



**BUREAU  
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**Test Report No.: W7L-P23030003RF07**

LTE Band 41

Band/BW	Modulation	RB Size	RB Offset	Low CH (39675)	Mid CH (40620)	High CH (41565)
				Frequency (2498.5)MHz	Frequency (2593)MHz	Frequency (2687.5)MHz
41/ 5	QPSK	1	0	24.15	24.06	23.89
		1	12	24.37	24.33	24.14
		1	24	24.12	24.12	23.87
		12	0	23.15	23.17	22.97
		12	6	23.20	23.17	22.97
		12	13	23.13	23.20	22.97
		25	0	23.34	23.31	23.14
	16QAM	1	0	23.13	23.13	22.96
		1	12	23.35	23.38	23.19
		1	24	23.18	23.19	22.97
		12	0	22.12	22.11	21.99
		12	6	22.23	22.24	22.07
		12	13	22.32	22.36	22.18
		25	0	22.32	22.24	22.12
	64QAM	1	0	21.84	21.89	21.71
		1	12	22.13	22.10	21.90
		1	24	21.87	21.95	21.79
		12	0	21.20	21.07	21.00
		12	6	21.20	21.25	21.06
		12	13	21.28	21.20	21.08
		25	0	21.31	21.33	21.08

Band/BW	Modulation	RB Size	RB Offset	Low CH (39700)	Mid CH (40620)	High CH (41540)
				Frequency (2501)MHz	Frequency (2593)MHz	Frequency (2685)MHz
41/ 10	QPSK	1	0	24.10	24.04	23.85
		1	24	24.35	24.32	24.17
		1	49	24.07	24.06	23.83
		25	0	23.14	23.18	22.99
		25	12	23.24	23.15	23.01
		25	25	23.09	23.17	22.96
		50	0	23.37	23.26	23.12
	16QAM	1	0	23.11	23.07	22.94
		1	24	23.38	23.39	23.16
		1	49	23.16	23.14	22.92
		25	0	22.12	22.15	21.93
		25	12	22.25	22.27	22.04
		25	25	22.29	22.31	22.11
		50	0	22.34	22.26	22.03
	64QAM	1	0	21.81	21.84	21.72
		1	24	22.16	22.12	21.85
		1	49	21.91	21.90	21.72
		25	0	21.16	21.11	20.93
		25	12	21.25	21.17	21.06
		25	25	21.25	21.20	21.08
		50	0	21.34	21.32	21.08

Band/BW	Modulation	RB Size	RB Offset	Low CH (39725)	Mid CH (40620)	High CH (41515)
				Frequency (2503.5)MHz	Frequency (2593)MHz	Frequency (2682.5)MHz
41/ 15	QPSK	1	0	24.16	24.00	23.86
		1	37	24.32	24.26	24.16
		1	74	24.12	24.06	23.84
		36	0	23.10	23.18	23.00
		36	19	23.24	23.14	22.95
		36	39	23.06	23.16	22.98
		75	0	23.36	23.30	23.08
	16QAM	1	0	23.14	23.06	22.96
		1	37	23.36	23.38	23.10
		1	74	23.11	23.15	22.95
		36	0	22.15	22.15	21.97
		36	19	22.18	22.22	22.04
		36	39	22.33	22.33	22.15
		75	0	22.34	22.18	22.04
	64QAM	1	0	21.82	21.84	21.72
		1	37	22.16	22.08	21.84
		1	74	21.86	21.92	21.76
		36	0	21.20	21.04	20.96
		36	19	21.18	21.18	21.04
		36	39	21.27	21.21	21.07
		75	0	21.32	21.32	21.10

Band/BW	Modulation	RB Size	RB Offset	Low CH (39750)	Mid CH (40620)	High CH (41490)
				Frequency (2506)MHz	Frequency (2593)MHz	Frequency (2680)MHz
41/ 20	QPSK	1	0	24.23	24.14	23.98
		1	50	<b>24.42</b>	24.38	24.24
		1	99	24.20	24.16	23.96
		50	0	23.22	23.25	23.07
		50	25	23.31	23.25	23.08
		50	50	23.20	23.24	23.06
		100	0	23.43	23.39	23.19
	16QAM	1	0	23.23	23.18	23.04
		1	50	23.46	23.46	23.23
		1	99	23.23	23.24	23.05
		50	0	22.23	22.22	22.04
		50	25	22.32	22.33	22.15
		50	50	22.42	22.41	22.23
		100	0	22.41	22.32	22.16
	64QAM	1	0	21.94	21.94	21.79
		1	50	22.24	22.19	21.98
		1	99	21.98	22.00	21.83
		50	0	21.27	21.18	21.05
		50	25	21.31	21.30	21.14
		50	50	21.35	21.31	21.15
		100	0	21.40	21.39	21.19

LTE Band 66

Band/BW	Modulation	RB Size	RB Offset	Low CH 131979	Mid CH 132322	High CH 132665
				Frequency 1710.7MHz	Frequency 1745MHz	Frequency 1779.3MHz
66/ 1.4	QPSK	1	0	24.16	24.26	24.08
		1	2	24.32	24.33	24.27
		1	5	24.01	23.97	23.88
		3	0	24.24	24.28	24.19
		3	1	23.31	24.36	24.18
		3	3	24.16	24.22	24.10
		6	0	23.28	23.24	23.12
	16QAM	1	0	23.27	23.34	23.22
		1	2	23.46	23.42	23.36
		1	5	23.12	23.05	23.06
		3	0	23.25	23.30	23.16
		3	1	23.27	23.33	23.20
		3	3	23.22	23.18	23.11
		6	0	22.20	22.24	22.14
	64QAM	1	0	22.42	22.45	22.29
		1	2	22.41	22.46	22.32
		1	5	22.26	22.17	22.14
		3	0	22.33	22.40	22.20
		3	1	22.37	22.37	22.27
		3	3	22.20	22.23	22.16
		6	0	21.30	21.25	21.19



Test Report No.: W7L-P23030003RF07

Band/BW	Modulation	RB Size	RB Offset	Low CH 131987	Mid CH 132322	High CH 132657
				Frequency 1711.5MHz	Frequency 1745MHz	Frequency 1778.5MHz
66/ 3	QPSK	1	0	24.16	24.23	24.10
		1	7	24.32	24.35	24.22
		1	14	23.93	23.95	23.89
		8	0	23.27	23.30	23.16
		8	3	22.27	23.35	23.18
		8	7	23.15	23.23	23.12
		15	0	23.21	23.26	23.09
	16QAM	1	0	23.28	23.31	23.24
		1	7	23.38	23.44	23.31
		1	14	23.12	23.05	23.03
		8	0	22.26	22.28	22.11
		8	3	22.27	22.29	22.19
		8	7	22.22	22.14	22.05
		15	0	22.18	22.16	22.15
	64QAM	1	0	22.46	22.46	22.21
		1	7	22.40	22.38	22.29
		1	14	22.24	22.22	22.10
		8	0	21.37	21.36	21.25
		8	3	21.39	21.29	21.30
		8	7	21.21	21.28	21.11
		15	0	21.29	21.27	21.16

Band/BW	Modulation	RB Size	RB Offset	Low CH 131997	Mid CH 132322	High CH 132647
				Frequency 1712.5MHz	Frequency 1745MHz	Frequency 1777.5MHz
66/ 5	QPSK	1	0	24.16	24.20	24.05
		1	12	24.30	24.28	24.24
		1	24	23.95	23.93	23.89
		12	0	23.23	23.28	23.13
		12	6	22.21	23.34	23.18
		12	13	23.14	23.22	23.12
		25	0	23.20	23.25	23.06
	16QAM	1	0	23.22	23.33	23.22
		1	12	23.37	23.45	23.30
		1	24	23.12	23.02	23.02
		12	0	22.18	22.26	22.10
		12	6	22.26	22.29	22.16
		12	13	22.16	22.15	22.07
		25	0	22.17	22.16	22.11
	64QAM	1	0	22.39	22.42	22.26
		1	12	22.38	22.43	22.28
		1	24	22.17	22.21	22.11
		12	0	21.34	21.38	21.17
		12	6	21.32	21.35	21.28
		12	13	21.18	21.23	21.06
		25	0	21.25	21.25	21.18



Test Report No.: W7L-P23030003RF07

Band/BW	Modulation	RB Size	RB Offset	Low CH 132022	Mid CH 132322	High CH 132622
				Frequency 1715MHz	Frequency 1745MHz	Frequency 1775MHz
66/ 10	QPSK	1	0	24.22	24.25	24.12
		1	24	24.34	24.32	24.29
		1	49	23.96	24.01	23.89
		25	0	23.28	23.31	23.20
		25	12	22.31	23.32	23.22
		25	25	23.16	23.23	23.15
		50	0	23.29	23.29	23.07
	16QAM	1	0	23.26	23.34	23.22
		1	24	23.46	23.45	23.37
		1	49	23.16	23.07	23.03
		25	0	22.24	22.28	22.20
		25	12	22.34	22.27	22.25
		25	25	22.19	22.20	22.08
		50	0	22.25	22.19	22.19
	64QAM	1	0	22.42	22.47	22.27
		1	24	22.47	22.43	22.36
		1	49	22.27	22.19	22.12
		25	0	21.36	21.39	21.27
		25	12	21.43	21.38	21.26
		25	25	21.21	21.24	21.12
		50	0	21.34	21.25	21.23





Test Report No.: W7L-P23030003RF07

Band/BW	Modulation	RB Size	RB Offset	Low CH 132047	Mid CH 132322	High CH 132597
				Frequency 1717.5 MHz	Frequency 1745MHz	Frequency 1772.5 MHz
66/ 15	QPSK	1	0	24.14	24.24	24.03
		1	37	24.24	24.30	24.23
		1	74	23.93	23.93	23.84
		36	0	23.19	23.27	23.15
		36	19	22.20	23.32	23.16
		36	39	23.09	23.25	23.10
		75	0	23.21	23.21	23.02
	16QAM	1	0	23.20	23.36	23.21
		1	37	23.39	23.41	23.30
		1	74	23.11	23.01	23.02
		36	0	22.17	22.27	22.12
		36	19	22.28	22.24	22.19
		36	39	22.20	22.12	22.03
		75	0	22.16	22.14	22.13
	64QAM	1	0	22.44	22.44	22.19
		1	37	22.40	22.36	22.27
		1	74	22.23	22.15	22.10
		36	0	21.32	21.40	21.17
		36	19	21.37	21.27	21.28
		36	39	21.13	21.23	21.08
		75	0	21.28	21.18	21.19



Test Report No.: W7L-P23030003RF07

Band/BW	Modulation	RB Size	RB Offset	Low CH 132072	Mid CH 132322	High CH 132572
				Frequency 1720MHz	Frequency 1745MHz	Frequency 1770MHz
66/ 20	QPSK	1	0	24.27	24.33	24.16
		1	50	24.38	<b>24.42</b>	24.32
		1	99	24.06	24.07	23.96
		50	0	23.33	23.39	23.24
		50	25	22.35	23.41	23.29
		50	50	23.24	23.33	23.19
		100	0	23.32	23.33	23.17
	16QAM	1	0	23.35	23.44	23.30
		1	50	23.51	23.53	23.41
		1	99	23.20	23.16	23.10
		50	0	22.32	22.38	22.24
		50	25	22.38	22.37	22.28
		50	50	22.29	22.26	22.15
		100	0	22.29	22.29	22.22
	64QAM	1	0	22.52	22.53	22.34
		1	50	22.52	22.51	22.40
		1	99	22.31	22.28	22.19
		50	0	21.44	21.49	21.31
		50	25	21.46	21.42	21.36
		50	50	21.28	21.34	21.20
		100	0	21.37	21.33	21.27



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Test Report No.: W7L-P23030003RF07

**EIRP**

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**LTE BAND 4**

**CHANNEL BANDWIDTH: 1.4MHz QPSK**

Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>c</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
19957	1710.7	24.27	-1.04	23.23	210.38	1
20175	1732.5	24.28	-1.04	23.24	210.86	1
20393	1754.3	24.21	-1.04	23.17	207.49	1

**CHANNEL BANDWIDTH: 1.4MHz 16QAM**

Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>c</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
19957	1710.7	23.31	-1.04	22.27	168.66	1
20175	1732.5	23.32	-1.04	22.28	169.04	1
20393	1754.3	23.28	-1.04	22.24	167.49	1

**CHANNEL BANDWIDTH: 1.4MHz 64QAM**

Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>c</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
19957	1710.7	22.35	-1.04	21.31	135.21	1
20175	1732.5	22.42	-1.04	21.38	137.4	1
20393	1754.3	22.36	-1.04	21.32	135.52	1

**CHANNEL BANDWIDTH: 3MHz QPSK**

Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>c</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
19965	1711.5	24.23	-1.04	23.19	208.45	1
20175	1732.5	24.29	-1.04	23.25	211.35	1
20385	1753.5	24.2	-1.04	23.16	207.01	1

**CHANNEL BANDWIDTH: 3MHz 16QAM**

Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>c</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
19965	1711.5	23.25	-1.04	22.21	166.34	1
20175	1732.5	23.25	-1.04	22.21	166.34	1
20385	1753.5	23.08	-1.04	22.04	159.96	1

**CHANNEL BANDWIDTH: 3MHz 64QAM**

Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>c</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
19965	1711.5	22.38	-1.04	21.34	136.14	1
20175	1732.5	22.42	-1.04	21.38	137.4	1
20385	1753.5	22.34	-1.04	21.3	134.9	1

**CHANNEL BANDWIDTH: 5MHz QPSK**

Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>c</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
19975	1712.5	24.26	-1.04	23.22	209.89	1
20175	1732.5	24.29	-1.04	23.25	211.35	1
20375	1752.5	24.17	-1.04	23.13	205.59	1

**CHANNEL BANDWIDTH: 5MHz 16QAM**

Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>c</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
19975	1712.5	23.25	-1.04	22.21	166.34	1
20175	1732.5	23.34	-1.04	22.3	169.82	1
20375	1752.5	23.22	-1.04	22.18	165.2	1

**CHANNEL BANDWIDTH: 5MHz 64QAM**

Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>c</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
19975	1712.5	22.39	-1.04	21.35	136.46	1
20175	1732.5	22.39	-1.04	21.35	136.46	1
20375	1752.5	22.33	-1.04	21.29	134.59	1

**CHANNEL BANDWIDTH: 10MHz QPSK**

Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>c</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20000	1715	24.27	-1.04	23.23	210.38	1
20175	1732.5	24.28	-1.04	23.24	210.86	1
20350	1750	24.2	-1.04	23.16	207.01	1

**CHANNEL BANDWIDTH: 10MHz 16QAM**

Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>c</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20000	1715	23.27	-1.04	22.23	167.11	1
20175	1732.5	23.32	-1.04	22.28	169.04	1
20350	1750	23.28	-1.04	22.24	167.49	1

**CHANNEL BANDWIDTH: 10MHz 64QAM**

Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>c</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20000	1715	22.37	-1.04	21.33	135.83	1
20175	1732.5	22.36	-1.04	21.32	135.52	1
20350	1750	22.39	-1.04	21.35	136.46	1

**CHANNEL BANDWIDTH: 15MHz QPSK**

Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>c</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20025	1717.5	24.28	-1.04	23.24	210.86	1
20175	1732.5	24.33	-1.04	23.29	213.3	1
20325	1747.5	24.18	-1.04	23.14	206.06	1

**CHANNEL BANDWIDTH: 15MHz 16QAM**

Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>c</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20025	1717.5	23.27	-1.04	22.23	167.11	1
20175	1732.5	23.38	-1.04	22.34	171.4	1
20325	1747.5	23.27	-1.04	22.23	167.11	1

**CHANNEL BANDWIDTH: 15MHz 64QAM**

Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>c</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20025	1717.5	22.37	-1.04	21.33	135.83	1
20175	1732.5	22.36	-1.04	21.32	135.52	1
20325	1747.5	22.39	-1.04	21.35	136.46	1

**CHANNEL BANDWIDTH: 20MHz QPSK**

Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>c</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20050	1720	24.3	-1.04	23.26	211.84	1
20175	1732.5	24.34	-1.04	23.3	213.8	1
20300	1745	24.22	-1.04	23.18	207.97	1

**CHANNEL BANDWIDTH: 20MHz 16QAM**

Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>c</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20050	1720	23.33	-1.04	22.29	169.43	1
20175	1732.5	23.4	-1.04	22.36	172.19	1
20300	1745	23.3	-1.04	22.26	168.27	1

**CHANNEL BANDWIDTH: 20MHz 64QAM**

Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>c</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20050	1720	22.43	-1.04	21.39	137.72	1
20175	1732.5	22.44	-1.04	21.4	138.04	1
20300	1745	22.41	-1.04	21.37	137.09	1



Test Report No.: W7L-P23030003RF07

**LTE BAND 38**

**CHANNEL BANDWIDTH: 5MHz QPSK**

Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>c</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
37775	2572.5	24.29	0.96	25.25	334.97	2
38000	2595.0	24.14	0.96	25.1	323.59	2
38225	2617.5	24.08	0.96	25.04	319.15	2

**CHANNEL BANDWIDTH: 5MHz 16QAM**

Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>c</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
37775	2572.5	23.12	0.96	24.08	255.86	2
38000	2595.0	22.99	0.96	23.95	248.31	2
38225	2617.5	22.96	0.96	23.92	246.6	2

**CHANNEL BANDWIDTH: 5MHz 64QAM**

Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>c</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
37775	2572.5	22.06	0.96	23.02	200.45	2
38000	2595	21.95	0.96	22.91	195.43	2
38225	2617.5	21.78	0.96	22.74	187.93	2



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Test Report No.: W7L-P23030003RF07

**CHANNEL BANDWIDTH: 10MHz QPSK**

Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>c</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
37800	2575.0	24.27	0.96	25.23	333.43	2
38000	2595.0	24.17	0.96	25.13	325.84	2
38200	2615.0	24.08	0.96	25.04	319.15	2

**CHANNEL BANDWIDTH: 10MHz 16QAM**

Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>c</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
37800	2575.0	23.14	0.96	24.1	257.04	2
38000	2595.0	22.98	0.96	23.94	247.74	2
38200	2615.0	22.99	0.96	23.95	248.31	2

**CHANNEL BANDWIDTH: 10MHz 64QAM**

Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>c</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
37800	2575	22.04	0.96	23	199.53	2
38000	2595	21.98	0.96	22.94	196.79	2
38200	2615	21.83	0.96	22.79	190.11	2





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Test Report No.: W7L-P23030003RF07

**CHANNEL BANDWIDTH: 15MHz QPSK**

Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>c</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
37825	2577.5	24.31	0.96	25.27	336.51	2
38000	2595.0	24.12	0.96	25.08	322.11	2
38175	2612.5	24.08	0.96	25.04	319.15	2

**CHANNEL BANDWIDTH: 15MHz 16QAM**

Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>c</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
37825	2577.5	23.18	0.96	24.14	259.42	2
38000	2595.0	22.97	0.96	23.93	247.17	2
38175	2612.5	23.03	0.96	23.99	250.61	2

**CHANNEL BANDWIDTH: 15MHz 64QAM**

Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>c</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
37825	2577.5	22.09	0.96	23.05	201.84	2
38000	2595	21.98	0.96	22.94	196.79	2
38175	2612.5	21.78	0.96	22.74	187.93	2



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Test Report No.: W7L-P23030003RF07

**CHANNEL BANDWIDTH: 20MHz QPSK**

Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>C</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
37850	2580.0	24.33	0.96	25.29	338.06	2
38000	2595.0	24.19	0.96	25.15	327.34	2
38150	2610.0	24.13	0.96	25.09	322.85	2

**CHANNEL BANDWIDTH: 20MHz 16QAM**

Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>C</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
37850	2580.0	23.2	0.96	24.16	260.62	2
38000	2595.0	23.05	0.96	24.01	251.77	2
38150	2610.0	23.04	0.96	24	251.19	2

**CHANNEL BANDWIDTH: 20MHz 64QAM**

Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>C</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
37850	2580	22.1	0.96	23.06	202.3	2
38000	2595	22	0.96	22.96	197.7	2
38150	2610	21.86	0.96	22.82	191.43	2



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Test Report No.: W7L-P23030003RF07

**LTE BAND 41**

**CHANNEL BANDWIDTH: 5MHz QPSK**

Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>c</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
39675	2498.5	24.24	0.96	25.2	331.13	2
40620	2593.0	24.23	0.96	25.19	330.37	2
41565	2687.5	23.95	0.96	24.91	309.74	2

**CHANNEL BANDWIDTH: 5MHz 16QAM**

Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>c</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
39675	2498.5	23.05	0.96	24.01	251.77	2
40620	2593.0	23.11	0.96	24.07	255.27	2
41565	2687.5	22.83	0.96	23.79	239.33	2

**CHANNEL BANDWIDTH: 5MHz 64QAM**

Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>c</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
39675	2498.5	21.89	0.96	22.85	192.75	2
40620	2593.0	21.89	0.96	22.85	192.75	2
41565	2687.5	21.6	0.96	22.56	180.3	2



**BUREAU  
VERITAS**

Test Report No.: W7L-P23030003RF07

**CHANNEL BANDWIDTH: 10MHz QPSK**

Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>c</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
39700	2501.0	24.24	0.96	25.2	331.13	2
40620	2593.0	24.24	0.96	25.2	331.13	2
41540	2685.0	24	0.96	24.96	313.33	2

**CHANNEL BANDWIDTH: 10MHz 16QAM**

Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>c</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
39700	2501.0	23.1	0.96	24.06	254.68	2
40620	2593.0	23.14	0.96	24.1	257.04	2
41540	2685.0	22.82	0.96	23.78	238.78	2

**CHANNEL BANDWIDTH: 10MHz 64QAM**

Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>c</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
39700	2501.0	21.94	0.96	22.9	194.98	2
40620	2593.0	21.93	0.96	22.89	194.54	2
41540	2685.0	21.57	0.96	22.53	179.06	2



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Test Report No.: W7L-P23030003RF07

**CHANNEL BANDWIDTH: 15MHz QPSK**

Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>c</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
39725	2503.5	24.22	0.96	25.18	329.61	2
40620	2593.0	24.19	0.96	25.15	327.34	2
41515	2682.5	24	0.96	24.96	313.33	2

**CHANNEL BANDWIDTH: 15MHz 16QAM**

Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>c</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
39725	2503.5	23.09	0.96	24.05	254.1	2
40620	2593.0	23.14	0.96	24.1	257.04	2
41515	2682.5	22.77	0.96	23.73	236.05	2

**CHANNEL BANDWIDTH: 15MHz 64QAM**

Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>c</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
39725	2503.5	21.95	0.96	22.91	195.43	2
40620	2593.0	21.9	0.96	22.86	193.2	2
41515	2682.5	21.57	0.96	22.53	179.06	2



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Test Report No.: W7L-P23030003RF07

**CHANNEL BANDWIDTH: 20MHz QPSK**

Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>c</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
39750	2506.0	24.26	0.96	25.22	332.66	2
40620	2593.0	24.25	0.96	25.21	331.89	2
41490	2680.0	24.02	0.96	24.98	314.77	2

**CHANNEL BANDWIDTH: 20MHz 16QAM**

Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>c</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
39750	2506.0	23.13	0.96	24.09	256.45	2
40620	2593.0	23.16	0.96	24.12	258.23	2
41490	2680.0	22.84	0.96	23.8	239.88	2

**CHANNEL BANDWIDTH: 20 MHz 64QAM**

Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>c</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
39750	2506.0	21.97	0.96	22.93	196.34	2
40620	2593.0	21.95	0.96	22.91	195.43	2
41490	2680.0	21.65	0.96	22.61	182.39	2

**LTE BAND 66**

**CHANNEL BANDWIDTH: 1.4MHz QPSK**

Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>c</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
131979	1710.7	24.42	-0.91	23.51	224.39	1
132322	1745	24.45	-0.91	23.54	225.94	1
132665	1779.3	24.38	-0.91	23.47	222.33	1

**CHANNEL BANDWIDTH: 1.4MHz 16QAM**

Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>c</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
131979	1710.7	23.57	-0.91	22.66	184.5	1
132322	1745	23.5	-0.91	22.59	181.55	1
132665	1779.3	23.48	-0.91	22.57	180.72	1

**CHANNEL BANDWIDTH: 1.4MHz 64QAM**

Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>c</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
131979	1710.7	22.55	-0.91	21.64	145.88	1
132322	1745	22.57	-0.91	21.66	146.55	1
132665	1779.3	22.47	-0.91	21.56	143.22	1

**CHANNEL BANDWIDTH: 3MHz QPSK**

Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>c</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
131987	1711.5	24.44	-0.91	23.53	225.42	1
132322	1745	24.44	-0.91	23.53	225.42	1
132657	1778.5	24.35	-0.91	23.44	220.8	1

**CHANNEL BANDWIDTH: 3MHz 16QAM**

Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>c</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
131987	1711.5	23.51	-0.91	22.6	181.97	1
132322	1745	23.54	-0.91	22.63	183.23	1
132657	1778.5	23.45	-0.91	22.54	179.47	1

**CHANNEL BANDWIDTH: 3MHz 64QAM**

Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>c</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
131987	1711.5	22.57	-0.91	21.66	146.55	1
132322	1745	22.54	-0.91	21.63	145.55	1
132657	1778.5	22.46	-0.91	21.55	142.89	1

**CHANNEL BANDWIDTH: 5MHz QPSK**

Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>c</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
131997	1712.5	24.43	-0.91	23.52	224.91	1
132322	1745	24.38	-0.91	23.47	222.33	1
132647	1777.5	24.38	-0.91	23.47	222.33	1

**CHANNEL BANDWIDTH: 5MHz 16QAM**

Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>c</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
131997	1712.5	23.51	-0.91	22.6	181.97	1
132322	1745	23.56	-0.91	22.65	184.08	1
132647	1777.5	23.45	-0.91	22.54	179.47	1



**CHANNEL BANDWIDTH: 5MHz 64QAM**

Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>c</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
131997	1712.5	22.55	-0.91	21.64	145.88	1
132322	1745	22.57	-0.91	21.66	146.55	1
132647	1777.5	22.46	-0.91	21.55	142.89	1

**CHANNEL BANDWIDTH: 10MHz QPSK**

Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>c</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
132022	1715	24.43	-0.91	23.52	224.91	1
132322	1745	24.38	-0.91	23.47	222.33	1
132622	1775	24.39	-0.91	23.48	222.84	1

**CHANNEL BANDWIDTH: 10MHz 16QAM**

Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>c</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
132022	1715	23.56	-0.91	22.65	184.08	1
132322	1745	23.52	-0.91	22.61	182.39	1
132622	1775	23.48	-0.91	22.57	180.72	1

**CHANNEL BANDWIDTH: 10MHz 64QAM**

Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>c</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
132022	1715	22.6	-0.91	21.69	147.57	1
132322	1745	22.53	-0.91	21.62	145.21	1
132622	1775	22.5	-0.91	21.59	144.21	1

**CHANNEL BANDWIDTH: 15MHz QPSK**

Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>c</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
132047	1717.5	24.38	-0.91	23.47	222.33	1
132322	1745	24.41	-0.91	23.5	223.87	1
132597	1772.5	24.38	-0.91	23.47	222.33	1

**CHANNEL BANDWIDTH: 15MHz 16QAM**

Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>c</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
132047	1717.5	23.54	-0.91	22.63	183.23	1
132322	1745	23.53	-0.91	22.62	182.81	1
132597	1772.5	23.46	-0.91	22.55	179.89	1

**CHANNEL BANDWIDTH: 15MHz 64QAM**

Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>c</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
132047	1717.5	22.58	-0.91	21.67	146.89	1
132322	1745	22.54	-0.91	21.63	145.55	1
132597	1772.5	22.46	-0.91	21.55	142.89	1



Test Report No.: W7L-P23030003RF07

**CHANNEL BANDWIDTH: 20MHz QPSK**

Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>c</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
132072	1720	24.45	-0.91	23.54	225.94	1
132322	1745	24.46	-0.91	23.55	226.46	1
132572	1770	24.4	-0.91	23.49	223.36	1

**CHANNEL BANDWIDTH: 20MHz 16QAM**

Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>c</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
132072	1720	23.59	-0.91	22.68	185.35	1
132322	1745	23.58	-0.91	22.67	184.93	1
132572	1770	23.5	-0.91	22.59	181.55	1

**CHANNEL BANDWIDTH: 20MHz 64QAM**

Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>c</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
132072	1720	22.63	-0.91	21.72	148.59	1
132322	1745	22.59	-0.91	21.68	147.23	1
132572	1770	22.52	-0.91	21.61	144.88	1

**REMARKS:** EIRP Output Power (dBm) = EIRP (dBm) -2.15(dB).



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Test Report No.: W7L-P23030003RF07

**Ant 4**

**LTE BAND 4**

**CHANNEL BANDWIDTH: 1.4MHz QPSK**

Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>c</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
19957	1710.7	24.2	-2.26	21.94	156.31	1
20175	1732.5	24.22	-2.26	21.96	157.04	1
20393	1754.3	24.18	-2.26	21.92	155.6	1

**CHANNEL BANDWIDTH: 1.4MHz 16QAM**

Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>c</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
19957	1710.7	23.4	-2.26	21.14	130.02	1
20175	1732.5	23.42	-2.26	21.16	130.62	1
20393	1754.3	23.42	-2.26	21.16	130.62	1

**CHANNEL BANDWIDTH: 1.4MHz 64QAM**

Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>c</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
19957	1710.7	22.32	-2.26	20.06	101.39	1
20175	1732.5	22.4	-2.26	20.14	103.28	1
20393	1754.3	22.38	-2.26	20.12	102.8	1

**CHANNEL BANDWIDTH: 3MHz QPSK**

Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>c</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
19965	1711.5	24.14	-2.26	21.88	154.17	1
20175	1732.5	24.21	-2.26	21.95	156.68	1
20385	1753.5	24.16	-2.26	21.9	154.88	1

**CHANNEL BANDWIDTH: 3MHz 16QAM**

Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>c</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
19965	1711.5	23.32	-2.26	21.06	127.64	1
20175	1732.5	23.32	-2.26	21.06	127.64	1
20385	1753.5	23.16	-2.26	20.9	123.03	1

**CHANNEL BANDWIDTH: 3MHz 64QAM**

Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>c</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
19965	1711.5	22.33	-2.26	20.07	101.62	1
20175	1732.5	22.38	-2.26	20.12	102.8	1
20385	1753.5	22.34	-2.26	20.08	101.86	1

**CHANNEL BANDWIDTH: 5MHz QPSK**

Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>c</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
19975	1712.5	24.16	-2.26	21.9	154.88	1
20175	1732.5	24.2	-2.26	21.94	156.31	1
20375	1752.5	24.12	-2.26	21.86	153.46	1

**CHANNEL BANDWIDTH: 5MHz 16QAM**

Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>c</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
19975	1712.5	23.31	-2.26	21.05	127.35	1
20175	1732.5	23.41	-2.26	21.15	130.32	1
20375	1752.5	23.33	-2.26	21.07	127.94	1

**CHANNEL BANDWIDTH: 5MHz 64QAM**

Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>c</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
19975	1712.5	22.33	-2.26	20.07	101.62	1
20175	1732.5	22.34	-2.26	20.08	101.86	1
20375	1752.5	22.32	-2.26	20.06	101.39	1

**CHANNEL BANDWIDTH: 10MHz QPSK**

Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>c</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20000	1715	24.21	-2.26	21.95	156.68	1
20175	1732.5	24.23	-2.26	21.97	157.4	1
20350	1750	24.19	-2.26	21.93	155.96	1

**CHANNEL BANDWIDTH: 10MHz 16QAM**

Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>c</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20000	1715	23.37	-2.26	21.11	129.12	1
20175	1732.5	23.43	-2.26	21.17	130.92	1
20350	1750	23.43	-2.26	21.17	130.92	1

**CHANNEL BANDWIDTH: 10MHz 64QAM**

Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>c</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20000	1715	22.35	-2.26	20.09	102.09	1
20175	1732.5	22.35	-2.26	20.09	102.09	1
20350	1750	22.42	-2.26	20.16	103.75	1

**CHANNEL BANDWIDTH: 15MHz QPSK**

Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>c</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20025	1717.5	24.17	-2.26	21.91	155.24	1
20175	1732.5	24.23	-2.26	21.97	157.4	1
20325	1747.5	24.12	-2.26	21.86	153.46	1

**CHANNEL BANDWIDTH: 15MHz 16QAM**

Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>c</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20025	1717.5	23.32	-2.26	21.06	127.64	1
20175	1732.5	23.44	-2.26	21.18	131.22	1
20325	1747.5	23.37	-2.26	21.11	129.12	1

**CHANNEL BANDWIDTH: 15MHz 64QAM**

Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>c</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20025	1717.5	22.3	-2.26	20.04	100.93	1
20175	1732.5	22.3	-2.26	20.04	100.93	1
20325	1747.5	22.37	-2.26	20.11	102.57	1

**CHANNEL BANDWIDTH: 20MHz QPSK**

Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>c</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20050	1720	24.26	-2.26	22	158.49	1
20175	1732.5	24.31	-2.26	22.05	160.32	1
20300	1745	24.23	-2.26	21.97	157.4	1

**CHANNEL BANDWIDTH: 20MHz 16QAM**

Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>c</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20050	1720	23.45	-2.26	21.19	131.52	1
20175	1732.5	23.53	-2.26	21.27	133.97	1
20300	1745	23.47	-2.26	21.21	132.13	1

**CHANNEL BANDWIDTH: 20MHz 64QAM**

Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>c</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20050	1720	22.43	-2.26	20.17	103.99	1
20175	1732.5	22.45	-2.26	20.19	104.47	1
20300	1745	22.46	-2.26	20.2	104.71	1

**LTE BAND 38**

**CHANNEL BANDWIDTH: 5MHz QPSK**

Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>c</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
37775	2572.5	24.31	2.21	26.52	448.75	2
38000	2595.0	24.27	2.21	26.48	444.63	2
38225	2617.5	24.25	2.21	26.46	442.59	2

**CHANNEL BANDWIDTH: 5MHz 16QAM**

Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>c</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
37775	2572.5	23.28	2.21	25.49	354	2
38000	2595.0	23.21	2.21	25.42	348.34	2
38225	2617.5	23.27	2.21	25.48	353.18	2

**CHANNEL BANDWIDTH: 5MHz 64QAM**

Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>c</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
37775	2572.5	22.16	2.21	24.37	273.53	2
38000	2595	22.16	2.21	24.37	273.53	2
38225	2617.5	22.05	2.21	24.26	266.69	2





**BUREAU  
VERITAS**

Test Report No.: W7L-P23030003RF07

**CHANNEL BANDWIDTH: 10MHz QPSK**

Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>c</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
37800	2575.0	24.28	2.21	26.49	445.66	2
38000	2595.0	24.25	2.21	26.46	442.59	2
38200	2615.0	24.23	2.21	26.44	440.55	2

**CHANNEL BANDWIDTH: 10MHz 16QAM**

Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>c</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
37800	2575.0	23.29	2.21	25.5	354.81	2
38000	2595.0	23.2	2.21	25.41	347.54	2
38200	2615.0	23.28	2.21	25.49	354	2

**CHANNEL BANDWIDTH: 10MHz 64QAM**

Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>c</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
37800	2575	22.13	2.21	24.34	271.64	2
38000	2595	22.14	2.21	24.35	272.27	2
38200	2615	22.06	2.21	24.27	267.3	2



**BUREAU  
VERITAS**

Test Report No.: W7L-P23030003RF07

**CHANNEL BANDWIDTH: 15MHz QPSK**

Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>c</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
37825	2577.5	24.33	2.21	26.54	450.82	2
38000	2595.0	24.21	2.21	26.42	438.53	2
38175	2612.5	24.24	2.21	26.45	441.57	2

**CHANNEL BANDWIDTH: 15MHz 16QAM**

Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>c</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
37825	2577.5	23.34	2.21	25.55	358.92	2
38000	2595.0	23.2	2.21	25.41	347.54	2
38175	2612.5	23.33	2.21	25.54	358.1	2

**CHANNEL BANDWIDTH: 15MHz 64QAM**

Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>c</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
37825	2577.5	22.19	2.21	24.4	275.42	2
38000	2595	22.15	2.21	24.36	272.9	2
38175	2612.5	22.02	2.21	24.23	264.85	2



**BUREAU  
VERITAS**

Test Report No.: W7L-P23030003RF07

**CHANNEL BANDWIDTH: 20MHz QPSK**

Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>c</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
37850	2580.0	24.41	2.21	26.62	459.2	2
38000	2595.0	24.34	2.21	26.55	451.86	2
38150	2610.0	24.35	2.21	26.56	452.9	2

**CHANNEL BANDWIDTH: 20MHz 16QAM**

Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>c</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
37850	2580.0	23.42	2.21	25.63	365.59	2
38000	2595.0	23.34	2.21	25.55	358.92	2
38150	2610.0	23.4	2.21	25.61	363.92	2

**CHANNEL BANDWIDTH: 20MHz 64QAM**

Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>c</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
37850	2580	22.26	2.21	24.47	279.9	2
38000	2595	22.23	2.21	24.44	277.97	2
38150	2610	22.16	2.21	24.37	273.53	2



**BUREAU  
VERITAS**

Test Report No.: W7L-P23030003RF07

**LTE BAND 41**

**CHANNEL BANDWIDTH: 5MHz QPSK**

Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>c</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
39675	2498.5	24.37	5.21	29.58	907.82	2
40620	2593.0	24.33	5.21	29.54	899.5	2
41565	2687.5	24.14	5.21	29.35	860.99	2

**CHANNEL BANDWIDTH: 5MHz 16QAM**

Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>c</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
39675	2498.5	23.35	5.21	28.56	717.79	2
40620	2593.0	23.38	5.21	28.59	722.77	2
41565	2687.5	23.19	5.21	28.4	691.83	2

**CHANNEL BANDWIDTH: 5MHz 64QAM**

Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>c</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
39675	2498.5	22.13	5.21	27.34	542	2
40620	2593.0	22.1	5.21	27.31	538.27	2
41565	2687.5	21.9	5.21	27.11	514.04	2



**BUREAU  
VERITAS**

Test Report No.: W7L-P23030003RF07

**CHANNEL BANDWIDTH: 10MHz QPSK**

Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>c</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
39700	2501.0	24.35	5.21	29.56	903.65	2
40620	2593.0	24.32	5.21	29.53	897.43	2
41540	2685.0	24.17	5.21	29.38	866.96	2

**CHANNEL BANDWIDTH: 10MHz 16QAM**

Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>c</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
39700	2501.0	23.38	5.21	28.59	722.77	2
40620	2593.0	23.39	5.21	28.6	724.44	2
41540	2685.0	23.16	5.21	28.37	687.07	2

**CHANNEL BANDWIDTH: 10MHz 64QAM**

Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>c</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
39700	2501.0	22.16	5.21	27.37	545.76	2
40620	2593.0	22.12	5.21	27.33	540.75	2
41540	2685.0	21.85	5.21	27.06	508.16	2



**BUREAU  
VERITAS**

Test Report No.: W7L-P23030003RF07

**CHANNEL BANDWIDTH: 15MHz QPSK**

Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>c</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
39725	2503.5	24.32	5.21	29.53	897.43	2
40620	2593.0	24.26	5.21	29.47	885.12	2
41515	2682.5	24.16	5.21	29.37	864.97	2

**CHANNEL BANDWIDTH: 15MHz 16QAM**

Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>c</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
39725	2503.5	23.36	5.21	28.57	719.45	2
40620	2593.0	23.38	5.21	28.59	722.77	2
41515	2682.5	23.1	5.21	28.31	677.64	2

**CHANNEL BANDWIDTH: 15MHz 64QAM**

Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>c</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
39725	2503.5	22.16	5.21	27.37	545.76	2
40620	2593.0	22.08	5.21	27.29	535.8	2
41515	2682.5	21.84	5.21	27.05	506.99	2



**BUREAU  
VERITAS**

Test Report No.: W7L-P23030003RF07

**CHANNEL BANDWIDTH: 20MHz QPSK**

Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>c</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
39750	2506.0	24.42	5.21	29.63	918.33	2
40620	2593.0	24.38	5.21	29.59	909.91	2
41490	2680.0	24.24	5.21	29.45	881.05	2

**CHANNEL BANDWIDTH: 20MHz 16QAM**

Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>c</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
39750	2506.0	23.46	5.21	28.67	736.21	2
40620	2593.0	23.46	5.21	28.67	736.21	2
41490	2680.0	23.23	5.21	28.44	698.23	2

**CHANNEL BANDWIDTH: 20 MHz 64QAM**

Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>c</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
39750	2506.0	22.24	5.21	27.45	555.9	2
40620	2593.0	22.19	5.21	27.4	549.54	2
41490	2680.0	21.98	5.21	27.19	523.6	2

**LTE BAND 66**

**CHANNEL BANDWIDTH: 1.4MHz QPSK**

Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>c</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
131979	1710.7	24.32	-2.19	22.13	163.31	1
132322	1745	24.36	-2.19	22.17	164.82	1
132665	1779.3	24.27	-2.19	22.08	161.44	1

**CHANNEL BANDWIDTH: 1.4MHz 16QAM**

Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>c</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
131979	1710.7	23.46	-2.19	21.27	133.97	1
132322	1745	23.42	-2.19	21.23	132.74	1
132665	1779.3	23.36	-2.19	21.17	130.92	1

**CHANNEL BANDWIDTH: 1.4MHz 64QAM**

Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>c</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
131979	1710.7	22.42	-2.19	20.23	105.44	1
132322	1745	22.46	-2.19	20.27	106.41	1
132665	1779.3	22.32	-2.19	20.13	103.04	1



**CHANNEL BANDWIDTH: 3MHz QPSK**

Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>c</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
131987	1711.5	24.32	-2.19	22.13	163.31	1
132322	1745	24.35	-2.19	22.16	164.44	1
132657	1778.5	24.22	-2.19	22.03	159.59	1

**CHANNEL BANDWIDTH: 3MHz 16QAM**

Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>c</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
131987	1711.5	23.38	-2.19	21.19	131.52	1
132322	1745	23.44	-2.19	21.25	133.35	1
132657	1778.5	23.31	-2.19	21.12	129.42	1

**CHANNEL BANDWIDTH: 3MHz 64QAM**

Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>c</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
131987	1711.5	22.46	-2.19	20.27	106.41	1
132322	1745	22.46	-2.19	20.27	106.41	1
132657	1778.5	22.29	-2.19	20.1	102.33	1

**CHANNEL BANDWIDTH: 5MHz QPSK**

Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>c</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
131997	1712.5	24.3	-2.19	22.11	162.55	1
132322	1745	24.28	-2.19	22.09	161.81	1
132647	1777.5	24.24	-2.19	22.05	160.32	1

**CHANNEL BANDWIDTH: 5MHz 16QAM**

Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>c</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
131997	1712.5	23.37	-2.19	21.18	131.22	1
132322	1745	23.45	-2.19	21.26	133.66	1
132647	1777.5	23.3	-2.19	21.11	129.12	1

**CHANNEL BANDWIDTH: 5MHz 64QAM**

Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>c</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
131997	1712.5	22.39	-2.19	20.2	104.71	1
132322	1745	22.43	-2.19	20.24	105.68	1
132647	1777.5	22.28	-2.19	20.09	102.09	1

**CHANNEL BANDWIDTH: 10MHz QPSK**

Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>c</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
132022	1715	24.34	-2.19	22.15	164.06	1
132322	1745	24.32	-2.19	22.13	163.31	1
132622	1775	24.29	-2.19	22.1	162.18	1

**CHANNEL BANDWIDTH: 10MHz 16QAM**

Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>c</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
132022	1715	23.46	-2.19	21.27	133.97	1
132322	1745	23.45	-2.19	21.26	133.66	1
132622	1775	23.37	-2.19	21.18	131.22	1

**CHANNEL BANDWIDTH: 10MHz 64QAM**

Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>c</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
132022	1715	22.47	-2.19	20.28	106.66	1
132322	1745	22.47	-2.19	20.28	106.66	1
132622	1775	22.36	-2.19	20.17	103.99	1



Test Report No.: W7L-P23030003RF07

**CHANNEL BANDWIDTH: 15MHz QPSK**

Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>c</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
132047	1717.5	24.24	-2.19	22.05	160.32	1
132322	1745	24.3	-2.19	22.11	162.55	1
132597	1772.5	24.23	-2.19	22.04	159.96	1

**CHANNEL BANDWIDTH: 15MHz 16QAM**

Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>c</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
132047	1717.5	23.39	-2.19	21.2	131.83	1
132322	1745	23.41	-2.19	21.22	132.43	1
132597	1772.5	23.3	-2.19	21.11	129.12	1

**CHANNEL BANDWIDTH: 15MHz 64QAM**

Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>c</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
132047	1717.5	22.44	-2.19	20.25	105.93	1
132322	1745	22.44	-2.19	20.25	105.93	1
132597	1772.5	22.27	-2.19	20.08	101.86	1



Test Report No.: W7L-P23030003RF07

**CHANNEL BANDWIDTH: 20MHz QPSK**

Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>c</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
132072	1720	24.38	-2.19	22.19	165.58	1
132322	1745	24.42	-2.19	22.23	167.11	1
132572	1770	24.32	-2.19	22.13	163.31	1

**CHANNEL BANDWIDTH: 20MHz 16QAM**

Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>c</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
132072	1720	23.51	-2.19	21.32	135.52	1
132322	1745	23.53	-2.19	21.34	136.14	1
132572	1770	23.41	-2.19	21.22	132.43	1

**CHANNEL BANDWIDTH: 20MHz 64QAM**

Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>c</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
132072	1720	22.52	-2.19	20.33	107.89	1
132322	1745	22.53	-2.19	20.34	108.14	1
132572	1770	22.4	-2.19	20.21	104.95	1

**REMARKS:** EIRP Output Power (dBm) = EIRP (dBm) -2.15(dB).

## 3.2 FREQUENCY STABILITY MEASUREMENT

### 3.2.1 LIMITS OF FREQUENCY STABILITY MEASUREMENT

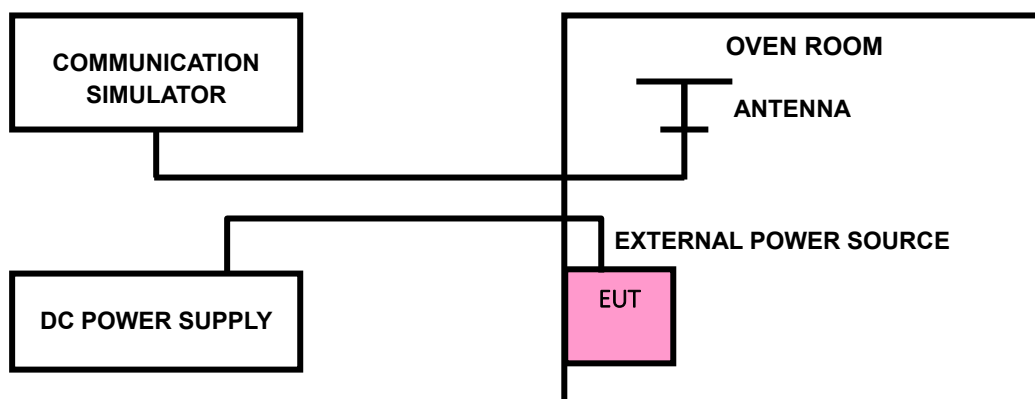
The frequency stability shall be sufficient to ensure that the fundamental emissions stay within the authorized bands of operation.

### 3.2.2 TEST PROCEDURE

- Device is placed at the oven room. The oven room could control the temperatures and humidity. Power warm up is at least 15 min and power applied should perform before recording frequency error.
- EUT is connected the external power supply to control the DC input power. The test voltage range is from minimum to maximum working voltage. Each step shall be record the frequency error rate.
- The temperature range step is 10 degrees in this test items. All temperature levels shall be hold the  $\pm 0.5^{\circ}\text{C}$  during the measurement testing. The each temperature step shall be at least 0.5 hours, consider the EUT could be test under the stability condition.

**NOTE:** The frequency error was recorded frequency error from the communication simulator.

### 3.2.3 TEST SETUP





Test Report No.: W7L-P23030003RF07

### 3.2.4 TEST RESULTS

Please Refer to Appendix Of this test report.

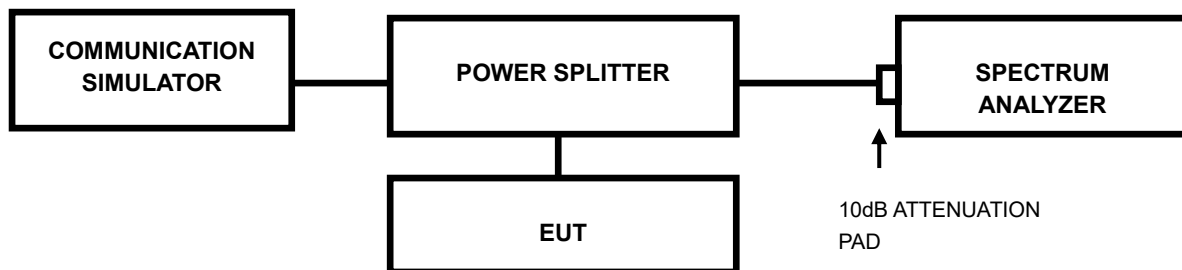
Note: VL = Low voltage(3.6V); VN/NV = Normal voltage(3.7V); VH = High voltage(4.2V);  
NT = Normal temperature (25°C)

### 3.3 OCCUPIED BANDWIDTH MEASUREMENT

#### 3.3.1 LIMITS OF OCCUPIED BANDWIDTH MEASUREMENT

The width of a frequency band such that, below the lower and above the upper frequency limits, the mean powers emitted are each equal to a specified percentage 0.5 % of the total mean power of a given emission.

#### 3.3.2 TEST SETUP



#### 3.3.3 TEST PROCEDURES

- The conducted occupied bandwidth used the power splitter via EUT RF power connector between simulation base station and spectrum analyzer.
- Use OBW measurement function of Spectrum analyzer to measure 99 % occupied bandwidth.



Test Report No.: W7L-P23030003RF07

### 3.3.4 TEST RESULTS

Please Refer to Appendix Of this test report.





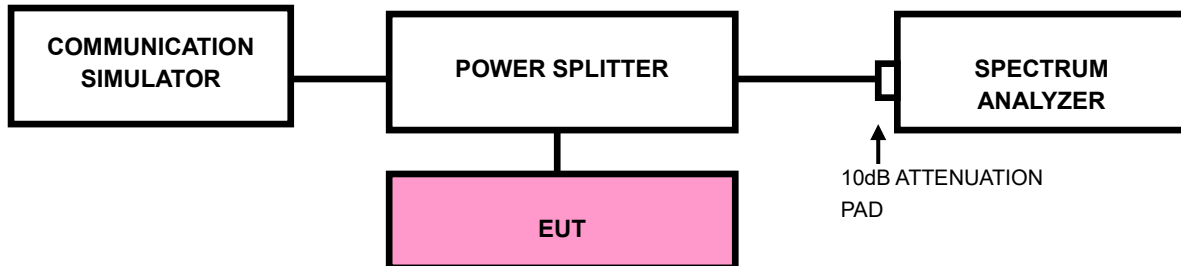
### 3.4 BAND EDGE MEASUREMENT

#### 3.4.1 LIMITS OF BAND EDGE MEASUREMENT

According to FCC Part 27.53(h) specified that For operations in the 1710-1755 MHz band, the power of any emission outside a licensee's frequency band(s) of operation shall be attenuated below the transmitter power (P) within the licensed band(s) of operation, measured in watts, by at least  $43 + 10 \log (P)$  dB. However, in the 1 megahertz bands immediately outside and adjacent to the licensee's frequency block, a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed.

According to FCC Part 27.53(m)(4) specified that For mobile digital stations, the attenuation factor shall be not less than  $40 + 10 \log (P)$  dB on all frequencies between the channel edge and 5 megahertz from the channel edge,  $43 + 10 \log (P)$  dB on all frequencies between 5 megahertz and X megahertz from the channel edge, and  $55 + 10 \log (P)$  dB on all frequencies more than X megahertz from the channel edge, where X is the greater of 6 megahertz or the actual emission bandwidth as defined in paragraph (m)(6) of this section. In addition, the attenuation factor shall not be less that  $43 + 10 \log (P)$  dB on all frequencies between 2490.5 MHz and 2496 MHz and  $55 + 10 \log (P)$  dB at or below 2490.5 MHz. Mobile Satellite Service licensees operating on frequencies below 2495 MHz may also submit a documented interference complaint against BRS licensees operating on channel BRS Channel 1 on the same terms and conditions as adjacent channel BRS or EBS licensees. For mobile digital stations, in the 1 megahertz bands immediately outside and adjacent to the frequency block a resolution bandwidth of at least two percent may be employed.

### 3.4.2 TEST SETUP





Test Report No.: W7L-P23030003RF07

### 3.4.3 TEST PROCEDURES

- a) Connect the transmitter to the spectrum analyzer via coaxial cable while ensuring proper impedance matching.
- b) Tune the analyzer to the nominal center frequency of the emission bandwidth (EBW).
- c) Set the resolution bandwidth (RBW)  $\geq 1\%$  EBW in the 1MHz band immediately outside and adjacent to the band edge.
- d) Beyond the 1MHz band from the band edge, RBW=1MHz was used.
- e) Set the video bandwidth (VBW) to  $\geq 3 \times$  RBW.
- f) Select the average power (RMS) display detector.
- g) Set the number of measurement points to  $\geq 1001$ .
- h) Use auto-coupled sweep time.
- i) Perform the measurement over an interval of time when the transmission is continuous and at its maximum power level.
- j) The RF fundamental frequency should be excluded against the limit line in the operating frequency band and use RBW is 10KHz or 30/100KHz.
- k) Record the max trace plot into the test report.



Test Report No.: W7L-P23030003RF07

### 3.4.4 TEST RESULTS

Please Refer to Appendix Of this test report.

### 3.5 CONDUCTED SPURIOUS EMISSIONS

#### 3.5.1 LIMITS OF CONDUCTED SPURIOUS EMISSIONS MEASUREMENT

The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least  $43 + 10 \log(P)$  dB. The emission limit equal to  $-13\text{dBm}$ .

For: Band41

The power of any emission outside a licensee's frequency block shall be attenuated below the transmitter power (P) by at least  $55 + 10 \log_{10}(P)$  dB. The limit of emission is equal to  $-25\text{dBm}$ .

#### 3.5.2 TEST PROCEDURE

- a. The EUT makes a phone call to the communication simulator. All measurements were done at low, middle and high operational frequency range.
- b. Measuring frequency range is from 9kHz up to a frequency including its 10<sup>th</sup> harmonic. 10dB attenuation pad is connected with spectrum. RBW=1MHz and VBW=3MHz is used for conducted emission measurement.

#### 3.5.3 TEST SETUP

