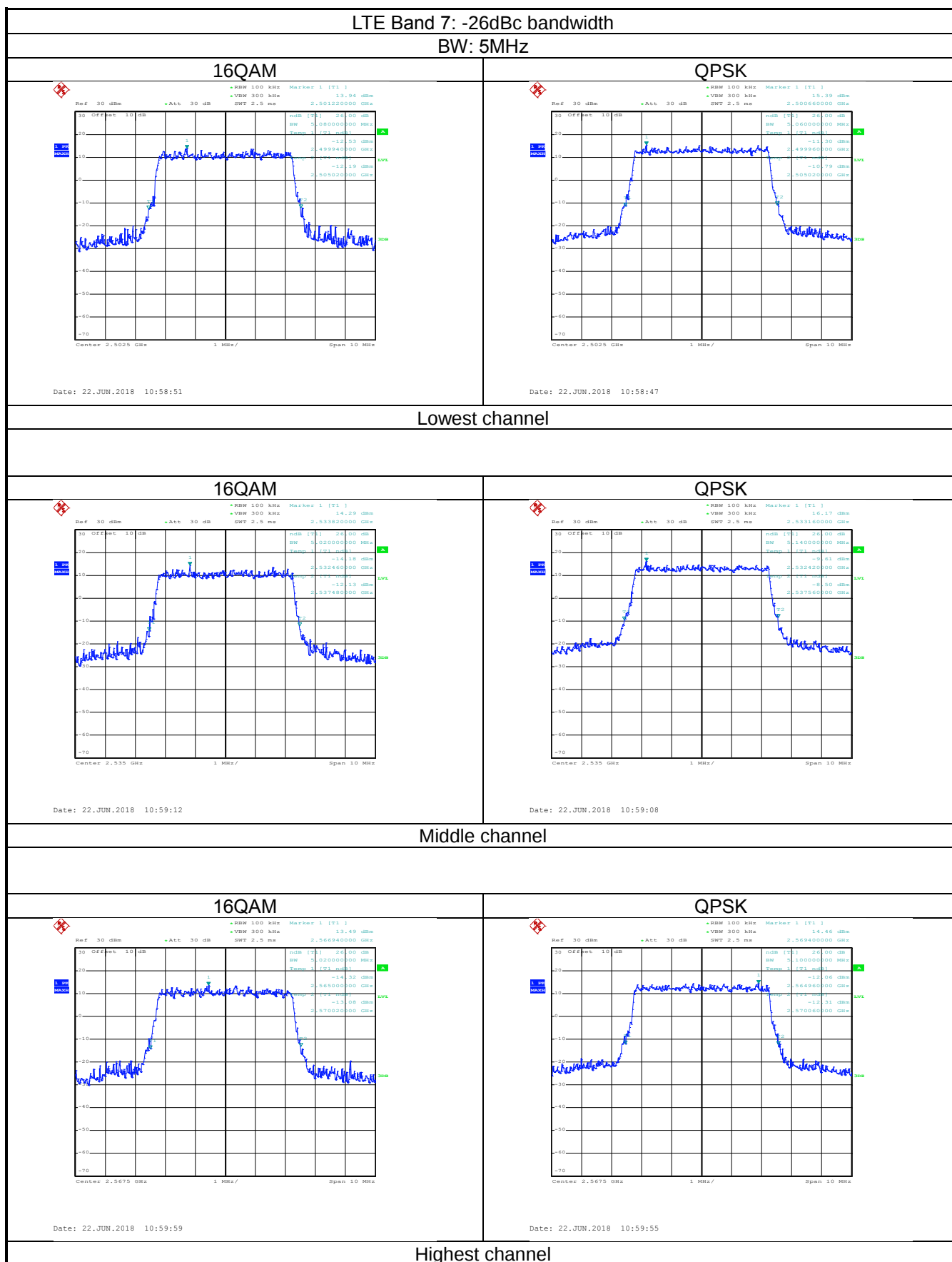
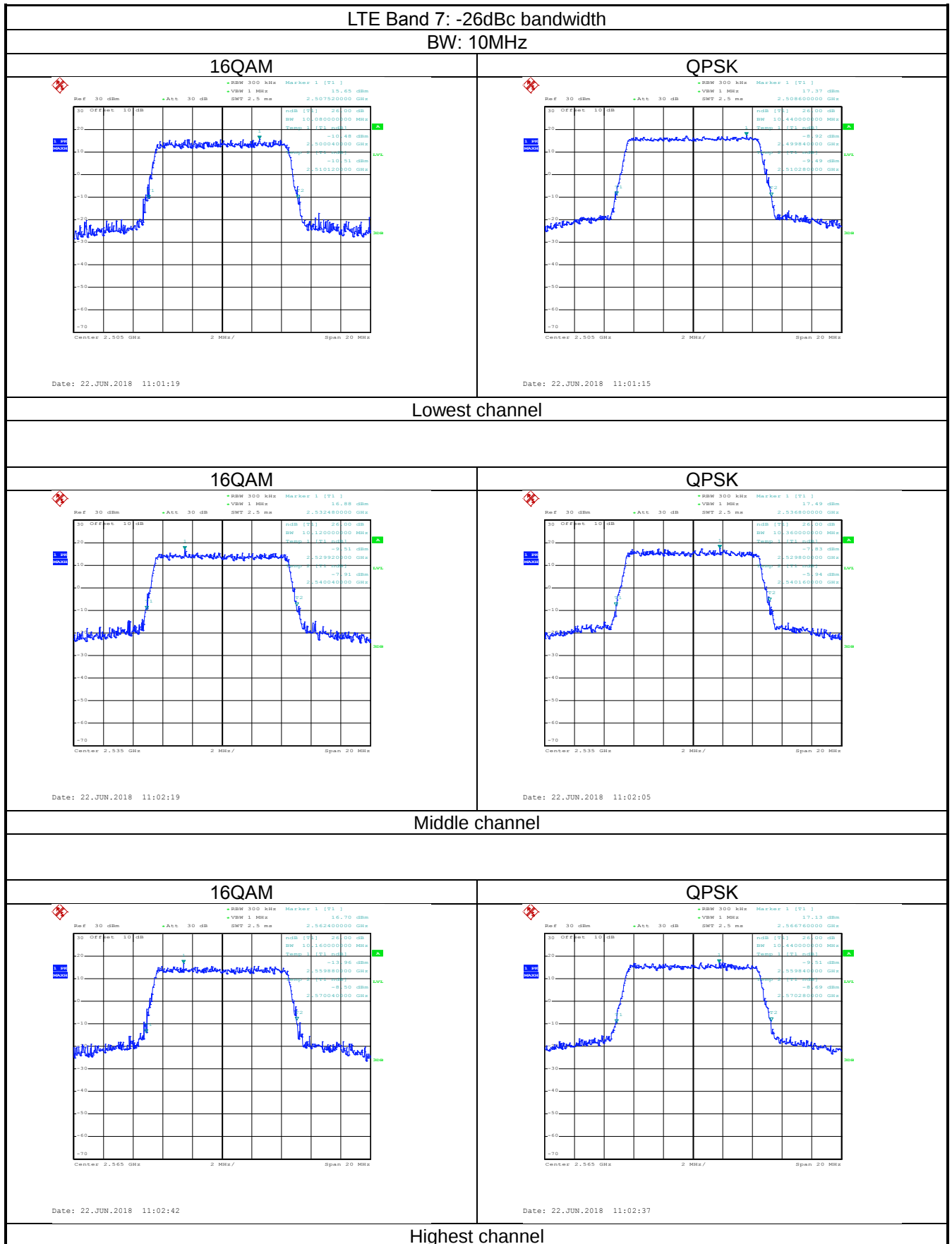
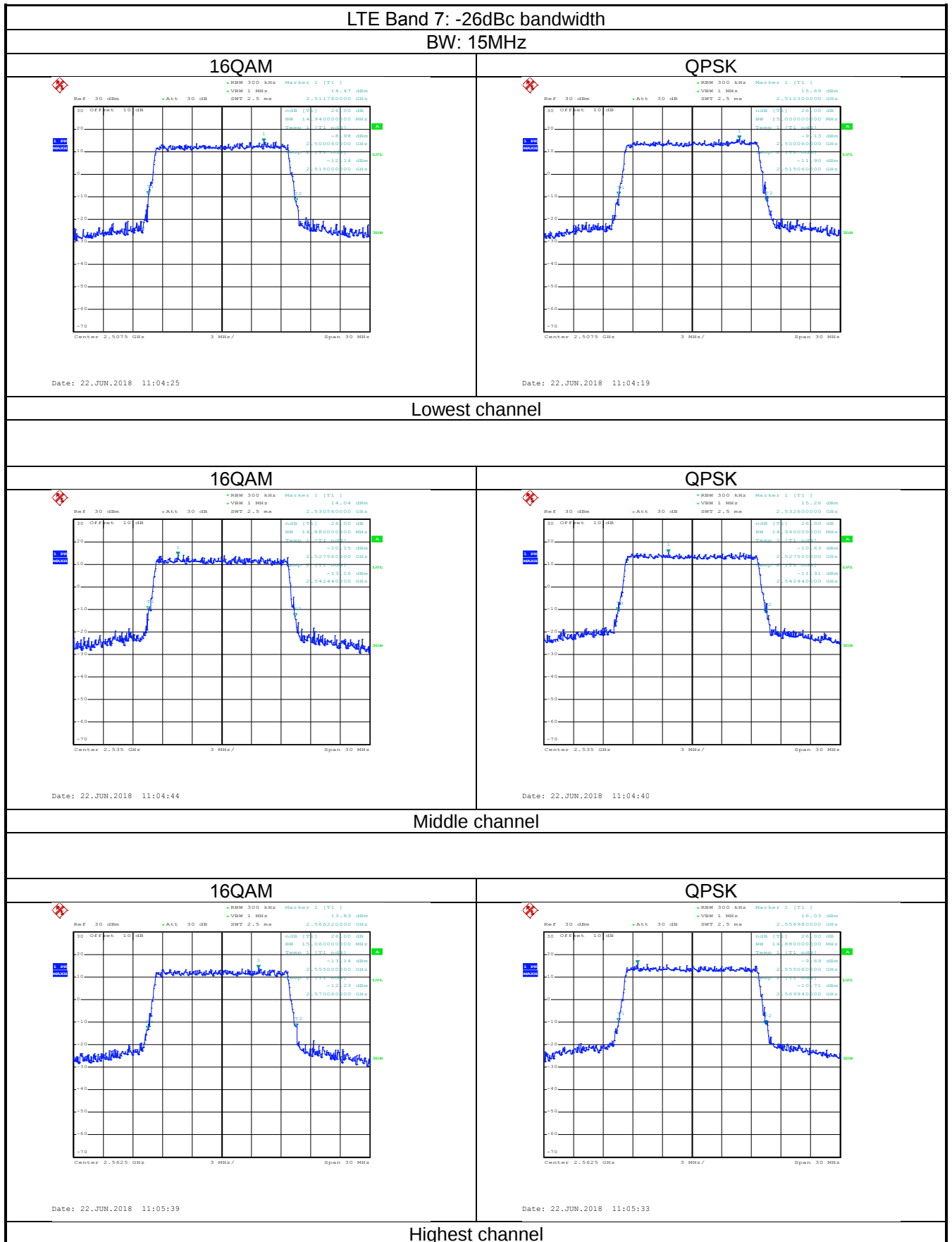
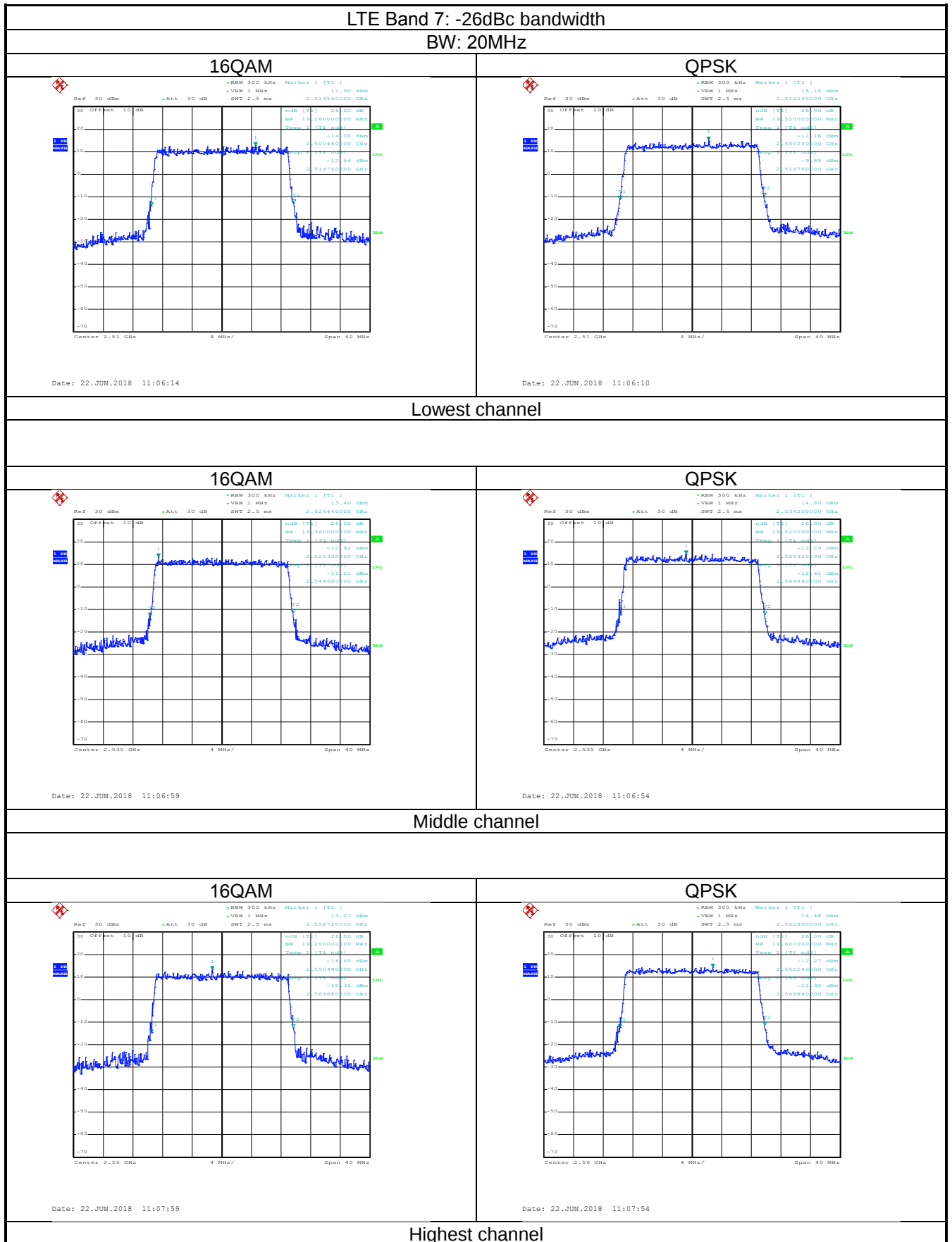


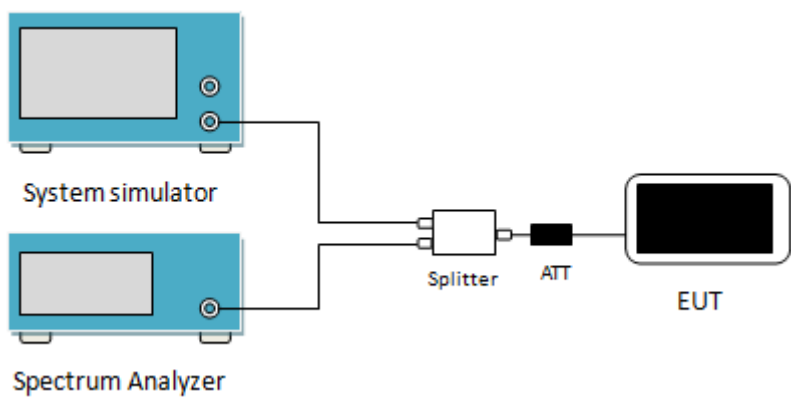




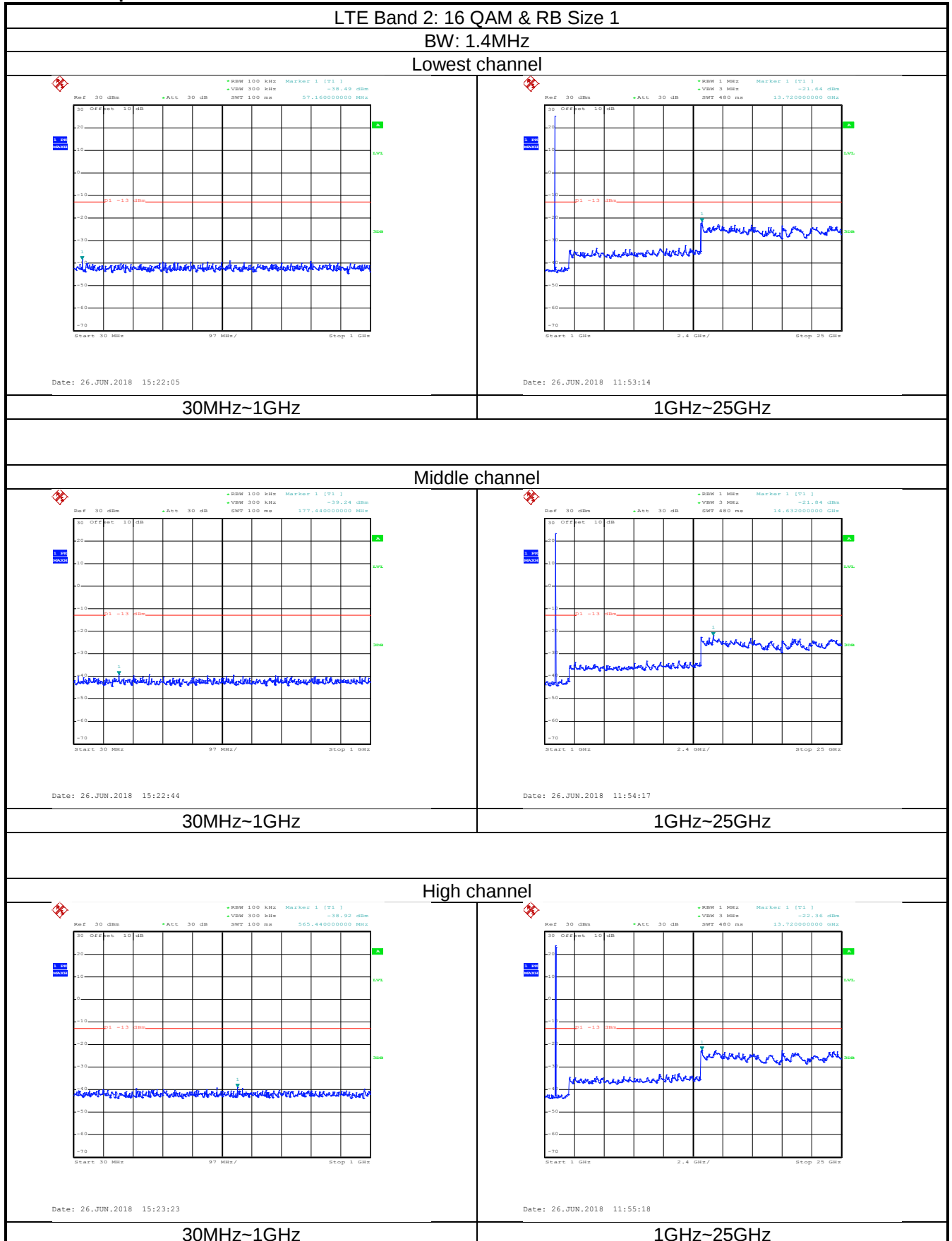


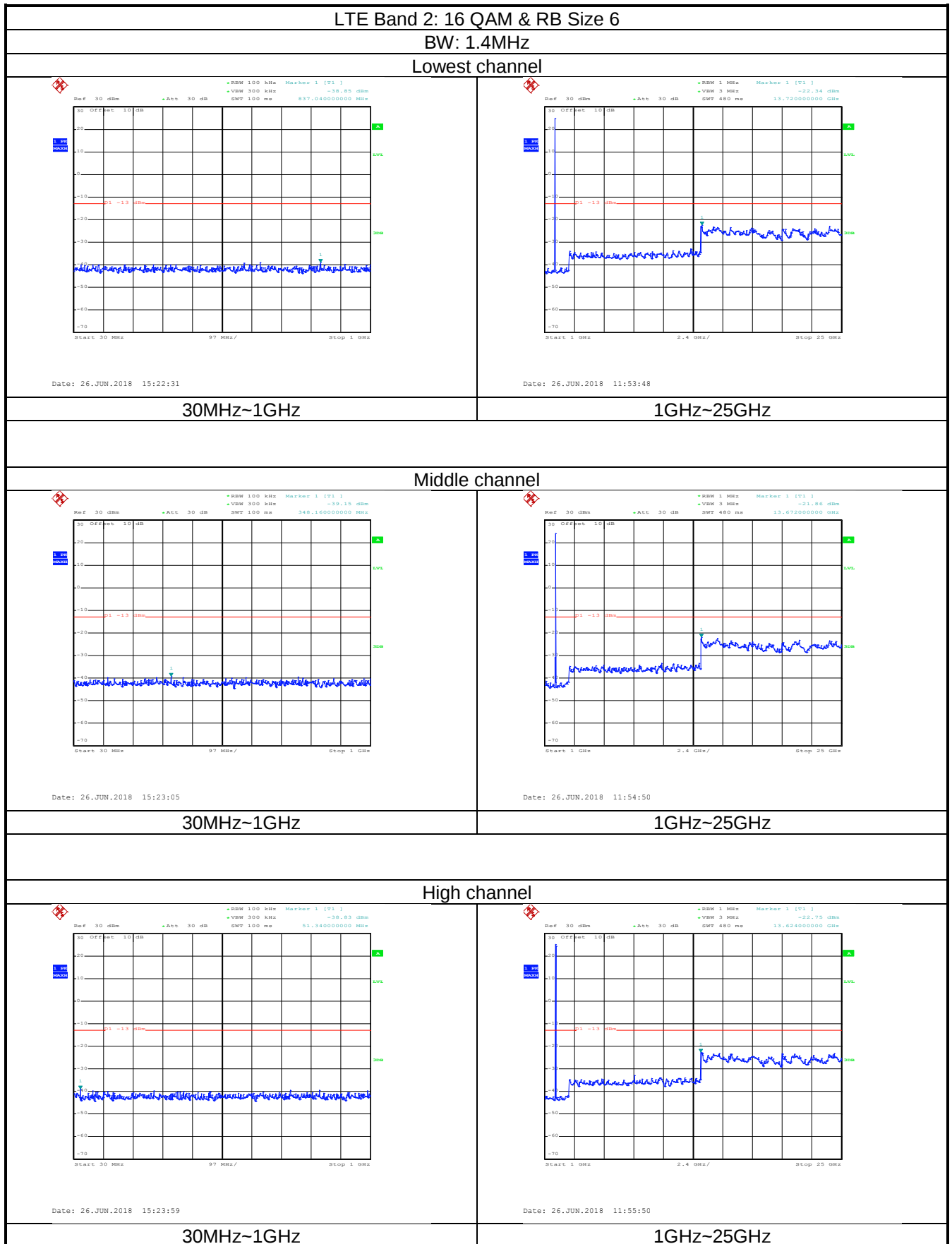


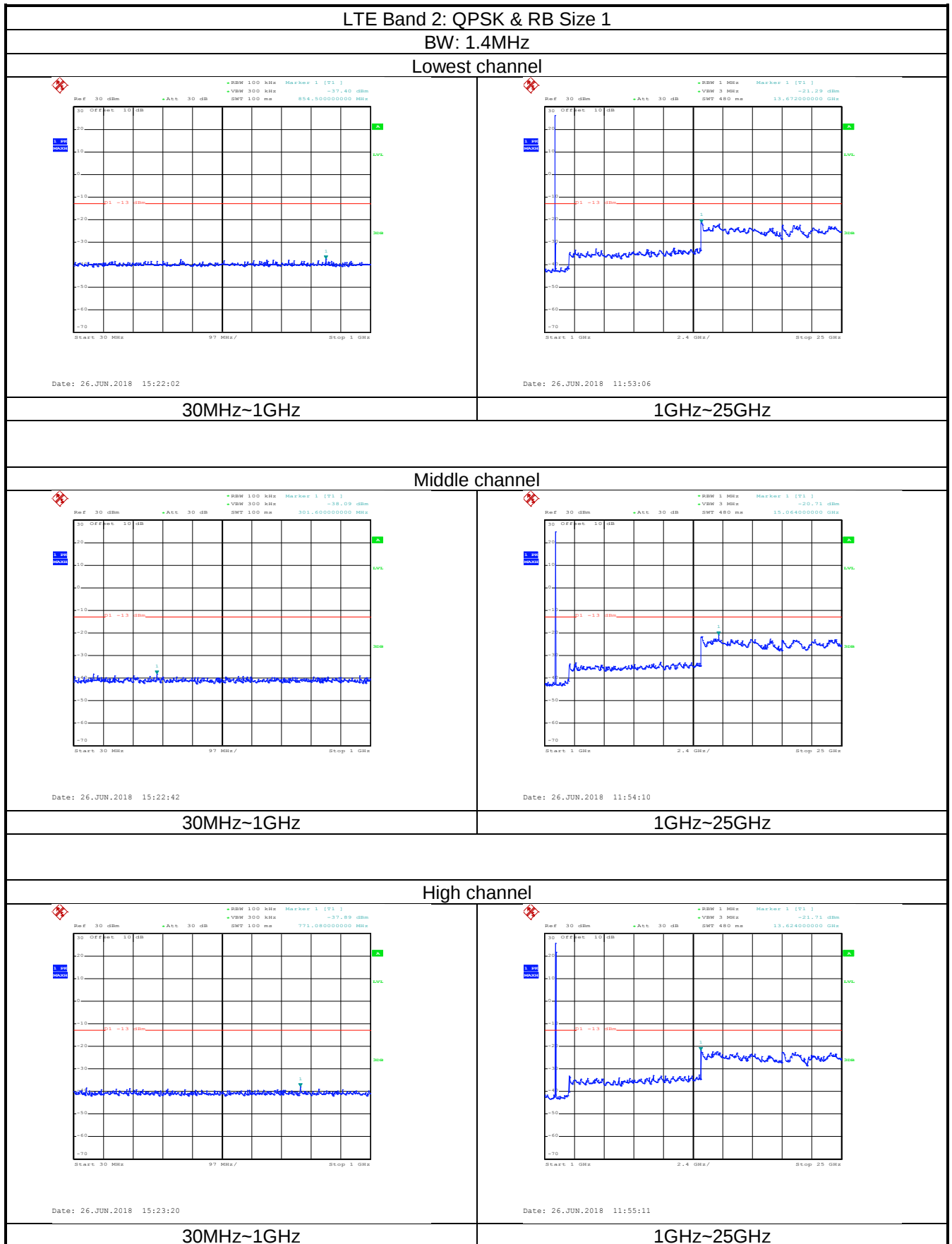
6.4 Out of band emission at antenna terminals

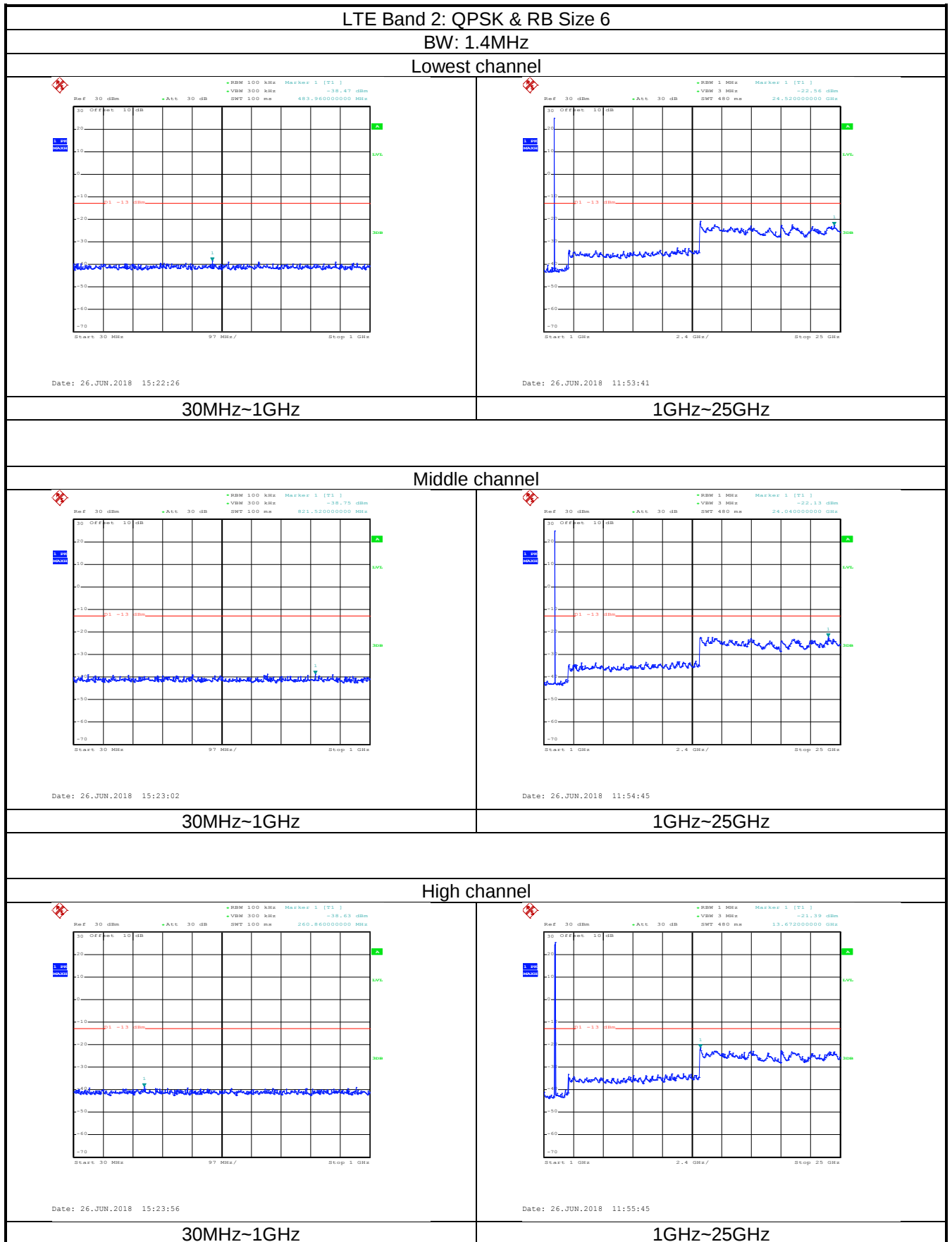
Test Requirement:	Part 22.917(b), Part 24.238 (a), part 27.53(h),Part 27.53(m)
Test Method:	ANSI/TIA-603-D 2010
Limit:	LTE Band 2 & 4 & 5 The power of any emission outside a licensee's frequency block shall be attenuated below the transmitter power (P) in watts by at least $43 + 10 \log_{10}(P)$ dB (-13 dBm). LTE Band 7: 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 that $43 + 10 \log(P)$ dB on all frequencies between 2490.5 MHz and 2496 MHz and $55 + 10 \log(P)$ dB at or below 2490.5 MHz.
Test Setup:	 The diagram illustrates the test setup. On the left, there are two blue rectangular units: the top one is labeled 'System simulator' and the bottom one is labeled 'Spectrum Analyzer'. Both have a single output port. These two ports are connected to a single input port of a white rectangular unit labeled 'Splitter'. The 'Splitter' has two output ports. One output port is connected to a black rectangular unit labeled 'ATT' (Attenuator). The other output port of the 'Splitter' is connected to the input port of a white rectangular unit labeled 'EUT' (Equipment Under Test).
Test Procedure:	1 The RF output of the transceiver was connected to a spectrum analyzer through appropriate attenuation. 2 The resolution bandwidth of the spectrum analyzer was set at 100 kHz when below 1GHz, 1MHz when above 1 GHz; sufficient scans were taken to show the out of band Emissions if any up to 10th harmonic. 3 For the out of band: Set the RBW=100 kHz, VBW=300 kHz when below 1 GHz, RBW =1 MHz, VBW=3 MHz when above 1 GHz, Start=30MHz, Stop= 10th harmonic. 4 Band Edge Requirements: In the 1 MHz bands immediately outside and adjacent to the frequency block, a resolution bandwidth of at least 1 percent of the emission bandwidth of the fundamental emission of the transmitter may be employed to measure the out of band Emissions.
Test Instruments:	Refer to section 5.9 for details
Test mode:	Refer to section 5.3 for details
Test results:	Passed
Remark:	Pre-scan all RB Size and offset, and found the RB Size and offset of worst case, so the report shows only the worst case test data.

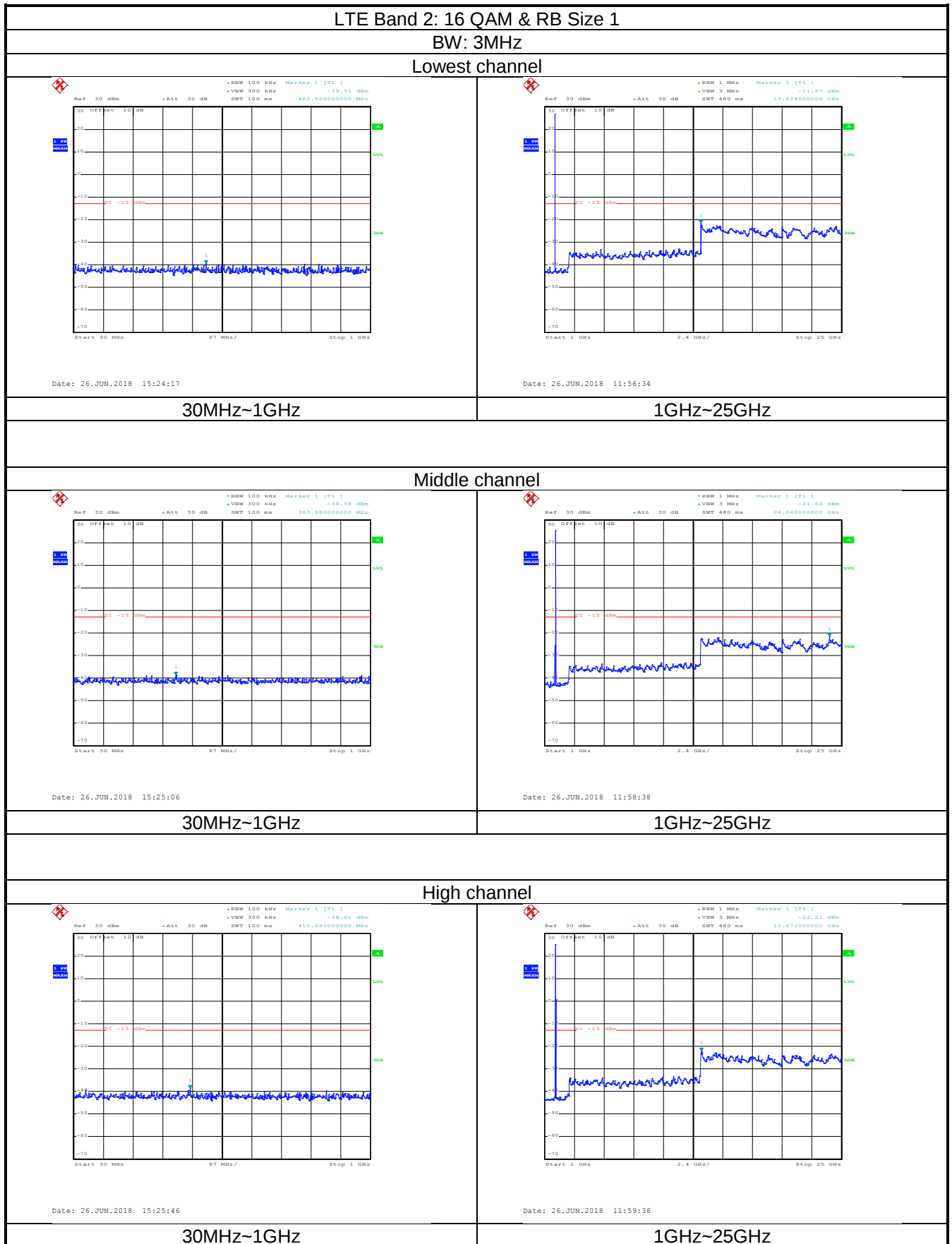
Test plots as follows (Conducted spurious emission) (worst case):
LTE Band 2 part:







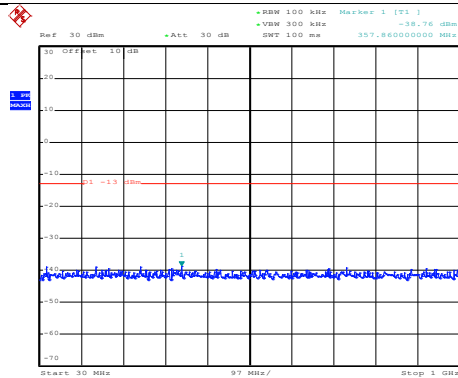




LTE Band 2: 16 QAM & RB Size 15

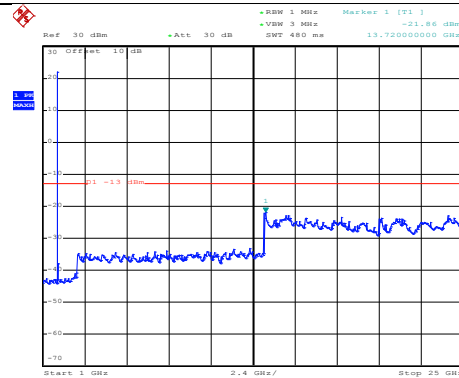
BW: 3MHz

Lowest channel



Date: 26.JUN.2018 15:24:44

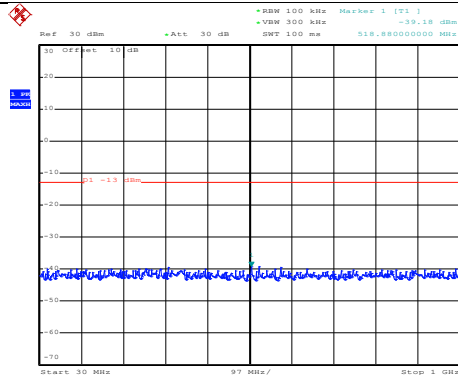
30MHz~1GHz



Date: 26.JUN.2018 11:57:07

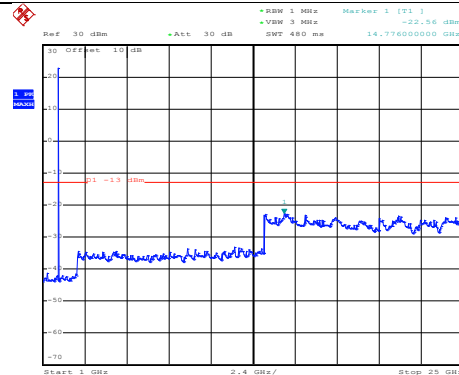
1GHz~25GHz

Middle channel



Date: 26.JUN.2018 15:25:33

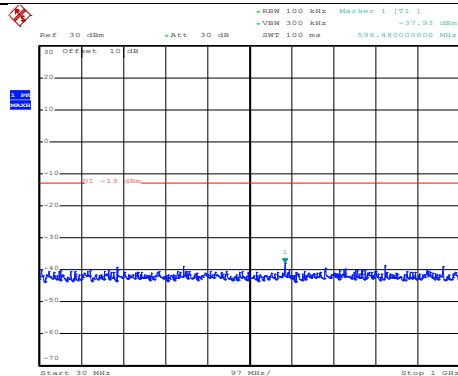
30MHz~1GHz



Date: 26.JUN.2018 11:59:14

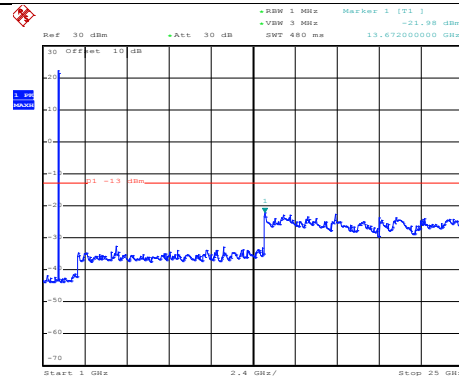
1GHz~25GHz

High channel



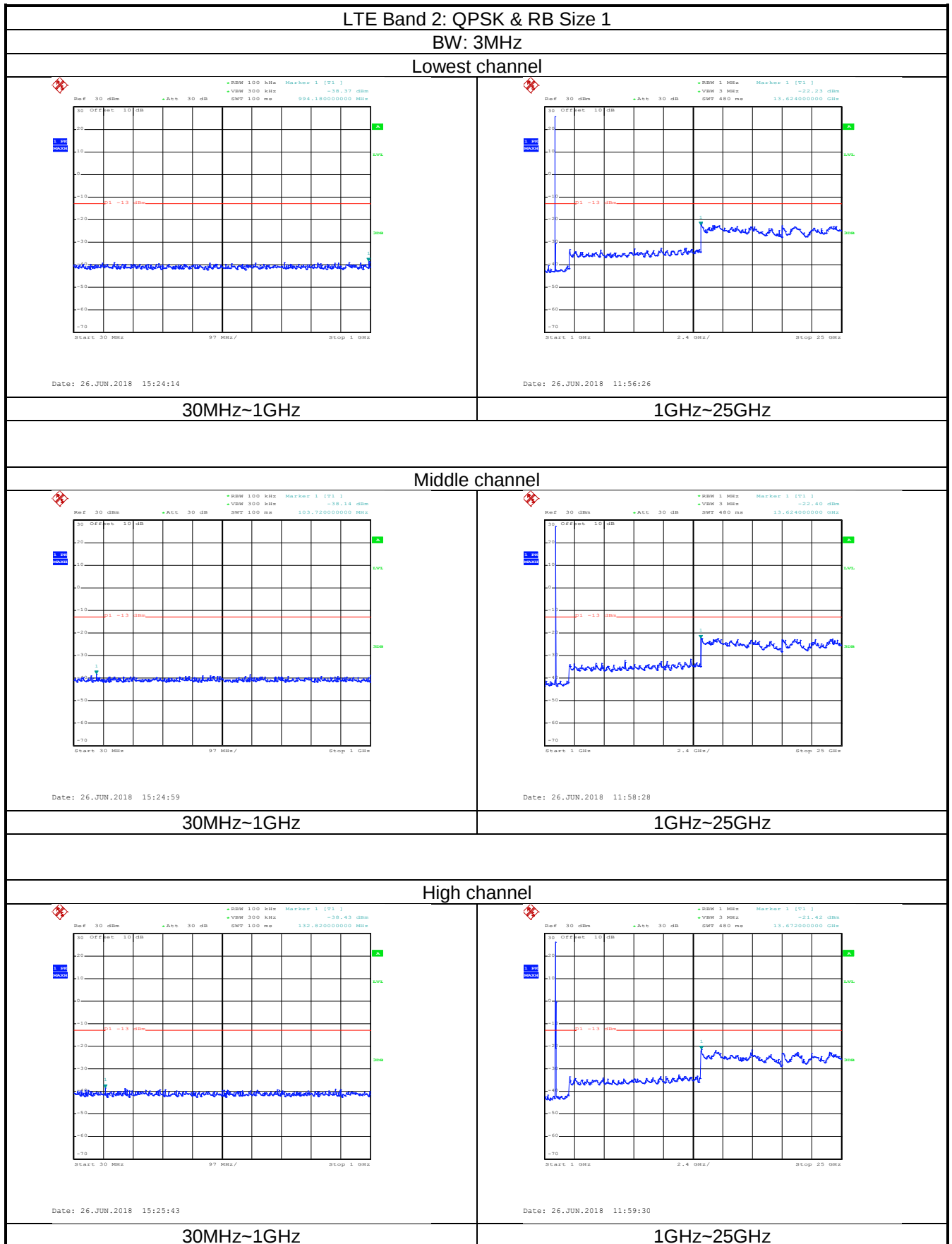
Date: 26.JUN.2018 15:26:10

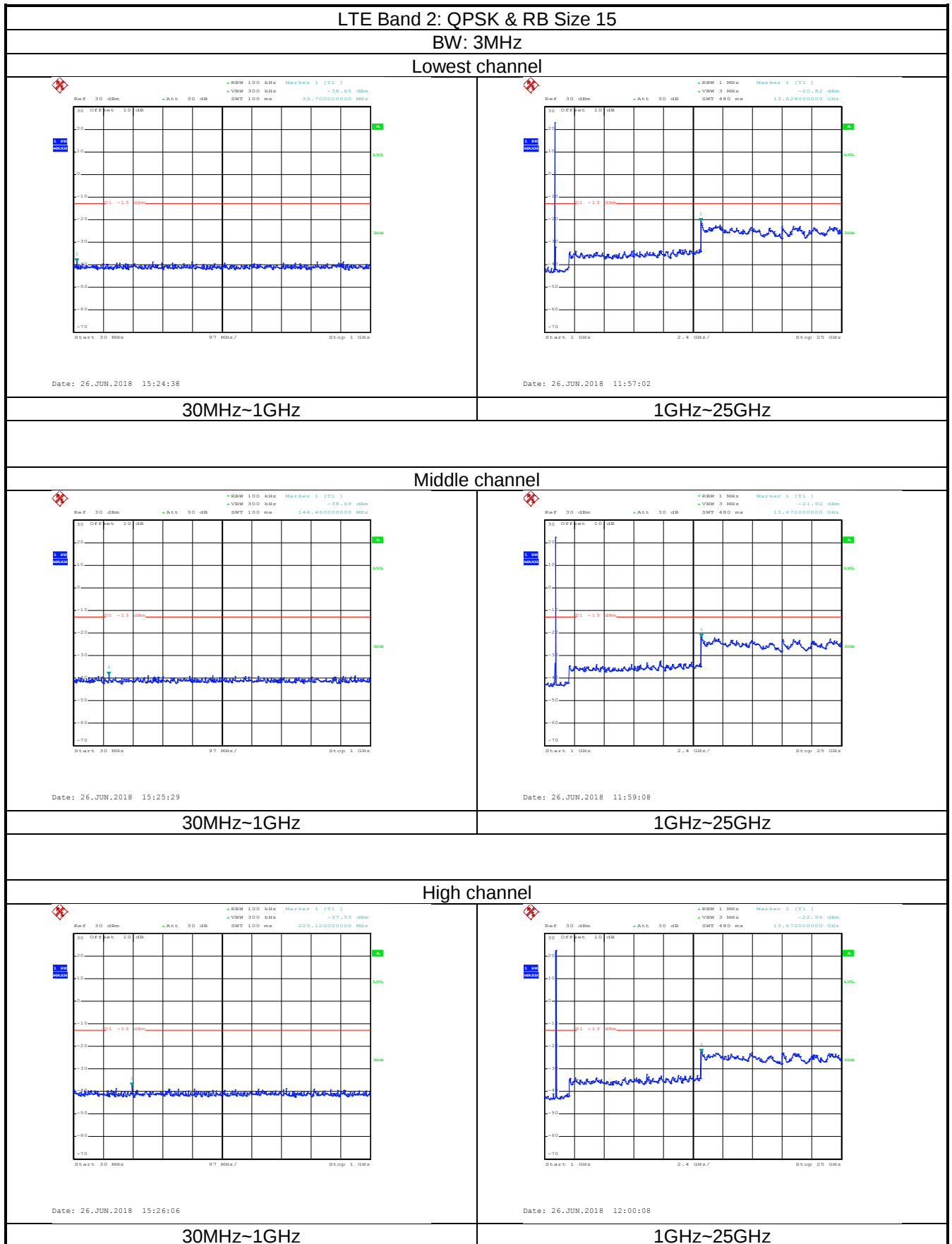
30MHz~1GHz



Date: 26.JUN.2018 12:00:13

1GHz~25GHz

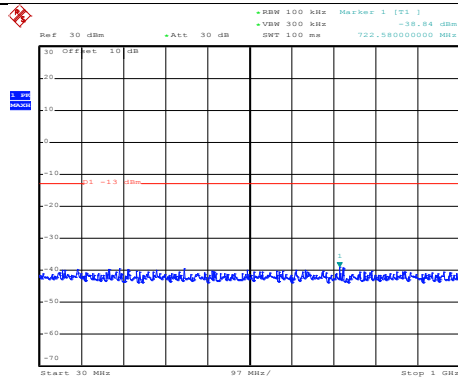




LTE Band 2: 16 QAM & RB Size 1

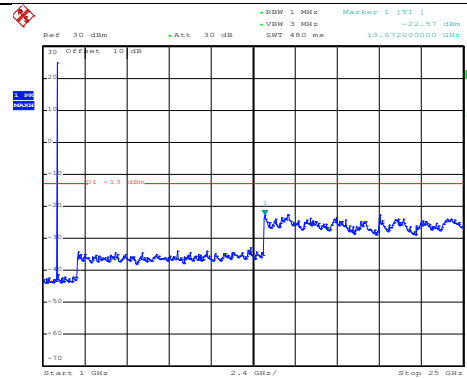
BW: 5MHz

Lowest channel



Date: 26.JUN.2018 15:26:26

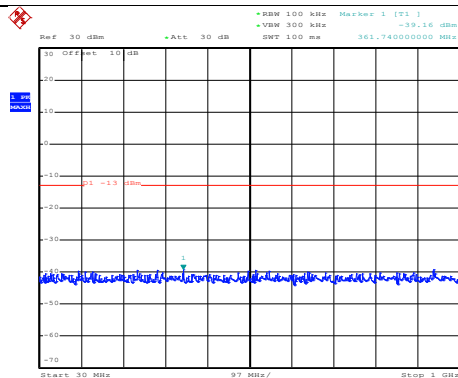
30MHz~1GHz



Date: 26.JUN.2018 13:35:06

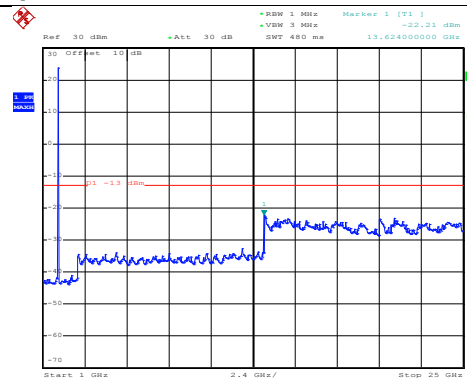
1GHz~25GHz

Middle channel



Date: 26.JUN.2018 15:27:05

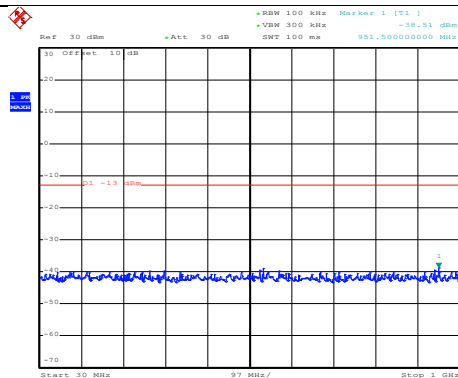
30MHz~1GHz



Date: 26.JUN.2018 13:36:08

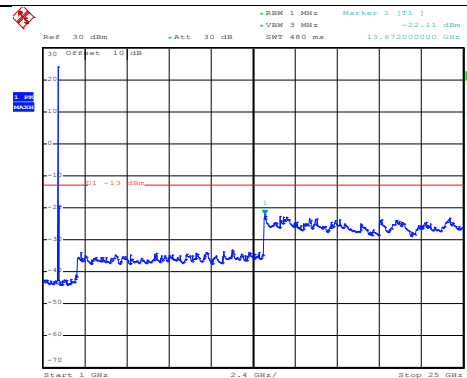
1GHz~25GHz

High channel



Date: 26.JUN.2018 15:27:45

30MHz~1GHz



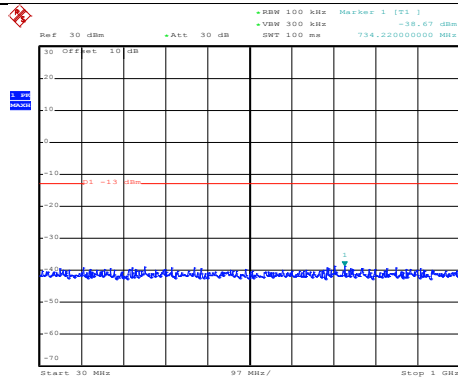
Date: 26.JUN.2018 13:37:58

1GHz~25GHz

LTE Band 2: 16 QAM & RB Size 25

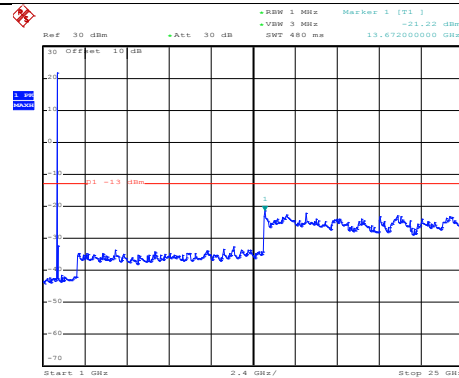
BW: 5MHz

Lowest channel



Date: 26.JUN.2018 15:26:51

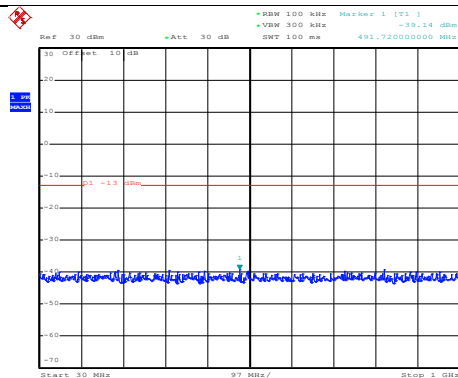
30MHz~1GHz



Date: 26.JUN.2018 13:35:42

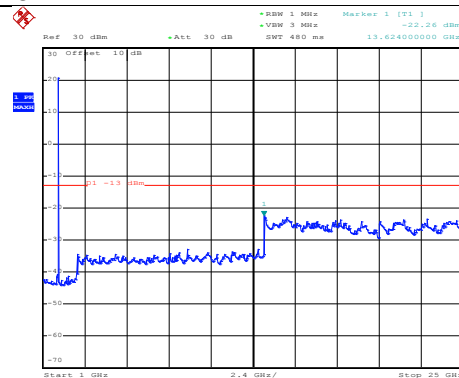
1GHz~25GHz

Middle channel



Date: 26.JUN.2018 15:27:29

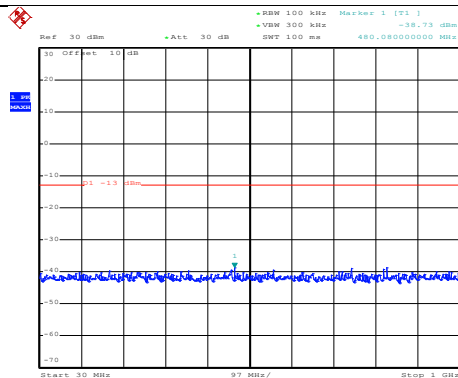
30MHz~1GHz



Date: 26.JUN.2018 13:37:32

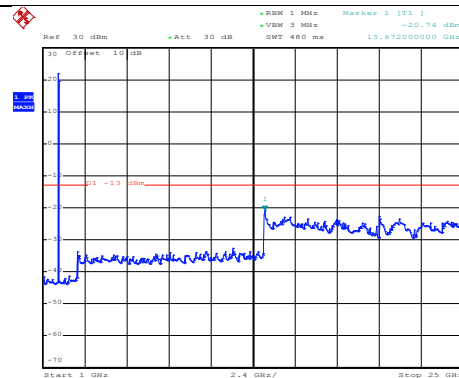
1GHz~25GHz

High channel



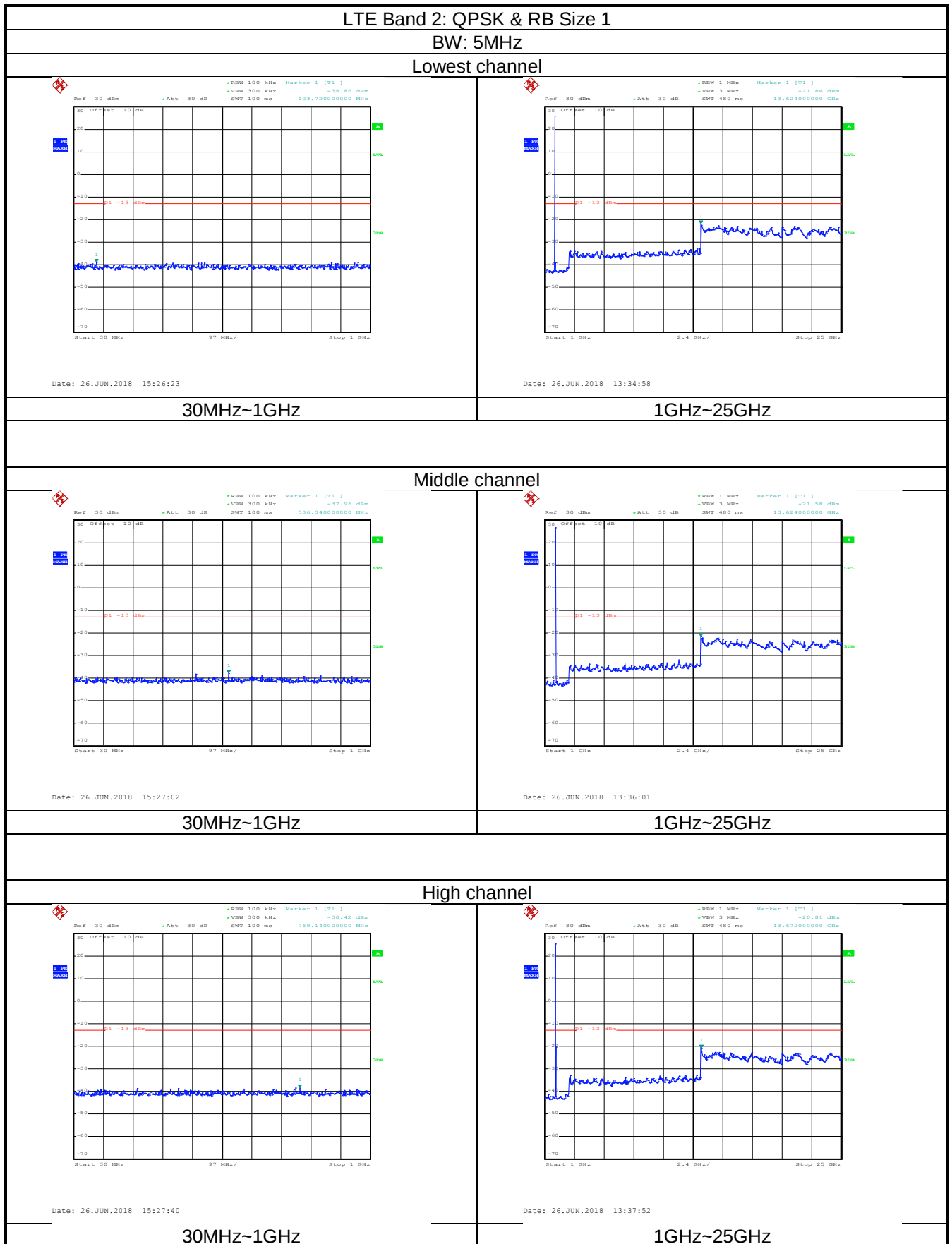
Date: 26.JUN.2018 15:28:09

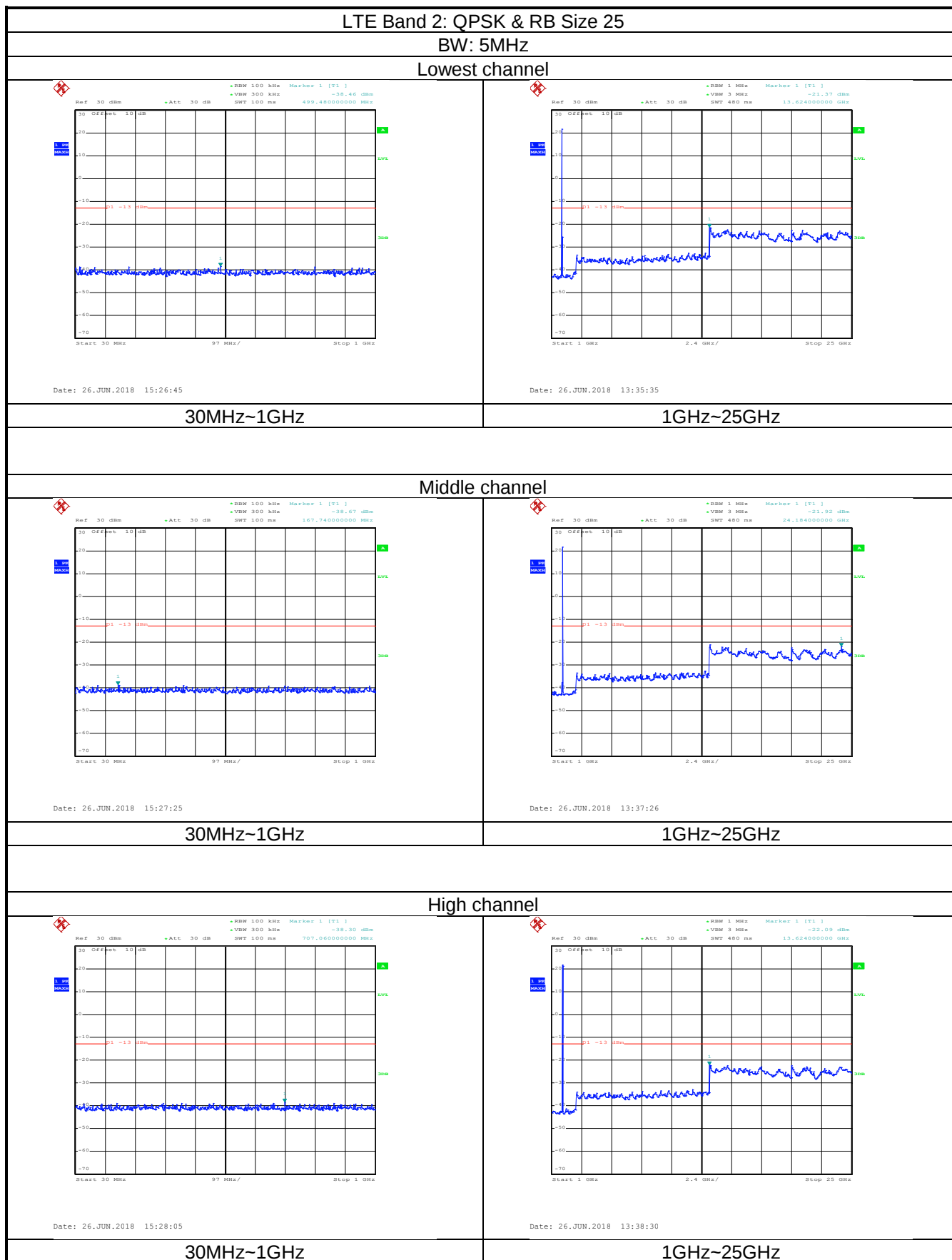
30MHz~1GHz

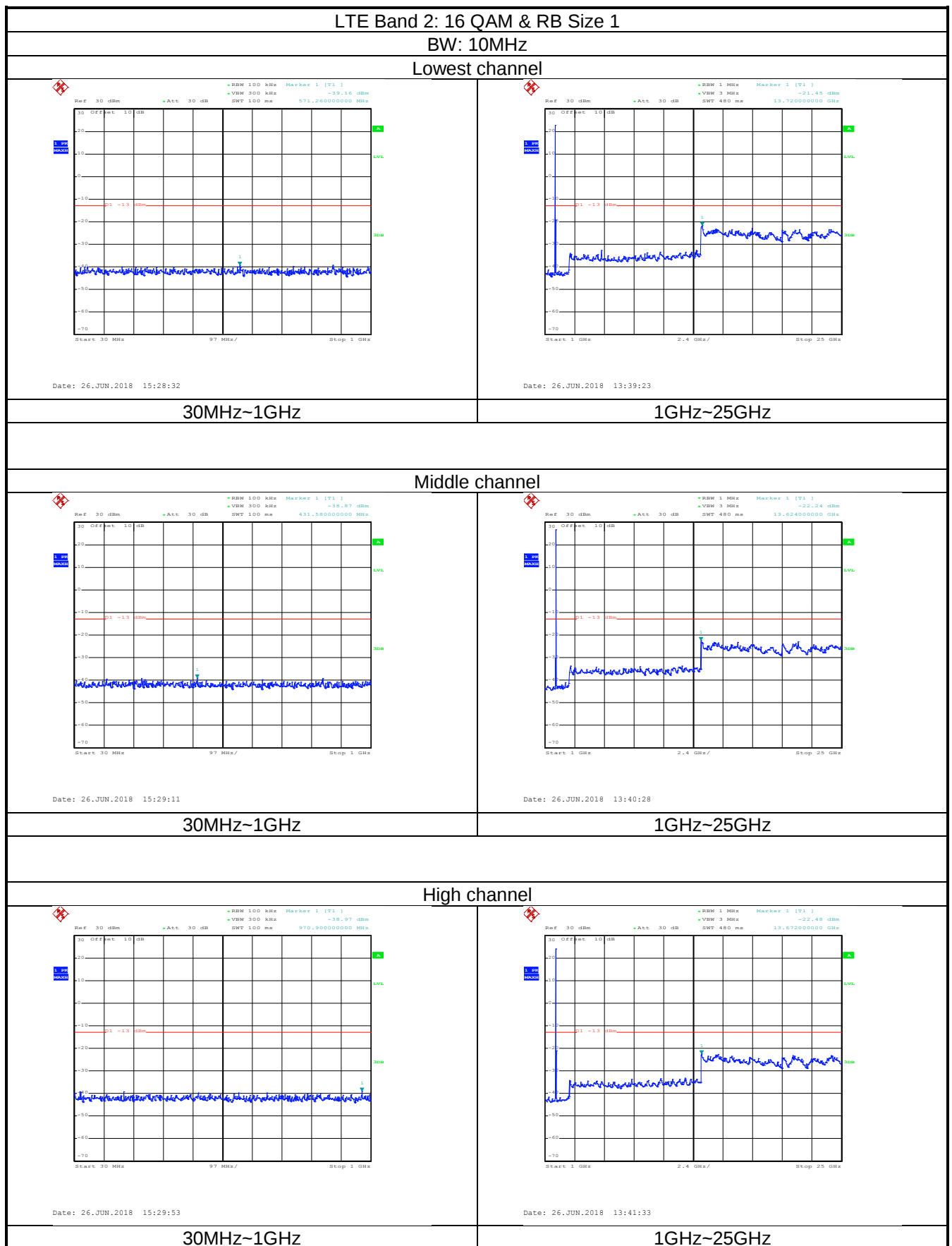


Date: 26.JUN.2018 13:38:36

1GHz~25GHz



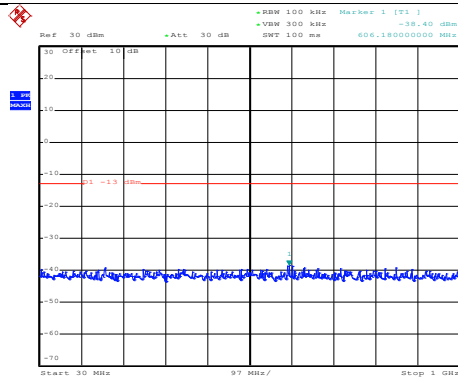




LTE Band 2: 16 QAM & RB Size 50

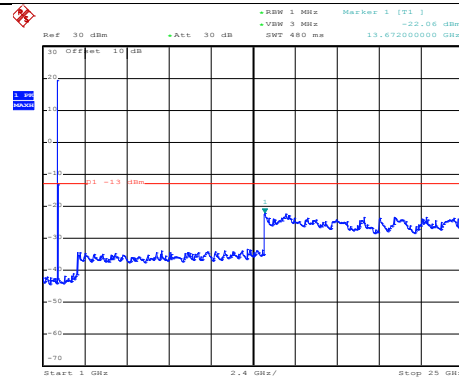
BW: 10MHz

Lowest channel



Date: 26.JUN.2018 15:28:56

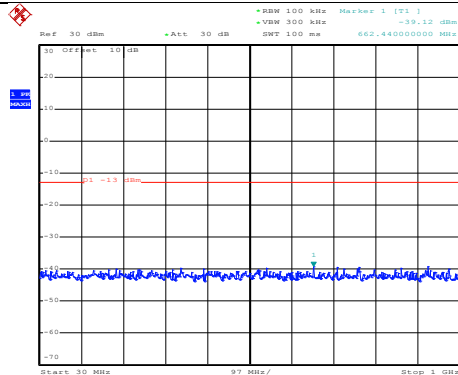
30MHz~1GHz



Date: 26.JUN.2018 13:40:01

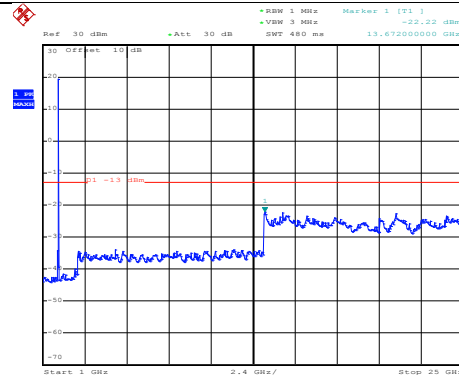
1GHz~25GHz

Middle channel



Date: 26.JUN.2018 15:29:36

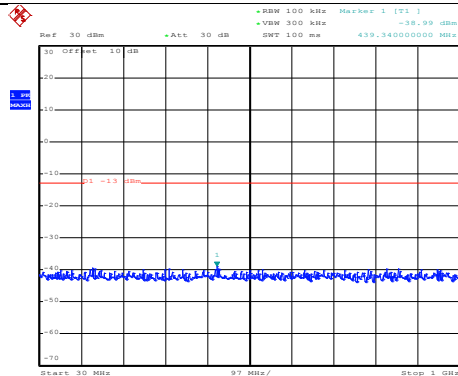
30MHz~1GHz



Date: 26.JUN.2018 13:41:05

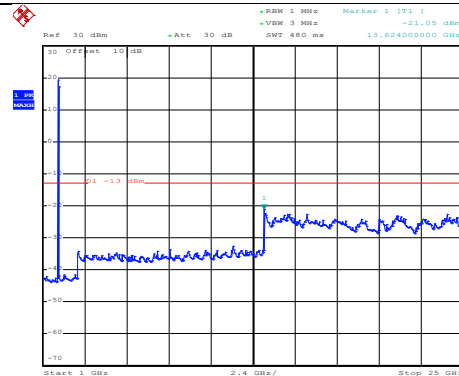
1GHz~25GHz

High channel



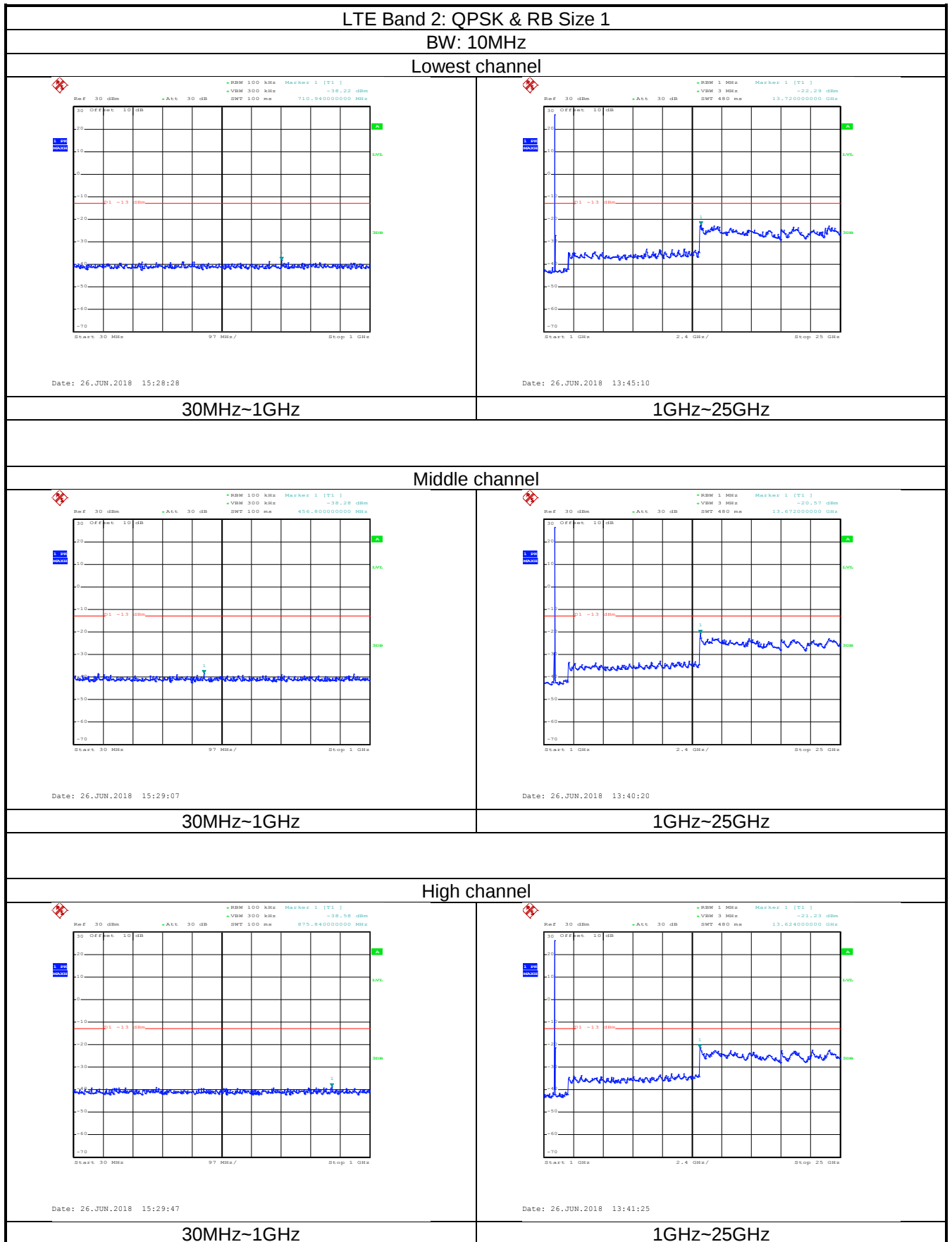
Date: 26.JUN.2018 15:30:12

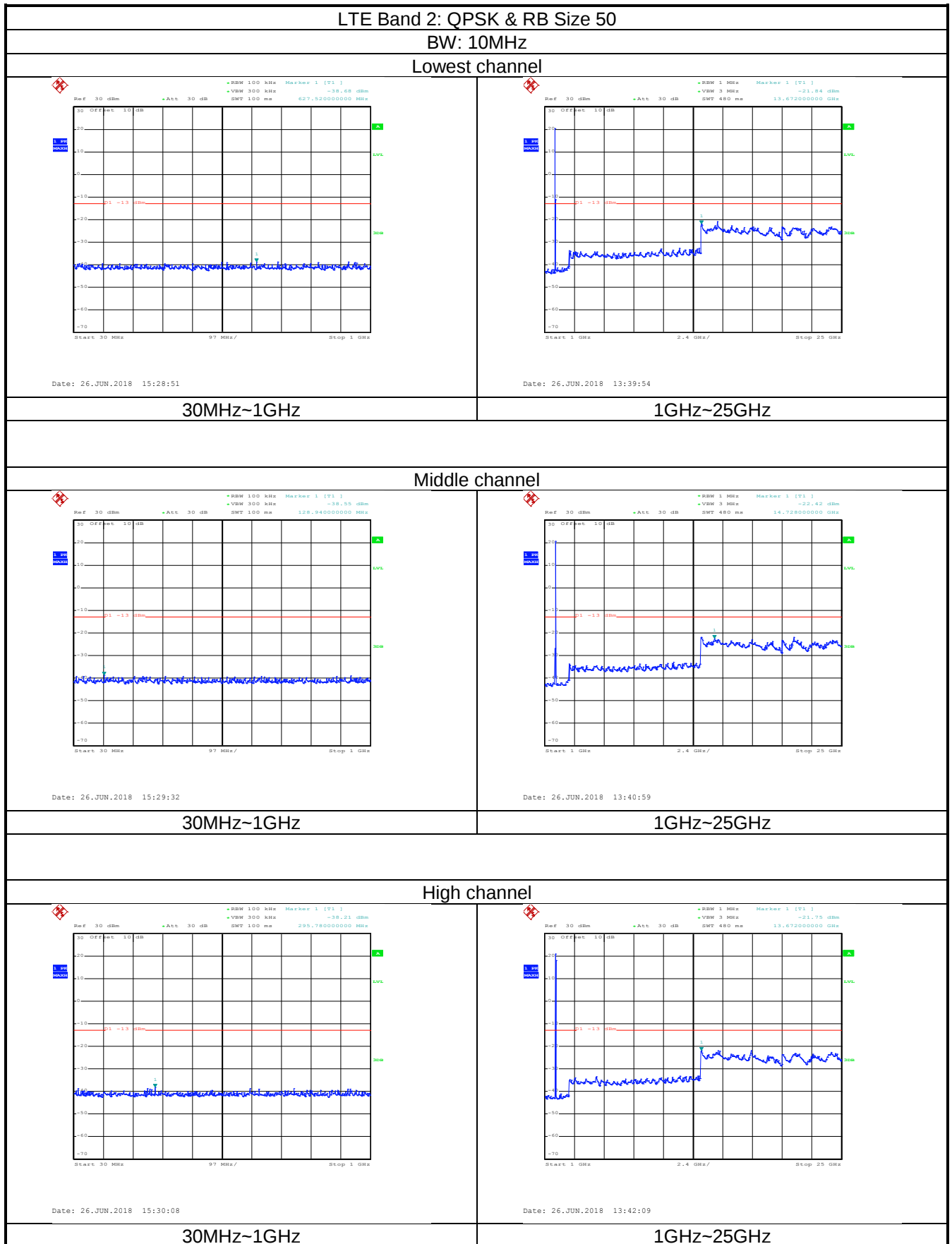
30MHz~1GHz

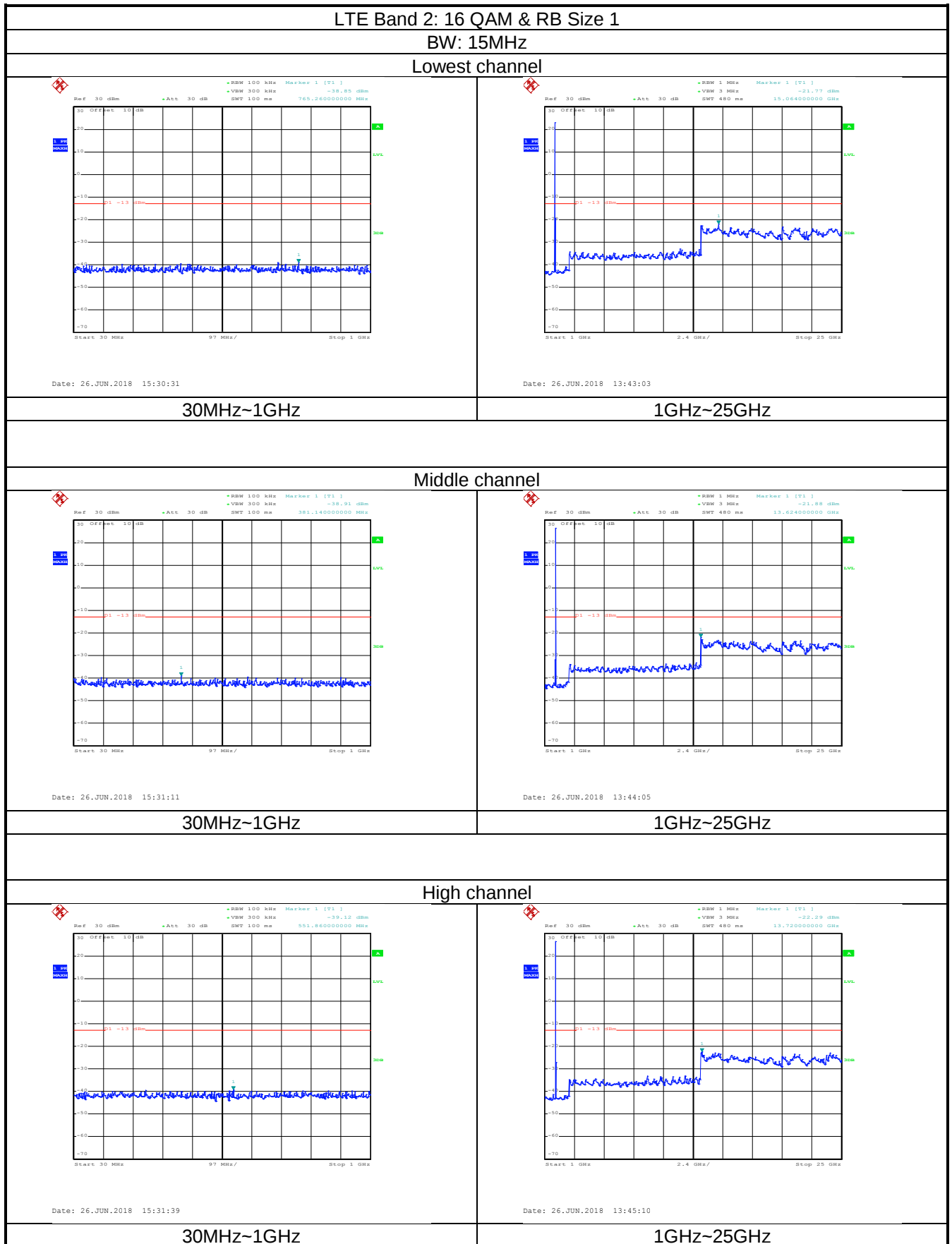


Date: 26.JUN.2018 13:42:16

1GHz~25GHz



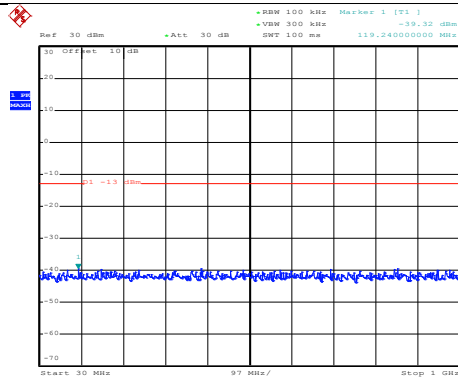




LTE Band 2: 16 QAM & RB Size 75

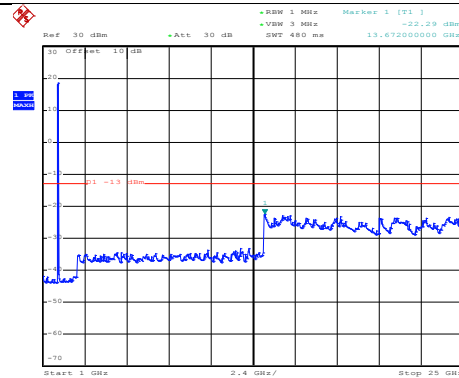
BW: 15MHz

Lowest channel



Date: 26.JUN.2018 15:30:57

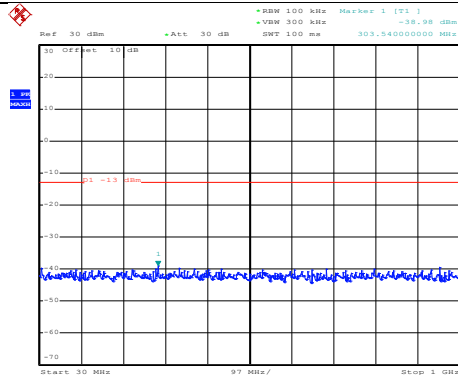
30MHz~1GHz



Date: 26.JUN.2018 13:43:38

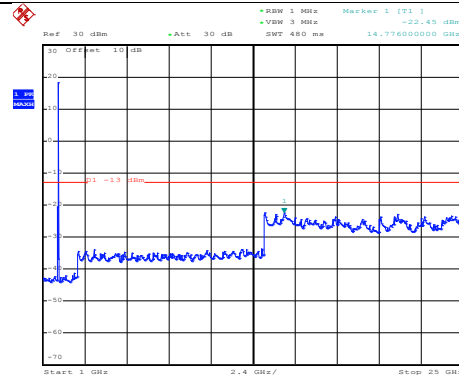
1GHz~25GHz

Middle channel



Date: 26.JUN.2018 15:31:24

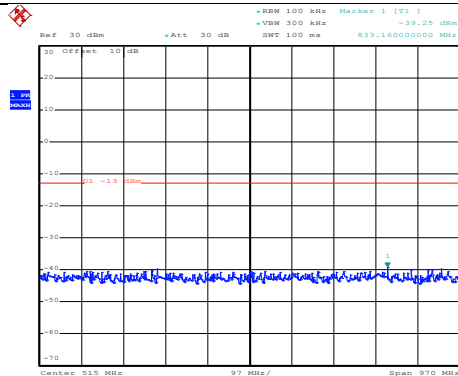
30MHz~1GHz



Date: 26.JUN.2018 13:44:42

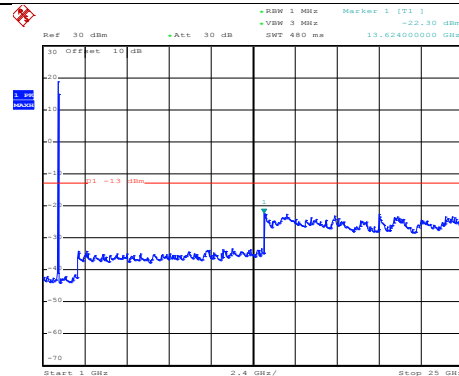
1GHz~25GHz

High channel



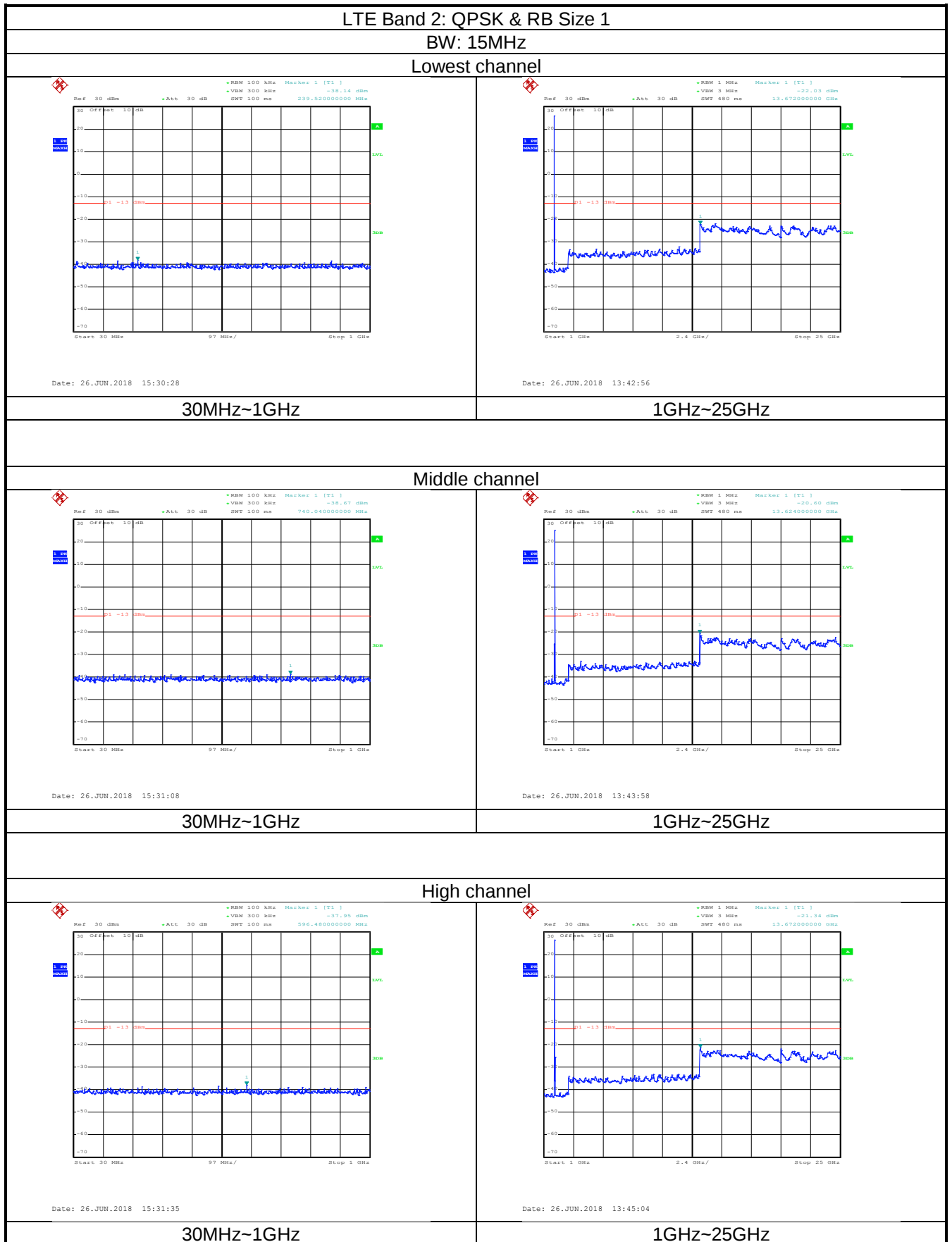
Date: 26.JUN.2018 15:33:25

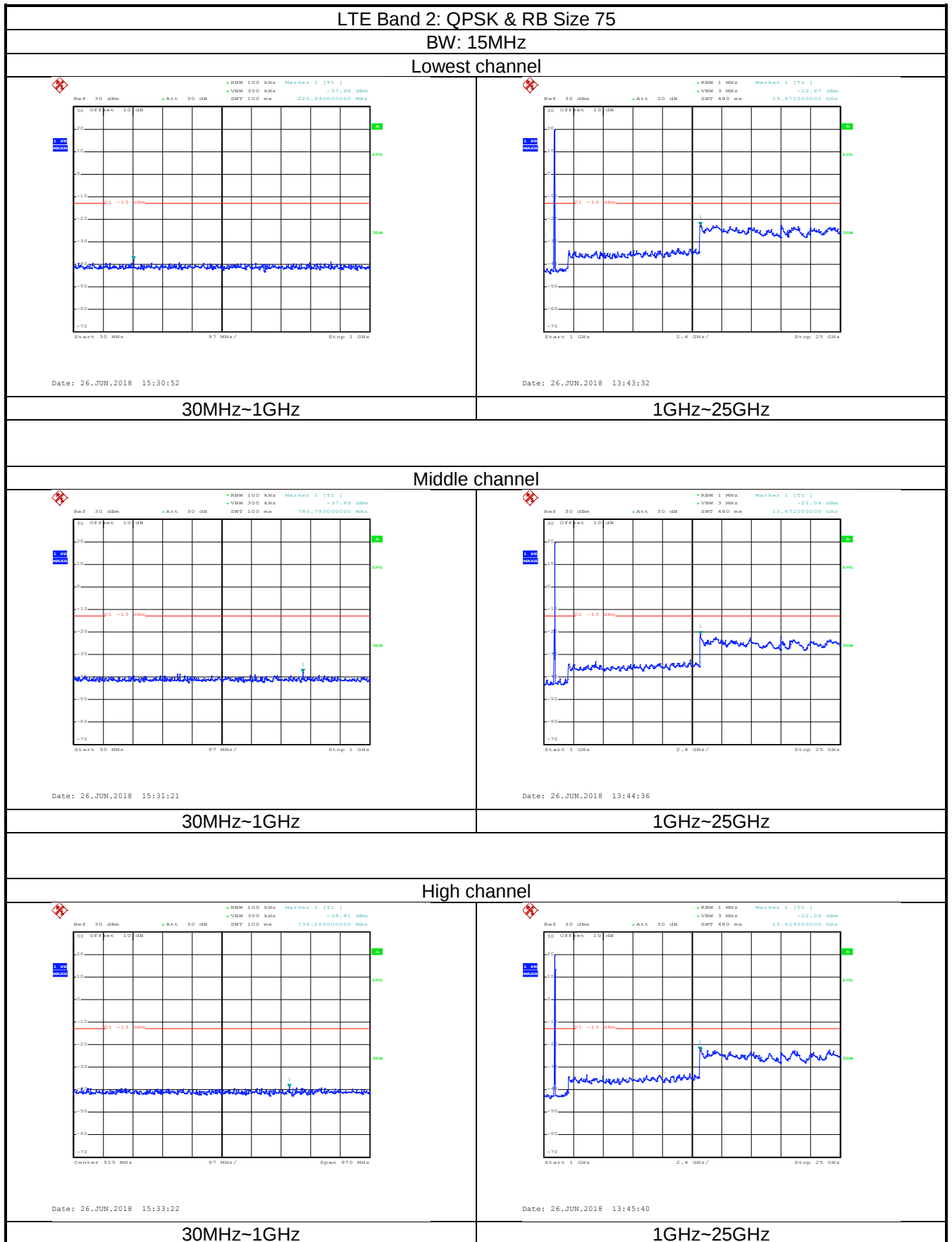
30MHz~1GHz

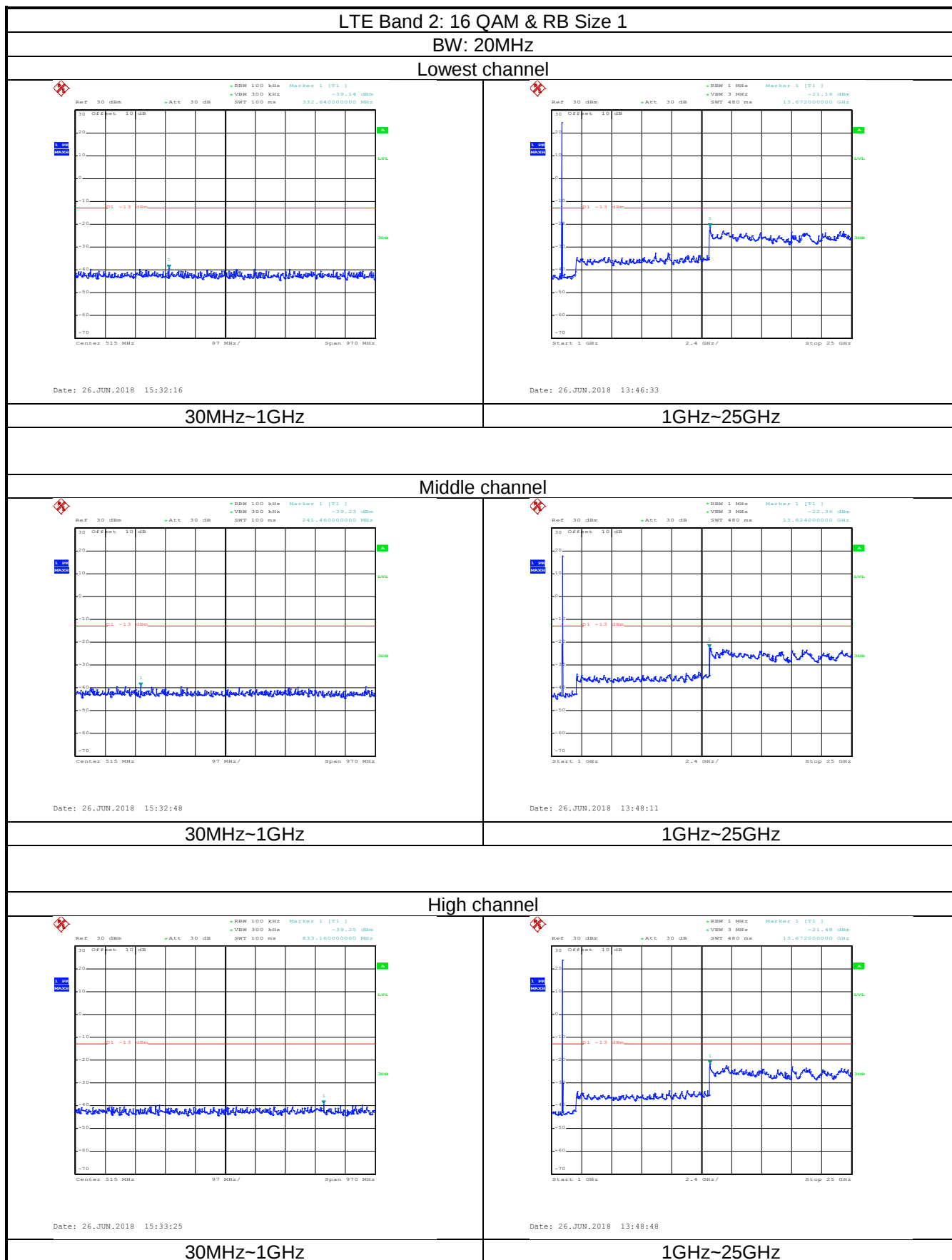


Date: 26.JUN.2018 13:45:46

1GHz~25GHz



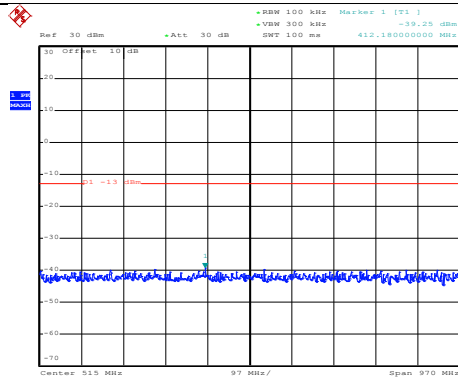




LTE Band 2: 16 QAM & RB Size 100

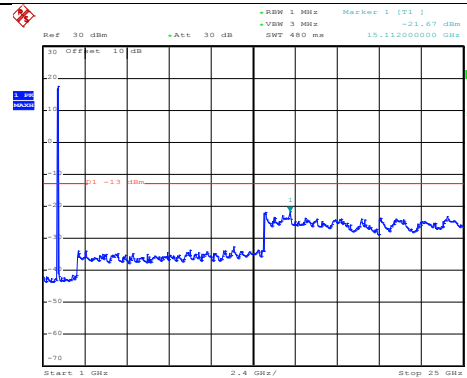
BW: 20MHz

Lowest channel



Date: 26 JUN.2018 15:32:32

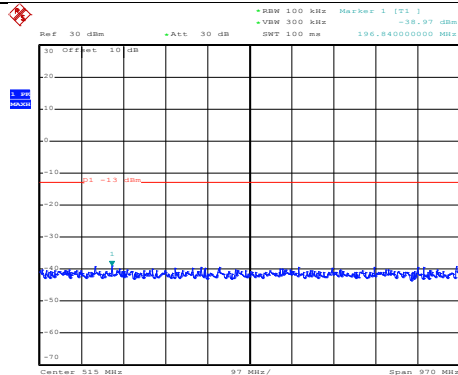
30MHz~1GHz



Date: 26 JUN.2018 13:47:12

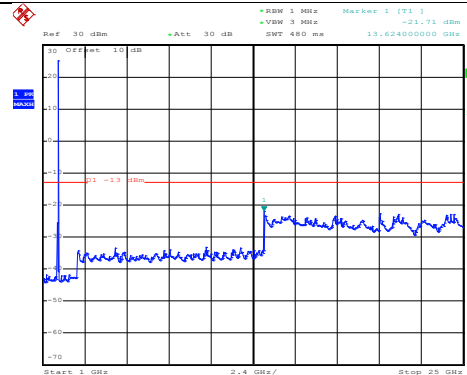
1GHz~25GHz

Middle channel



Date: 26 JUN.2018 15:33:12

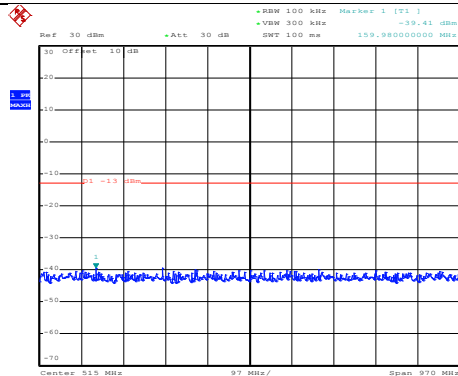
30MHz~1GHz



Date: 26 JUN.2018 13:47:57

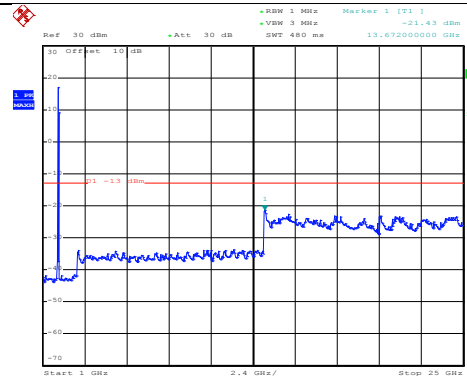
1GHz~25GHz

High channel



Date: 26 JUN.2018 15:33:52

30MHz~1GHz



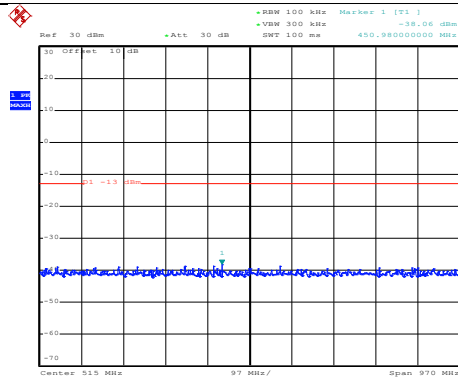
Date: 26 JUN.2018 13:49:27

1GHz~25GHz

LTE Band 2: QPSK & RB Size 1

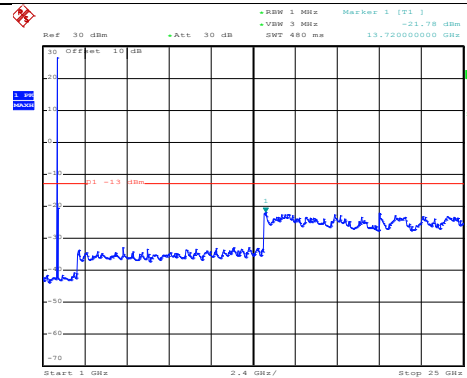
BW: 20MHz

Lowest channel



Date: 26.JUN.2018 15:32:13

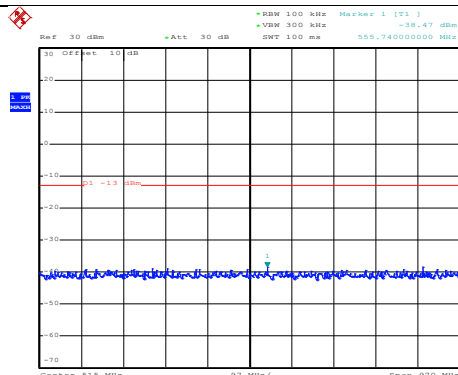
30MHz~1GHz



Date: 26.JUN.2018 13:46:26

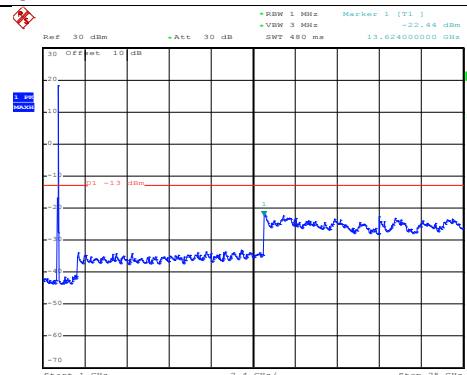
1GHz~25GHz

Middle channel



Date: 26.JUN.2018 15:32:44

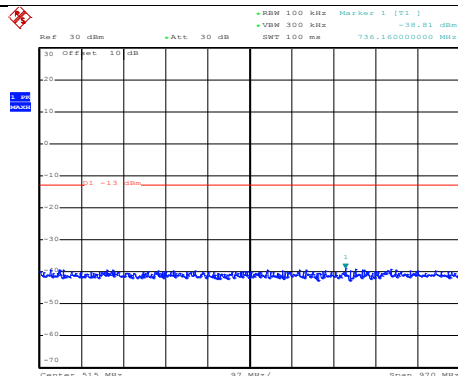
30MHz~1GHz



Date: 26.JUN.2018 13:48:06

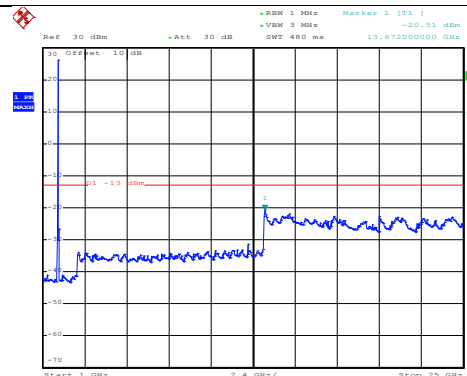
1GHz~25GHz

High channel



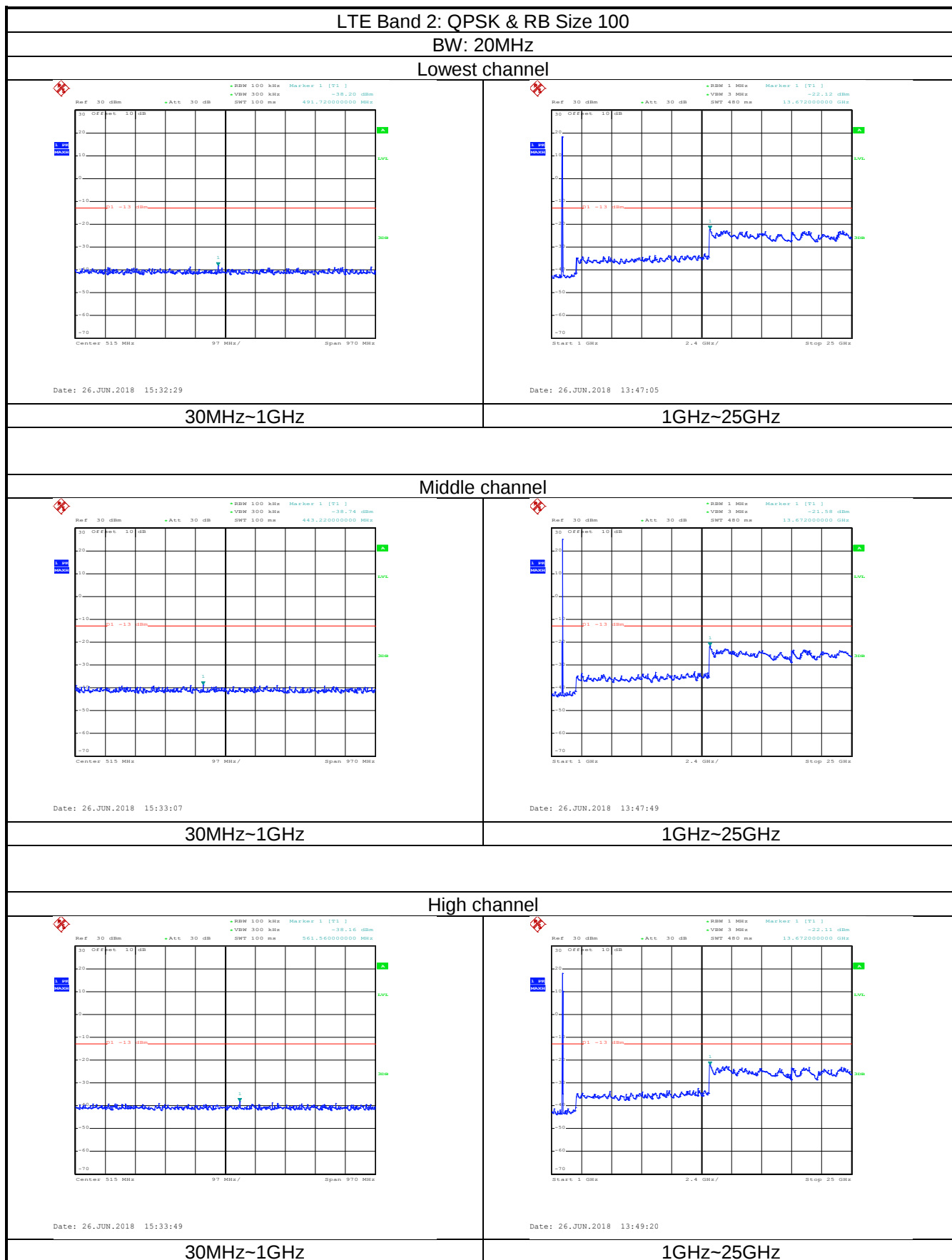
Date: 26.JUN.2018 15:33:22

30MHz~1GHz

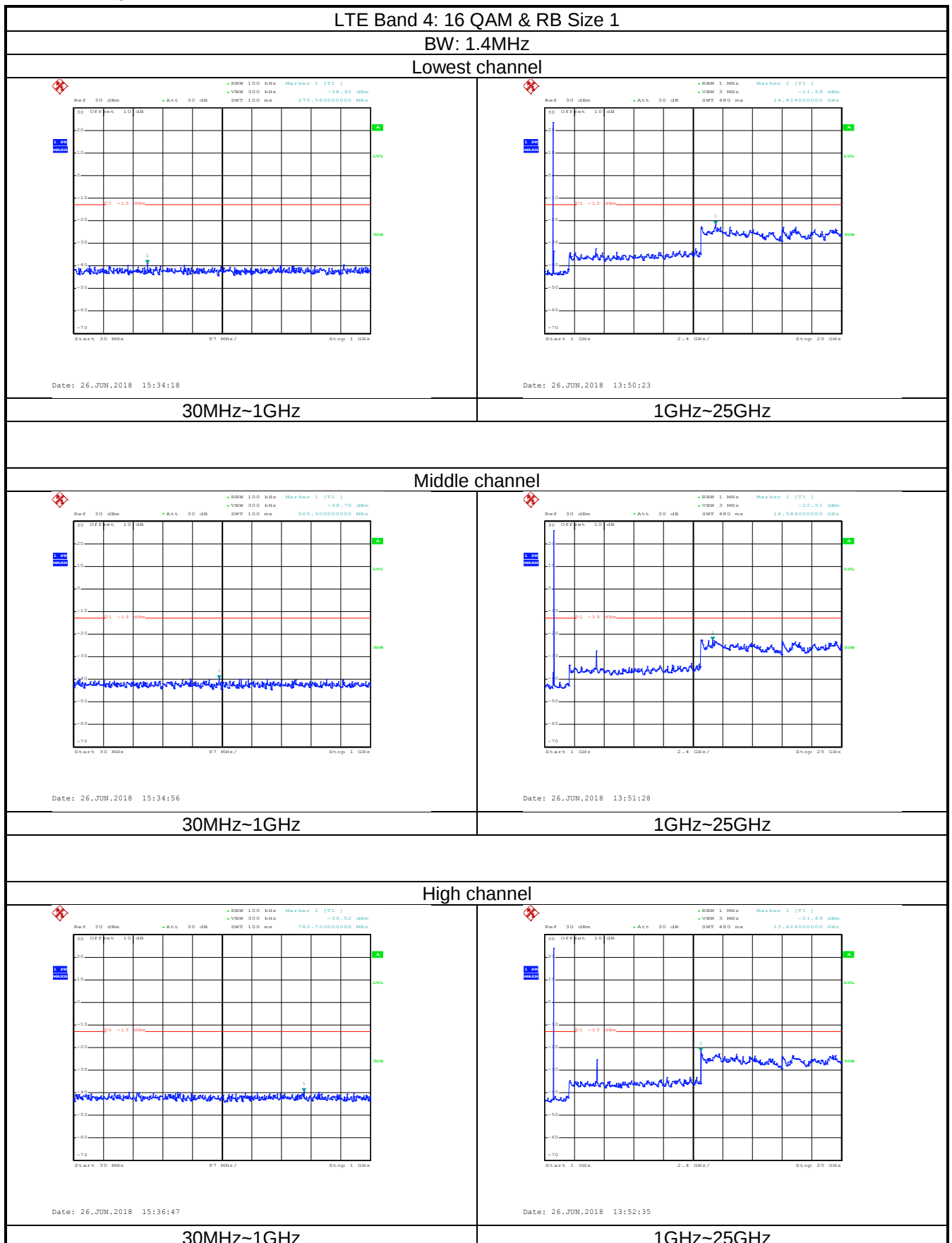


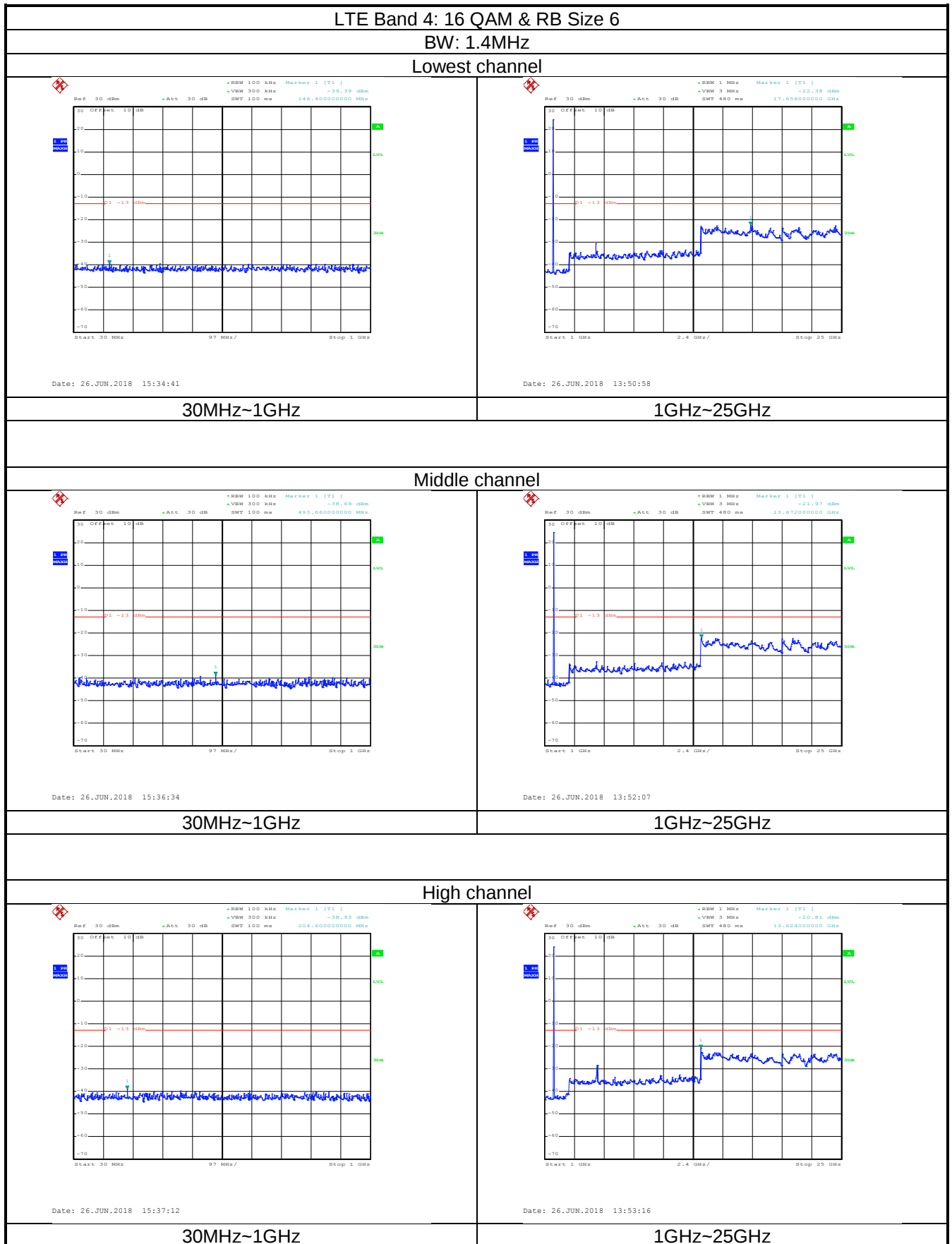
Date: 26.JUN.2018 13:48:42

1GHz~25GHz



LTE Band 4 part:

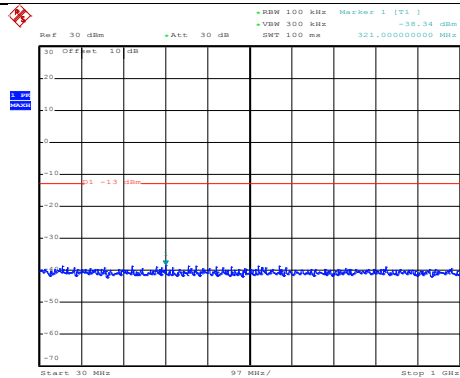




LTE Band 4: QPSK & RB Size 1

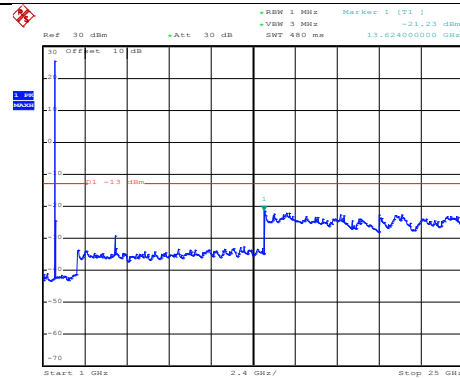
BW: 1.4MHz

Lowest channel



Date: 26 JUN.2018 15:34:15

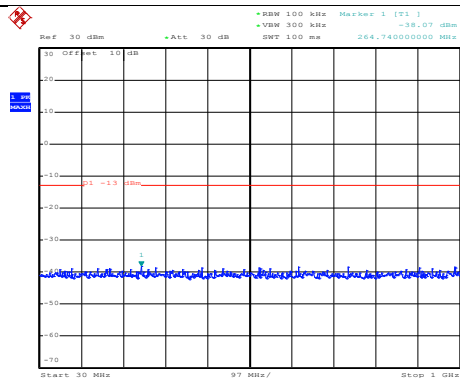
30MHz~1GHz



Date: 26 JUN.2018 13:50:16

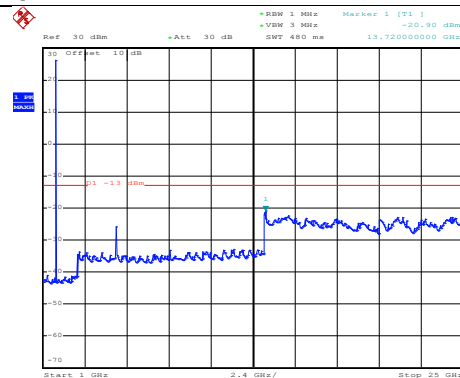
1GHz~25GHz

Middle channel



Date: 26 JUN.2018 15:34:52

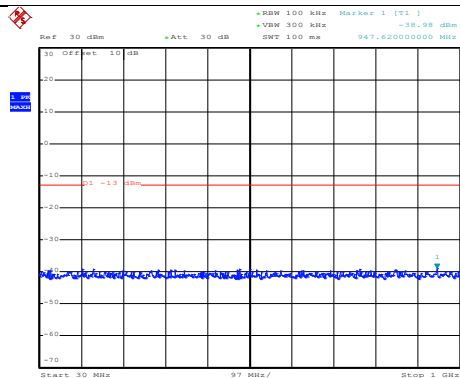
30MHz~1GHz



Date: 26 JUN.2018 13:51:21

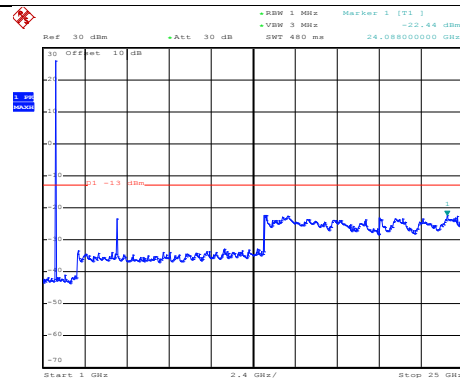
1GHz~25GHz

High channel



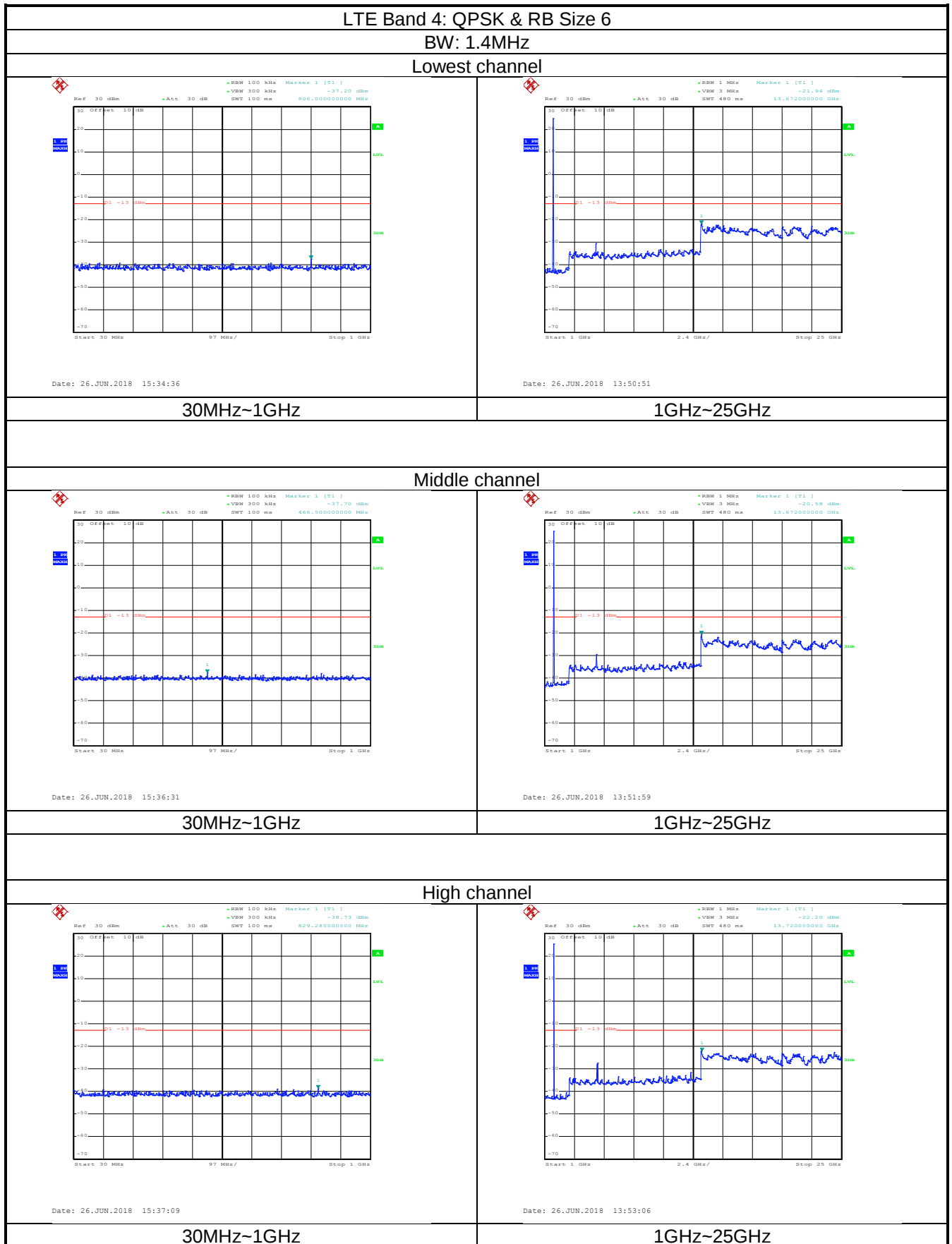
Date: 26 JUN.2018 15:36:44

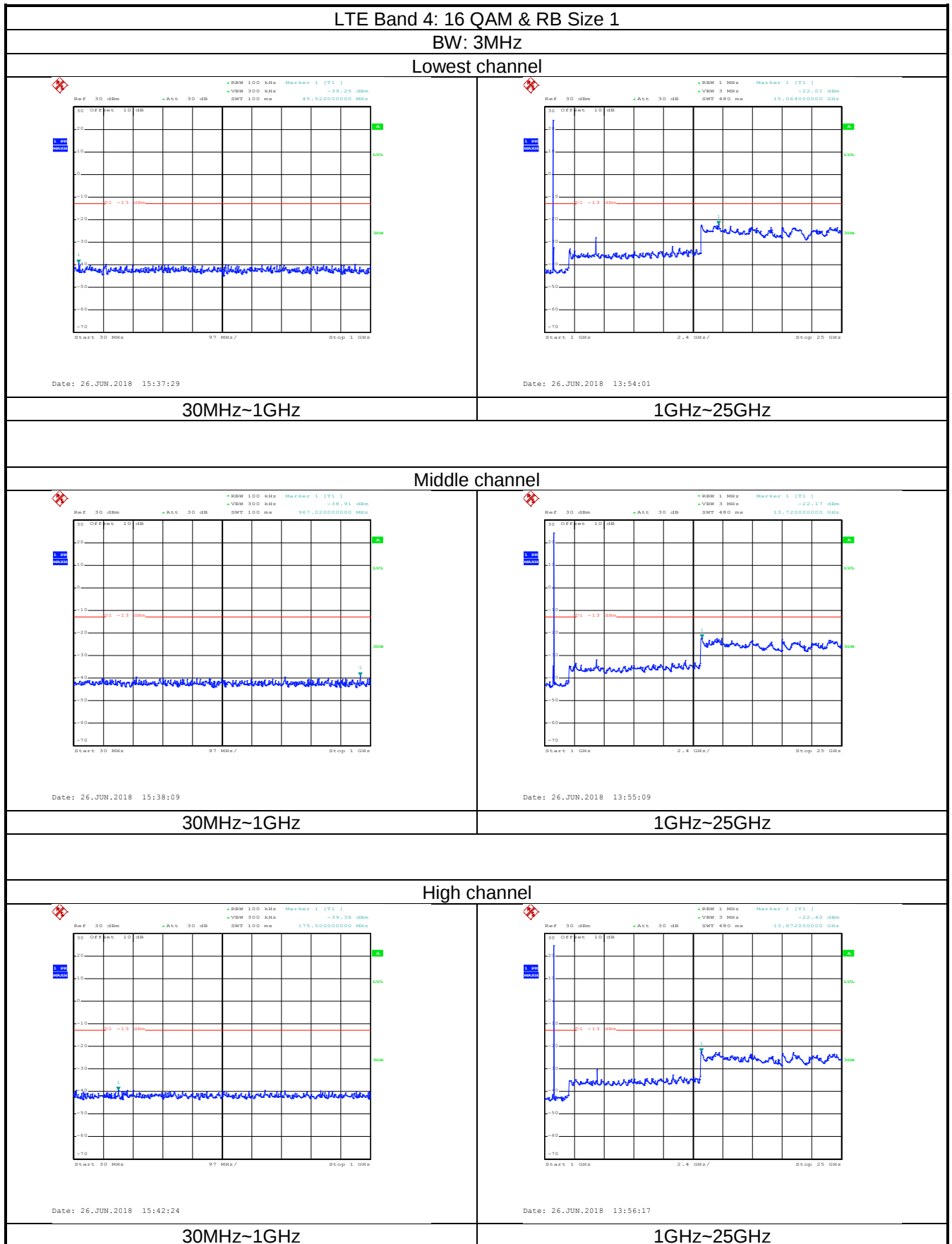
30MHz~1GHz



Date: 26 JUN.2018 13:52:27

1GHz~25GHz

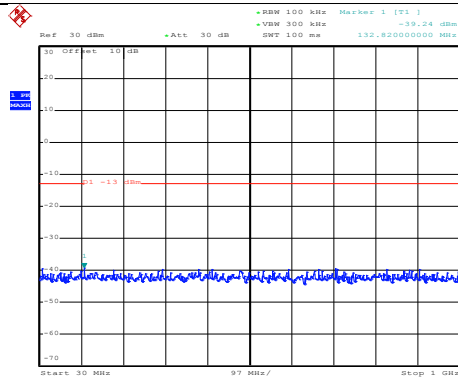




LTE Band 4: 16 QAM & RB Size 15

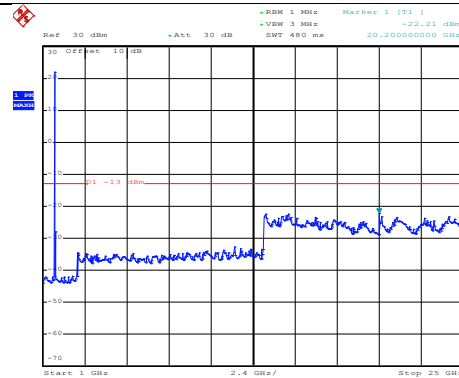
BW: 3MHz

Lowest channel



Date: 26.JUN.2018 15:37:56

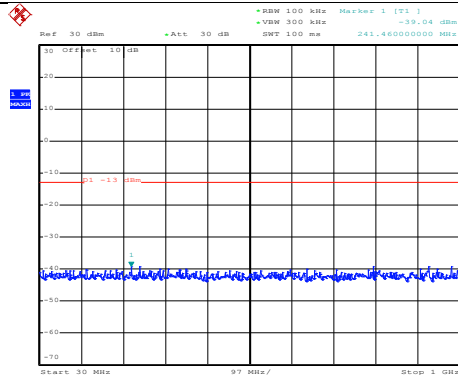
30MHz~1GHz



Date: 26.JUN.2018 13:54:39

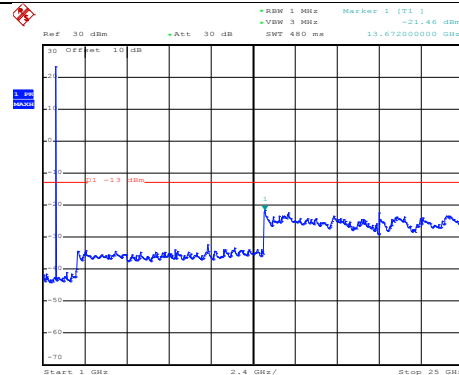
1GHz~25GHz

Middle channel



Date: 26.JUN.2018 15:38:36

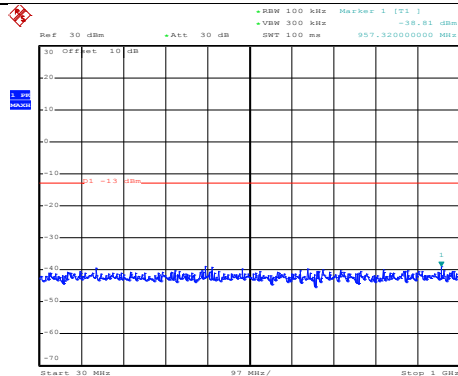
30MHz~1GHz



Date: 26.JUN.2018 13:55:46

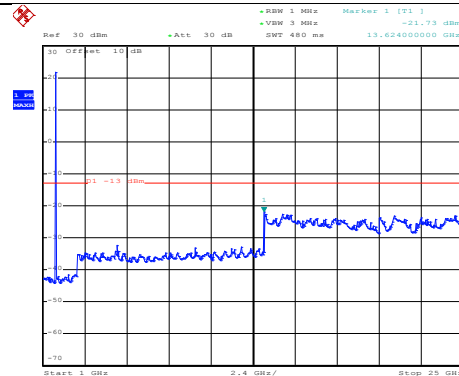
1GHz~25GHz

High channel



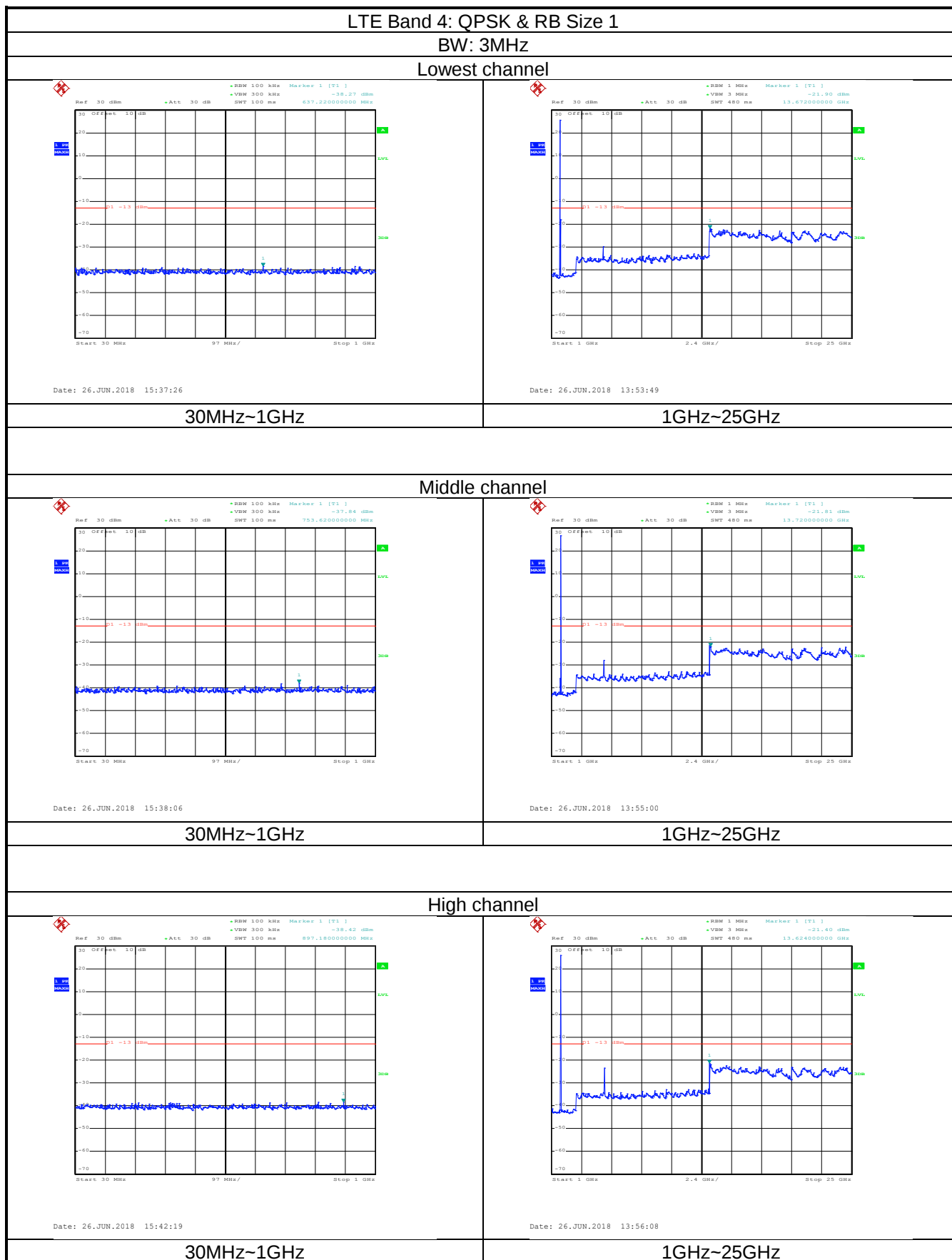
Date: 26.JUN.2018 15:42:44

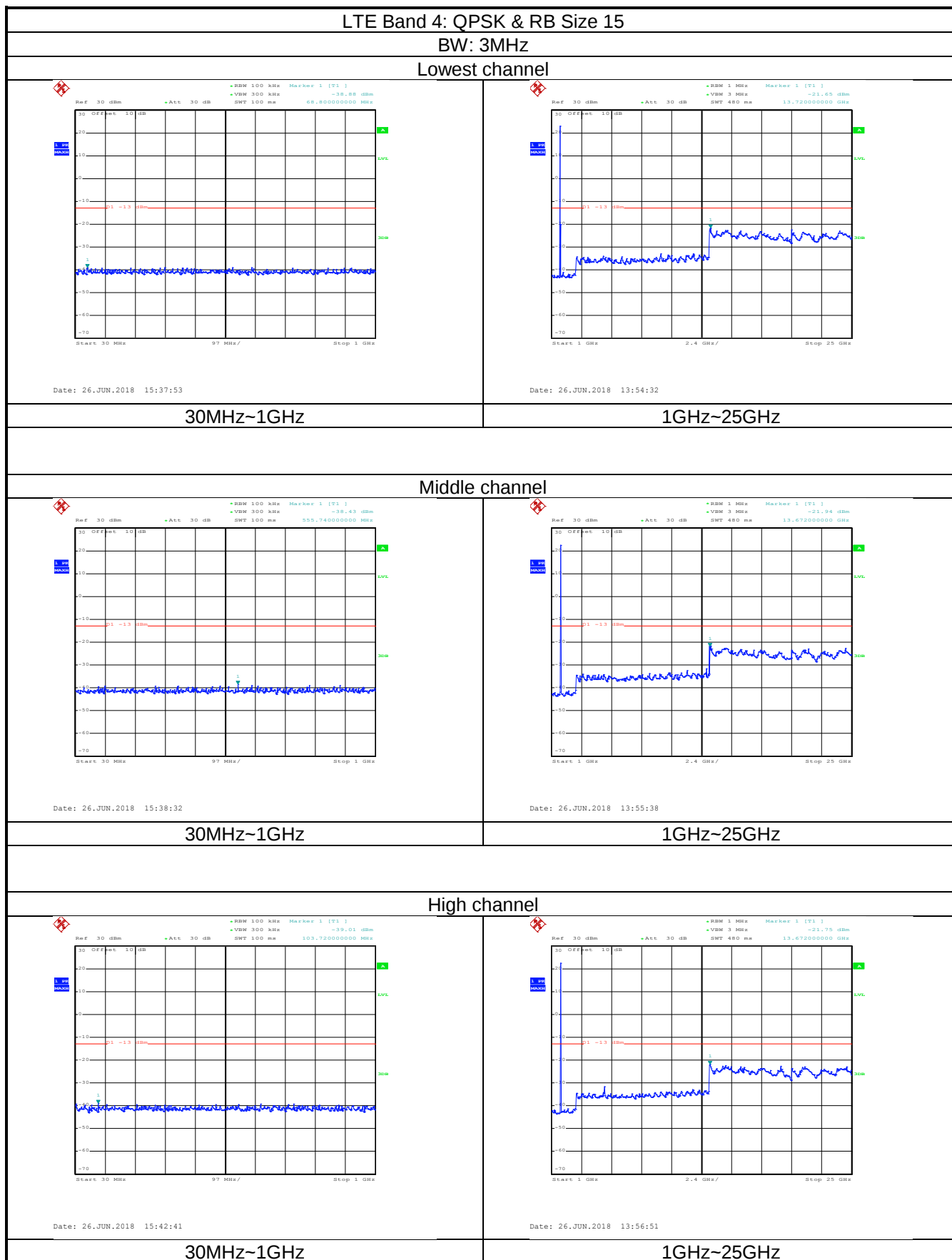
30MHz~1GHz

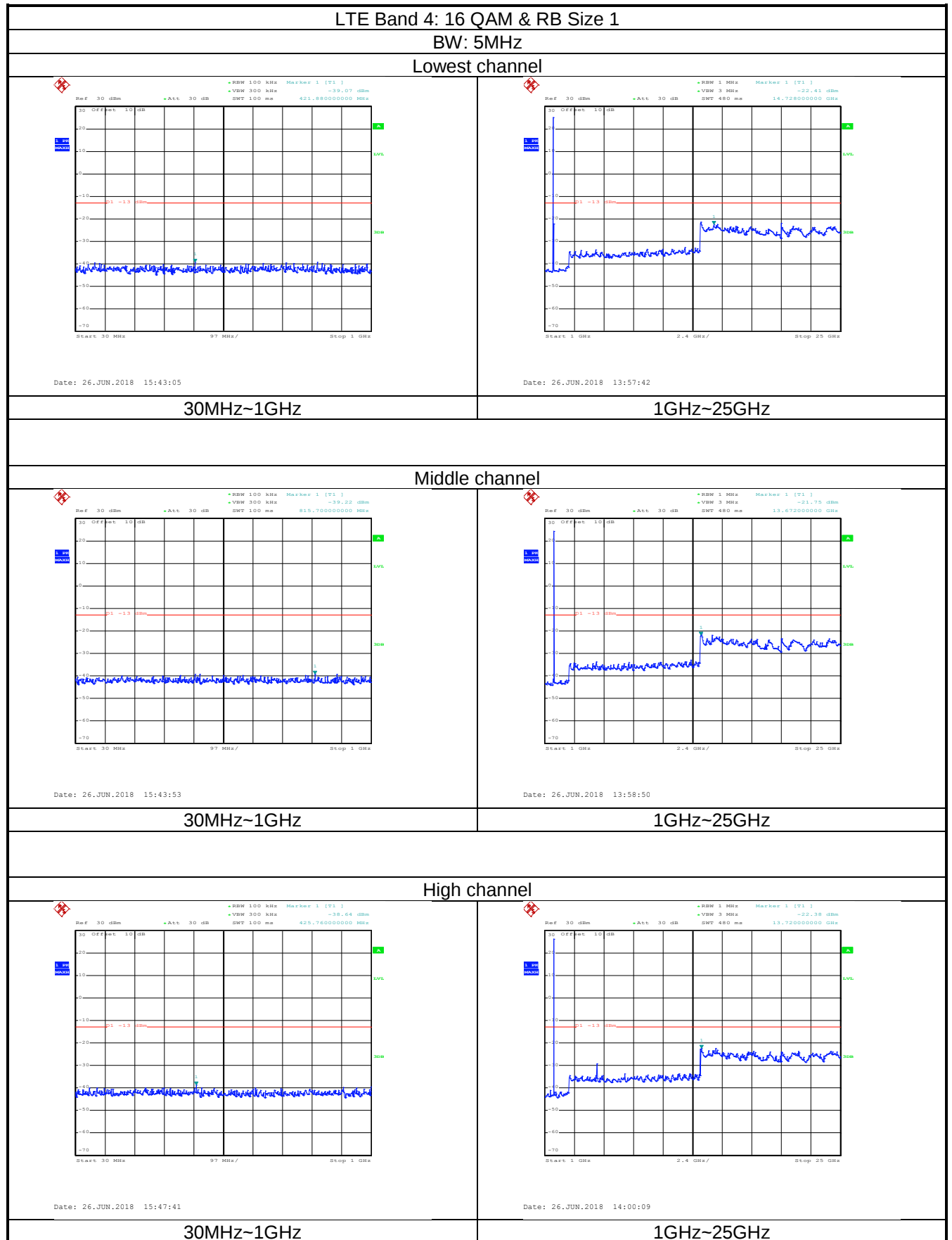


Date: 26.JUN.2018 13:56:58

1GHz~25GHz



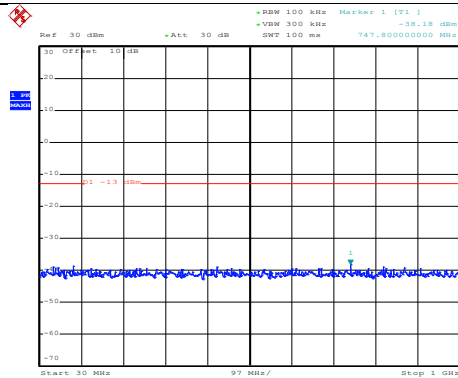




LTE Band 4: 16 QAM & RB Size 25

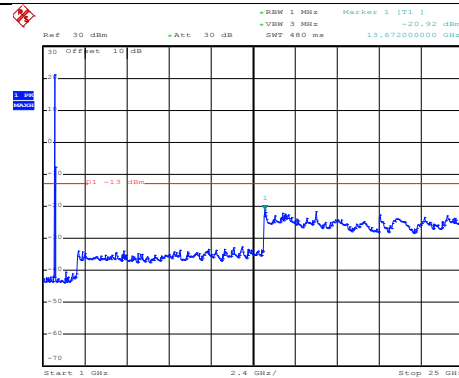
BW: 5MHz

Lowest channel



Date: 26.JUN.2018 15:43:34

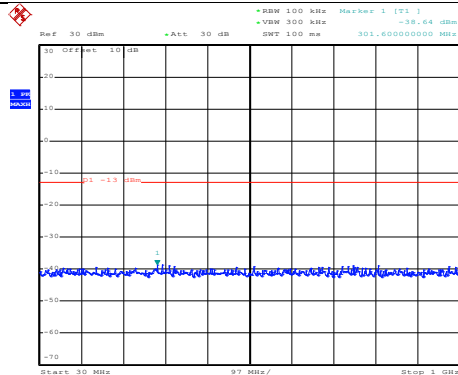
30MHz~1GHz



Date: 26.JUN.2018 13:58:23

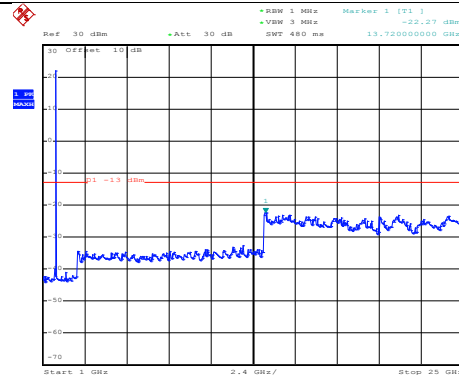
1GHz~25GHz

Middle channel



Date: 26.JUN.2018 15:44:20

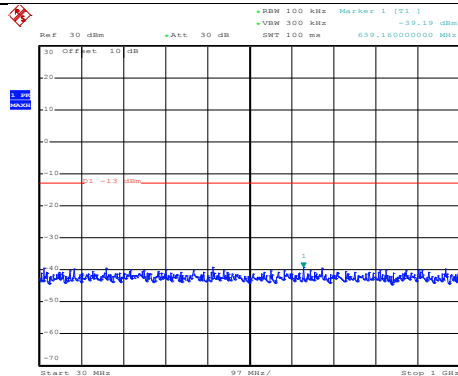
30MHz~1GHz



Date: 26.JUN.2018 13:59:31

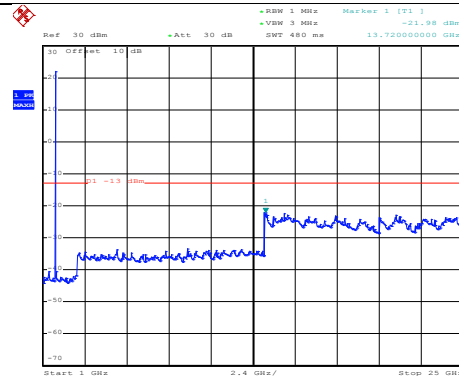
1GHz~25GHz

High channel



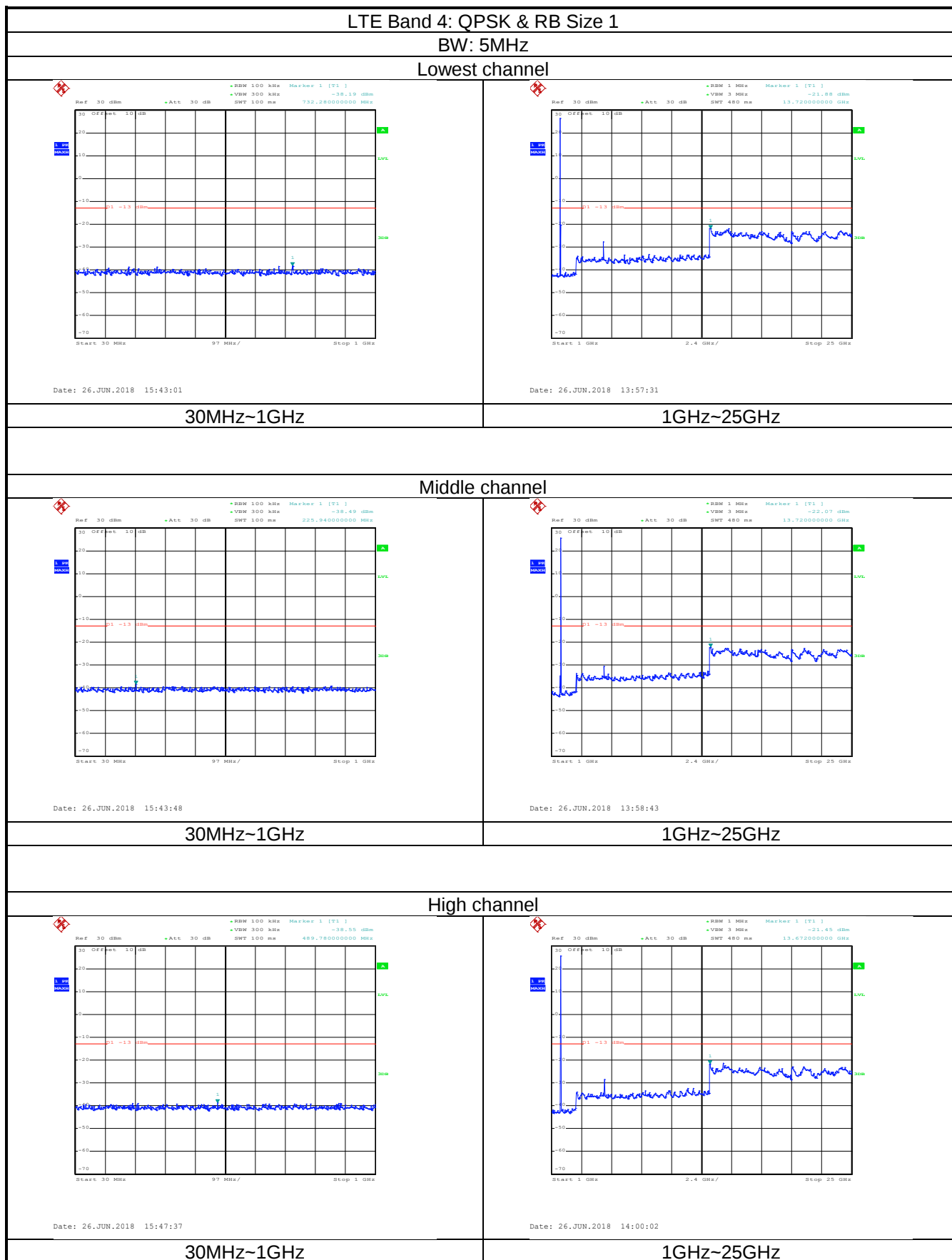
Date: 26.JUN.2018 15:48:10

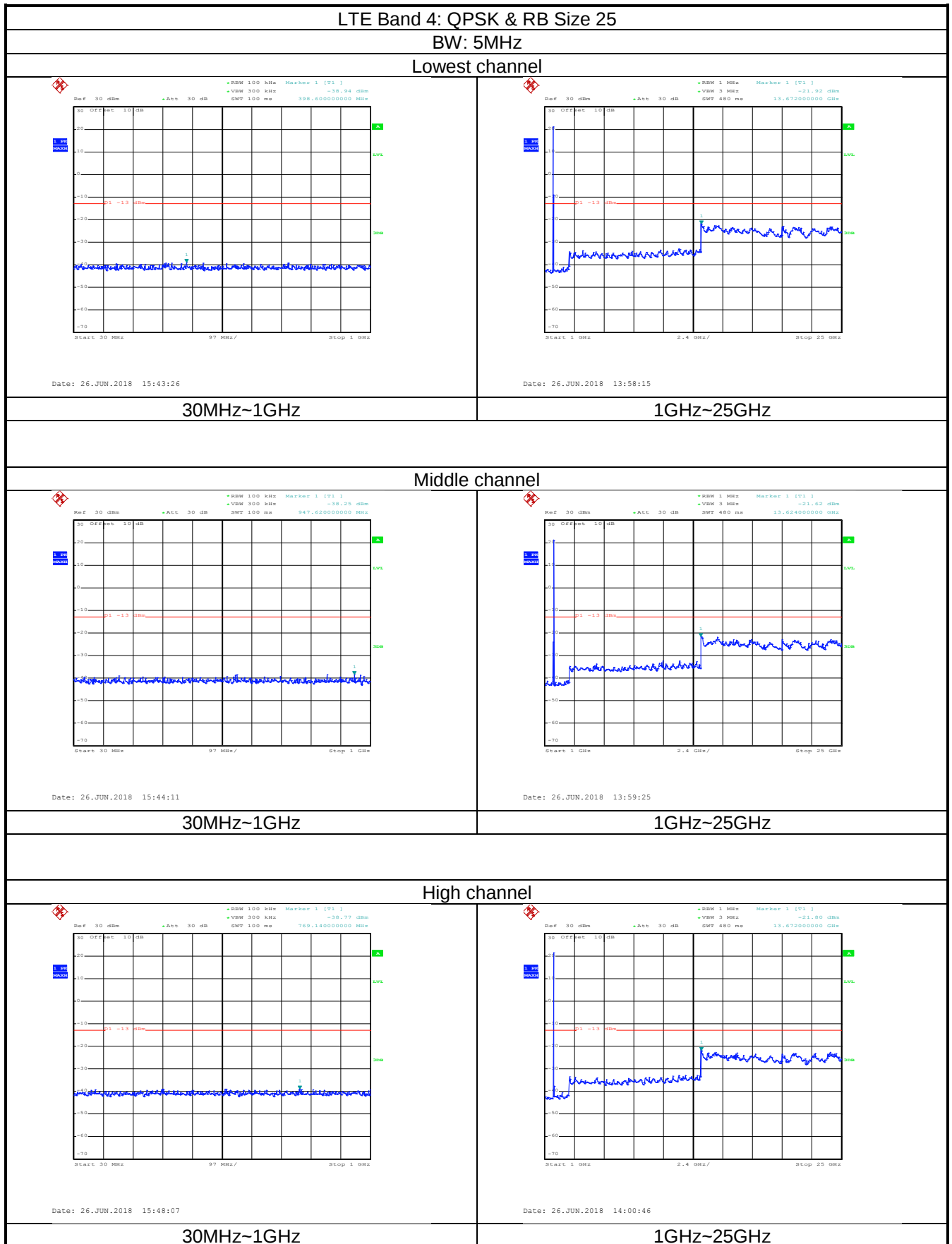
30MHz~1GHz



Date: 26.JUN.2018 14:00:54

1GHz~25GHz

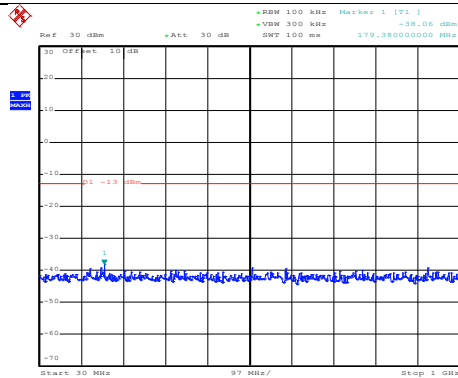




LTE Band 4: 16 QAM & RB Size 1

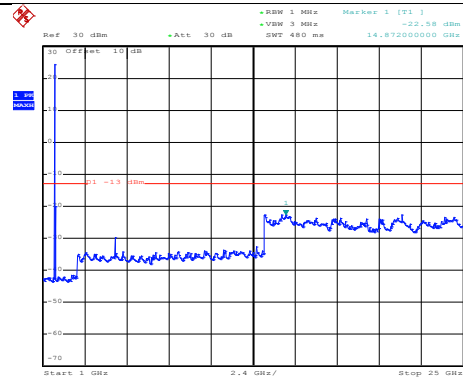
BW: 10MHz

Lowest channel



Date: 26 JUN.2018 15:48:31

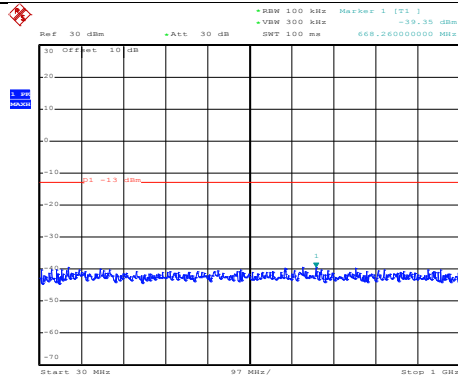
30MHz~1GHz



Date: 26 JUN.2018 14:02:00

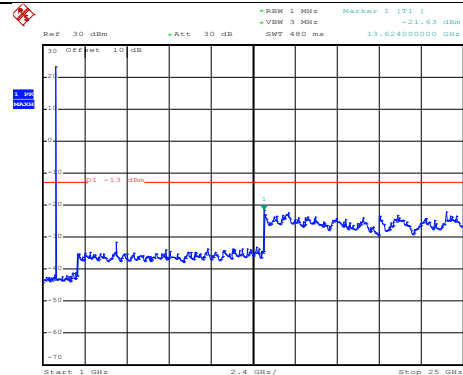
1GHz~25GHz

Middle channel



Date: 26 JUN.2018 15:49:10

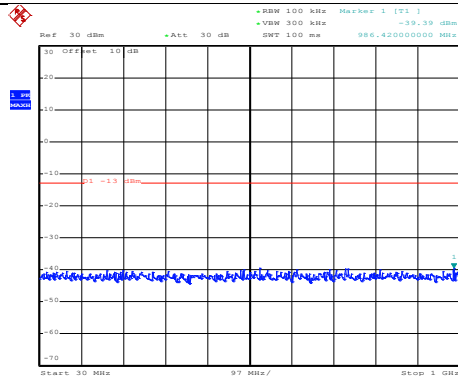
30MHz~1GHz



Date: 26 JUN.2018 14:03:02

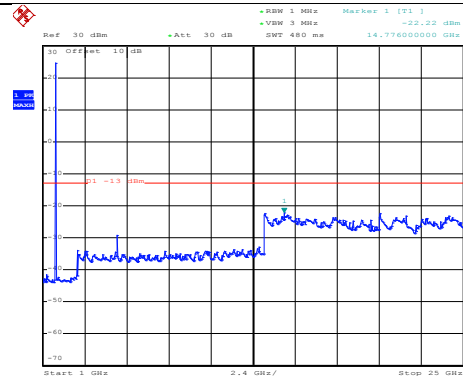
1GHz~25GHz

High channel



Date: 26 JUN.2018 15:49:44

30MHz~1GHz



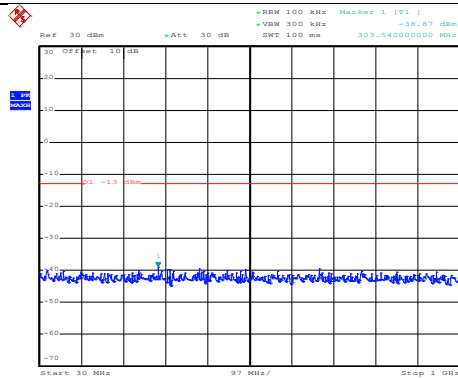
Date: 26 JUN.2018 14:04:23

1GHz~25GHz

LTE Band 4: 16 QAM & RB Size 50

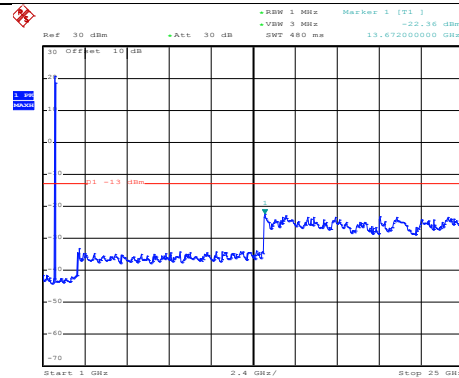
BW: 10MHz

Lowest channel



Date: 26 JUN.2018 15:48:56

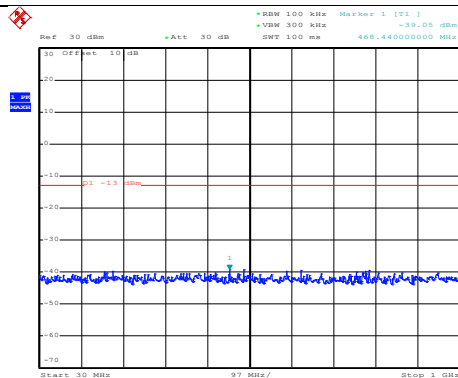
30MHz~1GHz



Date: 26 JUN.2018 14:02:36

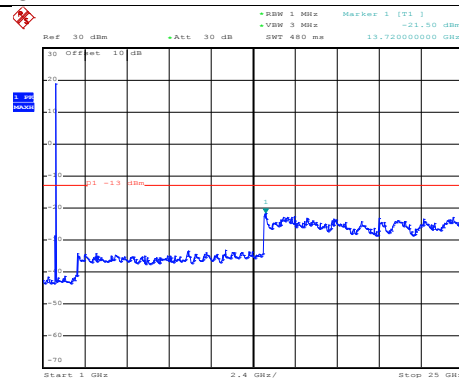
1GHz~25GHz

Middle channel



Date: 26 JUN.2018 15:49:29

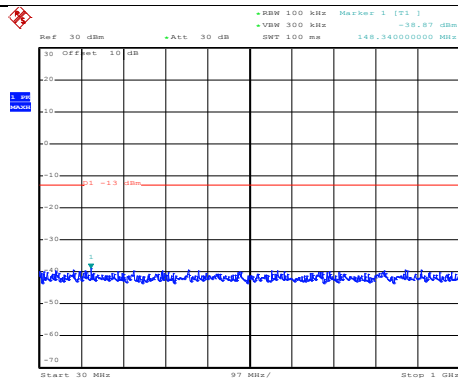
30MHz~1GHz



Date: 26 JUN.2018 14:03:50

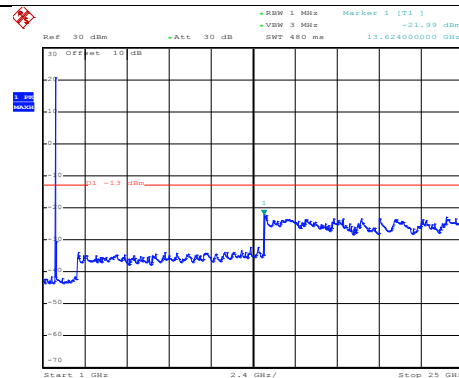
1GHz~25GHz

High channel



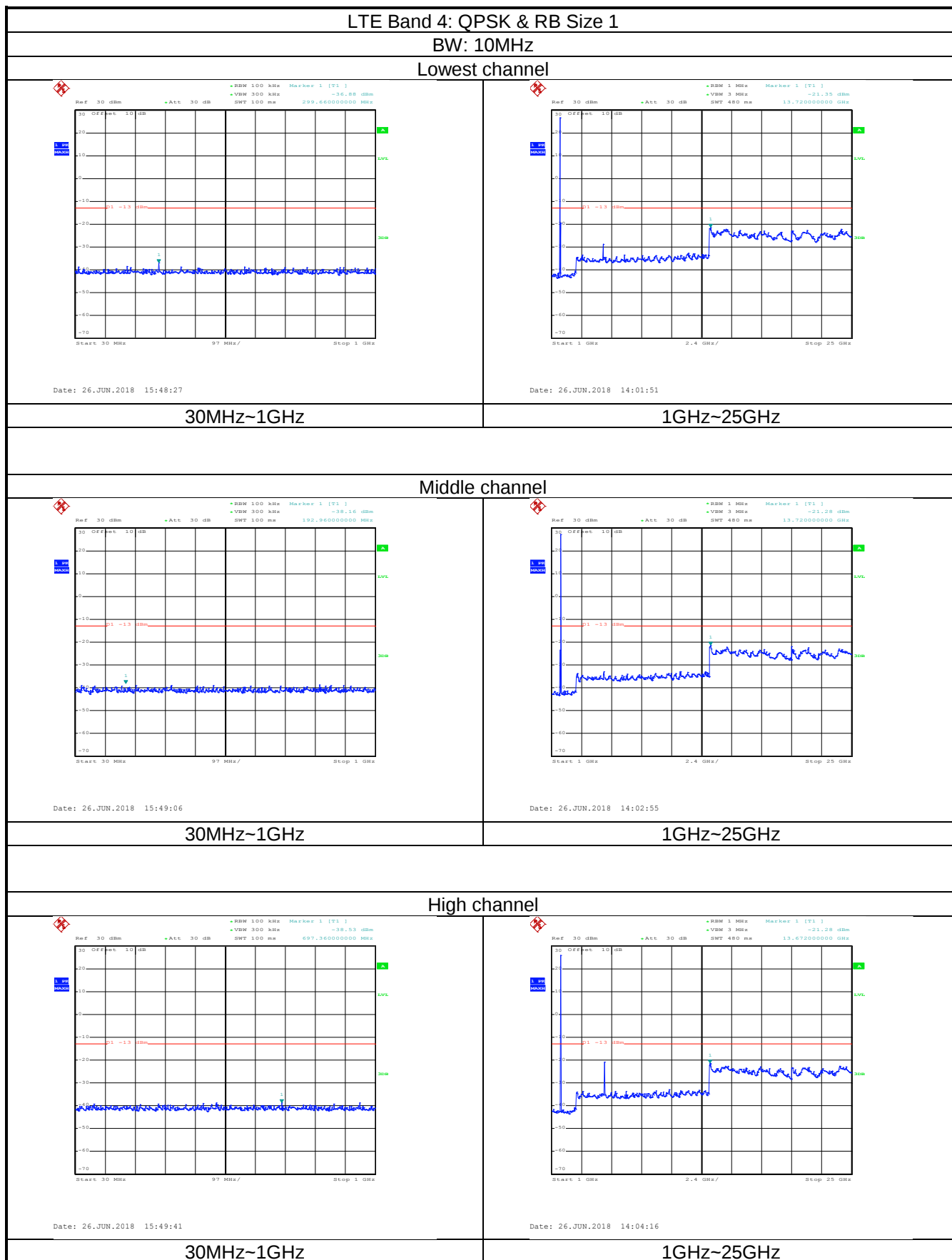
Date: 26 JUN.2018 15:50:09

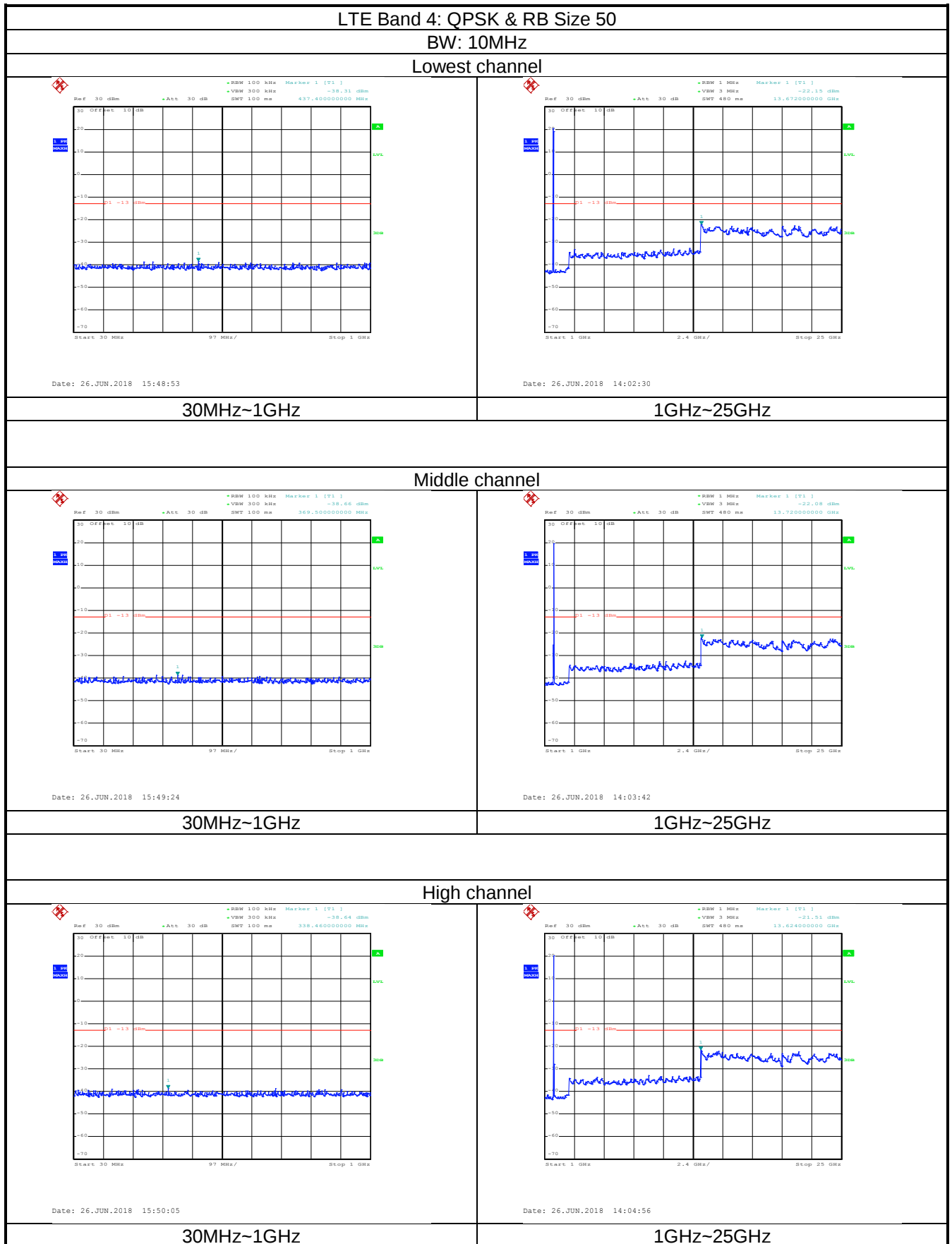
30MHz~1GHz



Date: 26 JUN.2018 14:05:04

1GHz~25GHz

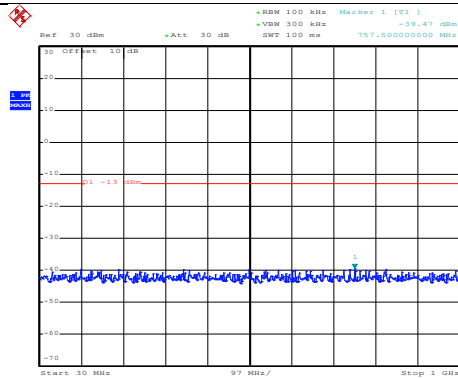




LTE Band 4: 16 QAM & RB Size 1

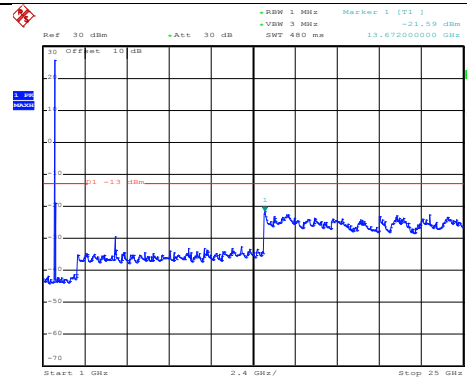
BW: 15MHz

Lowest channel



Date: 26.JUN.2018 15:50:31

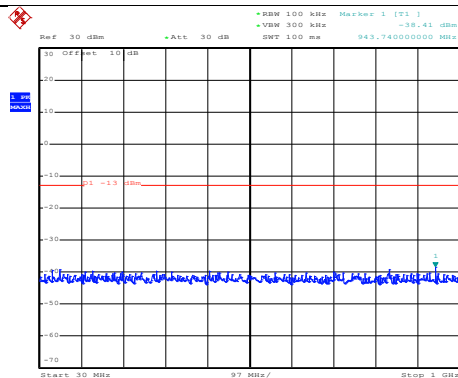
30MHz~1GHz



Date: 26.JUN.2018 14:06:28

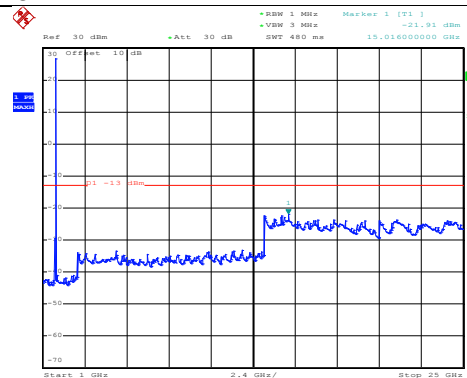
1GHz~25GHz

Middle channel



Date: 26.JUN.2018 15:51:14

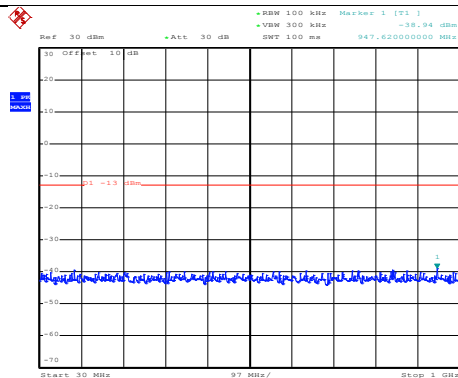
30MHz~1GHz



Date: 26.JUN.2018 14:07:38

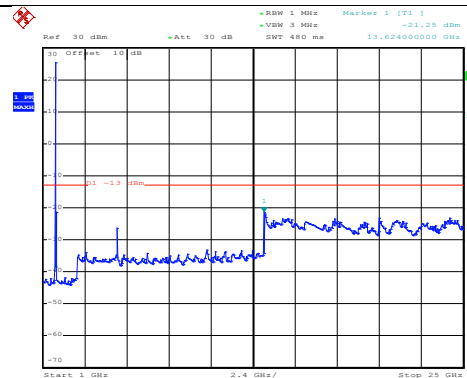
1GHz~25GHz

High channel



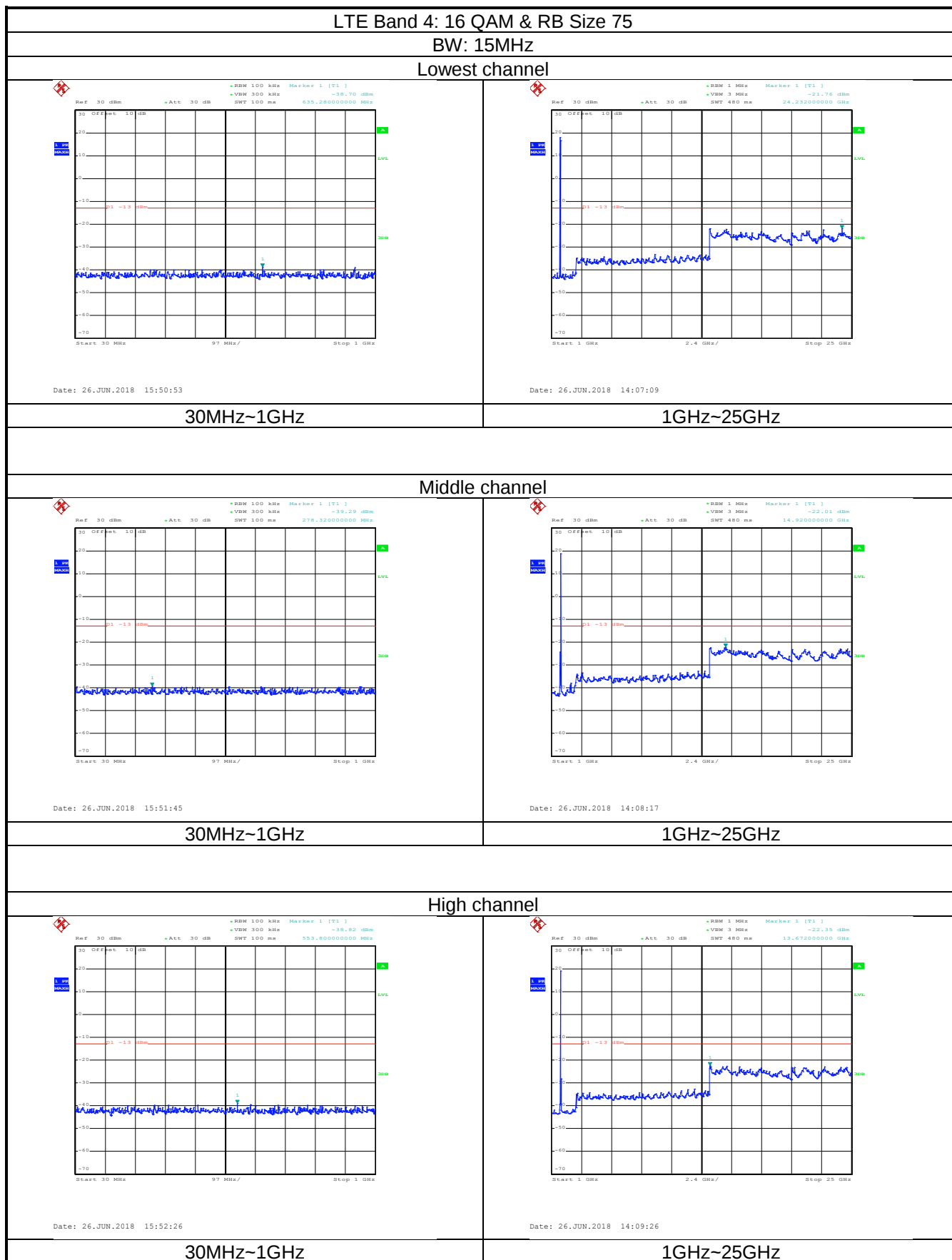
Date: 26.JUN.2018 15:52:02

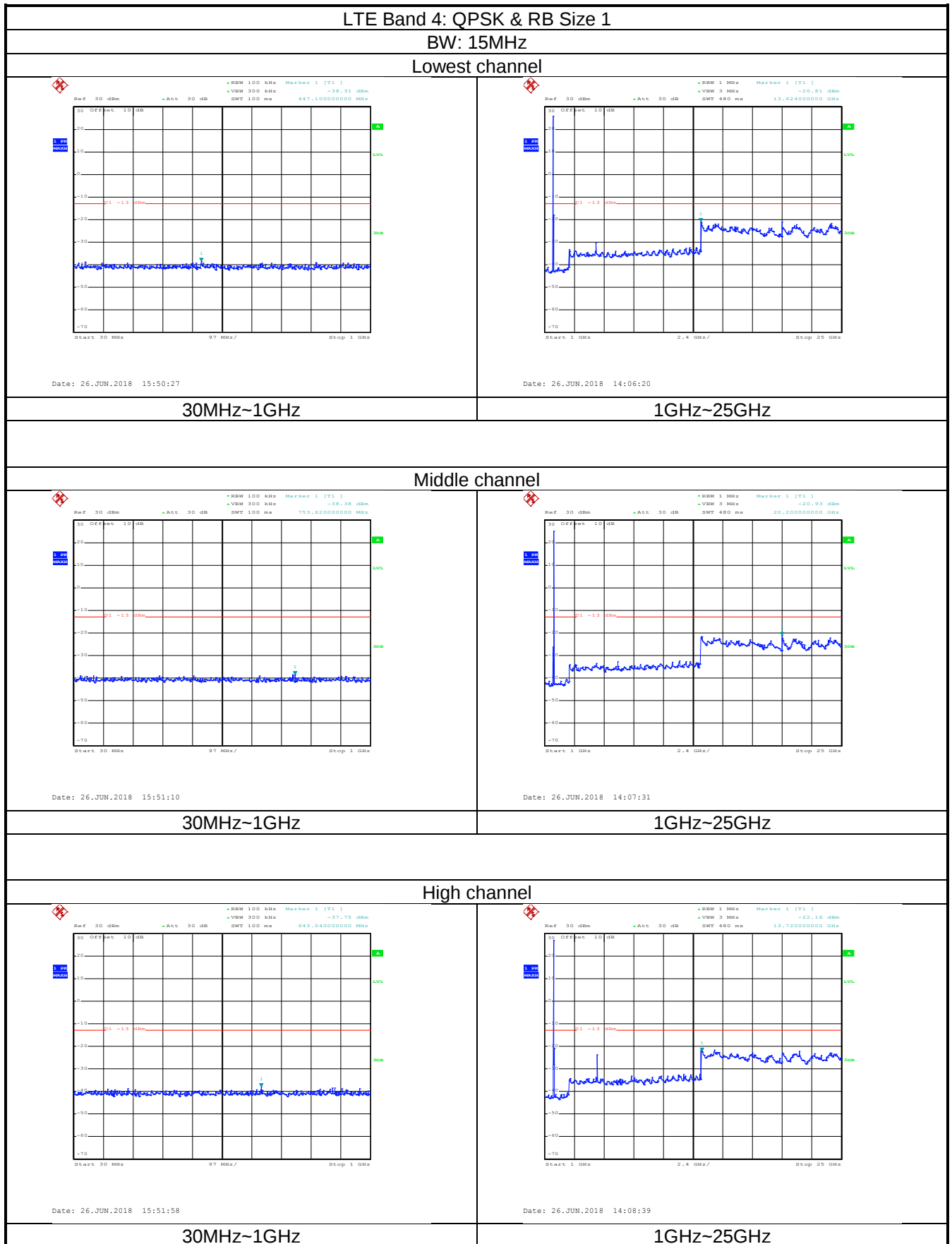
30MHz~1GHz

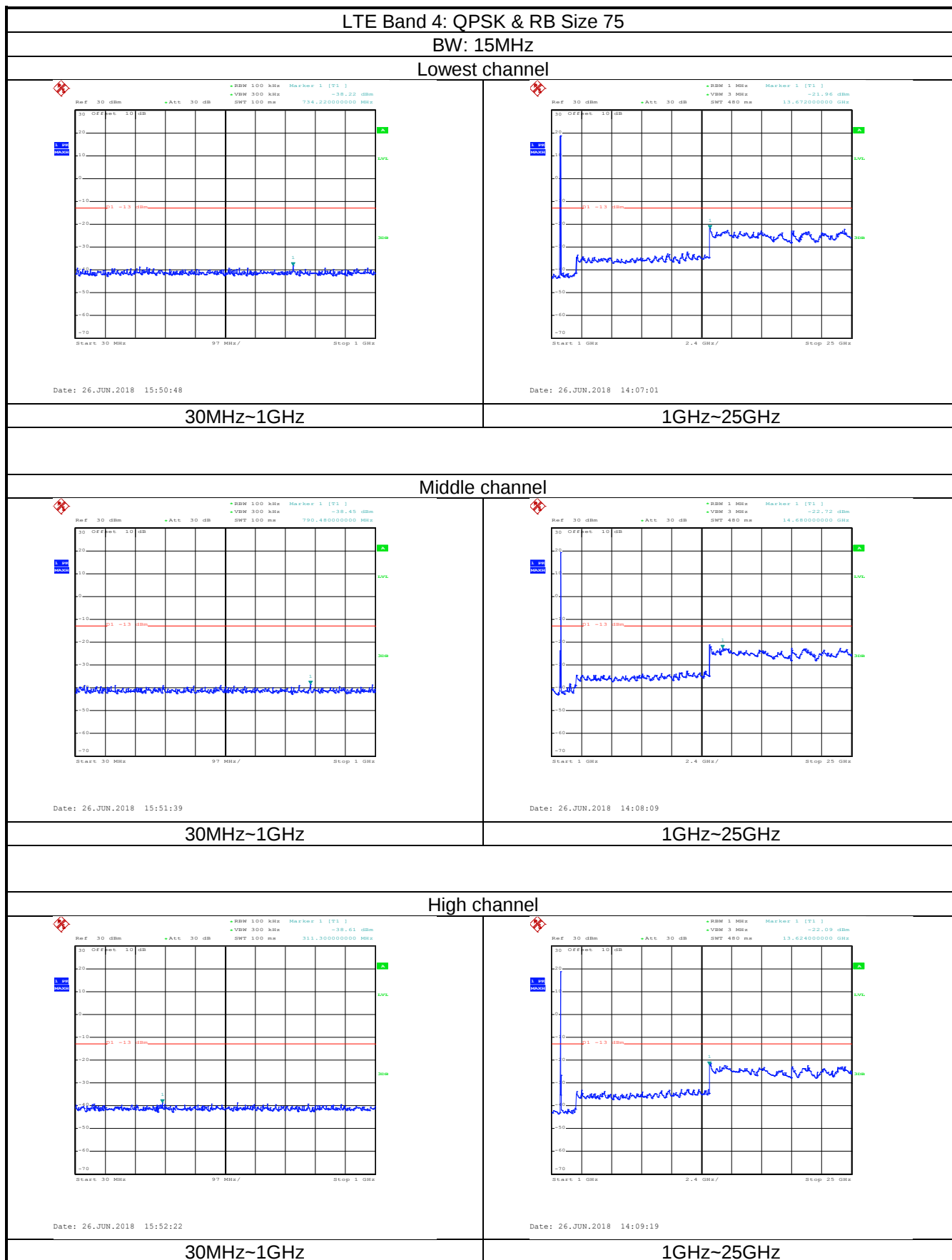


Date: 26.JUN.2018 14:08:46

1GHz~25GHz



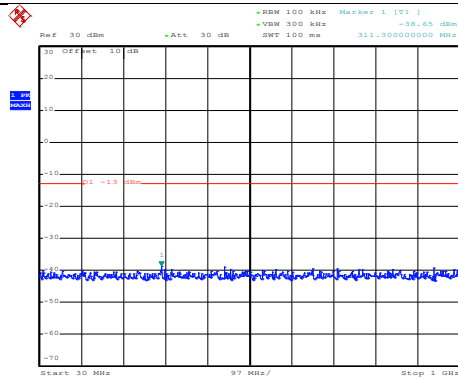




LTE Band 4: 16 QAM & RB Size 1

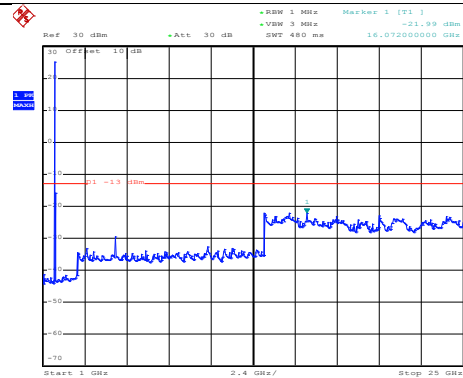
BW: 20MHz

Lowest channel



Date: 26.JUN.2018 15:52:44

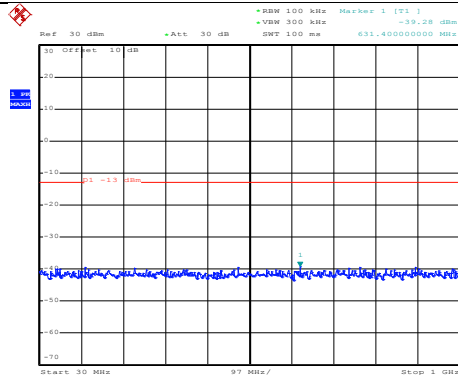
30MHz~1GHz



Date: 26.JUN.2018 14:10:04

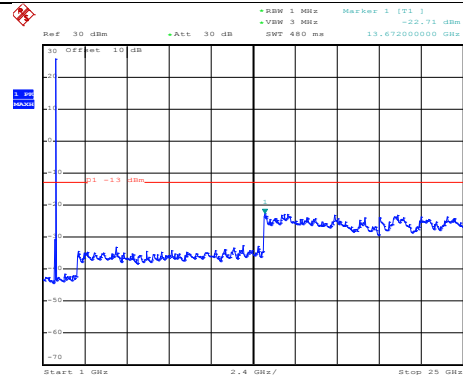
1GHz~25GHz

Middle channel



Date: 26.JUN.2018 15:53:27

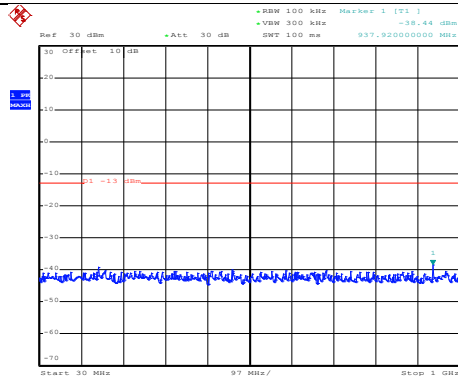
30MHz~1GHz



Date: 26.JUN.2018 14:11:08

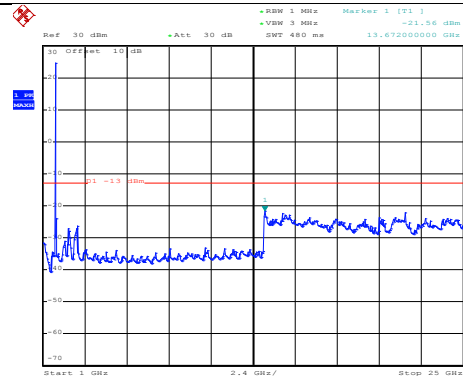
1GHz~25GHz

High channel



Date: 26.JUN.2018 15:54:06

30MHz~1GHz



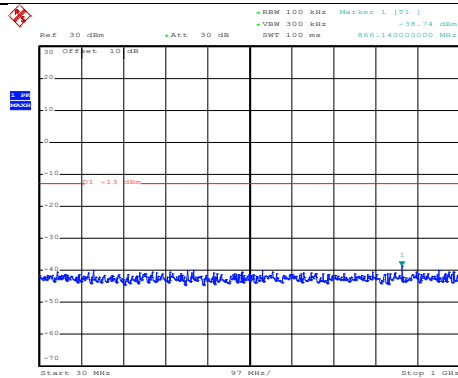
Date: 26.JUN.2018 14:12:16

1GHz~25GHz

LTE Band 4: 16 QAM & RB Size 100

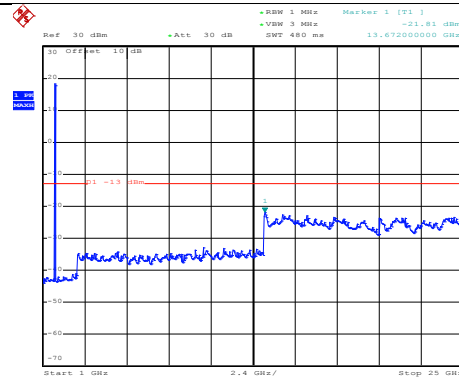
BW: 20MHz

Lowest channel



Date: 26 JUN.2018 15:53:07

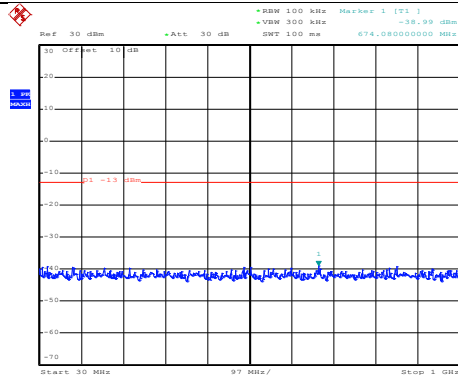
30MHz~1GHz



Date: 26 JUN.2018 14:10:41

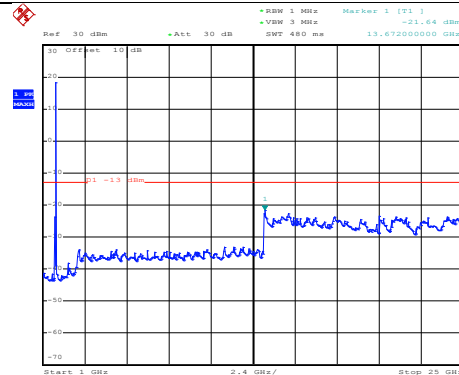
1GHz~25GHz

Middle channel



Date: 26 JUN.2018 15:53:51

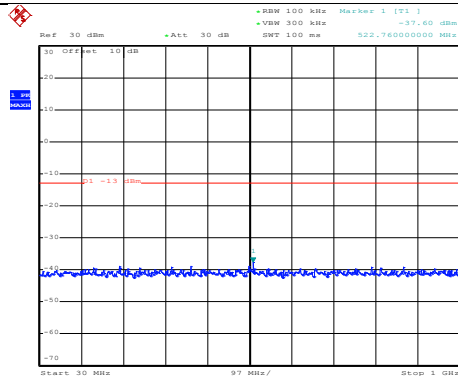
30MHz~1GHz



Date: 26 JUN.2018 14:11:48

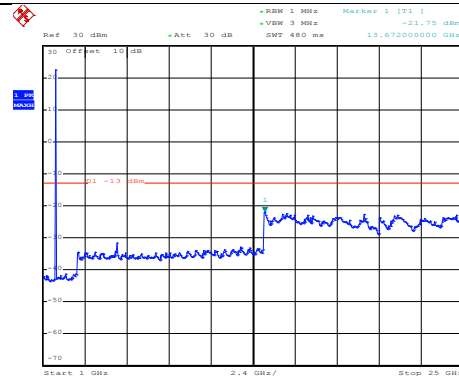
1GHz~25GHz

High channel



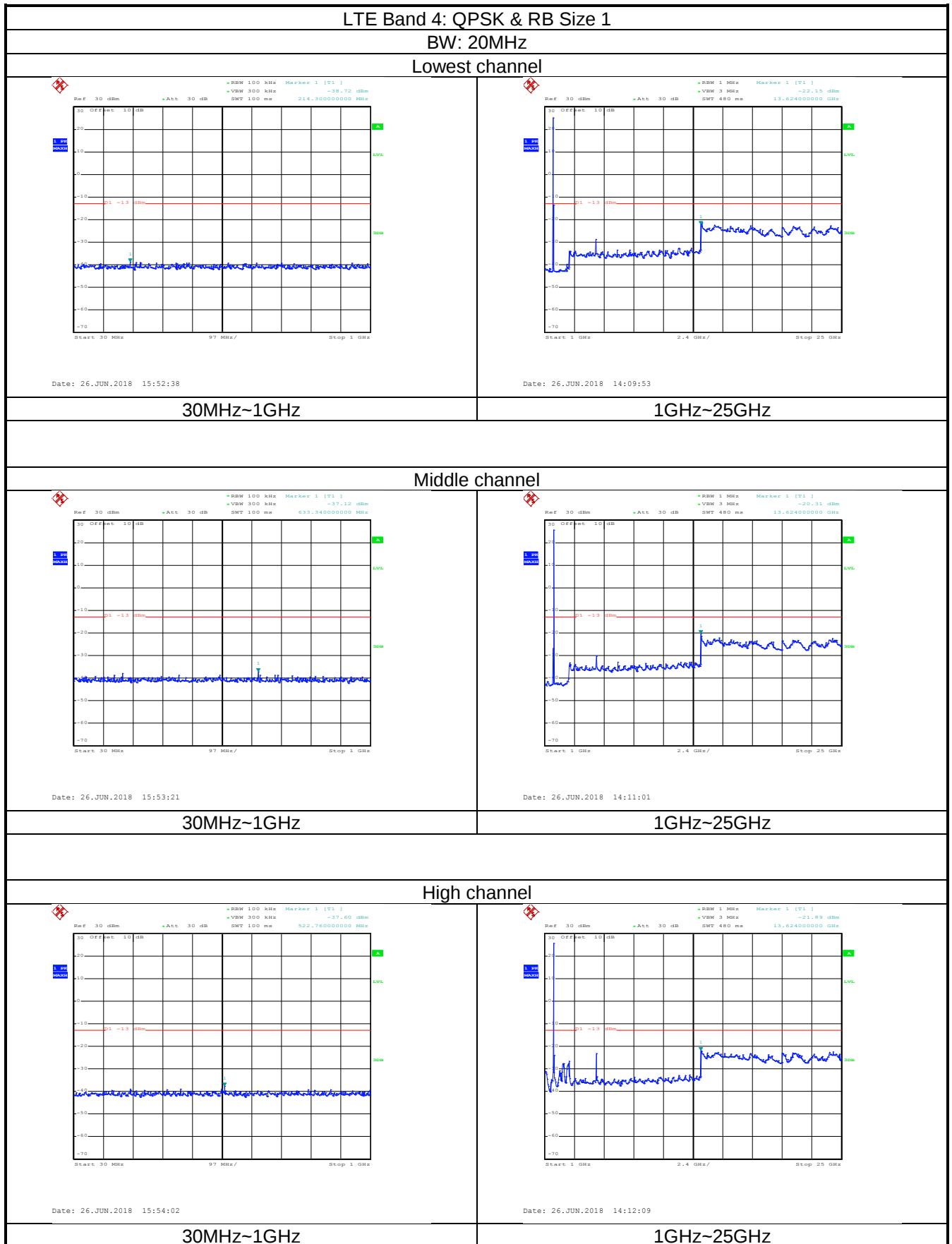
Date: 26 JUN.2018 15:54:02

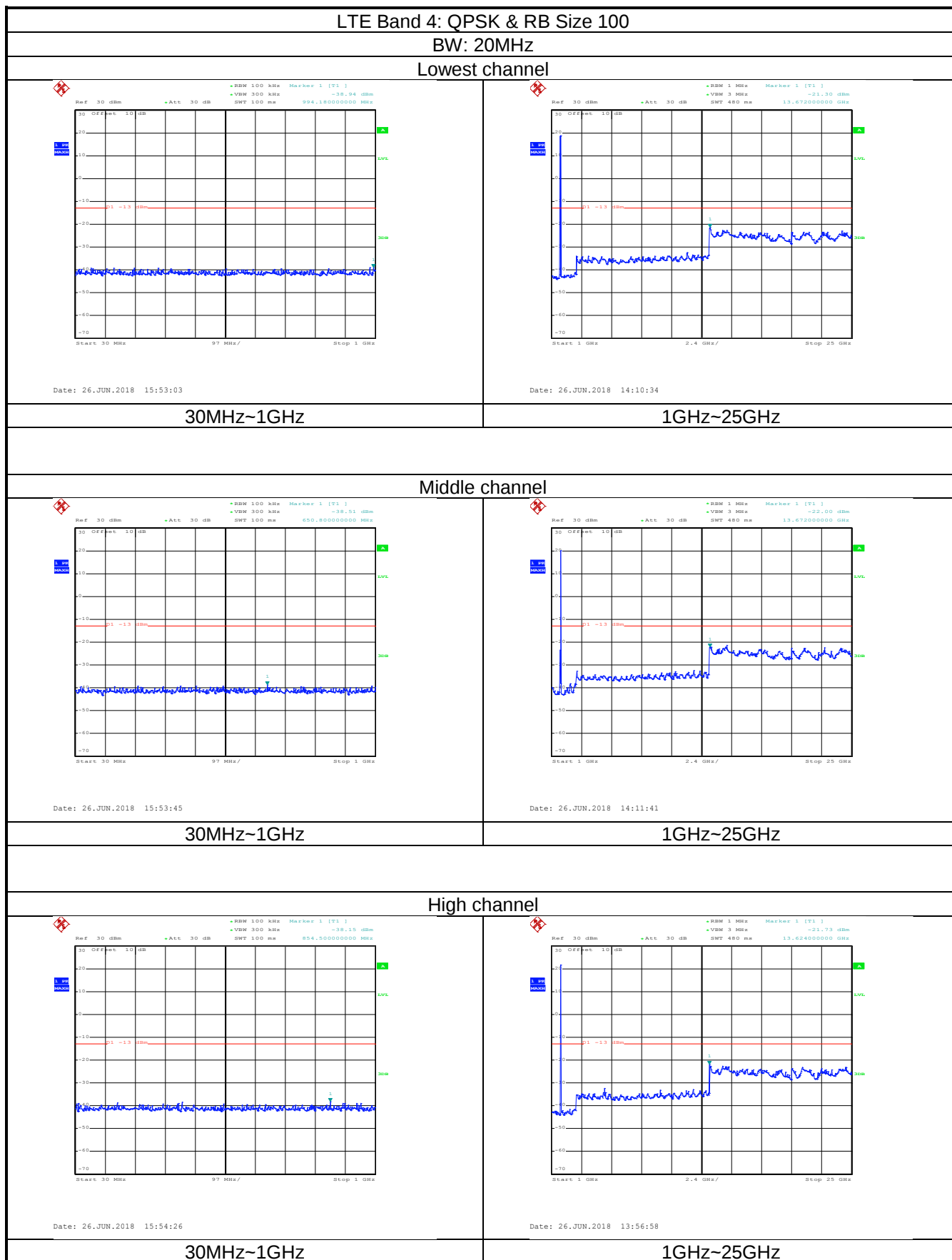
30MHz~1GHz



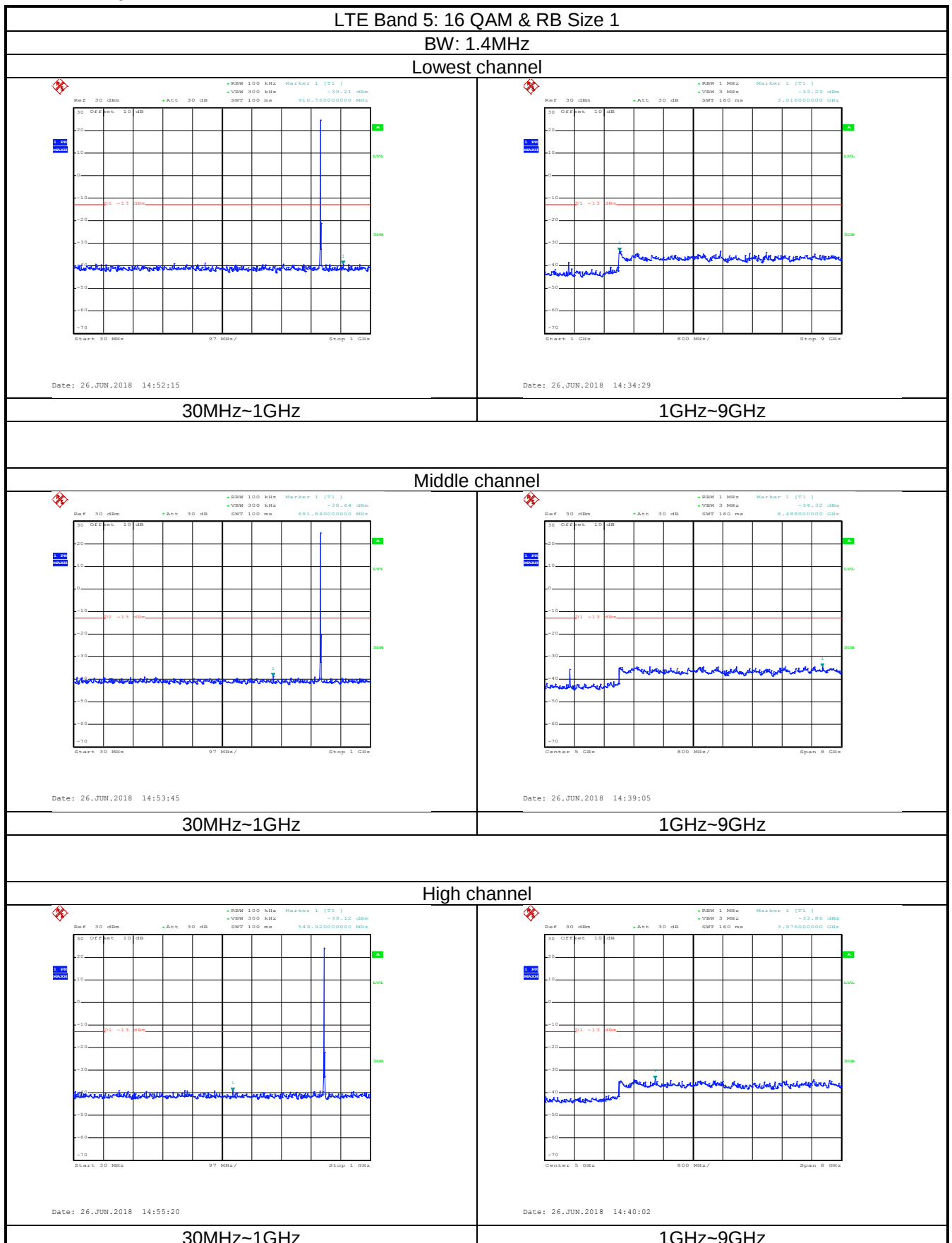
Date: 26 JUN.2018 13:56:51

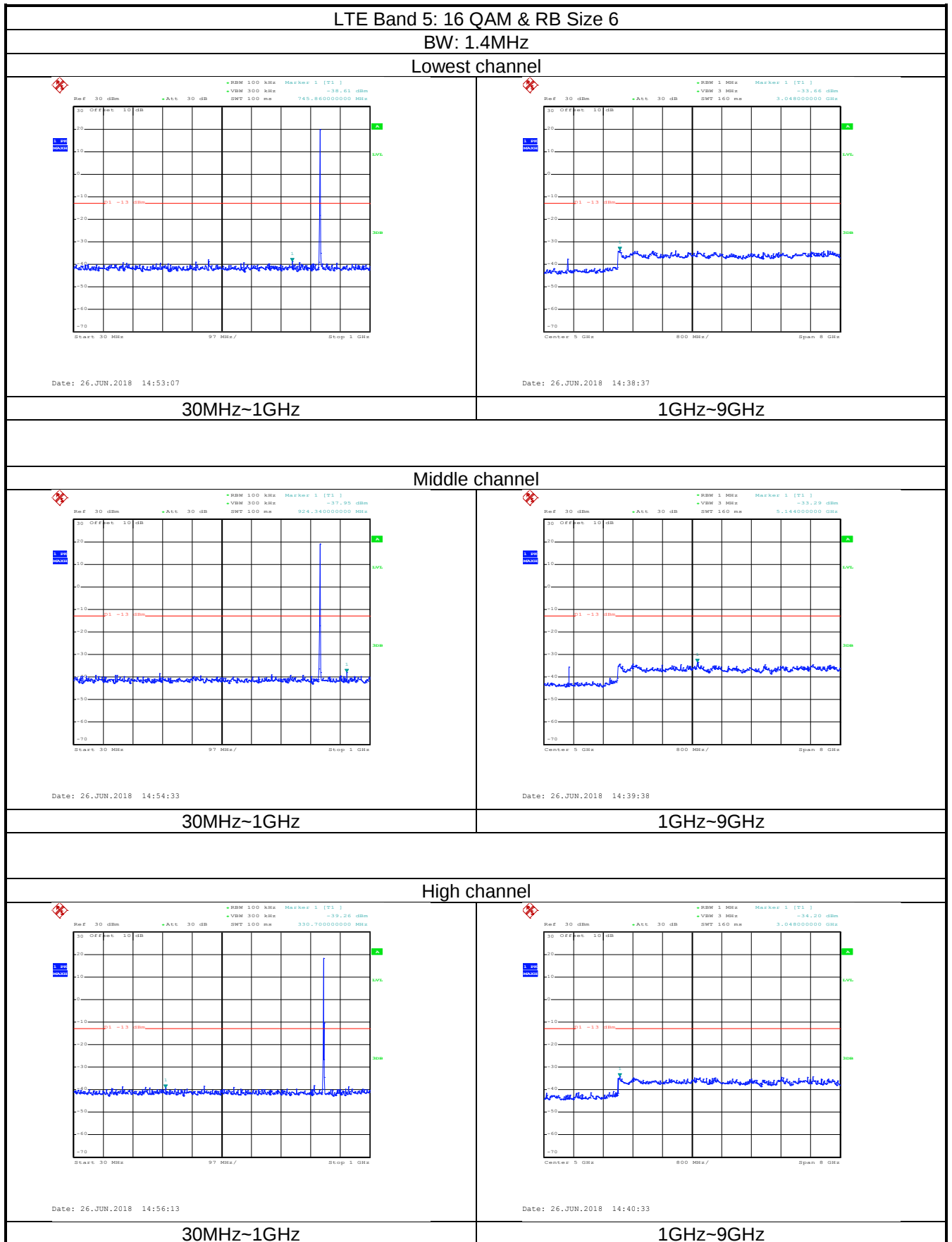
1GHz~25GHz

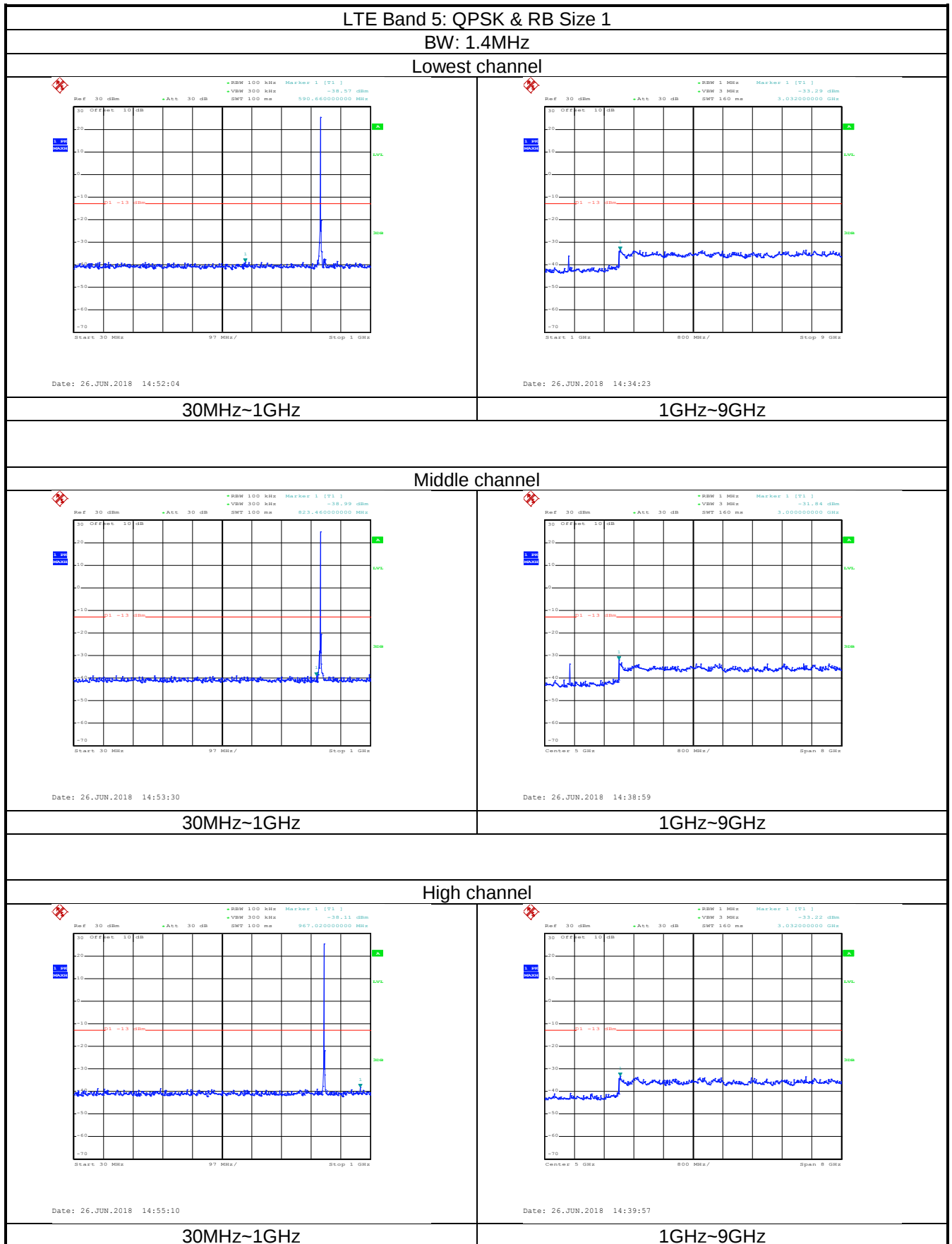


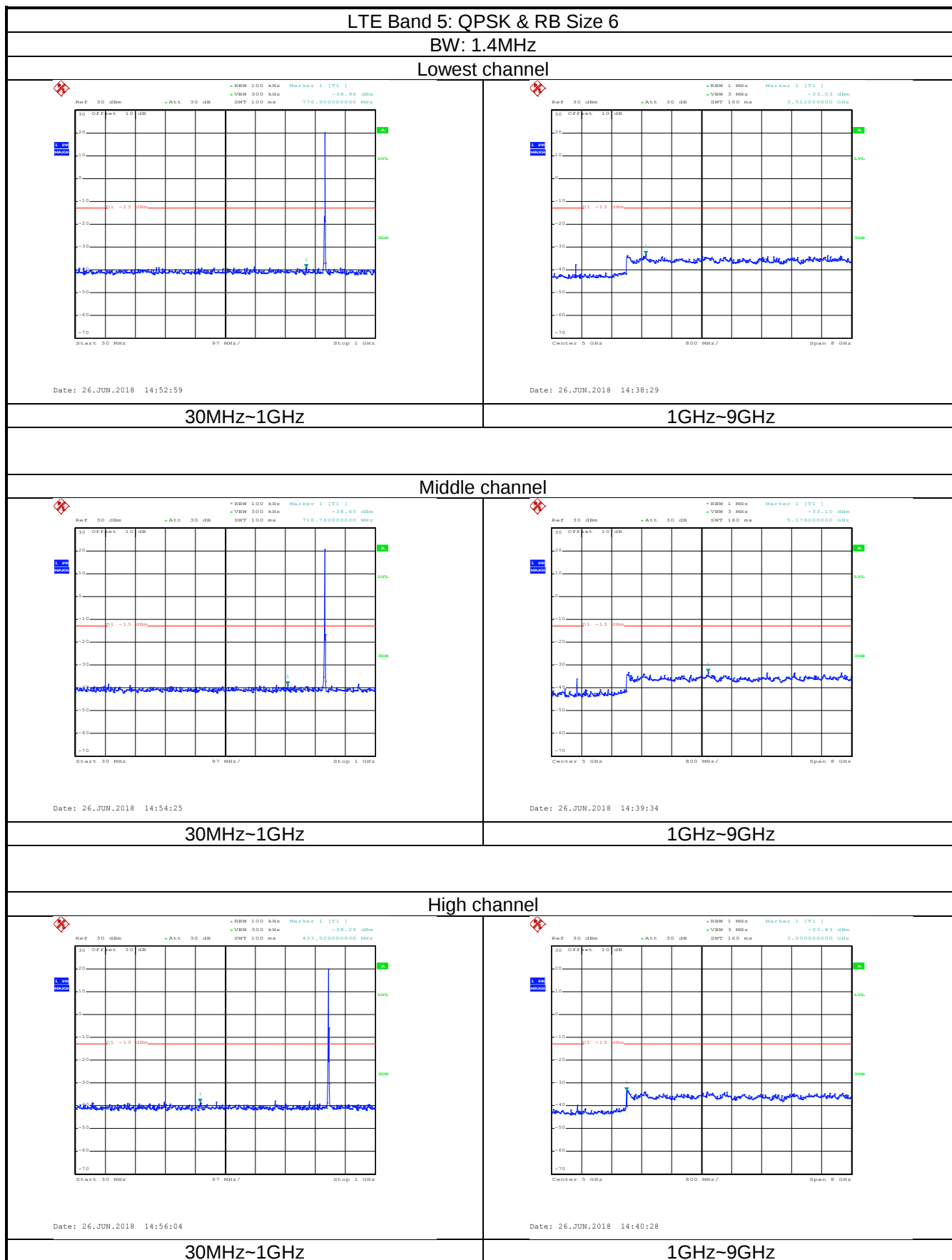


LTE Band 5 part:





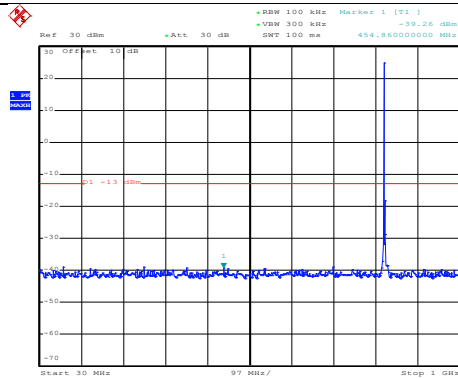




LTE Band 5: 16 QAM & RB Size 1

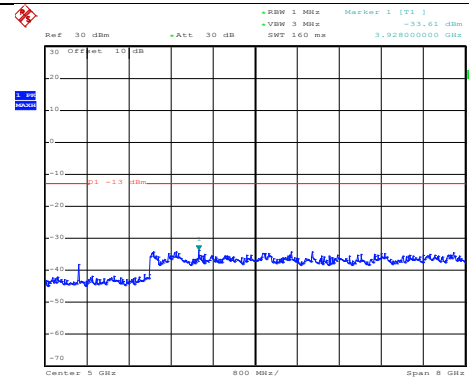
BW: 3MHz

Lowest channel



Date: 26.JUN.2018 14:56:54

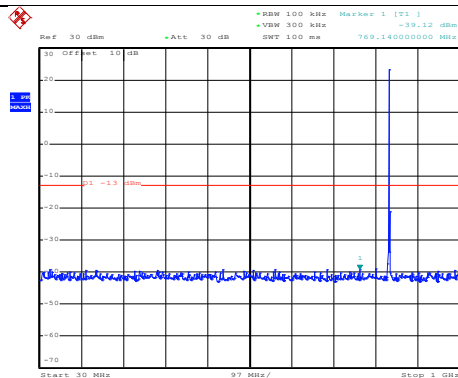
30MHz~1GHz



Date: 26.JUN.2018 14:41:08

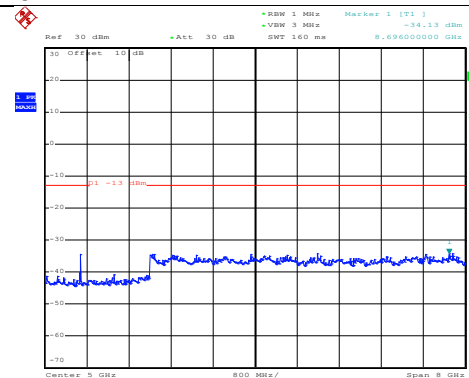
1GHz~9GHz

Middle channel



Date: 26.JUN.2018 14:58:10

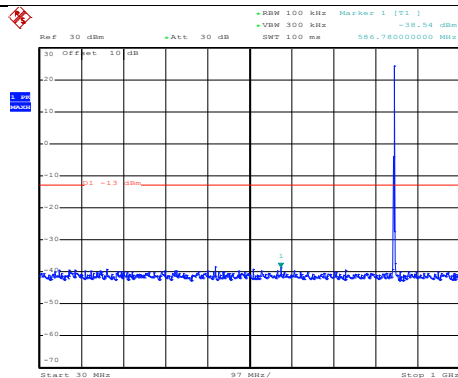
30MHz~1GHz



Date: 26.JUN.2018 14:42:24

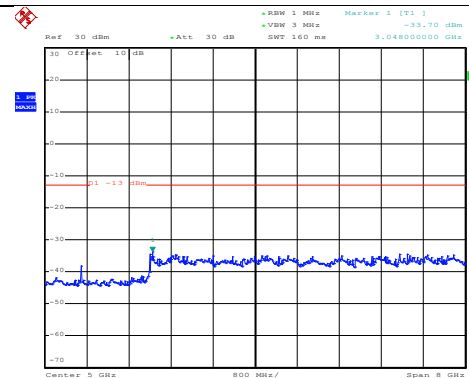
1GHz~9GHz

High channel



Date: 26.JUN.2018 14:59:46

30MHz~1GHz



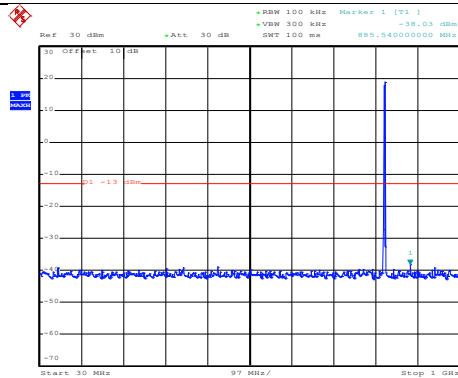
Date: 26.JUN.2018 14:43:27

1GHz~9GHz

LTE Band 5: 16 QAM & RB Size 15

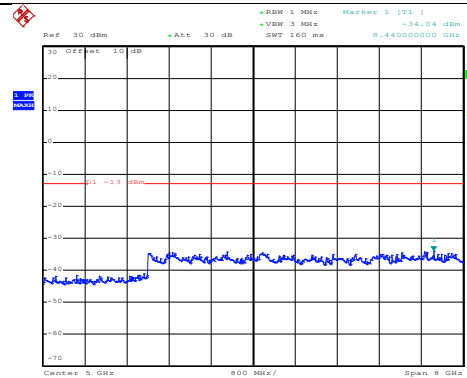
BW: 3MHz

Lowest channel



Date: 26.JUN.2018 14:57:41

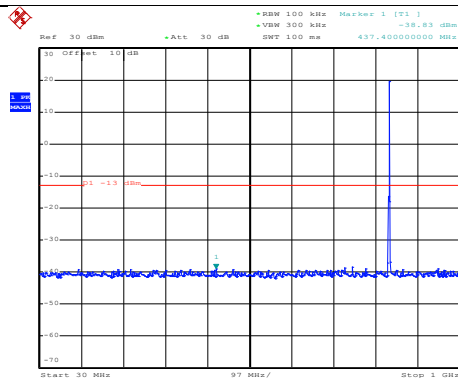
30MHz~1GHz



Date: 26.JUN.2018 14:41:55

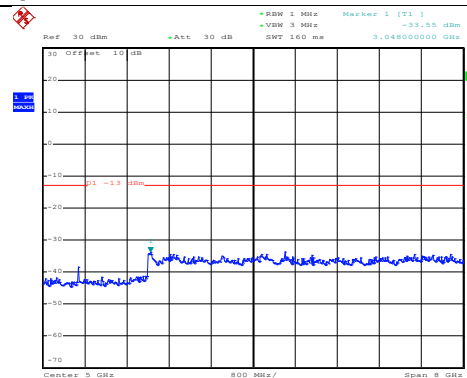
1GHz~9GHz

Middle channel



Date: 26.JUN.2018 14:59:08

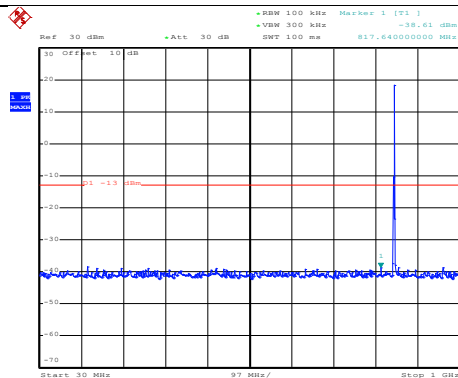
30MHz~1GHz



Date: 26.JUN.2018 14:43:01

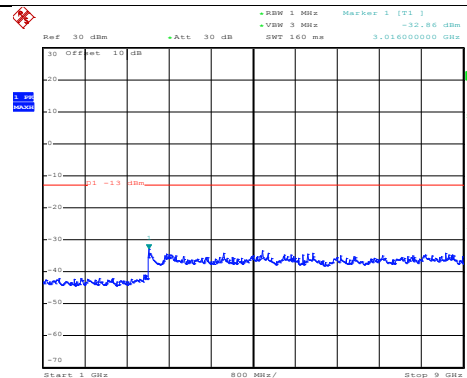
1GHz~9GHz

High channel



Date: 26.JUN.2018 15:00:40

30MHz~1GHz



Date: 26.JUN.2018 14:44:09

1GHz~9GHz

