

APPENDIX A – TEST DATA OF CONDUCTED EMISSION

LTE Band 38

1 RF Power Output

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted Average (dBm)
QPSK	2572.5	37775	5	1	0	23.61
				1	24	23.50
				12	6	22.56
				25	0	22.33
	2595	38000		1	0	23.48
				1	24	23.64
				12	6	22.44
				25	0	22.50
	2617.5	38225		1	0	23.56
				1	24	23.55
				12	6	22.35
				25	0	22.23
16QAM	2572.5	37775	5	1	0	22.10
				1	24	21.96
				12	6	21.20
				25	0	21.10
	2595	38000		1	0	22.10
				1	24	22.06
				12	6	21.23
				25	0	21.38
	2617.5	38225		1	0	22.10
				1	24	21.81
				12	6	21.20
				25	0	21.18
64QAM	2572.5	37775	5	1	0	21.90
				1	24	21.88
				12	6	21.15
				25	0	21.10
	2595	38000		1	0	21.95
				1	24	22.09
				12	6	21.14
				25	0	21.30
	2617.5	38225		1	0	21.84
				1	24	21.94
				12	6	21.19
				25	0	21.03

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted Average (dBm)
QPSK	2575	37800	10	1	0	23.54
				1	49	23.49
				24	12	22.58
				50	0	22.49
	2595	38000		1	0	23.68
				1	49	23.65
				24	12	22.40
				50	0	22.52
	2615	38200		1	0	23.52
				1	49	23.47
				24	12	22.44
				50	0	22.29
16QAM	2575	37800	10	1	0	21.92
				1	49	21.88
				24	12	21.43
				50	0	21.13
	2595	38000		1	0	21.98
				1	49	21.94
				24	12	21.42
				50	0	21.37
	2615	38200		1	0	21.83
				1	49	21.91
				24	12	21.31
				50	0	21.18
64QAM	2575	37800	10	1	0	21.90
				1	49	22.00
				24	12	21.38
				50	0	21.07
	2595	38000		1	0	22.01
				1	49	22.11
				24	12	21.24
				50	0	21.10
	2615	38200		1	0	22.05
				1	49	21.80
				24	12	21.35
				50	0	21.15

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted Average (dBm)
QPSK	2577.5	37825	15	1	0	23.41
				1	74	23.43
				40	18	22.33
				75	0	22.51
	2595	38000		1	0	23.59
				1	74	23.67
				40	18	22.57
				75	0	22.38
	2612.5	38175		1	0	23.71
				1	74	23.58
				40	18	22.38
				75	0	22.44
16QAM	2577.5	37825	15	1	0	21.84
				1	74	21.86
				40	18	21.09
				75	0	21.12
	2595	38000		1	0	22.00
				1	74	22.04
				40	18	21.42
				75	0	21.26
	2612.5	38175		1	0	21.88
				1	74	21.98
				40	18	21.24
				75	0	21.32
64QAM	2577.5	37825	15	1	0	21.93
				1	74	21.96
				40	18	21.18
				75	0	21.17
	2595	38000		1	0	22.02
				1	74	21.87
				40	18	21.21
				75	0	21.12
	2612.5	38175		1	0	22.04
				1	74	21.88
				40	18	21.01
				75	0	21.18

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted Average (dBm)
QPSK	2580	37850	20	1	0	23.73
				1	99	23.73
				50	25	22.60
				100	0	22.58
	2595	38000		1	0	23.76
				1	99	23.76
				50	25	22.63
				100	0	22.62
	2610	38150		1	0	23.76
				1	99	23.76
				50	25	22.53
				100	0	22.54
16QAM	2580	37850	20	1	0	22.18
				1	99	22.15
				50	25	21.42
				100	0	21.30
	2595	38000		1	0	22.18
				1	99	22.18
				50	25	21.48
				100	0	21.38
	2610	38150		1	0	22.17
				1	99	22.12
				50	25	21.42
				100	0	21.36
64QAM	2580	37850	20	1	0	22.09
				1	99	22.03
				50	25	21.38
				100	0	21.33
	2595	38000		1	0	22.09
				1	99	22.09
				50	25	21.45
				100	0	21.37
	2610	38150		1	0	22.05
				1	99	22.04
				50	25	21.37
				100	0	21.32

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	
38	2572.5	37775	5	25	0	4.5	Fig.1	4.5	Fig.2	4.5	Fig.3
	2595	38000		25	0	4.5	Fig.4	4.5	Fig.5	4.5	Fig.6
	2617.5	38225		25	0	4.5	Fig.7	4.5	Fig.8	4.5	Fig.9
	2575	37800	10	50	0	9.0	Fig.10	9.0	Fig.11	9.0	Fig.12
	2595	38000		50	0	9.0	Fig.13	9.1	Fig.14	9.0	Fig.15
	2615	38200		50	0	9.0	Fig.16	9.0	Fig.17	9.0	Fig.18
	2577.5	37825	15	75	0	13.4	Fig.19	13.4	Fig.20	13.4	Fig.21
	2595	38000		75	0	13.3	Fig.22	13.3	Fig.23	13.4	Fig.24
	2612.5	38175		75	0	13.4	Fig.25	13.4	Fig.26	13.4	Fig.27
	2580	37850	20	100	0	17.8	Fig.28	17.8	Fig.29	17.8	Fig.30
	2595	38000		100	0	17.8	Fig.31	17.8	Fig.32	17.8	Fig.33
	2610	38150		100	0	17.8	Fig.34	17.8	Fig.35	17.8	Fig.36

Band	Carrier frequency (MHz)	Channel	BW (MHz)	RB Size	RB Offset	Bandwidth of -26dB transmitter power (MHz)					
						QPSK		16-QAM		64-QAM	
38	2572.5	37775	5	25	0	4.9	Fig.1	4.8	Fig.2	4.7	Fig.3
	2595	38000		25	0	4.9	Fig.4	4.7	Fig.5	4.9	Fig.6
	2617.5	38225		25	0	4.8	Fig.7	4.9	Fig.8	4.9	Fig.9
	2575	37800	10	50	0	10.1	Fig.10	9.7	Fig.11	10.2	Fig.12
	2595	38000		50	0	9.9	Fig.13	9.8	Fig.14	10.0	Fig.15
	2615	38200		50	0	10.0	Fig.16	9.7	Fig.17	9.8	Fig.18
	2577.5	37825	15	75	0	14.4	Fig.19	14.0	Fig.20	14.2	Fig.21
	2595	38000		75	0	14.2	Fig.22	14.2	Fig.23	14.1	Fig.24
	2612.5	38175		75	0	14.5	Fig.25	14.0	Fig.26	14.2	Fig.27
	2580	37850	20	100	0	18.8	Fig.28	19.0	Fig.29	19.0	Fig.30
	2595	38000		100	0	19.0	Fig.31	18.6	Fig.32	18.9	Fig.33
	2610	38150		100	0	19.1	Fig.34	19.0	Fig.35	18.6	Fig.36

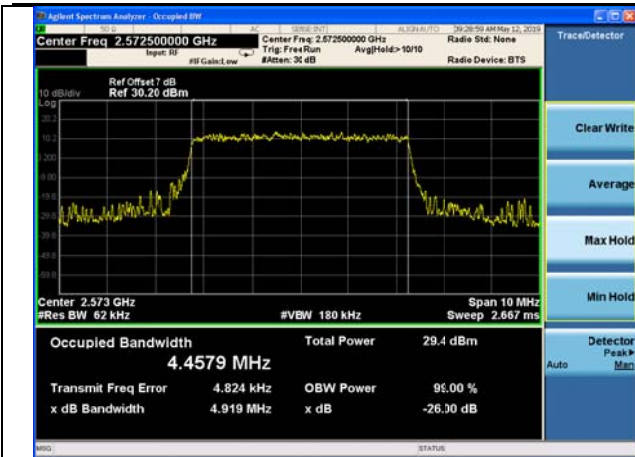


Fig.1

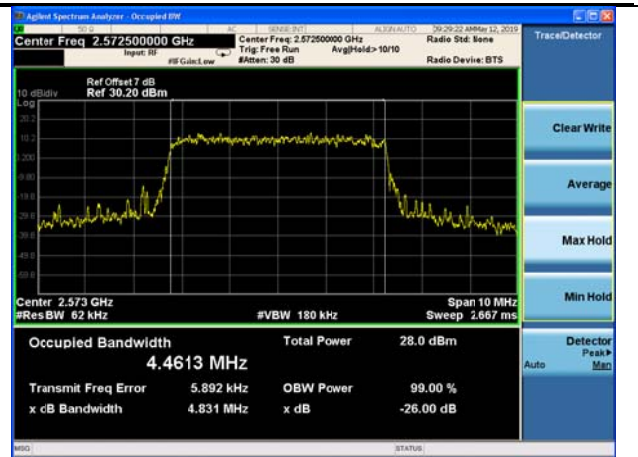


Fig.2

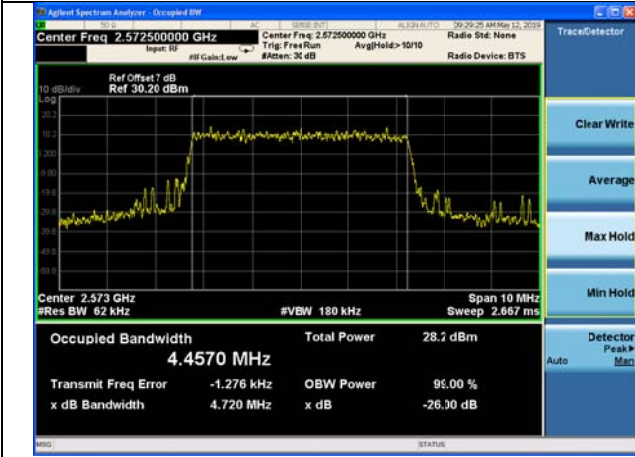


Fig.3

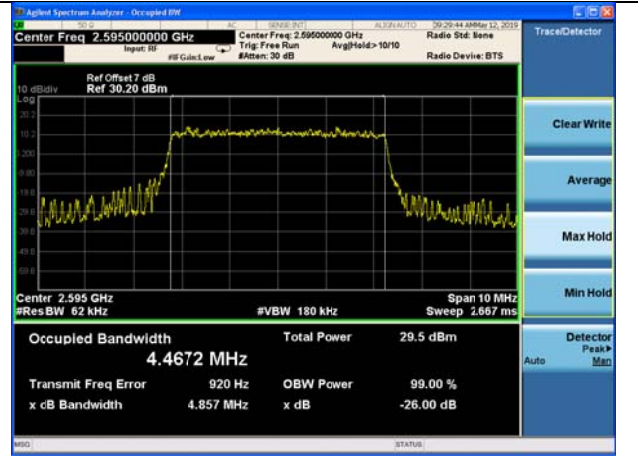


Fig.4

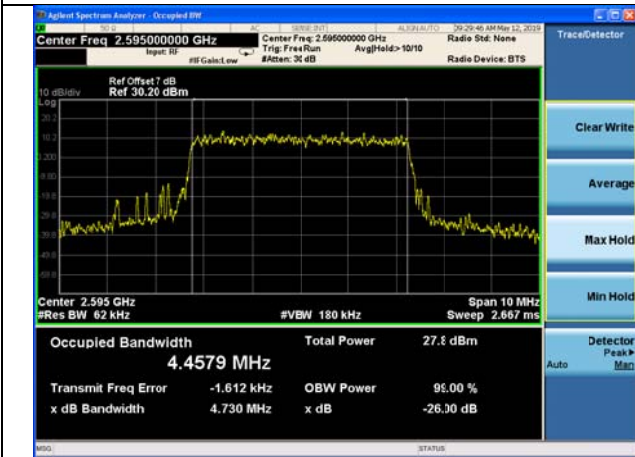


Fig.5

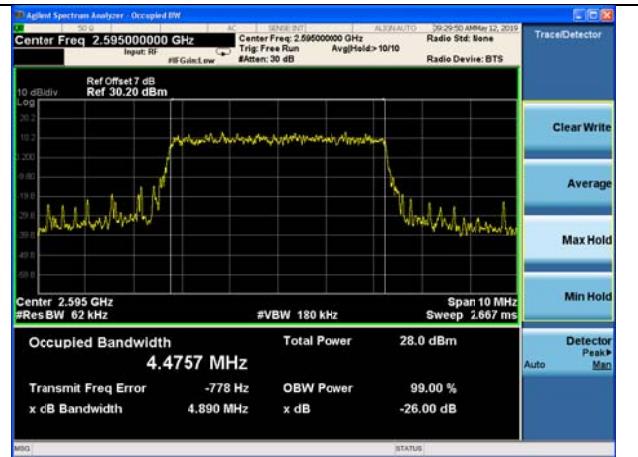


Fig.6

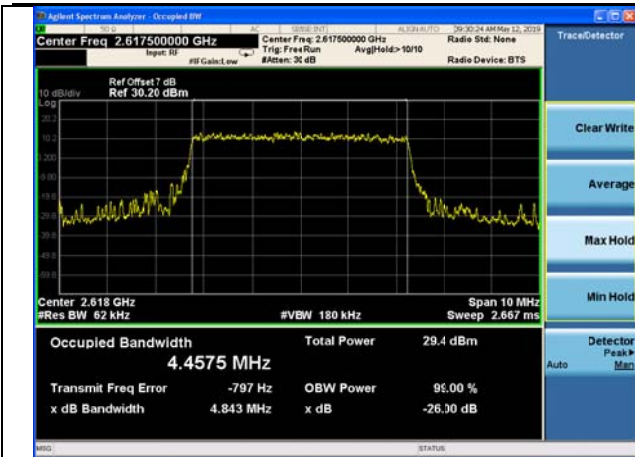


Fig.7

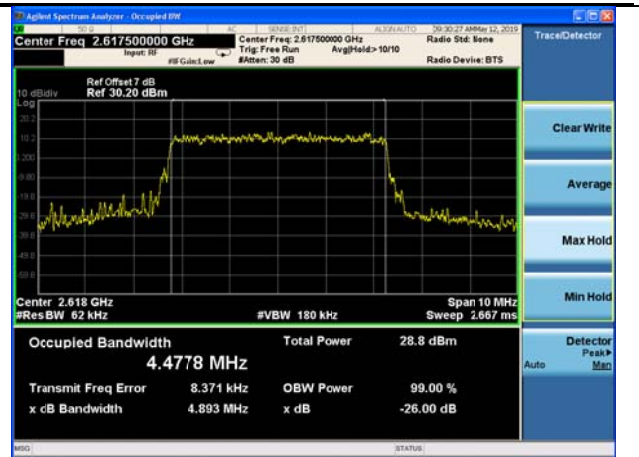


Fig.8

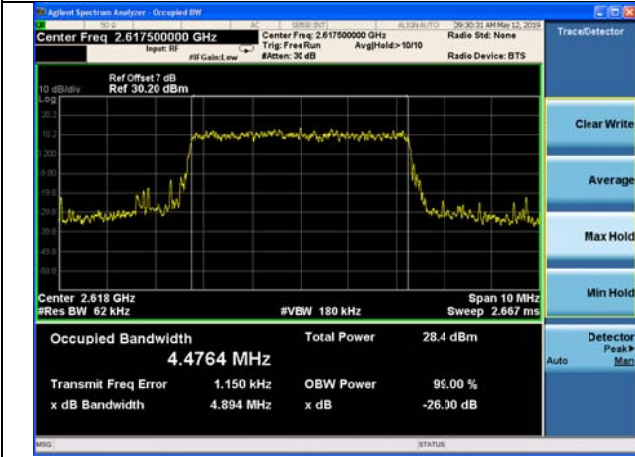


Fig.9

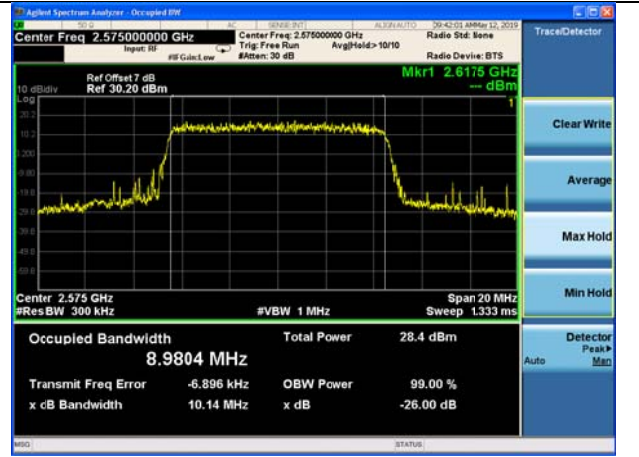


Fig.10

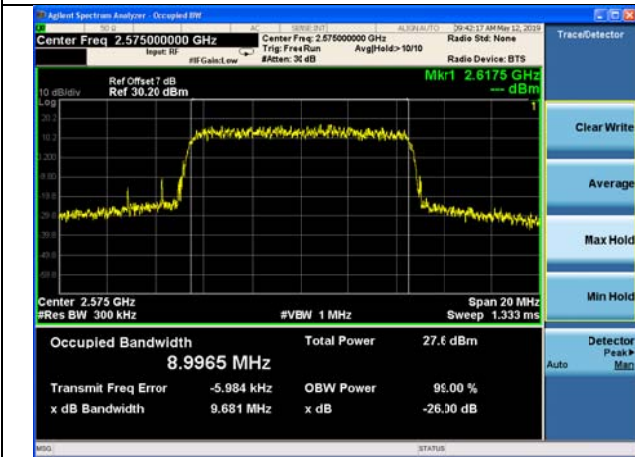


Fig.11

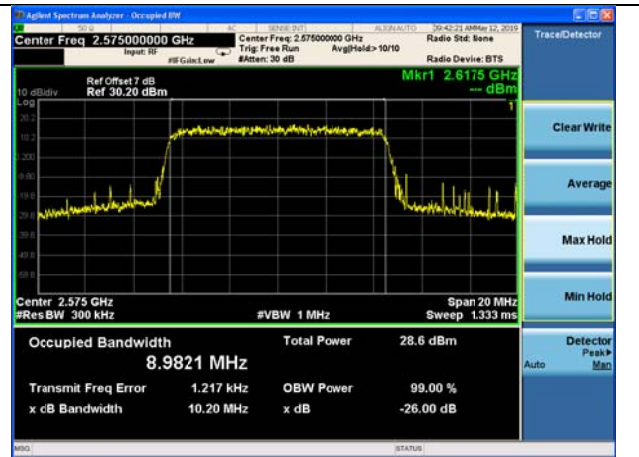


Fig.12

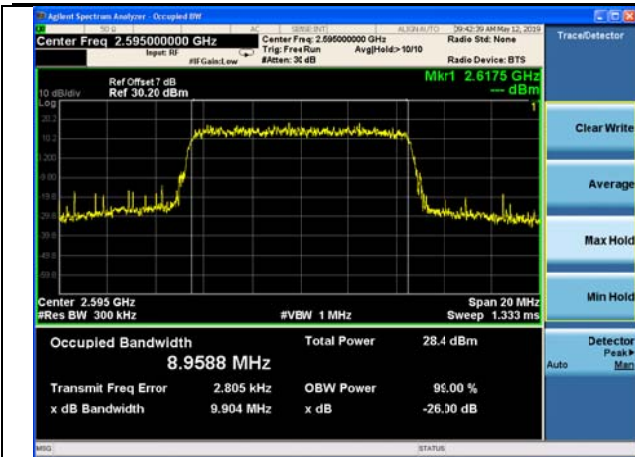


Fig.13

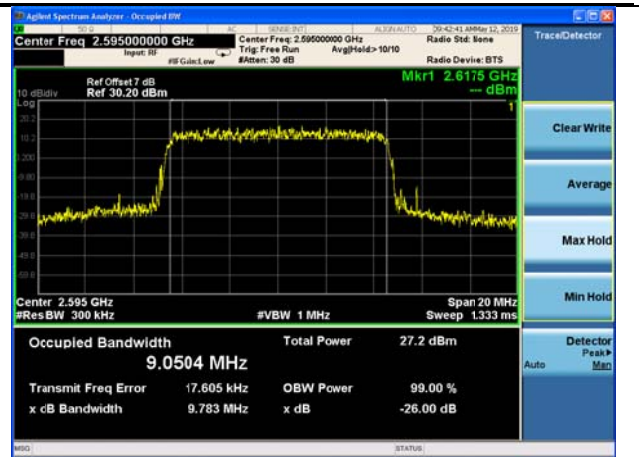


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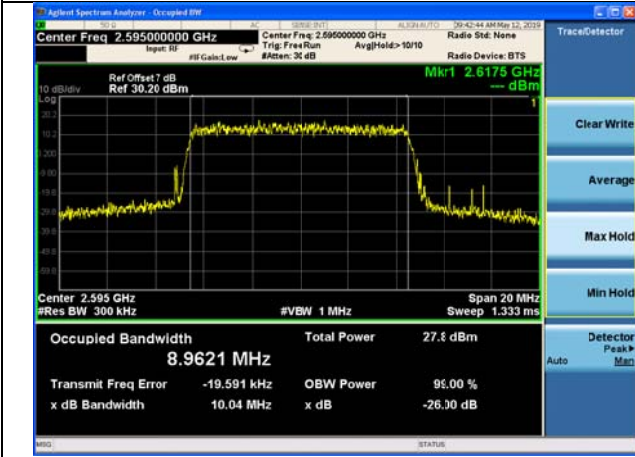


Fig.15



Fig.16

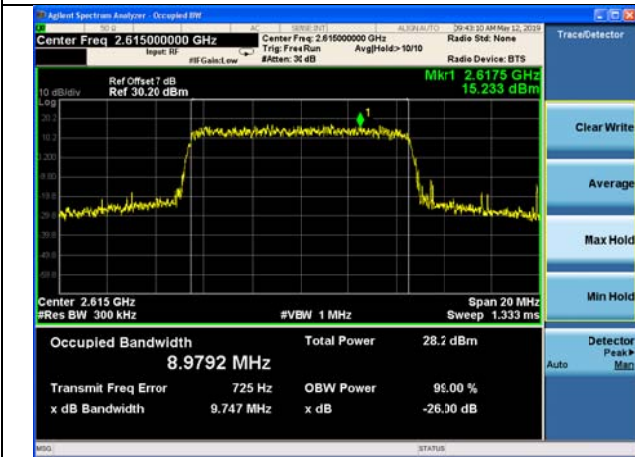


Fig.17

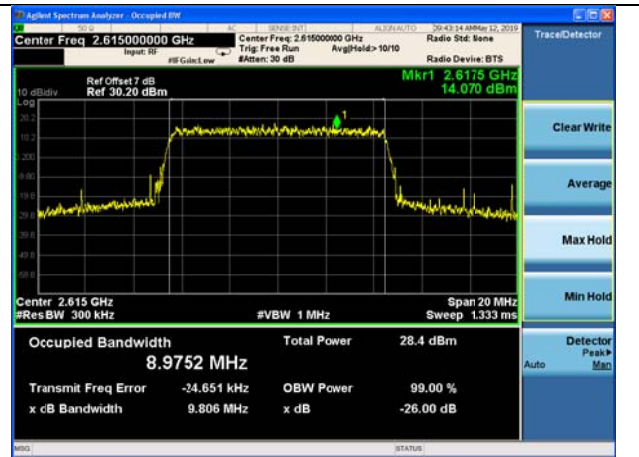


Fig.18

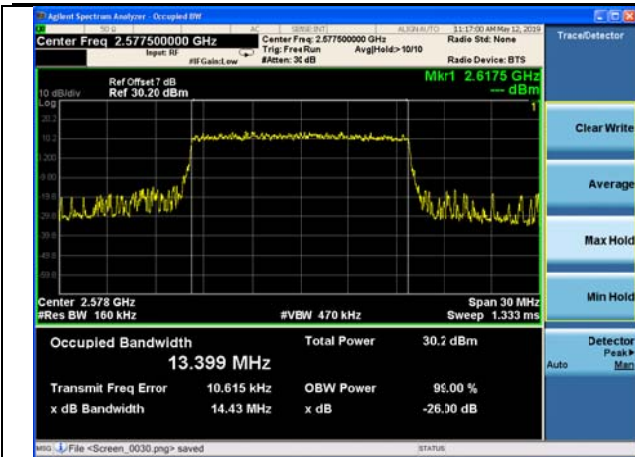


Fig.19

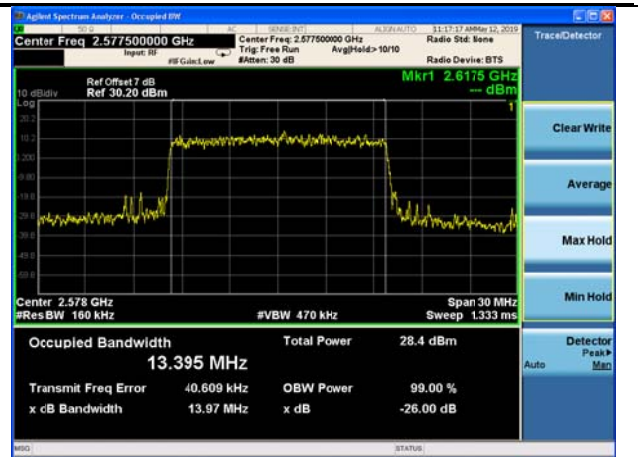


Fig.20

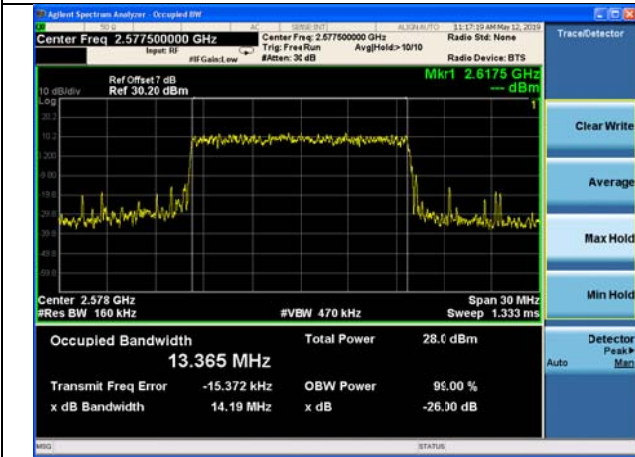


Fig.21

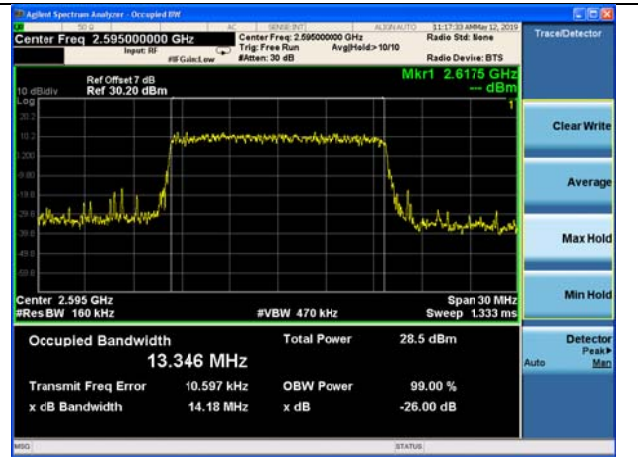


Fig.22

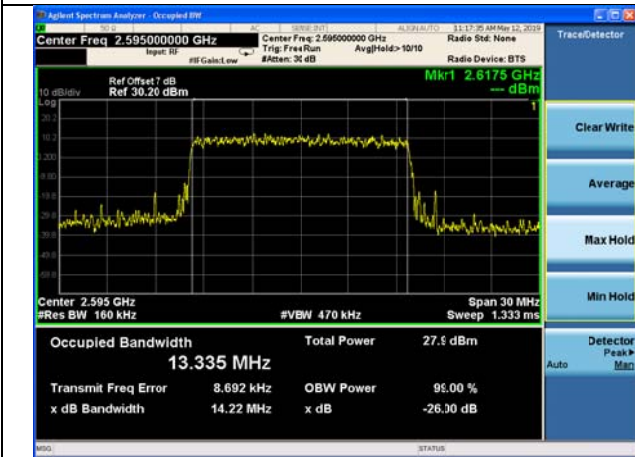


Fig.23

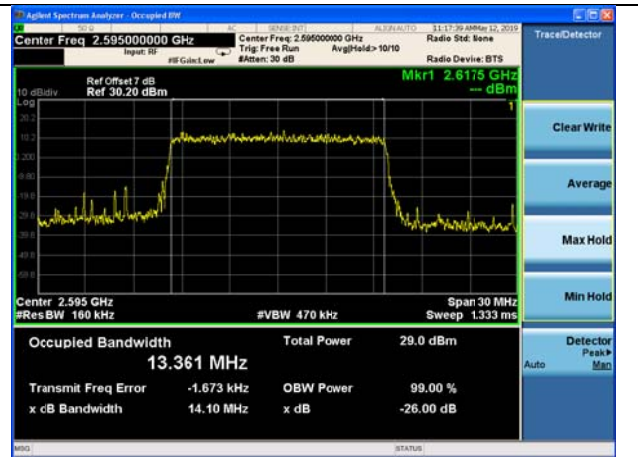


Fig.24

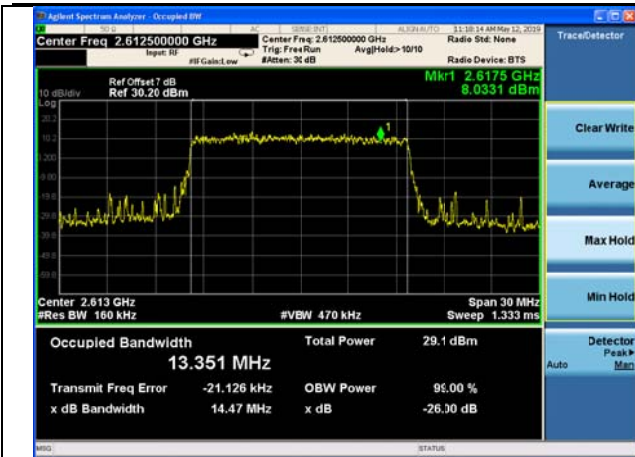


Fig.25

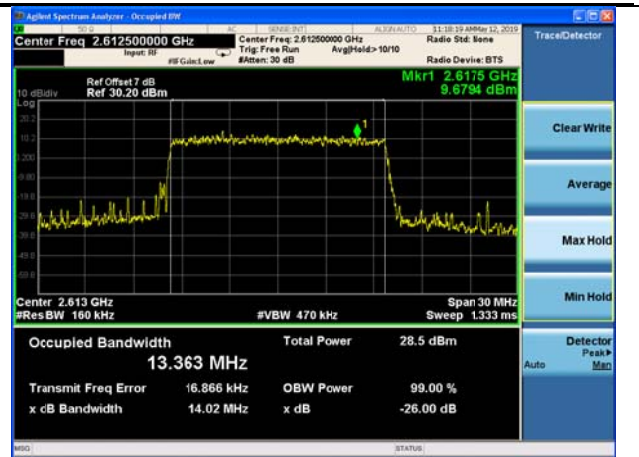


Fig.26

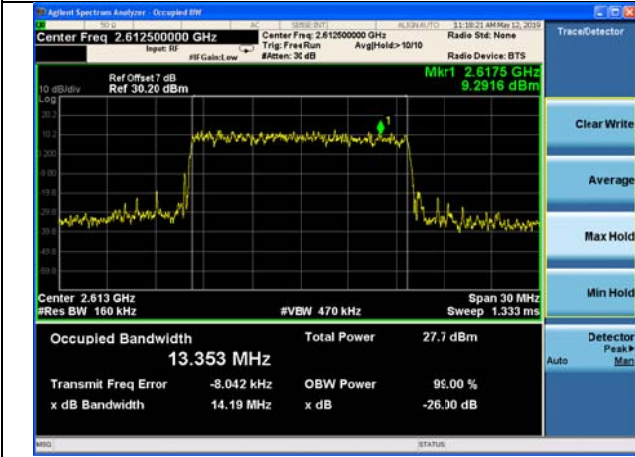


Fig.27

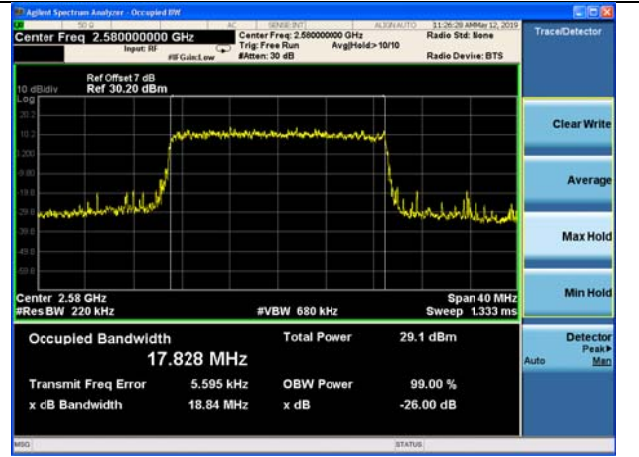


Fig.28

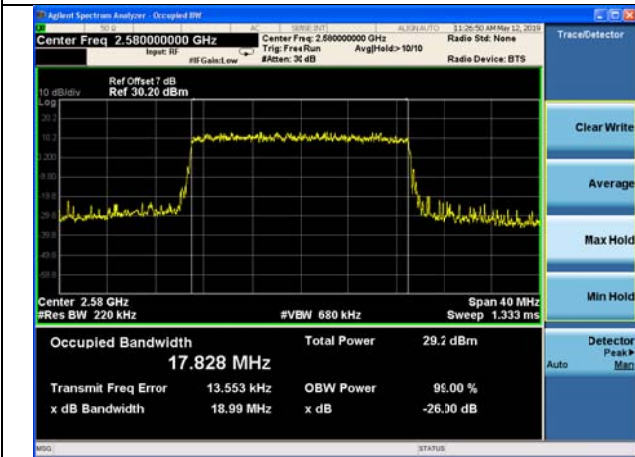


Fig.29

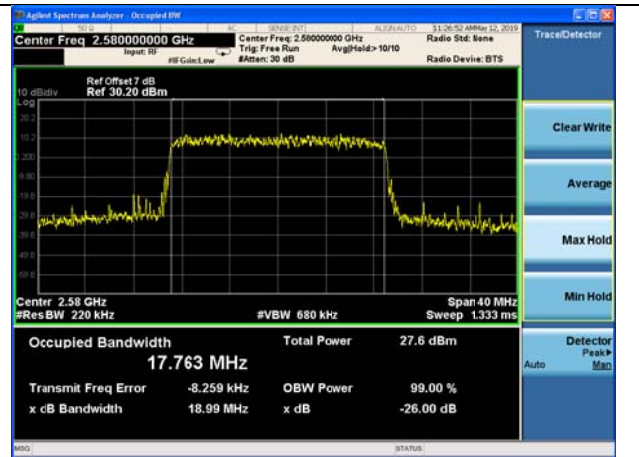


Fig.30

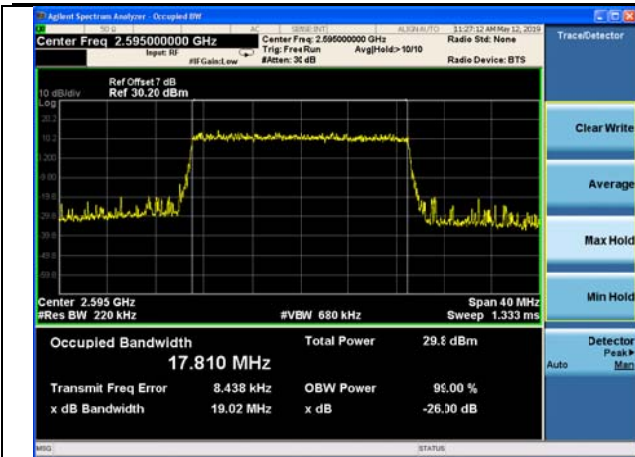


Fig.31

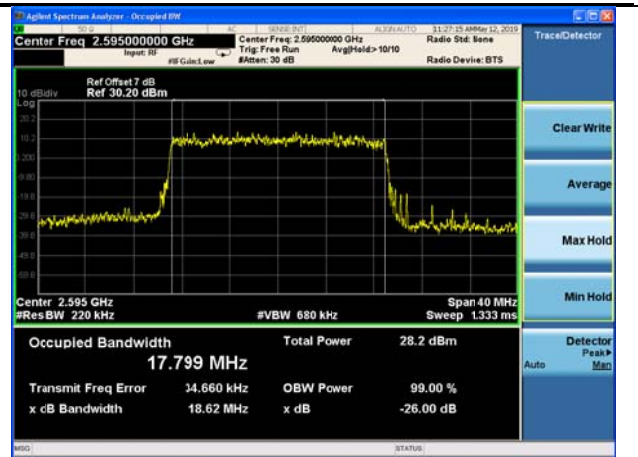


Fig.32

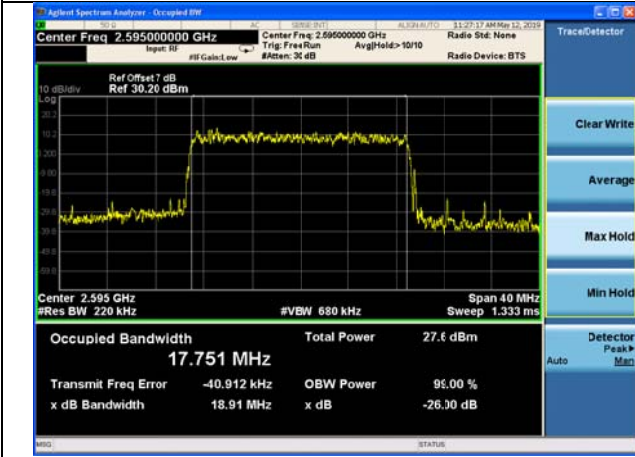


Fig.33

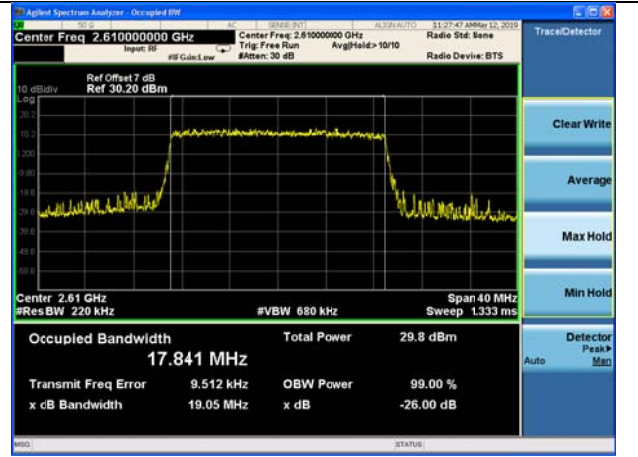


Fig.34

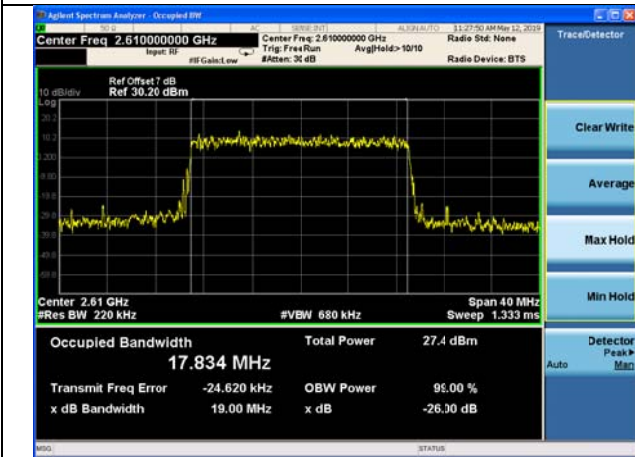


Fig.35

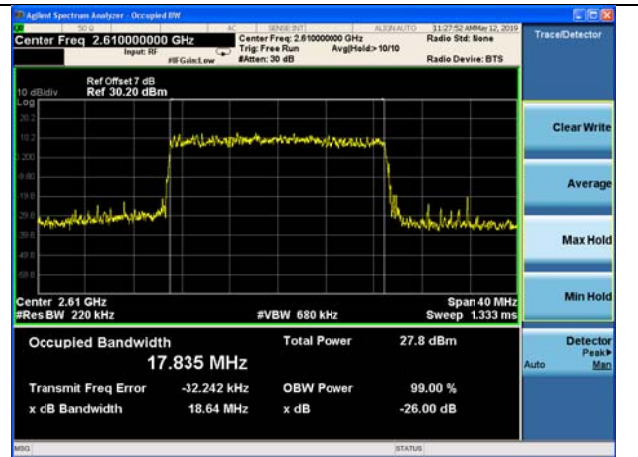


Fig.36

3 Peak-Average Ratio

Band	Carrier frequency	Channel	BW (MHz)	RB Size	RB Offset	QPSK	16-QAM	64-QAM
38	2595	38000	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

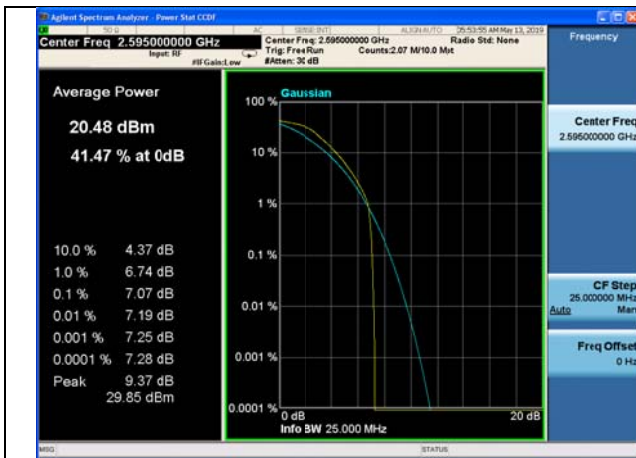


Fig.1



Fig.2

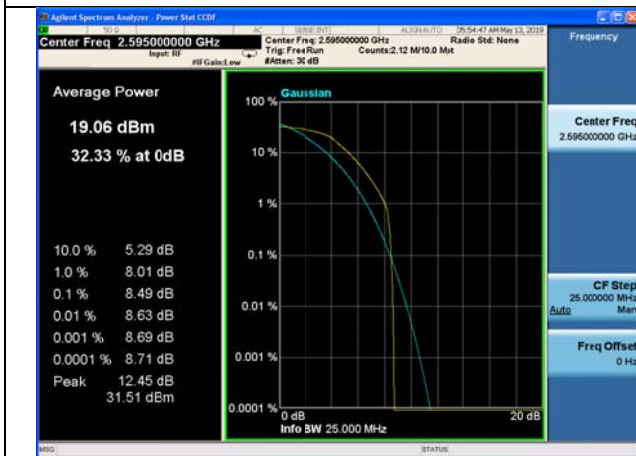


Fig.3

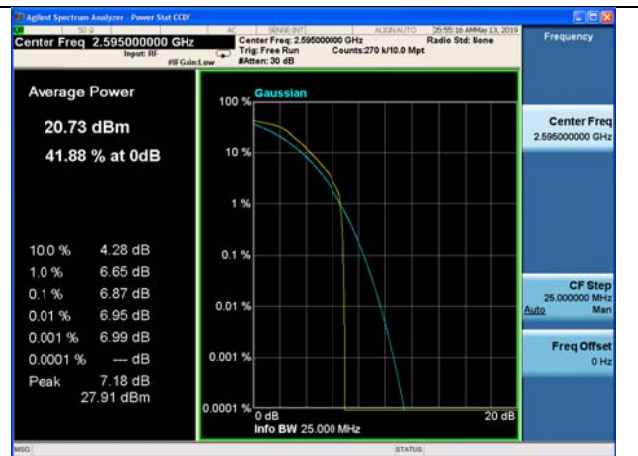


Fig.4

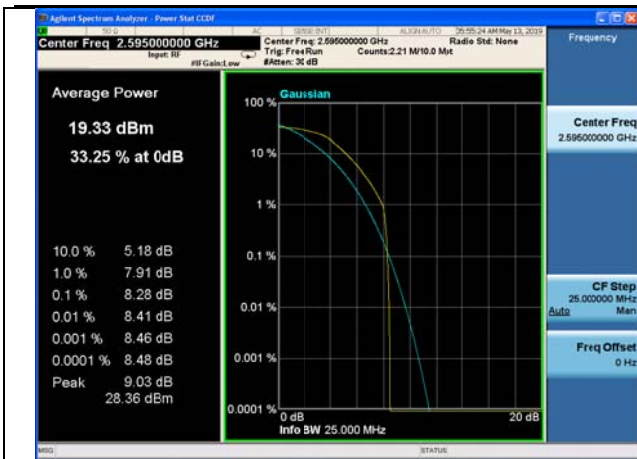


Fig.5

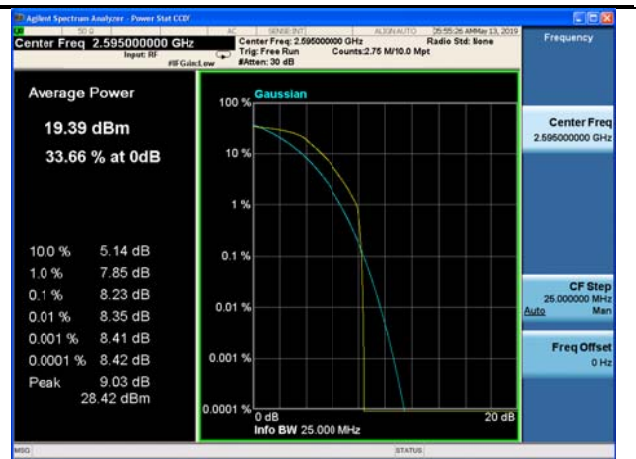


Fig.6



Fig.7

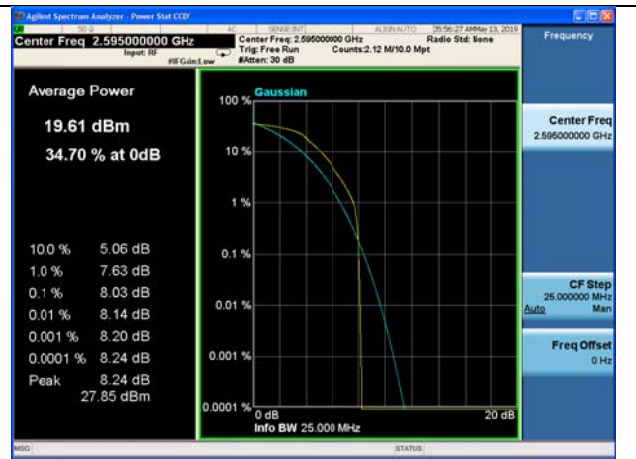


Fig.8

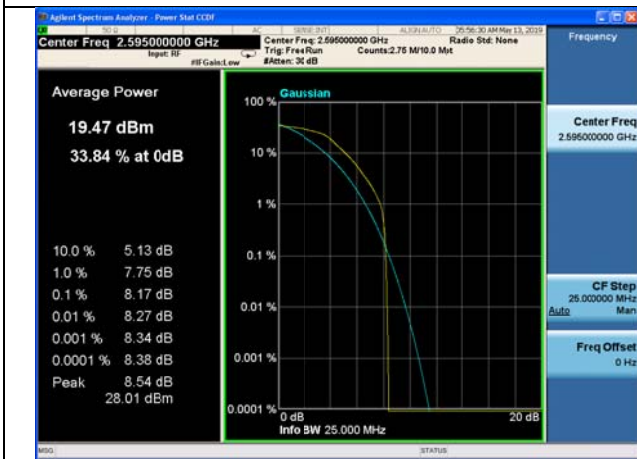


Fig.9

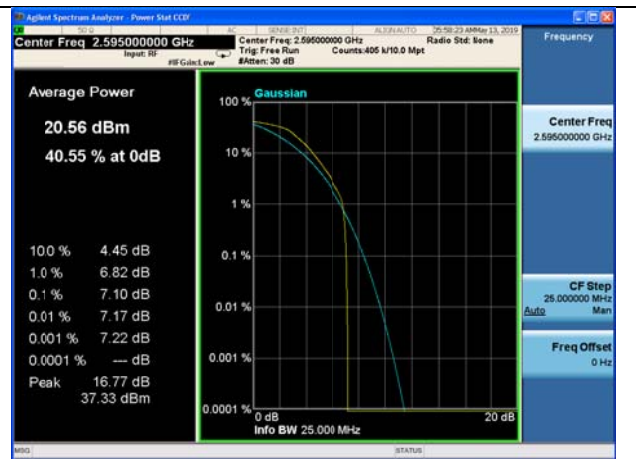


Fig.10

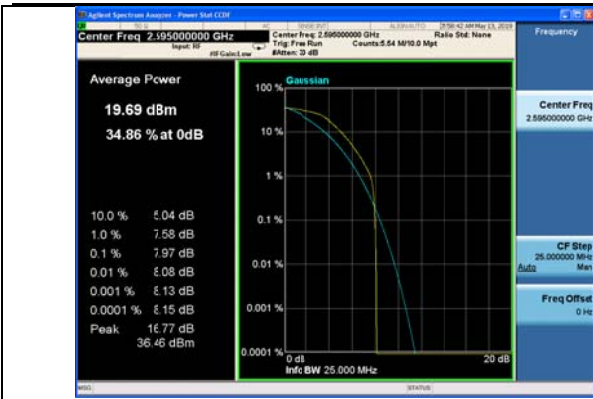


Fig.11

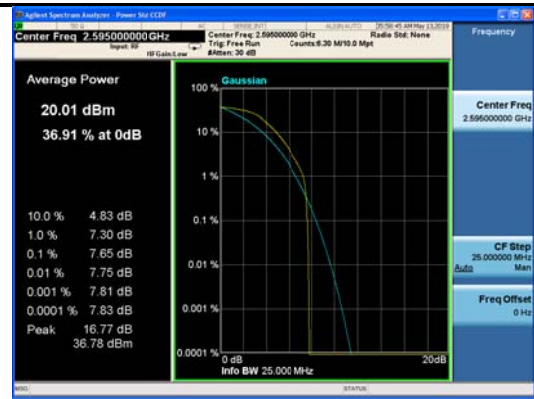


Fig.12

4 Spurious Emissions at antenna terminal

Band	Carrier frequency	Channel	BW	RB Size	RB Offset	Conducted Spurious
						QPSK
38	2580	37850	20	1	0	Fig.1
	2595	38000	20	1	0	Fig.2
	2610	38150	20	1	0	Fig.3

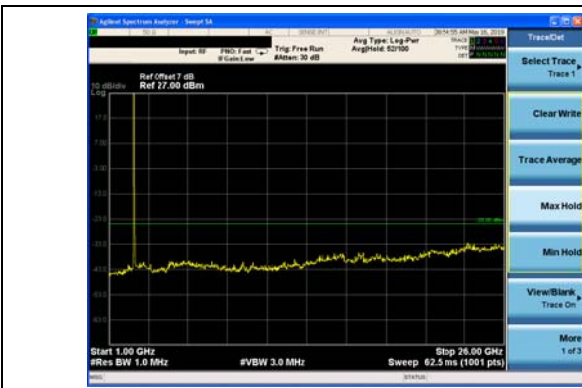


Fig.1



Fig.2



Fig3

5 Band Edges Compliance Test result

Band	Carrier frequency (MHz)	Channel	BW	RB Size	RB Offset	Band Edges Plot
						QPSK
38	2572.5	37775	5	25	0	Fig.1
	2617.5	38225		25	0	Fig.5
	2575	37800	10	50	0	Fig.2
	2615	38200		50	0	Fig.6
	2577.5	37825	15	75	0	Fig.3
	2612.5	38175		75	0	Fig.7
	2580	37850	20	100	0	Fig.4
2610	38150	100		0	Fig.8	

Band	Carrier frequency	Channel	BW	RB Size	RB Offset	Band Edges Plot
						QPSK
38	2572.5	37775	5	1	0	Fig.9
	2617.5	38225		1	24	Fig.13
	2575	37800	10	1	0	Fig.10
	2615	38200		1	49	Fig.14
	2577.5	37825	15	1	0	Fig.11
	2612.5	38175		1	74	Fig.15
	2580	37850	20	1	0	Fig.12
2610	38150	1		99	Fig.16	

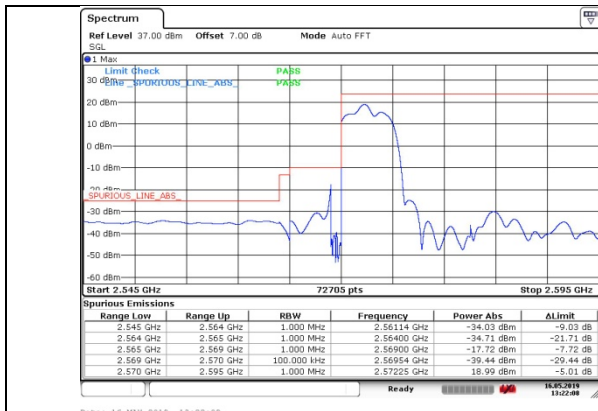


Fig.1

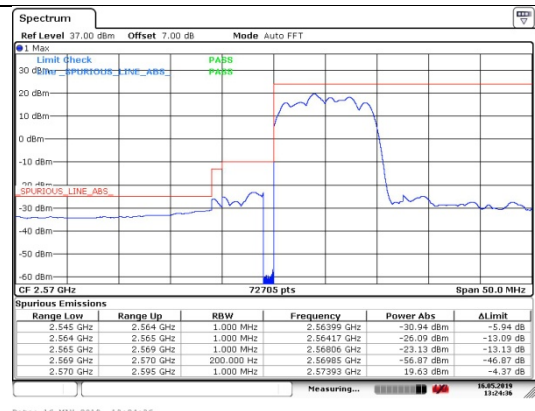


Fig.2

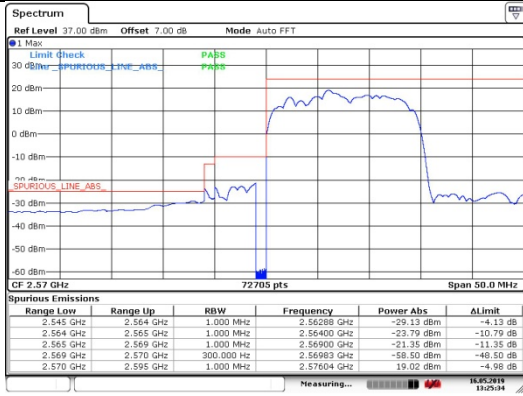


Fig.3

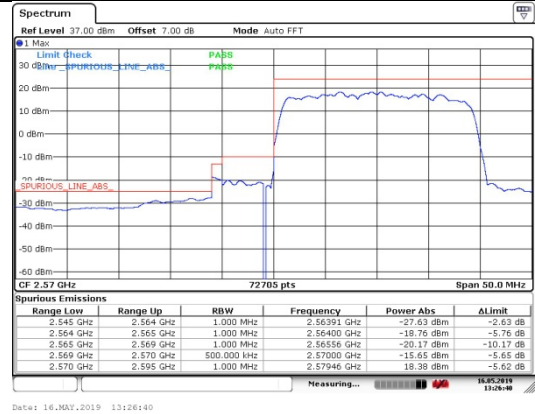


Fig.4

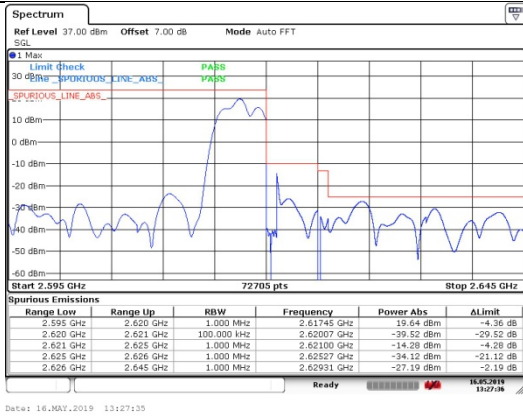


Fig.5

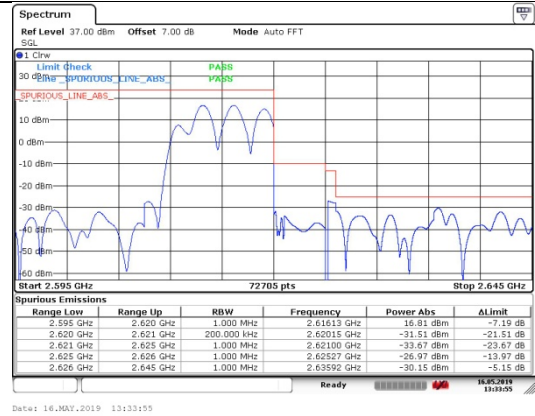


Fig.6

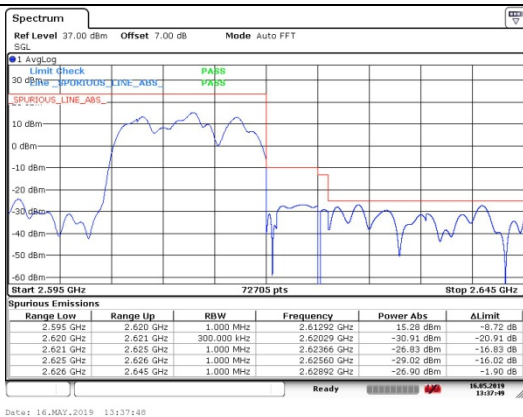


Fig.7

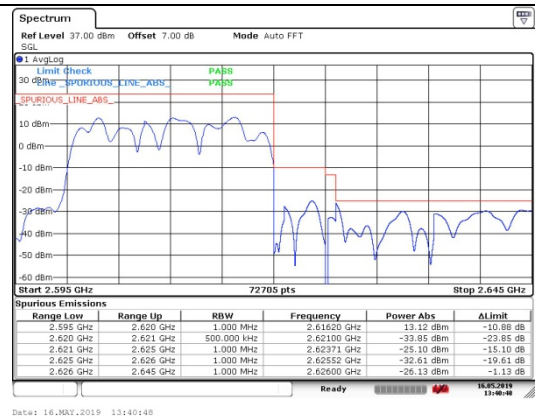


Fig.8

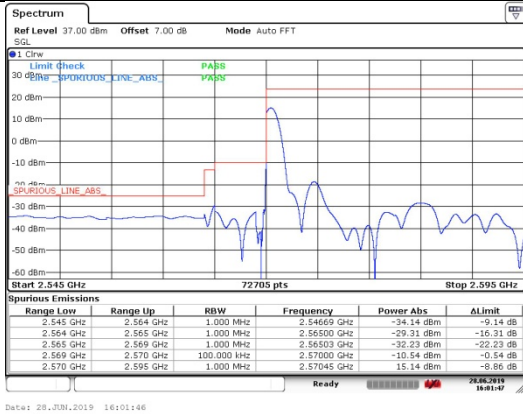


Fig.9

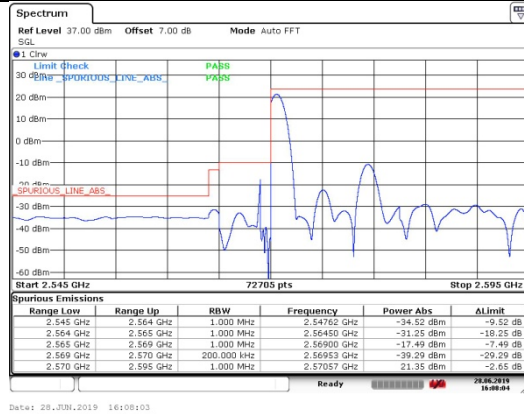


Fig.10

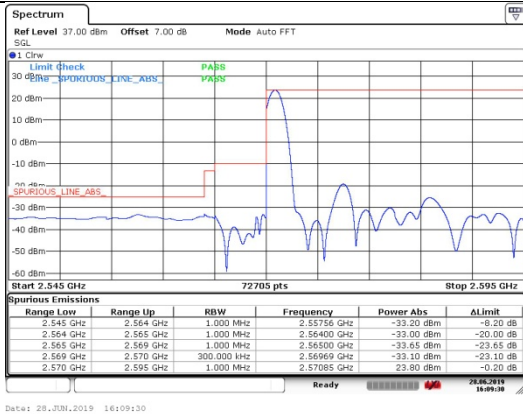


Fig.11

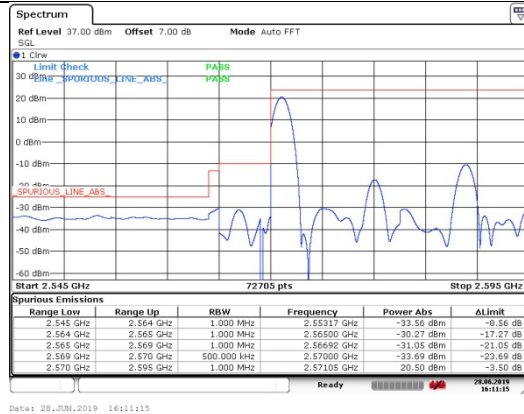


Fig.12

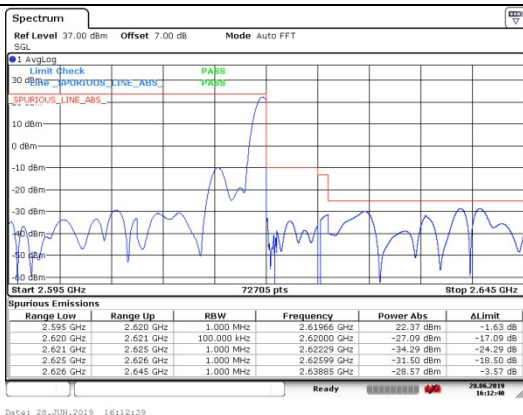


Fig.13

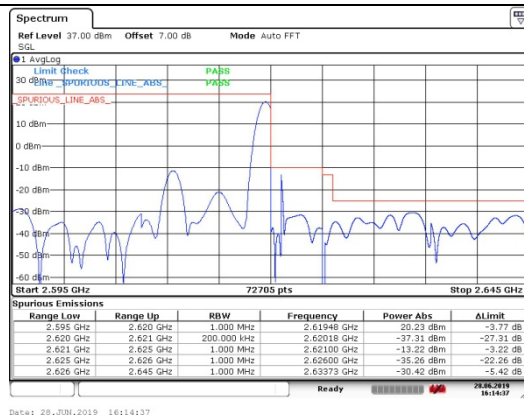


Fig.14

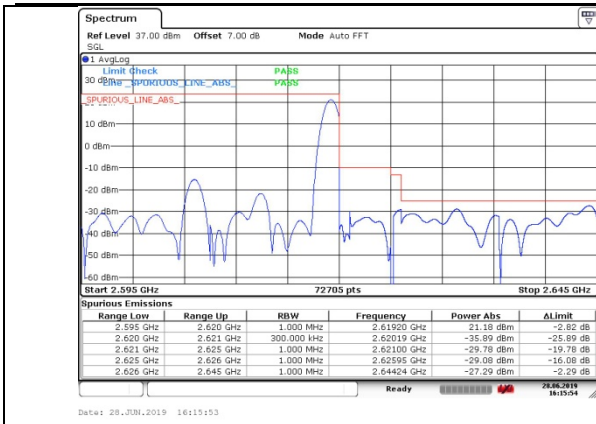


Fig.15

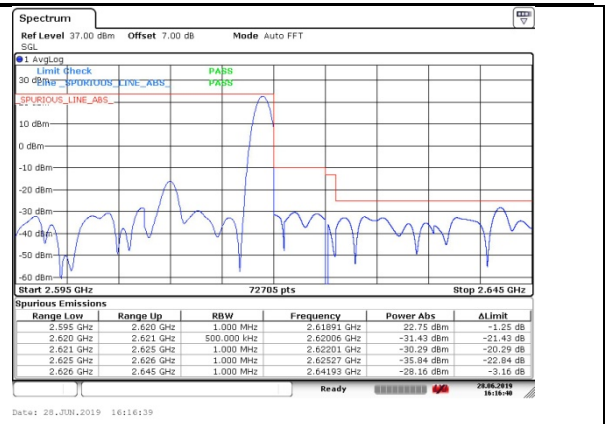


Fig.16

6 Frequency Stability

Test result:

Temperature(°C)	Voltage	Test Result (ppm) Band38 Low Channel			
		5M	10M	15M	20M
-10	NV	0.025	-0.001	0.017	0.003
0	NV	0.022	0.014	0.020	0.024
+10	NV	0.015	0.021	0.007	0.023
+20	NV	0.012	0.007	0.006	0.008
+30	NV	0.014	0.018	0.012	0.012
+40	NV	0.004	0.005	0.024	0.019
+50	NV	0.012	0.014	0.009	0.015
+20	LV	0.022	0.004	0.019	0.018
+20	HV	0.013	0.012	0.006	0.017

Temperature(°C)	Voltage	Test Result (ppm) Band38 High Channel			
		5M	10M	15M	20M
-10	NV	0.024	0.000	0.014	0.008
0	NV	0.015	0.018	0.009	0.020
+10	NV	0.022	0.008	0.016	0.005
+20	NV	0.021	0.015	0.022	0.024
+30	NV	-0.009	0.001	0.015	0.005
+40	NV	0.018	0.028	-0.014	0.018
+50	NV	0.013	0.015	0.001	0.017
+20	LV	0.009	0.012	0.007	0.022
+20	HV	0.000	0.021	0.005	0.016