

APPENDIX A – TEST DATA OF CONDUCTED EMISSION

LTE Band 12

1 RF Power Output

Modulation	Carrier frequency (MHz)	UL Channel	B W	RB Size	RB Offset	Conducted power (dBm)
QPSK	699.7	23017	1.4	1	0	23.24
				1	5	23.29
				3	2	22.27
				6	0	22.23
	707.5	23095		1	0	23.25
				1	5	23.19
				3	2	22.34
				6	0	22.34
	715.3	23173		1	0	23.16
				1	5	23.18
				3	2	22.24
				6	0	22.24
16QAM	699.7	23017	1.4	1	0	22.48
				1	5	22.52
				3	2	21.27
				6	0	21.28
	707.5	23095		1	0	22.53
				1	5	22.51
				3	2	21.40
				6	0	21.31
	715.3	23173		1	0	22.57
				1	5	22.50
				3	2	21.73
				6	0	21.60

Modulation	Carrier frequency (MHz)	UL Channel	B W	RB Size	RB Offset	Conducted power (dBm)
QPSK	700.5	23025	3	1	0	23.21
				1	14	23.26
				8	4	22.27
				15	0	22.28
	707.5	23095		1	0	23.19
				1	14	23.23
				8	4	22.40
				15	0	22.31
	714.5	23165		1	0	23.17
				1	14	23.23
				8	4	22.21
				15	0	22.23
16QAM	700.5	23025	3	1	0	22.51
				1	14	22.50
				8	4	21.32
				15	0	21.29
	707.5	23095		1	0	22.58
				1	14	22.56
				8	4	21.44
				15	0	21.34
	714.5	23165		1	0	22.58
				1	14	22.58
				8	4	21.71
				15	0	21.59

Modulation	Carrier frequency (MHz)	UL Channel	B W	RB Size	RB Offset	Conducted power (dBm)
QPSK	701.5	23035	5	1	0	23.28
				1	24	23.21
				12	6	22.28
				25	0	22.27
	707.5	23095		1	0	23.19
				1	24	23.25
				12	6	22.36
				25	0	22.27
	713.5	23155		1	0	23.17
				1	24	23.21
				12	6	22.20
				25	0	22.21
16QAM	701.5	23035	5	1	0	22.53
				1	24	22.49
				12	6	21.30
				25	0	21.21
	707.5	23095		1	0	22.56
				1	24	22.56
				12	6	21.44
				25	0	21.33
	713.5	23155		1	0	22.49
				1	24	22.56
				12	6	21.73
				25	0	21.54

Modulation	Carrier frequency (MHz)	UL Channel	B W	RB Size	RB Offset	Conducted power (dBm)
QPSK	704	23060	10	1	0	23.33
				1	49	23.33
				24	12	22.32
				50	0	22.33
	707.5	23095		1	0	23.30
				1	49	23.30
				24	12	22.46
				50	0	22.37
	711	23130		1	0	23.27
				1	49	23.27
				24	12	22.31
				50	0	22.30
16QAM	704	23060	10	1	0	22.59
				1	49	22.59
				24	12	21.38
				50	0	21.34
	707.5	23095		1	0	22.63
				1	49	22.63
				24	12	21.50
				50	0	21.41
	711	23130		1	0	22.62
				1	49	22.62
				24	12	21.77
				50	0	21.67

2 Occupied Bandwidth

Test result

Band	Carrier frequency (MHz)	Channel	BW (MHz)	RB Size	RB Offset	Bandwidth of 99% Power (MHz)			
						QPSK		16-QAM	
12	699.7	23017	1.4	6	0	1.0789	Fig.1	1.0772	Fig.2
	707.5	23095		6	0	1.0771	Fig.3	1.0825	Fig.4
	715.3	23173		6	0	1.0809	Fig.5	1.0810	Fig.6
	700.5	23025	3	15	0	2.6967	Fig.7	2.6967	Fig.8
	707.5	23095		15	0	2.6983	Fig.9	2.6963	Fig.10
	714.5	23165		15	0	2.6973	Fig.11	2.6991	Fig.12
	701.5	23035	5	25	0	4.4695	Fig.13	4.4753	Fig.14
	707.5	23095		25	0	4.4630	Fig.15	4.4694	Fig.16
	713.5	23155		25	0	4.4771	Fig.17	4.4730	Fig.18
	704	23060	10	50	0	8.9652	Fig.19	8.9584	Fig.20
	707.5	23095		50	0	8.9499	Fig.21	8.9451	Fig.22
	711	23130		50	0	8.9386	Fig.23	8.9561	Fig.24

Band	Carrier frequency (MHz)	Channel	BW (MHz)	RB Size	RB Offset	Bandwidth of -26dB transmitter power (MHz)			
						QPSK		16-QAM	
12	699.7	23017	1.4	6	0	1.222	Fig.1	1.216	Fig.2
	707.5	23095		6	0	1.213	Fig.3	1.212	Fig.4
	715.3	23173		6	0	1.217	Fig.5	1.211	Fig.6
	700.5	23015	3	15	0	3.029	Fig.7	3.017	Fig.8
	707.5	23095		15	0	3.004	Fig.9	3.021	Fig.10
	714.5	23165		15	0	3.018	Fig.11	3.036	Fig.12
	701.5	23035	5	25	0	4.889	Fig.13	4.857	Fig.14
	707.5	23095		25	0	4.899	Fig.15	4.877	Fig.16
	713.5	23155		25	0	4.883	Fig.17	4.892	Fig.18
	704	23060	10	50	0	9.799	Fig.19	9.709	Fig.20
	707.5	23095		50	0	9.624	Fig.21	9.802	Fig.22
	711	23130		50	0	9.737	Fig.23	9.776	Fig.24

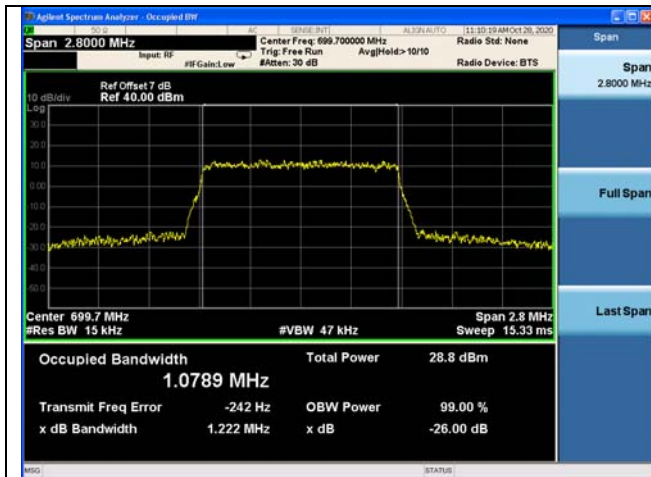


Fig.1

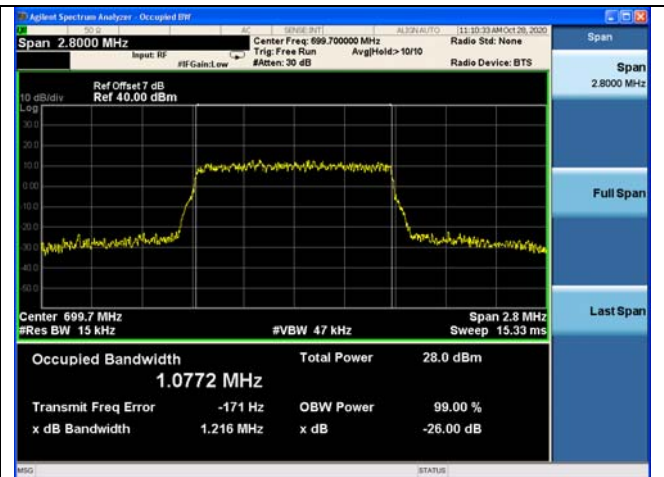


Fig.2

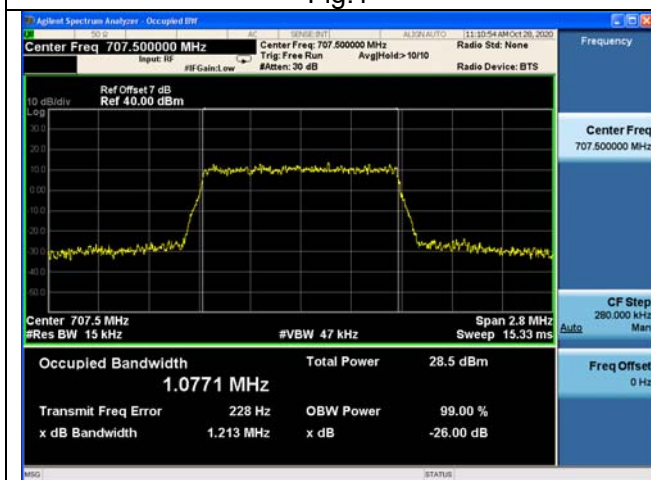


Fig.3

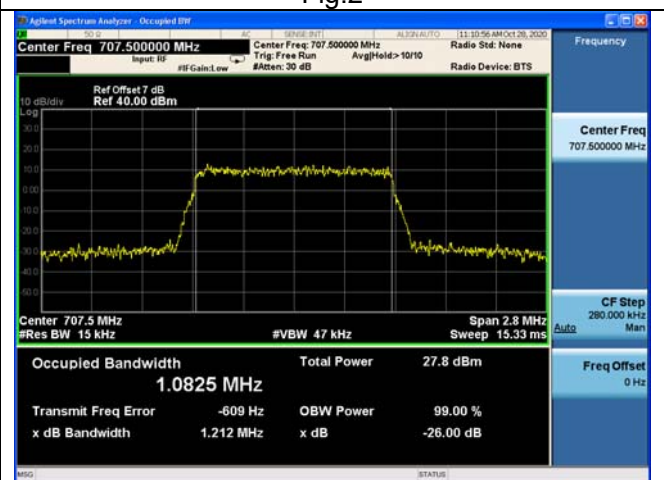


Fig.4

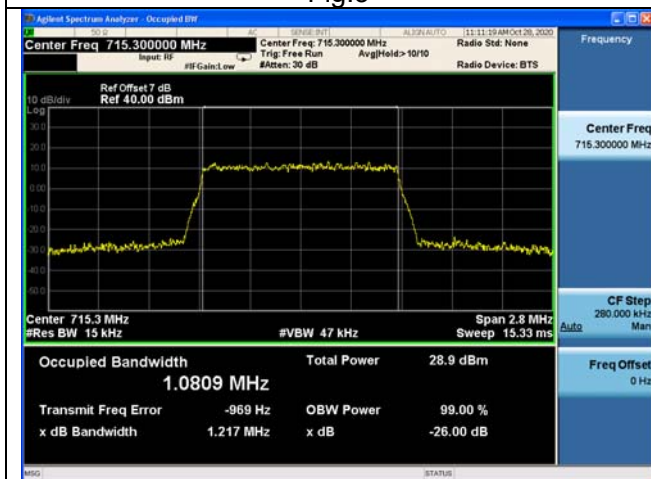


Fig.5

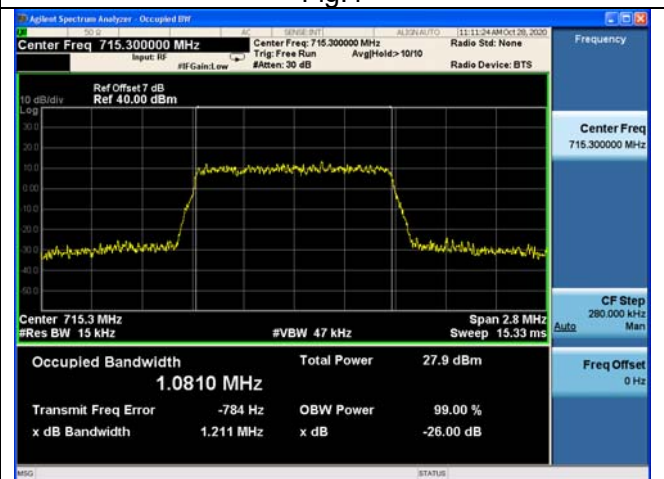


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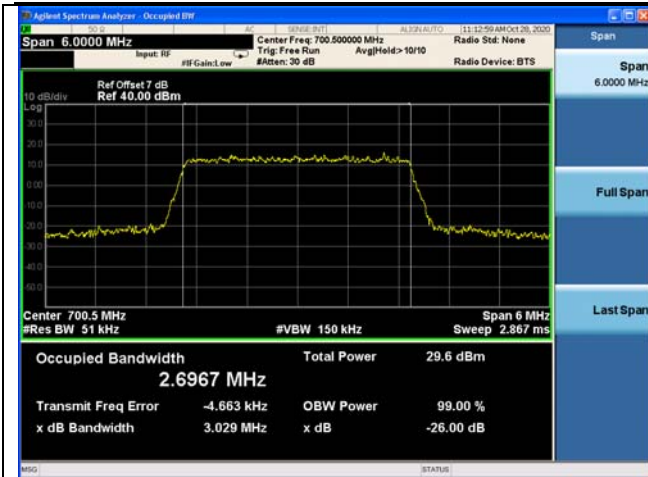


Fig.7

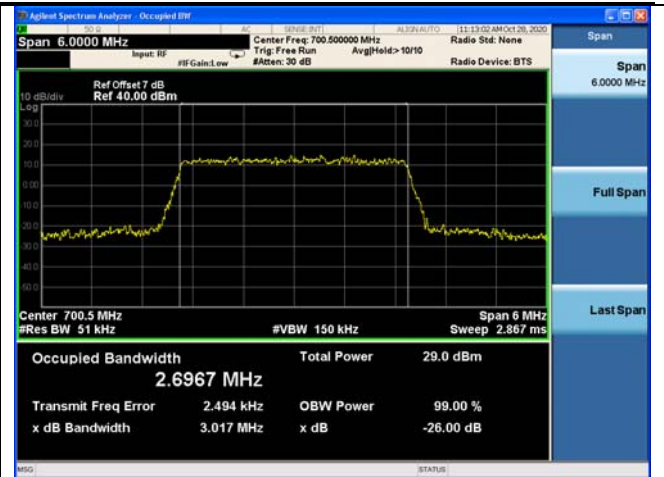


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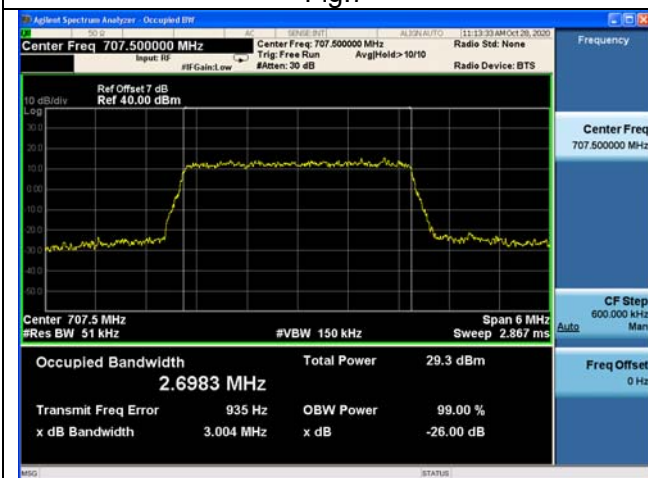


Fig.9

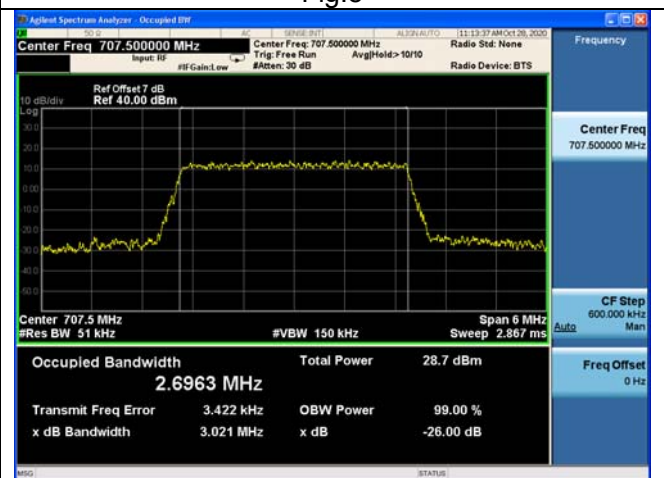


Fig.10

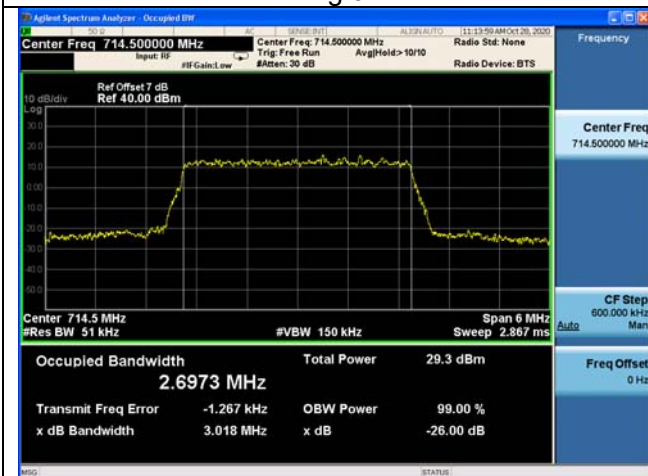


Fig.11

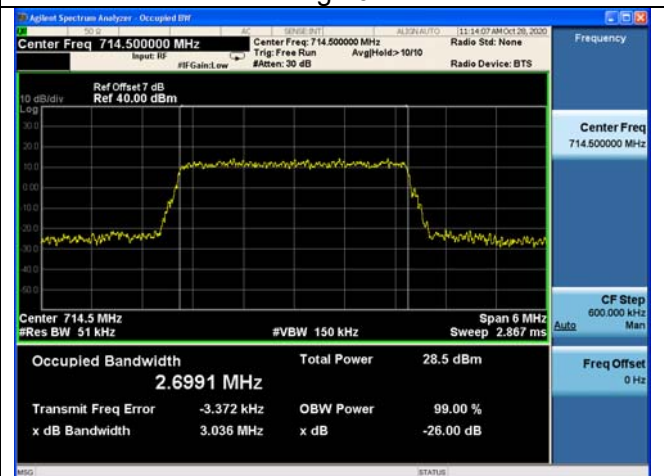


Fig.12

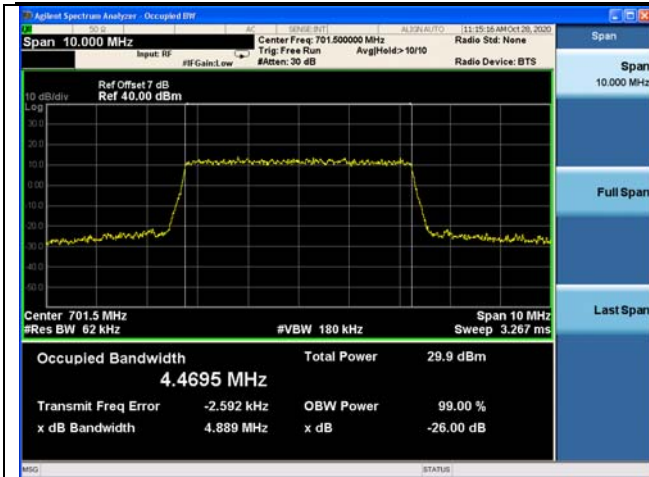


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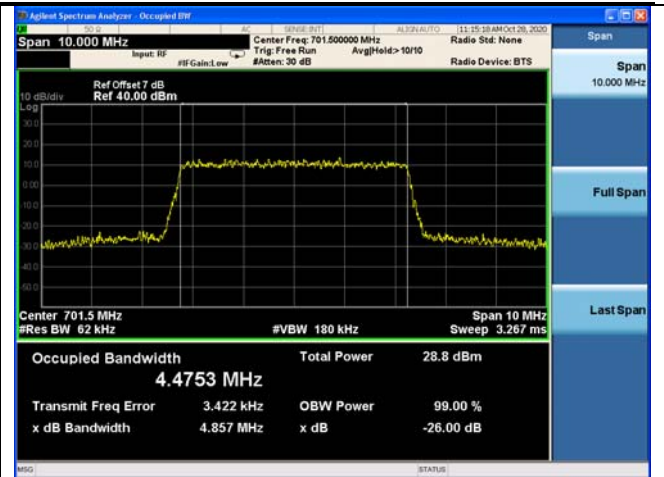


Fig.14

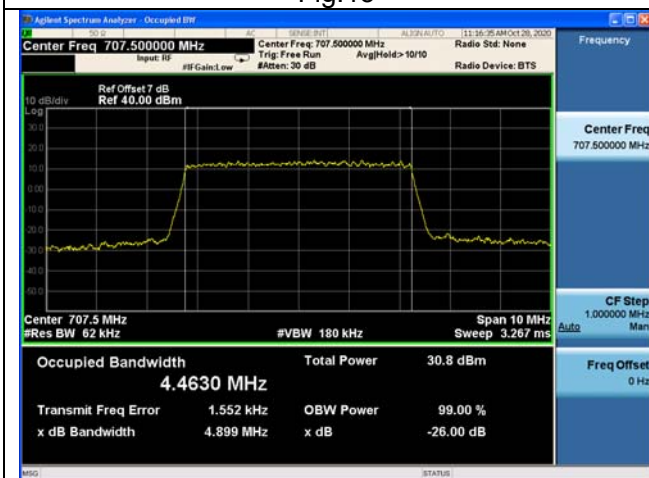


Fig.15

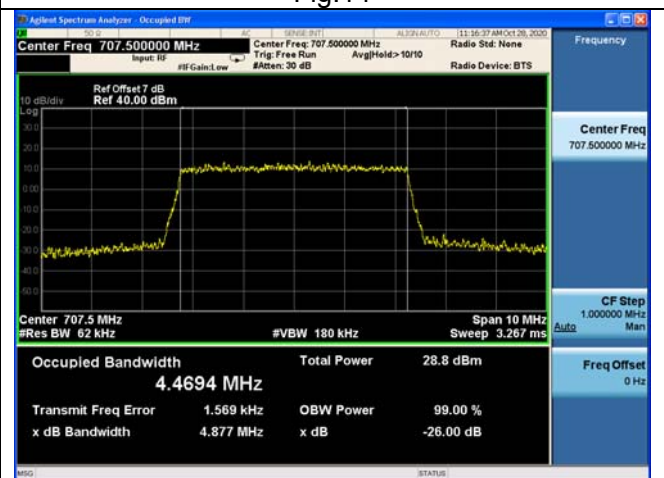


Fig.16

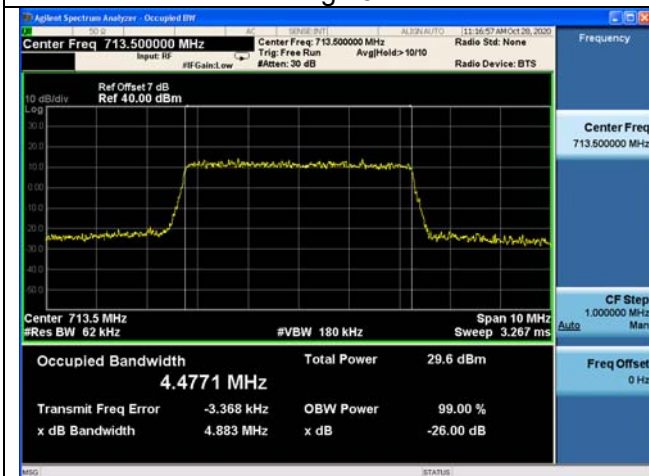


Fig.17

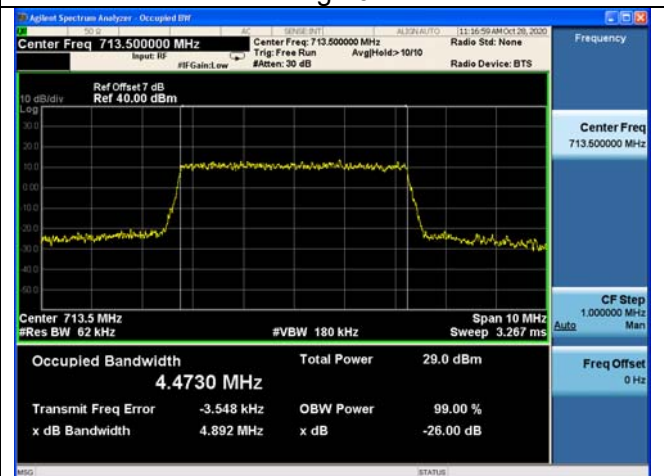


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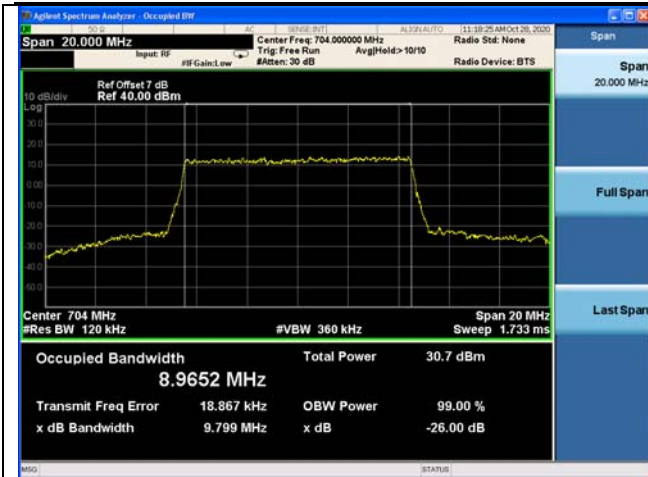


Fig.19

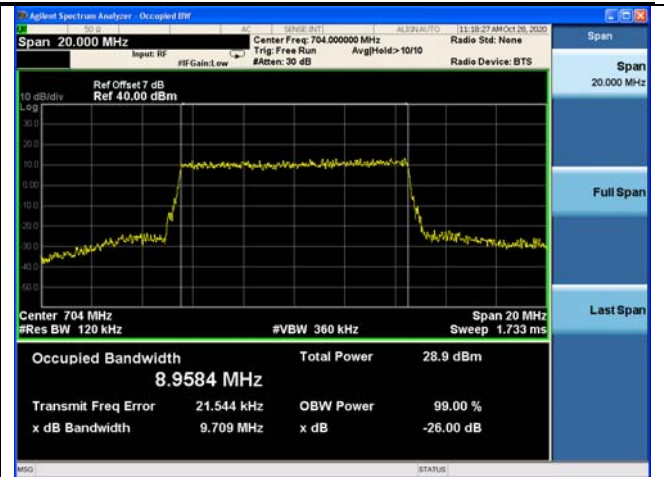


Fig.20

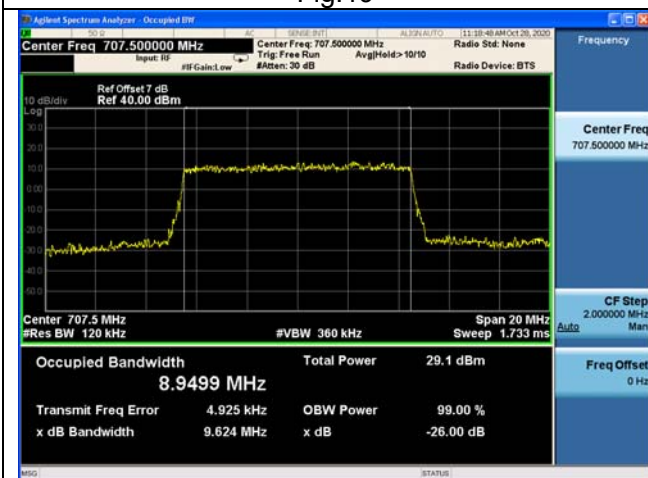


Fig.21

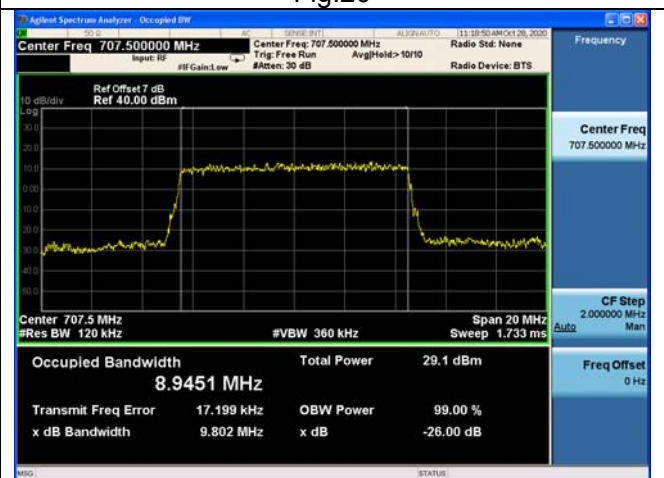


Fig.22

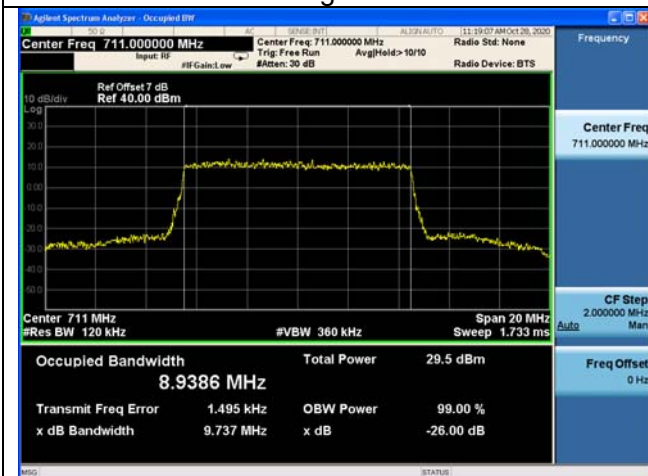


Fig.23

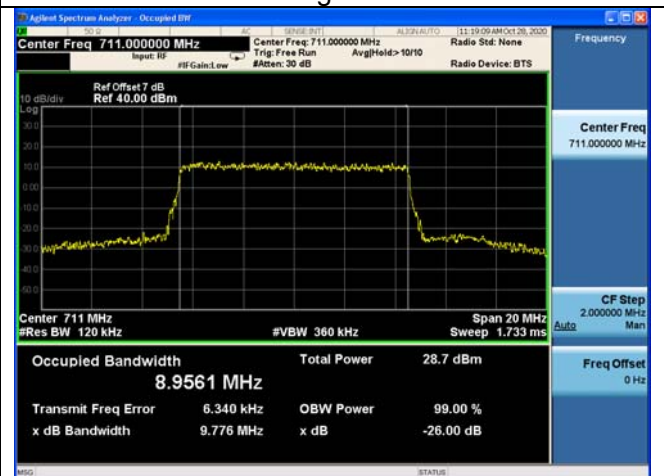


Fig.24

3 Peak-Average Ratio

Band	Carrier frequency (MHz)	Channel	BW (MHz)	RB Size	RB Offset	QPSK	16-QAM
12	707.5	23095	1.4	1	0	Fig.1	Fig.2
			3	1	0	Fig.3	Fig.4
			5	1	0	Fig.5	Fig.6
			10	1	0	Fig.7	Fig.8



Fig.1



Fig.2



Fig.3



Fig.4



Fig.5



Fig.6

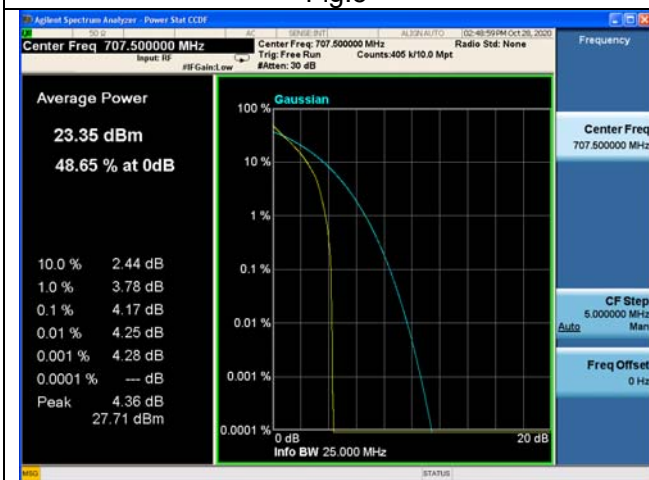


Fig.7

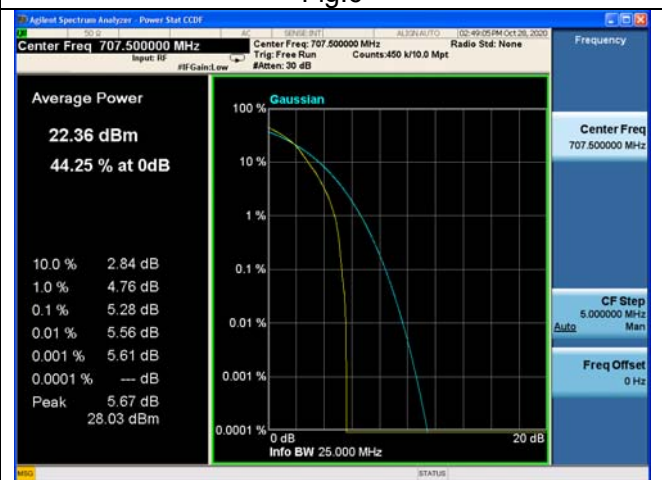


Fig.8

4 Spurious Emissions at antenna terminal

Band	Carrier frequency (MHz)	Channel	BW	RB Size	RB Offset	Conducted Spurious Plot
						QPSK
12	704	23060	10	1	0	Fig.1-2
	707.5	23095	10	1	0	Fig.3-4
	711	23173	10	1	0	Fig.4-5

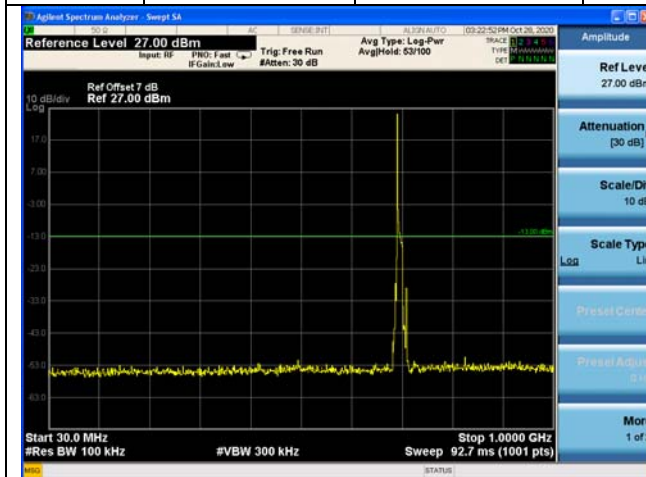


Fig.1

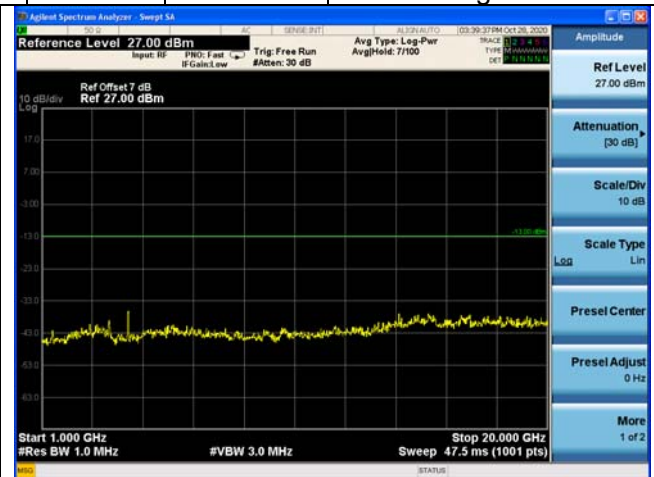


Fig.2

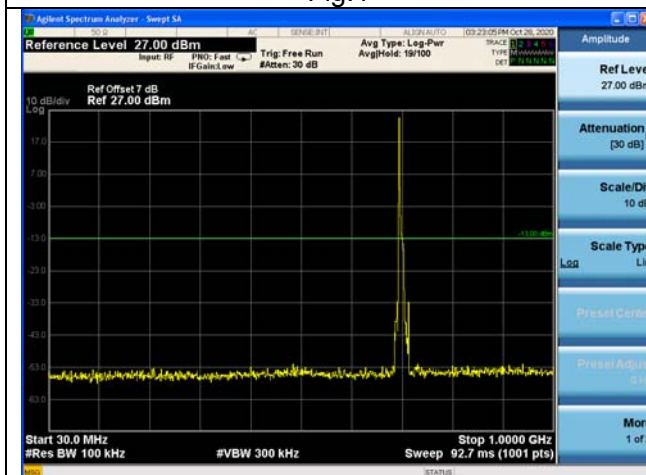


Fig3



Fig4

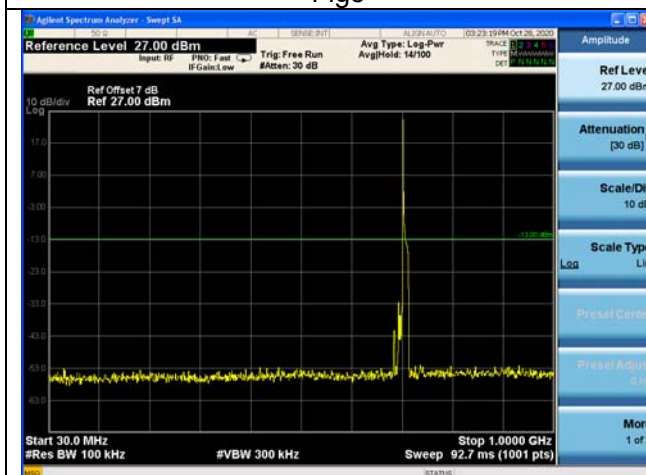


Fig5



Fig6

5 Band Edges Compliance

Test result

Band	Carrier frequency (MHz)	Channel	BW	RB Size	RB Offset	Band Edges Plot
						QPSK
12	699.7	23017	1.4	1	0	Fig.1
				6	0	Fig.2
	715.3	23173		1	5	Fig.3
				6	0	Fig.4
	700.5	23025	3	1	0	Fig.5
				15	0	Fig.6
	714.5	23165		1	14	Fig.7
				15	0	Fig.8
	701.5	23035	5	1	0	Fig.9
				25	0	Fig.10
	713.5	23155		1	24	Fig.11
				25	0	Fig.12
	704	23060	10	1	0	Fig.13
				50	0	Fig.14
	711	23130		1	49	Fig.15
				50	0	Fig.16

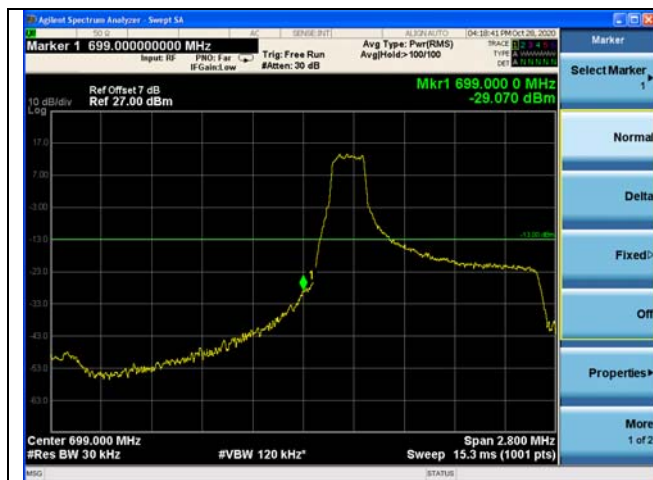


Fig.1



Fig.2

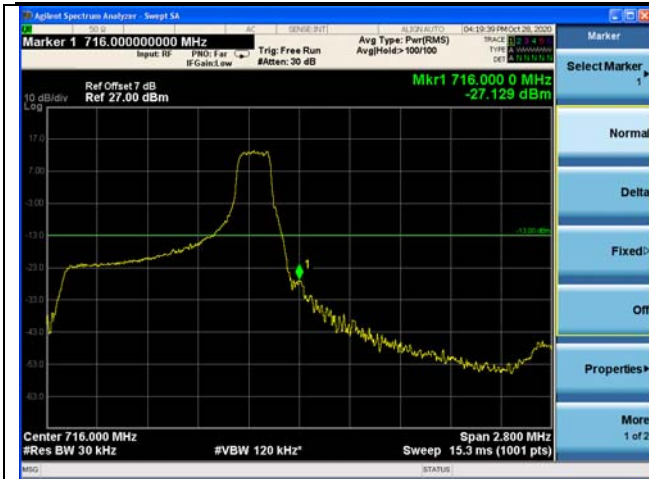


Fig.3



Fig.4

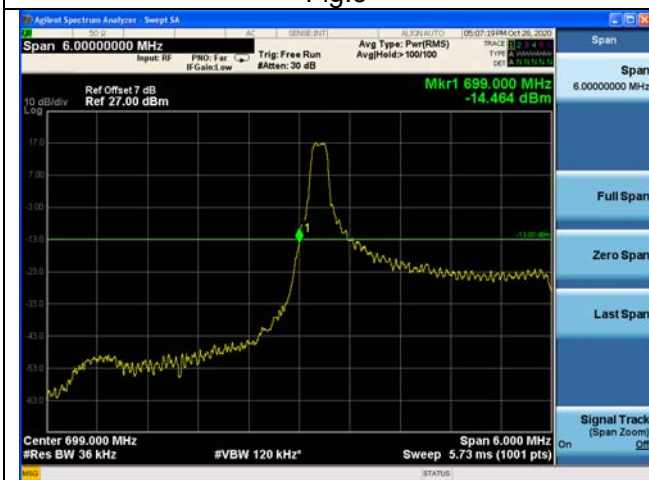


Fig.5

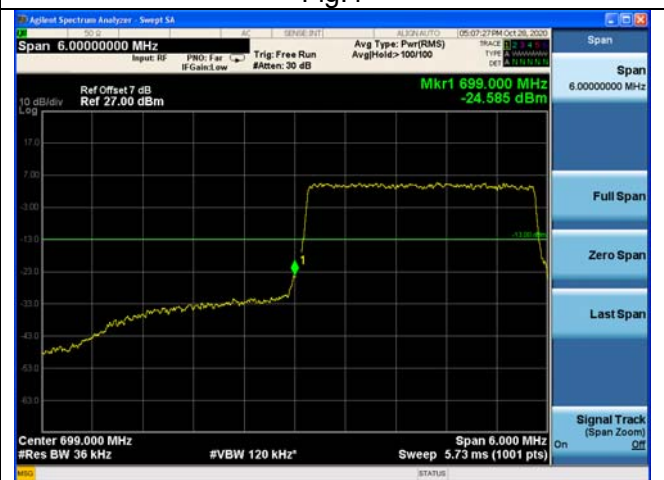


Fig.6

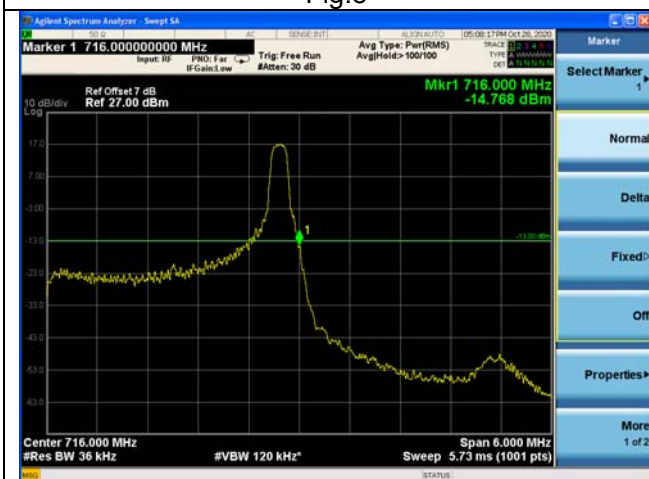


Fig.7



Fig.8

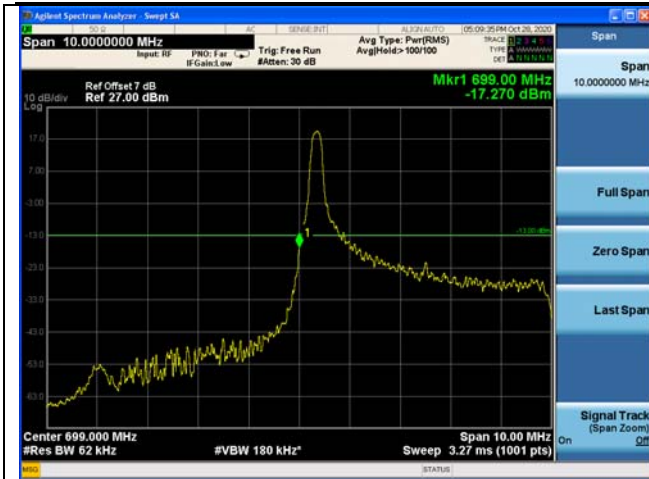


Fig.9



Fig.10



Fig.11



Fig.12

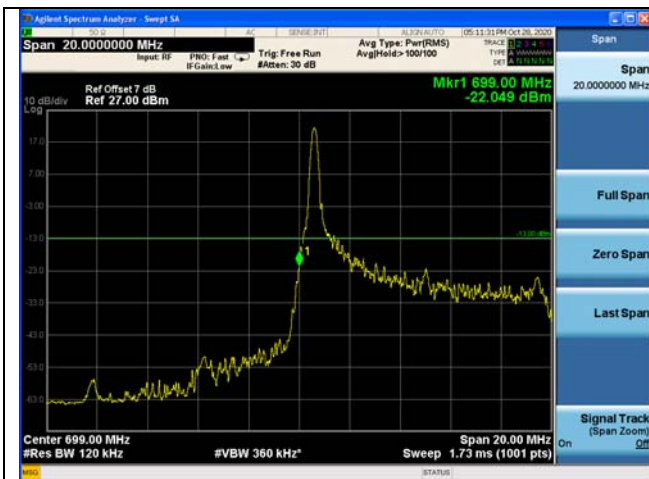


Fig.13



Fig.14

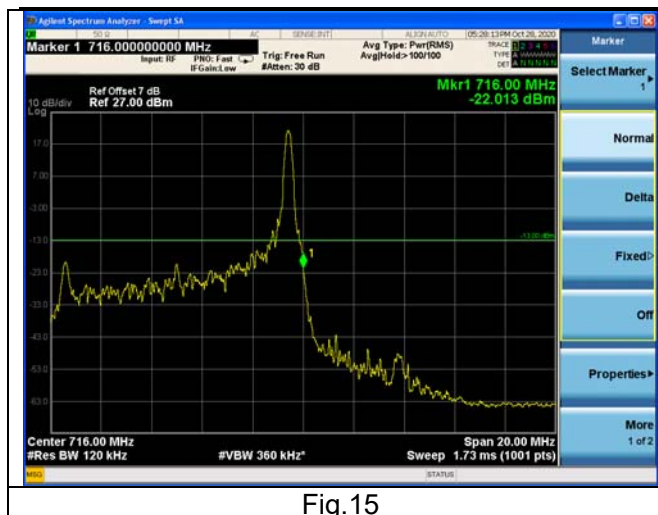


Fig.15

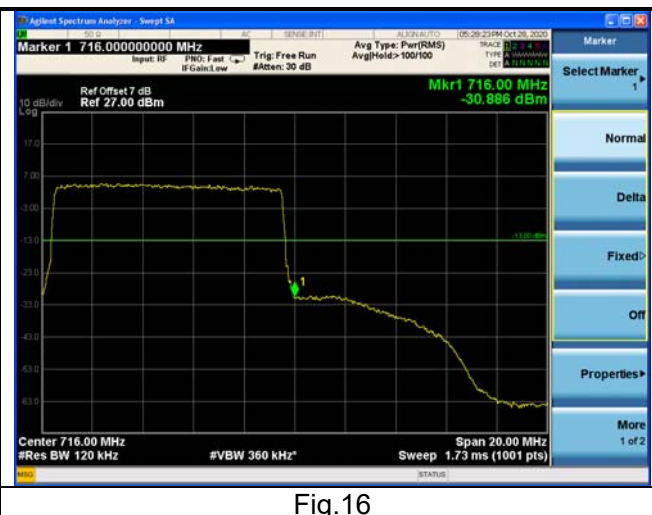


Fig.16

6 Frequency Stability

Test result:

Temperature(°C)	Voltage	Test Result (ppm) Band12 Low Channel			
		1.4M	3M	5M	10M
-20	NV	0.029	-0.031	-0.015	-0.024
-10	NV	-0.033	-0.024	0.040	-0.032
0	NV	-0.019	-0.002	0.008	-0.022
+10	NV	0.000	0.000	0.000	0.000
+20	NV	-0.018	-0.033	0.012	0.032
+30	NV	-0.011	-0.026	0.024	0.022
+40	NV	0.032	-0.001	0.007	-0.020
+50	NV	0.007	0.021	-0.006	0.000
+55	NV	0.022	0.036	0.008	-0.006
+20	LV	-0.006	0.014	-0.027	0.013
+20	HV	0.016	0.039	-0.022	-0.023

Temperature(°C)	Voltage	Test Result (ppm) Band12 High Channel			
		1.4M	3M	5M	10M
-20	NV	-0.003	0.039	-0.006	-0.029
-10	NV	-0.033	0.000	0.024	-0.006
0	NV	0.024	0.028	-0.022	0.020
+10	NV	0.000	0.000	0.000	0.000
+20	NV	0.010	-0.035	-0.026	-0.011
+30	NV	-0.006	-0.022	0.006	0.001
+40	NV	-0.008	0.039	0.026	0.001
+50	NV	0.038	-0.037	-0.036	0.026
+55	NV	-0.010	0.013	0.033	-0.007
+20	LV	0.025	0.023	-0.016	0.011
+20	HV	0.012	0.021	0.000	-0.034