

Appendix for LTE Band 38

Model: VNE-N41

BTL-FCCP-8-2204C233

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1 Appendix_A: Effective (Isotropic) Radiated Power of Transmitter

1.1 Test Results

Test Mode	Test Bandwidth [MHz]	Test Channel	Test RB	Modulation	Measured [dBm]	Gain [dBi]	EIRP [dBm]	Limit [dBm]	Verdict
TM1	5	LCH	RB25#0	QPSK	22.72	1.9	24.62	33	PASS
			RB1#0	QPSK	23.69	1.9	25.59	33	PASS
			RB1#24	QPSK	23.68	1.9	25.58	33	PASS
		MCH	RB25#0	QPSK	22.61	1.9	24.51	33	PASS
			RB1#0	QPSK	23.60	1.9	25.5	33	PASS
			RB1#24	QPSK	23.46	1.9	25.36	33	PASS
		HCH	RB25#0	QPSK	22.62	1.9	24.52	33	PASS
			RB1#0	QPSK	23.55	1.9	25.45	33	PASS
			RB1#24	QPSK	23.50	1.9	25.4	33	PASS
	20	LCH	RB100#0	QPSK	22.53	1.9	24.43	33	PASS
			RB1#0	QPSK	23.57	1.9	25.47	33	PASS
			RB1#99	QPSK	23.42	1.9	25.32	33	PASS
		MCH	RB100#0	QPSK	22.50	1.9	24.4	33	PASS
			RB1#0	QPSK	23.39	1.9	25.29	33	PASS
			RB1#99	QPSK	23.31	1.9	25.21	33	PASS
		HCH	RB100#0	QPSK	22.52	1.9	24.42	33	PASS
			RB1#0	QPSK	23.51	1.9	25.41	33	PASS
			RB1#99	QPSK	23.46	1.9	25.36	33	PASS
TM2	5	LCH	RB25#0	16QAM	21.80	1.9	23.7	33	PASS
			RB1#0	16QAM	22.80	1.9	24.7	33	PASS
			RB1#24	16QAM	22.93	1.9	24.83	33	PASS
		MCH	RB25#0	16QAM	21.63	1.9	23.53	33	PASS
			RB1#0	16QAM	22.91	1.9	24.81	33	PASS
			RB1#24	16QAM	22.93	1.9	24.83	33	PASS
		HCH	RB25#0	16QAM	21.62	1.9	23.52	33	PASS
			RB1#0	16QAM	22.74	1.9	24.64	33	PASS
			RB1#24	16QAM	22.72	1.9	24.62	33	PASS
	20	LCH	RB100#0	16QAM	21.53	1.9	23.43	33	PASS
			RB1#0	16QAM	23.11	1.9	25.01	33	PASS
			RB1#99	16QAM	22.91	1.9	24.81	33	PASS
		MCH	RB100#0	16QAM	21.54	1.9	23.44	33	PASS
			RB1#0	16QAM	22.85	1.9	24.75	33	PASS
			RB1#99	16QAM	22.71	1.9	24.61	33	PASS
		HCH	RB100#0	16QAM	21.55	1.9	23.45	33	PASS
			RB1#0	16QAM	22.94	1.9	24.84	33	PASS
			RB1#99	16QAM	22.91	1.9	24.81	33	PASS

2 Appendix_B: Peak-to-Average Ratio

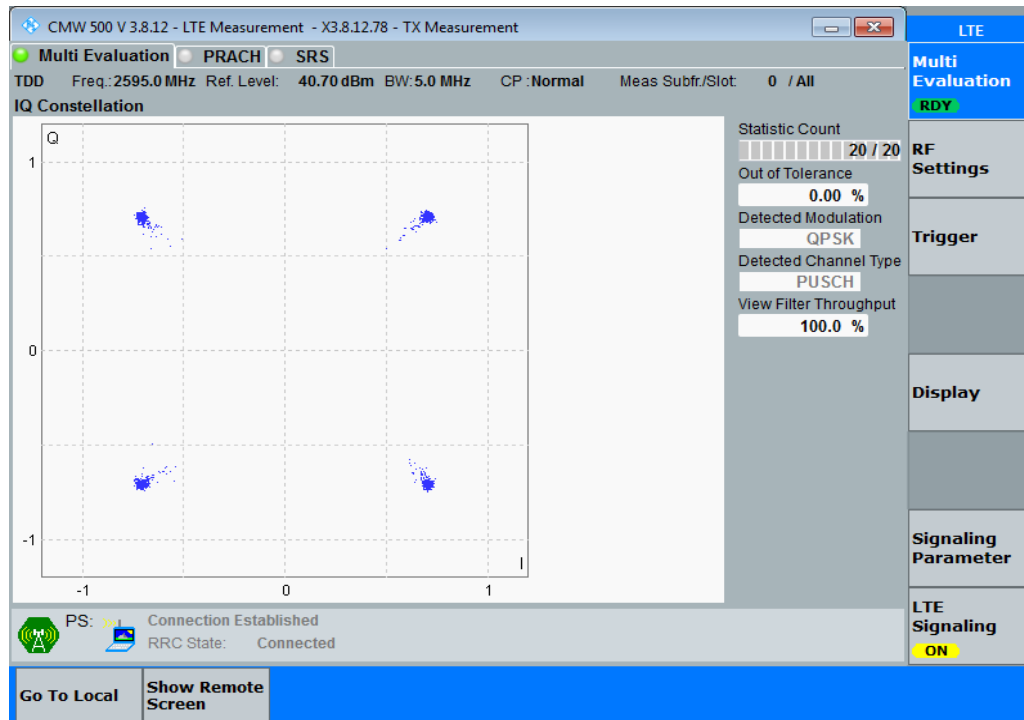
2.1 Test Results

Test Mode	Test Bandwidth [MHz]	Test Channel	Test RB	Modulation	Measured [dB]	Limit [dB]	Verdict
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			RB1#0	QPSK	3.01	13	PASS
			RB1#24	QPSK	3.07	13	PASS
	20		RB100#0	QPSK	5.02	13	PASS
			RB1#0	QPSK	3.00	13	PASS
			RB1#99	QPSK	3.06	13	PASS
TM2	5		RB25#0	16QAM	5.85	13	PASS
			RB1#0	16QAM	4.19	13	PASS
			RB1#24	16QAM	4.32	13	PASS
	20		RB100#0	16QAM	6.02	13	PASS
			RB1#0	16QAM	4.11	13	PASS
			RB1#99	16QAM	4.32	13	PASS
TM3	5		RB25#0	64QAM	6.57	13	PASS
			RB1#0	64QAM	5.09	13	PASS
			RB1#24	64QAM	5.14	13	PASS
	20		RB100#0	64QAM	7.45	13	PASS
			RB1#0	64QAM	4.86	13	PASS
			RB1#99	64QAM	5.08	13	PASS

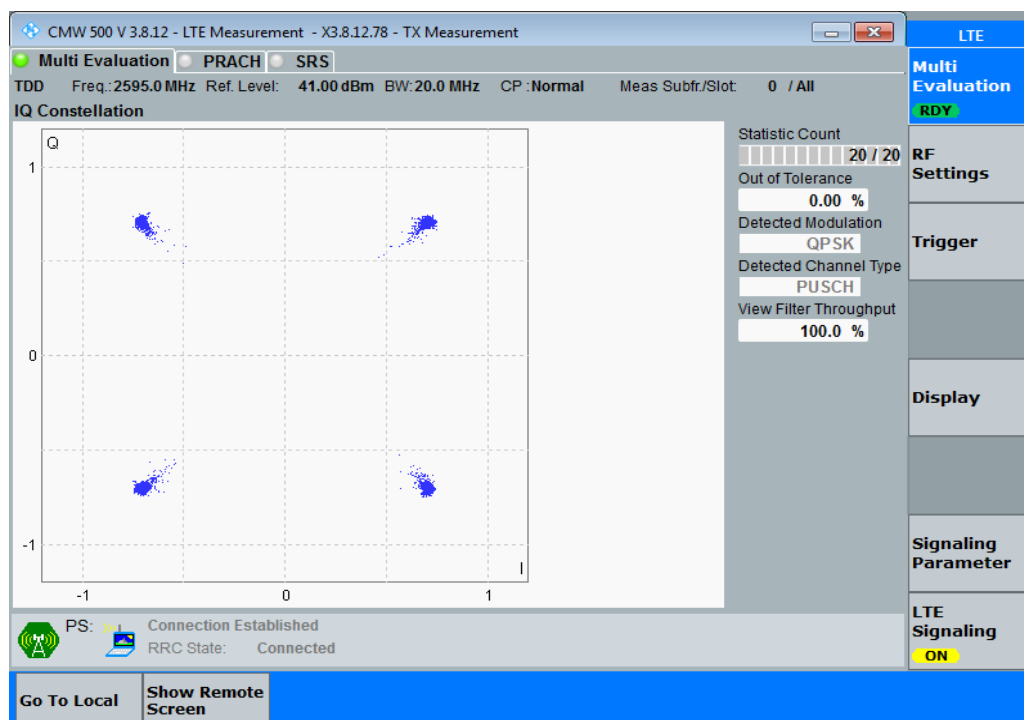
3 Appendix_C: Modulation Characteristics

3.1 Test Plots

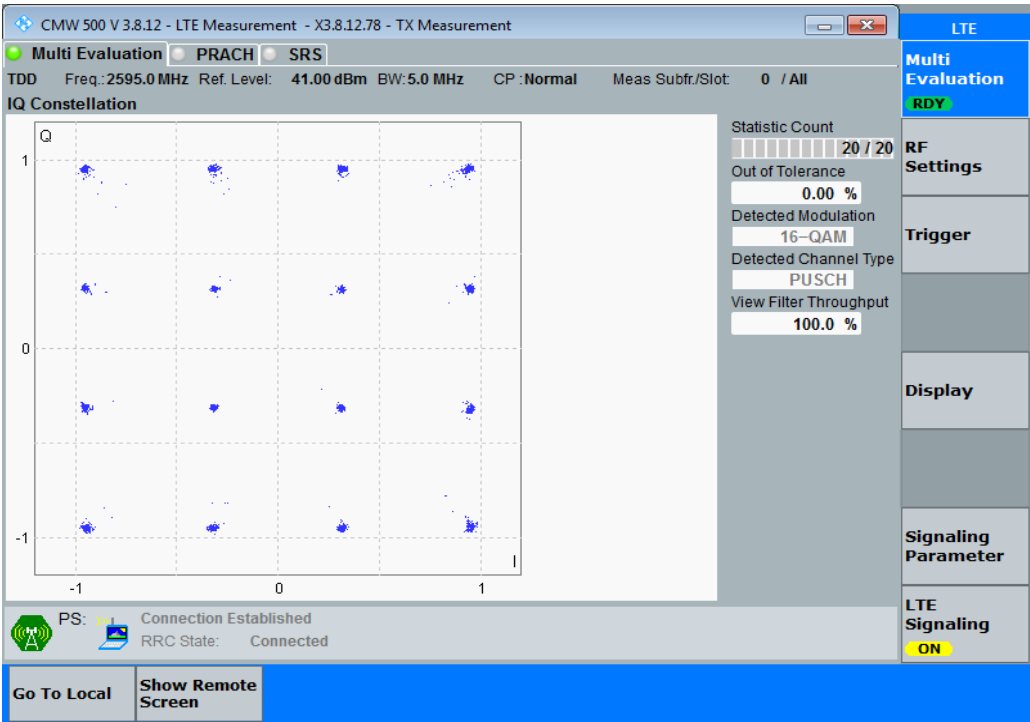
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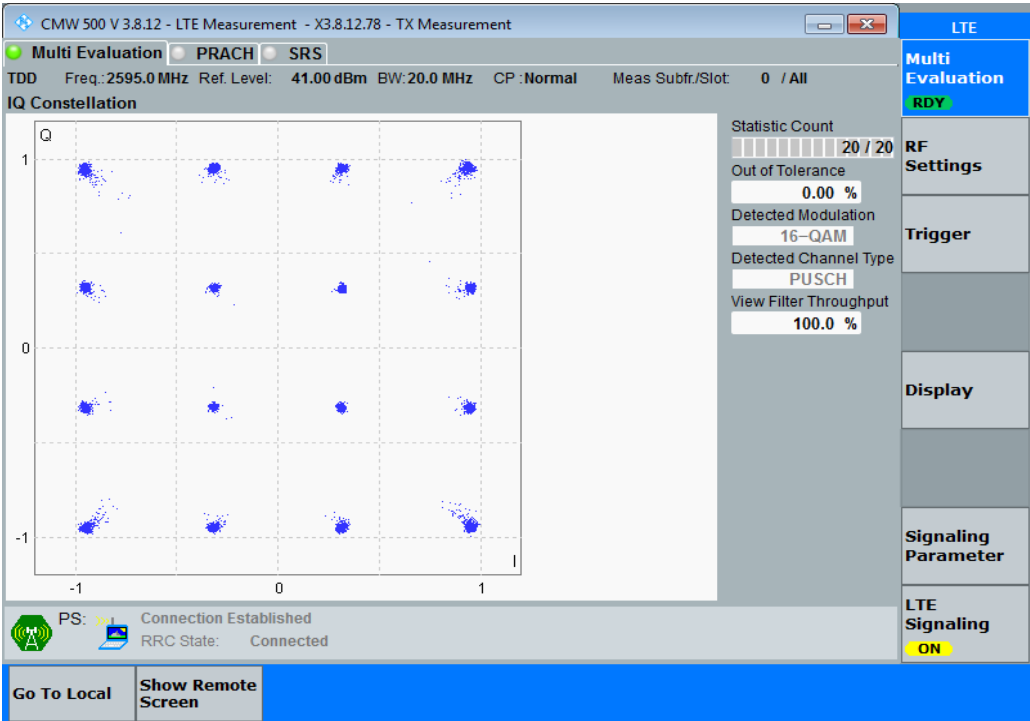
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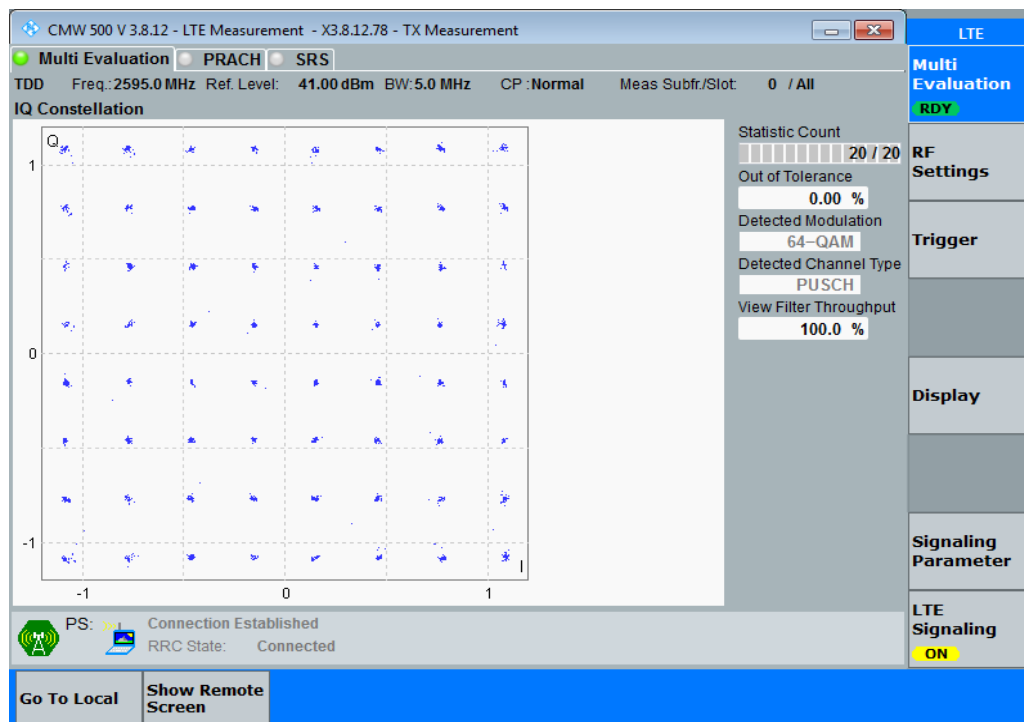
TM2_5MHz_MCH_RB25#0



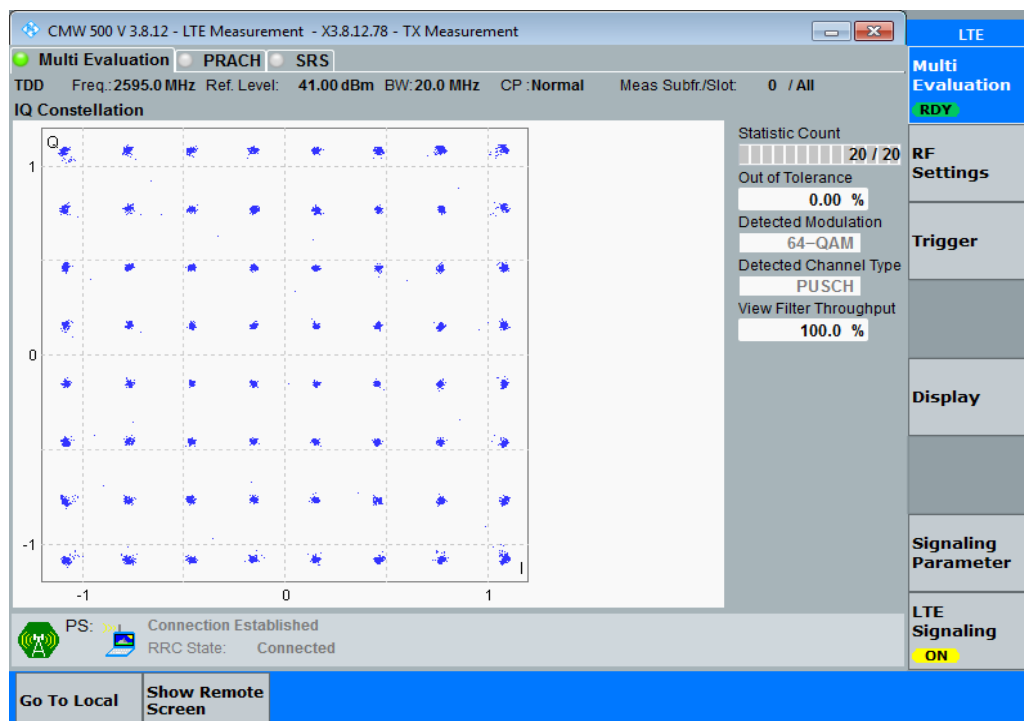
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TM3_5MHz_MCH_RB25#0



TM3_20MHz_MCH_RB100#0



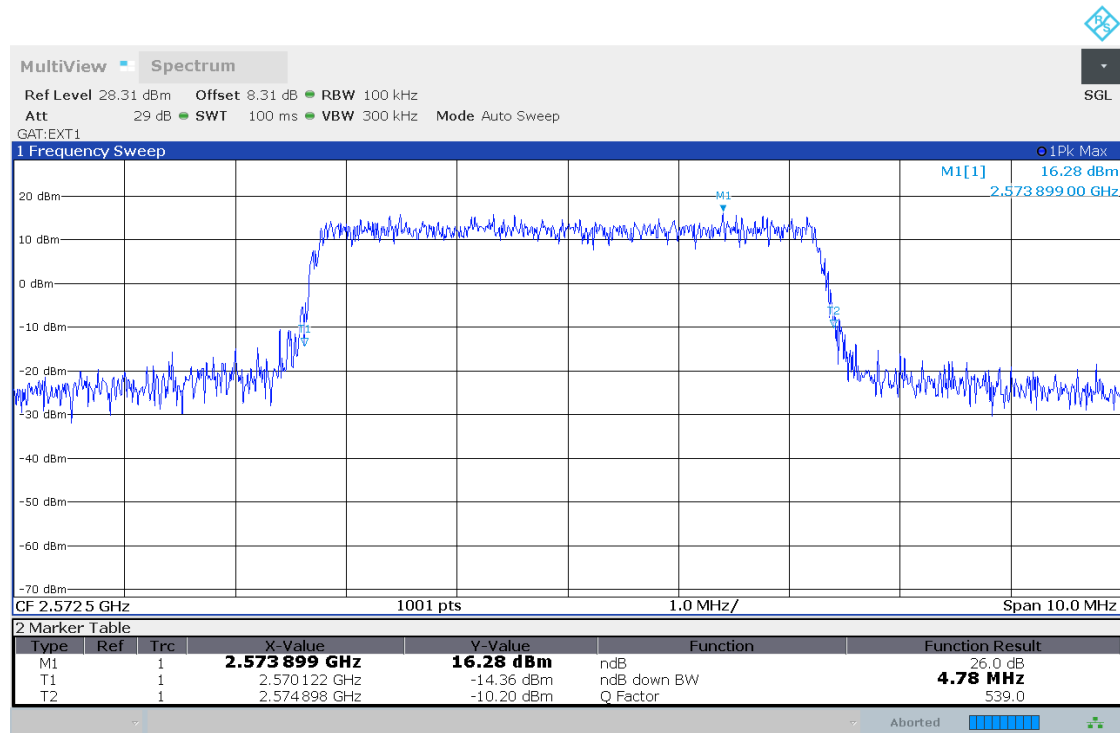
4 Appendix_D: Occupied Bandwidth

4.1 Test Results

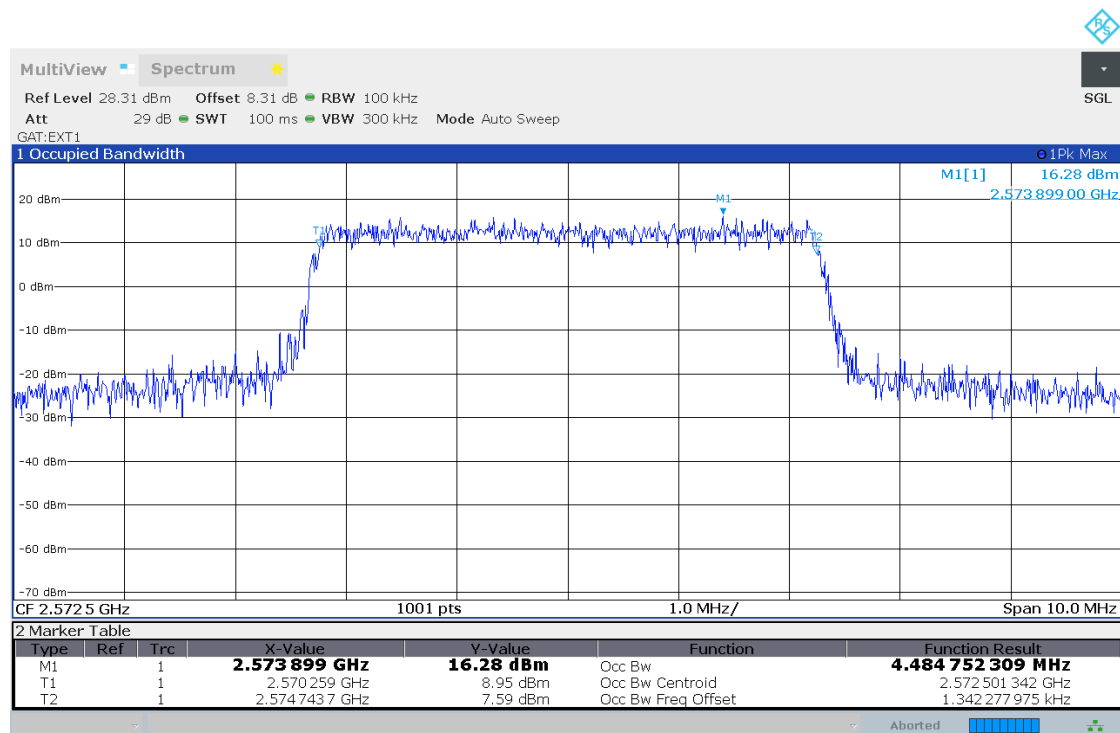
Test Mode	Test Bandwidth [MHz]	Test Channel	Test RB	Modulation	Occupied Bandwidth [MHz]	Emission Bandwidth [MHz]	Verdict
TM1	5	LCH	RB25#0	QPSK	4.48	4.78	PASS
		MCH	RB25#0	QPSK	4.49	4.75	PASS
		HCH	RB25#0	QPSK	4.48	4.75	PASS
	10	LCH	RB50#0	QPSK	8.97	9.61	PASS
		MCH	RB50#0	QPSK	8.95	9.53	PASS
		HCH	RB50#0	QPSK	8.96	9.45	PASS
	15	LCH	RB75#0	QPSK	13.45	14.33	PASS
		MCH	RB75#0	QPSK	13.44	14.24	PASS
		HCH	RB75#0	QPSK	13.43	14.33	PASS
	20	LCH	RB100#0	QPSK	17.99	19.14	PASS
		MCH	RB100#0	QPSK	17.96	19.22	PASS
		HCH	RB100#0	QPSK	18.00	19.14	PASS
TM2	5	LCH	RB25#0	16QAM	4.48	4.72	PASS
		MCH	RB25#0	16QAM	4.49	4.76	PASS
		HCH	RB25#0	16QAM	4.47	4.79	PASS
	10	LCH	RB50#0	16QAM	8.96	9.45	PASS
		MCH	RB50#0	16QAM	8.96	9.51	PASS
		HCH	RB50#0	16QAM	8.96	9.51	PASS
	15	LCH	RB75#0	16QAM	13.43	14.21	PASS
		MCH	RB75#0	16QAM	13.45	14.27	PASS
		HCH	RB75#0	16QAM	13.41	14.18	PASS
	20	LCH	RB100#0	16QAM	17.97	19.22	PASS
		MCH	RB100#0	16QAM	17.95	19.18	PASS
		HCH	RB100#0	16QAM	17.96	19.38	PASS
TM3	5	LCH	RB25#0	64QAM	4.49	4.79	PASS
		MCH	RB25#0	64QAM	4.48	4.75	PASS
		HCH	RB25#0	64QAM	4.47	4.80	PASS
	10	LCH	RB50#0	64QAM	8.97	9.53	PASS
		MCH	RB50#0	64QAM	8.97	9.57	PASS
		HCH	RB50#0	64QAM	8.97	9.49	PASS
	15	LCH	RB75#0	64QAM	13.42	14.33	PASS
		MCH	RB75#0	64QAM	13.47	14.33	PASS
		HCH	RB75#0	64QAM	13.46	14.27	PASS
	20	LCH	RB100#0	64QAM	17.96	19.18	PASS
		MCH	RB100#0	64QAM	18.01	19.26	PASS
		HCH	RB100#0	64QAM	17.97	19.22	PASS

4.2 Test Plots

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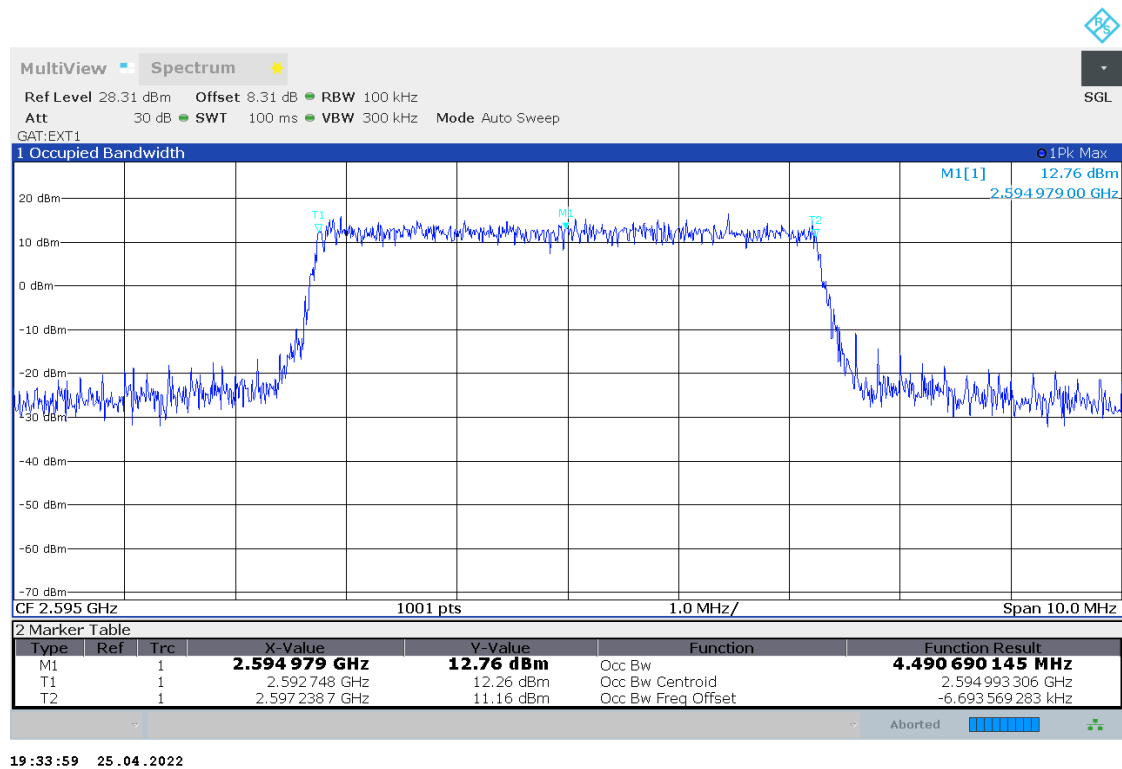
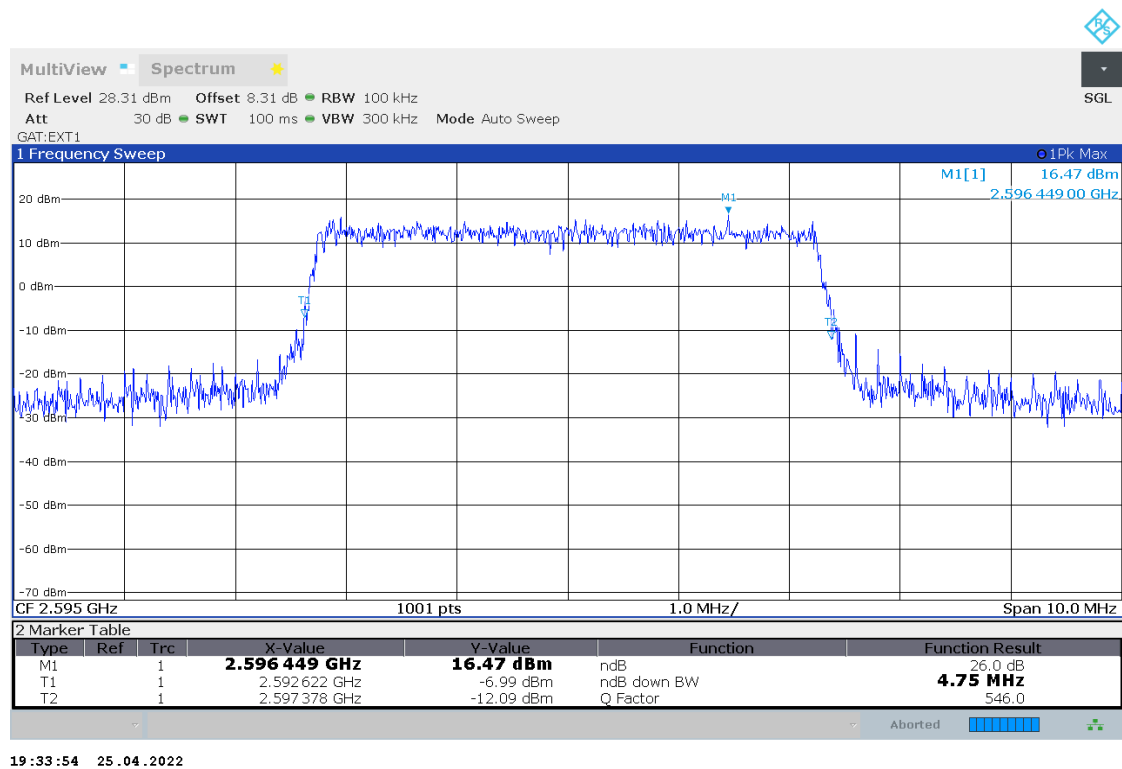


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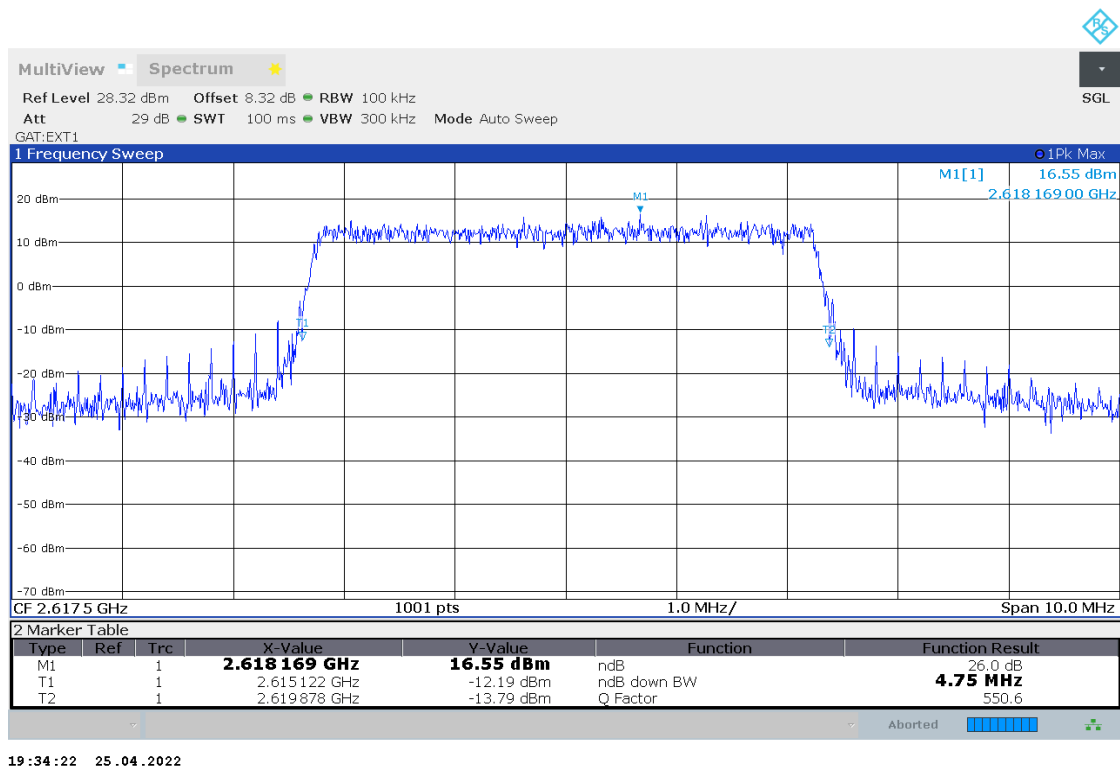


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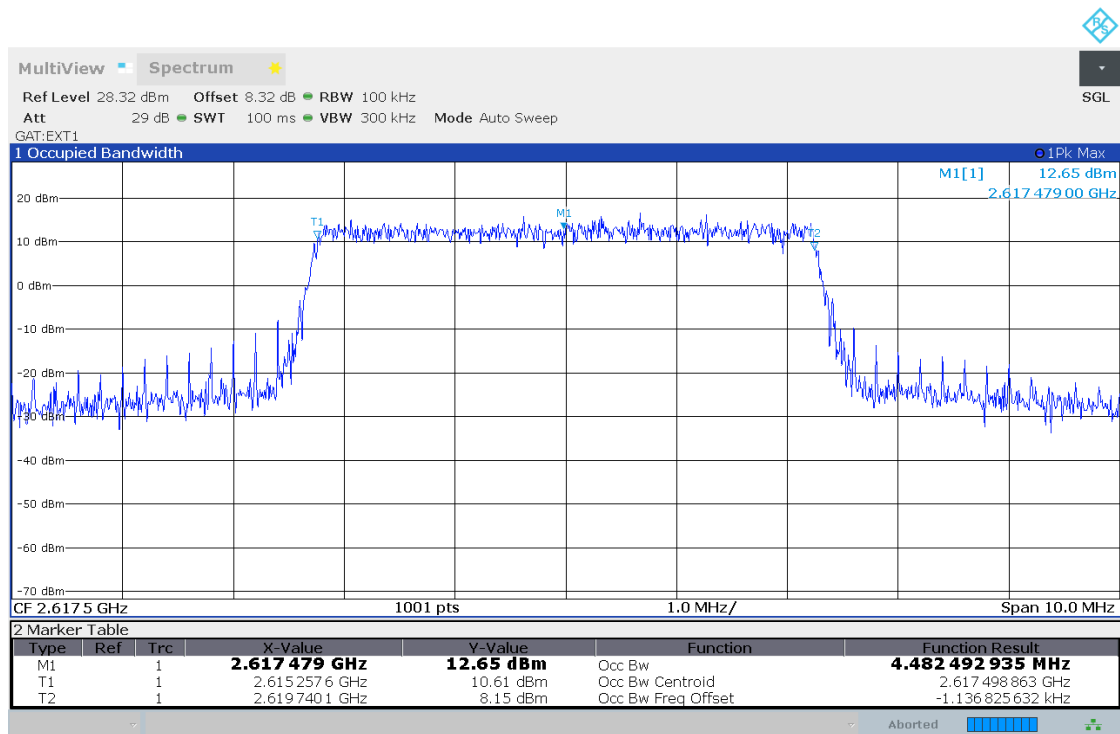
TM1_5MHz_MCH_RB25#0



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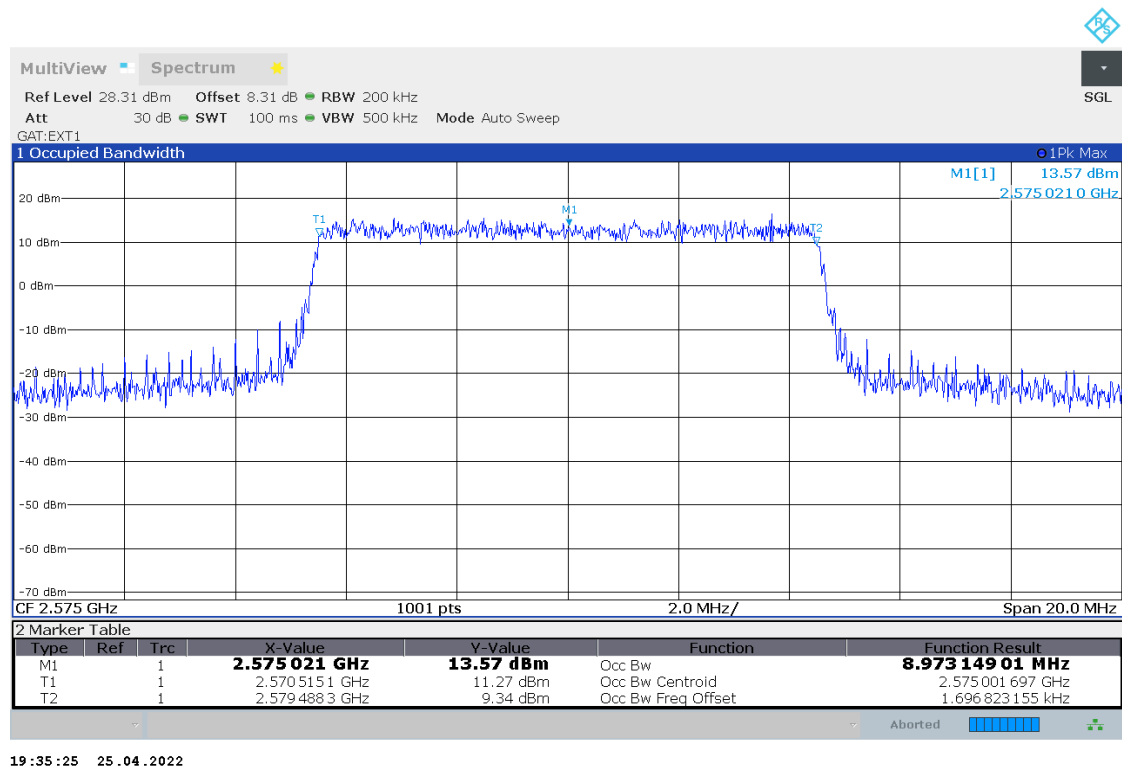
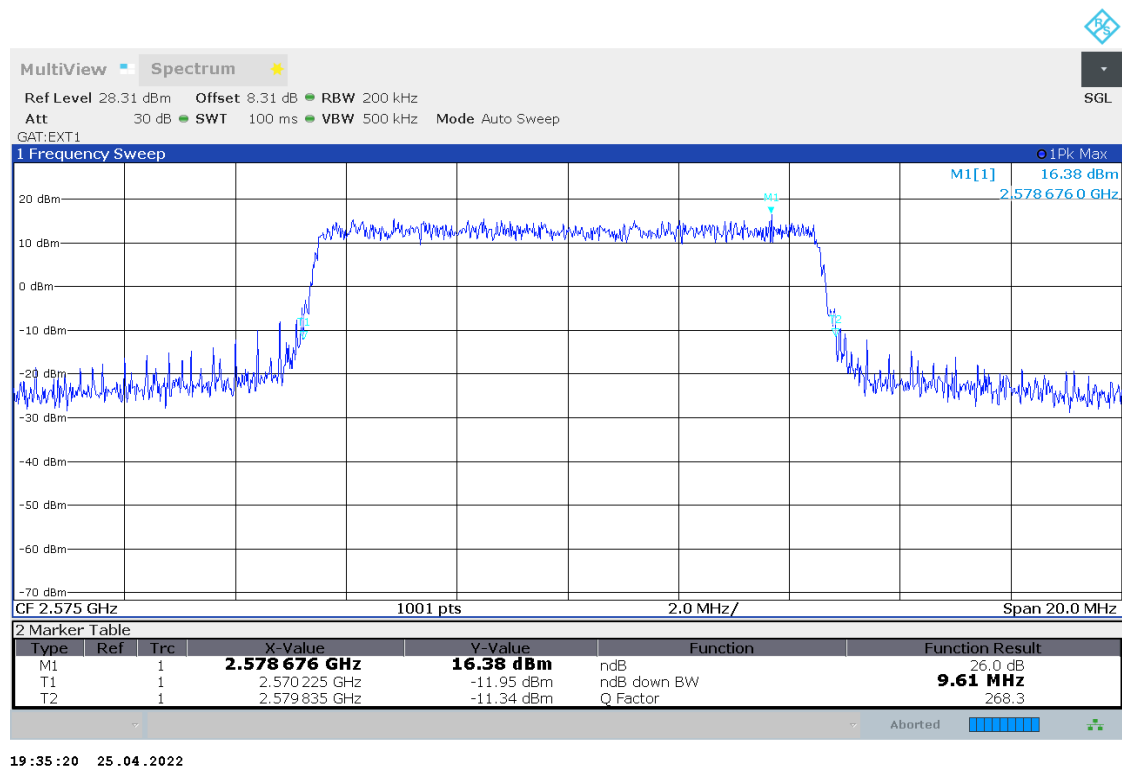


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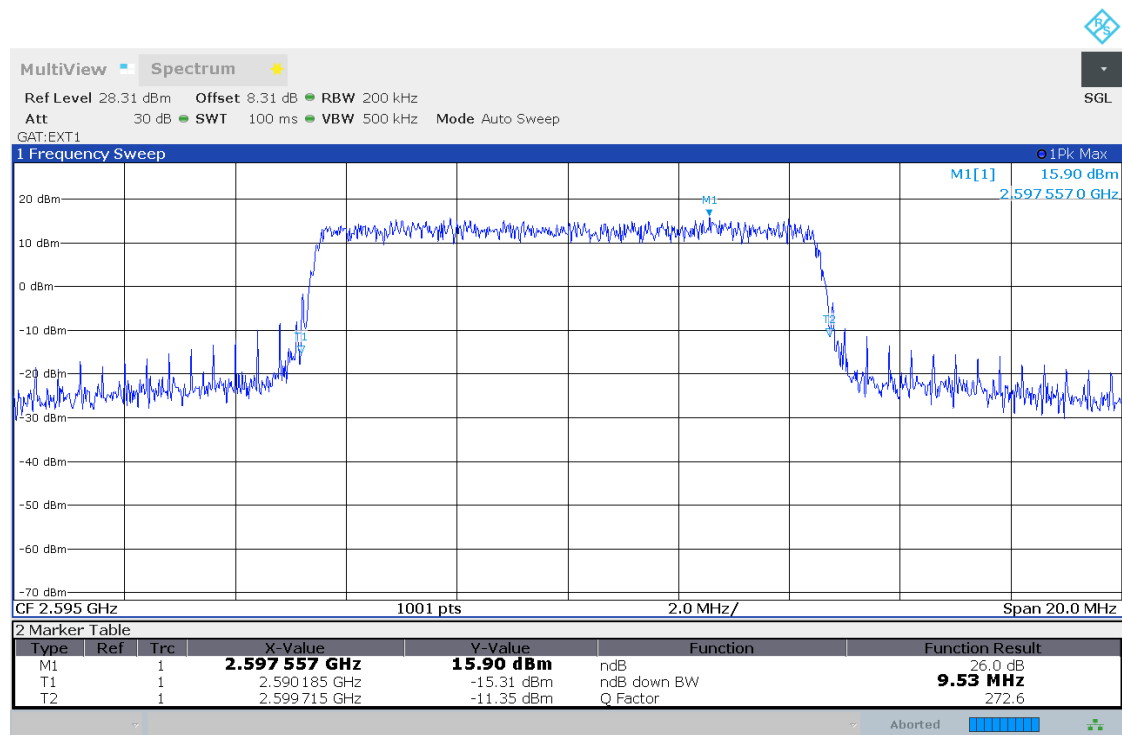


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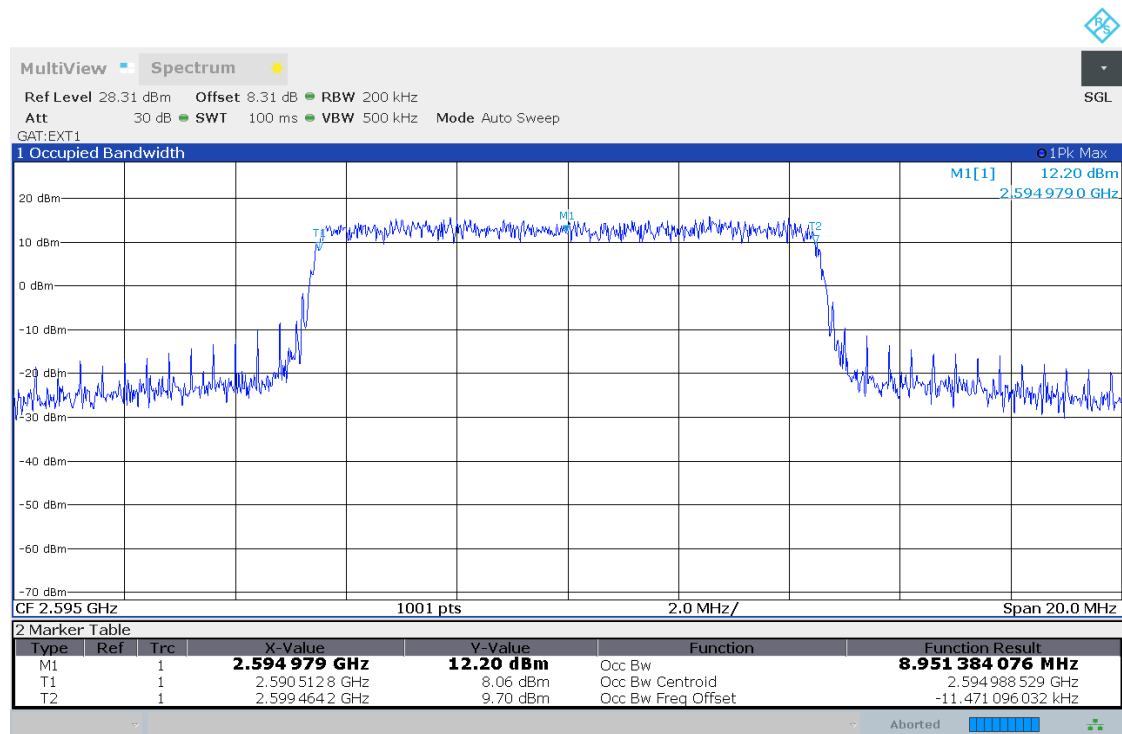
TM1_10MHz_LCH_RB50#0



TM1_10MHz_MCH_RB50#0

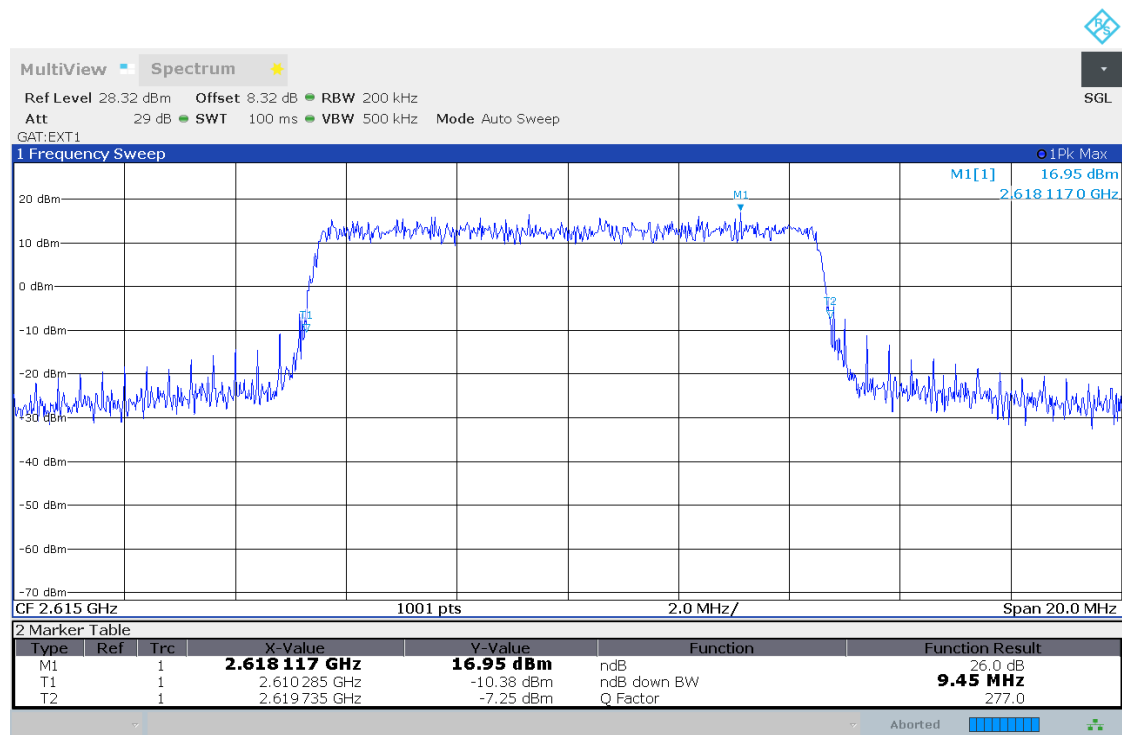


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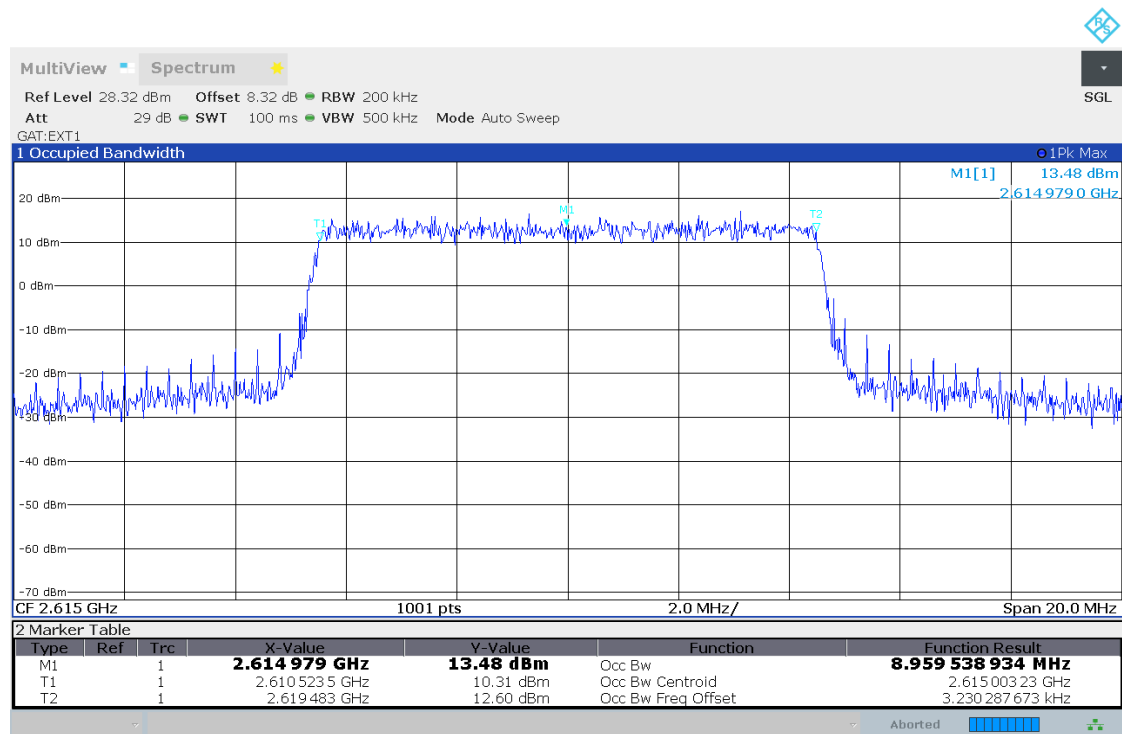


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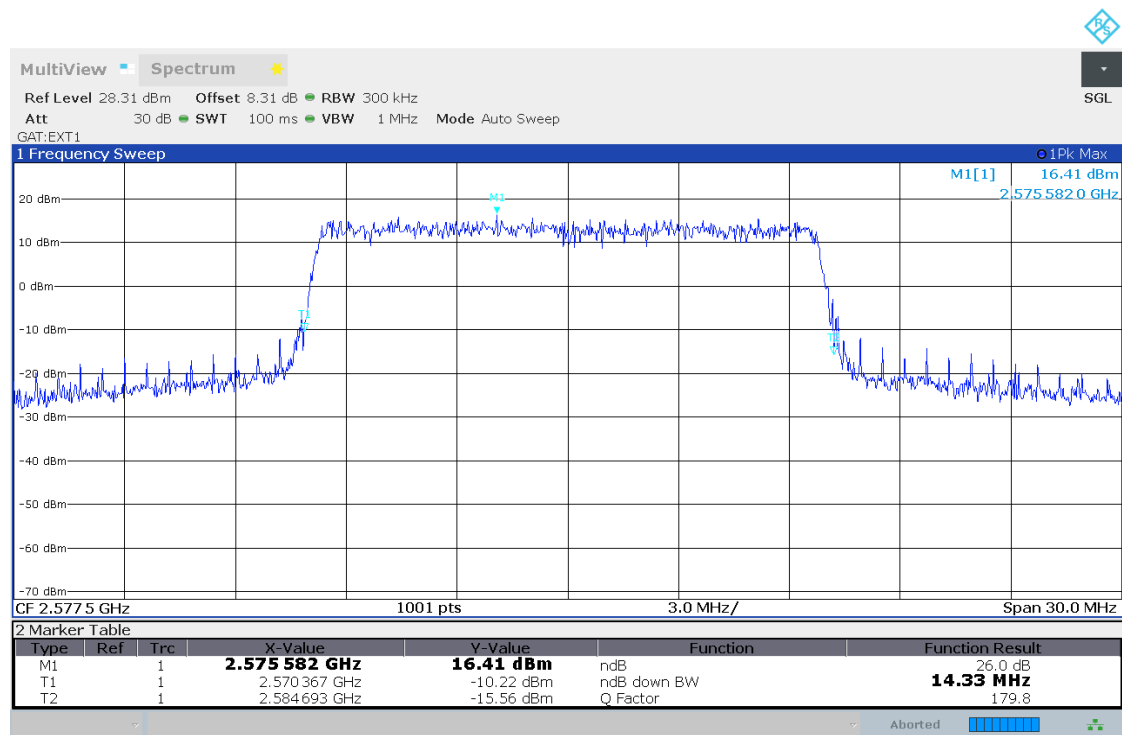


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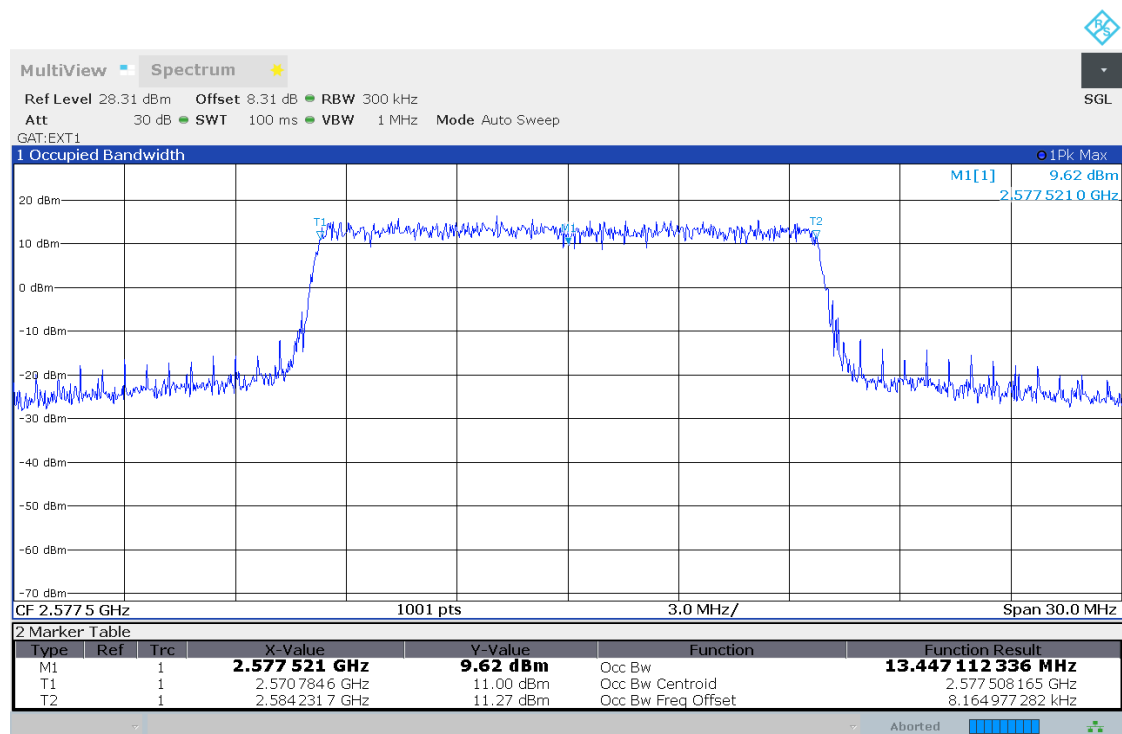


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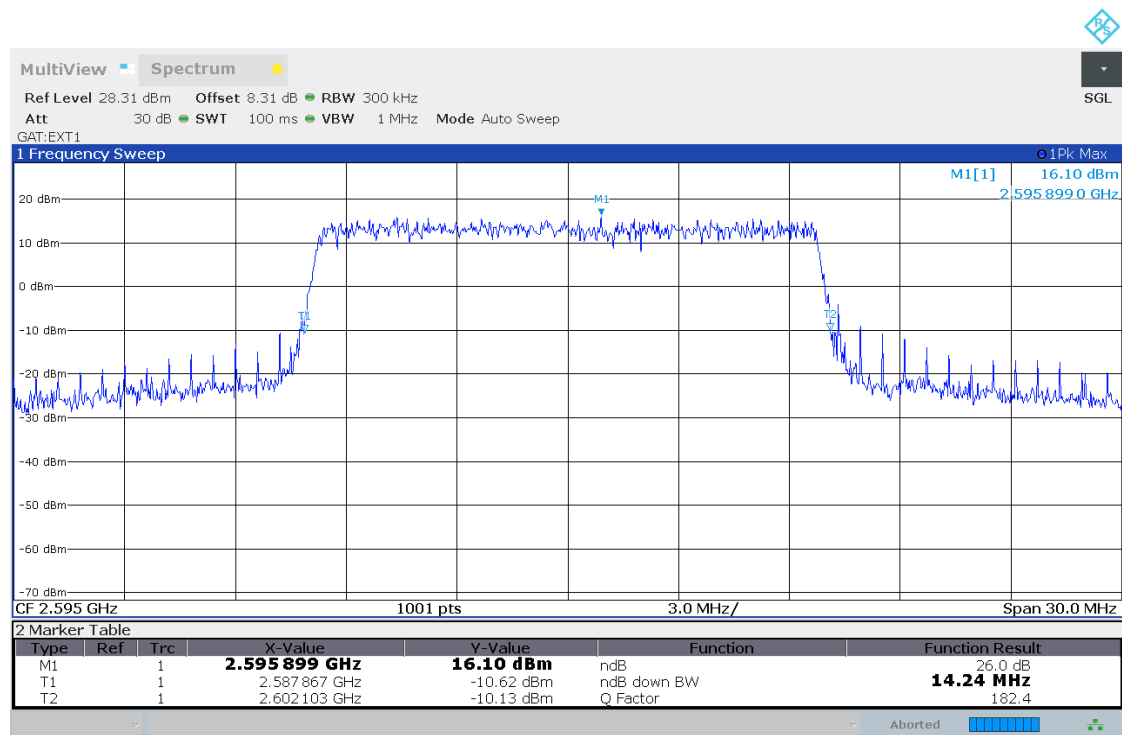


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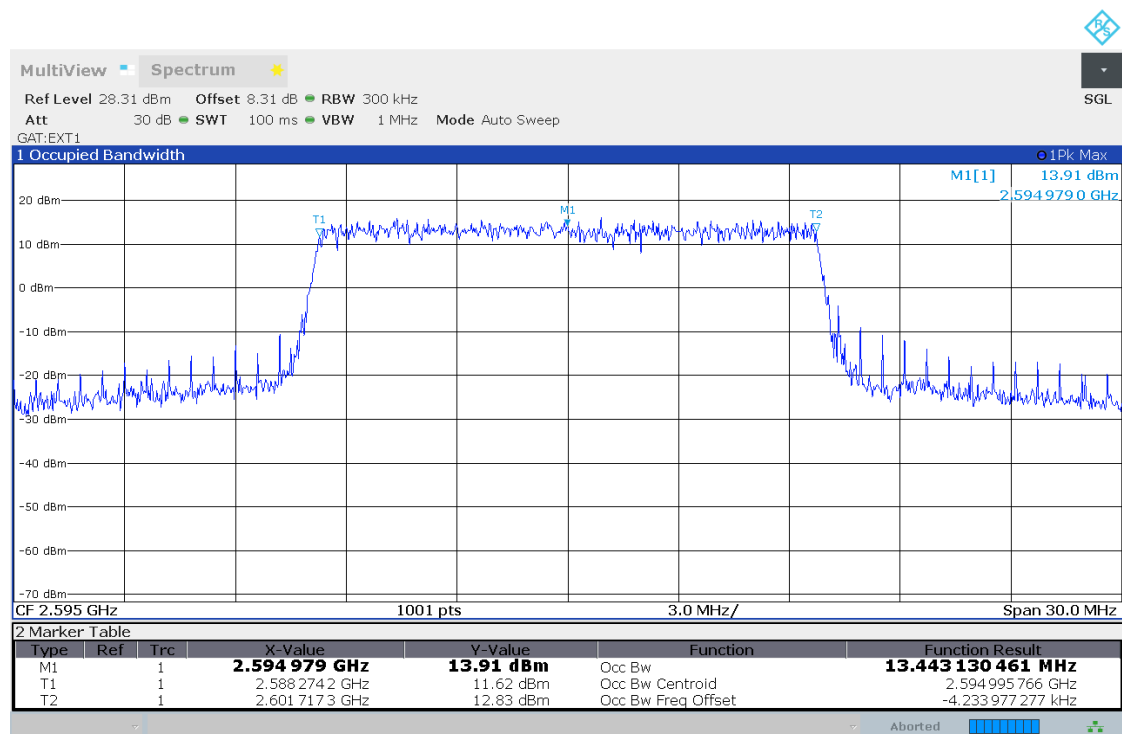


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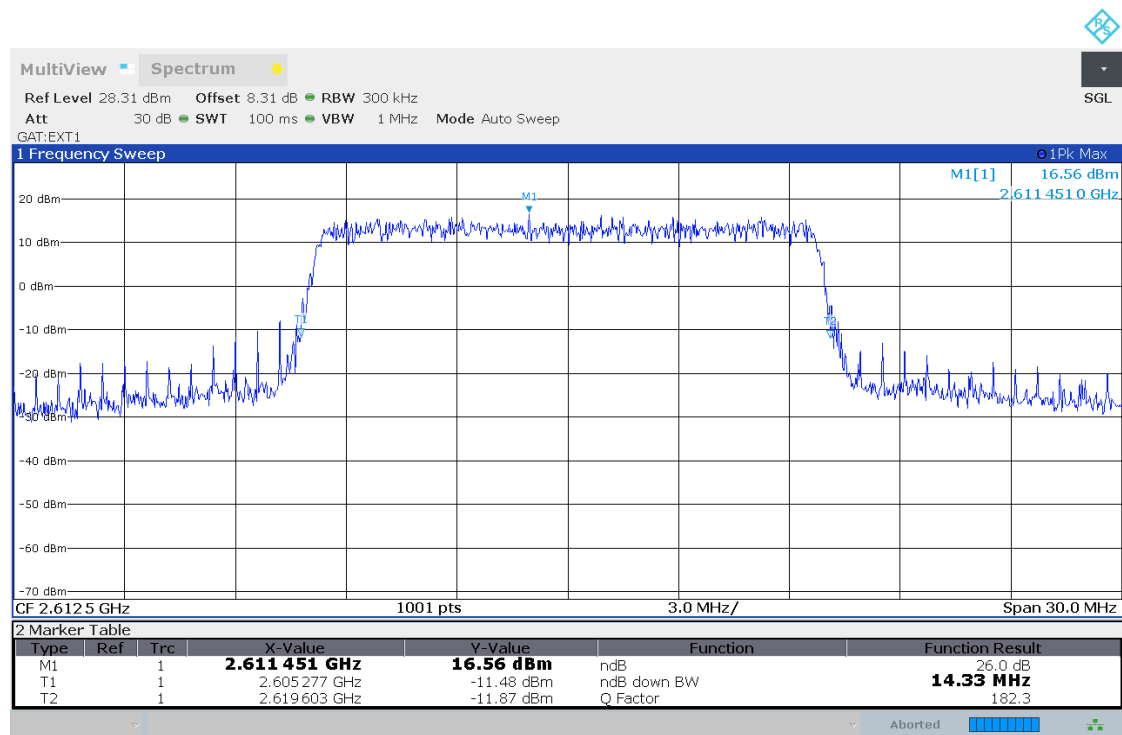


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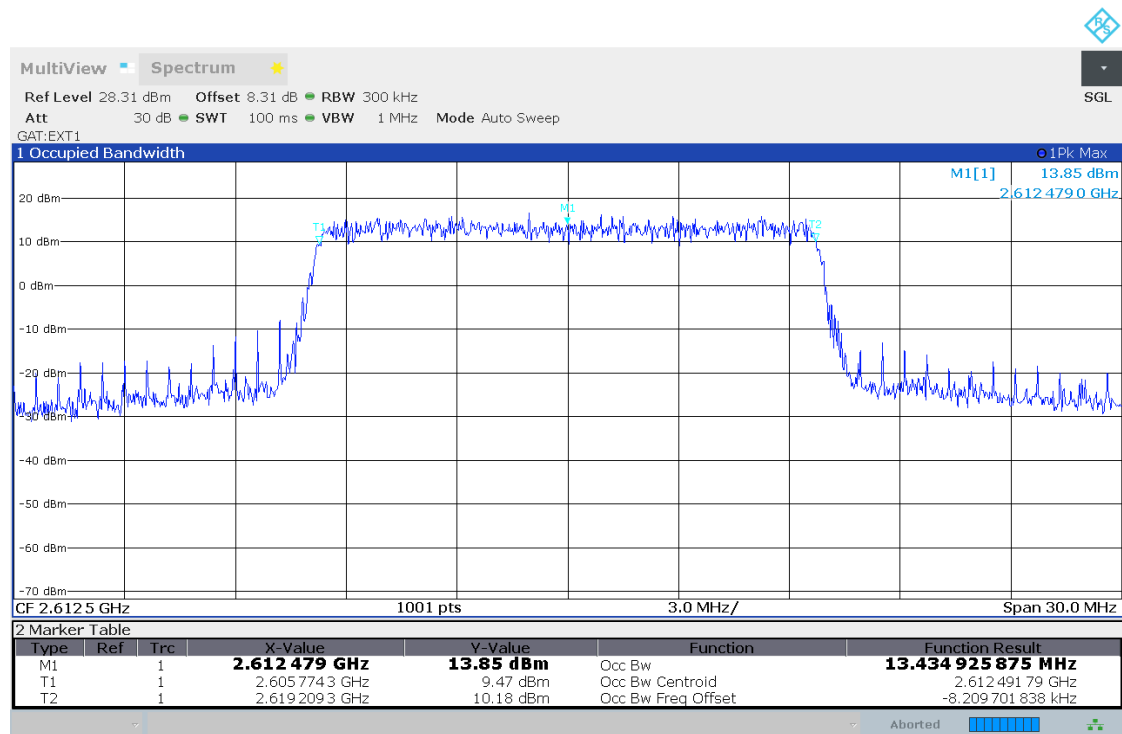


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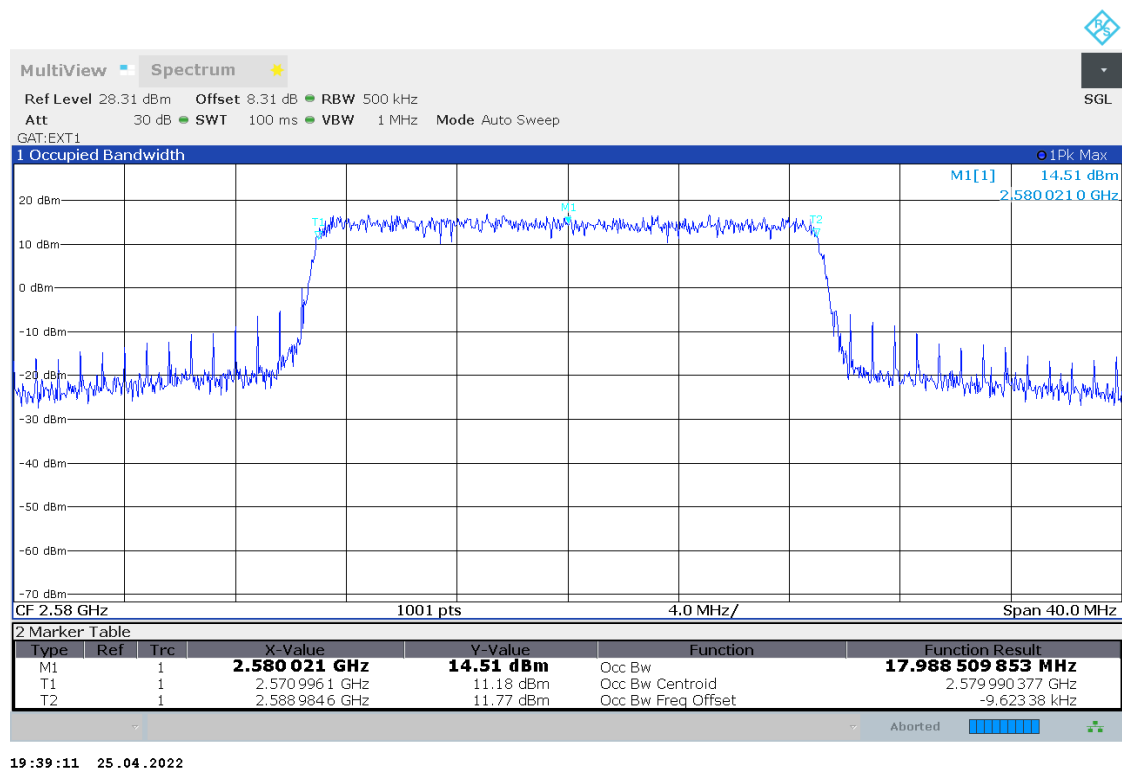
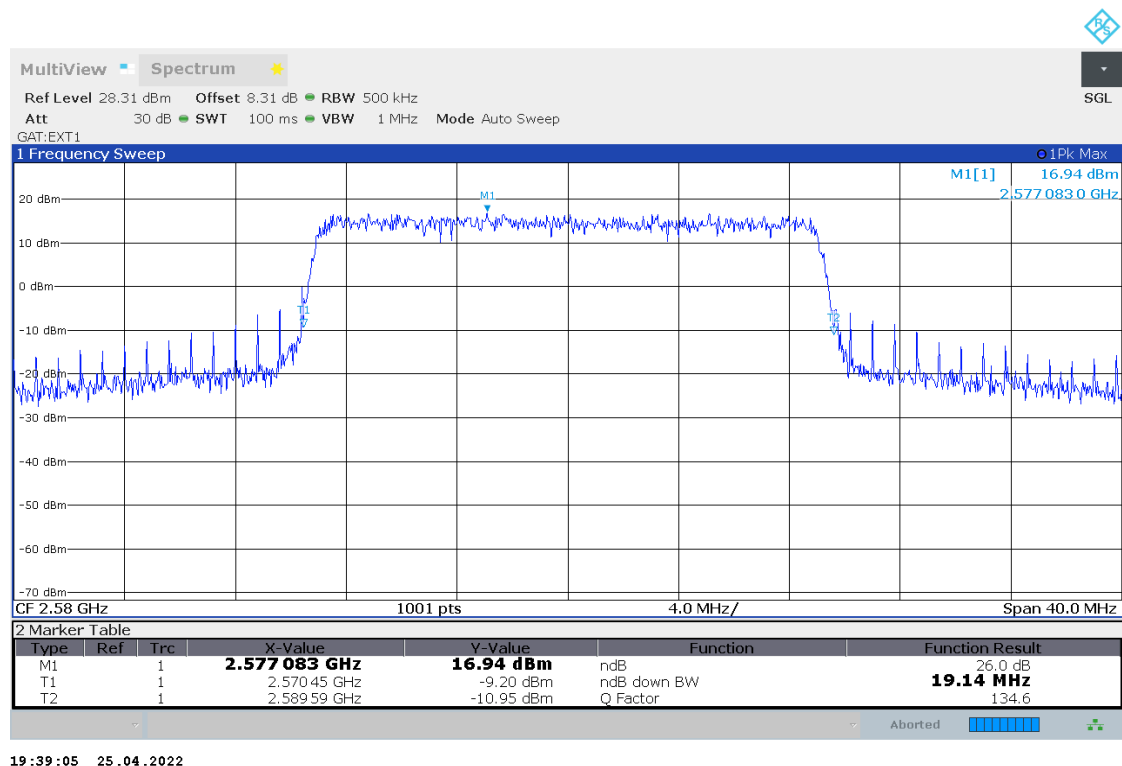


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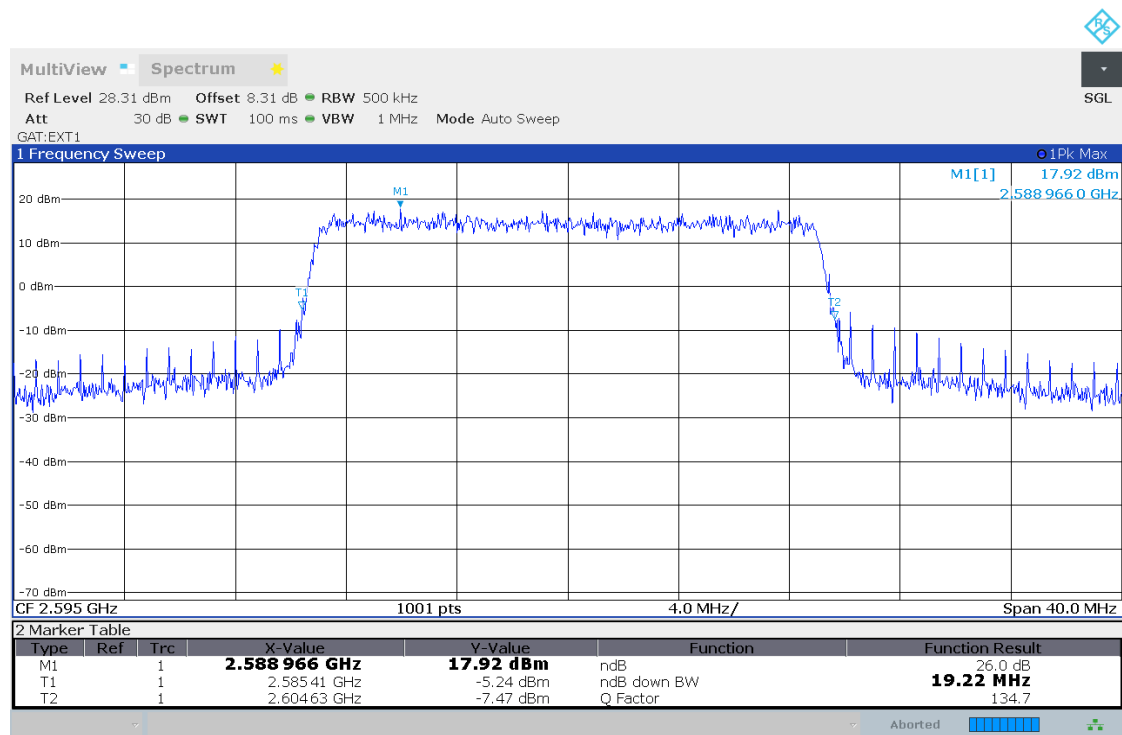


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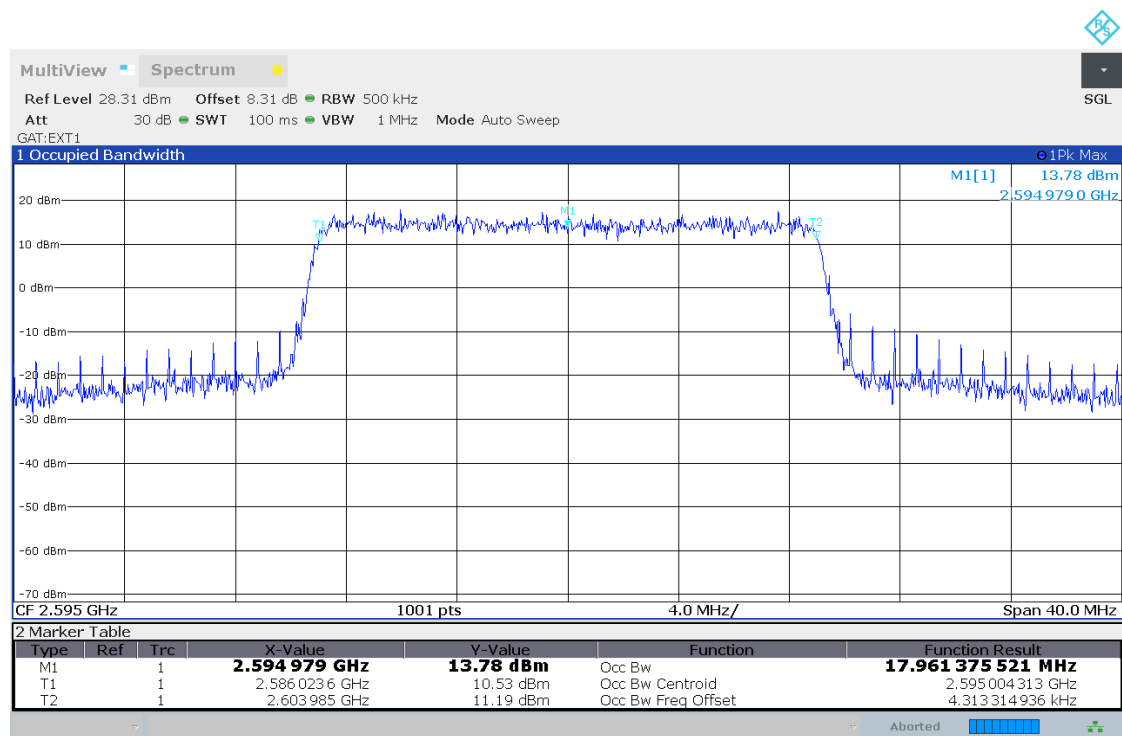
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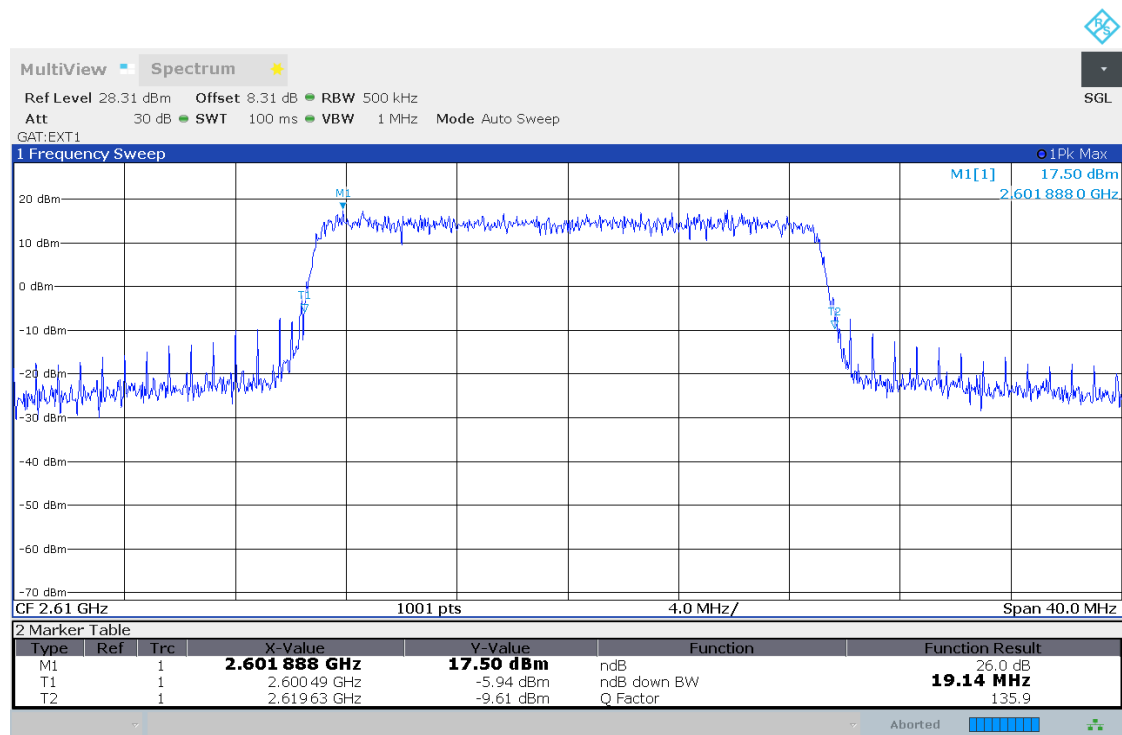


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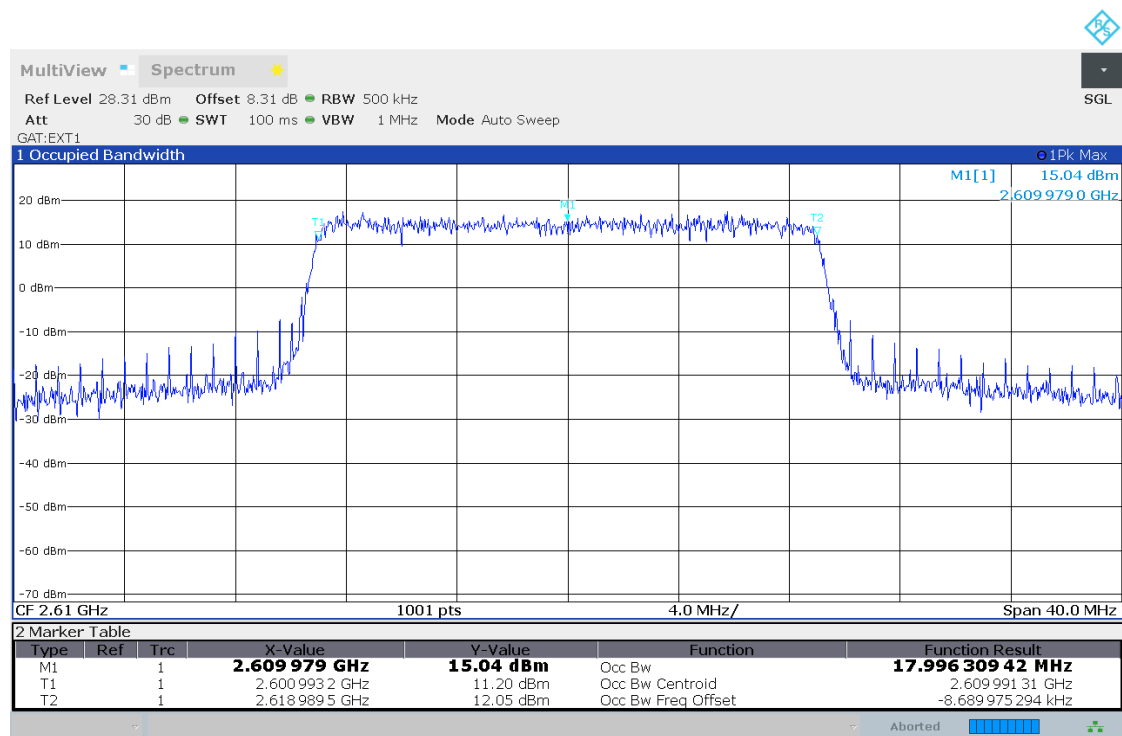


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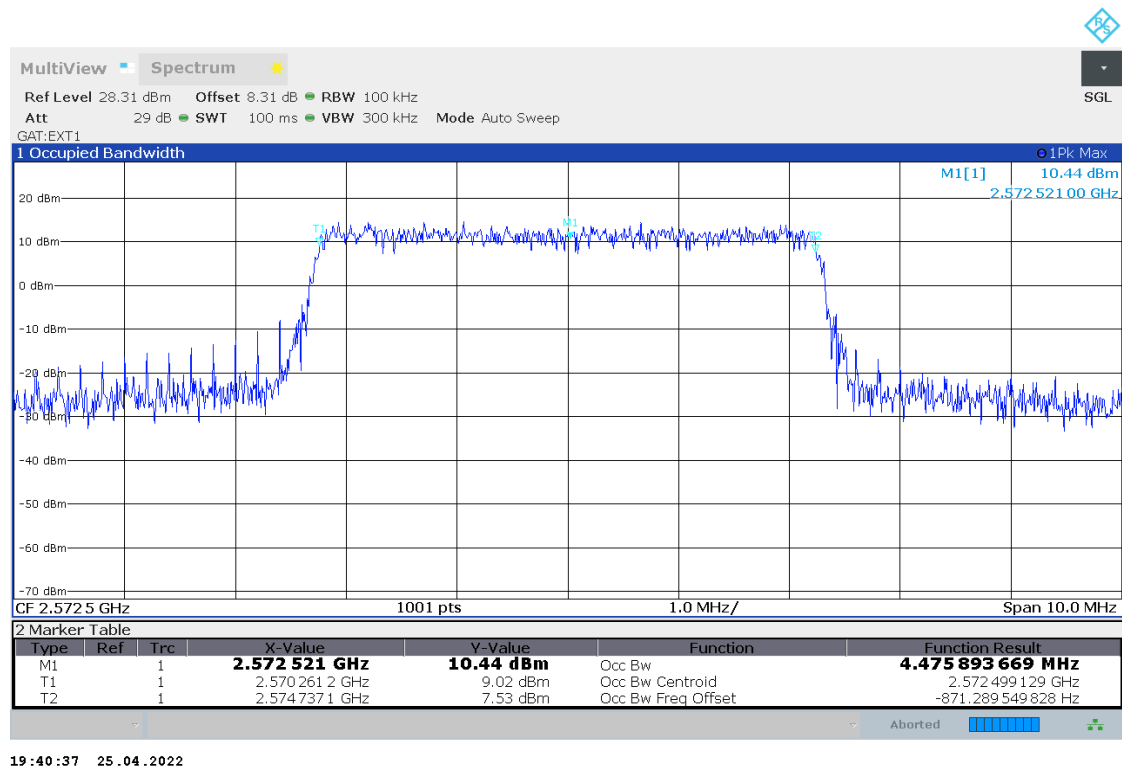
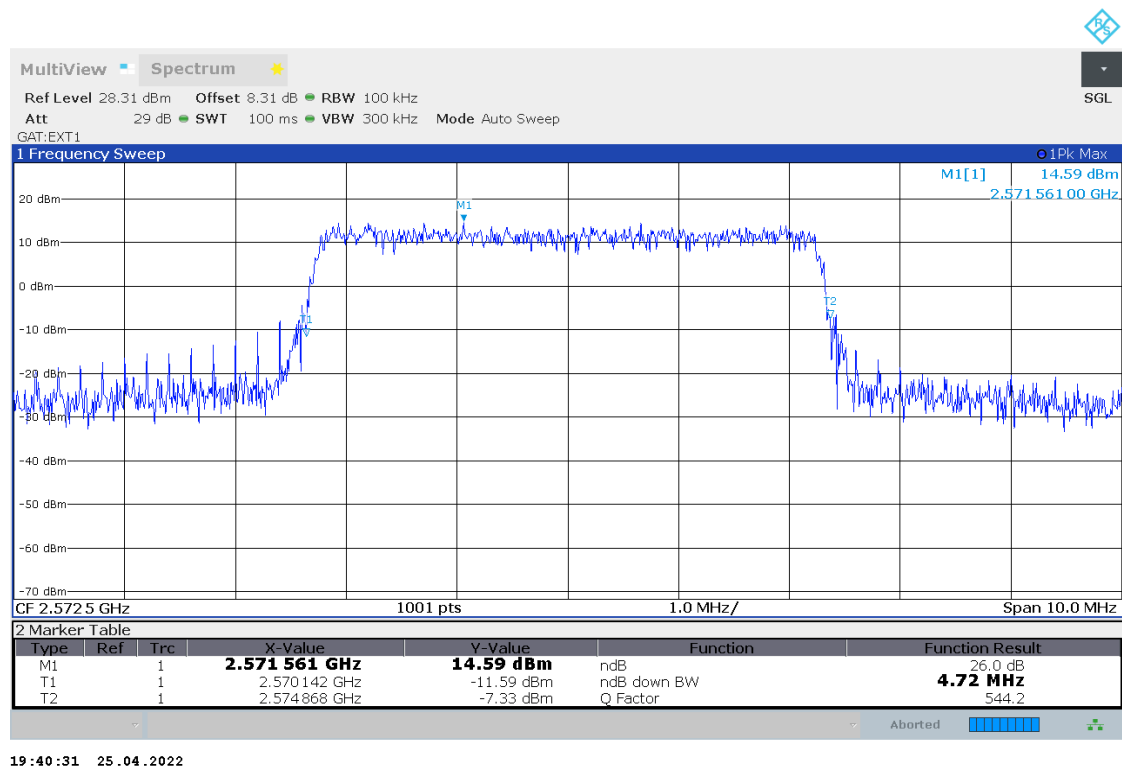


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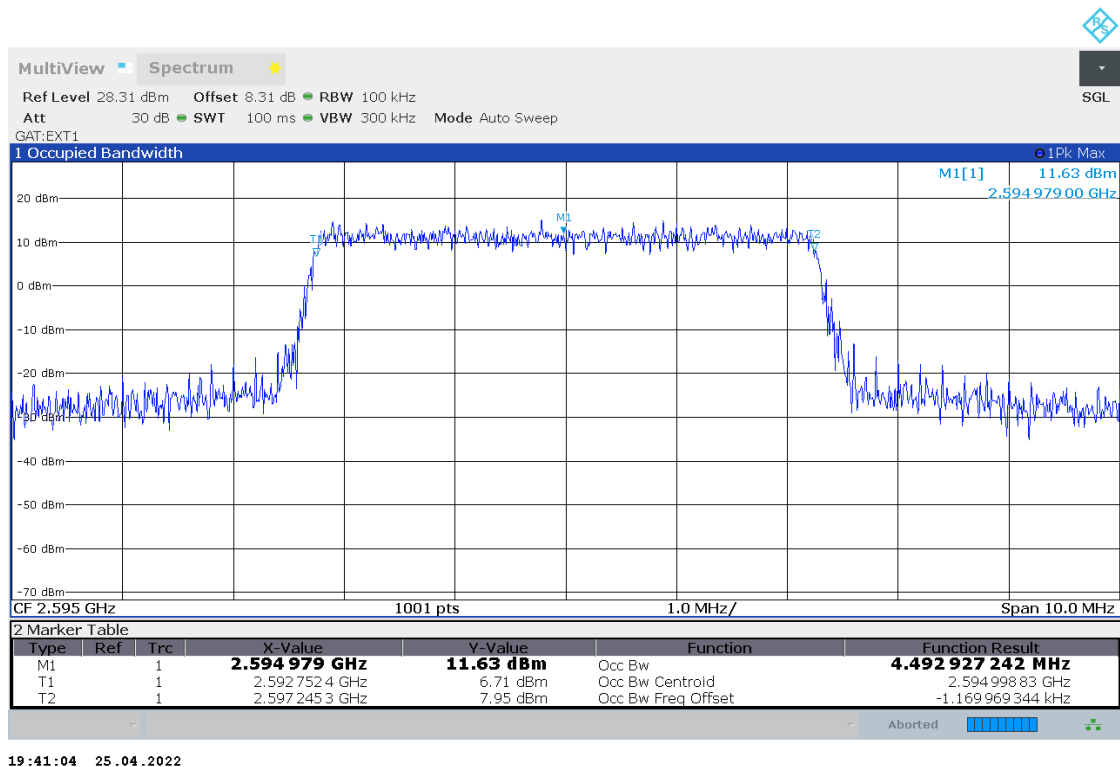
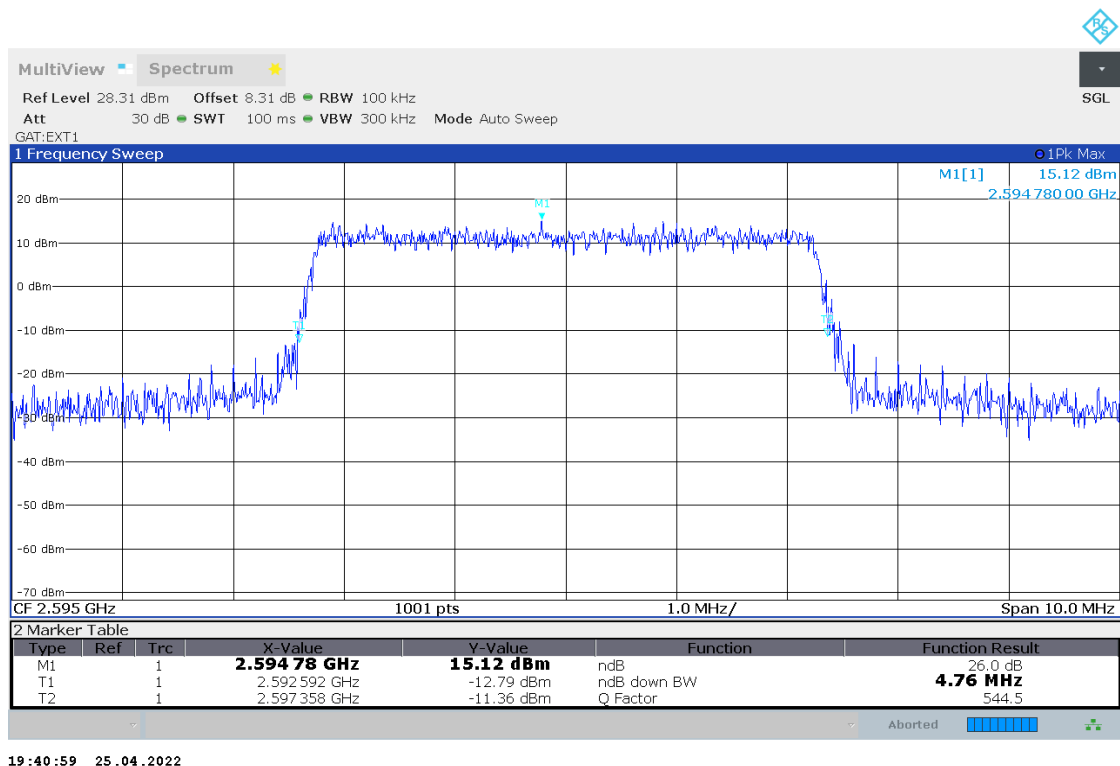


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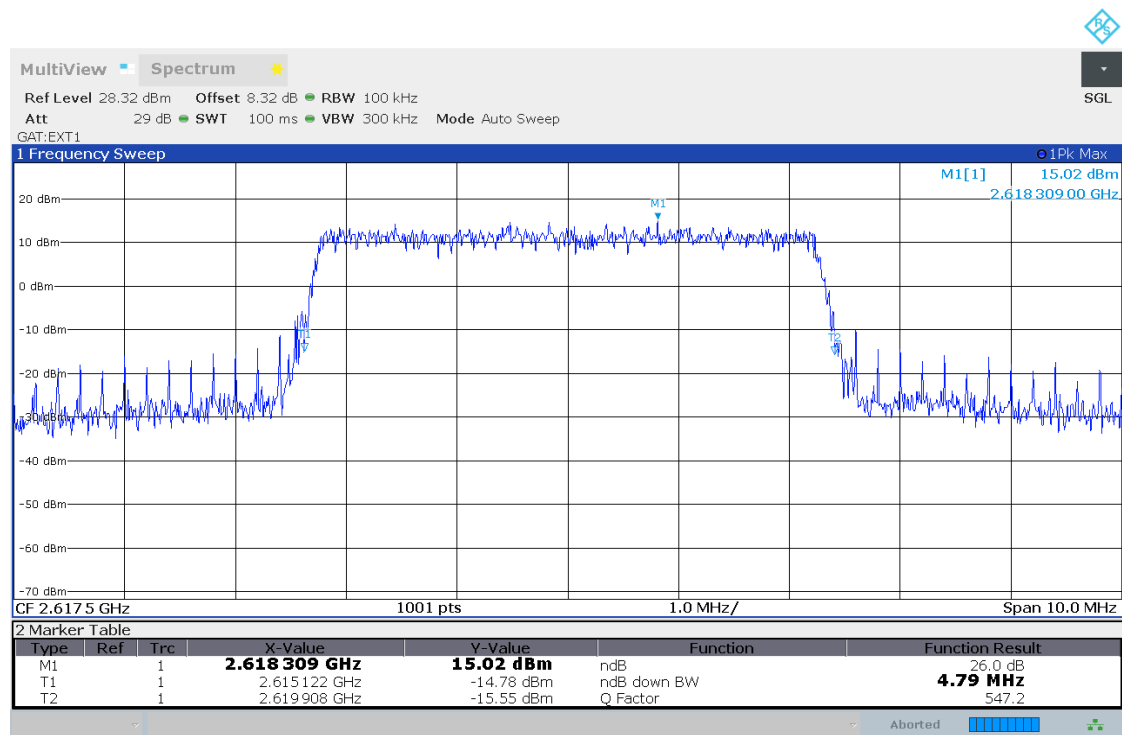
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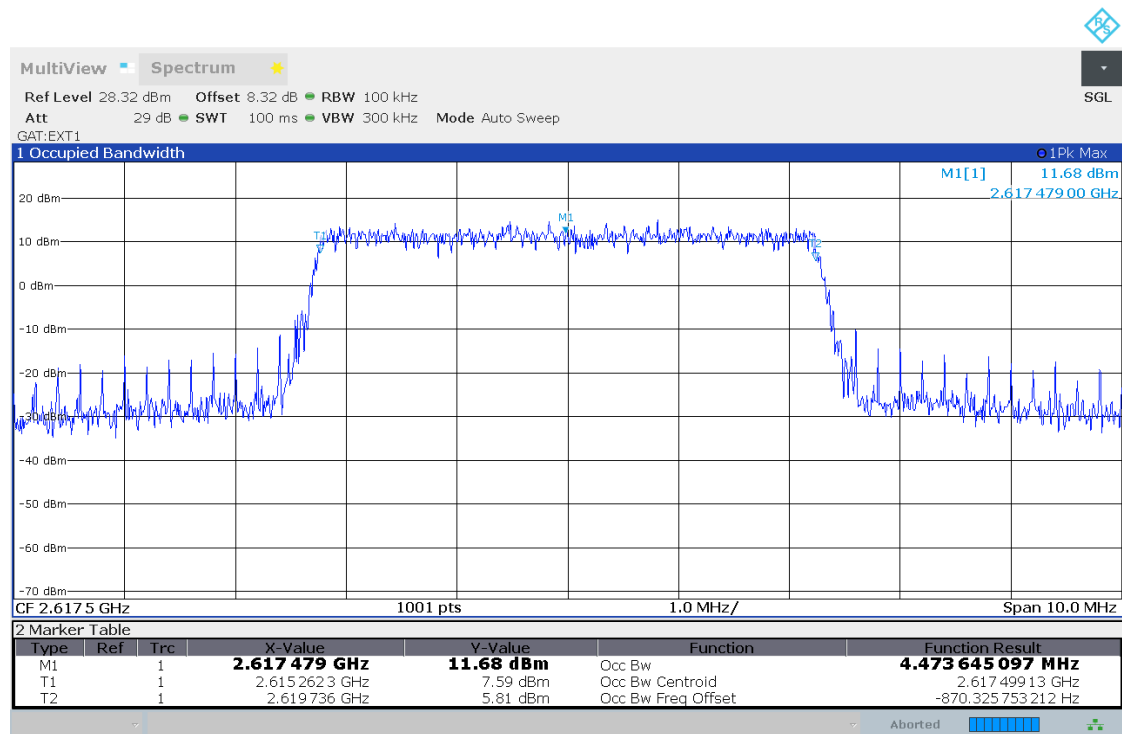
TM2_5MHz_MCH_RB25#0



TM2_5MHz_HCH_RB25#0

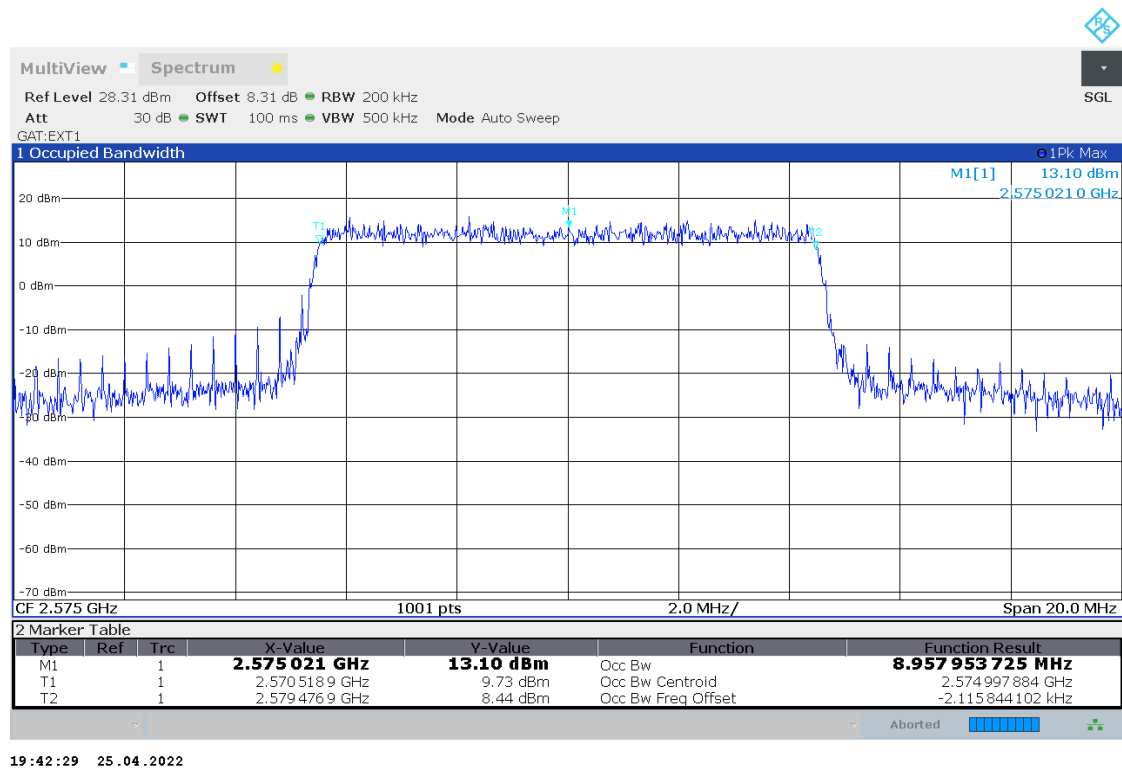
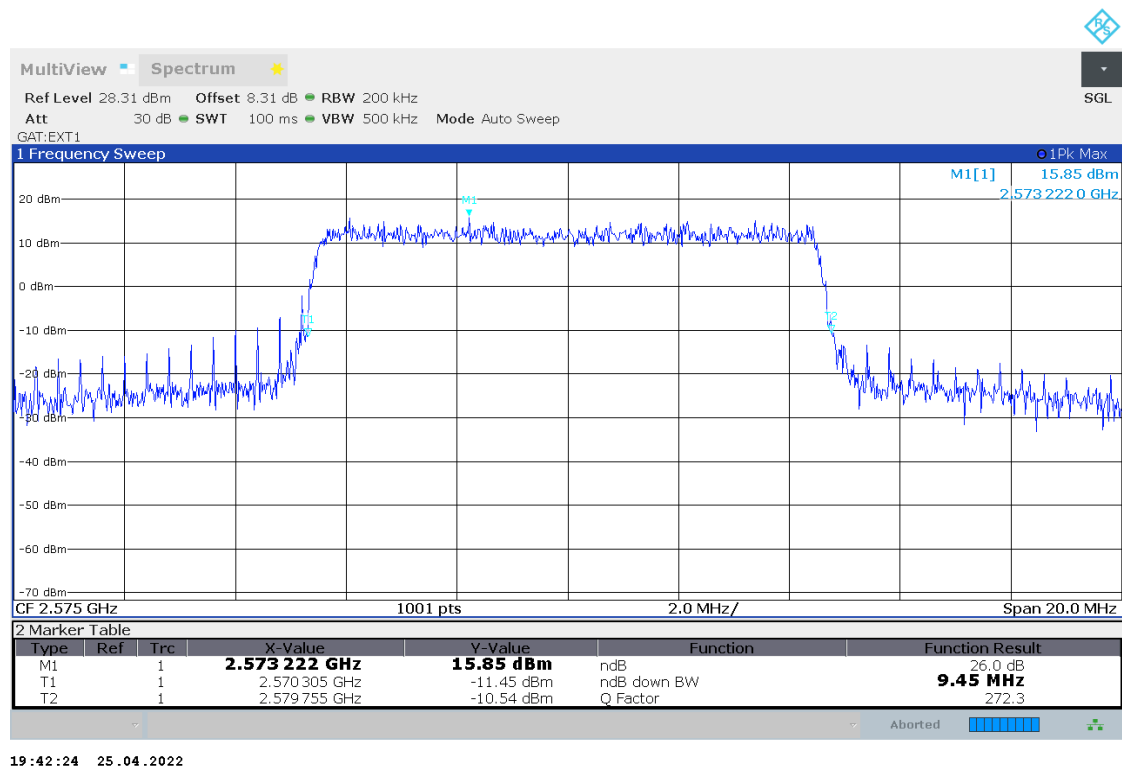


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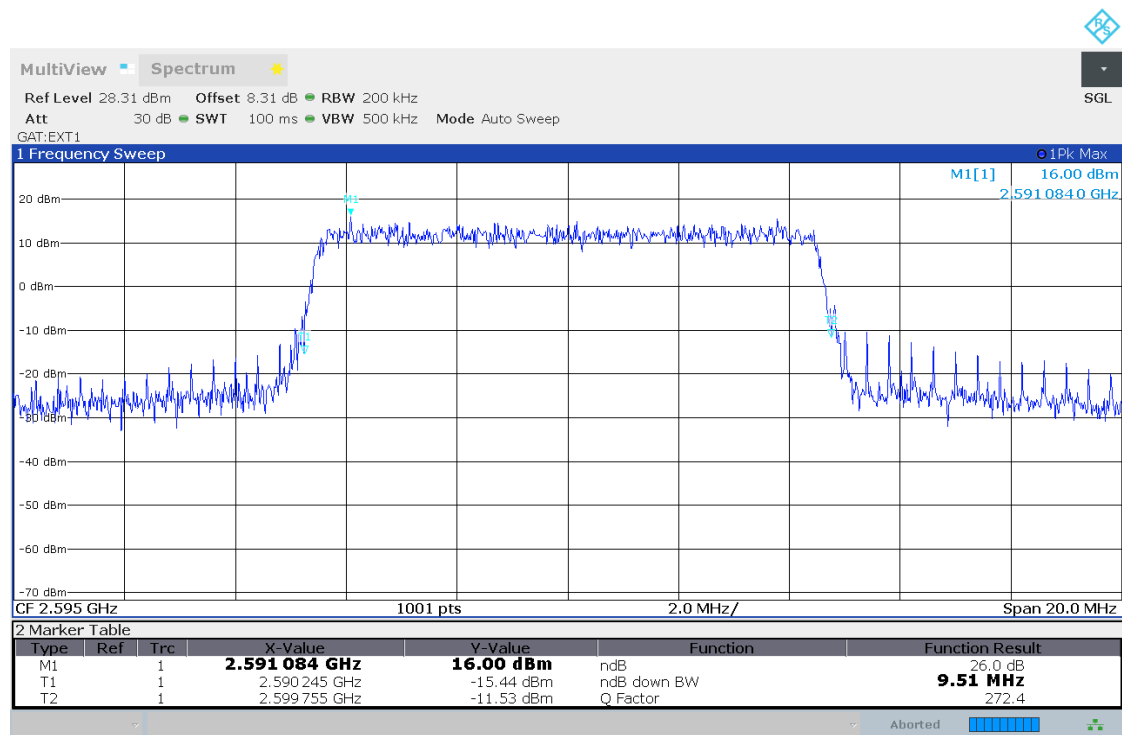


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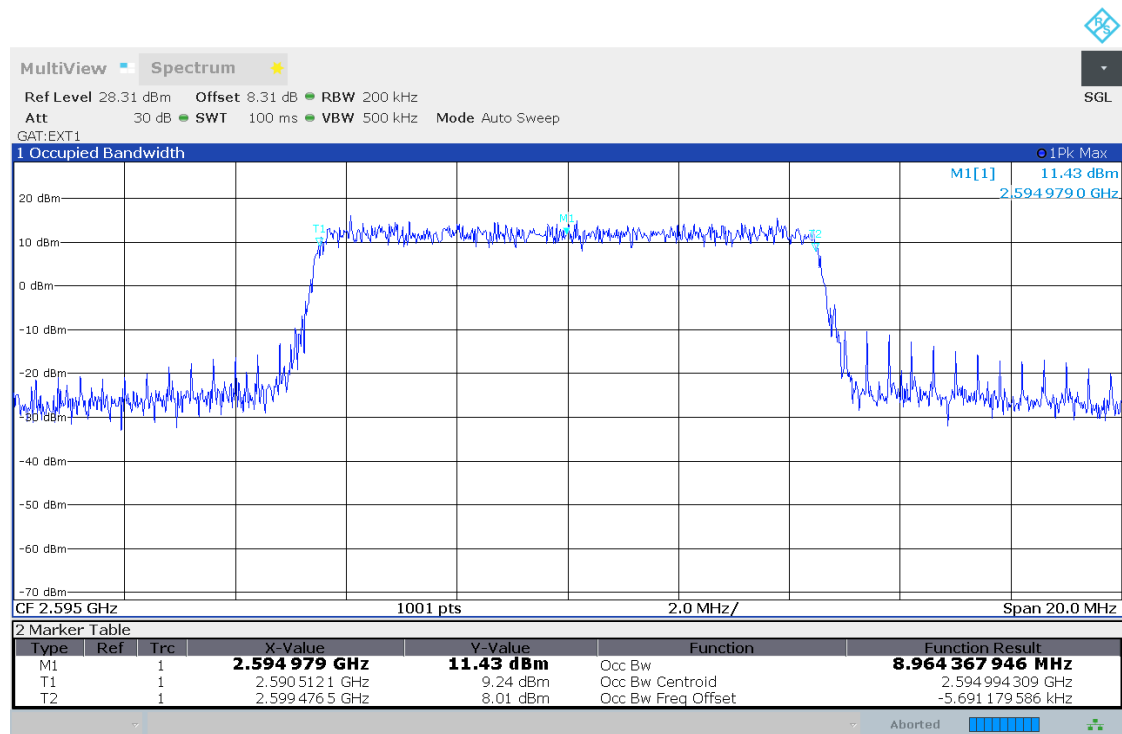
TM2_10MHz_LCH_RB50#0



TM2_10MHz_MCH_RB50#0

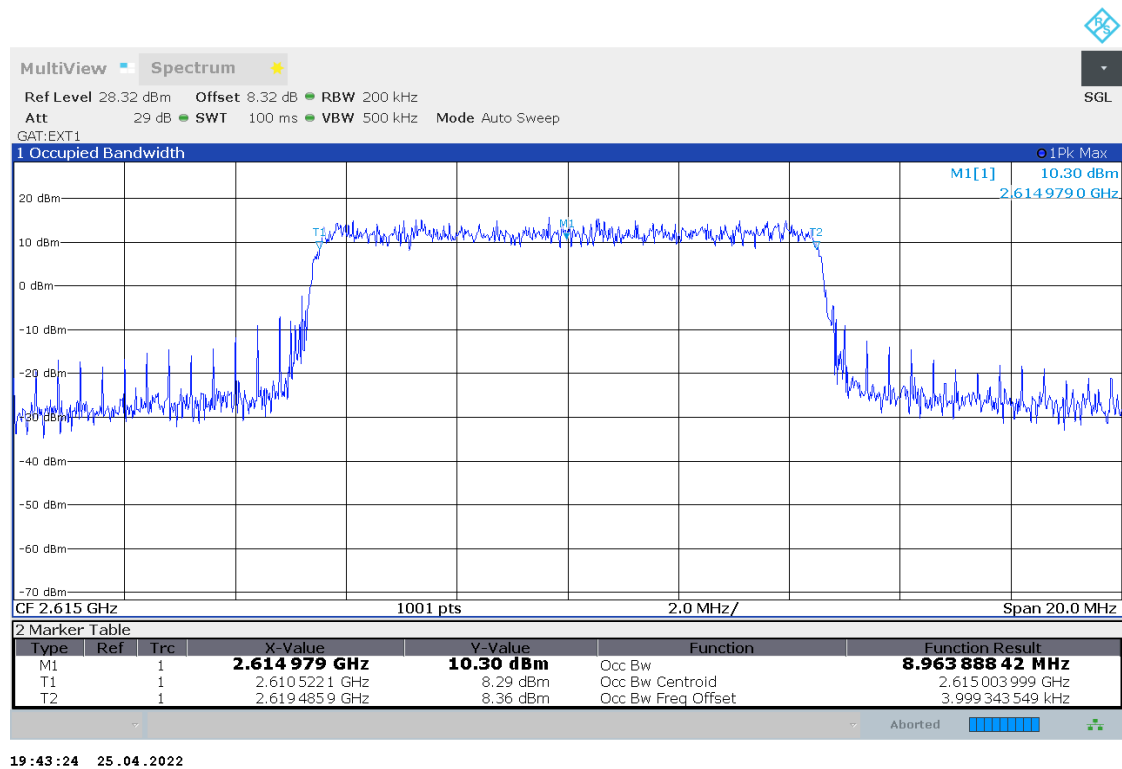
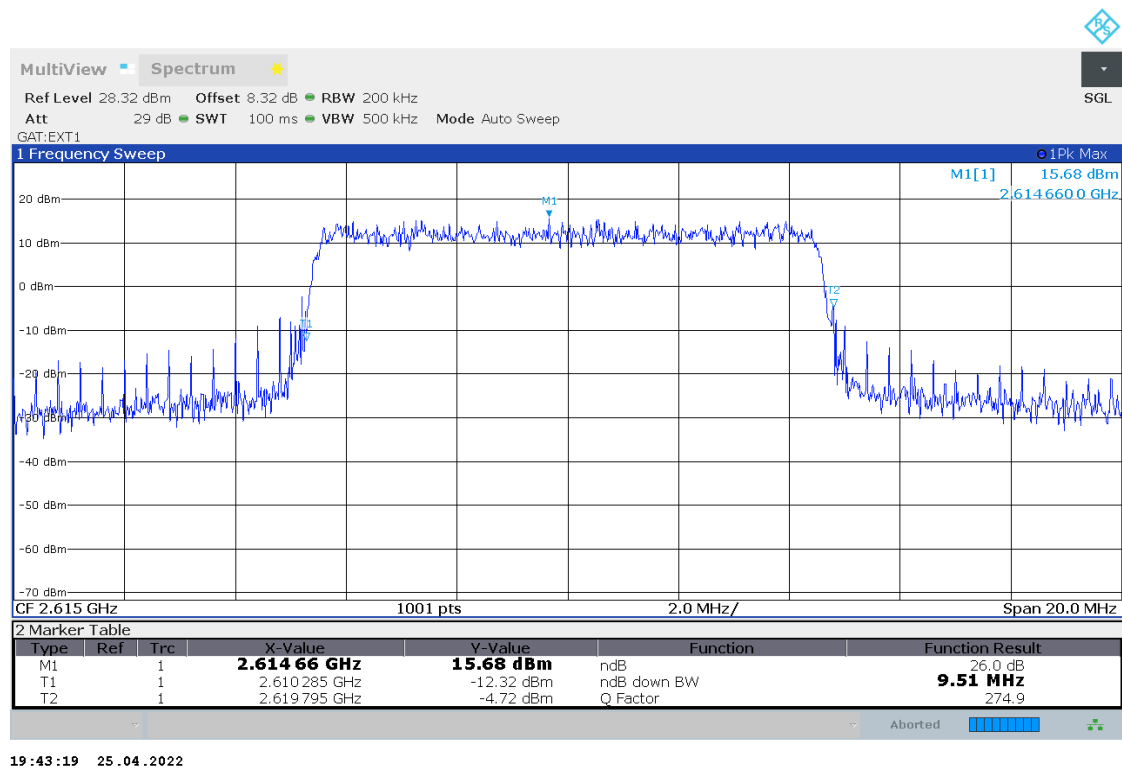


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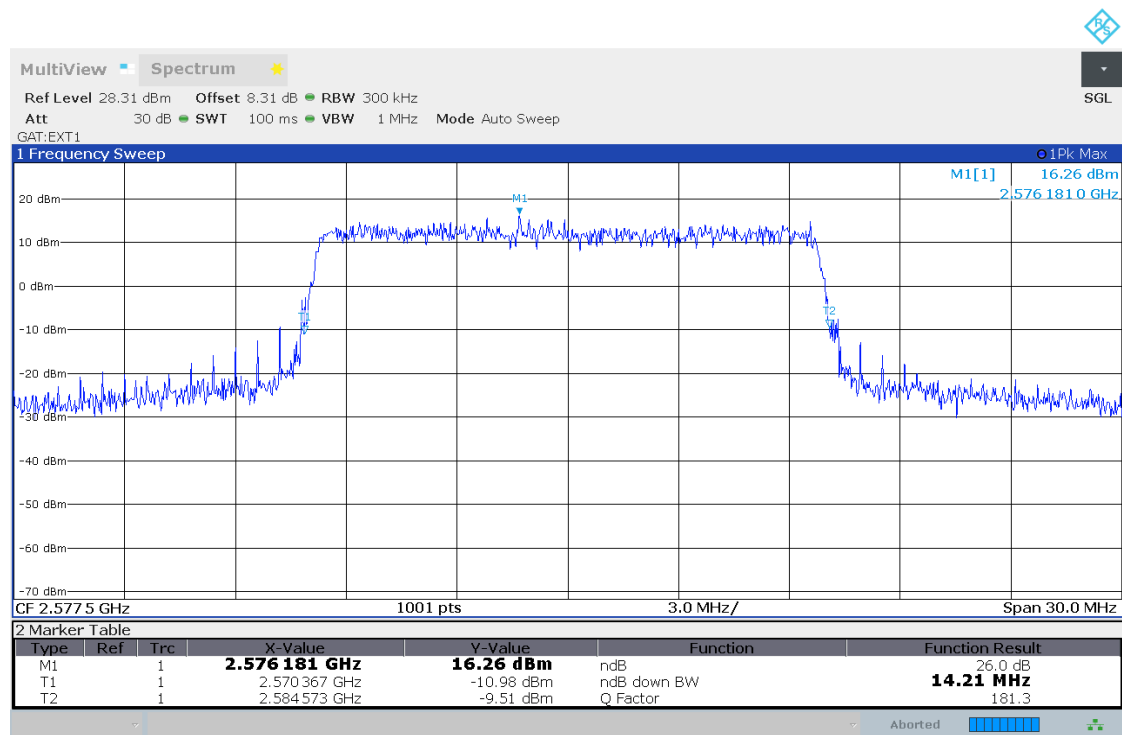


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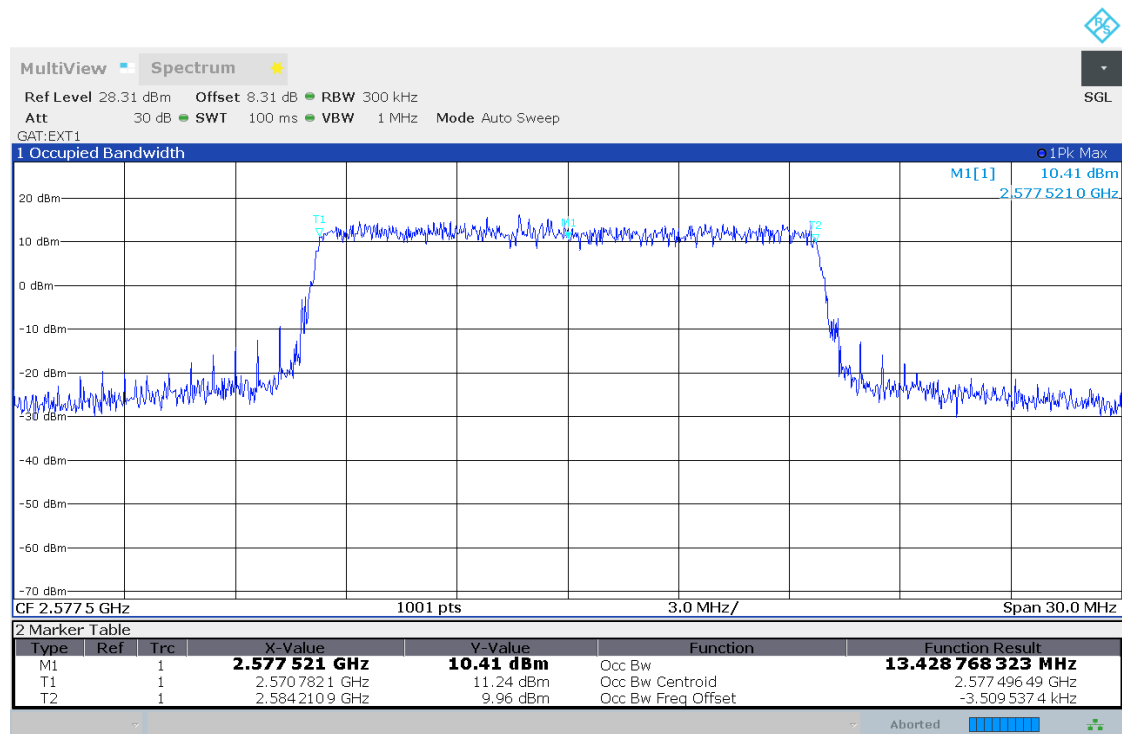
TM2_10MHz_HCH_RB50#0



TM2_15MHz_LCH_RB75#0

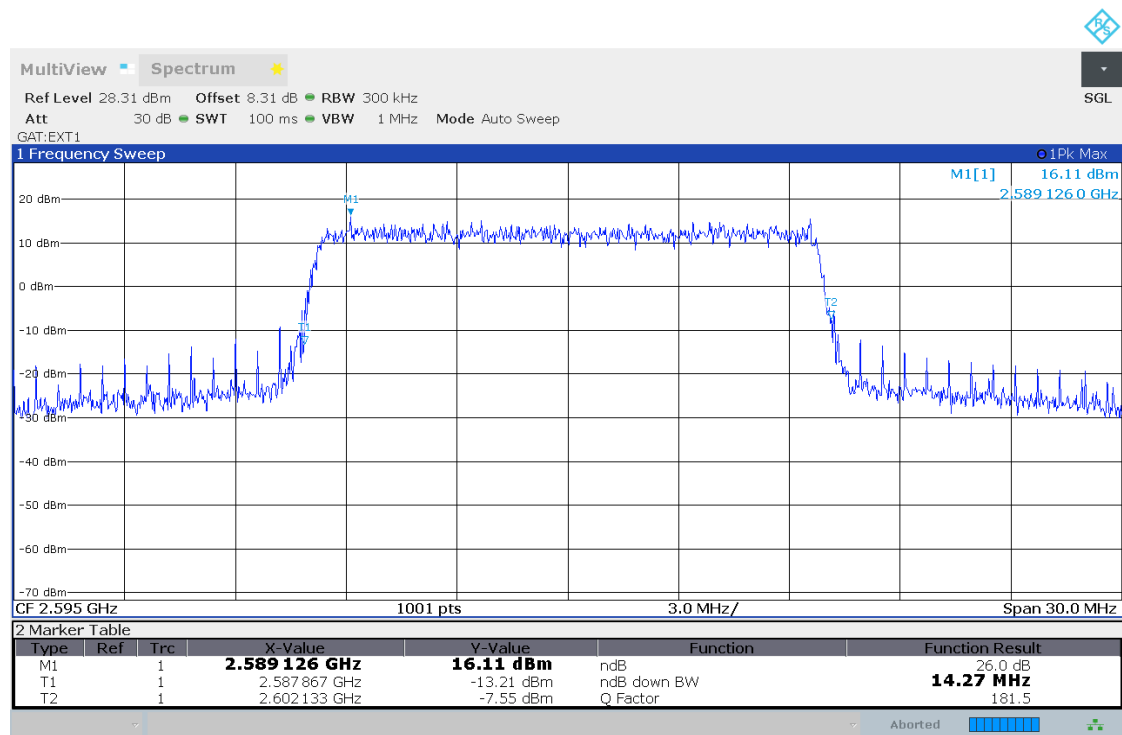


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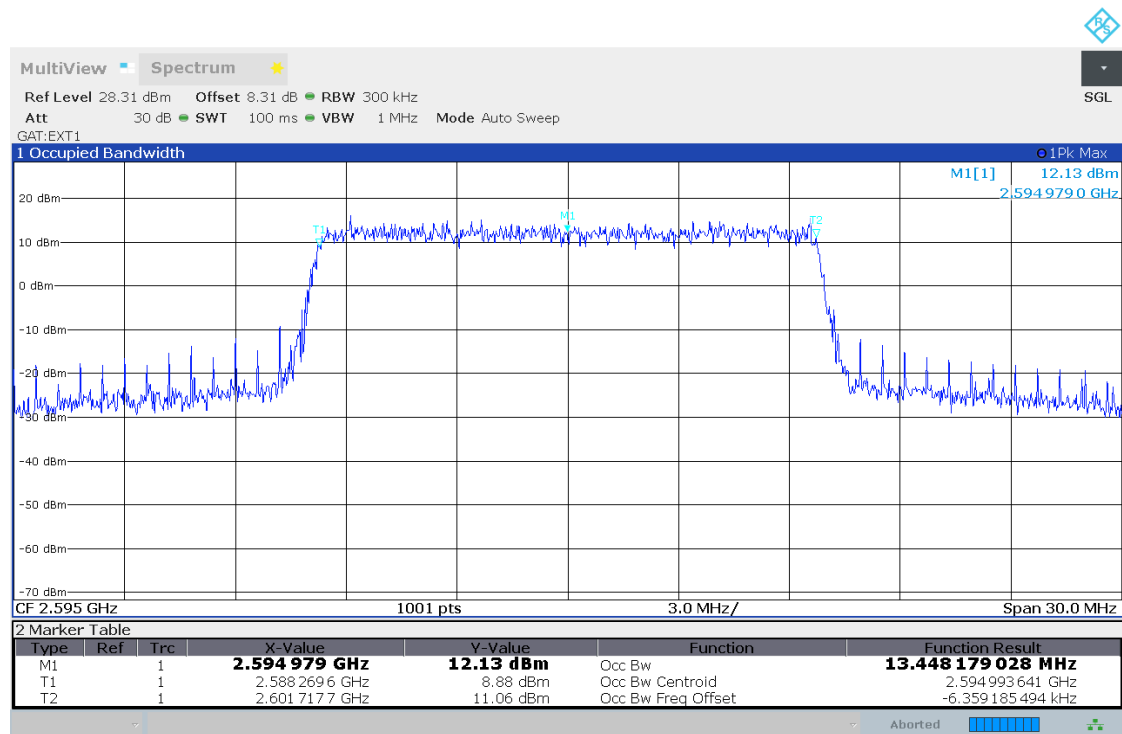


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TM2_15MHz_MCH_RB75#0

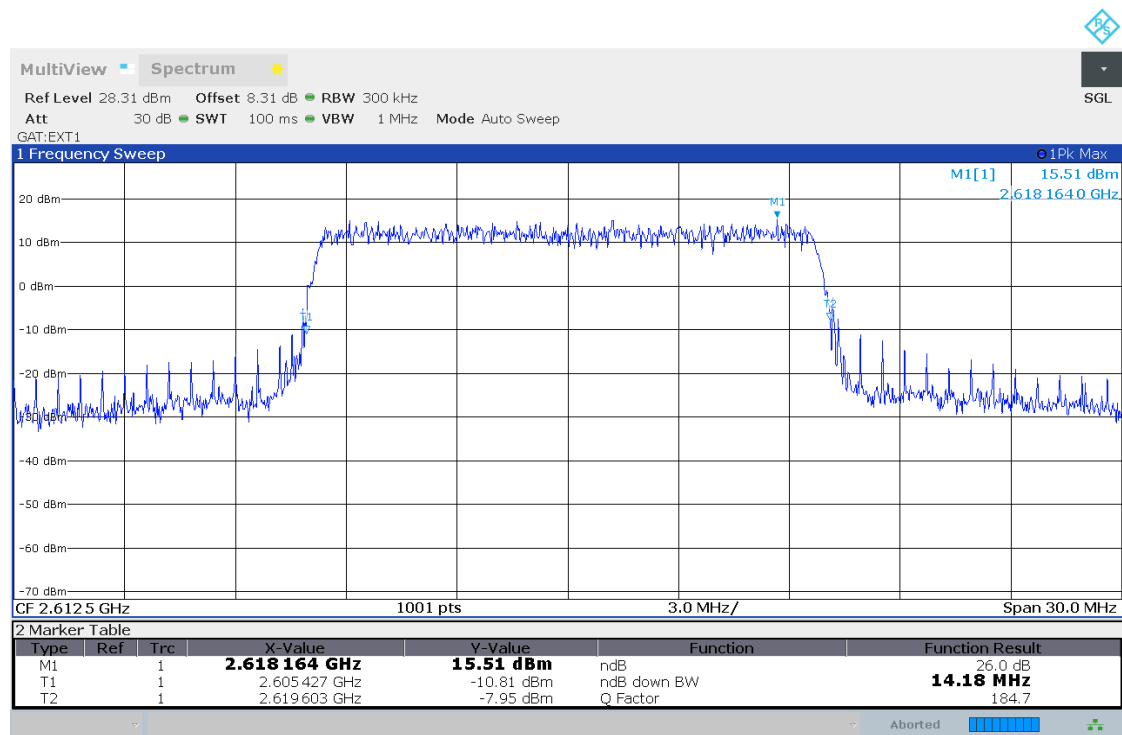


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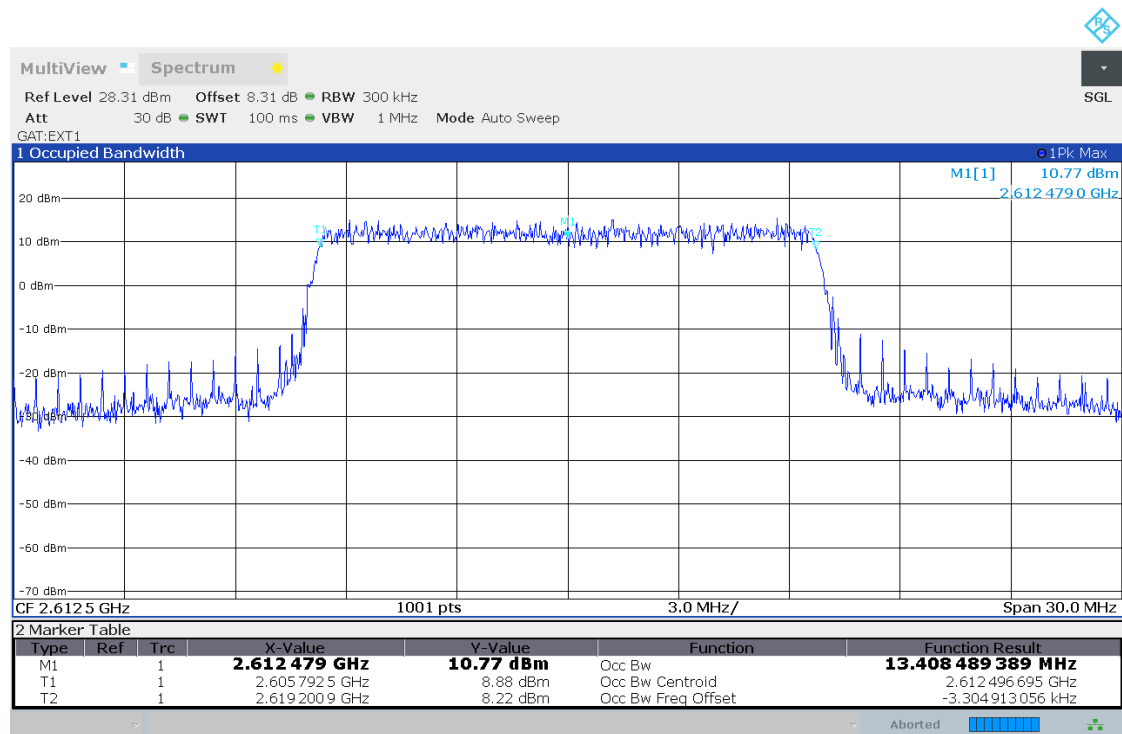


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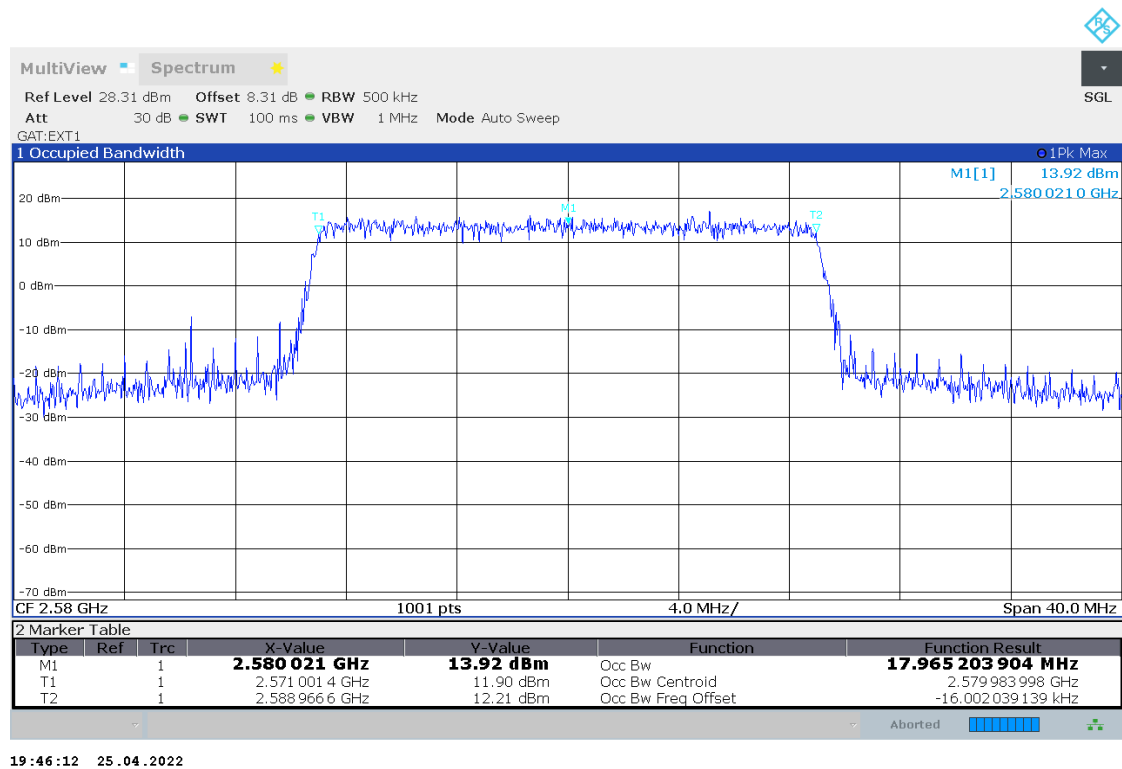
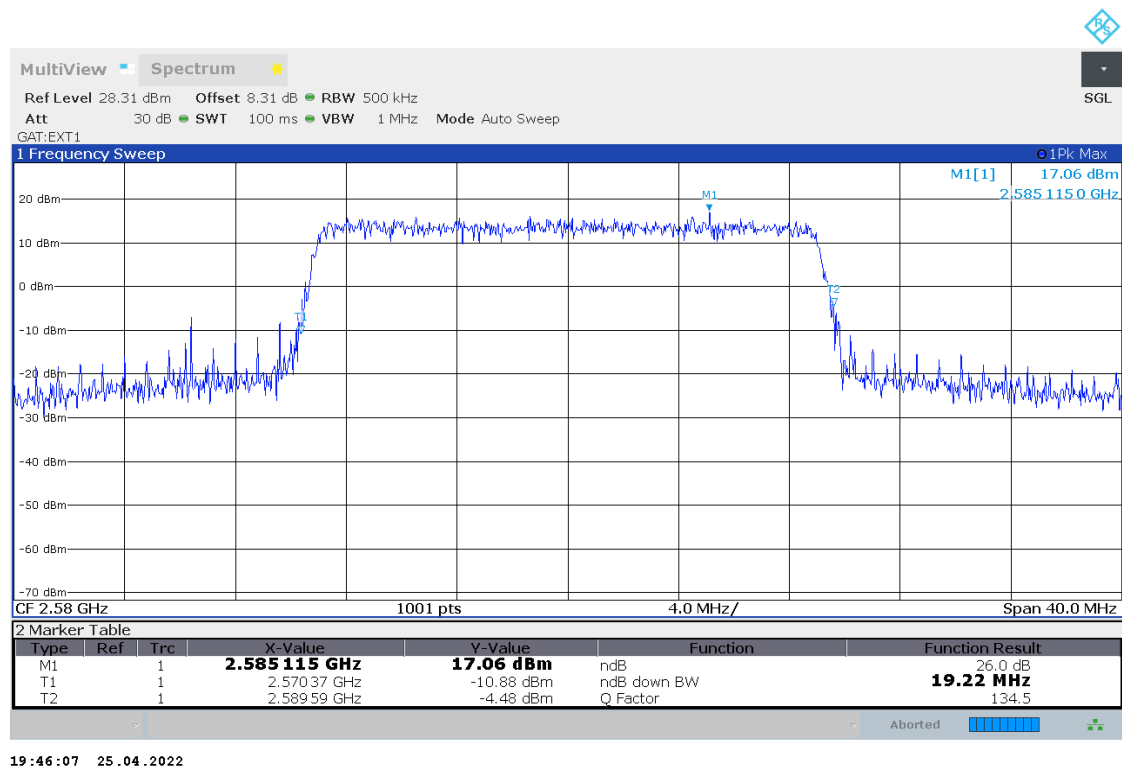


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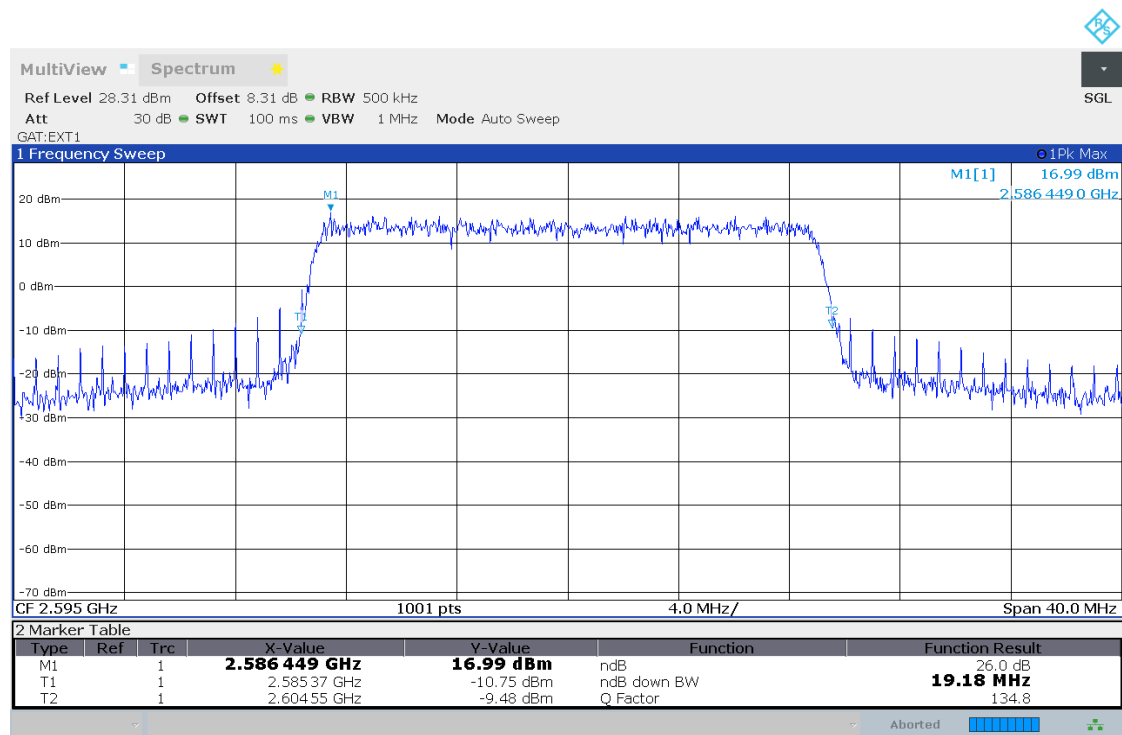


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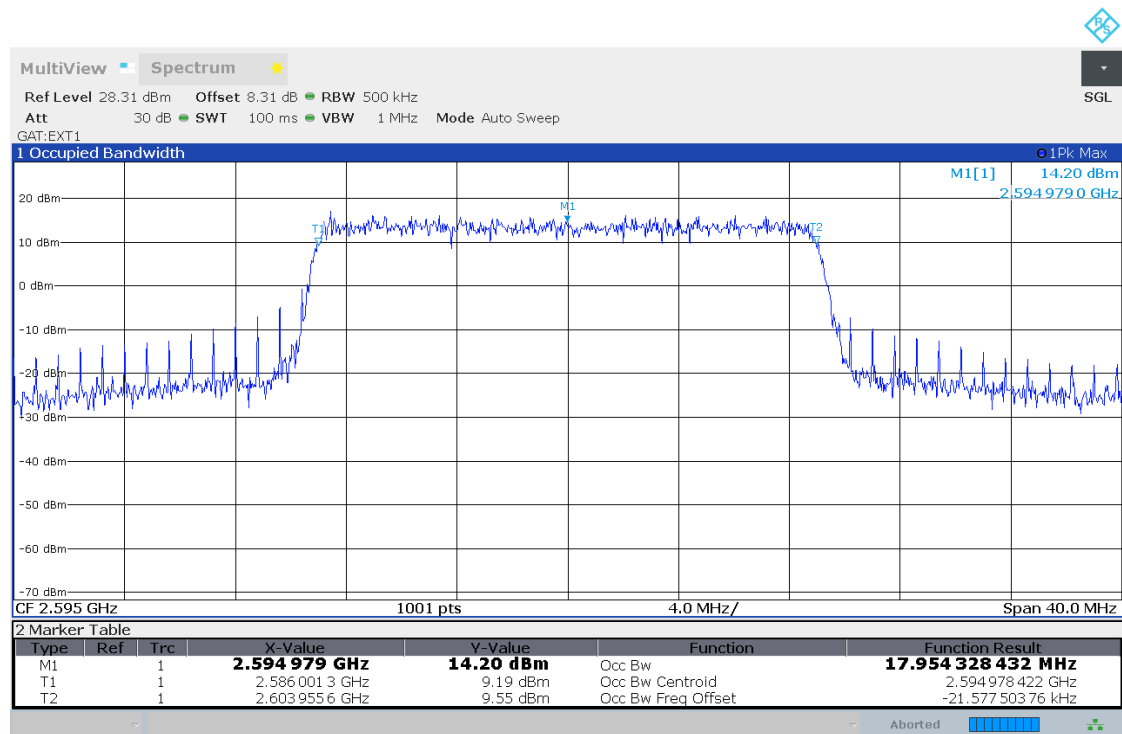
TM2_20MHz_LCH_RB100#0



TM2_20MHz_MCH_RB100#0

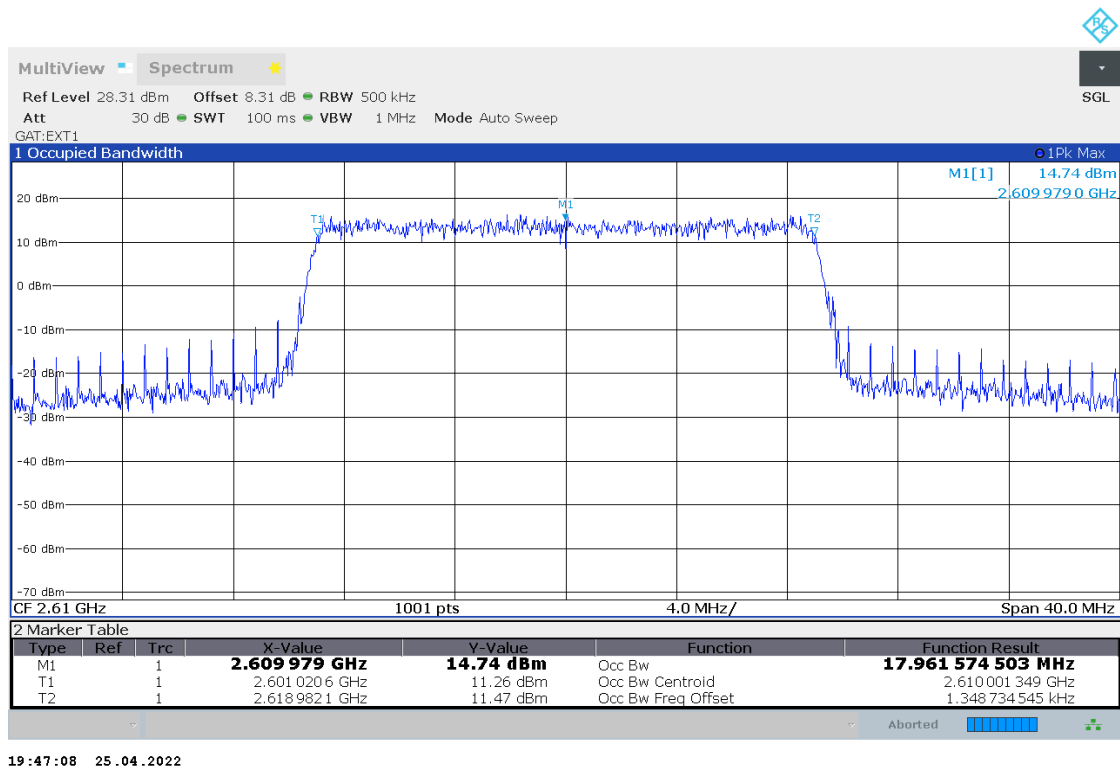
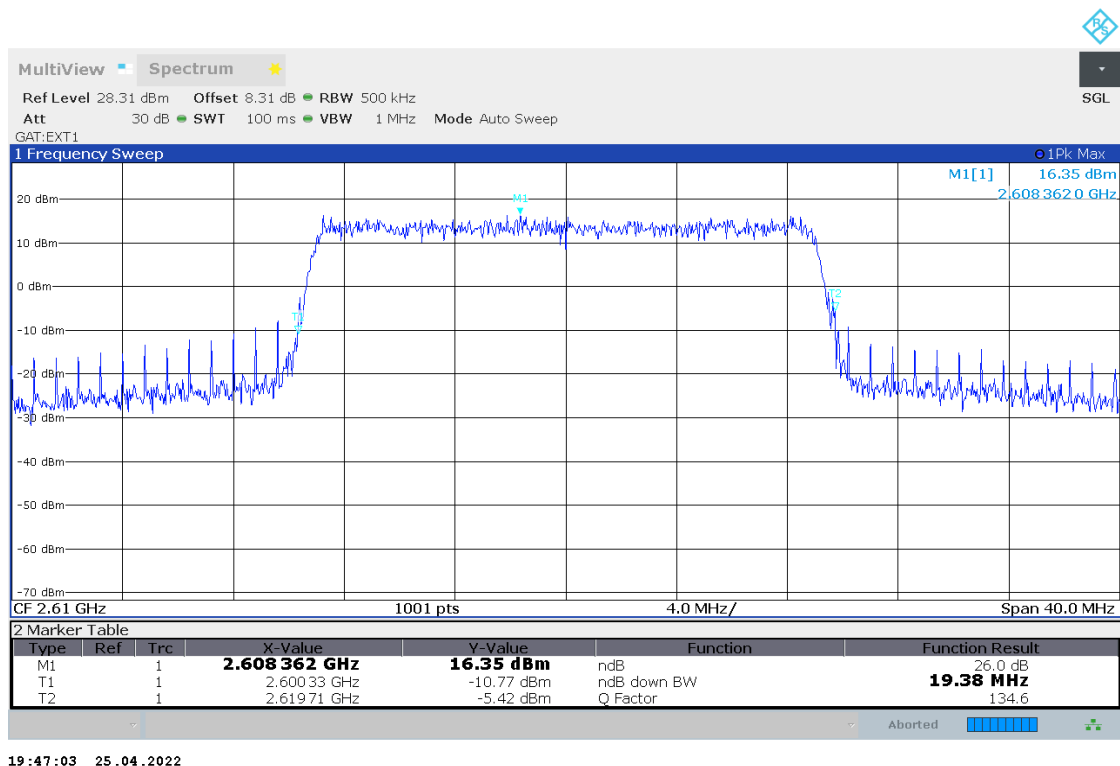


19:46:35 25.04.2022

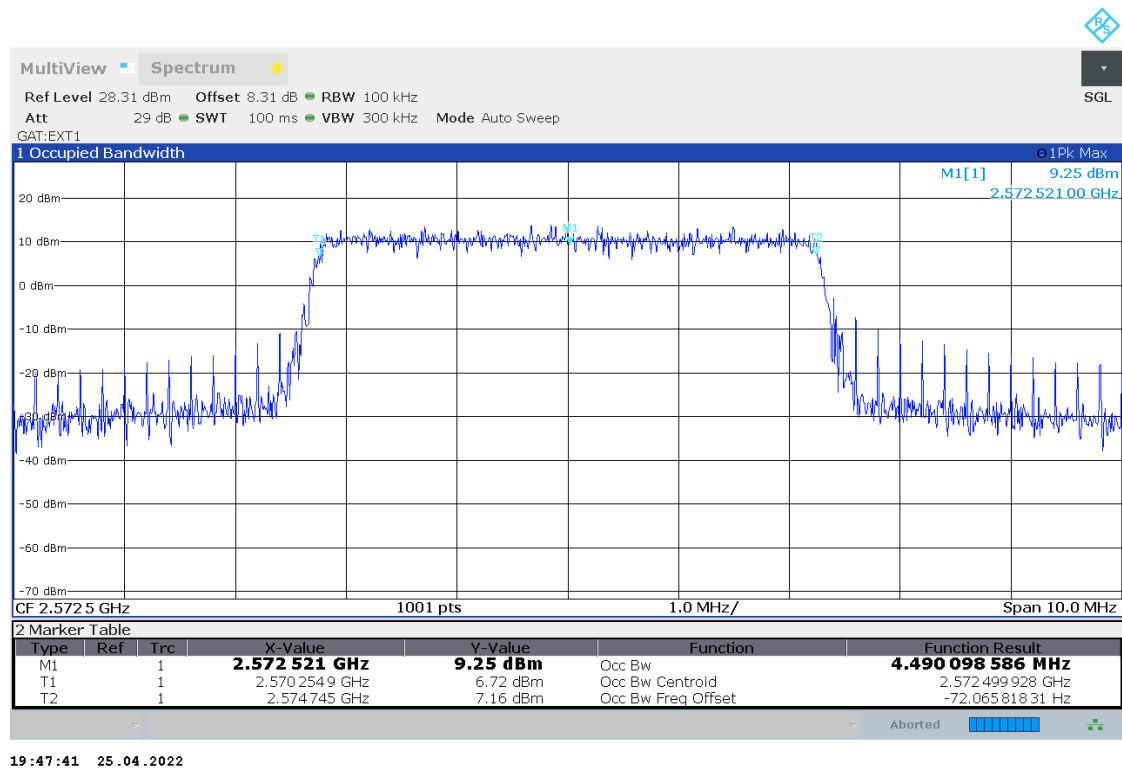
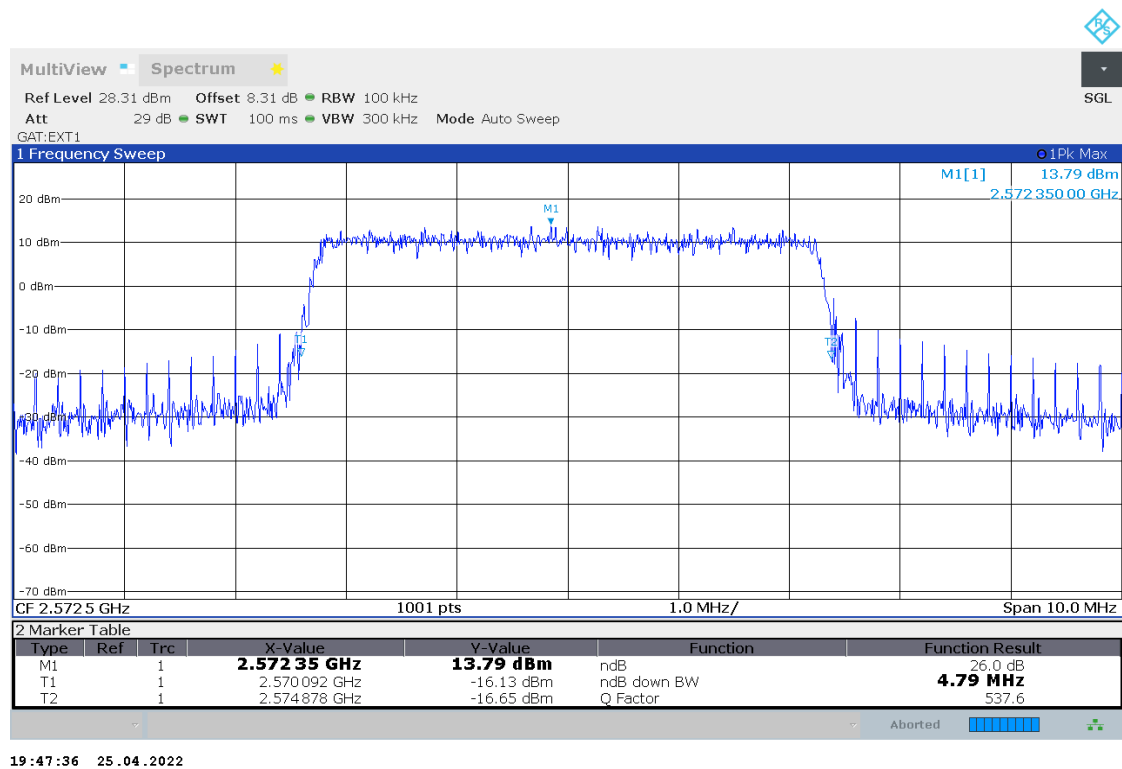


19:46:41 25.04.2022

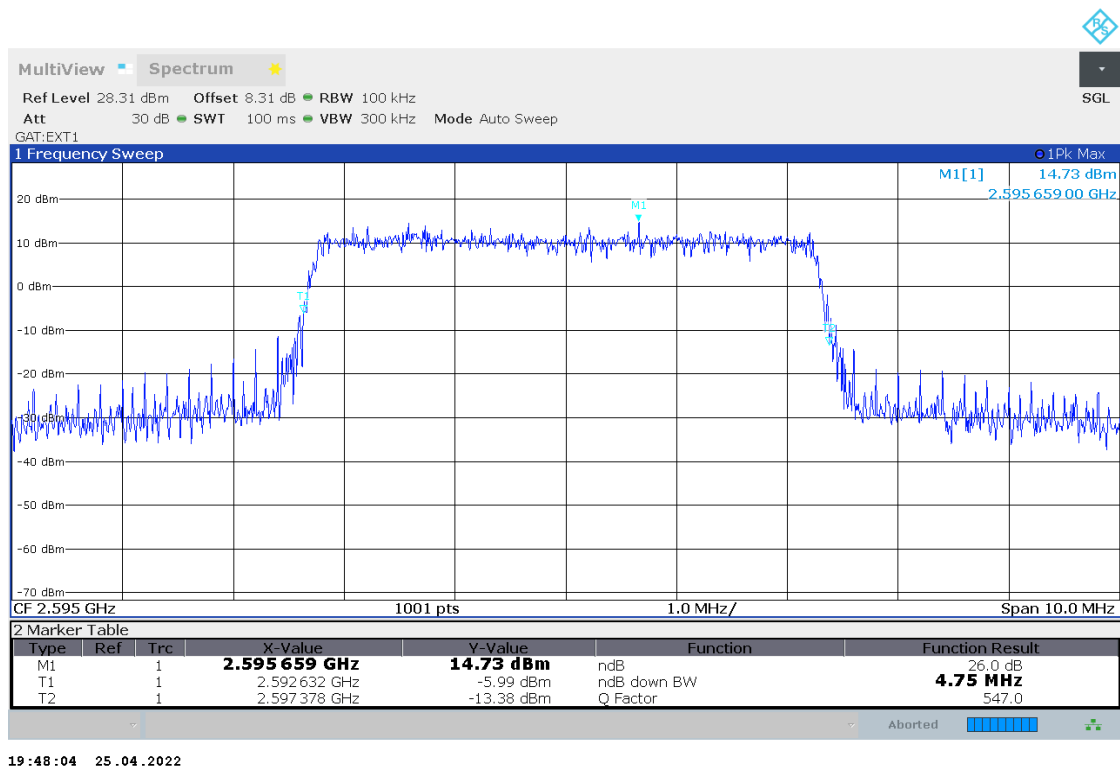
TM2_20MHz_HCH_RB100#0



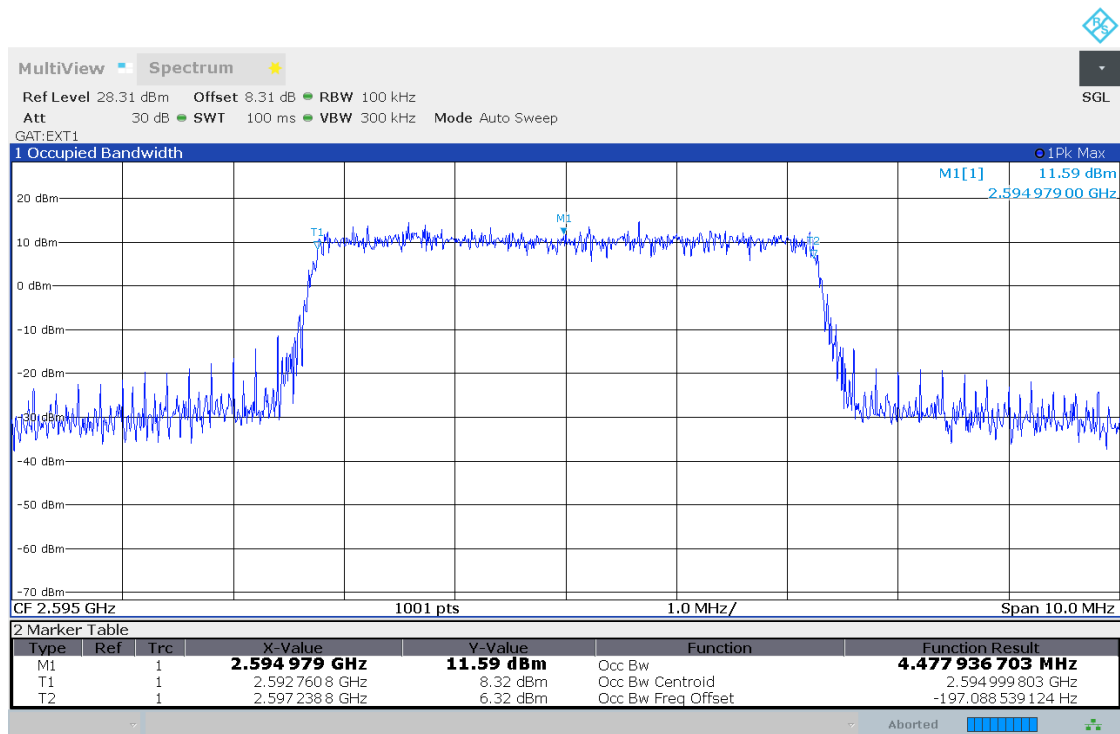
TM3_5MHz_LCH_RB25#0



TM3_5MHz_MCH_RB25#0

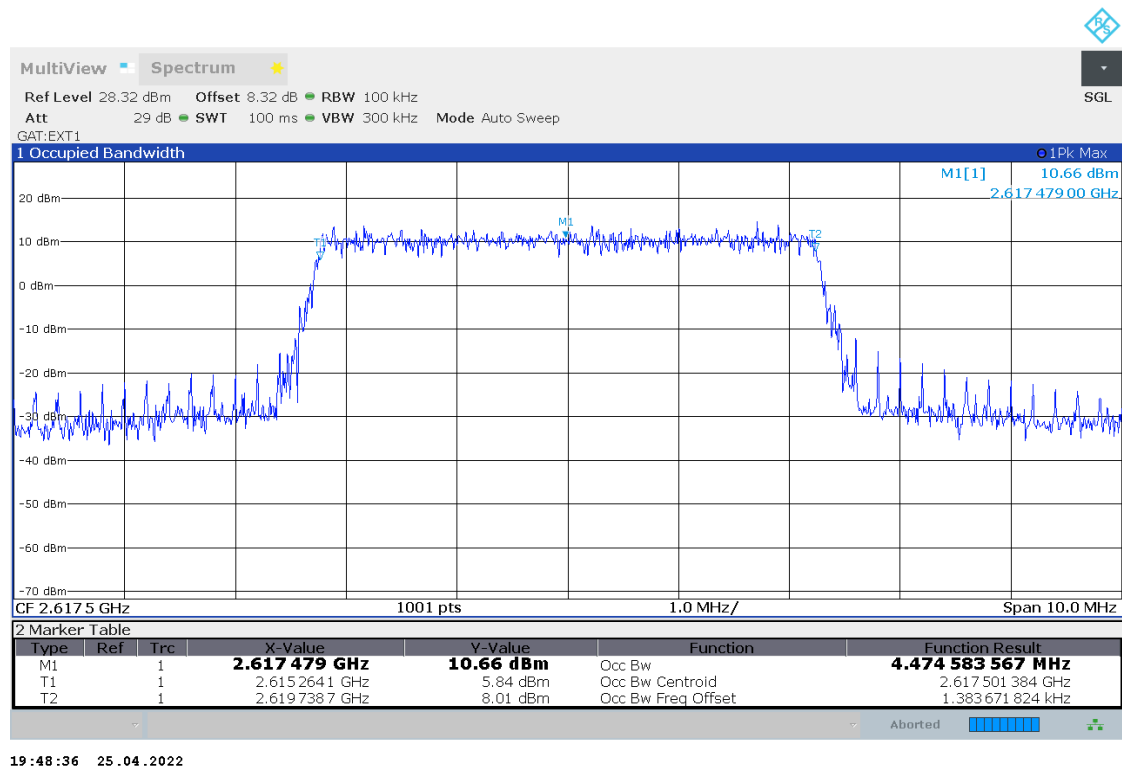
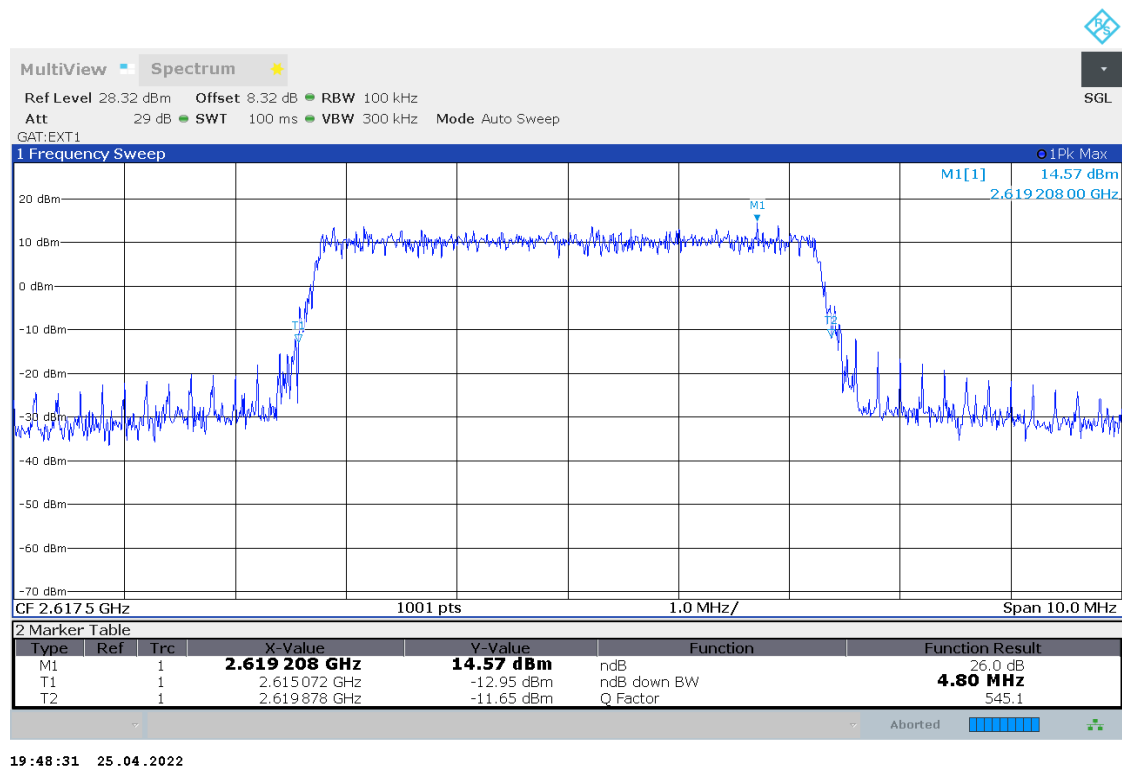


19:48:04 25.04.2022

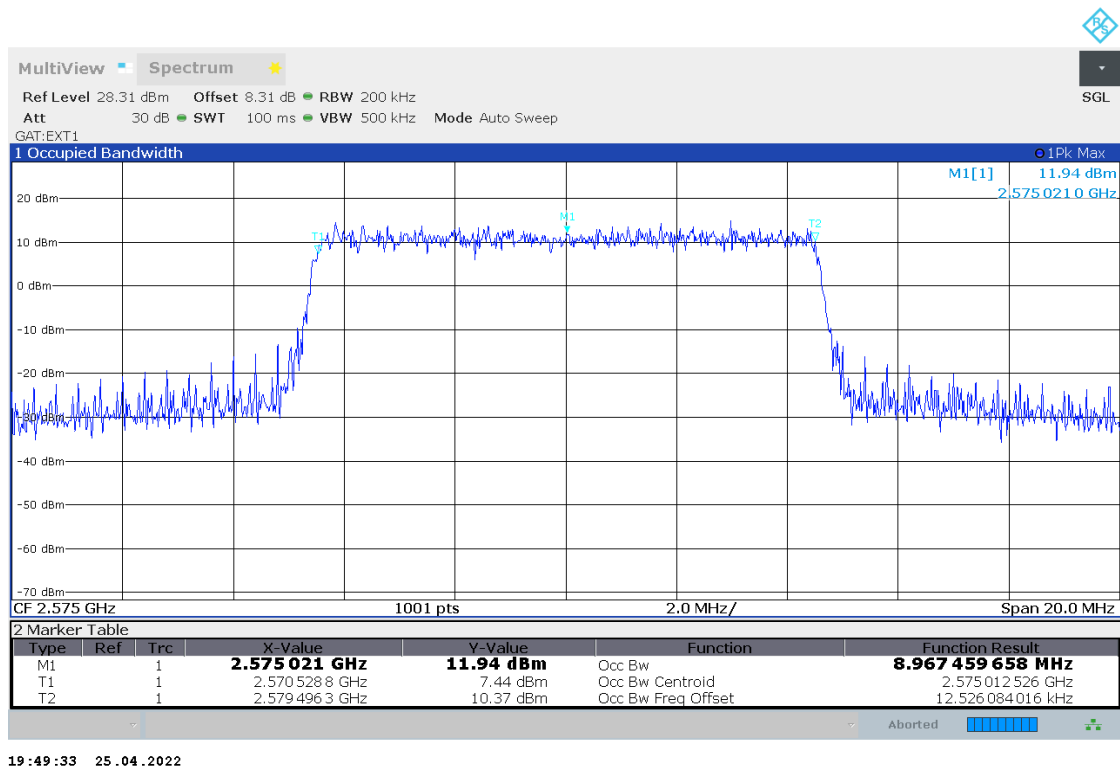
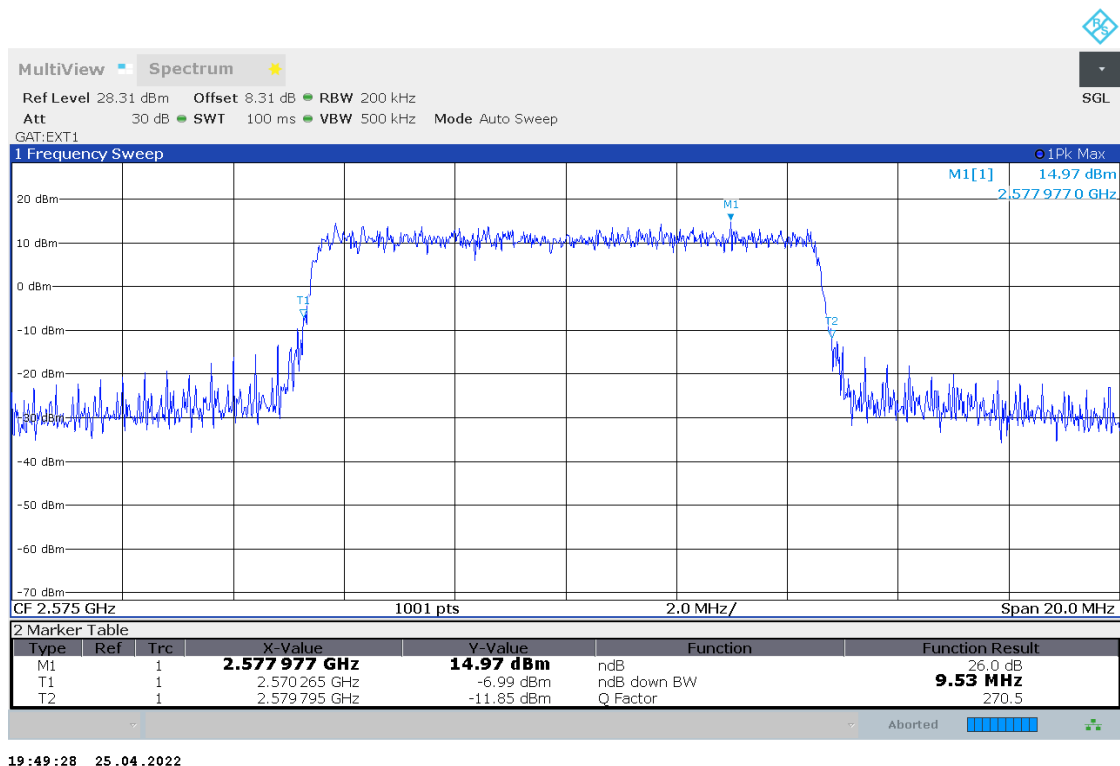


19:48:09 25.04.2022

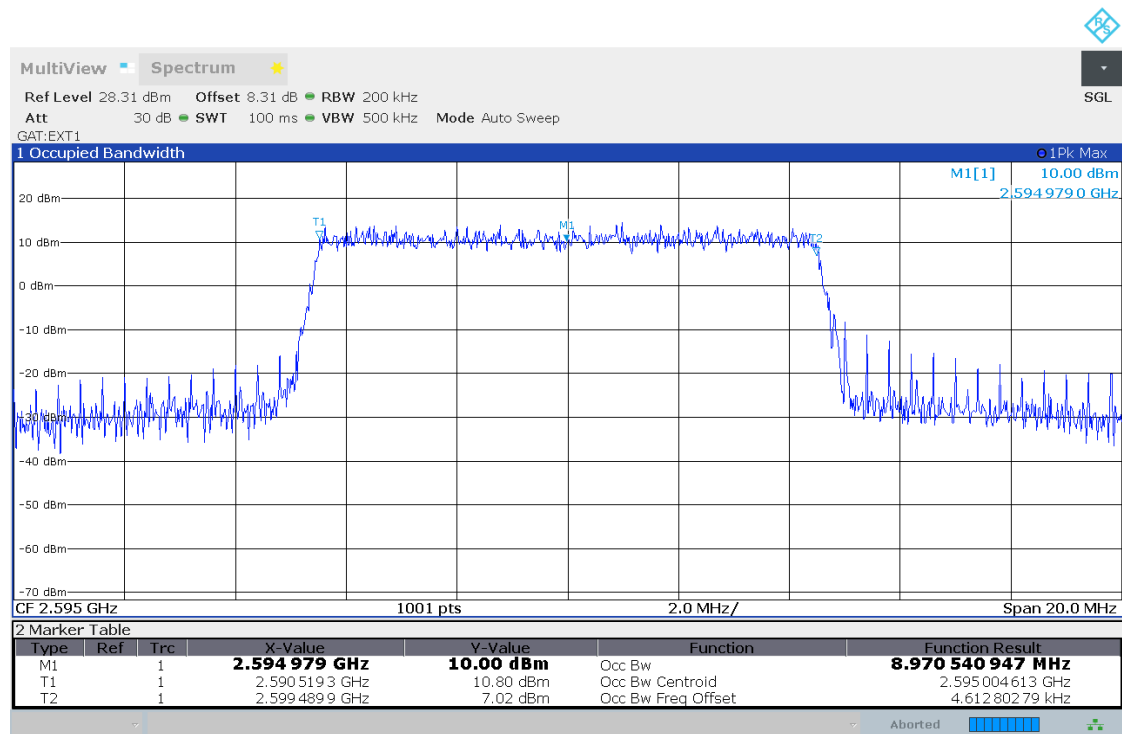
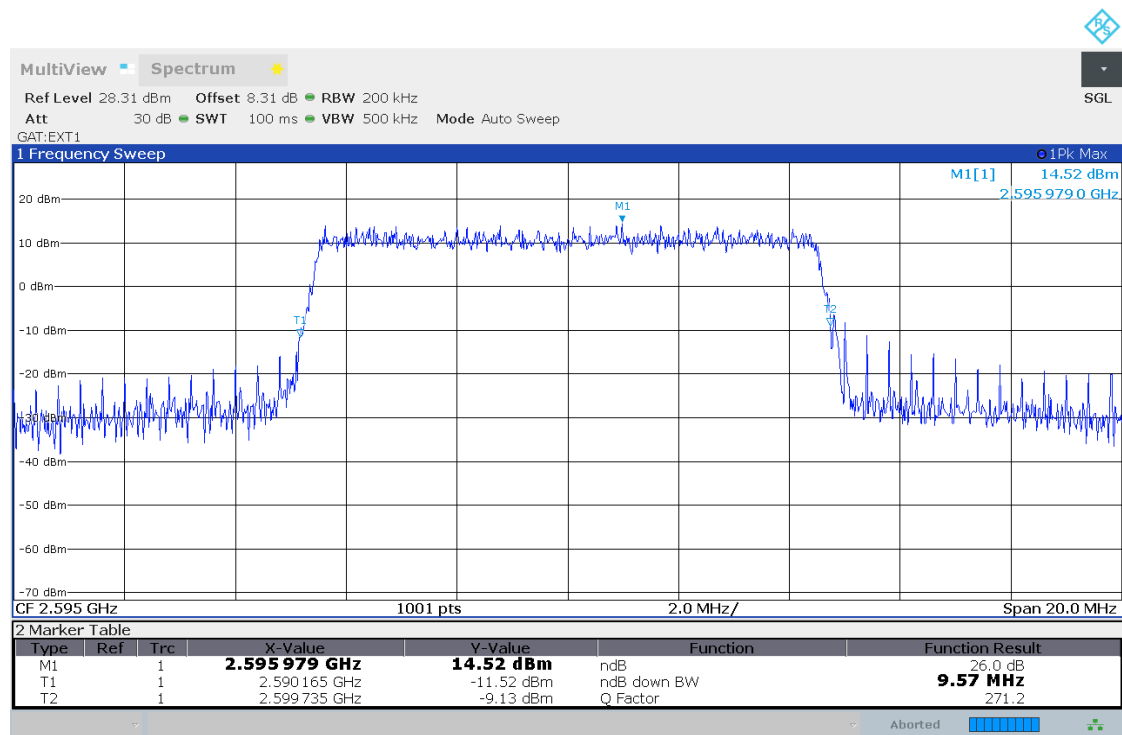
TM3_5MHz_HCH_RB25#0



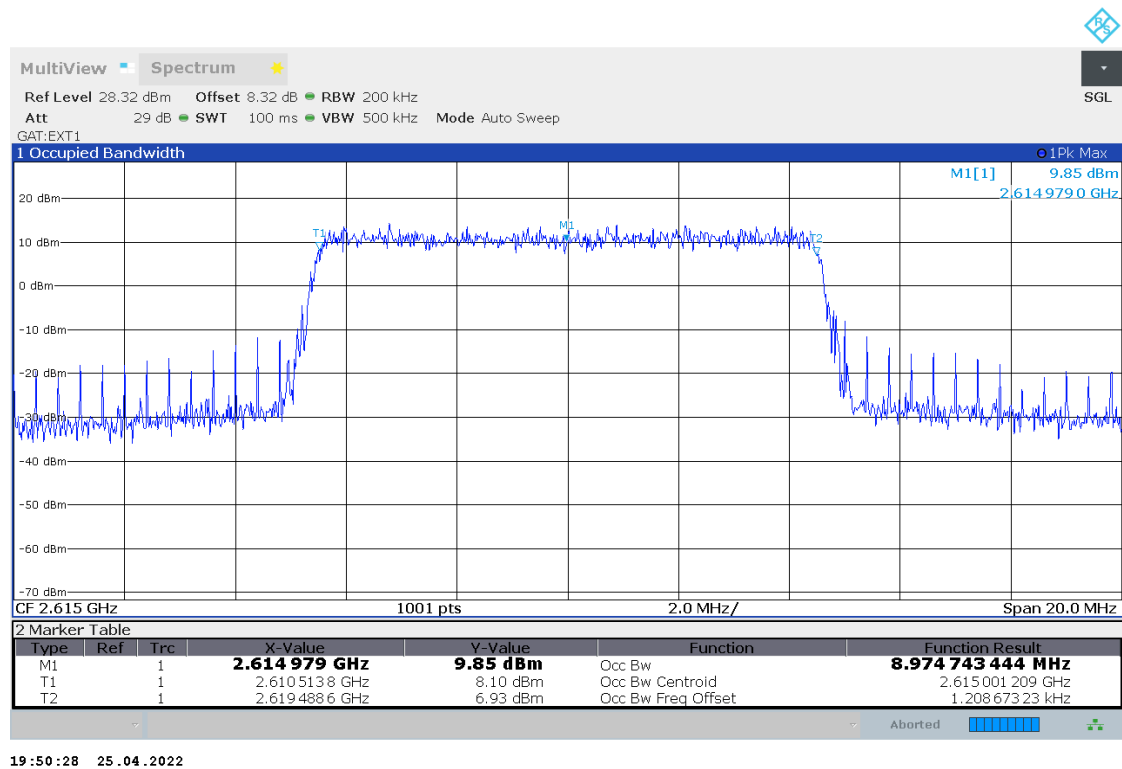
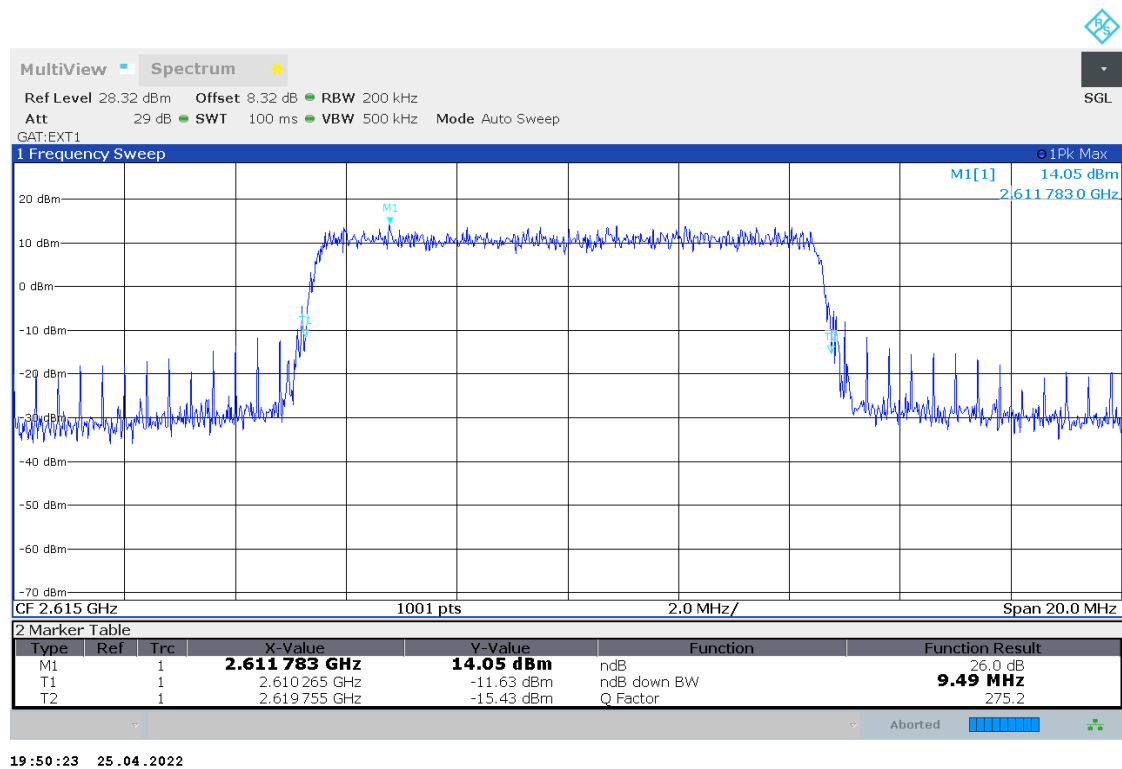
TM3_10MHz_LCH_RB50#0



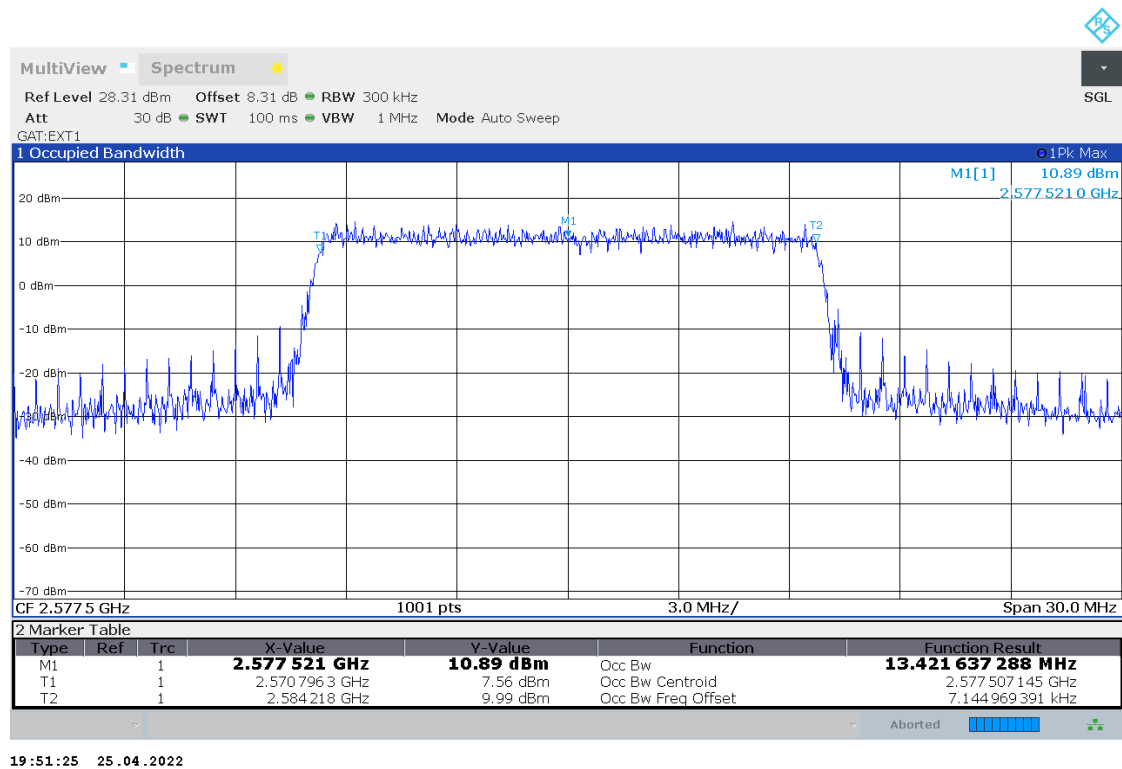
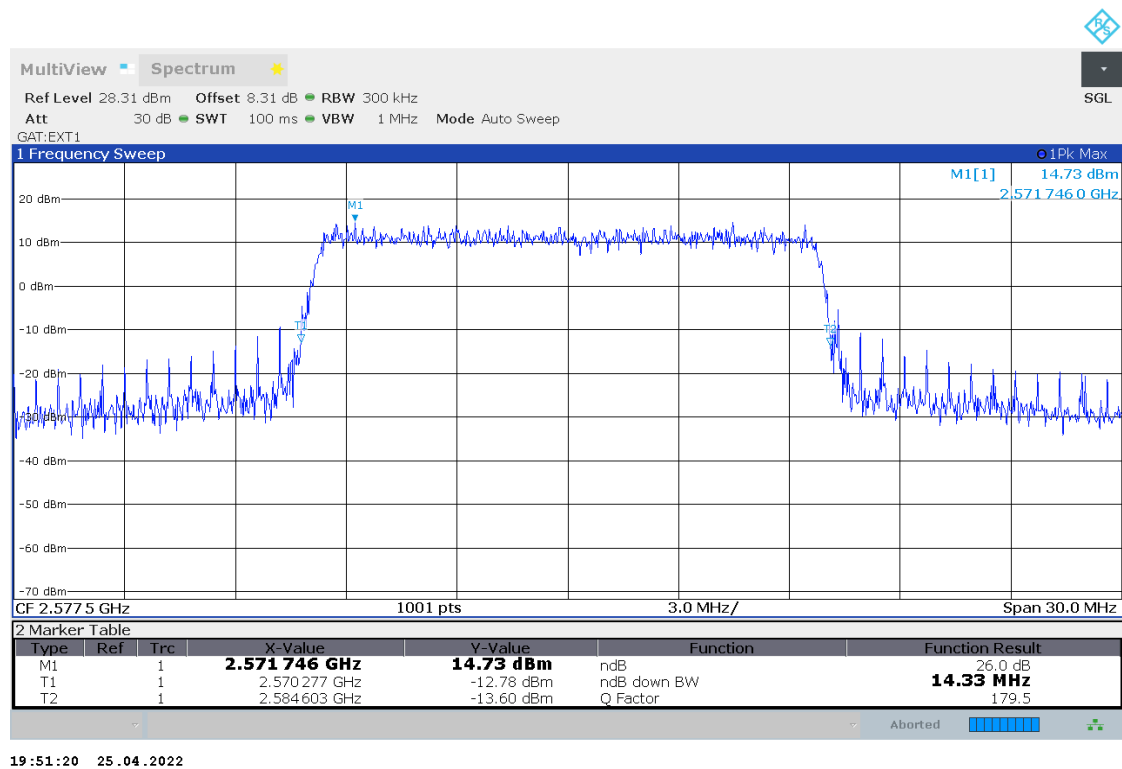
TM3_10MHz_MCH_RB50#0



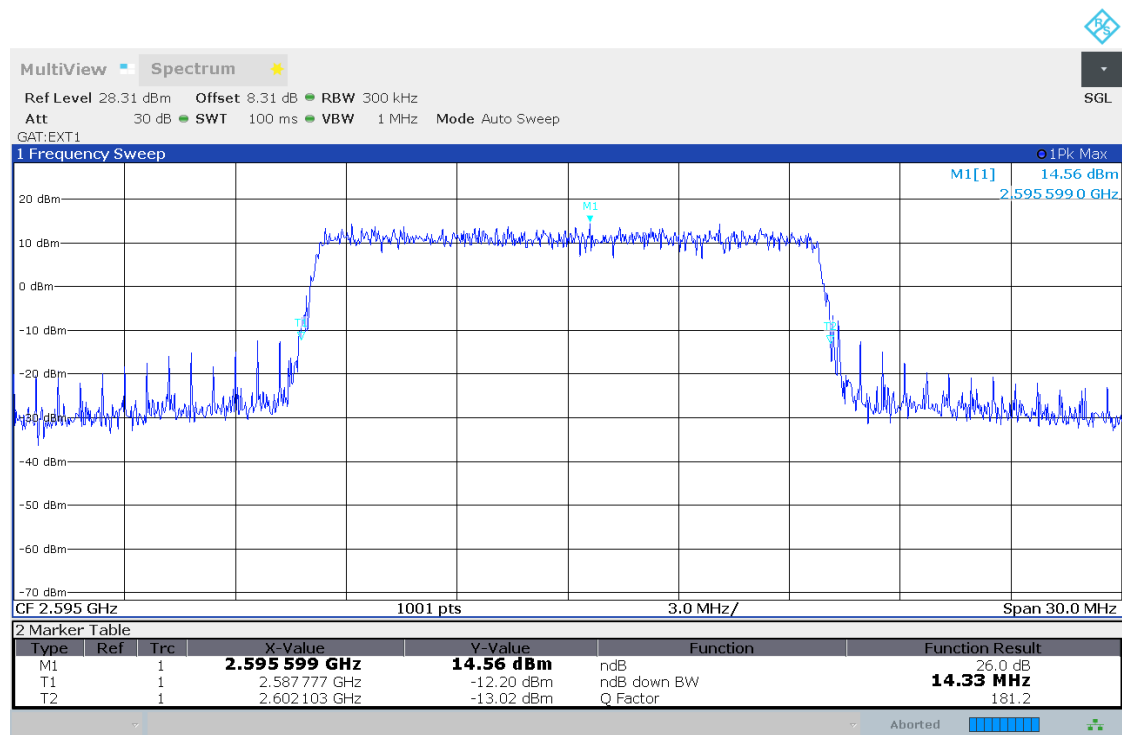
TM3_10MHz_HCH_RB50#0



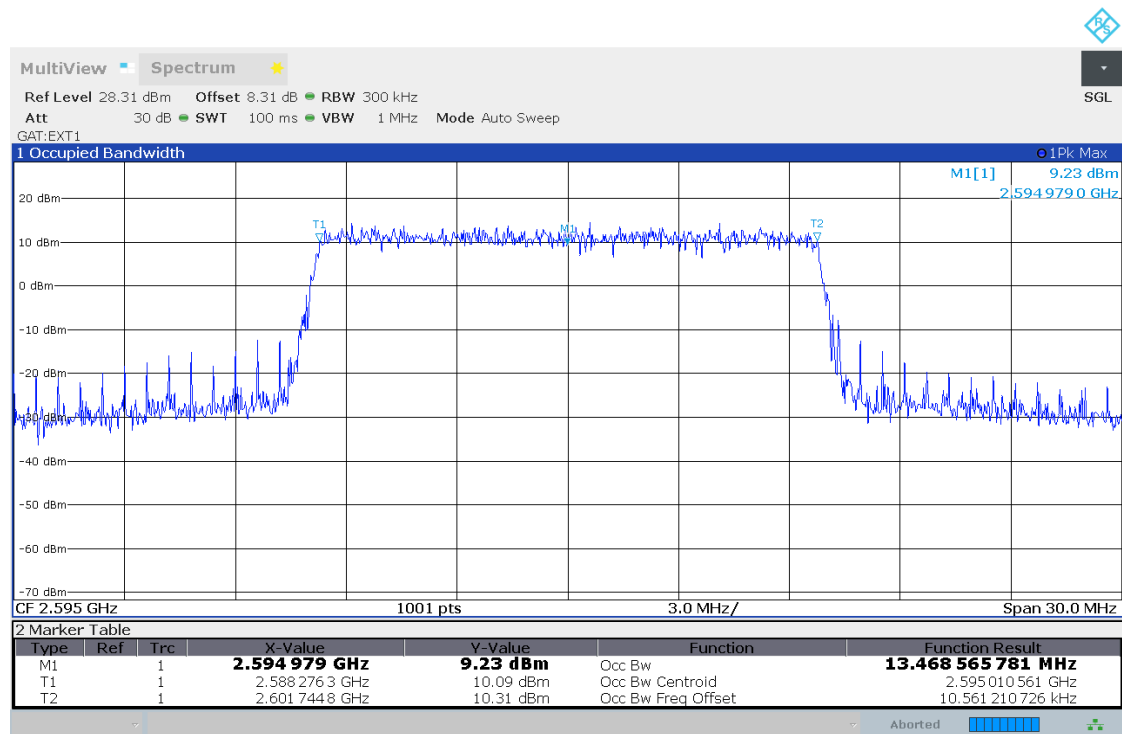
TM3_15MHz_LCH_RB75#0



TM3_15MHz_MCH_RB75#0

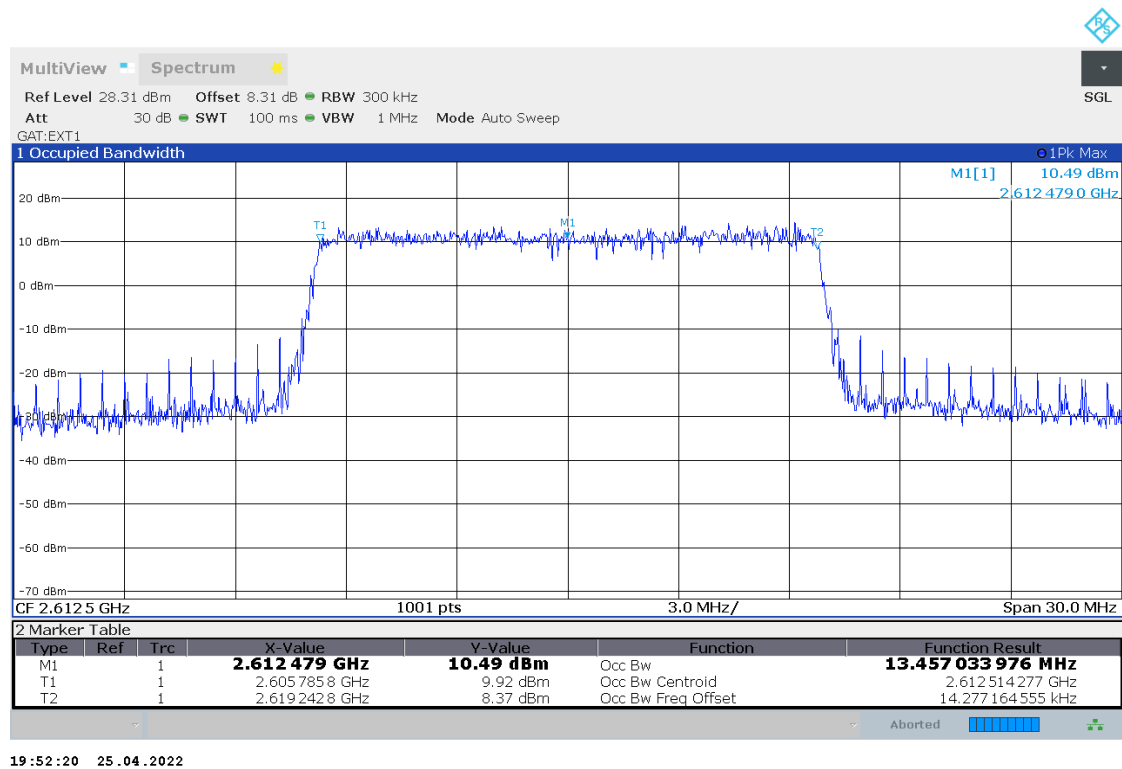
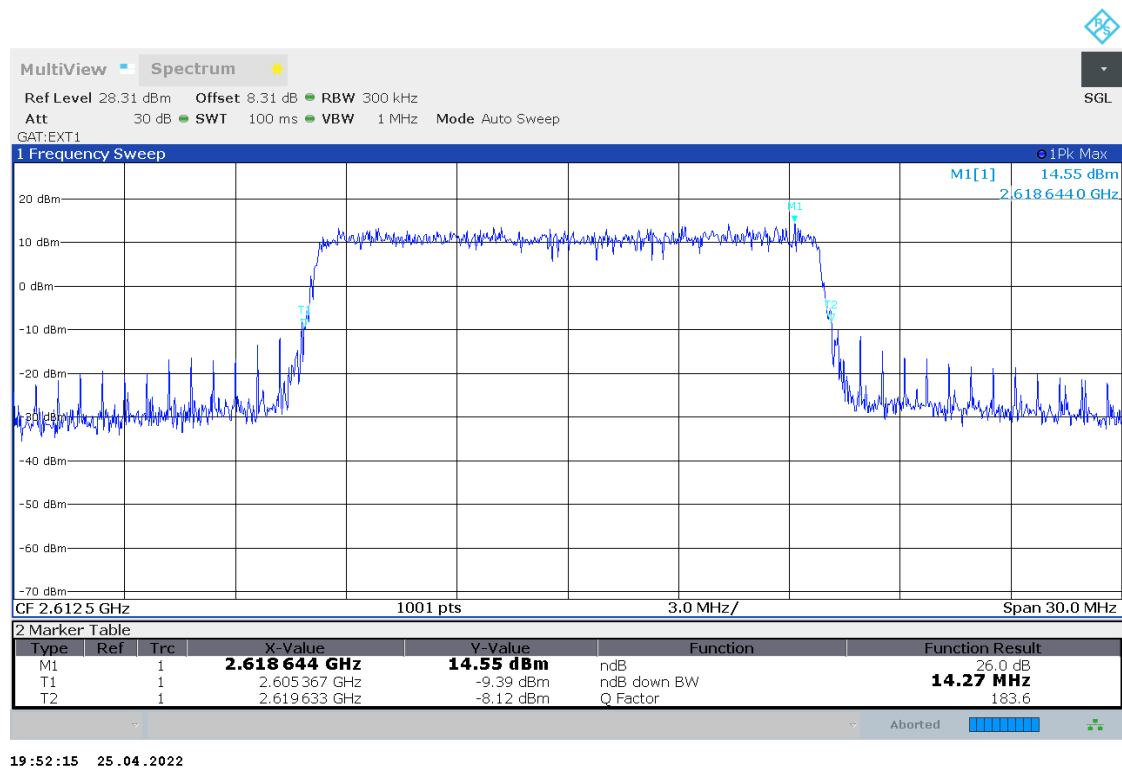


19:51:47 25.04.2022

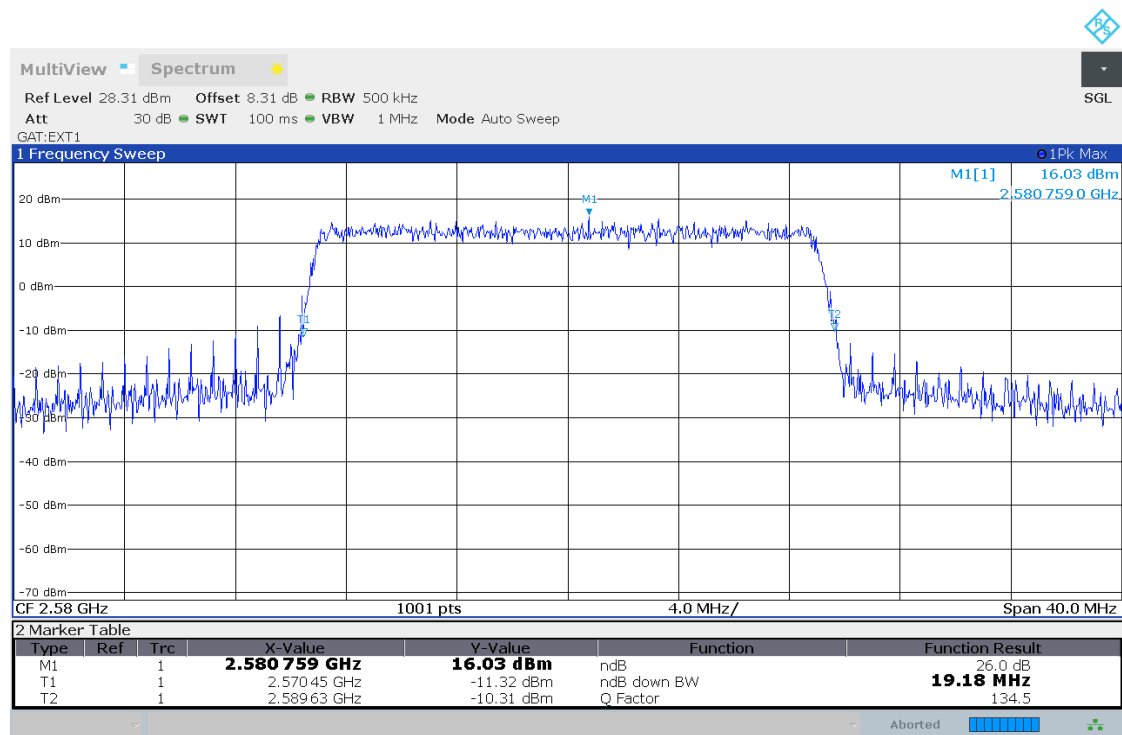


19:51:53 25.04.2022

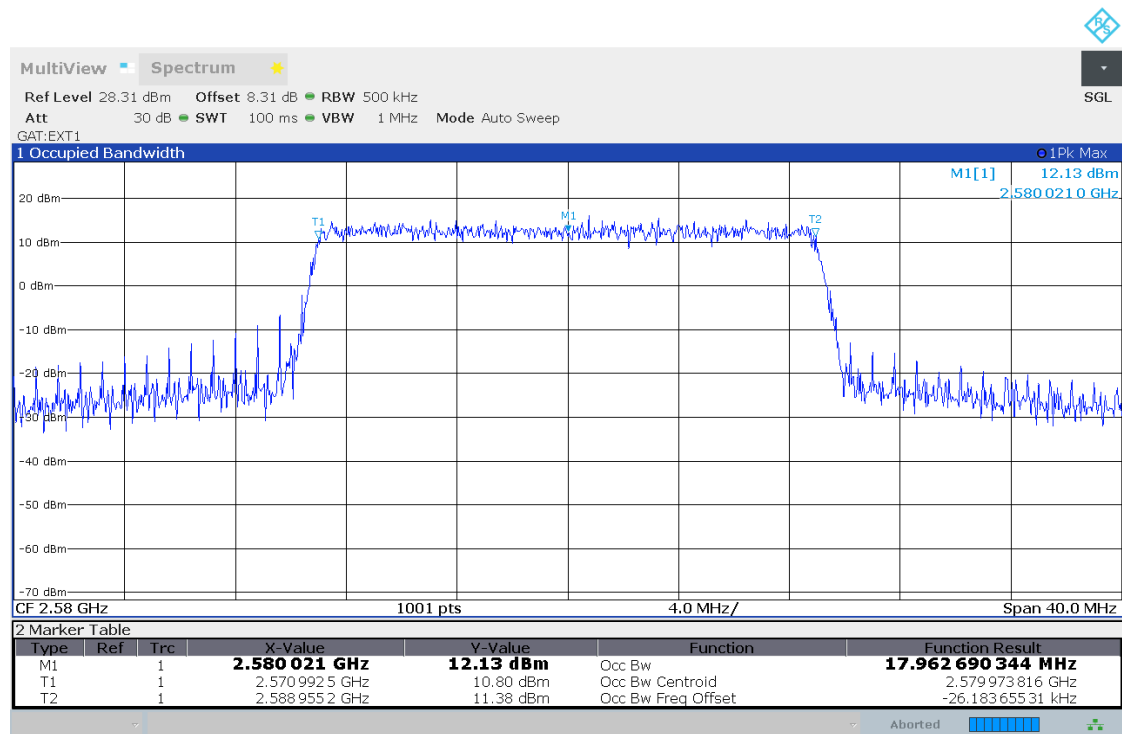
TM3_15MHz_HCH_RB75#0



TM3_20MHz_LCH_RB100#0

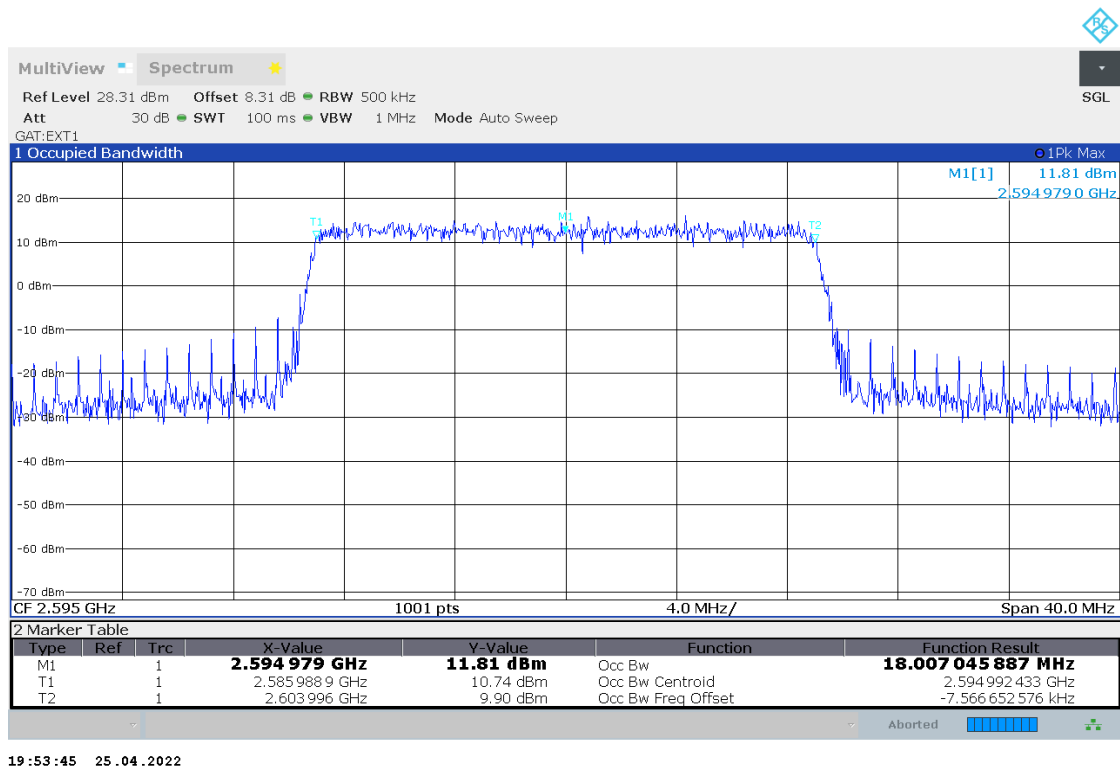
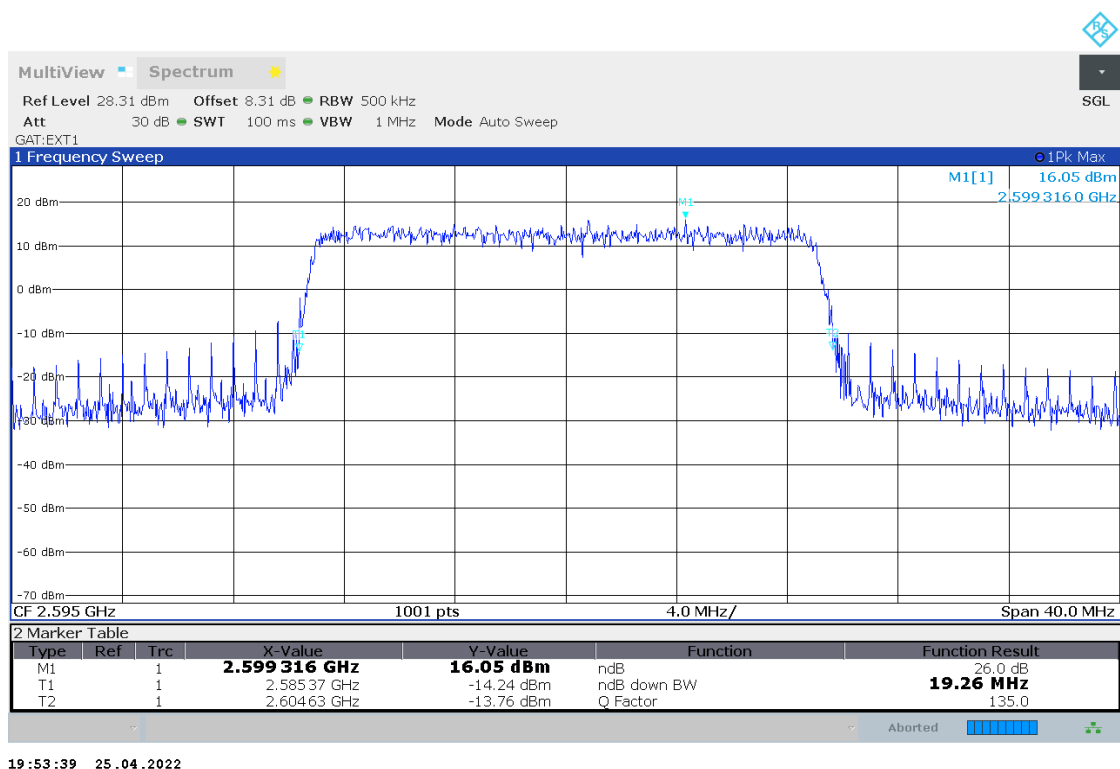


19:53:12 25.04.2022

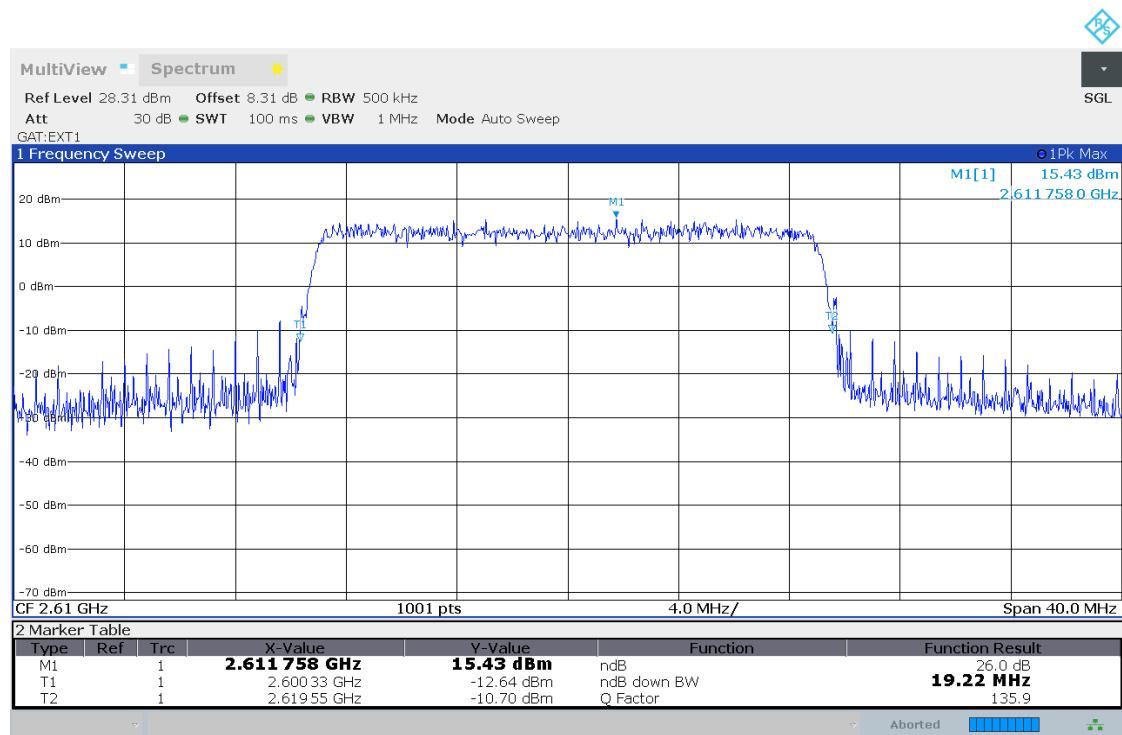


19:53:17 25.04.2022

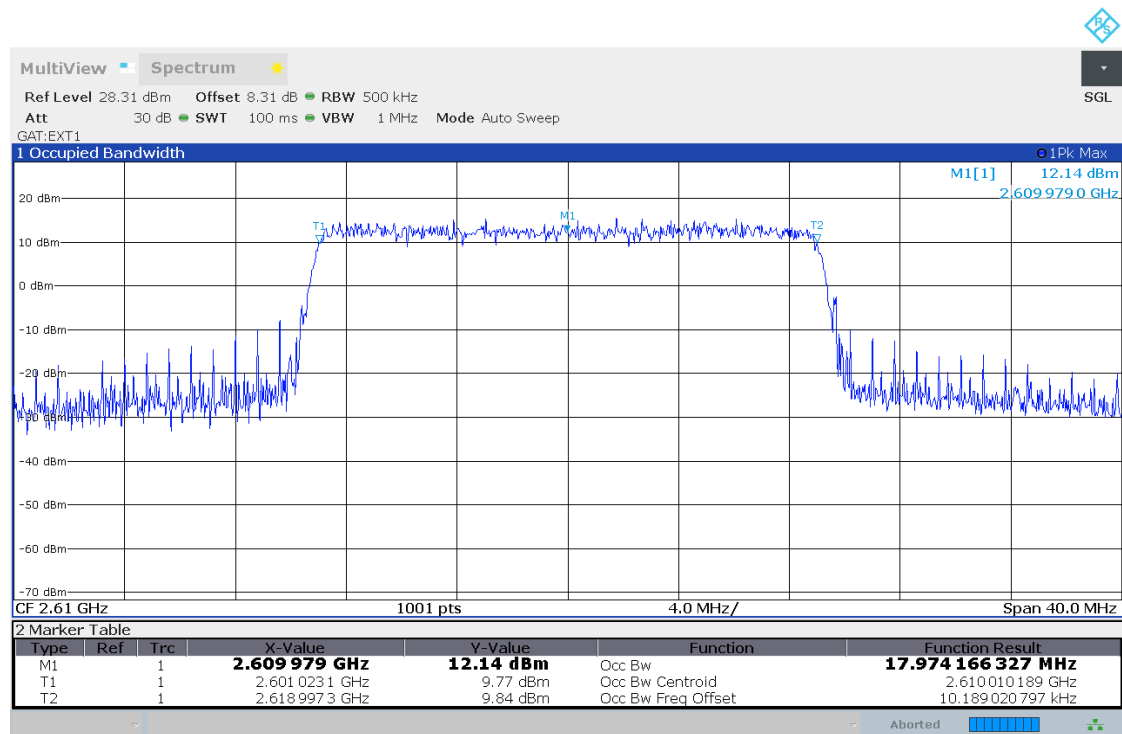
TM3_20MHz_MCH_RB100#0



TM3_20MHz_HCH_RB100#0



19:54:07 25.04.2022



19:54:12 25.04.2022

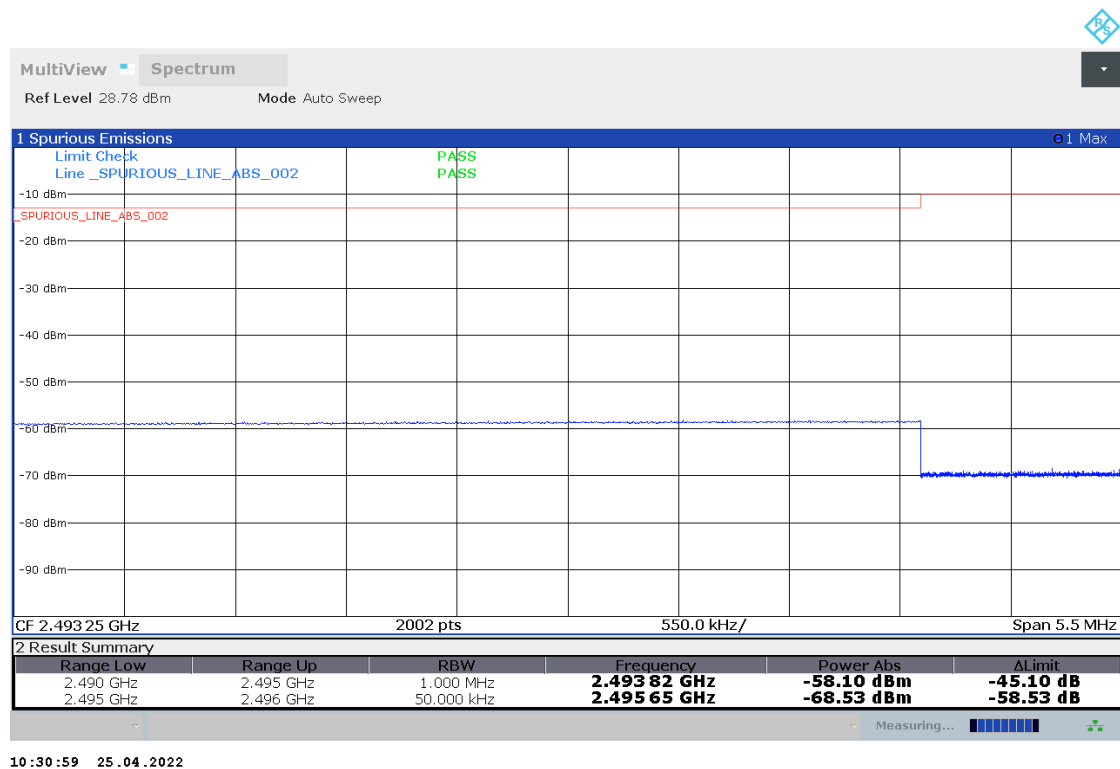
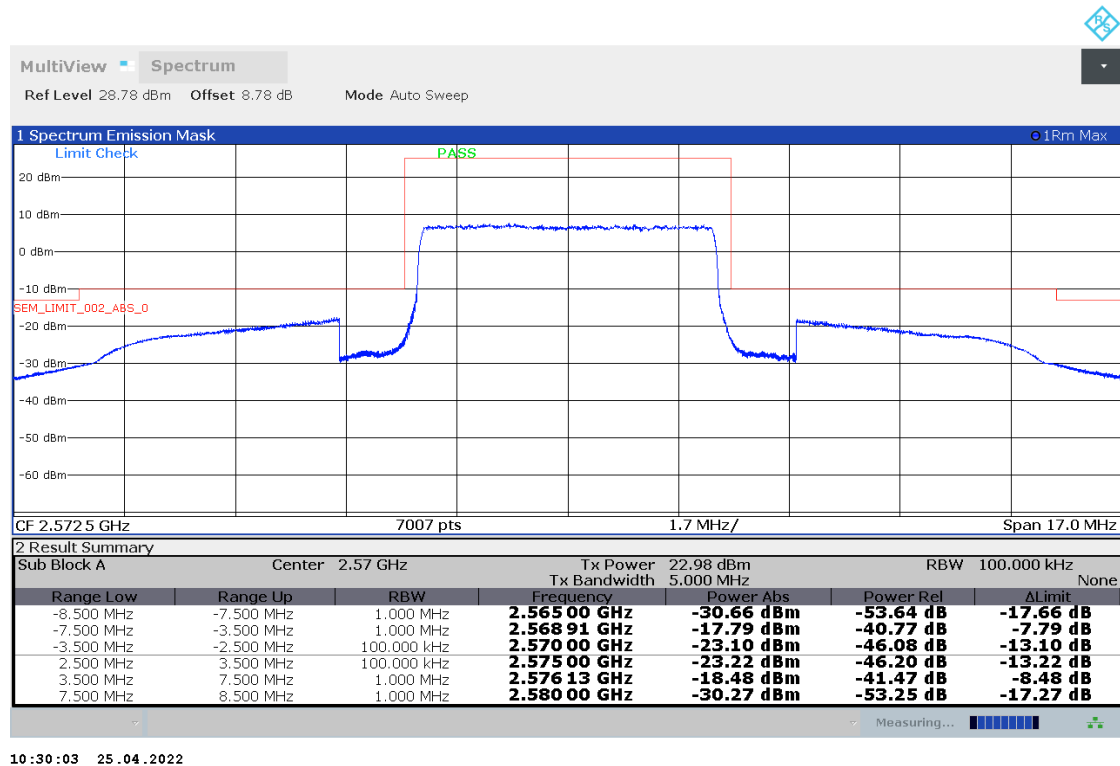
5 Appendix_E: Band Edges Compliance

5.1 Test Results

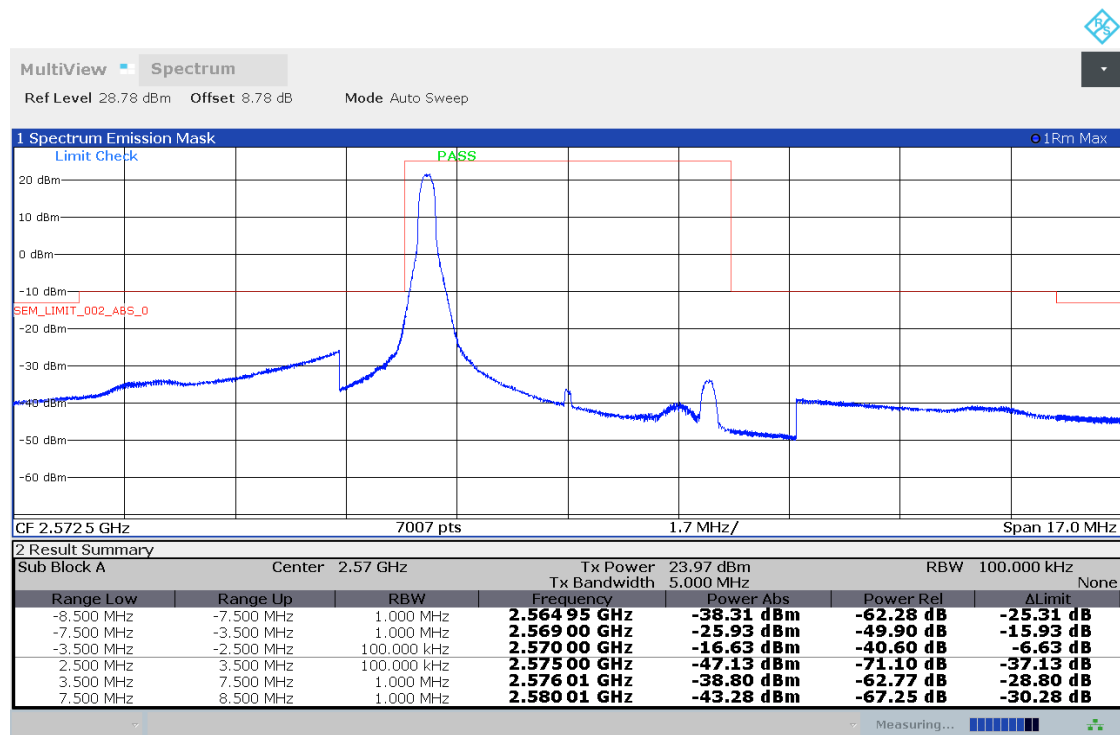
Test Mode	Test Bandwidth [MHz]	Test Channel	Test RB	Modulation	Measured Emissions Conformed to the Relevant Limits?	Verdict
TM1	5	LCH	RB25#0	QPSK	Yes	PASS
			RB1#0	QPSK	Yes	PASS
			RB1#24	QPSK	Yes	PASS
		HCH	RB25#0	QPSK	Yes	PASS
			RB1#0	QPSK	Yes	PASS
			RB1#24	QPSK	Yes	PASS
	20	LCH	RB100#0	QPSK	Yes	PASS
			RB1#0	QPSK	Yes	PASS
			RB1#99	QPSK	Yes	PASS
		HCH	RB100#0	QPSK	Yes	PASS
			RB1#0	QPSK	Yes	PASS
			RB1#99	QPSK	Yes	PASS
TM2	5	LCH	RB25#0	16QAM	Yes	PASS
			RB1#0	16QAM	Yes	PASS
			RB1#24	16QAM	Yes	PASS
		HCH	RB25#0	16QAM	Yes	PASS
			RB1#0	16QAM	Yes	PASS
			RB1#24	16QAM	Yes	PASS
	20	LCH	RB100#0	16QAM	Yes	PASS
			RB1#0	16QAM	Yes	PASS
			RB1#99	16QAM	Yes	PASS
		HCH	RB100#0	16QAM	Yes	PASS
			RB1#0	16QAM	Yes	PASS
			RB1#99	16QAM	Yes	PASS
TM3	5	LCH	RB25#0	64QAM	Yes	PASS
			RB1#0	64QAM	Yes	PASS
			RB1#24	64QAM	Yes	PASS
		HCH	RB25#0	64QAM	Yes	PASS
			RB1#0	64QAM	Yes	PASS
			RB1#24	64QAM	Yes	PASS
	20	LCH	RB100#0	64QAM	Yes	PASS
			RB1#0	64QAM	Yes	PASS
			RB1#99	64QAM	Yes	PASS
		HCH	RB100#0	64QAM	Yes	PASS
			RB1#0	64QAM	Yes	PASS
			RB1#99	64QAM	Yes	PASS

5.2 Test Plots

TM1_5MHz_LCH_RB25#0



M1_5MHz_LCH_RB1#0

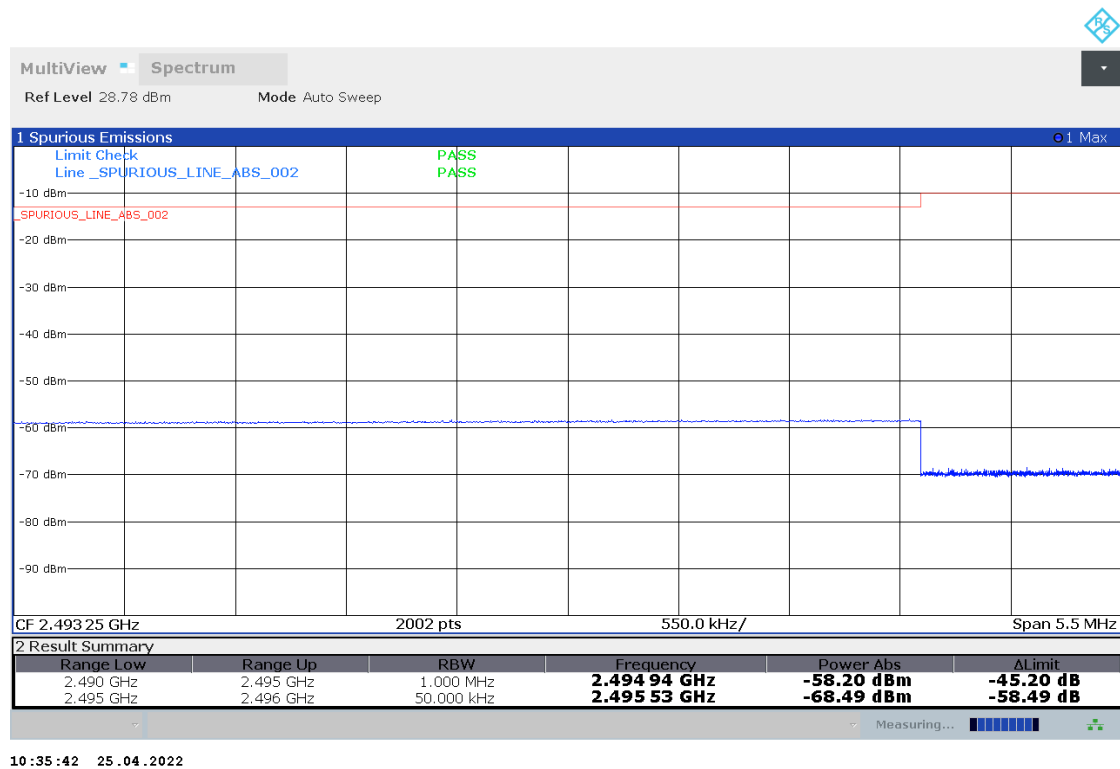
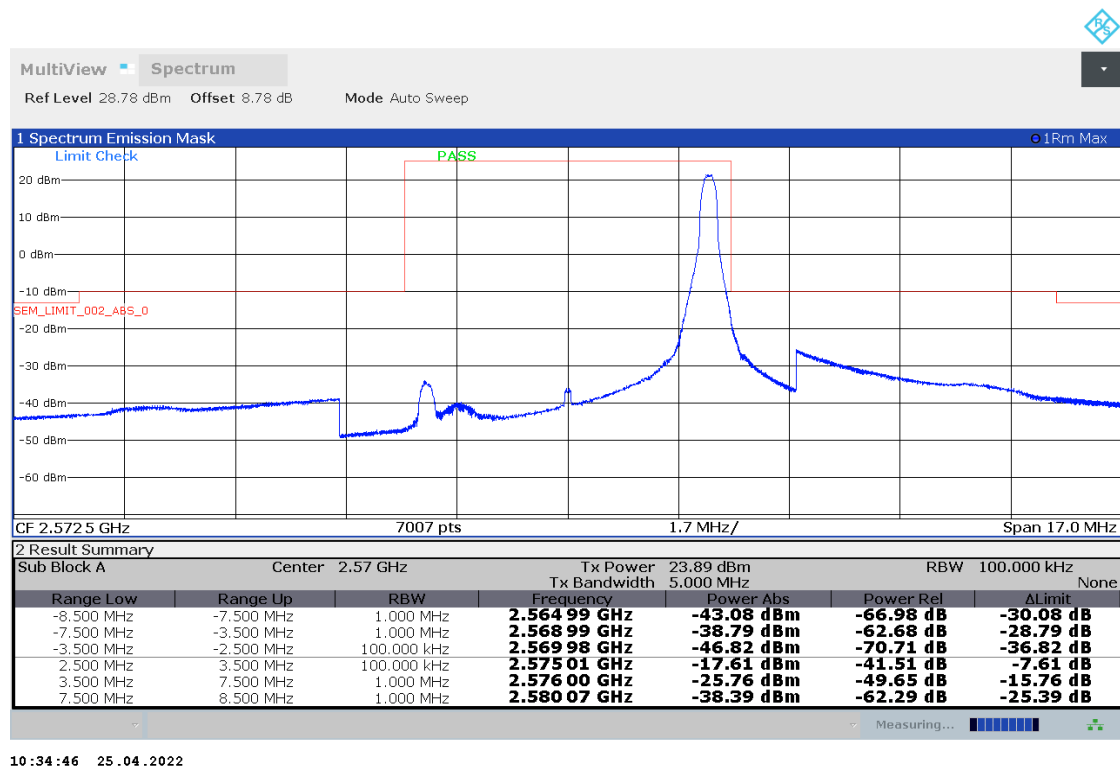


10:32:24 25.04.2022

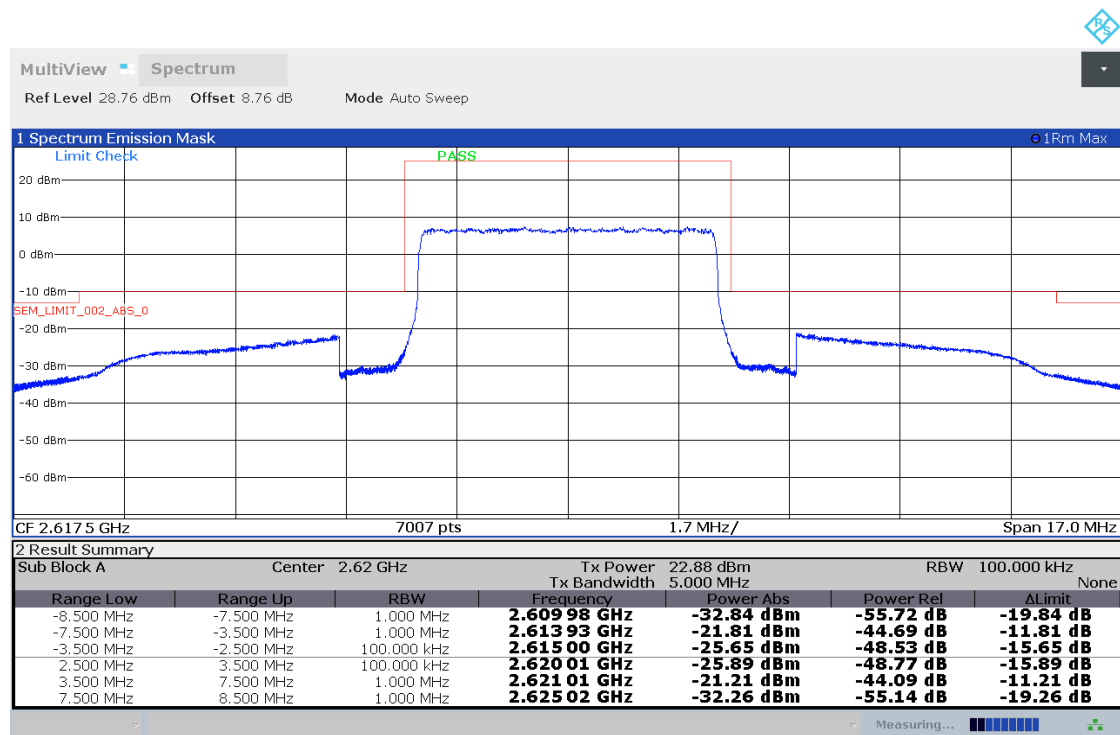


10:33:21 25.04.2022

TM1_5MHz_LCH_RB1#24



TM1_5MHz_HCH_RB25#0

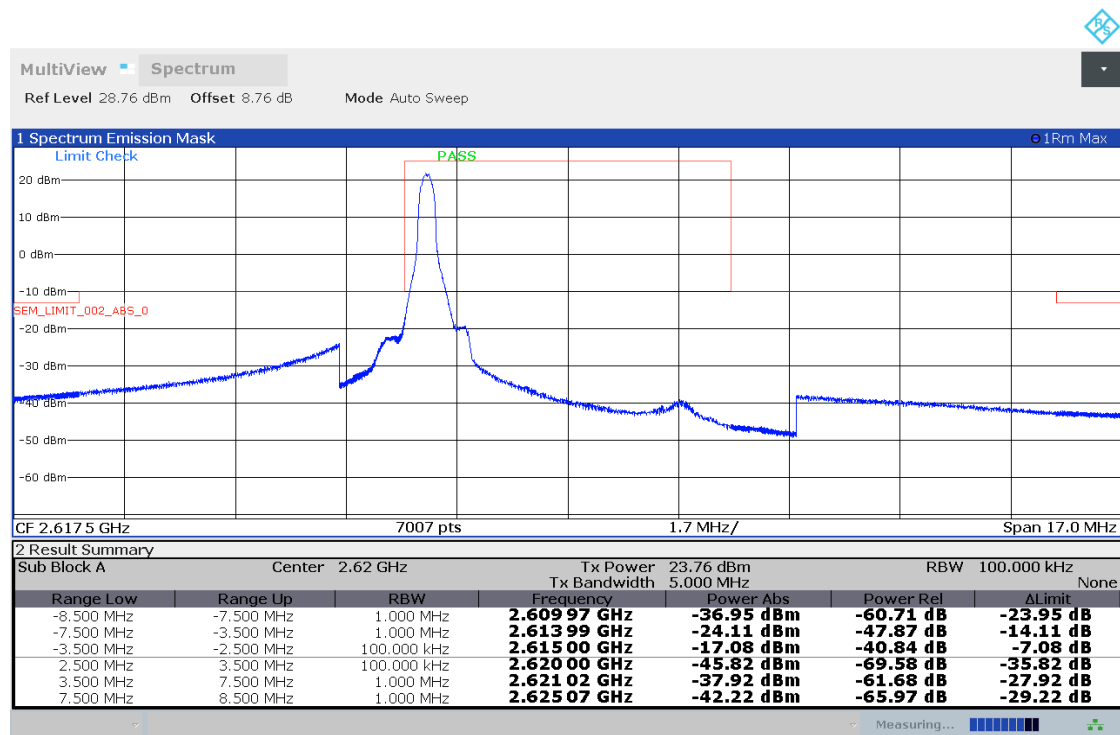


10:37:09 25.04.2022



10:38:06 25.04.2022

TM1_5MHz_HCH_RB1#0

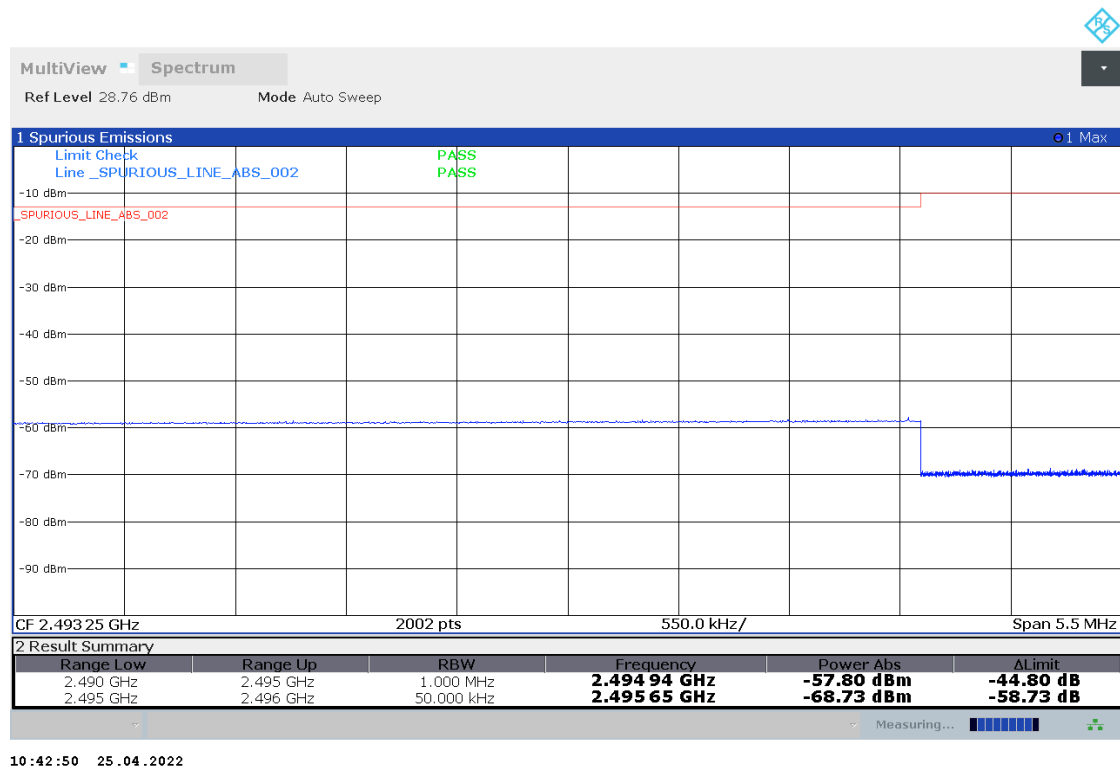
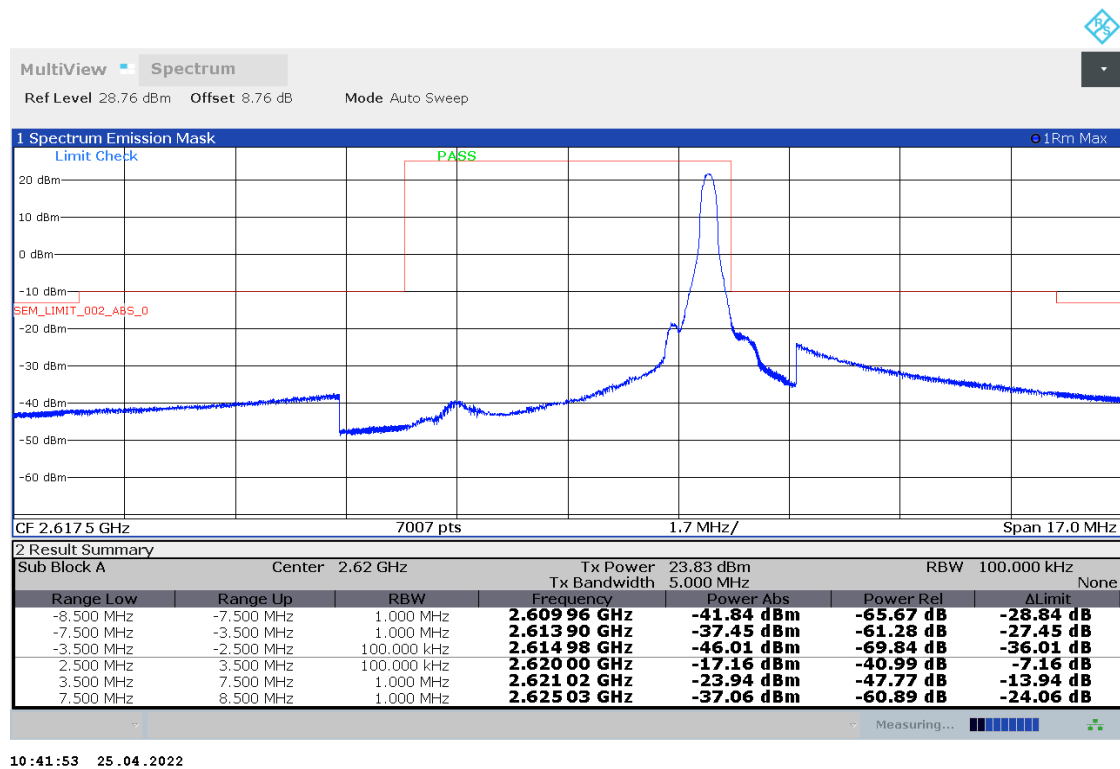


10:39:31 25.04.2022

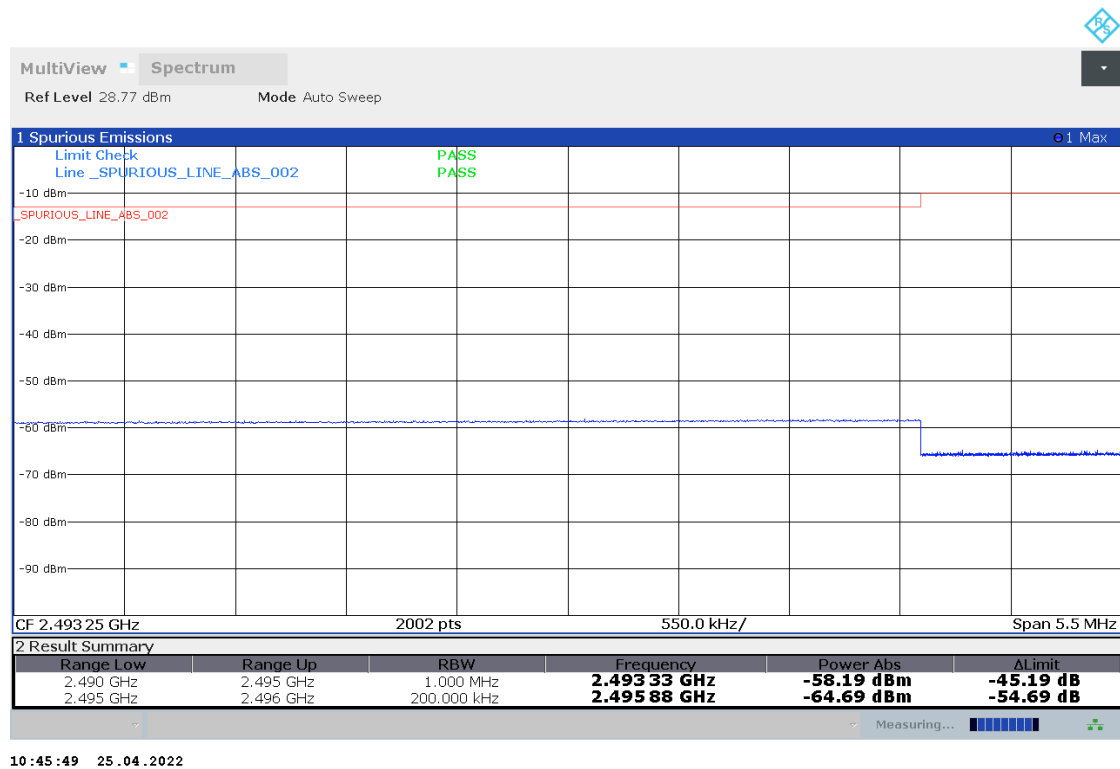
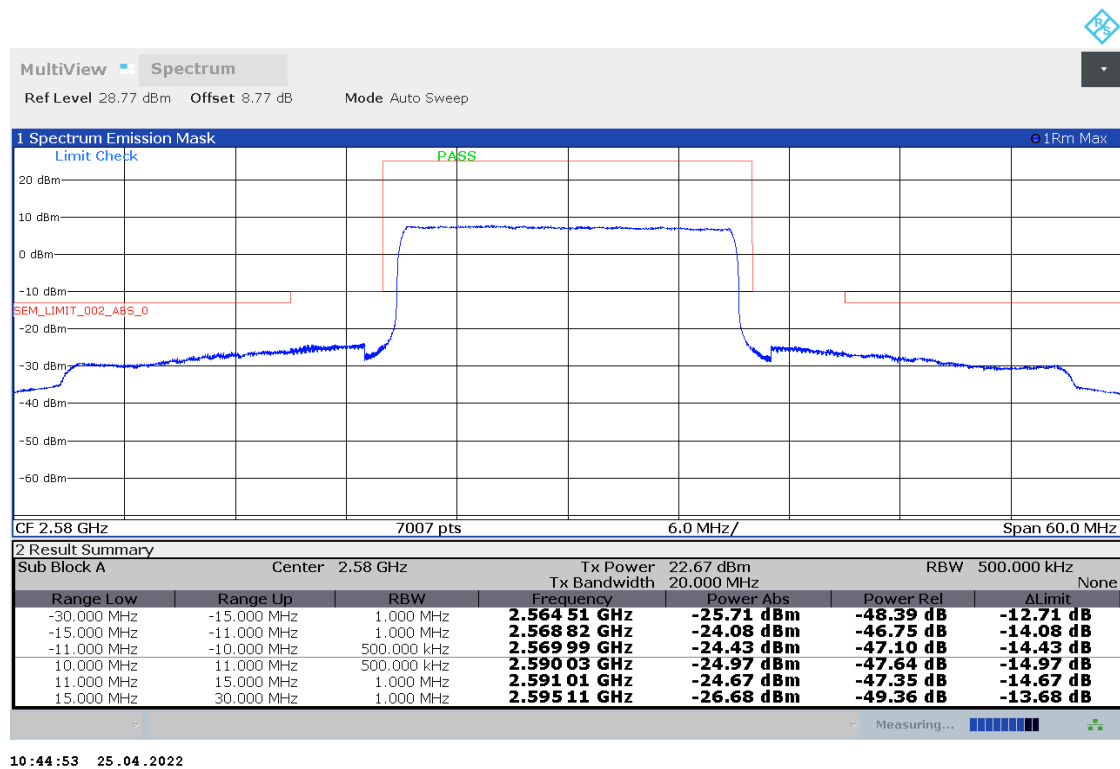


10:40:28 25.04.2022

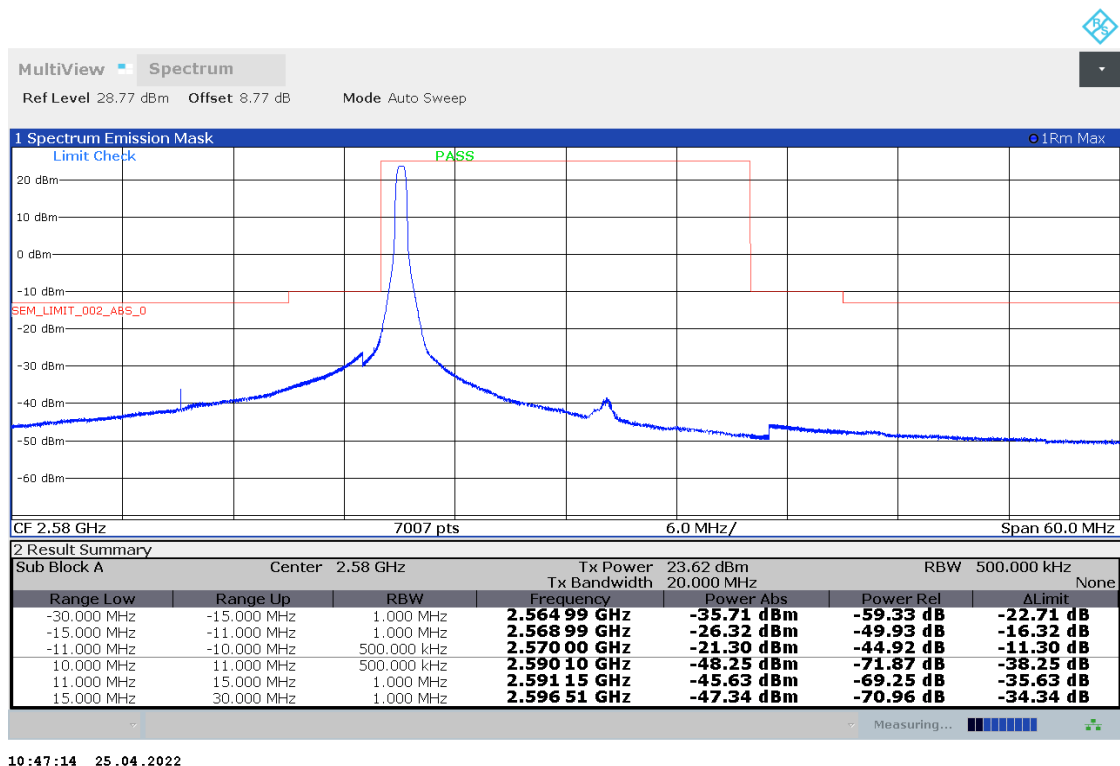
TM1_5MHz_HCH_RB1#24



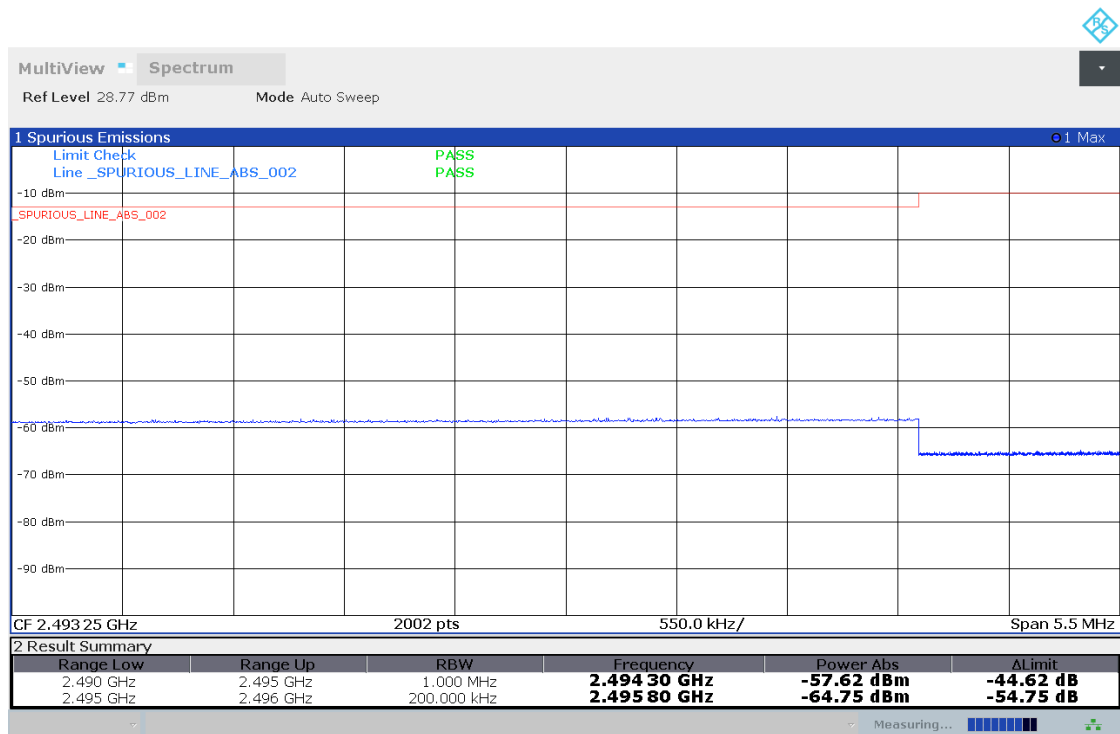
TM1_20MHz_LCH_RB100#0



TM1_20MHz_LCH_RB1#0

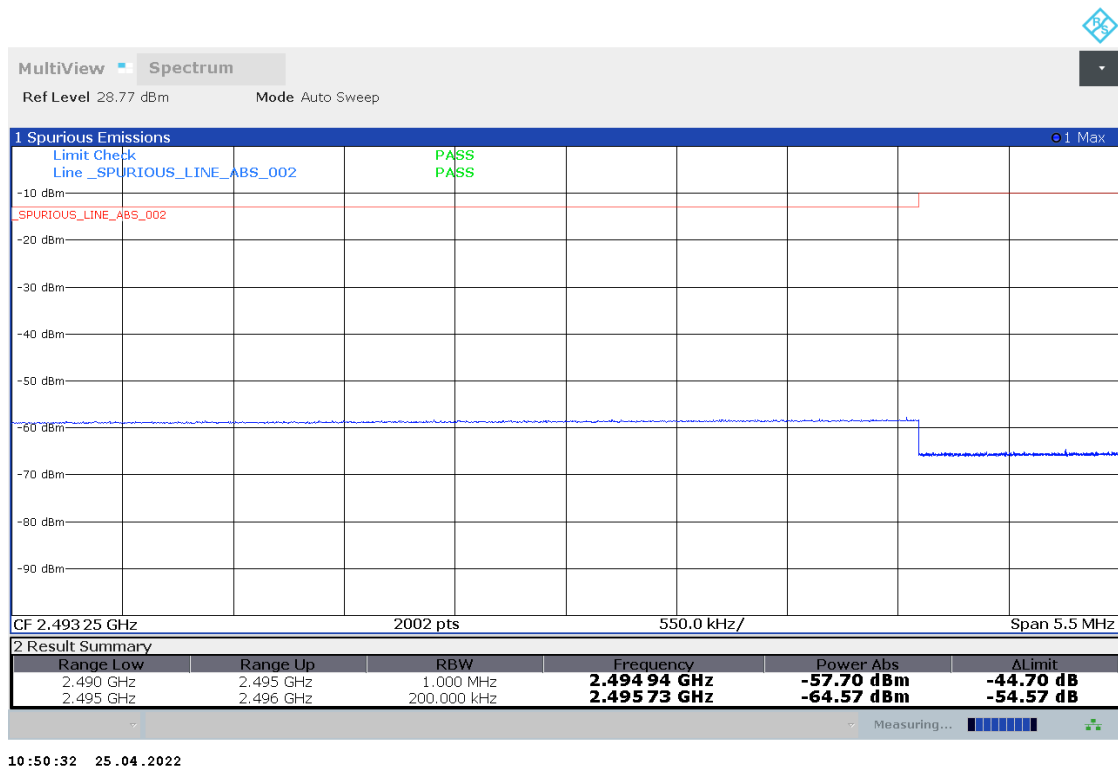
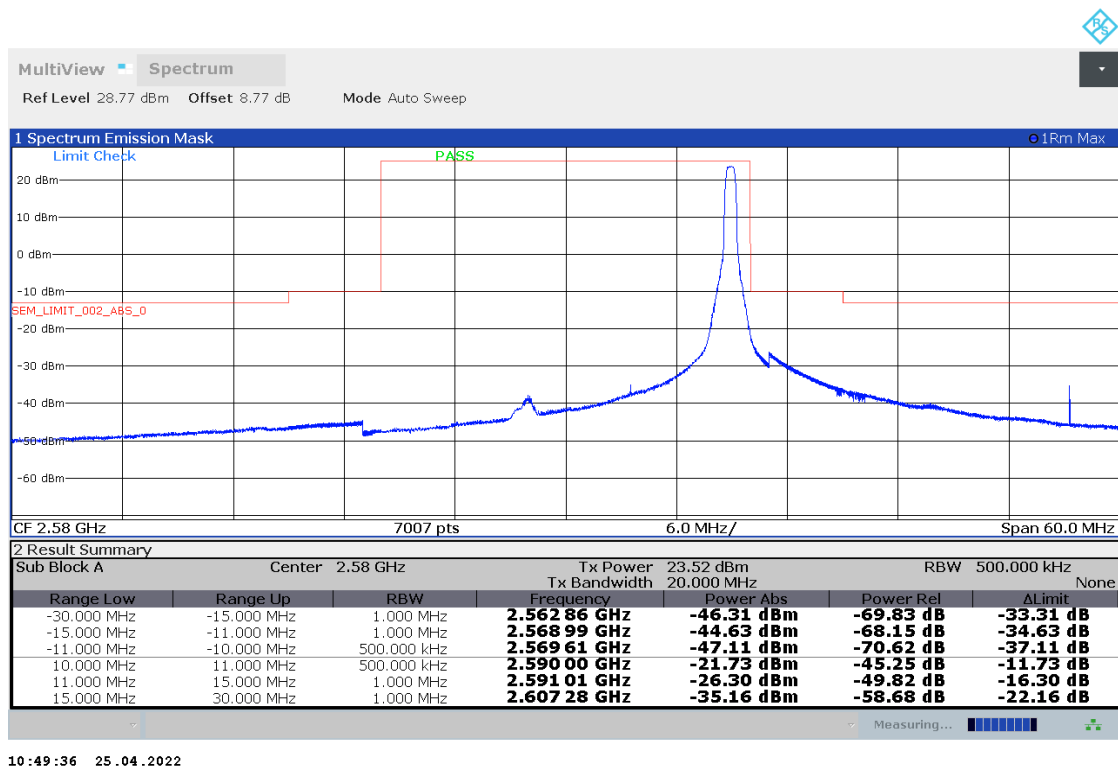


10:47:14 25.04.2022

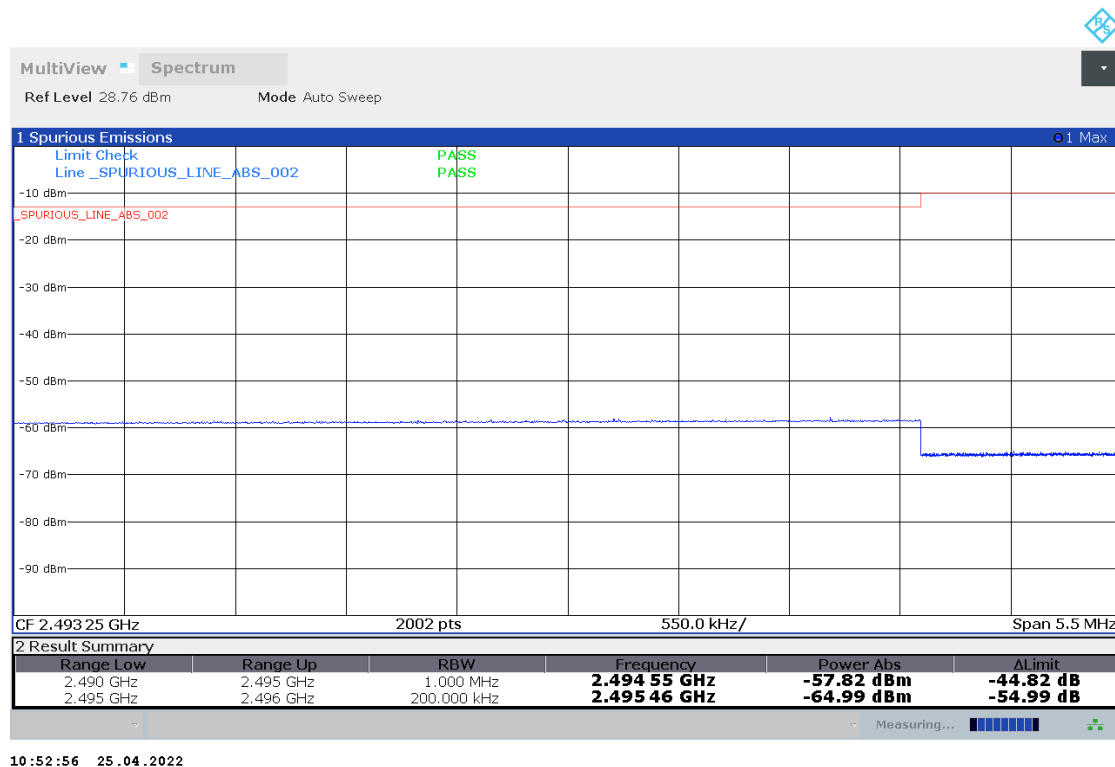
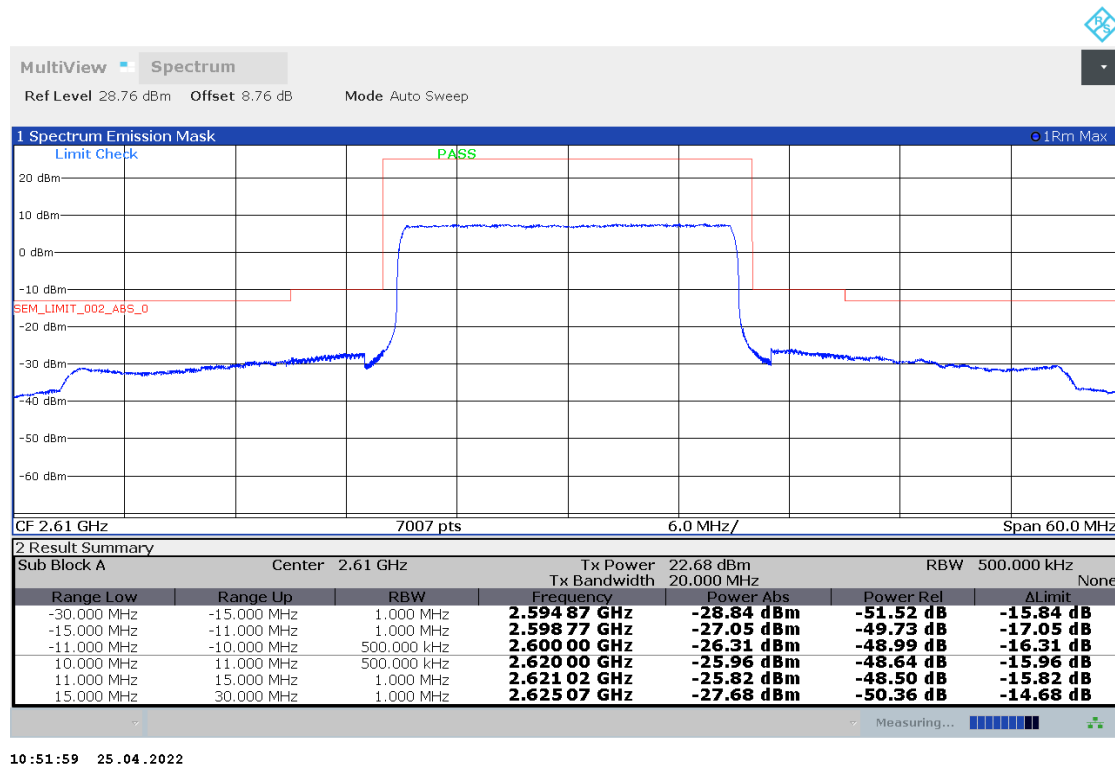


10:48:11 25.04.2022

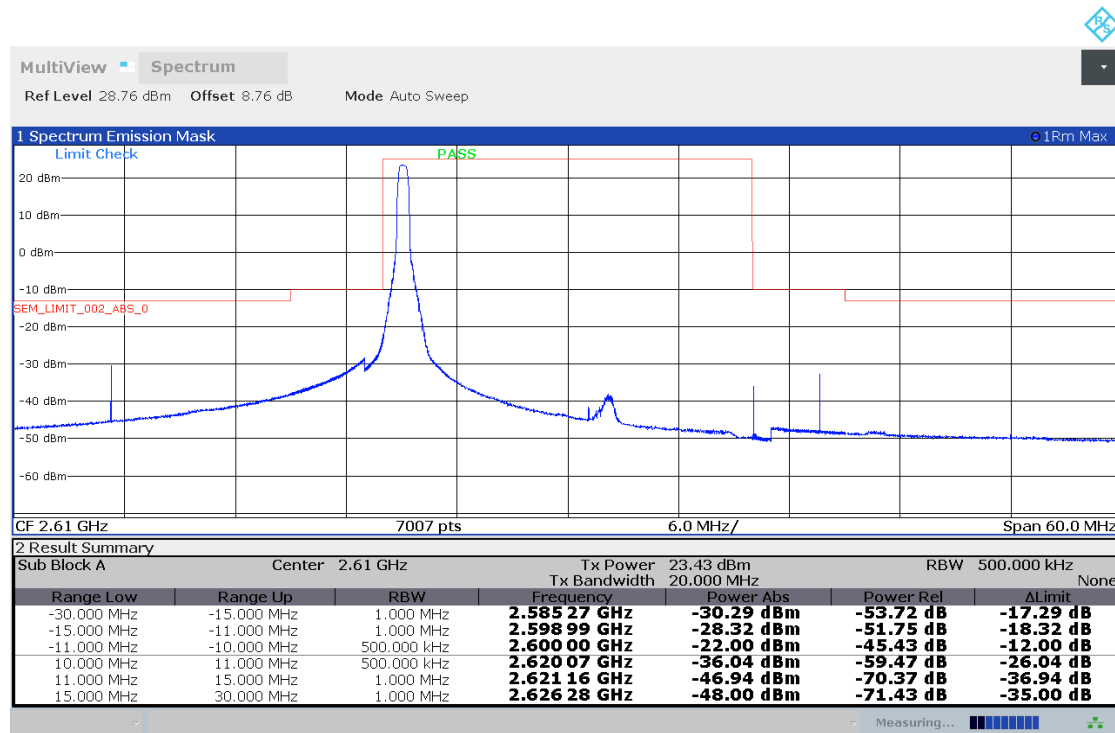
TM1_20MHz_LCH_RB1#99



TM1_20MHz_HCH_RB100#0



TM1_20MHz_HCH_RB1#0

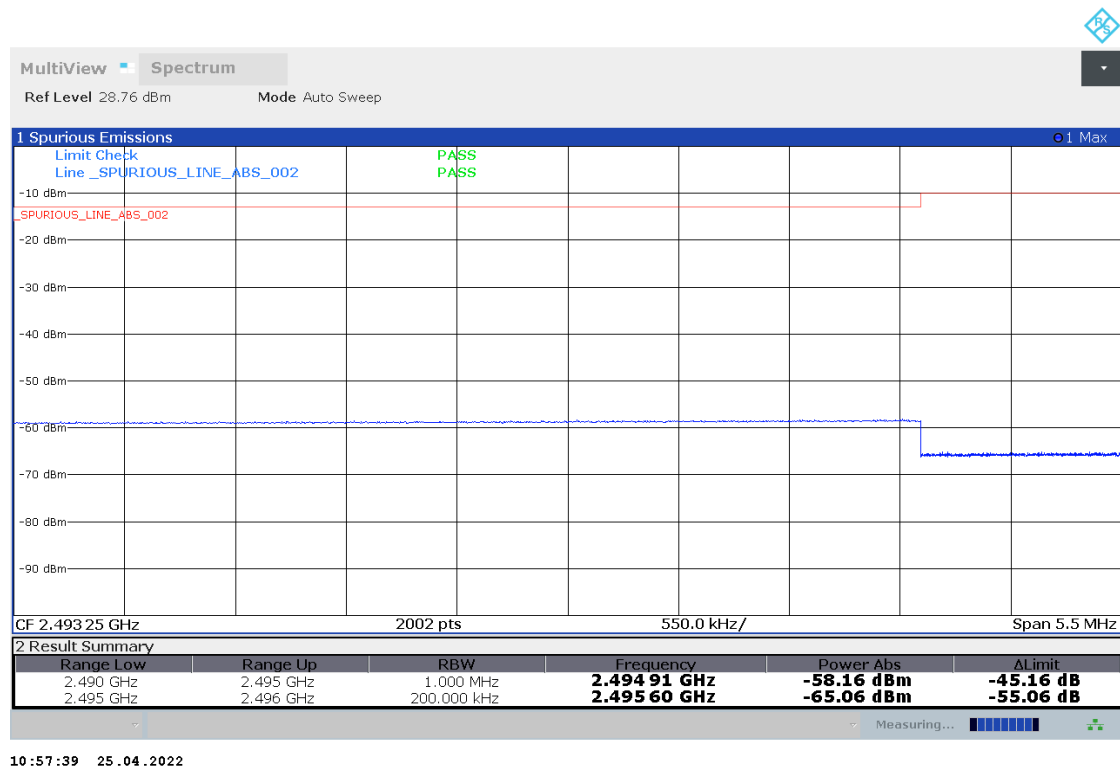
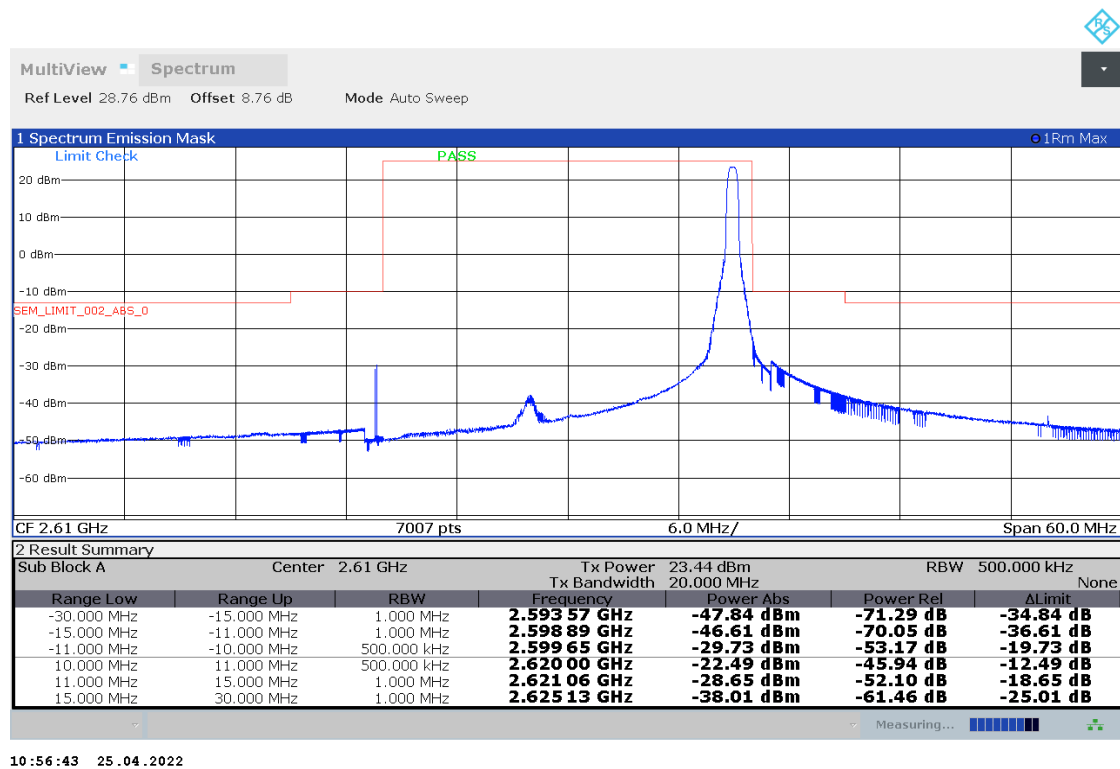


10:54:21 25.04.2022

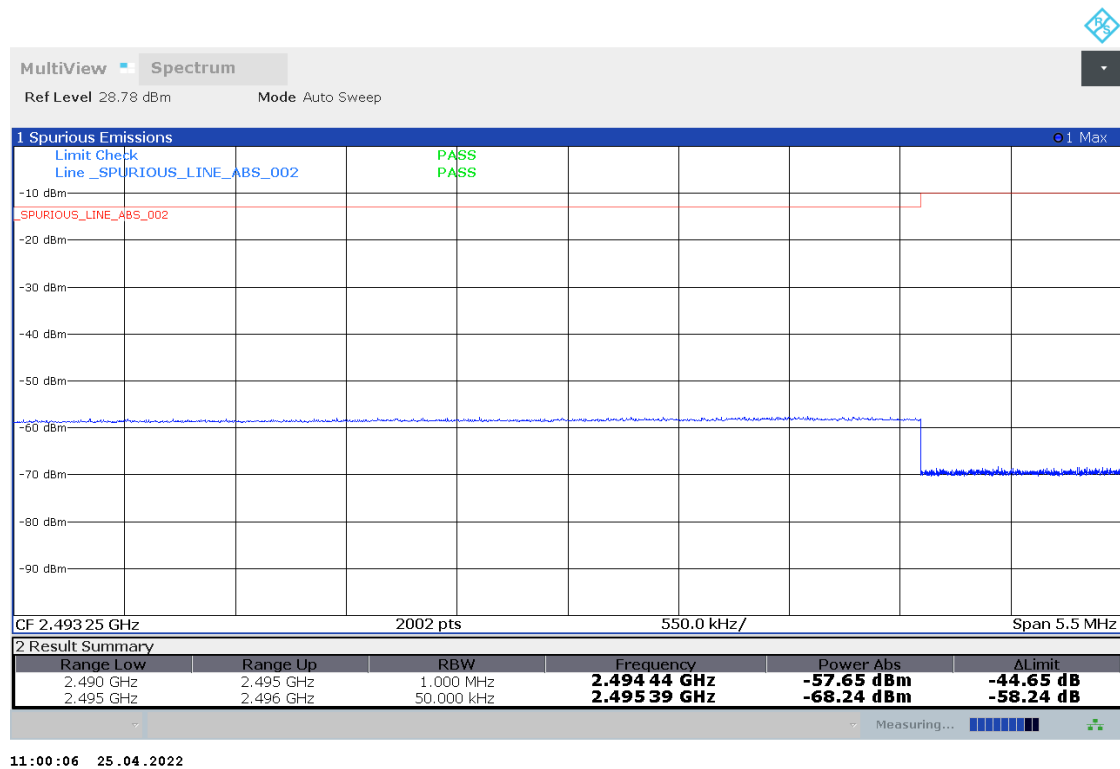
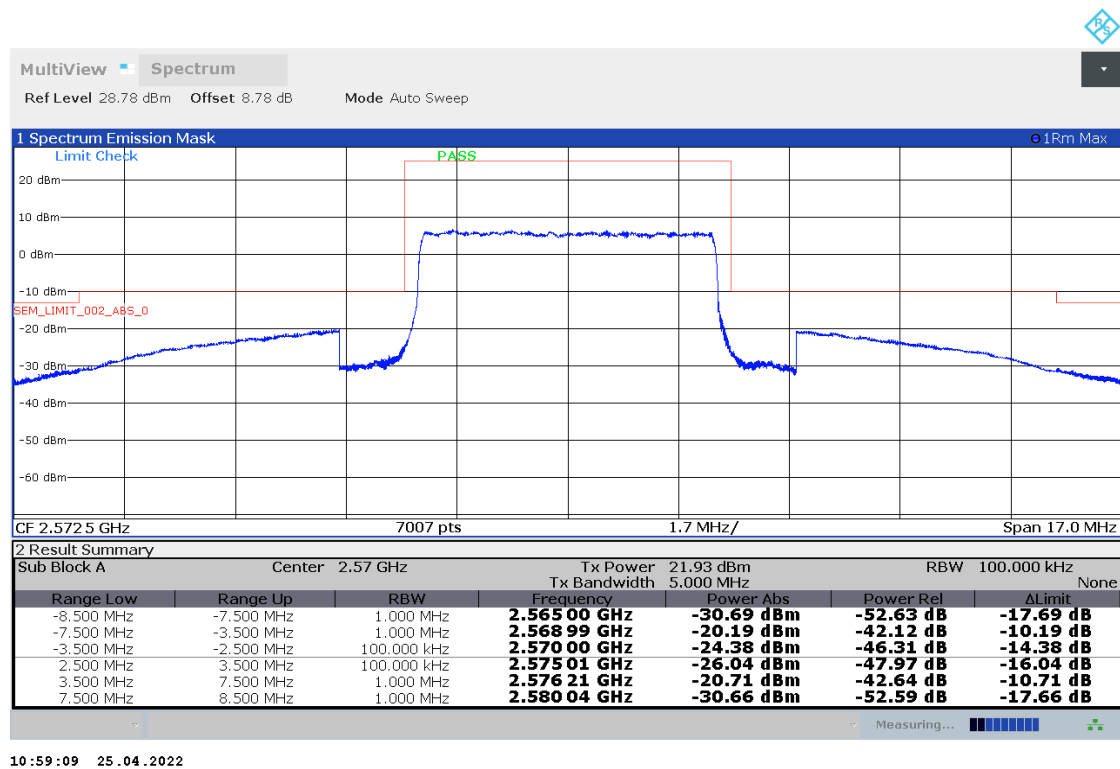


10:55:18 25.04.2022

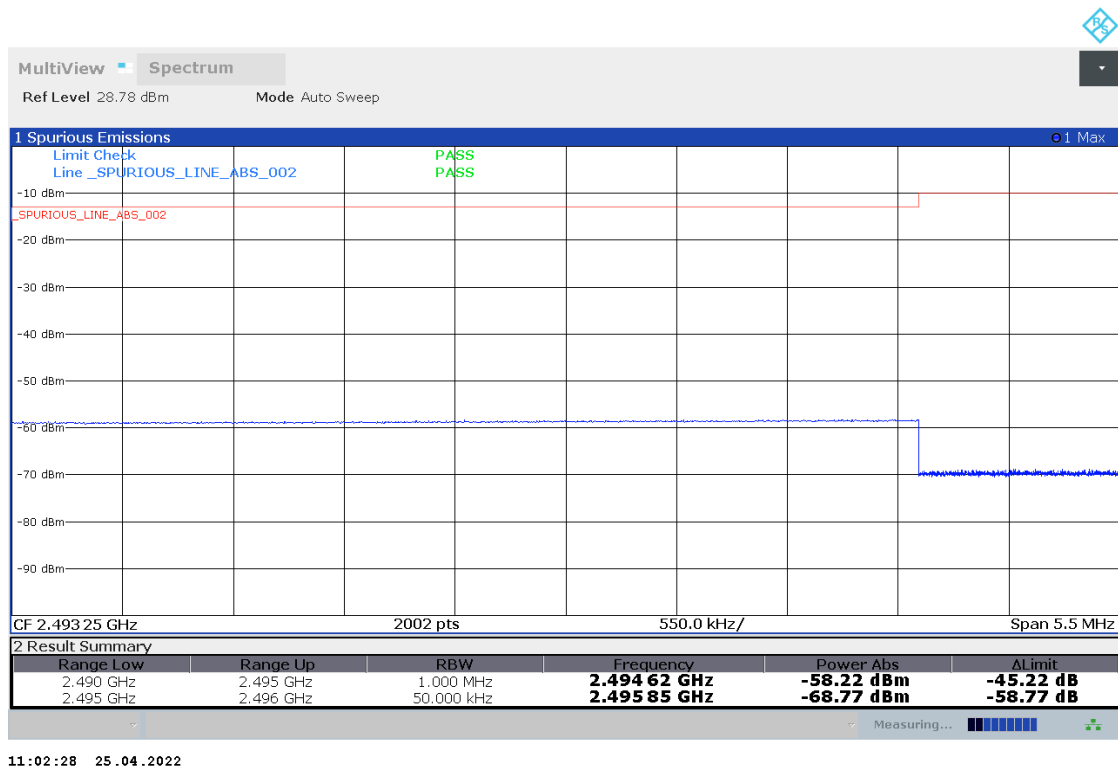
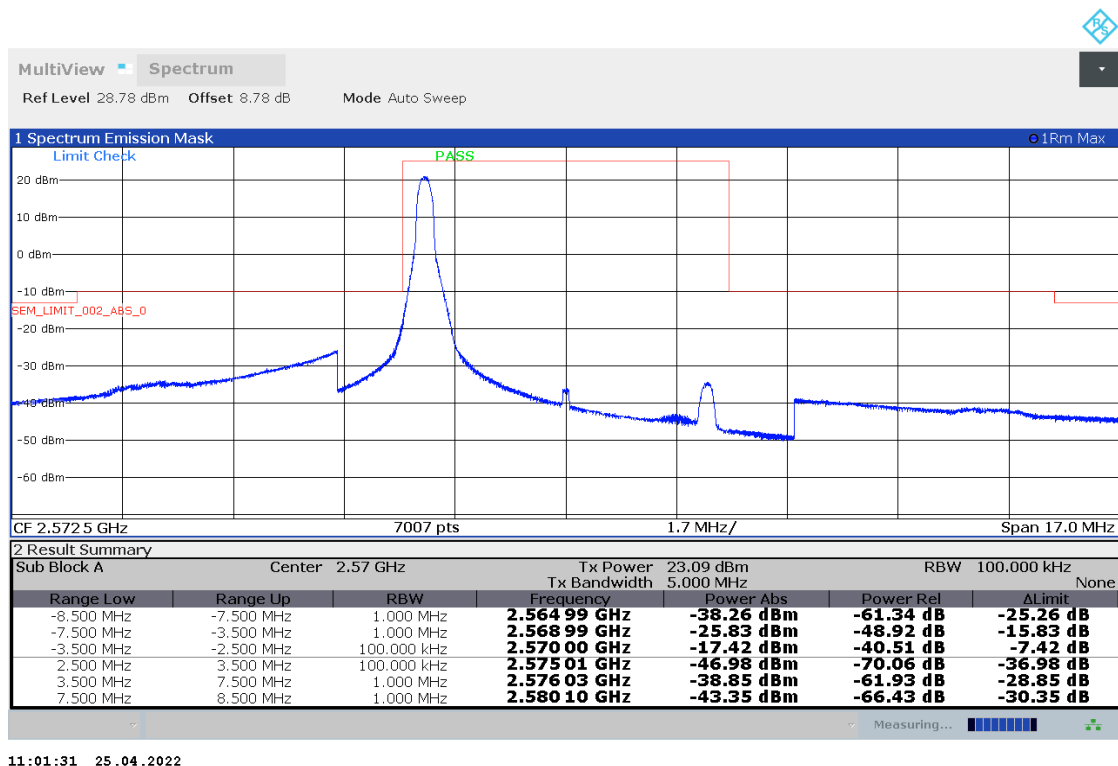
TM1_20MHz_HCH_RB1#99



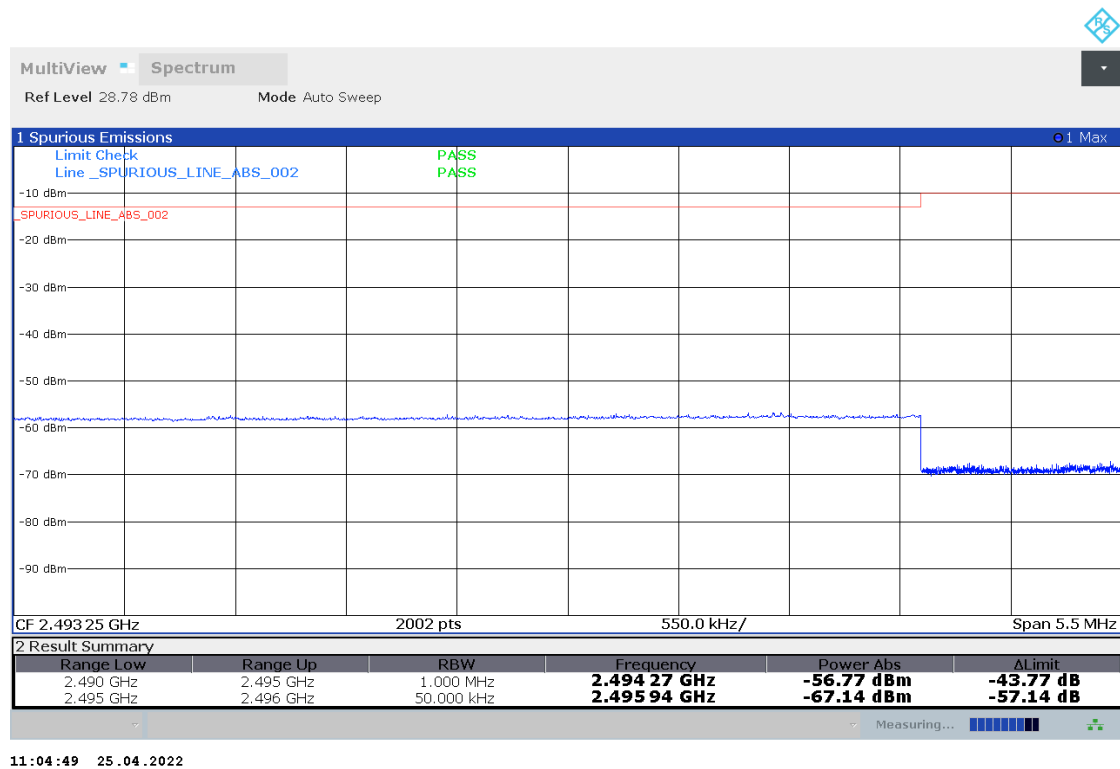
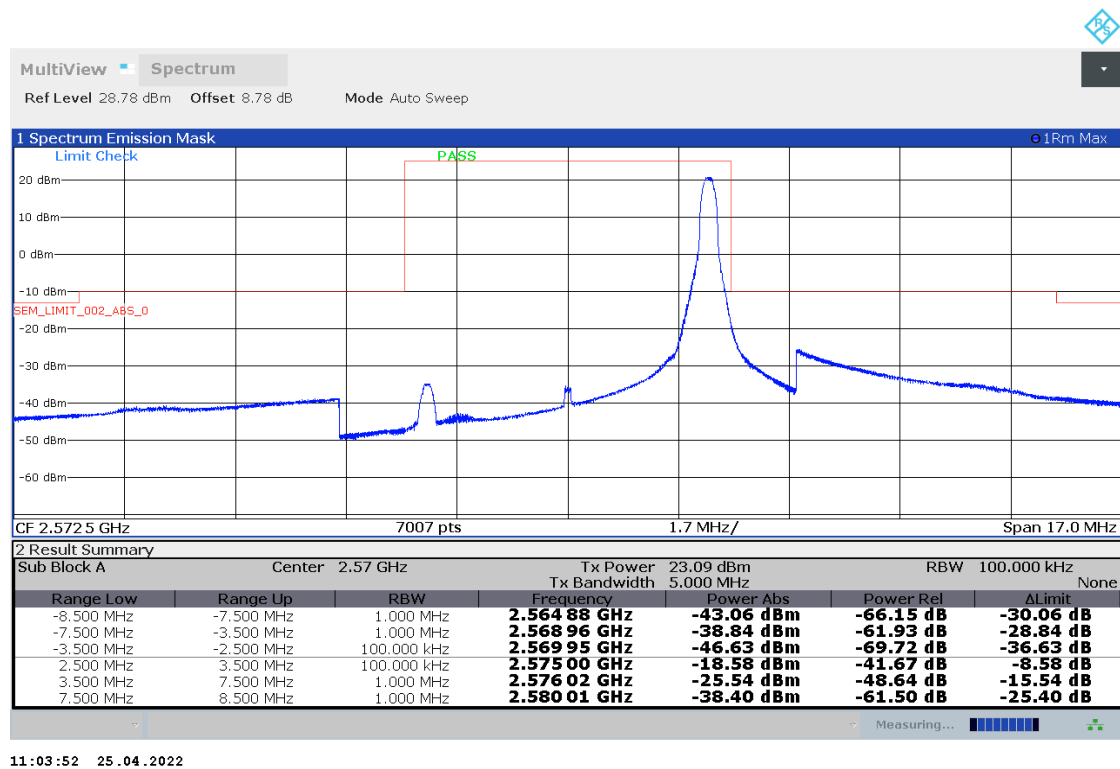
TM2_5MHz_LCH_RB25#0



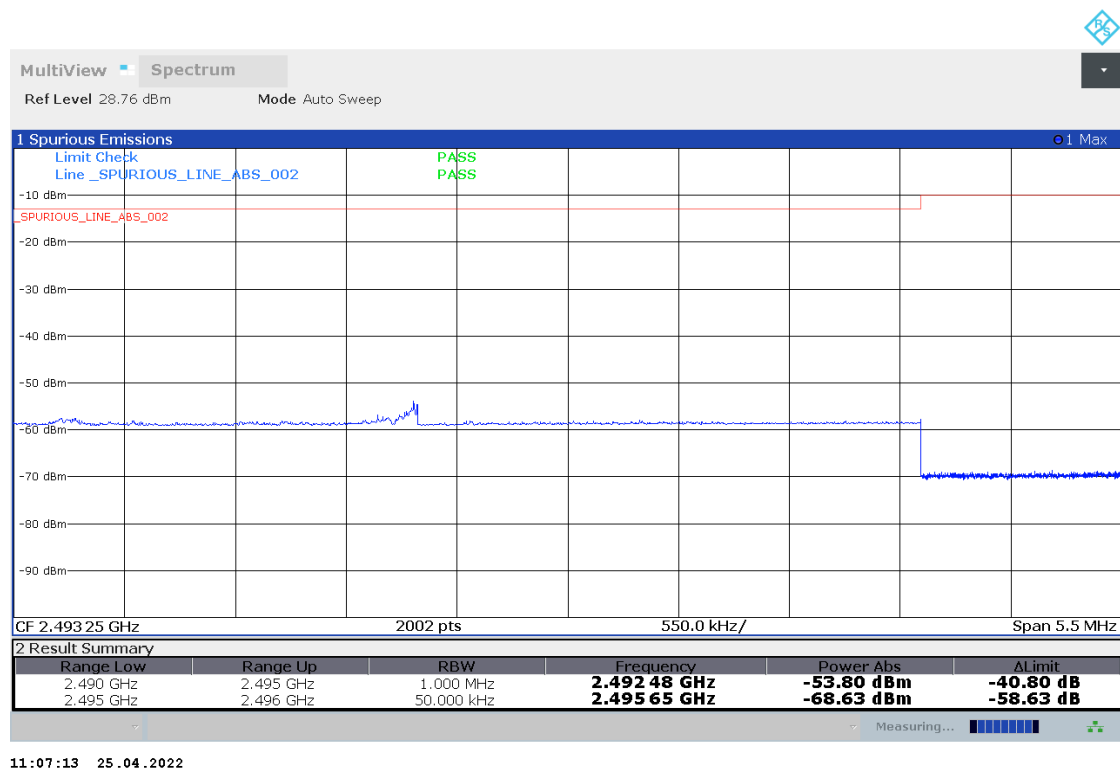
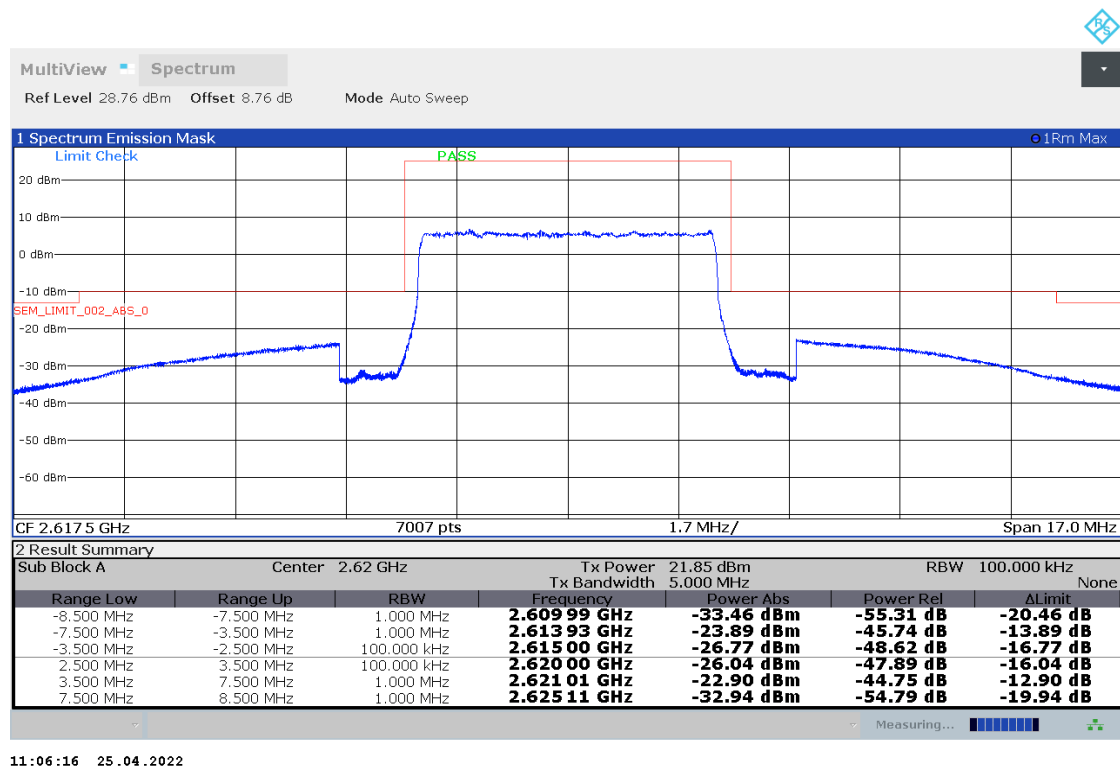
TM2_5MHz_LCH_RB1#0



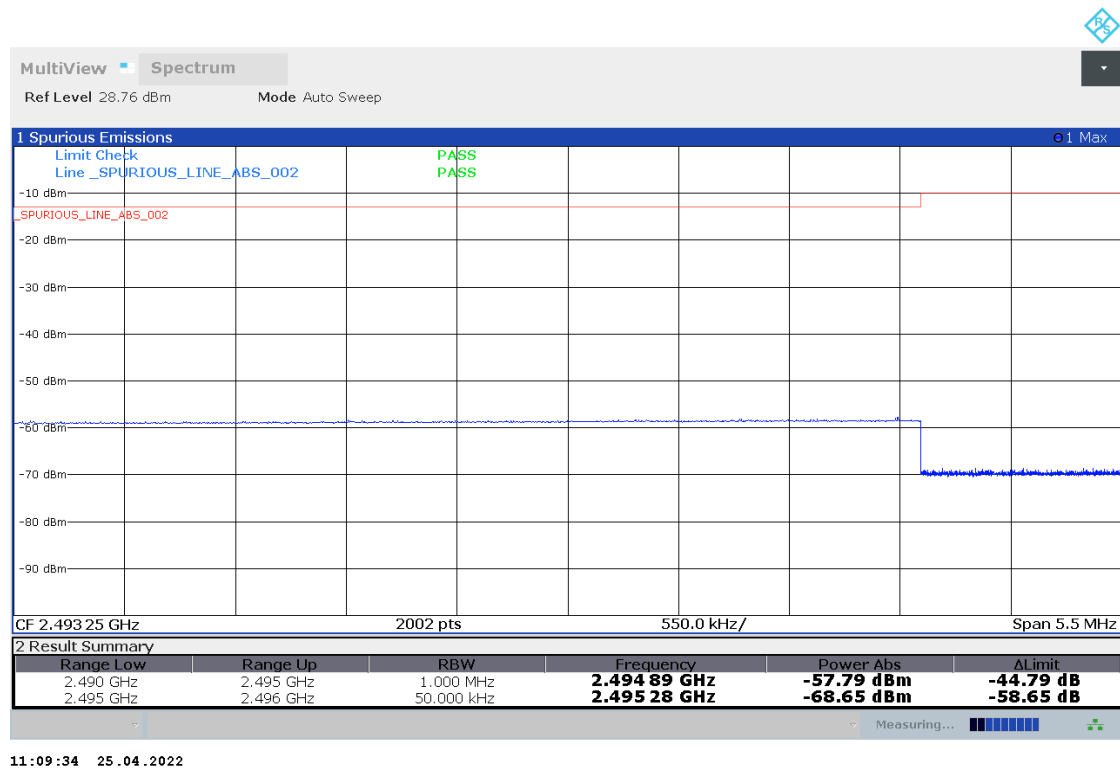
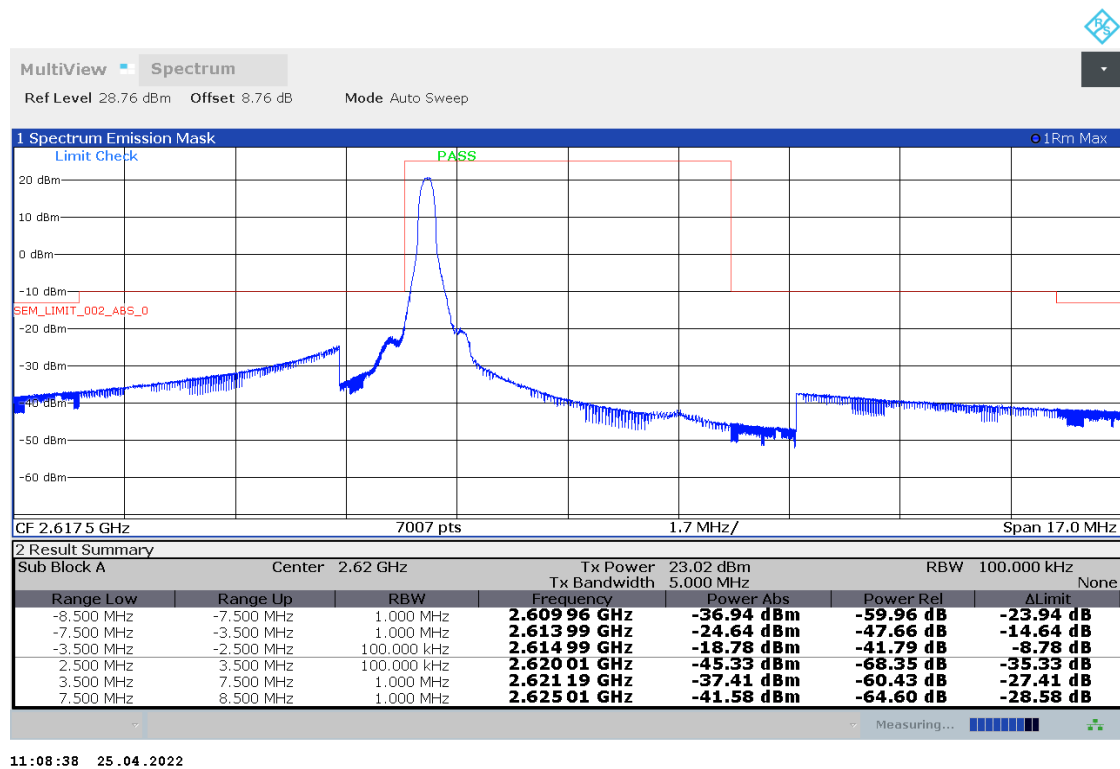
TM2_5MHz_LCH_RB1#24



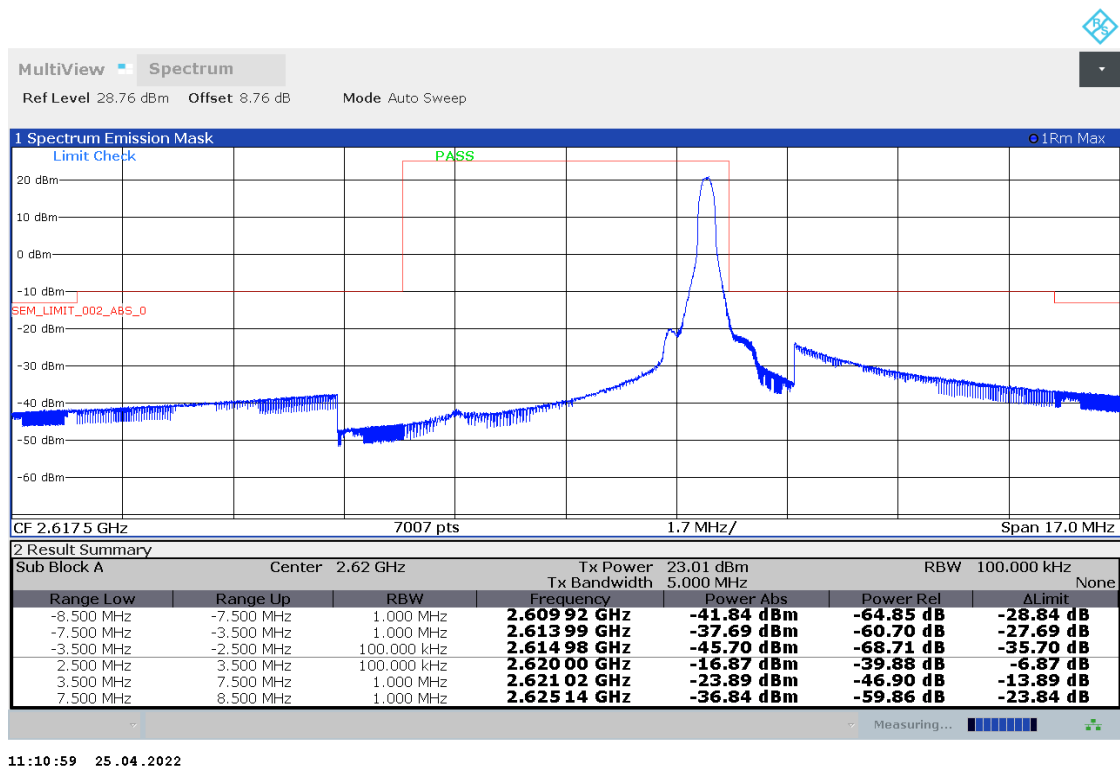
TM2_5MHz_HCH_RB25#0



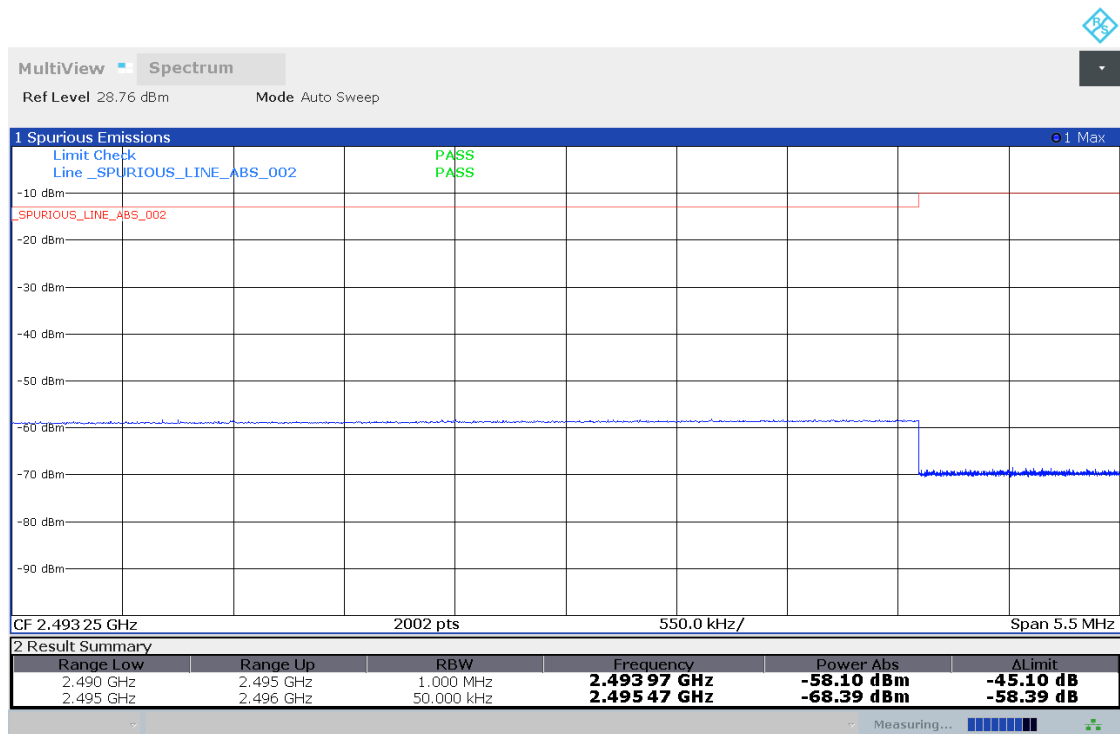
TM2_5MHz_HCH_RB1#0



TM2_5MHz_HCH_RB1#24

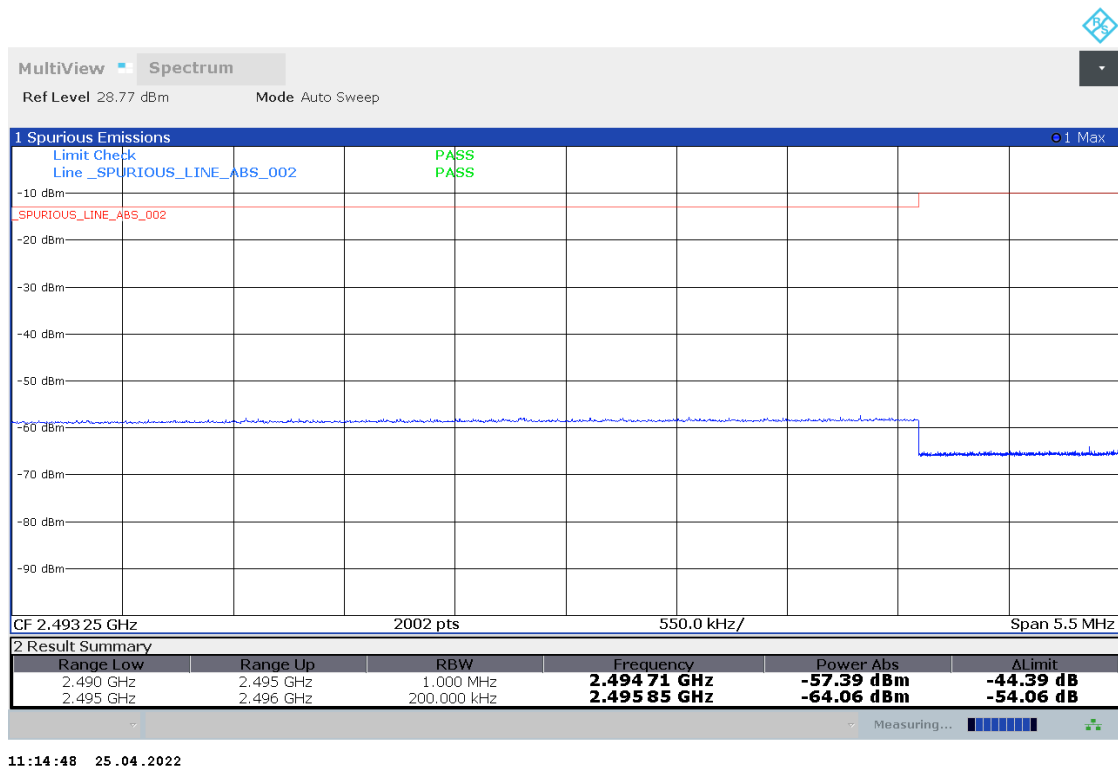
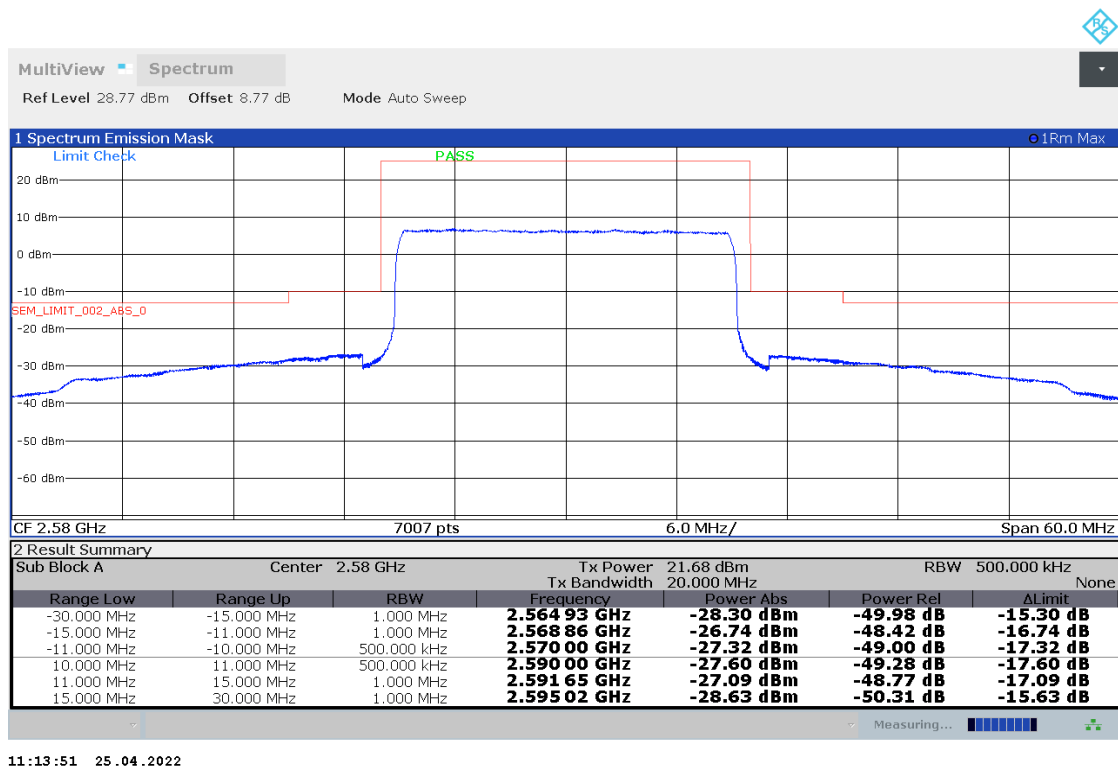


11:10:59 25.04.2022

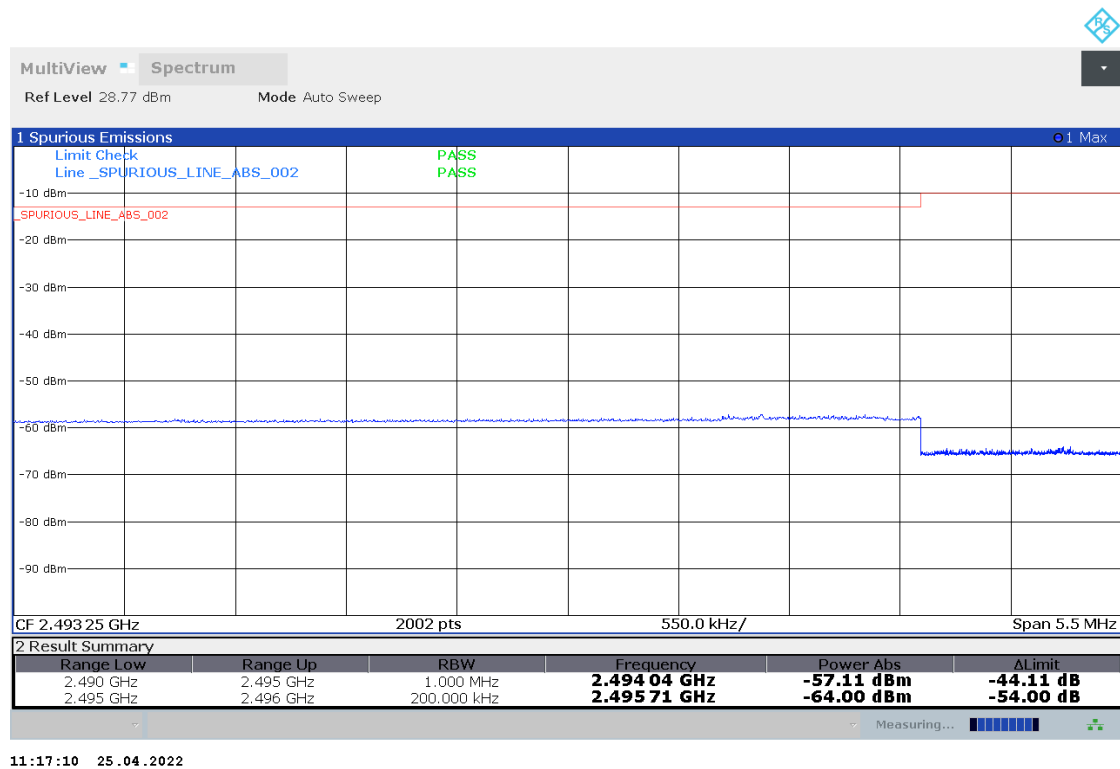
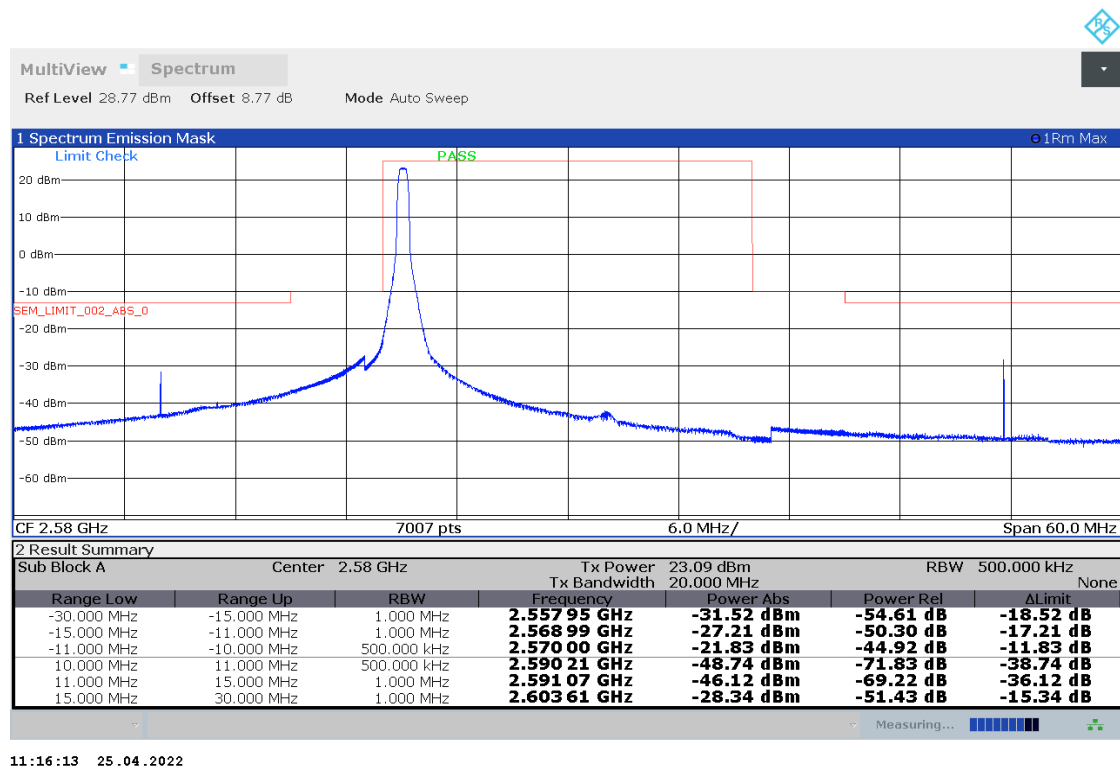


11:11:56 25.04.2022

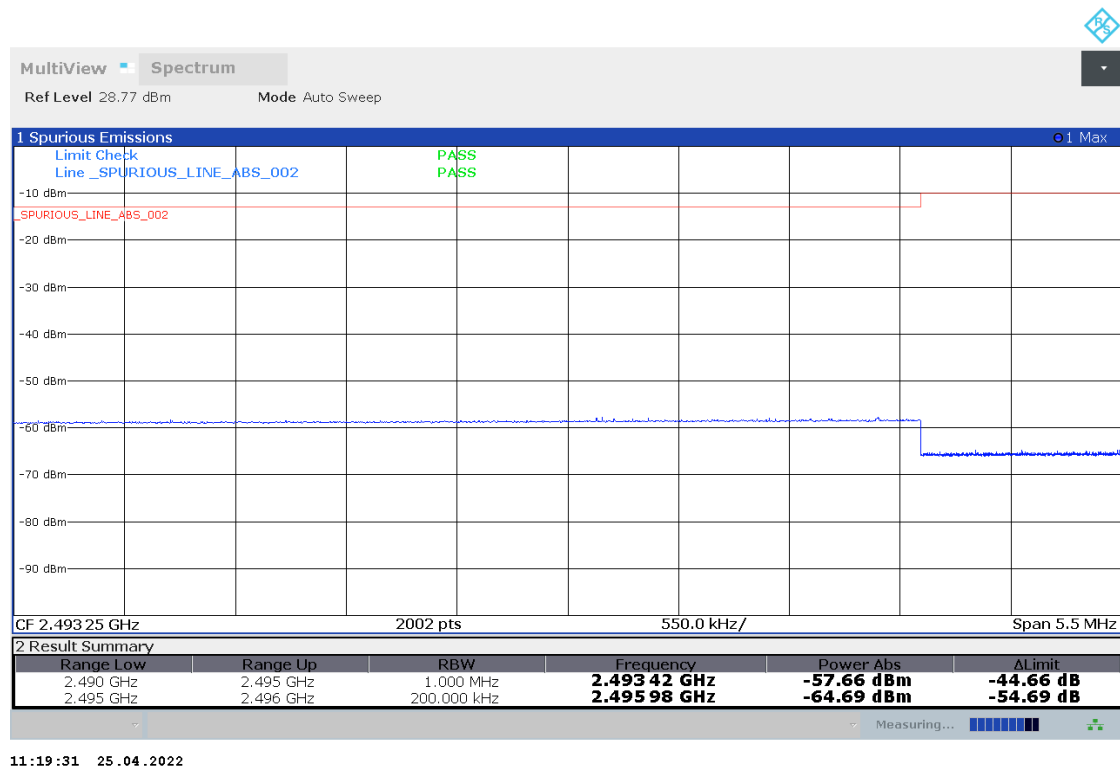
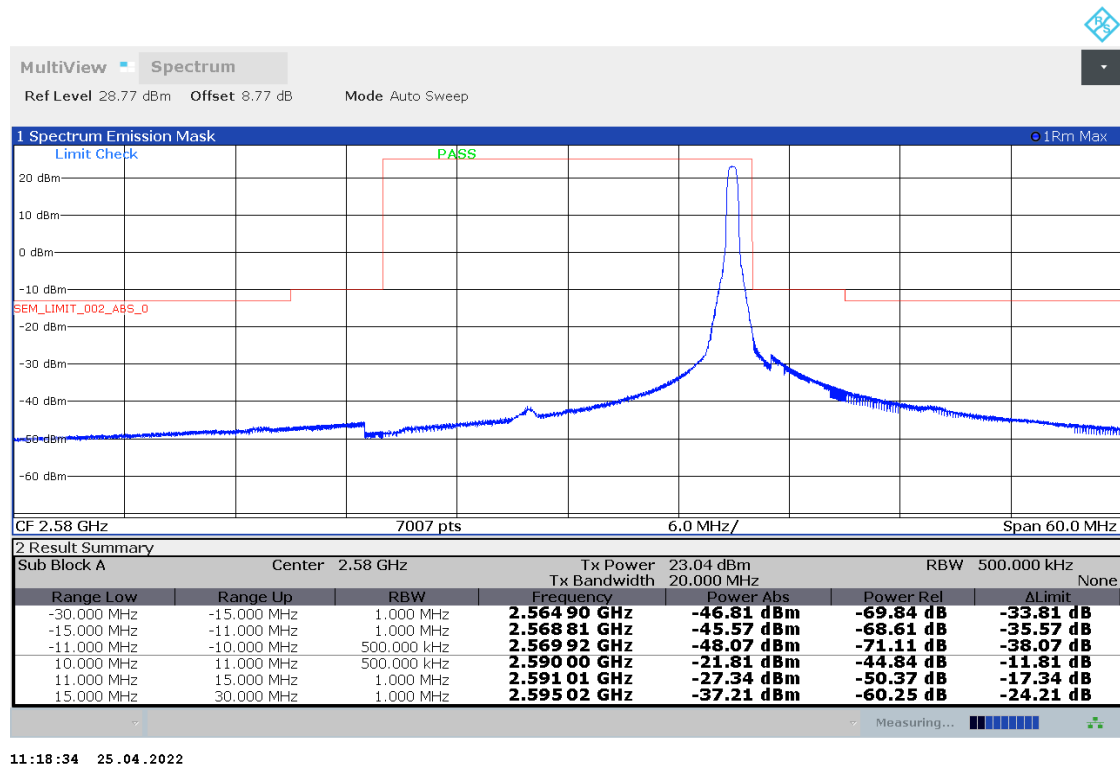
TM2_20MHz_LCH_RB100#0



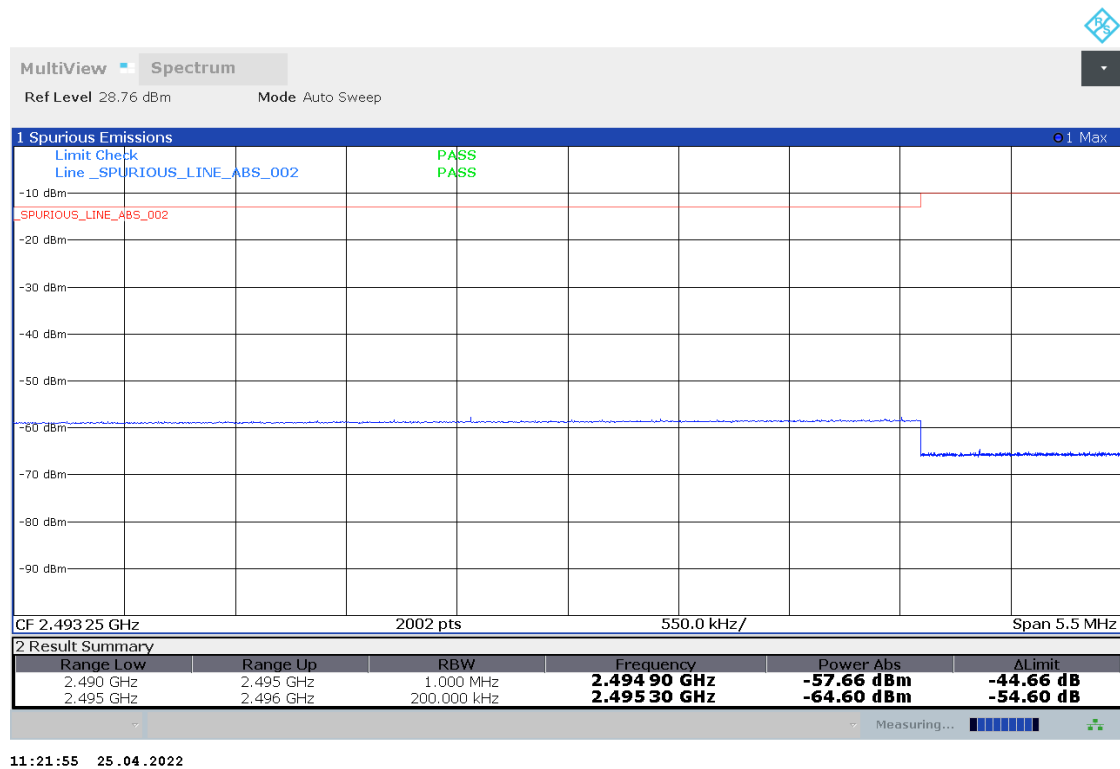
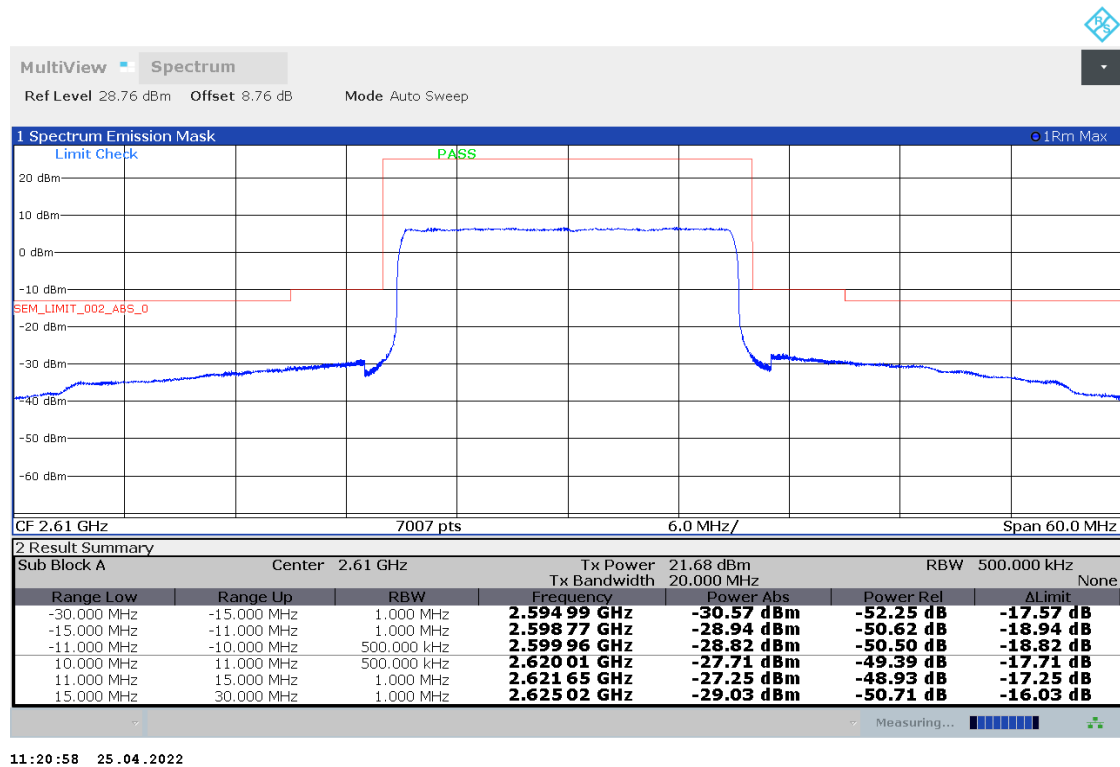
TM2_20MHz_LCH_RB1#0



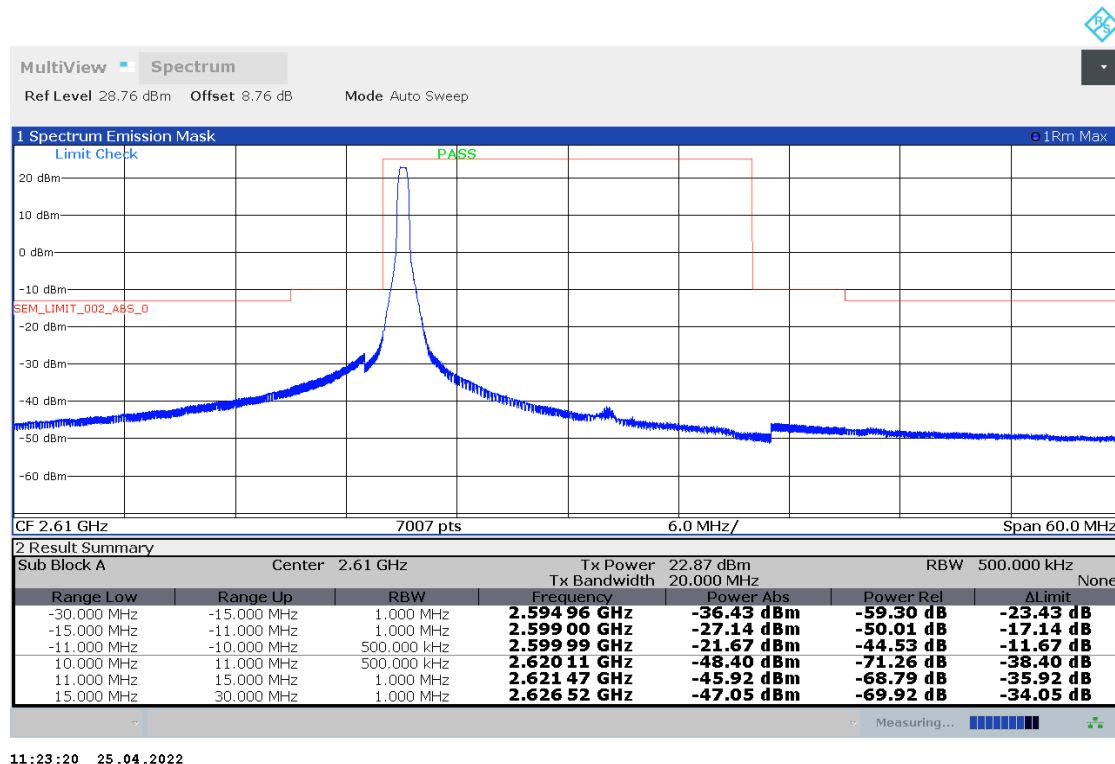
TM2_20MHz_LCH_RB1#99



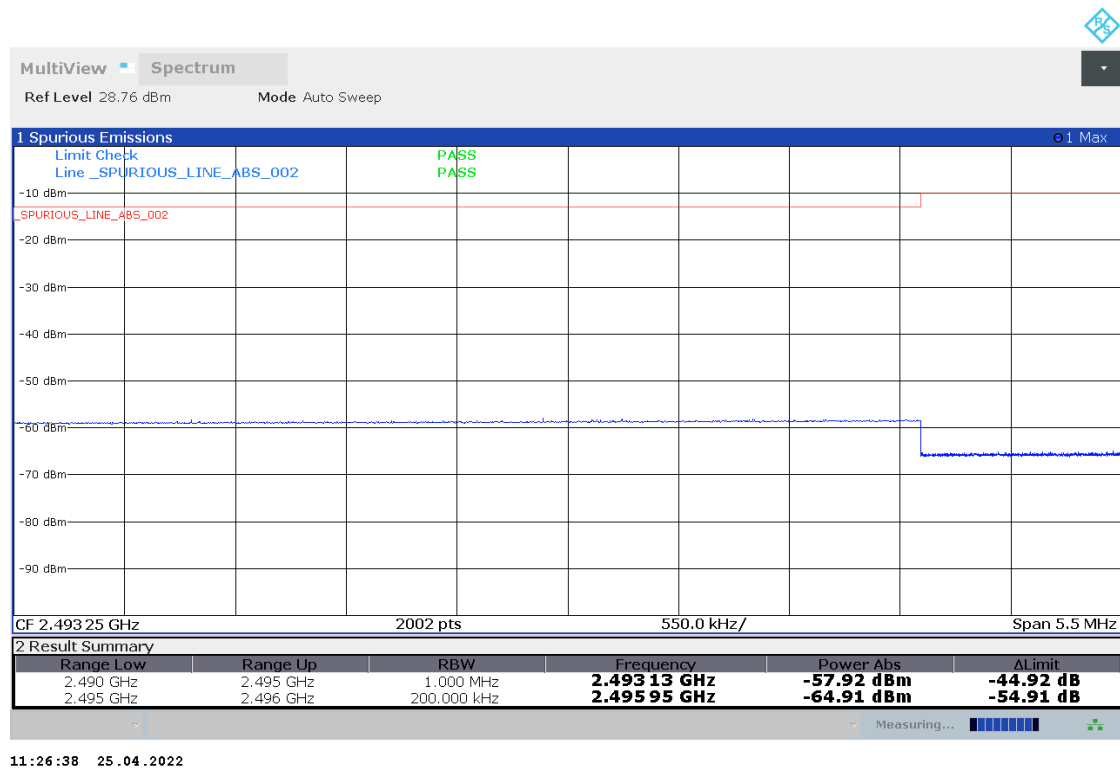
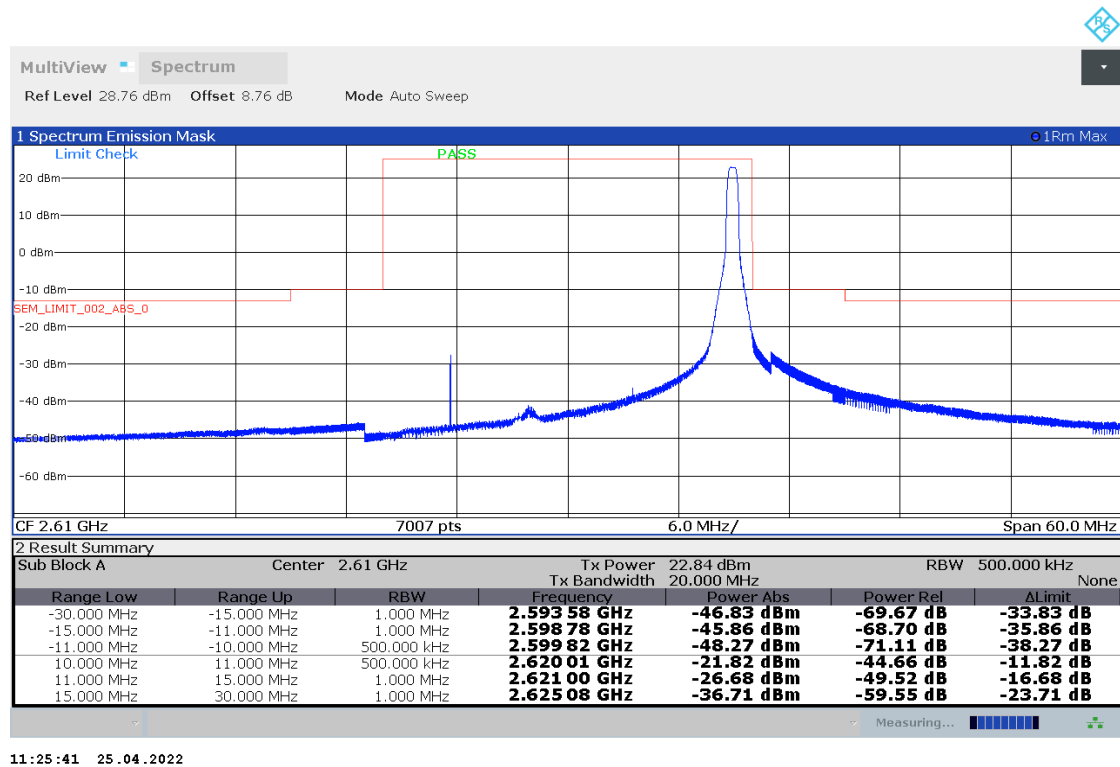
TM2_20MHz_HCH_RB100#0



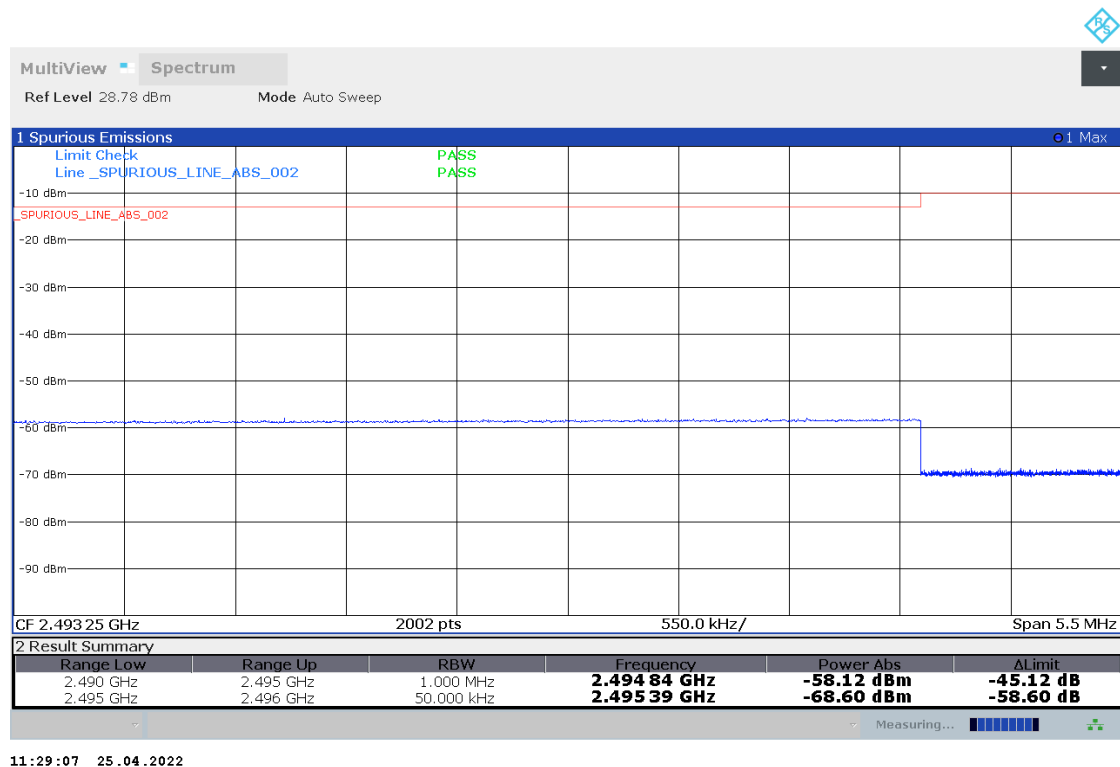
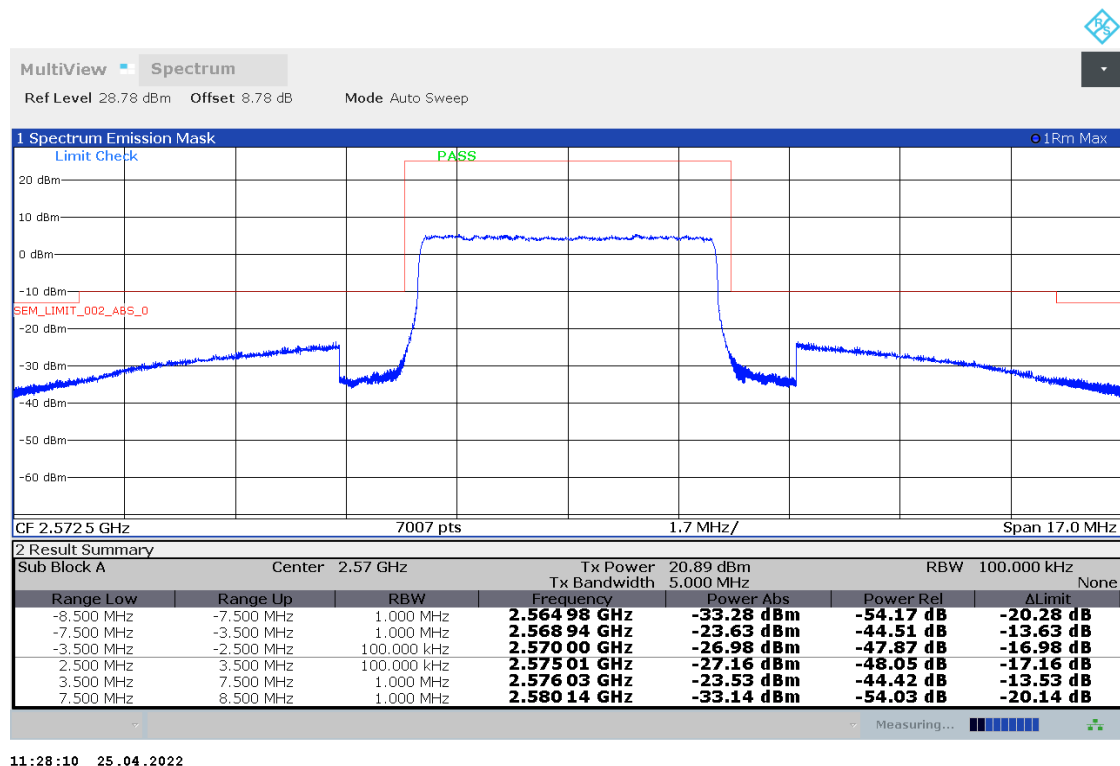
TM2_20MHz_HCH_RB1#0



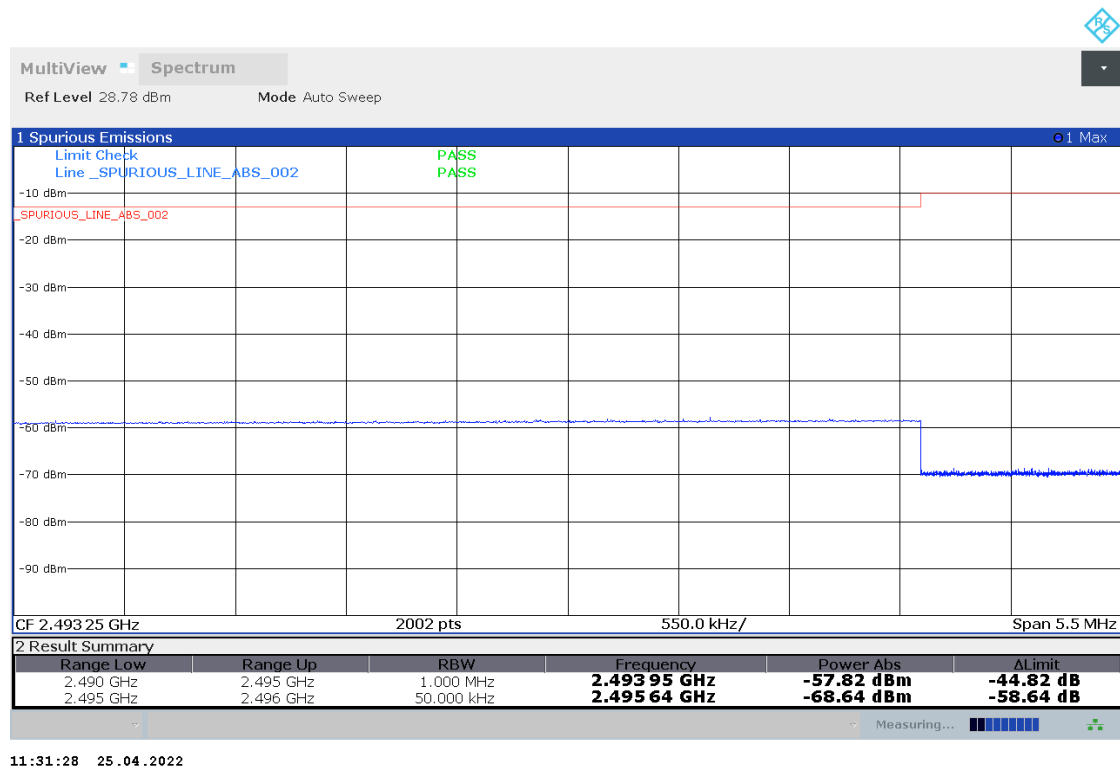
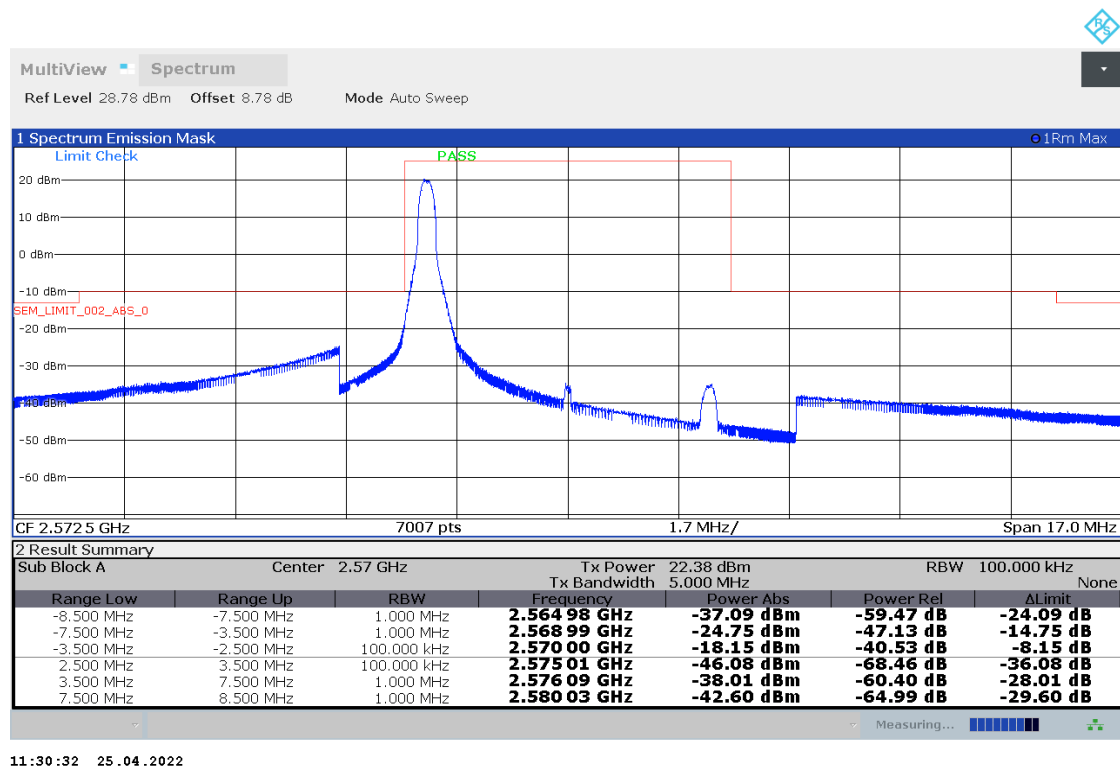
TM2_20MHz_HCH_RB1#99



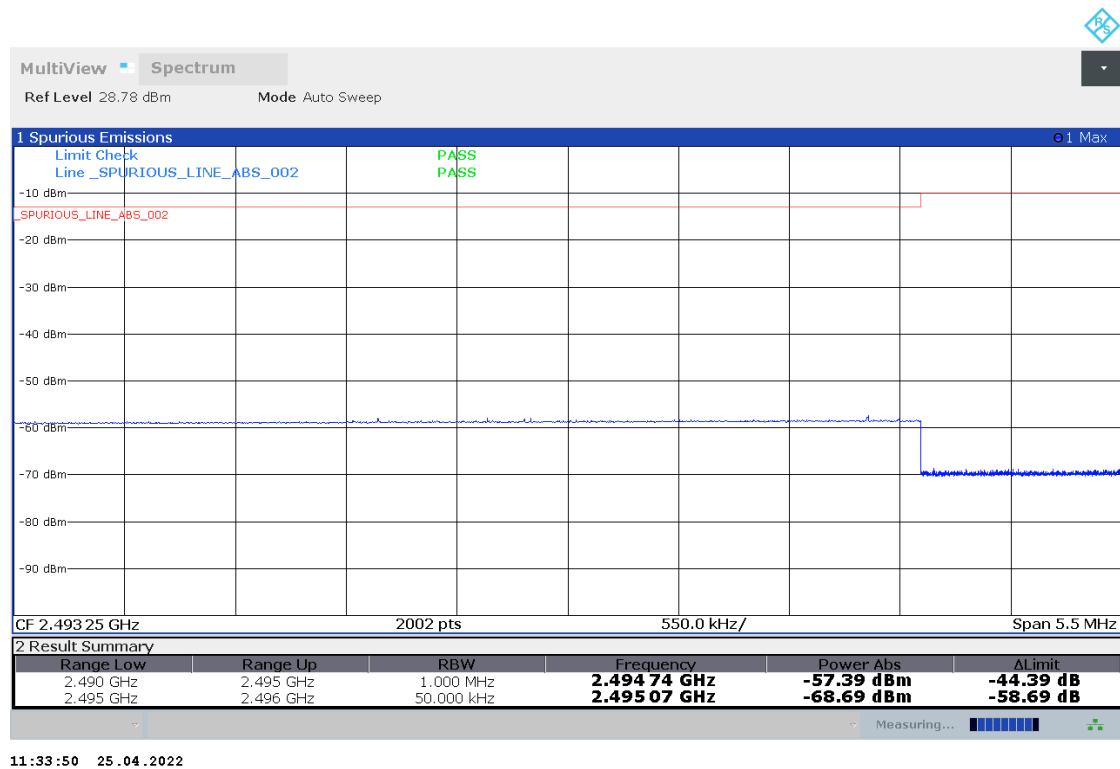
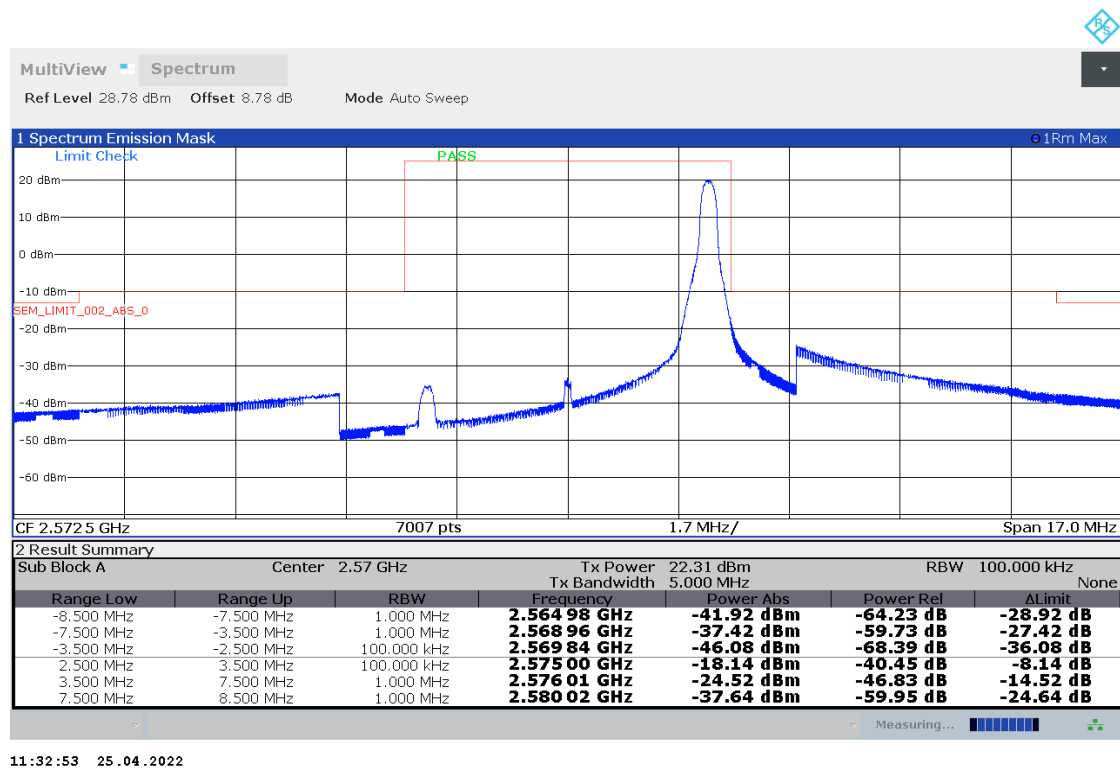
TM3_5MHz_LCH_RB25#0



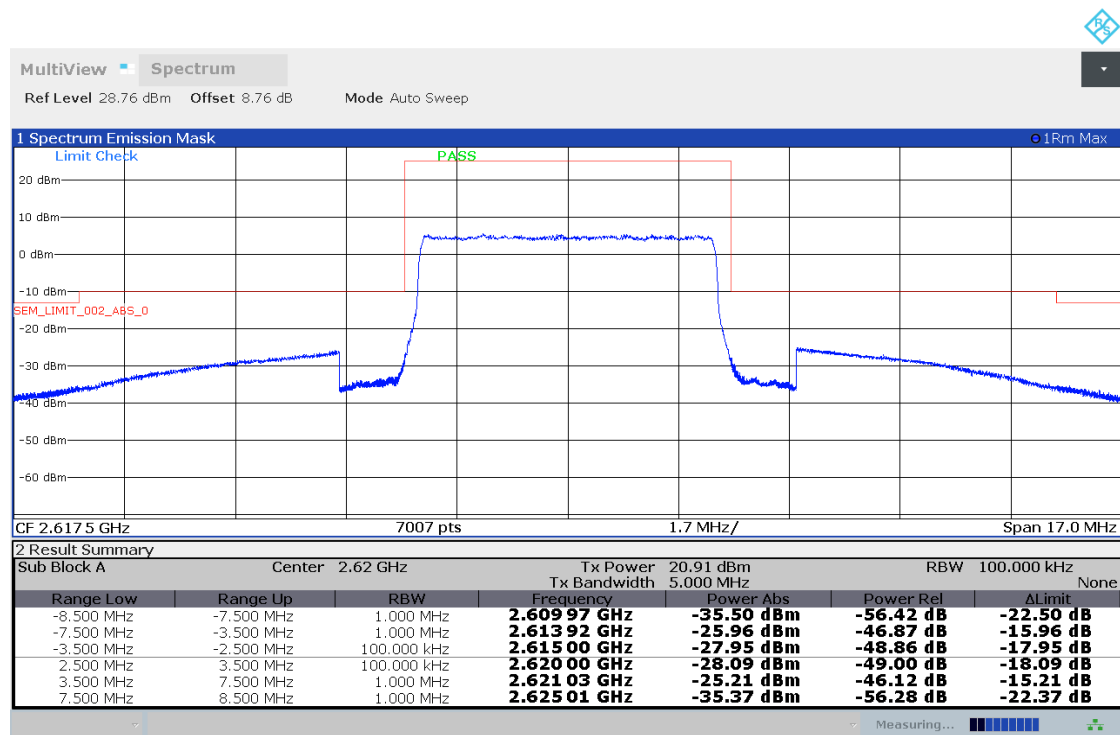
TM3_5MHz_LCH_RB1#0



TM3_5MHz_LCH_RB1#24



TM3_5MHz_HCH_RB25#0

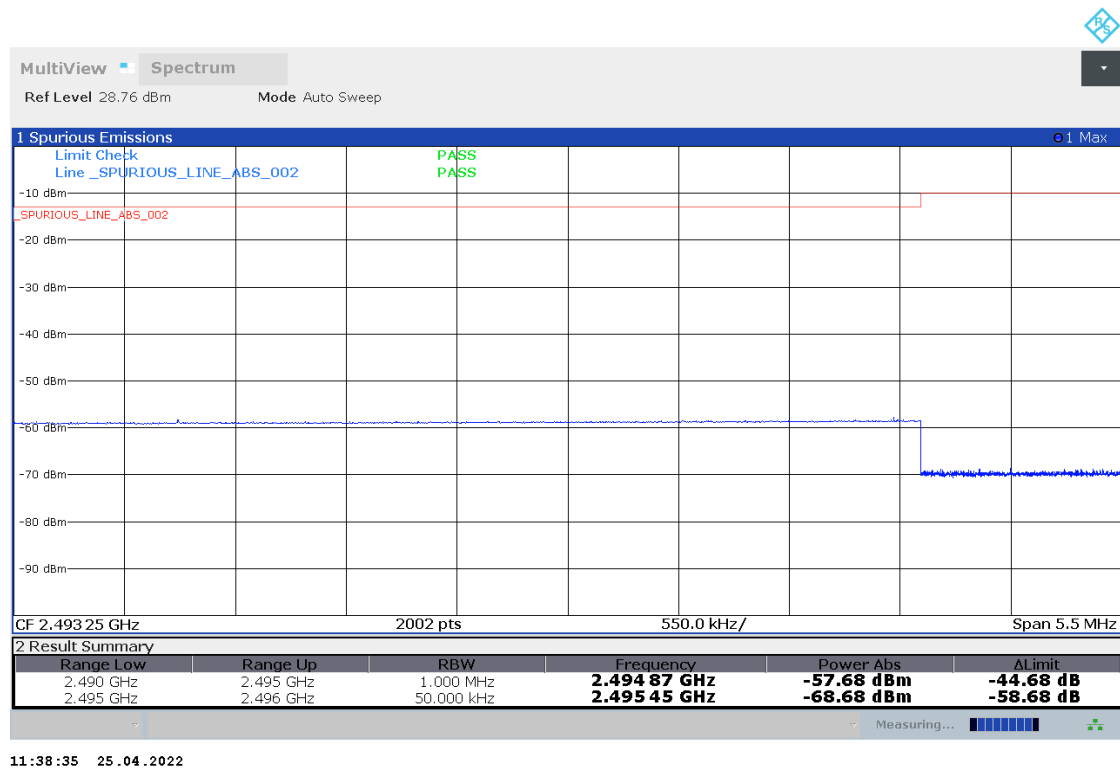
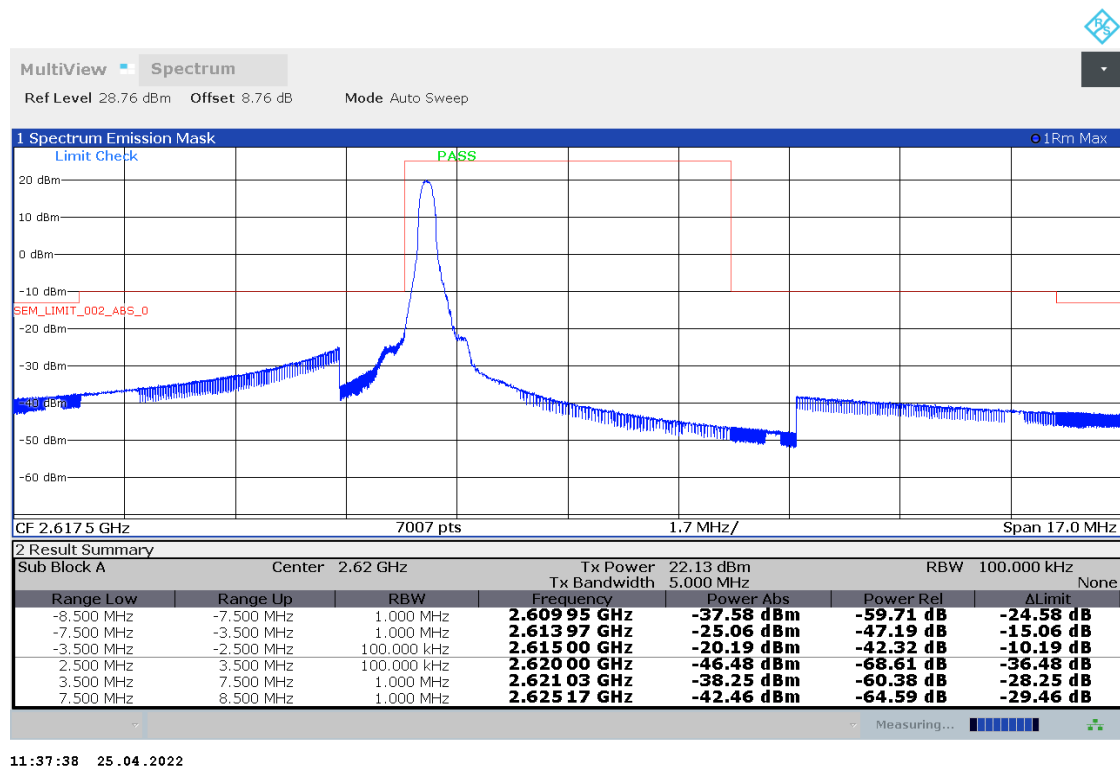


11:35:17 25.04.2022

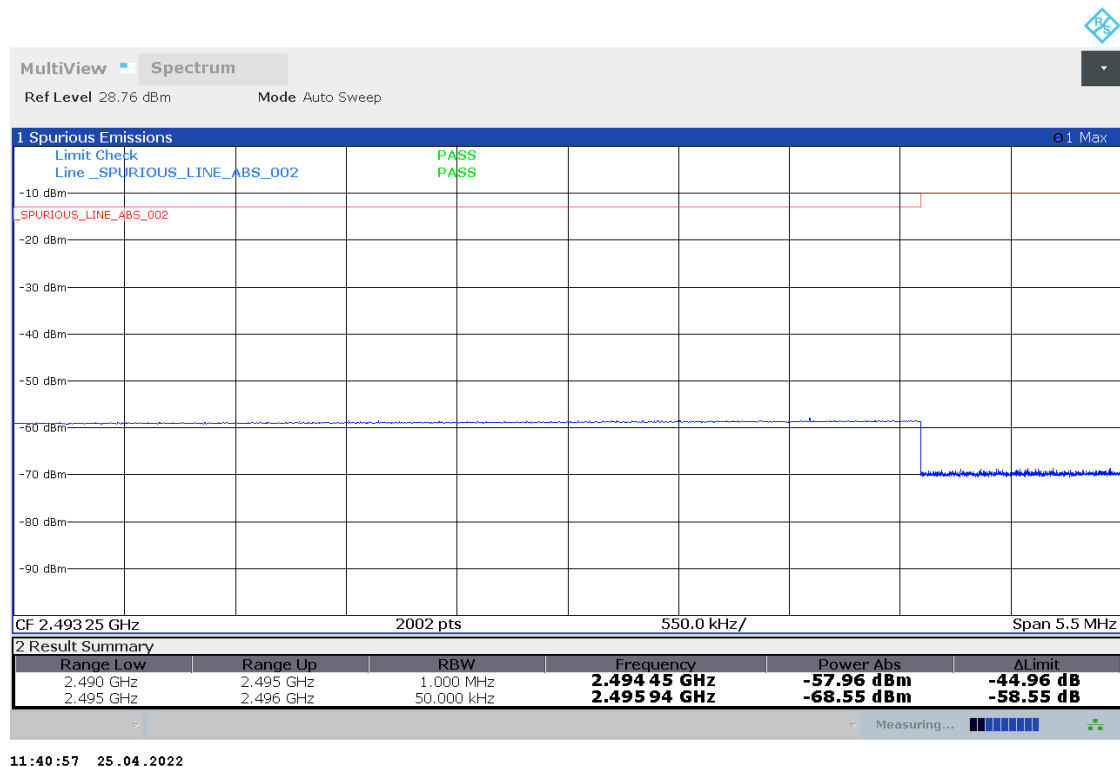
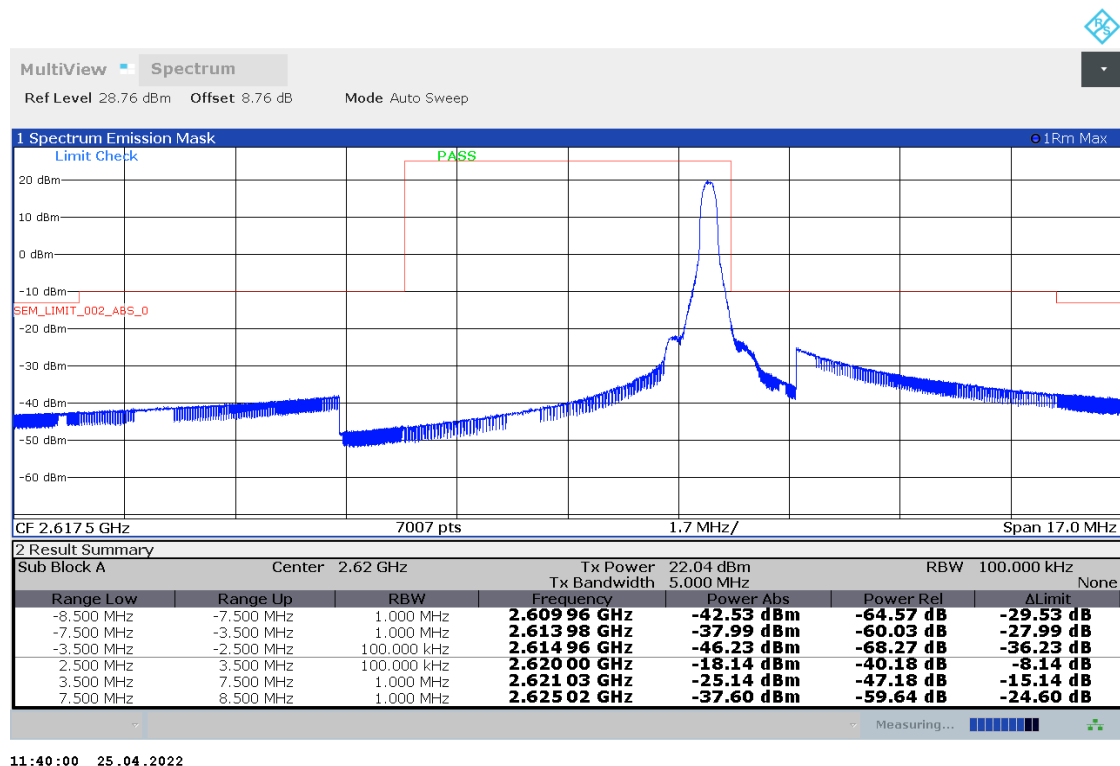


11:36:14 25.04.2022

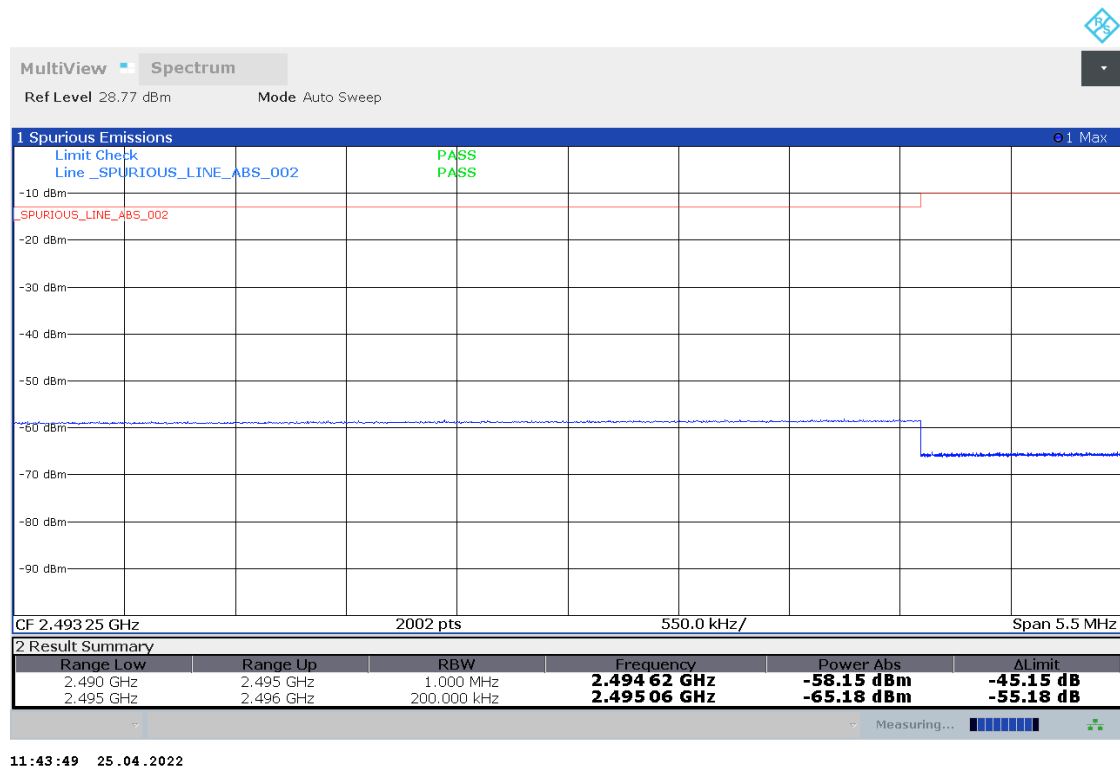
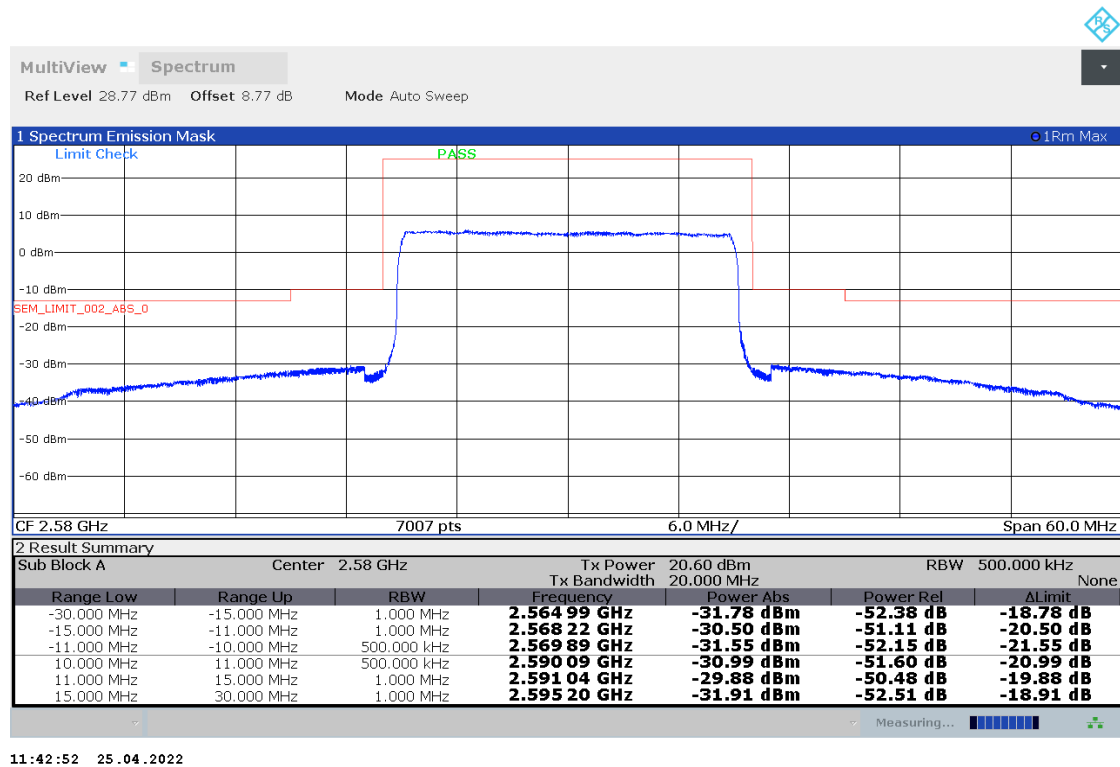
TM3_5MHz_HCH_RB1#0



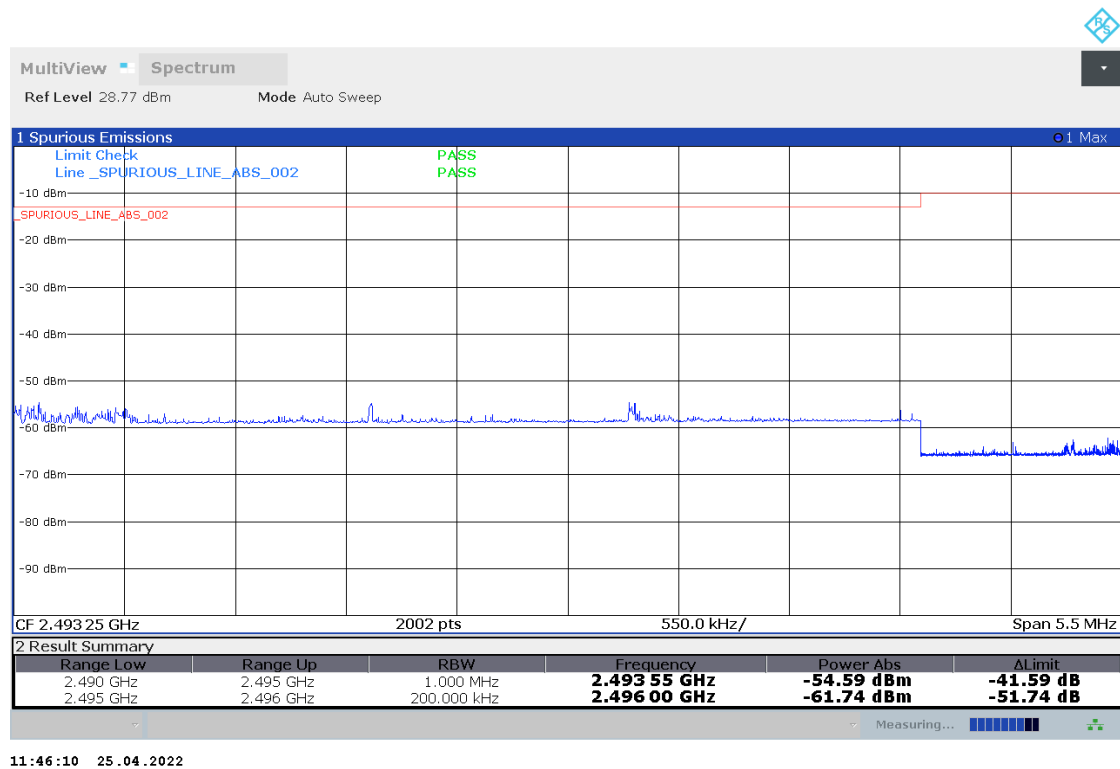
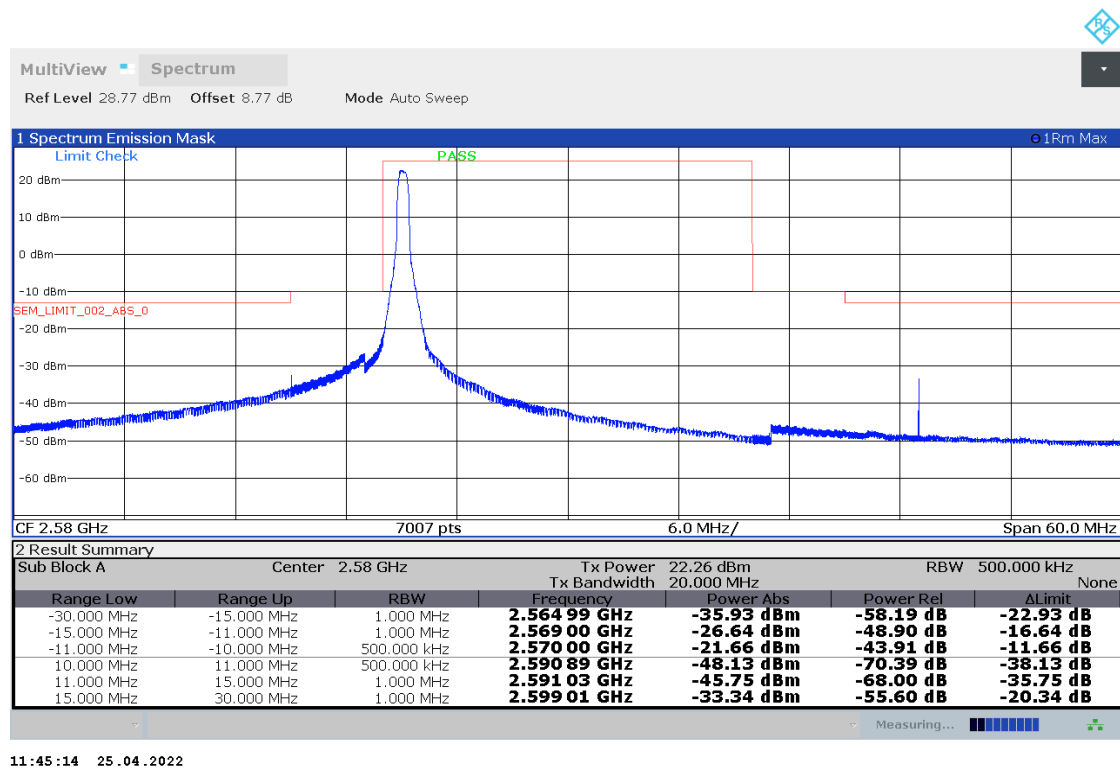
TM3_5MHz_HCH_RB1#24



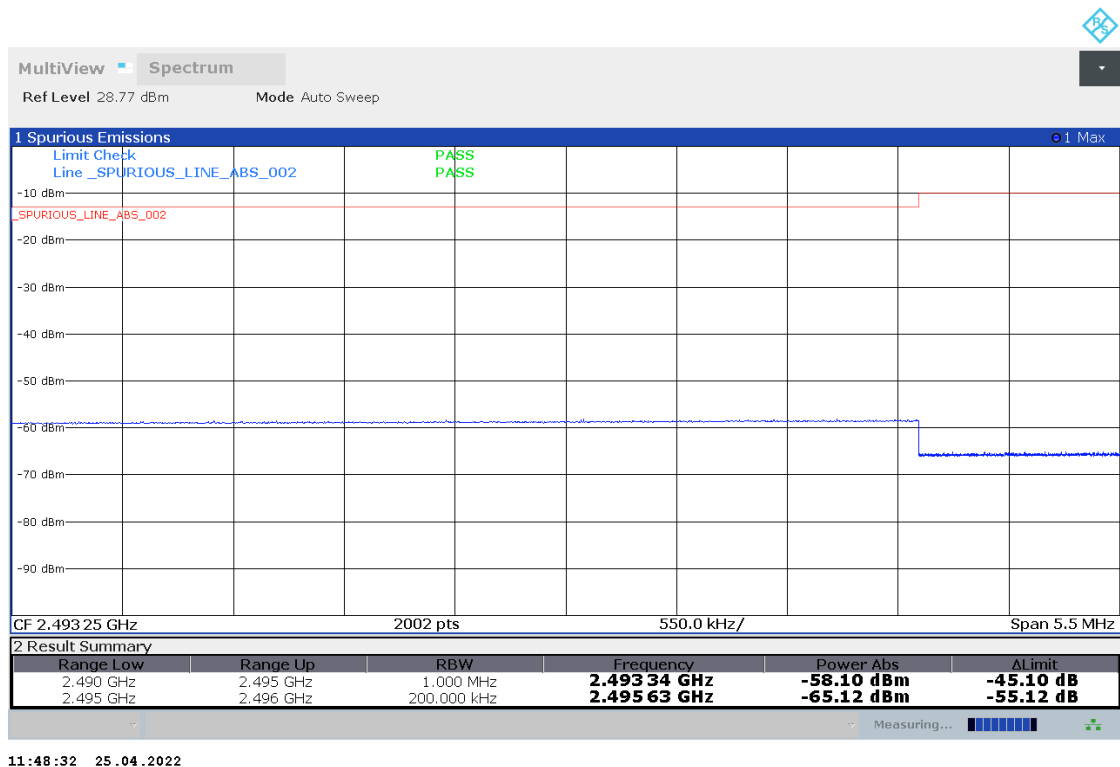
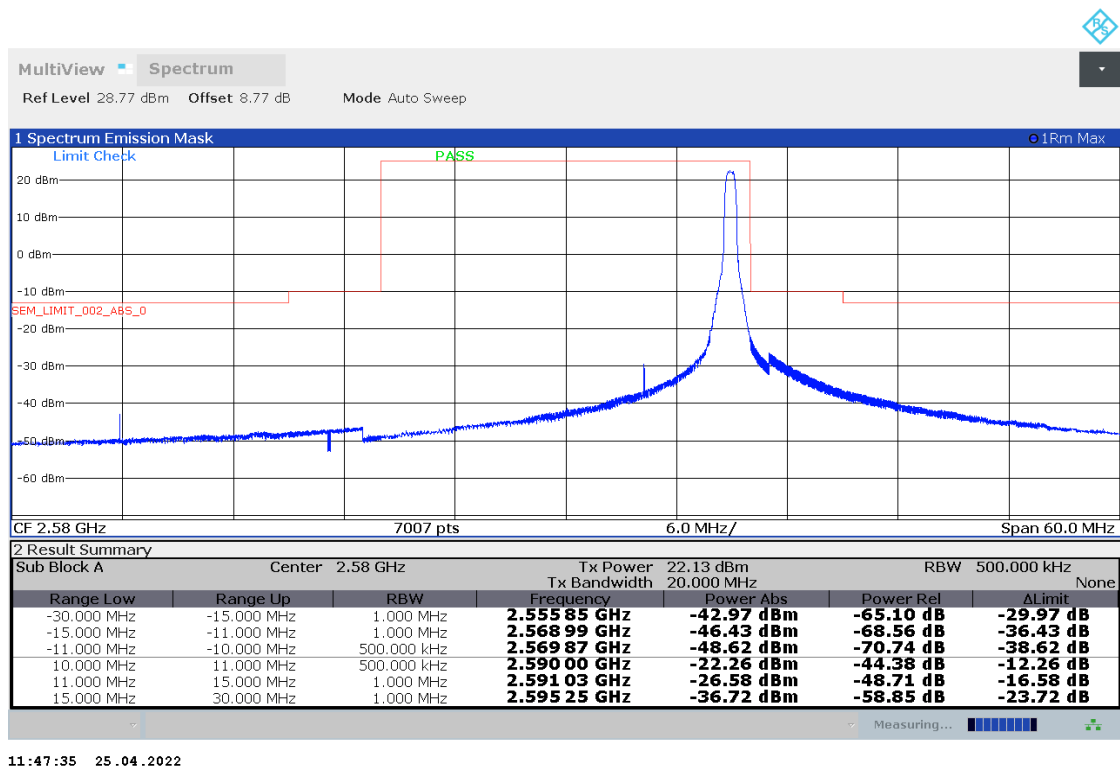
TM3_20MHz_LCH_RB100#0



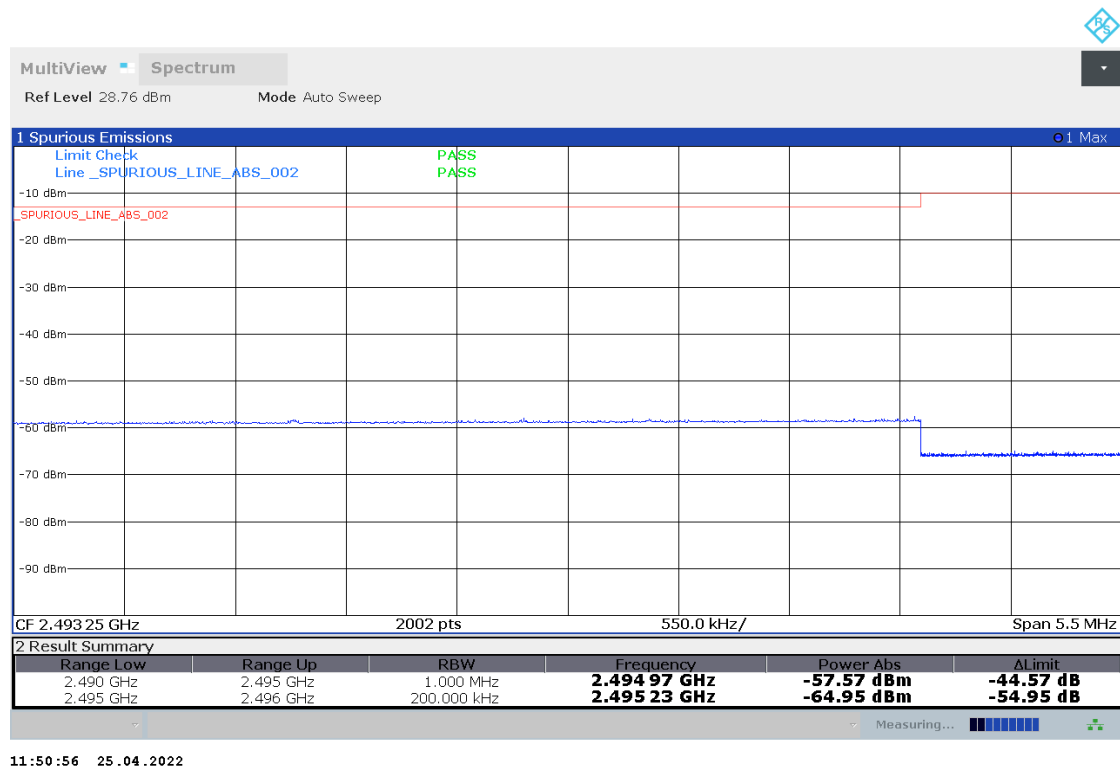
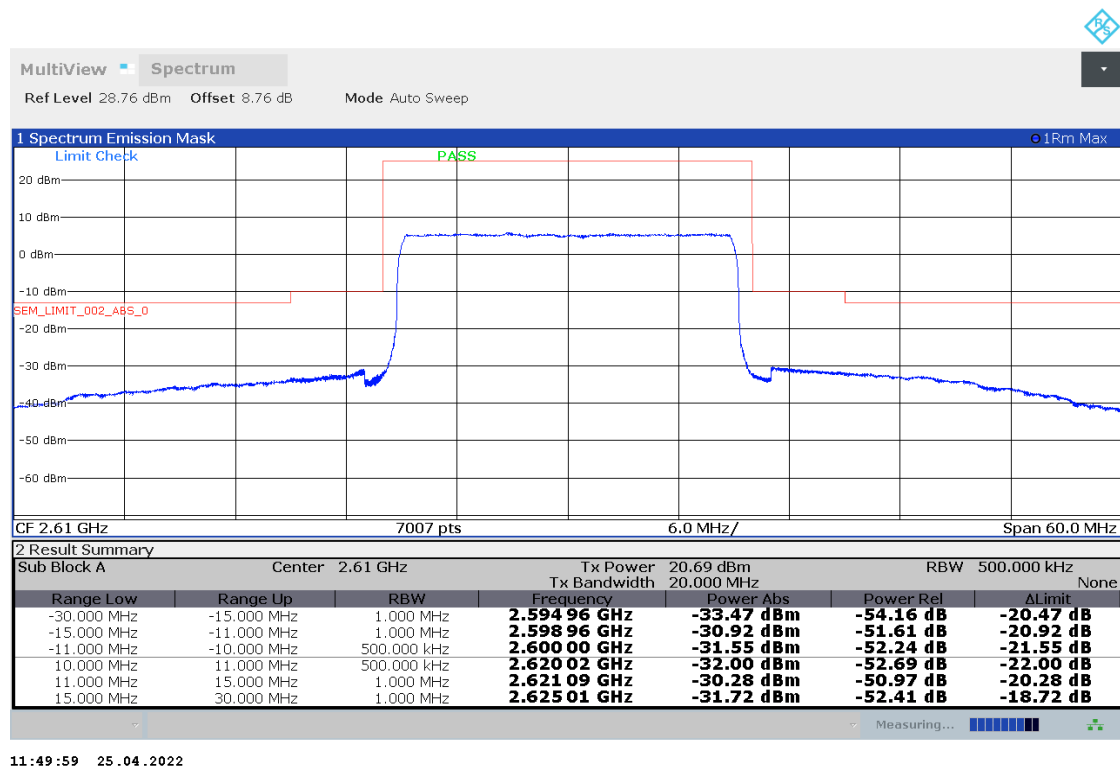
TM3_20MHz_LCH_RB1#0



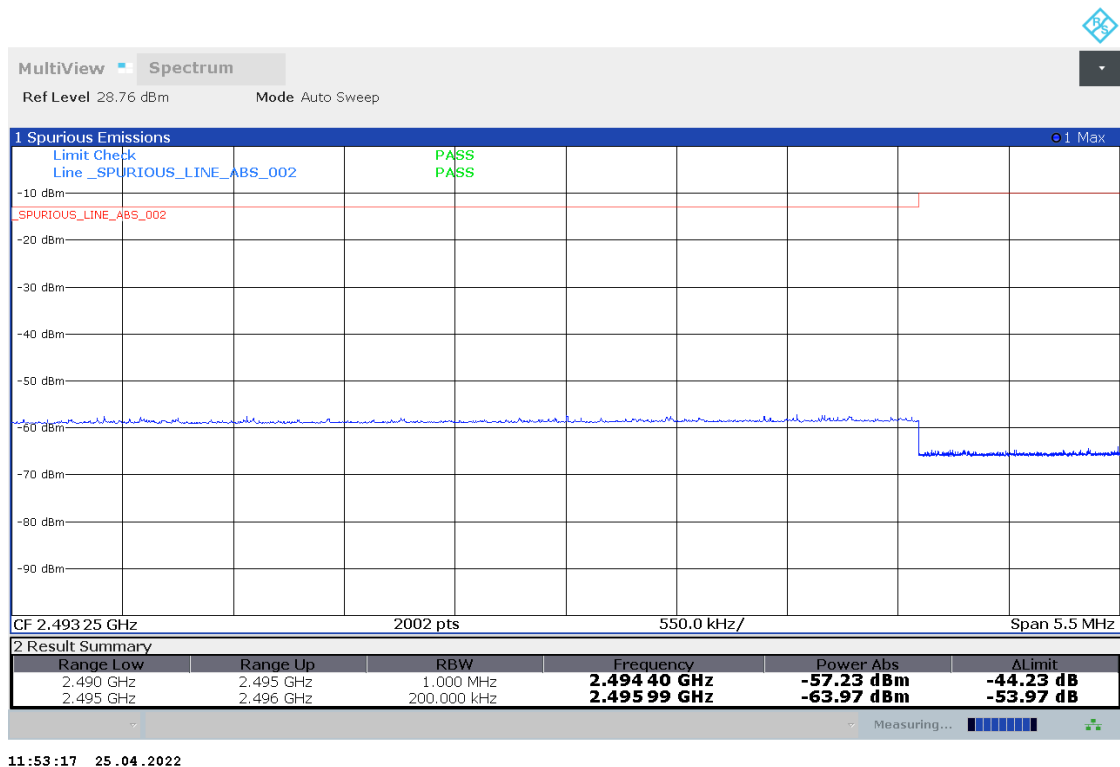
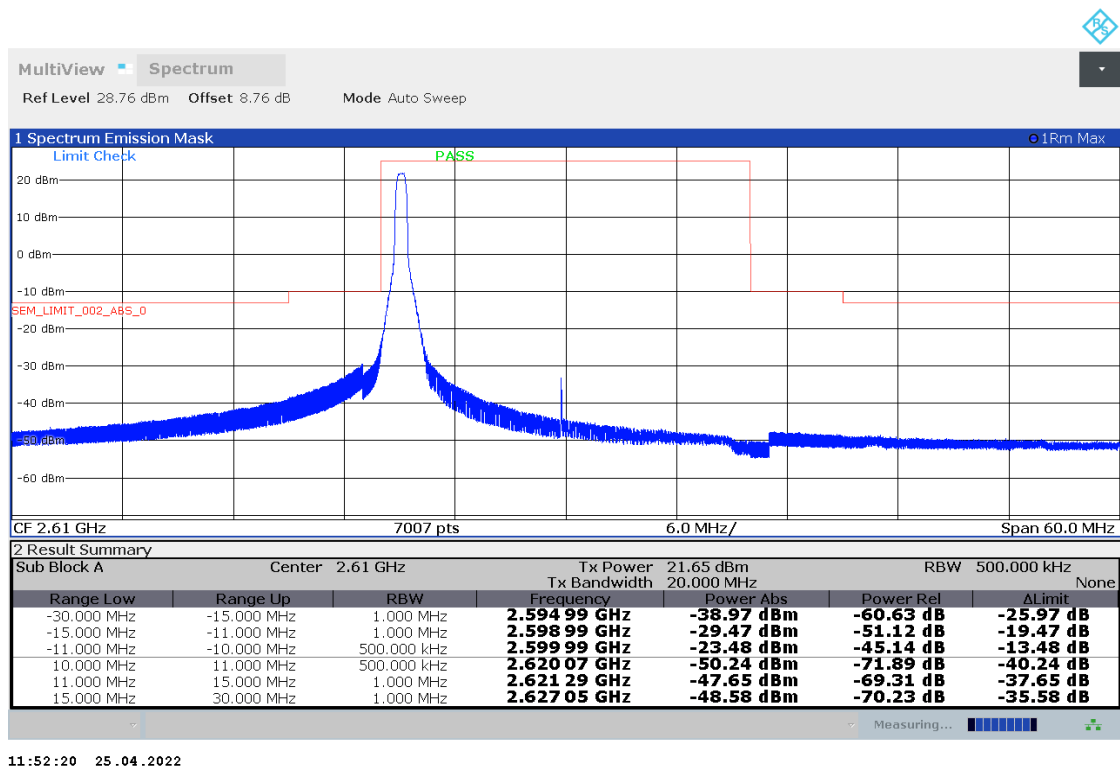
TM3_20MHz_LCH_RB1#99



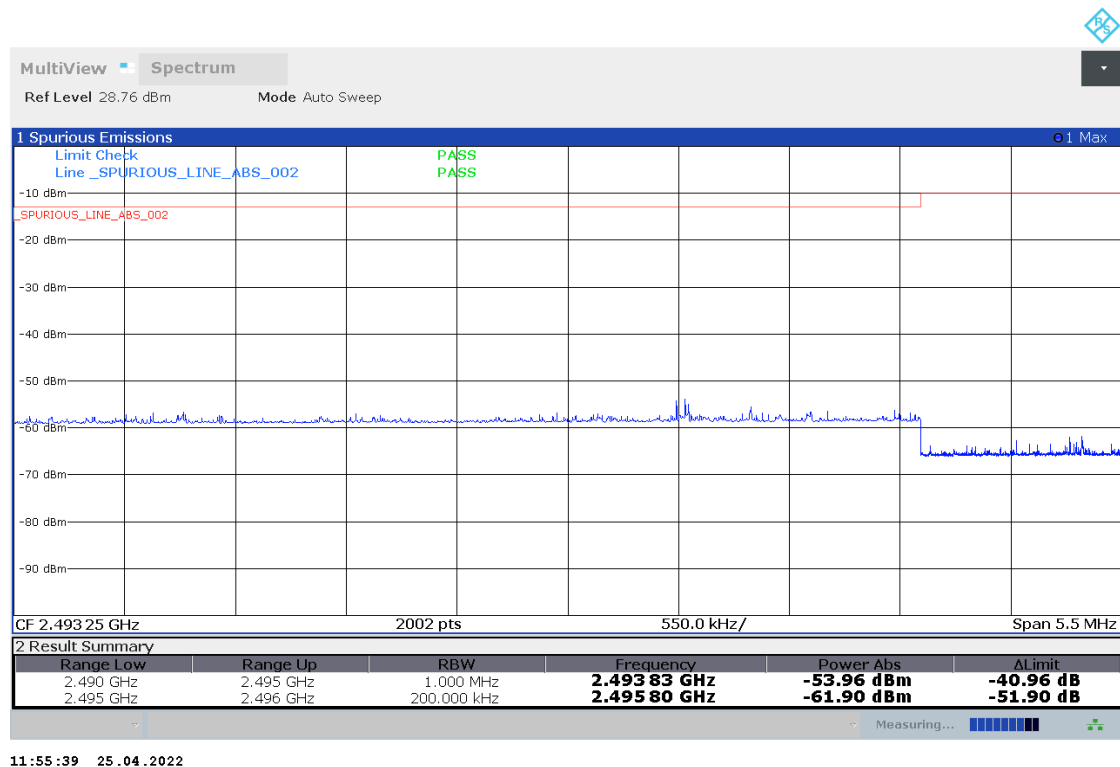
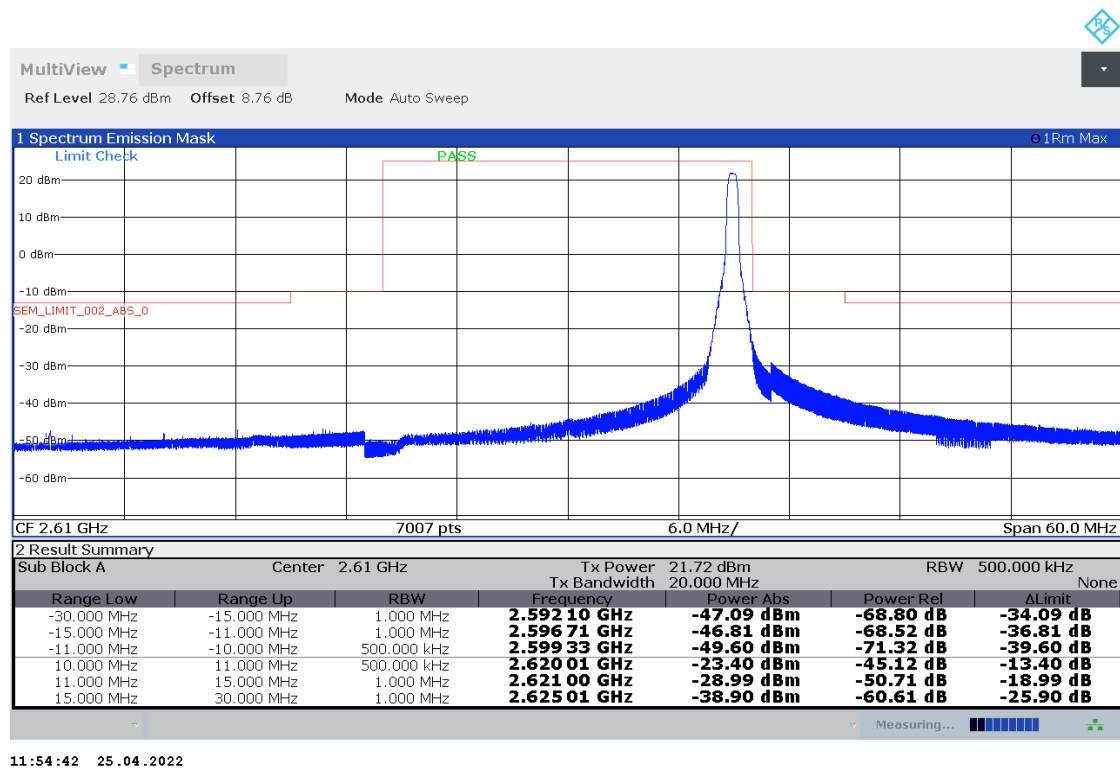
TM3_20MHz_HCH_RB100#0



TM3_20MHz_HCH_RB1#0



TM3_20MHz_HCH_RB1#99



6 Appendix_F: Spurious Emission at Antenna Terminal

6.1 Test Results

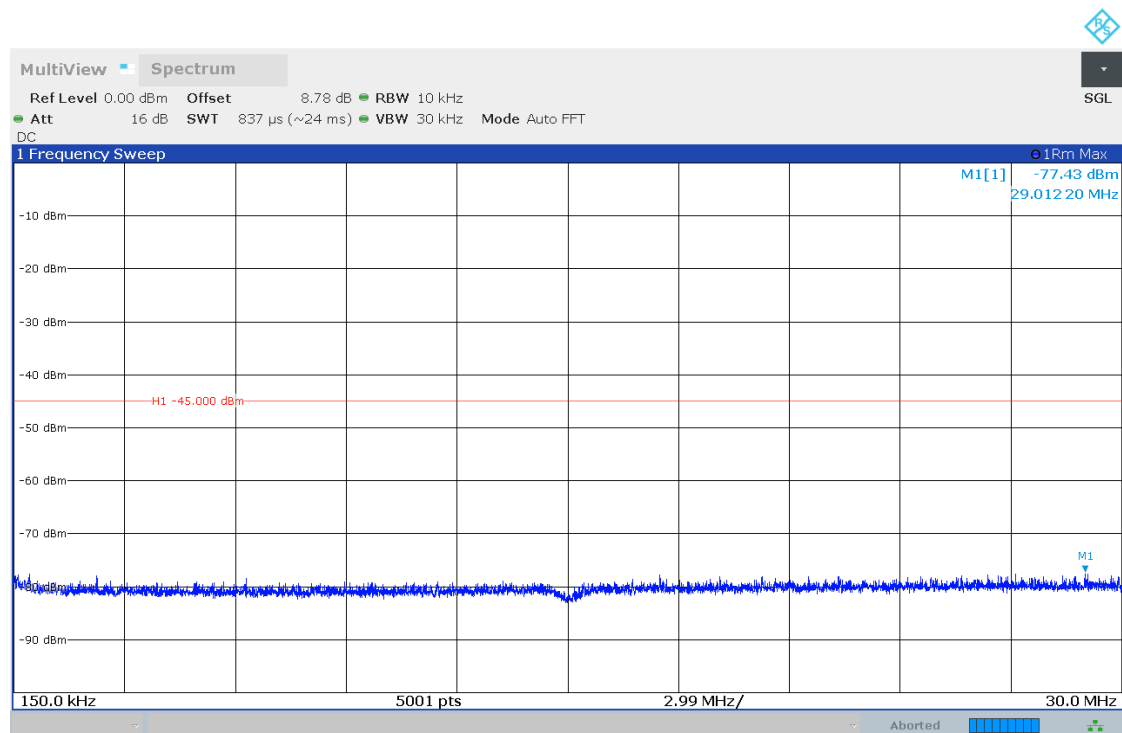
Test Mode	Test Bandwidth [MHz]	Test Channel	Test RB	Modulation	Measured Emissions Conformed to the Relevant Limits?	Verdict
TM1	5	LCH	RB25#0	QPSK	Yes	PASS
			RB1#0	QPSK	Yes	PASS
			RB1#24	QPSK	Yes	PASS
		MCH	RB25#0	QPSK	Yes	PASS
			RB1#0	QPSK	Yes	PASS
			RB1#24	QPSK	Yes	PASS
		HCH	RB25#0	QPSK	Yes	PASS
			RB1#0	QPSK	Yes	PASS
			RB1#24	QPSK	Yes	PASS
	20	LCH	RB100#0	QPSK	Yes	PASS
			RB1#0	QPSK	Yes	PASS
			RB1#99	QPSK	Yes	PASS
		MCH	RB100#0	QPSK	Yes	PASS
			RB1#0	QPSK	Yes	PASS
			RB1#99	QPSK	Yes	PASS
		HCH	RB100#0	QPSK	Yes	PASS
			RB1#0	QPSK	Yes	PASS
			RB1#99	QPSK	Yes	PASS
TM2	5	LCH	RB25#0	16QAM	Yes	PASS
			RB1#0	16QAM	Yes	PASS
			RB1#24	16QAM	Yes	PASS
		MCH	RB25#0	16QAM	Yes	PASS
			RB1#0	16QAM	Yes	PASS
			RB1#24	16QAM	Yes	PASS
		HCH	RB25#0	16QAM	Yes	PASS
			RB1#0	16QAM	Yes	PASS
			RB1#24	16QAM	Yes	PASS
	20	LCH	RB100#0	16QAM	Yes	PASS
			RB1#0	16QAM	Yes	PASS
			RB1#99	16QAM	Yes	PASS
		MCH	RB100#0	16QAM	Yes	PASS
			RB1#0	16QAM	Yes	PASS
			RB1#99	16QAM	Yes	PASS
		HCH	RB100#0	16QAM	Yes	PASS
			RB1#0	16QAM	Yes	PASS
			RB1#99	16QAM	Yes	PASS

6.2 Test Plots

TM1_5MHz_LCH_RB25#0



11:58:43 25.04.2022



11:59:12 25.04.2022