



NR n77 Subset 2 100MHz 64QAM 1RB CH-Low



NR n77 Subset 2 100MHz 64QAM 1RB CH-High



NR n77 Subset 2 100MHz 64QAM 100%RB CH-Low



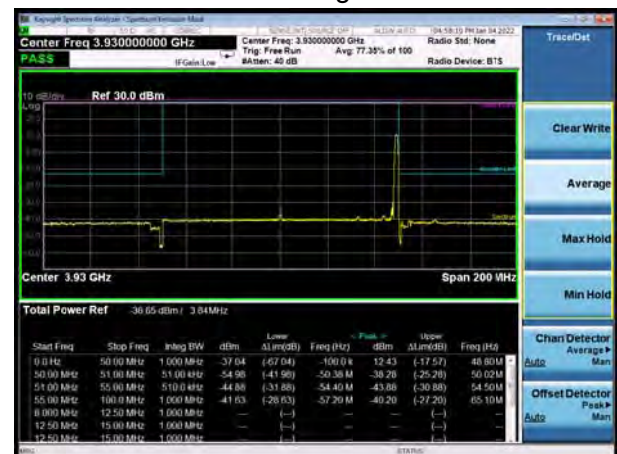
NR n77 Subset 2 100MHz 64QAM 100%RB CH-High



NR n77 Subset 2 100MHz 256QAM 1RB CH-Low

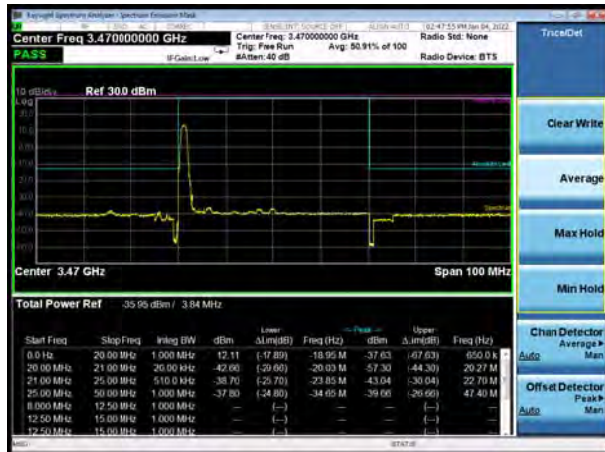


NR n77 Subset 2 100MHz 256QAM 1RB CH-High

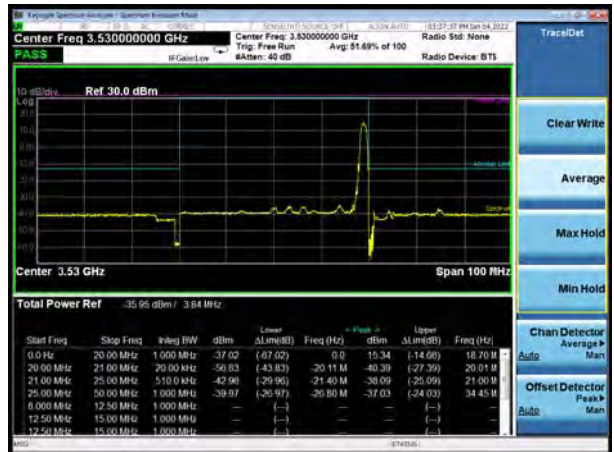
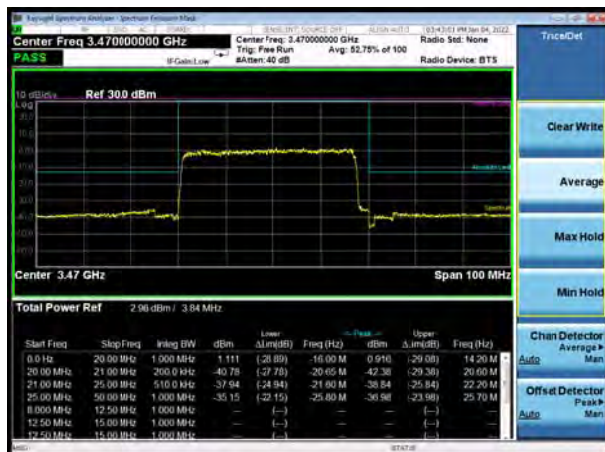


NR n77 Subset 2 100MHz 256QAM 100%RB
CH-LowNR n77 Subset 2 100MHz 256QAM 100%RB
CH-High

DC_7A-n78 40MHz PI/2 BPSK 1RB CH-Low

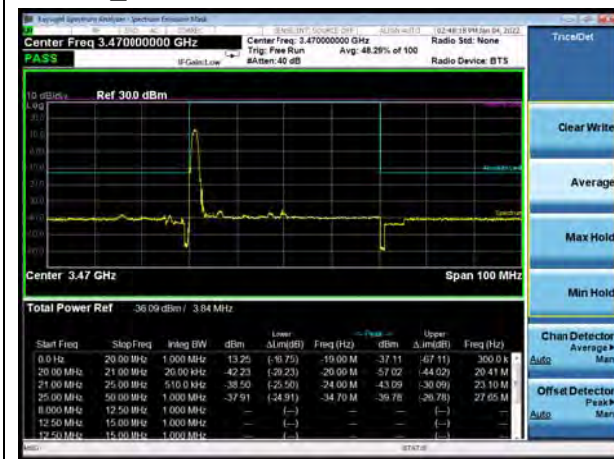


DC_7A-n78 40MHz PI/2 BPSK 1RB CH-High

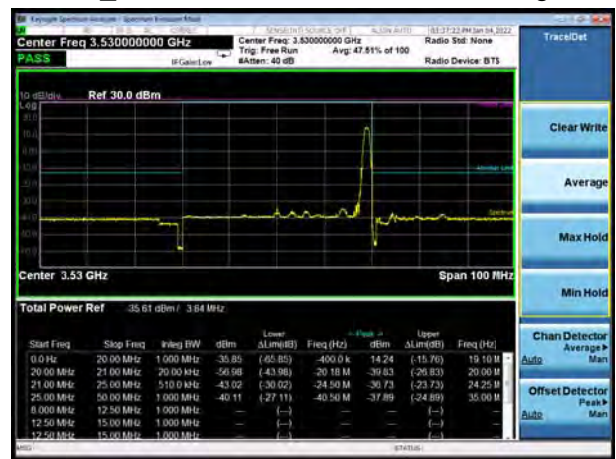
DC_7A-n78 40MHz PI/2 BPSK 100%RB
CH-LowDC_7A-n78 40MHz PI/2 BPSK 100%RB
CH-High



DC_7A-n78 40MHz QPSK 1RB CH-Low



DC_7A-n78 40MHz QPSK 1RB CH-High





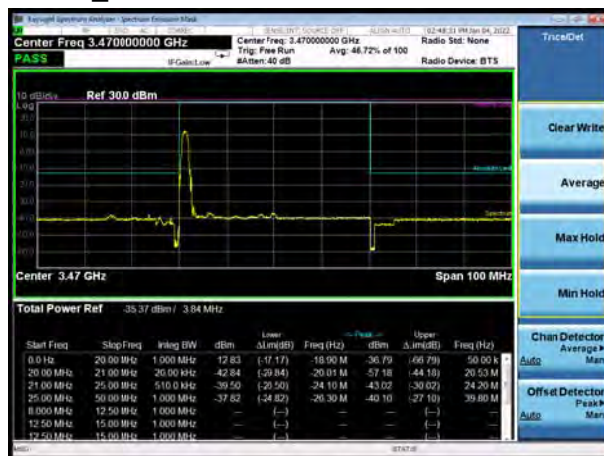
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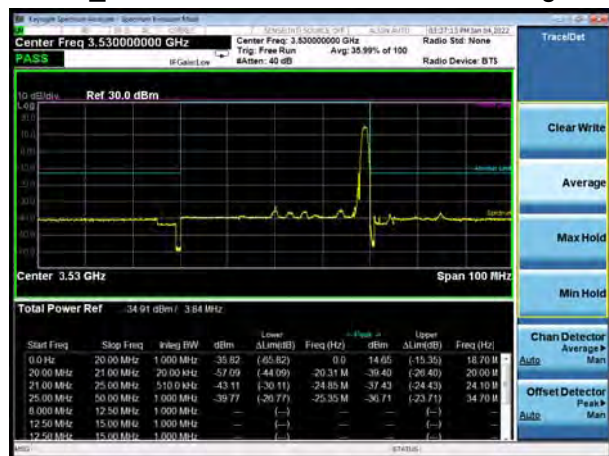
DC_7A-n78 40MHz QPSK 100%RB CH-High



DC_7A-n78 40MHz 16QAM 1RB CH-Low



DC_7A-n78 40MHz 16QAM 1RB CH-High



DC_7A-n78 40MHz 16QAM 100%RB CH-Low

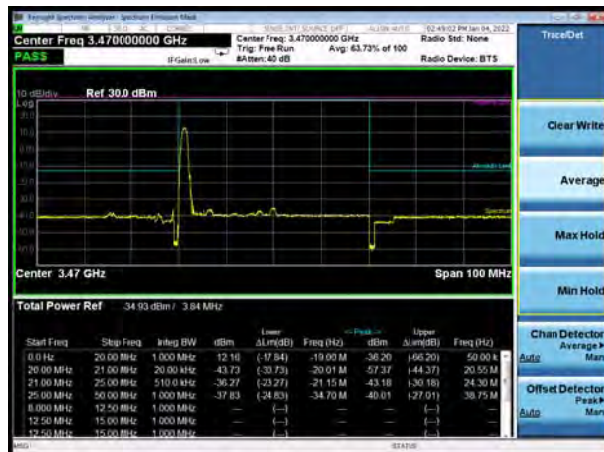


DC_7A-n78 40MHz 16QAM 100%RB CH-High





DC_7A-n78 40MHz 64QAM 1RB CH-Low



DC_7A-n78 40MHz 64QAM 1RB CH-High



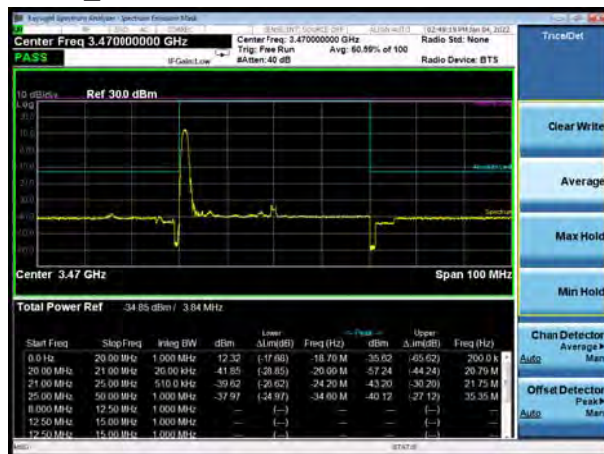
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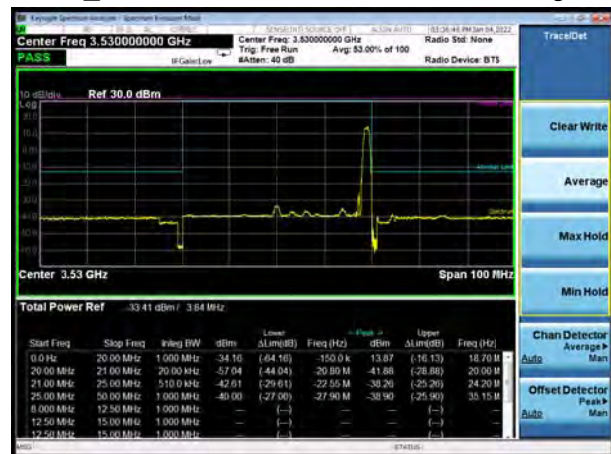
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DC_7A-n78 40MHz 256QAM 1RB CH-Low



DC_7A-n78 40MHz 256QAM 1RB CH-High

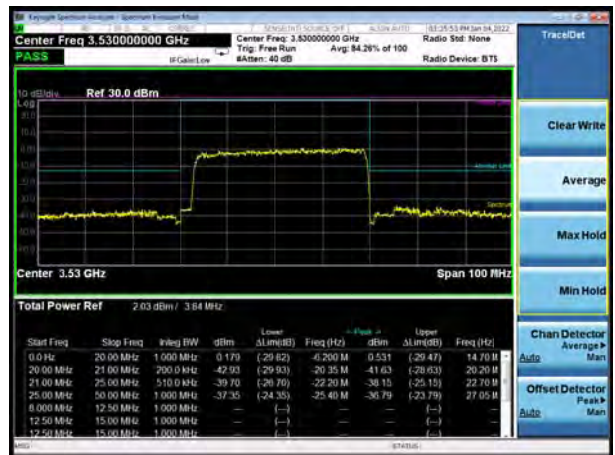




DC_7A-n78 40MHz 256QAM 100%RB CH-Low



DC_7A-n78 40MHz 256QAM 100%RB CH-High





DC_7A-n78 100MHz PI/2 BPSK 1RB CH-Low



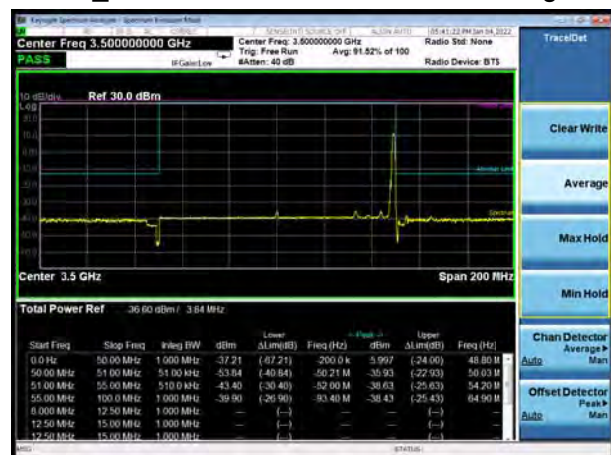
DC_7A-n78 100MHz PI/2 BPSK 1RB CH-High

DC_7A-n78 100MHz PI/2 BPSK 100%RB
CH-LowDC_7A-n78 100MHz PI/2 BPSK 100%RB
CH-High

DC_7A-n78 100MHz QPSK 1RB CH-Low



DC_7A-n78 100MHz QPSK 1RB CH-High





DC_7A-n78 100MHz QPSK 100%RB CH-Low



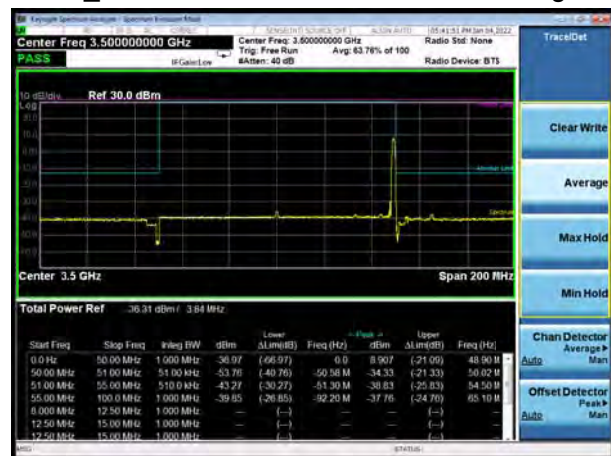
DC_7A-n78 100MHz QPSK 100%RB CH-High



DC_7A-n78 100MHz 16QAM 1RB CH-Low



DC_7A-n78 100MHz 16QAM 1RB CH-High



DC_7A-n78 100MHz 16QAM 100%RB CH-Low



DC_7A-n78 100MHz 16QAM 100%RB CH-High





DC_7A-n78 100MHz 64QAM 1RB CH-Low



DC_7A-n78 100MHz 64QAM 1RB CH-High



DC_7A-n78 100MHz 64QAM 100%RB CH-Low



DC_7A-n78 100MHz 64QAM 100%RB CH-High



DC_7A-n78 100MHz 256QAM 1RB CH-Low

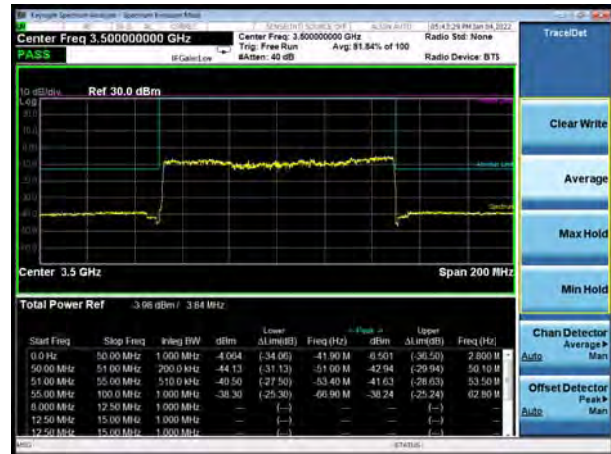


DC_7A-n78 100MHz 256QAM 1RB CH-High





DC_7A-n78 100MHz 256QAM 100%RB CH-Low

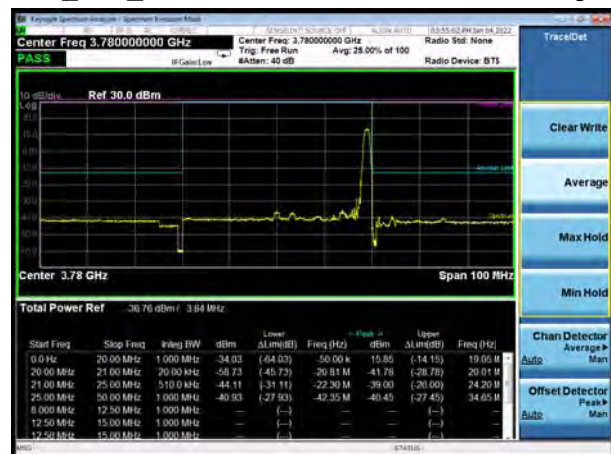
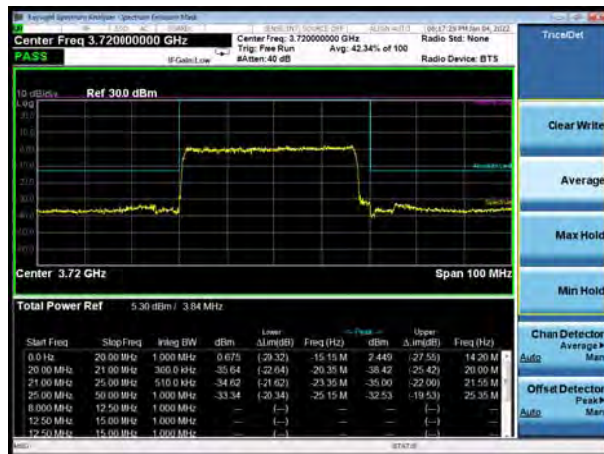
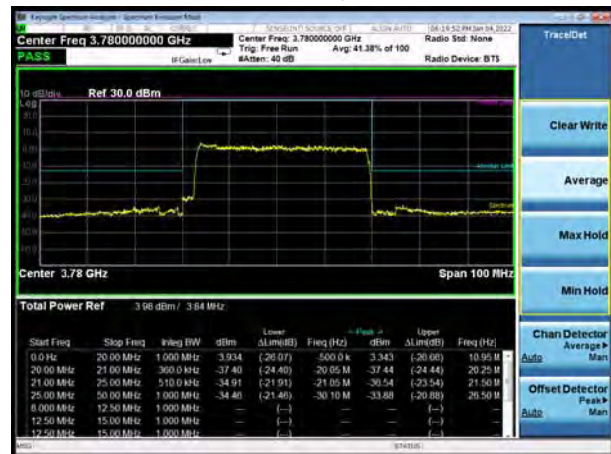
DC_7A-n78 100MHz 256QAM 100%RB
CH-High



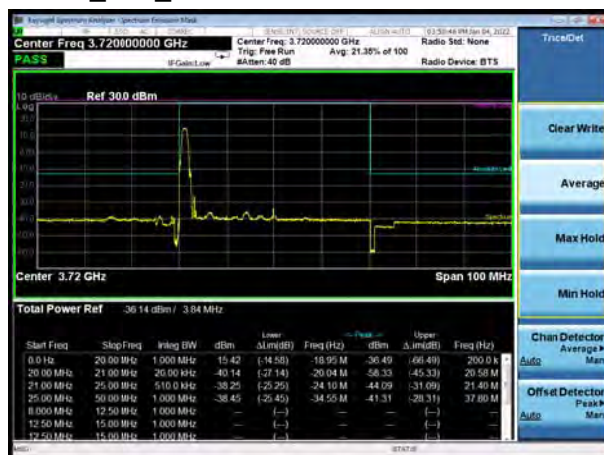
DC_66A_n78 40MHz PI/2 BPSK 1RB CH-Low



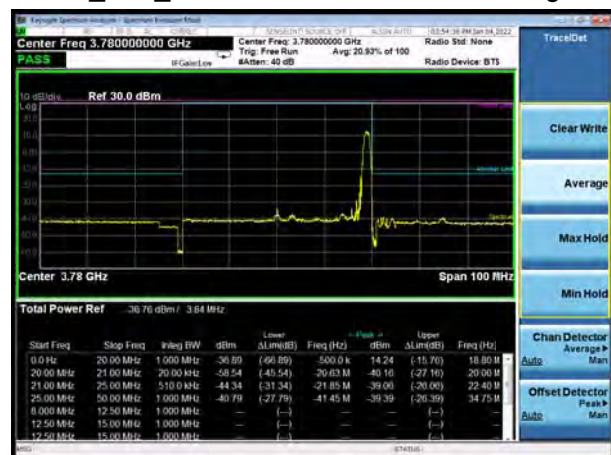
DC_66A_n78 40MHz PI/2 BPSK 1RB CH-High

DC_66A_n78 40MHz PI/2 BPSK 100%RB
CH-LowDC_66A_n78 40MHz PI/2 BPSK 100%RB
CH-High

DC_66A_n78 40MHz QPSK 1RB CH-Low

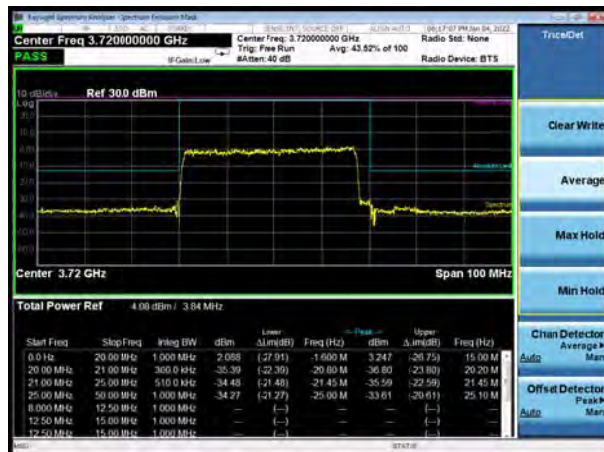


DC_66A_n78 40MHz QPSK 1RB CH-High

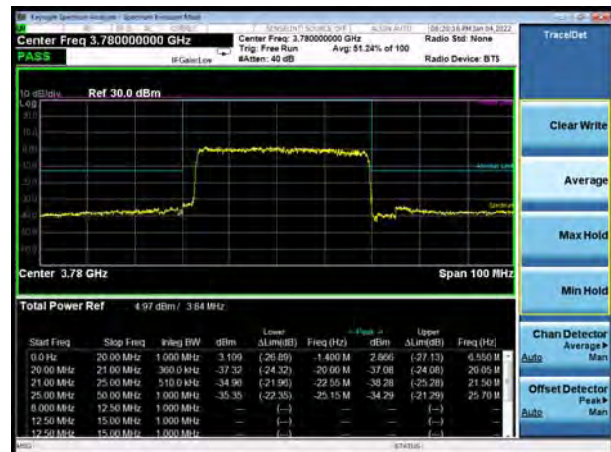




DC_66A_n78 40MHz QPSK 100%RB CH-Low



DC_66A_n78 40MHz QPSK 100%RB CH-High



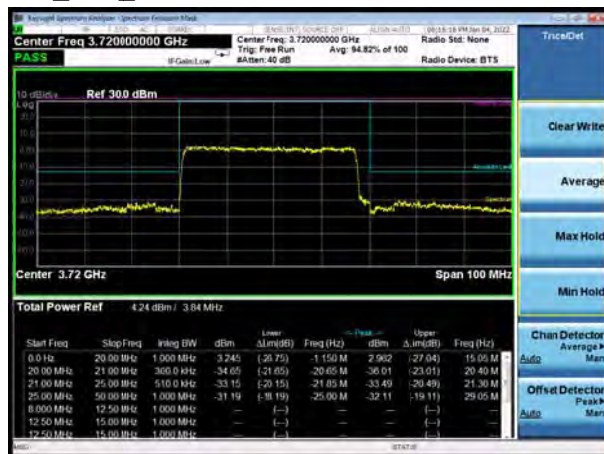
DC_66A_n78 40MHz 16QAM 1RB CH-Low



DC_66A_n78 40MHz 16QAM 1RB CH-High



DC_66A_n78 40MHz 16QAM 100%RB CH-Low

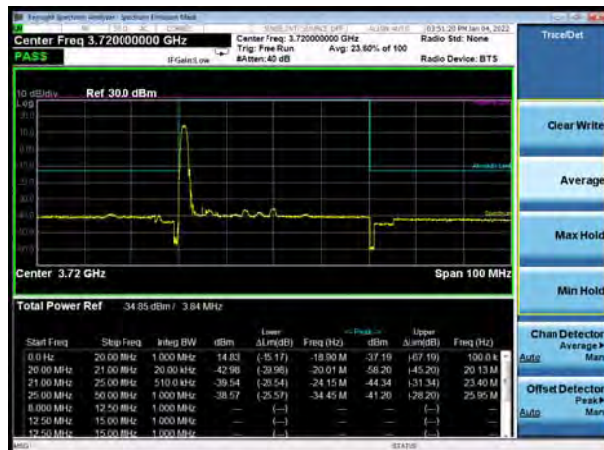


DC_66A_n78 40MHz 16QAM 100%RB CH-High

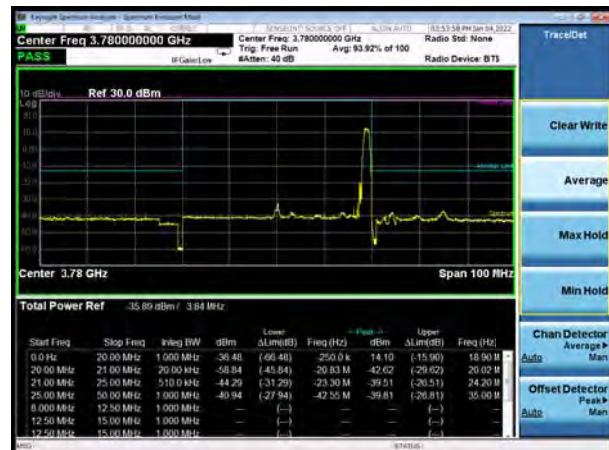




DC_66A_n78 40MHz 64QAM 1RB CH-Low



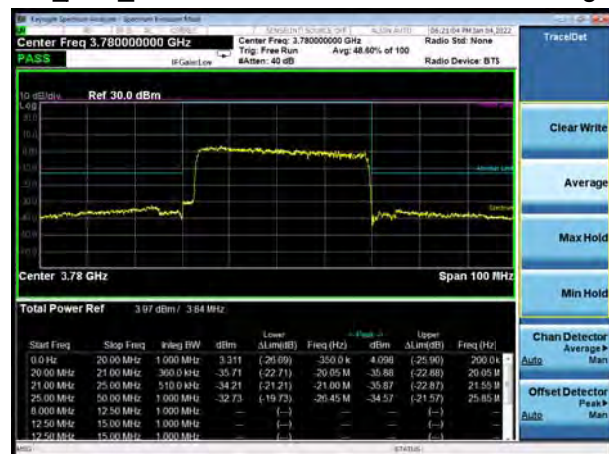
DC_66A_n78 40MHz 64QAM 1RB CH-High



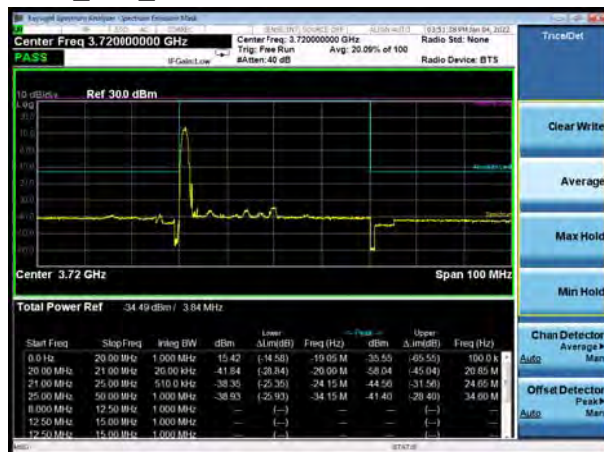
DC_66A_n78 40MHz 64QAM 100%RB CH-Low



DC_66A_n78 40MHz 64QAM 100%RB CH-High

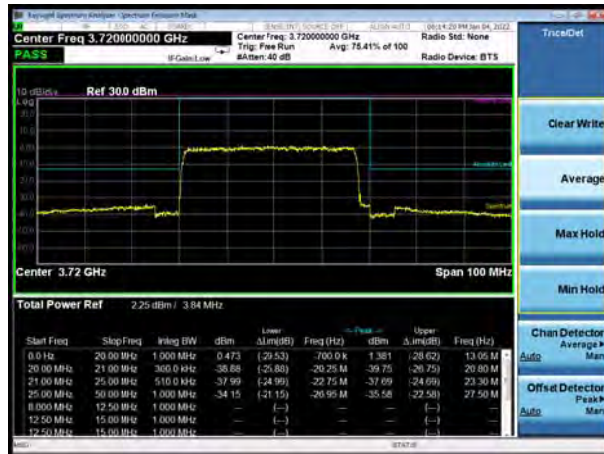


DC_66A_n78 40MHz 256QAM 1RB CH-Low



DC_66A_n78 40MHz 256QAM 1RB CH-High



DC_66A_n78 40MHz 256QAM 100%RB
CH-LowDC_66A_n78 40MHz 256QAM 100%RB
CH-High



DC_66A_n78 100MHz PI/2 BPSK 1RB CH-Low



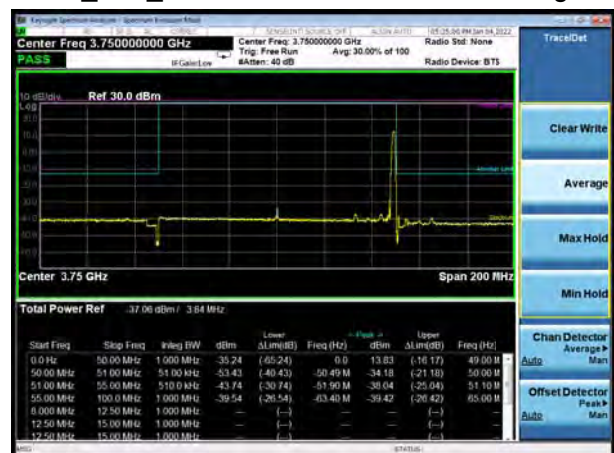
DC_66A_n78 100MHz PI/2 BPSK 1RB CH-High

DC_66A_n78 100MHz PI/2 BPSK 100%RB
CH-LowDC_66A_n78 100MHz PI/2 BPSK 100%RB
CH-High

DC_66A_n78 100MHz QPSK 1RB CH-Low



DC_66A_n78 100MHz QPSK 1RB CH-High





DC_66A_n78 100MHz QPSK 100%RB CH-Low



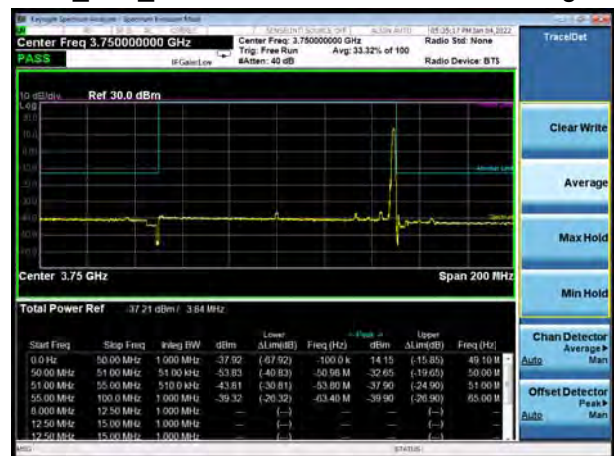
DC_66A_n78 100MHz QPSK 100%RB CH-High



DC_66A_n78 100MHz 16QAM 1RB CH-Low



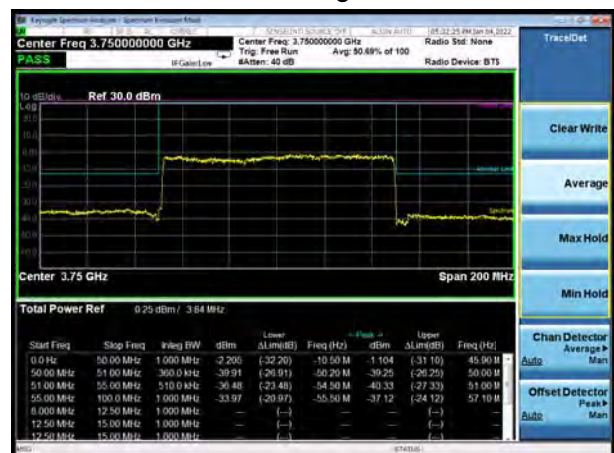
DC_66A_n78 100MHz 16QAM 1RB CH-High



DC_66A_n78 100MHz 16QAM 100%RB CH-Low



DC_66A_n78 100MHz 16QAM 100%RB CH-High

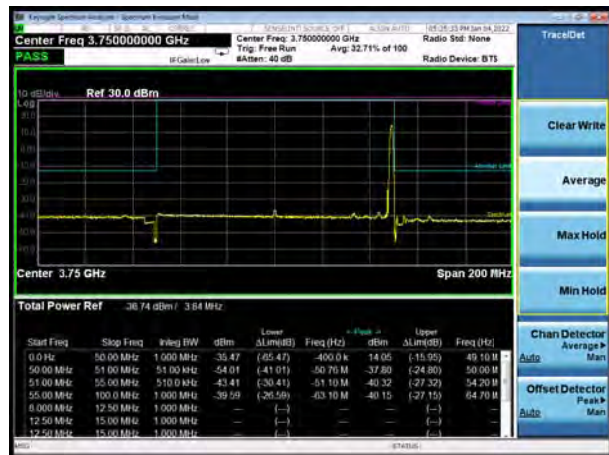




DC_66A_n78 100MHz 64QAM 1RB CH-Low



DC_66A_n78 100MHz 64QAM 1RB CH-High

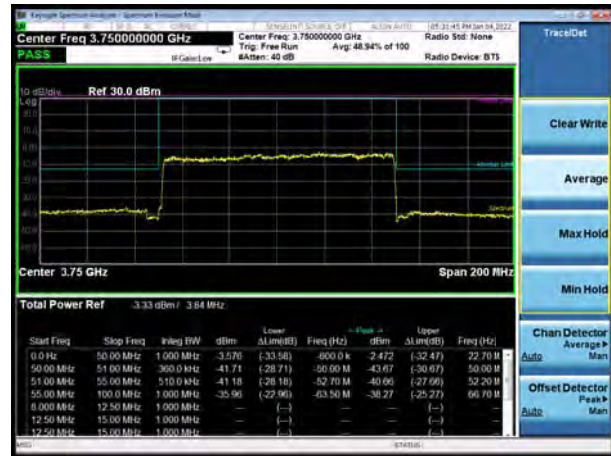
DC_66A_n78 100MHz 64QAM 100%RB
CH-LowDC_66A_n78 100MHz 64QAM 100%RB
CH-High

DC_66A_n78 100MHz 256QAM 1RB CH-Low



DC_66A_n78 100MHz 256QAM 1RB CH-High



DC_66A_n78 100MHz 256QAM 100%RB
CH-LowDC_66A_n78 100MHz 256QAM 100%RB
CH-High

5.4 Peak-to-Average Power Ratio (PAPR)

Ambient condition

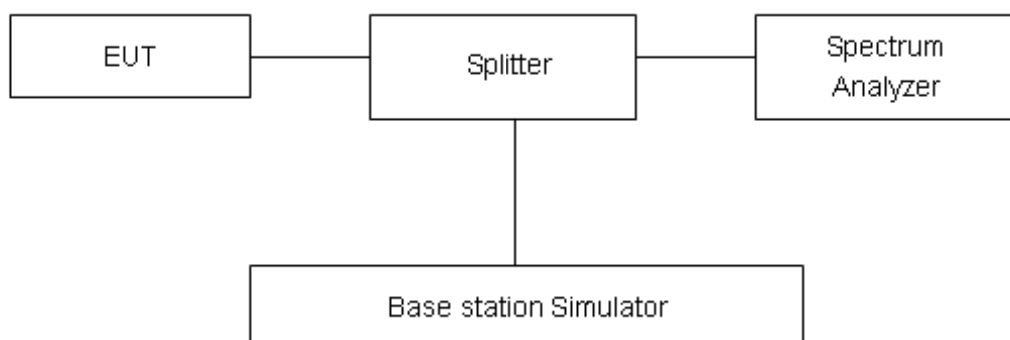
Temperature	Relative humidity	Pressure
23°C ~25°C	45%~50%	101.5kPa

Methods of Measurement

Measure the total peak power and record as PPK. And measure the total average power and record as PAvg. Both the peak and average power levels must be expressed in the same logarithmic units (e.g., dBm). Determine the PAPR from:

$$\text{PAPR (dB)} = \text{PPk (dBm)} - \text{PAvg (dBm)}.$$

Test Setup



Limits

Rule Part 27.50(d)(5) Equipment employed must be authorized in accordance with the provisions of 24.51. Power measurements for transmissions by stations authorized under this section may be made either in accordance with a Commission-approved average power technique or in compliance with paragraph (d)(6) of this section. In measuring transmissions in this band using an average power technique, the peak-to-average ratio (PAR) of the transmission may not exceed 13 dB.

Measurement Uncertainty

The assessed measurement uncertainty to ensure 95% confidence level for the normal distribution is with the coverage factor $k = 2$, $U = 0.4$ dB.



Test Results

NR n77 Subset 1								
Modulation	Bandwidth (MHz)	Channel	Frequency (MHz)	Peak (dBm)	Avg (dBm)	PAPR (dB)	Limit (dB)	Conclusion
P1/2 BPSK	40	509202	2546.01	23.97	11.24	12.73	≤13	PASS
		518598	2592.99	14.39	2.09	12.30	≤13	PASS
		528000	2640	25.36	13.88	11.48	≤13	PASS
QPSK	40	509202	2546.01	24.09	12.86	11.23	≤13	PASS
		518598	2592.99	24.42	12.17	12.25	≤13	PASS
		528000	2640	25.30	13.34	11.96	≤13	PASS
16QAM	40	509202	2546.01	24.68	12.74	11.94	≤13	PASS
		518598	2592.99	24.60	12.27	12.33	≤13	PASS
		528000	2640	25.43	12.48	12.95	≤13	PASS
64QAM	40	509202	2546.01	24.37	12.34	12.03	≤13	PASS
		518598	2592.99	24.45	11.94	12.51	≤13	PASS
		528000	2640	25.34	13.08	12.26	≤13	PASS
256QAM	40	509202	2546.01	22.53	10.41	12.12	≤13	PASS
		518598	2592.99	22.74	10.13	12.61	≤13	PASS
		528000	2640	23.61	10.94	12.67	≤13	PASS

NR n77 Subset 2								
Modulation	Bandwidth (MHz)	Channel	Frequency (MHz)	Peak (dBm)	Avg (dBm)	PAPR (dB)	Limit (dB)	Conclusion
P1/2 BPSK	40	648000	3720	25.01	14.13	10.88	≤13	PASS
		656000	3840	24.43	13.04	11.39	≤13	PASS
		664000	3960	23.77	12.32	11.45	≤13	PASS
QPSK	40	648000	3720	25.02	14.38	10.64	≤13	PASS
		656000	3840	24.29	11.94	12.35	≤13	PASS
		664000	3960	23.72	11.73	11.99	≤13	PASS
16QAM	40	648000	3720	25.34	13.10	12.24	≤13	PASS
		656000	3840	24.71	13.12	11.59	≤13	PASS
		664000	3960	23.92	11.48	12.44	≤13	PASS
64QAM	40	648000	3720	25.13	12.91	12.22	≤13	PASS
		656000	3840	24.49	11.99	12.50	≤13	PASS
		664000	3960	23.88	11.27	12.61	≤13	PASS
256QAM	40	648000	3720	23.55	10.86	12.69	≤13	PASS
		656000	3840	22.85	10.53	12.32	≤13	PASS
		664000	3960	22.33	10.08	12.25	≤13	PASS



DC_7A-n78								
Modulation	Bandwidth (MHz)	Channel	Frequency (MHz)	Peak (dBm)	Avg (dBm)	PAPR (dB)	Limit (dB)	Conclusion
P1/2 BPSK	40	631334	3470	23.87	12.15	11.72	≤13	PASS
		633334	3500	23.85	12.90	10.95	≤13	PASS
		635334	3500	24.86	12.76	12.10	≤13	PASS
QPSK	40	631334	3470	23.79	11.70	12.09	≤13	PASS
		633334	3500	23.77	11.57	12.20	≤13	PASS
		635334	3500	24.99	13.75	11.24	≤13	PASS
16QAM	40	631334	3470	24.80	13.06	11.74	≤13	PASS
		633334	3500	24.69	12.38	12.31	≤13	PASS
		635334	3500	25.71	13.58	12.13	≤13	PASS
64QAM	40	631334	3470	24.39	11.91	12.48	≤13	PASS
		633334	3500	24.62	12.49	12.13	≤13	PASS
		635334	3500	25.45	13.09	12.36	≤13	PASS
256QAM	40	631334	3470	22.67	10.12	12.55	≤13	PASS
		633334	3500	22.88	10.26	12.62	≤13	PASS
		635334	3500	23.66	11.16	12.50	≤13	PASS

DC_66A_n78								
Modulation	Bandwidth (MHz)	Channel	Frequency (MHz)	Peak (dBm)	Avg (dBm)	PAPR (dB)	Limit (dB)	Conclusion
P1/2 BPSK	40	648000	3720	24.48	13.99	10.49	≤13	PASS
		650000	3750	24.51	13.41	11.10	≤13	PASS
		652000	3780	25.13	14.00	11.13	≤13	PASS
QPSK	40	648000	3720	24.35	12.46	11.89	≤13	PASS
		650000	3750	24.51	13.34	11.17	≤13	PASS
		652000	3780	25.09	13.56	11.53	≤13	PASS
16QAM	40	648000	3720	24.90	13.42	11.48	≤13	PASS
		650000	3750	25.44	13.63	11.81	≤13	PASS
		652000	3780	25.89	12.98	12.91	≤13	PASS
64QAM	40	648000	3720	24.77	12.52	12.25	≤13	PASS
		650000	3750	25.35	13.52	11.83	≤13	PASS
		652000	3780	25.83	13.83	12.00	≤13	PASS
256QAM	40	648000	3720	23.24	10.49	12.75	≤13	PASS
		650000	3750	23.73	11.06	12.67	≤13	PASS
		652000	3780	24.14	11.57	12.57	≤13	PASS

5.5 Frequency Stability

Ambient condition

Temperature	Relative humidity	Pressure
23°C ~25°C	45%~50%	101.5kPa

Method of Measurement

Frequency Stability (Temperature Variation)

The temperature inside the climate chamber is varied from -30°C to +50°C in 10°C step size.

(1) With all power removed, the temperature was decreased to -10°C and permitted to stabilize for three hours.

(2) Measure the carrier frequency with the test equipment in a “call mode”. These measurements should be made within 1 minute of powering up the mobile station, to prevent significant self warming.

(3) Repeat the above measurements at 10°C increments from -30°C to +50°C. Allow at least 1.5 hours at each temperature, un-powered, before making measurements.

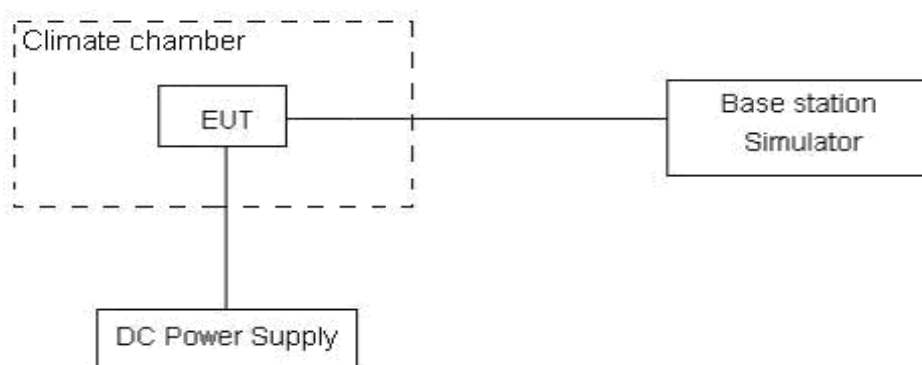
Frequency Stability (Voltage Variation)

The frequency stability shall be measured with variation of primary supply voltage as follows:

Primary Supply Voltage: The primary supply voltage is varied from 85% to 115% of the nominal value for non hand-carried battery and AC powered equipment. For hand-carried, battery-powered equipment, primary supply voltage is reduced to the battery operating end point which shall be specified by the manufacturer.

This transceiver is specified to operate with an input voltage of between 10.8V and 13.2V, with a nominal voltage of 12V.

Test setup



Limits

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

Measurement Uncertainty

The assessed measurement uncertainty to ensure 99.75% confidence level for the normal distribution is with the coverage factor $k = 3$, $U=0.01\text{ppm}$.



Test Result

NR n77 Subset 1											
Condition		Freq.Error (Hz)					Frequency Stability (ppm)				
BANDWIDTH	40MHz										
Temperature	Voltage	256QAM	64QAM	16QAM	QPSK	P1/2 BPSK	256QAM	64QAM	16QAM	QPSK	P1/2 BPSK
Normal (25℃)	Normal	3.49	1.62	12.75	3.49	15.62	0.00100	0.00046	0.00364	0.00100	0.00446
Extreme (50℃)		12.06	10.33	13.75	1.06	10.33	0.00345	0.00295	0.00393	0.00030	0.00295
Extreme (40℃)		10.26	7.52	3.34	11.26	12.52	0.00293	0.00215	0.00095	0.00322	0.00358
Extreme (30℃)		13.71	14.51	16.88	4.71	3.51	0.00392	0.00415	0.00482	0.00134	0.00100
Extreme (20℃)		3.53	8.19	6.79	1.53	17.19	0.00101	0.00234	0.00194	0.00044	0.00491
Extreme (10℃)		13.94	17.56	7.96	10.94	2.56	0.00398	0.00502	0.00227	0.00312	0.00073
Extreme (0℃)		5.21	10.74	8.15	2.21	13.74	0.00149	0.00307	0.00233	0.00063	0.00393
Extreme (-10℃)		16.86	9.08	8.11	1.86	2.08	0.00482	0.00259	0.00232	0.00053	0.00059
Extreme (-20℃)		8.09	6.31	7.34	14.09	7.31	0.00231	0.00180	0.00210	0.00403	0.00209
Extreme (-30℃)		16.44	10.26	9.20	16.44	6.26	0.00470	0.00293	0.00263	0.00470	0.00179
25℃	LV	4.88	10.75	3.92	4.88	1.75	0.00139	0.00307	0.00112	0.00139	0.00050
	HV	4.63	8.89	5.38	11.63	2.89	0.00132	0.00254	0.00154	0.00332	0.00083

NR n77 Subset 2											
Condition		Freq.Error (Hz)					Frequency Stability (ppm)				
BANDWIDTH	40MHz										
Temperature	Voltage	256QAM	64QAM	16QAM	QPSK	P1/2 BPSK	256QAM	64QAM	16QAM	QPSK	P1/2 BPSK
Normal (25℃)	Normal	3.06	10.80	15.10	10.06	11.80	0.00080	0.00281	0.00393	0.00262	0.00307
Extreme (50℃)		8.25	8.74	6.43	1.25	4.74	0.00215	0.00228	0.00167	0.00033	0.00123
Extreme (40℃)		2.99	4.37	13.23	2.99	16.37	0.00078	0.00114	0.00344	0.00078	0.00426
Extreme (30℃)		6.39	11.53	2.57	11.39	14.53	0.00167	0.00300	0.00067	0.00297	0.00378
Extreme (20℃)		3.05	10.02	13.95	1.05	2.02	0.00080	0.00261	0.00363	0.00027	0.00053
Extreme (10℃)		10.48	14.04	17.43	9.48	13.04	0.00273	0.00366	0.00454	0.00247	0.00339
Extreme (0℃)		10.50	3.54	5.56	7.50	10.54	0.00273	0.00092	0.00145	0.00195	0.00275
Extreme (-10℃)		10.29	3.03	3.69	6.29	3.03	0.00268	0.00079	0.00096	0.00164	0.00079
Extreme (-20℃)		9.45	9.42	16.87	11.45	2.42	0.00246	0.00245	0.00439	0.00298	0.00063
Extreme (-30℃)		9.10	16.92	9.60	12.10	14.92	0.00237	0.00441	0.00250	0.00315	0.00389
25℃	LV	5.70	9.23	17.68	10.70	11.23	0.00148	0.00240	0.00460	0.00279	0.00292
	HV	9.25	15.26	7.25	16.25	5.26	0.00241	0.00398	0.00189	0.00423	0.00137

DC_7A-n78											
Condition		Freq.Error (Hz)					Frequency Stability (ppm)				
BANDWIDTH	40MHz										
Temperature	Voltage	256QAM	64QAM	16QAM	QPSK	P1/2 BPSK	256QAM	64QAM	16QAM	QPSK	P1/2 BPSK
Normal (25℃)	Normal	6.45	17.63	2.83	9.45	9.63	0.00184	0.00504	0.00081	0.00270	0.00275
Extreme (50℃)		13.22	1.42	1.46	11.22	10.42	0.00378	0.00041	0.00042	0.00321	0.00298
Extreme (40℃)		17.62	6.56	10.13	7.62	3.56	0.00504	0.00188	0.00289	0.00218	0.00102
Extreme (30℃)		14.56	11.13	2.99	13.56	9.13	0.00416	0.00318	0.00085	0.00387	0.00261



Extreme (20℃)		4.27	2.90	17.03	14.27	12.90	0.00122	0.00083	0.00487	0.00408	0.00369
Extreme (10℃)		17.88	8.33	14.33	6.88	6.33	0.00511	0.00238	0.00410	0.00197	0.00181
Extreme (0℃)		8.37	5.96	10.73	3.37	5.96	0.00239	0.00170	0.00306	0.00096	0.00170
Extreme (-10℃)		16.61	15.85	15.22	1.61	3.85	0.00475	0.00453	0.00435	0.00046	0.00110
Extreme (-20℃)		8.71	12.63	12.05	1.71	17.63	0.00249	0.00361	0.00344	0.00049	0.00504
Extreme (-30℃)		3.80	1.43	5.57	9.80	1.43	0.00109	0.00041	0.00159	0.00280	0.00041
25℃	LV	17.38	3.42	9.38	14.38	1.42	0.00496	0.00098	0.00268	0.00411	0.00040
	HV	8.08	17.70	9.10	9.08	14.70	0.00231	0.00506	0.00260	0.00259	0.00420

DC_66A_n78											
Condition		Freq.Error (Hz)					Frequency Stability (ppm)				
BANDWIDTH	40MHz										
Temperature	Voltage	256QAM	64QAM	16QAM	QPSK	P1/2 BPSK	256QAM	64QAM	16QAM	QPSK	P1/2 BPSK
Normal (25℃)	Normal	17.68	12.41	11.87	15.68	1.41	0.00471	0.00331	0.00316	0.00418	0.00038
Extreme (50℃)		15.92	2.34	4.27	7.92	4.34	0.00424	0.00062	0.00114	0.00211	0.00116
Extreme (40℃)		13.08	14.71	3.12	17.08	2.71	0.00349	0.00392	0.00083	0.00455	0.00072
Extreme (30℃)		3.73	15.77	17.83	9.73	11.77	0.00099	0.00421	0.00475	0.00259	0.00314
Extreme (20℃)		6.80	14.61	12.41	11.80	14.61	0.00181	0.00390	0.00331	0.00315	0.00390
Extreme (10℃)		10.36	6.51	7.61	7.36	11.51	0.00276	0.00174	0.00203	0.00196	0.00307
Extreme (0℃)		14.47	10.79	9.46	6.47	1.79	0.00386	0.00288	0.00252	0.00173	0.00048
Extreme (-10℃)		10.54	7.04	10.65	9.54	8.04	0.00281	0.00188	0.00284	0.00255	0.00214
Extreme (-20℃)		10.79	11.59	5.04	2.79	15.59	0.00288	0.00309	0.00134	0.00074	0.00416
Extreme (-30℃)		2.18	9.71	4.83	12.18	2.71	0.00058	0.00259	0.00129	0.00325	0.00072
25℃	LV	17.20	6.53	17.10	14.20	16.53	0.00459	0.00174	0.00456	0.00379	0.00441
	HV	17.42	11.46	2.95	8.42	4.46	0.00465	0.00306	0.00079	0.00225	0.00119

5.6 Spurious Emissions at Antenna Terminals

Ambient condition

Temperature	Relative humidity	Pressure
23°C ~25°C	45%~50%	101.5kPa

Method of Measurement

The EUT was connected to Spectrum Analyzer and Base Station Simulator via power Splitter. The measurement is carried out using a spectrum analyzer. The spectrum analyzer scans from 9kHz to the 10th harmonic of the carrier. The peak detector is used.

RBW is set to 100kHz, VBW is set to 300kHz for 30MHz~1GHz

RBW is set to 1MHz, VBW is set to 3MHz for above 1GHz, Sweep is set to ATUO.

RBW is set to 1 kHz (0.009MHz~ 0.15 MHz),

RBW is set to 10 kHz (0.15 MHz~ 30 MHz)

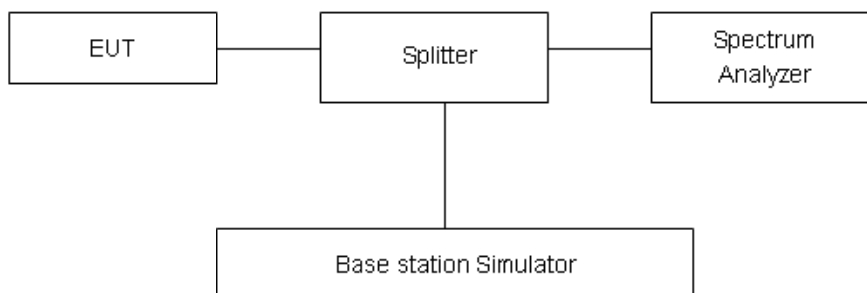
RBW is set to 100 kHz (30MHz~1000 MHz)

RBW is set to 1000 kHz (above 1000MHz)

Of those disturbances below (limit – 20 dB), the mark is not required for the EUT.

The modulation mode and RB allocation refer to section 5.1, using the maximum output power configuration.

Test setup



Limits

Rule Part 27.53 (l) (2) specifies that “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.”

Rule Part 27.53(n) (2) specifies that “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.”

Measurement Uncertainty

The assessed measurement uncertainty to ensure 99.75% confidence level for the normal distribution is with the coverage factor $k = 1.96$.

Frequency	Uncertainty
9kHz-1GHz	0.684 dB
1GHz-27GHz	1.407 dB

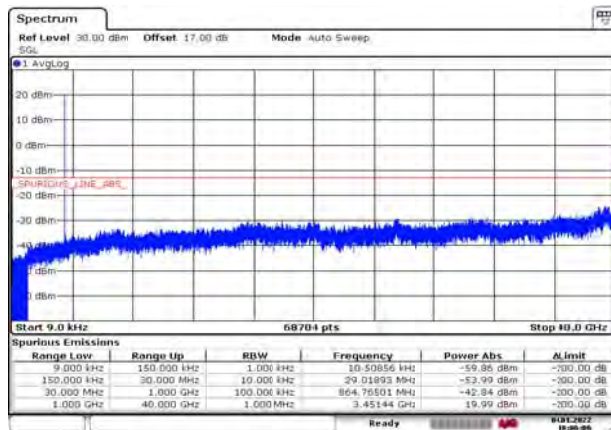


Test Result

Sweep the whole frequency band through the range from 9kHz to the 10th harmonic of the carrier, the emissions more than 20 dB below the limit are not reported.

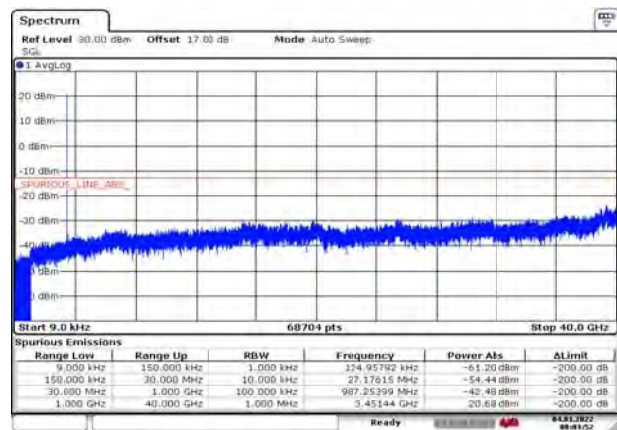
The signal beyond the limit is carrier.

NR n77 Subset 1 P1/2 BPSK 40MHz CH-Low



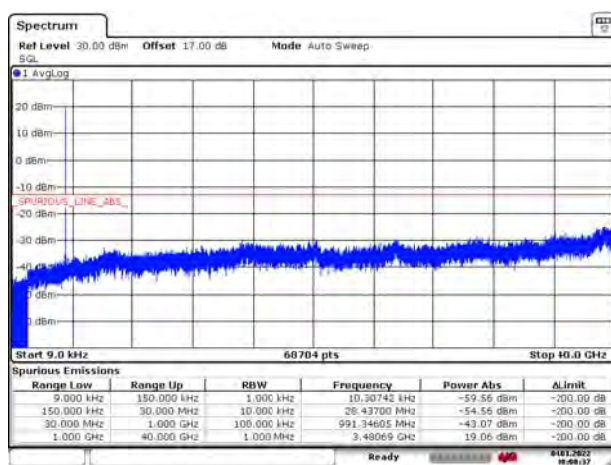
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NR n77 Subset 1 QPSK 40MHz CH-Low



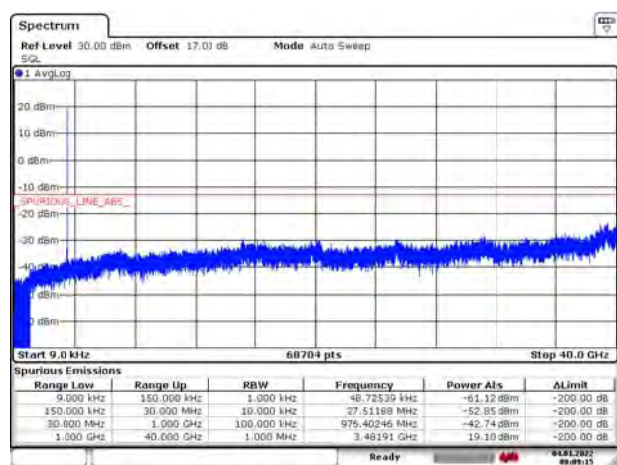
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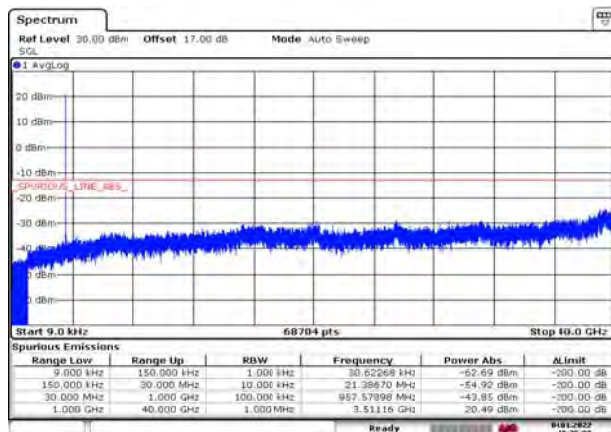
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NR n77 Subset 1 QPSK 40MHz CH-Middle



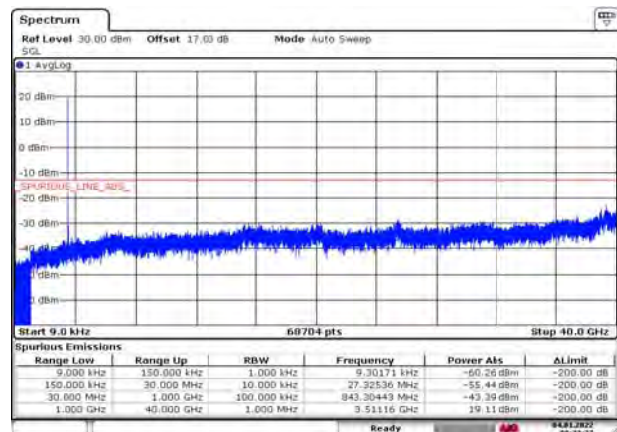
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NR n77 Subset 1 P1/2 BPSK 40MHz CH-High



Date: 4 JAN 2022 08:25:09

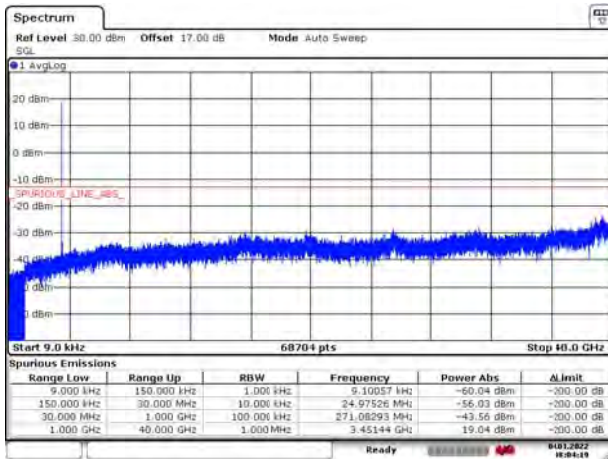
NR n77 Subset 1 QPSK 40MHz CH-High



Date: 4 JAN 2022 08:23:37

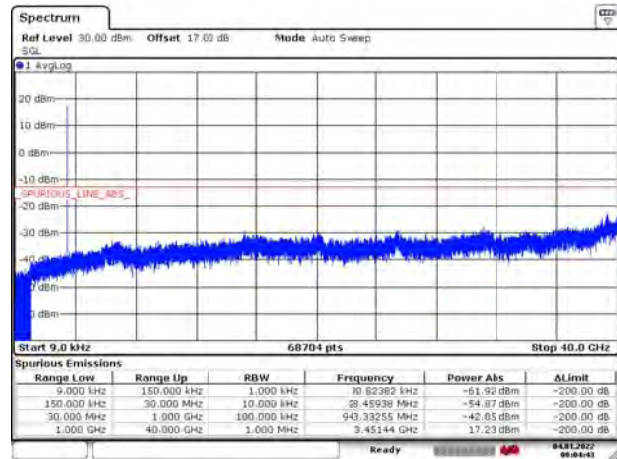


NR n77 Subset 1 16QAM 40MHz CH-Low



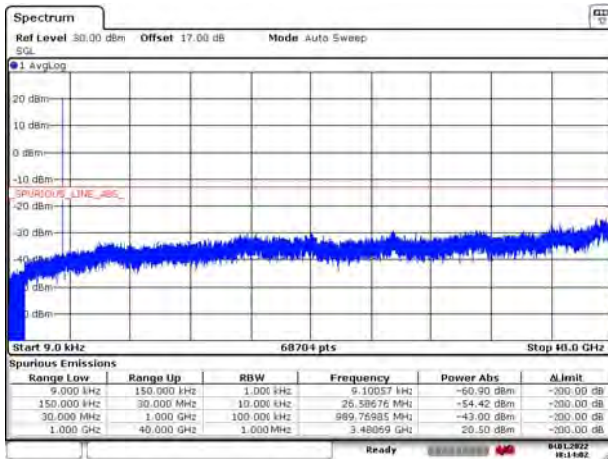
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NR n77 Subset 1 64QAM 40MHz CH-Low



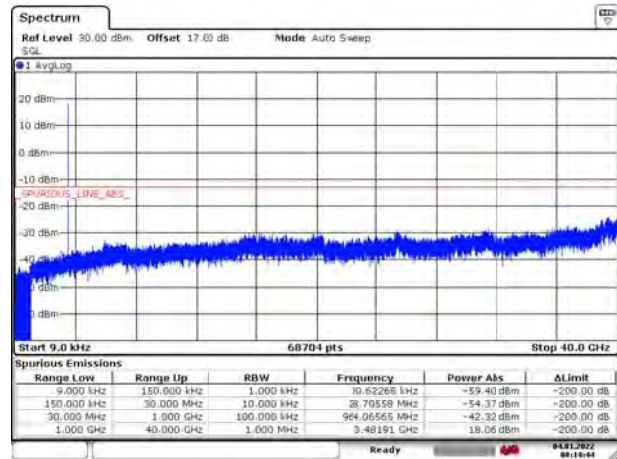
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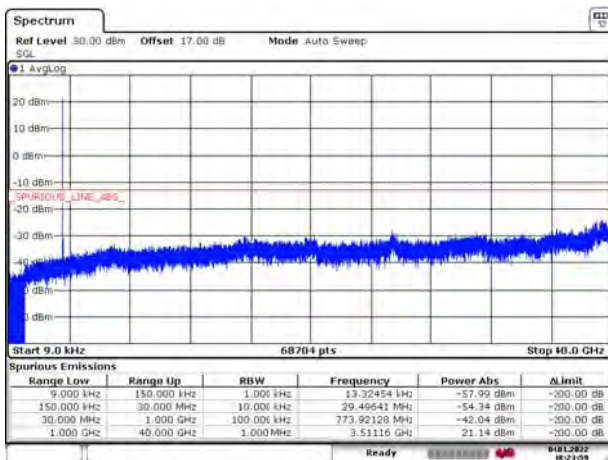
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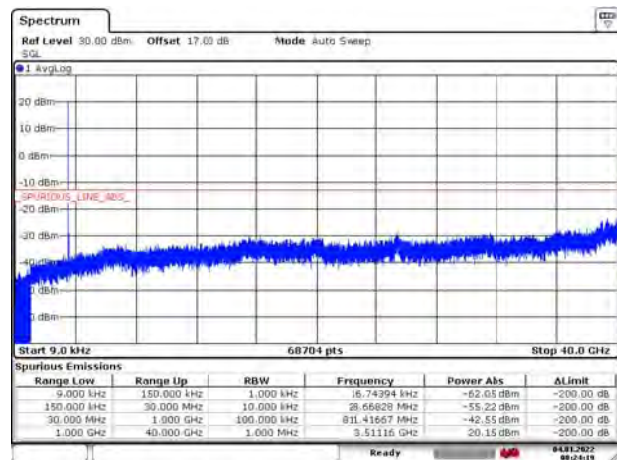
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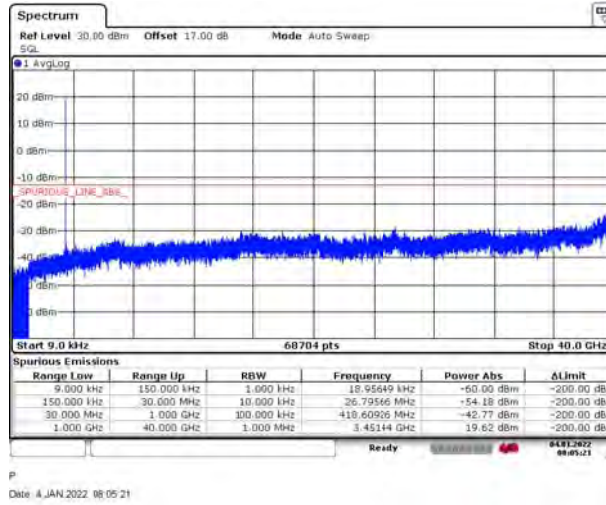
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NR n77 Subset 1 64QAM 40MHz CH-High

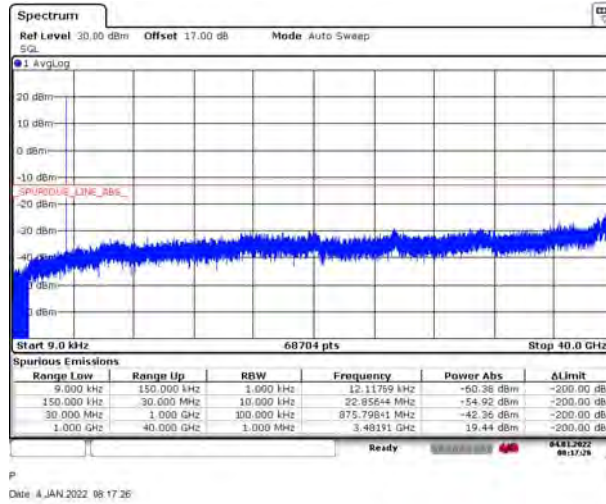


Date: 4 JAN 2022 08:24:18

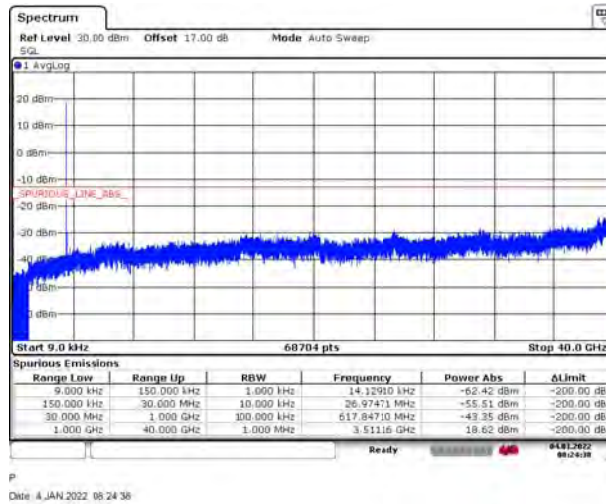
NR n77 Subset 1 256QAM 40MHz CH-Low



NR n77 Subset 1 256QAM 40MHz CH-Middle

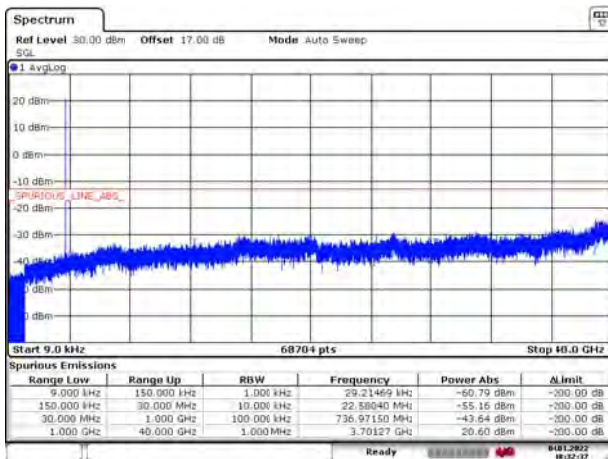


NR n77 Subset 1 256QAM 40MHz CH-High



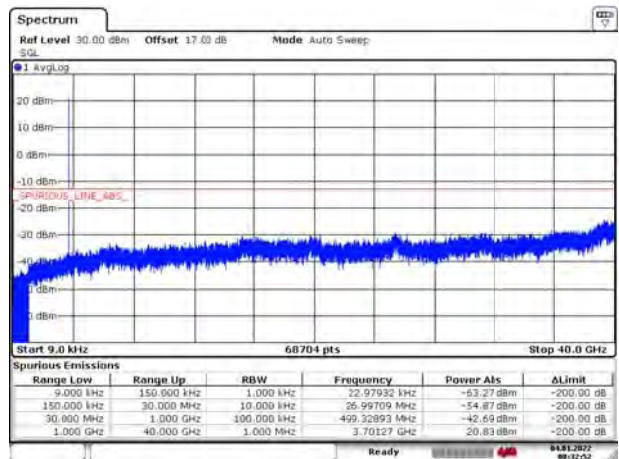


NR n77 Subset 2 P1/2 BPSK 40MHz CH-Low



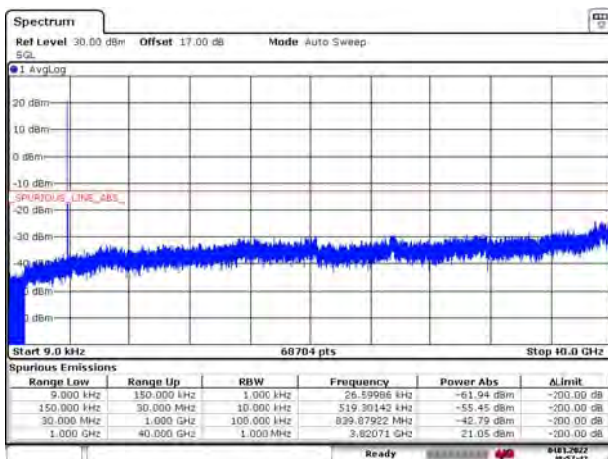
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NR n77 Subset 2 QPSK 40MHz CH-Low



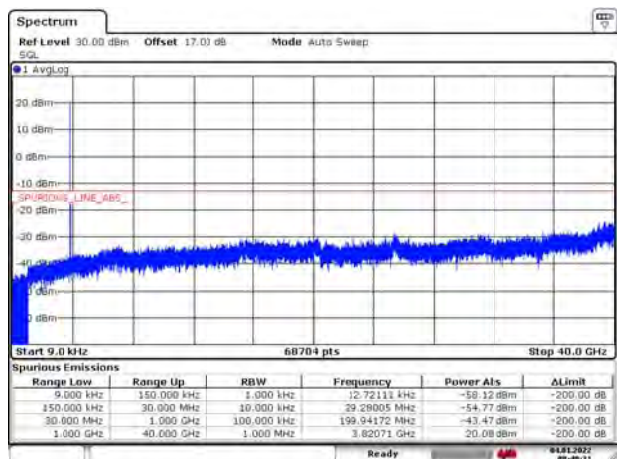
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NR n77 Subset 2 P1/2 BPSK 40MHz CH-Middle



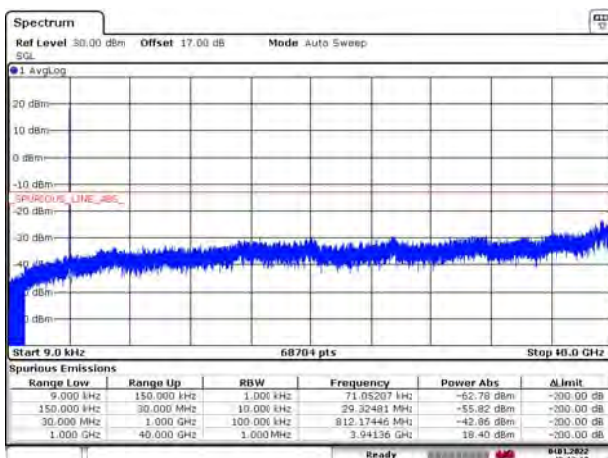
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NR n77 Subset 2 QPSK 40MHz CH-Middle



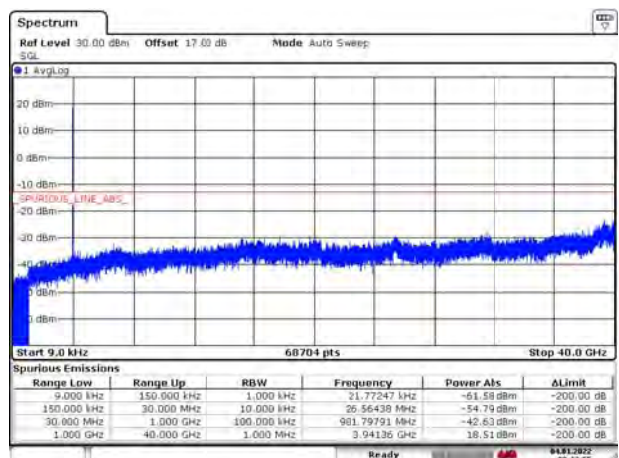
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NR n77 Subset 2 P1/2 BPSK 40MHz CH-High



Date: 4 JAN 2022 08:13:20

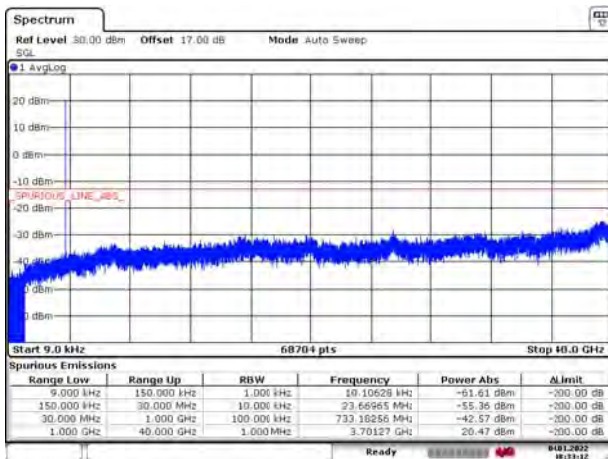
NR n77 Subset 2 QPSK 40MHz CH-High



Date: 4 JAN 2022 08:13:55

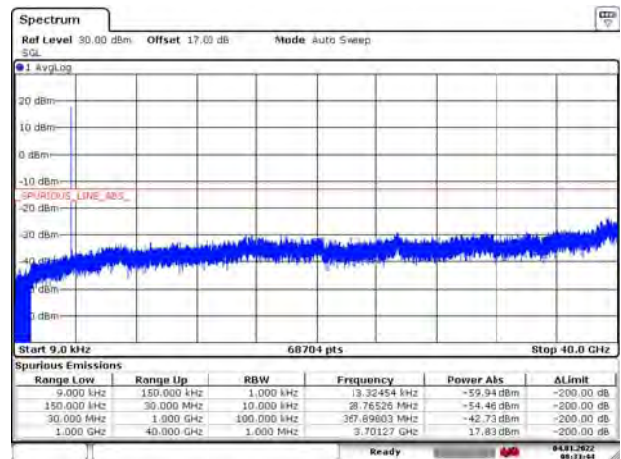


NR n77 Subset 2 16QAM 40MHz CH-Low



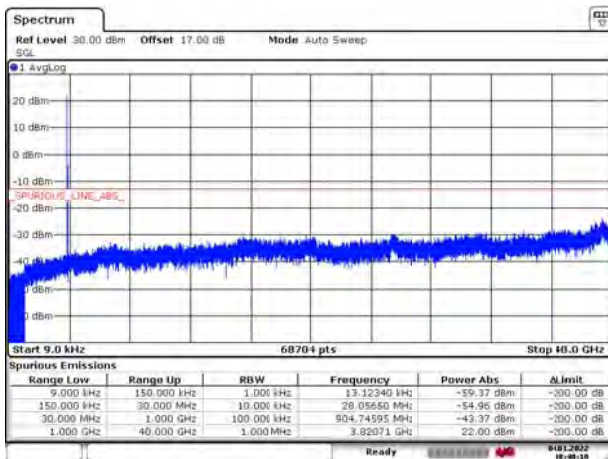
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NR n77 Subset 2 64QAM 40MHz CH-Low



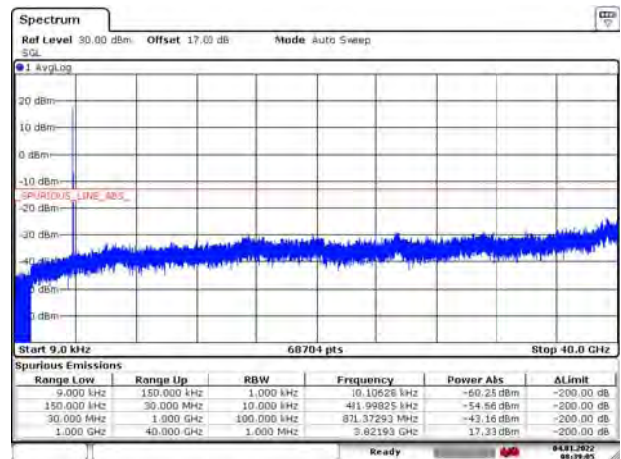
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NR n77 Subset 2 16QAM 40MHz CH-Middle



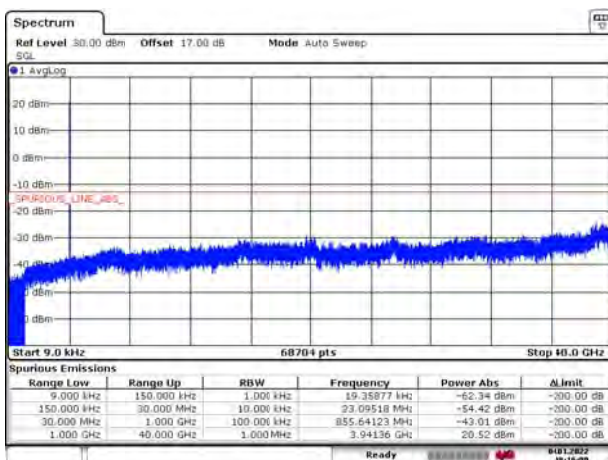
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NR n77 Subset 2 64QAM 40MHz CH-Middle



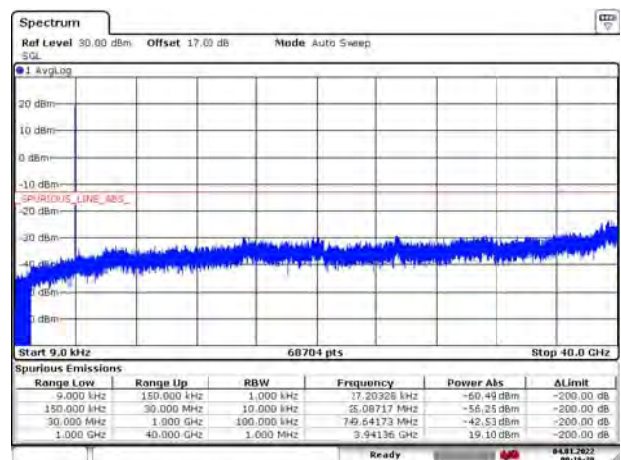
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NR n77 Subset 2 16QAM 40MHz CH-High



Date: 4 JAN 2022 09:15:09

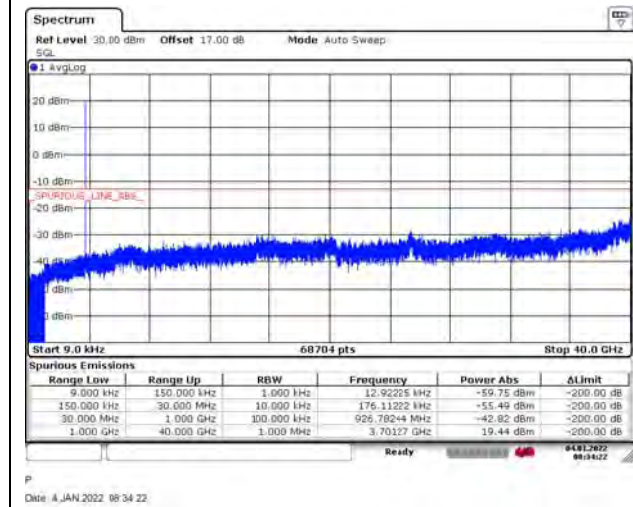
NR n77 Subset 2 64QAM 40MHz CH-High



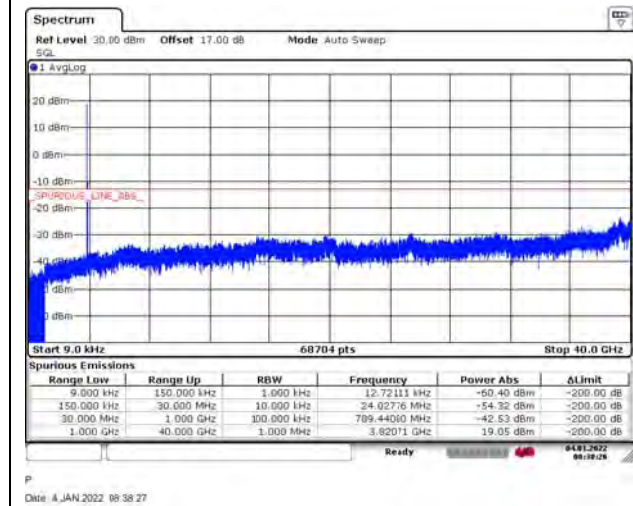
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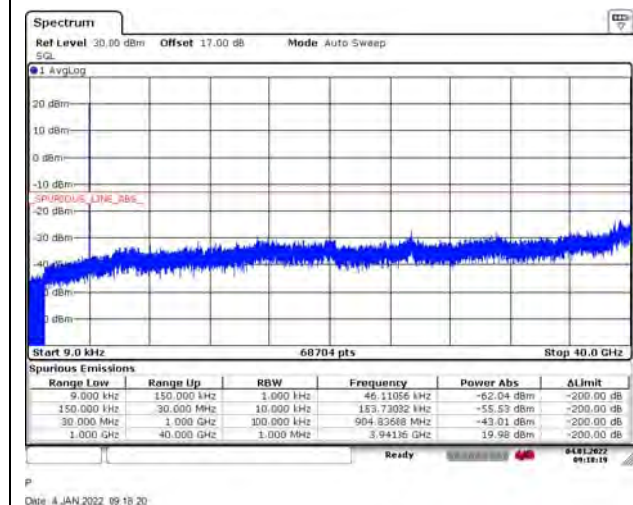
NR n77 Subset 2 256QAM 40MHz CH-Low



NR n77 Subset 2 256QAM 40MHz CH-Middle

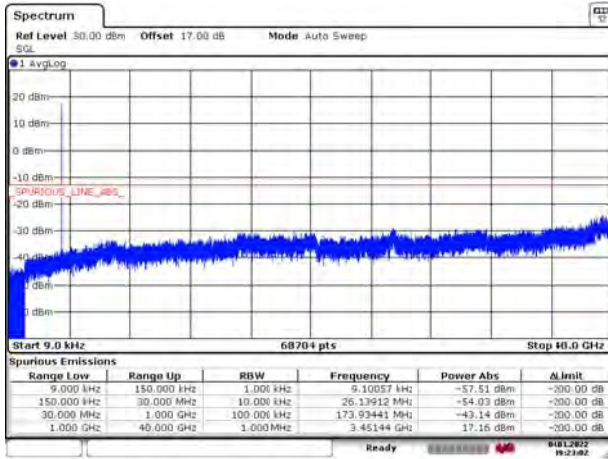


NR n77 Subset 2 256QAM 40MHz CH-High



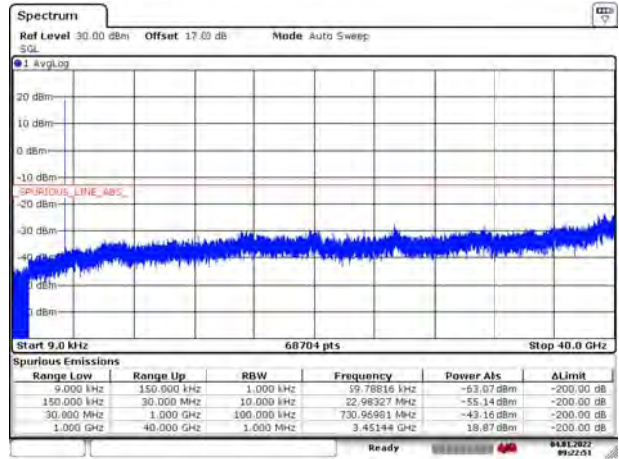


DC_7A-n78 P1/2 BPSK 40MHz CH-Low



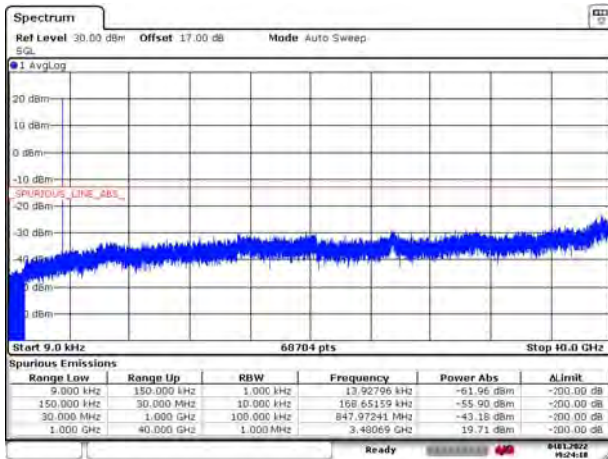
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DC_7A-n78 QPSK 40MHz CH-Low



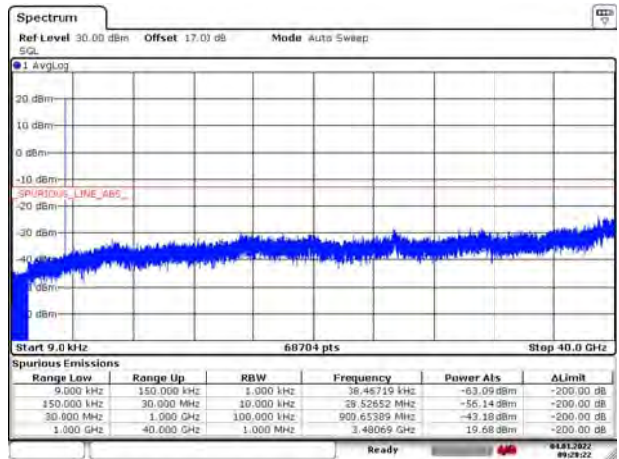
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DC_7A-n78 P1/2 BPSK 40MHz CH-Middle



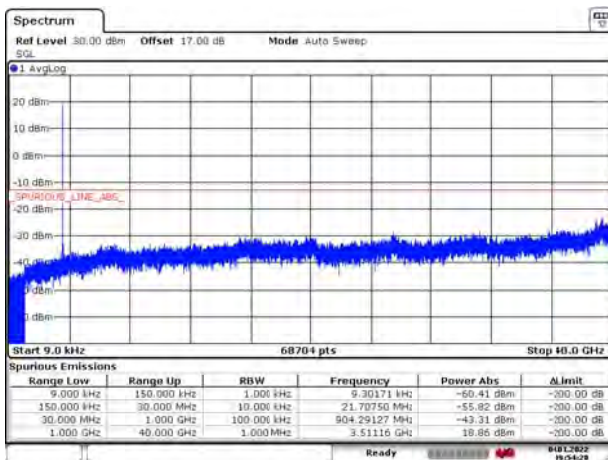
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DC_7A-n78 QPSK 40MHz CH-Middle



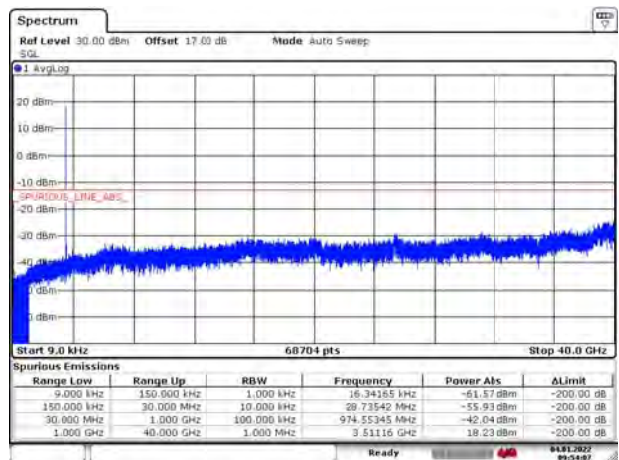
Date: 4 JAN 2022 09:28:22

DC_7A-n78 P1/2 BPSK 40MHz CH-High



Date: 4 JAN 2022 09:54:28

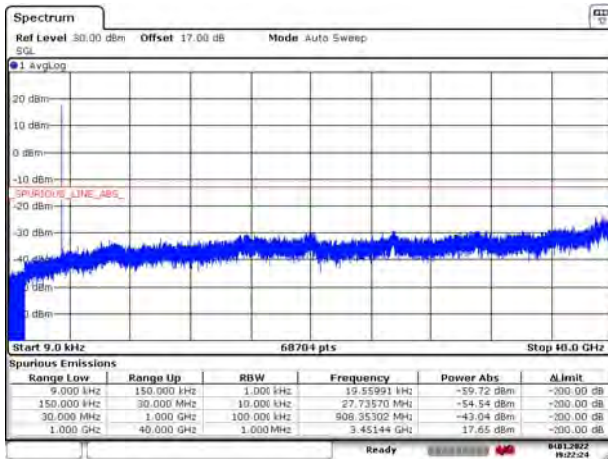
DC_7A-n78 QPSK 40MHz CH-High



Date: 4 JAN 2022 09:54:07



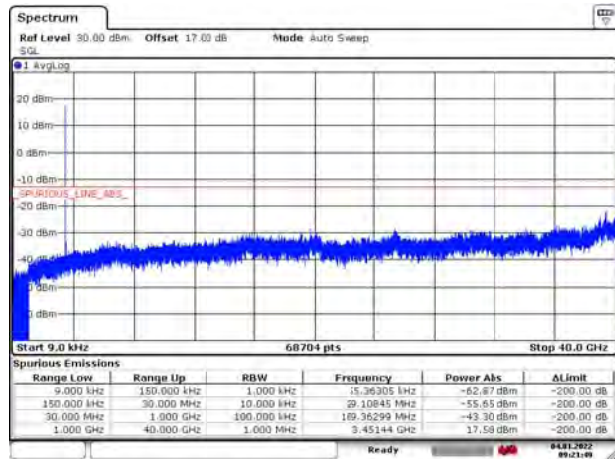
DC_7A-n78 16QAM 40MHz CH-Low



P

Date: 4 JAN 2022 09:22:24

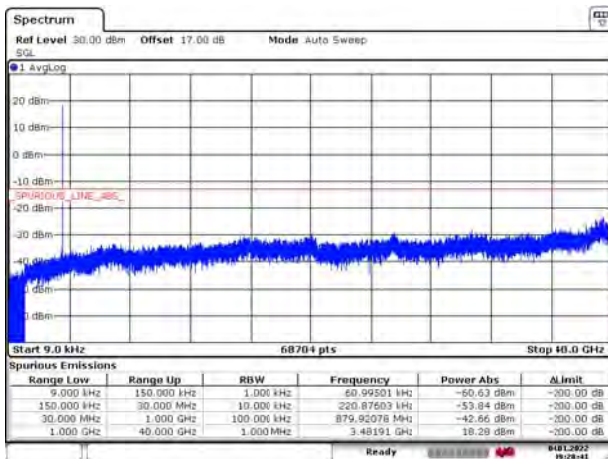
DC_7A-n78 64QAM 40MHz CH-Low



P

Date: 4 JAN 2022 09:21:49

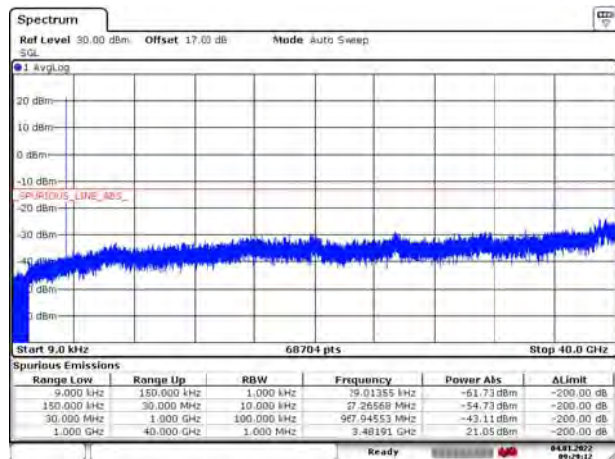
DC_7A-n78 16QAM 40MHz CH-Middle



P

Date: 4 JAN 2022 09:28:42

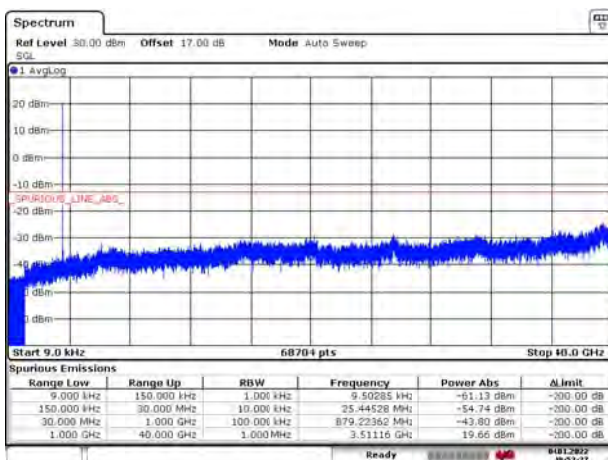
DC_7A-n78 64QAM 40MHz CH-Middle



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Date: 4 JAN 2022 09:29:13

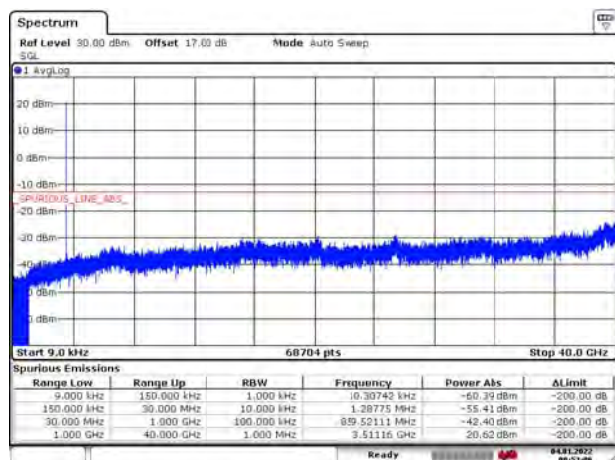
DC_7A-n78 16QAM 40MHz CH-High



P

Date: 4 JAN 2022 09:53:27

DC_7A-n78 64QAM 40MHz CH-High

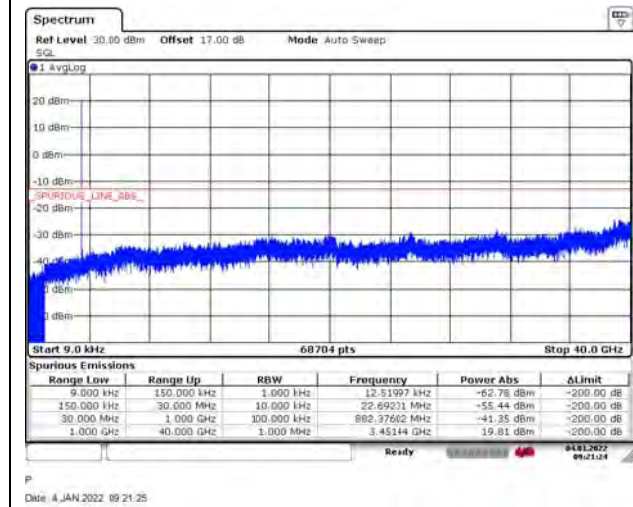


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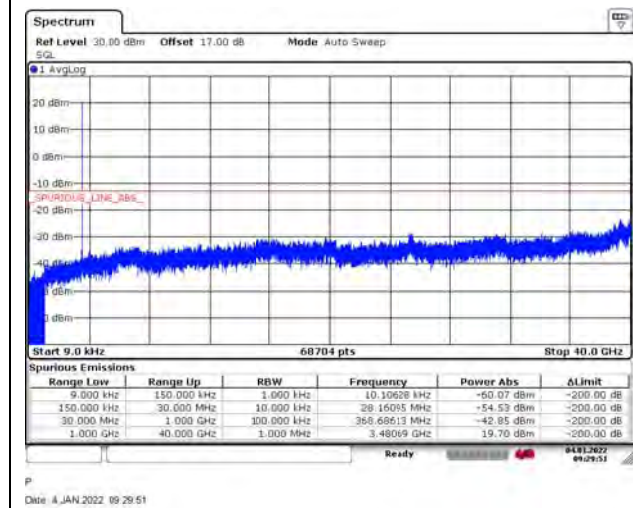
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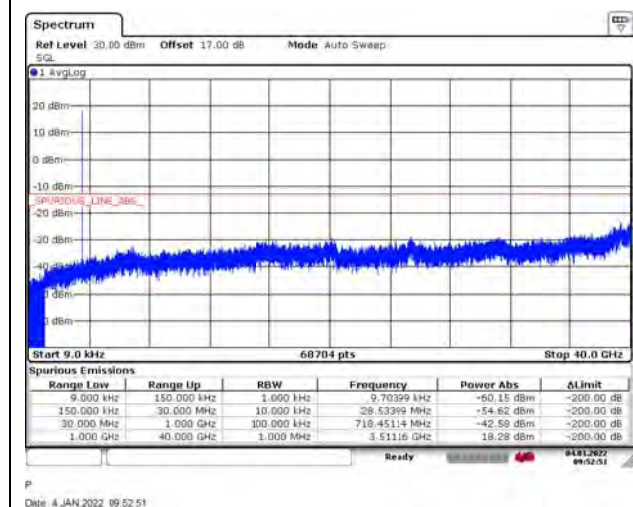
DC_7A-n78 256QAM 40MHz CH-Low



DC_7A-n78 256QAM 40MHz CH-Middle

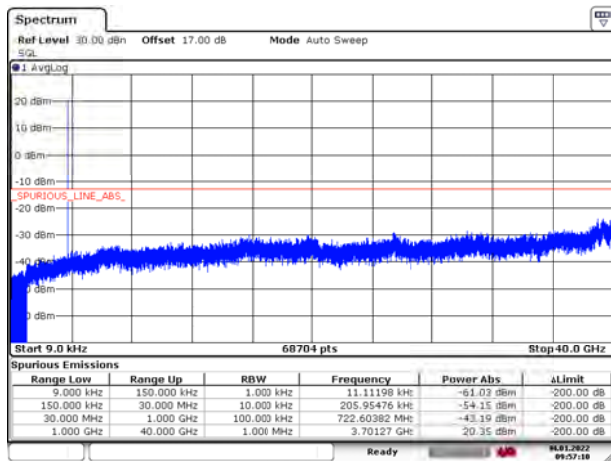


DC_7A-n78 256QAM 40MHz CH-High

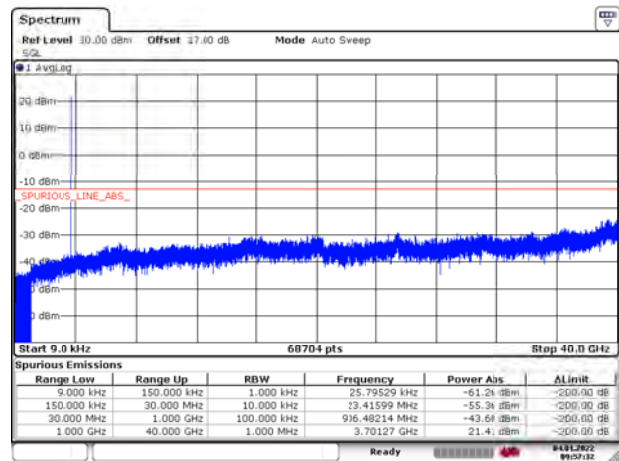




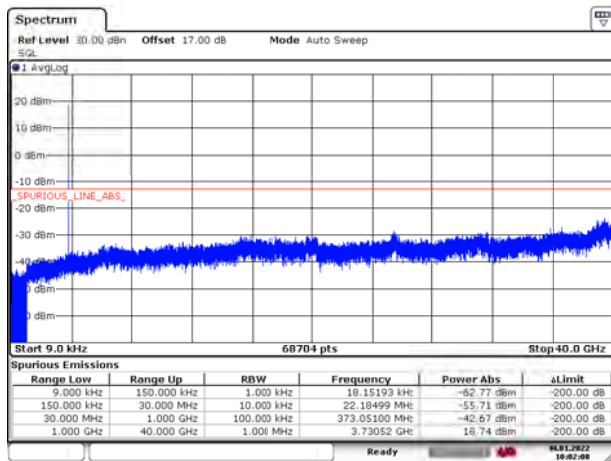
DC_66A_n78 P1/2 BPSK 40MHz CH-Low

P
Date: 4 JAN 2022 09:57:10

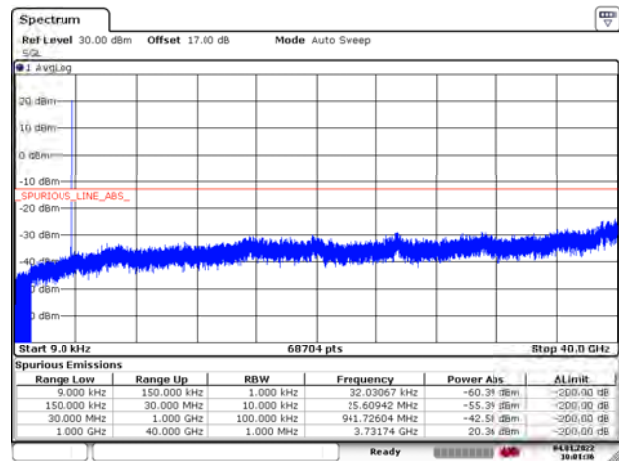
DC_66A_n78 QPSK 40MHz CH-Low

P
Date: 4 JAN 2022 09:57:32

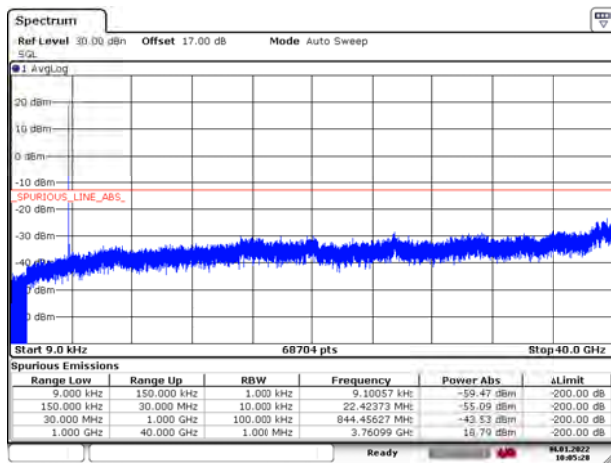
DC_66A_n78 P1/2 BPSK 40MHz CH-Middle

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Date: 4 JAN 2022 10:02:08

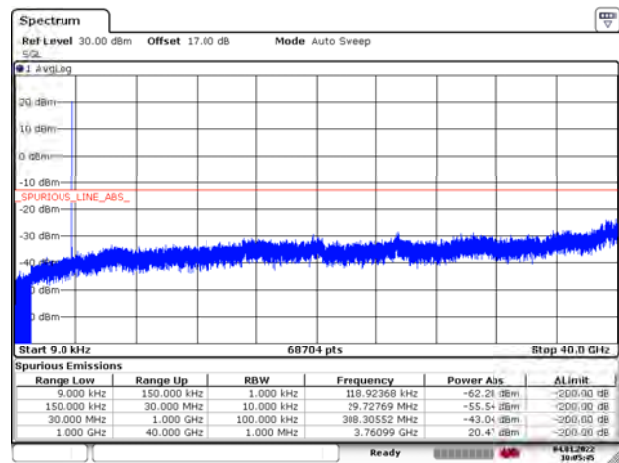
DC_66A_n78 QPSK 40MHz CH-Middle

P
Date: 4 JAN 2022 10:01:37

DC_66A_n78 P1/2 BPSK 40MHz CH-High

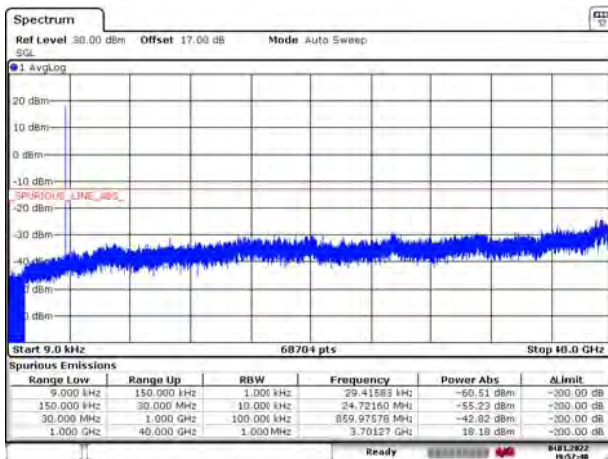
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DC_66A_n78 QPSK 40MHz CH-High

P
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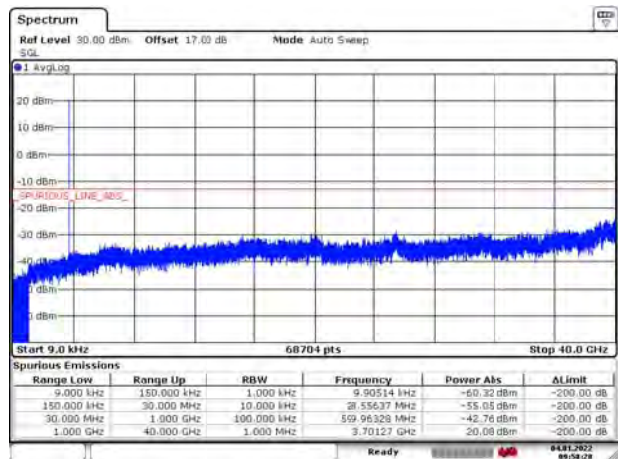


DC_66A_n78 16QAM 40MHz CH-Low



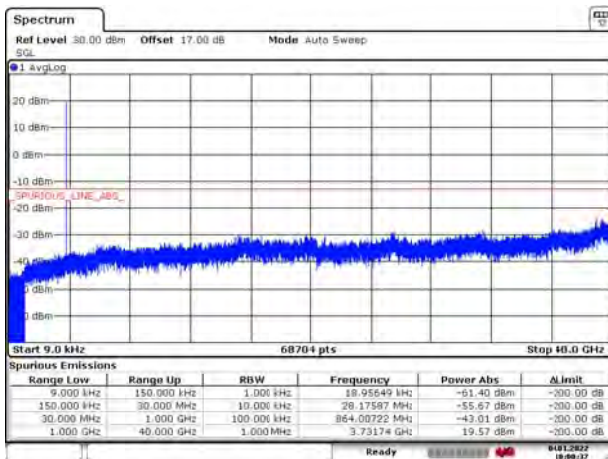
Date: 4 JAN 2022 09:57:48

DC_66A_n78 64QAM 40MHz CH-Low



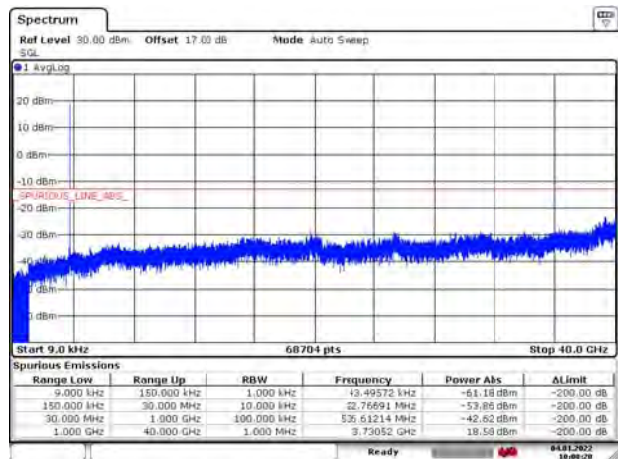
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DC_66A_n78 16QAM 40MHz CH-Middle



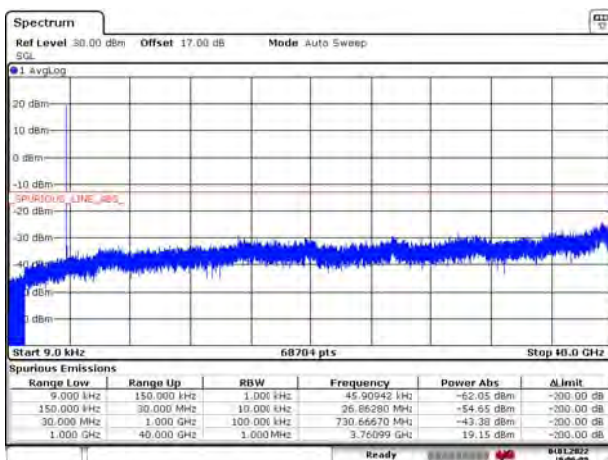
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DC_66A_n78 64QAM 40MHz CH-Middle



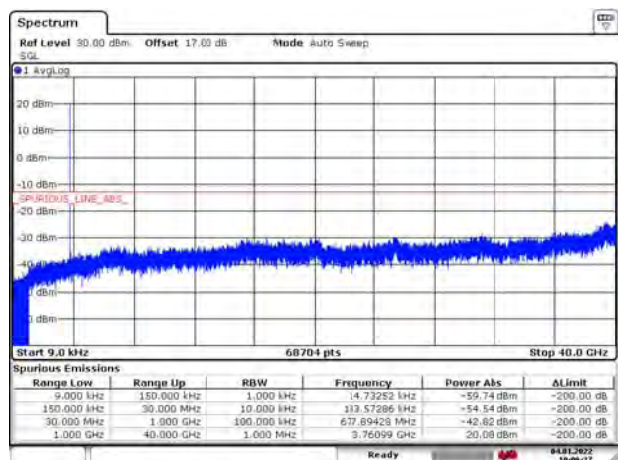
Date: 4 JAN 2022 10:00:21

DC_66A_n78 16QAM 40MHz CH-High



Date: 4 JAN 2022 10:06:08

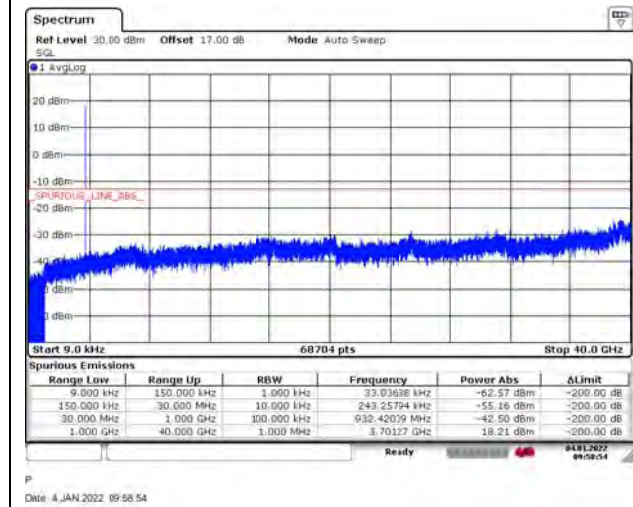
DC_66A_n78 64QAM 40MHz CH-High



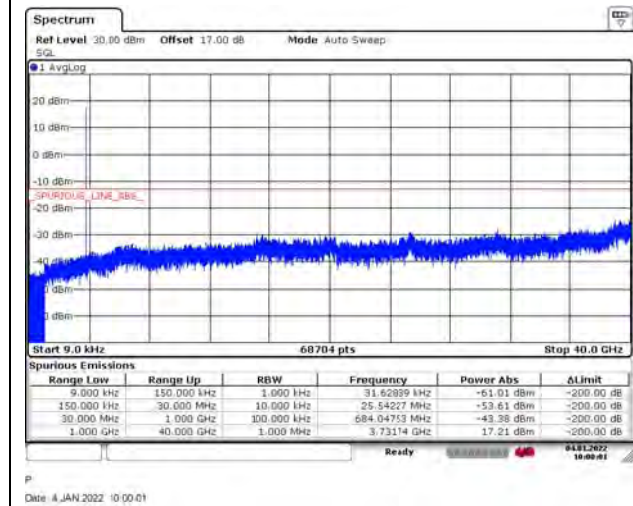
Date: 4 JAN 2022 10:06:28



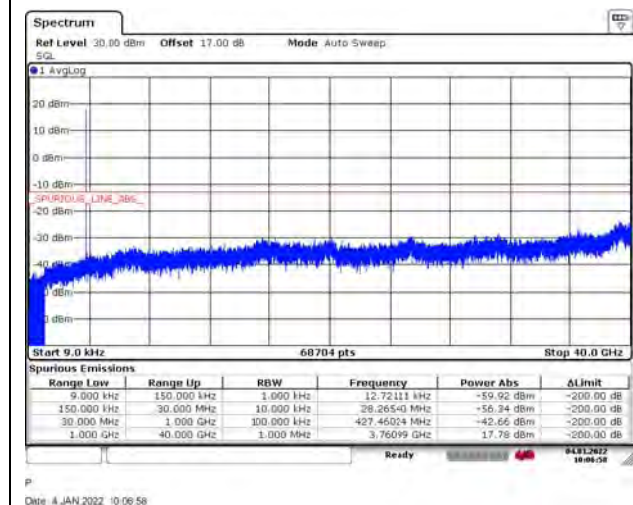
DC_66A_n78 256QAM 40MHz CH-Low



DC_66A_n78 256QAM 40MHz CH-Middle



DC_66A_n78 256QAM 40MHz CH-High





5.7 Radiates Spurious Emission

Ambient condition

Temperature	Relative humidity	Pressure
23°C ~25°C	45%~50%	101.5kPa

Method of Measurement

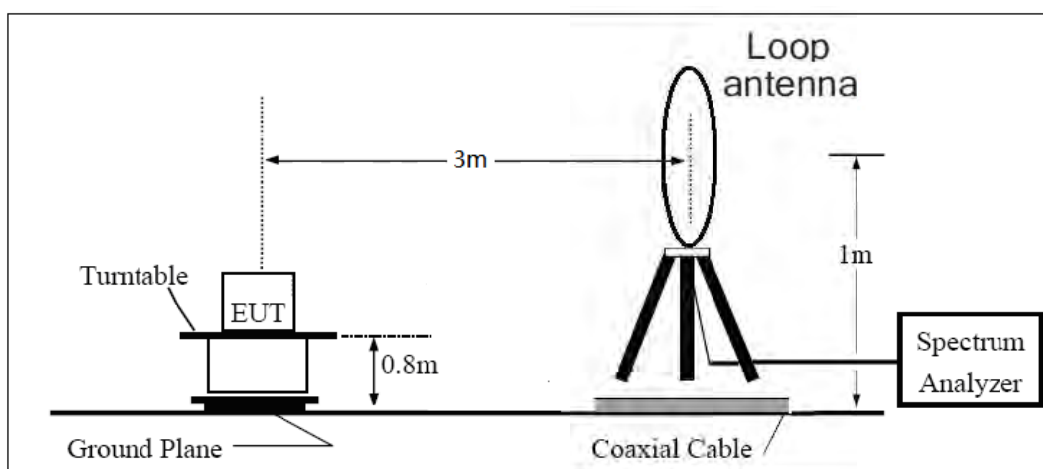
1. The testing follows FCC KDB 971168 D01 v03r01 Section 5.8 and ANSI C63.26 (2015).
2. Below 1GHz: The EUT is placed on a turntable 0.8 meters above the ground in the chamber, 3 meter away from the antenna. The maximal emission value is acquired by adjusting the antenna height, polarisation and turntable azimuth. Normally, the height range of antenna is 1 m to 4 m, the azimuth range of turntable is 0° to 360°, and the receive antenna has two polarizations Vertical (V) and Horizontal (H). Above 1GHz: (Note: the FCC's permission to use 1.5m as an alternative per TCBC Conf call of Dec. 2, 2014.) The EUT is placed on a turntable 1.5 meters above the ground in the chamber, 3 meter away from the antenna. The maximal emission value is acquired by adjusting the antenna height, polarisation and turntable azimuth. Normally, the height range of antenna is 1 m to 4 m, the azimuth range of turntable is 0° to 360°, and the receive antenna has two polarizations Vertical (V) and Horizontal (H).
3. A loop antenna, A log-periodic antenna or horn antenna shall be substituted in place of the EUT. The log-periodic antenna will be driven by a signal generator and the level will be adjusted till the same power value on the spectrum analyzer or receiver. The level of the spurious emissions can be calculated through the level of the signal generator, cable loss, the gain of the substitution antenna and the reading of the spectrum analyzer or receiver.
4. The EUT is then put into continuously transmitting mode at its maximum power level during the test. Set Test Receiver or Spectrum RBW=100kHz, VBW=300kHz for 30MHz to 1GHz and RBW=1MHz, VBW=3MHz for above 1GHz, and the maximum value of the receiver should be recorded as (Pr).
5. The EUT shall be replaced by a substitution antenna. In the chamber, an substitution antenna for the frequency band of interest is placed at the reference point of the chamber. An RF Signal source for the frequency band of interest is connected to the substitution antenna with a cable that has been constructed to not interfere with the radiation pattern of the antenna. A power (PMea) is applied to the input of the substitution antenna, and adjust the level of the signal generator output until the value of the receiver reach the previously recorded (Pr). The power of signal source (PMea) is recorded. The test should be performed by rotating the test item and adjusting the receiving antenna polarization.
6. A amplifier should be connected to the Signal Source output port. And the cable should be connect between the Amplifier and the Substitution Antenna. The cable loss (Pcl) ,the Substitution Antenna Gain (Ga) and the Amplifier Gain (PAg) should be recorded after test.
7. The measurement results are obtained as described below:
$$\text{Power(EIRP)} = \text{PMea} - \text{PAg} - \text{Pcl} + \text{Ga}$$

The measurement results are amend as described below:
$$\text{Power(EIRP)} = \text{PMea} - \text{Pcl} + \text{Ga}$$
8. This value is EIRP since the measurement is calibrated using an antenna of known gain (2.15 dBi) and known input power. ERP can be calculated from EIRP by subtracting the gain of the dipole, $\text{ERP} = \text{EIRP} - 2.15\text{dBi}$.

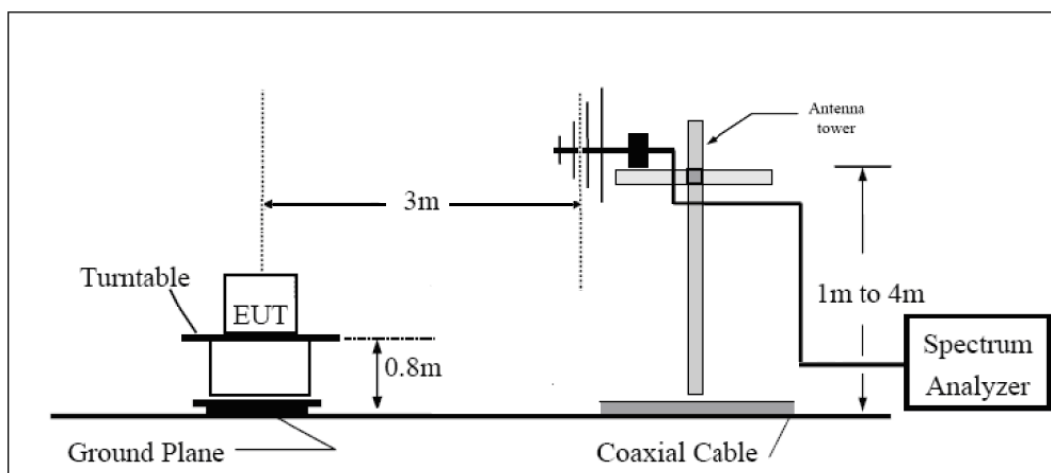
The modulation mode and RB allocation refer to section 5.1, using the maximum output power configuration.

Test setup

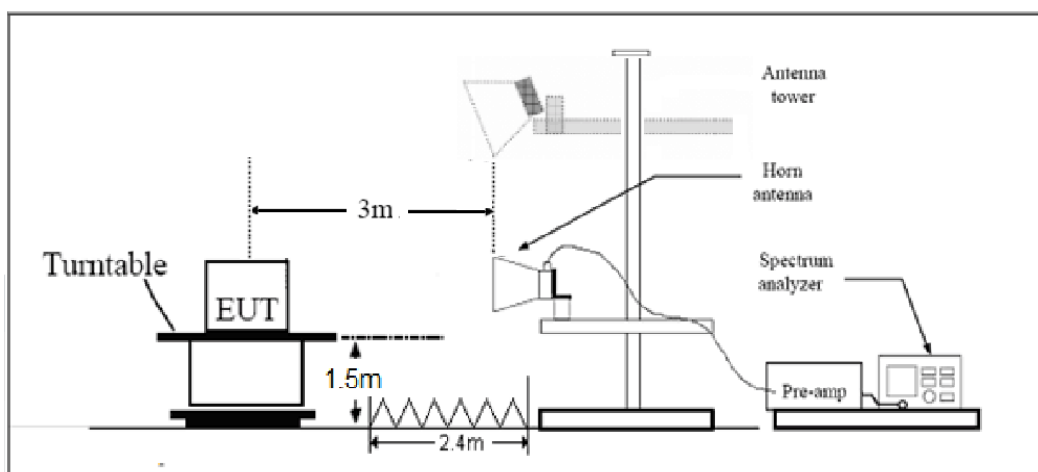
9KHz ~ 30MHz



30MHz ~ 1GHz



Above 1GHz



Note: Area side:2.4mX3.6m

Limits

Rule Part 27.53 (l) (2) specifies that “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.”

Rule Part 27.53(n) (2) specifies that “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.”

Measurement Uncertainty

The assessed measurement uncertainty to ensure 95% confidence level for the normal distribution is with the coverage factor $k = \pm 1.96$, $U = \pm 3.55$ dB.

**Test Result**

Sweep the whole frequency band through the range from 9kHz to the 10th harmonic of the carrier, the emissions below the noise floor will not be recorded in the report.

NR n77 QPSK 20MHz CH-Middle, RB 1

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	EIRP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	7480.00	-57.09	4.20	12.20	Horizontal	-49.09	-13.00	36.09	45
3	11220.00	-50.67	5.90	11.90	Horizontal	-44.67	-13.00	31.67	315
4	14960.00	-50.67	5.80	13.10	Horizontal	-43.37	-13.00	30.37	270
5	18700.00	--	--	--	--	--	--	--	--
6	22440.00	--	--	--	--	--	--	--	--
7	26180.00	--	--	--	--	--	--	--	--
8	29920.00	--	--	--	--	--	--	--	--
9	33660.00	--	--	--	--	--	--	--	--
10	37400.00	--	--	--	--	--	--	--	--

Note: 1.The other Spurious RF Radiated emissions level is no more than noise floor.

2. The worst emission was found in the antenna is Horizontal position.

NR n77 QPSK 60MHz CH-Middle, RB 1

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	EIRP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	7440.00	-56.02	4.20	12.20	Horizontal	-48.02	-13.00	35.02	315
3	11160.00	-53.19	5.90	11.90	Horizontal	-47.19	-13.00	34.19	180
4	14880.00	-50.31	5.80	13.10	Horizontal	-43.01	-13.00	30.01	45
5	18600.00	--	--	--	--	--	--	--	--
6	22320.00	--	--	--	--	--	--	--	--
7	26040.00	--	--	--	--	--	--	--	--
8	29760.00	--	--	--	--	--	--	--	--
9	33480.00	--	--	--	--	--	--	--	--
10	37200.00	--	--	--	--	--	--	--	--

Note: 1.The other Spurious RF Radiated emissions level is no more than noise floor.

2. The worst emission was found in the antenna is Horizontal position.



NR n77 QPSK 100MHz CH-Middle, RB 1

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	EIRP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	7400.00	-56.01	4.20	12.20	Horizontal	-48.01	-13.00	35.01	225
3	11100.00	-51.88	5.90	11.90	Horizontal	-45.88	-13.00	32.88	45
4	14800.00	-48.99	5.80	13.10	Horizontal	-41.69	-13.00	28.69	180
5	18500.00	--	--	--	--	--	--	--	--
6	22200.00	--	--	--	--	--	--	--	--
7	25900.00	--	--	--	--	--	--	--	--
8	29600.00	--	--	--	--	--	--	--	--
9	33300.00	--	--	--	--	--	--	--	--
10	37000.00	--	--	--	--	--	--	--	--

Note: 1.The other Spurious RF Radiated emissions level is no more than noise floor.

2. The worst emission was found in the antenna is Horizontal position.

NR n78 QPSK 20MHz CH-Middle, RB 1

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	EIRP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	7079.98	-58.99	4.20	11.80	Horizontal	-51.39	-13.00	38.39	315
3	10619.97	-50.67	4.70	11.30	Horizontal	-44.07	-13.00	31.07	225
4	14159.96	-46.90	5.70	11.30	Horizontal	-41.30	-13.00	28.30	180
5	17699.95	-47.68	6.10	10.10	Horizontal	-43.68	-13.00	30.68	45
6	21239.94	--	--	--	--	--	--	--	--
7	24779.93	--	--	--	--	--	--	--	--
8	28319.92	--	--	--	--	--	--	--	--
9	31859.91	--	--	--	--	--	--	--	--
10	35399.90	--	--	--	--	--	--	--	--

Note: 1.The other Spurious RF Radiated emissions level is no more than noise floor.

2. The worst emission was found in the antenna is Horizontal position.



NR n78 QPSK 60MHz CH-Middle, RB 1

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	EIRP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	7039.98	-58.57	4.20	11.80	Horizontal	-50.97	-13.00	37.97	225
3	10559.97	-52.41	4.70	11.30	Horizontal	-45.81	-13.00	32.81	90
4	14079.96	-48.46	5.70	11.30	Horizontal	-42.86	-13.00	29.86	45
5	17599.95	-46.52	6.10	10.10	Horizontal	-42.52	-13.00	29.52	270
6	21119.94	--	--	--	--	--	--	--	--
7	24639.93	--	--	--	--	--	--	--	--
8	28159.92	--	--	--	--	--	--	--	--
9	31679.91	--	--	--	--	--	--	--	--
10	35199.90	--	--	--	--	--	--	--	--

Note: 1.The other Spurious RF Radiated emissions level is no more than noise floor.

2. The worst emission was found in the antenna is Horizontal position.

NR n78 QPSK 100MHz CH-Middle, RB 1

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	EIRP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	6999.98	-60.23	4.20	11.80	Horizontal	-52.63	-13.00	39.63	315
3	10499.97	-49.26	4.70	11.30	Horizontal	-42.66	-13.00	29.66	225
4	13999.96	-49.55	5.70	11.30	Horizontal	-43.95	-13.00	30.95	135
5	17499.95	-47.46	6.10	10.10	Horizontal	-43.46	-13.00	30.46	45
6	20999.94	--	--	--	--	--	--	--	--
7	24499.93	--	--	--	--	--	--	--	--
8	27999.92	--	--	--	--	--	--	--	--
9	31499.91	--	--	--	--	--	--	--	--
10	34999.90	--	--	--	--	--	--	--	--

Note: 1.The other Spurious RF Radiated emissions level is no more than noise floor.

2. The worst emission was found in the antenna is Horizontal position.



DC_7A-n78 QPSK 20MHz CH-Middle, RB 1

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	EIRP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	7079.98	-58.58	4.20	11.80	Vertical	-50.98	-13.00	37.98	135
3	10619.97	-49.48	4.70	11.80	Vertical	-42.38	-13.00	29.38	45
4	14159.96	-47.81	5.70	11.30	Vertical	-42.21	-13.00	29.21	135
5	17699.95	-52.80	6.10	14.20	Vertical	-44.70	-13.00	31.70	315
6	21239.94	--	--	--	--	--	--	--	--
7	24779.93	--	--	--	--	--	--	--	--
8	28319.92	--	--	--	--	--	--	--	--
9	31859.91	--	--	--	--	--	--	--	--
10	35399.90	--	--	--	--	--	--	--	--

Note: 1.The other Spurious RF Radiated emissions level is no more than noise floor.

2. The worst emission was found in the antenna is Vertical position.

DC_7A-n78 QPSK 60MHz CH-Middle, RB 1

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	EIRP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	7039.98	-59.76	4.20	11.80	Vertical	-52.16	-13.00	39.16	270
3	10559.97	-54.02	4.50	11.30	Vertical	-47.22	-13.00	34.22	315
4	14079.96	-48.33	5.70	11.30	Vertical	-42.73	-13.00	29.73	225
5	17599.95	-52.59	6.10	14.20	Vertical	-44.49	-13.00	31.49	45
6	21119.94	--	--	--	--	--	--	--	--
7	24639.93	--	--	--	--	--	--	--	--
8	28159.92	--	--	--	--	--	--	--	--
9	31679.91	--	--	--	--	--	--	--	--
10	35199.90	--	--	--	--	--	--	--	--

Note: 1.The other Spurious RF Radiated emissions level is no more than noise floor.

2. The worst emission was found in the antenna is Vertical position.



DC_7A-n78 QPSK 100MHz CH-Middle, RB 1

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	EIRP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	6999.98	-60.78	4.20	11.80	Vertical	-53.18	-13.00	40.18	135
3	10499.97	-53.00	4.70	11.80	Vertical	-45.90	-13.00	32.90	315
4	13999.96	-49.72	5.70	11.30	Vertical	-44.12	-13.00	31.12	45
5	17499.95	-51.30	6.10	14.20	Vertical	-43.20	-13.00	30.20	270
6	20999.94	--	--	--	--	--	--	--	--
7	24499.93	--	--	--	--	--	--	--	--
8	27999.92	--	--	--	--	--	--	--	--
9	31499.91	--	--	--	--	--	--	--	--
10	34999.90	--	--	--	--	--	--	--	--

Note: 1.The other Spurious RF Radiated emissions level is no more than noise floor.

2. The worst emission was found in the antenna is Vertical position.

DC_66A_n78 QPSK 20MHz CH-Middle, RB 1

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	EIRP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	7079.98	-57.52	4.20	11.80	Vertical	-49.92	-13.00	36.92	45
3	10619.97	-49.25	4.70	11.80	Vertical	-42.15	-13.00	29.15	270
4	14159.96	-48.11	5.70	11.30	Vertical	-42.51	-13.00	29.51	0
5	17699.95	-52.36	6.10	14.20	Vertical	-44.26	-13.00	31.26	45
6	21239.94	--	--	--	--	--	--	--	--
7	24779.93	--	--	--	--	--	--	--	--
8	28319.92	--	--	--	--	--	--	--	--
9	31859.91	--	--	--	--	--	--	--	--
10	35399.90	--	--	--	--	--	--	--	--

Note: 1.The other Spurious RF Radiated emissions level is no more than noise floor.

2. The worst emission was found in the antenna is Vertical position.



DC_66A_n78 QPSK 60MHz CH-Middle, RB 1

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	EIRP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	7039.98	-58.71	4.20	11.80	Vertical	-51.11	-13.00	38.11	45
3	10559.97	-52.62	4.70	11.80	Vertical	-45.52	-13.00	32.52	90
4	14079.96	-47.67	5.70	11.30	Vertical	-42.07	-13.00	29.07	135
5	17599.95	-51.68	6.10	14.20	Vertical	-43.58	-13.00	30.58	270
6	21119.94	--	--	--	--	--	--	--	--
7	24639.93	--	--	--	--	--	--	--	--
8	28159.92	--	--	--	--	--	--	--	--
9	31679.91	--	--	--	--	--	--	--	--
10	35199.90	--	--	--	--	--	--	--	--

Note: 1.The other Spurious RF Radiated emissions level is no more than noise floor.

2. The worst emission was found in the antenna is Vertical position.

DC_66A_n78 QPSK 100MHz CH-Middle, RB 1

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	EIRP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	6999.98	-61.04	4.20	11.80	Vertical	-53.44	-13.00	40.44	45
3	10499.97	-49.66	4.70	11.80	Vertical	-42.56	-13.00	29.56	270
4	13999.96	-51.21	5.70	11.30	Vertical	-45.61	-13.00	32.61	135
5	17499.95	-51.21	6.10	14.20	Vertical	-43.11	-13.00	30.11	180
6	20999.94	--	--	--	--	--	--	--	--
7	24499.93	--	--	--	--	--	--	--	--
8	27999.92	--	--	--	--	--	--	--	--
9	31499.91	--	--	--	--	--	--	--	--
10	34999.90	--	--	--	--	--	--	--	--

Note: 1.The other Spurious RF Radiated emissions level is no more than noise floor.

2. The worst emission was found in the antenna is Vertical position.



6 Main Test Instruments

Name	Manufacturer	Type	Serial Number	Calibration Date	Expiration Date
Base Station Simulator	R&S	CMW500	113645	2021-05-15	2022-05-14
Climate Chamber	Weiss	VT4002	58226119450010	2021-05-15	2022-05-14
Spectrum Analyzer	Keysight	N9020A	MY52330084	2021-05-15	2022-05-14
Universal Radio Communication Tester	Key sight	E5515C	GB44400275	2021-05-15	2022-05-14
Signal Analyzer	R&S	FSV3030	101411	2020-12-13	2021-12-12
				2021-12-12	2022-12-12
Signal Analyzer	R&S	FSV30	100815	2020-12-17	2021-12-16
				2021-12-12	2022-12-11
Loop Antenna	SCHWARZBECK	FMZB1519	1519-047	2020-04-02	2023-04-01
TRILOG Broadband Antenna	Schwarzbeck	VULB 9163	01439	2021-06-30	2024-06-29
Horn Antenna	R&S	HF907	102723	2020-08-11	2023-08-10
Horn Antenna	ETS-Lindgren	3160-09	00102643	2021-10-10	2024-10-09
Horn Antenna	STEATITE	QSH-SL-26-40-K-15	16779	2019-12-24	2022-12-23
Software	R&S	EMC32	9.26.0	/	/

*****END OF REPORT *****



ANNEX A: The EUT Appearance

The EUT Appearance are submitted separately.



ANNEX B: Test Setup Photos

The Test Setup Photos are submitted separately.