

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	23.37
				1	24	23.41
				12	6	22.56
				25	0	22.57
	2535	21100		1	0	23.24
				1	24	23.31
				12	6	22.43
				25	0	22.52
	2567.5	21425		1	0	23.37
				1	24	23.54
				12	6	22.57
				25	0	22.52
16QAM	2502.5	20775	5	1	0	22.48
				1	24	22.49
				12	6	21.41
				25	0	21.52
	2535	21100		1	0	22.56
				1	24	22.70
				12	6	21.55
				25	0	21.57
	2567.5	21425		1	0	22.63
				1	24	22.78
				12	6	21.54
				25	0	21.48
64QAM	2502.5	20775	5	1	0	22.43
				1	24	22.39
				12	6	21.49
				25	0	21.39
	2535	21100		1	0	22.50
				1	24	22.57
				12	6	21.39
				25	0	21.39
	2567.5	21425		1	0	22.60
				1	24	22.68
				12	6	21.47
				25	0	21.51

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)
QPSK	2505	20800	10	1	0	23.28
				1	49	23.41
				24	12	22.43
				50	0	22.48
	2535	21100		1	0	23.35
				1	49	23.33
				24	12	22.50
				50	0	22.55
	2565	21400		1	0	23.29
				1	49	23.46
				24	12	22.48
				50	0	22.62
16QAM	2505	20800	10	1	0	22.51
				1	49	22.60
				24	12	21.55
				50	0	21.52
	2535	21100		1	0	22.51
				1	49	22.70
				24	12	21.45
				50	0	21.53
	2565	21400		1	0	22.55
				1	49	22.68
				24	12	21.46
				50	0	21.58
64QAM	2505	20800	10	1	0	22.46
				1	49	22.43
				24	12	21.51
				50	0	21.37
	2535	21100		1	0	22.47
				1	49	22.63
				24	12	21.42
				50	0	21.51
	2565	21400		1	0	22.55
				1	49	22.73
				24	12	21.53
				50	0	21.52

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)
QPSK	2507.5	20825	15	1	0	23.30
				1	74	23.38
				40	18	22.57
				75	0	22.60
	2535	21100		1	0	23.26
				1	74	23.33
				40	18	22.48
				75	0	22.59
	2562.5	21375		1	0	23.41
				1	74	23.51
				40	18	22.48
				75	0	22.57
16QAM	2507.5	20825	15	1	0	22.47
				1	74	22.48
				40	18	21.52
				75	0	21.43
	2535	21100		1	0	22.48
				1	74	22.70
				40	18	21.47
				75	0	21.56
	2562.5	21375		1	0	22.56
				1	74	22.72
				40	18	21.56
				75	0	21.49
64QAM	2507.5	20825	15	1	0	22.41
				1	74	22.47
				40	18	21.50
				75	0	21.41
	2535	21100		1	0	22.46
				1	74	22.56
				40	18	21.42
				75	0	21.40
	2562.5	21375		1	0	22.64
				1	74	22.71
				40	18	21.48
				75	0	21.46

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)
QPSK	2510	20850	20	1	0	23.42
				1	99	23.49
				50	25	22.57
				100	0	22.61
	2535	21100		1	0	23.36
				1	99	23.45
				50	25	22.58
				100	0	22.62
	2560	21350		1	0	23.44
				1	99	23.58
				50	25	22.63
				100	0	22.65
16QAM	2510	20850	20	1	0	22.54
				1	99	22.61
				50	25	21.55
				100	0	21.57
	2535	21100		1	0	22.57
				1	99	22.75
				50	25	21.57
				100	0	21.59
	2560	21350		1	0	22.69
				1	99	22.82
				50	25	21.58
				100	0	21.62
64QAM	2510	20850	20	1	0	22.48
				1	99	22.52
				50	25	21.54
				100	0	21.48
	2535	21100		1	0	22.53
				1	99	22.68
				50	25	21.49
				100	0	21.53
	2560	21350		1	0	22.65
				1	99	22.79
				50	25	21.54
				100	0	21.53

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	4.4748	Fig.1	4.4786	Fig.2	4.4680	Fig.3
	2535	21100		25	0	4.4646	Fig.4	4.4781	Fig.5	4.4716	Fig.6
	2567.5	21425		25	0	4.4815	Fig.7	4.4798	Fig.8	4.4782	Fig.9
	2505	20800	10	50	0	8.9526	Fig.10	8.9865	Fig.11	8.9368	Fig.12
	2535	21100		50	0	8.9457	Fig.13	8.9386	Fig.14	8.9475	Fig.15
	2565	21400		50	0	8.9526	Fig.16	8.9729	Fig.17	8.9331	Fig.18
	2507.5	20825	15	75	0	13.436	Fig.19	13.448	Fig.20	13.409	Fig.21
	2535	21100		75	0	13.424	Fig.22	13.420	Fig.23	13.399	Fig.24
	2562.5	21375		75	0	13.479	Fig.25	13.393	Fig.26	13.420	Fig.27
	2510	20850	20	100	0	17.841	Fig.28	17.877	Fig.29	17.838	Fig.30
	2535	21100		100	0	17.877	Fig.31	17.896	Fig.32	17.837	Fig.33
	2560	21350		100	0	17.834	Fig.34	17.824	Fig.35	17.858	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	4.868	Fig.1	4.807	Fig.2	4.759	Fig.3
	2535	21100		25	0	4.851	Fig.4	4.833	Fig.5	4.843	Fig.6
	2567.5	21425		25	0	4.862	Fig.7	4.791	Fig.8	4.820	Fig.9
	2505	20800	10	50	0	9.576	Fig.10	9.450	Fig.11	9.546	Fig.12
	2535	21100		50	0	9.493	Fig.13	9.477	Fig.14	9.484	Fig.15
	2565	21400		50	0	9.600	Fig.16	9.469	Fig.17	9.491	Fig.18
	2507.5	20825	15	75	0	14.26	Fig.19	14.22	Fig.20	14.24	Fig.21
	2535	21100		75	0	14.27	Fig.22	14.07	Fig.23	14.32	Fig.24
	2562.5	21375		75	0	14.21	Fig.25	14.40	Fig.26	14.18	Fig.27
	2510	20850	20	100	0	18.94	Fig.28	18.67	Fig.29	18.57	Fig.30
	2535	21100		100	0	19.01	Fig.31	18.97	Fig.32	18.92	Fig.33
	2560	21350		100	0	18.94	Fig.34	18.83	Fig.35	18.89	Fig.36

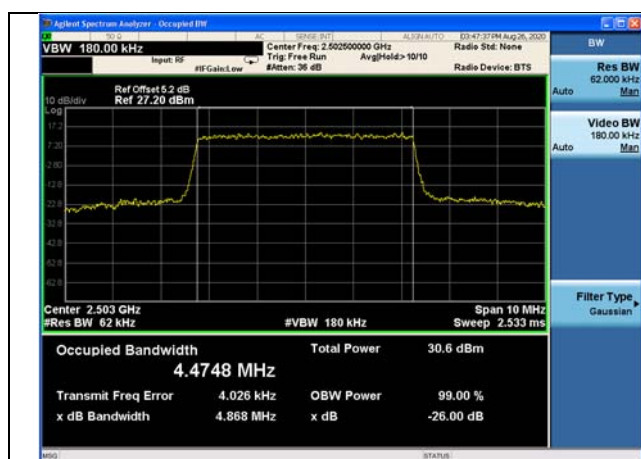


Fig.1

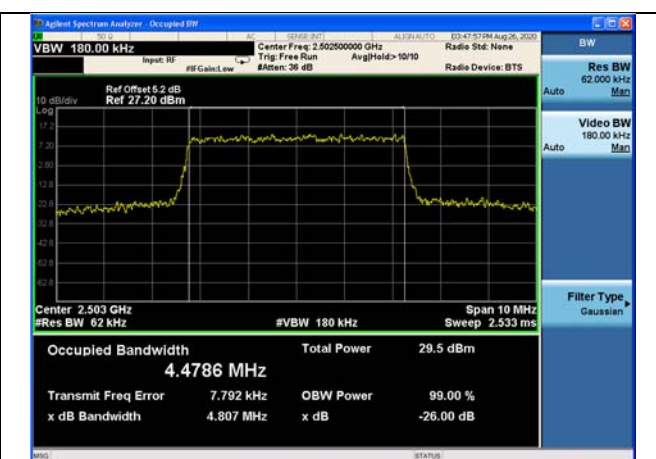


Fig.2

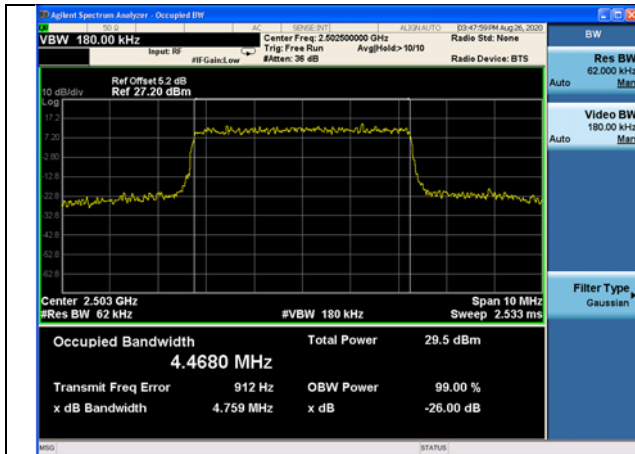


Fig.3

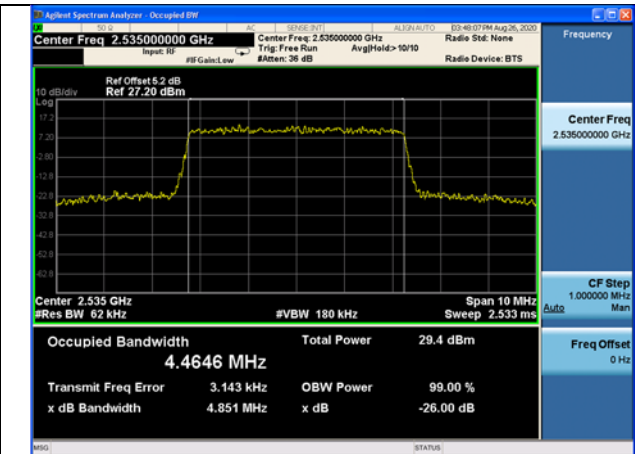


Fig.4

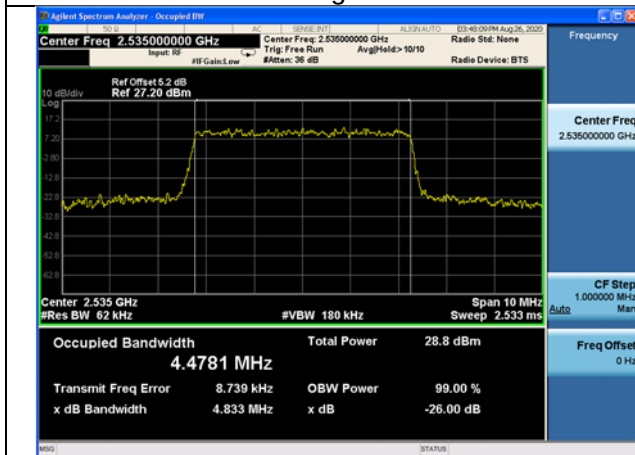


Fig.5

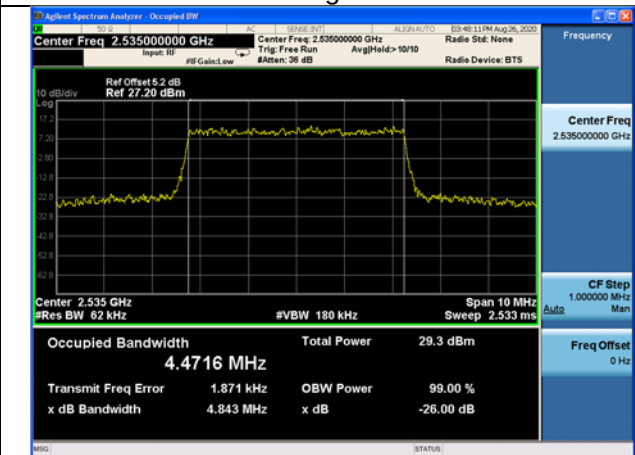


Fig.6



Fig.7

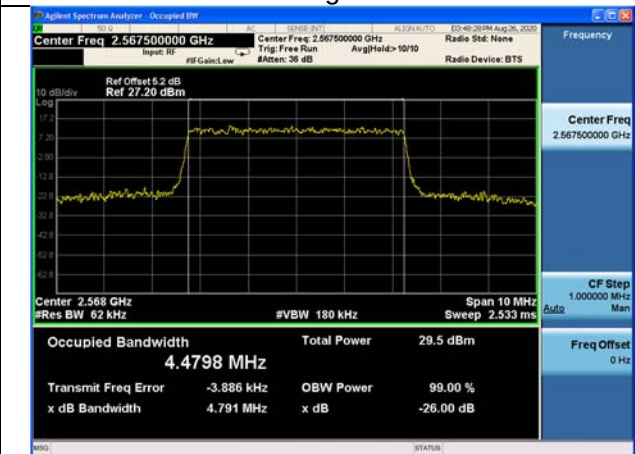


Fig.8

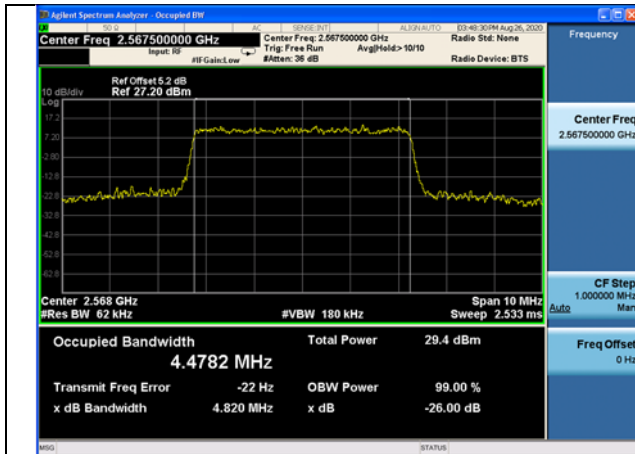


Fig.9

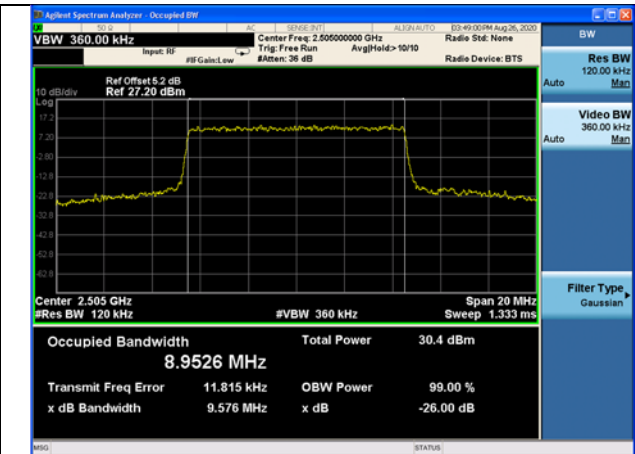


Fig.10

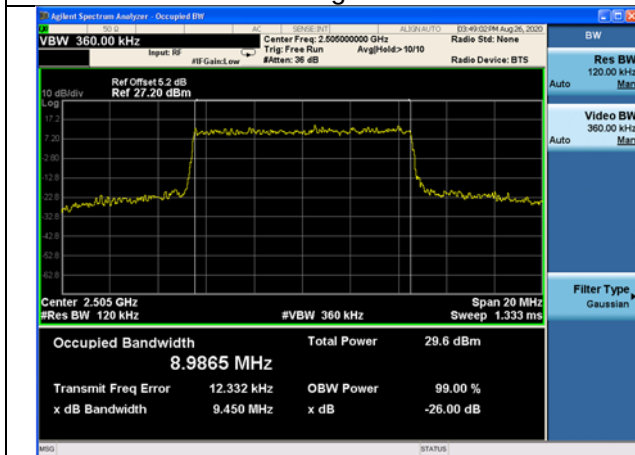


Fig.11

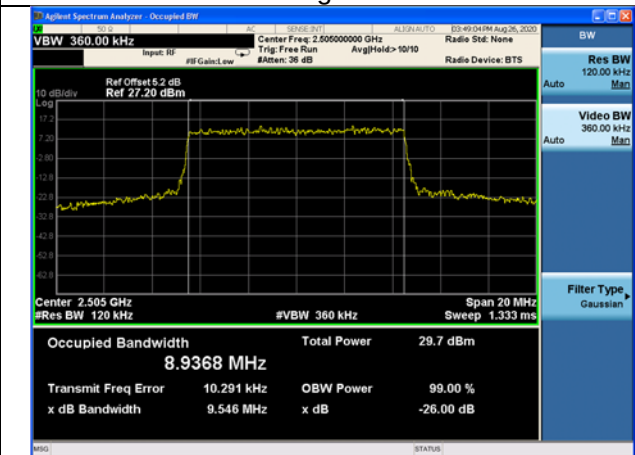


Fig.12



Fig.13

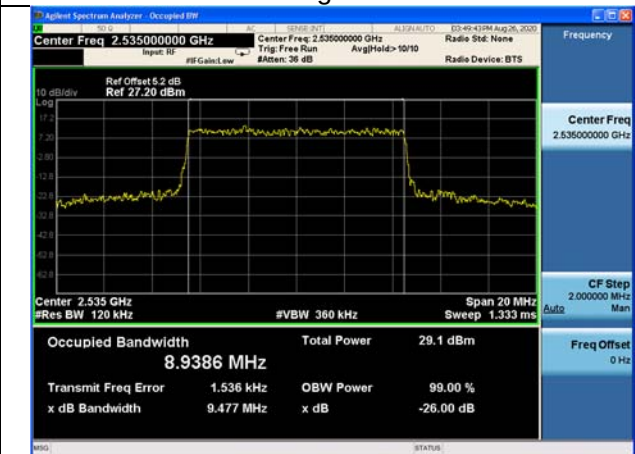


Fig.14

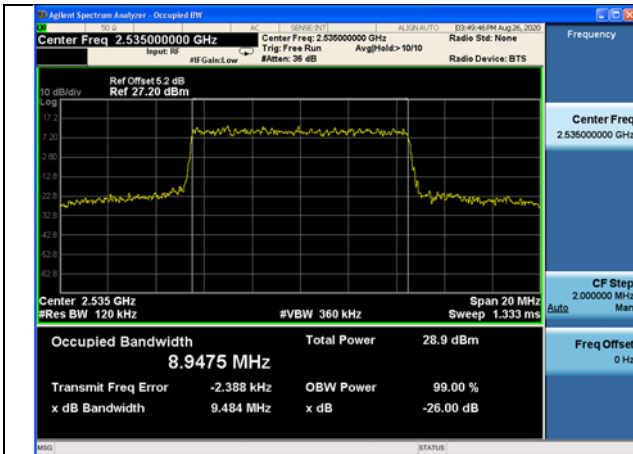


Fig.15

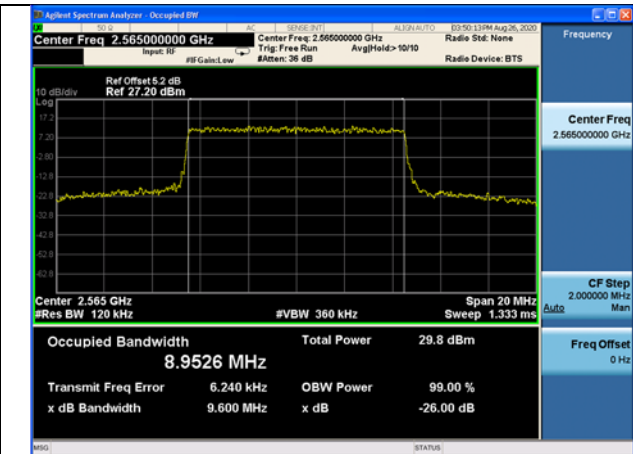


Fig.16

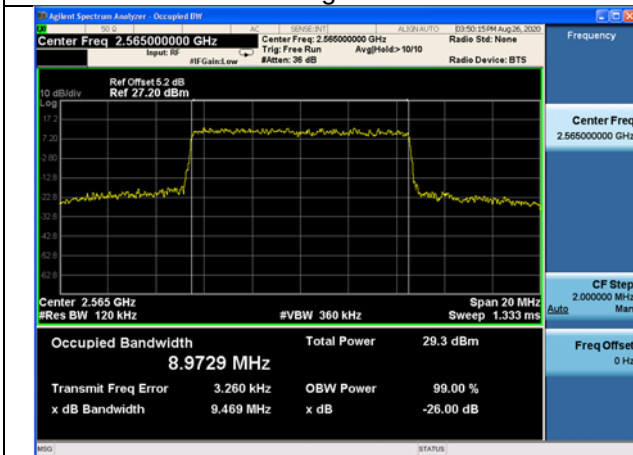


Fig.17

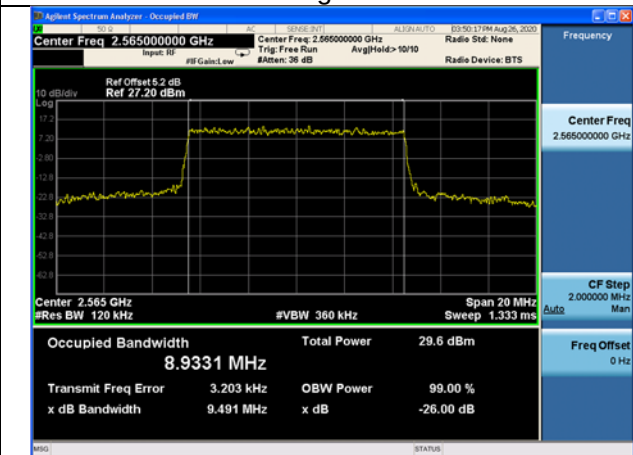


Fig.18

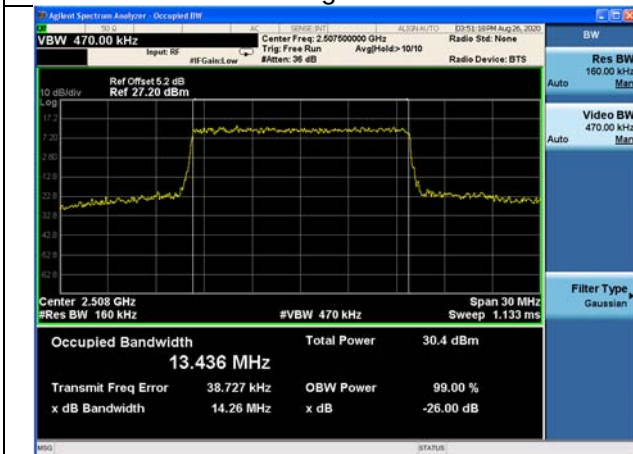


Fig.19

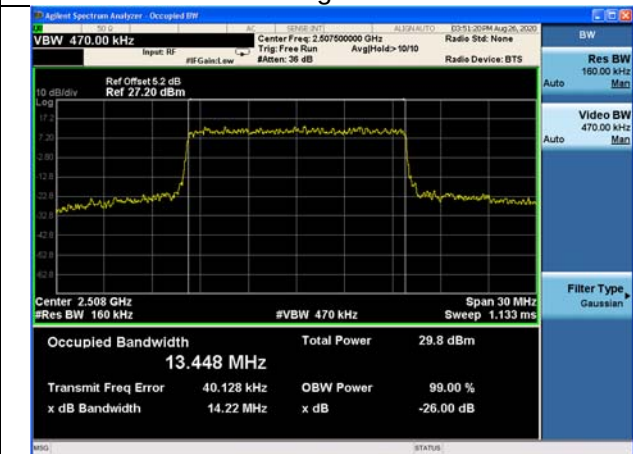


Fig.20

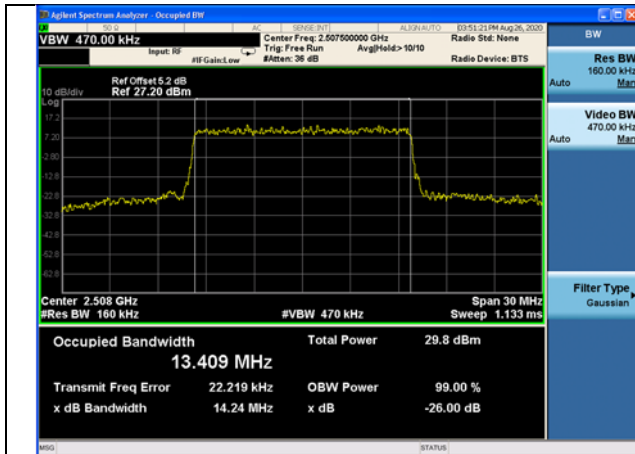


Fig.21

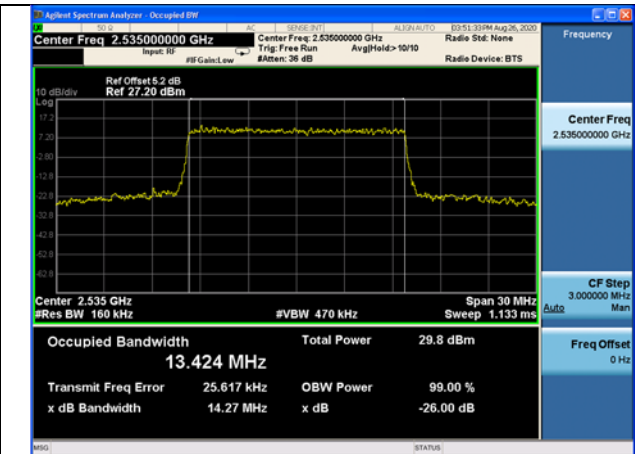


Fig.22

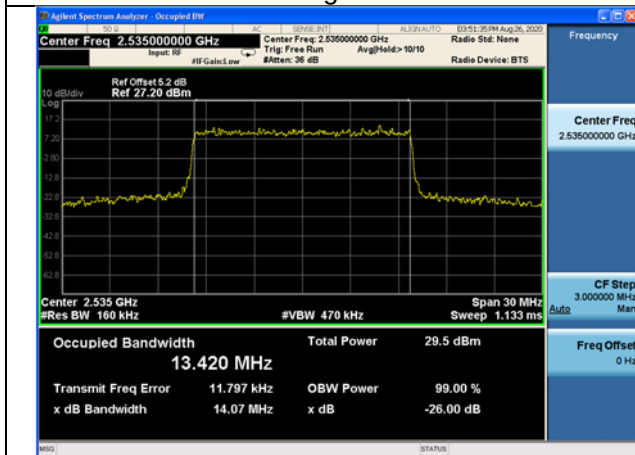


Fig.23

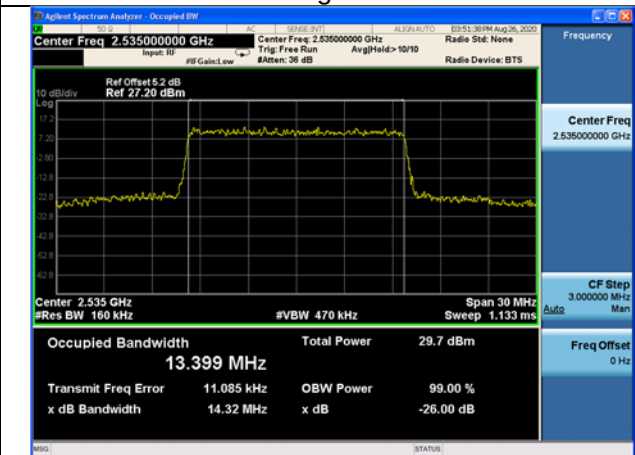


Fig.24



Fig.25

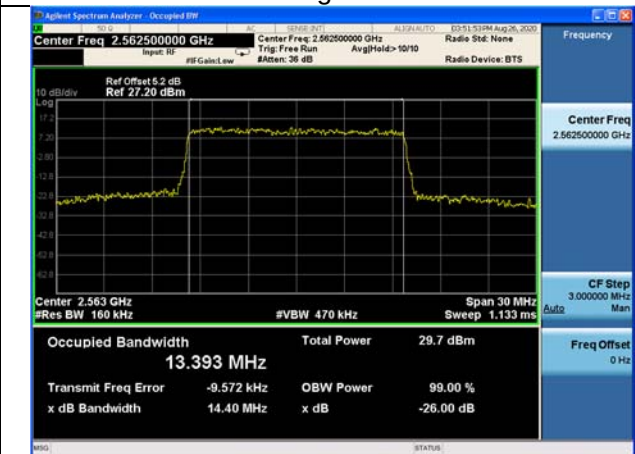


Fig.26

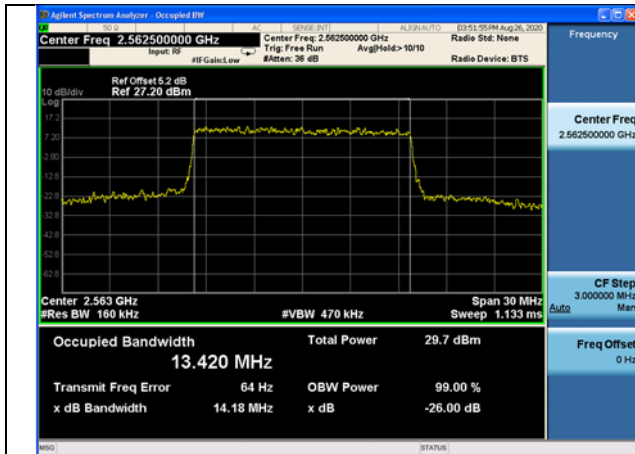


Fig.27

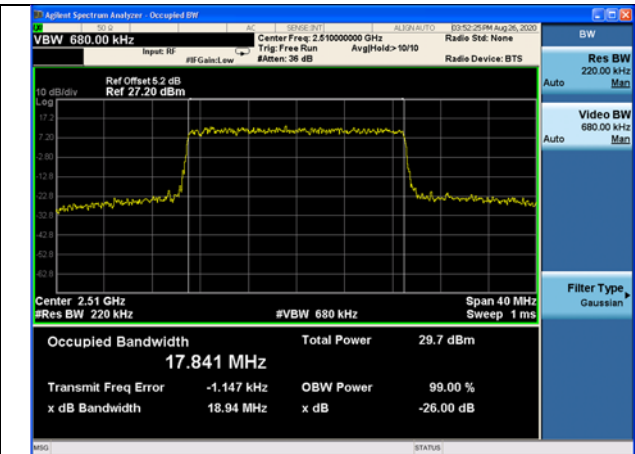


Fig.28

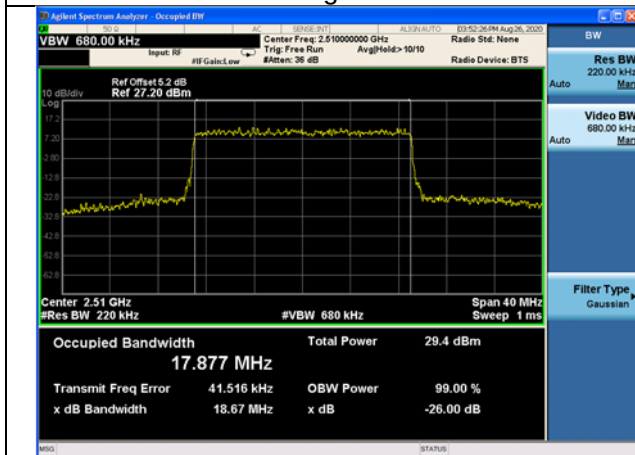


Fig.29

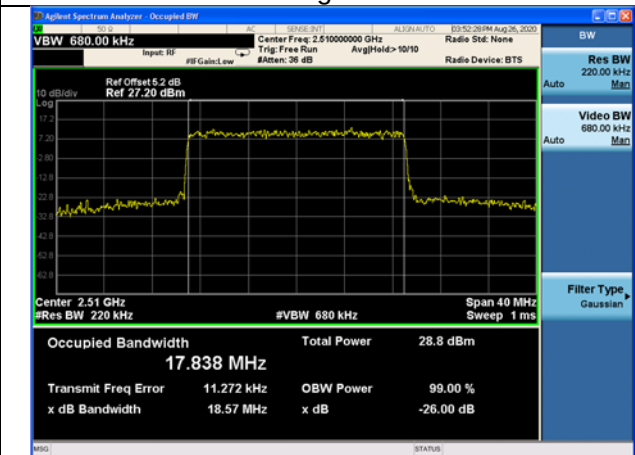


Fig.30



Fig.31

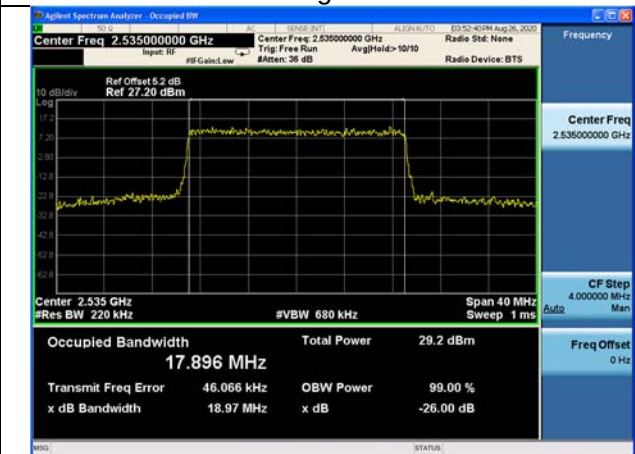


Fig.32

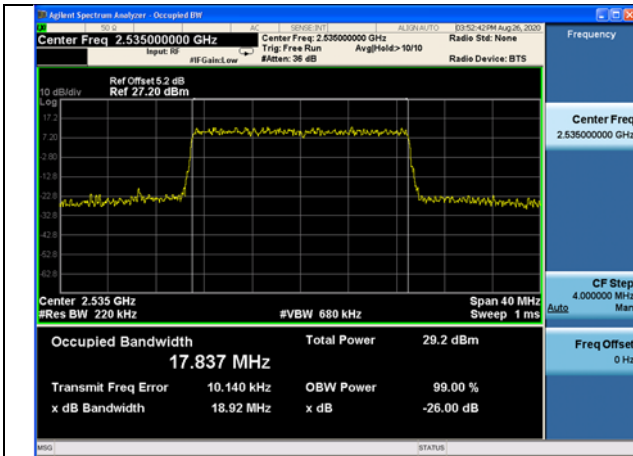


Fig.33

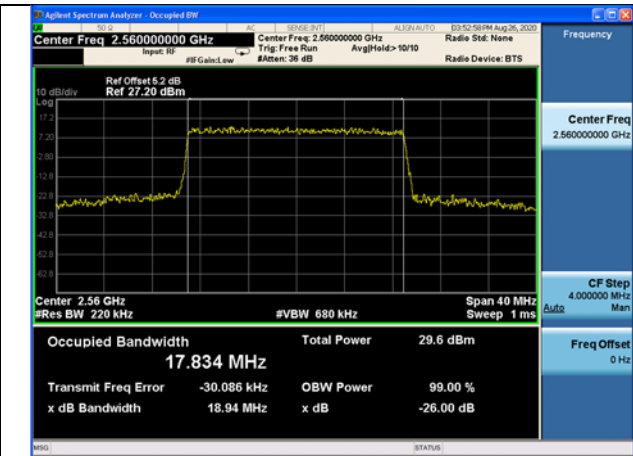


Fig.34

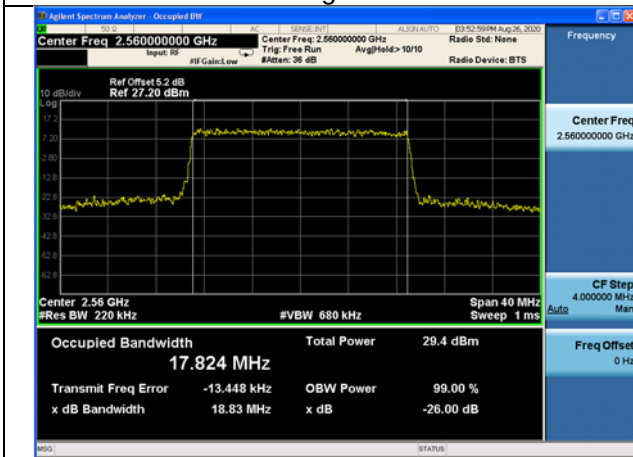


Fig.35

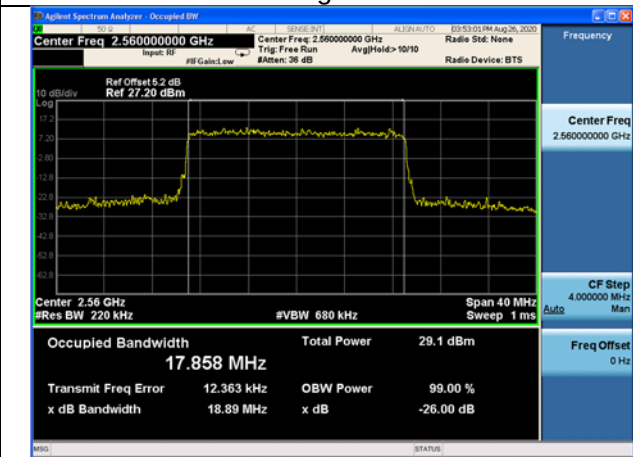


Fig.36

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

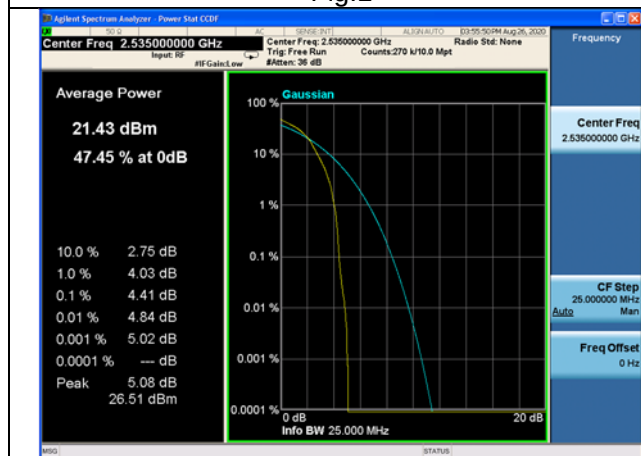


Fig.3

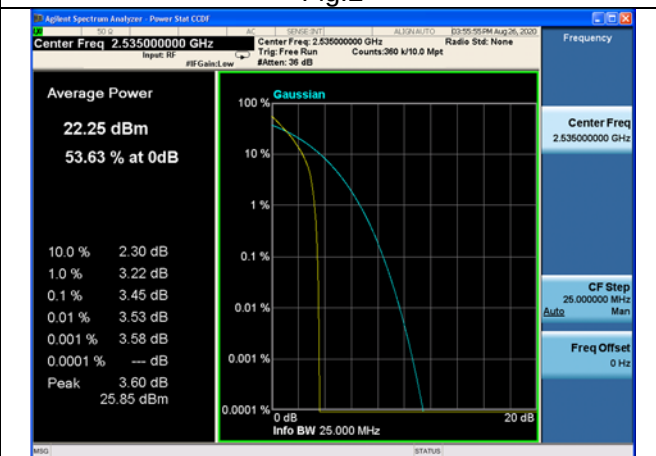


Fig.4

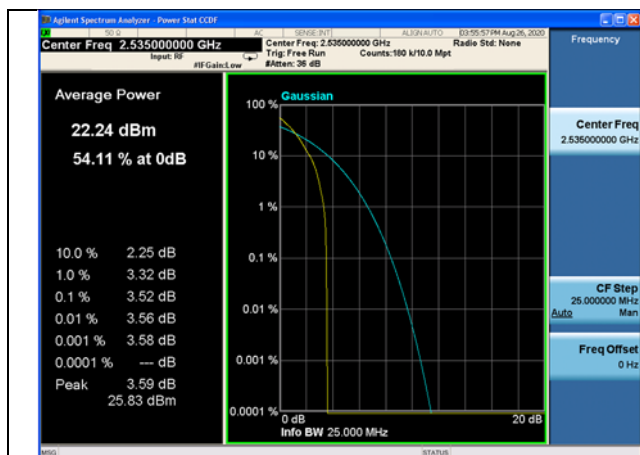


Fig.5

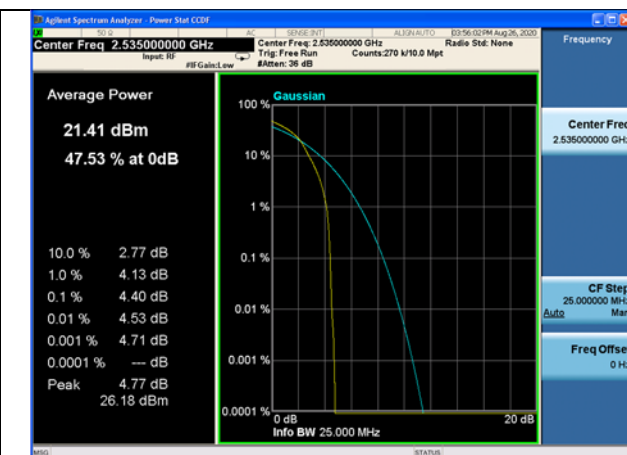


Fig.6

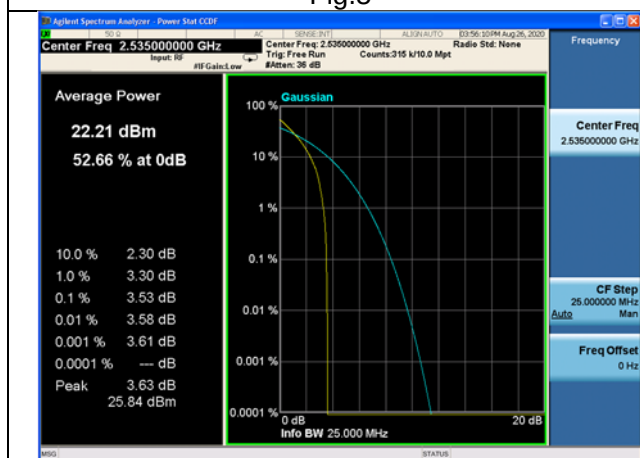


Fig.7



Fig.8

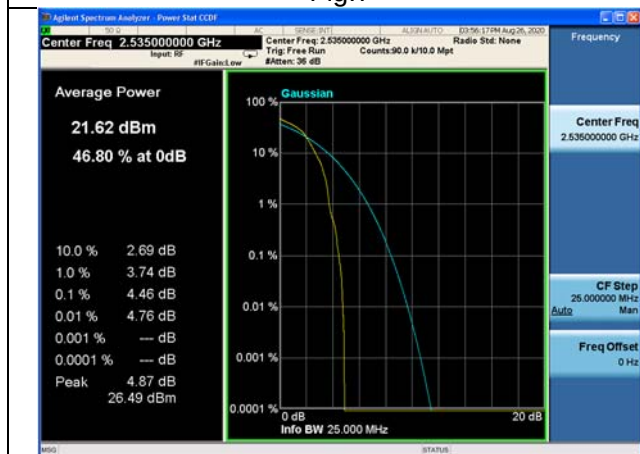


Fig.9



Fig.10

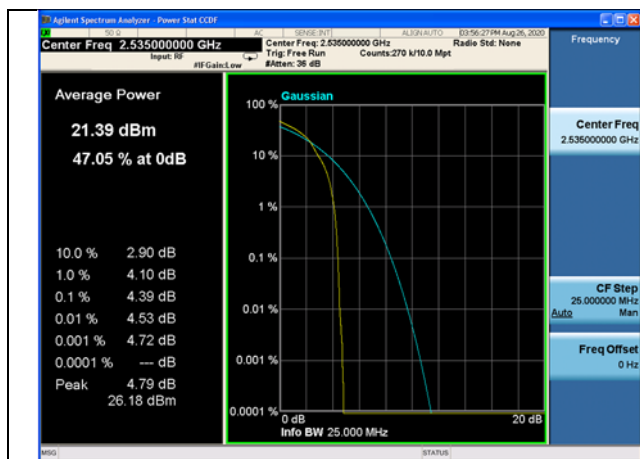


Fig.11

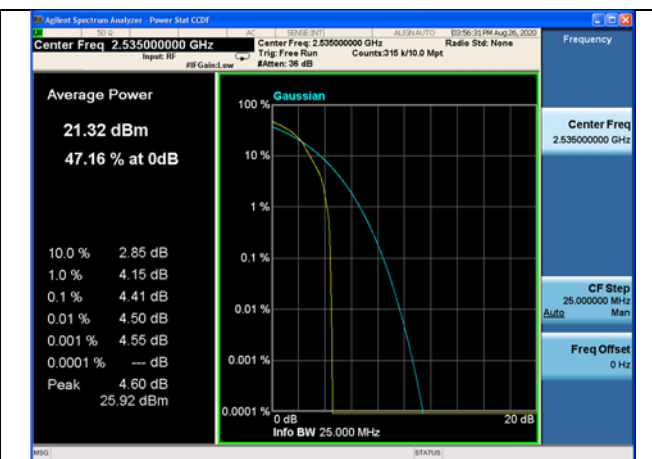


Fig.12

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
	2535	21100	20	1	0	Fig.2
	2560	21350	20	1	0	Fig.3

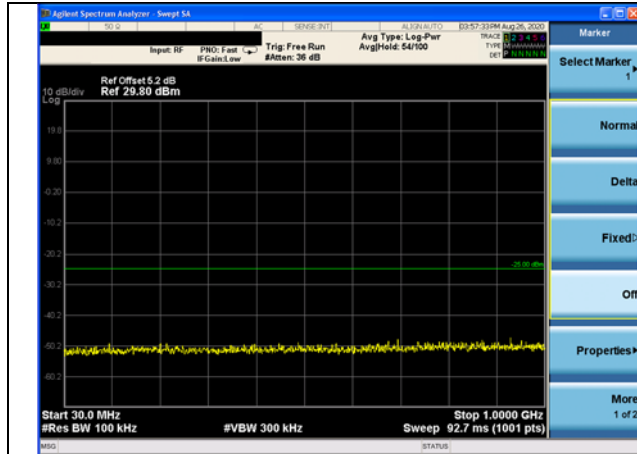


Fig.1

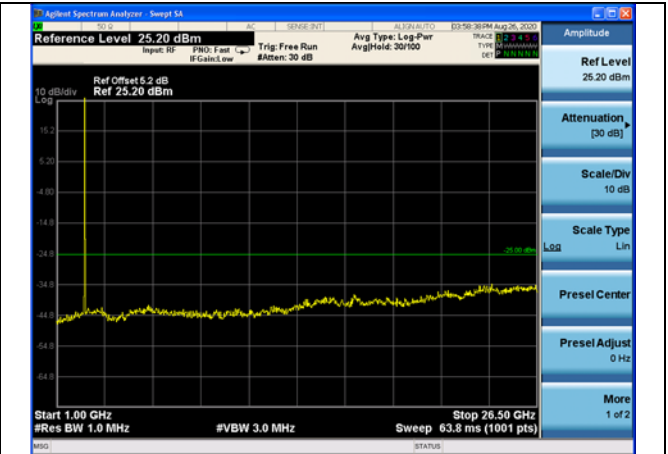


Fig.2

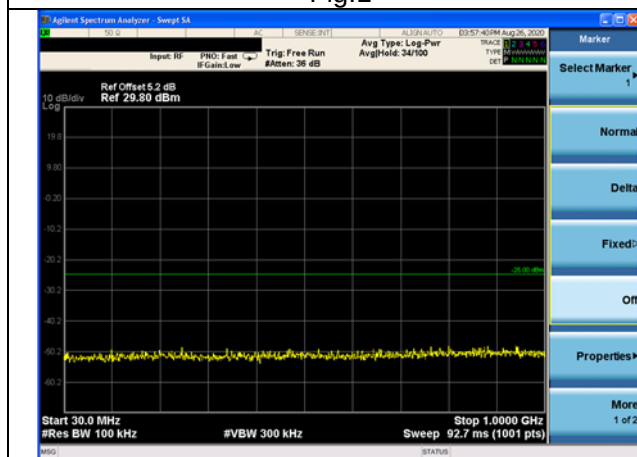


Fig3



Fig.4

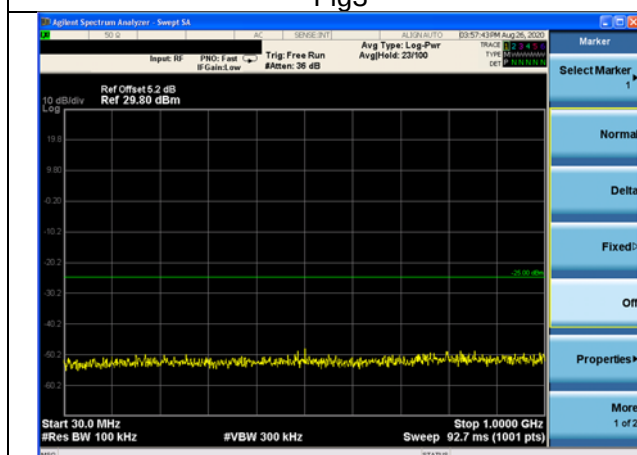


Fig.5

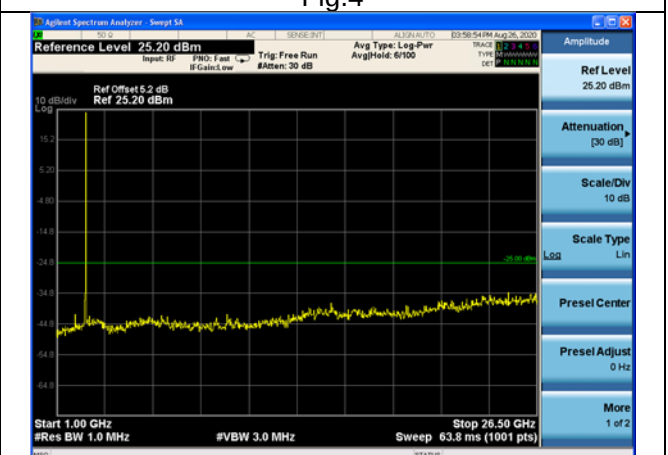
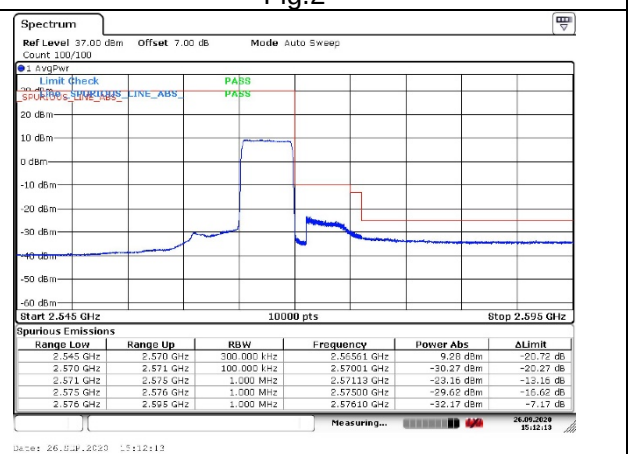
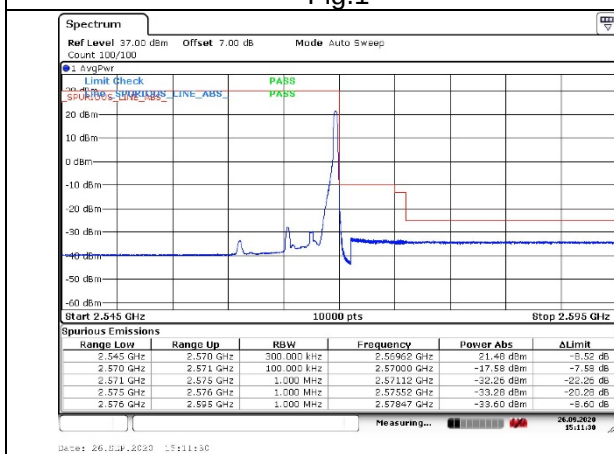
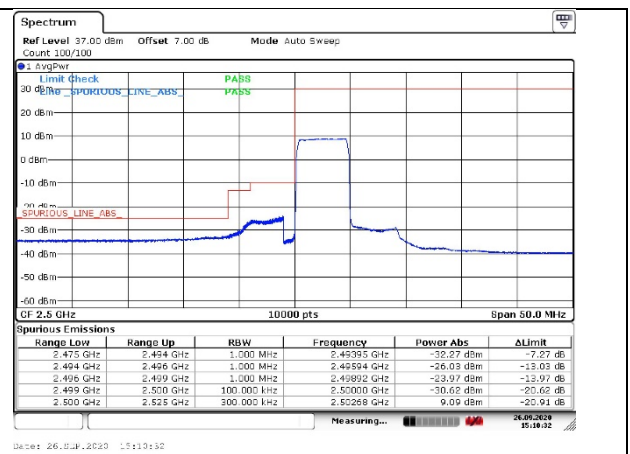
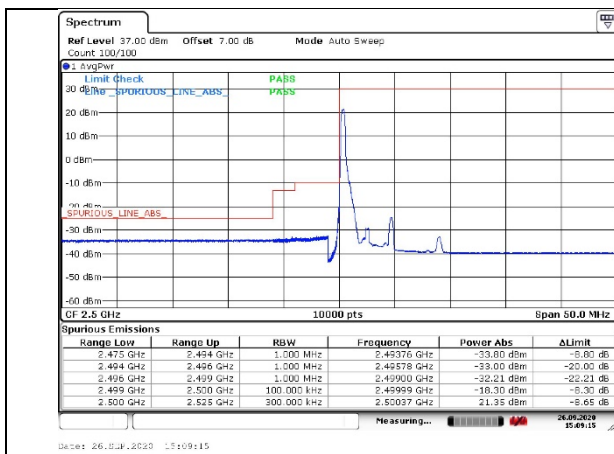


Fig.6

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.9
				25	0	Fig.10
	2505	20800	10	1	0	Fig.3
				50	0	Fig.4
	2565	21400		1	49	Fig.11
				50	0	Fig.12
	2507.5	20825	15	1	0	Fig.5
				75	0	Fig.6
	2562.5	21375		1	74	Fig.13
				75	0	Fig.14
	2510	20850	20	1	0	Fig.7
				100	0	Fig.8
	2560	21350		1	99	Fig.15
				100	0	Fig.16



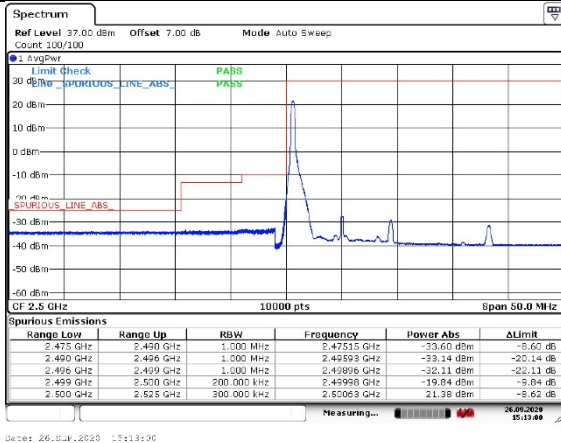


Fig.5

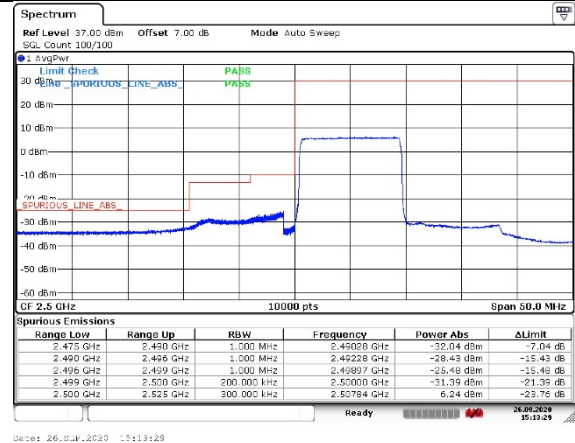


Fig.6

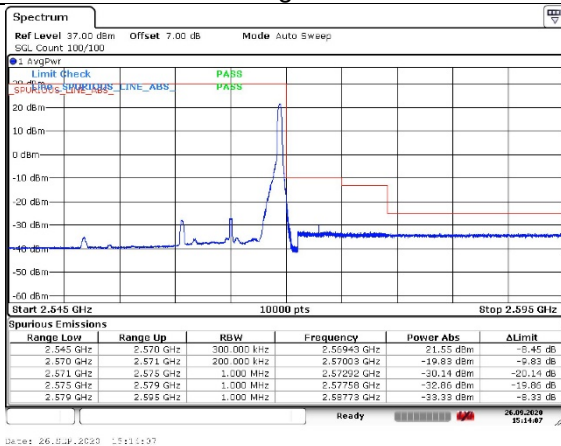


Fig.7

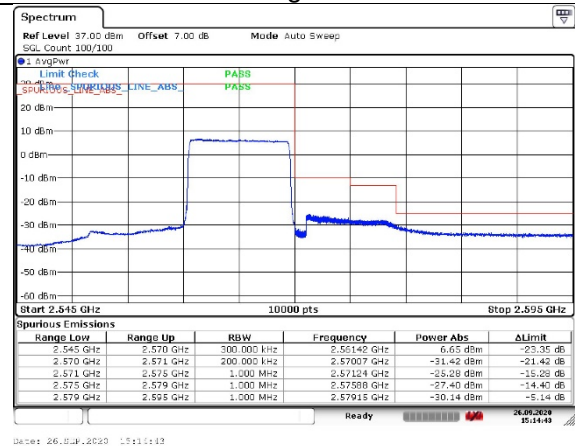


Fig.8

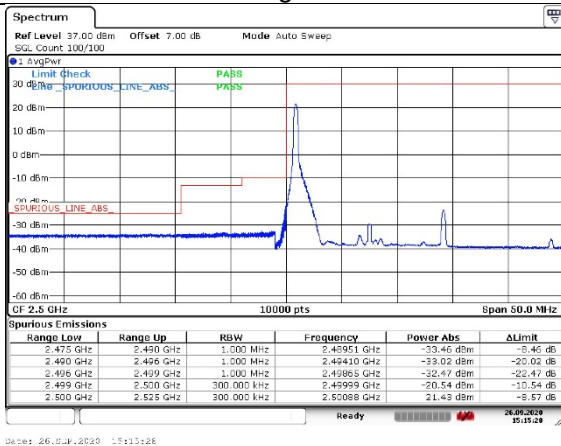


Fig.9

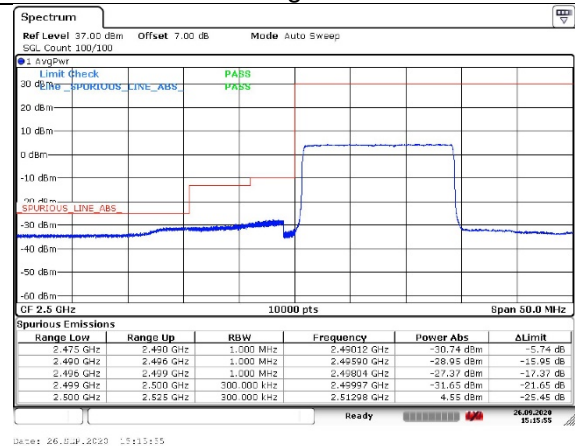


Fig.10

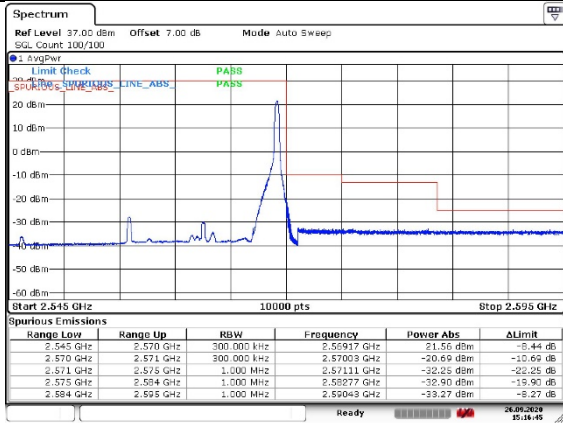


Fig.11

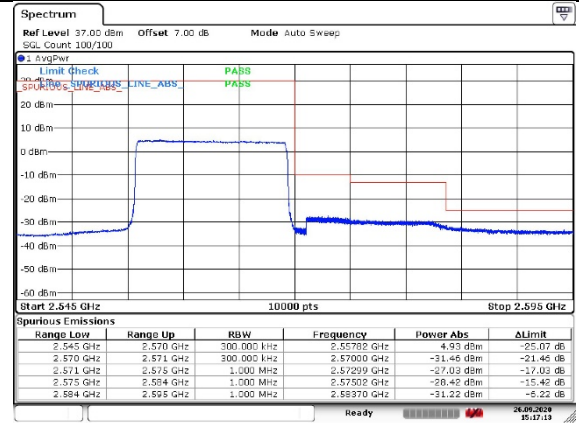


Fig.12

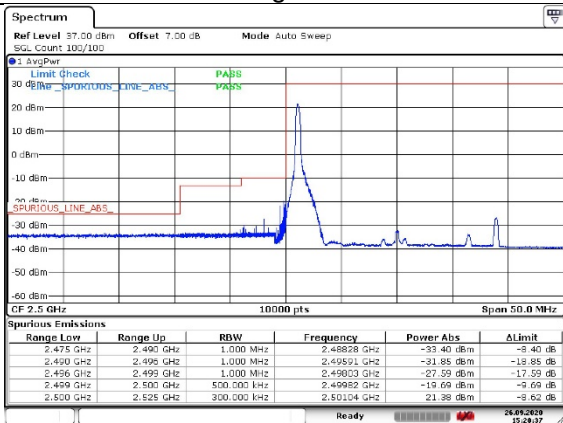


Fig.13

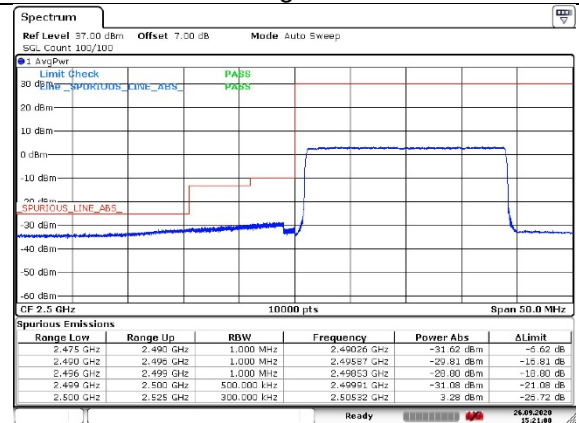


Fig.14

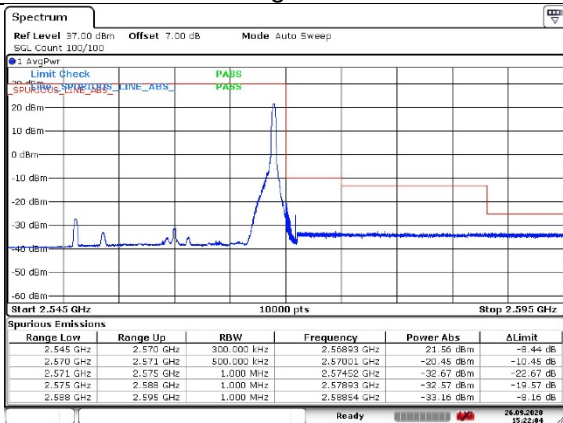


Fig.15

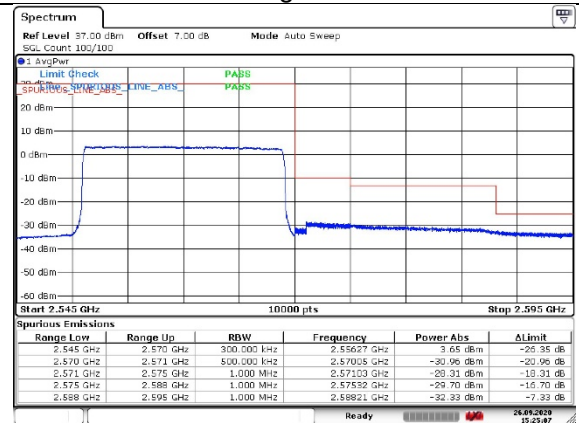


Fig.16

6 Frequency Stability

Test result:

Temperature(°C)	Voltage	Test Result (ppm) Band7 Low Channel			
		5M	10M	15M	20M
-10	NV	0.030	-0.050	0.043	-0.087
0	NV	-0.027	-0.040	-0.064	-0.097
+10	NV	-0.006	-0.071	-0.074	0.008
+20	NV	0.000	0.000	0.000	0.000
+30	NV	-0.100	0.078	0.034	0.058
+40	NV	0.025	0.078	0.046	0.076
+50	NV	0.080	-0.059	-0.052	0.056
+55	NV	0.042	-0.038	0.092	0.006
+20	LV	-0.077	0.014	-0.003	-0.088
+20	HV	0.052	0.091	0.046	-0.052

Temperature(°C)	Voltage	Test Result (ppm) Band7 High Channel			
		5M	10M	15M	20M
-10	NV	0.014	0.001	-0.044	0.038
0	NV	-0.044	0.088	-0.085	0.067
+10	NV	-0.025	-0.022	-0.001	-0.045
+20	NV	0.000	0.000	0.000	0.000
+30	NV	0.062	0.034	0.000	0.067
+40	NV	-0.013	-0.048	0.056	0.075
+50	NV	-0.010	-0.016	0.035	0.084
+55	NV	0.093	0.017	0.002	0.099
+20	LV	0.011	0.024	-0.014	0.002
+20	HV	-0.004	-0.017	-0.029	-0.044