

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	24.19
				1	24	24.57
				12	6	23.41
				25	0	23.37
	2535	21100		1	0	24.33
				1	24	24.38
				12	6	23.40
				25	0	23.37
	2567.5	21425		1	0	24.13
				1	24	24.40
				12	6	23.77
				25	0	23.13
16QAM	2502.5	20775	5	1	0	24.00
				1	24	23.28
				12	6	22.43
				25	0	22.45
	2535	21100		1	0	22.75
				1	24	22.53
				12	6	22.33
				25	0	22.48
	2567.5	21425		1	0	23.06
				1	24	22.94
				12	6	22.41
				25	0	22.14
64QAM	2502.5	20775	5	1	0	23.05
				1	24	23.29
				12	6	22.43
				25	0	22.50
	2535	21100		1	0	22.62
				1	24	22.83
				12	6	22.23
				25	0	22.28
	2567.5	21425		1	0	22.98
				1	24	22.92
				12	6	22.30
				25	0	22.16

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)
QPSK	2505	20800	10	1	0	24.26
				1	49	24.66
				24	12	23.36
				50	0	23.39
	2535	21100		1	0	24.44
				1	49	24.35
				24	12	23.33
				50	0	23.34
	2565	21400		1	0	24.13
				1	49	24.43
				24	12	23.67
				50	0	23.13
16QAM	2505	20800	10	1	0	24.04
				1	49	23.32
				24	12	22.43
				50	0	22.37
	2535	21100		1	0	22.65
				1	49	22.60
				24	12	22.30
				50	0	22.36
	2565	21400		1	0	23.16
				1	49	22.84
				24	12	22.45
				50	0	22.10
64QAM	2505	20800	10	1	0	23.04
				1	49	23.25
				24	12	22.46
				50	0	22.59
	2535	21100		1	0	22.67
				1	49	22.80
				24	12	22.31
				50	0	22.18
	2565	21400		1	0	23.02
				1	49	22.81
				24	12	22.40
				50	0	22.18

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)
QPSK	2507.5	20825	15	1	0	24.31
				1	74	24.56
				40	18	23.47
				75	0	23.34
	2535	21100		1	0	24.31
				1	74	24.42
				40	18	23.40
				75	0	23.45
	2562.5	21375		1	0	24.10
				1	74	24.35
				40	18	23.72
				75	0	23.23
16QAM	2507.5	20825	15	1	0	23.96
				1	74	23.40
				40	18	22.38
				75	0	22.47
	2535	21100		1	0	22.67
				1	74	22.52
				40	18	22.35
				75	0	22.34
	2562.5	21375		1	0	23.07
				1	74	22.82
				40	18	22.44
				75	0	22.09
64QAM	2507.5	20825	15	1	0	23.01
				1	74	23.27
				40	18	22.39
				75	0	22.47
	2535	21100		1	0	22.71
				1	74	22.77
				40	18	22.22
				75	0	22.17
	2562.5	21375		1	0	22.97
				1	74	22.95
				40	18	22.39
				75	0	22.14

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)
QPSK	2510	20850	20	1	0	24.33
				1	99	24.68
				50	25	23.51
				100	0	23.48
	2535	21100		1	0	24.44
				1	99	24.43
				50	25	23.43
				100	0	23.46
	2560	21350		1	0	24.22
				1	99	24.44
				50	25	23.78
				100	0	23.26
16QAM	2510	20850	20	1	0	24.05
				1	99	23.41
				50	25	22.47
				100	0	22.52
	2535	21100		1	0	22.76
				1	99	22.62
				50	25	22.35
				100	0	22.49
	2560	21350		1	0	23.21
				1	99	22.95
				50	25	22.53
				100	0	22.19
64QAM	2510	20850	20	1	0	23.13
				1	99	23.36
				50	25	22.54
				100	0	22.59
	2535	21100		1	0	22.73
				1	99	22.85
				50	25	22.35
				100	0	22.31
	2560	21350		1	0	23.07
				1	99	22.96
				50	25	22.41
				100	0	22.24

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	4.4743	Fig.1	4.4722	Fig.2	4.4830	Fig.3
	2535	21100		25	0	4.4756	Fig.4	4.4752	Fig.5	4.4907	Fig.6
	2567.5	21425		25	0	4.4834	Fig.7	4.4779	Fig.8	4.4804	Fig.9
	2505	20800	10	50	0	8.9503	Fig.10	8.9563	Fig.11	8.9129	Fig.12
	2535	21100		50	0	8.9512	Fig.13	8.9603	Fig.14	8.9332	Fig.15
	2565	21400		50	0	8.9588	Fig.16	8.9496	Fig.17	8.9496	Fig.18
	2507.5	20825	15	75	0	13.377	Fig.19	13.375	Fig.20	13.441	Fig.21
	2535	21100		75	0	13.431	Fig.22	13.378	Fig.23	13.387	Fig.24
	2562.5	21375		75	0	13.430	Fig.25	13.418	Fig.26	13.399	Fig.27
	2510	20850	20	100	0	17.862	Fig.28	17.853	Fig.29	17.814	Fig.30
	2535	21100		100	0	17.834	Fig.31	17.834	Fig.32	17.817	Fig.33
	2560	21350		100	0	17.803	Fig.34	17.840	Fig.35	17.842	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	4.970	Fig.1	4.901	Fig.2	4.896	Fig.3
	2535	21100		25	0	4.958	Fig.4	4.941	Fig.5	4.953	Fig.6
	2567.5	21425		25	0	4.912	Fig.7	4.870	Fig.8	4.875	Fig.9
	2505	20800	10	50	0	9.606	Fig.10	9.627	Fig.11	9.606	Fig.12
	2535	21100		50	0	9.667	Fig.13	9.566	Fig.14	9.644	Fig.15
	2565	21400		50	0	9.657	Fig.16	9.523	Fig.17	9.523	Fig.18
	2507.5	20825	15	75	0	14.32	Fig.19	14.08	Fig.20	14.37	Fig.21
	2535	21100		75	0	14.22	Fig.22	14.41	Fig.23	14.32	Fig.24
	2562.5	21375		75	0	14.41	Fig.25	14.32	Fig.26	14.20	Fig.27
	2510	20850	20	100	0	19.12	Fig.28	19.17	Fig.29	18.90	Fig.30
	2535	21100		100	0	18.95	Fig.31	19.05	Fig.32	19.01	Fig.33
	2560	21350		100	0	19.08	Fig.34	18.98	Fig.35	19.05	Fig.36

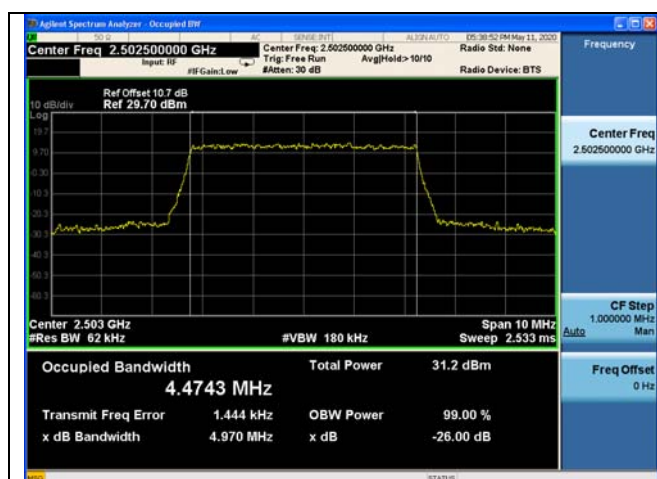


Fig.1

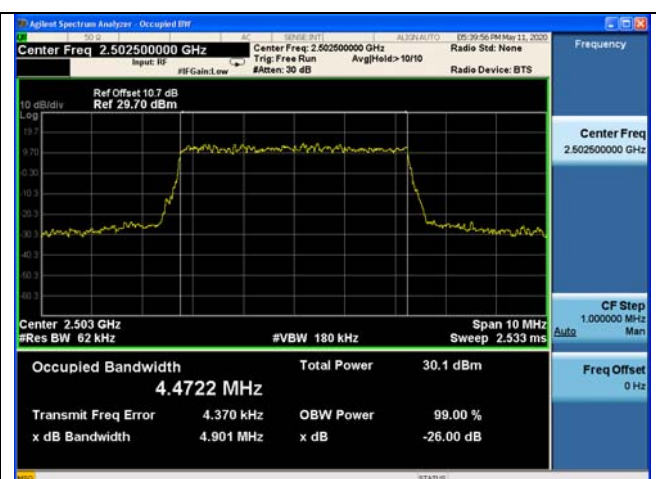


Fig.2

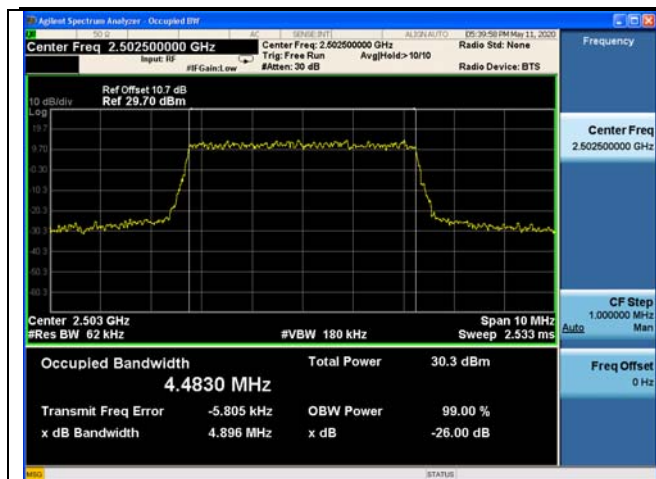


Fig.3

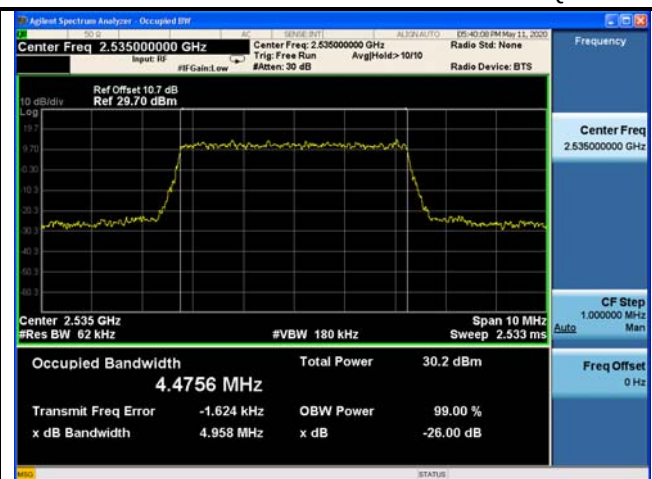


Fig.4

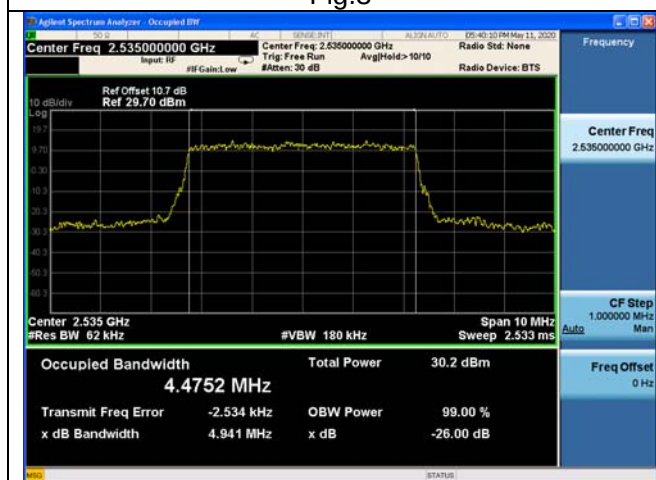


Fig.5

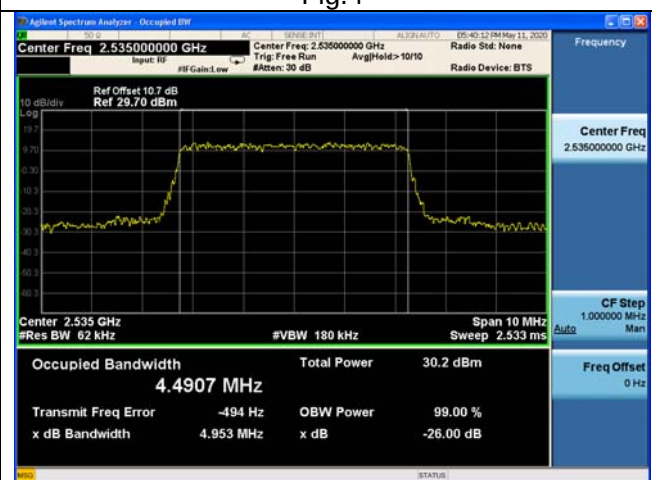


Fig.6

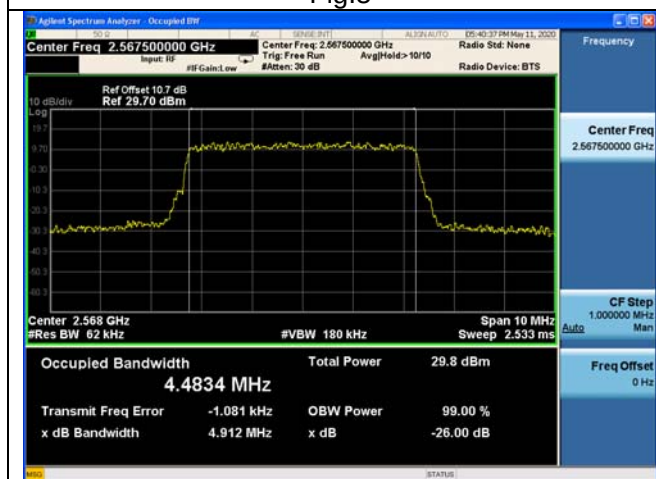


Fig.7

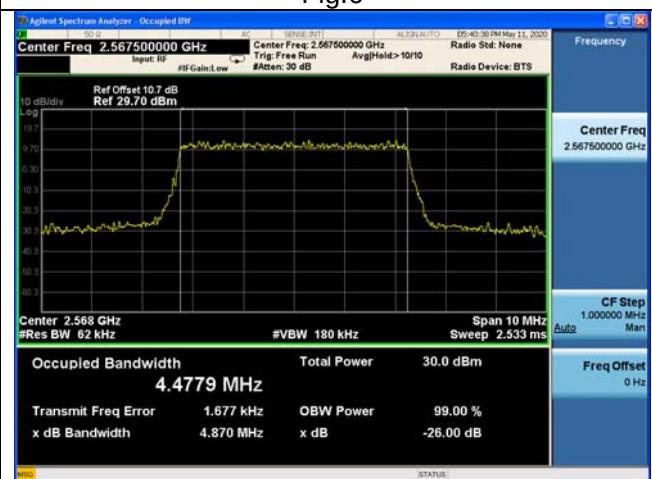


Fig.8

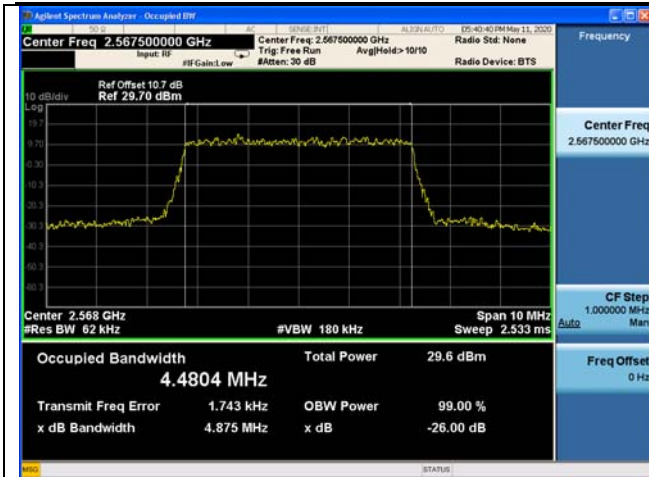


Fig.9

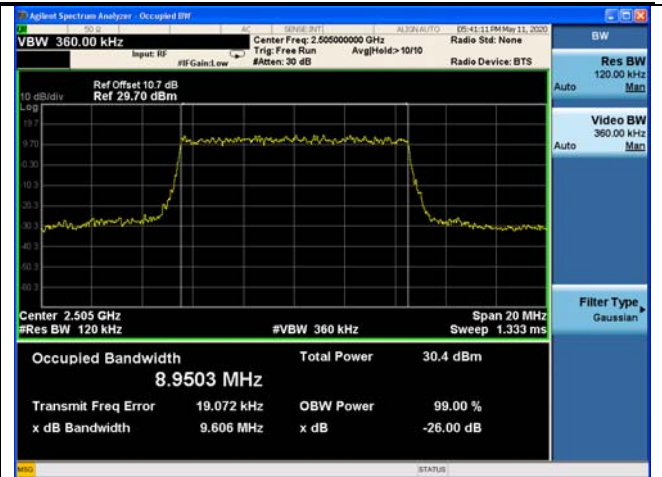


Fig.10

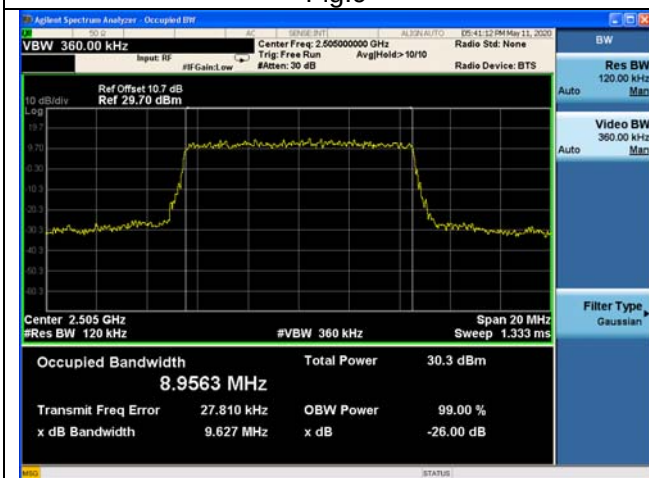


Fig.11

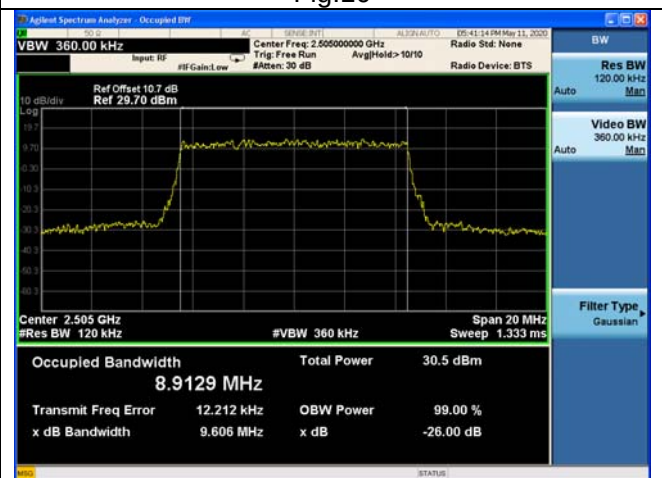


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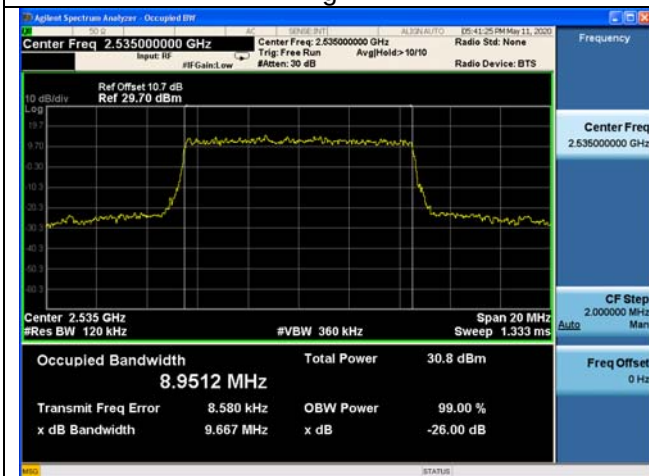


Fig.13

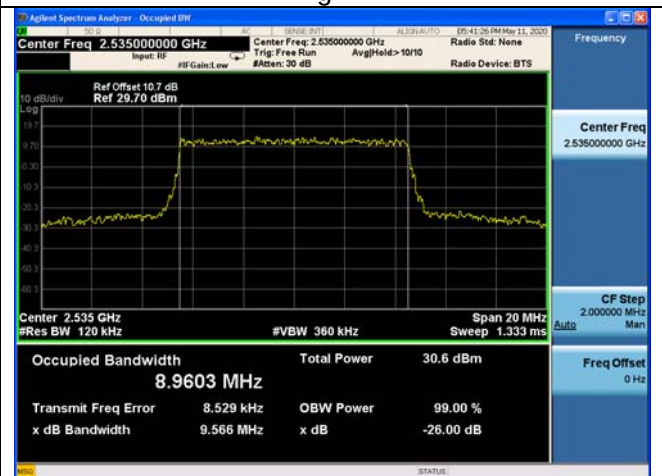


Fig.14

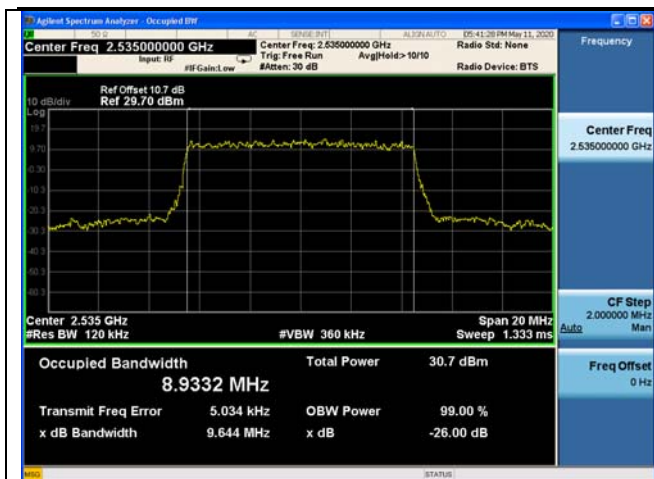


Fig.15

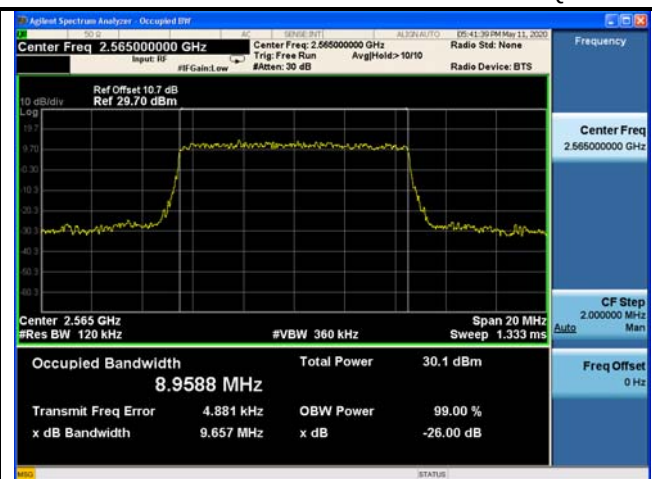


Fig.16

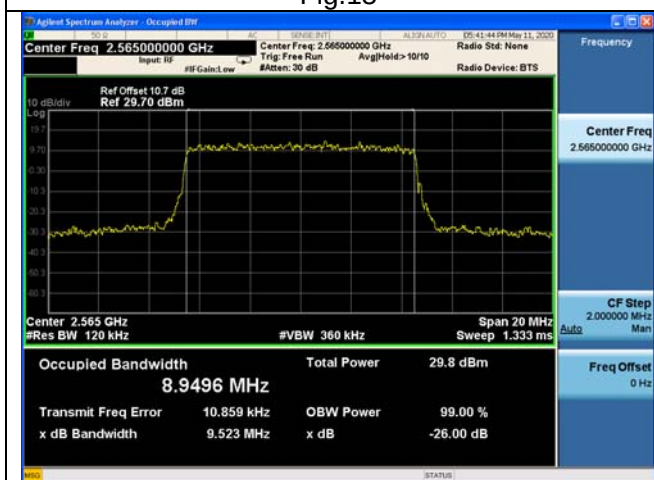


Fig.17

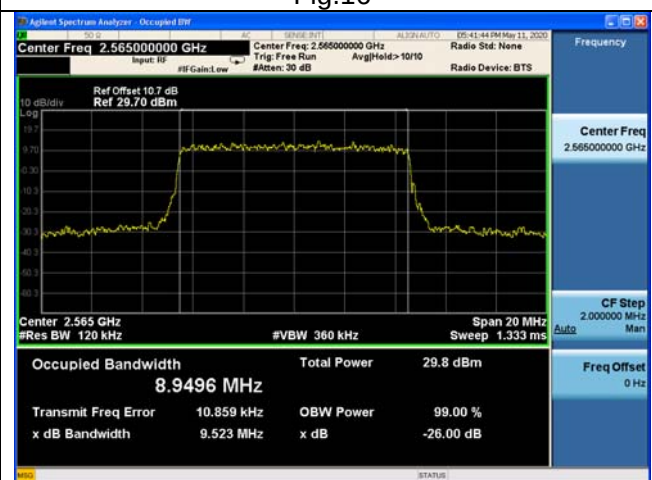


Fig.18

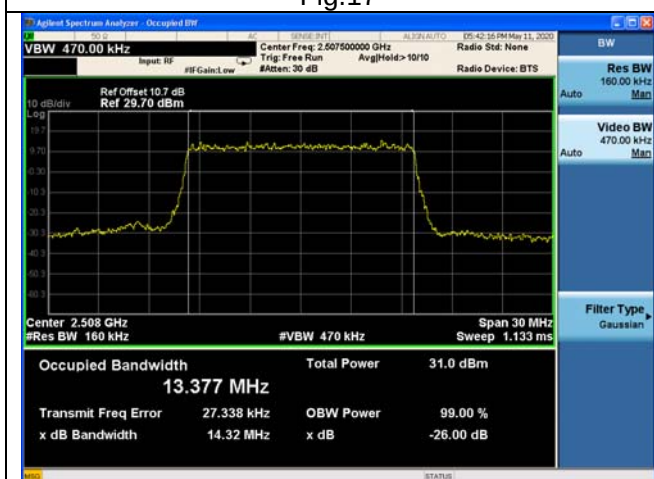


Fig.19

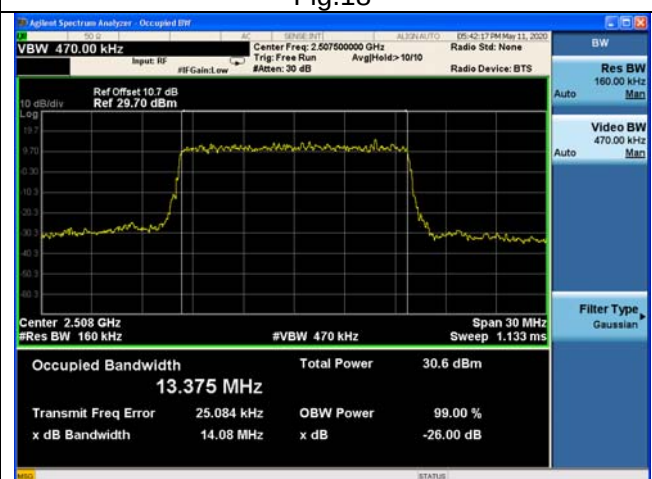


Fig.20

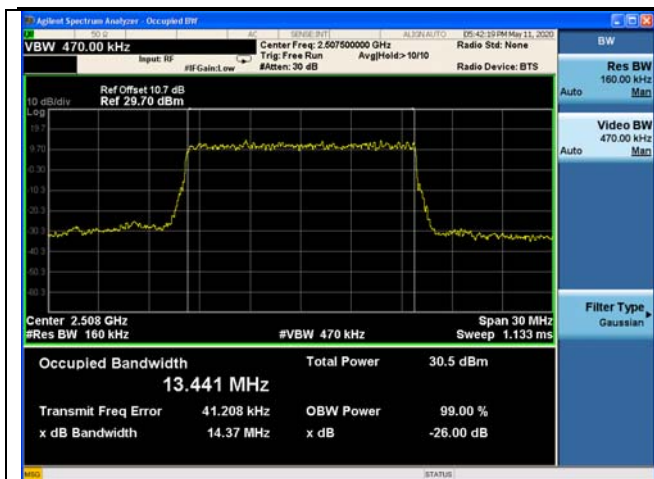


Fig.21

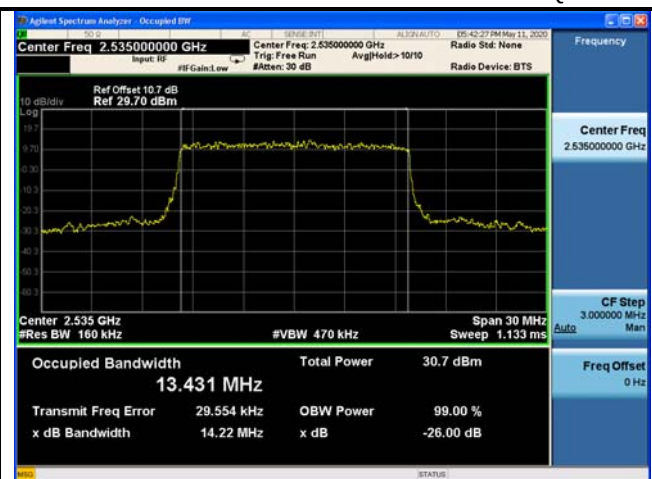


Fig.22

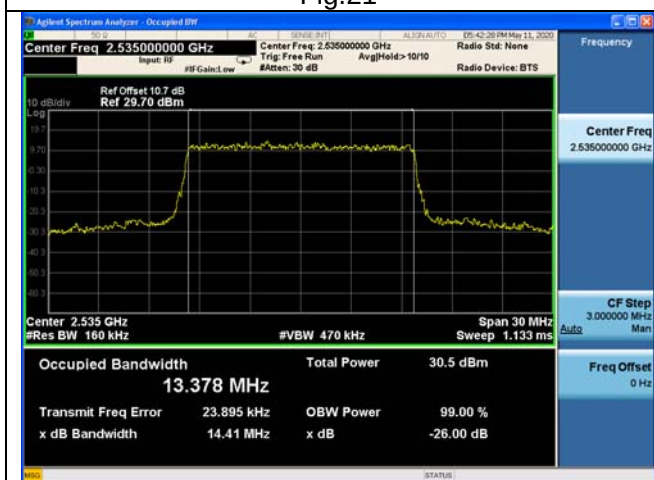


Fig.23

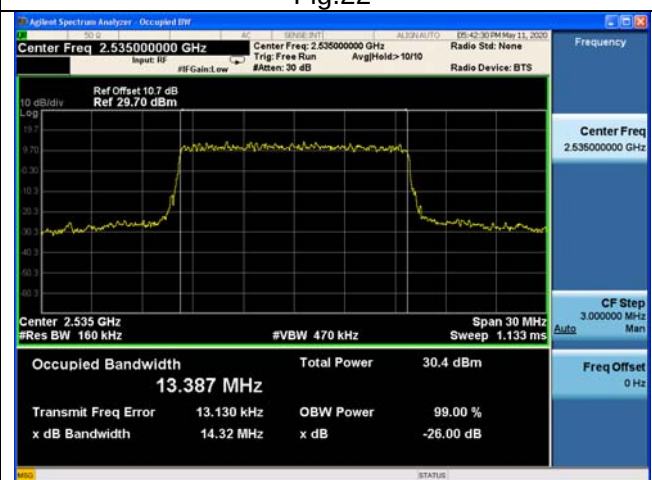


Fig.24

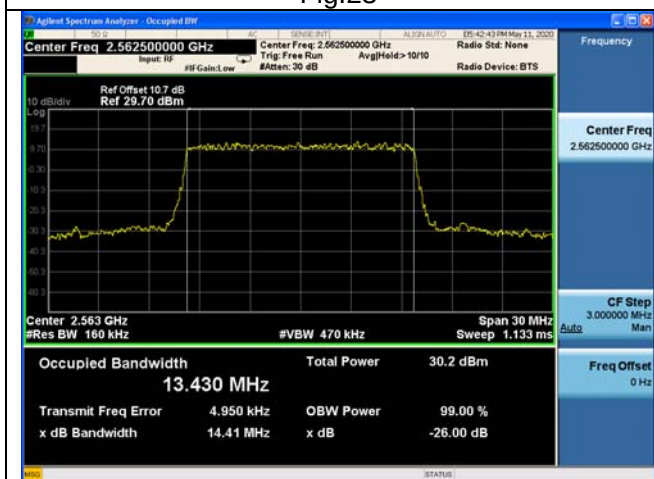


Fig.25

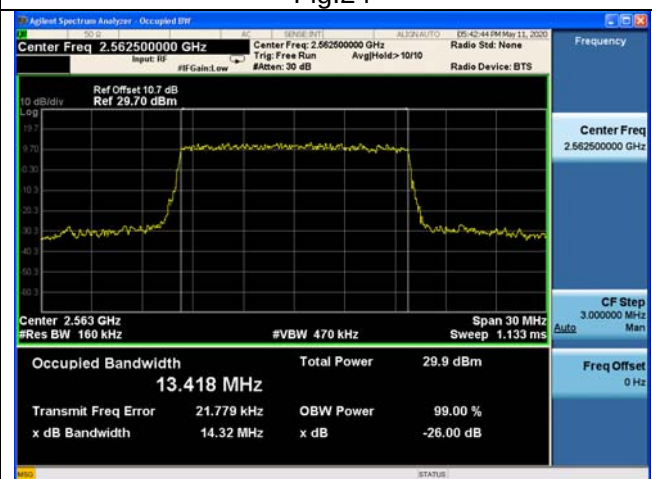


Fig.26

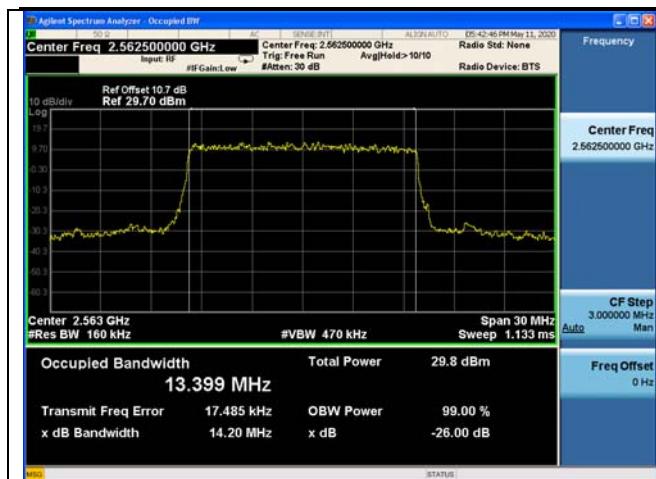


Fig.27

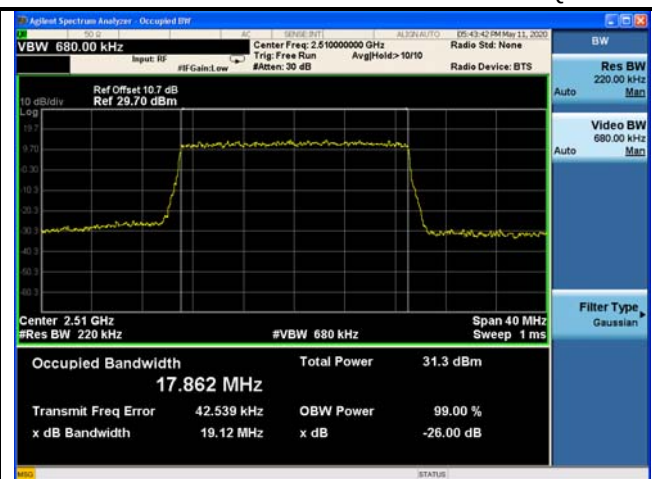


Fig.28

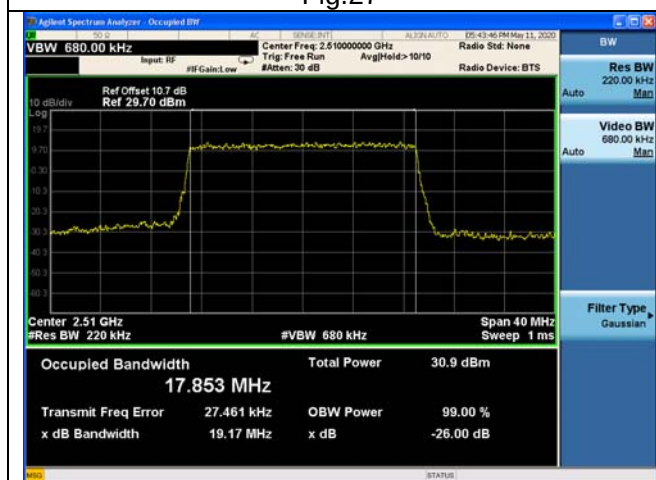


Fig.29

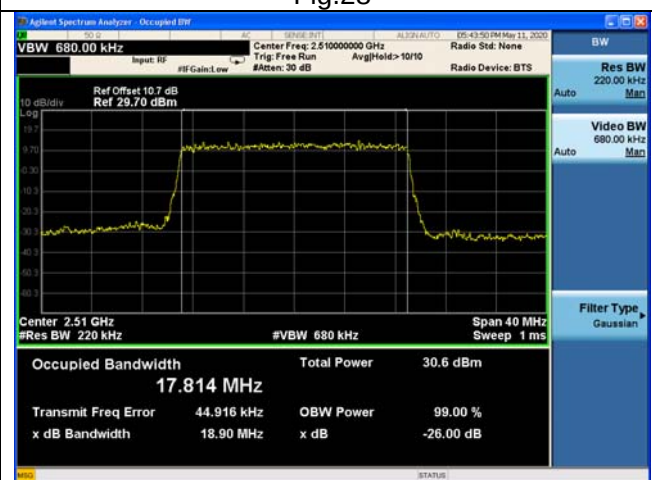


Fig.30

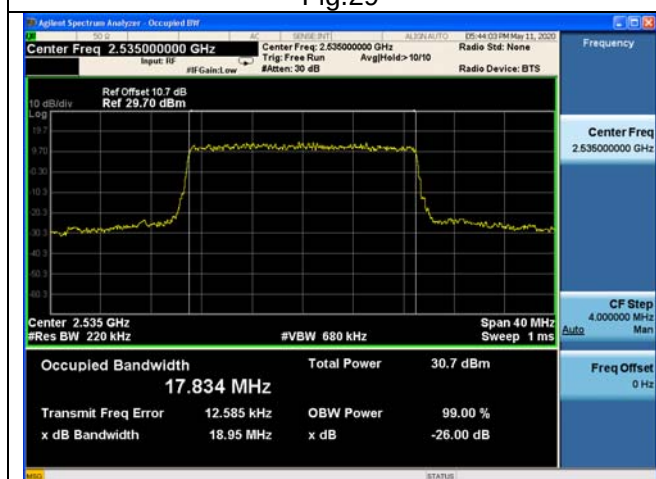


Fig.31

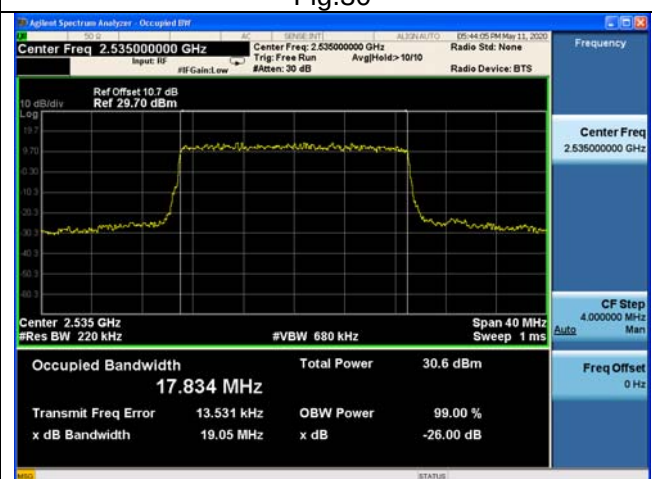


Fig.32

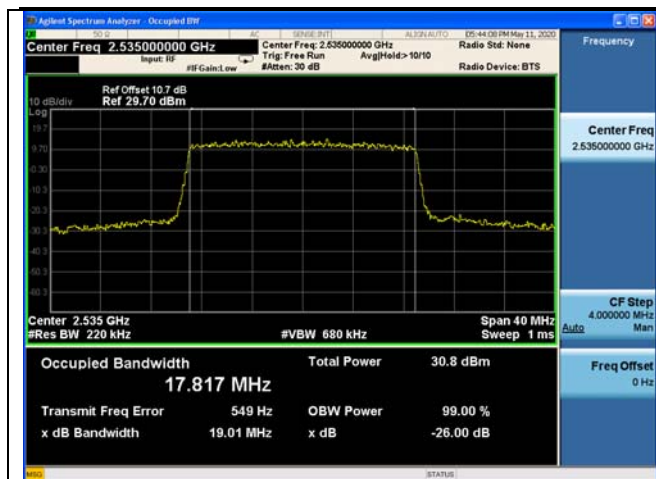


Fig.33

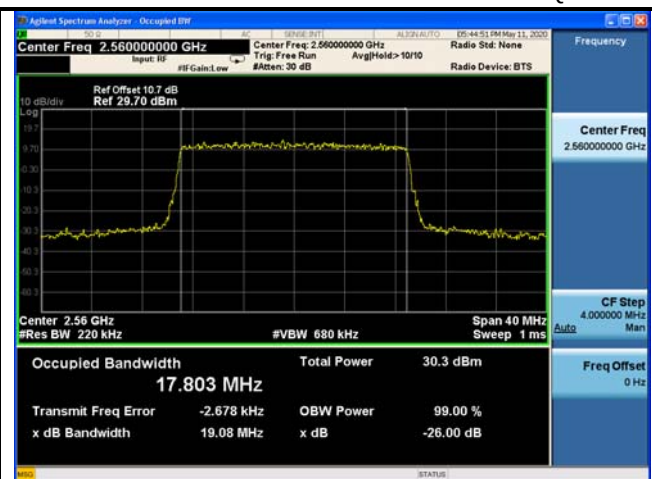


Fig.34

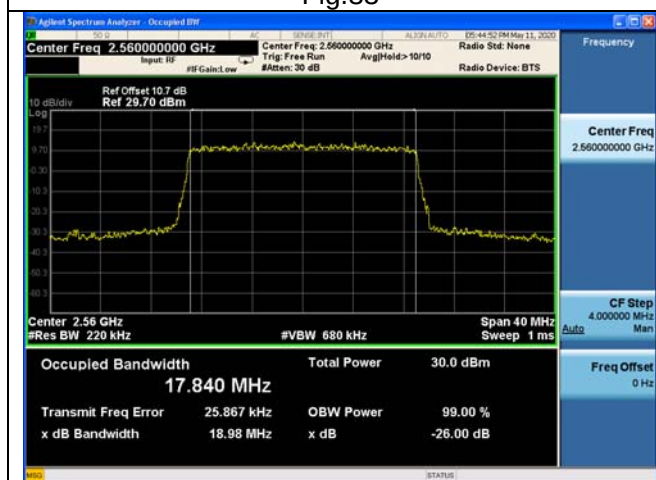


Fig.35

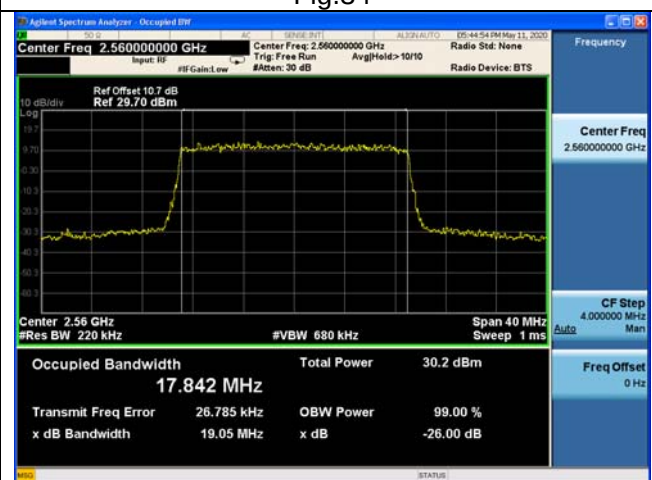


Fig.36

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

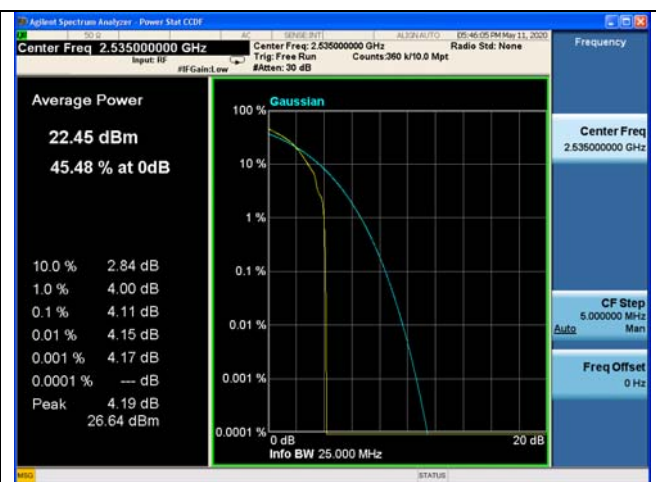


Fig.2

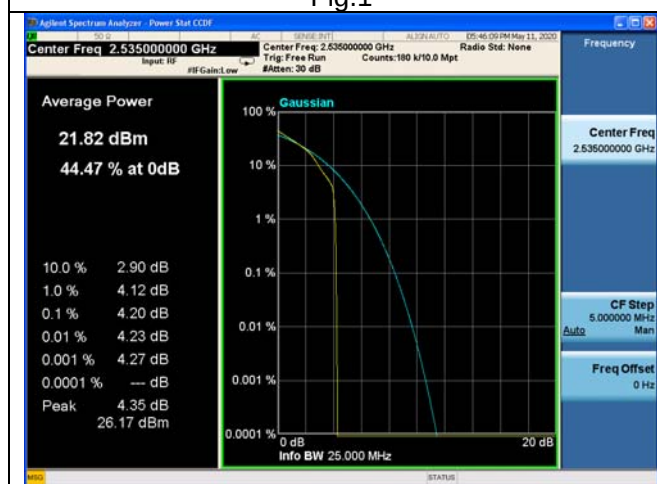


Fig.3

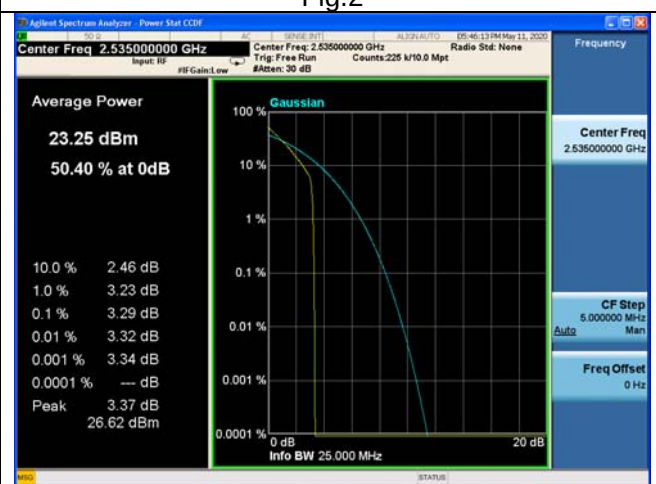


Fig.4



Fig.5



Fig.6



Fig.7

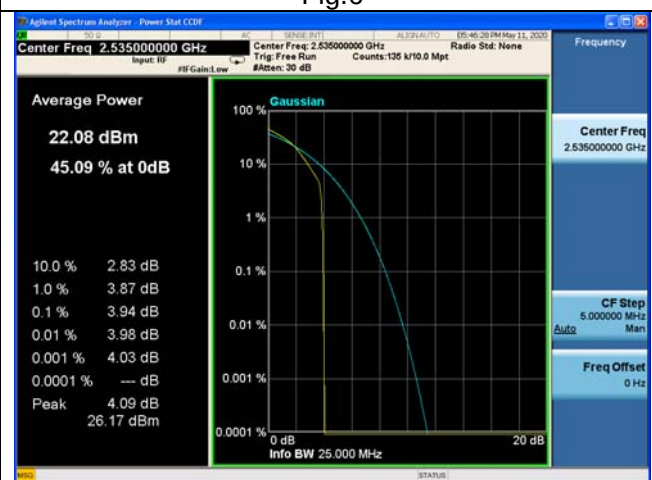


Fig.8



Fig.9



Fig.10

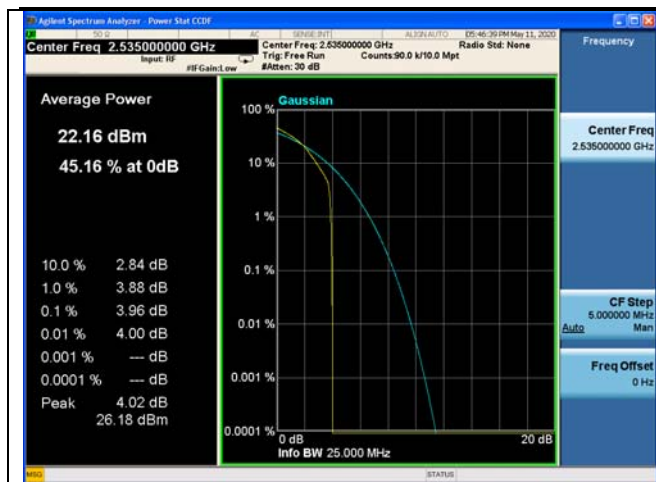


Fig.11



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

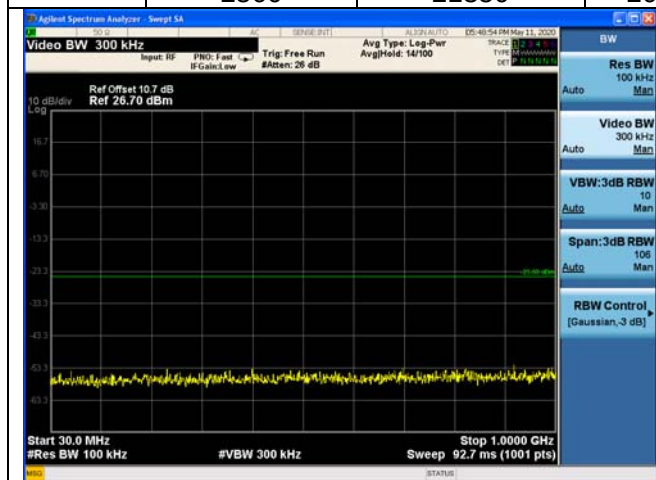


Fig.1



Fig.2

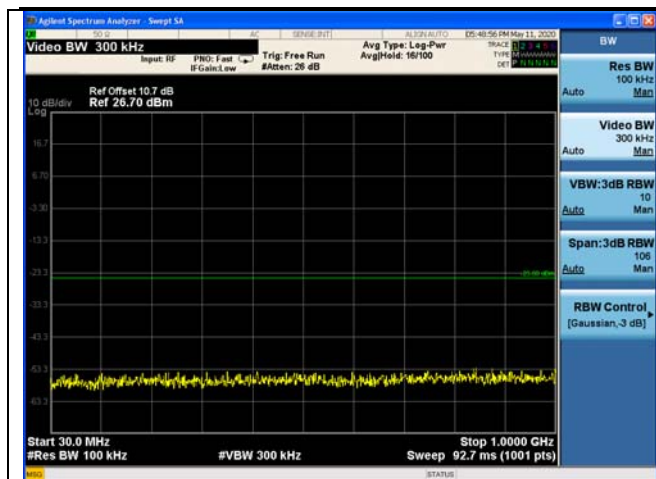


Fig3



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

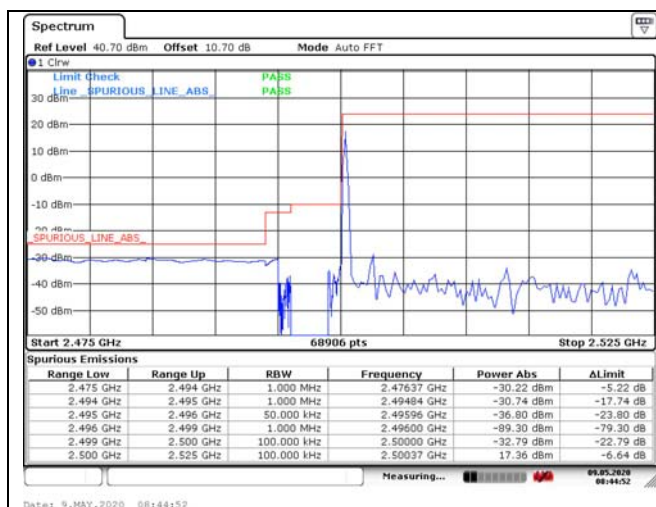


Fig.1



Fig.2

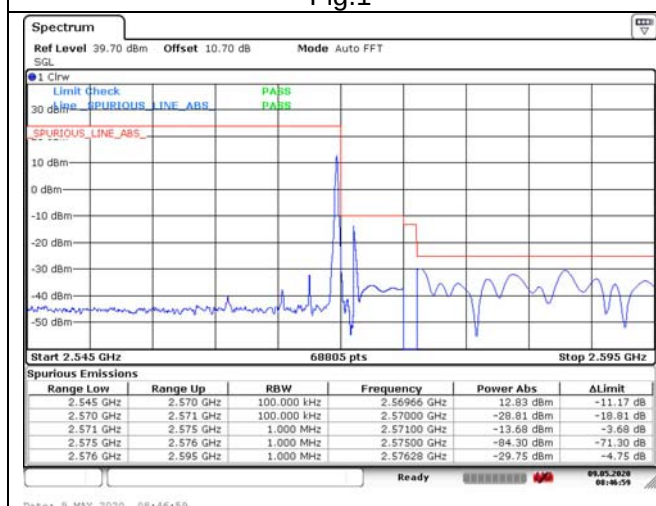


Fig.3

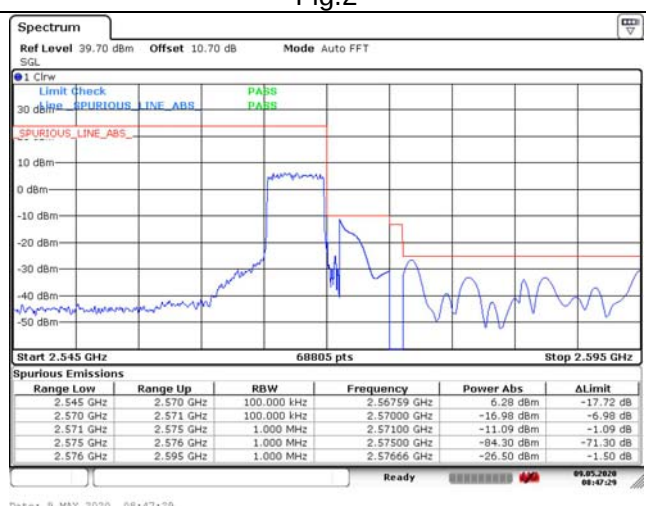


Fig.4

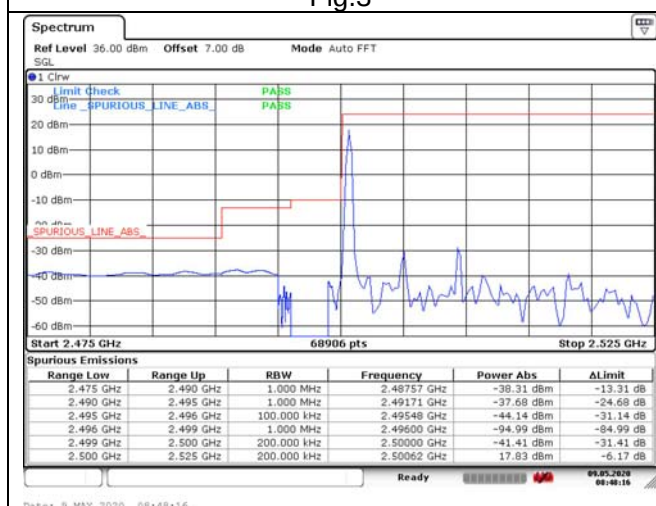


Fig.5

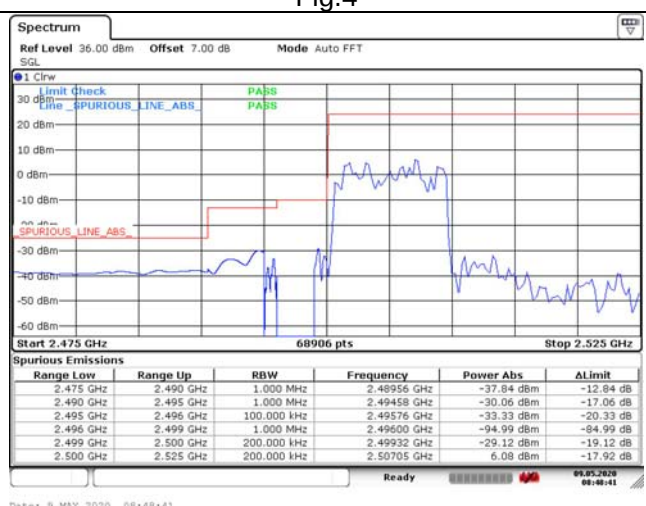


Fig.6

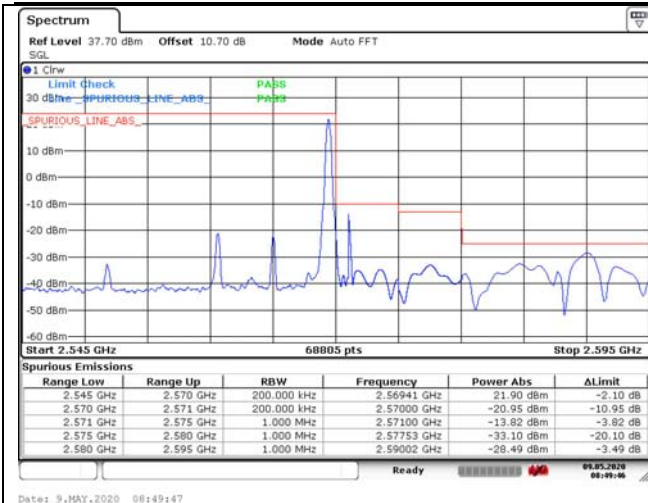


Fig.7

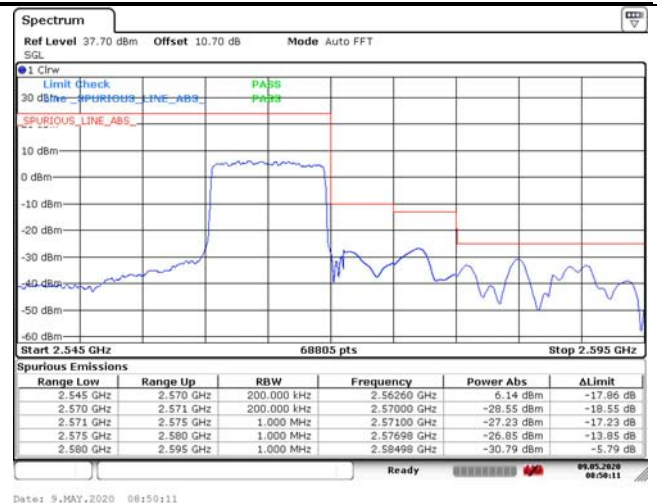


Fig.8

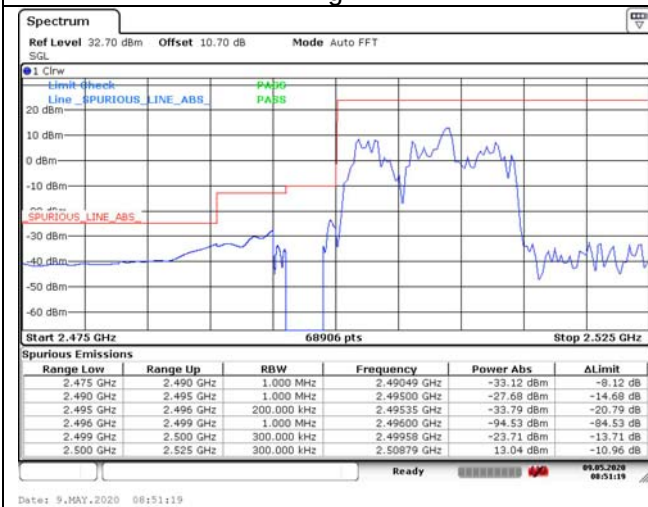


Fig.9

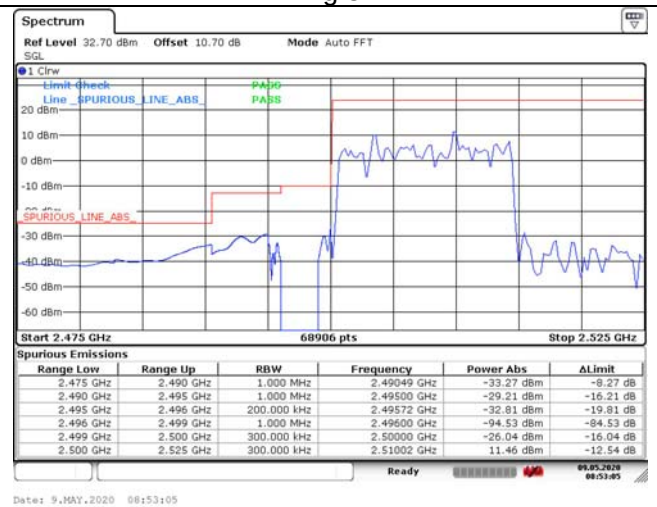


Fig.10

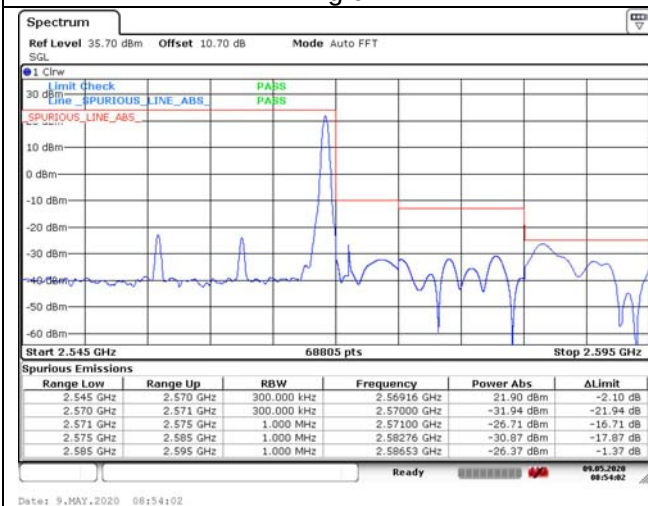


Fig.11

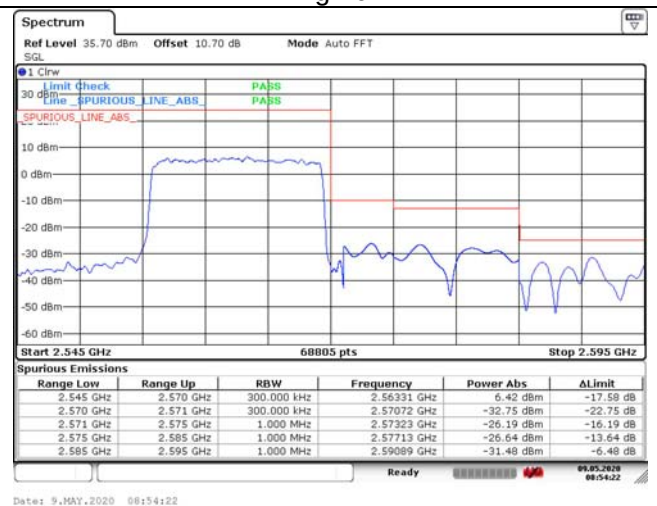


Fig.12

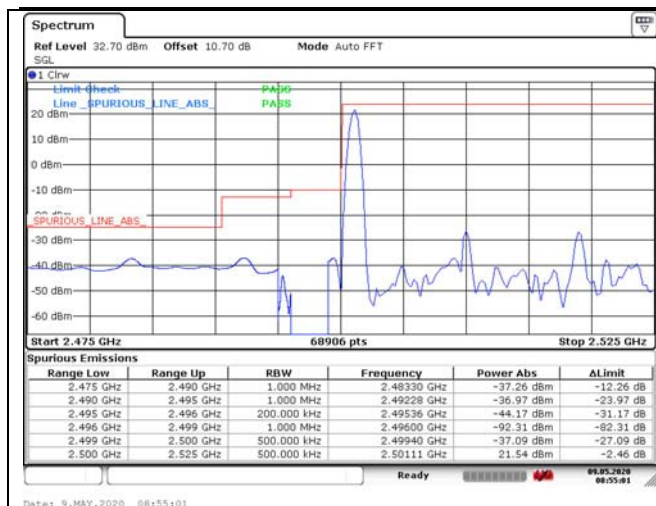


Fig.13



Fig.14

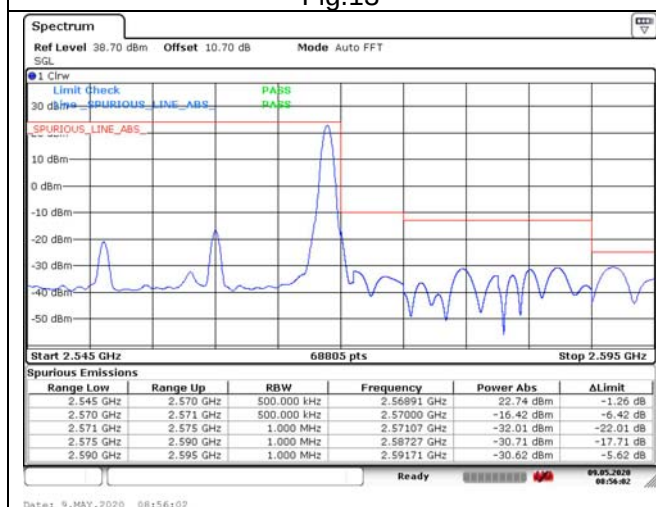


Fig.15

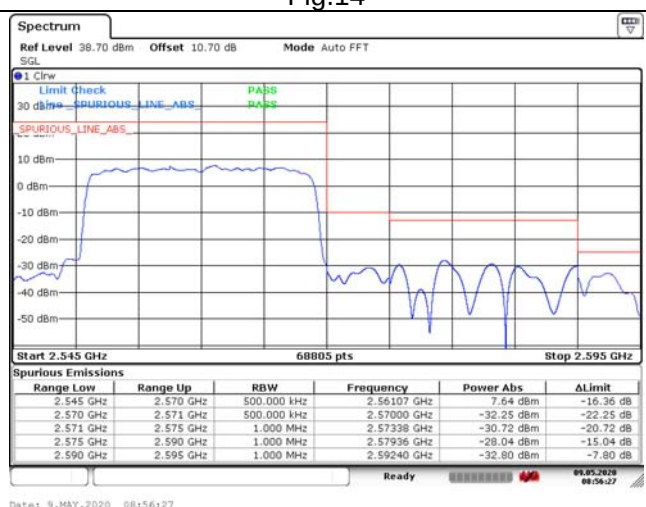


Fig.16

6 Frequency Stability

Test result:

Temperature(°C)	Voltage	Test Result (ppm) Band7 Low Channel			
		5M	10M	15M	20M
-10	NV	-0.066	0.001	0.042	0.007
0	NV	0.085	-0.036	0.080	-0.029
+10	NV	-0.041	0.075	0.031	-0.084
+20	NV	0.000	0.000	0.000	0.000
+30	NV	0.040	0.029	-0.076	-0.095
+40	NV	0.063	0.078	0.079	0.086
+50	NV	-0.050	-0.080	0.074	-0.094
+55	NV	0.043	-0.001	0.056	0.006
+20	LV	0.028	-0.029	-0.056	0.018
+20	HV	0.081	0.076	0.084	0.011

Temperature(°C)	Voltage	Test Result (ppm) Band7 High Channel			
		5M	10M	15M	20M
-10	NV	0.041	-0.086	-0.024	-0.097
0	NV	-0.099	0.075	-0.095	0.038
+10	NV	-0.094	0.092	0.068	0.059
+20	NV	0.000	0.000	0.000	0.000
+30	NV	-0.073	-0.031	0.057	-0.031
+40	NV	-0.071	-0.008	0.029	-0.033
+50	NV	-0.098	0.006	0.064	0.043
+55	NV	-0.093	0.058	-0.002	0.039
+20	LV	0.072	-0.071	0.054	-0.065
+20	HV	0.091	-0.010	-0.094	0.070