

LTE Band 66						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		131979	132322	132665
		Frequency (MHz)		1710.7	1745	1779.3
1.4M	QPSK	1	0	22.17	22.16	22.41
		1	2	22.71	22.59	22.78
		1	5	22.42	22.32	22.20
		3	0	22.26	22.11	22.26
		3	1	22.40	22.38	22.44
		3	3	22.10	22.32	22.33
		6	0	21.34	21.37	21.50
1.4M	16QAM	1	0	21.25	21.21	21.50
		1	2	21.66	21.63	21.74
		1	5	21.43	21.26	21.26
		3	0	21.27	21.05	21.35
		3	1	21.42	21.35	21.51
		3	3	21.06	21.42	21.42
		6	0	20.41	20.27	20.47
1.4M	64QAM	1	0	19.98	19.93	20.12
		1	50	20.33	20.30	20.52
		1	99	20.03	19.91	19.99
		50	0	19.95	19.85	20.05
		50	25	20.13	20.04	20.28
		50	50	19.73	20.18	20.12
		100	0	19.12	18.99	19.25

LTE Band 71						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		133222	133297	133372
		Frequency (MHz)		673	680.5	688
20M	QPSK	1	0	22.86	22.67	22.79
		1	50	22.90	22.89	22.94
		1	99	22.66	22.49	22.47
		50	0	21.69	21.69	21.68
		50	25	21.79	21.69	21.70
		50	50	21.56	21.78	21.56
		100	0	21.79	21.80	21.73
20M	16QAM	1	0	21.88	21.68	21.71
		1	50	21.84	21.82	21.85
		1	99	21.57	21.47	21.41
		50	0	20.74	20.72	20.62
		50	25	20.77	20.61	20.63
		50	50	20.63	20.79	20.63
		100	0	20.70	20.86	20.75
20M	64QAM	1	0	20.57	20.48	20.49
		1	50	20.57	20.62	20.62
		1	99	20.23	20.13	20.07
		50	0	19.37	19.43	19.26
		50	25	19.45	19.40	19.33
		50	50	19.40	19.55	19.32
		100	0	19.30	19.54	19.43

LTE Band 71						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		133197	133297	133397
		Frequency (MHz)		670.5	680.5	690.5
15M	QPSK	1	0	22.81	22.63	22.80
		1	37	22.86	23.07	22.96
		1	74	22.51	22.62	22.52
		36	0	21.67	21.55	21.64
		36	19	21.89	21.93	21.69
		36	39	21.77	21.77	21.53
		75	0	21.77	21.80	21.71
15M	16QAM	1	0	21.78	21.63	21.81
		1	37	21.93	22.00	21.97
		1	74	21.42	21.61	21.53
		36	0	20.70	20.50	20.54
		36	19	20.92	20.87	20.77
		36	39	20.74	20.69	20.58
		75	0	20.68	20.88	20.72
15M	64QAM	1	0	20.57	20.41	20.42
		1	50	20.72	20.70	20.63
		1	99	20.20	20.26	20.22
		50	0	19.46	19.22	19.31
		50	25	19.58	19.56	19.42
		50	50	19.50	19.41	19.21
		100	0	19.34	19.52	19.51

LTE Band 71						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		133172	133297	133422
		Frequency (MHz)		668	680.5	693
10M	QPSK	1	0	22.67	22.68	22.88
		1	24	22.90	23.08	23.02
		1	49	22.59	22.52	22.74
		25	0	21.55	21.74	21.69
		25	12	21.87	21.82	21.83
		25	25	21.65	21.54	21.67
		50	0	21.64	21.81	21.65
10M	16QAM	1	0	21.70	21.64	21.90
		1	24	21.87	22.01	22.11
		1	49	21.49	21.51	21.71
		25	0	20.61	20.71	20.78
		25	12	20.83	20.76	20.75
		25	25	20.60	20.50	20.72
		50	0	20.68	20.78	20.63
10M	64QAM	1	0	20.37	20.34	20.68
		1	50	20.56	20.69	20.76
		1	99	20.21	20.29	20.39
		50	0	19.38	19.43	19.46
		50	25	19.63	19.39	19.38
		50	50	19.39	19.26	19.48
		100	0	19.43	19.43	19.41

LTE Band 71						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		133147	133297	133447
		Frequency (MHz)		665.5	680.5	695.5
5M	QPSK	1	0	22.65	22.82	22.84
		1	12	22.86	22.87	22.82
		1	24	22.48	22.54	22.59
		12	0	21.61	21.69	21.76
		12	6	21.74	21.96	21.88
		12	13	21.68	21.54	21.52
		25	0	21.77	21.59	21.64
5M	16QAM	1	0	21.69	21.86	21.74
		1	12	21.80	21.81	21.81
		1	24	21.45	21.44	21.66
		12	0	20.66	20.61	20.80
		12	6	20.66	20.94	20.97
		12	13	20.74	20.54	20.58
		25	0	20.80	20.61	20.71
5M	64QAM	1	0	20.38	20.56	20.53
		1	50	20.51	20.41	20.49
		1	99	20.20	20.13	20.35
		50	0	19.33	19.25	19.52
		50	25	19.29	19.55	19.65
		50	50	19.35	19.24	19.19
		100	0	19.41	19.22	19.41

EIRP / ERP Power (dBm)

LTE Band 4						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		20050	20175	20300
		Frequency (MHz)		1720	1732.5	1745
20M	QPSK	1	0	23.99	23.99	24.14
		1	50	24.25	24.24	24.24
		1	99	23.90	23.83	23.99
		50	0	23.00	23.04	23.08
		50	25	23.07	23.21	23.20
		50	50	23.10	22.95	23.02
		100	0	23.09	22.96	22.96
20M	16QAM	1	0	23.02	22.94	23.22
		1	50	23.20	23.30	23.14
		1	99	22.83	22.81	23.07
		50	0	21.96	22.04	22.18
		50	25	21.99	22.29	22.13
		50	50	22.19	21.89	21.93
		100	0	22.17	22.02	21.96
20M	64QAM	1	0	21.81	21.60	21.91
		1	50	21.93	22.07	21.78
		1	99	21.45	21.55	21.87
		50	0	20.71	20.79	20.82
		50	25	20.72	21.06	20.73
		50	50	20.88	20.58	20.72
		100	0	20.90	20.78	20.58

*EIRP = Conducted + antenna gain (1.57dBi)

LTE Band 4						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		20025	20175	20325
		Frequency (MHz)		1717.5	1732.5	1747.5
15M	QPSK	1	0	24.09	23.85	24.14
		1	37	24.15	23.97	24.13
		1	74	23.98	23.77	23.78
		36	0	23.10	23.19	22.92
		36	19	23.22	23.04	23.00
		36	39	23.09	22.92	23.12
		75	0	23.16	23.16	23.02
15M	16QAM	1	0	23.07	22.86	23.15
		1	37	23.19	22.88	23.08
		1	74	22.94	22.82	22.74
		36	0	22.02	22.10	21.90
		36	19	22.14	21.97	22.10
		36	39	22.01	21.88	22.13
		75	0	22.23	22.10	21.95
15M	64QAM	1	0	21.87	21.54	21.89
		1	37	21.82	21.63	21.87
		1	74	21.72	21.59	21.42
		36	0	20.63	20.88	20.65
		36	19	20.79	20.72	20.84
		36	39	20.74	20.52	20.92
		75	0	20.91	20.83	20.68

*EIRP = Conducted + antenna gain (1.57dBi)

LTE Band 4						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		20000	20175	20350
		Frequency (MHz)		1715	1732.5	1750
10M	QPSK	1	0	23.95	23.92	24.11
		1	24	23.98	24.14	24.21
		1	49	23.92	23.75	24.00
		25	0	23.16	23.02	23.10
		25	12	23.04	22.95	23.09
		25	25	22.84	22.89	23.00
		50	0	22.98	23.22	23.20
10M	16QAM	1	0	22.97	23.02	23.12
		1	24	22.99	23.17	23.31
		1	49	22.93	22.66	22.93
		25	0	22.18	21.98	22.10
		25	12	22.08	21.96	22.18
		25	25	21.86	21.92	21.99
		50	0	21.98	22.12	22.16
10M	64QAM	1	0	21.59	21.74	21.82
		1	24	21.77	21.79	22.04
		1	49	21.67	21.30	21.71
		25	0	20.86	20.68	20.75
		25	12	20.81	20.64	20.82
		25	25	20.46	20.59	20.61
		50	0	20.76	20.77	20.81

*EIRP = Conducted + antenna gain (1.57dBi)

LTE Band 4						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		19975	20175	20375
		Frequency (MHz)		1712.5	1732.5	1752.5
5M	QPSK	1	0	24.12	23.98	24.07
		1	12	24.08	24.08	24.12
		1	24	23.85	23.95	23.78
		12	0	23.20	22.90	23.15
		12	6	23.14	23.06	23.21
		12	13	22.98	22.89	23.02
		25	0	23.19	23.04	23.07
5M	16QAM	1	0	23.11	22.90	23.08
		1	12	23.17	23.03	23.20
		1	24	22.84	22.99	22.82
		12	0	22.20	21.86	22.18
		12	6	22.04	22.02	22.14
		12	13	22.00	21.82	21.95
		25	0	22.22	22.06	22.13
5M	64QAM	1	0	21.91	21.52	21.78
		1	12	21.92	21.66	22.00
		1	24	21.56	21.61	21.44
		12	0	20.86	20.58	20.88
		12	6	20.75	20.68	20.91
		12	13	20.75	20.48	20.59
		25	0	20.88	20.81	20.73

*EIRP = Conducted + antenna gain (1.57dBi)

LTE Band 4						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		19965	20175	20385
		Frequency (MHz)		1711.5	1732.5	1753.5
3M	QPSK	1	0	23.92	24.02	23.95
		1	7	24.12	24.25	24.02
		1	14	23.77	23.99	23.92
		8	0	22.97	23.10	23.06
		8	3	23.03	23.18	23.04
		8	7	22.89	22.91	22.93
		15	0	23.00	23.14	22.99
3M	16QAM	1	0	22.89	22.94	22.86
		1	7	23.15	23.23	22.94
		1	14	22.68	22.98	23.02
		8	0	21.89	22.13	21.97
		8	3	22.12	22.13	21.99
		8	7	21.79	21.93	21.87
		15	0	22.05	22.17	22.02
3M	64QAM	1	0	21.52	21.73	21.55
		1	7	21.81	21.90	21.59
		1	14	21.35	21.65	21.76
		8	0	20.52	20.77	20.67
		8	3	20.76	20.91	20.61
		8	7	20.48	20.55	20.49
		15	0	20.71	20.95	20.69

*EIRP = Conducted + antenna gain (1.57dBi)

LTE Band 4						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		19957	20175	20393
		Frequency (MHz)		1710.7	1732.5	1754.3
1.4M	QPSK	1	0	23.83	23.84	23.95
		1	2	24.22	23.97	24.25
		1	5	23.96	23.66	23.67
		3	0	24.08	24.19	24.20
		3	1	24.09	24.09	24.10
		3	3	24.04	23.78	23.83
		6	0	23.07	22.95	23.08
1.4M	16QAM	1	0	22.77	22.83	22.85
		1	2	23.21	22.95	23.35
		1	5	22.91	22.67	22.58
		3	0	23.10	23.25	23.14
		3	1	23.16	23.18	23.04
		3	3	22.96	22.87	22.88
		6	0	21.97	22.02	22.15
1.4M	64QAM	1	0	21.53	21.48	21.53
		1	2	21.90	21.70	21.99
		1	5	21.64	21.47	21.29
		3	0	21.72	21.93	21.89
		3	1	21.80	21.94	21.67
		3	3	21.66	21.60	21.67
		6	0	20.74	20.78	20.78

*EIRP = Conducted + antenna gain (1.57dBi)

LTE Band 7						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		20850	21100	21350
		Frequency (MHz)		2510	2535	2560
20M	QPSK	1	0	24.29	24.21	24.09
		1	50	24.32	24.38	24.37
		1	99	23.98	24.04	24.00
		50	0	23.09	23.21	23.37
		50	25	23.10	23.23	23.10
		50	50	23.27	23.34	23.31
		100	0	23.19	23.46	23.33
20M	16QAM	1	0	23.30	23.30	23.05
		1	50	23.24	23.46	23.33
		1	99	23.06	22.98	23.02
		50	0	22.12	22.31	22.36
		50	25	22.05	22.16	22.04
		50	50	22.31	22.27	22.24
		100	0	22.20	22.54	22.23
20M	64QAM	1	0	21.91	22.07	21.67
		1	50	21.99	22.25	21.97
		1	99	21.72	21.63	21.64
		50	0	20.84	21.03	21.12
		50	25	20.80	20.82	20.79
		50	50	20.98	21.01	21.04
		100	0	20.80	21.32	20.90

*EIRP = Conducted + antenna gain (2.15dBi)

LTE Band 7						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		20825	21100	21375
		Frequency (MHz)		2507.5	2535	2562.5
15M	QPSK	1	0	24.10	24.09	24.04
		1	37	24.23	24.18	24.23
		1	74	23.93	24.14	23.90
		36	0	23.16	23.14	23.34
		36	19	23.32	23.18	23.28
		36	39	23.27	23.32	23.11
		75	0	23.36	23.45	23.41
15M	16QAM	1	0	23.02	23.19	23.03
		1	37	23.20	23.17	23.13
		1	74	22.84	23.21	22.96
		36	0	22.06	22.24	22.38
		36	19	22.32	22.26	22.37
		36	39	22.35	22.31	22.12
		75	0	22.28	22.45	22.48
15M	64QAM	1	0	21.76	21.79	21.82
		1	37	21.90	21.97	21.78
		1	74	21.63	21.90	21.76
		36	0	20.84	20.99	21.16
		36	19	21.11	21.01	21.08
		36	39	21.07	20.97	20.78
		75	0	20.88	21.16	21.19

*EIRP = Conducted + antenna gain (2.15dBi)

LTE Band 7						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		20800	21100	21400
		Frequency (MHz)		2505	2535	2565
10M	QPSK	1	0	24.04	24.12	24.24
		1	24	24.22	24.16	24.28
		1	49	24.16	24.11	23.96
		25	0	23.15	23.37	23.27
		25	12	23.22	23.09	23.33
		25	25	23.25	23.22	23.27
		50	0	23.30	23.31	23.39
10M	16QAM	1	0	23.06	23.16	23.20
		1	24	23.28	23.11	23.23
		1	49	23.17	23.09	23.04
		25	0	22.07	22.43	22.18
		25	12	22.31	22.14	22.32
		25	25	22.22	22.25	22.25
		50	0	22.30	22.35	22.41
10M	64QAM	1	0	21.75	21.77	21.94
		1	24	22.07	21.85	21.85
		1	49	21.80	21.80	21.77
		25	0	20.76	21.17	20.79
		25	12	20.92	20.76	21.08
		25	25	20.94	20.94	21.01
		50	0	21.03	21.01	21.10

*EIRP = Conducted + antenna gain (2.15dBi)

LTE Band 7						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		20775	21100	21425
		Frequency (MHz)		2502.5	2535	2567.5
5M	QPSK	1	0	24.26	24.32	24.16
		1	12	24.25	24.18	24.12
		1	24	24.09	24.13	24.14
		12	0	23.37	23.16	23.28
		12	6	23.20	23.09	23.11
		12	13	23.17	23.28	23.06
		25	0	23.35	23.33	23.46
5M	16QAM	1	0	23.21	23.42	23.22
		1	12	23.19	23.15	23.22
		1	24	23.06	23.05	23.19
		12	0	22.37	22.22	22.20
		12	6	22.22	22.02	22.19
		12	13	22.20	22.31	22.12
		25	0	22.37	22.41	22.48
5M	64QAM	1	0	22.00	22.20	21.95
		1	12	21.79	21.76	21.86
		1	24	21.78	21.71	21.82
		12	0	21.05	20.97	20.92
		12	6	20.98	20.65	20.86
		12	13	20.87	20.95	20.72
		25	0	21.09	21.10	21.28

*EIRP = Conducted + antenna gain (2.15dBi)

LTE Band 12						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		23060	23095	23130
		Frequency (MHz)		704	707.5	711
10M	QPSK	1	0	22.48	22.25	22.38
		1	24	22.61	22.50	22.68
		1	49	22.46	22.39	22.41
		25	0	21.53	21.68	21.76
		25	12	21.71	21.46	21.56
		25	25	21.58	21.65	21.78
		50	0	21.79	21.78	21.78
10M	16QAM	1	0	21.55	21.30	21.43
		1	24	21.63	21.48	21.76
		1	49	21.45	21.45	21.31
		25	0	20.46	20.61	20.81
		25	12	20.79	20.42	20.54
		25	25	20.54	20.62	20.71
		50	0	20.77	20.74	20.80
10M	64QAM	1	0	20.18	19.91	20.12
		1	24	20.35	20.28	20.52
		1	49	20.07	20.12	20.05
		25	0	19.06	19.24	19.46
		25	12	19.54	19.14	19.24
		25	25	19.32	19.38	19.36
		50	0	19.48	19.54	19.42

*ERP = Conducted + antenna gain (2.02dBi) - 2.15

LTE Band 12						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		23035	23095	23155
		Frequency (MHz)		701.5	707.5	713.5
5M	QPSK	1	0	22.53	22.52	22.36
		1	12	22.54	22.63	22.51
		1	24	22.62	22.38	22.51
		12	0	21.59	21.57	21.74
		12	6	21.65	21.43	21.58
		12	13	21.67	21.69	21.52
		25	0	21.79	21.52	21.54
5M	16QAM	1	0	21.53	21.46	21.30
		1	12	21.52	21.66	21.50
		1	24	21.53	21.38	21.57
		12	0	20.58	20.62	20.64
		12	6	20.74	20.47	20.54
		12	13	20.66	20.76	20.61
		25	0	20.75	20.47	20.48
5M	64QAM	1	0	20.24	20.17	19.97
		1	12	20.22	20.30	20.12
		1	24	20.18	20.09	20.18
		12	0	19.37	19.30	19.31
		12	6	19.35	19.24	19.16
		12	13	19.28	19.50	19.28
		25	0	19.46	19.18	19.10

*ERP = Conducted + antenna gain (2.02dBi) - 2.15

LTE Band 12						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		23025	23095	23165
		Frequency (MHz)		700.5	707.5	714.5
3M	QPSK	1	0	22.40	22.53	22.34
		1	7	22.61	22.57	22.54
		1	14	22.42	22.40	22.40
		8	0	21.60	21.81	21.72
		8	3	21.52	21.63	21.62
		8	7	21.71	21.61	21.61
		15	0	21.79	21.65	21.59
3M	16QAM	1	0	21.37	21.50	21.38
		1	7	21.66	21.48	21.46
		1	14	21.39	21.38	21.35
		8	0	20.63	20.77	20.69
		8	3	20.43	20.59	20.60
		8	7	20.65	20.70	20.64
		15	0	20.87	20.73	20.69
3M	64QAM	1	0	20.04	20.24	20.15
		1	7	20.41	20.22	20.19
		1	14	19.99	20.04	20.06
		8	0	19.42	19.45	19.38
		8	3	19.18	19.34	19.31
		8	7	19.25	19.49	19.31
		15	0	19.54	19.52	19.35

*ERP = Conducted + antenna gain (2.02dBi) - 2.15

LTE Band 12						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		23017	23095	23173
		Frequency (MHz)		699.7	707.5	715.3
1.4M	QPSK	1	0	22.24	22.29	22.54
		1	2	22.64	22.53	22.53
		1	5	22.55	22.38	22.42
		3	0	21.77	21.74	21.62
		3	1	21.45	21.59	21.65
		3	3	21.53	21.61	21.62
		6	0	21.65	21.60	21.58
1.4M	16QAM	1	0	21.31	21.20	21.44
		1	2	21.65	21.49	21.59
		1	5	21.46	21.35	21.45
		3	0	20.72	20.72	20.62
		3	1	20.49	20.57	20.70
		3	3	20.50	20.62	20.62
		6	0	20.71	20.50	20.68
1.4M	64QAM	1	0	20.05	19.90	20.22
		1	2	20.25	20.17	20.37
		1	5	20.12	20.09	20.06
		3	0	19.47	19.36	19.34
		3	1	19.28	19.23	19.48
		3	3	19.14	19.32	19.24
		6	0	19.44	19.19	19.31

*ERP = Conducted + antenna gain (2.02dBi) - 2.15

LTE Band 17						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		23780	23790	23800
		Frequency (MHz)		709	710	711
10M	QPSK	1	0	22.34	22.22	22.19
		1	24	22.40	22.36	22.30
		1	49	22.33	22.08	22.27
		25	0	21.33	21.42	21.22
		25	12	21.37	21.47	21.30
		25	25	21.12	21.22	21.26
		50	0	21.20	21.22	21.24
10M	16QAM	1	0	21.24	21.14	21.14
		1	24	21.40	21.37	21.38
		1	49	21.29	21.08	21.29
		25	0	20.36	20.52	20.20
		25	12	20.38	20.51	20.32
		25	25	20.06	20.23	20.27
		50	0	20.25	20.21	20.24
10M	64QAM	1	0	20.02	19.77	19.78
		1	24	20.06	20.16	20.11
		1	49	20.09	19.86	19.93
		25	0	19.04	19.31	18.90
		25	12	19.16	19.23	19.09
		25	25	18.71	18.89	18.93
		50	0	19.00	18.98	19.00

*ERP = Conducted + antenna gain (2.02dBi) - 2.15

LTE Band 17						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		23755	23790	23825
		Frequency (MHz)		706.5	710	713.5
5M	QPSK	1	0	22.25	22.27	22.34
		1	12	22.48	22.49	22.44
		1	24	22.28	22.21	22.27
		12	0	21.19	21.16	21.33
		12	6	21.34	21.26	21.35
		12	13	21.32	21.31	21.31
		25	0	21.12	21.16	21.18
5M	16QAM	1	0	21.34	21.26	21.30
		1	12	21.44	21.54	21.35
		1	24	21.19	21.14	21.28
		12	0	20.25	20.08	20.34
		12	6	20.32	20.17	20.34
		12	13	20.36	20.28	20.35
		25	0	20.10	20.19	20.22
5M	64QAM	1	0	19.99	19.95	19.96
		1	12	20.09	20.17	19.99
		1	24	19.89	19.85	19.98
		12	0	18.86	18.78	19.05
		12	6	18.95	18.93	19.04
		12	13	19.10	18.98	18.95
		25	0	18.81	18.81	18.86

*ERP = Conducted + antenna gain (2.02dBi) - 2.15

LTE Band 66						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		132072	132322	132572
		Frequency (MHz)		1720	1745	1770
20M	QPSK	1	0	23.87	23.80	23.76
		1	50	24.15	24.12	24.30
		1	99	23.87	23.87	23.78
		50	0	22.97	22.93	23.01
		50	25	22.89	22.97	22.87
		50	50	22.74	22.76	22.89
		100	0	22.80	22.74	23.00
20M	16QAM	1	0	22.96	22.73	22.78
		1	50	23.15	23.14	23.22
		1	99	22.92	22.92	22.82
		50	0	21.87	21.89	21.93
		50	25	21.96	22.05	21.87
		50	50	21.76	21.85	21.96
		100	0	21.81	21.75	21.93
20M	64QAM	1	0	21.62	21.48	21.43
		1	50	21.87	21.80	21.86
		1	99	21.62	21.70	21.59
		50	0	20.54	20.50	20.56
		50	25	20.67	20.66	20.59
		50	50	20.55	20.49	20.63
		100	0	20.42	20.49	20.54

*EIRP = Conducted + antenna gain (1.57dBi)

LTE Band 66						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		132047	132322	132597
		Frequency (MHz)		1717.5	1745	1772.5
15M	QPSK	1	0	23.67	23.94	23.65
		1	37	24.24	24.13	24.28
		1	74	23.90	23.88	23.79
		36	0	23.10	23.00	23.01
		36	19	22.94	23.05	23.07
		36	39	22.87	22.94	23.00
		75	0	23.03	22.76	22.80
15M	16QAM	1	0	22.62	22.86	22.68
		1	37	23.24	23.17	23.32
		1	74	22.86	22.97	22.83
		36	0	22.16	22.07	21.96
		36	19	21.94	22.04	22.06
		36	39	21.80	21.95	22.00
		75	0	22.06	21.73	21.85
15M	64QAM	1	0	21.32	21.55	21.40
		1	50	21.90	21.92	21.93
		1	99	21.61	21.71	21.44
		50	0	20.85	20.86	20.66
		50	25	20.66	20.71	20.84
		50	50	20.49	20.67	20.72
		100	0	20.84	20.50	20.58

*EIRP = Conducted + antenna gain (1.57dBi)

LTE Band 66						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		132022	132322	132622
		Frequency (MHz)		1715	1745	1775
10M	QPSK	1	0	23.87	23.88	23.82
		1	24	24.30	24.01	24.26
		1	49	23.93	23.85	23.90
		25	0	22.98	23.06	22.97
		25	12	22.90	22.94	23.05
		25	25	22.81	22.96	22.98
		50	0	22.89	22.98	22.85
10M	16QAM	1	0	22.77	22.78	22.77
		1	24	23.28	23.06	23.33
		1	49	22.93	22.77	22.95
		25	0	21.90	22.08	22.01
		25	12	21.94	21.97	22.04
		25	25	21.89	21.95	22.05
		50	0	21.94	22.03	21.90
10M	64QAM	1	0	21.50	21.42	21.50
		1	50	22.03	21.75	22.00
		1	99	21.61	21.40	21.61
		50	0	20.59	20.83	20.78
		50	25	20.55	20.72	20.76
		50	50	20.65	20.69	20.79
		100	0	20.59	20.66	20.53

*EIRP = Conducted + antenna gain (1.57dBi)

LTE Band 66						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		131997	132322	132647
		Frequency (MHz)		1712.5	1745	1777.5
5M	QPSK	1	0	23.72	23.90	23.71
		1	12	24.13	24.12	24.22
		1	24	23.91	23.80	23.89
		12	0	23.06	23.03	22.91
		12	6	22.81	22.91	23.08
		12	13	22.79	22.86	22.96
		25	0	22.81	22.80	22.94
5M	16QAM	1	0	22.65	22.80	22.69
		1	12	23.08	23.11	23.23
		1	24	22.88	22.85	22.87
		12	0	22.12	21.96	22.00
		12	6	21.77	21.92	22.14
		12	13	21.69	21.93	22.04
		25	0	21.75	21.85	21.93
5M	64QAM	1	0	21.35	21.48	21.40
		1	50	21.69	21.89	21.83
		1	99	21.50	21.47	21.56
		50	0	20.81	20.56	20.76
		50	25	20.38	20.70	20.75
		50	50	20.48	20.58	20.80
		100	0	20.47	20.59	20.58

*EIRP = Conducted + antenna gain (1.57dBi)

LTE Band 66						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		131987	132322	132657
		Frequency (MHz)		1711.5	1745	1778.5
3M	QPSK	1	0	23.69	23.68	23.70
		1	7	24.27	24.17	24.07
		1	14	23.76	23.92	23.72
		8	0	23.14	23.00	22.89
		8	3	22.93	22.81	22.85
		8	7	23.02	22.96	22.97
		15	0	22.77	22.76	22.98
3M	16QAM	1	0	22.63	22.75	22.74
		1	7	23.26	23.20	23.14
		1	14	22.74	22.99	22.80
		8	0	22.15	22.08	21.92
		8	3	21.86	21.74	21.94
		8	7	22.05	22.05	21.89
		15	0	21.83	21.80	21.93
3M	64QAM	1	0	21.42	21.45	21.38
		1	50	21.95	21.84	21.86
		1	99	21.43	21.65	21.59
		50	0	20.94	20.86	20.64
		50	25	20.61	20.52	20.71
		50	50	20.82	20.81	20.68
		100	0	20.46	20.48	20.68

*EIRP = Conducted + antenna gain (1.57dBi)

LTE Band 66						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		131979	132322	132665
		Frequency (MHz)		1710.7	1745	1779.3
1.4M	QPSK	1	0	23.74	23.73	23.98
		1	2	24.28	24.16	24.35
		1	5	23.99	23.89	23.77
		3	0	23.83	23.68	23.83
		3	1	23.97	23.95	24.01
		3	3	23.67	23.89	23.90
		6	0	22.91	22.94	23.07
1.4M	16QAM	1	0	22.82	22.78	23.07
		1	2	23.23	23.20	23.31
		1	5	23.00	22.83	22.83
		3	0	22.84	22.62	22.92
		3	1	22.99	22.92	23.08
		3	3	22.63	22.99	22.99
		6	0	21.98	21.84	22.04
1.4M	64QAM	1	0	21.55	21.50	21.69
		1	50	21.90	21.87	22.09
		1	99	21.60	21.48	21.56
		50	0	21.52	21.42	21.62
		50	25	21.70	21.61	21.85
		50	50	21.30	21.75	21.69
		100	0	20.69	20.56	20.82

*EIRP = Conducted + antenna gain (1.57dBi)

LTE Band 71						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		133222	133297	133372
		Frequency (MHz)		673	680.5	688
20M	QPSK	1	0	22.73	22.54	22.66
		1	50	22.77	22.76	22.81
		1	99	22.53	22.36	22.34
		50	0	21.56	21.56	21.55
		50	25	21.66	21.56	21.57
		50	50	21.43	21.65	21.43
		100	0	21.66	21.67	21.60
20M	16QAM	1	0	21.75	21.55	21.58
		1	50	21.71	21.69	21.72
		1	99	21.44	21.34	21.28
		50	0	20.61	20.59	20.49
		50	25	20.64	20.48	20.50
		50	50	20.50	20.66	20.50
		100	0	20.57	20.73	20.62
20M	64QAM	1	0	20.44	20.35	20.36
		1	50	20.44	20.49	20.49
		1	99	20.10	20.00	19.94
		50	0	19.24	19.30	19.13
		50	25	19.32	19.27	19.20
		50	50	19.27	19.42	19.19
		100	0	19.17	19.41	19.30

*ERP = Conducted + antenna gain (2.02dBi) - 2.15

LTE Band 71						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		133197	133297	133397
		Frequency (MHz)		670.5	680.5	690.5
15M	QPSK	1	0	22.68	22.50	22.67
		1	37	22.73	22.94	22.83
		1	74	22.38	22.49	22.39
		36	0	21.54	21.42	21.51
		36	19	21.76	21.80	21.56
		36	39	21.64	21.64	21.40
		75	0	21.64	21.67	21.58
15M	16QAM	1	0	21.65	21.50	21.68
		1	37	21.80	21.87	21.84
		1	74	21.29	21.48	21.40
		36	0	20.57	20.37	20.41
		36	19	20.79	20.74	20.64
		36	39	20.61	20.56	20.45
		75	0	20.55	20.75	20.59
15M	64QAM	1	0	20.44	20.28	20.29
		1	50	20.59	20.57	20.50
		1	99	20.07	20.13	20.09
		50	0	19.33	19.09	19.18
		50	25	19.45	19.43	19.29
		50	50	19.37	19.28	19.08
		100	0	19.21	19.39	19.38

*ERP = Conducted + antenna gain (2.02dBi) - 2.15

LTE Band 71						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		133172	133297	133422
		Frequency (MHz)		668	680.5	693
10M	QPSK	1	0	22.54	22.55	22.75
		1	24	22.77	22.95	22.89
		1	49	22.46	22.39	22.61
		25	0	21.42	21.61	21.56
		25	12	21.74	21.69	21.70
		25	25	21.52	21.41	21.54
		50	0	21.51	21.68	21.52
10M	16QAM	1	0	21.57	21.51	21.77
		1	24	21.74	21.88	21.98
		1	49	21.36	21.38	21.58
		25	0	20.48	20.58	20.65
		25	12	20.70	20.63	20.62
		25	25	20.47	20.37	20.59
		50	0	20.55	20.65	20.50
10M	64QAM	1	0	20.24	20.21	20.55
		1	50	20.43	20.56	20.63
		1	99	20.08	20.16	20.26
		50	0	19.25	19.30	19.33
		50	25	19.50	19.26	19.25
		50	50	19.26	19.13	19.35
		100	0	19.30	19.30	19.28

*ERP = Conducted + antenna gain (2.02dBi) - 2.15

LTE Band 71						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		133147	133297	133447
		Frequency (MHz)		665.5	680.5	695.5
5M	QPSK	1	0	22.52	22.69	22.71
		1	12	22.73	22.74	22.69
		1	24	22.35	22.41	22.46
		12	0	21.48	21.56	21.63
		12	6	21.61	21.83	21.75
		12	13	21.55	21.41	21.39
		25	0	21.64	21.46	21.51
5M	16QAM	1	0	21.56	21.73	21.61
		1	12	21.67	21.68	21.68
		1	24	21.32	21.31	21.53
		12	0	20.53	20.48	20.67
		12	6	20.53	20.81	20.84
		12	13	20.61	20.41	20.45
		25	0	20.67	20.48	20.58
5M	64QAM	1	0	20.25	20.43	20.40
		1	50	20.38	20.28	20.36
		1	99	20.07	20.00	20.22
		50	0	19.20	19.12	19.39
		50	25	19.16	19.42	19.52
		50	50	19.22	19.11	19.06
		100	0	19.28	19.09	19.28

*ERP = Conducted + antenna gain (2.02dBi) - 2.15

4.2 Modulation Characteristics Measurement

4.2.1 Limits of Modulation Characteristics

N/A

4.2.2 Test Procedure

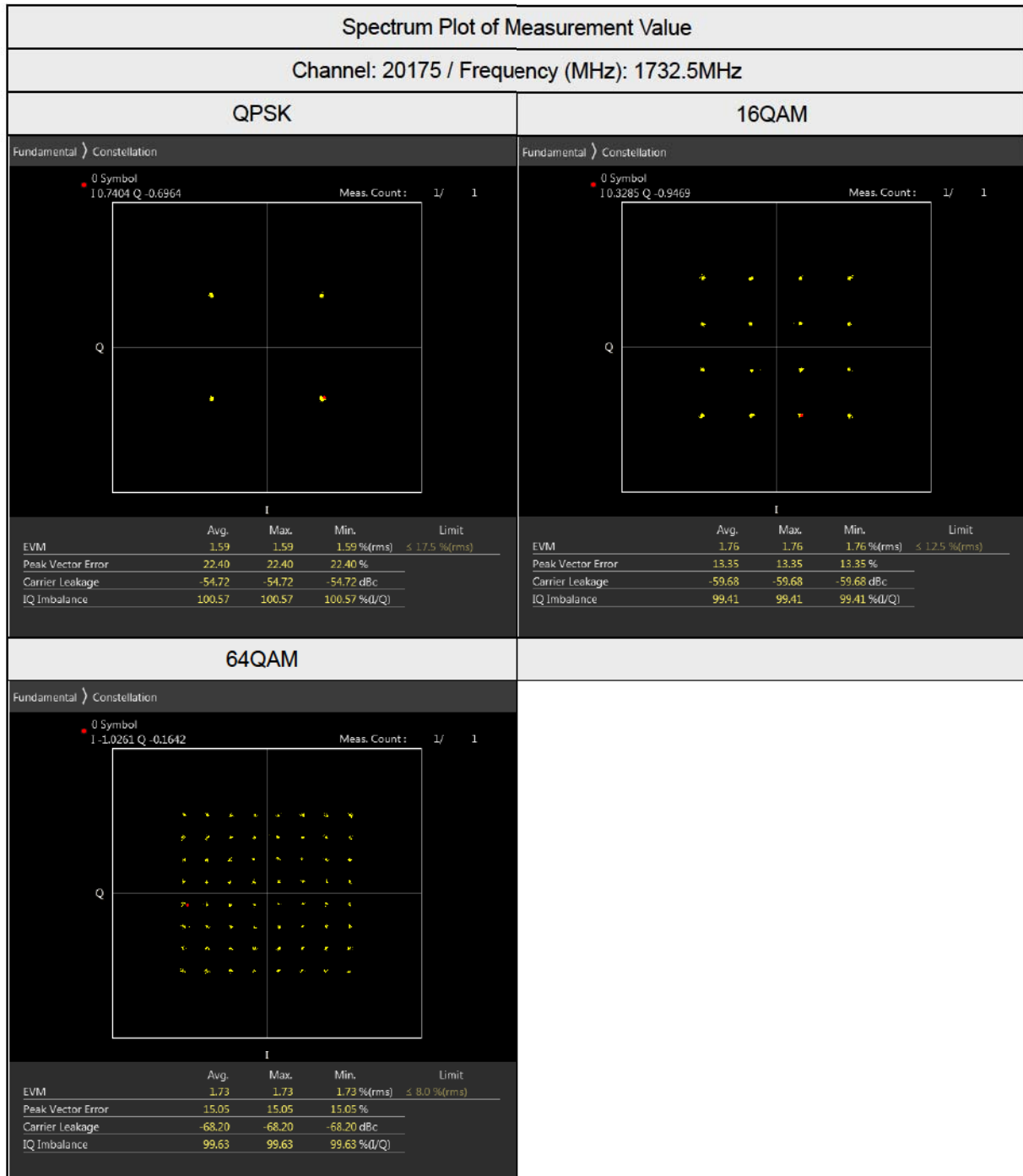
Connect the EUT to Communication Simulator via the antenna connector, The frequency band is set as EUT supported Modulation and Channels, the EUT output is matched with 50 ohm load, the waveform quality and constellation of the EUT was tested.

4.2.3 Test Setup

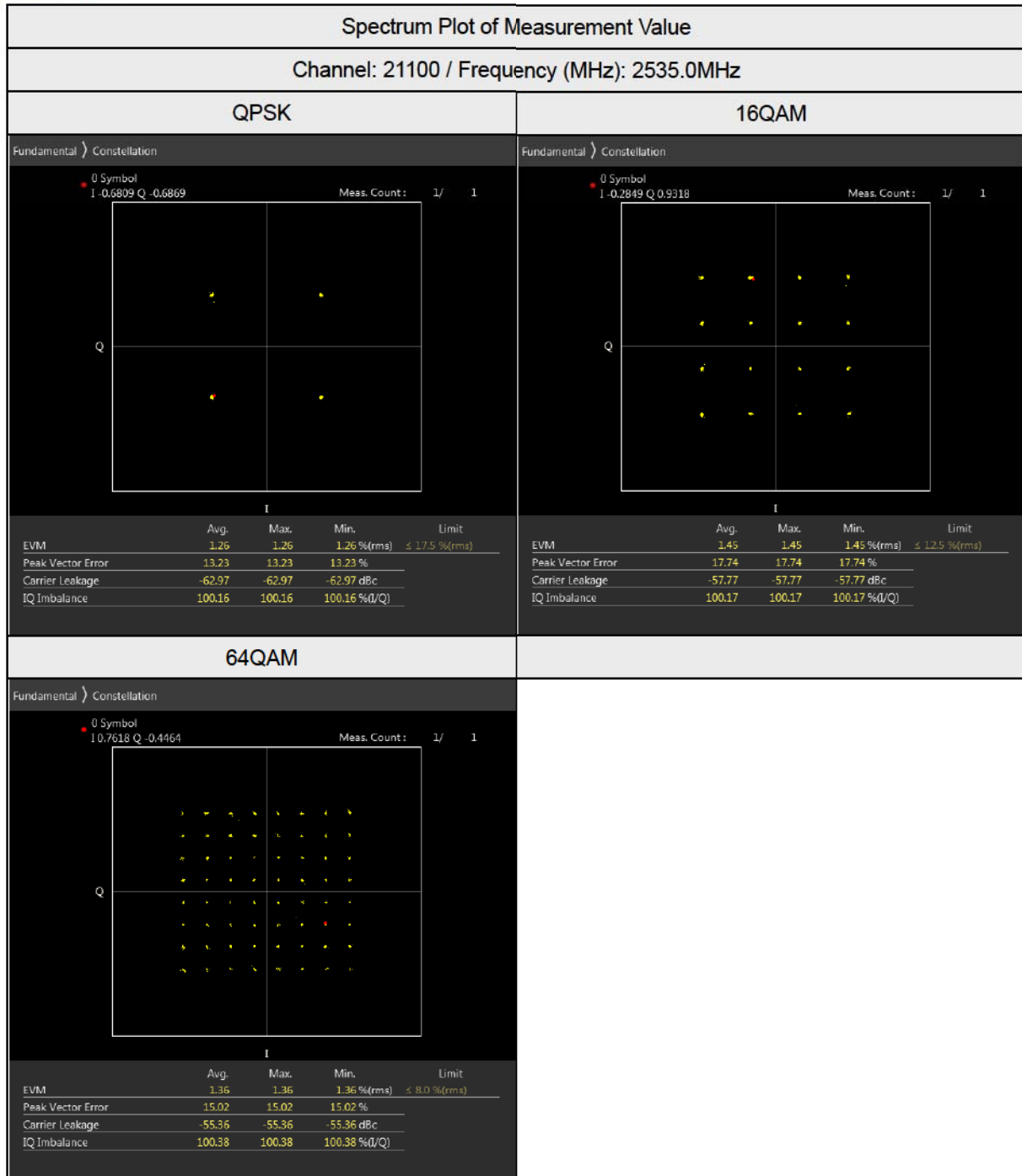


4.2.4 Test Results

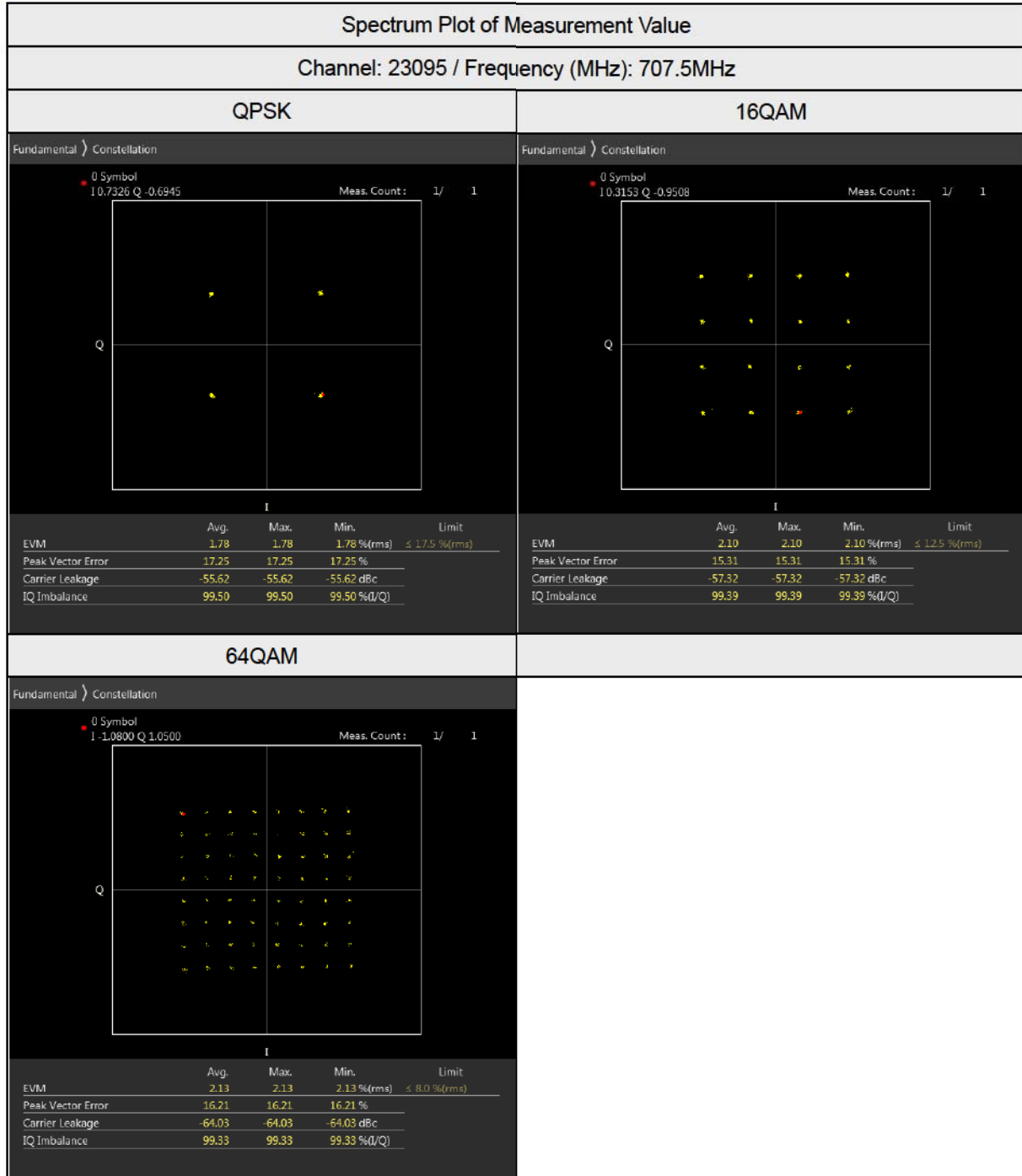
LTE Band 4



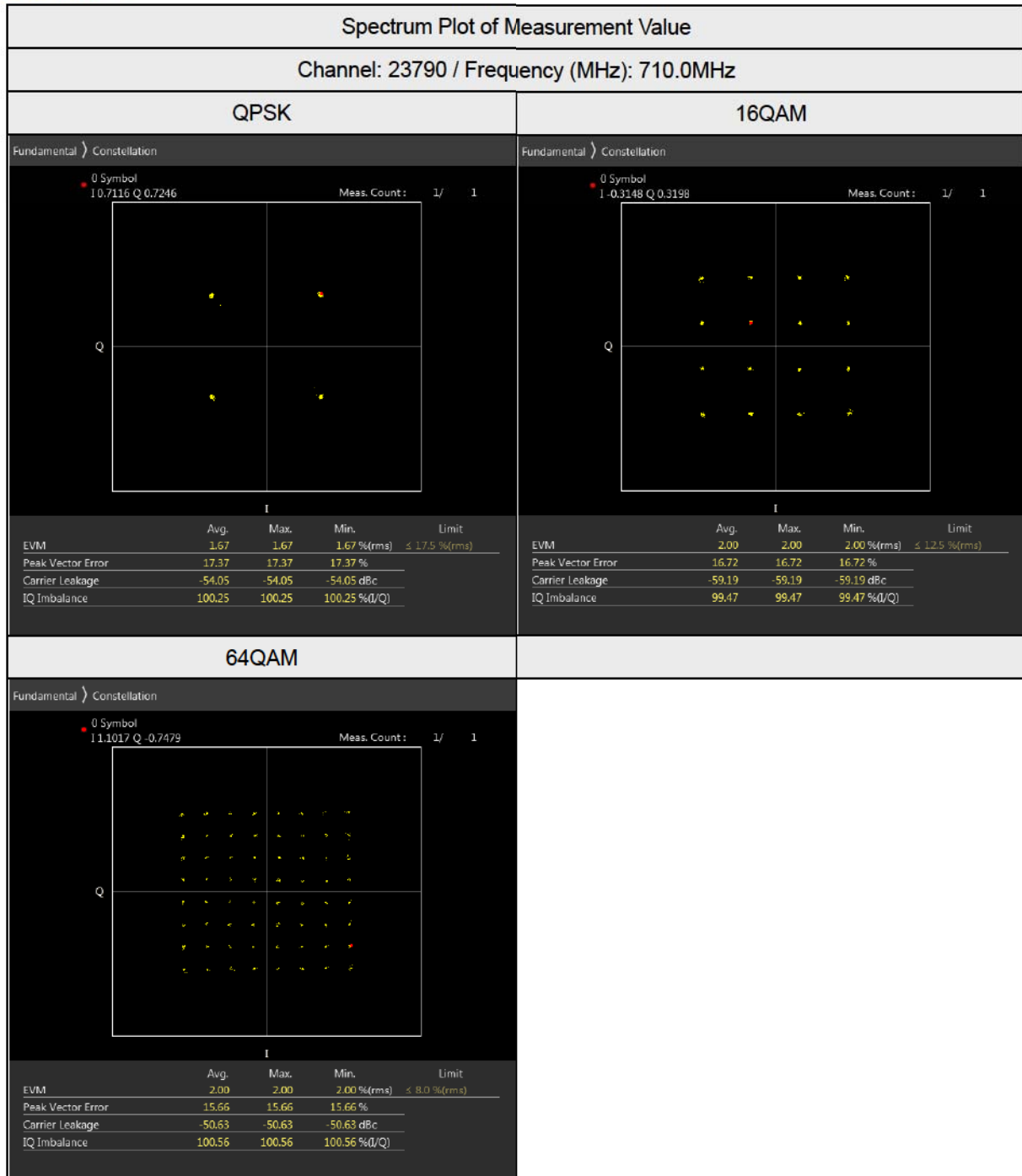
LTE Band 7



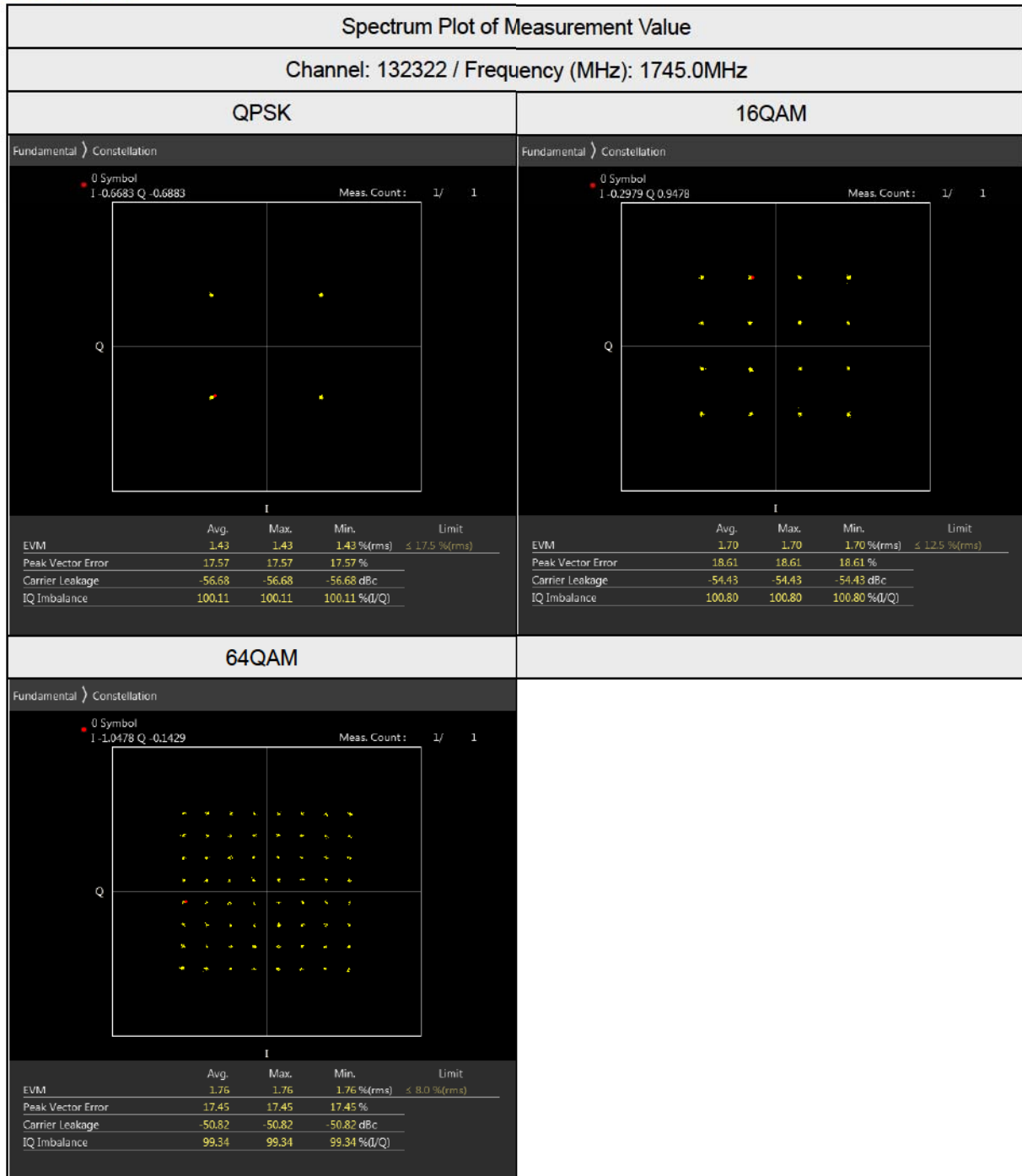
LTE Band 12



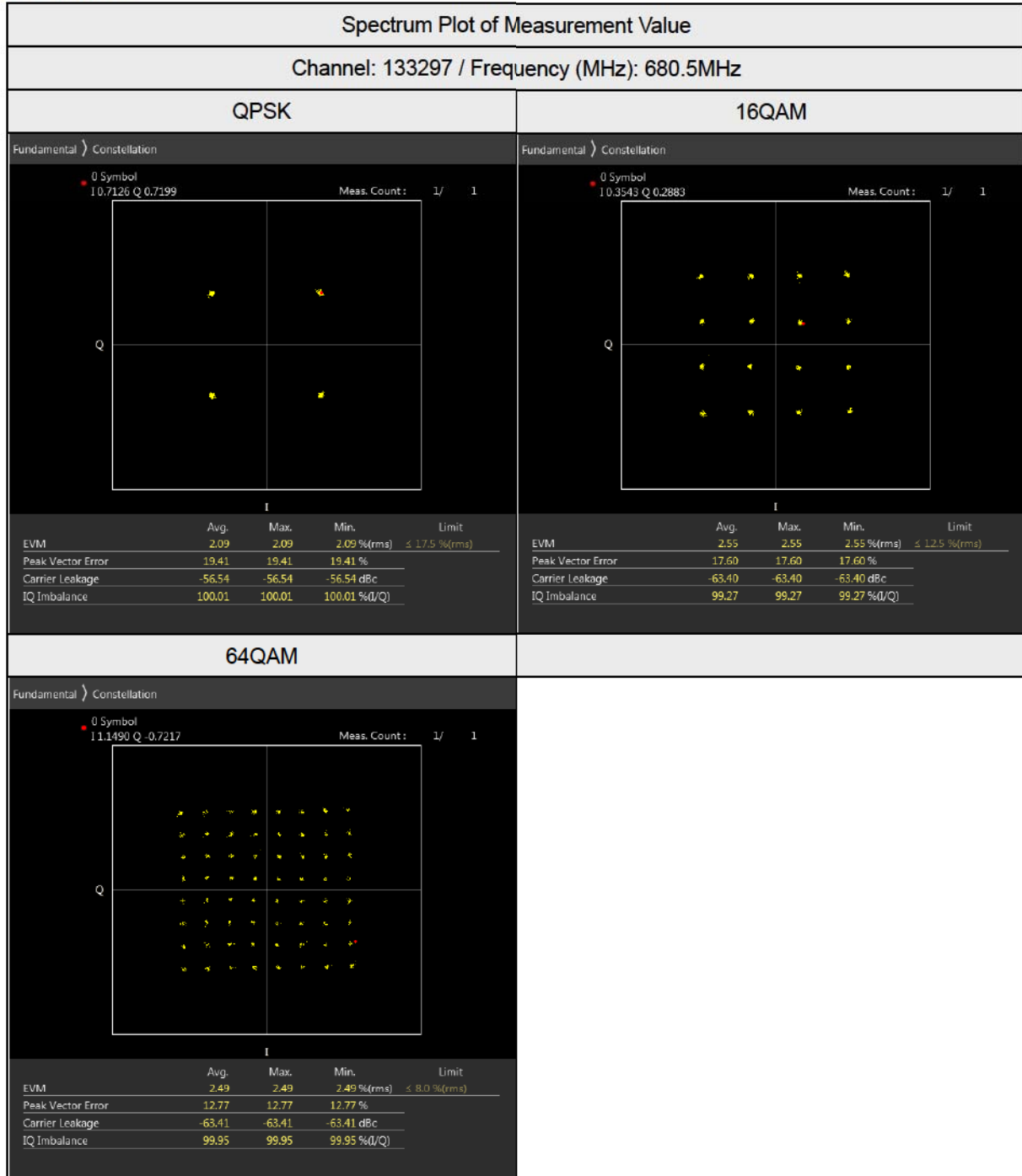
LTE Band 17



LTE Band 66



LTE Band 71



4.3 Frequency Stability Measurement

4.3.1 Limits of Frequency Stability Measurement

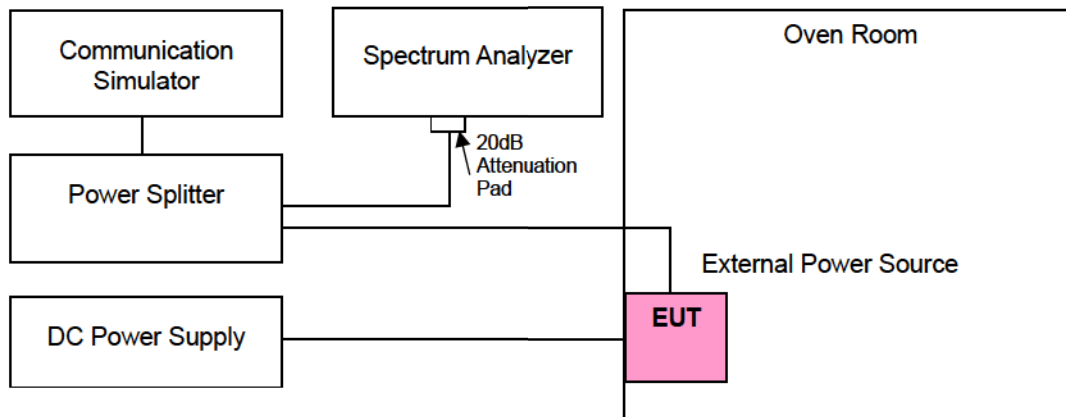
The frequency stability shall be sufficient to ensure that the fundamental emissions stay within the authorized bands of operation.

4.3.2 Test Procedure

- a. 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.
- b. 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.
- c. The temperature range step is 10 degrees in this test items. All temperature levels shall be hold the ± 0.5 °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.

4.3.3 Test Setup



4.3.4 Test Results

Frequency Error vs. Voltage

Voltage (Vdc)	LTE Band 4			
	Channel Bandwidth 1.4 MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
4.0	1710.700004	0.002	1754.300005	0.003
3.4	1710.700001	0.001	1754.299996	-0.002
4.6	1710.700004	0.002	1754.300001	0.001

Note: The applicant defined the normal working voltage is from 3.4Vdc to 4.6Vdc.

Frequency Error vs. Temperature

Temp. (°C)	LTE Band 4			
	Channel Bandwidth 1.4 MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-40	1710.699998	-0.001	1754.299997	-0.002
-30	1710.699995	-0.003	1754.299998	-0.001
-20	1710.700002	0.001	1754.300005	0.003
-10	1710.700002	0.001	1754.299997	-0.002
0	1710.700005	0.003	1754.300003	0.002
10	1710.700001	0.001	1754.300004	0.002
20	1710.700003	0.002	1754.299997	-0.002
30	1710.699998	-0.001	1754.300001	0.001
40	1710.699995	-0.003	1754.300004	0.002
50	1710.699995	-0.003	1754.299997	-0.002
60	1710.699995	-0.003	1754.299995	-0.003
70	1710.700003	0.002	1754.300004	0.002
80	1710.700003	0.002	1754.300004	0.002
85	1710.700004	0.002	1754.300001	0.001

Frequency Error vs. Voltage

Voltage (Vdc)	LTE Band 4			
	Channel Bandwidth 3 MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
4.0	1711.500003	0.002	1753.499996	-0.002
3.4	1711.499998	-0.001	1753.499999	-0.001
4.6	1711.500005	0.003	1753.499996	-0.002

Note: The applicant defined the normal working voltage is from 3.4Vdc to 4.6Vdc.

Frequency Error vs. Temperature

Temp. (°C)	LTE Band 4			
	Channel Bandwidth 3 MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-40	1711.500004	0.002	1753.500002	0.001
-30	1711.500005	0.003	1753.499998	-0.001
-20	1711.499999	-0.001	1753.499995	-0.003
-10	1711.499997	-0.002	1753.499998	-0.001
0	1711.500005	0.003	1753.499998	-0.001
10	1711.500004	0.002	1753.499995	-0.003
20	1711.500003	0.002	1753.499995	-0.003
30	1711.500003	0.002	1753.499995	-0.003
40	1711.499995	-0.003	1753.499996	-0.002
50	1711.500003	0.002	1753.500004	0.002
60	1711.500001	0.001	1753.500002	0.001
70	1711.499998	-0.001	1753.500004	0.002
80	1711.499999	-0.001	1753.500004	0.002
85	1711.499999	-0.001	1753.499997	-0.002

Frequency Error vs. Voltage

Voltage (Vdc)	LTE Band 4			
	Channel Bandwidth 5MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
4.0	1712.500003	0.002	1752.500001	0.001
3.4	1712.499997	-0.002	1752.499999	-0.001
4.6	1712.499997	-0.002	1752.499997	-0.002

Note: The applicant defined the normal working voltage is from 3.4Vdc to 4.6Vdc.

Frequency Error vs. Temperature

Temp. (°C)	LTE Band 4			
	Channel Bandwidth 5MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-40	1712.500003	0.002	1752.500005	0.003
-30	1712.500004	0.002	1752.499995	-0.003
-20	1712.499998	-0.001	1752.499999	-0.001
-10	1712.500002	0.001	1752.499999	-0.001
0	1712.499995	-0.003	1752.500002	0.001
10	1712.500003	0.002	1752.500005	0.003
20	1712.500002	0.001	1752.500005	0.003
30	1712.499996	-0.002	1752.499999	-0.001
40	1712.500004	0.002	1752.500004	0.002
50	1712.499998	-0.001	1752.500004	0.002
60	1712.500005	0.003	1752.500001	0.001
70	1712.499999	-0.001	1752.499999	-0.001
80	1712.499998	-0.001	1752.500001	0.001
85	1712.500001	0.001	1752.500002	0.001

Frequency Error vs. Voltage

Voltage (Vdc)	LTE Band 4			
	Channel Bandwidth 10MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
4.0	1715.000004	0.002	1749.999996	-0.002
3.4	1715.000001	0.001	1750.000003	0.002
4.6	1715.000003	0.002	1750.000002	0.001

Note: The applicant defined the normal working voltage is from 3.4Vdc to 4.6Vdc.

Frequency Error vs. Temperature

Temp. (°C)	LTE Band 4			
	Channel Bandwidth 10MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-40	1714.999996	-0.002	1750.000002	0.001
-30	1715.000005	0.003	1750.000002	0.001
-20	1714.999996	-0.002	1750.000001	0.001
-10	1715.000005	0.003	1750.000005	0.003
0	1714.999999	-0.001	1749.999999	-0.001
10	1715.000003	0.002	1749.999999	-0.001
20	1714.999996	-0.002	1749.999998	-0.001
30	1714.999996	-0.002	1750.000003	0.002
40	1714.999998	-0.001	1750.000002	0.001
50	1714.999997	-0.002	1750.000002	0.001
60	1714.999996	-0.002	1750.000004	0.002
70	1715.000002	0.001	1749.999996	-0.002
80	1715.000003	0.002	1749.999999	-0.001
85	1715.000001	0.001	1749.999999	-0.001

Frequency Error vs. Voltage

Voltage (Vdc)	LTE Band 4			
	Channel Bandwidth 15MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
4.0	1717.499999	-0.001	1747.499998	-0.001
3.4	1717.500003	0.002	1747.499995	-0.003
4.6	1717.500001	0.001	1747.500004	0.002

Note: The applicant defined the normal working voltage is from 3.4Vdc to 4.6Vdc.

Frequency Error vs. Temperature

Temp. (°C)	LTE Band 4			
	Channel Bandwidth 15MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-40	1717.500005	0.003	1747.499998	-0.001
-30	1717.499999	-0.001	1747.499997	-0.002
-20	1717.500005	0.003	1747.499995	-0.003
-10	1717.499995	-0.003	1747.499997	-0.002
0	1717.500004	0.002	1747.500002	0.001
10	1717.499998	-0.001	1747.499996	-0.002
20	1717.500005	0.003	1747.500002	0.001
30	1717.500002	0.001	1747.500005	0.003
40	1717.500005	0.003	1747.499999	-0.001
50	1717.500003	0.002	1747.500001	0.001
60	1717.500003	0.002	1747.499995	-0.003
70	1717.500003	0.002	1747.500003	0.002
80	1717.500004	0.002	1747.499996	-0.002
85	1717.500003	0.002	1747.499998	-0.001

Frequency Error vs. Voltage

Voltage (Vdc)	LTE Band 4			
	Channel Bandwidth 20MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
4.0	1719.999997	-0.002	1744.999995	-0.003
3.4	1719.999997	-0.002	1745.000005	0.003
4.6	1720.000003	0.002	1745.000001	0.001

Note: The applicant defined the normal working voltage is from 3.4Vdc to 4.6Vdc.

Frequency Error vs. Temperature

Temp. (°C)	LTE Band 4			
	Channel Bandwidth 20MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-40	1719.999995	-0.003	1744.999995	-0.003
-30	1720.000003	0.002	1744.999995	-0.003
-20	1719.999998	-0.001	1745.000002	0.001
-10	1720.000004	0.002	1745.000005	0.003
0	1720.000002	0.001	1745.000004	0.002
10	1720.000001	0.001	1745.000005	0.003
20	1719.999995	-0.003	1744.999998	-0.001
30	1719.999999	-0.001	1745.000002	0.001
40	1720.000004	0.002	1744.999999	-0.001
50	1719.999997	-0.002	1745.000005	0.003
60	1720.000005	0.003	1744.999999	-0.001
70	1720.000003	0.002	1744.999999	-0.001
80	1720.000005	0.003	1745.000005	0.003
85	1719.999997	-0.002	1744.999998	-0.001

Frequency Error vs. Voltage

Voltage (Vdc)	LTE Band 7			
	Channel Bandwidth 5MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
4.0	2502.500002	0.001	2567.500001	0.000
3.4	2502.499998	-0.001	2567.500002	0.001
4.6	2502.499999	0.000	2567.500002	0.001

Note: The applicant defined the normal working voltage is from 3.4Vdc to 4.6Vdc.

Frequency Error vs. Temperature

Temp. (°C)	LTE Band 7			
	Channel Bandwidth 5MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-40	2502.500003	0.001	2567.500003	0.001
-30	2502.500003	0.001	2567.500001	0.000
-20	2502.499995	-0.002	2567.500005	0.002
-10	2502.499996	-0.002	2567.499998	-0.001
0	2502.499998	-0.001	2567.499996	-0.002
10	2502.499998	-0.001	2567.499998	-0.001
20	2502.500002	0.001	2567.499999	0.000
30	2502.500001	0.000	2567.499996	-0.002
40	2502.500001	0.000	2567.500005	0.002
50	2502.500002	0.001	2567.500001	0.000
60	2502.499999	0.000	2567.500001	0.000
70	2502.499998	-0.001	2567.499999	0.000
80	2502.500005	0.002	2567.499997	-0.001
85	2502.499995	-0.002	2567.499995	-0.002

Frequency Error vs. Voltage

Voltage (Vdc)	LTE Band 7			
	Channel Bandwidth 10MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
4.0	2504.999996	-0.002	2564.999999	0.000
3.4	2504.999997	-0.001	2565.000005	0.002
4.6	2504.999996	-0.002	2564.999995	-0.002

Note: The applicant defined the normal working voltage is from 3.4Vdc to 4.6Vdc.

Frequency Error vs. Temperature

Temp. (°C)	LTE Band 7			
	Channel Bandwidth 10MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-40	2505.000005	0.002	2565.000003	0.001
-30	2504.999997	-0.001	2565.000004	0.002
-20	2504.999999	0.000	2565.000005	0.002
-10	2505.000004	0.002	2565.000004	0.002
0	2505.000003	0.001	2564.999998	-0.001
10	2504.999997	-0.001	2564.999996	-0.002
20	2504.999997	-0.001	2565.000002	0.001
30	2505.000004	0.002	2565.000005	0.002
40	2505.000005	0.002	2564.999998	-0.001
50	2504.999998	-0.001	2565.000002	0.001
60	2505.000001	0.000	2564.999998	-0.001
70	2505.000003	0.001	2564.999995	-0.002
80	2505.000003	0.001	2564.999998	-0.001
85	2504.999997	-0.001	2565.000003	0.001

Frequency Error vs. Voltage

Voltage (Vdc)	LTE Band 7			
	Channel Bandwidth 15MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
4.0	2507.499997	-0.001	2562.500005	0.002
3.4	2507.499997	-0.001	2562.500003	0.001
4.6	2507.500004	0.002	2562.499995	-0.002

Note: The applicant defined the normal working voltage is from 3.4Vdc to 4.6Vdc.

Frequency Error vs. Temperature

Temp. (°C)	LTE Band 7			
	Channel Bandwidth 15MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-40	2507.499997	-0.001	2562.500001	0.000
-30	2507.500002	0.001	2562.500005	0.002
-20	2507.500003	0.001	2562.499996	-0.002
-10	2507.499996	-0.002	2562.500003	0.001
0	2507.500004	0.002	2562.499997	-0.001
10	2507.500001	0.000	2562.499998	-0.001
20	2507.500002	0.001	2562.499999	0.000
30	2507.499996	-0.002	2562.500001	0.000
40	2507.500005	0.002	2562.500001	0.000
50	2507.500003	0.001	2562.499995	-0.002
60	2507.500004	0.002	2562.500002	0.001
70	2507.500001	0.000	2562.500004	0.002
80	2507.499998	-0.001	2562.500005	0.002
85	2507.500001	0.000	2562.499999	0.000

Frequency Error vs. Voltage

Voltage (Vdc)	LTE Band 7			
	Channel Bandwidth 20MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
4.0	2509.999999	0.000	2559.999995	-0.002
3.4	2510.000001	0.000	2559.999995	-0.002
4.6	2509.999997	-0.001	2560.000002	0.001

Note: The applicant defined the normal working voltage is from 3.4Vdc to 4.6Vdc.

Frequency Error vs. Temperature

Temp. (°C)	LTE Band 7			
	Channel Bandwidth 20MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-40	2509.999995	-0.002	2559.999995	-0.002
-30	2510.000003	0.001	2559.999997	-0.001
-20	2509.999999	0.000	2559.999995	-0.002
-10	2509.999995	-0.002	2559.999995	-0.002
0	2510.000004	0.002	2559.999999	0.000
10	2510.000003	0.001	2560.000003	0.001
20	2509.999996	-0.002	2559.999999	0.000
30	2509.999997	-0.001	2559.999997	-0.001
40	2510.000005	0.002	2560.000001	0.000
50	2509.999997	-0.001	2559.999997	-0.001
60	2509.999998	-0.001	2560.000003	0.001
70	2509.999997	-0.001	2559.999998	-0.001
80	2510.000003	0.001	2559.999995	-0.002
85	2510.000004	0.002	2560.000003	0.001

Frequency Error vs. Voltage

Voltage (Vdc)	LTE Band 12			
	Channel Bandwidth 1.4 MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
4.0	699.699995	-0.007	715.300002	0.003
3.4	699.700004	0.006	715.300005	0.007
4.6	699.700004	0.006	715.300003	0.004

Note: The applicant defined the normal working voltage is from 3.4Vdc to 4.6Vdc.

Frequency Error vs. Temperature

Temp. (°C)	LTE Band 12			
	Channel Bandwidth 1.4 MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-40	699.700002	0.003	715.300005	0.007
-30	699.699995	-0.007	715.299997	-0.004
-20	699.700005	0.007	715.299996	-0.006
-10	699.700002	0.003	715.299995	-0.007
0	699.699998	-0.003	715.299995	-0.007
10	699.700004	0.006	715.299998	-0.003
20	699.700004	0.006	715.299996	-0.006
30	699.700004	0.006	715.299999	-0.001
40	699.700005	0.007	715.299995	-0.007
50	699.700003	0.004	715.299996	-0.006
60	699.699999	-0.001	715.299995	-0.007
70	699.700001	0.001	715.299999	-0.001
80	699.699999	-0.001	715.299998	-0.003
85	699.700003	0.004	715.299999	-0.001