

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	23.00
QPSK	1710.7	19957	1.4	1	3	23.11
QPSK	1710.7	19957	1.4	1	5	23.08
QPSK	1710.7	19957	1.4	3	0	23.13
QPSK	1710.7	19957	1.4	3	1	23.26
QPSK	1710.7	19957	1.4	3	3	23.17
QPSK	1710.7	19957	1.4	6	0	22.09
QPSK	1732.5	20175	1.4	1	0	22.90
QPSK	1732.5	20175	1.4	1	3	23.07
QPSK	1732.5	20175	1.4	1	5	22.92
QPSK	1732.5	20175	1.4	3	0	22.95
QPSK	1732.5	20175	1.4	3	1	23.09
QPSK	1732.5	20175	1.4	3	3	23.09
QPSK	1732.5	20175	1.4	6	0	22.03
QPSK	1754.3	20393	1.4	1	0	23.02
QPSK	1754.3	20393	1.4	1	3	23.14
QPSK	1754.3	20393	1.4	1	5	22.99
QPSK	1754.3	20393	1.4	3	0	23.07
QPSK	1754.3	20393	1.4	3	1	23.11
QPSK	1754.3	20393	1.4	3	3	22.95
QPSK	1754.3	20393	1.4	6	0	22.09

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)
16QAM	1710.7	19957	1.4	1	0	22.06
16QAM	1710.7	19957	1.4	1	3	22.33
16QAM	1710.7	19957	1.4	1	5	22.10
16QAM	1710.7	19957	1.4	3	0	22.24
16QAM	1710.7	19957	1.4	3	1	22.29
16QAM	1710.7	19957	1.4	3	3	22.26
16QAM	1710.7	19957	1.4	6	0	21.36
16QAM	1732.5	20175	1.4	1	0	22.19
16QAM	1732.5	20175	1.4	1	3	22.30
16QAM	1732.5	20175	1.4	1	5	22.23
16QAM	1732.5	20175	1.4	3	0	22.03
16QAM	1732.5	20175	1.4	3	1	22.19
16QAM	1732.5	20175	1.4	3	3	22.13
16QAM	1732.5	20175	1.4	6	0	21.05
16QAM	1754.3	20393	1.4	1	0	22.22
16QAM	1754.3	20393	1.4	1	3	22.51

16QAM	1754.3	20393	1.4	1	5	22.27
16QAM	1754.3	20393	1.4	3	0	22.06
16QAM	1754.3	20393	1.4	3	1	22.04
16QAM	1754.3	20393	1.4	3	3	22.01
16QAM	1754.3	20393	1.4	6	0	21.16

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)
QPSK	1711.5	19965	3	1	0	22.95
QPSK	1711.5	19965	3	1	8	22.90
QPSK	1711.5	19965	3	1	14	23.02
QPSK	1711.5	19965	3	8	0	21.98
QPSK	1711.5	19965	3	8	4	22.01
QPSK	1711.5	19965	3	8	7	21.98
QPSK	1711.5	19965	3	15	0	21.99
QPSK	1732.5	20175	3	1	0	22.82
QPSK	1732.5	20175	3	1	8	22.87
QPSK	1732.5	20175	3	1	14	22.80
QPSK	1732.5	20175	3	8	0	21.85
QPSK	1732.5	20175	3	8	4	22.03
QPSK	1732.5	20175	3	8	7	21.89
QPSK	1732.5	20175	3	15	0	21.90
QPSK	1753.5	20385	3	1	0	23.01
QPSK	1753.5	20385	3	1	8	22.94
QPSK	1753.5	20385	3	1	14	23.01
QPSK	1753.5	20385	3	8	0	22.00
QPSK	1753.5	20385	3	8	4	22.01
QPSK	1753.5	20385	3	8	7	21.95
QPSK	1753.5	20385	3	15	0	21.96

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)
16QAM	1711.5	19965	3	1	0	22.55
16QAM	1711.5	19965	3	1	8	22.63
16QAM	1711.5	19965	3	1	14	22.64
16QAM	1711.5	19965	3	8	0	21.09
16QAM	1711.5	19965	3	8	4	21.13
16QAM	1711.5	19965	3	8	7	21.06
16QAM	1711.5	19965	3	15	0	21.11
16QAM	1732.5	20175	3	1	0	22.13
16QAM	1732.5	20175	3	1	8	22.11
16QAM	1732.5	20175	3	1	14	22.06
16QAM	1732.5	20175	3	8	0	20.83
16QAM	1732.5	20175	3	8	4	20.89
16QAM	1732.5	20175	3	8	7	20.81

16QAM	1732.5	20175	3	15	0	20.95
16QAM	1753.5	20385	3	1	0	22.29
16QAM	1753.5	20385	3	1	8	22.15
16QAM	1753.5	20385	3	1	14	22.24
16QAM	1753.5	20385	3	8	0	21.02
16QAM	1753.5	20385	3	8	4	21.03
16QAM	1753.5	20385	3	8	7	20.98
16QAM	1753.5	20385	3	15	0	21.07

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)
QPSK	1712.5	19975	5	1	0	22.75
QPSK	1712.5	19975	5	1	12	23.09
QPSK	1712.5	19975	5	1	24	22.73
QPSK	1712.5	19975	5	12	0	21.85
QPSK	1712.5	19975	5	12	7	22.04
QPSK	1712.5	19975	5	12	13	21.95
QPSK	1712.5	19975	5	25	0	21.96
QPSK	1732.5	20175	5	1	0	22.74
QPSK	1732.5	20175	5	1	12	23.01
QPSK	1732.5	20175	5	1	24	22.71
QPSK	1732.5	20175	5	12	0	21.90
QPSK	1732.5	20175	5	12	7	21.88
QPSK	1732.5	20175	5	12	13	21.87
QPSK	1732.5	20175	5	25	0	21.93
QPSK	1752.5	20375	5	1	0	22.82
QPSK	1752.5	20375	5	1	12	23.14
QPSK	1752.5	20375	5	1	24	22.86
QPSK	1752.5	20375	5	12	0	21.93
QPSK	1752.5	20375	5	12	7	22.10
QPSK	1752.5	20375	5	12	13	22.00
QPSK	1752.5	20375	5	25	0	21.92

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)
16QAM	1712.5	19975	5	1	0	21.94
16QAM	1712.5	19975	5	1	12	22.28
16QAM	1712.5	19975	5	1	24	22.04
16QAM	1712.5	19975	5	12	0	20.87
16QAM	1712.5	19975	5	12	7	20.94
16QAM	1712.5	19975	5	12	13	20.93
16QAM	1712.5	19975	5	25	0	20.92
16QAM	1732.5	20175	5	1	0	22.13
16QAM	1732.5	20175	5	1	12	22.40
16QAM	1732.5	20175	5	1	24	22.16

16QAM	1732.5	20175	5	12	0	20.89
16QAM	1732.5	20175	5	12	7	20.87
16QAM	1732.5	20175	5	12	13	20.76
16QAM	1732.5	20175	5	25	0	20.89
16QAM	1752.5	20375	5	1	0	22.21
16QAM	1752.5	20375	5	1	12	22.41
16QAM	1752.5	20375	5	1	24	22.16
16QAM	1752.5	20375	5	12	0	20.87
16QAM	1752.5	20375	5	12	7	20.98
16QAM	1752.5	20375	5	12	13	20.99
16QAM	1752.5	20375	5	25	0	21.06

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)
QPSK	1715	20000	10	1	0	22.83
QPSK	1715	20000	10	1	25	23.01
QPSK	1715	20000	10	1	49	22.88
QPSK	1715	20000	10	25	0	21.94
QPSK	1715	20000	10	25	12	21.96
QPSK	1715	20000	10	25	25	21.93
QPSK	1715	20000	10	50	0	22.01
QPSK	1732.5	20175	10	1	0	22.85
QPSK	1732.5	20175	10	1	25	22.95
QPSK	1732.5	20175	10	1	49	22.92
QPSK	1732.5	20175	10	25	0	21.88
QPSK	1732.5	20175	10	25	12	21.96
QPSK	1732.5	20175	10	25	25	21.92
QPSK	1732.5	20175	10	50	0	21.96
QPSK	1750	20350	10	1	0	22.87
QPSK	1750	20350	10	1	25	23.12
QPSK	1750	20350	10	1	49	22.92
QPSK	1750	20350	10	25	0	21.99
QPSK	1750	20350	10	25	12	21.97
QPSK	1750	20350	10	25	25	22.00
QPSK	1750	20350	10	50	0	21.95

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)
16QAM	1715	20000	10	1	0	22.57
16QAM	1715	20000	10	1	25	22.54
16QAM	1715	20000	10	1	49	22.52
16QAM	1715	20000	10	25	0	20.97
16QAM	1715	20000	10	25	12	21.02
16QAM	1715	20000	10	25	25	21.03
16QAM	1715	20000	10	50	0	21.04
16QAM	1732.5	20175	10	1	0	22.07
16QAM	1732.5	20175	10	1	25	22.25
16QAM	1732.5	20175	10	1	49	22.13
16QAM	1732.5	20175	10	25	0	21.00
16QAM	1732.5	20175	10	25	12	21.02
16QAM	1732.5	20175	10	25	25	20.91
16QAM	1732.5	20175	10	50	0	20.90
16QAM	1750	20350	10	1	0	22.13
16QAM	1750	20350	10	1	25	22.34
16QAM	1750	20350	10	1	49	22.17
16QAM	1750	20350	10	25	0	21.03

16QAM	1750	20350	10	25	12	21.07
16QAM	1750	20350	10	25	25	21.10
16QAM	1750	20350	10	50	0	21.05

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)
QPSK	1717.5	20025	15	1	0	22.74
QPSK	1717.5	20025	15	1	37	22.97
QPSK	1717.5	20025	15	1	74	22.68
QPSK	1717.5	20025	15	36	0	21.86
QPSK	1717.5	20025	15	36	29	21.92
QPSK	1717.5	20025	15	36	30	21.89
QPSK	1717.5	20025	15	75	0	21.95
QPSK	1732.5	20175	15	1	0	22.73
QPSK	1732.5	20175	15	1	37	22.92
QPSK	1732.5	20175	15	1	74	22.78
QPSK	1732.5	20175	15	36	0	21.87
QPSK	1732.5	20175	15	36	29	21.84
QPSK	1732.5	20175	15	36	30	21.85
QPSK	1732.5	20175	15	75	0	21.87
QPSK	1747.5	20325	15	1	0	22.76
QPSK	1747.5	20325	15	1	37	22.99
QPSK	1747.5	20325	15	1	74	22.83
QPSK	1747.5	20325	15	36	0	21.97
QPSK	1747.5	20325	15	36	29	21.92
QPSK	1747.5	20325	15	36	30	21.96
QPSK	1747.5	20325	15	75	0	21.85

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)
16QAM	1717.5	20025	15	1	0	22.48
16QAM	1717.5	20025	15	1	37	22.58
16QAM	1717.5	20025	15	1	74	22.34
16QAM	1717.5	20025	15	36	0	20.93
16QAM	1717.5	20025	15	36	29	20.98
16QAM	1717.5	20025	15	36	30	20.91
16QAM	1717.5	20025	15	75	0	20.90
16QAM	1732.5	20175	15	1	0	21.95
16QAM	1732.5	20175	15	1	37	22.18
16QAM	1732.5	20175	15	1	74	22.01
16QAM	1732.5	20175	15	36	0	20.94
16QAM	1732.5	20175	15	36	29	20.83
16QAM	1732.5	20175	15	36	30	20.88
16QAM	1732.5	20175	15	75	0	20.87
16QAM	1747.5	20325	15	1	0	22.19
16QAM	1747.5	20325	15	1	37	22.49
16QAM	1747.5	20325	15	1	74	22.22
16QAM	1747.5	20325	15	36	0	20.97
16QAM	1747.5	20325	15	36	29	20.94
16QAM	1747.5	20325	15	36	30	20.93
16QAM	1747.5	20325	15	75	0	20.87

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)
QPSK	1720	20050	20	1	0	22.65
QPSK	1720	20050	20	1	49	22.75
QPSK	1720	20050	20	1	99	22.57
QPSK	1720	20050	20	50	0	21.87
QPSK	1720	20050	20	50	24	21.93
QPSK	1720	20050	20	50	50	21.92
QPSK	1720	20050	20	100	0	21.88
QPSK	1732.5	20175	20	1	0	22.61
QPSK	1732.5	20175	20	1	49	22.89
QPSK	1732.5	20175	20	1	99	22.63
QPSK	1732.5	20175	20	50	0	21.93
QPSK	1732.5	20175	20	50	24	21.91
QPSK	1732.5	20175	20	50	50	21.73
QPSK	1732.5	20175	20	100	0	21.83
QPSK	1745	20300	20	1	0	22.52
QPSK	1745	20300	20	1	49	22.92
QPSK	1745	20300	20	1	99	22.59
QPSK	1745	20300	20	50	0	21.99
QPSK	1745	20300	20	50	24	21.93
QPSK	1745	20300	20	50	50	21.86
QPSK	1745	20300	20	100	0	21.94

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)
16QAM	1720	20050	20	1	0	22.03
16QAM	1720	20050	20	1	49	22.26
16QAM	1720	20050	20	1	99	22.04
16QAM	1720	20050	20	50	0	20.87
16QAM	1720	20050	20	50	24	20.93
16QAM	1720	20050	20	50	50	21.01
16QAM	1720	20050	20	100	0	20.97
16QAM	1732.5	20175	20	1	0	21.92
16QAM	1732.5	20175	20	1	49	22.36
16QAM	1732.5	20175	20	1	99	21.93
16QAM	1732.5	20175	20	50	0	20.96
16QAM	1732.5	20175	20	50	24	20.89
16QAM	1732.5	20175	20	50	50	20.82
16QAM	1732.5	20175	20	100	0	20.84
16QAM	1745	20300	20	1	0	21.99
16QAM	1745	20300	20	1	49	22.37
16QAM	1745	20300	20	1	99	22.11
16QAM	1745	20300	20	50	0	21.01

16QAM	1745	20300	20	50	24	20.96
16QAM	1745	20300	20	50	50	20.89
16QAM	1745	20300	20	100	0	20.97

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	1.075	Fig.1
4	QPSK	1732.5	20175	1.4	6	0	1.072	Fig.2
4	QPSK	1754.3	20393	1.4	6	0	1.077	Fig.3
4	QPSK	1711.5	19965	3	15	0	2.668	Fig.4
4	QPSK	1732.5	20175	3	15	0	2.669	Fig.5
4	QPSK	1753.5	20385	3	15	0	2.677	Fig.6
4	QPSK	1712.5	19975	5	25	0	4.459	Fig.7
4	QPSK	1732.5	20175	5	25	0	4.468	Fig.8
4	QPSK	1752.5	20375	5	25	0	4.462	Fig.9
4	QPSK	1715	20000	10	50	0	8.943	Fig.10
4	QPSK	1732.5	20175	10	50	0	8.940	Fig.11
4	QPSK	1750	20350	10	50	0	8.916	Fig.12
4	QPSK	1717.5	20025	15	75	0	13.351	Fig.13
4	QPSK	1732.5	20175	15	75	0	13.393	Fig.14
4	QPSK	1747.5	20325	15	75	0	13.397	Fig.15
4	QPSK	1720	20050	20	100	0	17.825	Fig.16
4	QPSK	1732.5	20175	20	100	0	17.829	Fig.17
4	QPSK	1745	20300	20	100	0	17.891	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	1.073	Fig.19
4	16QAM	1732.5	20175	1.4	6	0	1.075	Fig.20
4	16QAM	1754.3	20393	1.4	6	0	1.073	Fig.21
4	16QAM	1711.5	19965	3	15	0	2.670	Fig.22
4	16QAM	1732.5	20175	3	15	0	2.669	Fig.23
4	16QAM	1753.5	20385	3	15	0	2.671	Fig.24
4	16QAM	1712.5	19975	5	25	0	4.460	Fig.25
4	16QAM	1732.5	20175	5	25	0	4.465	Fig.26
4	16QAM	1752.5	20375	5	25	0	4.464	Fig.27
4	16QAM	1715	20000	10	50	0	8.936	Fig.28
4	16QAM	1732.5	20175	10	50	0	8.924	Fig.29
4	16QAM	1750	20350	10	50	0	8.906	Fig.30
4	16QAM	1717.5	20025	15	75	0	13.319	Fig.31
4	16QAM	1732.5	20175	15	75	0	13.395	Fig.32
4	16QAM	1747.5	20325	15	75	0	13.389	Fig.33
4	16QAM	1720	20050	20	100	0	17.755	Fig.34
4	16QAM	1732.5	20175	20	100	0	17.804	Fig.35
4	16QAM	1745	20300	20	100	0	17.882	Fig.36

Test Mode: QPSK

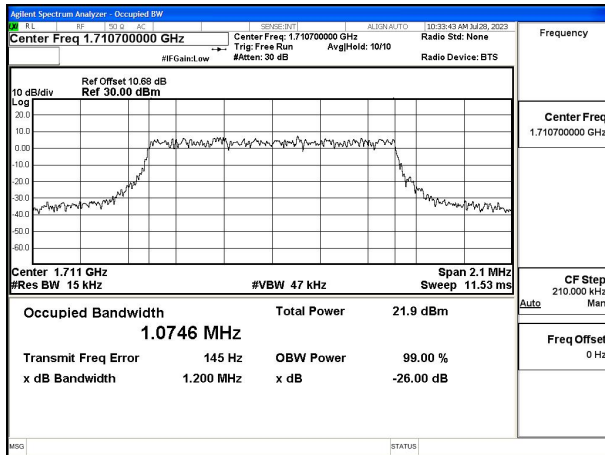


Fig.1

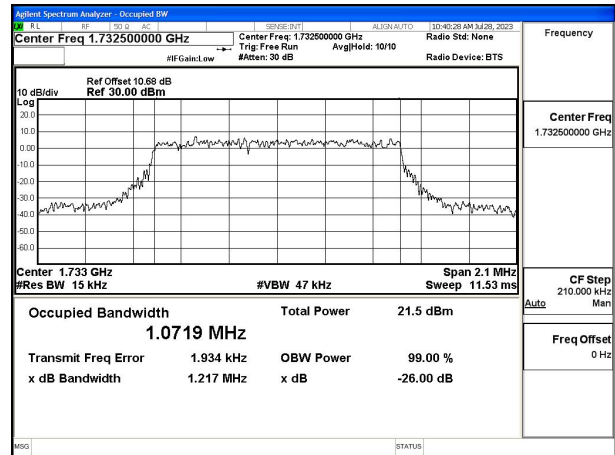


Fig.2

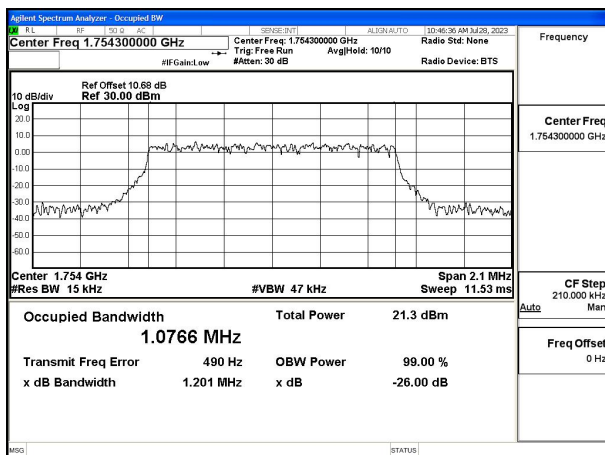


Fig.3

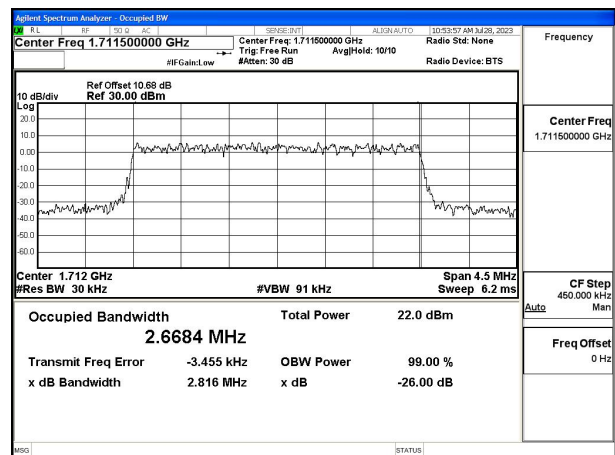


Fig.4

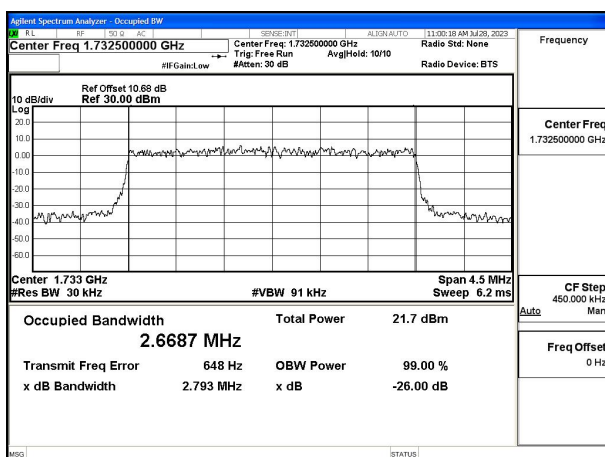


Fig.5

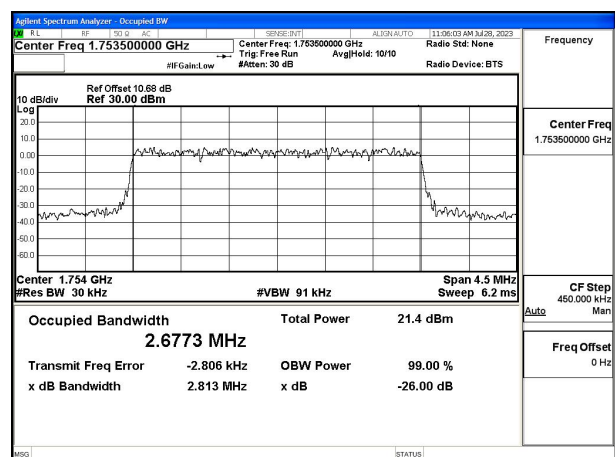


Fig.6

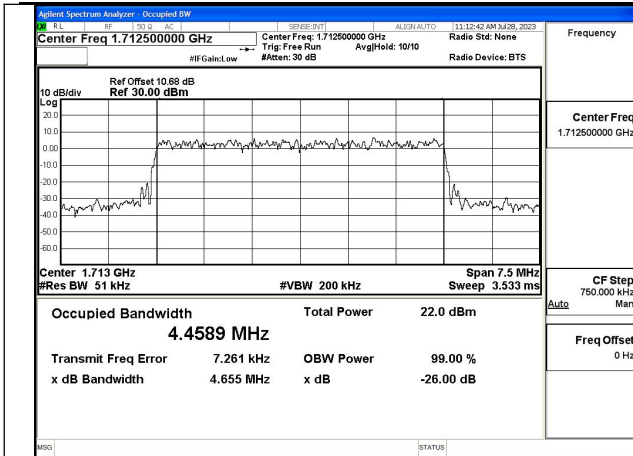


Fig.7

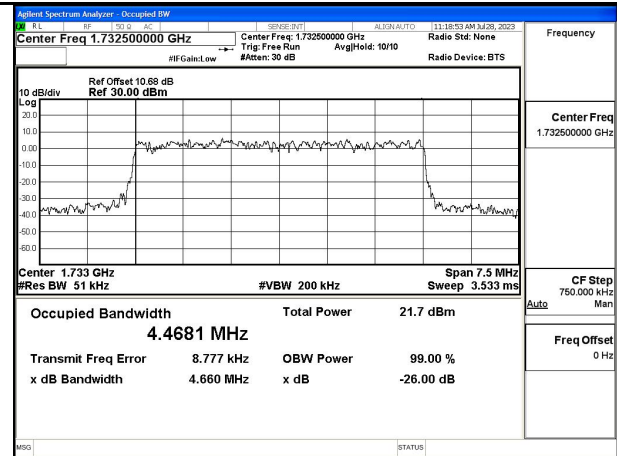


Fig.8

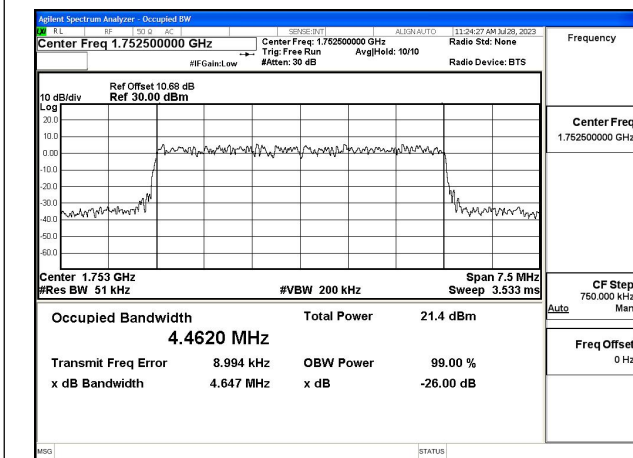


Fig.9

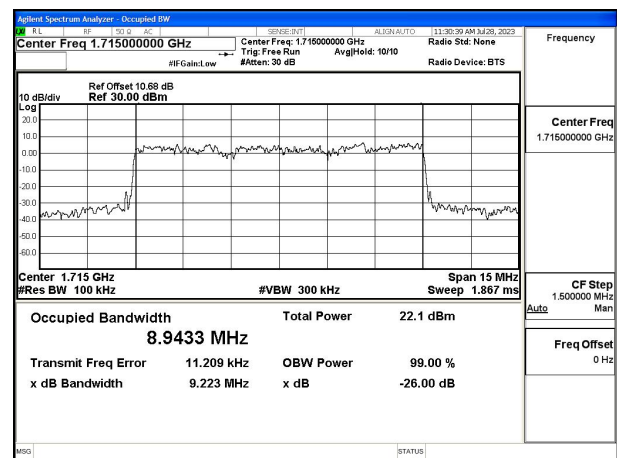


Fig.10

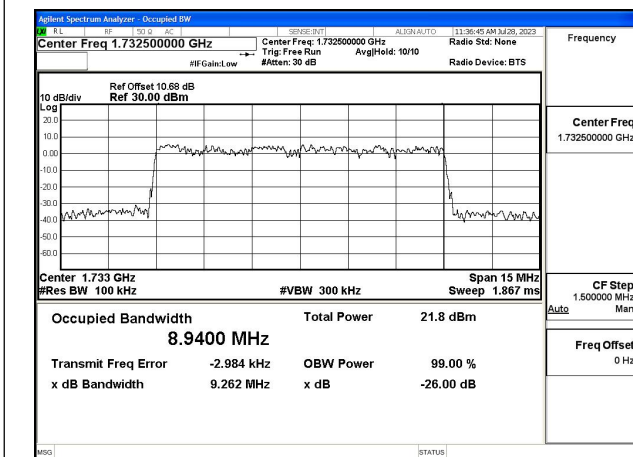


Fig.11

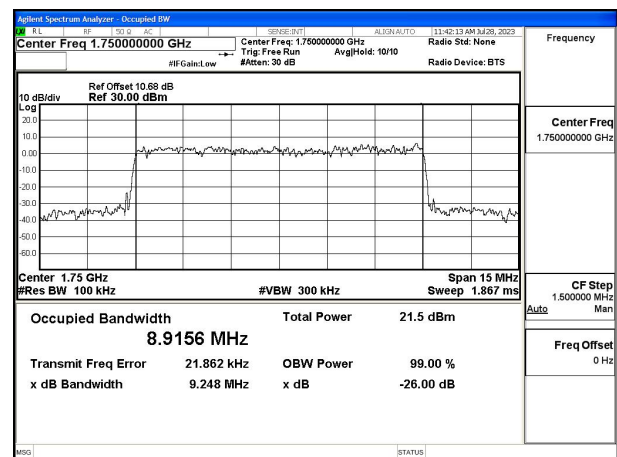


Fig.12

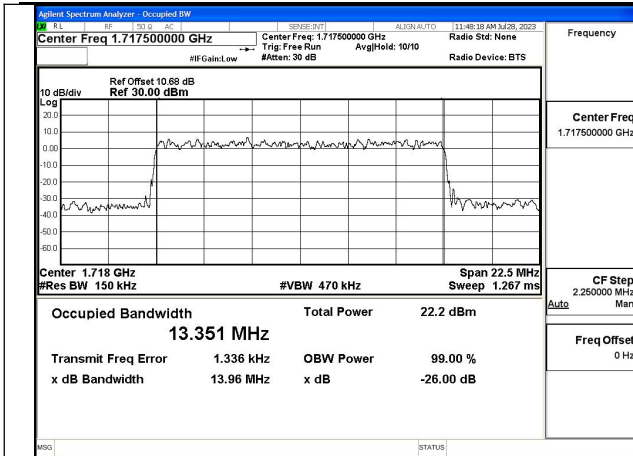


Fig.13

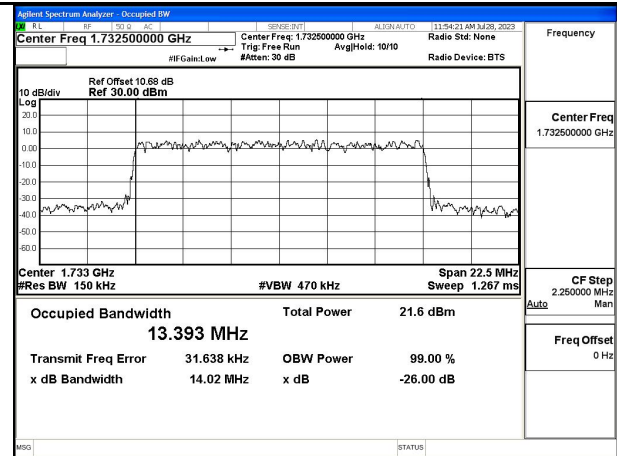


Fig.14

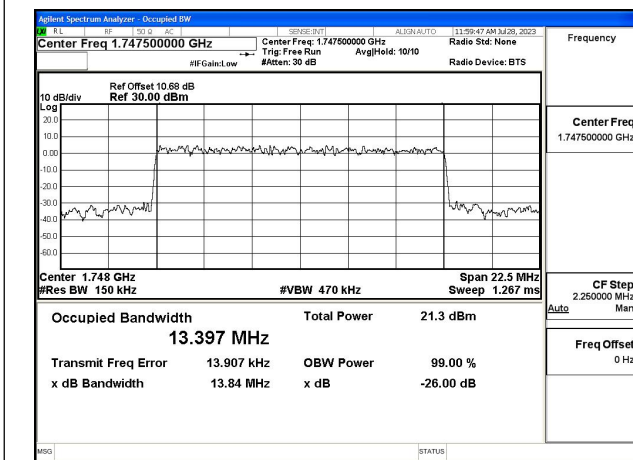


Fig.15

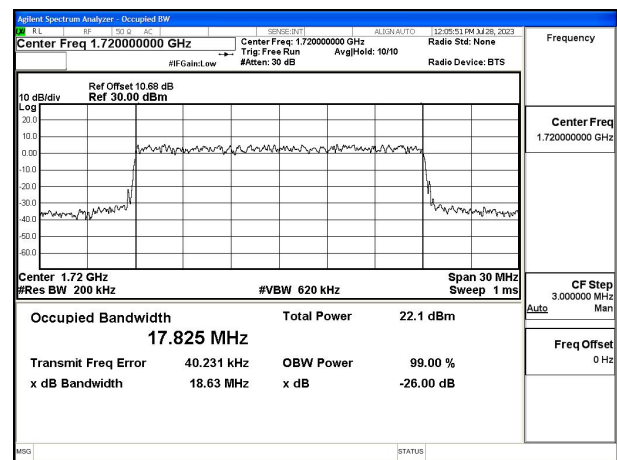


Fig.16

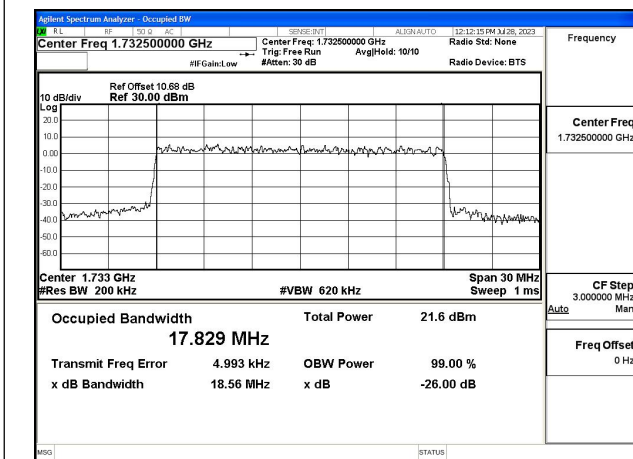


Fig.17

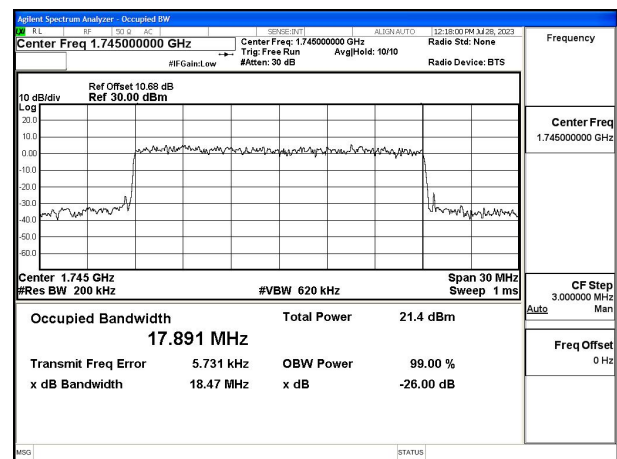


Fig.18

Test Mode: 16QAM

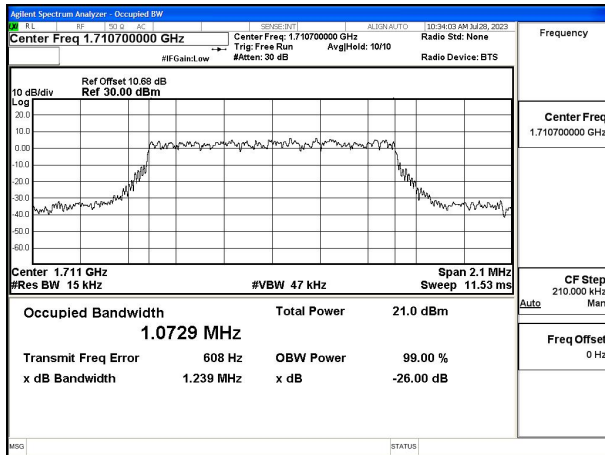


Fig.19

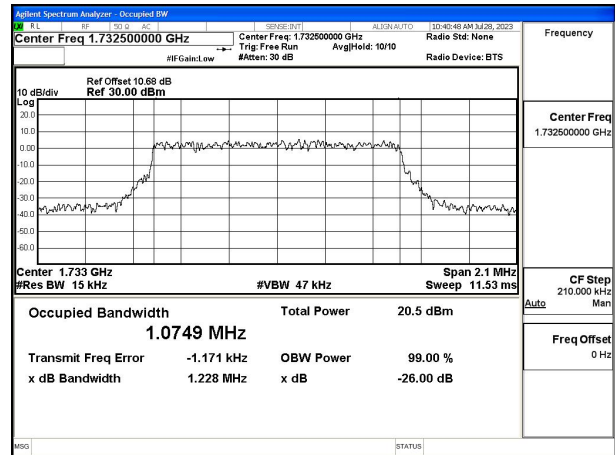


Fig.20

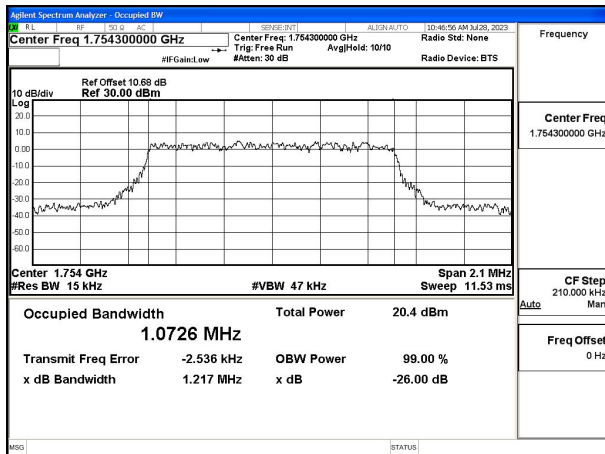


Fig.21

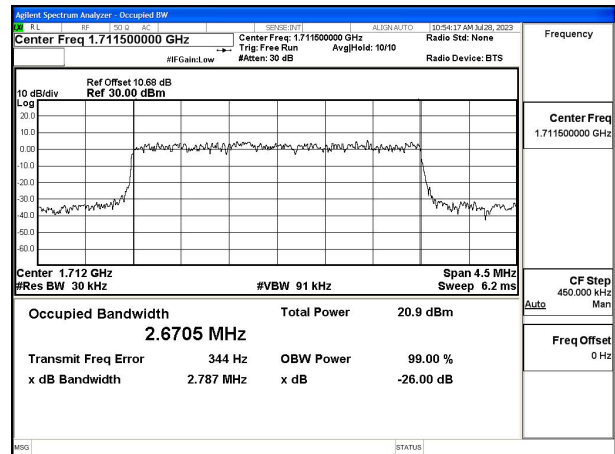


Fig.22

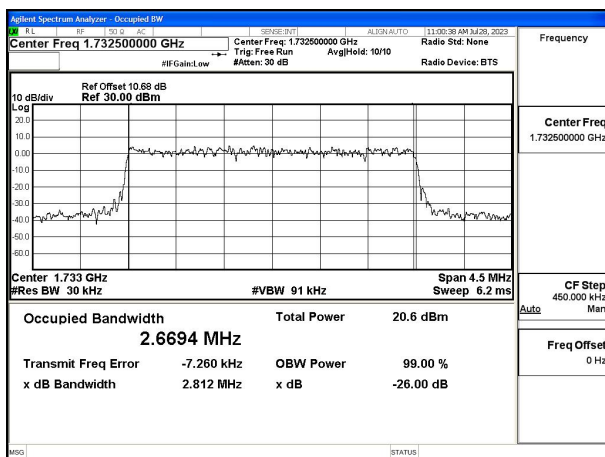


Fig.23

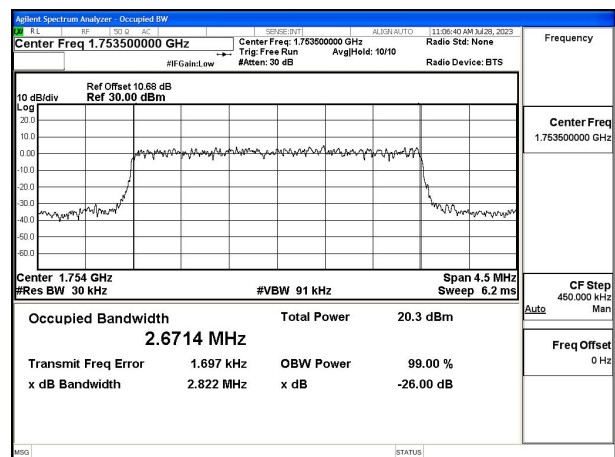


Fig.24

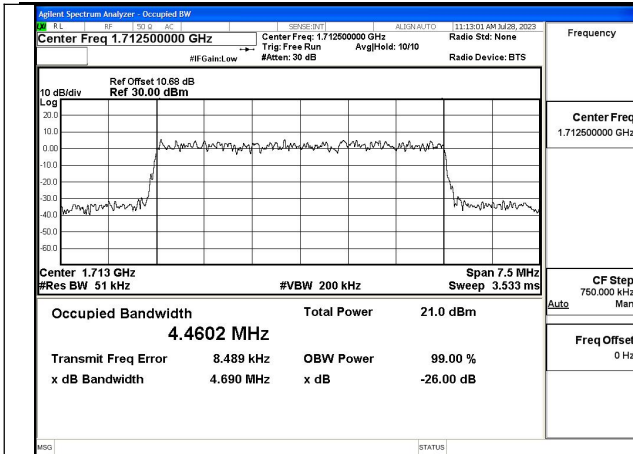


Fig.25

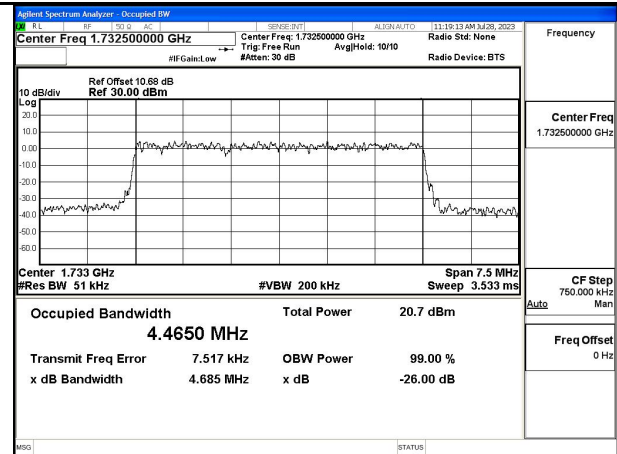


Fig.26

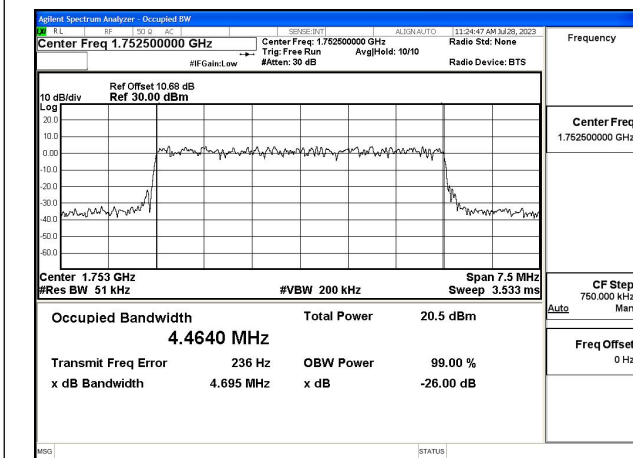


Fig.27

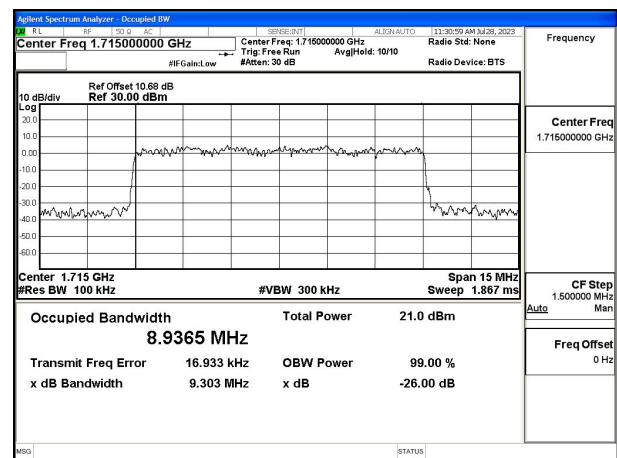


Fig.28

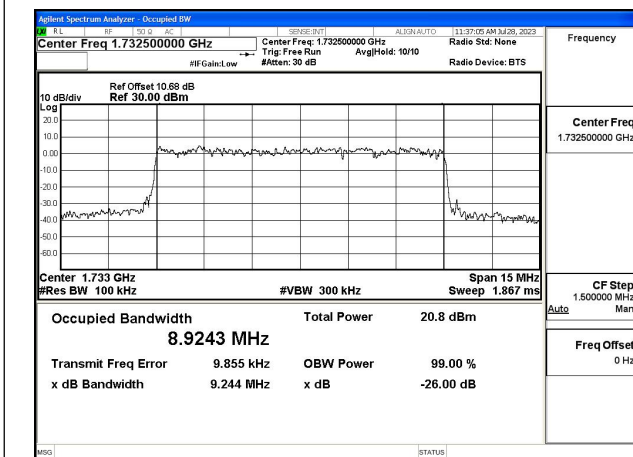


Fig.29

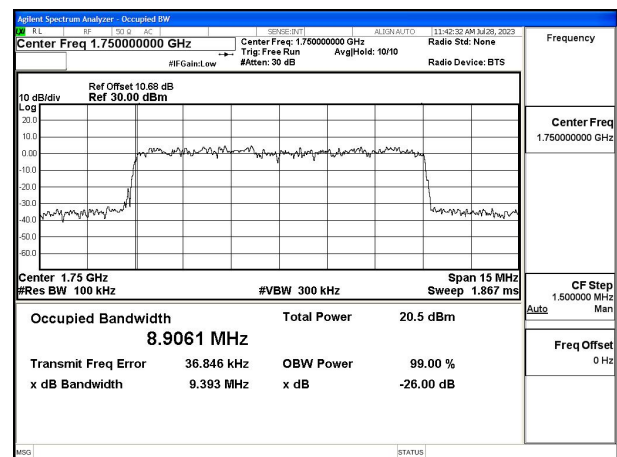


Fig.30

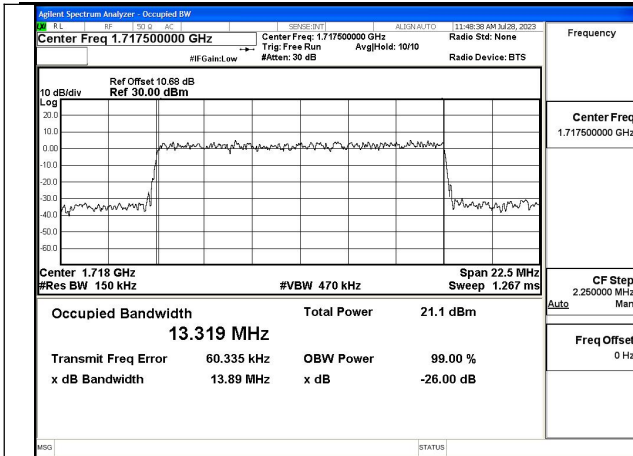


Fig.31

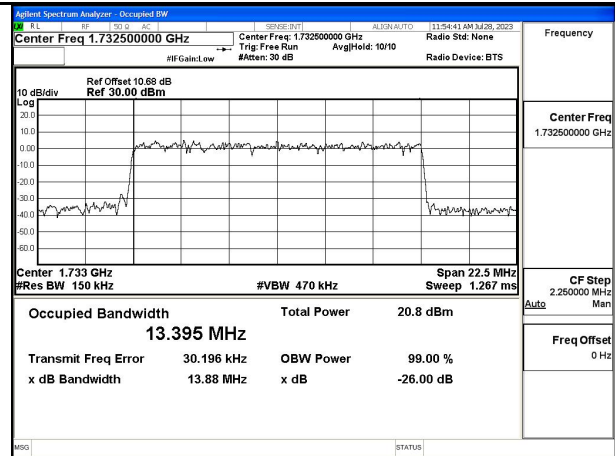


Fig.32

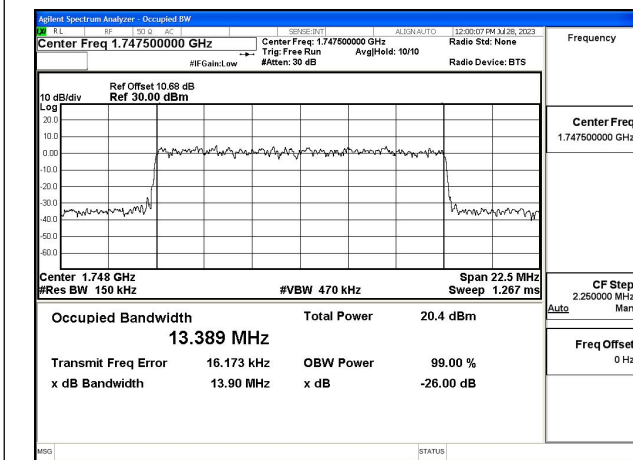


Fig.33

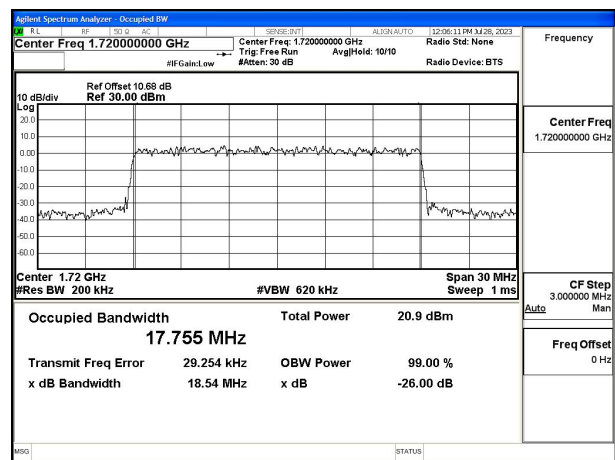


Fig.34

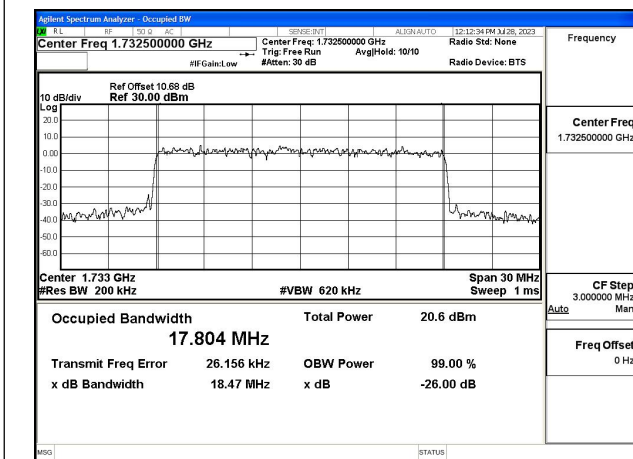


Fig.35

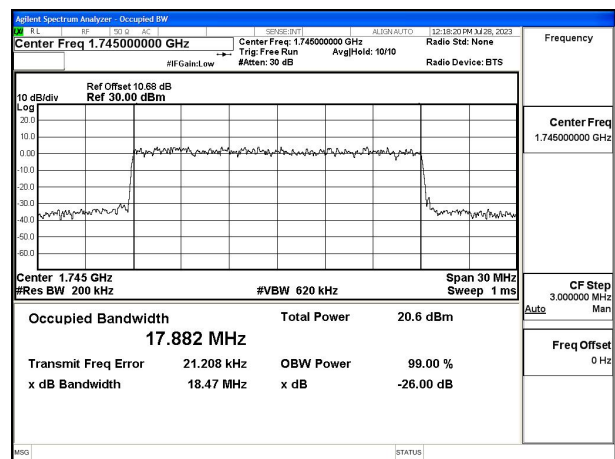


Fig.36

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	1.200	Fig.1
4	QPSK	1732.5	20175	1.4	6	0	1.217	Fig.2
4	QPSK	1754.3	20393	1.4	6	0	1.201	Fig.3
4	QPSK	1711.5	19965	3	15	0	2.816	Fig.4
4	QPSK	1732.5	20175	3	15	0	2.793	Fig.5
4	QPSK	1753.5	20385	3	15	0	2.813	Fig.6
4	QPSK	1712.5	19975	5	25	0	4.655	Fig.7
4	QPSK	1732.5	20175	5	25	0	4.660	Fig.8
4	QPSK	1752.5	20375	5	25	0	4.647	Fig.9
4	QPSK	1715	20000	10	50	0	9.223	Fig.10
4	QPSK	1732.5	20175	10	50	0	9.262	Fig.11
4	QPSK	1750	20350	10	50	0	9.248	Fig.12
4	QPSK	1717.5	20025	15	75	0	13.964	Fig.13
4	QPSK	1732.5	20175	15	75	0	14.021	Fig.14
4	QPSK	1747.5	20325	15	75	0	13.836	Fig.15
4	QPSK	1720	20050	20	100	0	18.632	Fig.16
4	QPSK	1732.5	20175	20	100	0	18.562	Fig.17
4	QPSK	1745	20300	20	100	0	18.465	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	1.239	Fig.19
4	16QAM	1732.5	20175	1.4	6	0	1.228	Fig.20
4	16QAM	1754.3	20393	1.4	6	0	1.217	Fig.21
4	16QAM	1711.5	19965	3	15	0	2.787	Fig.22
4	16QAM	1732.5	20175	3	15	0	2.812	Fig.23
4	16QAM	1753.5	20385	3	15	0	2.822	Fig.24
4	16QAM	1712.5	19975	5	25	0	4.690	Fig.25
4	16QAM	1732.5	20175	5	25	0	4.685	Fig.26
4	16QAM	1752.5	20375	5	25	0	4.695	Fig.27
4	16QAM	1715	20000	10	50	0	9.303	Fig.28
4	16QAM	1732.5	20175	10	50	0	9.244	Fig.29
4	16QAM	1750	20350	10	50	0	9.393	Fig.30
4	16QAM	1717.5	20025	15	75	0	13.890	Fig.31
4	16QAM	1732.5	20175	15	75	0	13.878	Fig.32
4	16QAM	1747.5	20325	15	75	0	13.899	Fig.33
4	16QAM	1720	20050	20	100	0	18.537	Fig.34
4	16QAM	1732.5	20175	20	100	0	18.467	Fig.35
4	16QAM	1745	20300	20	100	0	18.471	Fig.36

Test Mode: QPSK

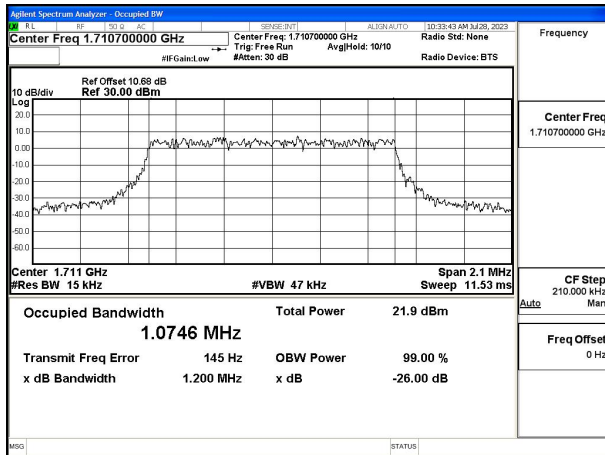


Fig.1

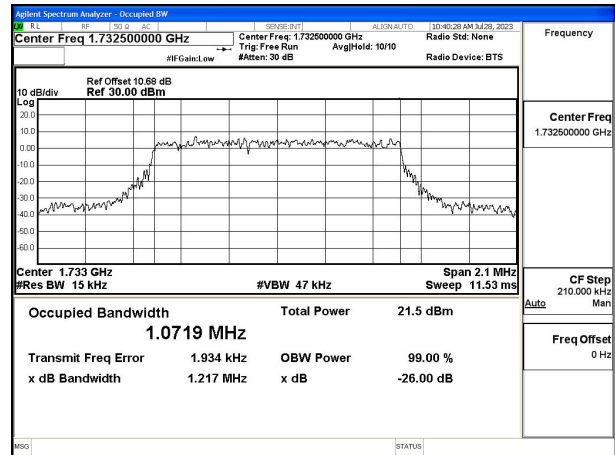


Fig.2

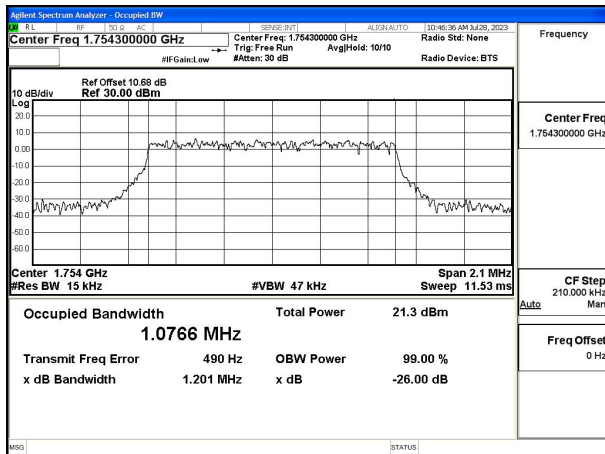


Fig.3

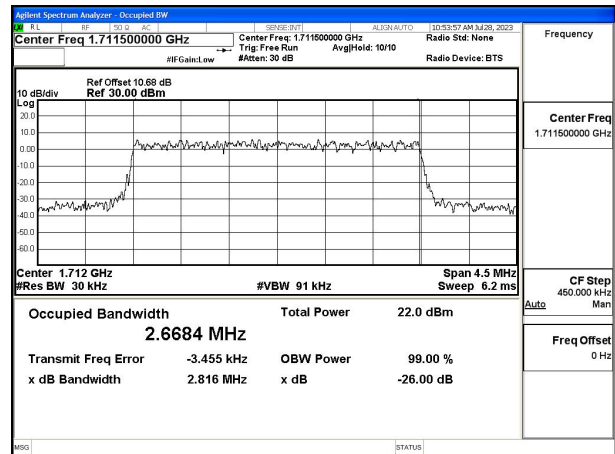


Fig.4

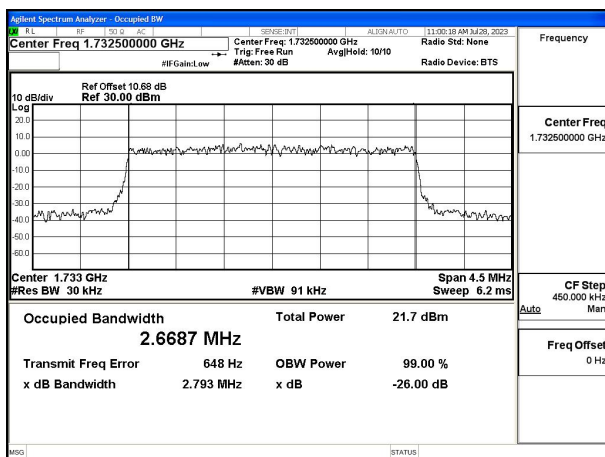


Fig.5

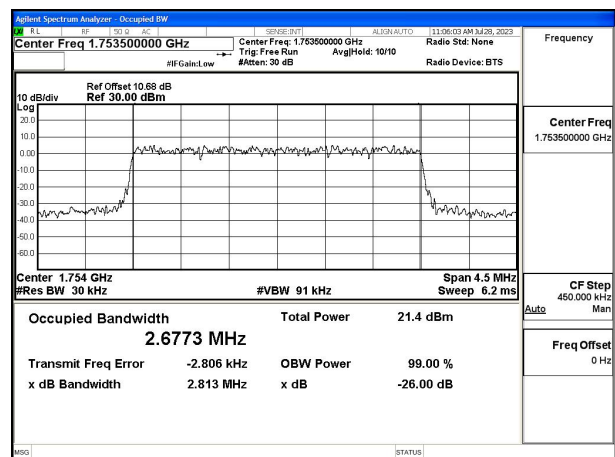


Fig.6