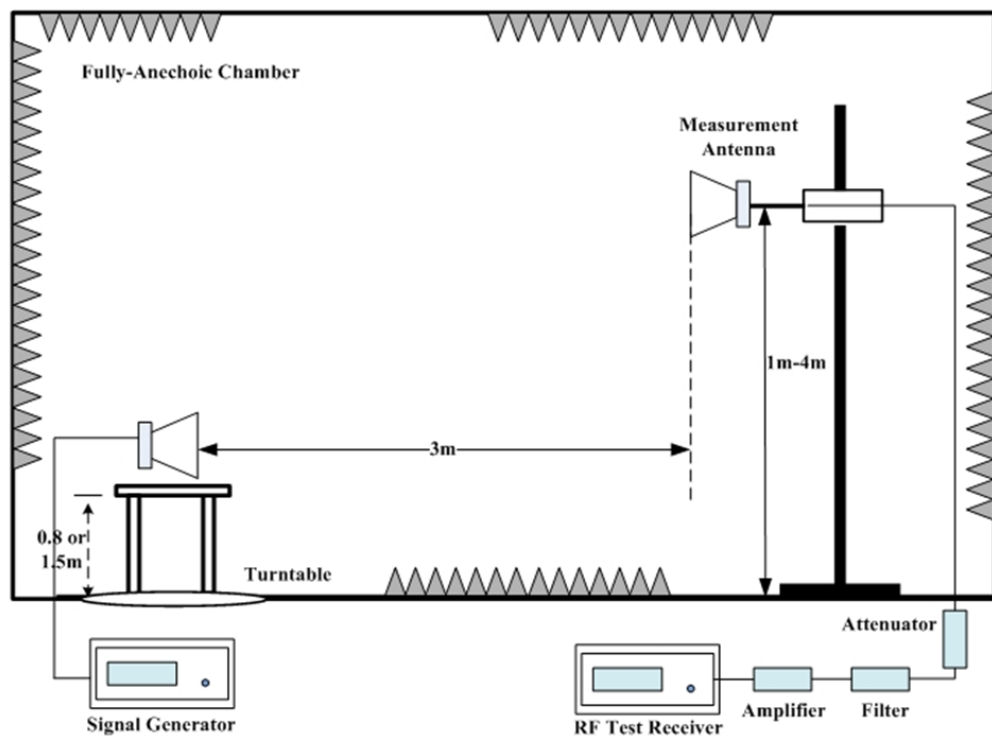




In the chamber, a substitution antenna for the frequency band of interest is placed at the reference point of the chamber. An RF Signal source for the frequency band of interest is connected to the substitution antenna with a cable that has been constructed to not interfere with the radiation pattern of the antenna. The height of measurement antenna varied between 1 m to 4 m to maximize the received signal amplitude for each emission that was detected and measured in the initial test. A power (P_{Mea}) is applied to the input of the substitution antenna and adjusts the level of the signal generator output until the value of the receiver reach the previously recorded (P_r). The power of signal source (P_{Mea}) is recorded. The test was performed with the measurement antenna in both vertical and horizontal polarization.

3. The Path loss (P_{pl}) between the Signal Source and the Substitution Antenna and the Substitution Antenna Gain (G_a) were recorded after test. A amplifier was connected in for the test. The Path loss (P_{pl}) is the summation of the cable loss and the gain of the amplifier.
4. The measurement results are obtained as described below:

$$\text{Power (EIRP)} = P_{Mea} - P_{pl} + G_a$$

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, $ERP = EIRP - 2.15\text{dBi}$.

A.2.2 Measurement Limit

NR Band n25: Part 24.238 specifies that the power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least $43 + 10 \log(P)$ dB.

NR Band n71: Part 27.53(g) states 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. Compliance with this provision is based on the use of measurement instrumentation employing a resolution bandwidth of 100 kilohertz or greater. However, in the 100 kilohertz bands immediately outside and adjacent to a licensee's frequency block, a resolution bandwidth of at least 30 kHz may be employed.

NR Band n5: Part 22.917 specify that the power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least $43 + 10 \log (P)$ dB.

NR Band n30: Part 27.53(a) states for mobile and portable stations operating in the 2305–2315 MHz and 2350–2360 MHz bands: By a factor of not less than: $43 + 10 \log (P)$ dB on all frequencies between 2305 and 2320 MHz and on all frequencies between 2345 and 2360 MHz that are outside the licensed band(s) of operation, not less than $55 + 10 \log (P)$ dB on all frequencies between 2320 and 2324 MHz and on all frequencies between 2341 and 2345 MHz, not less than $61 + 10 \log (P)$ dB on all frequencies between 2324 and 2328 MHz and on all frequencies between 2337 and 2341 MHz, and not less than $67 + 10 \log (P)$ dB on all frequencies between 2328 and 2337MHz; By a factor of not less than $43 + 10 \log (P)$ dB on all frequencies between 2300 and 2305 MHz, $55 + 10 \log (P)$ dB on all frequencies between 2296 and 2300MHz, $61 + 10 \log (P)$ dB on all frequencies between 2292 and 2296 MHz, $67 + 10 \log (P)$ dB on all frequencies between 2288 and 2292 MHz, and $70 + 10 \log (P)$ dB below 2288 MHz; By a factor of not less than $43 + 10 \log (P)$ dB on all frequencies between 2360 and 2365 MHz, and not less than $70 + 10 \log (P)$ dB above 2365 MHz.

NR Band n41: Part 27.53(m) specifies 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.

NR Band n66/70: Part 27.53(h) specifies that the power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least $43 + 10 \log (P)$ dB.

A.2.3 Measurement Results

Radiated emissions measurements were made only at the upper, middle, and lower carrier frequencies of each NR Band. It was decided that measurements at these three carrier frequencies would be sufficient to demonstrate compliance with emissions limits because it was seen that all the significant spurs occur well outside the band and no radiation was seen from a carrier in one block of each NR Band into any of the other blocks. The equipment must still, however, meet emissions requirements with the carrier at all frequencies over which it is capable of operating and it is the manufacturer's responsibility to verify this. The range of evaluated frequency is from 30MHz to 40GHz.

Note 1: All EN-DC UL bands have been tested, but only the worst cases were reported in this report.

Note 2: Both of Vertical and Horizontal polarizations are evaluated, but only the worst cases were reported in this report.

A.2.4 Measurement Results Table

Frequency	Channel	Frequency Range	Result
NR Bands	Low	9kHz-26GHz	Pass
	Middle	9kHz-26GHz	Pass
	High	9kHz-26GHz	Pass

A.2.5 Sweep Table

Subrange	RBW	VBW
9~150 kHz	0.2kHz	0.6kHz
150kHz~30MHz	9kHz	27kHz
30MHz~1 GHz	100KHz	300KHz
1~20 GHz	1 MHz	3 MHz

A.2.6 Measurement Result

SA n5_165300

Frequency(MHz)	SG(dBm)	Cable Loss(dB)	Antenna Gain(dBi)	Correction(dB)	Peak ERP(dBm)	Limit(dBm)	Margin(dB)	Polarization
1653.00	-58.71	5.88	6.36	2.15	-60.38	-13.00	47.38	H
2480.50	-48.98	7.35	5.96	2.15	-52.52	-13.00	39.52	H
3306.00	-55.43	8.61	7.68	2.15	-58.52	-13.00	45.52	H
4132.50	-55.99	9.63	9.07	2.15	-58.71	-13.00	45.71	V
4960.50	-53.60	10.84	10.22	2.15	-56.36	-13.00	43.36	V
5785.50	-54.08	11.57	10.96	2.15	-56.83	-13.00	43.83	V

SA n5_167300

Frequency(MHz)	SG(dBm)	Cable Loss(dB)	Antenna Gain(dBi)	Correction(dB)	Peak ERP(dBm)	Limit(dBm)	Margin(dB)	Polarization
1672.00	-58.66	5.89	6.32	2.15	-60.38	-13.00	47.38	V
2508.50	-51.02	7.41	6.02	2.15	-54.56	-13.00	41.56	H
3345.50	-56.65	8.55	7.95	2.15	-59.41	-13.00	46.41	V
4182.00	-55.13	9.81	9.23	2.15	-57.86	-13.00	44.86	V
5018.50	-53.90	10.51	10.23	2.15	-56.33	-13.00	43.33	H
5856.00	-53.41	11.43	10.79	2.15	-56.19	-13.00	43.19	H

SA n5_169300

Frequency(MHz)	SG(dBm)	Cable Loss(dB)	Antenna Gain(dBi)	Correction(dB)	Peak ERP(dBm)	Limit(dBm)	Margin(dB)	Polarization
1694.50	-58.66	5.95	6.28	2.15	-60.48	-13.00	47.48	V
2540.50	-50.39	7.29	6.08	2.15	-53.75	-13.00	40.75	H
3387.50	-55.11	8.80	8.02	2.15	-58.04	-13.00	45.04	V
4230.00	-55.13	9.60	9.29	2.15	-57.58	-13.00	44.58	H
5078.50	-54.62	10.83	10.33	2.15	-57.27	-13.00	44.27	V
5923.00	-53.79	11.31	10.85	2.15	-56.41	-13.00	43.41	V

SA n25, CH370500,QPSK

Frequency (MHz)	SG (dBm)	CableLoss (dB)	AntennaGain (dBi)	Peak ERP (dBm)	Limit (dBm)	Margin (dB)	Polarization
3703.00	-64.20	3.47	10.39	-57.28	-13.00	44.28	V
5557.00	-56.44	5.35	11.21	-50.58	-13.00	37.58	H
7410.00	-50.20	8.04	10.10	-48.14	-13.00	35.14	V
9262.00	-42.87	8.85	11.70	-40.02	-13.00	27.02	H
11111.00	-49.10	9.80	12.61	-46.29	-13.00	33.29	V
12968.00	-45.41	12.54	12.73	-45.22	-13.00	32.22	V

SA n25, CH376500,QPSK

Frequency (MHz)	SG (dBm)	CableLoss (dB)	AntennaGain (dBi)	Peak ERP (dBm)	Limit (dBm)	Margin (dB)	Polarization
3765.00	-61.64	3.79	10.14	-55.29	-13.00	42.29	V
5647.50	-52.44	5.60	11.40	-46.64	-13.00	33.64	V
7529.00	-52.46	7.71	10.26	-49.91	-13.00	36.91	H
9412.50	-41.70	9.06	11.55	-39.21	-13.00	26.21	V
11280.50	-47.49	10.63	12.62	-45.50	-13.00	32.50	V
13184.00	-44.02	13.13	12.52	-44.63	-13.00	31.63	V

SA n25, CH382500,QPSK

Frequency (MHz)	SG (dBm)	CableLoss (dB)	AntennaGain (dBi)	Peak ERP (dBm)	Limit (dBm)	Margin (dB)	Polarization
3825.00	-60.94	3.93	9.95	-54.92	-13.00	41.92	V
5737.00	-53.73	5.87	11.33	-48.27	-13.00	35.27	H
7635.50	-54.14	6.76	10.37	-50.53	-13.00	37.53	H
9562.50	-40.72	8.61	11.90	-37.43	-13.00	24.43	H
11462.00	-46.73	12.35	12.54	-46.54	-13.00	33.54	H
13399.50	-43.78	12.46	12.40	-43.84	-13.00	30.84	H

SA n30, CH461500,QPSK

Frequency (MHz)	SG (dBm)	CableLoss (dB)	AntennaGain (dBi)	Peak EIRP (dBm)	Limit (dBm)	Margin (dB)	Polarization
4615.00	-60.91	4.68	10.97	-54.62	-40.00	14.62	V
6922.50	-55.49	6.47	10.34	-51.62	-40.00	11.62	V
9229.50	-51.68	8.85	11.74	-48.79	-40.00	8.79	H
11537.50	-57.81	10.58	12.54	-55.85	-40.00	15.85	V
13845.00	-51.89	13.08	12.10	-52.87	-40.00	12.87	H
16159.50	-51.24	18.59	15.10	-54.73	-40.00	14.73	V

SA n30, CH462000,QPSK

Frequency (MHz)	SG (dBm)	CableLoss (dB)	AntennaGain (dBi)	Peak EIRP (dBm)	Limit (dBm)	Margin (dB)	Polarization
4619.50	-62.04	4.69	10.96	-55.77	-40.00	15.77	H
6930.00	-54.82	6.47	10.36	-50.93	-40.00	10.93	V
9239.50	-50.16	8.85	11.72	-47.29	-40.00	7.29	V
11547.50	-57.97	10.65	12.55	-56.07	-40.00	16.07	H
13860.00	-52.42	13.10	12.10	-53.42	-40.00	13.42	H
16176.50	-50.59	18.50	15.10	-53.99	-40.00	13.99	V

SA n30, CH462500,QPSK

Frequency (MHz)	SG (dBm)	CableLoss (dB)	AntennaGain (dBi)	Peak EIRP (dBm)	Limit (dBm)	Margin (dB)	Polarization
4625.00	-60.57	4.71	10.95	-54.33	-40.00	14.33	V
6937.00	-55.56	6.47	10.37	-51.66	-40.00	11.66	V
9249.50	-52.42	8.85	11.70	-49.57	-40.00	9.57	V
11572.00	-57.82	10.83	12.57	-56.08	-40.00	16.08	V
13875.00	-52.88	13.12	12.10	-53.90	-40.00	13.90	H
16188.50	-50.99	18.44	15.10	-54.33	-40.00	14.33	V

SA_n41, CH500202,QPSK

Frequency (MHz)	SG (dBm)	CableLoss (dB)	AntennaGain (dBi)	Peak EIRP (dBm)	Limit (dBm)	Margin (dB)	Polarization
5002.00	-55.59	5.16	11.31	-49.44	-25.00	24.44	V
7519.00	-53.23	7.71	10.24	-50.70	-25.00	25.70	V
10005.00	-42.28	9.35	11.80	-39.83	-25.00	14.83	H
12483.00	-44.47	12.32	13.57	-43.22	-25.00	18.22	H
14996.50	-43.90	14.76	14.59	-44.07	-25.00	19.07	V
17501.50	-32.65	19.72	13.10	-39.27	-25.00	14.27	V

SA_n41, CH518598,QPSK

Frequency (MHz)	SG (dBm)	CableLoss (dB)	AntennaGain (dBi)	Peak EIRP (dBm)	Limit (dBm)	Margin (dB)	Polarization
5186.00	-55.91	5.75	11.67	-49.99	-25.00	24.99	H
7779.00	-51.36	7.37	10.76	-47.97	-25.00	22.97	V
10373.00	-48.01	10.72	11.97	-46.76	-25.00	21.76	V
12961.00	-45.42	12.52	12.74	-45.20	-25.00	20.20	V
15568.00	-44.59	16.65	15.60	-45.64	-25.00	20.64	H
18000.00	-54.20	0.00	13.40	-40.80	-25.00	15.80	H

SA_n41, CH537000,QPSK

Frequency (MHz)	SG (dBm)	CableLoss (dB)	AntennaGain (dBi)	Peak EIRP (dBm)	Limit (dBm)	Margin (dB)	Polarization
5370.50	-53.58	5.80	11.66	-47.72	-25.00	22.72	H
8055.00	-46.84	7.82	11.11	-43.55	-25.00	18.55	V
10740.50	-46.57	9.86	12.14	-44.29	-25.00	19.29	H
13439.00	-43.64	12.56	12.36	-43.84	-25.00	18.84	V
16099.50	-41.35	17.14	15.10	-43.39	-25.00	18.39	V
17988.50	-34.07	19.96	13.42	-40.61	-25.00	15.61	H

SA n48_637000

Frequency(MHz)	SG(dBm)	Cable Loss(dB)	Antenna Gain(dBi)	Peak EiRP(dBm)	Limit(dBm)	Margin(dB)	Polarization
7110.00	-45.73	12.42	11.62	-46.53	No limit	NA	H
10665.00	-50.40	15.93	13.10	-53.22	No limit	NA	V
14218.00	-50.21	18.52	14.24	-54.49	No limit	NA	V
17777.50	-48.47	20.44	14.64	-54.26	No limit	NA	V
17946.50	-48.07	21.21	14.72	-54.56	No limit	NA	H
17950.00	-47.61	21.58	14.73	-54.46	No limit	NA	V

SA n48_641666

Frequency(MHz)	SG(dBm)	Cable Loss(dB)	Antenna Gain(dBi)	Peak EiRP(dBm)	Limit(dBm)	Margin(dB)	Polarization
7250.00	-52.65	12.90	11.90	-53.65	No limit	NA	H
10875.50	-51.89	16.29	13.24	-54.94	No limit	NA	H
14498.50	-50.65	18.86	14.02	-55.49	No limit	NA	H
14933.00	-51.49	18.62	13.97	-56.14	No limit	NA	H
15633.50	-50.17	19.59	13.60	-56.16	No limit	NA	V
17801.00	-48.57	20.84	14.70	-54.71	No limit	NA	H

SA n48_646332

Frequency(MHz)	SG(dBm)	Cable Loss(dB)	Antenna Gain(dBi)	Peak EiRP(dBm)	Limit(dBm)	Margin(dB)	Polarization
7390.00	-56.54	13.05	11.86	-57.73	No limit	NA	H
11085.50	-51.42	16.20	13.27	-54.35	No limit	NA	H
14779.50	-50.92	18.65	13.97	-55.60	No limit	NA	H
17333.50	-48.01	20.34	14.22	-54.13	No limit	NA	V
17923.00	-48.39	20.92	14.71	-54.60	No limit	NA	H
17980.50	-48.78	20.84	14.74	-54.88	No limit	NA	V

SA n66_342500

Frequency(MHz)	SG(dBm)	Cable Loss(dB)	Antenna Gain(dBi)	Peak EiRP(dBm)	Limit(dBm)	Margin(dB)	Polarization
3422.50	-56.61	8.67	8.11	-57.17	-13.00	44.17	V
5135.50	-54.49	10.77	10.40	-54.86	-13.00	41.86	H
6847.50	-51.61	12.12	11.53	-52.20	-13.00	39.20	V
8561.00	-51.76	14.28	13.07	-52.97	-13.00	39.97	H
10276.00	-47.82	16.04	13.13	-50.72	-13.00	37.72	H
11985.00	-44.32	16.75	12.92	-48.15	-13.00	35.15	V

SA n66_349000

Frequency(MHz)	SG(dBm)	Cable Loss(dB)	Antenna Gain(dBi)	Peak EiRP(dBm)	Limit(dBm)	Margin(dB)	Polarization
3489.50	-55.49	8.77	8.21	-56.05	-13.00	43.05	H
5234.50	-54.04	10.89	10.37	-54.56	-13.00	41.56	H
6977.50	-52.33	12.31	11.43	-53.20	-13.00	40.20	H
8727.50	-50.31	14.50	13.11	-51.70	-13.00	38.70	V
10472.50	-46.19	15.78	13.17	-48.81	-13.00	35.81	H
12217.50	-43.82	16.83	13.13	-47.52	-13.00	34.52	V

SA n66_355500

Frequency(MHz)	SG(dBm)	Cable Loss(dB)	Antenna Gain(dBi)	Peak EiRP(dBm)	Limit(dBm)	Margin(dB)	Polarization
3557.00	-55.50	9.20	8.31	-56.38	-13.00	43.38	V
5333.00	-54.60	10.69	10.63	-54.66	-13.00	41.66	H
7108.00	-51.98	12.36	11.63	-52.71	-13.00	39.71	H
8886.00	-51.69	14.19	13.10	-52.78	-13.00	39.78	V
10663.50	-46.70	15.93	13.10	-49.53	-13.00	36.53	H
12442.50	-44.57	17.18	13.36	-48.39	-13.00	35.39	H

SA_n70, CH339500,QPSK

Frequency (MHz)	SG (dBm)	CableLoss (dB)	AntennaGain (dBi)	Peak EIRP (dBm)	Limit (dBm)	Margin (dB)	Polarization
3395.00	-69.57	5.36	7.95	-66.98	-13.00	53.98	V
5092.50	-68.28	6.75	10.03	-65.00	-13.00	52.00	H
6769.00	-65.22	7.93	11.32	-61.83	-13.00	48.83	H
8487.50	-63.75	8.67	12.99	-59.43	-13.00	46.43	H
10184.50	-59.23	9.33	12.97	-55.59	-13.00	42.59	V
11867.50	-57.56	10.39	13.03	-54.92	-13.00	41.92	H

SA_n70, CH340500,QPSK

Frequency (MHz)	SG (dBm)	CableLoss (dB)	AntennaGain (dBi)	Peak EIRP (dBm)	Limit (dBm)	Margin (dB)	Polarization
3404.50	-69.11	5.37	7.97	-66.51	-13.00	53.51	H
5107.50	-68.50	6.79	10.05	-65.24	-13.00	52.24	V
6809.50	-65.14	7.88	11.37	-61.65	-13.00	48.65	V
8512.50	-63.72	8.65	13.00	-59.37	-13.00	46.37	H
10215.00	-60.60	9.35	12.99	-56.96	-13.00	43.96	V
11918.00	-58.18	10.43	13.02	-55.59	-13.00	42.59	V

SA_n70, CH341500,QPSK

Frequency (MHz)	SG (dBm)	CableLoss (dB)	AntennaGain (dBi)	Peak EIRP (dBm)	Limit (dBm)	Margin (dB)	Polarization
3414.50	-68.48	5.37	7.99	-65.86	-13.00	52.86	H
5122.00	-67.72	6.83	10.07	-64.48	-13.00	51.48	H
6852.50	-65.53	7.82	11.42	-61.93	-13.00	48.93	V
8537.50	-63.40	8.60	13.01	-58.99	-13.00	45.99	V
10245.00	-60.47	9.45	13.00	-56.92	-13.00	43.92	H
11952.00	-58.21	10.28	13.01	-55.48	-13.00	42.48	H

SA_n71, CH133100,QPSK

Frequency (MHz)	SG (dBm)	CableLoss (dB)	AntennaGain (dBi)	Correction (dB)	Peak EIRP (dBm)	Limit (dBm)	Margin (dB)	Polarization
1999.00	-57.11	3.35	7.71	2.15	-54.90	-13.00	41.90	H
2666.50	-52.93	4.99	10.20	2.15	-49.87	-13.00	36.87	V
4650.00	-61.94	5.05	10.90	2.15	-58.24	-13.00	45.24	V
5334.50	-61.12	6.22	11.73	2.15	-57.76	-13.00	44.76	V
5996.00	-58.54	5.69	10.70	2.15	-55.68	-13.00	42.68	V
6656.50	-56.89	6.21	10.41	2.15	-54.84	-13.00	41.84	H

SA_n71, CH136100,QPSK

Frequency (MHz)	SG (dBm)	CableLoss (dB)	AntennaGain (dBi)	Correction (dB)	Peak EIRP (dBm)	Limit (dBm)	Margin (dB)	Polarization
2051.50	-56.04	3.64	7.70	2.15	-54.13	-13.00	41.13	V
2719.50	-51.93	4.88	10.24	2.15	-48.72	-13.00	35.72	H
4089.00	-61.27	3.88	10.08	2.15	-57.22	-13.00	44.22	H
5452.50	-61.30	5.35	11.33	2.15	-57.47	-13.00	44.47	H
6123.00	-57.83	6.13	10.65	2.15	-55.46	-13.00	42.46	V
6808.50	-55.77	6.37	10.38	2.15	-53.91	-13.00	40.91	V

SA_n71, CH139100,QPSK

Frequency (MHz)	SG (dBm)	CableLoss (dB)	AntennaGain (dBi)	Correction (dB)	Peak EIRP (dBm)	Limit (dBm)	Margin (dB)	Polarization
1391.00	-61.65	1.86	8.01	2.15	-57.65	-13.00	44.65	V
2089.00	-56.32	3.52	7.78	2.15	-54.21	-13.00	41.21	H
2779.50	-52.43	4.89	10.36	2.15	-49.11	-13.00	36.11	H
5560.00	-61.08	5.36	11.22	2.15	-57.37	-13.00	44.37	H
6251.50	-58.70	6.15	10.80	2.15	-56.20	-13.00	43.20	V
6945.50	-54.92	6.47	10.39	2.15	-53.15	-13.00	40.15	H

SA n77L_CH630334

Frequency(MHz)	SG(dBm)	Cable Loss(dB)	Antenna Gain(dBi)	Peak EIRP(dBm)	Limit(dBm)	Margin(dB)	Polarization
6910.50	-49.68	12.35	11.38	-50.65	No limit	NA	V
10365.50	-46.35	16.07	13.13	-49.28	No limit	NA	V
13817.50	-44.51	17.78	14.63	-47.65	No limit	NA	V
17275.50	-38.95	20.77	14.15	-45.57	No limit	NA	H
17678.00	-39.85	21.30	14.66	-46.50	No limit	NA	H
17751.50	-41.17	20.49	14.63	-47.03	No limit	NA	H

SA n77L_CH633334

Frequency(MHz)	SG(dBm)	Cable Loss(dB)	Antenna Gain(dBi)	Peak EIRP(dBm)	Limit(dBm)	Margin(dB)	Polarization
7000.00	-45.04	12.90	11.50	-46.44	No limit	NA	H
10502.50	-46.79	16.39	13.13	-50.05	No limit	NA	V
13999.00	-42.43	18.50	14.50	-46.42	No limit	NA	V
17502.50	-40.15	20.32	14.37	-46.10	No limit	NA	V
17506.50	-41.83	20.32	14.37	-47.78	No limit	NA	H
17751.00	-41.44	20.49	14.63	-47.30	No limit	NA	V

SA n77L_CH636332

Frequency(MHz)	SG(dBm)	Cable Loss(dB)	Antenna Gain(dBi)	Peak EIRP(dBm)	Limit(dBm)	Margin(dB)	Polarization
7090.50	-43.12	12.64	11.64	-44.12	No limit	NA	H
10635.00	-47.38	16.11	13.12	-50.37	No limit	NA	H
14179.50	-42.90	17.81	14.32	-46.39	No limit	NA	V
17722.50	-39.47	20.66	14.61	-45.52	No limit	NA	H
17929.00	-40.97	20.92	14.71	-47.17	No limit	NA	V
17974.50	-41.24	20.76	14.74	-47.26	No limit	NA	V

SA n77H_647000

Frequency(MHz)	SG(dBm)	Cable Loss(dB)	Antenna Gain(dBi)	Peak EiRP(dBm)	Limit(dBm)	Margin(dB)	Polarization
7410.50	-47.76	12.84	11.92	-48.68	No limit	NA	H
11115.50	-38.13	15.86	13.23	-40.76	No limit	NA	H
14818.50	-42.94	18.48	13.93	-47.49	No limit	NA	H
15361.50	-42.03	18.82	13.77	-47.08	No limit	NA	V
16572.50	-40.63	20.08	13.32	-47.38	No limit	NA	H
17007.50	-41.05	19.75	13.65	-47.16	No limit	NA	V

SA n77H_656000

Frequency(MHz)	SG(dBm)	Cable Loss(dB)	Antenna Gain(dBi)	Peak EiRP(dBm)	Limit(dBm)	Margin(dB)	Polarization
7680.00	-47.98	12.94	12.26	-48.66	No limit	NA	H
11519.50	-42.17	16.54	13.20	-45.51	No limit	NA	H
15360.50	-43.02	18.82	13.77	-48.07	No limit	NA	V
16780.00	-38.77	20.24	13.27	-45.74	No limit	NA	V
17396.00	-40.84	20.51	14.31	-47.04	No limit	NA	V
17462.00	-41.79	20.63	14.30	-48.13	No limit	NA	V

SA n77H_665000

Frequency(MHz)	SG(dBm)	Cable Loss(dB)	Antenna Gain(dBi)	Peak EiRP(dBm)	Limit(dBm)	Margin(dB)	Polarization
7682.50	-50.71	12.94	12.27	-51.39	No limit	NA	H
11522.50	-46.36	16.41	13.20	-49.57	No limit	NA	H
15360.00	-42.42	18.82	13.77	-47.47	No limit	NA	V
16836.50	-41.70	19.88	13.34	-48.25	No limit	NA	H
17268.00	-40.68	20.42	14.14	-46.96	No limit	NA	H
17302.50	-40.94	20.45	14.17	-47.22	No limit	NA	H

NSA_LB66_n2_low channel

Frequency(MHz)	SG(dBm)	Cable Loss(dB)	Antenna Gain(dBi)	Peak EiRP(dBm)	Limit(dBm)	Margin(dB)	Polarization
3423.00	-55.50	8.67	8.11	-56.06	-13.00	43.06	H
5131.00	-53.79	10.77	10.40	-54.17	-13.00	41.17	H
6839.50	-50.27	12.23	11.51	-50.99	-13.00	37.99	H
3705.50	-55.39	9.15	8.31	-56.23	-13.00	43.23	V
5555.50	-53.03	11.01	10.88	-53.16	-13.00	40.16	V
7412.00	-51.56	12.84	11.92	-52.48	-13.00	39.48	H

NSA_LB66_n2_middle channel

Frequency(MHz)	SG(dBm)	Cable Loss(dB)	Antenna Gain(dBi)	Peak EiRP(dBm)	Limit(dBm)	Margin(dB)	Polarization
3490.50	-55.57	8.70	8.21	-56.05	-13.00	43.05	V
5232.00	-52.97	10.89	10.37	-53.49	-13.00	40.49	V
6980.00	-50.49	12.58	11.43	-51.64	-13.00	38.64	H
3762.50	-55.23	9.28	8.47	-56.04	-13.00	43.04	H
5641.00	-52.99	11.21	10.67	-53.53	-13.00	40.53	H
7520.50	-51.83	12.88	12.05	-52.66	-13.00	39.66	V

NSA_LB66_n2_high channel

Frequency(MHz)	SG(dBm)	Cable Loss(dB)	Antenna Gain(dBi)	Peak EiRP(dBm)	Limit(dBm)	Margin(dB)	Polarization
3559.50	-53.76	9.20	8.32	-54.65	-13.00	41.65	H
5335.50	-53.16	10.69	10.64	-53.20	-13.00	40.20	V
7118.50	-51.60	12.42	11.61	-52.41	-13.00	39.41	V
3816.50	-55.69	9.09	8.57	-56.22	-13.00	43.22	V
5723.00	-53.42	11.33	11.02	-53.74	-13.00	40.74	H
7632.50	-50.92	13.15	12.17	-51.91	-13.00	38.91	H

NSA_LB66_n5_low channel

Frequency(MHz)	SG (dBm)	Cable Loss (dB)	Antenna Gain (dBi)	Correction(d B)	Peak ERP (dBm)	Limit (dBm)	Margin (dB)	Polarization
1651.50	-46.63	5.88	6.36	2.15	-48.30	-13.00	35.30	V
2480.00	-37.28	7.35	5.96	2.15	-40.82	-13.00	27.82	H
3308.50	-54.33	8.61	7.69	2.15	-57.41	-13.00	44.41	H
3420.00	-54.28	8.67	8.11	2.15	-57.00	-13.00	44.00	V
5132.00	-53.77	10.77	10.40	2.15	-56.29	-13.00	43.29	V
6842.50	-50.47	12.12	11.52	2.15	-53.23	-13.00	40.23	H

NSA_LB66_n5_middle channel

Frequency(MHz)	SG(dBm)	Cable Loss (dB)	Antenna Gain (dBi)	Correction(d B)	Peak ERP (dBm)	Limit(dBm)	Margin (dB)	Polarization
1671.00	-47.02	5.89	6.32	2.15	-48.73	-13.00	35.73	V
2510.00	-37.82	7.60	6.02	2.15	-41.55	-13.00	28.55	V
3345.00	-54.74	8.55	7.95	2.15	-57.50	-13.00	44.50	V
3490.00	-55.15	8.70	8.21	2.15	-57.78	-13.00	44.78	V
5237.50	-53.10	10.89	10.36	2.15	-55.78	-13.00	42.78	H
6981.50	-50.47	12.58	11.43	2.15	-53.77	-13.00	40.77	H

NSA_LB66_n5_high channel

Frequency(MHz)	SG(dBm)	Cable Loss(dB)	Antenna Gain(dBi)	Correction(d B)	Peak ERP(dBm)	Limit(dBm)	Margin(dB)	Polarization
1694.50	-46.03	5.95	6.28	2.15	-47.85	-13.00	34.85	V
2539.00	-38.26	7.32	6.08	2.15	-41.65	-13.00	28.65	V
3388.00	-55.06	8.80	8.02	2.15	-57.99	-13.00	44.99	H
3561.00	-54.87	9.30	8.32	2.15	-58.00	-13.00	45.00	V
5341.00	-54.06	10.70	10.66	2.15	-56.25	-13.00	43.25	H
7120.50	-51.37	12.73	11.61	2.15	-54.64	-13.00	41.64	H

NSA_LB2_n41_Low channel

Frequency (MHz)	SG (dBm)	CableLoss (dB)	AntennaGain (dBi)	Correction (dB)	Peak EIRP (dBm)	Limit (dBm)	Margin (dB)	Polarization
3760.00	-53.71	10.10	10.45	0.00	-53.37	-13.00	40.37	H
5002.00	-49.55	11.66	11.23	0.00	-49.98	-13.00	36.98	V
5640.00	-50.67	11.61	11.20	0.00	-51.08	-13.00	38.08	H
7503.00	-49.39	13.16	10.27	0.00	-52.28	-25.00	27.28	H
7520.00	-45.75	12.82	10.31	0.00	-48.26	-25.00	23.26	V
10004.50	-41.45	15.63	12.09	0.00	-44.99	-25.00	19.99	V

NSA_LB2_n41_Middle channel

Frequency (MHz)	SG (dBm)	CableLoss (dB)	AntennaGain (dBi)	Correction (dB)	Peak EIRP (dBm)	Limit (dBm)	Margin (dB)	Polarization
3760.00	-53.80	10.10	10.45	0.00	-53.46	-13.00	40.46	H
5186.00	-48.17	11.33	11.64	0.00	-47.85	-13.00	34.85	V
5640.00	-49.43	11.61	11.20	0.00	-49.84	-13.00	36.84	V
7520.00	-46.14	12.82	10.31	0.00	-48.65	-25.00	23.65	V
7779.00	-49.07	13.09	10.96	0.00	-51.21	-25.00	26.21	V
10372.00	-46.26	15.15	12.13	0.00	-49.28	-25.00	24.28	H

NSA_LB2_n41_High channel

Frequency (MHz)	SG (dBm)	CableLoss (dB)	AntennaGain (dBi)	Correction (dB)	Peak EIRP (dBm)	Limit (dBm)	Margin (dB)	Polarization
3760.00	-54.88	10.10	10.45	0.00	-54.54	-13.00	41.54	H
5370.00	-44.90	11.51	11.41	0.00	-45.00	-13.00	32.00	V
5640.00	-52.76	11.61	11.20	0.00	-53.17	-13.00	40.17	V
7520.00	-47.00	12.82	10.31	0.00	-49.51	-25.00	24.51	H
8055.50	-41.40	13.44	11.30	0.00	-43.54	-25.00	18.54	V
10740.50	-40.62	16.04	12.25	0.00	-44.41	-25.00	19.41	H

NSA_LB7_n66_low channel

Frequency(MHz)	SG(dBm)	Cable Loss(dB)	Antenna Gain(dBi)	Peak EiRP(dBm)	Limit(dBm)	Margin(dB)	Polarization
3425.50	-55.58	8.67	8.12	-56.14	-13.00	43.14	H
5138.50	-53.02	10.77	10.41	-53.38	-13.00	40.38	H
6850.50	-50.55	12.24	11.47	-51.33	-13.00	38.33	H
5005.00	-52.12	10.40	10.23	-52.29	-13.00	39.29	V
7507.00	-52.02	12.70	12.04	-52.68	-13.00	39.68	H
10008.50	-47.59	15.75	13.09	-50.24	-13.00	37.24	H

NSA_LB7_n66_middle channel

Frequency(MHz)	SG(dBm)	Cable Loss(dB)	Antenna Gain(dBi)	Peak EiRP(dBm)	Limit(dBm)	Margin(dB)	Polarization
3489.50	-53.98	8.77	8.21	-54.54	-13.00	41.54	V
5237.50	-53.16	10.89	10.36	-53.68	-13.00	40.68	V
6979.00	-50.83	12.31	11.43	-51.71	-13.00	38.71	V
5069.50	-51.59	10.64	10.32	-51.91	-13.00	38.91	V
7604.50	-51.44	12.81	12.14	-52.12	-13.00	39.12	V
10142.50	-46.77	15.58	13.07	-49.29	-13.00	36.29	V

NSA_LB7_n66_high channel

Frequency(MHz)	SG(dBm)	Cable Loss(dB)	Antenna Gain(dBi)	Peak EiRP(dBm)	Limit(dBm)	Margin(dB)	Polarization
3555.00	-52.97	9.20	8.31	-53.86	-13.00	40.86	H
5332.00	-53.16	10.69	10.63	-53.22	-13.00	40.22	H
7112.50	-51.66	12.42	11.62	-52.47	-13.00	39.47	H
5135.00	-52.13	10.77	10.40	-52.50	-13.00	39.50	V
7700.50	-51.52	12.96	12.27	-52.22	-13.00	39.22	H
10270.00	-46.55	16.04	13.13	-49.46	-13.00	36.46	H

NSA_LB66_n71_low channel

Frequency (MHz)	SG (dBm)	CableLoss (dB)	AntennaGain (dBi)	Correction (dB)	Peak EIRP (dBm)	Limit (dBm)	Margin (dB)	Polarization
1331.00	-46.67	6.02	7.51	2.15	-47.33	-13.00	34.33	V
1996.50	-41.84	7.24	7.87	2.15	-43.36	-13.00	30.36	V
2662.00	-36.78	8.80	9.99	2.15	-37.74	-13.00	24.74	H
3490.00	-55.29	9.80	10.37	0.00	-54.72	-13.00	41.72	V
5235.00	-56.92	11.91	11.50	0.00	-57.34	-13.00	44.34	H
6980.00	-50.83	12.65	10.30	0.00	-53.18	-13.00	40.18	V

NSA_LB66_n71_middle channel

Frequency (MHz)	SG (dBm)	CableLoss (dB)	AntennaGain (dBi)	Correction (dB)	Peak EIRP (dBm)	Limit (dBm)	Margin (dB)	Polarization
1360.80	-47.26	6.10	7.72	2.15	-47.79	-13.00	34.79	H
2041.20	-40.80	7.28	7.23	2.15	-43.00	-13.00	30.00	V
2721.60	-35.39	9.10	10.05	2.15	-36.59	-13.00	23.59	H
3490.00	-56.01	9.80	10.37	0.00	-55.44	-13.00	42.44	H
5235.00	-56.07	11.91	11.50	0.00	-56.49	-13.00	43.49	V
6980.00	-51.30	12.65	10.30	0.00	-53.65	-13.00	40.65	H

NSA_LB66_n71_high channel

Frequency (MHz)	SG (dBm)	CableLoss (dB)	AntennaGain (dBi)	Correction (dB)	Peak EIRP (dBm)	Limit (dBm)	Margin (dB)	Polarization
1388.80	-47.63	6.19	7.86	2.15	-48.11	-13.00	35.11	V
2083.20	-40.63	7.09	7.63	2.15	-42.24	-13.00	29.24	H
2777.60	-36.12	9.09	10.19	2.15	-37.17	-13.00	24.17	V
3490.00	-58.50	9.80	10.37	0.00	-57.93	-13.00	44.93	H
5235.00	-56.68	11.91	11.50	0.00	-57.09	-13.00	44.09	V
6980.00	-51.57	12.65	10.30	0.00	-53.91	-13.00	40.91	H

A.3 Frequency Stability

A.3.1 Method of Measurement

Frequency stability is a measure of the frequency drift due to temperature and supply voltage variations, with reference to the frequency measured at +20 °C and rated supply voltage. Two reference points are established at the applicable unwanted emissions limit using a RBW equal to the RBW required by the unwanted emissions specification of the applicable regulatory standard. These reference points measured using the lowest and highest channel of operation shall be identified as F_L and F_H respectively.

In order to measure the carrier frequency under the condition of AFC lock, it is necessary to make measurements with the EUT in a “call mode”. This is accomplished with the use of CMW500.

1. Measure the carrier frequency at room temperature.
2. Subject the EUT to overnight soak at -30°C.
3. With the EUT, powered via nominal voltage, connected to the CMW500, and in a simulated call on middle channel for each LTE band, measure the carrier frequency. These measurements should be made within 2 minutes of Powering up the EUT, to prevent significant self-warming.
4. Repeat the above measurements at 10°C increments from -30°C to +50°C. Allow at least 1.5 hours at each temperature, unpowered, before making measurements.
5. Re-measure carrier frequency at room temperature with nominal voltage. Vary supply voltage from minimum voltage to maximum voltage, in 0.1Volt increments re-measuring carrier frequency at each voltage. Pause at nominal voltage for 1.5 hours unpowered, to allow any self-heating to stabilize, before continuing.
6. Subject the EUT to overnight soak at +50°C.
7. With the EUT, powered via nominal voltage, connected to the CMW500 and in a simulated call on the center channel, measure the carrier frequency. These measurements should be made within 2 minutes of Powering up the EUT, to prevent significant self-warming.
8. Repeat the above measurements at 10 °C decrements from +50°C to -30°C. Allow at least 1.5 hours at each temperature, unpowered, before making measurements.
9. At all temperature levels hold the temperature to +/- 0.5°C during the measurement procedure.

The frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency block. As this transceiver is considered "Hand carried, battery powered equipment" Section 2.1055(d)(2) applies. This requires that the lower voltage for frequency stability testing be specified by the manufacturer. This transceiver is specified to operate with an input voltage of the lower, higher and nominal voltage. Operation above or below these voltage limits is prohibited by transceiver software in order to prevent improper operation as well as to protect components from overstress.

A.3.2 Measurement results

n5

Frequency Error vs Temperature

Temperature(°C)	Voltage(V)	FL(MHz)	FH(MHz)	Offset(Hz)	Frequency error(ppm)
20	3.87	824.240	847.816		
50				0.80	0.0010
40				0.30	0.0004
30				-0.70	0.0008
10				-2.80	0.0033
0				-1.30	0.0016
-10				-1.20	0.0014
-20				-0.60	0.0007
-30				-2.50	0.0030

Frequency Error vs Voltage

Voltage(V)	Temperature(°C)	FL(MHz)	FH(MHz)	Offset(Hz)	Frequency error(ppm)
3.6	20	824.240	847.816	1.60	0.0019
4.45				0.10	0.0001

n25

Frequency Error vs Temperature

Temperature(°C)	Voltage(V)	FL(MHz)	FH(MHz)	Offset(Hz)	Frequency error(ppm)
20	3.87	1850.272	1914.328		
50				-1.30	0.0007
40				-0.10	0.0001
30				-2.30	0.0012
10				-3.20	0.0017
0				-2.20	0.0012
-10				1.20	0.0006
-20				1.00	0.0005
-30				-3.50	0.0019

Frequency Error vs Voltage

Voltage(V)	Temperature(°C)	FL(MHz)	FH(MHz)	Offset(Hz)	Frequency error(ppm)
3.6	20	1850.272	1914.328	-1.50	0.0008
4.45				-1.20	0.0006

n30
Frequency Error vs Temperature

Temperature(°C)	Voltage(V)	FL(MHz)	FH(MHz)	Offset(Hz)	Frequency error(ppm)
20	3.87	2305.280	2314.340		
50				4.40	0.0019
40				8.20	0.0035
30				2.70	0.0012
10				6.50	0.0028
0				3.90	0.0017
-10				8.80	0.0038
-20				6.00	0.0026
-30				4.60	0.0020

Frequency Error vs Voltage

Voltage(V)	Temperature(°C)	FL(MHz)	FH(MHz)	Offset(Hz)	Frequency error(ppm)
3.6	20	2305.280	2314.340	2.40	0.0010
4.45				4.00	0.0017

n41
Frequency Error vs Temperature

Temperature(°C)	Voltage(V)	FL(MHz)	FH(MHz)	Offset(Hz)	Frequency error(ppm)
20	3.87	2496.720	2688.176		
50				-29.80	0.0115
40				-33.70	0.0130
30				15.80	0.0061
10				13.40	0.0052
0				-16.90	0.0065
-10				0.30	0.0001
-20				-11.50	0.0044
-30				4.30	0.0017

Frequency Error vs Voltage

Voltage(V)	Temperature(°C)	FL(MHz)	FH(MHz)	Offset(Hz)	Frequency error(ppm)
3.6	20	2496.720	2688.176	-10.00	0.0039
4.45				-1.40	0.0005

n48

Frequency Error vs Temperature

Temperature(°C)	Voltage(V)	FL(MHz)	FH(MHz)	Offset(Hz)	Frequency error(ppm)
20	3.87	3550.720	3698.128		
50				1.20	0.0003
40				3.40	0.0009
30				4.20	0.0012
10				3.30	0.0009
0				3.10	0.0009
-10				6.20	0.0017
-20				7.30	0.0020
-30				6.70	0.0018

Frequency Error vs Voltage

Voltage(V)	Temperature(°C)	FL(MHz)	FH(MHz)	Offset(Hz)	Frequency error(ppm)
3.6	20	3550.720	3698.128	5.30	0.0015
4.45				4.60	0.0013

n66

Frequency Error vs Temperature

Temperature(°C)	Voltage(V)	FL(MHz)	FH(MHz)	Offset(Hz)	Frequency error(ppm)
20	3.87	1710.096	1779.872		
50				1.40	0.0008
40				0.30	0.0002
30				-0.40	0.0002
10				-2.30	0.0013
0				0.30	0.0002
-10				2.10	0.0012
-20				0.80	0.0005
-30				-1.60	0.0009

Frequency Error vs Voltage

Voltage(V)	Temperature(°C)	FL(MHz)	FH(MHz)	Offset(Hz)	Frequency error(ppm)
3.6	20	1710.096	1779.872	-0.10	0.0001
4.45				-1.40	0.0008

n70
Frequency Error vs Temperature

Temperature(°C)	Voltage(V)	FL(MHz)	FH(MHz)	Offset(Hz)	Frequency error(ppm)
20	3.87	1695.192	1709.072		
50				1.70	0.0010
40				1.80	0.0011
30				2.50	0.0015
10				-3.20	0.0019
0				2.40	0.0014
-10				1.50	0.0009
-20				3.70	0.0022
-30				0.90	0.0005

Frequency Error vs Voltage

Voltage(V)	Temperature(°C)	FL(MHz)	FH(MHz)	Offset(Hz)	Frequency error(ppm)
3.6	20	1695.192	1709.072	1.50	0.0009
4.45				0.10	0.0001

n71
Frequency Error vs Temperature

Temperature(°C)	Voltage(V)	FL(MHz)	FH(MHz)	Offset(Hz)	Frequency error(ppm)
20	3.87	663.561	695.978		
50				18.50	0.0272
40				0.40	0.0006
30				-8.10	0.0119
10				21.00	0.0309
0				-33.10	0.0486
-10				-9.10	0.0134
-20				-27.10	0.0398
-30				-54.30	0.0798

Frequency Error vs Voltage

Voltage(V)	Temperature(°C)	FL(MHz)	FH(MHz)	Offset(Hz)	Frequency error(ppm)
3.6	20	663.561	695.978	-8.40	0.0123
4.45				-49.60	0.0729

n77L
Frequency Error vs Temperature

Temperature(°C)	Voltage(V)	FL(MHz)	FH(MHz)	Offset(Hz)	Frequency error(ppm)
20	3.87	3450.688	3548.224		
50				0.20	0.0001
40				2.90	0.0008
30				2.30	0.0007
10				1.50	0.0004
0				0.30	0.0001
-10				0.70	0.0002
-20				0.00	0.0000
-30				1.80	0.0005

Frequency Error vs Voltage

Voltage(V)	Temperature(°C)	FL(MHz)	FH(MHz)	Offset(Hz)	Frequency error(ppm)
3.6	20	3450.688	3548.224	1.90	0.0005
4.45				3.90	0.0011

n77H
Frequency Error vs Temperature

Temperature(°C)	Voltage(V)	FL(MHz)	FH(MHz)	Offset(Hz)	Frequency error(ppm)
20	3.87	3700.368	3978.528		
50				2.40	0.0006
40				4.60	0.0012
30				2.70	0.0007
10				4.70	0.0012
0				7.20	0.0019
-10				4.90	0.0013
-20				10.00	0.0026
-30				5.70	0.0015

Frequency Error vs Voltage

Voltage(V)	Temperature(°C)	FL(MHz)	FH(MHz)	Offset(Hz)	Frequency error(ppm)
3.6	20	3700.368	3978.528	5.90	0.0015
4.45				3.80	0.0010

A.4 Occupied Bandwidth

Occupied bandwidth measurements are only provided for selected frequencies in order to reduce the amount of submitted data. Data were taken at the extreme and mid frequency. The table below lists the measured 99% BW. Spectrum analyzer plots are included on the following pages.

The measurement method is from ANSI C63.26:

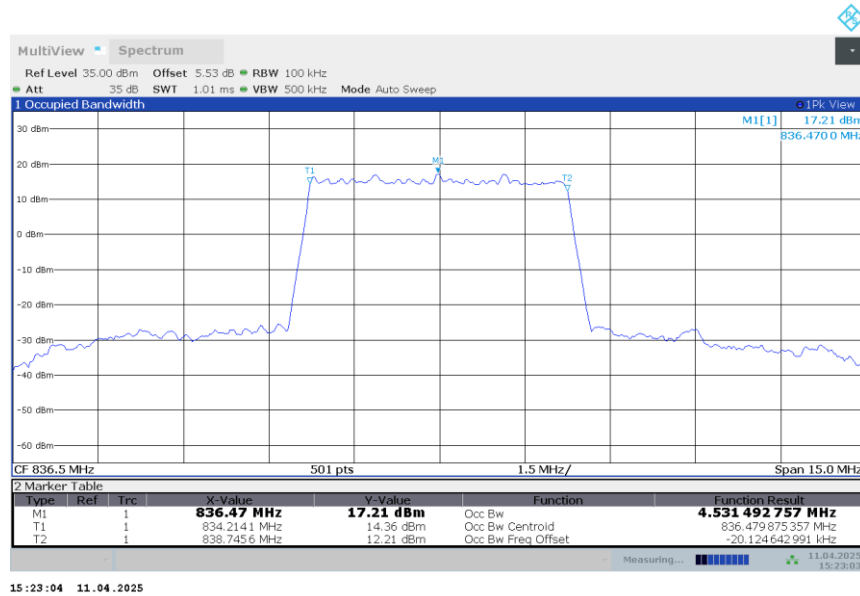
- a) The spectrum analyzer center frequency is set to the nominal EUT channel center frequency. The frequency span for the spectrum analyzer shall be set wide enough to capture all modulation products including the emission skirts.
- b) The nominal IF filter 3 dB bandwidth (RBW) shall be in the range of 1% to 5% of the anticipated OBW, and the VBW shall be set $\geq 3 \times \text{RBW}$.
- c) Set the reference level of the instrument as required to prevent the signal amplitude from exceeding the maximum spectrum analyzer input mixer level for linear operation.
- d) Set the detection mode to peak, and the trace mode to max-hold.

n5

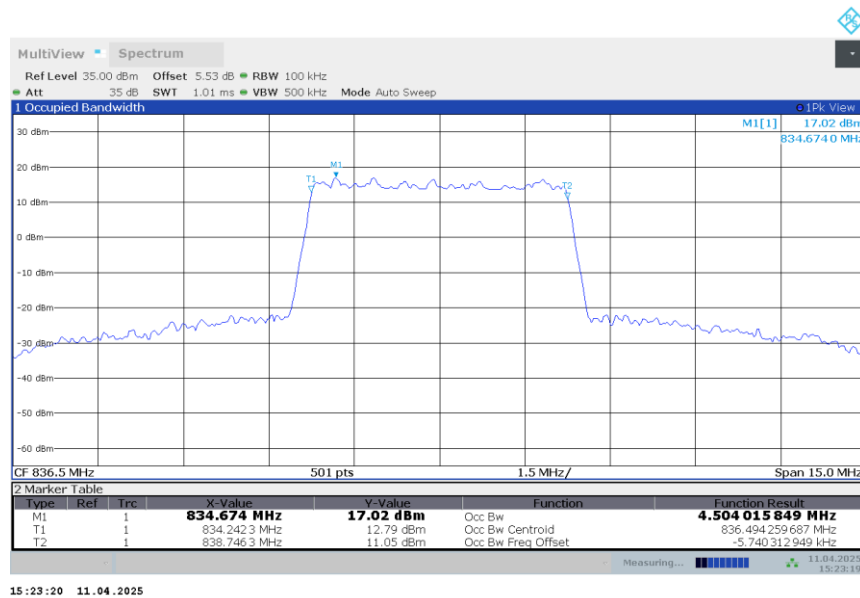
n5,5MHz(99%)

Frequency (MHz)	Occupied Bandwidth (99%) (MHz)		
	DFT-s-pi/2 BPSK	DFT-s-QPSK	DFT-s-16QAM
836.5	4.531	4.504	4.517

n5,5MHz Bandwidth,DFT-s-pi/2 BPSK (99% BW)



n5,5MHz Bandwidth,DFT-s-QPSK (99% BW)



n5,5MHz Bandwidth,DFT-s-16QAM (99% BW)

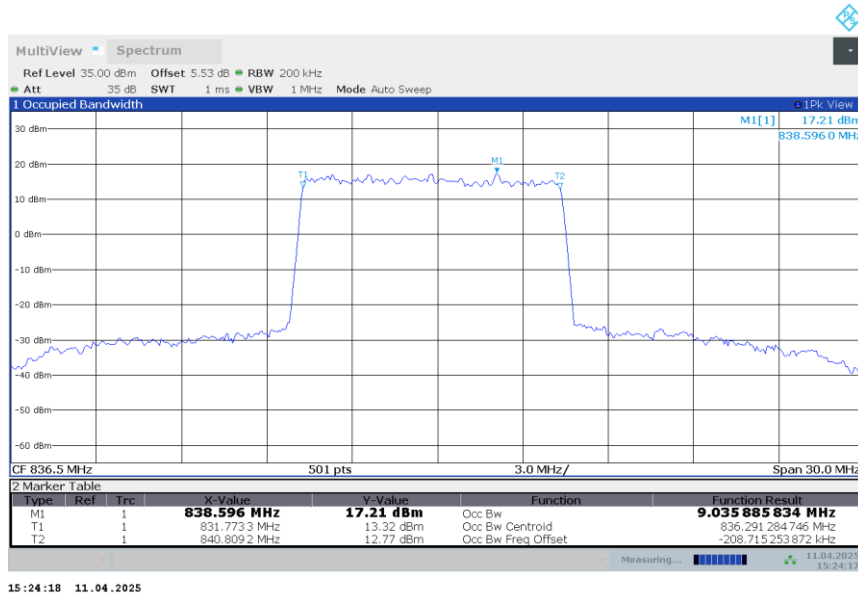


n5

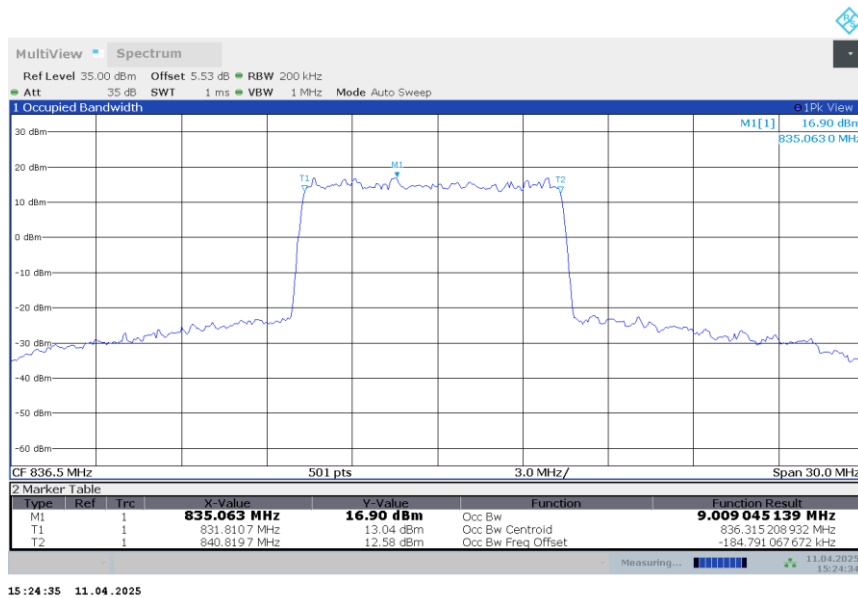
n5,10MHz(99%)

Frequency (MHz)	Occupied Bandwidth (99%) (MHz)		
	DFT-s-pi/2 BPSK	DFT-s-QPSK	DFT-s-16QAM
836.5	9.036	9.009	9.009

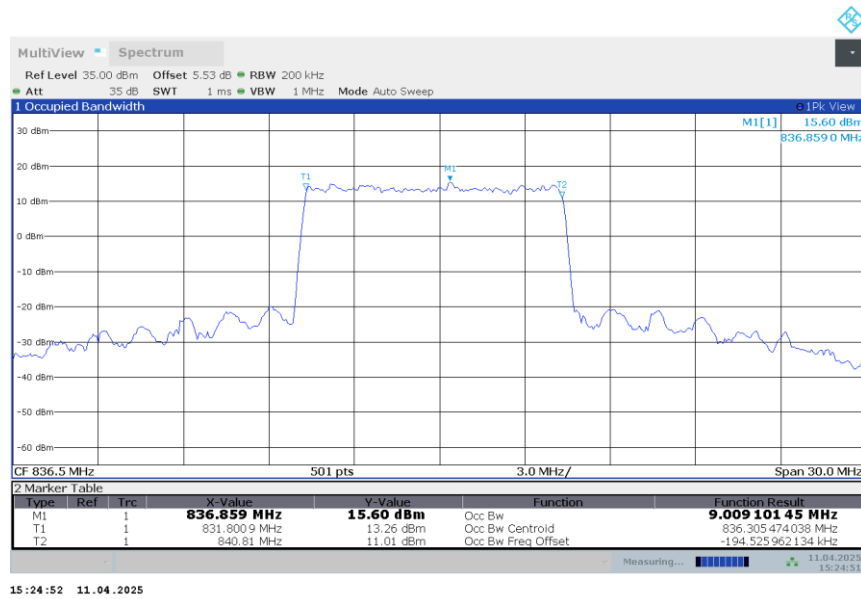
n5,10MHz Bandwidth,DFT-s-pi/2 BPSK (99% BW)



n5,10MHz Bandwidth,DFT-s-QPSK (99% BW)



n5,10MHz Bandwidth,DFT-s-16QAM (99% BW)

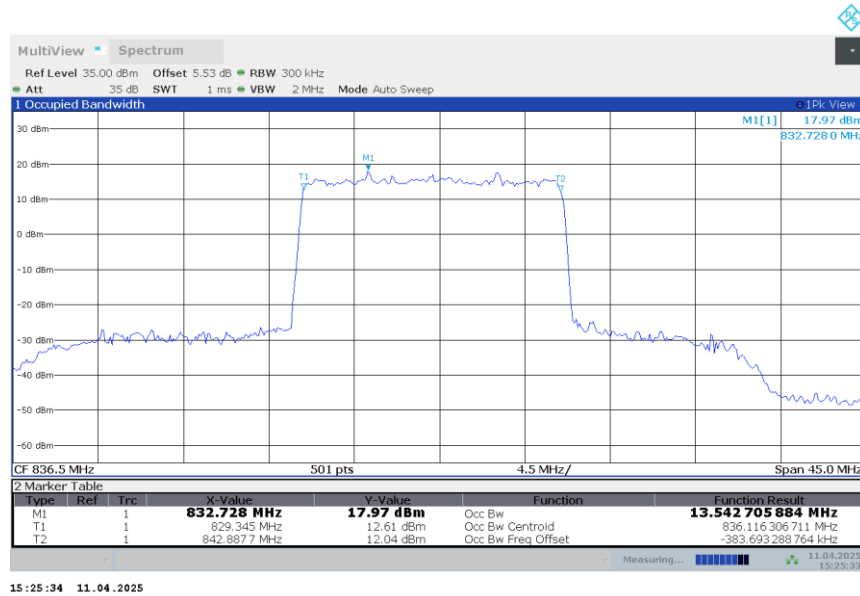


n5

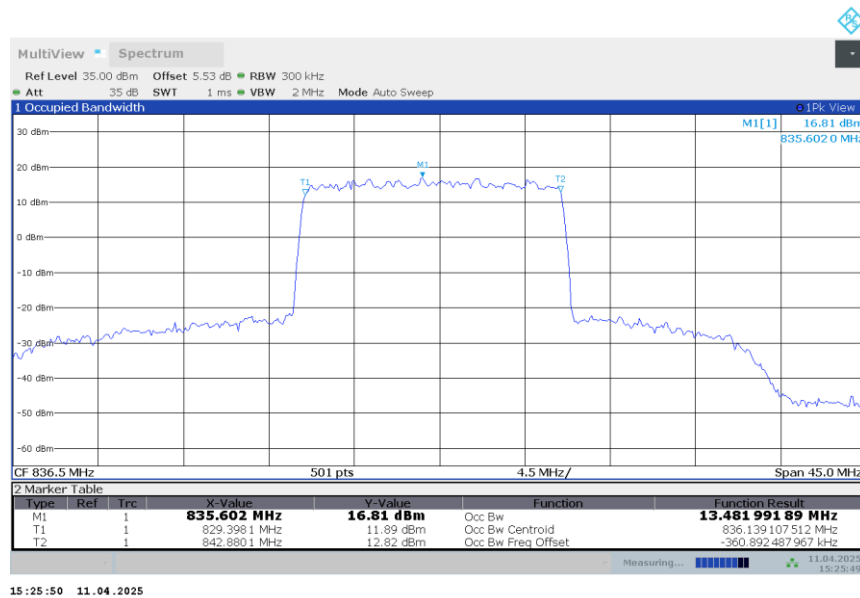
n5,15MHz(99%)

Frequency (MHz)	Occupied Bandwidth (99%) (MHz)		
	DFT-s-pi/2 BPSK	DFT-s-QPSK	DFT-s-16QAM
836.5	13.543	13.482	13.494

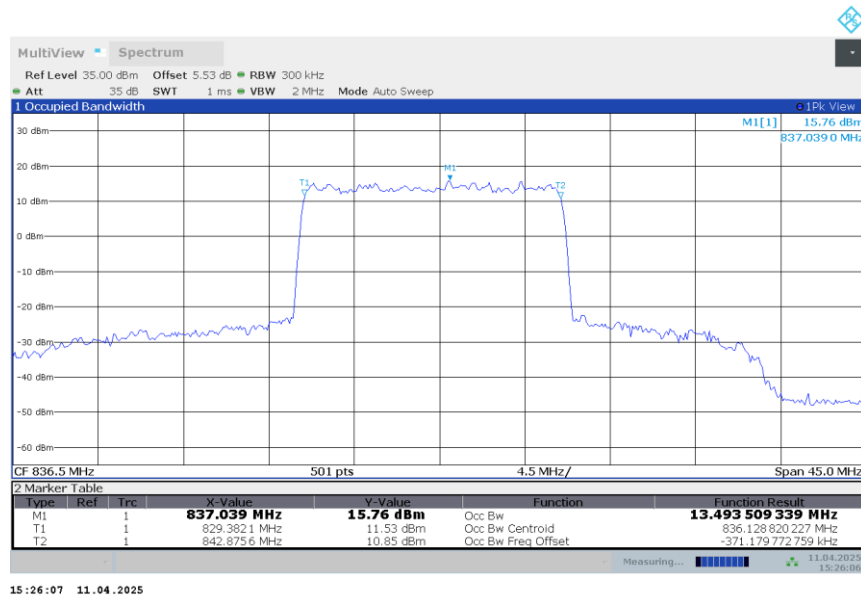
n5,15MHz Bandwidth,DFT-s-pi/2 BPSK (99% BW)



n5,15MHz Bandwidth,DFT-s-QPSK (99% BW)



n5,15MHz Bandwidth,DFT-s-16QAM (99% BW)



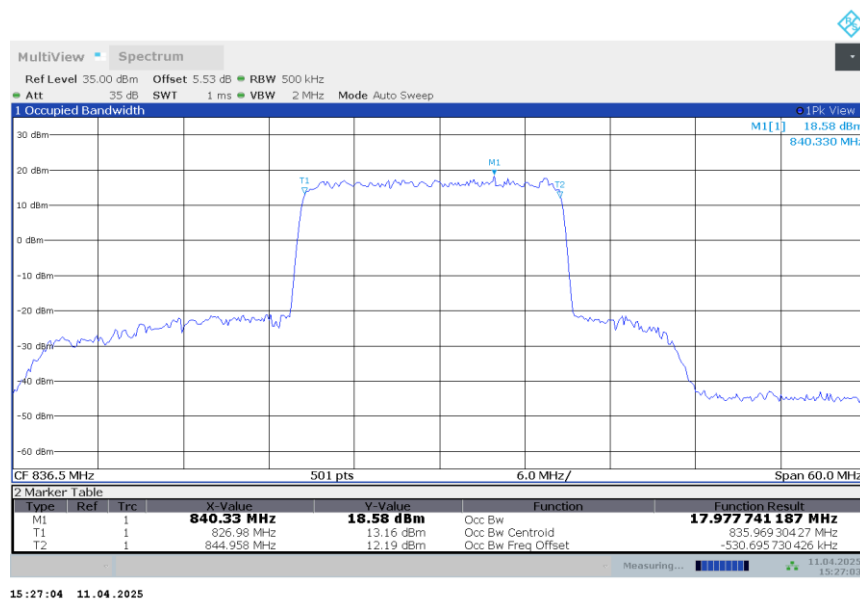
n5
n5,20MHz(99%)

Frequency (MHz)	Occupied Bandwidth (99%) (MHz)		
	DFT-s-pi/2 BPSK	DFT-s-QPSK	DFT-s-16QAM
836.5	17.990	17.978	17.970

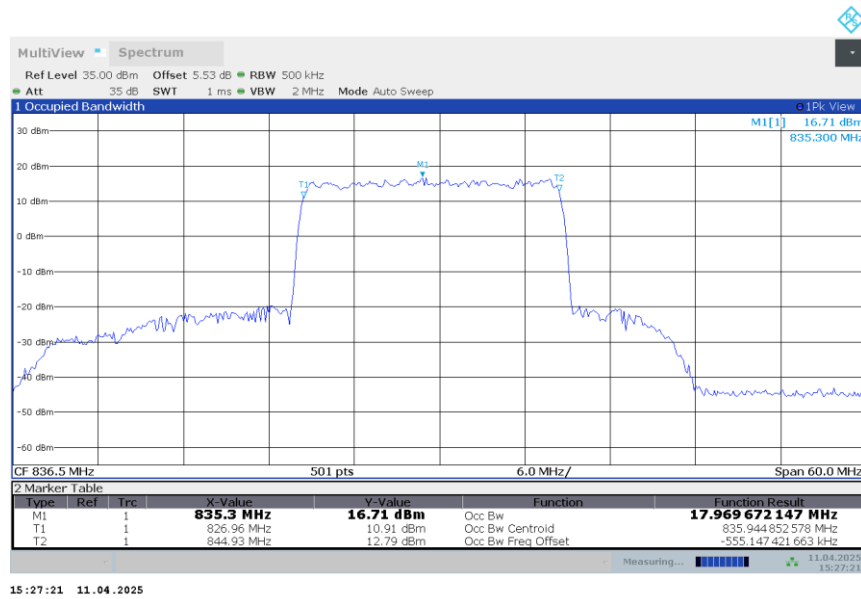
n5,20MHz Bandwidth,DFT-s-pi/2 BPSK (99% BW)



n5,20MHz Bandwidth,DFT-s-QPSK (99% BW)



n5,20MHz Bandwidth,DFT-s-16QAM (99% BW)



n5

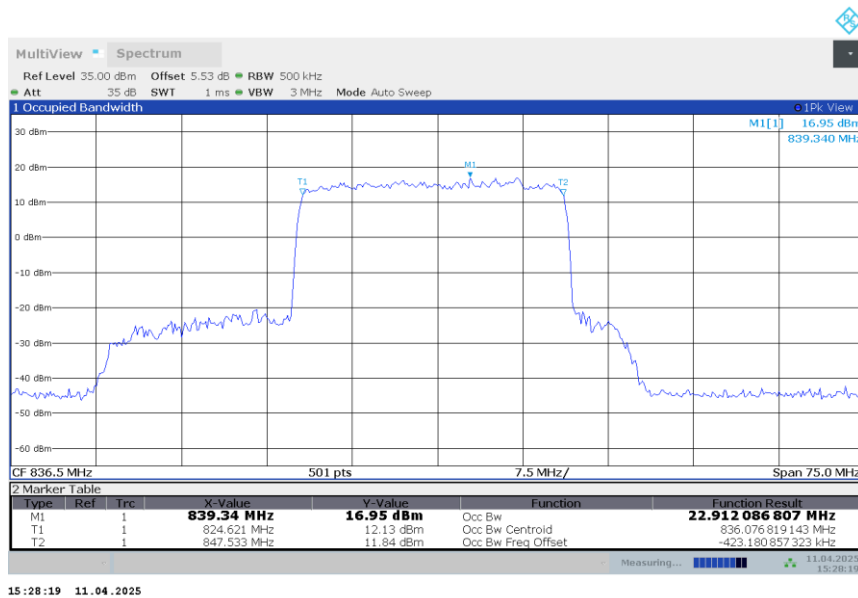
n5,25MHz(99%)

Frequency (MHz)	Occupied Bandwidth (99%) (MHz)		
	DFT-s-pi/2 BPSK	DFT-s-QPSK	DFT-s-16QAM
836.5	22.982	22.912	22.960

n5,25MHz Bandwidth,DFT-s-pi/2 BPSK (99% BW)



n5,25MHz Bandwidth,DFT-s-QPSK (99% BW)



n5,25MHz Bandwidth,DFT-s-16QAM (99% BW)

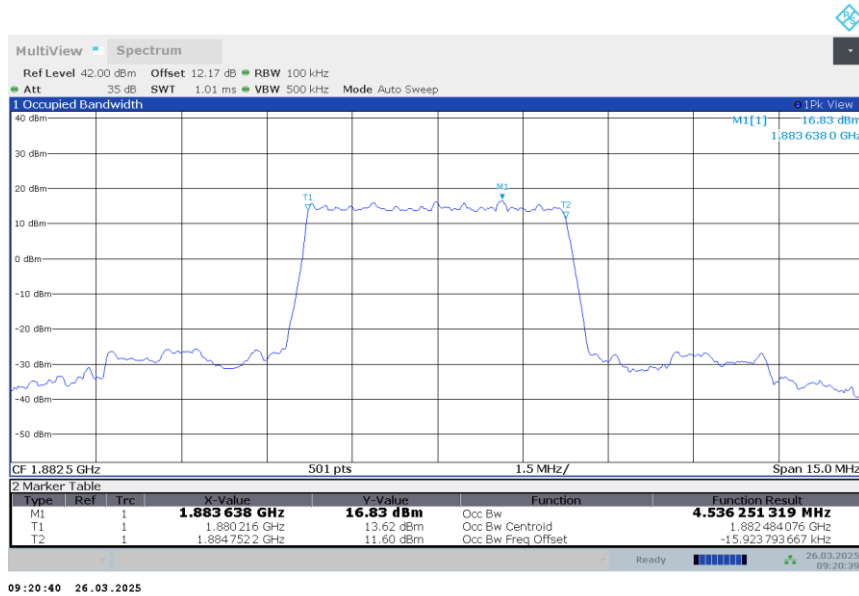


n25

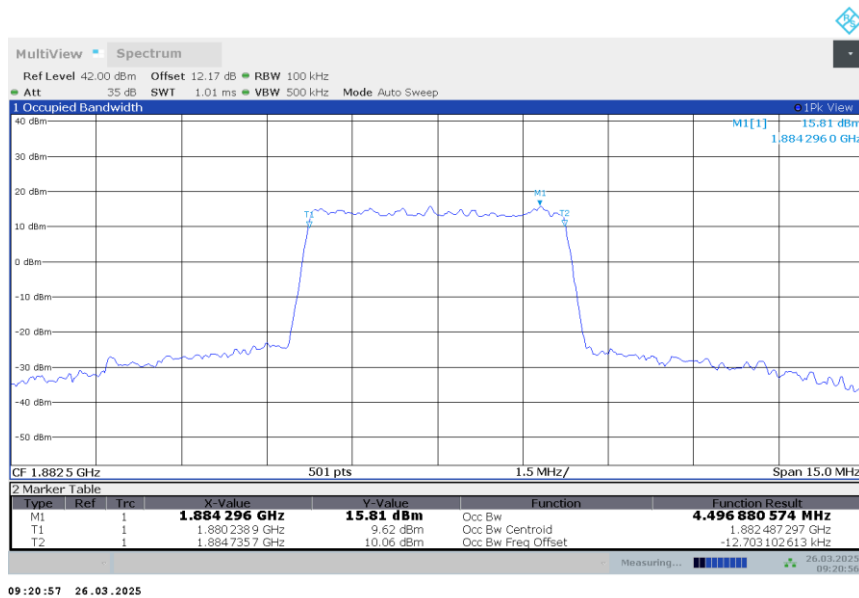
n25,5MHz(99%)

Frequency (MHz)	Occupied Bandwidth (99%) (MHz)		
	DFT-s-pi/2 BPSK	DFT-s-QPSK	DFT-s-16QAM
1882.5	4.536	4.497	4.512

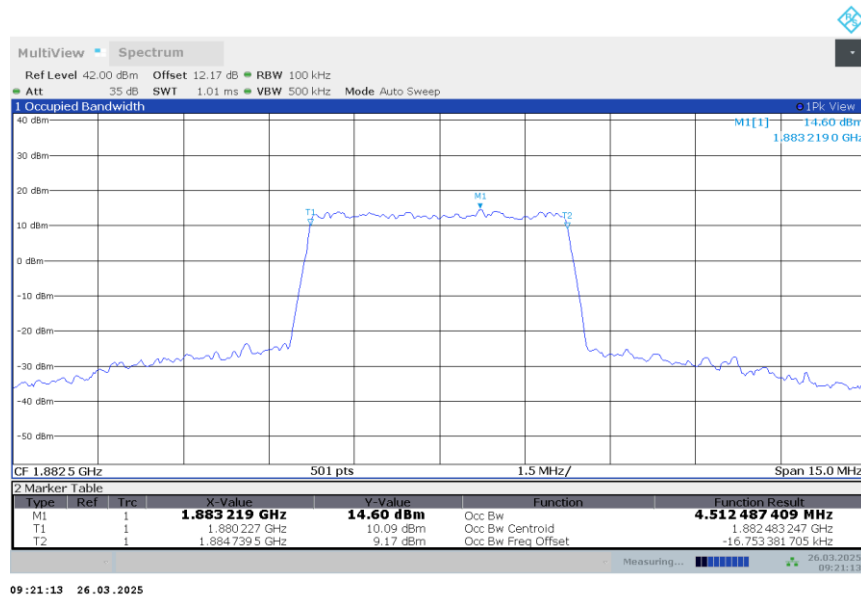
n25,5MHz Bandwidth,DFT-s-pi/2 BPSK (99% BW)



n25,5MHz Bandwidth,DFT-s-QPSK (99% BW)



n25,5MHz Bandwidth,DFT-s-16QAM (99% BW)

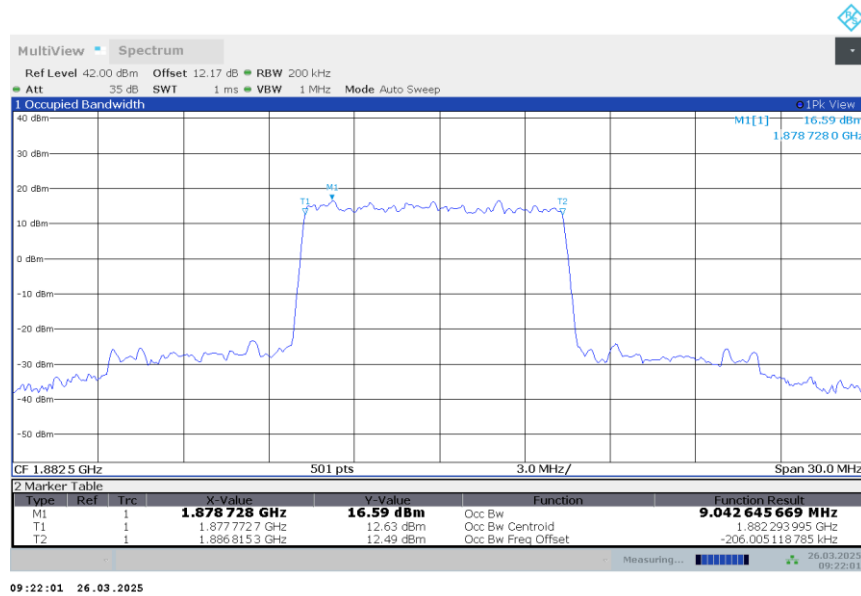


n25

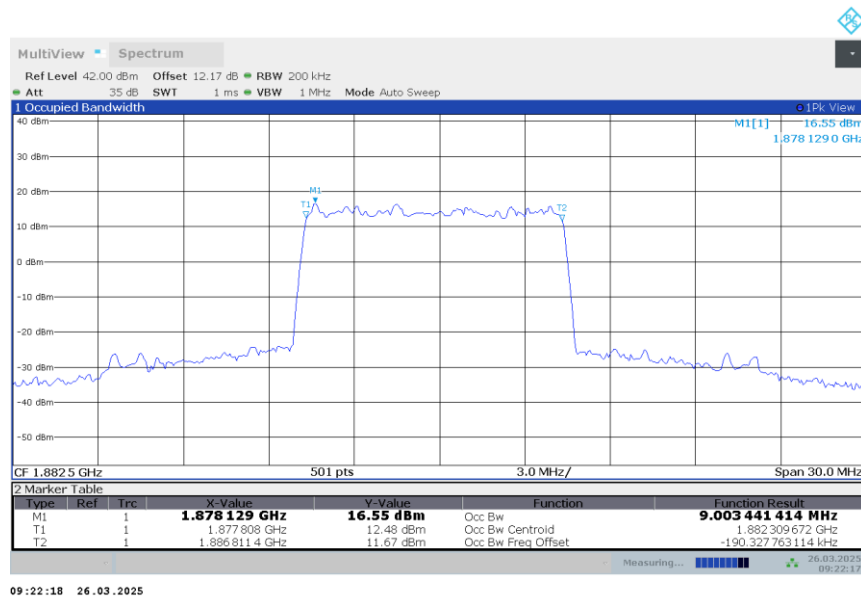
n25,10MHz(99%)

Frequency (MHz)	Occupied Bandwidth (99%) (MHz)		
	DFT-s-pi/2 BPSK	DFT-s-QPSK	DFT-s-16QAM
1882.5	9.043	9.003	9.007

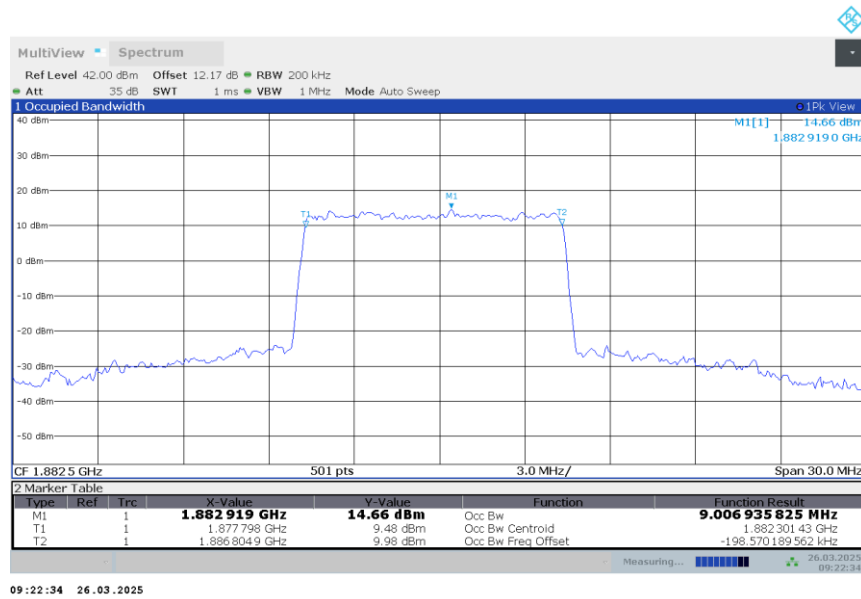
n25,10MHz Bandwidth,DFT-s-pi/2 BPSK (99% BW)



n25,10MHz Bandwidth,DFT-s-QPSK (99% BW)



n25,10MHz Bandwidth,DFT-s-16QAM (99% BW)

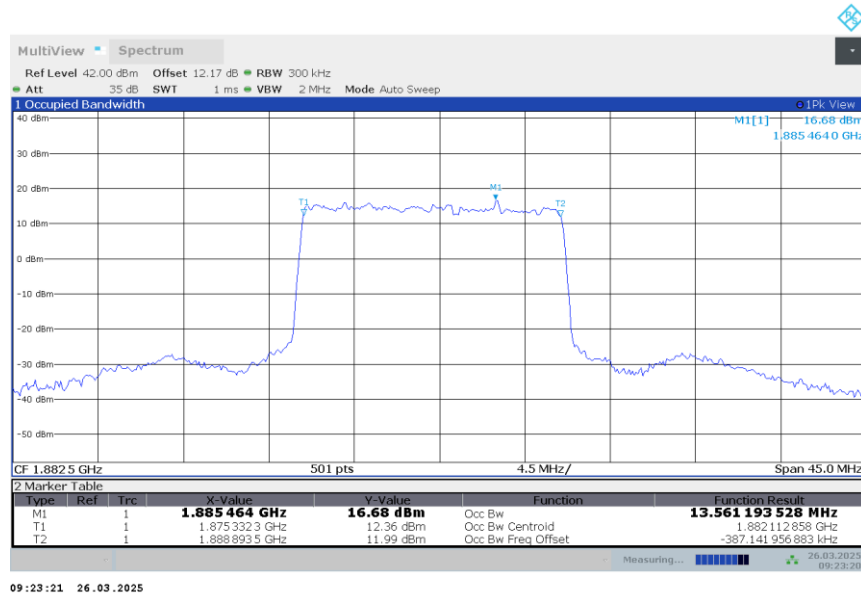


n25

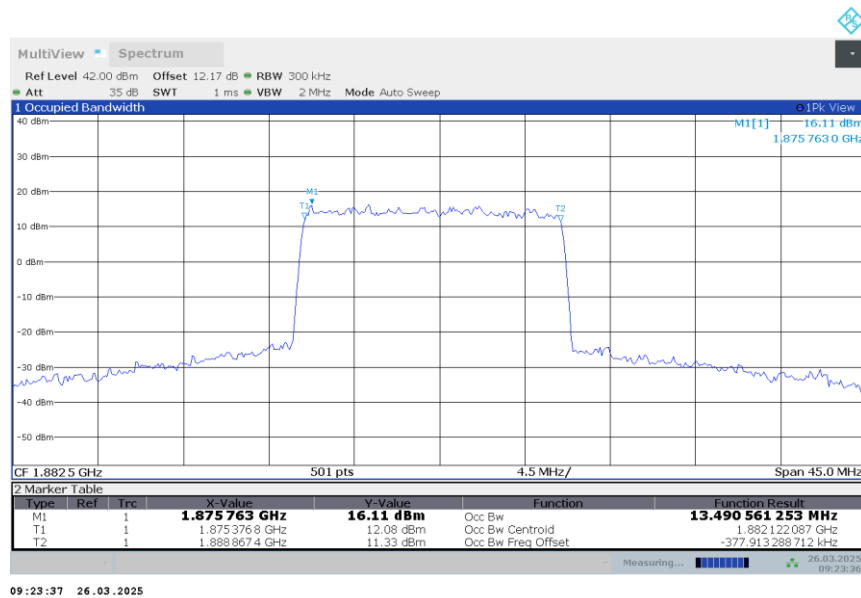
n25,15MHz(99%)

Frequency (MHz)	Occupied Bandwidth (99%) (MHz)		
	DFT-s-pi/2 BPSK	DFT-s-QPSK	DFT-s-16QAM
1882.5	13.561	13.491	13.479

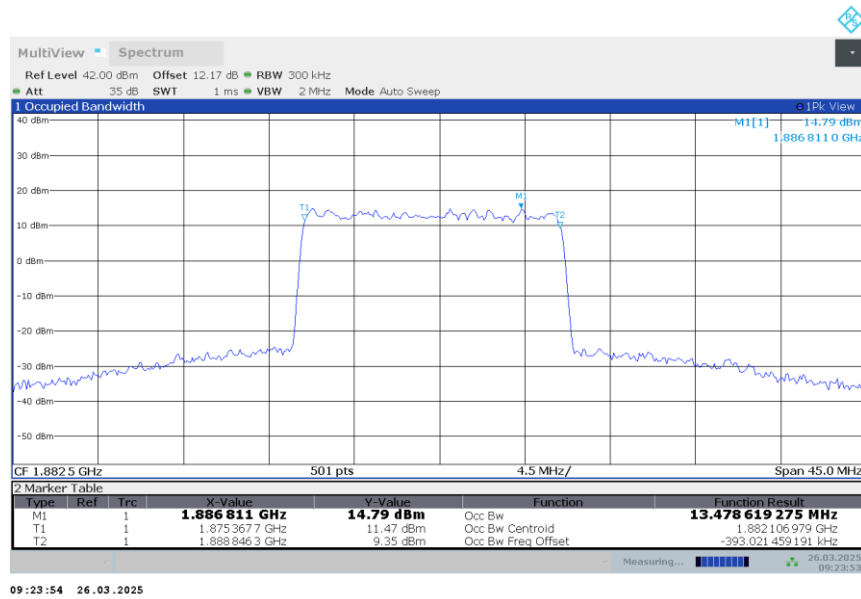
n25,15MHz Bandwidth,DFT-s-pi/2 BPSK (99% BW)



n25,15MHz Bandwidth,DFT-s-QPSK (99% BW)



n25,15MHz Bandwidth,DFT-s-16QAM (99% BW)

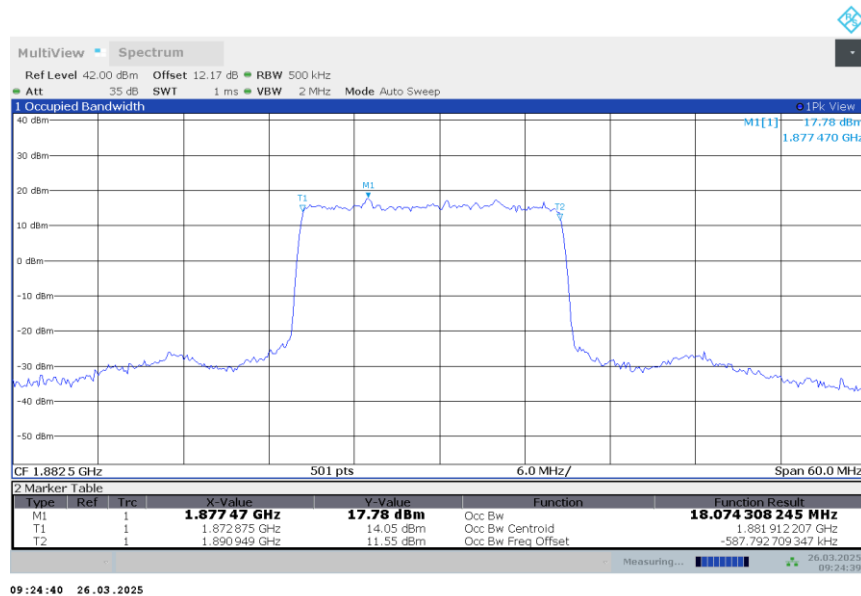


n25

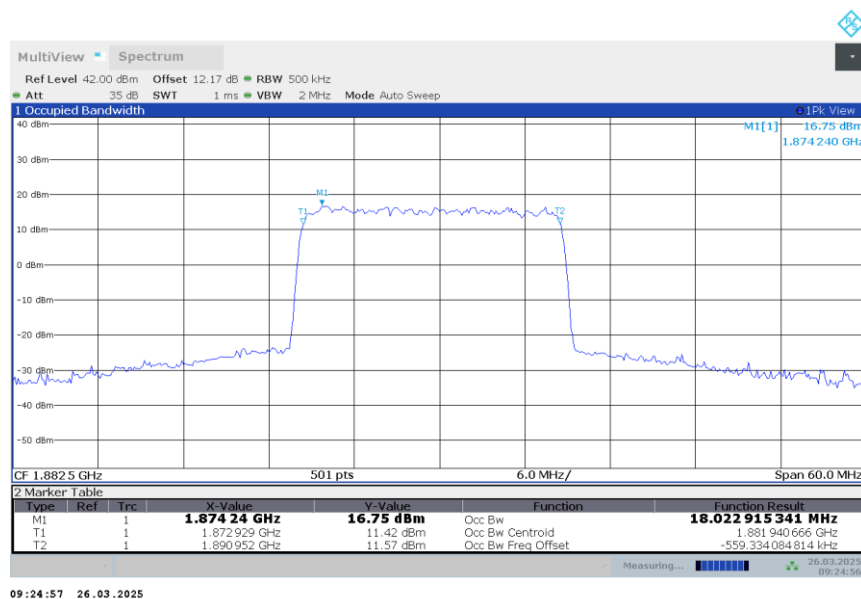
n25,20MHz(99%)

Frequency (MHz)	Occupied Bandwidth (99%) (MHz)		
	DFT-s-pi/2 BPSK	DFT-s-QPSK	DFT-s-16QAM
1882.5	18.074	18.023	18.023

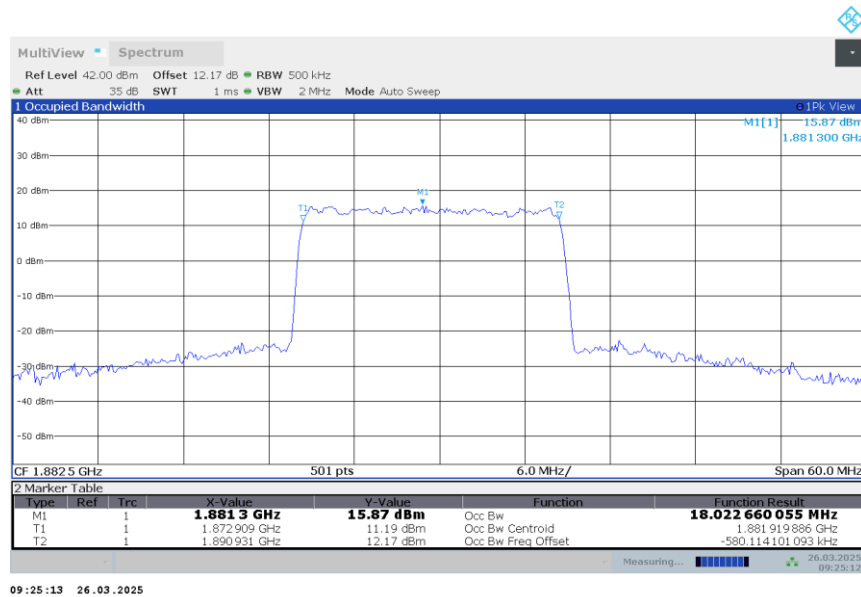
n25,20MHz Bandwidth,DFT-s-pi/2 BPSK (99% BW)



n25,20MHz Bandwidth,DFT-s-QPSK (99% BW)



n25,20MHz Bandwidth,DFT-s-16QAM (99% BW)

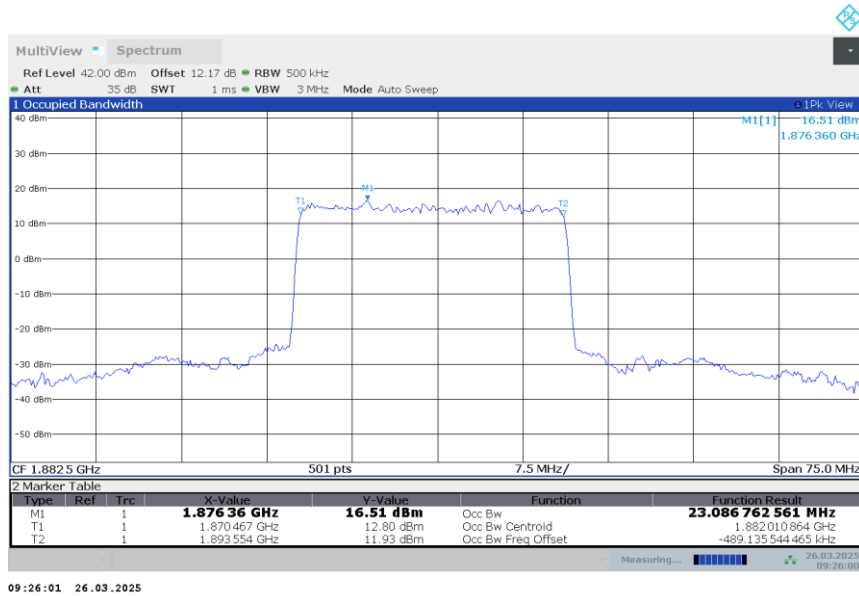


n25

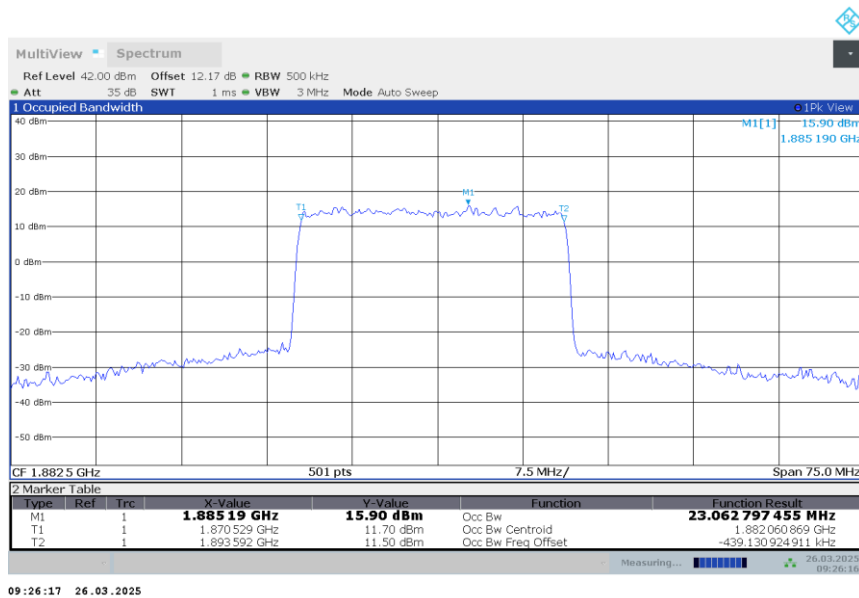
n25,25MHz(99%)

Frequency (MHz)	Occupied Bandwidth (99%) (MHz)		
	DFT-s-pi/2 BPSK	DFT-s-QPSK	DFT-s-16QAM
1882.5	23.087	23.063	22.981

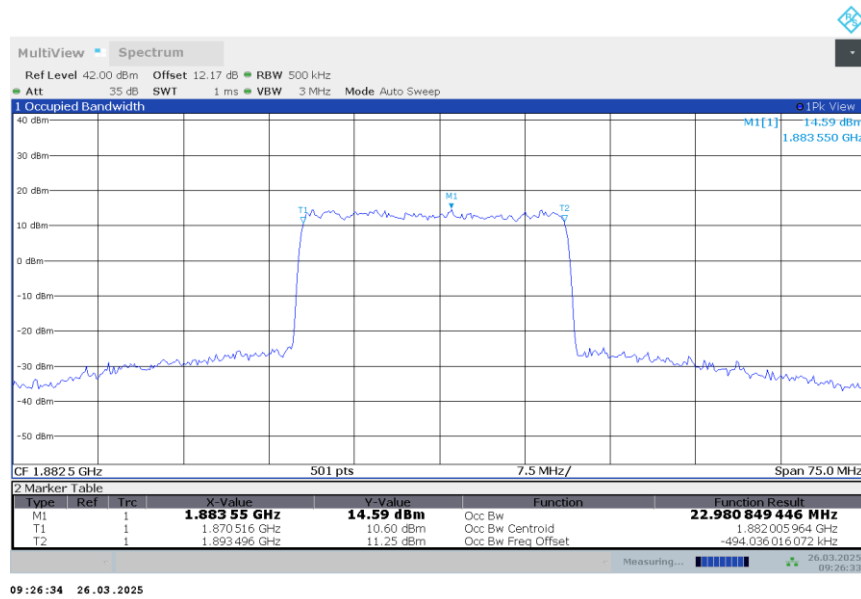
n25,25MHz Bandwidth,DFT-s-pi/2 BPSK (99% BW)



n25,25MHz Bandwidth,DFT-s-QPSK (99% BW)



n25,25MHz Bandwidth,DFT-s-16QAM (99% BW)

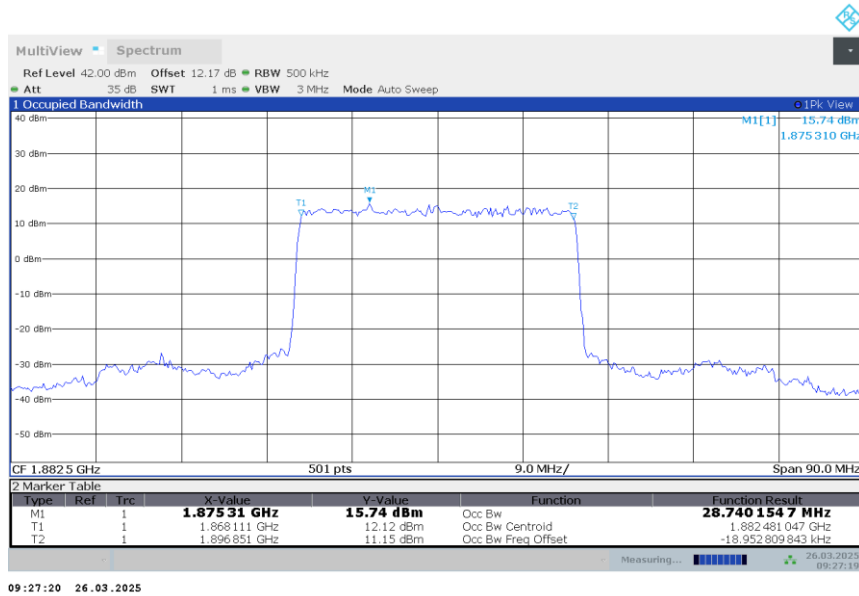


n25

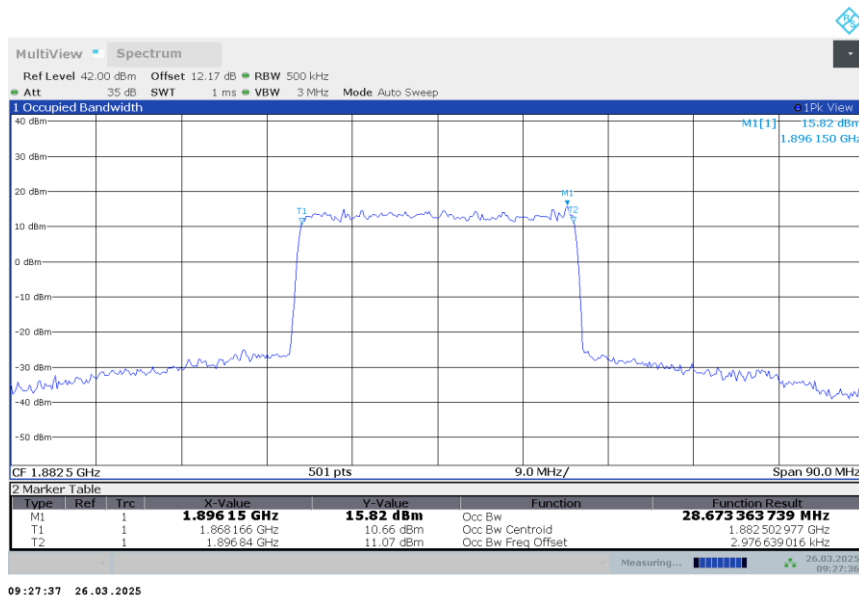
n25,30MHz(99%)

Frequency (MHz)	Occupied Bandwidth (99%) (MHz)		
	DFT-s-pi/2 BPSK	DFT-s-QPSK	DFT-s-16QAM
1882.5	28.740	28.673	28.640

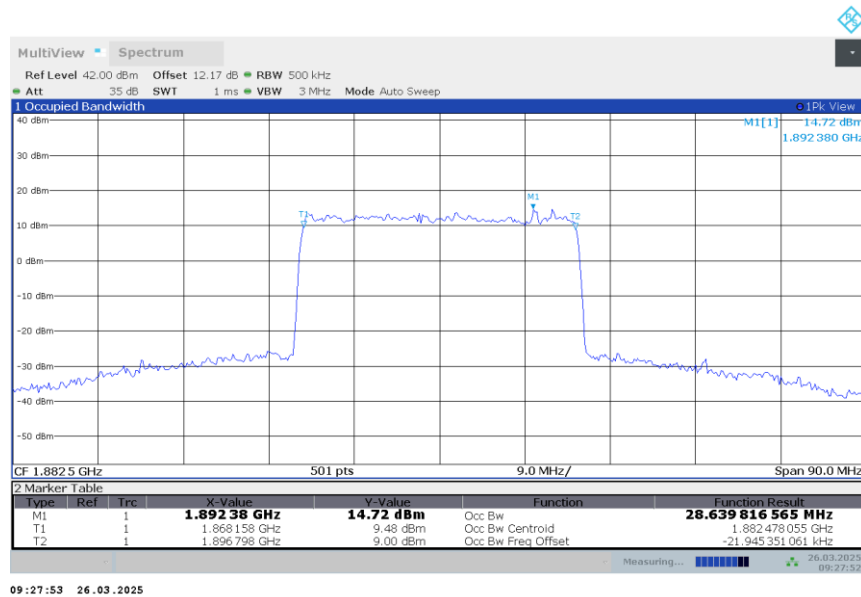
n25,30MHz Bandwidth,DFT-s-pi/2 BPSK (99% BW)



n25,30MHz Bandwidth,DFT-s-QPSK (99% BW)



n25,30MHz Bandwidth,DFT-s-16QAM (99% BW)

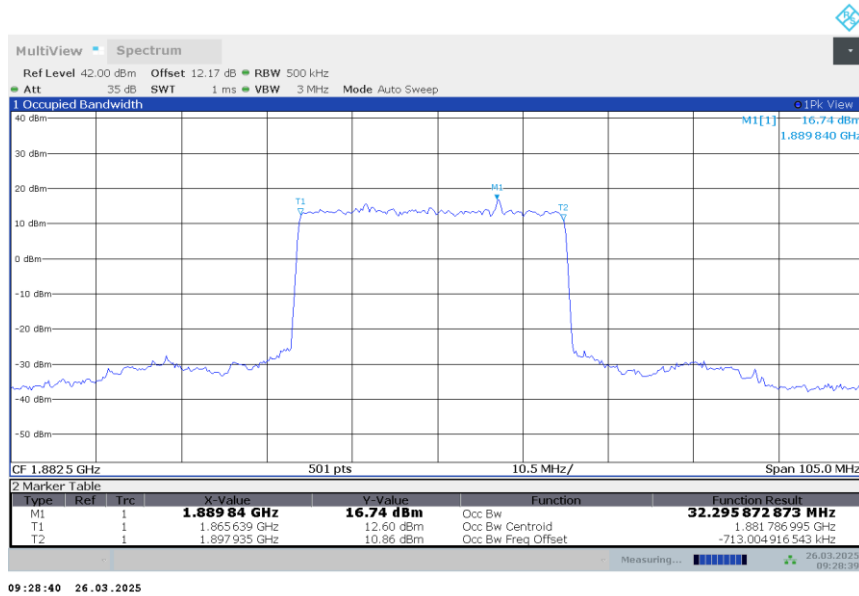


n25

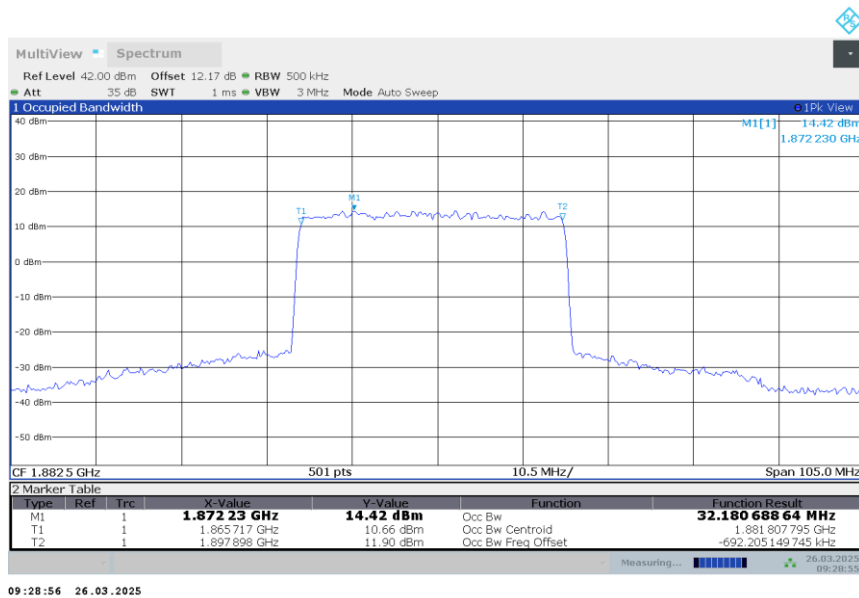
n25,35MHz(99%)

Frequency (MHz)	Occupied Bandwidth (99%) (MHz)		
	DFT-s-pi/2 BPSK	DFT-s-QPSK	DFT-s-16QAM
1882.5	32.296	32.181	32.234

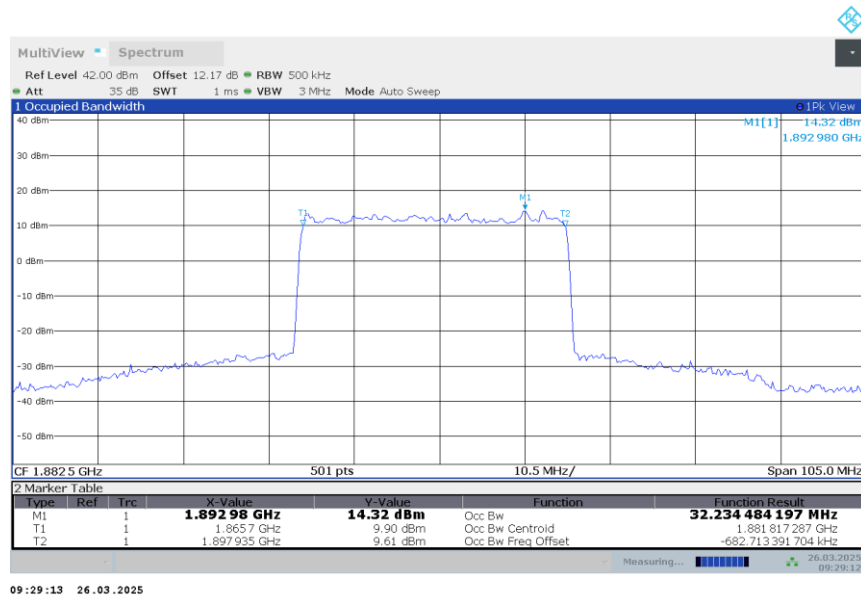
n25,35MHz Bandwidth,DFT-s-pi/2 BPSK (99% BW)



n25,35MHz Bandwidth,DFT-s-QPSK (99% BW)



n25,35MHz Bandwidth,DFT-s-16QAM (99% BW)

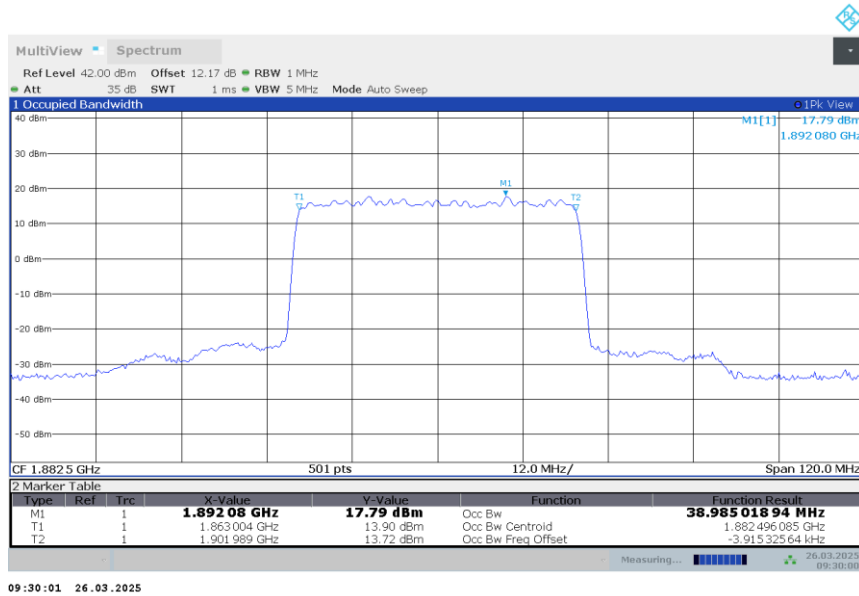


n25

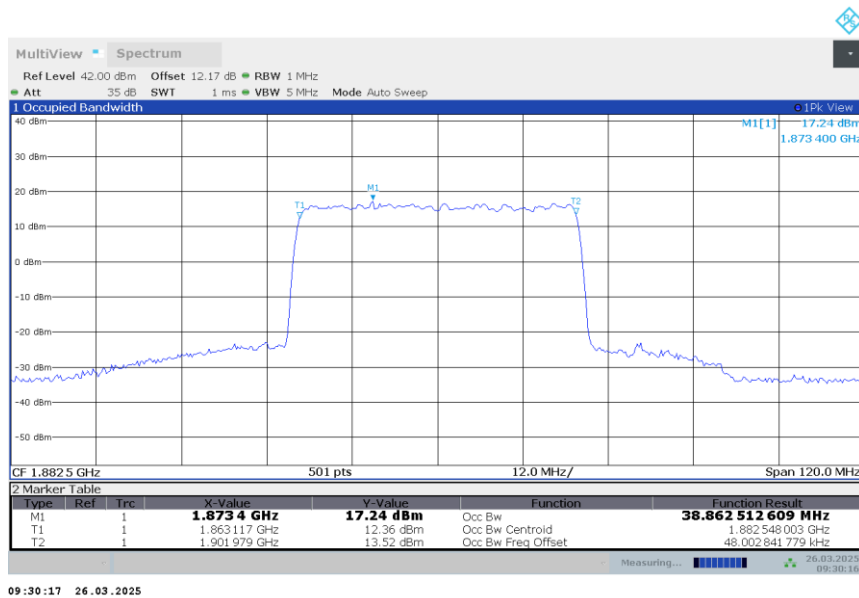
n25,40MHz(99%)

Frequency (MHz)	Occupied Bandwidth (99%) (MHz)		
	DFT-s-pi/2 BPSK	DFT-s-QPSK	DFT-s-16QAM
1882.5	38.985	38.863	38.870

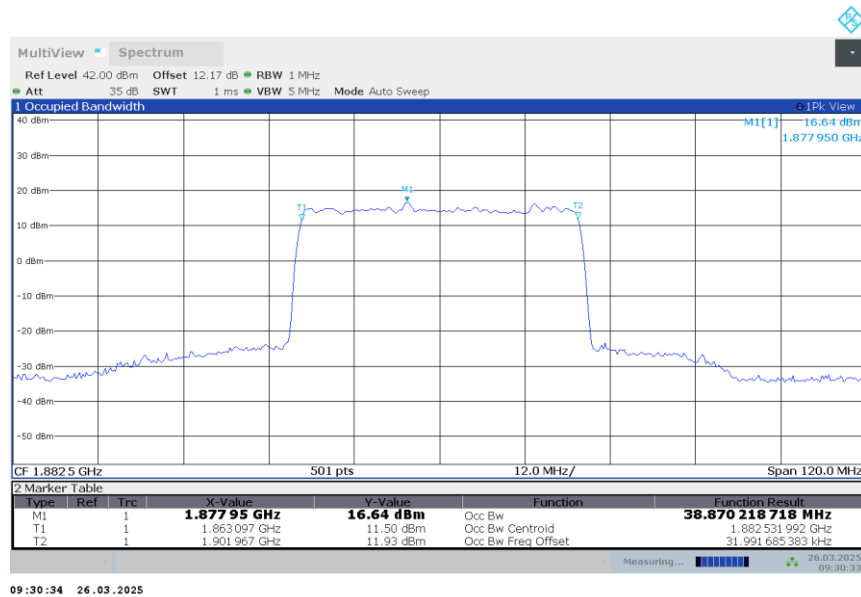
n25,40MHz Bandwidth,DFT-s-pi/2 BPSK (99% BW)



n25,40MHz Bandwidth,DFT-s-QPSK (99% BW)



n25,40MHz Bandwidth,DFT-s-16QAM (99% BW)

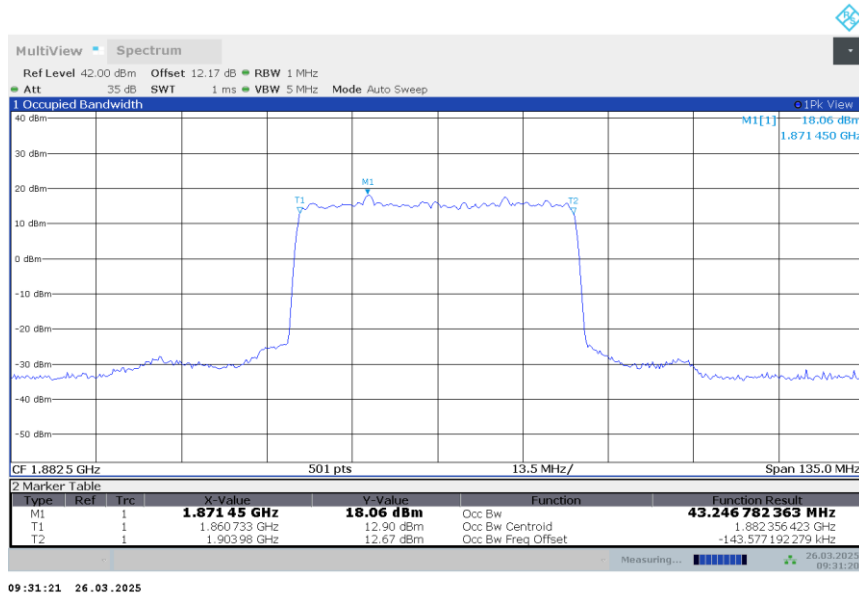


n25

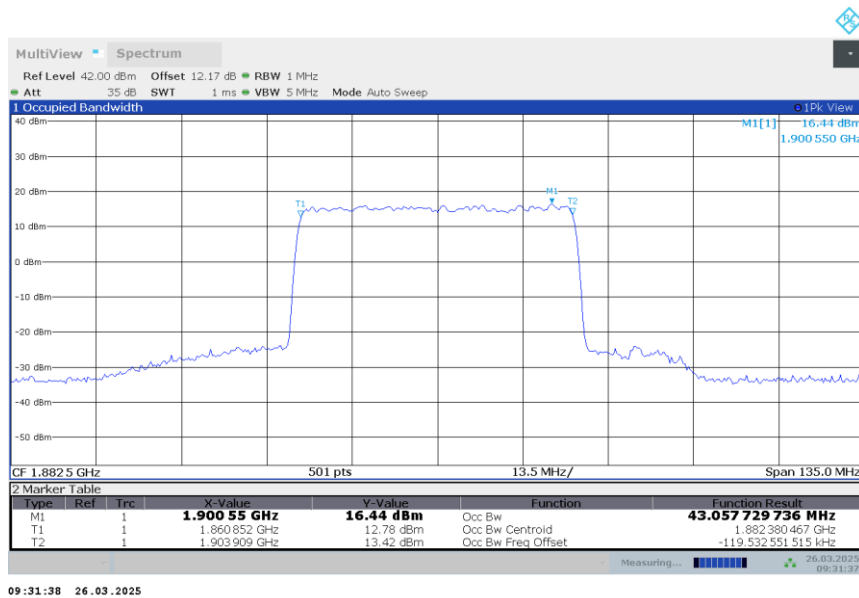
n25,45MHz(99%)

Frequency (MHz)	Occupied Bandwidth (99%) (MHz)		
	DFT-s-pi/2 BPSK	DFT-s-QPSK	DFT-s-16QAM
1882.5	43.247	43.058	43.089

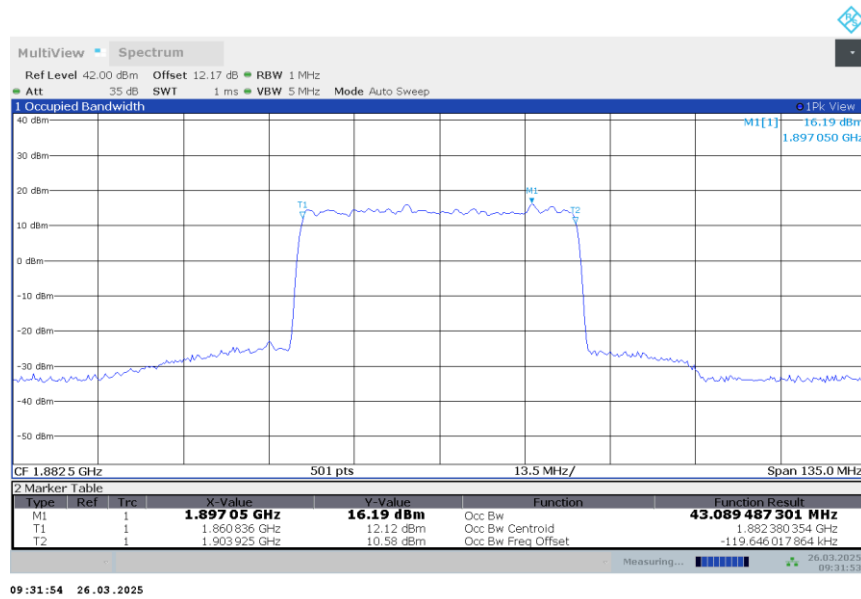
n25,45MHz Bandwidth,DFT-s-pi/2 BPSK (99% BW)



n25,45MHz Bandwidth,DFT-s-QPSK (99% BW)



n25,45MHz Bandwidth,DFT-s-16QAM (99% BW)

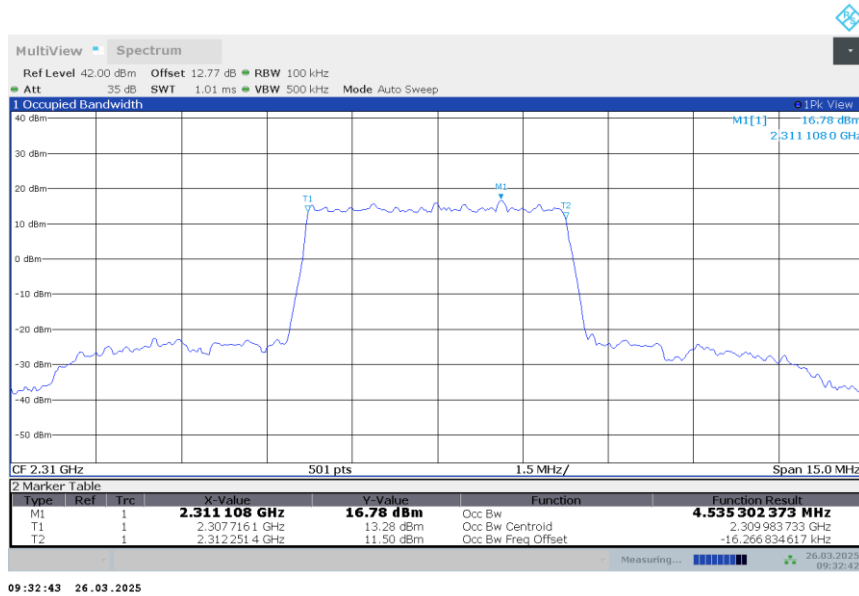


n30

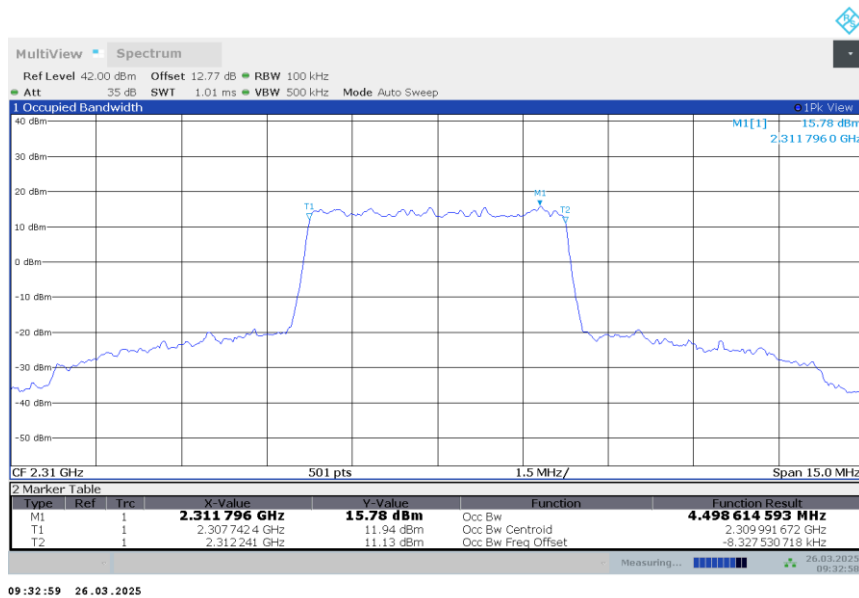
n30,5MHz(99%)

Frequency (MHz)	Occupied Bandwidth (99%) (MHz)		
	DFT-s-pi/2 BPSK	DFT-s-QPSK	DFT-s-16QAM
2310	4.535	4.499	4.523

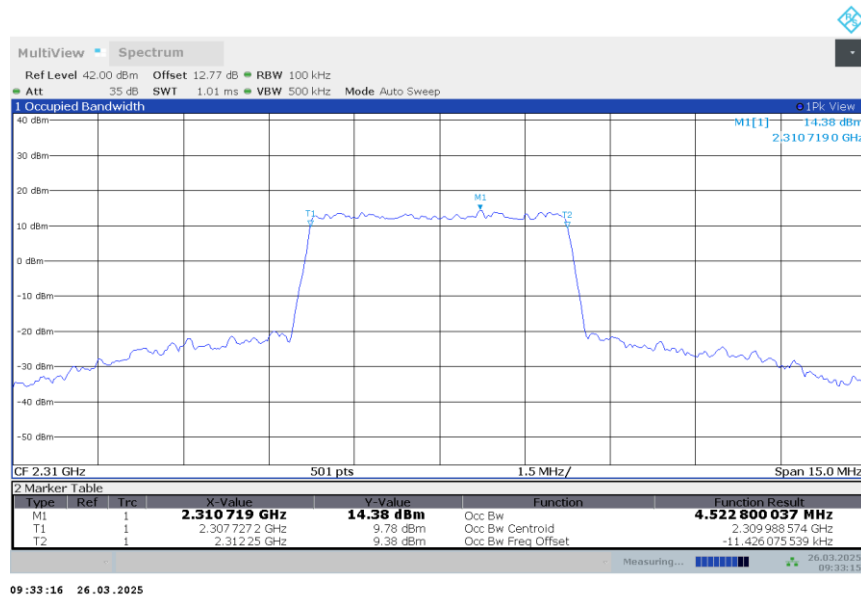
n30,5MHz Bandwidth,DFT-s-pi/2 BPSK (99% BW)



n30,5MHz Bandwidth,DFT-s-QPSK (99% BW)



n30,5MHz Bandwidth,DFT-s-16QAM (99% BW)

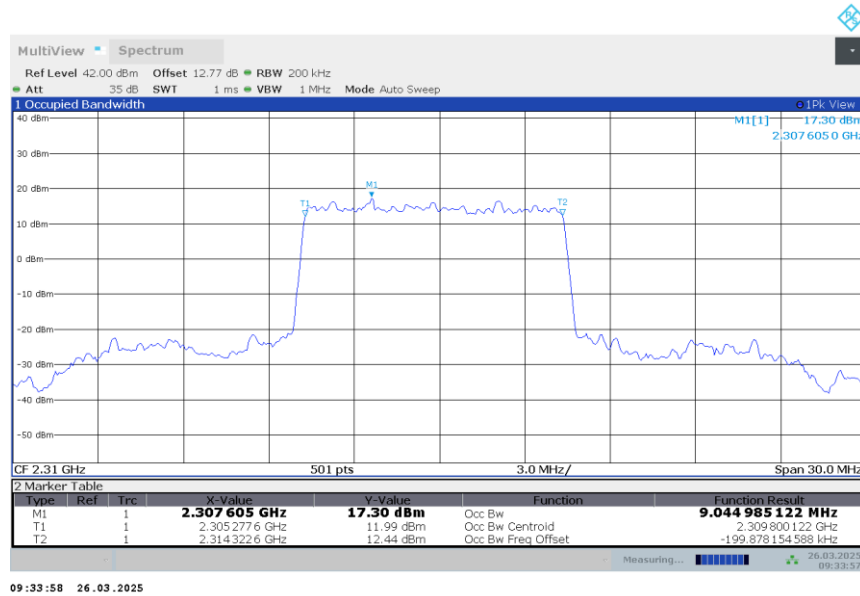


n30

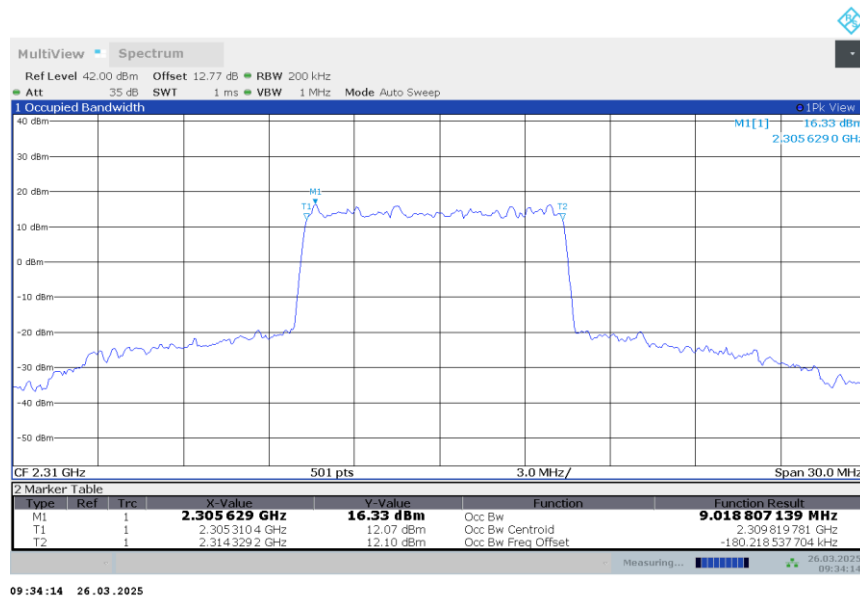
n30,10MHz(99%)

Frequency (MHz)	Occupied Bandwidth (99%) (MHz)		
	DFT-s-pi/2 BPSK	DFT-s-QPSK	DFT-s-16QAM
2310	9.045	9.019	9.013

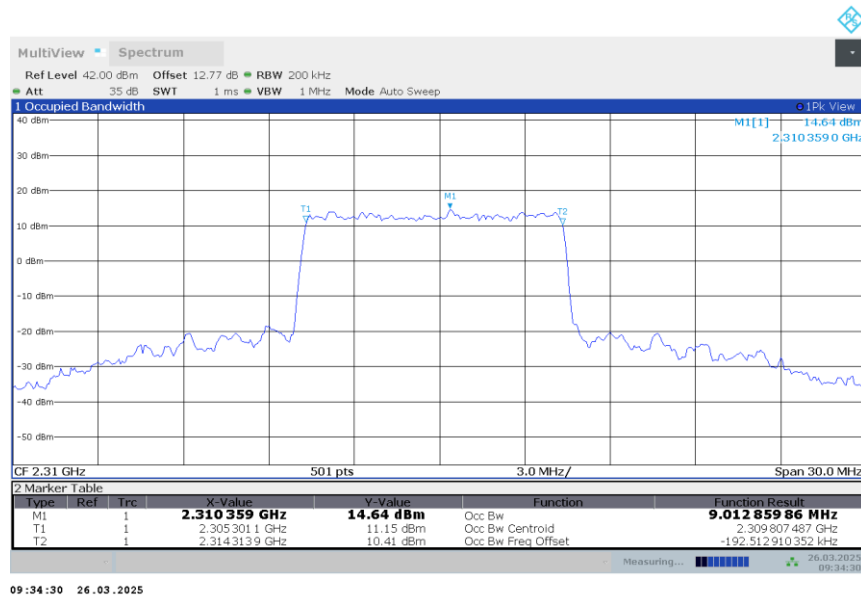
n30,10MHz Bandwidth,DFT-s-pi/2 BPSK (99% BW)



n30,10MHz Bandwidth,DFT-s-QPSK (99% BW)



n30,10MHz Bandwidth,DFT-s-16QAM (99% BW)

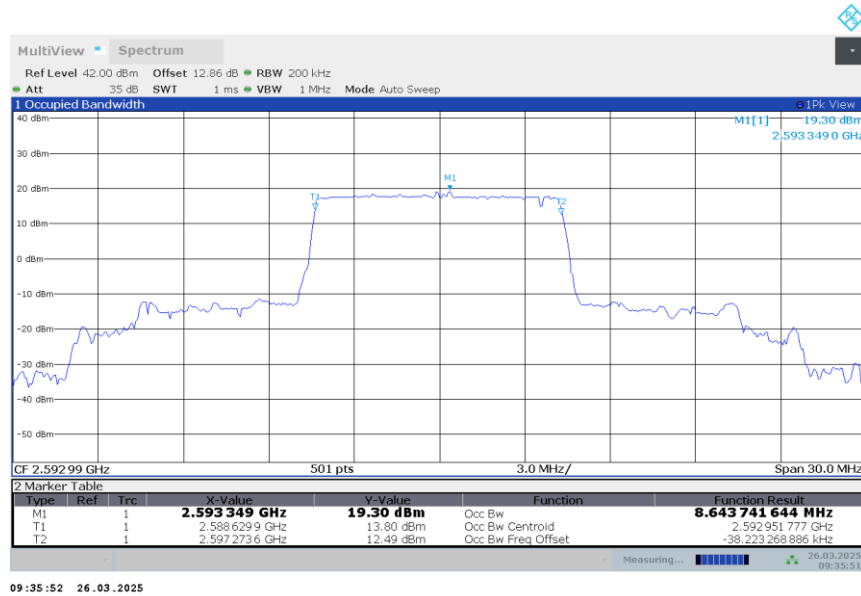


n41

n41,10MHz(99%)

Frequency (MHz)	Occupied Bandwidth (99%) (MHz)		
	DFT-s-pi/2 BPSK	DFT-s-QPSK	DFT-s-16QAM
2592.99	8.644	8.670	8.637

n41,10MHz Bandwidth,DFT-s-pi/2 BPSK (99% BW)



n41,10MHz Bandwidth,DFT-s-QPSK (99% BW)

