

APPENDIX A – TEST DATA OF CONDUCTED EMISSION

LTE Band 66

1 RF Power Output

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)
QPSK	1710.7	131979	1.4	1	0	22.82
				1	5	22.97
				3	2	21.93
				6	0	21.85
	1745	132322		1	0	23.16
				1	5	23.10
				3	2	22.42
				6	0	22.22
	1779.3	132665		1	0	23.13
				1	5	23.16
				3	2	22.26
				6	0	22.17
16QAM	1710.7	131979	1.4	1	0	21.27
				1	5	21.34
				3	2	20.94
				6	0	20.96
	1745	132322		1	0	21.22
				1	5	21.32
				3	2	21.08
				6	0	21.09
	1779.3	132665		1	0	22.79
				1	5	22.67
				3	2	21.19
				6	0	21.10
64QAM	1710.7	131979	1.4	1	0	21.49
				1	5	21.60
				3	2	20.86
				6	0	20.92
	1745	132322		1	0	21.57
				1	5	22.05
				3	2	21.25
				6	0	21.21
	1779.3	132665		1	0	22.14
				1	5	21.02
				3	2	21.28
				6	0	21.31

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)
QPSK	1711.5	131987	3	1	0	22.89
				1	14	22.86
				8	4	21.88
				15	0	21.77
	1745	132322		1	0	23.05
				1	14	23.16
				8	4	22.51
				15	0	22.27
	1778.5	132657		1	0	23.24
				1	14	23.27
				8	4	22.23
				15	0	22.19
16QAM	1711.5	131987	3	1	0	21.30
				1	14	21.40
				8	4	20.93
				15	0	21.02
	1745	132322		1	0	21.29
				1	14	21.30
				8	4	21.10
				15	0	21.09
	1778.5	132657		1	0	22.75
				1	14	22.56
				8	4	21.31
				15	0	21.04
64QAM	1711.5	131987	3	1	0	21.48
				1	14	21.62
				8	4	20.82
				15	0	21.02
	1745	132322		1	0	21.55
				1	14	22.02
				8	4	21.27
				15	0	21.26
	1778.5	132657		1	0	22.18
				1	14	21.07
				8	4	21.33
				15	0	21.27

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)
QPSK	1712.5	131997	5	1	0	22.86
				1	24	22.97
				12	6	21.88
				25	0	21.88
	1745	132322		1	0	23.07
				1	24	23.11
				12	6	22.53
				25	0	22.19
	1777.5	132647		1	0	23.18
				1	24	23.18
				12	6	22.14
				25	0	22.20
16QAM	1712.5	131997	5	1	0	21.27
				1	24	21.42
				12	6	20.92
				25	0	20.97
	1745	132322		1	0	21.26
				1	24	21.40
				12	6	21.21
				25	0	21.14
	1777.5	132647		1	0	22.70
				1	24	22.61
				12	6	21.24
				25	0	21.12
64QAM	1712.5	131997	5	1	0	21.53
				1	24	21.67
				12	6	20.84
				25	0	21.02
	1745	132322		1	0	21.54
				1	24	21.96
				12	6	21.33
				25	0	21.24
	1777.5	132647		1	0	22.16
				1	24	20.98
				12	6	21.35
				25	0	21.26

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)
QPSK	1715	132022	10	1	0	22.81
				1	49	22.90
				24	12	21.82
				50	0	21.78
	1745	132322		1	0	23.04
				1	49	23.09
				24	12	22.50
				50	0	22.22
	1775	132622		1	0	23.21
				1	49	23.22
				24	12	22.26
				50	0	22.14
16QAM	1715	132022	10	1	0	21.38
				1	49	21.36
				24	12	20.81
				50	0	20.92
	1745	132322		1	0	21.34
				1	49	21.36
				24	12	21.17
				50	0	21.08
	1775	132622		1	0	22.80
				1	49	22.63
				24	12	21.20
				50	0	21.13
64QAM	1715	132022	10	1	0	21.49
				1	49	21.64
				24	12	20.81
				50	0	20.95
	1745	132322		1	0	21.58
				1	49	21.96
				24	12	21.31
				50	0	21.28
	1775	132622		1	0	22.15
				1	49	21.10
				24	12	21.35
				50	0	21.24

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)
QPSK	1717.5	132047	15	1	0	22.89
				1	74	22.88
				40	18	21.91
				75	0	21.84
	1745	132322		1	0	23.17
				1	74	23.07
				40	18	22.40
				75	0	22.15
	1772.5	132597		1	0	23.13
				1	74	23.19
				40	18	22.17
				75	0	22.24
16QAM	1717.5	132047	15	1	0	21.36
				1	74	21.45
				40	18	20.91
				75	0	21.02
	1745	132322		1	0	21.27
				1	74	21.29
				40	18	21.14
				75	0	21.03
	1772.5	132597		1	0	22.81
				1	74	22.55
				40	18	21.24
				75	0	21.18
64QAM	1717.5	132047	15	1	0	21.48
				1	74	21.56
				40	18	20.91
				75	0	20.89
	1745	132322		1	0	21.59
				1	74	22.03
				40	18	21.25
				75	0	21.23
	1772.5	132597		1	0	22.15
				1	74	21.06
				40	18	21.34
				75	0	21.28

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)
QPSK	1720	132072	20	1	0	22.91
				1	99	22.98
				50	25	21.97
				100	0	21.89
	1745	132322		1	0	23.18
				1	99	23.16
				50	25	22.53
				100	0	22.28
	1770	132572		1	0	23.26
				1	99	23.31
				50	25	22.27
				100	0	22.26
16QAM	1720	132072	20	1	0	21.42
				1	99	21.47
				50	25	20.95
				100	0	21.04
	1745	132322		1	0	21.35
				1	99	21.41
				50	25	21.22
				100	0	21.17
	1770	132572		1	0	22.81
				1	99	22.68
				50	25	21.31
				100	0	21.19
64QAM	1720	132072	20	1	0	21.57
				1	99	21.68
				50	25	20.93
				100	0	21.04
	1745	132322		1	0	21.69
				1	99	22.07
				50	25	21.39
				100	0	21.31
	1770	132572		1	0	22.27
				1	99	21.12
				50	25	21.37
				100	0	21.34

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	
66	1710.7	131979	1.4	6	0	1.0811	Fig.1	1.0796	Fig.2	1.0816	Fig.3
	1745	132322		6	0	1.0828	Fig.4	1.0816	Fig.5	1.0837	Fig.6
	1779.3	132665		6	0	1.0827	Fig.7	1.0831	Fig.8	1.0824	Fig.9
	1711.5	131987	3	15	0	2.6896	Fig.10	2.6946	Fig.11	2.6873	Fig.12
	1745	132322		15	0	2.6968	Fig.13	2.6872	Fig.14	2.7006	Fig.15
	1778.5	132657		15	0	2.6948	Fig.16	2.6965	Fig.17	2.6948	Fig.18
	1712.5	131997	5	25	0	4.4726	Fig.19	4.4775	Fig.20	4.4899	Fig.21
	1745	132322		25	0	4.4901	Fig.22	4.4748	Fig.23	4.4846	Fig.24
	1777.5	132647		25	0	4.4842	Fig.25	4.4812	Fig.26	4.4743	Fig.27
	1715	132022	10	50	0	8.9505	Fig.28	8.8941	Fig.29	8.9336	Fig.30
	1745	132322		50	0	8.9245	Fig.31	8.9376	Fig.32	8.9313	Fig.33
	1775	132622		50	0	8.9522	Fig.34	8.9129	Fig.35	8.9134	Fig.36
	1717.5	132047	15	75	0	13.372	Fig.37	13.408	Fig.38	13.341	Fig.39
	1745	132322		75	0	13.384	Fig.40	13.450	Fig.41	13.376	Fig.42
	1772.5	132597		75	0	13.378	Fig.43	13.394	Fig.44	13.364	Fig.45
	1720	132072	20	100	0	17.821	Fig.46	17.756	Fig.47	17.782	Fig.48
	1745	132322		100	0	17.881	Fig.49	17.874	Fig.50	17.826	Fig.51
	1770	132572		100	0	17.829	Fig.52	17.840	Fig.53	17.810	Fig.54

Band	Carrier frequency (MHz)	Channel	BW (MHz)	RB Size	RB Offset	Bandwidth of -26dB transmitter power (MHz)					
						QPSK		16-QAM		64-QAM	
66	1710.7	131979	1.4	6	0	1.250	Fig.1	1.230	Fig.2	1.227	Fig.3
	1745	132322		6	0	1.253	Fig.4	1.237	Fig.5	1.232	Fig.6
	1779.3	132665		6	0	1.239	Fig.7	1.234	Fig.8	1.222	Fig.9
	1711.5	131987	3	15	0	2.962	Fig.10	2.980	Fig.11	2.960	Fig.12
	1745	132322		15	0	2.968	Fig.13	2.982	Fig.14	2.944	Fig.15
	1778.5	132657		15	0	2.977	Fig.16	2.947	Fig.17	2.934	Fig.18
	1712.5	131997	5	25	0	4.892	Fig.19	4.942	Fig.20	4.877	Fig.21
	1745	132322		25	0	4.904	Fig.22	4.871	Fig.23	4.944	Fig.24
	1777.5	132647		25	0	4.908	Fig.25	4.896	Fig.26	4.934	Fig.27
	1715	132022	10	50	0	9.661	Fig.28	9.701	Fig.29	9.554	Fig.30
	1745	132322		50	0	9.610	Fig.31	9.525	Fig.32	9.618	Fig.33
	1775	132622		50	0	9.688	Fig.34	9.621	Fig.35	9.558	Fig.36
	1717.5	132047	15	75	0	14.37	Fig.37	14.17	Fig.38	14.25	Fig.39
	1745	132322		75	0	14.32	Fig.40	14.12	Fig.41	14.23	Fig.42
	1772.5	132597		75	0	14.41	Fig.43	14.33	Fig.44	14.07	Fig.45
	1720	132072	20	100	0	19.07	Fig.46	18.84	Fig.47	18.97	Fig.48
	1745	132322		100	0	19.00	Fig.49	18.97	Fig.50	18.87	Fig.51
	1770	132572		100	0	18.94	Fig.52	19.01	Fig.53	18.89	Fig.54

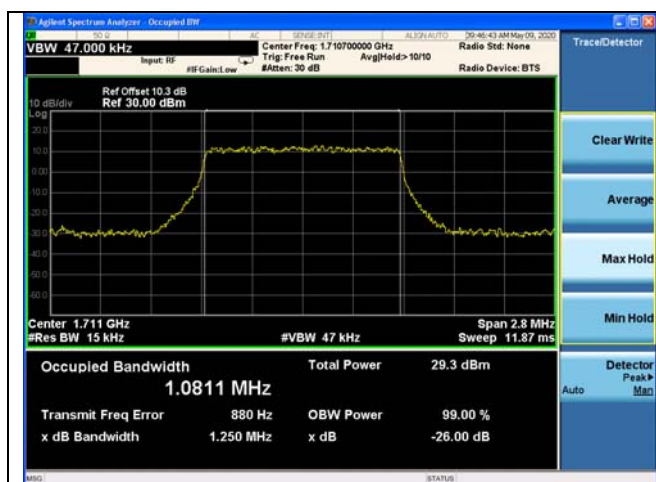


Fig.1

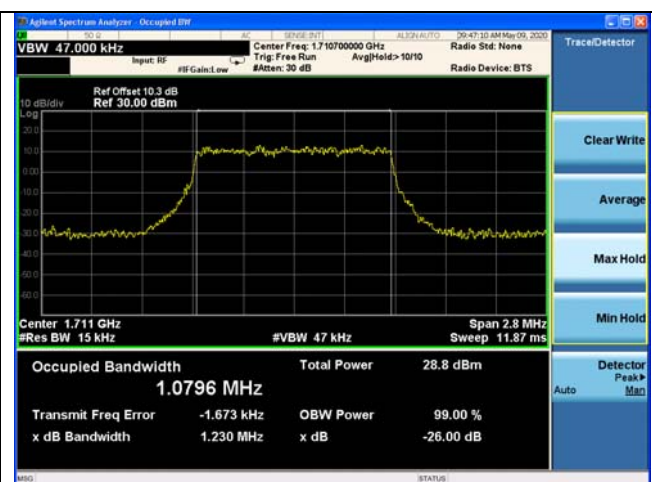


Fig.2

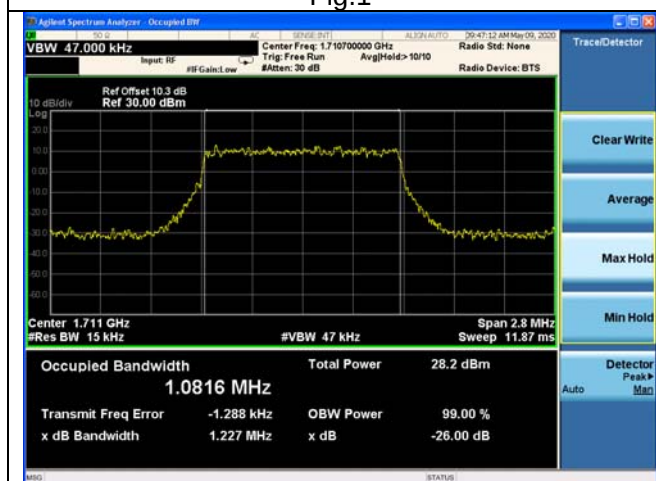


Fig.3

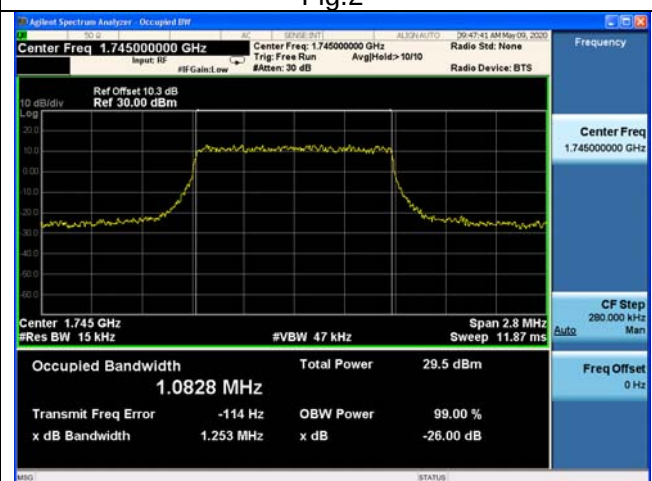


Fig.4

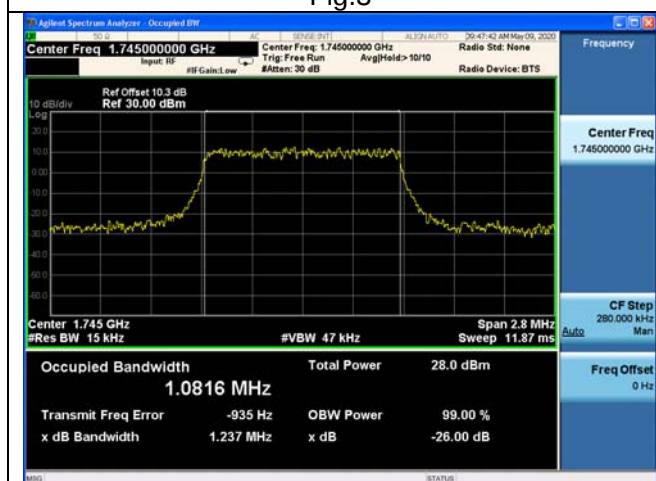


Fig.5

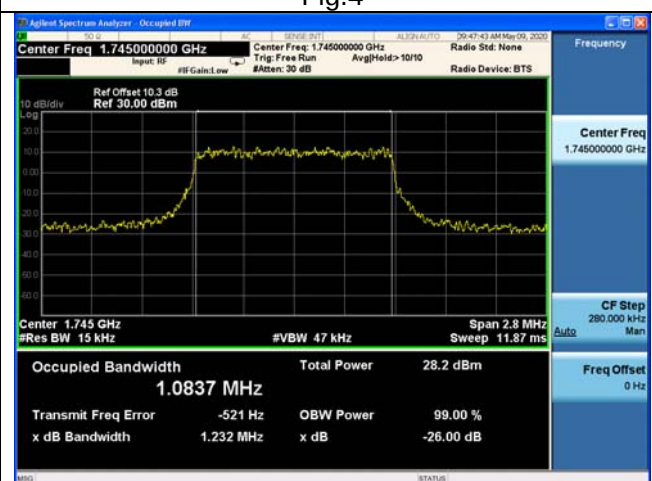


Fig.6

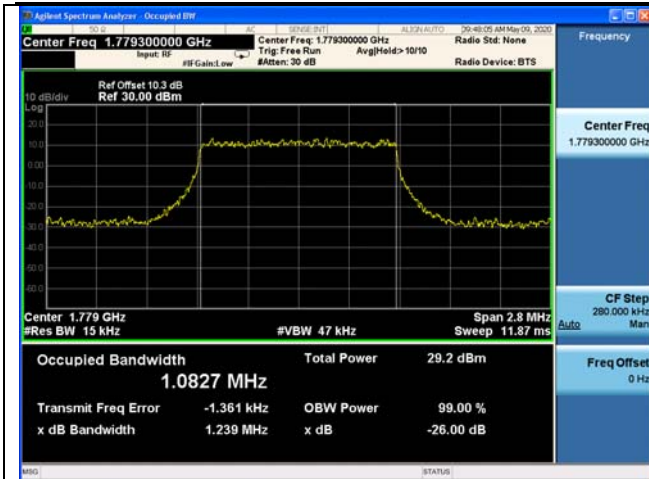


Fig.7

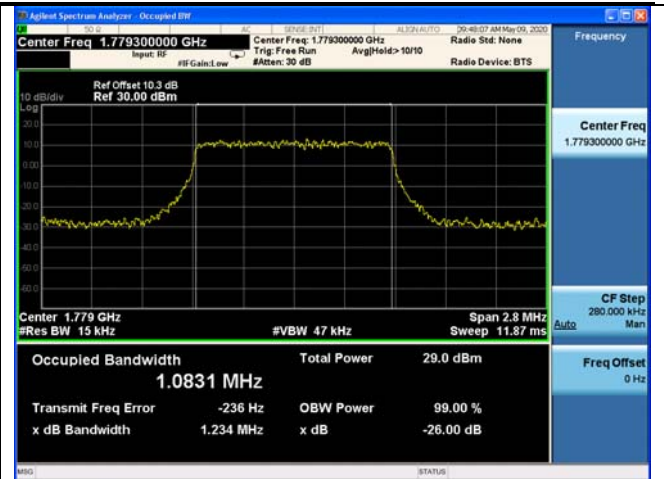


Fig.8

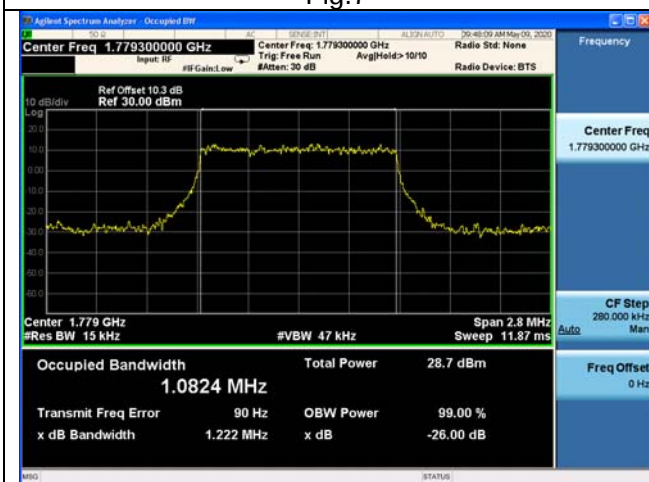


Fig.9

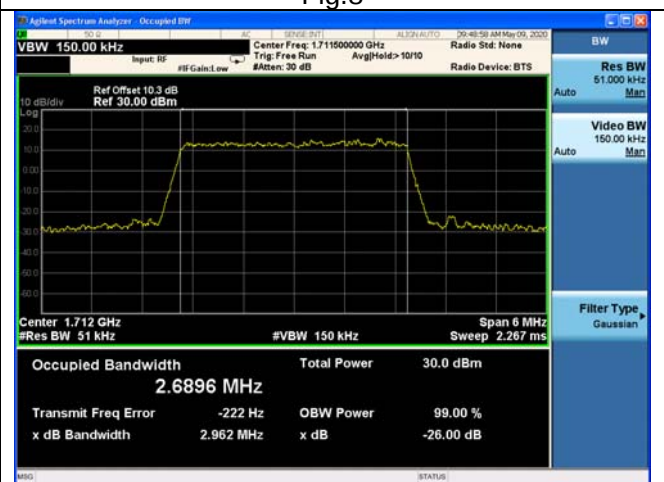


Fig.10

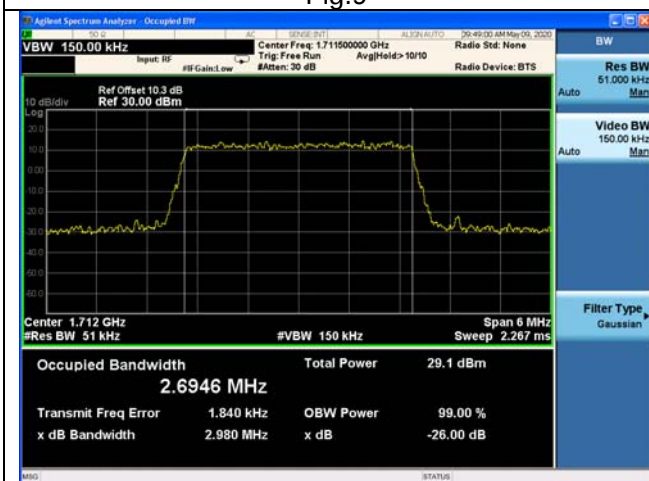


Fig.11

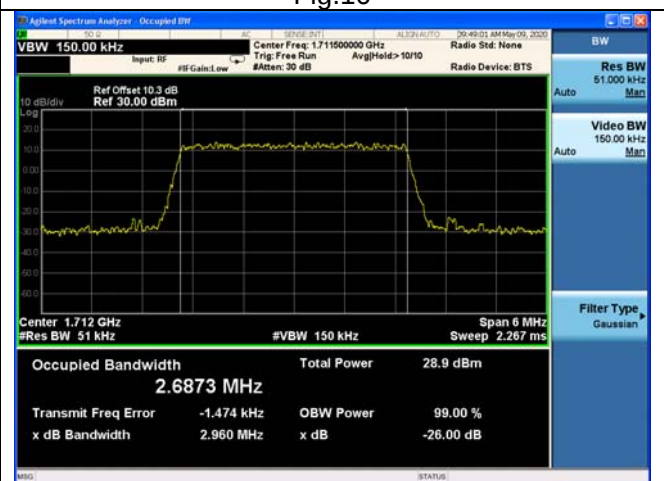


Fig.12

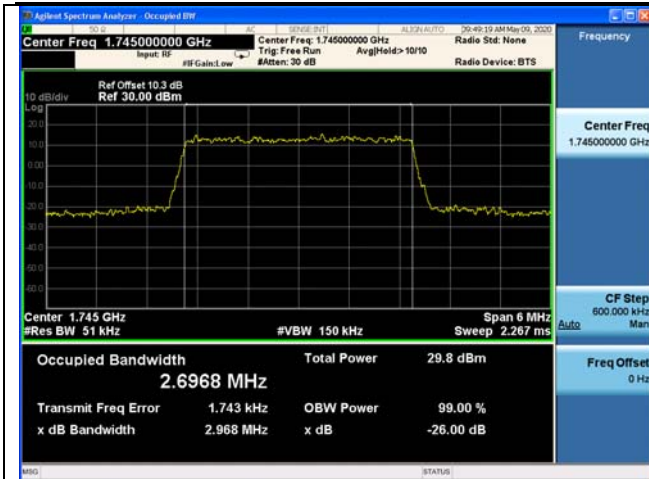


Fig.13



Fig.14

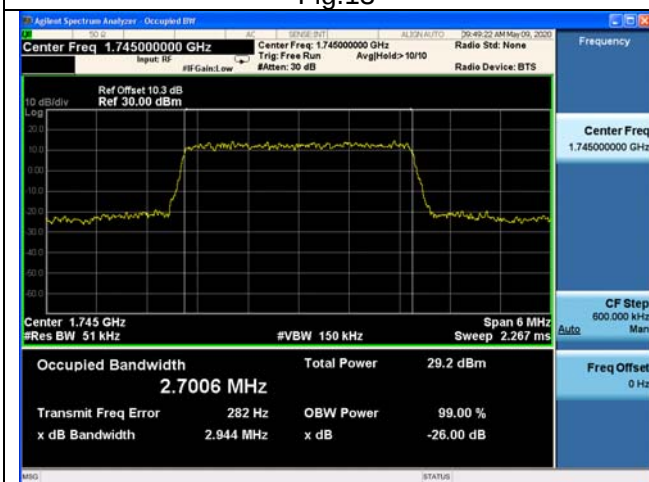


Fig.15

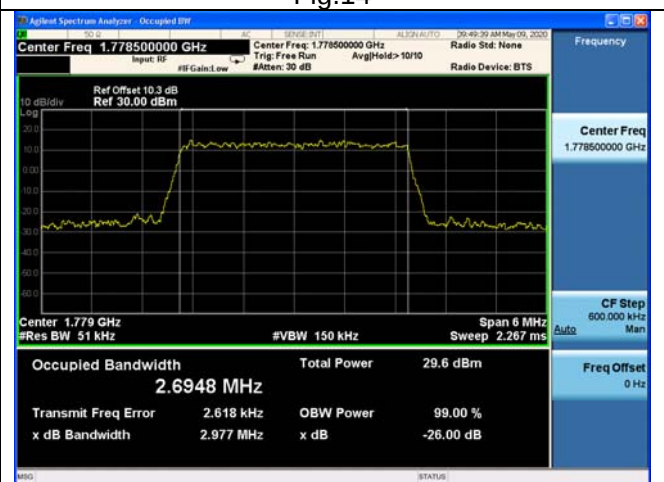


Fig.16

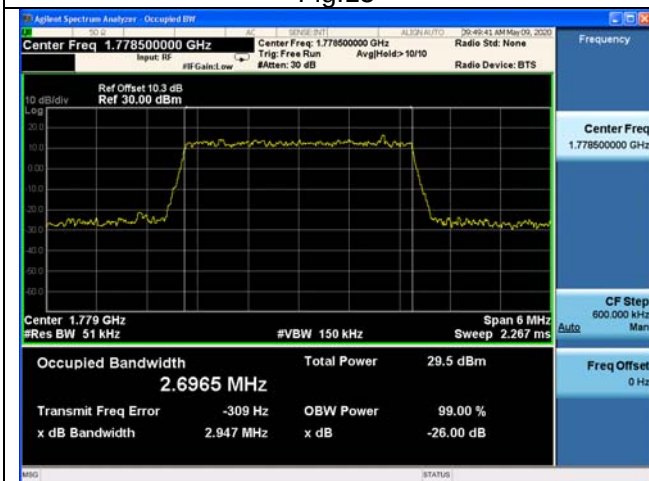


Fig.17

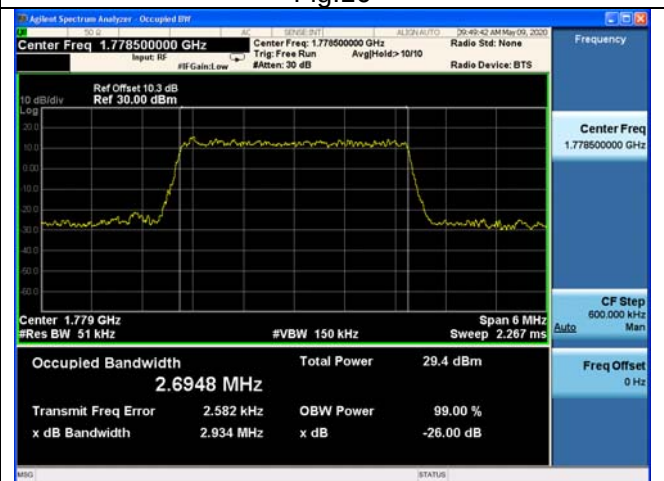


Fig.18

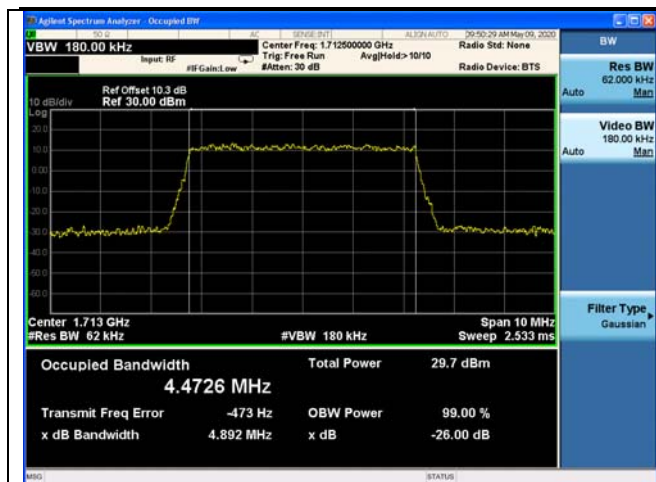


Fig.19

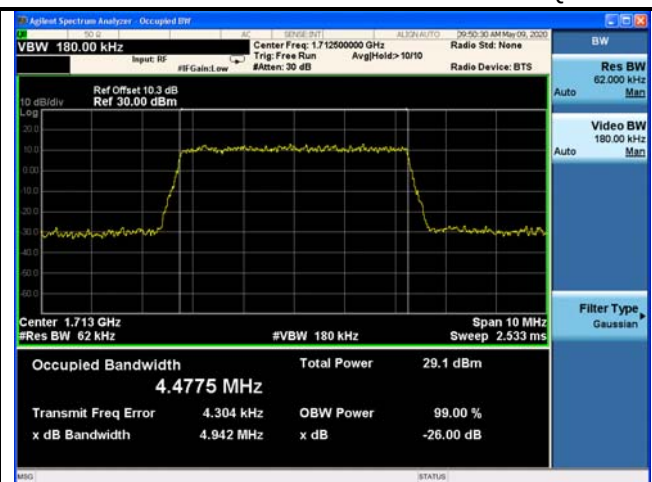


Fig.20

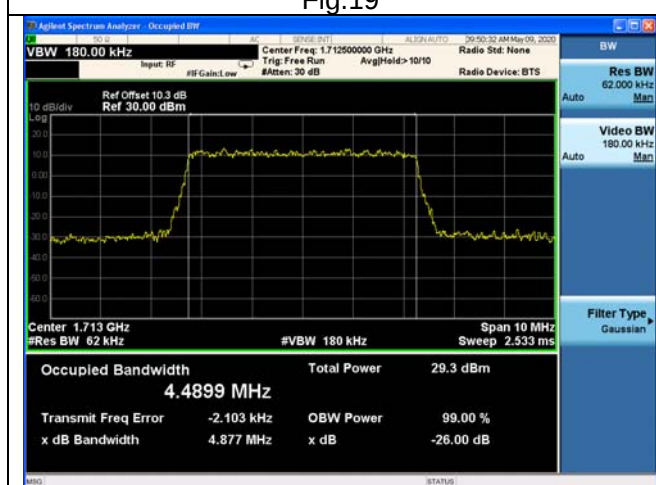


Fig.21

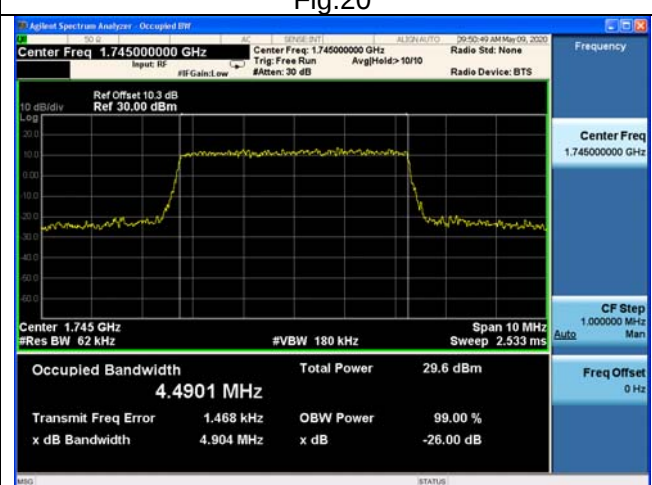


Fig.22

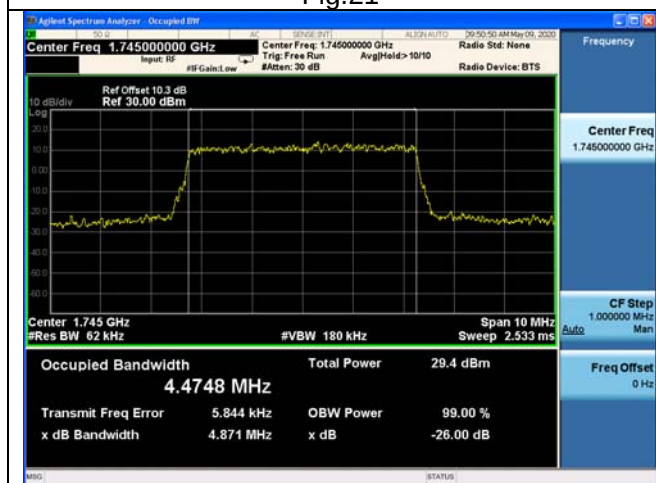


Fig.23

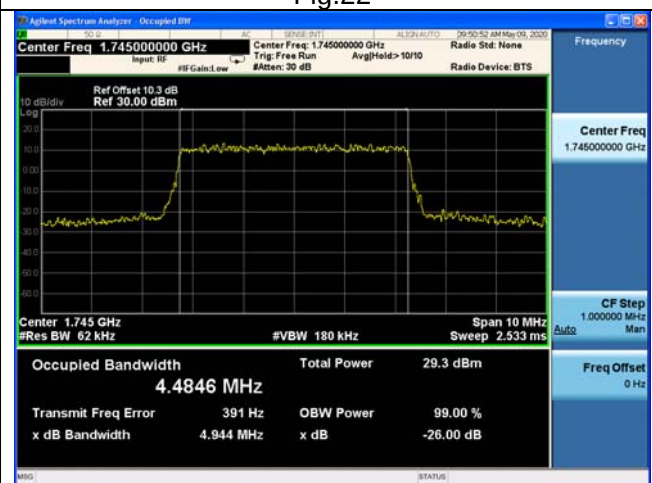


Fig.24

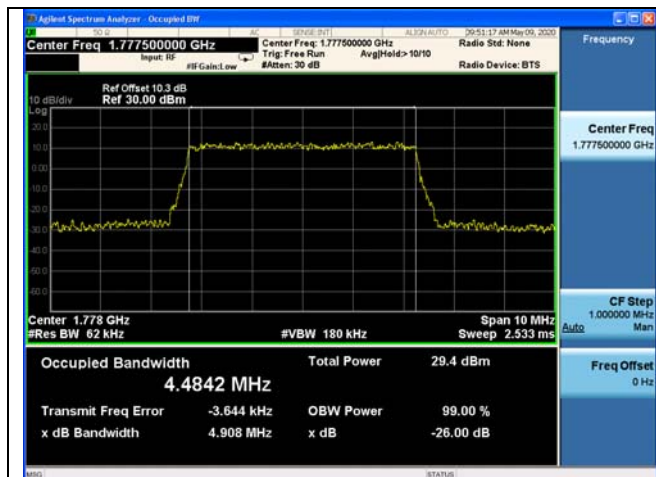


Fig.25

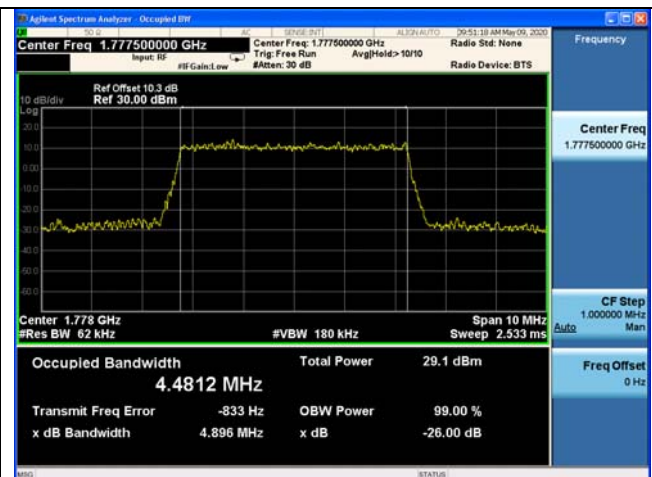


Fig.26

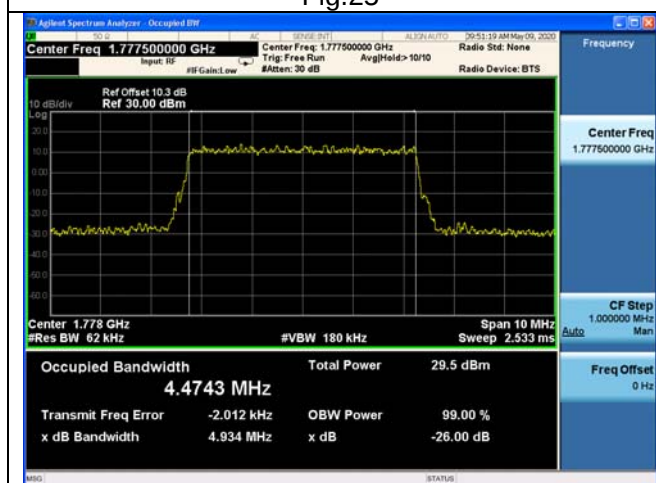


Fig.27

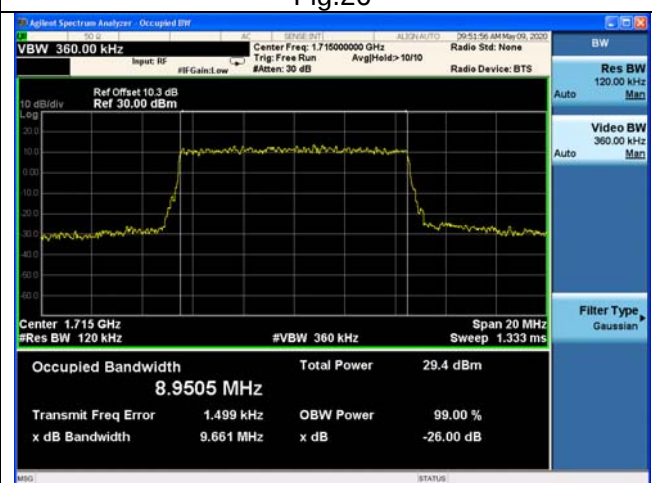


Fig.28

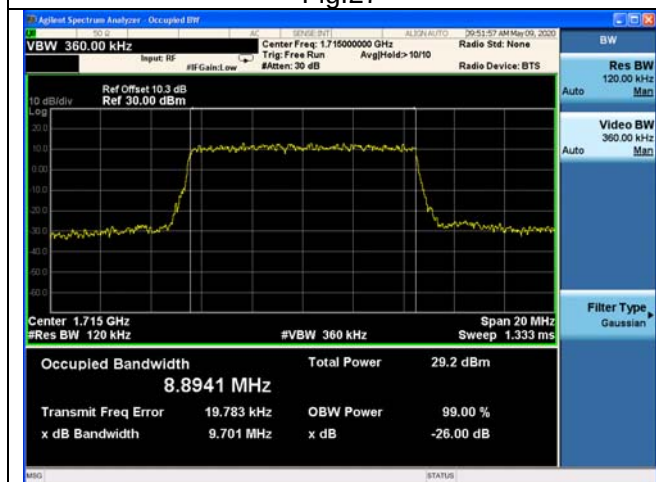


Fig.29

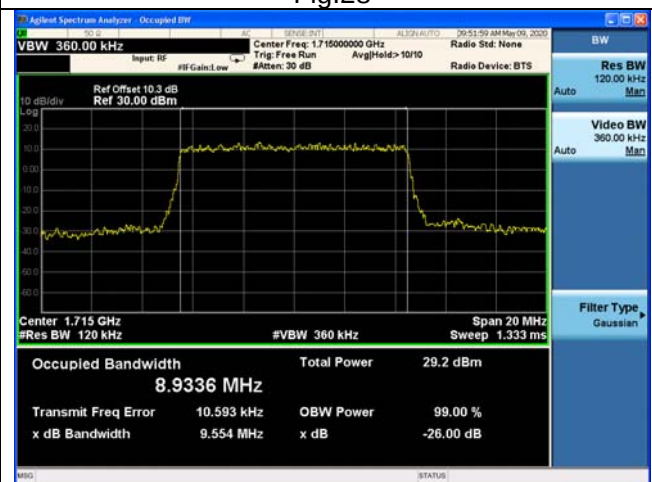


Fig.30

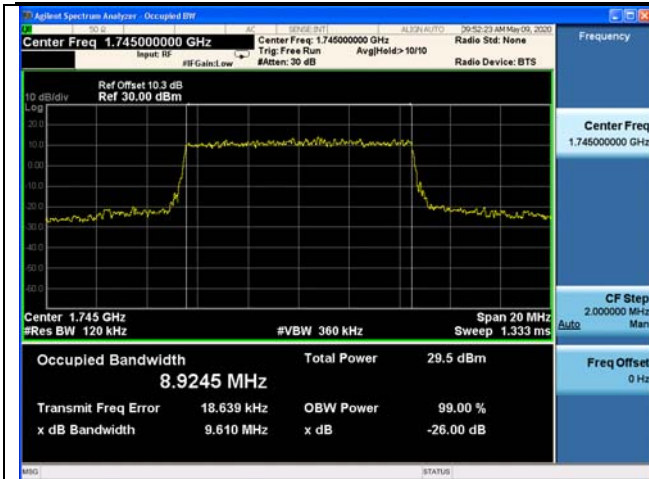


Fig.31

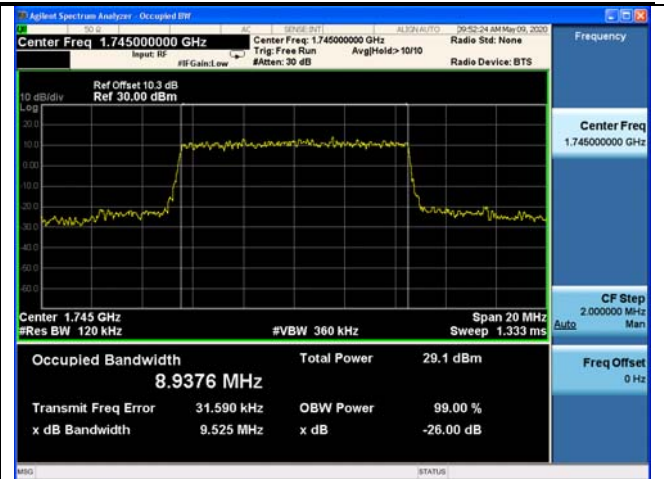


Fig.32

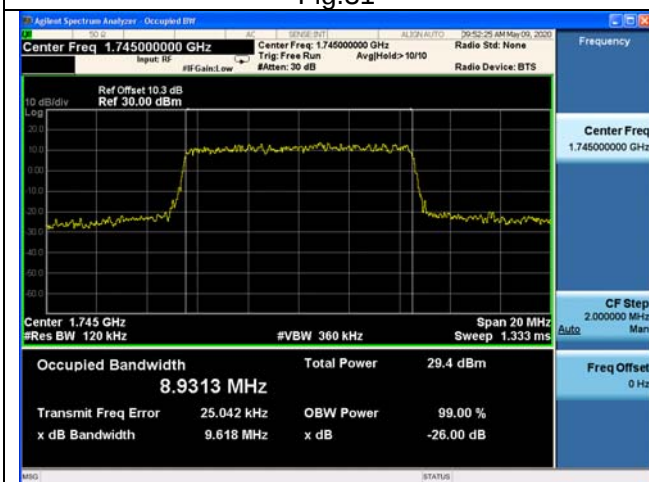


Fig.33

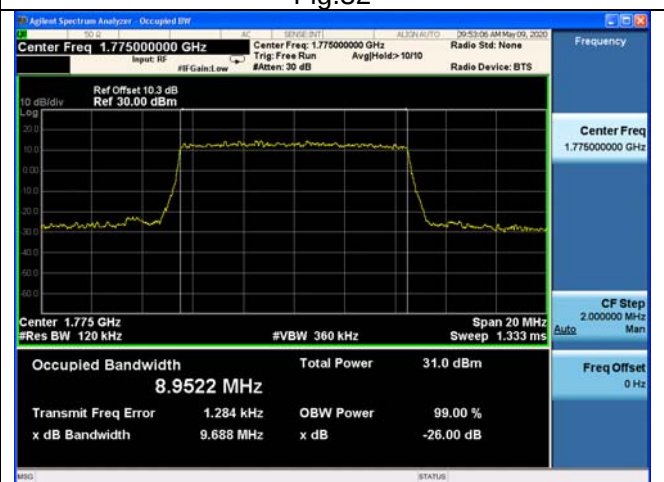


Fig.34

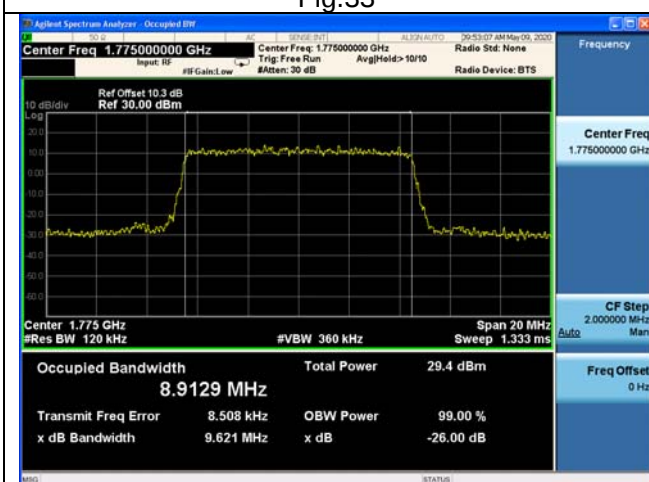


Fig.35

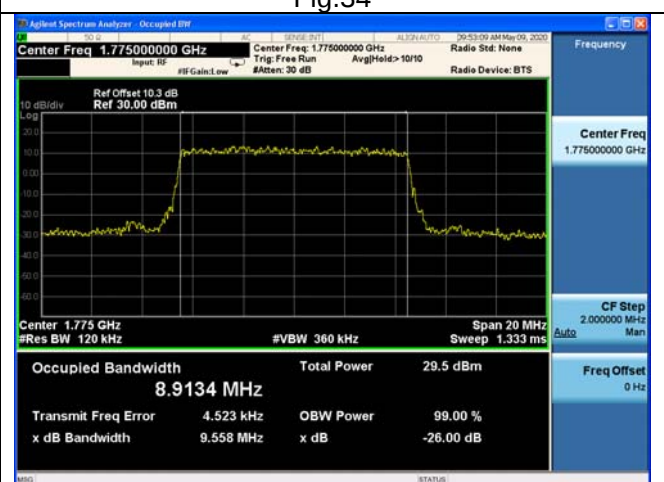


Fig.36

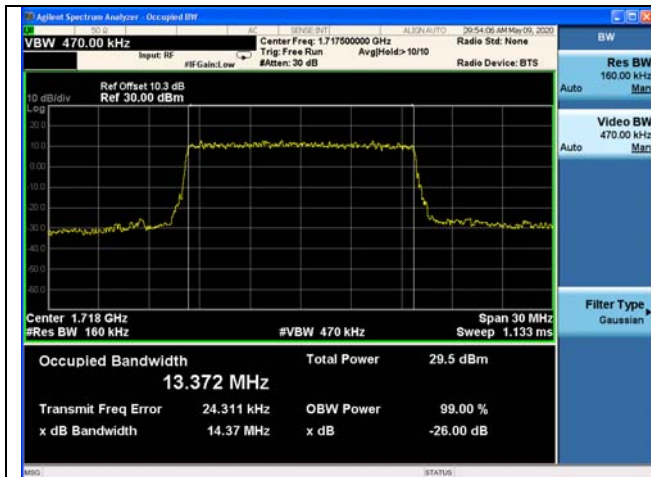


Fig.37

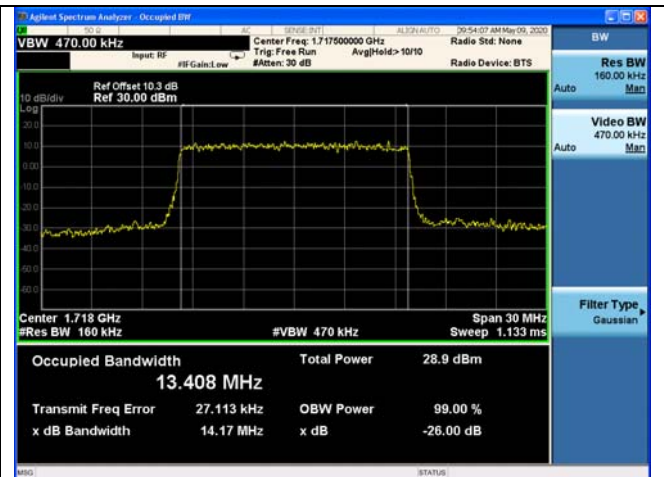


Fig.38

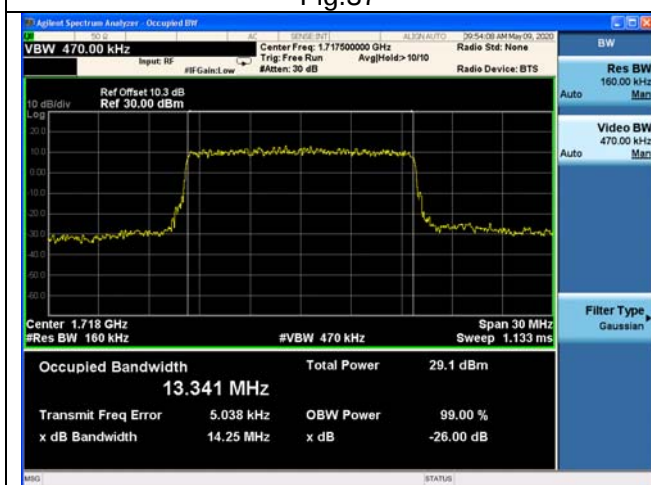


Fig.39

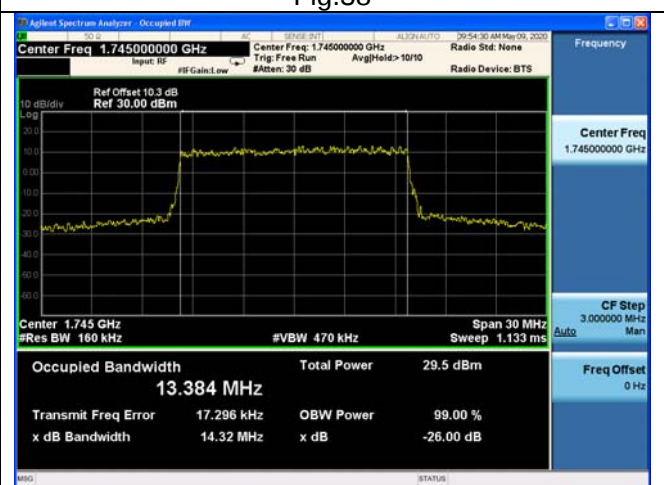


Fig.40

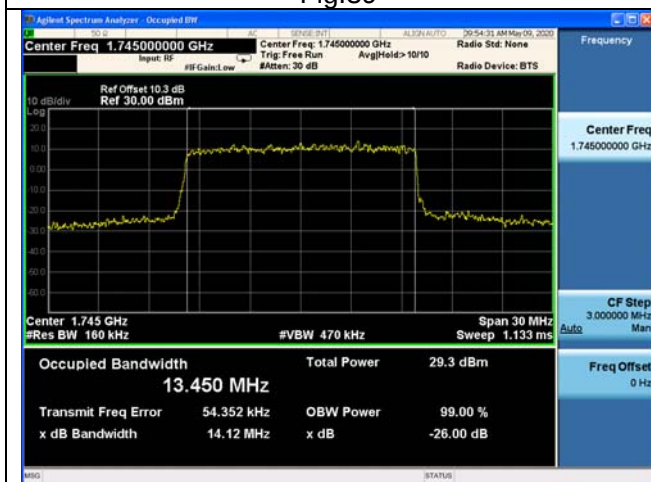


Fig.41

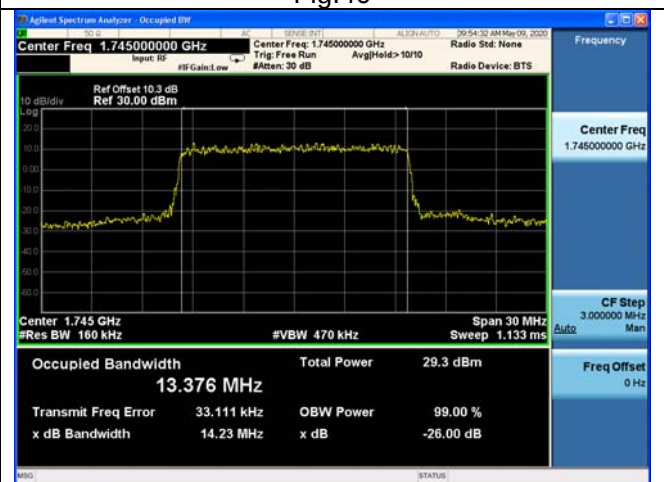


Fig.42

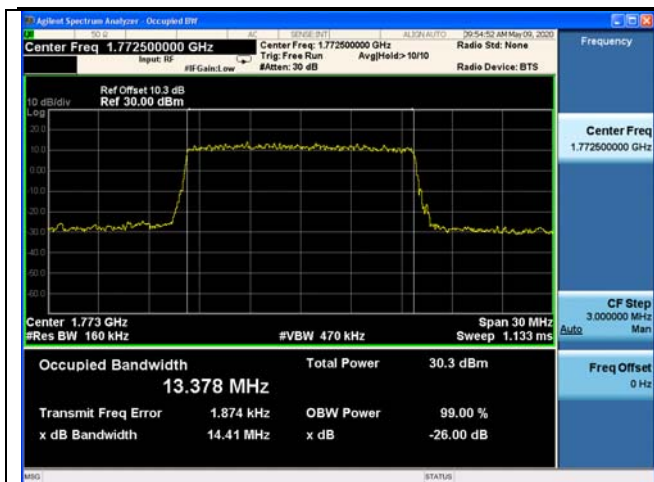


Fig.43

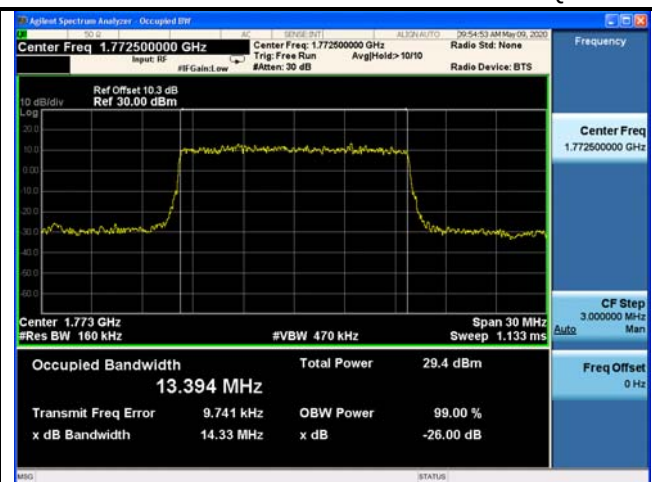


Fig.44

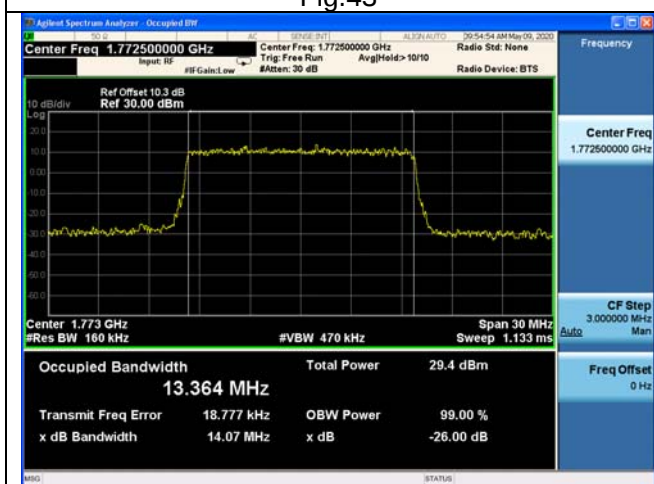


Fig.45

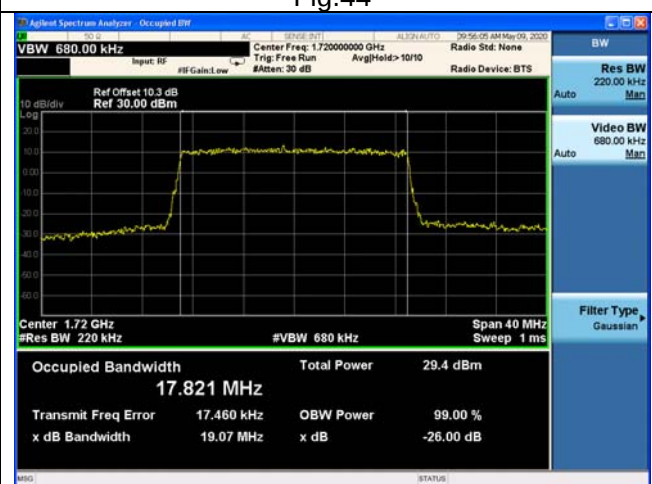


Fig.46

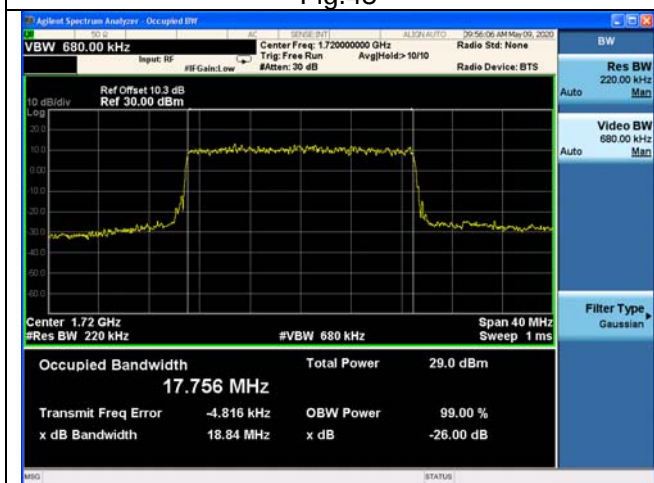


Fig.47

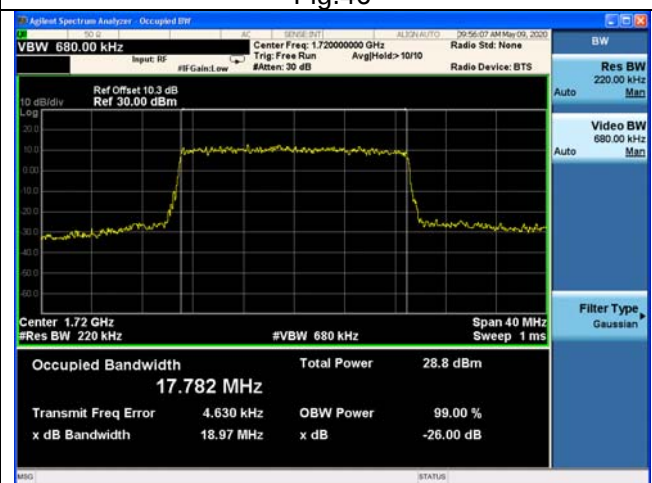


Fig.48

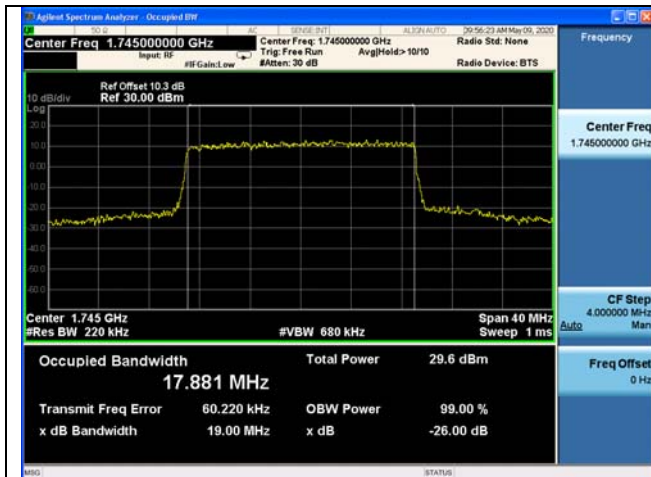


Fig.49

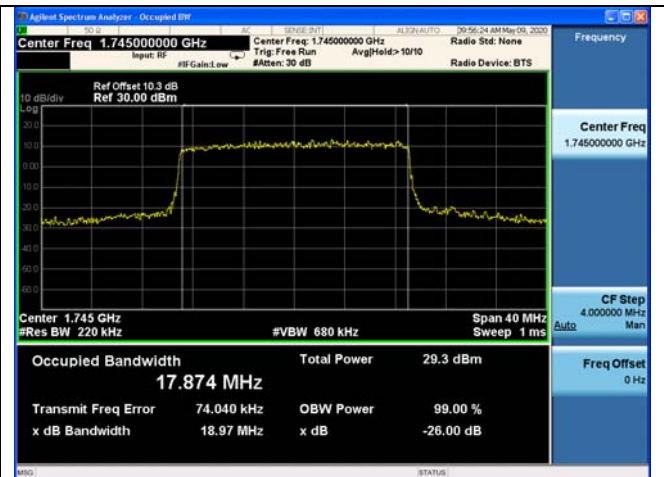


Fig.50

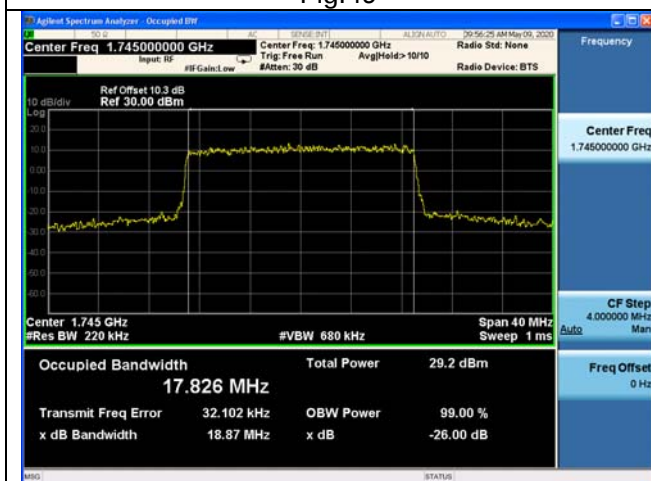


Fig.51

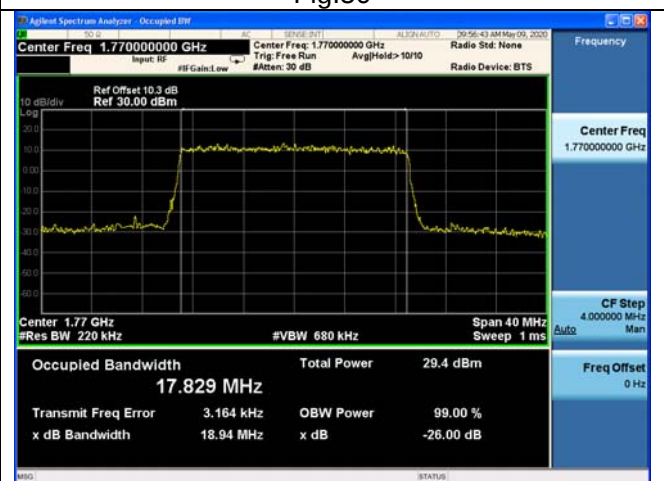


Fig.52

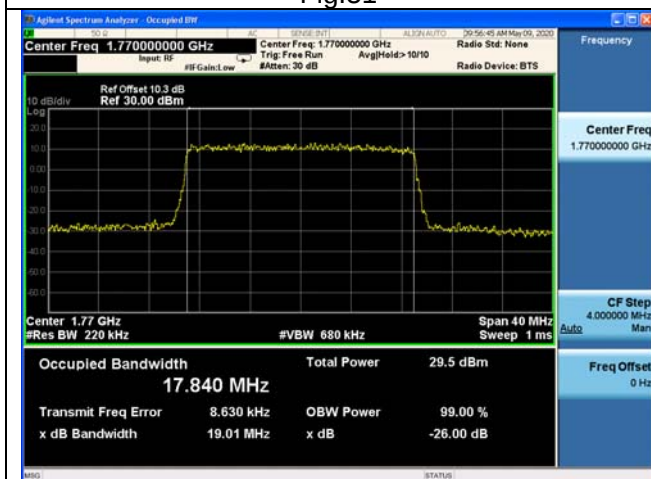


Fig.53

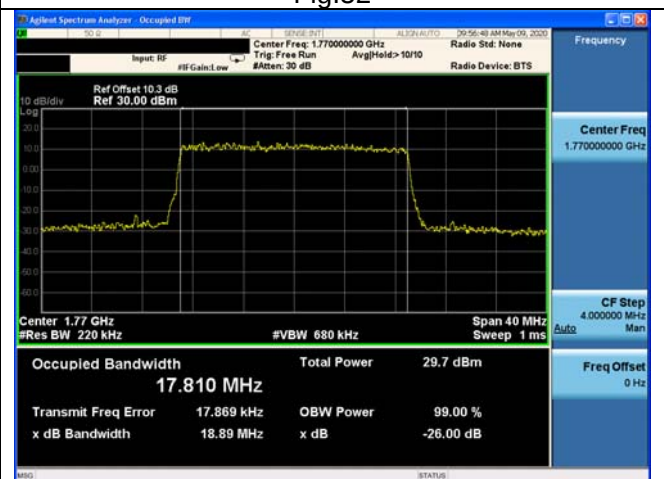


Fig.54

3 Peak-Average Ratio

Band	Carrier frequency (MHz)	Channel	BW (MHz)	RB Size	RB Offset	QPSK	16-QAM	64-QAM
66	1745	132322	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

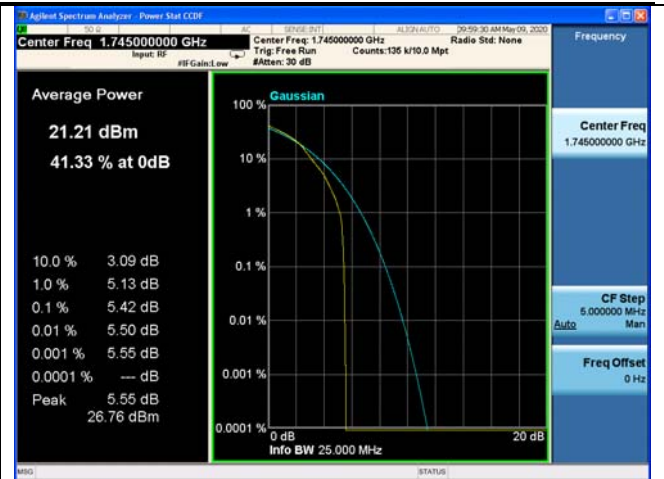


Fig.6

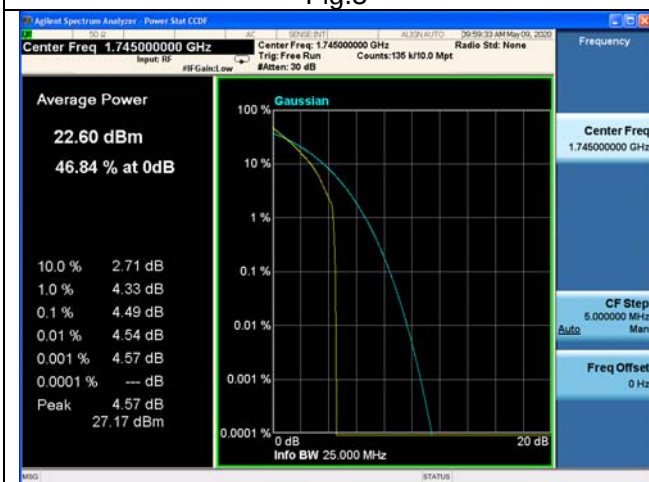


Fig.7

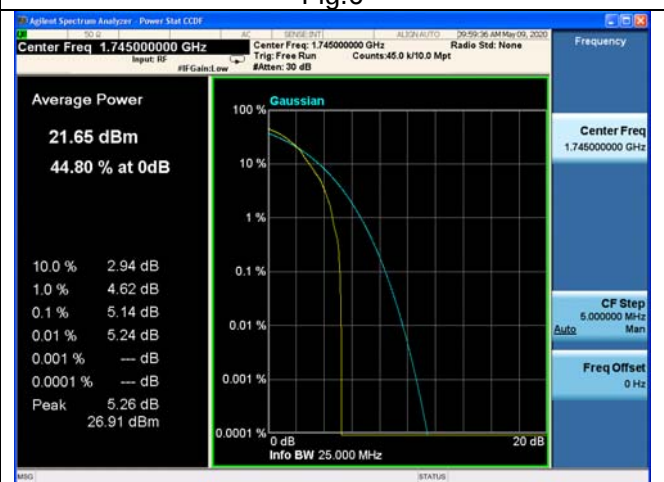


Fig.8



Fig.9

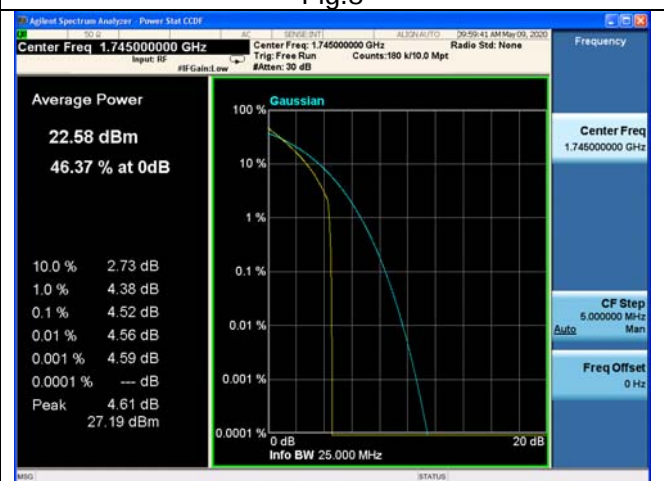


Fig.10



Fig.11

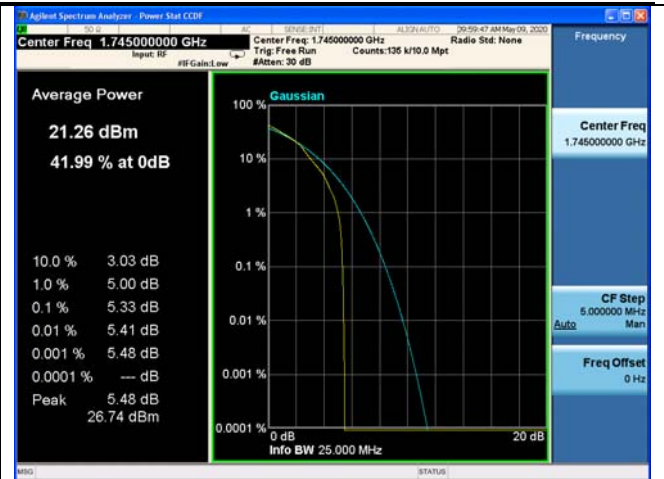


Fig.12



Fig.13

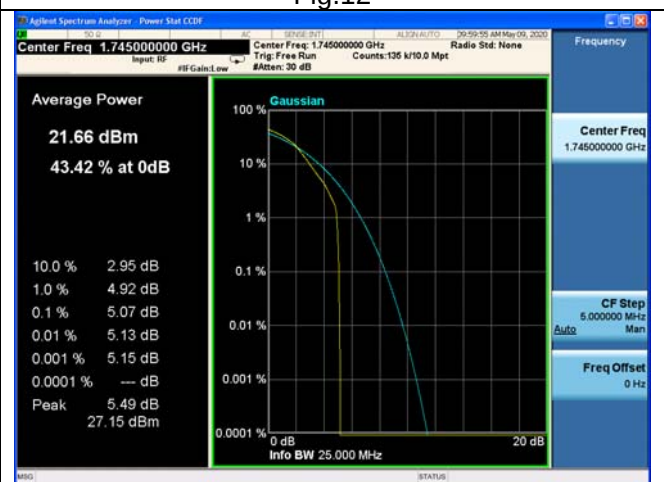


Fig.14



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
66	1720	132072	20	1	0	Fig.1
	1745	132322	20	1	0	Fig.2
	1770	132572	20	1	0	Fig.3

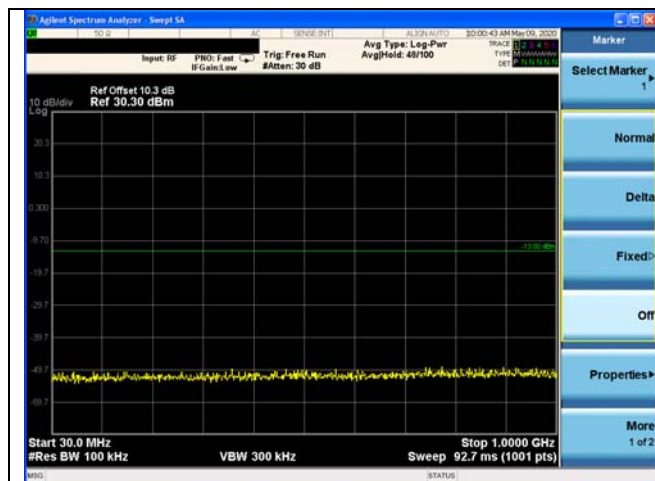


Fig.1

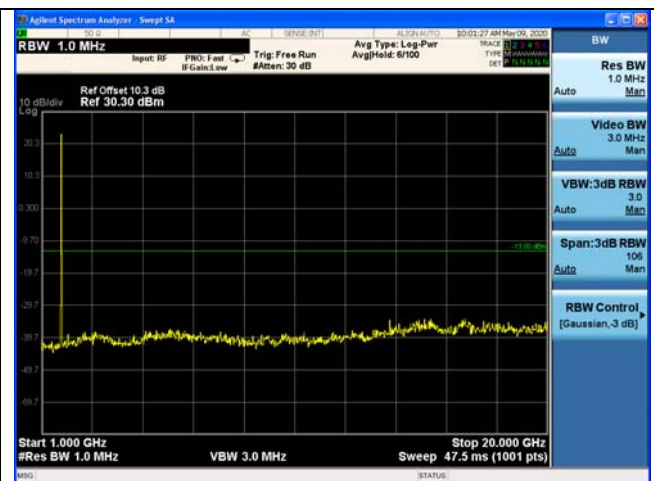


Fig.2

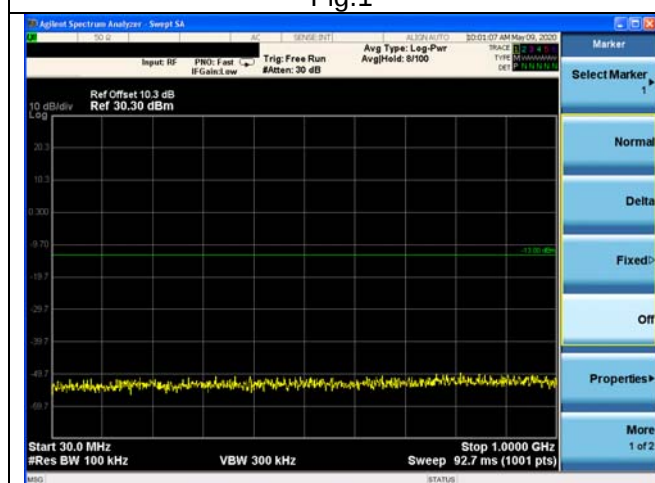
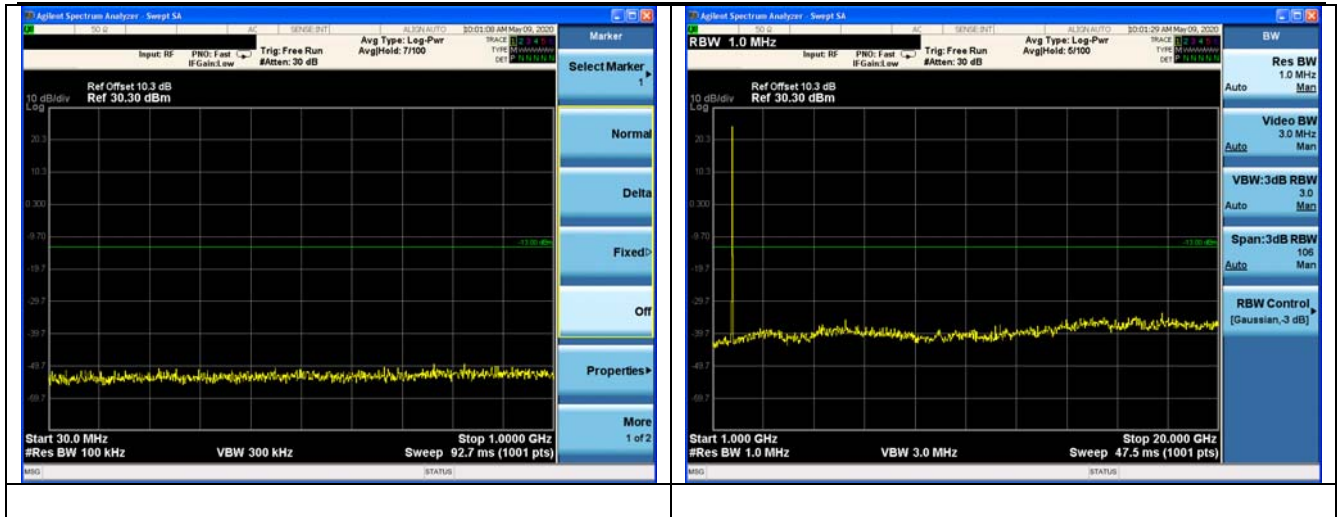


Fig3





5 Band Edges Compliance

Test result

Band	Carrier frequency (MHz)	Channel	BW	RB Size	RB Offset	Band Edges Plot
						QPSK
66	1710.7	131979	1.4	1	0	Fig.1
				6	0	Fig.2
	1779.3	132665		1	5	Fig.3
				6	0	Fig.4
	1711.5	131987	3	1	0	Fig.5
				15	0	Fig.6
	1778.5	132657		1	14	Fig.7
				15	0	Fig.8
	1712.5	131997	5	1	0	Fig.9
				25	0	Fig.10
	1777.5	132647		1	24	Fig.11
				25	0	Fig.12
	1715	132022	10	1	0	Fig.13
				50	0	Fig.14
	1775	132622		1	49	Fig.15
				50	0	Fig.16
	1717.5	132047	15	1	0	Fig.17
				75	0	Fig.18
	1772.5	132597		1	74	Fig.19
				75	0	Fig.20
	1720	132072	20	1	0	Fig.21
				100	0	Fig.22
	1770	132572		1	99	Fig.23
				100	0	Fig.24

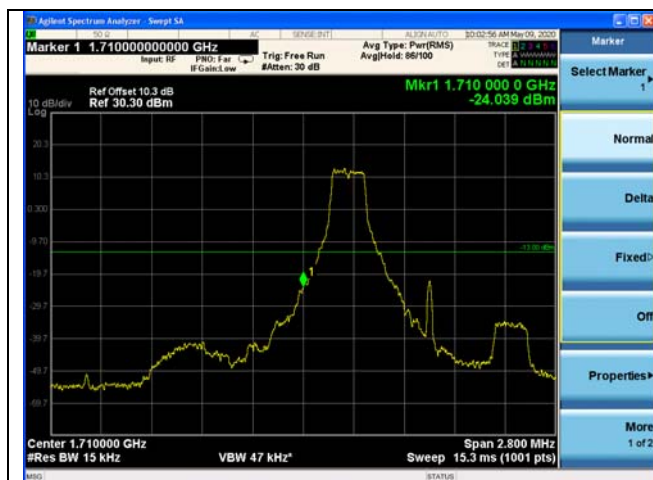


Fig.1



Fig.2

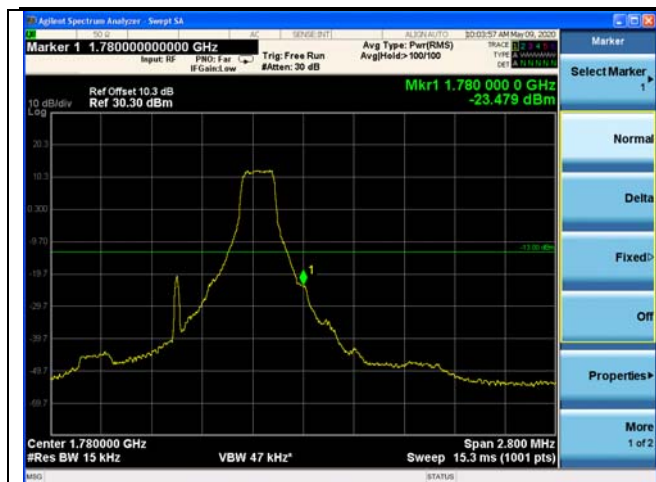


Fig.3



Fig.4

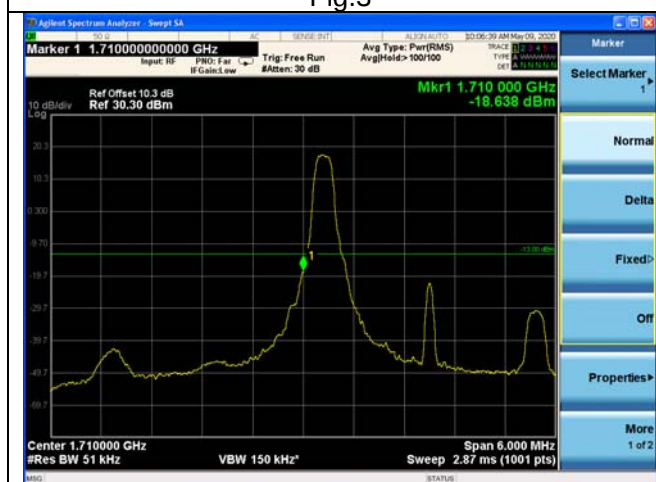


Fig.5



Fig.6

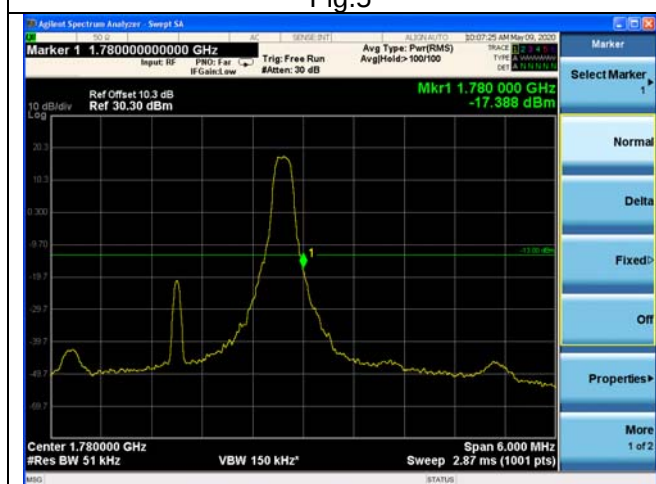


Fig.7



Fig.8

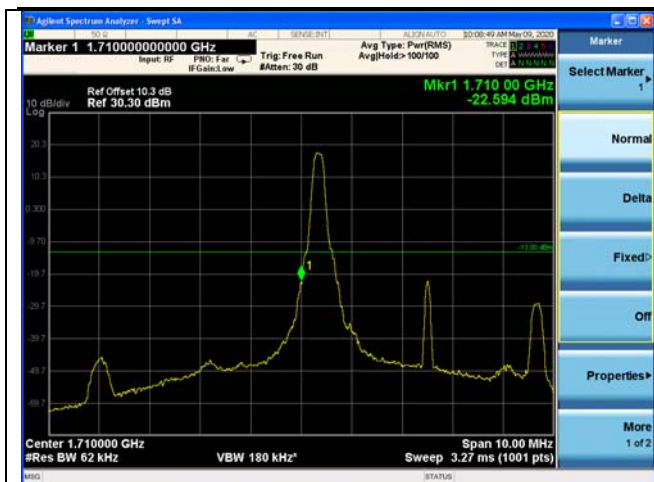


Fig.9



Fig.10

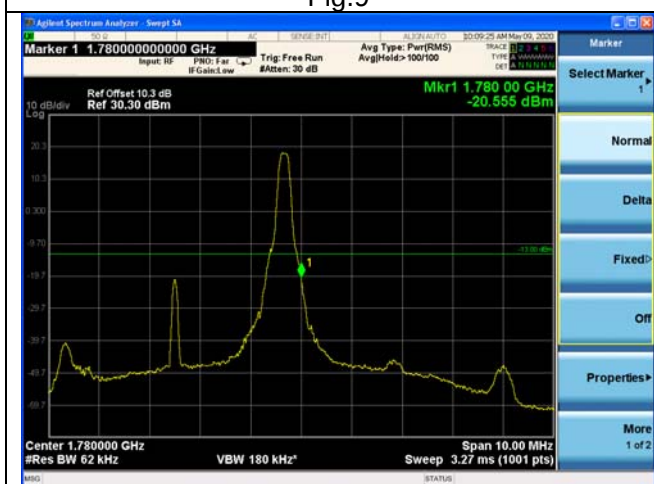


Fig.11



Fig.12

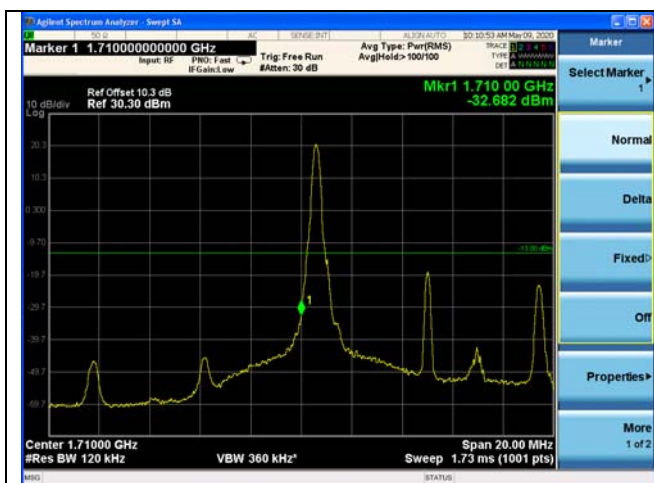


Fig.13



Fig.14

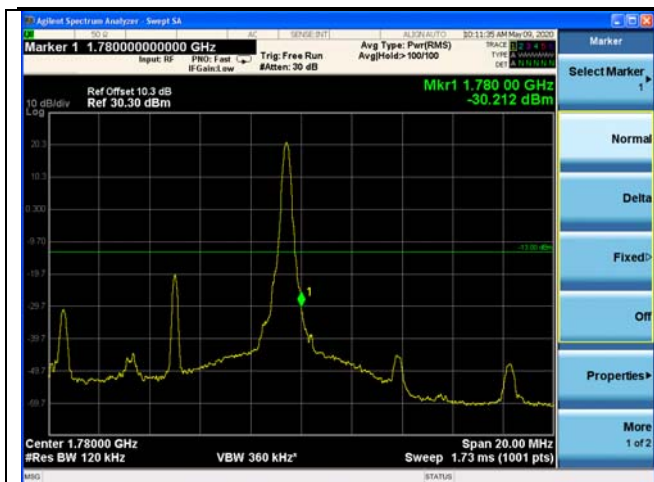


Fig.15



Fig.16

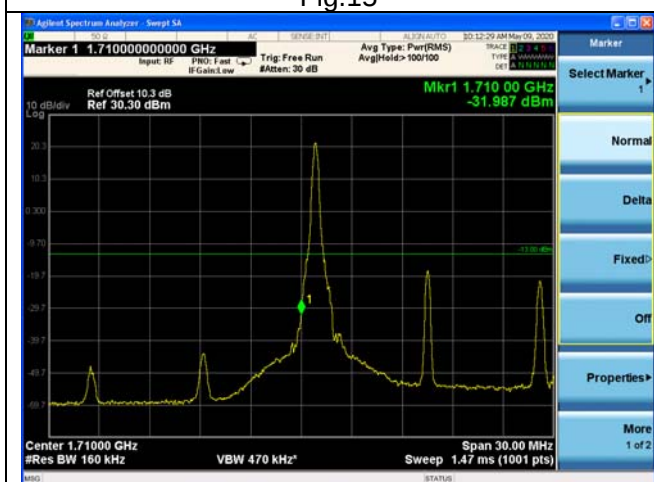


Fig.17

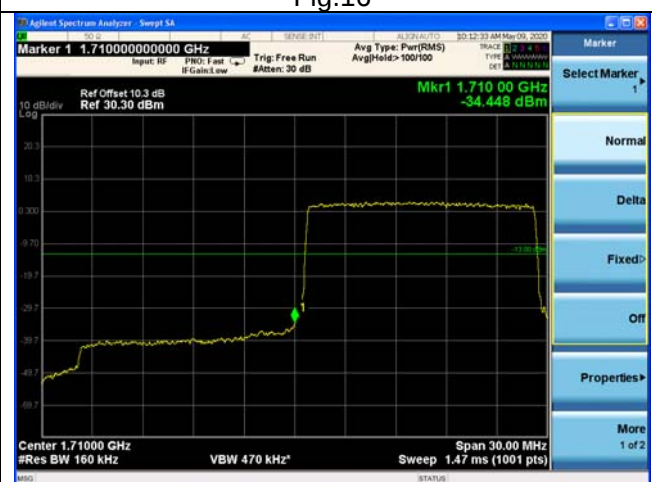


Fig.18

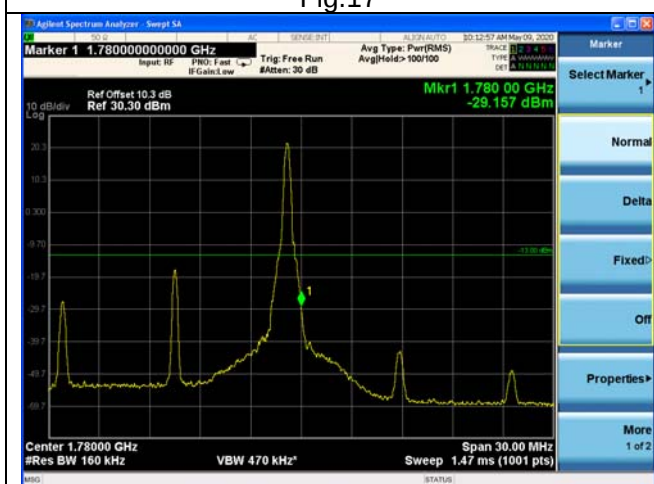


Fig.19



Fig.20

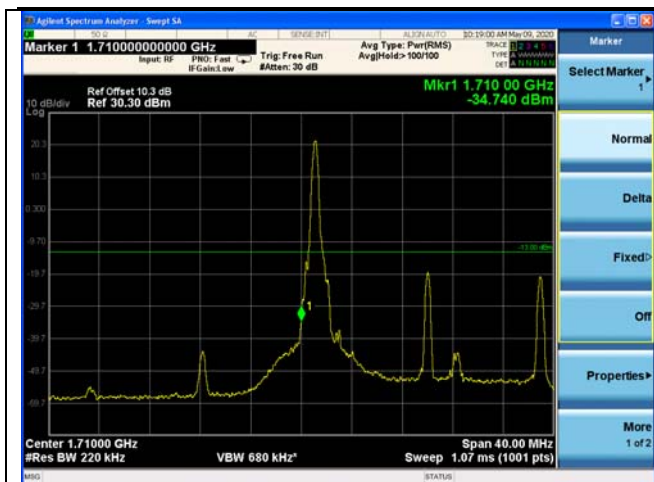


Fig.21



Fig.22

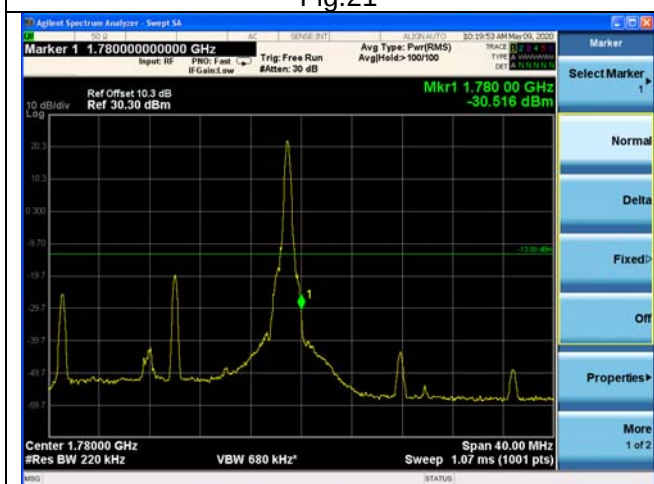


Fig.23



Fig.24

6 Frequency Stability

Test result:

Temperature(°C)	Voltage	Test Result (ppm) Band66 Low Channel					
		1.4M	3M	5M	10M	15M	20M
-10	NV	0.037	0.082	0.054	0.041	-0.036	-0.023
0	NV	-0.022	0.038	-0.057	-0.058	-0.042	0.037
+10	NV	0.034	0.000	0.047	0.034	0.022	0.042
+20	NV	0.000	0.000	0.000	0.000	0.000	0.000
+30	NV	0.099	-0.040	0.000	0.057	0.024	0.009
+40	NV	0.072	-0.086	-0.076	0.077	0.063	0.059
+50	NV	-0.059	0.062	0.023	-0.026	-0.045	0.012
+55	NV	-0.013	0.041	-0.020	-0.093	0.095	0.065
+20	LV	-0.005	-0.049	-0.025	0.012	-0.049	-0.033
+20	HV	0.028	-0.047	0.046	0.014	0.041	0.100

Temperature(°C)	Voltage	Test Result (ppm) Band66 High Channel					
		1.4M	3M	5M	10M	15M	20M
-10	NV	0.015	0.079	0.028	0.083	0.073	0.010
0	NV	0.007	-0.099	-0.020	0.083	0.060	0.047
+10	NV	0.100	-0.041	-0.059	-0.011	-0.083	0.007
+20	NV	0.000	0.000	0.000	0.000	0.000	0.000
+30	NV	0.084	0.010	-0.048	0.081	0.073	0.100
+40	NV	0.004	-0.040	-0.019	-0.069	-0.060	-0.082
+50	NV	-0.045	0.001	0.050	0.013	0.095	-0.098
+55	NV	0.025	0.055	0.053	-0.090	-0.016	-0.081
+20	LV	-0.023	0.041	0.001	0.003	0.077	0.029
+20	HV	-0.100	-0.100	-0.016	-0.054	0.055	-0.046