

LTE Band 7, 5 MHz, QPSK, Channel 20775

Frequency (MHz)	P _{Mea} (dBm)	P _{pl} (dB)	AntennaGain (dBi)	Peak EIRP (dBm)	Limit (dBm)	Margin (dB)	Polorization
5005.00	-60.13	5.15	11.33	-53.95	-25.00	28.95	H
7508.00	-35.19	7.70	10.22	-32.67	-25.00	7.67	H
10010.50	-50.58	9.35	11.79	-48.14	-25.00	23.14	V
12502.00	-46.27	12.35	13.59	-45.03	-25.00	20.03	V
15004.50	-42.55	14.75	14.61	-42.69	-25.00	17.69	H
17511.00	-34.74	19.71	13.11	-41.34	-25.00	16.34	H

LTE Band 7, 5 MHz, QPSK, Channel 21100

Frequency (MHz)	P _{Mea} (dBm)	P _{pl} (dB)	AntennaGain (dBi)	Peak EIRP (dBm)	Limit (dBm)	Margin (dB)	Polorization
5070.50	-58.01	5.30	11.60	-51.71	-25.00	26.71	V
7605.00	-38.21	7.58	10.31	-35.48	-25.00	10.48	V
10131.00	-52.53	8.94	11.76	-49.71	-25.00	24.71	H
12664.50	-51.35	11.64	13.17	-49.82	-25.00	24.82	H
15222.00	-47.70	15.68	15.04	-48.34	-25.00	23.34	H
17742.00	-37.37	19.56	13.44	-43.49	-25.00	18.49	H

LTE Band 7, 5 MHz, QPSK, Channel 21425

Frequency (MHz)	P _{Mea} (dBm)	P _{pl} (dB)	AntennaGain (dBi)	Peak EIRP (dBm)	Limit (dBm)	Margin (dB)	Polorization
5135.00	-57.87	5.55	11.60	-51.82	-25.00	26.82	V
7703.00	-39.09	6.72	10.61	-35.20	-25.00	10.20	V
10274.00	-49.25	10.73	11.90	-48.08	-25.00	23.08	H
12826.00	-47.23	13.14	12.95	-47.42	-25.00	22.42	V
15401.00	-49.17	14.89	15.40	-48.66	-25.00	23.66	H
17962.50	-36.80	20.02	13.48	-43.34	-25.00	18.34	H

LTE Band CA 7C_ CH20850+21408_QPSK

Frequency (MHz)	P _{Mea} (dBm)	P _{pl} (dB)	AntennaGain (dBi)	Peak EIRP (dBm)	Limit (dBm)	Margin (dB)	Polorization
5019.84	-55.92	6.57	9.93	-52.56	-25.00	27.56	V
7530.00	-44.23	8.27	12.22	-40.28	-25.00	15.28	H
10073.91	-51.56	9.39	12.93	-48.02	-25.00	23.02	V
12586.41	-48.98	10.43	13.25	-46.16	-25.00	21.16	V
15140.16	-48.17	11.37	13.92	-45.62	-25.00	20.62	V
17624.06	-42.71	12.89	15.07	-40.53	-25.00	15.53	H

LTE Band CA 7C_ CH21001+21199_QPSK

Frequency (MHz)	P _{Mea} (dBm)	P _{pl} (dB)	AntennaGain (dBi)	Peak EIRP (dBm)	Limit (dBm)	Margin (dB)	Polorization
5098.13	-57.39	6.77	10.04	-54.12	-25.00	29.12	V
7575.47	-43.43	8.08	12.26	-39.25	-25.00	14.25	H
10123.13	-50.94	9.42	12.95	-47.41	-25.00	22.41	V
12648.75	-49.67	10.38	13.29	-46.76	-25.00	21.76	H
15234.84	-48.68	11.36	13.86	-46.18	-25.00	21.18	H
17770.31	-43.33	12.57	15.28	-40.62	-25.00	15.62	V

LTE Band CA 7C_ CH21152+21350_QPSK

Frequency (MHz)	P _{Mea} (dBm)	P _{pl} (dB)	AntennaGain (dBi)	Peak EIRP (dBm)	Limit (dBm)	Margin (dB)	Polorization
5080.78	-57.27	6.72	10.01	-53.98	-25.00	28.98	H
7640.63	-47.72	8.16	12.31	-43.57	-25.00	18.57	V
10215.94	-51.39	9.36	12.99	-47.76	-25.00	22.76	V
12755.16	-50.36	10.56	13.35	-47.57	-25.00	22.57	H
15274.69	-48.76	11.31	13.84	-46.23	-25.00	21.23	V
17847.66	-43.15	12.80	15.39	-40.56	-25.00	15.56	H

LTE Band 12, 1.4MHz, QPSK, Channel 23017

Frequency (MHz)	P _{Mea} (dBm)	P _{pl} (dB)	AntennaGain (dBi)	Correction	Peak ERP (dBm)	Limit (dBm)	Margin (dB)	Polorization
2099.50	-42.07	3.52	7.80	2.15	-39.94	-13.00	26.94	V
2785.50	-50.50	4.90	10.37	2.15	-47.18	-13.00	34.18	V
3499.00	-59.51	2.98	10.10	2.15	-54.54	-13.00	41.54	V
5595.00	-57.81	5.51	11.29	2.15	-54.18	-13.00	41.18	H
6287.50	-56.20	6.09	10.80	2.15	-53.64	-13.00	40.64	H
7005.00	-51.61	7.72	10.41	2.15	-51.07	-13.00	38.07	V

LTE Band 12, 1.4MHz, QPSK, Channel 23095

Frequency (MHz)	P _{Mea} (dBm)	P _{pl} (dB)	AntennaGain (dBi)	Correction	Peak ERP (dBm)	Limit (dBm)	Margin (dB)	Polorization
2123.00	-41.60	3.72	8.17	2.15	-39.30	-13.00	26.30	V
2834.50	-50.05	5.04	10.47	2.15	-46.77	-13.00	33.77	V
4966.50	-59.03	4.93	11.23	2.15	-54.88	-13.00	41.88	V
5647.00	-57.60	5.60	11.39	2.15	-53.96	-13.00	40.96	V
6369.50	-56.67	5.76	10.94	2.15	-53.64	-13.00	40.64	V
7073.00	-52.96	6.88	10.41	2.15	-51.58	-13.00	38.58	H

LTE Band 12, 1.4MHz, QPSK, Channel 23173

Frequency (MHz)	P _{Mea} (dBm)	P _{pl} (dB)	AntennaGain (dBi)	Correction	Peak ERP (dBm)	Limit (dBm)	Margin (dB)	Polorization
2146.00	-47.13	3.71	8.54	2.15	-44.45	-13.00	31.45	V
2872.50	-49.64	5.42	10.64	2.15	-46.57	-13.00	33.57	V
4292.00	-58.41	4.65	10.55	2.15	-54.66	-13.00	41.66	H
5731.00	-57.88	5.88	11.34	2.15	-54.57	-13.00	41.57	H
6434.00	-55.74	6.91	10.86	2.15	-53.94	-13.00	40.94	H
7148.00	-53.28	6.68	10.20	2.15	-51.91	-13.00	38.91	H

LTE Band 13, 5MHz, QPSK, Channel 23205

Frequency (MHz)	P _{Mea} (dBm)	P _{pl} (dB)	AntennaGain (dBi)	Correction	Peak ERP (dBm)	Limit (dBm)	Margin (dB)	Polorization
1556.67	-56.73	3.47	5.40	2.15	-56.95	-13.00	43.95	H
2339.25	-32.83	4.44	5.62	2.15	-33.80	-13.00	20.80	H
3117.50	-58.97	5.38	7.28	2.15	-59.22	-13.00	46.22	H
3897.50	-57.90	6.11	8.76	2.15	-57.40	-13.00	44.40	H
4677.50	-56.69	6.49	9.58	2.15	-55.75	-13.00	42.75	V
5457.50	-57.31	6.90	10.54	2.15	-55.82	-13.00	42.82	H

LTE Band 13, 5MHz, QPSK, Channel 23230

Frequency (MHz)	P _{Mea} (dBm)	P _{pl} (dB)	AntennaGain (dBi)	Correction	Peak ERP (dBm)	Limit (dBm)	Margin (dB)	Polorization
2346.70	-35.21	4.45	5.64	2.15	-36.17	-13.00	23.17	H
3127.50	-58.91	5.40	7.31	2.15	-59.15	-13.00	46.15	V
3915.00	-58.34	6.12	8.78	2.15	-57.83	-13.00	44.83	H
4690.00	-57.22	6.50	9.59	2.15	-56.28	-13.00	43.28	V
5477.50	-56.82	6.97	10.57	2.15	-55.37	-13.00	42.37	H
6257.50	-55.00	7.45	10.76	2.15	-53.84	-13.00	40.84	V

LTE Band 13, 5MHz, QPSK, Channel 23255

Frequency (MHz)	P _{Mea} (dBm)	P _{pl} (dB)	AntennaGain (dBi)	Correction	Peak ERP (dBm)	Limit (dBm)	Margin (dB)	Polorization
2354.15	-36.90	4.46	5.66	2.15	-37.85	-13.00	24.85	V
3127.50	-57.64	5.40	7.31	2.15	-57.88	-13.00	44.88	H
3932.50	-57.80	6.12	8.81	2.15	-57.26	-13.00	44.26	V
4712.50	-55.99	6.51	9.61	2.15	-55.04	-13.00	42.04	V
5495.00	-56.28	7.04	10.59	2.15	-54.88	-13.00	41.88	V
6272.50	-54.75	7.48	10.77	2.15	-53.61	-13.00	40.61	V

LTE Band 26(824MHz~849MHz), 1.4MHz, QPSK, Channel 26797

Frequency (MHz)	P _{Mea} (dBm)	P _{pl} (dB)	AntennaGain (dBi)	Correction	Peak ERP (dBm)	Limit (dBm)	Margin (dB)	Polorization
2474.50	-37.50	4.33	10.35	2.15	-33.63	-13.00	20.63	V
4124.00	-52.25	4.72	10.05	2.15	-49.07	-13.00	36.07	V
5774.00	-56.03	5.68	11.16	2.15	-52.70	-13.00	39.70	H
6604.50	-53.45	7.05	10.31	2.15	-52.34	-13.00	39.34	V
7428.00	-49.67	7.94	10.10	2.15	-49.66	-13.00	36.66	V
8242.00	-51.92	7.59	11.20	2.15	-50.46	-13.00	37.46	V

LTE Band 26(824MHz~849MHz), 1.4MHz, QPSK, Channel 26915

Frequency (MHz)	P _{Mea} (dBm)	P _{pl} (dB)	AntennaGain (dBi)	Correction	Peak ERP (dBm)	Limit (dBm)	Margin (dB)	Polorization
2510.00	-42.75	4.42	10.30	2.15	-39.02	-13.00	26.02	V
4183.00	-55.13	4.07	10.07	2.15	-51.28	-13.00	38.28	V
5868.50	-57.37	5.62	10.93	2.15	-54.21	-13.00	41.21	H
6697.00	-54.30	6.21	10.49	2.15	-52.17	-13.00	39.17	H
7527.00	-50.87	7.71	10.25	2.15	-50.48	-13.00	37.48	V
8371.50	-51.80	8.18	11.30	2.15	-50.83	-13.00	37.83	H

LTE Band 26(824MHz~849MHz), 1.4MHz, QPSK, Channel 27033

Frequency (MHz)	P _{Mea} (dBm)	P _{pl} (dB)	AntennaGain (dBi)	Correction	Peak ERP (dBm)	Limit (dBm)	Margin (dB)	Polorization
2545.50	-42.96	4.61	10.30	2.15	-39.42	-13.00	26.42	V
5092.00	-59.17	5.30	11.60	2.15	-55.02	-13.00	42.02	H
5924.50	-56.46	6.08	10.75	2.15	-53.94	-13.00	40.94	V
6788.00	-54.50	6.39	10.38	2.15	-52.66	-13.00	39.66	H
7633.50	-52.29	6.74	10.37	2.15	-50.81	-13.00	37.81	V
8493.50	-50.91	8.83	11.30	2.15	-50.59	-13.00	37.59	V

LTE Band 26(814MHz~824MHz), 1.4MHz, QPSK, Channel 26697

Frequency (MHz)	P _{Mea} (dBm)	P _{pl} (dB)	AntennaGain (dBi)	Correction	Peak ERP (dBm)	Limit (dBm)	Margin (dB)	Polorization
2444.50	-42.06	4.55	10.38	2.15	-38.38	-13.00	25.38	V
4899.00	-58.38	4.87	11.00	2.15	-54.40	-13.00	41.40	V
5694.50	-58.97	5.68	11.40	2.15	-55.40	-13.00	42.40	V
6521.50	-54.69	6.27	10.60	2.15	-52.51	-13.00	39.51	H
7340.00	-50.78	7.66	9.90	2.15	-50.69	-13.00	37.69	V
8138.50	-51.55	8.22	11.12	2.15	-50.80	-13.00	37.80	V

LTE Band 26(814MHz~824MHz), 1.4MHz, QPSK, Channel 26740

Frequency (MHz)	P _{Mea} (dBm)	P _{pl} (dB)	AntennaGain (dBi)	Correction	Peak ERP (dBm)	Limit (dBm)	Margin (dB)	Polorization
2457.00	-44.20	4.42	10.39	2.15	-40.38	-13.00	27.38	H
4901.00	-58.64	4.88	11.00	2.15	-54.67	-13.00	41.67	V
5722.00	-58.05	5.91	11.36	2.15	-54.75	-13.00	41.75	H
6563.50	-54.38	7.41	10.52	2.15	-53.42	-13.00	40.42	V
7360.50	-50.56	7.51	9.94	2.15	-50.28	-13.00	37.28	H
8196.50	-52.01	7.36	11.19	2.15	-50.33	-13.00	37.33	V

LTE Band 26(814MHz~824MHz), 1.4MHz, QPSK, Channel 26783

Frequency (MHz)	P _{Mea} (dBm)	P _{pl} (dB)	AntennaGain (dBi)	Correction	Peak ERP (dBm)	Limit (dBm)	Margin (dB)	Polorization
2470.50	-44.09	4.32	10.36	2.15	-40.20	-13.00	27.20	H
4933.00	-58.64	4.89	11.13	2.15	-54.55	-13.00	41.55	V
5766.00	-57.78	5.67	11.20	2.15	-54.40	-13.00	41.40	H
6572.00	-53.93	7.34	10.47	2.15	-52.95	-13.00	39.95	H
7399.50	-49.72	8.10	10.10	2.15	-49.87	-13.00	36.87	V
8222.50	-52.66	7.53	11.20	2.15	-51.14	-13.00	38.14	H

LTE Band CA 38C_ CH37825+37975_QPSK

Frequency (MHz)	P _{Mea} (dBm)	P _{pl} (dB)	AntennaGain (dBi)	Peak EIRP (dBm)	Limit (dBm)	Margin (dB)	Polorization
5142.66	-60.34	5.53	11.60	-54.27	-25.00	29.27	H
7747.50	-45.36	6.84	10.69	-41.51	-25.00	16.51	V
10312.97	-49.09	10.41	11.91	-47.59	-25.00	22.59	V
12900.00	-46.81	12.36	12.80	-46.37	-25.00	21.37	V
15487.97	-44.49	15.05	15.58	-43.96	-25.00	18.96	H
17972.34	-33.20	19.99	13.46	-39.73	-25.00	14.73	H

LTE Band CA 38C_ CH37925+38075_QPSK

Frequency (MHz)	P _{Mea} (dBm)	P _{pl} (dB)	AntennaGain (dBi)	Peak EIRP (dBm)	Limit (dBm)	Margin (dB)	Polorization
5170.78	-60.82	5.45	11.64	-54.63	-25.00	29.63	H
7762.97	-48.59	7.43	10.73	-45.29	-25.00	20.29	V
10357.50	-48.78	10.77	11.96	-47.59	-25.00	22.59	V
12993.75	-46.79	12.43	12.71	-46.51	-25.00	21.51	V
15583.12	-44.57	16.56	15.60	-45.53	-25.00	20.53	H
17977.03	-33.62	19.98	13.45	-40.15	-25.00	15.15	H

LTE Band CA 38C_ CH38025+38175_QPSK

Frequency (MHz)	P _{Mea} (dBm)	P _{pl} (dB)	AntennaGain (dBi)	Peak EIRP (dBm)	Limit (dBm)	Margin (dB)	Polorization
5246.72	-60.89	4.82	11.70	-54.01	-25.00	29.01	H
7823.44	-53.04	7.20	10.89	-49.35	-25.00	24.35	H
10436.72	-48.97	10.53	11.96	-47.54	-25.00	22.54	H
13064.53	-46.70	12.47	12.64	-46.53	-25.00	21.53	H
15682.03	-44.20	16.70	15.52	-45.38	-25.00	20.38	H
17980.78	-33.10	19.98	13.44	-39.64	-25.00	14.64	V

LTE Band 41, 5MHz, QPSK, Channel 39657

Frequency (MHz)	P _{Mea} (dBm)	P _{pl} (dB)	AntennaGain (dBi)	Peak EIRP (dBm)	Limit (dBm)	Margin (dB)	Polorization
5005.00	-61.21	5.15	11.33	-55.03	-25.00	30.03	V
7496.00	-36.21	7.70	10.19	-33.72	-25.00	8.72	H
9996.00	-52.20	9.36	11.79	-49.77	-25.00	24.77	V
12494.00	-49.93	12.34	13.59	-48.68	-25.00	23.68	H
14980.50	-47.88	14.78	14.52	-48.14	-25.00	23.14	V
17502.00	-36.41	19.72	13.10	-43.03	-25.00	18.03	H

LTE Band 41, 5MHz, QPSK, Channel 40620

Frequency (MHz)	P _{Mea} (dBm)	P _{pl} (dB)	AntennaGain (dBi)	Peak EIRP (dBm)	Limit (dBm)	Margin (dB)	Polorization
5193.50	-62.26	5.72	11.69	-56.29	-25.00	31.29	V
7780.00	-48.48	7.36	10.76	-45.08	-25.00	20.08	V
10365.50	-48.30	10.75	11.97	-47.08	-25.00	22.08	V
12956.00	-50.23	12.50	12.74	-49.99	-25.00	24.99	V
15571.00	-48.32	16.64	15.60	-49.36	-25.00	24.36	H
17975.00	-36.34	19.99	13.45	-42.88	-25.00	17.88	H

LTE Band 41, 5MHz, QPSK, Channel 41565

Frequency (MHz)	P _{Mea} (dBm)	P _{pl} (dB)	AntennaGain (dBi)	Peak EIRP (dBm)	Limit (dBm)	Margin (dB)	Polorization
5361.00	-61.77	5.91	11.68	-56.00	-25.00	31.00	V
8063.50	-53.15	7.86	11.13	-49.88	-25.00	24.88	V
10744.00	-51.54	9.85	12.14	-49.25	-25.00	24.25	H
13430.00	-46.92	12.54	12.37	-47.09	-25.00	22.09	V
16115.50	-45.91	17.08	15.10	-47.89	-25.00	22.89	H
17989.50	-37.49	19.96	13.42	-44.03	-25.00	19.03	V

LTE Band 66, 1.4MHz QPSK, Channel 131979

Frequency (MHz)	P _{Mea} (dBm)	P _{pl} (dB)	AntennaGain (dBi)	Peak EIRP (dBm)	Limit (dBm)	Margin (dB)	Polorization
5132.00	-58.98	5.56	11.60	-52.94	-13.00	39.94	V
10261.00	-60.43	10.83	11.90	-59.36	-13.00	46.36	V
11988.50	-59.50	12.21	13.08	-58.63	-13.00	45.63	H
13695.50	-55.41	13.04	12.20	-56.25	-13.00	43.25	H
15401.50	-58.28	14.89	15.40	-57.77	-13.00	44.77	V
17101.50	-49.41	18.45	13.50	-54.36	-13.00	41.36	H

LTE Band 66, 1.4MHz, QPSK, Channel 132322

Frequency (MHz)	P _{Mea} (dBm)	P _{pl} (dB)	AntennaGain (dBi)	Peak EIRP (dBm)	Limit (dBm)	Margin (dB)	Polorization
5235.00	-58.26	4.70	11.70	-51.26	-13.00	38.26	V
10458.50	-60.19	10.35	11.94	-58.60	-13.00	45.60	H
12212.00	-60.16	12.17	13.40	-58.93	-13.00	45.93	H
13966.50	-54.15	14.59	12.17	-56.57	-13.00	43.57	H
15705.00	-56.89	16.65	15.50	-58.04	-13.00	45.04	H
17439.00	-47.15	19.25	13.04	-53.36	-13.00	40.36	H

LTE Band 66, 1.4MHz, QPSK, Channel 132665

Frequency (MHz)	P _{Mea} (dBm)	P _{pl} (dB)	AntennaGain (dBi)	Peak EIRP (dBm)	Limit (dBm)	Margin (dB)	Polorization
5338.00	-56.35	6.18	11.72	-50.81	-13.00	37.81	V
10679.50	-61.46	10.03	12.08	-59.41	-13.00	46.41	V
12468.00	-59.37	12.81	13.54	-58.64	-13.00	45.64	V
14222.50	-56.81	13.07	12.62	-57.26	-13.00	44.26	V
16023.00	-56.46	17.43	15.33	-58.56	-13.00	45.56	H
17793.50	-47.54	19.55	13.49	-53.60	-13.00	40.60	H

Note: Peak EIRP (dBm) = P_{Mea}(dBm) - Path Loss(dB) + Antenna Gain(dBi)

Note: Expanded measurement uncertainty is U = 3.37 dB, k = 2.

A.3 Frequency Stability

A.3.1 Method of Measurement

Frequency stability is a measure of the frequency drift due to temperature and supply voltage variations, with reference to the frequency measured at +20 °C and rated supply voltage. Two reference points are established at the applicable unwanted emissions limit using a RBW equal to the RBW required by the unwanted emissions specification of the applicable regulatory standard. These reference points measured using the lowest and highest channel of operation shall be identified as F_L and F_H respectively.

In order to measure the carrier frequency under the condition of AFC lock, it is necessary to make measurements with the EUT in a “call mode”. This is accomplished with the use of CMW500.

1. Measure the carrier frequency at room temperature.
2. Subject the EUT to overnight soak at -30°C.
3. With the EUT, powered via nominal voltage, connected to the CMW500, and in a simulated call on middle channel for each LTE band, measure the carrier frequency. These measurements should be made within 2 minutes of Powering up the EUT, to prevent significant self-warming.
4. Repeat the above measurements at 10°C increments from -30°C to +50°C. Allow at least 1.5 hours at each temperature, unpowered, before making measurements.
5. Re-measure carrier frequency at room temperature with nominal voltage. Vary supply voltage from minimum voltage to maximum voltage, in 0.1Volt increments re-measuring carrier frequency at each voltage. Pause at nominal voltage for 1.5 hours unpowered, to allow any self-heating to stabilize, before continuing.
6. Subject the EUT to overnight soak at +50°C.
7. With the EUT, powered via nominal voltage, connected to the CMW500 and in a simulated call on the center channel, measure the carrier frequency. These measurements should be made within 2 minutes of Powering up the EUT, to prevent significant self-warming.
8. Repeat the above measurements at 10 °C decrements from +50°C to -30°C. Allow at least 1.5 hours at each temperature, unpowered, before making measurements.
9. At all temperature levels hold the temperature to +/- 0.5°C during the measurement procedure.

The frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency block. As this transceiver is considered "Hand carried, battery powered equipment" Section 2.1055(d)(2) applies. This requires that the lower voltage for frequency stability testing be specified by the manufacturer. This transceiver is specified to operate with an input voltage of the lower, higher and nominal voltage. Operation above or below these voltage limits is prohibited by transceiver software in order to prevent improper operation as well as to protect components from overstress.

A.3.2 Measurement results

LTE Band 2, 20MHz bandwidth QPSK (worst case of all bandwidths)

Frequency Error vs Temperature

Temperature(°C)	Voltage(V)	F _L (MHz)	F _H (MHz)	Offset(Hz)	Frequency error(ppm)
20	3.88	1850.801	1909.167		
50				4.45	0.0024
40				31.50	0.0168
30				5.04	0.0027
10				10.99	0.0058
0				4.08	0.0022
-10				3.95	0.0021
-20				2.22	0.0012
-30				3.88	0.0021

Frequency Error vs Voltage

Voltage(V)	Temperature(°C)	F _L (MHz)	F _H (MHz)	Offset(Hz)	Frequency error(ppm)
3.6	20	1850.801	1909.167	25.12	0.0134
4.3				6.49	0.0035

LTE Band 7, 20MHz bandwidth QPSK (worst case of all bandwidths)

Frequency Error vs Temperature

Temperature(°C)	Voltage(V)	F _L (MHz)	F _H (MHz)	Offset(Hz)	Frequency error(ppm)
20	3.88	2500.545	2569.391		
50				-23.06	0.0091
40				7.99	0.0032
30				-21.31	0.0084
10				-4.26	0.0017
0				-19.84	0.0078
-10				-20.31	0.0080
-20				-4.25	0.0017
-30				-29.11	0.0115

Frequency Error vs Voltage

Voltage(V)	Temperature(°C)	F _L (MHz)	F _H (MHz)	Offset(Hz)	Frequency error(ppm)
3.6	20	2500.545	2569.391	12.15	0.0048
4.3				-21.36	0.0084

LTE Band 12, 10MHz bandwidth QPSK (worst case of all bandwidths)

Frequency Error vs Temperature

Temperature(°C)	Voltage(V)	F _L (MHz)	F _H (MHz)	Offset(Hz)	Frequency error(ppm)
20	3.88	699.481	715.519		
50				3.86	0.0055
40				1.95	0.0028
30				-3.75	0.0053
10				3.21	0.0045
0				1.67	0.0024
-10				0.57	0.0008
-20				2.68	0.0038
-30				0.04	0.0001

Frequency Error vs Voltage

Voltage(V)	Temperature(°C)	F _L (MHz)	F _H (MHz)	Offset(Hz)	Frequency error(ppm)
3.6	20	699.481	715.519	4.19	0.0059
4.3				0.93	0.0013

LTE Band 13, 10MHz bandwidth QPSK (worst case of all bandwidths)

Frequency Error vs Temperature

Temperature(°C)	Voltage(V)	F _L (MHz)	F _H (MHz)	Offset(Hz)	Frequency error(ppm)
20	3.88	777.465	786.535		
50				0.74	0.0009
40				-0.09	0.0001
30				0.16	0.0002
10				0.20	0.0003
0				1.30	0.0017
-10				0.83	0.0011
-20				-1.75	0.0022
-30				0.16	0.0002

Frequency Error vs Voltage

Voltage(V)	Temperature(°C)	F _L (MHz)	F _H (MHz)	Offset(Hz)	Frequency error(ppm)
3.6	20	777.465	786.535	0.99	0.0013
4.3				-0.56	0.0007

LTE Band 26(814MHz~824MHz), 10MHz bandwidth QPSK (worst case of all bandwidths)
Frequency Error vs Temperature

Temperature(°C)	Voltage(V)	F _L (MHz)	F _H (MHz)	Offset(Hz)	Frequency error(ppm)
20	3.88	814.385	823.611		
50				-11.47	0.0140
40				-12.27	0.0150
30				-21.66	0.0264
10				-12.63	0.0154
0				-12.32	0.0150
-10				-12.36	0.0151
-20				-11.94	0.0146
-30				-17.85	0.0218

Frequency Error vs Voltage

Voltage(V)	Temperature(°C)	F _L (MHz)	F _H (MHz)	Offset(Hz)	Frequency error(ppm)
3.6	20	814.385	823.611	-12.86	0.0157
4.3				-13.96	0.0170

LTE Band 26(824MHz~849MHz), 15MHz bandwidth QPSK (worst case of all bandwidths)
Frequency Error vs Temperature

Temperature(°C)	Voltage(V)	F _L (MHz)	F _H (MHz)	Offset(Hz)	Frequency error(ppm)
20	3.88	824.529	848.471		
50				-0.30	0.0004
40				-0.66	0.0008
30				-0.41	0.0005
10				7.10	0.0085
0				3.15	0.0038
-10				2.62	0.0031
-20				0.49	0.0006
-30				1.90	0.0023

Frequency Error vs Voltage

Voltage(V)	Temperature(°C)	F _L (MHz)	F _H (MHz)	Offset(Hz)	Frequency error(ppm)
3.6	20	824.529	848.471	-0.44	0.0005
4.3				-0.01	0.0000

LTE Band 41, 20MHz bandwidth QPSK (worst case of all bandwidths)

Frequency Error vs Temperature

Temperature(°C)	Voltage(V)	F _L (MHz)	F _H (MHz)	Offset(Hz)	Frequency error(ppm)
20	3.88	2496.417	2689.455		
50				-0.34	0.0001
40				-0.24	0.0001
30				-0.39	0.0002
10				0.44	0.0002
0				-2.86	0.0011
-10				1.09	0.0004
-20				-2.70	0.0010
-30				-1.03	0.0004

Frequency Error vs Voltage

Voltage(V)	Temperature(°C)	F _L (MHz)	F _H (MHz)	Offset(Hz)	Frequency error(ppm)
3.6	20	2496.417	2689.455	-2.49	0.0010
4.3				-0.59	0.0002

LTE Band 66, 20MHz bandwidth QPSK (worst case of all bandwidths)

Frequency Error vs Temperature

Temperature(°C)	Voltage(V)	F _L (MHz)	F _H (MHz)	Offset(Hz)	Frequency error(ppm)
20	3.88	1710.801	1779.167		
50				19.86	0.0114
40				-7.52	0.0043
30				-3.36	0.0019
10				19.57	0.0112
0				21.47	0.0123
-10				-3.92	0.0022
-20				-3.96	0.0023
-30				-1.52	0.0009

Frequency Error vs Voltage

Voltage(V)	Temperature(°C)	F _L (MHz)	F _H (MHz)	Offset(Hz)	Frequency error(ppm)
3.6	20	1710.801	1779.167	20.91	0.0120
4.3				-1.76	0.0010

LTE CA band 7C, 20MHz+20MHz bandwidth QPSK(worst case of all bandwidths)
Frequency Error vs Voltage

Temperature(°C)	Voltage(V)	FL(MHz)	FH(MHz)	Offset(Hz)	Frequency error(ppm)
20	3.88	2500.440	2569.540		
50				4.02	0.0016
40				10.64	0.0042
30				11.54	0.0046
10				11.59	0.0046
0				-4.09	0.0016
-10				9.04	0.0036
-20				19.51	0.0077
-30				9.27	0.0037

Frequency Error vs Voltage

Voltage(V)	Temperature(°C)	FL(MHz)	FH(MHz)	Offset(Hz)	Frequency error(ppm)
3.6	20	2500.440	2569.540	4.96	0.0020
4.3				-0.33	0.0001

LTE CA band 38C, 20MHz+20MHz bandwidth QPSK(worst case of all bandwidths)
Frequency Error vs Voltage

Temperature(°C)	Voltage(V)	FL(MHz)	FH(MHz)	Offset(Hz)	Frequency error(ppm)
20	3.88	2570.460	2619.520		
50				-0.60	0.0002
40				-1.03	0.0004
30				-2.06	0.0008
10				1.40	0.0005
0				0.27	0.0001
-10				-0.63	0.0002
-20				-1.85	0.0007
-30				-2.69	0.0010

Frequency Error vs Voltage

Voltage(V)	Temperature(°C)	FL(MHz)	FH(MHz)	Offset(Hz)	Frequency error(ppm)
3.6	20	2570.460	2619.520	0.30	0.0001
4.3				-0.53	0.0002

Note: Expanded measurement uncertainty is $U = 0.01 \text{ PPM}$, $k = 2$.

A.4 Occupied Bandwidth

Occupied bandwidth measurements are only provided for selected frequencies in order to reduce the amount of submitted data. Data were taken at the mid frequencies frequency. The table below lists the measured 99% BW. Spectrum analyzer plots are included on the following pages.

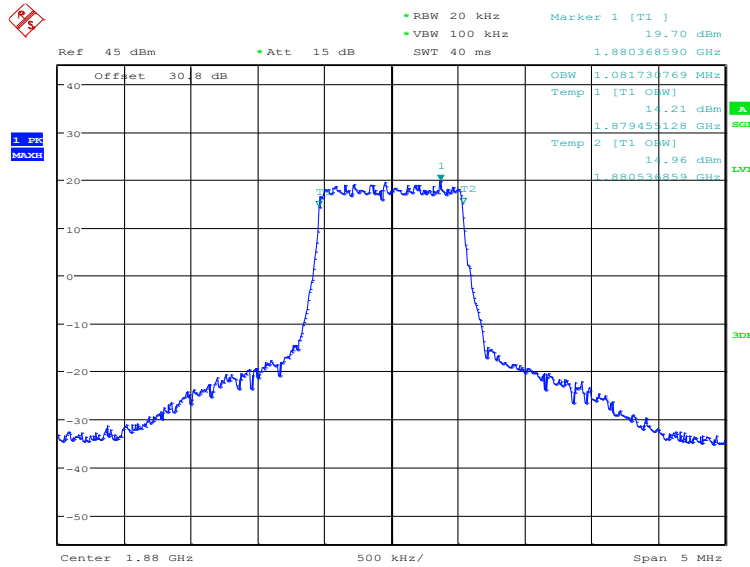
The measurement method is from ANSI C63.26:

- a) The spectrum analyzer center frequency is set to the nominal EUT channel center frequency. The frequency span for the spectrum analyzer shall be set wide enough to capture all modulation products including the emission skirts.
- b) The nominal IF filter 3 dB bandwidth (RBW) shall be in the range of 1% to 5% of the anticipated OBW, and the VBW shall be set $\geq 3 \times \text{RBW}$.
- c) Set the reference level of the instrument as required to prevent the signal amplitude from exceeding the maximum spectrum analyzer input mixer level for linear operation.
- d) Set the detection mode to peak, and the trace mode to max-hold.

LTE band 2, 1.4MHz (99%)

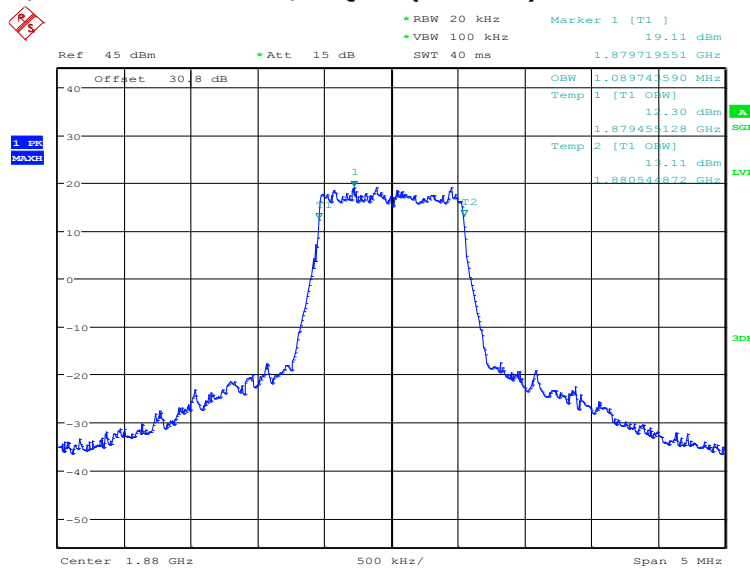
Frequency(MHz)	Occupied Bandwidth (99%)(kHz)	
1880.0	QPSK	16QAM
	1081.73	1089.74

LTE band 2, 1.4MHz Bandwidth, QPSK (99% BW)



Date: 4.NOV.2024 09:34:53

LTE band 2, 1.4MHz Bandwidth, 16QAM (99% BW)

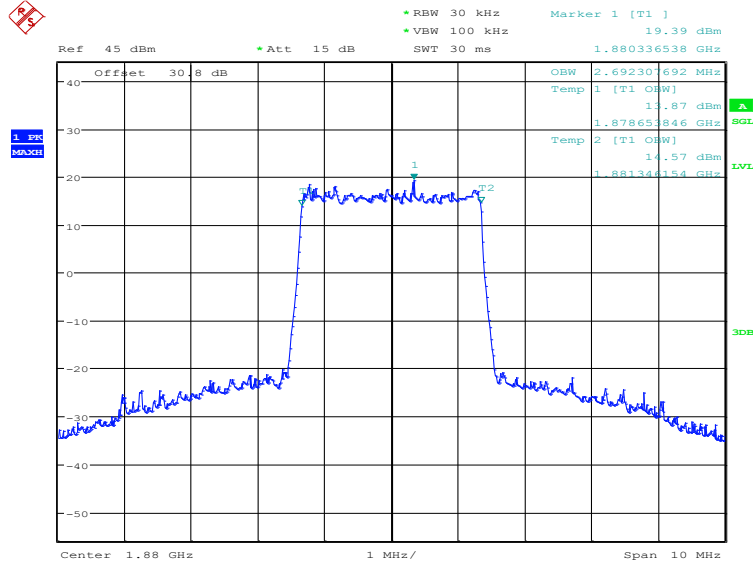


Date: 4.NOV.2024 09:35:33

LTE band 2, 3MHz (99%)

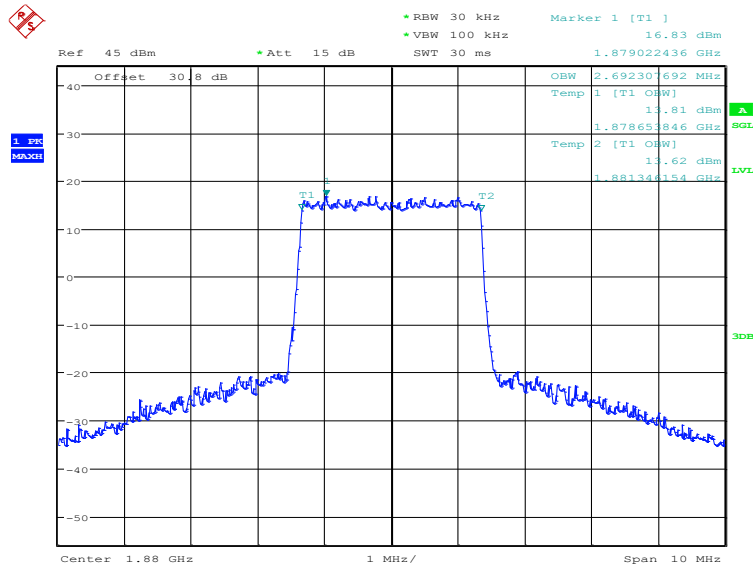
Frequency(MHz)	Occupied Bandwidth (99%)(kHz)	
1880.0	QPSK	16QAM
	2692.31	2692.31

LTE band 2, 3MHz Bandwidth, QPSK (99% BW)



Date: 4.NOV.2024 09:36:15

LTE band 2, 3MHz Bandwidth, 16QAM (99% BW)

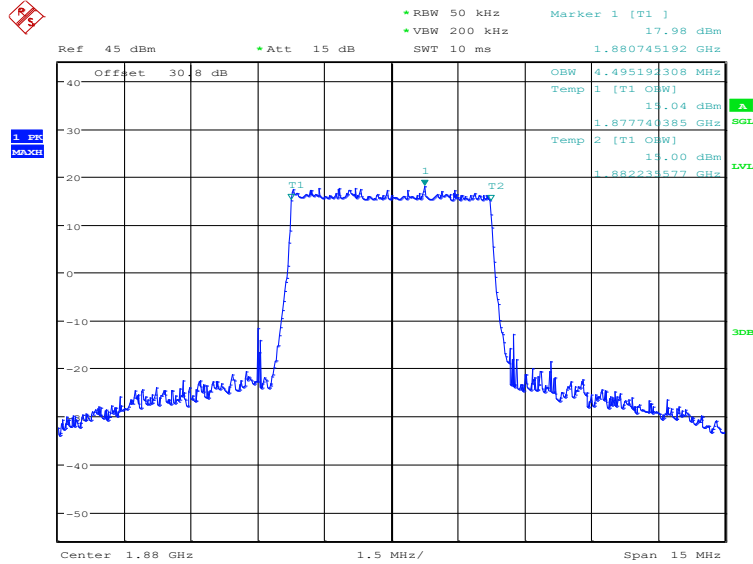


Date: 4.NOV.2024 09:36:55

LTE band 2, 5MHz (99%)

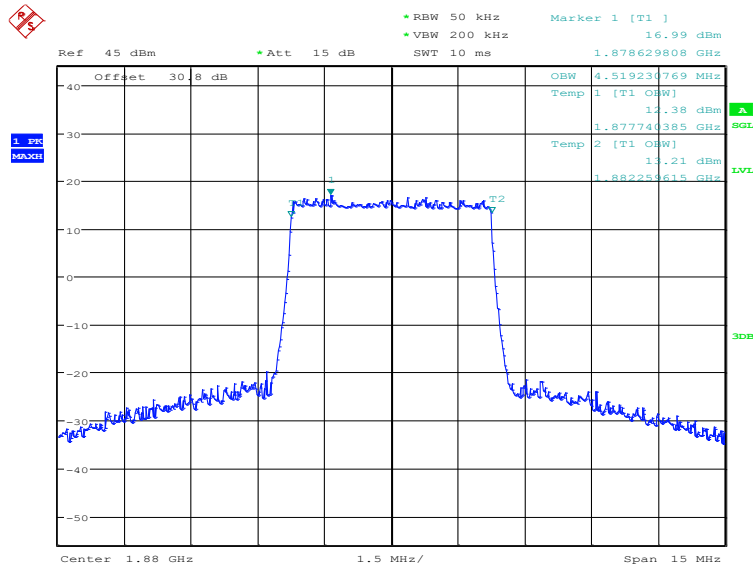
Frequency(MHz)	Occupied Bandwidth (99%)(kHz)	
1880.0	QPSK	16QAM
	4495.19	4519.23

LTE band 2, 5MHz Bandwidth, QPSK (99% BW)



Date: 4.NOV.2024 09:37:37

LTE band 2, 5MHz Bandwidth, 16QAM (99% BW)

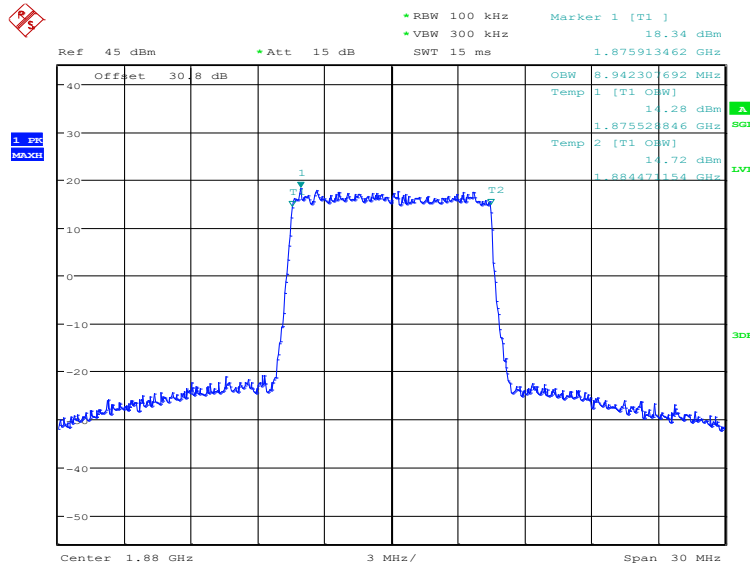


Date: 4.NOV.2024 09:38:17

LTE band 2, 10MHz (99%)

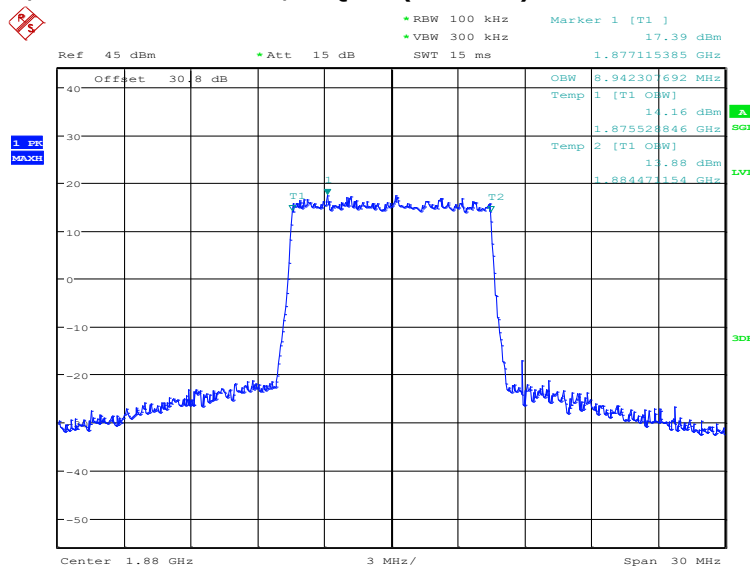
Frequency(MHz)	Occupied Bandwidth (99%)(kHz)	
1880.0	QPSK	16QAM
	8942.31	8942.31

LTE band 2, 10MHz Bandwidth, QPSK (99% BW)



Date: 4.NOV.2024 09:38:59

LTE band 2, 10MHz Bandwidth, 16QAM (99% BW)

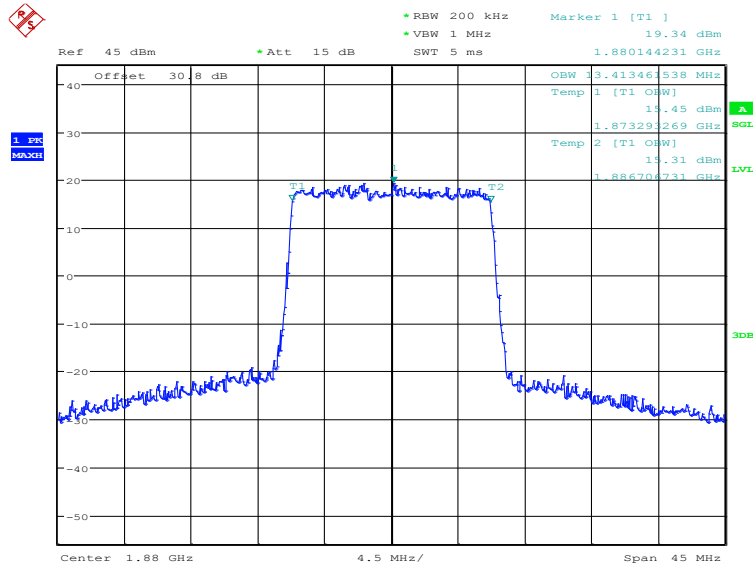


Date: 4.NOV.2024 09:39:39

LTE band 2, 15MHz (99%)

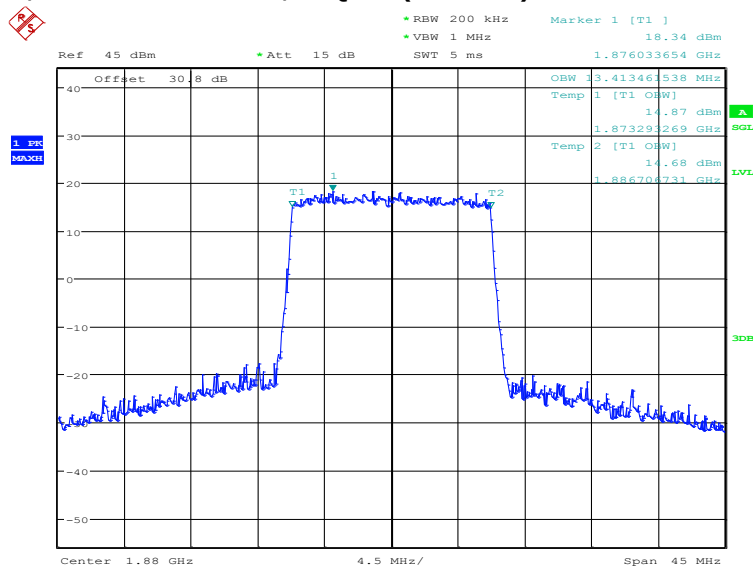
Frequency(MHz)	Occupied Bandwidth (99%)(kHz)	
1880.0	QPSK	16QAM
	13413.46	13413.46

LTE band 2, 15MHz Bandwidth, QPSK (99% BW)



Date: 4.NOV.2024 09:40:22

LTE band 2, 15MHz Bandwidth, 16QAM (99% BW)

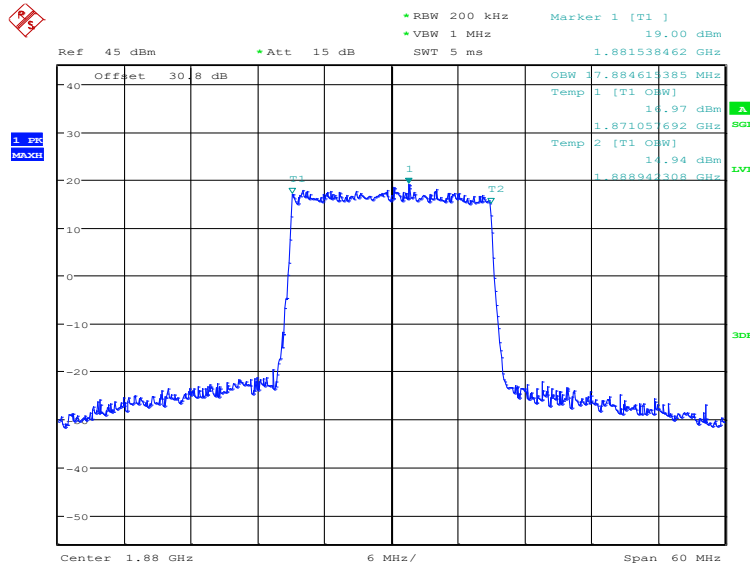


Date: 4.NOV.2024 09:41:02

LTE band 2, 20MHz (99%)

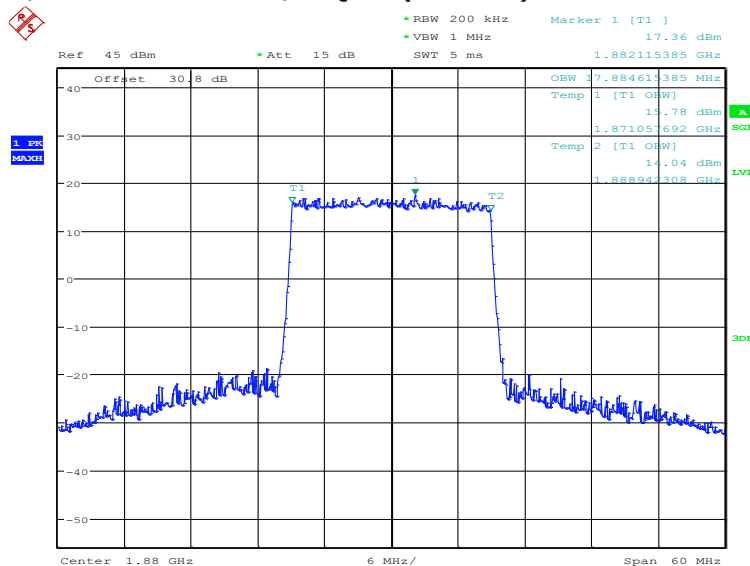
Frequency(MHz)	Occupied Bandwidth (99%)(kHz)	
1880.0	QPSK	16QAM
	17884.62	17884.62

LTE band 2, 20MHz Bandwidth, QPSK (99% BW)



Date: 4.NOV.2024 09:41:44

LTE band 2, 20MHz Bandwidth, 16QAM (99% BW)

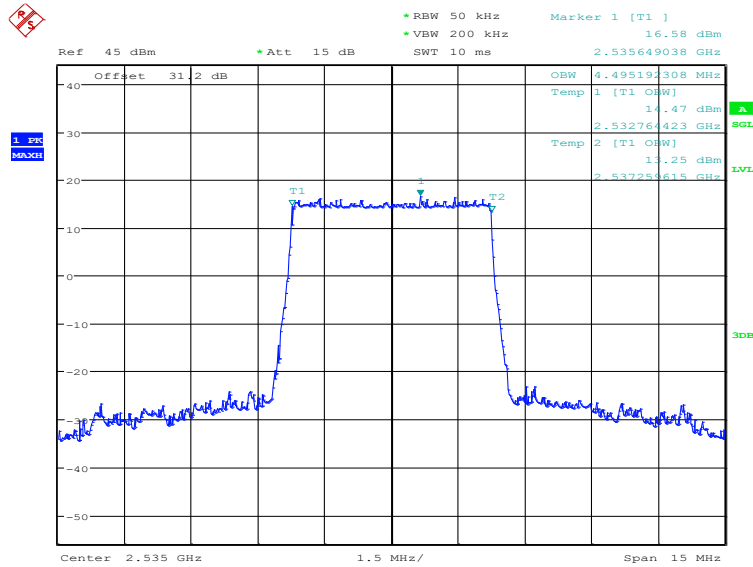


Date: 4.NOV.2024 09:42:24

LTE band 7, 5MHz (99%)

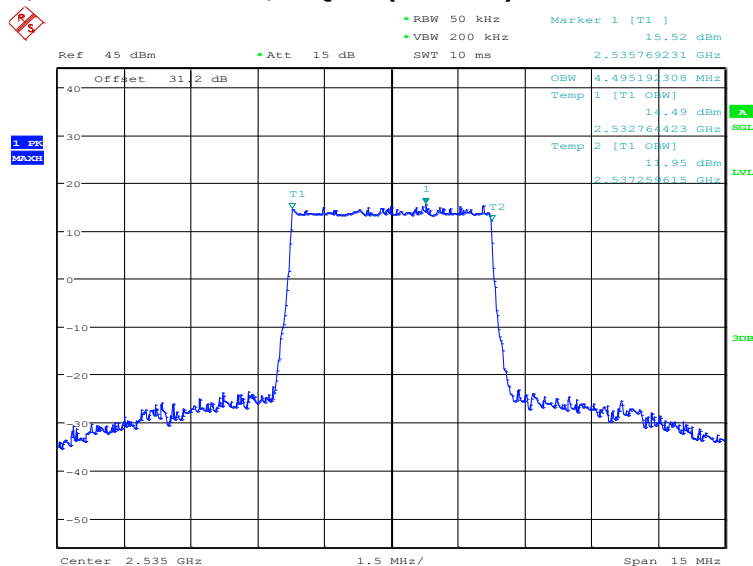
Frequency(MHz)	Occupied Bandwidth (99%)(kHz)	
2535.0	QPSK	16QAM
	4495.19	4495.19

LTE band 7, 5MHz Bandwidth, QPSK (99% BW)



Date: 4.NOV.2024 13:42:05

LTE band 7, 5MHz Bandwidth, 16QAM (99% BW)

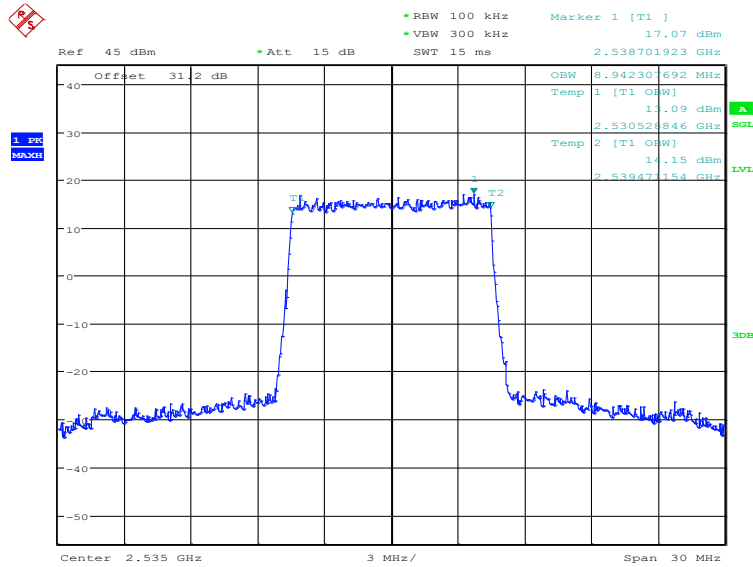


Date: 4.NOV.2024 13:42:45

LTE band 7, 10MHz (99%)

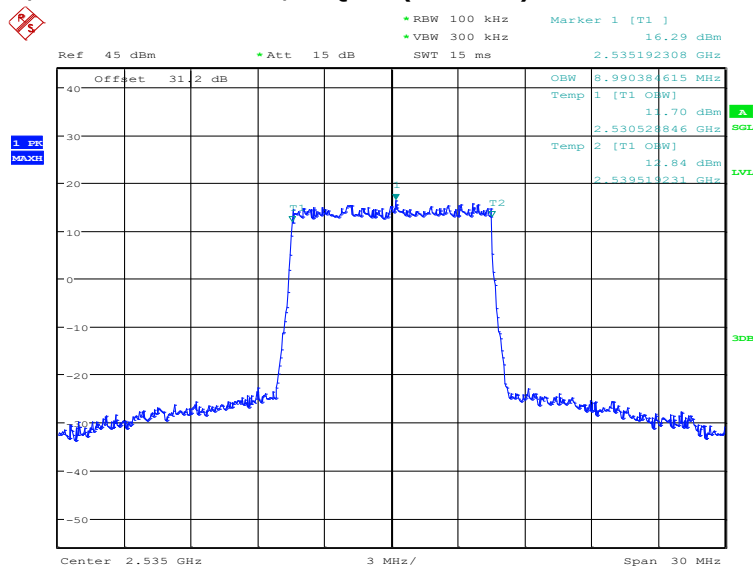
Frequency(MHz)	Occupied Bandwidth (99%)(kHz)	
2535.0	QPSK	16QAM
	8942.31	8990.38

LTE band 7, 10MHz Bandwidth, QPSK (99% BW)



Date: 4.NOV.2024 13:43:27

LTE band 7, 10MHz Bandwidth, 16QAM (99% BW)

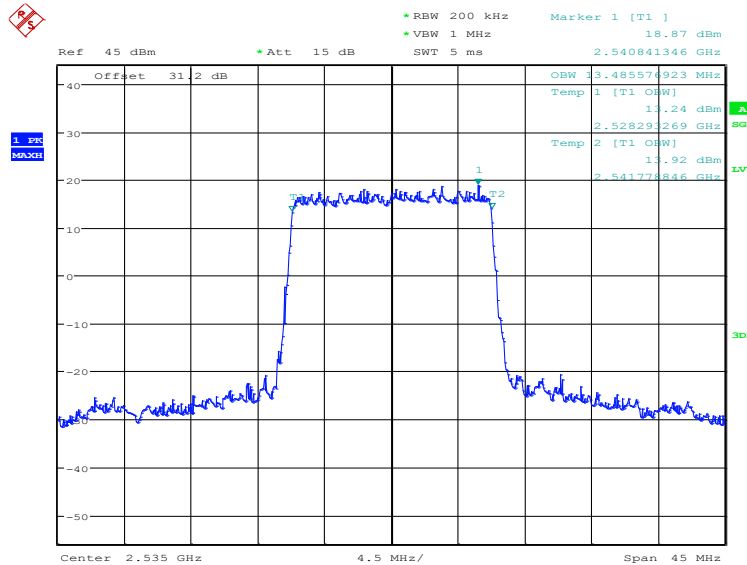


Date: 4.NOV.2024 13:44:07

LTE band 7, 15MHz (99%)

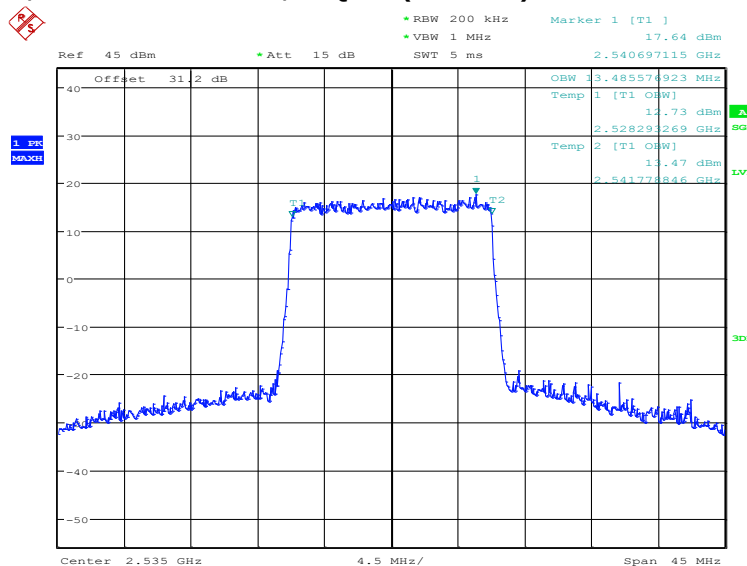
Frequency(MHz)	Occupied Bandwidth (99%)(kHz)	
2535.0	QPSK	16QAM
	13485.58	13485.58

LTE band 7, 15MHz Bandwidth, QPSK (99% BW)



Date: 4.NOV.2024 13:44:49

LTE band 7, 15MHz Bandwidth, 16QAM (99% BW)

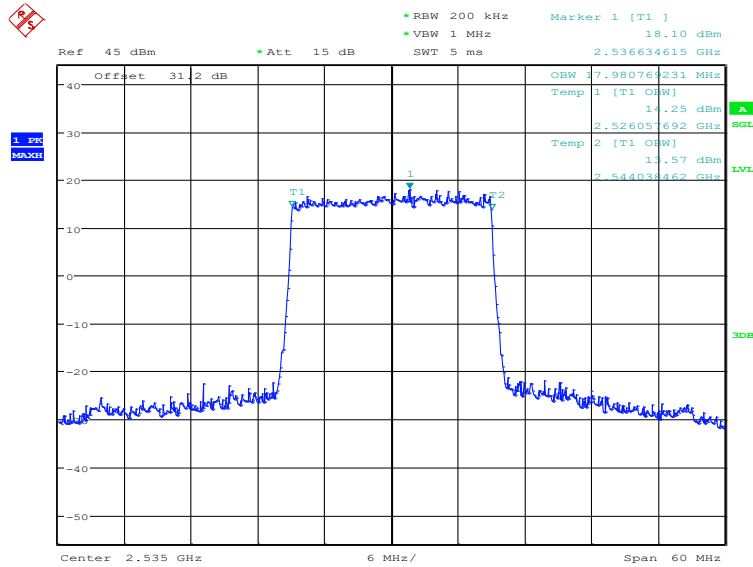


Date: 4.NOV.2024 13:45:29

LTE band 7, 20MHz (99%)

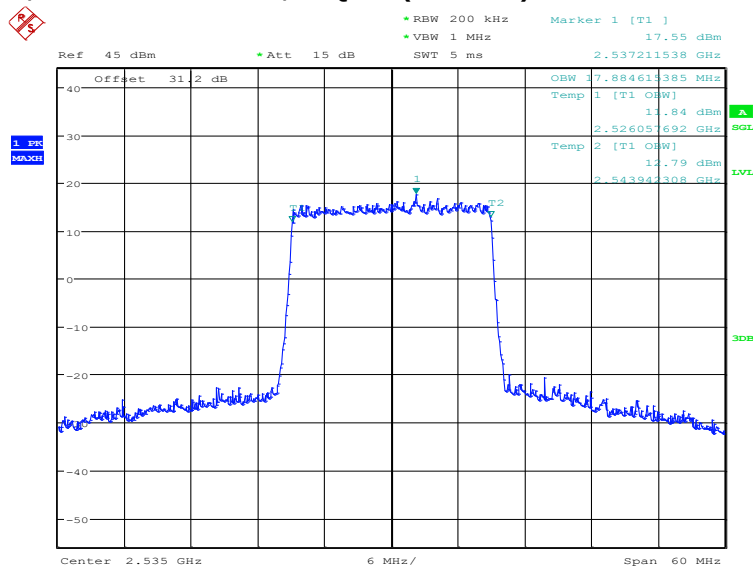
Frequency(MHz)	Occupied Bandwidth (99%)(kHz)	
2535.0	QPSK	16QAM
	17980.77	17884.62

LTE band 7, 20MHz Bandwidth, QPSK (99% BW)



Date: 4.NOV.2024 13:46:12

LTE band 7, 20MHz Bandwidth, 16QAM (99% BW)

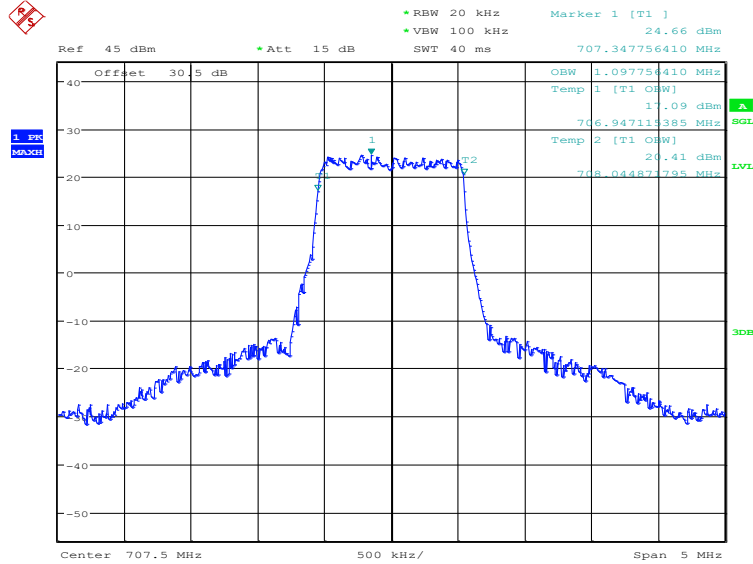


Date: 4.NOV.2024 13:46:52

LTE band 12, 1.4MHz (99%)

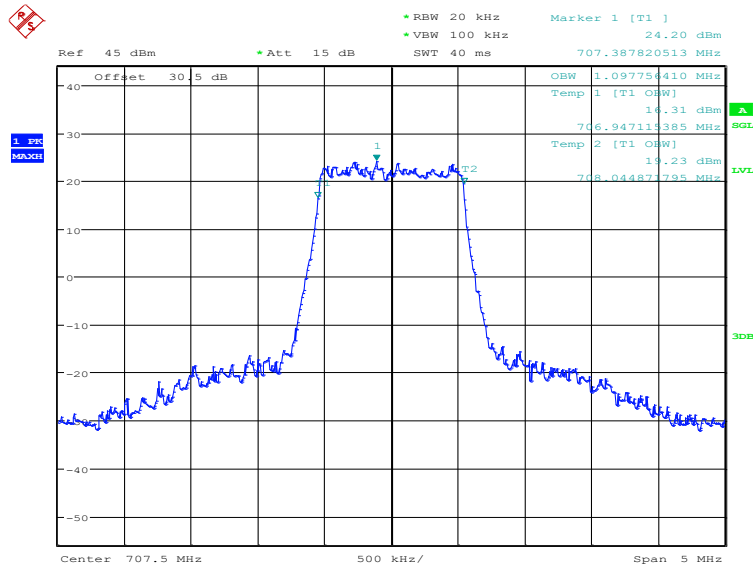
Frequency(MHz)	Occupied Bandwidth (99%)(kHz)	
707.5	QPSK	16QAM
	1097.76	1097.76

LTE band 12, 1.4MHz Bandwidth, QPSK (99% BW)



Date: 4.NOV.2024 09:44:02

LTE band 12, 1.4MHz Bandwidth, 16QAM (99% BW)

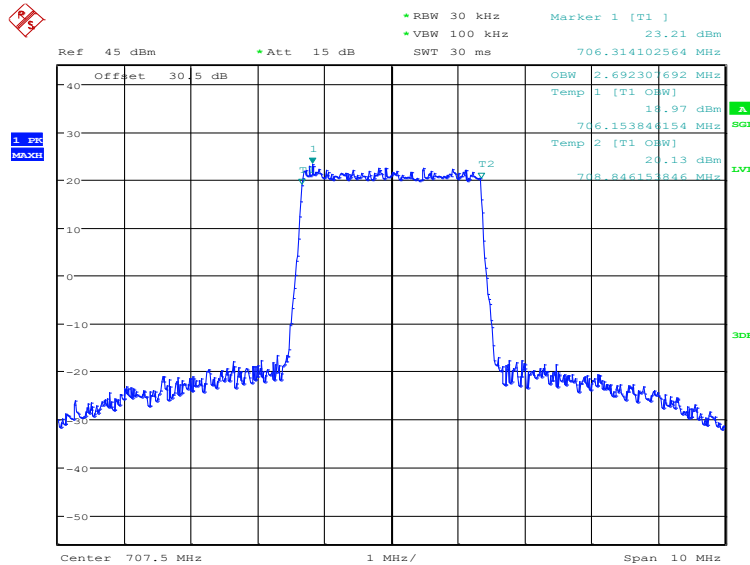


Date: 4.NOV.2024 09:44:42

LTE band 12, 3MHz (99%)

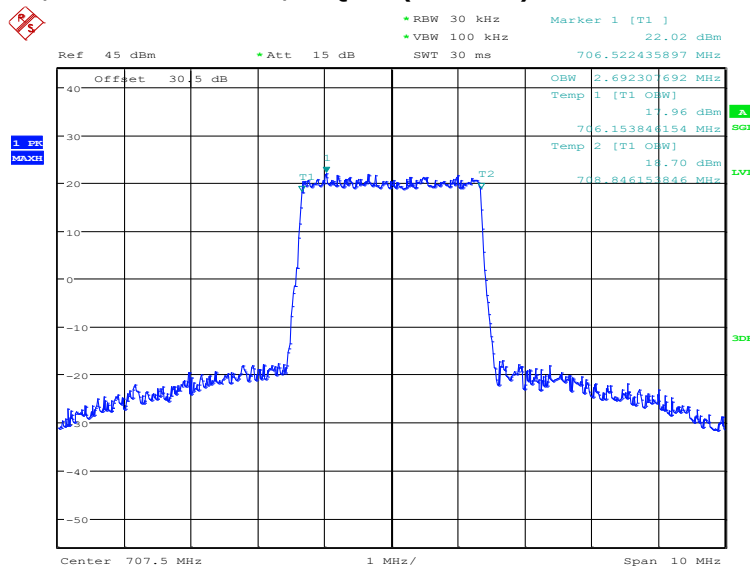
Frequency(MHz)	Occupied Bandwidth (99%)(kHz)	
707.5	QPSK	16QAM
	2692.31	2692.31

LTE band 12, 3MHz Bandwidth, QPSK (99% BW)



Date: 4.NOV.2024 09:45:24

LTE band 12, 3MHz Bandwidth, 16QAM (99% BW)

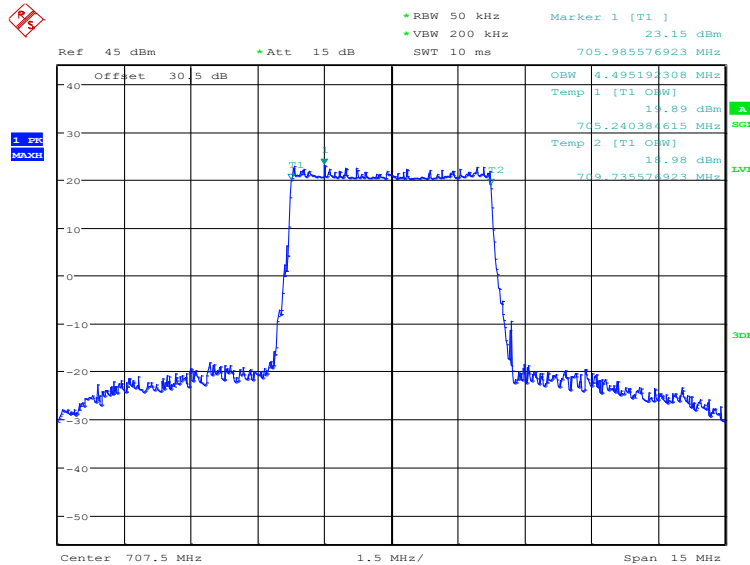


Date: 4.NOV.2024 09:46:04

LTE band 12, 5MHz (99%)

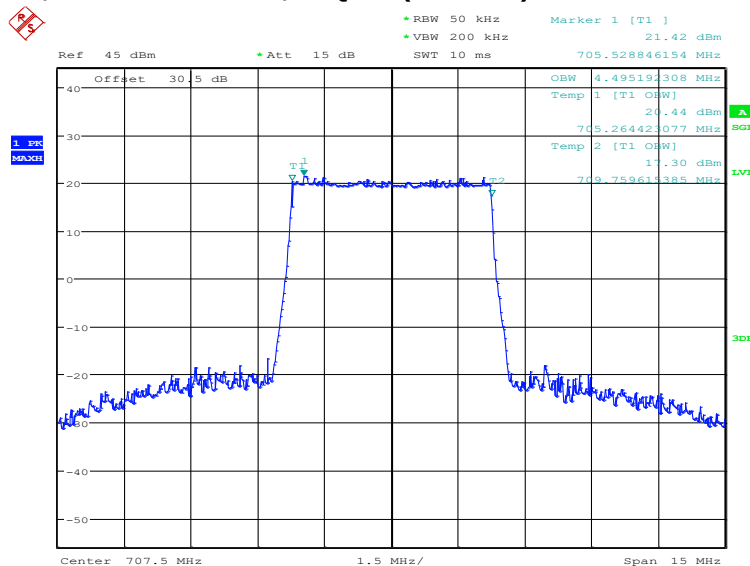
Frequency(MHz)	Occupied Bandwidth (99%)(kHz)	
707.5	QPSK	16QAM
	4495.19	4495.19

LTE band 12, 5MHz Bandwidth, QPSK (99% BW)



Date: 4.NOV.2024 09:46:46

LTE band 12, 5MHz Bandwidth, 16QAM (99% BW)

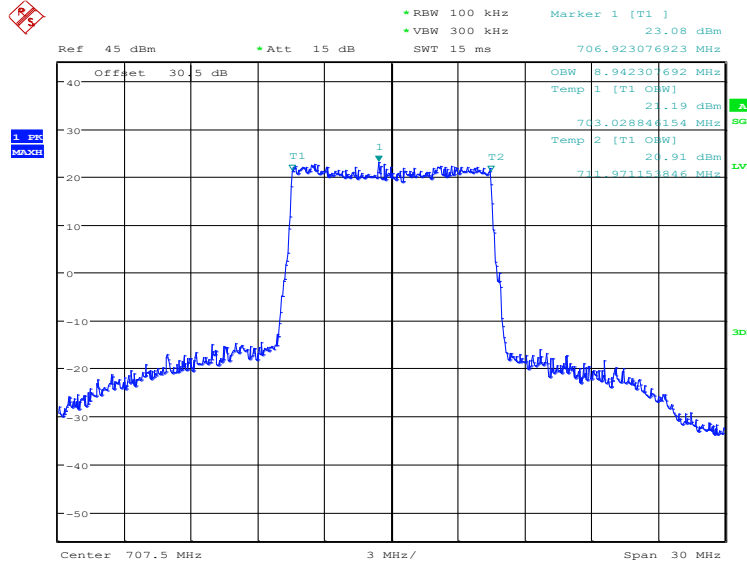


Date: 4.NOV.2024 09:47:26

LTE band 12, 10MHz (99%)

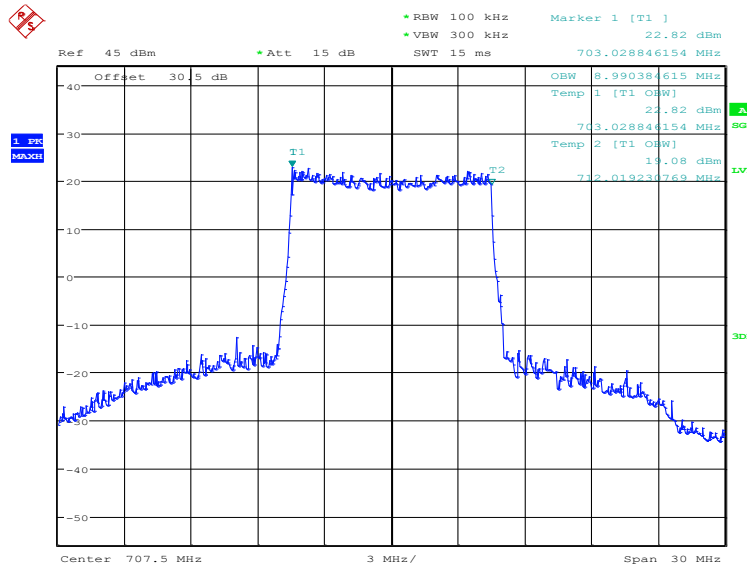
Frequency(MHz)	Occupied Bandwidth (99%)(kHz)	
707.5	QPSK	16QAM
	8942.31	8990.38

LTE band 12, 10MHz Bandwidth, QPSK (99% BW)



Date: 4.NOV.2024 09:48:09

LTE band 12, 10MHz Bandwidth, 16QAM (99% BW)

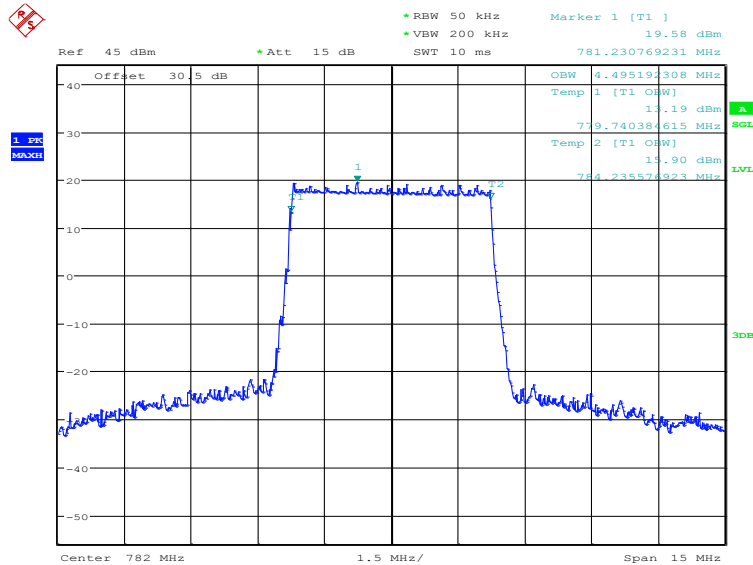


Date: 4.NOV.2024 09:48:49

LTE band 13, 5MHz (99%)

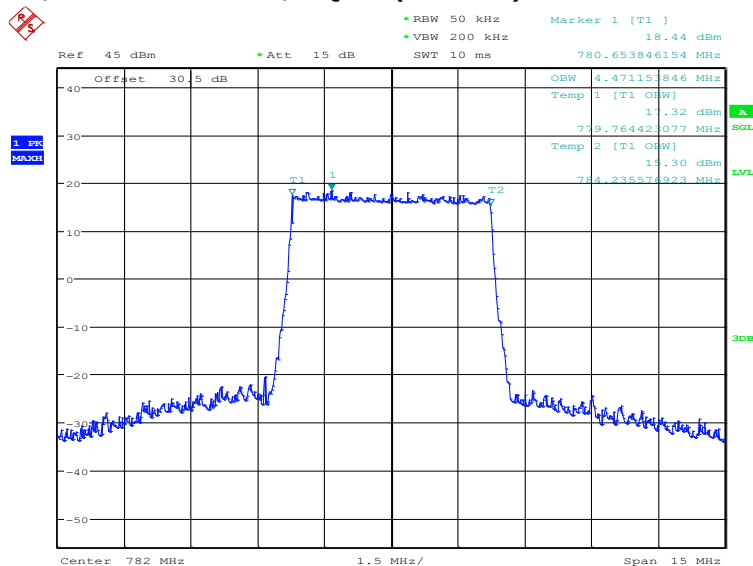
Frequency(MHz)	Occupied Bandwidth (99%)(kHz)	
782.0	QPSK	16QAM
	4495.19	4471.15

LTE band 13, 5MHz Bandwidth, QPSK (99% BW)



Date: 4.NOV.2024 09:49:33

LTE band 13, 5MHz Bandwidth,16QAM (99% BW)

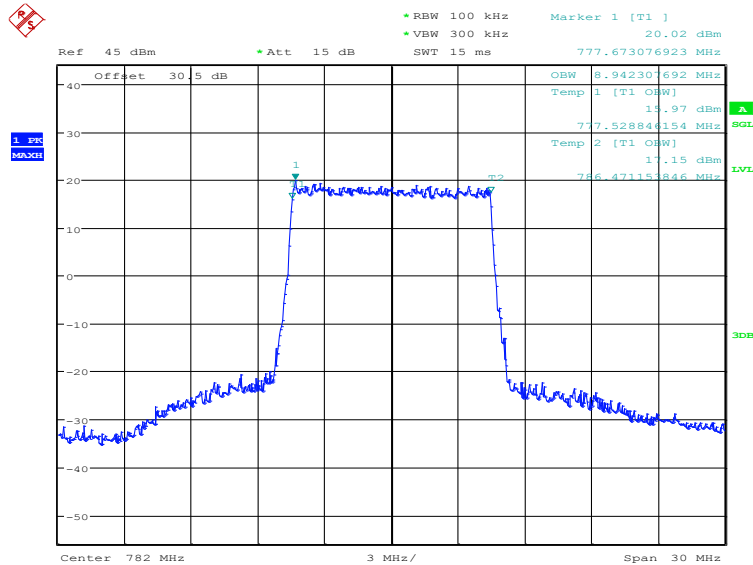


Date: 4.NOV.2024 09:50:13

LTE band 13, 10MHz (99%)

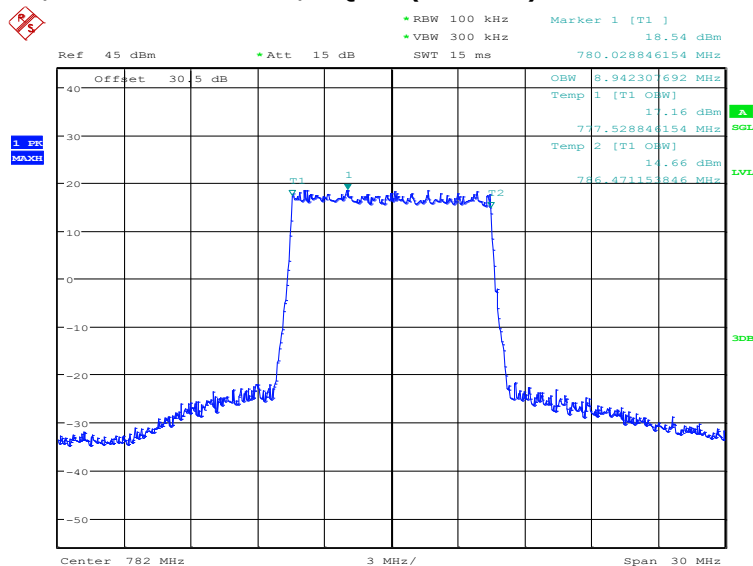
Frequency(MHz)	Occupied Bandwidth (99%)(kHz)	
782.0	QPSK	16QAM
	8942.31	8942.31

LTE band 13, 10MHz Bandwidth, QPSK (99% BW)



Date: 4.NOV.2024 09:50:56

LTE band 13, 10MHz Bandwidth, 16QAM (99% BW)

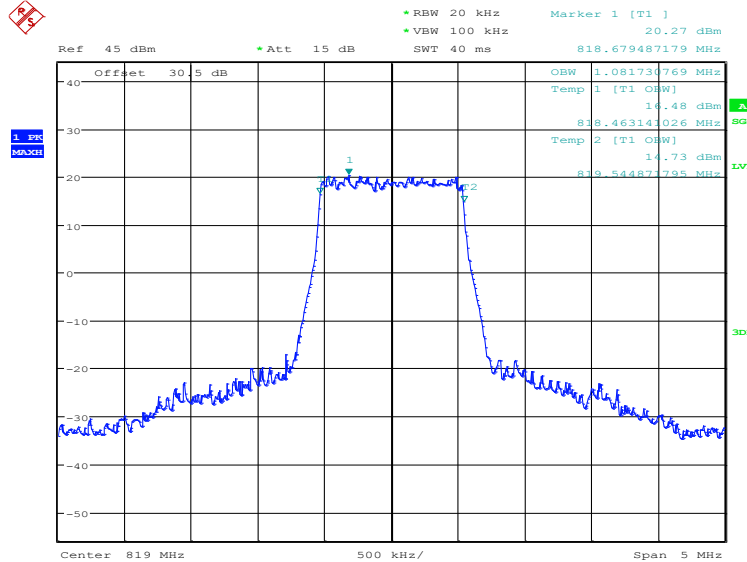


Date: 4.NOV.2024 09:51:36

LTE band 26(814MHz~824MHz), 1.4MHz (99%)

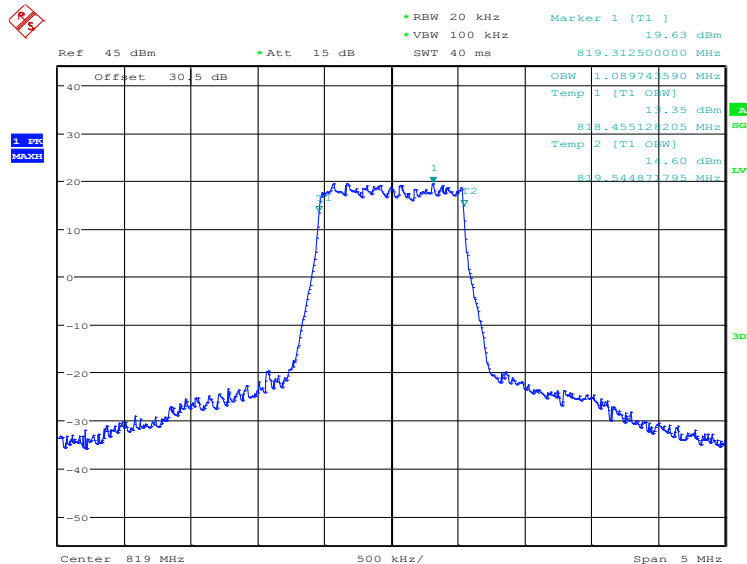
Frequency(MHz)	Occupied Bandwidth (99%)(kHz)	
819.0	QPSK	16QAM
	1081.73	1089.74

LTE band 26(814MHz~824MHz), 1.4MHz Bandwidth, QPSK (99% BW)



Date: 4.NOV.2024 09:59:56

LTE band 26(814MHz~824MHz), 1.4MHz Bandwidth, 16QAM (99% BW)

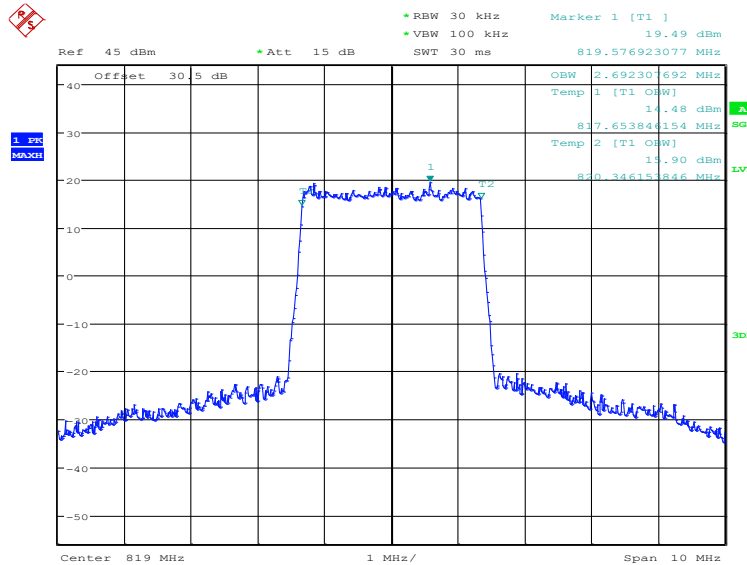


Date: 4.NOV.2024 10:00:36

LTE band 26(814MHz~824MHz), 3MHz (99%)

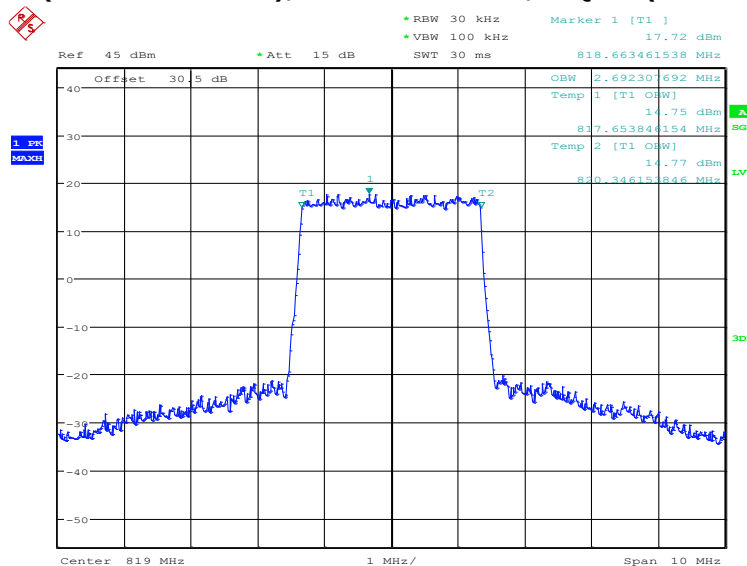
Frequency(MHz)	Occupied Bandwidth (99%)(kHz)	
819.0	QPSK	16QAM
	2692.31	2692.31

LTE band 26(814MHz~824MHz), 3MHz Bandwidth, QPSK (99% BW)



Date: 4.NOV.2024 10:01:18

LTE band 26(814MHz~824MHz), 3MHz Bandwidth, 16QAM (99% BW)

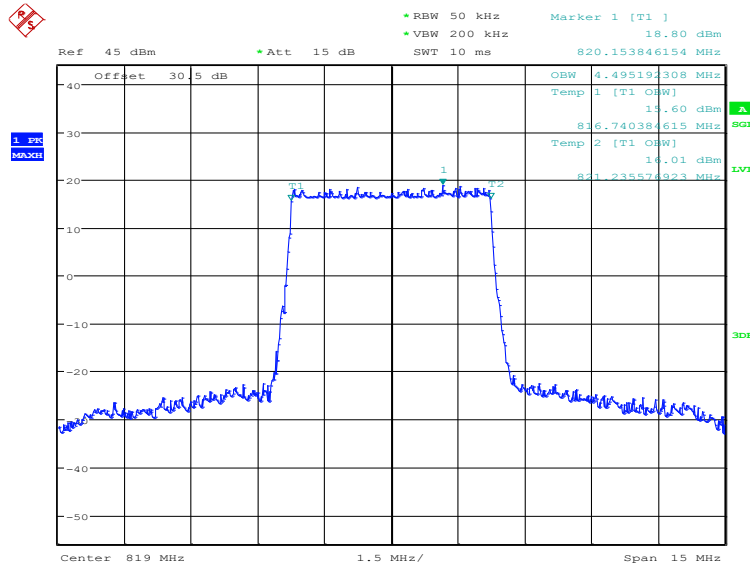


Date: 4.NOV.2024 10:01:59

LTE band 26(814MHz~824MHz), 5MHz (99%)

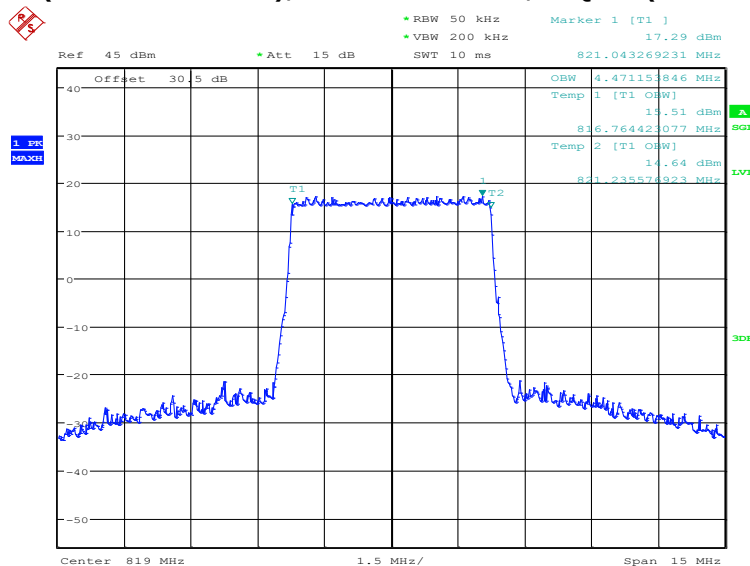
Frequency(MHz)	Occupied Bandwidth (99%)(kHz)	
819.0	QPSK	16QAM
	4495.19	4471.15

LTE band 26(814MHz~824MHz), 5MHz Bandwidth, QPSK (99% BW)



Date: 4.NOV.2024 10:02:41

LTE band 26(814MHz~824MHz), 5MHz Bandwidth, 16QAM (99% BW)

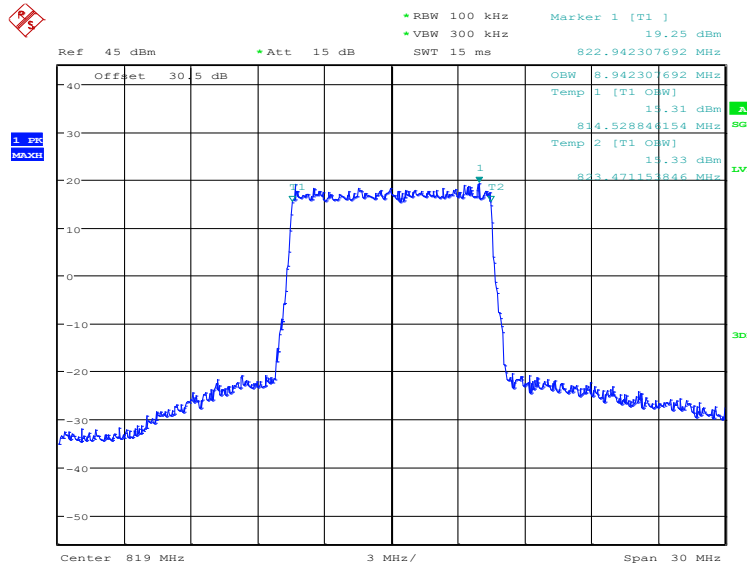


Date: 4.NOV.2024 10:03:21

LTE band 26(814MHz~824MHz), 10MHz (99%)

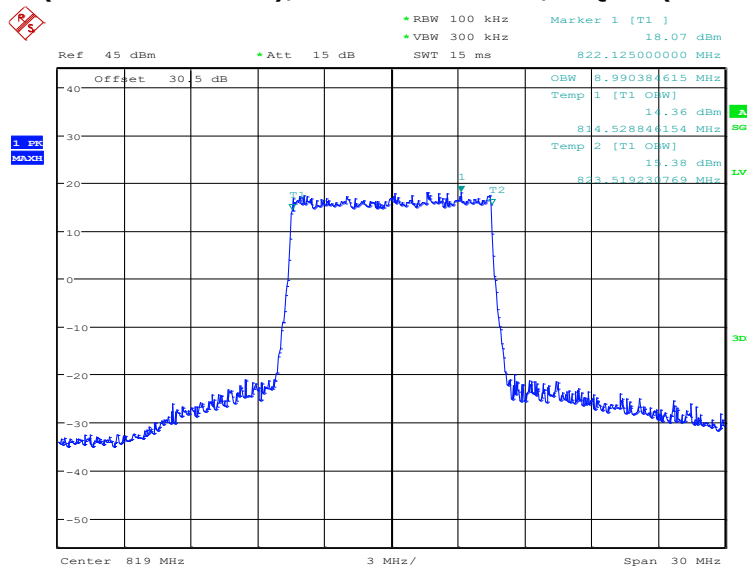
Frequency(MHz)	Occupied Bandwidth (99%)(kHz)	
819.0	QPSK	16QAM
	8942.31	8990.38

LTE band 26(814MHz~824MHz), 10MHz Bandwidth, QPSK (99% BW)



Date: 4.NOV.2024 10:04:03

LTE band 26(814MHz~824MHz), 10MHz Bandwidth, 16QAM (99% BW)

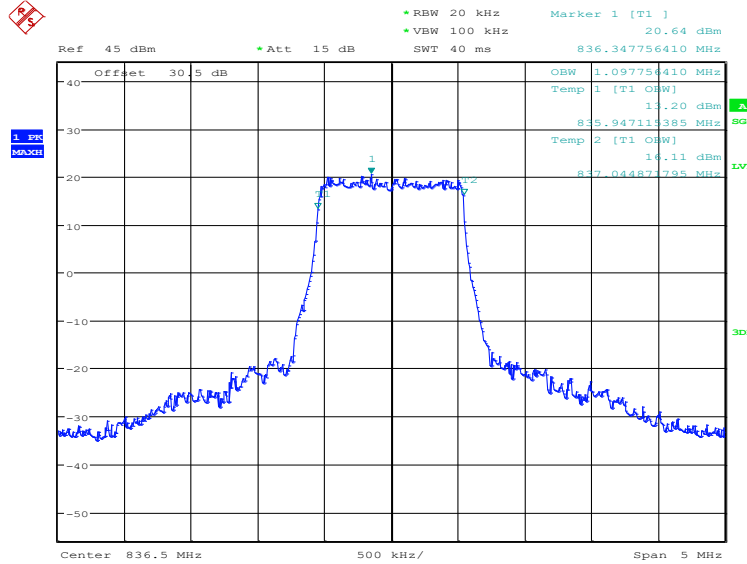


Date: 4.NOV.2024 10:04:43

LTE band 26(824MHz~849MHz), 1.4MHz (99%)

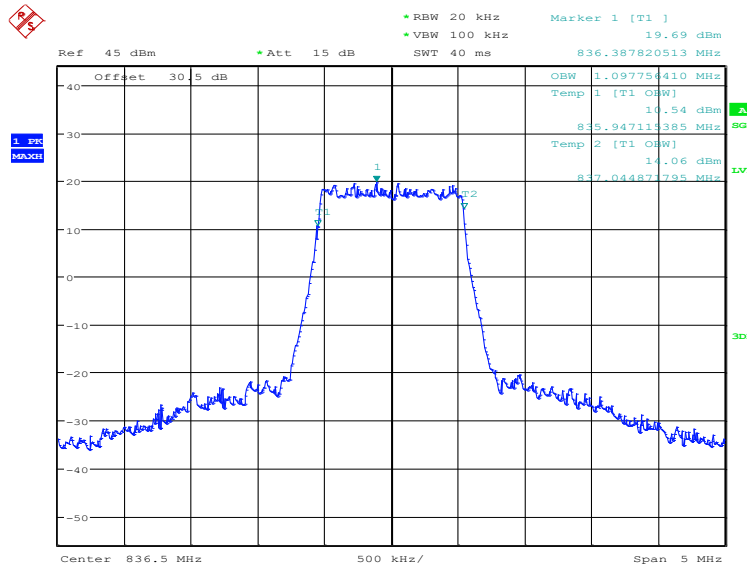
Frequency(MHz)	Occupied Bandwidth (99%)(kHz)	
836.5	QPSK	16QAM
	1097.76	1097.76

LTE band 26(824MHz~849MHz), 1.4MHz Bandwidth, QPSK (99% BW)



Date: 4.NOV.2024 09:52:20

LTE band 26(824MHz~849MHz), 1.4MHz Bandwidth, 16QAM (99% BW)

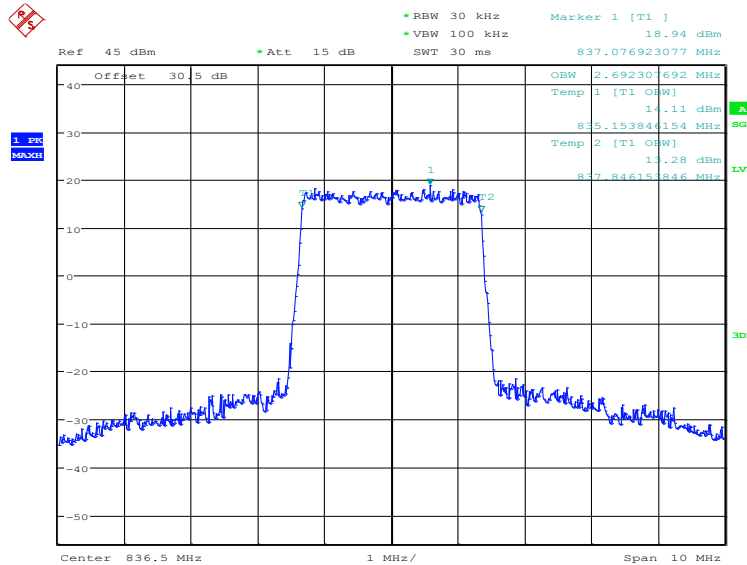


Date: 4.NOV.2024 09:53:01

LTE band 26(824MHz~849MHz), 3MHz (99%)

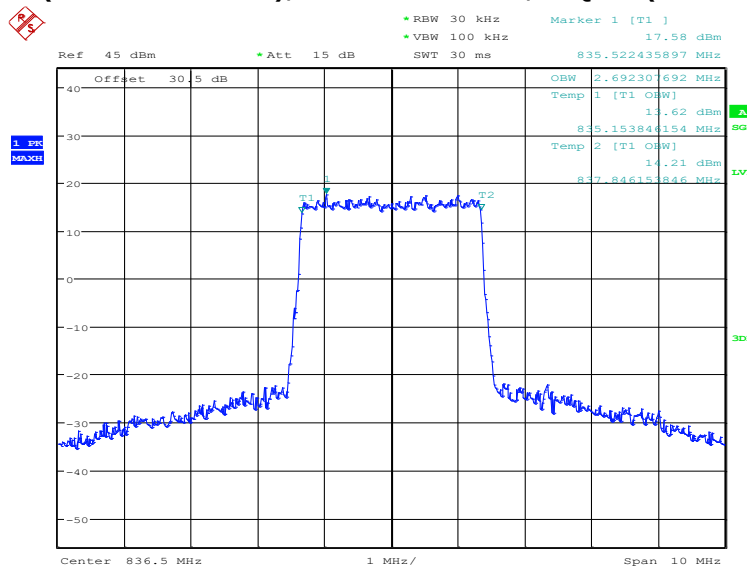
Frequency(MHz)	Occupied Bandwidth (99%)(kHz)	
836.5	QPSK	16QAM
	2692.31	2692.31

LTE band 26(824MHz~849MHz), 3MHz Bandwidth, QPSK (99% BW)



Date: 4.NOV.2024 09:53:43

LTE band 26(824MHz~849MHz), 3MHz Bandwidth, 16QAM (99% BW)

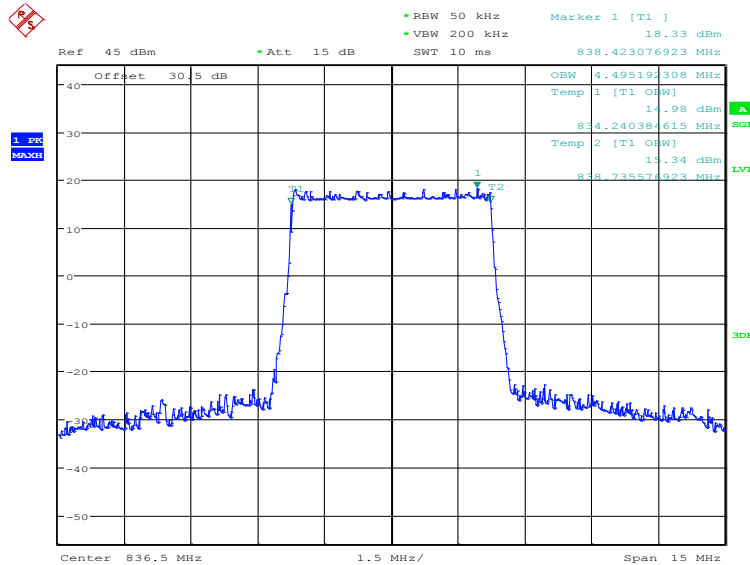


Date: 4.NOV.2024 09:54:23

LTE band 26(824MHz~849MHz), 5MHz (99%)

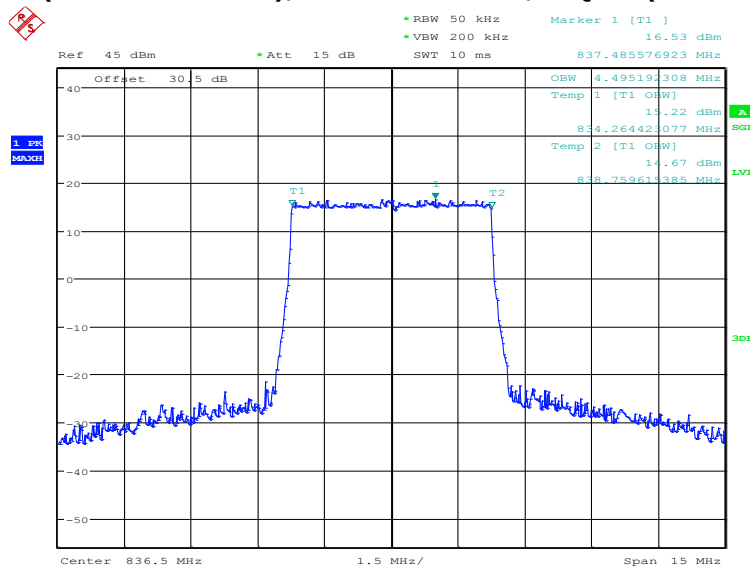
Frequency(MHz)	Occupied Bandwidth (99%)(kHz)	
836.5	QPSK	16QAM
	4495.19	4495.19

LTE band 26(824MHz~849MHz), 5MHz Bandwidth, QPSK (99% BW)



Date: 4.NOV.2024 09:55:05

LTE band 26(824MHz~849MHz), 5MHz Bandwidth, 16QAM (99% BW)

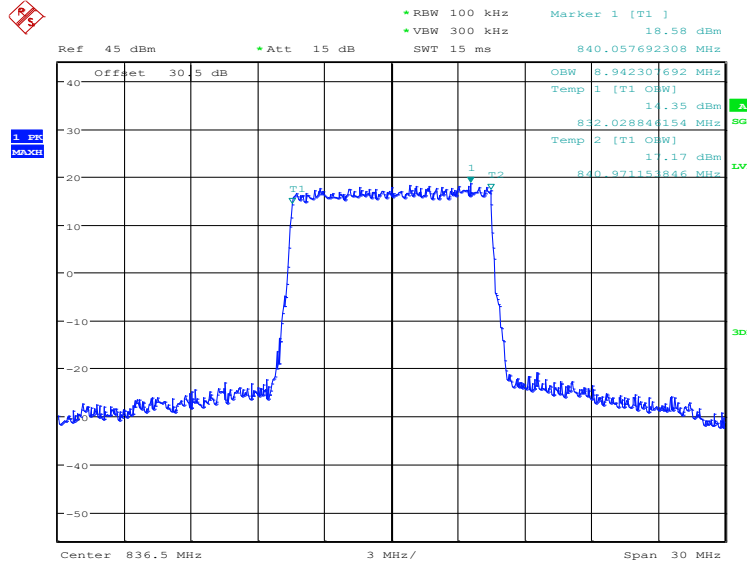


Date: 4.NOV.2024 09:55:45

LTE band 26(824MHz~849MHz), 10MHz (99%)

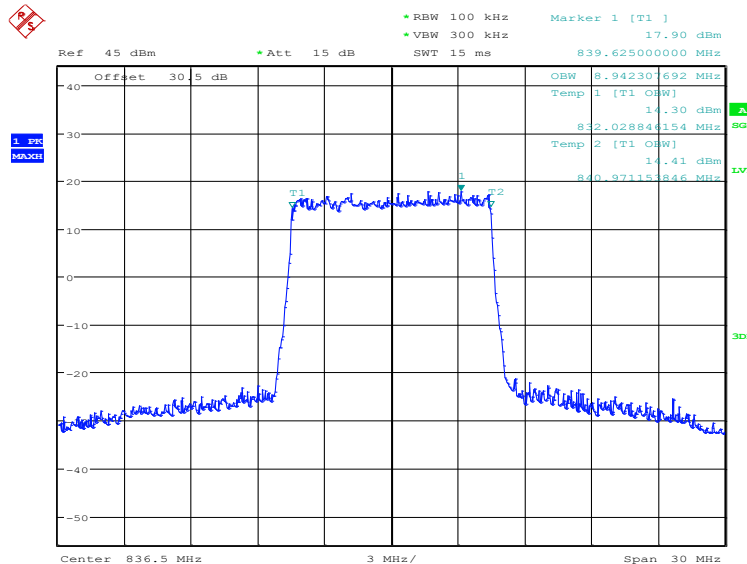
Frequency(MHz)	Occupied Bandwidth (99%)(kHz)	
836.5	QPSK	16QAM
	8942.31	8942.31

LTE band 26(824MHz~849MHz), 10MHz Bandwidth, QPSK (99% BW)



Date: 4.NOV.2024 09:56:27

LTE band 26(824MHz~849MHz), 10MHz Bandwidth, 16QAM (99% BW)

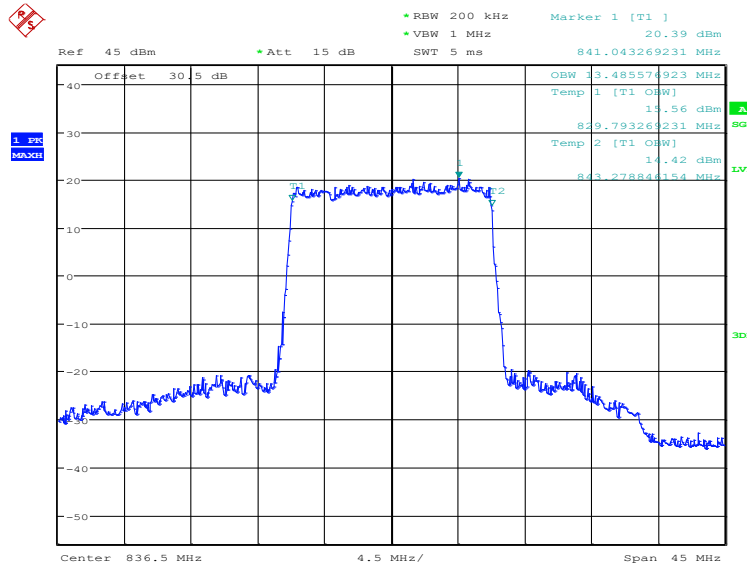


Date: 4.NOV.2024 09:57:10

LTE band 26(824MHz~849MHz), 15MHz (99%)

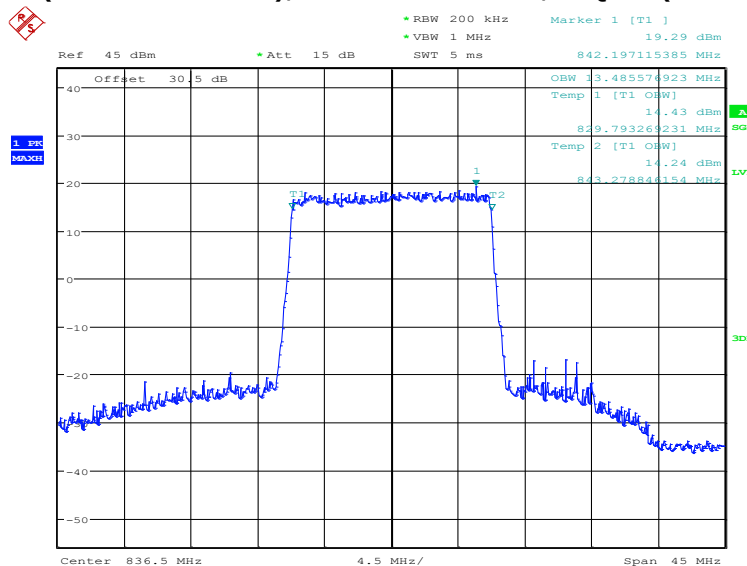
Frequency(MHz)	Occupied Bandwidth (99%)(kHz)	
836.5	QPSK	16QAM
	13485.58	13485.58

LTE band 26(824MHz~849MHz), 15MHz Bandwidth, QPSK (99% BW)



Date: 4.NOV.2024 09:57:53

LTE band 26(824MHz~849MHz), 15MHz Bandwidth, 16QAM (99% BW)

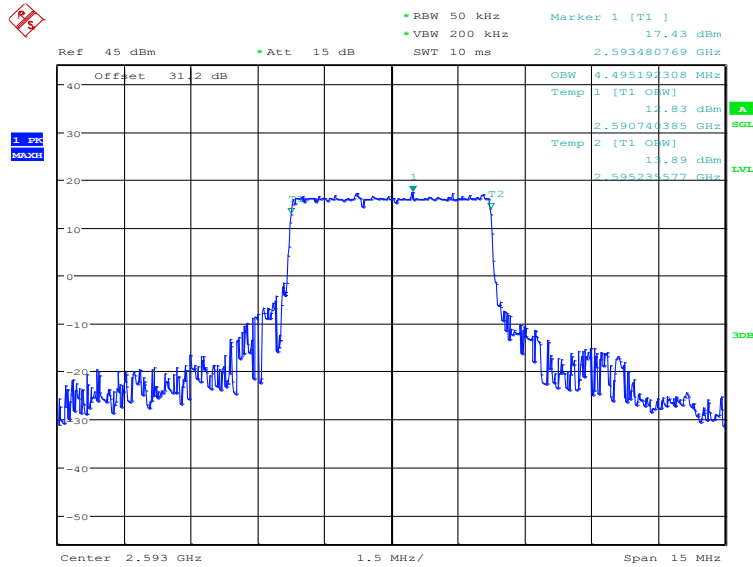


Date: 4.NOV.2024 09:58:33

LTE band 41, 5MHz (99%)

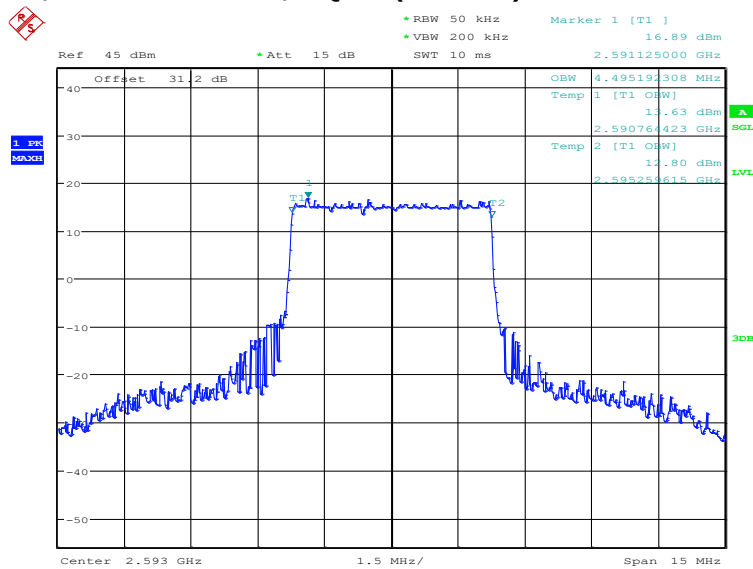
Frequency(MHz)	Occupied Bandwidth (99%)(kHz)	
2593.0	QPSK	16QAM
	4495.19	4495.19

LTE band 41, 5MHz Bandwidth, QPSK (99% BW)



Date: 4.NOV.2024 13:48:18

LTE band 41, 5MHz Bandwidth,16QAM (99% BW)

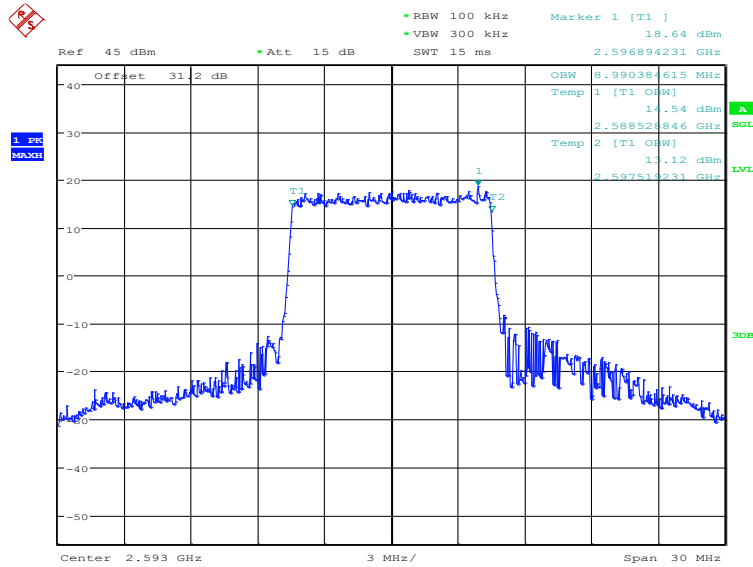


Date: 4.NOV.2024 13:48:58

LTE band 41, 10MHz (99%)

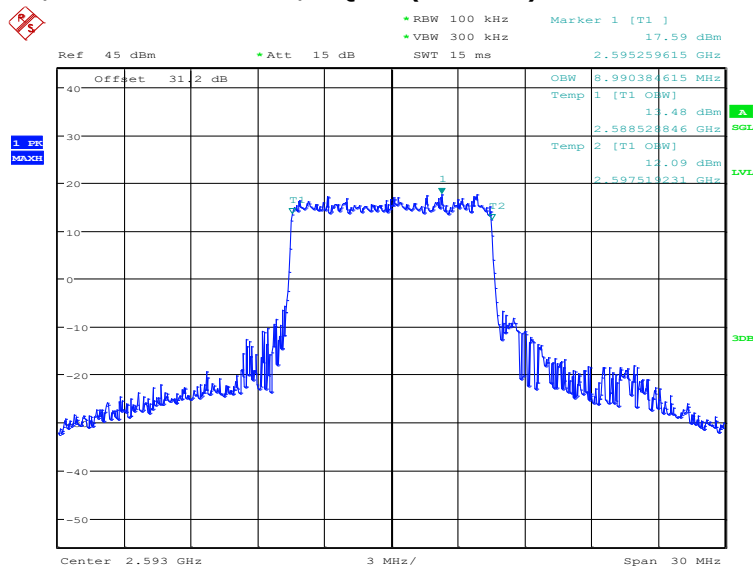
Frequency(MHz)	Occupied Bandwidth (99%)(kHz)	
2593.0	QPSK	16QAM
	8990.38	8990.38

LTE band 41, 10MHz Bandwidth, QPSK (99% BW)



Date: 4.NOV.2024 13:49:40

LTE band 41, 10MHz Bandwidth, 16QAM (99% BW)

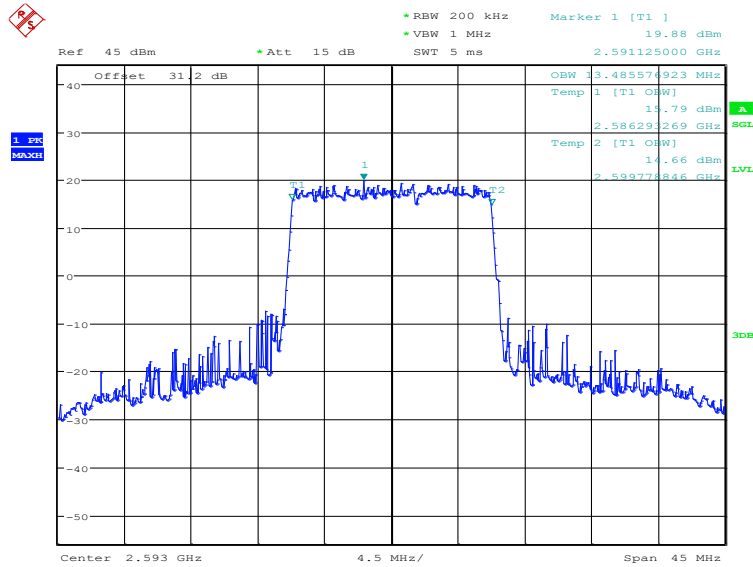


Date: 4.NOV.2024 13:50:20

LTE band 41, 15MHz (99%)

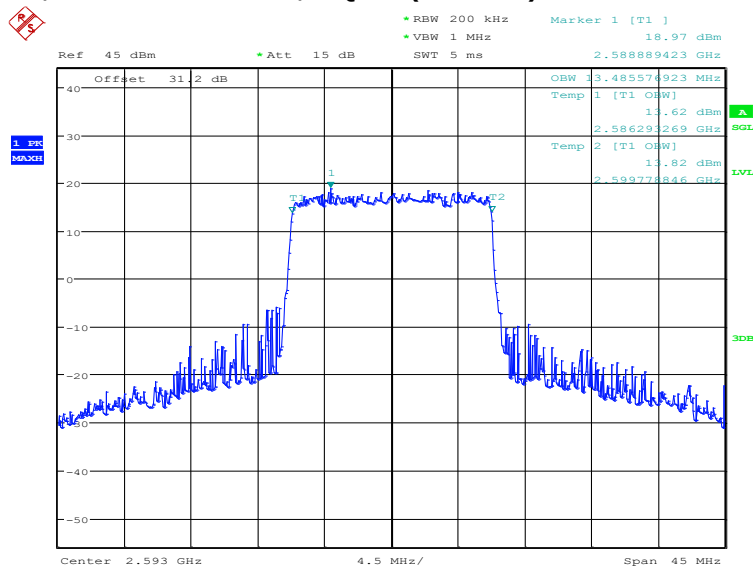
Frequency(MHz)	Occupied Bandwidth (99%)(kHz)	
2593.0	QPSK	16QAM
	13485.58	13485.58

LTE band 41, 15MHz Bandwidth, QPSK (99% BW)



Date: 4.NOV.2024 13:51:03

LTE band 41, 15MHz Bandwidth,16QAM (99% BW)

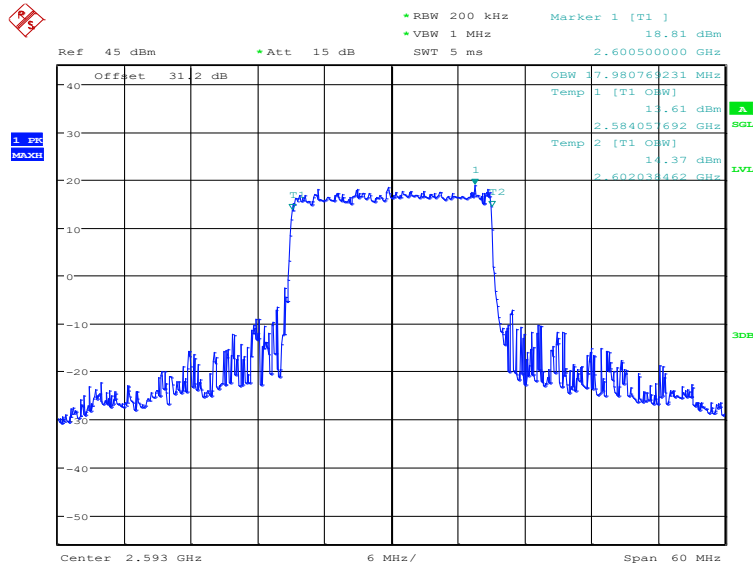


Date: 4.NOV.2024 13:51:43

LTE band 41, 20MHz (99%)

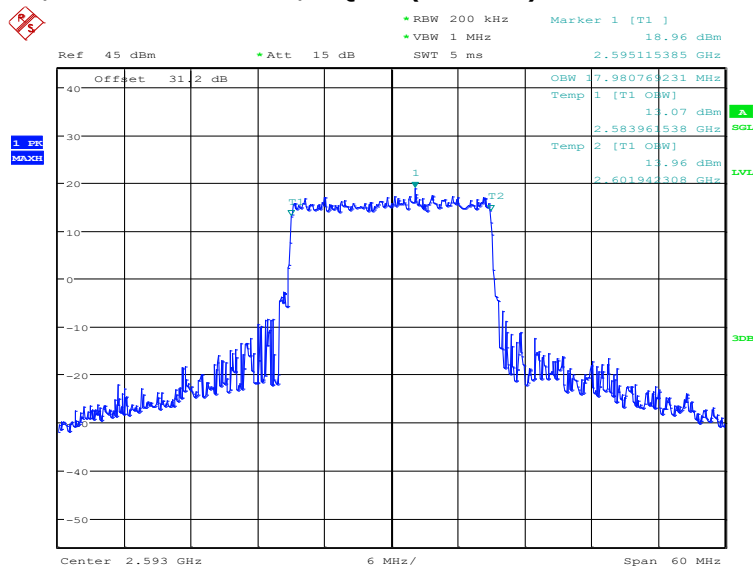
Frequency(MHz)	Occupied Bandwidth (99%)(kHz)	
2593.0	QPSK	16QAM
	17980.77	17980.77

LTE band 41, 20MHz Bandwidth, QPSK (99% BW)



Date: 4.NOV.2024 13:52:25

LTE band 41, 20MHz Bandwidth,16QAM (99% BW)

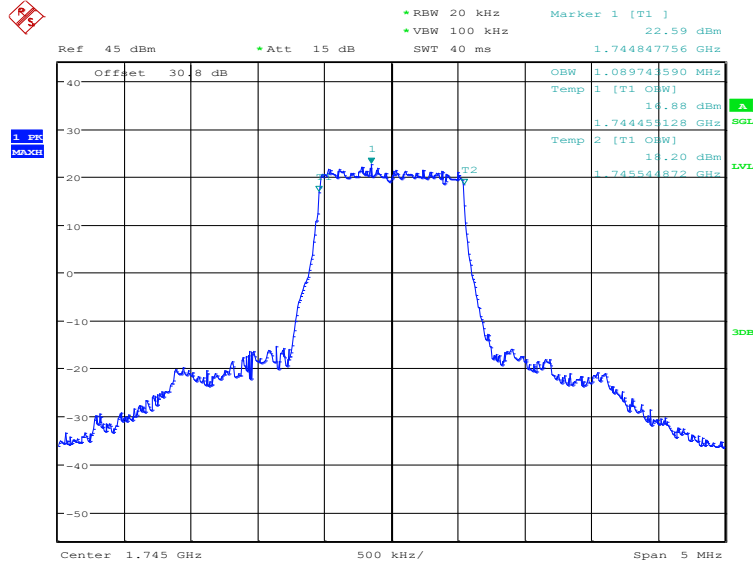


Date: 4.NOV.2024 13:53:05

LTE band 66, 1.4MHz (99%)

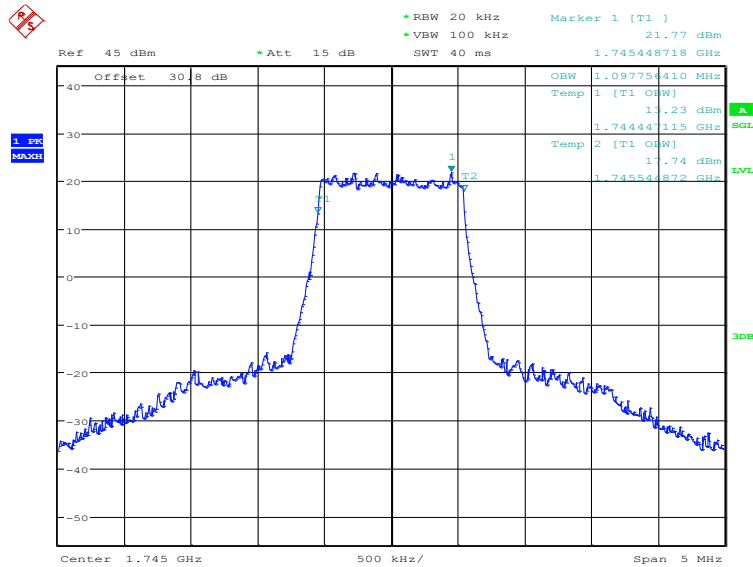
Frequency(MHz)	Occupied Bandwidth (99%)(kHz)	
1745.0	QPSK	16QAM
	1089.74	1097.76

LTE band 66, 1.4MHz Bandwidth, QPSK (99% BW)



Date: 4.NOV.2024 10:05:27

LTE band 66, 1.4MHz Bandwidth, 16QAM (99% BW)

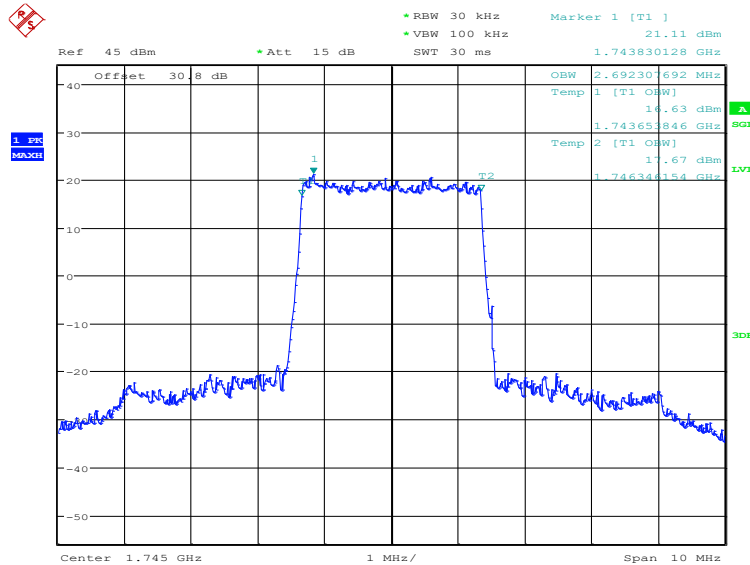


Date: 4.NOV.2024 10:06:08

LTE band 66, 3MHz (99%)

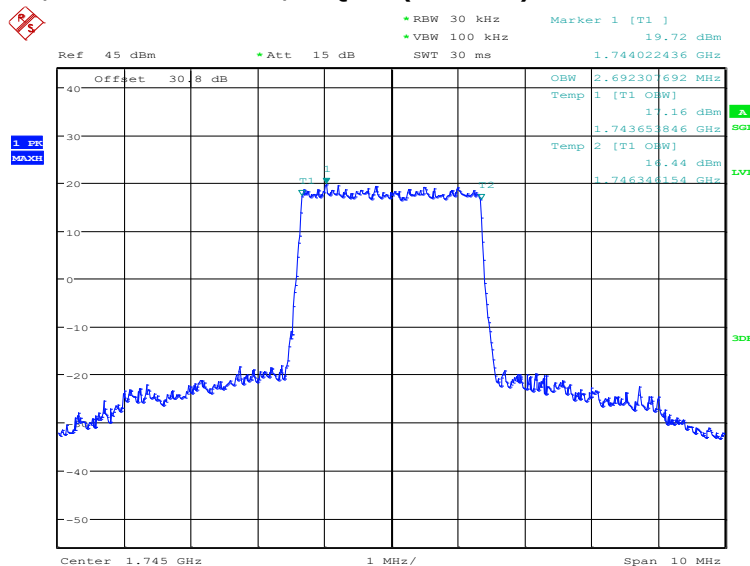
Frequency(MHz)	Occupied Bandwidth (99%)(kHz)	
1745.0	QPSK	16QAM
	2692.31	2692.31

LTE band 66, 3MHz Bandwidth, QPSK (99% BW)



Date: 4.NOV.2024 10:06:50

LTE band 66, 3MHz Bandwidth, 16QAM (99% BW)

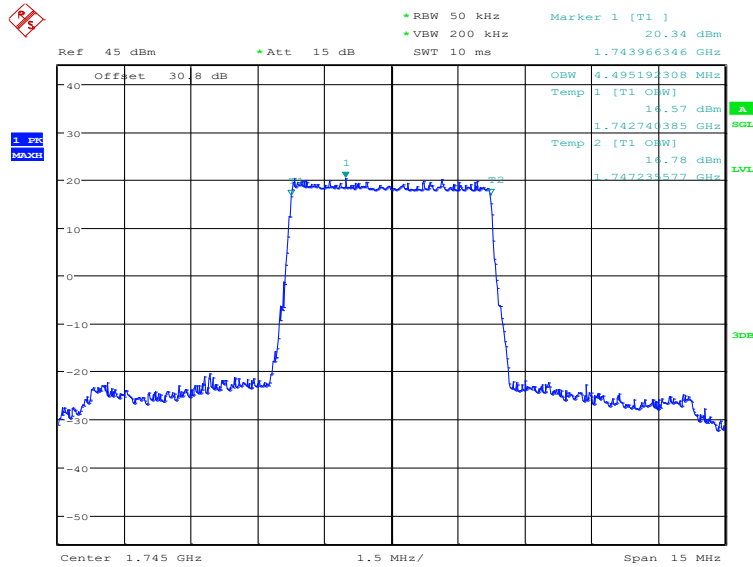


Date: 4.NOV.2024 10:07:30

LTE band 66, 5MHz (99%)

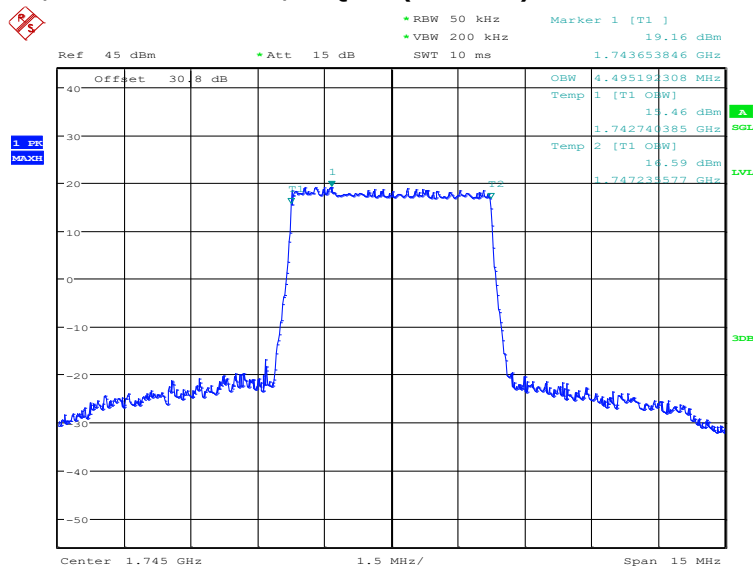
Frequency(MHz)	Occupied Bandwidth (99%)(kHz)	
1745.0	QPSK	16QAM
	4495.19	4495.19

LTE band 66, 5MHz Bandwidth, QPSK (99% BW)



Date: 4.NOV.2024 10:08:13

LTE band 66, 5MHz Bandwidth, 16QAM (99% BW)

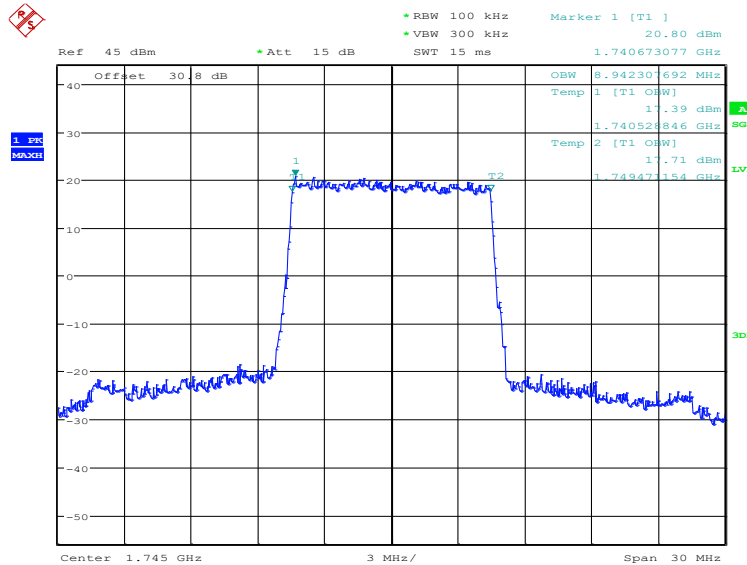


Date: 4.NOV.2024 10:08:53

LTE band 66, 10MHz (99%)

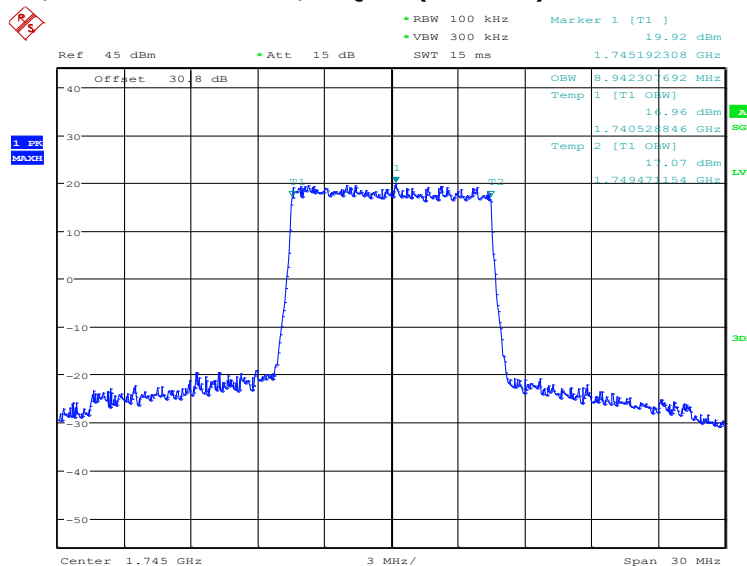
Frequency(MHz)	Occupied Bandwidth (99%)(kHz)	
1745.0	QPSK	16QAM
	8942.31	8942.31

LTE band 66, 10MHz Bandwidth, QPSK (99% BW)



Date: 4.NOV.2024 10:09:35

LTE band 66, 10MHz Bandwidth, 16QAM (99% BW)

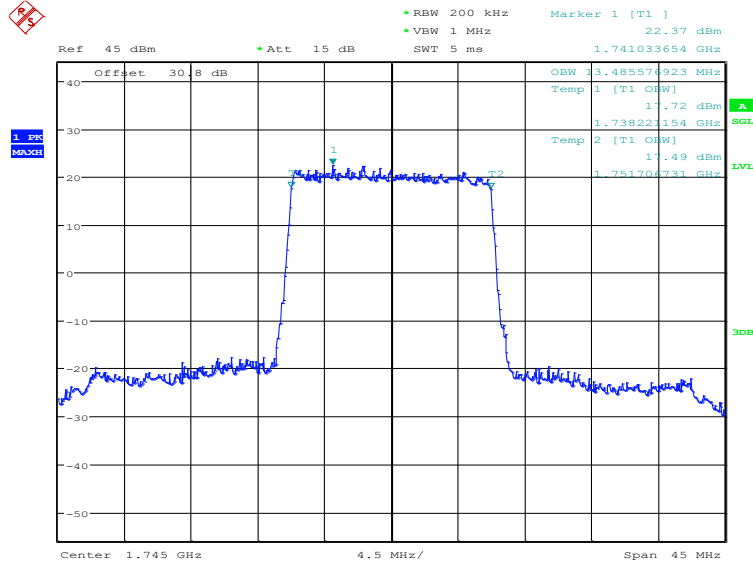


Date: 4.NOV.2024 10:10:15

LTE band 66, 15MHz (99%)

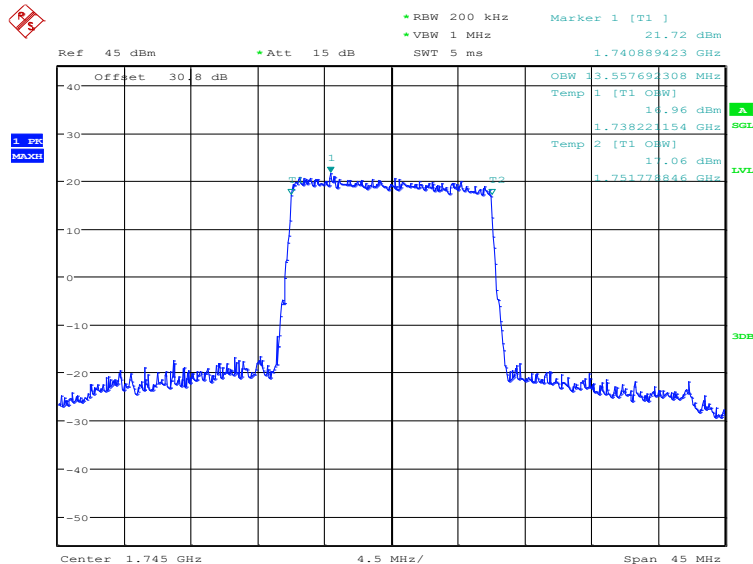
Frequency(MHz)	Occupied Bandwidth (99%)(kHz)	
1745.0	QPSK	16QAM
	13485.58	13557.69

LTE band 66, 15MHz Bandwidth, QPSK (99% BW)



Date: 4.NOV.2024 10:10:58

LTE band 66, 15MHz Bandwidth, 16QAM (99% BW)

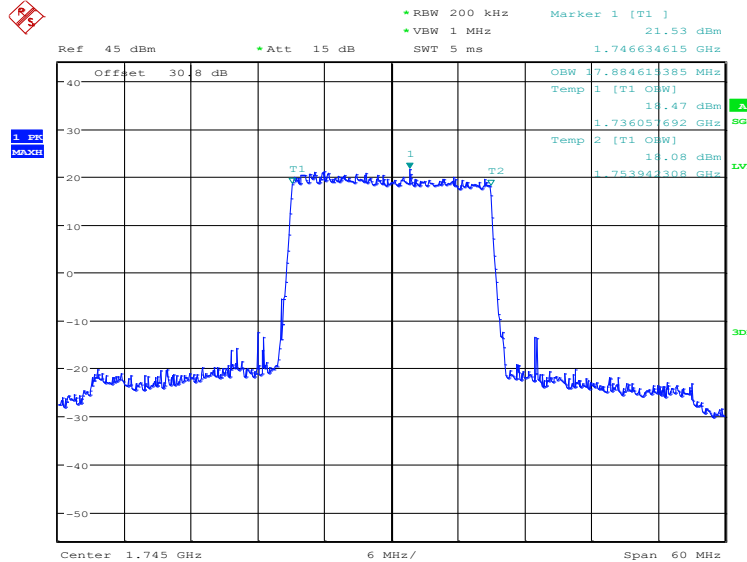


Date: 4.NOV.2024 10:11:38

LTE band 66, 20MHz (99%)

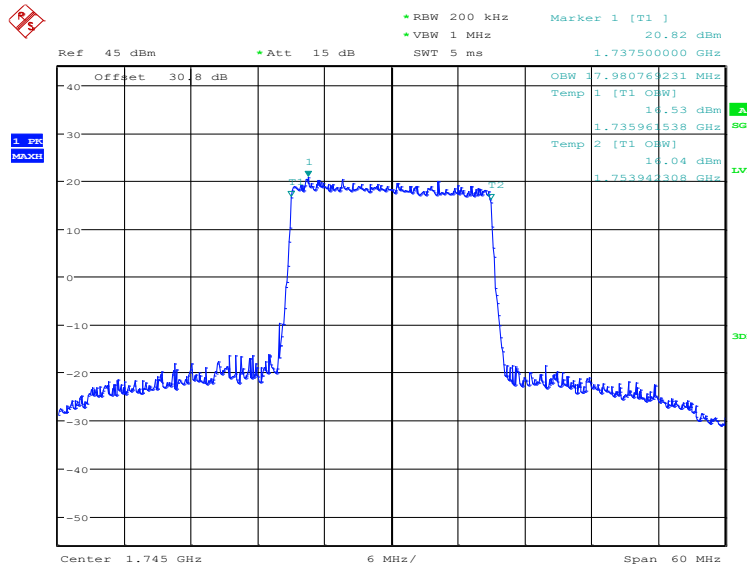
Frequency(MHz)	Occupied Bandwidth (99%)(kHz)	
1745.0	QPSK	16QAM
	17884.62	17980.77

LTE band 66, 20MHz Bandwidth, QPSK (99% BW)



Date: 4.NOV.2024 10:12:21

LTE band 66, 20MHz Bandwidth, 16QAM (99% BW)

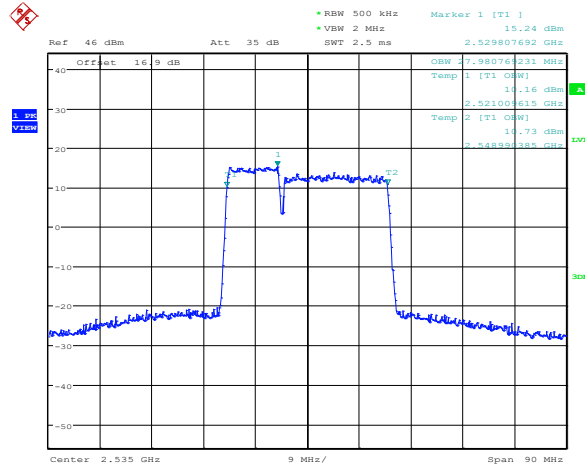


Date: 4.NOV.2024 10:13:01

LTE CA band 7C, 10MHz+20MHz(99%)

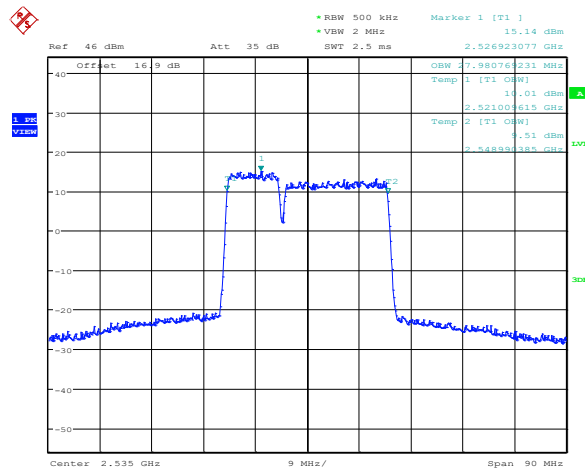
Frequency (MHz)	Occupied Bandwidth (99%) (MHz)	
	QPSK	16QAM
2535.0	27.981	27.981

LTE CA band 7C , 10MHz+20MHz Bandwidth,QPSK (99% BW)



Date: 5.NOV.2024 10:18:06

LTE CA band 7C , 10MHz+20MHz Bandwidth,16QAM (99% BW)



Date: 5.NOV.2024 10:18:30

Frequency (MHz)	Occupied Bandwidth (99%) (MHz)	
	QPSK	16QAM
2535.0	23.317	23.197

The screenshot displays a spectrum analyzer interface. At the top, a red and white logo is visible. The main display area shows a blue trace of a signal with two markers, T1 and T2, indicating specific frequency points. The trace shows a signal level around -25 dBm from 2.5 GHz to 7.5 GHz, with a sharp rise to about -15 dBm between 7.5 GHz and 8.5 GHz, and a sharp drop back to -25 dBm after 8.5 GHz. The background is a grid. On the right side, there are several measurement parameters and values:

- Ref: 46 dBm
- Att: 35 dB
- Marker 1: [T1] 16.12 dBm
- VBW: 2 MHz
- SWT: 2.5 ms
- 2.543173077 GHz
- Offset: 16.9 dB
- ORW: 3.31730 GHz
- Temp: 1 [T1 ORW] 1.29 dBm
- 2.52334 GHz
- Temp: 2 [T1 ORW] 12.76 dBm
- 2.54665 GHz

At the bottom, the following parameters are displayed:

- Center: 2.535 GHz
- 7.5 MHz/
- Span: 75 MHz

Date: 5.NOV.2024 10:19:26

The screenshot displays a Spectrum Analyzer interface. At the top, a status bar shows the following parameters: Ref 46 dBm, Att 35 dB, BW 500 kHz, VBW 2 MHz, Marker 1 [T1] 16.10 dBm, and SWT 2.5 ms. The main display area shows a spectrum plot with a blue trace. Two markers are placed on the trace: T1 at approximately 2.535 GHz and T2 at approximately 2.546 GHz. The plot shows a signal with a flat top and steep sides, characteristic of a modulated signal. The y-axis represents power in dBm, ranging from -50 to 40. The x-axis represents frequency in GHz, ranging from 2.53 to 2.55. A table on the right side of the plot provides additional data for the markers and the signal.

Marker	Frequency (GHz)	Power (dBm)
T1	2.535	16.10
T2	2.546	16.10

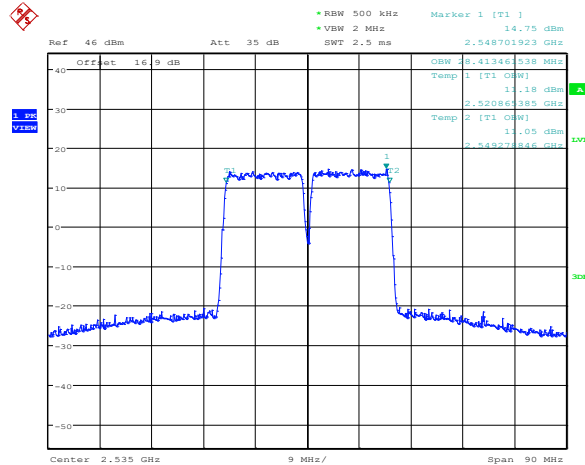
Center 2.535 GHz 7.5 MHz/ Span 75 MHz

Date: 5.NOV.2024 10:19:49

LTE CA band 7C, 15MHz+15MHz(99%)

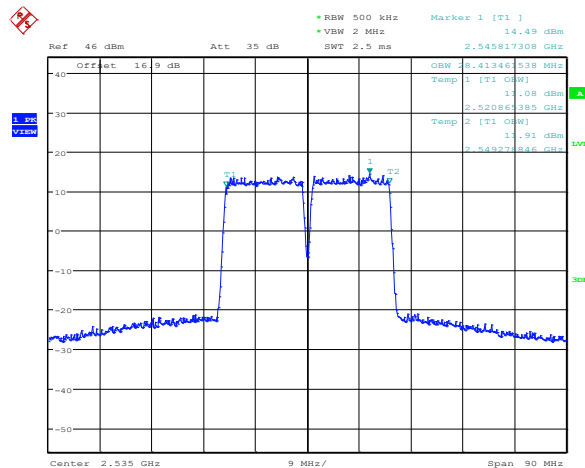
Frequency (MHz)	Occupied Bandwidth (99%) (MHz)	
	QPSK	16QAM
2535.0	28.413	28.413

LTE CA band 7C , 15MHz+15MHz Bandwidth,QPSK (99% BW)



Date: 5.NOV.2024 10:20:43

LTE CA band 7C , 15MHz+15MHz Bandwidth,16QAM (99% BW)

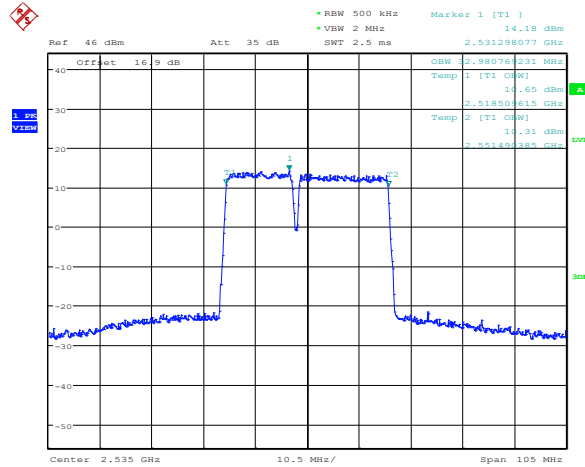


Date: 5.NOV.2024 10:21:07

LTE CA band 7C, 15MHz+20MHz(99%)

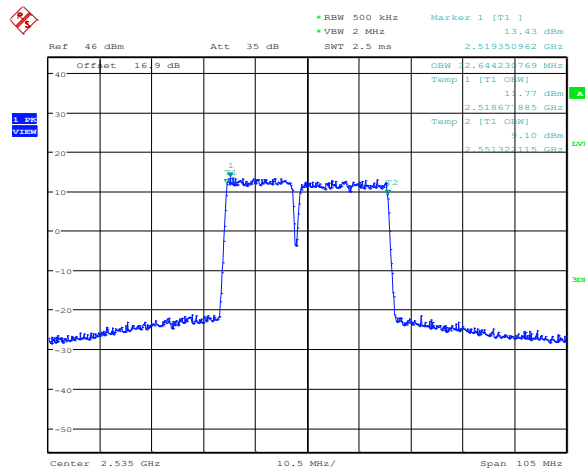
Frequency (MHz)	Occupied Bandwidth (99%) (MHz)	
	QPSK	16QAM
2535.0	32.981	32.644

LTE CA band 7C , 15MHz+20MHz Bandwidth,QPSK (99% BW)



Date: 5.NOV.2024 10:22:00

LTE CA band 7C , 15MHz+20MHz Bandwidth,16QAM (99% BW)

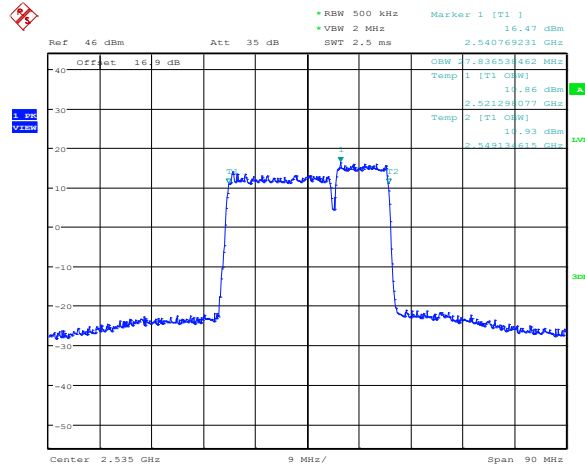


Date: 5.NOV.2024 10:22:24

LTE CA band 7C, 20MHz+10MHz(99%)

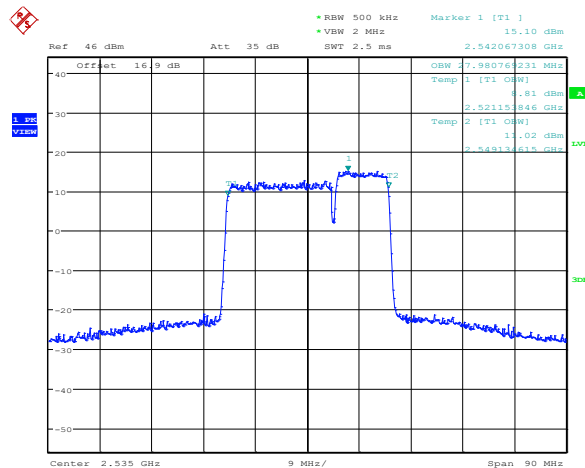
Frequency (MHz)	Occupied Bandwidth (99%) (MHz)	
	QPSK	16QAM
2535.0	27.837	27.981

LTE CA band 7C , 20MHz+10MHz Bandwidth,QPSK (99% BW)



Date: 5.NOV.2024 10:23:19

LTE CA band 7C , 20MHz+10MHz Bandwidth,16QAM (99% BW)

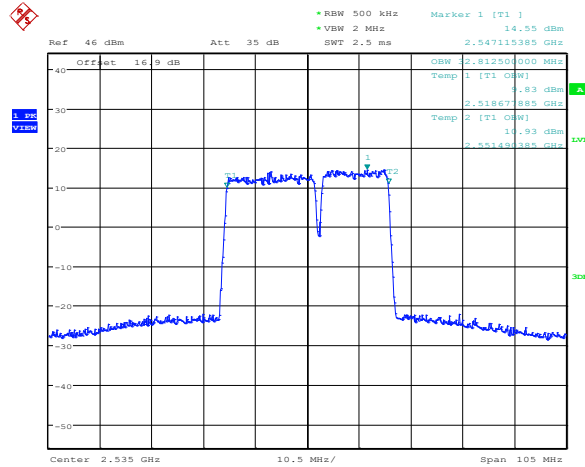


Date: 5.NOV.2024 10:23:43

LTE CA band 7C, 20MHz+15MHz(99%)

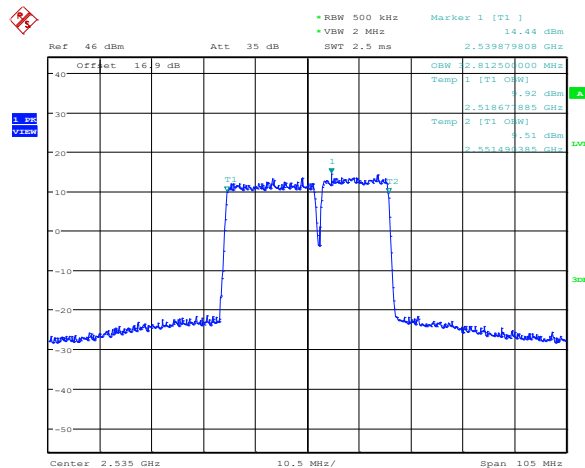
Frequency (MHz)	Occupied Bandwidth (99%) (MHz)	
	QPSK	16QAM
2535.0	32.812	32.812

LTE CA band 7C , 20MHz+15MHz Bandwidth,QPSK (99% BW)



Date: 5.NOV.2024 10:25:12

LTE CA band 7C , 20MHz+15MHz Bandwidth,16QAM (99% BW)

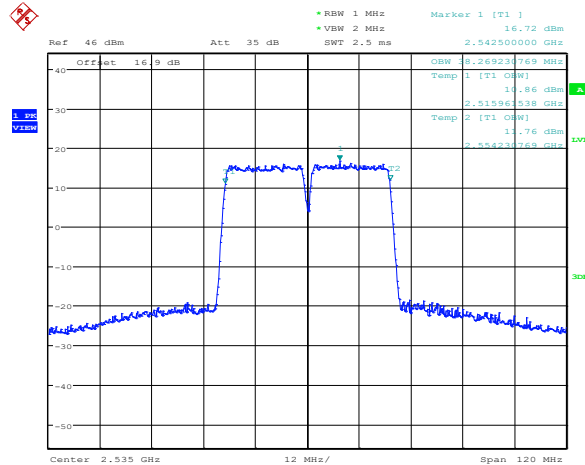


Date: 5.NOV.2024 10:25:47

LTE CA band 7C, 20MHz+20MHz(99%)

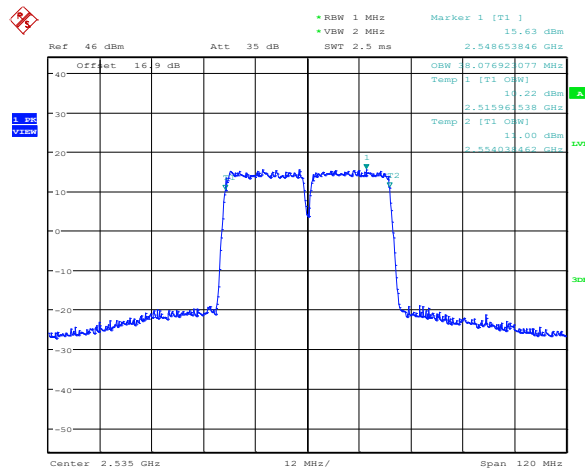
Frequency (MHz)	Occupied Bandwidth (99%) (MHz)	
	QPSK	16QAM
2535.0	38.269	38.077

LTE CA band 7C , 20MHz+20MHz Bandwidth,QPSK (99% BW)



Date: 5.NOV.2024 10:26:41

LTE CA band 7C , 20MHz+20MHz Bandwidth,16QAM (99% BW)

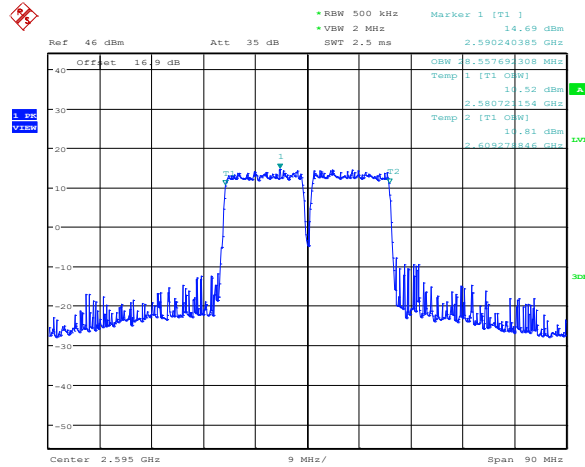


Date: 5.NOV.2024 10:27:04

LTE CA band 38C, 15MHz+15MHz(99%)

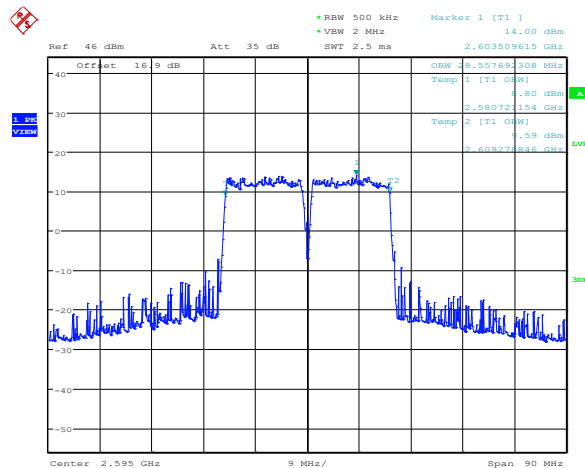
Frequency (MHz)	Occupied Bandwidth (99%) (MHz)	
	QPSK	16QAM
2595.0	28.558	28.558

LTE CA band 38C , 15MHz+15MHz Bandwidth,QPSK (99% BW)



Date: 5.NOV.2024 10:28:02

LTE CA band 38C , 15MHz+15MHz Bandwidth,16QAM (99% BW)



Date: 5.NOV.2024 10:28:26

Frequency (MHz)	Occupied Bandwidth (99%) (MHz)	
	QPSK	16QAM
2595.0	37.885	38.077

• RBW 1 MHz
 • VBW 2 MHz
 SWT 2.5 ms

Marker 1 [T1] 16.31 dBm
 2.57715395 GHz

Ref 46 dBm
 Att 35 dB

Offset 16.9 dB

1.95 GHz

16.31 dBm
 2.57715395 GHz

16.31 dBm
 2.614034462 GHz

Center 2.595 GHz
 12 MHz/
 Span 120 MHz

Date: 5.NOV.2024 10:29:21

• BW 1 MHz
 • VBW 2 MHz
 Ref 46 dBm
 Att 35 dB
 SWT 2.5 ms

Marker 1 [T1] 16.07 dBm
 2.599615385 GHz

Offset 16.9 dB
 OBW 8.07692 0.77 MHz
 Temp 1 [T1 OBW] 31.24 dBm
 2.57596 0.38 GHz
 Temp 2 [T1 OBW] 16.51 dBm
 2.61403 0.62 GHz

1.95
 View

Center 2.595 GHz
 12 MHz/
 Span 120 MHz

Date: 5.NOV.2024 10:29:44

Page 110 of 231

A.5 Emission Bandwidth

The emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emissions are attenuated at least 26 dB below the transmitter power. Table below lists the measured -26dBc BW. Spectrum analyzer plots are included on the following pages.

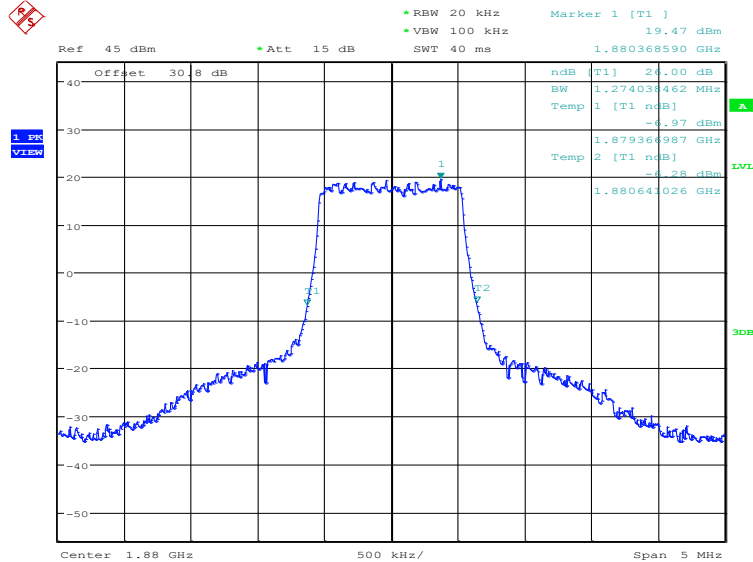
The measurement method is from ANSI C63.26:

- a) The spectrum analyzer center frequency is set to the nominal EUT channel center frequency. The span range for the spectrum analyzer shall be wide enough to see sufficient roll off of the signal to make the measurement.
- b) The nominal RBW shall be in the range of 1% to 5% of the anticipated OBW, and the VBW shall be set $\geq 3 \times \text{RBW}$.
- c) Set the reference level of the instrument as required to prevent the signal amplitude from exceeding the maximum spectrum analyzer input mixer level for linear operation.
- d) The dynamic range of the spectrum analyzer at the selected RBW shall be more than 10 dB below the target “-X dB” requirement, i.e., if the requirement calls for measuring the -26 dB OBW, the spectrum analyzer noise floor at the selected RBW shall be at least 36 dB below the reference level.
- e) Set spectrum analyzer detection mode to peak, and the trace mode to max hold.

LTE band 2, 1.4MHz (-26dBc)

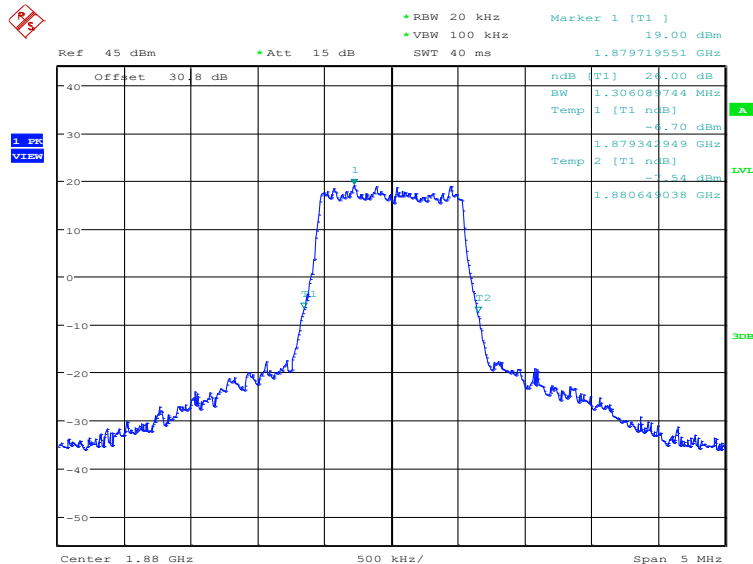
Frequency(MHz)	Emission Bandwidth (-26dBc)(kHz)	
1880.0	QPSK	16QAM
	1274.04	1306.09

LTE band 2, 1.4MHz Bandwidth, QPSK (-26dBc BW)



Date: 4.NOV.2024 10:14:20

LTE band 2, 1.4MHz Bandwidth, 16QAM (-26dBc BW)

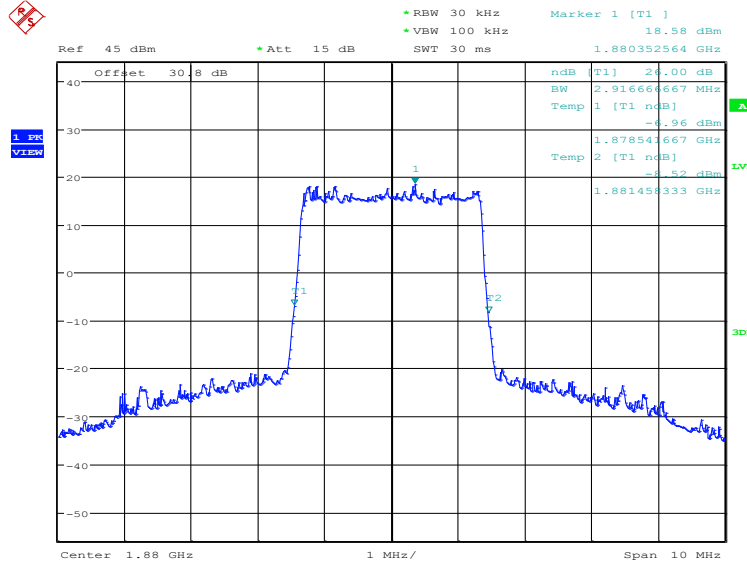


Date: 4.NOV.2024 10:15:01

LTE band 2, 3MHz (-26dBc)

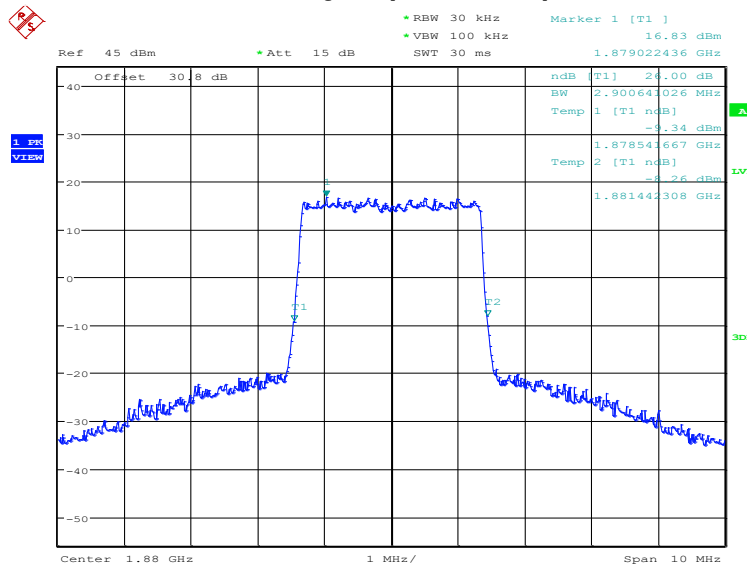
Frequency(MHz)	Emission Bandwidth (-26dBc)(kHz)	
1880.0	QPSK	16QAM
	2916.67	2900.64

LTE band 2, 3MHz Bandwidth, QPSK (-26dBc BW)



Date: 4.NOV.2024 10:15:43

LTE band 2, 3MHz Bandwidth, 16QAM (-26dBc BW)

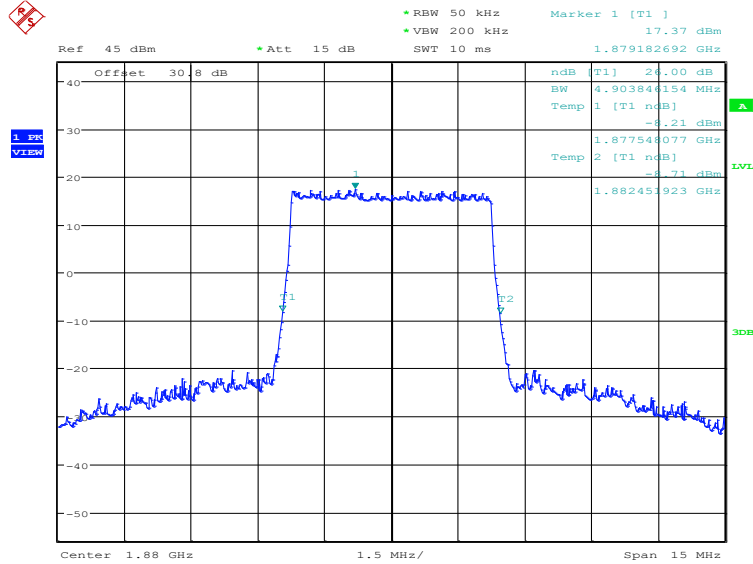


Date: 4.NOV.2024 10:16:24

LTE band 2, 5MHz (-26dBc)

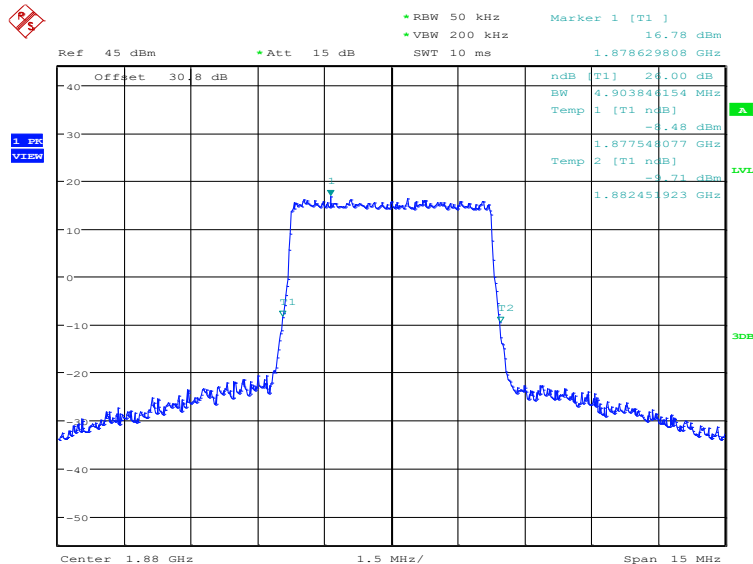
Frequency(MHz)	Emission Bandwidth (-26dBc)(kHz)	
1880.0	QPSK	16QAM
	4903.85	4903.85

LTE band 2, 5MHz Bandwidth, QPSK (-26dBc BW)



Date: 4.NOV.2024 10:17:06

LTE band 2, 5MHz Bandwidth, 16QAM (-26dBc BW)

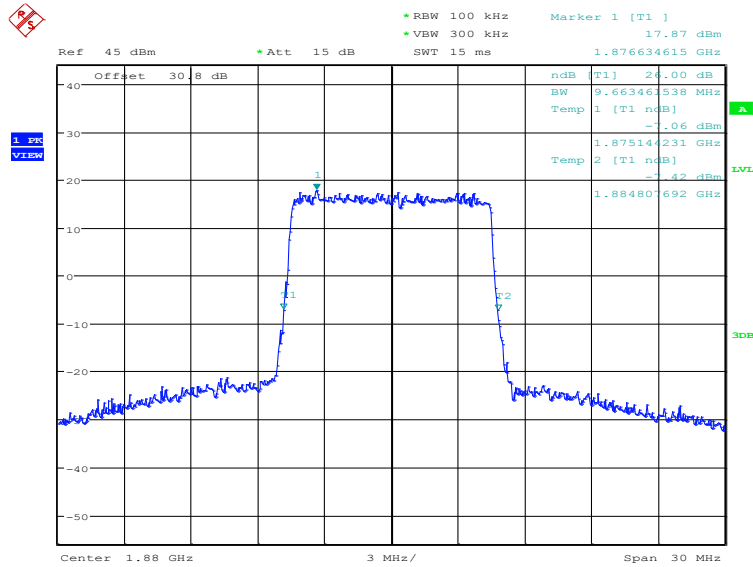


Date: 4.NOV.2024 10:17:46

LTE band 2, 10MHz (-26dBc)

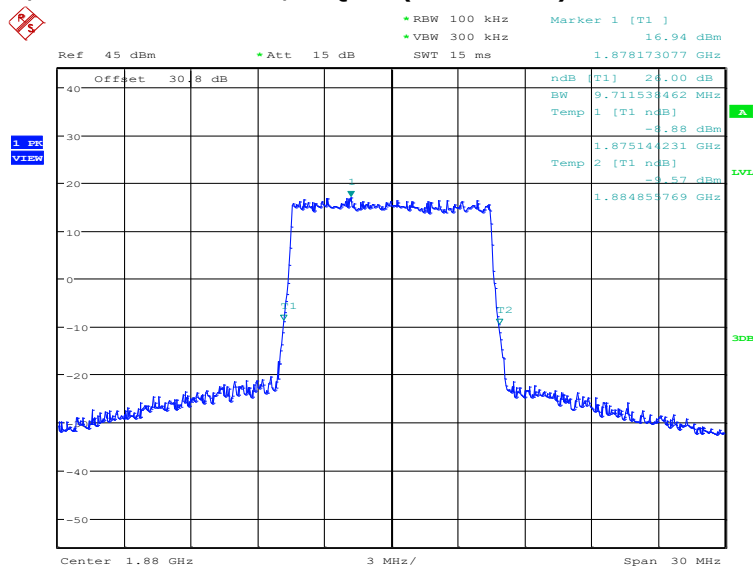
Frequency(MHz)	Emission Bandwidth (-26dBc)(kHz)	
1880.0	QPSK	16QAM
	9663.46	9711.54

LTE band 2, 10MHz Bandwidth, QPSK (-26dBc BW)



Date: 4.NOV.2024 10:18:29

LTE band 2, 10MHz Bandwidth, 16QAM (-26dBc BW)

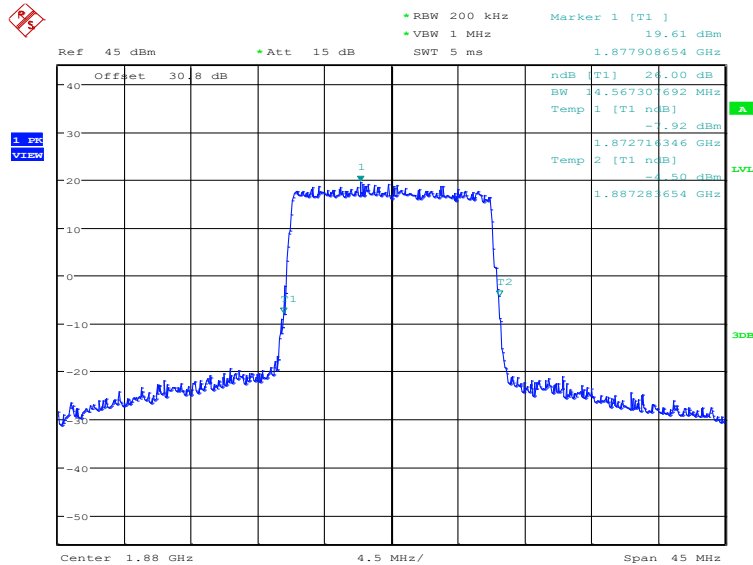


Date: 4.NOV.2024 10:19:09

LTE band 2, 15MHz (-26dBc)

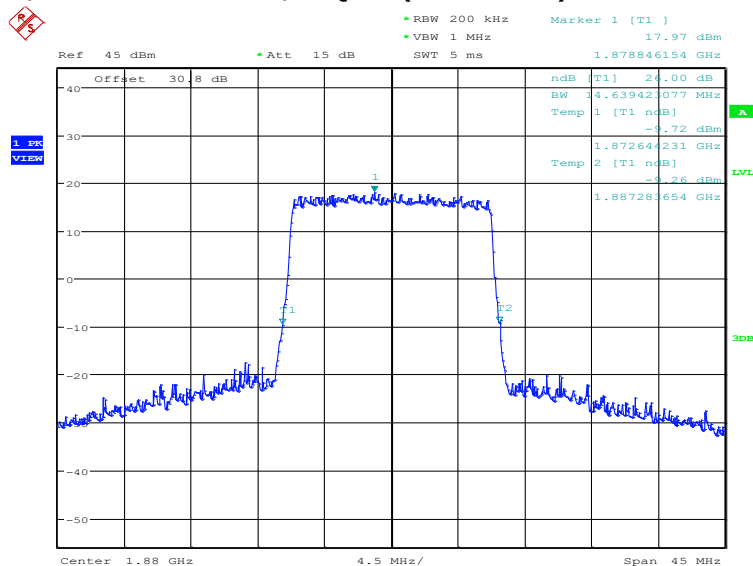
Frequency(MHz)	Emission Bandwidth (-26dBc)(kHz)	
1880.0	QPSK	16QAM
	14567.31	14639.42

LTE band 2, 15MHz Bandwidth, QPSK (-26dBc BW)



Date: 4.NOV.2024 10:19:52

LTE band 2, 15MHz Bandwidth, 16QAM (-26dBc BW)

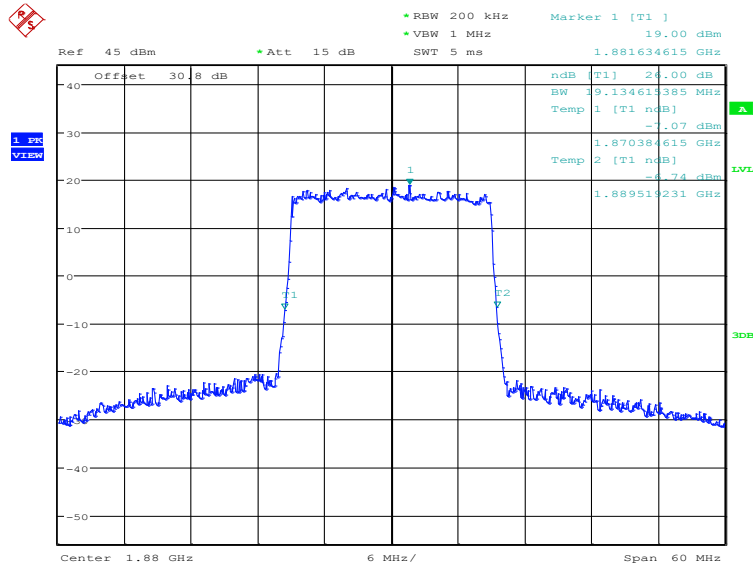


Date: 4.NOV.2024 10:20:32

LTE band 2, 20MHz (-26dBc)

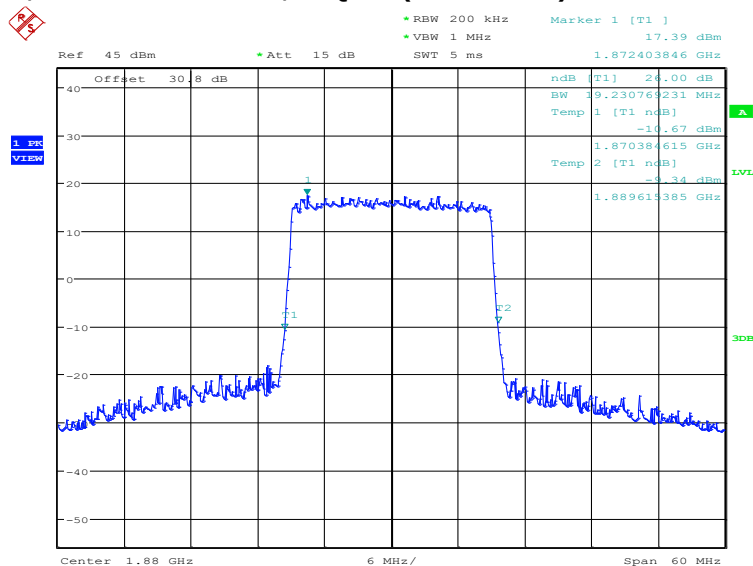
Frequency(MHz)	Emission Bandwidth (-26dBc)(kHz)	
1880.0	QPSK	16QAM
	19134.62	19230.77

LTE band 2, 20MHz Bandwidth, QPSK (-26dBc BW)



Date: 4.NOV.2024 10:21:15

LTE band 2, 20MHz Bandwidth, 16QAM (-26dBc BW)

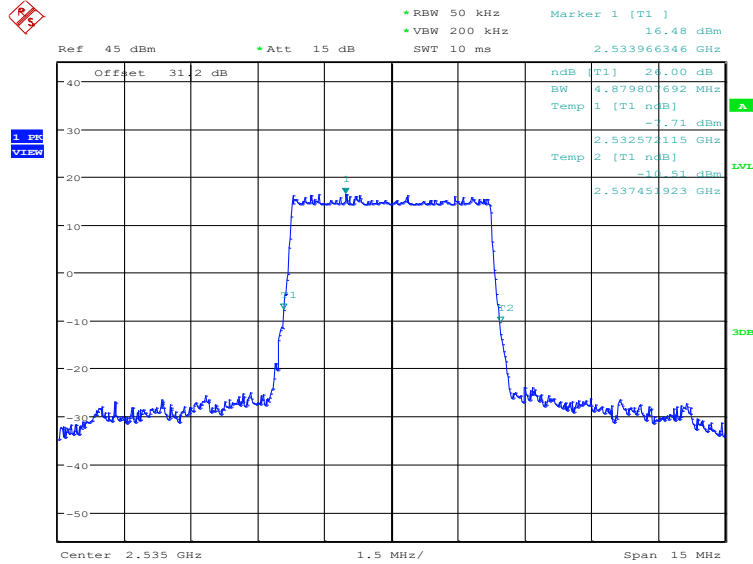


Date: 4.NOV.2024 10:21:55

LTE band 7, 5MHz (-26dBc)

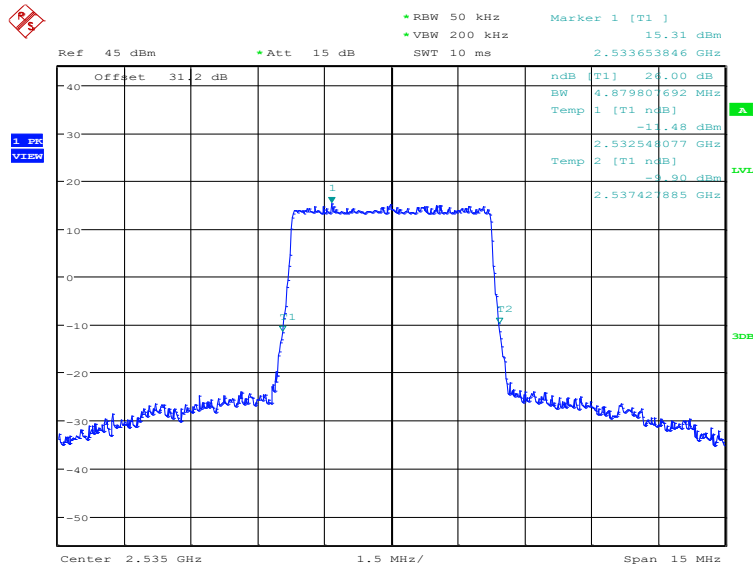
Frequency(MHz)	Emission Bandwidth (-26dBc)(kHz)	
2535.0	QPSK	16QAM
	4879.81	4879.81

LTE band 7, 5MHz Bandwidth, QPSK (-26dBc BW)



Date: 4.NOV.2024 13:54:25

LTE band 7, 5MHz Bandwidth,16QAM (-26dBc BW)

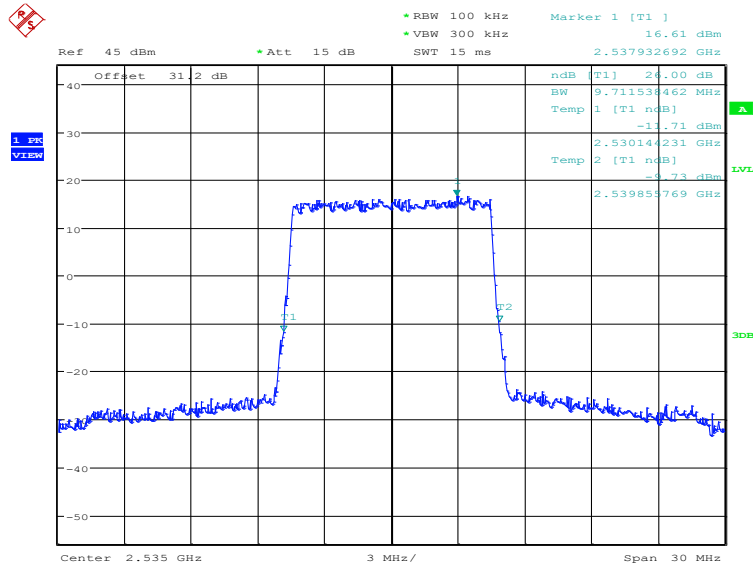


Date: 4.NOV.2024 13:55:05

LTE band 7, 10MHz (-26dBc)

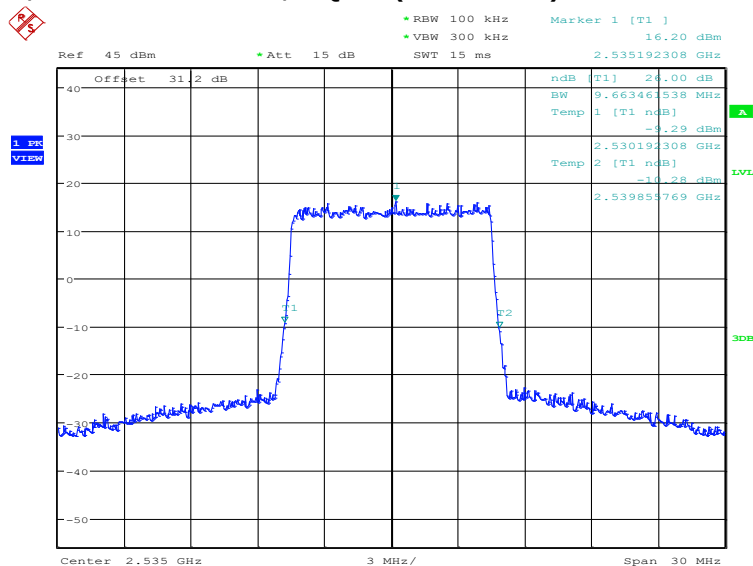
Frequency(MHz)	Emission Bandwidth (-26dBc)(kHz)	
2535.0	QPSK	16QAM
	9711.54	9663.46

LTE band 7, 10MHz Bandwidth, QPSK (-26dBc BW)



Date: 4.NOV.2024 13:55:47

LTE band 7, 10MHz Bandwidth,16QAM (-26dBc BW)

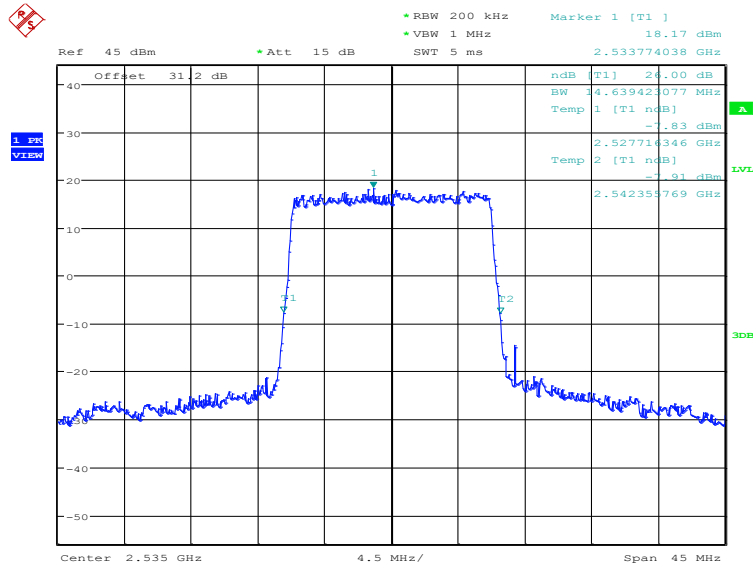


Date: 4.NOV.2024 13:56:27

LTE band 7, 15MHz (-26dBc)

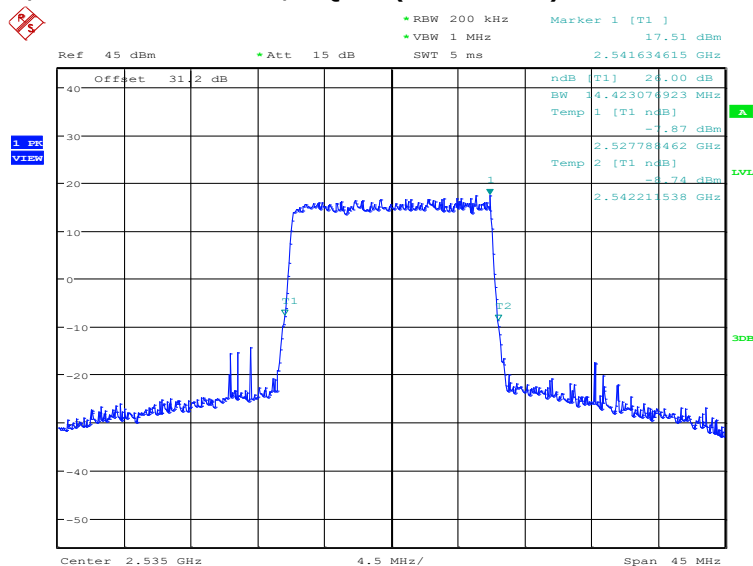
Frequency(MHz)	Emission Bandwidth (-26dBc)(kHz)	
2535.0	QPSK	16QAM
	14639.42	14423.08

LTE band 7, 15MHz Bandwidth, QPSK (-26dBc BW)



Date: 4.NOV.2024 13:57:10

LTE band 7, 15MHz Bandwidth,16QAM (-26dBc BW)

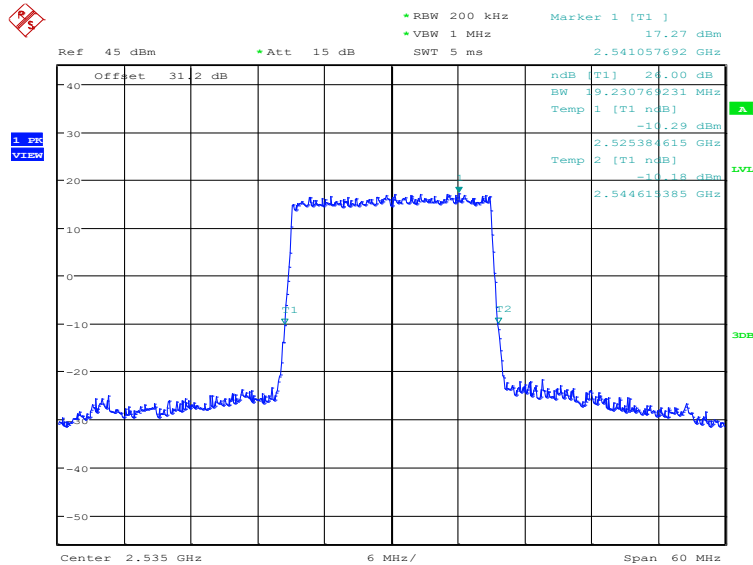


Date: 4.NOV.2024 13:57:50

LTE band 7, 20MHz (-26dBc)

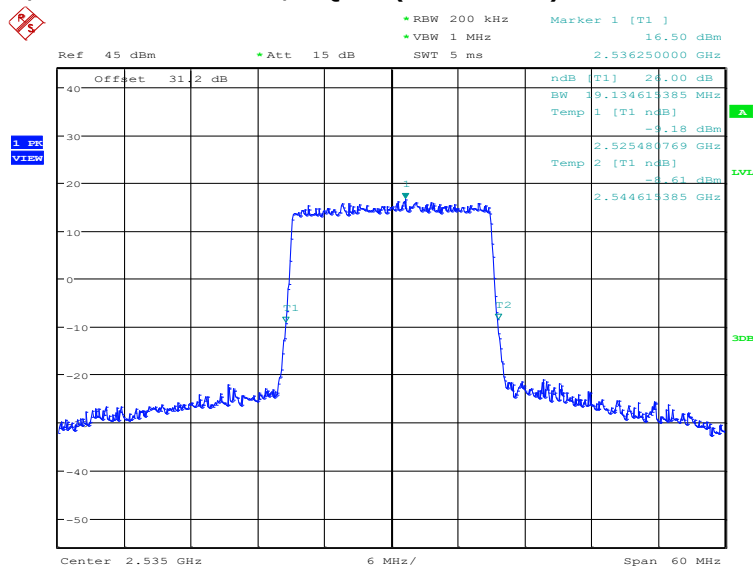
Frequency(MHz)	Emission Bandwidth (-26dBc)(kHz)	
2535.0	QPSK	16QAM
	19230.77	19134.62

LTE band 7, 20MHz Bandwidth, QPSK (-26dBc BW)



Date: 4.NOV.2024 13:58:32

LTE band 7, 20MHz Bandwidth,16QAM (-26dBc BW)

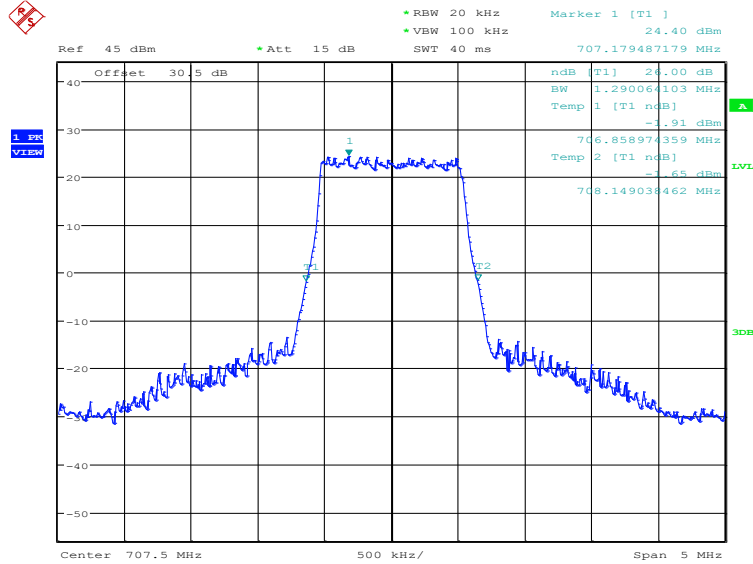


Date: 4.NOV.2024 13:59:13

LTE band 12, 1.4MHz (-26dBc)

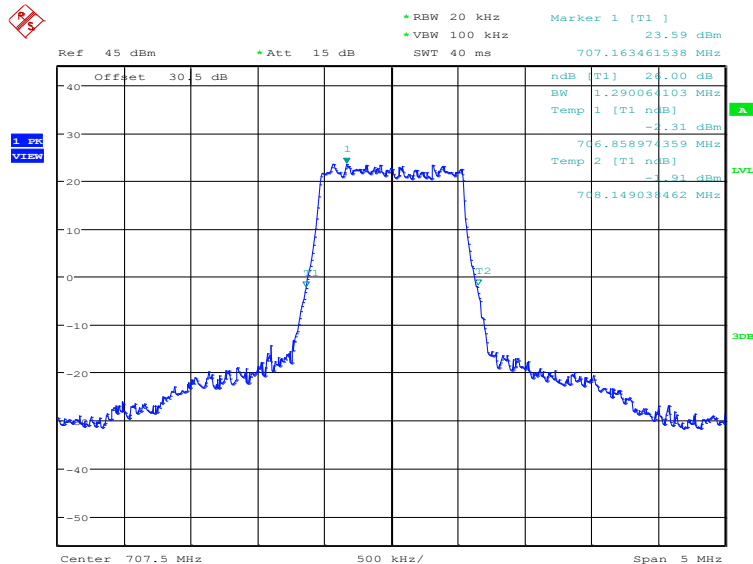
Frequency(MHz)	Emission Bandwidth (-26dBc)(kHz)	
707.5	QPSK	16QAM
	1290.06	1290.06

LTE band 12, 1.4MHz Bandwidth, QPSK (-26dBc BW)



Date: 4.NOV.2024 10:23:34

LTE band 12, 1.4MHz Bandwidth, 16QAM (-26dBc BW)

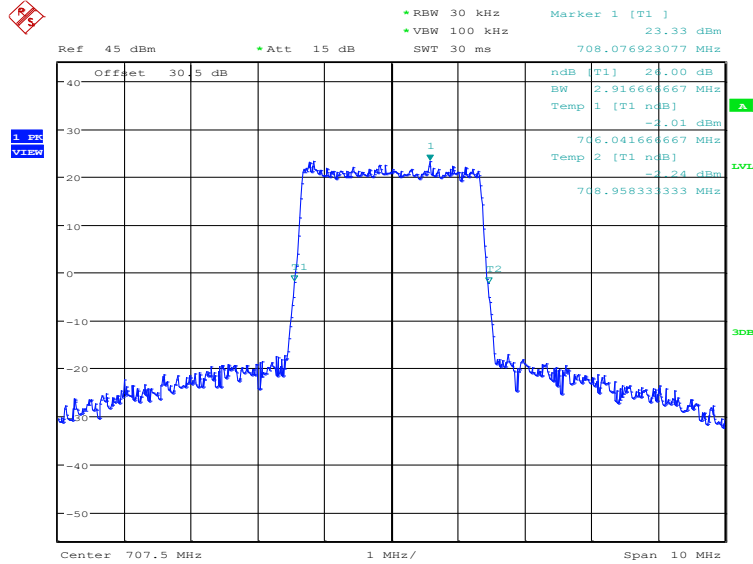


Date: 4.NOV.2024 10:24:15

LTE band 12, 3MHz (-26dBc)

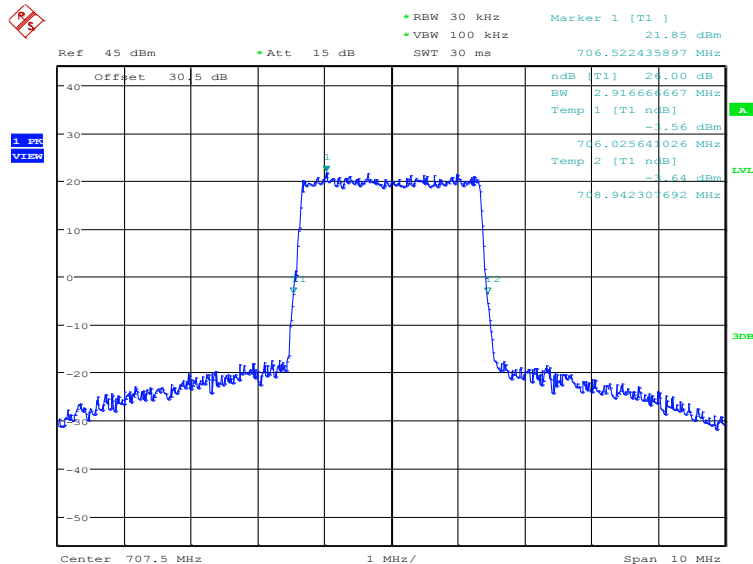
Frequency(MHz)	Emission Bandwidth (-26dBc)(kHz)	
707.5	QPSK	16QAM
	2916.67	2916.67

LTE band 12, 3MHz Bandwidth, QPSK (-26dBc BW)



Date: 4.NOV.2024 10:24:57

LTE band 12, 3MHz Bandwidth, 16QAM (-26dBc BW)

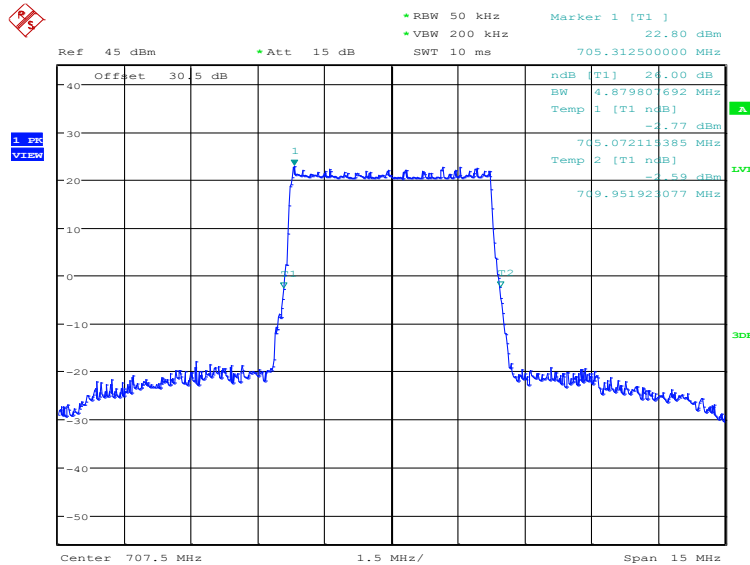


Date: 4.NOV.2024 10:25:38

LTE band 12, 5MHz (-26dBc)

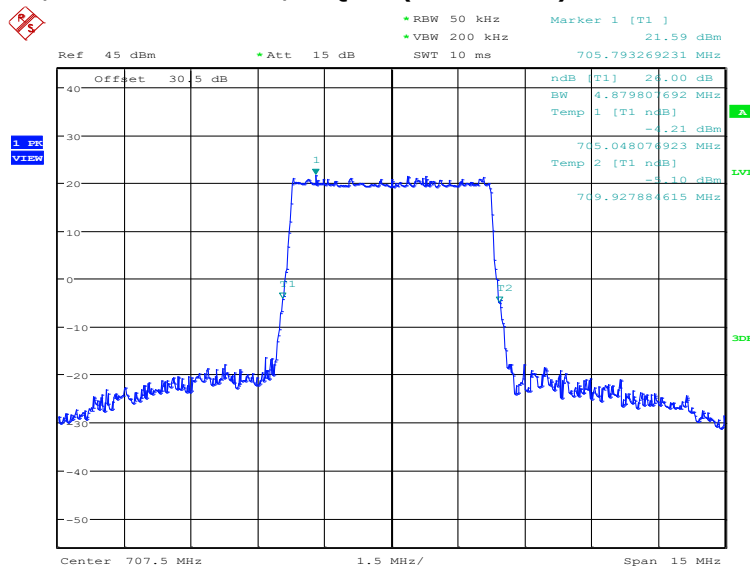
Frequency(MHz)	Emission Bandwidth (-26dBc)(kHz)	
707.5	QPSK	16QAM
	4879.81	4879.81

LTE band 12, 5MHz Bandwidth, QPSK (-26dBc BW)



Date: 4.NOV.2024 10:26:21

LTE band 12, 5MHz Bandwidth, 16QAM (-26dBc BW)

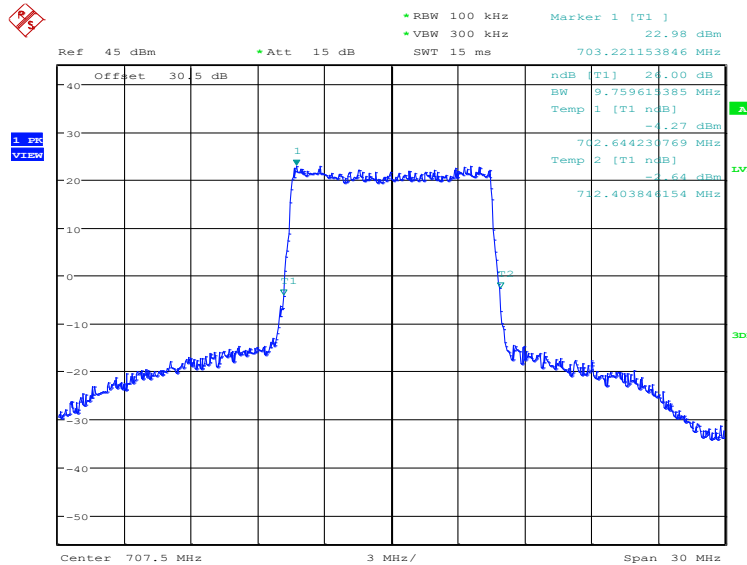


Date: 4.NOV.2024 10:27:01

LTE band 12, 10MHz (-26dBc)

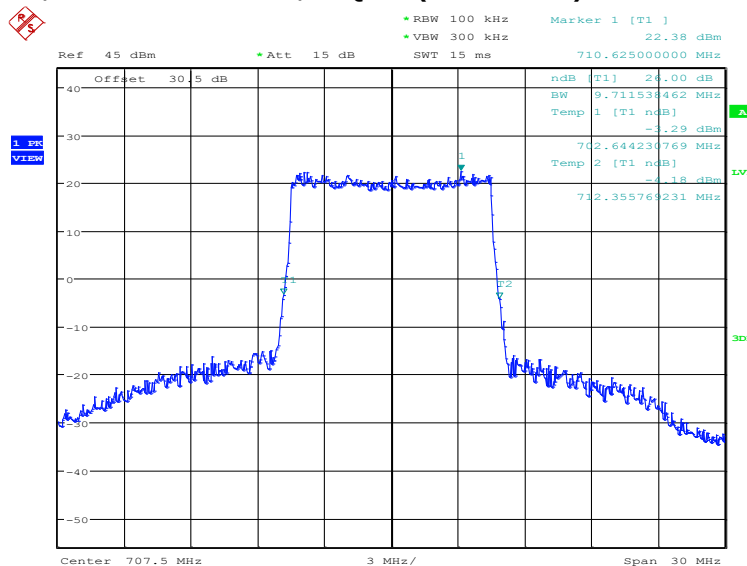
Frequency(MHz)	Emission Bandwidth (-26dBc)(kHz)	
707.5	QPSK	16QAM
	9759.62	9711.54

LTE band 12, 10MHz Bandwidth, QPSK (-26dBc BW)



Date: 4.NOV.2024 10:27:44

LTE band 12, 10MHz Bandwidth, 16QAM (-26dBc BW)

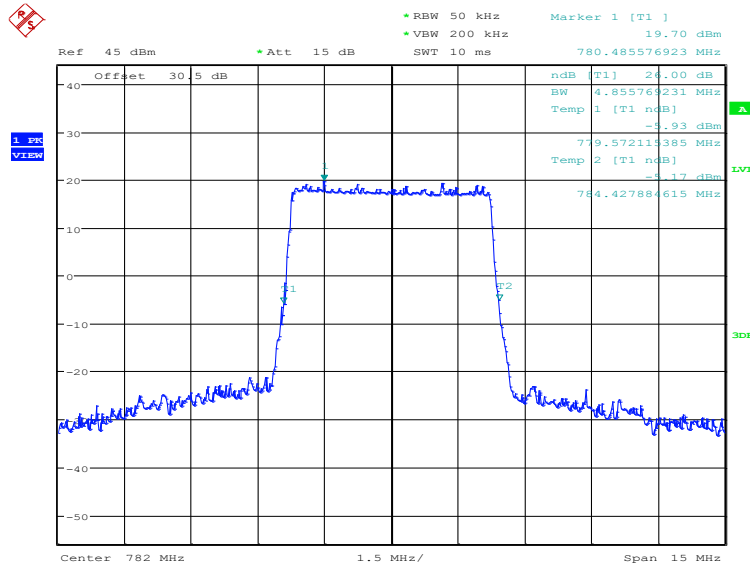


Date: 4.NOV.2024 10:28:24

LTE band 13, 5MHz (-26dBc)

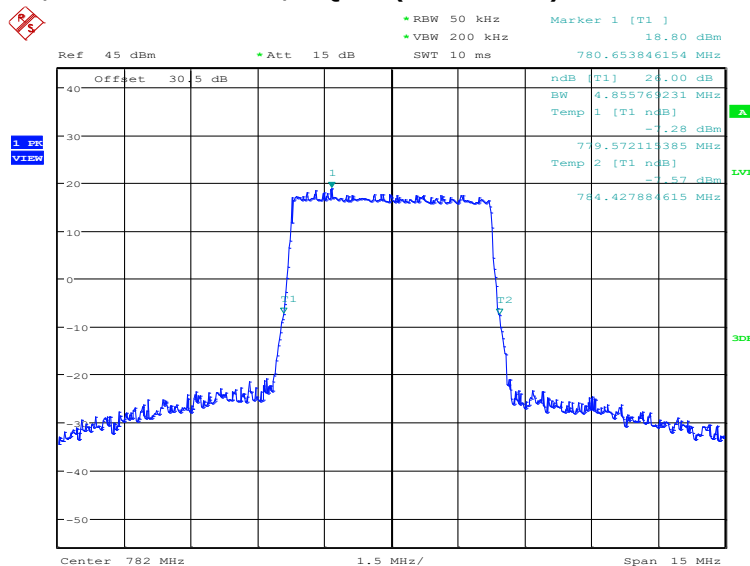
Frequency(MHz)	Emission Bandwidth (-26dBc)(kHz)	
782.0	QPSK	16QAM
	4855.77	4855.77

LTE band 13, 5MHz Bandwidth, QPSK (-26dBc BW)



Date: 4.NOV.2024 10:29:09

LTE band 13, 5MHz Bandwidth,16QAM (-26dBc BW)

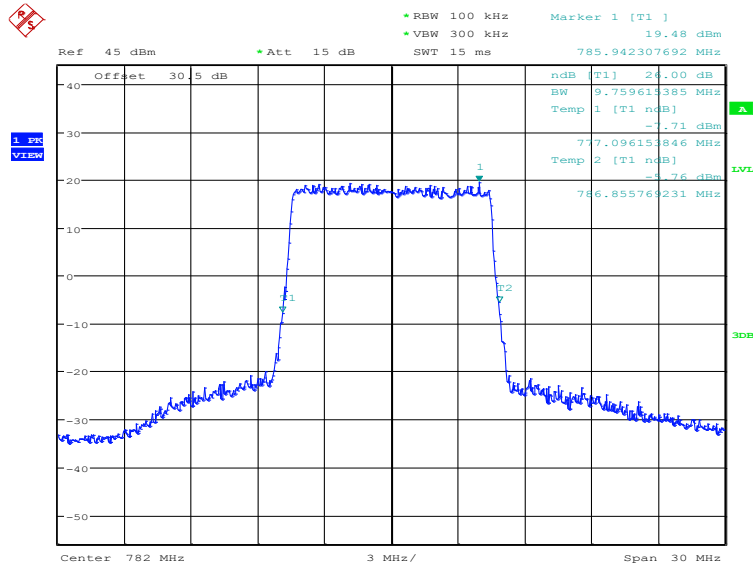


Date: 4.NOV.2024 10:29:50

LTE band 13, 10MHz (-26dBc)

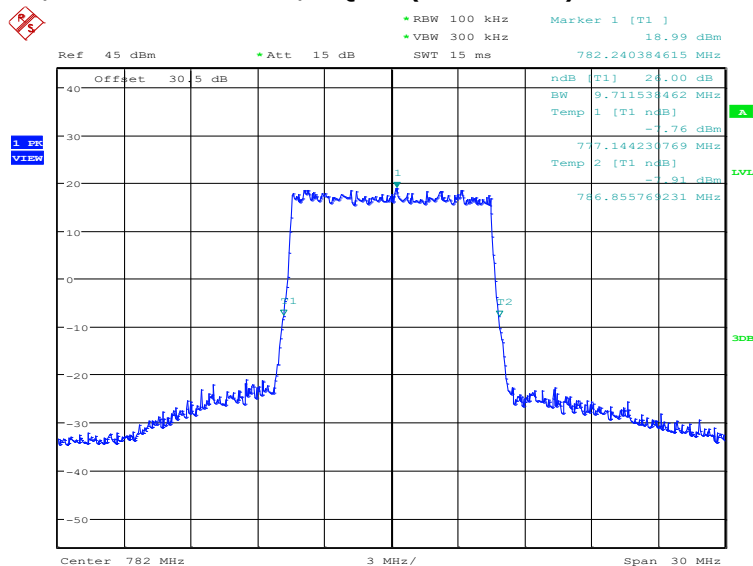
Frequency(MHz)	Emission Bandwidth (-26dBc)(kHz)	
782.0	QPSK	16QAM
	9759.62	9711.54

LTE band 13, 10MHz Bandwidth, QPSK (-26dBc BW)



Date: 4.NOV.2024 10:30:32

LTE band 13, 10MHz Bandwidth,16QAM (-26dBc BW)

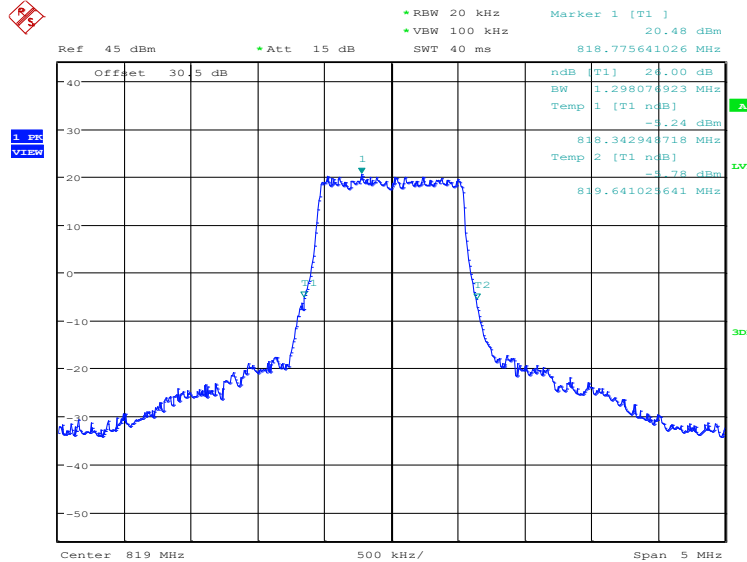


Date: 4.NOV.2024 10:31:13

LTE band 26(814MHz~824MHz), 1.4MHz (-26dBc)

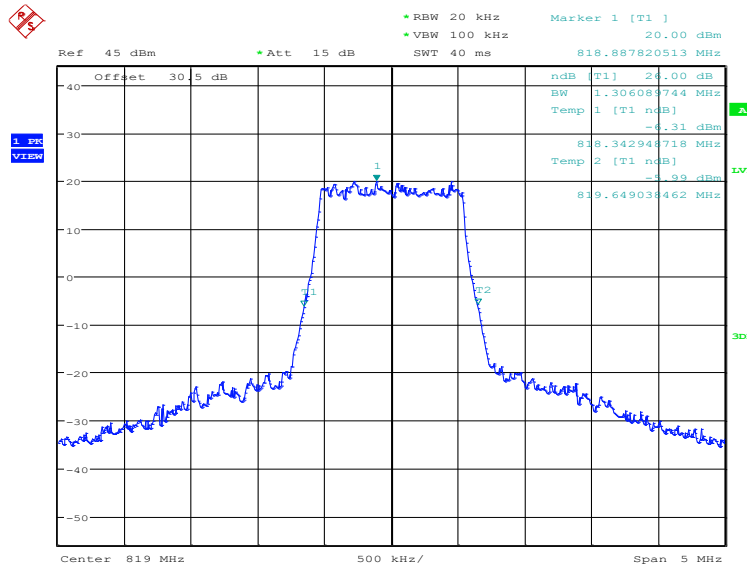
Frequency(MHz)	Emission Bandwidth (-26dBc)(kHz)	
819.0	QPSK	16QAM
	1298.08	1306.09

LTE band 26(814MHz~824MHz), 1.4MHz Bandwidth, QPSK (-26dBc BW)



Date: 4.NOV.2024 10:39:35

LTE band 26(814MHz~824MHz), 1.4MHz Bandwidth, 16QAM (-26dBc BW)

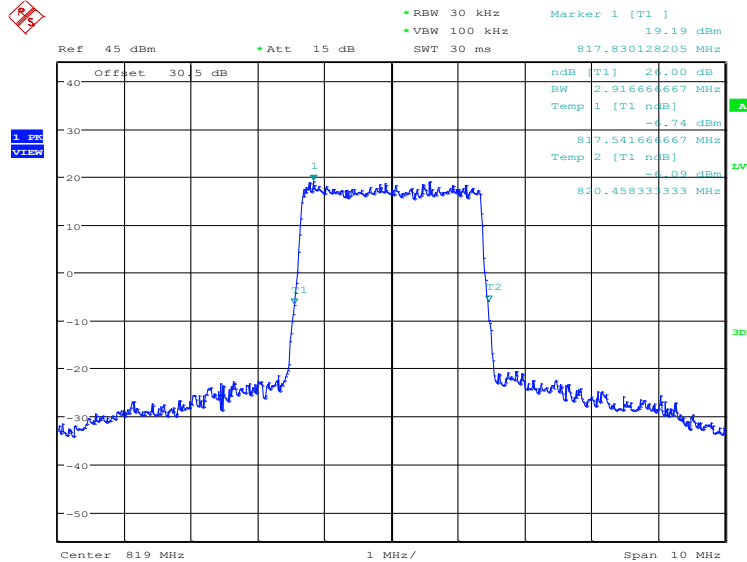


Date: 4.NOV.2024 10:40:16

LTE band 26(814MHz~824MHz), 3MHz (-26dBc)

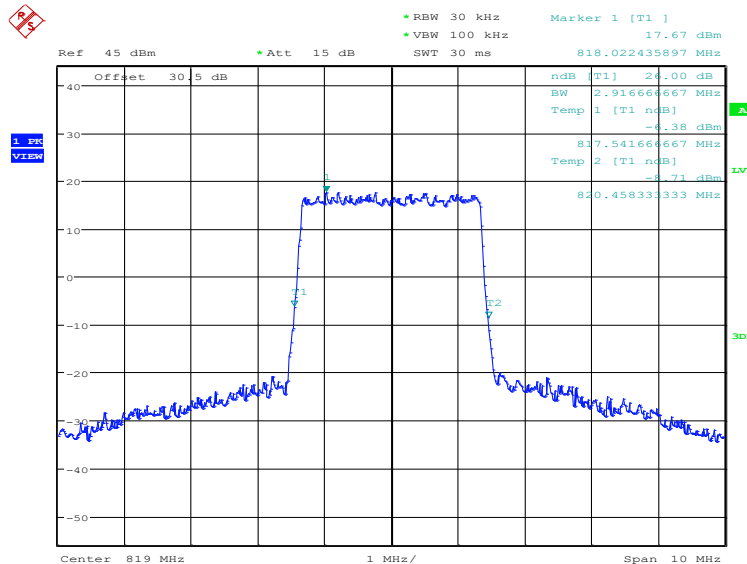
Frequency(MHz)	Emission Bandwidth (-26dBc)(kHz)	
819.0	QPSK	16QAM
	2916.67	2916.67

LTE band 26(814MHz~824MHz), 3MHz Bandwidth, QPSK (-26dBc BW)



Date: 4.NOV.2024 10:40:58

LTE band 26(814MHz~824MHz), 3MHz Bandwidth, 16QAM (-26dBc BW)

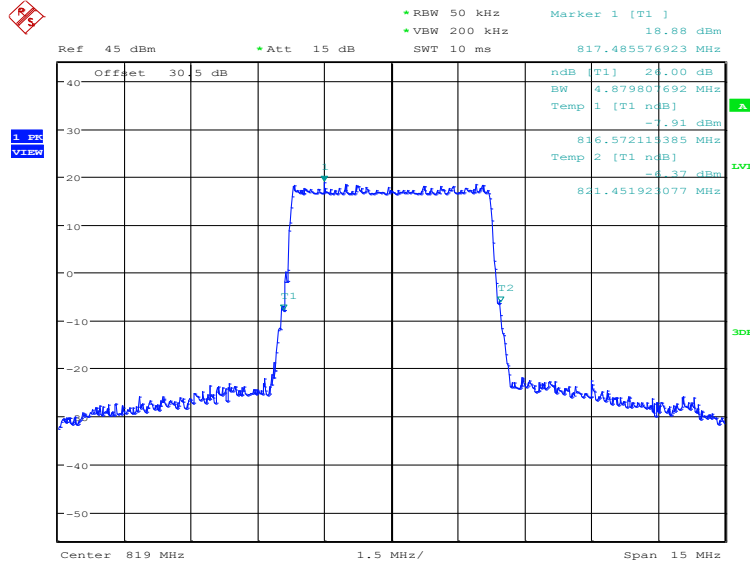


Date: 4.NOV.2024 10:41:39

LTE band 26(814MHz~824MHz), 5MHz (-26dBc)

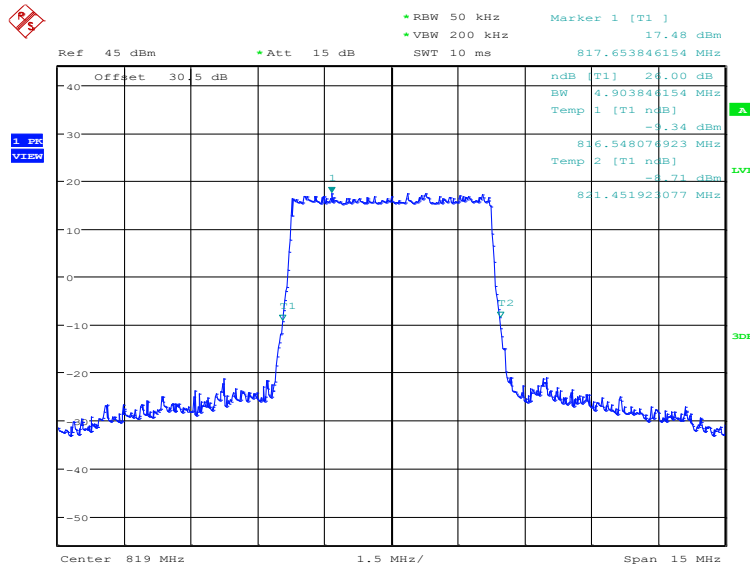
Frequency(MHz)	Emission Bandwidth (-26dBc)(kHz)	
819.0	QPSK	16QAM
	4879.81	4903.85

LTE band 26(814MHz~824MHz), 5MHz Bandwidth, QPSK (-26dBc BW)



Date: 4.NOV.2024 10:42:22

LTE band 26(814MHz~824MHz), 5MHz Bandwidth, 16QAM (-26dBc BW)

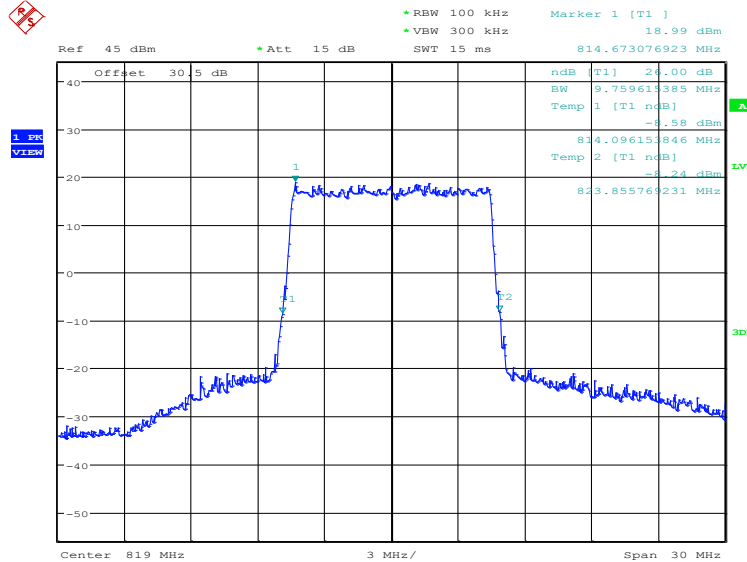


Date: 4.NOV.2024 10:43:02

LTE band 26(814MHz~824MHz), 10MHz (-26dBc)

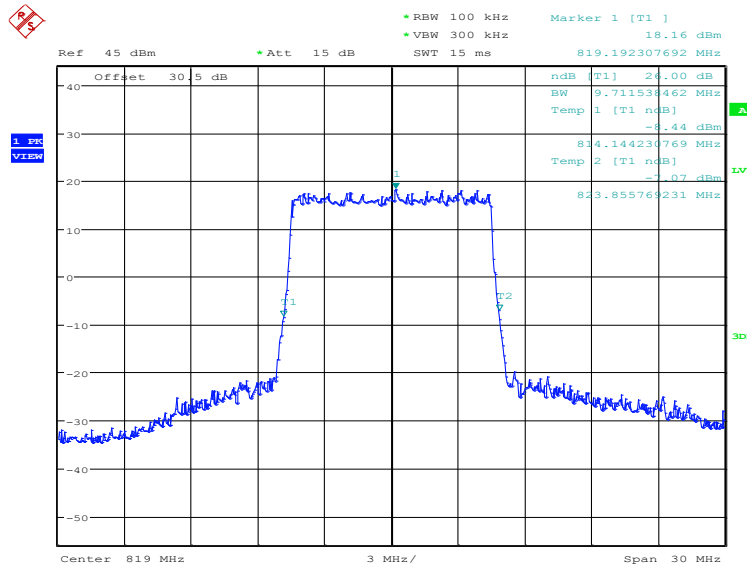
Frequency(MHz)	Emission Bandwidth (-26dBc)(kHz)	
819.0	QPSK	16QAM
	9759.62	9711.54

LTE band 26(814MHz~824MHz), 10MHz Bandwidth, QPSK (-26dBc BW)



Date: 4.NOV.2024 10:43:45

LTE band 26(814MHz~824MHz), 10MHz Bandwidth, 16QAM (-26dBc BW)

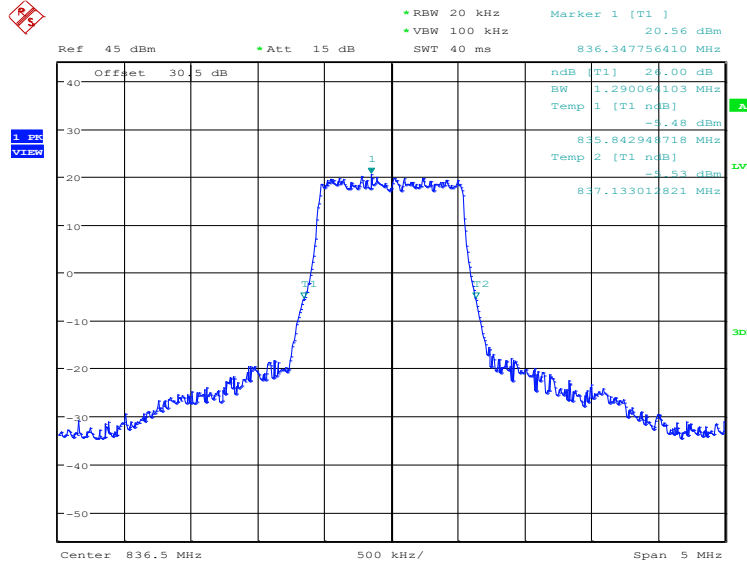


Date: 4.NOV.2024 10:44:26

LTE band 26(824MHz~849MHz), 1.4MHz (-26dBc)

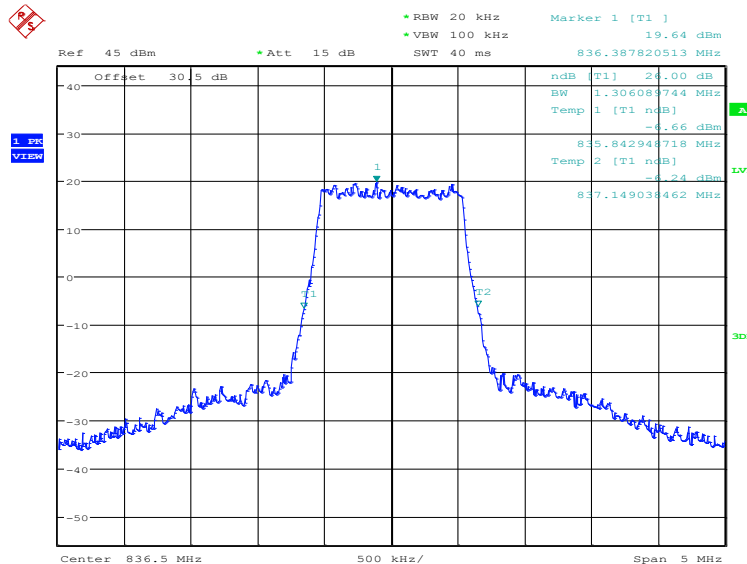
Frequency(MHz)	Emission Bandwidth (-26dBc)(kHz)	
836.5	QPSK	16QAM
	1290.06	1306.09

LTE band 26(824MHz~849MHz), 1.4MHz Bandwidth, QPSK (-26dBc BW)



Date: 4.NOV.2024 10:31:58

LTE band 26(824MHz~849MHz), 1.4MHz Bandwidth, 16QAM (-26dBc BW)



Date: 4.NOV.2024 10:32:38

Frequency(MHz)	Emission Bandwidth (-26dBc)(kHz)	
836.5	QPSK	16QAM
	2916.67	2932.69

Ref 45 dBm * Att 15 dB

RBW 30 kHz Marker 1 [T1] 18.80 dBm
VBW 100 kHz
SWT 30 ms 837.092948718 MHz

Offset 30.5 dB

1.5 dB
V2.1 dB

40
30
20
10
0
-10
-20
-30
-40
-50

dBm

Center 836.5 MHz 1 MHz/ Span 1.0 MHz

Marker 1 [T1] 24.00 dB
BW 2.916664667 MHz
Temp 1 [T1 dBm] -1.29 dBm
835.041664667 MHz
Temp 2 [T1 dBm] -1.02 dBm
837.958333333 MHz

Date: 4.NOV.2024 10:33:21

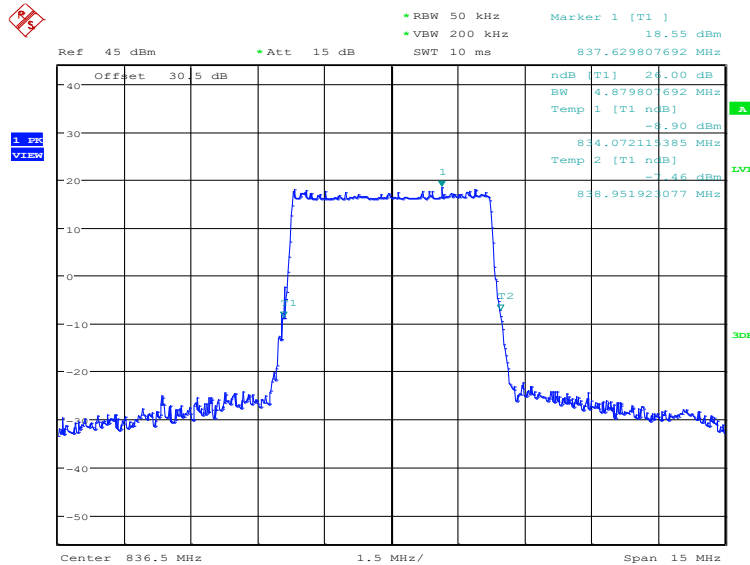
[illegible]

Date: 4.NOV.2024 10:34:02

LTE band 26(824MHz~849MHz), 5MHz (-26dBc)

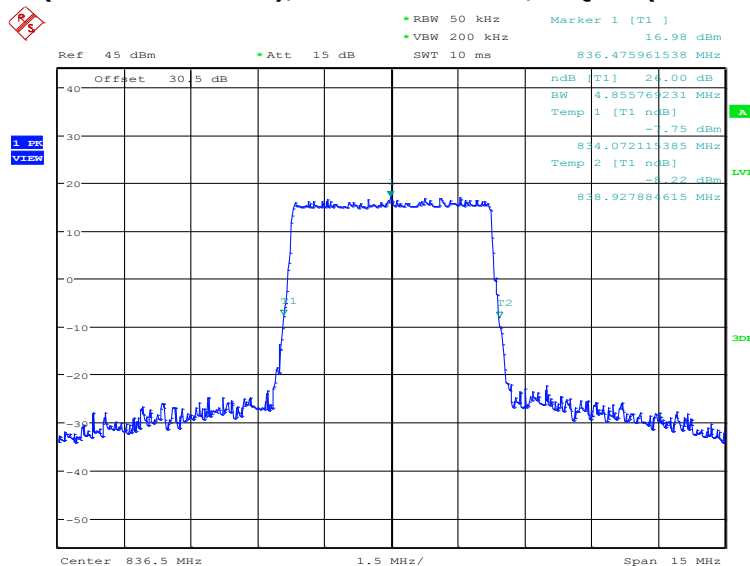
Frequency(MHz)	Emission Bandwidth (-26dBc)(kHz)	
836.5	QPSK	16QAM
	4879.81	4855.77

LTE band 26(824MHz~849MHz), 5MHz Bandwidth, QPSK (-26dBc BW)



Date: 4.NOV.2024 10:34:44

LTE band 26(824MHz~849MHz), 5MHz Bandwidth, 16QAM (-26dBc BW)

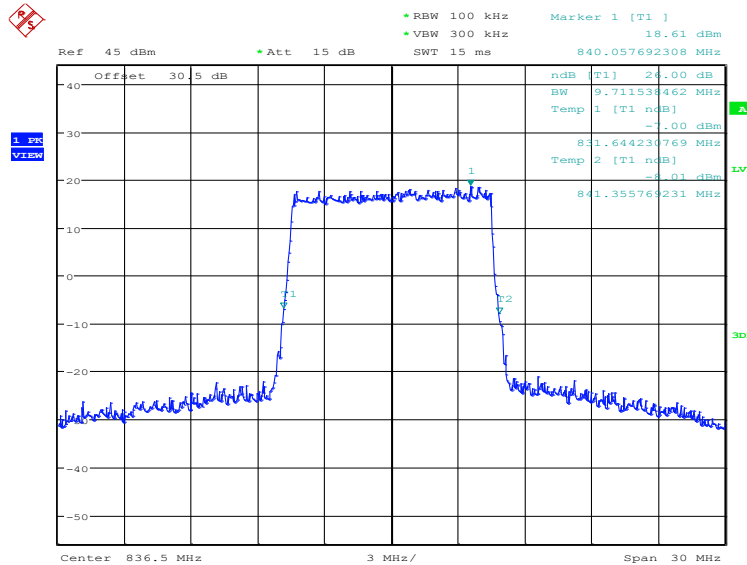


Date: 4.NOV.2024 10:35:25

LTE band 26(824MHz~849MHz), 10MHz (-26dBc)

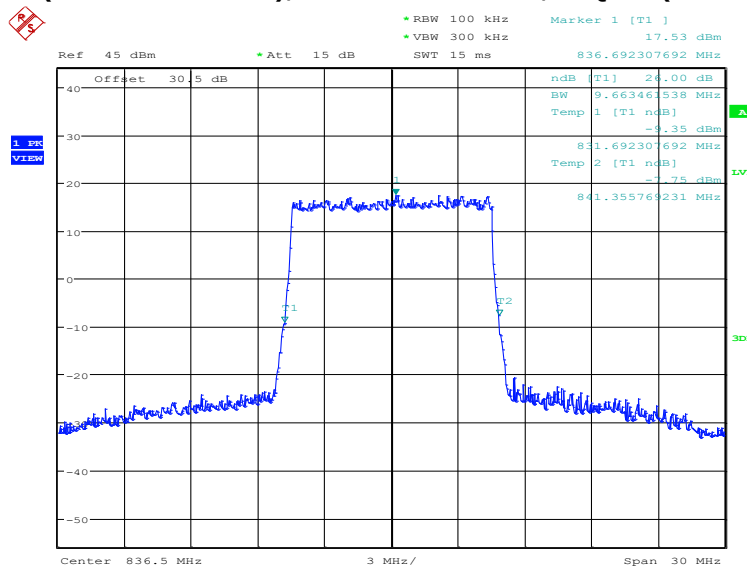
Frequency(MHz)	Emission Bandwidth (-26dBc)(kHz)	
836.5	QPSK	16QAM
	9711.54	9663.46

LTE band 26(824MHz~849MHz), 10MHz Bandwidth, QPSK (-26dBc BW)



Date: 4.NOV.2024 10:36:07

LTE band 26(824MHz~849MHz), 10MHz Bandwidth, 16QAM (-26dBc BW)



Date: 4.NOV.2024 10:36:49

Frequency(MHz)	Emission Bandwidth (-26dBc)(kHz)	
836.5	QPSK	16QAM
	14423.08	14495.19

Date: 4.NOV.2024 10:37:31

The screenshot shows a VectorStar spectrum analyzer interface. The main display is a grid with a blue trace representing the signal. The trace shows a signal with a peak at 836.5 MHz. The peak is labeled '1' and has a value of 26.00 dB. The signal is centered at 836.5 MHz with a span of 45 MHz. The resolution bandwidth (RBW) is 200 kHz, and the video bandwidth (VBW) is 1 MHz. The sweep time (SWT) is 5 ms. The offset is 45 dB, and the attenuation (Att) is 15 dB. The reference level (Ref) is 45 dBm. The display also shows the marker list on the right, including the peak value and the center frequency.

Ref 45 dBm * Att 15 dB SWT 5 ms 836.302884615 MHz

Offset 30.5 dB

Marker 1 [T1] 26.00 dB

BW 24.495192308 MHz

Temp 1 [T1 ndB] -4.50 dBm

829.288461538 MHz

Temp 2 [T1 ndB] -4.85 dBm

843.783653846 MHz

1 26.00 dB

2 26.00 dB

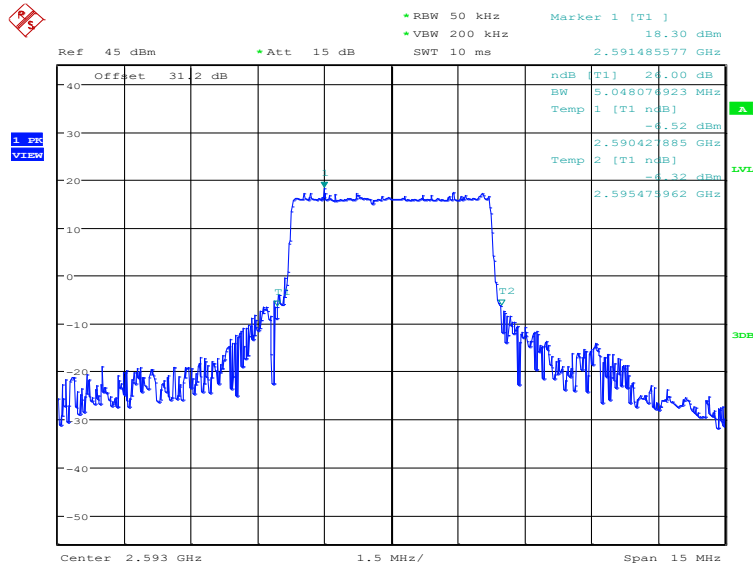
Center 836.5 MHz 4.5 MHz/ Span 45 MHz

Date: 4.NOV.2024 10:38:12

LTE band 41, 5MHz (-26dBc)

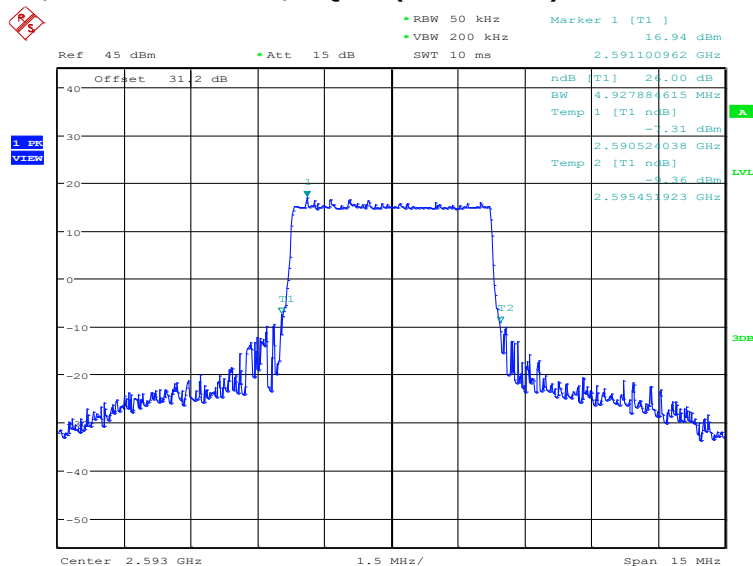
Frequency(MHz)	Emission Bandwidth (-26dBc)(kHz)	
2593.0	QPSK	16QAM
	5048.08	4927.88

LTE band 41, 5MHz Bandwidth, QPSK (-26dBc BW)



Date: 4.NOV.2024 14:00:39

LTE band 41, 5MHz Bandwidth,16QAM (-26dBc BW)

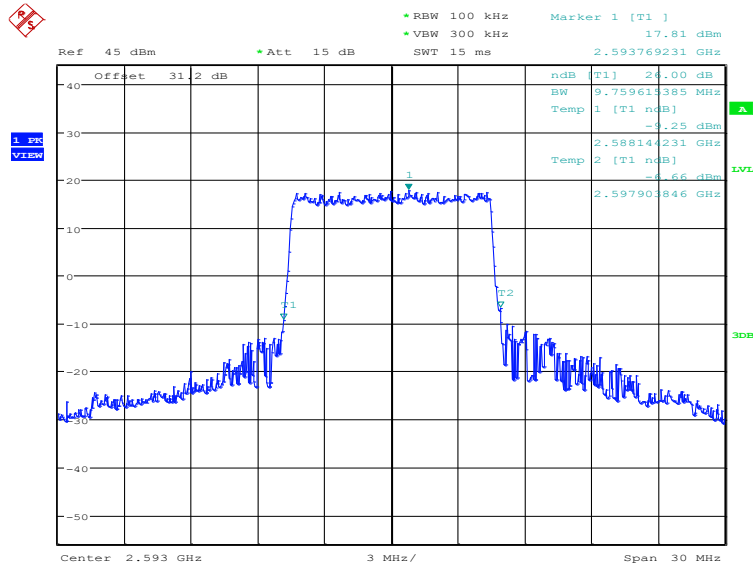


Date: 4.NOV.2024 14:01:20

LTE band 41, 10MHz (-26dBc)

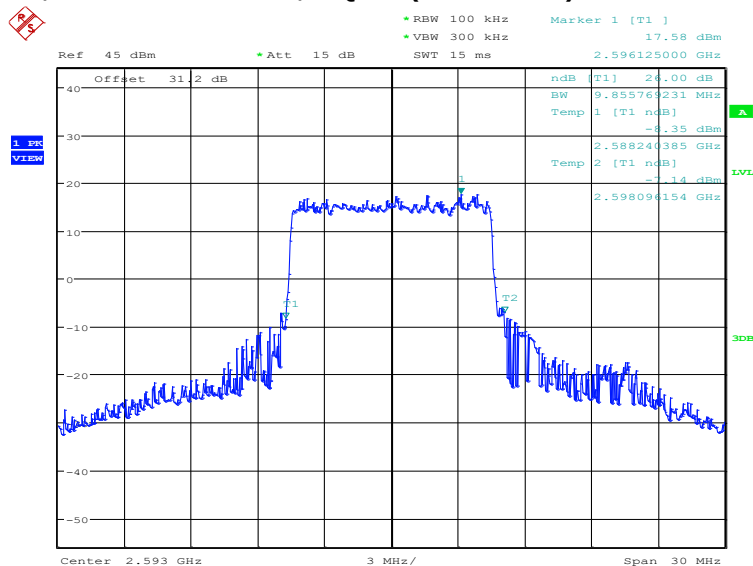
Frequency(MHz)	Emission Bandwidth (-26dBc)(kHz)	
2593.0	QPSK	16QAM
	9759.62	9855.77

LTE band 41, 10MHz Bandwidth, QPSK (-26dB BW)



Date: 4.NOV.2024 14:02:02

LTE band 41, 10MHz Bandwidth,16QAM (-26dB BW)

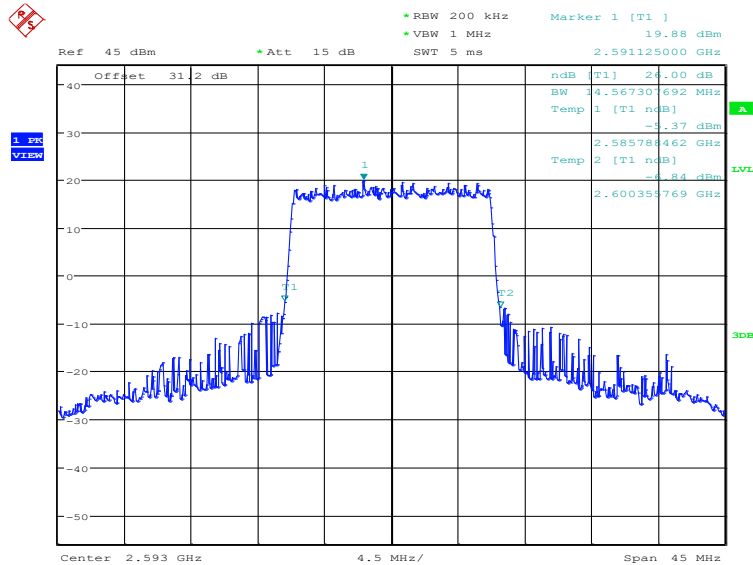


Date: 4.NOV.2024 14:02:43

LTE band 41, 15MHz (-26dBc)

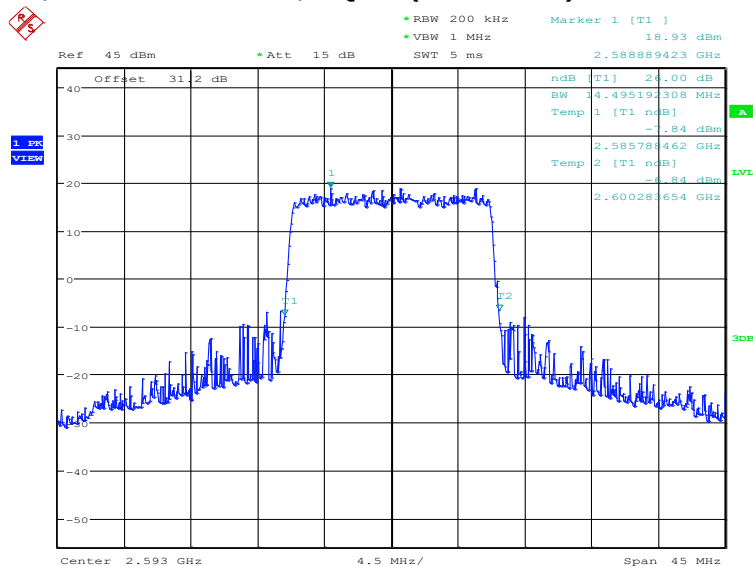
Frequency(MHz)	Emission Bandwidth (-26dBc)(kHz)	
2593.0	QPSK	16QAM
	14567.31	14495.19

LTE band 41, 15MHz Bandwidth, QPSK (-26dBc BW)



Date: 4.NOV.2024 14:03:25

LTE band 41, 15MHz Bandwidth,16QAM (-26dBc BW)

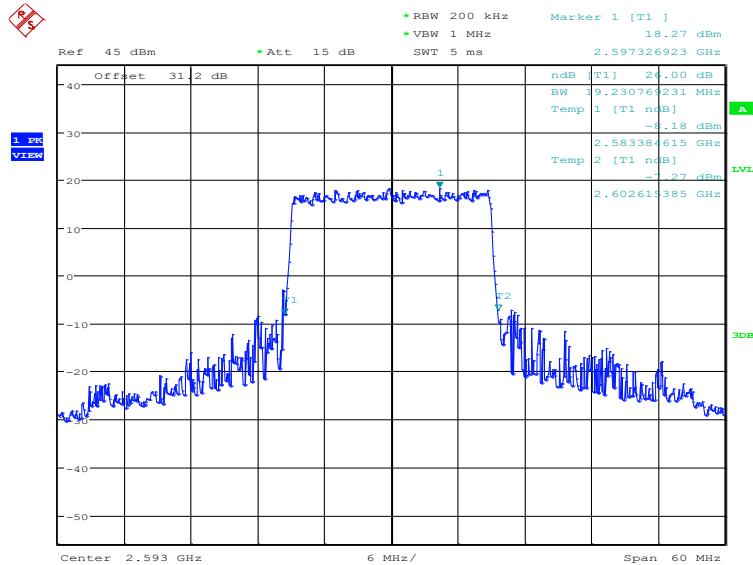


Date: 4.NOV.2024 14:04:05

LTE band 41, 20MHz (-26dBc)

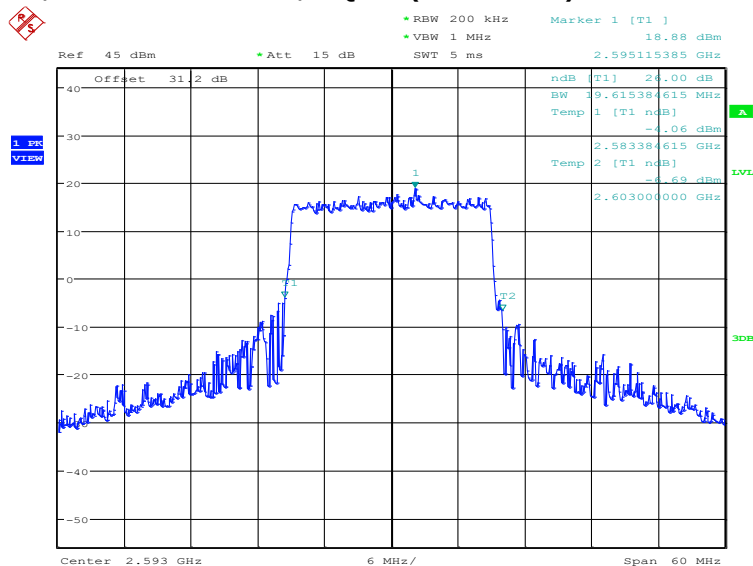
Frequency(MHz)	Emission Bandwidth (-26dBc)(kHz)	
2593.0	QPSK	16QAM
	19230.77	19615.38

LTE band 41, 20MHz Bandwidth, QPSK (-26dBc BW)



Date: 4.NOV.2024 14:04:48

LTE band 41, 20MHz Bandwidth,16QAM (-26dBc BW)

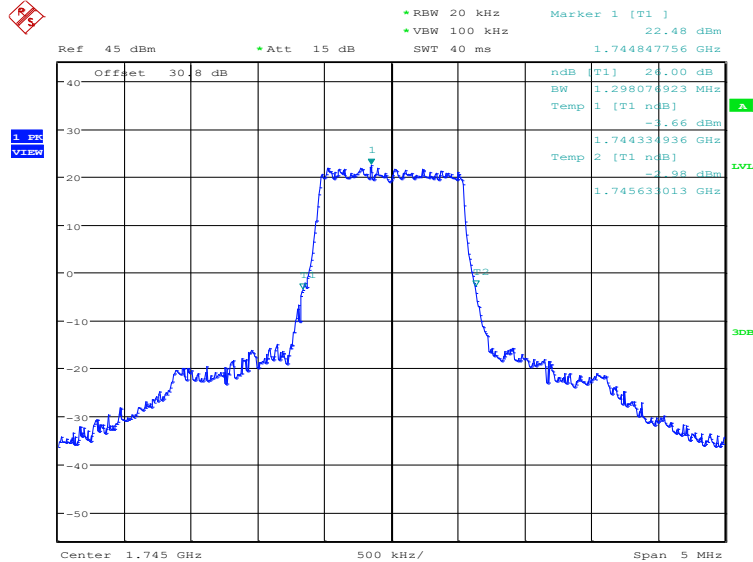


Date: 4.NOV.2024 14:05:28

LTE band 66, 1.4MHz (-26dBc)

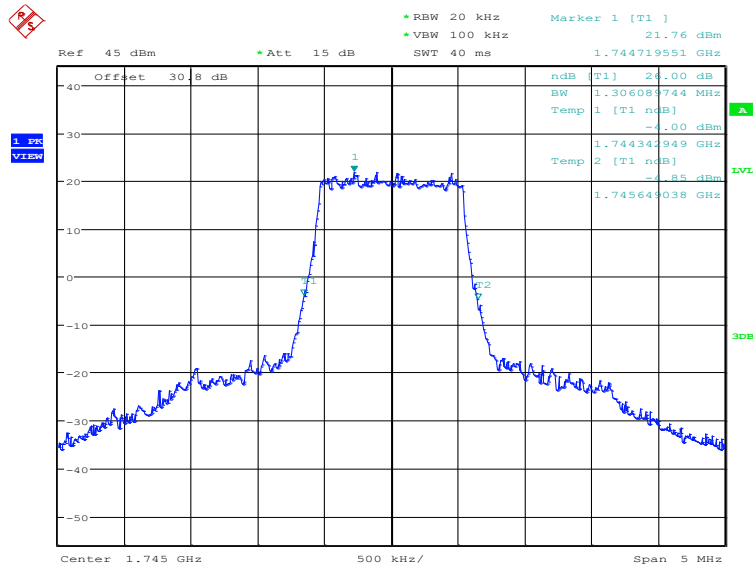
Frequency(MHz)	Emission Bandwidth (-26dBc)(kHz)	
1745.0	QPSK	16QAM
	1298.08	1306.09

LTE band 66, 1.4MHz Bandwidth, QPSK (-26dBc BW)



Date: 4.NOV.2024 10:45:10

LTE band 66, 1.4MHz Bandwidth, 16QAM (-26dBc BW)

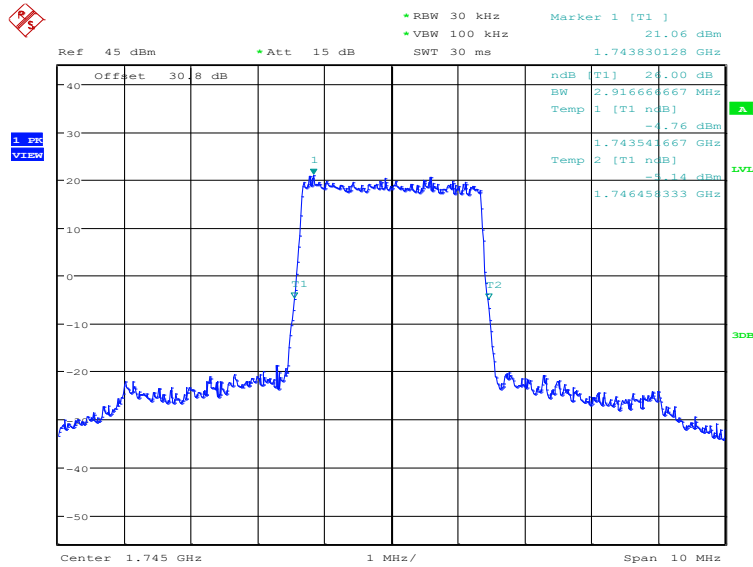


Date: 4.NOV.2024 10:45:51

LTE band 66, 3MHz (-26dBc)

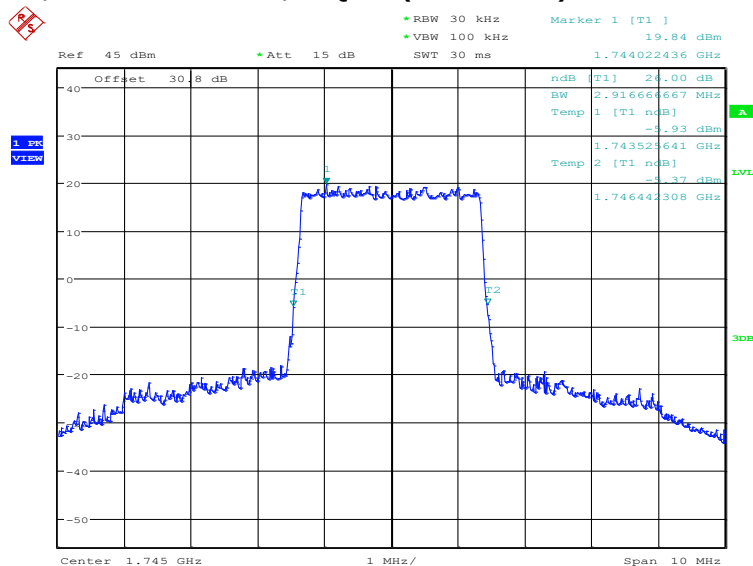
Frequency(MHz)	Emission Bandwidth (-26dBc)(kHz)	
1745.0	QPSK	16QAM
	2916.67	2916.67

LTE band 66, 3MHz Bandwidth, QPSK (-26dBc BW)



Date: 4.NOV.2024 10:46:34

LTE band 66, 3MHz Bandwidth, 16QAM (-26dBc BW)

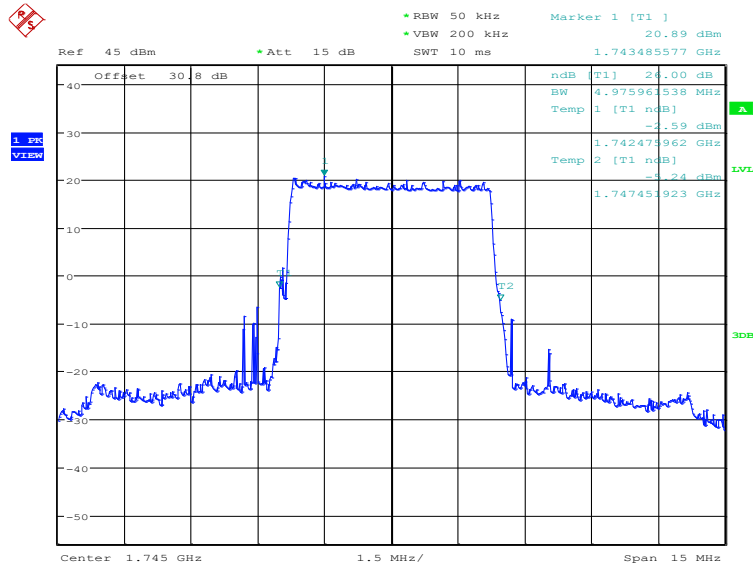


Date: 4.NOV.2024 10:47:14

LTE band 66, 5MHz (-26dBc)

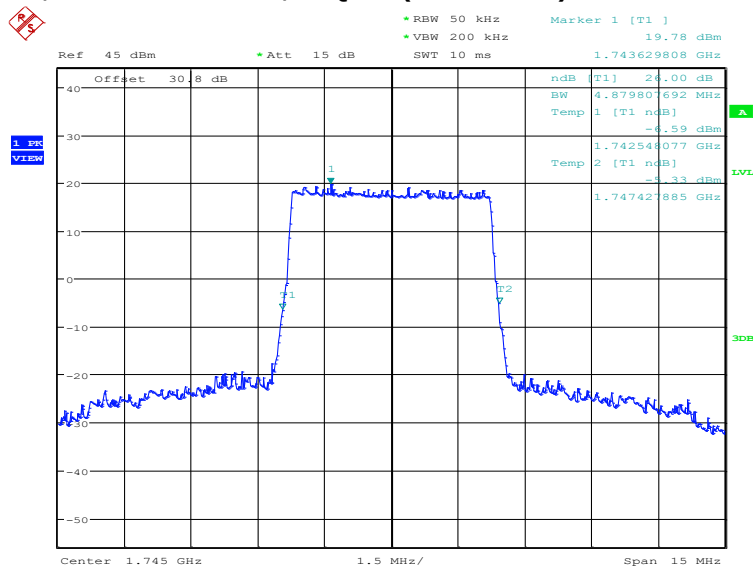
Frequency(MHz)	Emission Bandwidth (-26dBc)(kHz)	
1745.0	QPSK	16QAM
	4975.96	4879.81

LTE band 66, 5MHz Bandwidth, QPSK (-26dBc BW)



Date: 4.NOV.2024 10:47:57

LTE band 66, 5MHz Bandwidth, 16QAM (-26dBc BW)

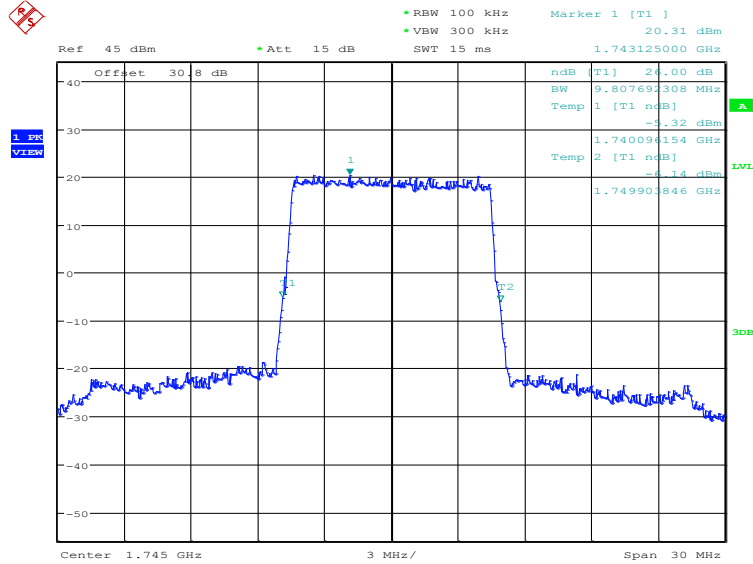


Date: 4.NOV.2024 10:48:38

LTE band 66, 10MHz (-26dBc)

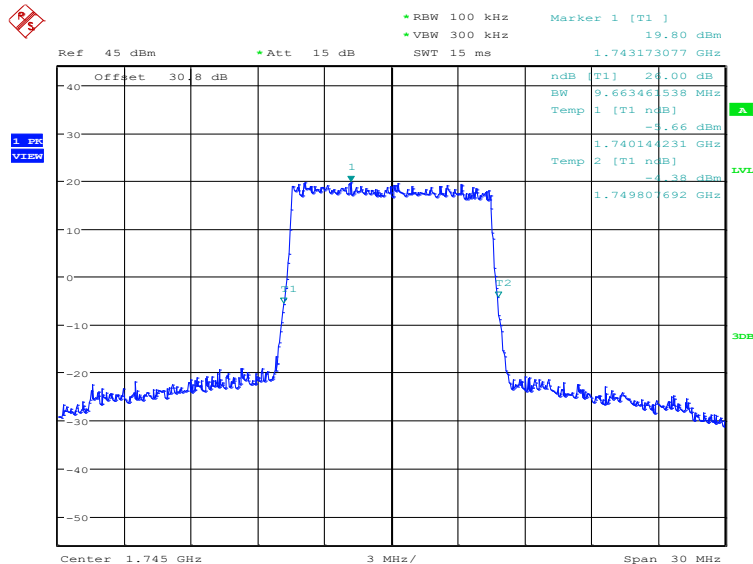
Frequency(MHz)	Emission Bandwidth (-26dBc)(kHz)	
1745.0	QPSK	16QAM
	9807.69	9663.46

LTE band 66, 10MHz Bandwidth, QPSK (-26dBc BW)



Date: 4.NOV.2024 10:49:21

LTE band 66, 10MHz Bandwidth, 16QAM (-26dBc BW)

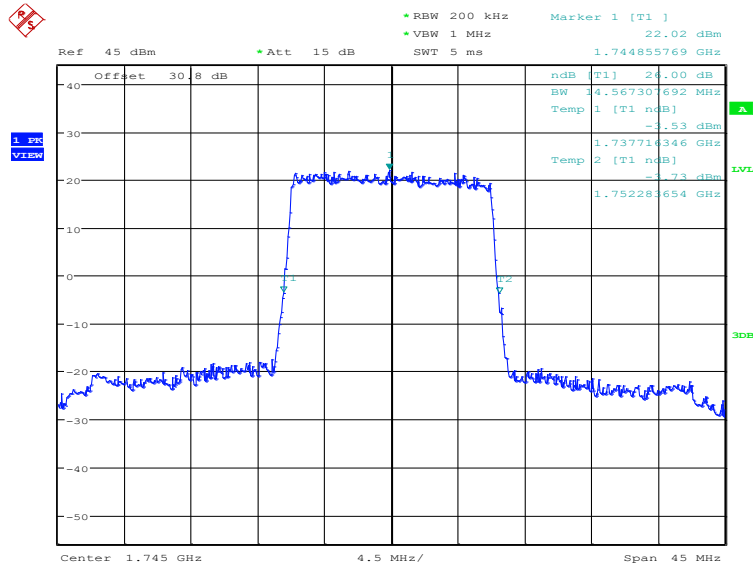


Date: 4.NOV.2024 10:50:01

LTE band 66, 15MHz (-26dBc)

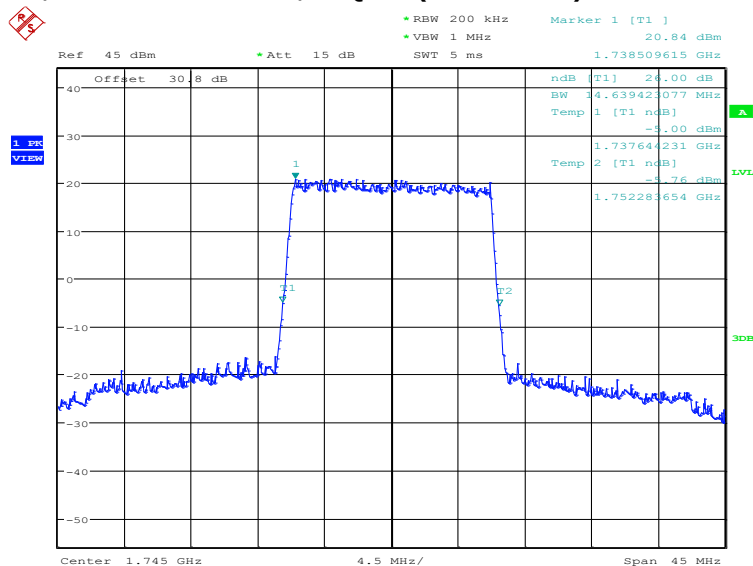
Frequency(MHz)	Emission Bandwidth (-26dBc)(kHz)	
1745.0	QPSK	16QAM
	14567.31	14639.42

LTE band 66, 15MHz Bandwidth, QPSK (-26dBc BW)



Date: 4.NOV.2024 10:50:44

LTE band 66, 15MHz Bandwidth, 16QAM (-26dBc BW)

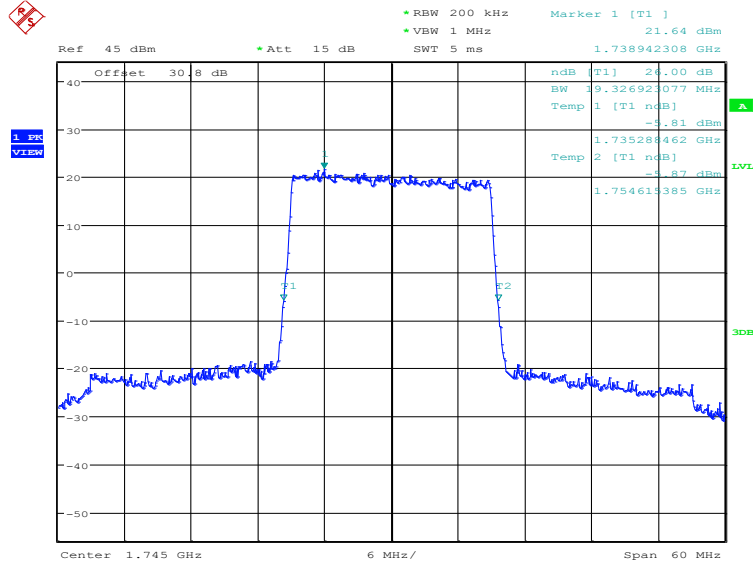


Date: 4.NOV.2024 10:51:25

LTE band 66, 20MHz (-26dBc)

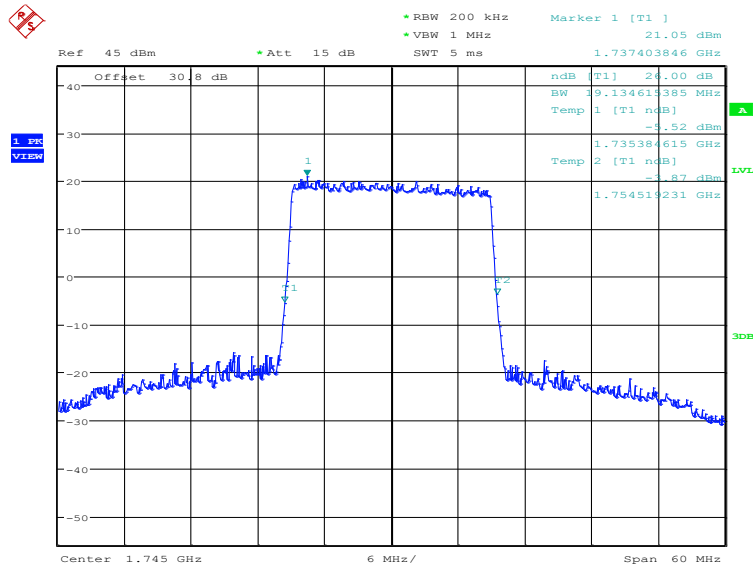
Frequency(MHz)	Emission Bandwidth (-26dBc)(kHz)	
1745.0	QPSK	16QAM
	19326.92	19134.62

LTE band 66, 20MHz Bandwidth, QPSK (-26dBc BW)



Date: 4.NOV.2024 10:52:08

LTE band 66, 20MHz Bandwidth, 16QAM (-26dBc BW)

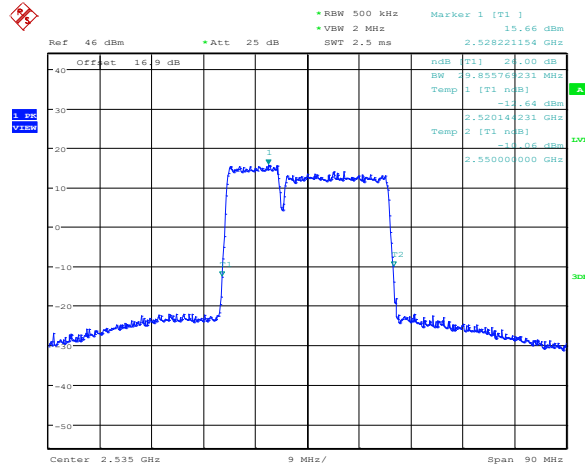


Date: 4.NOV.2024 10:52:48

LTE CA band 7C, 10MHz+20MHz(-26dBc)

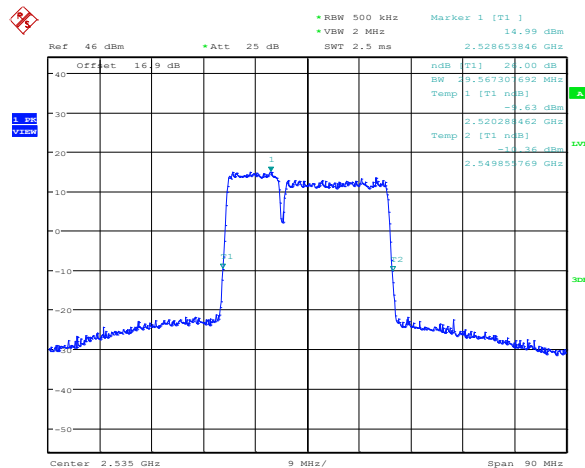
Frequency (MHz)	Emission Bandwidth (-26dBc) (MHz)	
	QPSK	16QAM
2535.0	29.856	29.567

LTE CA band 7C , 10MHz+20MHz Bandwidth,QPSK (-26dBc BW)



Date: 5.NOV.2024 10:40:22

LTE CA band 7C , 10MHz+20MHz Bandwidth,16QAM (-26dBc BW)

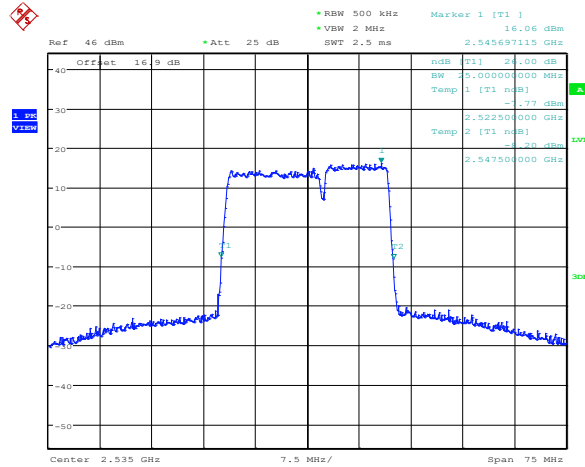


Date: 5.NOV.2024 10:40:46

LTE CA band 7C, 15MHz+10MHz(-26dBc)

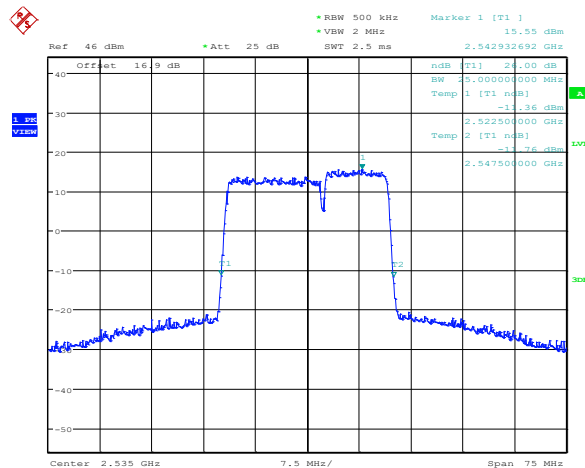
Frequency (MHz)	Emission Bandwidth (-26dBc) (MHz)	
	QPSK	16QAM
2535.0	25.000	25.000

LTE CA band 7C , 15MHz+10MHz Bandwidth,QPSK (-26dBc BW)



Date: 5.NOV.2024 10:41:41

LTE CA band 7C , 15MHz+10MHz Bandwidth,16QAM (-26dBc BW)

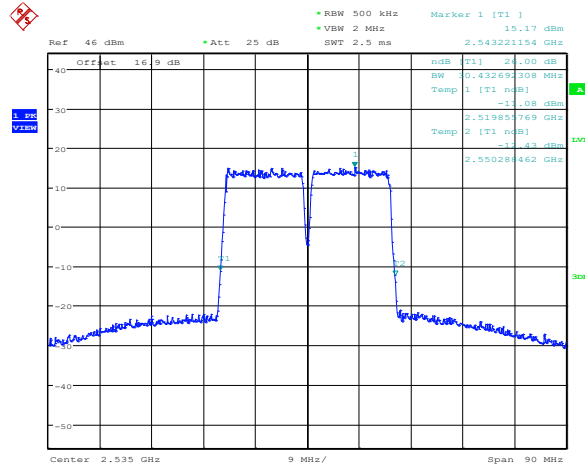


Date: 5.NOV.2024 10:42:05

LTE CA band 7C, 15MHz+15MHz(-26dBc)

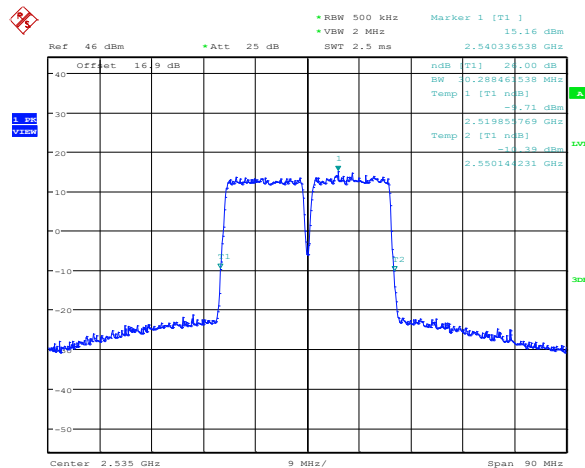
Frequency (MHz)	Emission Bandwidth (-26dBc) (MHz)	
	QPSK	16QAM
2535.0	30.433	30.288

LTE CA band 7C , 15MHz+15MHz Bandwidth,QPSK (-26dBc BW)



Date: 5.NOV.2024 10:42:58

LTE CA band 7C , 15MHz+15MHz Bandwidth,16QAM (-26dBc BW)

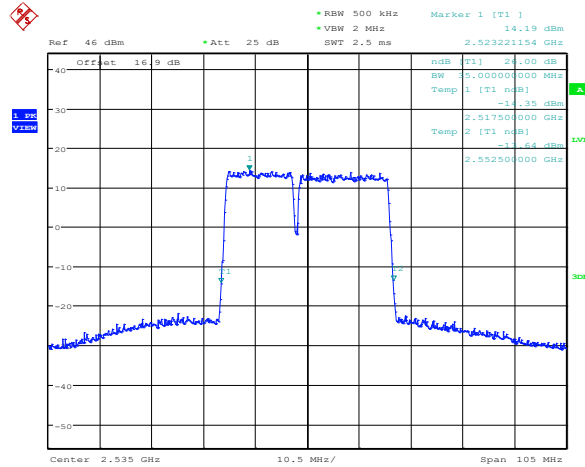


Date: 5.NOV.2024 10:43:22

LTE CA band 7C, 15MHz+20MHz(-26dBc)

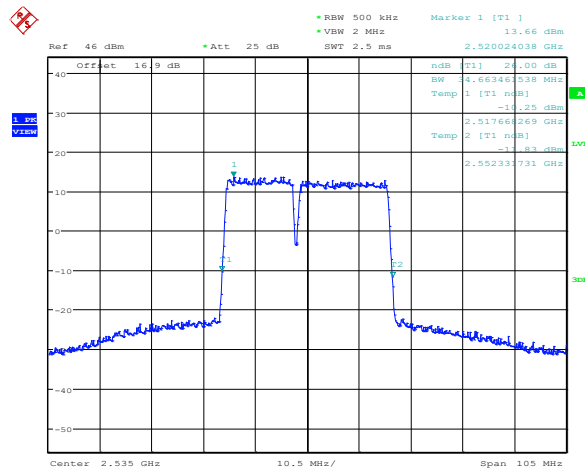
Frequency (MHz)	Emission Bandwidth (-26dBc) (MHz)	
	QPSK	16QAM
2535.0	35.000	34.663

LTE CA band 7C , 15MHz+20MHz Bandwidth,QPSK (-26dBc BW)



Date: 5.NOV.2024 10:44:16

LTE CA band 7C , 15MHz+20MHz Bandwidth,16QAM (-26dBc BW)



Date: 5.NOV.2024 10:44:39