

LTE Band 43

CHANNEL BANDWIDTH: 5MHz QPSK

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	EIRP (dBm)	EIRP (mW)	Limit (dBm/10MHz)
43615	3602.5	23.01	-1.3	21.71	148.25	23
44090	3650	23.08	-1.3	21.78	150.66	23
44565	3697.5	23.06	-1.3	21.76	149.97	23

CHANNEL BANDWIDTH: 5MHz 16QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	EIRP (dBm)	EIRP (mW)	Limit (dBm/10MHz)
43615	3602.5	22.17	-1.3	20.87	122.18	23
44090	3650	22.1	-1.3	20.8	120.23	23
44565	3697.5	22.17	-1.3	20.87	122.18	23

CHANNEL BANDWIDTH: 5MHz 64QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	EIRP (dBm)	EIRP (mW)	Limit (dBm/10MHz)
43615	3602.5	20.76	-1.3	19.46	88.31	23
44090	3650	20.86	-1.3	19.56	90.36	23
44565	3697.5	20.79	-1.3	19.49	88.92	23

CHANNEL BANDWIDTH: 10MHz QPSK

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	EIRP (dBm)	EIRP (mW)	Limit (dBm/10MHz)
43640	3605	22.98	-1.3	21.68	147.23	23
44090	3650	23.11	-1.3	21.81	151.71	23
44540	3695	23.06	-1.3	21.76	149.97	23

CHANNEL BANDWIDTH: 10MHz 16QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	EIRP (dBm)	EIRP (mW)	Limit (dBm/10MHz)
43640	3605	22.17	-1.3	20.87	122.18	23
44090	3650	22.11	-1.3	20.81	120.5	23
44540	3695	22.14	-1.3	20.84	121.34	23

CHANNEL BANDWIDTH: 10MHz 64QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	EIRP (dBm)	EIRP (mW)	Limit (dBm/10MHz)
43640	3605	20.82	-1.3	19.52	89.54	23
44090	3650	20.8	-1.3	19.5	89.13	23
44540	3695	20.76	-1.3	19.46	88.31	23

CHANNEL BANDWIDTH: 15MHz QPSK

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	EIRP (dBm)	EIRP (mW)	Limit (dBm/10MHz)
43665	3607.5	22.98	-1.3	21.68	147.23	23
44090	3650	23.08	-1.3	21.78	150.66	23
44515	3692.5	23.09	-1.3	21.79	151.01	23

CHANNEL BANDWIDTH: 15MHz 16QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	EIRP (dBm)	EIRP (mW)	Limit (dBm/10MHz)
43665	3607.5	22.16	-1.3	20.86	121.9	23
44090	3650	22.12	-1.3	20.82	120.78	23
44515	3692.5	22.17	-1.3	20.87	122.18	23

CHANNEL BANDWIDTH: 15MHz 64QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	EIRP (dBm)	EIRP (mW)	Limit (dBm/10MHz)
43665	3607.5	20.82	-1.3	19.52	89.54	23
44090	3650	20.86	-1.3	19.56	90.36	23
44515	3692.5	20.77	-1.3	19.47	88.51	23

CHANNEL BANDWIDTH: 20MHz QPSK

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	EIRP (dBm)	EIRP (mW)	Limit (dBm/10MHz)
43690	3610	23.06	-1.3	21.76	149.97	23
44090	3650	23.15	-1.3	21.85	153.11	23
44490	3690	23.11	-1.3	21.81	151.71	23

CHANNEL BANDWIDTH: 20MHz 16QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	EIRP (dBm)	EIRP (mW)	Limit (dBm/10MHz)
43690	3610	22.19	-1.3	20.89	122.74	23
44090	3650	22.18	-1.3	20.88	122.46	23
44490	3690	22.19	-1.3	20.89	122.74	23

CHANNEL BANDWIDTH: 20MHz 64QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	EIRP (dBm)	EIRP (mW)	Limit (dBm/10MHz)
43690	3610	20.84	-1.3	19.54	89.95	23
44090	3650	20.87	-1.3	19.57	90.57	23
44490	3690	20.81	-1.3	19.51	89.33	23

**LTE Band 48****CHANNEL BANDWIDTH: 5MHz QPSK**

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	EIRP (dBm)	EIRP (mW)	Limit (dBm/10MHz)
55265	3552.5	22.28	-1.3	20.98	125.31	23
55990	3625	22.47	-1.3	21.17	130.92	23
56715	3697.5	22.8	-1.3	21.5	141.25	23

CHANNEL BANDWIDTH: 5MHz 16QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	EIRP (dBm)	EIRP (mW)	Limit (dBm/10MHz)
55265	3552.5	21.39	-1.3	20.09	102.09	23
55990	3625	21.4	-1.3	20.1	102.33	23
56715	3697.5	21.83	-1.3	20.53	112.98	23

CHANNEL BANDWIDTH: 5MHz 64QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	EIRP (dBm)	EIRP (mW)	Limit (dBm/10MHz)
55265	3552.5	20.34	-1.3	19.04	80.17	23
55990	3625	20.48	-1.3	19.18	82.79	23
56715	3697.5	20.86	-1.3	19.56	90.36	23

CHANNEL BANDWIDTH: 10MHz QPSK

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	EIRP (dBm)	EIRP (mW)	Limit (dBm/10MHz)
55290	3555	22.29	-1.3	20.99	125.6	23
55990	3625	22.42	-1.3	21.12	129.42	23
56690	3695	22.8	-1.3	21.5	141.25	23

CHANNEL BANDWIDTH: 10MHz 16QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	EIRP (dBm)	EIRP (mW)	Limit (dBm/10MHz)
55290	3555	21.39	-1.3	20.09	102.09	23
55990	3625	21.4	-1.3	20.1	102.33	23
56690	3695	21.83	-1.3	20.53	112.98	23

CHANNEL BANDWIDTH: 10MHz 64QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	EIRP (dBm)	EIRP (mW)	Limit (dBm/10MHz)
55290	3555	20.29	-1.3	18.99	79.25	23
55990	3625	20.5	-1.3	19.2	83.18	23
56690	3695	20.86	-1.3	19.56	90.36	23

CHANNEL BANDWIDTH: 15MHz QPSK

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	EIRP (dBm)	EIRP (mW)	Limit (dBm/10MHz)
55315	3557.5	22.26	-1.3	20.96	124.74	23
55990	3625	22.5	-1.3	21.2	131.83	23
56665	3692.5	22.8	-1.3	21.5	141.25	23

CHANNEL BANDWIDTH: 15MHz 16QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	EIRP (dBm)	EIRP (mW)	Limit (dBm/10MHz)
55315	3557.5	21.39	-1.3	20.09	102.09	23
55990	3625	21.38	-1.3	20.08	101.86	23
56665	3692.5	21.83	-1.3	20.53	112.98	23

CHANNEL BANDWIDTH: 15MHz 64QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	EIRP (dBm)	EIRP (mW)	Limit (dBm/10MHz)
55315	3557.5	20.34	-1.3	19.04	80.17	23
55990	3625	20.48	-1.3	19.18	82.79	23
56665	3692.5	20.86	-1.3	19.56	90.36	23

CHANNEL BANDWIDTH: 20MHz QPSK

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	EIRP (dBm)	EIRP (mW)	Limit (dBm/10MHz)
55340	3560	22.34	-1.3	21.04	127.06	23
55990	3625	22.53	-1.3	21.23	132.74	23
56640	3690	22.85	-1.3	21.55	142.89	23

CHANNEL BANDWIDTH: 20MHz 16QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	EIRP (dBm)	EIRP (mW)	Limit (dBm/10MHz)
55340	3560	21.41	-1.3	20.11	102.57	23
55990	3625	21.46	-1.3	20.16	103.75	23
56640	3690	21.86	-1.3	20.56	113.76	23

CHANNEL BANDWIDTH: 20MHz 64QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	EIRP (dBm)	EIRP (mW)	Limit (dBm/10MHz)
55340	3560	20.37	-1.3	19.07	80.72	23
55990	3625	20.51	-1.3	19.21	83.37	23
56640	3690	20.87	-1.3	19.57	90.57	23



LTE BAND CA_48C

LTE BAND CA_48C 5M+20M QPSK

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dB)	EIRP (dBm)	EIRP (mW)	Limit (dBm/10MHz)
55273	3553.3	42240	3550.0	22.4	-1.3	21.10	128.82	23
55898	3615.8	56015	3627.5	22.23	-1.3	20.93	123.88	23
56523	3678.3	56640	3690.0	22.22	-1.3	20.92	123.59	23

LTE BAND CA_48C 5M+20M 16QAM

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dB)	EIRP (dBm)	EIRP (mW)	Limit (dBm/10MHz)
55273	3553.3	42240	3550.0	21.64	-1.3	20.34	108.14	23
55898	3615.8	56015	3627.5	21.45	-1.3	20.15	103.51	23
56523	3678.3	56640	3690.0	21.46	-1.3	20.16	103.75	23

LTE BAND CA_48C 5M+20M 64QAM

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dB)	EIRP (dBm)	EIRP (mW)	Limit (dBm/10MHz)
55273	3553.3	42240	3550.0	20.08	-1.3	18.78	75.51	23
55898	3615.8	56015	3627.5	19.96	-1.3	18.66	73.45	23
56523	3678.3	56640	3690.0	19.94	-1.3	18.64	73.11	23

LTE BAND CA_48C 20M+5M QPSK								
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dB)	EIRP (dBm)	EIRP (mW)	Limit (dBm/10MHz)
55340	3560.0	42307	3550.0	22.38	-1.3	21.08	128.23	23
55965	3622.5	56082	3634.2	22.23	-1.3	20.93	123.88	23
56590	3685.0	56707	3696.7	22.22	-1.3	20.92	123.59	23
LTE BAND CA_48C 20M+5M 16QAM								
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dB)	EIRP (dBm)	EIRP (mW)	Limit (dBm/10MHz)
55340	3560.0	42307	3550.0	21.63	-1.3	20.33	107.89	23
55965	3622.5	56082	3634.2	21.45	-1.3	20.15	103.51	23
56590	3685.0	56707	3696.7	21.46	-1.3	20.16	103.75	23
LTE BAND CA_48C 20M+5M 64QAM								
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dB)	EIRP (dBm)	EIRP (mW)	Limit (dBm/10MHz)
55340	3560.0	42307	3550.0	20.12	-1.3	18.82	76.21	23
55965	3622.5	56082	3634.2	19.98	-1.3	18.68	73.79	23
56590	3685.0	56707	3696.7	19.94	-1.3	18.64	73.11	23

LTE BAND CA_48C 10M+20M QPSK

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dB)	EIRP (dBm)	EIRP (mW)	Limit (dBm/10MHz)
55295	3555.5	55439	3569.9	22.42	-1.3	21.12	129.42	23
55896	3615.6	56040	3630.0	22.25	-1.3	20.95	124.45	23
56496	3675.6	56640	3690.0	22.24	-1.3	20.94	124.17	23

LTE BAND CA_48C 10M+20M 16QAM

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dB)	EIRP (dBm)	EIRP (mW)	Limit (dBm/10MHz)
55295	3555.5	55439	3569.9	21.63	-1.3	20.33	107.89	23
55896	3615.6	56040	3630.0	21.42	-1.3	20.12	102.80	23
56496	3675.6	56640	3690.0	21.44	-1.3	20.14	103.28	23

LTE BAND CA_48C 10M+20M 64QAM

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dB)	EIRP (dBm)	EIRP (mW)	Limit (dBm/10MHz)
55295	3555.5	55439	3569.9	20.12	-1.3	18.82	76.21	23
55896	3615.6	56040	3630.0	19.96	-1.3	18.66	73.45	23
56496	3675.6	56640	3690.0	19.95	-1.3	18.65	73.28	23

LTE BAND CA_48C 20M+10M QPSK

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dB)	EIRP (dBm)	EIRP (mW)	Limit (dBm/10MHz)
55340	3560.0	55484	3574.4	22.4	-1.3	21.10	128.82	23
55941	3620.1	56085	3634.5	22.24	-1.3	20.94	124.17	23
56541	3680.1	56685	3694.5	22.18	-1.3	20.88	122.46	23

LTE BAND CA_48C 20M+10M 16QAM

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dB)	EIRP (dBm)	EIRP (mW)	Limit (dBm/10MHz)
55340	3560.0	55484	3574.4	21.66	-1.3	20.36	108.64	23
55941	3620.1	56085	3634.5	21.41	-1.3	20.11	102.57	23
56541	3680.1	56685	3694.5	21.51	-1.3	20.21	104.95	23

LTE BAND CA_48C 20M+10M 64QAM

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dB)	EIRP (dBm)	EIRP (mW)	Limit (dBm/10MHz)
55340	3560.0	55484	3574.4	20.13	-1.3	18.83	76.38	23
55941	3620.1	56085	3634.5	20.02	-1.3	18.72	74.47	23
56541	3680.1	56685	3694.5	19.93	-1.3	18.63	72.95	23

LTE BAND CA_48C 15M+20M QPSK

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dB)	EIRP (dBm)	EIRP (mW)	Limit (dBm/10MHz)
55318	3557.8	55489	3574.9	22.42	-1.3	21.12	129.42	23
55893	3615.3	55064	3632.4	22.26	-1.3	20.96	124.74	23
56496	3672.9	56640	3690.0	22.22	-1.3	20.92	123.59	23

LTE BAND CA_48C 15M+20M 16QAM

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dB)	EIRP (dBm)	EIRP (mW)	Limit (dBm/10MHz)
55318	3557.8	55489	3574.9	21.68	-1.3	20.38	109.14	23
55893	3615.3	55064	3632.4	21.47	-1.3	20.17	103.99	23
56496	3672.9	56640	3690.0	21.51	-1.3	20.21	104.95	23

LTE BAND CA_48C 15M+20M 64QAM

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dB)	EIRP (dBm)	EIRP (mW)	Limit (dBm/10MHz)
55318	3557.8	55489	3574.9	20.15	-1.3	18.85	76.74	23
55893	3615.3	55064	3632.4	19.97	-1.3	18.67	73.62	23
56496	3672.9	56640	3690.0	19.96	-1.3	18.66	73.45	23

LTE BAND CA_48C 20M+15M QPSK

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dB)	EIRP (dBm)	EIRP (mW)	Limit (dBm/10MHz)
55340	3560.0	55511	3577.1	22.41	-1.3	21.11	129.12	23
55916	3617.6	56087	3634.7	22.29	-1.3	20.99	125.60	23
56491	3675.1	56662	3692.2	22.25	-1.3	20.95	124.45	23

LTE BAND CA_48C 20M+15M 16QAM

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dB)	EIRP (dBm)	EIRP (mW)	Limit (dBm/10MHz)
55340	3560.0	55511	3577.1	21.64	-1.3	20.34	108.14	23
55916	3617.6	56087	3634.7	21.48	-1.3	20.18	104.23	23
56491	3675.1	56662	3692.2	21.47	-1.3	20.17	103.99	23

LTE BAND CA_48C 20M+15M 64QAM

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dB)	EIRP (dBm)	EIRP (mW)	Limit (dBm/10MHz)
55340	3560.0	55511	3577.1	20.11	-1.3	18.81	76.03	23
55916	3617.6	56087	3634.7	19.99	-1.3	18.69	73.96	23
56491	3675.1	56662	3692.2	19.99	-1.3	18.69	73.96	23

LTE BAND CA_48C 20M+20M QPSK

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dB)	EIRP (dBm)	EIRP (mW)	Limit (dBm/10MHz)
55340	3560.0	55538	3579.8	22.46	-1.3	21.16	130.62	23
55891	3615.1	56089	3634.9	22.36	-1.3	21.06	127.64	23
56442	3670.2	56640	3690.0	22.28	-1.3	20.98	125.31	23

LTE BAND CA_48C 20M+20M 16QAM

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dB)	EIRP (dBm)	EIRP (mW)	Limit (dBm/10MHz)
55340	3560.0	55538	3579.8	21.71	-1.3	20.41	109.90	23
55891	3615.1	56089	3634.9	21.5	-1.3	20.20	104.71	23
56442	3670.2	56640	3690.0	21.57	-1.3	20.27	106.41	23

LTE BAND CA_48C 20M+20M 64QAM

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dB)	EIRP (dBm)	EIRP (mW)	Limit (dBm/10MHz)
55340	3560.0	55538	3579.8	20.16	-1.3	18.86	76.91	23
55891	3615.1	56089	3634.9	20.09	-1.3	18.79	75.68	23
56442	3670.2	56640	3690.0	20.03	-1.3	18.73	74.64	23

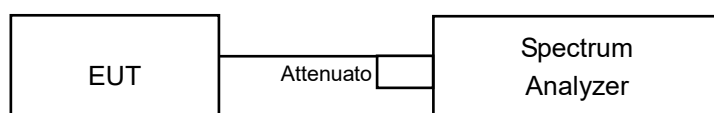
REMARKS: ERP Output Power (dBm) = EIRP (dBm) -2.15(dB).

3.2 CONDUCTED BAND EDGE

3.2.1 LIMITS OF CONDUCTED BAND EDGE MEASUREMENT

The conducted power of any End User Device emission outside the fundamental emission (whether in or outside of the authorized band) shall not exceed -13 dBm/MHz within 0 to B megahertz (where B is the bandwidth in megahertz of the assigned channel or multiple contiguous channels of the End User Device) above the upper CBSD-assigned channel edge and within 0 to B megahertz below the lower CBSD-assigned channel edge. At all frequencies greater than B megahertz above the upper CBSD assigned channel edge and less than B megahertz below the lower CBSD-assigned channel edge, the conducted power of any End User Device emission shall not exceed -25 dBm/MHz. Notwithstanding the emission limits in this paragraph, the Adjacent Channel Leakage Ratio for End User Devices shall be at least 30 dB.

3.2.2 TEST SETUP



3.2.3 TEST INSTRUMENTS

Refer to section 1.2 to get information of above instrument.

3.2.4 TEST PROCEDURE

For the Conducted Band Edge:

- 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 ≥ 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 100KHz.
- k. Record the max trace plot into the test report.

For Adjacent Channel Leakage Ratio (ACLR) measurement:

1. The Adjacent Channel Leakage Ratio (ACLR) is the ratio of the average power in the assigned aggregated channel bandwidth to the average power over the equivalent adjacent channel bandwidth.
2. The option ACLR of spectrum analyzer is used and measures the ACLR ratio by setting equivalent channel bandwidth.
3. The measured ACLR ratio shall be at least 30 dB.

3.2.5 DEVIATION FROM TEST STANDARD

No deviation.



3.2.6 TEST RESULTS

Please Refer to Appendix Of this test report.



3.3 FREQUENCY STABILITY MEASUREMENT

3.3.1 LIMITS OF FREQUENCY STABILITY MEASUREMENT

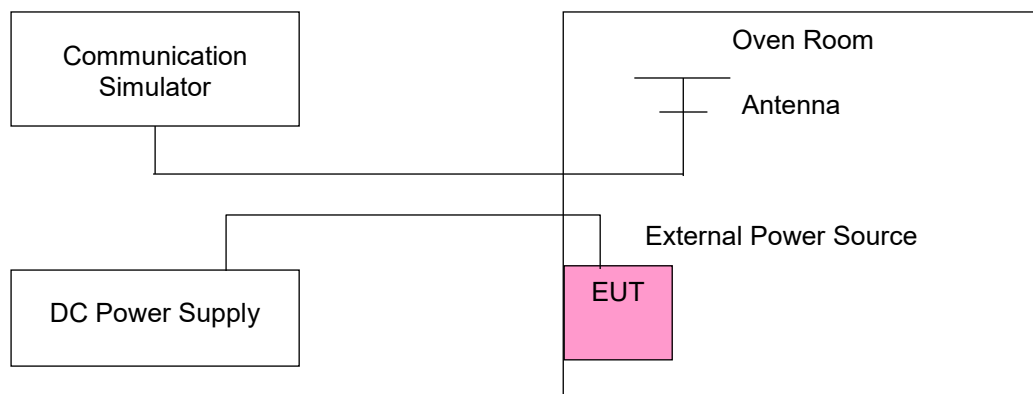
The frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency band.

3.3.2 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.

3.3.3 TEST SETUP





3.3.4 TEST RESULTS

Please Refer to Appendix Of this test report.

LTE BAND CA_48C

LTE BAND CA_48C channel and Frequency List					
BW(MHz)	Channel/Frequency(MHz)		Lowest	Middle	Highest
5+20	PCC	channel	55273	55898	56523
		Frequency	3553.3	3615.8	3678.3
	SCC	channel	42240	56015	56640
		Frequency	3550	3627.5	3690
10+20	PCC	channel	55295	55896	56496
		Frequency	3555.5	3615.6	3675.6
	SCC	channel	55439	56040	56640
		Frequency	3569.9	3630	3690
15+20	PCC	channel	55318	55893	56496
		Frequency	3557.8	3615.3	3672.9
	SCC	channel	55489	55064	56640
		Frequency	3574.9	3632.4	3690
20+5	PCC	channel	55340	55965	56590
		Frequency	3560	3622.5	3685
	SCC	channel	42307	56082	56707
		Frequency	3550	3634.2	3696.7
20+10	PCC	channel	55340	55941	56541
		Frequency	3560	3620.1	3680.1
	SCC	channel	55484	56085	56685
		Frequency	3574.4	3634.5	3694.5
20+15	PCC	channel	55340	55916	56491
		Frequency	3560	3617.6	3675.1
	SCC	channel	55511	56087	56662
		Frequency	3577.1	3634.7	3692.2
20+20	PCC	channel	55340	55891	56442
		Frequency	3560	3615.1	3670.2
	SCC	channel	55538	56089	56640
		Frequency	3579.8	3634.9	3690



Test Report No.: W7L-P22110036RF10

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

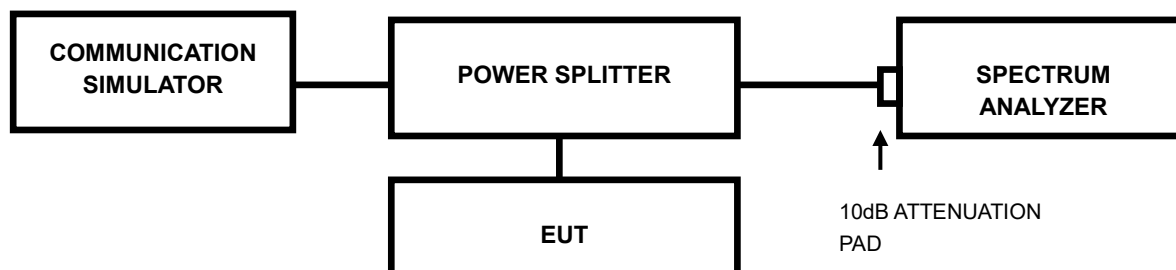


3.4 OCCUPIED BANDWIDTH MEASUREMENT

3.4.1 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.

3.4.2 TEST SETUP



3.4.3 TEST INSTRUMENTS

Refer to section 1.2 to get information of above instrument.

3.4.4 TEST PROCEDURE

- 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.

3.4.5 DEVIATION FROM TEST STANDARD

No deviation.



3.4.6 TEST RESULT

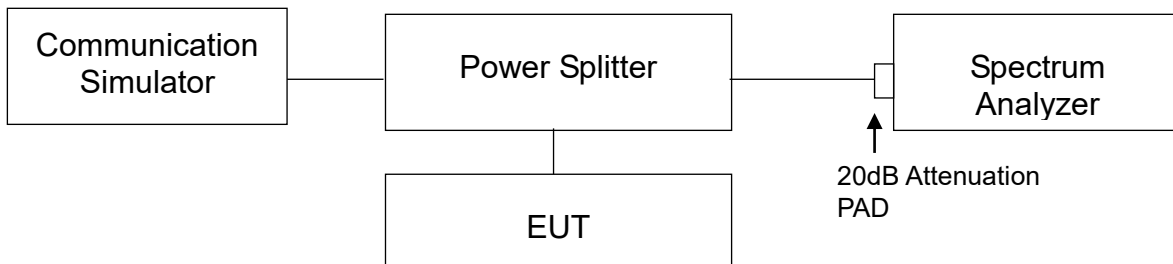
Please Refer to Appendix Of this test report.

3.5 CONDUCTED SPURIOUS EMISSIONS

3.5.1 LIMITS OF CONDUCTED SPURIOUS EMISSIONS MEASUREMENT

The power of any emissions below 3530 MHz or above 3720 MHz shall not exceed -40dBm/MHz.

3.5.2 TEST SETUP



3.5.3 TEST PROCEDURE

- The EUT makes a phone call to the communication simulator. All measurements were done at low, middle and high operational frequency range.
- Measuring frequency range is from 9 kHz to 40 GHz. 20dB attenuation pad is connected with spectrum. RBW=1MHz and VBW=3MHz is used for conducted emission measurement.



3.5.4 TEST RESULTS

Please Refer to Appendix Of this test report.

3.6 RADIATED EMISSION MEASUREMENT

3.6.1 LIMITS OF RADIATED EMISSION MEASUREMENT

The power of any emissions below 3530 MHz or above 3720 MHz shall not exceed -40dBm/MHz.

3.6.2 TEST PROCEDURES

- a. Substitution method is used for E.I.R.P measurement. In the semi-anechoic chamber, EUT placed on the 0.8m(below or equal 1GHz) and/or 1.5m(above 1GHz) height of Turn Table, rotated the table around 360 degrees to search the maximum radiation power and receiver antenna shall be rotated vertical and horizontal polarization and moved height from 1m to 4m to find the maximum polar radiated power. The "Read Value" is the spectrum reading the maximum power value.
- b. The substitution antenna is substituted for EUT at the same position and signals generator export the CW signal to the substitution antenna via a tx cable. Rotated the Turn Table and moved receiving antenna to find the maximum radiation power. Adjust output power level of S.G to get a Value of spectrum reading equal to "Read Value " of step a. Record the power level of S.G
- c. EIRP = Output power level of S.G – TX cable loss + Antenna gain of substitution horn.
- d. E.R.P power can be calculated form E.I.R.P power by subtracting the gain of dipole,
$$\text{E.R.P power} = \text{E.I.P.R power} - 2.15\text{dBi}.$$

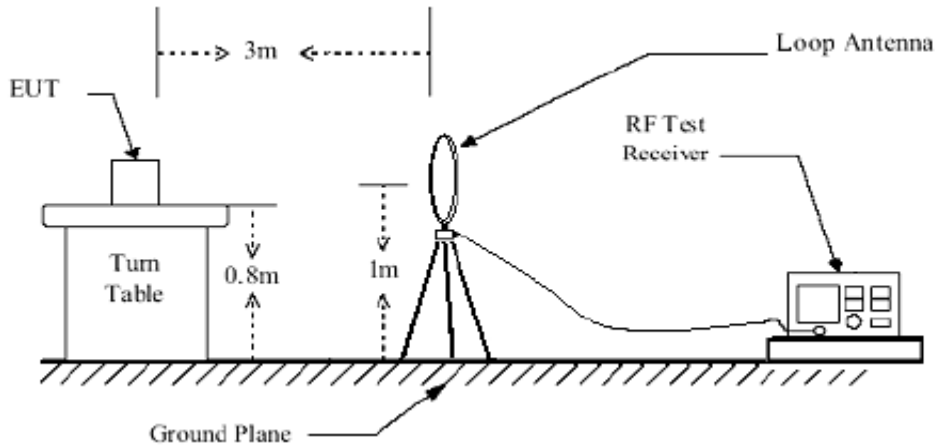
Note: The resolution bandwidth of spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz.

3.6.3 DEVIATION FROM TEST STANDARD

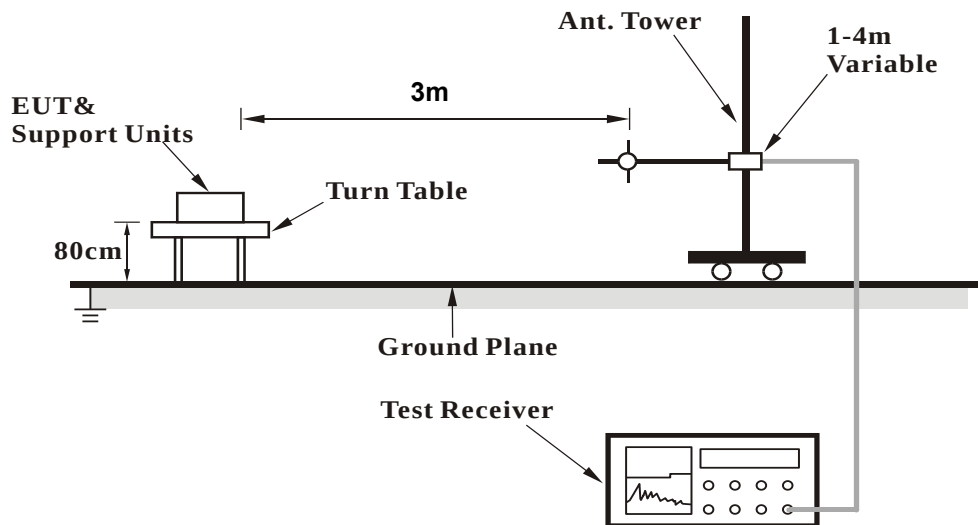
No deviation.

3.6.4 TEST SET UP

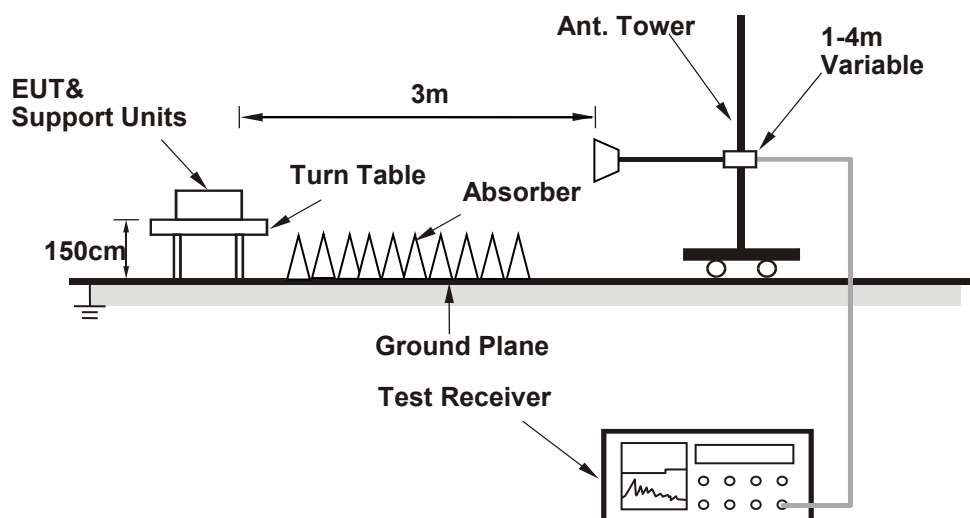
< Frequency Range below 30MHz >



<Frequency Range below 1GHz>



<Frequency Range above 1GHz>



For the actual test configuration, please refer to the attached file (Test Setup Photo).

3.6.5 TEST RESULTS

NOTE : The 9K~30MHz amplitude of spurious emissions attenuated more than 20 dB below the permissible value is not required in the report.

BELOW 1GHz WORST-CASE DATA

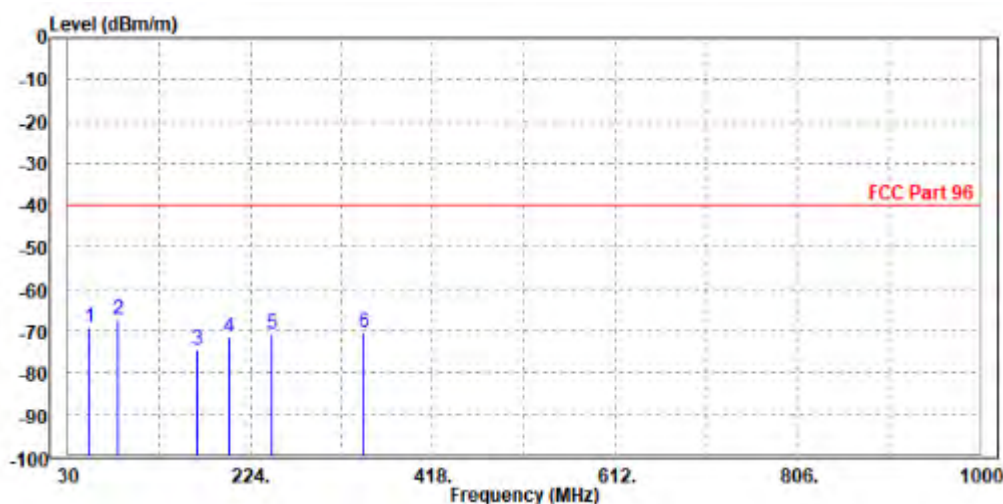
30 MHz – 1GHz data:

LTE Band 48

CHANNEL BANDWIDTH: 15MHz / QPSK

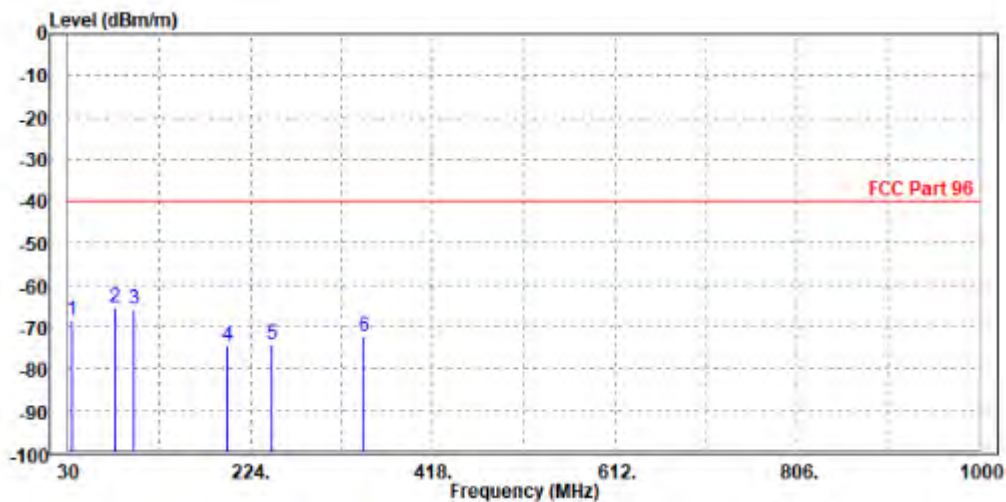
MODE	TX channel 55990	FREQUENCY RANGE	Below 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	52.310	-69.28	-51.91	-40.00	-29.28	-17.37	Peak	Horizontal
2 PP	82.380	-67.34	-45.92	-40.00	-27.34	-21.42	Peak	Horizontal
3	166.770	-74.62	-58.39	-40.00	-34.62	-16.23	Peak	Horizontal
4	200.720	-71.58	-54.24	-40.00	-31.58	-17.34	Peak	Horizontal
5	247.280	-70.76	-58.98	-40.00	-30.76	-11.78	Peak	Horizontal
6	345.250	-70.37	-59.01	-40.00	-30.37	-11.36	Peak	Horizontal



MODE	TX channel 55990	FREQUENCY RANGE	Below 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M			

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	33.880	-68.45	-48.69	-40.00	-28.45	-19.76	Peak	Vertical
2 PP	79.470	-65.38	-46.05	-40.00	-25.38	-19.33	Peak	Vertical
3	99.840	-65.82	-59.31	-40.00	-25.82	-6.51	Peak	Vertical
4	198.780	-74.54	-56.43	-40.00	-34.54	-18.11	Peak	Vertical
5	247.280	-73.95	-60.11	-40.00	-33.95	-13.84	Peak	Vertical
6	345.250	-72.29	-62.30	-40.00	-32.29	-9.99	Peak	Vertical



ABOVE 1GHz

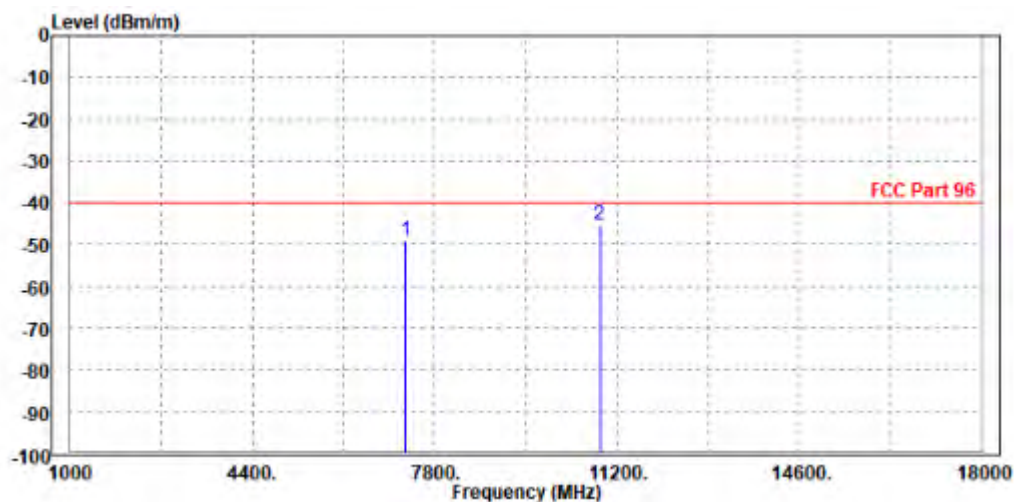
Note: For frequency above 18GHz, the emission was tested 20db below the limit so the data not recorded in the sheet.

LTE BAND 48

CHANNEL BANDWIDTH: 5MHz / QPSK

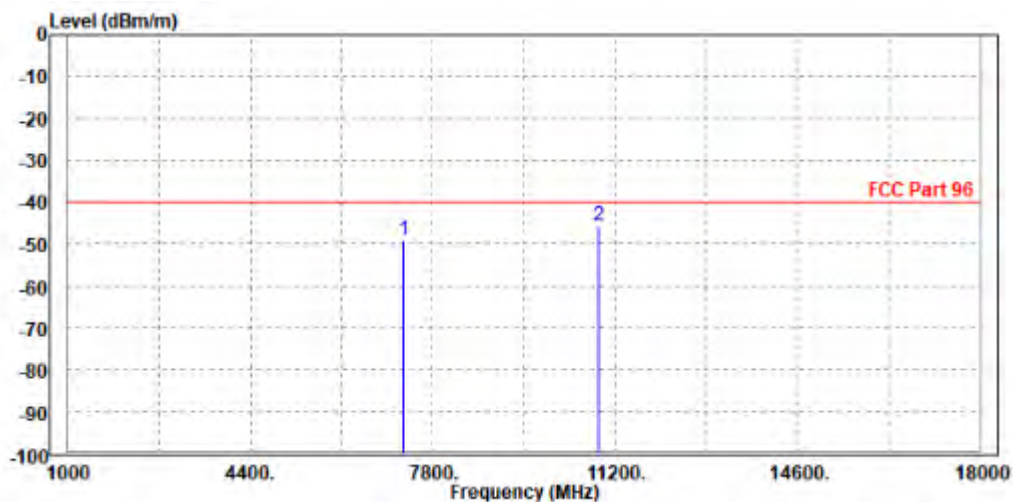
MODE	TX channel 55990	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60Hz
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	7256.000	-48.88	-60.69	-40.00	-8.88	11.81	Peak	Horizontal
2	PP10875.000	-45.44	-65.05	-40.00	-5.44	19.61	Peak	Horizontal



MODE	TX channel 55990	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60Hz
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M			

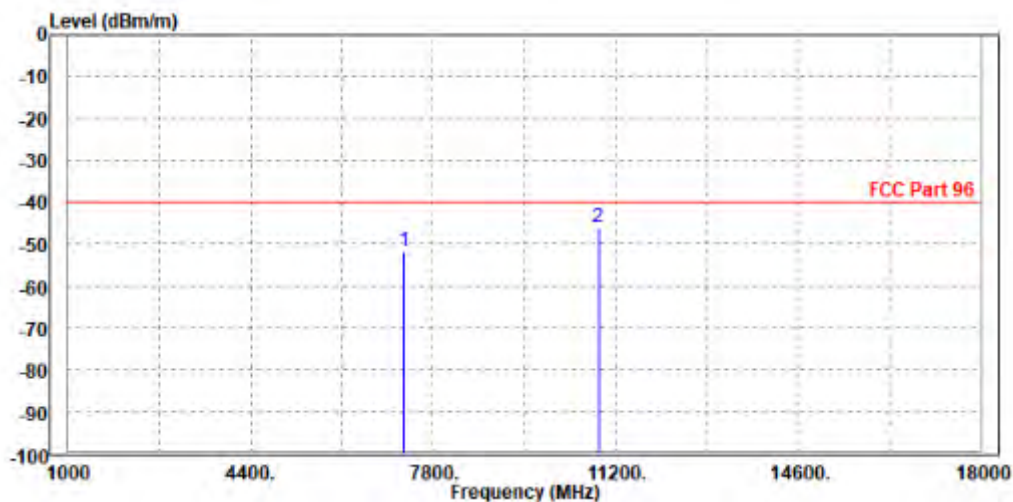
	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	7250.000	-49.11	-62.82	-40.00	-9.11	13.71	Peak	Vertical
2	PP10877.000	-45.70	-65.38	-40.00	-5.70	19.68	Peak	Vertical



CHANNEL BANDWIDTH: 10MHz / QPSK

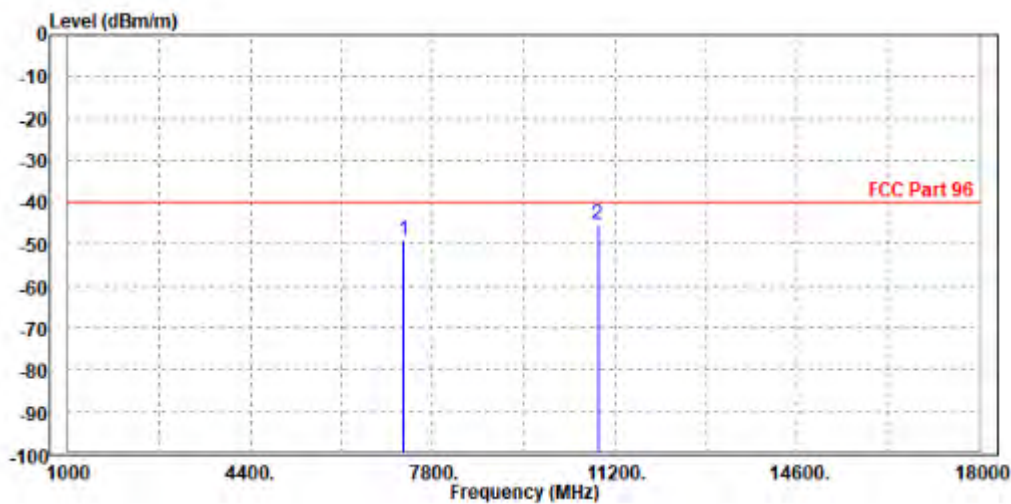
MODE	TX channel 55990	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60Hz
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	7256.000	-51.57	-63.38	-40.00	-11.57	11.81	Peak	Horizontal
2	PP10875.000	-45.83	-65.44	-40.00	-5.83	19.61	Peak	Horizontal



MODE	TX channel 55990	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60Hz
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M			

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	7256.000	-49.10	-62.84	-40.00	-9.10	13.74	Peak	Vertical
2	PP10875.000	-45.41	-65.08	-40.00	-5.41	19.67	Peak	Vertical

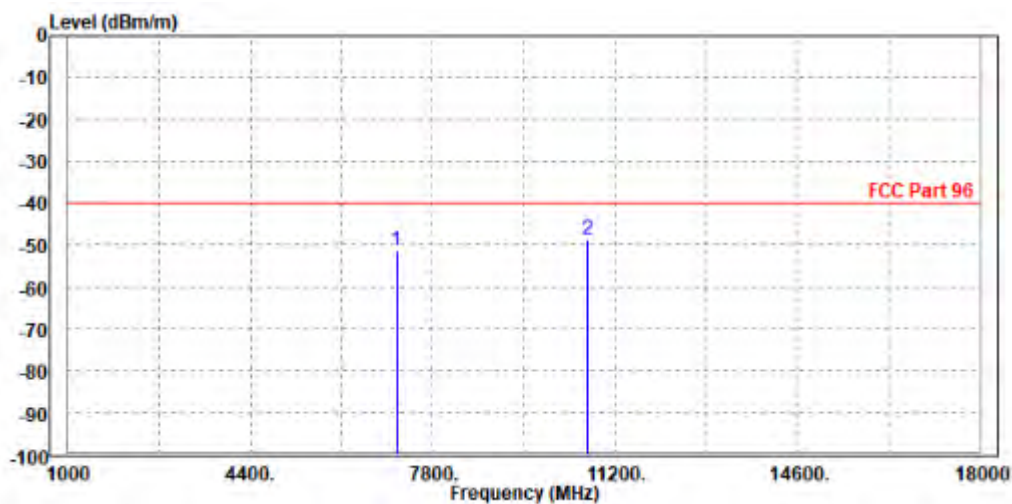


CHANNEL BANDWIDTH: 15MHz / QPSK

CH55315

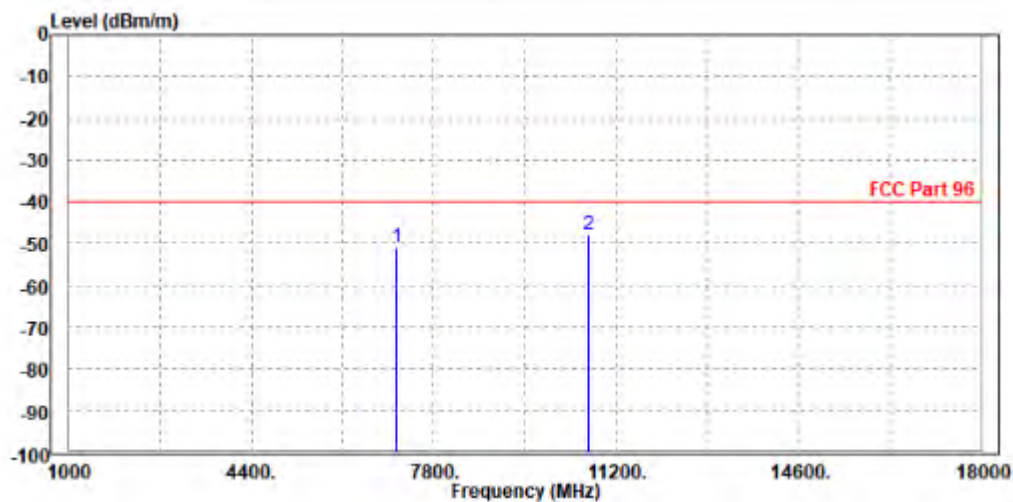
MODE	TX channel 55315	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60Hz
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	7120.000	-51.20	-63.23	-40.00	-11.20	12.03	Peak	Horizontal
2	PP10672.500	-48.54	-67.60	-40.00	-8.54	19.06	Peak	Horizontal



MODE	TX channel 55315	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60Hz
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M			

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	7115.000	-51.01	-64.19	-40.00	-11.01	13.18	Peak	Vertical
2	PP10673.000	-48.09	-66.81	-40.00	-8.09	18.72	Peak	Vertical

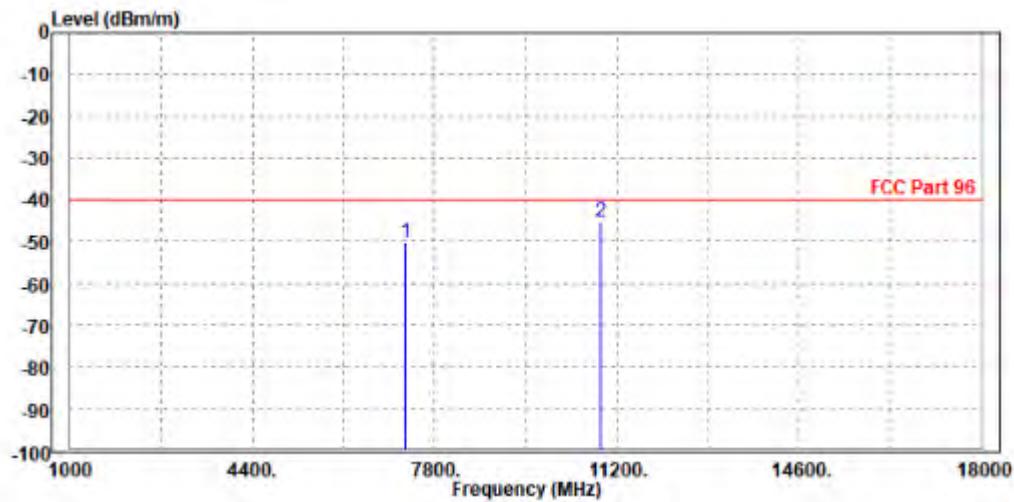




CH55990

MODE	TX channel 55990	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60Hz
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	7250.000	-50.34	-62.16	-40.00	-10.34	11.82	Peak	Horizontal
2	PP10877.000	-45.27	-64.89	-40.00	-5.27	19.62	Peak	Horizontal



MODE	TX channel 55990	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60Hz
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M			

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	7256.000	-48.50	-62.24	-40.00	-8.50	13.74	Peak	Vertical
2	PP10875.000	-45.57	-65.24	-40.00	-5.57	19.67	Peak	Vertical

