96	30.00	-6.60	1/22

**5G NR n77(PC2,3700-3980 MHz, ANT C, SRS1)**

BW (MHz)	f (MHz)	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	EIRP (mW)	Limit (dBm)	Delta (dB)
90	3745.02	11.85	H	6.43	10.70	16.13	40.99	30.00	-13.87
	3840.00	10.83	H	6.50	10.58	14.90	30.92	30.00	-15.10
	3934.98	11.71	H	6.59	10.48	15.60	36.32	30.00	-14.40

**5G NR n77(PC2,3700-3980 MHz, ANT I, SRS2)**

BW (MHz)	f (MHz)	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	EIRP (mW)	Limit (dBm)	Delta (dB)
100	3750.00	20.59	H	6.43	10.69	24.85	305.70	30.00	-5.15
	3840.00	19.75	H	6.50	10.58	23.82	241.09	30.00	-6.18
	3930.00	20.08	H	6.58	10.48	23.98	249.89	30.00	-6.02

**5G NR n77(PC2,3700-3980 MHz, ANT D, SRS3)**

BW (MHz)	f (MHz)	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	EIRP (mW)	Limit (dBm)	Delta (dB)
10	3705.00	13.11	H	6.39	10.74	17.47	55.80	30.00	-12.53
	3840.00	13.55	H	6.50	10.58	17.62	57.83	30.00	-12.38
	3975.00	14.23	H	6.62	10.46	18.06	64.03	30.00	-11.94

## 9.2. RADIATED SPURIOUS EMISSION

### RULE PART(S)

FCC: §2.1053, §27. 53

### LIMIT

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 than  $43 + 10 \log (P)$  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.

(l)(2) For mobile operations in the 3700-3980 MHz band, the conducted power of any emission outside the licensee's authorized bandwidth shall not exceed  $-13$  dBm/MHz. Compliance with this paragraph (l)(2) is based on the use of measurement instrumentation employing a resolution bandwidth of 1 megahertz or greater. However, in the 1 megahertz bands immediately outside and adjacent to the licensee's frequency block, the minimum resolution bandwidth for the measurement shall be either one percent of the emission bandwidth of the fundamental emission of the transmitter or 350 kHz. In the bands between 1 and 5 MHz removed from the licensee's frequency block, the minimum resolution bandwidth for the measurement shall be 500 kHz. The emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emissions are attenuated at least 26 dB below the transmitter power.

(n)(2) For mobile operations in the 3450-3550 MHz band, the conducted power of any emission outside the licensee's authorized bandwidth shall not exceed  $-13$  dBm/MHz. Compliance with this paragraph (n)(2) is based on the use of measurement instrumentation employing a resolution bandwidth of 1 megahertz or greater. However, in the 1 megahertz bands immediately outside and adjacent to the licensee's frequency block, a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed, but limited to a maximum of 200 kHz. In the bands between 1 and 5 MHz removed from the licensee's frequency block, the minimum resolution bandwidth for the measurement shall be 500 kHz. The emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emissions are attenuated at least 26 dB below the transmitter power.

---

## **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  $\geq 3 \times$  RBW;
- c) Set span  $\geq 1.5$  times the OBW;
- d) Sweep time = auto couple;
- e) Detector = rms;
- f) Ensure that the number of measurement points  $\geq$  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 ( $\pi/2$  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 PLOTS

#### WCDMA Band 4

		UL Verification Services, Inc. Above 1GHz High Frequency Substitution Measurement									
		f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
REL99	Company: Samsung										
	Project #: 4790976523										
	Date: 2023-09-12										
	Test Engineer: 24542										
	Configuration: EUT / AC Adapter, X-Position										
	Location: Chamber 2										
	Mode: Rel99 Band 4 Harmonics										
	Test Voltage: AC 120 V, 60 Hz										
	<b>Low Ch, 1712.4MHz</b>										
		3424.80	-8.4	V	3.0	42.2	1.0	-49.6	-13.0	-36.6	
		5137.20	-9.1	V	3.0	42.9	1.0	-51.0	-13.0	-38.0	
		6849.60	-5.9	V	3.0	42.9	1.0	-47.8	-13.0	-34.8	
		3424.80	-8.1	H	3.0	42.2	1.0	-49.3	-13.0	-36.3	
		5137.20	-9.1	H	3.0	42.9	1.0	-51.1	-13.0	-38.1	
		6849.60	-6.4	H	3.0	42.9	1.0	-48.2	-13.0	-35.2	
	<b>Mid Ch, 1732.6MHz</b>										
		3465.20	-8.4	V	3.0	42.2	1.0	-49.6	-13.0	-36.6	
		5197.80	-8.8	V	3.0	43.0	1.0	-50.8	-13.0	-37.8	
		6930.40	-5.9	V	3.0	42.9	1.0	-47.7	-13.0	-34.7	
		3465.20	-8.1	H	3.0	42.2	1.0	-49.3	-13.0	-36.3	
		5197.80	-8.9	H	3.0	43.0	1.0	-50.8	-13.0	-37.8	
		6930.40	-6.3	H	3.0	42.9	1.0	-48.2	-13.0	-35.2	
	<b>High Ch, 1752.6MHz</b>										
		3505.20	-8.3	V	3.0	42.2	1.0	-49.5	-13.0	-36.5	
		5257.80	-8.8	V	3.0	43.0	1.0	-50.8	-13.0	-37.8	
		7010.40	-5.6	V	3.0	42.8	1.0	-47.5	-13.0	-34.5	
		3505.20	-8.0	H	3.0	42.2	1.0	-49.2	-13.0	-36.2	
		5257.80	-8.9	H	3.0	43.0	1.0	-50.8	-13.0	-37.8	
	7010.40	-6.1	H	3.0	42.8	1.0	-47.9	-13.0	-34.9		

**LTE Band 7**

		UL Verification Services, Inc. Above 1GHz High Frequency Substitution Measurement									
		Company: Samsung Project #: 4790976523 Date: 2023-09-13 Test Engineer: 24542 Configuration: EUT / AC Adapter, Z-Position Location: Chamber 2 Mode: LTE_QPSK Band 7 Harmonics, 20MHz Bandwidth 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
20MHz  QPSK  ANT B	Low Ch, 2510MHz										
		5020.00	-21.4	V	3.0	42.9	1.0	-63.3	-25.0	-38.3	
		7530.00	-16.2	V	3.0	42.6	1.0	-57.8	-25.0	-32.8	
		10040.00	-16.4	V	3.0	41.0	1.0	-56.4	-25.0	-31.4	
		5020.00	-21.2	H	3.0	42.9	1.0	-63.1	-25.0	-38.1	
		7530.00	-14.3	H	3.0	42.6	1.0	-55.9	-25.0	-30.9	
		10040.00	-16.4	H	3.0	41.0	1.0	-56.4	-25.0	-31.4	
	Mid Ch, 2535MHz										
		5070.00	-20.4	V	3.0	42.9	1.0	-62.3	-25.0	-37.3	
		7605.00	-16.3	V	3.0	42.5	1.0	-57.8	-25.0	-32.8	
		10140.00	-16.4	V	3.0	41.1	1.0	-56.4	-25.0	-31.4	
		5070.00	-21.1	H	3.0	42.9	1.0	-63.0	-25.0	-38.0	
		7605.00	-12.2	H	3.0	42.5	1.0	-53.7	-25.0	-28.7	
		10140.00	-16.3	H	3.0	41.1	1.0	-56.3	-25.0	-31.3	
	High Ch, 2560MHz										
		5120.00	-20.9	V	3.0	42.9	1.0	-62.9	-25.0	-37.9	
		7680.00	-16.5	V	3.0	42.5	1.0	-58.0	-25.0	-33.0	
		10240.00	-16.4	V	3.0	41.1	1.0	-56.5	-25.0	-31.5	
		5120.00	-21.0	H	3.0	42.9	1.0	-62.9	-25.0	-37.9	
		7680.00	-15.4	H	3.0	42.5	1.0	-56.9	-25.0	-31.9	
	10240.00	-16.5	H	3.0	41.1	1.0	-56.6	-25.0	-31.6		
		UL Verification Services, Inc. Above 1GHz High Frequency Substitution Measurement									
		Company: Samsung Project #: 4790976523 Date: 2023-10-03 Test Engineer: 47989 Configuration: EUT / AC Adapter, X-Position Location: Chamber 2 Mode: LTE_QPSK Band 7 Harmonics, 10MHz Bandwidth 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
10 MHz  QPSK  ANT F	Low Ch, 2505MHz										
		5010.00	-21.7	V	3.0	42.9	1.0	-63.6	-25.0	-38.6	
		7515.00	-18.9	V	3.0	42.6	1.0	-60.4	-25.0	-35.4	
		10020.00	-16.7	V	3.0	41.0	1.0	-56.7	-25.0	-31.7	
		5010.00	-21.8	H	3.0	42.9	1.0	-63.7	-25.0	-38.7	
		7515.00	-19.5	H	3.0	42.6	1.0	-61.1	-25.0	-36.1	
		10020.00	-16.8	H	3.0	41.0	1.0	-56.8	-25.0	-31.8	
	Mid Ch, 2535MHz										
		5070.00	-21.7	V	3.0	42.9	1.0	-63.6	-25.0	-38.6	
		7605.00	-18.5	V	3.0	42.5	1.0	-60.0	-25.0	-35.0	
		10140.00	-16.7	V	3.0	41.1	1.0	-56.8	-25.0	-31.8	
		5070.00	-21.6	H	3.0	42.9	1.0	-63.6	-25.0	-38.6	
		7605.00	-19.1	H	3.0	42.5	1.0	-60.7	-25.0	-35.7	
		10140.00	-17.0	H	3.0	41.1	1.0	-57.0	-25.0	-32.0	
	High Ch, 2565MHz										
		5130.00	-21.9	V	3.0	42.9	1.0	-63.8	-25.0	-38.8	
		7695.00	-18.5	V	3.0	42.5	1.0	-60.0	-25.0	-35.0	
		10260.00	-16.4	V	3.0	41.1	1.0	-56.5	-25.0	-31.5	
		5130.00	-21.9	H	3.0	42.9	1.0	-63.8	-25.0	-38.8	
		7695.00	-19.0	H	3.0	42.5	1.0	-60.5	-25.0	-35.5	
	10260.00	-16.5	H	3.0	41.1	1.0	-56.6	-25.0	-31.6		

**LTE Band 12**

		UL Verification Services, Inc. Above 1GHz High Frequency Substitution Measurement									
		Company: Samsung Project #: 4790976523 Date: 2023-09-14 Test Engineer: 24542 Configuration: EUT / AC Adapter, Z-Position Location: Chamber 1 Mode: LTE_QPSK Band 12 Harmonics, 3MHz Bandwidth 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		
3 MHz											
QPSK											
ANT A											
Low Ch, 700.5MHz 1401.00 -16.6 V 3.0 43.3 1.0 -58.8 -13.0 -45.8 2101.50 -12.8 V 3.0 43.4 1.0 -55.3 -13.0 -42.3 2802.00 -10.9 V 3.0 43.7 1.0 -53.6 -13.0 -40.6 1401.00 -17.9 H 3.0 43.3 1.0 -60.1 -13.0 -47.1 2101.50 -13.8 H 3.0 43.4 1.0 -56.2 -13.0 -43.2 2802.00 -10.9 H 3.0 43.7 1.0 -53.6 -13.0 -40.6 Mid Ch, 707.5MHz 1415.00 -16.5 V 3.0 43.3 1.0 -58.7 -13.0 -45.7 2122.50 -12.8 V 3.0 43.4 1.0 -55.2 -13.0 -42.2 2830.00 -12.0 V 3.0 43.7 1.0 -54.7 -13.0 -41.7 1415.00 -17.8 H 3.0 43.3 1.0 -60.0 -13.0 -47.0 2122.50 -13.3 H 3.0 43.4 1.0 -55.7 -13.0 -42.7 2830.00 -11.9 H 3.0 43.7 1.0 -54.6 -13.0 -41.6 High Ch, 714.5MHz 1429.00 -16.4 V 3.0 43.3 1.0 -58.7 -13.0 -45.7 2143.50 -12.4 V 3.0 43.4 1.0 -54.9 -13.0 -41.9 2858.00 -10.8 V 3.0 43.7 1.0 -53.5 -13.0 -40.5 1429.00 -17.7 H 3.0 43.3 1.0 -60.0 -13.0 -47.0 2143.50 -13.4 H 3.0 43.4 1.0 -55.9 -13.0 -42.9 2858.00 -10.6 H 3.0 43.7 1.0 -53.4 -13.0 -40.4											
		UL Verification Services, Inc. Above 1GHz High Frequency Substitution Measurement									
		Company: Samsung Project #: 4790976523 Date: 2023-09-25 Test Engineer: 26087 Configuration: EUT / AC Adapter, X-Position Location: Chamber 1 Mode: LTE_QPSK Band 12 Harmonics, 3MHz Bandwidth 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		
3 MHz											
QPSK											
ANT E											
Low Ch, 700.5MHz 1401.00 -16.5 V 3.0 43.3 1.0 -58.8 -13.0 -45.8 2101.50 -12.9 V 3.0 43.4 1.0 -55.3 -13.0 -42.3 2802.00 -10.8 V 3.0 43.7 1.0 -53.5 -13.0 -40.5 1401.00 -17.4 H 3.0 43.3 1.0 -59.7 -13.0 -46.7 2101.50 -12.1 H 3.0 43.4 1.0 -54.6 -13.0 -41.6 2802.00 -10.9 H 3.0 43.7 1.0 -53.6 -13.0 -40.6 Mid Ch, 707.5MHz 1415.00 -16.3 V 3.0 43.3 1.0 -58.6 -13.0 -45.6 2122.50 -12.7 V 3.0 43.4 1.0 -55.2 -13.0 -42.2 2830.00 -10.8 V 3.0 43.7 1.0 -53.5 -13.0 -40.5 1415.00 -17.3 H 3.0 43.3 1.0 -59.5 -13.0 -46.5 2122.50 -11.6 H 3.0 43.4 1.0 -54.0 -13.0 -41.0 2830.00 -10.7 H 3.0 43.7 1.0 -53.4 -13.0 -40.4 High Ch, 714.5MHz 1429.00 -16.1 V 3.0 43.3 1.0 -58.4 -13.0 -45.4 2143.50 -12.3 V 3.0 43.4 1.0 -54.8 -13.0 -41.8 2858.00 -10.7 V 3.0 43.7 1.0 -53.4 -13.0 -40.4 1429.00 -16.9 H 3.0 43.3 1.0 -59.2 -13.0 -46.2 2143.50 -11.3 H 3.0 43.4 1.0 -53.8 -13.0 -40.8 2858.00 -10.6 H 3.0 43.7 1.0 -53.3 -13.0 -40.3											

**LTE Band 13**

		UL Verification Services, Inc. Above 1GHz High Frequency Substitution Measurement									
		Company: Samsung Project #: 4790976523 Date: 2023-09-07 Test Engineer: 24542 Configuration: EUT / Adapter, Y-Position Location: Chamber 2 Mode: LTE_QPSK Band 13 Harmonics, 5MHz Bandwidth 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		
5 MHz											
QPSK											
ANT A											
Low Ch, 779.5MHz											
1559.00	-30.4	V	3.0	40.8	1.0	-70.2	-40.0	-30.2			
2338.50	-11.3	V	3.0	41.2	1.0	-51.5	-13.0	-38.5			
3118.00	-9.4	V	3.0	42.2	1.0	-50.6	-13.0	-37.6			
1559.00	-31.4	H	3.0	40.8	1.0	-71.2	-40.0	-31.2			
2338.50	-11.9	H	3.0	41.2	1.0	-52.1	-13.0	-39.1			
3118.00	-8.7	H	3.0	42.2	1.0	-49.9	-13.0	-36.9			
Mid Ch, 782MHz											
1564.00	-30.4	V	3.0	40.8	1.0	-70.2	-40.0	-30.2			
2346.00	-11.4	V	3.0	41.2	1.0	-51.6	-13.0	-38.6			
3128.00	-9.3	V	3.0	42.2	1.0	-50.5	-13.0	-37.5			
1564.00	-31.4	H	3.0	40.8	1.0	-71.3	-40.0	-31.3			
2346.00	-12.1	H	3.0	41.2	1.0	-52.4	-13.0	-39.4			
3128.00	-8.7	H	3.0	42.2	1.0	-49.9	-13.0	-36.9			
High Ch, 784.5MHz											
1569.00	-30.5	V	3.0	40.8	1.0	-70.3	-40.0	-30.3			
2353.50	-10.4	V	3.0	41.3	1.0	-50.7	-13.0	-37.7			
3138.00	-9.4	V	3.0	42.2	1.0	-50.6	-13.0	-37.6			
1569.00	-31.5	H	3.0	40.8	1.0	-71.3	-40.0	-31.3			
2353.50	-11.8	H	3.0	41.3	1.0	-52.1	-13.0	-39.1			
3138.00	-8.6	H	3.0	42.2	1.0	-49.7	-13.0	-36.7			
		UL Verification Services, Inc. Above 1GHz High Frequency Substitution Measurement									
		Company: Samsung Project #: 4790976523 Date: 2023-09-24 Test Engineer: 26087 Configuration: EUT / AC Adapter, Z-Position Location: Chamber 1 Mode: LTE_QPSK Band 13 Harmonics, 10MHz Bandwidth 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		
10 MHz											
QPSK											
ANT E											
Mid Ch, 782MHz											
1564.00	-25.8	V	3.0	43.3	1.0	-68.1	-40.0	-28.1			
2346.00	-12.2	V	3.0	43.5	1.0	-54.8	-13.0	-41.8			
3128.00	-10.0	V	3.0	43.8	1.0	-52.8	-13.0	-39.8			
1564.00	-27.0	H	3.0	43.3	1.0	-69.3	-40.0	-29.3			
2346.00	-12.8	H	3.0	43.5	1.0	-55.3	-13.0	-42.3			
3128.00	-9.8	H	3.0	43.8	1.0	-52.6	-13.0	-39.6			

**LTE Band 30**

		UL Verification Services, Inc. Above 1GHz High Frequency Substitution Measurement										
		Company: Samsung Project #: 4790976523 Date: 2023-10-19 Test Engineer: 28183 Configuration: EUT / AC Adapter, Z-Position Location: Chamber 1 Mode: LTE_QPSK Band 30 Harmonics, 5MHz Bandwidth Test Voltage: AC 120 V, 60 Hz										
5 MHz	QPSK	ANT A	f	SG reading	Ant. Pol.	Distance	Preamp	Filter	EIRP	Limit	Delta	Notes
			MHz	(dBm)	(H/V)	(m)	(dB)	(dB)	(dBm)	(dBm)	(dB)	
Low Ch, 2307.5MHz												
			4615.00	-22.0	V	3.0	44.6	1.0	-65.6	-40.0	-25.6	
			6922.50	-21.6	V	3.0	45.1	1.0	-65.8	-40.0	-25.8	
			9230.00	-21.6	V	3.0	44.1	1.0	-64.7	-40.0	-24.7	
			4615.00	-20.6	H	3.0	44.6	1.0	-64.2	-40.0	-24.2	
			6922.50	-21.5	H	3.0	45.1	1.0	-65.7	-40.0	-25.7	
			9230.00	-21.7	H	3.0	44.1	1.0	-64.8	-40.0	-24.8	
Mid Ch, 2310MHz												
			4620.00	-20.3	V	3.0	44.6	1.0	-63.9	-40.0	-23.9	
			6930.00	-22.3	V	3.0	45.1	1.0	-66.4	-40.0	-26.4	
			9240.00	-21.8	V	3.0	44.1	1.0	-64.9	-40.0	-24.9	
			4620.00	-20.2	H	3.0	44.6	1.0	-63.7	-40.0	-23.7	
			6930.00	-16.9	H	3.0	45.1	1.0	-61.1	-40.0	-21.1	
			9240.00	-21.6	H	3.0	44.1	1.0	-64.7	-40.0	-24.7	
High Ch, 2312.5MHz												
			4625.00	-20.3	V	3.0	44.6	1.0	-63.9	-40.0	-23.9	
			6937.50	-16.5	V	3.0	45.1	1.0	-60.6	-40.0	-20.6	
			9250.00	-19.5	V	3.0	44.0	1.0	-62.6	-40.0	-22.6	
			4625.00	-20.5	H	3.0	44.6	1.0	-64.0	-40.0	-24.0	
			6937.50	-18.8	H	3.0	45.1	1.0	-63.0	-40.0	-23.0	
			9250.00	-19.2	H	3.0	44.0	1.0	-62.2	-40.0	-22.2	
		UL Verification Services, Inc. Above 1GHz High Frequency Substitution Measurement										
		Company: Samsung Project #: 4790976523 Date: 2023-10-17 Test Engineer: 24542 Configuration: EUT / AC Adapter, Z-Position Location: Chamber 1 Mode: LTE_QPSK Band 30 Harmonics, 10MHz Bandwidth Test Voltage: AC 120 V, 60 Hz										
10 MHz	QPSK	ANT F	f	SG reading	Ant. Pol.	Distance	Preamp	Filter	EIRP	Limit	Delta	Notes
			MHz	(dBm)	(H/V)	(m)	(dB)	(dB)	(dBm)	(dBm)	(dB)	
Mid Ch, 2310MHz												
			4620.00	-20.0	V	3.0	44.6	1.0	-63.6	-40.0	-23.6	
			6930.00	-18.3	V	3.0	45.1	1.0	-62.4	-40.0	-22.4	
			9240.00	-16.1	V	3.0	44.1	1.0	-59.1	-40.0	-19.1	
			4620.00	-20.0	H	3.0	44.6	1.0	-63.6	-40.0	-23.6	
			6930.00	-18.3	H	3.0	45.1	1.0	-62.4	-40.0	-22.4	
			9240.00	-15.2	H	3.0	44.1	1.0	-58.2	-40.0	-18.2	

**LTE Band 41 (PC2)**

		UL Verification Services, Inc. Above 1GHz High Frequency Substitution Measurement									
		Company: Samsung Project #: 4790976523 Date: 2023-09-10 Test Engineer: 24542 Configuration: EUT / AC Adapter, X-Position Location: Chamber 2 Mode: LTE_QPSK Band 41 Harmonics, 15MHz Bandwidth 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		
15 MHz											
QPSK											
ANT B											
Low Ch, 2503.5MHz 5007.00 -18.9 V 3.0 42.9 1.0 -60.8 -25.0 -35.8 7510.50 -12.0 V 3.0 42.6 1.0 -53.5 -25.0 -28.5 10014.00 -13.4 V 3.0 41.0 1.0 -53.4 -25.0 -28.4 5007.00 -18.8 H 3.0 42.9 1.0 -60.8 -25.0 -35.8 7510.50 -15.3 H 3.0 42.6 1.0 -56.9 -25.0 -31.9 10014.00 -14.1 H 3.0 41.0 1.0 -54.1 -25.0 -29.1 Mid Ch, 2593MHz 5186.00 -17.3 V 3.0 43.0 1.0 -59.2 -25.0 -34.2 7779.00 -3.7 V 3.0 42.4 1.0 -45.1 -25.0 -20.1 10372.00 -13.4 V 3.0 41.2 1.0 -53.6 -25.0 -28.6 5186.00 -10.7 H 3.0 43.0 1.0 -52.7 -25.0 -27.7 7779.00 -9.2 H 3.0 42.4 1.0 -50.6 -25.0 -25.6 10372.00 -13.6 H 3.0 41.2 1.0 -53.8 -25.0 -28.8 High Ch, 2682.5MHz 5365.00 -18.2 V 3.0 43.0 1.0 -60.1 -25.0 -35.1 8047.50 -16.1 V 3.0 42.3 1.0 -57.4 -25.0 -32.4 10730.00 -13.1 V 3.0 41.3 1.0 -53.4 -25.0 -28.4 5365.00 -17.7 H 3.0 43.0 1.0 -59.7 -25.0 -34.7 8047.50 -16.4 H 3.0 42.3 1.0 -57.7 -25.0 -32.7 10730.00 -13.3 H 3.0 41.3 1.0 -53.6 -25.0 -28.6											
		UL Verification Services, Inc. Above 1GHz High Frequency Substitution Measurement									
		Company: Samsung Project #: 4790976523 Date: 2023-10-18 Test Engineer: 28183 Configuration: EUT / AC Adapter, Y-Position Location: Chamber 1 Mode: LTE_QPSK Band 41 Harmonics, 5MHz Bandwidth 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		
5 MHz											
QPSK											
ANT F											
Low Ch, 2498.5MHz 4997.00 -14.3 V 3.0 44.8 1.0 -58.1 -25.0 -33.1 7495.50 -9.5 V 3.0 45.0 1.0 -53.4 -25.0 -28.4 9994.00 -10.6 V 3.0 43.6 1.0 -53.2 -25.0 -28.2 4997.00 -14.5 H 3.0 44.8 1.0 -58.3 -25.0 -33.3 7495.50 -9.7 H 3.0 45.0 1.0 -53.7 -25.0 -28.7 9994.00 -9.6 H 3.0 43.6 1.0 -52.3 -25.0 -27.3 Mid Ch, 2593MHz 5186.00 -14.3 V 3.0 44.8 1.0 -58.1 -25.0 -33.1 7779.00 -10.9 V 3.0 44.8 1.0 -54.8 -25.0 -29.8 10372.00 -11.3 V 3.0 43.5 1.0 -53.8 -25.0 -28.8 5186.00 -13.3 H 3.0 44.8 1.0 -57.1 -25.0 -32.1 7779.00 -10.6 H 3.0 44.8 1.0 -54.4 -25.0 -29.4 10372.00 -11.3 H 3.0 43.5 1.0 -53.8 -25.0 -28.8 High Ch, 2687.5MHz 5375.00 -14.7 V 3.0 44.9 1.0 -58.6 -25.0 -33.6 8062.50 -8.4 V 3.0 44.7 1.0 -52.1 -25.0 -27.1 10750.00 -10.4 V 3.0 43.5 1.0 -52.9 -25.0 -27.9 5375.00 -13.2 H 3.0 44.9 1.0 -57.1 -25.0 -32.1 8062.50 -7.7 H 3.0 44.7 1.0 -51.4 -25.0 -26.4 10750.00 -10.3 H 3.0 43.5 1.0 -52.7 -25.0 -27.7											

**LTE Band 41 (UL CA)**

		UL Verification Services, Inc. Above 1GHz High Frequency Substitution Measurement									
		Company: Samsung Project #: 4790976523 Date: 2023-09-20 Test Engineer: 24542 Configuration: EUT / AC Adapter, X-Position Location: Chamber 1 Mode: ULCA QPSK Band 41C Harmonics, 40MHz Bandwidth 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		
20+20 MHz											
QPSK											
ANT B											
Low Ch, 2515.9MHz											
5031.80	-19.5	V	3.0	44.8	1.0	-63.3	-25.0	-38.3			
7547.70	-16.1	V	3.0	44.9	1.0	-60.0	-25.0	-35.0			
10063.60	-12.5	V	3.0	43.6	1.0	-55.1	-25.0	-30.1			
5031.80	-19.9	H	3.0	44.8	1.0	-63.6	-25.0	-38.6			
7547.70	-15.8	H	3.0	44.9	1.0	-59.8	-25.0	-34.8			
10063.60	0.0	H	3.0	43.6	1.0	-42.6	-25.0	-17.6			
Mid Ch, 2593MHz											
5186.00	-19.3	V	3.0	44.8	1.0	-63.1	-25.0	-38.1			
7779.00	-14.6	V	3.0	44.8	1.0	-58.5	-25.0	-33.5			
10372.00	-12.3	V	3.0	43.5	1.0	-54.8	-25.0	-29.8			
5186.00	-19.1	H	3.0	44.8	1.0	-63.0	-25.0	-38.0			
7779.00	-15.3	H	3.0	44.8	1.0	-59.1	-25.0	-34.1			
10372.00	-12.3	H	3.0	43.5	1.0	-54.9	-25.0	-29.9			
High Ch, 2670.1MHz											
5340.20	-19.2	V	3.0	44.9	1.0	-63.0	-25.0	-38.0			
8010.30	-15.4	V	3.0	44.8	1.0	-59.1	-25.0	-34.1			
10680.40	-11.8	V	3.0	43.5	1.0	-54.3	-25.0	-29.3			
5340.20	-19.0	H	3.0	44.9	1.0	-62.9	-25.0	-37.9			
8010.30	-15.6	H	3.0	44.8	1.0	-59.4	-25.0	-34.4			
10680.40	-11.8	H	3.0	43.5	1.0	-54.3	-25.0	-29.3			
		UL Verification Services, Inc. Above 1GHz High Frequency Substitution Measurement									
		Company: Samsung Project #: 4790796523 Date: 2023-10-19 Test Engineer: 24542 Configuration: EUT / AC Adapter, Z-Position Location: Chamber 2 Mode: ULCA QPSK Band 41C Harmonics, 40MHz Bandwidth 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		
20+20 MHz											
QPSK											
ANT F											
Low Ch, PCC : 2506 MHz SCC : 2525.8 MHz											
5031.80	-18.4	V	3.0	42.9	1.0	-60.3	-25.0	-35.3			
7547.70	-16.0	V	3.0	42.6	1.0	-57.6	-25.0	-32.6			
10063.60	-13.4	V	3.0	41.0	1.0	-53.4	-25.0	-28.4			
5031.80	-18.6	H	3.0	42.9	1.0	-60.5	-25.0	-35.5			
7547.70	-15.6	H	3.0	42.6	1.0	-57.2	-25.0	-32.2			
10063.60	-13.7	H	3.0	41.0	1.0	-53.7	-25.0	-28.7			
Mid Ch, PCC : 2583.1 MHz SCC : 2602.9 MHz											
5186.00	-18.1	V	3.0	43.0	1.0	-60.0	-25.0	-35.0			
7779.00	-15.4	V	3.0	42.4	1.0	-56.8	-25.0	-31.8			
10372.00	-13.4	V	3.0	41.2	1.0	-53.5	-25.0	-28.5			
5186.00	-19.2	H	3.0	43.0	1.0	-61.2	-25.0	-36.2			
7779.00	-14.8	H	3.0	42.4	1.0	-56.2	-25.0	-31.2			
10372.00	-13.3	H	3.0	41.2	1.0	-53.4	-25.0	-28.4			
High Ch PCC : 2660.2 MHz SCC : 2680 MHz											
5340.20	-17.4	V	3.0	43.0	1.0	-59.4	-25.0	-34.4			
8010.30	-13.8	V	3.0	42.3	1.0	-55.1	-25.0	-30.1			
10680.40	-12.5	V	3.0	41.3	1.0	-52.8	-25.0	-27.8			
5340.20	-18.0	H	3.0	43.0	1.0	-60.0	-25.0	-35.0			
8010.30	-14.0	H	3.0	42.3	1.0	-55.3	-25.0	-30.3			
10680.40	-12.9	H	3.0	41.3	1.0	-53.2	-25.0	-28.2			

**LTE Band 66**

		UL Verification Services, Inc. Above 1GHz High Frequency Substitution Measurement									
		Company: Samsung Project #: 4790976523 Date: 2023-09-09 Test Engineer: 24542 Configuration: EUT / AC Adapter, X-Position Location: Chamber 2 Mode: LTE_QPSK Band 66 Harmonics, 20MHz Bandwidth 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		
20 MHz											
QPSK											
ANT A											
Low Ch, 1720MHz											
3440.00	-8.3	V	3.0	42.2	1.0	-49.5	-13.0	-36.5			
5160.00	-9.0	V	3.0	42.9	1.0	-50.9	-13.0	-37.9			
6880.00	-5.9	V	3.0	42.9	1.0	-47.8	-13.0	-34.8			
3440.00	-7.9	H	3.0	42.2	1.0	-49.1	-13.0	-36.1			
5160.00	-9.0	H	3.0	42.9	1.0	-50.9	-13.0	-37.9			
6880.00	-6.2	H	3.0	42.9	1.0	-48.1	-13.0	-35.1			
Mid Ch, 1745MHz											
3490.00	-8.3	V	3.0	42.2	1.0	-49.6	-13.0	-36.6			
5235.00	-8.8	V	3.0	43.0	1.0	-50.8	-13.0	-37.8			
6980.00	-5.7	V	3.0	42.8	1.0	-47.5	-13.0	-34.5			
3490.00	-8.0	H	3.0	42.2	1.0	-49.2	-13.0	-36.2			
5235.00	-8.9	H	3.0	43.0	1.0	-50.9	-13.0	-37.9			
6980.00	-6.2	H	3.0	42.8	1.0	-48.0	-13.0	-35.0			
High Ch, 1770MHz											
3540.00	-7.4	V	3.0	42.2	1.0	-48.6	-13.0	-35.6			
5310.00	-8.4	V	3.0	43.0	1.0	-50.4	-13.0	-37.4			
7080.00	-5.6	V	3.0	42.8	1.0	-47.4	-13.0	-34.4			
3540.00	-7.3	H	3.0	42.2	1.0	-48.5	-13.0	-35.5			
5310.00	-8.3	H	3.0	43.0	1.0	-50.3	-13.0	-37.3			
7080.00	-6.1	H	3.0	42.8	1.0	-47.9	-13.0	-34.9			
		UL Verification Services, Inc. Above 1GHz High Frequency Substitution Measurement									
		Company: Samsung Project #: 4790976523 Date: 2023-10-18 Test Engineer: 24542 Configuration: EUT / AC Adapter, Y-Position Location: Chamber 1 Mode: LTE_QPSK Band 66 Harmonics, 20MHz Bandwidth 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		
20 MHz											
QPSK											
ANT F											
Low Ch, 1720MHz											
3440.00	-8.2	V	3.0	44.0	1.0	-51.2	-13.0	-38.2			
5160.00	-7.1	V	3.0	44.8	1.0	-51.0	-13.0	-38.0			
6880.00	-4.3	V	3.0	45.1	1.0	-48.5	-13.0	-35.5			
3440.00	-8.2	H	3.0	44.0	1.0	-51.2	-13.0	-38.2			
5160.00	-6.1	H	3.0	44.8	1.0	-49.9	-13.0	-36.9			
6880.00	-4.3	H	3.0	45.1	1.0	-48.4	-13.0	-35.4			
Mid Ch, 1745MHz											
3490.00	-8.2	V	3.0	44.0	1.0	-51.2	-13.0	-38.2			
5235.00	-6.8	V	3.0	44.8	1.0	-50.7	-13.0	-37.7			
6980.00	-4.4	V	3.0	45.1	1.0	-48.5	-13.0	-35.5			
3490.00	-7.9	H	3.0	44.0	1.0	-50.9	-13.0	-37.9			
5235.00	-6.7	H	3.0	44.8	1.0	-50.6	-13.0	-37.6			
6980.00	-4.2	H	3.0	45.1	1.0	-48.4	-13.0	-35.4			
High Ch, 1770MHz											
3540.00	-8.0	V	3.0	44.0	1.0	-51.1	-13.0	-38.1			
5310.00	-6.8	V	3.0	44.9	1.0	-50.6	-13.0	-37.6			
7080.00	-4.1	V	3.0	45.1	1.0	-48.2	-13.0	-35.2			
3540.00	-7.7	H	3.0	44.0	1.0	-50.8	-13.0	-37.8			
5310.00	-6.8	H	3.0	44.9	1.0	-50.6	-13.0	-37.6			
7080.00	-4.0	H	3.0	45.1	1.0	-48.1	-13.0	-35.1			



**LTE Band 66B (UL CA)**

		UL Verification Services, Inc. Above 1GHz High Frequency Substitution Measurement								
		<b>Company:</b>	Samsung							
		<b>Project #:</b>	4790976523							
		<b>Date:</b>	2023-09-18							
		<b>Test Engineer:</b>	26087							
		<b>Configuration:</b>	EUT / AC Adapter, X-Position							
		<b>Location:</b>	Chamber 2							
		<b>Mode:</b>	ULCA QPSK Band 66B Harmonics, 10+10MHz Bandwidth							
		<b>Test Voltage:</b>	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	
10+10 MHz										
QPSK										
ANT A										
Low Ch, PCC : 1715 MHz, SCC : 1724.9 MHz										
3439.90	-8.4	V	3.0	42.2	1.0	-49.6	-13.0	-36.6		
5159.85	-8.7	V	3.0	42.9	1.0	-50.7	-13.0	-37.7		
6879.80	-5.8	V	3.0	42.9	1.0	-47.6	-13.0	-34.6		
3439.90	-8.1	H	3.0	42.2	1.0	-49.3	-13.0	-36.3		
5159.85	-8.2	H	3.0	42.9	1.0	-50.2	-13.0	-37.2		
6879.80	-6.3	H	3.0	42.9	1.0	-48.2	-13.0	-35.2		
Mid Ch, PCC : 1740.1 MHz SCC : 1750 MHz										
3490.10	-8.4	V	3.0	42.2	1.0	-49.6	-13.0	-36.6		
5235.15	-8.6	V	3.0	43.0	1.0	-50.6	-13.0	-37.6		
6980.20	-5.7	V	3.0	42.8	1.0	-47.6	-13.0	-34.6		
3490.10	-8.2	H	3.0	42.2	1.0	-49.4	-13.0	-36.4		
5235.15	-8.0	H	3.0	43.0	1.0	-50.0	-13.0	-37.0		
6980.20	-6.1	H	3.0	42.8	1.0	-47.9	-13.0	-34.9		
High Ch, PCC : 1765.1 MHz, SCC : 1775 MHz										
3540.10	-7.4	V	3.0	42.2	1.0	-48.6	-13.0	-35.6		
5310.15	-7.8	V	3.0	43.0	1.0	-49.8	-13.0	-36.8		
7080.20	-5.6	V	3.0	42.8	1.0	-47.4	-13.0	-34.4		
3540.10	-7.3	H	3.0	42.2	1.0	-48.5	-13.0	-35.5		
5310.15	-7.6	H	3.0	43.0	1.0	-49.6	-13.0	-36.6		
7080.20	-6.0	H	3.0	42.8	1.0	-47.8	-13.0	-34.8		
UL Verification Services, Inc. Above 1GHz High Frequency Substitution Measurement										
		<b>Company:</b>	Samsung							
		<b>Project #:</b>	4790976523							
		<b>Date:</b>	2023-10-19							
		<b>Test Engineer:</b>	24542							
		<b>Configuration:</b>	EUT / AC Adapter, X-Position							
		<b>Location:</b>	Chamber 2							
		<b>Mode:</b>	ULCA QPSK Band 66B Harmonics, 20MHz Bandwidth							
		<b>Test Voltage:</b>	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	
10+10 MHz										
QPSK										
ANT F										
Low Ch, PCC : 1715 MHz, SCC : 1724.9 MHz										
3439.90	-8.4	V	3.0	42.2	1.0	-49.6	-13.0	-36.6		
5159.85	-8.9	V	3.0	42.9	1.0	-50.8	-13.0	-37.8		
6879.80	-5.7	V	3.0	42.9	1.0	-47.6	-13.0	-34.6		
3439.90	-8.0	H	3.0	42.2	1.0	-49.2	-13.0	-36.2		
5159.85	-9.0	H	3.0	42.9	1.0	-51.0	-13.0	-38.0		
6879.80	-6.1	H	3.0	42.9	1.0	-47.9	-13.0	-34.9		
Mid Ch, PCC : 1740.1 MHz SCC : 1750 MHz										
3490.10	-8.3	V	3.0	42.2	1.0	-49.5	-13.0	-36.5		
5235.15	-8.7	V	3.0	43.0	1.0	-50.6	-13.0	-37.6		
6980.20	-5.7	V	3.0	42.8	1.0	-47.5	-13.0	-34.5		
3490.10	-8.0	H	3.0	42.2	1.0	-49.2	-13.0	-36.2		
5235.15	-8.9	H	3.0	43.0	1.0	-50.9	-13.0	-37.9		
6980.20	-6.1	H	3.0	42.8	1.0	-47.9	-13.0	-34.9		
High Ch, PCC : 1765.1 MHz, SCC : 1775 MHz										
3540.10	-7.1	V	3.0	42.2	1.0	-48.4	-13.0	-35.4		
5310.15	-8.4	V	3.0	43.0	1.0	-50.4	-13.0	-37.4		
7080.20	-5.6	V	3.0	42.8	1.0	-47.4	-13.0	-34.4		
3540.10	-7.1	H	3.0	42.2	1.0	-48.3	-13.0	-35.3		
5310.15	-8.5	H	3.0	43.0	1.0	-50.5	-13.0	-37.5		
7080.20	-6.0	H	3.0	42.8	1.0	-47.8	-13.0	-34.8		

**LTE Band 66C (UL CA)**

		UL Verification Services, Inc. Above 1GHz High Frequency Substitution Measurement									
		Company: Samsung Project #: 4790976523 Date: 2023-09-18 Test Engineer: 24542 Configuration: EUT / AC Adapter, X-Position Location: Chamber 2 Mode: ULCA QPSK Band 66C Harmonics, 40MHz Bandwidth 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		
20+20MHz											
QPSK											
ANT A											
Low Ch, 1729.9MHz											
3459.80	-8.4	V	3.0	42.2	1.0	-49.6	-13.0	-36.6			
5189.70	-8.5	V	3.0	43.0	1.0	-50.4	-13.0	-37.4			
6919.60	-5.9	V	3.0	42.9	1.0	-47.8	-13.0	-34.8			
3459.80	-8.1	H	3.0	42.2	1.0	-49.3	-13.0	-36.3			
5189.70	-7.9	H	3.0	43.0	1.0	-49.9	-13.0	-36.9			
6919.60	-6.3	H	3.0	42.9	1.0	-48.2	-13.0	-35.2			
Mid Ch, 1745MHz											
3490.00	-8.4	V	3.0	42.2	1.0	-49.6	-13.0	-36.6			
5235.00	-7.8	V	3.0	43.0	1.0	-49.8	-13.0	-36.8			
6980.00	-5.8	V	3.0	42.8	1.0	-47.6	-13.0	-34.6			
3490.00	-8.2	H	3.0	42.2	1.0	-49.4	-13.0	-36.4			
5235.00	-7.3	H	3.0	43.0	1.0	-49.3	-13.0	-36.3			
6980.00	-6.2	H	3.0	42.8	1.0	-48.0	-13.0	-35.0			
High Ch, 1760.1MHz											
3520.20	-8.4	V	3.0	42.2	1.0	-49.6	-13.0	-36.6			
5280.30	-7.1	V	3.0	43.0	1.0	-49.1	-13.0	-36.1			
7040.40	-5.6	V	3.0	42.8	1.0	-47.4	-13.0	-34.4			
3520.20	-8.3	H	3.0	42.2	1.0	-49.5	-13.0	-36.5			
5280.30	-7.3	H	3.0	43.0	1.0	-49.3	-13.0	-36.3			
7040.40	-6.1	H	3.0	42.8	1.0	-47.9	-13.0	-34.9			
		UL Verification Services, Inc. Above 1GHz High Frequency Substitution Measurement									
		Company: Samsung Project #: 4790976523 Date: 2023-10-19 Test Engineer: 24542 Configuration: EUT / AC Adapter, X-Position Location: Chamber 2 Mode: ULCA QPSK Band 66C Harmonics, 40MHz Bandwidth 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		
20+20MHz											
QPSK											
ANT F											
Low Ch, PCC : 1720 MHz, SCC : 1739.8 MHz											
3459.80	-8.4	V	3.0	42.2	1.0	-49.6	-13.0	-36.6			
5189.70	-8.8	V	3.0	43.0	1.0	-50.8	-13.0	-37.8			
6919.60	-5.8	V	3.0	42.9	1.0	-47.6	-13.0	-34.6			
3459.80	-8.2	H	3.0	42.2	1.0	-49.4	-13.0	-36.4			
5189.70	-8.9	H	3.0	43.0	1.0	-50.8	-13.0	-37.8			
6919.60	-6.2	H	3.0	42.9	1.0	-48.1	-13.0	-35.1			
Mid Ch, PCC : 1735.1 MHz SCC : 1754.9 MHz											
3490.00	-8.4	V	3.0	42.2	1.0	-49.6	-13.0	-36.6			
5235.00	-8.8	V	3.0	43.0	1.0	-50.8	-13.0	-37.8			
6980.00	-5.7	V	3.0	42.8	1.0	-47.5	-13.0	-34.5			
3490.00	-8.1	H	3.0	42.2	1.0	-49.3	-13.0	-36.3			
5235.00	-9.0	H	3.0	43.0	1.0	-50.9	-13.0	-37.9			
6980.00	-6.1	H	3.0	42.8	1.0	-48.0	-13.0	-35.0			
High Ch, PCC : 1750.2 MHz, SCC : 1770 MHz											
3520.20	-8.3	V	3.0	42.2	1.0	-49.5	-13.0	-36.5			
5280.30	-8.6	V	3.0	43.0	1.0	-50.6	-13.0	-37.6			
7040.40	-5.5	V	3.0	42.8	1.0	-47.4	-13.0	-34.4			
3520.20	-8.2	H	3.0	42.2	1.0	-49.4	-13.0	-36.4			
5280.30	-8.8	H	3.0	43.0	1.0	-50.8	-13.0	-37.8			
7040.40	-6.0	H	3.0	42.8	1.0	-47.8	-13.0	-34.8			

**LTE Band 71**

		UL Verification Services, Inc. Above 1GHz High Frequency Substitution Measurement								
		Company: Samsung Project #: 4790976523 Date: 2023-09-08 Test Engineer: 24542 Configuration: EUT / AC Adapter, Z-Position Location: Chamber 2 Mode: LTE_QPSK Band 71 Harmonics, 10MHz Bandwidth 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	
10 MHz										
QPSK										
ANT A										
Low Ch, 668MHz 1336.00 -16.1 V 3.0 40.9 1.0 -56.0 -13.0 -43.0 2004.00 -13.6 V 3.0 40.8 1.0 -53.3 -13.0 -40.3 2672.00 -11.0 V 3.0 41.7 1.0 -51.7 -13.0 -38.7 1336.00 -17.9 H 3.0 40.9 1.0 -57.8 -13.0 -44.8 2004.00 -14.3 H 3.0 40.8 1.0 -54.0 -13.0 -41.0 2672.00 -10.7 H 3.0 41.7 1.0 -51.4 -13.0 -38.4 Mid Ch, 680.5MHz 1361.00 -16.7 V 3.0 40.9 1.0 -56.5 -13.0 -43.5 2041.50 -13.4 V 3.0 40.8 1.0 -53.2 -13.0 -40.2 2722.00 -11.1 V 3.0 41.8 1.0 -51.8 -13.0 -38.8 1361.00 -17.7 H 3.0 40.9 1.0 -57.6 -13.0 -44.6 2041.50 -14.1 H 3.0 40.8 1.0 -54.0 -13.0 -41.0 2722.00 -10.6 H 3.0 41.8 1.0 -51.4 -13.0 -38.4 High Ch, 693MHz 1386.00 -16.5 V 3.0 40.9 1.0 -56.3 -13.0 -43.3 2079.00 -13.2 V 3.0 40.9 1.0 -53.1 -13.0 -40.1 2772.00 -11.0 V 3.0 41.9 1.0 -51.8 -13.0 -38.8 1386.00 -17.6 H 3.0 40.9 1.0 -57.5 -13.0 -44.5 2079.00 -13.9 H 3.0 40.9 1.0 -53.8 -13.0 -40.8 2772.00 -10.4 H 3.0 41.9 1.0 -51.3 -13.0 -38.3										
		UL Verification Services, Inc. Above 1GHz High Frequency Substitution Measurement Company: Samsung Project #: 4790976523 Date: 2023-10-13 Test Engineer: 26087 Configuration: EUT / Adapter, Z-Position Location: Chamber 2 Mode: LTE_QPSK Band 71 Harmonics, 10MHz Bandwidth 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	
10 MHz										
QPSK										
ANT E										
Low Ch, 668MHz 1336.00 -16.8 V 3.0 40.9 1.0 -56.7 -13.0 -43.7 2004.00 -13.5 V 3.0 40.8 1.0 -53.3 -13.0 -40.3 2672.00 -11.1 V 3.0 41.7 1.0 -51.8 -13.0 -38.8 1336.00 -17.9 H 3.0 40.9 1.0 -57.8 -13.0 -44.8 2004.00 -14.3 H 3.0 40.8 1.0 -54.1 -13.0 -41.1 2672.00 -10.6 H 3.0 41.7 1.0 -51.4 -13.0 -38.4 Mid Ch, 680.5MHz 1361.00 -16.7 V 3.0 40.9 1.0 -56.5 -13.0 -43.5 2041.50 -13.5 V 3.0 40.8 1.0 -53.3 -13.0 -40.3 2722.00 -10.9 V 3.0 41.8 1.0 -51.7 -13.0 -38.7 1361.00 -17.8 H 3.0 40.9 1.0 -57.6 -13.0 -44.6 2041.50 -14.1 H 3.0 40.8 1.0 -53.9 -13.0 -40.9 2722.00 -10.4 H 3.0 41.8 1.0 -51.2 -13.0 -38.2 High Ch, 693MHz 1386.00 -16.4 V 3.0 40.9 1.0 -56.3 -13.0 -43.3 2079.00 -13.3 V 3.0 40.9 1.0 -53.2 -13.0 -40.2 2772.00 -10.9 V 3.0 41.9 1.0 -51.8 -13.0 -38.8 1386.00 -17.5 H 3.0 40.9 1.0 -57.4 -13.0 -44.4 2079.00 -13.9 H 3.0 40.9 1.0 -53.7 -13.0 -40.7 2772.00 -10.3 H 3.0 41.9 1.0 -51.2 -13.0 -38.2										

**NR Band n7**

		UL Verification Services, Inc. Above 1GHz High Frequency Substitution Measurement									
		Company: Samsung Project #: 4790976523 Date: 2023-09-16 Test Engineer: 24542 Configuration: EUT / AC Adapter, Z-Position Location: Chamber 1 Mode: 5G NR_QPSK NR n7 Harmonics, 35MHz Bandwidth 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		
35 MHz											
QPSK											
ANT B											
Low Ch, 2517.5MHz											
5035.00	-17.5	V	3.0	44.8	1.0	-61.3	-25.0	-36.3			
7552.50	-14.1	V	3.0	44.9	1.0	-58.0	-25.0	-33.0			
10070.00	-13.5	V	3.0	43.6	1.0	-56.1	-25.0	-31.1			
5035.00	-17.3	H	3.0	44.8	1.0	-61.0	-25.0	-36.0			
7552.50	-14.2	H	3.0	44.9	1.0	-58.1	-25.0	-33.1			
10070.00	-13.3	H	3.0	43.6	1.0	-55.9	-25.0	-30.9			
Mid Ch, 2535MHz											
5070.00	-17.4	V	3.0	44.8	1.0	-61.2	-25.0	-36.2			
7605.00	-13.5	V	3.0	44.9	1.0	-57.4	-25.0	-32.4			
10140.00	-13.3	V	3.0	43.6	1.0	-55.9	-25.0	-30.9			
5070.00	-17.0	H	3.0	44.8	1.0	-60.8	-25.0	-35.8			
7605.00	-12.3	H	3.0	44.9	1.0	-56.2	-25.0	-31.2			
10140.00	-13.1	H	3.0	43.6	1.0	-55.7	-25.0	-30.7			
High Ch, 2552.5MHz											
5105.00	-16.9	V	3.0	44.8	1.0	-60.7	-25.0	-35.7			
7657.50	-13.9	V	3.0	44.9	1.0	-57.8	-25.0	-32.8			
10210.00	-13.3	V	3.0	43.6	1.0	-55.9	-25.0	-30.9			
5105.00	-17.1	H	3.0	44.8	1.0	-60.9	-25.0	-35.9			
7657.50	-13.3	H	3.0	44.9	1.0	-57.2	-25.0	-32.2			
10210.00	-11.5	H	3.0	43.6	1.0	-54.1	-25.0	-29.1			
		UL Verification Services, Inc. Above 1GHz High Frequency Substitution Measurement									
		Company: Samsung Project #: 4790976523 Date: 2023-10-19 Test Engineer: 28183 Configuration: EUT / AC Adapter, Z-Position Location: Chamber 1 Mode: 5G NR_QPSK NR n7 Harmonics, 30MHz Bandwidth 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		
30 MHz											
QPSK											
ANT F											
Low Ch, 2515MHz											
5030.00	-17.8	V	3.0	44.8	1.0	-61.6	-25.0	-36.6			
7545.00	-16.8	V	3.0	44.9	1.0	-60.7	-25.0	-35.7			
10060.00	-13.8	V	3.0	43.6	1.0	-56.5	-25.0	-31.5			
5030.00	-17.8	H	3.0	44.8	1.0	-61.6	-25.0	-36.6			
7545.00	-14.7	H	3.0	44.9	1.0	-58.6	-25.0	-33.6			
10060.00	-13.6	H	3.0	43.6	1.0	-56.3	-25.0	-31.3			
Mid Ch, 2535MHz											
5070.00	-17.0	V	3.0	44.8	1.0	-60.8	-25.0	-35.8			
7605.00	-17.1	V	3.0	44.9	1.0	-61.0	-25.0	-36.0			
10140.00	-13.2	V	3.0	43.6	1.0	-55.8	-25.0	-30.8			
5070.00	-18.2	H	3.0	44.8	1.0	-62.0	-25.0	-37.0			
7605.00	-15.7	H	3.0	44.9	1.0	-59.6	-25.0	-34.6			
10140.00	-13.0	H	3.0	43.6	1.0	-55.6	-25.0	-30.6			
High Ch, 2555MHz											
5110.00	-15.6	V	3.0	44.8	1.0	-59.4	-25.0	-34.4			
7665.00	-13.6	V	3.0	44.9	1.0	-57.5	-25.0	-32.5			
10220.00	-13.7	V	3.0	43.6	1.0	-56.3	-25.0	-31.3			
5110.00	-20.3	H	3.0	44.8	1.0	-64.1	-25.0	-39.1			
7665.00	-12.9	H	3.0	44.9	1.0	-56.8	-25.0	-31.8			
10220.00	-13.7	H	3.0	43.6	1.0	-56.2	-25.0	-31.2			

**NR Band n12**

		UL Verification Services, Inc. Above 1GHz High Frequency Substitution Measurement								
		Company: Samsung Project #: 4790976523 Date: 2023-09-17 Test Engineer: 26087 Configuration: EUT / AC Adapter, Z-Position Location: Chamber 2 Mode: 5G NR_QPSK NR n12 Harmonics, 5MHz Bandwidth 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	
5 MHz										
QPSK										
ANT A										
Low Ch, 701.5MHz										
1403.00	-16.2	V	3.0	40.9	1.0	-56.1	-13.0	-43.1		
2104.50	-13.2	V	3.0	40.9	1.0	-53.1	-13.0	-40.1		
2806.00	-10.8	V	3.0	41.9	1.0	-51.7	-13.0	-38.7		
1403.00	-17.4	H	3.0	40.9	1.0	-57.3	-13.0	-44.3		
2104.50	-13.8	H	3.0	40.9	1.0	-53.7	-13.0	-40.7		
2806.00	-10.2	H	3.0	41.9	1.0	-51.1	-13.0	-38.1		
Mid Ch, 707.5MHz										
1415.00	-16.3	V	3.0	40.9	1.0	-56.1	-13.0	-43.1		
2122.50	-13.2	V	3.0	40.9	1.0	-53.1	-13.0	-40.1		
2830.00	-10.7	V	3.0	41.9	1.0	-51.7	-13.0	-38.7		
1415.00	-17.3	H	3.0	40.9	1.0	-57.1	-13.0	-44.1		
2122.50	-13.7	H	3.0	40.9	1.0	-53.7	-13.0	-40.7		
2830.00	-10.1	H	3.0	41.9	1.0	-51.0	-13.0	-38.0		
High Ch, 713.5MHz										
1427.00	-16.2	V	3.0	40.9	1.0	-56.1	-13.0	-43.1		
2140.50	-13.1	V	3.0	41.0	1.0	-53.1	-13.0	-40.1		
2854.00	-10.5	V	3.0	42.0	1.0	-51.5	-13.0	-38.5		
1427.00	-17.3	H	3.0	40.9	1.0	-57.1	-13.0	-44.1		
2140.50	-13.6	H	3.0	41.0	1.0	-53.6	-13.0	-40.6		
2854.00	-9.8	H	3.0	42.0	1.0	-50.8	-13.0	-37.8		
		UL Verification Services, Inc. Above 1GHz High Frequency Substitution Measurement								
		Company: Samsung Project #: 4790976523 Date: 2023-10-13 Test Engineer: 26087 Configuration: EUT / AC Adapter, Y-Position Location: Chamber 2 Mode: 5G NR_QPSK NR n12 Harmonics, 10MHz Bandwidth 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	
10 MHz										
QPSK										
ANT E										
Low Ch, 704MHz										
1408.00	-16.2	V	3.0	40.9	1.0	-56.1	-13.0	-43.1		
2112.00	-10.0	V	3.0	40.9	1.0	-49.9	-13.0	-36.9		
2816.00	-10.7	V	3.0	41.9	1.0	-51.6	-13.0	-38.6		
1408.00	-17.3	H	3.0	40.9	1.0	-57.2	-13.0	-44.2		
2112.00	-12.7	H	3.0	40.9	1.0	-52.6	-13.0	-39.6		
2816.00	-10.1	H	3.0	41.9	1.0	-51.0	-13.0	-38.0		
Mid Ch, 707.5MHz										
1415.00	-16.1	V	3.0	40.9	1.0	-56.0	-13.0	-43.0		
2122.50	-10.0	V	3.0	40.9	1.0	-49.9	-13.0	-36.9		
2830.00	-10.6	V	3.0	41.9	1.0	-51.5	-13.0	-38.5		
1415.00	-17.3	H	3.0	40.9	1.0	-57.2	-13.0	-44.2		
2122.50	-12.4	H	3.0	40.9	1.0	-52.4	-13.0	-39.4		
2830.00	-10.0	H	3.0	41.9	1.0	-51.0	-13.0	-38.0		
High Ch, 711MHz										
1422.00	-16.1	V	3.0	40.9	1.0	-56.0	-13.0	-43.0		
2133.00	-10.3	V	3.0	40.9	1.0	-50.2	-13.0	-37.2		
2844.00	-10.6	V	3.0	42.0	1.0	-51.5	-13.0	-38.5		
1422.00	-17.2	H	3.0	40.9	1.0	-57.0	-13.0	-44.0		
2133.00	-12.8	H	3.0	40.9	1.0	-52.8	-13.0	-39.8		
2844.00	-9.9	H	3.0	42.0	1.0	-50.8	-13.0	-37.8		

**NR Band n30**

		UL Verification Services, Inc. Above 1GHz High Frequency Substitution Measurement									
10 MHz QPSK ANT A	Company:		Samsung								
	Project #:		4790976523								
	Date:		2023-10-19								
	Test Engineer:		26460								
	Configuration:		EUT / AC Adapter, Z-Position								
	Location:		Chamber 2								
	Mode:		5G NR_QPSK NR n30 Harmonics, 10MHz Bandwidth								
	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	
	Mid Ch, 2310MHz										
	4620.00	-25.1	V	3.0	42.6	1.0	-66.8	-40.0	-26.8		
	6930.00	-22.9	V	3.0	42.9	1.0	-64.8	-40.0	-24.8		
	9240.00	-23.4	V	3.0	41.7	1.0	-64.1	-40.0	-24.1		
4620.00	-24.1	H	3.0	42.6	1.0	-65.7	-40.0	-25.7			
6930.00	-22.5	H	3.0	42.9	1.0	-64.4	-40.0	-24.4			
9240.00	-23.6	H	3.0	41.7	1.0	-64.3	-40.0	-24.3			
5 MHz QPSK ANT F	Company:		Samsung								
	Project #:		4790976523								
	Date:		2023-10-18								
	Test Engineer:		26460								
	Configuration:		EUT / AC Adapter, Y-Position								
	Location:		Chamber 2								
	Mode:		5G NR_QPSK NR n30 Harmonics, 5MHz Bandwidth								
	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, 2307.5MHz										
	4615.00	-25.0	V	3.0	42.6	1.0	-66.6	-40.0	-26.6		
	6922.50	-23.6	V	3.0	42.9	1.0	-65.5	-40.0	-25.5		
	9230.00	-22.8	V	3.0	41.7	1.0	-63.5	-40.0	-23.5		
	11537.50	-20.8	V	3.0	41.7	1.0	-61.5	-40.0	-21.5		
	13845.00	-19.1	V	3.0	43.1	1.0	-61.1	-40.0	-21.1		
	4615.00	-24.5	H	3.0	42.6	1.0	-66.1	-40.0	-26.1		
	6922.50	-24.2	H	3.0	42.9	1.0	-66.0	-40.0	-26.0		
	9230.00	-22.7	H	3.0	41.7	1.0	-63.4	-40.0	-23.4		
	11537.50	-21.6	H	3.0	41.7	1.0	-62.3	-40.0	-22.3		
	13845.00	-19.4	H	3.0	43.1	1.0	-61.4	-40.0	-21.4		
	Mid Ch, 2310MHz										
	4620.00	-25.1	V	3.0	42.6	1.0	-66.7	-40.0	-26.7		
	6930.00	-23.8	V	3.0	42.9	1.0	-65.7	-40.0	-25.7		
	9240.00	-21.9	V	3.0	41.7	1.0	-62.5	-40.0	-22.5		
	11550.00	-20.9	V	3.0	41.7	1.0	-61.6	-40.0	-21.6		
	13860.00	-19.0	V	3.0	43.1	1.0	-61.1	-40.0	-21.1		
	4620.00	-24.7	H	3.0	42.6	1.0	-66.4	-40.0	-26.4		
	6930.00	-24.3	H	3.0	42.9	1.0	-66.1	-40.0	-26.1		
	9240.00	-22.8	H	3.0	41.7	1.0	-63.5	-40.0	-23.5		
	11550.00	-21.1	H	3.0	41.7	1.0	-61.8	-40.0	-21.8		
	13860.00	-19.3	H	3.0	43.1	1.0	-61.4	-40.0	-21.4		
	High Ch, 2312.5MHz										
	4625.00	-24.9	V	3.0	42.7	1.0	-66.5	-40.0	-26.5		
	6937.50	-23.7	V	3.0	42.8	1.0	-65.6	-40.0	-25.6		
	9250.00	-22.9	V	3.0	41.7	1.0	-63.6	-40.0	-23.6		
	11562.50	-20.8	V	3.0	41.7	1.0	-61.4	-40.0	-21.4		
	13875.00	-18.8	V	3.0	43.1	1.0	-60.9	-40.0	-20.9		
4625.00	-24.7	H	3.0	42.7	1.0	-66.4	-40.0	-26.4			
6937.50	-24.1	H	3.0	42.8	1.0	-65.9	-40.0	-25.9			
9250.00	-23.1	H	3.0	41.7	1.0	-63.8	-40.0	-23.8			
11562.50	-21.1	H	3.0	41.7	1.0	-61.8	-40.0	-21.8			
13875.00	-19.1	H	3.0	43.1	1.0	-61.2	-40.0	-21.2			

**NR Band n41 (PC2, ANT B)**

		UL Verification Services, Inc. Above 1GHz High Frequency Substitution Measurement									
		Company: Samsung Project #: 4790976523 Date: 2023-09-19 Test Engineer: 24542 Configuration: EUT / AC Adapter, X-Position Location: Chamber 1 Mode: 5G NR_QPSK NR n41 Harmonics, 40MHz Bandwidth 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		
40 MHz QPSK ANT B											
Low Ch, 2516.01MHz											
5032.02	-7.4	V	3.0	44.8	1.0	-51.2	-25.0	-26.2			
7548.03	-1.4	V	3.0	44.9	1.0	-45.3	-25.0	-20.3			
10064.04	-6.4	V	3.0	43.6	1.0	-49.0	-25.0	-24.0			
5032.02	-10.6	H	3.0	44.8	1.0	-54.4	-25.0	-29.4			
7548.03	-4.1	H	3.0	44.9	1.0	-48.0	-25.0	-23.0			
10064.04	-10.3	H	3.0	43.6	1.0	-52.9	-25.0	-27.9			
Mid Ch, 2592.99MHz											
5185.98	-14.7	V	3.0	44.8	1.0	-58.5	-25.0	-33.5			
7778.97	-9.4	V	3.0	44.8	1.0	-53.2	-25.0	-28.2			
10371.96	-10.7	V	3.0	43.5	1.0	-53.3	-25.0	-28.3			
5185.98	-15.1	H	3.0	44.8	1.0	-58.9	-25.0	-33.9			
7778.97	-11.7	H	3.0	44.8	1.0	-55.6	-25.0	-30.6			
10371.96	-10.6	H	3.0	43.5	1.0	-53.2	-25.0	-28.2			
High Ch, 2670MHz											
5340.00	-14.7	V	3.0	44.9	1.0	-58.6	-25.0	-33.6			
8010.00	-10.7	V	3.0	44.8	1.0	-54.5	-25.0	-29.5			
10680.00	-10.1	V	3.0	43.5	1.0	-52.6	-25.0	-27.6			
5340.00	-14.2	H	3.0	44.9	1.0	-58.1	-25.0	-33.1			
8010.00	-12.6	H	3.0	44.8	1.0	-56.4	-25.0	-31.4			
10680.00	-10.0	H	3.0	43.5	1.0	-52.5	-25.0	-27.5			
		UL Verification Services, Inc. Above 1GHz High Frequency Substitution Measurement									
		Company: Samsung Project #: 4790976523 Date: 2023-10-23 Test Engineer: 24542 Configuration: EUT / AC Adapter, X-Position Location: Chamber 1 Mode: 5G NR n41(SRS) Harmonics, 100MHz Bandwidth 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		
100 MHz ANT F SRS1											
Low Ch, 2546.01MHz											
5092.02	-14.5	V	3.0	44.8	1.0	-58.3	-25.0	-33.3			
7638.03	-10.9	V	3.0	44.9	1.0	-54.8	-25.0	-29.8			
10184.04	-10.9	V	3.0	43.6	1.0	-53.5	-25.0	-28.5			
5092.02	-14.7	H	3.0	44.8	1.0	-58.5	-25.0	-33.5			
7638.03	-12.1	H	3.0	44.9	1.0	-56.0	-25.0	-31.0			
10184.04	-10.6	H	3.0	43.6	1.0	-53.2	-25.0	-28.2			
Mid Ch, 2592.99MHz											
5185.98	-14.5	V	3.0	44.8	1.0	-58.3	-25.0	-33.3			
7778.97	-10.2	V	3.0	44.8	1.0	-54.0	-25.0	-29.0			
10371.96	-10.7	V	3.0	43.5	1.0	-53.2	-25.0	-28.2			
5185.98	-14.4	H	3.0	44.8	1.0	-58.2	-25.0	-33.2			
7778.97	-13.0	H	3.0	44.8	1.0	-56.8	-25.0	-31.8			
10371.96	-10.4	H	3.0	43.5	1.0	-52.9	-25.0	-27.9			
High Ch, 2640MHz											
5280.00	-14.5	V	3.0	44.9	1.0	-58.4	-25.0	-33.4			
7920.00	-9.3	V	3.0	44.8	1.0	-53.1	-25.0	-28.1			
10560.00	-10.2	V	3.0	43.5	1.0	-52.7	-25.0	-27.7			
5280.00	-14.5	H	3.0	44.9	1.0	-58.3	-25.0	-33.3			
7920.00	-11.5	H	3.0	44.8	1.0	-55.3	-25.0	-30.3			
10560.00	-10.3	H	3.0	43.5	1.0	-52.8	-25.0	-27.8			

		UL Verification Services, Inc. Above 1GHz High Frequency Substitution Measurement										
		Company: Samsung Project #: 4790976523 Date: 2023-10-24 Test Engineer: 24542 Configuration: EUT / AC Adapter , Z-Position Location: Chamber 1 Mode: 5G NR n41(SRS) Harmonics, 50MHz Bandwidth Test Votage: AC 120 V, 60 Hz										
50 MHz  ANT D  SRS2		f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes	
	Low Ch, 2521.01MHz											
		5042.02	-13.5	V	3.0	44.8	1.0	-57.3	-25.0	-32.3		
		7563.03	-9.0	V	3.0	44.9	1.0	-52.9	-40.0	-12.9		
		10084.04	-10.3	V	3.0	43.6	1.0	-52.9	-40.0	-12.9		
		5042.02	-13.7	H	3.0	44.8	1.0	-57.5	-25.0	-32.5		
		7563.03	-12.5	H	3.0	44.9	1.0	-56.4	-40.0	-16.4		
		10084.04	-10.7	H	3.0	43.6	1.0	-53.3	-40.0	-13.3		
	Mid Ch, 2592.99MHz											
		5185.98	-14.8	V	3.0	44.8	1.0	-58.6	-25.0	-33.6		
		7778.97	-7.9	V	3.0	44.8	1.0	-51.8	-40.0	-11.8		
		10371.96	-10.4	V	3.0	43.5	1.0	-53.0	-40.0	-13.0		
		5185.98	-14.7	H	3.0	44.8	1.0	-58.5	-25.0	-33.5		
		7778.97	-5.5	H	3.0	44.8	1.0	-49.4	-40.0	-9.4		
		10371.96	-10.5	H	3.0	43.5	1.0	-53.1	-40.0	-13.1		
	High Ch, 2665MHz											
		5330.00	-7.9	V	3.0	44.9	1.0	-51.8	-25.0	-26.8		
		7995.00	-7.1	V	3.0	44.8	1.0	-50.9	-40.0	-10.9		
		10660.00	-10.2	V	3.0	43.5	1.0	-52.6	-40.0	-12.6		
		5330.00	-11.0	H	3.0	44.9	1.0	-54.9	-25.0	-29.9		
		7995.00	-4.6	H	3.0	44.8	1.0	-48.3	-40.0	-8.3		
		10660.00	-9.8	H	3.0	43.5	1.0	-52.3	-40.0	-12.3		
			UL Verification Services, Inc. Above 1GHz High Frequency Substitution Measurement									
			Company: Samsung Project #: 4790976523 Date: 2023-10-23 Test Engineer: 28775 Configuration: EUT / AC Adapter, X-Position Location: Chamber 2 Mode: 5G NR n41(SRS) Harmonics, 100MHz Bandwidth Test Votage: AC 120 V, 60 Hz									
100 MHz  ANT E  SRS3		f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes	
	Low Ch, 2546.01MHz											
		5092.02	-18.7	V	3.0	42.9	1.0	-60.6	-25.0	-35.6		
		7638.03	-15.3	V	3.0	42.5	1.0	-56.8	-25.0	-31.8		
		10184.04	-13.5	V	3.0	41.1	1.0	-53.6	-25.0	-28.6		
		5092.02	-18.9	H	3.0	42.9	1.0	-60.8	-25.0	-35.8		
		7638.03	-16.6	H	3.0	42.5	1.0	-58.1	-25.0	-33.1		
		10184.04	-13.7	H	3.0	41.1	1.0	-53.8	-25.0	-28.8		
	Mid Ch, 2592.99MHz											
		5185.98	-18.5	V	3.0	43.0	1.0	-60.4	-25.0	-35.4		
		7778.97	-14.8	V	3.0	42.4	1.0	-56.3	-25.0	-31.3		
		10371.96	-13.6	V	3.0	41.2	1.0	-53.7	-25.0	-28.7		
		5185.98	-18.9	H	3.0	43.0	1.0	-60.9	-25.0	-35.9		
		7778.97	-16.5	H	3.0	42.4	1.0	-58.0	-25.0	-33.0		
		10371.96	-13.7	H	3.0	41.2	1.0	-53.9	-25.0	-28.9		
	High Ch, 2640MHz											
		5280.00	-18.1	V	3.0	43.0	1.0	-60.1	-25.0	-35.1		
		7920.00	-14.8	V	3.0	42.4	1.0	-56.2	-25.0	-31.2		
		10560.00	-13.2	V	3.0	41.2	1.0	-53.4	-25.0	-28.4		
		5280.00	-18.8	H	3.0	43.0	1.0	-60.7	-25.0	-35.7		
		7920.00	-16.4	H	3.0	42.4	1.0	-57.8	-25.0	-32.8		
		10560.00	-13.3	H	3.0	41.2	1.0	-53.5	-25.0	-28.5		



**NR Band n41 (PC2, ANT F)**

		UL Verification Services, Inc.									
		Above 1GHz High Frequency Substitution Measurement									
100 MHz  ANT F		Company: Samsung Project #: 4790976523 Date: 2023-09-25 Test Engineer: 26087 Configuration: EUT / AC Adapter, Z-Position Location: Chamber 2 Mode: 5G NR_QPSK NR n41 Harmonics, 100MHz Bandwidth 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, 2546.01MHz									
		5092.02	-18.5	V	3.0	42.9	1.0	-60.4	-25.0	-35.4	
		7638.03	-15.6	V	3.0	42.5	1.0	-57.1	-25.0	-32.1	
		10184.04	-13.8	V	3.0	41.1	1.0	-53.9	-25.0	-28.9	
		5092.02	-18.6	H	3.0	42.9	1.0	-60.5	-25.0	-35.5	
		7638.03	-15.5	H	3.0	42.5	1.0	-57.0	-25.0	-32.0	
		10184.04	-13.9	H	3.0	41.1	1.0	-54.0	-25.0	-29.0	
		Mid Ch, 2592.99MHz									
		5185.98	-18.3	V	3.0	43.0	1.0	-60.2	-25.0	-35.2	
7778.97	-14.2	V	3.0	42.4	1.0	-55.6	-25.0	-30.6			
10371.96	-13.4	V	3.0	41.2	1.0	-53.6	-25.0	-28.6			
5185.98	-18.6	H	3.0	43.0	1.0	-60.6	-25.0	-35.6			
7778.97	-14.4	H	3.0	42.4	1.0	-55.8	-25.0	-30.8			
10371.96	-13.5	H	3.0	41.2	1.0	-53.7	-25.0	-28.7			
High Ch, 2640MHz											
5280.00	-18.2	V	3.0	43.0	1.0	-60.2	-25.0	-35.2			
7920.00	-15.4	V	3.0	42.4	1.0	-56.7	-25.0	-31.7			
10560.00	-13.3	V	3.0	41.2	1.0	-53.5	-25.0	-28.5			
5280.00	-18.4	H	3.0	43.0	1.0	-60.4	-25.0	-35.4			
7920.00	-15.1	H	3.0	42.4	1.0	-56.5	-25.0	-31.5			
10560.00	-13.6	H	3.0	41.2	1.0	-53.8	-25.0	-28.8			

		UL Verification Services, Inc.									
		Above 1GHz High Frequency Substitution Measurement									
100 MHz  ANT B  SRS1		Company: Samsung Project #: 4790976523 Date: 2023-10-23 Test Engineer: 28775 Configuration: EUT / AC Adapter, Y-Position Location: Chamber 2 Mode: 5G NR n41(SRS) Harmonics, 100MHz Bandwidth 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, 2546.01MHz									
		5092.02	-19.0	V	3.0	42.9	1.0	-60.9	-25.0	-35.9	
		7638.03	-14.2	V	3.0	42.5	1.0	-55.7	-25.0	-30.7	
		10184.04	-13.2	V	3.0	41.1	1.0	-53.3	-25.0	-28.3	
		5092.02	-18.8	H	3.0	42.9	1.0	-60.8	-25.0	-35.8	
		7638.03	-13.5	H	3.0	42.5	1.0	-55.0	-25.0	-30.0	
		10184.04	-13.0	H	3.0	41.1	1.0	-53.1	-25.0	-28.1	
		Mid Ch, 2592.99MHz									
		5185.98	-18.9	V	3.0	43.0	1.0	-60.8	-25.0	-35.8	
7778.97	-13.5	V	3.0	42.4	1.0	-55.0	-25.0	-30.0			
10371.96	-13.5	V	3.0	41.2	1.0	-53.6	-25.0	-28.6			
5185.98	-19.1	H	3.0	43.0	1.0	-61.0	-25.0	-36.0			
7778.97	-12.9	H	3.0	42.4	1.0	-54.4	-25.0	-29.4			
10371.96	-13.1	H	3.0	41.2	1.0	-53.3	-25.0	-28.3			
High Ch, 2640MHz											
5280.00	-17.2	V	3.0	43.0	1.0	-59.2	-25.0	-34.2			
7920.00	-13.4	V	3.0	42.4	1.0	-54.8	-25.0	-29.8			
10560.00	-13.2	V	3.0	41.2	1.0	-53.5	-25.0	-28.5			
5280.00	-17.1	H	3.0	43.0	1.0	-59.1	-25.0	-34.1			
7920.00	-14.3	H	3.0	42.4	1.0	-55.6	-25.0	-30.6			
10560.00	-13.4	H	3.0	41.2	1.0	-53.6	-25.0	-28.6			

		UL Verification Services, Inc. Above 1GHz High Frequency Substitution Measurement									
		<b>Company:</b>	Samsung								
		<b>Project #:</b>	4790976523								
		<b>Date:</b>	2023-10-23								
		<b>Test Engineer:</b>	28775								
		<b>Configuration:</b>	EUT / AC Adapter, Y-Position								
		<b>Location:</b>	Chamber 2								
		<b>Mode:</b>	5G NR n41(SRS) Harmonics, 100MHz Bandwidth								
		<b>Test Votage:</b>	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		
100 MHz											
ANT E											
SRS2											
Low Ch, 2546.01MHz											
5092.02	-18.3	V	3.0	42.9	1.0	-60.2	-25.0	-35.2			
7638.03	-14.0	V	3.0	42.5	1.0	-55.5	-25.0	-30.5			
10184.04	-13.7	V	3.0	41.1	1.0	-53.7	-25.0	-28.7			
5092.02	-18.5	H	3.0	42.9	1.0	-60.5	-25.0	-35.5			
7638.03	-14.4	H	3.0	42.5	1.0	-55.9	-25.0	-30.9			
10184.04	-13.6	H	3.0	41.1	1.0	-53.6	-25.0	-28.6			
Mid Ch, 2592.99MHz											
5185.98	-18.0	V	3.0	43.0	1.0	-59.9	-25.0	-34.9			
7778.97	-13.3	V	3.0	42.4	1.0	-54.8	-25.0	-29.8			
10371.96	-13.3	V	3.0	41.2	1.0	-53.5	-25.0	-28.5			
5185.98	-18.7	H	3.0	43.0	1.0	-60.7	-25.0	-35.7			
7778.97	-13.6	H	3.0	42.4	1.0	-55.1	-25.0	-30.1			
10371.96	-12.5	H	3.0	41.2	1.0	-52.7	-25.0	-27.7			
High Ch, 2640MHz											
5280.00	-18.3	V	3.0	43.0	1.0	-60.3	-25.0	-35.3			
7920.00	-14.7	V	3.0	42.4	1.0	-56.1	-25.0	-31.1			
10560.00	-13.1	V	3.0	41.2	1.0	-53.3	-25.0	-28.3			
5280.00	-17.5	H	3.0	43.0	1.0	-59.4	-25.0	-34.4			
7920.00	-14.8	H	3.0	42.4	1.0	-56.1	-25.0	-31.1			
10560.00	-12.5	H	3.0	41.2	1.0	-52.8	-25.0	-27.8			
		UL Verification Services, Inc. Above 1GHz High Frequency Substitution Measurement									
		<b>Company:</b>	Samsung								
		<b>Project #:</b>	4790976523								
		<b>Date:</b>	2023-10-23								
		<b>Test Engineer:</b>	28775								
		<b>Configuration:</b>	EUT / AC Adapter, Z-Position								
		<b>Location:</b>	Chamber 2								
		<b>Mode:</b>	5G NR n41(SRS) Harmonics, 100MHz Bandwidth								
		<b>Test Votage:</b>	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		
100 MHz											
ANT D											
SRS3											
Low Ch, 2546.01MHz											
5092.02	-18.6	V	3.0	42.9	1.0	-60.5	-25.0	-35.5			
7638.03	-13.8	V	3.0	42.5	1.0	-55.3	-25.0	-30.3			
10184.04	-13.4	V	3.0	41.1	1.0	-53.5	-25.0	-28.5			
5092.02	-18.7	H	3.0	42.9	1.0	-60.7	-25.0	-35.7			
7638.03	-14.1	H	3.0	42.5	1.0	-55.6	-25.0	-30.6			
10184.04	-13.6	H	3.0	41.1	1.0	-53.7	-25.0	-28.7			
Mid Ch, 2592.99MHz											
5185.98	-18.3	V	3.0	43.0	1.0	-60.3	-25.0	-35.3			
7778.97	-13.3	V	3.0	42.4	1.0	-54.7	-25.0	-29.7			
10371.96	-13.2	V	3.0	41.2	1.0	-53.4	-25.0	-28.4			
5185.98	-18.4	H	3.0	43.0	1.0	-60.4	-25.0	-35.4			
7778.97	-12.9	H	3.0	42.4	1.0	-54.3	-25.0	-29.3			
10371.96	-13.7	H	3.0	41.2	1.0	-53.8	-25.0	-28.8			
High Ch, 2640MHz											
5280.00	-17.7	V	3.0	43.0	1.0	-59.7	-25.0	-34.7			
7920.00	-14.3	V	3.0	42.4	1.0	-55.7	-25.0	-30.7			
10560.00	-13.0	V	3.0	41.2	1.0	-53.3	-25.0	-28.3			
5280.00	-17.9	H	3.0	43.0	1.0	-59.8	-25.0	-34.8			
7920.00	-15.2	H	3.0	42.4	1.0	-56.5	-25.0	-31.5			
10560.00	-12.9	H	3.0	41.2	1.0	-53.1	-25.0	-28.1			

**NR Band n66**

		UL Verification Services, Inc. Above 1GHz High Frequency Substitution Measurement									
		Company: Samsung Project #: 4790976523 Date: 2023-09-19 Test Engineer: 24542 Configuration: EUT / AC Aapter, X-Position Location: Chamber 2 Mode: 5G NR_QPSK NR n66 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	
40 MHz  QPSK  ANT A	Low Ch, 1730MHz										
	3460.00	-8.1	V	3.0	42.2	1.0	-49.3	-13.0	-36.3		
	5190.00	-8.1	V	3.0	43.0	1.0	-50.1	-13.0	-37.1		
	6920.00	-5.7	V	3.0	42.9	1.0	-47.5	-13.0	-34.5		
	3460.00	-7.9	H	3.0	42.2	1.0	-49.1	-13.0	-36.1		
	5190.00	-6.6	H	3.0	43.0	1.0	-48.6	-13.0	-35.6		
	6920.00	-6.1	H	3.0	42.9	1.0	-48.0	-13.0	-35.0		
	Mid Ch, 1745MHz										
	3490.00	-8.1	V	3.0	42.2	1.0	-49.4	-13.0	-36.4		
	5235.00	-7.7	V	3.0	43.0	1.0	-49.7	-13.0	-36.7		
	6980.00	-5.5	V	3.0	42.8	1.0	-47.4	-13.0	-34.4		
	3490.00	-7.9	H	3.0	42.2	1.0	-49.1	-13.0	-36.1		
	5235.00	-6.9	H	3.0	43.0	1.0	-48.8	-13.0	-35.8		
	6980.00	-6.0	H	3.0	42.8	1.0	-47.8	-13.0	-34.8		
	High Ch, 1760MHz										
	3520.00	-7.2	V	3.0	42.2	1.0	-48.4	-13.0	-35.4		
	5280.00	-6.9	V	3.0	43.0	1.0	-48.8	-13.0	-35.8		
	7040.00	-5.5	V	3.0	42.8	1.0	-47.3	-13.0	-34.3		
	3520.00	-7.0	H	3.0	42.2	1.0	-48.2	-13.0	-35.2		
	5280.00	-6.4	H	3.0	43.0	1.0	-48.4	-13.0	-35.4		
	7040.00	-5.9	H	3.0	42.8	1.0	-47.7	-13.0	-34.7		
			UL Verification Services, Inc. Above 1GHz High Frequency Substitution Measurement								
			Company: Samsung Project #: 4790976523 Date: 2023-10-18 Test Engineer: 24542 Configuration: EUT / AC Adapter, Z-Position Location: Chamber 1 Mode: 5G NR_QPSK NR n66 Harmonics, 35MHz 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
35 MHz  QPSK  ANT F	Low Ch, 1727.5MHz										
	3455.00	-8.4	V	3.0	44.0	1.0	-51.4	-13.0	-38.4		
	5182.50	-6.9	V	3.0	44.8	1.0	-50.7	-13.0	-37.7		
	6910.00	-4.3	V	3.0	45.1	1.0	-48.5	-13.0	-35.5		
	3455.00	-10.1	H	3.0	44.0	1.0	-53.1	-13.0	-40.1		
	5182.50	-7.0	H	3.0	44.8	1.0	-50.8	-13.0	-37.8		
	6910.00	-4.3	H	3.0	45.1	1.0	-48.5	-13.0	-35.5		
	Mid Ch, 1745MHz										
	3490.00	-8.3	V	3.0	44.0	1.0	-51.3	-13.0	-38.3		
	5235.00	-6.9	V	3.0	44.8	1.0	-50.8	-13.0	-37.8		
	6980.00	-4.1	V	3.0	45.1	1.0	-48.2	-13.0	-35.2		
	3490.00	-7.9	H	3.0	44.0	1.0	-50.9	-13.0	-37.9		
	5235.00	-7.0	H	3.0	44.8	1.0	-50.8	-13.0	-37.8		
	6980.00	-4.1	H	3.0	45.1	1.0	-48.3	-13.0	-35.3		
	High Ch, 1762.5MHz										
	3525.00	-8.2	V	3.0	44.0	1.0	-51.2	-13.0	-38.2		
	5287.50	-6.9	V	3.0	44.9	1.0	-50.8	-13.0	-37.8		
	7050.00	-4.0	V	3.0	45.1	1.0	-48.1	-13.0	-35.1		
	3525.00	-7.8	H	3.0	44.0	1.0	-50.9	-13.0	-37.9		
	5287.50	-6.8	H	3.0	44.9	1.0	-50.6	-13.0	-37.6		
	7050.00	-3.9	H	3.0	45.1	1.0	-48.0	-13.0	-35.0		

**NR Band n70**

		UL Verification Services, Inc. Above 1GHz High Frequency Substitution Measurement									
		Company: Samsung Project #: 4790976523 Date: 2023-09-18 Test Engineer: 24542 Configuration: EUT / AC Adapter, X-Position Location: Chamber 2 Mode: 5G NR_QPSK NR n66 Harmonics, 5MHz Bandwidth 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		
5 MHz											
QPSK											
ANT A											
Low Ch, 1697.5MHz											
3395.00	-8.7	V	3.0	42.2	1.0	-49.9	-13.0	-36.9			
5092.50	-7.9	V	3.0	42.9	1.0	-49.8	-13.0	-36.8			
6790.00	-5.9	V	3.0	42.9	1.0	-47.8	-13.0	-34.8			
3395.00	-8.3	H	3.0	42.2	1.0	-49.5	-13.0	-36.5			
5092.50	-7.0	H	3.0	42.9	1.0	-49.0	-13.0	-36.0			
6790.00	-6.3	H	3.0	42.9	1.0	-48.2	-13.0	-35.2			
Mid Ch, 1702.5MHz											
3405.00	-8.5	V	3.0	42.2	1.0	-49.7	-13.0	-36.7			
5107.50	-8.2	V	3.0	42.9	1.0	-50.2	-13.0	-37.2			
6810.00	-5.8	V	3.0	42.9	1.0	-47.7	-13.0	-34.7			
3405.00	-8.2	H	3.0	42.2	1.0	-49.4	-13.0	-36.4			
5107.50	-7.0	H	3.0	42.9	1.0	-48.9	-13.0	-35.9			
6810.00	-6.2	H	3.0	42.9	1.0	-48.1	-13.0	-35.1			
High Ch, 1707.5MHz											
3415.00	-8.5	V	3.0	42.2	1.0	-49.7	-13.0	-36.7			
5122.50	-8.0	V	3.0	42.9	1.0	-50.0	-13.0	-37.0			
6830.00	-5.7	V	3.0	42.9	1.0	-47.6	-13.0	-34.6			
3415.00	-8.2	H	3.0	42.2	1.0	-49.4	-13.0	-36.4			
5122.50	-6.6	H	3.0	42.9	1.0	-48.5	-13.0	-35.5			
6830.00	-6.1	H	3.0	42.9	1.0	-48.0	-13.0	-35.0			
		UL Verification Services, Inc. Above 1GHz High Frequency Substitution Measurement									
		Company: Samsung Project #: 4790976523 Date: 2023-10-19 Test Engineer: 26460 Configuration: EUT / AC Adapter, X-Position Location: Chamber 2 Mode: 5G NR_QPSK NR n70 Harmonics, 10MHz Bandwidth 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		
10 MHz											
QPSK											
ANT F											
Low Ch, 1700MHz											
3400.00	-8.8	V	3.0	42.2	1.0	-50.0	-13.0	-37.0			
5100.00	-9.1	V	3.0	42.9	1.0	-51.0	-13.0	-38.0			
6800.00	-6.0	V	3.0	42.9	1.0	-47.9	-13.0	-34.9			
3400.00	-8.4	H	3.0	42.2	1.0	-49.6	-13.0	-36.6			
5100.00	-9.1	H	3.0	42.9	1.0	-51.1	-13.0	-38.1			
6800.00	-6.4	H	3.0	42.9	1.0	-48.3	-13.0	-35.3			
Mid Ch, 1702.5MHz											
3405.00	-8.8	V	3.0	42.2	1.0	-50.0	-13.0	-37.0			
5107.50	-9.0	V	3.0	42.9	1.0	-51.0	-13.0	-38.0			
6810.00	-5.9	V	3.0	42.9	1.0	-47.8	-13.0	-34.8			
3405.00	-8.4	H	3.0	42.2	1.0	-49.7	-13.0	-36.7			
5107.50	-9.2	H	3.0	42.9	1.0	-51.1	-13.0	-38.1			
6810.00	-6.4	H	3.0	42.9	1.0	-48.3	-13.0	-35.3			
High Ch, 1705MHz											
3410.00	-8.8	V	3.0	42.2	1.0	-50.0	-13.0	-37.0			
5115.00	-9.1	V	3.0	42.9	1.0	-51.0	-13.0	-38.0			
6820.00	-5.9	V	3.0	42.9	1.0	-47.7	-13.0	-34.7			
3410.00	-8.5	H	3.0	42.2	1.0	-49.7	-13.0	-36.7			
5115.00	-9.2	H	3.0	42.9	1.0	-51.1	-13.0	-38.1			
6820.00	-6.3	H	3.0	42.9	1.0	-48.2	-13.0	-35.2			

**NR Band n71**

		UL Verification Services, Inc. Above 1GHz High Frequency Substitution Measurement									
		Company: Samsung									
		Project #: 4790976523									
		Date: 2023-09-15									
		Test Engineer: 24542									
		Configuration: EUT / AC Adapter, Z-Position									
		Location: Chamber 1									
		Mode: 5G NR_QPSK NR n71 Harmonics, 10MHz Bandwidth									
		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		
10 MHz											
QPSK											
ANT A											
Low Ch, 668MHz											
1336.00	-16.8	V	3.0	43.2	1.0	-59.1	-13.0	-46.1			
2004.00	-13.0	V	3.0	43.4	1.0	-55.4	-13.0	-42.4			
2672.00	-11.5	V	3.0	43.6	1.0	-54.2	-13.0	-41.2			
1336.00	-18.2	H	3.0	43.2	1.0	-60.5	-13.0	-47.5			
2004.00	-13.3	H	3.0	43.4	1.0	-55.7	-13.0	-42.7			
2672.00	-11.5	H	3.0	43.6	1.0	-54.1	-13.0	-41.1			
Mid Ch, 680.5MHz											
1361.00	-16.7	V	3.0	43.3	1.0	-59.0	-13.0	-46.0			
2041.50	-11.9	V	3.0	43.4	1.0	-54.3	-13.0	-41.3			
2722.00	-11.3	V	3.0	43.7	1.0	-53.9	-13.0	-40.9			
1361.00	-18.1	H	3.0	43.3	1.0	-60.4	-13.0	-47.4			
2041.50	-9.9	H	3.0	43.4	1.0	-52.4	-13.0	-39.4			
2722.00	-11.2	H	3.0	43.7	1.0	-53.9	-13.0	-40.9			
High Ch, 693MHz											
1386.00	-16.6	V	3.0	43.3	1.0	-58.9	-13.0	-45.9			
2079.00	-11.7	V	3.0	43.4	1.0	-54.1	-13.0	-41.1			
2772.00	-11.0	V	3.0	43.7	1.0	-53.6	-13.0	-40.6			
1386.00	-17.9	H	3.0	43.3	1.0	-60.2	-13.0	-47.2			
2079.00	-11.3	H	3.0	43.4	1.0	-53.8	-13.0	-40.8			
2772.00	-10.9	H	3.0	43.7	1.0	-53.6	-13.0	-40.6			
UL Verification Services, Inc. Above 1GHz High Frequency Substitution Measurement											
		Company: Samsung									
		Project #: 4790976523									
		Date: 2023-10-13									
		Test Engineer: 26087									
		Configuration: EUT / AC Adapter, Z-Position									
		Location: Chamber 2									
		Mode: 5G NR_QPSK NR n71 Harmonics, 20MHz Bandwidth									
		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		
20 MHz											
QPSK											
ANT E											
Low Ch, 673MHz											
1346.00	-16.7	V	3.0	40.9	1.0	-56.5	-13.0	-43.5			
2019.00	-13.5	V	3.0	40.8	1.0	-53.3	-13.0	-40.3			
2692.00	-11.1	V	3.0	41.7	1.0	-51.8	-13.0	-38.8			
1346.00	-17.8	H	3.0	40.9	1.0	-57.7	-13.0	-44.7			
2019.00	-14.3	H	3.0	40.8	1.0	-54.0	-13.0	-41.0			
2692.00	-10.6	H	3.0	41.7	1.0	-51.4	-13.0	-38.4			
Mid Ch, 680.5MHz											
1361.00	-16.6	V	3.0	40.9	1.0	-56.5	-13.0	-43.5			
2041.50	-13.4	V	3.0	40.8	1.0	-53.2	-13.0	-40.2			
2722.00	-11.0	V	3.0	41.8	1.0	-51.8	-13.0	-38.8			
1361.00	-17.7	H	3.0	40.9	1.0	-57.5	-13.0	-44.5			
2041.50	-14.2	H	3.0	40.8	1.0	-54.0	-13.0	-41.0			
2722.00	-10.5	H	3.0	41.8	1.0	-51.3	-13.0	-38.3			
High Ch, 688MHz											
1376.00	-16.6	V	3.0	40.9	1.0	-56.4	-13.0	-43.4			
2064.00	-13.4	V	3.0	40.8	1.0	-53.2	-13.0	-40.2			
2752.00	-11.0	V	3.0	41.8	1.0	-51.8	-13.0	-38.8			
1376.00	-17.6	H	3.0	40.9	1.0	-57.5	-13.0	-44.5			
2064.00	-14.1	H	3.0	40.8	1.0	-54.0	-13.0	-41.0			
2752.00	-10.4	H	3.0	41.8	1.0	-51.3	-13.0	-38.3			

**NR Band n77(PC2, 3450 - 3550 MHz)**

		UL Verification Services, Inc. Above 1GHz High Frequency Substitution Measurement									
		Company: Samsung Project #: 4790976523 Date: 2023-10-18 Test Engineer: 26460 Configuration: EUT / AC Adapter, X-Position Location: Chamber 2 Mode: 5G NR_QPSK NR n77 LO Harmonics, 80MHz Bandwidth 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		
80 MHz											
QPSK											
ANT F											
Low Ch, 3490.02MHz											
6980.04	-3.0	V	3.0	42.8	1.0	-44.9	-13.0	-31.9			
10470.06	0.8	V	3.0	41.2	1.0	-39.4	-13.0	-26.4			
13960.08	6.5	V	3.0	43.1	1.0	-35.7	-13.0	-22.7			
6980.04	-3.2	H	3.0	42.8	1.0	-45.0	-13.0	-32.0			
10470.06	0.7	H	3.0	41.2	1.0	-39.5	-13.0	-26.5			
13960.08	6.1	H	3.0	43.1	1.0	-36.0	-13.0	-23.0			
Mid Ch, 3499.98MHz											
6999.96	-2.9	V	3.0	42.8	1.0	-44.7	-13.0	-31.7			
10499.94	1.1	V	3.0	41.2	1.0	-39.1	-13.0	-26.1			
13999.92	6.4	V	3.0	43.2	1.0	-35.7	-13.0	-22.7			
6999.96	-3.3	H	3.0	42.8	1.0	-45.1	-13.0	-32.1			
10499.94	1.1	H	3.0	41.2	1.0	-39.1	-13.0	-26.1			
13999.92	6.2	H	3.0	43.2	1.0	-36.0	-13.0	-23.0			
High Ch, 3510MHz											
7020.00	-2.7	V	3.0	42.8	1.0	-44.5	-13.0	-31.5			
10530.00	1.1	V	3.0	41.2	1.0	-39.1	-13.0	-26.1			
14040.00	7.1	V	3.0	43.2	1.0	-35.1	-13.0	-22.1			
7020.00	-3.0	H	3.0	42.8	1.0	-44.8	-13.0	-31.8			
10530.00	0.9	H	3.0	41.2	1.0	-39.3	-13.0	-26.3			
14040.00	6.6	H	3.0	43.2	1.0	-35.6	-13.0	-22.6			
		UL Verification Services, Inc. Above 1GHz High Frequency Substitution Measurement									
		Company: Samsung Project #: 4790976523 Date: 2023-10-23 Test Engineer: 26460 Configuration: EUT / AC Adapter, X-Position Location: Chamber 2 Mode: 5G NR n77 LO(SRS) Harmonics, 15MHz Bandwidth 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		
15 MHz											
ANT C											
SRS1											
Low Ch, 3457.52MHz											
6915.04	-3.0	V	3.0	42.9	1.0	-44.9	-13.0	-31.9			
10372.56	0.8	V	3.0	41.2	1.0	-39.3	-13.0	-26.3			
13830.08	6.6	V	3.0	43.1	1.0	-35.4	-13.0	-22.4			
6915.04	-3.4	H	3.0	42.9	1.0	-45.2	-13.0	-32.2			
10372.56	0.8	H	3.0	41.2	1.0	-39.3	-13.0	-26.3			
13830.08	6.3	H	3.0	43.1	1.0	-35.7	-13.0	-22.7			
Mid Ch, 3499.98MHz											
6999.96	-2.9	V	3.0	42.8	1.0	-44.7	-13.0	-31.7			
10499.94	1.1	V	3.0	41.2	1.0	-39.1	-13.0	-26.1			
13999.92	6.3	V	3.0	43.2	1.0	-35.8	-13.0	-22.8			
6999.96	-3.3	H	3.0	42.8	1.0	-45.2	-13.0	-32.2			
10499.94	0.9	H	3.0	41.2	1.0	-39.3	-13.0	-26.3			
13999.92	6.0	H	3.0	43.2	1.0	-36.2	-13.0	-23.2			
High Ch, 3542.52MHz											
7085.04	-2.8	V	3.0	42.8	1.0	-44.6	-13.0	-31.6			
10627.56	1.2	V	3.0	41.3	1.0	-39.1	-13.0	-26.1			
14170.08	7.1	V	3.0	43.3	1.0	-35.2	-13.0	-22.2			
7085.04	-3.2	H	3.0	42.8	1.0	-45.0	-13.0	-32.0			
10627.56	1.1	H	3.0	41.3	1.0	-39.1	-13.0	-26.1			
14170.08	6.5	H	3.0	43.3	1.0	-35.8	-13.0	-22.8			

UL Verification Services, Inc. Above 1GHz High Frequency Substitution Measurement										
Company: Samsung Project #: 4790976523 Date: 2023-10-23 Test Engineer: 28775 Configuration: EUT / AC Adapter, Z-Position Location: Chamber 2 Mode: 5G NR n77 LO(SRS) Harmonics, 30MHz Bandwidth 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	
30 MHz										
ANT I										
SRS2										
Low Ch, 3465MHz										
6930.00	-3.2	V	3.0	42.9	1.0	-45.1	-13.0	-32.1		
10395.00	0.2	V	3.0	41.2	1.0	-40.0	-13.0	-27.0		
13860.00	6.0	V	3.0	43.1	1.0	-36.1	-13.0	-23.1		
6930.00	-3.4	H	3.0	42.9	1.0	-45.2	-13.0	-32.2		
10395.00	0.1	H	3.0	41.2	1.0	-40.1	-13.0	-27.1		
13860.00	5.8	H	3.0	43.1	1.0	-36.2	-13.0	-23.2		
Mid Ch, 3499.98MHz										
6999.96	-3.1	V	3.0	42.8	1.0	-44.9	-13.0	-31.9		
10499.94	1.2	V	3.0	41.2	1.0	-39.0	-13.0	-26.0		
13999.92	6.5	V	3.0	43.2	1.0	-35.6	-13.0	-22.6		
6999.96	-3.3	H	3.0	42.8	1.0	-45.1	-13.0	-32.1		
10499.94	0.8	H	3.0	41.2	1.0	-39.4	-13.0	-26.4		
13999.92	6.1	H	3.0	43.2	1.0	-36.1	-13.0	-23.1		
High Ch, 3535.02MHz										
7070.04	-2.7	V	3.0	42.8	1.0	-44.5	-13.0	-31.5		
10605.06	1.0	V	3.0	41.3	1.0	-39.3	-13.0	-26.3		
14140.08	7.2	V	3.0	43.3	1.0	-35.1	-13.0	-22.1		
7070.04	-3.4	H	3.0	42.8	1.0	-45.2	-13.0	-32.2		
10605.06	0.8	H	3.0	41.3	1.0	-39.4	-13.0	-26.4		
14140.08	6.4	H	3.0	43.3	1.0	-35.9	-13.0	-22.9		
UL Verification Services, Inc. Above 1GHz High Frequency Substitution Measurement										
Company: Samsung Project #: 4790976523 Date: 2023-10-23 Test Engineer: 28775 Configuration: EUT / AC Adapter, Y-Position Location: Chamber 2 Mode: 5G NR n77 LO(SRS) Harmonics, 10MHz Bandwidth 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	
10 MHz										
ANT A										
SRS3										
Low Ch, 3455.01MHz										
6910.02	-2.9	V	3.0	42.9	1.0	-44.8	-13.0	-31.8		
10365.03	0.6	V	3.0	41.2	1.0	-39.6	-13.0	-26.6		
13820.04	6.1	V	3.0	43.0	1.0	-35.9	-13.0	-22.9		
6910.02	-3.6	H	3.0	42.9	1.0	-45.5	-13.0	-32.5		
10365.03	0.4	H	3.0	41.2	1.0	-39.7	-13.0	-26.7		
13820.04	6.0	H	3.0	43.0	1.0	-36.1	-13.0	-23.1		
Mid Ch, 3499.98MHz										
6999.96	-3.0	V	3.0	42.8	1.0	-44.9	-13.0	-31.9		
10499.94	1.0	V	3.0	41.2	1.0	-39.2	-13.0	-26.2		
13999.92	6.3	V	3.0	43.2	1.0	-35.9	-13.0	-22.9		
6999.96	-3.3	H	3.0	42.8	1.0	-45.1	-13.0	-32.1		
10499.94	1.0	H	3.0	41.2	1.0	-39.2	-13.0	-26.2		
13999.92	6.2	H	3.0	43.2	1.0	-36.0	-13.0	-23.0		
High Ch, 3544.98MHz										
7089.96	-2.5	V	3.0	42.8	1.0	-44.3	-13.0	-31.3		
10634.94	1.3	V	3.0	41.3	1.0	-39.0	-13.0	-26.0		
14179.92	6.8	V	3.0	43.3	1.0	-35.5	-13.0	-22.5		
7089.96	-3.2	H	3.0	42.8	1.0	-44.9	-13.0	-31.9		
10634.94	1.4	H	3.0	41.3	1.0	-38.9	-13.0	-25.9		
14179.92	6.4	H	3.0	43.3	1.0	-35.8	-13.0	-22.8		

**NR Band n77(PC2, 3700-3980 MHz)**

		UL Verification Services, Inc. Above 1GHz High Frequency Substitution Measurement									
		Company: Samsung Project #: 4790976523 Date: 2023-10-17 Test Engineer: 26460 Configuration: EUT / AC Adapter, Z-Position Location: Chamber 2 Mode: 5G NR_QPSK NR n77 UP Harmonics, 50MHz Bandwidth 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		
50 MHz											
QPSK											
ANT F											
Low Ch, 3725.01MHz											
7450.02	-2.6	V	3.0	42.6	1.0	-44.2	-13.0	-31.2			
11175.03	2.6	V	3.0	41.5	1.0	-37.9	-13.0	-24.9			
14900.04	8.1	V	3.0	43.7	1.0	-34.7	-13.0	-21.7			
7450.02	-3.2	H	3.0	42.6	1.0	-44.8	-13.0	-31.8			
11175.03	2.4	H	3.0	41.5	1.0	-38.1	-13.0	-25.1			
14900.04	7.8	H	3.0	43.7	1.0	-35.0	-13.0	-22.0			
Mid Ch, 3840MHz											
7680.00	-2.4	V	3.0	42.5	1.0	-43.9	-13.0	-30.9			
11520.00	2.9	V	3.0	41.7	1.0	-37.8	-13.0	-24.8			
15360.00	8.2	V	3.0	43.7	1.0	-34.6	-13.0	-21.6			
7680.00	-3.0	H	3.0	42.5	1.0	-44.5	-13.0	-31.5			
11520.00	2.8	H	3.0	41.7	1.0	-37.8	-13.0	-24.8			
15360.00	7.6	H	3.0	43.7	1.0	-35.1	-13.0	-22.1			
High Ch, 3954.99MHz											
7909.98	-1.8	V	3.0	42.4	1.0	-43.2	-13.0	-30.2			
11864.97	3.5	V	3.0	41.8	1.0	-37.3	-13.0	-24.3			
15819.96	8.4	V	3.0	43.6	1.0	-34.2	-13.0	-21.2			
7909.98	-2.7	H	3.0	42.4	1.0	-44.1	-13.0	-31.1			
11864.97	3.5	H	3.0	41.8	1.0	-37.3	-13.0	-24.3			
15819.96	8.0	H	3.0	43.6	1.0	-34.5	-13.0	-21.5			
		UL Verification Services, Inc. Above 1GHz High Frequency Substitution Measurement									
		Company: Samsung Project #: 4790976523 Date: 2023-10-24 Test Engineer: 28775 Configuration: EUT / AC Adapter, X-Position Location: Chamber 2 Mode: 5G NR n77 UP(SRS) Harmonics, 90MHz Bandwidth 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		
90 MHz											
ANT C											
SRS1											
Low Ch, 3745.02MHz											
7490.04	-2.5	V	3.0	42.6	1.0	-44.1	-13.0	-31.1			
11235.06	3.0	V	3.0	41.5	1.0	-37.5	-13.0	-24.5			
14980.08	7.7	V	3.0	43.8	1.0	-35.1	-13.0	-22.1			
7490.04	-3.1	H	3.0	42.6	1.0	-44.7	-13.0	-31.7			
11235.06	2.6	H	3.0	41.5	1.0	-38.0	-13.0	-25.0			
14980.08	7.4	H	3.0	43.8	1.0	-35.4	-13.0	-22.4			
Mid Ch, 3840MHz											
7680.00	-2.6	V	3.0	42.5	1.0	-44.1	-13.0	-31.1			
11520.00	2.9	V	3.0	41.7	1.0	-37.8	-13.0	-24.8			
15360.00	7.8	V	3.0	43.7	1.0	-34.9	-13.0	-21.9			
7680.00	-3.2	H	3.0	42.5	1.0	-44.7	-13.0	-31.7			
11520.00	2.9	H	3.0	41.7	1.0	-37.8	-13.0	-24.8			
15360.00	7.3	H	3.0	43.7	1.0	-35.4	-13.0	-22.4			
High Ch, 3934.98MHz											
7869.96	-2.3	V	3.0	42.4	1.0	-43.7	-13.0	-30.7			
11804.94	3.7	V	3.0	41.8	1.0	-37.1	-13.0	-24.1			
15739.92	8.1	V	3.0	43.6	1.0	-34.5	-13.0	-21.5			
7869.96	-2.9	H	3.0	42.4	1.0	-44.3	-13.0	-31.3			
11804.94	3.7	H	3.0	41.8	1.0	-37.1	-13.0	-24.1			
15739.92	7.8	H	3.0	43.6	1.0	-34.8	-13.0	-21.8			



UL Verification Services, Inc. Above 1GHz High Frequency Substitution Measurement										
Company: Samsung Project #: 4790976523 Date: 2023-10-24 Test Engineer: 26460 Configuration: EUT / AC Adapter, Z-Position Location: Chamber 2 Mode: 5G NR n77 UP(SRS) Harmonics, 100MHz Bandwidth 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	
100 MHz										
ANT I										
SRS2										
Low Ch, 3750MHz										
7500.00	-2.4	V	3.0	42.6	1.0	-44.0	-13.0	-31.0		
11250.00	2.8	V	3.0	41.5	1.0	-37.8	-13.0	-24.8		
15000.00	7.7	V	3.0	43.8	1.0	-35.1	-13.0	-22.1		
7500.00	-2.9	H	3.0	42.6	1.0	-44.5	-13.0	-31.5		
11250.00	2.5	H	3.0	41.5	1.0	-38.1	-13.0	-25.1		
15000.00	7.5	H	3.0	43.8	1.0	-35.3	-13.0	-22.3		
Mid Ch, 3840MHz										
7680.00	-2.4	V	3.0	42.5	1.0	-43.9	-13.0	-30.9		
11520.00	3.1	V	3.0	41.7	1.0	-37.6	-13.0	-24.6		
15360.00	7.8	V	3.0	43.7	1.0	-35.0	-13.0	-22.0		
7680.00	-3.2	H	3.0	42.5	1.0	-44.6	-13.0	-31.6		
11520.00	2.9	H	3.0	41.7	1.0	-37.7	-13.0	-24.7		
15360.00	7.3	H	3.0	43.7	1.0	-35.4	-13.0	-22.4		
High Ch, 3930MHz										
7860.00	-2.3	V	3.0	42.4	1.0	-43.7	-13.0	-30.7		
11790.00	3.5	V	3.0	41.8	1.0	-37.2	-13.0	-24.2		
15720.00	8.0	V	3.0	43.6	1.0	-34.6	-13.0	-21.6		
7860.00	-2.9	H	3.0	42.4	1.0	-44.3	-13.0	-31.3		
11790.00	3.3	H	3.0	41.8	1.0	-37.5	-13.0	-24.5		
15720.00	7.7	H	3.0	43.6	1.0	-34.9	-13.0	-21.9		
UL Verification Services, Inc. Above 1GHz High Frequency Substitution Measurement										
Company: Samsung Project #: 4790976523 Date: 2023-10-24 Test Engineer: 28183 Configuration: EUT / AC Adapter, Z-Position Location: Chamber 1 Mode: 5G NR_QPSK NR n77 UP Harmonics, 10MHz Bandwidth 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	
10 MHz										
ANT D										
SRS3										
Low Ch, 3705MHz										
7410.00	0.1	V	3.0	45.0	1.0	-43.9	-13.0	-30.9		
11115.00	3.7	V	3.0	43.4	1.0	-38.6	-13.0	-25.6		
14820.00	7.5	V	3.0	44.7	1.0	-36.3	-13.0	-23.3		
7410.00	-1.1	H	3.0	45.0	1.0	-45.1	-13.0	-32.1		
11115.00	4.1	H	3.0	43.4	1.0	-38.3	-13.0	-25.3		
14820.00	7.4	H	3.0	44.7	1.0	-36.4	-13.0	-23.4		
Mid Ch, 3840MHz										
7680.00	1.1	V	3.0	44.9	1.0	-42.8	-13.0	-29.8		
11520.00	5.3	V	3.0	43.3	1.0	-37.0	-13.0	-24.0		
15360.00	8.0	V	3.0	44.7	1.0	-35.7	-13.0	-22.7		
7680.00	-0.6	H	3.0	44.9	1.0	-44.4	-13.0	-31.4		
11520.00	4.5	H	3.0	43.3	1.0	-37.8	-13.0	-24.8		
15360.00	8.0	H	3.0	44.7	1.0	-35.8	-13.0	-22.8		
High Ch, 3975MHz										
7950.00	-0.5	V	3.0	44.8	1.0	-44.3	-13.0	-31.3		
11925.00	4.3	V	3.0	43.2	1.0	-37.9	-13.0	-24.9		
15900.00	8.8	V	3.0	44.6	1.0	-34.8	-13.0	-21.8		
7950.00	-0.2	H	3.0	44.8	1.0	-43.9	-13.0	-30.9		
11925.00	4.9	H	3.0	43.2	1.0	-37.3	-13.0	-24.3		
15900.00	8.8	H	3.0	44.6	1.0	-34.8	-13.0	-21.8		

**END OF REPORT**