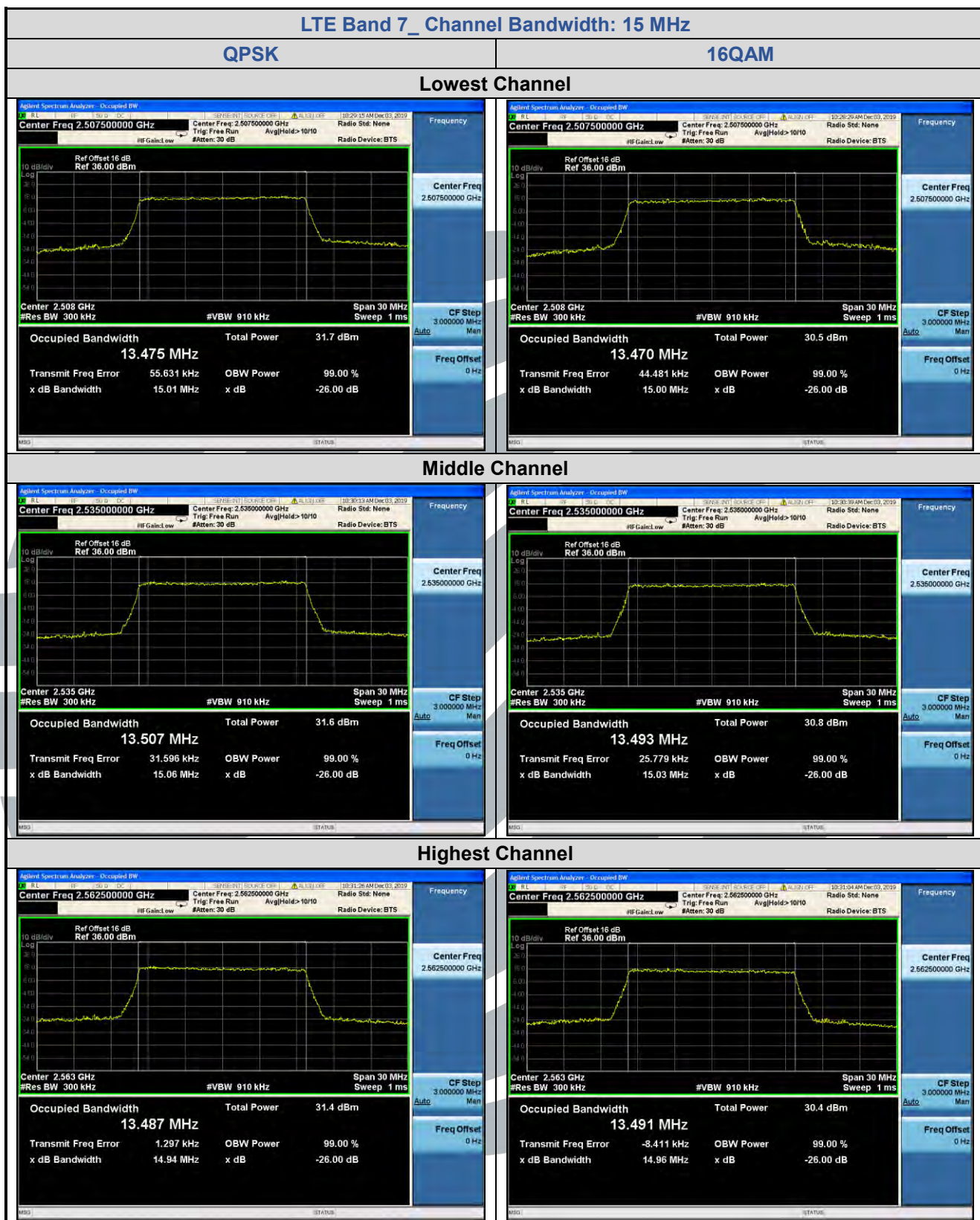








LTE Band 7_Channel Bandwidth: 20 MHz

QPSK

16QAM

Lowest Channel



Middle Channel

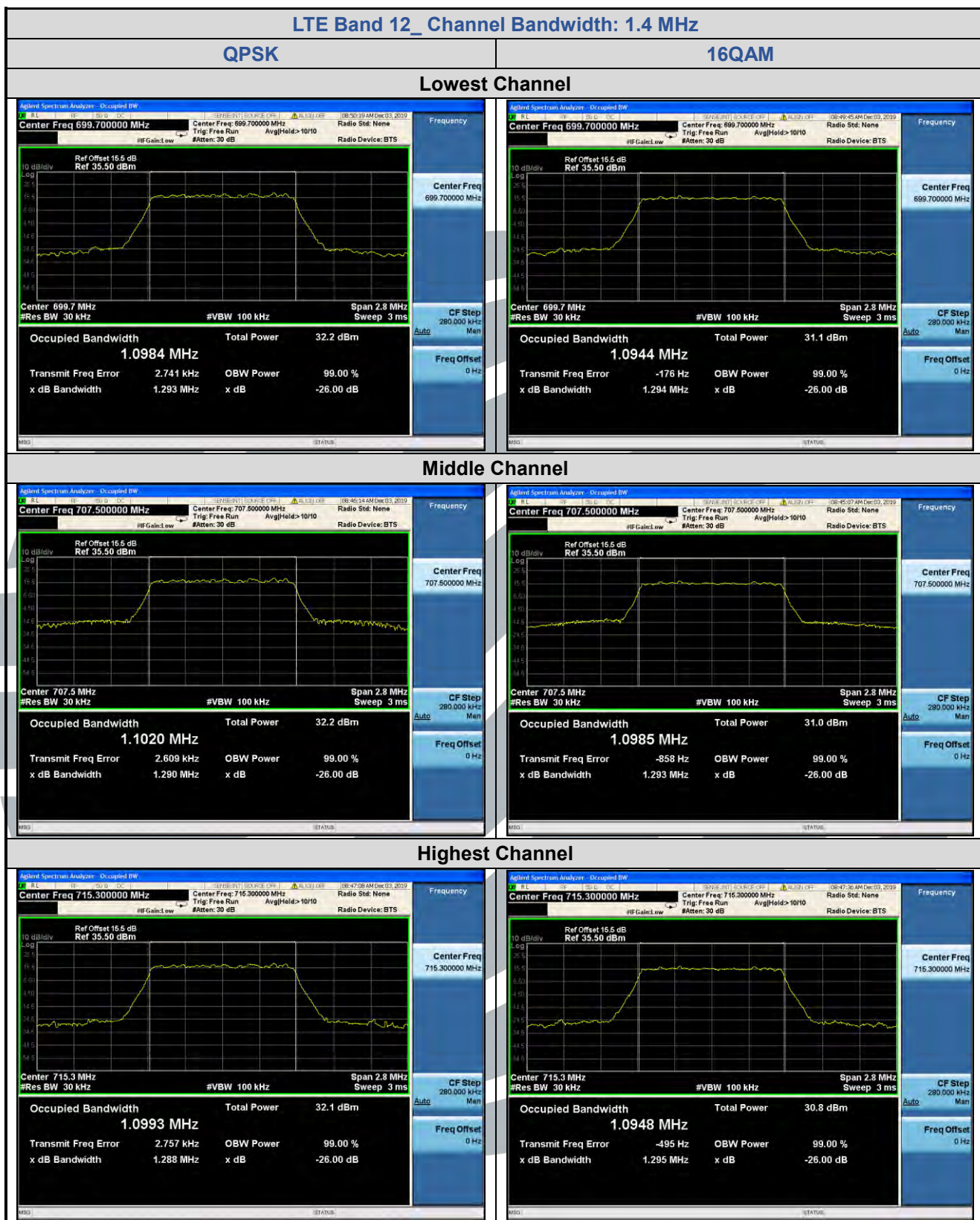


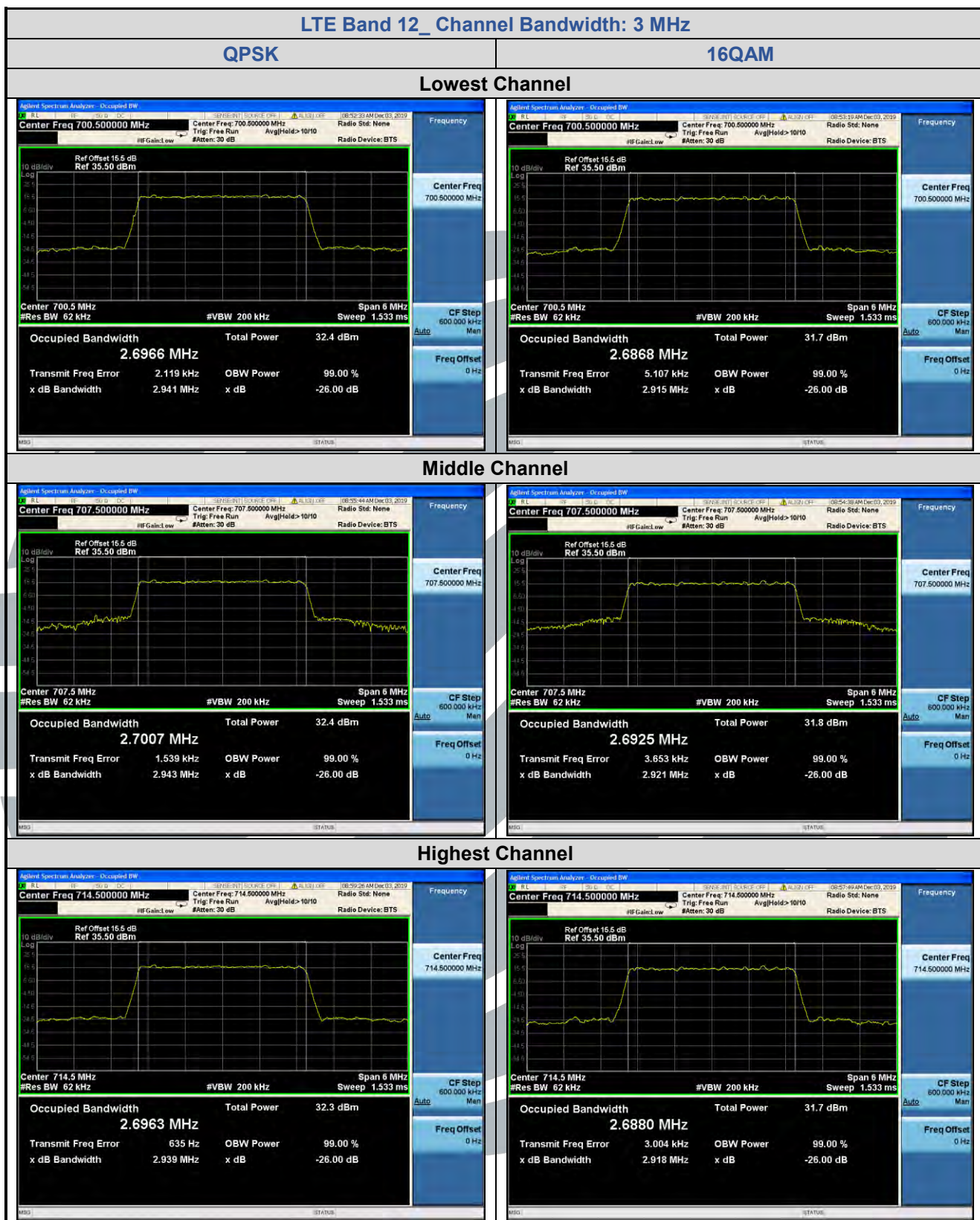
Highest Channel



5.5.5 LTE Band 12

LTE Band 12								
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	1.294	/	1.098	1.094	/
Middle	6	0	1.290	1.293	/	1.102	1.099	/
Highest	6	0	1.288	1.295	/	1.099	1.095	/
Channel Bandwidth: 3 MHz								
Lowest	15	0	2.941	2.915	/	2.697	2.687	/
Middle	15	0	2.943	2.921	/	2.701	2.693	/
Highest	15	0	2.939	2.918	/	2.696	2.688	/
Channel Bandwidth: 5 MHz								
Lowest	25	0	5.191	5.105	/	4.524	4.502	/
Middle	25	0	5.087	5.111	/	4.521	4.506	/
Highest	25	0	5.161	5.133	/	4.526	4.502	/
Channel Bandwidth: 10 MHz								
Lowest	50	0	10.12	10.11	/	9.00	9.00	/
Middle	50	0	10.17	10.08	/	9.00	8.99	/
Highest	50	0	10.16	10.07	/	9.00	9.00	/



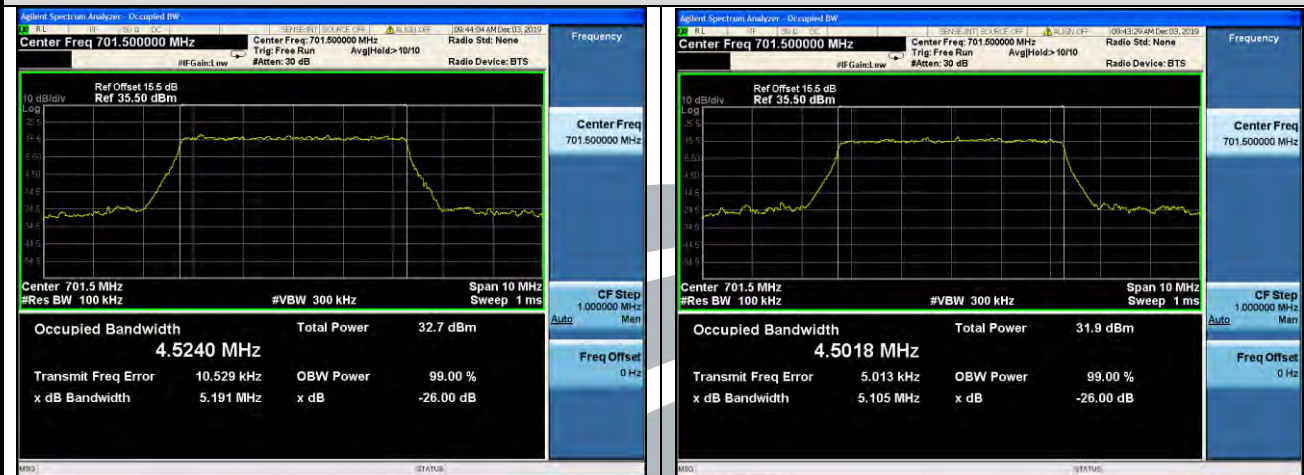


LTE Band 12_ Channel Bandwidth: 5 MHz

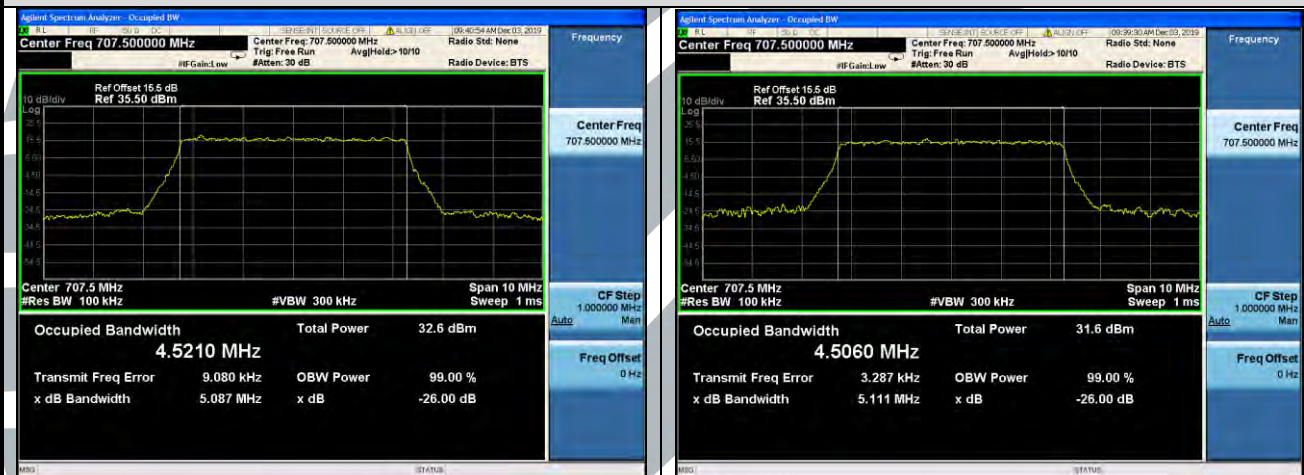
QPSK

16QAM

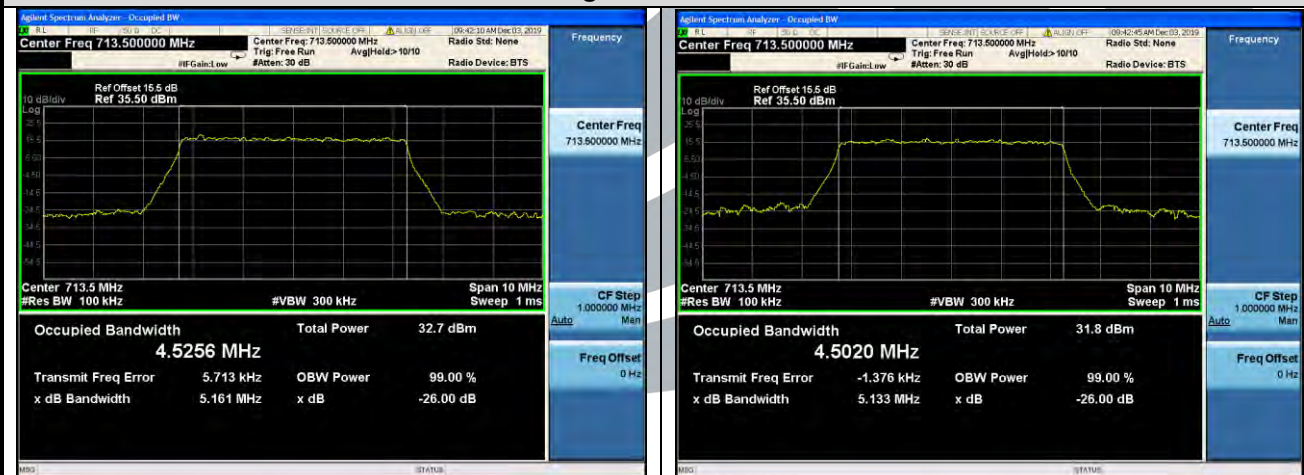
Lowest Channel

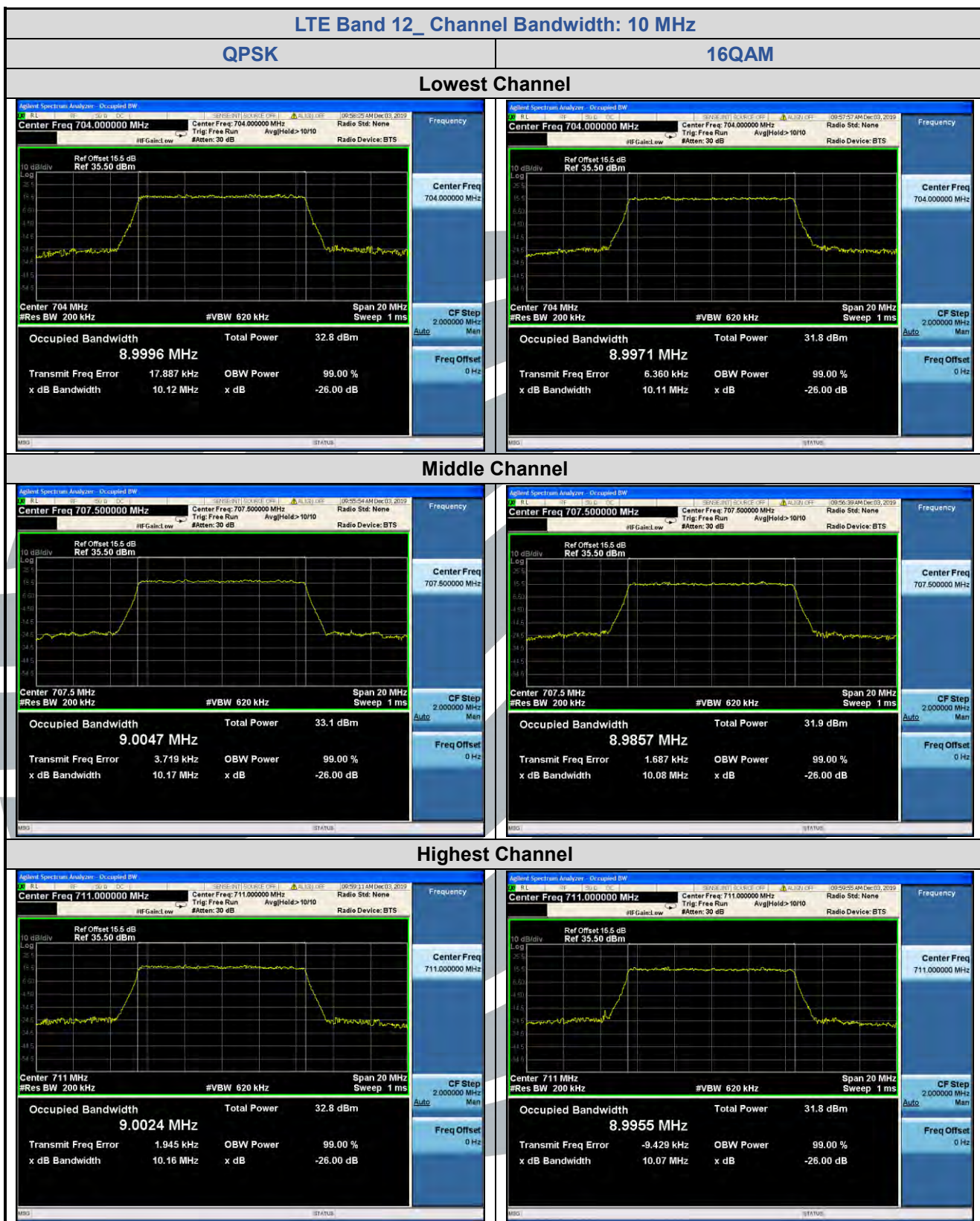


Middle Channel



Highest Channel





5.5.6 LTE Band 17

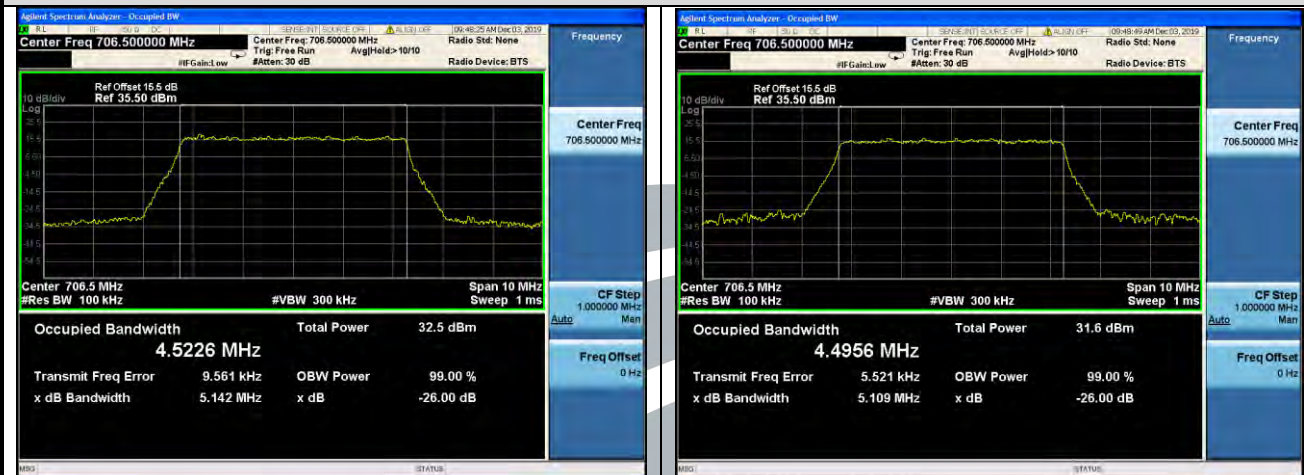
LTE Band 17								
Channel	RB Configuration		26 dB BW (MHz)			99% BW (MHz)		
	Size	Offset	QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
Channel Bandwidth: 5 MHz								
Lowest	25	0	5.142	5.109	/	4.523	4.496	/
Middle	25	0	5.162	5.081	/	4.522	4.502	/
Highest	25	0	5.116	5.061	/	4.525	4.509	/
Channel Bandwidth: 10 MHz								
Lowest	50	0	10.11	10.18	/	9.00	8.97	/
Middle	50	0	10.17	10.09	/	9.00	9.00	/
Highest	50	0	10.11	10.09	/	8.99	8.99	/

LTE Band 17_ Channel Bandwidth: 5 MHz

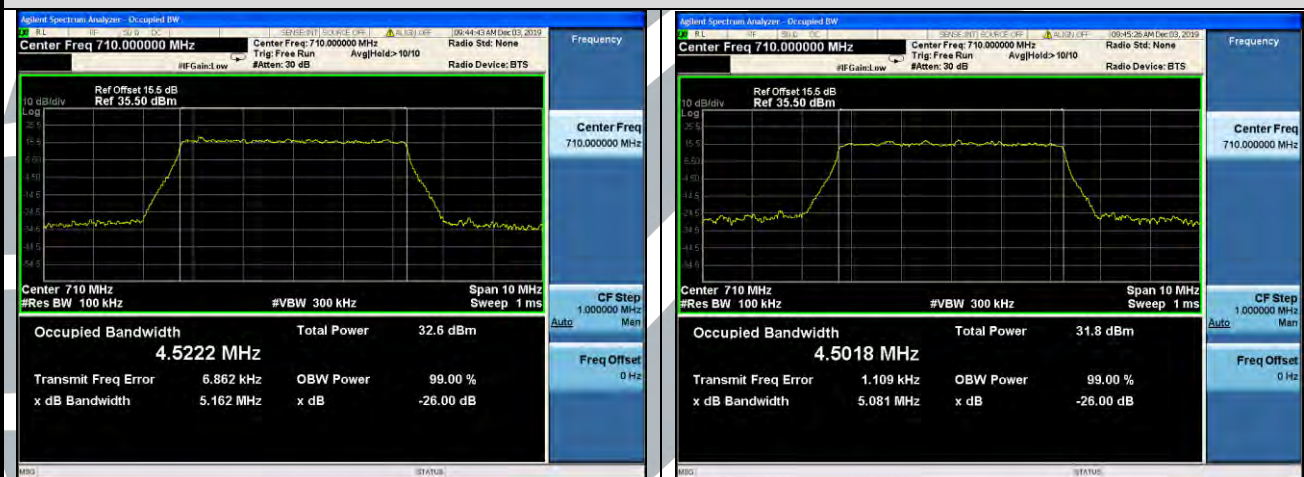
QPSK

16QAM

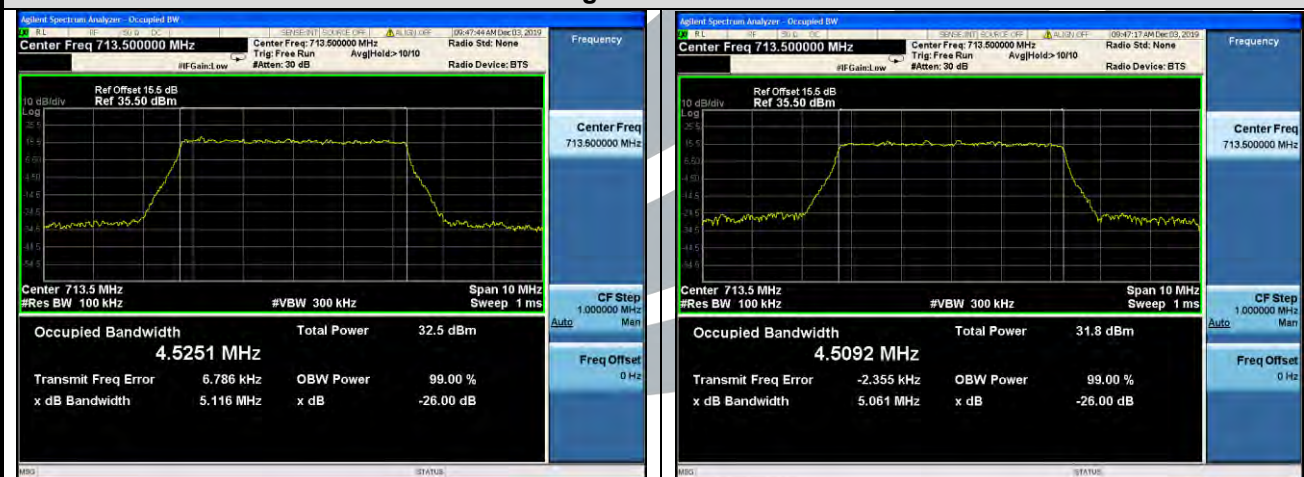
Lowest Channel

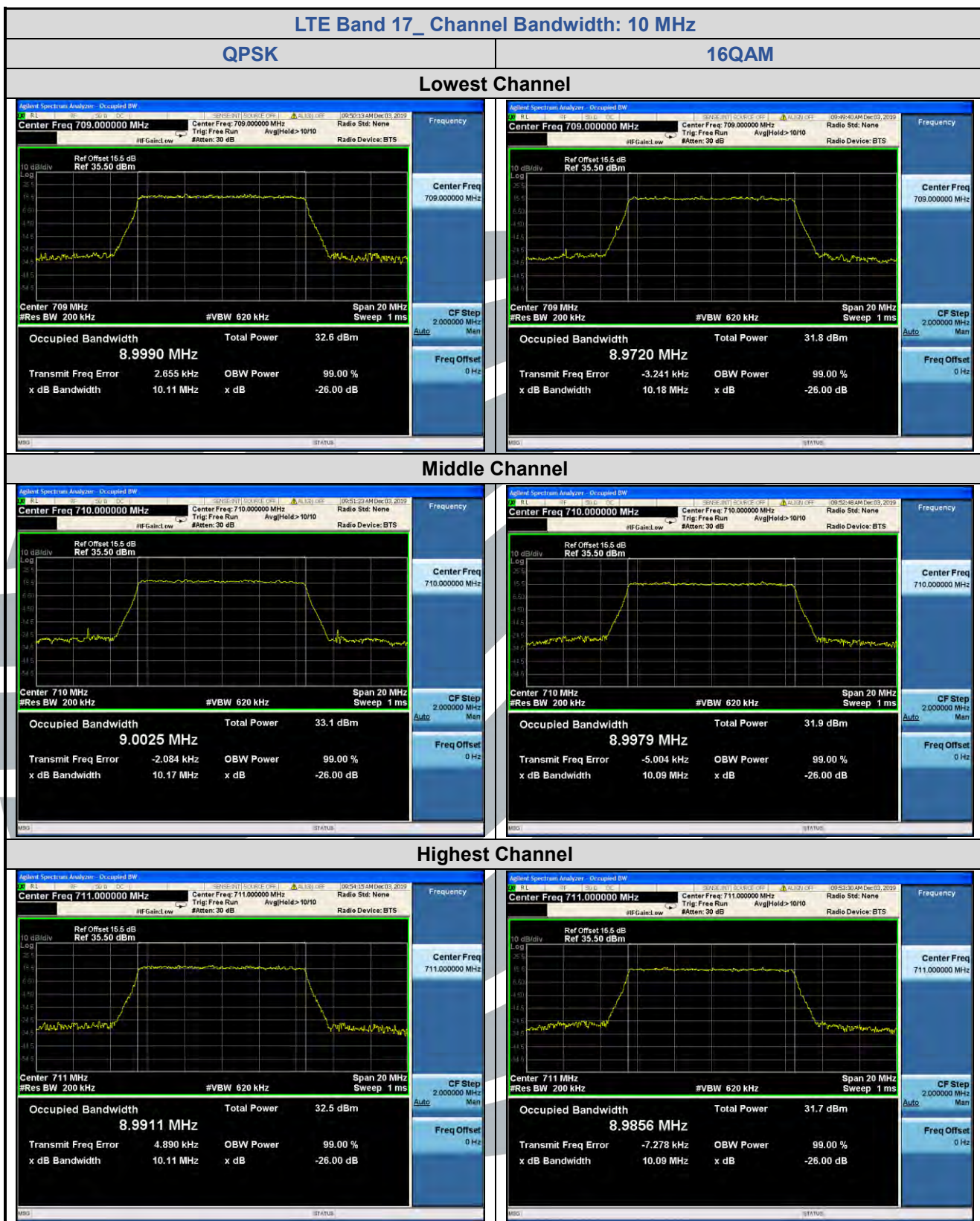


Middle Channel



Highest Channel





5.6 BAND EDGE AT ANTENNA TERMINALS

Test Requirement: LTE Band 2: FCC 47 CFR Part 24.238(a)
LTE Band 4: FCC 47 CFR Part 27.53(h)(1)
LTE Band 5: FCC 47 CFR Part 22.917(a)
LTE Band 7: FCC 47 CFR Part 27.53(m)(4)
LTE Band 12: FCC 47 CFR Part 27.53(g)
LTE Band 17: FCC 47 CFR Part 27.53(c)(2)
Test Method: ANSI C63.26-2015 & KDB 971168 D01v03r01

Limit:

FCC 47 CFR Part 24.238(a), 27.53(h)(1), 22.917(a) :

The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least $43 + 10 \log(P)$ dB. The emission limit equal to -13 dBm.

FCC 47 CFR Part 27.53(m)(4):

For mobile digital stations, the attenuation factor shall be not less than $40 + 10 \log(P)$ dB on all frequencies between the channel edge and 5 megahertz from the channel edge, $43 + 10 \log(P)$ dB on all frequencies between 5 megahertz and X megahertz from the channel edge, and $55 + 10 \log(P)$ dB on all frequencies more than X megahertz from the channel edge, where X is the greater of 6 megahertz or the actual emission bandwidth as defined in paragraph (m)(6) of this section. In addition, the attenuation factor shall not be less than $43 + 10 \log(P)$ dB on all frequencies between 2490.5 MHz and 2496 MHz and $55 + 10 \log(P)$ dB at or below 2490.5 MHz. Mobile Satellite Service licensees operating on frequencies below 2495 MHz may also submit a documented interference complaint against BRS licensees operating on channel BRS Channel 1 on the same terms and conditions as adjacent channel BRS or EBS licensees.

FCC 47 CFR Part 27.53(g):

For operations in the 600 MHz band and the 698-746 MHz band, the power of any emission outside a licensee's frequency band(s) of operation shall be attenuated below the transmitter power (P) within the licensed band(s) of operation, measured in watts, by at least $43 + 10 \log(P)$ dB. Compliance with this provision is based on the use of measurement instrumentation employing a resolution bandwidth of 100 kilohertz or greater. However, in the 100 kilohertz bands immediately outside and adjacent to a licensee's frequency block, a resolution bandwidth of at least 30 kHz may be employed.

FCC 47 CFR Part 27.53(c)(2):

On any frequency outside the 776-788 MHz band, the power of any emission shall be attenuated outside the band below the transmitter power (P) by at least $43 + 10 \log(P)$ dB;

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.

For each band edge measurement:

- 1) Set the spectrum analyzer span to include the block edge frequency.
- 2) Set a marker to point the corresponding band edge frequency in each test case.
- 3) Set display line at -13 dBm
- 4) Set resolution bandwidth to at least 1% of emission bandwidth.
- 5) Set spectrum analyzer with RMS detector.
- 6) Record the max trace plot into the test report

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

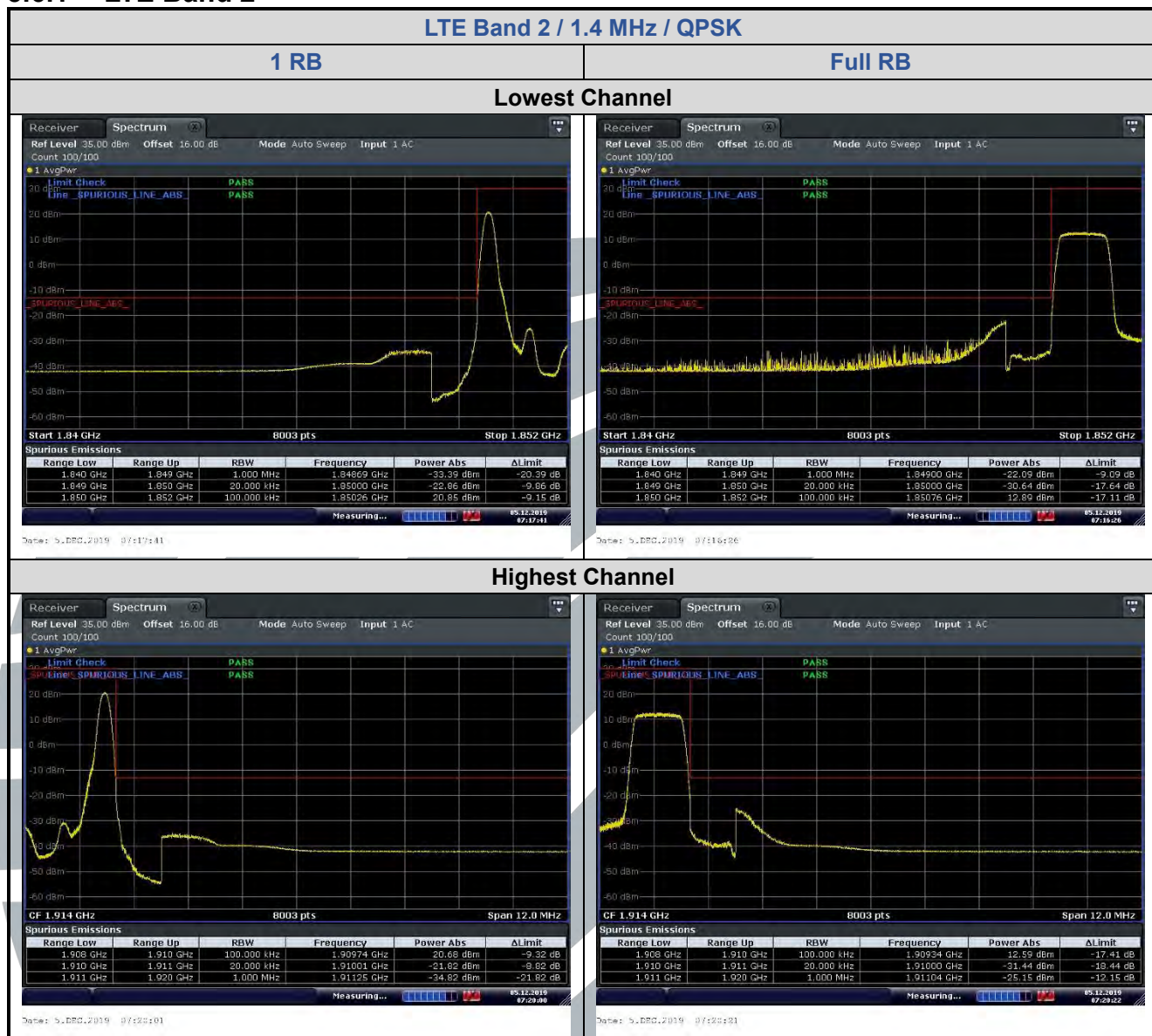
Test Setup: Refer to section 4.2.2 for details.

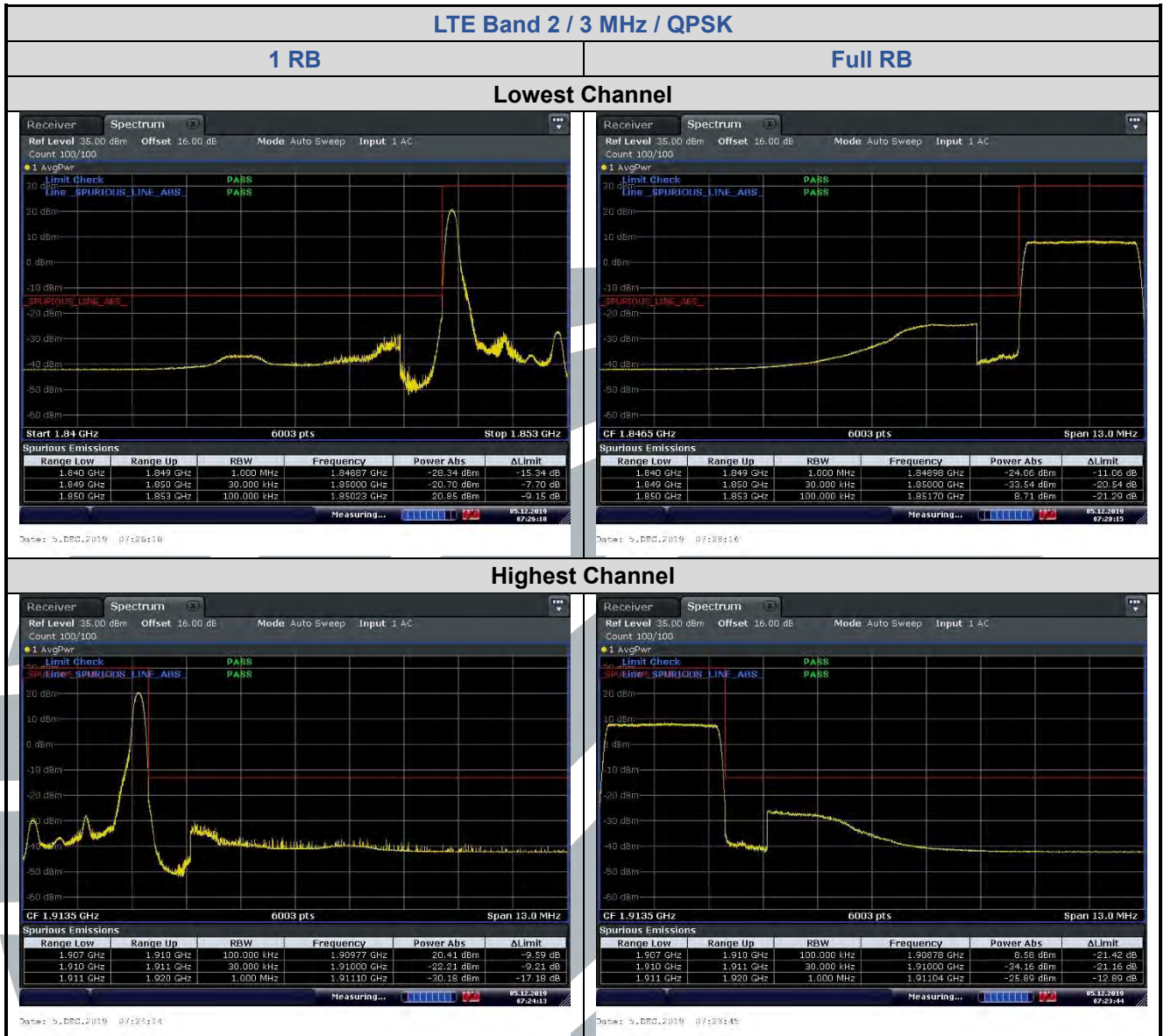
Instruments Used: Refer to section 3 for details

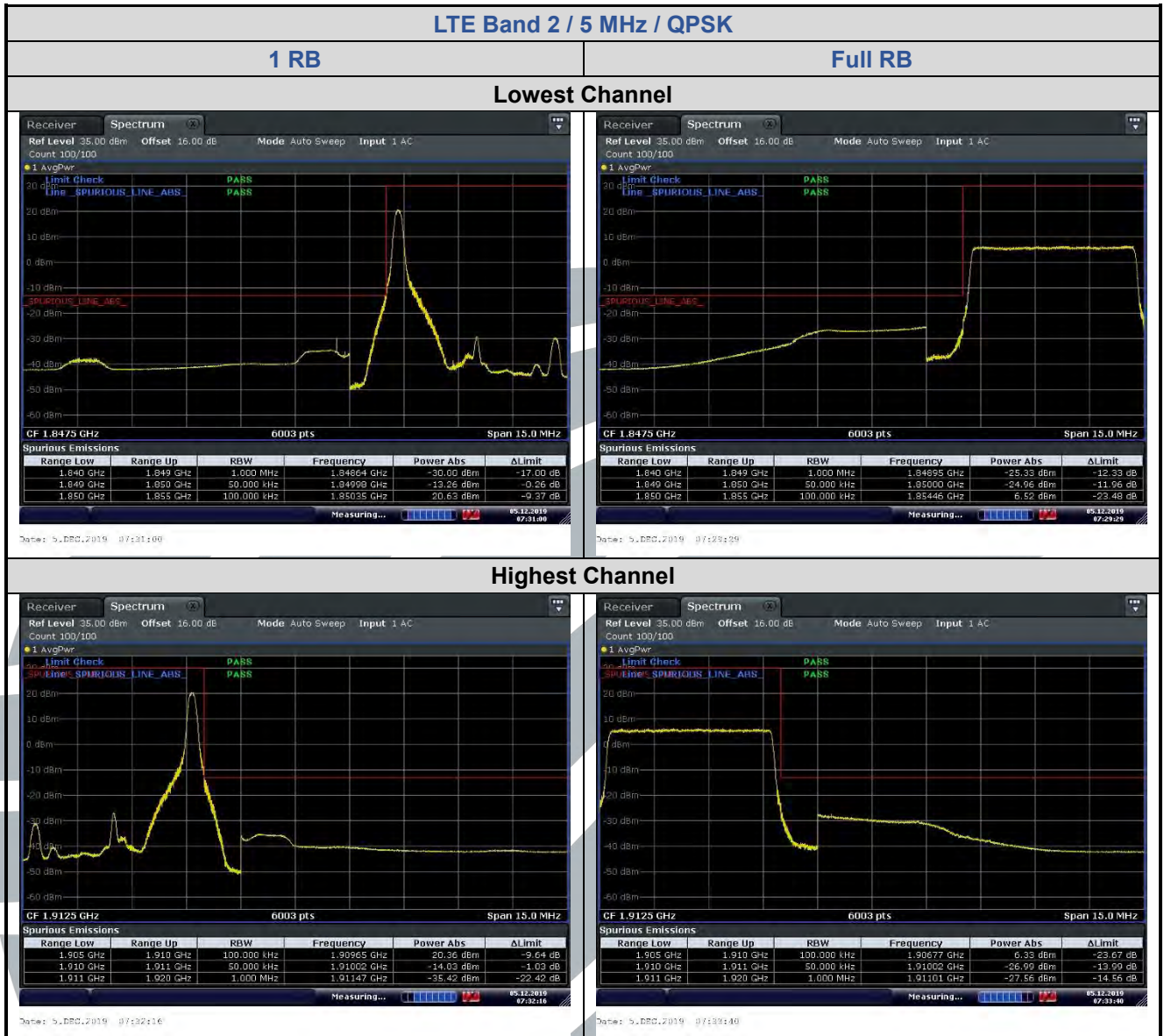
Test Mode: Link mode

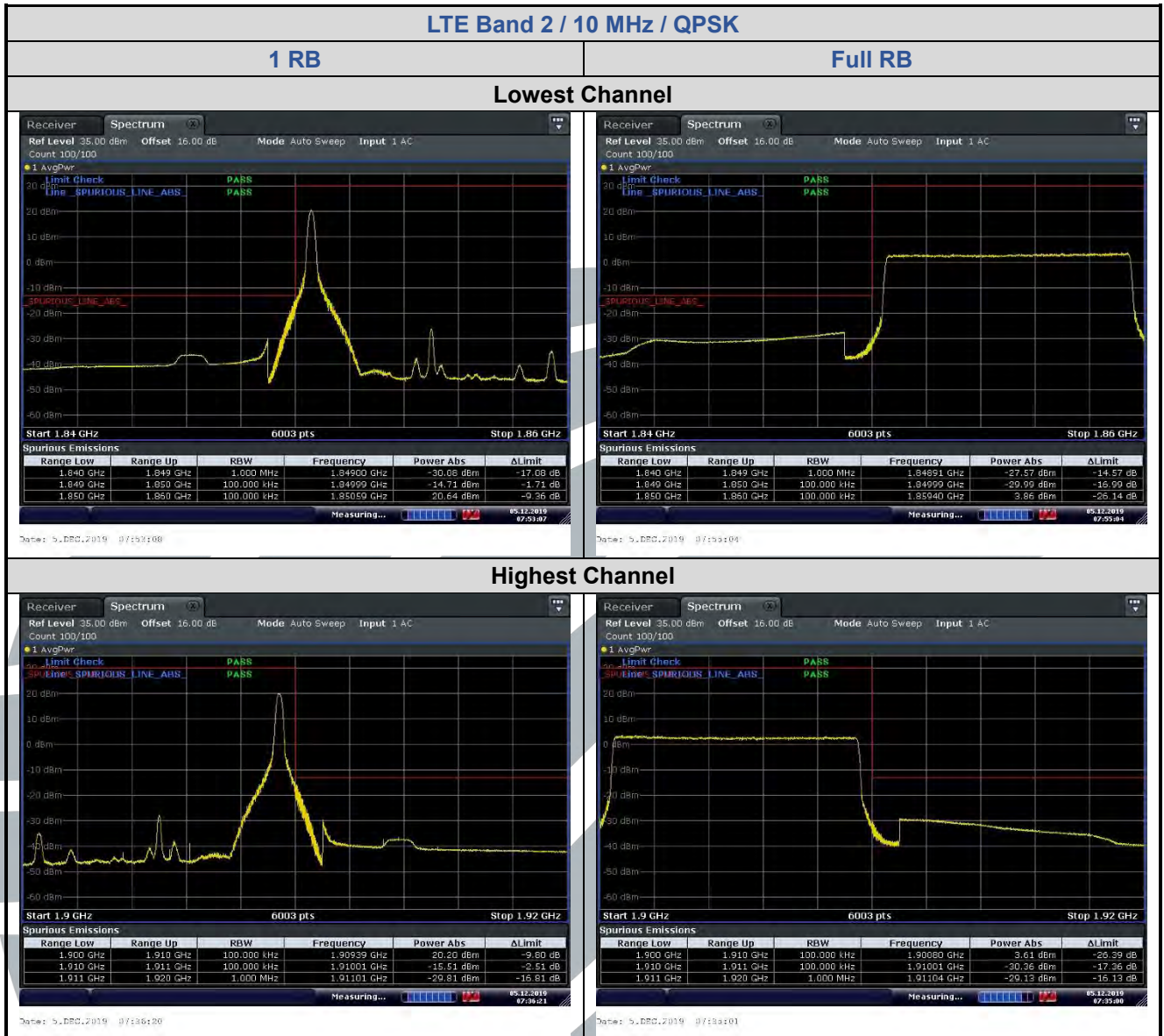
Test Results: Pass

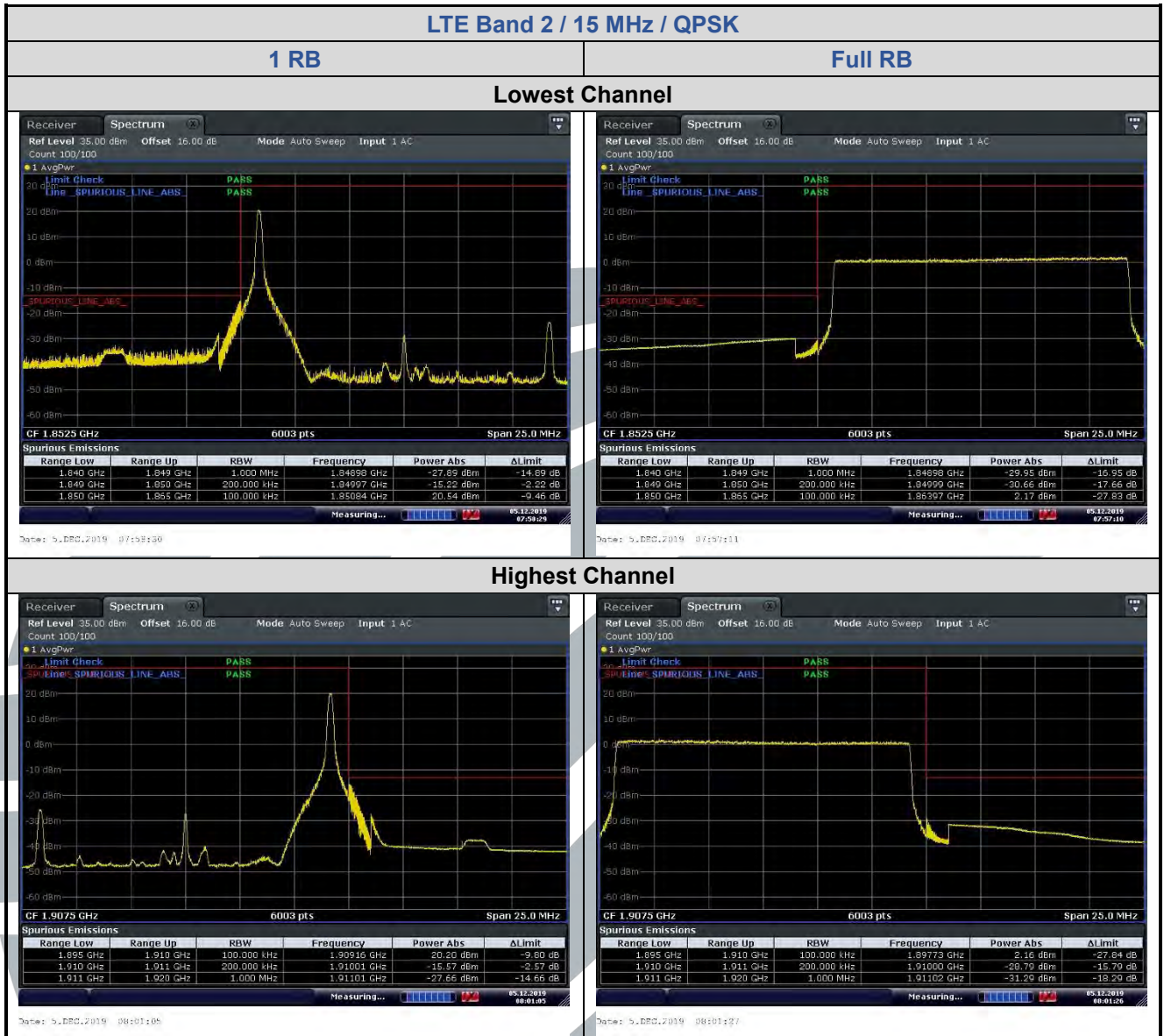
5.6.1 LTE Band 2

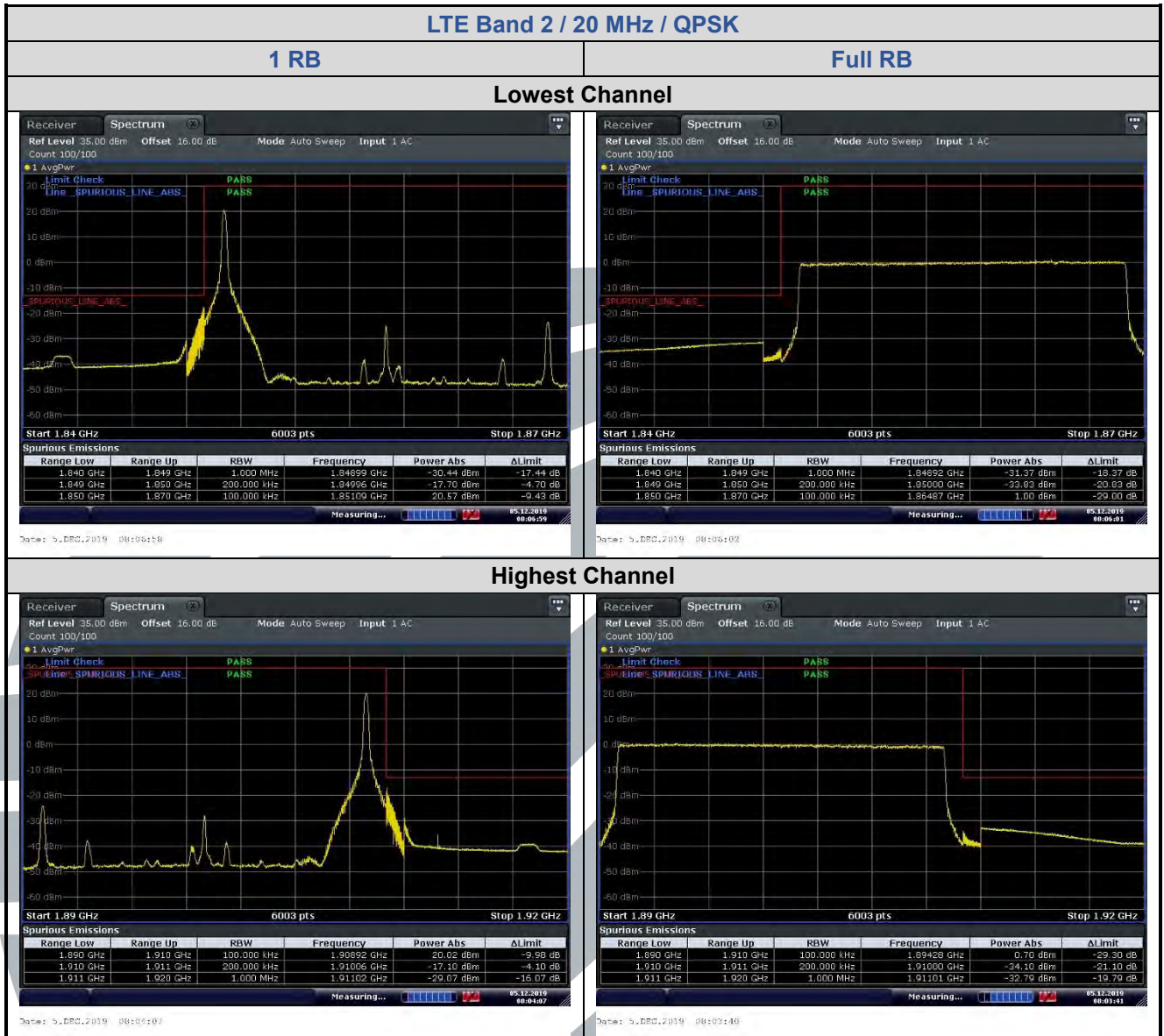


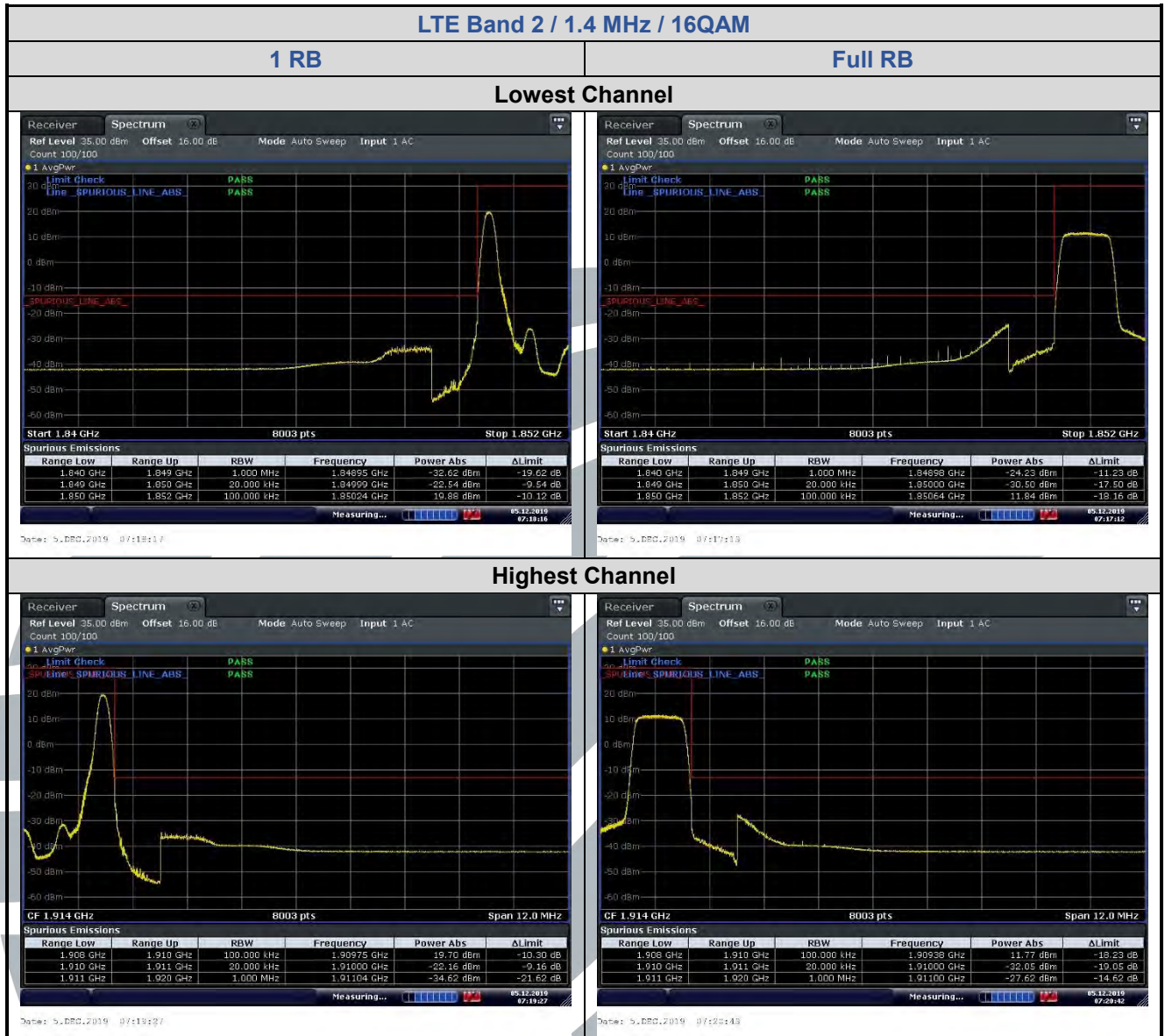


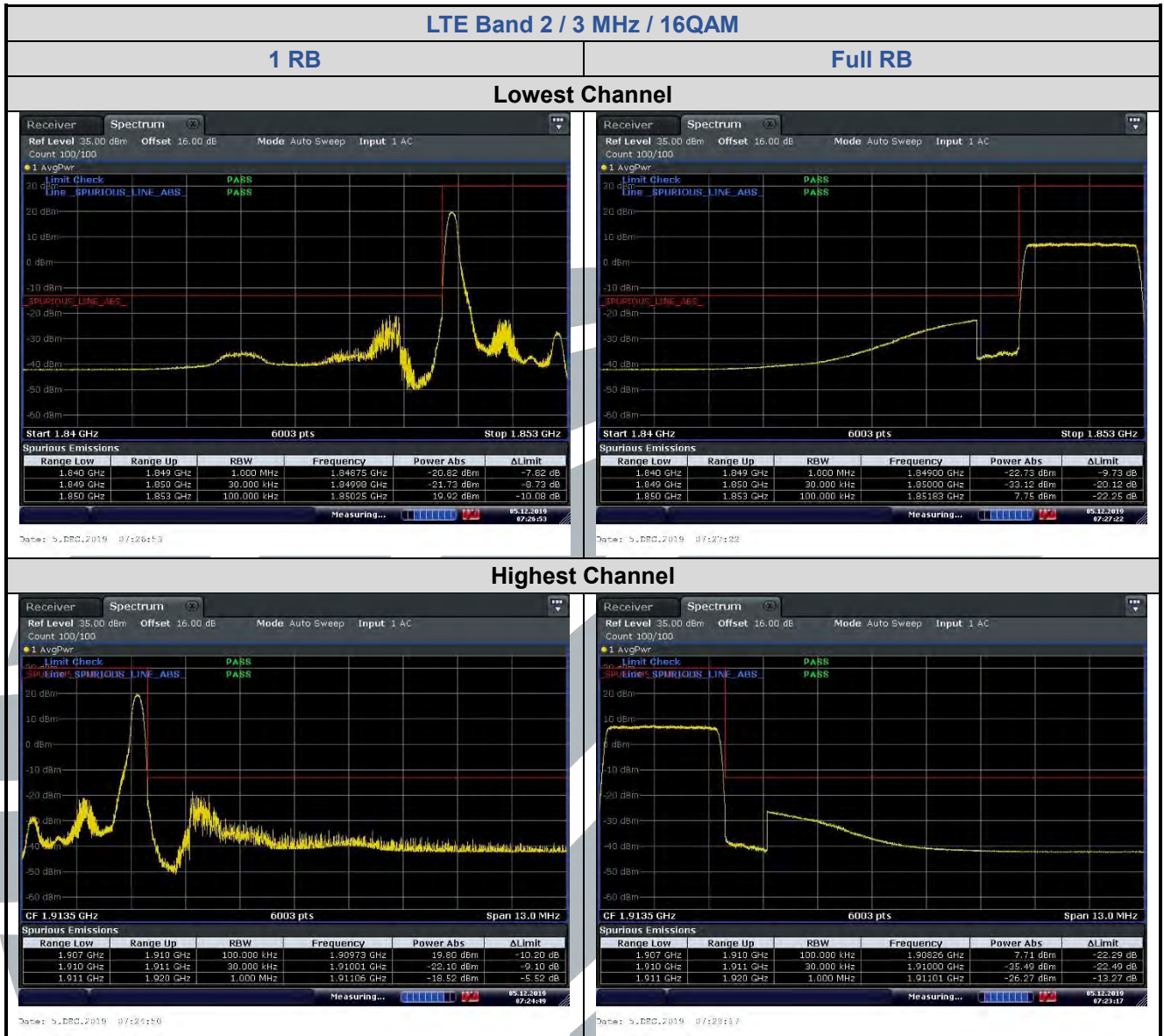


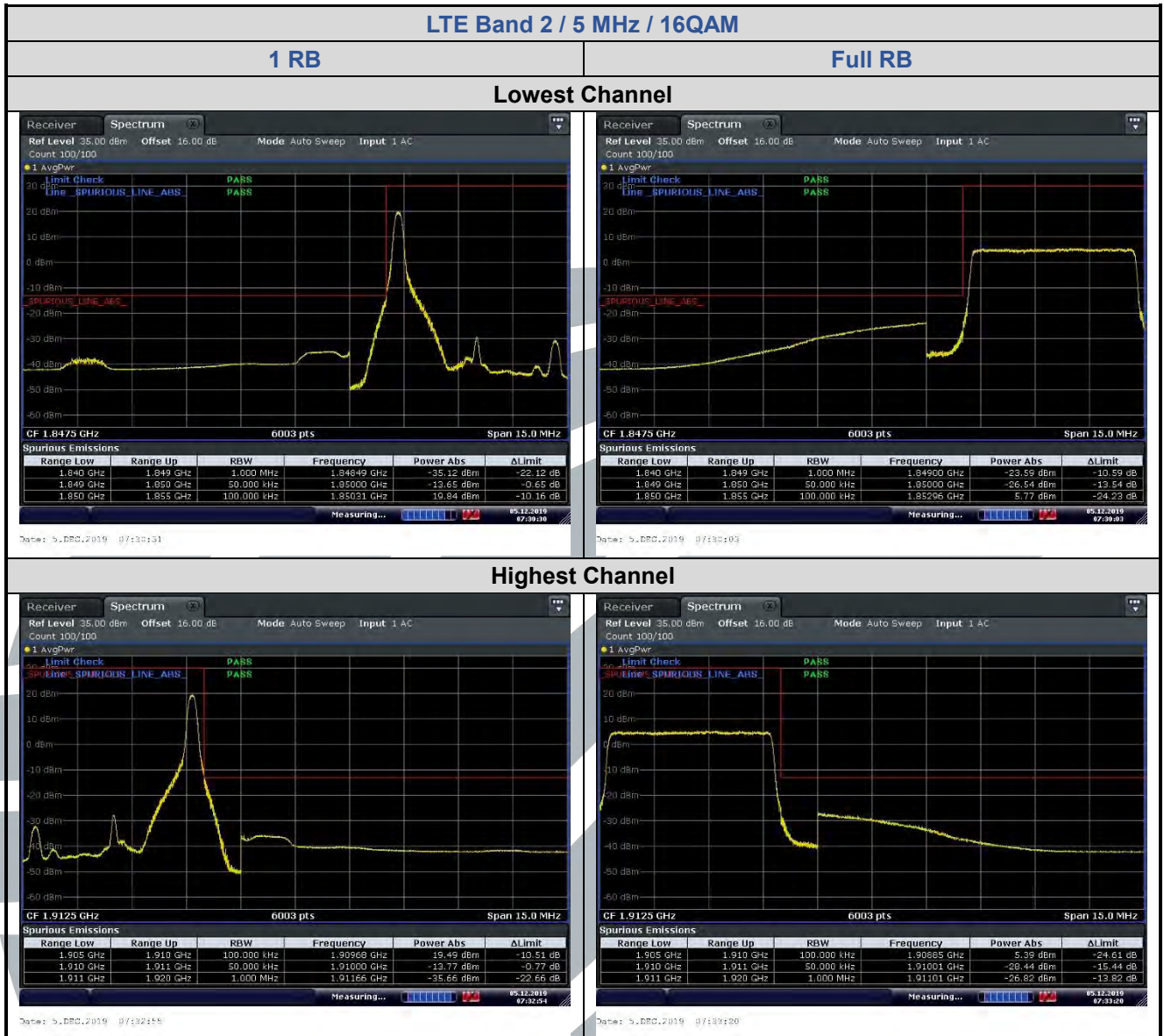


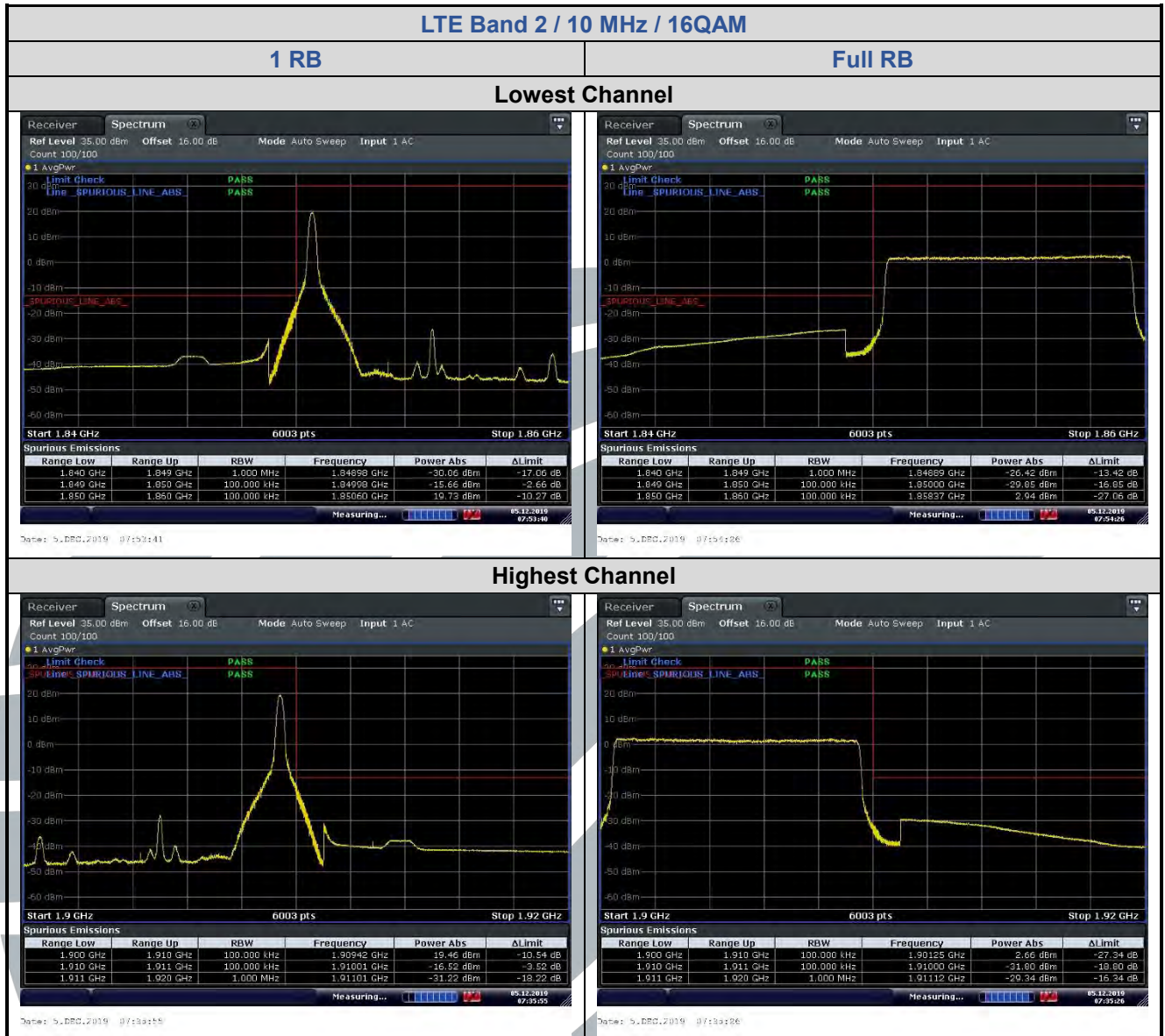


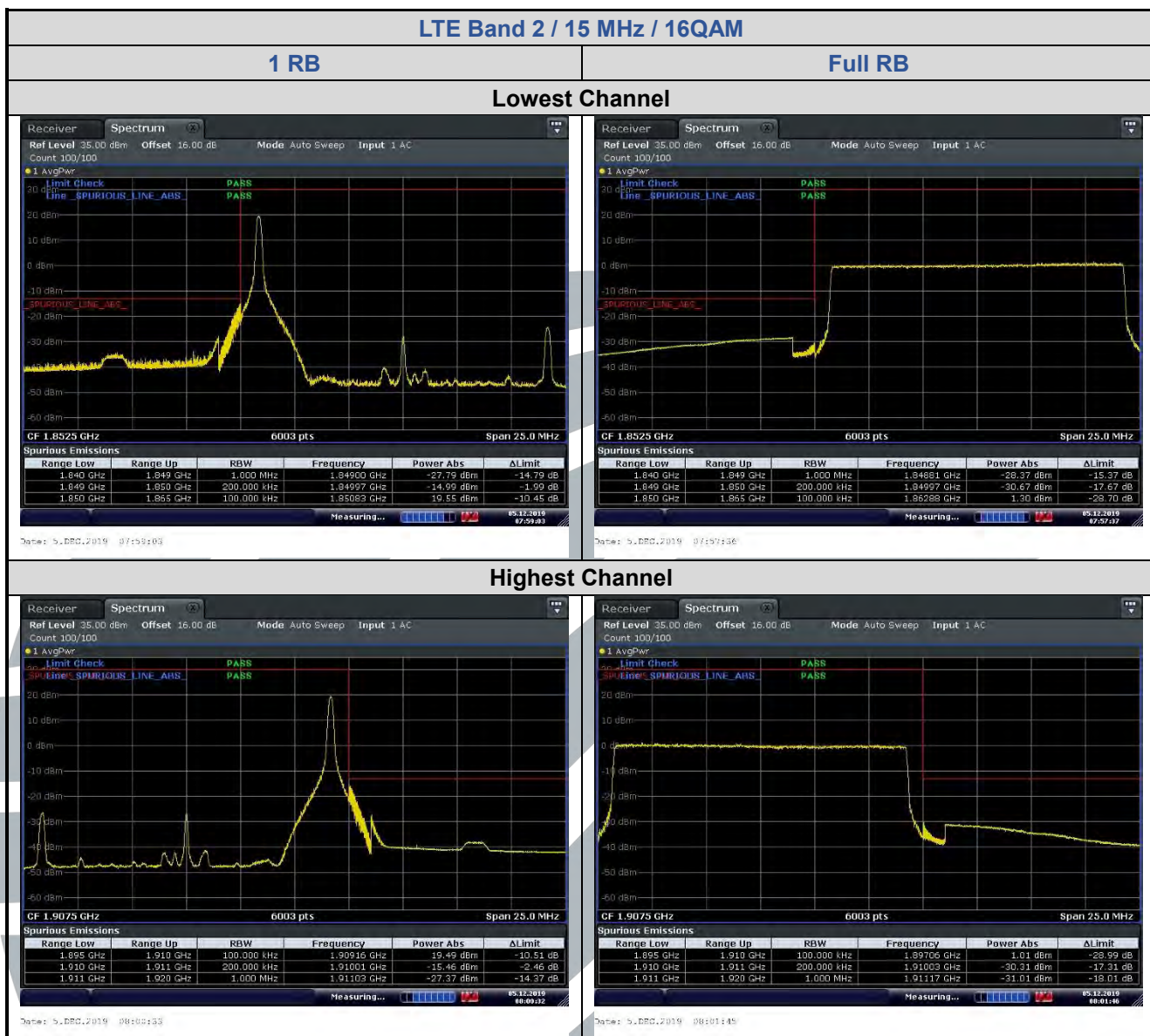


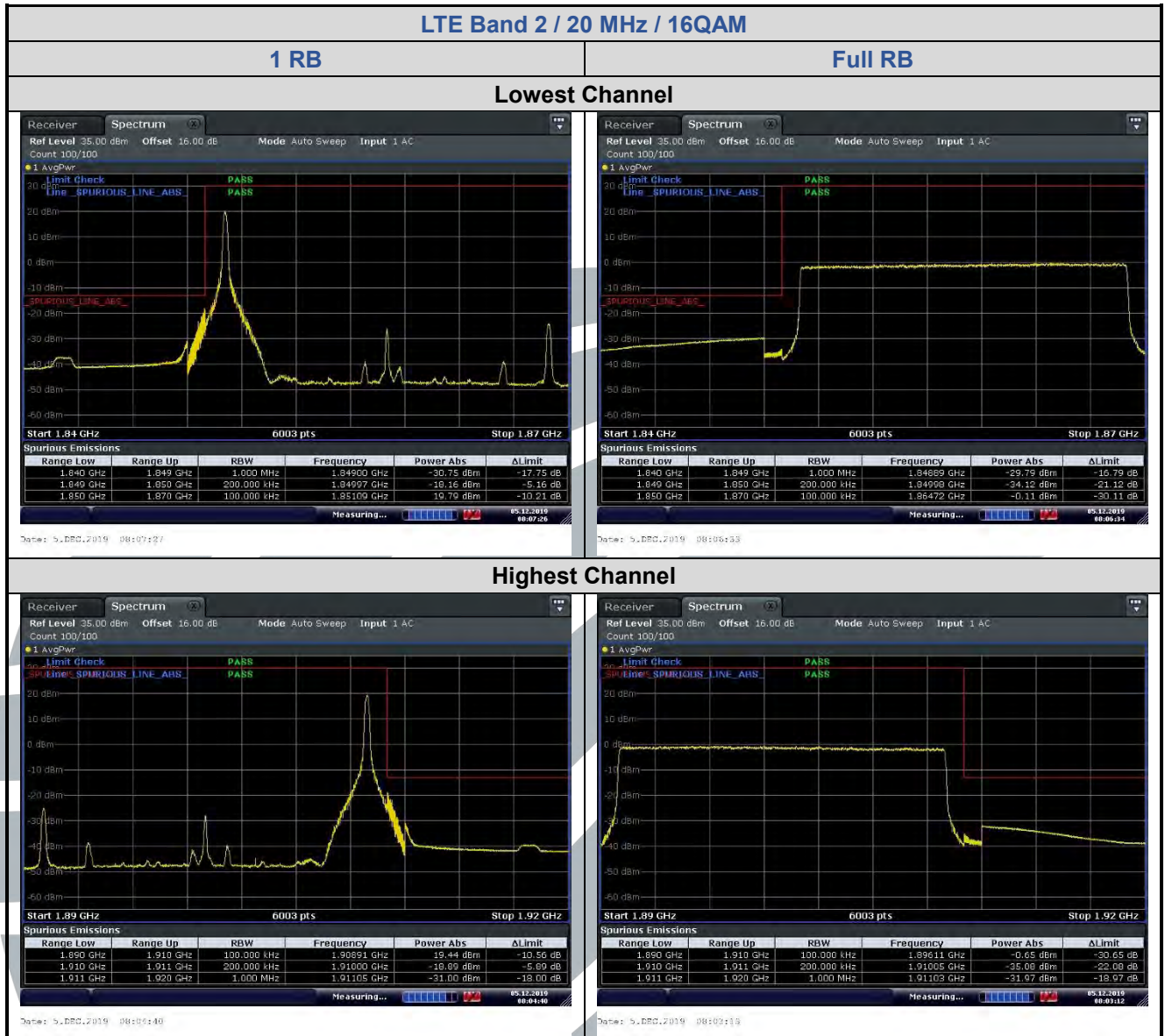




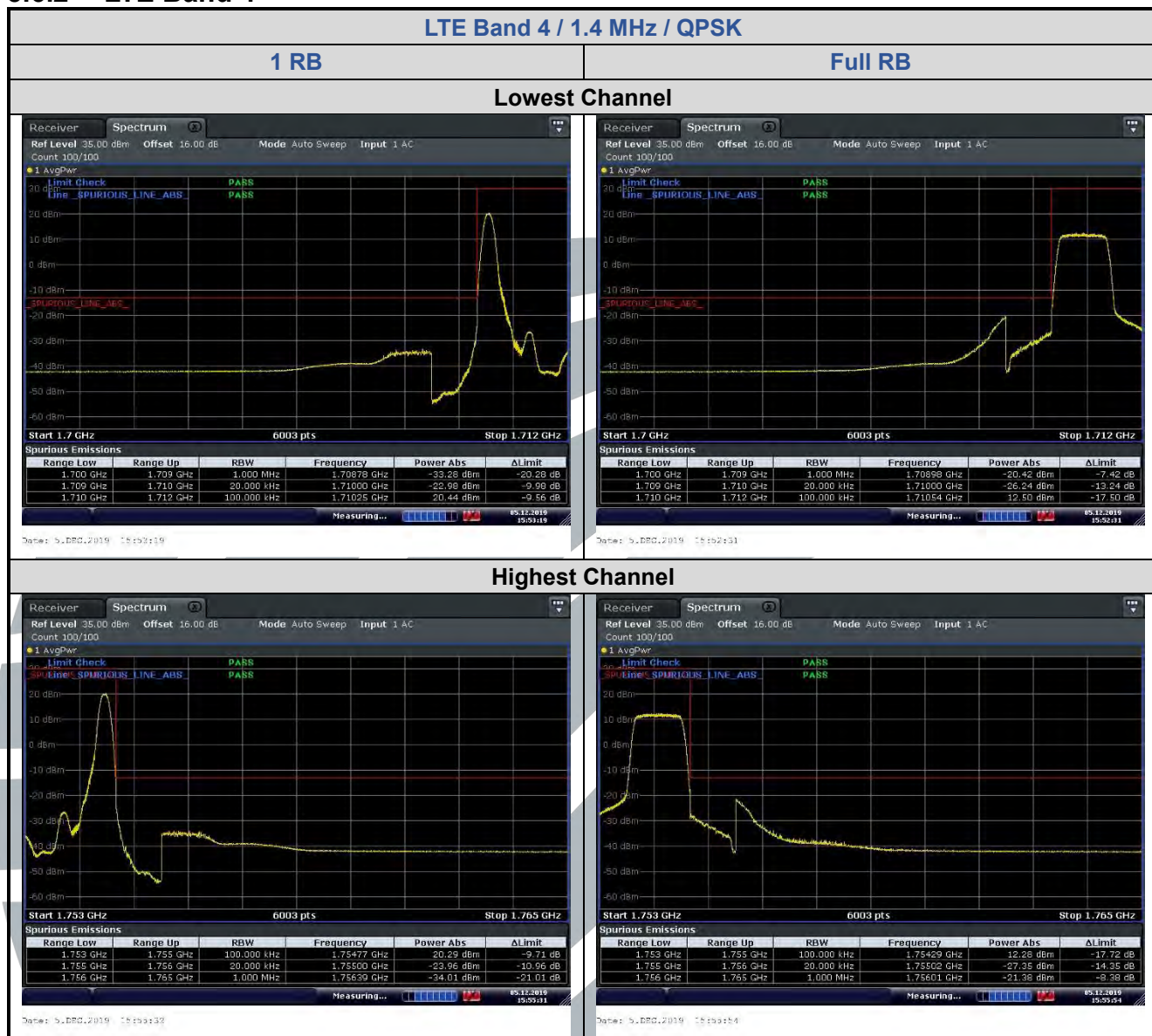


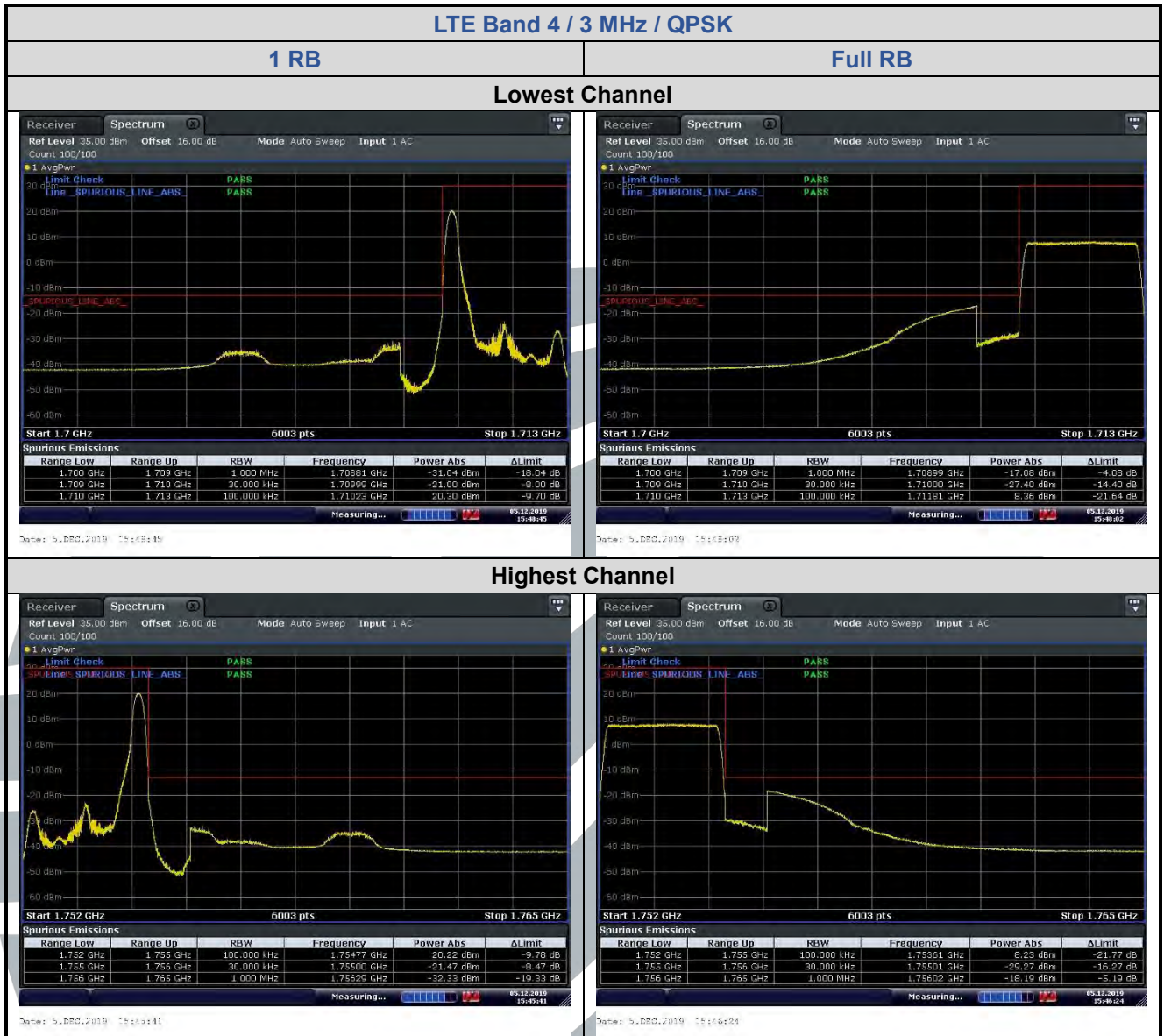


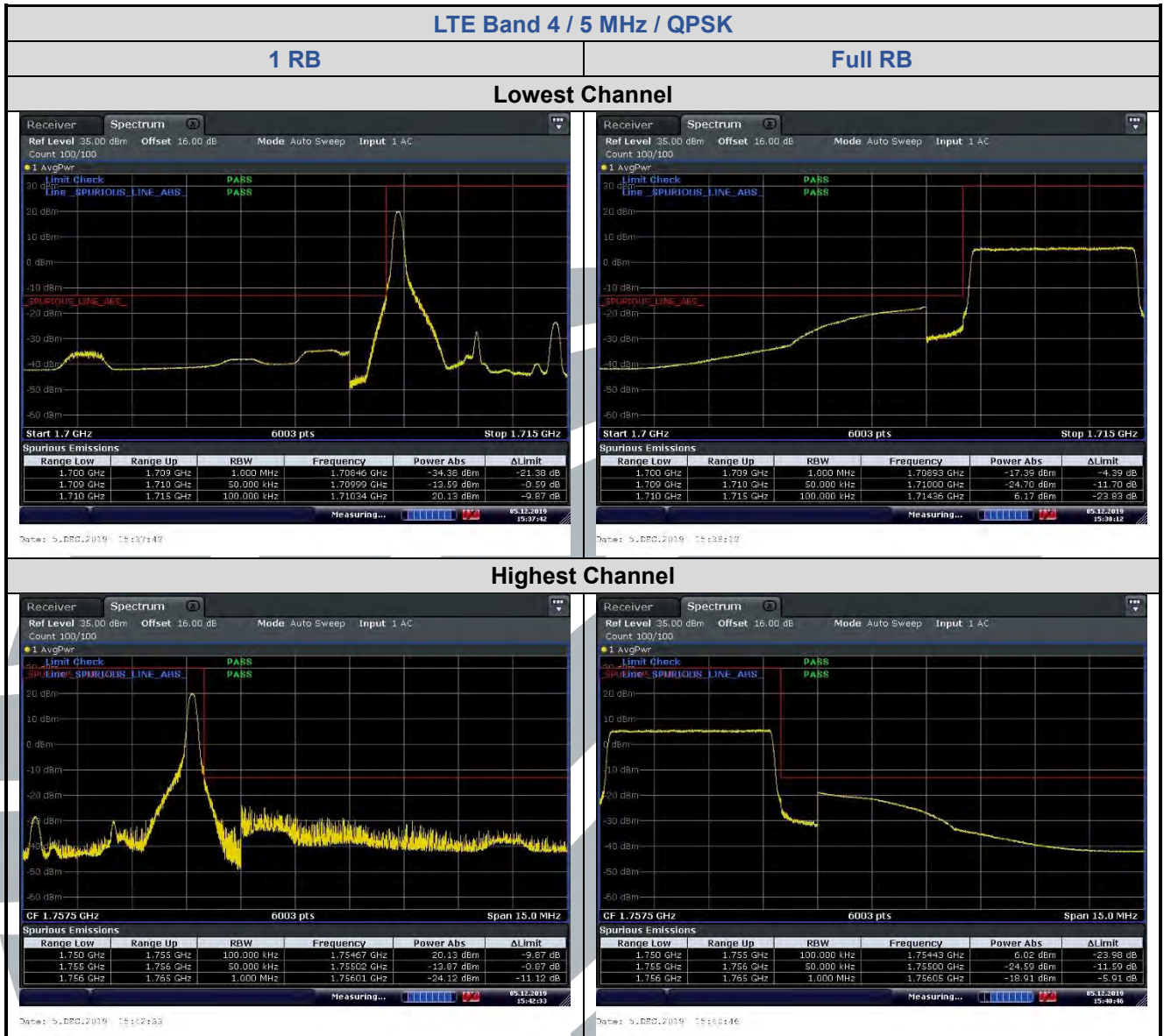


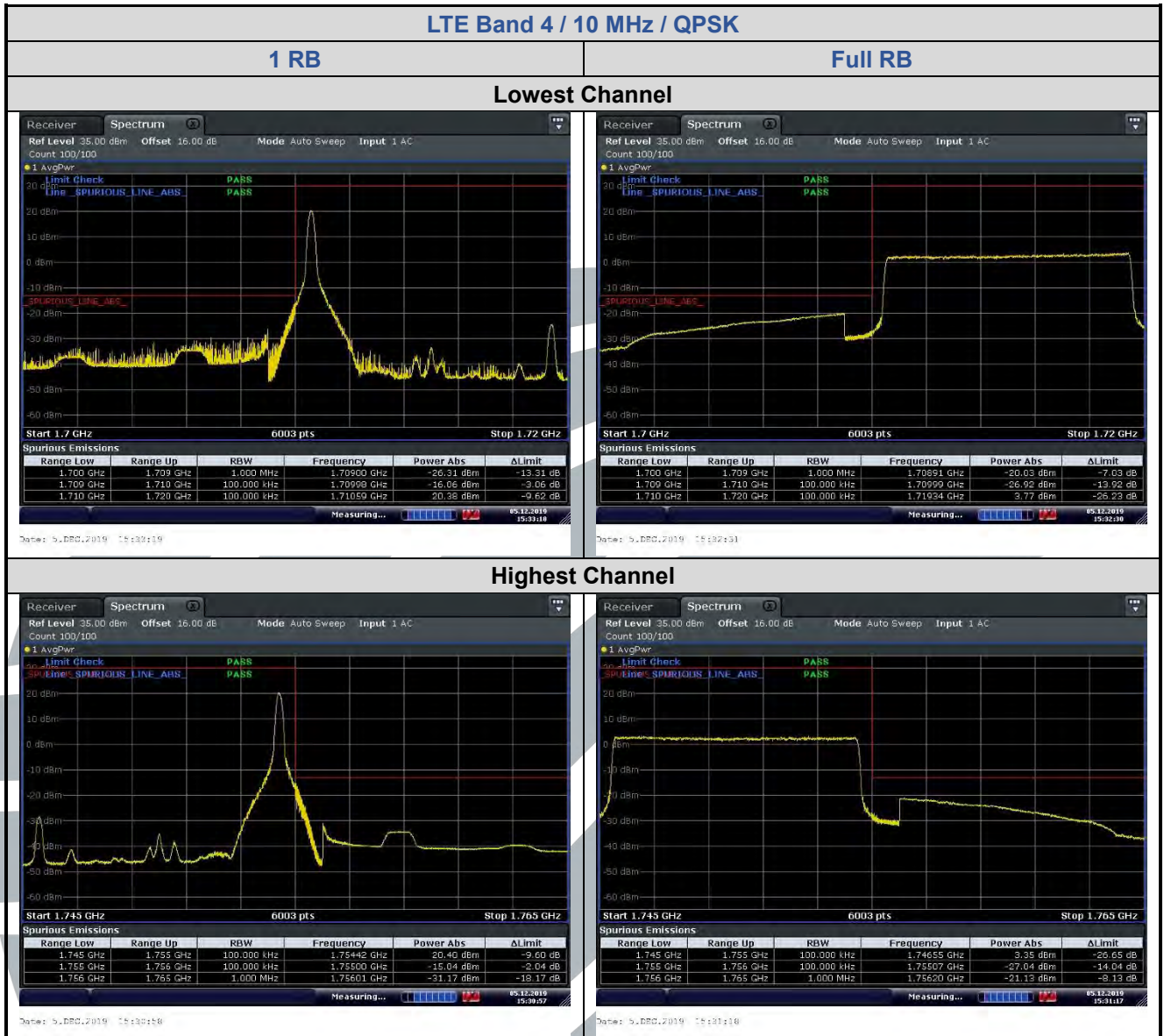


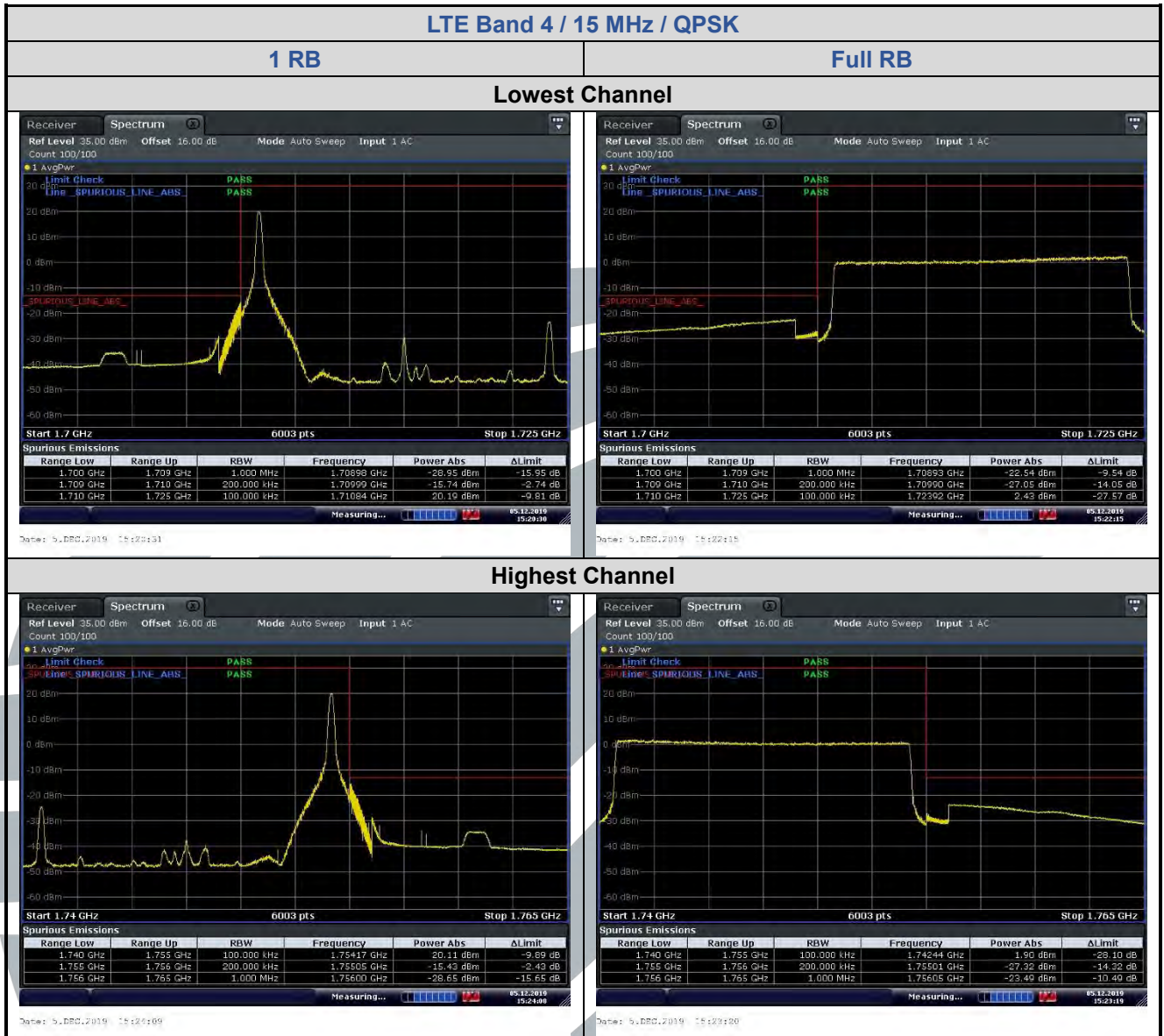
5.6.2 LTE Band 4

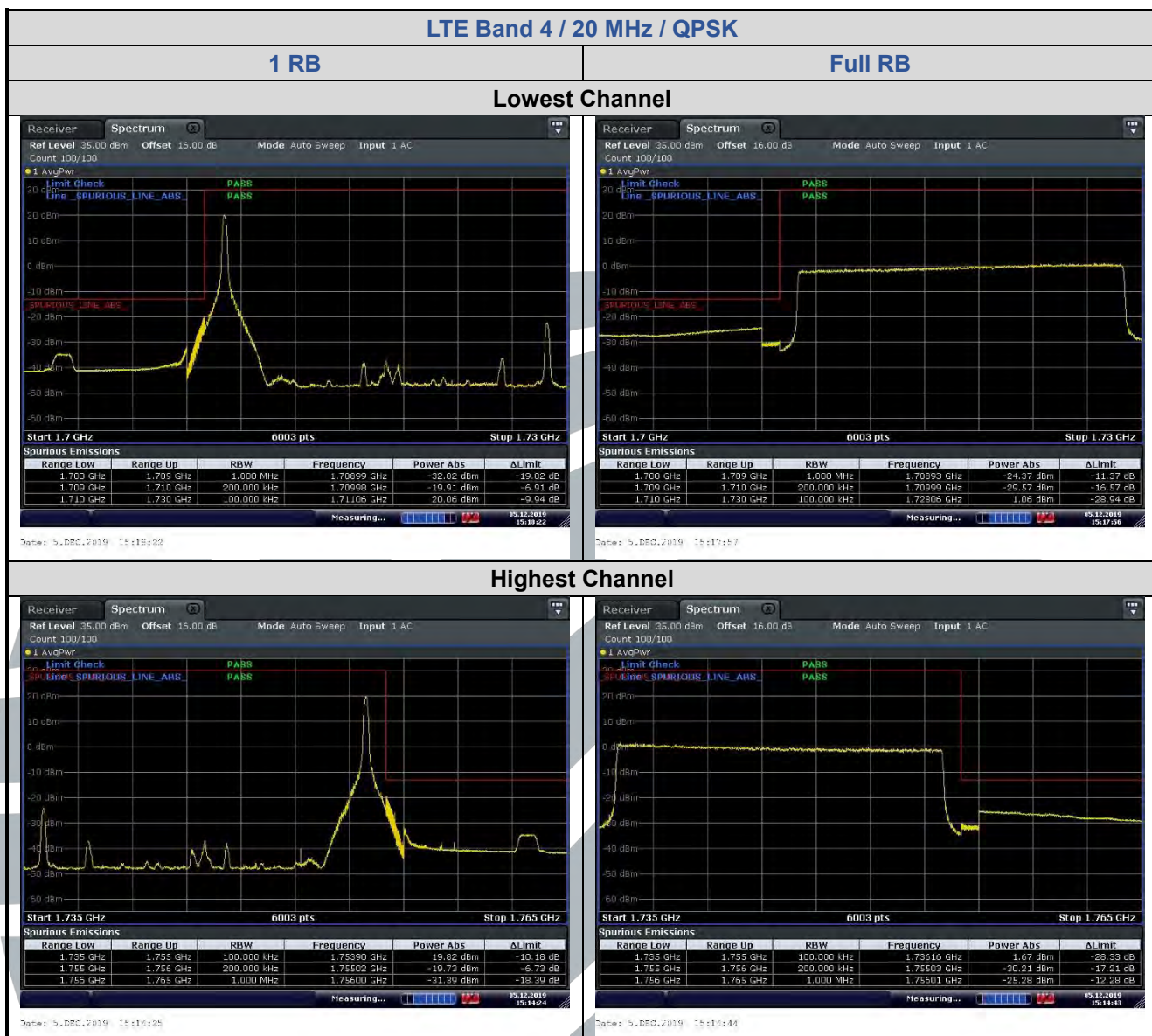


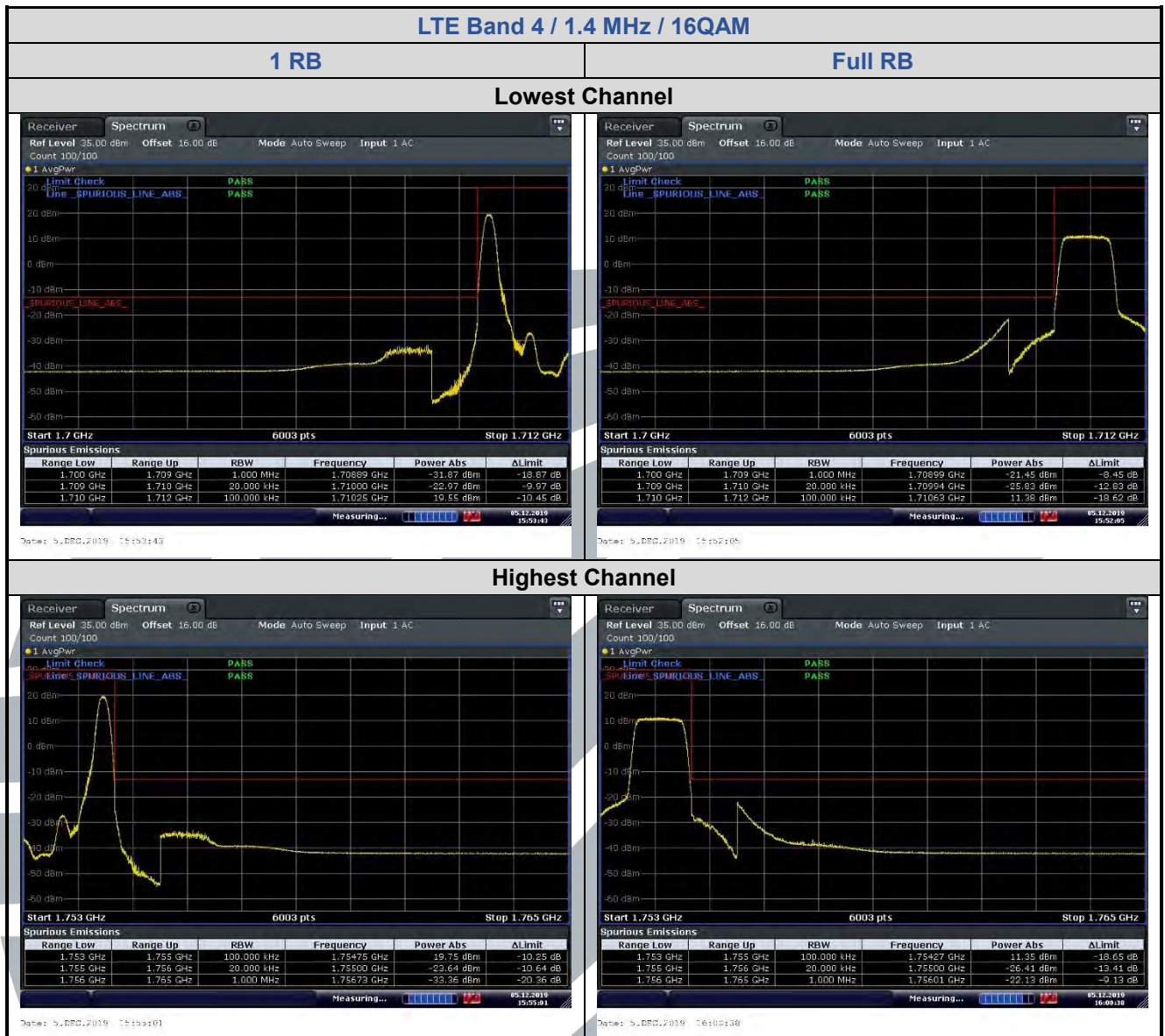


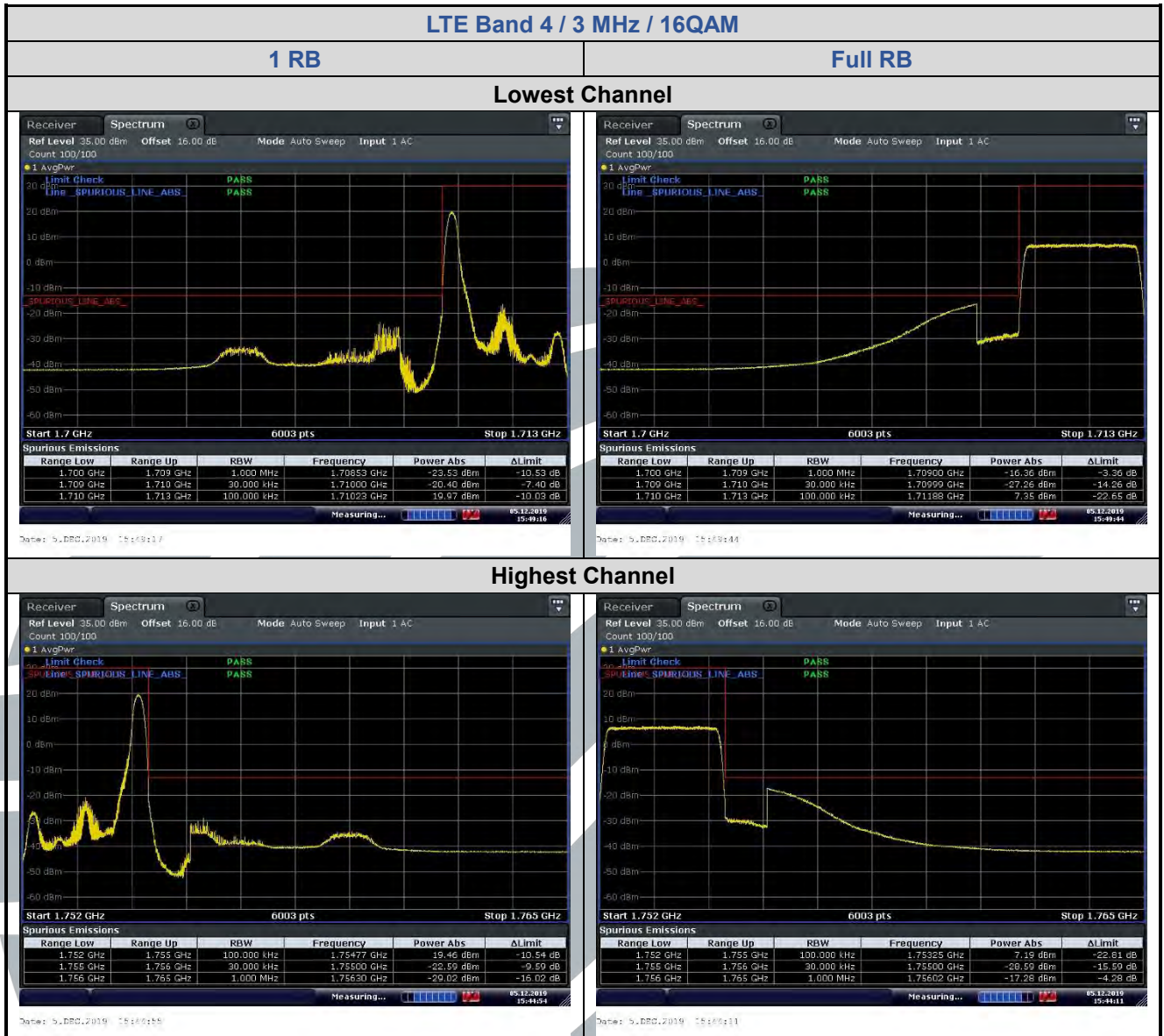


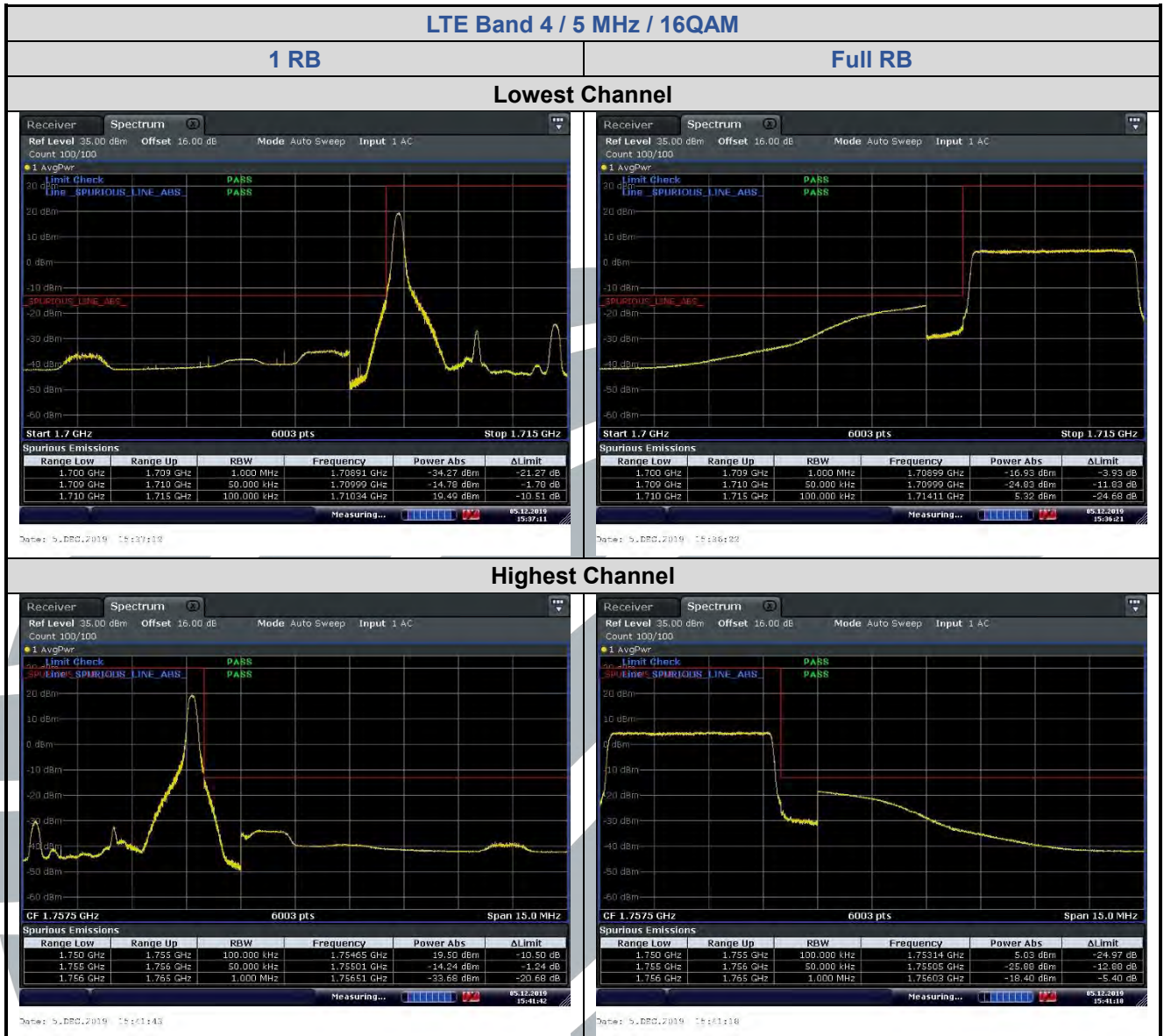


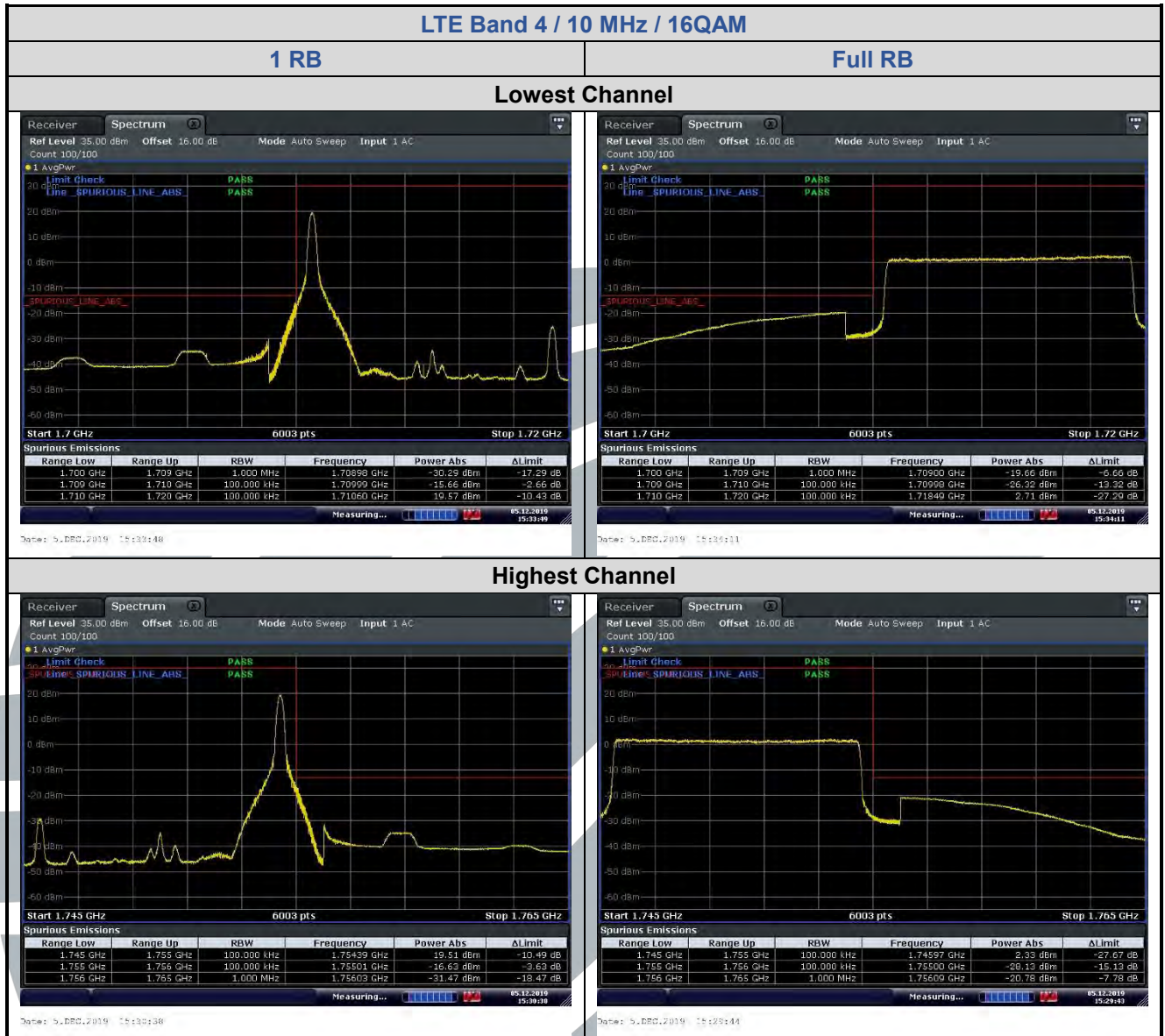


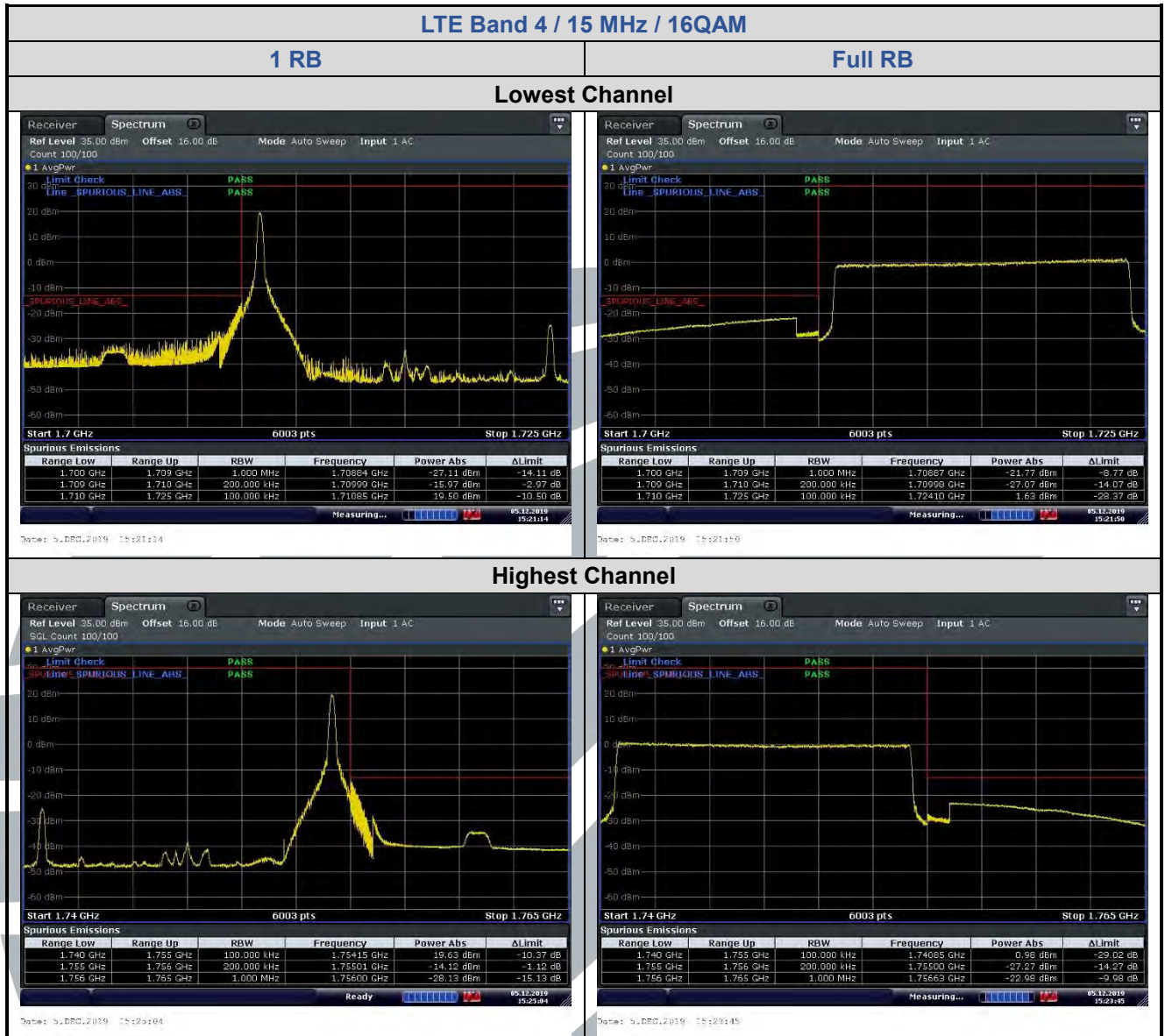


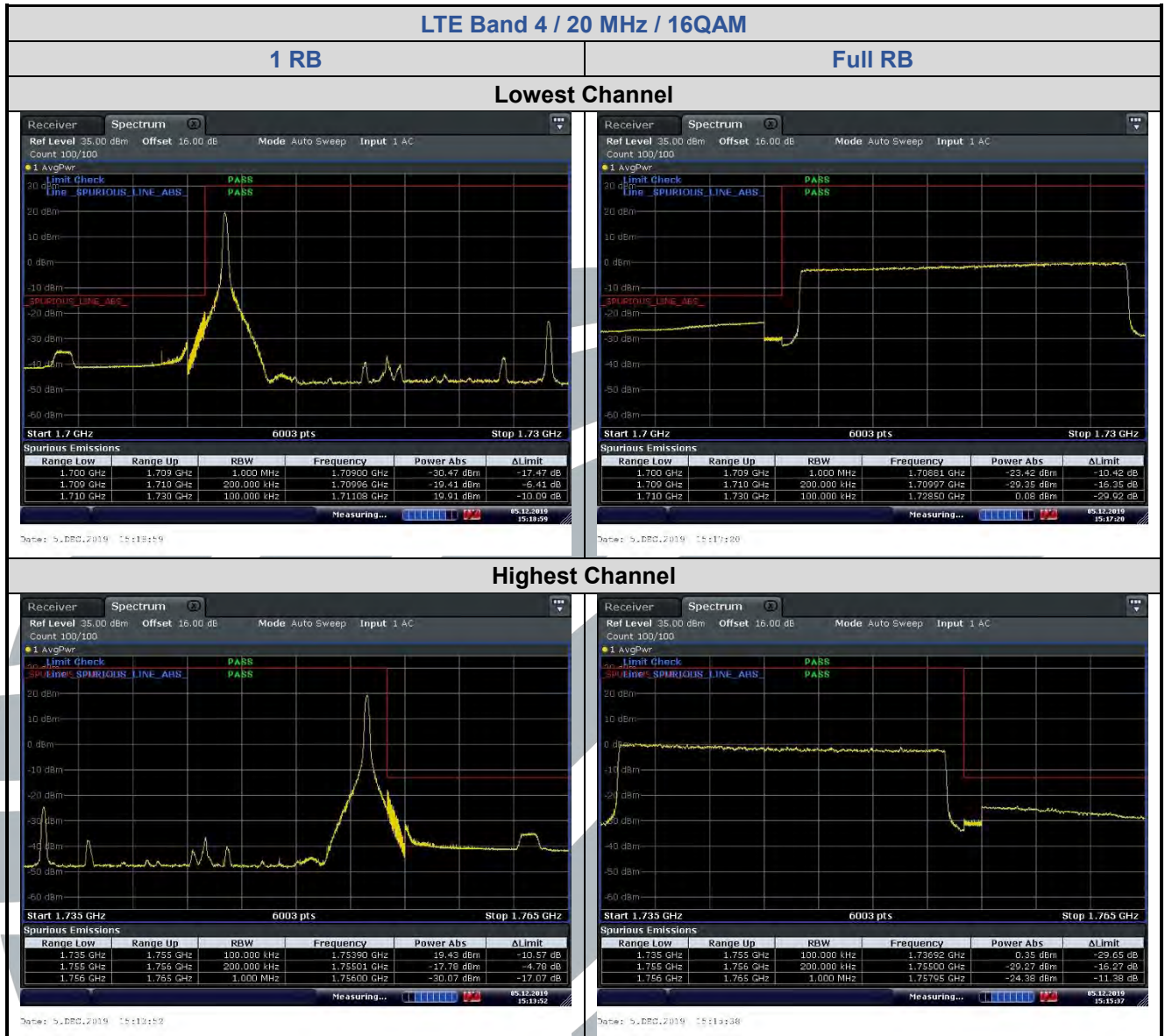












5.6.3 LTE Band 5

