

High	2	9 kHz to 150 kHz	-52.45	-52.57	-52.77	-52.60	-39.02	-13.43	
		150 kHz to 30 MHz	-36.47	-38.12	-37.52	-37.81	-29.02	-7.45	
		30 MHz to 858 MHz	-43.30	-43.30	-43.61	-43.55	-19.02	-24.28	
		858 MHz to 868 GHz	-32.51	-33.02	-33.55	-32.52	-19.02	-13.49	
		895 MHz to 1 GHz	-33.23	-33.00	-34.08	-32.90	-19.02	-13.88	
		1 GHz to 10 GHz	-26.12	-25.53	-26.18	-25.06	-19.02	-6.04	
	3	9 kHz to 150 kHz	-51.98	-51.81	-52.31	-52.00	-39.02	-12.79	
		150 kHz to 30 MHz	-37.00	-36.42	-37.33	-38.60	-29.02	-7.40	
		30 MHz to 858 MHz	-43.79	-43.65	-43.77	-43.55	-19.02	-24.53	
		858 MHz to 868 GHz	-34.08	-33.66	-32.53	-33.88	-19.02	-13.51	
		895 MHz to 1 GHz	-34.80	-34.51	-34.41	-34.79	-19.02	-15.39	
		1 GHz to 10 GHz	-29.15	-28.40	-29.35	-29.19	-19.02	-9.38	
	0	0	9 kHz to 150 kHz	-51.93	-51.98	-52.05	-52.01	-39.02	-12.91
			150 kHz to 30 MHz	-39.08	-38.95	-38.94	-38.66	-29.02	-9.64
			30 MHz to 858 MHz	-43.20	-43.18	-43.08	-42.91	-19.02	-23.89
			858 MHz to 868 GHz	-36.32	-36.57	-36.90	-35.77	-19.02	-16.75
			895 MHz to 1 GHz	-26.61	-27.39	-30.03	-24.55	-19.02	-5.53
			1 GHz to 10 GHz	-24.41	-26.55	-26.51	-27.51	-19.02	-5.39
		1	9 kHz to 150 kHz	-50.97	-51.03	-51.36	-50.98	-39.02	-11.95
			150 kHz to 30 MHz	-39.23	-38.71	-38.79	-38.76	-29.02	-9.69
			30 MHz to 858 MHz	-43.66	-43.86	-43.65	-43.73	-19.02	-24.63
			858 MHz to 868 GHz	-37.16	-37.43	-37.19	-37.04	-19.02	-18.02
			895 MHz to 1 GHz	-27.17	-27.66	-28.17	-29.27	-19.02	-8.15
			1 GHz to 10 GHz	-25.32	-25.12	-24.66	-24.26	-19.02	-5.24
2		9 kHz to 150 kHz	-52.19	-52.29	-52.50	-52.64	-39.02	-13.17	
		150 kHz to 30 MHz	-38.85	-38.95	-39.19	-40.23	-29.02	-9.83	
		30 MHz to 858 MHz	-43.47	-43.71	-43.63	-43.57	-19.02	-24.45	
		858 MHz to 868 GHz	-34.48	-34.94	-35.55	-35.41	-19.02	-15.46	
		895 MHz to 1 GHz	-29.07	-28.29	-27.62	-27.55	-19.02	-8.53	
		1 GHz to 10 GHz	-26.60	-26.43	-26.32	-24.97	-19.02	-5.95	
3	9 kHz to 150 kHz	-52.10	-51.94	-51.87	-51.55	-39.02	-12.53		
	150 kHz to 30 MHz	-39.43	-38.65	-39.41	-38.68	-29.02	-9.63		
	30 MHz to 858 MHz	-43.52	-43.62	-43.59	-43.64	-19.02	-24.50		
	858 MHz to 868 GHz	-36.04	-35.47	-36.09	-36.03	-19.02	-16.45		
	895 MHz to 1 GHz	-28.31	-28.78	-29.66	-29.29	-19.02	-9.29		
	1 GHz to 10 GHz	-29.16	-28.63	-29.31	-27.72	-19.02	-8.70		

Table 7-223. Conducted Spurious Emission Summary Data (B5\_10M(DSS\_7:3)\_1C)

FCC ID: A3LRF4440D-13A		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 8K21070501R2-R1	Test Dates: 07/09/2021 - 08/25/2021	EUT Type: RRU (RF4440d)		Page 311 of 367

DSS Ratio	Channel	Port	Measurement Range	Level (dBm)				Limit (dBm)	Worst Margin (dB)
				QPSK	16QAM	64QAM	256QAM		
LTE 6 / NR 4	Low	0	9 kHz to 150 kHz	-51.72	-52.09	-52.21	-51.82	-39.02	-12.70
			150 kHz to 30 MHz	-39.65	-38.72	-38.61	-39.03	-29.02	-9.59
			30 MHz to 858 MHz	-42.92	-42.88	-42.95	-42.86	-19.02	-23.84
			858 MHz to 868 GHz	-29.46	-30.50	-29.62	-30.53	-19.02	-10.44
			895 MHz to 1 GHz	-34.84	-35.59	-36.22	-35.27	-19.02	-15.82
			1 GHz to 10 GHz	-26.81	-27.48	-26.53	-26.41	-19.02	-7.39
		1	9 kHz to 150 kHz	-51.11	-50.61	-50.32	-51.01	-39.02	-11.30
			150 kHz to 30 MHz	-40.26	-39.42	-39.81	-38.96	-29.02	-9.94
			30 MHz to 858 MHz	-43.63	-43.37	-43.41	-43.41	-19.02	-24.35
			858 MHz to 868 GHz	-30.04	-29.99	-31.16	-29.82	-19.02	-10.80
			895 MHz to 1 GHz	-36.78	-36.36	-36.34	-35.85	-19.02	-16.83
			1 GHz to 10 GHz	-25.42	-24.91	-24.09	-25.74	-19.02	-5.07
		2	9 kHz to 150 kHz	-52.49	-52.25	-52.39	-52.15	-39.02	-13.13
			150 kHz to 30 MHz	-40.75	-39.71	-39.90	-40.59	-29.02	-10.69
			30 MHz to 858 MHz	-43.61	-43.47	-43.28	-43.41	-19.02	-24.26
			858 MHz to 868 GHz	-26.40	-28.66	-26.53	-28.28	-19.02	-7.38
			895 MHz to 1 GHz	-34.22	-33.59	-32.46	-33.25	-19.02	-13.44
			1 GHz to 10 GHz	-26.42	-25.86	-26.28	-26.78	-19.02	-6.84
	3	9 kHz to 150 kHz	-51.79	-51.84	-52.08	-51.81	-39.02	-12.77	
		150 kHz to 30 MHz	-39.37	-38.63	-39.05	-38.62	-29.02	-9.60	
		30 MHz to 858 MHz	-43.64	-43.27	-43.44	-43.52	-19.02	-24.25	
		858 MHz to 868 GHz	-27.46	-27.46	-27.03	-28.10	-19.02	-8.01	
		895 MHz to 1 GHz	-34.87	-33.59	-31.76	-33.87	-19.02	-12.74	
		1 GHz to 10 GHz	-28.63	-29.02	-28.07	-28.79	-19.02	-9.05	
	Middle	0	9 kHz to 150 kHz	-52.18	-52.28	-51.75	-52.18	-39.02	-12.73
			150 kHz to 30 MHz	-38.99	-38.88	-39.73	-39.51	-29.02	-9.86
			30 MHz to 858 MHz	-42.87	-42.90	-42.83	-42.77	-19.02	-23.75
			858 MHz to 868 GHz	-34.35	-35.26	-33.48	-35.10	-19.02	-14.46
			895 MHz to 1 GHz	-35.27	-33.15	-33.41	-33.94	-19.02	-14.13
			1 GHz to 10 GHz	-27.17	-26.66	-27.39	-27.66	-19.02	-7.64
1		9 kHz to 150 kHz	-51.15	-51.00	-50.35	-50.94	-39.02	-11.33	
		150 kHz to 30 MHz	-38.60	-38.48	-39.01	-38.72	-29.02	-9.46	
		30 MHz to 858 MHz	-43.43	-43.65	-43.75	-43.47	-19.02	-24.41	
		858 MHz to 868 GHz	-34.87	-35.19	-36.14	-34.50	-19.02	-15.48	
		895 MHz to 1 GHz	-33.36	-34.43	-35.45	-35.81	-19.02	-14.34	
		1 GHz to 10 GHz	-25.09	-25.48	-25.52	-24.70	-19.02	-5.68	

FCC ID: A3LRF4440D-13A		<b>MEASUREMENT REPORT (CERTIFICATION)</b>		<b>Approved by:</b> Technical Manager
<b>Test Report S/N:</b> 8K21070501R2-R1	<b>Test Dates:</b> 07/09/2021 - 08/25/2021	<b>EUT Type:</b> RRU (RF4440d)	Page 312 of 367	

		2	9 kHz to 150 kHz	-52.36	-52.32	-52.74	-52.23	-39.02	-13.21
			150 kHz to 30 MHz	-38.66	-38.55	-39.26	-32.89	-29.02	-3.87
			30 MHz to 858 MHz	-43.42	-43.55	-43.45	-43.71	-19.02	-24.40
			858 MHz to 868 GHz	-31.93	-32.77	-32.58	-32.60	-19.02	-12.91
			895 MHz to 1 GHz	-33.49	-33.61	-33.36	-33.46	-19.02	-14.34
			1 GHz to 10 GHz	-24.74	-26.27	-26.08	-26.41	-19.02	-5.72
		3	9 kHz to 150 kHz	-51.84	-52.15	-52.08	<b>-52.05</b>	-39.02	-12.82
			150 kHz to 30 MHz	-38.35	-38.30	-38.43	<b>-32.16</b>	-29.02	-3.14
			30 MHz to 858 MHz	-43.70	-43.49	-43.57	<b>-43.73</b>	-19.02	-24.47
			858 MHz to 868 GHz	-33.27	-33.94	-33.84	<b>-33.59</b>	-19.02	-14.25
			895 MHz to 1 GHz	-33.72	-34.30	-34.63	<b>-33.16</b>	-19.02	-14.14
			1 GHz to 10 GHz	-29.14	-28.40	-29.00	<b>-28.50</b>	-19.02	-9.38
	High	0	9 kHz to 150 kHz	-51.69	-52.43	-52.04	-52.08	-39.02	-12.67
			150 kHz to 30 MHz	-38.91	-38.43	-38.70	-38.14	-29.02	-9.12
			30 MHz to 858 MHz	-42.89	-43.03	-43.05	-43.03	-19.02	-23.87
			858 MHz to 868 GHz	-36.23	-36.56	-36.12	-34.13	-19.02	-15.11
			895 MHz to 1 GHz	-25.75	-28.07	-29.45	-25.33	-19.02	-6.31
			1 GHz to 10 GHz	-26.73	-27.73	-27.38	-26.17	-19.02	-7.15
		1	9 kHz to 150 kHz	-51.10	-50.78	-50.53	-50.87	-39.02	-11.51
			150 kHz to 30 MHz	-38.81	-38.76	-38.87	-37.70	-29.02	-8.68
			30 MHz to 858 MHz	-43.60	-43.80	-43.73	-43.84	-19.02	-24.58
			858 MHz to 868 GHz	-37.36	-37.34	-37.58	-37.07	-19.02	-18.05
			895 MHz to 1 GHz	-27.96	-30.30	-28.01	-29.56	-19.02	-8.94
			1 GHz to 10 GHz	-25.43	-25.47	-25.36	-25.31	-19.02	-6.29
2	9 kHz to 150 kHz	-52.28	-52.41	-52.55	-52.35	-39.02	-13.26		
	150 kHz to 30 MHz	-39.15	-39.09	-40.03	-39.24	-29.02	-10.07		
	30 MHz to 858 MHz	-43.67	-43.53	-43.52	-43.74	-19.02	-24.50		
	858 MHz to 868 GHz	-34.95	-34.63	-33.72	-35.77	-19.02	-14.70		
	895 MHz to 1 GHz	-28.14	-28.16	-28.01	-28.60	-19.02	-8.99		
	1 GHz to 10 GHz	-26.20	-26.70	-24.72	-26.07	-19.02	-5.70		
3	9 kHz to 150 kHz	-52.16	-51.73	-51.59	-51.94	-39.02	-12.57		
	150 kHz to 30 MHz	-39.13	-38.89	-38.52	-38.29	-29.02	-9.27		
	30 MHz to 858 MHz	-43.74	-43.26	-43.65	-43.67	-19.02	-24.24		
	858 MHz to 868 GHz	-35.15	-35.27	-36.37	-35.51	-19.02	-16.13		
	895 MHz to 1 GHz	-29.41	-29.72	-30.10	-29.44	-19.02	-10.39		
	1 GHz to 10 GHz	-28.84	-28.84	-27.58	-28.93	-19.02	-8.56		

**Table 7-224. Conducted Spurious Emission Summary Data (B5\_10M(DSS\_6:4)\_1C)**

FCC ID: A3LRF4440D-13A		<b>MEASUREMENT REPORT (CERTIFICATION)</b>		<b>Approved by:</b> Technical Manager
<b>Test Report S/N:</b> 8K21070501R2-R1	<b>Test Dates:</b> 07/09/2021 - 08/25/2021	<b>EUT Type:</b> RRU (RF4440d)	Page 313 of 367	

DSS Ratio	Channel	Port	Measurement Range	Level (dBm)				Limit (dBm)	Worst Margin (dB)
				QPSK	16QAM	64QAM	256QAM		
LTE 5 : NR 5	Low	0	9 kHz to 150 kHz	-52.01	-52.17	-51.84	-51.97	-39.02	-12.82
			150 kHz to 30 MHz	-40.01	-39.09	-39.57	-39.99	-29.02	-10.07
			30 MHz to 858 MHz	-42.91	-42.87	-42.85	-42.75	-19.02	-23.73
			858 MHz to 868 GHz	-28.40	-29.45	-29.57	-30.38	-19.02	-9.38
			895 MHz to 1 GHz	-35.91	-36.56	-35.49	-36.26	-19.02	-16.47
			1 GHz to 10 GHz	-26.69	-27.38	-27.30	-25.49	-19.02	-6.47
		1	9 kHz to 150 kHz	-51.18	-50.94	-51.08	-50.79	-39.02	-11.77
			150 kHz to 30 MHz	-38.83	-39.85	-39.73	-39.03	-29.02	-9.81
			30 MHz to 858 MHz	-43.63	-43.73	-43.52	-43.56	-19.02	-24.50
			858 MHz to 868 GHz	-29.71	-30.75	-29.17	-30.57	-19.02	-10.15
			895 MHz to 1 GHz	-37.32	-36.21	-35.17	-35.81	-19.02	-16.15
			1 GHz to 10 GHz	-25.36	-24.58	-24.99	-25.35	-19.02	-5.56
		2	9 kHz to 150 kHz	-52.43	-52.46	-51.88	-52.38	-39.02	-12.86
			150 kHz to 30 MHz	-40.54	-40.19	-39.95	-40.31	-29.02	-10.93
			30 MHz to 858 MHz	-43.48	-43.55	-43.44	-43.49	-19.02	-24.42
			858 MHz to 868 GHz	-24.57	-27.80	-26.24	-27.89	-19.02	-5.55
			895 MHz to 1 GHz	-33.87	-33.58	-31.92	-32.95	-19.02	-12.90
			1 GHz to 10 GHz	-26.54	-25.81	-25.64	-26.23	-19.02	-6.62
	3	9 kHz to 150 kHz	-51.64	-51.54	-51.83	-51.64	-39.02	-12.52	
		150 kHz to 30 MHz	-39.14	-39.39	-39.79	-39.56	-29.02	-10.12	
		30 MHz to 858 MHz	-43.49	-43.29	-43.43	-43.50	-19.02	-24.27	
		858 MHz to 868 GHz	-25.98	-27.64	-27.03	-27.92	-19.02	-6.96	
		895 MHz to 1 GHz	-33.62	-33.30	-33.14	-33.05	-19.02	-14.03	
		1 GHz to 10 GHz	-28.99	-28.67	-29.21	-28.99	-19.02	-9.65	
	Middle	0	9 kHz to 150 kHz	-51.99	-52.12	-52.36	-51.65	-39.02	-12.63
			150 kHz to 30 MHz	-35.14	-35.65	-36.11	-36.20	-29.02	-6.12
			30 MHz to 858 MHz	-43.07	-43.06	-42.98	-42.97	-19.02	-23.95
			858 MHz to 868 GHz	-33.09	-35.67	-33.61	-34.05	-19.02	-14.07
			895 MHz to 1 GHz	-33.06	-34.84	-34.92	-33.88	-19.02	-14.04
			1 GHz to 10 GHz	-25.08	-26.86	-26.96	-27.30	-19.02	-6.06
1		9 kHz to 150 kHz	-51.12	-51.17	-51.16	-50.70	-39.02	-11.68	
		150 kHz to 30 MHz	-35.52	-35.78	-35.76	-36.80	-29.02	-6.50	
		30 MHz to 858 MHz	-43.67	-43.77	-43.46	-43.73	-19.02	-24.44	
		858 MHz to 868 GHz	-34.98	-35.25	-33.72	-34.64	-19.02	-14.70	
		895 MHz to 1 GHz	-35.14	-35.20	-34.00	-34.85	-19.02	-14.98	
		1 GHz to 10 GHz	-25.44	-23.53	-25.53	-24.79	-19.02	-4.51	

FCC ID: A3LRF4440D-13A		<b>MEASUREMENT REPORT (CERTIFICATION)</b>		<b>Approved by:</b> Technical Manager
<b>Test Report S/N:</b> 8K21070501R2-R1	<b>Test Dates:</b> 07/09/2021 - 08/25/2021	<b>EUT Type:</b> RRU (RF4440d)	Page 314 of 367	

High	2	9 kHz to 150 kHz	-52.42	-52.24	-52.15	-52.53	-39.02	-13.13	
		150 kHz to 30 MHz	-35.50	-37.03	-36.61	-36.46	-29.02	-6.48	
		30 MHz to 858 MHz	-43.11	-43.63	-43.75	-43.35	-19.02	-24.09	
		858 MHz to 868 GHz	-32.90	-32.64	-32.52	-33.53	-19.02	-13.50	
		895 MHz to 1 GHz	-34.00	-34.28	-34.37	-33.76	-19.02	-14.74	
		1 GHz to 10 GHz	-26.13	-26.00	-25.73	-25.90	-19.02	-6.71	
	3	9 kHz to 150 kHz	-51.75	-52.05	-52.04	-51.84	-39.02	-12.73	
		150 kHz to 30 MHz	-35.00	-35.56	-36.78	-36.30	-29.02	-5.98	
		30 MHz to 858 MHz	-43.73	-43.42	-43.66	-43.71	-19.02	-24.40	
		858 MHz to 868 GHz	-33.36	-32.38	-32.92	-33.24	-19.02	-13.36	
		895 MHz to 1 GHz	-33.71	-33.56	-33.37	-33.30	-19.02	-14.28	
		1 GHz to 10 GHz	-27.98	-28.68	-29.14	-28.76	-19.02	-8.96	
	0	0	9 kHz to 150 kHz	-52.09	-52.08	-52.03	-52.04	-52.09	-52.08
			150 kHz to 30 MHz	-38.41	-38.42	-37.34	-37.98	-38.41	-38.42
			30 MHz to 858 MHz	-43.02	-42.84	-42.97	-43.03	-43.02	-42.84
			858 MHz to 868 GHz	-35.99	-36.95	-37.34	-35.99	-35.99	-36.95
			895 MHz to 1 GHz	-27.08	-27.87	-27.39	-26.77	-27.08	-27.87
			1 GHz to 10 GHz	-25.52	-26.61	-26.89	-26.07	-25.52	-26.61
		1	9 kHz to 150 kHz	-51.11	-51.06	-50.96	-50.92	-51.11	-51.06
			150 kHz to 30 MHz	-38.36	-38.95	-37.66	-38.23	-38.36	-38.95
			30 MHz to 858 MHz	-43.58	-43.81	-43.89	-43.69	-43.58	-43.81
			858 MHz to 868 GHz	-37.65	-36.88	-38.37	-37.28	-37.65	-36.88
			895 MHz to 1 GHz	-30.25	-29.68	-27.81	-29.05	-30.25	-29.68
			1 GHz to 10 GHz	-24.79	-24.08	-24.89	-25.65	-24.79	-24.08
2		9 kHz to 150 kHz	-52.56	-52.68	-52.29	-52.41	-52.56	-52.68	
		150 kHz to 30 MHz	-39.13	-39.05	-37.46	-38.29	-39.13	-39.05	
		30 MHz to 858 MHz	-43.76	-43.70	-43.74	-43.55	-43.76	-43.70	
		858 MHz to 868 GHz	-35.98	-35.93	-35.26	-35.90	-35.98	-35.93	
		895 MHz to 1 GHz	-27.30	-29.24	-26.86	-27.90	-27.30	-29.24	
		1 GHz to 10 GHz	-26.75	-25.53	-26.43	-26.28	-26.75	-25.53	
3	9 kHz to 150 kHz	-52.14	-51.65	-52.10	-52.13	-52.14	-51.65		
	150 kHz to 30 MHz	-37.85	-38.98	-37.37	-37.44	-37.85	-38.98		
	30 MHz to 858 MHz	-43.81	-43.61	-43.50	-43.45	-43.81	-43.61		
	858 MHz to 868 GHz	-36.17	-35.28	-35.47	-36.38	-36.17	-35.28		
	895 MHz to 1 GHz	-28.62	-29.37	-29.34	-29.73	-28.62	-29.37		
	1 GHz to 10 GHz	-27.89	-29.10	-29.15	-28.47	-27.89	-29.10		

**Table 7-225. Conducted Spurious Emission Summary Data (B5\_10M(DSS\_5:5)\_1C)**

FCC ID: A3LRF4440D-13A		<b>MEASUREMENT REPORT (CERTIFICATION)</b>		<b>Approved by:</b> Technical Manager
<b>Test Report S/N:</b> 8K21070501R2-R1	<b>Test Dates:</b> 07/09/2021 - 08/25/2021	<b>EUT Type:</b> RRU (RF4440d)	Page 315 of 367	

DSS Ratio	Channel	Port	Measurement Range	Level (dBm)				Limit (dBm)	Worst Margin (dB)
				QPSK	16QAM	64QAM	256QAM		
LTE 4 / NR 6	Low	0	9 kHz to 150 kHz	-52.02	-52.33	-52.06	-51.78	-52.02	-52.33
			150 kHz to 30 MHz	-39.97	-39.01	-40.02	-39.96	-39.97	-39.01
			30 MHz to 858 MHz	-42.82	-43.01	-42.90	-42.31	-42.82	-43.01
			858 MHz to 868 GHz	-31.52	-28.78	-28.45	-29.83	-31.52	-28.78
			895 MHz to 1 GHz	-36.16	-35.73	-35.35	-35.88	-36.16	-35.73
			1 GHz to 10 GHz	-26.70	-25.86	-25.43	-24.61	-26.70	-25.86
		1	9 kHz to 150 kHz	-51.15	-51.11	-51.16	-50.86	-51.15	-51.11
			150 kHz to 30 MHz	-39.37	-39.56	-40.86	-38.28	-39.37	-39.56
			30 MHz to 858 MHz	-43.52	-43.57	-43.39	-43.54	-43.52	-43.57
			858 MHz to 868 GHz	-30.76	-30.68	-27.69	-29.14	-30.76	-30.68
			895 MHz to 1 GHz	-36.11	-37.12	-35.70	-34.28	-36.11	-37.12
			1 GHz to 10 GHz	-25.05	-24.86	-25.29	-24.73	-25.05	-24.86
		2	9 kHz to 150 kHz	-52.42	-52.38	-52.29	-52.11	-52.42	-52.38
			150 kHz to 30 MHz	-39.19	-39.40	-40.54	-40.12	-39.19	-39.40
			30 MHz to 858 MHz	-43.38	-43.18	-43.48	-42.95	-43.38	-43.18
			858 MHz to 868 GHz	-26.95	-27.13	-25.38	-26.43	-26.95	-27.13
			895 MHz to 1 GHz	-32.47	-32.43	-32.68	-33.32	-32.47	-32.43
			1 GHz to 10 GHz	-26.58	-26.82	-26.41	-25.57	-26.58	-26.82
	3	9 kHz to 150 kHz	-51.95	-52.04	-52.11	-52.17	-51.95	-52.04	
		150 kHz to 30 MHz	-40.56	-39.97	-40.15	-40.34	-40.56	-39.97	
		30 MHz to 858 MHz	-43.48	-43.48	-43.50	-43.39	-43.48	-43.48	
		858 MHz to 868 GHz	-27.05	-28.16	-26.03	-27.60	-27.05	-28.16	
		895 MHz to 1 GHz	-32.47	-32.58	-32.14	-34.15	-32.47	-32.58	
		1 GHz to 10 GHz	-28.75	-28.92	-26.97	-28.65	-28.75	-28.92	
	Middle	0	9 kHz to 150 kHz	-51.98	-52.15	-52.19	-51.87	-39.02	-12.85
			150 kHz to 30 MHz	-35.65	-36.65	-36.98	-37.42	-29.02	-6.63
			30 MHz to 858 MHz	-43.00	-42.66	-42.93	-42.82	-19.02	-23.64
			858 MHz to 868 GHz	-34.53	-35.18	-34.30	-34.09	-19.02	-15.07
			895 MHz to 1 GHz	-32.89	-35.63	-34.94	-34.53	-19.02	-13.87
			1 GHz to 10 GHz	-27.11	-27.30	-27.51	-26.47	-19.02	-7.45
1		9 kHz to 150 kHz	-51.23	-51.21	-51.26	-50.93	-39.02	-11.91	
		150 kHz to 30 MHz	-35.89	-37.59	-37.14	-37.69	-29.02	-6.87	
		30 MHz to 858 MHz	-43.54	-43.34	-43.72	-43.56	-19.02	-24.32	
		858 MHz to 868 GHz	-36.86	-35.41	-35.68	-34.53	-19.02	-15.51	
		895 MHz to 1 GHz	-34.51	-34.74	-35.61	-35.32	-19.02	-15.49	
		1 GHz to 10 GHz	-24.42	-25.43	-25.78	-25.01	-19.02	-5.40	

FCC ID: A3LRF4440D-13A		<b>MEASUREMENT REPORT (CERTIFICATION)</b>		<b>Approved by:</b> Technical Manager
<b>Test Report S/N:</b> 8K21070501R2-R1	<b>Test Dates:</b> 07/09/2021 - 08/25/2021	<b>EUT Type:</b> RRU (RF4440d)	Page 316 of 367	

High	2	9 kHz to 150 kHz	-52.12	-52.35	-52.73	-52.39	-39.02	-13.10
		150 kHz to 30 MHz	-36.93	-37.46	-36.91	-37.21	-29.02	-7.89
		30 MHz to 858 MHz	-43.43	-43.50	-43.66	-43.62	-19.02	-24.41
		858 MHz to 868 GHz	-33.41	-32.71	-33.19	-33.42	-19.02	-13.69
		895 MHz to 1 GHz	-33.40	-32.98	-33.82	-32.99	-19.02	-13.96
		1 GHz to 10 GHz	-26.81	-25.59	-25.70	-26.10	-19.02	-6.57
	3	9 kHz to 150 kHz	-52.03	-51.45	-52.14	-51.84	-39.02	-12.43
		150 kHz to 30 MHz	-36.70	-37.55	-37.35	-36.51	-29.02	-7.49
		30 MHz to 858 MHz	-43.72	-43.74	-43.54	-43.63	-19.02	-24.52
		858 MHz to 868 GHz	-33.11	-34.37	-32.39	-33.72	-19.02	-13.37
		895 MHz to 1 GHz	-35.37	-33.69	-33.29	-34.86	-19.02	-14.27
		1 GHz to 10 GHz	-29.64	-28.31	-28.98	-28.37	-19.02	-9.29
	0	9 kHz to 150 kHz	-51.78	-51.98	-51.74	-51.91	-39.02	-12.72
		150 kHz to 30 MHz	-44.68	-44.92	-44.19	-44.76	-29.02	-15.17
		30 MHz to 858 MHz	-50.82	-50.12	-50.45	-49.92	-19.02	-30.90
		858 MHz to 868 GHz	-37.87	-36.37	-37.84	-35.13	-19.02	-16.11
		895 MHz to 1 GHz	-25.07	-26.89	-29.41	-25.92	-19.02	-6.05
		1 GHz to 10 GHz	-25.93	-26.71	-26.57	-27.30	-19.02	-6.91
	1	9 kHz to 150 kHz	-50.63	-51.05	-50.89	-50.98	-39.02	-11.61
		150 kHz to 30 MHz	-44.56	-44.48	-45.45	-44.52	-29.02	-15.46
		30 MHz to 858 MHz	-50.70	-50.63	-50.69	-50.12	-19.02	-31.10
		858 MHz to 868 GHz	-36.49	-38.43	-39.16	-38.27	-19.02	-17.47
		895 MHz to 1 GHz	-29.79	-30.00	-28.46	-29.90	-19.02	-9.44
		1 GHz to 10 GHz	-24.26	-25.48	-24.97	-25.02	-19.02	-5.24
2	9 kHz to 150 kHz	-52.06	-52.35	-52.57	-52.34	-39.02	-13.04	
	150 kHz to 30 MHz	-44.01	-45.63	-45.57	-44.89	-29.02	-14.99	
	30 MHz to 858 MHz	-51.07	-50.17	-49.80	-51.08	-19.02	-30.78	
	858 MHz to 868 GHz	-34.95	-35.88	-34.92	-36.20	-19.02	-15.90	
	895 MHz to 1 GHz	-28.86	-28.05	-27.17	-27.17	-19.02	-8.15	
	1 GHz to 10 GHz	-25.59	-26.05	-26.67	-25.98	-19.02	-6.57	
3	9 kHz to 150 kHz	-51.71	-51.97	-51.87	-51.83	-39.02	-12.69	
	150 kHz to 30 MHz	-45.00	-44.72	-45.12	-44.87	-29.02	-15.70	
	30 MHz to 858 MHz	-51.00	-50.59	-50.96	-49.20	-19.02	-30.18	
	858 MHz to 868 GHz	-34.80	-36.35	-35.53	-37.20	-19.02	-15.78	
	895 MHz to 1 GHz	-29.75	-28.45	-30.29	-29.27	-19.02	-9.43	
	1 GHz to 10 GHz	-29.75	-28.51	-29.59	-28.86	-19.02	-9.49	

**Table 7-226. Conducted Spurious Emission Summary Data ((B5\_10M(DSS\_4:6)\_1C)**

<b>FCC ID:</b> A3LRF4440D-13A		<b>MEASUREMENT REPORT (CERTIFICATION)</b>		<b>Approved by:</b> Technical Manager
<b>Test Report S/N:</b> 8K21070501R2-R1	<b>Test Dates:</b> 07/09/2021 - 08/25/2021	<b>EUT Type:</b> RRU (RF4440d)	Page 317 of 367	

DSS Ratio	Channel	Port	Measurement Range	Level (dBm)				Limit (dBm)	Worst Margin (dB)
				QPSK	16QAM	64QAM	256QAM		
LTE 3/ NR 7	Low	0	9 kHz to 150 kHz	-51.93	-52.35	-51.91	-51.95	-39.02	-12.89
			150 kHz to 30 MHz	-39.79	-39.10	-38.83	-39.26	-29.02	-9.81
			30 MHz to 858 MHz	-42.60	-42.68	-42.91	-42.92	-19.02	-23.58
			858 MHz to 868 GHz	-32.04	-28.72	-29.10	-29.60	-19.02	-9.70
			895 MHz to 1 GHz	-35.41	-36.19	-34.05	-35.32	-19.02	-15.03
			1 GHz to 10 GHz	-27.47	-26.33	-26.94	-27.67	-19.02	-7.31
		1	9 kHz to 150 kHz	-50.87	-50.91	-51.02	-51.29	-39.02	-11.85
			150 kHz to 30 MHz	-39.86	-39.33	-38.77	-38.99	-29.02	-9.75
			30 MHz to 858 MHz	-43.53	-43.36	-43.63	-43.16	-19.02	-24.14
			858 MHz to 868 GHz	-30.62	-29.42	-28.59	-26.67	-19.02	-7.65
			895 MHz to 1 GHz	-35.02	-35.70	-34.08	-36.81	-19.02	-15.06
			1 GHz to 10 GHz	-24.97	-24.69	-25.74	-24.46	-19.02	-5.44
	2	9 kHz to 150 kHz	-52.38	-52.19	-52.65	-52.46	-39.02	-13.17	
		150 kHz to 30 MHz	-40.08	-39.16	-39.64	-39.45	-29.02	-10.14	
		30 MHz to 858 MHz	-43.44	-43.50	-43.67	-43.54	-19.02	-24.42	
		858 MHz to 868 GHz	-26.83	-27.31	-27.03	-27.21	-19.02	-7.81	
		895 MHz to 1 GHz	-32.42	-33.44	-33.81	-34.65	-19.02	-13.40	
		1 GHz to 10 GHz	-26.15	-26.42	-26.47	-26.05	-19.02	-7.03	
	3	9 kHz to 150 kHz	-51.60	-52.24	-51.99	-51.81	-39.02	-12.58	
		150 kHz to 30 MHz	-39.31	-38.67	-40.11	-40.17	-29.02	-9.65	
		30 MHz to 858 MHz	-43.66	-43.48	-43.56	-43.75	-19.02	-24.46	
		858 MHz to 868 GHz	-26.60	-27.76	-27.44	-26.08	-19.02	-7.06	
		895 MHz to 1 GHz	-32.56	-33.67	-33.83	-31.95	-19.02	-12.93	
		1 GHz to 10 GHz	-29.29	-28.76	-29.35	-27.82	-19.02	-8.80	
Middle	0	9 kHz to 150 kHz	-51.59	-52.14	-51.86	-51.96	-39.02	-12.57	
		150 kHz to 30 MHz	-37.92	-37.05	-38.30	-38.81	-29.02	-8.03	
		30 MHz to 858 MHz	-43.16	-42.88	-42.57	-42.95	-19.02	-23.55	
		858 MHz to 868 GHz	-35.56	-36.09	-31.56	-32.39	-19.02	-12.54	
		895 MHz to 1 GHz	-34.73	-34.93	-34.98	-29.01	-19.02	-9.99	
		1 GHz to 10 GHz	-27.57	-27.03	-27.18	-25.22	-19.02	-6.20	
	1	9 kHz to 150 kHz	-51.35	-51.35	-50.77	-50.94	-39.02	-11.75	
		150 kHz to 30 MHz	-37.80	-37.60	-37.30	-38.33	-29.02	-8.28	
		30 MHz to 858 MHz	-43.34	-43.76	-43.48	-43.65	-19.02	-24.32	
		858 MHz to 868 GHz	-34.82	-34.93	-34.15	-33.34	-19.02	-14.32	
		895 MHz to 1 GHz	-32.56	-35.80	-33.64	-32.78	-19.02	-13.54	
		1 GHz to 10 GHz	-24.39	-24.62	-24.96	-25.10	-19.02	-5.37	

FCC ID: A3LRF4440D-13A		<b>MEASUREMENT REPORT (CERTIFICATION)</b>		<b>Approved by:</b> Technical Manager
<b>Test Report S/N:</b> 8K21070501R2-R1	<b>Test Dates:</b> 07/09/2021 - 08/25/2021	<b>EUT Type:</b> RRU (RF4440d)	Page 318 of 367	

High	2	9 kHz to 150 kHz	-52.65	-51.97	-52.54	-52.20	-39.02	-12.95	
		150 kHz to 30 MHz	-38.15	-37.66	-38.83	-38.36	-29.02	-8.64	
		30 MHz to 858 MHz	-43.67	-43.59	-43.82	-43.79	-19.02	-24.57	
		858 MHz to 868 GHz	-34.00	-32.60	-33.13	-32.24	-19.02	-13.22	
		895 MHz to 1 GHz	-33.05	-34.21	-33.65	-33.19	-19.02	-14.03	
		1 GHz to 10 GHz	-25.88	-26.92	-26.30	-25.00	-19.02	-5.98	
	3	9 kHz to 150 kHz	-51.72	-51.99	-52.13	-51.66	-39.02	-12.64	
		150 kHz to 30 MHz	-37.80	-37.87	-37.84	-38.37	-29.02	-8.78	
		30 MHz to 858 MHz	-43.56	-43.65	-43.49	-43.57	-19.02	-24.47	
		858 MHz to 868 GHz	-34.18	-33.09	-33.56	-33.29	-19.02	-14.07	
		895 MHz to 1 GHz	-34.34	-32.36	-33.72	-33.28	-19.02	-13.34	
		1 GHz to 10 GHz	-29.35	-29.10	-28.90	-28.74	-19.02	-9.72	
	0	0	9 kHz to 150 kHz	-51.76	-51.67	-52.07	-52.11	-39.02	-12.65
			150 kHz to 30 MHz	-44.42	-44.79	-39.44	-37.93	-29.02	-8.91
			30 MHz to 858 MHz	-49.61	-49.81	-49.72	-49.66	-19.02	-30.59
			858 MHz to 868 GHz	-38.50	-38.16	-38.54	-32.08	-19.02	-13.06
			895 MHz to 1 GHz	-26.26	-29.28	-28.53	-26.27	-19.02	-7.24
			1 GHz to 10 GHz	-26.59	-27.19	-27.83	-27.05	-19.02	-7.57
		1	9 kHz to 150 kHz	-50.42	-51.05	-51.02	-51.11	-39.02	-11.40
			150 kHz to 30 MHz	-45.73	-45.05	-39.98	-38.18	-29.02	-9.16
			30 MHz to 858 MHz	-51.66	-50.72	-50.02	-50.92	-19.02	-31.00
			858 MHz to 868 GHz	-38.01	-37.77	-39.20	-36.45	-19.02	-17.43
			895 MHz to 1 GHz	-30.12	-29.61	-27.82	-28.52	-19.02	-8.80
			1 GHz to 10 GHz	-24.96	-24.64	-25.71	-24.68	-19.02	-5.62
2		9 kHz to 150 kHz	-51.93	-52.53	-52.06	-52.24	-39.02	-12.91	
		150 kHz to 30 MHz	-45.91	-45.87	-40.26	-38.63	-29.02	-9.61	
		30 MHz to 858 MHz	-50.58	-50.45	-51.07	-50.46	-19.02	-31.43	
		858 MHz to 868 GHz	-35.58	-35.78	-34.81	-34.71	-19.02	-15.69	
		895 MHz to 1 GHz	-28.32	-28.92	-28.84	-28.90	-19.02	-9.30	
		1 GHz to 10 GHz	-26.42	-26.49	-26.37	-26.21	-19.02	-7.19	
3	9 kHz to 150 kHz	-51.67	-51.84	-52.05	-51.81	-39.02	-12.65		
	150 kHz to 30 MHz	-45.01	-45.19	-39.84	-38.10	-29.02	-9.08		
	30 MHz to 858 MHz	-50.87	-50.30	-51.12	-51.04	-19.02	-31.28		
	858 MHz to 868 GHz	-36.52	-36.85	-35.48	-36.31	-19.02	-16.46		
	895 MHz to 1 GHz	-29.24	-29.04	-30.01	-28.99	-19.02	-9.97		
	1 GHz to 10 GHz	-28.35	-29.08	-29.61	-27.99	-19.02	-8.97		

**Table 7-227. Conducted Spurious Emission Summary Data (B5\_10M(DSS\_3:7)\_1C)**

FCC ID: A3LRF4440D-13A		<b>MEASUREMENT REPORT (CERTIFICATION)</b>		<b>Approved by:</b> Technical Manager
<b>Test Report S/N:</b> 8K21070501R2-R1	<b>Test Dates:</b> 07/09/2021 - 08/25/2021	<b>EUT Type:</b> RRU (RF4440d)	Page 319 of 367	

DSS Ratio	Channel	Port	Measurement Range	Level (dBm)				Limit (dBm)	Worst Margin (dB)
				QPSK	16QAM	64QAM	256QAM		
LTE 2 / NR 8	Low	0	9 kHz to 150 kHz	-51.86	-51.97	-52.18	-51.69	-39.02	-12.67
			150 kHz to 30 MHz	-39.27	-40.53	-39.80	-39.53	-29.02	-10.25
			30 MHz to 858 MHz	-42.63	-43.19	-43.12	-43.17	-19.02	-23.61
			858 MHz to 868 GHz	-31.12	-25.60	-29.93	-28.79	-19.02	-6.58
			895 MHz to 1 GHz	-35.64	-35.15	-34.70	-36.59	-19.02	-15.68
			1 GHz to 10 GHz	-27.38	-26.38	-27.54	-27.30	-19.02	-7.36
		1	9 kHz to 150 kHz	-50.71	-50.99	-50.97	-50.99	-39.02	-11.69
			150 kHz to 30 MHz	-38.77	-40.44	-39.13	-40.03	-29.02	-9.75
			30 MHz to 858 MHz	-43.55	-43.63	-43.62	-43.78	-19.02	-24.53
			858 MHz to 868 GHz	-31.83	-25.12	-30.86	-27.47	-19.02	-6.10
			895 MHz to 1 GHz	-36.36	-36.16	-37.04	-36.39	-19.02	-17.14
			1 GHz to 10 GHz	-26.22	-25.26	-25.47	-25.86	-19.02	-6.24
		2	9 kHz to 150 kHz	-52.42	-52.21	-52.17	-51.87	-39.02	-12.85
			150 kHz to 30 MHz	-39.73	-39.74	-40.19	-39.92	-29.02	-10.71
			30 MHz to 858 MHz	-43.62	-42.47	-43.41	-43.39	-19.02	-23.45
			858 MHz to 868 GHz	-29.30	-25.08	-29.15	-26.96	-19.02	-6.06
			895 MHz to 1 GHz	-34.08	-34.54	-34.76	-33.94	-19.02	-14.92
			1 GHz to 10 GHz	-26.48	-26.12	-25.64	-26.06	-19.02	-6.62
	3	9 kHz to 150 kHz	-52.17	-51.89	-51.88	-52.09	-39.02	-12.86	
		150 kHz to 30 MHz	-38.98	-40.31	-40.13	-39.92	-29.02	-9.96	
		30 MHz to 858 MHz	-43.61	-43.61	-43.52	-43.70	-19.02	-24.50	
		858 MHz to 868 GHz	-27.60	-26.40	-29.28	-26.88	-19.02	-7.38	
		895 MHz to 1 GHz	-33.83	-34.56	-34.77	-34.60	-19.02	-14.81	
		1 GHz to 10 GHz	-28.90	-28.24	-28.76	-28.57	-19.02	-9.22	
	Middle	0	9 kHz to 150 kHz	-52.03	-52.42	-51.74	-52.01	-39.02	-12.72
			150 kHz to 30 MHz	-38.09	-37.54	-38.24	-37.99	-29.02	-8.52
			30 MHz to 858 MHz	-43.07	-42.87	-42.91	-42.94	-19.02	-23.85
			858 MHz to 868 GHz	-33.93	-31.30	-33.93	-32.11	-19.02	-12.28
			895 MHz to 1 GHz	-34.19	-30.30	-33.69	-32.75	-19.02	-11.28
			1 GHz to 10 GHz	-26.66	-26.90	-26.57	-26.63	-19.02	-7.55
1		9 kHz to 150 kHz	-50.62	-50.64	-50.64	-50.72	-39.02	-11.60	
		150 kHz to 30 MHz	-39.19	-38.16	-38.26	-37.97	-29.02	-8.95	
		30 MHz to 858 MHz	-43.77	-43.66	-43.68	-43.55	-19.02	-24.53	
		858 MHz to 868 GHz	-35.49	-31.23	-36.17	-34.02	-19.02	-12.21	
		895 MHz to 1 GHz	-32.15	-30.63	-35.72	-33.54	-19.02	-11.61	
		1 GHz to 10 GHz	-24.75	-25.25	-25.45	-24.85	-19.02	-5.73	

FCC ID: A3LRF4440D-13A		<b>MEASUREMENT REPORT (CERTIFICATION)</b>		<b>Approved by:</b> Technical Manager
<b>Test Report S/N:</b> 8K21070501R2-R1	<b>Test Dates:</b> 07/09/2021 - 08/25/2021	<b>EUT Type:</b> RRU (RF4440d)	Page 320 of 367	

High	2	9 kHz to 150 kHz	-52.19	-52.54	-52.68	-52.46	-39.02	-13.17	
		150 kHz to 30 MHz	-38.73	-38.16	-38.30	-38.80	-29.02	-9.14	
		30 MHz to 858 MHz	-43.62	-43.49	-43.55	-43.44	-19.02	-24.42	
		858 MHz to 868 GHz	-33.32	-32.67	-33.29	-32.09	-19.02	-13.07	
		895 MHz to 1 GHz	-32.70	-32.83	-33.36	-32.64	-19.02	-13.62	
		1 GHz to 10 GHz	-26.62	-26.39	-26.43	-26.53	-19.02	-7.37	
	3	9 kHz to 150 kHz	-52.28	-52.15	-51.91	-51.90	-39.02	-12.88	
		150 kHz to 30 MHz	-37.67	-37.49	-37.75	-38.17	-29.02	-8.47	
		30 MHz to 858 MHz	-43.69	-43.53	-43.56	-43.63	-19.02	-24.51	
		858 MHz to 868 GHz	-33.42	-33.02	-32.99	-32.64	-19.02	-13.62	
		895 MHz to 1 GHz	-33.94	-33.92	-32.58	-33.06	-19.02	-13.56	
		1 GHz to 10 GHz	-27.90	-28.58	-29.33	-29.45	-19.02	-8.88	
	0	0	9 kHz to 150 kHz	-52.09	-52.31	-51.96	-51.88	-39.02	-12.86
			150 kHz to 30 MHz	-38.36	-38.82	-39.93	-40.12	-29.02	-9.34
			30 MHz to 858 MHz	-50.26	-49.72	-50.28	-50.11	-19.02	-30.70
			858 MHz to 868 GHz	-35.19	-31.90	-32.43	-33.48	-19.02	-12.88
			895 MHz to 1 GHz	-29.27	-26.22	-26.51	-26.98	-19.02	-7.20
			1 GHz to 10 GHz	-26.75	-26.69	-27.59	-26.58	-19.02	-7.56
		1	9 kHz to 150 kHz	-50.75	-51.06	-50.98	-50.89	-39.02	-11.73
			150 kHz to 30 MHz	-39.00	-38.71	-40.01	-41.02	-29.02	-9.69
			30 MHz to 858 MHz	-51.13	-50.45	-50.96	-51.25	-19.02	-31.43
			858 MHz to 868 GHz	-38.01	-38.51	-37.91	-37.07	-19.02	-18.05
			895 MHz to 1 GHz	-29.06	-29.19	-28.67	-29.43	-19.02	-9.65
			1 GHz to 10 GHz	-24.98	-23.36	-25.90	-24.62	-19.02	-4.34
2		9 kHz to 150 kHz	-52.20	-52.53	-52.46	-52.39	-39.02	-13.18	
		150 kHz to 30 MHz	-39.07	-39.63	-40.61	-41.04	-29.02	-10.05	
		30 MHz to 858 MHz	-50.65	-51.40	-51.10	-51.00	-19.02	-31.63	
		858 MHz to 868 GHz	-35.26	-33.62	-34.15	-33.45	-19.02	-14.43	
		895 MHz to 1 GHz	-27.73	-28.47	-26.90	-29.13	-19.02	-7.88	
		1 GHz to 10 GHz	-25.87	-24.79	-26.54	-26.55	-19.02	-5.77	
3	9 kHz to 150 kHz	-51.91	-52.13	-51.81	-52.18	-39.02	-12.79		
	150 kHz to 30 MHz	-38.78	-39.17	-40.31	-40.63	-29.02	-9.76		
	30 MHz to 858 MHz	-50.63	-50.20	-50.31	-50.68	-19.02	-31.18		
	858 MHz to 868 GHz	-35.37	-35.14	-35.74	-35.58	-19.02	-16.12		
	895 MHz to 1 GHz	-27.69	-26.18	-28.11	-28.23	-19.02	-7.16		
	1 GHz to 10 GHz	-29.15	-29.42	-29.42	-28.44	-19.02	-9.42		

Table 7-228. Conducted Spurious Emission Summary Data (B5\_10M(DSS\_2:8)\_1C)

**Note: Test result is no big difference depending on DSS Ratio. So, the only worst-ratio plots are included in this report.**

FCC ID: A3LRF4440D-13A		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 8K21070501R2-R1	Test Dates: 07/09/2021 - 08/25/2021	EUT Type: RRU (RF4440d)	Page 321 of 367	



Plot 7-871. Conducted Spurious Emission Plot  
9 kHz to 150 kHz  
(B5\_10M(DSS\_6/4)\_1C\_256QAM -- Middle Channel, Port 3)



Plot 7-872. Conducted Spurious Emission Plot  
150 kHz to 30 MHz  
(B5\_10M(DSS\_864)\_1C\_256QAM -- Middle Channel, Port 3)



Plot 7-873. Conducted Spurious Emission Plot  
30 MHz to 858 MHz  
(B5\_10M(DSS\_6/4)\_1C\_256QAM -- Middle Channel, Port 3)



Plot 7-874. Conducted Spurious Emission Plot  
858 MHz to 868 MHz  
(B5\_10M(DSS\_6/4)\_1C\_256QAM -- Middle Channel, Port 3)



Plot 7-875. Conducted Spurious Emission Plot  
895 MHz to 1 GHz  
(B5\_10M(DSS\_6/4)\_1C\_256QAM -- Middle Channel, Port 3)



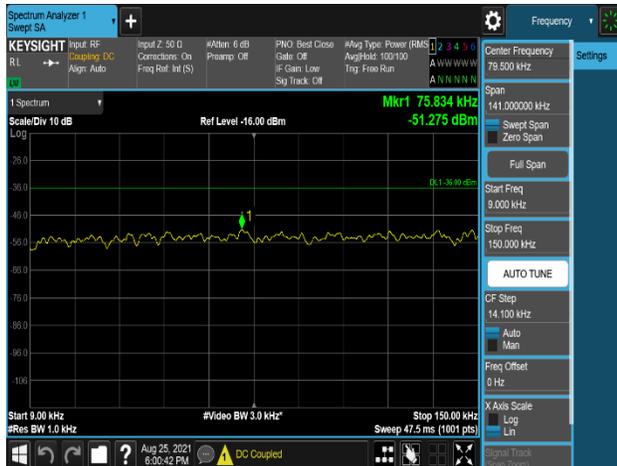
Plot 7-876. Conducted Spurious Emission Plot  
1 GHz to 10 GHz  
(B5\_10M(DSS\_6/4)\_1C\_256QAM -- Middle Channel, Port 3)

FCC ID: A3LRF4440D-13A		<b>MEASUREMENT REPORT (CERTIFICATION)</b>		<b>Approved by:</b> Technical Manager
Test Report S/N: 8K21070501R2-R1	Test Dates: 07/09/2021 - 08/25/2021	EUT Type: RRU (RF4440d)		Page 322 of 367

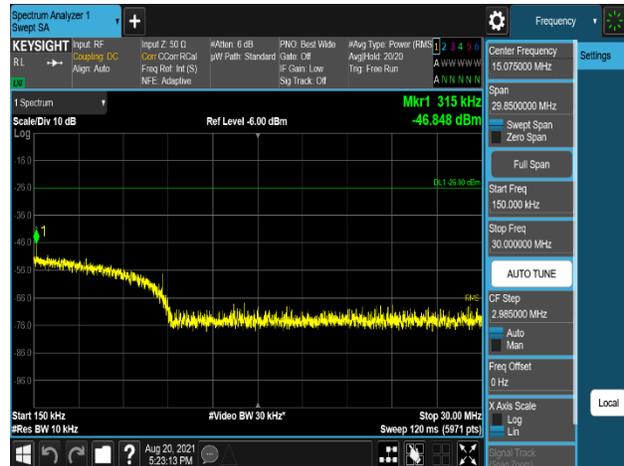
DSS Ratio	Channel	Port	Measurement Range	Level (dBm)				Limit (dBm)	Worst Margin (dB)
				QPSK	16QAM	64QAM	256QAM		
LTE 5 : NR 5	Low	0	9 kHz to 150 kHz	-50.75	-50.54	-51.26	-50.83	-36.01	-14.53
			150 kHz to 30 MHz	-46.34	-46.33	-46.68	-47.04	-26.01	-20.32
			30 MHz to 858 MHz	-49.42	-49.41	-48.82	-50.22	-16.01	-32.81
			858 MHz to 868 GHz	-26.30	-27.04	-28.04	-25.12	-16.01	-9.11
			895 MHz to 1 GHz	-36.20	-34.63	-36.50	-36.38	-16.01	-18.62
			1 GHz to 10 GHz	-26.24	-26.69	-26.32	-26.54	-16.01	-10.23
		1	9 kHz to 150 kHz	-49.77	-49.35	-49.49	-49.27	-36.01	-13.26
			150 kHz to 30 MHz	-45.43	-46.47	-46.45	-45.46	-26.01	-19.42
			30 MHz to 858 MHz	-51.02	-50.82	-50.33	-49.97	-16.01	-33.96
			858 MHz to 868 GHz	-27.97	-27.21	-28.36	-26.11	-16.01	-10.10
			895 MHz to 1 GHz	-36.83	-35.52	-35.69	-35.91	-16.01	-19.51
			1 GHz to 10 GHz	-24.25	-24.05	-24.54	-24.64	-16.01	-8.04
	Middle	0	9 kHz to 150 kHz	-50.97	-50.90	-50.48	-51.20	-36.01	-14.47
			150 kHz to 30 MHz	-46.37	-46.24	-47.00	-46.75	-26.01	-20.23
			30 MHz to 858 MHz	-48.96	-49.53	-49.80	-50.29	-16.01	-32.95
			858 MHz to 868 GHz	-33.18	-33.86	-33.74	-31.76	-16.01	-15.75
			895 MHz to 1 GHz	-32.44	-32.95	-34.47	-31.19	-16.01	-15.18
			1 GHz to 10 GHz	-26.64	-26.71	-26.36	-26.62	-16.01	-10.35
		1	9 kHz to 150 kHz	-49.40	-49.98	-49.20	-49.68	-36.01	-13.19
			150 kHz to 30 MHz	-46.18	-46.88	-46.21	-45.66	-26.01	-19.65
			30 MHz to 858 MHz	-50.48	-50.14	-51.05	-50.64	-16.01	-34.13
			858 MHz to 868 GHz	-34.16	-35.41	-34.53	-34.21	-16.01	-18.15
			895 MHz to 1 GHz	-35.35	-34.14	-33.44	-34.66	-16.01	-17.43
			1 GHz to 10 GHz	-24.34	-24.60	-23.95	-24.52	-16.01	-7.94
	High	0	9 kHz to 150 kHz	-50.68	-51.00	-51.00	<b>-51.28</b>	-36.01	-14.67
			150 kHz to 30 MHz	-46.79	-45.10	-47.20	<b>-46.85</b>	-26.01	-19.09
			30 MHz to 858 MHz	-49.86	-49.80	-49.49	<b>-49.55</b>	-16.01	-33.48
			858 MHz to 868 GHz	-30.89	-32.20	-32.52	<b>-30.59</b>	-16.01	-14.58
			895 MHz to 1 GHz	-23.44	-25.11	-25.76	<b>-21.20</b>	-16.01	-5.19
			1 GHz to 10 GHz	-25.77	-26.34	-26.49	<b>-26.47</b>	-16.01	-9.76
1		9 kHz to 150 kHz	-49.52	-50.19	-49.93	-49.35	-36.01	-13.34	
		150 kHz to 30 MHz	-45.55	-46.63	-47.45	-46.72	-26.01	-19.54	
		30 MHz to 858 MHz	-50.02	-50.40	-50.72	-50.69	-16.01	-34.01	
		858 MHz to 868 GHz	-37.68	-36.67	-33.91	-35.03	-16.01	-17.90	
		895 MHz to 1 GHz	-27.12	-27.02	-26.17	-26.84	-16.01	-10.16	
		1 GHz to 10 GHz	-24.13	-24.49	-24.56	-24.02	-16.01	-8.01	

Table 7-229. Conducted Spurious Emission Summary Data (B5\_10M(DSS)\_1C\_2T)

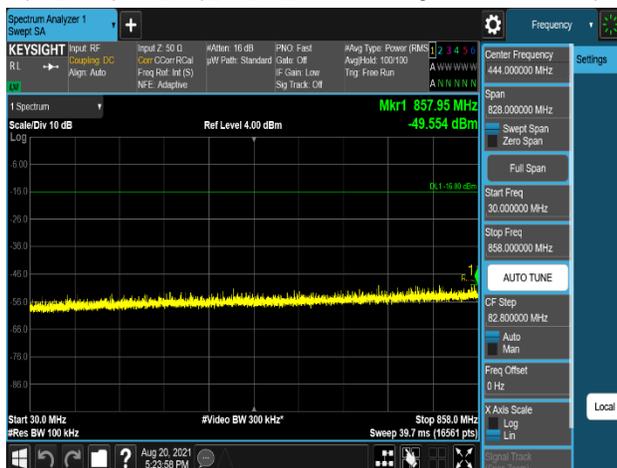
FCC ID: A3LRF4440D-13A		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 8K21070501R2-R1	Test Dates: 07/09/2021 - 08/25/2021	EUT Type: RRU (RF4440d)		Page 323 of 367



Plot 7-877. Conducted Spurious Emission Plot  
9 kHz to 150 kHz  
(B5\_10M(DSS\_5:5)\_1C\_2T\_256QAM - High Channel, Port 0)



Plot 7-878. Conducted Spurious Emission Plot  
150 kHz to 30 MHz  
(B5\_10M(DSS\_5:5)\_1C\_2T\_256QAM - High Channel, Port 0)



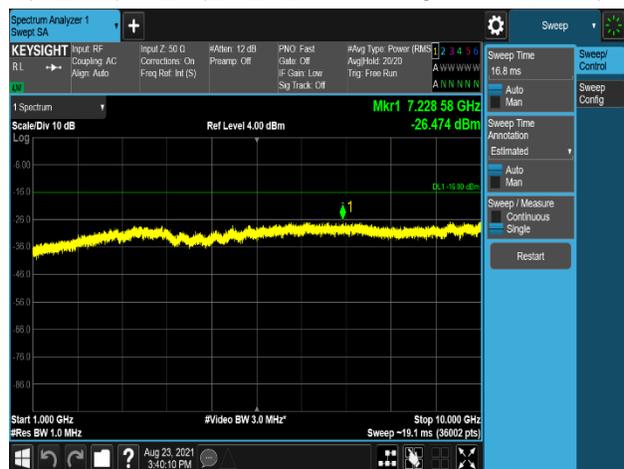
Plot 7-879. Conducted Spurious Emission Plot  
30 MHz to 858 MHz  
(B5\_10M(DSS\_5:5)\_1C\_2T\_256QAM - High Channel, Port 0)



Plot 7-880. Conducted Spurious Emission Plot  
858 MHz to 868 MHz  
(B5\_10M(DSS\_5:5)\_1C\_2T\_256QAM - High Channel, Port 0)



Plot 7-881. Conducted Spurious Emission Plot  
895 MHz to 1 GHz  
(B5\_10M(DSS\_5:5)\_1C\_2T\_256QAM - High Channel, Port 0)



Plot 7-882. Conducted Spurious Emission Plot  
1 GHz to 10 GHz  
(B5\_10M(DSS\_5:5)\_1C\_2T\_256QAM - High Channel, Port 0)

FCC ID: A3LRF4440D-13A		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 8K21070501R2-R1	Test Dates: 07/09/2021 - 08/25/2021	EUT Type: RRU (RF4440d)		Page 324 of 367

DSS Ratio	Channel	Port	Measurement Range	Level (dBm)				Limit (dBm)	Worst Margin (dB)
				QPSK	16QAM	64QAM	256QAM		
LTE 5 : NR 5	Low	0	9 kHz to 150 kHz	-54.33	-54.09	-53.97	-54.00	-39.02	-14.95
			150 kHz to 30 MHz	-41.36	-41.37	-41.46	-42.31	-29.02	-12.34
			30 MHz to 858 MHz	-42.99	-42.97	-42.96	-42.96	-19.02	-23.94
			858 MHz to 868 GHz	-30.99	-30.69	-30.09	-28.20	-19.02	-9.18
			895 MHz to 1 GHz	-35.11	-33.63	-33.74	-31.02	-19.02	-12.00
			1 GHz to 10 GHz	-27.36	-27.06	-27.89	-27.10	-19.02	-8.04
		1	9 kHz to 150 kHz	-51.71	-51.36	-51.60	-51.55	-39.02	-12.34
			150 kHz to 30 MHz	-42.00	-41.74	-41.21	-41.32	-29.02	-12.19
			30 MHz to 858 MHz	-43.60	-43.38	-43.61	-43.61	-19.02	-24.36
			858 MHz to 868 GHz	-30.48	-29.68	-29.88	-29.92	-19.02	-10.66
			895 MHz to 1 GHz	-34.23	-33.10	-34.25	-33.89	-19.02	-14.08
			1 GHz to 10 GHz	-25.57	-25.05	-25.20	-24.52	-19.02	-5.50
		2	9 kHz to 150 kHz	-52.23	-52.21	-52.38	-52.38	-39.02	-13.19
			150 kHz to 30 MHz	-42.64	-41.50	-42.12	-42.61	-29.02	-12.48
			30 MHz to 858 MHz	-43.42	-43.74	-43.59	-43.56	-19.02	-24.40
			858 MHz to 868 GHz	-28.72	-27.62	-27.81	-28.62	-19.02	-8.60
			895 MHz to 1 GHz	-32.43	-32.23	-31.48	-32.07	-19.02	-12.46
			1 GHz to 10 GHz	-26.48	-26.80	-26.19	-25.64	-19.02	-6.62
	3	9 kHz to 150 kHz	-52.53	-52.44	-52.63	-52.45	-39.02	-13.42	
		150 kHz to 30 MHz	-41.67	-40.25	-41.23	-42.36	-29.02	-11.23	
		30 MHz to 858 MHz	-43.56	-43.38	-43.48	-43.36	-19.02	-24.34	
		858 MHz to 868 GHz	-29.14	-28.43	-27.23	-28.68	-19.02	-8.21	
		895 MHz to 1 GHz	-32.39	-31.76	-32.10	-31.45	-19.02	-12.43	
		1 GHz to 10 GHz	-28.97	-28.63	-29.89	-29.36	-19.02	-9.61	
	Middle	0	9 kHz to 150 kHz	-53.93	-53.99	-54.19	-54.00	-39.02	-14.91
			150 kHz to 30 MHz	-43.82	-43.52	-42.94	-43.37	-29.02	-13.92
			30 MHz to 858 MHz	-42.71	-42.74	-42.60	-43.13	-19.02	-23.58
			858 MHz to 868 GHz	-34.36	-32.55	-29.38	-32.30	-19.02	-10.36
			895 MHz to 1 GHz	-33.19	-31.72	-31.63	-29.03	-19.02	-10.01
			1 GHz to 10 GHz	-26.71	-27.44	-27.12	-27.02	-19.02	-7.69
1		9 kHz to 150 kHz	-51.41	-51.81	-51.27	-51.40	-39.02	-12.25	
		150 kHz to 30 MHz	-43.56	-43.07	-42.82	-42.86	-29.02	-13.80	
		30 MHz to 858 MHz	-43.54	-43.51	-43.79	-43.59	-19.02	-24.49	
		858 MHz to 868 GHz	-34.47	-33.25	-33.26	-34.31	-19.02	-14.23	
		895 MHz to 1 GHz	-32.16	-32.87	-30.80	-32.20	-19.02	-11.78	
		1 GHz to 10 GHz	-24.89	-25.26	-24.17	-25.39	-19.02	-5.15	

FCC ID: A3LRF4440D-13A		<b>MEASUREMENT REPORT (CERTIFICATION)</b>		<b>Approved by:</b> Technical Manager
<b>Test Report S/N:</b> 8K21070501R2-R1	<b>Test Dates:</b> 07/09/2021 - 08/25/2021	<b>EUT Type:</b> RRU (RF4440d)	Page 325 of 367	

	2	9 kHz to 150 kHz	-52.14	-52.24	-51.96	-52.12	-39.02	-12.94	
		150 kHz to 30 MHz	-43.73	-44.31	-43.72	-44.62	-29.02	-14.70	
		30 MHz to 858 MHz	-43.60	-43.71	-43.59	-43.60	-19.02	-24.57	
		858 MHz to 868 GHz	-29.93	-29.09	-31.03	-28.85	-19.02	-9.83	
		895 MHz to 1 GHz	-31.04	-31.25	-29.95	-29.31	-19.02	-10.29	
		1 GHz to 10 GHz	-26.26	-26.33	-26.71	-26.50	-19.02	-7.24	
		3	9 kHz to 150 kHz	-52.76	-52.48	-52.42	-52.90	-39.02	-13.40
			150 kHz to 30 MHz	-43.25	-43.73	-43.01	-43.22	-29.02	-13.99
			30 MHz to 858 MHz	-43.74	-43.57	-43.71	-43.58	-19.02	-24.55
			858 MHz to 868 GHz	-32.30	-30.72	-31.93	-31.56	-19.02	-11.70
			895 MHz to 1 GHz	-30.63	-30.52	-30.56	-31.63	-19.02	-11.50
			1 GHz to 10 GHz	-28.71	-29.27	-27.99	-28.58	-19.02	-8.97
	High	0	9 kHz to 150 kHz	-54.10	-53.95	-53.97	-54.04	-39.02	-14.93
			150 kHz to 30 MHz	-43.85	-45.88	-44.77	-44.94	-29.02	-14.83
			30 MHz to 858 MHz	-43.00	-42.51	-43.00	-42.88	-19.02	-23.49
			858 MHz to 868 GHz	-32.76	-31.70	-32.90	-34.41	-19.02	-12.68
			895 MHz to 1 GHz	-28.46	-28.08	-29.22	-30.40	-19.02	-9.06
			1 GHz to 10 GHz	-25.94	-26.67	-25.58	-26.40	-19.02	-6.56
		1	9 kHz to 150 kHz	-51.45	-51.27	-51.57	-51.78	-39.02	-12.25
			150 kHz to 30 MHz	-43.52	-44.62	-45.96	-45.39	-29.02	-14.50
			30 MHz to 858 MHz	-43.69	-43.66	-43.63	-43.77	-19.02	-24.61
			858 MHz to 868 GHz	-33.00	-36.02	-35.45	-36.38	-19.02	-13.98
			895 MHz to 1 GHz	-25.85	-29.35	-29.20	-30.12	-19.02	-6.83
			1 GHz to 10 GHz	-24.89	-24.73	-24.55	-25.14	-19.02	-5.53
2		9 kHz to 150 kHz	-52.07	-52.14	-52.05	-51.86	-39.02	-12.84	
		150 kHz to 30 MHz	-43.36	-44.15	-45.77	-45.80	-29.02	-14.34	
		30 MHz to 858 MHz	-43.44	-43.44	-43.73	-43.41	-19.02	-24.39	
		858 MHz to 868 GHz	-33.46	-32.05	-35.00	-32.40	-19.02	-13.03	
		895 MHz to 1 GHz	-28.62	-26.49	-29.53	-27.53	-19.02	-7.47	
		1 GHz to 10 GHz	-26.60	-25.96	-25.16	-25.53	-19.02	-6.14	
3		9 kHz to 150 kHz	-52.72	-52.78	-52.66	-52.97	-39.02	-13.64	
		150 kHz to 30 MHz	-43.28	-44.04	-44.81	-44.55	-29.02	-14.26	
		30 MHz to 858 MHz	-43.56	-43.46	-43.47	-43.70	-19.02	-24.44	
		858 MHz to 868 GHz	-33.43	-33.91	-34.94	-34.69	-19.02	-14.41	
		895 MHz to 1 GHz	-28.56	-28.85	-29.11	-29.43	-19.02	-9.54	
		1 GHz to 10 GHz	-28.29	-28.67	-28.68	-27.81	-19.02	-8.79	

**Table 7-230. Conducted Spurious Emission Summary Data (B5\_10M(DSS)+5M\_2C\_4T)**

<b>FCC ID:</b> A3LRF4440D-13A		<b>MEASUREMENT REPORT (CERTIFICATION)</b>		<b>Approved by:</b> Technical Manager
<b>Test Report S/N:</b> 8K21070501R2-R1	<b>Test Dates:</b> 07/09/2021 - 08/25/2021	<b>EUT Type:</b> RRU (RF4440d)	Page 326 of 367	

DSS Ratio	Channel	Port	Measurement Range	Level (dBm)				Limit (dBm)	Worst Margin (dB)
				QPSK	16QAM	64QAM	256QAM		
LTE 5 : NR 5	Low	0	9 kHz to 150 kHz	-42.83	-42.99	-42.58	-42.63	-39.02	-3.56
			150 kHz to 30 MHz	-47.66	-47.73	-47.38	-46.99	-29.02	-17.97
			30 MHz to 858 MHz	-42.86	-42.95	-42.98	-42.70	-19.02	-23.68
			858 MHz to 868 GHz	-30.65	-31.90	-31.72	-30.60	-19.02	-11.58
			895 MHz to 1 GHz	-30.77	-33.48	-33.95	-32.92	-19.02	-11.75
			1 GHz to 10 GHz	-23.89	-24.11	-24.54	-24.13	-19.02	-4.87
		1	9 kHz to 150 kHz	-43.39	-43.41	-42.58	-43.06	-39.02	-3.56
			150 kHz to 30 MHz	-46.42	-47.44	-46.53	-45.57	-29.02	-16.55
			30 MHz to 858 MHz	-43.48	-43.47	-43.54	-43.65	-19.02	-24.45
			858 MHz to 868 GHz	-31.25	-31.55	-31.82	-30.60	-19.02	-11.58
			895 MHz to 1 GHz	-32.51	-32.43	-32.41	-28.79	-19.02	-9.77
			1 GHz to 10 GHz	-21.68	-22.72	-22.20	-22.31	-19.02	-2.66
	2	9 kHz to 150 kHz	-44.01	-43.94	-43.02	-42.94	-39.02	-3.92	
		150 kHz to 30 MHz	-47.31	-47.44	-47.13	-47.28	-29.02	-18.11	
		30 MHz to 858 MHz	-43.11	-43.53	-43.19	-43.55	-19.02	-24.09	
		858 MHz to 868 GHz	-28.86	-29.01	-29.35	-29.81	-19.02	-9.84	
		895 MHz to 1 GHz	-28.55	-29.01	-28.68	-30.69	-19.02	-9.53	
		1 GHz to 10 GHz	-24.29	-23.25	-24.38	-23.40	-19.02	-4.23	
	3	9 kHz to 150 kHz	-42.31	-41.73	-41.59	-41.87	-39.02	-2.57	
		150 kHz to 30 MHz	-47.25	-46.60	-46.23	-46.69	-29.02	-17.21	
		30 MHz to 858 MHz	-43.51	-43.52	-43.66	-43.69	-19.02	-24.49	
		858 MHz to 868 GHz	-28.92	-29.01	-28.70	-28.92	-19.02	-9.68	
		895 MHz to 1 GHz	-28.34	-28.51	-28.18	-30.17	-19.02	-9.16	
		1 GHz to 10 GHz	-25.75	-25.49	-26.29	-25.29	-19.02	-6.27	
Middle	0	9 kHz to 150 kHz	-42.97	-43.35	-43.51	-43.90	-39.02	-3.95	
		150 kHz to 30 MHz	-46.30	-46.88	-48.08	-47.13	-29.02	-17.28	
		30 MHz to 858 MHz	-43.06	-43.00	-42.94	-43.09	-19.02	-23.92	
		858 MHz to 868 GHz	-31.32	-32.77	-32.99	-32.33	-19.02	-12.30	
		895 MHz to 1 GHz	-31.55	-31.32	-31.02	-30.53	-19.02	-11.51	
		1 GHz to 10 GHz	-25.13	-24.20	-24.20	-23.61	-19.02	-4.59	
	1	9 kHz to 150 kHz	-43.75	-43.83	-44.16	-43.97	-39.02	-4.73	
		150 kHz to 30 MHz	-47.47	-46.27	-47.68	-48.07	-29.02	-17.25	
		30 MHz to 858 MHz	-43.63	-43.54	-43.54	-43.39	-19.02	-24.37	
		858 MHz to 868 GHz	-32.37	-30.86	-33.32	-32.46	-19.02	-11.84	
		895 MHz to 1 GHz	-29.97	-30.94	-30.80	-30.48	-19.02	-10.95	
		1 GHz to 10 GHz	-21.83	-22.69	-22.11	-22.64	-19.02	-2.81	

FCC ID: A3LRF4440D-13A		<b>MEASUREMENT REPORT (CERTIFICATION)</b>		<b>Approved by:</b> Technical Manager
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	2	9 kHz to 150 kHz	-43.92	-43.93	-44.41	-43.74	-39.02	-4.72	
		150 kHz to 30 MHz	-47.75	-47.99	-46.93	-46.87	-29.02	-17.85	
		30 MHz to 858 MHz	-42.83	-43.63	-43.14	-41.22	-19.02	-22.20	
		858 MHz to 868 GHz	-29.44	-29.82	-28.46	-29.92	-19.02	-9.44	
		895 MHz to 1 GHz	-29.03	-29.32	-29.11	-28.80	-19.02	-9.78	
		1 GHz to 10 GHz	-23.26	-23.34	-23.69	-23.49	-19.02	-4.24	
		3	9 kHz to 150 kHz	-42.40	-42.61	-43.04	-42.70	-39.02	-3.38
			150 kHz to 30 MHz	-46.33	-46.95	-47.87	-45.49	-29.02	-16.47
			30 MHz to 858 MHz	-43.53	-43.67	-43.56	-43.57	-19.02	-24.51
			858 MHz to 868 GHz	-29.93	-30.21	-29.78	-29.50	-19.02	-10.48
			895 MHz to 1 GHz	-28.40	-28.01	-27.89	-28.00	-19.02	-8.87
		1 GHz to 10 GHz	-26.80	-26.52	-26.23	-26.33	-19.02	-7.21	
	High	0	9 kHz to 150 kHz	-43.84	-44.05	-44.56	-44.88	-39.02	-4.82
			150 kHz to 30 MHz	-48.47	-47.85	-49.01	-48.71	-29.02	-18.83
			30 MHz to 858 MHz	-42.87	-42.96	-43.02	-42.87	-19.02	-23.85
			858 MHz to 868 GHz	-31.10	-34.02	-33.72	-33.21	-19.02	-12.08
			895 MHz to 1 GHz	-29.07	-29.35	-30.64	-29.61	-19.02	-10.05
			1 GHz to 10 GHz	-23.59	-24.46	-24.12	-24.26	-19.02	-4.57
		1	9 kHz to 150 kHz	-44.86	-43.75	-44.43	-44.98	-39.02	-4.73
			150 kHz to 30 MHz	-46.07	-47.19	-48.00	-46.44	-29.02	-17.05
			30 MHz to 858 MHz	-43.67	-43.69	-43.67	-43.67	-19.02	-24.65
			858 MHz to 868 GHz	-32.54	-34.09	-32.53	-32.19	-19.02	-13.17
			895 MHz to 1 GHz	-28.01	-30.76	-29.01	-28.11	-19.02	-8.99
		1 GHz to 10 GHz	-21.67	-21.78	-22.48	-22.53	-19.02	-2.65	
2		9 kHz to 150 kHz	-44.48	-44.71	-45.53	-45.08	-39.02	-5.46	
		150 kHz to 30 MHz	-48.23	-48.17	-47.37	-46.94	-29.02	-17.92	
		30 MHz to 858 MHz	-43.67	-43.51	-43.56	-43.60	-19.02	-24.49	
		858 MHz to 868 GHz	-29.11	-30.39	-29.84	-30.24	-19.02	-10.09	
		895 MHz to 1 GHz	-27.84	-27.32	-28.33	-28.25	-19.02	-8.30	
1 GHz to 10 GHz		-23.24	-23.53	-24.17	-22.84	-19.02	-3.82		
3		9 kHz to 150 kHz	-43.80	-43.05	-43.68	-44.06	-39.02	-4.03	
		150 kHz to 30 MHz	-46.96	-47.17	-47.10	-47.13	-29.02	-17.94	
		30 MHz to 858 MHz	-43.52	-43.59	-43.36	-43.68	-19.02	-24.34	
		858 MHz to 868 GHz	-29.76	-28.68	-30.02	-31.56	-19.02	-9.66	
		895 MHz to 1 GHz	-27.55	-27.44	-27.67	-28.53	-19.02	-8.42	
1 GHz to 10 GHz		-26.36	-26.06	-26.33	-26.19	-19.02	-7.04		

**Table 7-231. Conducted Spurious Emission Summary Data (B5\_10M(DSS)+10M\_2C\_4T)**

FCC ID: A3LRF4440D-13A		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
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DSS Ratio	Channel	Port	Measurement Range	Level (dBm)				Limit (dBm)	Worst Margin (dB)
				QPSK	16QAM	64QAM	256QAM		
LTE 5 : NR 5	Middle	0	9 kHz to 150 kHz	-61.29	-53.81	-54.63	-53.44	-39.02	-14.42
			150 kHz to 30 MHz	-35.82	-38.17	-37.91	-37.69	-29.02	-6.80
			30 MHz to 858 MHz	-42.91	-43.08	-42.99	-43.03	-19.02	-23.89
			858 MHz to 868 GHz	-31.32	-30.29	-30.40	-30.17	-19.02	-11.15
			895 MHz to 1 GHz	-30.42	-28.84	-29.38	-28.84	-19.02	-9.82
			1 GHz to 10 GHz	-27.40	-27.08	-26.48	-27.59	-19.02	-7.46
		1	9 kHz to 150 kHz	-58.27	-51.50	-51.71	-51.46	-39.02	-12.44
			150 kHz to 30 MHz	-35.65	-38.88	-38.70	-38.12	-29.02	-6.63
			30 MHz to 858 MHz	-43.63	-43.46	-43.86	-43.70	-19.02	-24.44
			858 MHz to 868 GHz	-30.93	-32.22	-31.69	-31.38	-19.02	-11.91
			895 MHz to 1 GHz	-29.43	-30.07	-29.52	-27.91	-19.02	-8.89
			1 GHz to 10 GHz	-25.11	-24.30	-25.05	-25.17	-19.02	-5.28
		2	9 kHz to 150 kHz	-52.29	-52.20	-52.50	-52.34	-39.02	-13.18
			150 kHz to 30 MHz	-36.53	-38.80	-38.88	-38.43	-29.02	-7.51
			30 MHz to 858 MHz	-43.22	-41.81	-43.25	-42.08	-19.02	-22.79
			858 MHz to 868 GHz	-27.78	-28.09	-28.20	-27.03	-19.02	-8.01
			895 MHz to 1 GHz	-27.49	-26.30	-28.07	-25.38	-19.02	-6.36
			1 GHz to 10 GHz	-26.06	-25.69	-26.79	-25.00	-19.02	-5.98
		3	9 kHz to 150 kHz	-52.74	-52.82	-52.93	-52.54	-39.02	-13.52
			150 kHz to 30 MHz	-35.91	-38.70	-38.48	-38.17	-29.02	-6.89
			30 MHz to 858 MHz	-43.66	-43.66	-43.75	-43.52	-19.02	-24.50
			858 MHz to 868 GHz	-25.96	-27.55	-29.63	-27.33	-19.02	-6.94
			895 MHz to 1 GHz	-26.17	-26.27	-28.17	-26.32	-19.02	-7.15
			1 GHz to 10 GHz	-28.78	-28.40	-28.65	-29.01	-19.02	-9.38

Table 7-232. Conducted Spurious Emission Summary Data (B5\_10M(DSS)+10M+5M\_3C\_4T)

FCC ID: A3LRF4440D-13A		MEASUREMENT REPORT (CERTIFICATION)			Approved by: Technical Manager
Test Report S/N: 8K21070501R2-R1	Test Dates: 07/09/2021 - 08/25/2021	EUT Type: RRU (RF4440d)		Page 329 of 367	

DSS Ratio	Channel	Port	Measurement Range	Level (dBm)				Limit (dBm)	Worst Margin (dB)
				QPSK	16QAM	64QAM	256QAM		
LTE 5 : NR 5	Middle	0	9 kHz to 150 kHz	-52.01	-52.29	-52.01	-52.19	-39.02	-12.99
			150 kHz to 30 MHz	-41.02	-41.08	-41.70	-41.76	-29.02	-12.00
			30 MHz to 858 MHz	-42.90	-42.92	-42.77	-42.58	-19.02	-23.56
			858 MHz to 868 GHz	-30.47	-30.02	-29.71	-29.37	-19.02	-10.35
			895 MHz to 1 GHz	-28.92	-29.09	-27.63	-27.20	-19.02	-8.18
			1 GHz to 10 GHz	-27.41	-27.33	-28.04	-26.79	-19.02	-7.77
		1	9 kHz to 150 kHz	-50.99	-50.96	-50.94	-51.29	-39.02	-11.92
			150 kHz to 30 MHz	-41.17	-41.32	-42.15	-42.47	-29.02	-12.15
			30 MHz to 858 MHz	-43.81	-43.70	-43.58	-43.64	-19.02	-24.56
			858 MHz to 868 GHz	-30.81	-30.85	-31.86	-29.79	-19.02	-10.77
			895 MHz to 1 GHz	-28.71	-28.60	-28.23	-26.91	-19.02	-7.89
			1 GHz to 10 GHz	-25.17	-25.72	-24.91	-24.92	-19.02	-5.89
		2	9 kHz to 150 kHz	-52.59	-51.59	-52.01	-52.30	-39.02	-12.57
			150 kHz to 30 MHz	-41.54	-41.54	-40.75	-41.36	-29.02	-11.73
			30 MHz to 858 MHz	-43.55	-43.06	-41.46	-39.98	-19.02	-20.96
			858 MHz to 868 GHz	-27.34	-26.46	-27.81	-28.37	-19.02	-7.44
			895 MHz to 1 GHz	-27.14	-25.83	-24.79	-25.77	-19.02	-5.77
			1 GHz to 10 GHz	-26.56	-24.89	-26.41	-26.43	-19.02	-5.87
		3	9 kHz to 150 kHz	-51.79	-52.16	-52.14	-52.02	-39.02	-12.77
			150 kHz to 30 MHz	-41.65	-41.61	-41.26	-42.22	-29.02	-12.24
			30 MHz to 858 MHz	-43.48	-43.59	-43.53	-43.69	-19.02	-24.46
			858 MHz to 868 GHz	-29.23	-29.72	-28.97	-28.32	-19.02	-9.30
			895 MHz to 1 GHz	-26.92	-26.00	-24.81	-26.06	-19.02	-5.79
			1 GHz to 10 GHz	-28.60	-27.69	-29.35	-28.17	-19.02	-8.67

**Table 7-233. Conducted Spurious Emission Summary Data (B5\_10M(DSS)+5M\_2C - Non-contiguous\_4T)**

FCC ID: A3LRF4440D-13A		MEASUREMENT REPORT (CERTIFICATION)			Approved by: Technical Manager
Test Report S/N: 8K21070501R2-R1	Test Dates: 07/09/2021 - 08/25/2021	EUT Type: RRU (RF4440d)		Page 330 of 367	

DSS Ratio	Channel	Port	Measurement Range	Level (dBm)				Limit (dBm)	Worst Margin (dB)
				QPSK	16QAM	64QAM	256QAM		
LTE 5 : NR 5	Middle	0	9 kHz to 150 kHz	-51.99	-52.09	-51.98	-52.13	-39.02	-12.96
			150 kHz to 30 MHz	-41.90	-39.85	-41.96	-41.21	-29.02	-10.83
			30 MHz to 858 MHz	-42.96	-43.11	-42.74	-42.80	-19.02	-23.72
			858 MHz to 868 GHz	-29.40	-30.80	-29.89	-28.65	-19.02	-9.63
			895 MHz to 1 GHz	-27.33	-27.76	-28.40	-28.43	-19.02	-8.31
			1 GHz to 10 GHz	-26.91	-26.57	-25.10	-26.89	-19.02	-6.08
		1	9 kHz to 150 kHz	-50.72	-51.18	-50.98	-51.03	-39.02	-11.70
			150 kHz to 30 MHz	-43.23	-39.96	-41.51	-42.01	-29.02	-10.94
			30 MHz to 858 MHz	-43.71	-43.66	-43.68	-43.78	-19.02	-24.64
			858 MHz to 868 GHz	-30.89	-31.27	-31.52	-29.80	-19.02	-10.78
			895 MHz to 1 GHz	-28.69	-28.80	-28.52	-28.64	-19.02	-9.50
			1 GHz to 10 GHz	-24.35	-25.26	-25.40	-24.14	-19.02	-5.12
		2	9 kHz to 150 kHz	-52.57	-52.55	-52.76	-52.40	-39.02	-13.38
			150 kHz to 30 MHz	-42.98	-39.57	-41.04	-42.06	-29.02	-10.55
			30 MHz to 858 MHz	-43.24	-43.21	-42.87	-41.53	-19.02	-22.51
			858 MHz to 868 GHz	-27.70	-27.23	-26.99	-28.95	-19.02	-7.97
			895 MHz to 1 GHz	-25.87	-26.26	-26.53	-26.75	-19.02	-6.85
			1 GHz to 10 GHz	-26.58	-26.46	-25.99	-26.27	-19.02	-6.97
		3	9 kHz to 150 kHz	-51.57	-51.76	-52.03	-52.08	-39.02	-12.55
			150 kHz to 30 MHz	-41.78	-39.83	-40.86	-41.39	-29.02	-10.81
			30 MHz to 858 MHz	-43.72	-43.58	-43.64	-43.46	-19.02	-24.44
			858 MHz to 868 GHz	-28.11	-27.99	-28.70	-27.71	-19.02	-8.69
			895 MHz to 1 GHz	-25.73	-25.97	-26.51	-26.00	-19.02	-6.71
			1 GHz to 10 GHz	-29.45	-29.45	-29.39	-28.79	-19.02	-9.77

Table 7-234. Conducted Spurious Emission Summary Data (B5\_10M(DSS)+10M\_2C - Non-contiguous\_4T)

FCC ID: A3LRF4440D-13A		MEASUREMENT REPORT (CERTIFICATION)			Approved by: Technical Manager
Test Report S/N: 8K21070501R2-R1	Test Dates: 07/09/2021 - 08/25/2021	EUT Type: RRU (RF4440d)		Page 331 of 367	

DSS Ratio	Channel	Port	Measurement Range	Level (dBm)	Limit (dBm)	Worst Margin (dB)
LTE 5 : NR 5	Low	0	9 kHz to 150 kHz	-50.79	-39.02	-11.77
			150 kHz to 30 MHz	-50.76	-29.02	-21.74
			30 MHz to 745 MHz	-29.33	-19.02	-10.31
			757 MHz to 868 GHz	-30.14	-19.02	-11.12
			895 MHz to 1 GHz	-37.58	-19.02	-18.56
			1 GHz to 10 GHz	-26.68	-19.02	-7.66
		1	9 kHz to 150 kHz	-51.30	-39.02	-12.28
			150 kHz to 30 MHz	-50.01	-29.02	-20.99
			30 MHz to 745 MHz	-31.48	-19.02	-12.46
			757 MHz to 868 GHz	-31.34	-19.02	-12.32
			895 MHz to 1 GHz	-38.51	-19.02	-19.49
			1 GHz to 10 GHz	-25.00	-19.02	-5.98
		2	9 kHz to 150 kHz	-51.55	-39.02	-12.53
			150 kHz to 30 MHz	-52.50	-29.02	-23.48
			30 MHz to 745 MHz	-30.86	-19.02	-11.84
			757 MHz to 868 GHz	-29.84	-19.02	-10.82
			895 MHz to 1 GHz	-37.67	-19.02	-18.65
			1 GHz to 10 GHz	-26.81	-19.02	-7.79
	3	9 kHz to 150 kHz	-47.97	-39.02	-8.95	
		150 kHz to 30 MHz	-50.84	-29.02	-21.82	
		30 MHz to 745 MHz	-29.17	-19.02	-10.15	
		757 MHz to 868 GHz	-29.74	-19.02	-10.72	
		895 MHz to 1 GHz	-38.47	-19.02	-19.45	
		1 GHz to 10 GHz	-29.18	-19.02	-10.16	
	High	0	9 kHz to 150 kHz	-50.79	-39.02	-11.77
			150 kHz to 30 MHz	-51.30	-29.02	-22.28
			30 MHz to 745 MHz	-27.72	-19.02	-8.70
			757 MHz to 868 GHz	-29.11	-19.02	-10.09
			895 MHz to 1 GHz	-31.56	-19.02	-12.54
			1 GHz to 10 GHz	-27.47	-19.02	-8.45
1		9 kHz to 150 kHz	-52.01	-39.02	-12.99	
		150 kHz to 30 MHz	-49.63	-29.02	-20.61	
		30 MHz to 745 MHz	-30.27	-19.02	-11.25	
		757 MHz to 868 GHz	-30.79	-19.02	-11.77	
		895 MHz to 1 GHz	-30.52	-19.02	-11.50	
		1 GHz to 10 GHz	-25.53	-19.02	-6.51	

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		2	9 kHz to 150 kHz	-51.88	-39.02	-12.86
			150 kHz to 30 MHz	-51.35	-29.02	-22.33
			30 MHz to 745 MHz	-30.43	-19.02	-11.41
			757 MHz to 868 GHz	-30.12	-19.02	-11.10
			895 MHz to 1 GHz	-30.03	-19.02	-11.01
			1 GHz to 10 GHz	-25.82	-19.02	-6.80
		3	9 kHz to 150 kHz	-48.67	-39.02	-9.65
			150 kHz to 30 MHz	-51.34	-29.02	-22.32
			30 MHz to 745 MHz	-29.34	-19.02	-10.32
			757 MHz to 868 GHz	-30.50	-19.02	-11.48
			895 MHz to 1 GHz	-30.88	-19.02	-11.86
			1 GHz to 10 GHz	-27.93	-19.02	-8.91

**Table 7-235. Conducted Spurious Emission Summary Data  
(Multi Band\_B5\_5M+10M(DSS)+10M\_3C + B13\_5M+5M\_2C\_4T)**

FCC ID: A3LRF4440D-13A		MEASUREMENT REPORT (CERTIFICATION)			Approved by: Technical Manager
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DSS Ratio	Channel	Port	Measurement Range	Level (dBm)	Limit (dBm)	Worst Margin (dB)
LTE 5 : NR 5	Low	0	9 kHz to 150 kHz	-50.28	-39.02	-11.26
			150 kHz to 30 MHz	-51.02	-29.02	-22.00
			30 MHz to 745 MHz	-27.72	-19.02	-8.70
			757 MHz to 868 GHz	-29.28	-19.02	-10.26
			895 MHz to 1 GHz	-35.50	-19.02	-16.48
			1 GHz to 10 GHz	-27.27	-19.02	-8.25
		1	9 kHz to 150 kHz	-50.76	-39.02	-11.74
			150 kHz to 30 MHz	-49.76	-29.02	-20.74
			30 MHz to 745 MHz	-28.77	-19.02	-9.75
			757 MHz to 868 GHz	-30.13	-19.02	-11.11
			895 MHz to 1 GHz	-35.14	-19.02	-16.12
			1 GHz to 10 GHz	-24.34	-19.02	-5.32
		2	9 kHz to 150 kHz	-51.80	-39.02	-12.78
			150 kHz to 30 MHz	-52.47	-29.02	-23.45
			30 MHz to 745 MHz	-29.24	-19.02	-10.22
			757 MHz to 868 GHz	-29.67	-19.02	-10.65
			895 MHz to 1 GHz	-33.66	-19.02	-14.64
			1 GHz to 10 GHz	-26.64	-19.02	-7.62
	3	9 kHz to 150 kHz	-48.14	-39.02	-9.12	
		150 kHz to 30 MHz	-50.77	-29.02	-21.75	
		30 MHz to 745 MHz	-27.88	-19.02	-8.86	
		757 MHz to 868 GHz	-29.70	-19.02	-10.68	
		895 MHz to 1 GHz	-33.97	-19.02	-14.95	
		1 GHz to 10 GHz	-28.83	-19.02	-9.81	
	High	0	9 kHz to 150 kHz	-51.29	-39.02	-12.27
			150 kHz to 30 MHz	-51.62	-29.02	-22.60
			30 MHz to 745 MHz	-27.12	-19.02	-8.10
			757 MHz to 868 GHz	-28.62	-19.02	-9.60
			895 MHz to 1 GHz	-29.26	-19.02	-10.24
			1 GHz to 10 GHz	-27.43	-19.02	-8.41
1		9 kHz to 150 kHz	-51.67	-39.02	-12.65	
		150 kHz to 30 MHz	-51.01	-29.02	-21.99	
		30 MHz to 745 MHz	-30.19	-19.02	-11.17	
		757 MHz to 868 GHz	-28.68	-19.02	-9.66	
		895 MHz to 1 GHz	-29.74	-19.02	-10.72	
		1 GHz to 10 GHz	-25.43	-19.02	-6.41	

FCC ID: A3LRF4440D-13A		<b>MEASUREMENT REPORT (CERTIFICATION)</b>		<b>Approved by:</b> Technical Manager
<b>Test Report S/N:</b> 8K21070501R2-R1	<b>Test Dates:</b> 07/09/2021 - 08/25/2021	<b>EUT Type:</b> RRU (RF4440d)	Page 334 of 367	

		2	9 kHz to 150 kHz	-51.44	-39.02	-12.42
			150 kHz to 30 MHz	-52.50	-29.02	-23.48
			30 MHz to 745 MHz	-30.25	-19.02	-11.23
			757 MHz to 868 GHz	-30.26	-19.02	-11.24
			895 MHz to 1 GHz	-30.04	-19.02	-11.02
			1 GHz to 10 GHz	-26.52	-19.02	-7.50
		3	9 kHz to 150 kHz	-47.66	-39.02	-8.64
			150 kHz to 30 MHz	-51.42	-29.02	-22.40
			30 MHz to 745 MHz	-28.92	-19.02	-9.90
			757 MHz to 868 GHz	-29.66	-19.02	-10.64
			895 MHz to 1 GHz	-30.05	-19.02	-11.03
			1 GHz to 10 GHz	-29.29	-19.02	-10.27

**Table 7-236. Conducted Spurious Emission Summary Data  
(Multi Band\_B5\_10M(DSS)\_1C+ B13\_10M+NB-lot(GB)+NB-lot(IB)\_2C\_4T)**

<b>FCC ID:</b> A3LRF4440D-13A	 <small>ENGINEERING LABORATORY, INC.</small>	<b>MEASUREMENT REPORT (CERTIFICATION)</b>		<b>Approved by:</b> Technical Manager
<b>Test Report S/N:</b> 8K21070501R2-R1	<b>Test Dates:</b> 07/09/2021 - 08/25/2021	<b>EUT Type:</b> RRU (RF4440d)	Page 335 of 367	

DSS Ratio	Channel	Port	Measurement Range	Level (dBm)	Limit (dBm)	Worst Margin (dB)
LTE 5 : NR 5	Low	0	9 kHz to 150 kHz	-51.11	-39.02	-12.09
			150 kHz to 30 MHz	-50.46	-29.02	-21.44
			30 MHz to 745 MHz	-37.36	-19.02	-18.34
			757 MHz to 868 GHz	-30.95	-19.02	-11.93
			895 MHz to 1 GHz	-38.38	-19.02	-19.36
			1 GHz to 10 GHz	-27.29	-19.02	-8.27
		1	9 kHz to 150 kHz	-51.90	-39.02	-12.88
			150 kHz to 30 MHz	-50.87	-29.02	-21.85
			30 MHz to 745 MHz	-37.60	-19.02	-18.58
			757 MHz to 868 GHz	-31.04	-19.02	-12.02
			895 MHz to 1 GHz	-38.47	-19.02	-19.45
			1 GHz to 10 GHz	-24.89	-19.02	-5.87
		2	9 kHz to 150 kHz	-51.55	-39.02	-12.53
			150 kHz to 30 MHz	-52.10	-29.02	-23.08
			30 MHz to 745 MHz	-35.38	-19.02	-16.36
			757 MHz to 868 GHz	-29.54	-19.02	-10.52
			895 MHz to 1 GHz	-35.22	-19.02	-16.20
			1 GHz to 10 GHz	-25.32	-19.02	-6.30
	3	9 kHz to 150 kHz	-47.95	-39.02	-8.93	
		150 kHz to 30 MHz	-51.47	-29.02	-22.45	
		30 MHz to 745 MHz	-33.76	-19.02	-14.74	
		757 MHz to 868 GHz	-28.19	-19.02	-9.17	
		895 MHz to 1 GHz	-36.13	-19.02	-17.11	
		1 GHz to 10 GHz	-28.77	-19.02	-9.75	
	High	0	9 kHz to 150 kHz	-50.35	-39.02	-11.33
			150 kHz to 30 MHz	-51.43	-29.02	-22.41
			30 MHz to 745 MHz	-34.24	-19.02	-15.22
			757 MHz to 868 GHz	-38.41	-19.02	-19.39
			895 MHz to 1 GHz	-28.58	-19.02	-9.56
			1 GHz to 10 GHz	-27.84	-19.02	-8.82
1		9 kHz to 150 kHz	-51.20	-39.02	-12.18	
		150 kHz to 30 MHz	-49.69	-29.02	-20.67	
		30 MHz to 745 MHz	-34.69	-19.02	-15.67	
		757 MHz to 868 GHz	-38.03	-19.02	-19.01	
		895 MHz to 1 GHz	-30.19	-19.02	-11.17	
		1 GHz to 10 GHz	-25.28	-19.02	-6.26	

FCC ID: A3LRF4440D-13A		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 8K21070501R2-R1	Test Dates: 07/09/2021 - 08/25/2021	EUT Type: RRU (RF4440d)	Page 336 of 367	

		2	9 kHz to 150 kHz	-51.30	-39.02	-12.28
			150 kHz to 30 MHz	-51.74	-29.02	-22.72
			30 MHz to 745 MHz	-32.70	-19.02	-13.68
			757 MHz to 868 GHz	-36.43	-19.02	-17.41
			895 MHz to 1 GHz	-28.54	-19.02	-9.52
			1 GHz to 10 GHz	-26.57	-19.02	-7.55
		3	9 kHz to 150 kHz	-48.15	-39.02	-9.13
			150 kHz to 30 MHz	-51.92	-29.02	-22.90
			30 MHz to 745 MHz	-27.86	-19.02	-8.84
			757 MHz to 868 GHz	-34.66	-19.02	-15.64
			895 MHz to 1 GHz	-29.41	-19.02	-10.39
			1 GHz to 10 GHz	-29.38	-19.02	-10.36

**Table 7-237. Conducted Spurious Emission Summary Data  
(Multi Band\_B5\_5M+10M(DSS)\_2C + B13\_10M+NB-lot(GB)+NB-lot(IB)\_3C\_4T)**

<b>FCC ID:</b> A3LRF4440D-13A		<b>MEASUREMENT REPORT (CERTIFICATION)</b>		<b>Approved by:</b> Technical Manager
<b>Test Report S/N:</b> 8K21070501R2-R1	<b>Test Dates:</b> 07/09/2021 - 08/25/2021	<b>EUT Type:</b> RRU (RF4440d)	Page 337 of 367	



Plot 7-883. Conducted Spurious Emission Plot  
9 kHz to 150 kHz  
(Multi Band\_B5\_5M+10M(DSS)\_2C + B13\_10M+NB-IoT(GB)+NB-IoT(IB)\_3C\_256QAM – High Channel, Port 3)



Plot 7-884. Conducted Spurious Emission Plot  
150 kHz to 30 MHz  
(Multi Band\_B5\_5M+10M(DSS)\_2C + B13\_10M+NB-IoT(GB)+NB-IoT(IB)\_3C\_256QAM – High Channel, Port 3)



Plot 7-885. Conducted Spurious Emission Plot  
30 MHz to 858 MHz  
(Multi Band\_B5\_5M+10M(DSS)\_2C + B13\_10M+NB-IoT(GB)+NB-IoT(IB)\_3C\_256QAM – High Channel, Port 3)



Plot 7-886. Conducted Spurious Emission Plot  
858 MHz to 868 MHz  
(Multi Band\_B5\_5M+10M(DSS)\_2C + B13\_10M+NB-IoT(GB)+NB-IoT(IB)\_3C\_256QAM – High Channel, Port 3)



Plot 7-887. Conducted Spurious Emission Plot  
895 MHz to 1 GHz  
(Multi Band\_B5\_5M+10M(DSS)\_2C + B13\_10M+NB-IoT(GB)+NB-IoT(IB)\_3C\_256QAM – High Channel, Port 3)



Plot 7-888. Conducted Spurious Emission Plot  
1 GHz to 10 GHz  
(Multi Band\_B5\_5M+10M(DSS)\_2C + B13\_10M+NB-IoT(GB)+NB-IoT(IB)\_3C\_256QAM – High Channel, Port 3)

FCC ID: A3LRF4440D-13A		<b>MEASUREMENT REPORT (CERTIFICATION)</b>		<b>Approved by:</b> Technical Manager
Test Report S/N: 8K21070501R2-R1	Test Dates: 07/09/2021 - 08/25/2021	EUT Type: RRU (RF4440d)		Page 338 of 367

DSS Ratio	Channel	Port	Measurement Range	Level (dBm)				Limit (dBm)	Worst Margin (dB)
				QPSK	16QAM	64QAM	256QAM		
LTE 5 : NR 5	Low	0	9 kHz to 150 kHz	-51.01	-51.20	-51.17	-50.51	-36.01	-14.50
			150 kHz to 30 MHz	-50.80	-49.27	-49.69	-50.34	-26.01	-23.26
			30 MHz to 858 MHz	-48.80	-49.49	-49.75	-50.07	-16.01	-32.79
			858 MHz to 868 GHz	-26.98	-26.35	-27.35	-26.50	-16.01	-10.34
			895 MHz to 1 GHz	-33.18	-30.45	-34.20	-31.99	-16.01	-14.44
			1 GHz to 10 GHz	-26.54	-26.39	-26.64	-25.97	-16.01	-9.96
		1	9 kHz to 150 kHz	-49.54	-49.73	-49.65	-49.81	-36.01	-13.53
			150 kHz to 30 MHz	-47.57	-49.74	-48.67	-50.63	-26.01	-21.56
			30 MHz to 858 MHz	-50.38	-48.82	-50.17	-50.81	-16.01	-32.81
			858 MHz to 868 GHz	-27.52	-26.93	-27.76	-27.68	-16.01	-10.92
			895 MHz to 1 GHz	-33.52	-32.49	-33.64	-32.79	-16.01	-16.48
			1 GHz to 10 GHz	-24.05	-24.81	-24.45	-24.34	-16.01	-8.04
	Middle	0	9 kHz to 150 kHz	-51.26	-50.71	-50.55	-50.98	-36.01	-14.54
			150 kHz to 30 MHz	-48.63	-48.38	-49.93	-48.99	-26.01	-22.37
			30 MHz to 858 MHz	-49.98	-50.43	-48.36	-50.06	-16.01	-32.35
			858 MHz to 868 GHz	-31.25	-29.34	-31.15	-30.84	-16.01	-13.33
			895 MHz to 1 GHz	-31.17	-29.92	-28.96	-30.27	-16.01	-12.95
			1 GHz to 10 GHz	-26.48	-26.40	-26.59	-26.52	-16.01	-10.39
		1	9 kHz to 150 kHz	-49.66	-50.19	-49.74	-49.37	-36.01	-13.36
			150 kHz to 30 MHz	-48.29	-49.01	-48.85	-48.86	-26.01	-22.28
			30 MHz to 858 MHz	-50.11	-50.67	-50.28	-50.33	-16.01	-34.10
			858 MHz to 868 GHz	-31.06	-31.06	-31.69	-30.44	-16.01	-14.43
			895 MHz to 1 GHz	-31.05	-30.38	-31.01	-29.96	-16.01	-13.95
			1 GHz to 10 GHz	-24.31	-24.04	-23.77	-24.41	-16.01	-7.76
	High	0	9 kHz to 150 kHz	-50.78	-50.77	-50.88	-50.97	-36.01	-14.76
			150 kHz to 30 MHz	-49.14	-49.14	-48.98	-48.07	-26.01	-22.06
			30 MHz to 858 MHz	-49.60	-50.62	-49.85	-49.23	-16.01	-33.22
			858 MHz to 868 GHz	-32.18	-29.34	-28.77	-30.87	-16.01	-12.76
			895 MHz to 1 GHz	-26.31	-26.91	-25.13	-27.71	-16.01	-9.12
			1 GHz to 10 GHz	-26.44	-26.54	-26.36	-26.64	-16.01	-10.35
1		9 kHz to 150 kHz	-49.54	-49.63	-49.11	-49.81	-36.01	-13.10	
		150 kHz to 30 MHz	-48.40	-48.72	-48.51	-50.36	-26.01	-22.39	
		30 MHz to 858 MHz	-51.07	-50.63	-50.75	-50.46	-16.01	-34.45	
		858 MHz to 868 GHz	-32.79	-33.00	-32.52	-33.41	-16.01	-16.51	
		895 MHz to 1 GHz	-26.60	-26.90	-27.15	-27.07	-16.01	-10.59	
		1 GHz to 10 GHz	-24.30	-24.24	-24.44	-24.16	-16.01	-8.15	

**Table 7-238. Conducted Spurious Emission Summary Data (B5\_10M(DSS)+5M\_2C\_2T)**

FCC ID: A3LRF4440D-13A		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 8K21070501R2-R1	Test Dates: 07/09/2021 - 08/25/2021	EUT Type: RRU (RF4440d)	Page 339 of 367	

DSS Ratio	Channel	Port	Measurement Range	Level (dBm)				Limit (dBm)	Worst Margin (dB)
				QPSK	16QAM	64QAM	256QAM		
LTE 5 : NR 5	Low	0	9 kHz to 150 kHz	-51.20	-50.72	-51.33	-50.67	-36.01	-14.66
			150 kHz to 30 MHz	-48.27	-48.04	-48.86	-48.98	-26.01	-22.03
			30 MHz to 858 MHz	-50.09	-49.81	-50.17	-50.54	-16.01	-33.80
			858 MHz to 868 GHz	-28.51	-27.55	-28.41	-29.51	-16.01	-11.54
			895 MHz to 1 GHz	-30.00	-30.10	-30.14	-30.94	-16.01	-13.99
			1 GHz to 10 GHz	-25.93	-26.72	-26.48	-26.51	-16.01	-9.92
		1	9 kHz to 150 kHz	-49.51	-50.30	-49.49	-49.47	-36.01	-13.46
			150 kHz to 30 MHz	-47.95	-48.37	-48.74	-49.73	-26.01	-21.94
			30 MHz to 858 MHz	-51.00	-49.84	-50.56	-50.52	-16.01	-33.83
			858 MHz to 868 GHz	-29.65	-28.39	-28.51	-28.95	-16.01	-12.38
			895 MHz to 1 GHz	-29.89	-29.63	-29.42	-30.24	-16.01	-13.41
			1 GHz to 10 GHz	-24.57	-24.09	-24.58	-24.29	-16.01	-8.08
	Middle	0	9 kHz to 150 kHz	-51.16	-50.91	-50.99	-50.86	-36.01	-14.85
			150 kHz to 30 MHz	-49.41	-47.99	-49.34	-49.10	-26.01	-21.98
			30 MHz to 858 MHz	-49.69	-50.01	-49.23	-50.22	-16.01	-33.22
			858 MHz to 868 GHz	-30.23	-28.44	-30.24	-29.42	-16.01	-12.43
			895 MHz to 1 GHz	-28.41	-27.11	-29.02	-28.36	-16.01	-11.10
			1 GHz to 10 GHz	-26.43	-26.64	-26.65	-26.81	-16.01	-10.42
		1	9 kHz to 150 kHz	-49.98	-49.79	-49.67	-49.71	-36.01	-13.66
			150 kHz to 30 MHz	-48.55	-49.53	-49.40	-48.61	-26.01	-22.54
			30 MHz to 858 MHz	-50.98	-50.21	-50.39	-50.72	-16.01	-34.20
			858 MHz to 868 GHz	-30.35	-30.60	-30.34	-29.93	-16.01	-13.92
			895 MHz to 1 GHz	-28.34	-27.97	-28.29	-29.11	-16.01	-11.96
			1 GHz to 10 GHz	-24.15	-24.66	-24.00	-24.26	-16.01	-7.99
High	0	9 kHz to 150 kHz	-51.18	-50.95	-50.92	-51.09	-36.01	-14.91	
		150 kHz to 30 MHz	-48.32	-48.68	-48.33	-47.20	-26.01	-21.19	
		30 MHz to 858 MHz	-48.82	-49.45	-49.93	-49.30	-16.01	-32.81	
		858 MHz to 868 GHz	-28.26	-31.55	-26.41	-30.45	-16.01	-10.40	
		895 MHz to 1 GHz	-26.56	-27.11	-25.84	-27.66	-16.01	-9.83	
		1 GHz to 10 GHz	-26.62	-26.34	-26.61	-26.50	-16.01	-10.33	
	1	9 kHz to 150 kHz	-49.30	-49.59	-49.29	-49.33	-36.01	-13.28	
		150 kHz to 30 MHz	-48.06	-49.31	-48.96	-49.83	-26.01	-22.05	
		30 MHz to 858 MHz	-50.34	-50.40	-50.17	-51.16	-16.01	-34.16	
		858 MHz to 868 GHz	-30.66	-30.53	-30.68	-30.04	-16.01	-14.03	
		895 MHz to 1 GHz	-27.39	-26.94	-27.44	-26.25	-16.01	-10.24	
		1 GHz to 10 GHz	-24.48	-24.29	-24.15	-24.33	-16.01	-8.14	

**Table 7-239. Conducted Spurious Emission Summary Data (B5\_10M(DSS)+10M\_2C\_2T)**

FCC ID: A3LRF4440D-13A		<b>MEASUREMENT REPORT (CERTIFICATION)</b>		Approved by: Technical Manager
Test Report S/N: 8K21070501R2-R1	Test Dates: 07/09/2021 - 08/25/2021	EUT Type: RRU (RF4440d)		Page 340 of 367

DSS Ratio	Channel	Port	Measurement Range	Level (dBm)				Limit (dBm)	Worst Margin (dB)
				QPSK	16QAM	64QAM	256QAM		
LTE 5 : NR 5	Middle	0	9 kHz to 150 kHz	-50.84	-51.12	-50.94	-50.95	-36.01	-14.83
			150 kHz to 30 MHz	-46.96	-47.77	-46.91	-47.08	-26.01	-20.90
			30 MHz to 858 MHz	-49.63	-49.80	-48.64	-49.84	-16.01	-32.63
			858 MHz to 868 GHz	-28.02	-27.70	-27.87	-26.80	-16.01	-10.79
			895 MHz to 1 GHz	-26.13	-25.30	-25.75	-25.83	-16.01	-9.29
			1 GHz to 10 GHz	-26.78	-26.56	-26.60	-26.47	-16.01	-10.46
		1	9 kHz to 150 kHz	-49.32	-49.40	-49.16	-49.39	-36.01	-13.15
			150 kHz to 30 MHz	-47.28	-47.75	-47.85	-47.39	-26.01	-21.27
			30 MHz to 858 MHz	-50.19	-49.82	-50.45	-50.44	-16.01	-33.81
			858 MHz to 868 GHz	-28.18	-28.84	-29.04	-28.97	-16.01	-12.17
			895 MHz to 1 GHz	-26.00	-26.44	-25.89	-26.15	-16.01	-9.88
			1 GHz to 10 GHz	-24.19	-24.24	-24.34	-24.04	-16.01	-8.03

**Table 7-240. Conducted Spurious Emission Summary Data (B5\_10M(DSS)+10M+5M\_3C\_2T)**

FCC ID: A3LRF4440D-13A		MEASUREMENT REPORT (CERTIFICATION)			Approved by: Technical Manager
Test Report S/N: 8K21070501R2-R1	Test Dates: 07/09/2021 - 08/25/2021	EUT Type: RRU (RF4440d)		Page 341 of 367	

DSS Ratio	Channel	Port	Measurement Range	Level (dBm)				Limit (dBm)	Worst Margin (dB)
				QPSK	16QAM	64QAM	256QAM		
LTE 5 : NR 5	Middle	0	9 kHz to 150 kHz	-51.27	-50.78	-51.22	-50.77	-36.01	-14.76
			150 kHz to 30 MHz	-39.10	-39.48	-40.16	-40.61	-26.01	-13.09
			30 MHz to 858 MHz	-41.60	-41.63	-41.70	-41.71	-16.01	-25.59
			858 MHz to 868 GHz	-26.08	-23.82	-25.85	-25.47	-16.01	-7.81
			895 MHz to 1 GHz	-23.57	-22.04	-23.74	-23.48	-16.01	-6.03
			1 GHz to 10 GHz	-26.41	-26.34	-26.03	-26.45	-16.01	-10.02
		1	9 kHz to 150 kHz	-49.87	-49.68	-49.72	-49.25	-36.01	-13.24
			150 kHz to 30 MHz	-38.95	-39.48	-39.99	-40.96	-26.01	-12.94
			30 MHz to 858 MHz	-42.42	-42.29	-42.57	-42.51	-16.01	-26.28
			858 MHz to 868 GHz	-26.72	-23.84	-26.77	-26.18	-16.01	-7.83
			895 MHz to 1 GHz	-24.28	-23.38	-23.97	-22.81	-16.01	-6.80
			1 GHz to 10 GHz	-24.47	-24.22	-24.48	-24.29	-16.01	-8.21

**Table 7-241. Conducted Spurious Emission Summary Data (B5\_10M(DSS)+5M\_2C - Non-contiguous \_2T)**

FCC ID: A3LRF4440D-13A		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 8K21070501R2-R1	Test Dates: 07/09/2021 - 08/25/2021	EUT Type: RRU (RF4440d)		Page 342 of 367

DSS Ratio	Channel	Port	Measurement Range	Level (dBm)				Limit (dBm)	Worst Margin (dB)
				QPSK	16QAM	64QAM	256QAM		
LTE 5 : NR 5	Middle	0	9 kHz to 150 kHz	-50.59	-50.92	-50.94	-51.40	-36.01	-14.58
			150 kHz to 30 MHz	-48.09	-47.49	-47.46	-48.55	-26.01	-21.45
			30 MHz to 858 MHz	-41.77	-41.86	-41.81	-41.80	-16.01	-25.76
			858 MHz to 868 GHz	-27.16	-25.83	-25.46	-26.26	-16.01	-9.45
			895 MHz to 1 GHz	-25.04	-23.20	-23.83	-24.58	-16.01	-7.19
			1 GHz to 10 GHz	-26.79	-26.30	-26.53	-26.29	-16.01	-10.28
		1	9 kHz to 150 kHz	-49.72	-49.83	-49.83	-49.31	-36.01	-13.30
			150 kHz to 30 MHz	-48.50	-47.55	-47.12	-47.49	-26.01	-21.11
			30 MHz to 858 MHz	-42.53	-42.38	-42.43	-42.29	-16.01	-26.28
			858 MHz to 868 GHz	-27.50	-26.76	-26.90	-28.10	-16.01	-10.75
			895 MHz to 1 GHz	-24.87	-24.46	-24.64	-24.62	-16.01	-8.45
			1 GHz to 10 GHz	-24.33	-24.50	-24.41	-24.33	-16.01	-8.32

Table 7-242. Conducted Spurious Emission Summary Data (B5\_10M(DSS)+10M\_2C - Non-contiguous \_2T)

FCC ID: A3LRF4440D-13A		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 8K21070501R2-R1	Test Dates: 07/09/2021 - 08/25/2021	EUT Type: RRU (RF4440d)		Page 343 of 367

DSS Ratio	Channel	Port	Measurement Range	Level (dBm)	Limit (dBm)	Worst Margin (dB)
LTE 5 : NR 5	Low	0	9 kHz to 150 kHz	-51.08	-36.01	-15.07
			150 kHz to 30 MHz	-37.19	-26.01	-11.18
			30 MHz to 745 MHz	-18.88	-16.01	-2.87
			757 MHz to 868 GHz	-20.57	-16.01	-4.56
			895 MHz to 1 GHz	-34.26	-16.01	-18.25
			1 GHz to 10 GHz	-26.22	-16.01	-10.21
		1	9 kHz to 150 kHz	-49.66	-36.01	-13.65
			150 kHz to 30 MHz	-36.10	-26.01	-10.09
			30 MHz to 745 MHz	-20.77	-16.01	-4.76
			757 MHz to 868 GHz	-21.42	-16.01	-5.41
			895 MHz to 1 GHz	-34.69	-16.01	-18.68
			1 GHz to 10 GHz	-24.14	-16.01	-8.13
	High	0	9 kHz to 150 kHz	-50.63	-36.01	-14.62
			150 kHz to 30 MHz	-38.25	-26.01	-12.24
			30 MHz to 745 MHz	-21.74	-16.01	-5.73
			757 MHz to 868 GHz	-27.12	-16.01	-11.11
			895 MHz to 1 GHz	-21.12	-16.01	-5.11
			1 GHz to 10 GHz	-25.40	-16.01	-9.39
		1	9 kHz to 150 kHz	-49.70	-36.01	-13.69
			150 kHz to 30 MHz	-36.85	-26.01	-10.84
			30 MHz to 745 MHz	-22.09	-16.01	-6.08
			757 MHz to 868 GHz	-21.69	-16.01	-5.68
			895 MHz to 1 GHz	-25.46	-16.01	-9.45
			1 GHz to 10 GHz	-24.51	-16.01	-8.50

**Table 7-243. Conducted Spurious Emission Summary Data  
(Multi Band\_B5\_10M(DSS)\_3C + B13\_5M\_2C\_2T)**

FCC ID: A3LRF4440D-13A		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 8K21070501R2-R1	Test Dates: 07/09/2021 - 08/25/2021	EUT Type: RRU (RF4440d)	Page 344 of 367	

DSS Ratio	Channel	Port	Measurement Range	Level (dBm)	Limit (dBm)	Worst Margin (dB)
LTE 5 : NR 5	Low	0	9 kHz to 150 kHz	-51.57	-36.01	-15.56
			150 kHz to 30 MHz	-42.50	-26.01	-16.49
			30 MHz to 745 MHz	-27.44	-16.01	-11.43
			757 MHz to 868 GHz	-28.25	-16.01	-12.24
			895 MHz to 1 GHz	-36.28	-16.01	-20.27
			1 GHz to 10 GHz	-26.36	-16.01	-10.35
		1	9 kHz to 150 kHz	-49.96	-36.01	-13.95
			150 kHz to 30 MHz	-40.58	-26.01	-14.57
			30 MHz to 745 MHz	-28.86	-16.01	-12.85
			757 MHz to 868 GHz	-27.85	-16.01	-11.84
			895 MHz to 1 GHz	-34.49	-16.01	-18.48
			1 GHz to 10 GHz	-24.64	-16.01	-8.63
	High	0	9 kHz to 150 kHz	-50.91	-36.01	-14.90
			150 kHz to 30 MHz	-37.62	-26.01	-11.61
			30 MHz to 745 MHz	-27.05	-16.01	-11.04
			757 MHz to 868 GHz	-28.22	-16.01	-12.21
			895 MHz to 1 GHz	-24.94	-16.01	-8.93
			1 GHz to 10 GHz	-26.30	-16.01	-10.29
		1	9 kHz to 150 kHz	-49.59	-36.01	-13.58
			150 kHz to 30 MHz	-38.22	-26.01	-12.21
			30 MHz to 745 MHz	-29.06	-16.01	-13.05
			757 MHz to 868 GHz	-27.92	-16.01	-11.91
			895 MHz to 1 GHz	-25.51	-16.01	-9.50
			1 GHz to 10 GHz	-24.51	-16.01	-8.50

**Table 7-244. Conducted Spurious Emission Summary Data  
(Multi Band\_B5\_10M(DSS)\_1C+ B13\_10M+NB-lot(GB)+NB-lot(IB)\_2C\_2T)**

FCC ID: A3LRF4440D-13A		<b>MEASUREMENT REPORT (CERTIFICATION)</b>		<b>Approved by:</b> Technical Manager
<b>Test Report S/N:</b> 8K21070501R2-R1	<b>Test Dates:</b> 07/09/2021 - 08/25/2021	<b>EUT Type:</b> RRU (RF4440d)	Page 345 of 367	

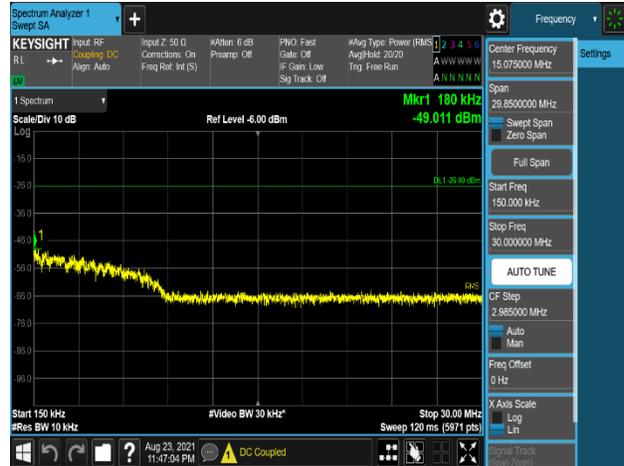
DSS Ratio	Channel	Port	Measurement Range	Level (dBm)	Limit (dBm)	Worst Margin (dB)
LTE 5 : NR 5	Low	0	9 kHz to 150 kHz	-51.01	-36.01	-15.00
			150 kHz to 30 MHz	-50.13	-26.01	-24.12
			30 MHz to 745 MHz	-36.47	-16.01	-20.46
			757 MHz to 868 GHz	-31.20	-16.01	-15.19
			895 MHz to 1 GHz	-37.19	-16.01	-21.18
			1 GHz to 10 GHz	-26.14	-16.01	-10.13
		1	9 kHz to 150 kHz	-49.58	-36.01	-13.57
			150 kHz to 30 MHz	-48.72	-26.01	-22.71
			30 MHz to 745 MHz	-36.16	-16.01	-20.15
			757 MHz to 868 GHz	-30.94	-16.01	-14.93
			895 MHz to 1 GHz	-37.46	-16.01	-21.45
			1 GHz to 10 GHz	-24.71	-16.01	-8.70
	High	0	9 kHz to 150 kHz	-51.09	-36.01	-15.08
			150 kHz to 30 MHz	-49.57	-26.01	-23.56
			30 MHz to 745 MHz	-34.33	-16.01	-18.32
			757 MHz to 868 GHz	-30.65	-16.01	-14.64
			895 MHz to 1 GHz	-36.55	-16.01	-20.54
			1 GHz to 10 GHz	-26.06	-16.01	-10.05
		1	9 kHz to 150 kHz	<b>-49.88</b>	-36.01	-13.87
			150 kHz to 30 MHz	<b>-49.01</b>	-26.01	-23.00
			30 MHz to 745 MHz	<b>-36.01</b>	-16.01	-20.00
			757 MHz to 868 GHz	<b>-31.12</b>	-16.01	-15.11
			895 MHz to 1 GHz	<b>-37.18</b>	-16.01	-21.17
			1 GHz to 10 GHz	<b>-24.38</b>	-16.01	-8.37

**Table 7-245. Conducted Spurious Emission Summary Data  
(Multi Band\_B5\_5M+10M(DSS)\_2C + B13\_10M+NB-lot(GB)+NB-lot(IB)\_3C\_2T)**

FCC ID: A3LRF4440D-13A		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 8K21070501R2-R1	Test Dates: 07/09/2021 - 08/25/2021	EUT Type: RRU (RF4440d)	Page 346 of 367	



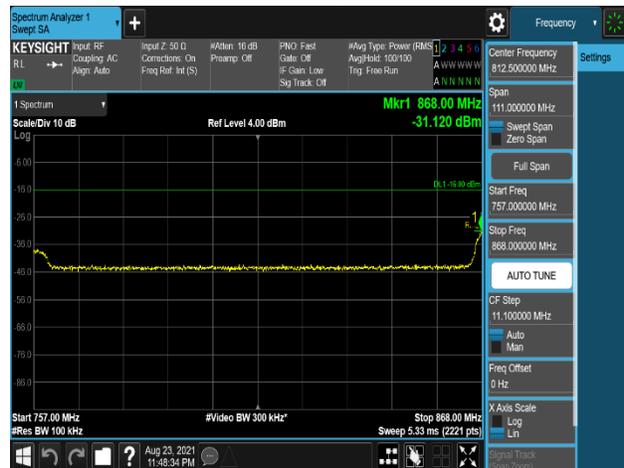
Plot 7-889. Conducted Spurious Emission Plot  
9 kHz to 150 kHz  
(Multi Band\_B5\_5M+10M(DSS)\_2C + B13\_10M+NB-IoT(GB)+NB-IoT(IB)\_3C\_256QAM – High Channel, Port 3)



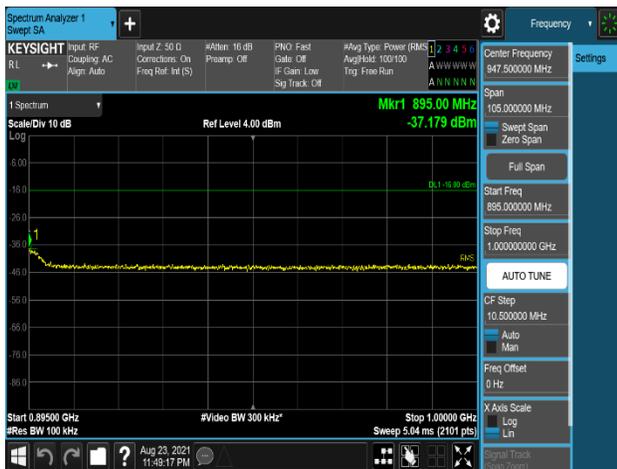
Plot 7-890. Conducted Spurious Emission Plot  
150 kHz to 30 MHz  
(Multi Band\_B5\_5M+10M(DSS)\_2C + B13\_10M+NB-IoT(GB)+NB-IoT(IB)\_3C\_256QAM – High Channel, Port 3)



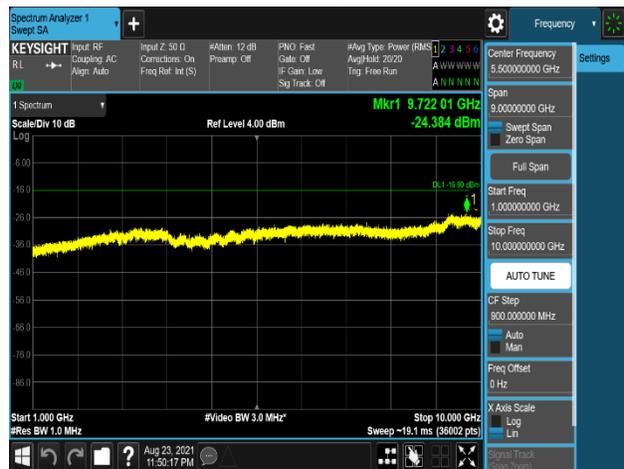
Plot 7-891. Conducted Spurious Emission Plot  
30 MHz to 858 MHz  
(Multi Band\_B5\_5M+10M(DSS)\_2C + B13\_10M+NB-IoT(GB)+NB-IoT(IB)\_3C\_256QAM – High Channel, Port 3)



Plot 7-892. Conducted Spurious Emission Plot  
858 MHz to 868 MHz  
(Multi Band\_B5\_5M+10M(DSS)\_2C + B13\_10M+NB-IoT(GB)+NB-IoT(IB)\_3C\_256QAM – High Channel, Port 3)



Plot 7-893. Conducted Spurious Emission Plot  
895 MHz to 1 GHz  
(Multi Band\_B5\_5M+10M(DSS)\_2C + B13\_10M+NB-IoT(GB)+NB-IoT(IB)\_3C\_256QAM – High Channel, Port 3)



Plot 7-894. Conducted Spurious Emission Plot  
1 GHz to 10 GHz  
(Multi Band\_B5\_5M+10M(DSS)\_2C + B13\_10M+NB-IoT(GB)+NB-IoT(IB)\_3C\_256QAM – High Channel, Port 3)

FCC ID: A3LRF4440D-13A		<b>MEASUREMENT REPORT (CERTIFICATION)</b>		<b>Approved by:</b> Technical Manager
Test Report S/N: 8K21070501R2-R1	Test Dates: 07/09/2021 - 08/25/2021	EUT Type: RRU (RF4440d)		Page 347 of 367

## 7.7 Radiated spurious emission

§2.1051, §22.917, §27.53(c)

### 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 or attached antenna directly to the transmitter. Measurements on signals operating below 1GHz are performed using vertically and horizontally polarized broadband trilob antennas. Measurements on signals operating above 1GHz are performed using vertically and horizontally polarized broadband horn antennas.

### Test Procedure Used

ANSI C63.26 - Section 5.5.3.2

### Test Setting

1. Start frequency was set to 30 MHz and stop frequency was set to at least 10 \* the fundamental frequency
2. RBW = 100 kHz for emissions below 1 GHz and 1 MHz for emissions above 1GHz
3. VBW  $\geq$  3 x RBW
4. No. of sweep points  $\geq$  2 x span / RBW
5. Detector = Peak for the prescan, (In cases where the level is within 2 dB of the limit, the final measurement is taken using RMS detector.)
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.

### Limit

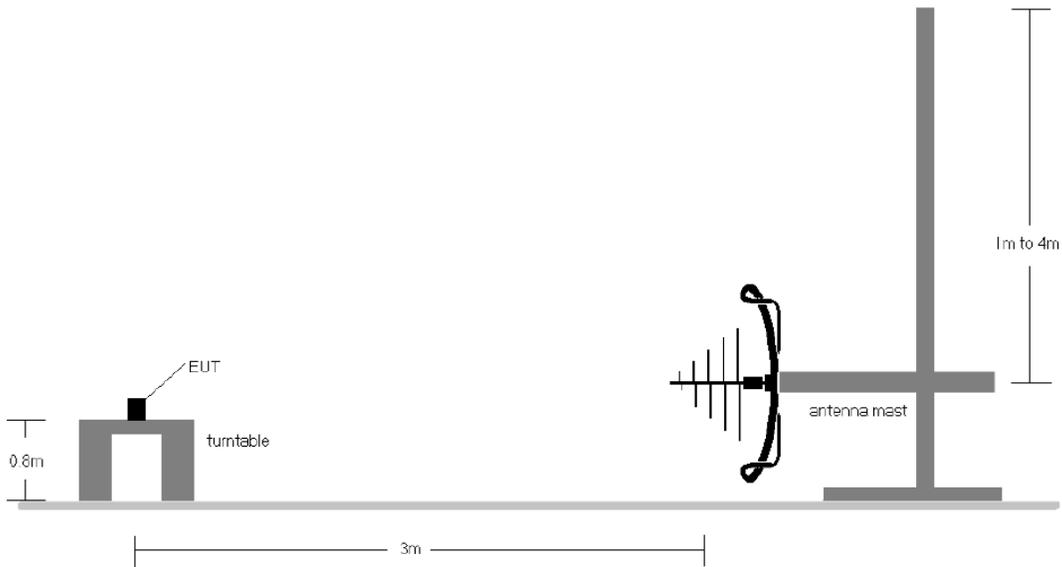
The minimum permissible attenuation level of any spurious emission is  $43 + \log_{10}(P_{[Watts]})$ , where P is the transmitter power in Watts.

The power of any emission outside of the authorized operating frequency range cannot exceed -13 dBm.

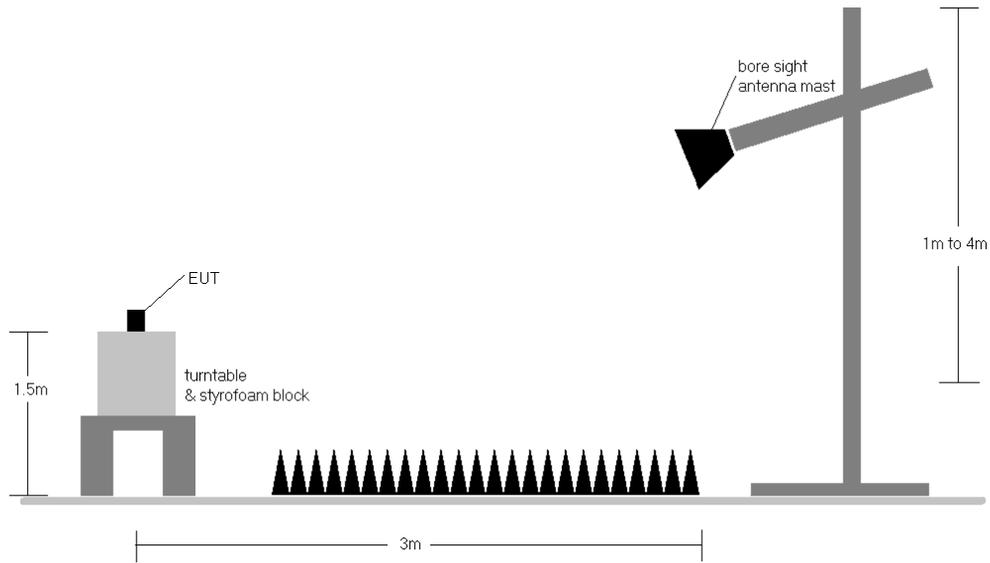
FCC ID: A3LRF4440D-13A		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 8K21070501R2-R1	Test Dates: 07/09/2021 - 08/25/2021	EUT Type: RRU (RF4440d)		Page 348 of 367

**Test Setup**

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



**Figure 7-7. Test Instrument & Measurement Setup < 1GHz**



**Figure 7-8. Test Instrument & Measurement Setup > 1GHz**

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<p>Test Report S/N: 8K21070501R2-R1</p>	<p>Test Dates: 07/09/2021 - 08/25/2021</p>	<p>EUT Type: RRU (RF4440d)</p>	<p>Page 349 of 367</p>

## 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

$$= -82.04 \text{ dBm} + (25.89 \text{ dBm}) + 107 = 50.85 \text{ dB}\mu\text{V/m}$$

$$= 10^{(50.85/20)/1000000} = 0.000348 \text{ V/m}$$

**e.i.r.p. [dBm]** = E[dB μV/m] + 20 log<sub>10</sub>(d[m]) - 104.8

$$= 51.46 + (20 \cdot \log(3)) - 104.8$$

$$= -44.41 \text{ dBm e.i.r.p.}$$

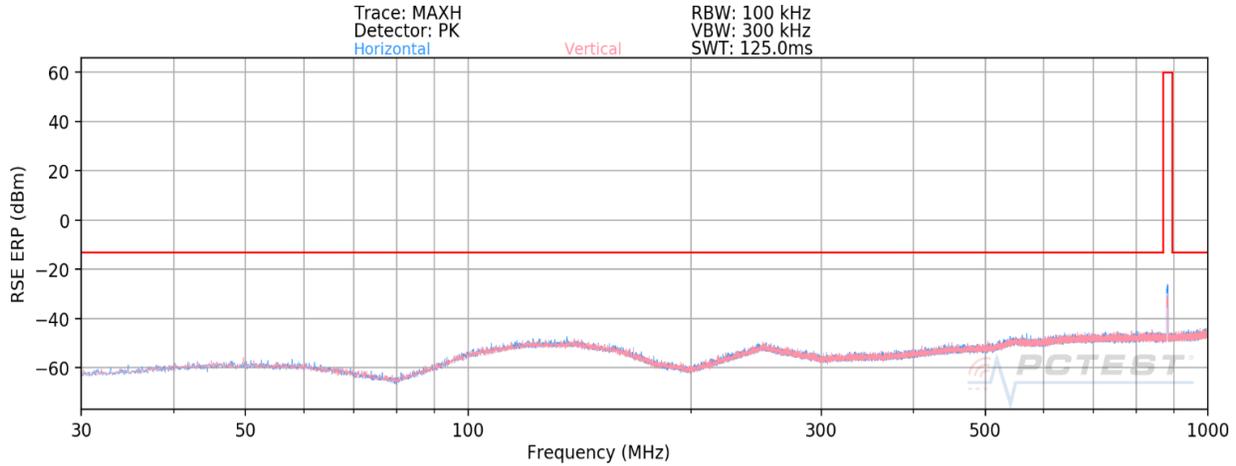
\*AFCL (dB/m) contains measurement antenna factor(dB/m) and cable loss(dB) as below:

Frequency [MHz]	Antenna Factor (dB/m)	Cable loss [dB]	AFCL (dB/m)
911.68	22.97	2.63	25.60
12165.06	39.42	-23.85	15.58
17980.75	47.73	-21.84	25.89

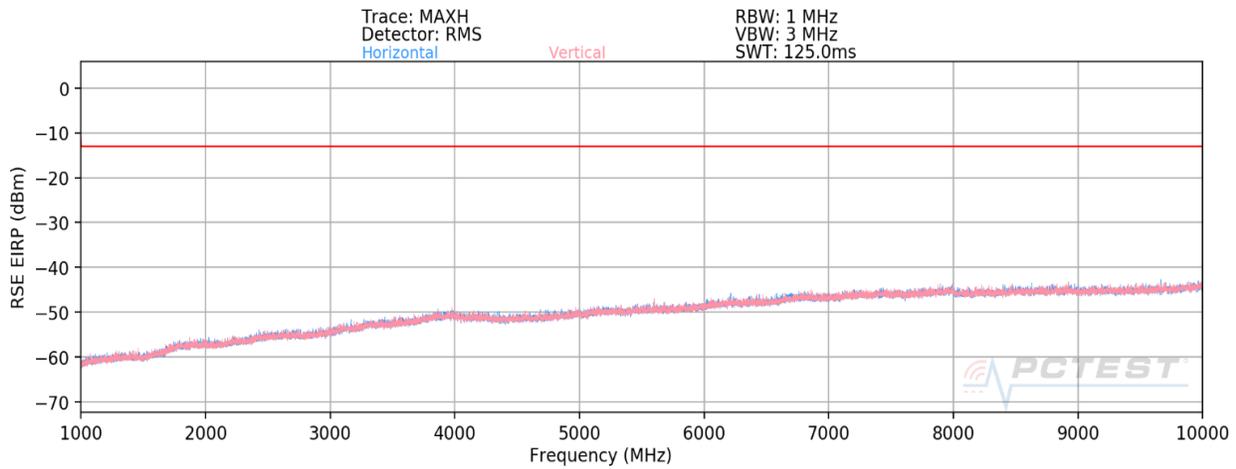
**Table 7-246. Adopted AFCL value in the calculation**

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 with the application of a distance correction factor.
5. Spurious emissions were measured with all EUT antennas transmitting simultaneously.
6. The "-" shown in the following RSE tables are used to denote a noise floor measurement.

FCC ID: A3LRF4440D-13A		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
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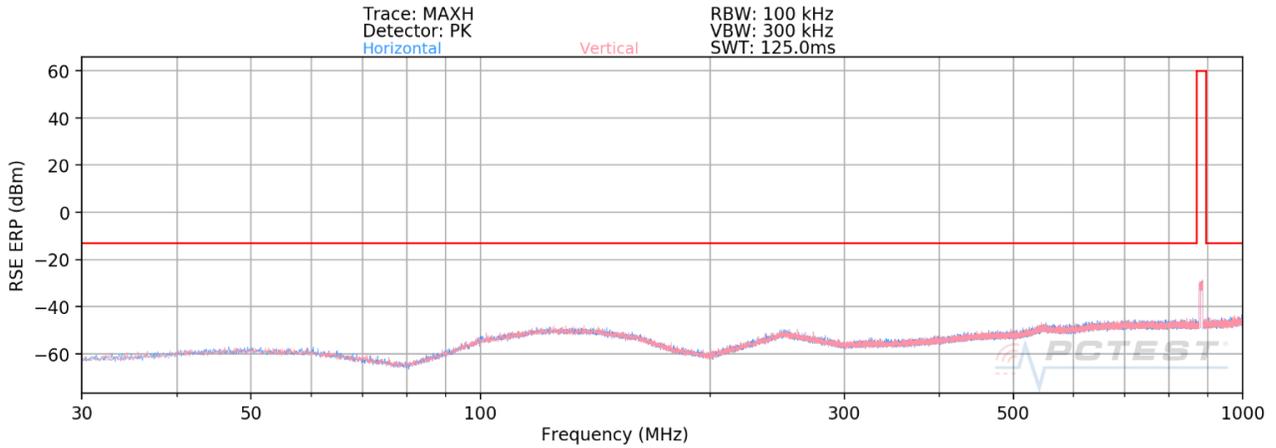


**Plot 7-895. Radiated spurious emission\_30 MHz to 1000 MHz  
(LTE\_B5\_5M\_1C\_Mid Channel)**

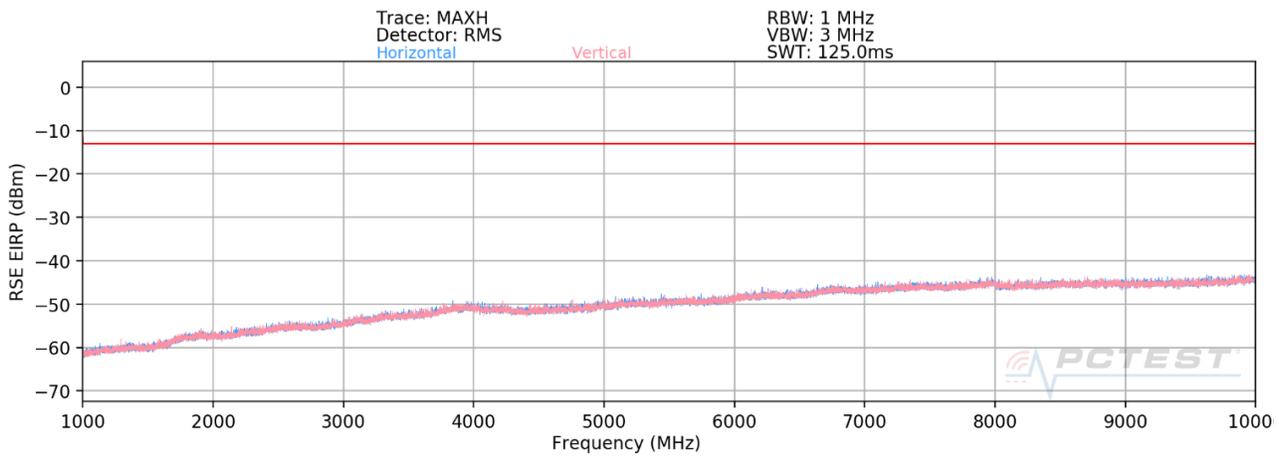


**Plot 7-896. Radiated spurious emission\_1 GHz to 10 GHz  
(LTE\_B5\_5M\_1C\_Mid Channel)**

FCC ID: A3LRF4440D-13A		<b>MEASUREMENT REPORT (CERTIFICATION)</b>		<b>Approved by:</b> Technical Manager
<b>Test Report S/N:</b> 8K21070501R2-R1	<b>Test Dates:</b> 07/09/2021 - 08/25/2021	<b>EUT Type:</b> RRU (RF4440d)	Page 351 of 367	

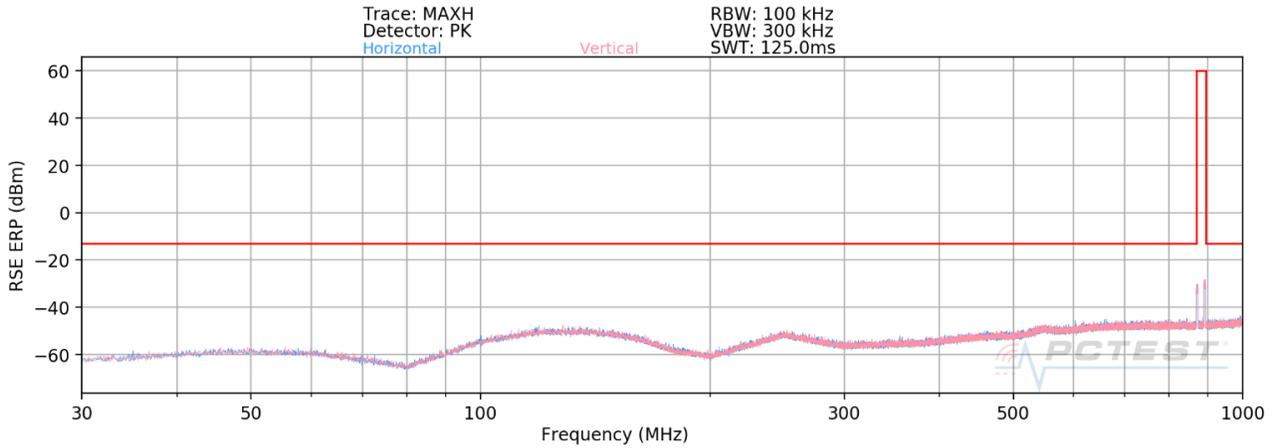


**Plot 7-897. Radiated spurious emission\_30 MHz to 1000 MHz  
(LTE\_B5\_5M+5M\_2C\_Mid Channel)**

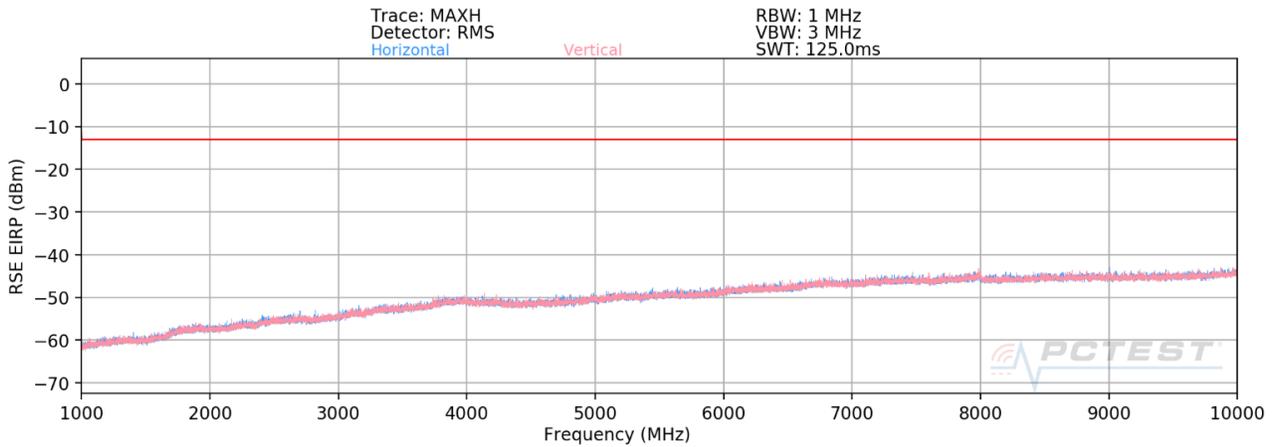


**Plot 7-898. Radiated spurious emission\_1 GHz to 10 GHz  
(LTE\_B5\_5M+5M\_2C\_Mid Channel)**

FCC ID: A3LRF4440D-13A		<b>MEASUREMENT REPORT (CERTIFICATION)</b>		<b>Approved by:</b> Technical Manager
<b>Test Report S/N:</b> 8K21070501R2-R1	<b>Test Dates:</b> 07/09/2021 - 08/25/2021	<b>EUT Type:</b> RRU (RF4440d)	Page 352 of 367	

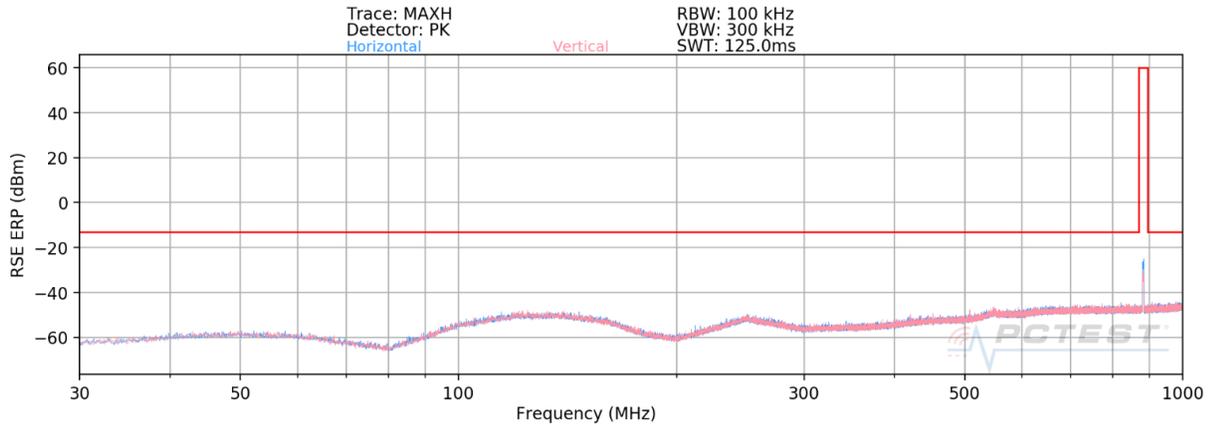


**Plot 7-899. Radiated spurious emission\_30 MHz to 1000 MHz  
(LTE\_B5\_5M+5M\_2C\_ Non-contiguous)**

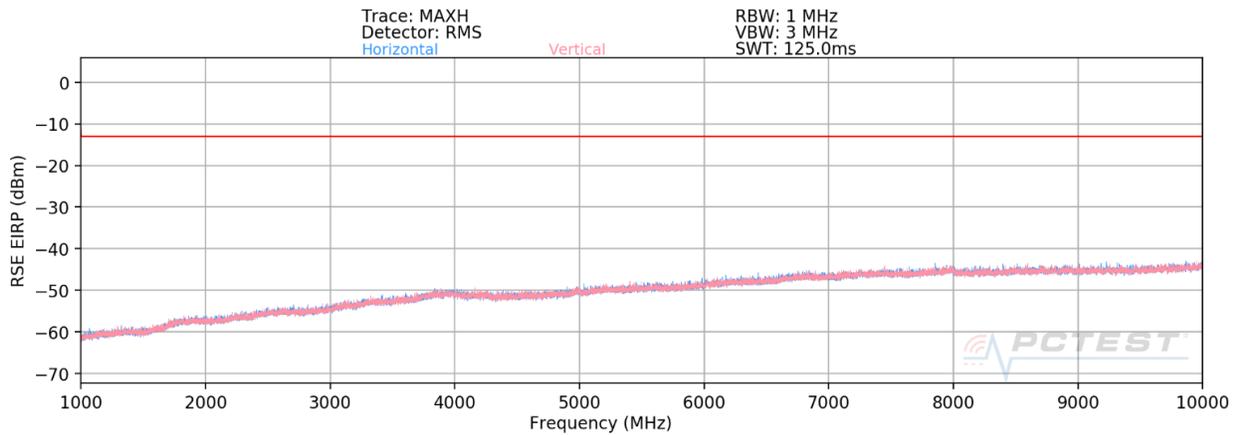


**Plot 7-900. Radiated spurious emission\_1 GHz to 10 GHz  
(LTE\_B5\_5M+5M\_2C\_ Non-contiguous)**

FCC ID: A3LRF4440D-13A		<b>MEASUREMENT REPORT (CERTIFICATION)</b>		<b>Approved by:</b> Technical Manager
<b>Test Report S/N:</b> 8K21070501R2-R1	<b>Test Dates:</b> 07/09/2021 - 08/25/2021	<b>EUT Type:</b> RRU (RF4440d)		Page 353 of 367

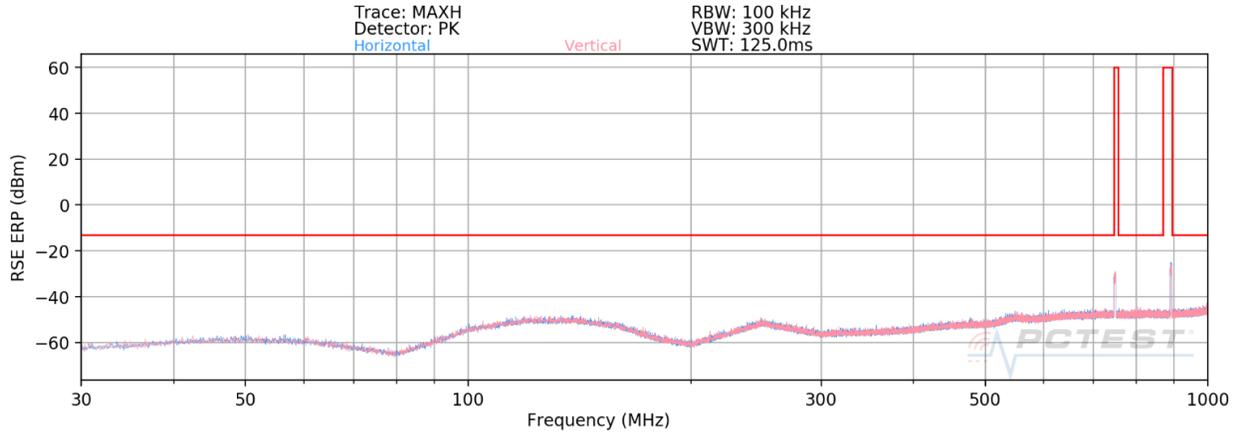


**Plot 7-901. Radiated spurious emission\_30 MHz to 1000 MHz  
(LTE\_B13\_10M+NB-lot(IB)\_1C)**

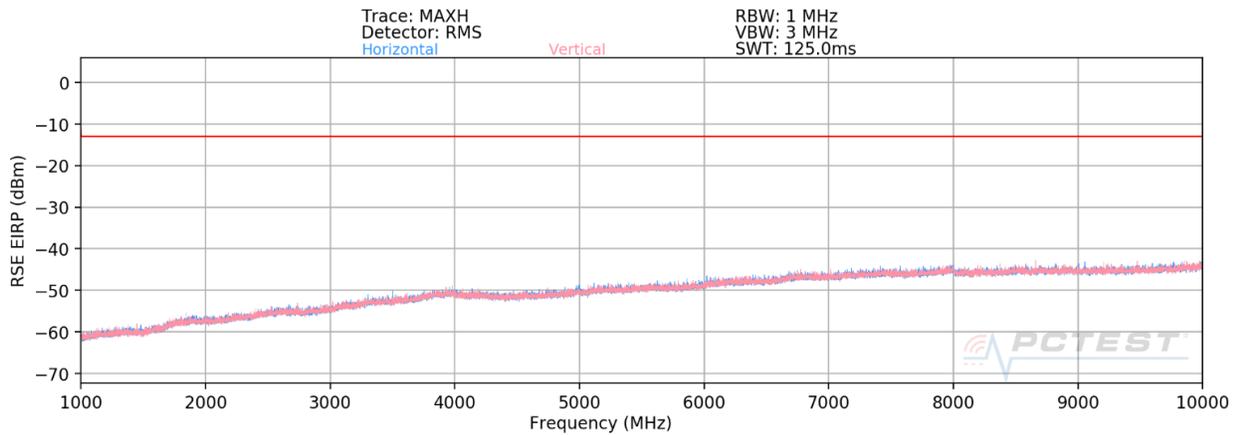


**Plot 7-902. Radiated spurious emission\_1 GHz to 10 GHz  
(LTE\_B13\_10M+NB-lot(IB)\_1C)**

FCC ID: A3LRF4440D-13A		<b>MEASUREMENT REPORT (CERTIFICATION)</b>		<b>Approved by:</b> Technical Manager
<b>Test Report S/N:</b> 8K21070501R2-R1	<b>Test Dates:</b> 07/09/2021 - 08/25/2021	<b>EUT Type:</b> RRU (RF4440d)	Page 354 of 367	

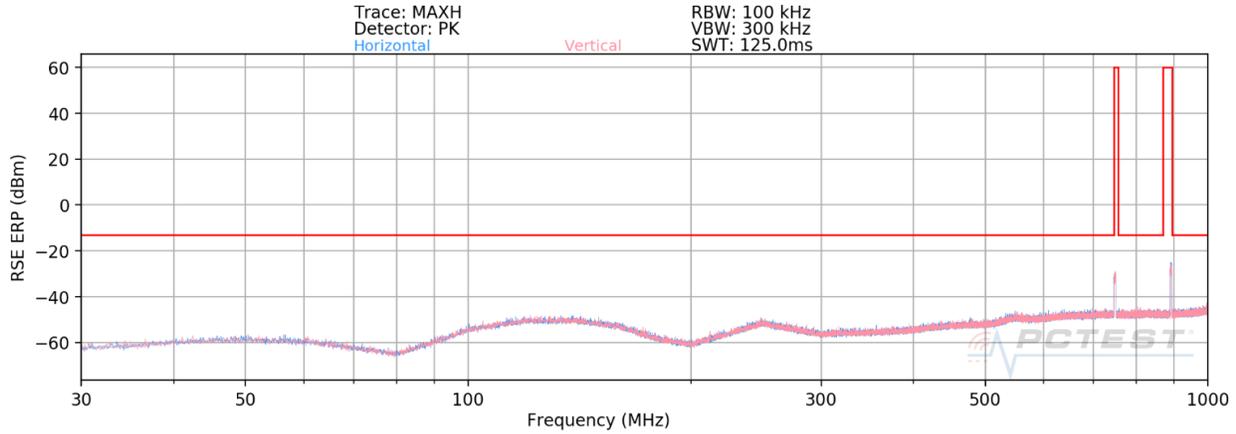


**Plot 7-903. Radiated spurious emission\_30 MHz to 1000 MHz  
(Multi Band\_B5\_5M\_1C\_Low + B13\_5M\_1C\_High\_Low Channel)**

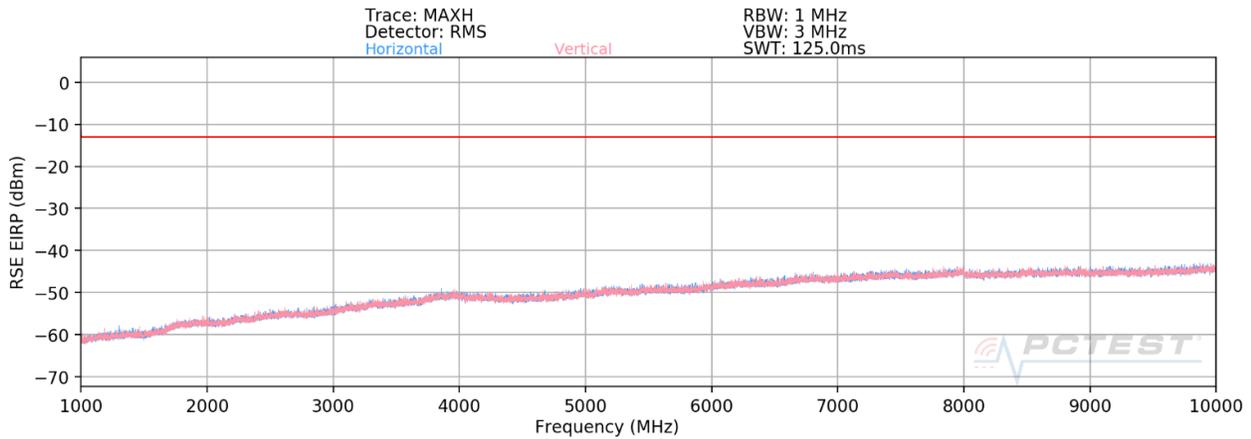


**Plot 7-904. Radiated spurious emission\_1 GHz to 10 GHz  
(Multi Band\_B5\_5M\_1C\_Low + B13\_5M\_1C\_High\_Low Channel)**

FCC ID: A3LRF4440D-13A		<b>MEASUREMENT REPORT (CERTIFICATION)</b>		<b>Approved by:</b> Technical Manager
<b>Test Report S/N:</b> 8K21070501R2-R1	<b>Test Dates:</b> 07/09/2021 - 08/25/2021	<b>EUT Type:</b> RRU (RF4440d)		Page 355 of 367

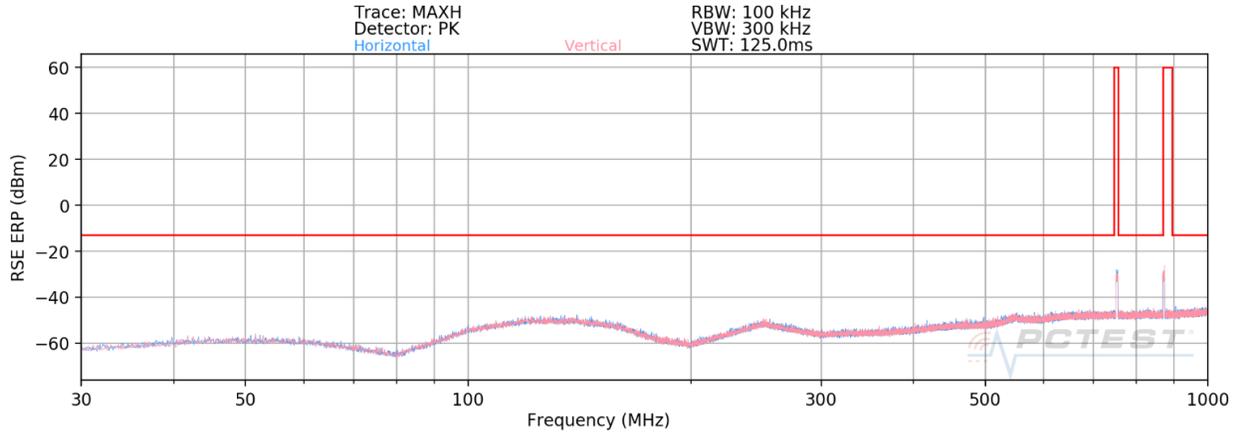


**Plot 7-905. Radiated spurious emission\_30 MHz to 1000 MHz  
(Multi Band\_B5\_5M\_1C\_High + B13\_5M\_1C\_Low\_Low Channel)**

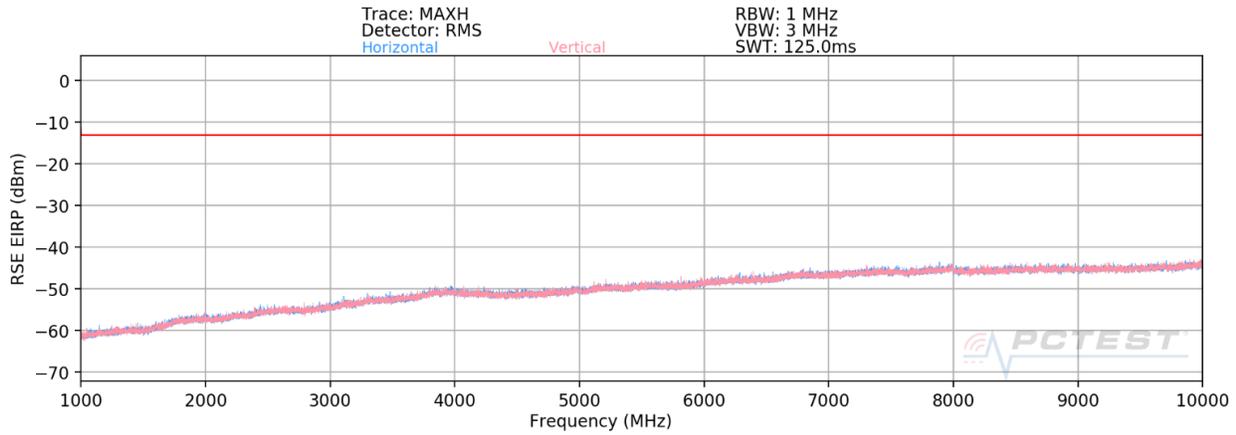


**Plot 7-906. Radiated spurious emission\_1 GHz to 10 GHz  
(Multi Band\_B5\_5M\_1C\_High + B13\_5M\_1C\_Low\_Low Channel)**

FCC ID: A3LRF4440D-13A		<b>MEASUREMENT REPORT (CERTIFICATION)</b>		<b>Approved by:</b> Technical Manager
<b>Test Report S/N:</b> 8K21070501R2-R1	<b>Test Dates:</b> 07/09/2021 - 08/25/2021	<b>EUT Type:</b> RRU (RF4440d)	Page 356 of 367	

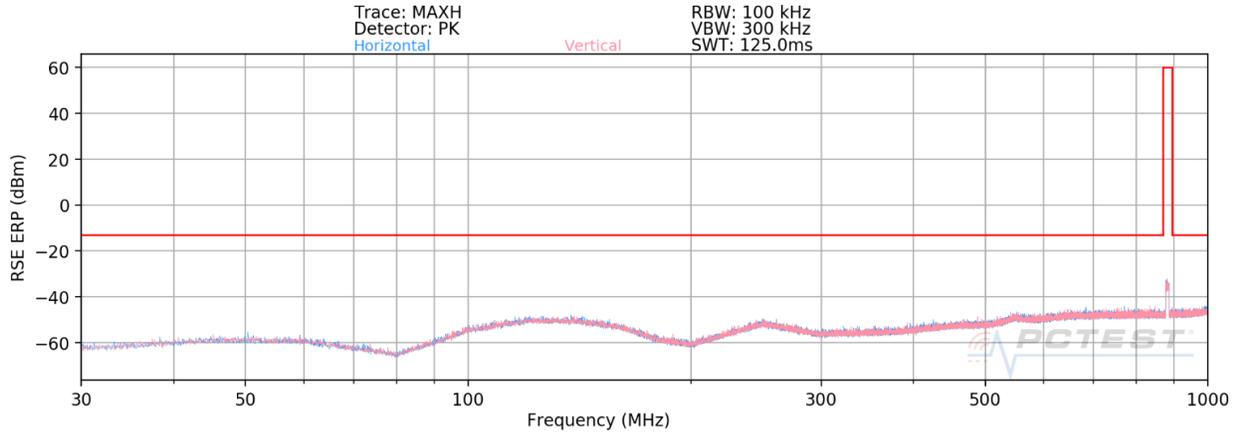


**Plot 7-907. Radiated spurious emission\_30 MHz to 1000 MHz  
(Multi Band\_B5\_5M+10M+10M\_3C + B13\_5M+5M\_2C)**

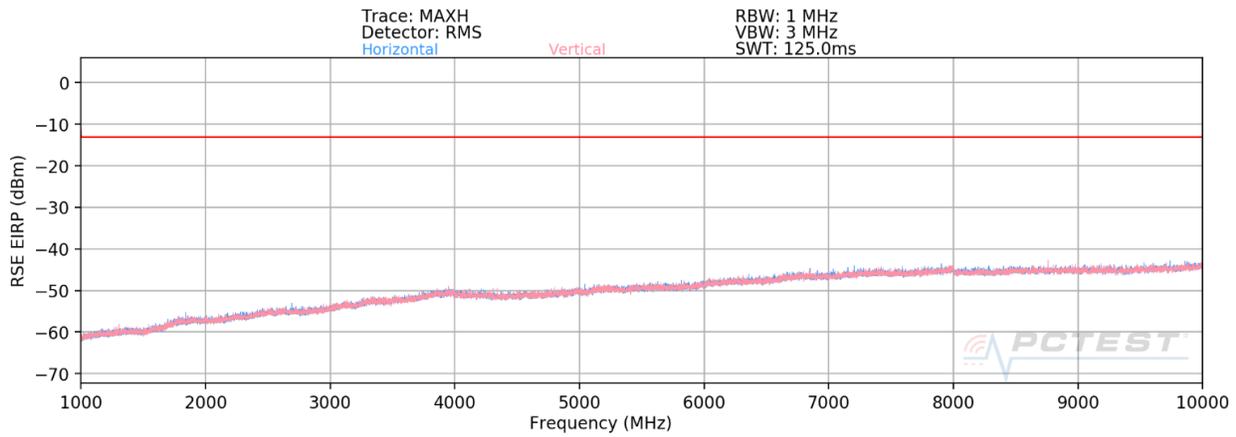


**Plot 7-908. Radiated spurious emission\_1 GHz to 10 GHz  
(Multi Band\_B5\_5M+10M+10M\_3C + B13\_5M+5M\_2C)**

FCC ID: A3LRF4440D-13A		<b>MEASUREMENT REPORT (CERTIFICATION)</b>		<b>Approved by:</b> Technical Manager
<b>Test Report S/N:</b> 8K21070501R2-R1	<b>Test Dates:</b> 07/09/2021 - 08/25/2021	<b>EUT Type:</b> RRU (RF4440d)		Page 357 of 367

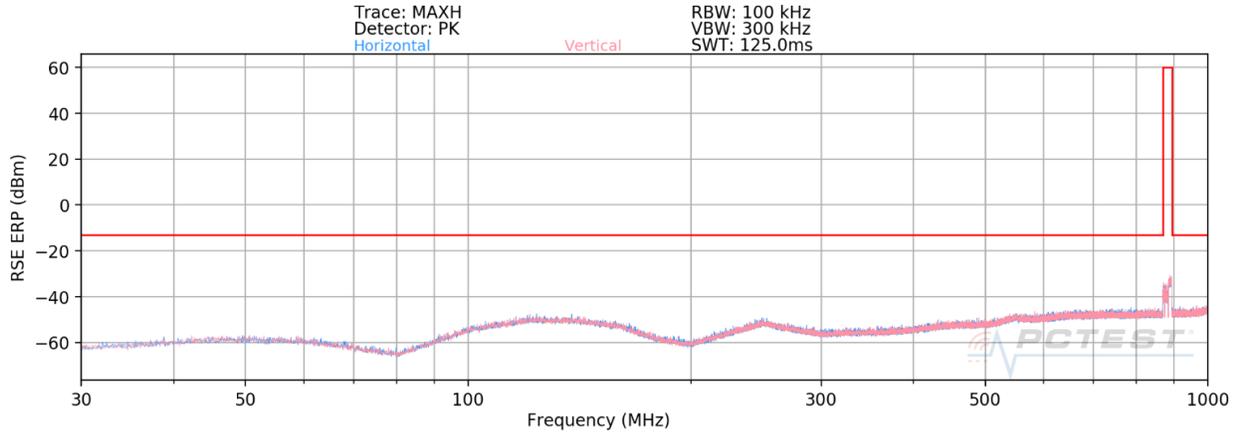


**Plot 7-909. Radiated spurious emission\_30 MHz to 1000 MHz  
(DSS\_B5\_10M\_1C\_Mid Channel)**

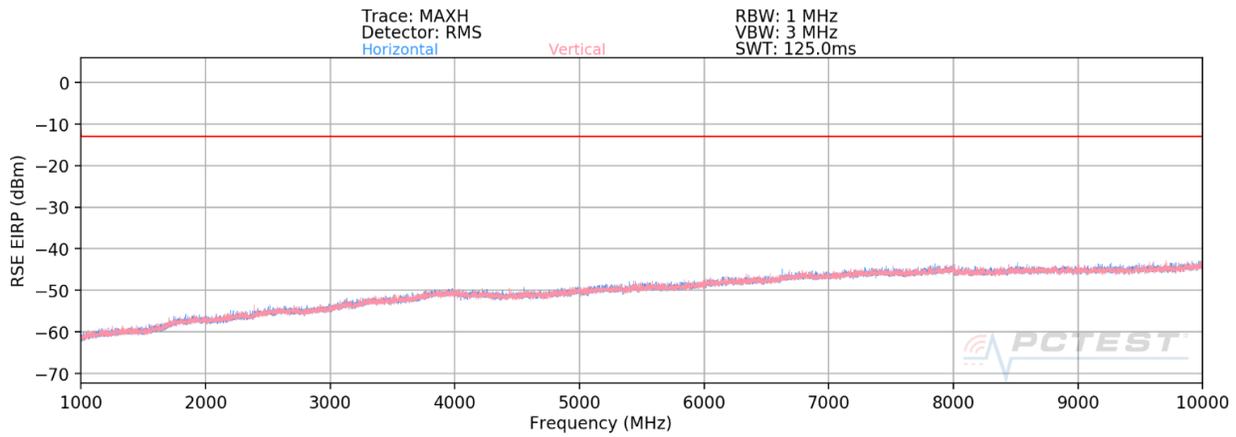


**Plot 7-910. Radiated spurious emission\_1 GHz to 10 GHz  
(DSS\_B5\_10M\_1C\_Mid Channel)**

FCC ID: A3LRF4440D-13A		<b>MEASUREMENT REPORT (CERTIFICATION)</b>		<b>Approved by:</b> Technical Manager
<b>Test Report S/N:</b> 8K21070501R2-R1	<b>Test Dates:</b> 07/09/2021 - 08/25/2021	<b>EUT Type:</b> RRU (RF4440d)	Page 358 of 367	



**Plot 7-911. Radiated spurious emission\_30 MHz to 1000 MHz  
(DSS\_B5\_10M+5M\_2C\_Mid Channel)**



**Plot 7-912. Radiated spurious emission\_1 GHz to 10 GHz  
(DSS\_B5\_10M+5M\_2C)\_Mid Channel)**

FCC ID: A3LRF4440D-13A		<b>MEASUREMENT REPORT (CERTIFICATION)</b>		<b>Approved by:</b> Technical Manager
<b>Test Report S/N:</b> 8K21070501R2-R1	<b>Test Dates:</b> 07/09/2021 - 08/25/2021	<b>EUT Type:</b> RRU (RF4440d)	Page 359 of 367	