

DC_7A_n66A, LTE 5MHz+NR 1.4MHz,DFT-OFDM, QPSK, Channel NR 342500

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Peak ERP(dBm)	Limit (dBm)	Polarization
10548.46	-55.12	2.30	10.80	-46.62	-13.00	H
11272.62	-54.38	2.60	10.50	-46.48	-13.00	V
12547.85	-57.14	2.40	13.80	-45.74	-13.00	V
13374.92	-55.92	2.30	13.30	-44.92	-13.00	H
14836.15	-52.05	2.70	11.20	-43.55	-13.00	V
16936.62	-53.99	2.90	16.50	-40.39	-13.00	V

DC_7A_n66A, LTE 5MHz+NR 1.4MHz,DFT-OFDM, QPSK, Channel NR 349000

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Peak ERP(dBm)	Limit (dBm)	Polarization
9478.15	-57.63	2.10	11.60	-48.13	-13.00	V
10433.08	-55.46	2.30	11.30	-46.46	-13.00	H
11870.31	-55.46	2.50	11.00	-46.96	-13.00	V
13362.92	-55.83	2.30	13.30	-44.83	-13.00	V
15885.69	-55.29	2.40	15.60	-42.09	-13.00	V
17775.69	-50.60	3.60	12.80	-41.40	-13.00	V

DC_7A_n66A, LTE 5MHz+NR 1.4MHz,DFT-OFDM, QPSK, Channel NR 355500

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Peak ERP(dBm)	Limit (dBm)	Polarization
6688.62	-59.17	1.80	12.40	-48.57	-13.00	V
7913.54	-58.68	1.70	11.30	-49.08	-13.00	V
9491.54	-57.74	2.10	11.60	-48.24	-13.00	V
10908.46	-54.39	2.40	10.80	-45.99	-13.00	H
13423.85	-55.61	2.30	13.30	-44.61	-13.00	H
17040.46	-51.61	2.90	14.50	-40.01	-13.00	H

Note: The maximum value of expanded measurement uncertainty for this test item is U = 2.87dB(30MHz-3GHz)/3.35dB(3GHz-18GHz)/2.68dB(18GHz-40GHz), k = 2

**Down antenna****DC_7A_n5A, LTE 5MHz+NR 1.4MHz,DFT-OFDM, QPSK, Channel NR 165300**

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Peak ERP(dBm)	Limit (dBm)	Polarization
3298.12	-52.74	1.10	11.50	-42.34	-13.00	H
4179.00	-56.93	1.20	12.40	-45.73	-13.00	H
5674.50	-57.00	1.30	13.10	-45.20	-13.00	H
6878.57	-59.14	1.80	12.40	-48.54	-13.00	V
8268.14	-57.75	1.90	11.30	-48.35	-13.00	V
9542.14	-56.96	2.10	11.20	-47.86	-13.00	V

DC_7A_n5A, LTE 5MHz+NR 1.4MHz,DFT-OFDM, QPSK, Channel NR 167300

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Peak ERP(dBm)	Limit (dBm)	Polarization
3940.50	-58.38	1.30	12.20	-47.48	-13.00	H
4582.50	-57.20	1.30	12.50	-46.00	-13.00	V
5966.25	-56.18	1.50	13.10	-44.58	-13.00	V
6915.57	-59.55	1.80	12.40	-48.95	-13.00	V
8173.86	-57.13	2.20	11.30	-48.03	-13.00	H
9508.86	-56.75	2.10	11.20	-47.65	-13.00	H

DC_7A_n5A, LTE 5MHz+NR 1.4MHz,DFT-OFDM, QPSK, Channel NR 169300

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Peak ERP(dBm)	Limit (dBm)	Polarization
3377.62	-54.05	1.10	11.50	-43.65	-13.00	V
4191.75	-57.60	1.20	12.40	-46.40	-13.00	H
5123.62	-57.30	1.30	12.50	-46.10	-13.00	H
6495.14	-59.00	1.70	13.10	-47.60	-13.00	V
7808.14	-57.70	1.80	11.30	-48.20	-13.00	V
8924.71	-58.43	1.90	12.00	-48.33	-13.00	H

**DC_2A_n7A, LTE 1.4MHz+NR 5MHz,DFT-OFDM, QPSK, Channel NR 500500**

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Peak ERP(dBm)	Limit (dBm)	Polarization
3755.62	-48.13	1.10	12.20	-37.03	-25.00	V
5634.38	-46.69	1.30	13.10	-34.89	-25.00	H
7511.54	-48.17	1.90	11.30	-38.77	-25.00	H
9390.00	-46.92	2.10	11.60	-37.42	-25.00	H
14886.00	-51.21	2.70	11.20	-42.71	-25.00	V
17928.00	-49.96	3.20	12.80	-40.36	-25.00	V

DC_2A_n7A, LTE 1.4MHz+NR 5MHz,DFT-OFDM, QPSK, Channel NR 507000

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Peak ERP(dBm)	Limit (dBm)	Polarization
3756.00	-49.22	1.10	12.20	-38.12	-25.00	V
5634.38	-51.92	1.30	13.10	-40.12	-25.00	H
7793.54	-58.55	1.80	11.30	-49.05	-25.00	H
10866.92	-55.43	2.30	10.80	-46.93	-25.00	V
12885.23	-55.64	2.70	13.80	-44.54	-25.00	V
16940.31	-53.67	2.90	16.50	-40.07	-25.00	H

DC_2A_n7A, LTE 1.4MHz+NR 5MHz,DFT-OFDM, QPSK, Channel NR 513500

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Peak ERP(dBm)	Limit (dBm)	Polarization
3758.62	-45.05	1.10	12.20	-33.95	-25.00	V
5638.50	-40.71	1.30	13.10	-28.91	-25.00	H
7517.54	-48.79	1.90	11.30	-39.39	-25.00	H
9397.38	-48.59	2.10	11.60	-39.09	-25.00	H
14839.85	-51.81	2.70	11.20	-43.31	-25.00	H
16814.31	-53.73	2.90	16.50	-40.13	-25.00	H

**n38, 20MHz,DFT-OFDM, QPSK, Channel 515000**

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Peak ERP(dBm)	Limit (dBm)	Polarization
5054.25	-57.76	1.30	12.50	-46.56	-25.00	V
5982.38	-55.97	1.50	13.10	-44.37	-25.00	V
8910.46	-57.49	1.90	12.00	-47.39	-25.00	H
10449.69	-55.95	2.30	11.30	-46.95	-25.00	V
12875.08	-55.87	2.70	13.80	-44.77	-25.00	H
16774.15	-53.61	2.90	16.50	-40.01	-25.00	V

n38, 20MHz,DFT-OFDM, QPSK, Channel 519000

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Peak ERP(dBm)	Limit (dBm)	Polarization
4232.25	-58.96	1.20	12.40	-47.76	-25.00	H
5977.12	-56.55	1.50	13.10	-44.95	-25.00	V
7813.85	-58.46	1.80	11.30	-48.96	-25.00	V
10433.54	-55.80	2.30	11.30	-46.80	-25.00	V
13386.92	-55.31	2.30	13.30	-44.31	-25.00	H
16948.62	-53.65	2.90	16.50	-40.05	-25.00	H

n38, 20MHz,DFT-OFDM, QPSK, Channel 523000

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Peak ERP(dBm)	Limit (dBm)	Polarization
9483.23	-56.79	2.10	11.60	-47.29	-25.00	V
10864.62	-54.65	2.30	10.80	-46.15	-25.00	H
12301.38	-55.31	2.60	12.60	-45.31	-25.00	V
13425.23	-55.15	2.50	13.30	-44.35	-25.00	H
14936.31	-51.86	2.70	11.20	-43.36	-25.00	H
16994.31	-54.18	2.90	16.50	-40.58	-25.00	H

n41, 20MHz,DFT-OFDM, QPSK, Channel 500202

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Peak ERP(dBm)	Limit (dBm)	Polarization
4527.00	-58.07	1.20	12.50	-46.77	-25.00	H
5886.75	-56.89	1.50	13.10	-45.29	-25.00	V
8986.62	-58.00	2.00	12.00	-48.00	-25.00	V
12278.77	-55.63	2.60	12.60	-45.63	-25.00	V
14970.92	-51.61	2.70	11.20	-43.11	-25.00	V
17039.08	-51.84	2.90	14.50	-40.24	-25.00	V

n41, 20MHz,DFT-OFDM, QPSK, Channel 518598

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Peak ERP(dBm)	Limit (dBm)	Polarization
4645.88	-57.36	1.30	12.50	-46.16	-25.00	V
5980.50	-55.89	1.50	13.10	-44.29	-25.00	V
8890.62	-58.50	1.90	12.00	-48.40	-25.00	H
10938.46	-54.89	2.40	10.80	-46.49	-25.00	V
13381.85	-55.13	2.30	13.30	-44.13	-25.00	H
16953.69	-53.10	2.90	16.50	-39.50	-25.00	H

n41, 20MHz,DFT-OFDM, QPSK, Channel 537000

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Peak ERP(dBm)	Limit (dBm)	Polarization
5215.12	-57.60	1.60	12.50	-46.70	-25.00	V
5926.12	-55.64	1.50	13.10	-44.04	-25.00	H
8219.08	-57.75	2.20	11.30	-48.65	-25.00	H
10591.85	-54.82	2.20	10.80	-46.22	-25.00	H
13430.31	-55.19	2.50	13.30	-44.39	-25.00	H
17077.38	-51.31	2.90	14.50	-39.71	-25.00	H

DC_7A_n66A, LTE 5MHz+NR 1.4MHz,DFT-OFDM, QPSK, Channel NR 342500

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Peak ERP(dBm)	Limit (dBm)	Polarization
8177.54	-56.81	2.20	11.30	-47.71	-13.00	H
9517.38	-56.85	2.10	11.20	-47.75	-13.00	H
11149.38	-53.88	2.50	10.50	-45.88	-13.00	V
12882.46	-54.14	2.70	13.80	-43.04	-13.00	H
14874.46	-51.59	2.70	11.20	-43.09	-13.00	H
16864.15	-53.70	2.90	16.50	-40.10	-13.00	H

DC_7A_n66A, LTE 5MHz+NR 1.4MHz,DFT-OFDM, QPSK, Channel NR 349000

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Peak ERP(dBm)	Limit (dBm)	Polarization
7016.77	-59.02	1.80	12.00	-48.82	-13.00	H
8293.85	-57.80	1.90	11.30	-48.40	-13.00	V
10418.77	-55.79	2.30	11.30	-46.79	-13.00	H
13337.08	-55.87	2.30	13.30	-44.87	-13.00	H
14954.31	-51.76	2.70	11.20	-43.26	-13.00	H
17080.15	-51.57	2.90	14.50	-39.97	-13.00	H

DC_7A_n66A, LTE 5MHz+NR 1.4MHz,DFT-OFDM, QPSK, Channel NR 355500

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Peak ERP(dBm)	Limit (dBm)	Polarization
8246.77	-57.74	1.90	11.30	-48.34	-13.00	V
9484.62	-57.68	2.10	11.60	-48.18	-13.00	H
10836.00	-55.24	2.30	10.80	-46.74	-13.00	V
12876.92	-55.47	2.70	13.80	-44.37	-13.00	H
14877.23	-51.40	2.70	11.20	-42.90	-13.00	V
16914.92	-54.45	2.90	16.50	-40.85	-13.00	V

Note: The maximum value of expanded measurement uncertainty for this test item is

U = 2.87dB(30MHz-3GHz)/3.35dB(3GHz-18GHz)/2.68dB(18GHz-40GHz), k = 2



A.3 FREQUENCY STABILITY

Reference

FCC: CFR Part 2.1055, 22.355, 27.54.

A.3.1 Method of Measurement

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 E7515B DIGITAL RADIO COMMUNICATION TESTER.

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 E7515B and in a simulated call on middle channel, 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 E7515B and in a simulated call on the centre 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 increments 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.

A.3.2 Measurement Limit

According to the JTC standard the frequency stability of the carrier shall be accurate to within 0.1 ppm of the received frequency from the base station. This accuracy is sufficient to meet Sec. 24.235, Frequency Stability. 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 between 3.6V and 4.45V, with a nominal voltage of 3.87V. 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. These voltages represent a tolerance from -7% to 15%. For the purposes of measuring frequency stability these voltage limits are to be used.

A.3.3 Measurement results

DC_7A-n5A

Frequency Error vs Temperature

Temperature(°C)	Voltage(V)	FL(MHz)	FH(MHz)	Offset(Hz)	Frequency error(ppm)
50	3.87	824.256	848.672	1.11	0.0013
40				-4.20	0.0050
30				-5.10	0.0061
20				-0.70	0.0008
10				-1.10	0.0013
0				-2.30	0.0027
-10				-2.40	0.0029
-20				-2.80	0.0033
-30				-0.20	0.0002

Frequency Error vs Voltage

Voltage(V)	Temperature(°C)	FL(MHz)	FH(MHz)	Offset(Hz)	Frequency error(ppm)
3.45	20	824.256	848.672	-2.90	0.0035
4.45				-1.40	0.0017

DC_2A-n7A

Frequency Error vs Temperature

Temperature(°C)	Voltage(V)	FL(MHz)	FH(MHz)	Offset(Hz)	Frequency error(ppm)
50	3.87	2500.272	2569.624	1.62	0.0006
40				-4.20	0.0017
30				-6.80	0.0027
20				-6.70	0.0026
10				-1.60	0.0006
0				-5.10	0.0020
-10				-5.40	0.0021
-20				-4.10	0.0016
-30				-4.50	0.0018

Frequency Error vs Voltage

Voltage(V)	Temperature(°C)	FL(MHz)	FH(MHz)	Offset(Hz)	Frequency error(ppm)
3.45	20	2500.272	2569.624	-1.80	0.0007
4.45				2.60	0.0010



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Frequency Error vs Temperature

Temperature(°C)	Voltage(V)	FL(MHz)	FH(MHz)	Offset(Hz)	Frequency error(ppm)
50	3.87	2570.720	2619.880	-7.92	0.0030
40				-6.20	0.0024
30				-3.30	0.0013
20				-13.00	0.0050
10				-10.40	0.0040
0				-9.00	0.0035
-10				-7.90	0.0030
-20				-8.90	0.0034
-30				-9.90	0.0038

Frequency Error vs Voltage

Voltage(V)	Temperature(°C)	FL(MHz)	FH(MHz)	Offset(Hz)	Frequency error(ppm)
3.45	20	2570.720	2619.880	-7.80	0.0030
4.45				-10.90	0.0042

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Frequency Error vs Temperature

Temperature(°C)	Voltage(V)	FL(MHz)	FH(MHz)	Offset(Hz)	Frequency error(ppm)
50	3.87	2496.760	2689.120	5.73	0.0022
40				5.50	0.0021
30				5.70	0.0022
20				2.20	0.0008
10				-0.70	0.0003
0				7.10	0.0027
-10				15.00	0.0058
-20				5.80	0.0022
-30				6.90	0.0027

Frequency Error vs Voltage

Voltage(V)	Temperature(°C)	FL(MHz)	FH(MHz)	Offset(Hz)	Frequency error(ppm)
3.45	20	2496.760	2689.120	6.30	0.0024
4.45				2.00	0.0008



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Frequency Error vs Temperature

Temperature(°C)	Voltage(V)	FL(MHz)	FH(MHz)	Offset(Hz)	Frequency error(ppm)
50	3.87	1710.064	1779.920	1.02	0.0006
40				1.50	0.0009
30				1.00	0.0006
20				0.30	0.0002
10				1.20	0.0007
0				3.70	0.0021
-10				3.30	0.0019
-20				4.00	0.0023
-30				5.20	0.0030

Frequency Error vs Voltage

Voltage(V)	Temperature(°C)	FL(MHz)	FH(MHz)	Offset(Hz)	Frequency error(ppm)
3.45	20	1710.064	1779.920	1.60	0.0009
4.45				3.60	0.0021

Expanded measurement uncertainty is 10Hz, $k = 2$



A.4 OCCUPIED BANDWIDTH&26dB Emission Bandwidth

Reference

FCC: CFR Part 2.1049, 22.917, 27.53.

A.4.1 Occupied Bandwidth Results

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 frequencies of the US Cellular/PCS frequency bands. The table below lists the measured 99% BW. Spectrum analyzer plots are included on the following pages.

- 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 (i.e., two to five times the OBW).
- b) The nominal IF filter bandwidth (3 dB RBW) shall be in the range of 1 to 5 % of the anticipated OBW, and the VBW shall be at least 3 times the RBW.
- c) Set the reference level of the instrument as required to keep the signal from exceeding the maximum input mixer level for linear operation. In general, the peak of the spectral envelope must be at least $10\log(\text{OBW} / \text{RBW})$ below the reference level.
- d) Set the detection mode to peak, and the trace mode to max hold.
- e) Use the 99 % power bandwidth function of the spectrum analyzer and report the measured bandwidth.

A.4.2 Emission Bandwidth Results

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. Table below lists the measured -26dBc BW. Spectrum analyzer plots are included on the following pages.



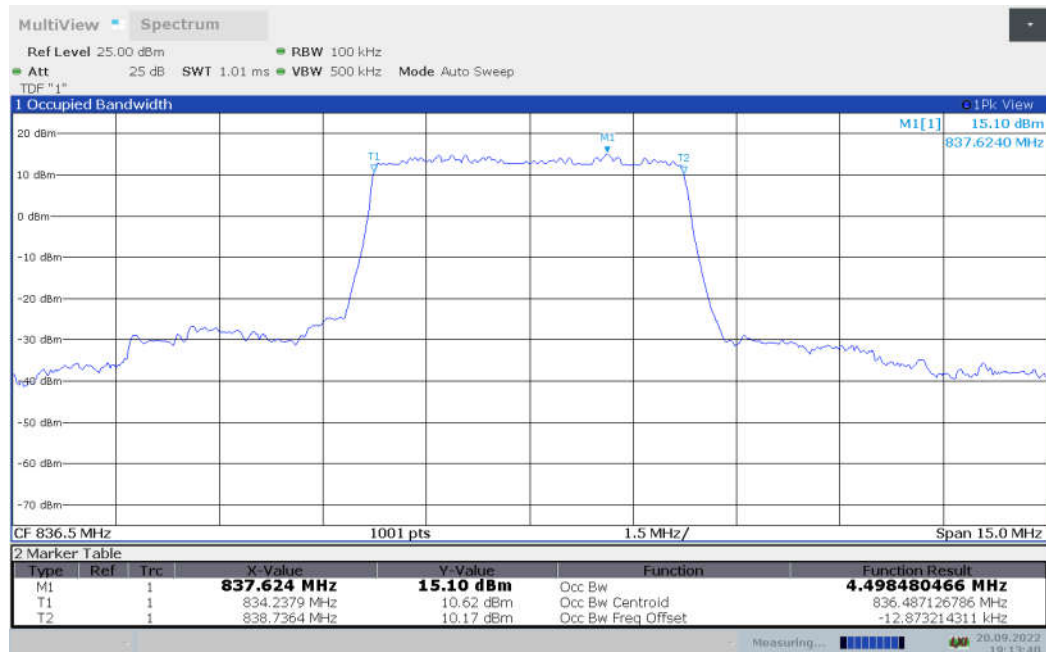
No. I22N01710-RF-NR

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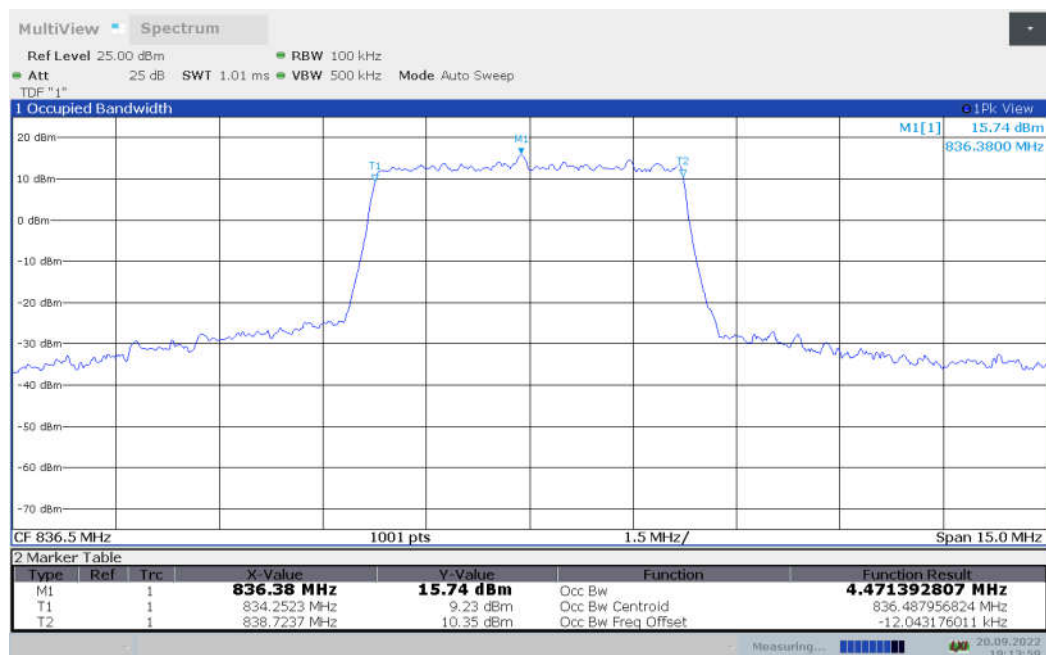
DC_7A-n5A,5MHz(99%)

Frequency (MHz)	Occupied Bandwidth (99%) (MHz)	
	DFT-s-pi/2 BPSK	DFT-s-QPSK
836.5	4.498	4.471

DC_7A-n5A,5MHz Bandwidth,DFT-s-pi/2 BPSK (99% BW)



DC_7A-n5A,5MHz Bandwidth,DFT-s-QPSK (99% BW)



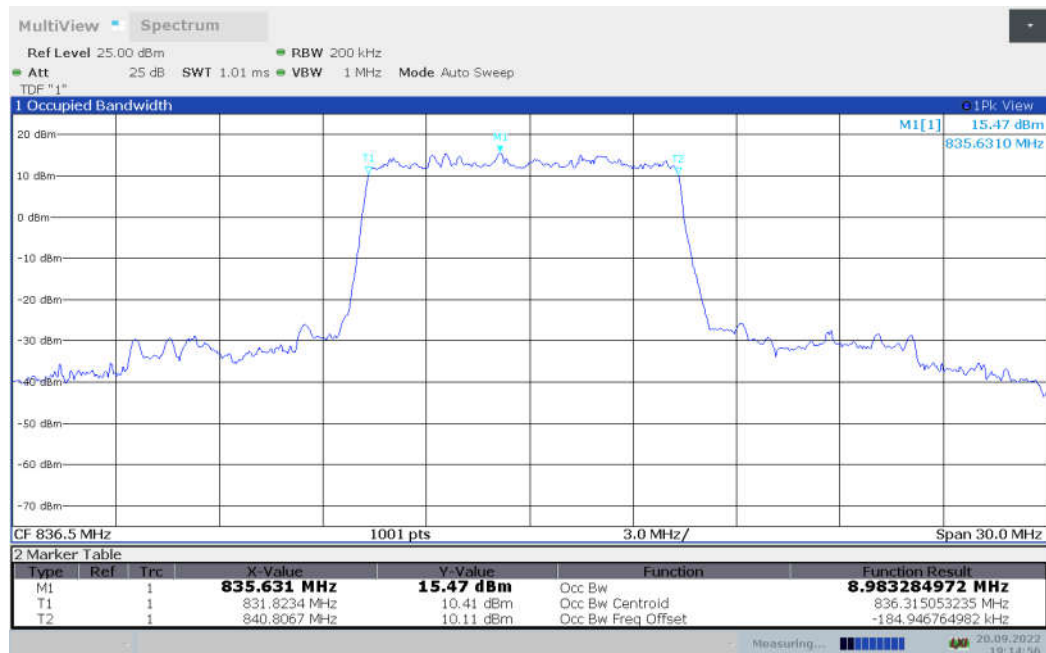


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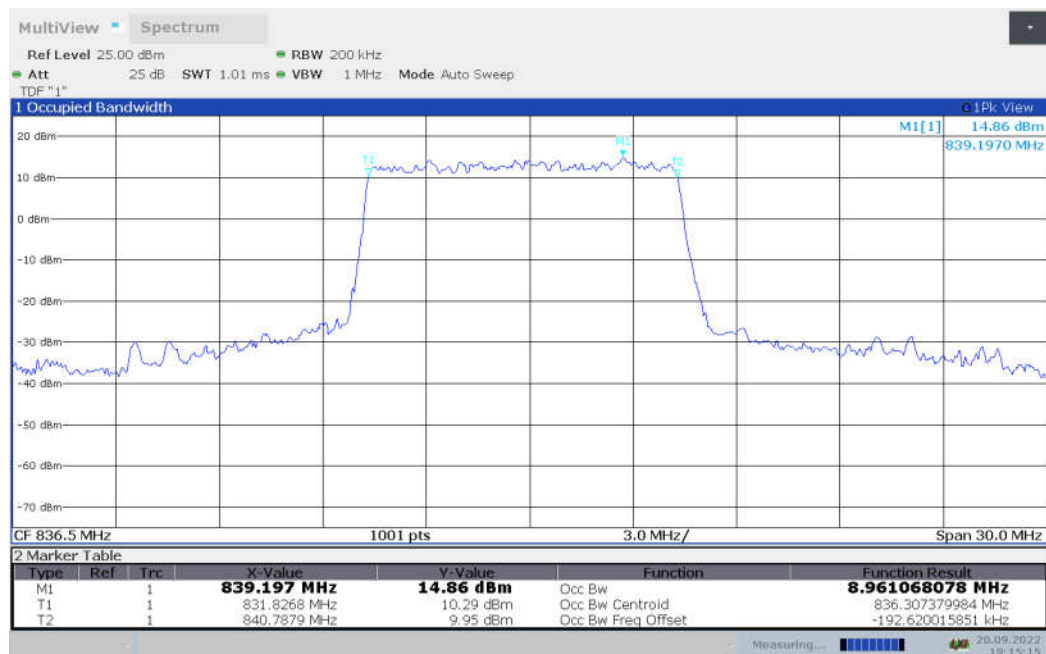
DC_7A-n5A,10MHz(99%)

Frequency (MHz)	Occupied Bandwidth (99%) (MHz)	
	DFT-s-pi/2 BPSK	DFT-s-QPSK
836.5	8.983	8.961

DC_7A-n5A,10MHz Bandwidth,DFT-s-pi/2 BPSK (99% BW)



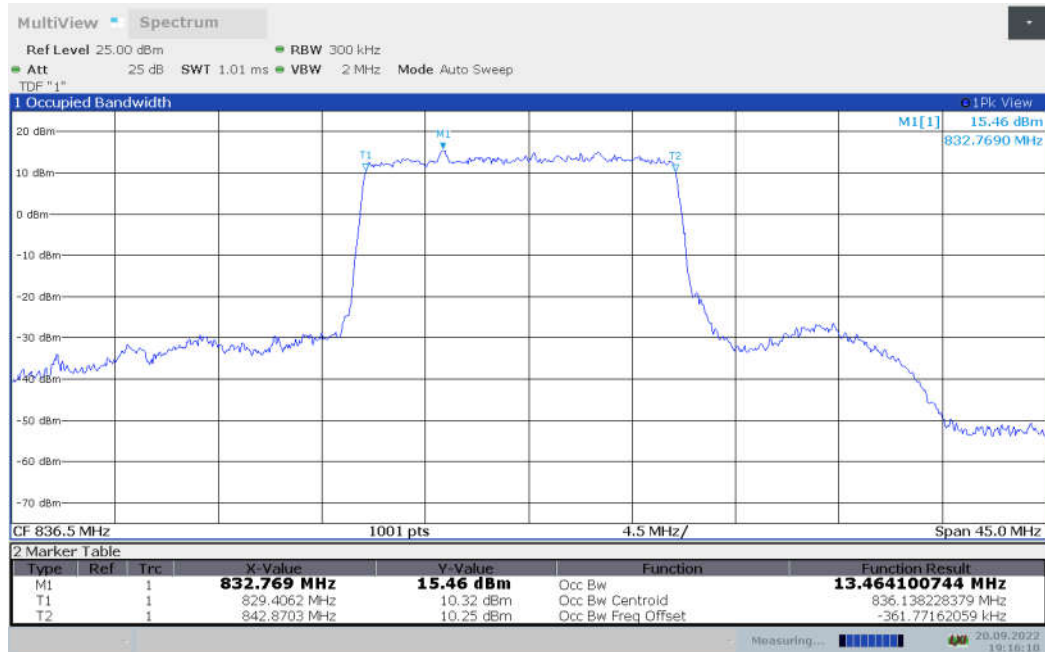
DC_7A-n5A,10MHz Bandwidth,DFT-s-QPSK (99% BW)



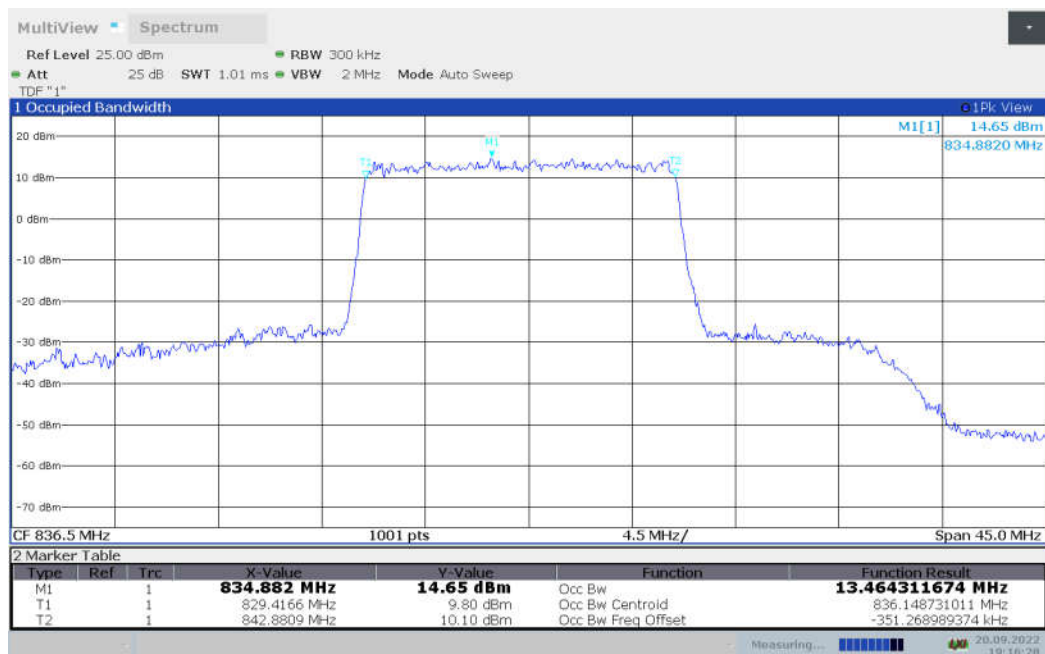
DC_7A-n5A,15MHz(99%)

Frequency (MHz)	Occupied Bandwidth (99%) (MHz)	
	DFT-s-pi/2 BPSK	DFT-s-QPSK
836.5	13.464	13.464

DC_7A-n5A,15MHz Bandwidth,DFT-s-pi/2 BPSK (99% BW)



DC_7A-n5A,15MHz Bandwidth,DFT-s-QPSK (99% BW)



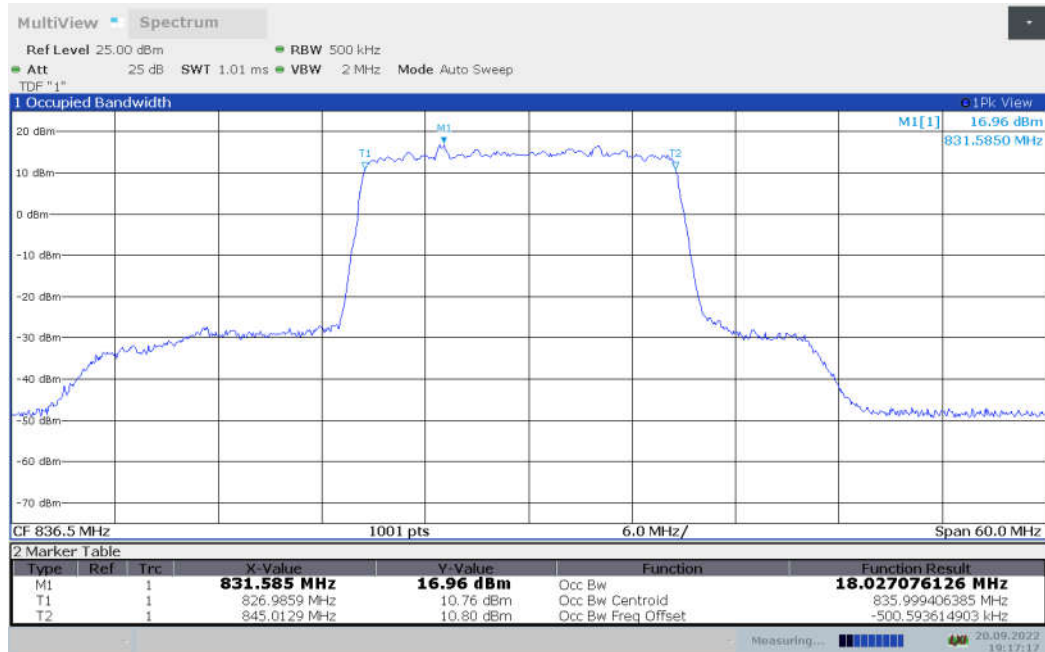


No. I22N01710-RF-NR

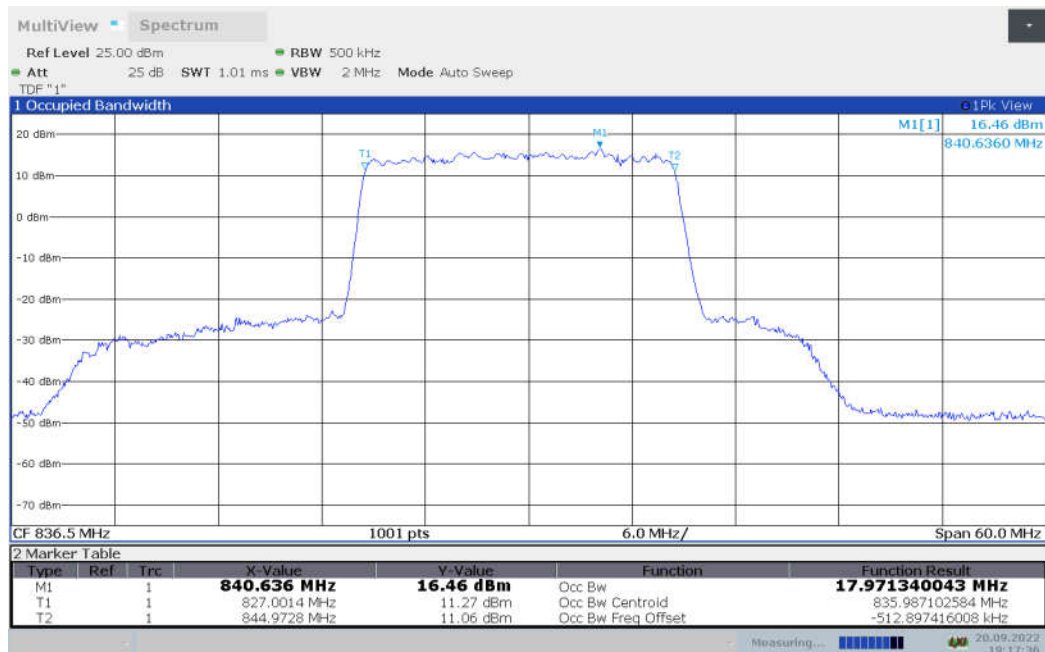
DC_7A-n5A,20MHz(99%)

Frequency (MHz)	Occupied Bandwidth (99%) (MHz)	
	DFT-s-pi/2 BPSK	DFT-s-QPSK
836.5	18.027	17.971

DC_7A-n5A,20MHz Bandwidth,DFT-s-pi/2 BPSK (99% BW)



DC_7A-n5A,20MHz Bandwidth,DFT-s-QPSK (99% BW)





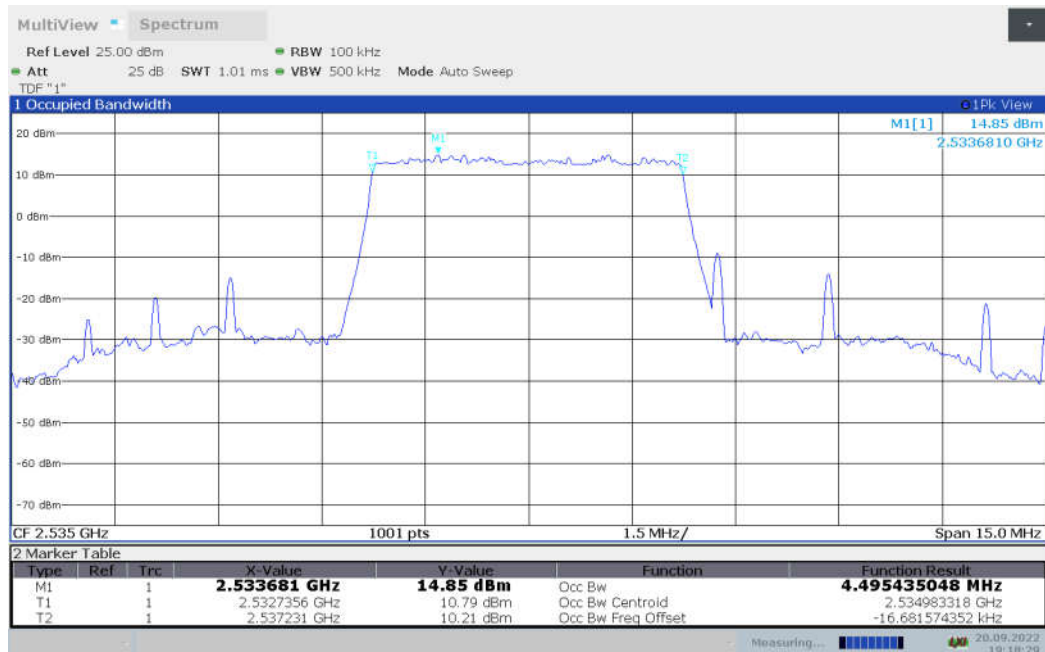
No. I22N01710-RF-NR

DC_2A-n7A

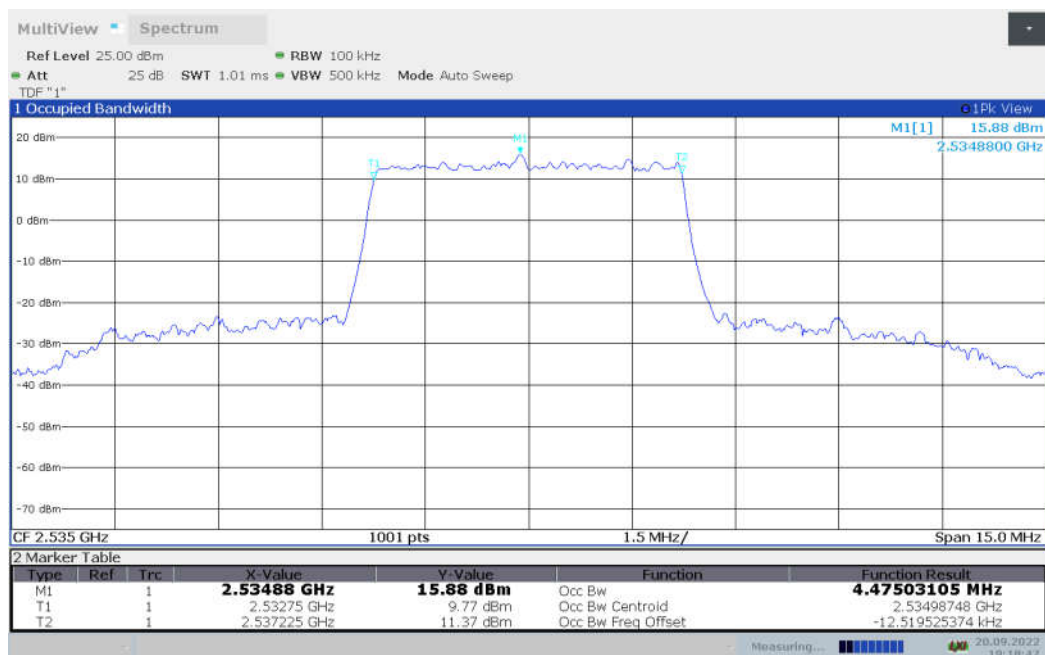
DC_2A-n7A,5MHz(99%)

Frequency (MHz)	Occupied Bandwidth (99%) (MHz)	
	DFT-s-pi/2 BPSK	DFT-s-QPSK
2535	4.495	4.475

DC_2A-n7A,5MHz Bandwidth,DFT-s-pi/2 BPSK (99% BW)



DC_2A-n7A,5MHz Bandwidth,DFT-s-QPSK (99% BW)



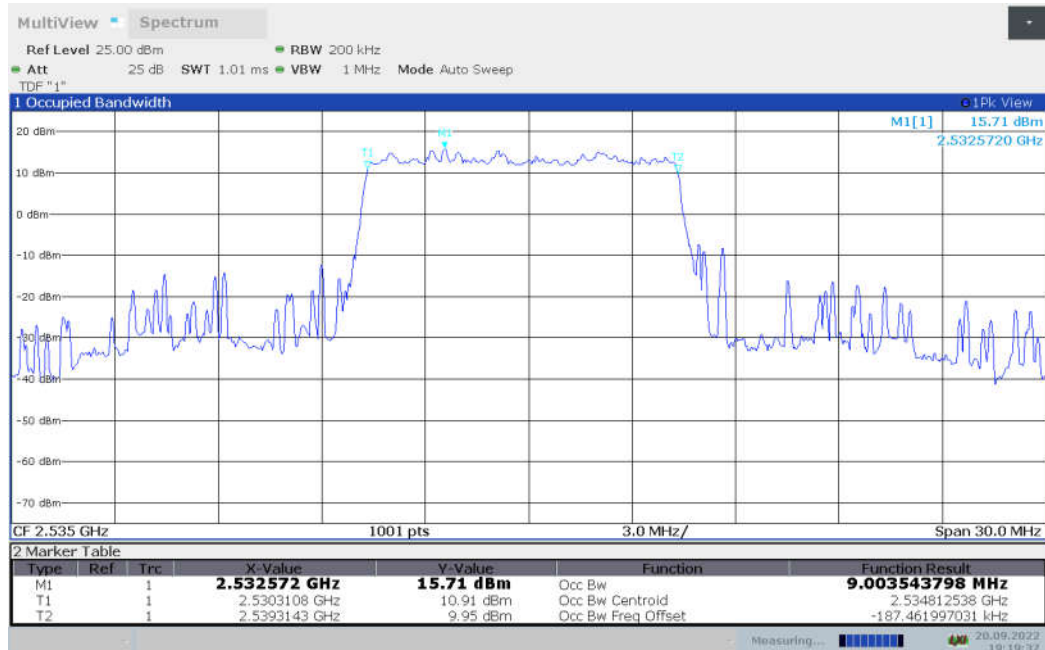


No. I22N01710-RF-NR

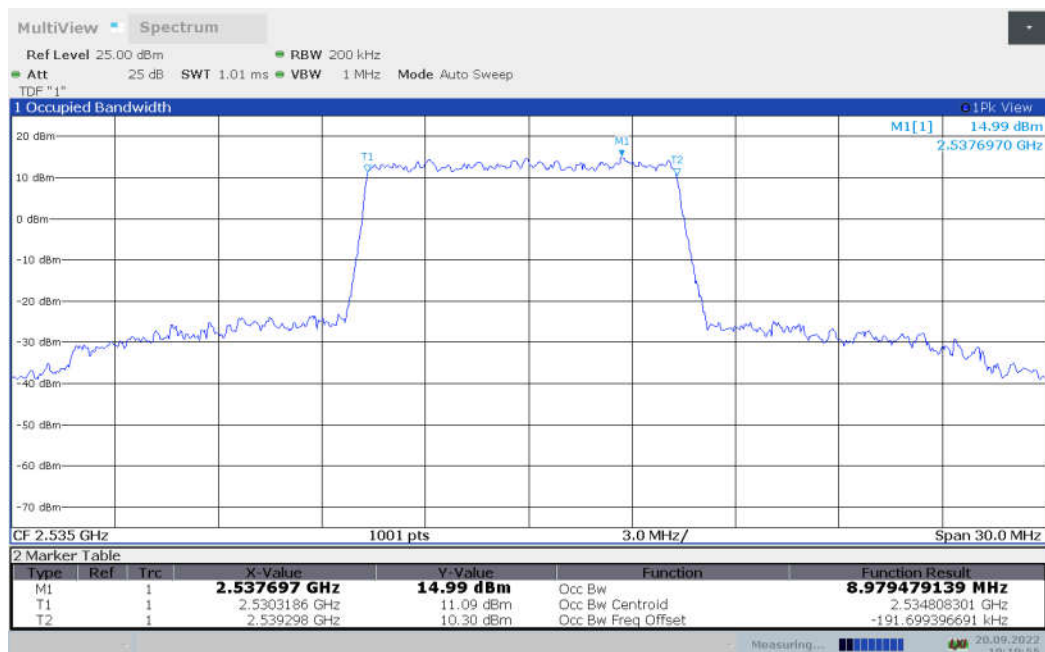
DC_2A-n7A,10MHz(99%)

Frequency (MHz)	Occupied Bandwidth (99%) (MHz)	
	DFT-s-pi/2 BPSK	DFT-s-QPSK
2535	9.004	8.979

DC_2A-n7A,10MHz Bandwidth,DFT-s-pi/2 BPSK (99% BW)



DC_2A-n7A,10MHz Bandwidth,DFT-s-QPSK (99% BW)



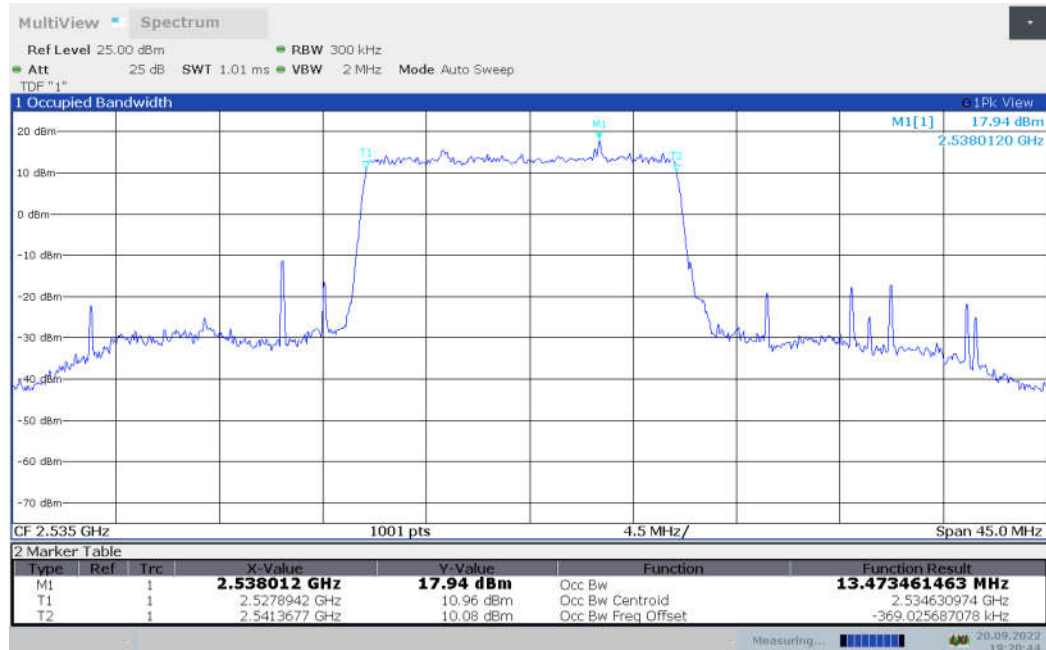


No. I22N01710-RF-NR

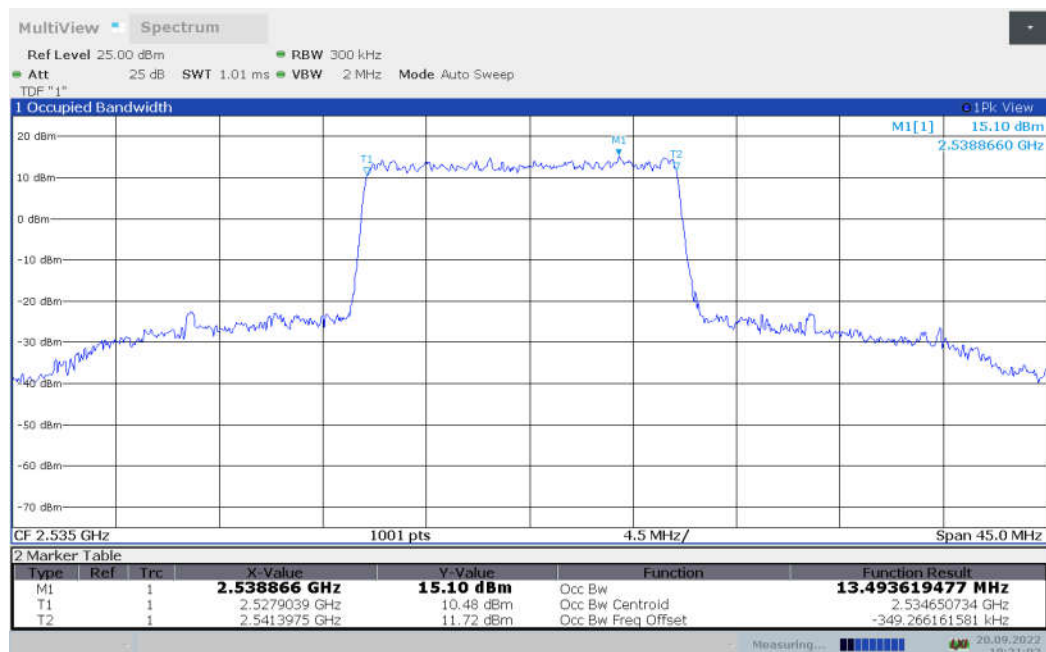
DC_2A-n7A,15MHz(99%)

Frequency (MHz)	Occupied Bandwidth (99%) (MHz)	
	DFT-s-pi/2 BPSK	DFT-s-QPSK
2535	13.473	13.494

DC_2A-n7A,15MHz Bandwidth,DFT-s-pi/2 BPSK (99% BW)



DC_2A-n7A,15MHz Bandwidth,DFT-s-QPSK (99% BW)



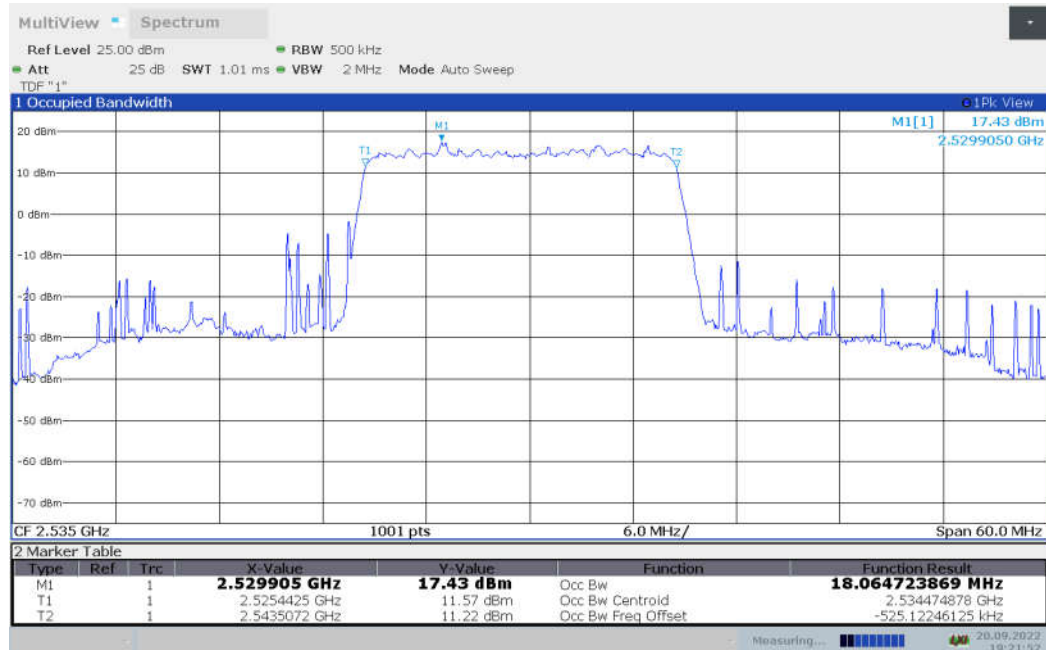


No. I22N01710-RF-NR

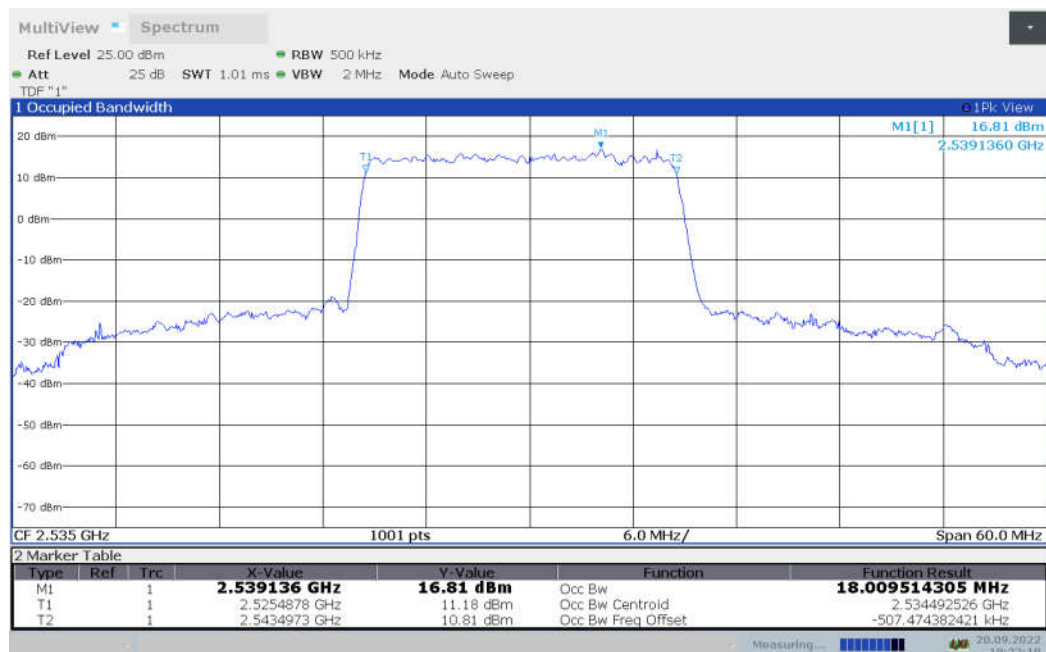
DC_2A-n7A,20MHz(99%)

Frequency (MHz)	Occupied Bandwidth (99%) (MHz)	
	DFT-s-pi/2 BPSK	DFT-s-QPSK
2535	18.065	18.010

DC_2A-n7A,20MHz Bandwidth,DFT-s-pi/2 BPSK (99% BW)



DC_2A-n7A,20MHz Bandwidth,DFT-s-QPSK (99% BW)





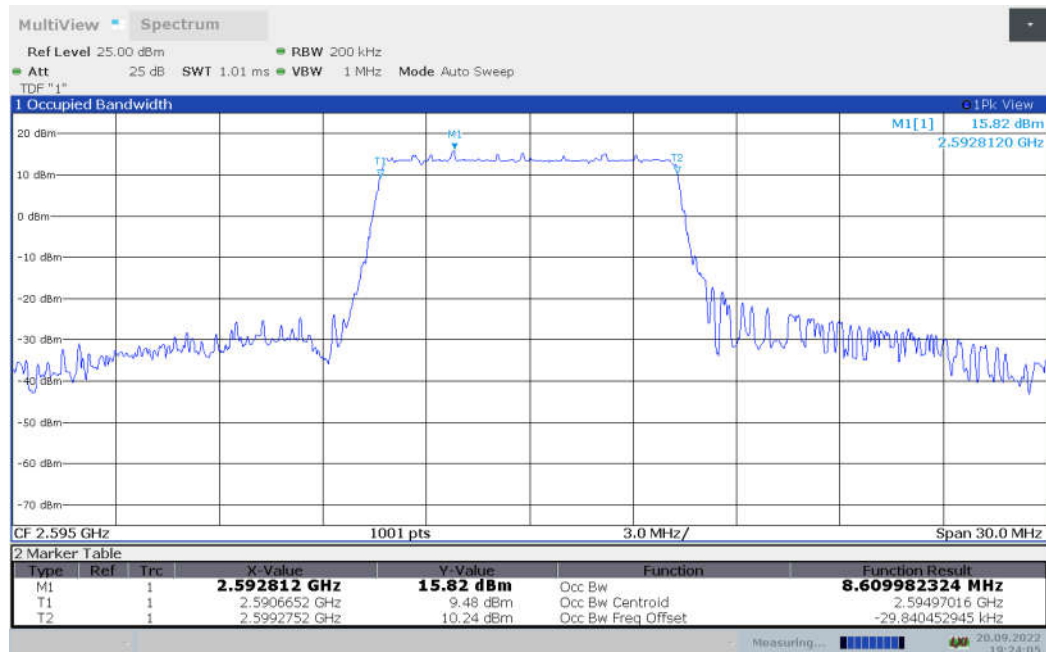
No. I22N01710-RF-NR

n38

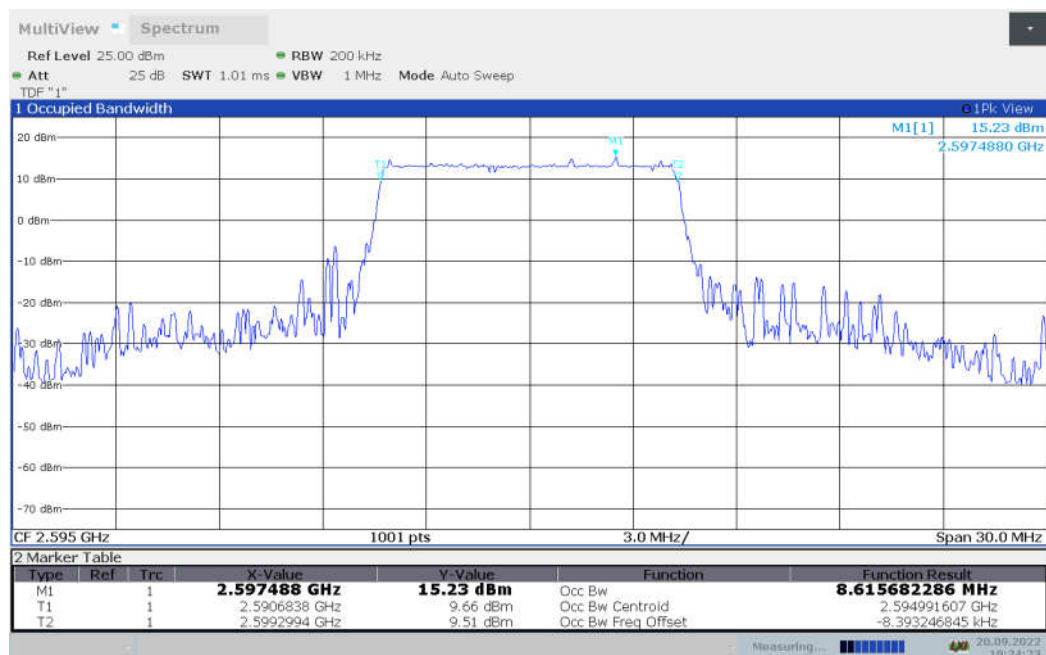
n38,10MHz(99%)

Frequency (MHz)	Occupied Bandwidth (99%) (MHz)	
	DFT-s-pi/2 BPSK	DFT-s-QPSK
2595	8.610	8.616

n38,10MHz Bandwidth,DFT-s-pi/2 BPSK (99% BW)



n38,10MHz Bandwidth,DFT-s-QPSK (99% BW)



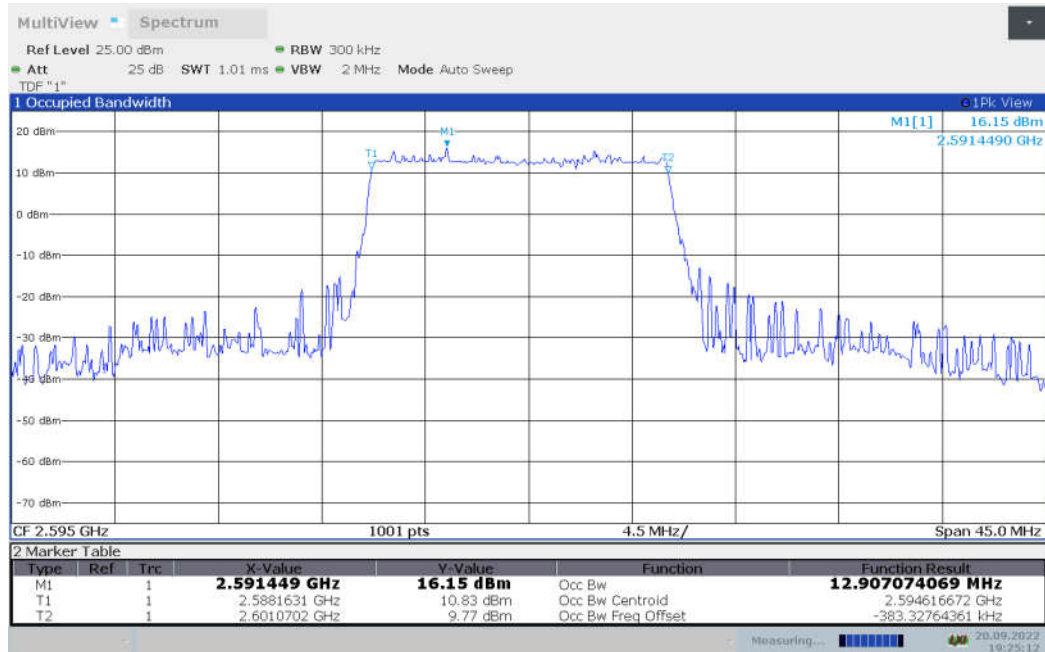


No. I22N01710-RF-NR

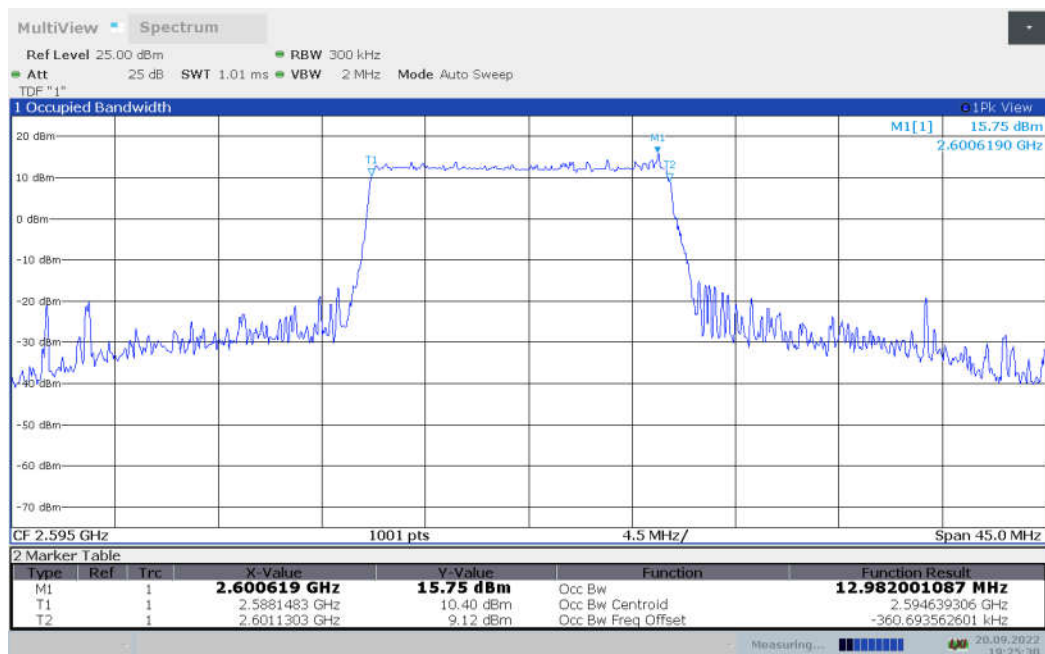
n38,15MHz(99%)

Frequency (MHz)	Occupied Bandwidth (99%) (MHz)	
	DFT-s-pi/2 BPSK	DFT-s-QPSK
2595	12.907	12.982

n38,15MHz Bandwidth,DFT-s-pi/2 BPSK (99% BW)



n38,15MHz Bandwidth,DFT-s-QPSK (99% BW)



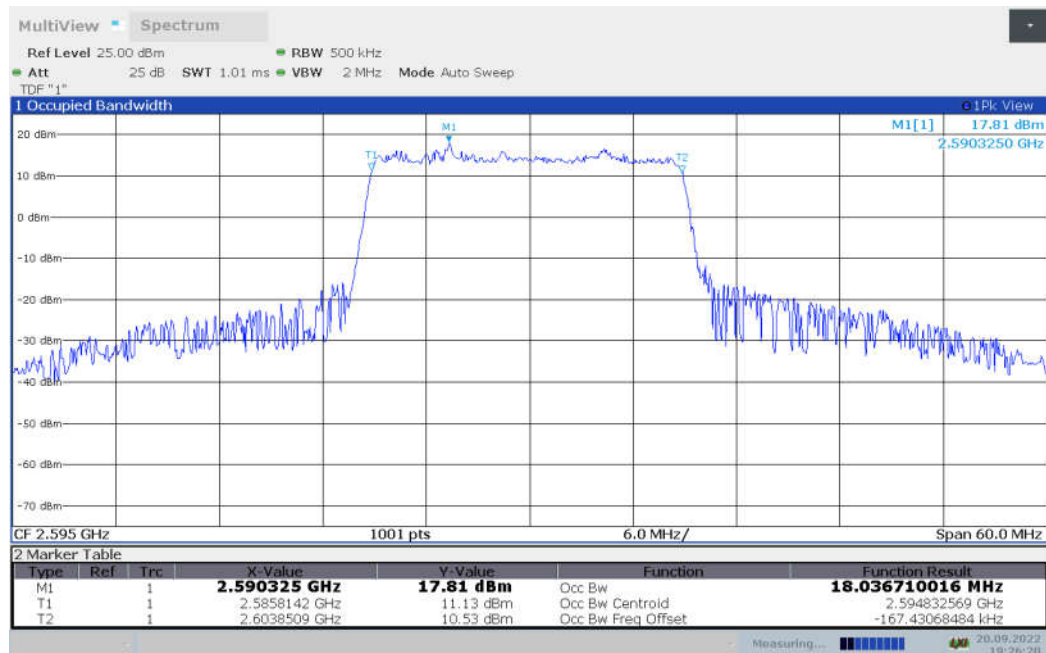


No. I22N01710-RF-NR

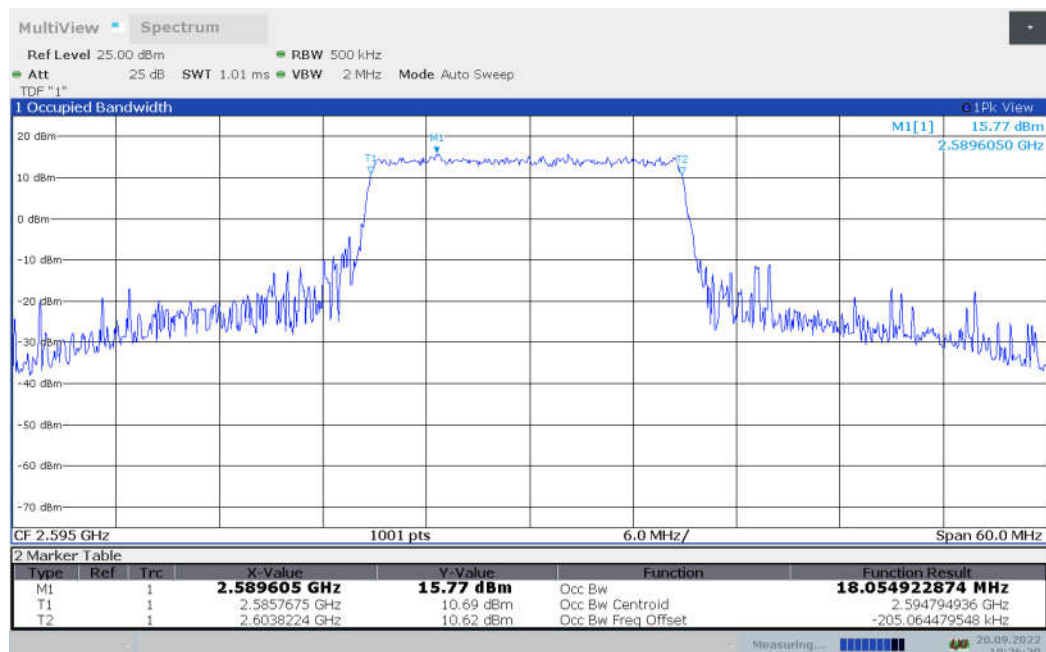
n38,20MHz(99%)

Frequency (MHz)	Occupied Bandwidth (99%) (MHz)	
	DFT-s-pi/2 BPSK	DFT-s-QPSK
2595	18.037	18.055

n38,20MHz Bandwidth,DFT-s-pi/2 BPSK (99% BW)



n38,20MHz Bandwidth,DFT-s-QPSK (99% BW)





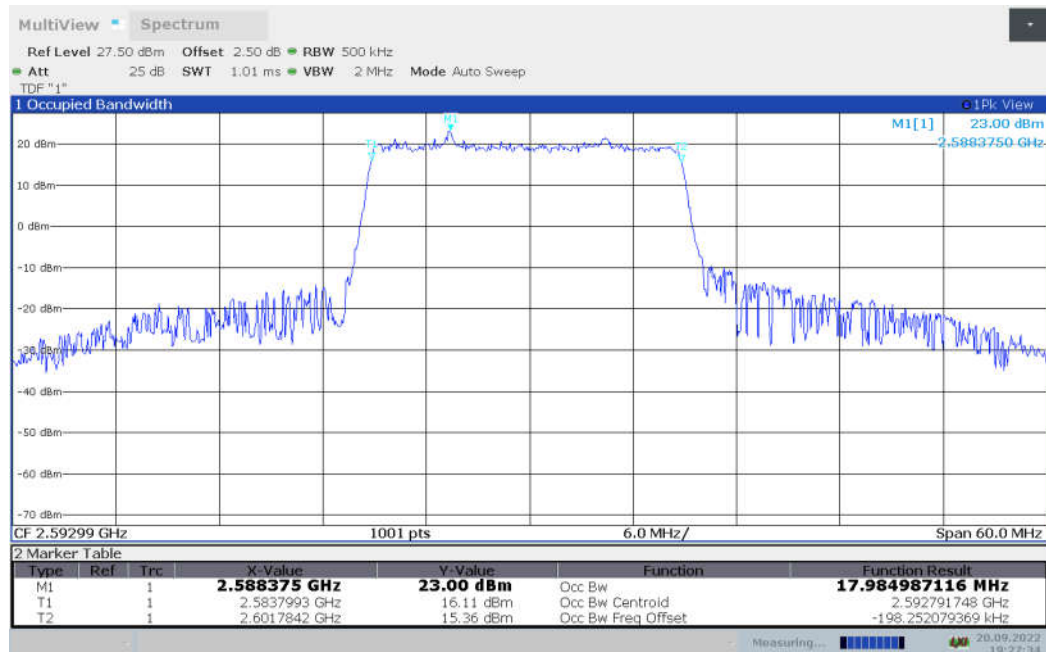
No. I22N01710-RF-NR

n41

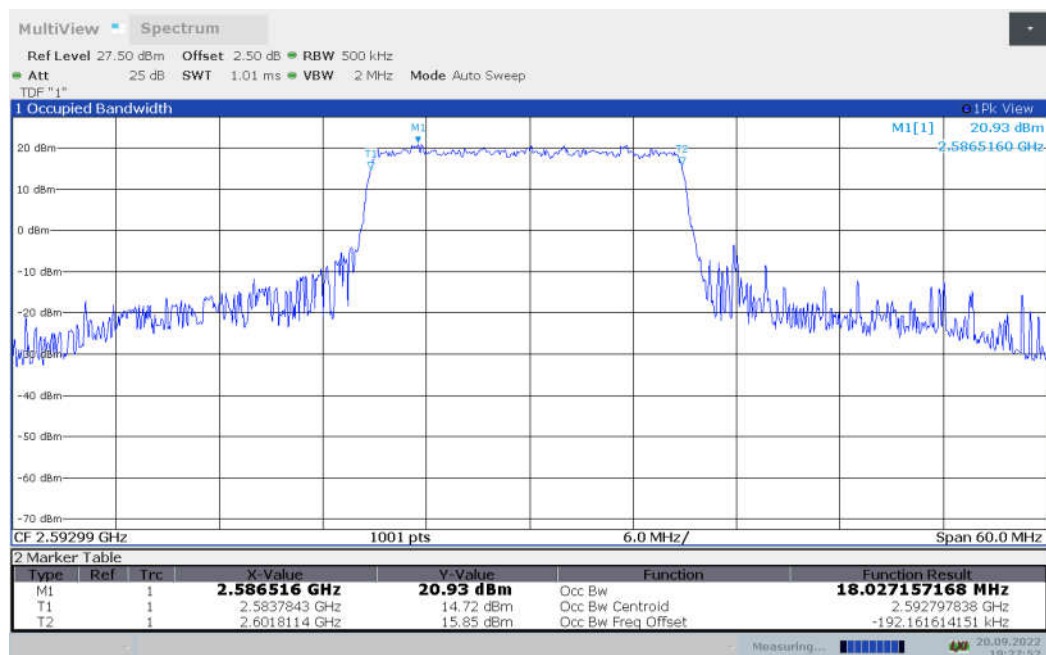
n41,20MHz(99%)

Frequency (MHz)	Occupied Bandwidth (99%) (MHz)	
	DFT-s-pi/2 BPSK	DFT-s-QPSK
2592.99	17.985	18.027

n41,20MHz Bandwidth,DFT-s-pi/2 BPSK (99% BW)



n41,20MHz Bandwidth,DFT-s-QPSK (99% BW)



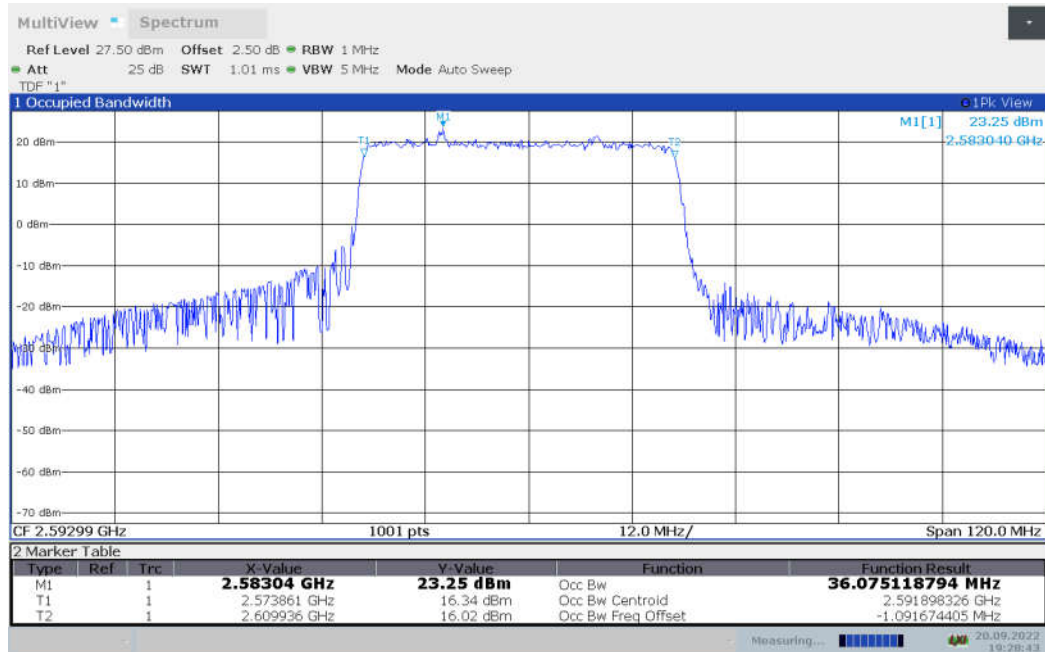


No. I22N01710-RF-NR

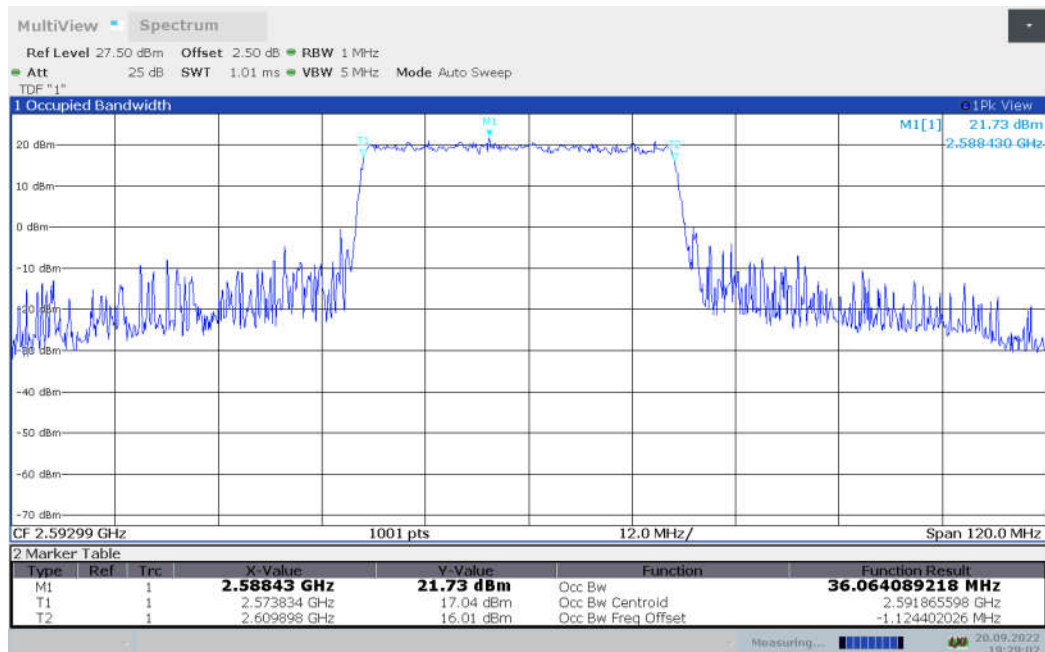
n41,40MHz(99%)

Frequency (MHz)	Occupied Bandwidth (99%) (MHz)	
	DFT-s-pi/2 BPSK	DFT-s-QPSK
2592.99	36.075	36.064

n41,40MHz Bandwidth,DFT-s-pi/2 BPSK (99% BW)

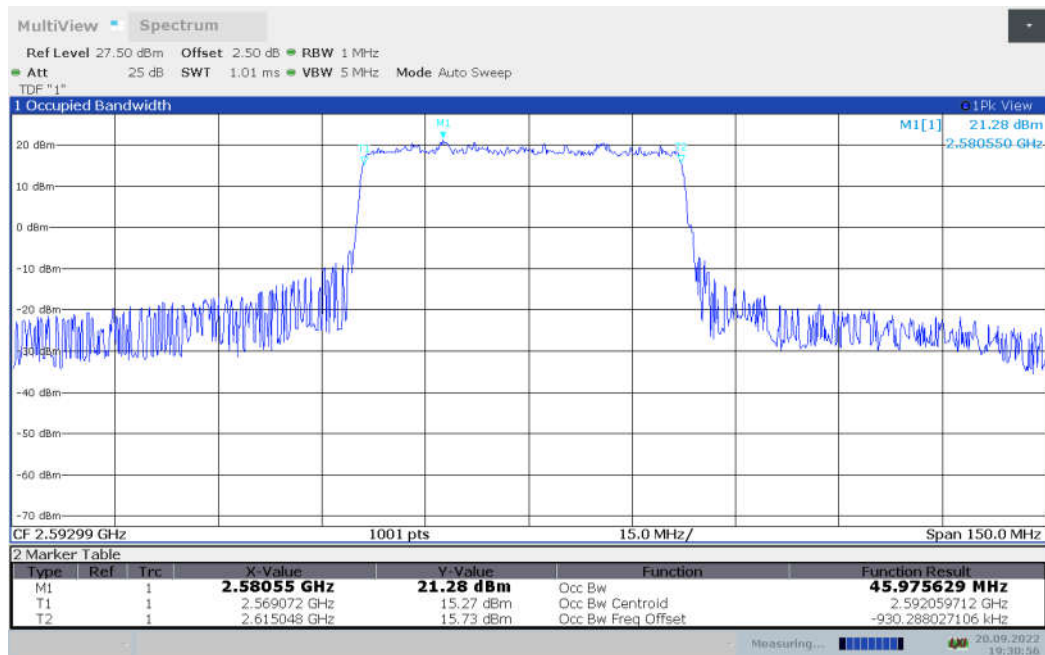
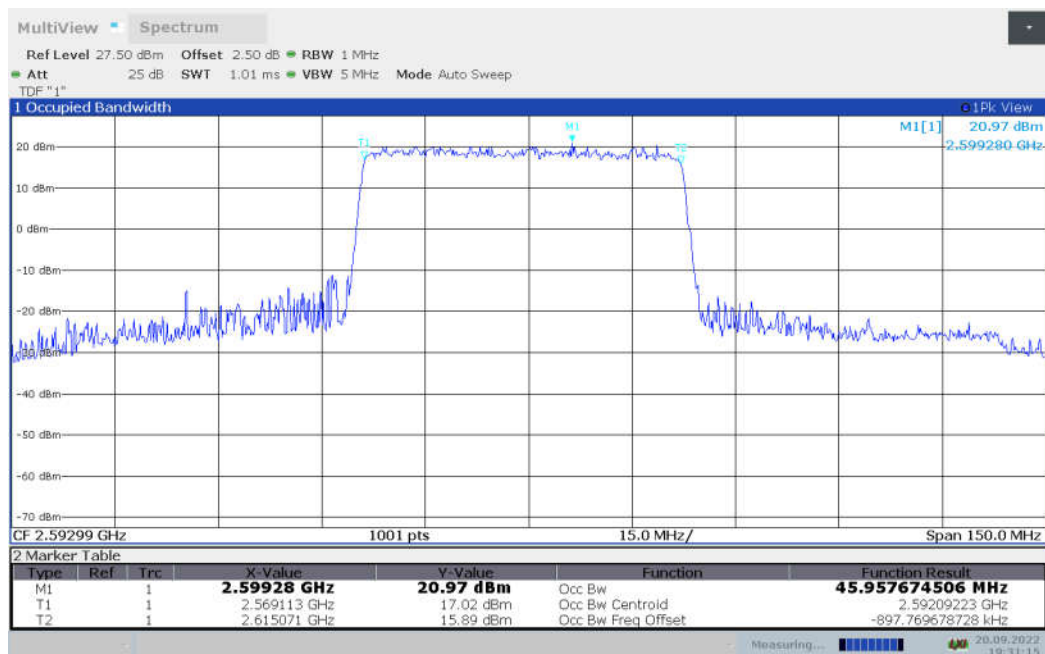


n41,40MHz Bandwidth,DFT-s-QPSK (99% BW)



n41,50MHz(99%)

Frequency (MHz)	Occupied Bandwidth (99%) (MHz)	
	DFT-s-pi/2 BPSK	DFT-s-QPSK
2592.99	45.976	45.958

n41,50MHz Bandwidth,DFT-s-pi/2 BPSK (99% BW)

n41,50MHz Bandwidth,DFT-s-QPSK (99% BW)


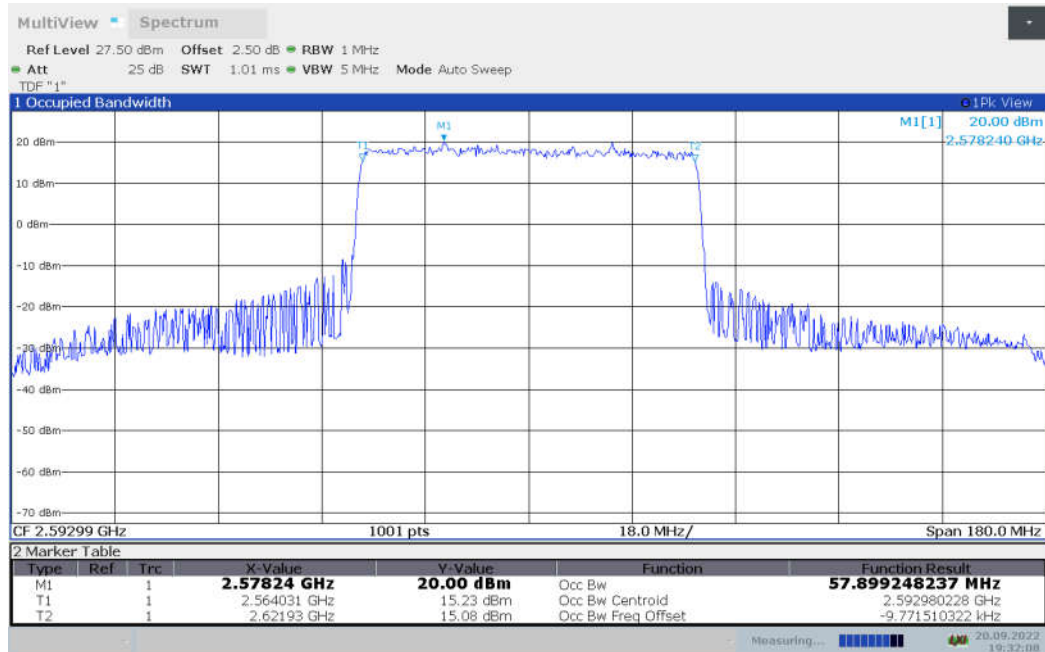


No. I22N01710-RF-NR

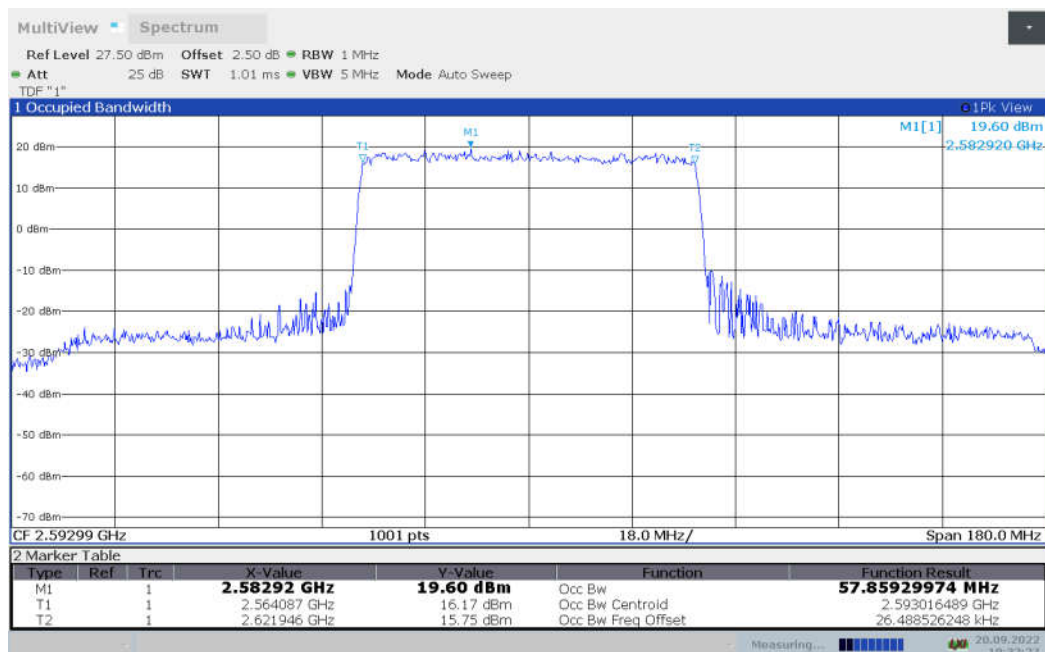
n41,60MHz(99%)

Frequency (MHz)	Occupied Bandwidth (99%) (MHz)	
	DFT-s-pi/2 BPSK	DFT-s-QPSK
2592.99	57.899	57.859

n41,60MHz Bandwidth,DFT-s-pi/2 BPSK (99% BW)



n41,60MHz Bandwidth,DFT-s-QPSK (99% BW)



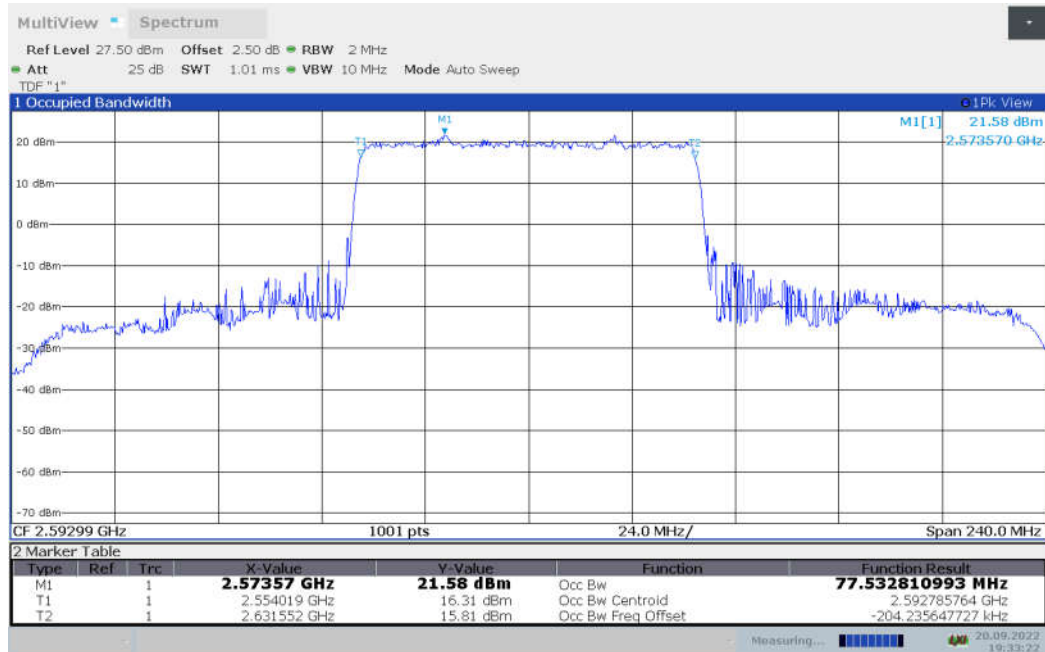


No. I22N01710-RF-NR

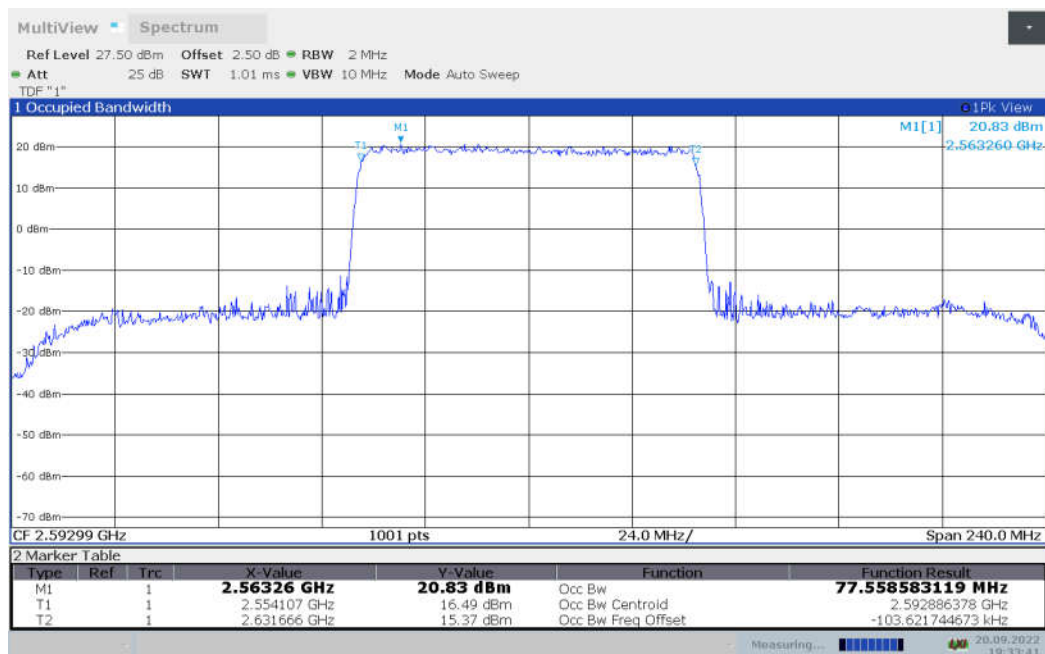
n41,80MHz(99%)

Frequency (MHz)	Occupied Bandwidth (99%) (MHz)	
	DFT-s-pi/2 BPSK	DFT-s-QPSK
2592.99	77.533	77.559

n41,80MHz Bandwidth,DFT-s-pi/2 BPSK (99% BW)



n41,80MHz Bandwidth,DFT-s-QPSK (99% BW)



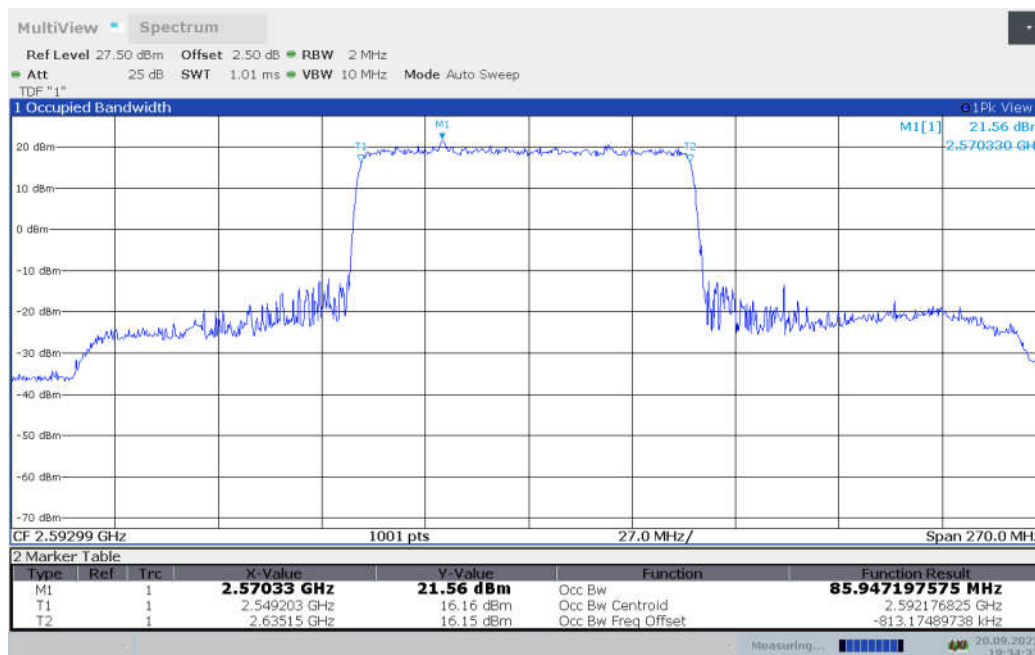


No. I22N01710-RF-NR

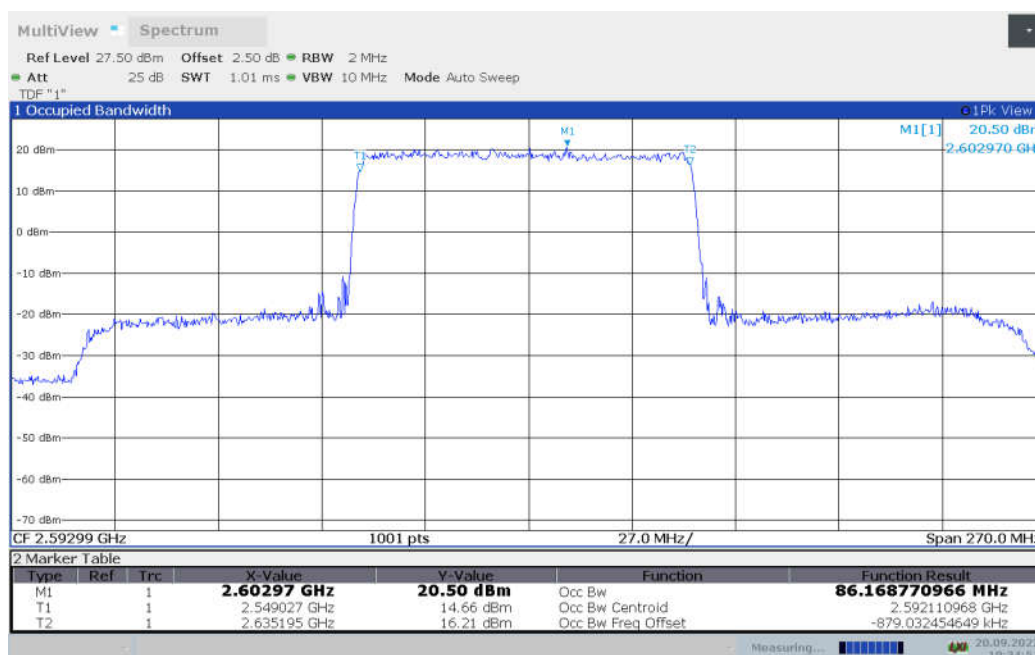
n41,90MHz(99%)

Frequency (MHz)	Occupied Bandwidth (99%) (MHz)	
	DFT-s-pi/2 BPSK	DFT-s-QPSK
2592.99	85.947	86.169

n41,90MHz Bandwidth,DFT-s-pi/2 BPSK (99% BW)



n41,90MHz Bandwidth,DFT-s-QPSK (99% BW)



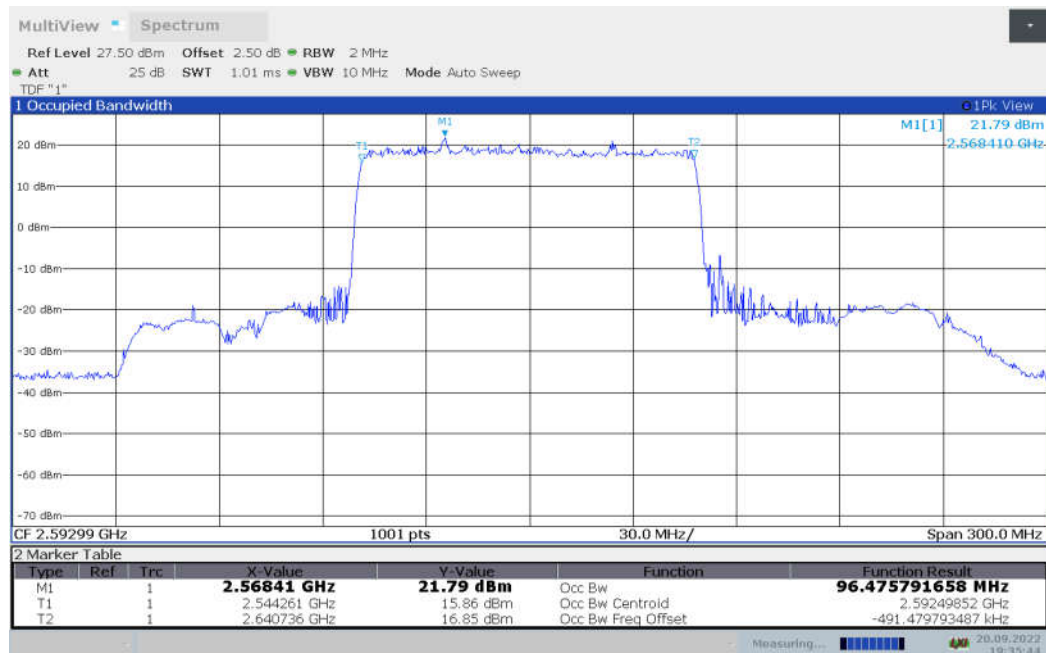


No. I22N01710-RF-NR

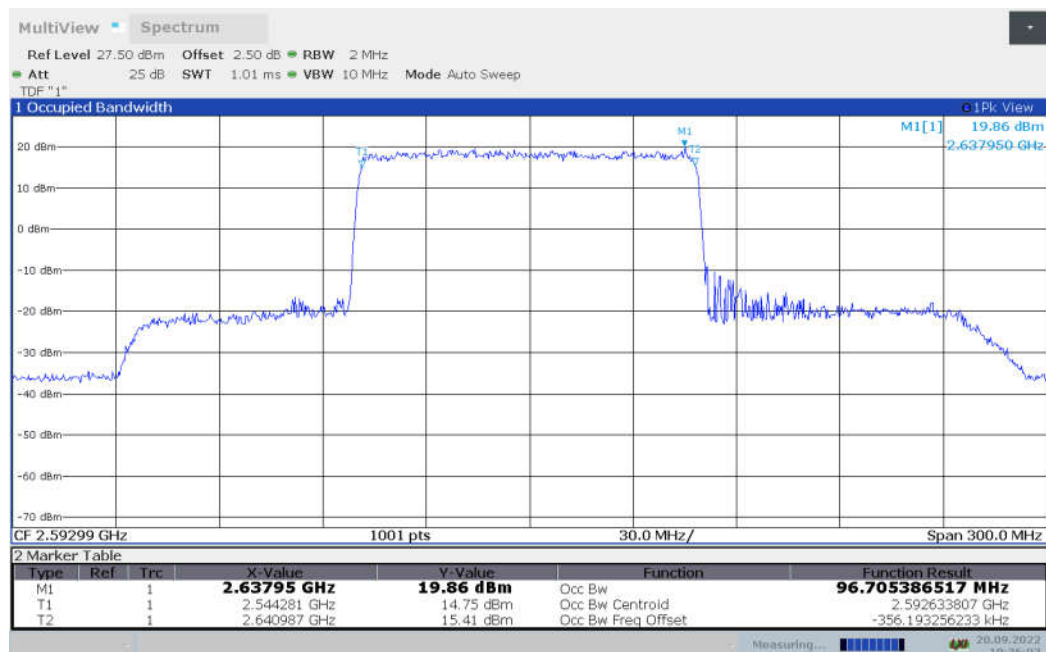
n41,100MHz(99%)

Frequency (MHz)	Occupied Bandwidth (99%) (MHz)	
	DFT-s-pi/2 BPSK	DFT-s-QPSK
2592.99	96.476	96.705

n41,100MHz Bandwidth,DFT-s-pi/2 BPSK (99% BW)



n41,100MHz Bandwidth,DFT-s-QPSK (99% BW)





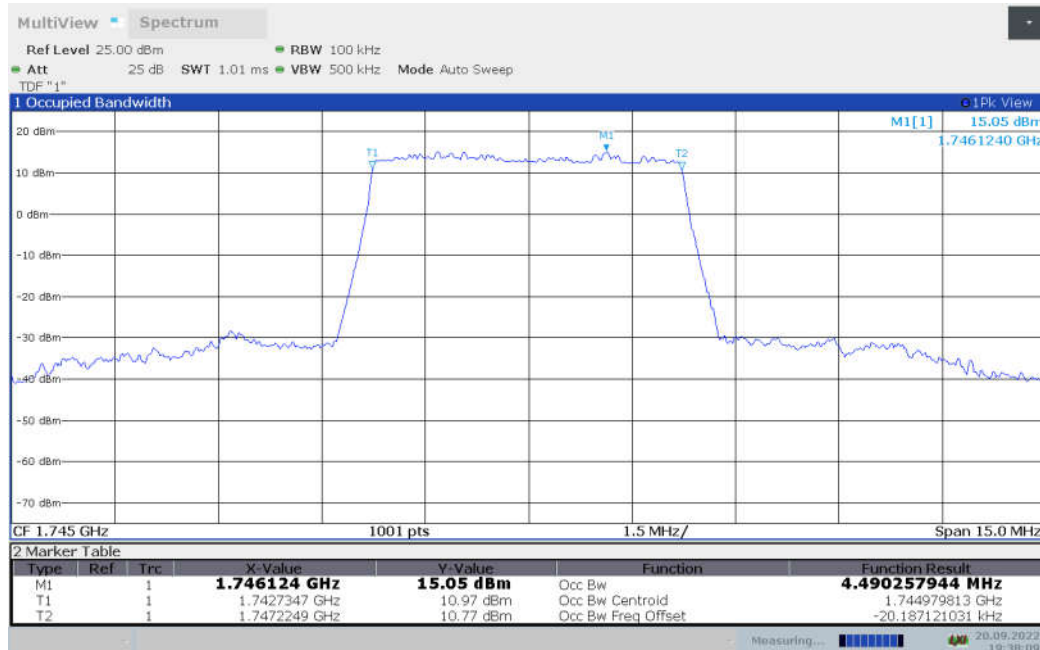
No. I22N01710-RF-NR

DC_7A-n66A

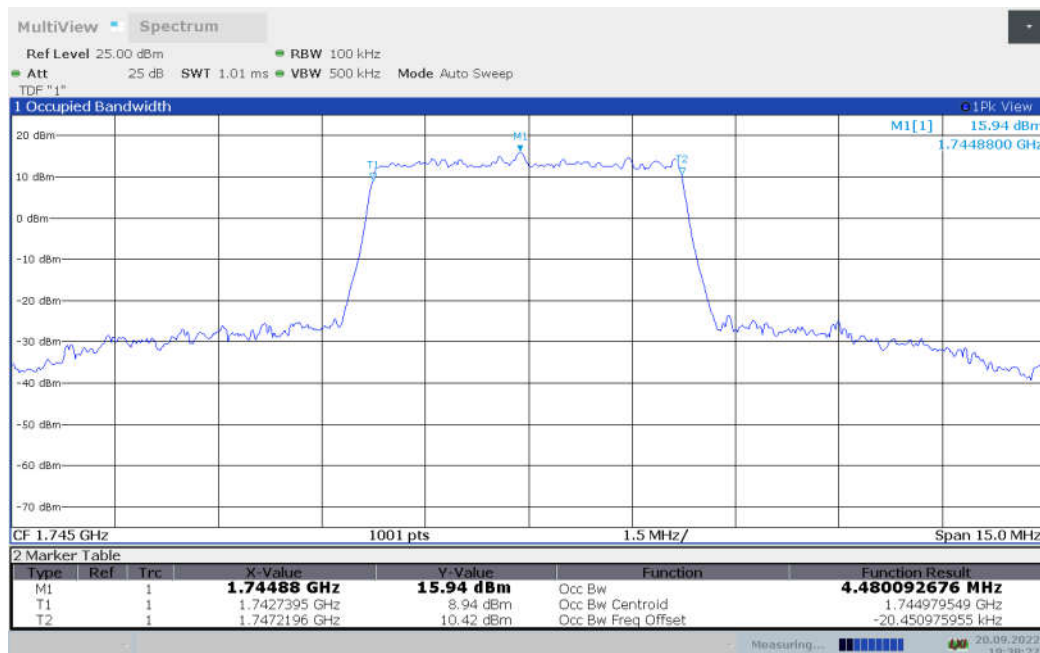
DC_7A-n66A,5MHz(99%)

Frequency (MHz)	Occupied Bandwidth (99%) (MHz)	
	DFT-s-pi/2 BPSK	DFT-s-QPSK
1745	4.490	4.480

DC_7A-n66A,5MHz Bandwidth,DFT-s-pi/2 BPSK (99% BW)



DC_7A-n66A,5MHz Bandwidth,DFT-s-QPSK (99% BW)



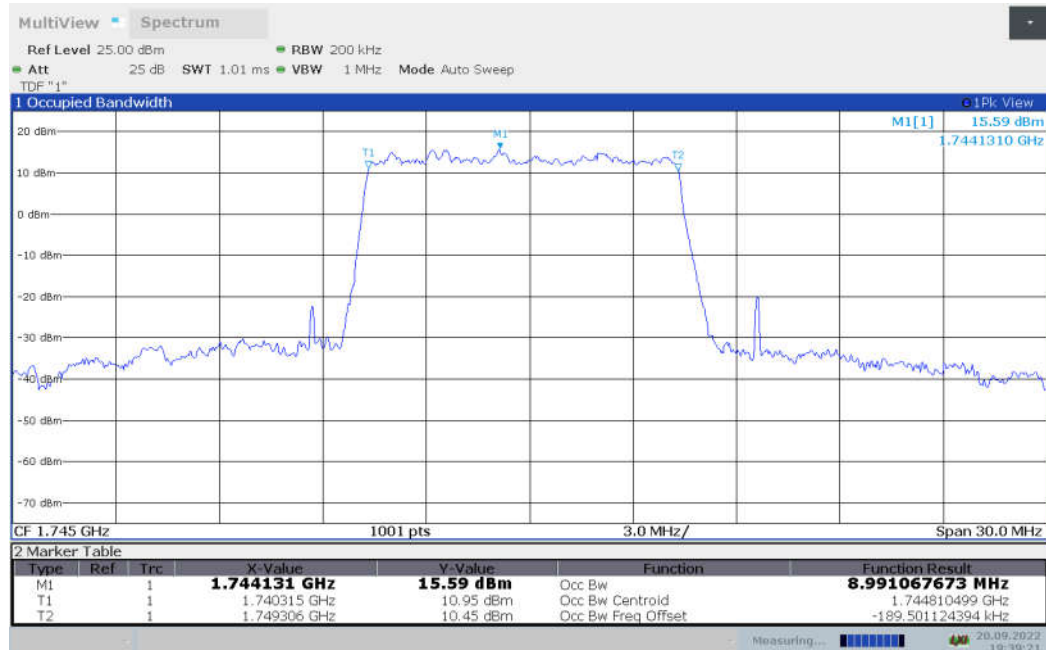


No. I22N01710-RF-NR

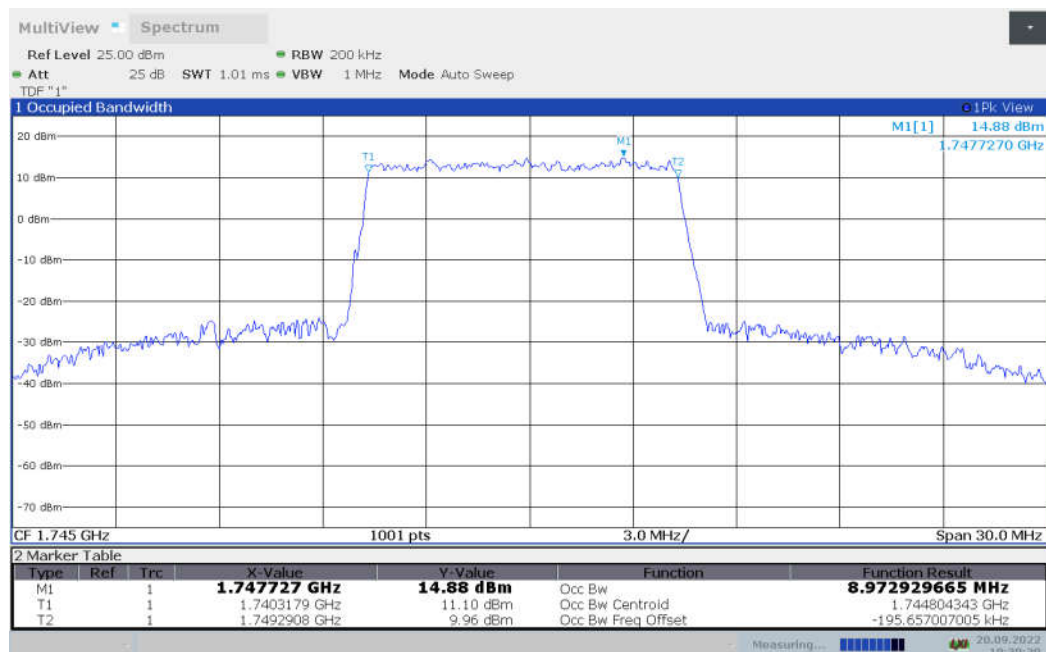
DC_7A-n66A,10MHz(99%)

Frequency (MHz)	Occupied Bandwidth (99%) (MHz)	
	DFT-s-pi/2 BPSK	DFT-s-QPSK
1745	8.991	8.973

DC_7A-n66A,10MHz Bandwidth,DFT-s-pi/2 BPSK (99% BW)



DC_7A-n66A,10MHz Bandwidth,DFT-s-QPSK (99% BW)



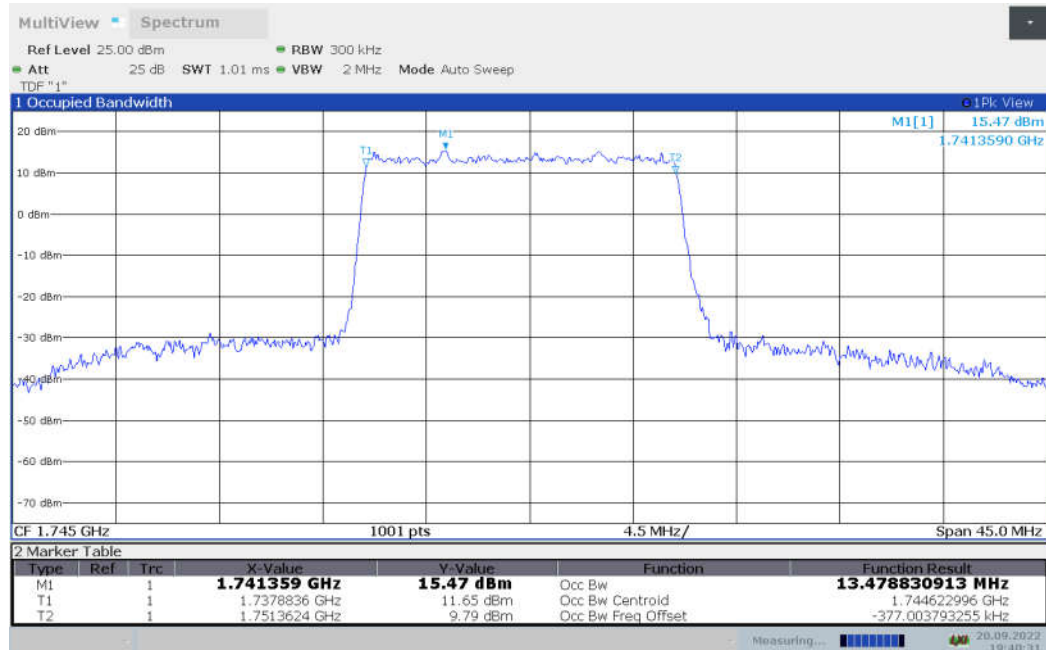


No. I22N01710-RF-NR

DC_7A-n66A,15MHz(99%)

Frequency (MHz)	Occupied Bandwidth (99%) (MHz)	
	DFT-s-pi/2 BPSK	DFT-s-QPSK
1745	13.479	13.487

DC_7A-n66A,15MHz Bandwidth,DFT-s-pi/2 BPSK (99% BW)



DC_7A-n66A,15MHz Bandwidth,DFT-s-QPSK (99% BW)

