

Shenzhen UnionTrust Quality and Technology Co., Ltd.

Address: 16/F, Block A, Building 6, Baoneng Science and Technology Park, Qingxiang Road No.1, Longhua New District, Shenzhen, China

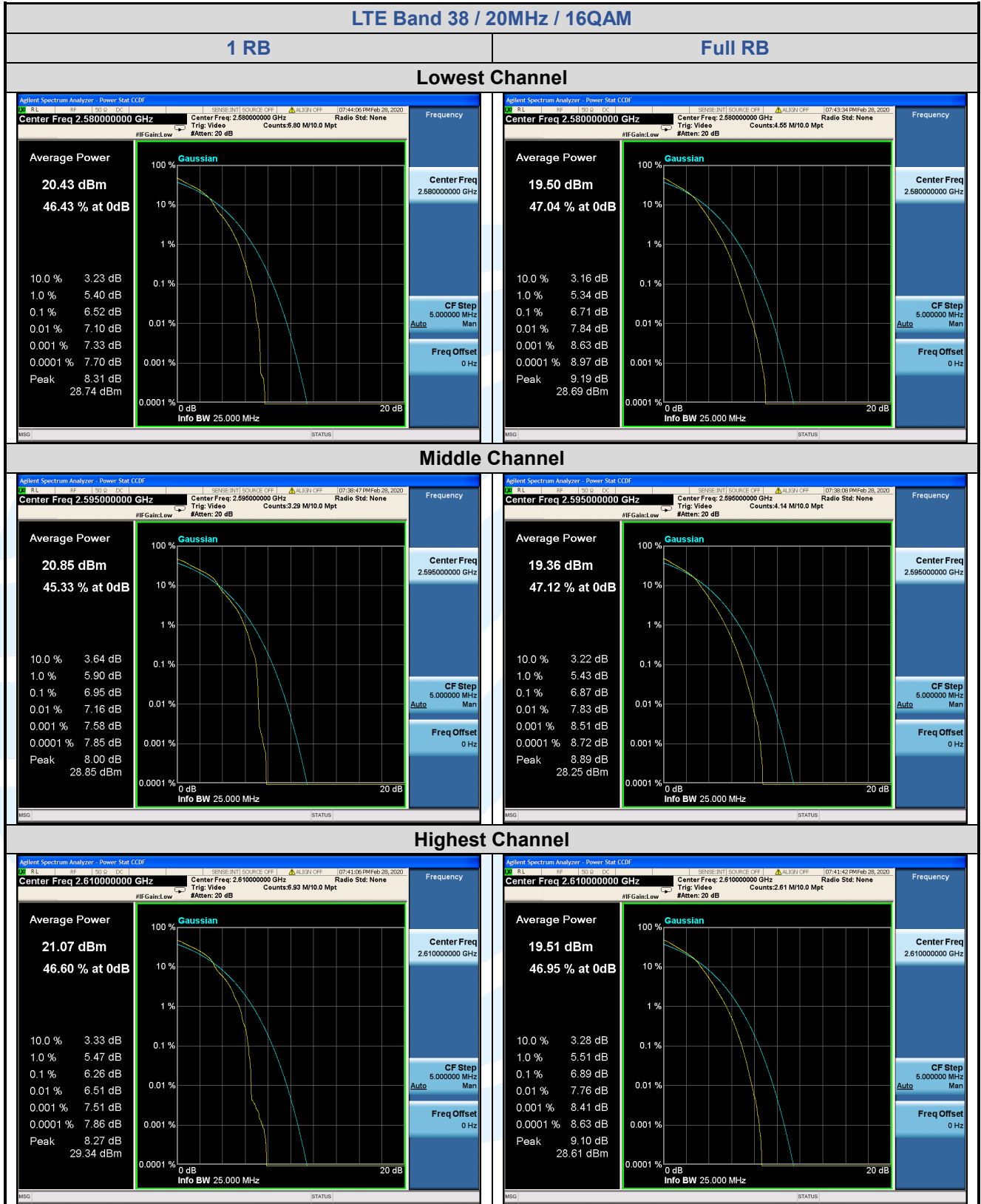
Tel: +86-755-28230888

Fax: +86-755-28230886

E-mail: info@uttlab.com

<http://www.uttlab.com>

UTTR-RF-FCC4G-V1.0



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5.599%&26DB BANDWIDTH

Test Requirement: FCC 47 CFR Part 2.1049(h)
Test Method: ANSI C63.26-2015 & KDB 971168 D01v03r01 Section 4
Limit: No Limit, for reporting purposes only.

Test Procedure:

The transmitter output was connected to a calibrated coaxial cable and coupler, the other end of which was connected to a spectrum analyzer. The occupied bandwidth was measured with the spectrum analyzer at the low, middle and high channel in each band. The 99% and -26dB bandwidths was also measured and recorded.

Note: The cable loss and attenuator loss were offset into measure device as an amplitude offset.

Test Setup: Refer to section 4.2.2 for details.

Instruments Used: Refer to section 3 for details

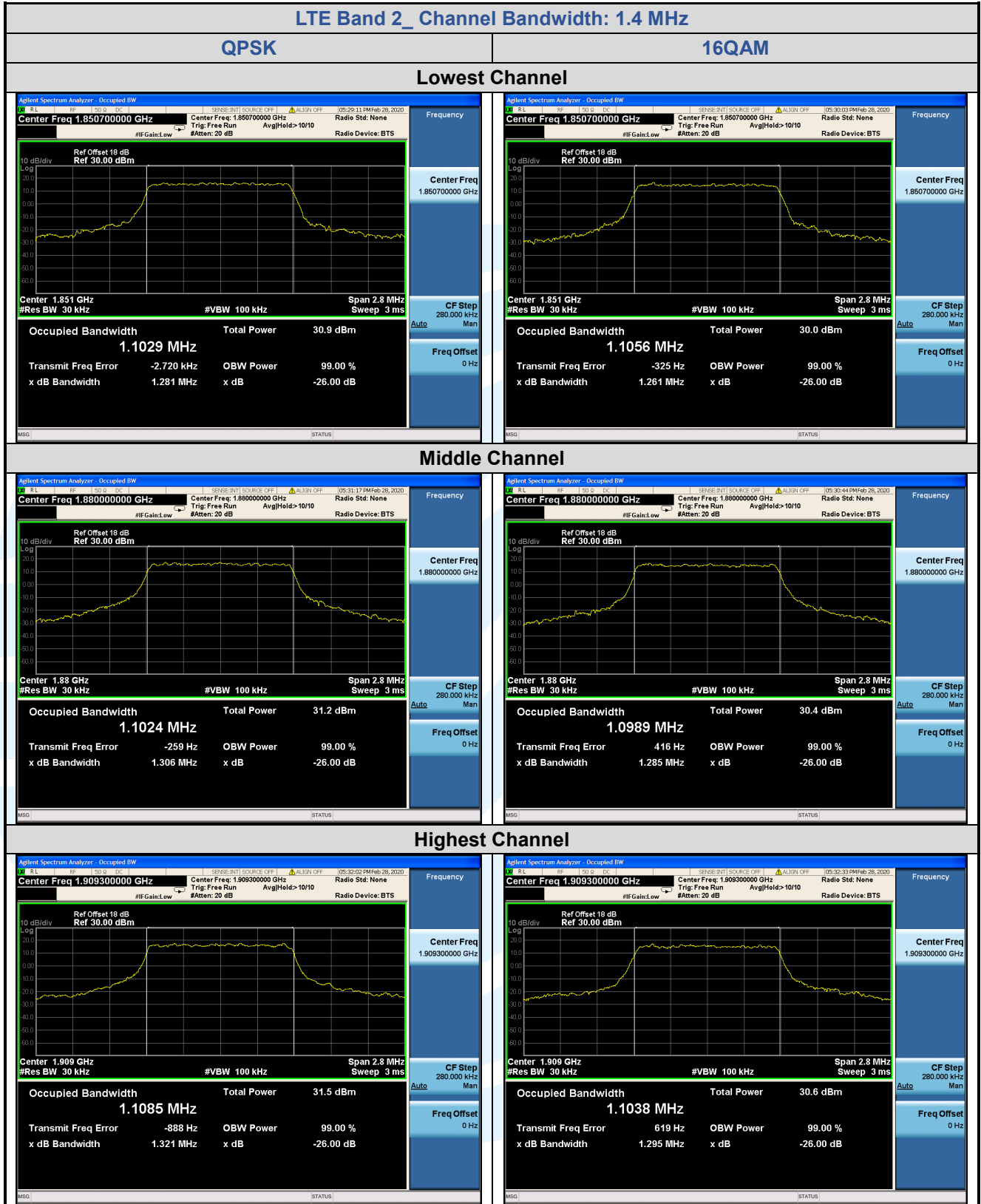
Test Mode: Link mode

Test Results: Pass

Test Data: See table below

5.5.1 LTE Band 2

LTE Band 2								
Channel	RB Configuration		26 dB BW (MHz)			99% BW (MHz)		
	Size	Offset	QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
Channel Bandwidth: 1.4 MHz								
Lowest	6	0	1.281	1.261	/	1.1029	1.1056	/
Middle	6	0	1.306	1.285	/	1.1024	1.0989	/
Highest	6	0	1.321	1.295	/	1.1085	1.1038	/
Channel Bandwidth: 3 MHz								
Lowest	15	0	3.080	3.157	/	2.7138	2.7139	/
Middle	15	0	3.080	3.133	/	2.7135	2.7114	/
Highest	15	0	3.059	3.053	/	2.7128	2.7224	/
Channel Bandwidth: 5 MHz								
Lowest	25	0	5.340	5.377	/	4.5422	4.5369	/
Middle	25	0	5.285	5.472	/	4.5251	4.5549	/
Highest	25	0	5.483	5.437	/	4.5327	4.5551	/
Channel Bandwidth: 10 MHz								
Lowest	50	0	10.27	10.53	/	9.0109	9.0140	/
Middle	50	0	10.06	10.15	/	8.9969	9.0188	/
Highest	50	0	10.23	10.26	/	9.0277	9.0255	/
Channel Bandwidth: 15 MHz								
Lowest	75	0	15.69	14.92	/	13.491	13.484	/
Middle	75	0	15.42	15.13	/	13.527	13.524	/
Highest	75	0	15.41	15.20	/	13.495	13.557	/
Channel Bandwidth: 20 MHz								
Lowest	100	0	20.12	20.19	/	18.008	17.994	/
Middle	100	0	20.37	20.23	/	18.022	18.066	/
Highest	100	0	20.13	20.16	/	18.022	18.091	/



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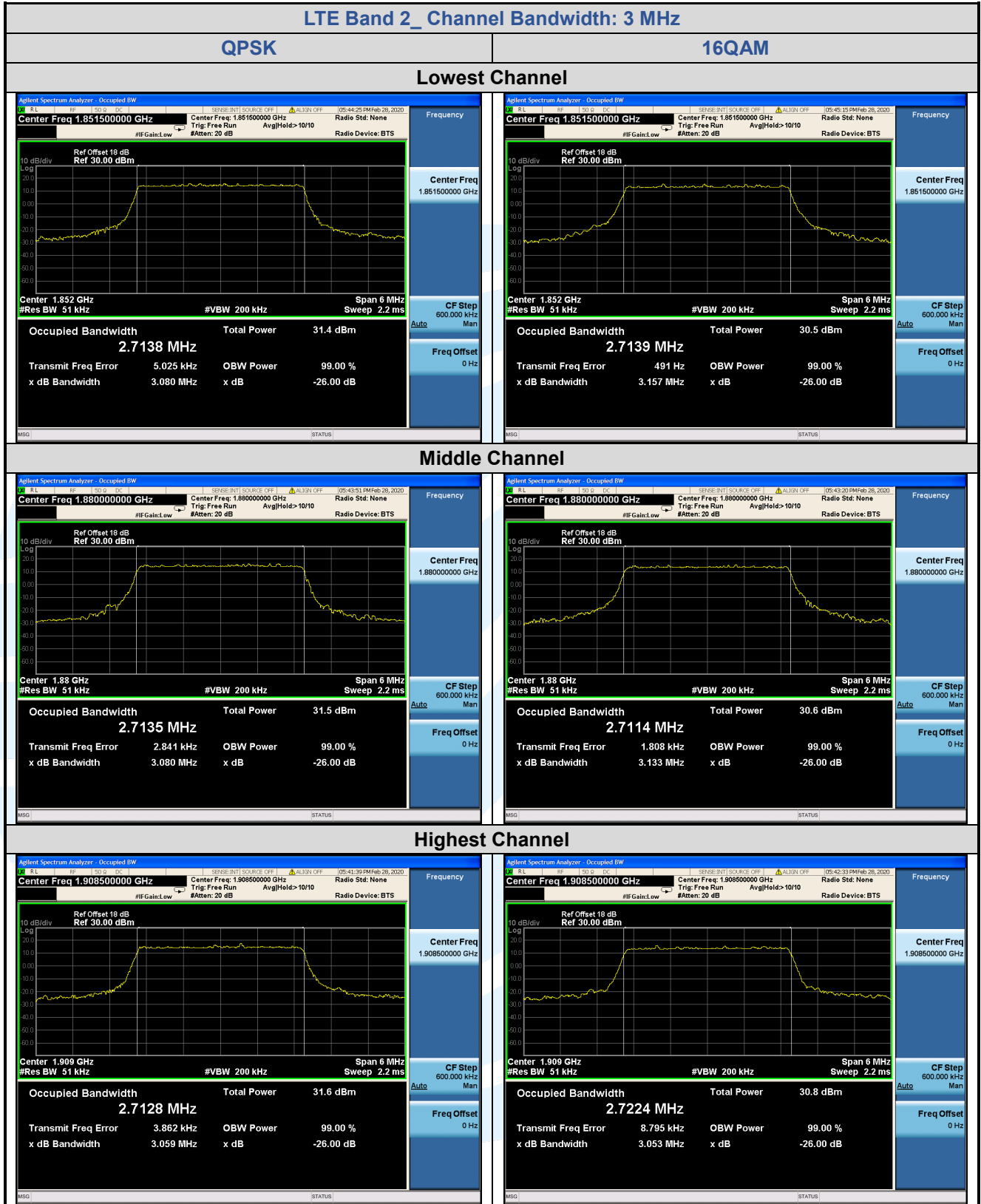
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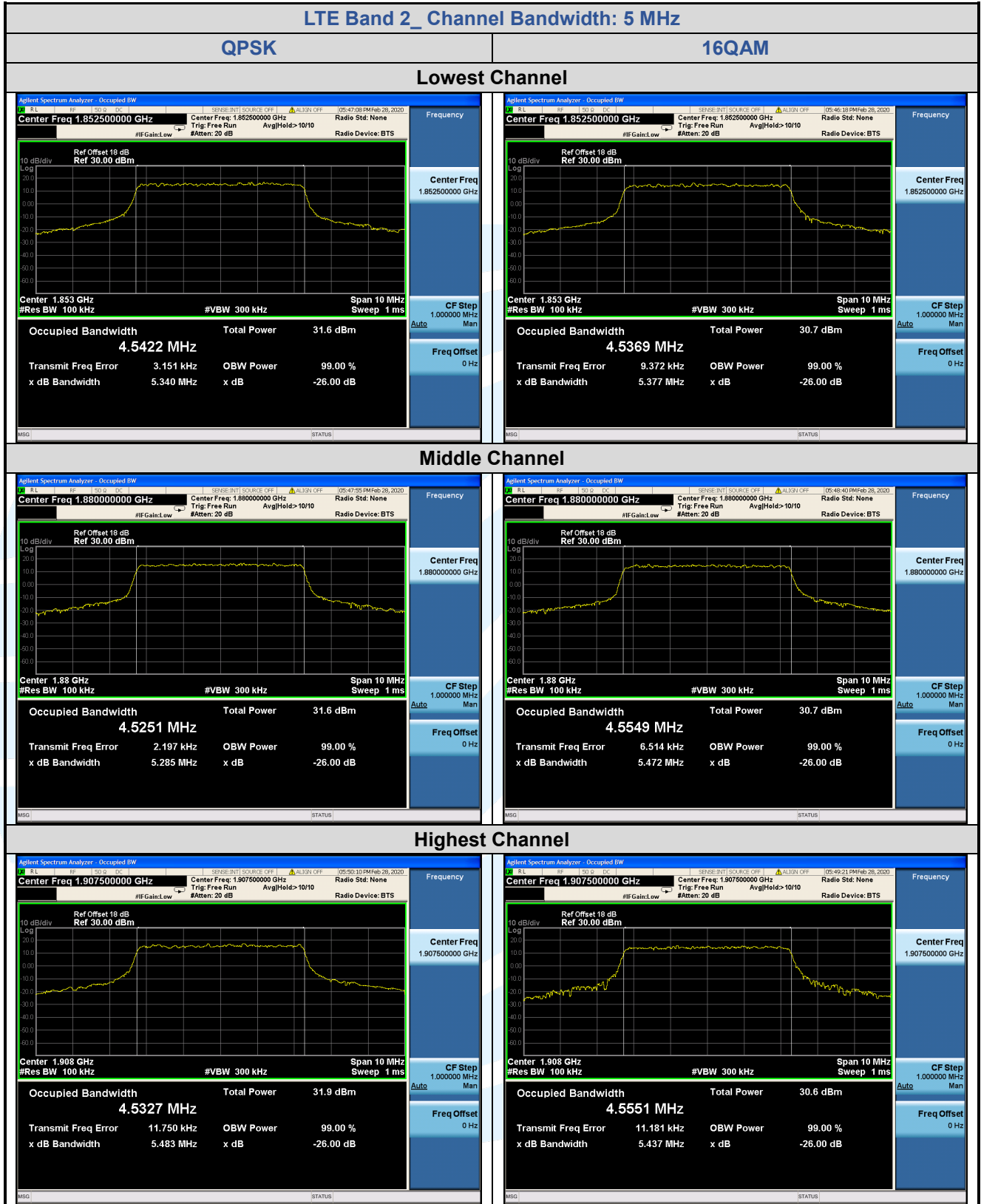
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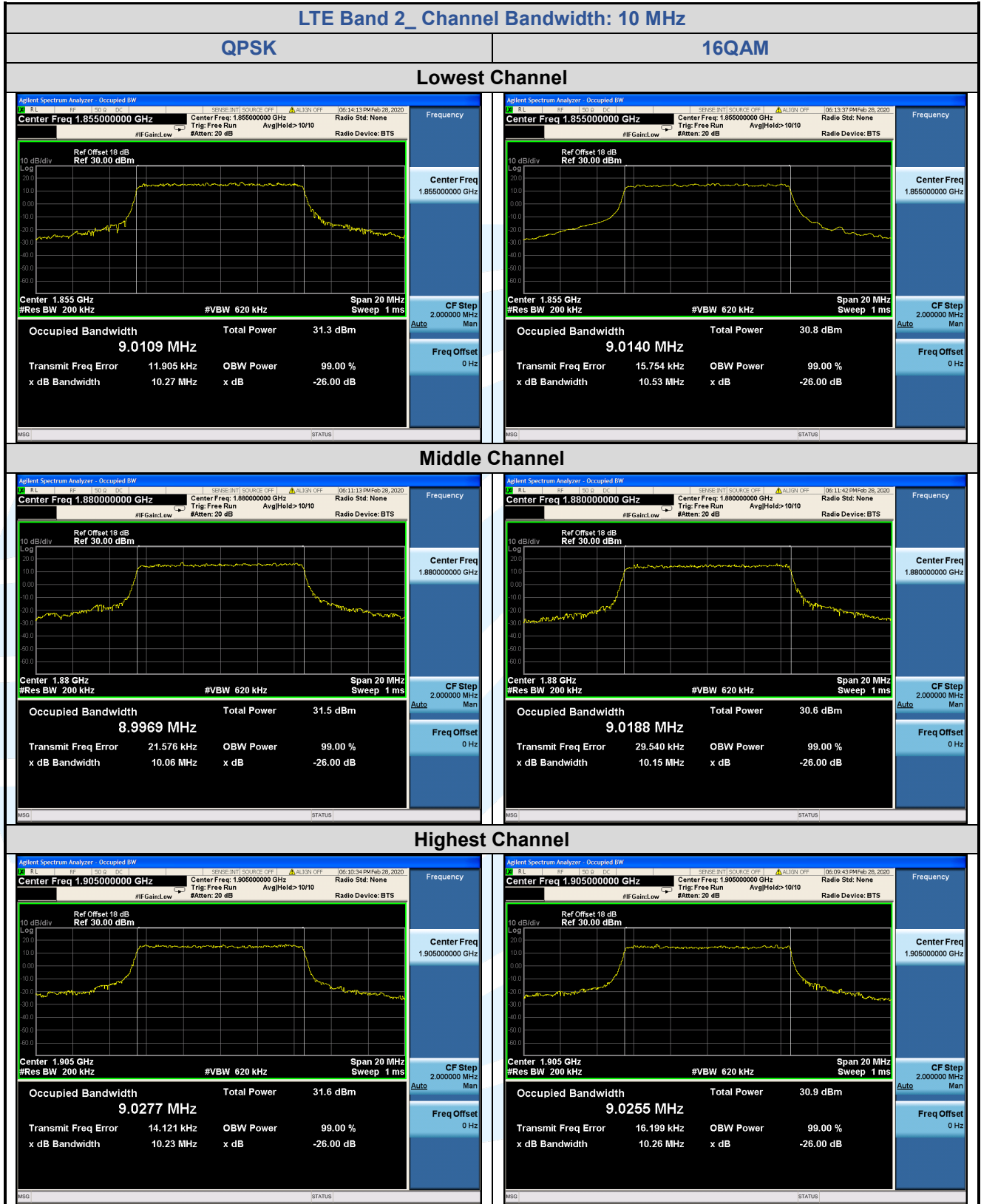
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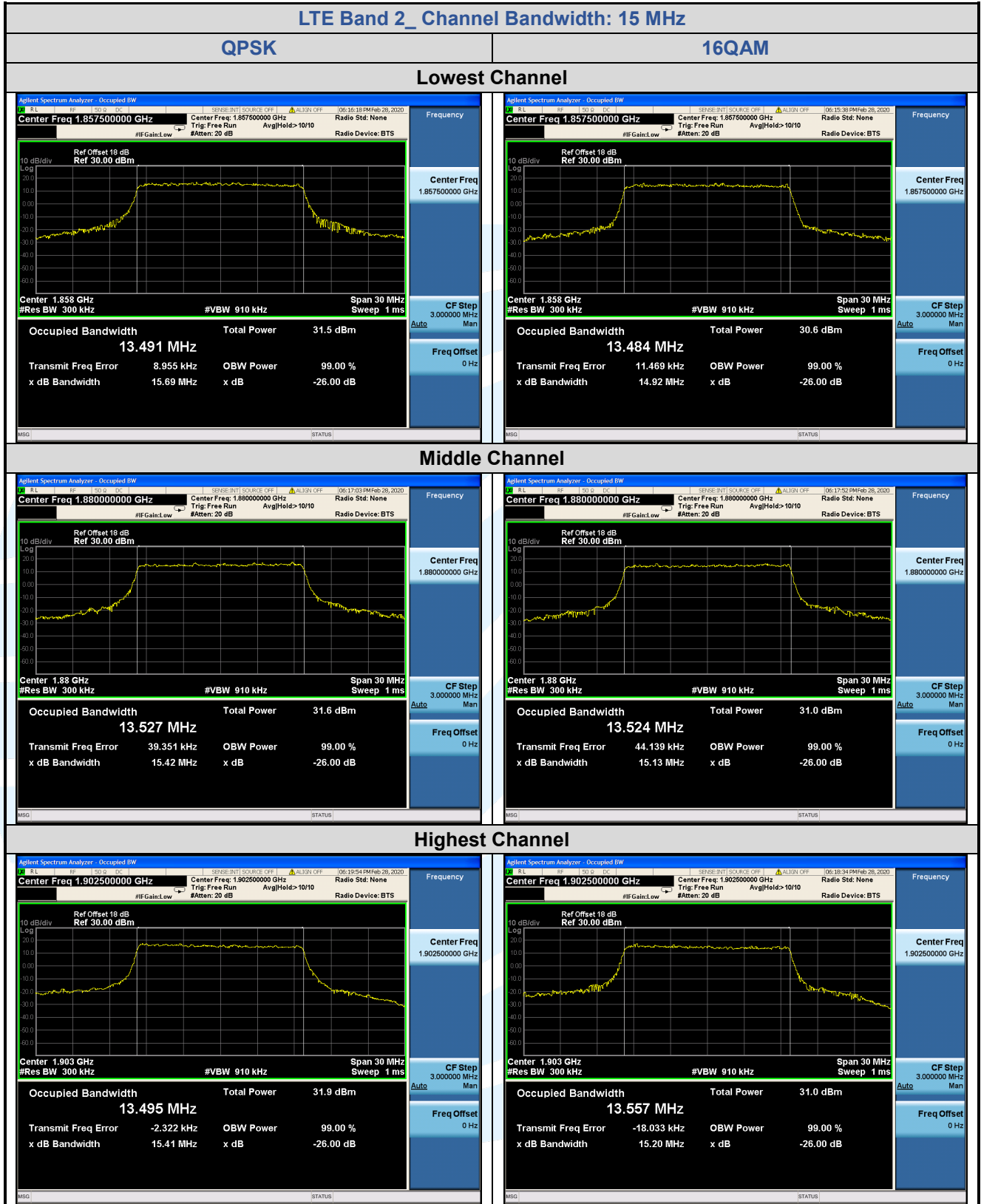
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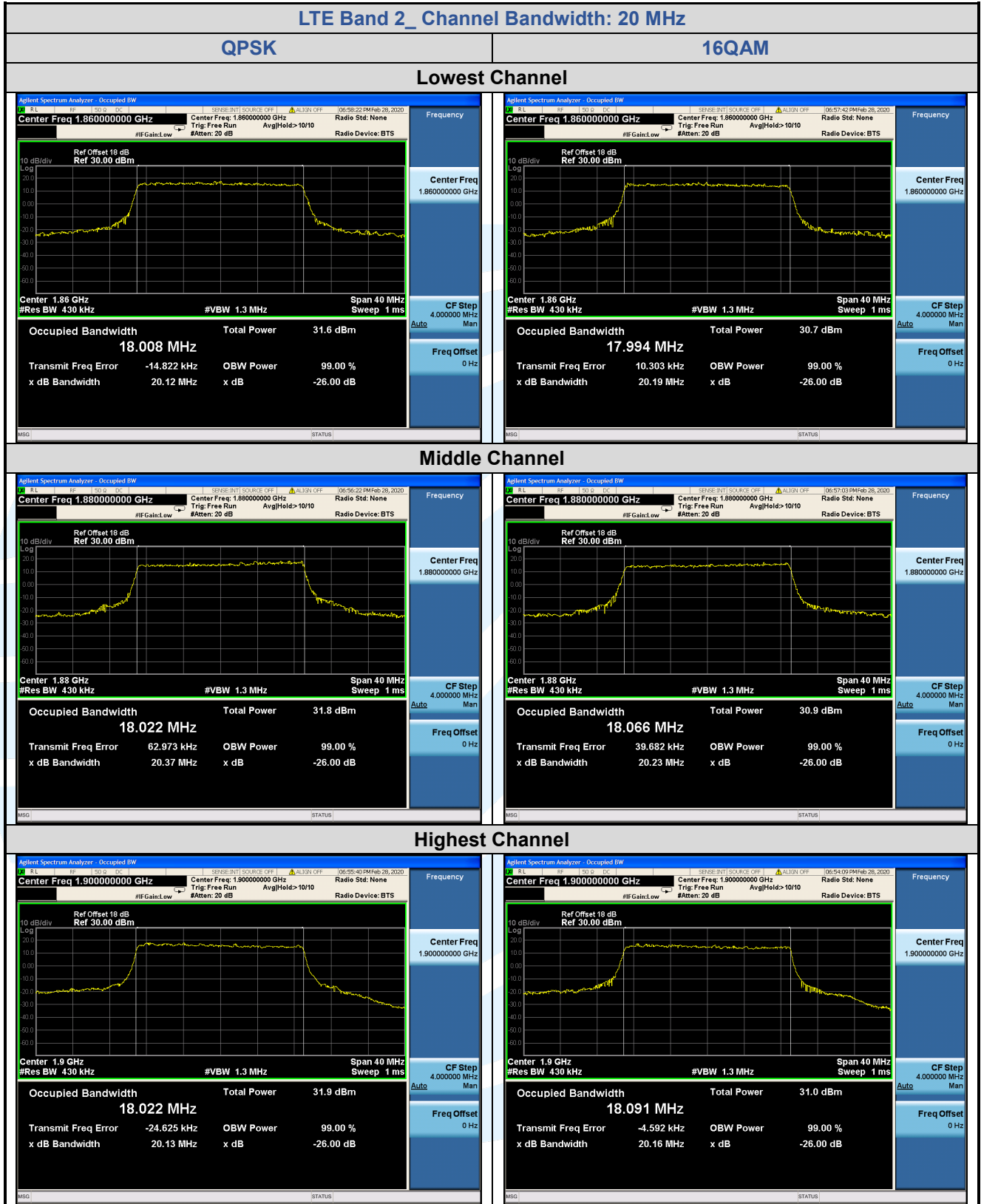
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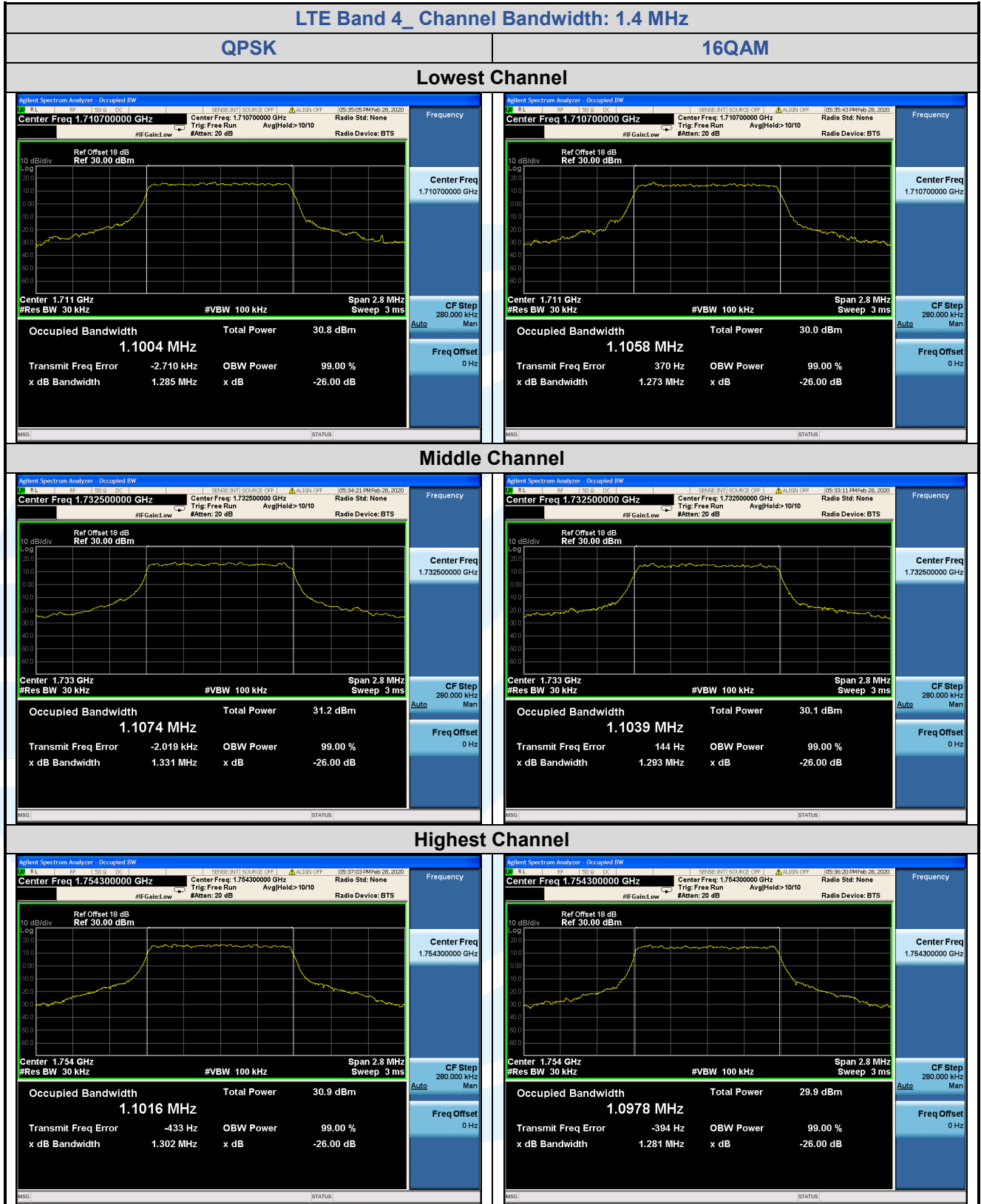
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5.5.2 LTE Band 4

LTE Band 4								
Channel	RB Configuration		26 dB BW (MHz)			99% BW (MHz)		
	Size	Offset	QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
Channel Bandwidth: 1.4 MHz								
Lowest	6	0	1.285	1.273	/	1.1004	1.1058	/
Middle	6	0	1.331	1.293	/	1.1074	1.1039	/
Highest	6	0	1.302	1.281	/	1.1016	1.0978	/
Channel Bandwidth: 3 MHz								
Lowest	15	0	3.081	3.121	/	2.7142	2.7170	/
Middle	15	0	3.089	3.134	/	2.7155	2.7069	/
Highest	15	0	3.052	3.049	/	2.7166	2.7175	/
Channel Bandwidth: 5 MHz								
Lowest	25	0	5.312	5.316	/	4.5425	4.5327	/
Middle	25	0	5.241	5.353	/	4.5278	4.5587	/
Highest	25	0	5.428	5.469	/	4.5292	4.5676	/
Channel Bandwidth: 10 MHz								
Lowest	50	0	10.07	10.56	/	9.0261	9.0203	/
Middle	50	0	10.01	10.18	/	8.9906	9.0092	/
Highest	50	0	10.13	10.17	/	9.0148	9.0010	/
Channel Bandwidth: 15 MHz								
Lowest	75	0	15.74	14.93	/	13.518	13.503	/
Middle	75	0	15.41	15.12	/	13.507	13.481	/
Highest	75	0	15.45	15.33	/	13.470	13.530	/
Channel Bandwidth: 20 MHz								
Lowest	100	0	20.08	20.15	/	18.015	18.002	/
Middle	100	0	20.25	20.13	/	18.027	18.027	/
Highest	100	0	20.23	20.39	/	18.052	18.118	/



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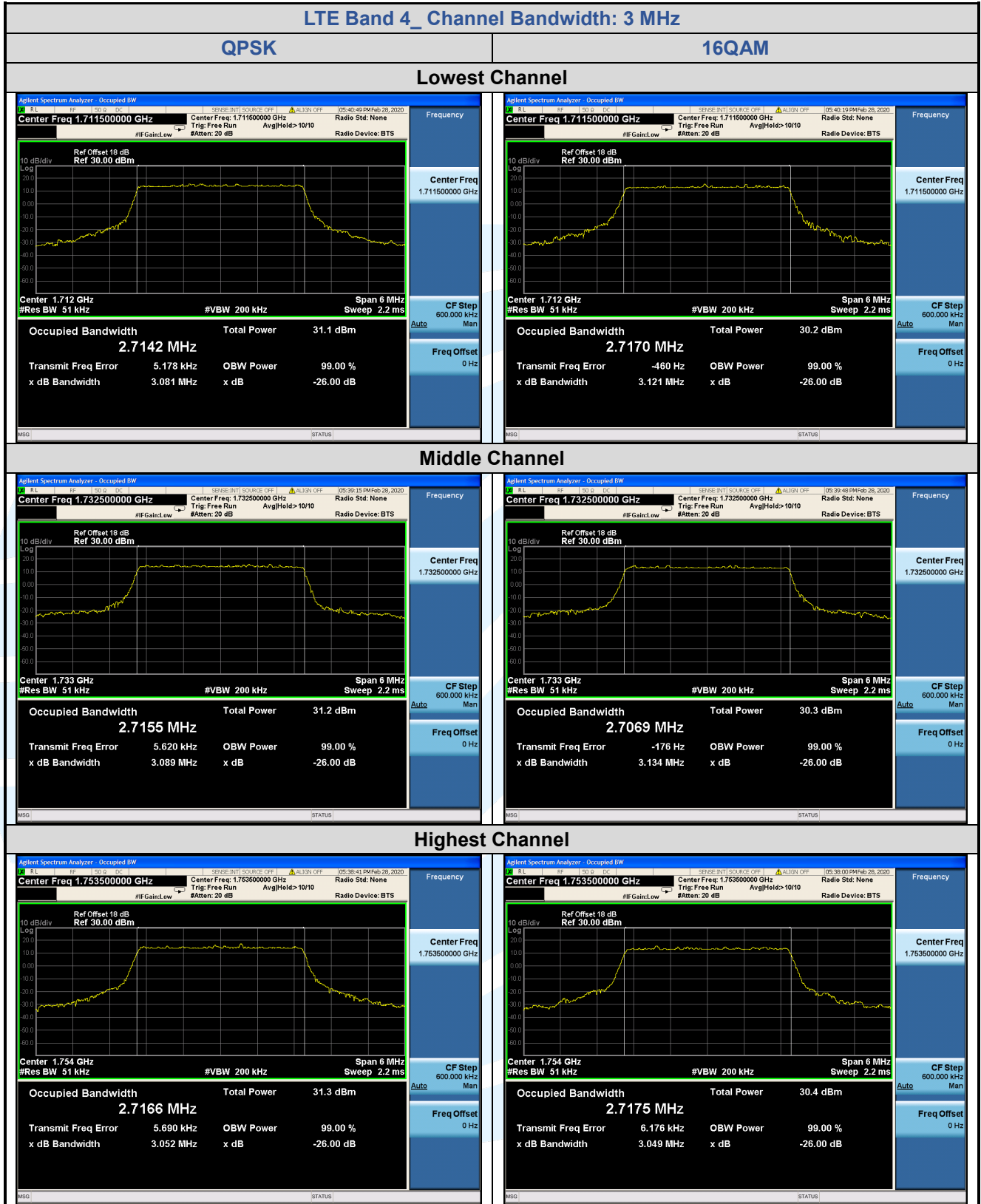
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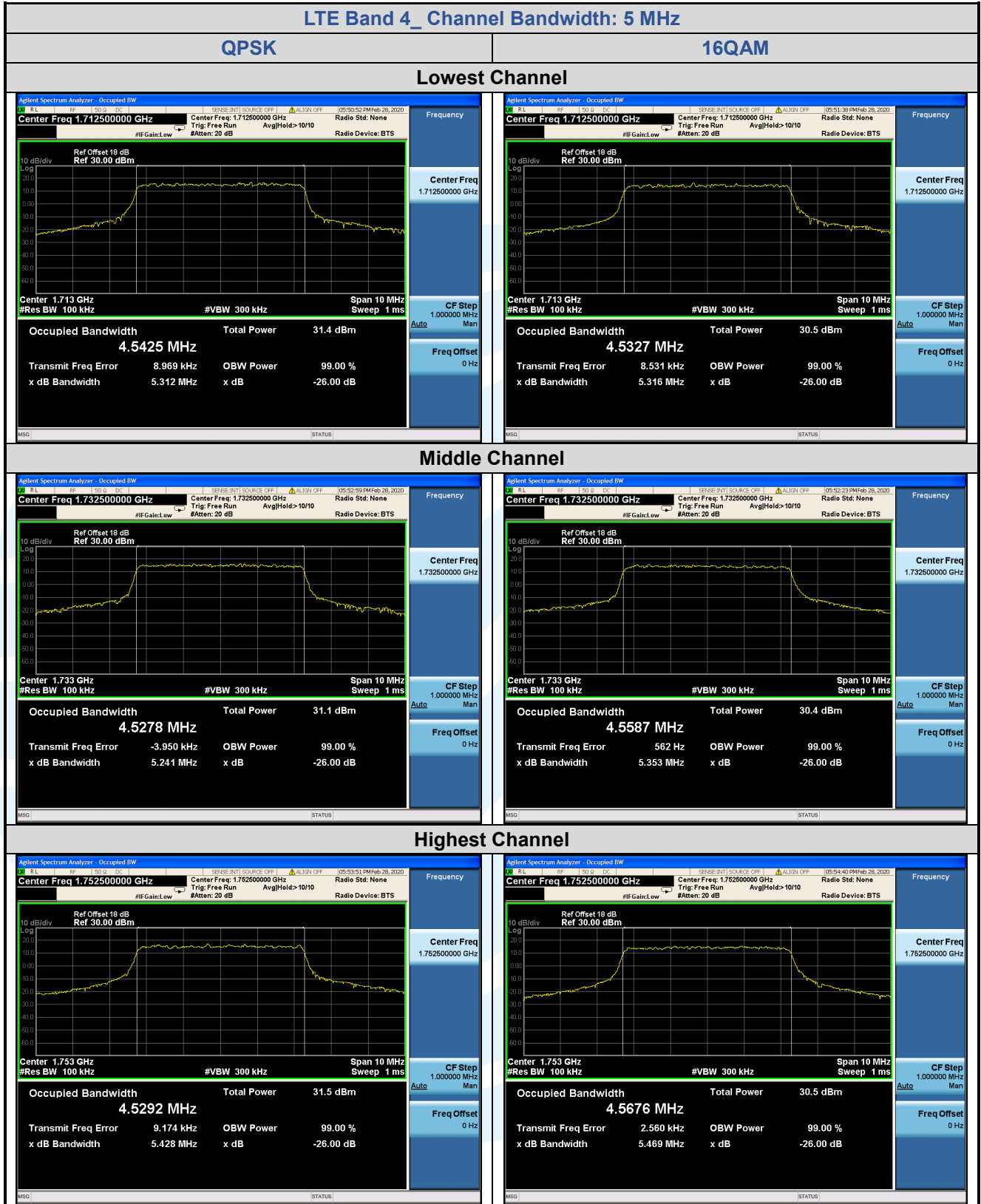
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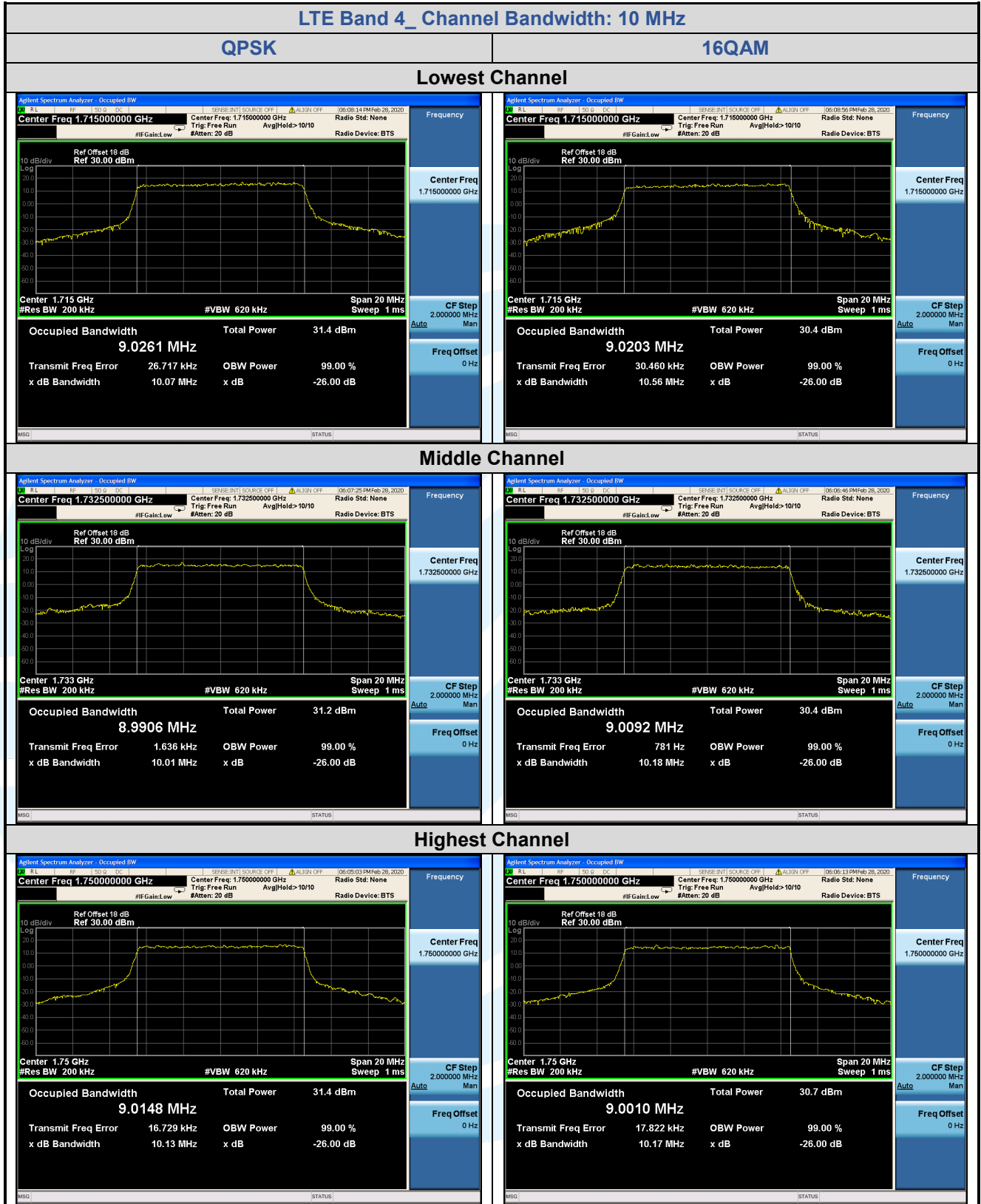
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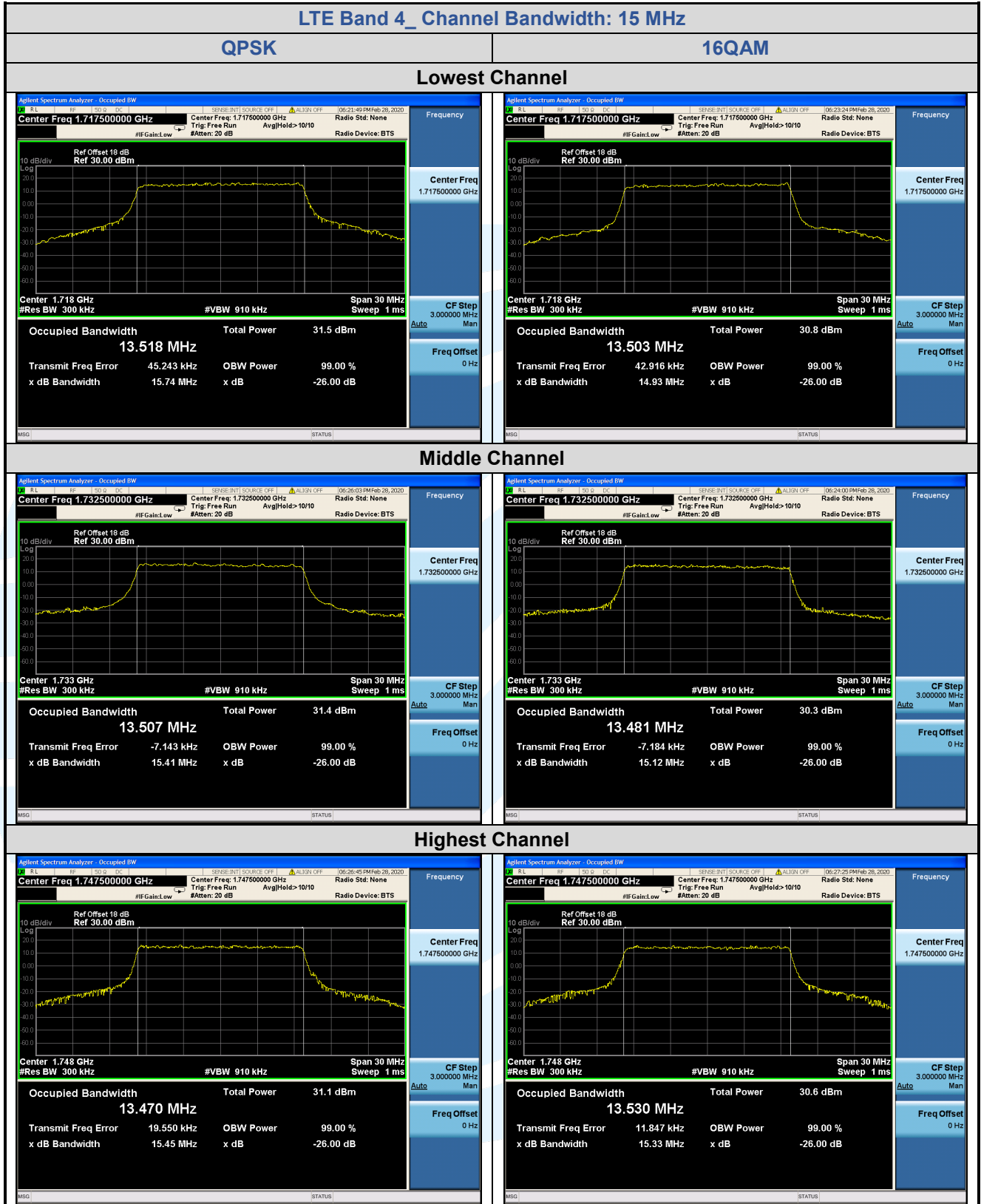
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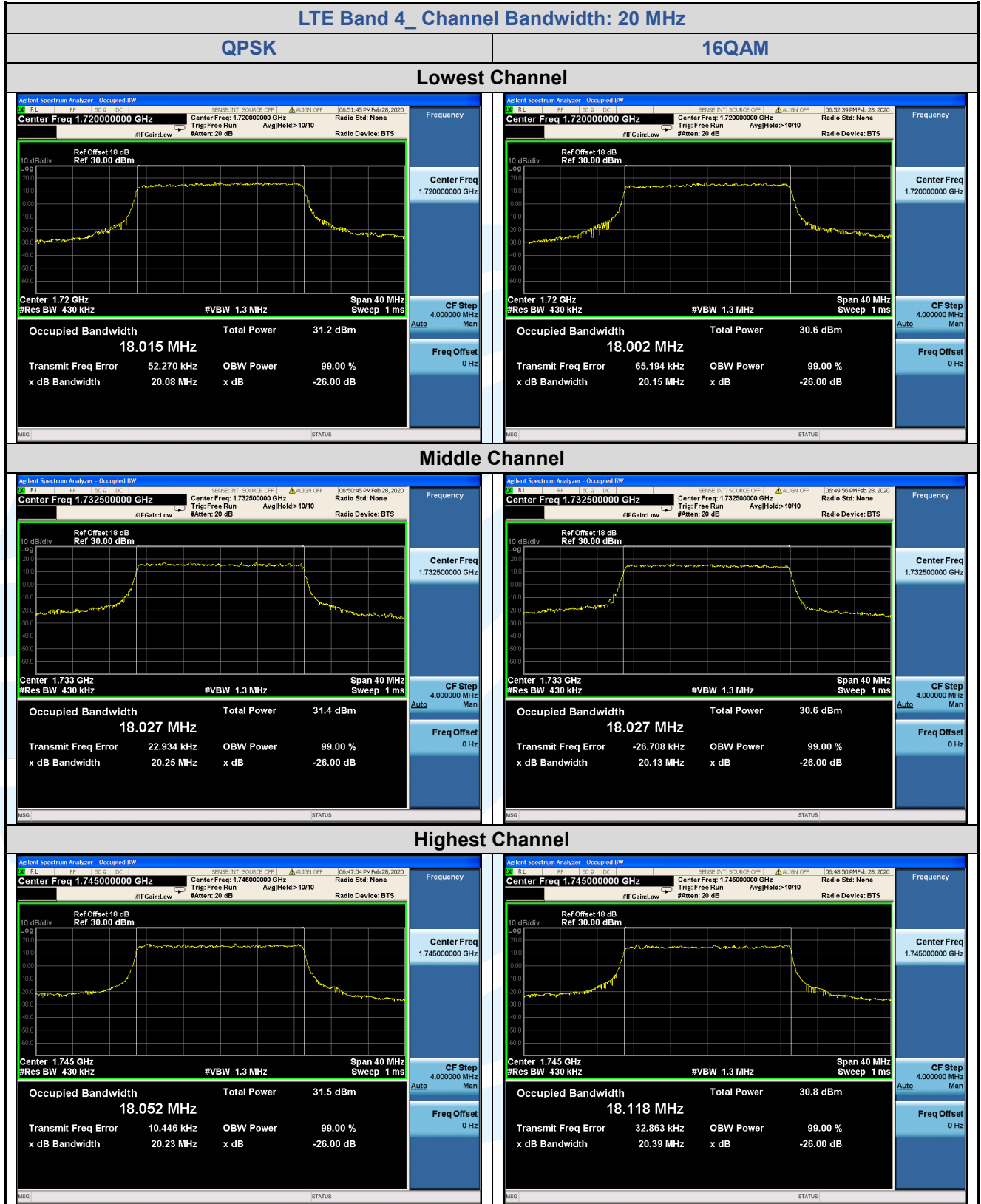
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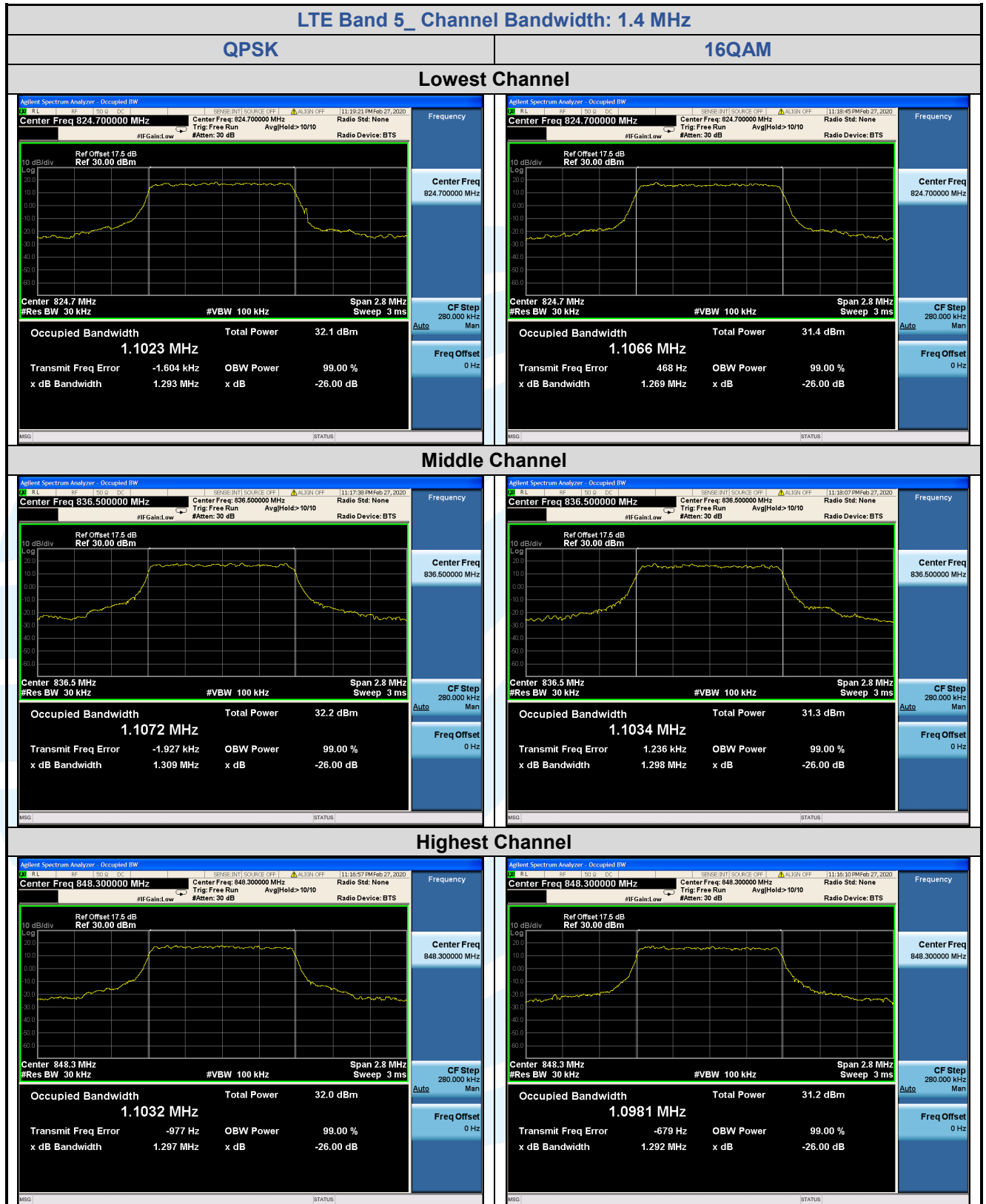
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5.5.3 LTE Band 5

LTE Band 5								
Channel	RB Configuration		26 dB BW (MHz)			99% BW (MHz)		
	Size	Offset	QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
Channel Bandwidth: 1.4 MHz								
Lowest	6	0	1.293	1.269	/	1.1023	1.1066	/
Middle	6	0	1.309	1.298	/	1.1072	1.1034	/
Highest	6	0	1.297	1.292	/	1.1032	1.0981	/
Channel Bandwidth: 3 MHz								
Lowest	15	0	3.076	3.061	/	2.7144	2.7183	/
Middle	15	0	3.084	3.143	/	2.7198	2.7098	/
Highest	15	0	3.053	3.139	/	2.7116	2.7151	/
Channel Bandwidth: 5 MHz								
Lowest	25	0	5.447	5.372	/	4.5205	4.5519	/
Middle	25	0	5.264	5.331	/	4.5263	4.5544	/
Highest	25	0	5.323	5.310	/	4.5359	4.5328	/
Channel Bandwidth: 10 MHz								
Lowest	50	0	10.11	10.11	/	8.9902	8.9776	/
Middle	50	0	10.05	10.15	/	8.9982	9.0140	/
Highest	50	0	10.08	10.54	/	9.0062	9.0143	/



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