

APPENDIX A – TEST DATA OF CONDUCTED EMISSION

LTE Band 2

1 RF Power Output

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)
QPSK	1850.7	18607	1.4	1	0	23.84
				1	5	23.69
				3	2	22.96
				6	0	22.80
	1880	18900		1	0	23.55
				1	5	23.52
				3	2	22.83
				6	0	22.67
	1909.3	19193		1	0	23.53
				1	5	23.47
				3	2	22.82
				6	0	22.77
16QAM	1850.7	18607	1.4	1	0	23.06
				1	5	22.85
				3	2	22.10
				6	0	21.93
	1880	18900		1	0	22.46
				1	5	22.60
				3	2	21.89
				6	0	21.89
	1909.3	19193		1	0	22.83
				1	5	22.70
				3	2	21.89
				6	0	21.88
64QAM	1850.7	18607	1.4	1	0	23.30
				1	5	23.19
				3	2	22.15
				6	0	21.91
	1880	18900		1	0	22.56
				1	5	22.64
				3	2	22.14
				6	0	21.88
	1909.3	19193		1	0	23.24
				1	5	23.09
				3	2	22.05
				6	0	21.91

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)
QPSK	1851.5	18615	3	1	0	23.83
				1	14	23.54
				8	4	22.96
				15	0	22.80
	1880	18900		1	0	23.62
				1	14	23.42
				8	4	22.80
				15	0	22.76
	1908.5	19185		1	0	23.61
				1	14	23.43
				8	4	22.70
				15	0	22.88
16QAM	1851.5	18615	3	1	0	23.03
				1	14	22.90
				8	4	22.05
				15	0	21.91
	1880	18900		1	0	22.44
				1	14	22.52
				8	4	22.01
				15	0	21.99
	1908.5	19185		1	0	22.84
				1	14	22.66
				8	4	21.97
				15	0	21.92
64QAM	1851.5	18615	3	1	0	23.30
				1	14	23.09
				8	4	22.19
				15	0	21.98
	1880	18900		1	0	22.62
				1	14	22.74
				8	4	22.14
				15	0	21.88
	1908.5	19185		1	0	23.15
				1	14	23.21
				8	4	22.05
				15	0	21.86

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)
QPSK	1852.5	18625	5	1	0	23.76
				1	24	23.61
				12	6	22.95
				25	0	22.73
	1880	18900		1	0	23.62
				1	24	23.45
				12	6	22.91
				25	0	22.75
	1907.5	19175		1	0	23.56
				1	24	23.51
				12	6	22.80
				25	0	22.82
16QAM	1852.5	18625	5	1	0	23.05
				1	24	22.85
				12	6	22.04
				25	0	21.93
	1880	18900		1	0	22.48
				1	24	22.57
				12	6	21.88
				25	0	22.04
	1907.5	19175		1	0	22.88
				1	24	22.76
				12	6	21.96
				25	0	21.88
64QAM	1852.5	18625	5	1	0	23.29
				1	24	23.22
				12	6	22.22
				25	0	21.95
	1880	18900		1	0	22.71
				1	24	22.66
				12	6	22.09
				25	0	21.94
	1907.5	19175		1	0	23.19
				1	24	23.14
				12	6	22.01
				25	0	21.93

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)
QPSK	1855	18650	10	1	0	23.76
				1	49	23.54
				24	12	23.04
				50	0	22.70
	1880	18900		1	0	23.55
				1	49	23.43
				24	12	22.87
				50	0	22.68
	1905	19150		1	0	23.59
				1	49	23.41
				24	12	22.71
				50	0	22.90
16QAM	1855	18650	10	1	0	23.00
				1	49	22.85
				24	12	22.10
				50	0	21.94
	1880	18900		1	0	22.45
				1	49	22.47
				24	12	22.02
				50	0	22.00
	1905	19150		1	0	22.86
				1	49	22.63
				24	12	21.83
				50	0	21.86
64QAM	1855	18650	10	1	0	23.31
				1	49	23.17
				24	12	22.11
				50	0	21.93
	1880	18900		1	0	22.60
				1	49	22.66
				24	12	22.10
				50	0	21.89
	1905	19150		1	0	23.14
				1	49	23.11
				24	12	22.04
				50	0	21.84

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)
QPSK	1857.5	18675	15	1	0	23.77
				1	74	23.61
				40	18	23.01
				75	0	22.81
	1880	18900		1	0	23.62
				1	74	23.53
				40	18	22.79
				75	0	22.71
	1902.5	19125		1	0	23.55
				1	74	23.46
				40	18	22.72
				75	0	22.89
16QAM	1857.5	18675	15	1	0	23.03
				1	74	22.92
				40	18	22.02
				75	0	22.02
	1880	18900		1	0	22.49
				1	74	22.53
				40	18	22.01
				75	0	21.99
	1902.5	19125		1	0	22.90
				1	74	22.73
				40	18	21.90
				75	0	21.84
64QAM	1857.5	18675	15	1	0	23.35
				1	74	23.20
				40	18	22.22
				75	0	21.93
	1880	18900		1	0	22.67
				1	74	22.73
				40	18	22.10
				75	0	21.94
	1902.5	19125		1	0	23.16
				1	74	23.22
				40	18	21.99
				75	0	21.96

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)
QPSK	1860	18700	20	1	0	23.87
				1	99	23.69
				50	25	23.08
				100	0	22.81
	1880	18900		1	0	23.67
				1	99	23.56
				50	25	22.91
				100	0	22.76
	1900	19100		1	0	23.66
				1	99	23.54
				50	25	22.84
				100	0	22.90
16QAM	1860	18700	20	1	0	23.08
				1	99	22.99
				50	25	22.12
				100	0	22.06
	1880	18900		1	0	22.53
				1	99	22.61
				50	25	22.03
				100	0	22.04
	1900	19100		1	0	22.91
				1	99	22.77
				50	25	21.97
				100	0	21.96
64QAM	1860	18700	20	1	0	23.44
				1	99	23.23
				50	25	22.24
				100	0	21.99
	1880	18900		1	0	22.71
				1	99	22.75
				50	25	22.18
				100	0	22.02
	1900	19100		1	0	23.27
				1	99	23.23
				50	25	22.11
				100	0	21.99

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	
2	1850.7	18607	1.4	6	0	1.0821	Fig.1	1.0787	Fig.2	1.0778	Fig.3
	1880.0	18900		6	0	1.0805	Fig.4	1.0775	Fig.5	1.0803	Fig.6
	1909.3	19193		6	0	1.0793	Fig.7	1.0769	Fig.8	1.0794	Fig.9
	1851.5	18615	3	15	0	2.6778	Fig.10	2.6763	Fig.11	2.6783	Fig.12
	1880.0	18900		15	0	2.6741	Fig.13	2.6773	Fig.14	2.6736	Fig.15
	1908.5	19185		15	0	2.6775	Fig.16	2.6731	Fig.17	2.6753	Fig.18
	1852.5	18625	5	25	0	4.4782	Fig.19	4.4687	Fig.20	4.4668	Fig.21
	1880.0	18900		25	0	4.4795	Fig.22	4.4641	Fig.23	4.4657	Fig.24
	1907.5	19175		25	0	4.4788	Fig.25	4.4738	Fig.26	4.4778	Fig.27
	1855	18650	10	50	0	8.9640	Fig.28	8.9306	Fig.29	8.9467	Fig.30
	1880	18900		50	0	8.9628	Fig.31	8.9240	Fig.32	8.9395	Fig.33
	1905	19150		50	0	8.9392	Fig.34	8.9403	Fig.35	8.9700	Fig.36
	1857.5	18675	15	75	0	13.395	Fig.37	13.424	Fig.38	13.396	Fig.39
	1880.0	18900		75	0	13.376	Fig.40	13.389	Fig.41	13.394	Fig.42
	1902.5	19125		75	0	13.425	Fig.43	13.427	Fig.44	13.424	Fig.45
	1860	18700	20	100	0	17.897	Fig.46	17.896	Fig.47	17.883	Fig.48
	1880	18900		100	0	17.871	Fig.49	17.863	Fig.50	17.862	Fig.51
	1900	19100		100	0	17.912	Fig.52	17.913	Fig.53	17.908	Fig.54

Band	Carrier frequency (MHz)	Channel	BW (MHz)	RB Size	RB Offset	Bandwidth of -26dB transmitter power (MHz)					
						QPSK		16-QAM		64-QAM	
2	1850.7	18607	1.4	6	0	1.271	Fig.1	1.263	Fig.2	1.244	Fig.3
	1880.0	18900		6	0	1.268	Fig.4	1.261	Fig.5	1.232	Fig.6
	1909.3	19193		6	0	1.252	Fig.7	1.236	Fig.8	1.216	Fig.9
	1851.5	18615	3	15	0	2.980	Fig.10	3.002	Fig.11	2.942	Fig.12
	1880.0	18900		15	0	2.928	Fig.13	2.943	Fig.14	2.938	Fig.15
	1908.5	19185		15	0	2.933	Fig.16	2.939	Fig.17	2.945	Fig.18
	1852.5	18625	5	25	0	5.043	Fig.19	5.019	Fig.20	5.123	Fig.21
	1880.0	18900		25	0	5.087	Fig.22	5.143	Fig.23	5.062	Fig.24
	1907.5	19175		25	0	5.165	Fig.25	5.088	Fig.26	5.135	Fig.27
	1855	18650	10	50	0	9.963	Fig.28	9.844	Fig.29	9.918	Fig.30
	1880	18900		50	0	9.837	Fig.31	9.949	Fig.32	9.683	Fig.33
	1905	19150		50	0	9.788	Fig.34	9.873	Fig.35	9.742	Fig.36
	1857.5	18675	15	75	0	14.71	Fig.37	15.06	Fig.38	14.74	Fig.39
	1880.0	18900		75	0	14.53	Fig.40	14.72	Fig.41	14.86	Fig.42
	1902.5	19125		75	0	14.88	Fig.43	14.66	Fig.44	14.82	Fig.45
	1860	18700	20	100	0	19.60	Fig.46	19.32	Fig.47	22.05	Fig.48
	1880	18900		100	0	19.39	Fig.49	19.62	Fig.50	19.57	Fig.51
	1900	19100		100	0	19.60	Fig.52	19.92	Fig.53	19.58	Fig.54

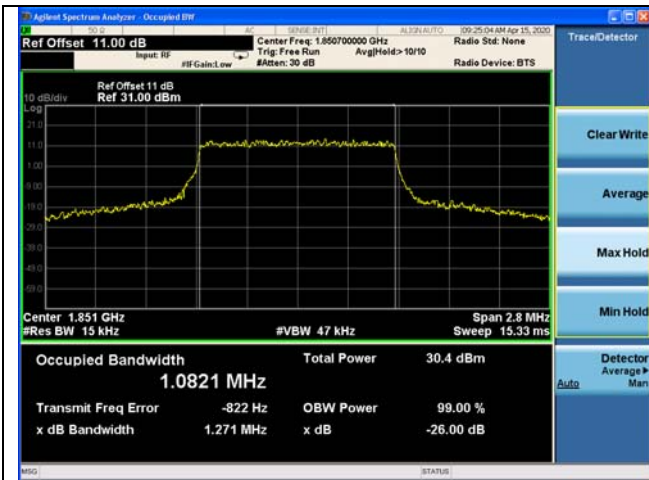


Fig.1

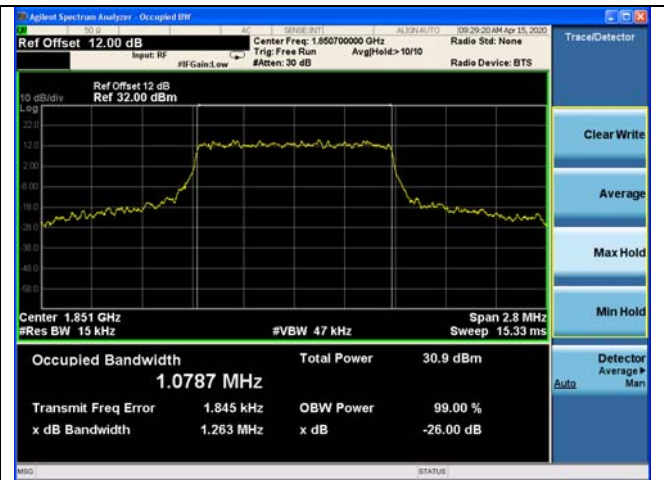


Fig.2

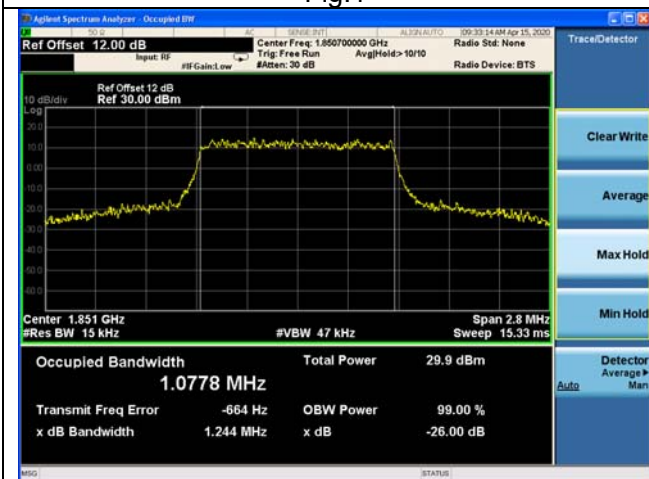


Fig.3

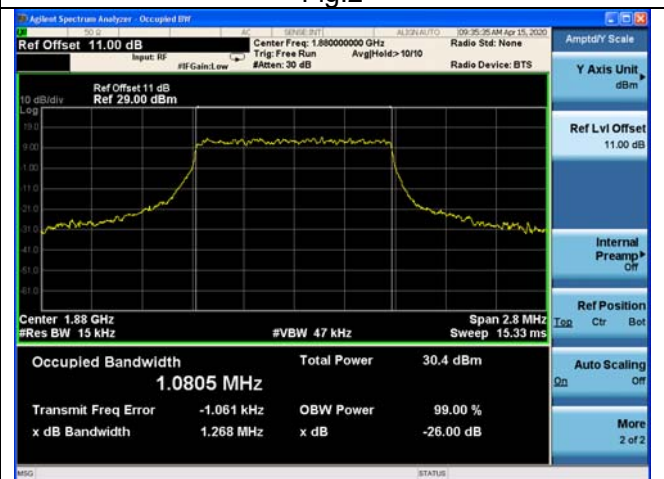


Fig.4

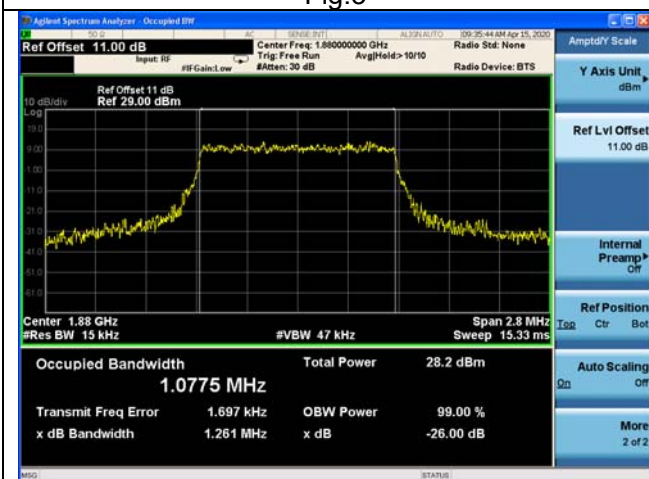


Fig.5

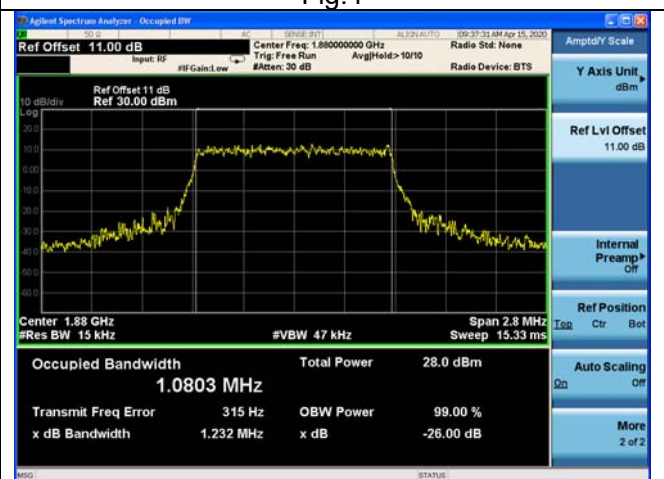


Fig.6



Fig.7

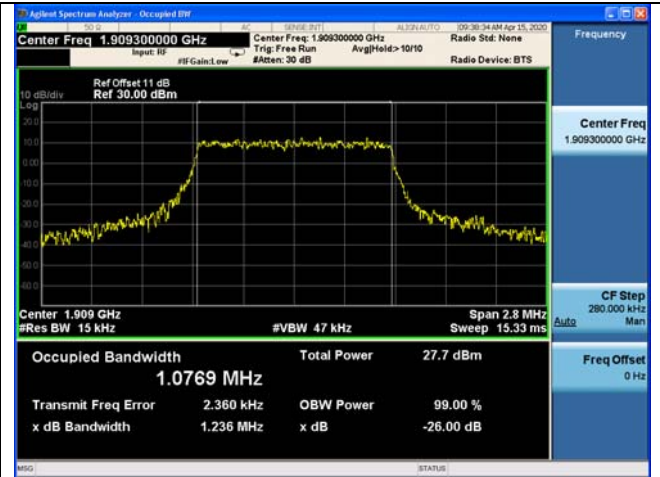


Fig.8

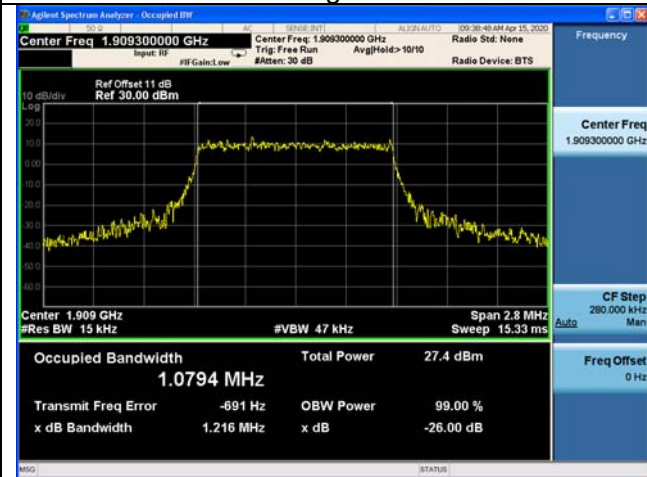


Fig.9

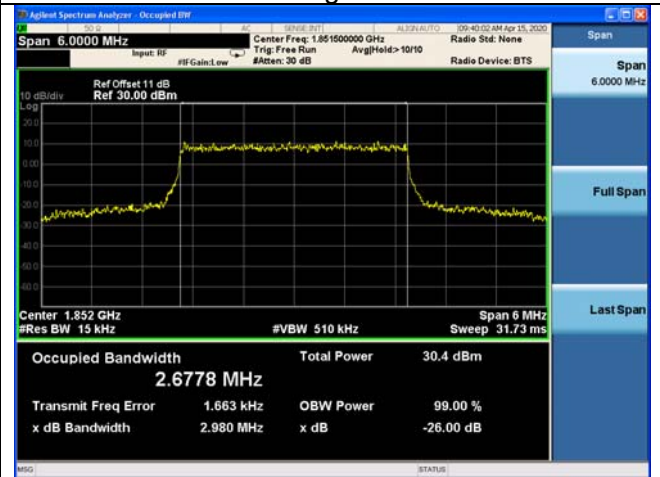


Fig.10

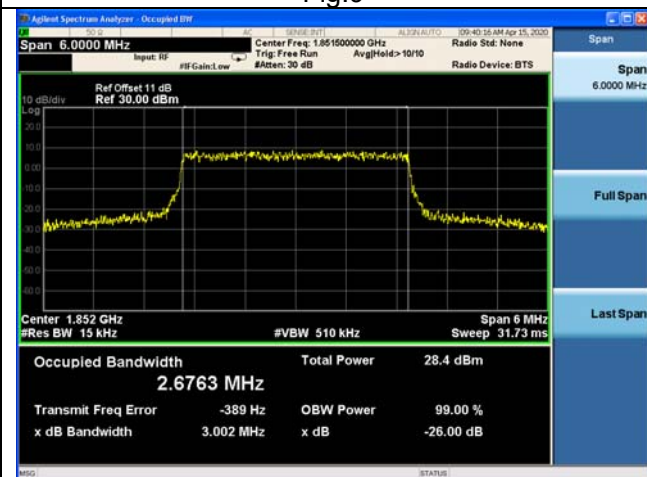


Fig.11

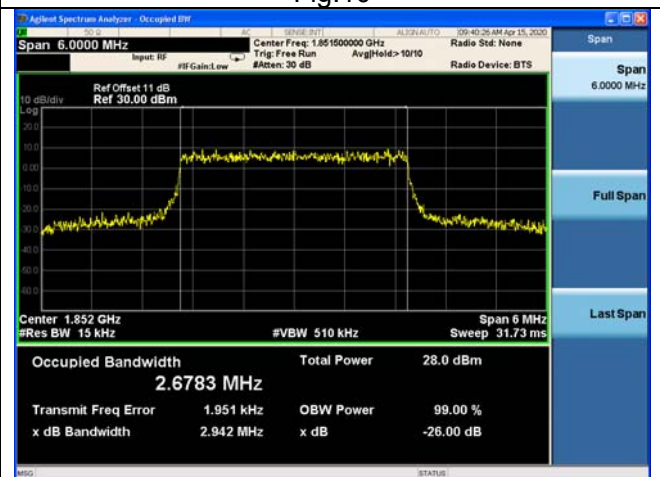


Fig.12

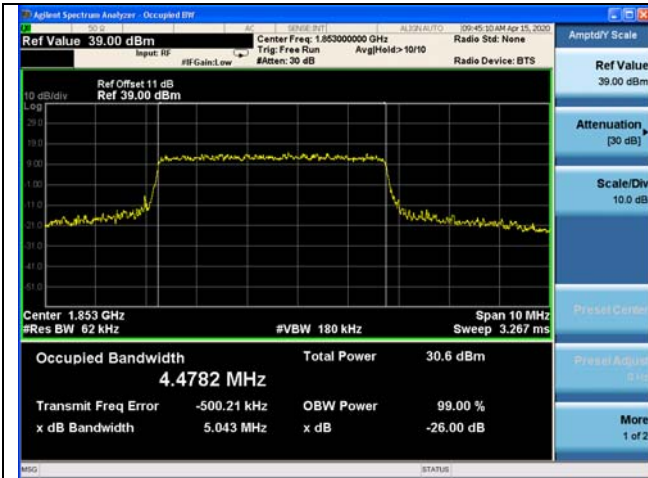


Fig.19



Fig.20

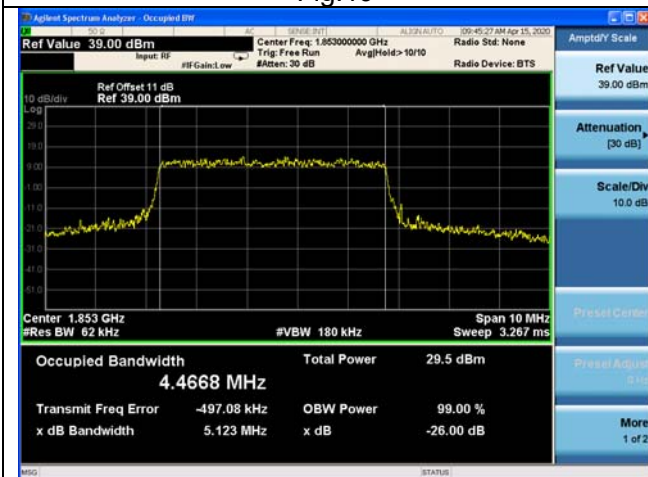


Fig.21



Fig.22

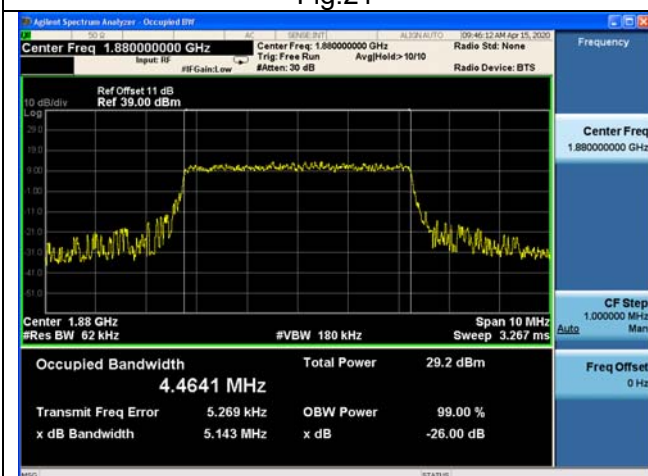


Fig.23

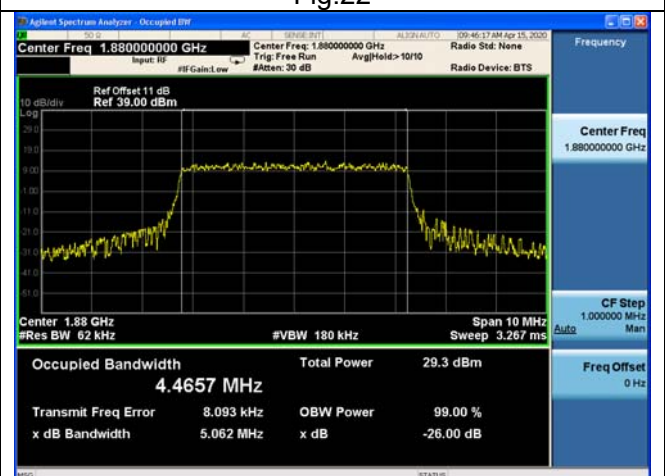


Fig.24

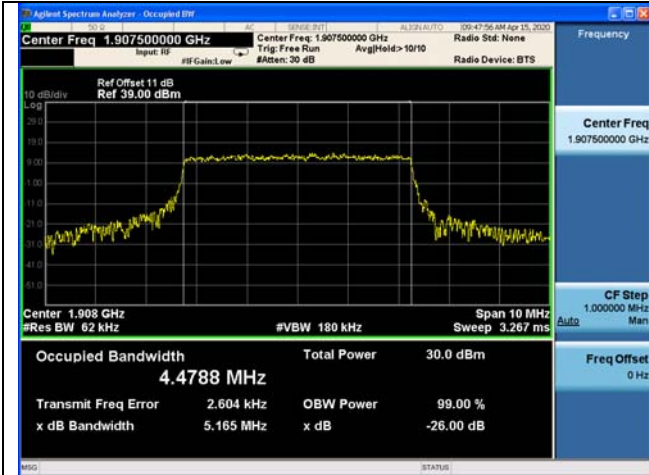


Fig.25

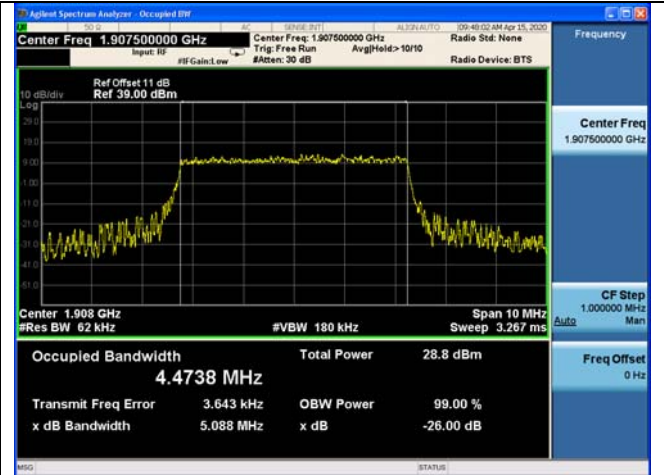


Fig.26

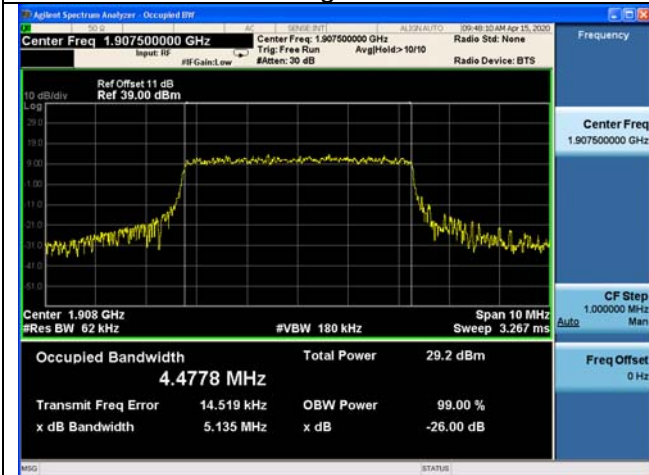


Fig.27

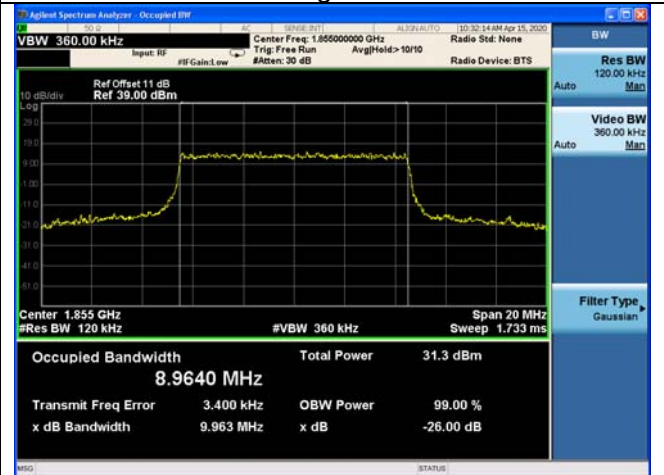


Fig.28

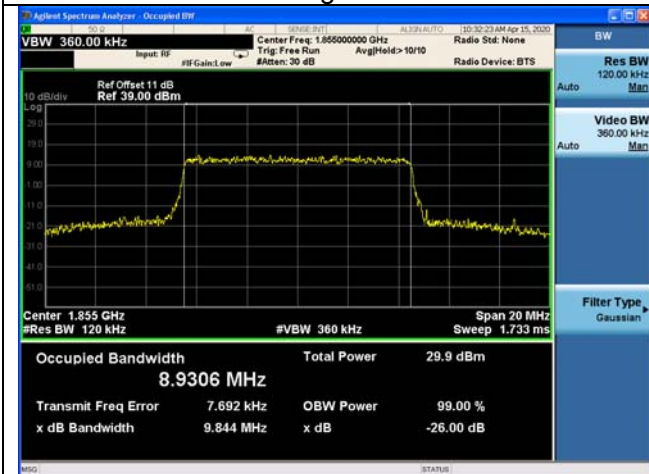


Fig.29

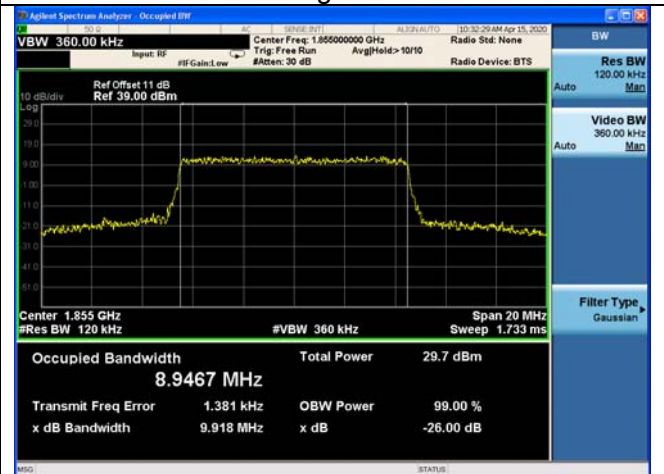


Fig.30

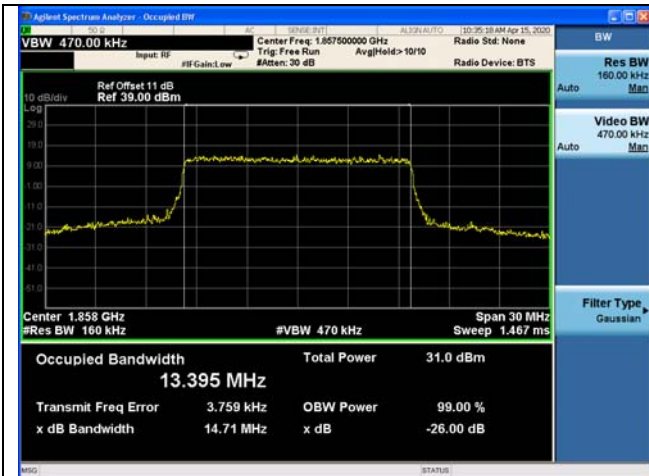


Fig.37

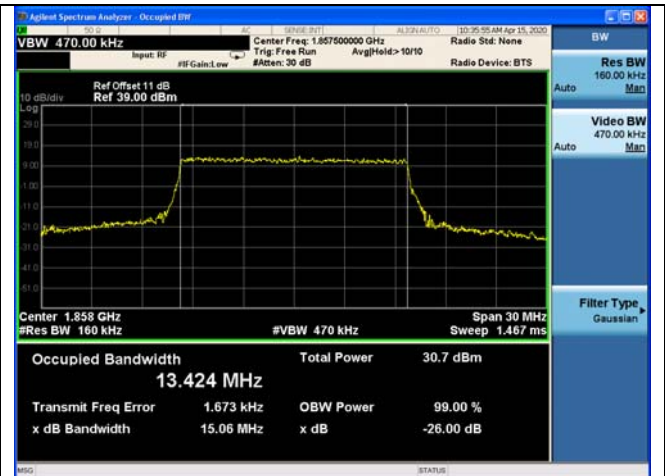


Fig.38

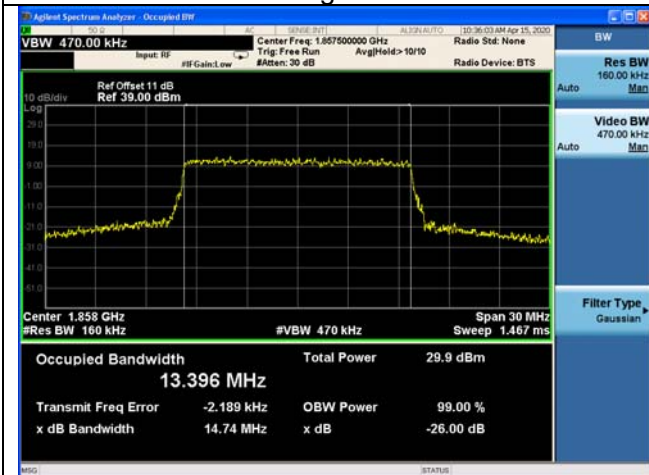


Fig.39

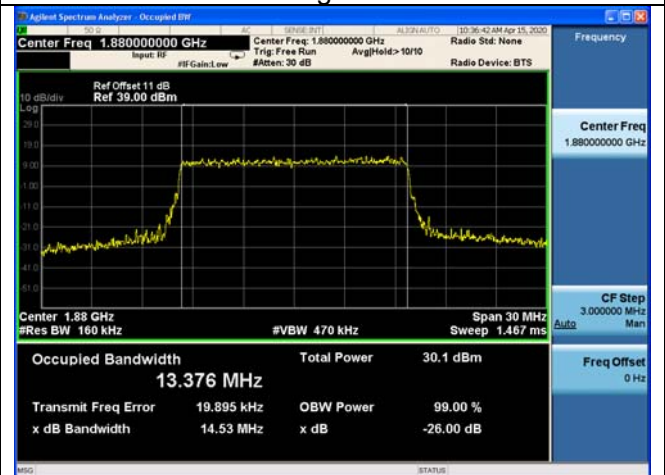


Fig.40

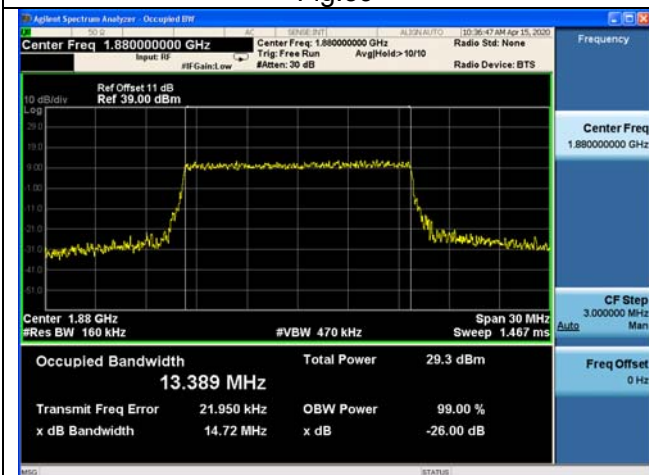


Fig.41

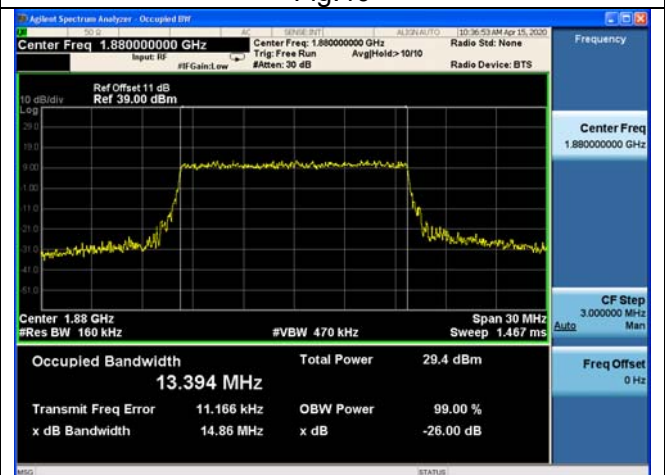


Fig.42

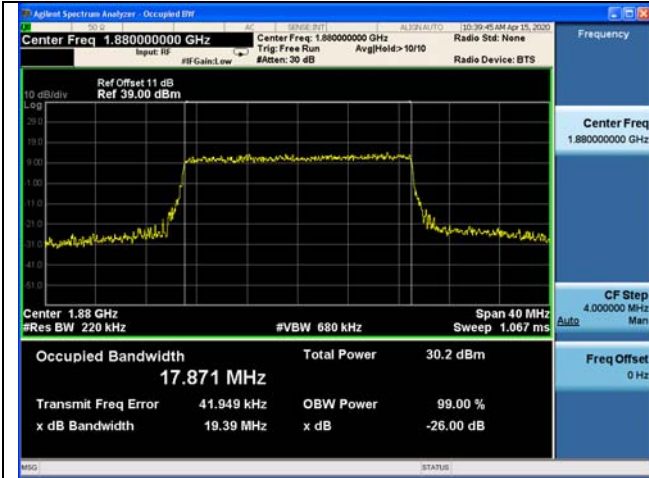


Fig.49

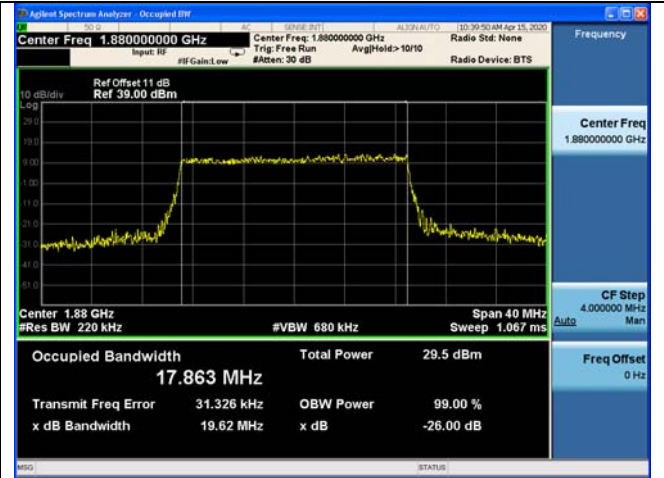


Fig.50

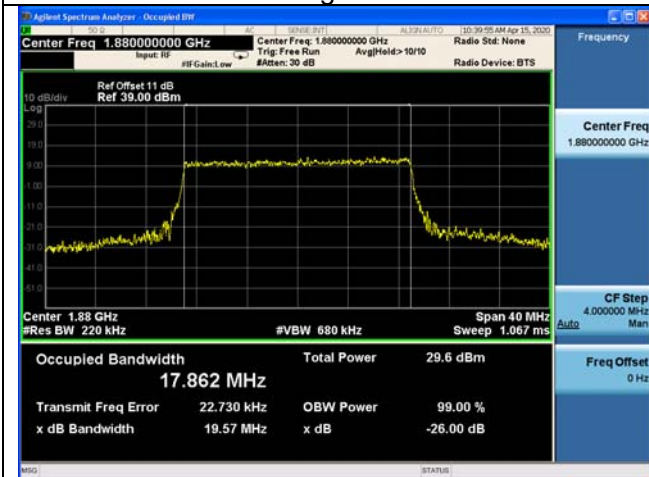


Fig.51



Fig.52

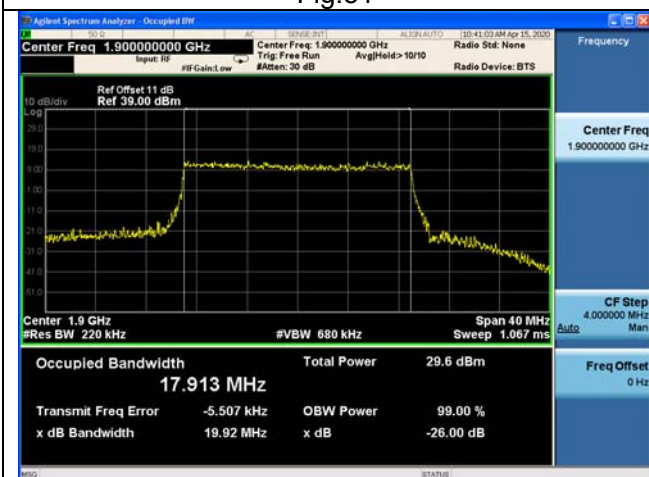


Fig.53

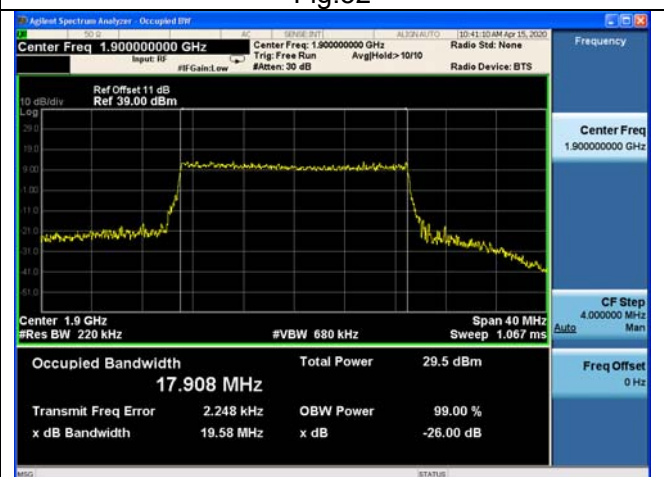


Fig.54

3 Peak-Average Ratio

Band	Carrier frequency (MHz)	Channel	BW (MHz)	RB Size	RB Offset	QPSK	16-QAM	64-QAM
2	1880.0	18900	1.4	1	0	Fig.1	Fig.2	Fig.3
			3	1	0	Fig.4	Fig.5	Fig.6
			5	1	0	Fig.7	Fig.8	Fig.9
			10	1	0	Fig.10	Fig.11	Fig.12
			15	1	0	Fig.13	Fig.14	Fig.15
			20	1	0	Fig.16	Fig.17	Fig.18



Fig.1

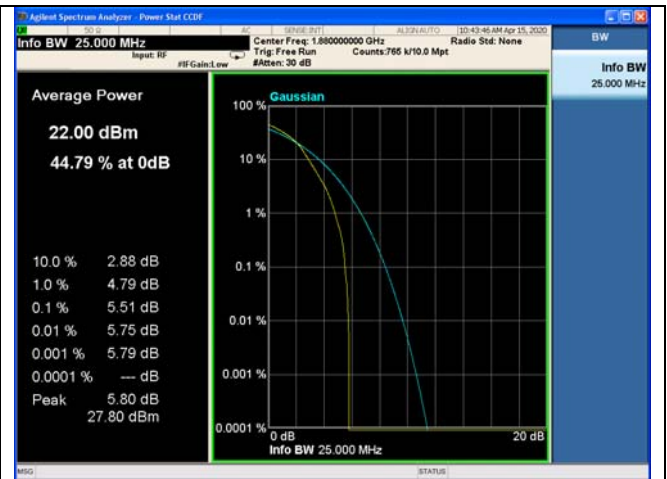


Fig.2



Fig.3

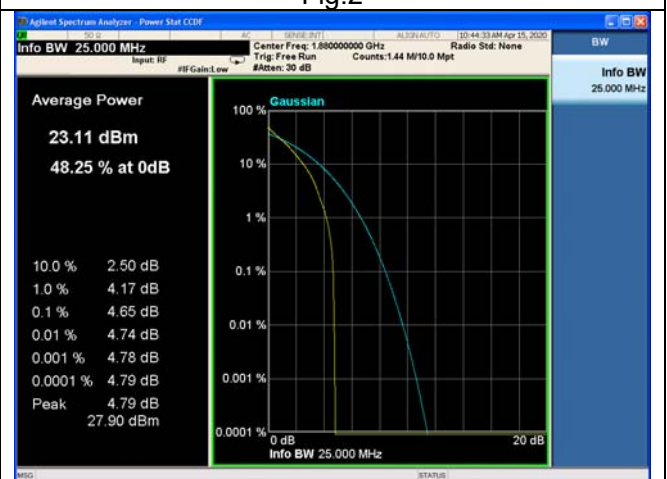


Fig.4



Fig.5



Fig.6



Fig.7



Fig.8



Fig.9



Fig.10



Fig.11

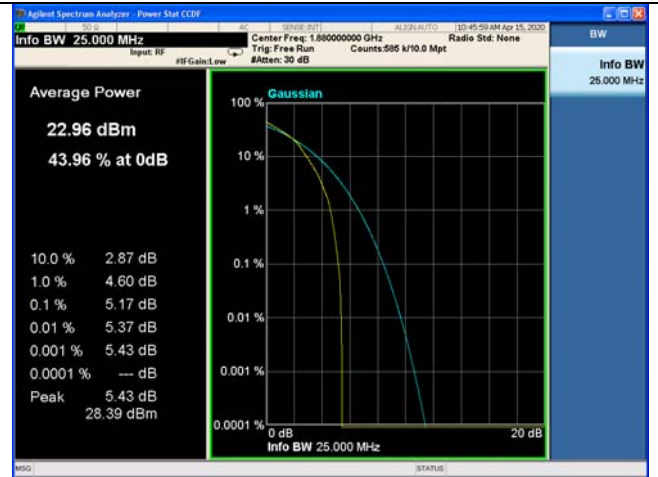


Fig.12



Fig.13



Fig.14



Fig.15



Fig.16

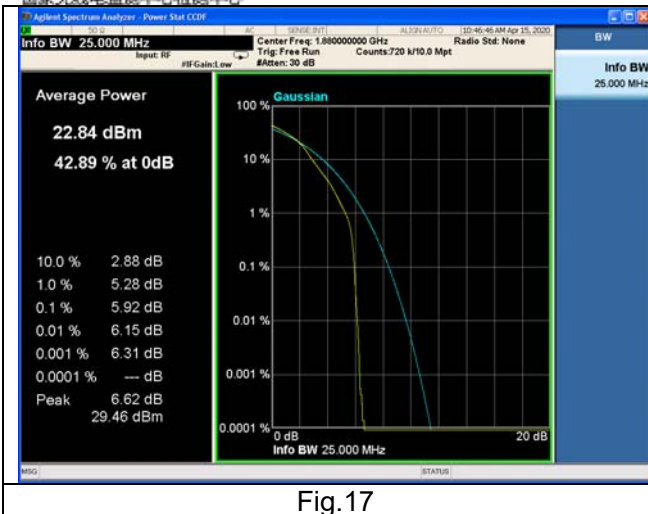


Fig.17

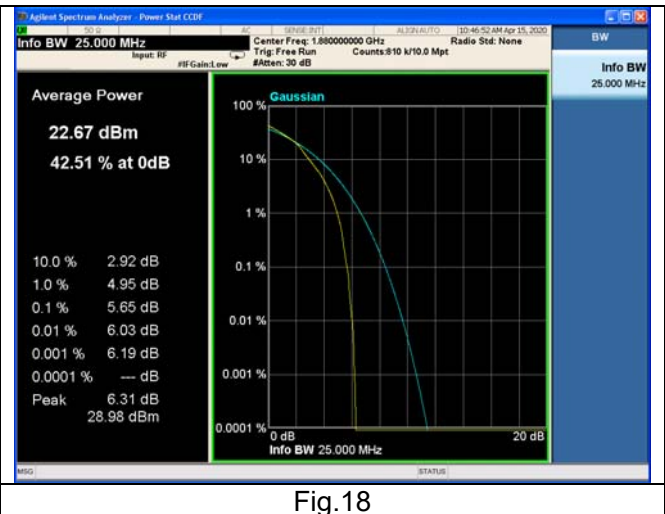


Fig.18

4 Spurious Emissions at antenna terminal

Band	Carrier frequency (MHz)	Channel	BW	RB Size	RB Offset	Conducted Spurious Plot
						QPSK
2	1860	18700	20	1	0	Fig.1-2
	1880	18900	20	1	0	Fig.3-4
	1900	19100	20	1	0	Fig.5-6

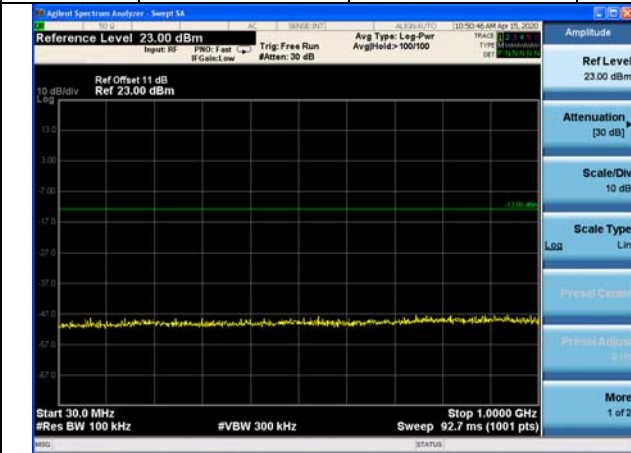


Fig.1

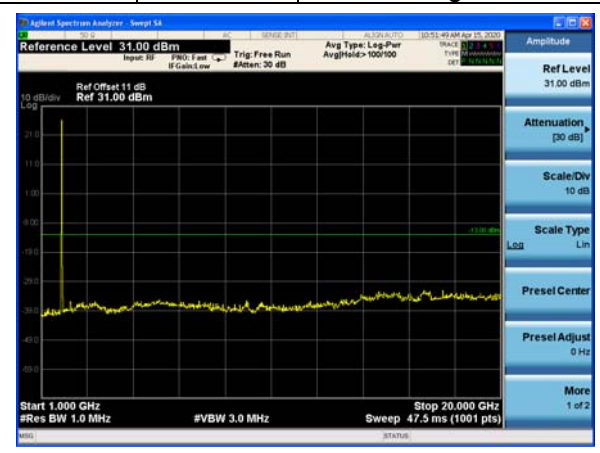


Fig.2

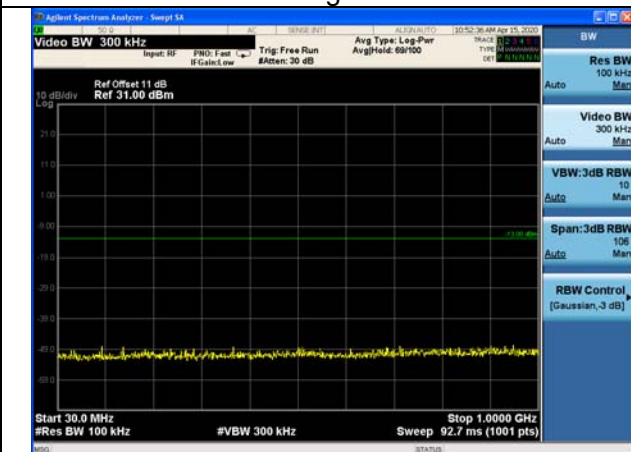


Fig.3

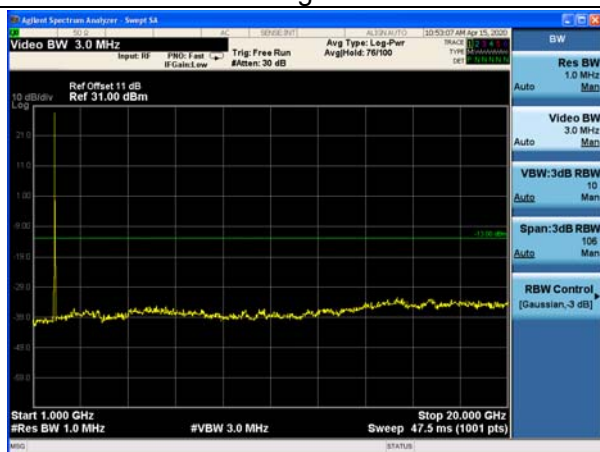


Fig.4

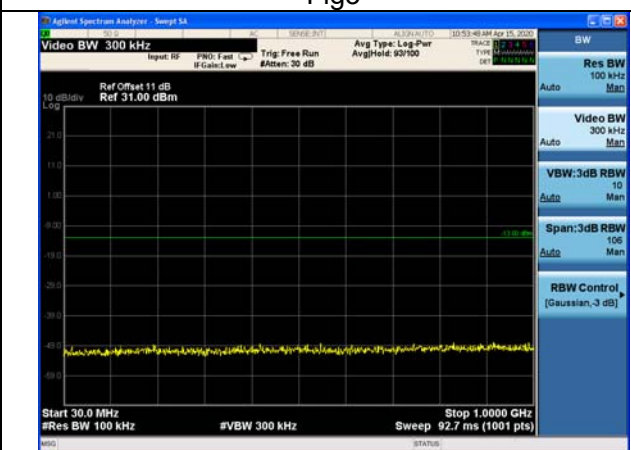


Fig.5

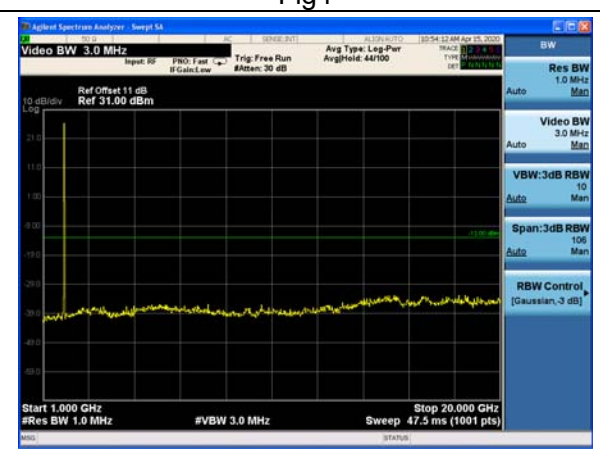


Fig.6

5 Band Edges Compliance

Test result

Band	Carrier frequency (MHz)	Channel	BW	RB Size	RB Offset	Band Edges Plot
						QPSK
2	1850.7	18607	1.4	1	0	Fig.1
				6	0	Fig.2
	1909.3	19193		1	5	Fig.3
				6	0	Fig.4
	1851.5	18615	3	1	0	Fig.5
				15	0	Fig.6
	1908.5	19185		1	14	Fig.7
				15	0	Fig.8
	1852.5	18625	5	1	0	Fig.9
				25	0	Fig.10
	1907.5	19175		1	24	Fig.11
				25	0	Fig.12
	1855	18650	10	1	0	Fig.13
				50	0	Fig.14
	1905	19150		1	49	Fig.15
				50	0	Fig.16
	1857.5	18675	15	1	0	Fig.17
				75	0	Fig.18
	1902.5	19125		1	74	Fig.19
				75	0	Fig.20
	1860	18700	20	1	0	Fig.21
				100	0	Fig.22
	1900	19100		1	99	Fig.23
				100	0	Fig.24

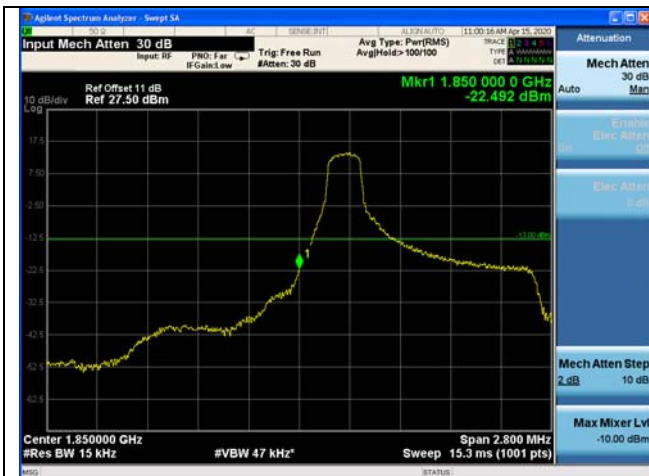


Fig.1



Fig.2

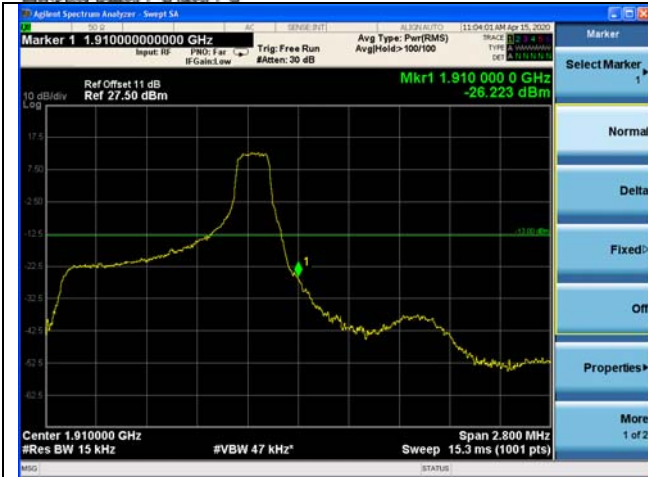


Fig.3



Fig.4

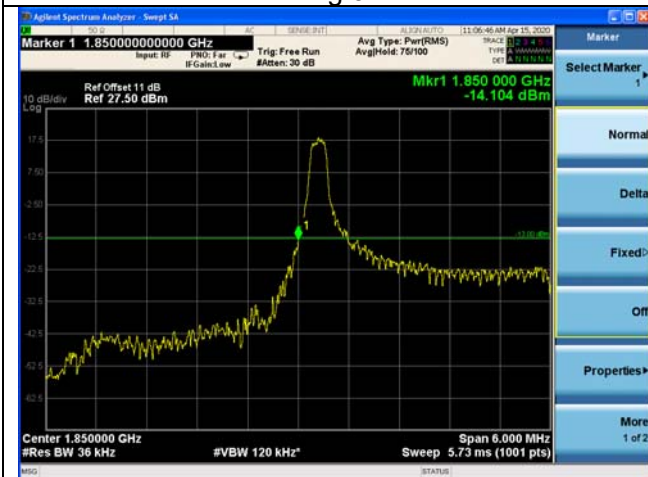


Fig.5



Fig.6

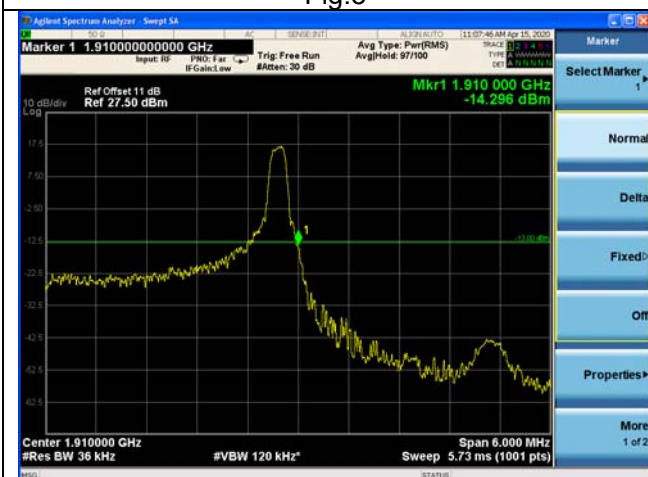


Fig.7



Fig.8

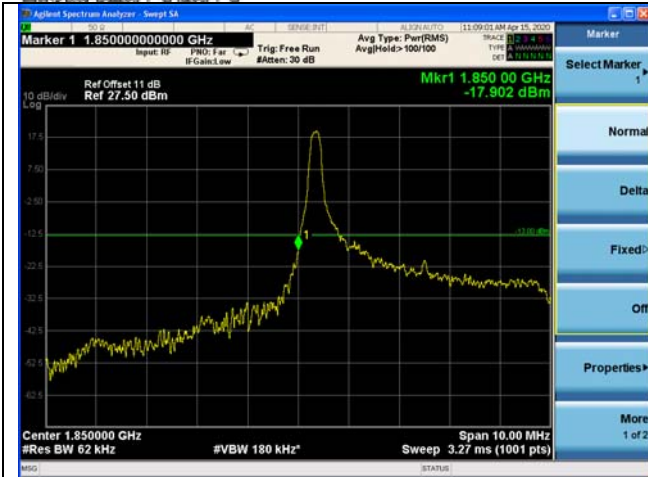


Fig.9

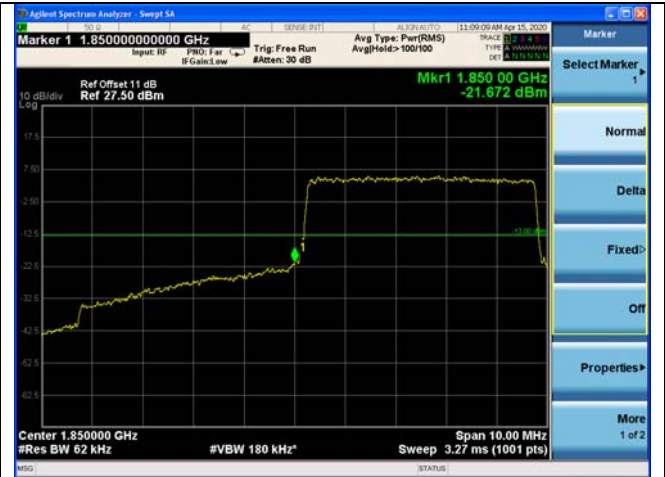


Fig.10

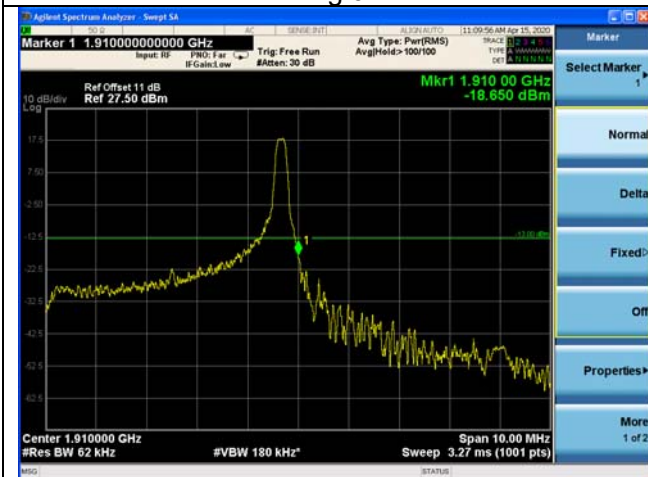


Fig.11



Fig.12

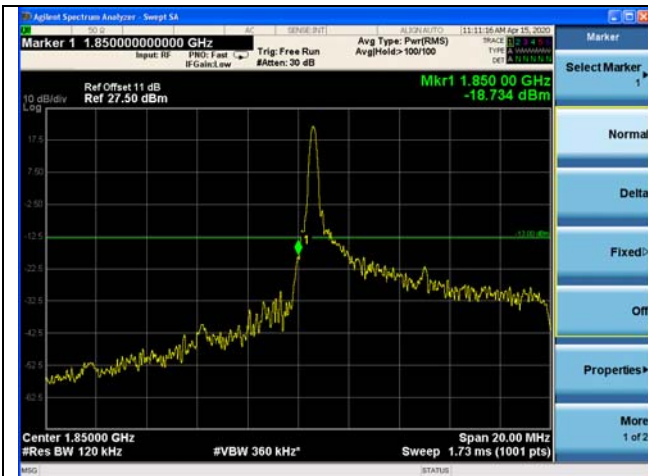


Fig.13

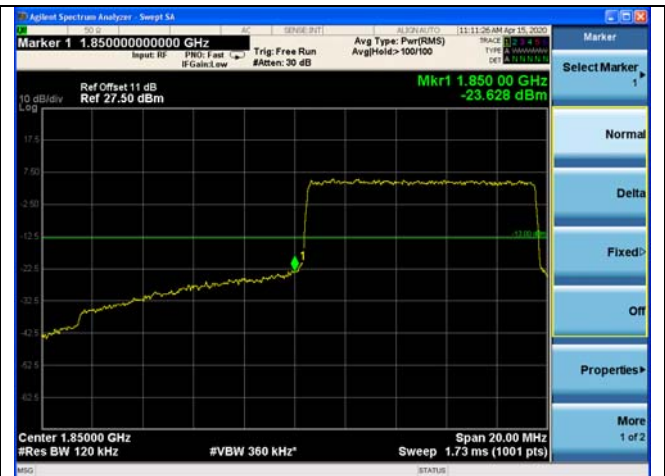


Fig.14



Fig.15



Fig.16

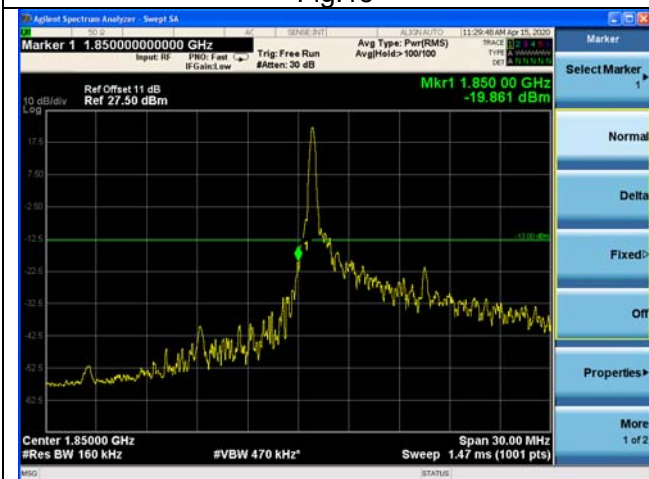


Fig.17

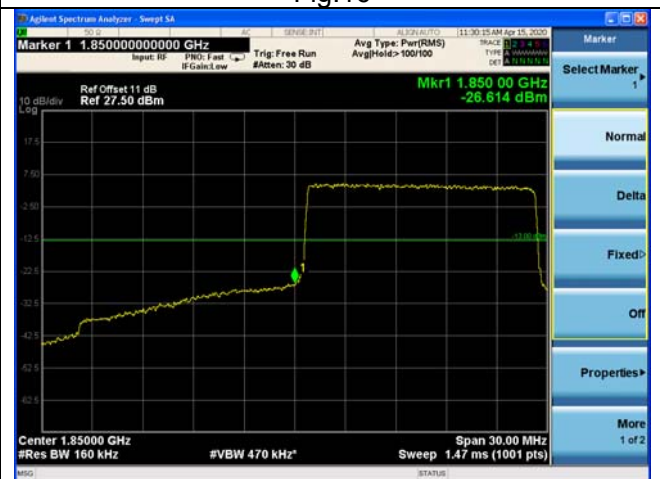


Fig.18

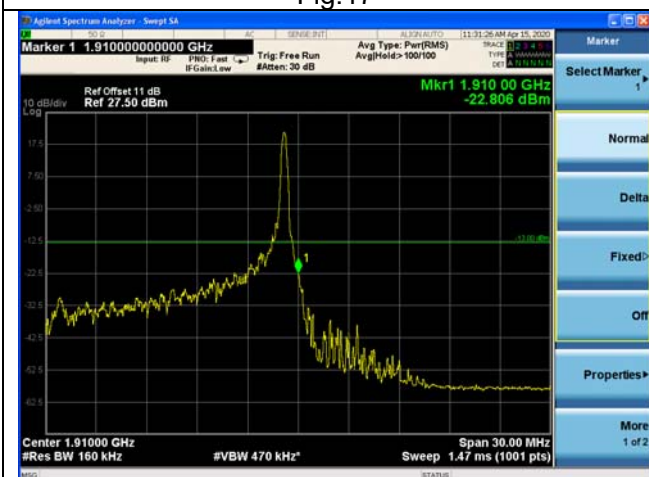


Fig.19



Fig.20

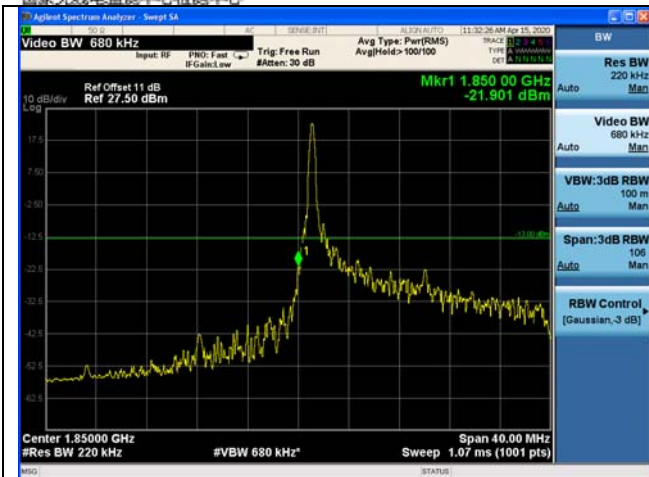


Fig.21

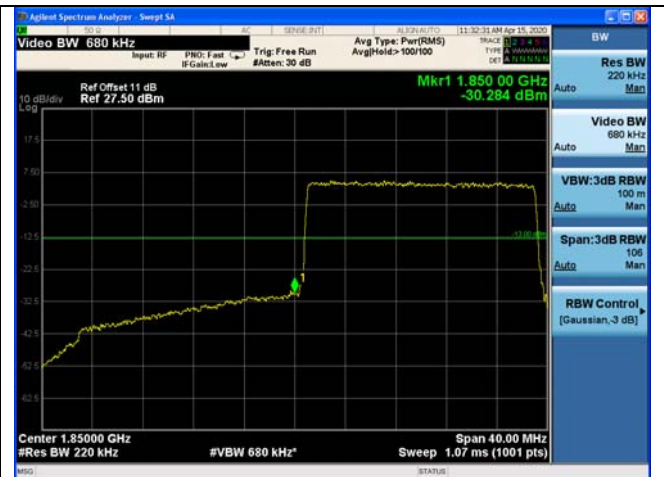


Fig.22



Fig.23



Fig.24

6 Frequency Stability

Test result:

Temperature(°C)	Voltage	Test Result (ppm) Band2 Low Channel					
		1.4M	3M	5M	10M	15M	20M
-30	NV	0.082	-0.033	0.012	0.050	-0.008	-0.068
-20	NV	0.037	-0.043	-0.061	0.007	-0.069	-0.044
-10	NV	-0.005	0.074	0.026	-0.047	-0.041	0.100
0	NV	-0.018	-0.046	0.077	0.088	0.015	-0.026
+10	NV	-0.055	-0.059	0.004	-0.004	0.031	-0.051
+20	NV	0.000	0.000	0.000	0.000	0.000	0.000
+30	NV	-0.050	-0.008	-0.046	-0.017	-0.048	0.030
+40	NV	-0.006	0.044	0.039	-0.046	0.060	0.009
+50	NV	0.041	0.018	-0.024	0.020	-0.031	0.086
+20	LV	-0.025	-0.021	-0.022	-0.019	0.054	0.001
+20	HV	0.057	0.019	0.066	-0.014	-0.059	-0.029

Temperature(°C)	Voltage	Test Result (ppm) Band2 High Channel					
		1.4M	3M	5M	10M	15M	20M
-30	NV	0.026	0.039	0.021	-0.025	-0.047	-0.025
-20	NV	0.020	-0.008	0.035	-0.021	0.042	0.075
-10	NV	-0.044	-0.039	0.006	-0.016	0.008	0.019
0	NV	-0.035	-0.003	0.075	0.041	-0.051	-0.072
+10	NV	-0.023	-0.018	0.088	-0.054	0.031	0.073
+20	NV	0.000	0.000	0.000	0.000	0.000	0.000
+30	NV	0.014	-0.042	0.021	-0.007	-0.066	0.055
+40	NV	0.037	0.068	-0.013	-0.042	-0.023	-0.027
+50	NV	-0.046	-0.006	0.061	0.062	-0.070	-0.036
+20	LV	-0.048	0.028	-0.033	-0.007	-0.034	0.073
+20	HV	-0.058	0.029	0.033	0.040	0.002	-0.021