

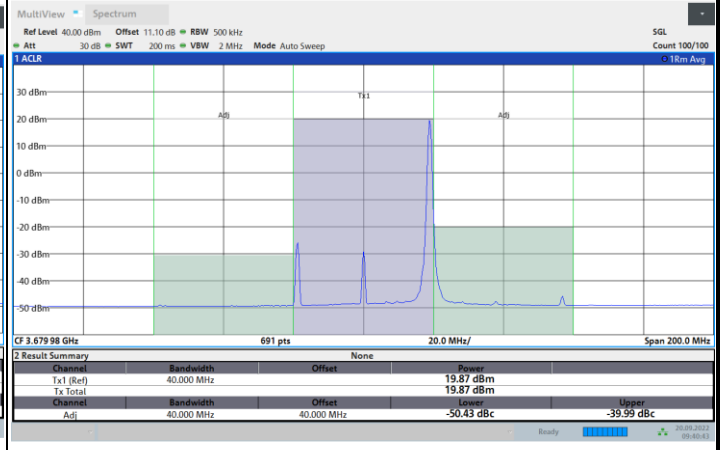
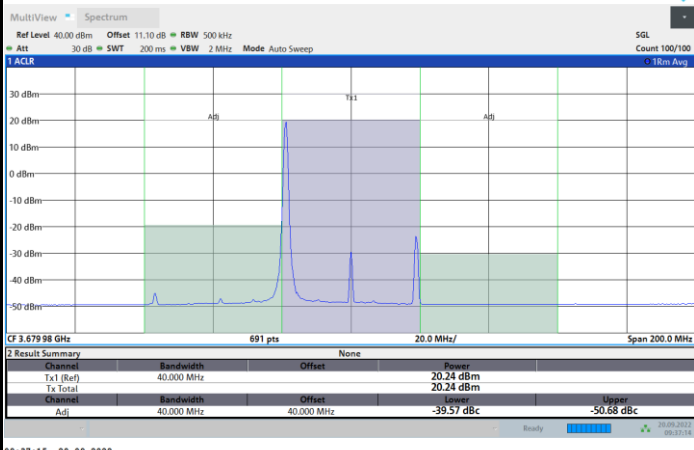


FR1 n48 / 40MHz / DFT-S OFDM / 16QAM

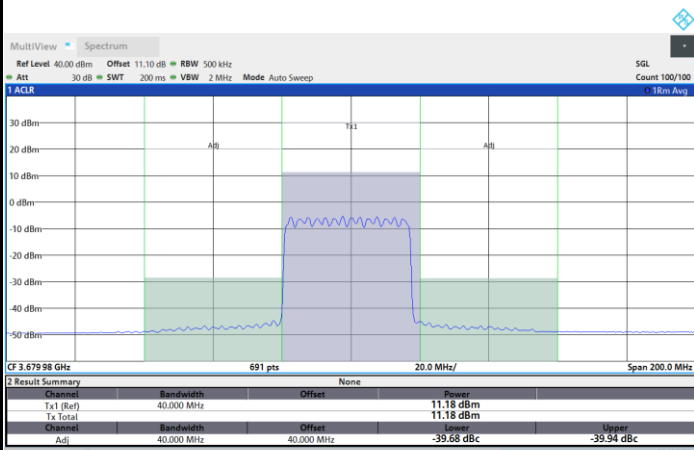
Highest Channel

1RB0

1RBmax



Full RB



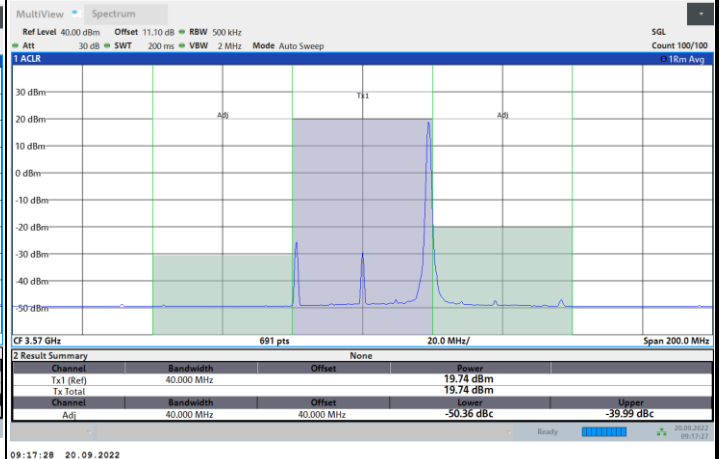
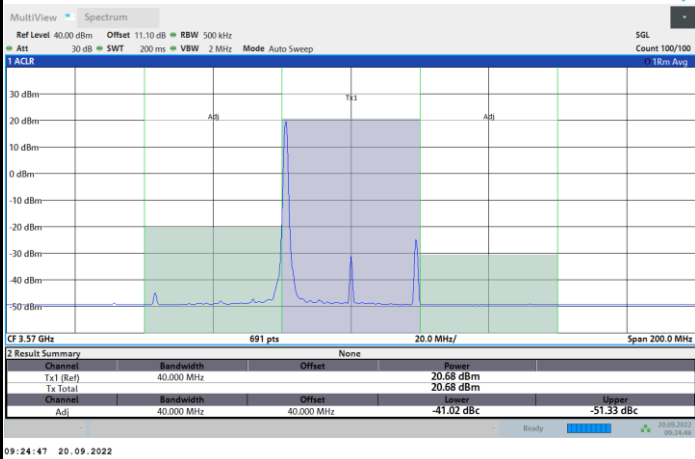


FR1 n48 / 40MHz / DFT-S OFDM / 64QAM

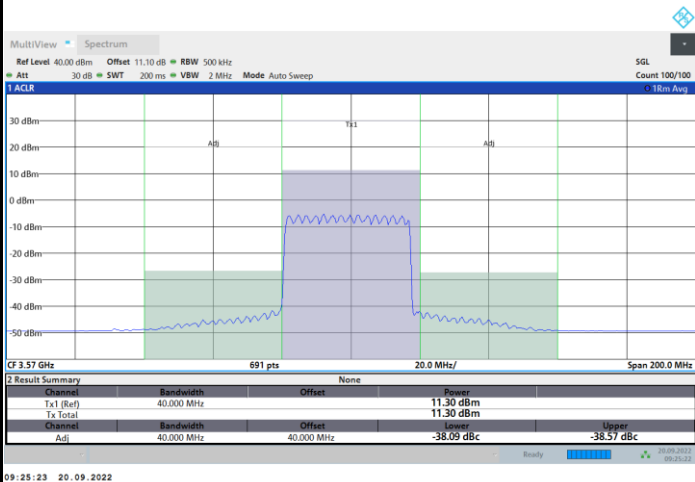
Lowest Channel

1RB0

1RBmax



Full RB



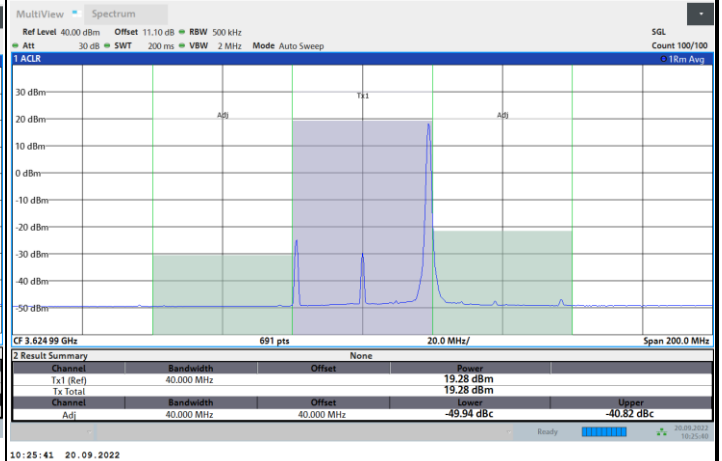
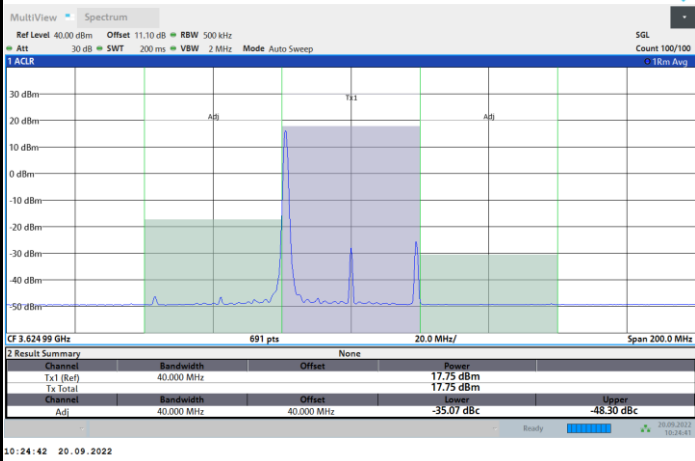


FR1 n48 / 40MHz / DFT-S OFDM / 64QAM

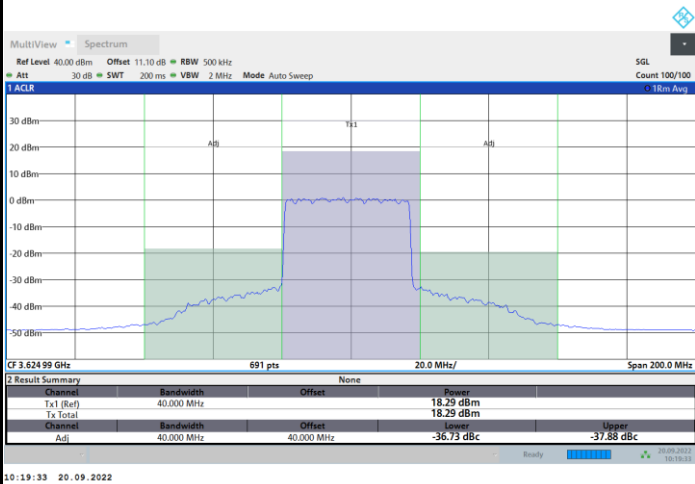
Middle Channel

1RB0

1RBmax



Full RB



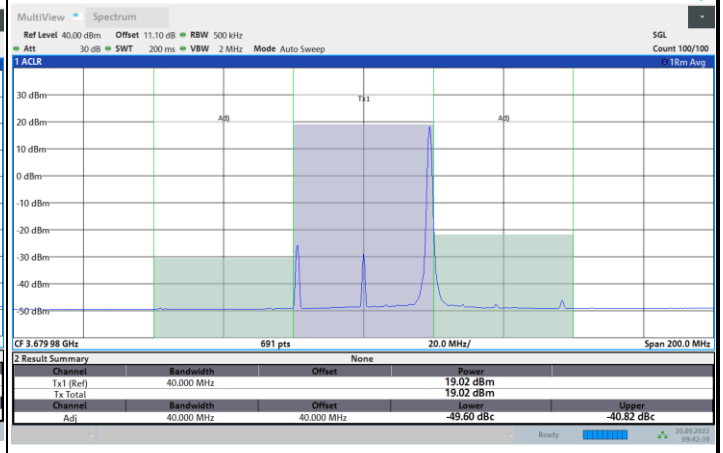
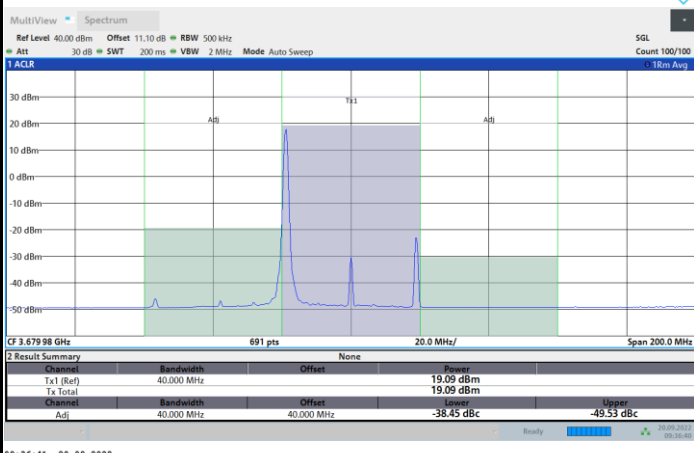


FR1 n48 / 40MHz / DFT-S OFDM / 64QAM

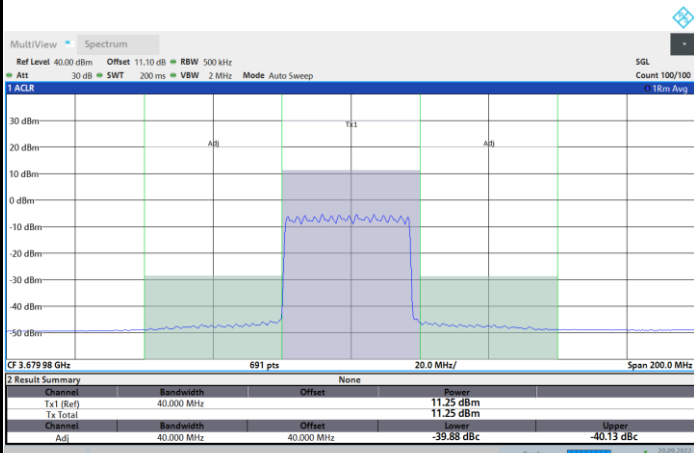
Highest Channel

1RB0

1RBmax



Full RB



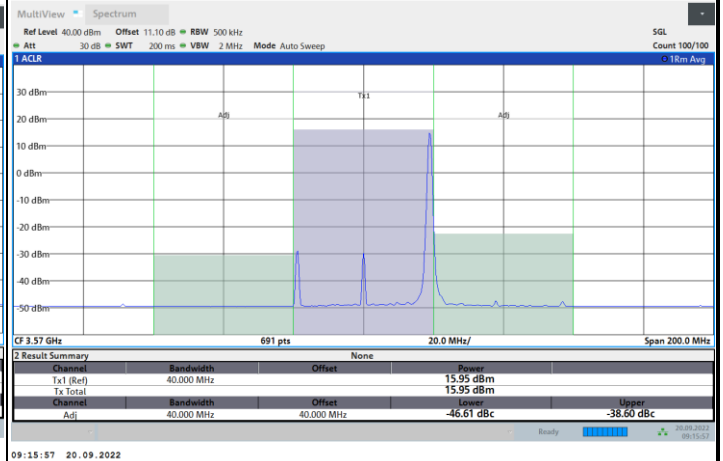
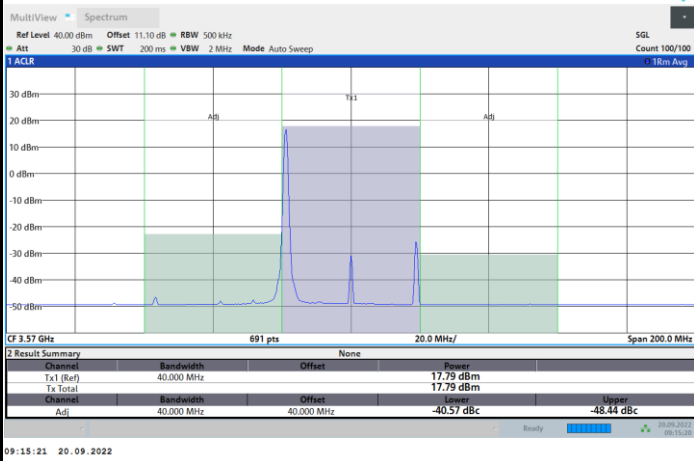


FR1 n48 / 40MHz / DFT-S OFDM / 256QAM

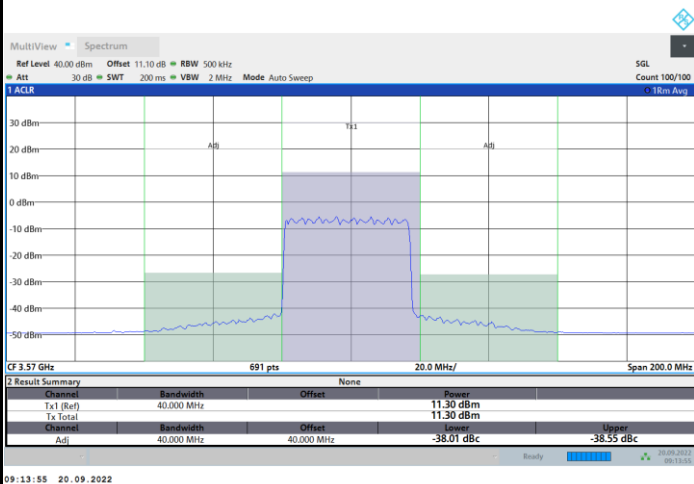
Lowest Channel

1RB0

1RBmax



Full RB



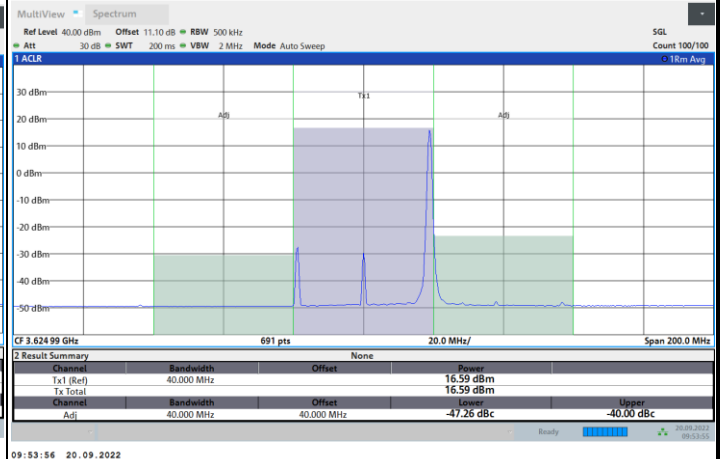
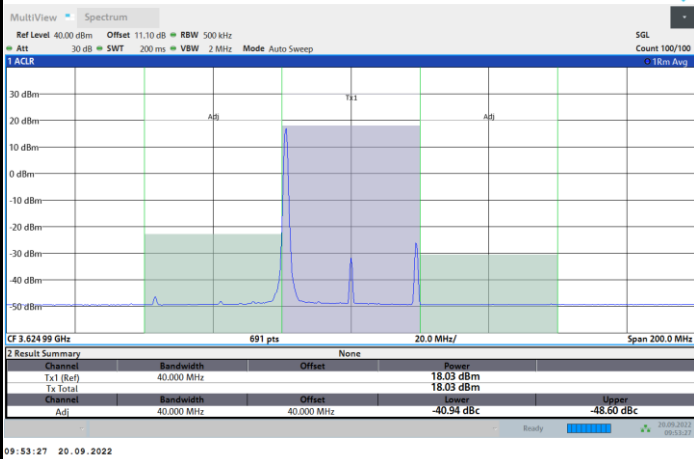


FR1 n48 / 40MHz / DFT-S OFDM / 256QAM

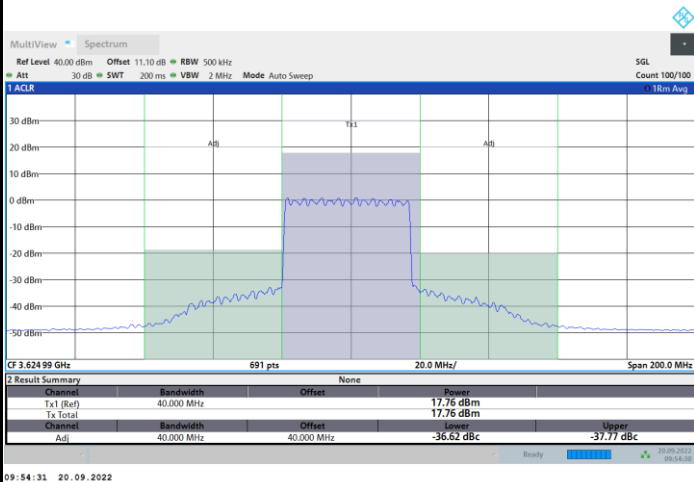
Middle Channel

1RB0

1RBmax



Full RB



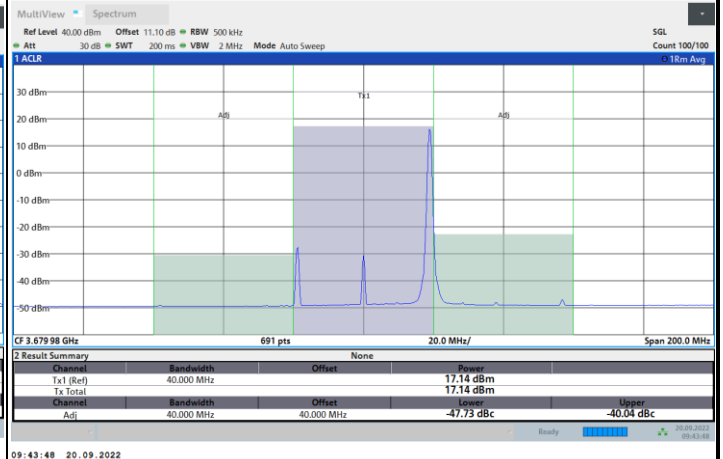
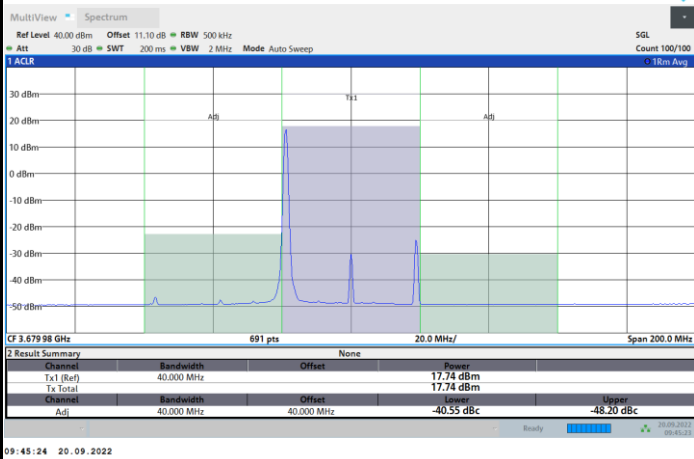


FR1 n48 / 40MHz / DFT-S OFDM / 256QAM

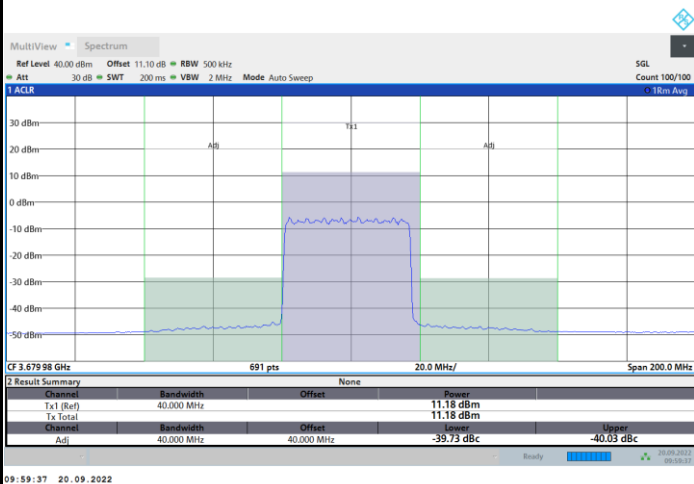
Highest Channel

1RB0

1RBmax



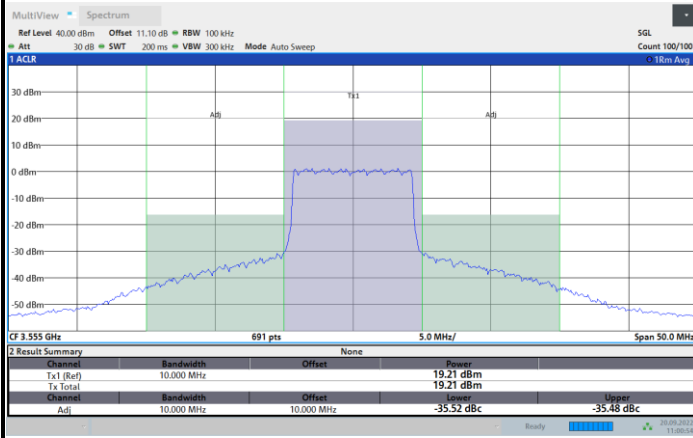
Full RB





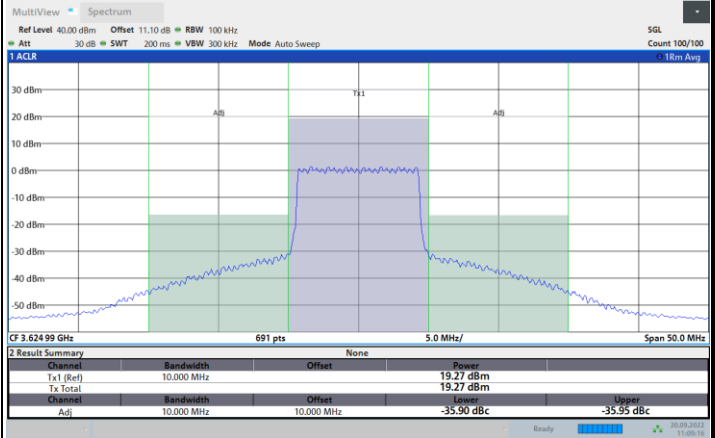
FR1 n48 / 10MHz / CP OFDM / QPSK / Full RB

Lowest Channel



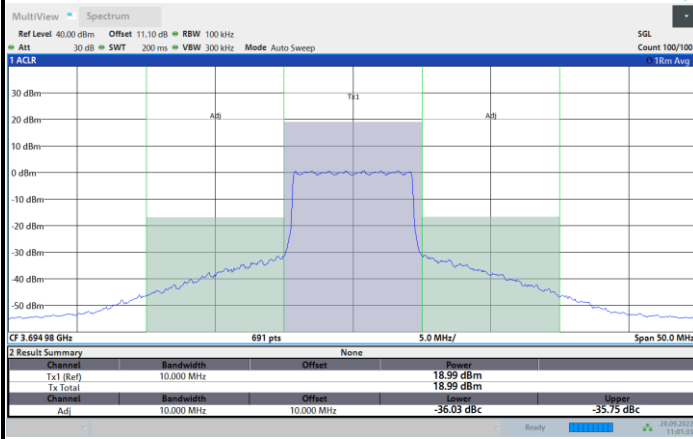
11:00:55 20.09.2022

Middle Channel



11:09:17 20.09.2022

Highest Channel



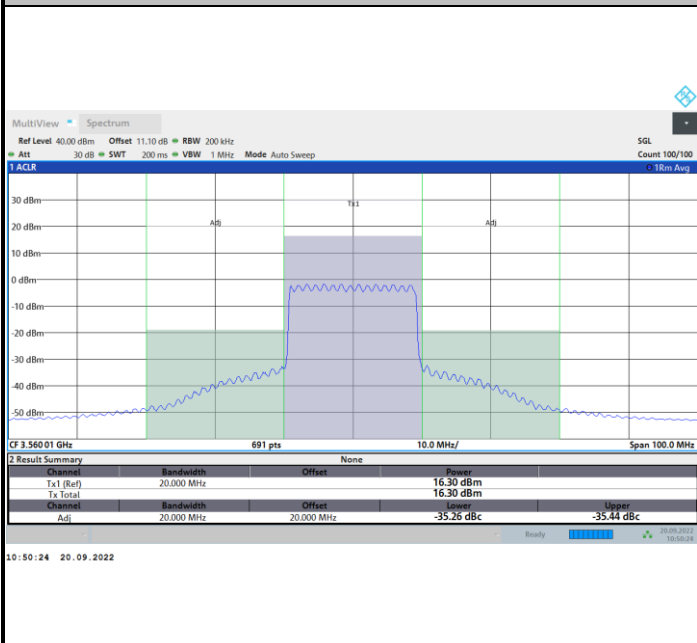
11:01:34 20.09.2022



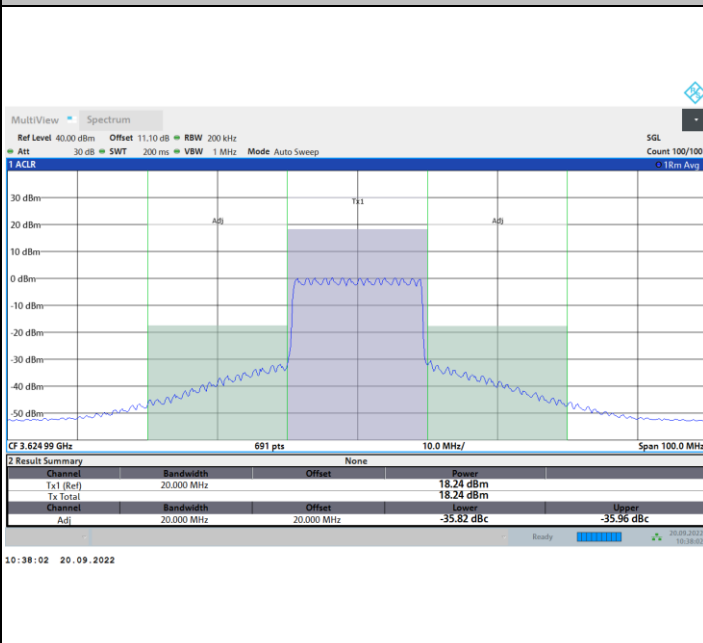


FR1 n48 / 20MHz / CP OFDM / QPSK / Full RB

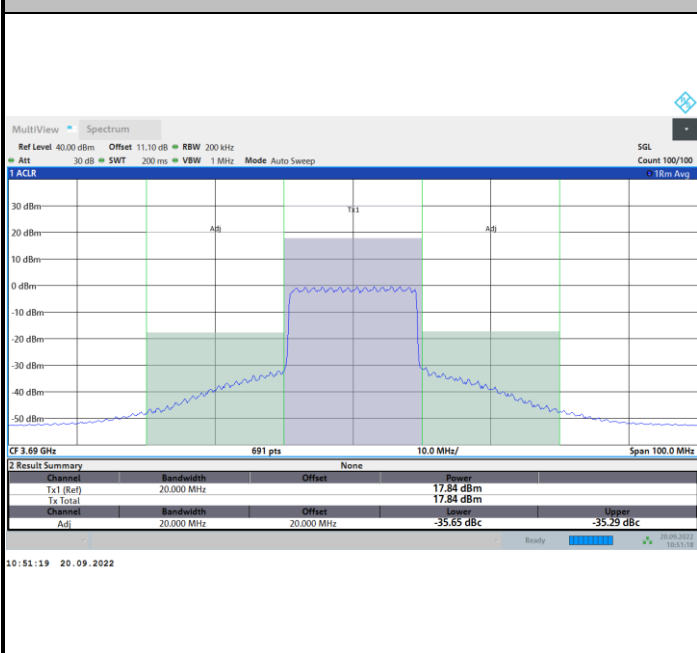
Lowest Channel



Middle Channel



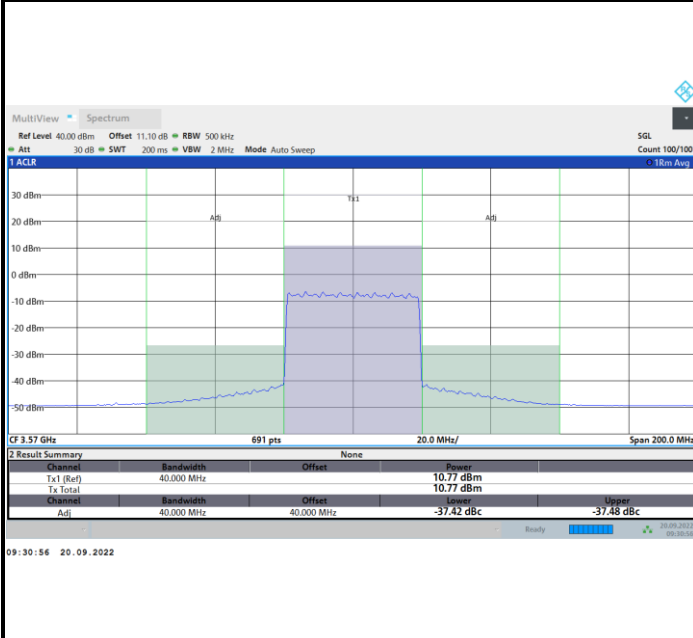
Highest Channel



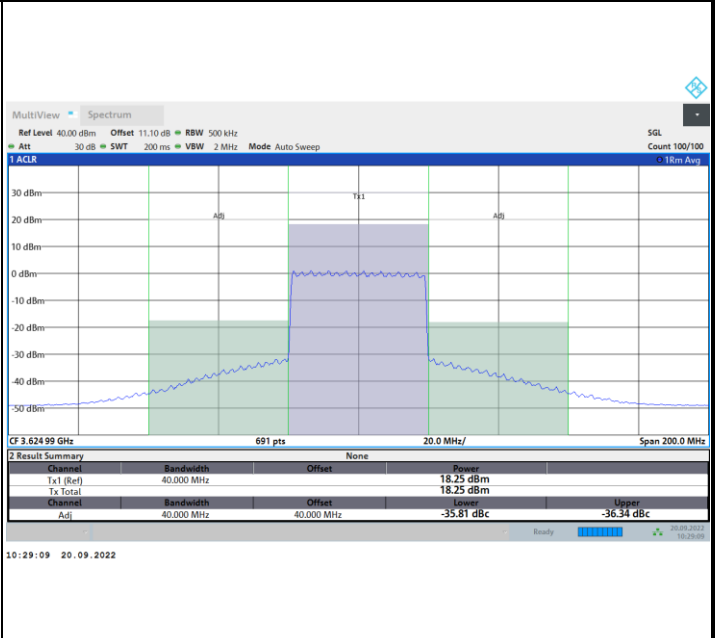


FR1 n48 / 40MHz / CP OFDM / QPSK / Full RB

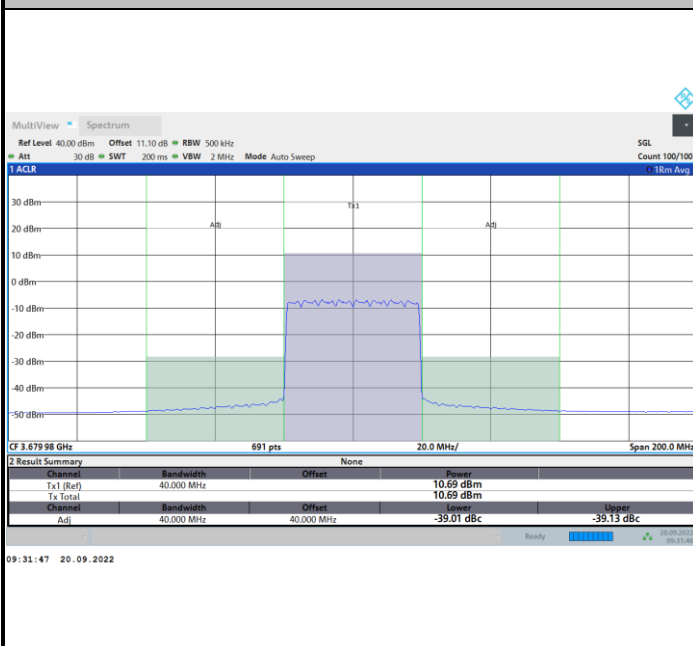
Lowest Channel



Middle Channel



Highest Channel



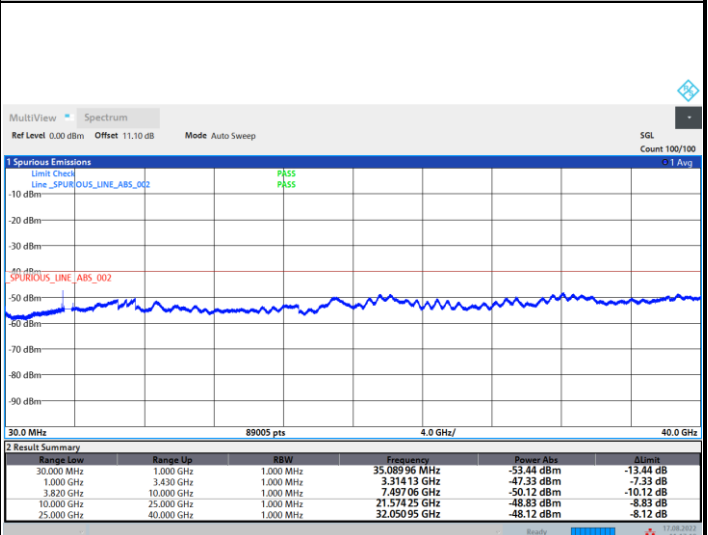
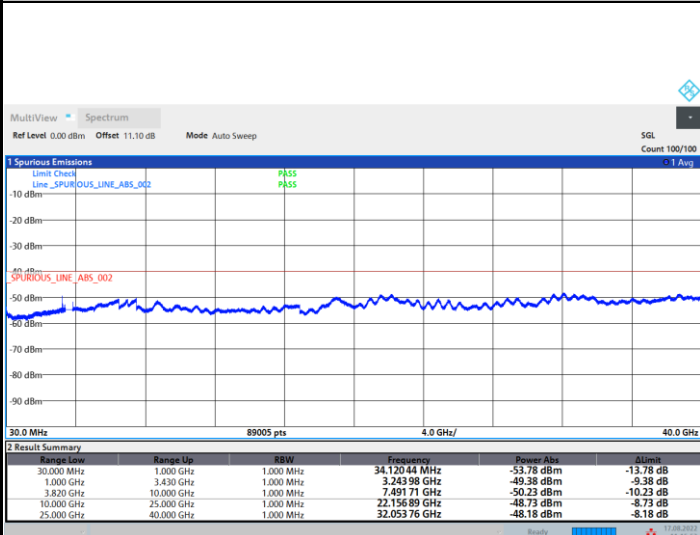


# Conducted Spurious Emission

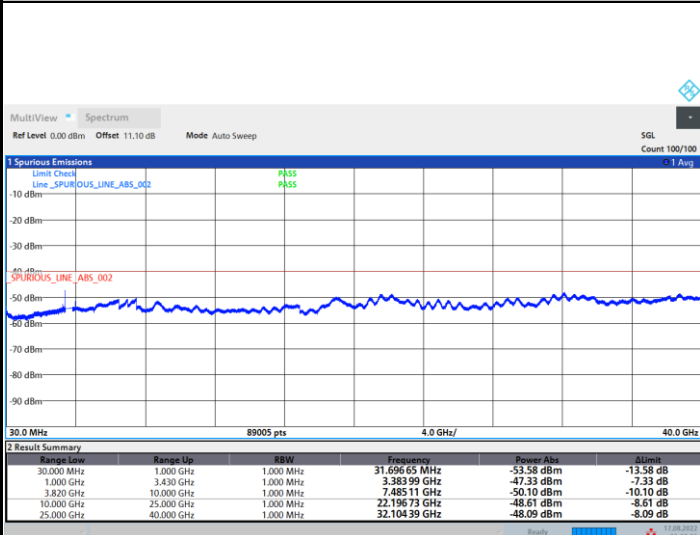
FR1 n48 / 10MHz / DFT-S OFDM / QPSK / 1RB1

## Lowest Channel

## Middle Channel



## Highest Channel

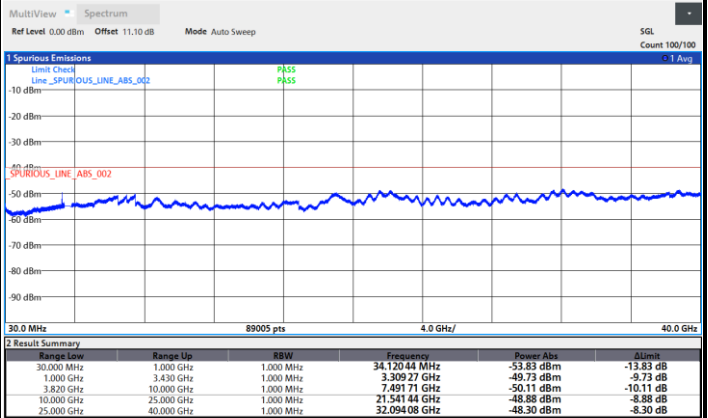
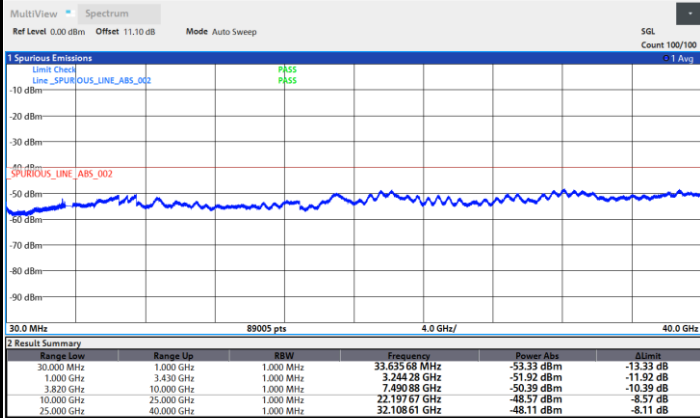




FR1 n48 / 20MHz / DFT-S OFDM / QPSK / 1RB1

Lowest Channel

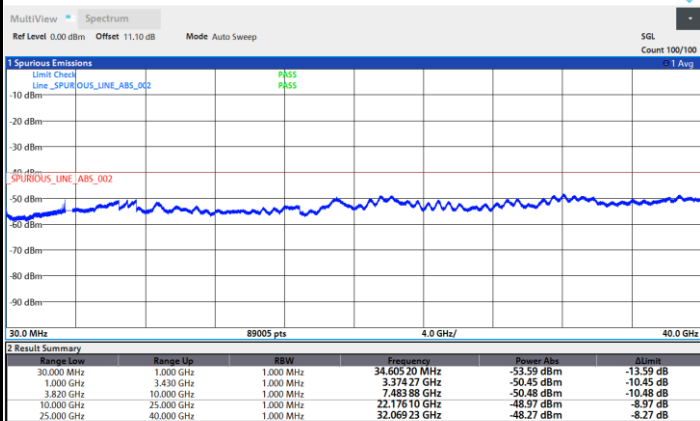
Middle Channel



09:50:05 17.08.2022

09:59:17 17.08.2022

Highest Channel



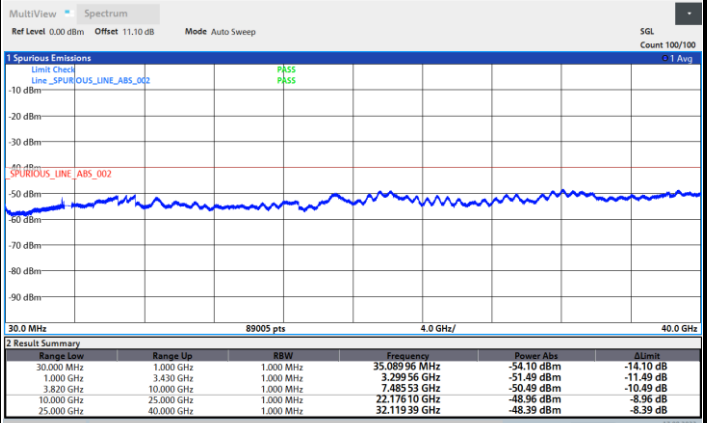
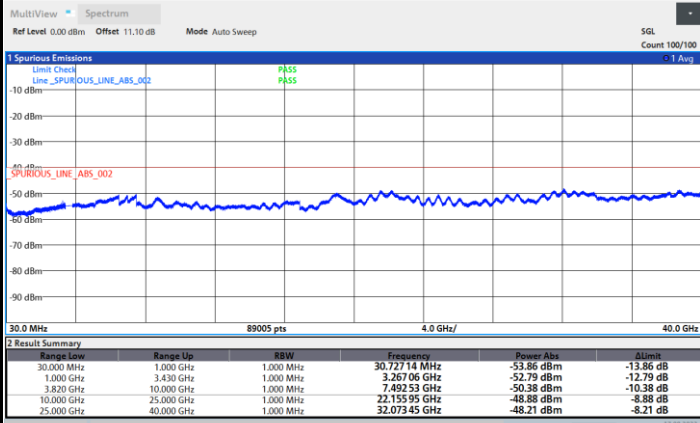
10:07:43 17.08.2022



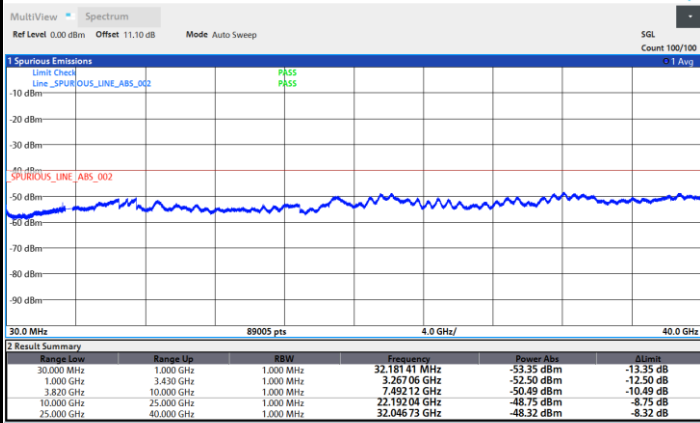
FR1 n48 / 40MHz / DFT-S OFDM / QPSK / 1RB1

Lowest Channel

Middle Channel



Highest Channel





### Frequency Stability

Test Conditions		FR1 n48 (BPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 20MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0001	PASS
40	Normal Voltage	0.0061	
30	Normal Voltage	0.0061	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0018	
0	Normal Voltage	0.0053	
-10	Normal Voltage	0.0016	
-20	Normal Voltage	0.0051	
-30	Normal Voltage	0.0008	
20	Maximum Voltage	0.0020	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0024	

**Note:**

1. Normal Voltage = 4.05 V. ; Battery End Point (BEP) = 3.85 V. ; Maximum Voltage = 4.35 V.
2. The frequency fundamental emissions stay within the authorized frequency block.



## Appendix B. Test Results of Radiated Test

<Ant. 11>

### 5G NR n48

5G NR n48/ 20MHz / PI/2 BPSK									
Channel	Frequency ( MHz )	ERP ( dBm )	Limit ( dBm )	Margin ( dB )	SPA Reading (dBm)	S.G. Power ( dBm )	TX Cable loss ( dB )	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	7105	-56.82	-40	-16.82	-54.95	-66.52	1.84	11.54	H
	10657	-53.36	-40	-13.36	-55.97	-61.83	2.23	10.71	H
	14209	-49.01	-40	-9.01	-57.74	-58.64	2.65	12.27	H
	21313	-61.93	-40	-21.93	-76.31	-76.78	3.32	18.18	H
	24865	-57.25	-40	-17.25	-75.53	-72.02	3.71	18.48	H
	28418	-55.97	-40	-15.97	-76.48	-71.43	3.99	19.45	H
									H
	7105	-56.93	-40	-16.93	-55.31	-66.63	1.84	11.54	V
	10657	-51.85	-40	-11.85	-54.06	-60.32	2.23	10.71	V
	14209	-49.13	-40	-9.13	-57.74	-58.76	2.65	12.27	V
	21313	-62.60	-40	-22.60	-76.68	-77.45	3.32	18.18	V
	24865	-58.94	-40	-18.94	-76.9	-73.71	3.71	18.48	V
	28418	-55.65	-40	-15.65	-75.75	-71.11	3.99	19.45	V
									V
Middle	7215	-56.94	-40	-16.94	-55.37	-66.40	1.85	11.31	H
	10822	-50.63	-40	-10.63	-53.57	-59.02	2.22	10.61	H
	14429	-48.69	-40	-8.69	-57.64	-58.21	2.63	12.14	H
	18036	-60.72	-40	-20.72	-72.16	-75.09	3.23	17.60	H
	21643	-60.80	-40	-20.80	-75.9	-75.93	3.41	18.54	H
	25250	-58.83	-40	-18.83	-77.14	-73.77	3.76	18.70	H
	7215	-56.68	-40	-16.68	-55.48	-66.14	1.85	11.31	V
	10822	-49.80	-40	-9.80	-52.48	-58.19	2.22	10.61	V
	14464	-48.61	-40	-8.61	-57.91	-58.11	2.62	12.12	V
	18036	-61.32	-40	-21.32	-72.45	-75.69	3.23	17.60	V
	21643	-60.95	-40	-20.95	-75.73	-76.08	3.41	18.54	V
	25250	-59.12	-40	-19.12	-77.14	-74.06	3.76	18.70	V



Highest	7325	-54.89	-40	-14.89	-53.59	-64.35	1.90	11.36	H
	10987	-50.53	-40	-10.53	-53.8	-58.84	2.20	10.51	H
	14649	-49.15	-40	-9.15	-58.21	-58.98	2.60	12.43	H
	18311	-61.82	-40	-21.82	-73.52	-76.18	3.24	17.60	H
	21973	-61.16	-40	-21.16	-76.6	-76.53	3.50	18.87	H
	25635	-58.32	-40	-18.32	-76.81	-73.49	3.85	19.03	H
									H
	7325	-55.45	-40	-15.45	-54.36	-64.91	1.90	11.36	V
	10987	-47.10	-40	-7.10	-50.27	-55.41	2.20	10.51	V
	14649	-48.26	-40	-8.26	-58.13	-58.09	2.60	12.43	V
	18311	-62.29	-40	-22.29	-73.73	-76.65	3.24	17.60	V
	21973	-61.85	-40	-21.85	-76.92	-77.22	3.50	18.87	V
	25635	-58.26	-40	-18.26	-76.48	-73.43	3.85	19.03	V
									V

**Remark:** Spurious emissions within 30-1000MHz were found more than 20dB below limit line.





<Ant. 2 + 12>

**EN-DC 66A-n48A**

EN-DC 66A-n48A / 40MHz / PI/2 BPSK									
Channel	Frequency ( MHz )	EIRP ( dBm )	Limit ( dBm )	Margin ( dB )	SPA Reading (dBm)	S.G. Power ( dBm )	TX Cable loss ( dB )	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	7105	-57.06	-40	-17.06	-55.19	-66.76	1.84	11.54	H
	10657	-51.58	-40	-11.58	-54.19	-60.05	2.23	10.71	H
	14209	-49.43	-40	-9.43	-58.16	-59.06	2.65	12.27	H
	21314	-62.46	-40	-22.46	-76.85	-77.32	3.32	18.18	H
	24866	-59.03	-40	-19.03	-77.31	-73.80	3.71	18.48	H
	28418	-55.40	-40	-15.40	-75.91	-70.86	3.99	19.45	H
									H
	7105	-56.87	-40	-16.87	-55.25	-66.57	1.84	11.54	V
	10657	-52.33	-40	-12.33	-54.54	-60.80	2.23	10.71	V
	14209	-49.30	-40	-9.30	-57.91	-58.93	2.65	12.27	V
	21314	-62.94	-40	-22.94	-77.02	-77.80	3.32	18.18	V
	24866	-59.54	-40	-19.54	-77.5	-74.31	3.71	18.48	V
	28418	-56.50	-40	-16.50	-76.6	-71.96	3.99	19.45	V
									V
Middle	7215	-56.28	-40	-16.28	-54.71	-65.74	1.85	11.31	H
	10822	-47.85	-40	-7.85	-50.79	-56.24	2.22	10.61	H
	14429	-48.89	-40	-8.89	-57.84	-58.40	2.63	12.14	H
	18036	-60.99	-40	-20.99	-72.43	-75.36	3.23	17.60	H
	21644	-61.63	-40	-21.63	-76.74	-76.76	3.41	18.54	H
	25251	-59.19	-40	-19.19	-77.5	-74.13	3.76	18.70	H
	7215	-56.79	-40	-16.79	-55.59	-66.25	1.85	11.31	V
	10822	-50.73	-40	-10.73	-53.41	-59.12	2.22	10.61	V
	14429	-48.64	-40	-8.64	-57.94	-58.15	2.63	12.14	V
	18036	-60.97	-40	-20.97	-72.1	-75.34	3.23	17.60	V
	21644	-61.68	-40	-21.68	-76.46	-76.81	3.41	18.54	V
	25251	-59.32	-40	-19.32	-77.34	-74.26	3.76	18.70	V



Highest	7325	-55.68	-40	-15.68	-54.38	-65.14	1.90	11.36	H
	10987	-49.35	-40	-9.35	-52.62	-57.66	2.20	10.51	H
	14649	-49.31	-40	-9.31	-58.37	-59.14	2.60	12.43	H
	18311	-62.36	-40	-22.36	-74.06	-76.72	3.24	17.60	H
	21974	-62.27	-40	-22.27	-77.71	-77.64	3.50	18.87	H
	25636	-58.78	-40	-18.78	-77.27	-73.95	3.85	19.03	H
									H
	7325	-55.72	-40	-15.72	-54.63	-65.18	1.90	11.36	V
	10987	-51.47	-40	-11.47	-54.64	-59.78	2.20	10.51	V
	14649	-48.46	-40	-8.46	-58.33	-58.29	2.60	12.43	V
	18311	-62.42	-40	-22.42	-73.86	-76.78	3.24	17.60	V
	21974	-62.71	-40	-22.71	-77.78	-78.08	3.50	18.87	V
	25636	-59.28	-40	-19.28	-77.5	-74.45	3.85	19.03	V
									V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.