



Emission masks – Out of band emissions

LTE Band 26 / 1.4MHz

Lowest Channel / QPSK				Middle Channel / QPSK																																																																											
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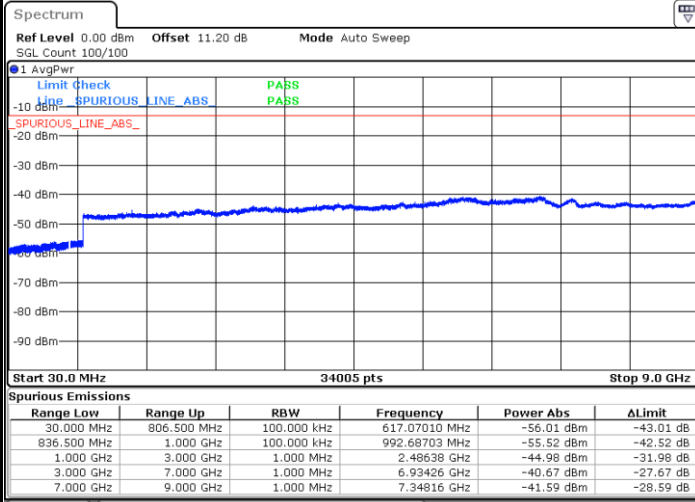
Highest Channel / QPSK

<p>Spectrum ▶</p> <p>Ref Level 0.00 dBm Offset 11.20 dB Mode Auto Sweep SGL Count 100/100</p>																																										
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Date: 6.MAY.2022 11:40:01																																										



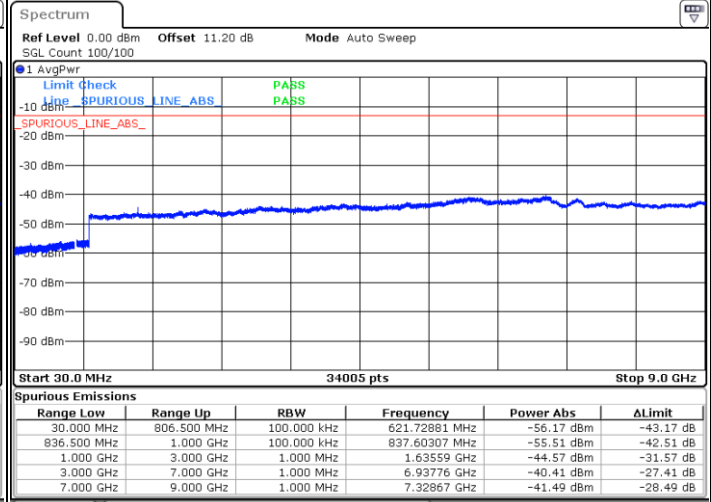
LTE Band 26 / 3MHz

Lowest Channel / QPSK



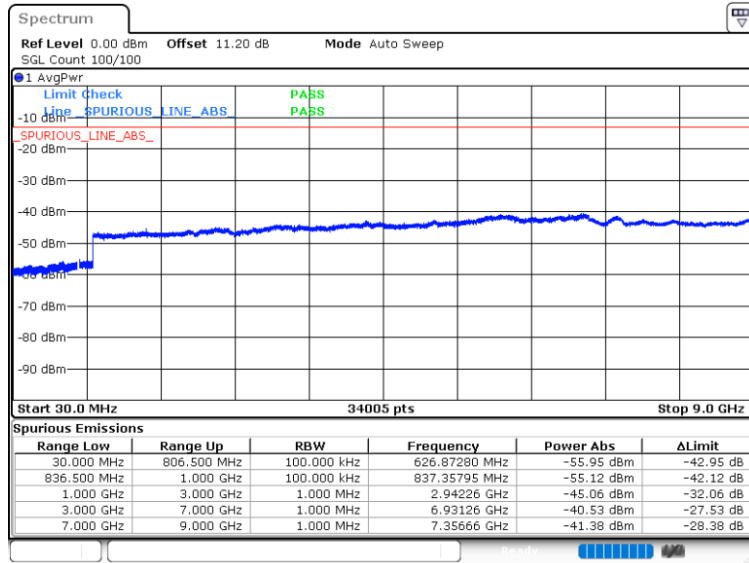
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Middle Channel / QPSK



Date: 6.MAY.2022 11:55:13

Highest Channel / QPSK



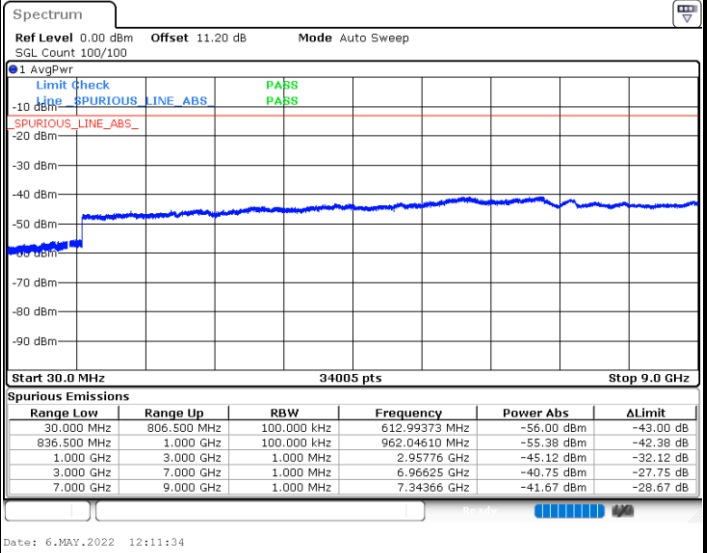
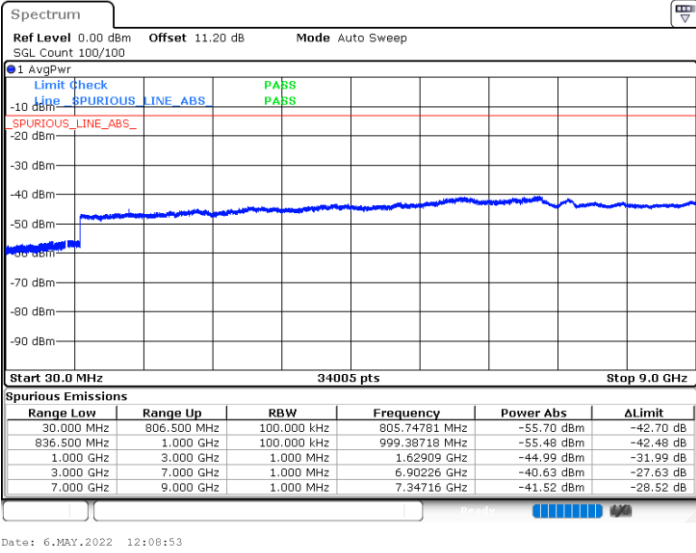
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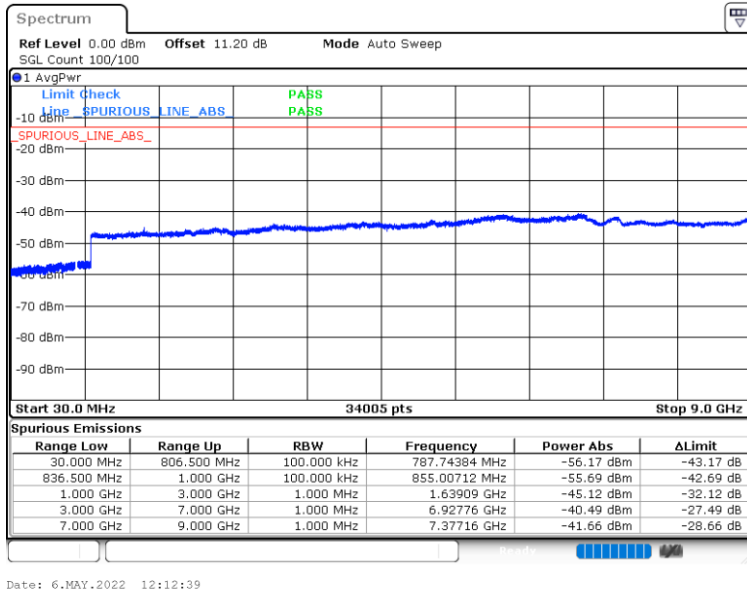
LTE Band 26 / 5MHz

Lowest Channel / QPSK

Middle Channel / QPSK



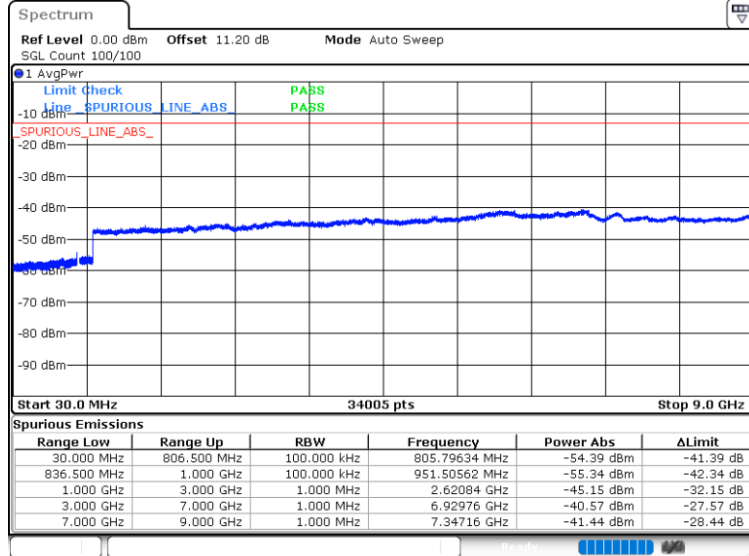
Highest Channel / QPSK





LTE Band 26 / 10MHz

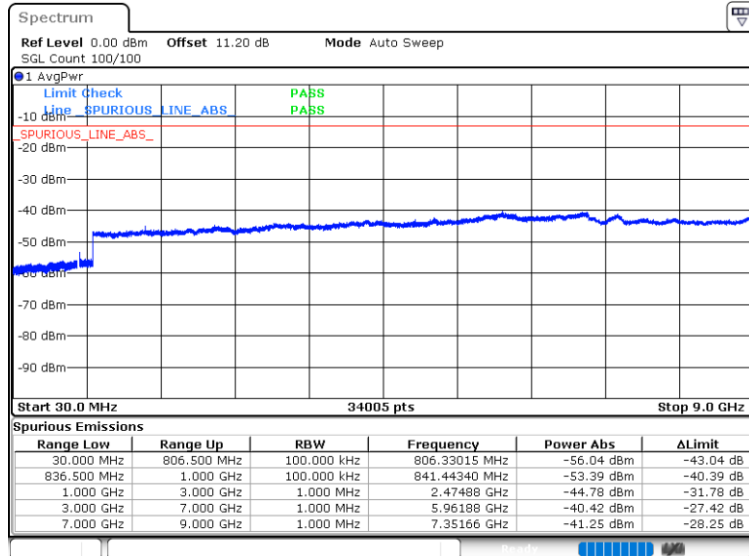
Middle Channel / QPSK



Date: 6.MAY.2022 13:35:26

LTE Band 26 / 15MHz

Middle Channel / QPSK



Date: 6.MAY.2022 13:54:52



Frequency Stability

Test Conditions		LTE Band 26 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0068	PASS
40	Normal Voltage	0.0098	
30	Normal Voltage	0.0103	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0122	
0	Normal Voltage	0.0073	
-10	Normal Voltage	0.0099	
-20	Normal Voltage	0.0062	
-30	Normal Voltage	0.0026	
20	Maximum Voltage	0.0004	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0068	

Note:

- 1. Normal Voltage = 3.3 V. ; Battery End Point (BEP) = 3.135 V. ; Maximum Voltage = 4.4 V.
- 2. The frequency fundamental emissions stay within the authorized frequency block.



Test Conditions		LTE Band 26 (QPSK) / Low Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 15MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0101	PASS
40	Normal Voltage	0.0095	
30	Normal Voltage	0.0130	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0034	
0	Normal Voltage	0.0192	
-10	Normal Voltage	0.0001	
-20	Normal Voltage	0.0192	
-30	Normal Voltage	0.0032	
20	Maximum Voltage	0.0045	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0015	

Note:

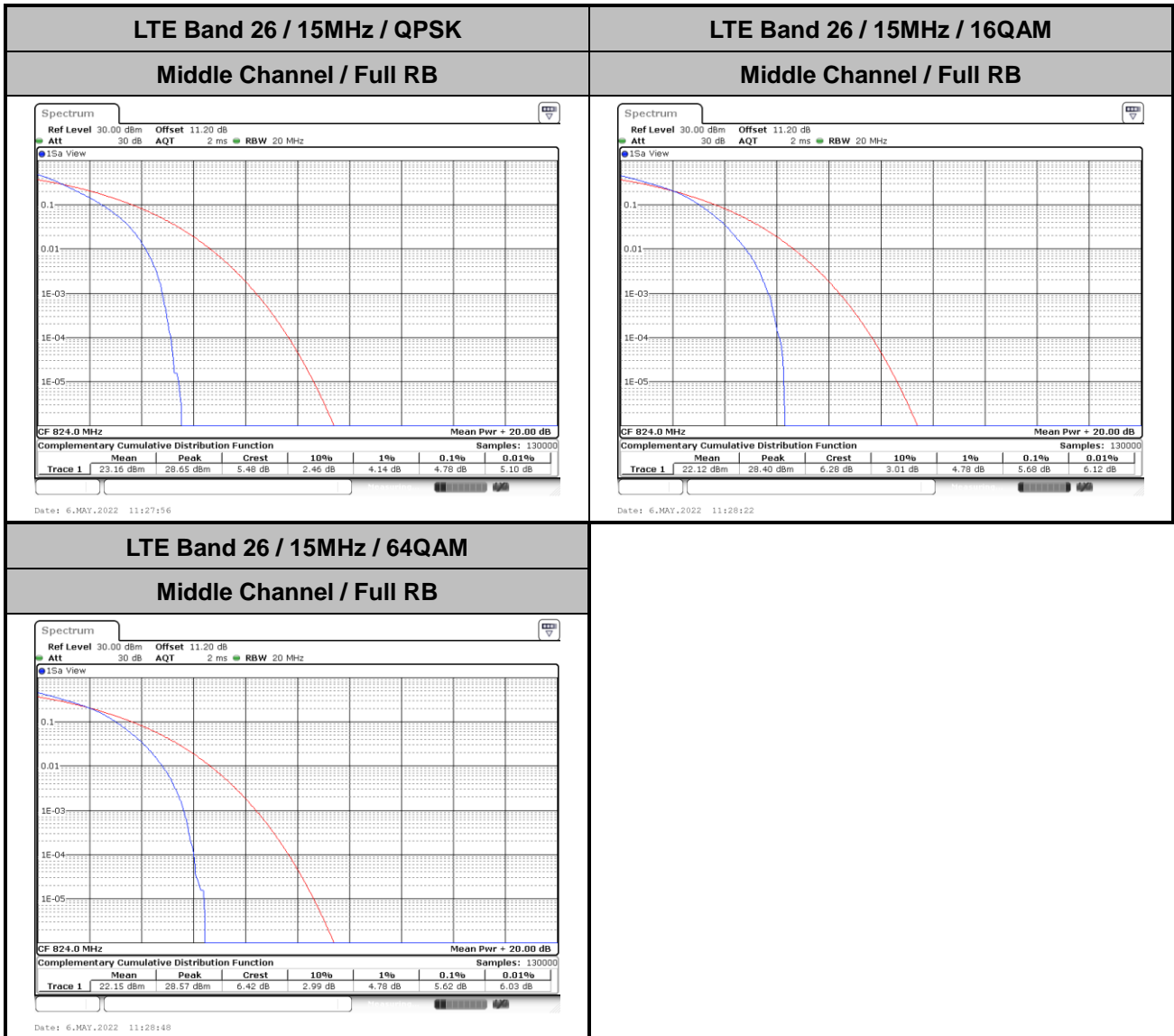
- 1. Normal Voltage = 3.3 V. ; Battery End Point (BEP) = 3.135 V. ; Maximum Voltage = 4.4 V.
- 2. The frequency fundamental emissions stay within the authorized frequency block.



LTE Band 26_824MHz

Peak-to-Average Ratio

Mode	LTE Band 26 / 15MHz				
Mod.	QPSK	16QAM	64QAM	256QAM	Limit: 13dB
RB Size	Full RB	Full RB	Full RB	Full RB	Result
Middle CH	4.78	5.68	5.62	-	PASS





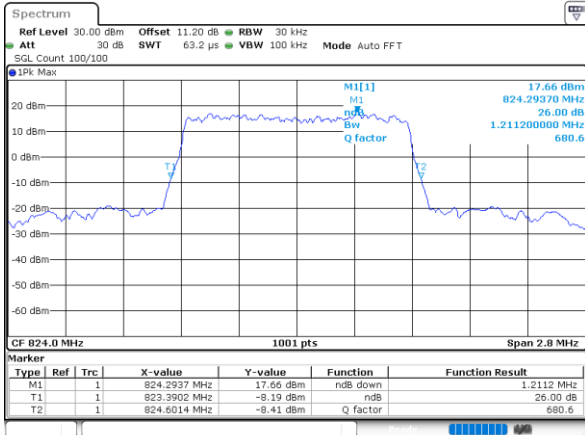
26dB Bandwidth

Mode	LTE Band 26 : 26dB BW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Middle CH	1.21	1.22	3.02	3.05	4.89	4.82	9.71	9.79	14.45	14.15	-	-
Mode	LTE Band 26 : 26dB BW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM
Middle CH	1.23	-	3.04	-	4.89	-	9.73	-	14.33	-	-	-



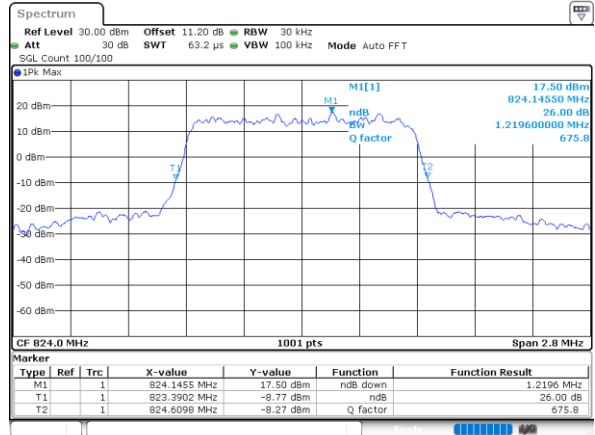
LTE Band 26

Middle Channel / 1.4MHz / QPSK



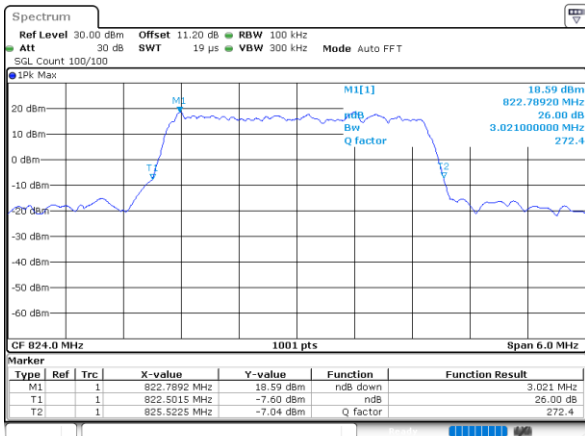
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Middle Channel / 1.4MHz / 16QAM



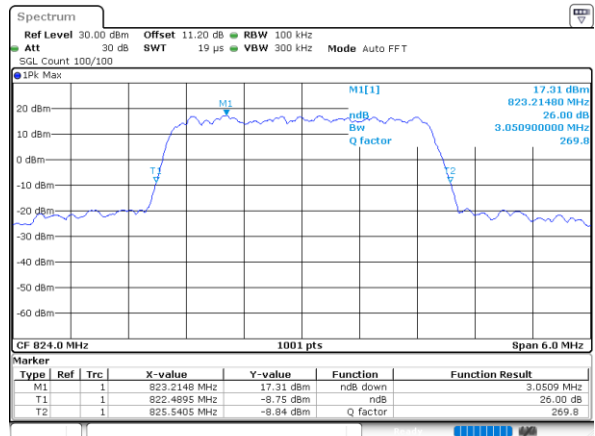
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Middle Channel / 3MHz / QPSK



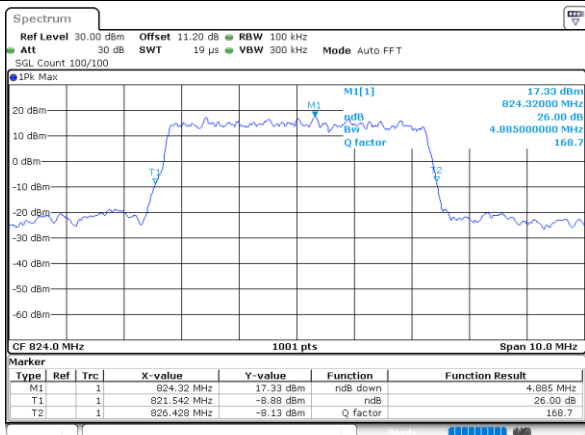
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Middle Channel / 3MHz / 16QAM



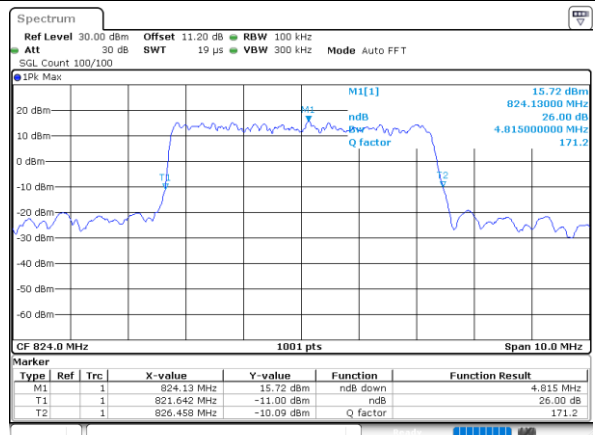
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Middle Channel / 5MHz / QPSK



Date: 6.MAY.2022 11:18:36

Middle Channel / 5MHz / 16QAM

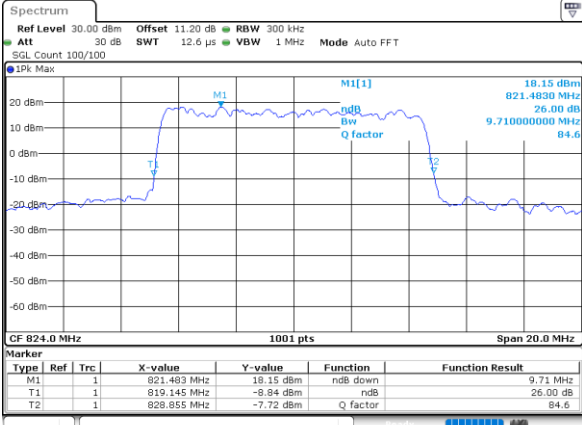


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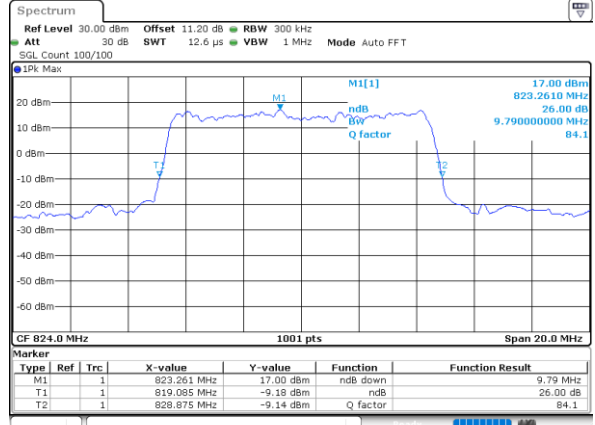
LTE Band 26

Middle Channel / 10MHz / QPSK



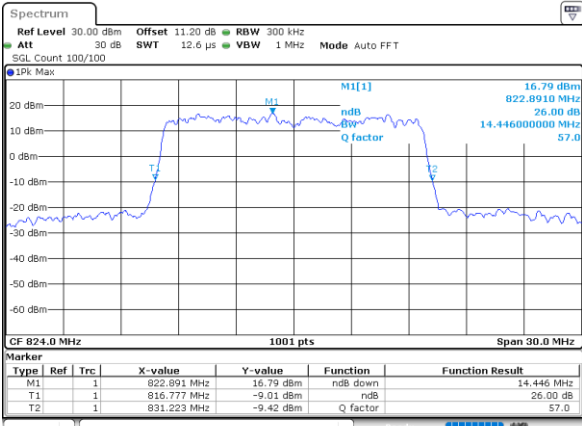
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Middle Channel / 10MHz / 16QAM



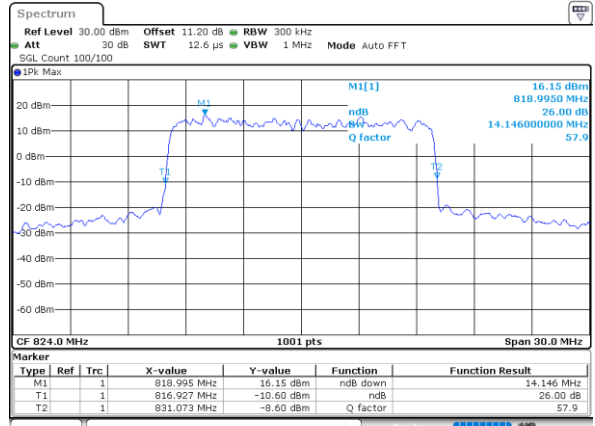
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Middle Channel / 15MHz / QPSK



Date: 6.MAY.2022 11:25:37

Middle Channel / 15MHz / 16QAM

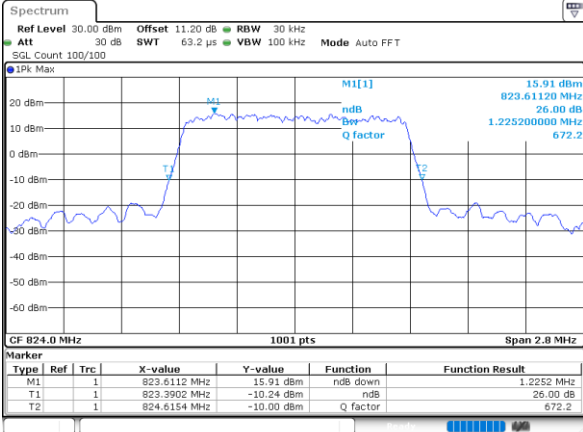


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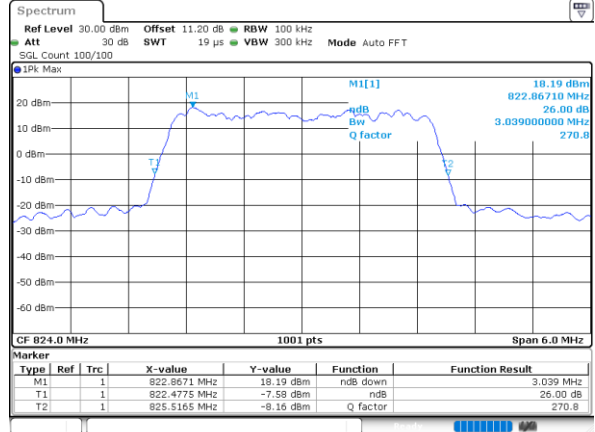
LTE Band 26

Middle Channel / 1.4MHz / 64QAM



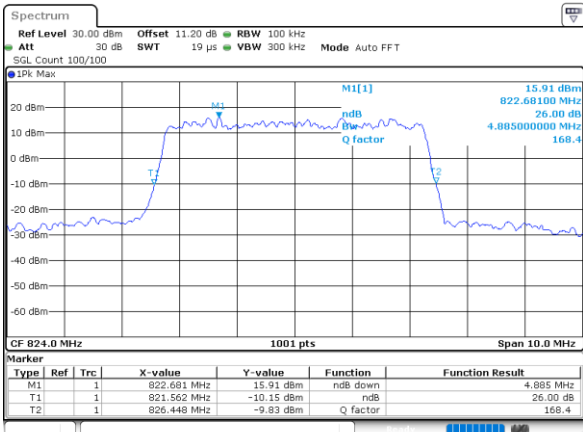
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Middle Channel / 3MHz / 64QAM



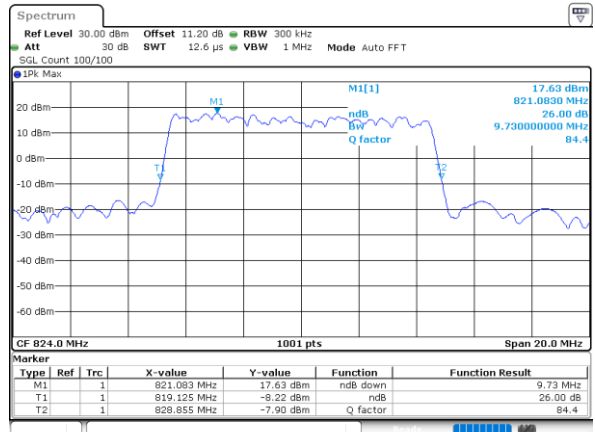
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Middle Channel / 5MHz / 64QAM



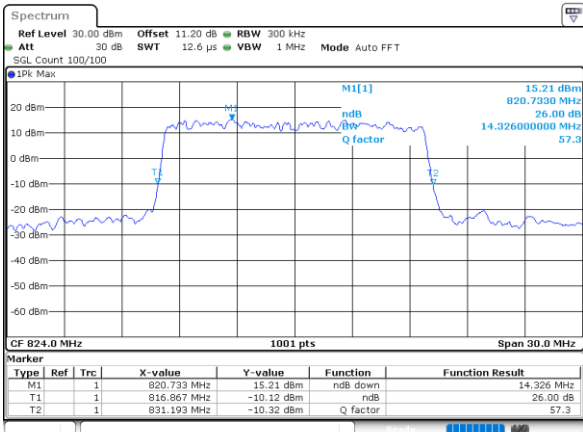
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Middle Channel / 10MHz / 64QAM



Date: 6.MAY.2022 11:22:55

Middle Channel / 15MHz / 64QAM



Date: 6.MAY.2022 11:26:25

N/A



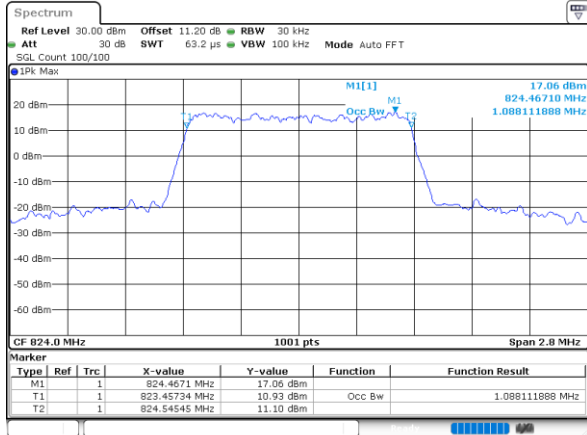
Occupied Bandwidth

Mode	LTE Band 26 : 99%OBW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Middle CH	1.09	1.09	2.72	2.72	4.50	4.50	9.03	8.99	13.40	13.44	-	-
Mode	LTE Band 26 : 99%OBW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM
Middle CH	1.08	-	2.72	-	4.49	-	9.01	-	13.46	-	-	-



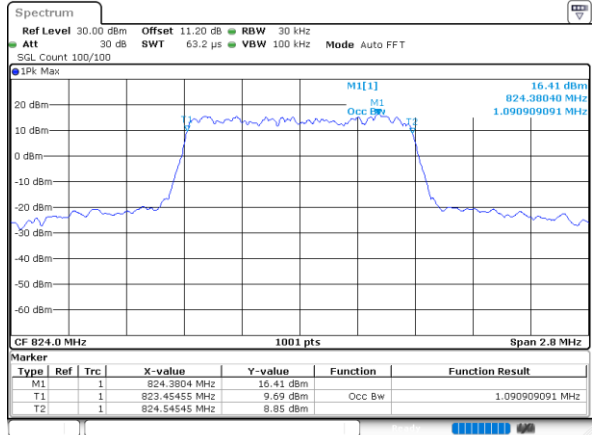
LTE Band 26

Middle Channel / 1.4MHz / QPSK



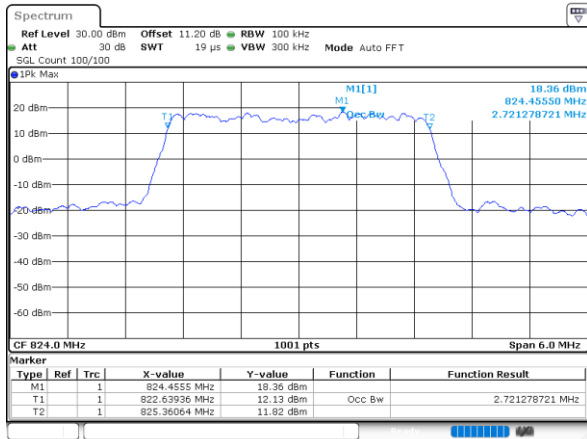
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Middle Channel / 1.4MHz / 16QAM



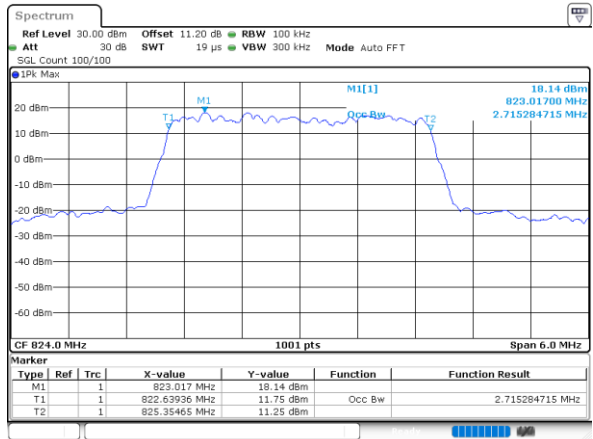
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Middle Channel / 3MHz / QPSK



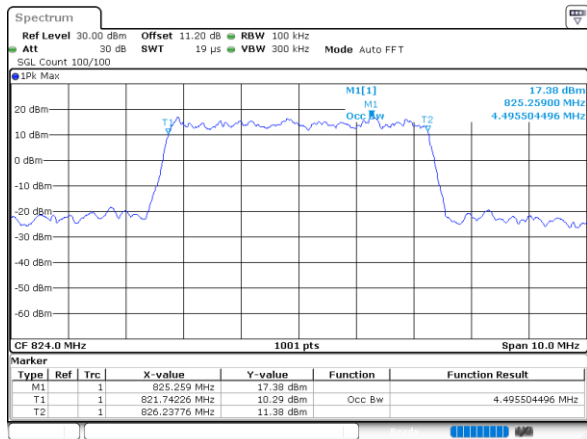
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Middle Channel / 3MHz / 16QAM



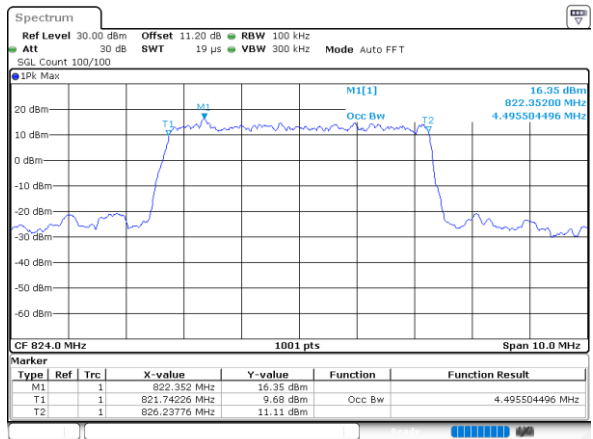
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Middle Channel / 5MHz / QPSK



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Middle Channel / 5MHz / 16QAM

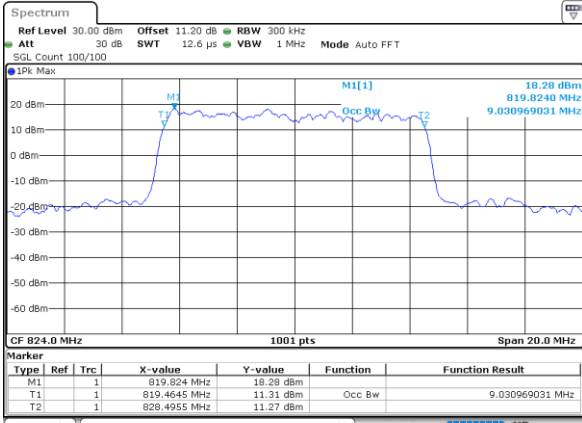


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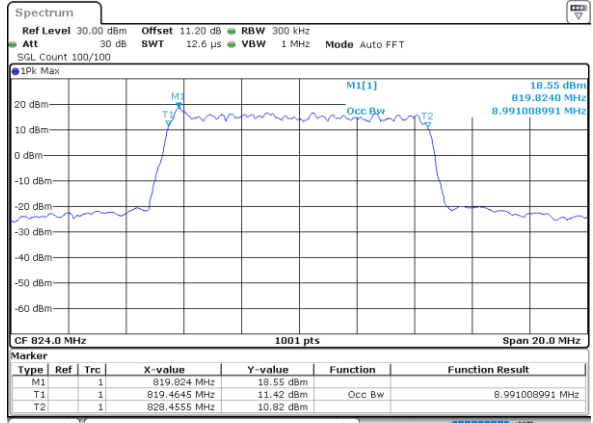
LTE Band 26

Middle Channel / 10MHz / QPSK



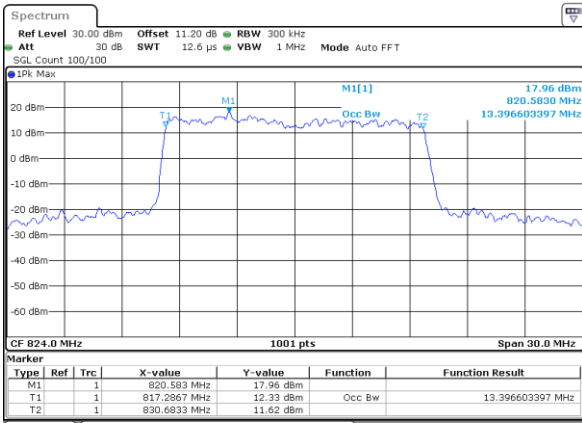
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Middle Channel / 10MHz / 16QAM



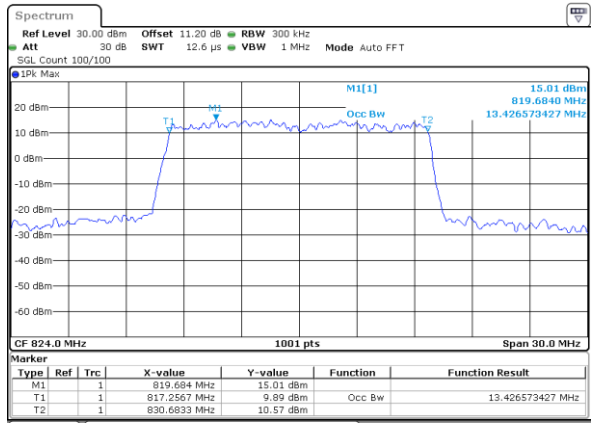
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Middle Channel / 15MHz / QPSK



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Middle Channel / 15MHz / 16QAM

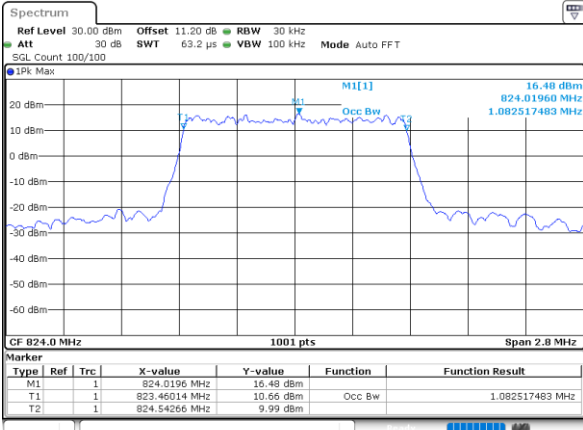


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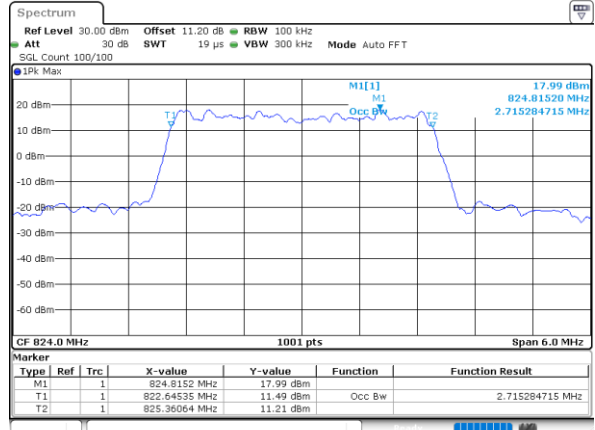


LTE Band 26

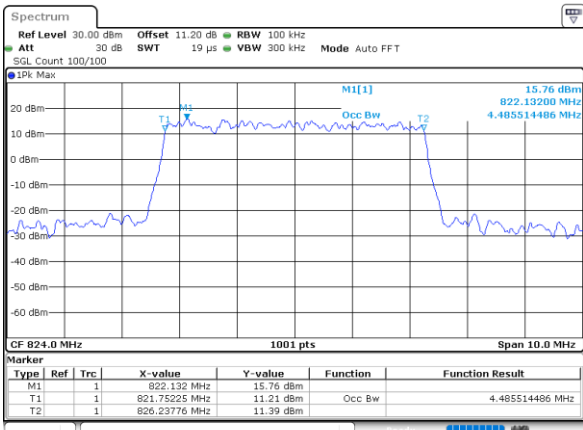
Middle Channel / 1.4MHz / 64QAM



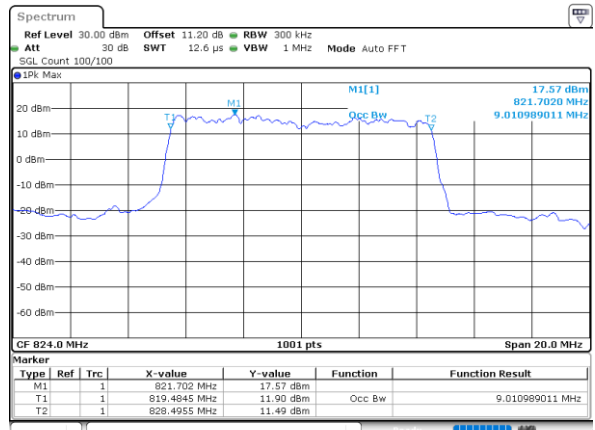
Middle Channel / 3MHz / 64QAM



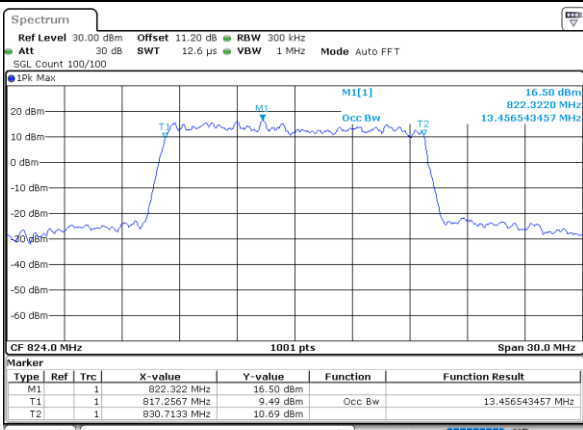
Middle Channel / 5MHz / 64QAM



Middle Channel / 10MHz / 64QAM



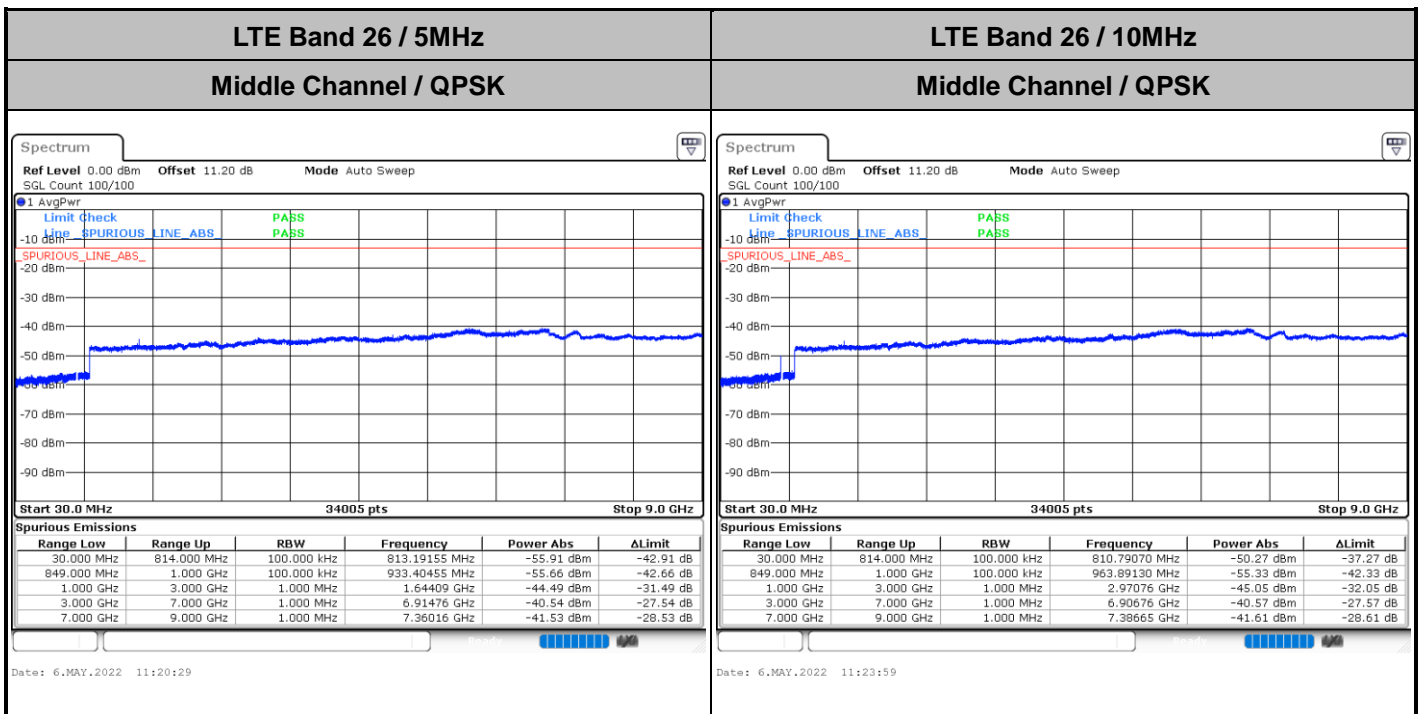
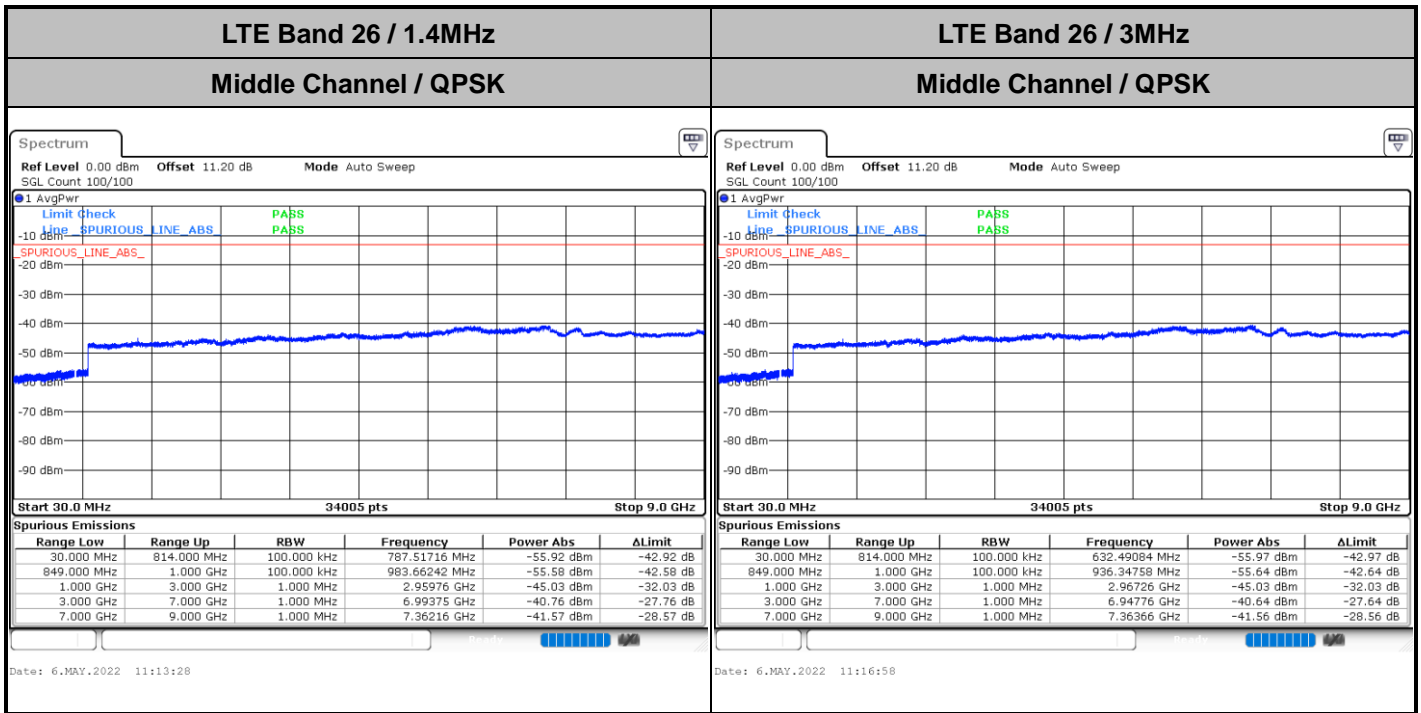
Middle Channel / 15MHz / 64QAM

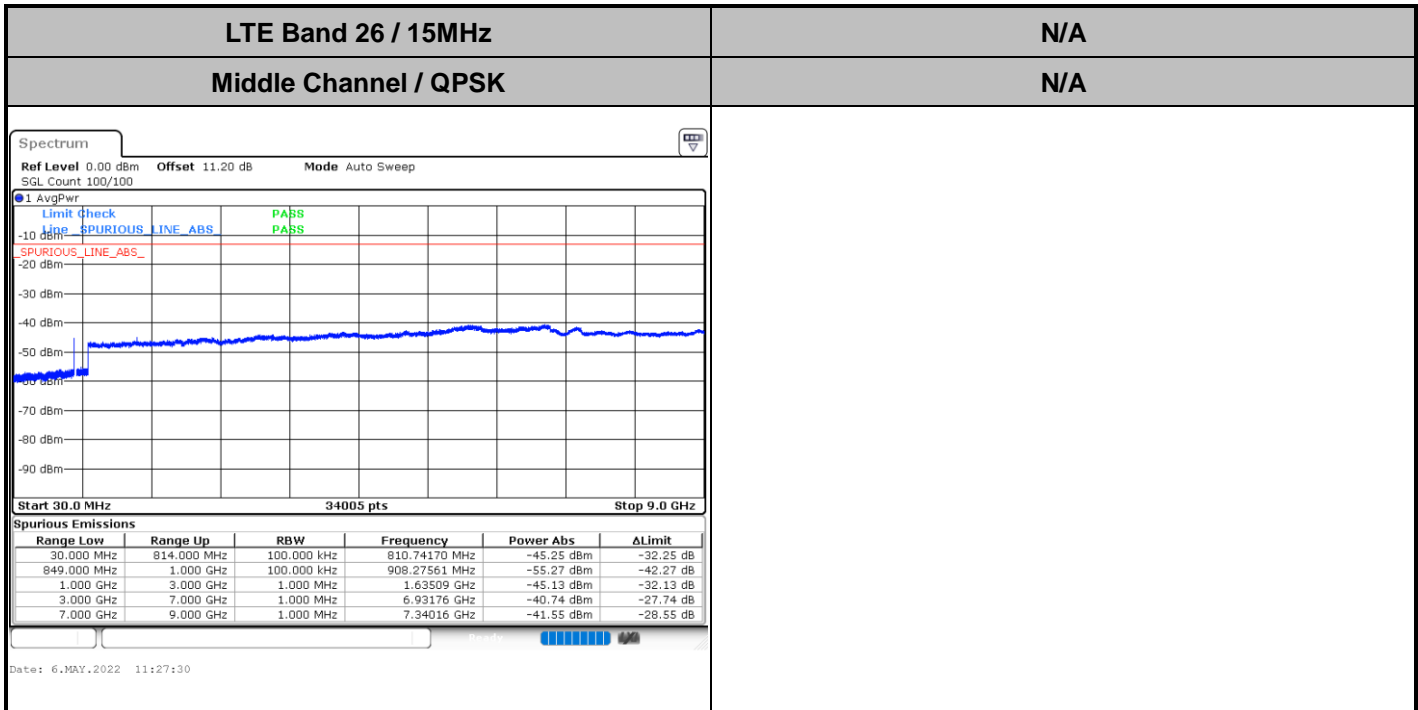


N/A



Conducted Spurious Emission







Appendix B. Test Results of Radiated Test

LTE Band 26

LTE Band 26 / 5MHz / 1RB0 QPSK									
Channel	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	1628	-65.08	-13	-52.08	-76.83	-66.9	0.97	4.94	H
	2442	-61.00	-13	-48.00	-77.71	-62.8	1.27	5.23	H
	3256	-58.45	-13	-45.45	-77.68	-61.7	1.53	6.93	H
									H
									H
									H
	1628	-63.98	-13	-50.98	-76.1	-65.8	0.97	4.94	V
	2442	-59.60	-13	-46.60	-76.96	-61.4	1.27	5.23	V
	3256	-58.85	-13	-45.85	-78.05	-62.1	1.53	6.93	V
									V
									V
									V
Middle	1633	-64.99	-13	-51.99	-76.52	-66.8	0.97	4.93	H
	2450	-60.88	-13	-47.88	-77.69	-62.7	1.28	5.25	H
	3266	-59.71	-13	-46.71	-78.2	-63	1.53	6.97	H
									H
									H
									H
	1633	-63.99	-13	-50.99	-75.73	-65.8	0.97	4.93	V
	2450	-60.28	-13	-47.28	-77.48	-62.1	1.28	5.25	V
	3266	-58.81	-13	-45.81	-78.01	-62.1	1.53	6.97	V
									V
									V
									V



Highest	1638	-64.71	-13	-51.71	-76.36	-66.5	0.97	4.91	H
	2457	-60.46	-13	-47.46	-77.24	-62.3	1.28	5.27	H
	3276	-58.77	-13	-45.77	-77.65	-62.1	1.53	7.01	H
									H
									H
									H
	1638	-64.11	-13	-51.11	-76.37	-65.9	0.97	4.91	V
	2457	-59.86	-13	-46.86	-77.17	-61.7	1.28	5.27	V
	3276	-58.97	-13	-45.97	-78.38	-62.3	1.53	7.01	V
									V
									V
									V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.