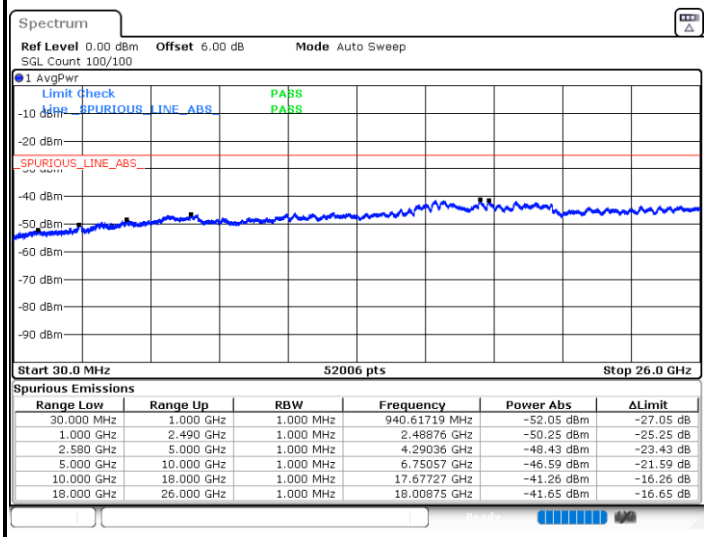
LTE Band 7 / 10MHz

Lowest Channel / QPSK

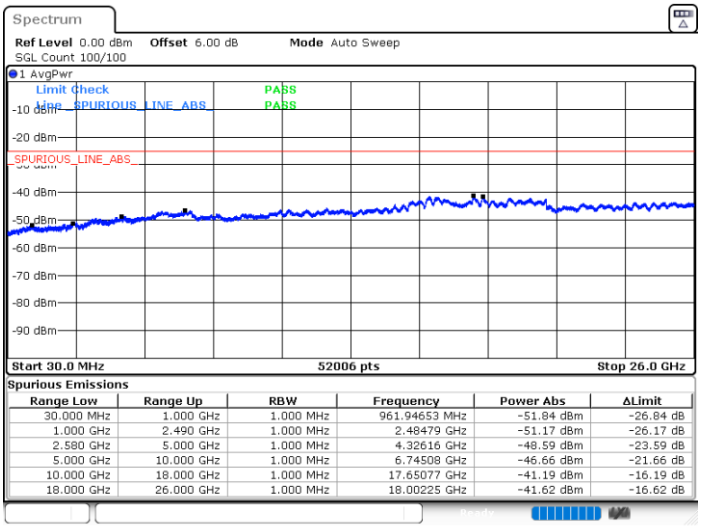


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	940.61719 MHz	-52.05 dBm	-27.05 dB
1.000 GHz	2.490 GHz	1.000 MHz	2.48876 GHz	-50.25 dBm	-25.25 dB
2.580 GHz	5.000 GHz	1.000 MHz	4.29036 GHz	-48.43 dBm	-23.43 dB
5.000 GHz	10.000 GHz	1.000 MHz	6.75057 GHz	-46.59 dBm	-21.59 dB
10.000 GHz	18.000 GHz	1.000 MHz	17.67727 GHz	-41.26 dBm	-16.26 dB
18.000 GHz	26.000 GHz	1.000 MHz	18.00875 GHz	-41.65 dBm	-16.65 dB

Date: 13.MAY.2022 07:03:31

Middle Channel / QPSK

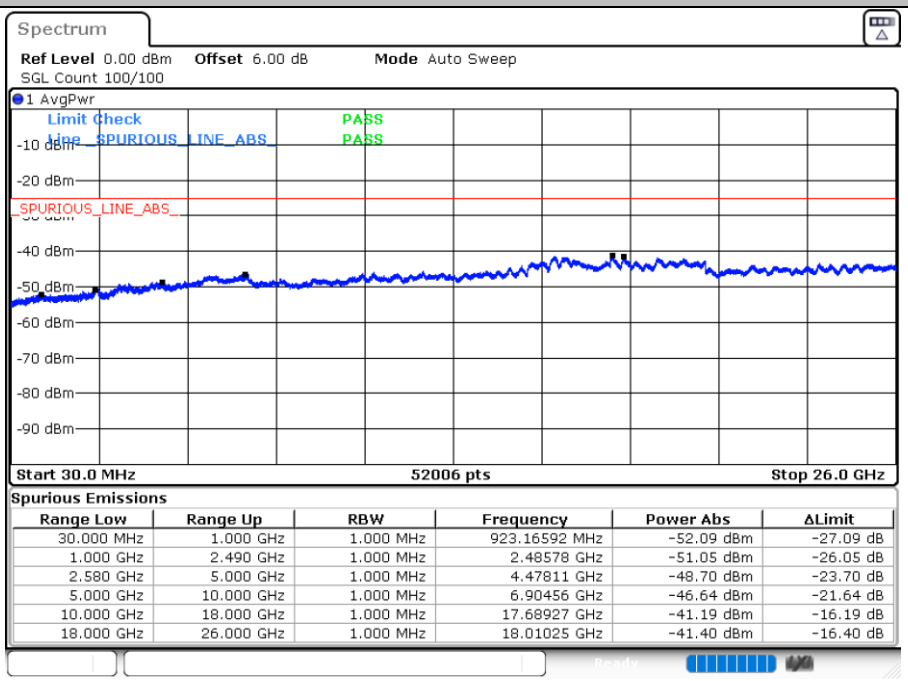


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	961.94653 MHz	-51.84 dBm	-26.84 dB
1.000 GHz	2.490 GHz	1.000 MHz	2.48479 GHz	-51.17 dBm	-26.17 dB
2.580 GHz	5.000 GHz	1.000 MHz	4.32616 GHz	-48.59 dBm	-23.59 dB
5.000 GHz	10.000 GHz	1.000 MHz	6.74508 GHz	-46.66 dBm	-21.66 dB
10.000 GHz	18.000 GHz	1.000 MHz	17.65077 GHz	-41.19 dBm	-16.19 dB
18.000 GHz	26.000 GHz	1.000 MHz	18.00225 GHz	-41.62 dBm	-16.62 dB

Date: 13.MAY.2022 07:13:34

Highest Channel / QPSK



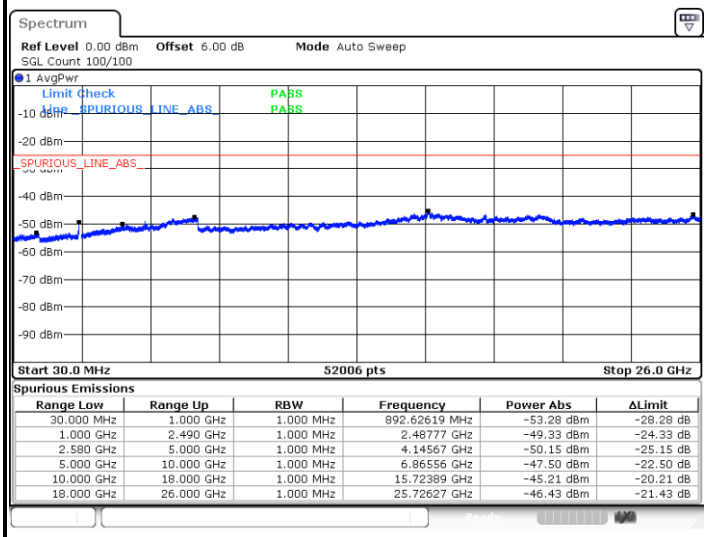
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	923.16592 MHz	-52.09 dBm	-27.09 dB
1.000 GHz	2.490 GHz	1.000 MHz	2.48578 GHz	-51.05 dBm	-26.05 dB
2.580 GHz	5.000 GHz	1.000 MHz	4.47811 GHz	-48.70 dBm	-23.70 dB
5.000 GHz	10.000 GHz	1.000 MHz	6.90456 GHz	-46.64 dBm	-21.64 dB
10.000 GHz	18.000 GHz	1.000 MHz	17.68927 GHz	-41.19 dBm	-16.19 dB
18.000 GHz	26.000 GHz	1.000 MHz	18.01025 GHz	-41.40 dBm	-16.40 dB

Date: 13.MAY.2022 07:15:12

LTE Band 7 / 15MHz

Lowest Channel / QPSK

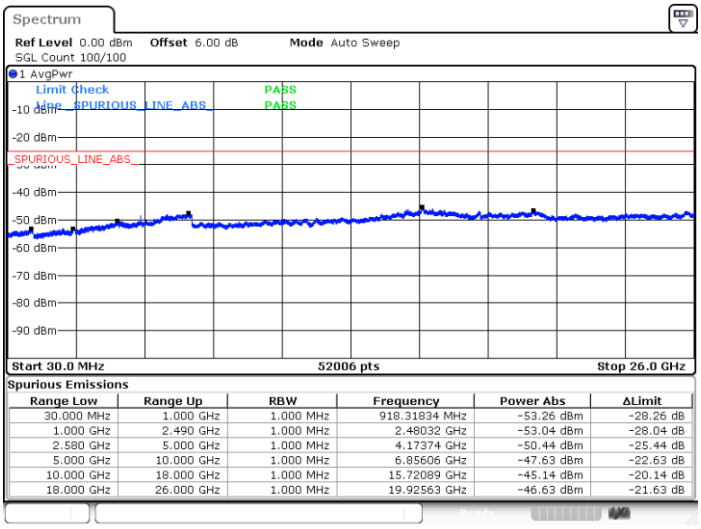


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	892.62619 MHz	-53.28 dBm	-28.28 dB
1.000 GHz	2.490 GHz	1.000 MHz	2.48777 GHz	-49.33 dBm	-24.33 dB
2.580 GHz	5.000 GHz	1.000 MHz	4.14567 GHz	-50.15 dBm	-25.15 dB
5.000 GHz	10.000 GHz	1.000 MHz	6.86556 GHz	-47.50 dBm	-22.50 dB
10.000 GHz	18.000 GHz	1.000 MHz	15.72389 GHz	-45.21 dBm	-20.21 dB
18.000 GHz	26.000 GHz	1.000 MHz	25.72627 GHz	-46.43 dBm	-21.43 dB

Date: 17.MAY.2022 20:29:14

Middle Channel / QPSK

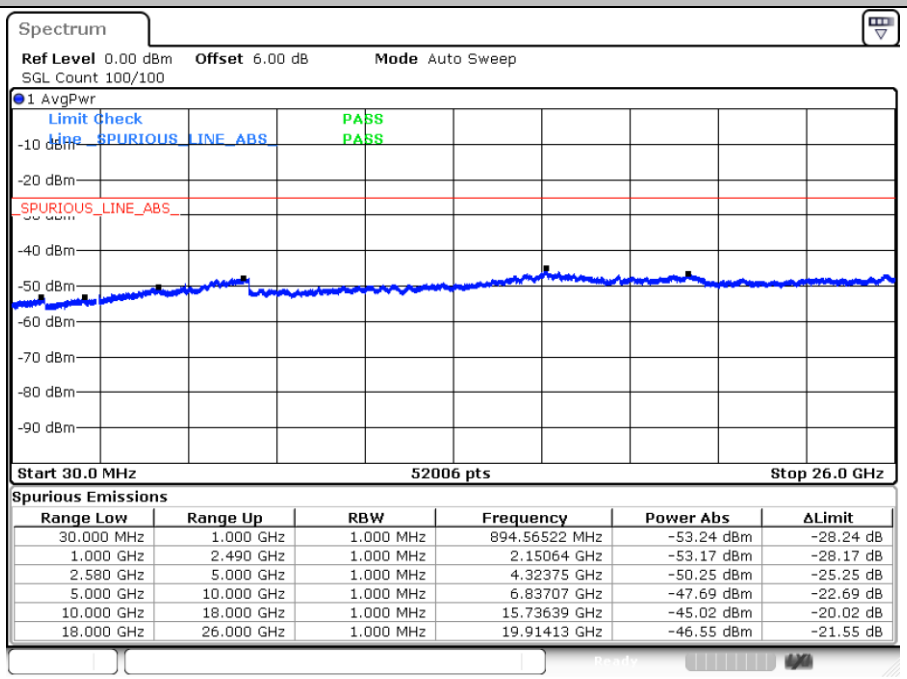


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	918.31834 MHz	-53.26 dBm	-28.26 dB
1.000 GHz	2.490 GHz	1.000 MHz	2.48032 GHz	-53.04 dBm	-28.04 dB
2.580 GHz	5.000 GHz	1.000 MHz	4.17374 GHz	-50.44 dBm	-25.44 dB
5.000 GHz	10.000 GHz	1.000 MHz	6.85606 GHz	-47.63 dBm	-22.63 dB
10.000 GHz	18.000 GHz	1.000 MHz	15.72089 GHz	-45.14 dBm	-20.14 dB
18.000 GHz	26.000 GHz	1.000 MHz	19.92563 GHz	-46.63 dBm	-21.63 dB

Date: 17.MAY.2022 20:27:39

Highest Channel / QPSK



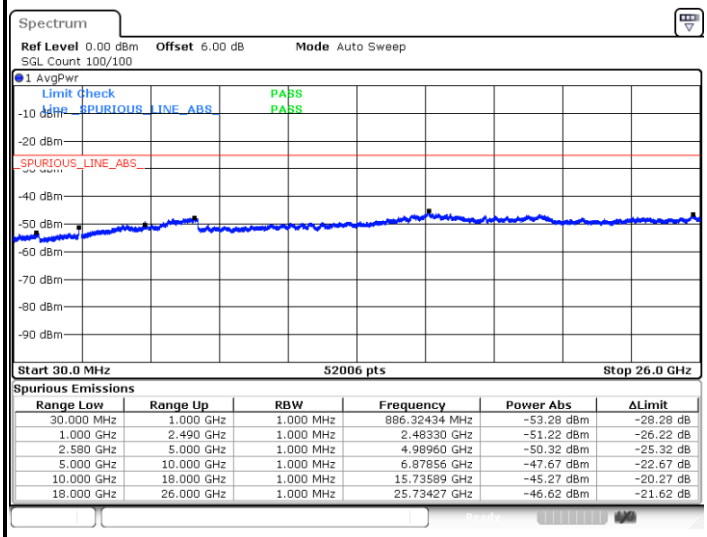
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	894.56522 MHz	-53.24 dBm	-28.24 dB
1.000 GHz	2.490 GHz	1.000 MHz	2.15064 GHz	-53.17 dBm	-28.17 dB
2.580 GHz	5.000 GHz	1.000 MHz	4.32375 GHz	-50.25 dBm	-25.25 dB
5.000 GHz	10.000 GHz	1.000 MHz	6.83707 GHz	-47.69 dBm	-22.69 dB
10.000 GHz	18.000 GHz	1.000 MHz	15.73639 GHz	-45.02 dBm	-20.02 dB
18.000 GHz	26.000 GHz	1.000 MHz	19.91413 GHz	-46.55 dBm	-21.55 dB

Date: 17.MAY.2022 20:30:44

LTE Band 7 / 20MHz

Lowest Channel / QPSK

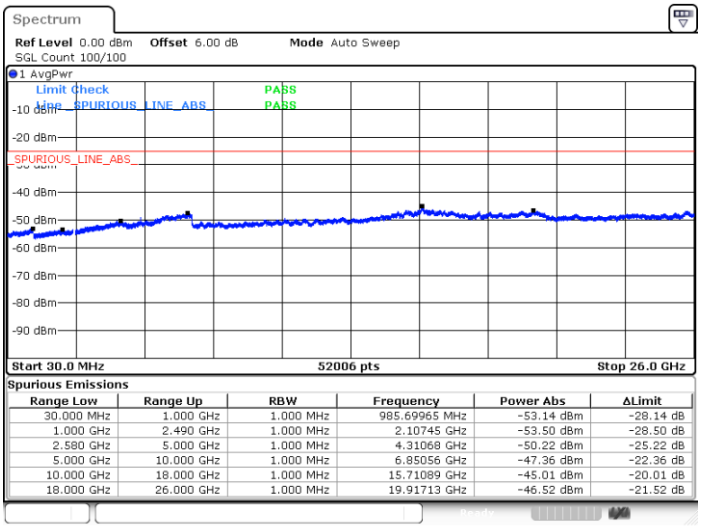


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	886.32434 MHz	-53.28 dBm	-28.28 dB
1.000 GHz	2.490 GHz	1.000 MHz	2.48330 GHz	-51.22 dBm	-26.22 dB
2.580 GHz	5.000 GHz	1.000 MHz	4.98960 GHz	-50.32 dBm	-25.32 dB
5.000 GHz	10.000 GHz	1.000 MHz	6.87856 GHz	-47.67 dBm	-22.67 dB
10.000 GHz	18.000 GHz	1.000 MHz	15.73589 GHz	-45.27 dBm	-20.27 dB
18.000 GHz	26.000 GHz	1.000 MHz	25.73427 GHz	-46.62 dBm	-21.62 dB

Date: 17.MAY.2022 20:32:29

Middle Channel / QPSK

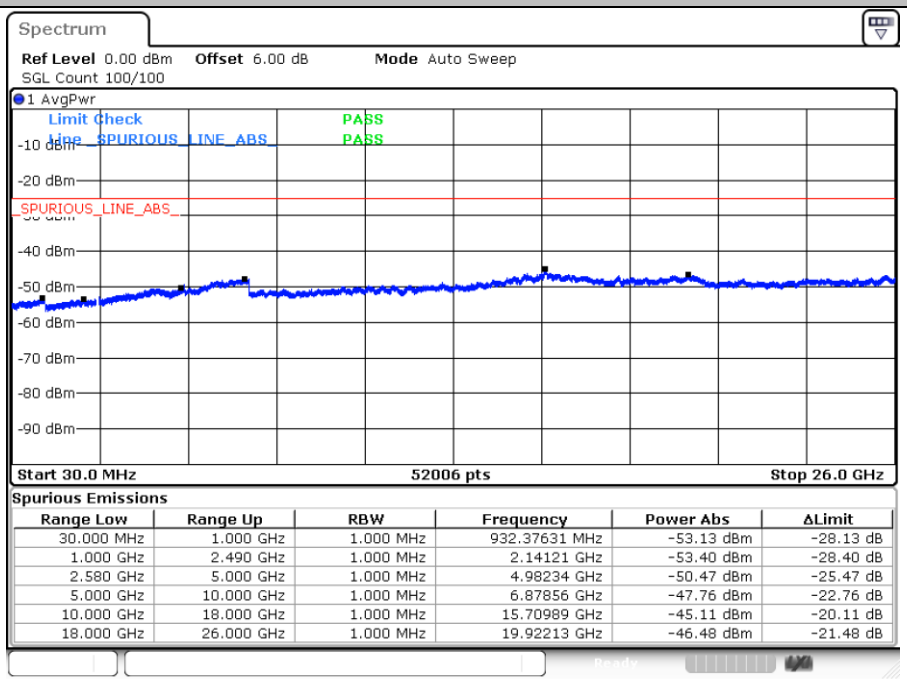


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	985.69965 MHz	-53.14 dBm	-28.14 dB
1.000 GHz	2.490 GHz	1.000 MHz	2.10745 GHz	-53.50 dBm	-28.50 dB
2.580 GHz	5.000 GHz	1.000 MHz	4.31068 GHz	-50.22 dBm	-25.22 dB
5.000 GHz	10.000 GHz	1.000 MHz	6.85056 GHz	-47.36 dBm	-22.36 dB
10.000 GHz	18.000 GHz	1.000 MHz	15.71089 GHz	-45.01 dBm	-20.01 dB
18.000 GHz	26.000 GHz	1.000 MHz	19.91713 GHz	-46.52 dBm	-21.52 dB

Date: 17.MAY.2022 20:48:03

Highest Channel / QPSK



Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	932.37631 MHz	-53.13 dBm	-28.13 dB
1.000 GHz	2.490 GHz	1.000 MHz	2.14121 GHz	-53.40 dBm	-28.40 dB
2.580 GHz	5.000 GHz	1.000 MHz	4.98234 GHz	-50.47 dBm	-25.47 dB
5.000 GHz	10.000 GHz	1.000 MHz	6.87856 GHz	-47.76 dBm	-22.76 dB
10.000 GHz	18.000 GHz	1.000 MHz	15.70989 GHz	-45.11 dBm	-20.11 dB
18.000 GHz	26.000 GHz	1.000 MHz	19.92213 GHz	-46.48 dBm	-21.48 dB

Date: 17.MAY.2022 20:51:48

Frequency Stability

Test Conditions		LTE Band 7 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0072	PASS
40	Normal Voltage	0.0033	
30	Normal Voltage	0.0056	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0089	
0	Normal Voltage	0.0125	
-10	Normal Voltage	0.0116	
-20	Normal Voltage	0.0138	
-30	Normal Voltage	0.0076	
20	Maximum Voltage	0.0053	
20	Normal Voltage	0.0024	
20	Battery End Point	0.0067	

Note:

1. Normal Voltage =3.89 V. ; Battery End Point (BEP) =3.6 V. ; Maximum Voltage =4.48 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.

Appendix B. Test Results of Radiated Test

Radiated Spurious Emission

Test Engineer :	Zhaohui Liang	Temperature :	22~25℃
		Relative Humidity :	48~52%

LTE Band 7 / 20MHz / QPSK									
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	5002.18	-58.86	-25	-33.86	-81.61	-64.42	7.12	12.68	H
	7503.27	-55.70	-25	-30.70	-82.04	-59.03	8.26	11.59	H
	10004.36	-53.72	-25	-28.72	-83.75	-55.25	10.45	11.98	H
	5002.18	-57.41	-25	-32.41	-81.84	-62.97	7.12	12.68	V
	7503.27	-55.82	-25	-30.82	-82.15	-59.15	8.26	11.59	V
	10004.36	-53.24	-25	-28.24	-83.91	-54.77	10.45	11.98	V
Middle	5052.18	-58.07	-25	-33.07	-81.17	-63.63	7.14	12.70	H
	7578.27	-55.99	-25	-30.99	-82.07	-59.29	8.30	11.60	H
	10104.36	-52.92	-25	-27.92	-83.12	-54.44	10.48	12.00	H
	5052.18	-56.89	-25	-31.89	-81.32	-62.45	7.14	12.70	V
	7578.27	-55.68	-25	-30.68	-81.76	-58.98	8.30	11.60	V
	10104.36	-51.47	-25	-26.47	-82.65	-52.99	10.48	12.00	V
Highest	5102.18	-57.99	-25	-32.99	-81.44	-63.55	7.16	12.72	H
	7653.27	-55.88	-25	-30.88	-81.75	-59.18	8.33	11.63	H
	10204.36	-53.14	-25	-28.14	-83.50	-54.74	10.50	12.10	H
	5102.18	-57.24	-25	-32.24	-81.67	-62.80	7.16	12.72	V
	7653.27	-54.46	-25	-29.46	-81.36	-57.76	8.33	11.63	V
	10204.36	-52.02	-25	-27.02	-83.65	-53.62	10.50	12.10	V

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