APPENDIX A – TEST DATA OF CONDUCTED EMISSION

LTE Band 4

1 RF Power Output

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)
QPSK	1710.7	19957	1.4	1	0	22.84
QPSK	1710.7	19957	1.4	1	3	23.21
QPSK	1710.7	19957	1.4	1	5	23.33
QPSK	1710.7	19957	1.4	3	0	23.27
QPSK	1710.7	19957	1.4	3	1	23.31
QPSK	1710.7	19957	1.4	3	3	23.19
QPSK	1710.7	19957	1.4	6	0	22.28
QPSK	1732.5	20175	1.4	1	0	23.27
QPSK	1732.5	20175	1.4	1	3	23.22
QPSK	1732.5	20175	1.4	1	5	23.24
QPSK	1732.5	20175	1.4	3	0	23.28
QPSK	1732.5	20175	1.4	3	1	23.29
QPSK	1732.5	20175	1.4	3	3	23.23
QPSK	1732.5	20175	1.4	6	0	22.18
QPSK	1754.3	20393	1.4	1	0	23.26
QPSK	1754.3	20393	1.4	1	3	23.11
QPSK	1754.3	20393	1.4	1	5	23.17
QPSK	1754.3	20393	1.4	3	0	23.39
QPSK	1754.3	20393	1.4	3	1	23.13
QPSK	1754.3	20393	1.4	3	3	23.11
QPSK	1754.3	20393	1.4	6	0	22.10

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)
16QAM	1710.7	19957	1.4	1	0	22.74
16QAM	1710.7	19957	1.4	1	3	22.33
16QAM	1710.7	19957	1.4	1	5	23.36
16QAM	1710.7	19957	1.4	3	0	22.50
16QAM	1710.7	19957	1.4	3	1	22.53
16QAM	1710.7	19957	1.4	3	3	22.64
16QAM	1710.7	19957	1.4	6	0	21.10
16QAM	1732.5	20175	1.4	1	0	22.63
16QAM	1732.5	20175	1.4	1	3	22.83
16QAM	1732.5	20175	1.4	1	5	22.64
16QAM	1732.5	20175	1.4	3	0	22.48
16QAM	1732.5	20175	1.4	3	1	22.62
16QAM	1732.5	20175	1.4	3	3	22.51
16QAM	1732.5	20175	1.4	6	0	20.92
16QAM	1754.3	20393	1.4	1	0	22.29
16QAM	1754.3	20393	1.4	1	3	22.01
16QAM	1754.3	20393	1.4	1	5	22.89
16QAM	1754.3	20393	1.4	3	0	22.45
16QAM	1754.3	20393	1.4	3	1	22.36
16QAM	1754.3	20393	1.4	3	3	22.38
16QAM	1754.3	20393	1.4	6	0	20.92

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)
QPSK	1711.5	19965	3	1	0	23.23
QPSK	1711.5	19965	3	1	8	23.28
QPSK	1711.5	19965	3	1	14	23.23
QPSK	1711.5	19965	3	8	0	22.25
QPSK	1711.5	19965	3	8	4	22.30
QPSK	1711.5	19965	3	8	7	22.28
QPSK	1711.5	19965	3	15	0	22.27
QPSK	1732.5	20175	3	1	0	23.07
QPSK	1732.5	20175	3	1	8	23.09
QPSK	1732.5	20175	3	1	14	23.16
QPSK	1732.5	20175	3	8	0	22.24
QPSK	1732.5	20175	3	8	4	22.18
QPSK	1732.5	20175	3	8	7	22.17
QPSK	1732.5	20175	3	15	0	22.14
QPSK	1753.5	20385	3	1	0	23.17
QPSK	1753.5	20385	3	1	8	23.25
QPSK	1753.5	20385	3	1	14	23.22
QPSK	1753.5	20385	3	8	0	22.26
QPSK	1753.5	20385	3	8	4	22.18
QPSK	1753.5	20385	3	8	7	22.18
QPSK	1753.5	20385	3	15	0	22.16

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)
16QAM	1711.5	19965	3	1	0	22.99
16QAM	1711.5	19965	3	1	8	22.81
16QAM	1711.5	19965	3	1	14	22.60
16QAM	1711.5	19965	3	8	0	21.48
16QAM	1711.5	19965	3	8	4	21.57
16QAM	1711.5	19965	3	8	7	21.49
16QAM	1711.5	19965	3	15	0	21.41
16QAM	1732.5	20175	3	1	0	23.03
16QAM	1732.5	20175	3	1	8	22.93
16QAM	1732.5	20175	3	1	14	22.96
16QAM	1732.5	20175	3	8	0	21.30
16QAM	1732.5	20175	3	8	4	21.37
16QAM	1732.5	20175	3	8	7	21.43
16QAM	1732.5	20175	3	15	0	21.30
16QAM	1753.5	20385	3	1	0	22.78
16QAM	1753.5	20385	3	1	8	23.03
16QAM	1753.5	20385	3	1	14	22.23
16QAM	1753.5	20385	3	8	0	21.42
16QAM	1753.5	20385	3	8	4	21.36
16QAM	1753.5	20385	3	8	7	21.28
16QAM	1753.5	20385	3	15	0	21.38

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)
QPSK	1712.5	19975	5	1	0	23.22
QPSK	1712.5	19975	5	1	12	23.16
QPSK	1712.5	19975	5	1	24	23.36
QPSK	1712.5	19975	5	12	0	22.24
QPSK	1712.5	19975	5	12	7	22.17
QPSK	1712.5	19975	5	12	13	22.30
QPSK	1712.5	19975	5	25	0	22.29
QPSK	1732.5	20175	5	1	0	23.32
QPSK	1732.5	20175	5	1	12	23.41
QPSK	1732.5	20175	5	1	24	23.39
QPSK	1732.5	20175	5	12	0	22.23
QPSK	1732.5	20175	5	12	7	22.35
QPSK	1732.5	20175	5	12	13	22.31
QPSK	1732.5	20175	5	25	0	22.21
QPSK	1752.5	20375	5	1	0	23.34
QPSK	1752.5	20375	5	1	12	23.25
QPSK	1752.5	20375	5	1	24	23.36
QPSK	1752.5	20375	5	12	0	22.16
QPSK	1752.5	20375	5	12	7	22.18
QPSK	1752.5	20375	5	12	13	22.17
QPSK	1752.5	20375	5	25	0	22.16

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)
16QAM	1712.5	19975	5	1	0	22.31
16QAM	1712.5	19975	5	1	12	23.28
16QAM	1712.5	19975	5	1	24	22.31
16QAM	1712.5	19975	5	12	0	21.34
16QAM	1712.5	19975	5	12	7	21.24
16QAM	1712.5	19975	5	12	13	21.43
16QAM	1712.5	19975	5	25	0	21.24
16QAM	1732.5	20175	5	1	0	22.54
16QAM	1732.5	20175	5	1	12	22.64
16QAM	1732.5	20175	5	1	24	22.47
16QAM	1732.5	20175	5	12	0	21.36
16QAM	1732.5	20175	5	12	7	21.42
16QAM	1732.5	20175	5	12	13	21.42
16QAM	1732.5	20175	5	25	0	21.50
16QAM	1752.5	20375	5	1	0	22.18
16QAM	1752.5	20375	5	1	12	22.70
16QAM	1752.5	20375	5	1	24	22.85
16QAM	1752.5	20375	5	12	0	21.19
16QAM	1752.5	20375	5	12	7	21.25
16QAM	1752.5	20375	5	12	13	21.22
16QAM	1752.5	20375	5	25	0	21.37

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)
QPSK	1715	20000	10	1	0	23.53
QPSK	1715	20000	10	1	25	23.30
QPSK	1715	20000	10	1	49	23.46
QPSK	1715	20000	10	25	0	22.35
QPSK	1715	20000	10	25	12	22.31
QPSK	1715	20000	10	25	25	22.26
QPSK	1715	20000	10	50	0	22.23
QPSK	1732.5	20175	10	1	0	23.45
QPSK	1732.5	20175	10	1	25	23.39
QPSK	1732.5	20175	10	1	49	23.51
QPSK	1732.5	20175	10	25	0	21.99
QPSK	1732.5	20175	10	25	12	22.42
QPSK	1732.5	20175	10	25	25	22.30
QPSK	1732.5	20175	10	50	0	22.16
QPSK	1750	20350	10	1	0	22.93
QPSK	1750	20350	10	1	25	23.25
QPSK	1750	20350	10	1	49	23.04
QPSK	1750	20350	10	25	0	22.19
QPSK	1750	20350	10	25	12	22.31
QPSK	1750	20350	10	25	25	22.18
QPSK	1750	20350	10	50	0	22.17

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)
16QAM	1715	20000	10	1	0	22.90
16QAM	1715	20000	10	1	25	22.28
16QAM	1715	20000	10	1	49	22.75
16QAM	1715	20000	10	25	0	21.44
16QAM	1715	20000	10	25	12	21.55
16QAM	1715	20000	10	25	25	21.56
16QAM	1715	20000	10	50	0	21.40
16QAM	1732.5	20175	10	1	0	22.52
16QAM	1732.5	20175	10	1	25	22.95
16QAM	1732.5	20175	10	1	49	22.72
16QAM	1732.5	20175	10	25	0	21.19
16QAM	1732.5	20175	10	25	12	21.41
16QAM	1732.5	20175	10	25	25	21.32
16QAM	1732.5	20175	10	50	0	21.31
16QAM	1750	20350	10	1	0	22.12
16QAM	1750	20350	10	1	25	22.04
16QAM	1750	20350	10	1	49	22.87
16QAM	1750	20350	10	25	0	21.62
16QAM	1750	20350	10	25	12	21.49
16QAM	1750	20350	10	25	25	21.62
16QAM	1750	20350	10	50	0	21.42

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)
QPSK	1717.5	20025	15	1	0	23.20
QPSK	1717.5	20025	15	1	37	23.28
QPSK	1717.5	20025	15	1	74	23.28
QPSK	1717.5	20025	15	36	0	22.32
QPSK	1717.5	20025	15	36	29	21.99
QPSK	1717.5	20025	15	36	30	22.14
QPSK	1717.5	20025	15	75	0	22.05
QPSK	1732.5	20175	15	1	0	23.15
QPSK	1732.5	20175	15	1	37	23.20
QPSK	1732.5	20175	15	1	74	22.95
QPSK	1732.5	20175	15	36	0	22.33
QPSK	1732.5	20175	15	36	29	22.30
QPSK	1732.5	20175	15	36	30	22.31
QPSK	1732.5	20175	15	75	0	22.28
QPSK	1747.5	20325	15	1	0	22.98
QPSK	1747.5	20325	15	1	37	23.13
QPSK	1747.5	20325	15	1	74	23.08
QPSK	1747.5	20325	15	36	0	22.25
QPSK	1747.5	20325	15	36	29	22.36
QPSK	1747.5	20325	15	36	30	22.39
QPSK	1747.5	20325	15	75	0	22.14

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)
16QAM	1717.5	20025	15	1	0	22.89
16QAM	1717.5	20025	15	1	37	23.06
16QAM	1717.5	20025	15	1	74	22.90
16QAM	1717.5	20025	15	36	0	21.22
16QAM	1717.5	20025	15	36	29	21.18
16QAM	1717.5	20025	15	36	30	21.41
16QAM	1717.5	20025	15	75	0	21.40
16QAM	1732.5	20175	15	1	0	22.27
16QAM	1732.5	20175	15	1	37	22.83
16QAM	1732.5	20175	15	1	74	22.92
16QAM	1732.5	20175	15	36	0	21.10
16QAM	1732.5	20175	15	36	29	21.24
16QAM	1732.5	20175	15	36	30	21.23
16QAM	1732.5	20175	15	75	0	21.39
16QAM	1747.5	20325	15	1	0	22.75
16QAM	1747.5	20325	15	1	37	23.04
16QAM	1747.5	20325	15	1	74	22.73
16QAM	1747.5	20325	15	36	0	21.19
16QAM	1747.5	20325	15	36	29	21.31
16QAM	1747.5	20325	15	36	30	21.24
16QAM	1747.5	20325	15	75	0	21.46

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)
QPSK	1720	20050	20	1	0	23.23
QPSK	1720	20050	20	1	49	23.22
QPSK	1720	20050	20	1	99	23.13
QPSK	1720	20050	20	50	0	22.03
QPSK	1720	20050	20	50	24	22.39
QPSK	1720	20050	20	50	50	22.20
QPSK	1720	20050	20	100	0	22.41
QPSK	1732.5	20175	20	1	0	23.46
QPSK	1732.5	20175	20	1	49	23.56
QPSK	1732.5	20175	20	1	99	23.54
QPSK	1732.5	20175	20	50	0	22.08
QPSK	1732.5	20175	20	50	24	22.23
QPSK	1732.5	20175	20	50	50	22.06
QPSK	1732.5	20175	20	100	0	22.19
QPSK	1745	20300	20	1	0	23.15
QPSK	1745	20300	20	1	49	23.34
QPSK	1745	20300	20	1	99	23.29
QPSK	1745	20300	20	50	0	22.05
QPSK	1745	20300	20	50	24	22.32
QPSK	1745	20300	20	50	50	22.26
QPSK	1745	20300	20	100	0	22.30

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)
16QAM	1720	20050	20	1	0	22.73
16QAM	1720	20050	20	1	49	22.42
16QAM	1720	20050	20	1	99	23.02
16QAM	1720	20050	20	50	0	21.38
16QAM	1720	20050	20	50	24	21.27
16QAM	1720	20050	20	50	50	21.21
16QAM	1720	20050	20	100	0	21.43
16QAM	1732.5	20175	20	1	0	22.42
16QAM	1732.5	20175	20	1	49	22.93
16QAM	1732.5	20175	20	1	99	22.99
16QAM	1732.5	20175	20	50	0	21.28
16QAM	1732.5	20175	20	50	24	21.36
16QAM	1732.5	20175	20	50	50	21.59
16QAM	1732.5	20175	20	100	0	21.37
16QAM	1745	20300	20	1	0	23.02
16QAM	1745	20300	20	1	49	23.33
16QAM	1745	20300	20	1	99	22.69
16QAM	1745	20300	20	50	0	21.37
16QAM	1745	20300	20	50	24	21.34
16QAM	1745	20300	20	50	50	21.51
16QAM	1745	20300	20	100	0	21.35

2 Occupied Bandwidth

Band	Mode	Carrier frequency (MHz)	Channel	BW (MHz)	RB Size	RB Offset	Bandwidth of 99% Power (MHz)	
4	QPSK	1710.7	19957	1.4	6	0	1.071	Fig.1
4	QPSK	1732.5	20175	1.4	6	0	1.079	Fig.2
4	QPSK	1754.3	20393	1.4	6	0	1.077	Fig.3
4	QPSK	1711.5	19965	3	15	0	2.677	Fig.4
4	QPSK	1732.5	20175	3	15	0	2.670	Fig.5
4	QPSK	1753.5	20385	3	15	0	2.677	Fig.6
4	QPSK	1712.5	19975	5	25	0	4.440	Fig.7
4	QPSK	1732.5	20175	5	25	0	4.477	Fig.8
4	QPSK	1752.5	20375	5	25	0	4.439	Fig.9
4	QPSK	1715	20000	10	50	0	8.926	Fig.10
4	QPSK	1732.5	20175	10	50	0	8.938	Fig.11
4	QPSK	1750	20350	10	50	0	8.922	Fig.12
4	QPSK	1717.5	20025	15	75	0	13.372	Fig.13
4	QPSK	1732.5	20175	15	75	0	13.368	Fig.14
4	QPSK	1747.5	20325	15	75	0	13.374	Fig.15
4	QPSK	1720	20050	20	100	0	17.844	Fig.16
4	QPSK	1732.5	20175	20	100	0	17.840	Fig.17
4	QPSK	1745	20300	20	100	0	17.873	Fig.18

Band	Mode	Carrier frequency (MHz)	Channel	BW (MHz)	RB Size	RB Offset	Bandwidth of 99% Power (MHz)	
4	16QAM	1710.7	19957	1.4	6	0	1.074	Fig.19
4	16QAM	1732.5	20175	1.4	6	0	1.076	Fig.20
4	16QAM	1754.3	20393	1.4	6	0	1.080	Fig.21
4	16QAM	1711.5	19965	3	15	0	2.677	Fig.22
4	16QAM	1732.5	20175	3	15	0	2.676	Fig.23
4	16QAM	1753.5	20385	3	15	0	2.675	Fig.24
4	16QAM	1712.5	19975	5	25	0	4.440	Fig.25
4	16QAM	1732.5	20175	5	25	0	4.452	Fig.26
4	16QAM	1752.5	20375	5	25	0	4.460	Fig.27
4	16QAM	1715	20000	10	50	0	8.917	Fig.28
4	16QAM	1732.5	20175	10	50	0	8.914	Fig.29
4	16QAM	1750	20350	10	50	0	8.906	Fig.30
4	16QAM	1717.5	20025	15	75	0	13.359	Fig.31
4	16QAM	1732.5	20175	15	75	0	13.370	Fig.32
4	16QAM	1747.5	20325	15	75	0	13.380	Fig.33
4	16QAM	1720	20050	20	100	0	17.841	Fig.34
4	16QAM	1732.5	20175	20	100	0	17.841	Fig.35
4	16QAM	1745	20300	20	100	0	17.869	Fig.36

Test Mode: QPSK

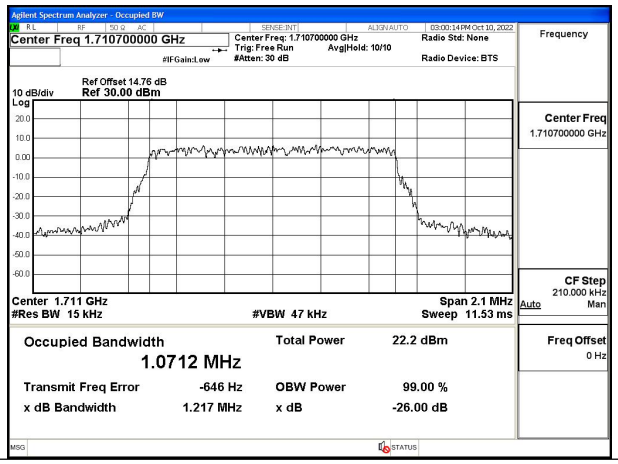


Fig.1

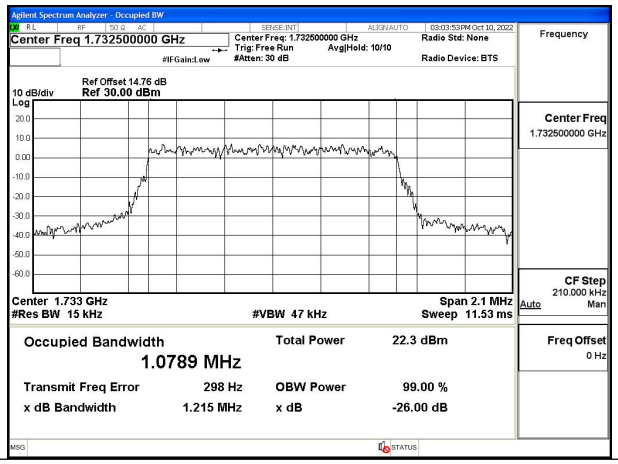


Fig.2

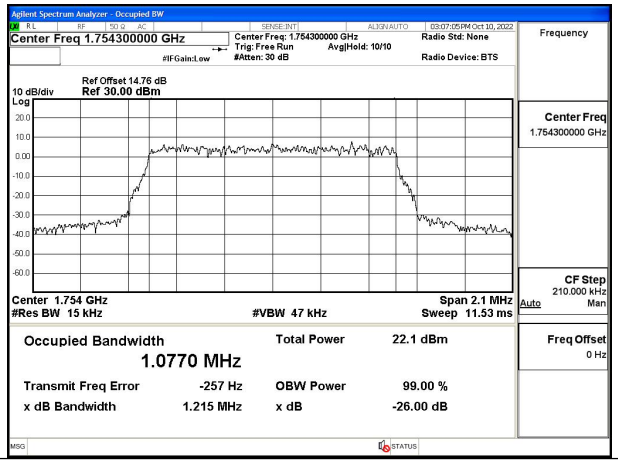


Fig.3

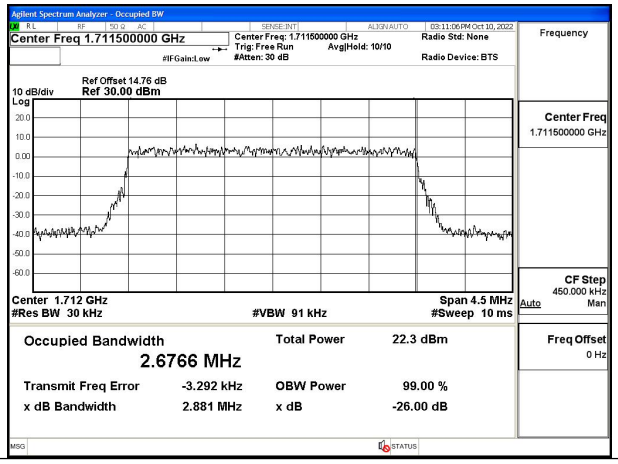


Fig.4

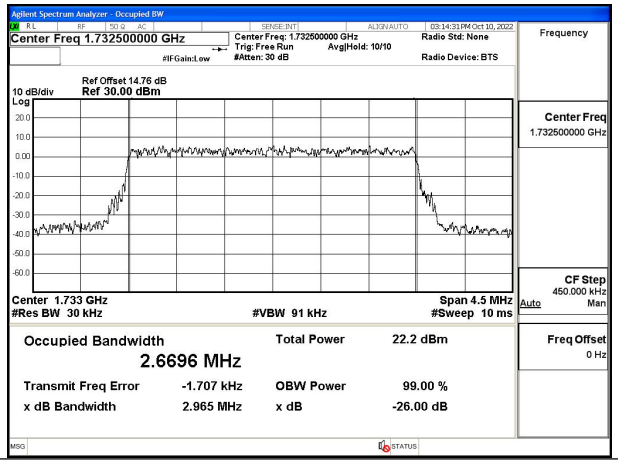


Fig.5

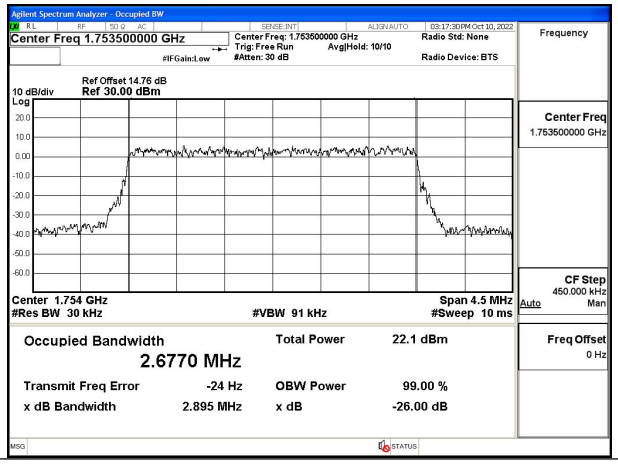


Fig.6

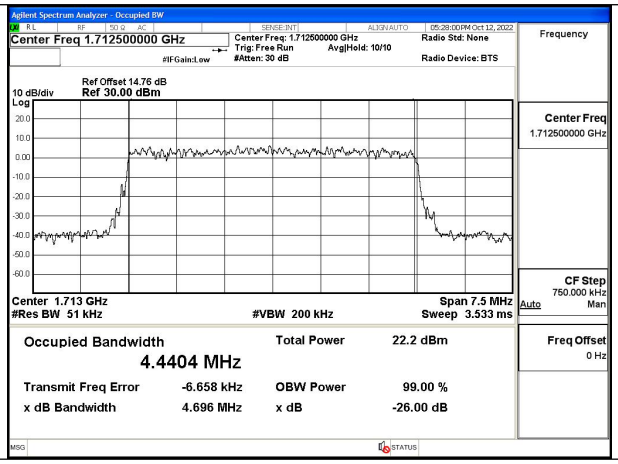
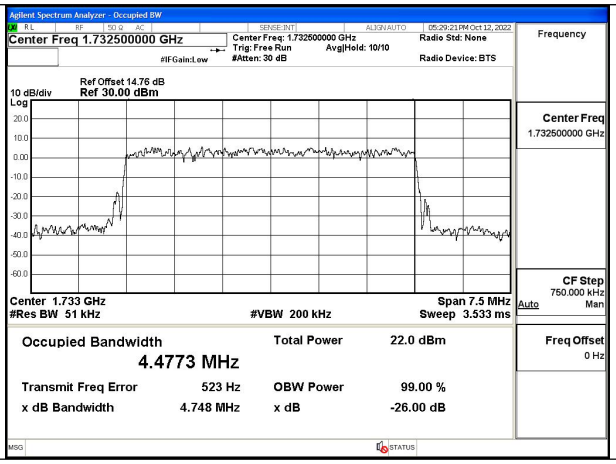


Fig.7



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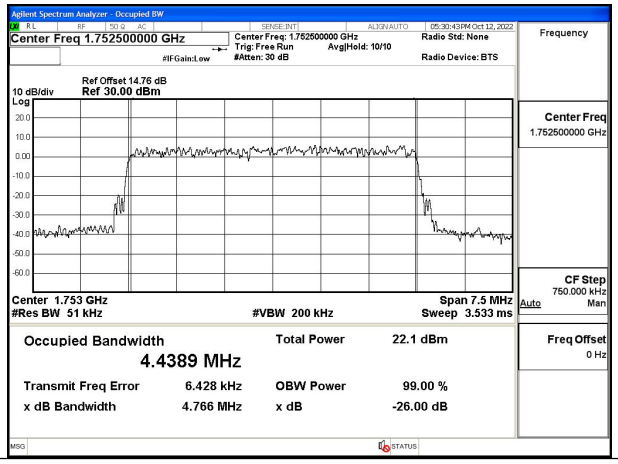

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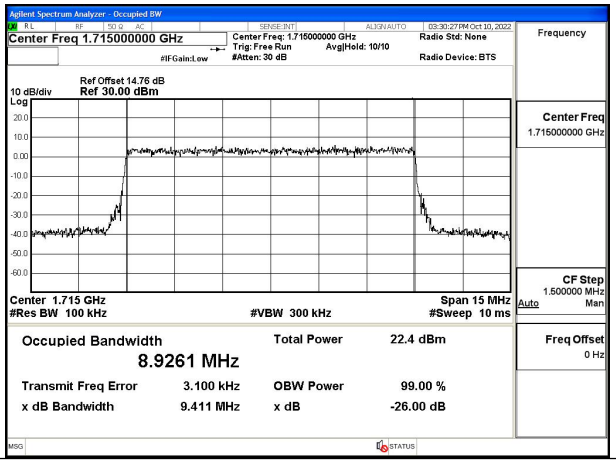
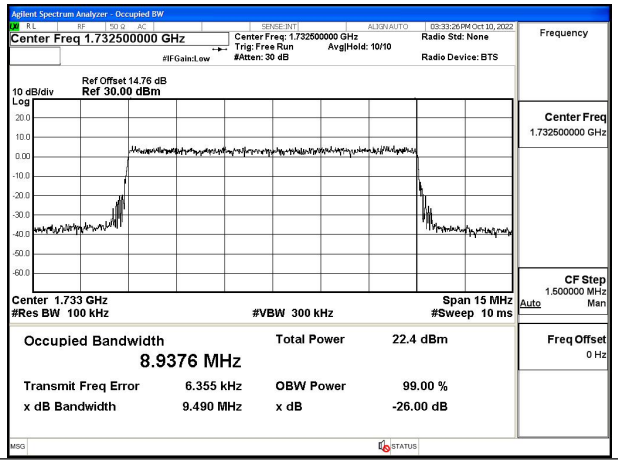


Fig.10



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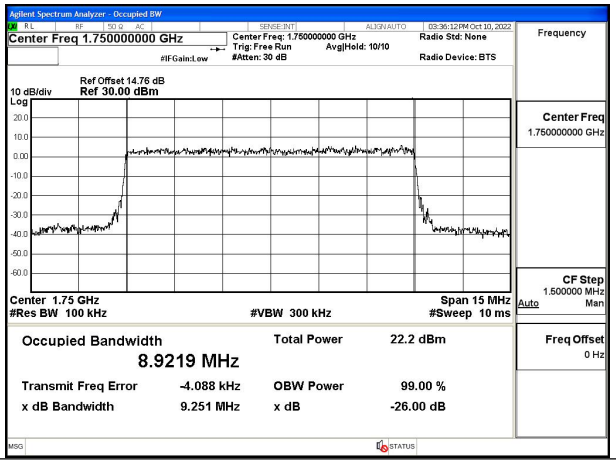

Fig.12

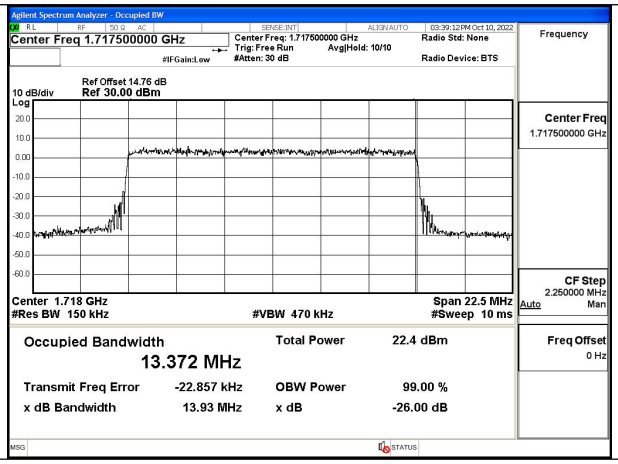

Fig.13

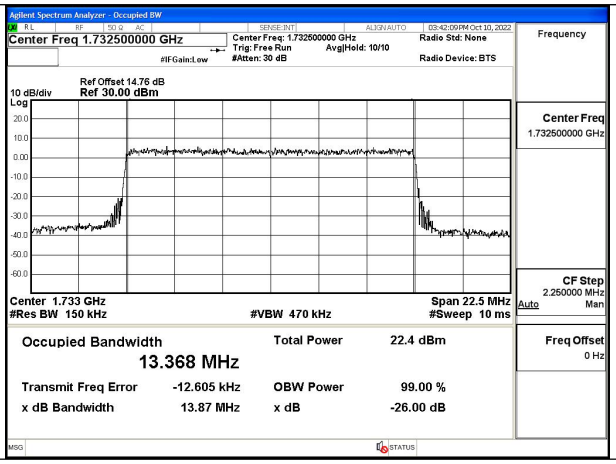

Fig.14

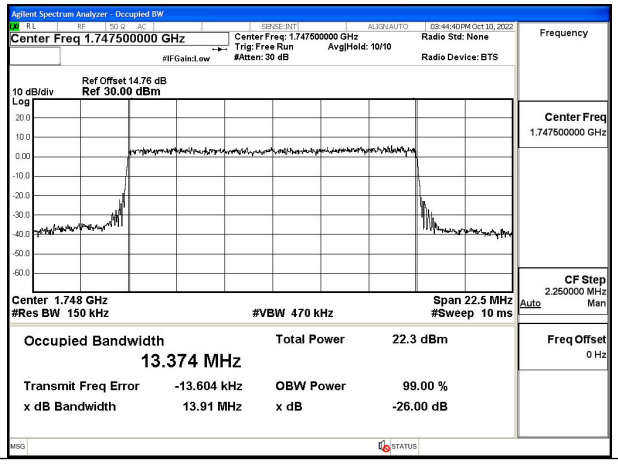

Fig.15

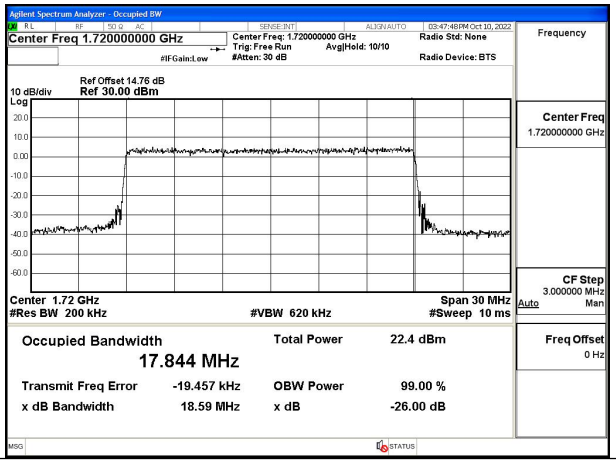

Fig.16

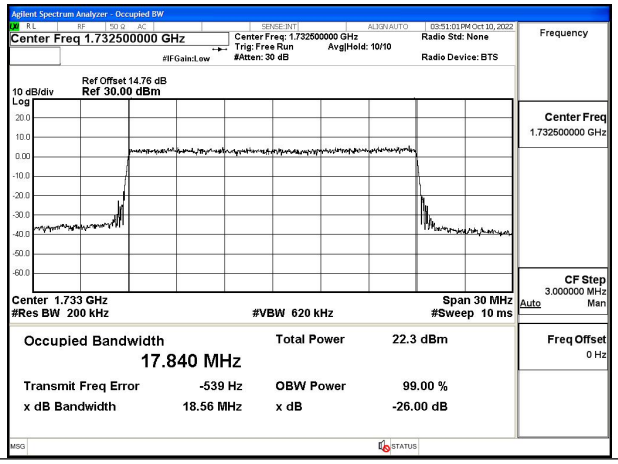

Fig.17

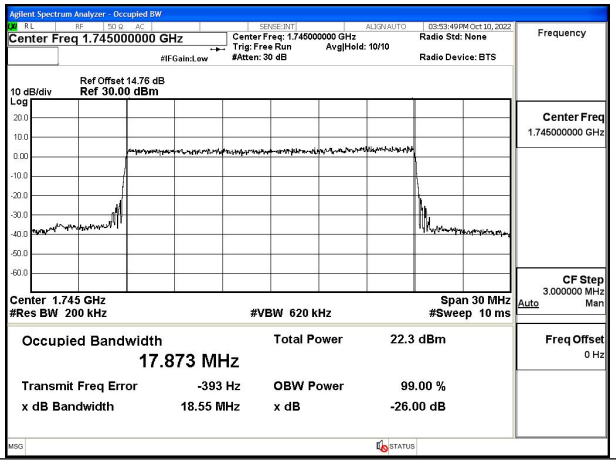

Fig.18

Test Mode: 16QAM

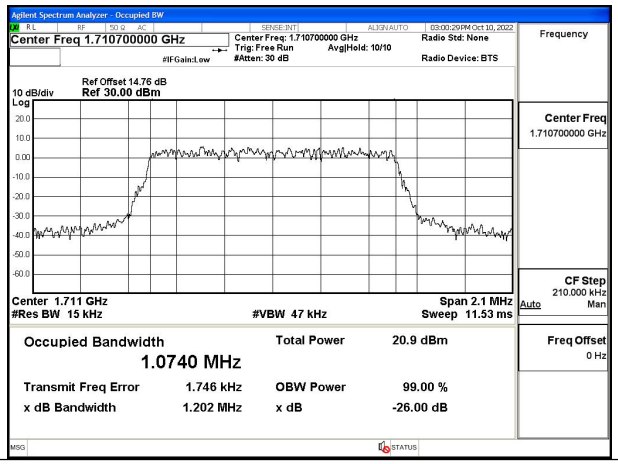

Fig.19

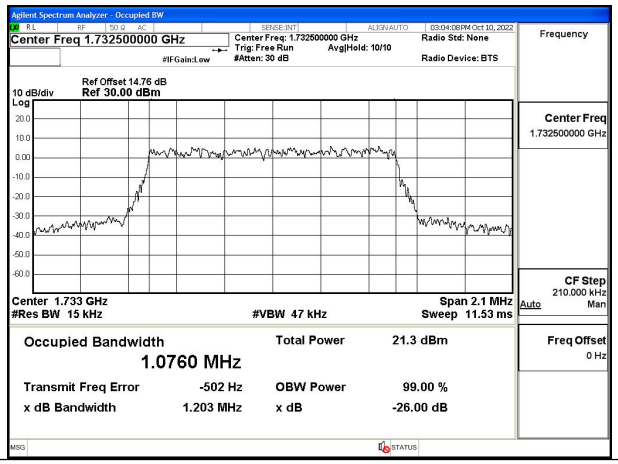

Fig.20

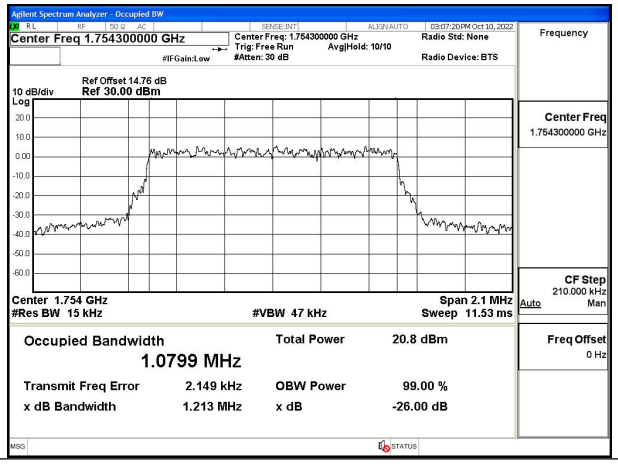

Fig.21

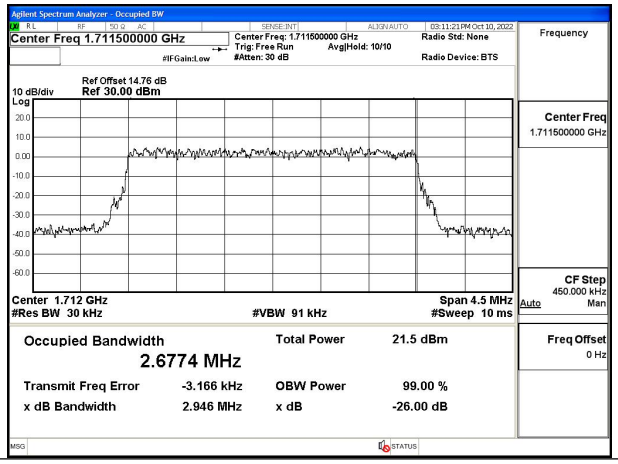

Fig.22

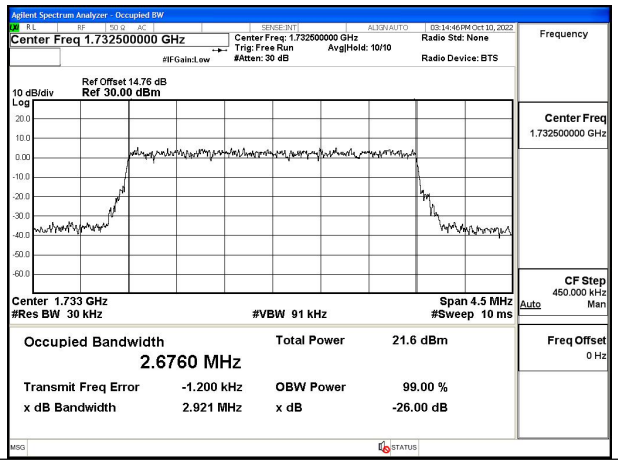

Fig.23

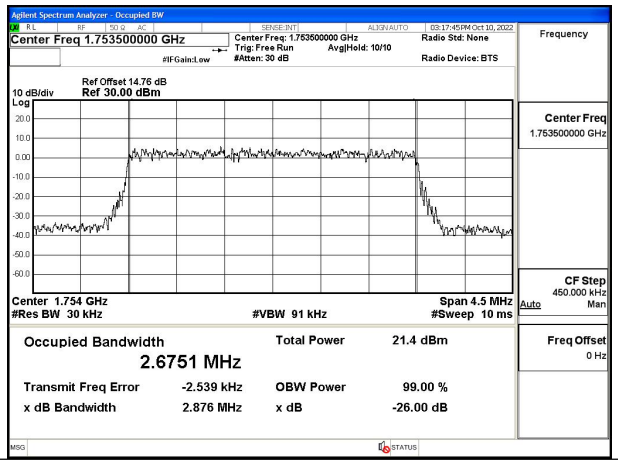

Fig.24

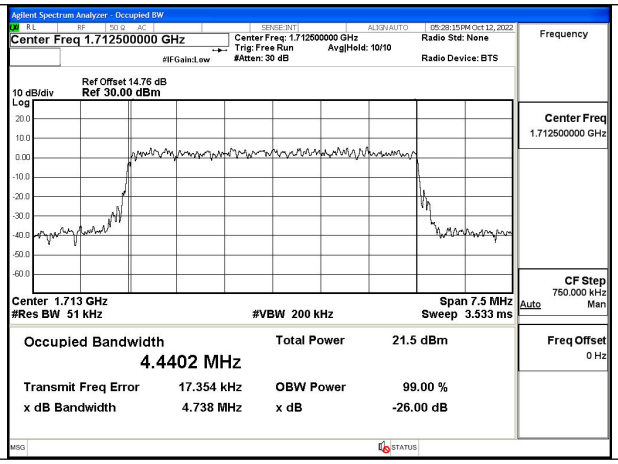

Fig.25

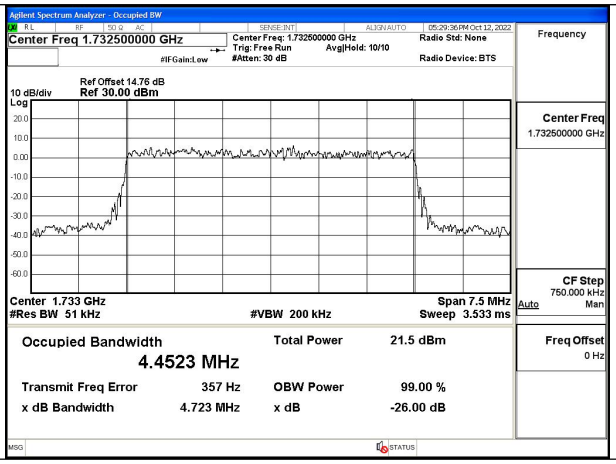

Fig.26

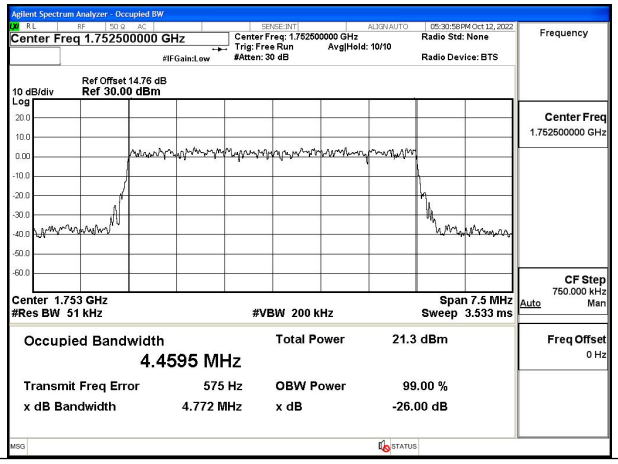

Fig.27

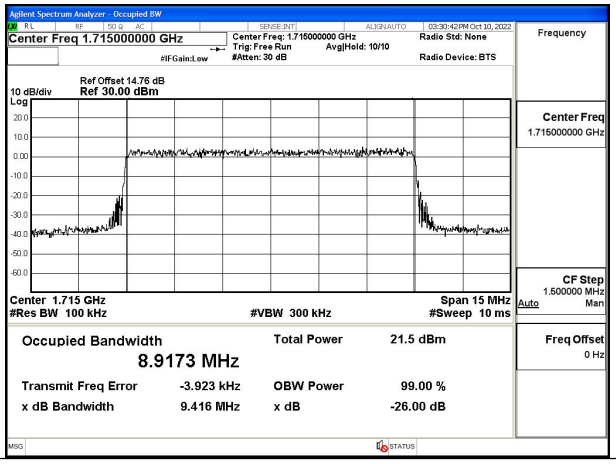

Fig.28

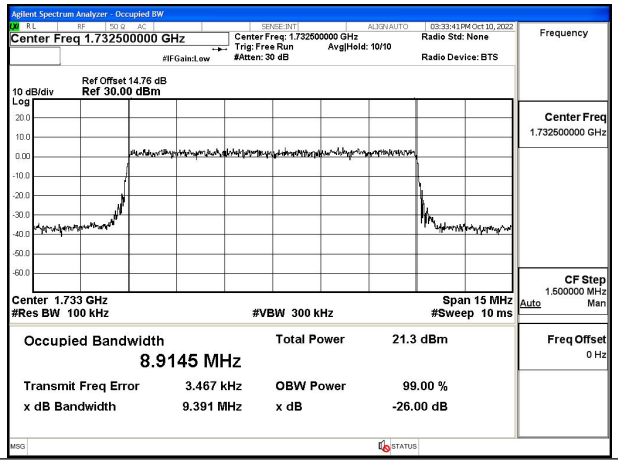

Fig.29

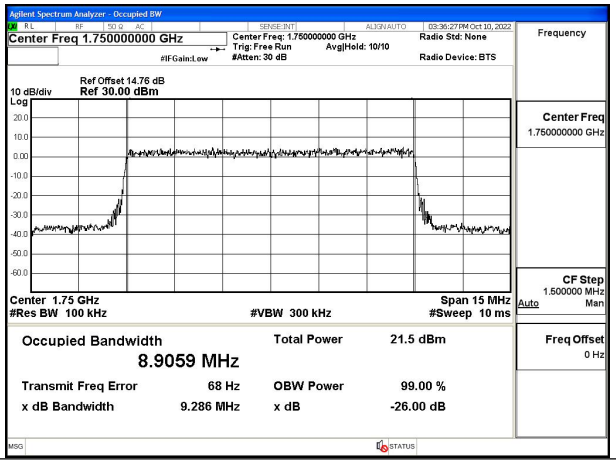

Fig.30

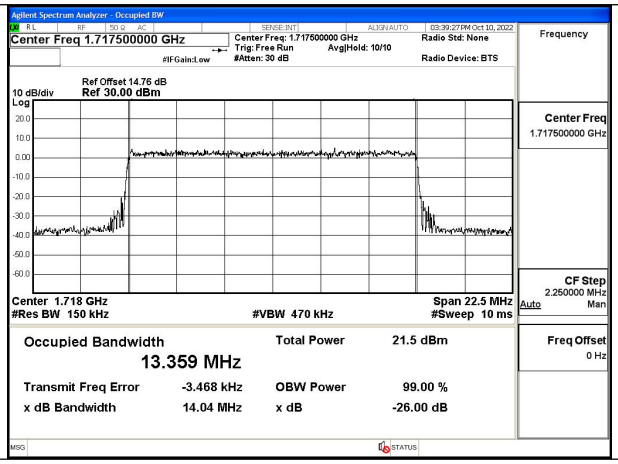

Fig.31

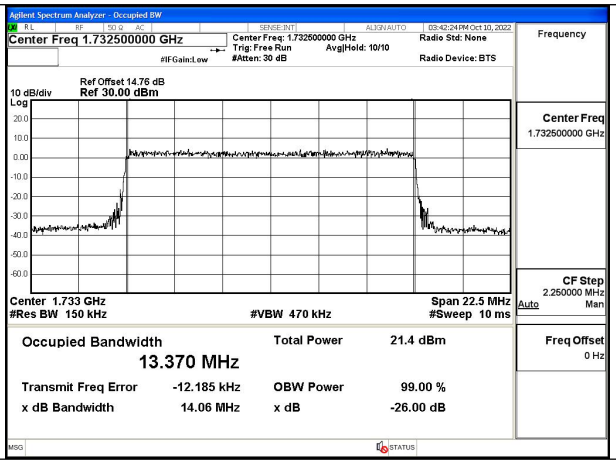

Fig.32

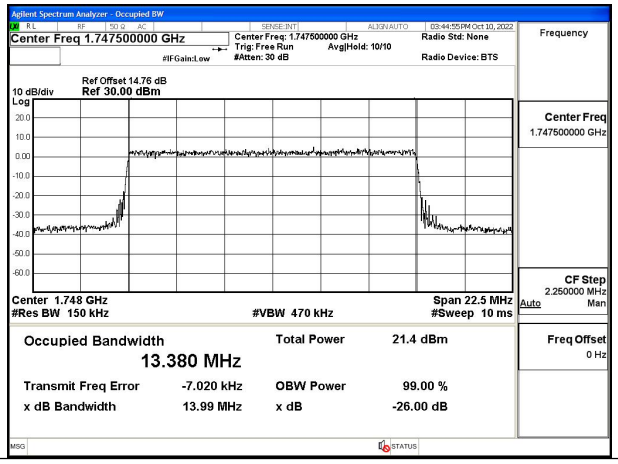

Fig.33

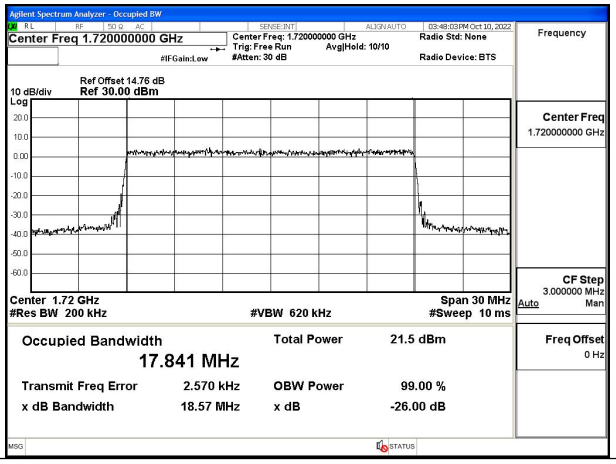

Fig.34

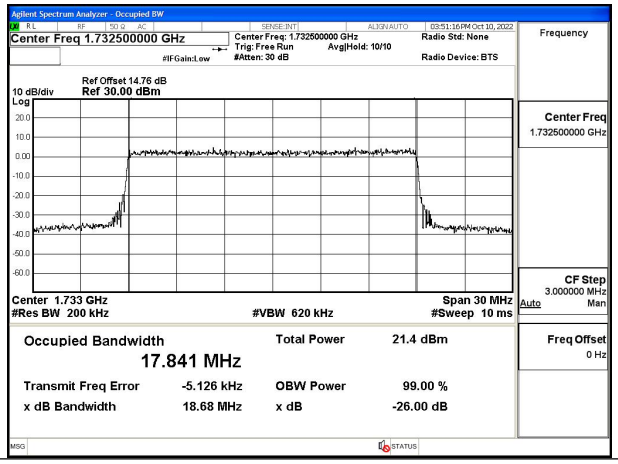

Fig.35

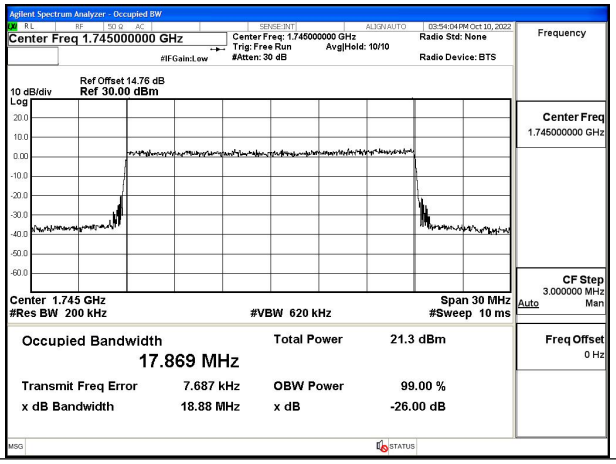

Fig.36

3 Emission Bandwidth

Band	Mode	Carrier frequency (MHz)	Channel	BW (MHz)	RB Size	RB Offset	Bandwidth of -26dB transmitter power (MHz)	
4	QPSK	1710.7	19957	1.4	6	0	1.217	Fig.1
4	QPSK	1732.5	20175	1.4	6	0	1.215	Fig.2
4	QPSK	1754.3	20393	1.4	6	0	1.215	Fig.3
4	QPSK	1711.5	19965	3	15	0	2.881	Fig.4
4	QPSK	1732.5	20175	3	15	0	2.965	Fig.5
4	QPSK	1753.5	20385	3	15	0	2.895	Fig.6
4	QPSK	1712.5	19975	5	25	0	4.696	Fig.7
4	QPSK	1732.5	20175	5	25	0	4.748	Fig.8
4	QPSK	1752.5	20375	5	25	0	4.766	Fig.9
4	QPSK	1715	20000	10	50	0	9.411	Fig.10
4	QPSK	1732.5	20175	10	50	0	9.490	Fig.11
4	QPSK	1750	20350	10	50	0	9.251	Fig.12
4	QPSK	1717.5	20025	15	75	0	13.929	Fig.13
4	QPSK	1732.5	20175	15	75	0	13.873	Fig.14
4	QPSK	1747.5	20325	15	75	0	13.914	Fig.15
4	QPSK	1720	20050	20	100	0	18.587	Fig.16
4	QPSK	1732.5	20175	20	100	0	18.557	Fig.17
4	QPSK	1745	20300	20	100	0	18.547	Fig.18

Band	Mode	Carrier frequency (MHz)	Channel	BW (MHz)	RB Size	RB Offset	Bandwidth of -26dB transmitter power (MHz)	
4	16QAM	1710.7	19957	1.4	6	0	1.202	Fig.19
4	16QAM	1732.5	20175	1.4	6	0	1.203	Fig.20
4	16QAM	1754.3	20393	1.4	6	0	1.213	Fig.21
4	16QAM	1711.5	19965	3	15	0	2.946	Fig.22
4	16QAM	1732.5	20175	3	15	0	2.921	Fig.23
4	16QAM	1753.5	20385	3	15	0	2.876	Fig.24
4	16QAM	1712.5	19975	5	25	0	4.738	Fig.25
4	16QAM	1732.5	20175	5	25	0	4.723	Fig.26
4	16QAM	1752.5	20375	5	25	0	4.772	Fig.27
4	16QAM	1715	20000	10	50	0	9.416	Fig.28
4	16QAM	1732.5	20175	10	50	0	9.391	Fig.29
4	16QAM	1750	20350	10	50	0	9.286	Fig.30
4	16QAM	1717.5	20025	15	75	0	14.039	Fig.31
4	16QAM	1732.5	20175	15	75	0	14.057	Fig.32
4	16QAM	1747.5	20325	15	75	0	13.992	Fig.33
4	16QAM	1720	20050	20	100	0	18.570	Fig.34
4	16QAM	1732.5	20175	20	100	0	18.677	Fig.35
4	16QAM	1745	20300	20	100	0	18.877	Fig.36

Test Mode: QPSK

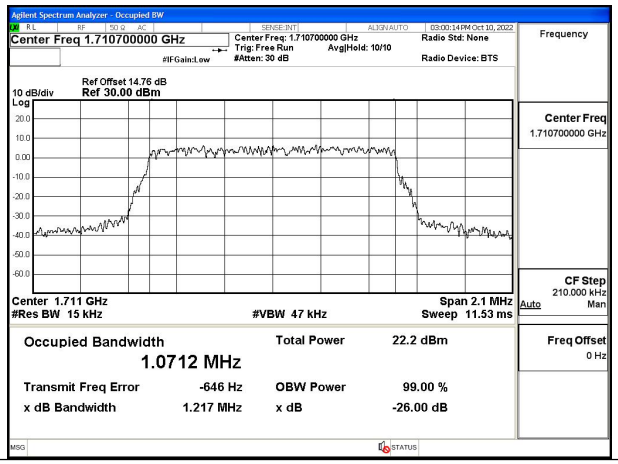

Fig.1

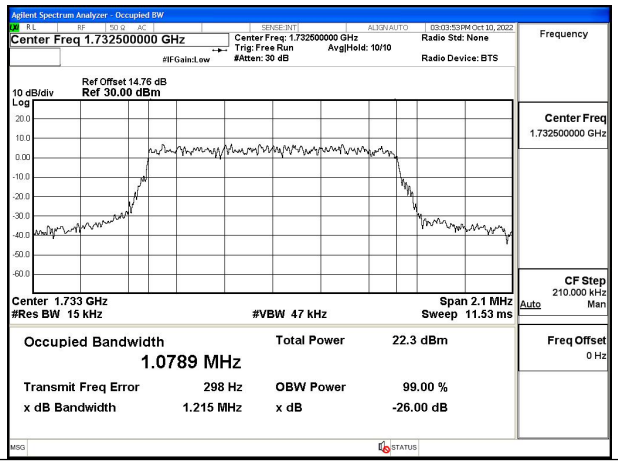

Fig.2

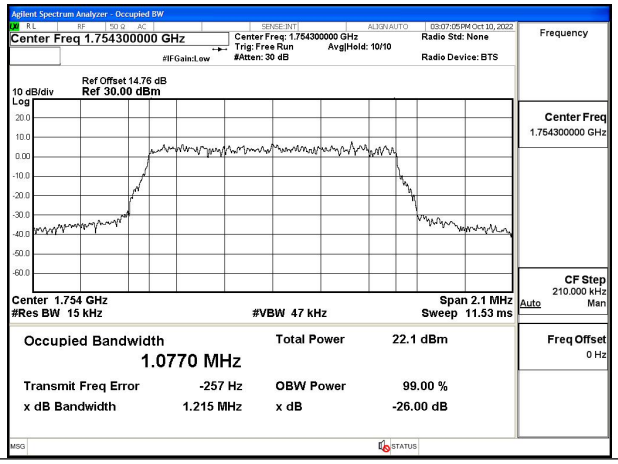

Fig.3

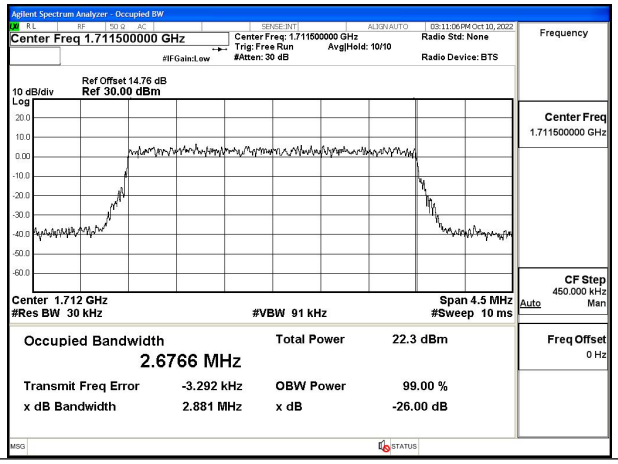

Fig.4

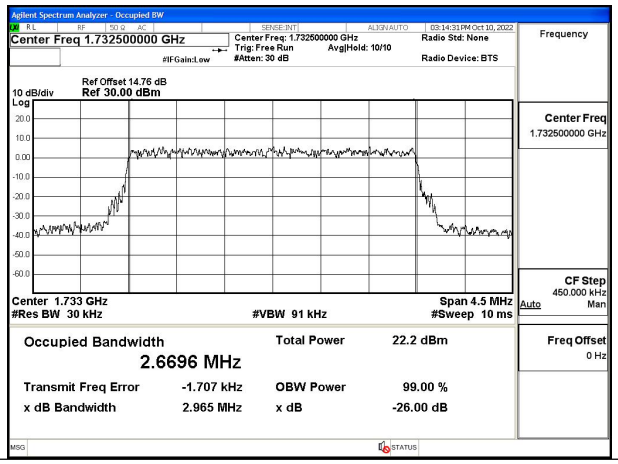

Fig.5

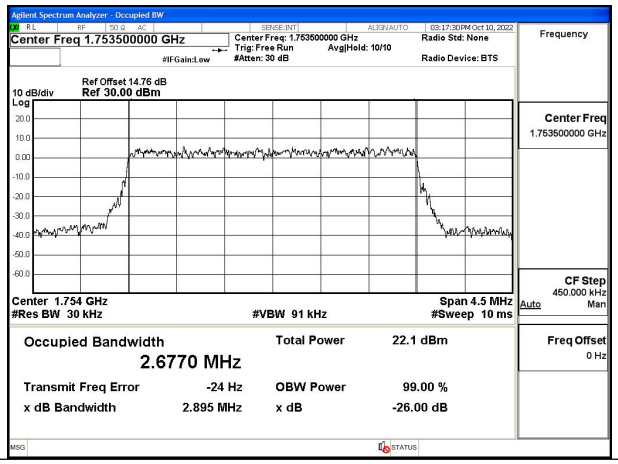

Fig.6