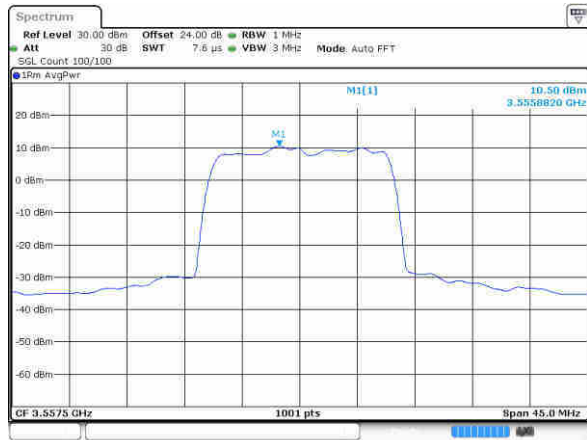




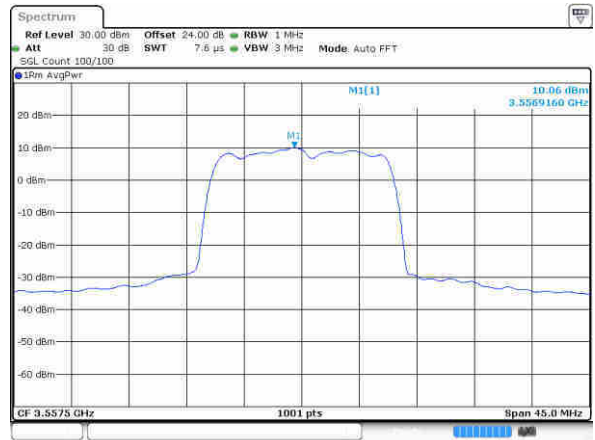
LTE Band 48 / 15MHz

Lowest Channel / 15MHz / Full / QPSK



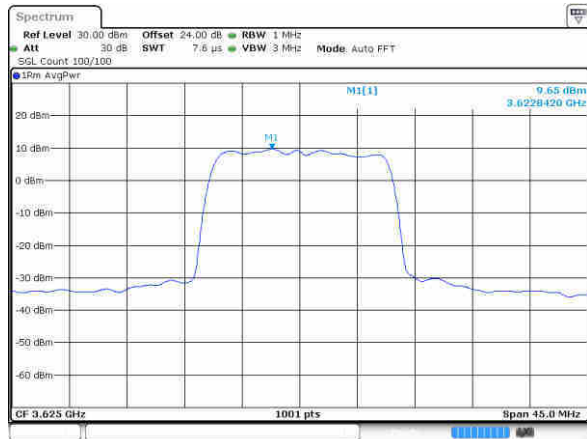
Date: 13 FEB 2020 01:30:04

Lowest Channel / 15MHz / Full / 16QAM



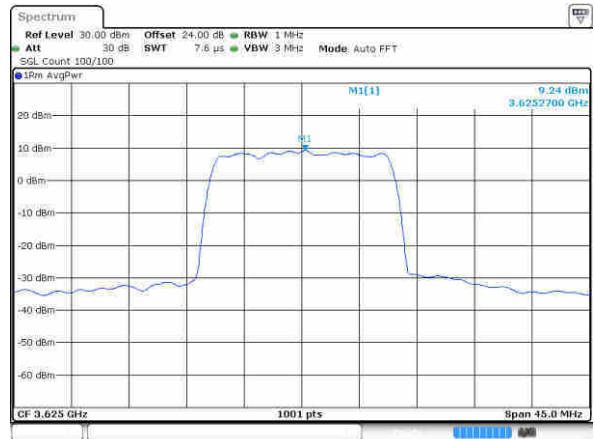
Date: 13 FEB 2020 02:29:52

Middle Channel / 15MHz / Full / QPSK



Date: 13 FEB 2020 03:44:37

Middle Channel / 15MHz / Full / 16QAM



Date: 13 FEB 2020 03:50:28

Highest Channel / 15MHz / Full / QPSK



Date: 13 FEB 2020 04:48:19

Highest Channel / 15MHz / Full / 16QAM

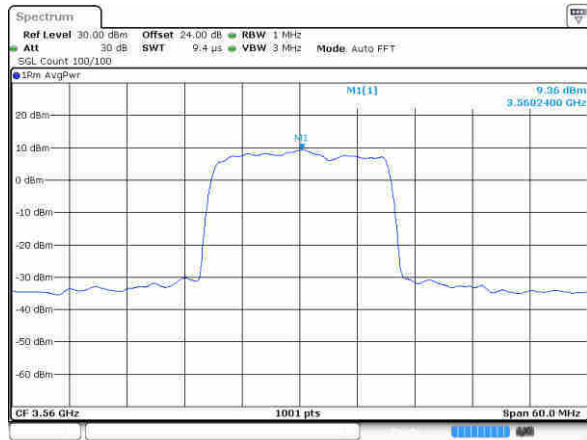


Date: 13 FEB 2020 04:54:01



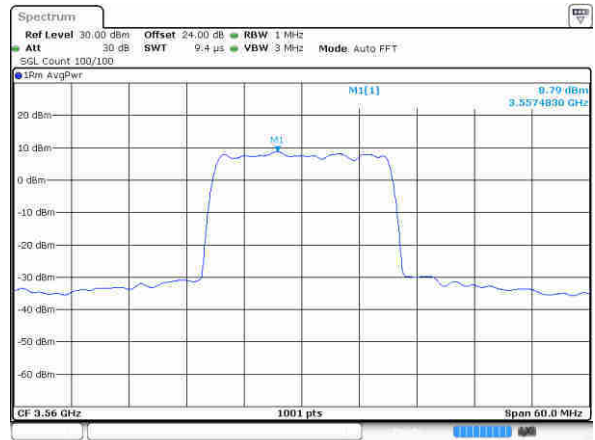
LTE Band 48 / 20MHz

Lowest Channel / 20MHz / Full / QPSK



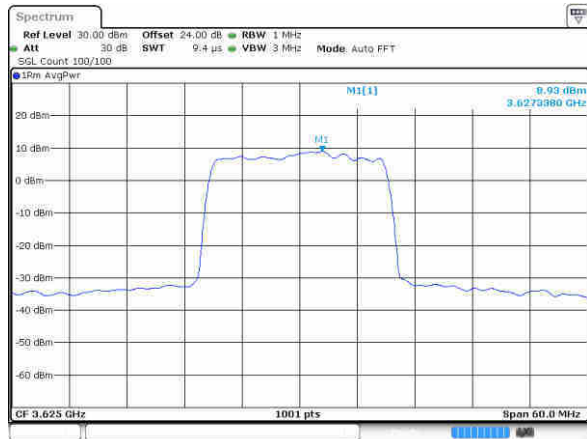
Date: 13 FEB 2020 05:54:19

Lowest Channel / 20MHz / Full / 16QAM



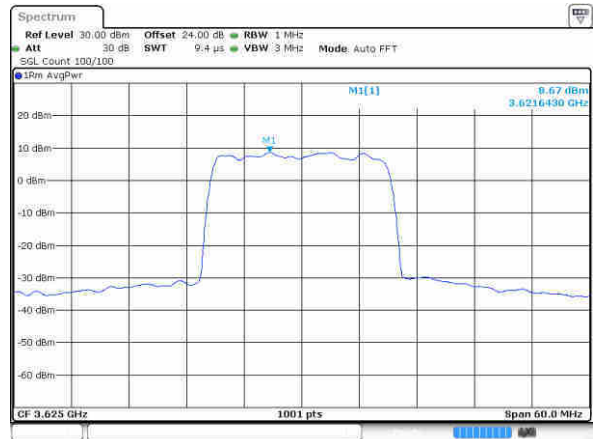
Date: 13 FEB 2020 05:59:13

Middle Channel / 20MHz / Full / QPSK



Date: 13 FEB 2020 06:50:03

Middle Channel / 20MHz / Full / 16QAM



Date: 13 FEB 2020 06:56:43

Highest Channel / 20MHz / Full / QPSK



Date: 14 FEB 2020 02:14:07

Highest Channel / 20MHz / Full / 16QAM

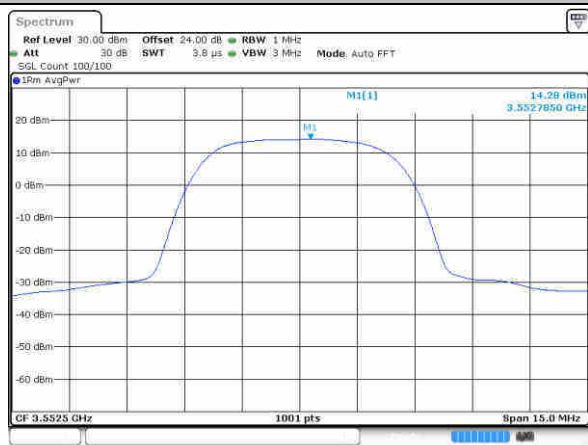


Date: 14 FEB 2020 02:22:28



LTE Band 48 / 5MHz

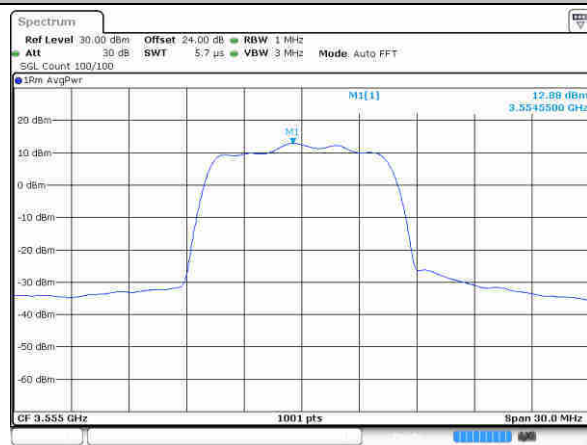
Lowest Channel / 5MHz / Full / 64QAM



Date: 12.FEB.2020 03:41:18

LTE Band 48 / 10MHz

Lowest Channel / 10MHz / Full / 64QAM



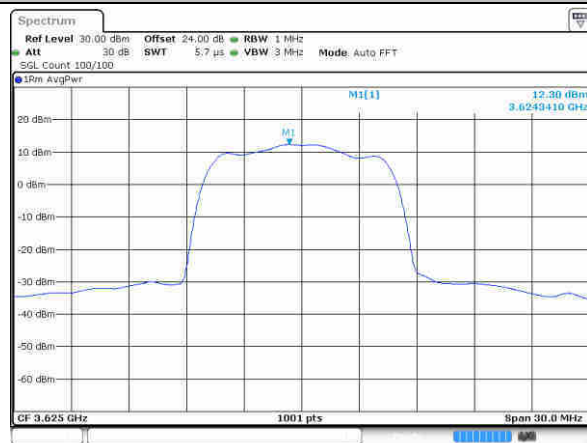
Date: 12.FEB.2020 06:51:32

Middle Channel / 5MHz / Full / 64QAM



Date: 12.FEB.2020 04:32:08

Middle Channel / 10MHz / Full / 64QAM



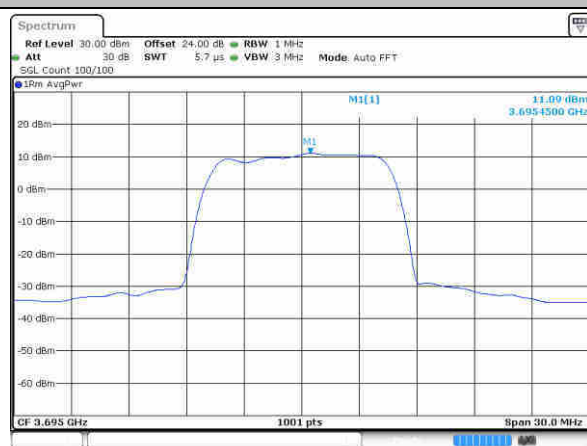
Date: 12.FEB.2020 07:40:22

Highest Channel / 5MHz / Full / 64QAM

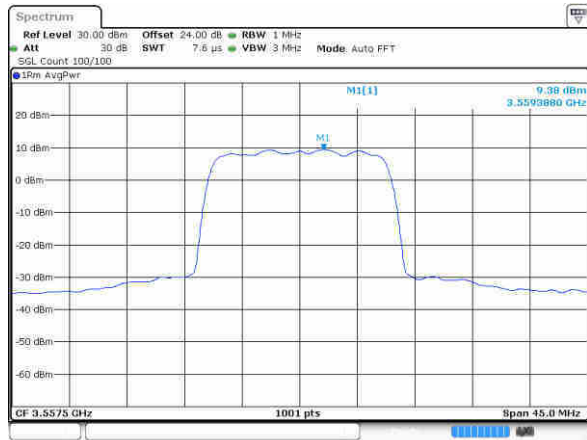


Date: 12.FEB.2020 05:34:54

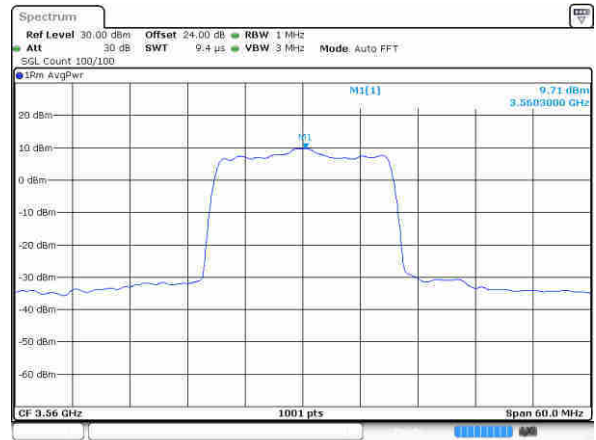
Highest Channel / 10MHz / Full / 64QAM



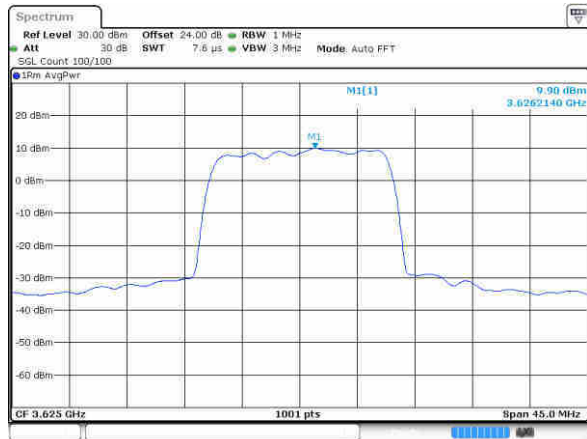
Date: 13.FEB.2020 00:41:43

**LTE Band 48 / 15MHz****Lowest Channel / 15MHz / Full / 64QAM**

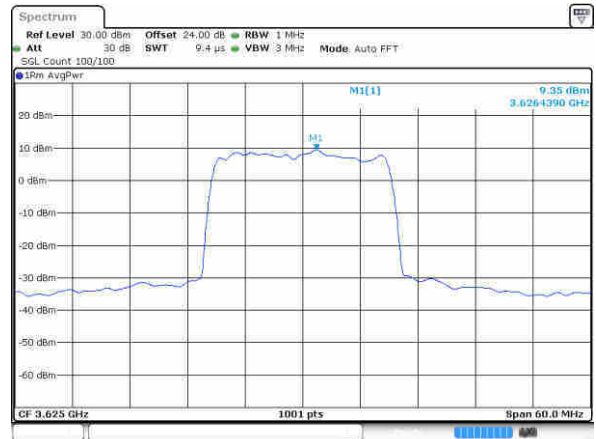
Date: 13 FEB 2020 03:00:44

LTE Band 48 / 20MHz**Lowest Channel / 20MHz / Full / 64QAM**

Date: 13 FEB 2020 06:21:05

Middle Channel / 15MHz / Full / 64QAM

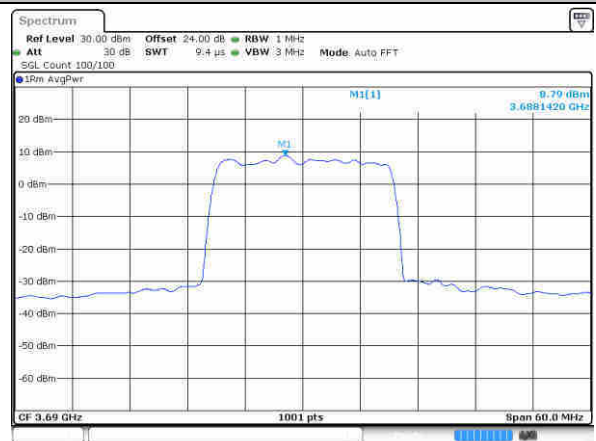
Date: 13 FEB 2020 04:13:53

Middle Channel / 20MHz / Full / 64QAM

Date: 13 FEB 2020 07:34:41

Highest Channel / 15MHz / Full / 64QAM

Date: 13 FEB 2020 05:26:54

Highest Channel / 20MHz / Full / 64QAM

Date: 14 FEB 2020 03:00:15



Appendix B. Test Results of EIRP and Radiated Test

EIRP

<Reporting Only>

<Ant. 0>

LTE Band 48 / 5MHz (Average) (GT - LC = 15 dB)							
Channel	Mode	RB		Conducted		EIRP	
		Size	Offset	Power (dBm)	Power (Watts)	EIRP(dBm)	EIRP(W)
Lowest	QPSK	1	12	23.09	0.2037	38.09	6.4417
Middle		1	12	22.71	0.1866	37.71	5.9020
Highest		1	12	23.60	0.2291	38.60	7.2444
Lowest	16QAM	1	12	22.47	0.1766	37.47	5.5847
Middle		1	12	21.98	0.1578	36.98	4.9888
Highest		1	12	22.91	0.1954	37.91	6.1802
Lowest	64QAM	1	12	21.08	0.1282	36.08	4.0551
Middle		1	12	20.75	0.1189	35.75	3.7584
Highest		1	12	21.80	0.1514	36.80	4.7863

LTE Band 48 / 10MHz (Average) (GT - LC = 15 dB)							
Channel	Mode	RB		Conducted		EIRP	
		Size	Offset	Power (dBm)	Power (Watts)	EIRP(dBm)	EIRP(W)
Lowest	QPSK	25	12	22.40	0.1738	37.40	5.4954
Middle		25	12	22.08	0.1614	37.08	5.1050
Highest		25	12	23.09	0.2037	38.09	6.4417
Lowest	16QAM	1	25	21.61	0.1449	36.61	4.5814
Middle		1	25	21.23	0.1327	36.23	4.1976
Highest		1	25	22.30	0.1698	37.30	5.3703
Lowest	64QAM	1	25	20.64	0.1159	35.64	3.6644
Middle		1	25	20.21	0.1050	35.21	3.3189
Highest		1	25	21.29	0.1346	36.29	4.2560

LTE Band 48 / 15MHz (Average) (GT - LC = 15 dB)							
Channel	Mode	RB		Conducted		EIRP	
		Size	Offset	Power (dBm)	Power (Watts)	EIRP(dBm)	EIRP(W)
Lowest	QPSK	1	74	22.21	0.1663	37.21	5.2602
Middle		1	74	21.80	0.1514	36.80	4.7863
Highest		1	74	23.04	0.2014	38.04	6.3680
Lowest	16QAM	1	37	21.68	0.1472	36.68	4.6559
Middle		1	37	21.30	0.1349	36.30	4.2658
Highest		1	37	22.22	0.1667	37.22	5.2723
Lowest	64QAM	1	74	20.33	0.1079	35.33	3.4119
Middle		1	74	20.09	0.1021	35.09	3.2285
Highest		1	74	21.22	0.1324	36.22	4.1879



LTE Band 48 / 20MHz (Average) (GT - LC = 15 dB)							
Channel	Mode	RB		Conducted		EIRP	
		Size	Offset	Power (dBm)	Power (Watts)	EIRP(dBm)	EIRP(W)
Lowest	QPSK	50	50	22.28	0.1690	37.28	5.3456
Middle		50	50	22.07	0.1611	37.07	5.0933
Highest		50	50	23.00	0.1995	38.00	6.3096
Lowest	16QAM	1	99	21.36	0.1368	36.36	4.3251
Middle		1	99	21.16	0.1306	36.16	4.1305
Highest		1	99	22.21	0.1663	37.21	5.2602
Lowest	64QAM	1	99	20.38	0.1091	35.38	3.4514
Middle		1	99	20.14	0.1033	35.14	3.2659
Highest		1	99	21.22	0.1324	36.22	4.1879



EIRP Power

LTE Band 48 / Conducted Power									
BW	1.4MHz			3MHz			5MHz		
Mod.	QPSK	16QAM	64QAM	QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
Lowest CH	-	-	-	-	-	-	23.09	22.47	21.08
Middle CH	-	-	-	-	-	-	22.71	21.98	20.75
Highest CH	-	-	-	-	-	-	23.6	22.91	21.8
LTE Band 48 / Conducted Power									
BW	10MHz			15MHz			20MHz		
Mod.	QPSK	16QAM	64QAM	QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
Lowest CH	22.4	21.61	20.64	22.21	21.68	20.33	22.28	21.36	20.38
Middle CH	22.08	21.23	20.21	21.80	21.30	20.09	22.07	21.16	20.14
Highest CH	23.09	22.3	21.29	23.04	22.22	21.22	23.00	22.21	21.22

LTE Band 48 / EIRP Power									
BW	1.4MHz			3MHz			5MHz		
Mod.	QPSK	16QAM	64QAM	QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
Lowest CH	-	-	-	-	-	-	38.09	37.47	36.08
Middle CH	-	-	-	-	-	-	37.71	36.98	35.75
Highest CH	-	-	-	-	-	-	38.6	37.91	36.8
LTE Band 48 / EIRP Power									
BW	10MHz			15MHz			20MHz		
Mod.	QPSK	16QAM	64QAM	QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
Lowest CH	37.4	36.61	35.64	37.21	36.68	35.33	37.28	36.36	35.38
Middle CH	37.08	36.23	35.21	36.80	36.30	35.09	37.07	36.16	35.14
Highest CH	38.09	37.3	36.29	38.04	37.22	36.22	38.00	37.21	36.22
Antenna Gain	15 dBi								
Limit	47dBm / 10MHz								
Result	Pass								



MIMO <Ant. 0+1>

LTE Band 48 / 5MHz (Average) (GT - LC = 15 dB)							
Channel	Mode	RB		Conducted		EIRP	
		Size	Offset	Power (dBm)	Power (Watts)	EIRP(dBm)	EIRP(W)
Lowest	QPSK	12	0	20.18	0.1042	35.18	3.2942
Middle		12	0	19.93	0.0985	34.93	3.1140
Highest		12	0	20.15	0.1036	35.15	3.2747
Lowest	16QAM	12	0	20.24	0.1057	35.24	3.3437
Middle		12	0	19.95	0.0988	34.95	3.1247
Highest		12	0	20.13	0.1030	35.13	3.2574
Lowest	64QAM	12	0	20.23	0.1055	35.23	3.3362
Middle		12	0	19.97	0.0994	34.97	3.1426
Highest		12	0	20.12	0.1027	35.12	3.2478

LTE Band 48 / 10MHz (Average) (GT - LC = 15 dB)							
Channel	Mode	RB		Conducted		EIRP	
		Size	Offset	Power (dBm)	Power (Watts)	EIRP(dBm)	EIRP(W)
Lowest	QPSK	25	25	20.18	0.1042	35.18	3.2966
Middle		25	25	19.89	0.0974	34.89	3.0808
Highest		25	25	19.98	0.0997	34.98	3.1513
Lowest	16QAM	1	49	19.89	0.0975	34.89	3.0835
Middle		1	49	19.66	0.0924	34.66	2.9210
Highest		1	49	20.26	0.1061	35.26	3.3551
Lowest	64QAM	25	0	20.37	0.1089	35.37	3.4440
Middle		25	0	19.61	0.0914	34.61	2.8911
Highest		25	0	20.15	0.1034	35.15	3.2698

LTE Band 48 / 15MHz (Average) (GT - LC = 15 dB)							
Channel	Mode	RB		Conducted		EIRP	
		Size	Offset	Power (dBm)	Power (Watts)	EIRP(dBm)	EIRP(W)
Lowest	QPSK	1	0	20.09	0.1021	35.09	3.2278
Middle		1	0	19.67	0.0926	34.67	2.9282
Highest		1	0	19.94	0.0987	34.94	3.1222
Lowest	16QAM	1	0	20.26	0.1061	35.26	3.3539
Middle		1	0	19.79	0.0953	34.79	3.0129
Highest		1	0	19.81	0.0958	34.81	3.0301
Lowest	64QAM	75	0	19.88	0.0973	34.88	3.0756
Middle		75	0	19.63	0.0918	34.63	2.9020
Highest		75	0	20.03	0.1008	35.03	3.1864



LTE Band 48 / 20MHz (Average) (GT - LC = 15 dB)							
Channel	Mode	RB		Conducted		EIRP	
		Size	Offset	Power (dBm)	Power (Watts)	EIRP(dBm)	EIRP(W)
Lowest	QPSK	1	99	20.12	0.1027	35.12	3.2484
Middle		1	99	20.20	0.1048	35.20	3.3131
Highest		1	99	20.41	0.1099	35.41	3.4767
Lowest	16QAM	1	0	20.40	0.1096	35.40	3.4665
Middle		1	0	20.21	0.1050	35.21	3.3192
Highest		1	0	20.01	0.1002	35.01	3.1683
Lowest	64QAM	1	99	20.11	0.1027	35.11	3.2467
Middle		1	99	19.62	0.0916	34.62	2.8967
Highest		1	99	20.31	0.1073	35.31	3.3943



EIRP Power

LTE Band 48 / Conducted Power									
BW	1.4MHz			3MHz			5MHz		
Mod.	QPSK	16QAM	64QAM	QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
Lowest CH	-	-	-	-	-	-	20.18	20.24	20.23
Middle CH	-	-	-	-	-	-	19.93	19.95	19.97
Highest CH	-	-	-	-	-	-	20.15	20.13	20.12

LTE Band 48 / Conducted Power									
BW	10MHz			15MHz			20MHz		
Mod.	QPSK	16QAM	64QAM	QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
Lowest CH	20.18	19.89	20.37	20.09	20.26	19.88	20.12	20.40	20.11
Middle CH	19.89	19.66	19.61	19.67	19.79	19.63	20.20	20.21	19.62
Highest CH	19.98	20.26	20.15	19.94	19.81	20.03	20.41	20.01	20.31

LTE Band 48 / EIRP Power									
BW	1.4MHz			3MHz			5MHz		
Mod.	QPSK	16QAM	64QAM	QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
Lowest CH	-	-	-	-	-	-	35.18	35.24	35.23
Middle CH	-	-	-	-	-	-	34.93	34.95	34.97
Highest CH	-	-	-	-	-	-	35.15	35.13	35.12

LTE Band 48 / EIRP Power									
BW	10MHz			15MHz			20MHz		
Mod.	QPSK	16QAM	64QAM	QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
Lowest CH	35.18	34.89	35.37	35.09	35.26	34.88	35.12	35.40	35.11
Middle CH	34.89	34.66	34.61	34.67	34.79	34.63	35.20	35.21	34.62
Highest CH	34.98	35.26	35.15	34.94	34.81	35.03	35.41	35.01	35.31
Antenna Gain	15 dBi								
Limit	47dBm / 10MHz								
Result	Pass								

**Radiated Spurious Emission****LTE Band 48 (SISO)**

LTE Band 48 / 5MHz / QPSK									
Channel	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	7105	-43.48	-40	-3.48	-44.97	-53.44	1.78	11.73	H
	10658	-57.08	-40	-17.08	-59.36	-65.51	2.47	10.90	H
	14210	-54.29	-40	-14.29	-61.35	-63.12	2.87	11.70	H
	21318	-52.40	-40	-12.40	-74.23	-69.12	1.98	18.70	H
	24870	-50.58	-40	-10.58	-75.24	-66.61	2.07	18.09	H
	28422	-50.39	-40	-10.39	-75.91	-67.64	2.32	19.57	H
	7105	-44.14	-40	-4.14	-45.74	-54.10	1.78	11.73	V
	10658	-57.31	-40	-17.31	-59.34	-65.74	2.47	10.90	V
	14210	-55.04	-40	-15.04	-61.82	-63.87	2.87	11.70	V
	21318	-52.35	-40	-12.35	-74.05	-69.07	1.98	18.70	V
	24870	-49.58	-40	-9.58	-75.44	-65.61	2.07	18.09	V
	28422	-48.49	-40	-8.49	-75.84	-65.74	2.32	19.57	V
Middle	7250	-43.02	-40	-3.01	-44.87	-52.66	1.86	11.50	H
	10875	-55.34	-40	-15.34	-57.67	-63.66	2.59	10.90	H
	14500	-55.96	-40	-15.96	-63.26	-64.11	2.85	11.00	H
	18122	-53.37	-40	-13.37	-71.51	-69.57	1.77	17.98	H
	21751	-51.85	-40	-11.85	-73.42	-68.64	2.01	18.80	H
	25370	-50.33	-40	-10.33	-75.58	-67.00	2.15	18.82	H
	7250	-45.77	-40	-5.77	-47.88	-55.42	1.86	11.50	V
	10875	-57.36	-40	-17.36	-59.49	-65.68	2.59	10.90	V
	14500	-57.02	-40	-17.02	-58.02	-65.17	2.85	11.00	V
	18122	-54.49	-40	-14.49	-71.71	-70.69	1.77	17.98	V
	21751	-52.31	-40	-12.31	-73.87	-69.10	2.01	18.80	V
	25370	-49.26	-40	-9.26	-75.8	-65.93	2.15	18.82	V
Highest	7395	-44.53	-40	-4.53	-46.86	-53.86	1.93	11.27	H
	11093	-57.08	-40	-17.08	-59.68	-65.48	2.61	11.01	H
	14790	-55.17	-40	-15.17	-64.46	-64.17	2.93	11.93	H
	18488	-53.35	-40	-13.35	-71.71	-69.36	1.90	17.90	H
	22184	-51.51	-40	-11.51	-74.09	-68.28	2.05	18.83	H
	25881	-49.98	-40	-9.98	-76.19	-67.08	1.97	19.08	H
	7395	-47.66	-40	-7.66	-49.82	-56.99	1.93	11.27	V
	11093	-57.35	-40	-17.35	-59.78	-65.75	2.61	11.01	V
	14790	-57.28	-40	-17.28	-64.68	-66.28	2.93	11.93	V
	18488	-54.73	-40	-14.73	-72.23	-70.74	1.90	17.90	V
	22184	-51.87	-40	-11.87	-74.46	-68.64	2.05	18.83	V
	25881	-48.91	-40	-8.91	-76.24	-66.01	1.97	19.08	V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

**LTE Band 48 (MIMO)**

LTE Band 48 / 20MHz / QPSK									
Channel	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	7138	-45.74	-40	-5.74	-47.86	-55.62	1.79	11.68	H
	10707	-57.38	-40	-17.38	-59.67	-65.78	2.50	10.90	H
	14276	-54.70	-40	-14.70	-61.82	-63.37	2.86	11.54	H
	21418	-52.46	-40	-12.46	-74.01	-69.21	1.95	18.70	H
	24981	-50.65	-40	-10.65	-75.31	-66.84	2.08	18.27	H
	28556	-50.48	-40	-10.48	-75.96	-67.70	2.31	19.53	H
	7138	-43.16	-40	-3.16	-44.93	-53.04	1.79	11.68	V
	10707	-57.46	-40	-17.46	-59.51	-65.86	2.50	10.90	V
	14276	-55.18	-40	-15.18	-61.87	-63.85	2.86	11.54	V
	21418	-49.79	-40	-9.79	-71.28	-66.54	1.95	18.70	V
	24981	-49.17	-40	-9.17	-74.98	-65.36	2.08	18.27	V
	28556	-48.61	-40	-8.61	-75.96	-65.83	2.31	19.53	V
Middle	7268	-47.94	-40	-7.94	-50.29	-57.55	1.86	11.47	H
	10902	-57.01	-40	-17.01	-59.35	-65.31	2.60	10.90	H
	14536	-53.30	-40	-13.30	-60.84	-61.56	2.86	11.12	H
	18166	-50.76	-40	-10.76	-68.92	-66.94	1.79	17.97	H
	21807	-52.44	-40	-12.44	-74.06	-69.23	2.03	18.82	H
	25437	-50.35	-40	-10.35	-75.71	-67.10	2.16	18.91	H
	7268	-45.63	-40	-5.63	-47.75	-55.24	1.86	11.47	V
	10902	-56.50	-40	-16.50	-58.65	-64.80	2.60	10.90	V
	14536	-56.27	-40	-16.27	-62.79	-64.53	2.86	11.12	V
	18166	-53.02	-40	-13.02	-70.27	-69.20	1.79	17.97	V
	21807	-52.88	-40	-12.88	-74.49	-69.67	2.03	18.82	V
	25437	-49.28	-40	-9.28	-75.96	-66.03	2.16	18.91	V
Highest	7398	-47.16	-40	-7.16	-49.48	-56.49	1.93	11.26	H
	11097	-56.05	-40	-16.05	-58.66	-64.46	2.61	11.02	H
	14796	-53.70	-40	-13.70	-63.03	-62.71	2.93	11.95	H
	18499	-51.23	-40	-11.23	-69.6	-67.23	1.90	17.90	H
	22195	-51.49	-40	-11.49	-74.12	-68.26	2.05	18.82	H
	25892	-49.40	-40	-9.40	-75.64	-66.51	1.97	19.08	H
	7398	-46.70	-40	-6.70	-48.86	-56.03	1.93	11.26	V
	11097	-56.53	-40	-16.53	-58.97	-64.94	2.61	11.02	V
	14796	-55.27	-40	-15.27	-62.7	-64.28	2.93	11.95	V
	18499	-53.74	-40	-13.74	-71.25	-69.74	1.90	17.90	V
	22195	-51.42	-40	-11.42	-74.06	-68.19	2.05	18.82	V
	25892	-48.18	-40	-8.18	-75.53	-65.29	1.97	19.08	V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.