



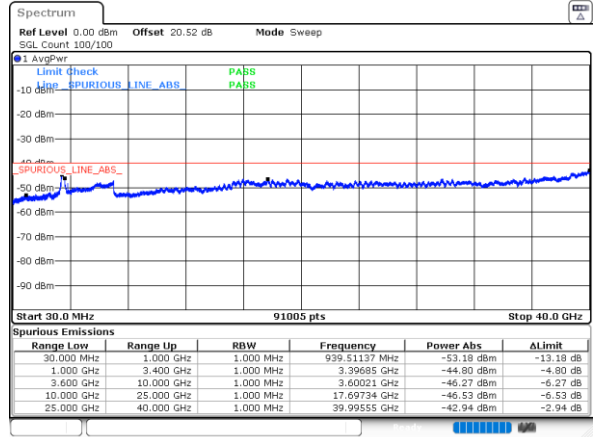
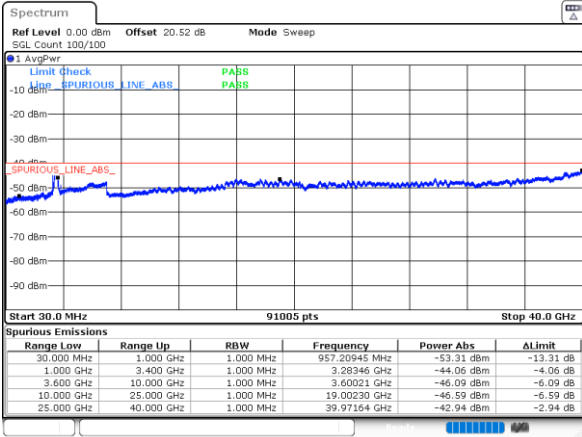
FR1 n78 / 80MHz / CP 64QAM

ANT3

ANT4

Lowest Band Edge / FULL RB

Lowest Band Edge / FULL RB

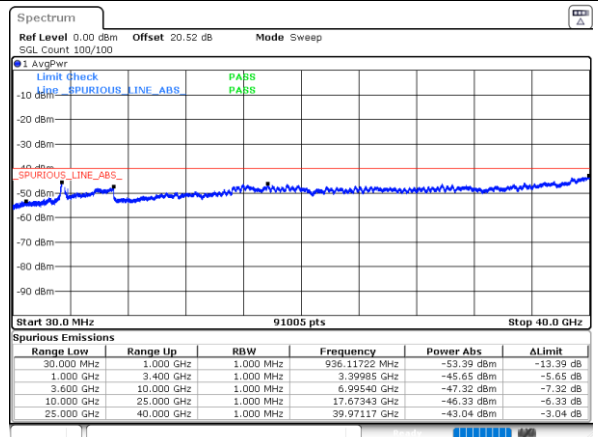
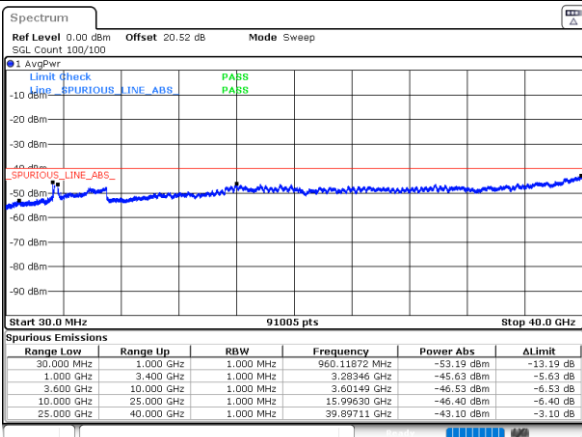


Date: 31.JAN.2024 01:32:07

Date: 31.JAN.2024 01:36:34

MIDDLE Band Edge / FULLRB

MIDDLE Band Edge / FULLRB

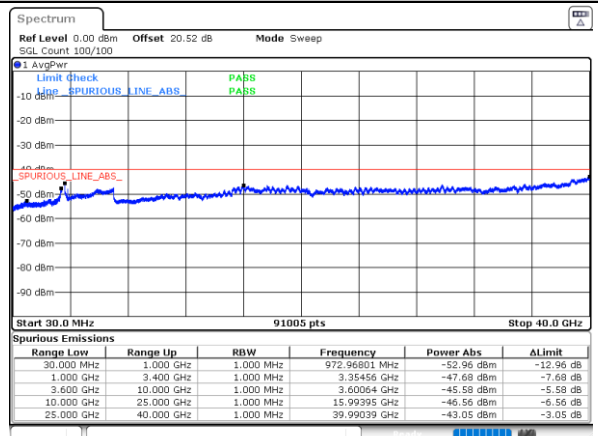
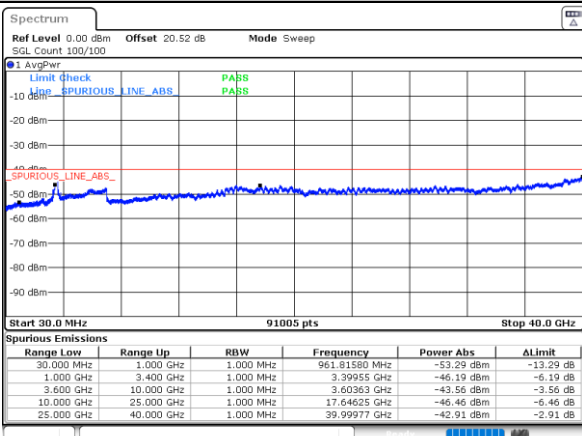


Date: 31.JAN.2024 01:50:53

Date: 31.JAN.2024 01:52:27

Highest Band Edge / Full RB

Highest Band Edge / Full RB



Date: 31.JAN.2024 02:07:16

Date: 31.JAN.2024 02:12:14



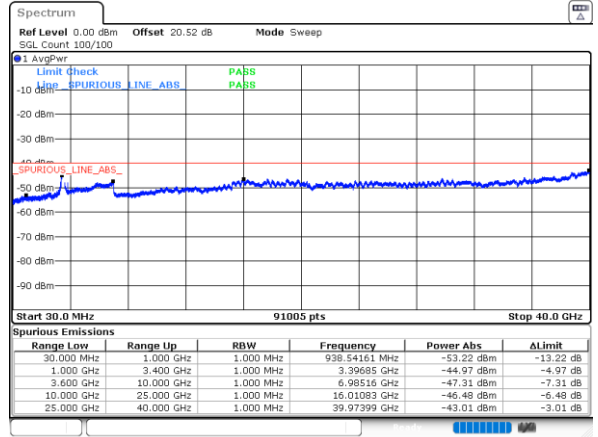
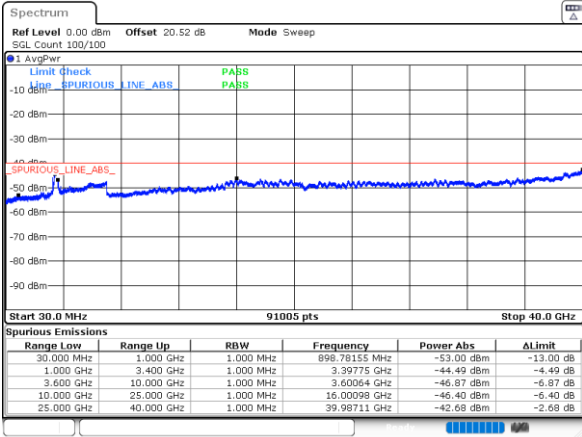
FR1 n78 / 80MHz / CP 256QAM

ANT3

ANT4

Lowest Band Edge / FULL RB

Lowest Band Edge / FULL RB

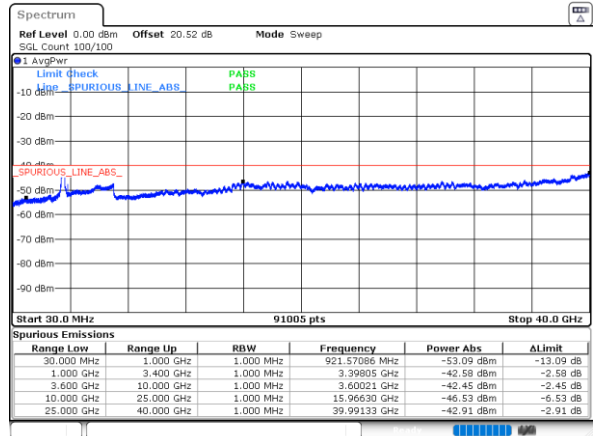
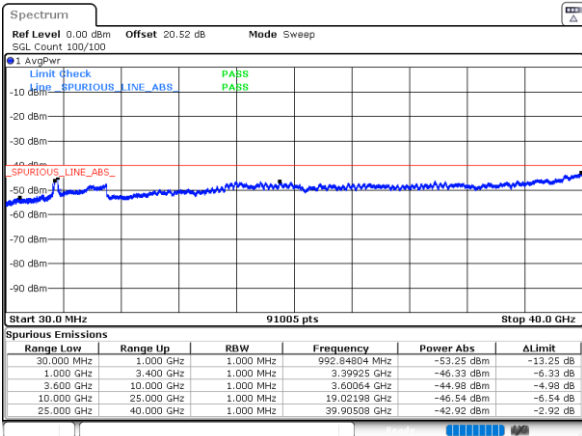


Date: 31.JAN.2024 01:46:21

Date: 31.JAN.2024 01:42:17

MIDDLE Band Edge / FULLRB

MIDDLE Band Edge / FULLRB

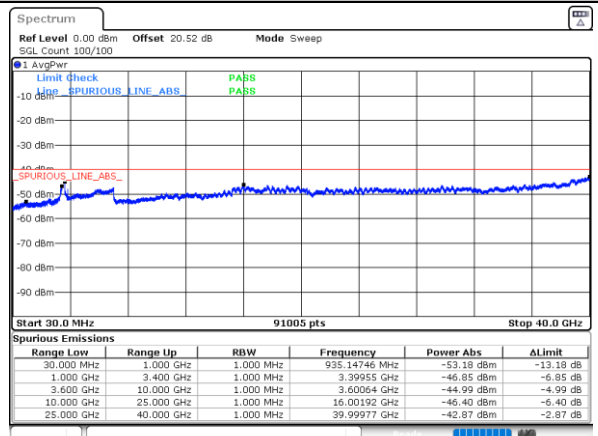
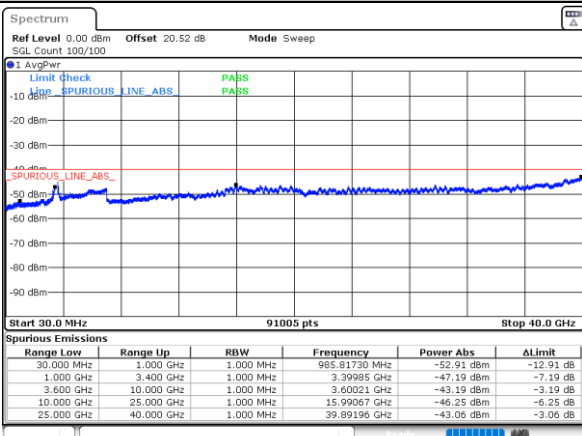


Date: 31.JAN.2024 01:59:40

Date: 31.JAN.2024 01:57:27

Highest Band Edge / Full RB

Highest Band Edge / Full RB



Date: 31.JAN.2024 02:39:02

Date: 31.JAN.2024 02:35:24



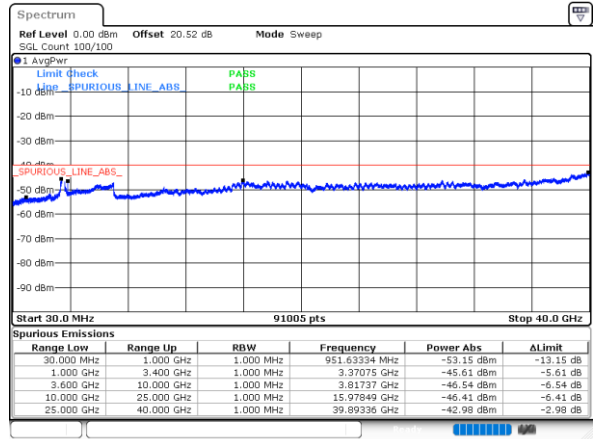
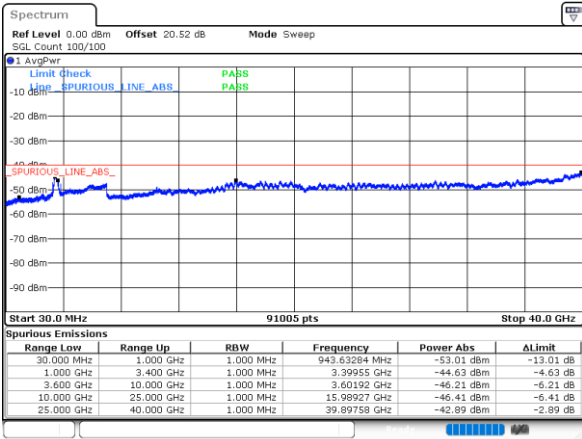
FR1 n78 / 90MHz / CP QPSK

ANT3

ANT4

Lowest Band Edge / FULL RB

Lowest Band Edge / FULL RB

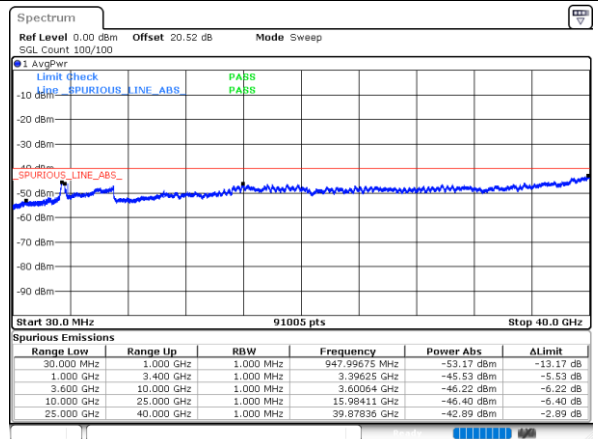
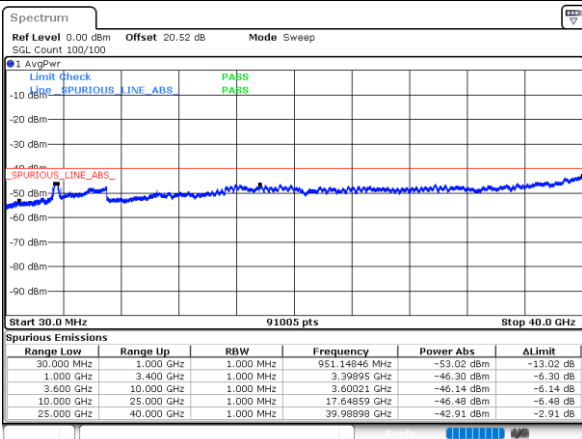


Date: 26, JAN, 2024 23:46:54

Date: 26, JAN, 2024 23:54:44

MIDDLE Band Edge / FULLRB

MIDDLE Band Edge / FULLRB

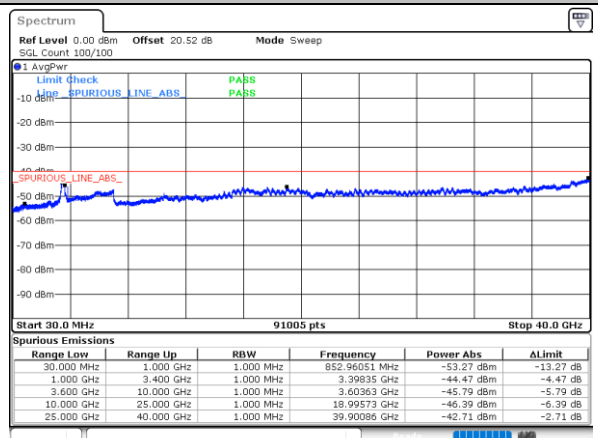
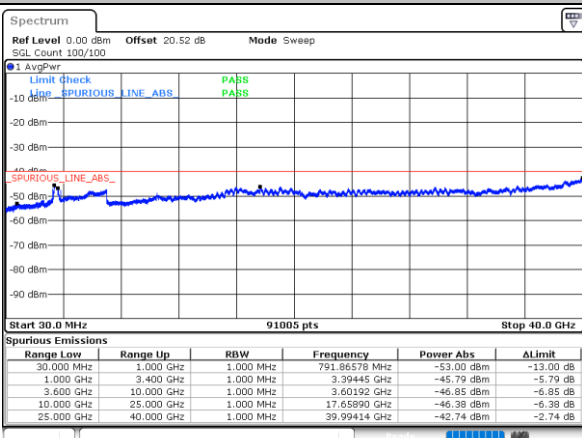


Date: 26, JAN, 2024 23:59:42

Date: 26, JAN, 2024 23:57:13

Highest Band Edge / Full RB

Highest Band Edge / Full RB



Date: 27, JAN, 2024 00:05:30

Date: 27, JAN, 2024 00:14:00



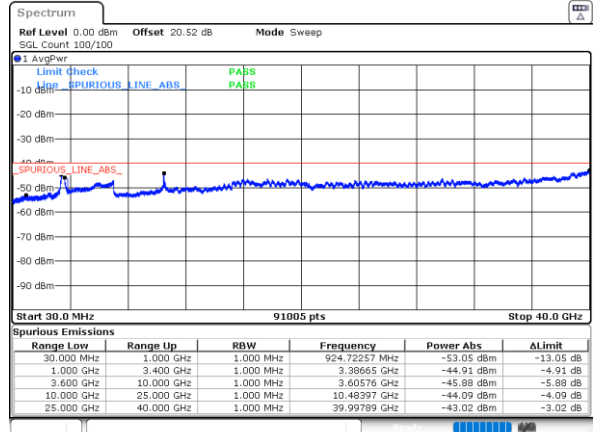
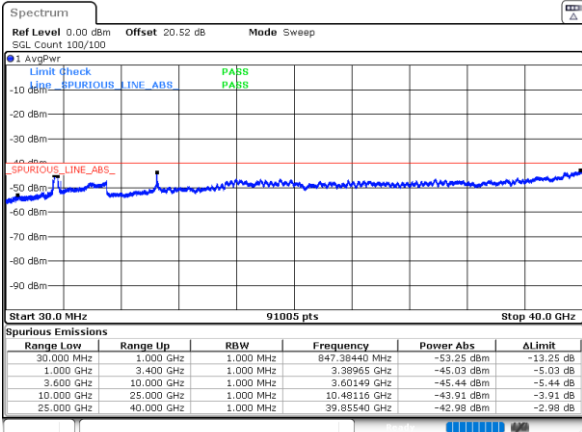
FR1 n78 / 90MHz / CP 16QAM

ANT3

ANT4

Lowest Band Edge / FULL RB

Lowest Band Edge / FULL RB

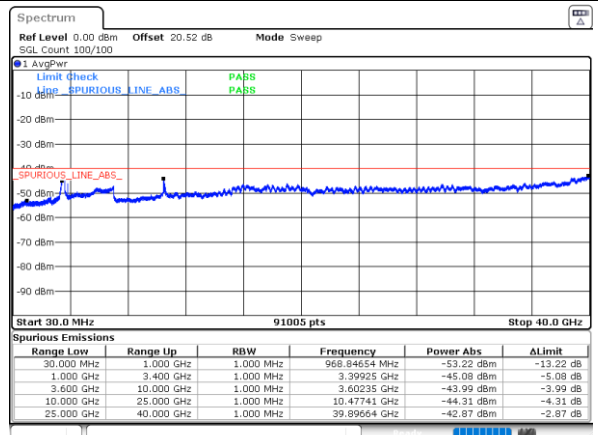
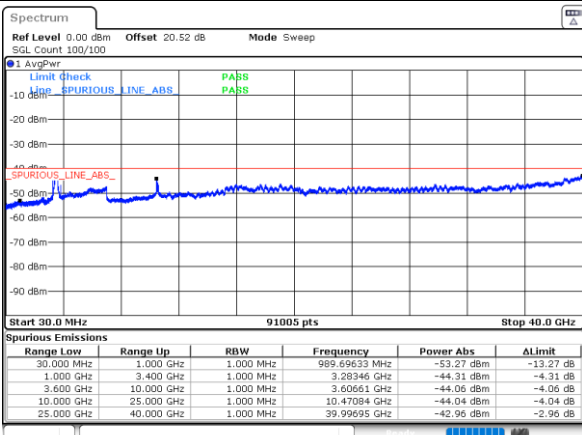


Date: 30, JAN, 2024 03:37:17

Date: 30, JAN, 2024 03:41:28

MIDDLE Band Edge / FULLRB

MIDDLE Band Edge / FULLRB

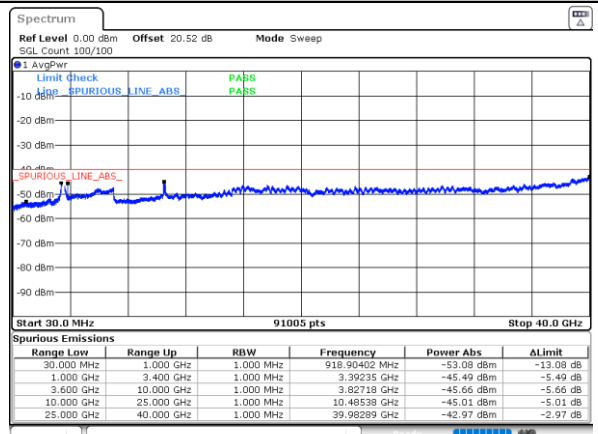
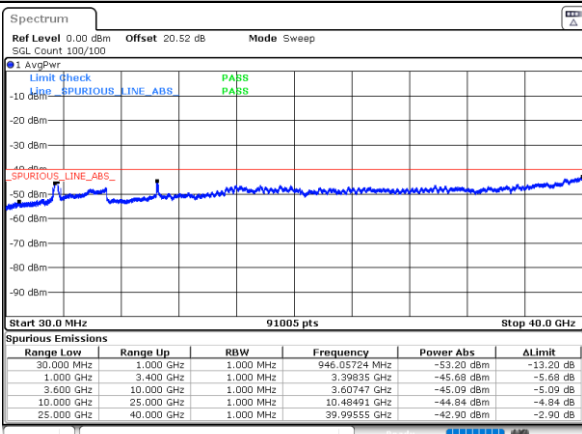


Date: 30, JAN, 2024 03:53:34

Date: 30, JAN, 2024 03:48:53

Highest Band Edge / Full RB

Highest Band Edge / Full RB



Date: 30, JAN, 2024 04:01:22

Date: 30, JAN, 2024 04:05:42



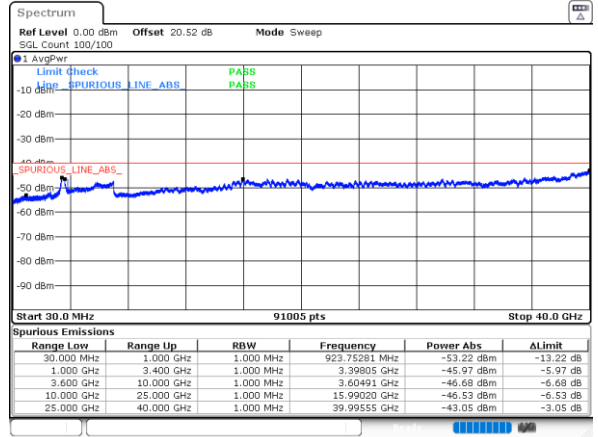
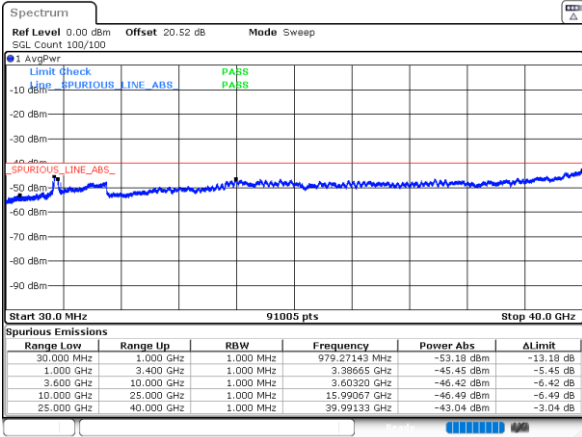
FR1 n78 / 90MHz / CP 64QAM

ANT3

ANT4

Lowest Band Edge / FULL RB

Lowest Band Edge / FULL RB

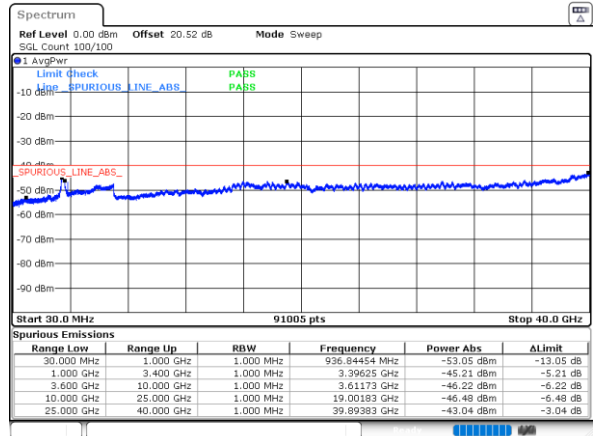
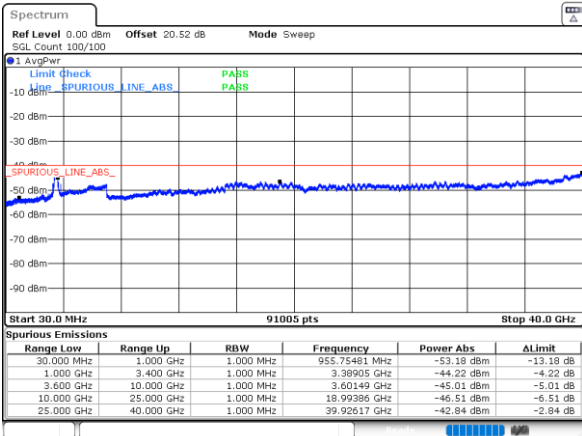


Date: 31.JAN.2024 02:44:58

Date: 31.JAN.2024 02:49:26

MIDDLE Band Edge / FULLRB

MIDDLE Band Edge / FULLRB

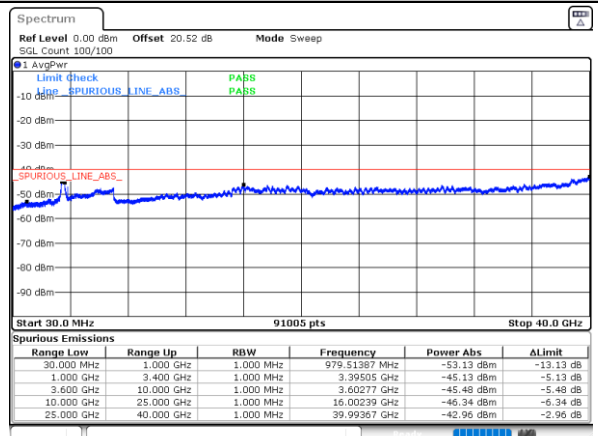
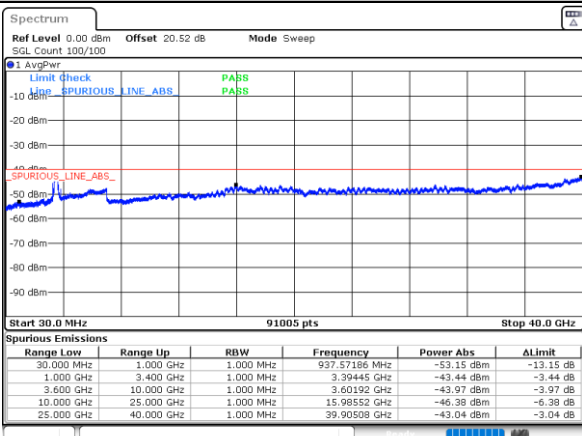


Date: 31.JAN.2024 03:10:25

Date: 31.JAN.2024 03:11:55

Highest Band Edge / Full RB

Highest Band Edge / Full RB



Date: 31.JAN.2024 03:27:22

Date: 31.JAN.2024 03:31:59



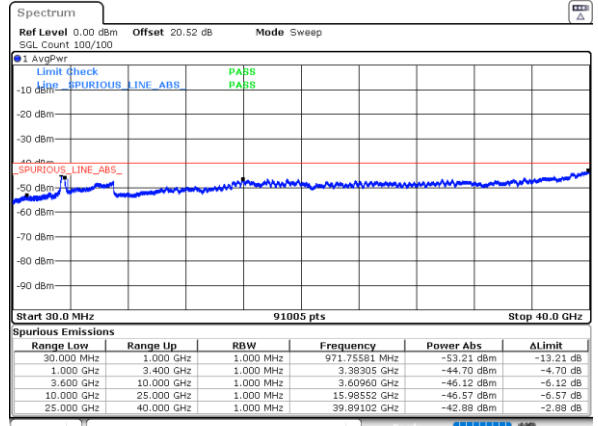
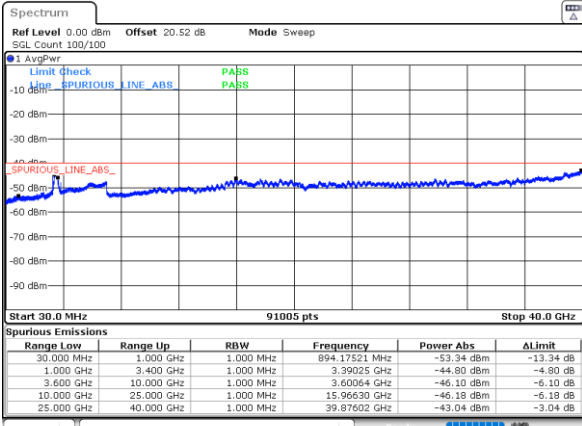
FR1 n78 / 90MHz / CP 256QAM

ANT3

ANT4

Lowest Band Edge / FULL RB

Lowest Band Edge / FULL RB

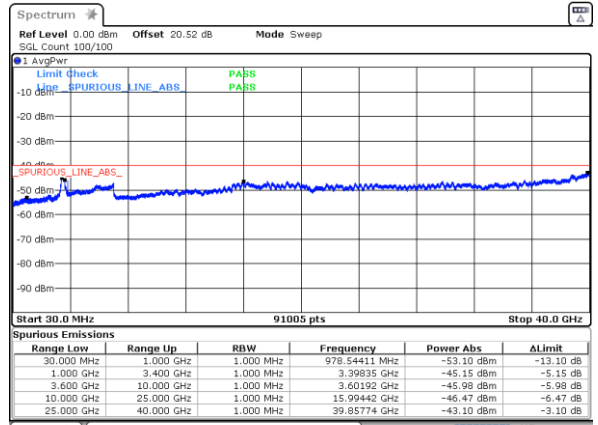
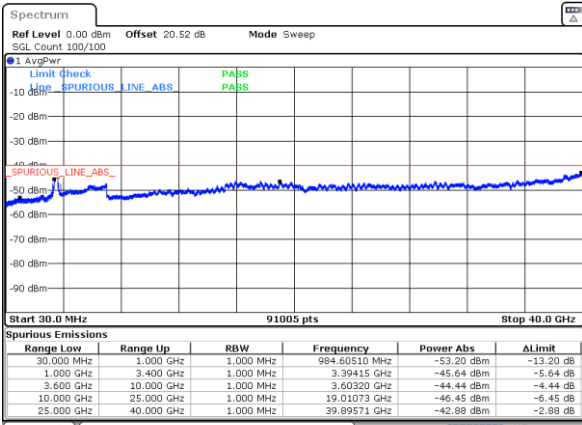


Date: 31.JAN.2024 03:04:54

Date: 31.JAN.2024 02:57:03

MIDDLE Band Edge / FULLRB

MIDDLE Band Edge / FULLRB

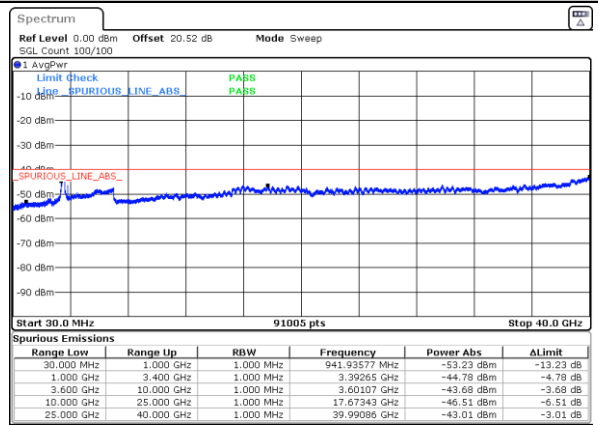
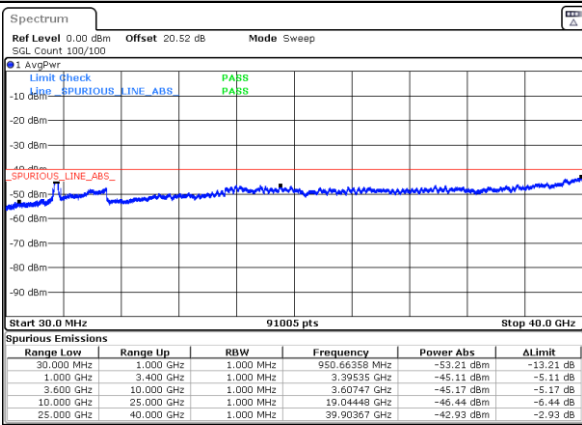


Date: 31.JAN.2024 03:19:18

Date: 31.JAN.2024 03:17:35

Highest Band Edge / Full RB

Highest Band Edge / Full RB



Date: 31.JAN.2024 03:40:52

Date: 31.JAN.2024 03:37:47



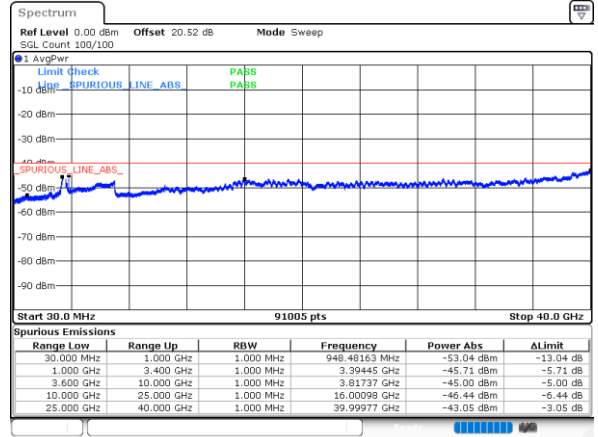
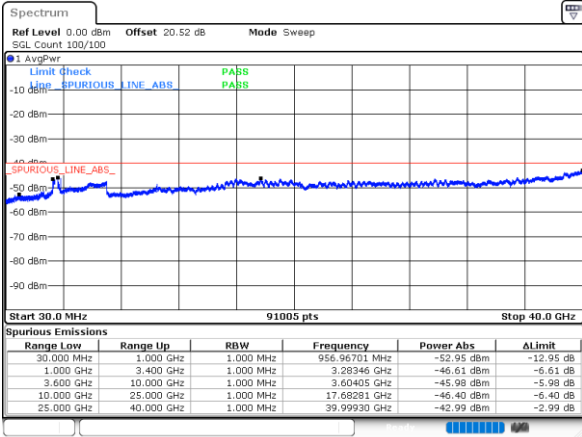
FR1 n78 / 100MHz / CP QPSK

ANT3

ANT4

MIDDLE Band Edge / FULLRB

MIDDLE Band Edge / FULLRB



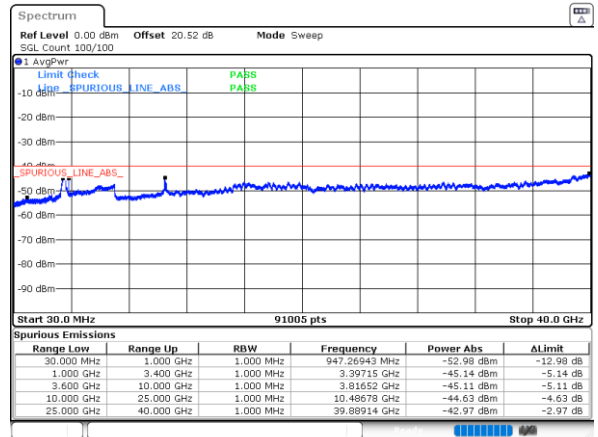
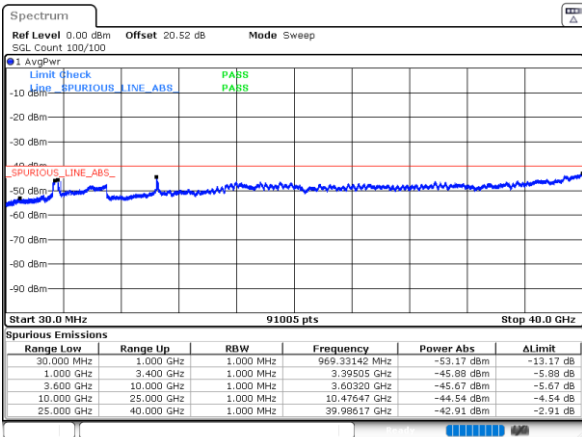
FR1 n78 / 100MHz / CP 16QAM

ANT3

ANT4

MIDDLE Band Edge / FULLRB

MIDDLE Band Edge / FULLRB





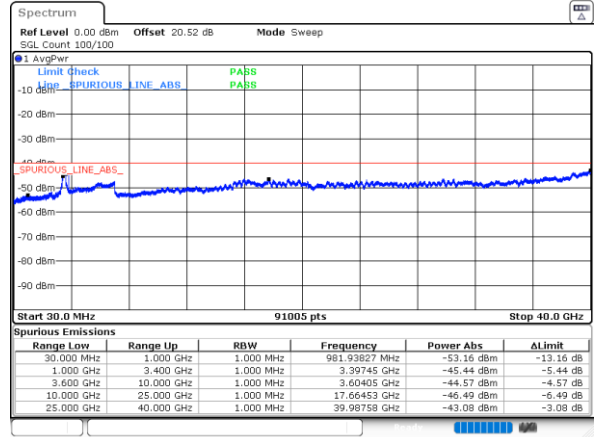
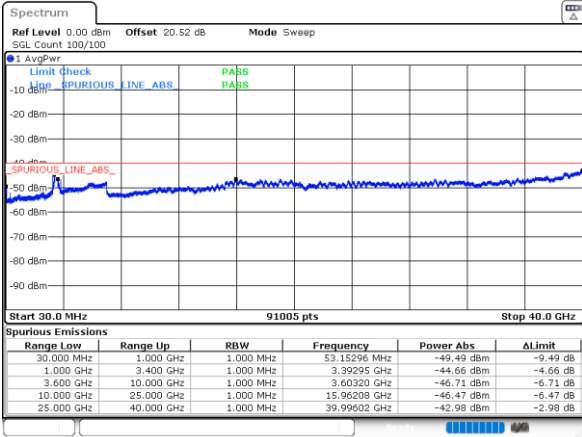
FR1 n78 / 100MHz / CP 64QAM

ANT3

ANT4

MIDDLE Band Edge / FULLRB

MIDDLE Band Edge / FULLRB



Date: 31.JAN.2024 03:52:10

Date: 31.JAN.2024 03:53:45

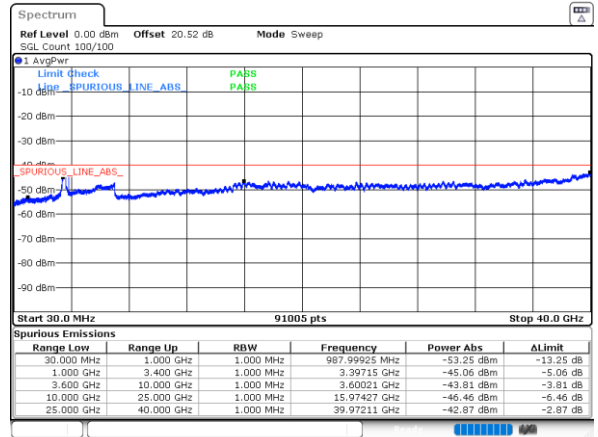
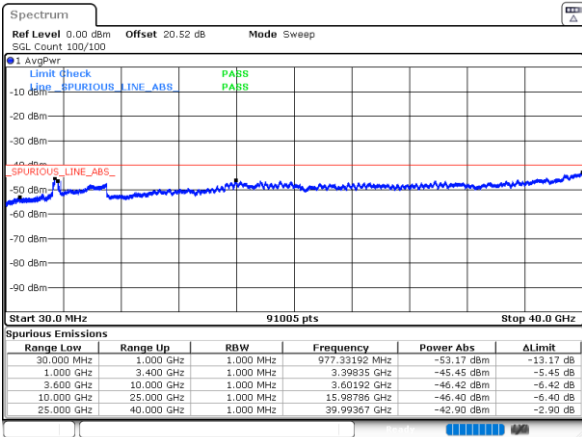
FR1 n78 / 100MHz / CP 256QAM

ANT3

ANT4

MIDDLE Band Edge / FULLRB

MIDDLE Band Edge / FULLRB



Date: 31.JAN.2024 04:13:18

Date: 31.JAN.2024 04:10:28



Frequency Stability

Test Conditions		LTE Band 78(QPSK) / ANT3	
Temperature (°C)	Voltage (Volt)	BW 20MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0002	PASS
40	Normal Voltage	0.0025	
30	Normal Voltage	0.0097	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0009	
0	Normal Voltage	0.0008	
-10	Normal Voltage	0.0003	
-20	Normal Voltage	0.0013	
-30	Normal Voltage	0.0010	
20	Maximum Voltage	0.0019	
20	Normal Voltage	0.0015	
20	Minimum Voltage	0.0011	



Test Conditions		LTE Band 78(QPSK) / ANT4	
Temperature (°C)	Voltage (Volt)	BW 20MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0012	PASS
40	Normal Voltage	0.0083	
30	Normal Voltage	0.0002	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0024	
0	Normal Voltage	0.0034	
-10	Normal Voltage	0.0039	
-20	Normal Voltage	0.0078	
-30	Normal Voltage	0.0020	
20	Maximum Voltage	0.0002	
20	Normal Voltage	0.0004	
20	Minimum Voltage	0.0080	

Note:

1. Normal Voltage =12 V. ; Minimum Voltage =11.4 V. ; Maximum Voltage =12.6 V.
2. The frequency fundamental emissions stay within the authorized frequency block.



Appendix B. Test Results of Radiated Test

Radiated Spurious Emission

Test Engineer :	Carl Ni	Temperature :	23~25°C
		Relative Humidity :	41~42%

<SA mode-UL_MIMO Ant.3+4>

SA n78 / NR 100MHz / QPSK - UL_MIMO - External Antenna with Adapter mode								
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	7002	-38.55	-13	-25.55	-48.76	3.03	13.24	H
	10500	-37.13	-13	-24.13	-46.58	3.56	13.01	H
	13998	-42.10	-13	-29.10	-51.62	3.92	13.44	H
	17502	-41.94	-13	-28.94	-51.08	4.51	13.65	H
	7002	-35.29	-13	-22.29	-45.50	3.03	13.24	V
	10500	-31.96	-13	-18.96	-41.41	3.56	13.01	V
	13998	-39.44	-13	-26.44	-48.96	3.92	13.44	V
	17502	-38.13	-13	-25.13	-47.27	4.51	13.65	V

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

SA n78 / NR 100MHz / QPSK - UL_MIMO - Internal Antenna with Adapter mode								
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	6996	-37.71	-13	-24.71	-47.92	3.03	13.24	H
	10500	-32.75	-13	-19.75	-42.20	3.56	13.01	H
	14004	-44.82	-13	-31.82	-54.34	3.92	13.44	H
	17496	-39.84	-13	-26.84	-48.98	4.51	13.65	H
	6996	-35.16	-13	-22.16	-45.37	3.03	13.24	V
	10500	-30.44	-13	-17.44	-39.89	3.56	13.01	V
	14004	-39.18	-13	-26.18	-48.70	3.92	13.44	V
	17496	-39.85	-13	-26.85	-48.99	4.51	13.65	V

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



<NSA mode-UL_MIMO, LTE MIMO Ant.1+2 with 5GNR MIMO Ant.3+4 transmit simultaneously>

LTE B4 + 5G NR n78 / LTE 10MHz + NR 100MHz / QPSK - UL_MIMO - External Antenna with Adapter mode								
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	7002	-37.34	-13	-24.34	-47.55	3.03	13.24	H
	10500	-34.16	-13	-21.16	-43.61	3.56	13.01	H
	13998	-43.50	-13	-30.50	-53.02	3.92	13.44	H
	17502	-38.70	-13	-25.70	-47.84	4.51	13.65	H
	7002	-30.64	-13	-17.64	-40.85	3.03	13.24	V
	10500	-28.13	-13	-15.13	-37.58	3.56	13.01	V
	13998	-36.89	-13	-23.89	-46.41	3.92	13.44	V
	17502	-35.92	-13	-22.92	-45.06	4.51	13.65	V

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

LTE B4 + 5G NR n78 / LTE 10MHz + NR 100MHz / QPSK - UL_MIMO - Internal Antenna with Adapter mode								
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	7002	-37.11	-13	-24.11	-47.32	3.03	13.24	H
	10500	-32.63	-13	-19.63	-42.08	3.56	13.01	H
	13998	-41.76	-13	-28.76	-51.28	3.92	13.44	H
	17502	-38.21	-13	-25.21	-47.35	4.51	13.65	H
	7002	-31.90	-13	-18.90	-42.11	3.03	13.24	V
	10500	-27.81	-13	-14.81	-37.26	3.56	13.01	V
	13998	-37.38	-13	-24.38	-46.90	3.92	13.44	V
	17502	-35.57	-13	-22.57	-44.71	4.51	13.65	V

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



LTE B66 + 5G NR n78 / LTE 10MHz + NR 100MHz / QPSK - UL_MIMO - External Antenna with Adapter mode								
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	7002	-37.43	-13	-24.43	-47.64	3.03	13.24	H
	10500	-33.79	-13	-20.79	-43.24	3.56	13.01	H
	13998	-43.19	-13	-30.19	-52.71	3.92	13.44	H
	17502	-38.89	-13	-25.89	-48.03	4.51	13.65	H
	7002	-32.15	-13	-19.15	-42.36	3.03	13.24	V
	10500	-29.37	-13	-16.37	-38.82	3.56	13.01	V
	13998	-35.61	-13	-22.61	-45.13	3.92	13.44	V
	17502	-36.36	-13	-23.36	-45.50	4.51	13.65	V

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

LTE B66 + 5G NR n78 / LTE 10MHz + NR 100MHz / QPSK - UL_MIMO - Internal Antenna with Adapter mode								
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	7002	-37.18	-13	-24.18	-47.39	3.03	13.24	H
	10500	-30.78	-13	-17.78	-40.23	3.56	13.01	H
	13998	-41.84	-13	-28.84	-51.36	3.92	13.44	H
	17502	-41.33	-13	-28.33	-50.47	4.51	13.65	H
	7002	-32.60	-13	-19.60	-42.81	3.03	13.24	V
	10500	-27.52	-13	-14.52	-36.97	3.56	13.01	V
	13998	-37.60	-13	-24.60	-47.12	3.92	13.44	V
	17502	-39.79	-13	-26.79	-48.93	4.51	13.65	V

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

LTE B66 + 5G NR n78 / LTE 10MHz + NR 100MHz / QPSK - UL_MIMO - Internal Antenna with POE mode								
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	6996	-39.65	-13	-26.65	-49.86	3.03	13.24	H
	10500	-33.51	-13	-20.51	-42.96	3.56	13.01	H
	14004	-48.79	-13	-35.79	-58.31	3.92	13.44	H
	17496	-37.74	-13	-24.74	-46.88	4.51	13.65	H
	6996	-34.66	-13	-21.66	-44.87	3.03	13.24	V
	10500	-28.96	-13	-15.96	-38.41	3.56	13.01	V
	14004	-44.35	-13	-31.35	-53.87	3.92	13.44	V
	17496	-38.09	-13	-25.09	-47.23	4.51	13.65	V

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