

## **APPENDIX A – TEST DATA OF CONDUCTED EMISSION**

### **LTE Band 4**

#### **1 RF Power Output**

<b>BANDWIDTH</b>	<b>Number of RBs</b>	<b>Frequency</b>	<b>QPSK</b>	<b>16QAM</b>	<b>64QAM</b>
1.4MHz	1RB-High (5)	1754.3 (20393)	19.76	19.15	18.89
		1732.5 (20175)	19.86	19.24	19.05
		1710.7 (19957)	19.89	19.32	19.17
	1RB-Middle (3)	1754.3 (20393)	19.76	19.16	18.86
		1732.5 (20175)	19.87	19.24	19.06
		1710.7 (19957)	19.94	19.32	19.14
	1RB-Low (0)	1754.3 (20393)	19.76	19.15	18.88
		1732.5 (20175)	19.88	19.22	19.08
		1710.7 (19957)	19.92	19.30	19.13
	3RB-High (3)	1754.3 (20393)	20.17	19.12	19.00
		1732.5 (20175)	20.21	19.23	19.15
		1710.7 (19957)	20.26	19.26	19.17
	3RB-Middle (1)	1754.3 (20393)	20.19	19.14	19.02
		1732.5 (20175)	20.23	19.23	19.16
		1710.7 (19957)	20.27	19.26	19.17
	3RB-Low (0)	1754.3 (20393)	20.19	19.17	19.03
		1732.5 (20175)	20.19	19.21	19.13
		1710.7 (19957)	20.26	19.25	19.18
	6RB (0)	1754.3 (20393)	19.10	18.19	18.30
		1732.5 (20175)	19.22	18.28	18.40
		1710.7 (19957)	19.29	18.36	18.43
3MHz	1RB-High (14)	1753.5 (20385)	19.71	19.15	18.91
		1732.5 (20175)	19.85	19.26	18.95
		1711.5 (19965)	19.85	19.22	19.05
	1RB-Middle (7)	1753.5 (20385)	19.75	19.21	18.95
		1732.5 (20175)	19.89	19.29	19.03
		1711.5 (19965)	19.90	19.30	19.10
	1RB-Low (0)	1753.5 (20385)	19.79	19.23	18.99
		1732.5 (20175)	19.86	19.22	19.03
		1711.5 (19965)	19.84	19.29	19.10
	8RB-High (7)	1753.5 (20385)	19.09	18.22	18.22
		1732.5 (20175)	19.20	18.32	18.30
		1711.5 (19965)	19.21	18.40	18.31
	8RB-Middle (4)	1753.5 (20385)	19.09	18.28	18.22
		1732.5 (20175)	19.18	18.33	18.28

	8RB-Low (0)	1711.5 (19965)	19.22	18.40	18.31	
		1753.5 (20385)	19.10	18.29	18.22	
		1732.5 (20175)	19.20	18.32	18.26	
	15RB (0)	1711.5 (19965)	19.26	18.39	18.31	
		1753.5 (20385)	19.09	18.28	18.34	
		1732.5 (20175)	19.22	18.40	18.36	
5MHz	1RB-High (24)	1711.5 (19965)	19.23	18.40	18.43	
		1752.5 (20375)	19.77	19.16	18.94	
		1732.5 (20175)	19.84	19.28	19.02	
	1RB-Middle (12)	1712.5 (19975)	19.84	19.23	19.02	
		1752.5 (20375)	19.86	19.24	19.04	
		1732.5 (20175)	19.87	19.30	19.04	
	1RB-Low (0)	1712.5 (19975)	19.87	19.33	19.10	
		1752.5 (20375)	19.88	19.26	19.07	
		1732.5 (20175)	19.88	19.23	19.03	
	12RB-High (13)	1712.5 (19975)	19.86	19.32	19.07	
		1752.5 (20375)	19.10	18.25	18.20	
		1732.5 (20175)	19.17	18.32	18.30	
	12RB-Middle (6)	1712.5 (19975)	19.20	18.33	18.34	
		1752.5 (20375)	19.12	18.26	18.22	
		1732.5 (20175)	19.18	18.32	18.31	
	12RB-Low (0)	1712.5 (19975)	19.20	18.39	18.34	
		1752.5 (20375)	19.14	18.28	18.26	
		1732.5 (20175)	19.20	18.35	18.29	
	25RB (0)	1712.5 (19975)	19.21	18.38	18.35	
		1752.5 (20375)	19.13	18.29	18.29	
		1732.5 (20175)	19.17	18.36	18.34	
10MHz	1RB-High (49)	1712.5 (19975)	19.20	18.43	18.42	
		1750 (20350)	19.74	19.23	18.93	
		1732.5 (20175)	19.83	19.25	19.00	
	1RB-Middle (24)	1715 (20000)	19.78	19.21	18.96	
		1750 (20350)	19.84	19.34	19.08	
		1732.5 (20175)	19.88	19.28	19.06	
	1RB-Low (0)	1715 (20000)	19.84	19.27	19.04	
		1750 (20350)	19.88	19.33	19.08	
		1732.5 (20175)	19.87	19.29	19.04	
	25RB-High (25)	1715 (20000)	19.87	19.26	19.09	
		1750 (20350)	19.15	18.33	18.33	
		1732.5 (20175)	19.15	18.34	18.33	
			1715 (20000)	19.12	18.34	18.33

	25RB-Middle (12)	1750 (20350)	19.17	18.39	18.37	
		1732.5 (20175)	19.17	18.38	18.36	
		1715 (20000)	19.21	18.36	18.34	
	25RB-Low (0)	1750 (20350)	19.20	18.38	18.37	
		1732.5 (20175)	19.18	18.39	18.35	
		1715 (20000)	19.19	18.40	18.39	
	50RB (0)	1750 (20350)	19.20	18.34	18.36	
		1732.5 (20175)	19.20	18.32	18.34	
		1715 (20000)	19.22	18.30	18.32	
15MHz	1RB-High (74)	1747.5 (20325)	19.72	19.20	18.95	
		1732.5 (20175)	19.78	19.26	18.98	
		1717.5 (20025)	19.74	19.23	18.95	
	1RB-Middle (37)	1747.5 (20325)	19.86	19.27	19.05	
		1732.5 (20175)	19.85	19.29	19.05	
		1717.5 (20025)	19.76	19.27	19.00	
	1RB-Low (0)	1747.5 (20325)	19.86	19.28	19.07	
		1732.5 (20175)	19.86	19.32	19.04	
		1717.5 (20025)	19.84	19.32	19.07	
	36RB-High (38)	1747.5 (20325)	19.15	18.20	18.25	
		1732.5 (20175)	19.12	18.24	18.26	
		1717.5 (20025)	19.06	18.21	18.25	
	36RB-Middle (19)	1747.5 (20325)	19.20	18.24	18.26	
		1732.5 (20175)	19.14	18.25	18.29	
		1717.5 (20025)	19.07	18.29	18.27	
	36RB-Low (0)	1747.5 (20325)	19.18	18.26	18.31	
		1732.5 (20175)	19.15	18.31	18.31	
		1717.5 (20025)	19.12	18.28	18.29	
	75RB (0)	1747.5 (20325)	19.15	18.24	18.23	
		1732.5 (20175)	19.13	18.26	18.23	
		1717.5 (20025)	19.09	18.26	18.26	
	20MHz	1RB-High (99)	1745 (20300)	19.70	19.15	18.94
			1732.5 (20175)	19.70	19.24	18.97
			1720 (20050)	19.78	19.25	18.96
		1RB-Middle (50)	1745 (20300)	19.82	19.26	19.06
			1732.5 (20175)	19.86	19.32	19.09
			1720 (20050)	19.75	19.23	18.94
1RB-Low (0)		1745 (20300)	19.82	19.32	19.04	
		1732.5 (20175)	19.87	19.38	19.11	
		1720 (20050)	19.84	19.30	19.05	
50RB-High (50)		1745 (20300)	19.15	18.30	18.32	

		1732.5 (20175)	19.14	18.27	18.30
		1720 (20050)	19.12	18.25	18.25
	50RB-Middle (25)	1745 (20300)	19.10	18.30	18.33
		1732.5 (20175)	19.20	18.32	18.32
		1720 (20050)	19.14	18.24	18.23
	50RB-Low (0)	1745 (20300)	19.15	18.31	18.33
		1732.5 (20175)	19.22	18.37	18.37
		1720 (20050)	19.16	18.27	18.31
	100RB (0)	1745 (20300)	19.13	18.26	18.24
		1732.5 (20175)	19.16	18.30	18.28
		1720 (20050)	19.08	18.19	18.17

## 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	
4	1710.7	19957	1.4	6	0	1.0900	Fig.1	1.0866	Fig.2	1.0884	Fig.3
	1732.5	20175		6	0	1.0884	Fig.4	1.0889	Fig.5	1.0889	Fig.6
	1754.3	20393		6	0	1.0885	Fig.7	1.0891	Fig.8	1.0886	Fig.9
	1711.5	19965	3	15	0	2.7280	Fig.10	2.7287	Fig.11	2.7288	Fig.12
	1732.5	20175		15	0	2.7194	Fig.13	2.7193	Fig.14	2.7208	Fig.15
	1753.5	20385		15	0	2.7231	Fig.16	2.7225	Fig.17	2.7223	Fig.18
	1712.5	19975	5	25	0	4.4987	Fig.19	4.4854	Fig.20	4.4898	Fig.21
	1732.5	20175		25	0	4.4848	Fig.22	4.4834	Fig.23	4.4876	Fig.24
	1752.5	20375		25	0	4.4944	Fig.25	4.4977	Fig.26	4.4975	Fig.27
	1715	20000	10	50	0	8.9626	Fig.28	8.9618	Fig.29	8.9604	Fig.30
	1732.5	20175		50	0	8.9472	Fig.31	8.9466	Fig.32	8.9440	Fig.33
	1750	20350		50	0	8.9564	Fig.34	8.9559	Fig.35	8.9552	Fig.36
	1717.5	20025	15	75	0	13.431	Fig.37	13.431	Fig.38	13.440	Fig.39
	1732.5	20175		75	0	13.465	Fig.40	13.461	Fig.41	13.467	Fig.42
	1747.5	20325		75	0	13.474	Fig.43	13.474	Fig.44	13.474	Fig.45
	1720	20050	20	100	0	17.896	Fig.46	17.893	Fig.47	17.891	Fig.48
	1732.5	20175		100	0	17.850	Fig.49	17.861	Fig.50	17.859	Fig.51
1745	20300	100		0	17.891	Fig.52	17.883	Fig.53	17.882	Fig.54	

Band	Carrier frequency (MHz)	Channel	BW (MHz)	RB Size	RB Offset	Bandwidth of -26dB transmitter power (MHz)					
						QPSK		16-QAM		64-QAM	
4	1710.7	19957	1.4	6	0	1.432	Fig.1	1.420	Fig.2	1.429	Fig.3
	1732.5	20175		6	0	1.432	Fig.4	1.452	Fig.5	1.440	Fig.6
	1754.3	20393		6	0	1.452	Fig.7	1.453	Fig.8	1.453	Fig.9
	1711.5	19965	3	15	0	3.477	Fig.10	3.477	Fig.11	3.477	Fig.12
	1732.5	20175		15	0	3.510	Fig.13	3.528	Fig.14	3.528	Fig.15
	1753.5	20385		15	0	3.455	Fig.16	3.455	Fig.17	3.464	Fig.18
	1712.5	19975	5	25	0	5.256	Fig.19	5.153	Fig.20	5.177	Fig.21
	1732.5	20175		25	0	5.040	Fig.22	5.040	Fig.23	5.081	Fig.24
	1752.5	20375		25	0	5.241	Fig.25	5.241	Fig.26	5.241	Fig.27
	1715	20000	10	50	0	10.04	Fig.28	10.07	Fig.29	10.06	Fig.30
	1732.5	20175		50	0	9.900	Fig.31	9.900	Fig.32	9.900	Fig.33
	1750	20350		50	0	9.974	Fig.34	9.974	Fig.35	9.974	Fig.36
	1717.5	20025	15	75	0	15.14	Fig.37	15.14	Fig.38	15.08	Fig.39
	1732.5	20175		75	0	14.93	Fig.40	14.95	Fig.41	14.95	Fig.42
	1747.5	20325		75	0	15.04	Fig.43	15.04	Fig.44	15.04	Fig.45
	1720	20050	20	100	0	20.15	Fig.46	20.15	Fig.47	20.18	Fig.48
	1732.5	20175		100	0	20.28	Fig.49	20.28	Fig.50	20.28	Fig.51
1745	20300	100		0	20.25	Fig.52	19.96	Fig.53	19.96	Fig.54	

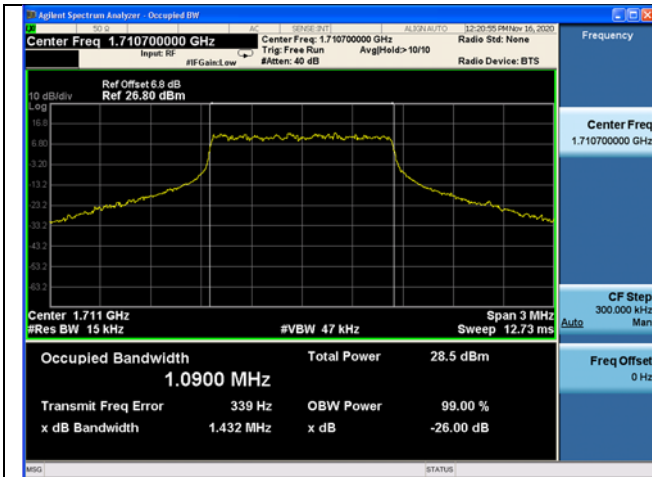


Fig.1

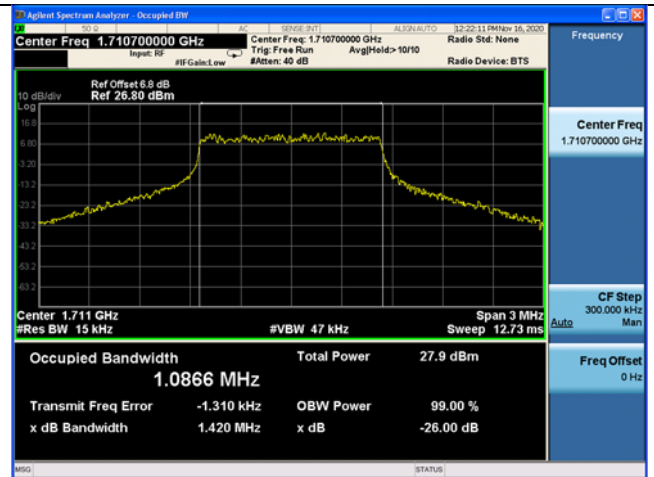


Fig.2

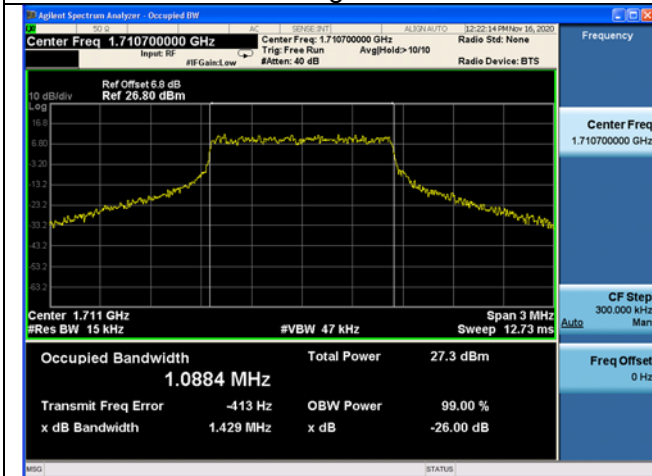


Fig.3

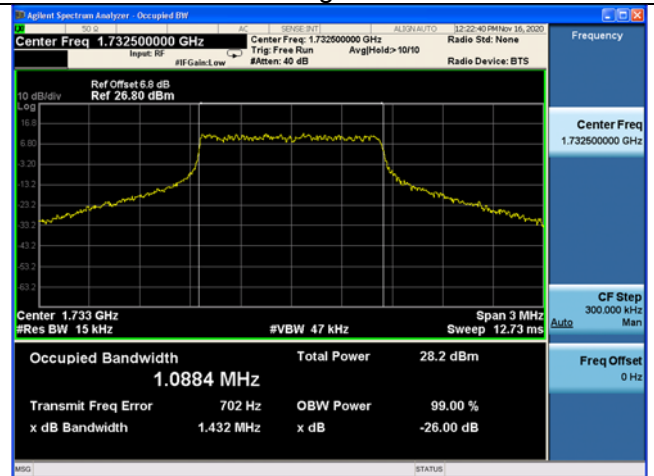


Fig.4

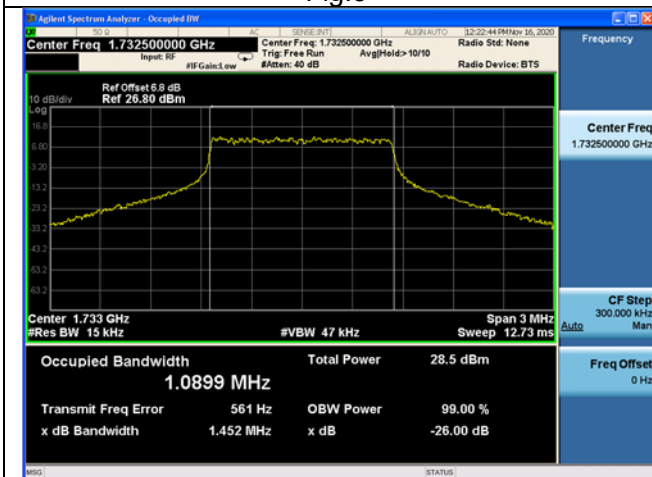


Fig.5

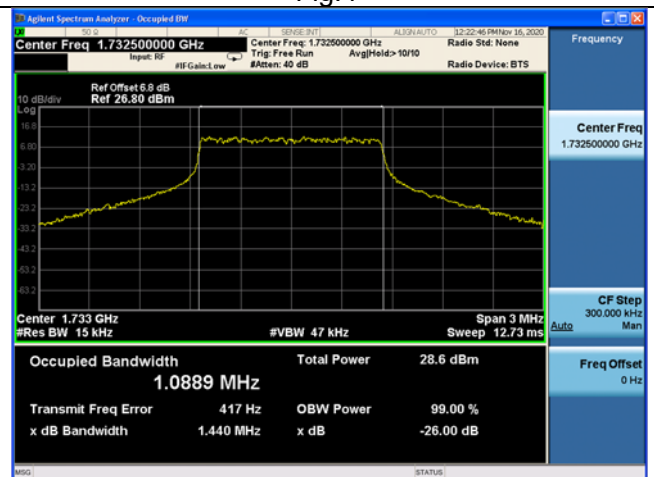


Fig.6

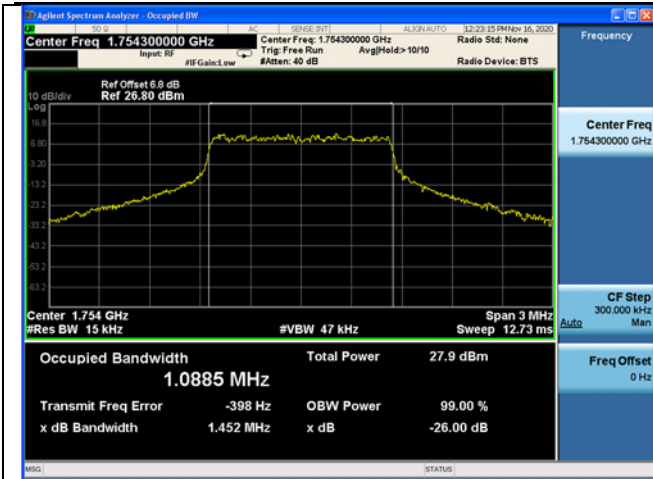


Fig.7

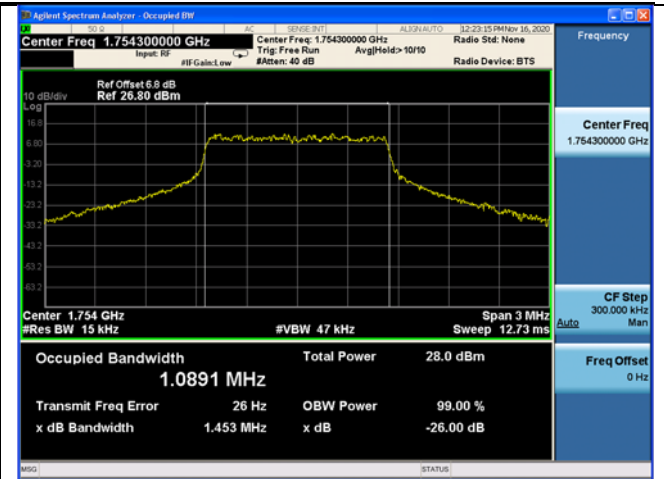


Fig.8



Fig.9

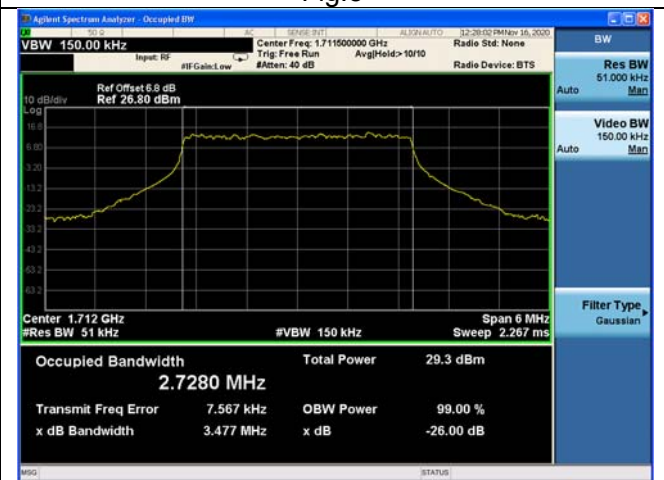


Fig.10

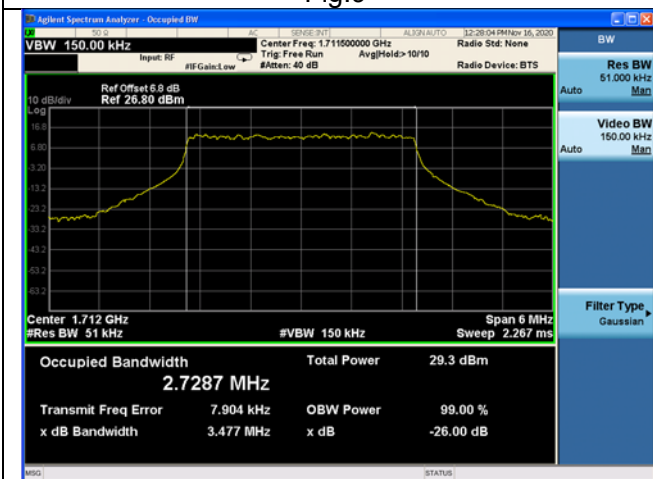


Fig.11

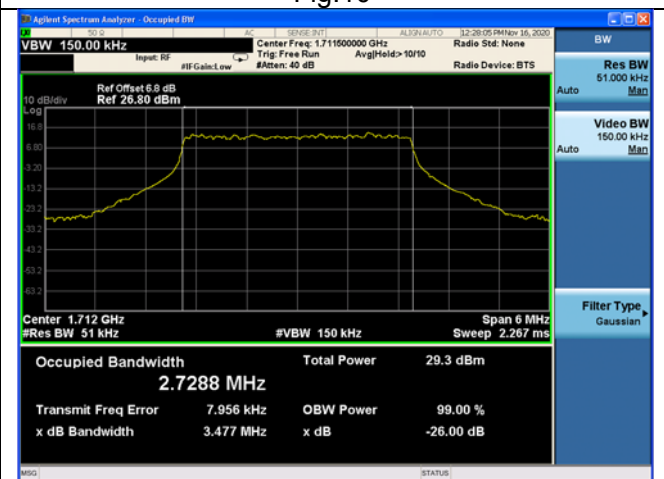


Fig.12

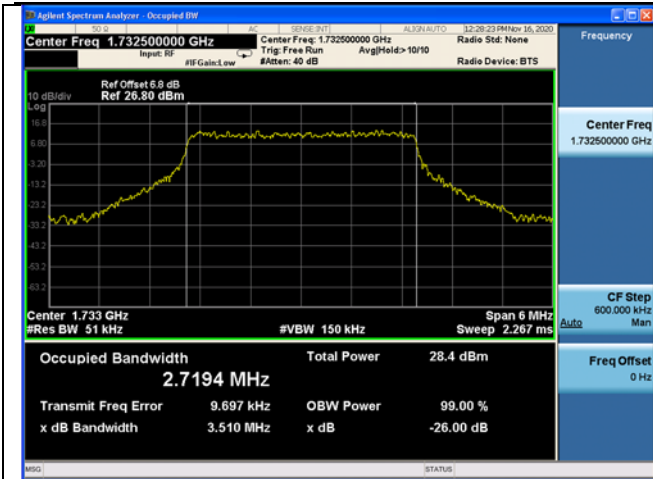


Fig.13

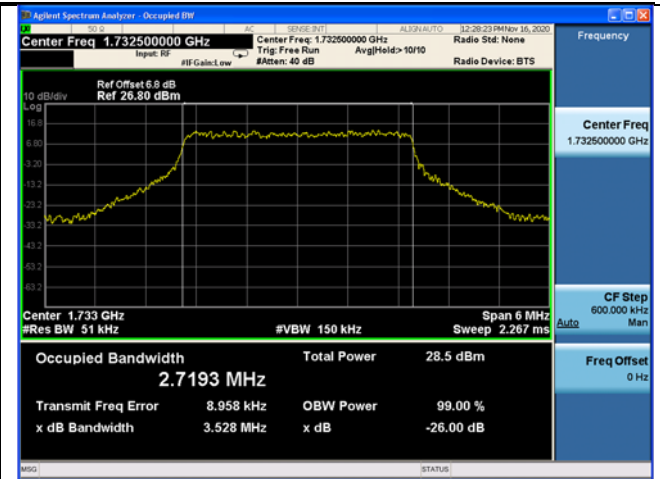


Fig.14

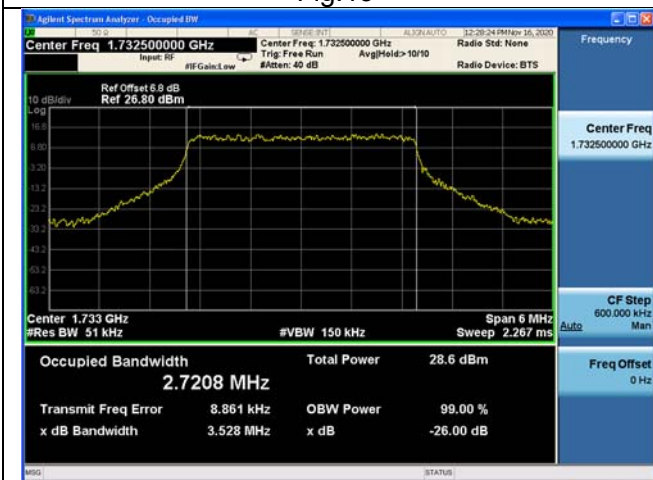


Fig.15

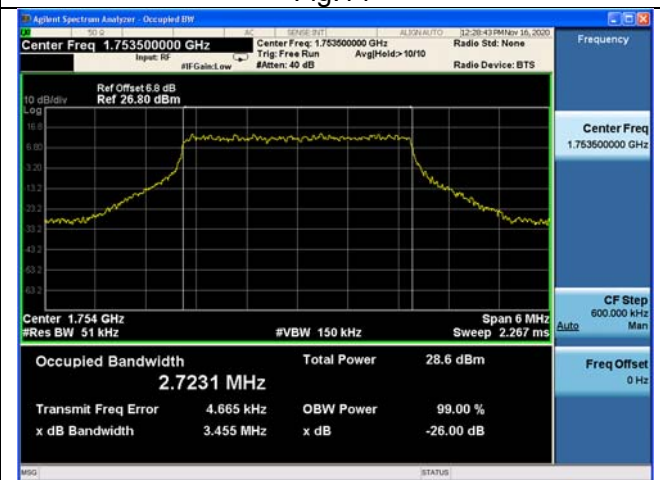


Fig.16

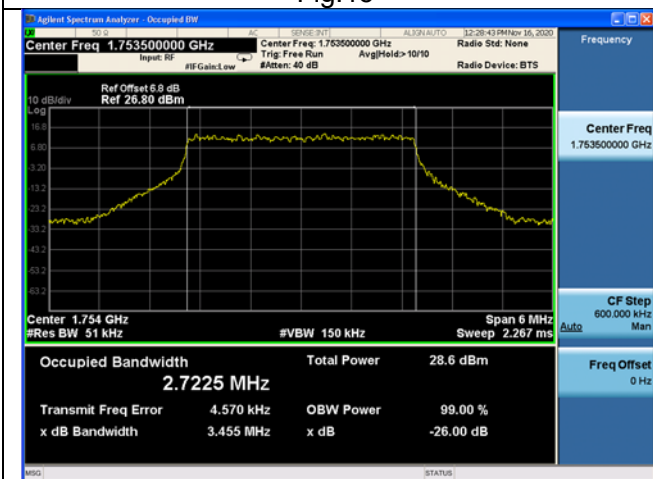


Fig.17

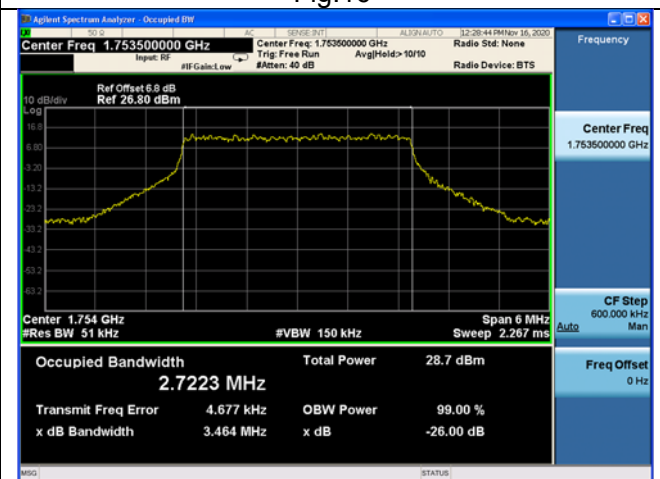


Fig.18



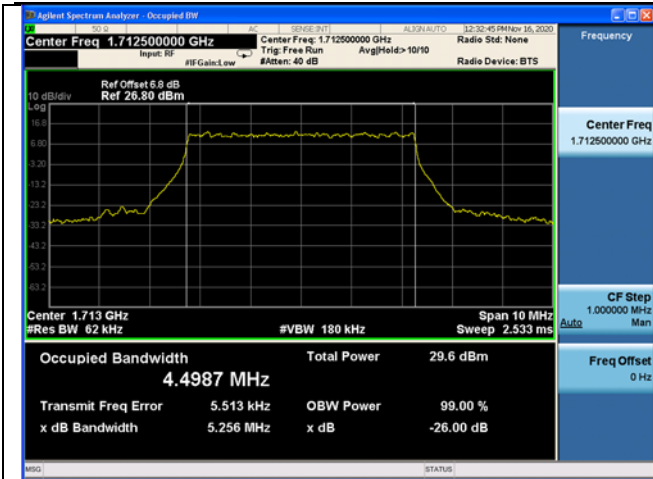


Fig.19

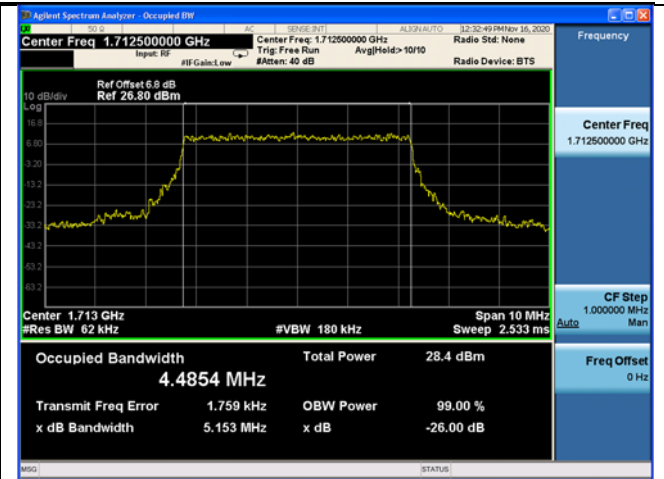


Fig.20

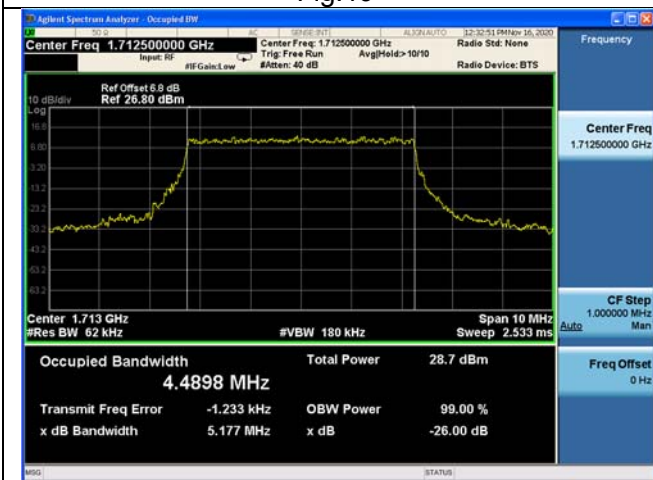


Fig.21

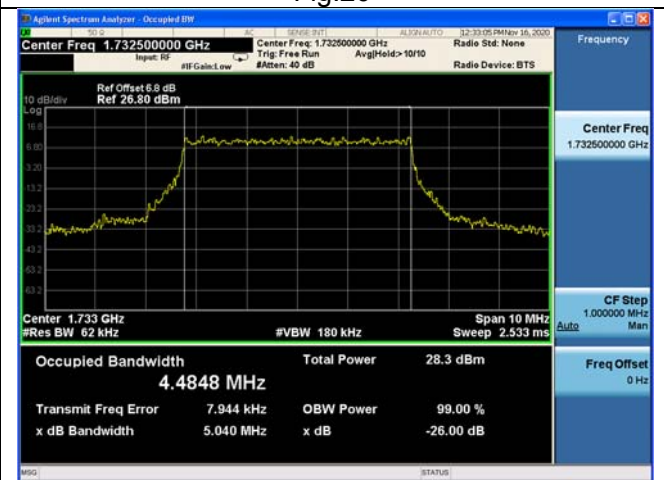


Fig.22

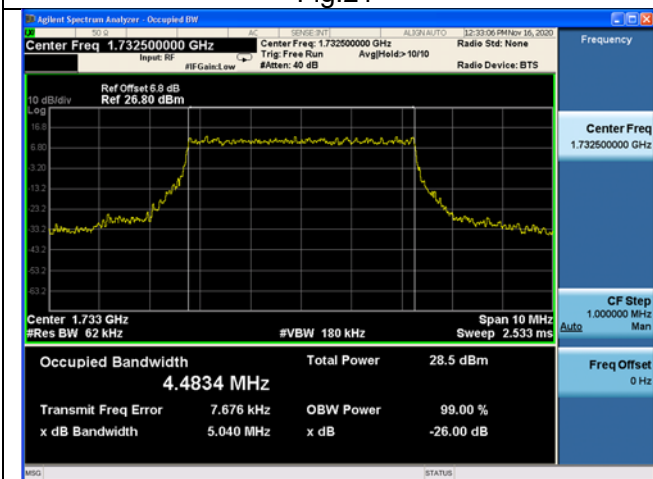


Fig.23

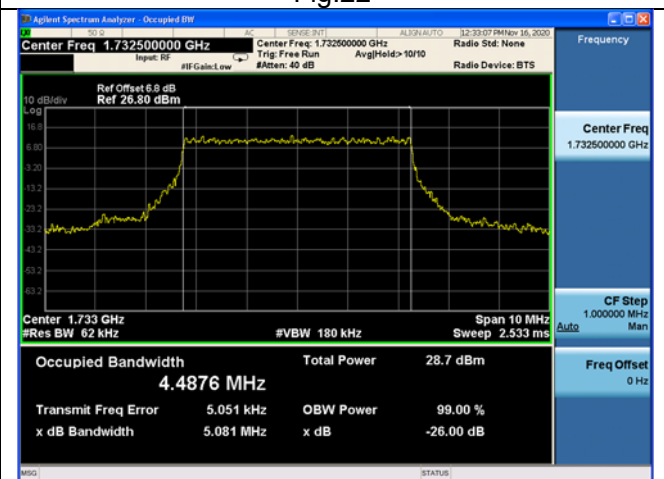


Fig.24

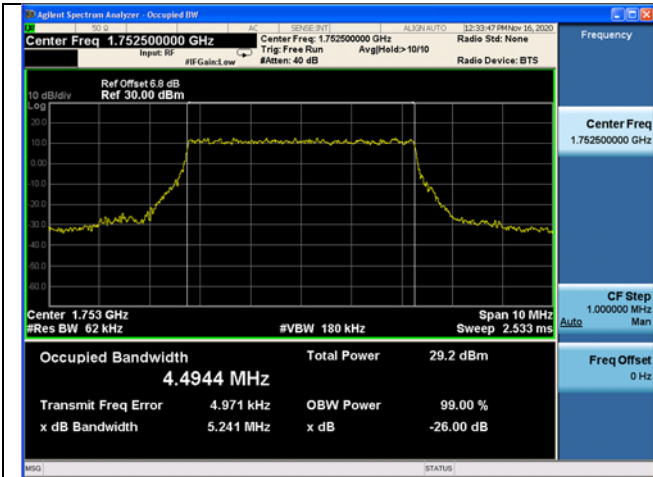


Fig.25

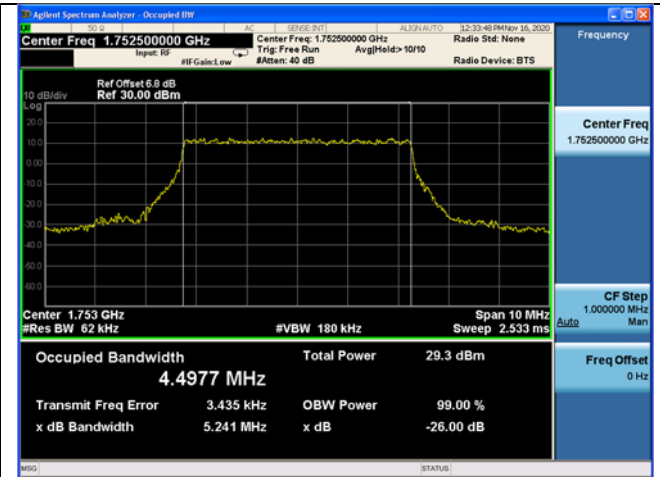


Fig.26

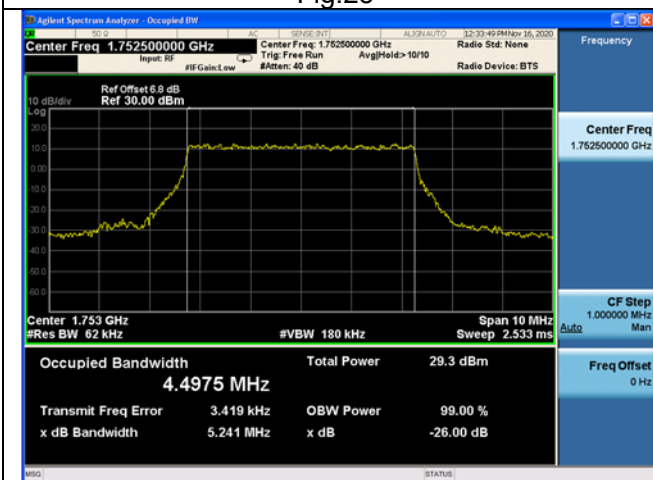


Fig.27

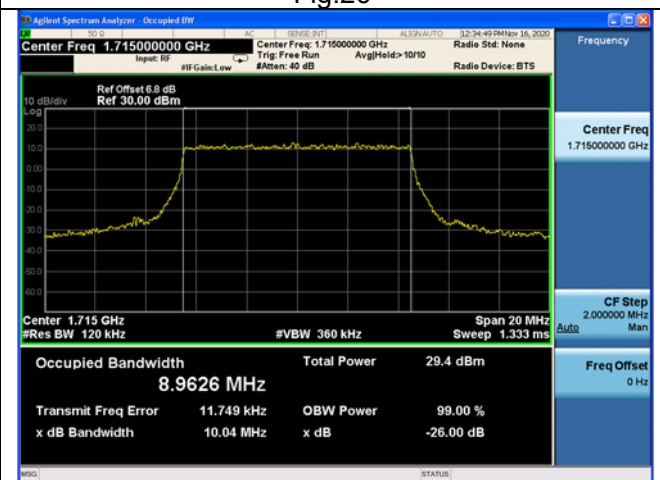


Fig.28

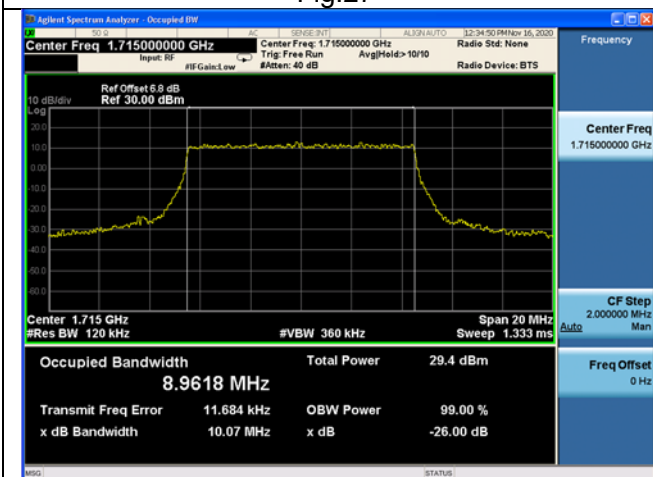


Fig.29

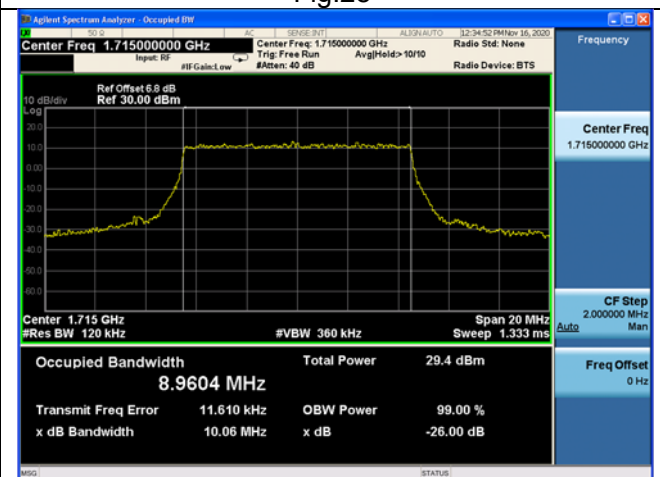


Fig.30

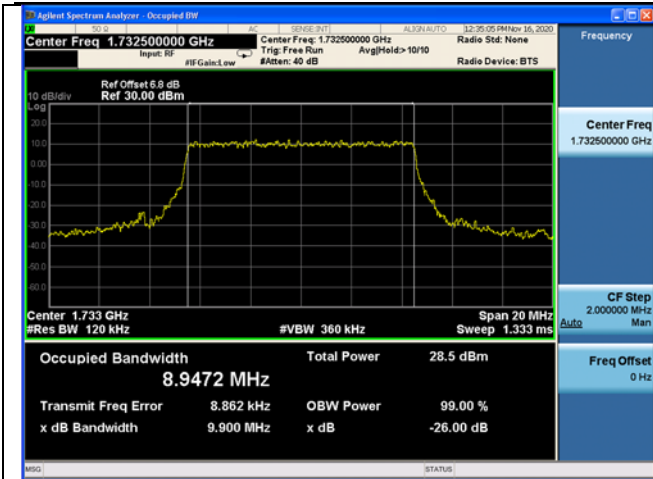


Fig.31

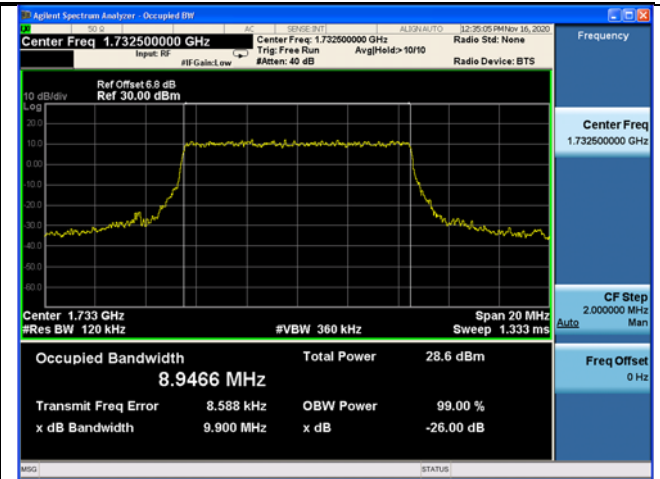


Fig.32

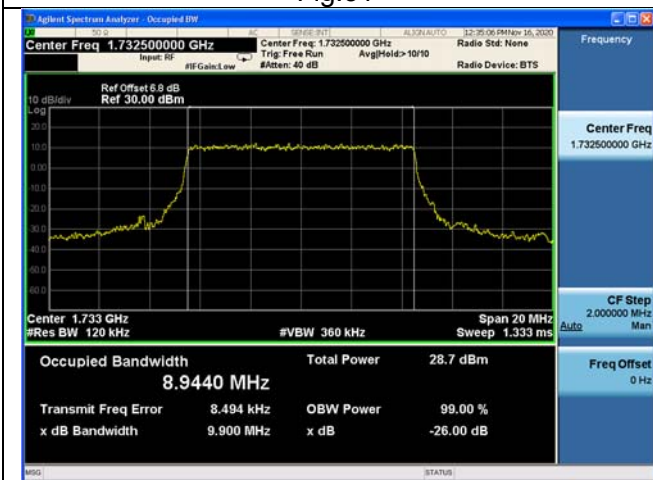


Fig.33

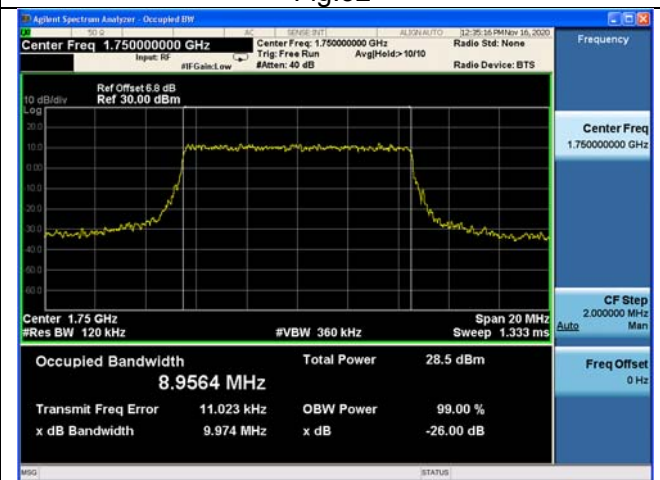


Fig.34

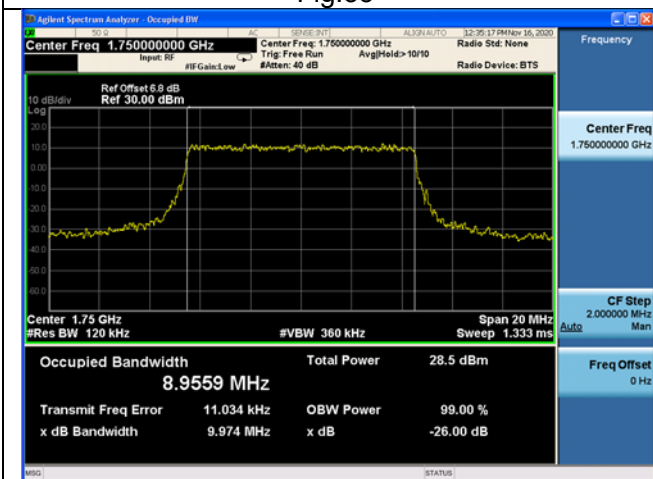


Fig.35

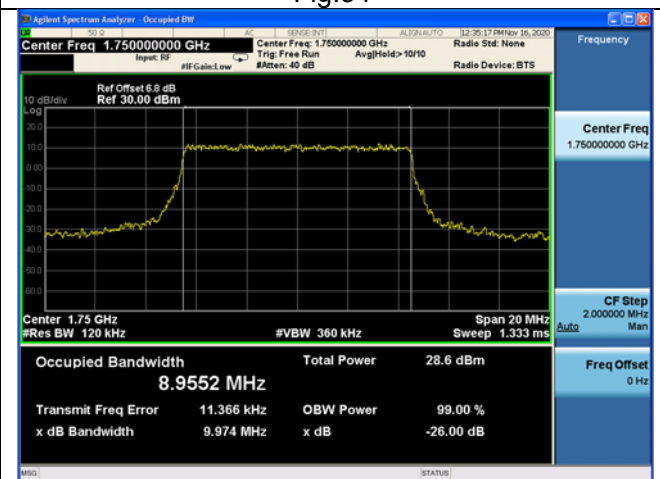


Fig.36

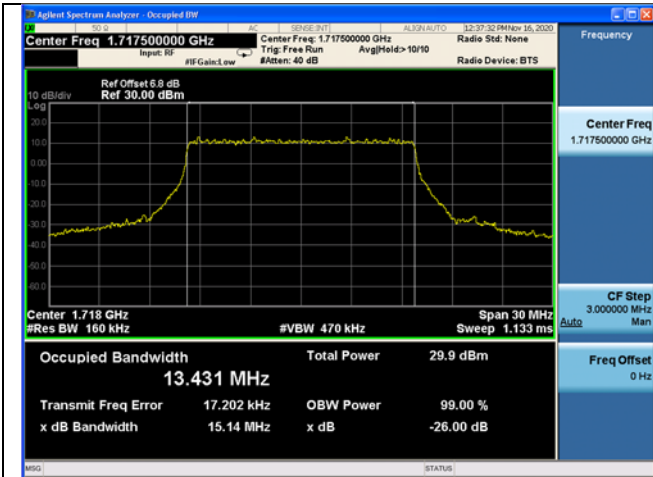


Fig.37

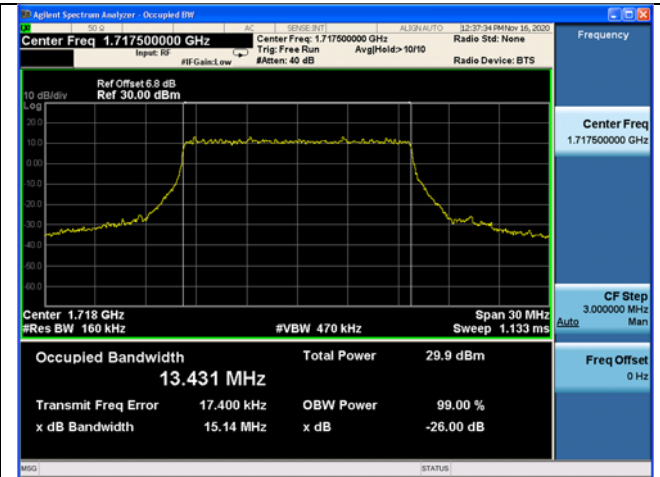


Fig.38

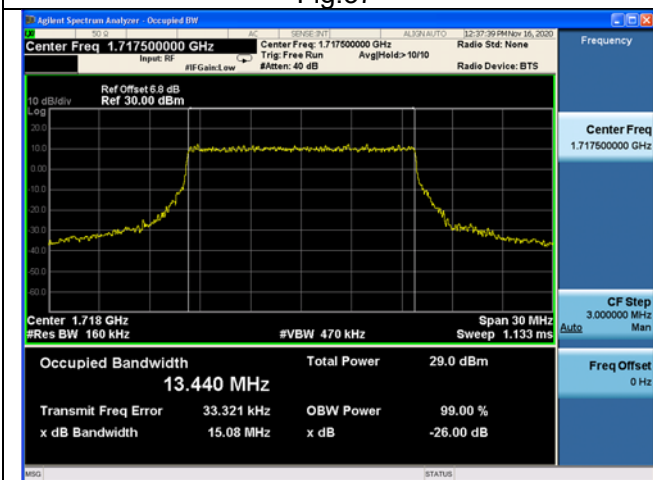


Fig.39

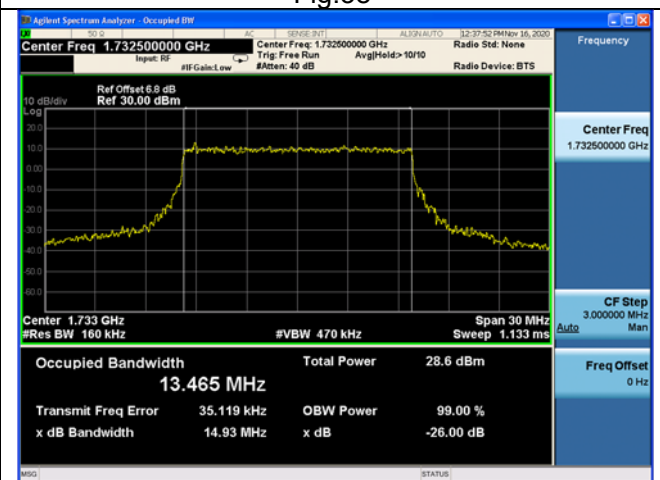


Fig.40

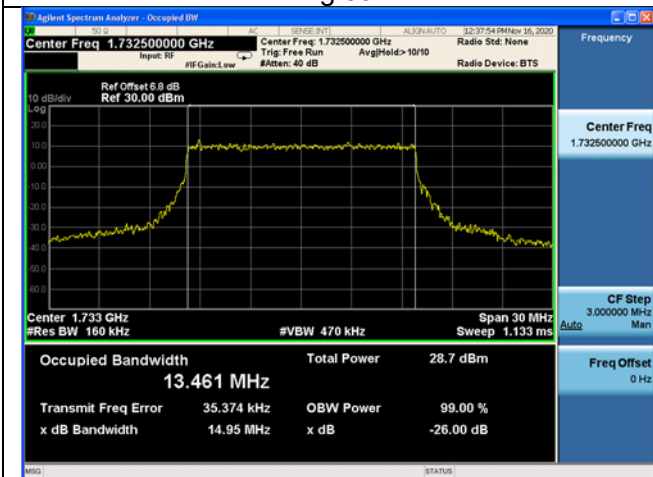


Fig.41

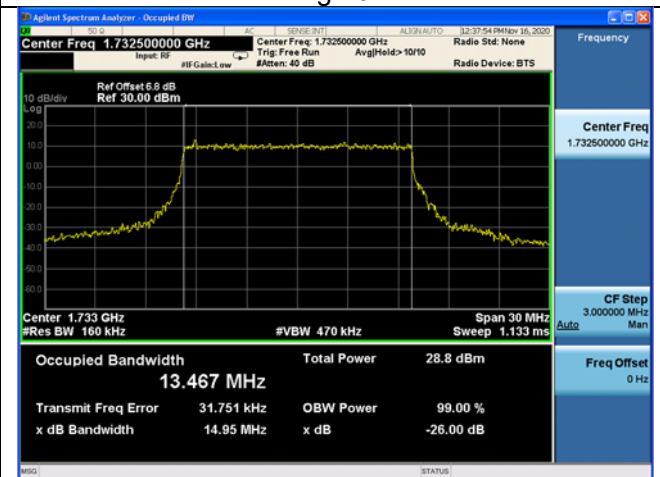


Fig.42

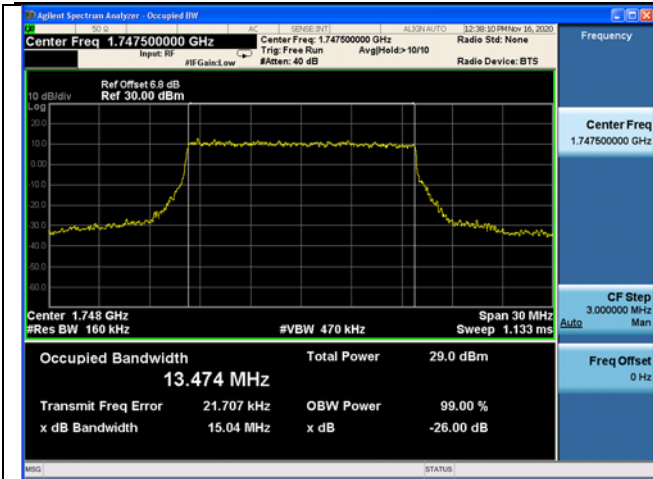


Fig.43

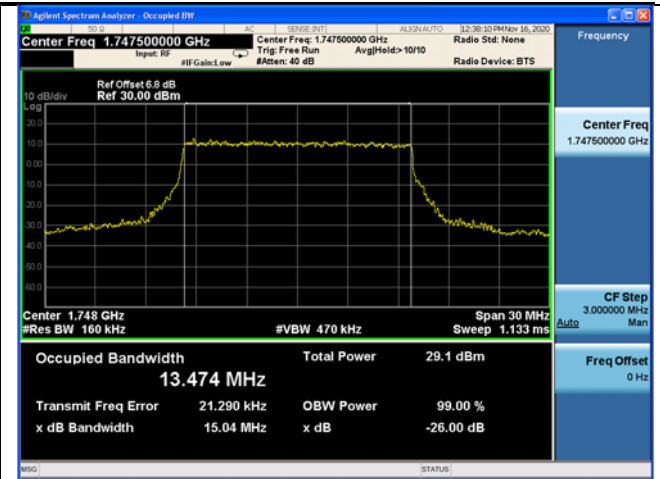


Fig.44

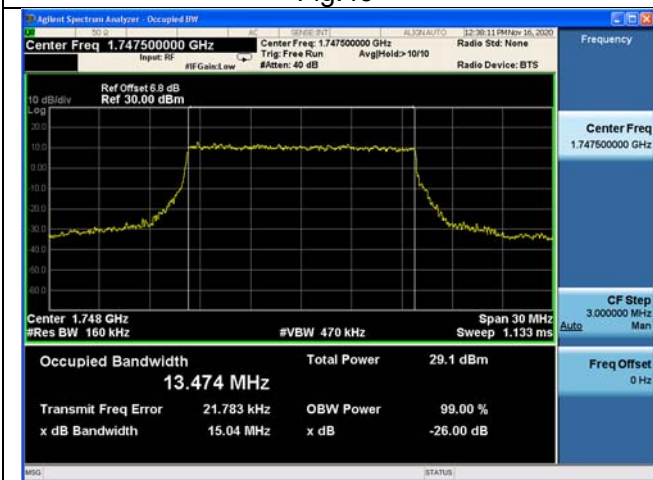


Fig.45

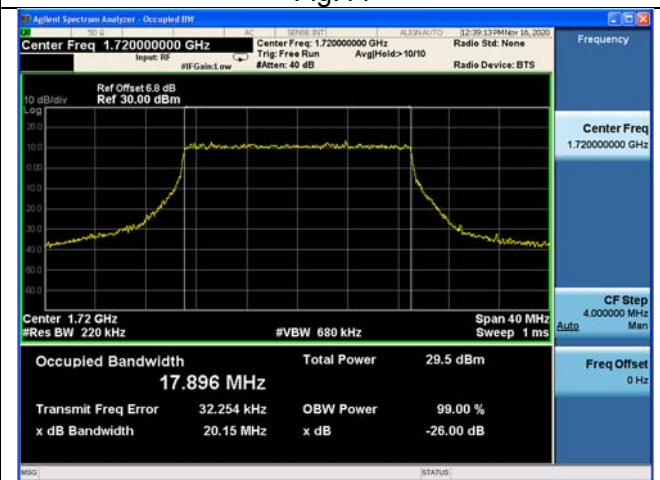


Fig.46

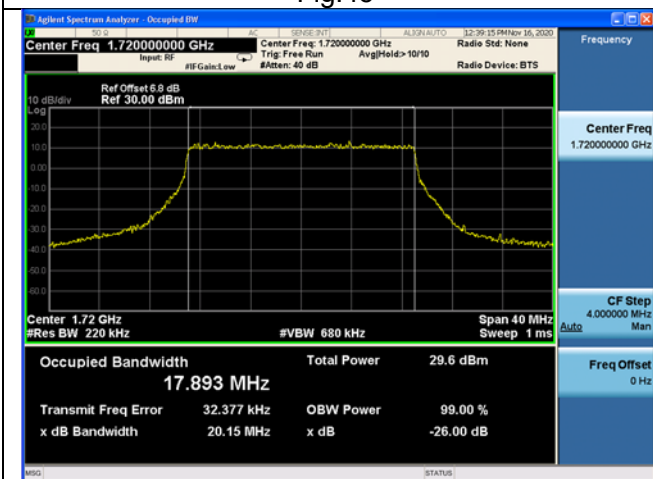


Fig.47

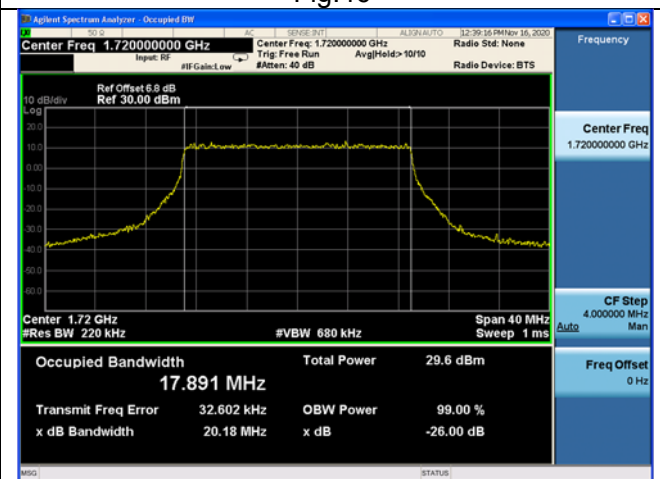


Fig.48

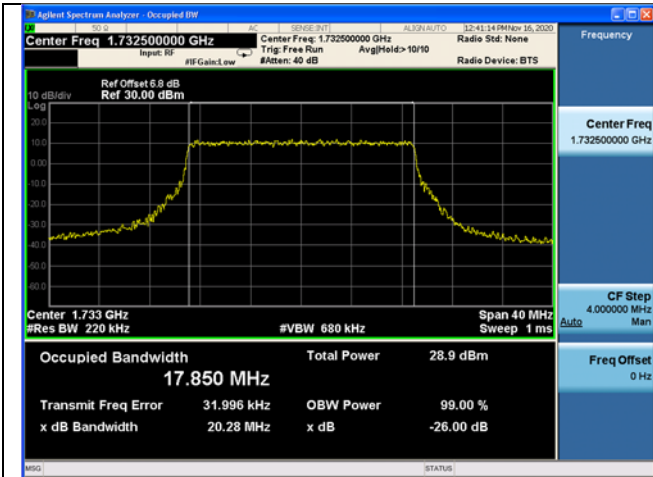


Fig.49

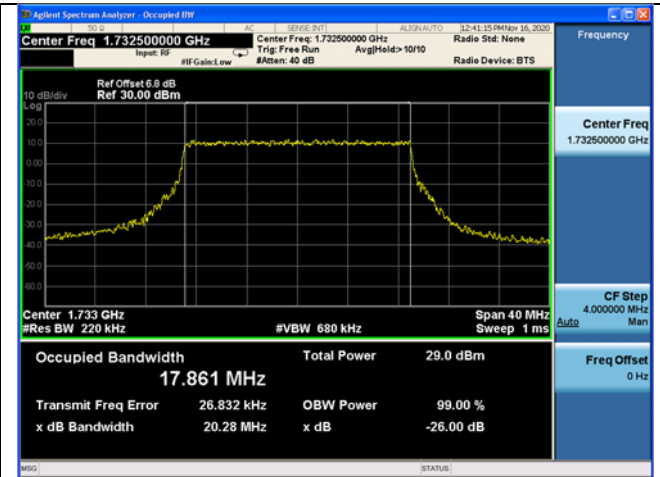


Fig.50

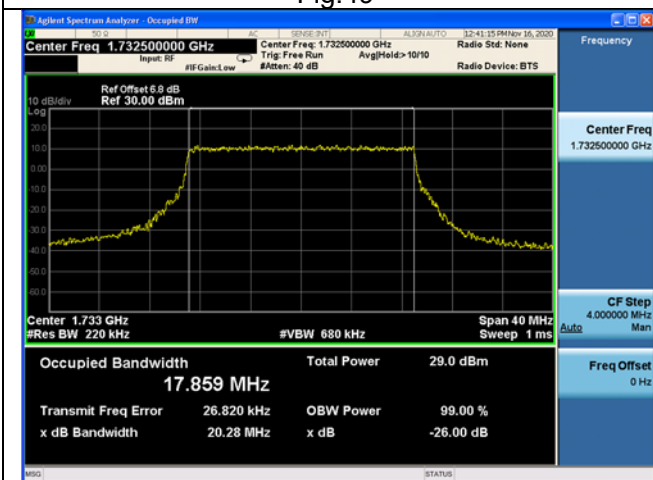


Fig.51

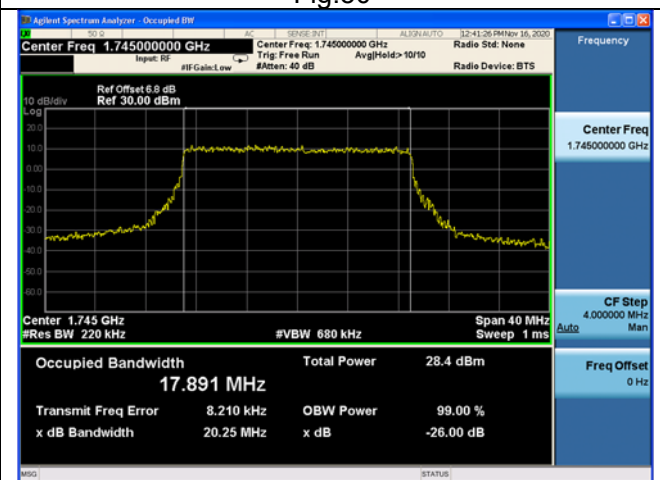


Fig.52

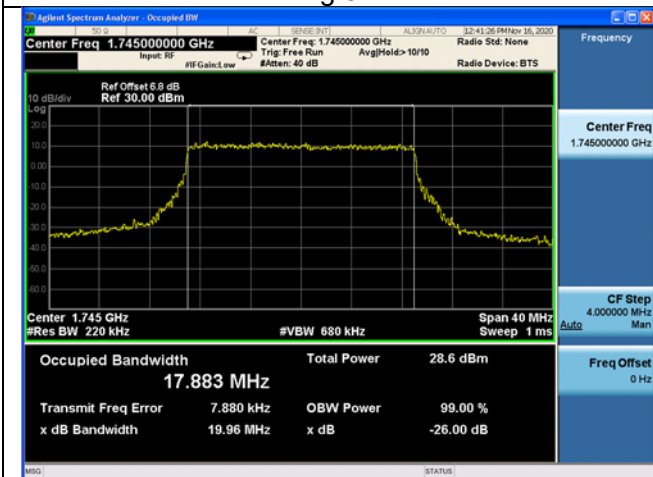


Fig.53

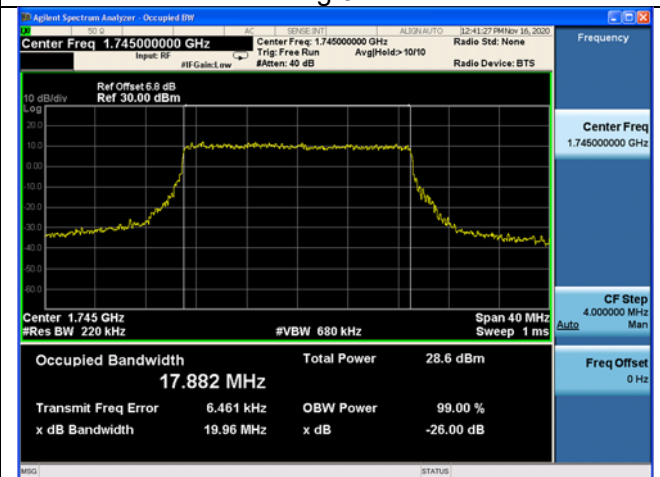


Fig.54

### 3 Peak-Average Ratio

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

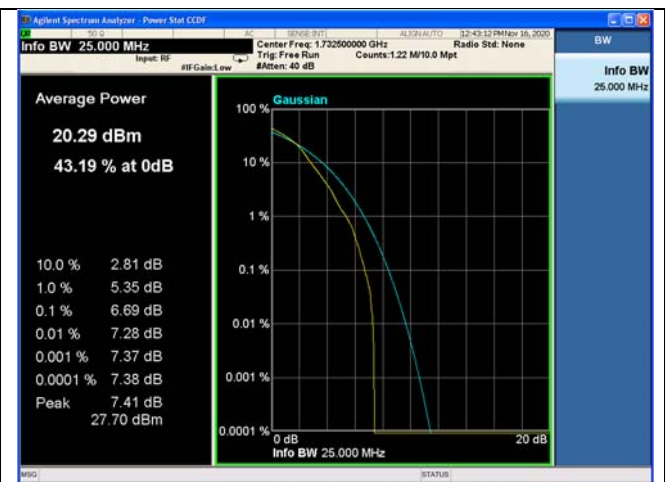


Fig.2

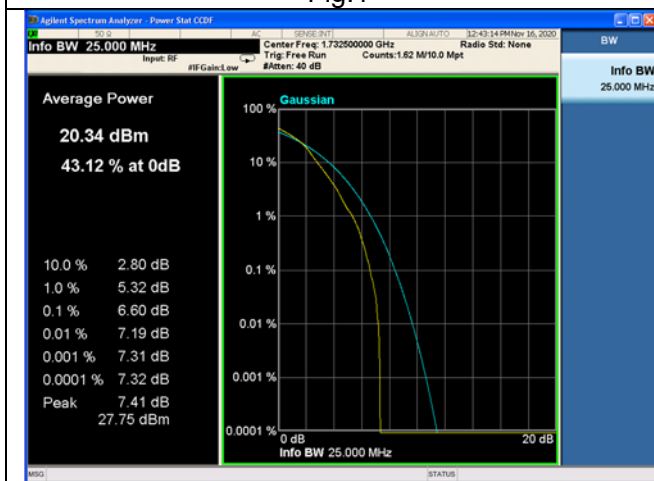


Fig.3



Fig.4

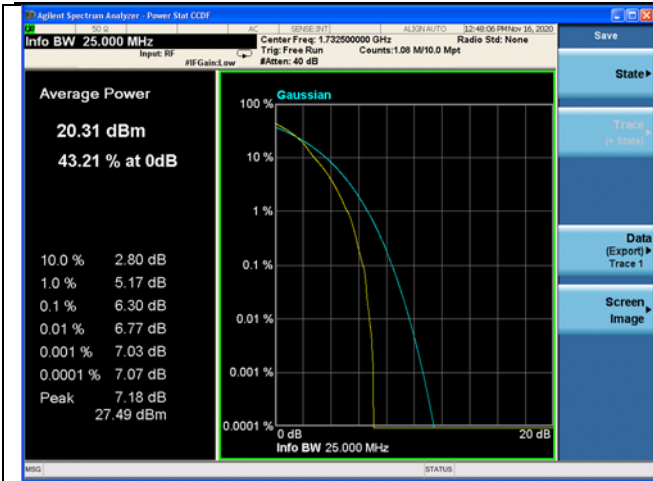


Fig.5

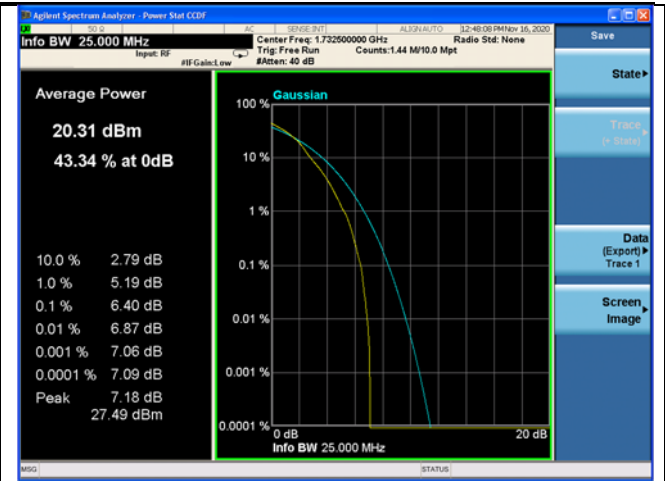


Fig.6



Fig.7



Fig.8

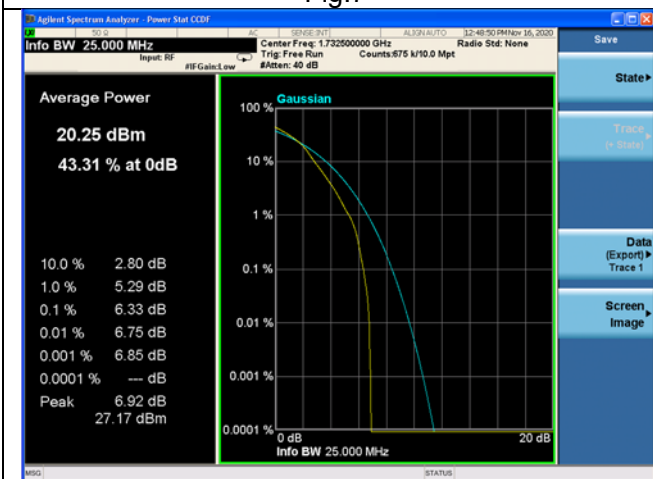


Fig.9

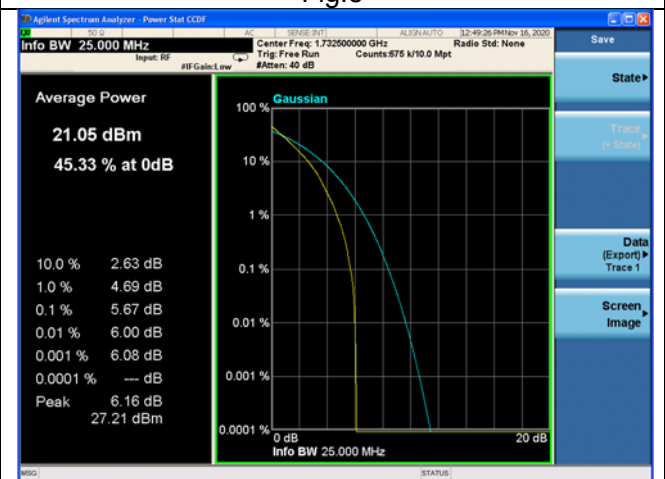


Fig.10



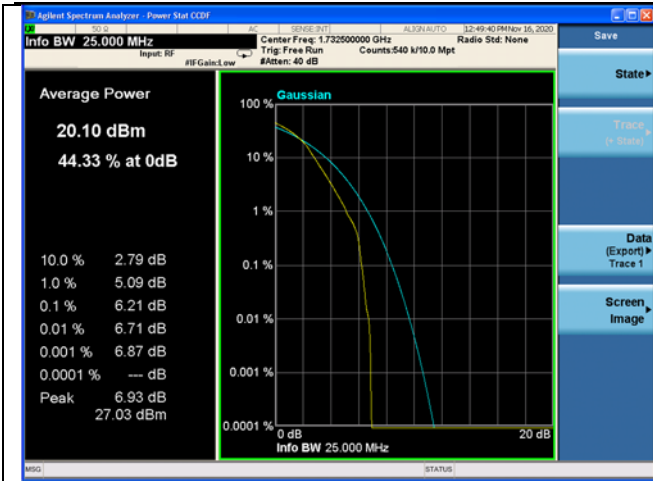


Fig.11

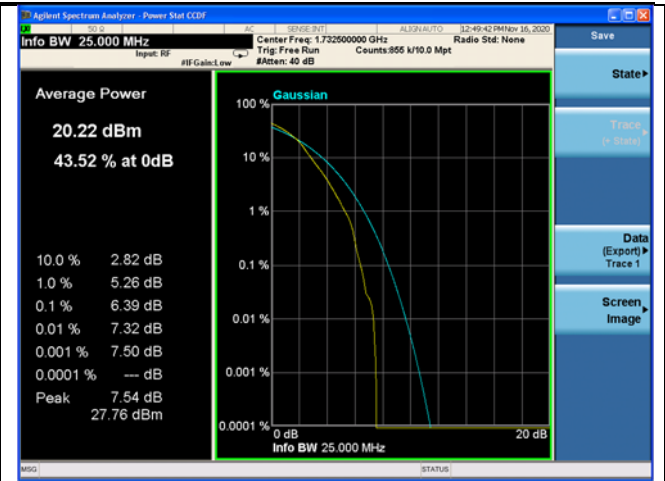


Fig.12



Fig.13



Fig.14

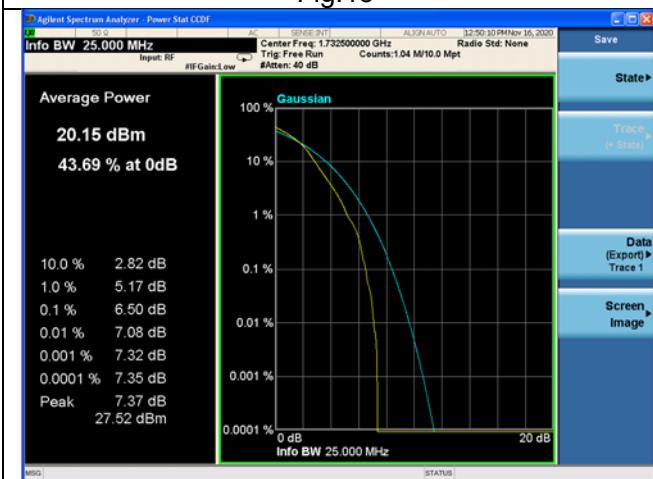


Fig.15

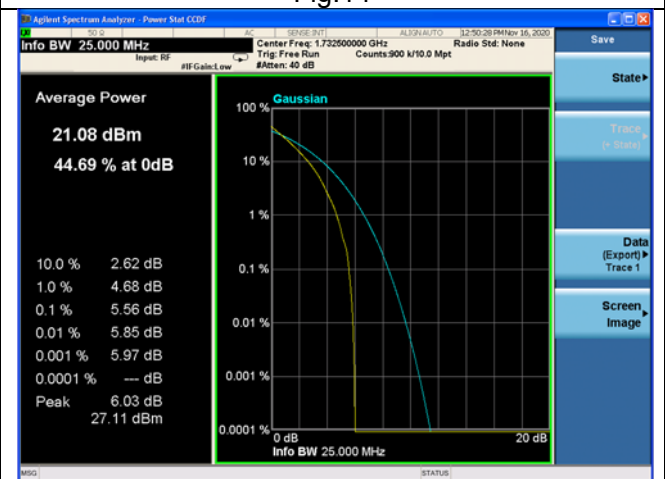


Fig.16

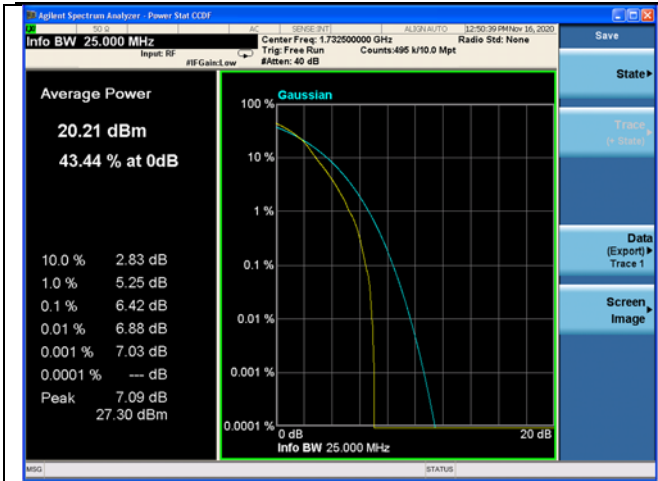


Fig.17

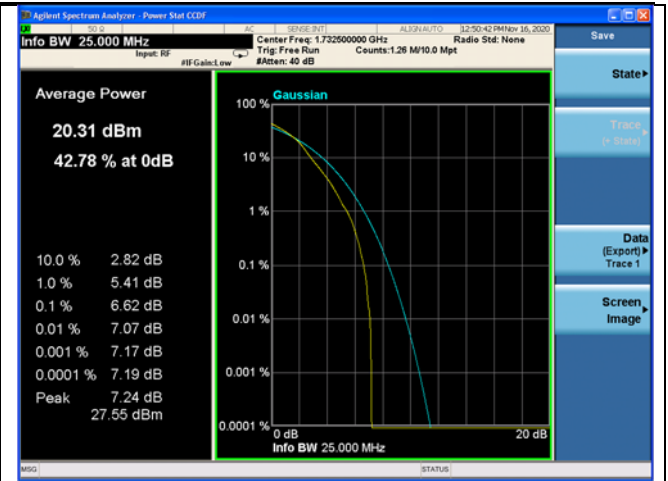


Fig.18

**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

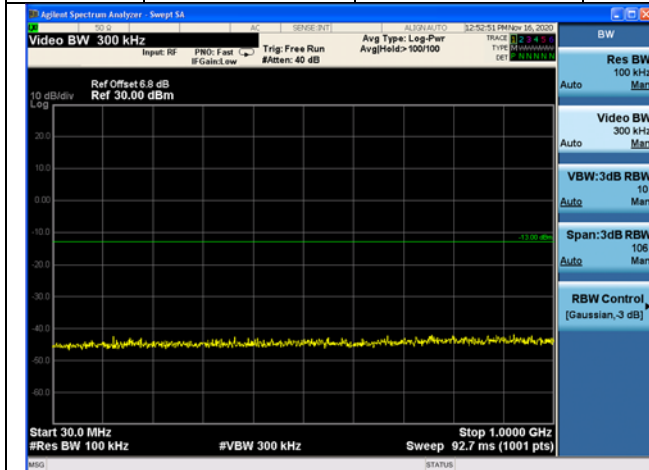


Fig.1

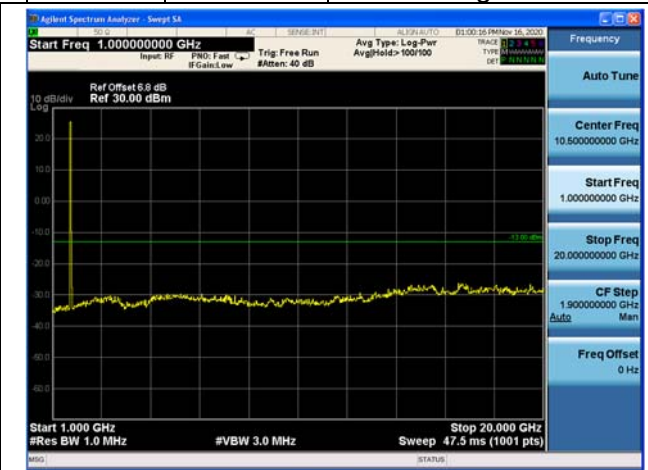


Fig.2

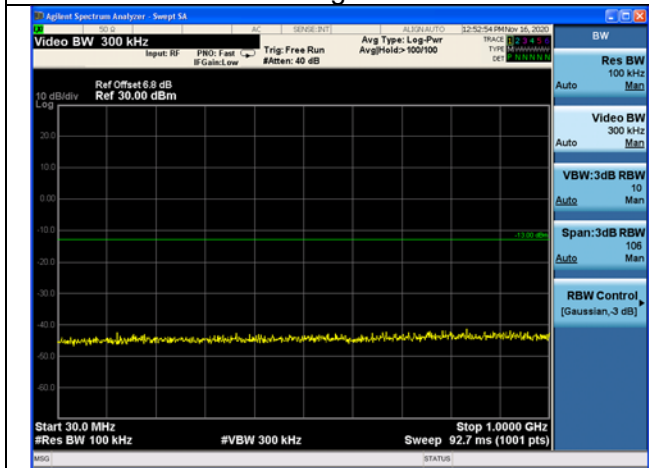


Fig3

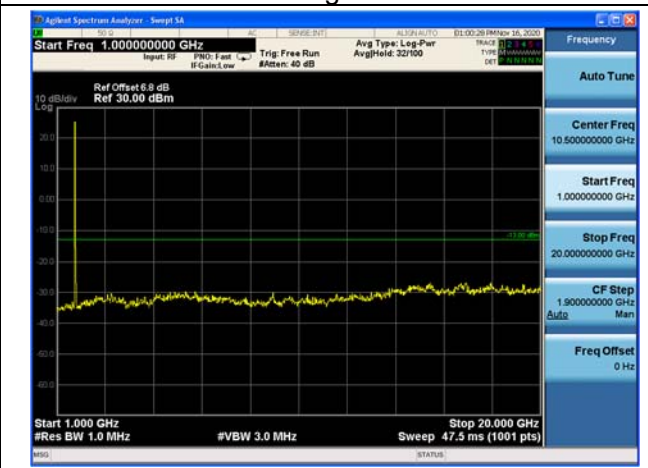


Fig4

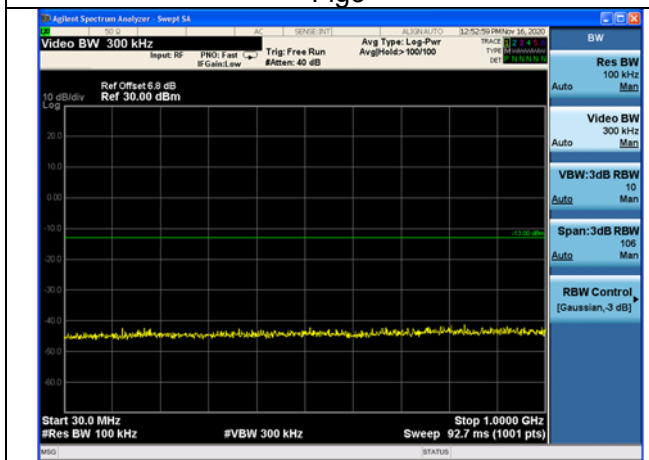


Fig5

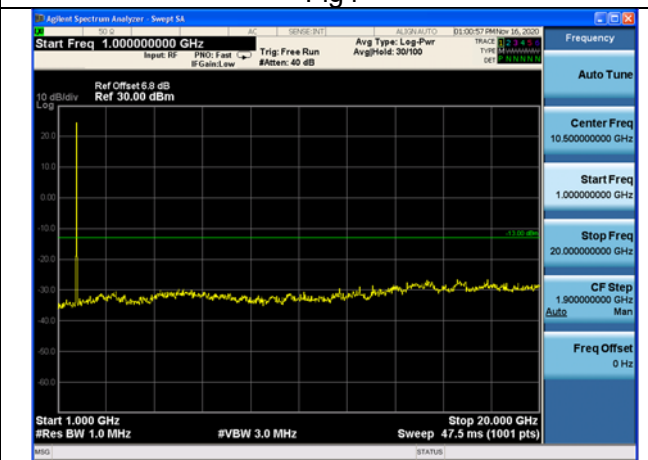


Fig6

## 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
	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
	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	