

APPENDIX A – TEST DATA OF CONDUCTED EMISSION

LTE Band 38

1 RF Power Output

Tx Power Output						
Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted Average (dBm)
QPSK	2572.5	37775	5	1	0	22.39
				1	24	22.29
				12	6	21.54
				25	0	21.47
	2595	38000		1	0	21.30
				1	24	21.20
				12	6	21.50
				25	0	21.49
	2617.5	38225		1	0	22.18
				1	24	22.19
				12	6	21.35
				25	0	21.13
16QAM	2572.5	37775	5	1	0	21.49
				1	24	21.52
				12	6	20.73
				25	0	20.67
	2595	38000		1	0	21.35
				1	24	21.19
				12	6	20.52
				25	0	20.49
	2617.5	38225		1	0	21.42
				1	24	21.40
				12	6	20.39
				25	0	20.49
64QAM	2572.5	37775	5	1	0	21.56
				1	24	21.38
				12	6	20.63
				25	0	20.54
	2595	38000		1	0	21.27
				1	24	21.19
				12	6	20.45
				25	0	20.38
	2617.5	38225		1	0	21.40
				1	24	21.39
				12	6	20.35
				25	0	20.17

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted Average (dBm)
QPSK	2575	37800	10	1	0	22.30
				1	49	22.26
				24	12	21.60
				50	0	21.43
	2595	38000		1	0	21.29
				1	49	21.25
				24	12	21.42
				50	0	21.49
	2615	38200		1	0	22.12
				1	49	22.18
				24	12	21.40
				50	0	21.27
16QAM	2575	37800	10	1	0	21.55
				1	49	21.54
				24	12	20.64
				50	0	20.69
	2595	38000		1	0	21.24
				1	49	21.31
				24	12	20.48
				50	0	20.44
	2615	38200		1	0	21.40
				1	49	21.33
				24	12	20.42
				50	0	20.50
64QAM	2575	37800	10	1	0	21.57
				1	49	21.34
				24	12	20.59
				50	0	20.51
	2595	38000		1	0	21.22
				1	49	21.25
				24	12	20.46
				50	0	20.36
	2615	38200		1	0	21.33
				1	49	21.32
				24	12	20.33
				50	0	20.19

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted Average (dBm)
QPSK	2577.5	37825	15	1	0	22.31
				1	74	22.33
				40	18	21.51
				75	0	21.45
	2595	38000		1	0	21.20
				1	74	21.30
				40	18	21.47
				75	0	21.44
	2612.5	38175		1	0	22.22
				1	74	22.16
				40	18	21.38
				75	0	21.17
16QAM	2577.5	37825	15	1	0	21.52
				1	74	21.52
				40	18	20.70
				75	0	20.67
	2595	38000		1	0	21.37
				1	74	21.25
				40	18	20.57
				75	0	20.47
	2612.5	38175		1	0	21.34
				1	74	21.39
				40	18	20.34
				75	0	20.48
64QAM	2577.5	37825	15	1	0	21.44
				1	74	21.42
				40	18	20.55
				75	0	20.53
	2595	38000		1	0	21.26
				1	74	21.26
				40	18	20.39
				75	0	20.43
	2612.5	38175		1	0	21.45
				1	74	21.42
				40	18	20.31
				75	0	20.18

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted Average (dBm)
QPSK	2580	37850	20	1	0	22.43
				1	99	22.39
				50	25	21.61
				100	0	21.53
	2595	38000		1	0	22.34
				1	99	22.32
				50	25	21.52
				100	0	21.59
	2610	38150		1	0	22.23
				1	99	22.21
				50	25	21.45
				100	0	21.27
16QAM	2580	37850	20	1	0	21.61
				1	99	21.58
				50	25	20.74
				100	0	20.71
	2595	38000		1	0	21.37
				1	99	21.34
				50	25	20.62
				100	0	20.56
	2610	38150		1	0	21.46
				1	99	21.43
				50	25	20.48
				100	0	20.51
64QAM	2580	37850	20	1	0	21.57
				1	99	21.48
				50	25	20.68
				100	0	20.64
	2595	38000		1	0	21.32
				1	99	21.28
				50	25	20.47
				100	0	20.45
	2610	38150		1	0	21.46
				1	99	21.43
				50	25	20.37
				100	0	20.32

2 Occupied Bandwidth

Test result

Band	Carrier frequency	Channel	BW (MHz)	RB Size	RB Offset	Bandwidth of 99% Power (MHz)					
						QPSK		16-QAM		64-QAM	
38	2572.5	37775	5	25	0	4.5037	Fig.1	4.4945	Fig.2	4.5002	Fig.3
	2595	38000		25	0	4.5038	Fig.4	4.4915	Fig.5	4.5007	Fig.6
	2617.5	38225		25	0	4.5048	Fig.7	4.4988	Fig.8	4.4939	Fig.9
	2575	37800	10	50	0	8.9887	Fig.10	8.9768	Fig.11	8.9587	Fig.12
	2595	38000		50	0	8.9538	Fig.13	8.9506	Fig.14	8.9620	Fig.15
	2615	38200		50	0	8.9714	Fig.16	8.9668	Fig.17	8.9636	Fig.18
	2577.5	37825	15	75	0	13.447	Fig.19	13.427	Fig.20	13.463	Fig.21
	2595	38000		75	0	13.456	Fig.22	13.403	Fig.23	13.436	Fig.24
	2612.5	38175		75	0	13.405	Fig.25	13.431	Fig.26	13.439	Fig.27
	2580	37850	20	100	0	17.885	Fig.28	17.870	Fig.29	17.906	Fig.30
	2595	38000		100	0	17.829	Fig.31	17.858	Fig.32	17.893	Fig.33
	2610	38150		100	0	17.854	Fig.34	17.855	Fig.35	17.864	Fig.36

Band	Carrier frequency	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	5.446	Fig.1	5.377	Fig.2	5.546	Fig.3
	2595	38000		25	0	5.569	Fig.4	5.419	Fig.5	5.521	Fig.6
	2617.5	38225		25	0	5.381	Fig.7	5.463	Fig.8	5.476	Fig.9
	2575	37800	10	50	0	10.09	Fig.10	10.04	Fig.11	10.00	Fig.12
	2595	38000		50	0	10.06	Fig.13	10.07	Fig.14	10.24	Fig.15
	2615	38200		50	0	9.979	Fig.16	10.13	Fig.17	10.18	Fig.18
	2577.5	37825	15	75	0	15.08	Fig.19	14.76	Fig.20	14.77	Fig.21
	2595	38000		75	0	15.06	Fig.22	14.87	Fig.23	14.85	Fig.24
	2612.5	38175		75	0	15.03	Fig.25	14.90	Fig.26	14.66	Fig.27
	2580	37850	20	100	0	20.25	Fig.28	20.43	Fig.29	20.15	Fig.30
	2595	38000		100	0	20.30	Fig.31	20.04	Fig.32	20.25	Fig.33
	2610	38150		100	0	20.35	Fig.34	20.23	Fig.35	20.53	Fig.36

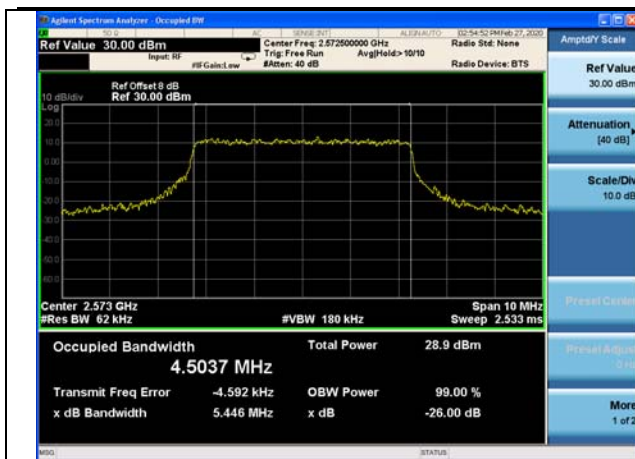


Fig.1



Fig.2

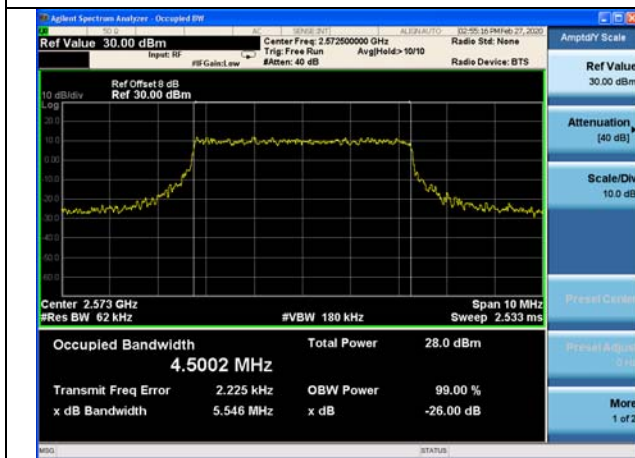


Fig.3



Fig.4

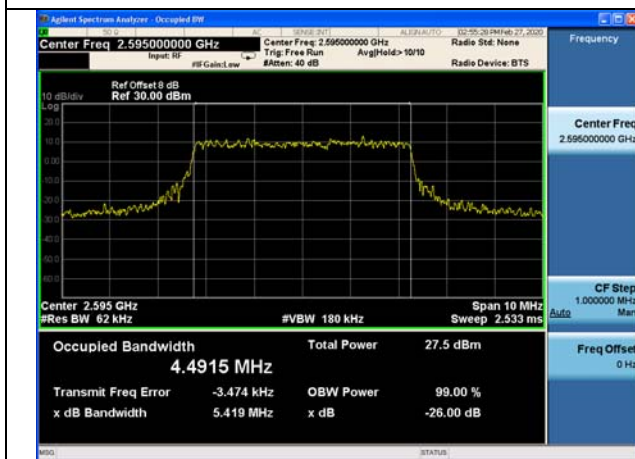


Fig.5



Fig.6

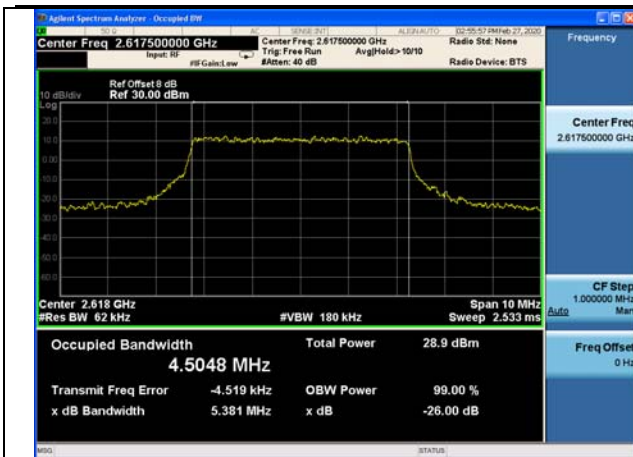


Fig.7



Fig.8



Fig.9



Fig.10

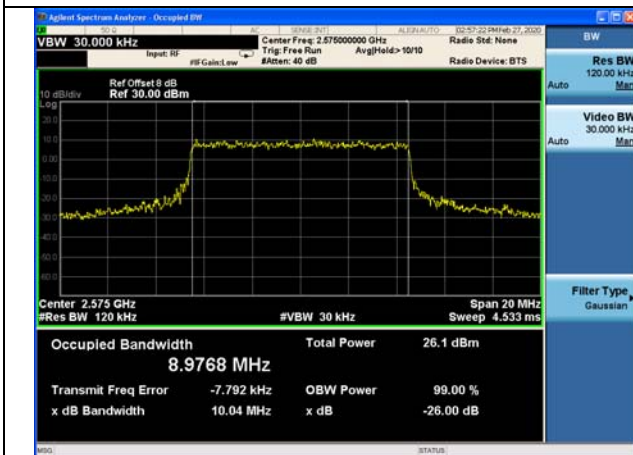


Fig.11

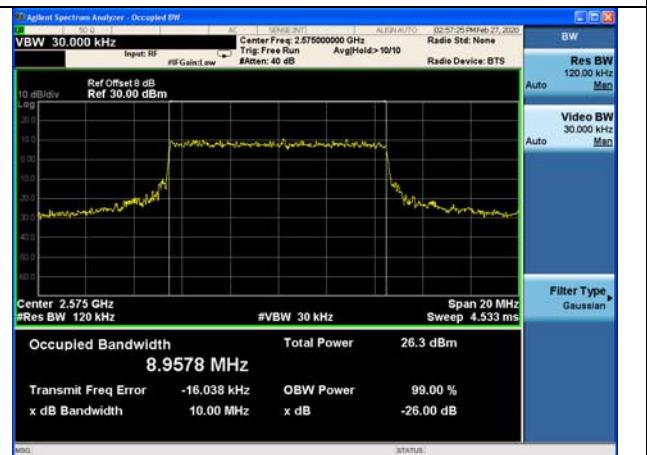


Fig.12

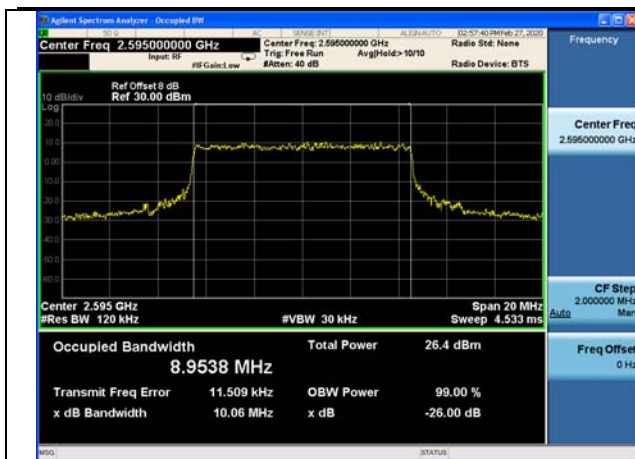


Fig.13

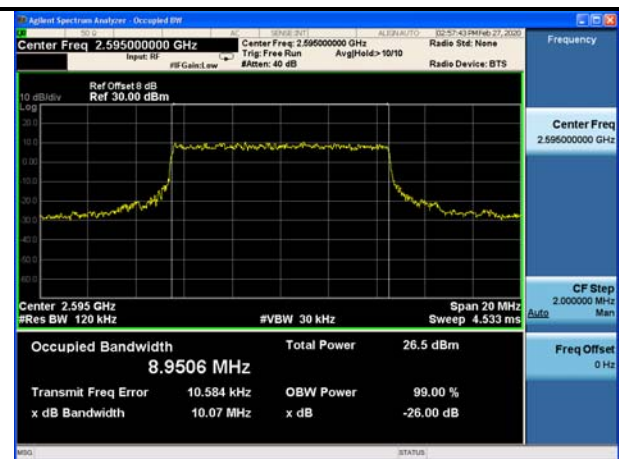


Fig.14

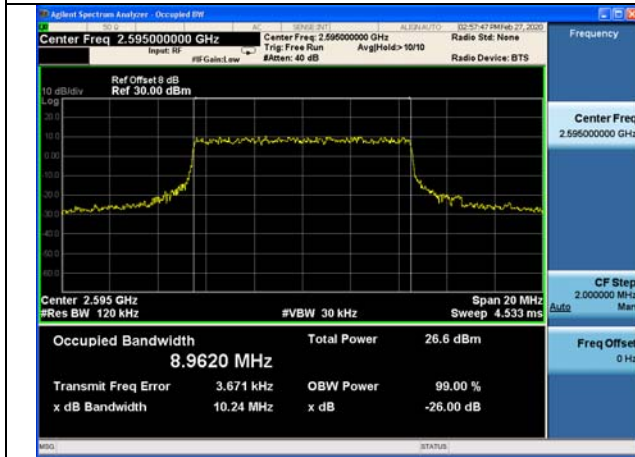


Fig.15

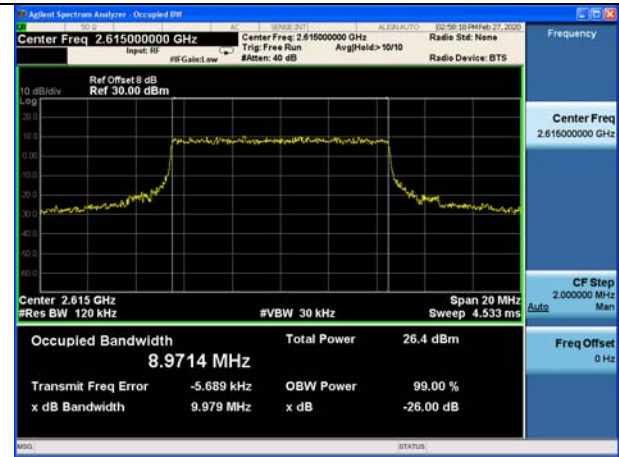


Fig.16

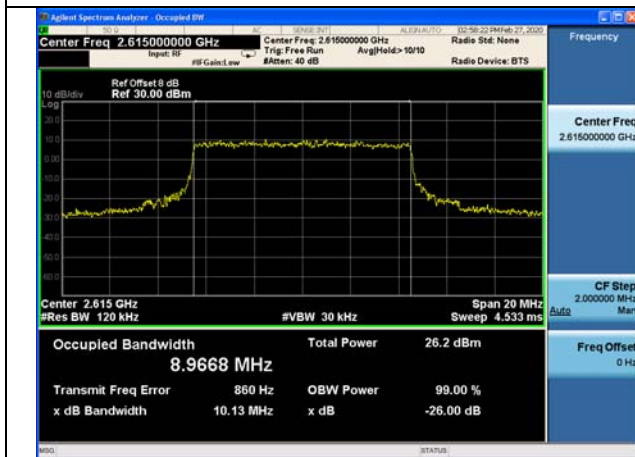


Fig.17

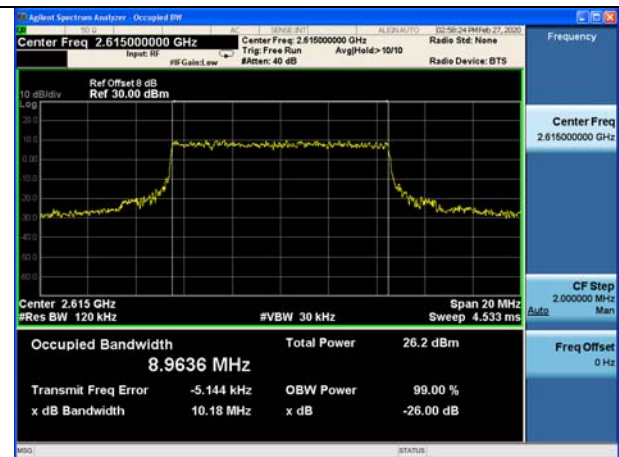


Fig.18

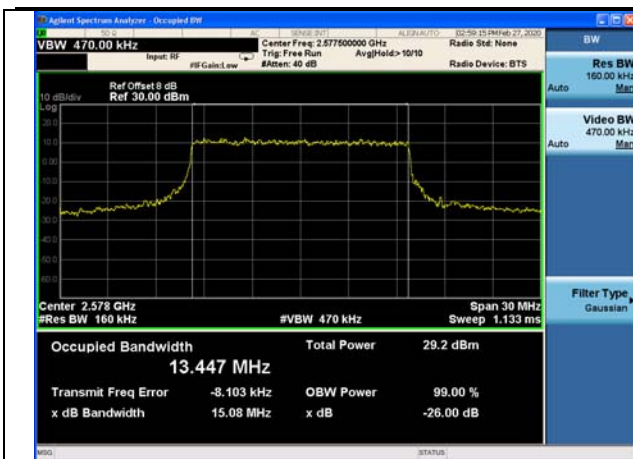


Fig.19



Fig.20

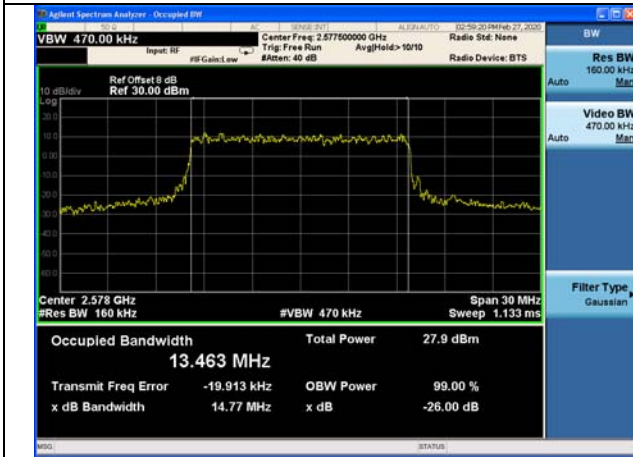


Fig.21



Fig.22

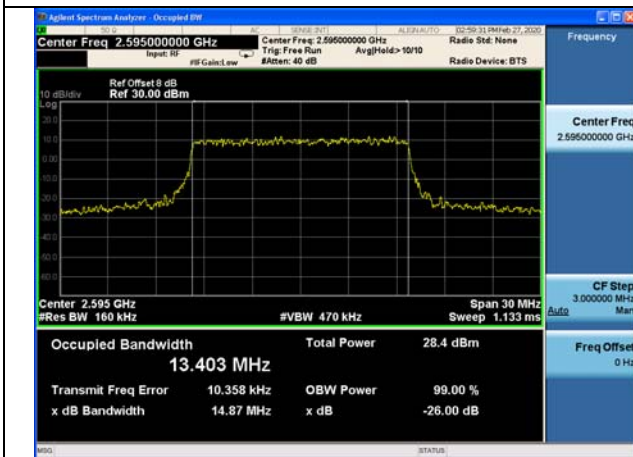


Fig.23

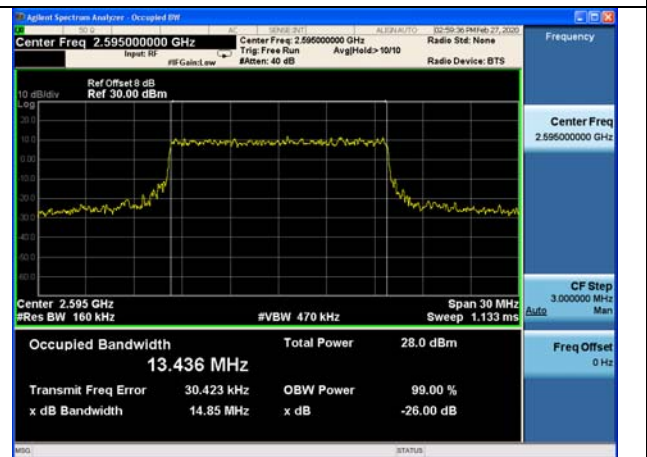


Fig.24

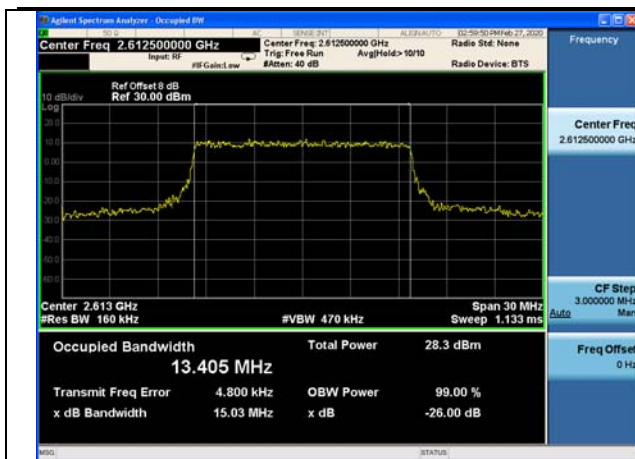


Fig.25

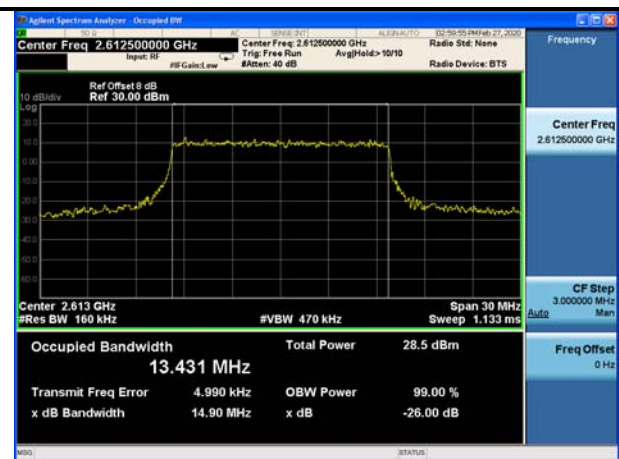


Fig.26

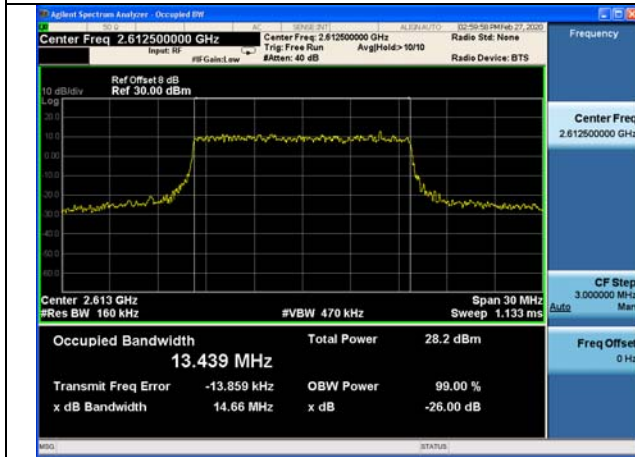


Fig.27



Fig.28

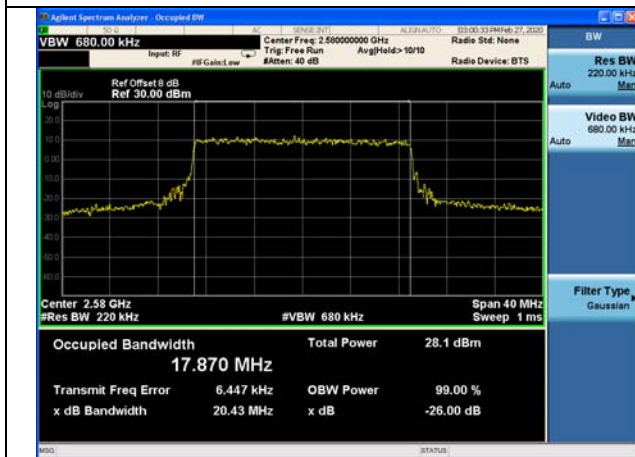


Fig.29

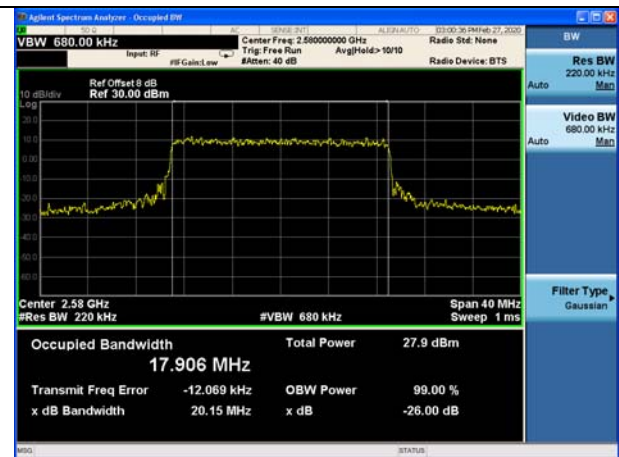


Fig.30

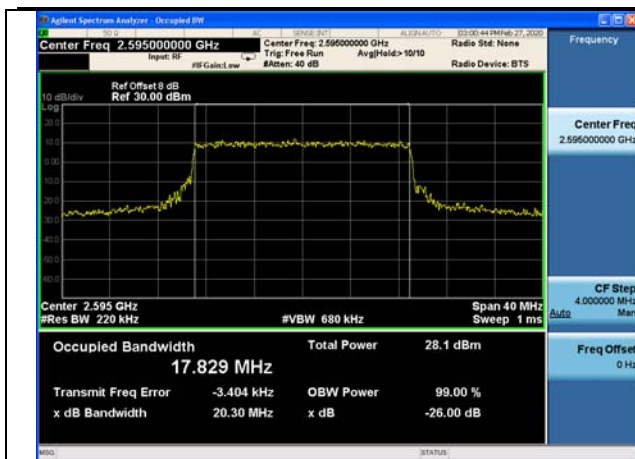


Fig.31

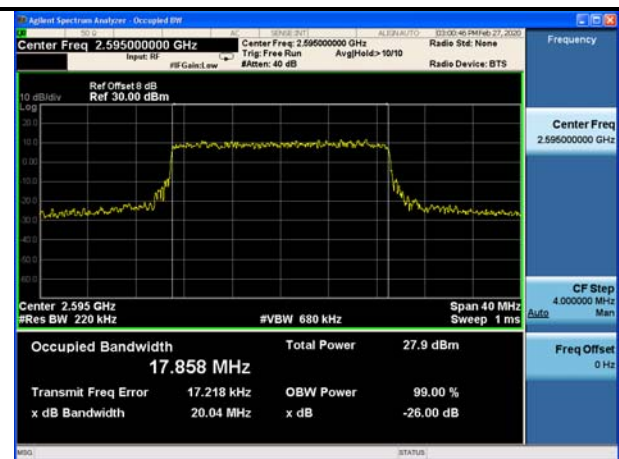


Fig.32

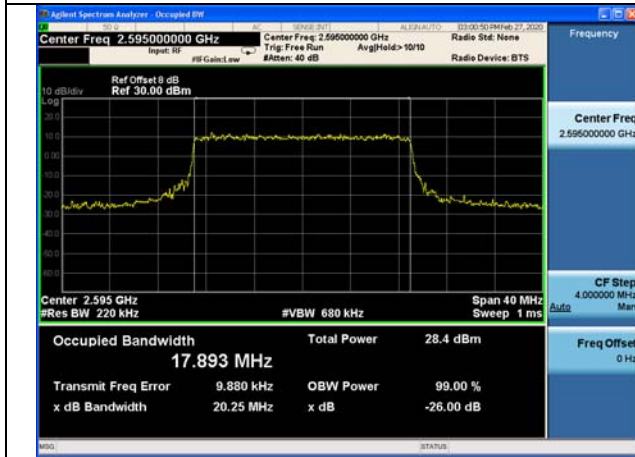


Fig.33

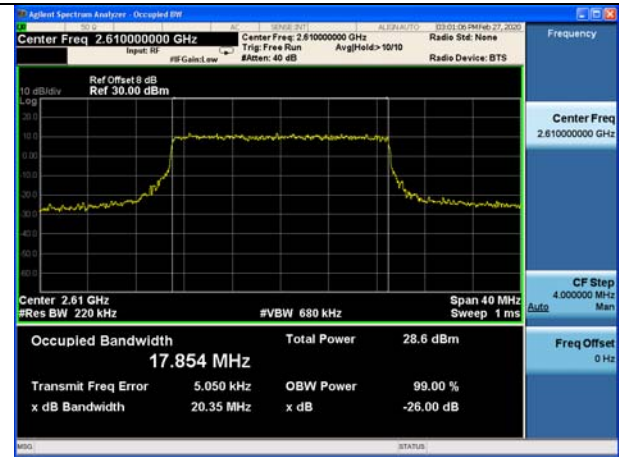


Fig.34

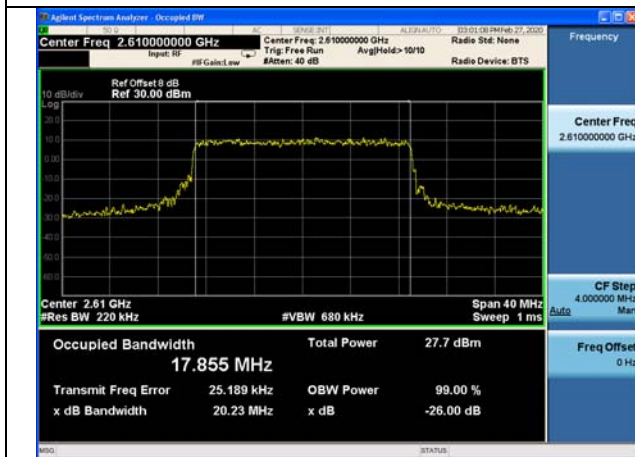


Fig.35

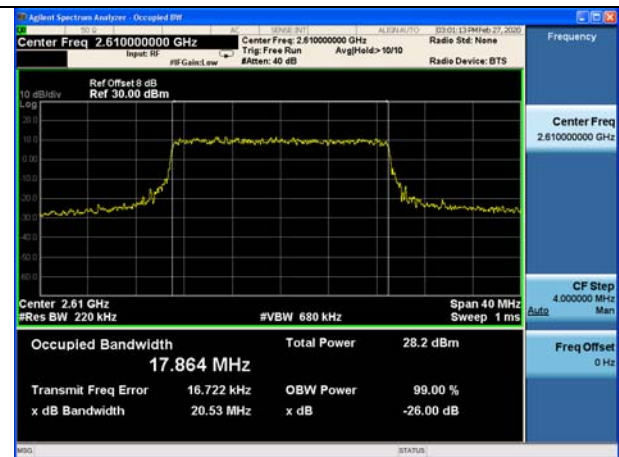


Fig.36

3 Peak-Average Ratio

Band	Carrier frequency	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

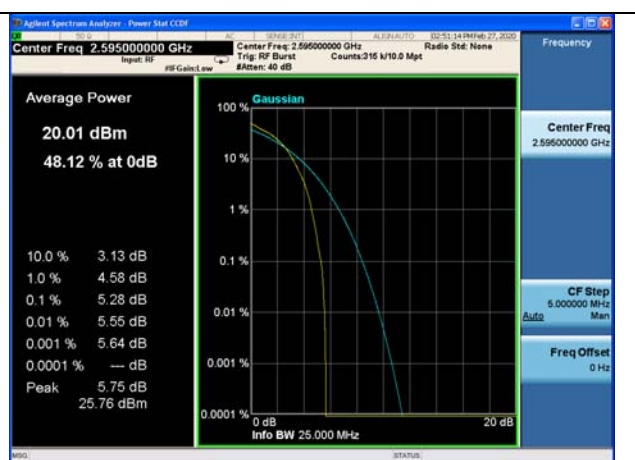


Fig.2

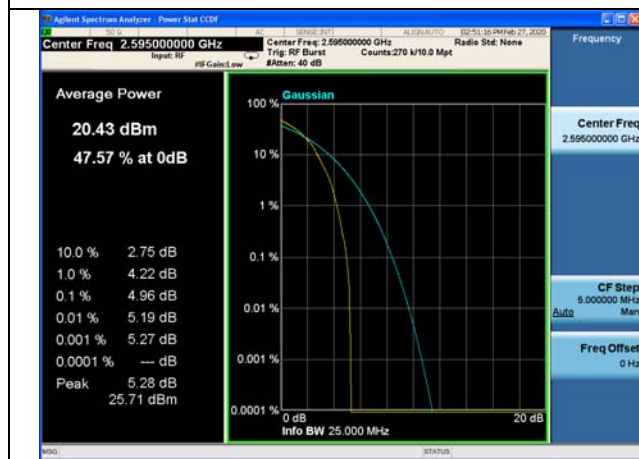


Fig.3

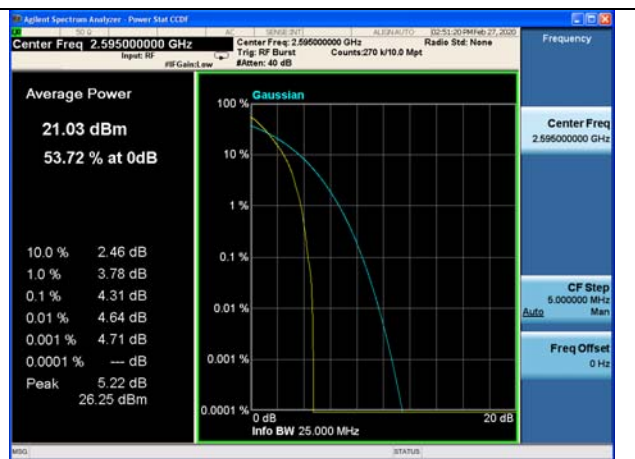


Fig.4

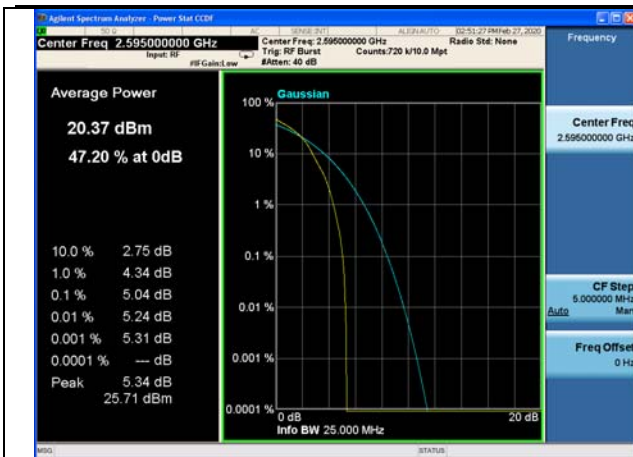


Fig.5



Fig.6

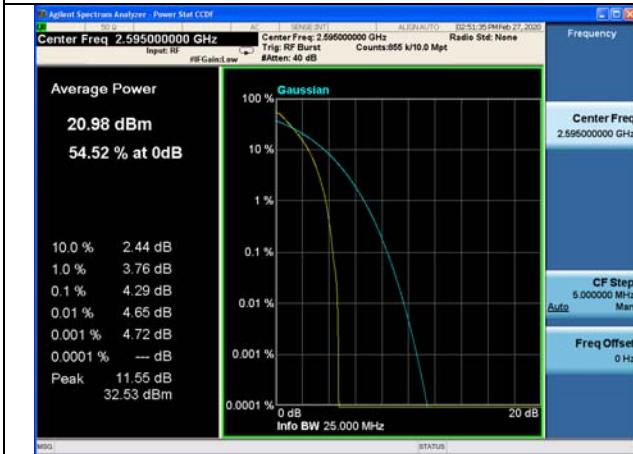


Fig.7

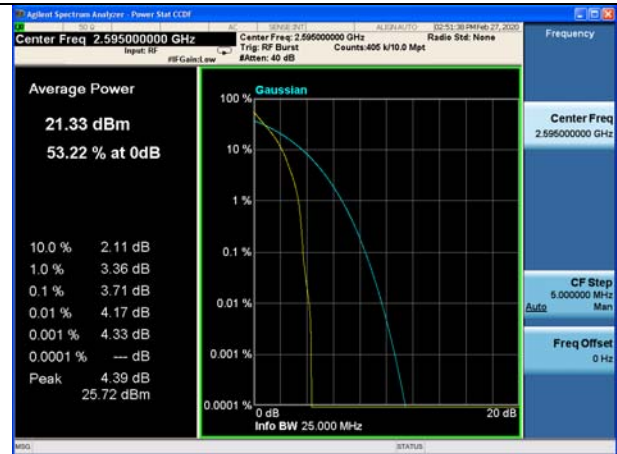


Fig.8

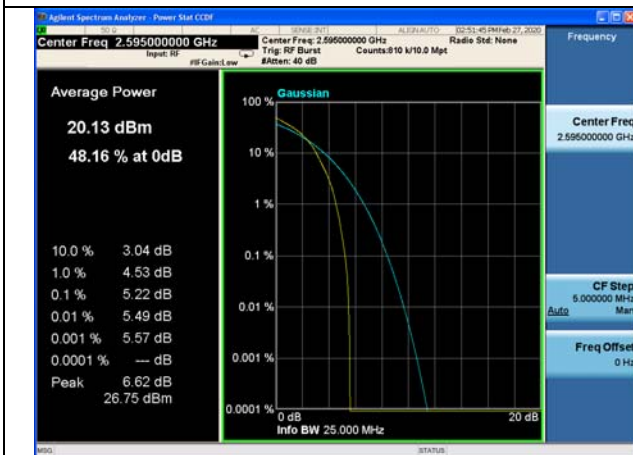


Fig.9



Fig.10



Fig.11



Fig.12

4 Spurious Emissions at antenna terminal

Band	Carrier frequency	Channel	BW	RB Size	RB Offset	Conducted Spurious
38	2580	37850	20	1	0	Fig.1-2
	2595	38000	20	1	0	Fig.3-4
	2610	38150	20	1	0	Fig.5-6

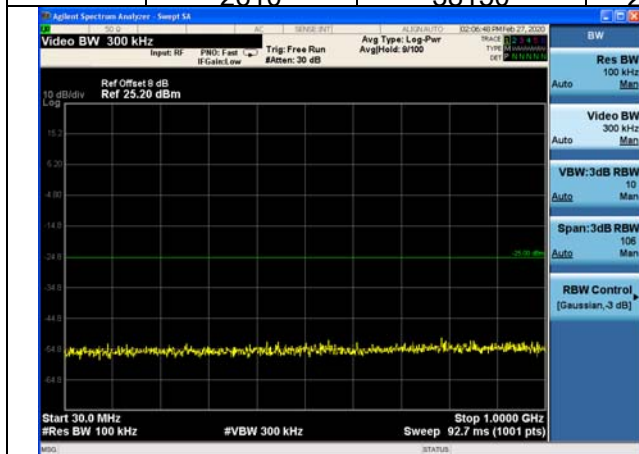


Fig.1



Fig.2

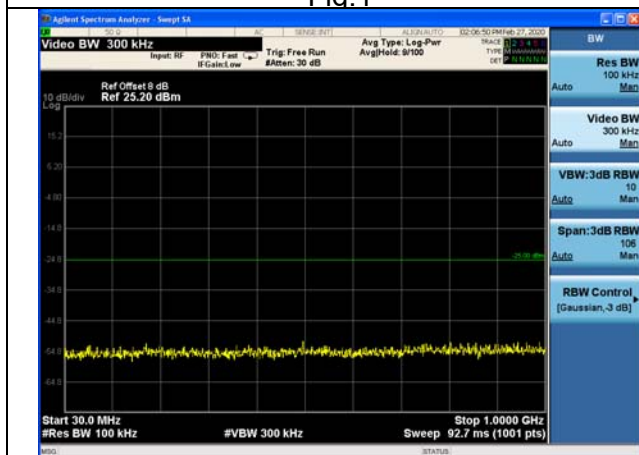


Fig.3

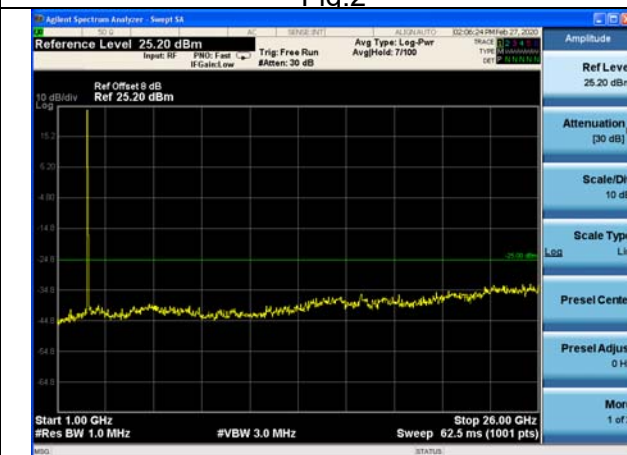


Fig.4

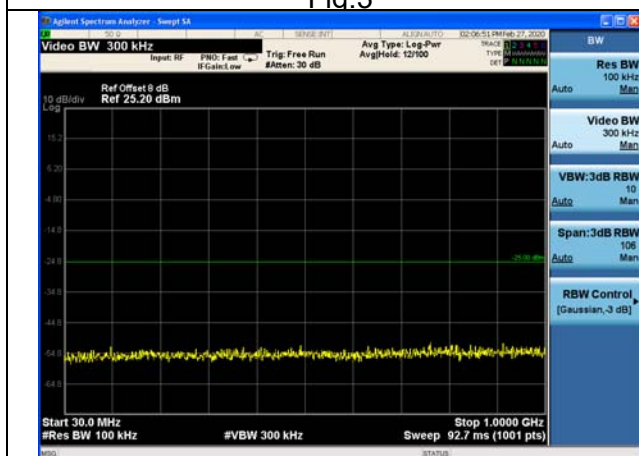


Fig.5



Fig.6

5 Band Edges Compliance

Test result

Band	Carrier frequency (MHz)	Channel	BW	RB Size	RB Offset	Band Edges Plot
						QPSK
38	2572.5	37775	5	1	0	Fig.1
				25	0	Fig.2
		38225		1	24	Fig.3
				25	0	Fig.4
	2575	37800	10	1	0	Fig.5
				50	0	Fig.6
		38200		1	49	Fig.7
				50	0	Fig.8
	2577.5	37825	15	1	0	Fig.9
				75	0	Fig.10
		38175		1	74	Fig.11
				75	0	Fig.12
	2580	37850	20	1	0	Fig.13
				100	0	Fig.14
		38150		1	99	Fig.15
				100	0	Fig.16

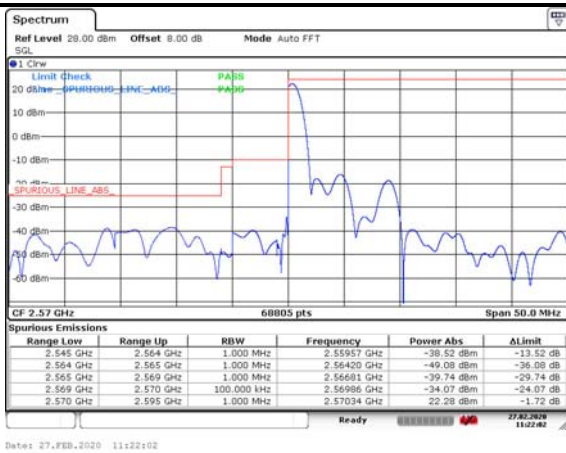


Fig.1

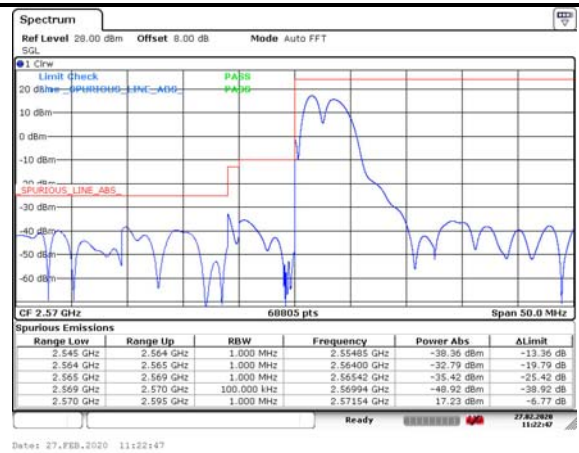


Fig.2

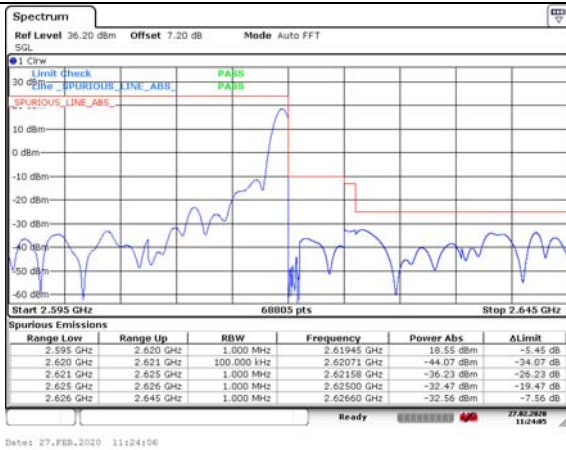


Fig.3



Fig.4

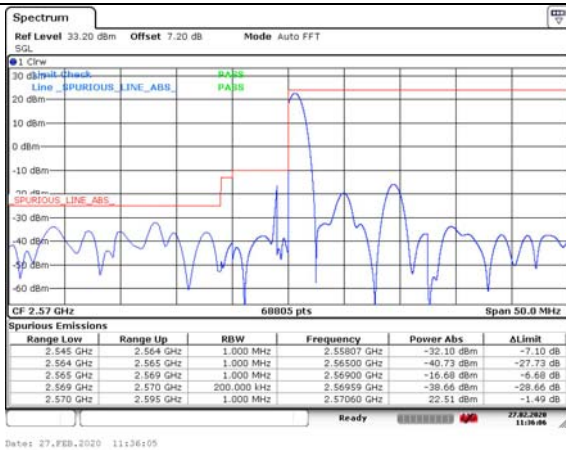


Fig.5

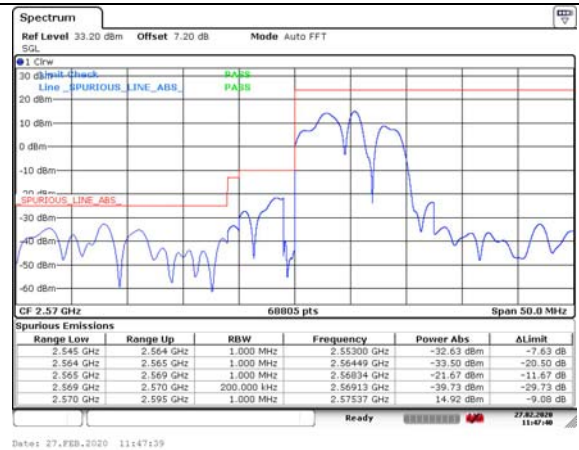


Fig.6

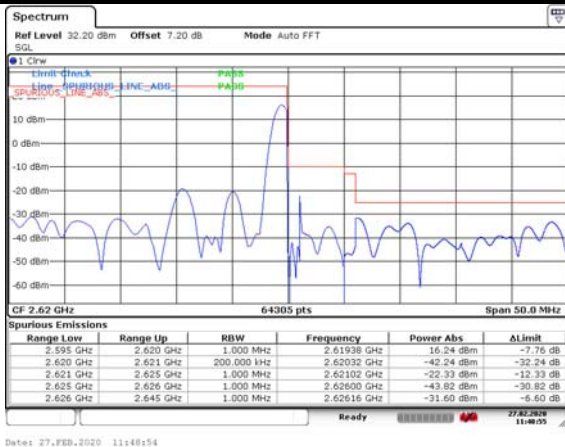


Fig.7

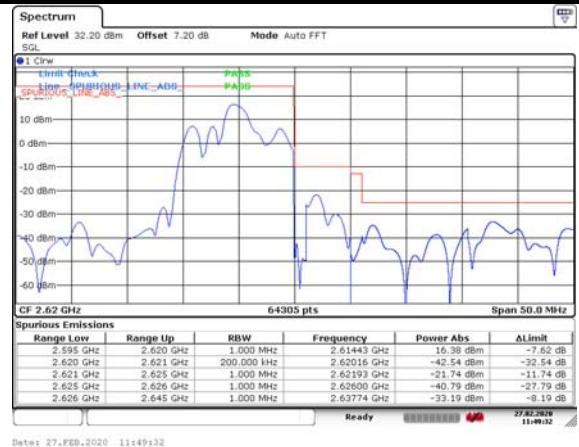


Fig.8

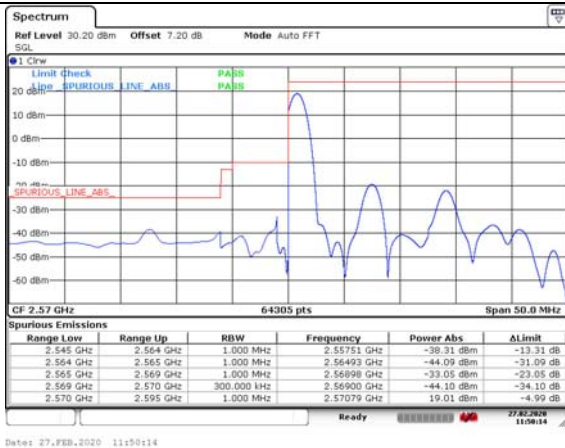


Fig.9

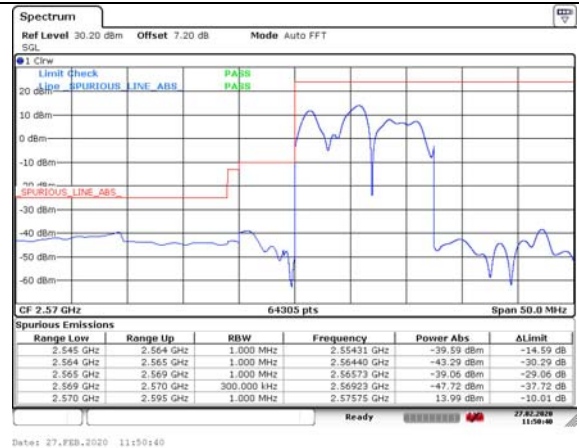


Fig.10

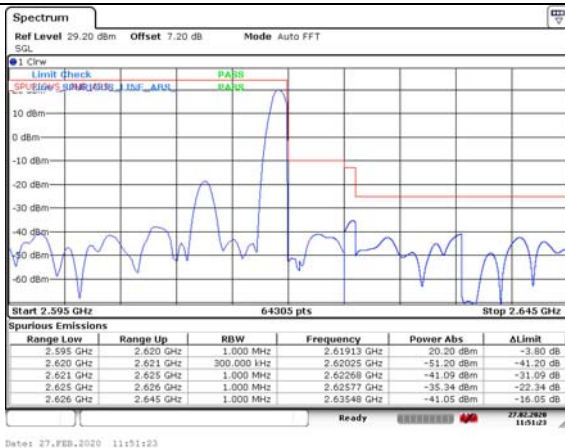


Fig.11

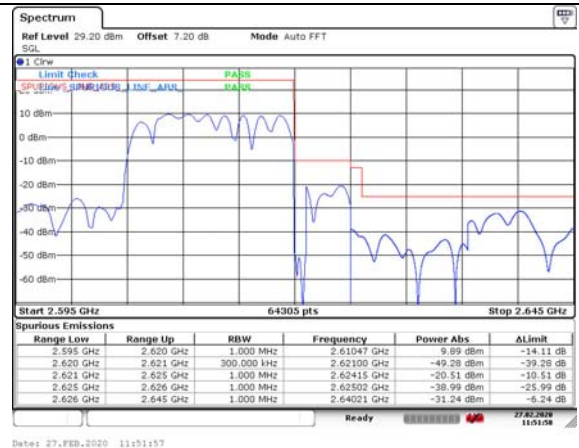


Fig.12

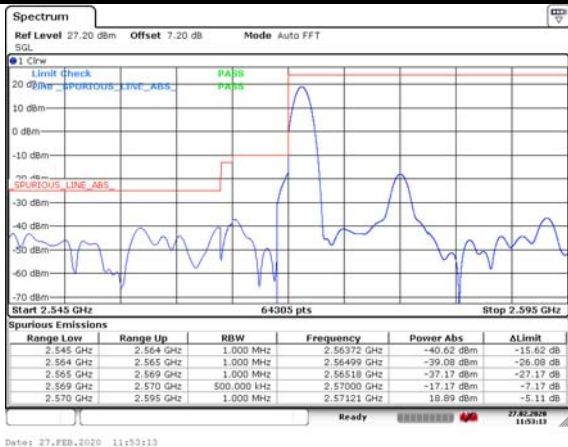


Fig.13

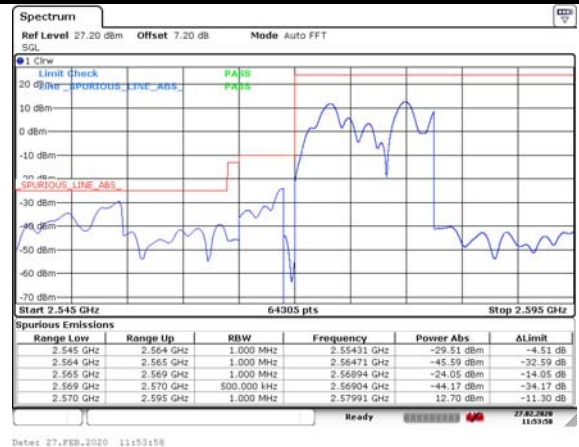


Fig.14

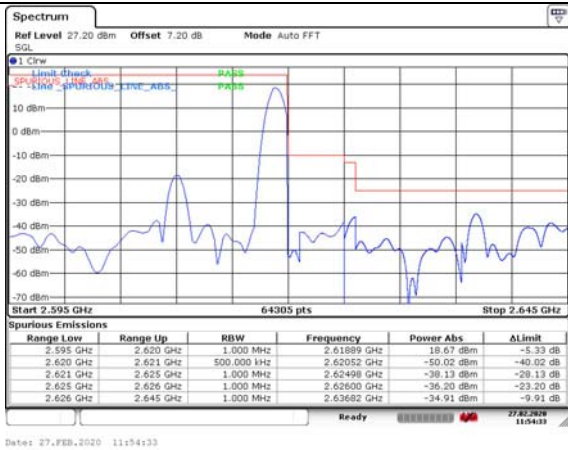


Fig.15

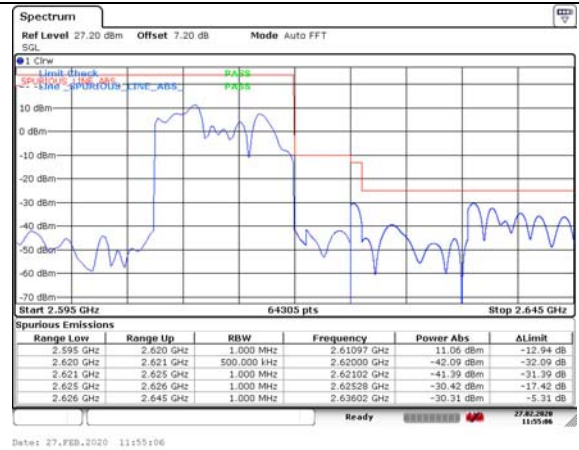


Fig.16

6 Frequency Stability

Test result:

Temperature(°C)	Voltage	Test Result (ppm) Band38 Low Channel			
		5M	10M	15M	20M
-20	NV	0.009	0.061	-0.034	0.016
-10	NV	0.037	0.065	-0.048	-0.015
0	NV	-0.041	0.046	0.062	-0.032
+10	NV	-0.044	-0.045	0.019	0.034
+20	NV	0.000	0.000	0.000	0.000
+30	NV	-0.078	-0.035	-0.041	0.009
+40	NV	0.043	0.021	0.077	0.017
+50	NV	0.016	0.007	0.017	-0.030
+55	NV	-0.002	-0.008	0.025	0.048
+20	LV	0.009	-0.003	0.049	-0.015
+20	HV	0.036	0.026	0.055	-0.043

Temperature(°C)	Voltage	Test Result (ppm) Band38 Low Channel			
		5M	10M	15M	20M
-20	NV	0.062	0.083	0.065	-0.017
-10	NV	-0.028	0.010	0.011	0.023
0	NV	0.050	0.024	0.049	0.014
+10	NV	-0.006	-0.014	-0.014	0.020
+20	NV	0.000	0.000	0.000	0.000
+30	NV	0.034	-0.017	0.060	0.031
+40	NV	0.018	0.066	-0.012	-0.034
+50	NV	-0.008	0.064	0.015	-0.046
+55	NV	-0.048	0.063	-0.011	0.064
+20	LV	0.013	0.006	0.018	-0.011
+20	HV	0.052	-0.013	0.009	0.012