

APPENDIX A – TEST DATA OF CONDUCTED EMISSION

LTE Band 7

1 RF Power Output

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)
QPSK	2502.5	20775	5	1	0	21.76
				1	24	21.64
				12	6	21.03
				25	0	21.00
	2535	21100		1	0	22.02
				1	24	21.96
				12	6	21.43
				25	0	21.30
	2567.5	21425		1	0	22.17
				1	24	22.19
				12	6	21.37
				25	0	21.28
16QAM	2502.5	20775	5	1	0	21.02
				1	24	20.92
				12	6	20.17
				25	0	20.19
	2535	21100		1	0	21.24
				1	24	21.23
				12	6	20.43
				25	0	20.41
	2567.5	21425		1	0	21.41
				1	24	21.34
				12	6	20.44
				25	0	20.45
64QAM	2502.5	20775	5	1	0	20.99
				1	24	20.96
				12	6	20.12
				25	0	19.99
	2535	21100		1	0	21.16
				1	24	21.13
				12	6	20.47
				25	0	20.39
	2567.5	21425		1	0	21.53
				1	24	21.41
				12	6	20.39
				25	0	20.42

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)
QPSK	2505	20800	10	1	0	21.73
				1	49	21.56
				24	12	21.09
				50	0	21.04
	2535	21100		1	0	22.00
				1	49	21.96
				24	12	21.37
				50	0	21.38
	2565	21400		1	0	22.20
				1	49	22.07
				24	12	21.36
				50	0	21.27
16QAM	2505	20800	10	1	0	21.03
				1	49	20.94
				24	12	20.08
				50	0	20.12
	2535	21100		1	0	21.32
				1	49	21.20
				24	12	20.41
				50	0	20.46
	2565	21400		1	0	21.54
				1	49	21.45
				24	12	20.44
				50	0	20.40
64QAM	2505	20800	10	1	0	20.93
				1	49	20.97
				24	12	20.04
				50	0	20.03
	2535	21100		1	0	21.24
				1	49	21.15
				24	12	20.49
				50	0	20.49
	2565	21400		1	0	21.55
				1	49	21.51
				24	12	20.33
				50	0	20.33

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)
QPSK	2507.5	20825	15	1	0	21.75
				1	74	21.64
				40	18	21.07
				75	0	21.10
	2535	21100		1	0	22.05
				1	74	21.96
				40	18	21.35
				75	0	21.31
	2562.5	21375		1	0	22.09
				1	74	22.17
				40	18	21.47
				75	0	21.31
16QAM	2507.5	20825	15	1	0	21.04
				1	74	20.92
				40	18	20.17
				75	0	20.19
	2535	21100		1	0	21.27
				1	74	21.32
				40	18	20.44
				75	0	20.51
	2562.5	21375		1	0	21.48
				1	74	21.42
				40	18	20.44
				75	0	20.45
64QAM	2507.5	20825	15	1	0	20.90
				1	74	20.92
				40	18	20.03
				75	0	20.07
	2535	21100		1	0	21.21
				1	74	21.14
				40	18	20.38
				75	0	20.38
	2562.5	21375		1	0	21.47
				1	74	21.42
				40	18	20.42
				75	0	20.42

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)
QPSK	2510	20850	20	1	0	21.77
				1	99	21.68
				50	25	21.12
				100	0	21.14
	2535	21100		1	0	22.06
				1	99	22.04
				50	25	21.48
				100	0	21.45
	2560	21350		1	0	22.24
				1	99	22.21
				50	25	21.49
				100	0	21.42
16QAM	2510	20850	20	1	0	21.07
				1	99	21.05
				50	25	20.19
				100	0	20.21
	2535	21100		1	0	21.36
				1	99	21.32
				50	25	20.54
				100	0	20.56
	2560	21350		1	0	21.54
				1	99	21.47
				50	25	20.56
				100	0	20.52
64QAM	2510	20850	20	1	0	21.04
				1	99	21.02
				50	25	20.17
				100	0	20.14
	2535	21100		1	0	21.27
				1	99	21.25
				50	25	20.52
				100	0	20.51
	2560	21350		1	0	21.58
				1	99	21.53
				50	25	20.48
				100	0	20.42

2 Occupied Bandwidth

Test result

Band	Carrier frequency (MHz)	Channel	BW (MHz)	RB Size	RB Offset	Bandwidth of 99% Power (MHz)					
						QPSK		16-QAM		64-QAM	
7	2502.5	20775	5	25	0	4.4968	Fig.1	4.5012	Fig.2	4.4943	Fig.3
	2535	21100		25	0	4.4951	Fig.4	4.4893	Fig.5	4.4988	Fig.6
	2567.5	21425		25	0	4.5012	Fig.7	4.4874	Fig.8	4.4943	Fig.9
	2505	20800	10	50	0	8.9869	Fig.10	8.9832	Fig.11	8.9642	Fig.12
	2535	21100		50	0	9.0094	Fig.13	9.0013	Fig.14	8.9545	Fig.15
	2565	21400		50	0	8.9742	Fig.16	8.9579	Fig.17	8.9475	Fig.18
	2507.5	20825	15	75	0	13.417	Fig.19	13.434	Fig.20	13.416	Fig.21
	2535	21100		75	0	13.440	Fig.22	13.467	Fig.23	13.433	Fig.24
	2562.5	21375		75	0	13.418	Fig.25	13.453	Fig.26	13.431	Fig.27
	2510	20850	20	100	0	17.882	Fig.28	17.868	Fig.29	17.856	Fig.30
	2535	21100		100	0	17.871	Fig.31	17.878	Fig.32	17.919	Fig.33
	2560	21350		100	0	17.853	Fig.34	17.914	Fig.35	17.860	Fig.36

Band	Carrier frequency (MHz)	Channel	BW (MHz)	RB Size	RB Offset	Bandwidth of -26dB transmitter power (MHz)					
						QPSK		16-QAM		64-QAM	
7	2502.5	20775	5	25	0	5.378	Fig.1	5.327	Fig.2	5.304	Fig.3
	2535	21100		25	0	5.362	Fig.4	5.334	Fig.5	5.373	Fig.6
	2567.5	21425		25	0	5.384	Fig.7	5.357	Fig.8	5.467	Fig.9
	2505	20800	10	50	0	10.20	Fig.10	10.29	Fig.11	10.27	Fig.12
	2535	21100		50	0	10.41	Fig.13	10.34	Fig.14	10.36	Fig.15
	2565	21400		50	0	10.31	Fig.16	10.22	Fig.17	10.36	Fig.18
	2507.5	20825	15	75	0	14.90	Fig.19	14.94	Fig.20	15.04	Fig.21
	2535	21100		75	0	14.83	Fig.22	14.83	Fig.23	14.95	Fig.24
	2562.5	21375		75	0	15.07	Fig.25	14.88	Fig.26	15.28	Fig.27
	2510	20850	20	100	0	20.39	Fig.28	19.97	Fig.29	20.65	Fig.30
	2535	21100		100	0	20.45	Fig.31	19.96	Fig.32	20.79	Fig.33
	2560	21350		100	0	20.66	Fig.34	20.62	Fig.35	20.22	Fig.36

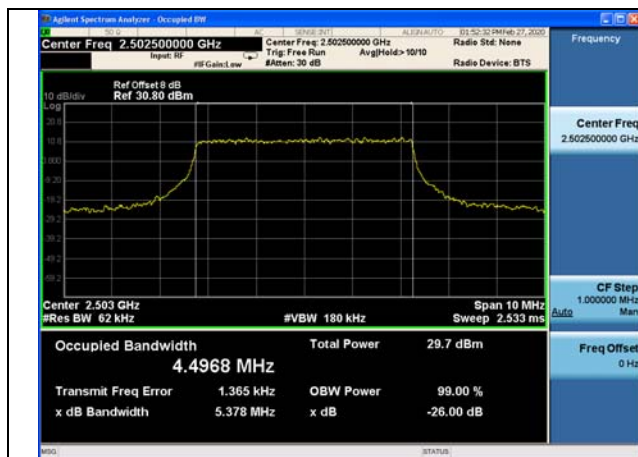


Fig.1

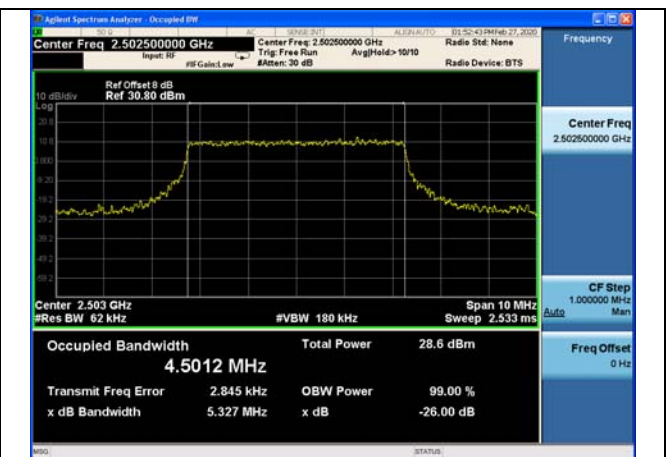


Fig.2

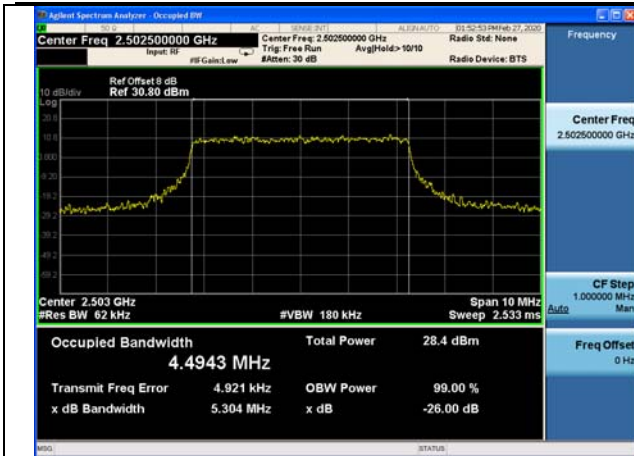


Fig.3

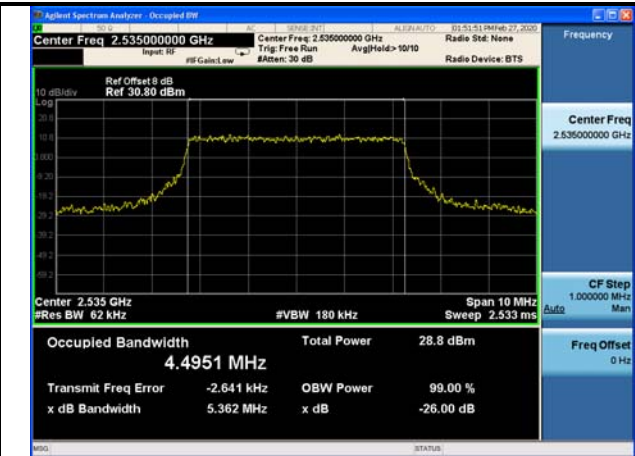


Fig.4

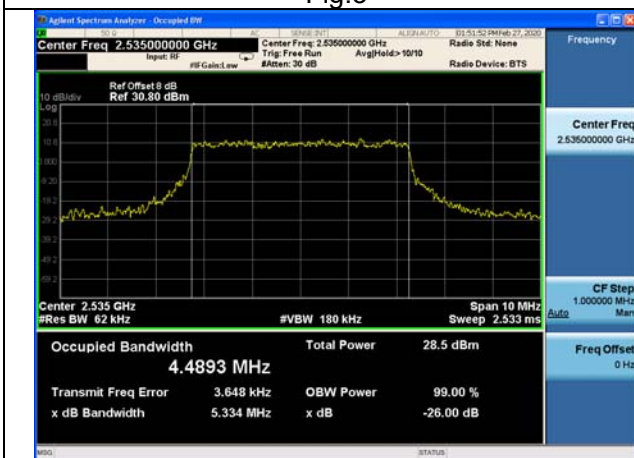


Fig.5

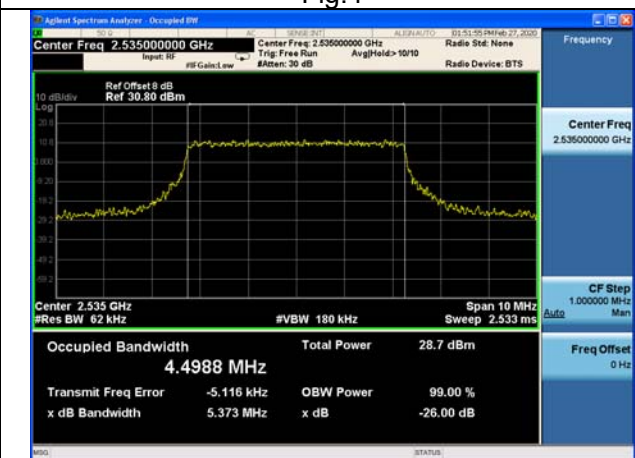


Fig.6

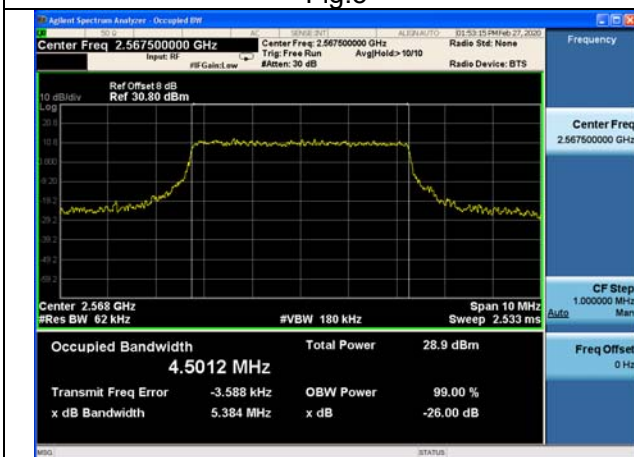


Fig.7

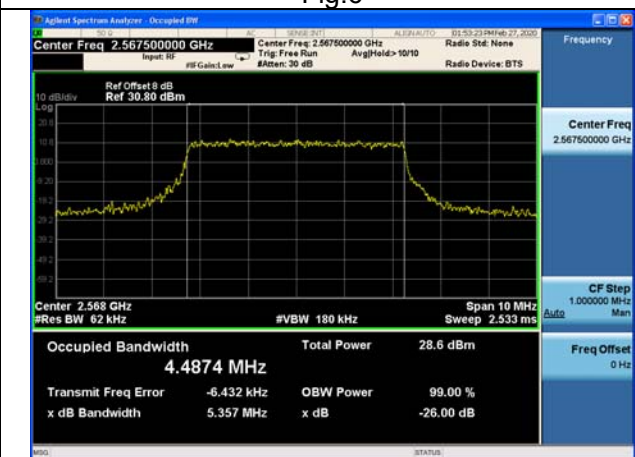


Fig.8

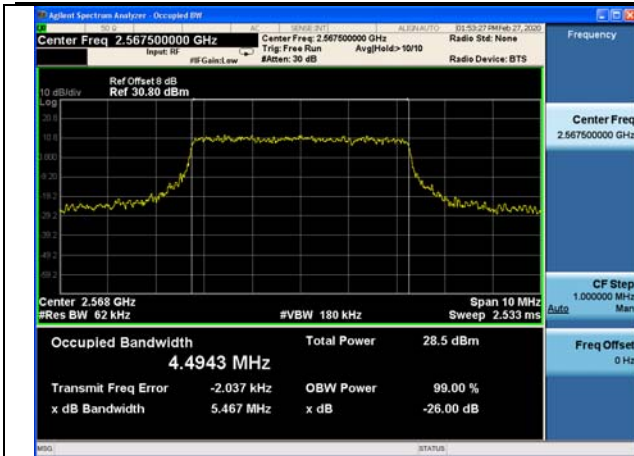


Fig.9



Fig.10

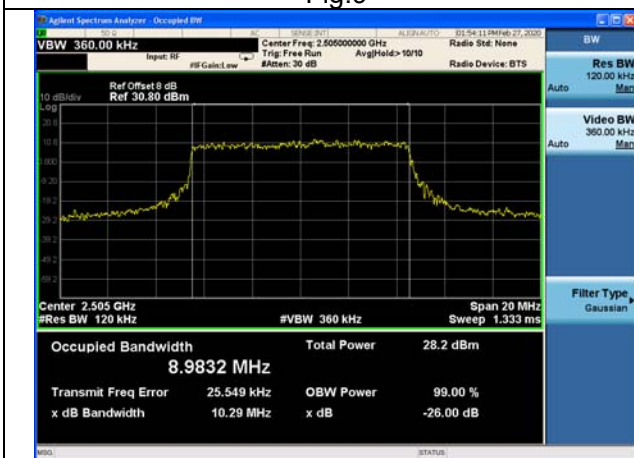


Fig.11

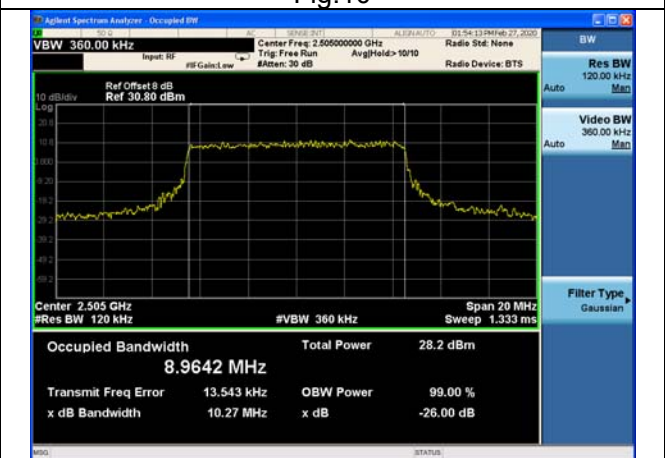


Fig.12

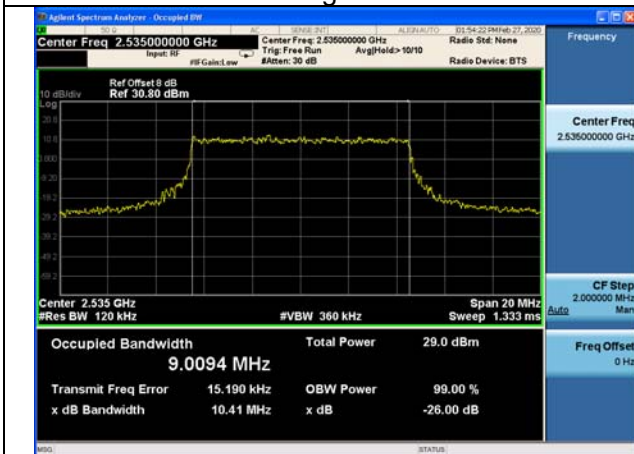


Fig.13

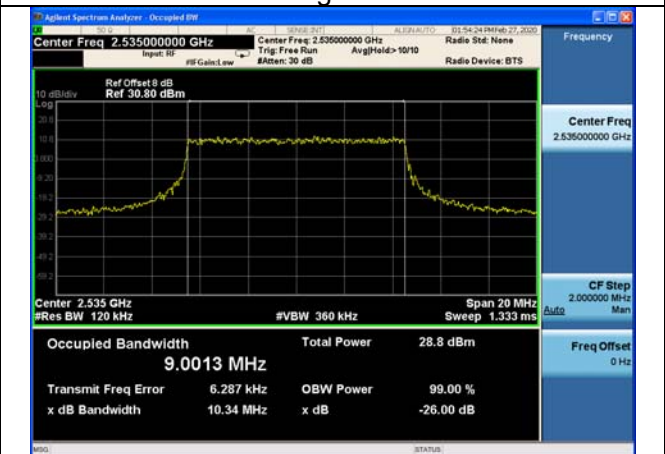


Fig.14

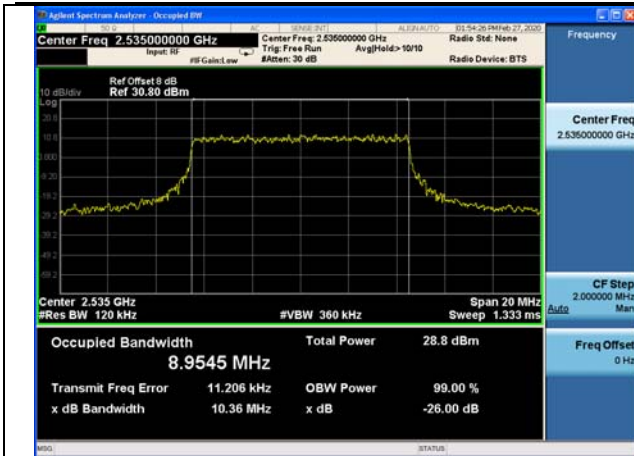


Fig.15

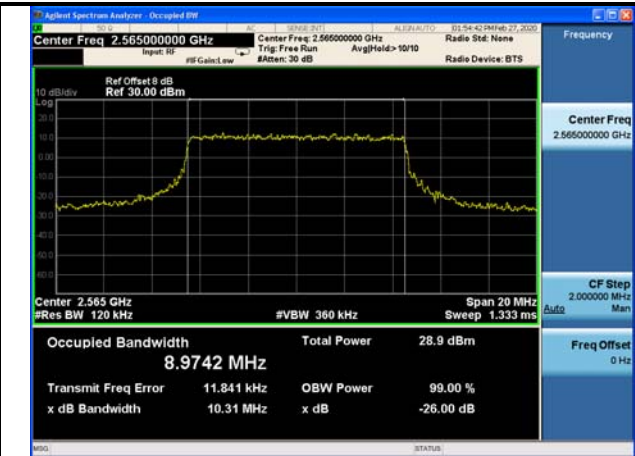


Fig.16

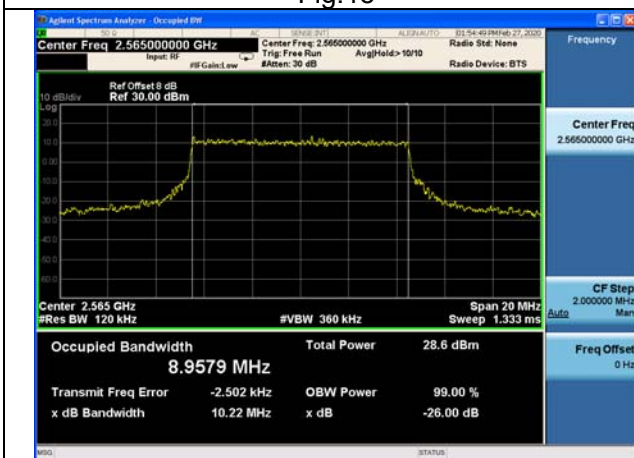


Fig.17

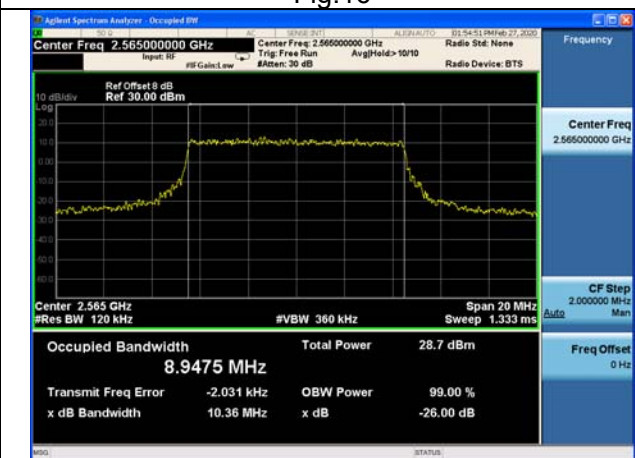


Fig.18

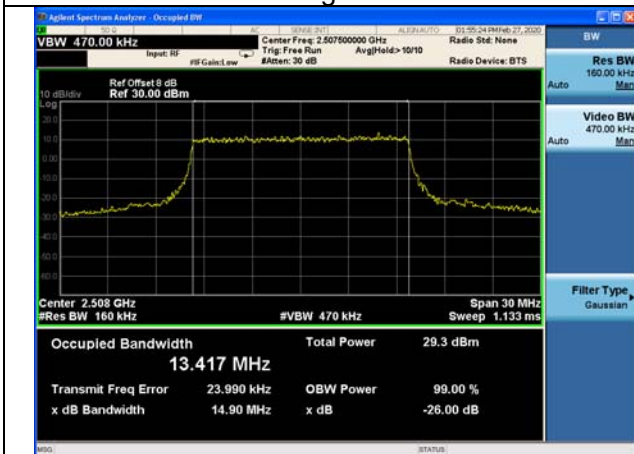


Fig.19

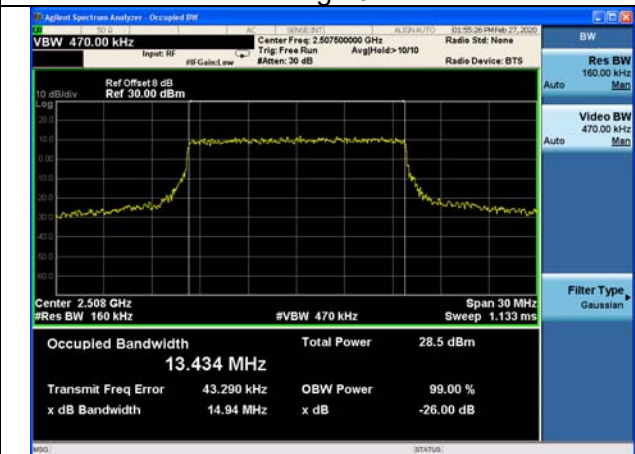


Fig.20

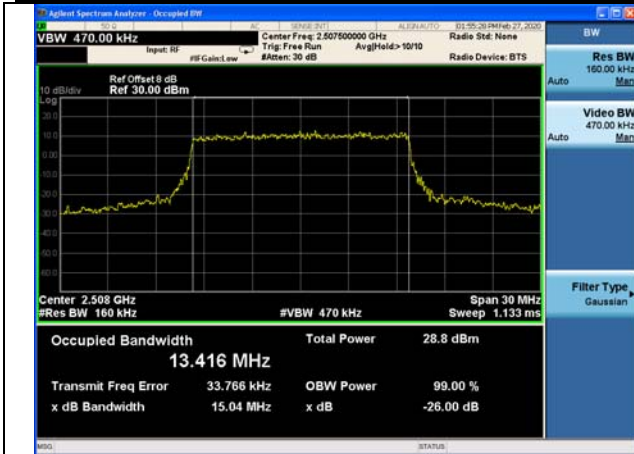


Fig.21



Fig.22

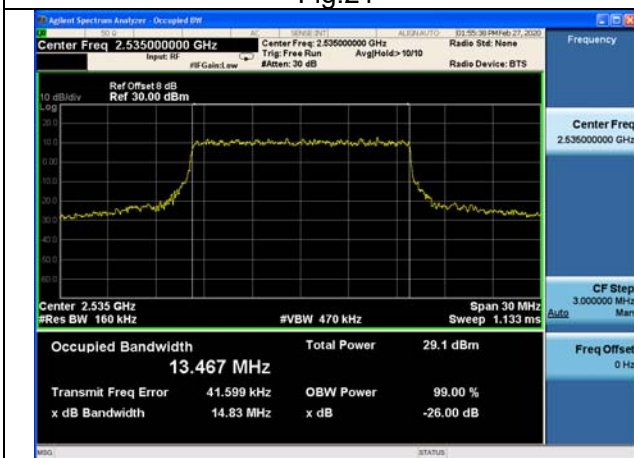


Fig.23

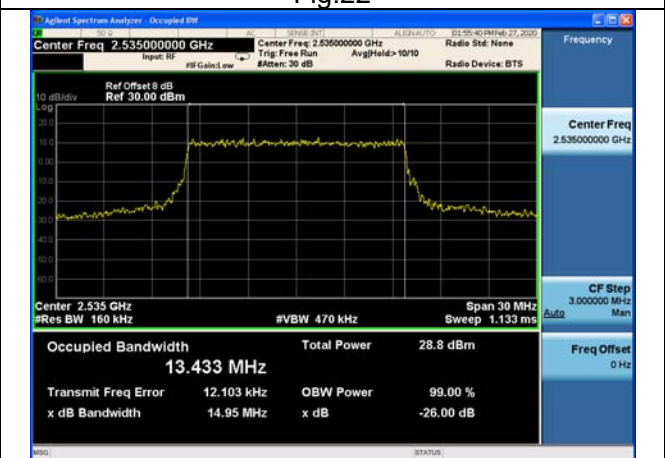


Fig.24

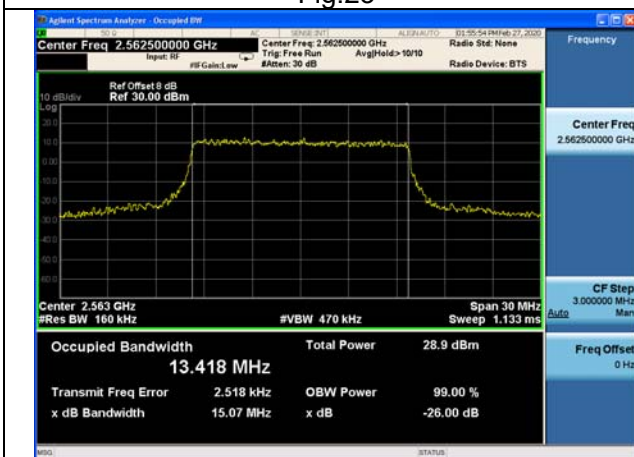


Fig.25

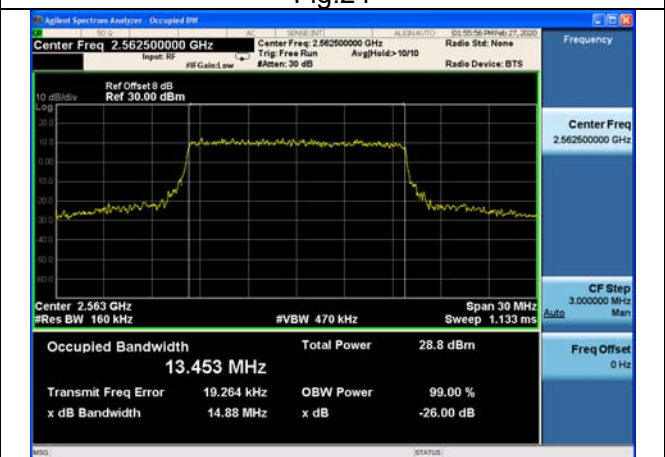


Fig.26

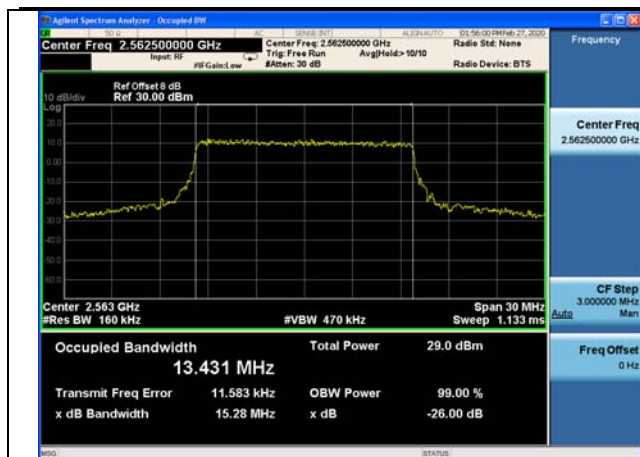


Fig.27

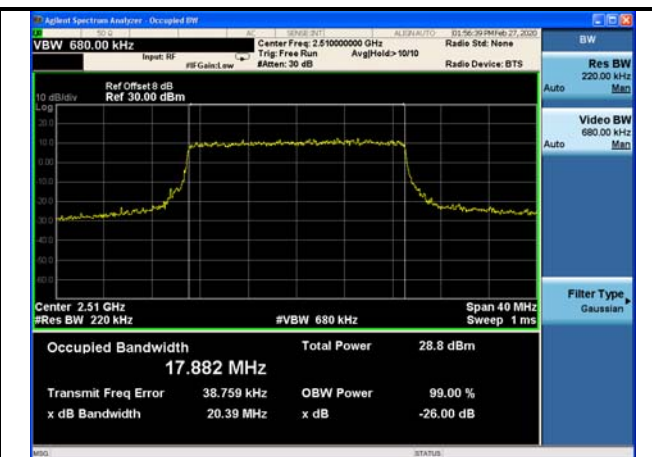


Fig.28

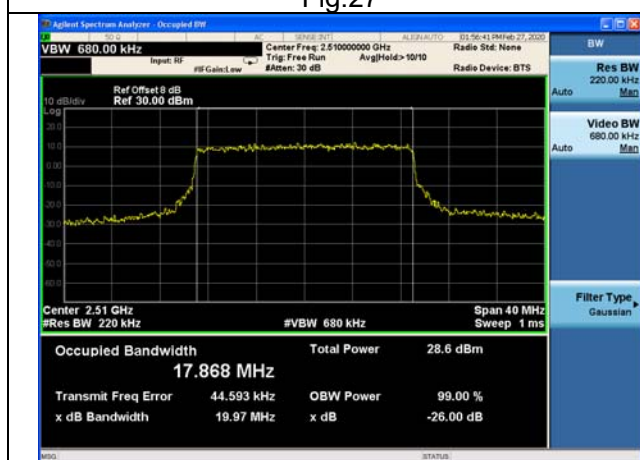


Fig.29

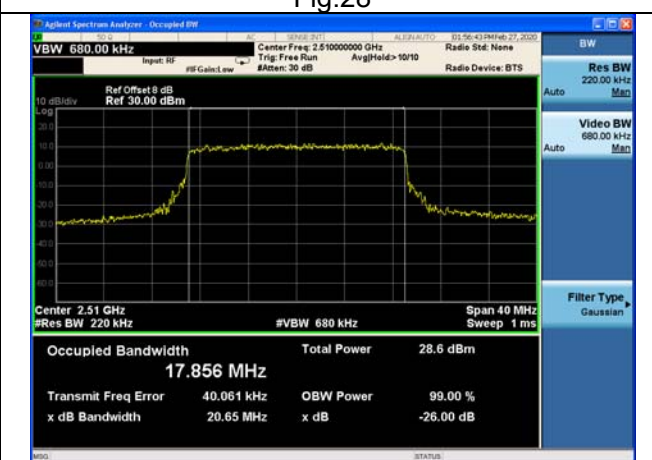


Fig.30

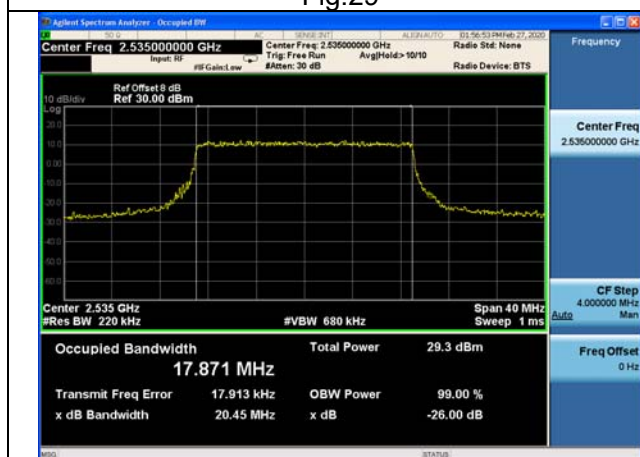


Fig.31

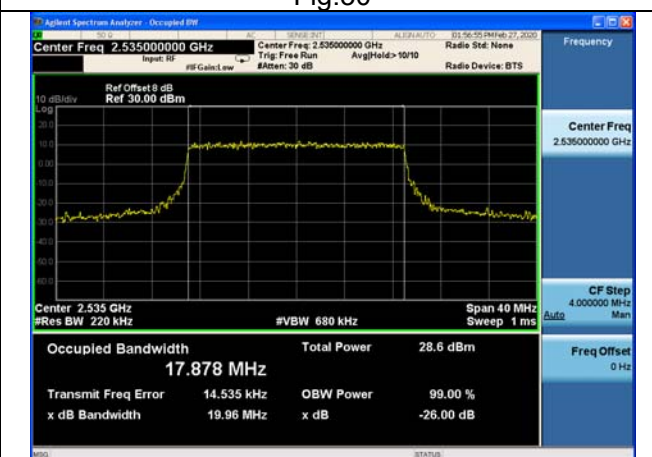


Fig.32



Fig.33



Fig.34

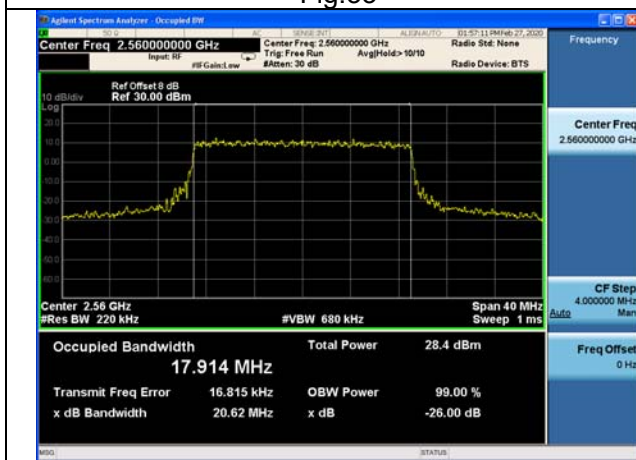


Fig.35

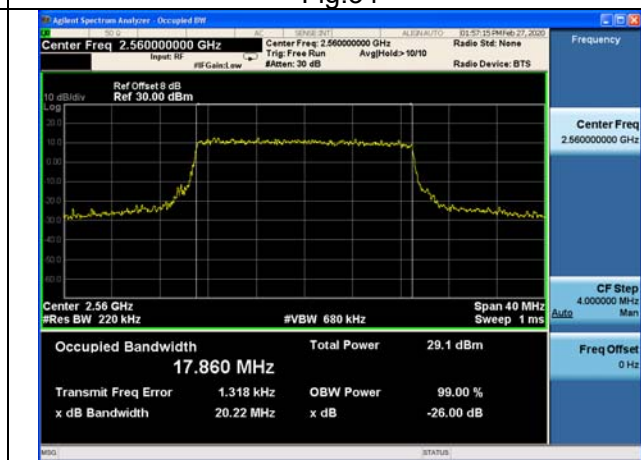


Fig.36

3 Peak-Average Ratio

Band	Carrier frequency (MHz)	Channel	BW (MHz)	RB Size	RB Offset	QPSK	16-QAM	64-QAM
7	2535	21100	5	1	0	Fig.1	Fig.2	Fig.3
			10	1	0	Fig.4	Fig.5	Fig.6
			15	1	0	Fig.7	Fig.8	Fig.9
			20	1	0	Fig.10	Fig.11	Fig.12

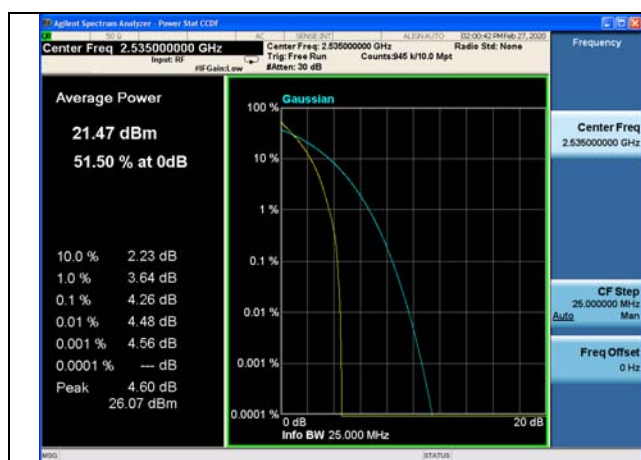


Fig.1



Fig.2



Fig.3



Fig.4

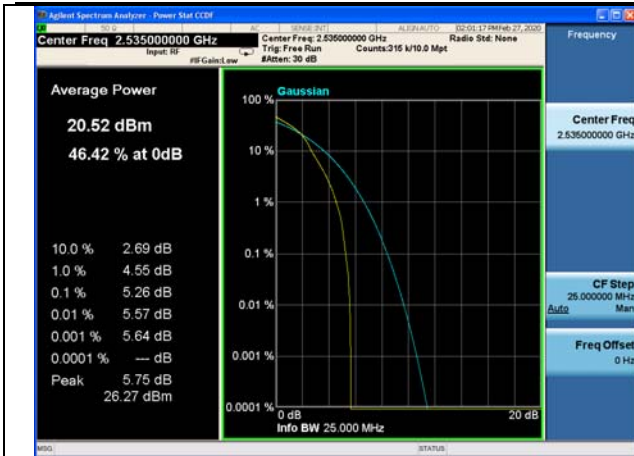


Fig.5



Fig.6



Fig.7



Fig.8



Fig.9



Fig.10



Fig.11



Fig.12

4 Spurious Emissions at antenna terminal

Band	Carrier frequency (MHz)	Channel	BW	RB Size	RB Offset	Conducted Spurious Plot
						QPSK
7	2510	20850	20	1	0	Fig.1-2
	2535	21100	20	1	0	Fig.3-4
	2560	21350	20	1	0	Fig.5-6

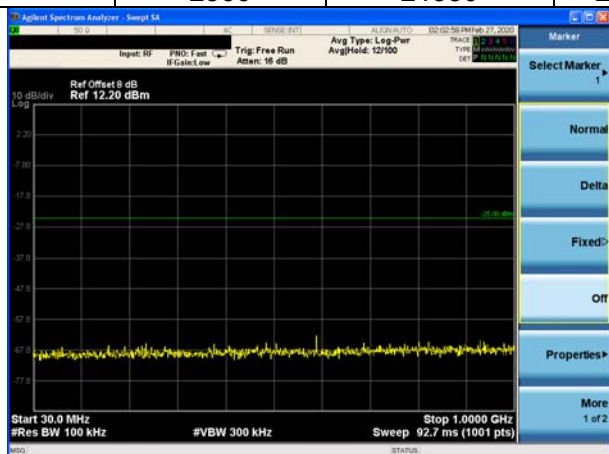


Fig.1



Fig.2

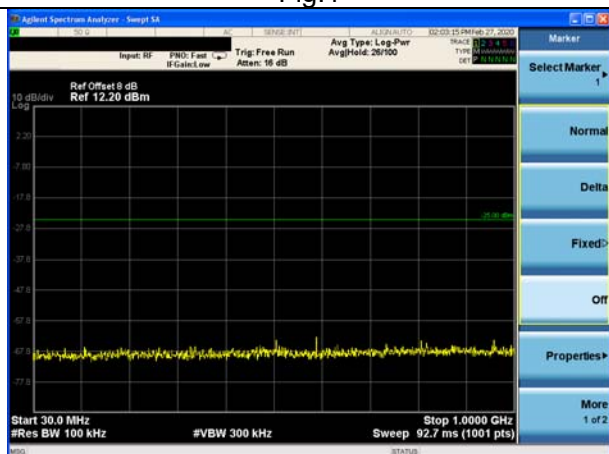


Fig3



Fig4



Fig5



Fig6

5 Band Edges Compliance

Test result

Band	Carrier frequency (MHz)	Channel	BW	RB Size	RB Offset	Band Edges Plot
						QPSK
7	2502.5	20775	5	1	0	Fig.1
				25	0	Fig.2
	2567.5	21425		1	24	Fig.3
				25	0	Fig.4
	2505	20800	10	1	0	Fig.5
				50	0	Fig.6
	2565	21400		1	49	Fig.7
				50	0	Fig.8
	2507.5	20825	15	1	0	Fig.9
				75	0	Fig.10
	2562.5	21375		1	74	Fig.11
				75	0	Fig.12
	2510	20850	20	1	0	Fig.13
				100	0	Fig.14
	2560	21350		1	99	Fig.15
				100	0	Fig.16

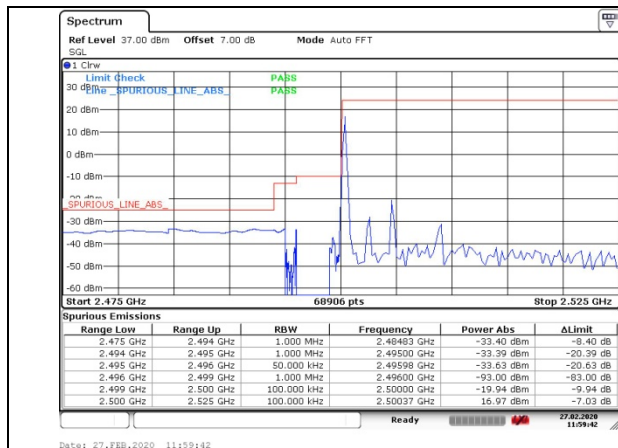


Fig.1

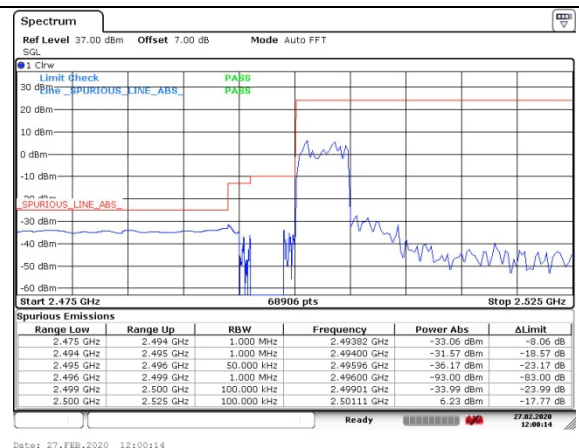


Fig.2

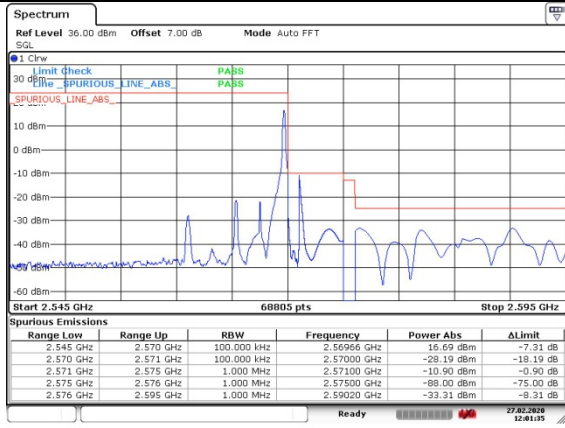


Fig.3

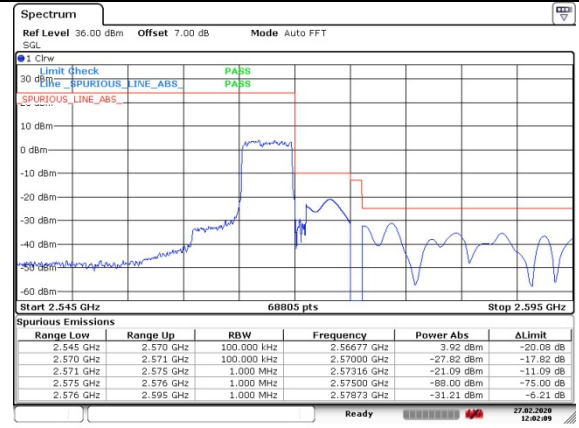


Fig.4

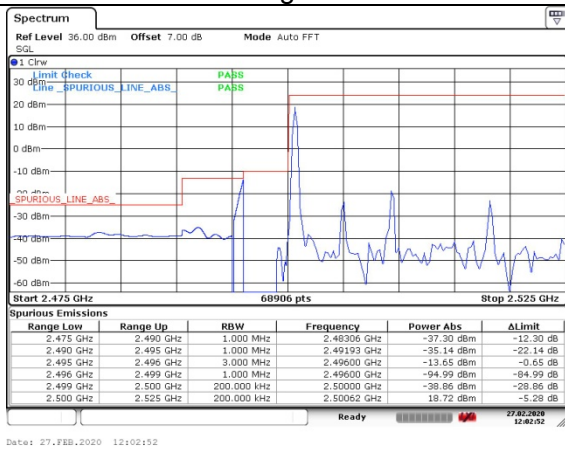


Fig.5

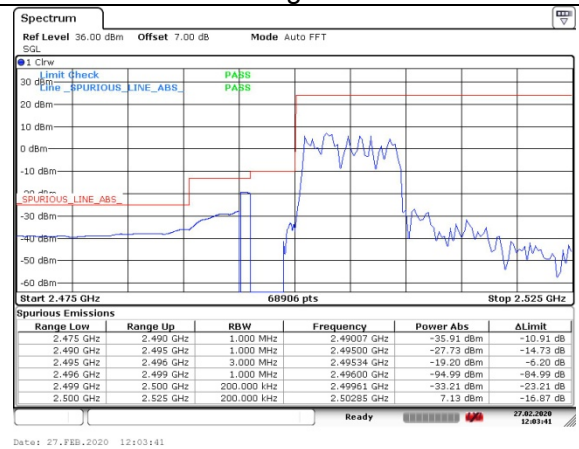


Fig.6

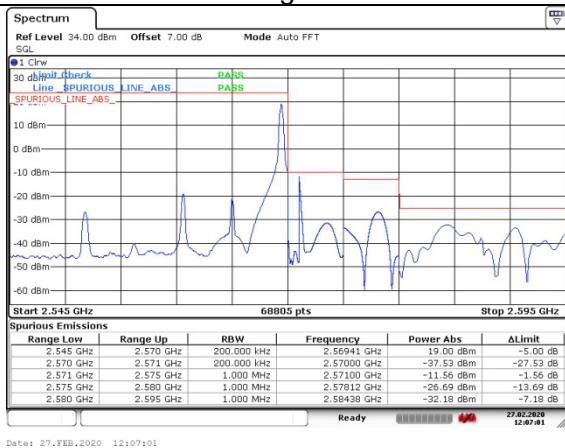


Fig.7

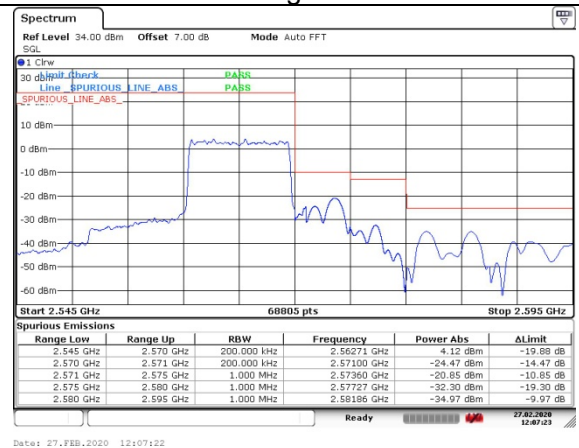


Fig.8

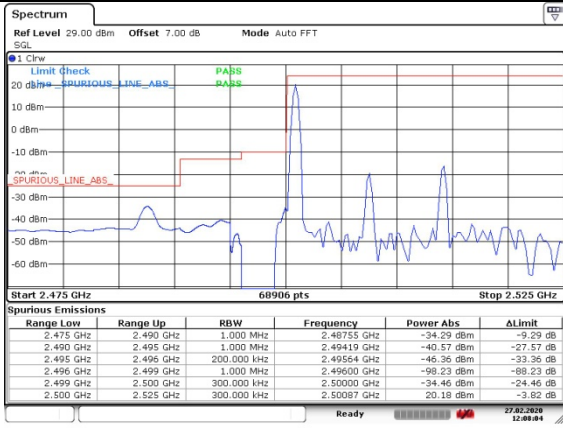


Fig.9

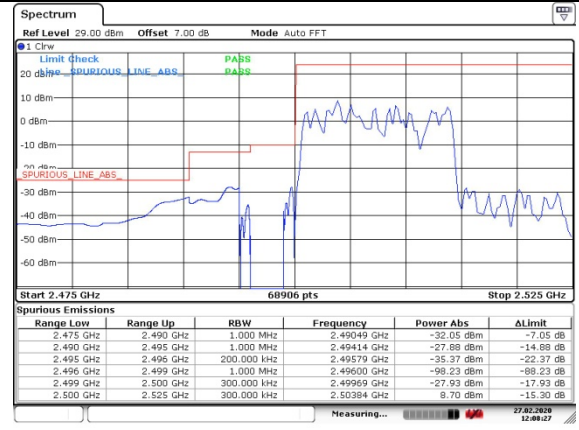


Fig.10

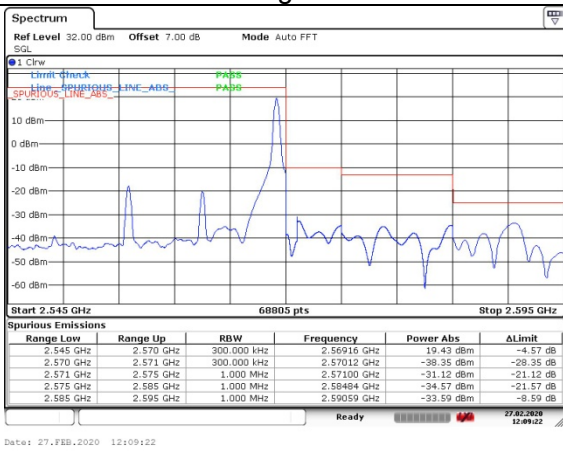


Fig.11

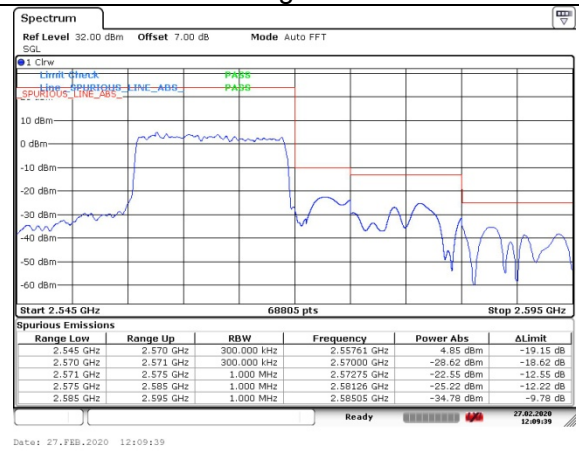


Fig.12

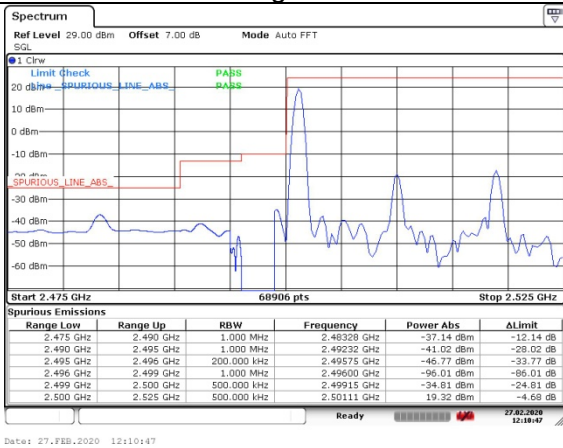


Fig.13

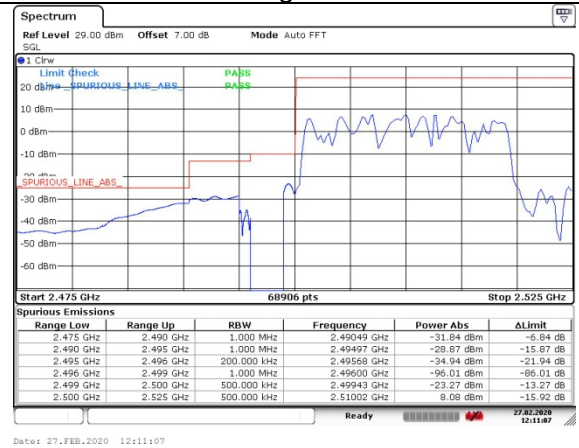


Fig.14

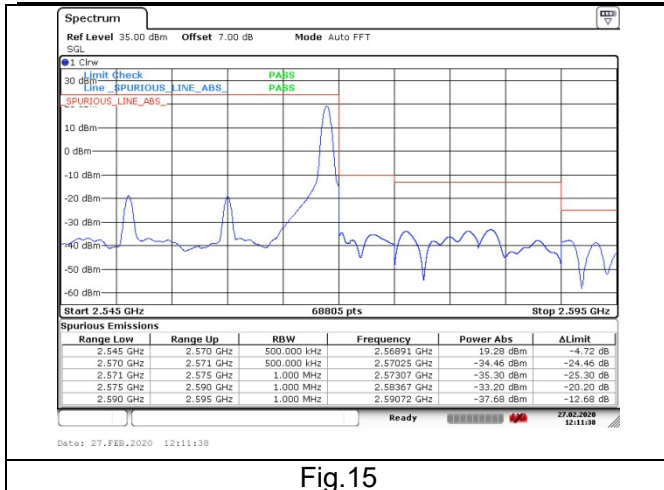


Fig.15

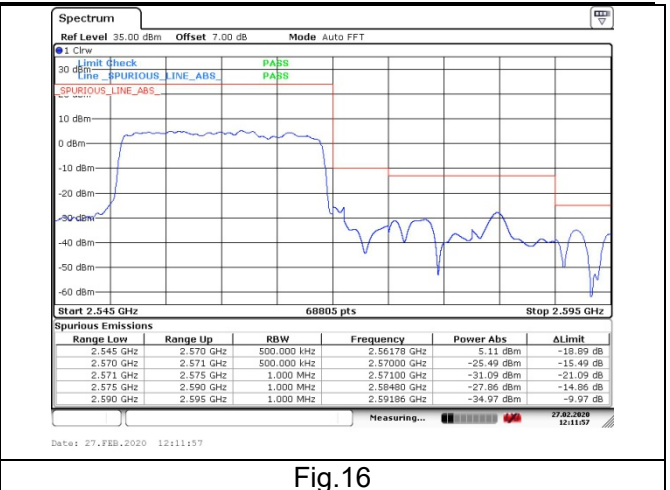


Fig.16

6 Frequency Stability

Test result:

Temperature(°C)	Voltage	Test Result (ppm) Band7 Low Channel			
		5M	10M	15M	20M
-20	NV	0.058	-0.032	0.031	0.088
-10	NV	0.048	0.052	-0.038	-0.017
0	NV	0.004	0.024	0.074	0.041
+10	NV	-0.066	0.004	-0.033	-0.031
+20	NV	0.000	0.000	0.000	0.000
+30	NV	-0.046	-0.039	-0.026	0.004
+40	NV	0.039	0.012	0.026	0.046
+50	NV	0.054	0.018	-0.012	-0.022
+55	NV	0.046	0.008	0.023	-0.010
+20	LV	-0.023	0.057	0.022	0.035
+20	HV	0.019	-0.025	0.036	-0.049

Temperature(°C)	Voltage	Test Result (ppm) Band7 High Channel			
		5M	10M	15M	20M
-20	NV	0.029	-0.023	-0.048	-0.004
-10	NV	-0.021	-0.011	-0.031	0.064
0	NV	0.010	-0.027	-0.048	0.006
+10	NV	0.004	-0.011	0.045	0.062
+20	NV	0.000	0.000	0.000	0.000
+30	NV	-0.041	-0.011	-0.040	0.063
+40	NV	-0.019	-0.001	-0.049	-0.004
+50	NV	0.062	0.034	0.031	-0.017
+55	NV	-0.033	0.021	0.022	0.002
+20	LV	-0.004	-0.062	-0.047	0.010
+20	HV	0.048	0.002	-0.008	-0.041