## 8.5 BAND EDGE MEASUREMENT

### LIMIT

**Part 27.53(g), Band 71**
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;
**Part 27.53(m) (4), Band 66**
Specifies that “for BRS and EBS stations. 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)(4) 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. 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.
**According to RSS-130, Band 71,**
The power of any unwanted emissions in any 100 kHz bandwidth on any frequency outside the frequency range(s) within which the equipment is designed to operate shall be attenuated below the transmitter power, P (dBW), by at least 43 + 10 log10 p (watts), dB. However, in the100 kHz band immediately outside the equipment’s operating frequency range, a resolution bandwidth of 30 kHz may be employed.
**According to RSS-139, Band 66**
For mobile subscriber equipment, the power of any unwanted emissions measured as above shall be attenuated (in dB) below the transmitter power, P (dBW), by at least:
(i) 40 + 10 log10 p from the channel edges to 5 MHz away
(ii) 43 + 10 log10 p between 5 MHz and X MHz from the channel edges, and
(iii) 55 + 10 log10 p at X MHz and beyond from the channel edges

In addition, the attenuation shall not be less than 43 + 10 log10 p on all frequencies between 2490.5 MHz and 2496 MHz, and 55 + 10 log10 p at or below 2490.5 MHz.

**p** is the transmitter power measured in watts and **X** is 6 MHz or the equipment occupied bandwidth, whichever is greater.

### TEST PROCEDURES

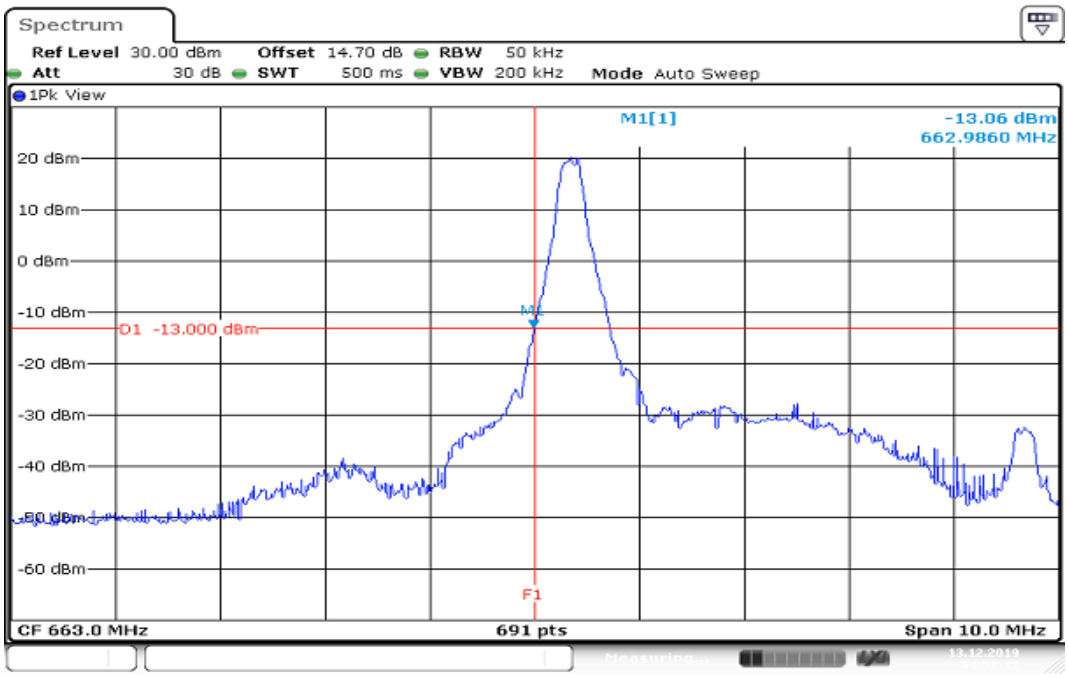
KDB 971168 D01 Power Meas License Digital Systems – Section 6.0
1. RBW ≥ 1% of the emission bandwidth
2. VBW ≥ 3 x RBW
3. Span was set large enough so as to capture all out of emissions near the band edge.

# TEST RESULTS:

## LTE Band 71

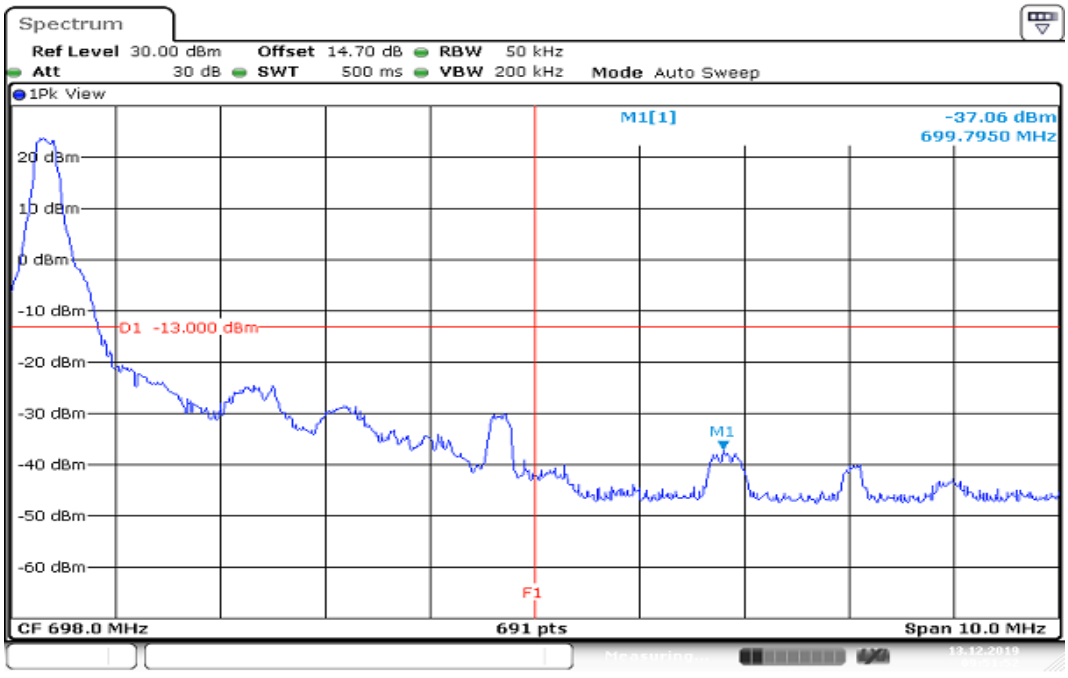
### CHANNEL BANDWIDTH: 5MHz / QPSK / 1RB ALLOCATION

### LOWER BAND EDGE



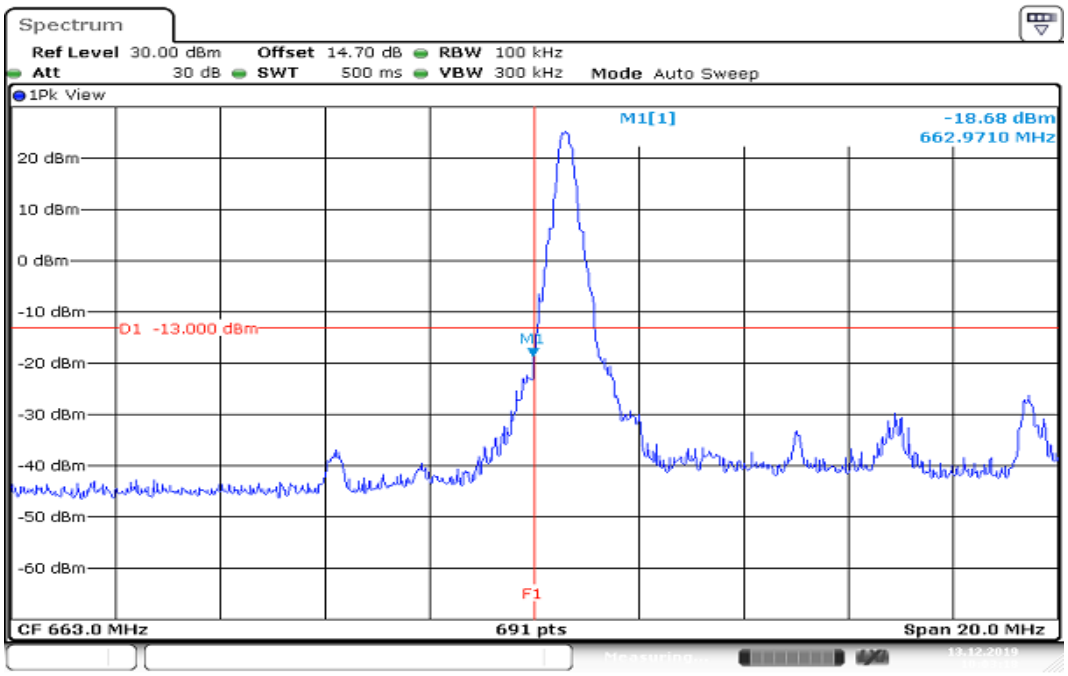

Date: 13.DEC.2019 09:57:12

### HIGHER BAND EDGE



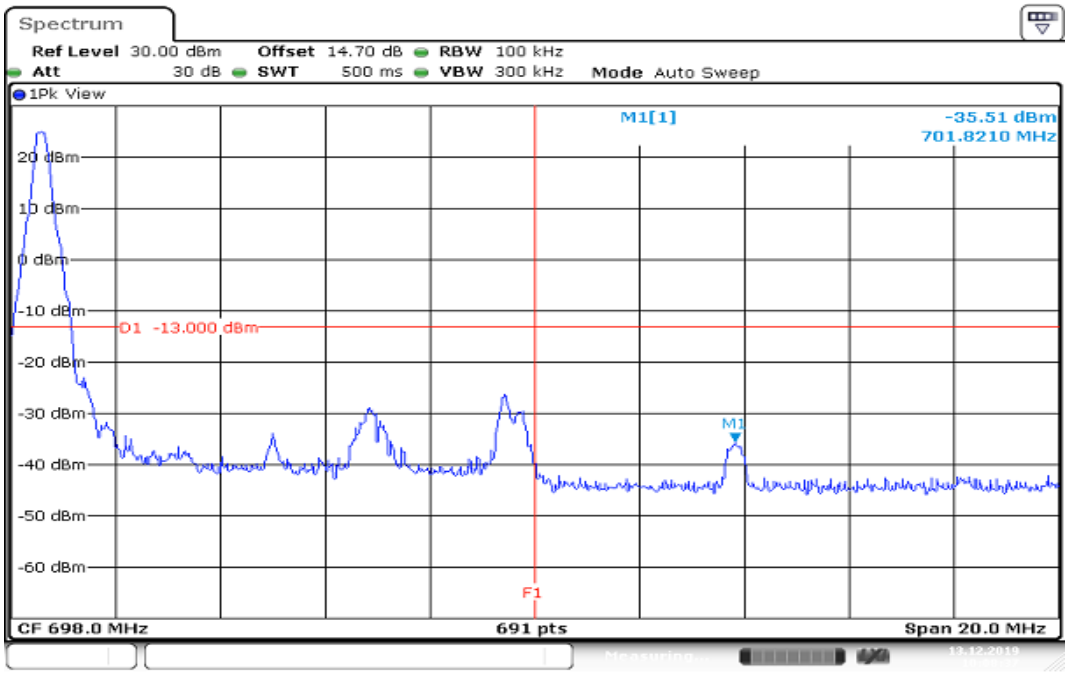

Date: 13.DEC.2019 09:51:52

## CHANNEL BANDWIDTH: 10MHz / QPSK / 1RB ALLOCATION
## LOWER BAND EDGE



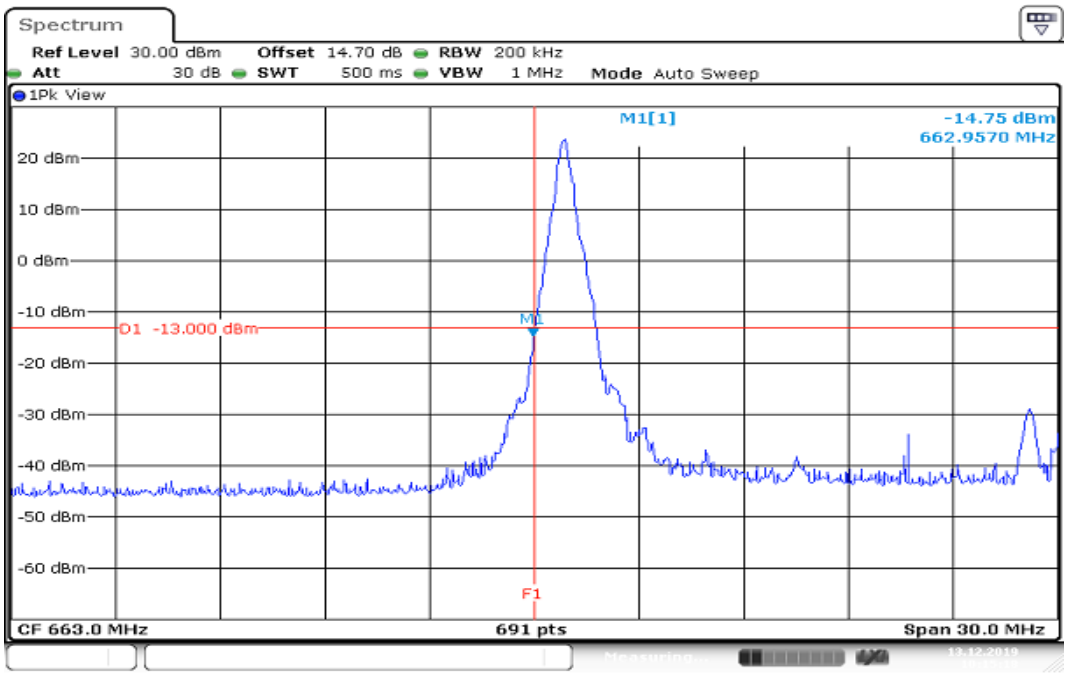

Date: 13.DEC.2019 10:03:18

## HIGHER BAND EDGE



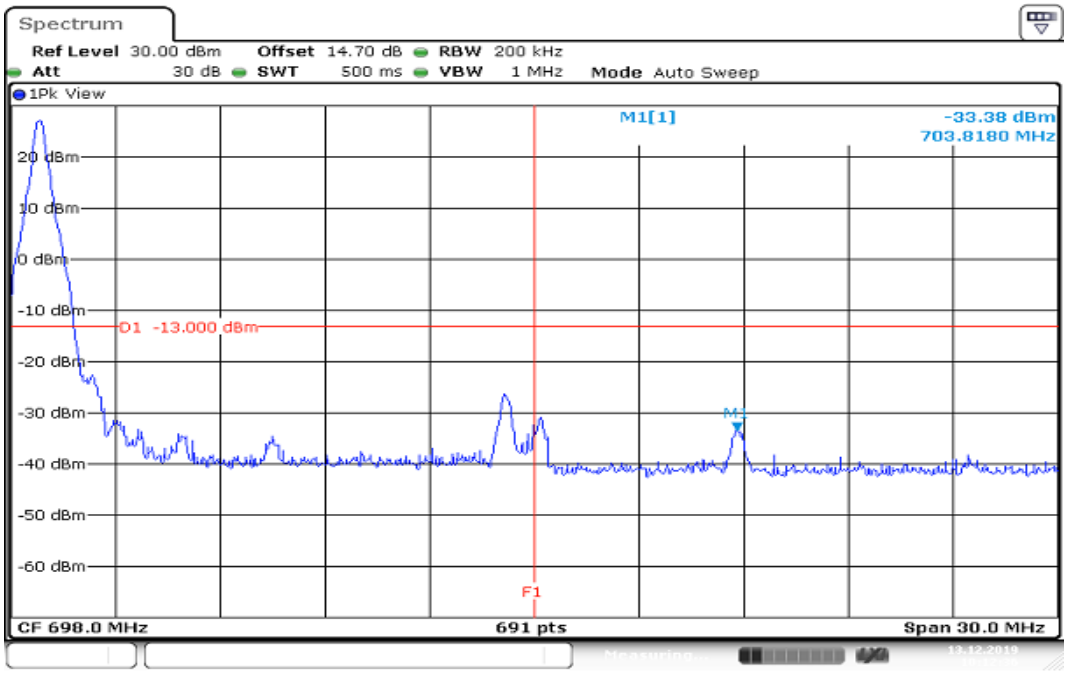

Date: 13.DEC.2019 10:08:37

## CHANNEL BANDWIDTH: 15MHz / QPSK / 1RB ALLOCATION
## LOWER BAND EDGE



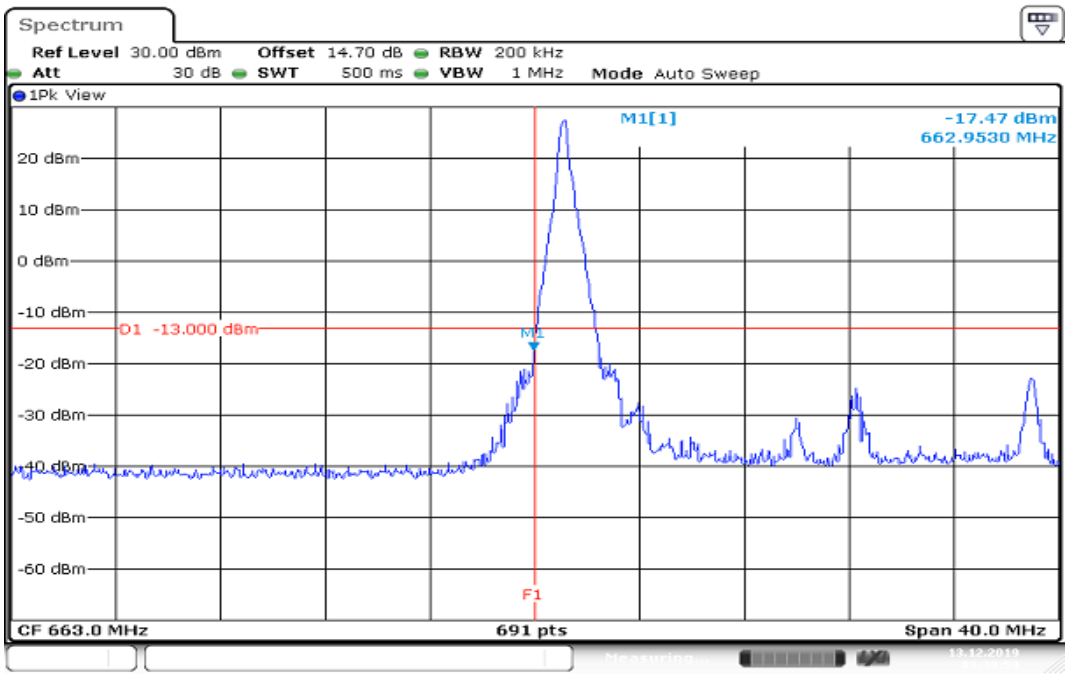

Date: 13.DEC.2019 10:15:18

## HIGHER BAND EDGE



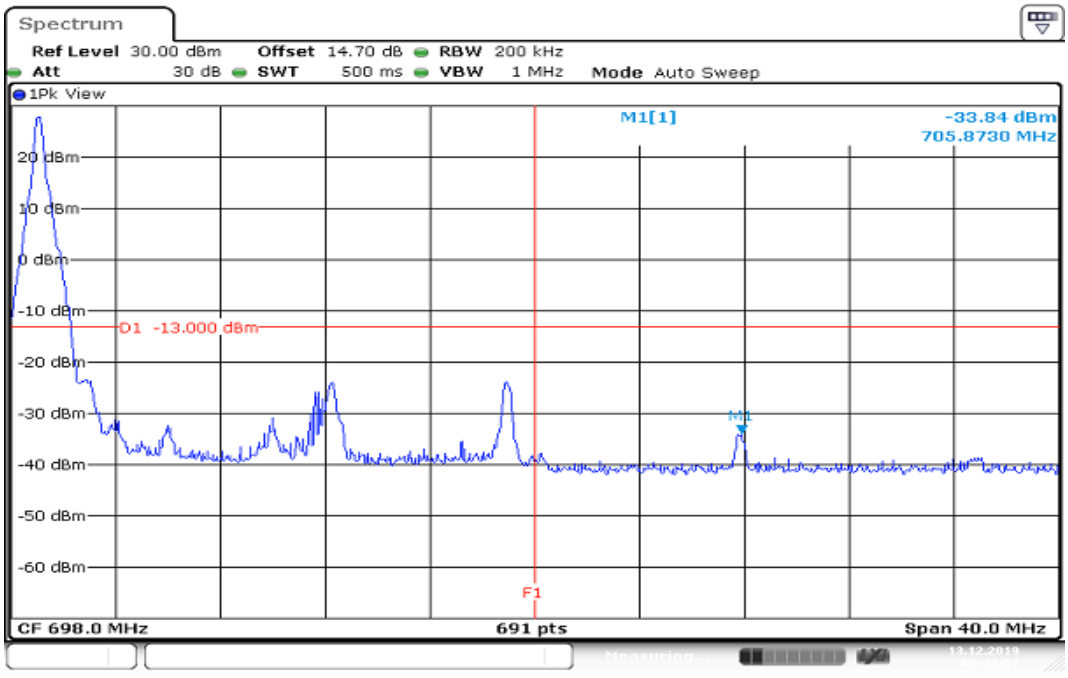

Date: 13.DEC.2019 10:12:36

## CHANNEL BANDWIDTH: 20MHz / QPSK / 1RB ALLOCATION
## LOWER BAND EDGE



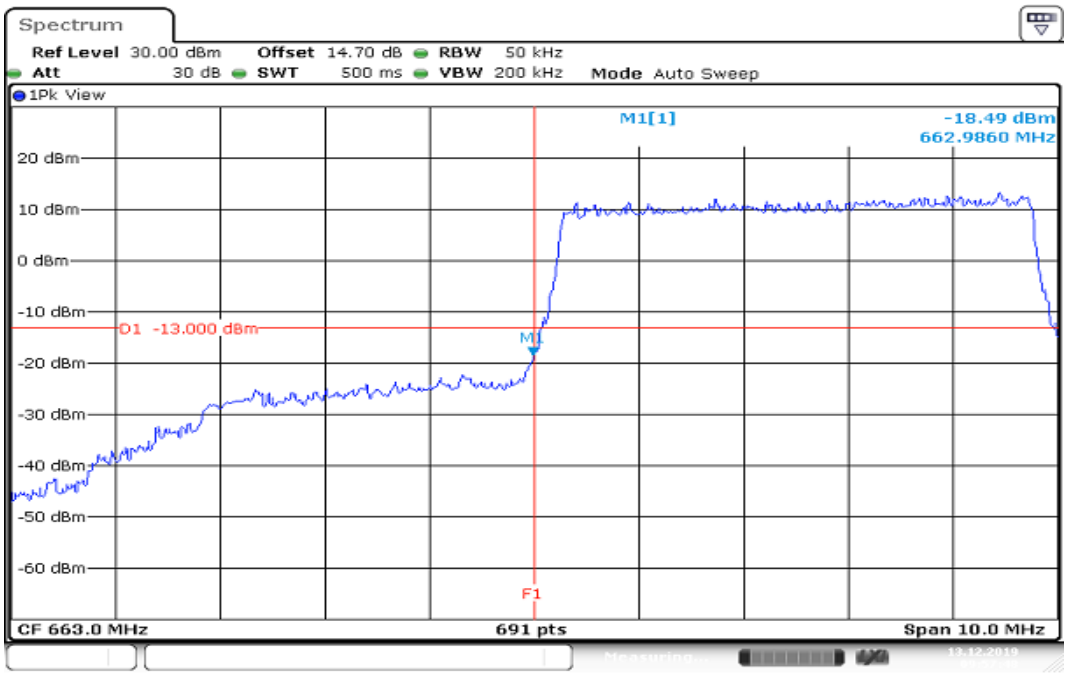

Date: 13.DEC.2019 09:39:59

## HIGHER BAND EDGE



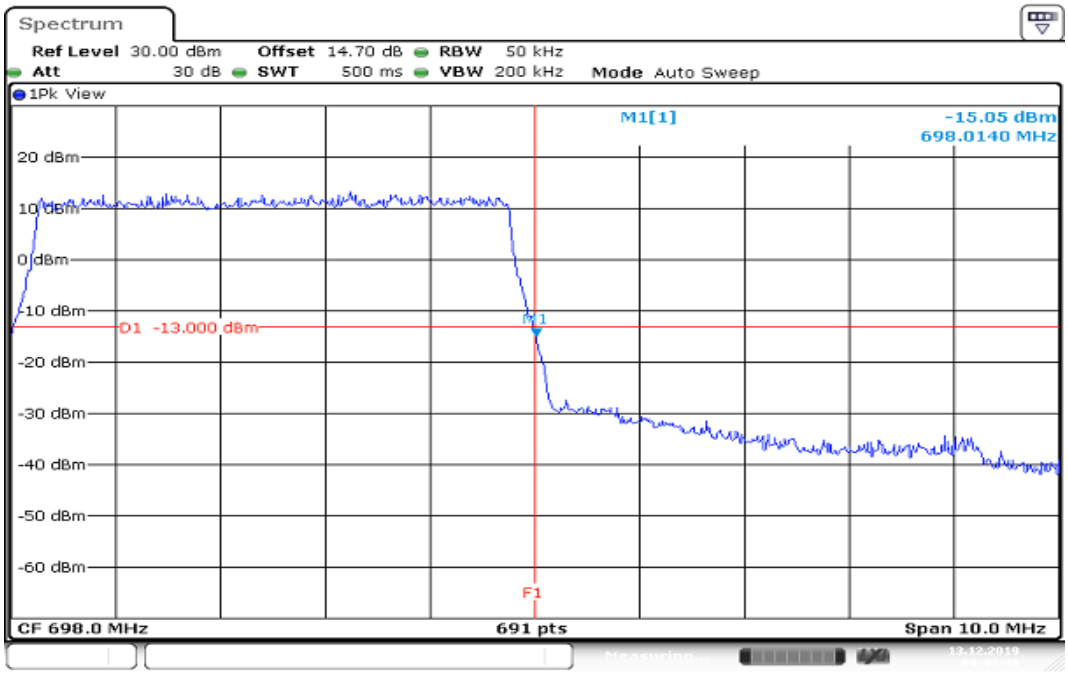

Date: 13.DEC.2019 09:41:50

## CHANNEL BANDWIDTH: 5MHz / QPSK / FULL RB ALLOCATION
## LOWER BAND EDGE



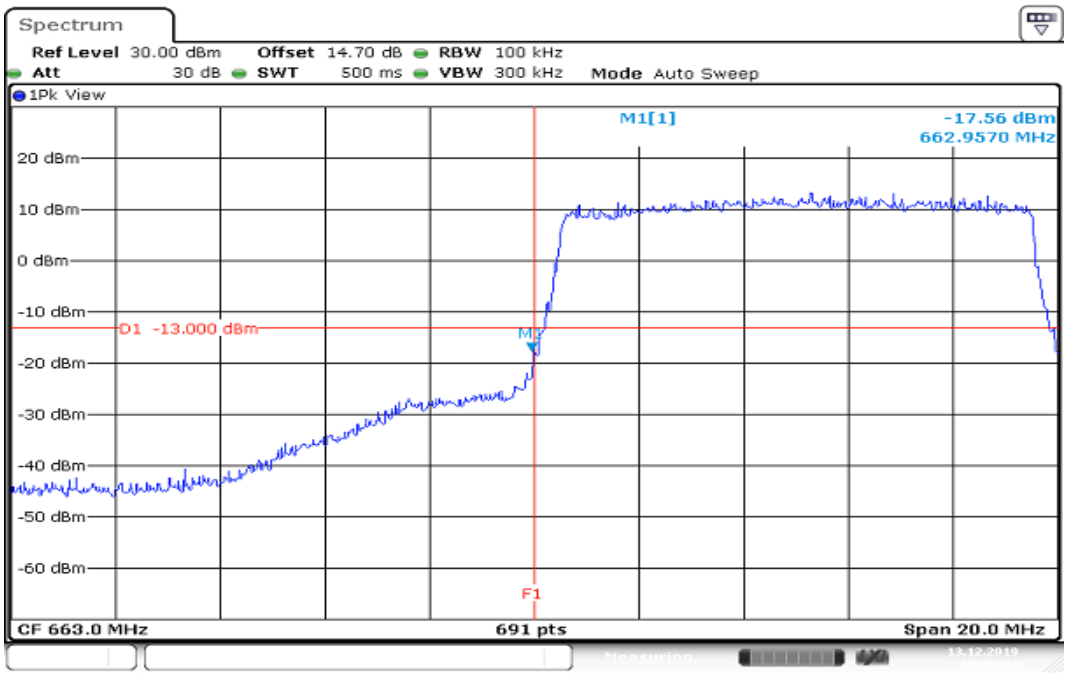

Date: 13.DEC.2019 09:57:48

## HIGHER BAND EDGE



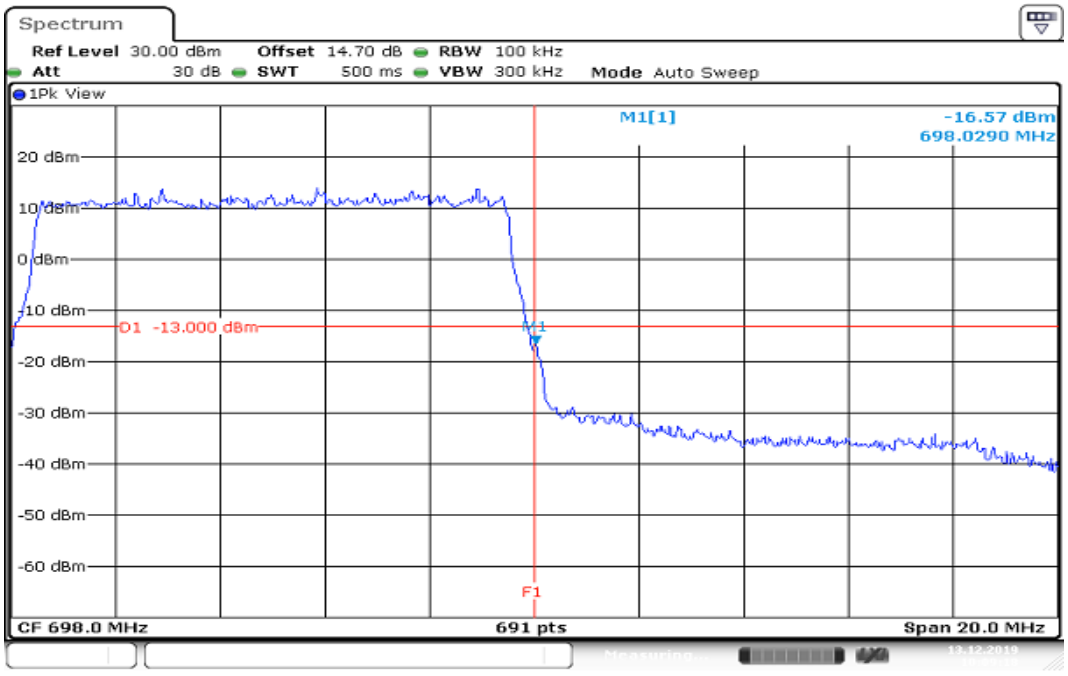

Date: 13.DEC.2019 09:49:48

## CHANNEL BANDWIDTH: 10MHz / QPSK / FULL RB ALLOCATION
## LOWER BAND EDGE



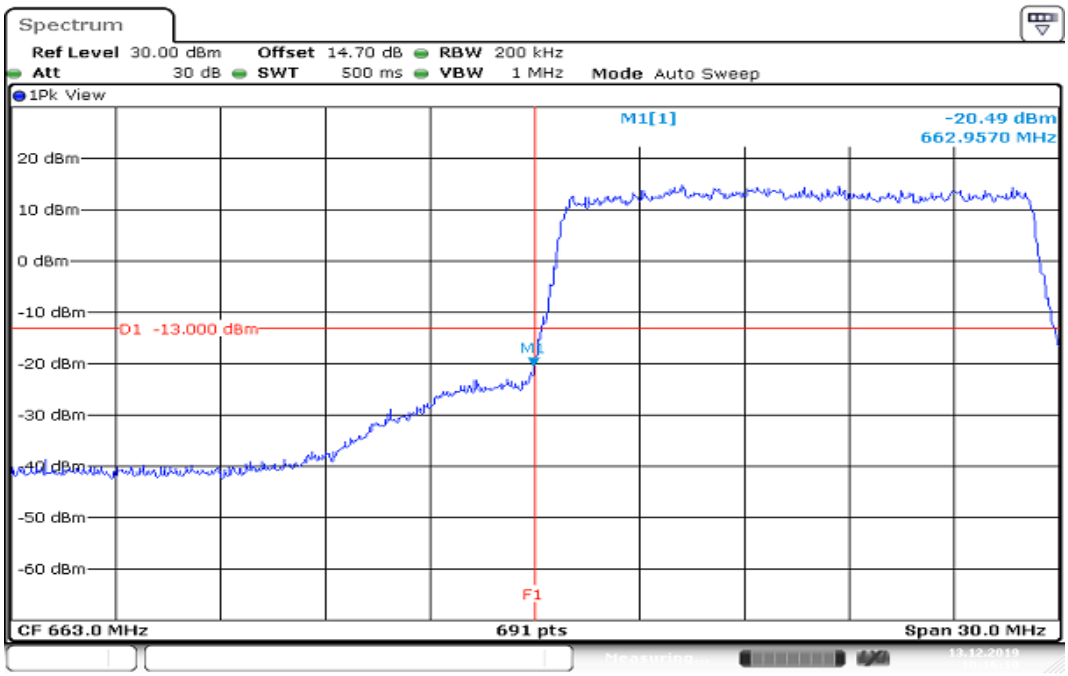

Date: 13.DEC.2019 10:02:34

## HIGHER BAND EDGE



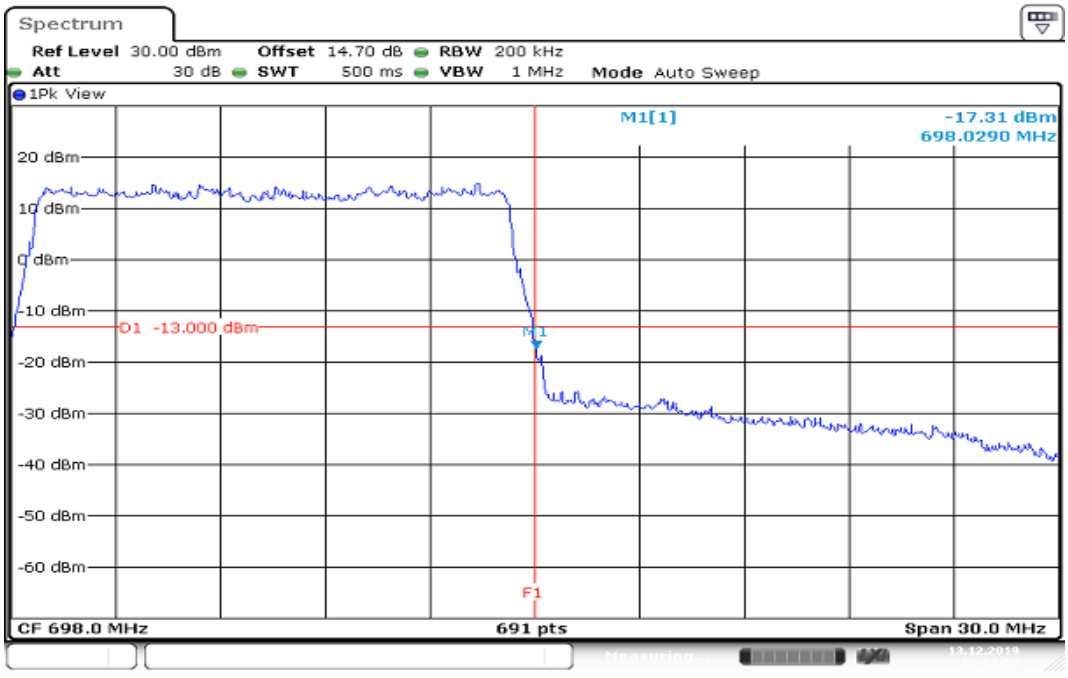

Date: 13.DEC.2019 10:09:18

## CHANNEL BANDWIDTH: 15MHz / QPSK / FULL RB ALLOCATION
## LOWER BAND EDGE



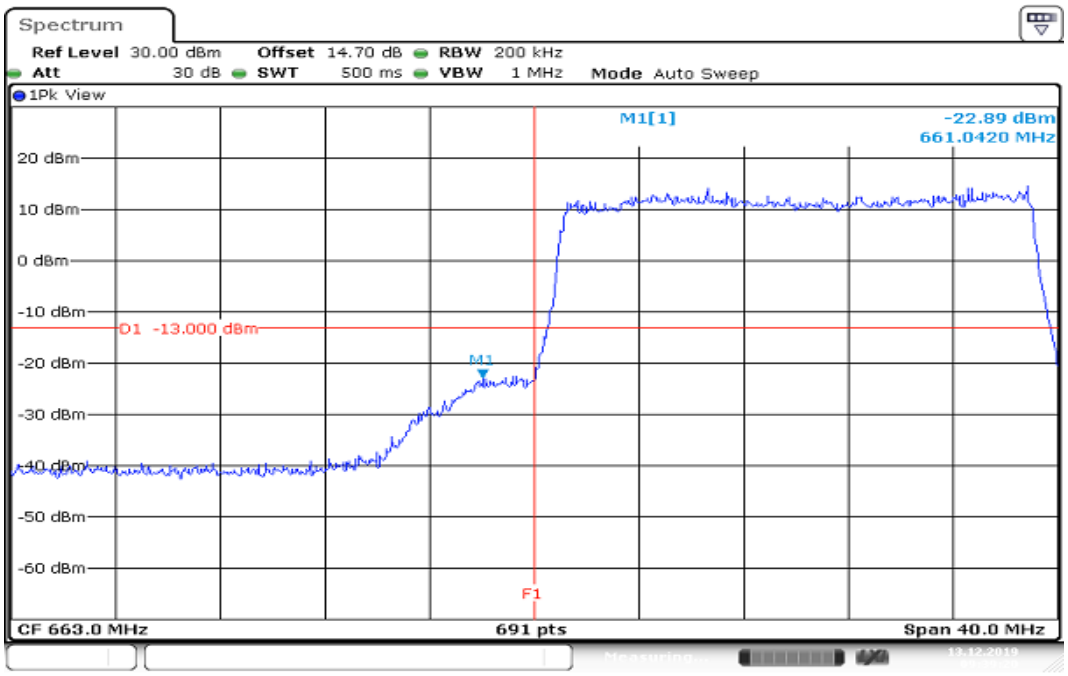

Date: 13.DEC.2019 10:16:09

## HIGHER BAND EDGE



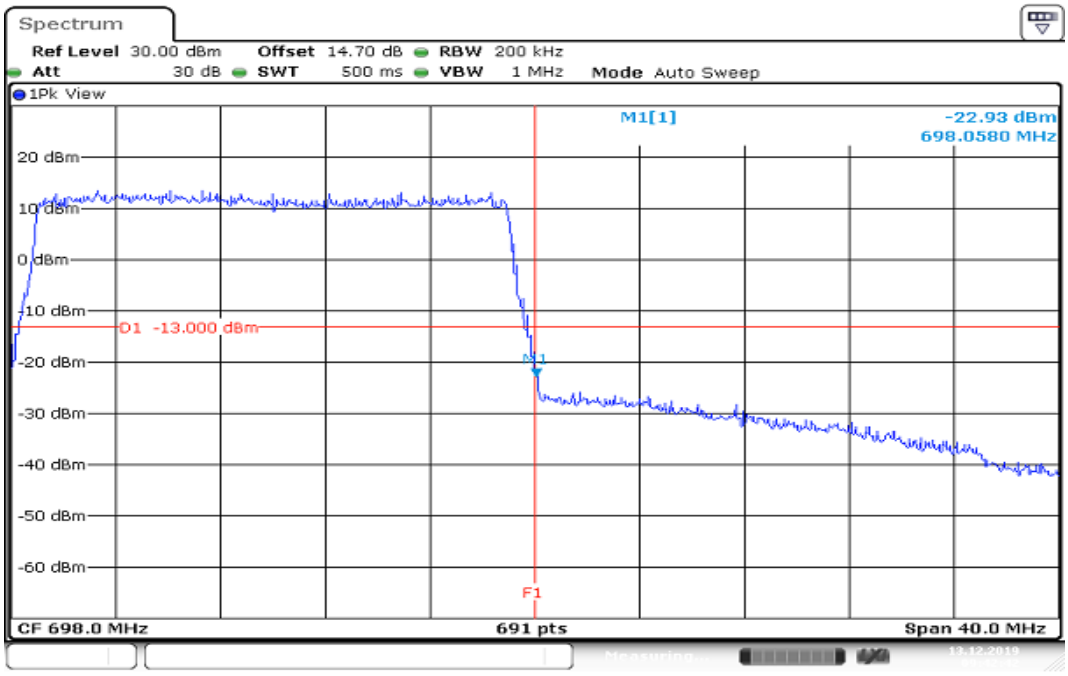

Date: 13.DEC.2019 10:11:55

## CHANNEL BANDWIDTH: 20MHz / QPSK / FULL RB ALLOCATION
## LOWER BAND EDGE



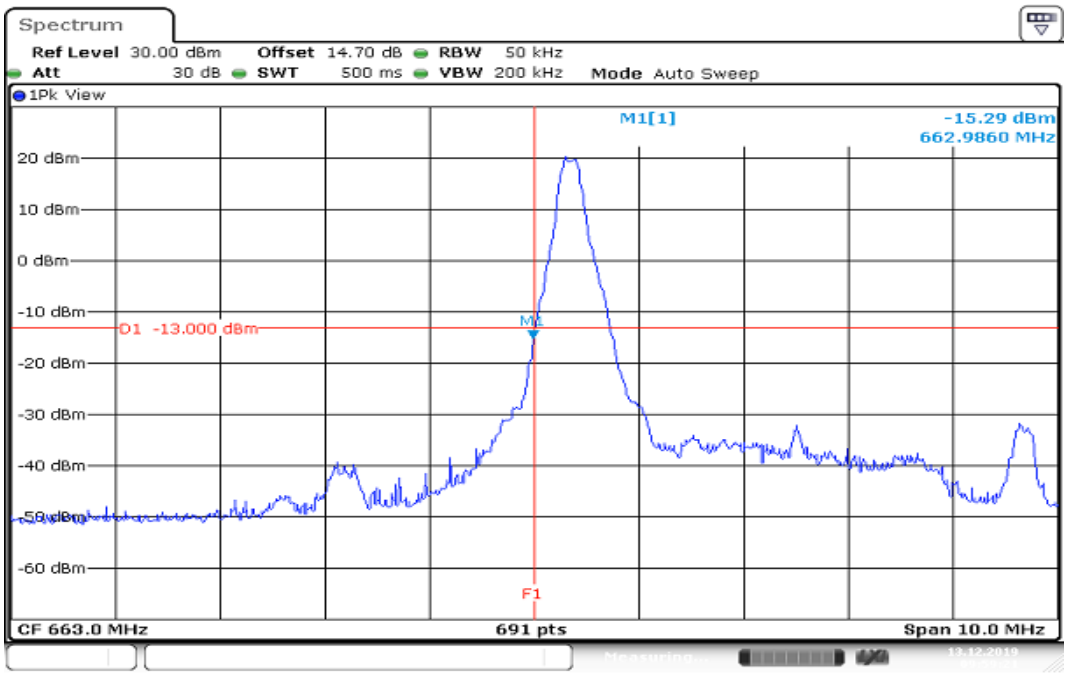

Date: 13.DEC.2019 09:39:20

## HIGHER BAND EDGE



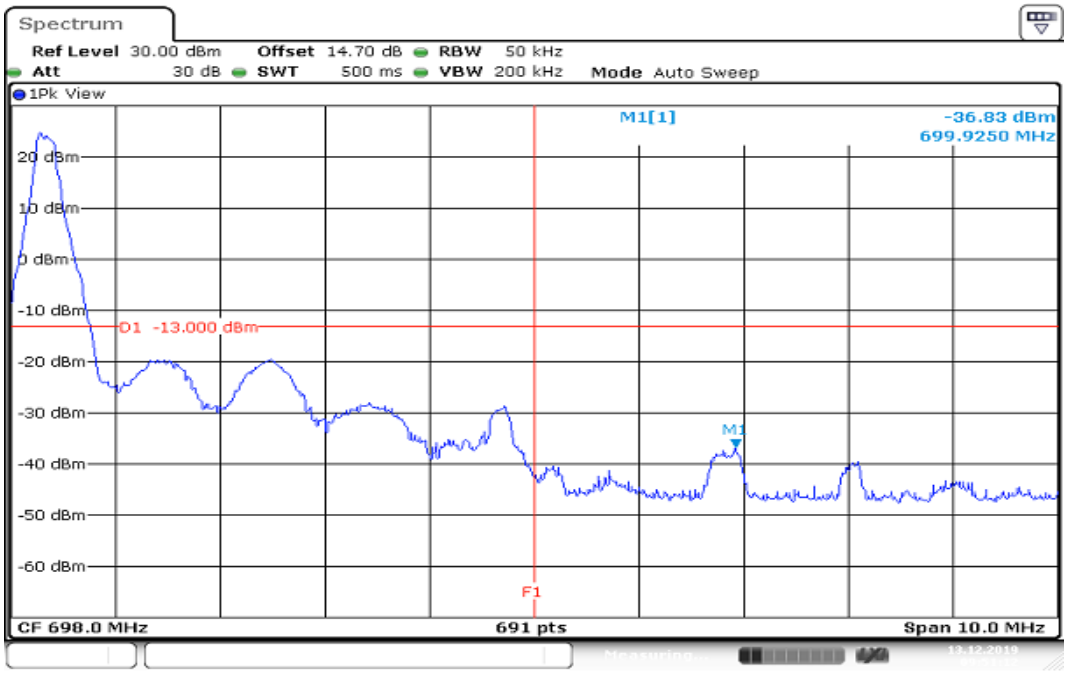

Date: 13.DEC.2019 09:42:42

## CHANNEL BANDWIDTH: 5MHz / 16QAM/ 1RB ALLOCATION
## LOWER BAND EDGE



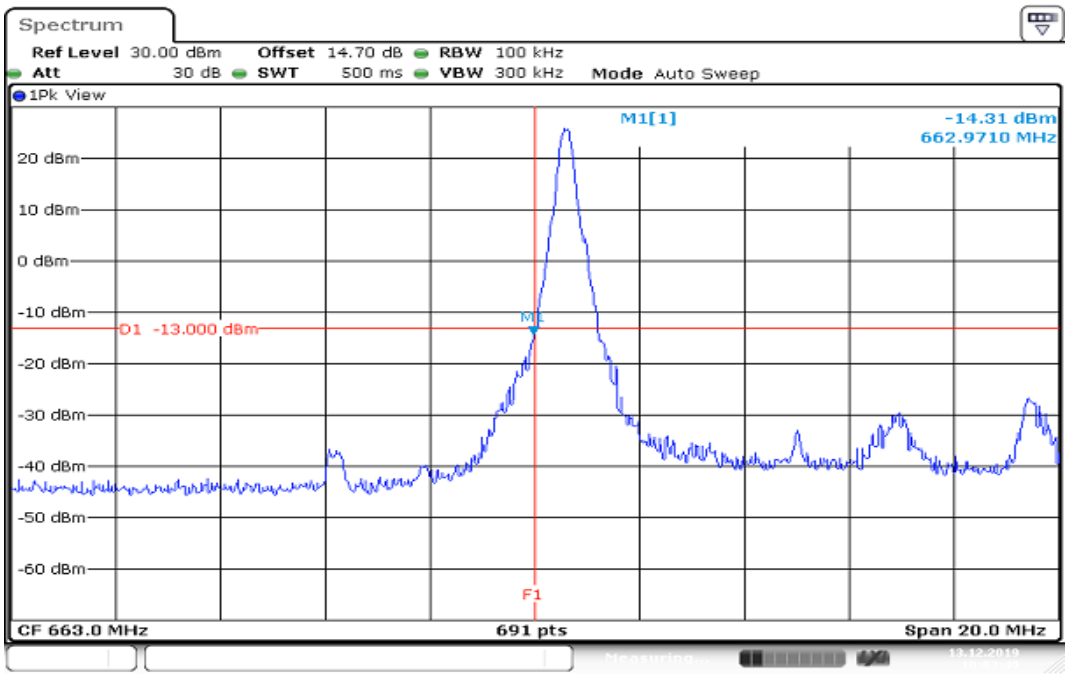

Date: 13.DEC.2019 09:59:21

## HIGHER BAND EDGE



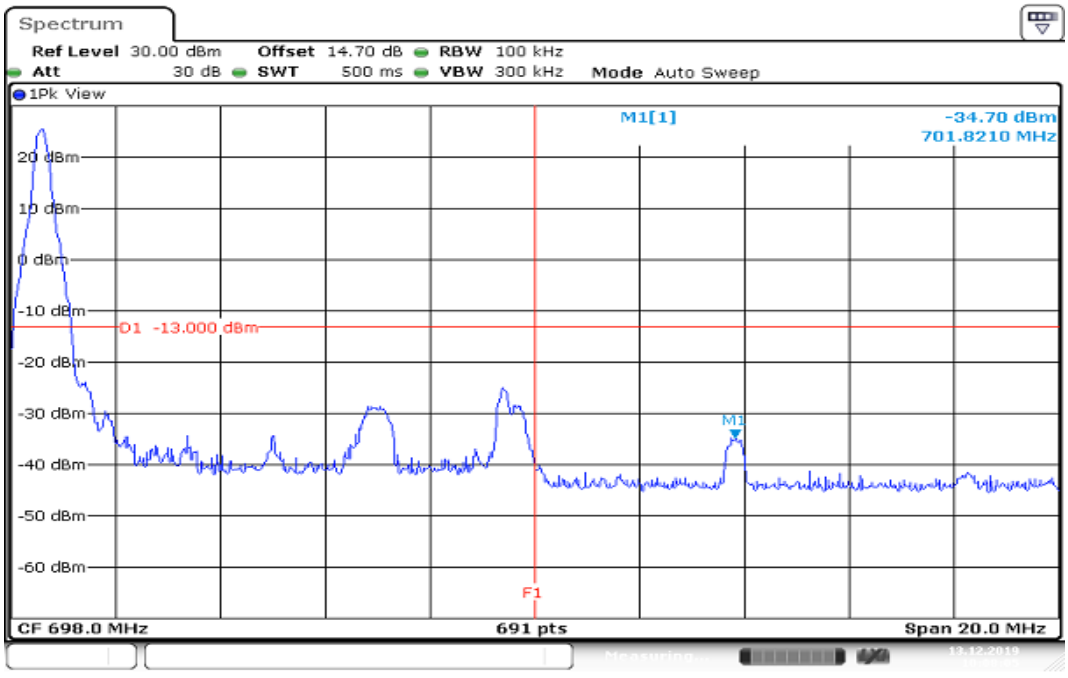

Date: 13.DEC.2019 09:51:12

## CHANNEL BANDWIDTH: 10MHz / 16QAM/ 1RB ALLOCATION
## LOWER BAND EDGE



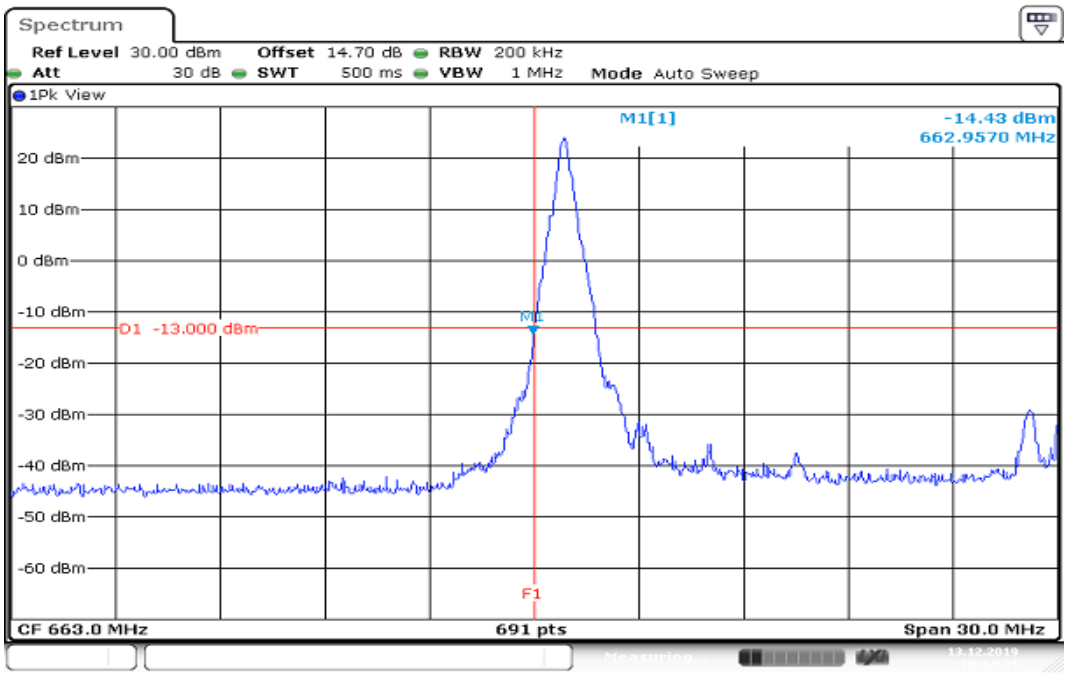

Date: 13.DEC.2019 10:03:49

## HIGHER BAND EDGE



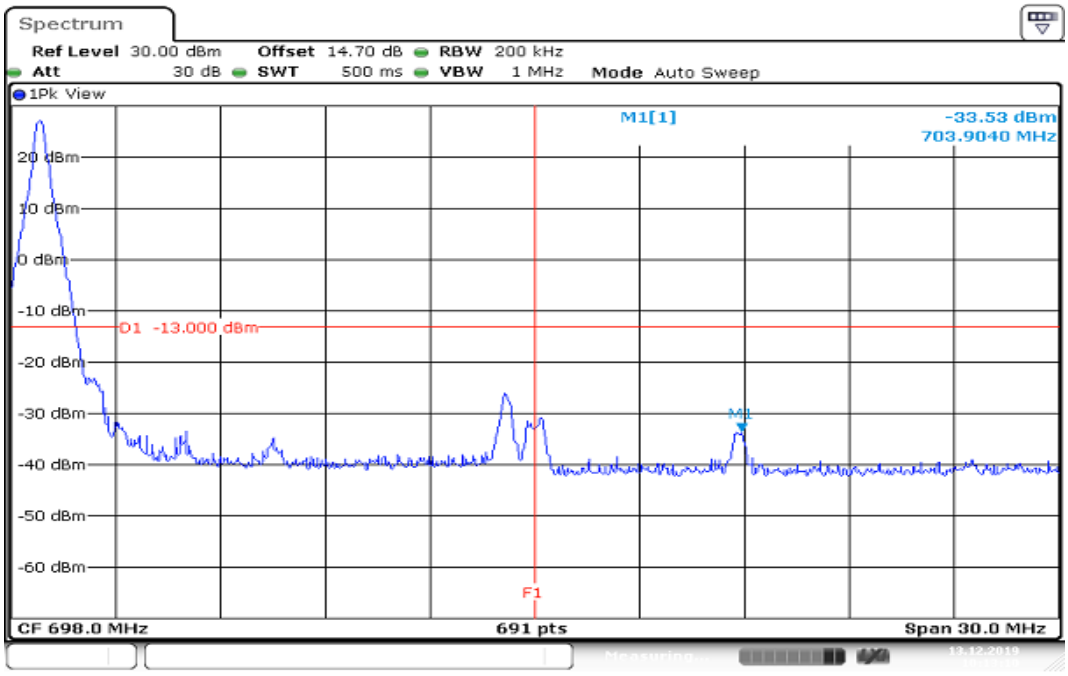

Date: 13.DEC.2019 10:08:05

## CHANNEL BANDWIDTH: 15MHz / 16QAM/ 1RB ALLOCATION
## LOWER BAND EDGE



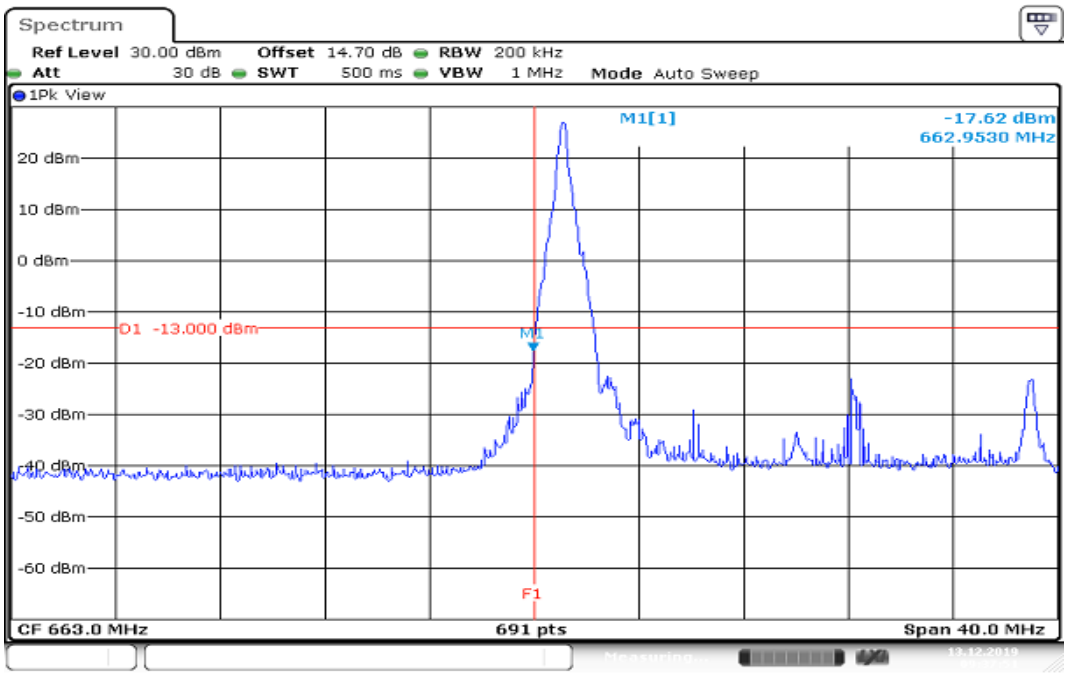

Date: 13.DEC.2019 10:14:31

## HIGHER BAND EDGE



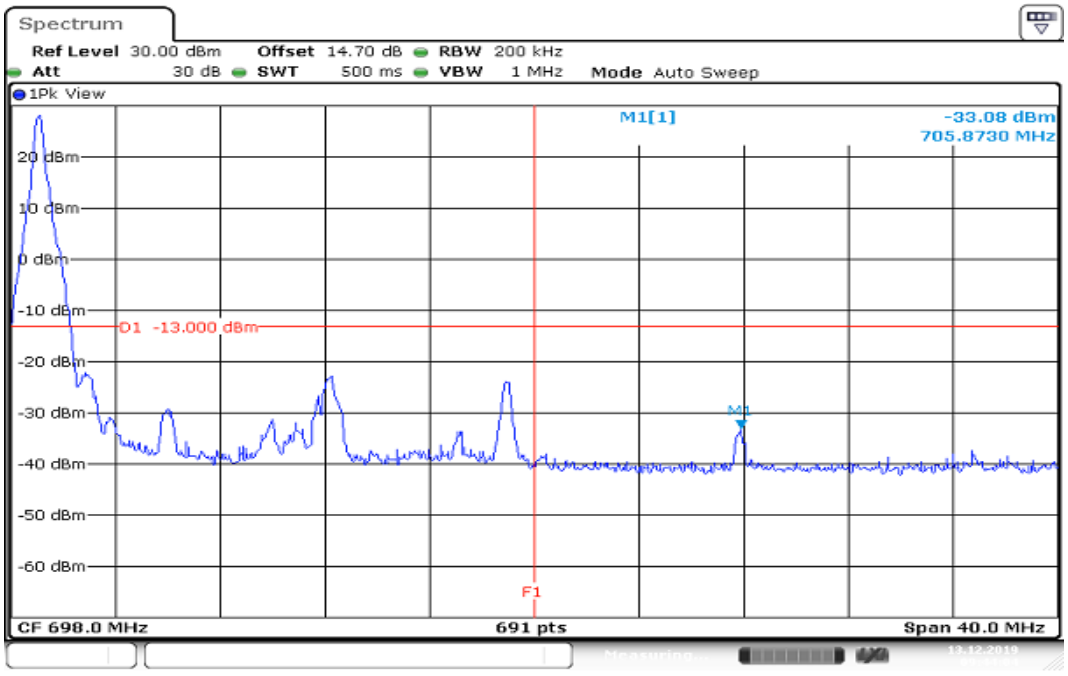

Date: 13.DEC.2019 10:13:10

## CHANNEL BANDWIDTH: 20MHz / 16QAM/ 1RB ALLOCATION
## LOWER BAND EDGE



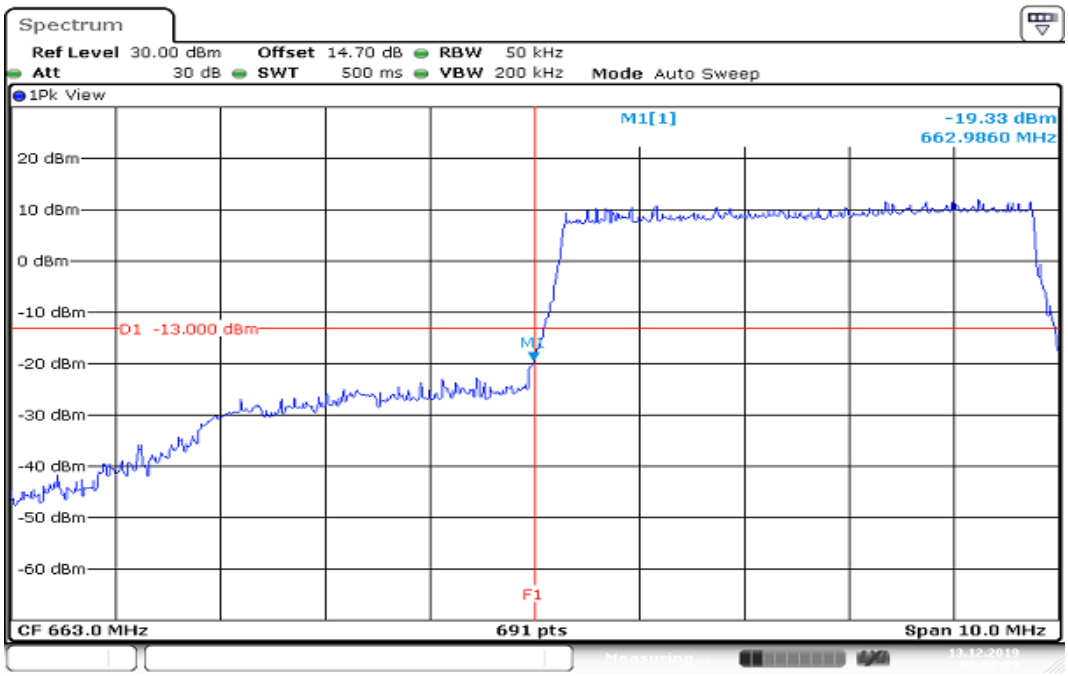

Date: 13.DEC.2019 09:37:51

## HIGHER BAND EDGE



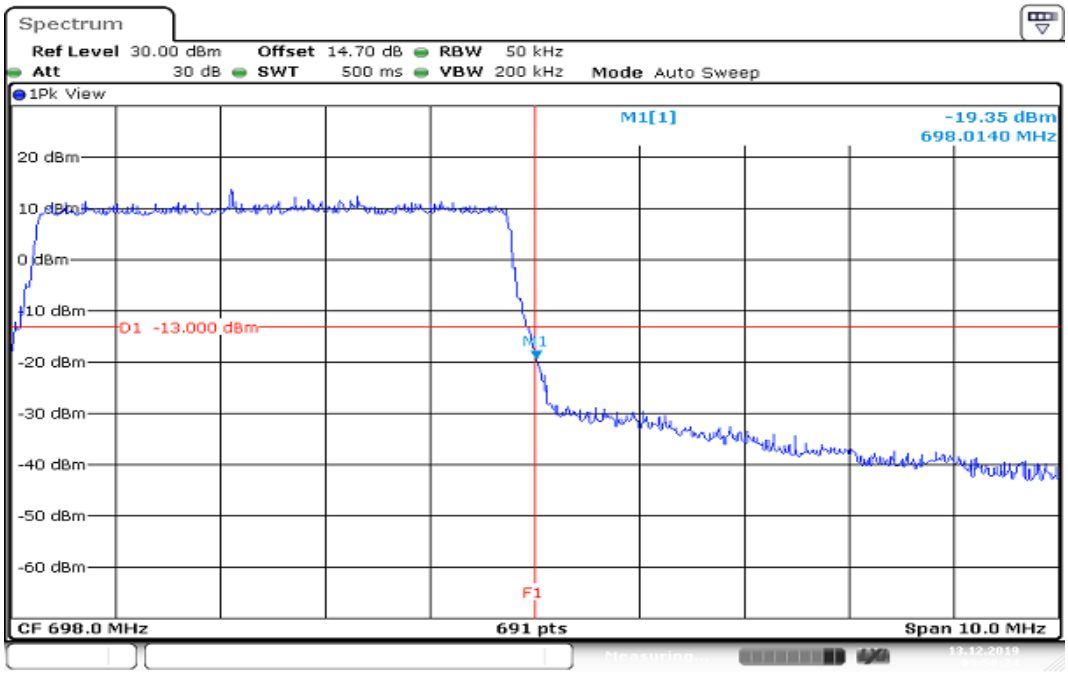

Date: 13.DEC.2019 09:44:04

## CHANNEL BANDWIDTH: 5MHz / 16QAM/ FULL RB ALLOCATION
## LOWER BAND EDGE



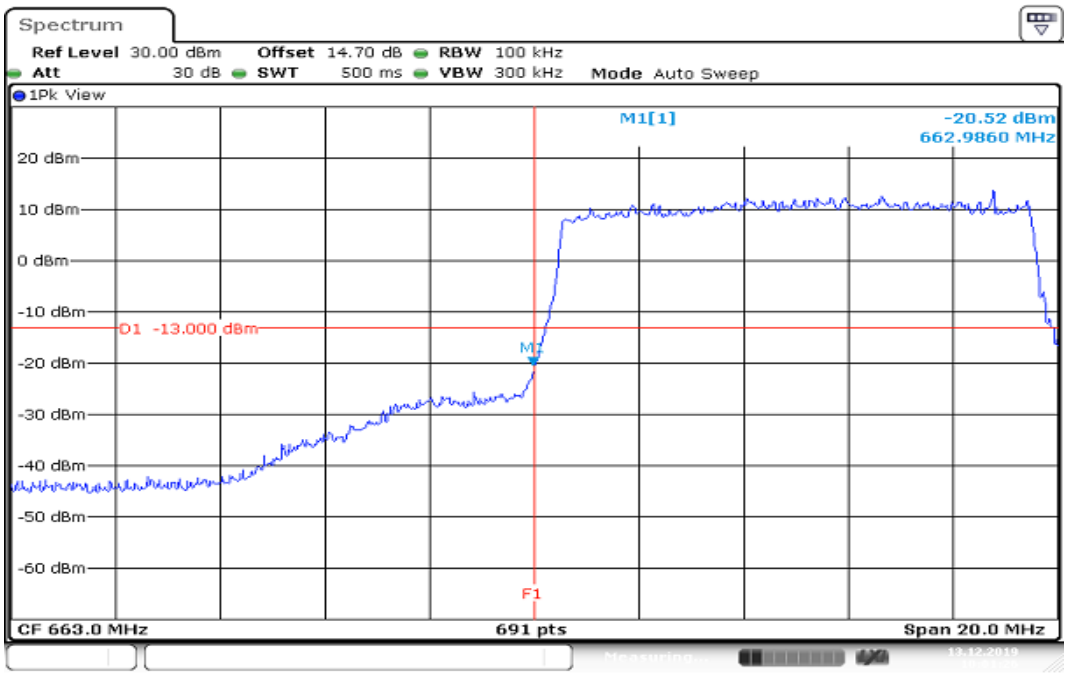

Date: 13.DEC.2019 09:58:09

## HIGHER BAND EDGE



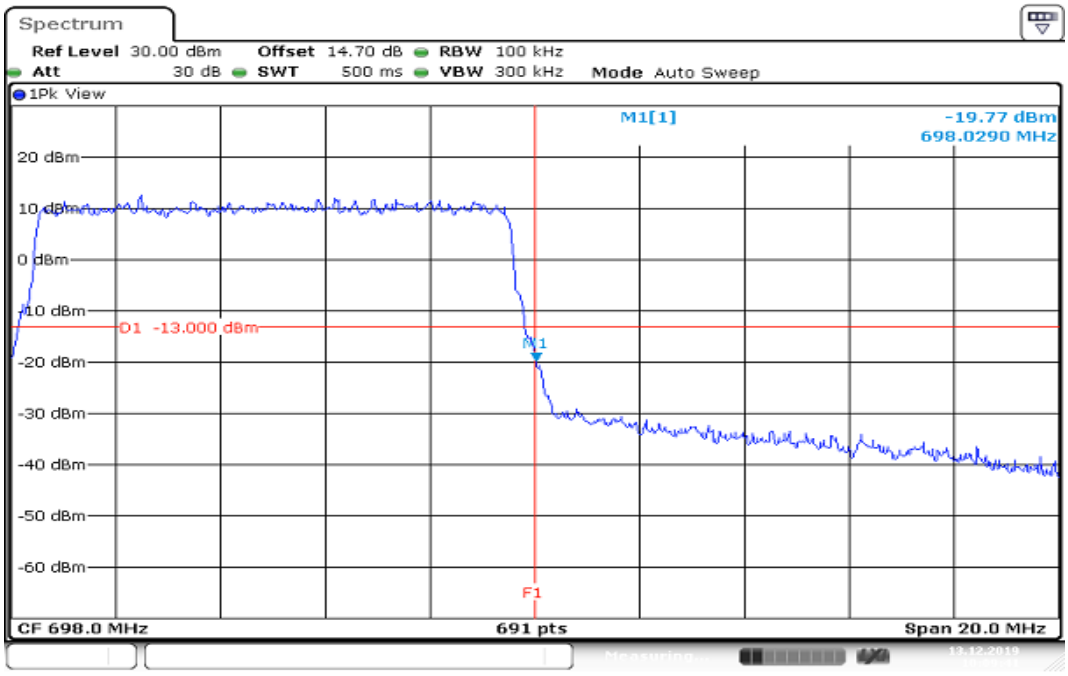

Date: 13.DEC.2019 09:50:24

## CHANNEL BANDWIDTH: 10MHz / 16QAM/ FULLRB ALLOCATION
## LOWER BAND EDGE



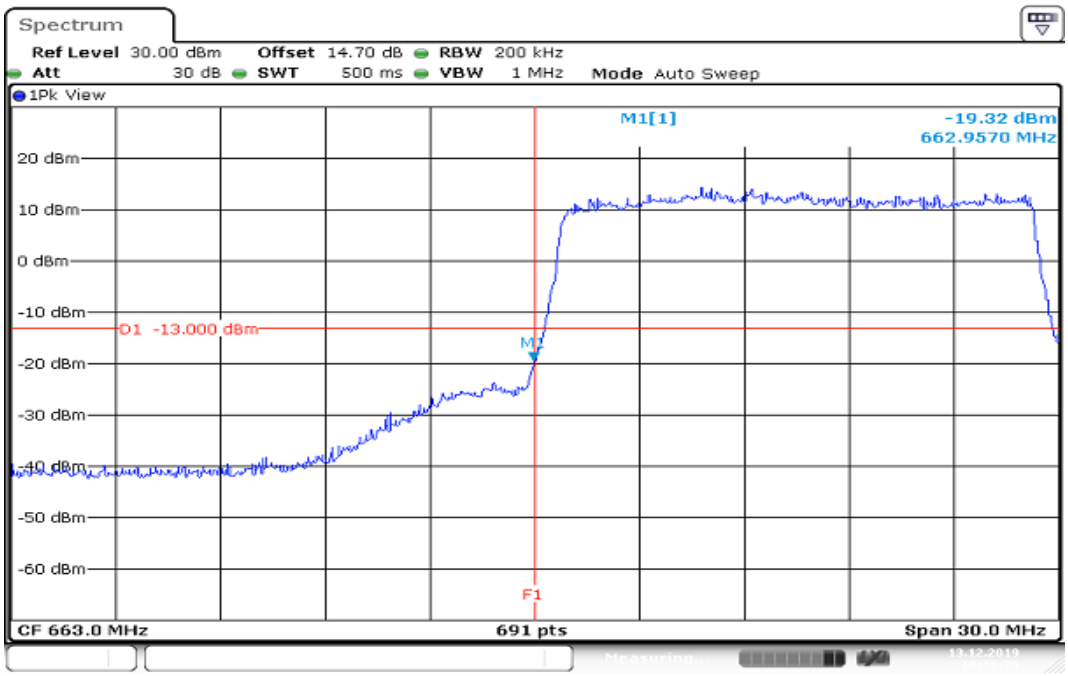

Date: 13.DEC.2019 10:01:26

## HIGHER BAND EDGE



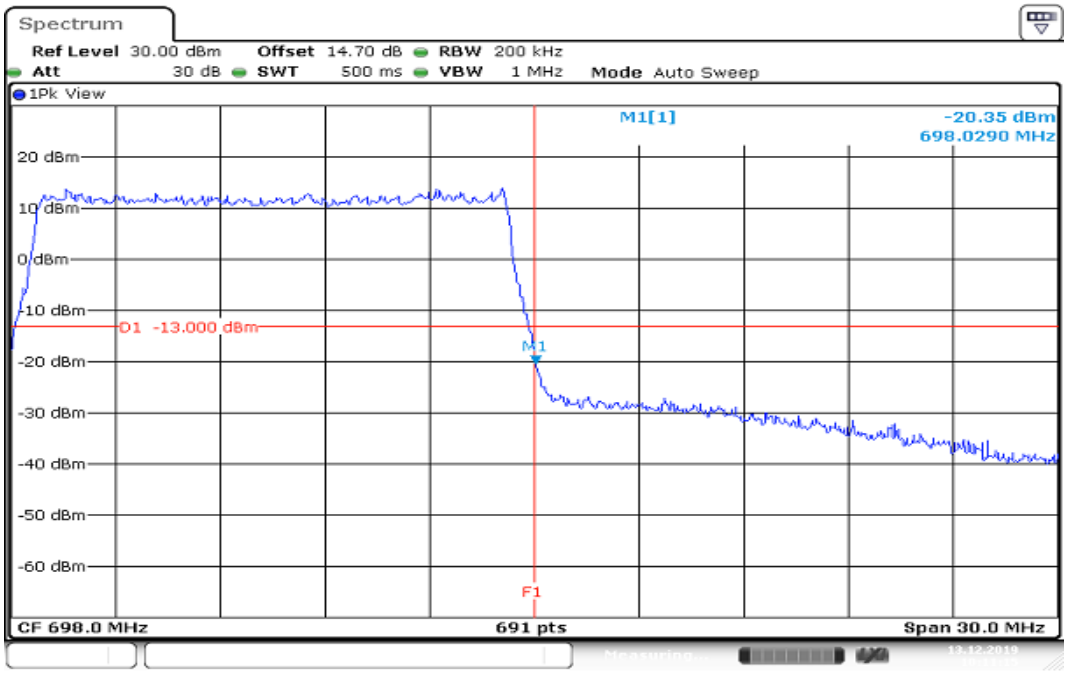

Date: 13.DEC.2019 10:09:41

## CHANNEL BANDWIDTH: 15MHz / 16QAM/ FULL RB ALLOCATION
## LOWER BAND EDGE



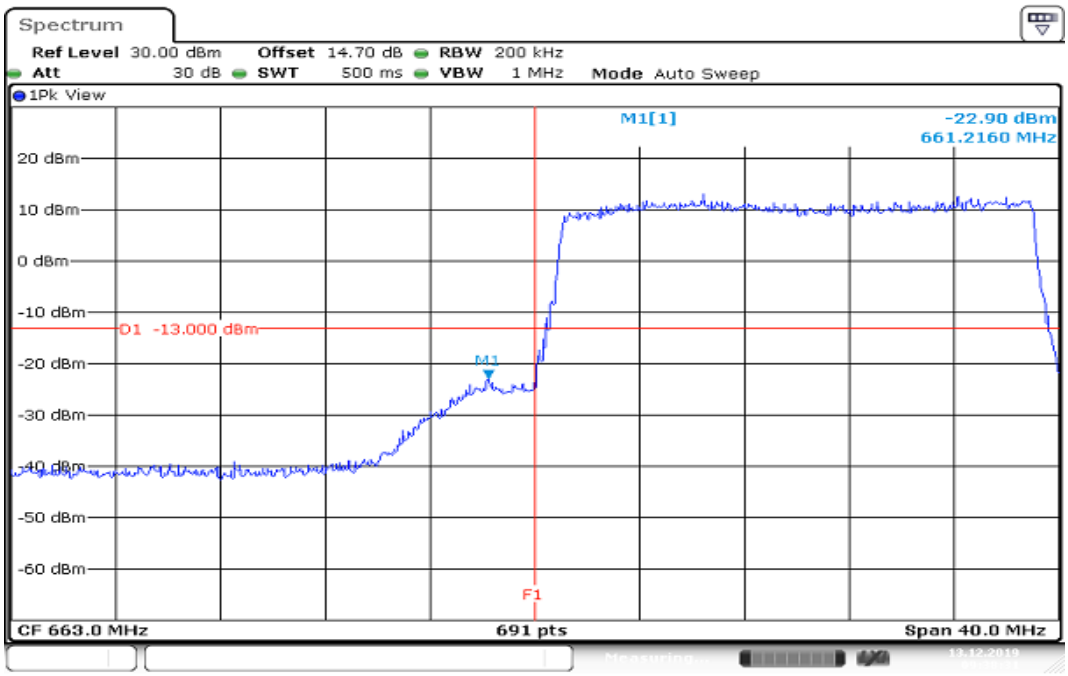

Date: 13.DEC.2019 10:16:36

## HIGHER BAND EDGE



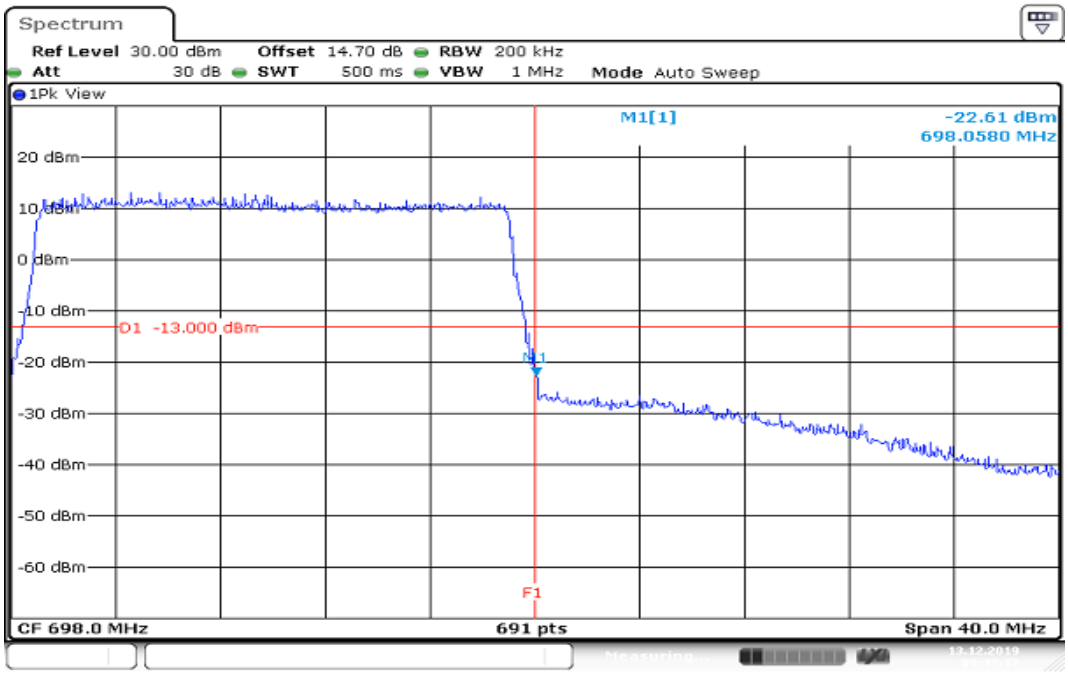

Date: 13.DEC.2019 10:11:15

## CHANNEL BANDWIDTH: 20MHz / 16QAM/ FULLRB ALLOCATION
## LOWER BAND EDGE




Date: 13.DEC.2019 09:38:31

## HIGHER BAND EDGE

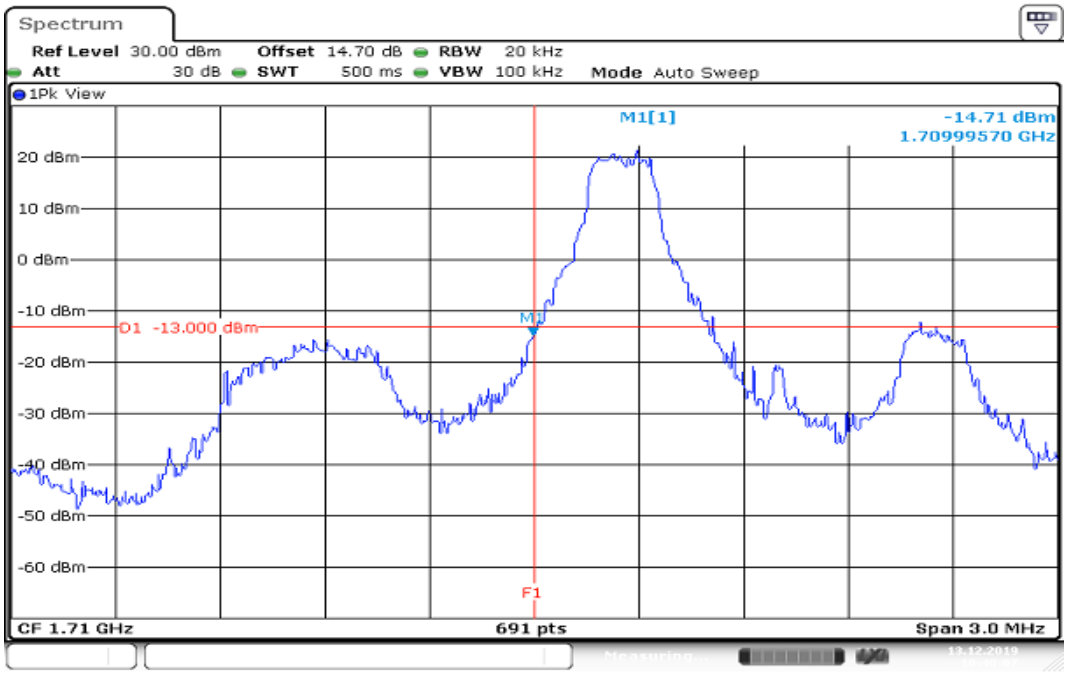



Date: 13.DEC.2019 09:43:17

# LTE Band 66

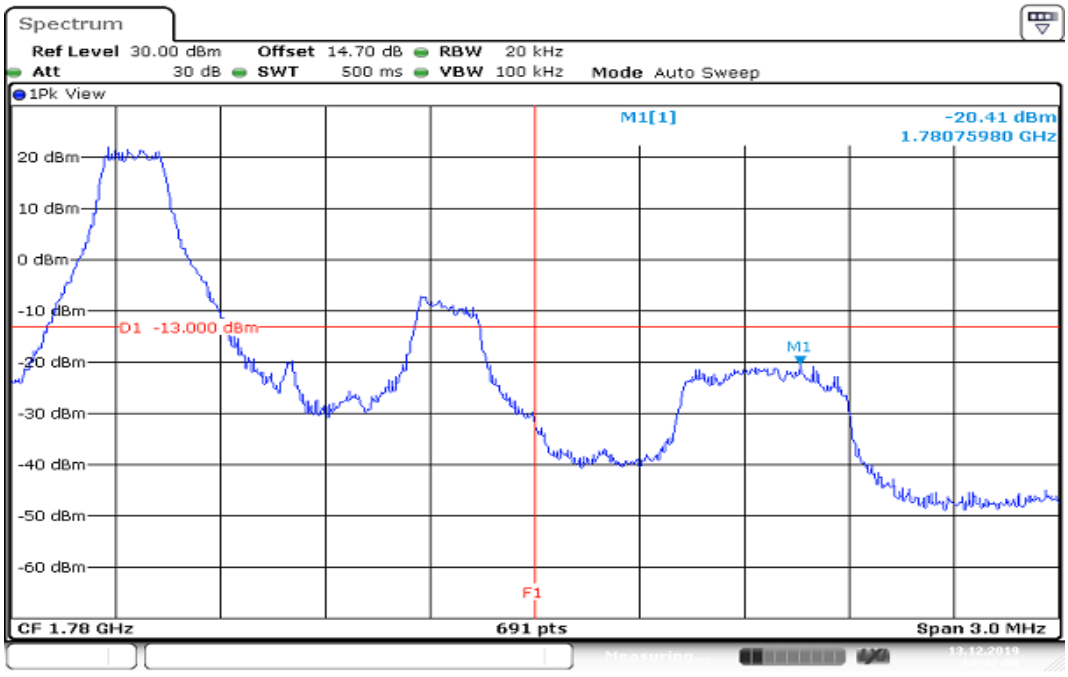
## CHANNEL BANDWIDTH: 1.4MHz / QPSK / 1RB ALLOCATION

## LOWER BAND EDGE



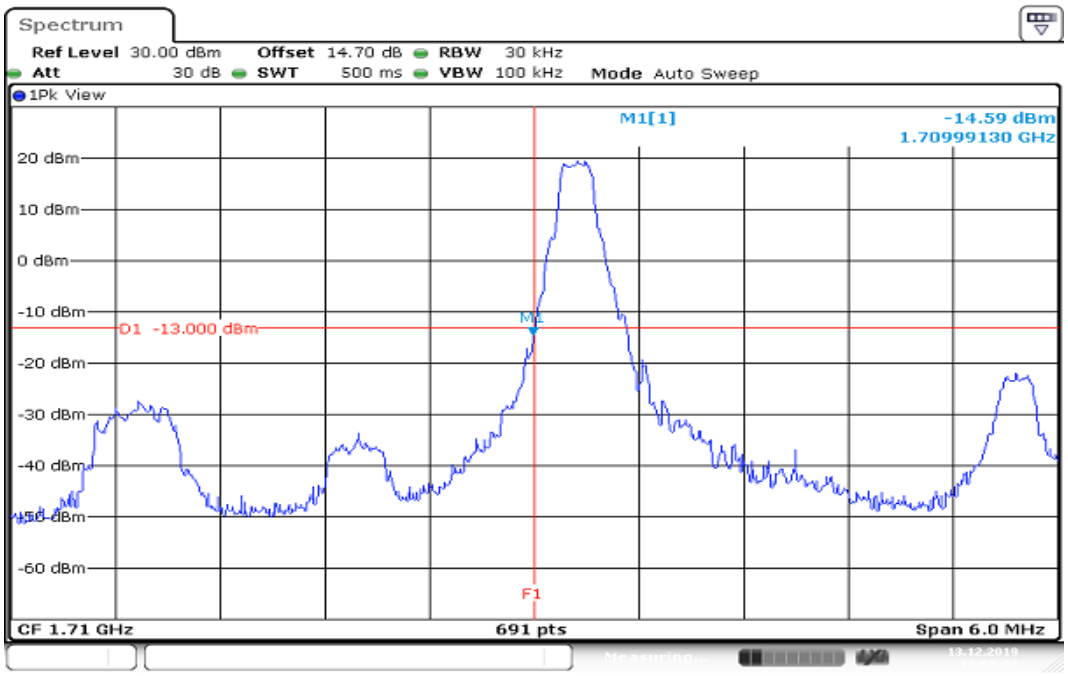

Date: 13.DEC.2019 10:40:07

## HIGHER BAND EDGE



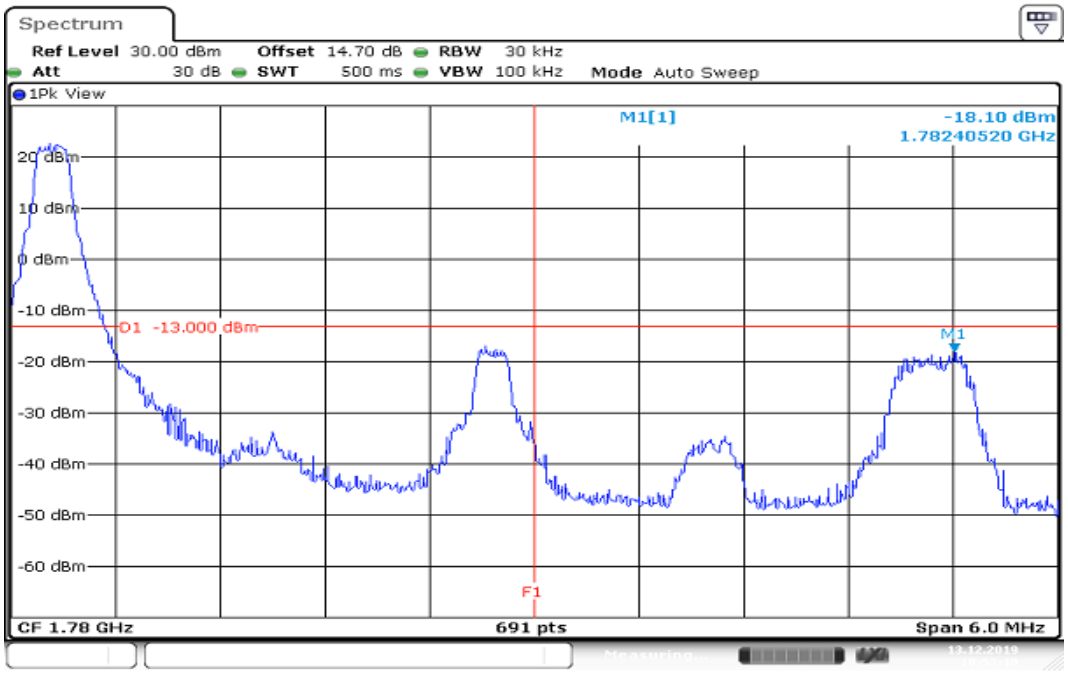

Date: 13.DEC.2019 10:42:06

## CHANNEL BANDWIDTH: 3MHz / QPSK / 1RB ALLOCATION
## LOWER BAND EDGE



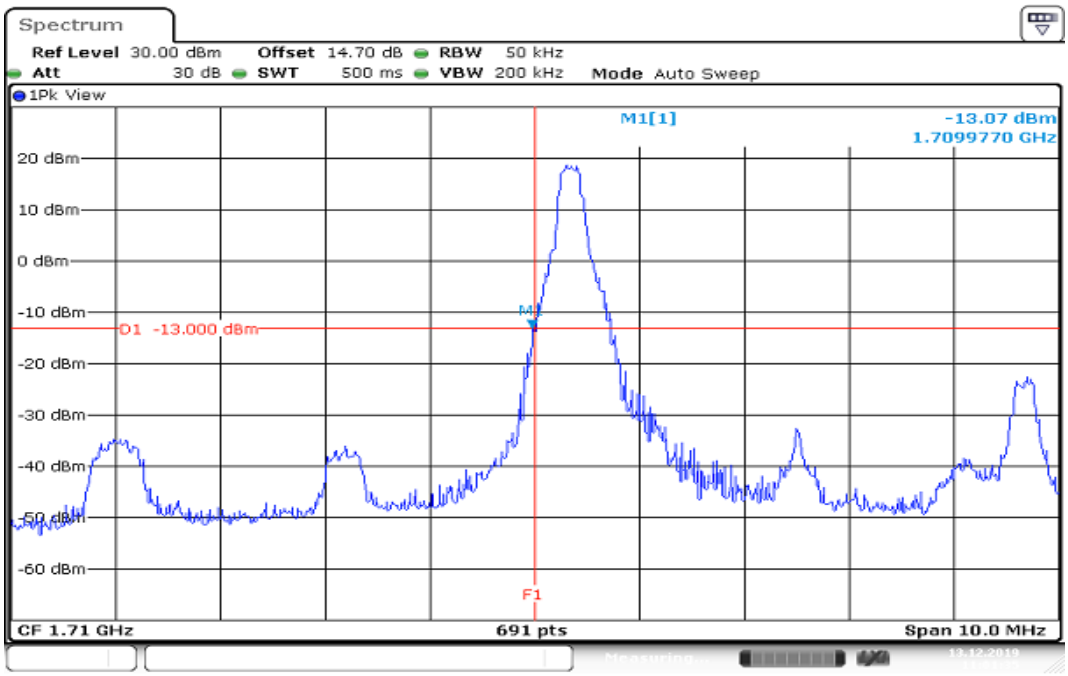

Date: 13.DEC.2019 10:55:27

## HIGHER BAND EDGE



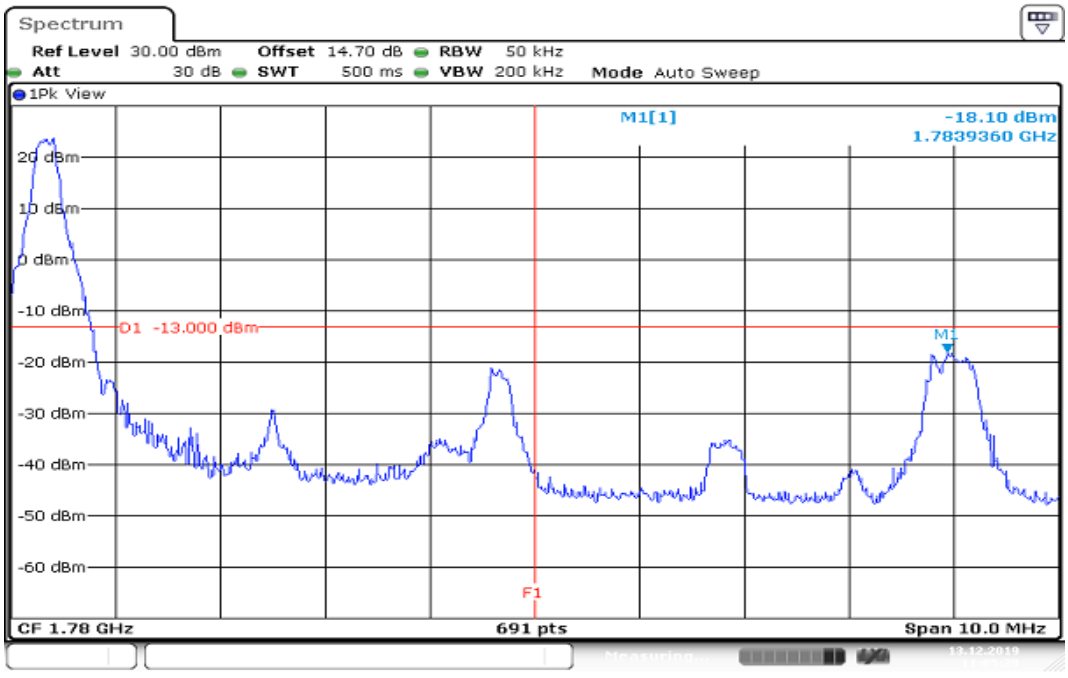

Date: 13.DEC.2019 10:53:10

## CHANNEL BANDWIDTH: 5MHz / QPSK / 1RB ALLOCATION
## LOWER BAND EDGE



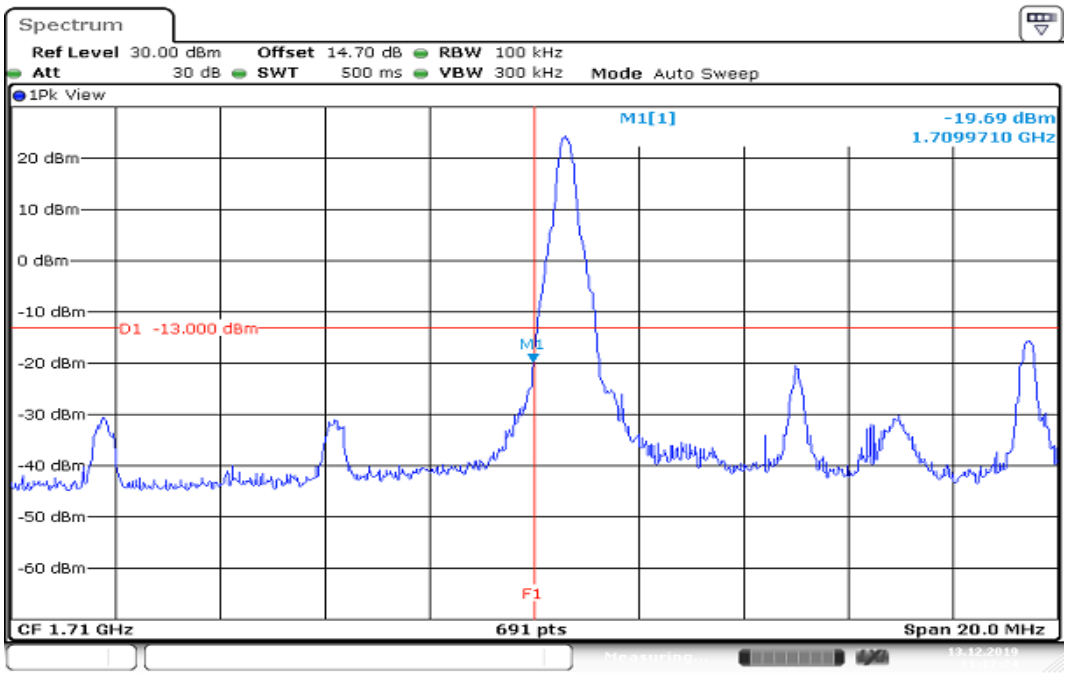

Date: 13.DEC.2019 11:01:35

## HIGHER BAND EDGE



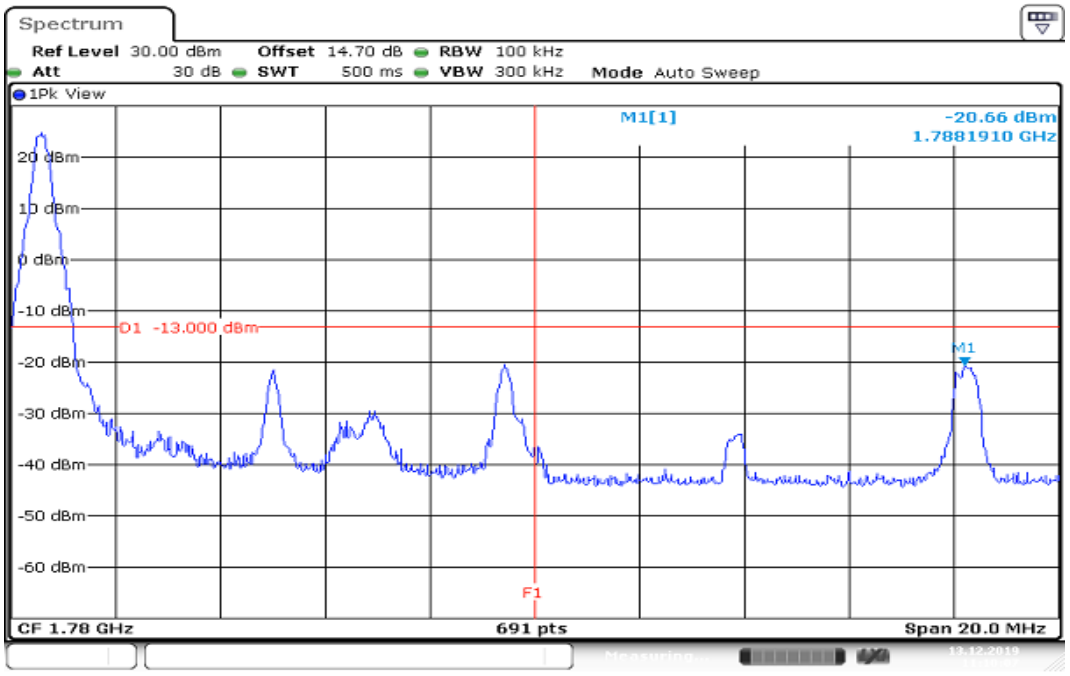

Date: 13.DEC.2019 11:05:28

## CHANNEL BANDWIDTH: 10MHz / QPSK / 1RB ALLOCATION
## LOWER BAND EDGE



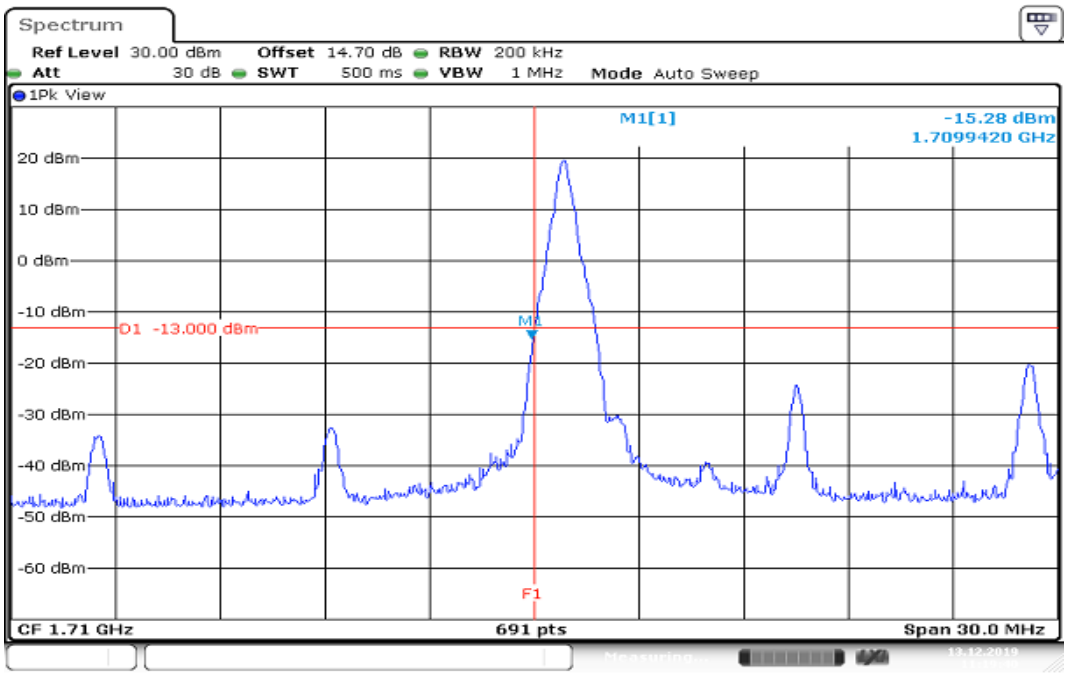

Date: 13.DEC.2019 11:12:24

## HIGHER BAND EDGE



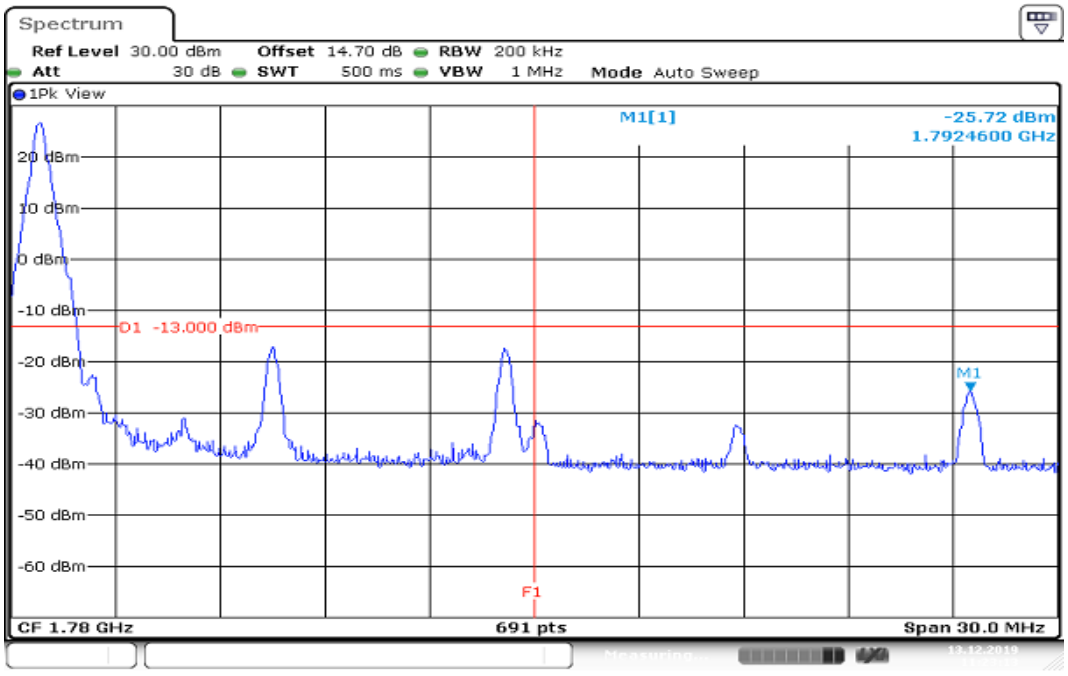

Date: 13.DEC.2019 11:10:07

## CHANNEL BANDWIDTH: 15MHz / QPSK / 1RB ALLOCATION
## LOWER BAND EDGE



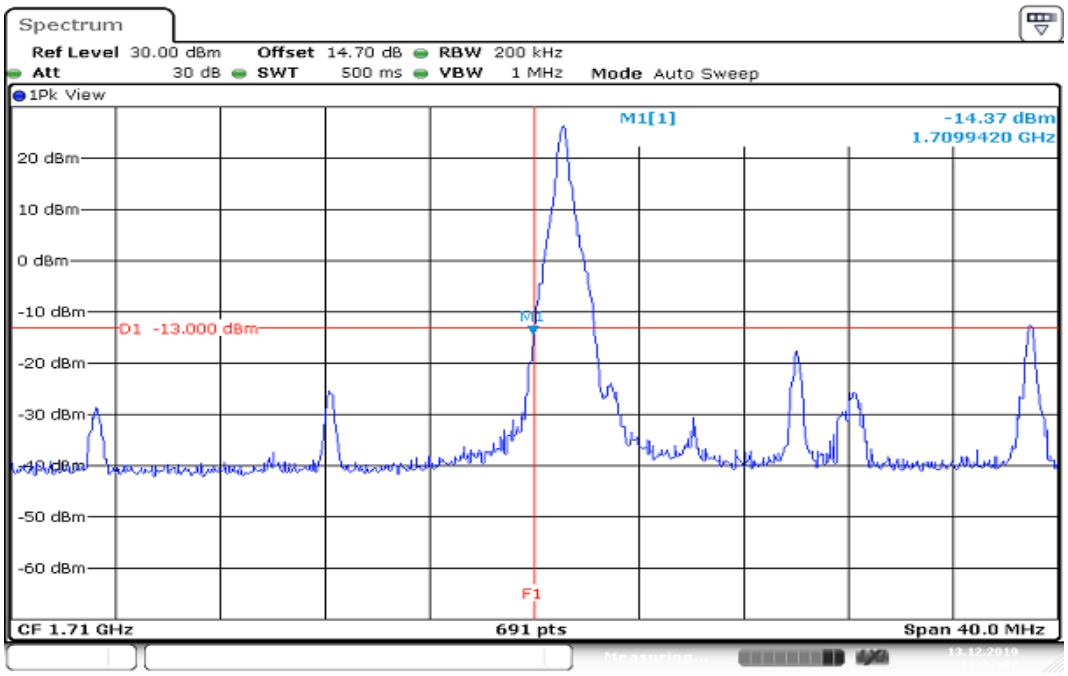

Date: 13.DEC.2019 11:19:39

## HIGHER BAND EDGE



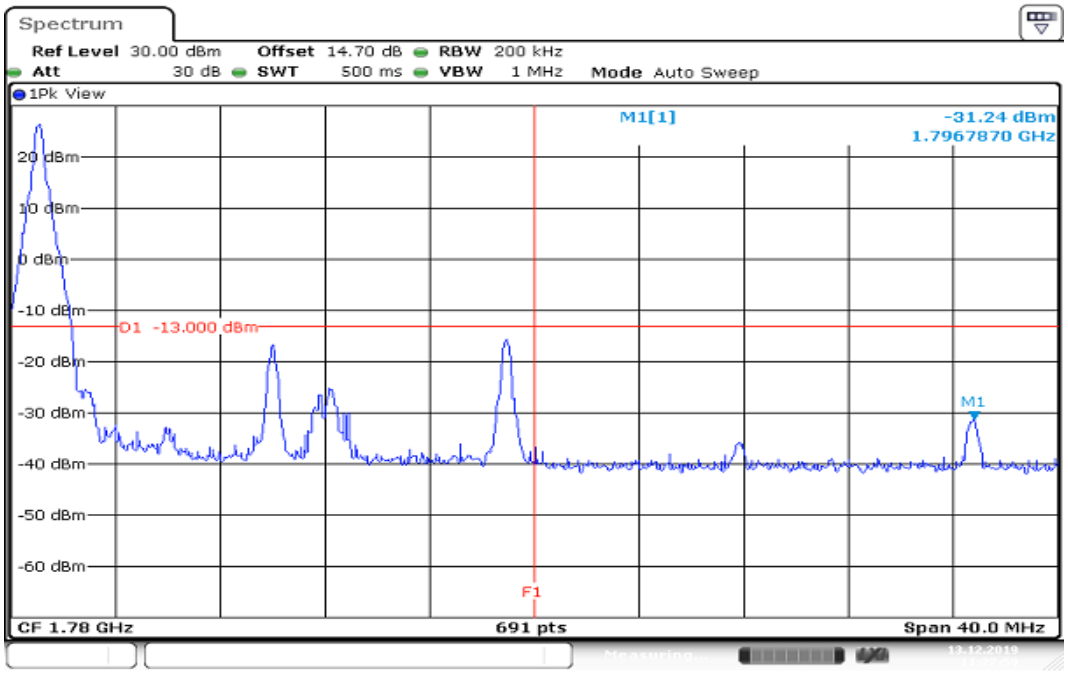

Date: 13.DEC.2019 11:23:13

## CHANNEL BANDWIDTH: 20MHz / QPSK / 1RB ALLOCATION
## LOWER BAND EDGE



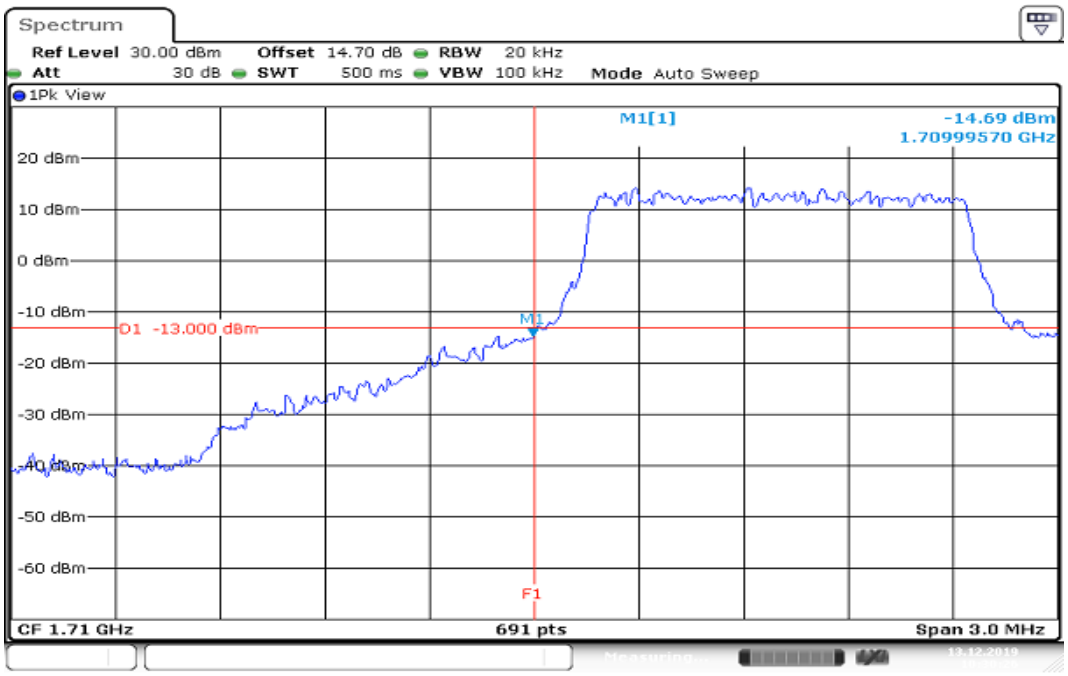

Date: 13.DEC.2019 11:32:02

## HIGHER BAND EDGE



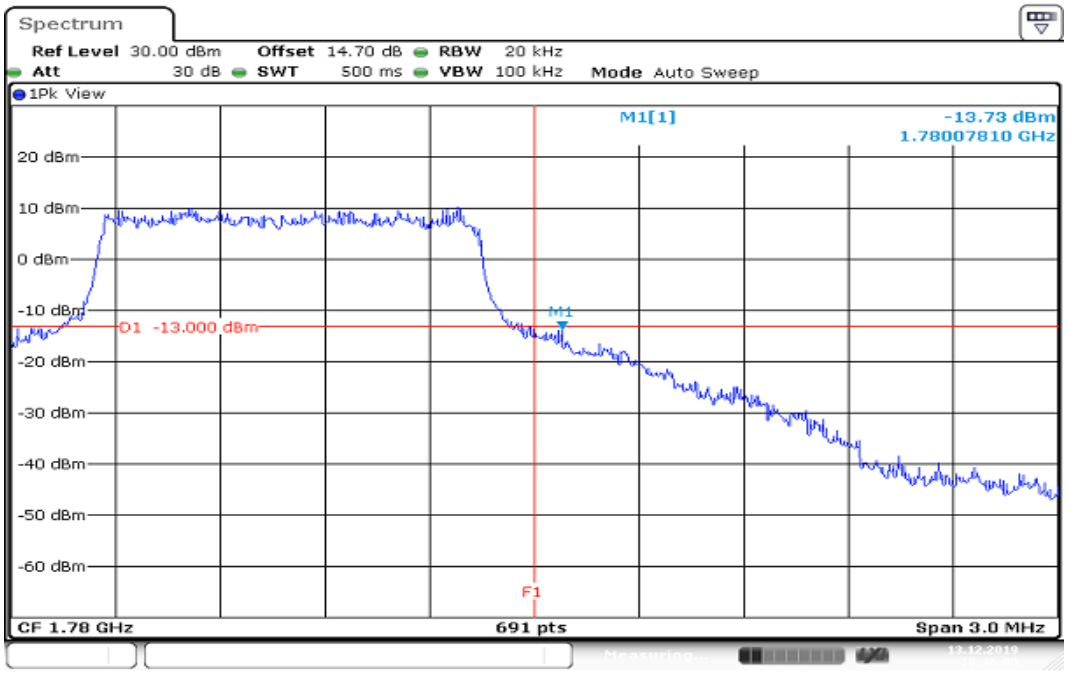

Date: 13.DEC.2019 11:27:59

## CHANNEL BANDWIDTH: 1.4MHz / QPSK / FULLRB ALLOCATION
## LOWER BAND EDGE



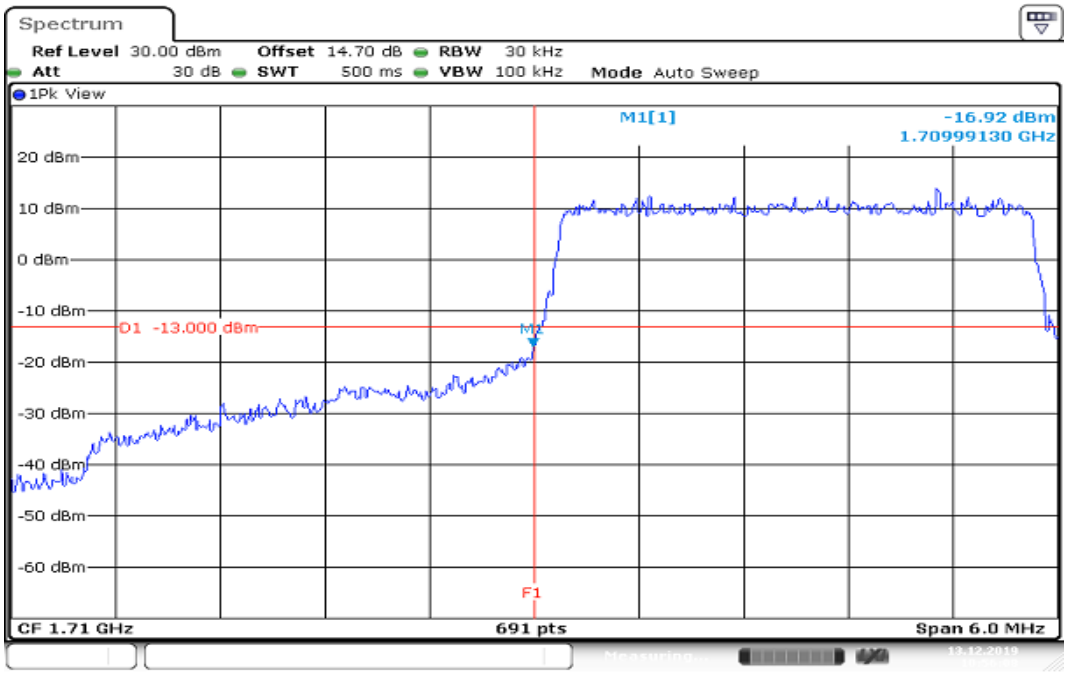

Date: 13.DEC.2019 10:30:26

## HIGHER BAND EDGE



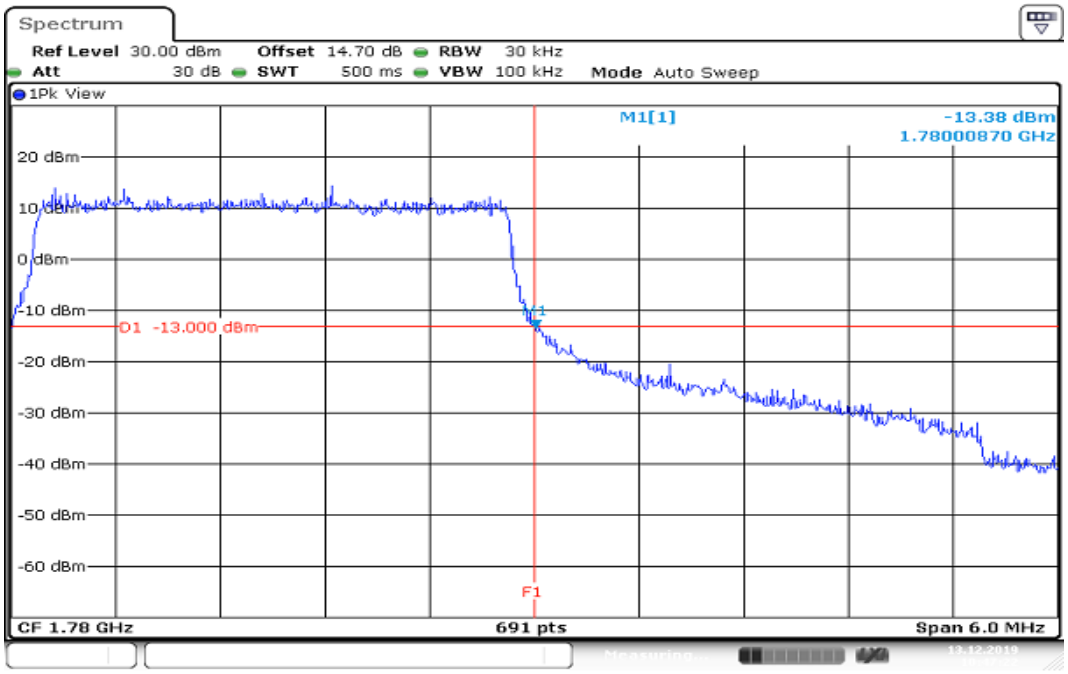

Date: 13.DEC.2019 10:46:00

## CHANNEL BANDWIDTH: 3MHz / QPSK / FULLRB ALLOCATION
## LOWER BAND EDGE



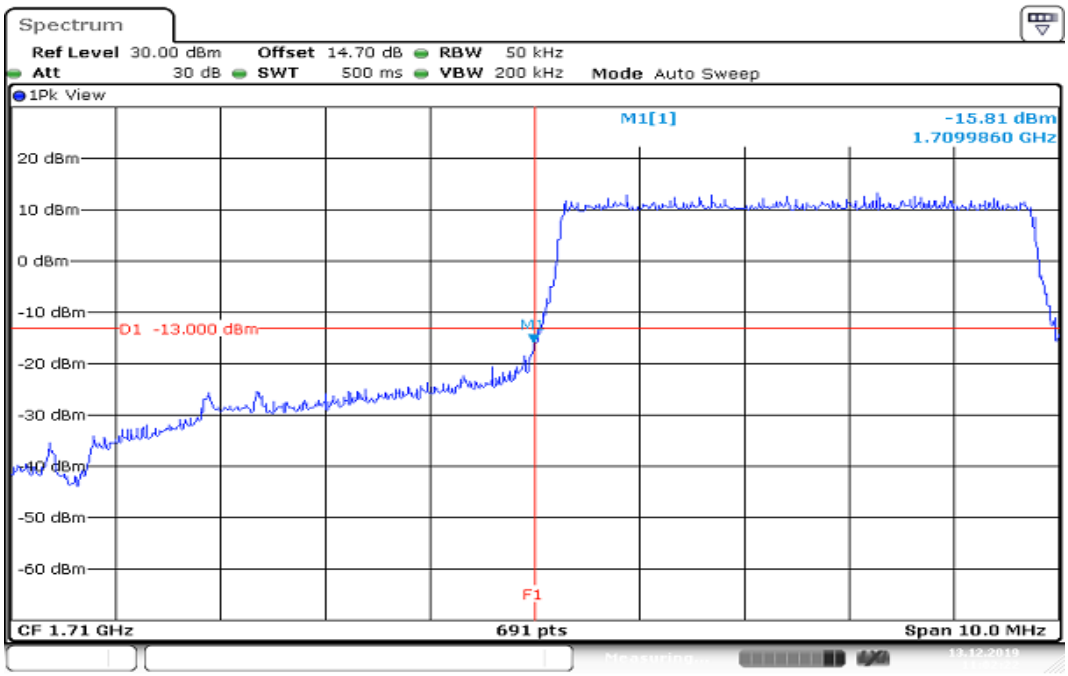

Date: 13.DEC.2019 10:56:08

## HIGHER BAND EDGE



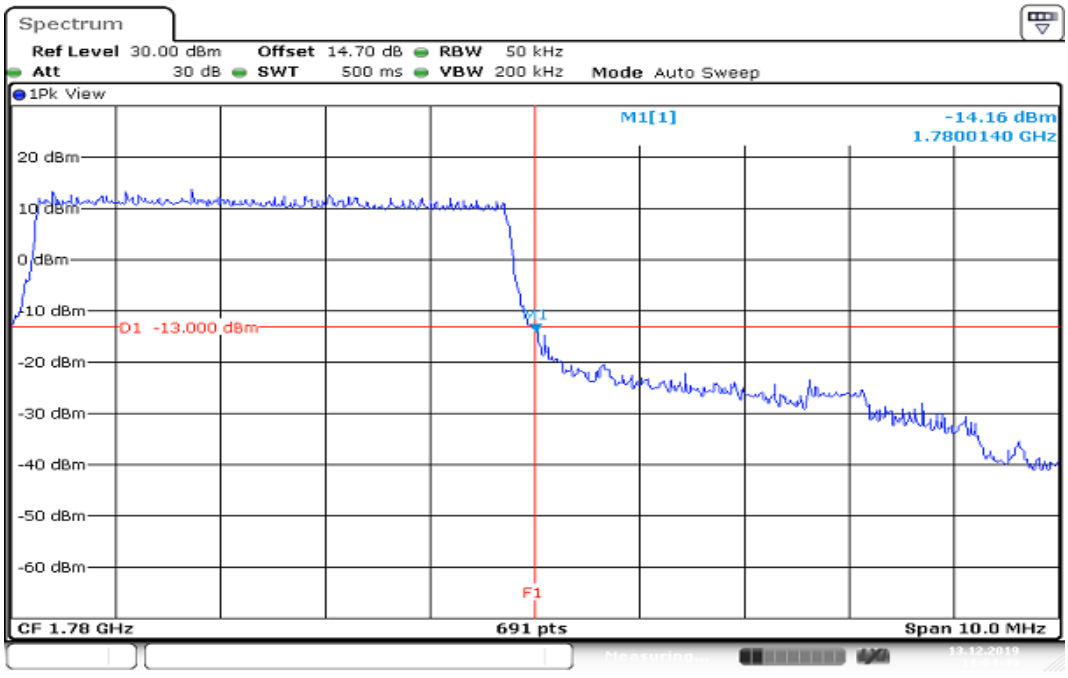

Date: 13.DEC.2019 10:47:22

## CHANNEL BANDWIDTH: 5MHz / QPSK / FULLRB ALLOCATION
## LOWER BAND EDGE



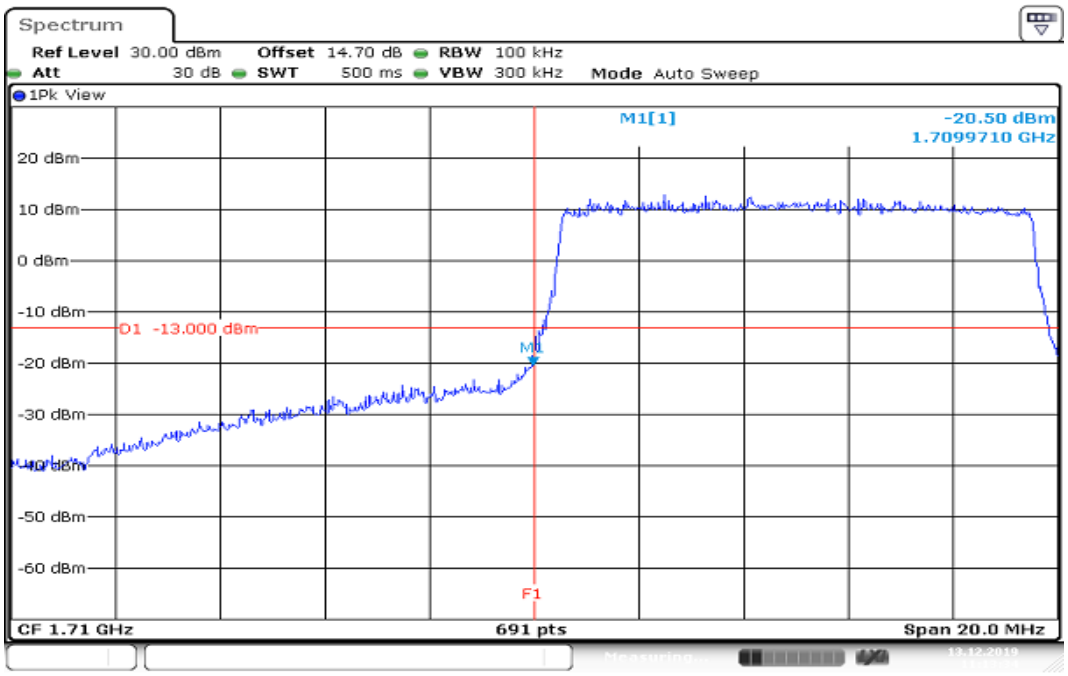

Date: 13.DEC.2019 11:02:22

## HIGHER BAND EDGE



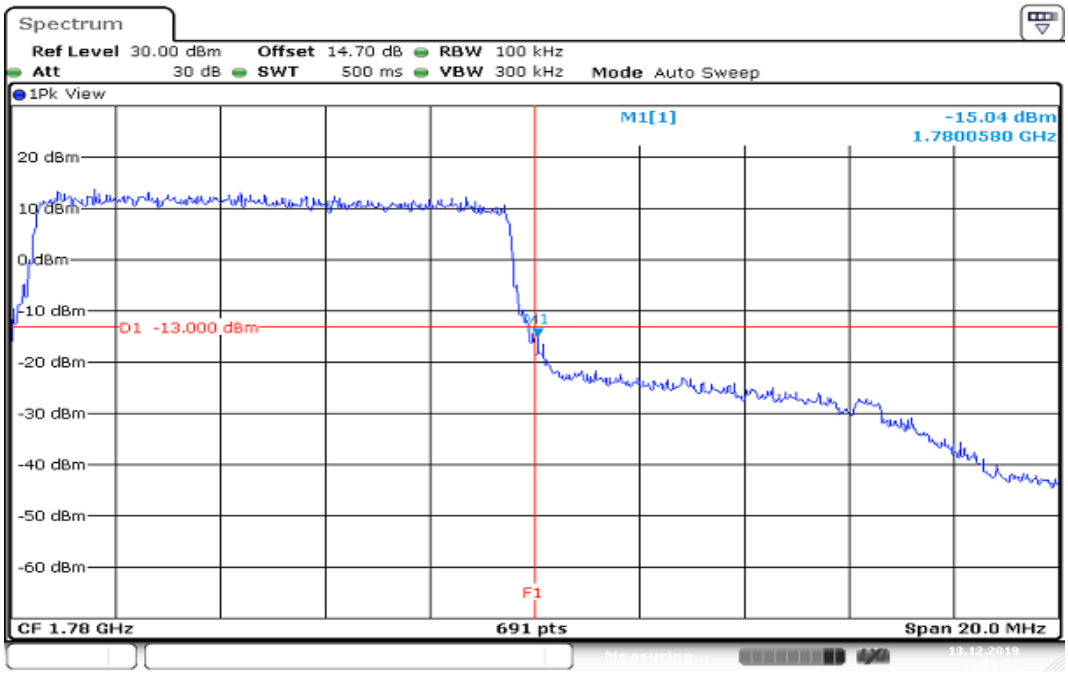

Date: 13.DEC.2019 11:04:49

## CHANNEL BANDWIDTH: 10MHz / QPSK / FULLRB ALLOCATION
## LOWER BAND EDGE



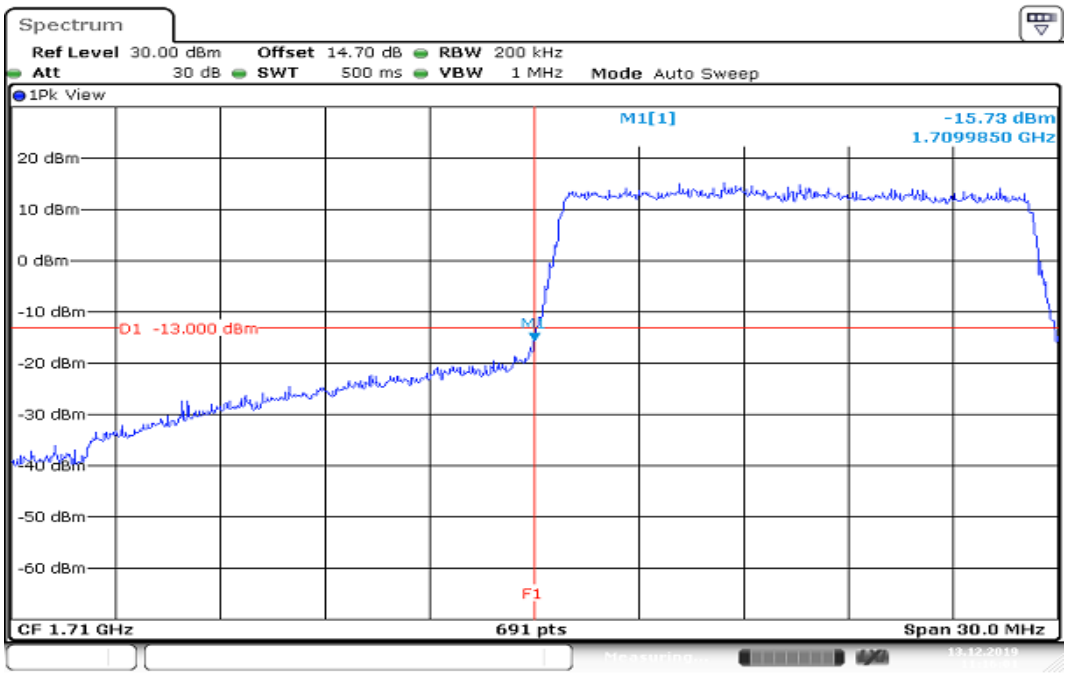

Date: 13.DEC.2019 11:13:34

## HIGHER BAND EDGE



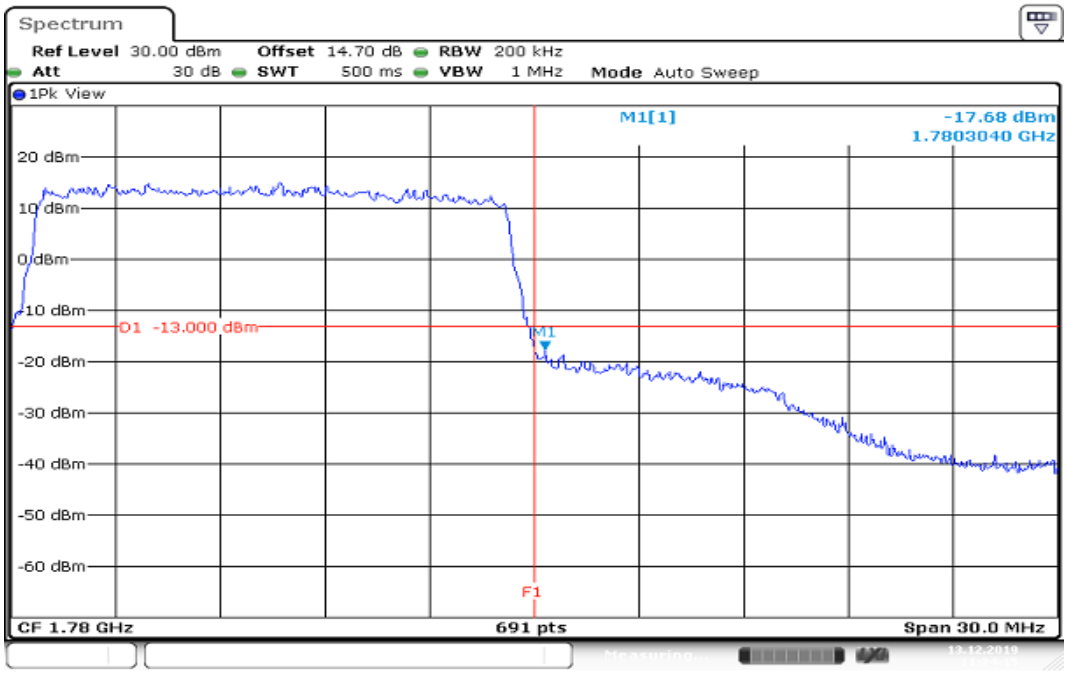

Date: 13.DEC.2019 11:09:31

## CHANNEL BANDWIDTH: 15MHz / QPSK / FULLRB ALLOCATION
## LOWER BAND EDGE



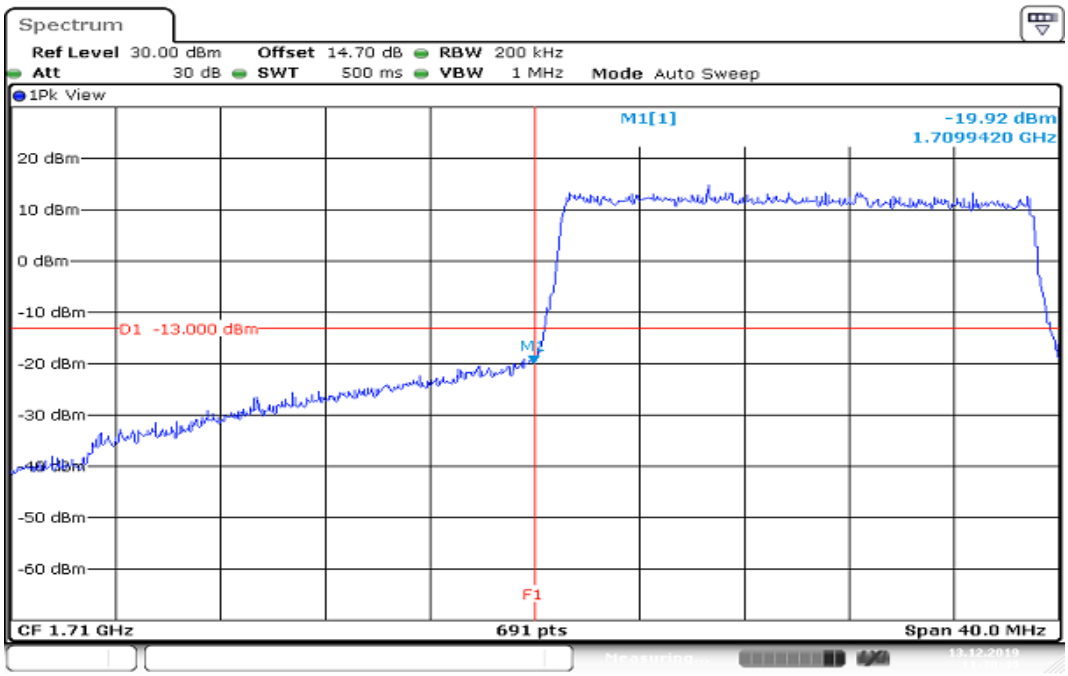

Date: 13.DEC.2019 11:16:01

## HIGHER BAND EDGE



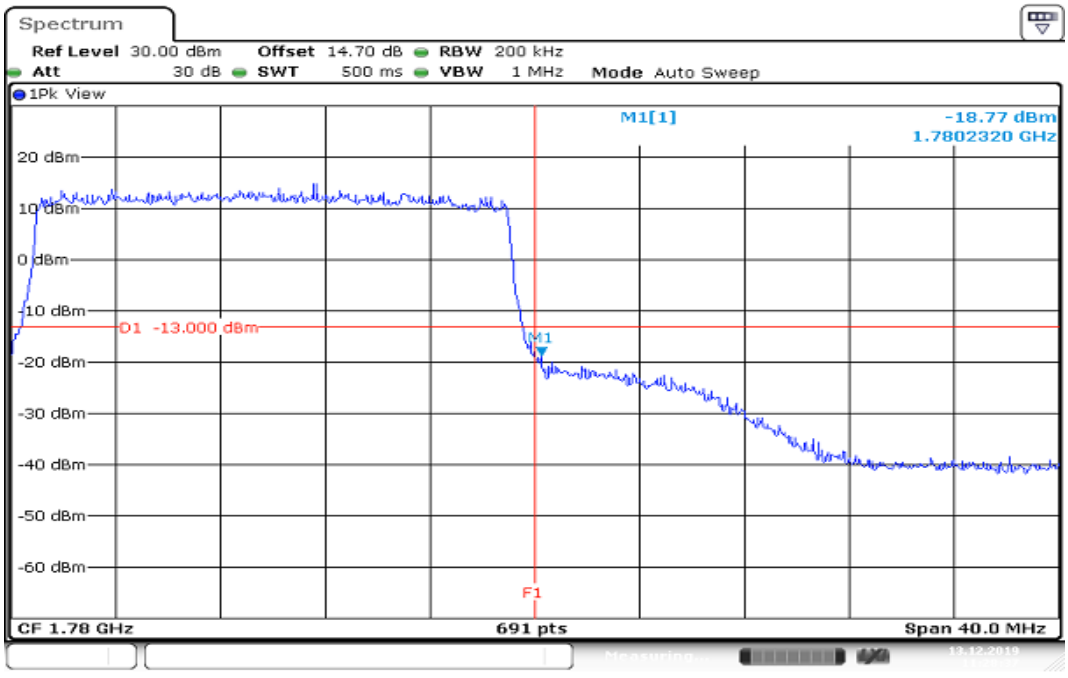

Date: 13.DEC.2019 11:24:14

## CHANNEL BANDWIDTH: 20MHz / QPSK / FULLRB ALLOCATION
## LOWER BAND EDGE



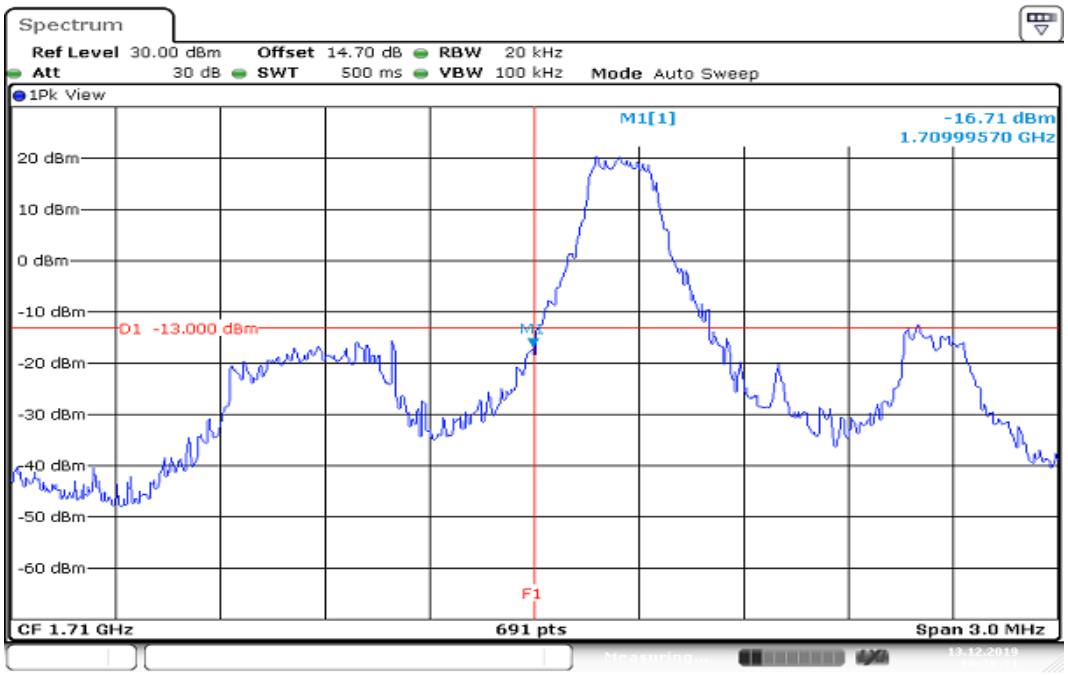

Date: 13.DEC.2019 11:30:49

## HIGHER BAND EDGE



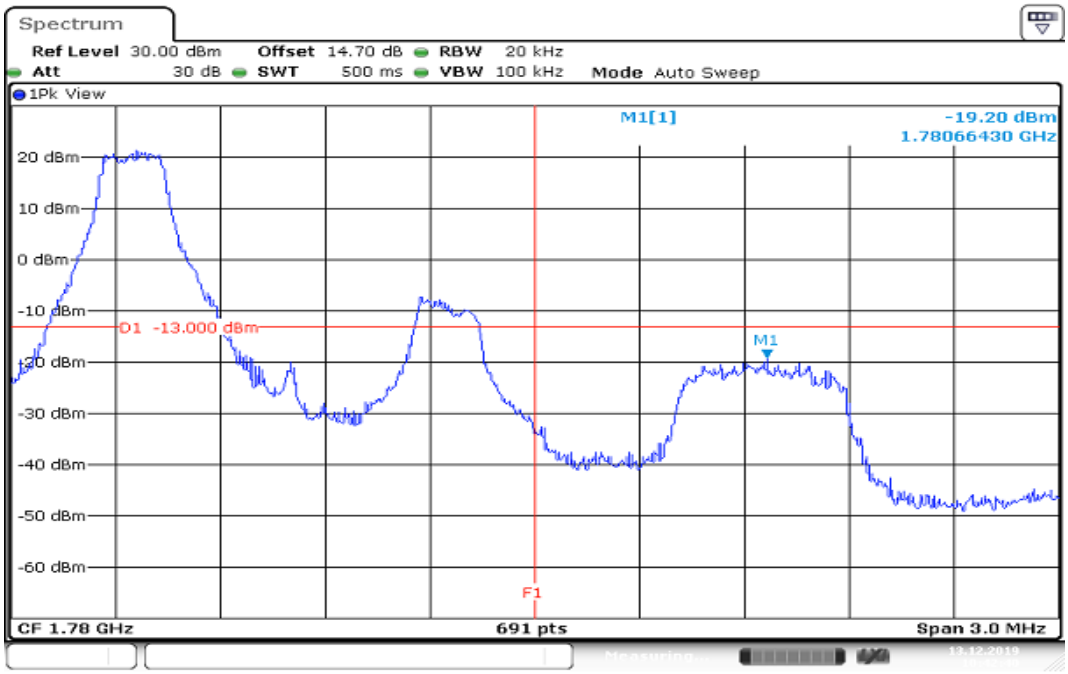

Date: 13.DEC.2019 11:28:37

## CHANNEL BANDWIDTH: 1.4MHz / 16QAM/ 1RB ALLOCATION
## LOWER BAND EDGE



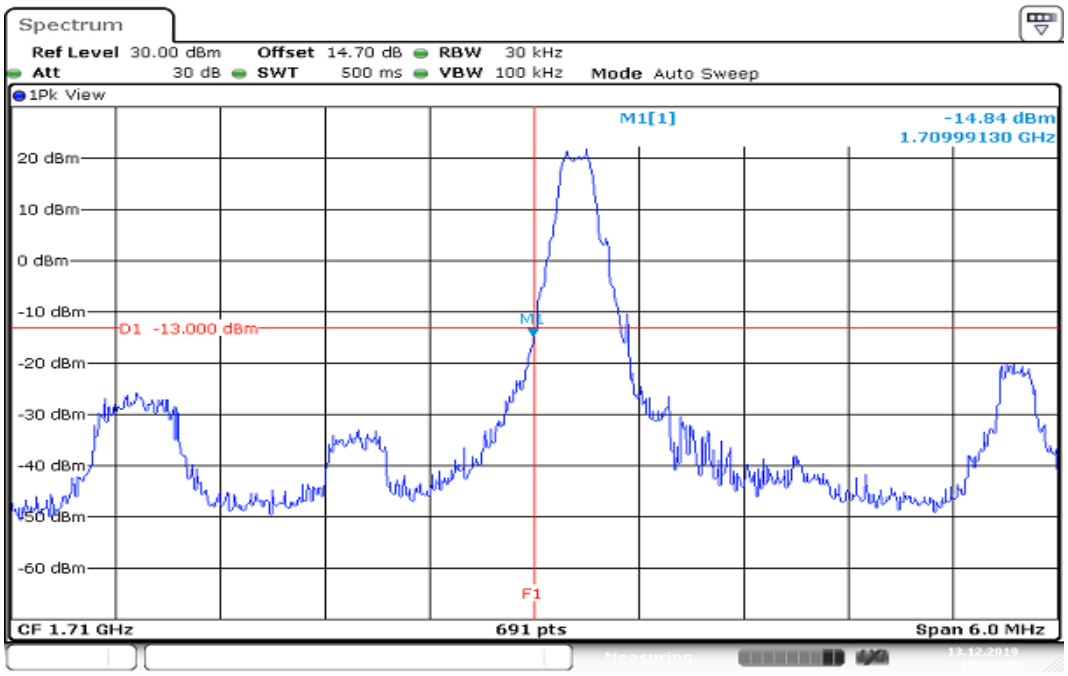

Date: 13.DEC.2019 10:39:31

## HIGHER BAND EDGE



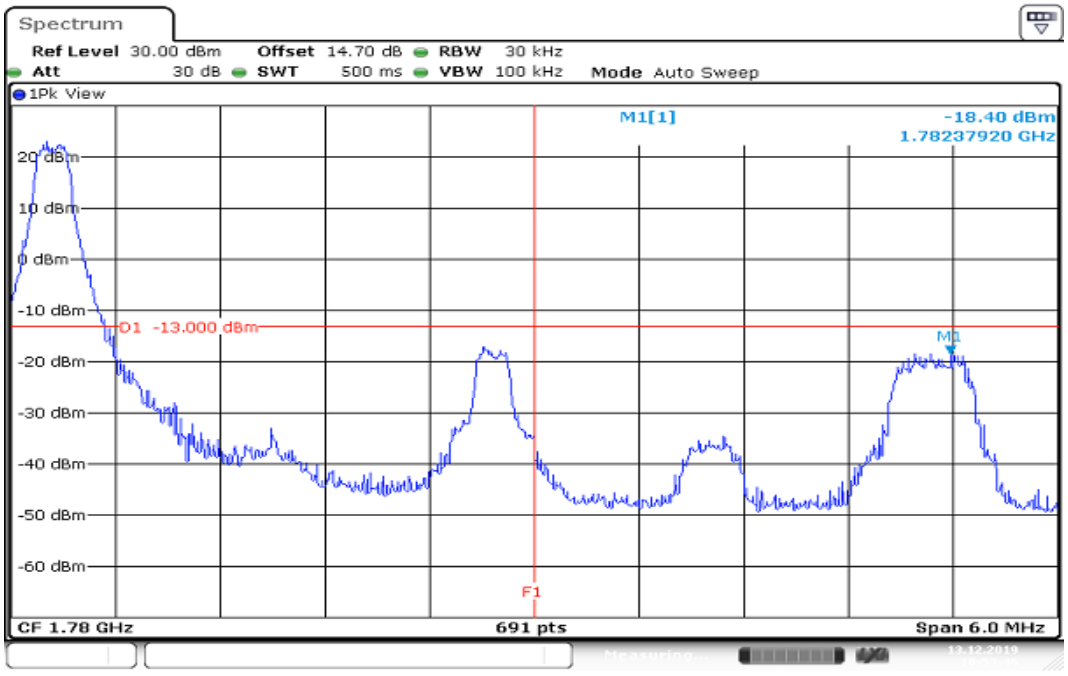

Date: 13.DEC.2019 10:42:40

## CHANNEL BANDWIDTH: 3MHz / 16QAM/ 1RB ALLOCATION
## LOWER BAND EDGE



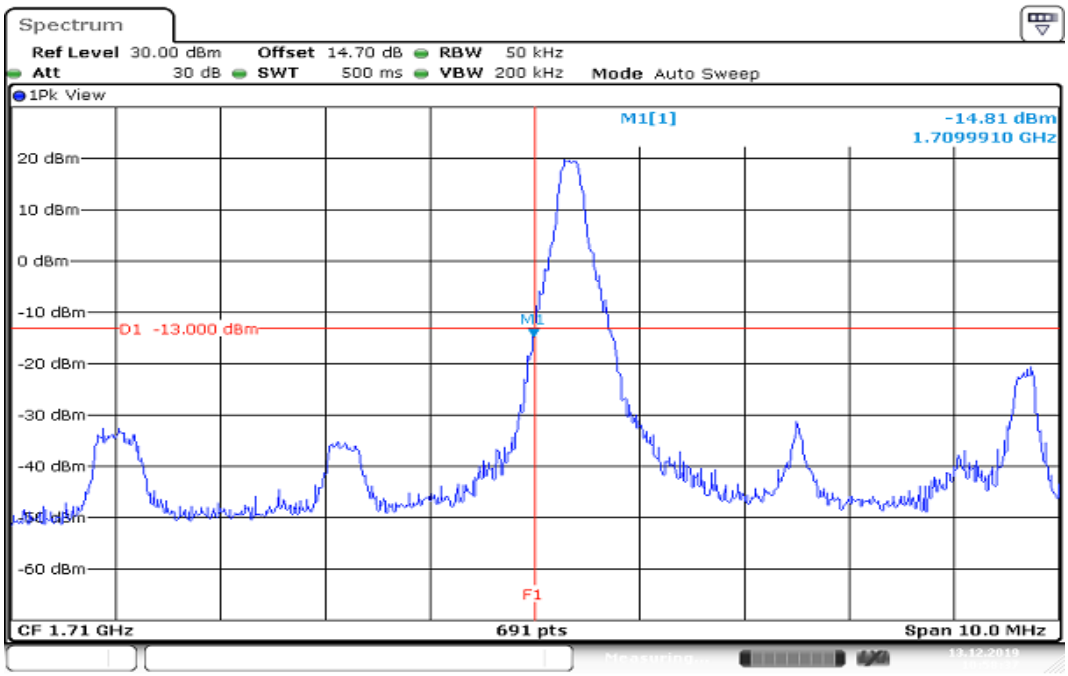

Date: 13.DEC.2019 10:54:49

## HIGHER BAND EDGE



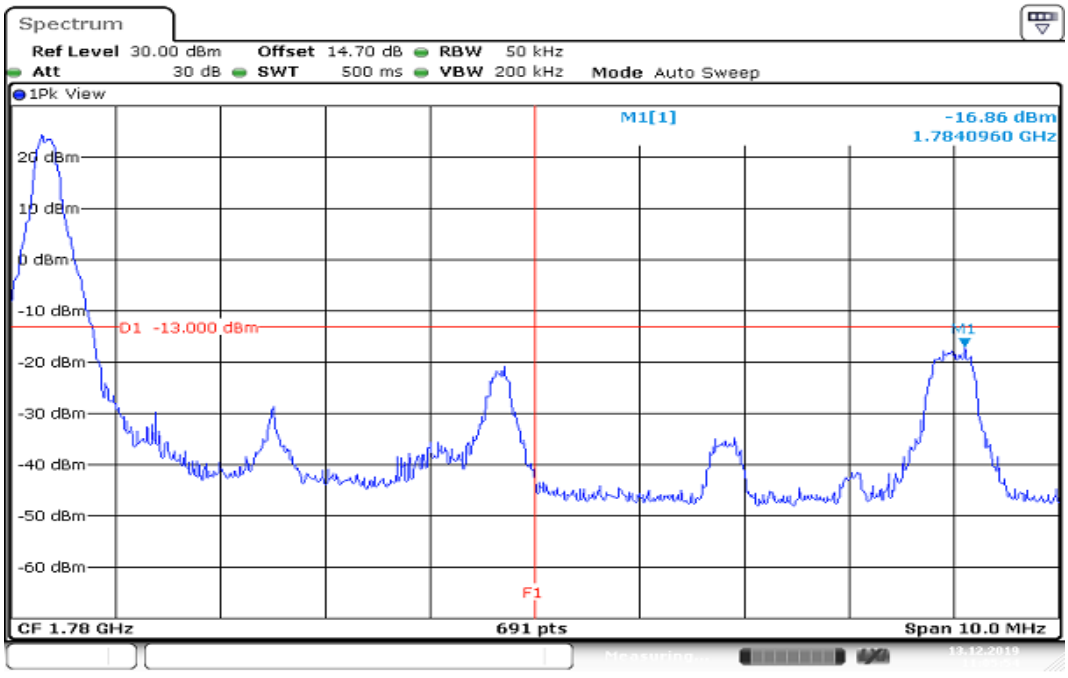

Date: 13.DEC.2019 10:53:45

## CHANNEL BANDWIDTH: 5MHz / 16QAM/ 1RB ALLOCATION
## LOWER BAND EDGE



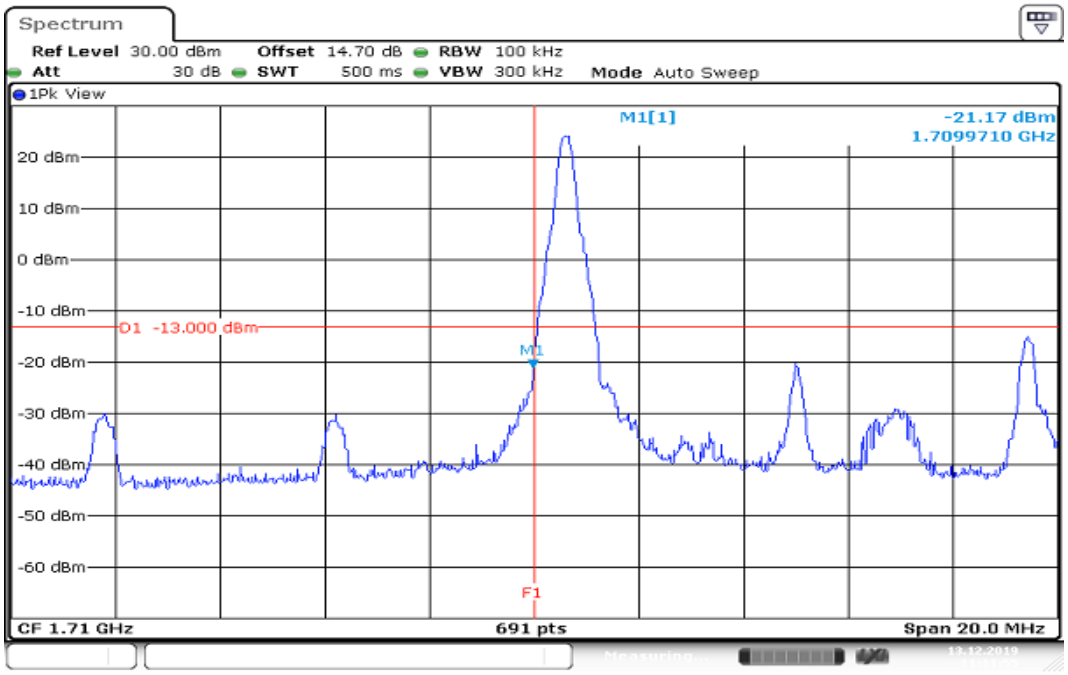

Date: 13.DEC.2019 10:58:37

## HIGHER BAND EDGE



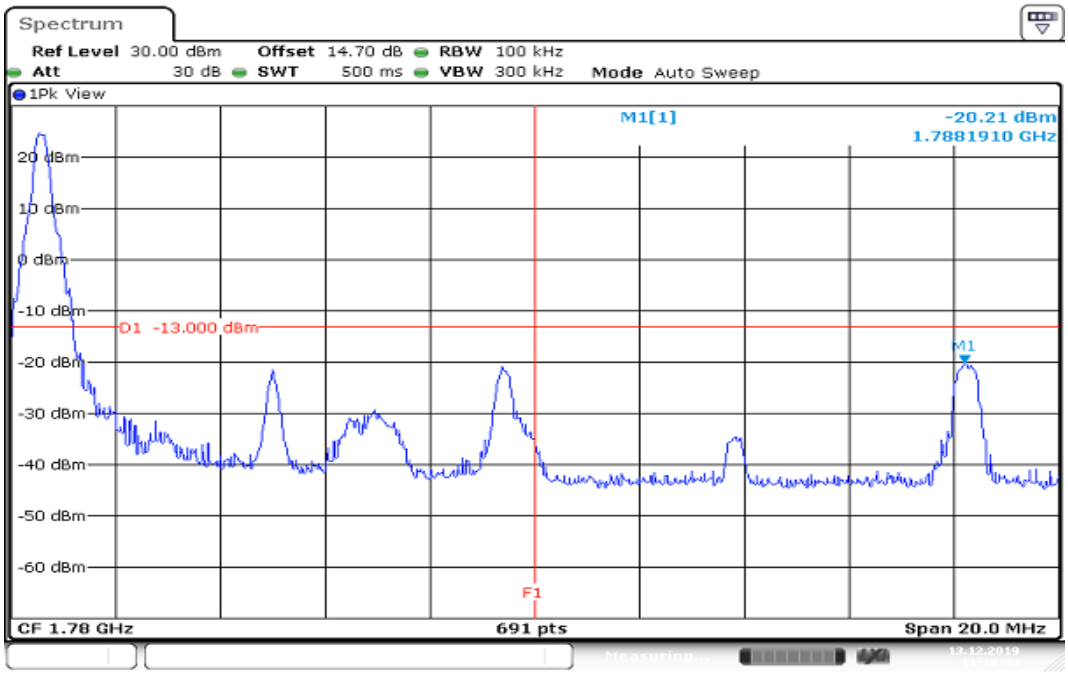

Date: 13.DEC.2019 11:05:53

## CHANNEL BANDWIDTH: 10MHz / 16QAM/ 1RB ALLOCATION
## LOWER BAND EDGE



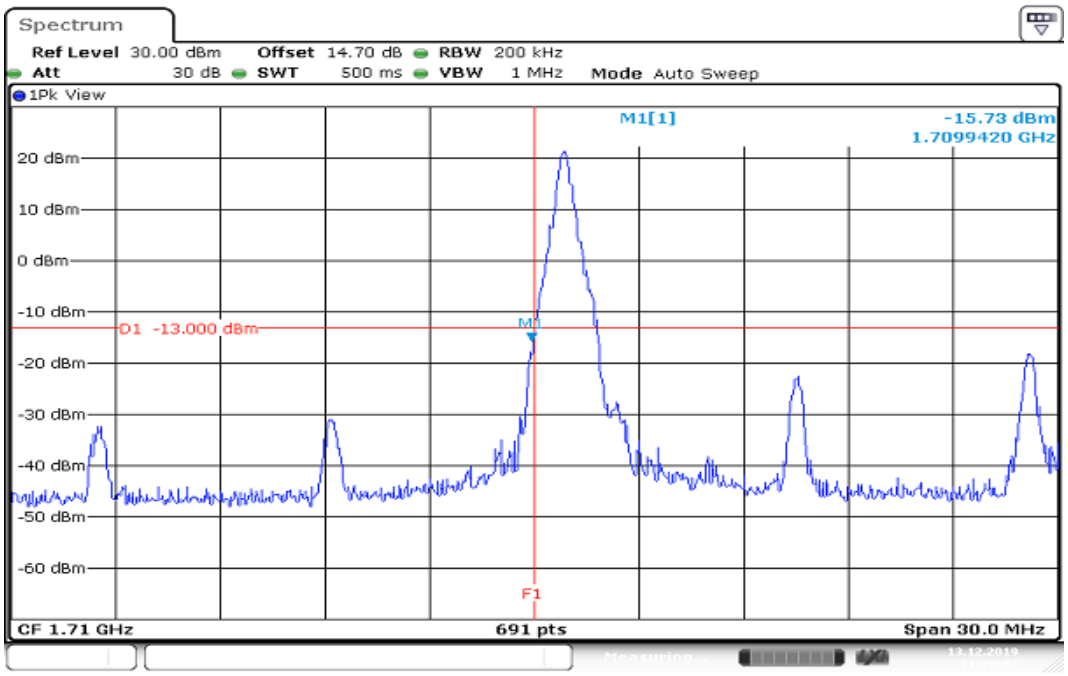

Date: 13.DEC.2019 11:11:55

## HIGHER BAND EDGE



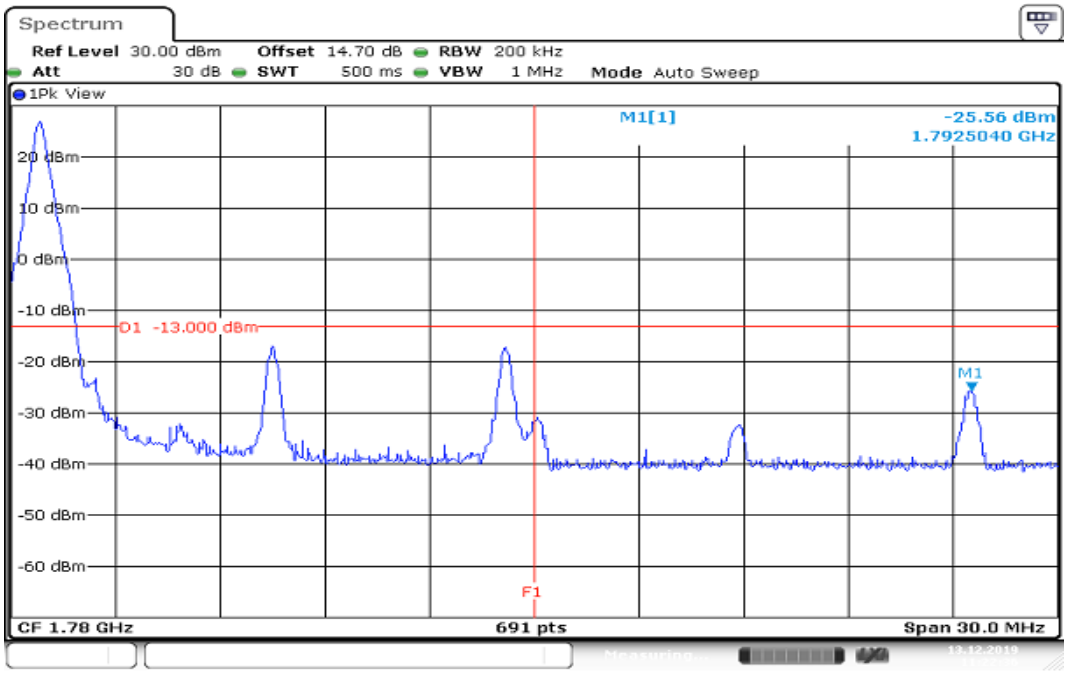

Date: 13.DEC.2019 11:10:40

## CHANNEL BANDWIDTH: 15MHz / 16QAM/ 1RB ALLOCATION
## LOWER BAND EDGE



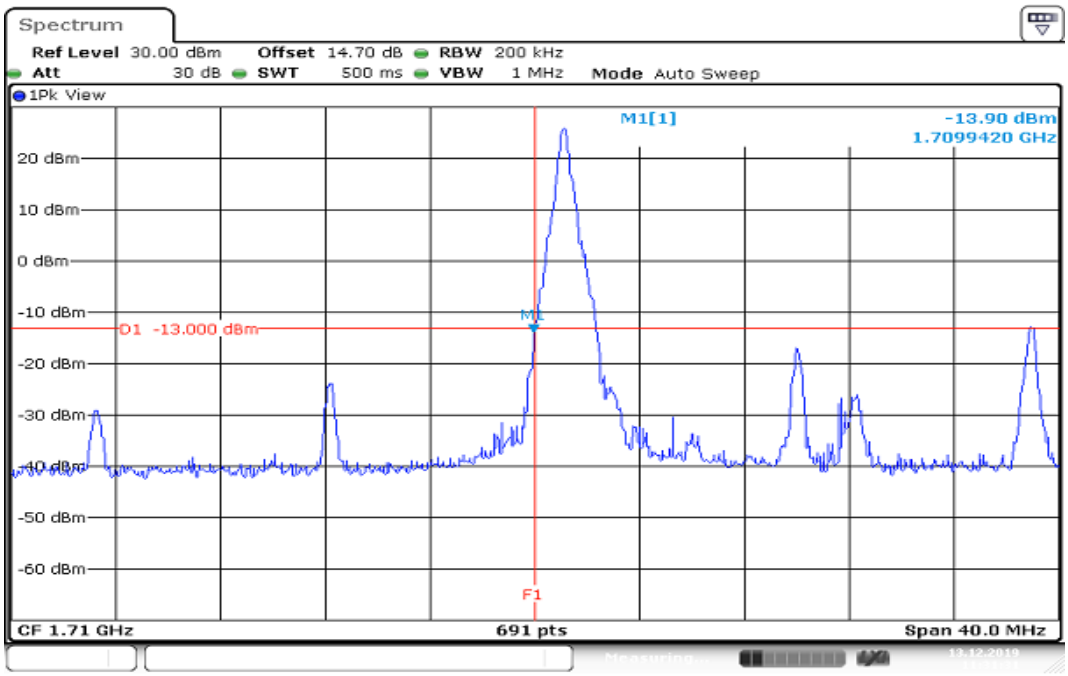

Date: 13.DEC.2019 11:20:42

## HIGHER BAND EDGE



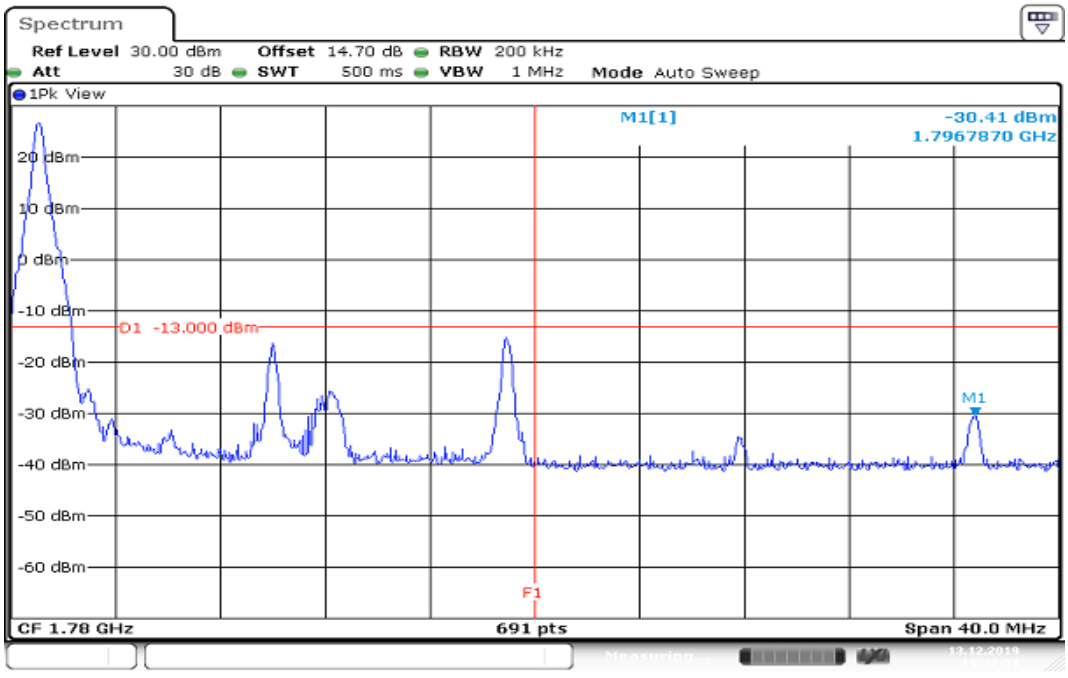

Date: 13.DEC.2019 11:22:36

## CHANNEL BANDWIDTH: 20MHz / 16QAM/ 1RB ALLOCATION
## LOWER BAND EDGE



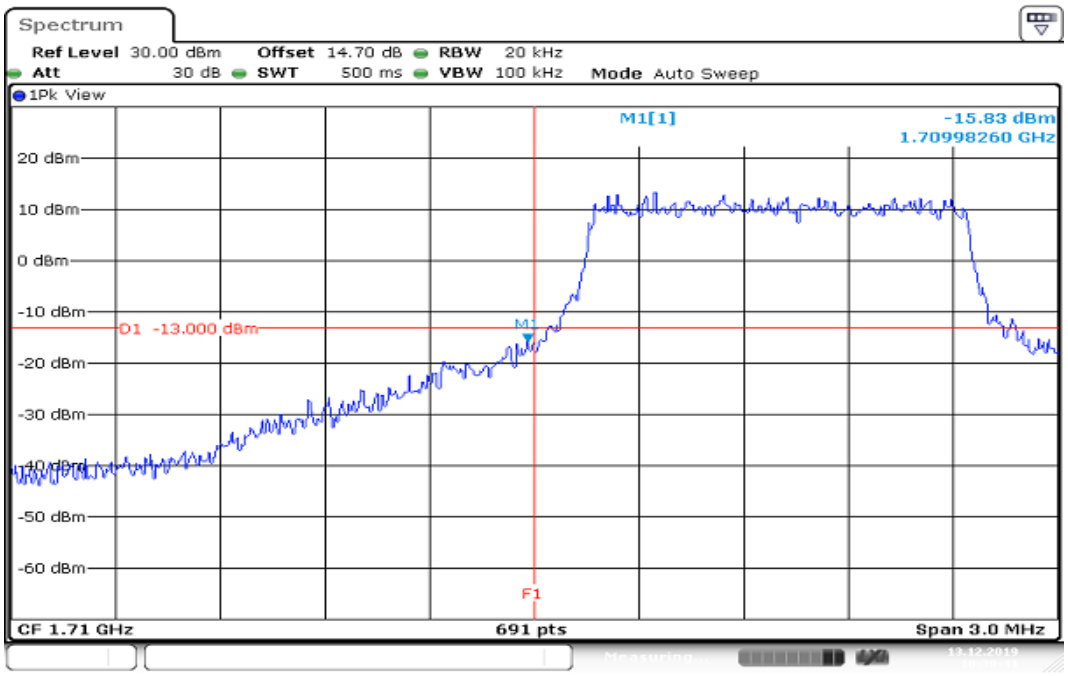

Date: 13.DEC.2019 11:31:31

## HIGHER BAND EDGE



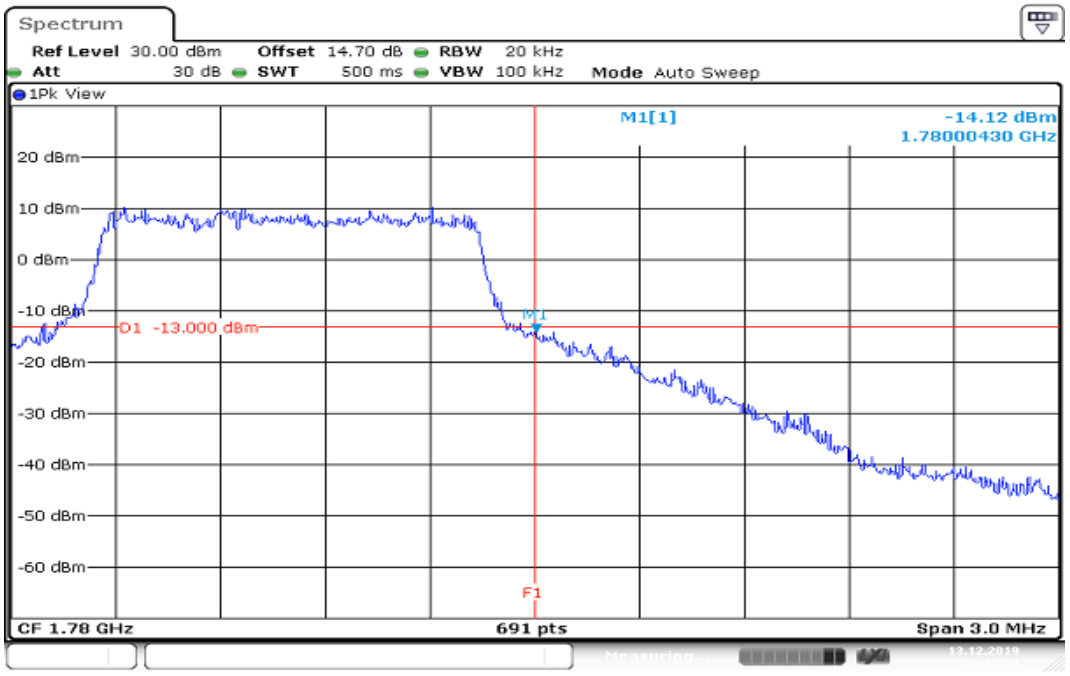

Date: 13.DEC.2019 11:27:21

## CHANNEL BANDWIDTH: 1.4MHz / 16QAM/ FULLRB ALLOCATION
## LOWER BAND EDGE



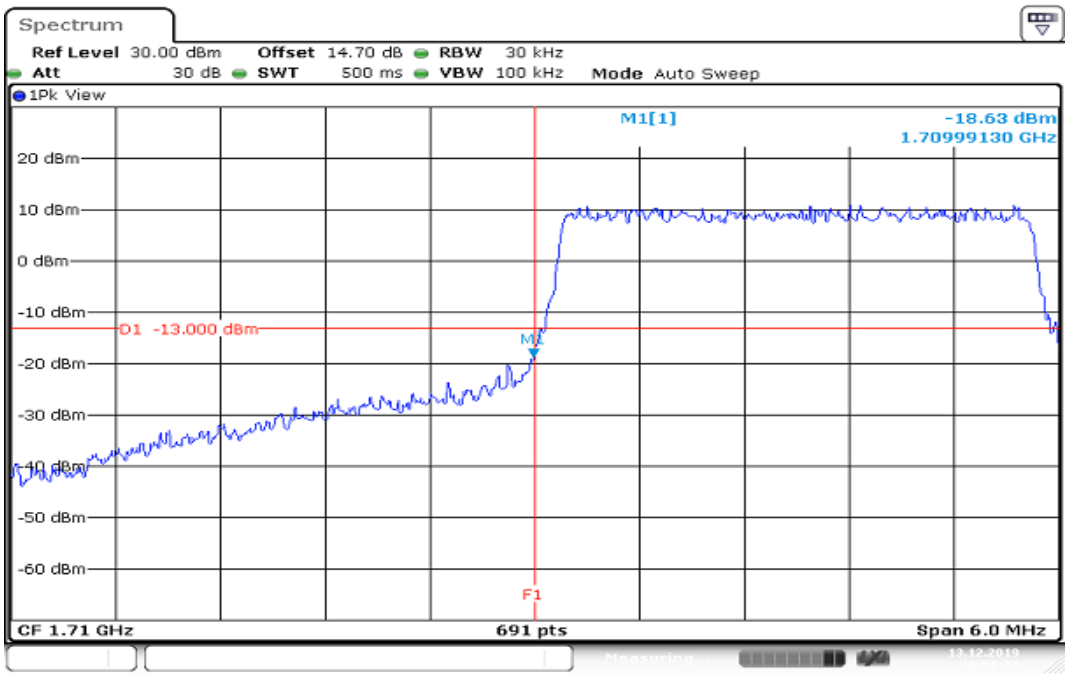

Date: 13.DEC.2019 10:38:41

## HIGHER BAND EDGE



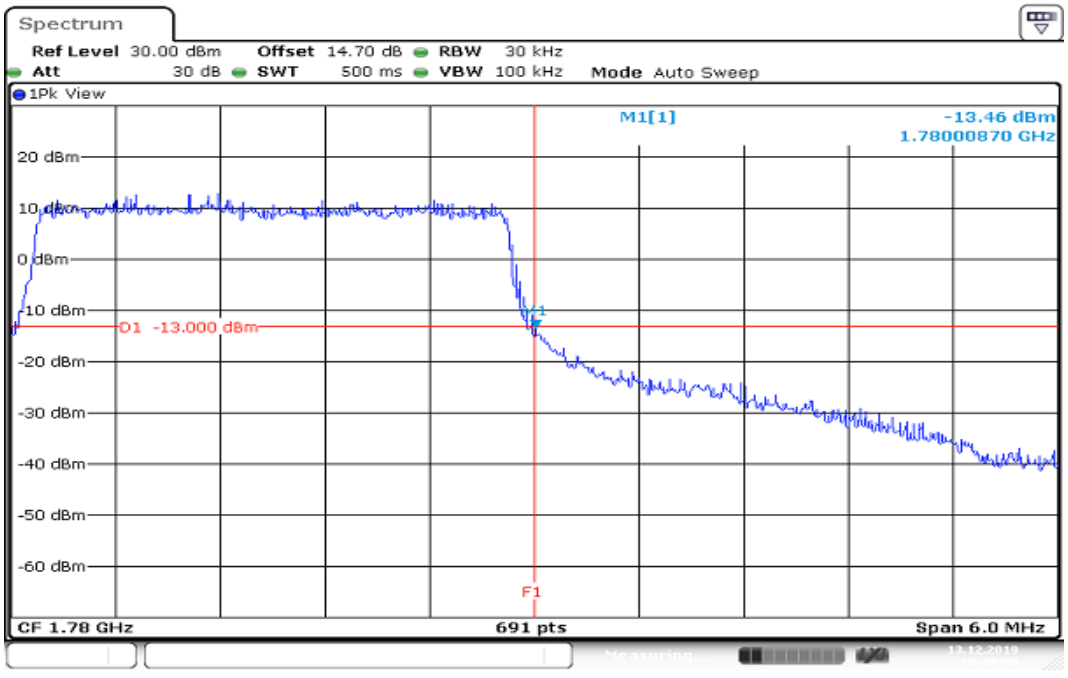

Date: 13.DEC.2019 10:43:27

## CHANNEL BANDWIDTH: 3MHz / 16QAM/ FULLRB ALLOCATION
## LOWER BAND EDGE



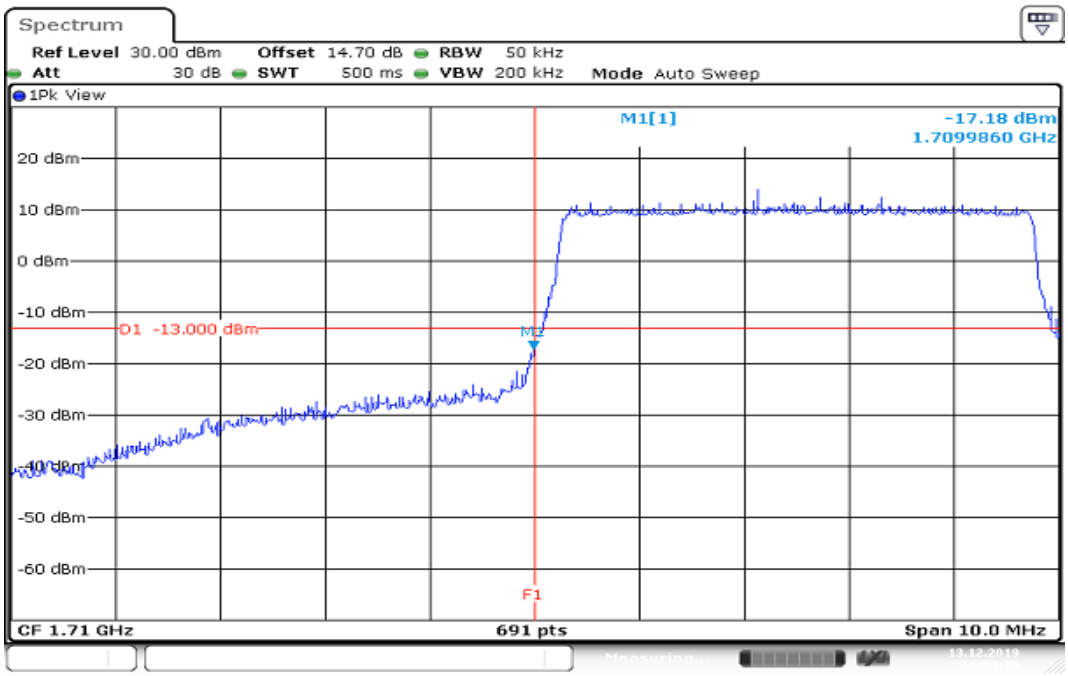

Date: 13.DEC.2019 10:56:32

## HIGHER BAND EDGE



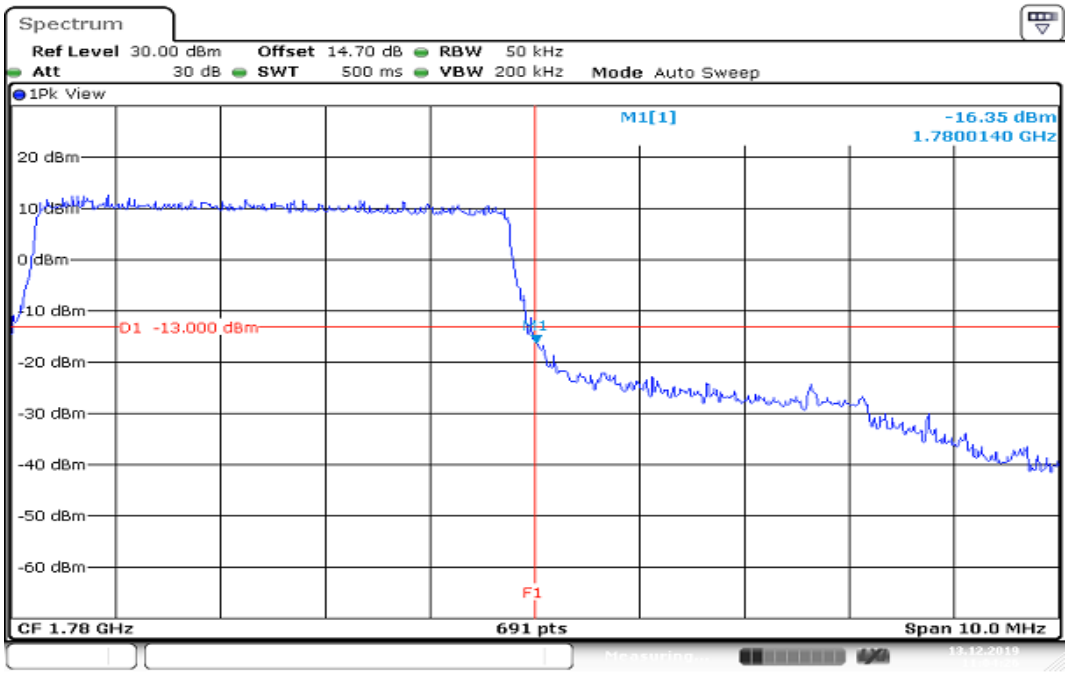

Date: 13.DEC.2019 10:47:58

## CHANNEL BANDWIDTH: 5MHz / 16QAM/ FULLRB ALLOCATION
## LOWER BAND EDGE



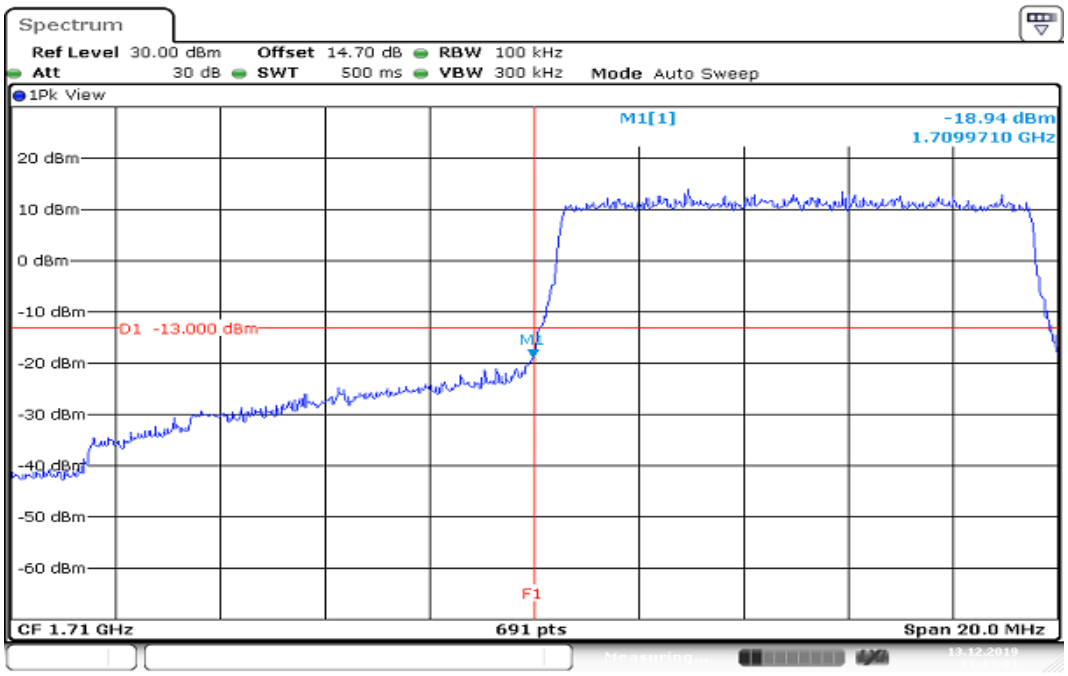

Date: 13.DEC.2019 11:03:16

## HIGHER BAND EDGE



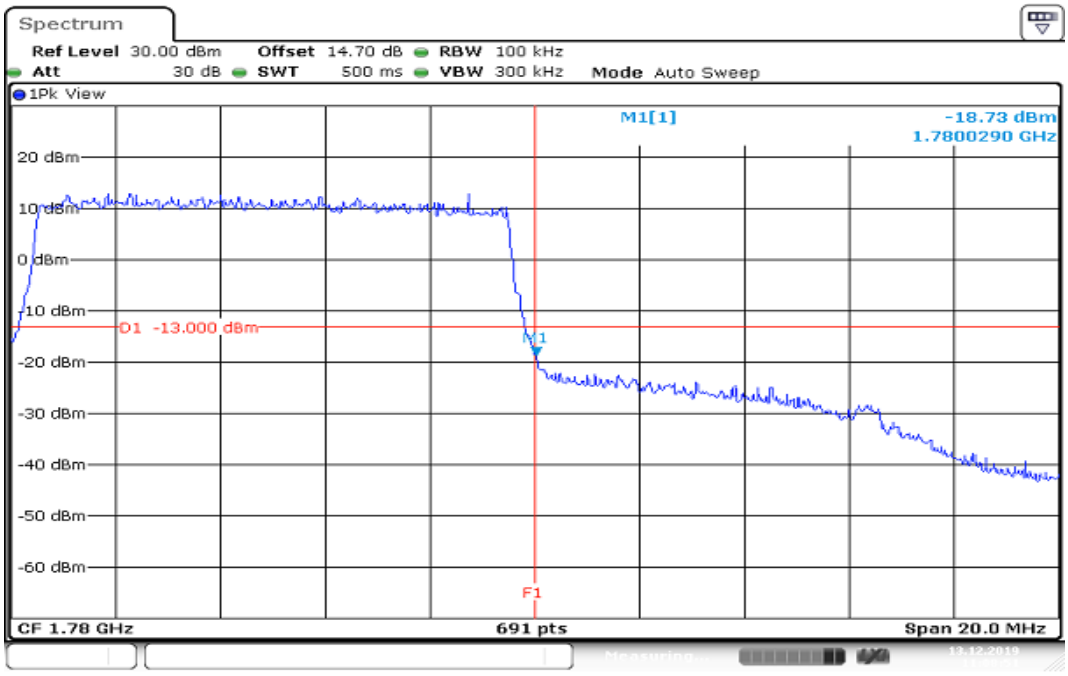

Date: 13.DEC.2019 11:04:26

## CHANNEL BANDWIDTH: 10MHz / 16QAM/ FULLRB ALLOCATION
## LOWER BAND EDGE



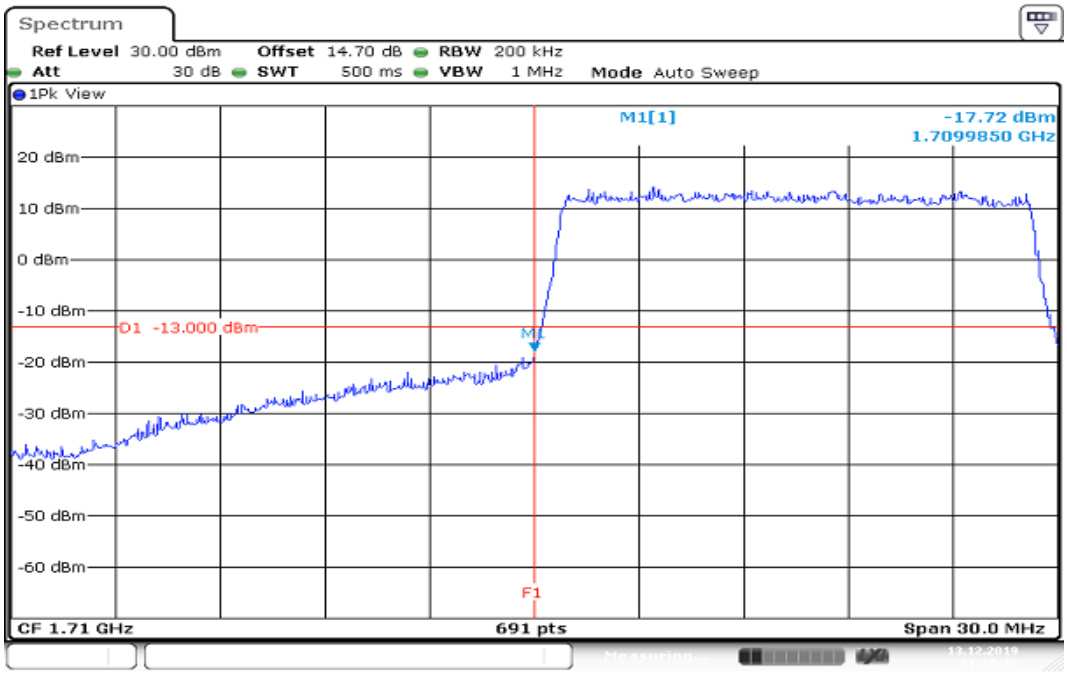

Date: 13.DEC.2019 11:13:01

## HIGHER BAND EDGE



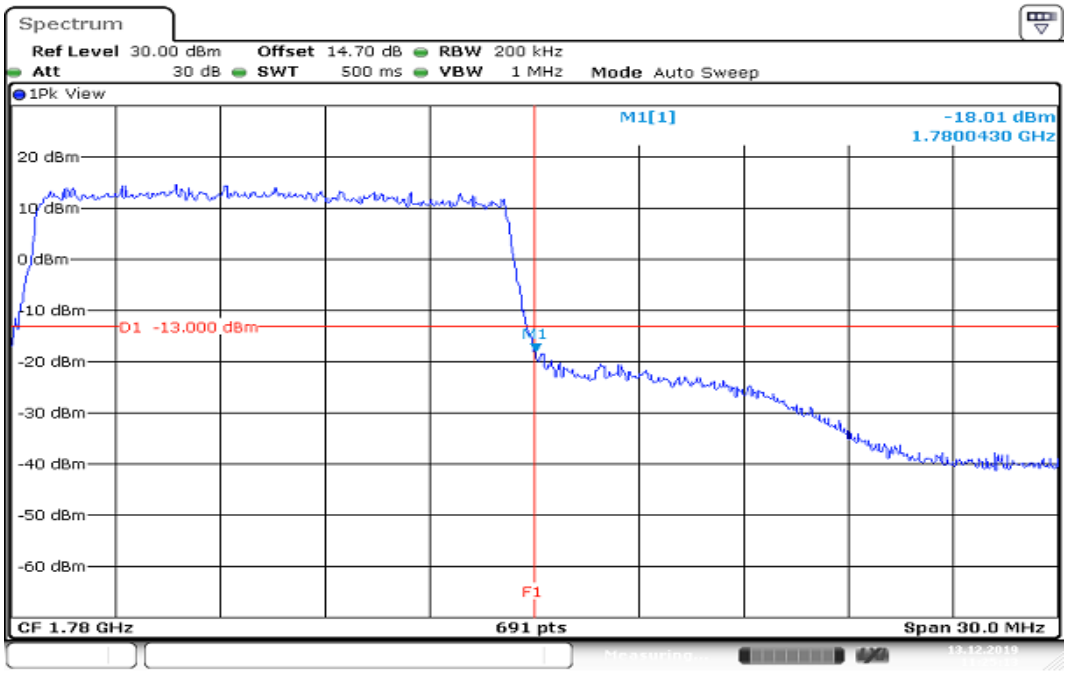

Date: 13.DEC.2019 11:08:51

## CHANNEL BANDWIDTH: 15MHz / 16QAM/ FULLRB ALLOCATION
## LOWER BAND EDGE



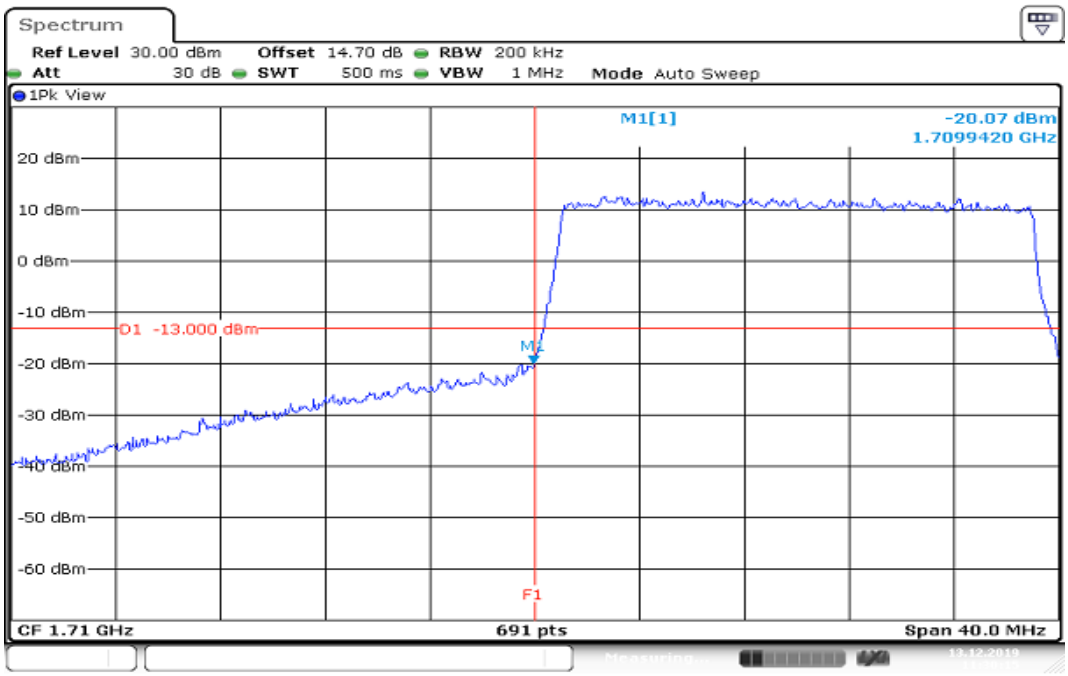

Date: 13.DEC.2019 11:15:12

## HIGHER BAND EDGE



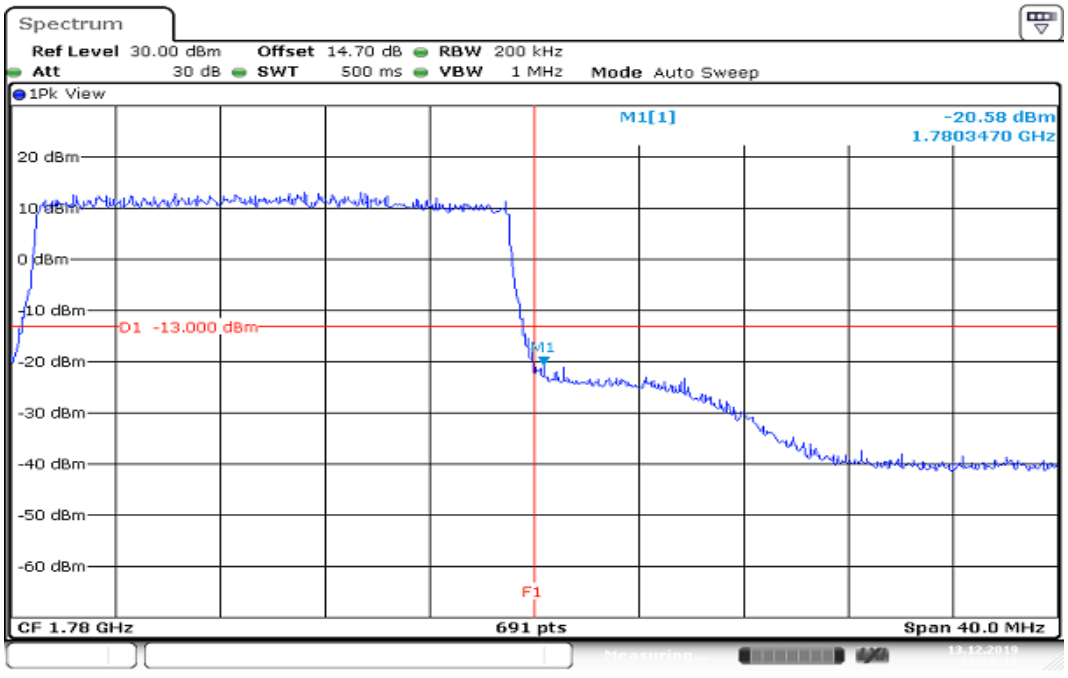

Date: 13.DEC.2019 11:25:12

## CHANNEL BANDWIDTH: 20MHz / 16QAM/ FULLRB ALLOCATION
## LOWER BAND EDGE




Date: 13.DEC.2019 11:30:14

## HIGHER BAND EDGE




Date: 13.DEC.2019 11:29:16