	30 MHz to 3530 MHz	-61.43	-62.09	-61.91	-61.77	-58.06	-3.37
24	3.72 GHz to 6.2 GHz	-65.21	-64.89	-65.08	-64.96	-58.06	-6.83
24	6.2 GHz to 18 GHz	-74.83	-75.08	-75.00	-75.12	-58.06	-16.77
	18 GHz to 40 GHz	-75.61	-75.49	-75.63	-75.66	-58.06	-17.43
	30 MHz to 3530 MHz	-61.97	-61.90	-61.99	-61.96	-58.06	-3.84
25	3.72 GHz to 6.2 GHz	-64.90	-65.06	-65.27	-65.01	-58.06	-6.84
25	6.2 GHz to 18 GHz	-74.83	-74.58	-74.82	-75.22	-58.06	-16.52
	18 GHz to 40 GHz	-75.43	-75.23	-75.73	-75.71	-58.06	-17.17
	30 MHz to 3530 MHz	-61.93	-62.22	-62.08	-61.84	-58.06	-3.78
26	3.72 GHz to 6.2 GHz	-65.07	-65.00	-64.93	-65.12	-58.06	-6.87
20	6.2 GHz to 18 GHz	-75.09	-75.29	-75.28	-75.27	-58.06	-17.03
	18 GHz to 40 GHz	-75.29	-75.42	-75.28	-75.98	-58.06	-17.22
	30 MHz to 3530 MHz	-61.76	-61.55	-61.58	-61.80	-58.06	-3.49
27	3.72 GHz to 6.2 GHz	-64.91	-64.60	-64.28	-64.53	-58.06	-6.22
21	6.2 GHz to 18 GHz	-75.26	-75.44	-75.02	-74.82	-58.06	-16.76
	18 GHz to 40 GHz	-75.24	-75.72	-75.40	-75.48	-58.06	-17.18
	30 MHz to 3530 MHz	-61.81	-62.04	-61.99	-62.09	-58.06	-3.75
20	3.72 GHz to 6.2 GHz	-65.23	-65.13	-65.36	-65.14	-58.06	-7.07
20	6.2 GHz to 18 GHz	-75.15	-75.29	-74.66	-75.08	-58.06	-16.60
	18 GHz to 40 GHz	-75.55	-75.81	-75.42	-75.70	-58.06	-17.36
	30 MHz to 3530 MHz	-62.10	-62.35	-62.24	-62.26	-58.06	-4.04
20	3.72 GHz to 6.2 GHz	-65.20	-65.03	-65.15	-65.34	-58.06	-6.97
29	6.2 GHz to 18 GHz	-75.19	-75.21	-74.63	-75.07	-58.06	-16.57
	18 GHz to 40 GHz	-75.56	-75.66	-75.52	-75.71	-58.06	-17.46
	30 MHz to 3530 MHz	-62.06	-61.63	-62.04	-61.91	-58.06	-3.57
20	3.72 GHz to 6.2 GHz	-65.03	-65.15	-64.74	-65.27	-58.06	-6.68
30	6.2 GHz to 18 GHz	-74.84	-75.31	-74.83	-75.23	-58.06	-16.77
	18 GHz to 40 GHz	-75.38	-75.68	-75.41	-75.56	-58.06	-17.32
	30 MHz to 3530 MHz	-61.88	-61.89	-62.09	-62.05	-58.06	-3.82
21	3.72 GHz to 6.2 GHz	-65.05	-65.19	-64.92	-65.42	-58.06	-6.86
51	6.2 GHz to 18 GHz	-74.66	-75.30	-75.31	-74.89	-58.06	-16.60
	18 GHz to 40 GHz	-75.23	-75.61	-75.74	-75.73	-58.06	-17.17
	30 MHz to 3530 MHz	-61.19	-60.82	-61.31	-61.27	-58.06	-2.76
32	3.72 GHz to 6.2 GHz	-63.93	-63.80	-64.04	-64.09	-58.06	-5.74
52	6.2 GHz to 18 GHz	-74.89	-74.99	-74.97	-74.96	-58.06	-16.83
	18 GHz to 40 GHz	-75.25	-75.35	-75.79	-75.37	-58.06	-17.19
	30 MHz to 3530 MHz	-60.91	-61.00	-61.04	-61.13	-58.06	-2.85
33	3.72 GHz to 6.2 GHz	-63.62	-63.66	-63.80	-63.87	-58.06	-5.56
00	6.2 GHz to 18 GHz	-74.61	-74.71	-75.08	-75.06	-58.06	-16.55
	18 GHz to 40 GHz	-75.42	-75.49	-75.57	-75.51	-58.06	-17.36
	30 MHz to 3530 MHz	-61.08	-60.93	-61.17	-60.95	-58.06	-2.87
34	3.72 GHz to 6.2 GHz	-63.85	-63.43	-63.53	-63.27	-58.06	-5.21
54	6.2 GHz to 18 GHz	-74.55	-75.25	-75.40	-75.25	-58.06	-16.49
	18 GHz to 40 GHz	-75.58	-75.44	-75.73	-75.72	-58.06	-17.38
	30 MHz to 3530 MHz	-60.69	-60.80	-61.09	-60.88	-58.06	-2.63
35	3.72 GHz to 6.2 GHz	-63.97	-63.63	-63.75	-63.78	-58.06	-5.57
55	6.2 GHz to 18 GHz	-74.80	-74.29	-74.97	-75.11	-58.06	-16.23
	18 GHz to 40 GHz	-75.43	-75.62	-75.22	-75.52	-58.06	-17.16
36	30 MHz to 3530 MHz	-61.13	-61.16	-60.92	-61.00	-58.06	-2.86

😑 element

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© 2024 Element			EC OD 46 00 Dev 0



3.72 GHz to 6.2 GHz -63.62 -63.92 -63.34 -63.65	-58.06 -5.28
6.2 GHz to 18 GHz -75.00 -74.88 -75.10 -75.03	-58.06 -16.82
18 GHz to 40 GHz -75.50 -75.75 -75.64 -75.51	-58.06 -17.44
30 MHz to 3530 MHz -61.18 -61.16 -61.31 -60.99	-58.06 -2.93
37 3.72 GHz to 6.2 GHz -63.71 -63.86 -63.97 -64.00	-58.06 -5.65
6.2 GHz to 18 GHz -74.77 -75.41 -75.10 -74.66	-58.06 -16.60
18 GHz to 40 GHz -74.85 -75.74 -75.64 -75.65	-58.06 -16.79
30 MHz to 3530 MHz -60.79 -60.44 -60.69 -60.88	-58.06 -2.38
38 3.72 GHz to 6.2 GHz -63.16 -63.57 -63.35 -63.75	-58.06 -5.10
6.2 GHz to 18 GHz -74.39 -75.36 -74.98 -75.09	-58.06 -16.33
18 GHz to 40 GHz -75.41 -75.68 -74.95 -75.70	-58.06 -16.89
30 MHz to 3530 MHz -61.19 -61.14 -61.13 -61.21	-58.06 -3.07
30 3.72 GHz to 6.2 GHz -64.05 -63.85 -64.14 -63.84	-58.06 -5.78
6.2 GHz to 18 GHz -75.13 -74.06 -74.77 -74.78	-58.06 -16.00
18 GHz to 40 GHz -75.33 -75.65 -75.90 -75.54	-58.06 -17.27
30 MHz to 3530 MHz -61.24 -61.21 -61.14 -61.16	-58.06 -3.08
3.72 GHz to 6.2 GHz -63.81 -64.01 -64.08 -64.03	-58.06 -5.75
6.2 GHz to 18 GHz -75.08 -74.83 -74.60 -74.66	-58.06 -16.54
18 GHz to 40 GHz -75.33 -75.45 -75.58 -75.87	-58.06 -17.27
30 MHz to 3530 MHz -61.57 -61.39 -61.51 -61.69	-58.06 -3.33
3.72 GHz to 6.2 GHz -64.40 -64.66 -64.45 -64.39	-58.06 -6.33
6.2 GHz to 18 GHz -75.03 -74.63 -75.14 -75.04	-58.06 -16.57
18 GHz to 40 GHz -75.29 -75.50 -75.66 -75.64	-58.06 -17.23
30 MHz to 3530 MHz -60.91 -60.69 -60.87 -60.54	-58.06 -2.48
42 3.72 GHz to 6.2 GHz -63.71 -64.02 -63.92 -64.03	-58.06 -5.65
42 6.2 GHz to 18 GHz -74.87 -75.06 -74.66 -75.40	-58.06 -16.60
18 GHz to 40 GHz -75.55 -75.88 -75.62 -75.38	-58.06 -17.32
30 MHz to 3530 MHz -60.68 -61.20 -61.34 -61.08	-58.06 -2.61
3.72 GHz to 6.2 GHz -64.06 -64.17 -64.36 -64.35	-58.06 -6.00
6.2 GHz to 18 GHz -74.39 -75.15 -75.24 -75.17	-58.06 -16.33
18 GHz to 40 GHz -75.51 -75.80 -75.67 -75.68	-58.06 -17.45
30 MHz to 3530 MHz -61.17 -61.27 -61.18 -61.12	-58.06 -3.06
3.72 GHz to 6.2 GHz -63.96 -64.14 -63.73 -63.96	-58.06 -5.67
6.2 GHz to 18 GHz -75.09 -75.23 -75.20 -75.06	-58.06 -17.00
18 GHz to 40 GHz -75.58 -75.53 -75.63 -75.75	-58.06 -17.47
30 MHz to 3530 MHz -61.54 -61.72 -61.46 -61.40	-58.06 -3.34
45 3.72 GHz to 6.2 GHz -64.44 -64.36 -64.59 -64.46	-58.06 -6.30
6.2 GHz to 18 GHz -75.23 -74.95 -74.90 -75.27	-58.06 -16.84
18 GHz to 40 GHz -75.43 -75.75 -75.55 -75.69	-58.06 -17.37
30 MHz to 3530 MHz -60.91 -60.97 -60.75 -60.91	-58.06 -2.69
46 3.72 GHz to 6.2 GHz -64.39 -64.35 -64.16 -64.47	-58.06 -6.10
6.2 GHz to 18 GHz -75.19 -74.98 -74.86 -75.09	-58.06 -16.80
18 GHz to 40 GHz -75.50 -75.24 -75.58 -75.39	-58.06 -17.18
30 MHz to 3530 MHz -61.44 -61.35 -61.47 -61.63	-58.06 -3.29
47 3.72 GHz to 6.2 GHz -64.31 -64.48 -64.10 -64.21	-58.06 -6.04
6.2 GHz to 18 GHz -75.17 -75.11 -74.73 -75.08	-58.06 -16.67
18 GHz to 40 GHz -75.12 -75.48 -75.61 -75.74	-58.06 -17.06
48 30 MHz to 3530 MHz -61.47 -61.12 -61.29 -61.43	-58.06 -3.06
3.72 GHz to 6.2 GHz -64.35 -64.43 -64.45 -64.33	-58.06 -6.27

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	6.2 GHz to 18 GHz	-75.21	-74.91	-74.77	-74.76	-58.06	-16.70
	18 GHz to 40 GHz	-75.64	-75.42	-75.29	-75.74	-58.06	-17.23
	30 MHz to 3530 MHz	-61.70	-61.53	-61.66	-61.36	-58.06	-3.30
40	3.72 GHz to 6.2 GHz	-64.43	-64.43	-64.60	-64.26	-58.06	-6.20
49	6.2 GHz to 18 GHz	-74.92	-74.72	-75.10	-75.18	-58.06	-16.66
	18 GHz to 40 GHz	-75.51	-75.77	-75.74	-75.34	-58.06	-17.28
	30 MHz to 3530 MHz	-61.47	-61.47	-61.48	-61.44	-58.06	-3.38
50	3.72 GHz to 6.2 GHz	-64.17	-64.61	-64.61	-64.75	-58.06	-6.11
50	6.2 GHz to 18 GHz	-75.33	-75.25	-74.80	-75.21	-58.06	-16.74
	18 GHz to 40 GHz	-75.44	-75.69	-75.94	-75.66	-58.06	-17.38
	30 MHz to 3530 MHz	-61.12	-61.32	-61.40	-61.14	-58.06	-3.06
51	3.72 GHz to 6.2 GHz	-64.29	-64.31	-64.28	-63.88	-58.06	-5.82
51	6.2 GHz to 18 GHz	-74.76	-74.59	-74.74	-75.20	-58.06	-16.53
	18 GHz to 40 GHz	-75.60	-75.42	-75.92	-75.59	-58.06	-17.36
	30 MHz to 3530 MHz	-61.04	-61.12	-61.08	-61.14	-58.06	-2.98
50	3.72 GHz to 6.2 GHz	-63.99	-64.17	-63.75	-64.18	-58.06	-5.69
52	6.2 GHz to 18 GHz	-74.86	-74.96	-75.20	-75.18	-58.06	-16.80
	18 GHz to 40 GHz	-75.43	-75.29	-75.72	-75.43	-58.06	-17.23
	30 MHz to 3530 MHz	-61.06	-61.24	-61.30	-61.40	-58.06	-3.00
52	3.72 GHz to 6.2 GHz	-64.15	-64.49	-64.21	-64.44	-58.06	-6.09
55	6.2 GHz to 18 GHz	-75.12	-75.24	-75.18	-75.23	-58.06	-17.06
	18 GHz to 40 GHz	-75.54	-75.59	-75.45	-75.12	-58.06	-17.06
	30 MHz to 3530 MHz	-61.44	-61.48	-61.28	-61.40	-58.06	-3.22
54	3.72 GHz to 6.2 GHz	-64.26	-64.35	-64.23	-64.32	-58.06	-6.17
54	6.2 GHz to 18 GHz	-75.25	-75.11	-74.97	-75.32	-58.06	-16.91
	18 GHz to 40 GHz	-75.31	-75.29	-75.69	-75.53	-58.06	-17.23
	30 MHz to 3530 MHz	-61.37	-61.07	-61.36	-61.22	-58.06	-3.01
55	3.72 GHz to 6.2 GHz	-63.82	-63.93	-64.19	-64.23	-58.06	-5.76
00	6.2 GHz to 18 GHz	-74.97	-74.93	-75.16	-75.37	-58.06	-16.87
	18 GHz to 40 GHz	-75.31	-75.45	-75.40	-75.58	-58.06	-17.25
	30 MHz to 3530 MHz	-61.20	-61.18	-61.28	-61.22	-58.06	-3.12
56	3.72 GHz to 6.2 GHz	-63.80	-64.05	-64.30	-63.98	-58.06	-5.74
00	6.2 GHz to 18 GHz	-74.86	-75.30	-75.40	-74.12	-58.06	-16.06
	18 GHz to 40 GHz	-75.57	-75.51	-75.59	-75.69	-58.06	-17.45
	30 MHz to 3530 MHz	-59.94	-59.99	-60.05	-60.00	-58.06	-1.88
57	3.72 GHz to 6.2 GHz	-63.79	-64.00	-64.06	-64.01	-58.06	-5.73
01	6.2 GHz to 18 GHz	-75.16	-75.04	-74.70	-74.94	-58.06	-16.64
	18 GHz to 40 GHz	-75.82	-75.68	-75.58	-75.71	-58.06	-17.52
	30 MHz to 3530 MHz	-61.15	-61.27	-61.46	-61.51	-58.06	-3.09
58	3.72 GHz to 6.2 GHz	-64.16	-64.27	-64.08	-64.51	-58.06	-6.02
00	6.2 GHz to 18 GHz	-74.94	-74.66	-74.75	-75.03	-58.06	-16.60
	18 GHz to 40 GHz	-75.16	-75.43	-75.70	-75.51	-58.06	-17.10
	30 MHz to 3530 MHz	-61.01	-60.76	-60.77	-60.92	-58.06	-2.70
59	3.72 GHz to 6.2 GHz	-63.69	-63.91	-64.30	-64.05	-58.06	-5.63
	6.2 GHz to 18 GHz	-74.98	-74.53	-75.26	-74.97	-58.06	-16.47
	18 GHz to 40 GHz	-75.43	-75.63	-75.45	-75.87	-58.06	-17.37
	30 MHz to 3530 MHz	-61.14	-61.25	-61.33	-61.11	-58.06	-3.05
60	3.72 GHz to 6.2 GHz	-64.23	-64.18	-64.24	-64.25	-58.06	-6.12
	6.2 GHz to 18 GHz	-75.08	-75.10	-74.86	-75.16	-58.06	-16.80

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		18 GHz to 40 GHz	-75.69	-75.47	-75.82	-75.57	-58.06	-17.41
		30 MHz to 3530 MHz	-61.45	-61.48	-61.17	-61.37	-58.06	-3.11
	61	3.72 GHz to 6.2 GHz	-64.69	-64.28	-64.13	-64.35	-58.06	-6.07
	01	6.2 GHz to 18 GHz	-74.81	-75.35	-75.08	-75.24	-58.06	-16.75
		18 GHz to 40 GHz	-75.67	-75.93	-75.67	-75.77	-58.06	-17.61
	62	30 MHz to 3530 MHz	-61.43	-61.36	-61.19	-61.27	-58.06	-3.13
		3.72 GHz to 6.2 GHz	-64.62	-64.32	-64.51	-64.33	-58.06	-6.26
		6.2 GHz to 18 GHz	-74.94	-74.79	-75.27	-75.21	-58.06	-16.73
		18 GHz to 40 GHz	-75.64	-75.71	-75.84	-75.59	-58.06	-17.53
		30 MHz to 3530 MHz	-61.36	-61.35	-61.50	-61.46	-58.06	-3.29
	62	3.72 GHz to 6.2 GHz	-64.30	-64.16	-64.50	-64.20	-58.06	-6.10
	03	6.2 GHz to 18 GHz	-74.59	-75.10	-74.83	-75.21	-58.06	-16.53
		18 GHz to 40 GHz	-74.95	-75.77	-75.53	-75.71	-58.06	-16.89

 Table 8-55. Conducted Spurious Emission Summary Data (NR\_1C\_40M\_High Channel)

FCC ID: A3LMT6402-48A		MEASUREMENT REPORT (Class III Permissive Change)	SAMSUNG	Approved by: Technical Manager
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Channel	Magguramont Banga	Level (dBm)			Worst
Channer	measurement Kange	NR_2C_20M+40M NR_2C_40M+40M		(dBm)	(dB)
	30 MHz to 3530 MHz	-62.02	-61.51	-58.06	-3.45
Low	3.72 GHz to 6.2 GHz	-64.61	-64.62	-58.06	-6.55
LOW	6.2 GHz to 18 GHz	-75.39	-75.37	-58.06	-17.31
	18 GHz to 40 GHz	-74.84	-74.30	-58.06	-16.24
	30 MHz to 3530 MHz	-61.93	-61.44	-58.06	-3.38
Middle	3.72 GHz to 6.2 GHz	-64.63	-64.86	-58.06	-6.57
Middle	6.2 GHz to 18 GHz	-75.38	-75.20	-58.06	-17.14
	18 GHz to 40 GHz	-74.40	-75.08	-58.06	-16.34
	30 MHz to 3530 MHz	-61.77	-61.65	-58.06	-3.59
High	3.72 GHz to 6.2 GHz	-64.65	-64.74	-58.06	-6.59
High	6.2 GHz to 18 GHz	-74.98	-75.21	-58.06	-16.92
	18 GHz to 40 GHz	-74.57	-75.27	-58.06	-16.51

Table 8-56. Conducted Spurious Emission Summary Data (NR\_ Contigous\_Multicarrier)

Channel	Macouroment Dange	Level (dBm)			Worst
Channel	Measurement Kange	NR_2C_20M+40M	40M NR_2C_40M+40M		(dB)
	30 MHz to 3530 MHz	-61.83	-61.85	-58.06	-3.77
Middle	3.72 GHz to 6.2 GHz	-64.48	-64.58	-58.06	-6.42
Middle	6.2 GHz to 18 GHz	-75.39	-75.10	-58.06	-17.04
	18 GHz to 40 GHz	-74.79	-75.26	-58.06	-16.73

Table 8-57. Conducted Spurious Emission Summary Data (NR\_ Non-Contigous\_Multicarrier)

FCC ID: A3LMT6402-48A		MEASUREMENT REPORT (Class III Permissive Change)	SAMSUNG	Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:		Dama 070 at 045
8K24010501-00.A3L	01/22/2024 - 04/02/2024	MMU (MT6402)		Page 272 of 315
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Plot 8-72. Conducted Spurious Emission Plot 6.2 GHz to 18 GHz

(LTE\_1C\_10M\_256QAM - High Channel, Port 57) + Ö Frequenc KEYSIGHT Input RE Corrections: On Freq Ref: Ext (S) 3.042 0 G 200 GH -59,534 dE Div 10 dE Ref Level -38.06 dBr Swept Span Zero Span Start Freq 30.000000 MHz AUTO TUNE 350.000000 MHz Auto Man Freq Offset 0 Hz deo BW 3.0 MHz Start 30 MHz #Res BW 1.0 MHz Stop 3.530 GH Sweep 4.67 ms (7001 pts Log Lin また C\* 
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Feb 19, 2024
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Plot 8-71. Conducted Spurious Emission Plot 3.72 GHz to 6.2 GHz



Plot 8-73. Conducted Spurious Emission Plot 18 GHz to 40 GHz



3.72 GHz to 6.2 GHz (LTE\_1C\_20M\_256QAM - High Channel, Port 57)

FCC ID: A3LMT6402-48A		MEASUREMENT REPORT (Class III Permissive Change)	Approved by: Technical Manager	
Test Report S/N:	Test Dates:	EUT Type:	Daga 072 of 245	
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Plot 8-78. Conducted Spurious Emission Plot 30 MHz to 3.53 GHz

(LTE\_3C\_20M+20M+20M\_QPSK - High Channel, Port 0)



(LTE\_3C\_20M+20M+20M\_QPSK - High Channel, Port 0)



Plot 8-77. Conducted Spurious Emission Plot 18 GHz to 40 GHz



Plot 8-79. Conducted Spurious Emission Plot

3.72 GHz to 6.2 GHz (LTE\_3C\_20M+20M+20M\_QPSK - High Channel, Port 0)



(LTE\_3C\_20M+20M+20M\_ QPSK - High Channel, Port 0)

FCC ID: A3LMT6402-48A	element)	MEASUREMENT REPORT (Class III Permissive Change)	Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Dega 074 of 045
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Plot 8-84. Conducted Spurious Emission Plot 6.2 GHz to 18 GHz



Plot 8-86. Conducted Spurious Emission Plot 30 MHz to 3.53 GHz (NR\_1C\_20M\_16QAM - High Channel, Port 57)



Plot 8-83. Conducted Spurious Emission Plot 3.72 GHz to 6.2 GHz (LTE\_3C\_20M+20M+20M\_QPSK – Non-Contiguous, Port 0)



Plot 8-85. Conducted Spurious Emission Plot 18 GHz to 40 GHz



3.72 GHz to 6.2 GHz (NR\_1C\_20M\_16QAM - High Channel, Port 57)

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Plot 8-90. Conducted Spurious Emission Plot 30 MHz to 3.53 GHz

(NR\_1C\_40M\_16QAM - Low Channel, Port 57) + Ø Frequer KEYSIGHT Input RE ----Alian: Aut Freq Ref: Int (S) NFE: Off 17.746 5 G -74.853 dE Div 10 dB Ref Level -38.06 dBr Swept Span Zero Span Start Freq 6.2000000 00 GHz op Freq AUTO TUNE Auto Man Freq Offset 0 Hz Local #Video BW 3.0 MHz Stop 18. Sweep 20.5 ms (23 Start 6.200 GHz #Res BW 1.0 MHz Log Lin Jan 28, 2024 🗩 🗋 🖓 🖓 

Plot 8-92. Conducted Spurious Emission Plot 6.2 GHz to 18 GHz (NR\_1C\_40M\_16QAM - Low Channel, Port 57)



Plot 8-89. Conducted Spurious Emission Plot 18 GHz to 40 GHz



Et 2:43 AM .: 🖹 X Plot 8-91. Conducted Spurious Emission Plot



Plot 8-93. Conducted Spurious Emission Plot 18 GHz to 40 GHz (NR\_1C\_40M\_16QAM - Low Channel, Port 57)

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Plot 8-96. Conducted Spurious Emission Plot 6.2 GHz to 18 GHz



Plot 8-98. Conducted Spurious Emission Plot 30 MHz to 3.53 GHz (NR\_2C\_20M+40M\_QPSK – Non-Contiguous, Port 0)



Plot 8-95. Conducted Spurious Emission Plot 3.72 GHz to 6.2 GHz (NR\_2C\_40M+40M\_QPSK – Middle Channel, Port 0)



Plot 8-97. Conducted Spurious Emission Plot 18 GHz to 40 GHz



3.72 GHz to 6.2 GHz (NR\_2C\_20M+40M\_QPSK – Non-Contiguous, Port 0)

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Plot 8-100. Conducted Spurious Emission Plot 6.2 GHz to 18 GHz (NR\_2C\_20M+40M\_QPSK – Non-Contiguous, Port 0)



Plot 8-101. Conducted Spurious Emission Plot 18 GHz to 40 GHz (NR\_2C\_20M+40M\_QPSK – Non-Contiguous, Port 0)

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# 8.8 Radiated spurious emission

## **Test Overview**

Radiated spurious emissions measurements are performed using the field strength method described in ANSI C63.26-2015 with the EUT transmitting into an integral antenna. Measurements on signals operating below 1GHz are performed using vertically and horizontally polarized broadband tri-log antennas. Measurements on signals operating above 1GHz are performed using vertically and horizontally and horizontally polarized broadband tri-log antennas.

## Test Procedure Used

ANSI C63.26 - Section 5.5.4 KDB 971168 D01 v03r01 - Section 7

### Test Setting

- 1. Start frequency was set to 30 MHz and stop frequency was set to at least 10 \* the fundamental frequency
- 2. RBW = 1 MHz
- 3. VBW  $\geq$  3 x RBW
- 4. No. of sweep points > 2 x span / RBW
- 5. Detector = RMS
- 6. Trace mode = Max Hold (In cases where the level is within 2 dB of the limit, the final measurement is taken using triggering/gating and trace averaging.)
- 7. The trace was allowed to stabilize.

## <u>Limit</u>

- § 96.41 (e)
- Any emission below 3530 MHz and above 3720 MHz  $\leq$  -40 dBm/MHz

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The EUT and measurement equipment were set up as shown in the diagram below.



Figure 8-8. Test Instrument & Measurement Setup > 1GHz

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# Test Notes

1. The average EIRP reported below is calculated per 5.2.7 of ANSI C63.26-2015 which states:

The measured e.i.r.p is converted to E-field in V/m. Then the distance correction is applied before converted back to calculated e.i.r.p.as explained in KDB 971168 D01 D01 v03r01.

# Effective Isotropic Radiated Power Sample Calculation

Field Strength [dBµV/m]	= Measured Value [dBm] + AFCL [dB/m] + 107
	= -69.29 dBm + 10.26 dBm + 107 = 47.97 dBμV/m
e.i.r.p. [dBm]	= E[dB µV/m] + 20 log10(d[m]) - 104.8
	= 47.97 + (20*log (3)) - 104.8
	= -47.29 dBm e.i.r.p.

#### \*AFCL (dB/m) contains measurement antenna factor(dB/m) and cable loss(dB) as below:

Frequency [MHz]	Antenna Factor (dB/m)	Chamber measurement cable loss + amplifier [dB]	AFCL (dB/m)
10183.5	37.93	-27.66	10.26
10212.4	37.91	-25.73	10.19

#### Table 8-34. Adopted AFCL value in the calculation

- 2. The EUT was tested in both horizontal and vertical antenna polarizations and in all possible test configurations and positioning. The worst case emissions are reported with the EUT positioning, modulations, channel bandwidth configurations shown in the tables below.
- 3. The spectrum is measured from 30 MHz to the 10th harmonic of the fundamental frequency of the transmitter. The worst-case emissions are reported.
- 4. All emissions were measured at a 3-meter test distance.
- 5. Spurious emissions were measured with all EUT antennas transmitting simultaneously and all antenna ports terminated.
- 6. The "-" shown in the following RSE tables are used to denote a noise floor measurement.

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Plot 8-103. Radiated spurious emission Plot\_1 GHz to 18 GHz (LTE\_1C\_10M\_QPSK - Mid Channel)





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Plot 8-109. Radiated spurious emission Plot\_1 GHz to 18 GHz (LTE\_1C\_20M\_QPSK - Mid Channel)





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Plot 8-112. Radiated spurious emission Plot\_1 GHz to 18 GHz (LTE\_1C\_20M\_QPSK - High Channel)





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Plot 8-114. Radiated spurious emission Plot\_1 GHz to 18 GHz (LTE\_3C\_20M+20M+20M\_QPSK - Mid Channel)



Plot 8-115. Radiated spurious emission Plot\_18 GHz to 40 GHz (LTE\_3C\_20M+20M+20M\_QPSK - Mid Channel)

FCC ID: A3LMT6402-48A	element)	MEASUREMENT REPORT (Class III Permissive Change)	SAMSUNG	Approved by: Technical Manager
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Plot 8-117. Radiated spurious emission Plot\_18 GHz to 40 GHz (LTE\_3NC\_20M+20M+20M\_QPSK - Mid Channel)

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Plot 8-122. Radiated spurious emission Plot\_1 GHz to 18 GHz (NR\_1C\_40M\_QPSK - Low Channel)





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Plot 8-125. Radiated spurious emission Plot\_1 GHz to 18 GHz (NR\_1C\_40M\_QPSK - Mid Channel)





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Plot 8-128. Radiated spurious emission Plot\_1 GHz to 18 GHz (NR\_1C\_40M\_QPSK - High Channel)





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Plot 8-131. Radiated spurious emission Plot\_18 GHz to 40 GHz (NR\_2C\_40M+40M\_QPSK - Mid Channel)

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Plot 8-133. Radiated spurious emission Plot\_18 GHz to 40 GHz (NR\_2NC\_40M+40M\_QPSK - Mid Channel)

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Frequency [MHz]	Ant. Pol. [H/V]	Antenna Heigh [cm]	Turntable azimuth [degree]	Analyzer Level [dBm/MHz]	AFCL [dBm]	Field Strength [dB⊮//m]	RSE EIRP [dBm/MHz]	Limit [dBm/MHz]	Margin [dB]
10183.5	Н	124	117	-69.29	10.26	47.97	-47.29	-40.00	-7.29
10183.5	V	132	123	-68.71	10.26	48.55	-46.71	-40.00	-6.71
10212.4	Н	138	190	-74.32	10.19	42.87	-52.39	-40.00	-12.39
10212.4	V	132	196	-73.58	10.19	43.61	-51.65	-40.00	-11.65

 
 Table 8-35. Radiated spurious emission Worst mode Summary Data (NR\_1C\_40M\_QPSK - High Channel)

Note: Pre-scan measurements were taken with trace on maxhold. Pre-scan plots are used for emissions detection and identification. All final spurious emission measurements were taken by maximizing each emission separately using trace average with RMS detector.

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# 9.0 CONCLUSION

The data collected relate only to the item(s) tested and show that the **Samsung Electronics Co., Ltd. CBSD FCC ID: A3LMT6402-48A** complies with all of the requirements of Part 96 of the FCC Rules.

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# **10.0 APPENDIX. A**

# 10.1 Conducted Average Output Power

## **Test Overview**

A transmitter port of EUT is connected to the input of a signal analyzer. All measurements are performed as RMS average measurements while the EUT is operating at its maximum duty cycle, at maximum power, and at the appropriate frequencies.

#### **Test Description**

KDB 971168 D01 v03r01 – Section 5 KDB 662911 D01 v02r01 – Section E)1) In-Band Power Measurements ANSI C63.26-2015 – Section 5.2.4.4.1

The measurement was made using a direct connection between the RF output of the EUT and the spectrum analyzer. The spectrum analyzer settings were as follows:

- 1. Conducted power measurements are performed using the signal analyzer's "channel power" measurement capability for signals with continuous operation.
- 2. RBW =  $1 \sim 5\%$  of the expected OBW
- 3. VBW ≥ 3 x RBW
- 4. Span = 2 ~ 3 x OBW
- 5. No. of sweep points > 2 x span / RBW
- 6. Detector = RMS
- 7. Trigger Settings is set to "RF Power" for signals with non-continuous operation with the sweep times set to

"auto". Refer test note 3 for details.

- 8. Trace mode = Trace-Averaging (RMS) set to average over 100 sweeps
- 9. The trace was allowed to stabilize

#### Test Setup

The EUT and measurement equipment were set up as shown in the diagram below.



Figure 10-1. Test Instrument & Measurement Setup

## <u>Limit</u>

N/A

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