

A.1.2 Occupied bandwidth

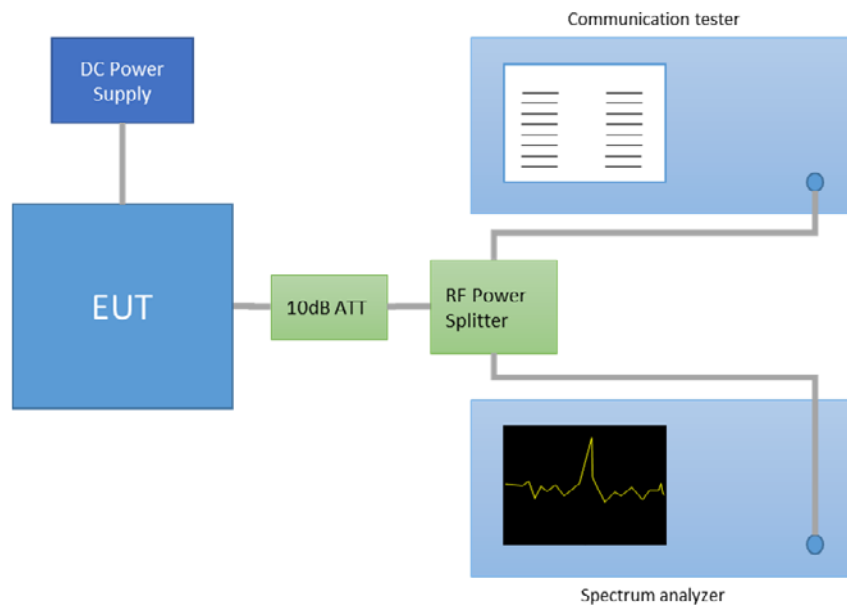
Standard references

BAND	FCC part	RSS part
LTE 12, 13, 7	2. 1049, 27.53	139-ch.2.3
LTE 26	2. 1049, 22.917, 90.691	132-ch.5.4
LTE 41	2. 1049, 27.53	199-ch.4.2, Gen-ch.6.6

Test procedure

The setup below was used to measure the transmitted occupied bandwidth. The antenna terminal of the EUT is connected to the spectrum analyzer and the communication tester through an attenuator and a power splitter. This test was performed according to the KDB 971168 D01 § 4.

The occupied bandwidth was measured on the worst case configuration selected from the chapter A.1.1 and on the low, middle and high channel.



Results tables

Band	BW [MHz]	Modulation	Channel	Channel Number	Frequency [MHz]	#RB	RB position	OBW [MHz]	EBW [MHz]
LTE 12	1.4	QPSK	Low	23017	699.7	3	0	0.570	0.775
						6	0	1.106	1.314
			Mid	23095	707.5	3	2	0.581	0.789
						6	0	1.099	1.324
			High	23173	715.3	3	3	0.576	0.770
						6	0	1.103	1.323
		16QAM	Low	23017	699.7	3	0	0.564	0.796
						6	0	1.096	1.316
			Mid	23095	707.5	3	2	0.566	0.791
						6	0	1.093	1.343
			High	23173	715.3	3	3	0.561	0.740
						6	0	1.096	1.360
	3	QPSK	Low	23025	700.5	8	0	1.450	1.712
						15	0	2.723	3.088
			Mid	23095	707.5	8	4	1.456	1.763
						15	0	2.739	3.110
			High	23165	714.5	8	7	1.460	1.713
						15	0	2.728	3.085
		16QAM	Low	23025	700.5	8	0	1.450	1.723
						15	0	2.711	3.062
			Mid	23095	707.5	8	4	1.443	1.715
						15	0	2.727	3.052
			High	23165	714.5	8	7	1.450	1.699
						15	0	2.731	3.076
	5	QPSK	Low	23035	701.5	12	0	2.184	2.610
						25	0	4.501	5.102
			Mid	23095	707.5	12	6	2.187	2.628
						25	0	4.498	5.069
			High	23155	713.5	12	13	2.168	2.626
						25	0	4.503	5.164
		16QAM	Low	23035	701.5	12	0	2.184	2.641
						25	0	4.496	5.131
			Mid	23095	707.5	12	6	2.211	2.698
						25	0	4.510	5.113
			High	23155	713.5	12	13	2.172	2.608
						25	0	4.510	5.050
	10	QPSK	Low	23060	704.0	25	0	4.561	5.639
						50	0	9.003	10.218
			Mid	23095	707.5	25	12	4.537	5.548
						50	0	9.026	10.304
			High	23130	711.0	25	25	4.538	5.625
						50	0	9.034	10.232
		16QAM	Low	23060	704.0	25	0	4.585	5.729
						50	0	9.045	10.228
			Mid	23095	707.5	25	12	4.545	5.456
						50	0	9.016	10.354
			High	23130	711.0	25	25	4.542	5.435
						50	0	8.988	10.214

Max Values

Band	BW [MHz]	Modulation	Channel	Channel Number	Frequency [MHz]	#RB	RB position	OBW [MHz]	EBW [MHz]
LTE 13	5	QPSK	Low	23205	779.5	12	0	2.175	2.629
						25	0	4.481	5.116
			Mid	23230	782.0	12	6	2.181	2.638
						25	0	4.507	5.186
			High	23255	784.5	12	13	2.196	2.616
						25	0	4.480	5.037
		16QAM	Low	23205	779.5	12	0	2.173	2.645
						25	0	4.475	5.060
			Mid	23230	782.0	12	6	2.176	2.713
						25	0	4.514	5.131
			High	23255	784.5	12	13	2.179	2.653
						25	0	4.463	5.035
	10	QPSK	Low	23230	782.0	25	0	4.513	5.427
						50	0	8.973	10.126
			Mid	23230	782.0	25	12	4.526	5.491
						50	0	8.988	10.069
			High	23230	782.0	25	25	4.514	5.449
						50	0	8.971	10.219
		16QAM	Low	23230	782.0	25	0	4.505	5.302
						50	0	8.974	10.083
			Mid	23230	782.0	25	12	4.509	5.319
						50	0	8.966	10.193
			High	23230	782.0	25	25	4.498	5.413
						50	0	8.984	10.138

Max Values

Band	BW [MHz]	Modulation	Channel	Channel Number	Frequency [MHz]	#RB	RB position	OBW [MHz]	EBW [MHz]
LTE 26	1.4	QPSK	Low	26697	814.7	3	0	0.572	0.763
						6	0	1.095	1.335
			Mid	26865	831.5	3	2	0.581	0.798
						6	0	1.095	1.309
			High	27033	848.3	3	3	0.566	0.761
						6	0	1.103	1.370
		16QAM	Low	26697	814.7	3	0	0.562	0.773
						6	0	1.093	1.304
			Mid	26865	831.5	3	2	0.577	0.774
						6	0	1.097	1.343
			High	27033	848.3	3	3	0.562	0.784
						6	0	1.103	1.323
	3	QPSK	Low	26705	815.5	8	0	1.448	1.701
						15	0	2.723	3.093
			Mid	26865	831.5	8	4	1.455	1.744
						15	0	2.720	3.083
			High	27025	847.5	8	7	1.441	1.684
						15	0	2.712	3.058
		16QAM	Low	26705	815.5	8	0	1.452	1.708
						15	0	2.715	3.037
			Mid	26865	831.5	8	4	1.447	1.701
						15	0	2.725	3.057
			High	27025	847.5	8	7	1.455	1.708
						15	0	2.707	3.050
	5	QPSK	Low	26715	816.5	12	0	2.163	2.544
						25	0	4.496	5.132
			Mid	26865	831.5	12	6	2.176	2.603
						25	0	4.508	5.133
			High	27015	846.5	12	13	2.163	2.641
						25	0	4.504	5.042
		16QAM	Low	26715	816.5	12	0	2.186	2.576
						25	0	4.496	5.155
			Mid	26865	831.5	12	6	2.192	2.639
						25	0	4.515	5.025
			High	27015	846.5	12	13	2.175	2.632
						25	0	4.523	5.096
	10	QPSK	Low	26740	819.0	25	0	4.520	5.463
						50	0	9.051	10.201
			Mid	26865	831.5	25	12	4.535	5.689
						50	0	8.986	10.324
			High	26990	844.0	25	25	4.542	5.381
						50	0	8.927	10.066
		16QAM	Low	26740	819.0	25	0	4.513	5.466
						50	0	9.009	10.263
			Mid	26865	831.5	25	12	4.531	5.407
						50	0	9.036	10.245
			High	26990	844.0	25	25	4.527	5.583
						50	0	8.952	10.107

Max Values

Band	BW [MHz]	Modulation	Channel	Channel Number	Frequency [MHz]	#RB	RB position	OBW [MHz]	EBW [MHz]
LTE 26	15	QPSK	Low	26765	821.5	36	0	6.601	8.318
						75	0	13.650	15.280
			Mid	26865	831.5	36	19	6.573	8.670
						75	0	13.466	14.986
			High	26965	841.5	36	39	6.605	8.396
						75	0	13.445	15.415
		16QAM	Low	26765	821.5	36	0	6.608	8.636
						75	0	13.522	15.093
			Mid	26865	831.5	36	19	6.641	8.347
						75	0	13.505	15.068
			High	26965	841.5	36	39	6.532	8.158
						75	0	13.400	15.321

Max Values

Band	BW [MHz]	Modulation	Channel	Channel Number	Frequency [MHz]	#RB	RB position	OBW [MHz]	EBW [MHz]
LTE 7	5	QPSK	Low	20775	2502.5	12	0	2.173	2.601
						25	0	4.515	5.099
			Mid	21100	2535.0	12	6	2.167	2.673
						25	0	4.512	5.207
			High	21425	2567.5	12	13	2.167	2.618
						25	0	4.514	5.190
		16QAM	Low	20775	2502.5	12	0	2.185	2.637
						25	0	4.514	5.119
			Mid	21100	2535.0	12	6	2.186	2.657
						25	0	4.514	5.135
			High	21425	2567.5	12	13	2.192	2.618
						25	0	4.494	5.142
	10	QPSK	Low	20800	2505.0	25	0	4.526	5.631
						50	0	9.041	10.298
			Mid	21100	2535.0	25	12	4.526	5.570
						50	0	9.039	10.266
			High	21400	2565.0	25	25	4.523	5.475
						50	0	9.004	10.228
		16QAM	Low	20800	2505.0	25	0	4.542	5.555
						50	0	9.022	10.193
			Mid	21100	2535.0	25	12	4.526	5.587
						50	0	9.003	10.185
			High	21400	2565.0	25	25	4.510	5.505
						50	0	8.988	10.326
	15	QPSK	Low	20825	2507.5	36	0	6.581	8.768
						75	0	13.516	15.926
			Mid	21100	2535.0	36	19	6.511	8.615
						75	0	13.557	15.525
			High	21375	2562.5	36	39	6.621	8.586
						75	0	13.462	15.143
		16QAM	Low	20825	2507.5	36	0	6.648	8.401
						75	0	13.464	15.118
			Mid	21100	2535.0	36	19	6.670	7.934
						75	0	13.535	15.643
			High	21375	2562.5	36	39	6.661	8.178
						75	0	13.481	15.123
	20	QPSK	Low	20850	2510.0	50	0	9.114	11.275
						100	0	17.916	20.306
			Mid	21100	2535.0	50	25	9.083	10.731
						100	0	17.898	20.176
			High	21350	2560.0	50	50	9.032	10.679
						100	0	17.882	20.353
		16QAM	Low	20850	2510.0	50	0	9.011	10.712
						100	0	17.864	20.161
			Mid	21100	2535.0	50	25	9.053	10.508
						100	0	17.924	20.623
			High	21350	2560.0	50	50	9.131	10.792
						100	0	17.813	19.865

Max Values

Band	BW [MHz]	Modulation	Channel	Channel Number	Frequency [MHz]	#RB	RB position	OBW [MHz]	EBW [MHz]
LTE 41	5	QPSK	Low	39675	2498.5	12	0	2.182	2.617
						25	0	4.495	5.180
			Mid	40620	2593.0	12	6	2.197	2.689
						25	0	4.515	5.142
			High	41565	2687.5	12	13	2.169	2.728
						25	0	4.497	5.138
		16QAM	Low	39675	2498.5	12	0	2.172	2.693
						25	0	4.515	5.065
			Mid	40620	2593.0	12	6	2.168	2.689
						25	0	4.535	5.126
			High	41565	2687.5	12	13	2.180	2.589
						25	0	4.502	5.063
	10	QPSK	Low	39700	2501.0	25	0	4.508	5.507
						50	0	9.003	10.278
			Mid	40620	2593.0	25	12	4.544	5.512
						50	0	9.000	10.174
			High	41540	2685.0	25	25	4.538	5.578
						50	0	9.018	10.192
		16QAM	Low	39700	2501.0	25	0	4.536	5.550
						50	0	8.995	10.274
			Mid	40620	2593.0	25	12	4.511	5.648
						50	0	8.992	10.043
			High	41540	2685.0	25	25	4.552	5.656
						50	0	9.010	10.176
	15	QPSK	Low	39725	2503.5	36	0	6.559	8.025
						75	0	13.458	15.155
			Mid	40620	2593.0	36	19	6.701	8.477
						75	0	13.428	15.321
			High	41515	2682.5	36	39	6.568	8.216
						75	0	13.501	15.326
		16QAM	Low	39725	2503.5	36	0	6.603	8.607
						75	0	13.442	15.323
			Mid	40620	2593.0	36	19	6.648	8.969
						75	0	13.462	15.310
			High	41515	2682.5	36	39	6.601	8.103
						75	0	13.525	15.422
	20	QPSK	Low	39750	2506.0	50	0	8.991	10.623
						100	0	17.863	20.124
			Mid	40620	2593.0	50	25	9.011	10.858
						100	0	17.828	20.099
			High	41490	2680.0	50	50	8.992	10.476
						100	0	17.877	20.002
		16QAM	Low	39750	2506.0	50	0	9.046	11.083
						100	0	17.887	19.788
			Mid	40620	2593.0	50	25	9.016	10.747
						100	0	17.899	20.272
			High	41490	2680.0	50	50	9.019	10.491
						100	0	17.874	19.944

Max Values

Screenshot results

