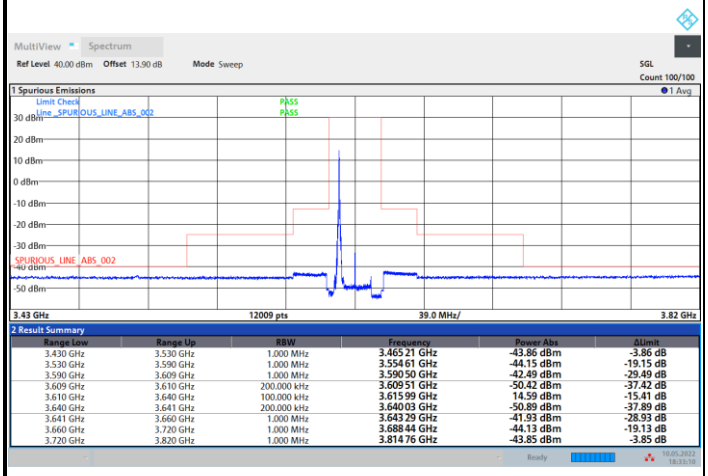
FR1 n48 / 20MHz / CP OFDM / 64QAM

Middle Channel

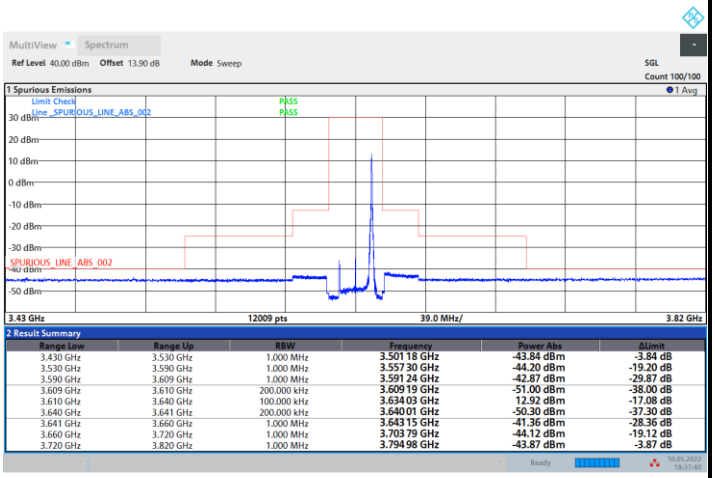
1RB0



Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
3.430 GHz	3.530 GHz	1.000 MHz	3.465 21 GHz	-43.86 dBm	-3.86 dB
3.530 GHz	3.590 GHz	1.000 MHz	3.554 61 GHz	-44.15 dBm	-19.15 dB
3.590 GHz	3.609 GHz	1.000 MHz	3.590 50 GHz	-42.49 dBm	-29.49 dB
3.609 GHz	3.610 GHz	200.000 kHz	3.609 51 GHz	-50.42 dBm	-37.42 dB
3.610 GHz	3.640 GHz	100.000 kHz	3.615 99 GHz	14.59 dBm	-15.41 dB
3.640 GHz	3.641 GHz	200.000 kHz	3.640 03 GHz	-50.89 dBm	-37.89 dB
3.641 GHz	3.660 GHz	1.000 MHz	3.643 29 GHz	-41.93 dBm	-28.93 dB
3.660 GHz	3.720 GHz	1.000 MHz	3.688 44 GHz	-44.13 dBm	-19.13 dB
3.720 GHz	3.820 GHz	1.000 MHz	3.814 76 GHz	-43.85 dBm	-3.85 dB

18:33:10 10.05.2022

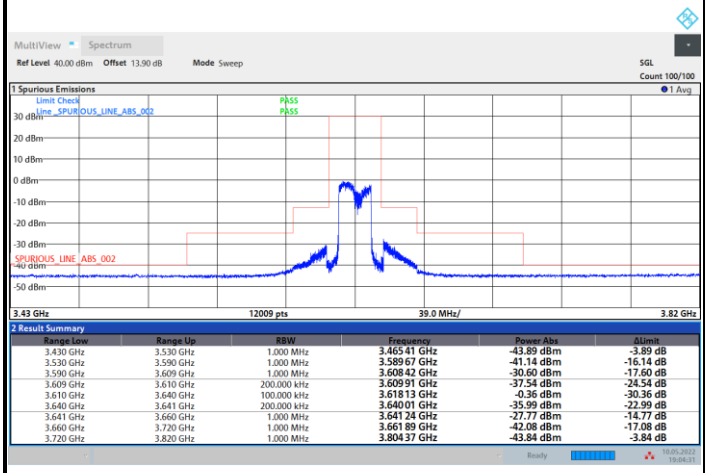
1RBmax



Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
3.430 GHz	3.530 GHz	1.000 MHz	3.501 18 GHz	-43.84 dBm	-3.84 dB
3.530 GHz	3.590 GHz	1.000 MHz	3.557 30 GHz	-44.20 dBm	-19.20 dB
3.590 GHz	3.609 GHz	1.000 MHz	3.591 24 GHz	-42.87 dBm	-29.87 dB
3.609 GHz	3.610 GHz	200.000 kHz	3.609 19 GHz	-51.00 dBm	-38.00 dB
3.610 GHz	3.640 GHz	100.000 kHz	3.634 03 GHz	12.92 dBm	-17.08 dB
3.640 GHz	3.641 GHz	200.000 kHz	3.640 01 GHz	-50.30 dBm	-37.30 dB
3.641 GHz	3.660 GHz	1.000 MHz	3.643 15 GHz	-41.36 dBm	-28.36 dB
3.660 GHz	3.720 GHz	1.000 MHz	3.703 79 GHz	-44.12 dBm	-19.12 dB
3.720 GHz	3.820 GHz	1.000 MHz	3.794 98 GHz	-43.87 dBm	-3.87 dB

18:37:40 10.05.2022

Full RB



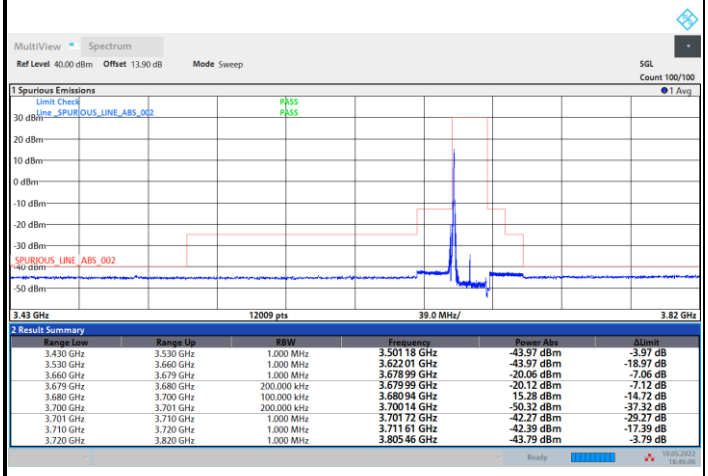
Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
3.430 GHz	3.530 GHz	1.000 MHz	3.465 41 GHz	-43.89 dBm	-3.89 dB
3.530 GHz	3.590 GHz	1.000 MHz	3.589 67 GHz	-41.14 dBm	-16.14 dB
3.590 GHz	3.609 GHz	1.000 MHz	3.608 42 GHz	-30.60 dBm	-17.60 dB
3.609 GHz	3.610 GHz	200.000 kHz	3.609 91 GHz	-37.54 dBm	-24.54 dB
3.610 GHz	3.640 GHz	100.000 kHz	3.618 13 GHz	-0.36 dBm	-30.36 dB
3.640 GHz	3.641 GHz	200.000 kHz	3.640 01 GHz	-35.99 dBm	-22.99 dB
3.641 GHz	3.660 GHz	1.000 MHz	3.641 24 GHz	-27.77 dBm	-14.77 dB
3.660 GHz	3.720 GHz	1.000 MHz	3.661 89 GHz	-42.08 dBm	-17.08 dB
3.720 GHz	3.820 GHz	1.000 MHz	3.804 37 GHz	-43.84 dBm	-3.84 dB

19:04:32 10.05.2022

FR1 n48 / 20MHz / CP OFDM / 64QAM

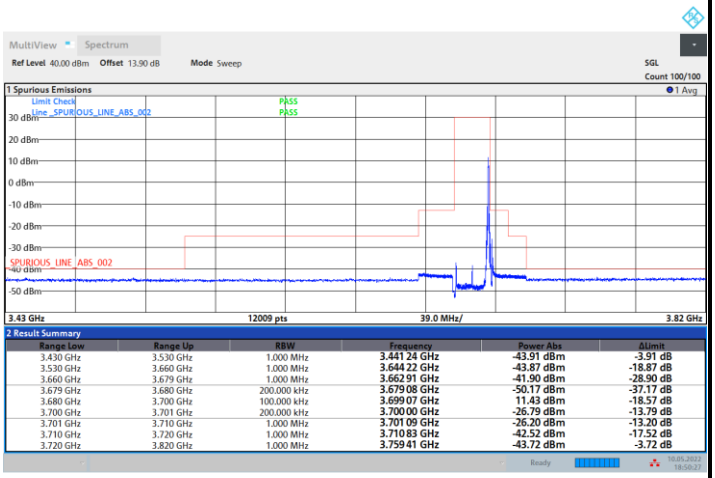
Highest Channel

1RB0



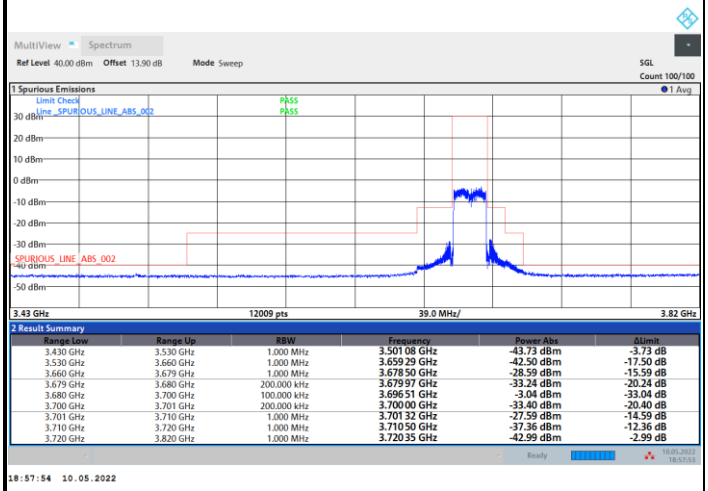
Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
3.430 GHz	3.530 GHz	1.000 MHz	3.501 18 GHz	-43.97 dBm	-3.97 dB
3.530 GHz	3.660 GHz	1.000 MHz	3.622 01 GHz	-43.97 dBm	-18.97 dB
3.660 GHz	3.679 GHz	1.000 MHz	3.678 99 GHz	-20.06 dBm	-7.06 dB
3.679 GHz	3.680 GHz	200.000 kHz	3.679 99 GHz	-20.12 dBm	-7.12 dB
3.680 GHz	3.700 GHz	100.000 kHz	3.680 94 GHz	15.28 dBm	-14.72 dB
3.700 GHz	3.701 GHz	200.000 kHz	3.700 14 GHz	-50.32 dBm	-37.32 dB
3.701 GHz	3.710 GHz	1.000 MHz	3.701 72 GHz	-42.27 dBm	-29.27 dB
3.710 GHz	3.720 GHz	1.000 MHz	3.711 61 GHz	-42.39 dBm	-17.39 dB
3.720 GHz	3.820 GHz	1.000 MHz	3.805 46 GHz	-43.79 dBm	-3.79 dB

1RBmax



Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
3.430 GHz	3.530 GHz	1.000 MHz	3.441 24 GHz	-43.91 dBm	-3.91 dB
3.530 GHz	3.660 GHz	1.000 MHz	3.644 22 GHz	-43.87 dBm	-18.87 dB
3.660 GHz	3.679 GHz	1.000 MHz	3.662 91 GHz	-41.90 dBm	-28.90 dB
3.679 GHz	3.680 GHz	200.000 kHz	3.679 08 GHz	-50.17 dBm	-37.17 dB
3.680 GHz	3.700 GHz	100.000 kHz	3.699 07 GHz	11.43 dBm	-18.57 dB
3.700 GHz	3.701 GHz	200.000 kHz	3.700 00 GHz	-26.79 dBm	-13.79 dB
3.701 GHz	3.710 GHz	1.000 MHz	3.701 09 GHz	-26.20 dBm	-13.20 dB
3.710 GHz	3.720 GHz	1.000 MHz	3.710 83 GHz	-42.52 dBm	-17.52 dB
3.720 GHz	3.820 GHz	1.000 MHz	3.759 41 GHz	-43.72 dBm	-3.72 dB

Full RB

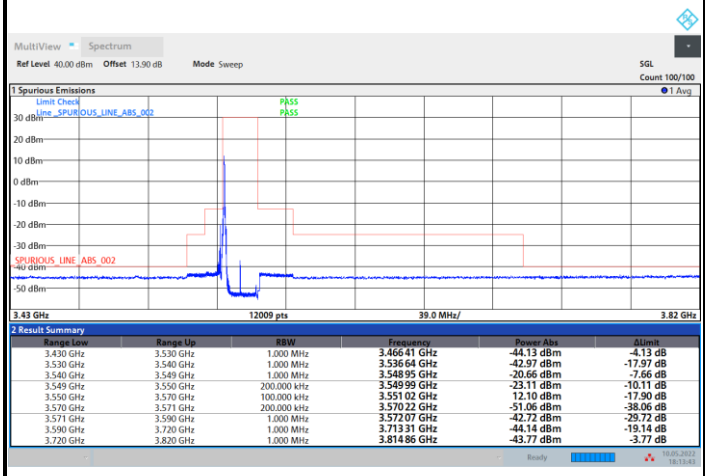


Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
3.430 GHz	3.530 GHz	1.000 MHz	3.501 08 GHz	-43.73 dBm	-3.73 dB
3.530 GHz	3.660 GHz	1.000 MHz	3.659 29 GHz	-42.50 dBm	-17.50 dB
3.660 GHz	3.679 GHz	1.000 MHz	3.678 50 GHz	-28.59 dBm	-15.59 dB
3.679 GHz	3.680 GHz	200.000 kHz	3.679 97 GHz	-33.24 dBm	-20.24 dB
3.680 GHz	3.700 GHz	100.000 kHz	3.696 51 GHz	-3.04 dBm	-33.04 dB
3.700 GHz	3.701 GHz	200.000 kHz	3.700 00 GHz	-33.40 dBm	-20.40 dB
3.701 GHz	3.710 GHz	1.000 MHz	3.701 32 GHz	-27.59 dBm	-14.59 dB
3.710 GHz	3.720 GHz	1.000 MHz	3.710 50 GHz	-37.36 dBm	-12.36 dB
3.720 GHz	3.820 GHz	1.000 MHz	3.720 35 GHz	-42.99 dBm	-2.99 dB

FR1 n48 / 20MHz / CP OFDM / 256QAM

Lowest Channel

1RB0

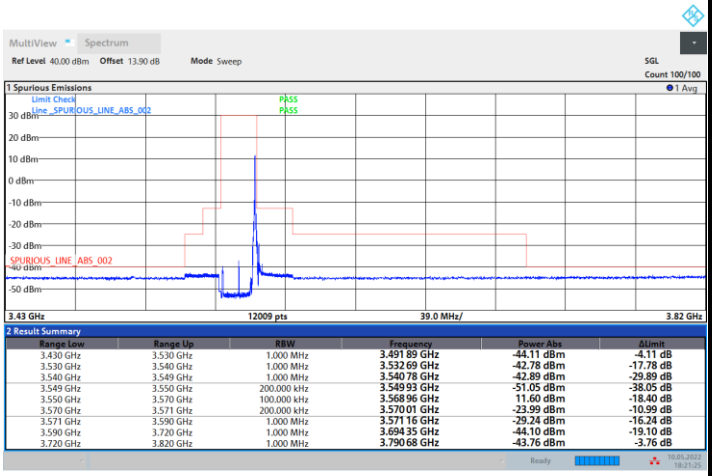


2 Result Summary

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
3.430 GHz	3.530 GHz	1.000 MHz	3.466 41 GHz	-44.13 dBm	-4.13 dB
3.530 GHz	3.540 GHz	1.000 MHz	3.536 64 GHz	-42.97 dBm	-17.97 dB
3.540 GHz	3.549 GHz	1.000 MHz	3.548 95 GHz	-20.66 dBm	-7.66 dB
3.549 GHz	3.550 GHz	200.000 kHz	3.549 99 GHz	-23.11 dBm	-10.11 dB
3.550 GHz	3.570 GHz	100.000 kHz	3.551 02 GHz	12.10 dBm	-17.90 dB
3.570 GHz	3.571 GHz	200.000 kHz	3.570 22 GHz	-51.06 dBm	-38.06 dB
3.571 GHz	3.590 GHz	1.000 MHz	3.572 07 GHz	-42.72 dBm	-29.72 dB
3.590 GHz	3.720 GHz	1.000 MHz	3.713 31 GHz	-44.14 dBm	-19.14 dB
3.720 GHz	3.820 GHz	1.000 MHz	3.814 86 GHz	-43.77 dBm	-3.77 dB

18:13:44 10.05.2022

1RBmax

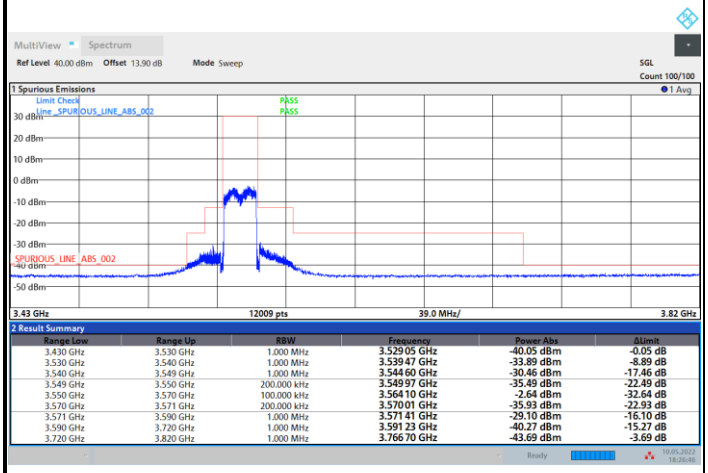


2 Result Summary

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
3.430 GHz	3.530 GHz	1.000 MHz	3.491 89 GHz	-44.11 dBm	-4.11 dB
3.530 GHz	3.540 GHz	1.000 MHz	3.532 69 GHz	-42.78 dBm	-17.78 dB
3.540 GHz	3.549 GHz	1.000 MHz	3.540 78 GHz	-42.89 dBm	-29.89 dB
3.549 GHz	3.550 GHz	200.000 kHz	3.549 93 GHz	-51.05 dBm	-38.05 dB
3.550 GHz	3.570 GHz	100.000 kHz	3.568 96 GHz	11.60 dBm	-18.40 dB
3.570 GHz	3.571 GHz	200.000 kHz	3.570 01 GHz	-23.99 dBm	-10.99 dB
3.571 GHz	3.590 GHz	1.000 MHz	3.571 16 GHz	-29.24 dBm	-16.24 dB
3.590 GHz	3.720 GHz	1.000 MHz	3.694 35 GHz	-44.10 dBm	-19.10 dB
3.720 GHz	3.820 GHz	1.000 MHz	3.790 68 GHz	-43.76 dBm	-3.76 dB

18:21:26 10.05.2022

Full RB



2 Result Summary

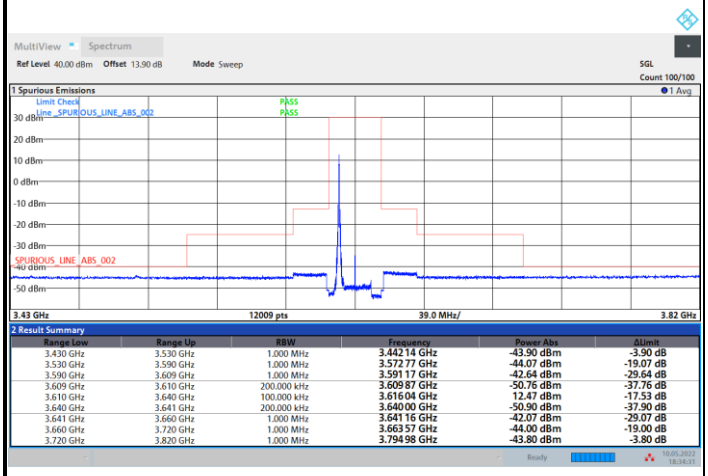
Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
3.430 GHz	3.530 GHz	1.000 MHz	3.529 05 GHz	-40.05 dBm	-0.05 dB
3.530 GHz	3.540 GHz	1.000 MHz	3.539 47 GHz	-33.89 dBm	-8.89 dB
3.540 GHz	3.549 GHz	1.000 MHz	3.544 60 GHz	-30.46 dBm	-17.46 dB
3.549 GHz	3.550 GHz	200.000 kHz	3.549 97 GHz	-35.49 dBm	-22.49 dB
3.550 GHz	3.570 GHz	100.000 kHz	3.564 10 GHz	-2.64 dBm	-32.64 dB
3.570 GHz	3.571 GHz	200.000 kHz	3.570 01 GHz	-35.93 dBm	-22.93 dB
3.571 GHz	3.590 GHz	1.000 MHz	3.571 41 GHz	-29.10 dBm	-16.10 dB
3.590 GHz	3.720 GHz	1.000 MHz	3.591 23 GHz	-40.27 dBm	-15.27 dB
3.720 GHz	3.820 GHz	1.000 MHz	3.766 70 GHz	-43.69 dBm	-3.69 dB

18:26:46 10.05.2022

FR1 n48 / 20MHz / CP OFDM / 256QAM

Middle Channel

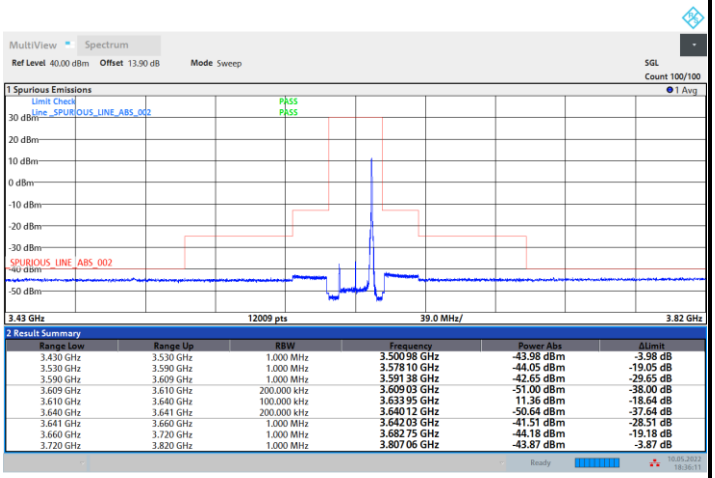
1RB0



Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
3.430 GHz	3.530 GHz	1.000 MHz	3.442 14 GHz	-43.90 dBm	-3.90 dB
3.530 GHz	3.590 GHz	1.000 MHz	3.572 77 GHz	-44.07 dBm	-19.07 dB
3.590 GHz	3.609 GHz	1.000 MHz	3.591 17 GHz	-42.64 dBm	-29.64 dB
3.609 GHz	3.610 GHz	200.000 kHz	3.609 87 GHz	-50.76 dBm	-37.76 dB
3.610 GHz	3.640 GHz	100.000 kHz	3.616 04 GHz	12.47 dBm	-17.53 dB
3.640 GHz	3.641 GHz	200.000 kHz	3.640 00 GHz	-50.90 dBm	-37.90 dB
3.641 GHz	3.660 GHz	1.000 MHz	3.641 16 GHz	-42.07 dBm	-29.07 dB
3.660 GHz	3.720 GHz	1.000 MHz	3.663 57 GHz	-44.00 dBm	-19.00 dB
3.720 GHz	3.820 GHz	1.000 MHz	3.794 98 GHz	-43.80 dBm	-3.80 dB

18:34:31 10.05.2022

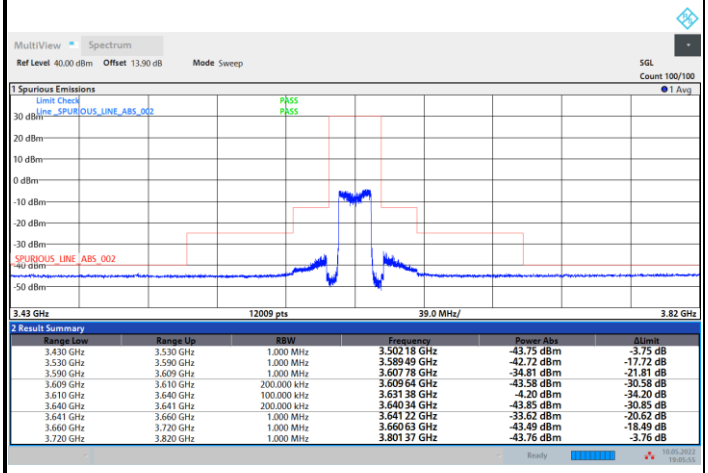
1RBmax



Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
3.430 GHz	3.530 GHz	1.000 MHz	3.500 98 GHz	-43.98 dBm	-3.98 dB
3.530 GHz	3.590 GHz	1.000 MHz	3.578 10 GHz	-44.05 dBm	-19.05 dB
3.590 GHz	3.609 GHz	1.000 MHz	3.591 38 GHz	-42.65 dBm	-29.65 dB
3.609 GHz	3.610 GHz	200.000 kHz	3.609 03 GHz	-51.00 dBm	-38.00 dB
3.610 GHz	3.640 GHz	100.000 kHz	3.633 95 GHz	11.36 dBm	-18.64 dB
3.640 GHz	3.641 GHz	200.000 kHz	3.640 12 GHz	-50.64 dBm	-37.64 dB
3.641 GHz	3.660 GHz	1.000 MHz	3.642 03 GHz	-41.51 dBm	-28.51 dB
3.660 GHz	3.720 GHz	1.000 MHz	3.682 75 GHz	-44.18 dBm	-19.18 dB
3.720 GHz	3.820 GHz	1.000 MHz	3.807 06 GHz	-43.87 dBm	-3.87 dB

18:36:12 10.05.2022

Full RB



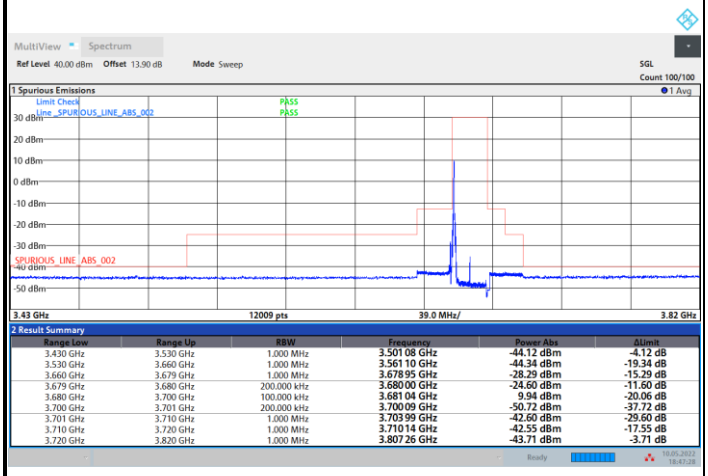
Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
3.430 GHz	3.530 GHz	1.000 MHz	3.502 18 GHz	-43.75 dBm	-3.75 dB
3.530 GHz	3.590 GHz	1.000 MHz	3.589 49 GHz	-42.72 dBm	-17.72 dB
3.590 GHz	3.609 GHz	1.000 MHz	3.607 78 GHz	-34.81 dBm	-21.81 dB
3.609 GHz	3.610 GHz	200.000 kHz	3.609 64 GHz	-43.58 dBm	-30.58 dB
3.610 GHz	3.640 GHz	100.000 kHz	3.631 38 GHz	-4.20 dBm	-34.20 dB
3.640 GHz	3.641 GHz	200.000 kHz	3.640 34 GHz	-43.85 dBm	-30.85 dB
3.641 GHz	3.660 GHz	1.000 MHz	3.641 22 GHz	-33.62 dBm	-20.62 dB
3.660 GHz	3.720 GHz	1.000 MHz	3.660 63 GHz	-43.49 dBm	-18.49 dB
3.720 GHz	3.820 GHz	1.000 MHz	3.801 37 GHz	-43.76 dBm	-3.76 dB

19:05:56 10.05.2022

FR1 n48 / 20MHz / CP OFDM / 256QAM

Highest Channel

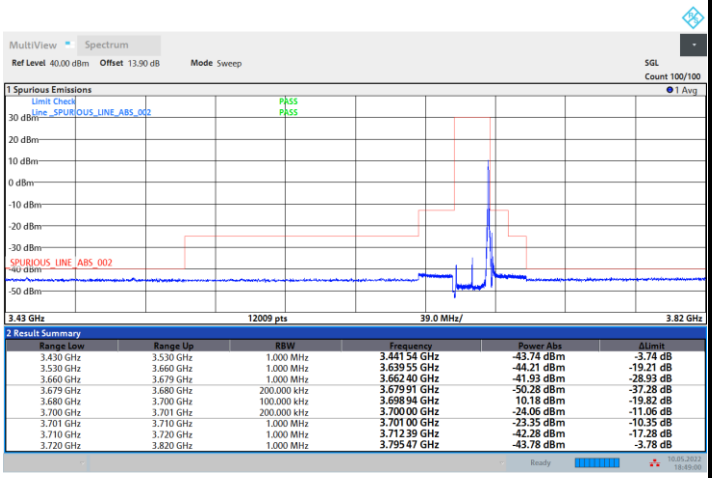
1RB0



Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
3.430 GHz	3.530 GHz	1.000 MHz	3.501 08 GHz	-44.12 dBm	-4.12 dB
3.530 GHz	3.660 GHz	1.000 MHz	3.561 10 GHz	-44.34 dBm	-19.34 dB
3.660 GHz	3.679 GHz	1.000 MHz	3.678 95 GHz	-28.29 dBm	-15.29 dB
3.679 GHz	3.680 GHz	200.000 kHz	3.680 00 GHz	-24.60 dBm	-11.60 dB
3.680 GHz	3.700 GHz	100.000 kHz	3.681 04 GHz	9.94 dBm	-20.06 dB
3.700 GHz	3.701 GHz	200.000 kHz	3.700 09 GHz	-50.72 dBm	-37.72 dB
3.701 GHz	3.710 GHz	1.000 MHz	3.703 99 GHz	-42.60 dBm	-29.60 dB
3.710 GHz	3.720 GHz	1.000 MHz	3.710 14 GHz	-42.55 dBm	-17.55 dB
3.720 GHz	3.820 GHz	1.000 MHz	3.807 26 GHz	-43.71 dBm	-3.71 dB

18:47:29 10.05.2022

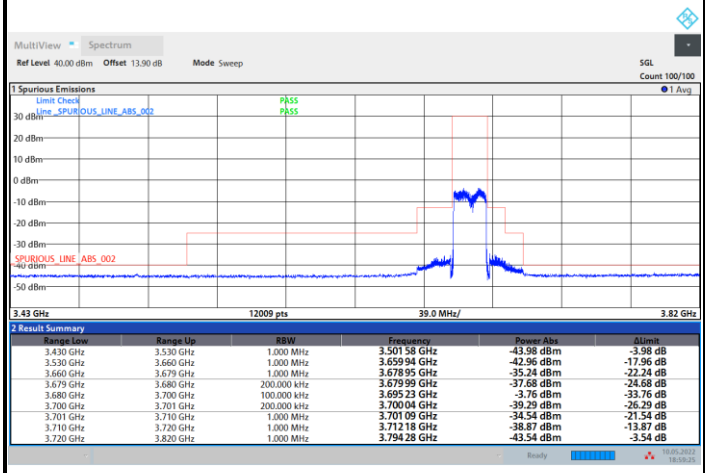
1RBmax



Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
3.430 GHz	3.530 GHz	1.000 MHz	3.441 54 GHz	-43.74 dBm	-3.74 dB
3.530 GHz	3.660 GHz	1.000 MHz	3.639 55 GHz	-44.21 dBm	-19.21 dB
3.660 GHz	3.679 GHz	1.000 MHz	3.662 40 GHz	-41.93 dBm	-28.93 dB
3.679 GHz	3.680 GHz	200.000 kHz	3.679 91 GHz	-50.28 dBm	-37.28 dB
3.680 GHz	3.700 GHz	100.000 kHz	3.698 94 GHz	10.18 dBm	-19.82 dB
3.700 GHz	3.701 GHz	200.000 kHz	3.700 00 GHz	-24.06 dBm	-11.06 dB
3.701 GHz	3.710 GHz	1.000 MHz	3.701 00 GHz	-23.35 dBm	-10.35 dB
3.710 GHz	3.720 GHz	1.000 MHz	3.712 39 GHz	-42.28 dBm	-17.28 dB
3.720 GHz	3.820 GHz	1.000 MHz	3.795 47 GHz	-43.78 dBm	-3.78 dB

18:49:01 10.05.2022

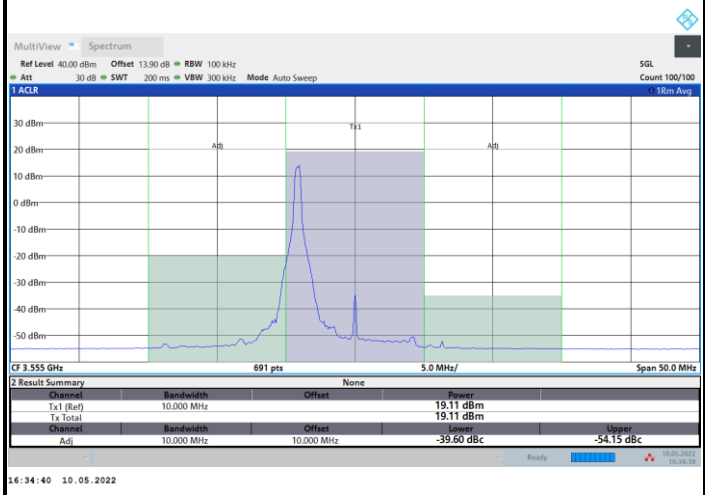
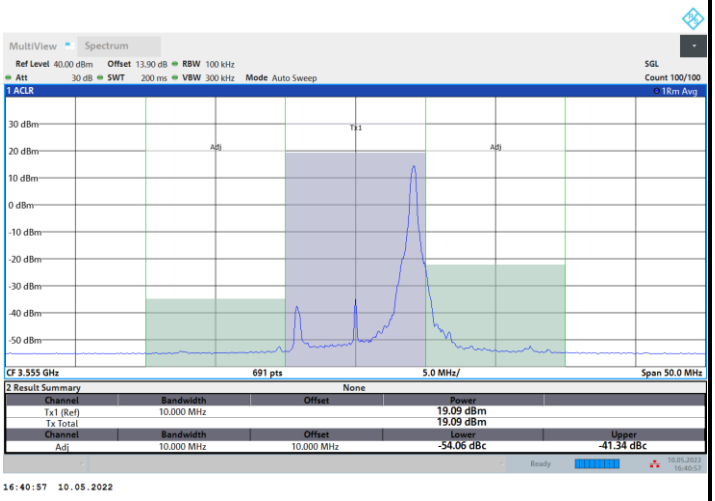
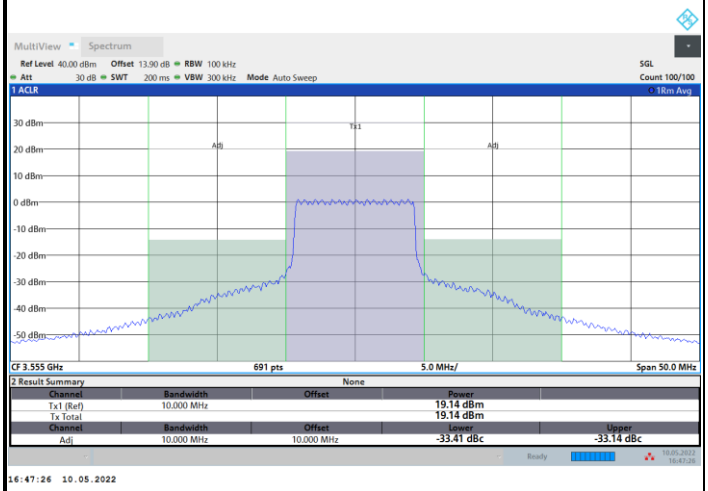
Full RB

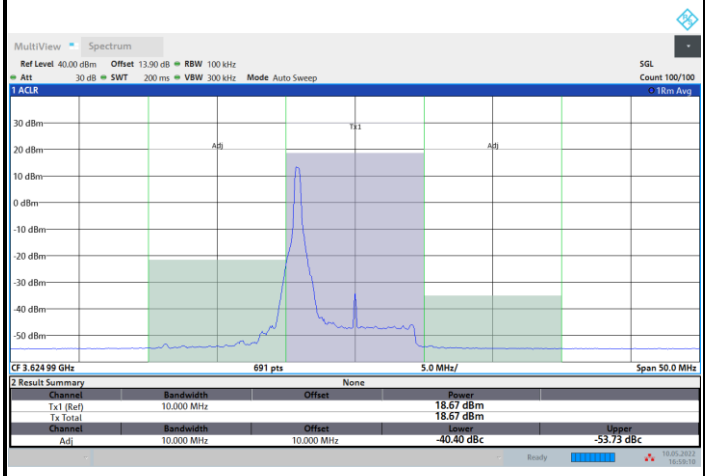
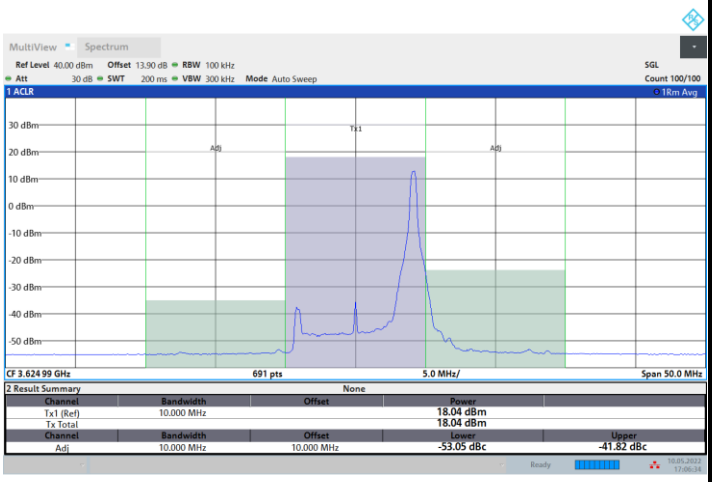
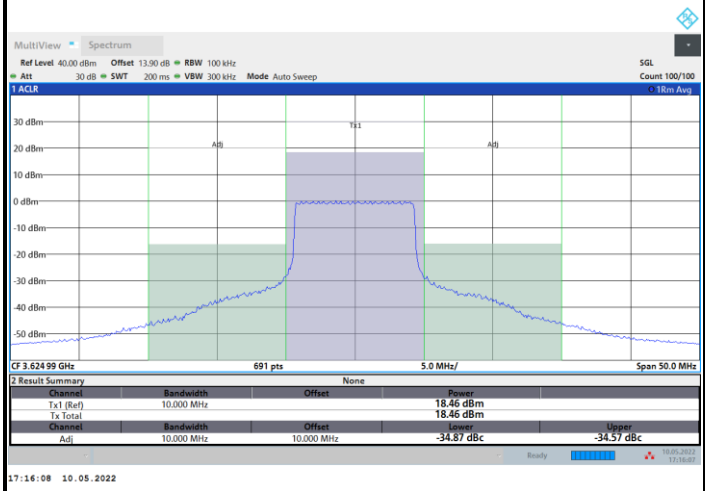


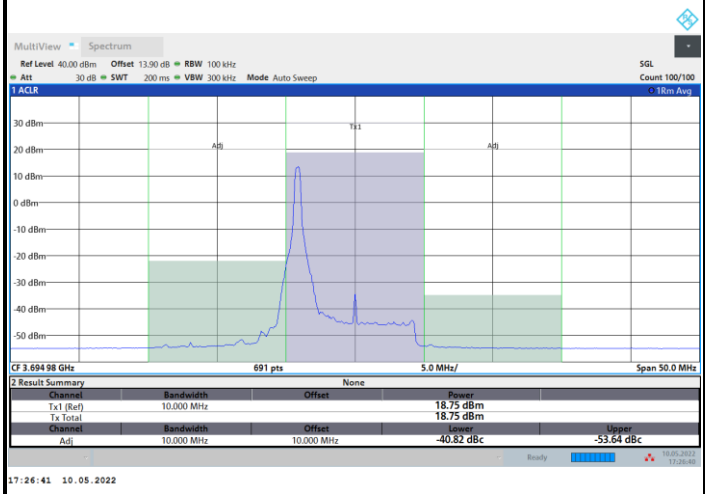
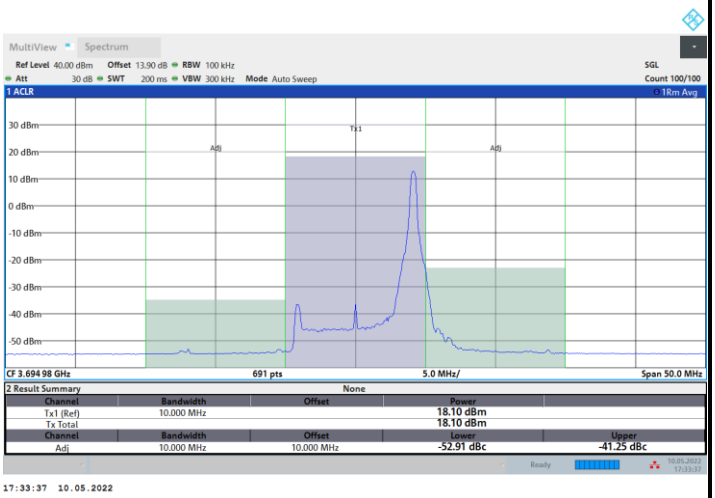
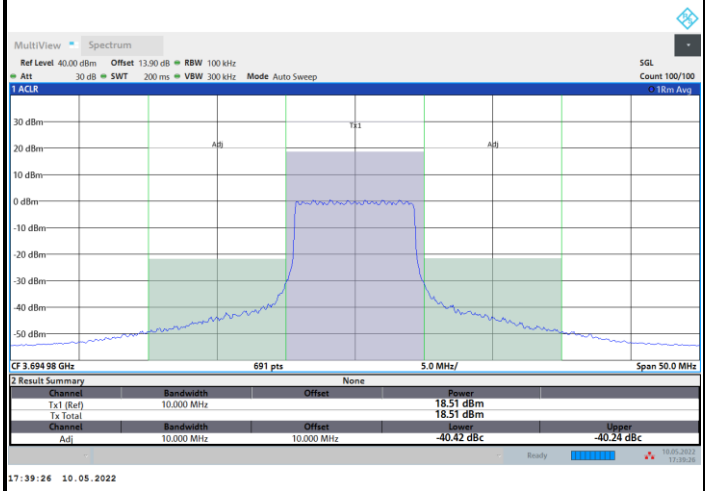
Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
3.430 GHz	3.530 GHz	1.000 MHz	3.501 58 GHz	-43.98 dBm	-3.98 dB
3.530 GHz	3.660 GHz	1.000 MHz	3.659 94 GHz	-42.96 dBm	-17.96 dB
3.660 GHz	3.679 GHz	1.000 MHz	3.678 95 GHz	-35.24 dBm	-22.24 dB
3.679 GHz	3.680 GHz	200.000 kHz	3.679 99 GHz	-37.68 dBm	-24.68 dB
3.680 GHz	3.700 GHz	100.000 kHz	3.695 23 GHz	-3.76 dBm	-33.76 dB
3.700 GHz	3.701 GHz	200.000 kHz	3.700 04 GHz	-39.29 dBm	-26.29 dB
3.701 GHz	3.710 GHz	1.000 MHz	3.701 09 GHz	-34.54 dBm	-21.54 dB
3.710 GHz	3.720 GHz	1.000 MHz	3.712 18 GHz	-38.87 dBm	-13.87 dB
3.720 GHz	3.820 GHz	1.000 MHz	3.794 28 GHz	-43.54 dBm	-3.54 dB

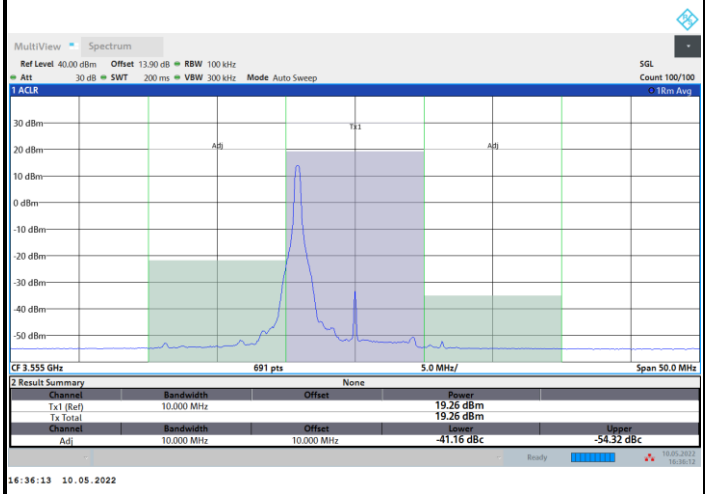
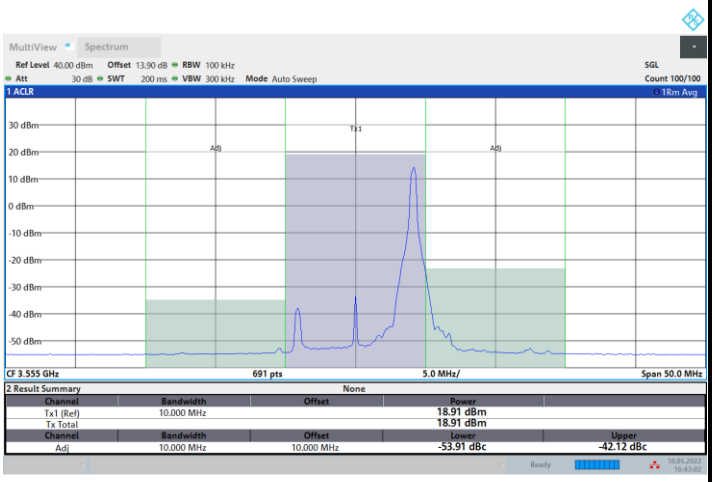
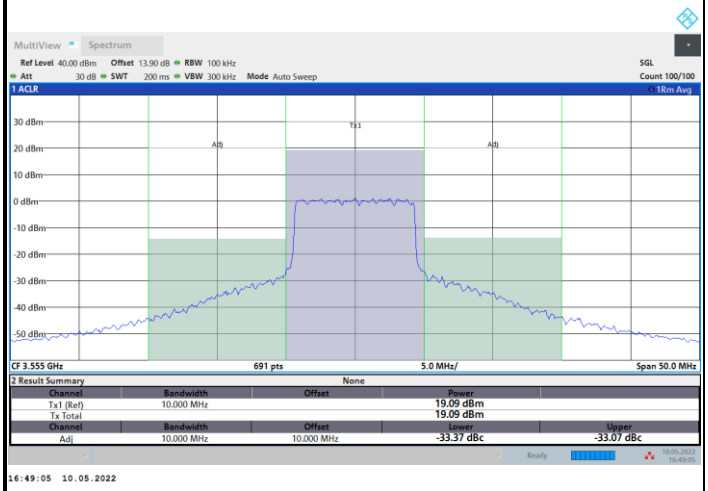
18:59:25 10.05.2022

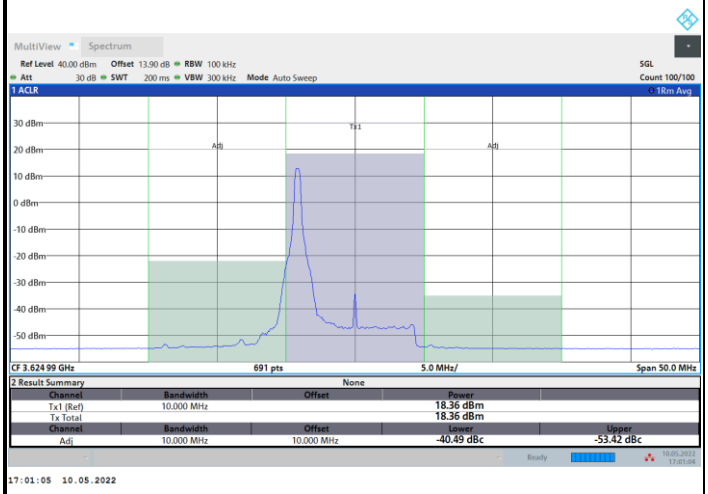
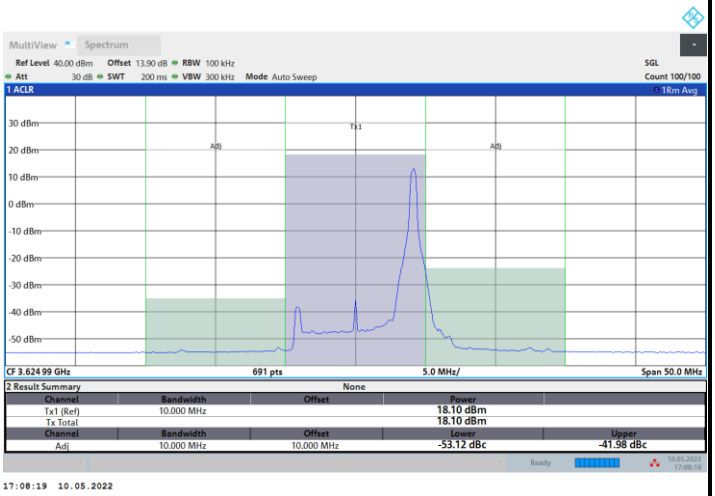
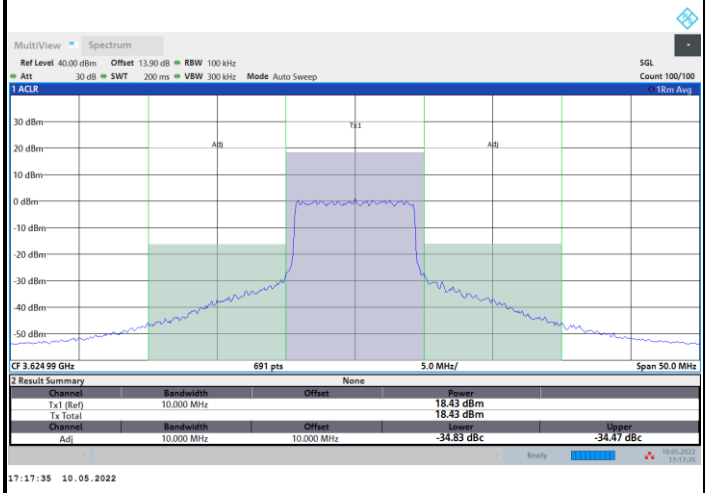
Adjacent Channel Leakage Ratio (ACLR)

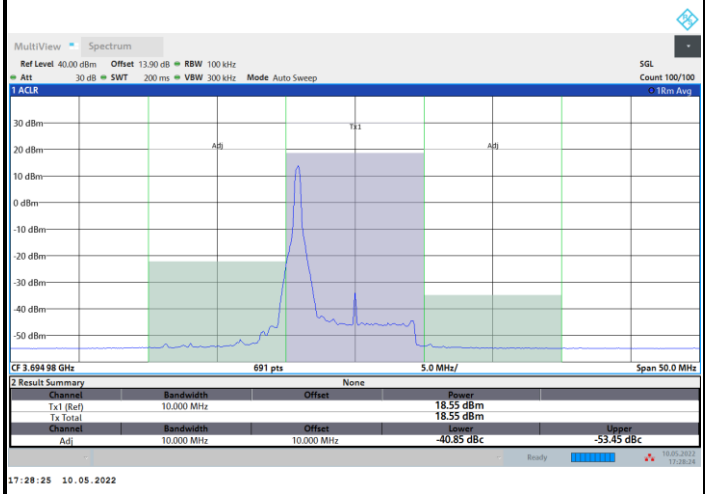
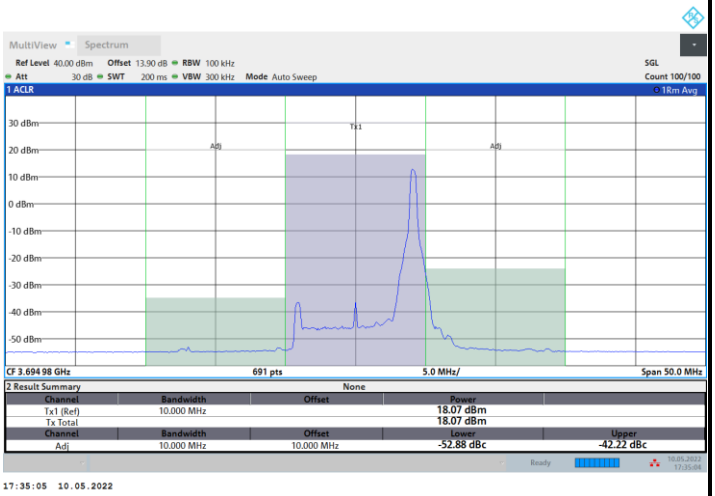
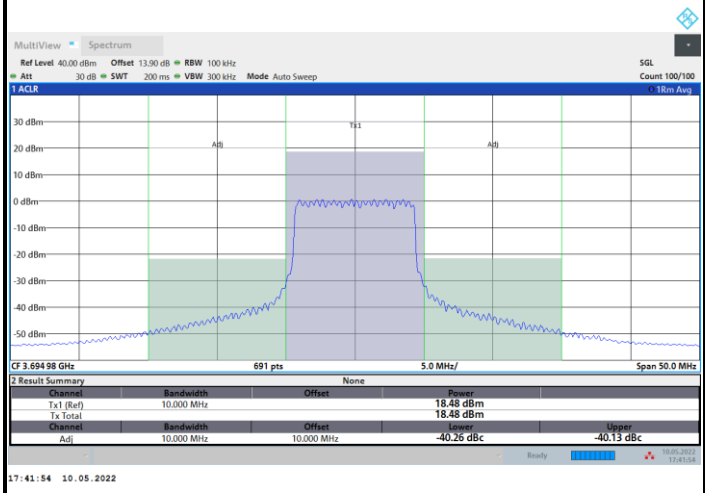
FR1 n48 / 10MHz / CP OFDM / QPSK	
Lowest Channel	
1RB0	1RBmax
	
Full RB	
	

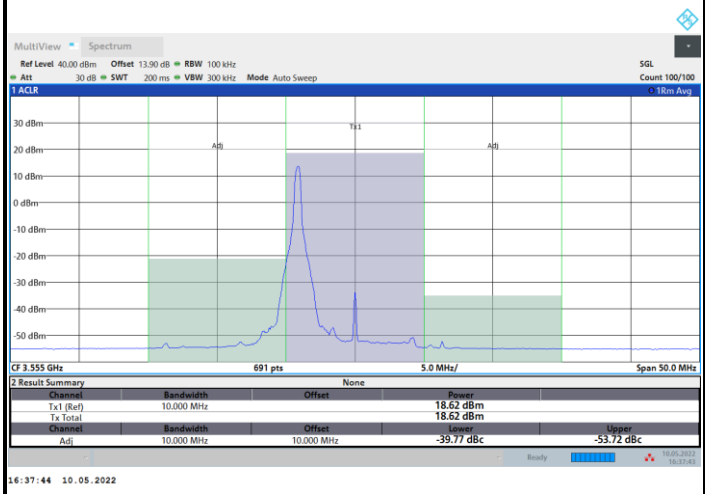
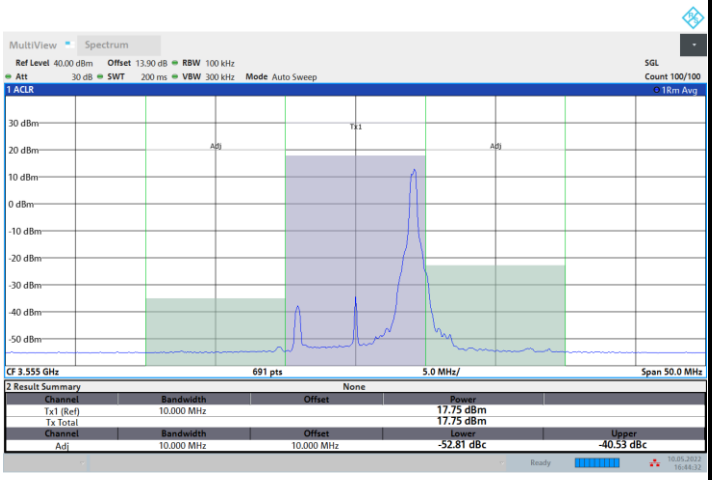
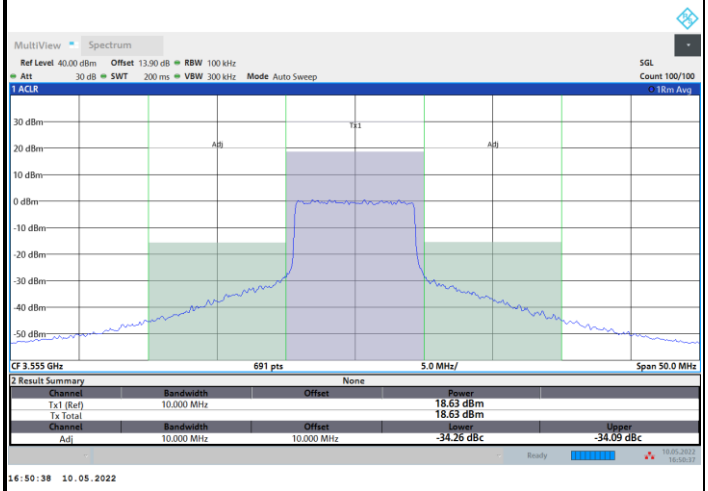
FR1 n48 / 10MHz / CP OFDM / QPSK	
Middle Channel	
1RB0	1RBmax
	
Full RB	
	

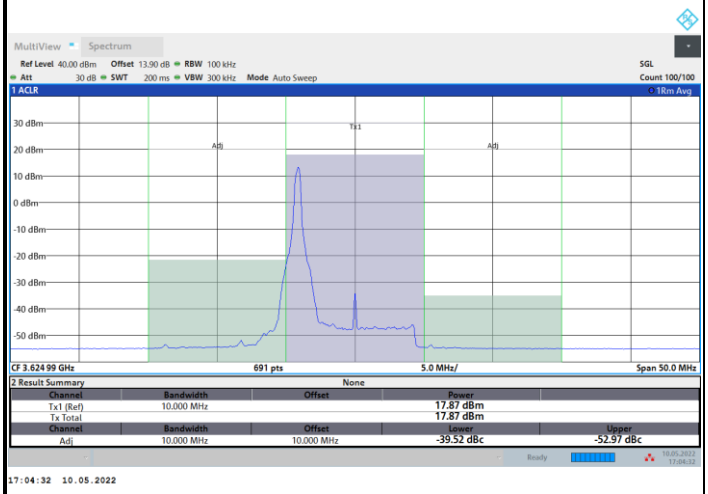
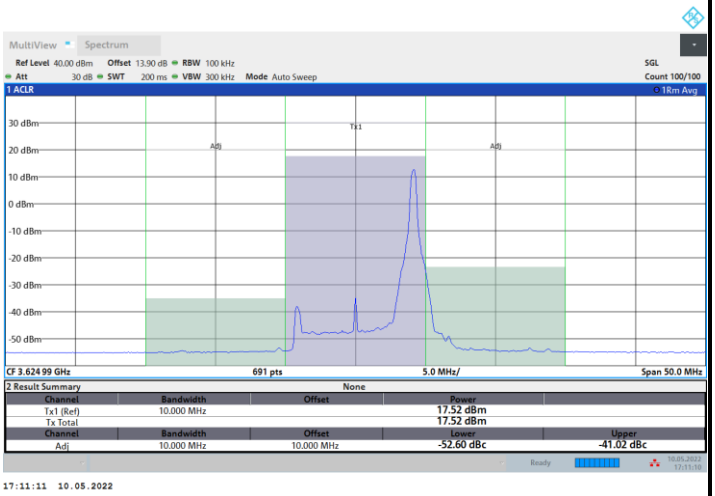
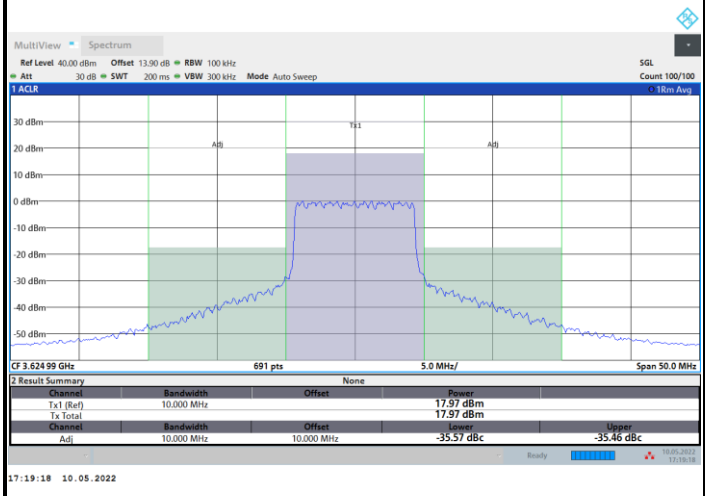
FR1 n48 / 10MHz / CP OFDM / QPSK	
Highest Channel	
1RB0	1RBmax
	
Full RB	
	

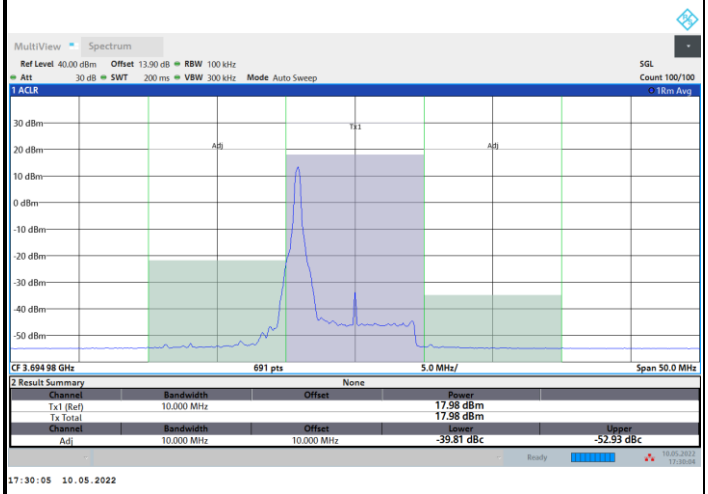
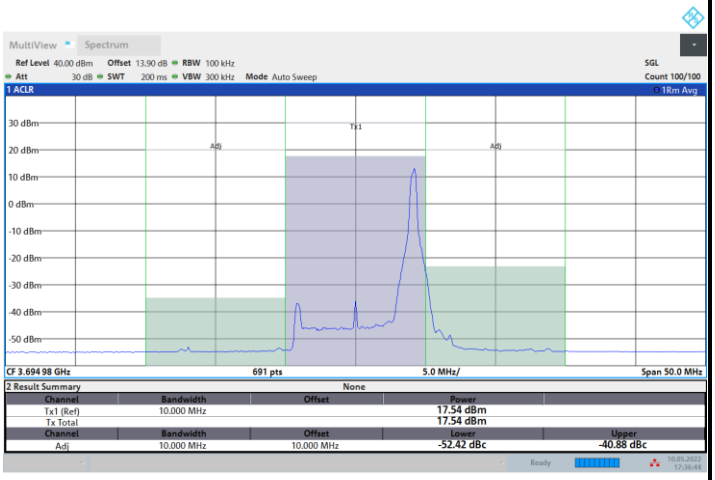
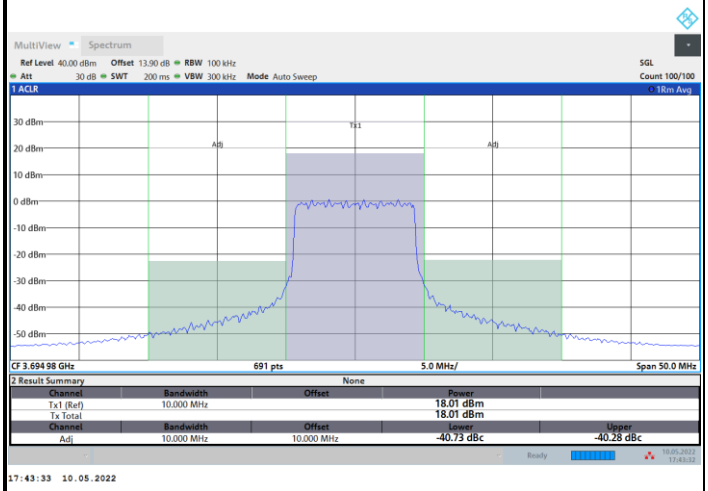
FR1 n48 / 10MHz / CP OFDM / 16QAM	
Lowest Channel	
1RB0	1RBmax
	
Full RB	
	

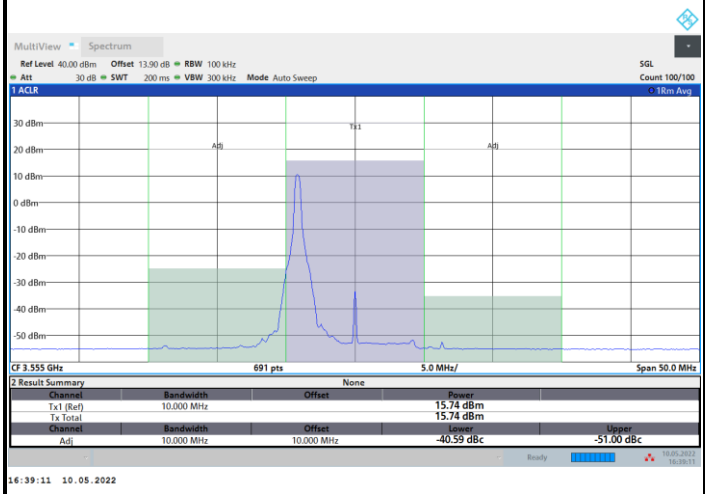
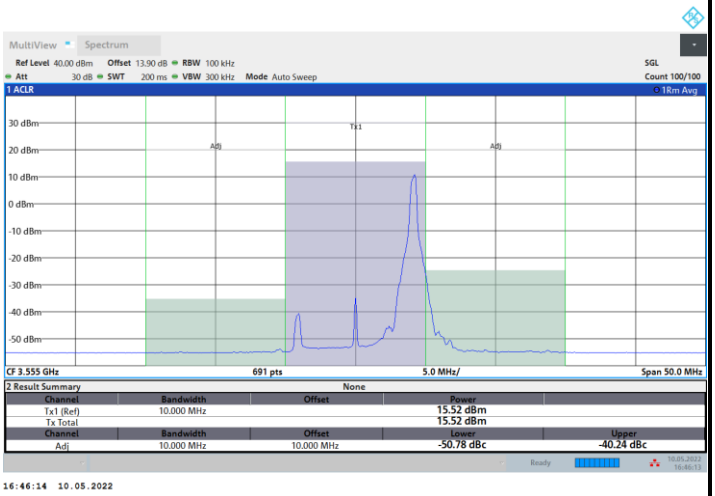
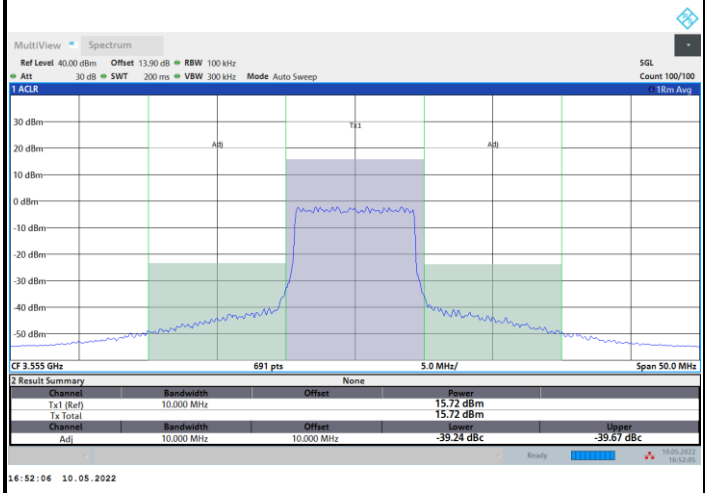
FR1 n48 / 10MHz / CP OFDM / 16QAM	
Middle Channel	
1RB0	1RBmax
	
Full RB	
	

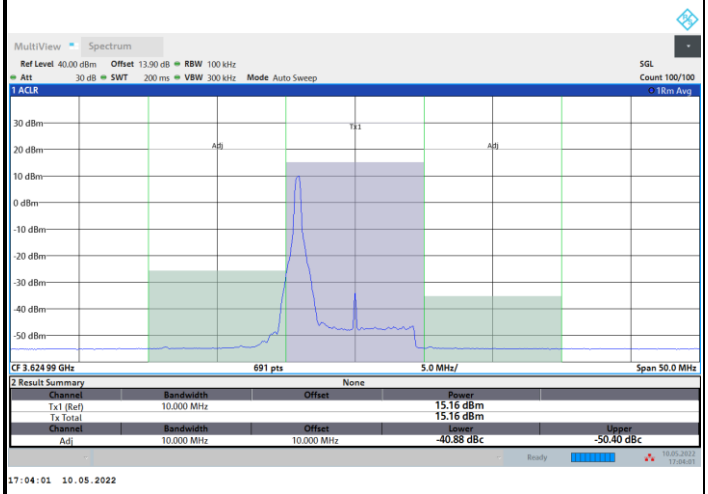
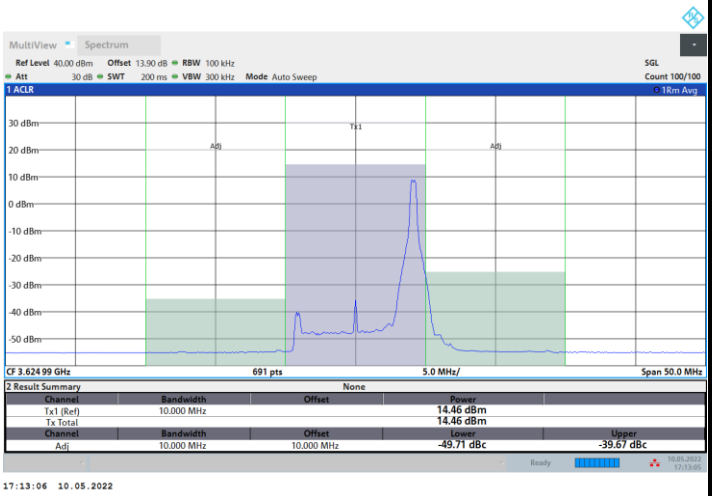
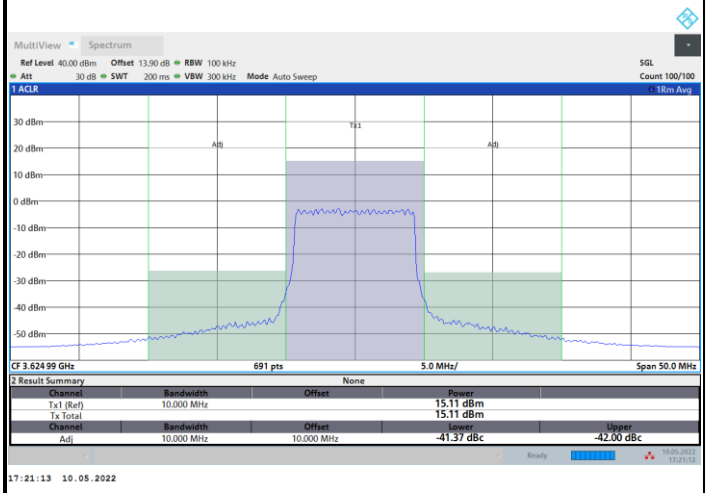
FR1 n48 / 10MHz / CP OFDM / 16QAM	
Highest Channel	
1RB0	1RBmax
	
Full RB	
	

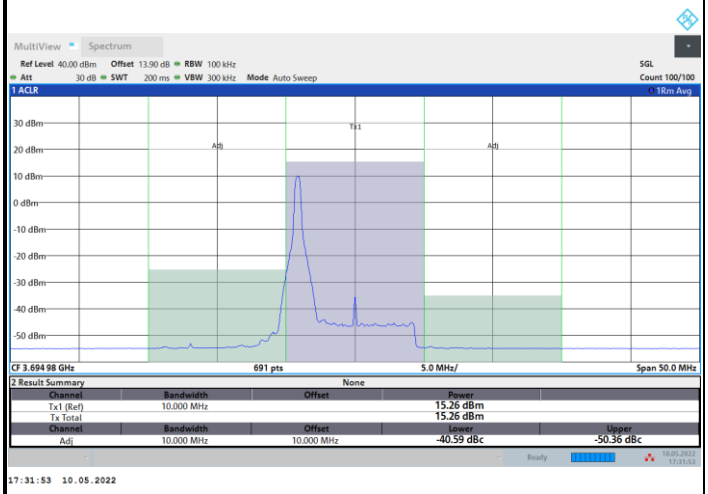
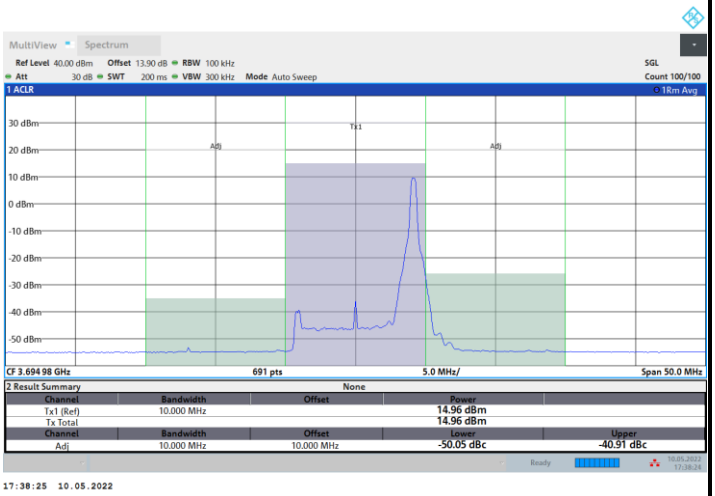
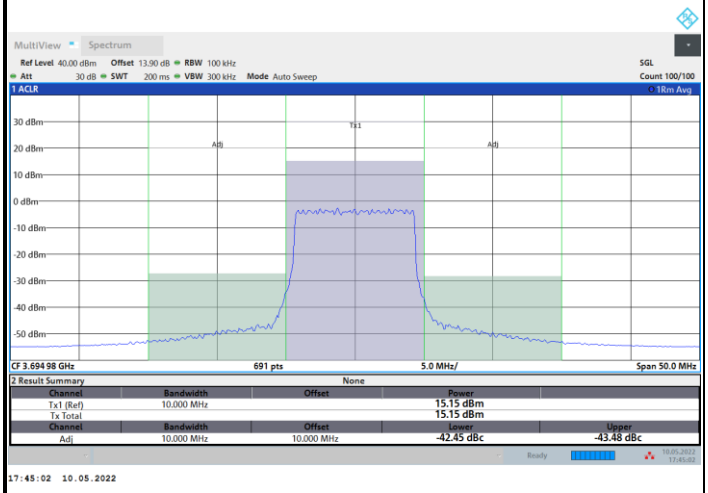
FR1 n48 / 10MHz / CP OFDM / 64QAM	
Lowest Channel	
1RB0	1RBmax
	
Full RB	
	

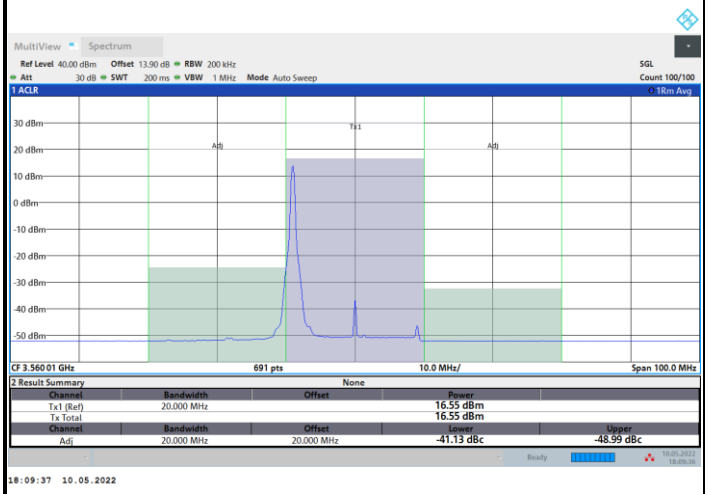
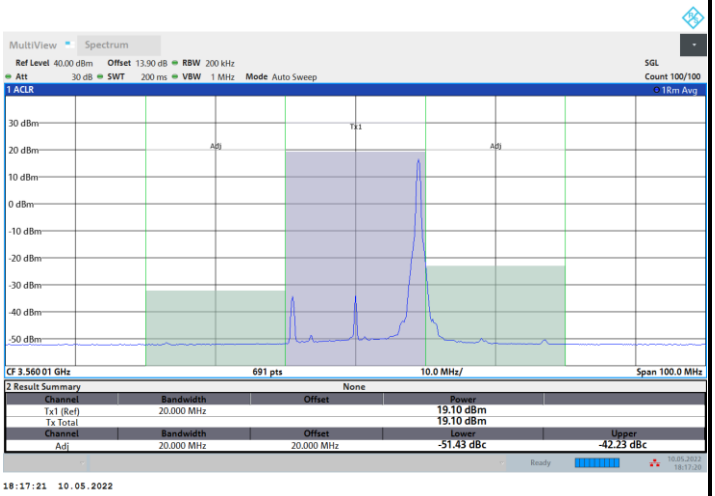
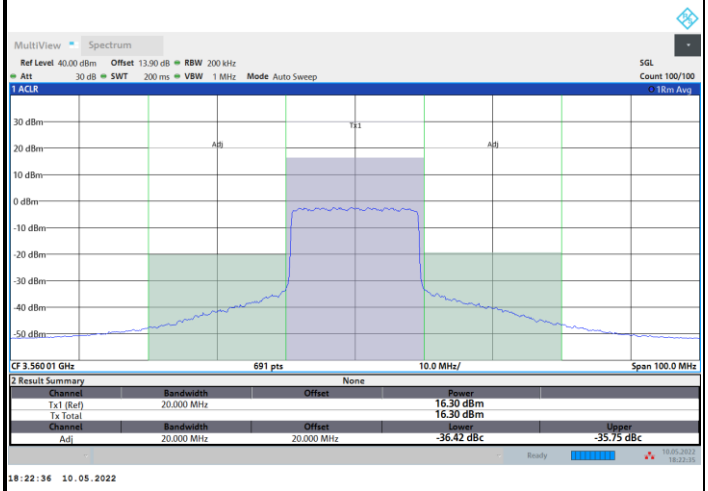
FR1 n48 / 10MHz / CP OFDM / 64QAM	
Middle Channel	
1RB0	1RBmax
	
Full RB	
	

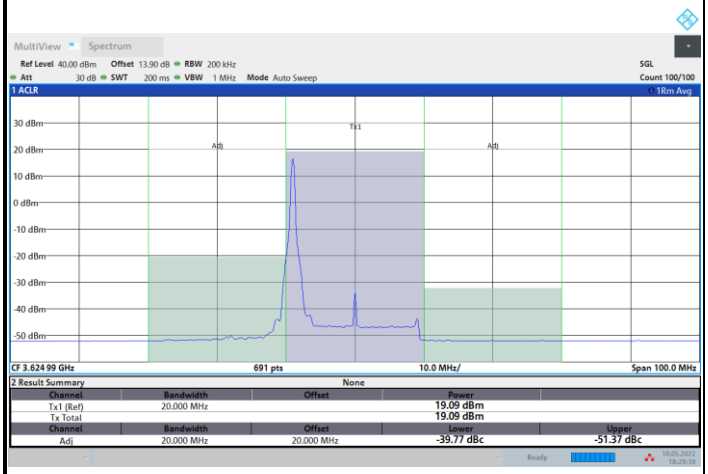
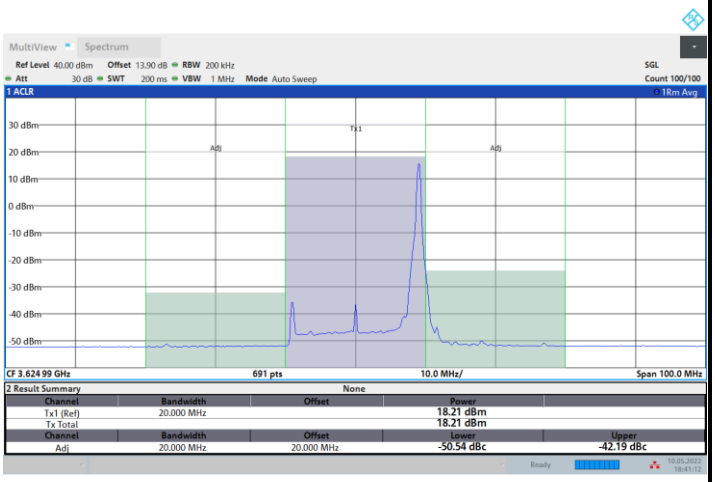
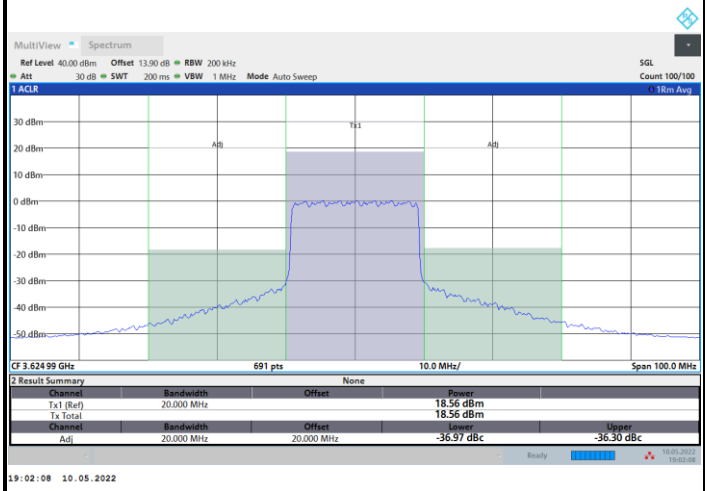
FR1 n48 / 10MHz / CP OFDM / 64QAM	
Highest Channel	
1RB0	1RBmax
	
Full RB	
	

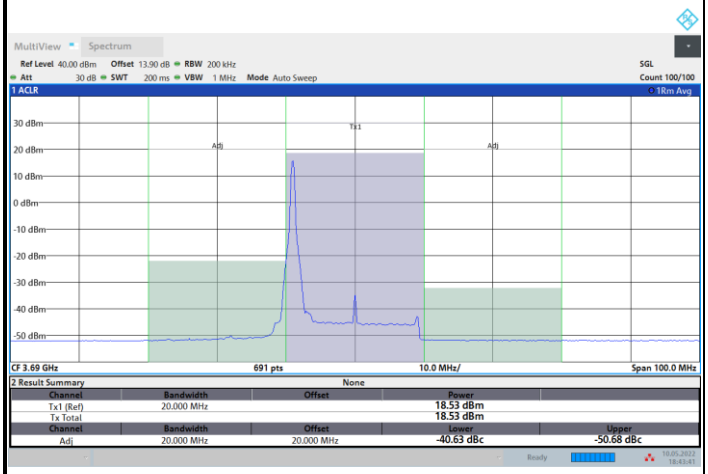
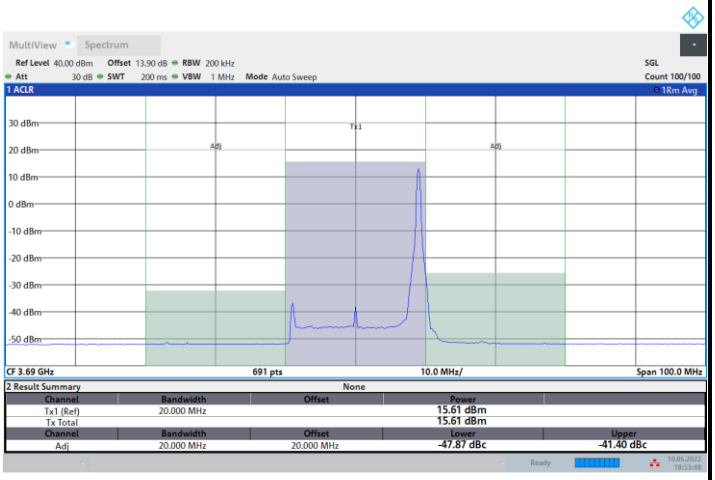
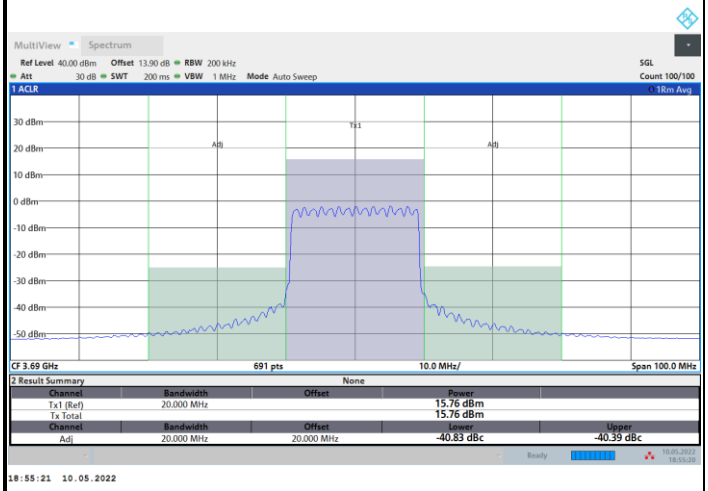
FR1 n48 / 10MHz / CP OFDM / 256QAM	
Lowest Channel	
1RB0	1RBmax
	
Full RB	
	

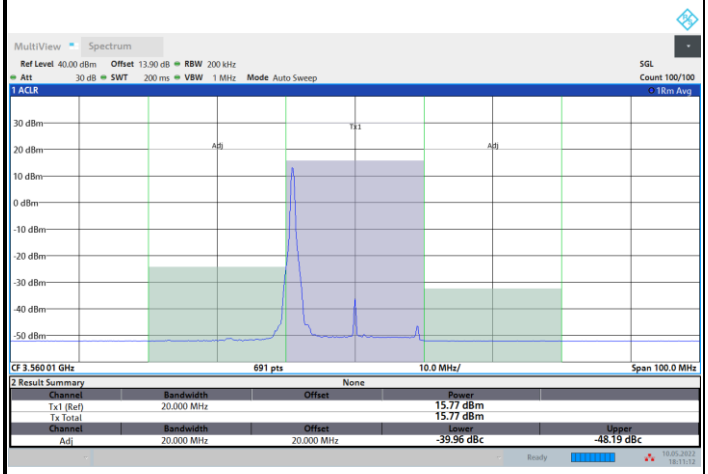
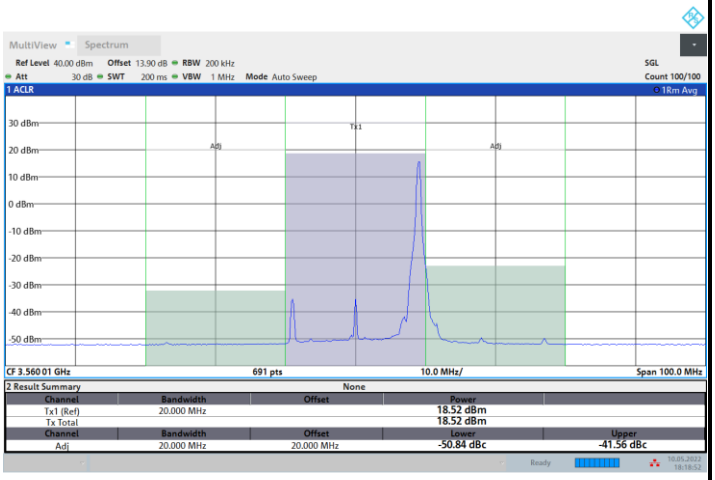
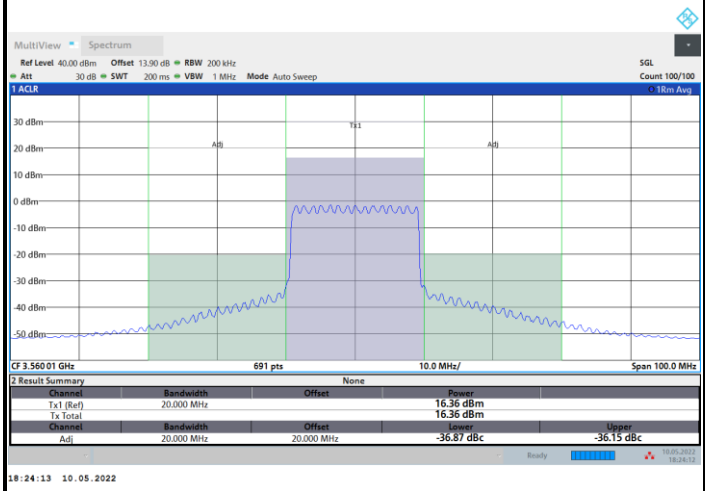
FR1 n48 / 10MHz / CP OFDM / 256QAM	
Middle Channel	
1RB0	1RBmax
	
Full RB	
	

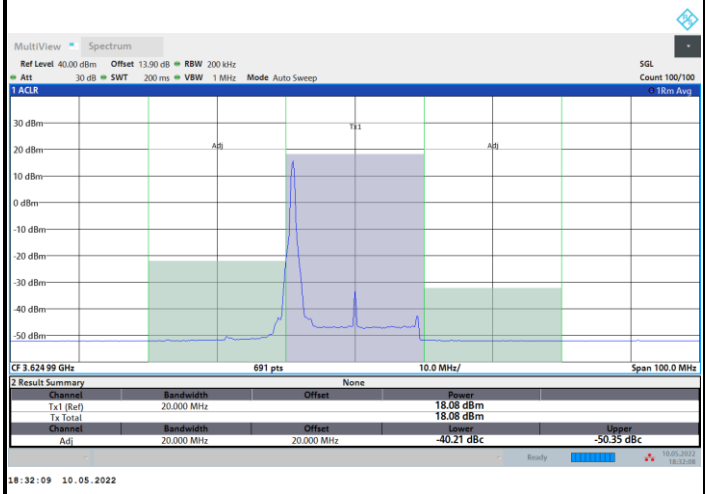
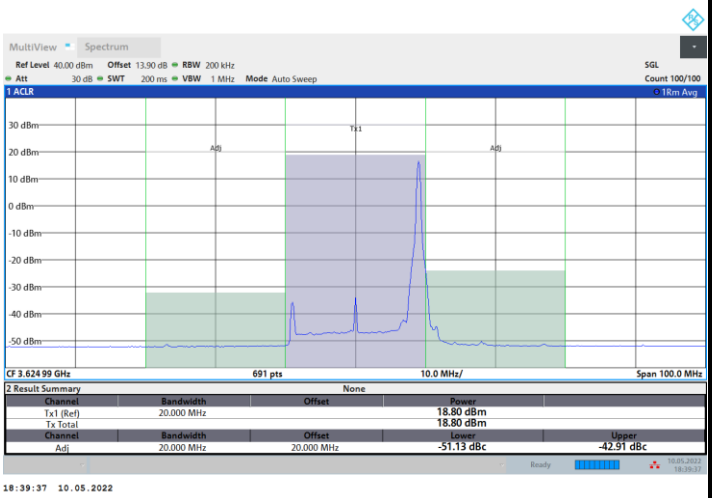
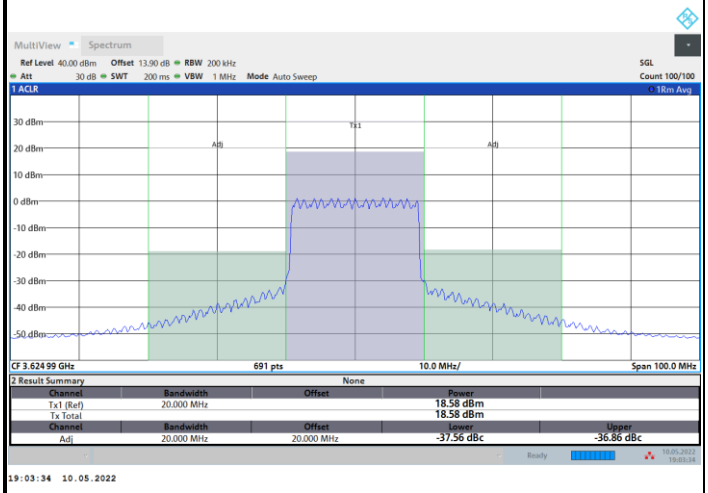
FR1 n48 / 10MHz / CP OFDM / 256QAM	
Highest Channel	
1RB0	1RBmax
	
Full RB	
	

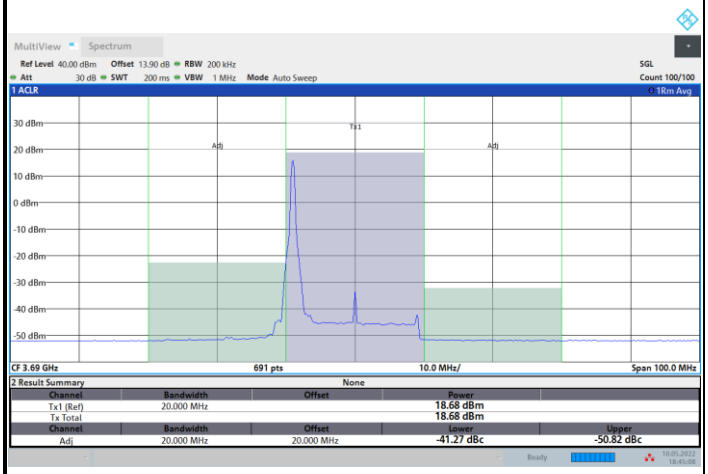
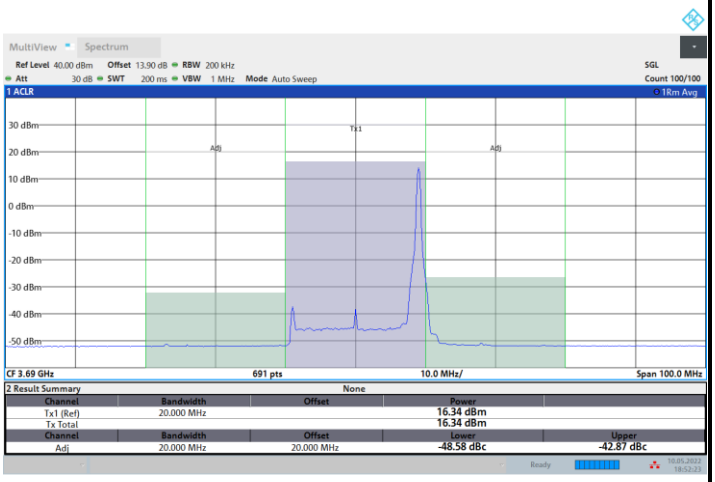
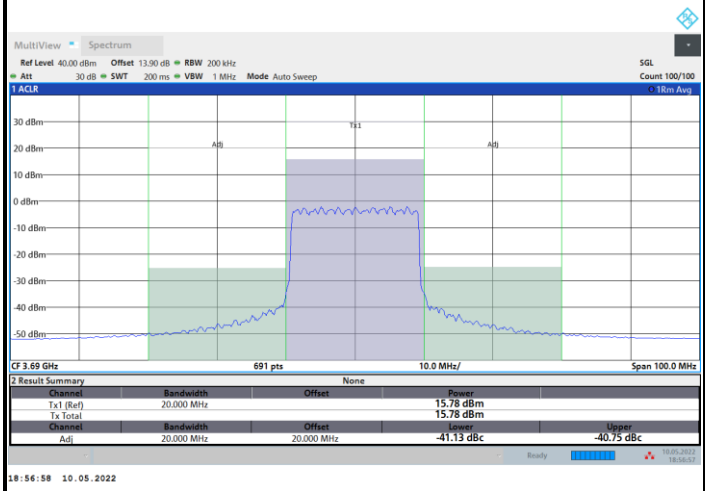
FR1 n48 / 20MHz / CP OFDM / QPSK	
Lowest Channel	
1RB0	1RBmax
	
Full RB	
	

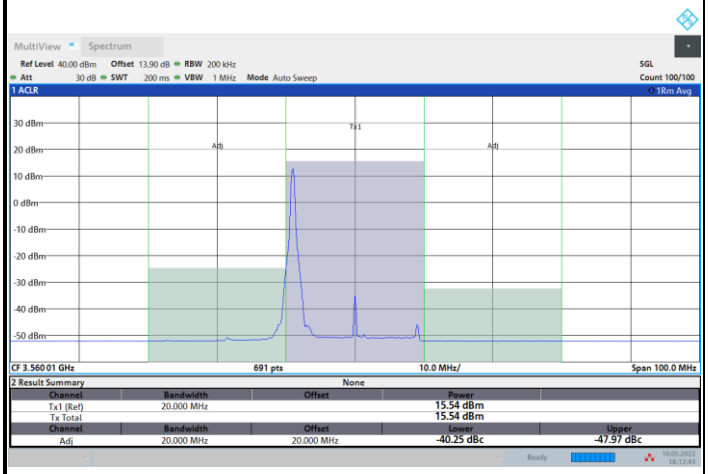
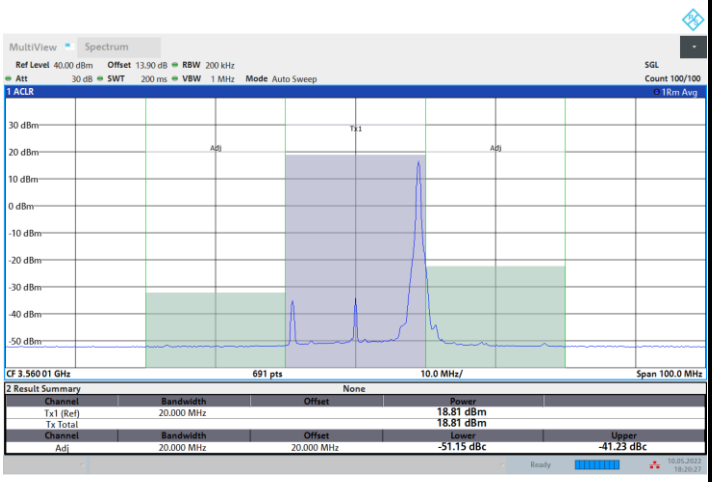
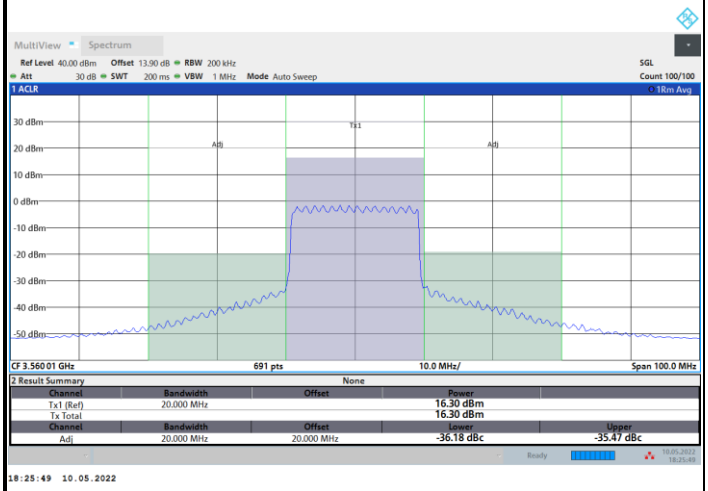
FR1 n48 / 20MHz / CP OFDM / QPSK	
Middle Channel	
1RB0	1RBmax
	
Full RB	
	

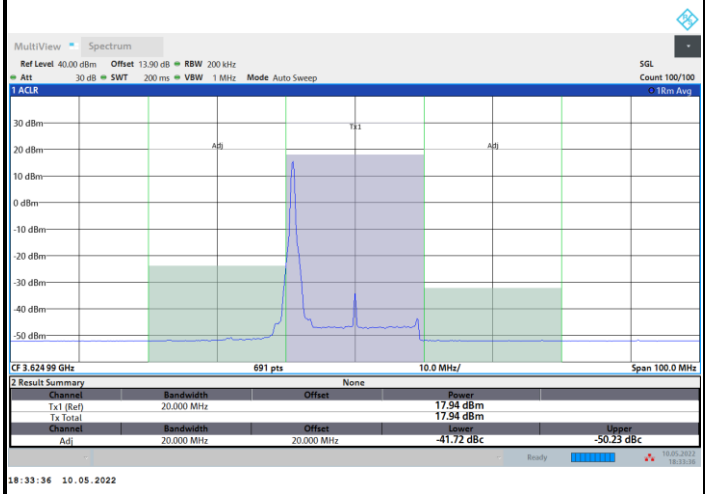
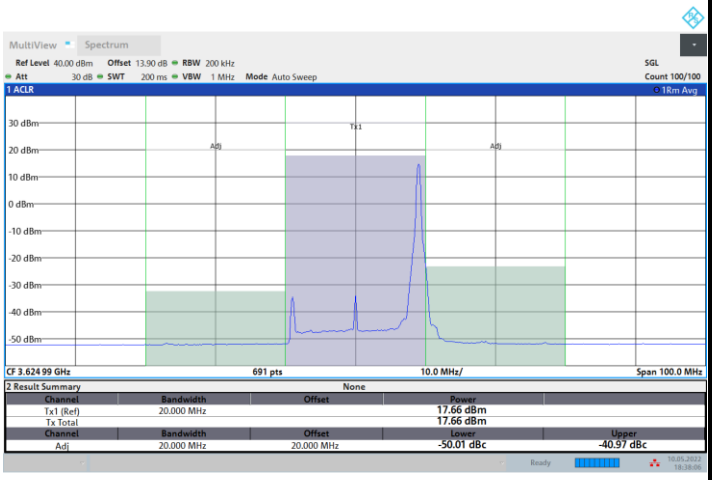
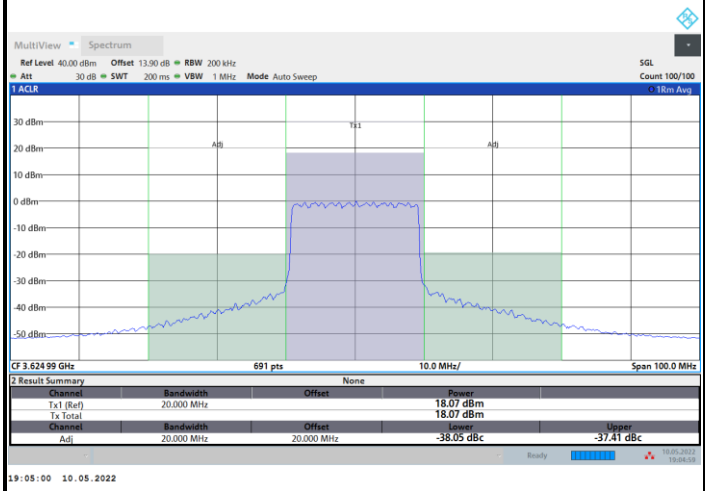
FR1 n48 / 20MHz / CP OFDM / QPSK	
Highest Channel	
1RB0	1RBmax
	
Full RB	
	

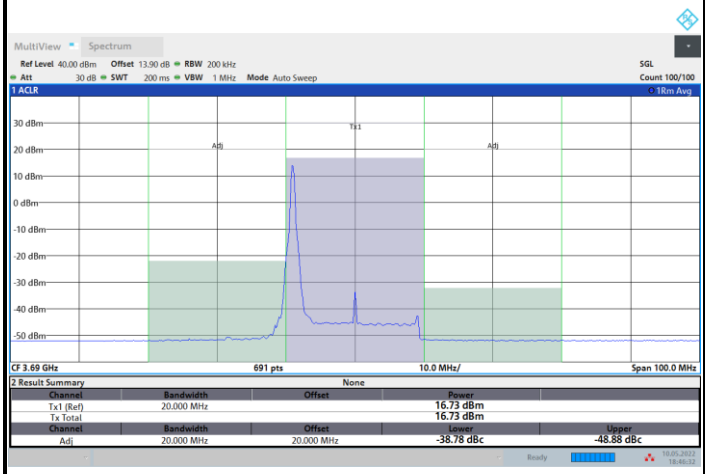
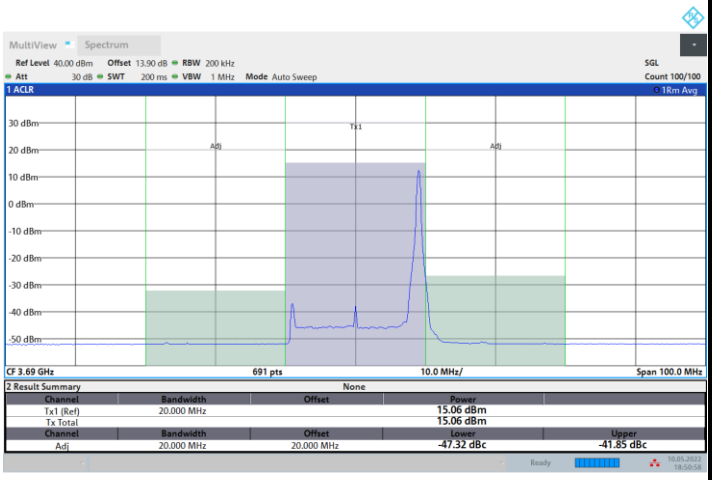
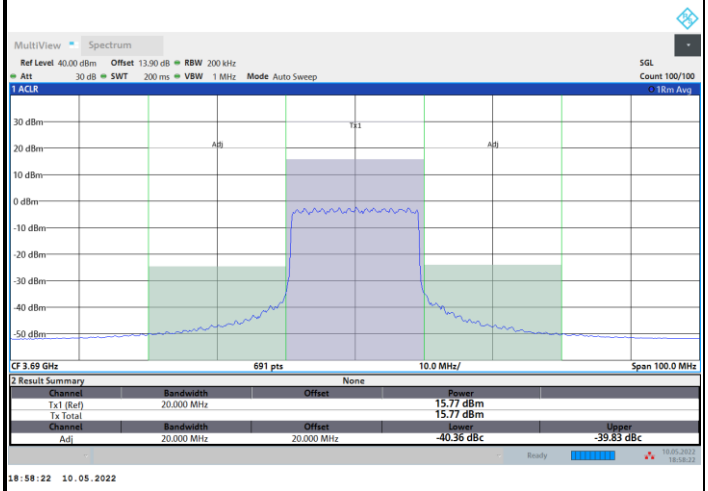
FR1 n48 / 20MHz / CP OFDM / 16QAM	
Lowest Channel	
1RB0	1RBmax
	
Full RB	
	

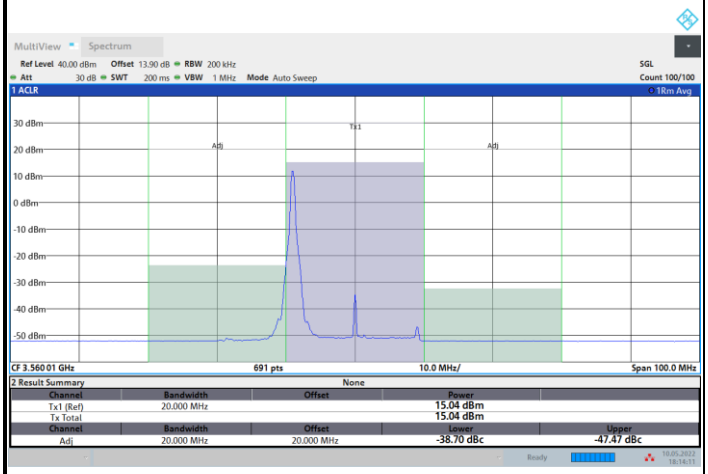
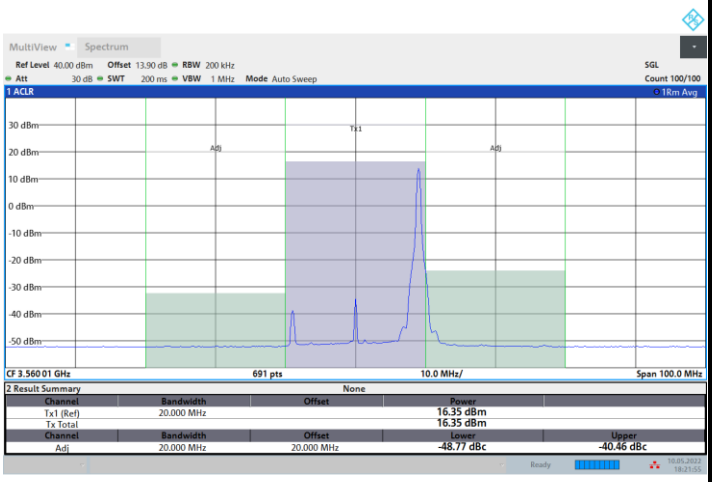
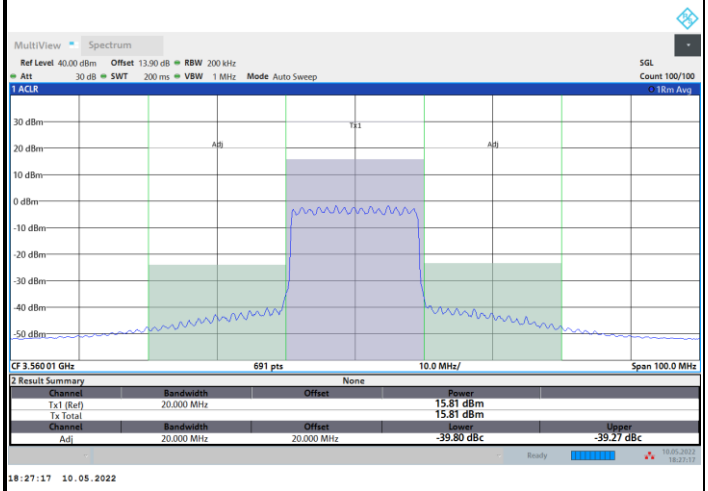
FR1 n48 / 20MHz / CP OFDM / 16QAM	
Middle Channel	
1RB0	1RBmax
	
Full RB	
	

FR1 n48 / 20MHz / CP OFDM / 16QAM	
Highest Channel	
1RB0	1RBmax
	
Full RB	
	

FR1 n48 / 20MHz / CP OFDM / 64QAM	
Lowest Channel	
1RB0	1RBmax
	
Full RB	
	

FR1 n48 / 20MHz / CP OFDM / 64QAM	
Middle Channel	
1RB0	1RBmax
	
Full RB	
	

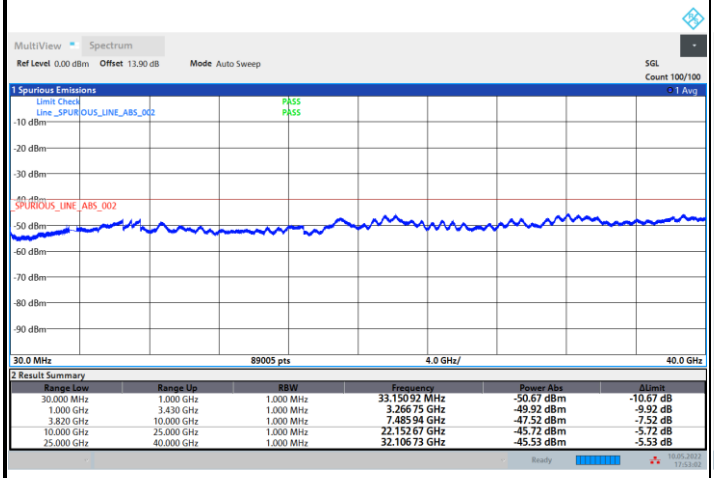
FR1 n48 / 20MHz / CP OFDM / 64QAM	
Highest Channel	
1RB0	1RBmax
	
Full RB	
	

FR1 n48 / 20MHz / CP OFDM / 256QAM	
Lowest Channel	
1RB0	1RBmax
	
Full RB	
	

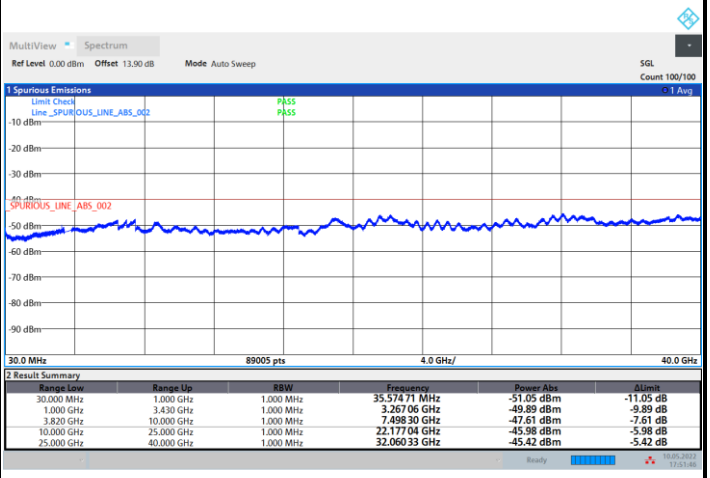
Conducted Spurious Emission

FR1 n48 / 10MHz / CP OFDM / QPSK / 1RB1

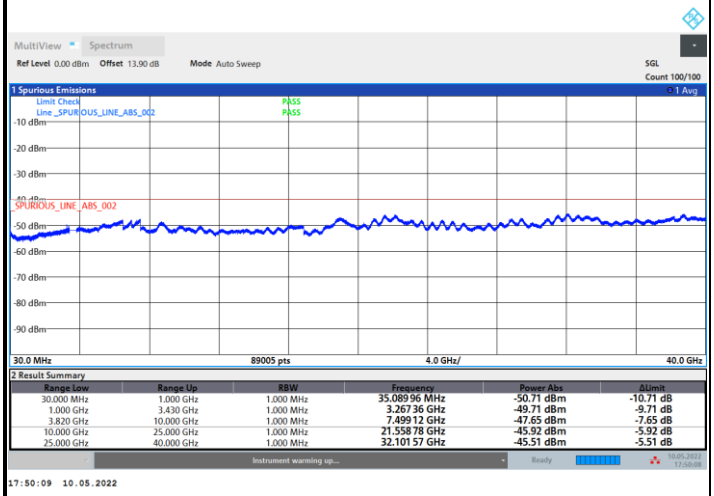
Lowest Channel



Middle Channel

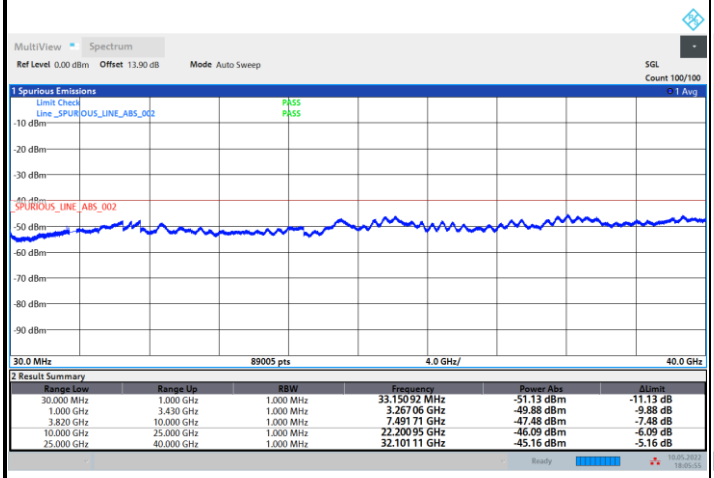


Highest Channel

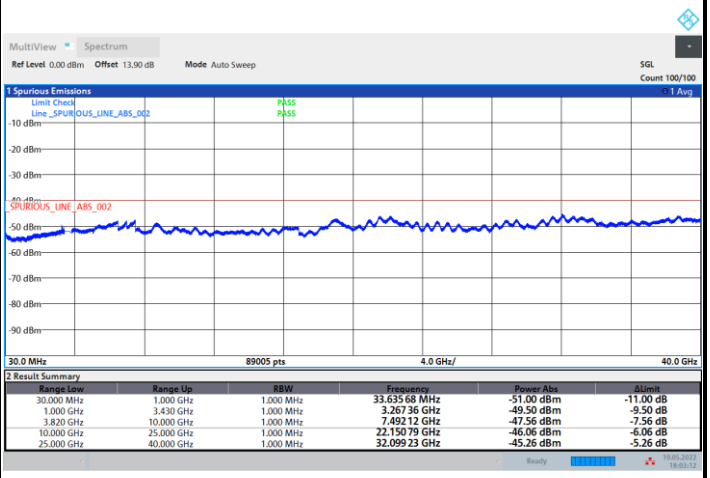


FR1 n48 / 20MHz / CP OFDM / QPSK / 1RB1

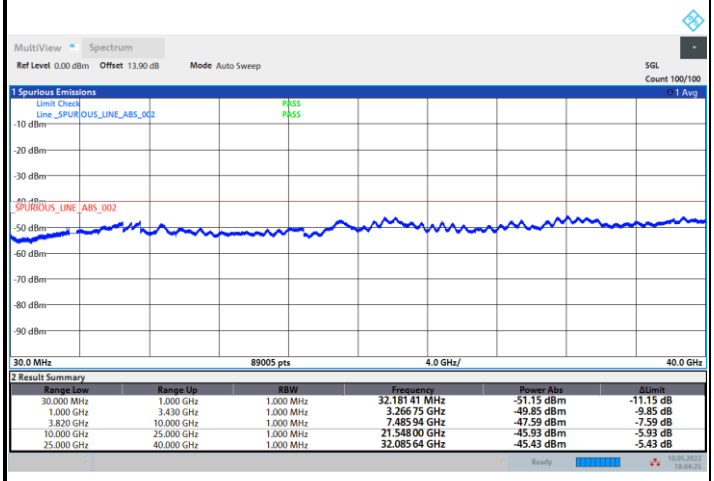
Lowest Channel



Middle Channel



Highest Channel



Frequency Stability

Test Conditions		FR1 n48 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 20MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0002	PASS
40	Normal Voltage	0.0039	
30	Normal Voltage	0.0052	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0019	
0	Normal Voltage	0.0028	
-10	Normal Voltage	0.0036	
-20	Normal Voltage	0.0046	
-30	Normal Voltage	0.0029	
20	Maximum Voltage	0.0037	
20	Normal Voltage	0.0050	
20	Battery End Point	0.0039	

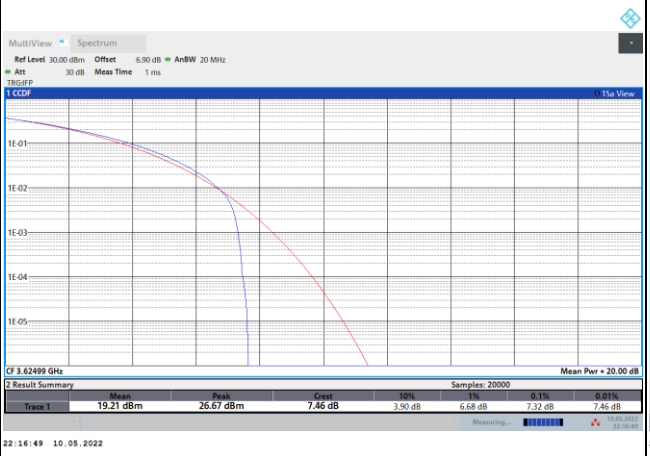
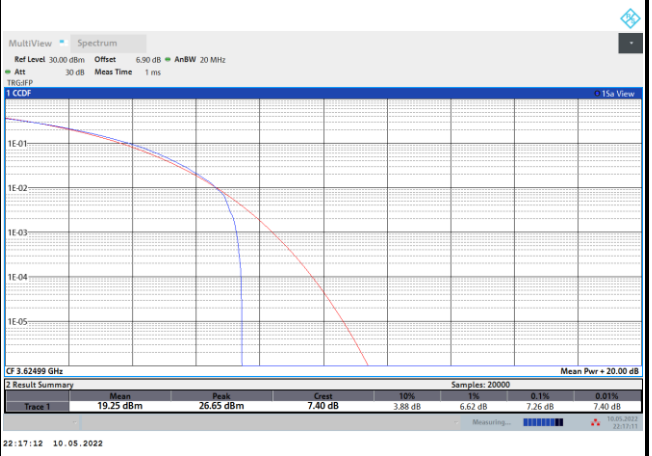
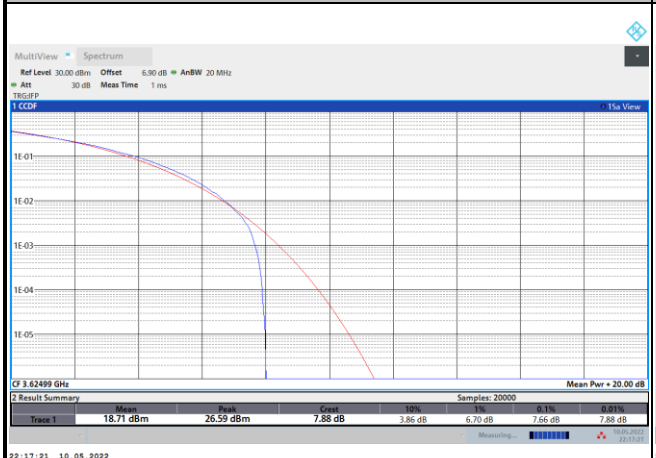
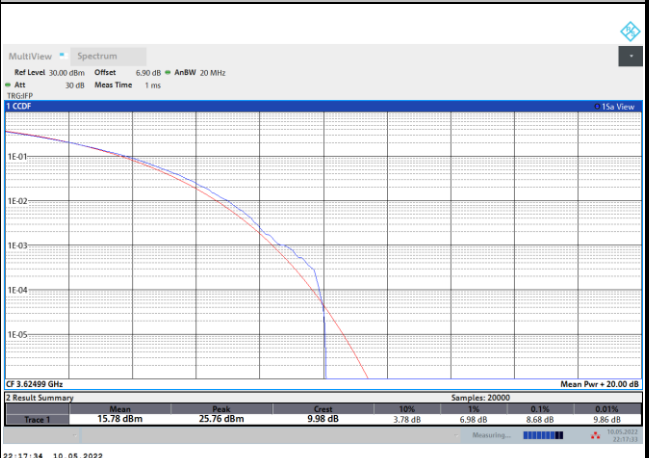
Note:

1. Normal Voltage = 3.85 V.；Battery End Point (BEP) = 3.4 V.；Maximum Voltage = 4.4 V.
2. The frequency fundamental emissions stay within the authorized frequency block.

<MIMO Ant. 2>

Peak-to-Average Ratio

Mode	FR1 n48 / 20MHz / CP OFDM				
Mod.	QPSK	16QAM	64QAM	256QAM	Limit: 13dB
RB Size	Full RB	Full RB	Full RB	Full RB	Result
Middle CH	7.32	7.26	7.66	8.68	PASS

FR1 n48 / 20MHz / CP OFDM / Middle Channel / Full RB	
QPSK	16QAM
	
64QAM	256QAM
	

26dB Bandwidth

Mode	FR1 n48 : 26dB BW(MHz) / CP OFDM							
BW	10MHz		20MHz		40MHz		50MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Middle CH	9.39	9.45	19.34	19.34	-	-	-	-
Mod.	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM
Middle CH	9.17	9.05	19.14	19.26	-	-	-	-
BW	60MHz		80MHz		90MHz		100MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Middle CH	-	-	-	-	-	-	-	-
Mod.	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM
Middle CH	-	-	-	-	-	-	-	-