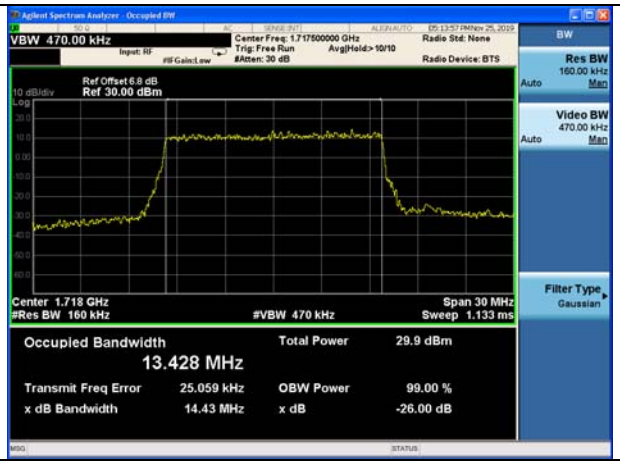


Fig.37

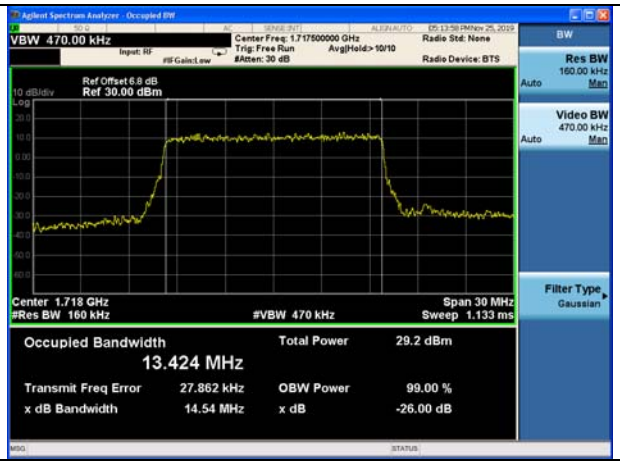


Fig.38

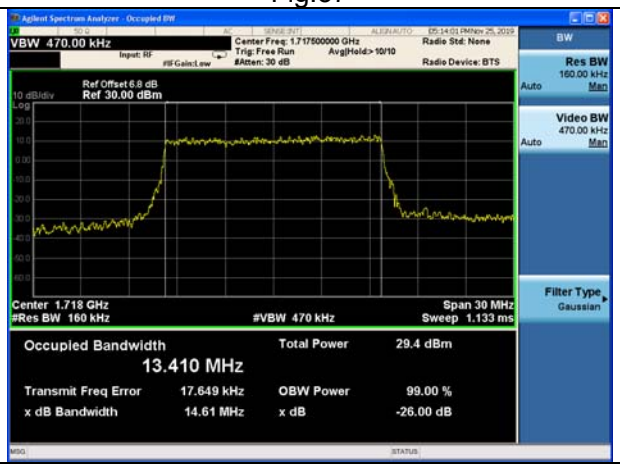


Fig.39

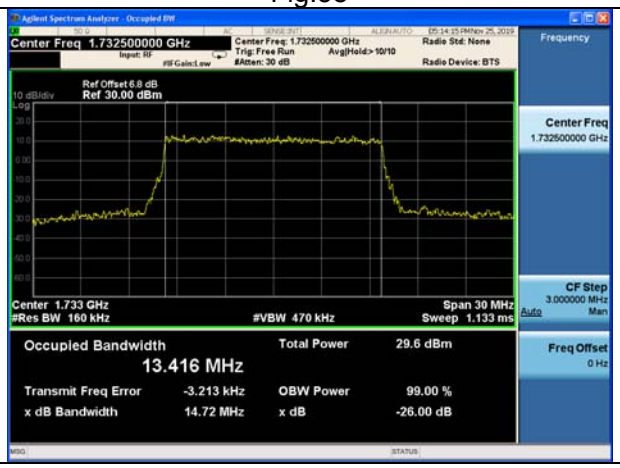
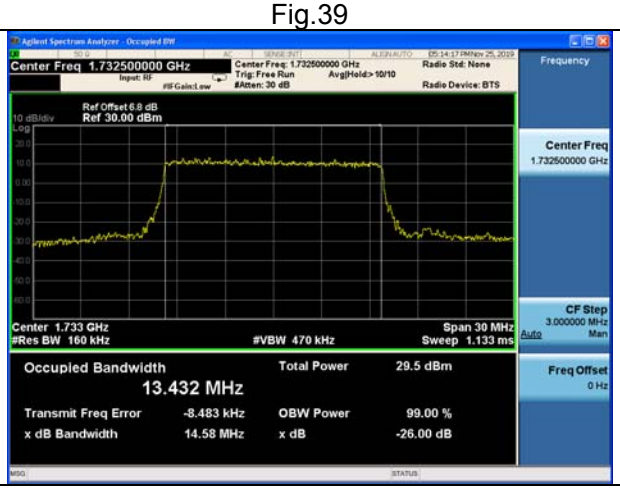


Fig.40



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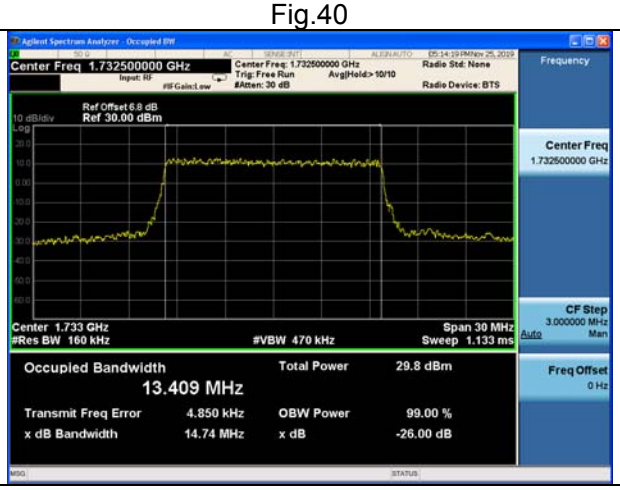

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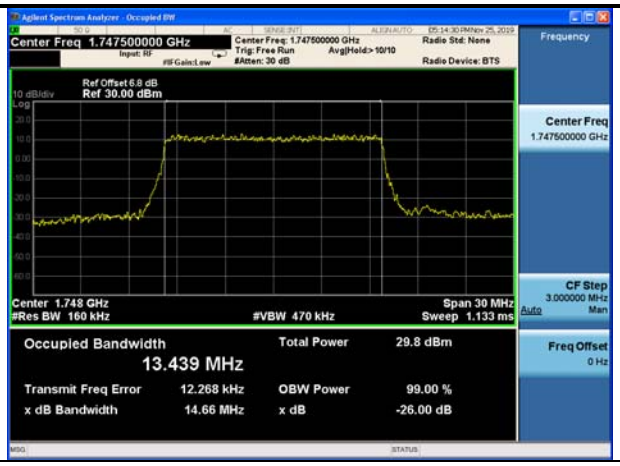

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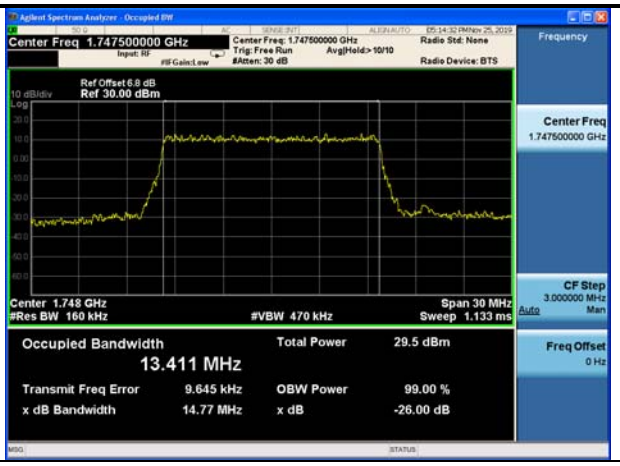


Fig.44

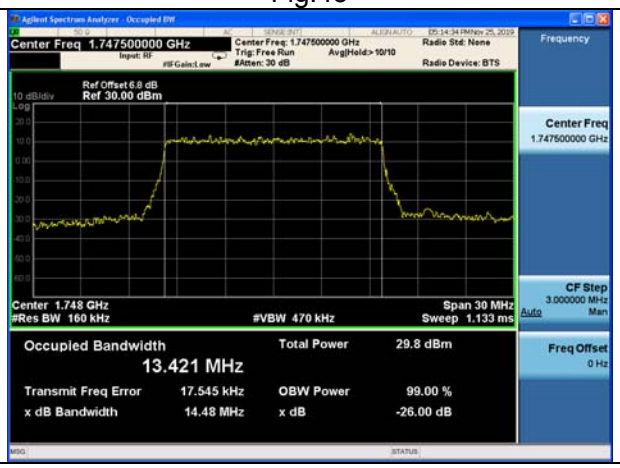


Fig.45

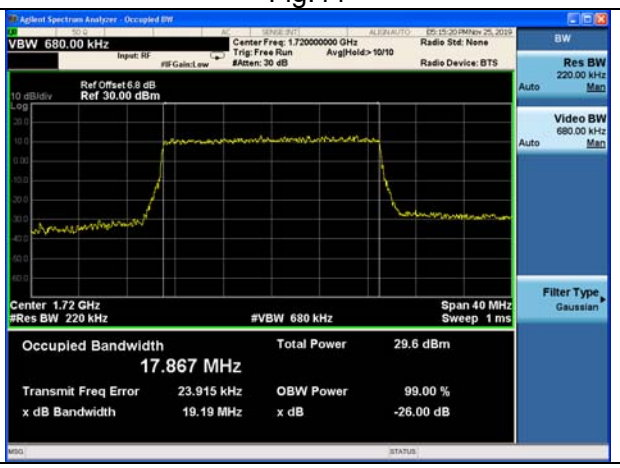


Fig.46

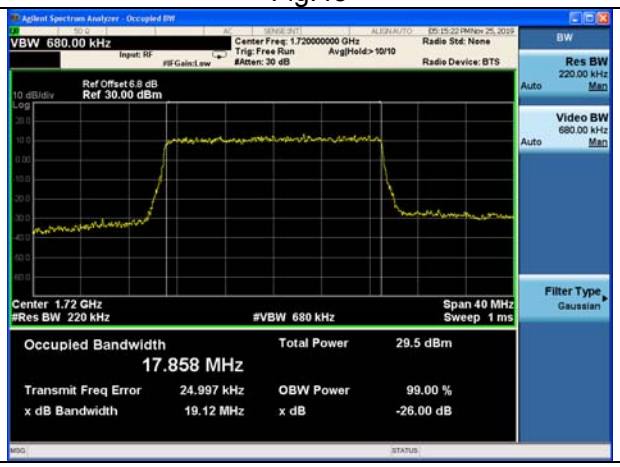
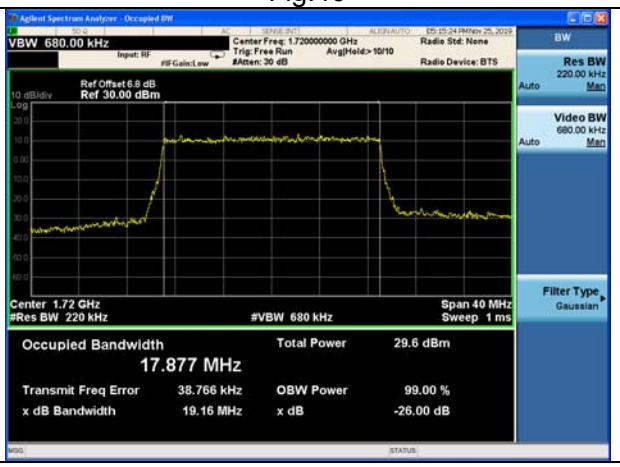


Fig.47



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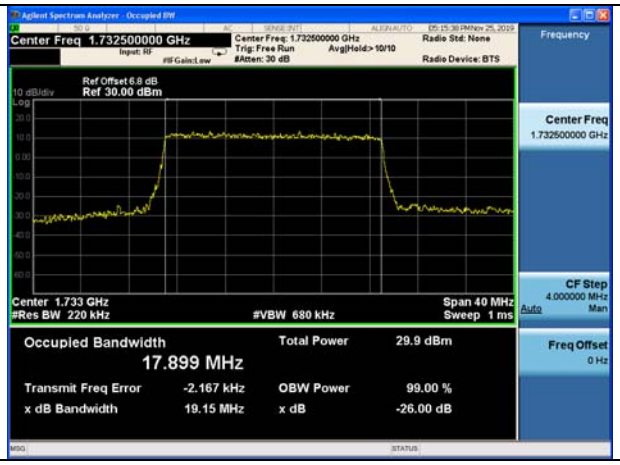

Fig.49

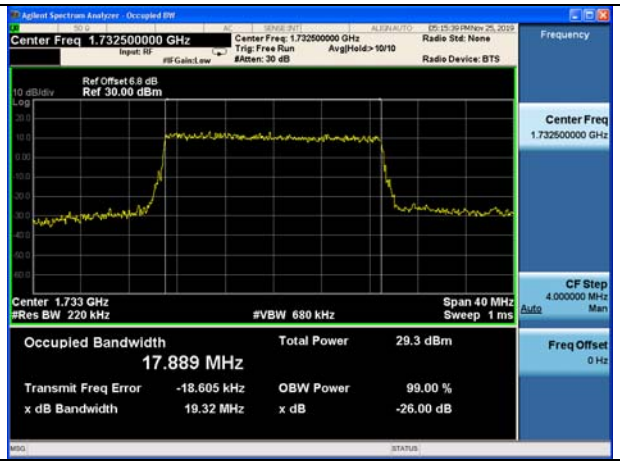

Fig.50

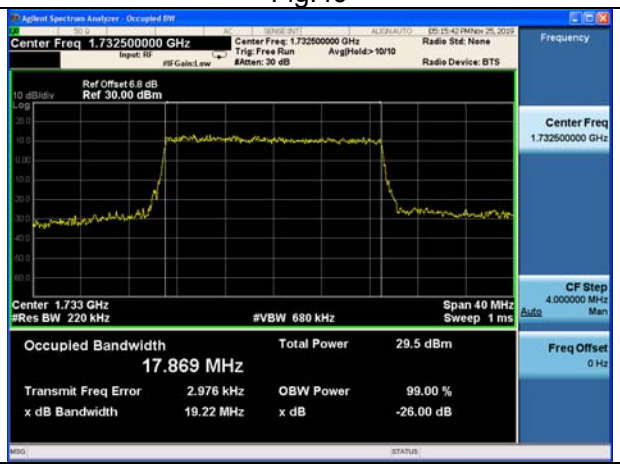

Fig.51

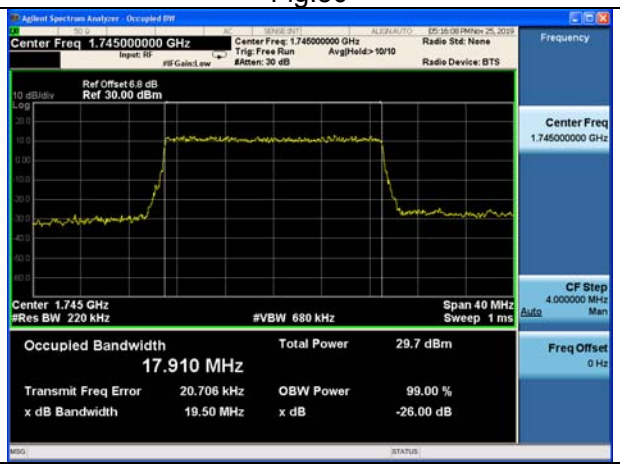

Fig.52

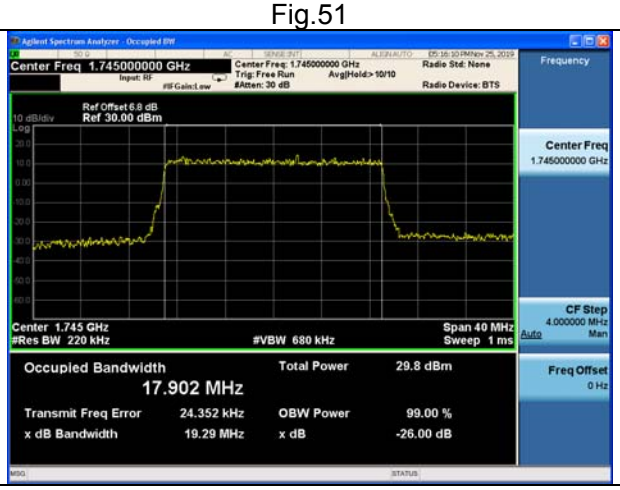

Fig.53

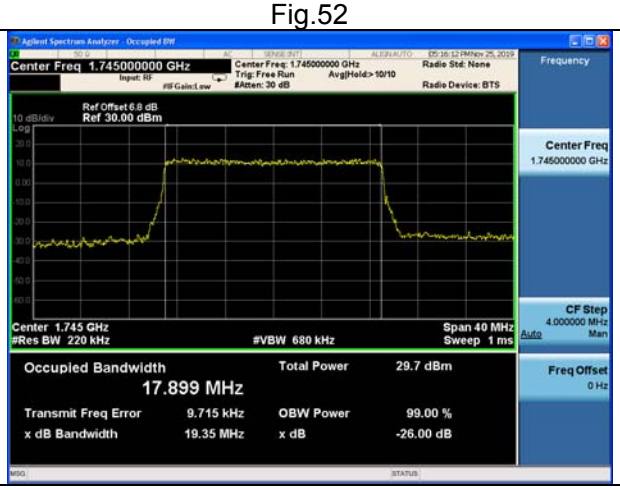

Fig.54

3 Peak-Average Ratio

Band	Carrier frequency (MHz)	Channel	BW (MHz)	RB Size	RB Offset	QPSK	16-QAM	64-QAM
4	1732.5	20175	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

Agilent Spectrum Analyzer - Power Stat CCDF
Info BW 25.000 MHz
Center Freq: 1.732500000 GHz
Trig: Free Run
Counts:405 k/10.0 Mpt
#Atten: 30 dB
Radio Std: None
BW
Info BW
25.000 MHz
Average Power
21.57 dBm
43.42 % at 0dB
Gaussian
100 %
10 %
1 %
0.1 %
0.01 %
0.001 %
0.0001 %
10.0 % 2.90 dB
1.0 % 5.21 dB
0.1 % 6.42 dB
0.01 % 6.70 dB
0.001 % 6.75 dB
0.0001 % --- dB
Peak 6.80 dB
28.37 dBm
0 dB
20 dB
Info BW 25.000 MHz

Fig.17

Agilent Spectrum Analyzer - Power Stat CCDF
Info BW 25.000 MHz
Center Freq: 1.732500000 GHz
Trig: Free Run
Counts:585 k/10.0 Mpt
#Atten: 30 dB
Radio Std: None
BW
Info BW
25.000 MHz
Average Power
21.44 dBm
42.53 % at 0dB
Gaussian
100 %
10 %
1 %
0.1 %
0.01 %
0.001 %
0.0001 %
10.0 % 2.95 dB
1.0 % 4.86 dB
0.1 % 5.88 dB
0.01 % 6.52 dB
0.001 % 6.57 dB
0.0001 % --- dB
Peak 6.62 dB
28.06 dBm
0 dB
20 dB
Info BW 25.000 MHz

Fig.18

4 Spurious Emissions at antenna terminal

Band	Carrier frequency (MHz)	Channel	BW	RB Size	RB Offset	Conducted Spurious Plot
						QPSK
4	1720	20050	20	1	0	Fig.1-2
	1732.5	20175	20	1	0	Fig.3-4
	1745	20300	20	1	0	Fig.5-6

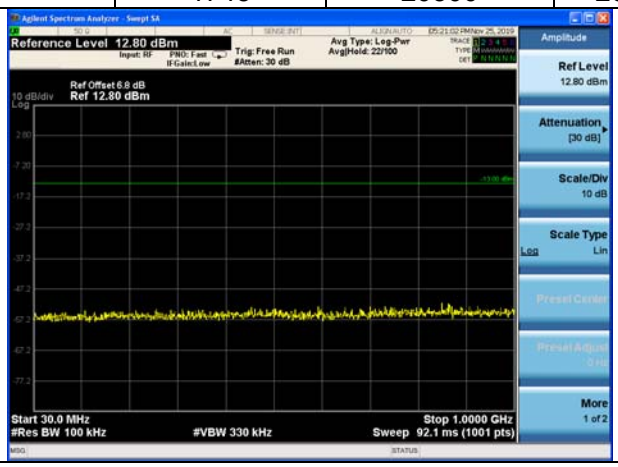

Fig.1

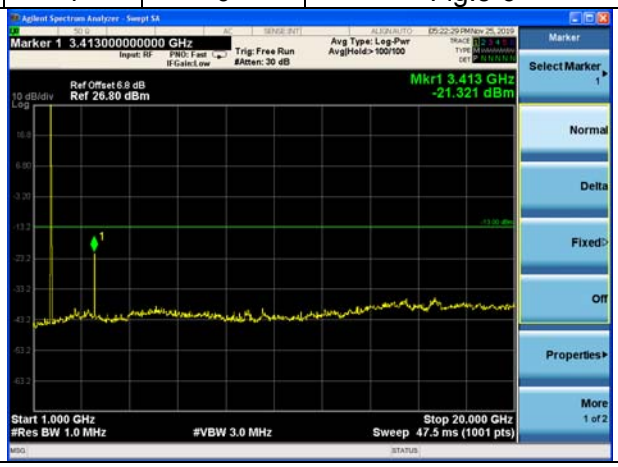

Fig.2

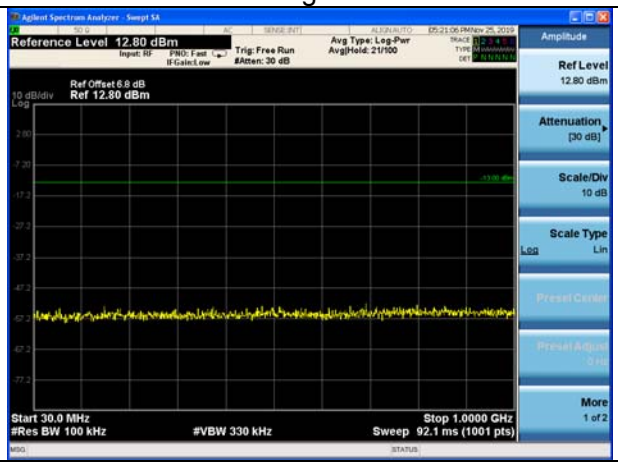

Fig3

Fig4

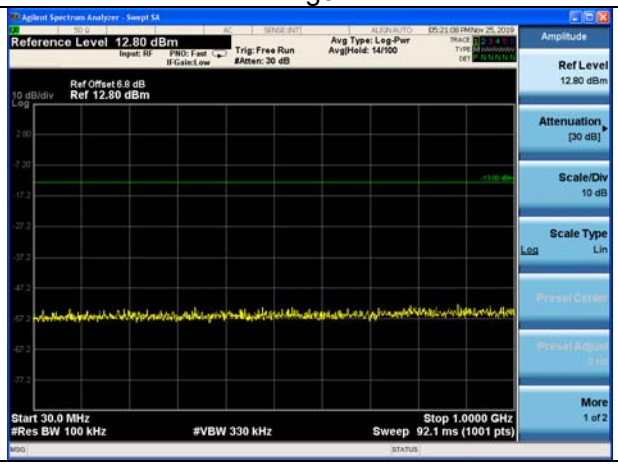

Fig5

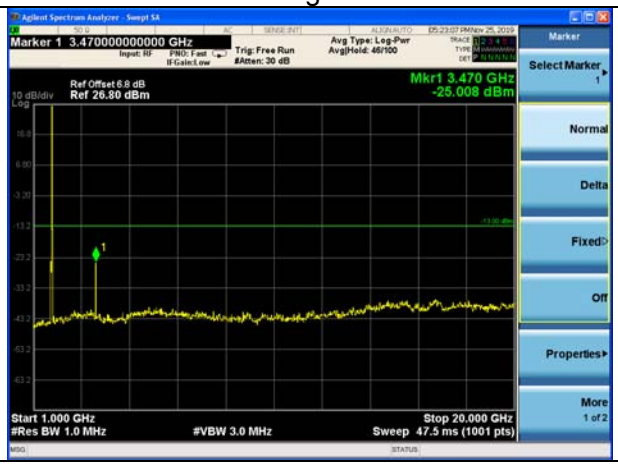

Fig6

5 Band Edges Compliance

Test result

Band	Carrier frequency (MHz)	Channel	BW	RB Size	RB Offset	Band Edges Plot
						QPSK
4	1710.7	19957	1.4	1	0	Fig.1
				6	0	Fig.2
	1754.3	20393		1	5	Fig.3
				6	0	Fig.4
	1711.5	19965	3	1	0	Fig.5
				15	0	Fig.6
	1753.5	20385		1	14	Fig.7
				15	0	Fig.8
	1712.5	19975	5	1	0	Fig.9
				25	0	Fig.10
	1752.5	20375		1	24	Fig.11
				25	0	Fig.12
	1715	20000	10	1	0	Fig.13
				50	0	Fig.14
	1750	20350		1	49	Fig.15
				50	0	Fig.16
	1717.5	20025	15	1	0	Fig.17
				75	0	Fig.18
	1747.5	20325		1	74	Fig.19
				75	0	Fig.20
	1720	20050	20	1	0	Fig.21
				100	0	Fig.22
	1745	20300		1	99	Fig.23
				100	0	Fig.24

Fig.1

Fig.2

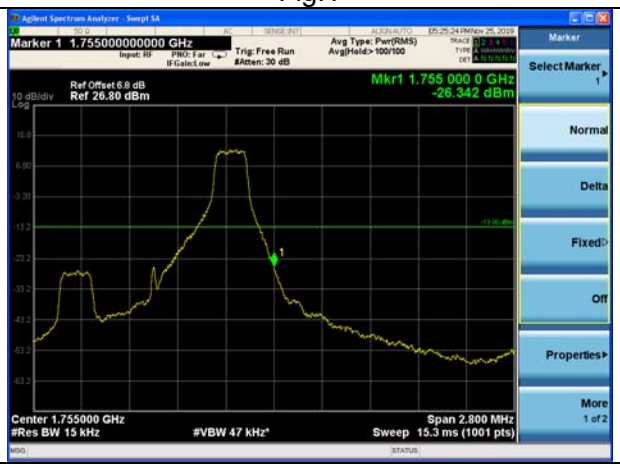

Fig.3

Fig.4

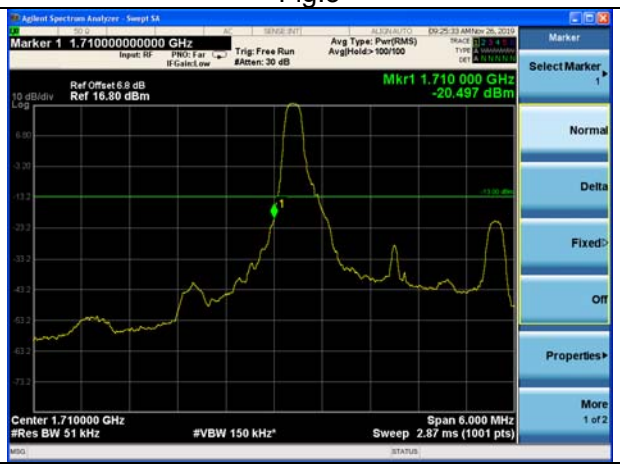

Fig.5

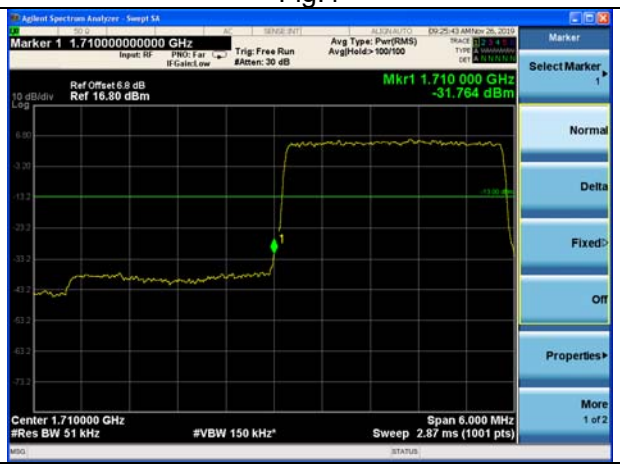

Fig.6

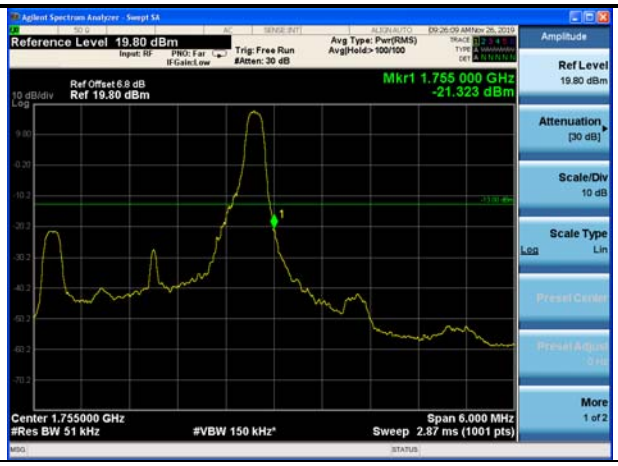

Fig.7

Fig.8

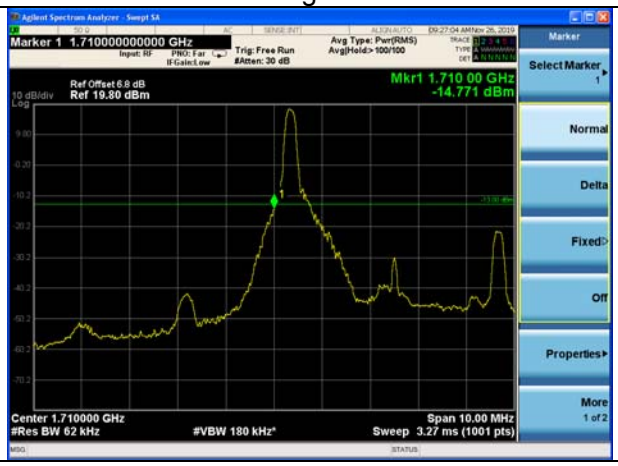

Fig.9

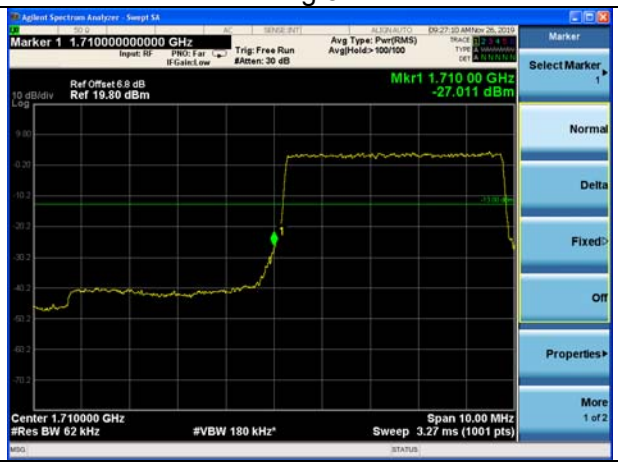

Fig.10

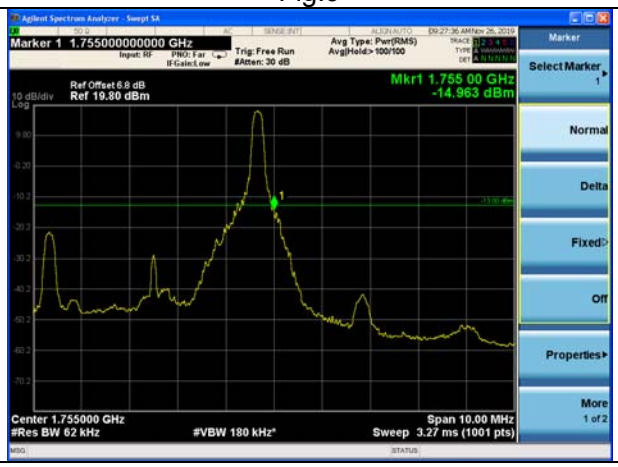

Fig.11

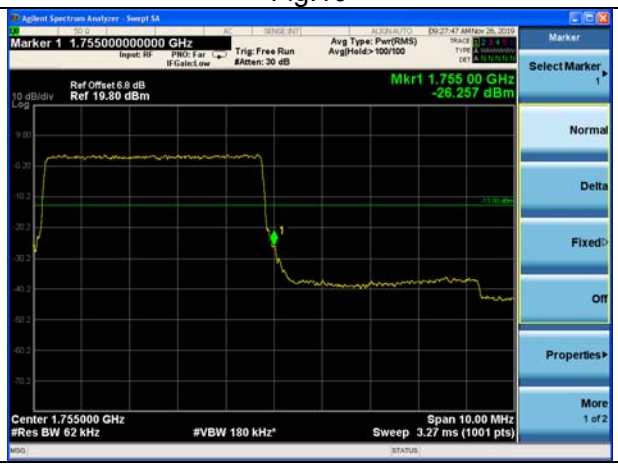

Fig.12

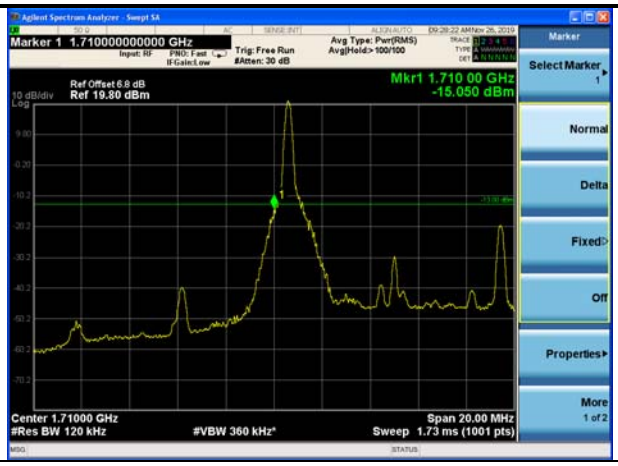

Fig.13

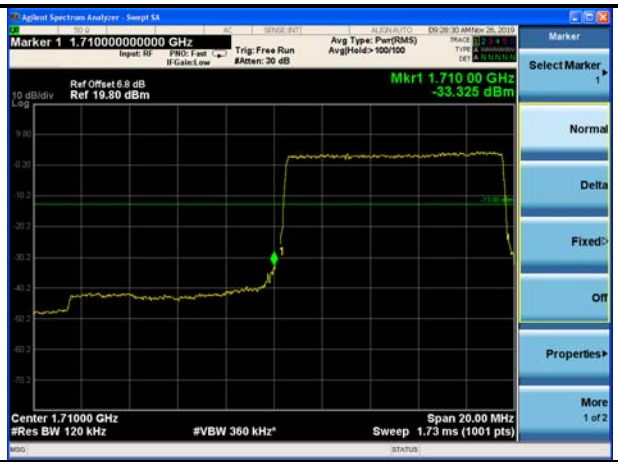

Fig.14

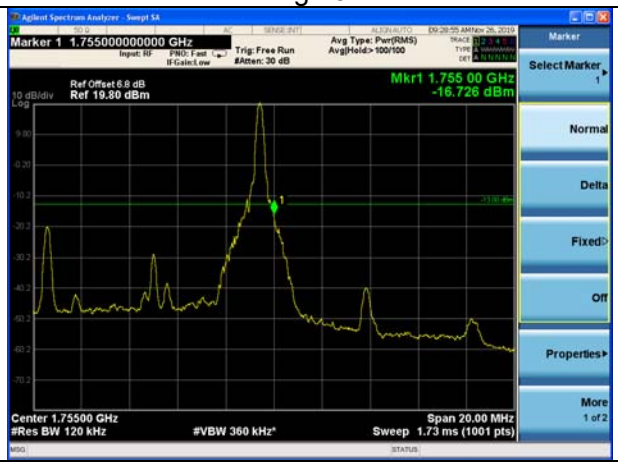

Fig.15

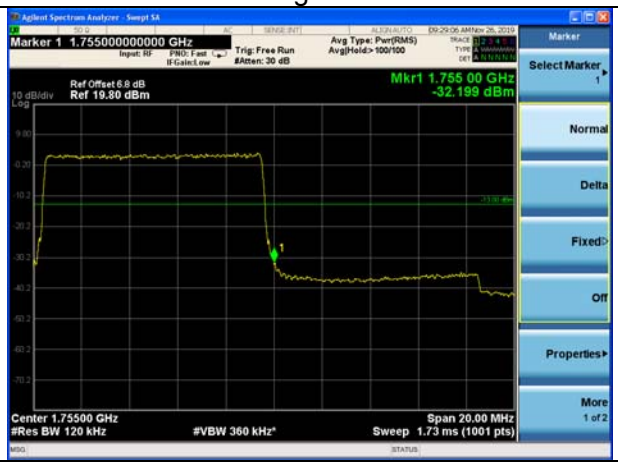

Fig.16

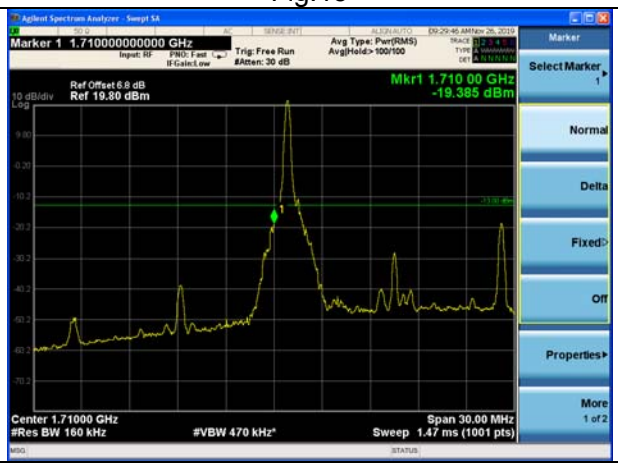

Fig.17

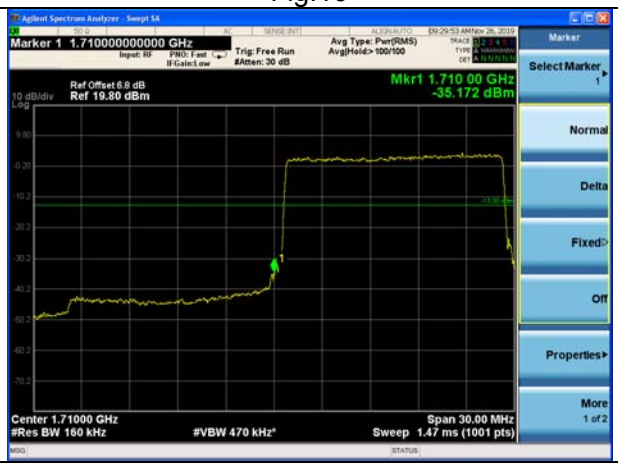

Fig.18

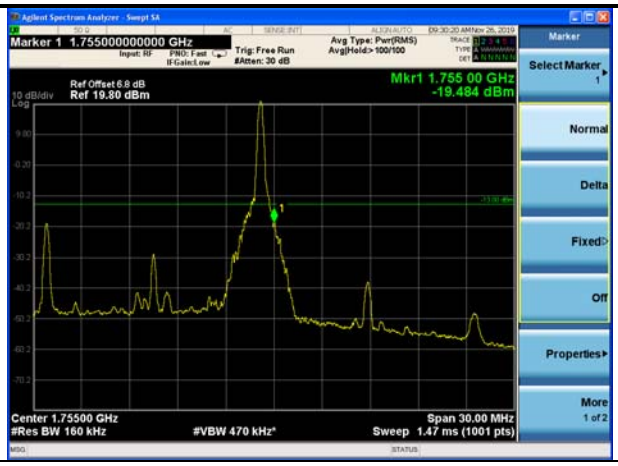

Fig.19

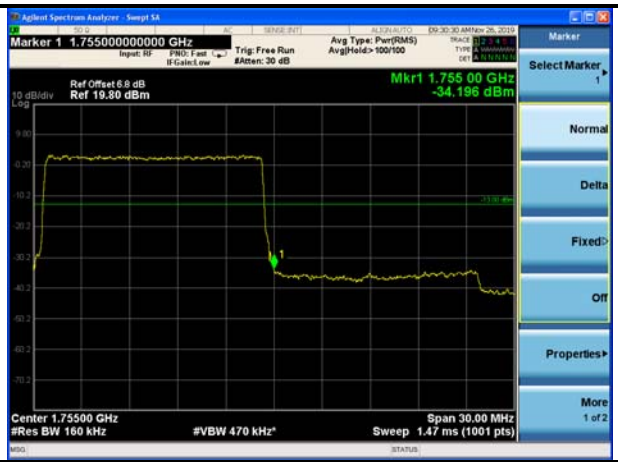

Fig.20

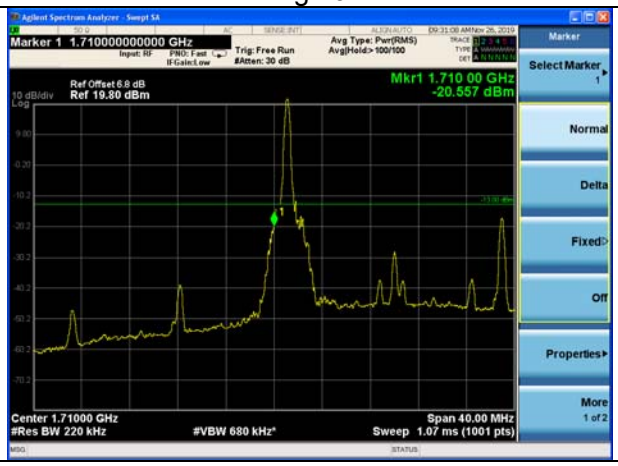

Fig.21

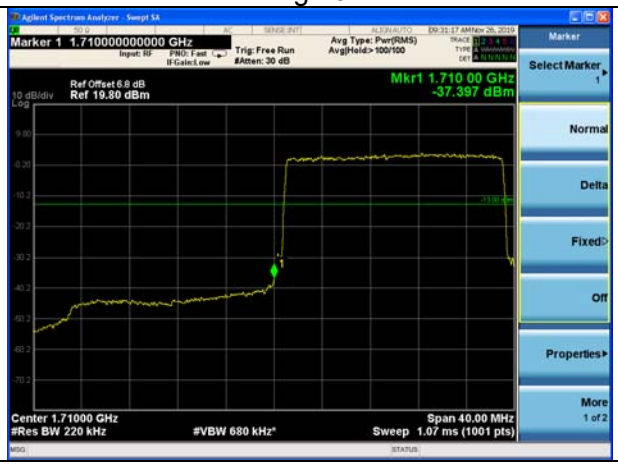

Fig.22

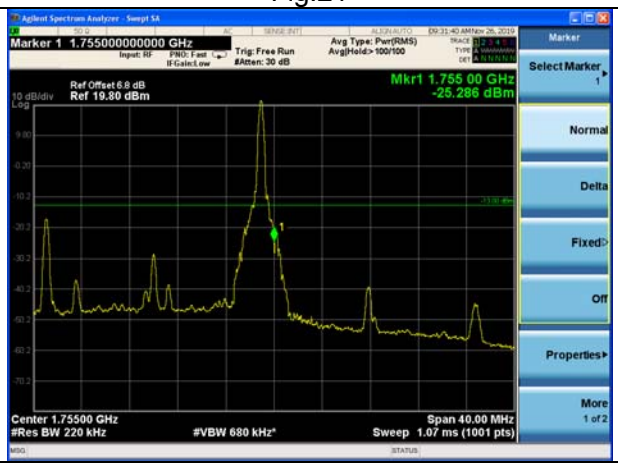

Fig.23

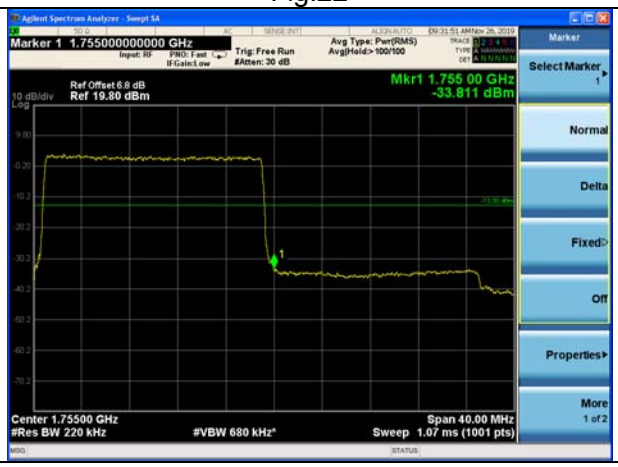

Fig.24

6 Frequency Stability

Test result:

Temperature(°C)	Voltage	Test Result (ppm) Band4 Low Channel					
		1.4M	3M	5M	10M	15M	20M
-10	NV	0.088	-0.016	-0.072	-0.054	0.056	-0.097
0	NV	0.089	0.067	-0.010	-0.017	0.073	-0.041
+10	NV	-0.024	0.077	-0.095	-0.079	0.036	0.089
+20	NV	0.000	0.000	0.000	0.000	0.000	0.000
+30	NV	-0.047	0.058	-0.032	0.072	0.067	0.026
+40	NV	0.043	0.006	0.000	-0.008	-0.073	-0.042
+50	NV	0.056	0.044	0.028	-0.069	-0.056	-0.023
+55	NV	0.024	0.007	0.018	0.077	-0.048	-0.001
+20	LV	0.096	-0.013	-0.058	0.001	0.024	0.025
+20	HV	0.054	0.007	-0.033	-0.020	-0.062	0.069

Temperature(°C)	Voltage	Test Result (ppm) Band4 High Channel					
		1.4M	3M	5M	10M	15M	20M
-10	NV	-0.066	0.079	0.023	0.085	0.045	0.035
0	NV	-0.001	0.009	0.051	0.032	0.031	0.087
+10	NV	-0.097	0.038	-0.025	0.056	-0.050	0.060
+20	NV	0.000	0.000	0.000	0.000	0.000	0.000
+30	NV	0.035	-0.033	0.100	-0.065	0.041	0.084
+40	NV	0.039	-0.069	0.087	0.035	-0.092	-0.043
+50	NV	-0.098	-0.019	0.067	-0.043	-0.001	-0.050
+55	NV	0.061	0.093	0.040	-0.063	-0.039	0.078
+20	LV	0.099	-0.057	0.029	0.024	-0.030	0.056
+20	HV	-0.031	0.092	-0.058	-0.034	-0.089	0.094

APPENDIX A – TEST DATA OF CONDUCTED EMISSION

LTE Band 5

1 RF Power Output up Antenna

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)
QPSK	824.7	20407	1.4	1	0	22.75
				1	5	22.67
				3	2	21.79
				6	0	21.84
	836.5	20525		1	0	22.80
				1	5	22.71
				3	2	21.99
				6	0	21.89
	848.3	20643		1	0	22.74
				1	5	22.81
				3	2	21.78
				6	0	21.86
16QAM	824.7	20407	1.4	1	0	22.07
				1	5	22.01
				3	2	20.72
				6	0	20.82
	836.5	20525		1	0	21.99
				1	5	21.96
				3	2	20.89
				6	0	20.92
	848.3	20643		1	0	22.11
				1	5	22.13
				3	2	20.82
				6	0	20.84
64QAM	824.7	20407	1.4	1	0	21.90
				1	5	21.86
				3	2	20.72
				6	0	20.77
	836.5	20525		1	0	21.82
				1	5	21.87
				3	2	21.00
				6	0	20.83
	848.3	20643		1	0	21.93
				1	5	21.94
				3	2	20.80
				6	0	20.90

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)
QPSK	825.5	20415	3	1	0	22.73
				1	14	22.73
				8	4	21.82
				15	0	21.88
	836.5	20525		1	0	22.67
				1	14	22.66
				8	4	21.93
				15	0	21.85
	847.5	20635		1	0	22.69
				1	14	22.79
				8	4	21.91
				15	0	21.84
16QAM	825.5	20415	3	1	0	22.01
				1	14	22.04
				8	4	20.83
				15	0	20.81
	836.5	20525		1	0	22.01
				1	14	22.01
				8	4	21.02
				15	0	20.91
	847.5	20635		1	0	22.07
				1	14	22.09
				8	4	20.82
				15	0	20.92
64QAM	825.5	20415	3	1	0	21.95
				1	14	21.91
				8	4	20.82
				15	0	20.80
	836.5	20525		1	0	21.86
				1	14	21.89
				8	4	20.90
				15	0	20.84
	847.5	20635		1	0	21.98
				1	14	22.00
				8	4	20.77
				15	0	20.89

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)
QPSK	826.5	20425	5	1	0	22.73
				1	24	22.65
				12	6	21.79
				25	0	21.79
	836.5	20525		1	0	22.72
				1	24	22.70
				12	6	22.00
				25	0	21.94
	846.5	20625		1	0	22.83
				1	24	22.70
				12	6	21.82
				25	0	21.83
16QAM	826.5	20425	5	1	0	22.11
				1	24	22.01
				12	6	20.82
				25	0	20.78
	836.5	20525		1	0	21.96
				1	24	22.10
				12	6	20.90
				25	0	20.93
	846.5	20625		1	0	22.09
				1	24	22.14
				12	6	20.79
				25	0	20.87
64QAM	826.5	20425	5	1	0	21.91
				1	24	21.97
				12	6	20.81
				25	0	20.89
	836.5	20525		1	0	21.85
				1	24	21.87
				12	6	20.87
				25	0	20.92
	846.5	20625		1	0	22.00
				1	24	21.94
				12	6	20.78
				25	0	20.83

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)
QPSK	829	20450	10	1	0	22.79
				1	49	22.79
				24	12	21.88
				50	0	21.92
	836.5	20525		1	0	22.81
				1	49	22.81
				24	12	22.06
				50	0	21.95
	844	20600		1	0	22.83
				1	49	22.83
				24	12	21.92
				50	0	21.95
16QAM	829	20450	10	1	0	22.15
				1	49	22.15
				24	12	20.87
				50	0	20.93
	836.5	20525		1	0	22.10
				1	49	22.10
				24	12	21.02
				50	0	20.97
	844	20600		1	0	22.16
				1	49	22.16
				24	12	20.92
				50	0	20.96
64QAM	829	20450	10	1	0	21.99
				1	49	21.99
				24	12	20.85
				50	0	20.91
	836.5	20525		1	0	21.95
				1	49	21.95
				24	12	21.00
				50	0	20.94
	844	20600		1	0	22.05
				1	49	22.05
				24	12	20.89
				50	0	20.95

1 RF Power Output down Antenna

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)
QPSK	824.7	20407	1.4	1	0	22.65
				1	5	22.65
				3	2	21.75
				6	0	21.75
	836.5	20525		1	0	22.68
				1	5	22.65
				3	2	21.90
				6	0	21.86
	848.3	20643		1	0	22.78
				1	5	22.73
				3	2	21.74
				6	0	21.84
16QAM	824.7	20407	1.4	1	0	21.99
				1	5	22.07
				3	2	20.72
				6	0	20.83
	836.5	20525		1	0	21.99
				1	5	21.95
				3	2	20.89
				6	0	20.84
	848.3	20643		1	0	22.02
				1	5	22.09
				3	2	20.72
				6	0	20.92
64QAM	824.7	20407	1.4	1	0	21.91
				1	5	21.84
				3	2	20.77
				6	0	20.74
	836.5	20525		1	0	21.92
				1	5	21.86
				3	2	20.89
				6	0	20.82
	848.3	20643		1	0	21.90
				1	5	21.95
				3	2	20.76
				6	0	20.86

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)
QPSK	825.5	20415	3	1	0	22.60
				1	14	22.67
				8	4	21.74
				15	0	21.83
	836.5	20525		1	0	22.73
				1	14	22.68
				8	4	21.96
				15	0	21.81
	847.5	20635		1	0	22.74
				1	14	22.65
				8	4	21.82
				15	0	21.90
16QAM	825.5	20415	3	1	0	22.04
				1	14	22.08
				8	4	20.78
				15	0	20.87
	836.5	20525		1	0	21.93
				1	14	21.90
				8	4	20.93
				15	0	20.80
	847.5	20635		1	0	22.04
				1	14	22.01
				8	4	20.74
				15	0	20.82
64QAM	825.5	20415	3	1	0	21.89
				1	14	21.85
				8	4	20.63
				15	0	20.72
	836.5	20525		1	0	21.95
				1	14	21.95
				8	4	20.94
				15	0	20.84
	847.5	20635		1	0	21.88
				1	14	21.95
				8	4	20.74
				15	0	20.91

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)
QPSK	826.5	20425	5	1	0	22.60
				1	24	22.60
				12	6	21.68
				25	0	21.74
	836.5	20525		1	0	22.68
				1	24	22.70
				12	6	21.97
				25	0	21.82
	846.5	20625		1	0	22.70
				1	24	22.68
				12	6	21.82
				25	0	21.90
16QAM	826.5	20425	5	1	0	22.06
				1	24	22.03
				12	6	20.79
				25	0	20.79
	836.5	20525		1	0	21.90
				1	24	21.89
				12	6	20.92
				25	0	20.86
	846.5	20625		1	0	22.07
				1	24	22.07
				12	6	20.74
				25	0	20.88
64QAM	826.5	20425	5	1	0	21.93
				1	24	21.90
				12	6	20.69
				25	0	20.75
	836.5	20525		1	0	21.85
				1	24	21.88
				12	6	20.86
				25	0	20.76
	846.5	20625		1	0	21.92
				1	24	21.90
				12	6	20.73
				25	0	20.91

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)
QPSK	829	20450	10	1	0	22.74
				1	49	22.74
				24	12	21.80
				50	0	21.87
	836.5	20525		1	0	22.75
				1	49	22.75
				24	12	22.04
				50	0	21.91
	844	20600		1	0	22.78
				1	49	22.78
				24	12	21.87
				50	0	21.96
16QAM	829	20450	10	1	0	22.11
				1	49	22.11
				24	12	20.79
				50	0	20.87
	836.5	20525		1	0	22.03
				1	49	22.03
				24	12	20.99
				50	0	20.93
	844	20600		1	0	22.13
				1	49	22.13
				24	12	20.85
				50	0	20.96
64QAM	829	20450	10	1	0	21.98
				1	49	21.98
				24	12	20.78
				50	0	20.86
	836.5	20525		1	0	21.95
				1	49	21.95
				24	12	20.98
				50	0	20.91
	844	20600		1	0	22.02
				1	49	22.02
				24	12	20.85
				50	0	20.95

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	
5	824.7	20407	1.4	6	0	1.0825	Fig.1	1.0811	Fig.2	1.0820	Fig.3
	836.5	20525		6	0	1.0840	Fig.4	1.0819	Fig.5	1.0826	Fig.6
	848.3	20643		6	0	1.0790	Fig.7	1.0806	Fig.8	1.0811	Fig.9
	825.5	20415	3	15	0	2.6884	Fig.10	2.6871	Fig.11	2.6778	Fig.12
	836.5	20525		15	0	2.6891	Fig.13	2.6815	Fig.14	2.6883	Fig.15
	847.5	20635		15	0	2.6751	Fig.16	2.6840	Fig.17	2.6897	Fig.18
	826.5	20425	5	25	0	4.4926	Fig.19	4.4883	Fig.20	4.4882	Fig.21
	836.5	20525		25	0	4.4768	Fig.22	4.4971	Fig.23	4.4814	Fig.24
	846.5	20625		25	0	4.4883	Fig.25	4.4788	Fig.26	4.4835	Fig.27
	829	20450	10	50	0	8.9577	Fig.28	8.9513	Fig.29	8.9554	Fig.30
	836.5	20525		50	0	8.9501	Fig.31	8.9631	Fig.32	8.9705	Fig.33
	844	20600		50	0	8.9670	Fig.34	8.9583	Fig.35	8.9670	Fig.36

Band	Carrier frequency (MHz)	Channel	BW (MHz)	RB Size	RB Offset	Bandwidth of -26dB transmitter power (MHz)					
						QPSK		16-QAM		64-QAM	
5	824.7	20407	1.4	6	0	1.242	Fig.1	1.250	Fig.2	1.232	Fig.3
	836.5	20525		6	0	1.236	Fig.4	1.236	Fig.5	1.265	Fig.6
	848.3	20643		6	0	1.224	Fig.7	1.223	Fig.8	1.246	Fig.9
	825.5	20415	3	15	0	2.893	Fig.10	2.899	Fig.11	2.894	Fig.12
	836.5	20525		15	0	2.885	Fig.13	2.895	Fig.14	2.882	Fig.15
	847.5	20635		15	0	2.886	Fig.16	2.881	Fig.17	2.886	Fig.18
	826.5	20425	5	25	0	5.075	Fig.19	5.060	Fig.20	5.067	Fig.21
	836.5	20525		25	0	5.074	Fig.22	5.127	Fig.23	5.091	Fig.24
	846.5	20625		25	0	5.064	Fig.25	5.049	Fig.26	5.037	Fig.27
	829	20450	10	50	0	9.846	Fig.28	9.792	Fig.29	9.815	Fig.30
	836.5	20525		50	0	9.865	Fig.31	9.846	Fig.32	9.746	Fig.33
	844	20600		50	0	9.685	Fig.34	9.930	Fig.35	9.757	Fig.36

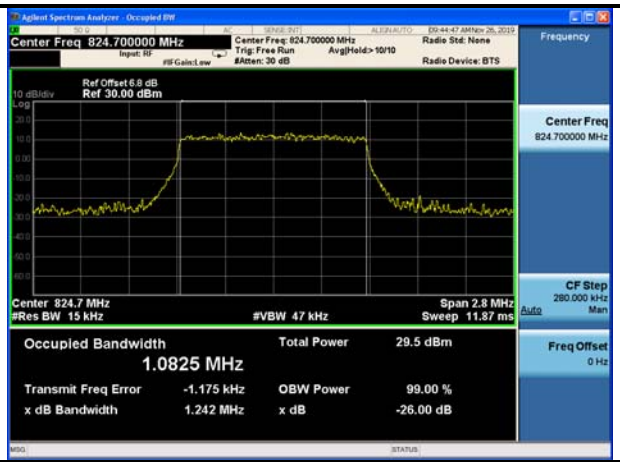

Fig.1

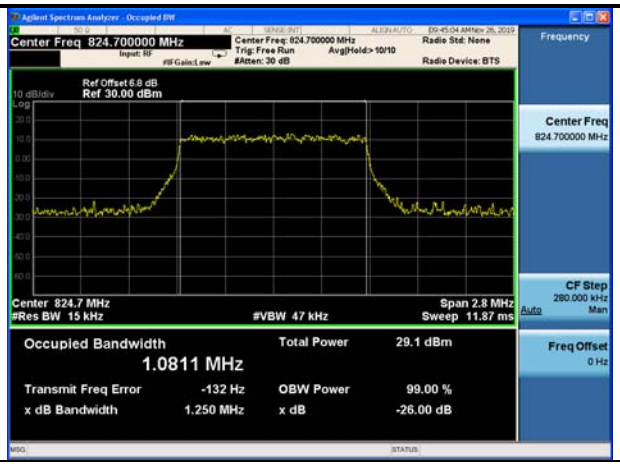

Fig.2

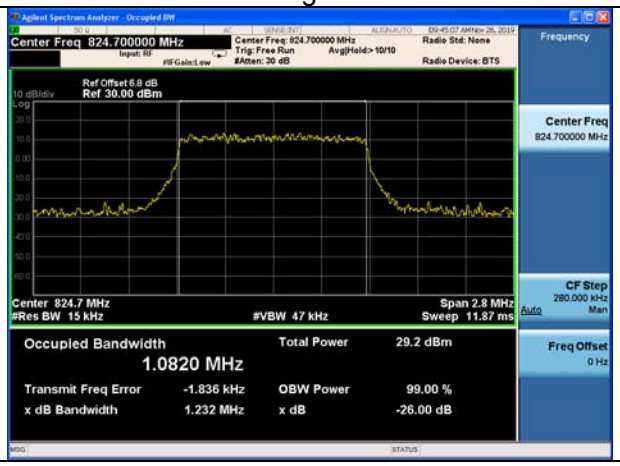

Fig.3

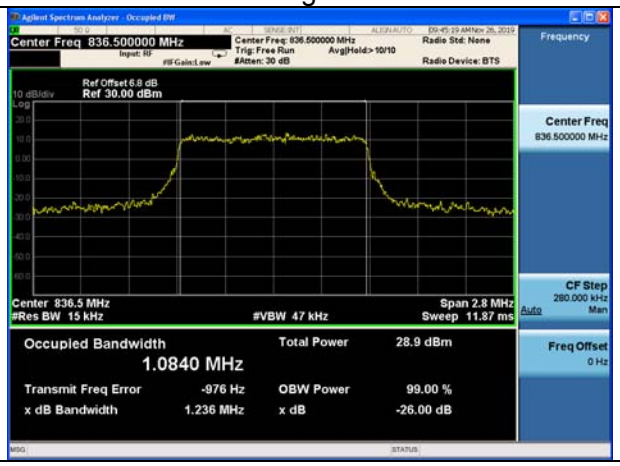

Fig.4

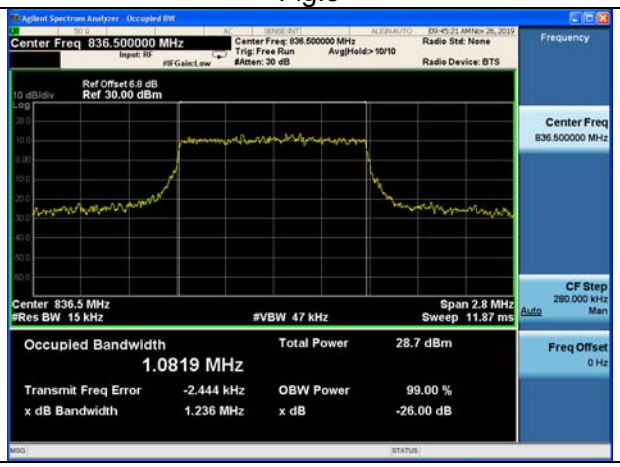

Fig.5

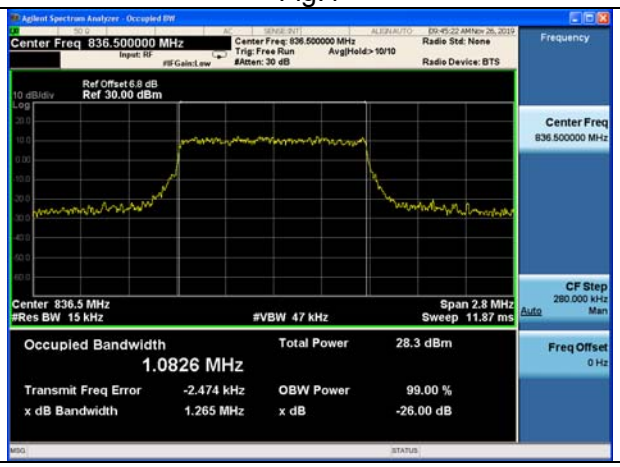

Fig.6

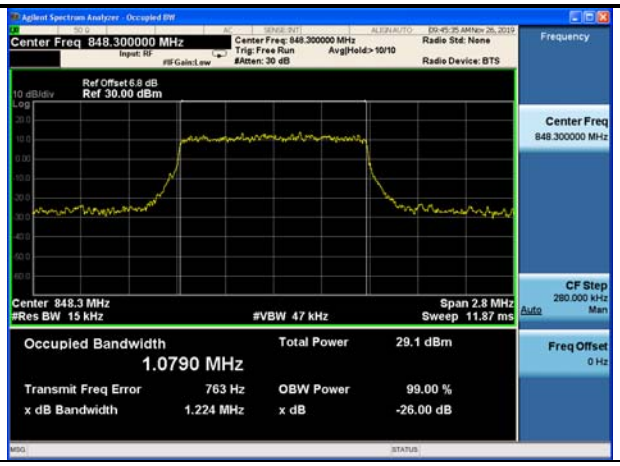

Fig.7

Fig.8

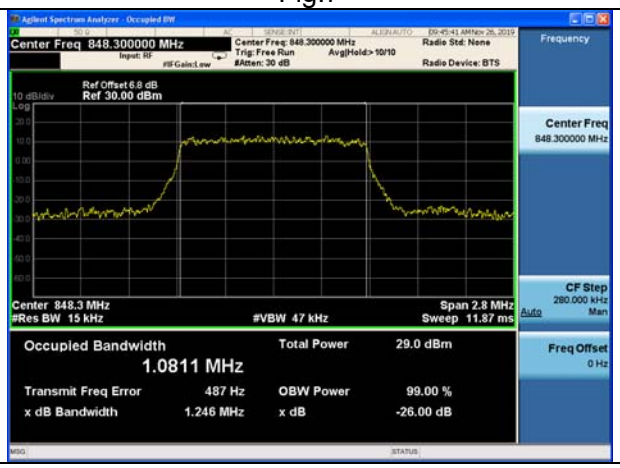

Fig.9

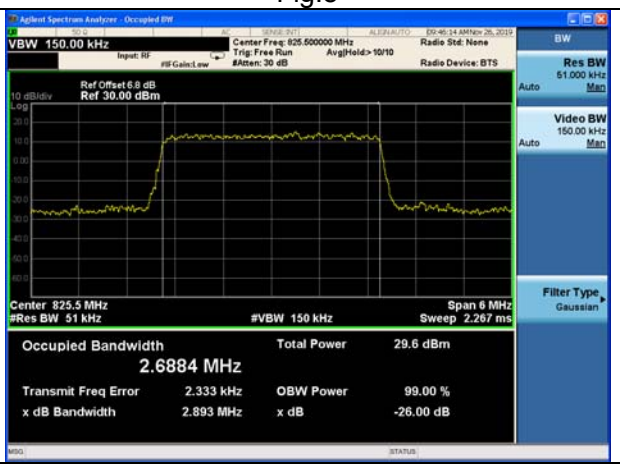

Fig.10

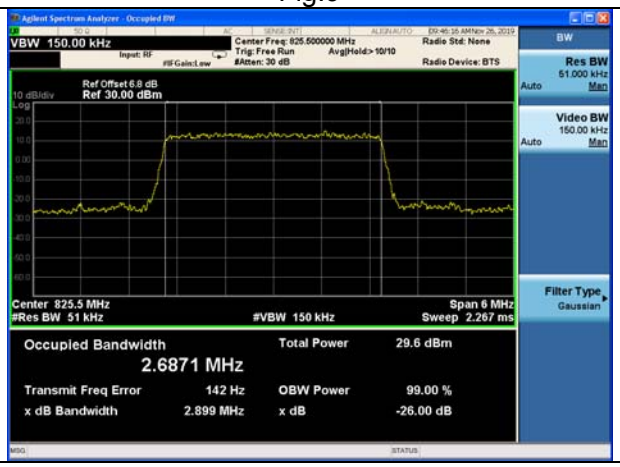

Fig.11

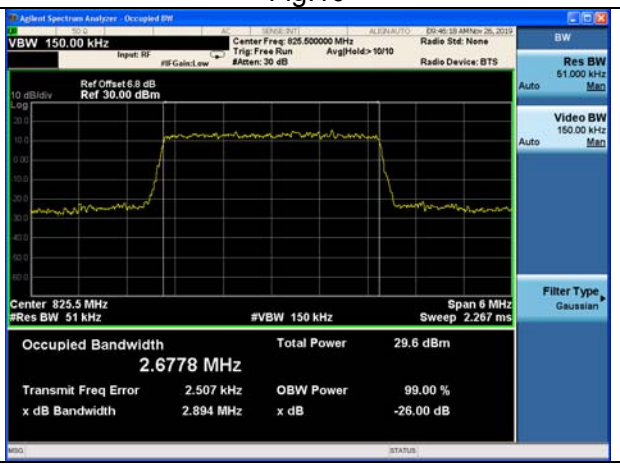

Fig.12

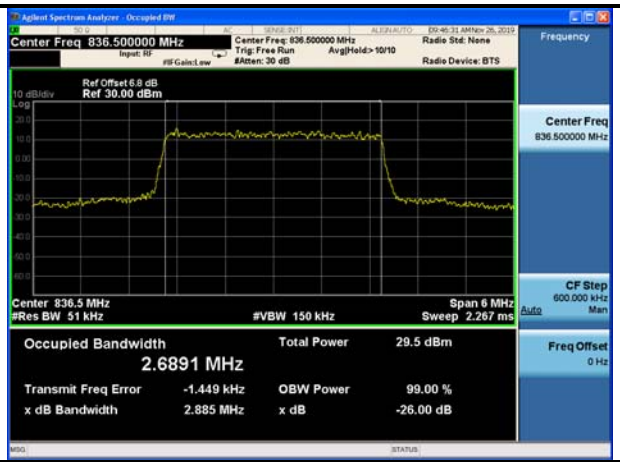

Fig.13

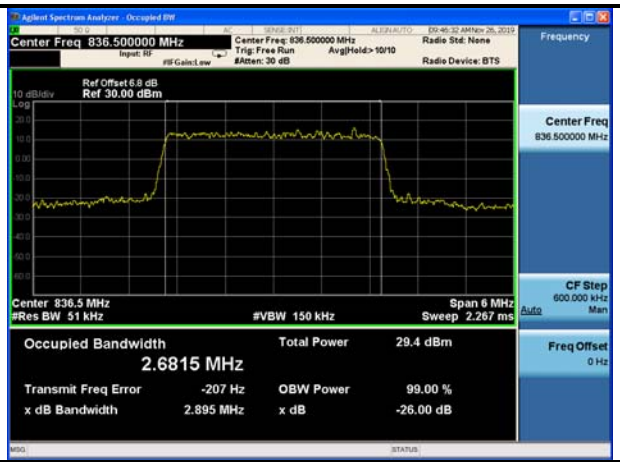

Fig.14

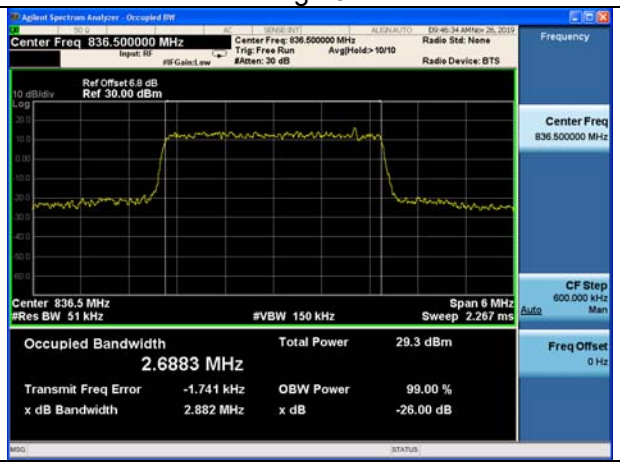

Fig.15

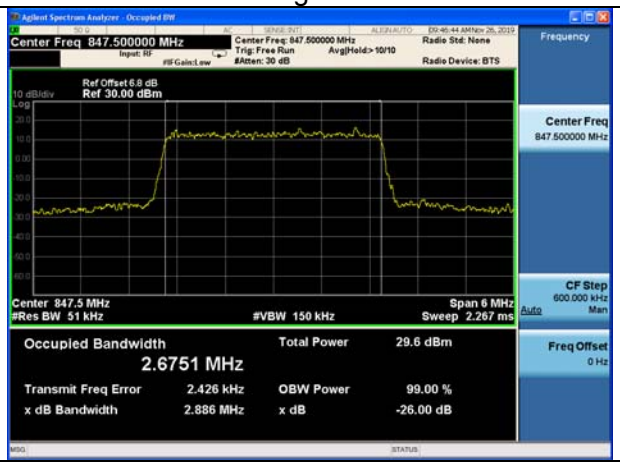

Fig.16

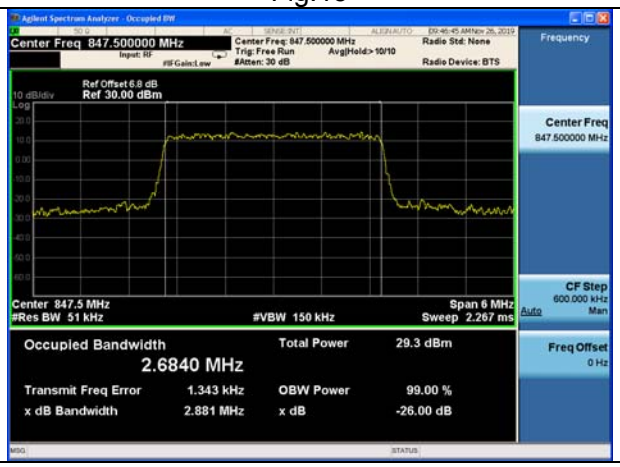

Fig.17

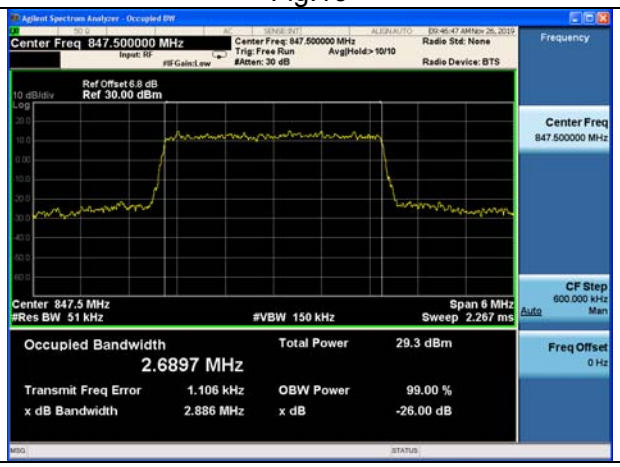

Fig.18

Fig.19

Fig.20

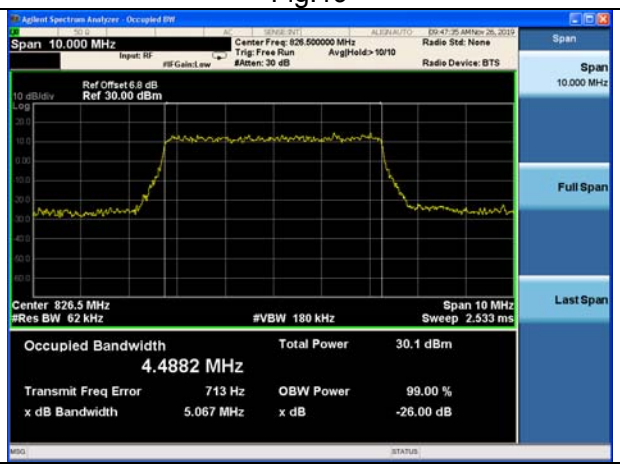

Fig.21

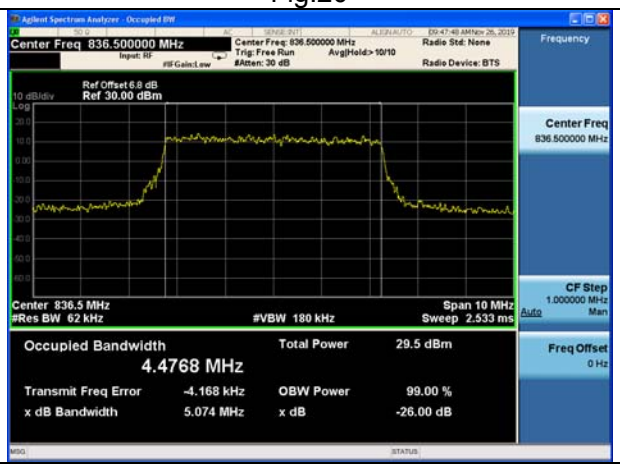

Fig.22

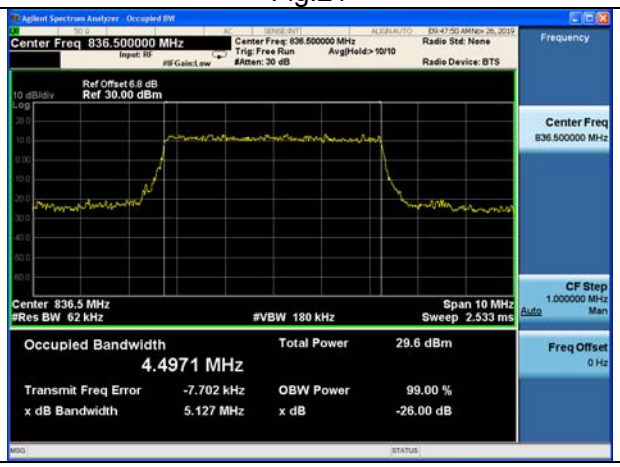

Fig.23

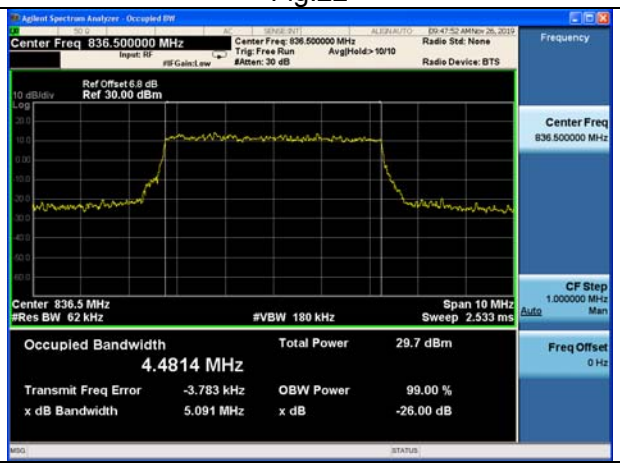

Fig.24

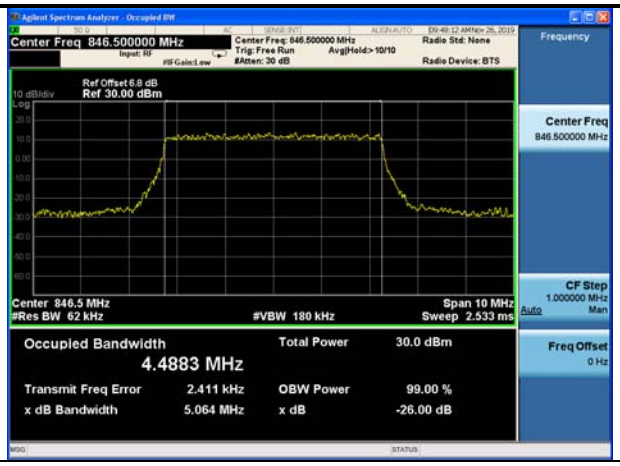

Fig.25

Fig.26

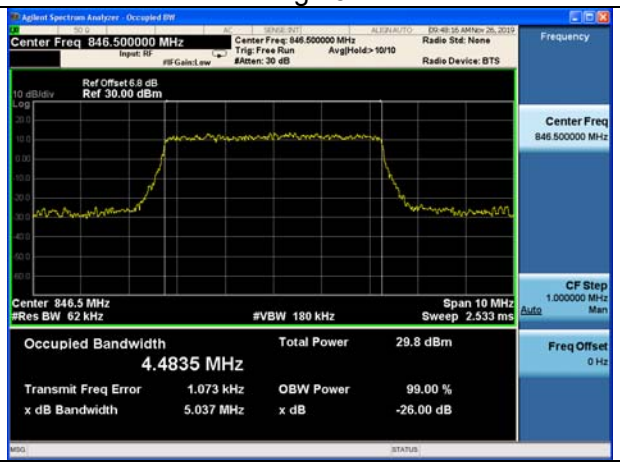

Fig.27

Fig.28

Fig.29

Fig.30

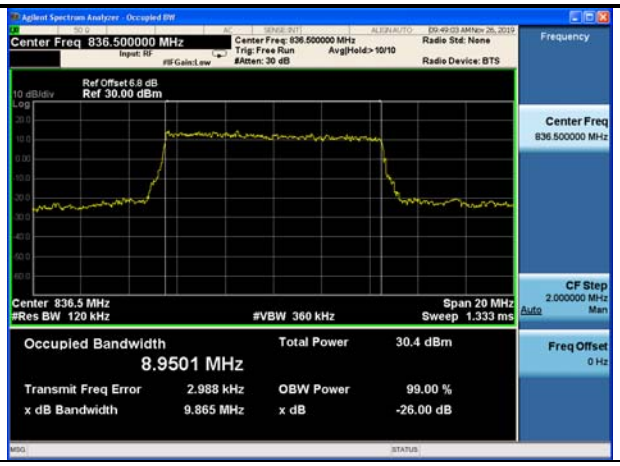

Fig.31

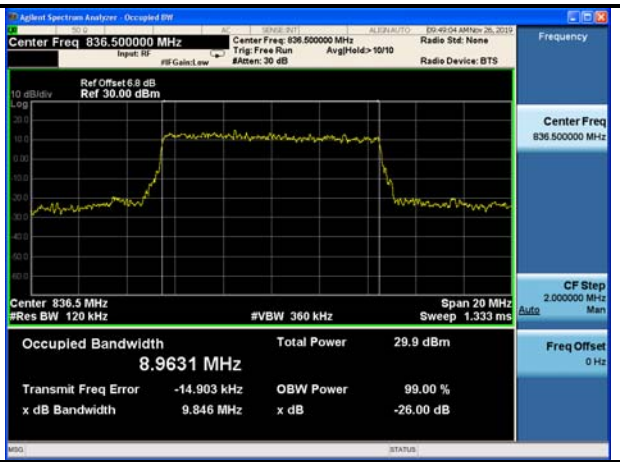

Fig.32

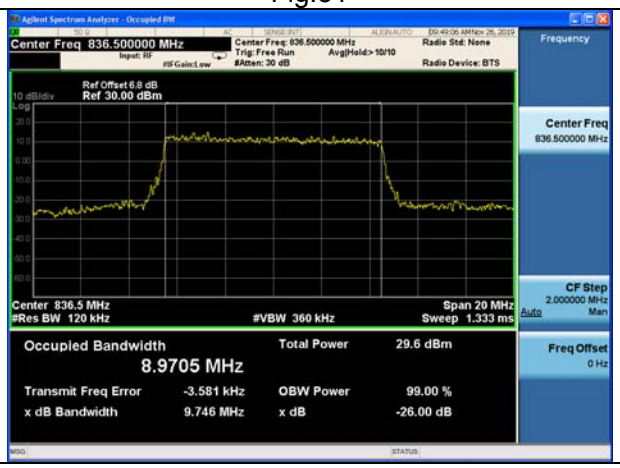

Fig.33

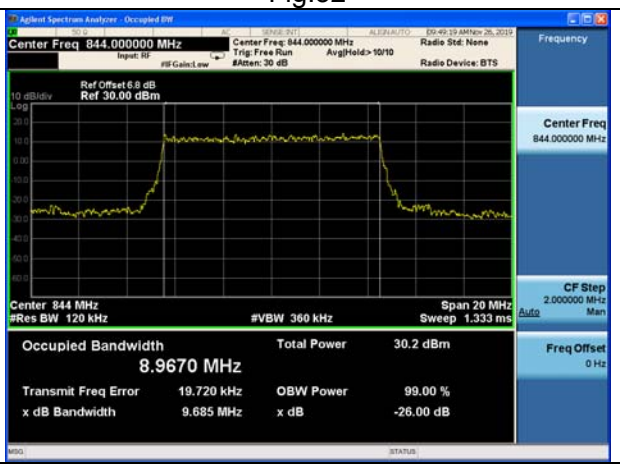

Fig.34

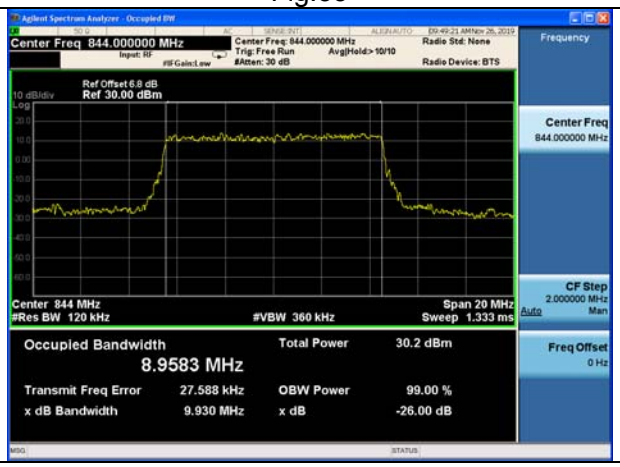

Fig.35

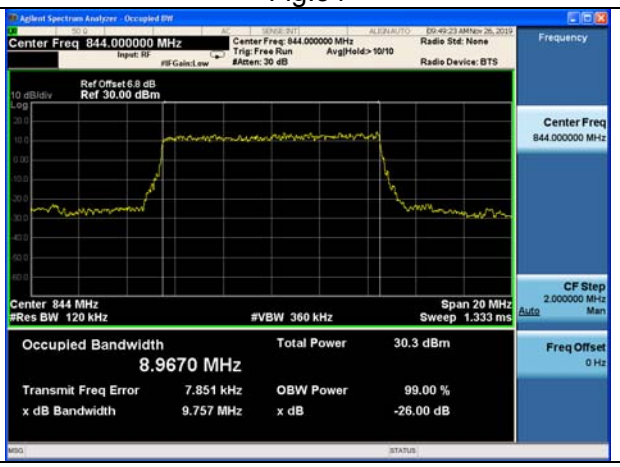

Fig.36

3 Peak-Average Ratio

Band	Carrier frequency (MHz)	Channel	BW (MHz)	RB Size	RB Offset	QPSK	16-QAM	64-QAM
5	836.5	20525	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

Fig.1

Fig.2

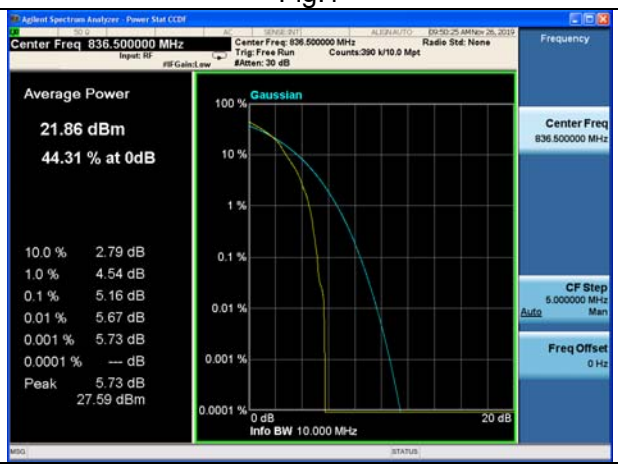

Fig.3

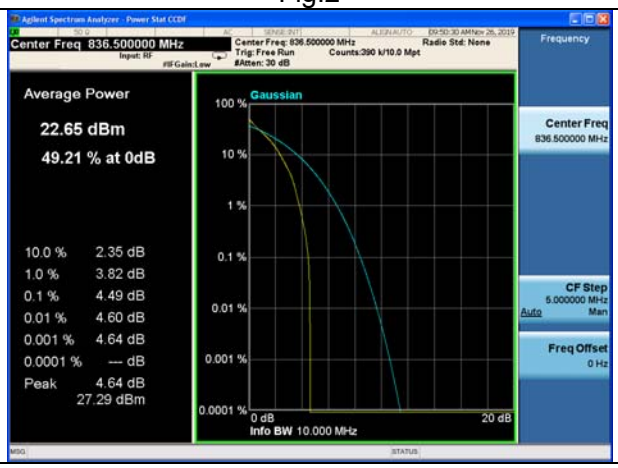

Fig.4

Fig.5

Fig.6

Fig.7

Fig.8

Fig.9

Fig.10

Agilent Spectrum Analyzer - Power Stat CCDF
Center Freq 836.500000 MHz
Center Freq: 836.500000 MHz
Trig: Free Run
Counts:390 k/10.0 Mpt
#Atten: 30 dB
Radio Std: None
Frequency
Average Power
21.91 dBm
44.48 % at 0dB
Gaussian
100 %
10 %
1 %
0.1 %
0.01 %
0.001 %
0.0001 %
10.0 % 2.76 dB
1.0 % 4.80 dB
0.1 % 5.47 dB
0.01 % 5.82 dB
0.001 % 5.95 dB
0.0001 % --- dB
Peak 6.01 dB
27.92 dBm
0 dB
20 dB
Info BW 10.000 MHz
Center Freq
836.500000 MHz
CF Step
5.000000 MHz
Auto Man
Freq Offset
0 Hz

Fig.11

Agilent Spectrum Analyzer - Power Stat CCDF
Center Freq 836.500000 MHz
Center Freq: 836.500000 MHz
Trig: Free Run
Counts:510 k/10.0 Mpt
#Atten: 30 dB
Radio Std: None
Frequency
Average Power
21.92 dBm
43.65 % at 0dB
Gaussian
100 %
10 %
1 %
0.1 %
0.01 %
0.001 %
0.0001 %
10.0 % 2.81 dB
1.0 % 4.45 dB
0.1 % 5.17 dB
0.01 % 5.64 dB
0.001 % 5.68 dB
0.0001 % --- dB
Peak 5.71 dB
27.63 dBm
0 dB
20 dB
Info BW 10.000 MHz
Center Freq
836.500000 MHz
CF Step
5.000000 MHz
Auto Man
Freq Offset
0 Hz

Fig.12

4 Spurious Emissions at antenna terminal

Band	Carrier frequency (MHz)	Channel	BW	RB Size	RB Offset	Conducted Spurious Plot
						QPSK
5	829	20450	10	1	0	Fig.1-2
	836.5	20525	10	1	0	Fig.3-4
	844	20600	10	1	0	Fig.4-5

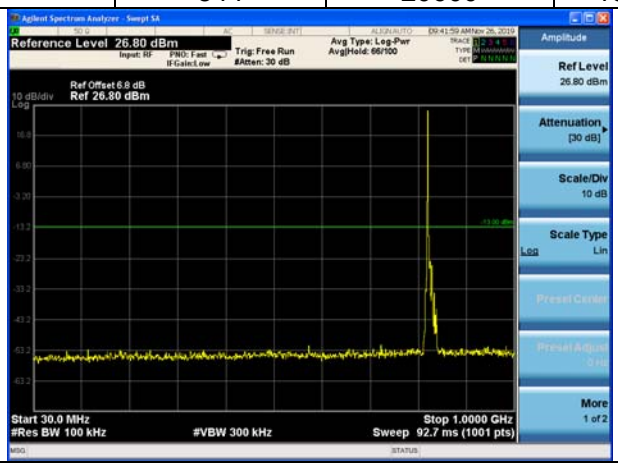

Fig.1

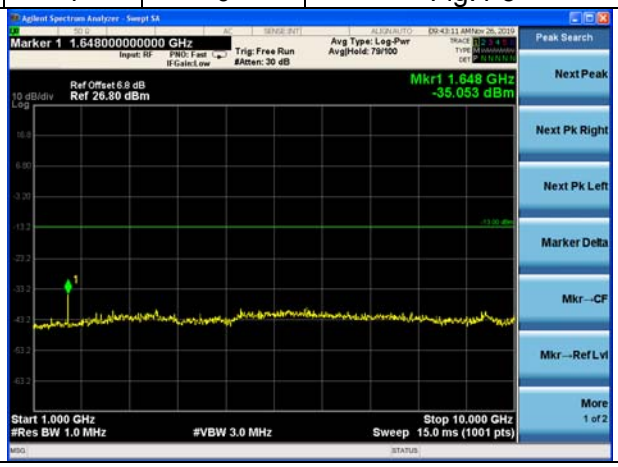

Fig.2

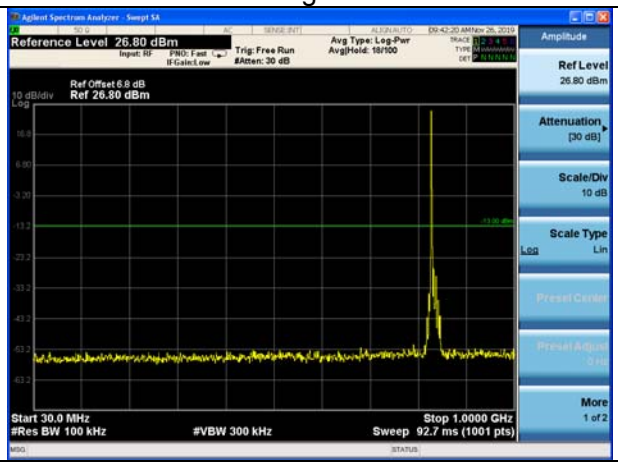

Fig3

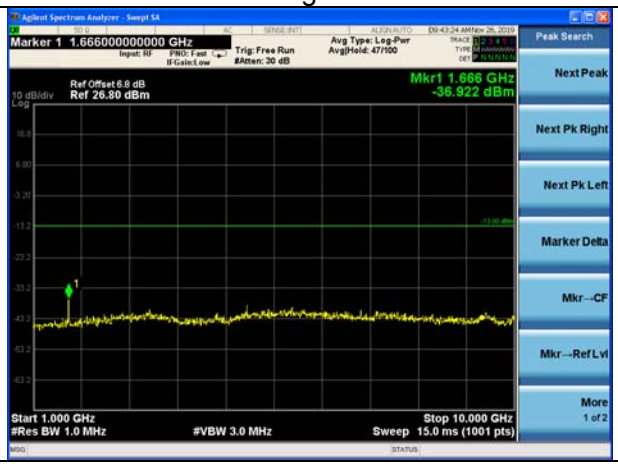

Fig4

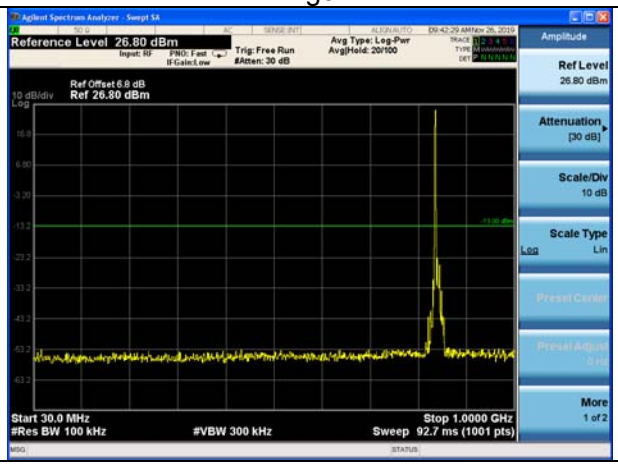

Fig5

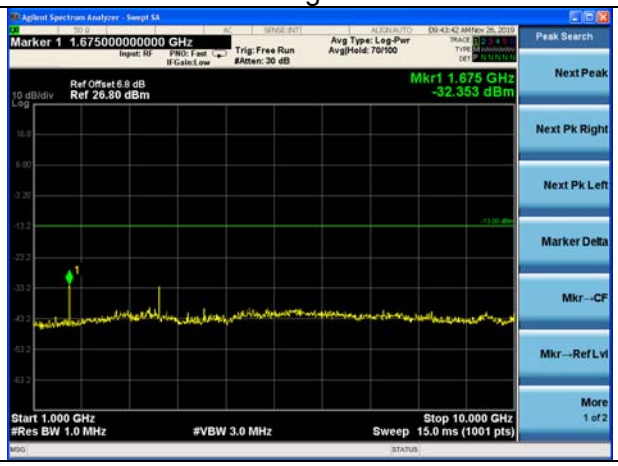

Fig6

5 Band Edges Compliance

Test result

Band	Carrier frequency (MHz)	Channel	BW	RB Size	RB Offset	Band Edges Plot
						QPSK
5	824.7	20407	1.4	1	0	Fig.1
				6	0	Fig.2
	848.3	20643		1	5	Fig.3
				6	0	Fig.4
	825.5	20415	3	1	0	Fig.5
				15	0	Fig.6
	847.5	20635		1	14	Fig.7
				15	0	Fig.8
	826.5	20425	5	1	0	Fig.9
				25	0	Fig.10
	846.5	20625		1	24	Fig.11
				25	0	Fig.12
	829	20450	10	1	0	Fig.13
				50	0	Fig.14
	844	20600		1	49	Fig.15
				50	0	Fig.16

Fig.1

Fig.2

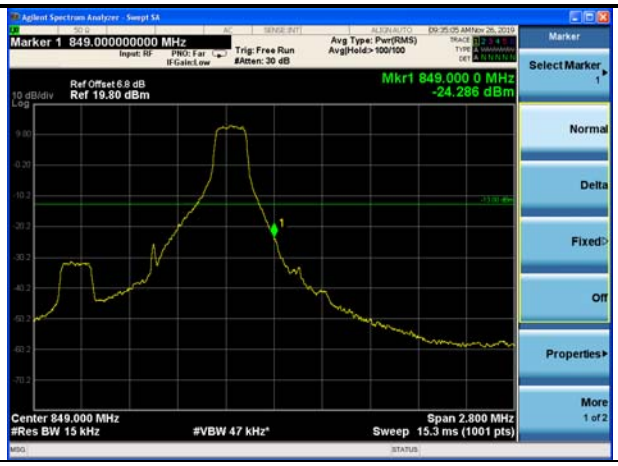

Fig.3

Fig.4

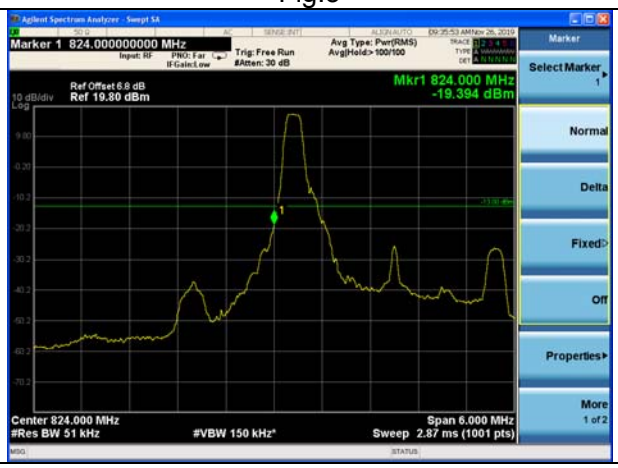

Fig.5

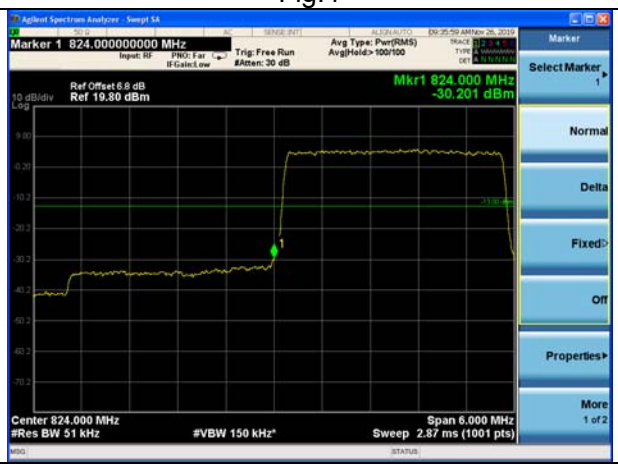

Fig.6

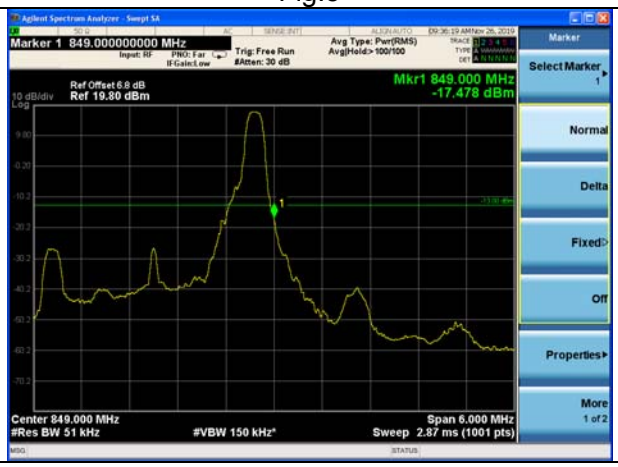

Fig.7

Fig.8

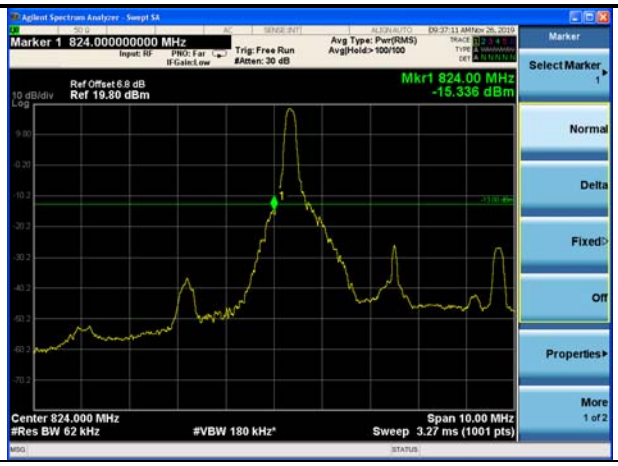

Fig.9

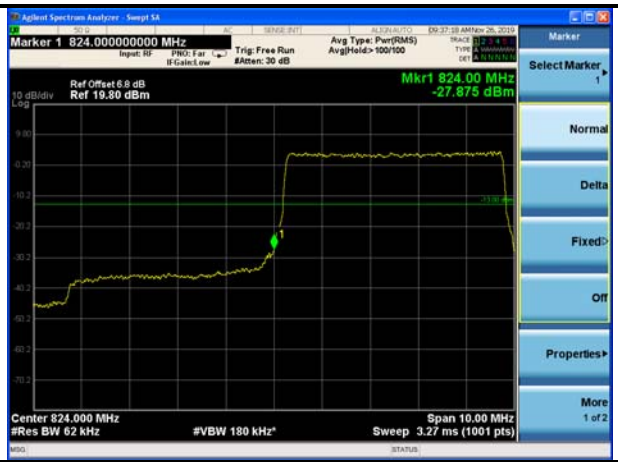

Fig.10

Fig.11

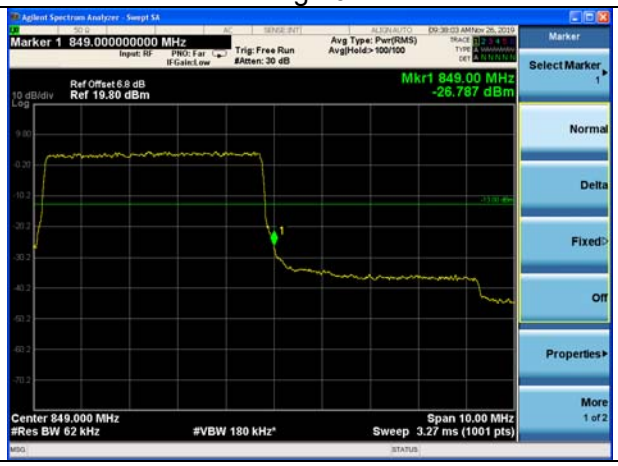

Fig.12

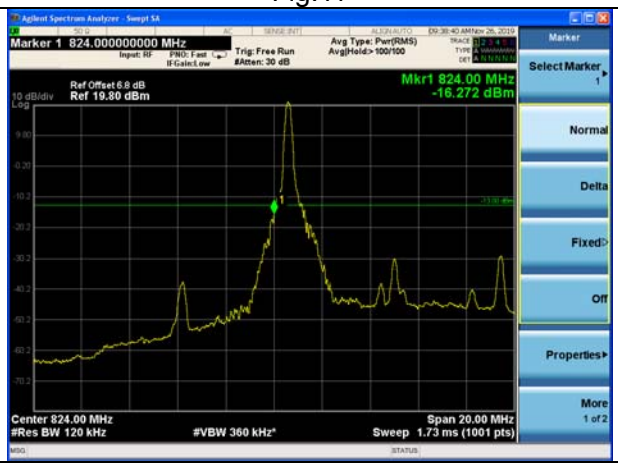

Fig.13

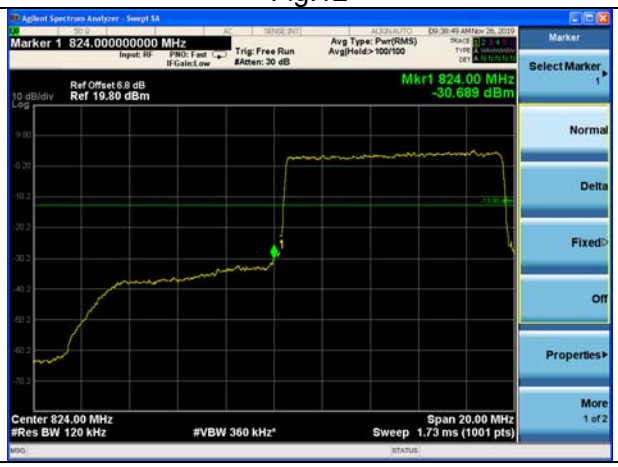

Fig.14

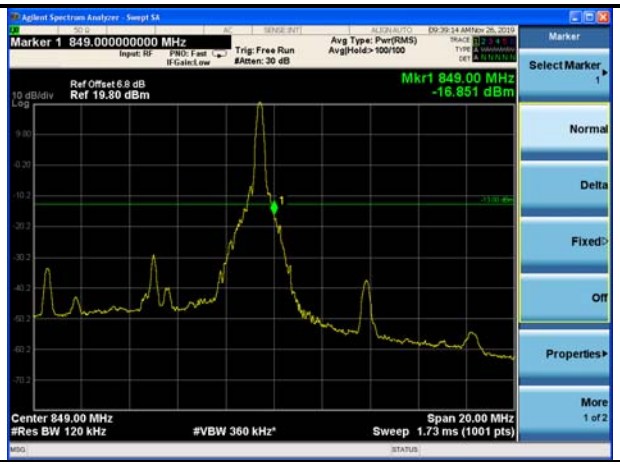
Agilent Spectrum Analyzer - Swept SA
Marker 1 849.000000000 MHz
Trig: Free Run
#Atten: 30 dB
Avg Type: Pwr(RMS)
Avg|Hold:>100/100
Ref Offset 6.8 dB
10 dB/div Ref 19.80 dBm
Mkr1 849.00 MHz
-16.851 dBm
Marker
Select Marker
Normal
Delta
Fixed
Off
Properties
More
1 of 2
Center 849.00 MHz
#Res BW 120 kHz
#VBW 360 kHz*
Span 20.00 MHz
Sweep 1.73 ms (1001 pts)

Fig.15

Agilent Spectrum Analyzer - Swept SA
Marker 1 849.000000000 MHz
Trig: Free Run
#Atten: 30 dB
Avg Type: Pwr(RMS)
Avg|Hold:>100/100
Ref Offset 6.8 dB
10 dB/div Ref 19.80 dBm
Mkr1 849.00 MHz
-27.664 dBm
Marker
Select Marker
Normal
Delta
Fixed
Off
Properties
More
1 of 2
Center 849.00 MHz
#Res BW 120 kHz
#VBW 360 kHz*
Span 20.00 MHz
Sweep 1.73 ms (1001 pts)

Fig.16

6 Frequency Stability

Test result:

Temperature(°C)	Voltage	Test Result (ppm) Band5 Low Channel			
		1.4M	3M	5M	10M
-10	NV	-0.083	0.029	-0.064	0.097
0	NV	0.024	-0.070	0.067	0.068
+10	NV	-0.061	0.013	0.043	0.033
+20	NV	0.000	0.000	0.000	0.000
+30	NV	0.090	-0.048	-0.021	-0.099
+40	NV	-0.098	-0.026	-0.034	-0.054
+50	NV	-0.006	-0.004	0.007	0.089
+55	NV	0.095	-0.100	-0.058	0.034
+20	LV	-0.034	0.073	-0.079	-0.089
+20	HV	-0.025	0.037	-0.048	-0.060

Temperature(°C)	Voltage	Test Result (ppm) Band5 High Channel			
		1.4M	3M	5M	10M
-10	NV	0.027	-0.016	0.034	-0.084
0	NV	-0.084	-0.012	-0.004	0.033
+10	NV	0.050	-0.080	0.012	-0.079
+20	NV	0.000	0.000	0.000	0.000
+30	NV	-0.032	0.032	-0.058	-0.094
+40	NV	0.034	-0.060	-0.098	0.075
+50	NV	0.036	0.023	0.074	-0.085
+55	NV	0.042	0.022	0.061	0.012
+20	LV	-0.011	0.038	-0.007	0.047
+20	HV	0.087	-0.070	0.088	0.033

APPENDIX A – TEST DATA OF CONDUCTED EMISSION

LTE Band 7

1 RF Power Output up Antenna

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)
QPSK	2502.5	20775	5	1	0	23.23
				1	24	23.35
				12	6	22.53
				25	0	22.64
	2535	21100		1	0	23.20
				1	24	23.28
				12	6	22.62
				25	0	22.53
	2567.5	21425		1	0	23.18
				1	24	23.19
				12	6	22.46
				25	0	22.33
16QAM	2502.5	20775	5	1	0	22.53
				1	24	22.44
				12	6	21.45
				25	0	21.56
	2535	21100		1	0	22.45
				1	24	22.51
				12	6	21.48
				25	0	21.48
	2567.5	21425		1	0	22.42
				1	24	22.33
				12	6	21.28
				25	0	21.27
64QAM	2502.5	20775	5	1	0	22.48
				1	24	22.39
				12	6	21.48
				25	0	21.54
	2535	21100		1	0	22.32
				1	24	22.37
				12	6	21.54
				25	0	21.53
	2567.5	21425		1	0	22.31
				1	24	22.22
				12	6	21.31
				25	0	21.31

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)
QPSK	2505	20800	10	1	0	23.26
				1	49	23.30
				24	12	22.52
				50	0	22.68
	2535	21100		1	0	23.19
				1	49	23.20
				24	12	22.58
				50	0	22.54
	2565	21400		1	0	23.19
				1	49	23.13
				24	12	22.33
				50	0	22.40
16QAM	2505	20800	10	1	0	22.50
				1	49	22.43
				24	12	21.53
				50	0	21.55
	2535	21100		1	0	22.40
				1	49	22.53
				24	12	21.50
				50	0	21.46
	2565	21400		1	0	22.30
				1	49	22.34
				24	12	21.34
				50	0	21.27
64QAM	2505	20800	10	1	0	22.40
				1	49	22.38
				24	12	21.50
				50	0	21.58
	2535	21100		1	0	22.35
				1	49	22.38
				24	12	21.49
				50	0	21.43
	2565	21400		1	0	22.22
				1	49	22.24
				24	12	21.25
				50	0	21.28

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)
QPSK	2507.5	20825	15	1	0	23.31
				1	74	23.26
				40	18	22.57
				75	0	22.63
	2535	21100		1	0	23.30
				1	74	23.29
				40	18	22.66
				75	0	22.56
	2562.5	21375		1	0	23.11
				1	74	23.17
				40	18	22.33
				75	0	22.38
16QAM	2507.5	20825	15	1	0	22.48
				1	74	22.56
				40	18	21.55
				75	0	21.58
	2535	21100		1	0	22.52
				1	74	22.41
				40	18	21.56
				75	0	21.49
	2562.5	21375		1	0	22.34
				1	74	22.40
				40	18	21.28
				75	0	21.27
64QAM	2507.5	20825	15	1	0	22.47
				1	74	22.40
				40	18	21.52
				75	0	21.48
	2535	21100		1	0	22.39
				1	74	22.39
				40	18	21.60
				75	0	21.51
	2562.5	21375		1	0	22.30
				1	74	22.26
				40	18	21.29
				75	0	21.39

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)
QPSK	2510	20850	20	1	0	23.37
				1	99	23.37
				50	25	22.64
				100	0	22.69
	2535	21100		1	0	23.33
				1	99	23.33
				50	25	22.67
				100	0	22.64
	2560	21350		1	0	23.22
				1	99	23.22
				50	25	22.46
				100	0	22.44
16QAM	2510	20850	20	1	0	22.56
				1	99	22.56
				50	25	21.56
				100	0	21.59
	2535	21100		1	0	22.54
				1	99	22.54
				50	25	21.61
				100	0	21.54
	2560	21350		1	0	22.42
				1	99	22.42
				50	25	21.40
				100	0	21.39
64QAM	2510	20850	20	1	0	22.49
				1	99	22.49
				50	25	21.56
				100	0	21.61
	2535	21100		1	0	22.47
				1	99	22.47
				50	25	21.60
				100	0	21.55
	2560	21350		1	0	22.34
				1	99	22.34
				50	25	21.39
				100	0	21.40

1 RF Power Output down Antenna

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)
QPSK	2502.5	20775	5	1	0	23.08
				1	24	22.99
				12	6	22.32
				25	0	22.23
	2535	21100		1	0	23.01
				1	24	22.89
				12	6	22.22
				25	0	22.23
	2567.5	21425		1	0	23.11
				1	24	23.04
				12	6	22.39
				25	0	22.49
16QAM	2502.5	20775	5	1	0	22.22
				1	24	22.23
				12	6	21.19
				25	0	21.21
	2535	21100		1	0	22.15
				1	24	22.14
				12	6	21.22
				25	0	21.27
	2567.5	21425		1	0	22.35
				1	24	22.34
				12	6	21.29
				25	0	21.35
64QAM	2502.5	20775	5	1	0	22.21
				1	24	22.18
				12	6	21.28
				25	0	21.24
	2535	21100		1	0	22.14
				1	24	22.13
				12	6	21.16
				25	0	21.27
	2567.5	21425		1	0	22.18
				1	24	22.17
				12	6	21.35
				25	0	21.35

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)
QPSK	2505	20800	10	1	0	23.03
				1	49	23.10
				24	12	22.32
				50	0	22.26
	2535	21100		1	0	22.91
				1	49	22.99
				24	12	22.26
				50	0	22.24
	2565	21400		1	0	23.14
				1	49	23.08
				24	12	22.40
				50	0	22.49
16QAM	2505	20800	10	1	0	22.23
				1	49	22.23
				24	12	21.25
				50	0	21.17
	2535	21100		1	0	22.22
				1	49	22.18
				24	12	21.22
				50	0	21.18
	2565	21400		1	0	22.27
				1	49	22.31
				24	12	21.40
				50	0	21.32
64QAM	2505	20800	10	1	0	22.21
				1	49	22.09
				24	12	21.27
				50	0	21.24
	2535	21100		1	0	22.14
				1	49	22.11
				24	12	21.29
				50	0	21.31
	2565	21400		1	0	22.23
				1	49	22.28
				24	12	21.41
				50	0	21.43

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)
QPSK	2507.5	20825	15	1	0	23.06
				1	74	23.04
				40	18	22.32
				75	0	22.20
	2535	21100		1	0	22.90
				1	74	22.94
				40	18	22.22
				75	0	22.28
	2562.5	21375		1	0	23.10
				1	74	23.03
				40	18	22.37
				75	0	22.39
16QAM	2507.5	20825	15	1	0	22.25
				1	74	22.23
				40	18	21.26
				75	0	21.24
	2535	21100		1	0	22.13
				1	74	22.12
				40	18	21.17
				75	0	21.24
	2562.5	21375		1	0	22.27
				1	74	22.24
				40	18	21.42
				75	0	21.38
64QAM	2507.5	20825	15	1	0	22.16
				1	74	22.14
				40	18	21.26
				75	0	21.26
	2535	21100		1	0	22.09
				1	74	22.17
				40	18	21.15
				75	0	21.19
	2562.5	21375		1	0	22.28
				1	74	22.18
				40	18	21.27
				75	0	21.40

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)
QPSK	2510	20850	20	1	0	23.10
				1	99	23.10
				50	25	22.38
				100	0	22.33
	2535	21100		1	0	23.02
				1	99	23.02
				50	25	22.37
				100	0	22.37
	2560	21350		1	0	23.16
				1	99	23.16
				50	25	22.48
				100	0	22.49
16QAM	2510	20850	20	1	0	22.29
				1	99	22.29
				50	25	21.31
				100	0	21.27
	2535	21100		1	0	22.27
				1	99	22.27
				50	25	21.31
				100	0	21.32
	2560	21350		1	0	22.38
				1	99	22.38
				50	25	21.43
				100	0	21.44
64QAM	2510	20850	20	1	0	22.22
				1	99	22.22
				50	25	21.30
				100	0	21.28
	2535	21100		1	0	22.17
				1	99	22.17
				50	25	21.30
				100	0	21.33
	2560	21350		1	0	22.29
				1	99	22.29
				50	25	21.41
				100	0	21.44

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	
7	2502.5	20775	5	25	0	4.4922	Fig.1	4.4911	Fig.2	4.4950	Fig.3
	2535	21100		25	0	4.4944	Fig.4	4.4990	Fig.5	4.4921	Fig.6
	2567.5	21425		25	0	4.4971	Fig.7	4.4904	Fig.8	4.4808	Fig.9
	2505	20800	10	50	0	8.9667	Fig.10	8.9777	Fig.11	8.9905	Fig.12
	2535	21100		50	0	8.9857	Fig.13	9.0049	Fig.14	8.9840	Fig.15
	2565	21400		50	0	8.9865	Fig.16	8.9825	Fig.17	8.9513	Fig.18
	2507.5	20825	15	75	0	13.471	Fig.19	13.490	Fig.20	13.429	Fig.21
	2535	21100		75	0	13.433	Fig.22	13.440	Fig.23	13.430	Fig.24
	2562.5	21375		75	0	13.487	Fig.25	13.425	Fig.26	13.393	Fig.27
	2510	20850	20	100	0	17.919	Fig.28	17.908	Fig.29	17.902	Fig.30
	2535	21100		100	0	17.888	Fig.31	17.890	Fig.32	17.895	Fig.33
	2560	21350		100	0	17.883	Fig.34	17.902	Fig.35	17.889	Fig.36

Band	Carrier frequency (MHz)	Channel	BW (MHz)	RB Size	RB Offset	Bandwidth of -26dB transmitter power (MHz)					
						QPSK		16-QAM		64-QAM	
7	2502.5	20775	5	25	0	5.110	Fig.1	5.048	Fig.2	5.096	Fig.3
	2535	21100		25	0	5.060	Fig.4	5.014	Fig.5	5.004	Fig.6
	2567.5	21425		25	0	5.098	Fig.7	5.078	Fig.8	5.096	Fig.9
	2505	20800	10	50	0	9.904	Fig.10	10.02	Fig.11	9.910	Fig.12
	2535	21100		50	0	10.00	Fig.13	10.03	Fig.14	10.03	Fig.15
	2565	21400		50	0	10.00	Fig.16	10.03	Fig.17	9.946	Fig.18
	2507.5	20825	15	75	0	14.63	Fig.19	14.87	Fig.20	14.74	Fig.21
	2535	21100		75	0	14.65	Fig.22	14.63	Fig.23	14.75	Fig.24
	2562.5	21375		75	0	14.64	Fig.25	14.82	Fig.26	14.70	Fig.27
	2510	20850	20	100	0	19.31	Fig.28	19.42	Fig.29	19.62	Fig.30
	2535	21100		100	0	19.30	Fig.31	19.43	Fig.32	19.19	Fig.33
	2560	21350		100	0	19.30	Fig.34	19.32	Fig.35	19.26	Fig.36

Fig.1

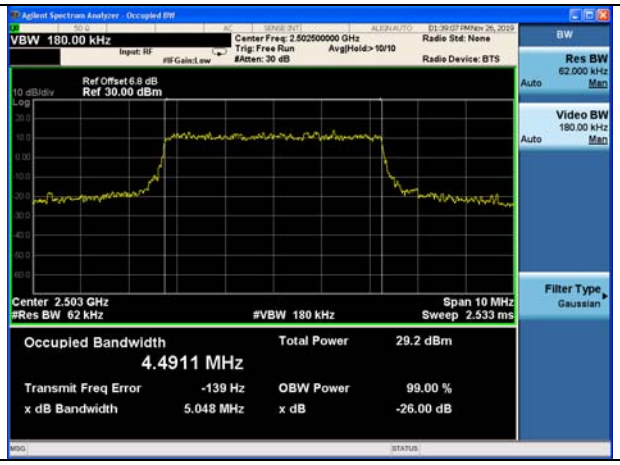

Fig.2

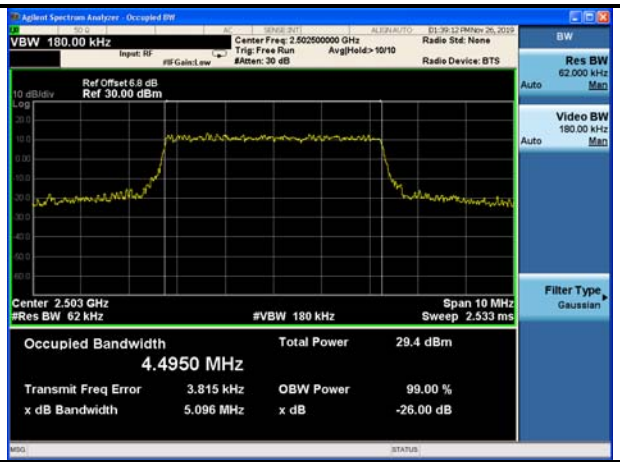

Fig.3

Fig.4

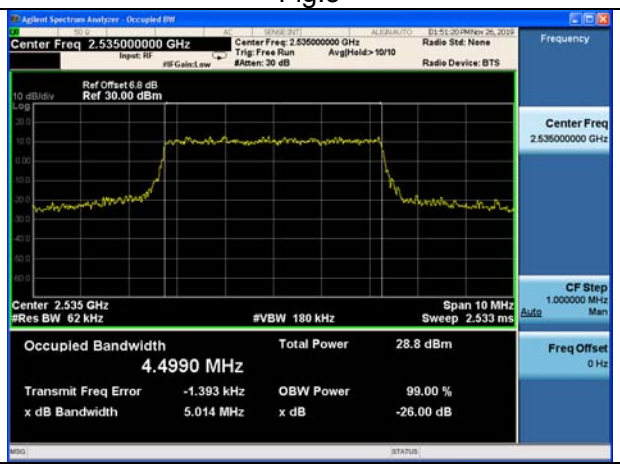

Fig.5

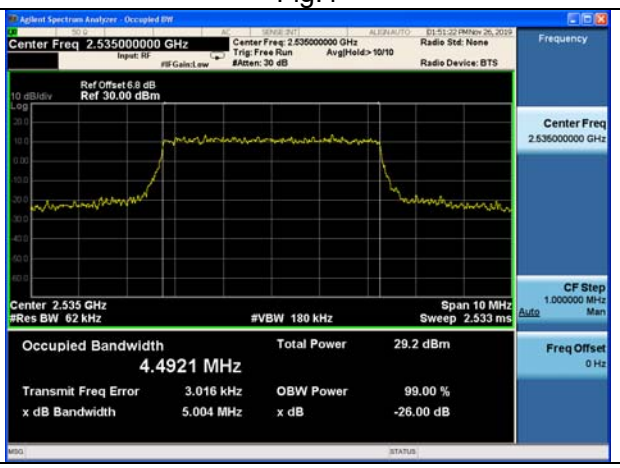

Fig.6

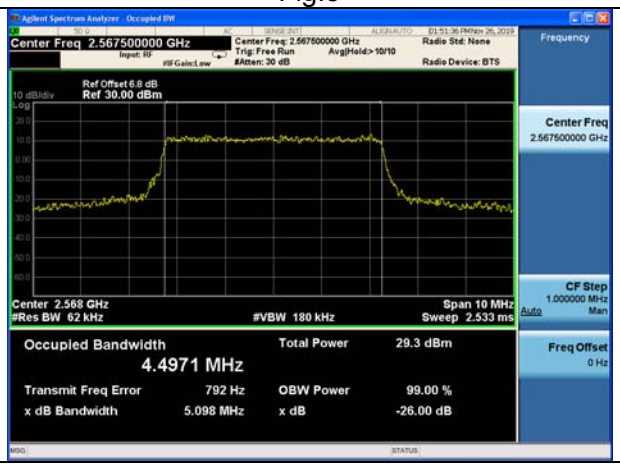

Fig.7

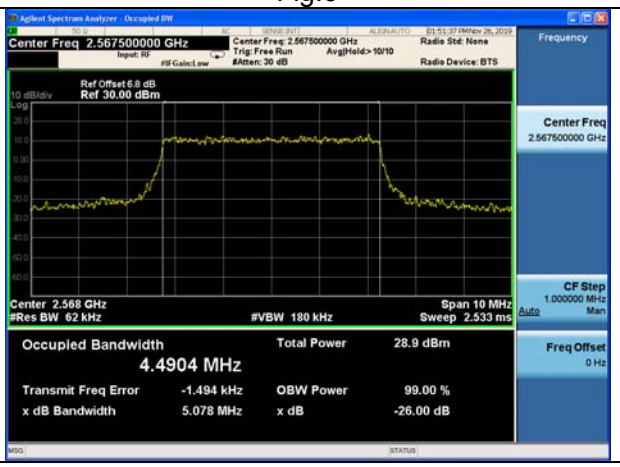

Fig.8

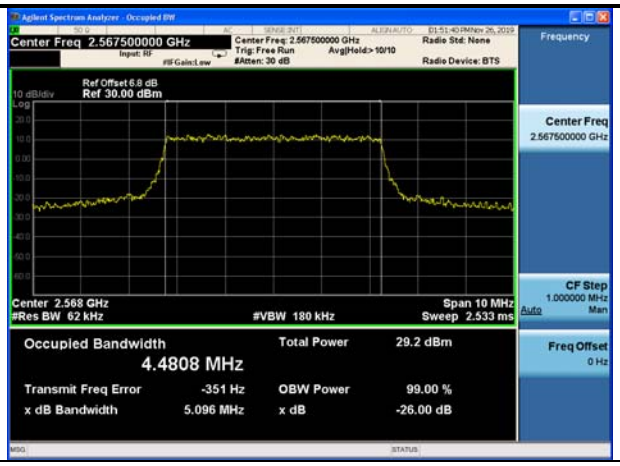

Fig.9

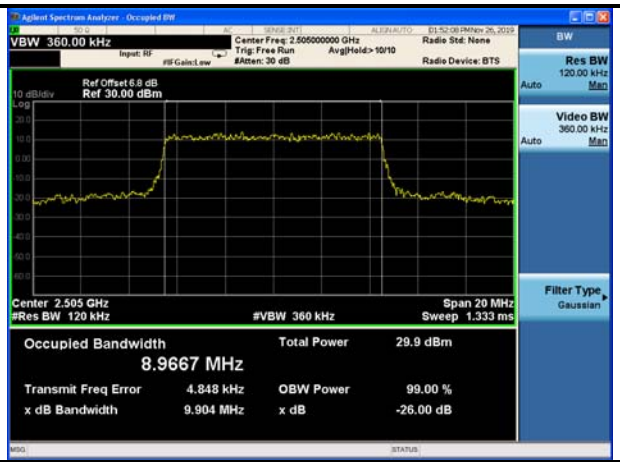

Fig.10

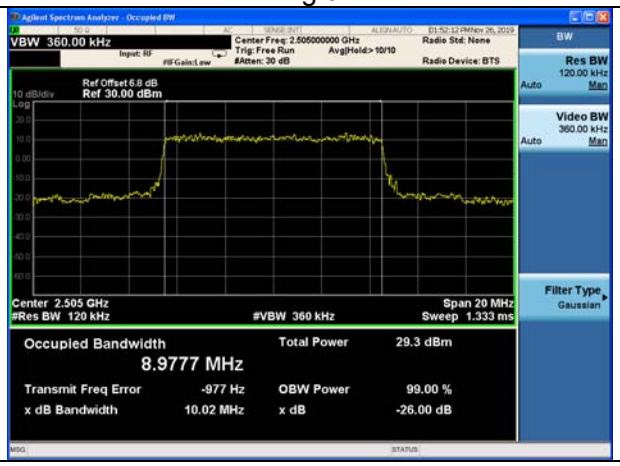

Fig.11

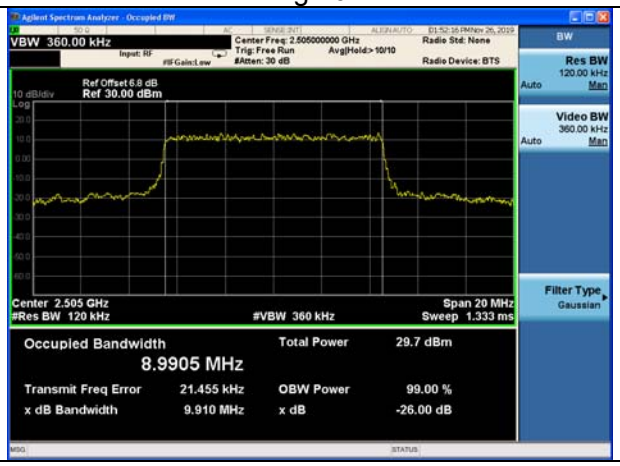

Fig.12

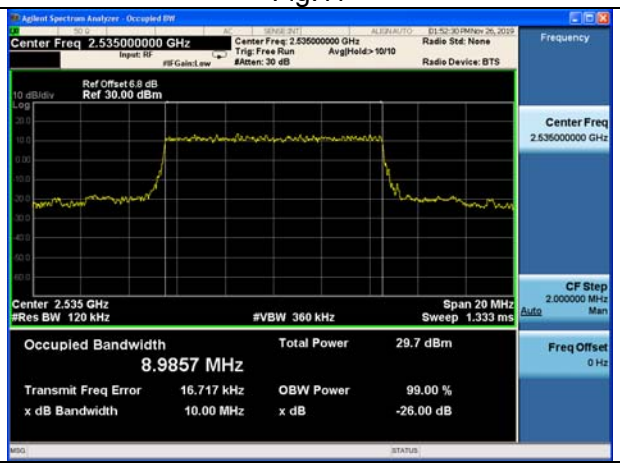

Fig.13

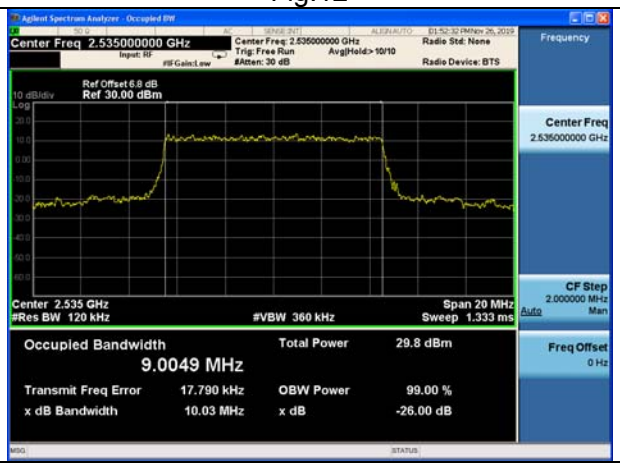

Fig.14