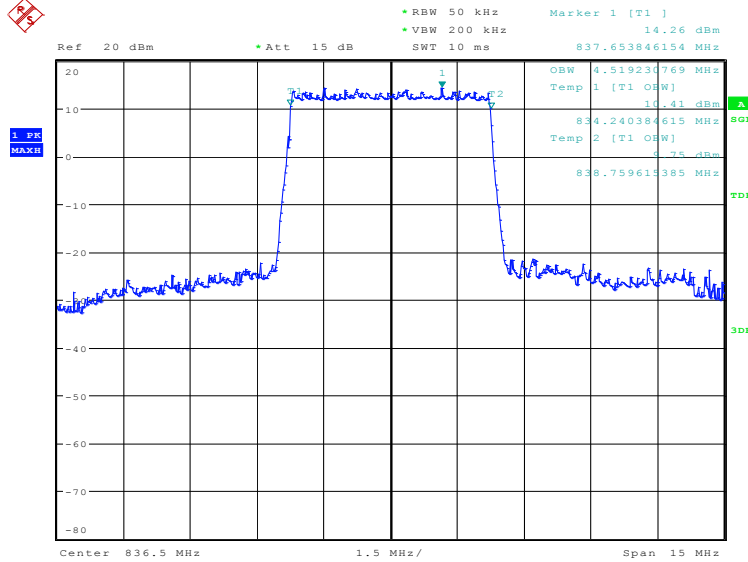


LTE band 26(824MHz~849MHz), 5MHz (99%)

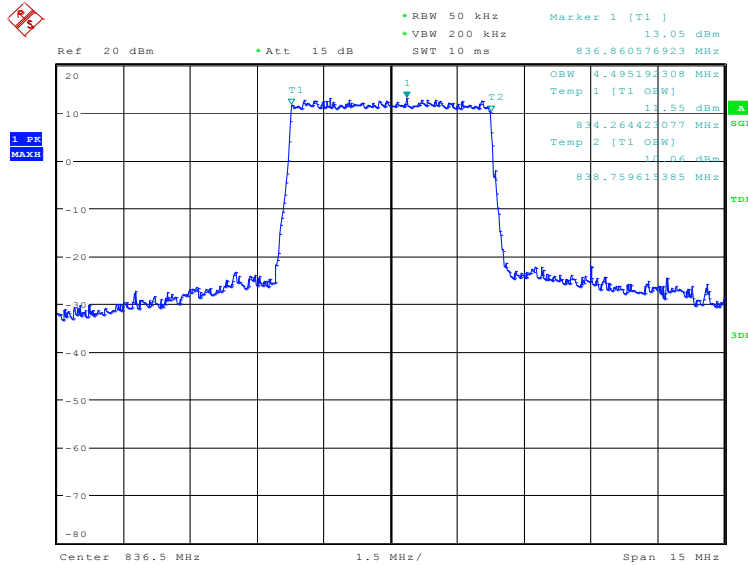
| Frequency (MHz) | Occupied Bandwidth (99%) (kHz) | | |
|-----------------|--------------------------------|---------|---------|
| | QPSK | 16QAM | 64QAM |
| 836.5 | 4519.23 | 4495.19 | 4495.19 |

LTE band 26(824MHz~849MHz), 5MHz Bandwidth, QPSK (99% BW)



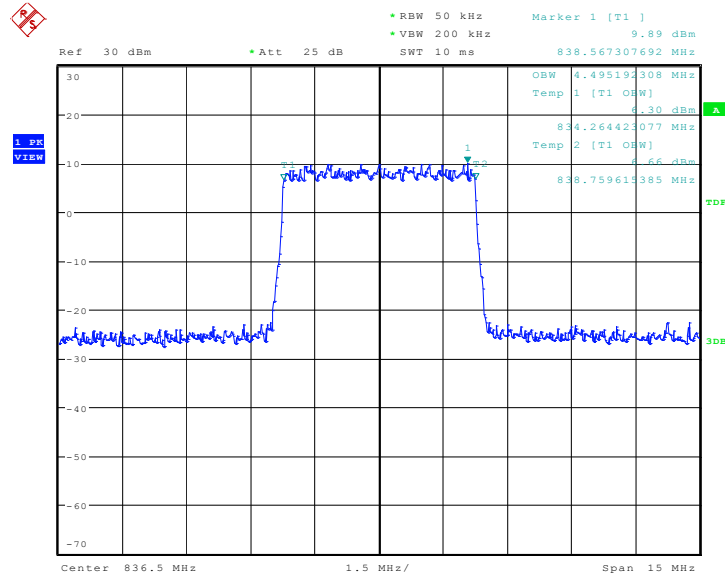
Date: 5.SEP.2019 18:22:41

LTE band 26(824MHz~849MHz), 5MHz Bandwidth, 16QAM (99% BW)



Date: 5.SEP.2019 18:24:05

LTE band 26(814MHz~824MHz), 5MHz Bandwidth, 64QAM (99% BW)

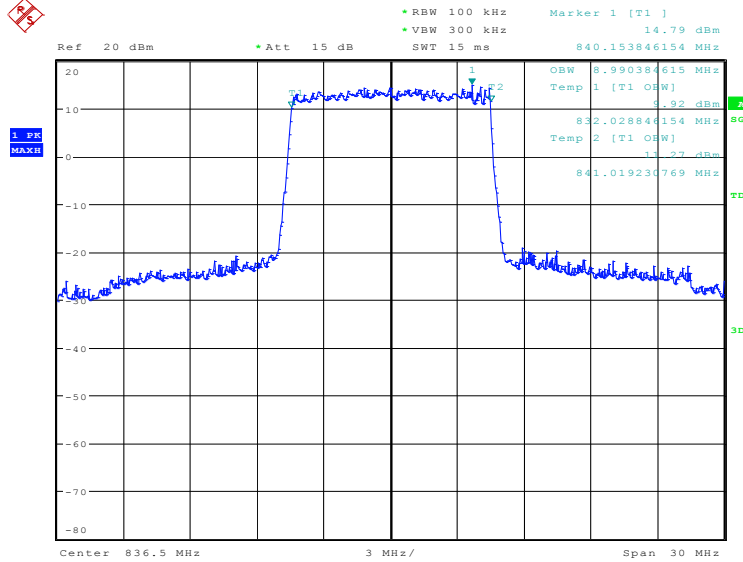


Date: 6.SEP.2019 10:38:20

LTE band 26(824MHz~849MHz), 10MHz (99%)

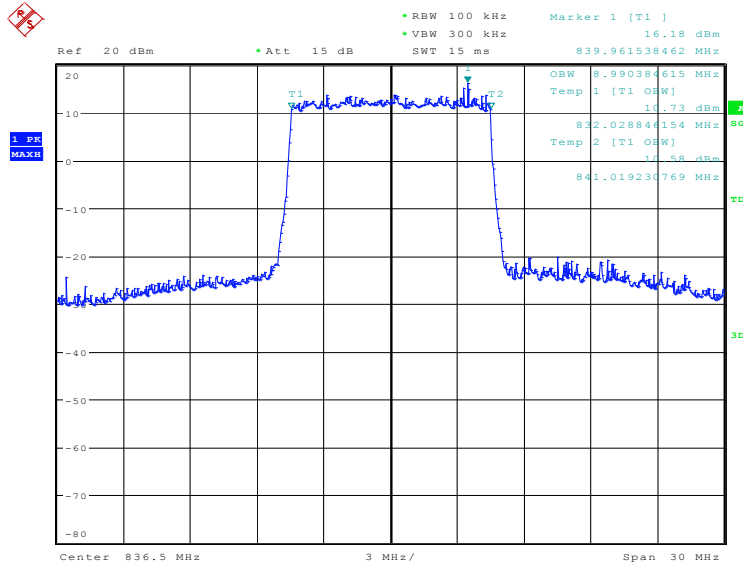
| Frequency (MHz) | Occupied Bandwidth (99%) (kHz) | | |
|-----------------|--------------------------------|---------|---------|
| | QPSK | 16QAM | 64QAM |
| 836.5 | 8990.38 | 8990.38 | 8990.38 |

LTE band 26(824MHz~849MHz), 10MHz Bandwidth, QPSK (99% BW)



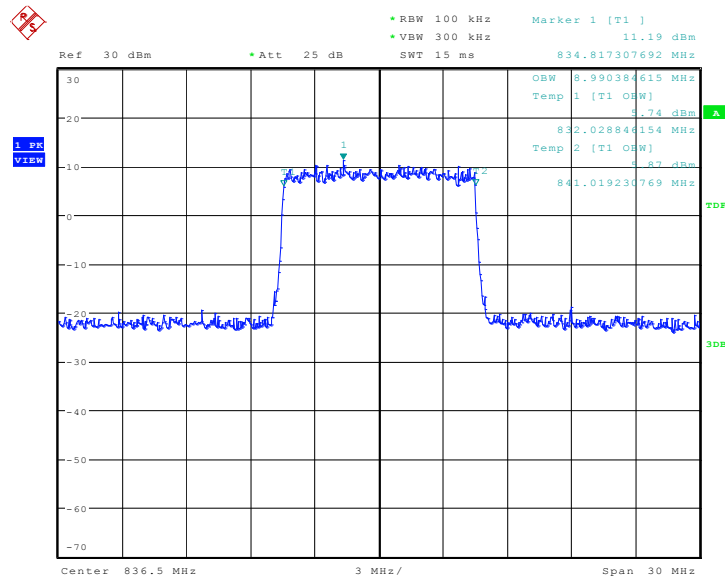
Date: 5.SEP.2019 18:25:44

LTE band 26(824MHz~849MHz), 10MHz Bandwidth, 16QAM (99% BW)



Date: 5.SEP.2019 18:27:08

LTE band 26(814MHz~824MHz), 10MHz Bandwidth, 64QAM (99% BW)

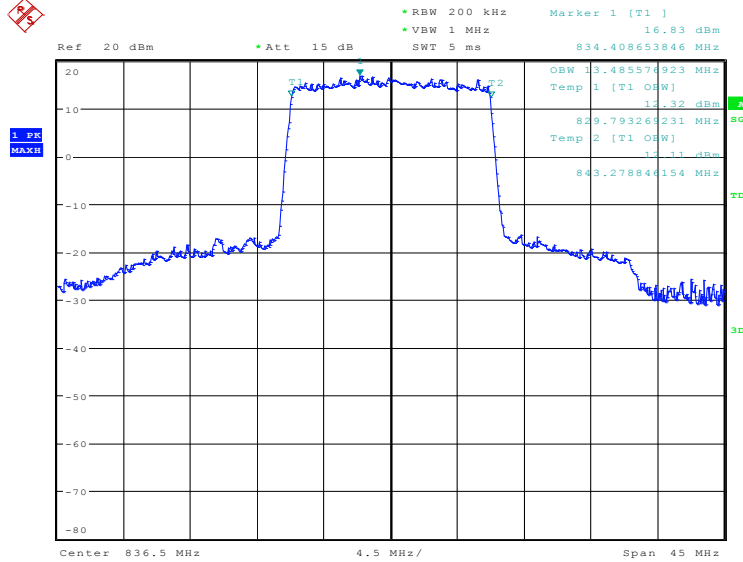


Date: 6.SEP.2019 10:40:19

LTE band 26(824MHz~849MHz), 15MHz (99%)

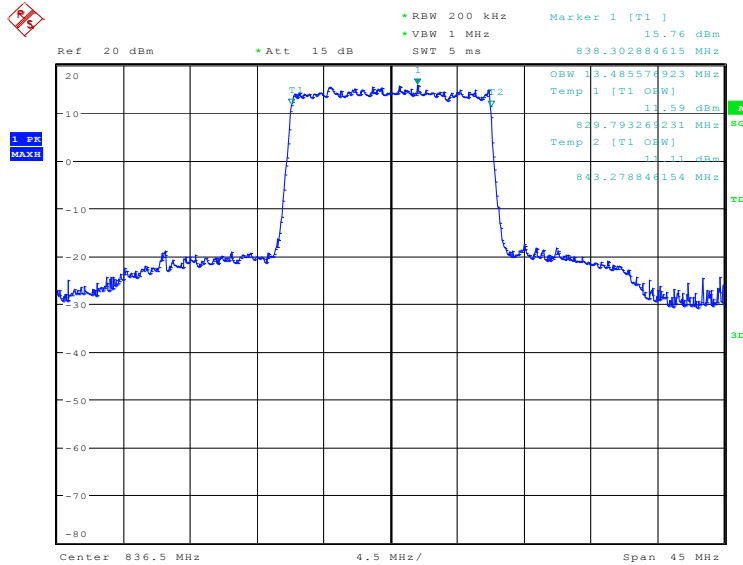
| Frequency (MHz) | Occupied Bandwidth (99%) (kHz) | | |
|-----------------|--------------------------------|----------|----------|
| | QPSK | 16QAM | 64QAM |
| 836.5 | 13485.58 | 13485.58 | 13485.58 |

LTE band 26(824MHz~849MHz), 15MHz Bandwidth, QPSK (99% BW)



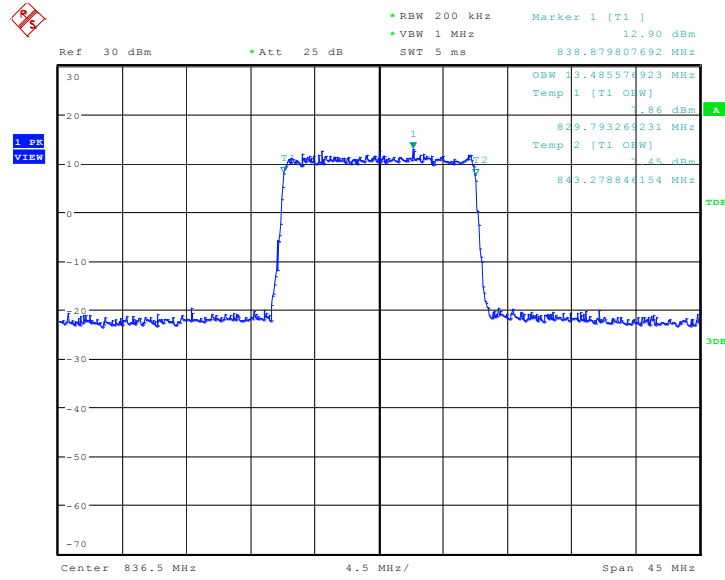
Date: 5.SEP.2019 18:28:35

LTE band 26(824MHz~849MHz), 15MHz Bandwidth, 16QAM (99% BW)



Date: 5.SEP.2019 18:29:59

LTE band 26(814MHz~824MHz), 15MHz Bandwidth, 64QAM (99% BW)

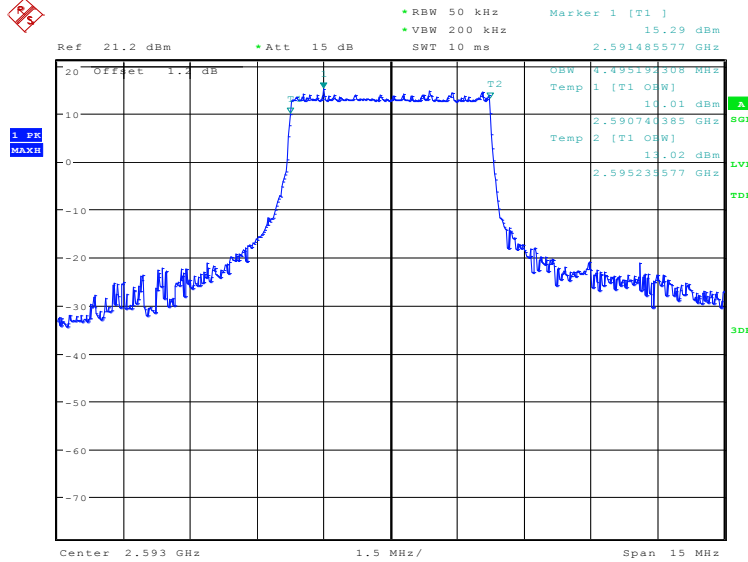


Date: 6.SEP.2019 10:43:18

LTE band 41(PC2), 5MHz (99%)

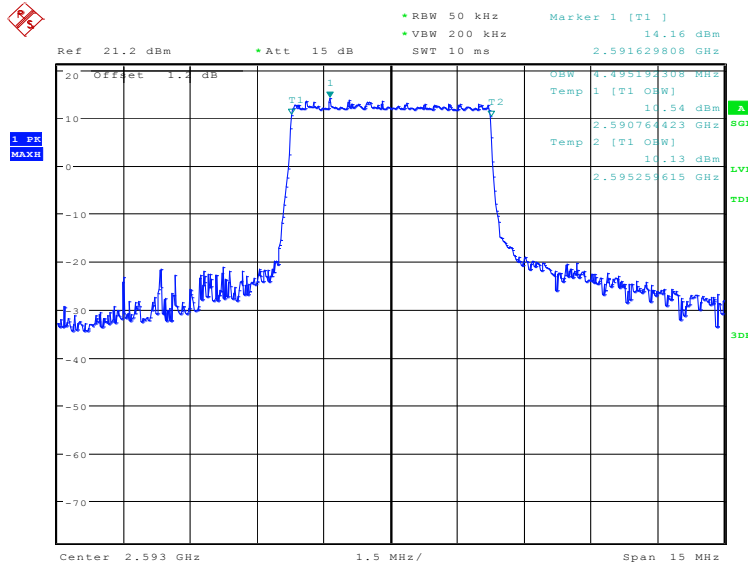
| Frequency (MHz) | Occupied Bandwidth (99%) (kHz) | | |
|-----------------|--------------------------------|---------|---------|
| | QPSK | 16QAM | 64QAM |
| 2593.0 | 4495.19 | 4495.19 | 4495.19 |

LTE band 41(PC2), 5MHz Bandwidth, QPSK (99% BW)



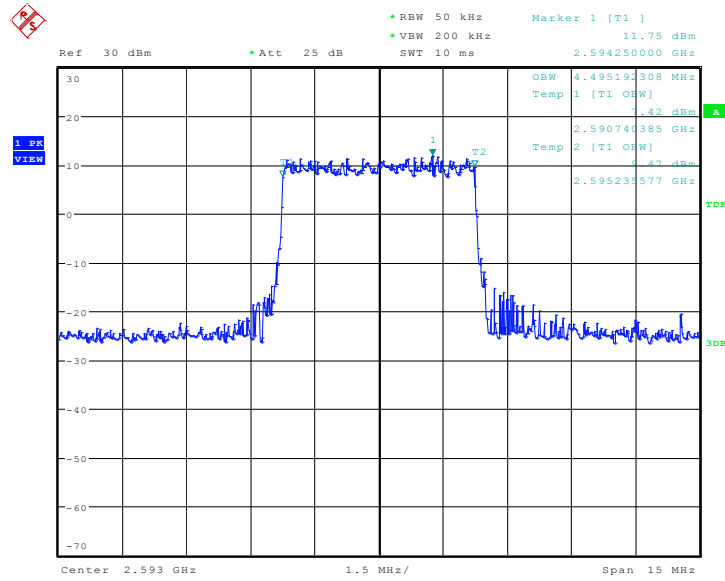
Date: 9.SEP.2019 18:46:54

LTE band 41(PC2), 5MHz Bandwidth,16QAM (99% BW)



Date: 9.SEP.2019 18:48:19

LTE band 41(PC2), 5MHz Bandwidth,64QAM (99% BW)

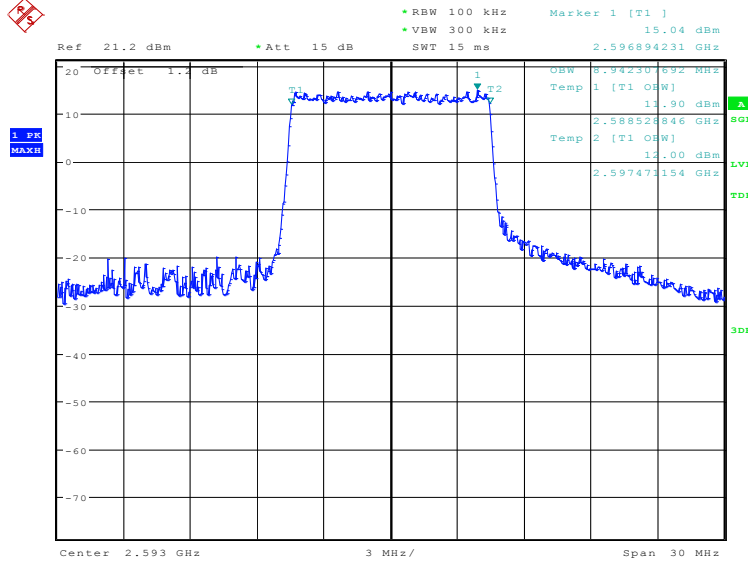


Date: 6.SEP.2019 15:07:17

LTE band 41(PC2), 10MHz (99%)

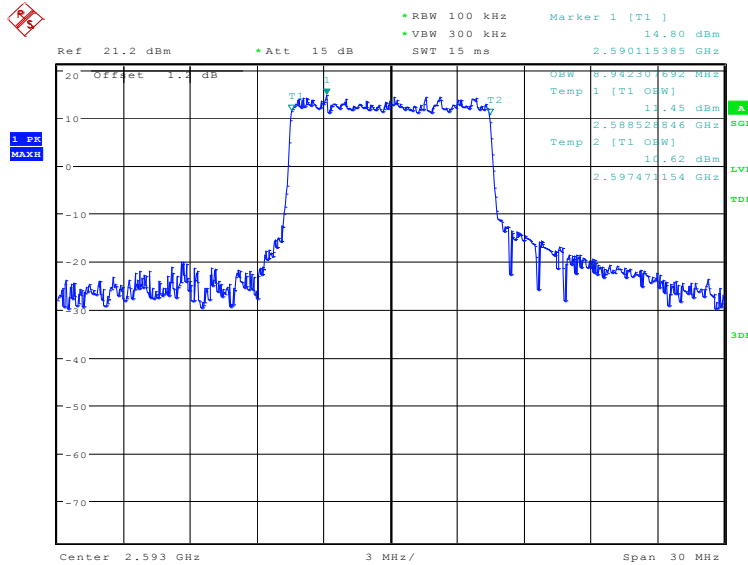
| Frequency (MHz) | Occupied Bandwidth (99%) (kHz) | | |
|-----------------|--------------------------------|---------|---------|
| | QPSK | 16QAM | 64QAM |
| 2593.0 | 8942.31 | 8942.31 | 8942.31 |

LTE band 41(PC2), 10MHz Bandwidth, QPSK (99% BW)



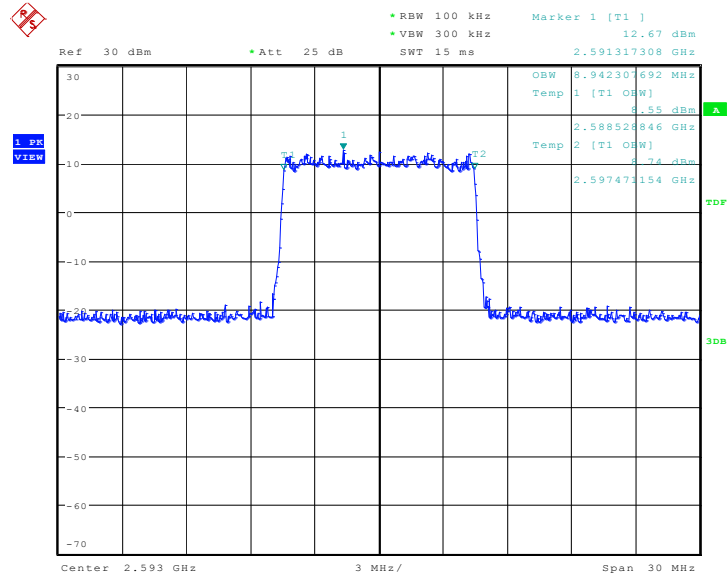
Date: 9.SEP.2019 18:49:45

LTE band 41(PC2), 10MHz Bandwidth,16QAM (99% BW)



Date: 9.SEP.2019 18:51:10

LTE band 41(PC2), 10MHz Bandwidth, 64QAM (99% BW)

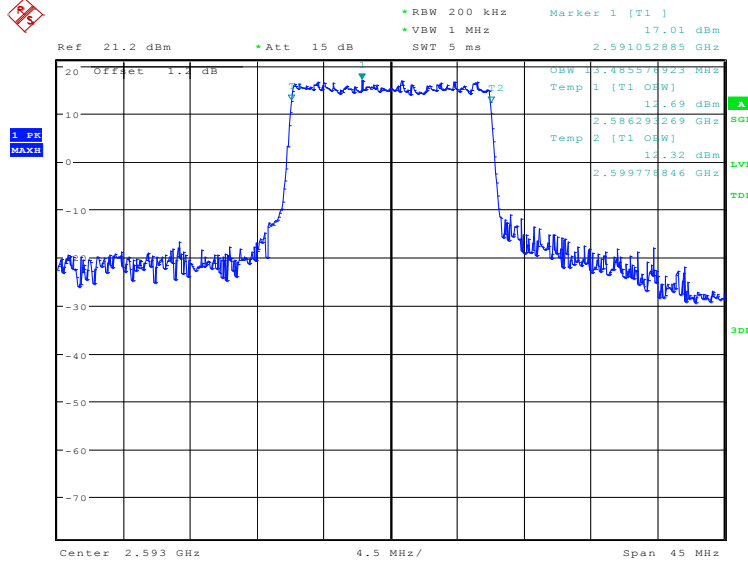


Date: 6.SEP.2019 15:09:31

LTE band 41(PC2), 15MHz (99%)

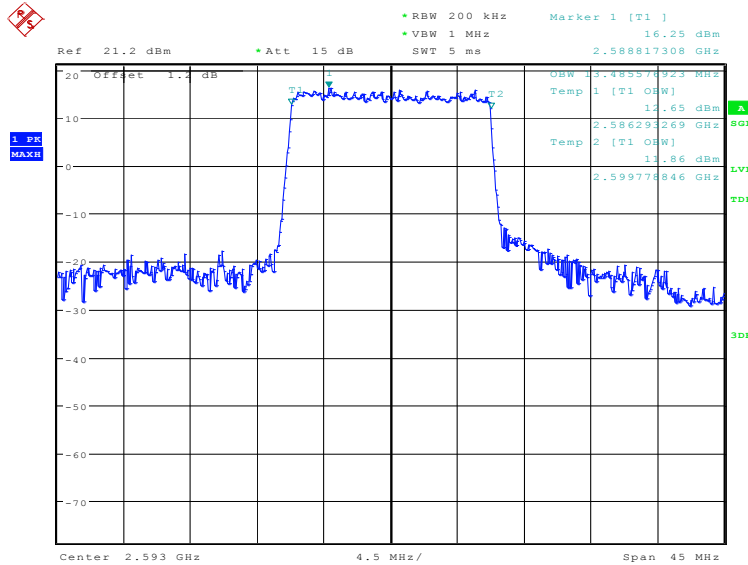
| Frequency (MHz) | Occupied Bandwidth (99%) (kHz) | | |
|-----------------|--------------------------------|----------|----------|
| | QPSK | 16QAM | 64QAM |
| 2593.0 | 13485.58 | 13485.58 | 13485.58 |

LTE band 41(PC2), 15MHz Bandwidth, QPSK (99% BW)



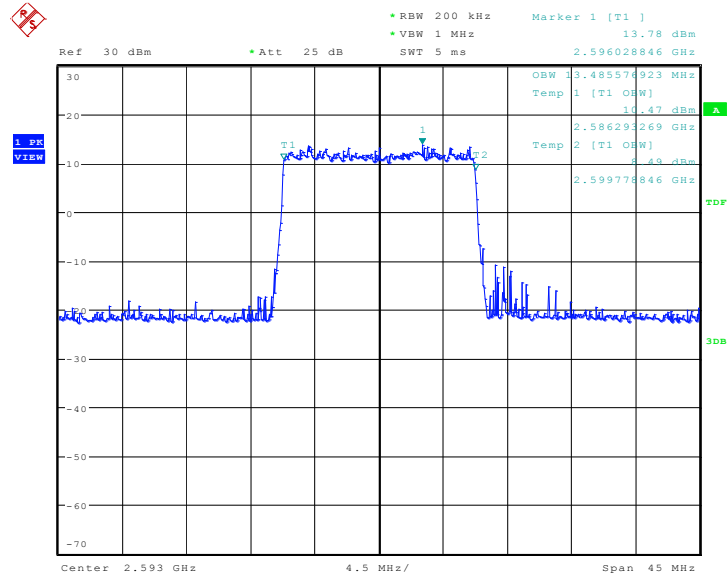
Date: 9.SEP.2019 18:52:37

LTE band 41(PC2), 15MHz Bandwidth,16QAM (99% BW)



Date: 9.SEP.2019 18:54:02

LTE band 41(PC2), 15MHz Bandwidth, 64QAM (99% BW)

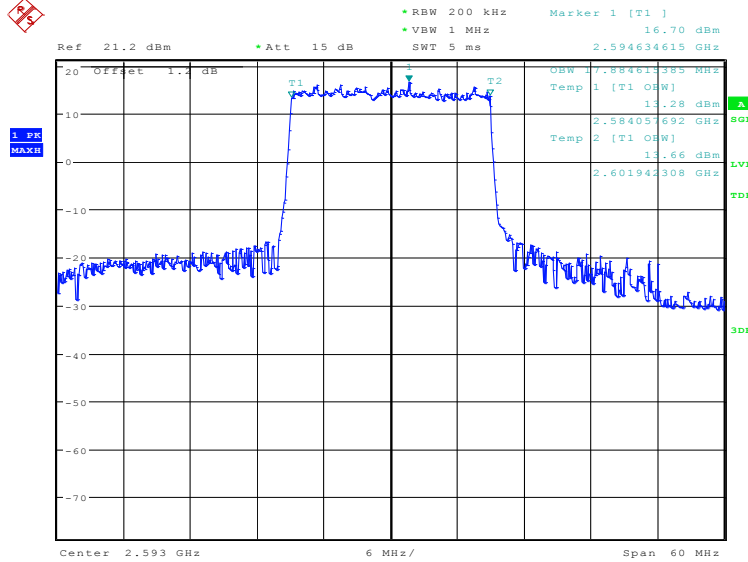


Date: 6.SEP.2019 15:11:48

LTE band 41(PC2), 20MHz (99%)

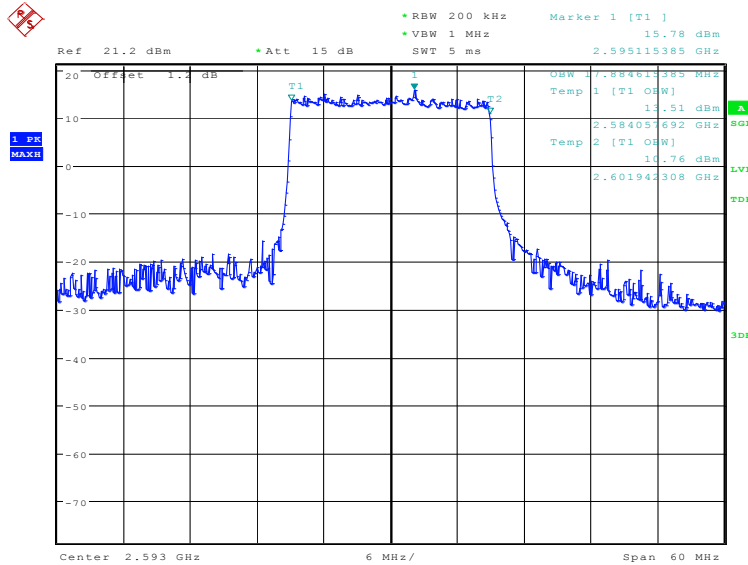
| Frequency (MHz) | Occupied Bandwidth (99%) (kHz) | | |
|-----------------|--------------------------------|----------|----------|
| | QPSK | 16QAM | 64QAM |
| 2593.0 | 17884.62 | 17884.62 | 17884.62 |

LTE band 41(PC2), 20MHz Bandwidth, QPSK (99% BW)



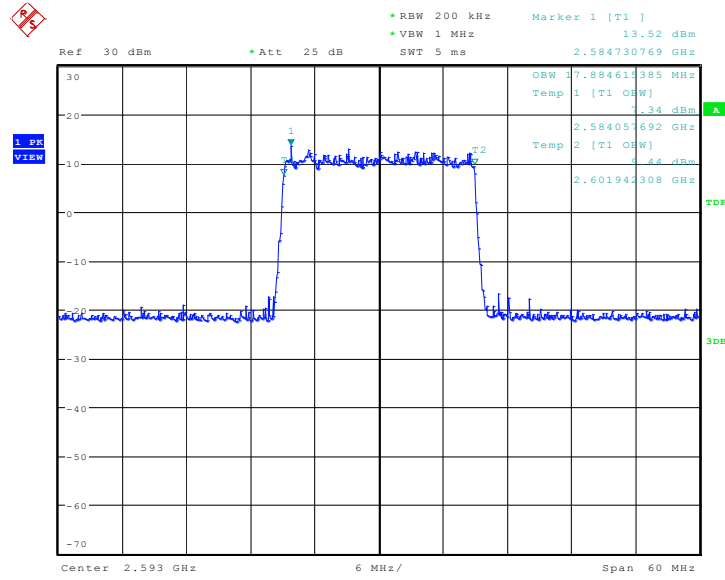
Date: 9.SEP.2019 18:55:28

LTE band 41(PC2), 20MHz Bandwidth,16QAM (99% BW)



Date: 9.SEP.2019 18:56:53

LTE band 41(PC2), 20MHz Bandwidth, 64QAM (99% BW)

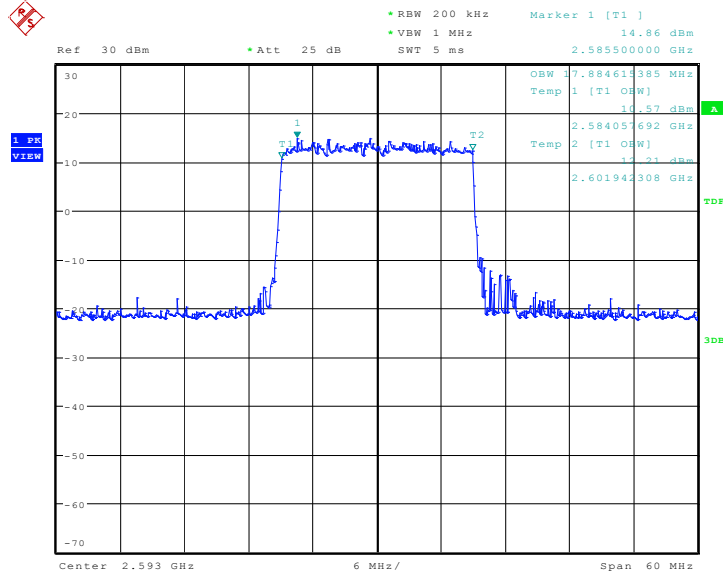


Date: 6.SEP.2019 15:14:41

LTE band 41(PC3), 20MHz (99%)

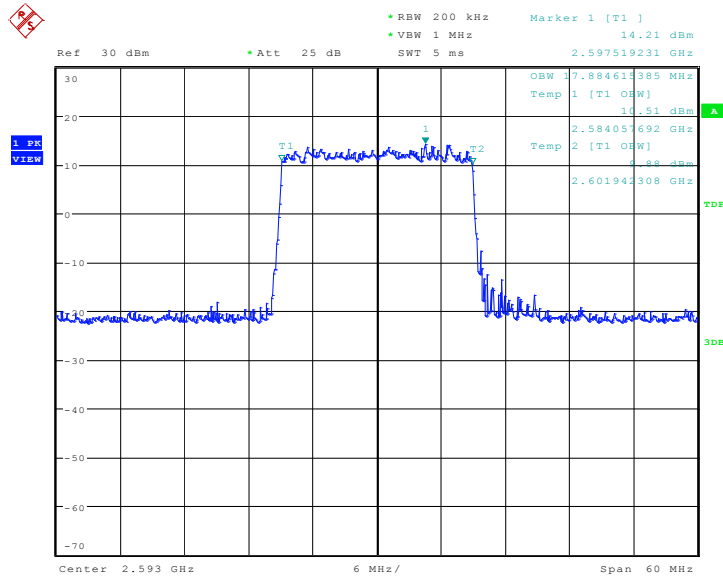
| Frequency (MHz) | Occupied Bandwidth (99%) (kHz) | | |
|-----------------|--------------------------------|----------|----------|
| | QPSK | 16QAM | 64QAM |
| 2593.0 | 17884.62 | 17884.62 | 17884.62 |

LTE band 41(PC3), 20MHz Bandwidth, QPSK (99% BW)



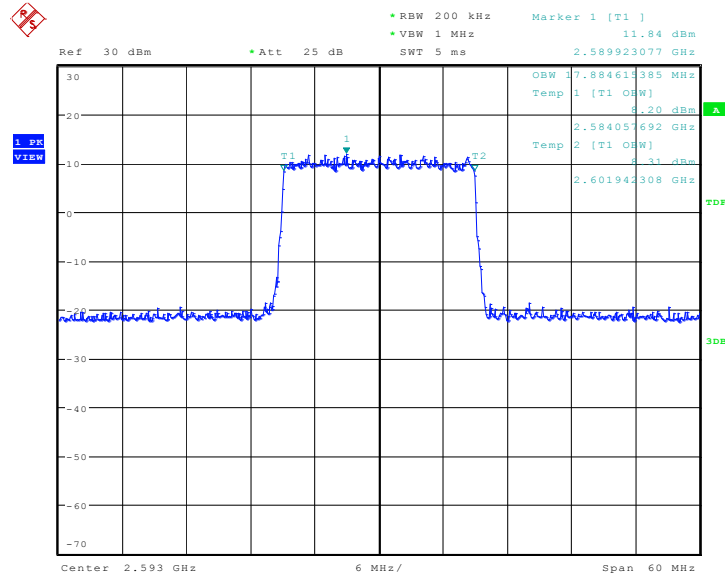
Date: 24.OCT.2019 16:23:07

LTE band 41(PC3), 20MHz Bandwidth,16QAM (99% BW)



Date: 24.OCT.2019 16:25:47

LTE band 41(PC3), 20MHz Bandwidth, 64QAM (99% BW)

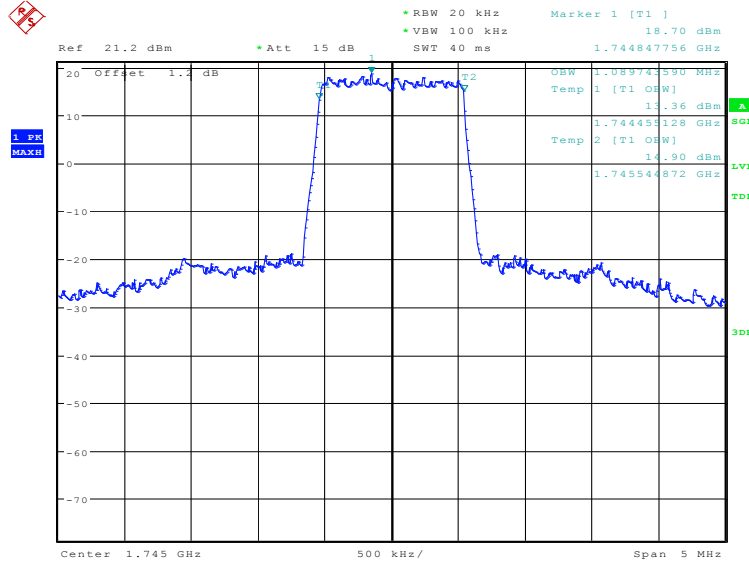


Date: 24.OCT.2019 16:24:45

LTE band 66, 1.4MHz (99%)

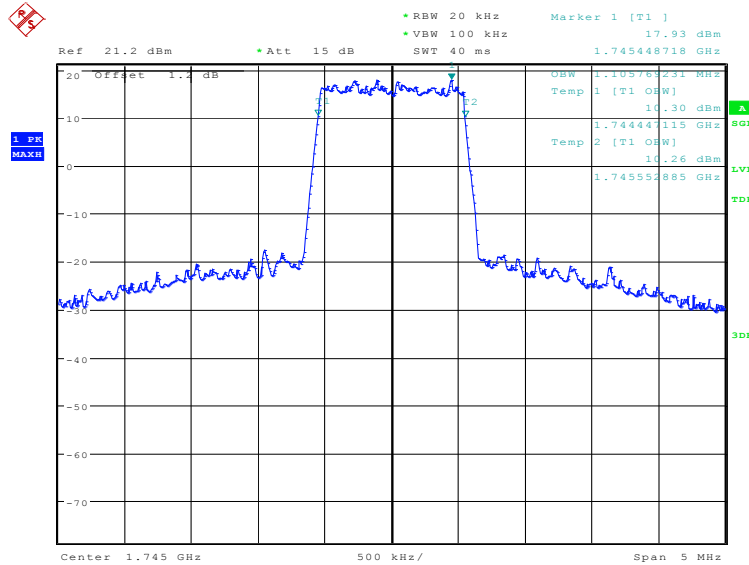
| Frequency (MHz) | Occupied Bandwidth (99%) (kHz) | | |
|-----------------|--------------------------------|---------|---------|
| | QPSK | 16QAM | 64QAM |
| 1745.0 | 1089.74 | 1105.77 | 1089.74 |

LTE band 66, 1.4MHz Bandwidth, QPSK (99% BW)



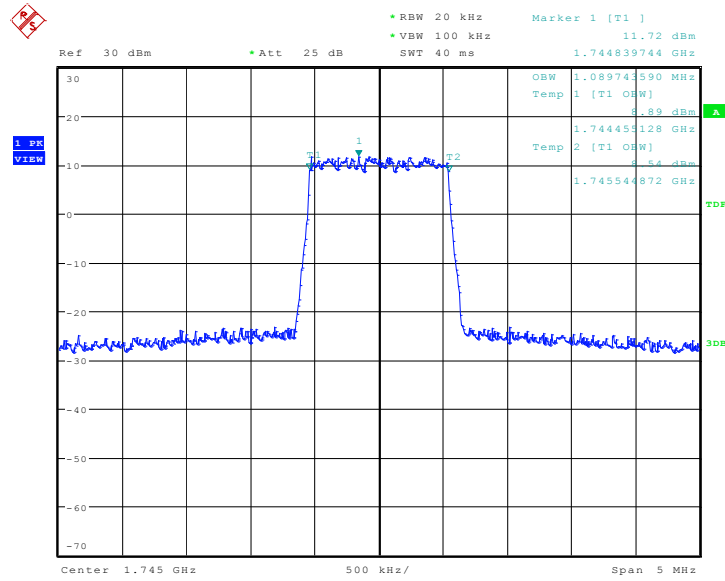
Date: 9.SEP.2019 18:29:09

LTE band 66, 1.4MHz Bandwidth, 16QAM (99% BW)



Date: 9.SEP.2019 18:30:34

LTE band 66, 1.4MHz Bandwidth, 64QAM (99% BW)

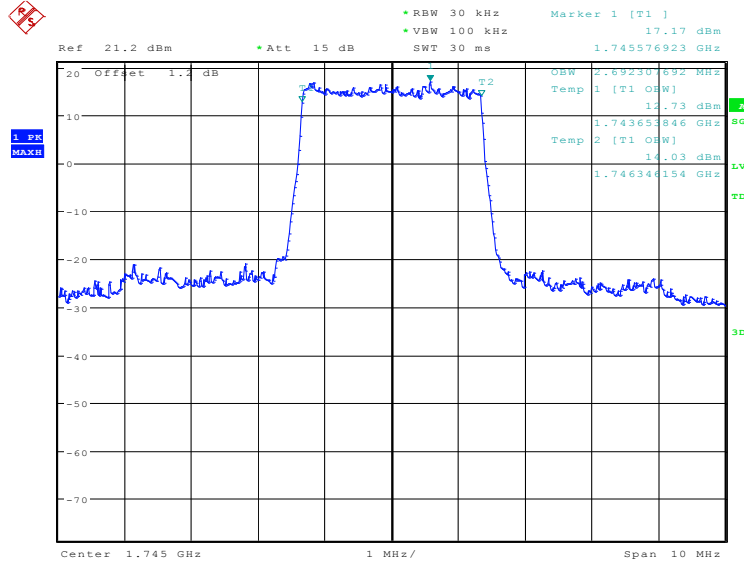


Date: 6.SEP.2019 16:29:59

LTE band 66, 3MHz (99%)

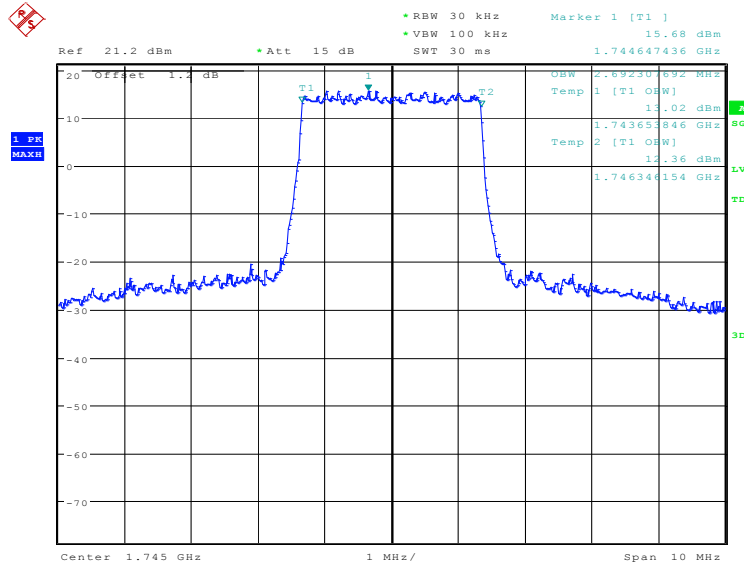
| Frequency (MHz) | Occupied Bandwidth (99%) (kHz) | | |
|-----------------|--------------------------------|---------|---------|
| | QPSK | 16QAM | 64QAM |
| 1745.0 | 2692.31 | 2692.31 | 2692.31 |

LTE band 66, 3MHz Bandwidth, QPSK (99% BW)



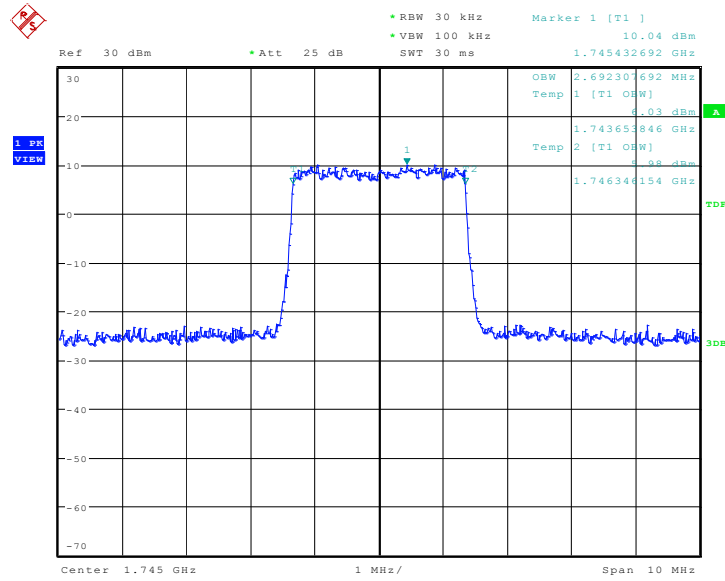
Date: 9.SEP.2019 18:32:00

LTE band 66, 3MHz Bandwidth, 16QAM (99% BW)



Date: 9.SEP.2019 18:33:25

LTE band 66, 3MHz Bandwidth, 64QAM (99% BW)

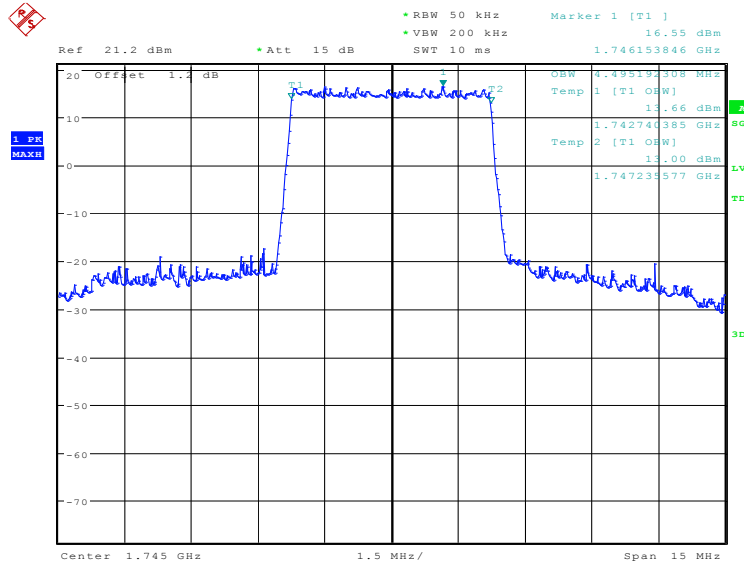


Date: 6.SEP.2019 16:31:29

LTE band 66, 5MHz (99%)

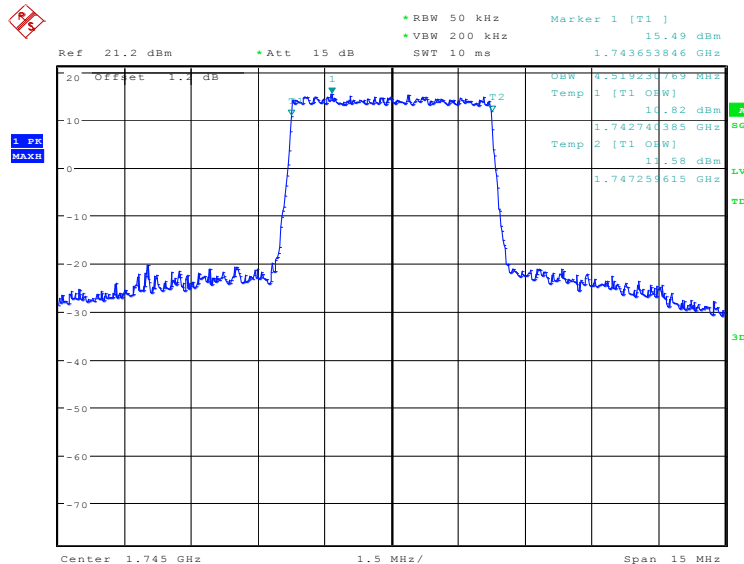
| Frequency (MHz) | Occupied Bandwidth (99%) (kHz) | | |
|-----------------|--------------------------------|---------|---------|
| | QPSK | 16QAM | 64QAM |
| 1745.0 | 4495.19 | 4519.23 | 4519.23 |

LTE band 66, 5MHz Bandwidth, QPSK (99% BW)



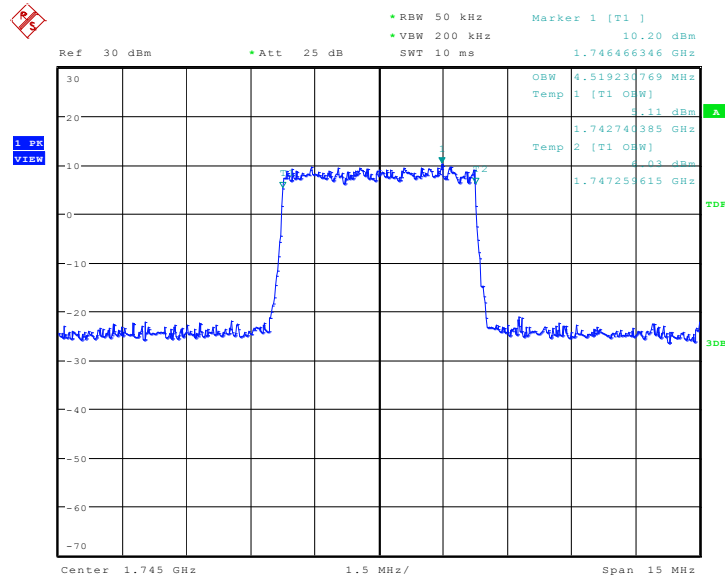
Date: 9.SEP.2019 18:34:51

LTE band 66, 5MHz Bandwidth, 16QAM (99% BW)



Date: 9.SEP.2019 18:36:16

LTE band 66, 5MHz Bandwidth, 64QAM (99% BW)

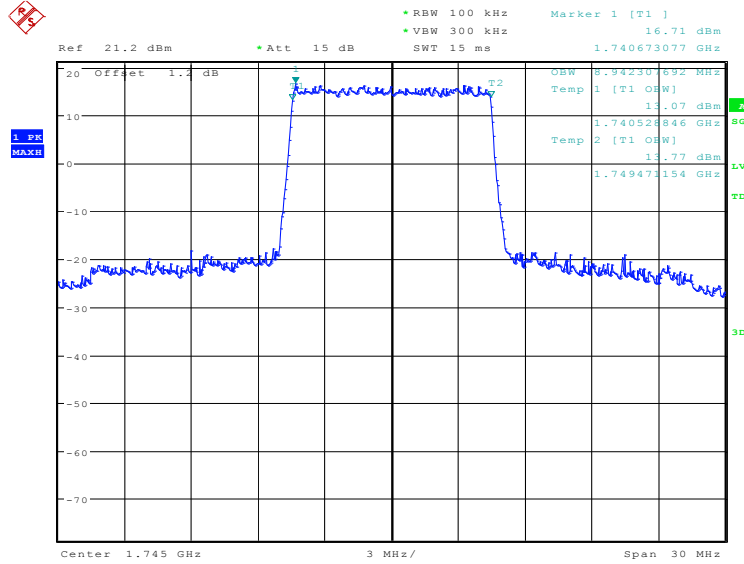


Date: 6.SEP.2019 16:33:35

LTE band 66, 10MHz (99%)

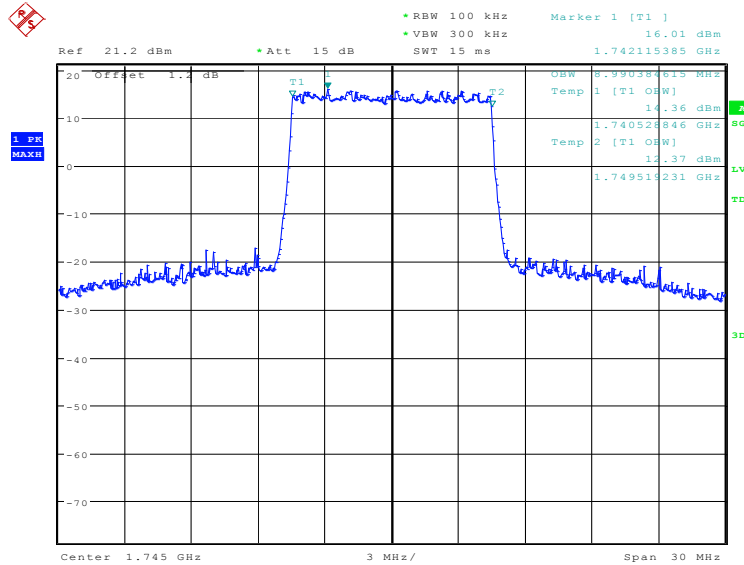
| Frequency (MHz) | Occupied Bandwidth (99%) (kHz) | | |
|-----------------|--------------------------------|---------|---------|
| | QPSK | 16QAM | 64QAM |
| 1745.0 | 8942.31 | 8990.38 | 9038.46 |

LTE band 66, 10MHz Bandwidth, QPSK (99% BW)



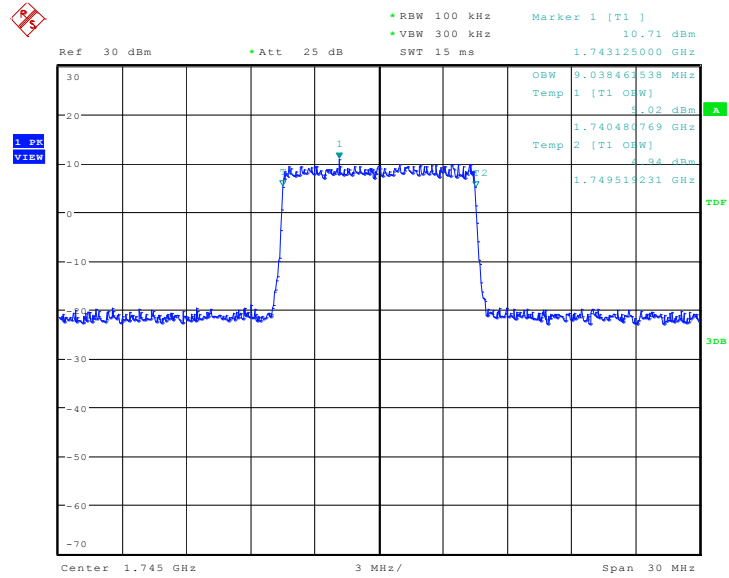
Date: 9.SEP.2019 18:37:42

LTE band 66, 10MHz Bandwidth, 16QAM (99% BW)



Date: 9.SEP.2019 18:39:07

LTE band 66, 10MHz Bandwidth, 64QAM (99% BW)

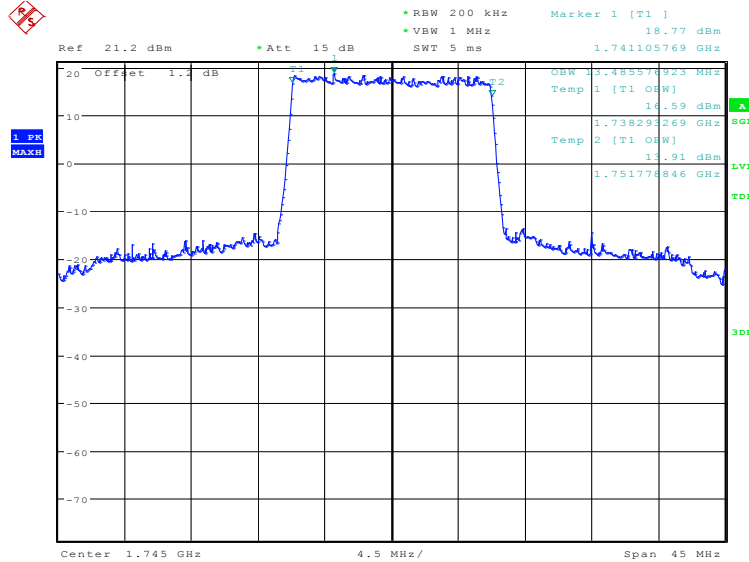


Date: 6.SEP.2019 16:34:53

LTE band 66, 15MHz (99%)

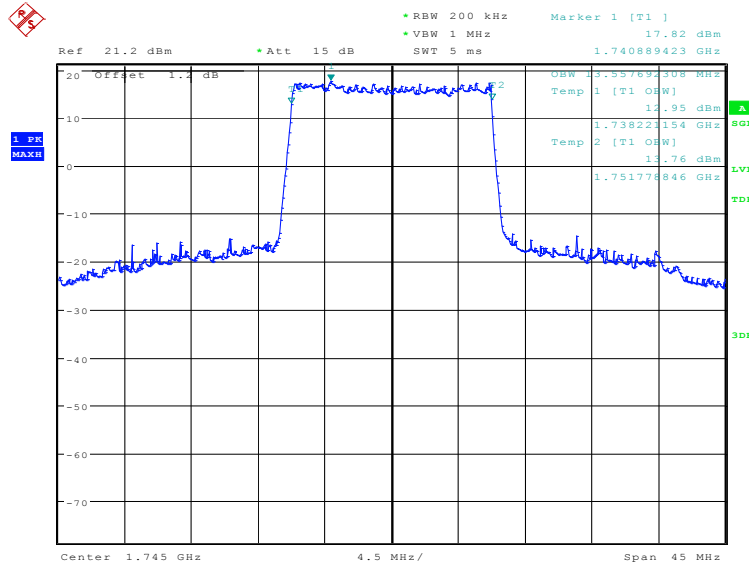
| Frequency (MHz) | Occupied Bandwidth (99%) (kHz) | | |
|-----------------|--------------------------------|----------|----------|
| | QPSK | 16QAM | 64QAM |
| 1745.0 | 13485.58 | 13557.69 | 13485.58 |

LTE band 66, 15MHz Bandwidth, QPSK (99% BW)



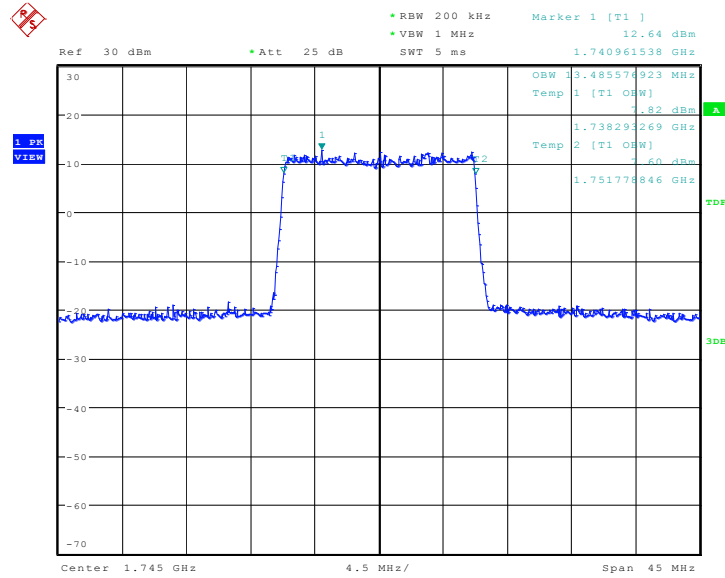
Date: 9.SEP.2019 18:40:34

LTE band 66, 15MHz Bandwidth, 16QAM (99% BW)



Date: 9.SEP.2019 18:41:58

LTE band 66, 15MHz Bandwidth, 64QAM (99% BW)

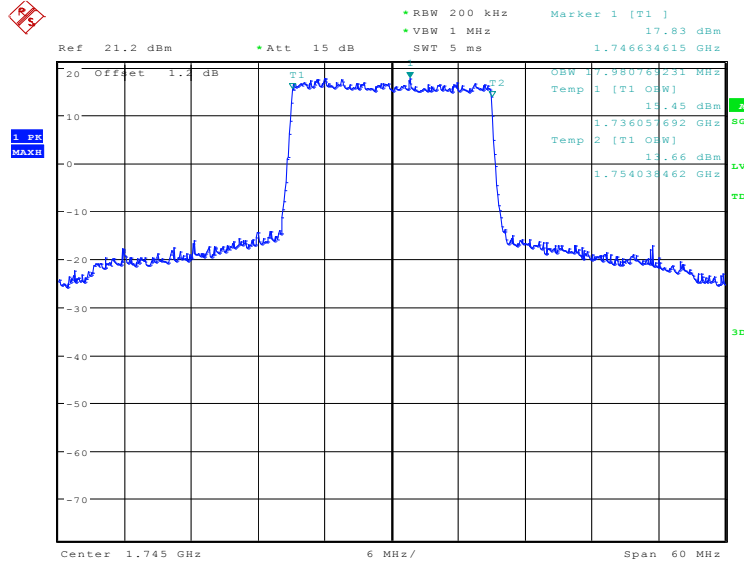


Date: 6.SEP.2019 16:45:26

LTE band 66, 20MHz (99%)

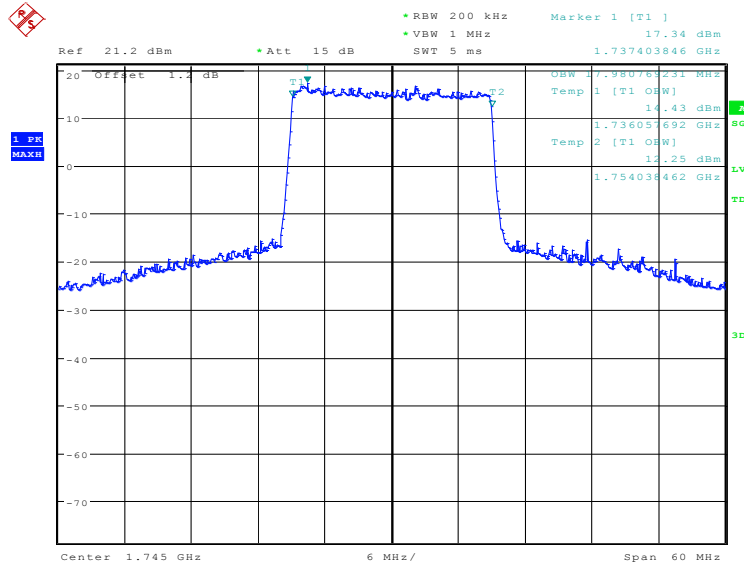
| Frequency (MHz) | Occupied Bandwidth (99%) (kHz) | | |
|-----------------|--------------------------------|----------|----------|
| | QPSK | 16QAM | 64QAM |
| 1745.0 | 17980.77 | 17980.77 | 17980.77 |

LTE band 66, 20MHz Bandwidth, QPSK (99% BW)



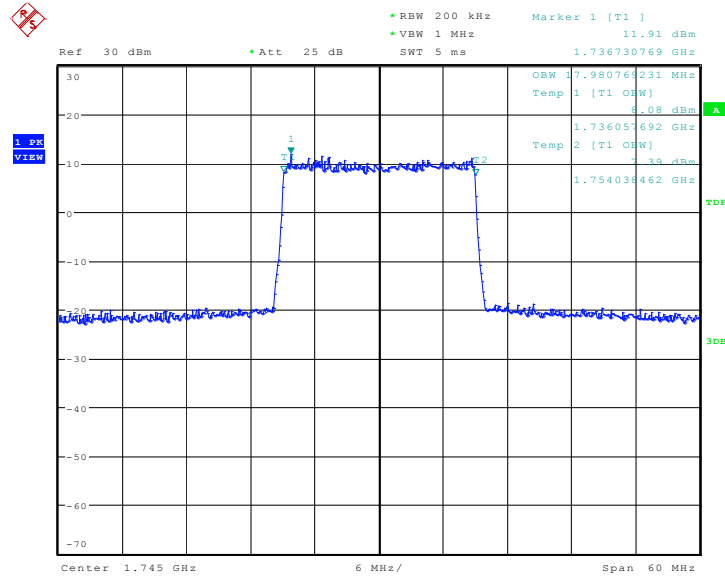
Date: 9.SEP.2019 18:43:24

LTE band 66, 20MHz Bandwidth, 16QAM (99% BW)



Date: 9.SEP.2019 18:44:49

LTE band 66, 20MHz Bandwidth, 64QAM (99% BW)

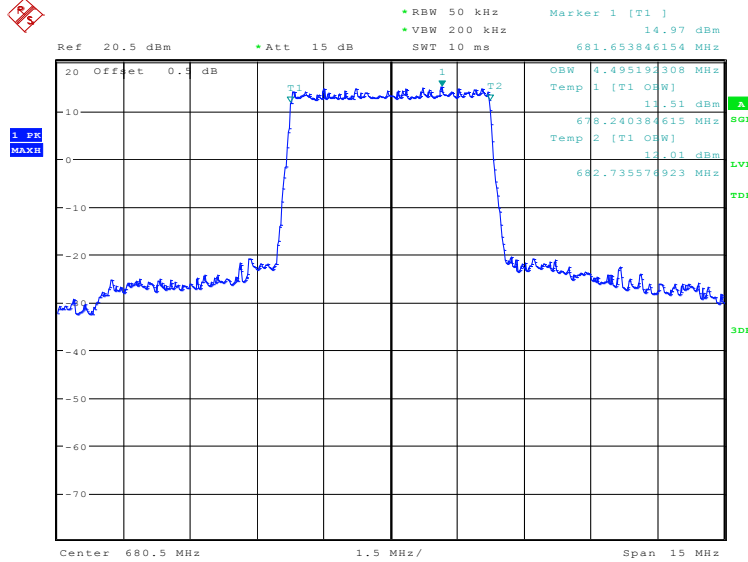


Date: 6.SEP.2019 16:47:50

LTE band 71, 5MHz (99%)

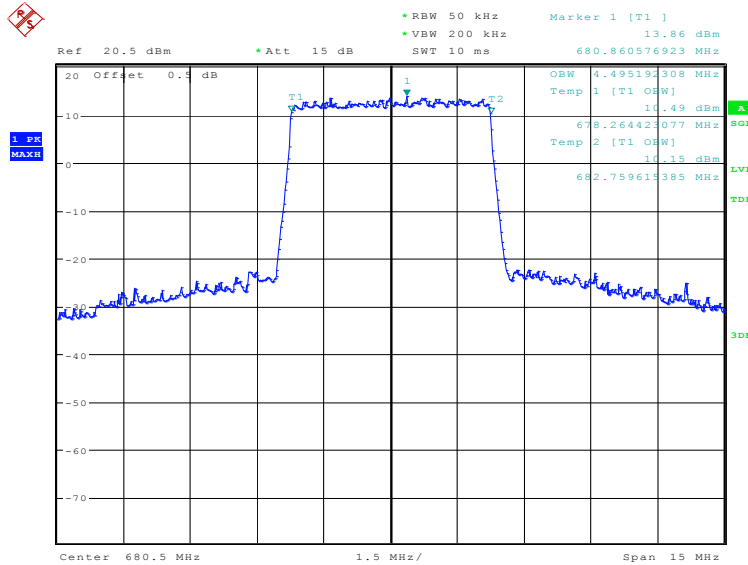
| Frequency (MHz) | Occupied Bandwidth (99%) (kHz) | | |
|-----------------|--------------------------------|---------|---------|
| | QPSK | 16QAM | 64QAM |
| 680.5 | 4495.19 | 4495.19 | 4495.19 |

LTE band 71, 5MHz Bandwidth, QPSK (99% BW)



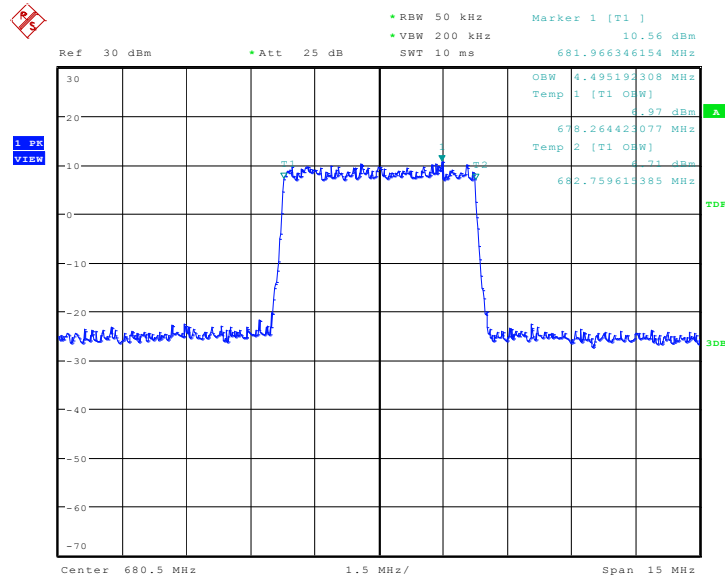
Date: 5.SEP.2019 18:44:53

LTE band 71, 5MHz Bandwidth, 16QAM (99% BW)



Date: 5.SEP.2019 18:46:18

LTE band 71, 5MHz Bandwidth, 64QAM (99% BW)

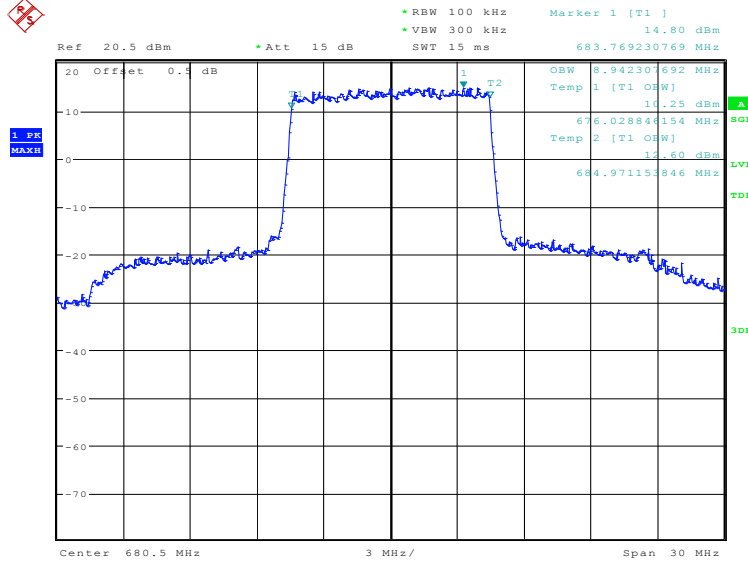


Date: 6.SEP.2019 10:54:59

LTE band 71, 10MHz (99%)

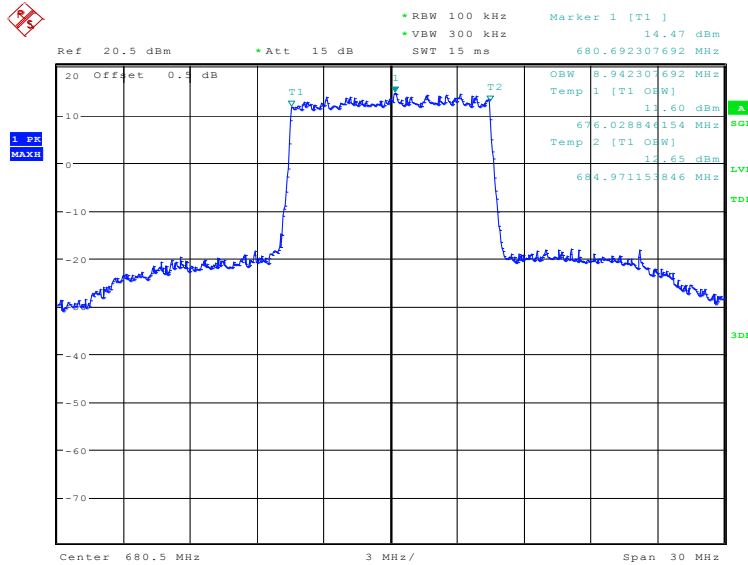
| Frequency (MHz) | Occupied Bandwidth (99%) (kHz) | | |
|-----------------|--------------------------------|---------|---------|
| | QPSK | 16QAM | 64QAM |
| 680.5 | 8942.31 | 8942.31 | 8990.38 |

LTE band 71, 10MHz Bandwidth, QPSK (99% BW)



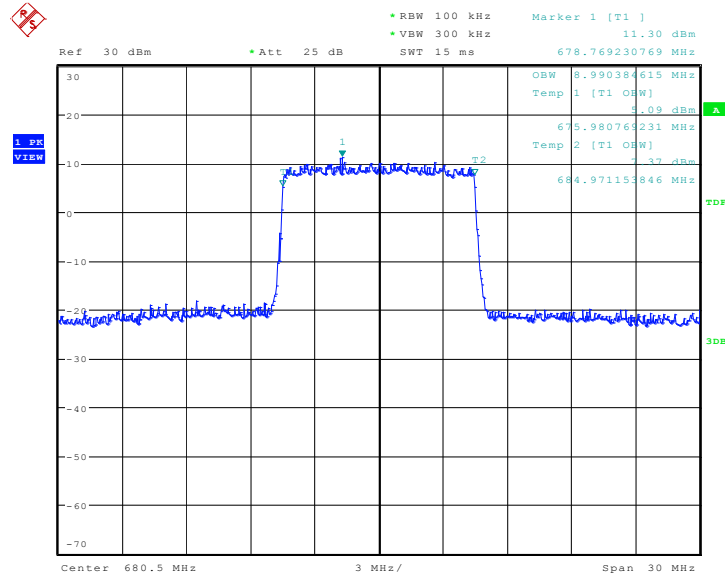
Date: 5.SEP.2019 18:47:44

LTE band 71, 10MHz Bandwidth, 16QAM (99% BW)



Date: 5.SEP.2019 18:49:09

LTE band 71, 10MHz Bandwidth, 64QAM (99% BW)

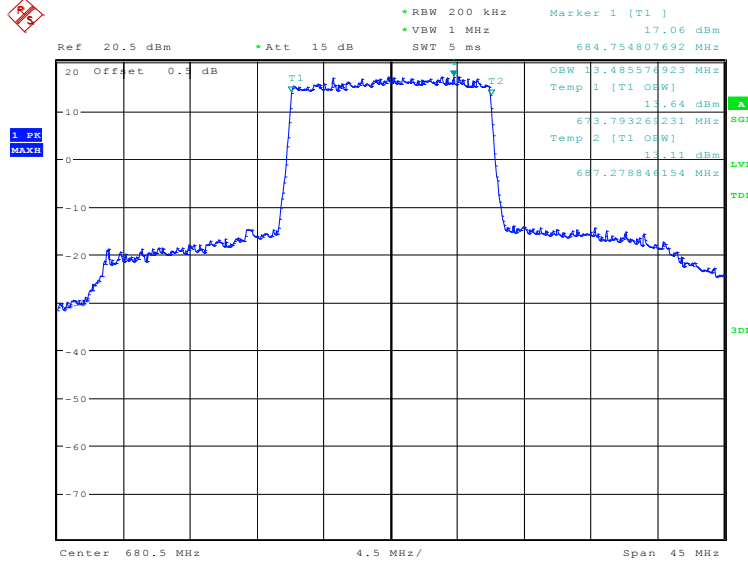


Date: 6.SEP.2019 11:01:31

LTE band 71, 15MHz (99%)

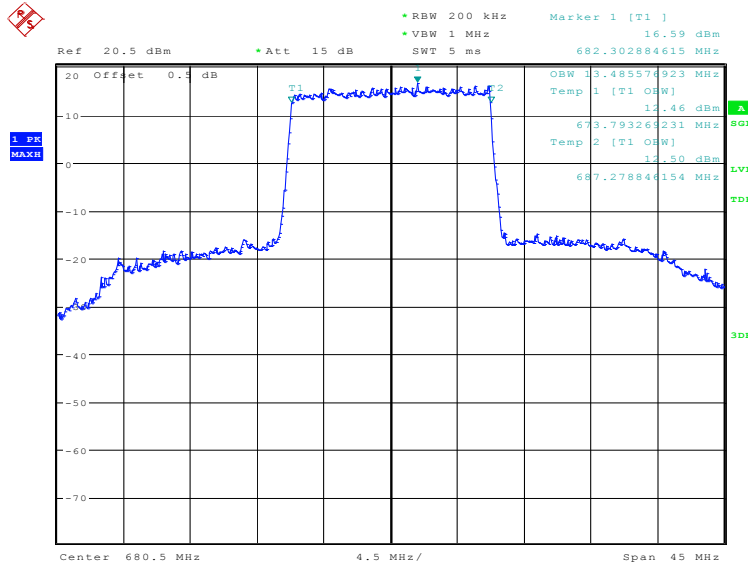
| Frequency (MHz) | Occupied Bandwidth (99%) (kHz) | | |
|-----------------|--------------------------------|----------|----------|
| | QPSK | 16QAM | 64QAM |
| 680.5 | 13485.58 | 13485.58 | 13485.58 |

LTE band 71, 15MHz Bandwidth, QPSK (99% BW)



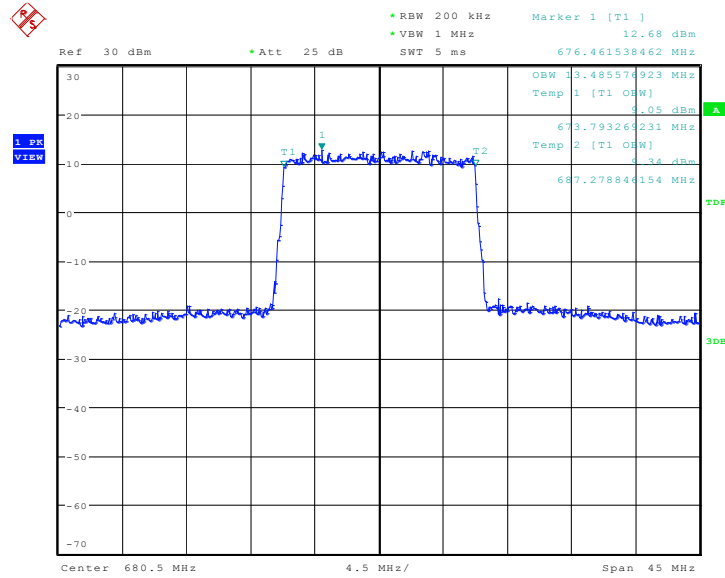
Date: 5.SEP.2019 18:50:35

LTE band 71, 15MHz Bandwidth, 16QAM (99% BW)



Date: 5.SEP.2019 18:52:00

LTE band 71, 15MHz Bandwidth, 64QAM (99% BW)

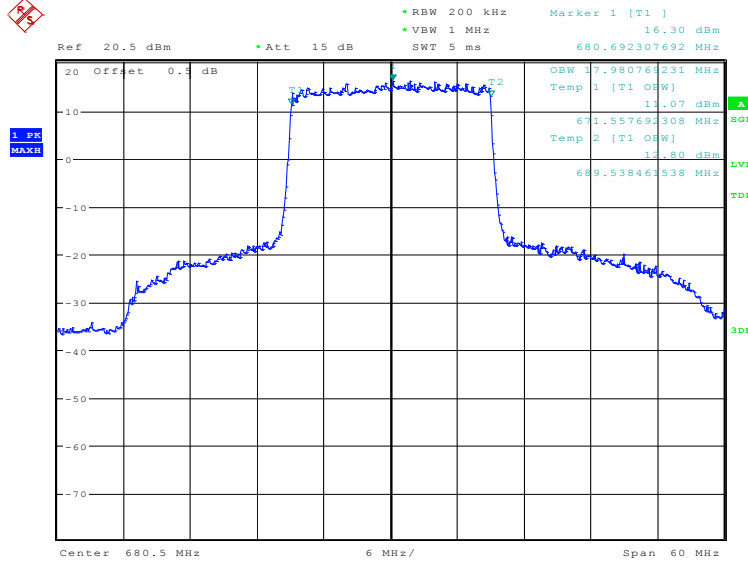


Date: 6.SEP.2019 11:02:57

LTE band 71, 20MHz (99%)

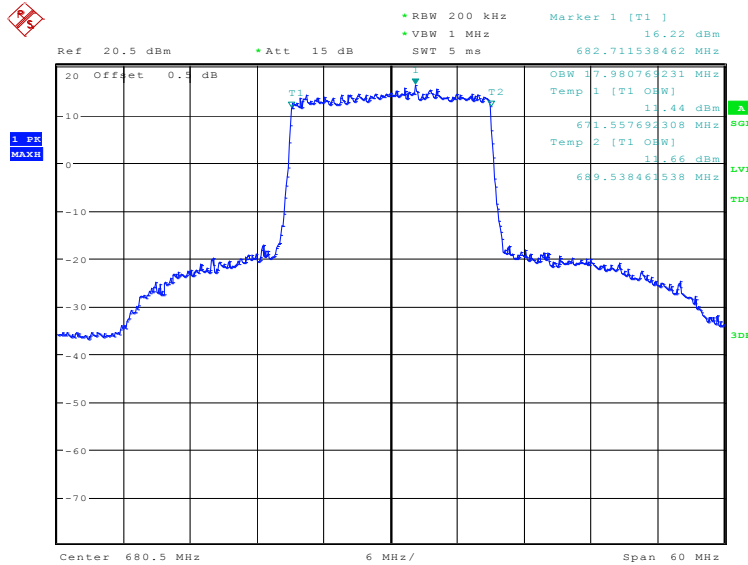
| Frequency (MHz) | Occupied Bandwidth (99%) (kHz) | | |
|-----------------|--------------------------------|----------|----------|
| | QPSK | 16QAM | 64QAM |
| 680.5 | 17980.77 | 17980.77 | 17980.77 |

LTE band 71, 20MHz Bandwidth, QPSK (99% BW)



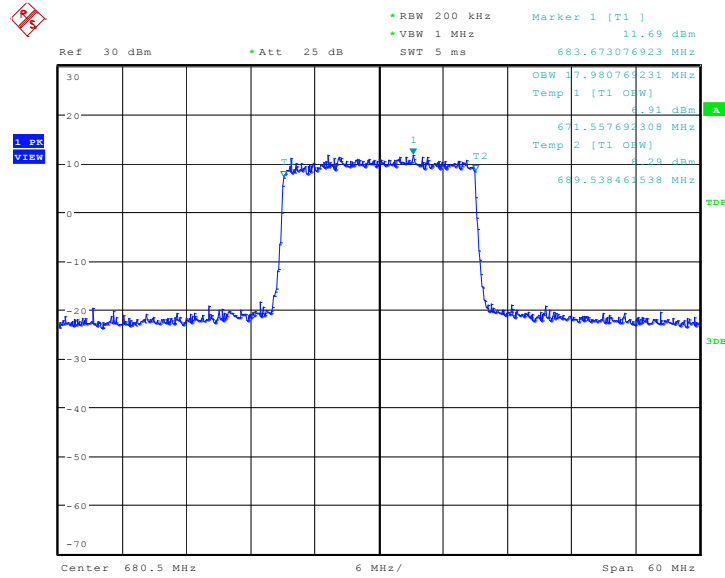
Date: 5.SEP.2019 18:53:27

LTE band 71, 20MHz Bandwidth, 16QAM (99% BW)



Date: 5.SEP.2019 18:54:51

LTE band 71, 20MHz Bandwidth, 64QAM (99% BW)

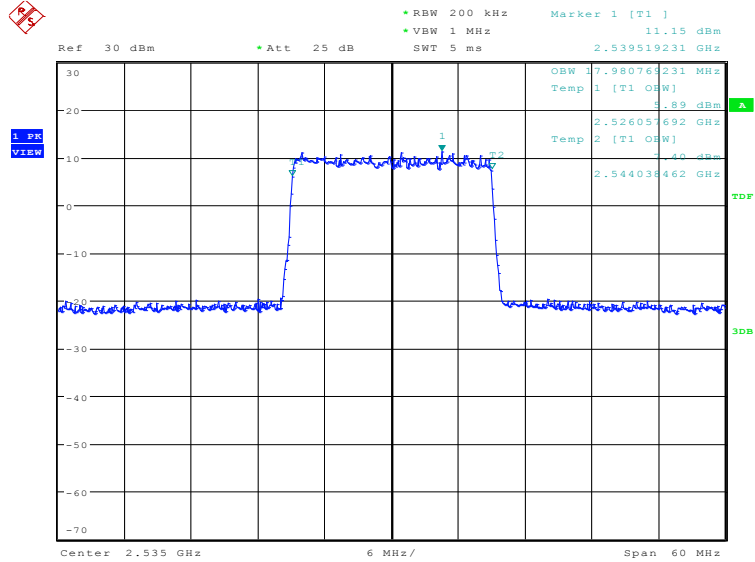


Date: 6.SEP.2019 11:04:44

LAT Measurement Results:
LTE band 7, 20MHz (99%)

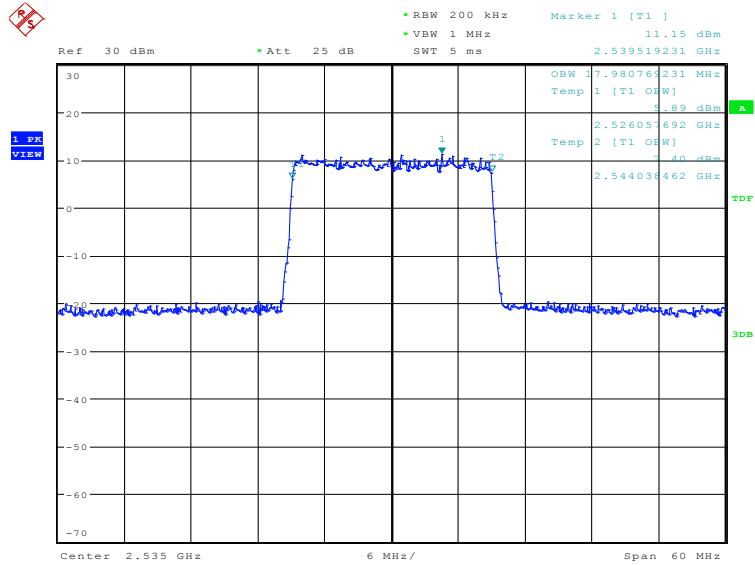
| Frequency(MHz) | Occupied Bandwidth (99%)(kHz) | | |
|----------------|-------------------------------|----------|----------|
| 2535.0 | QPSK | 16QAM | 64QAM |
| | 17980.77 | 19230.77 | 17980.77 |

LTE band 7, 20MHz Bandwidth, QPSK (99% BW)



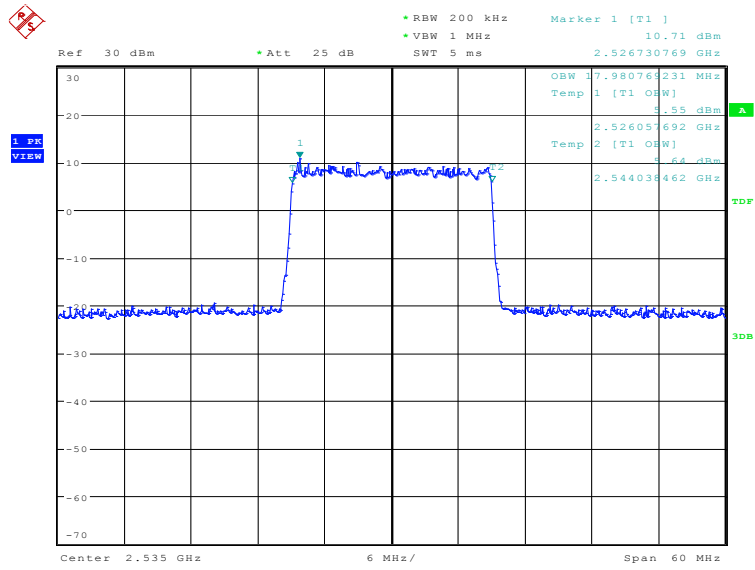
Date: 14.OCT.2019 15:54:09

LTE band 7, 20MHz Bandwidth, 16QAM (99% BW)



Date: 14.OCT.2019 15:54:09

LTE band 7, 20MHz Bandwidth, 64QAM (99% BW)

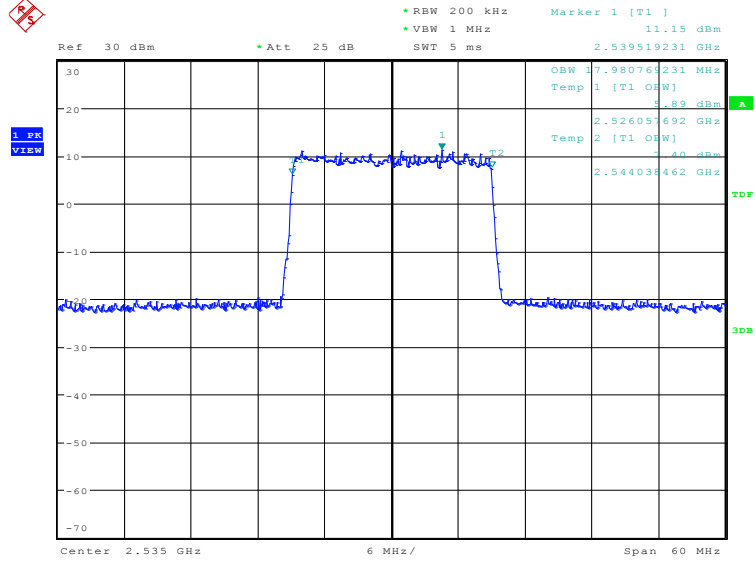


Date: 14.OCT.2019 15:50:15

LTE band 12, 10MHz (99%)

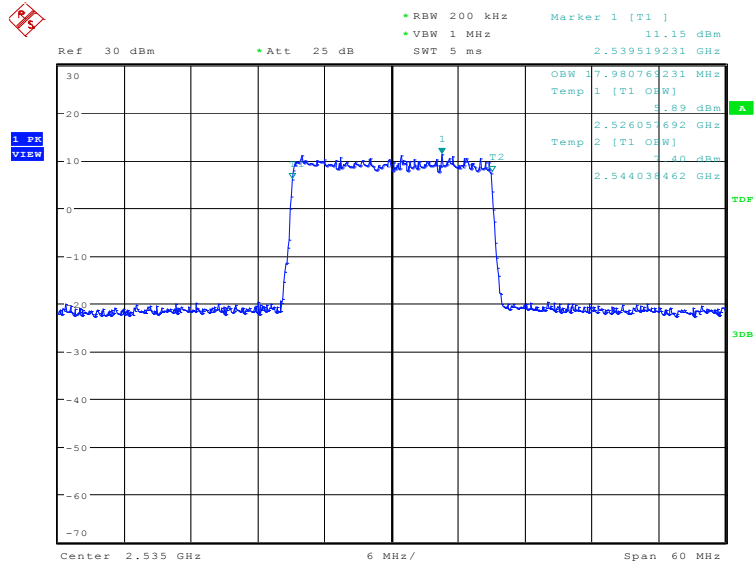
| Frequency(MHz) | Occupied Bandwidth (99%)(kHz) | | |
|----------------|-------------------------------|---------|---------|
| | QPSK | 16QAM | 64QAM |
| 707.5 | 8990.38 | 9663.46 | 8990.38 |

LTE band 12, 10MHz Bandwidth, QPSK (99% BW)



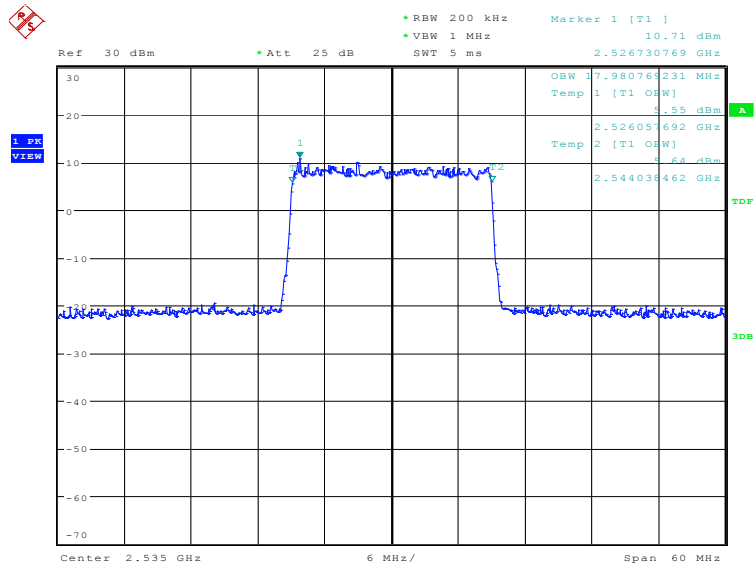
Date: 14.OCT.2019 15:54:09

LTE band 12, 10MHz Bandwidth, 16QAM (99% BW)



Date: 14.OCT.2019 15:54:09

LTE band 12, 10MHz Bandwidth, 64QAM (99% BW)

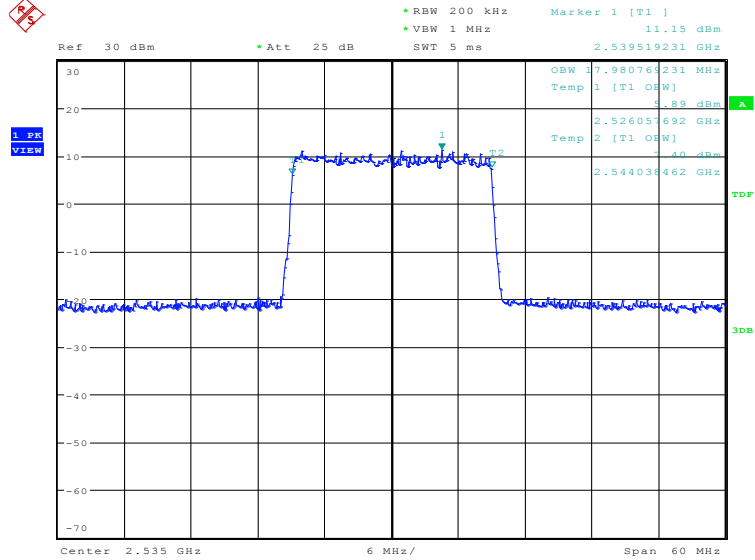


Date: 14.OCT.2019 15:50:15

LTE band 13, 10MHz (99%)

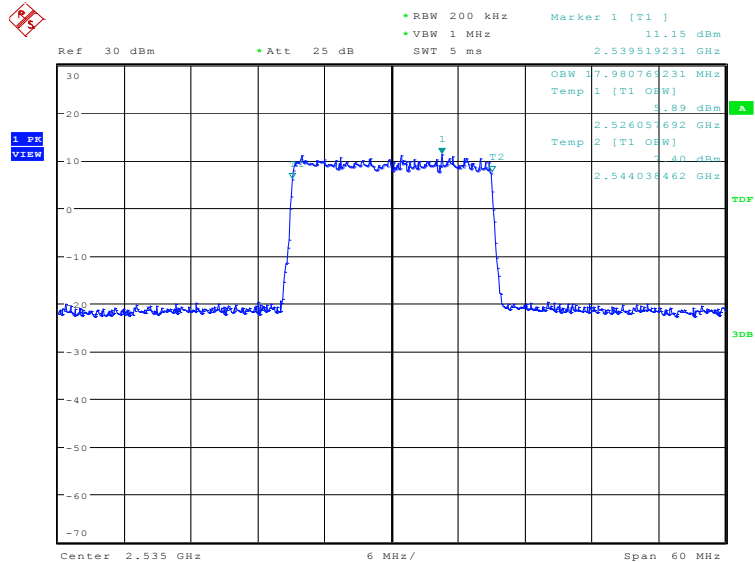
| Frequency(MHz) | Occupied Bandwidth (99%)(kHz) | | |
|----------------|-------------------------------|---------|---------|
| | QPSK | 16QAM | 64QAM |
| 782.0 | 8990.38 | 9711.54 | 8990.38 |

LTE band 13, 10MHz Bandwidth, QPSK (99% BW)



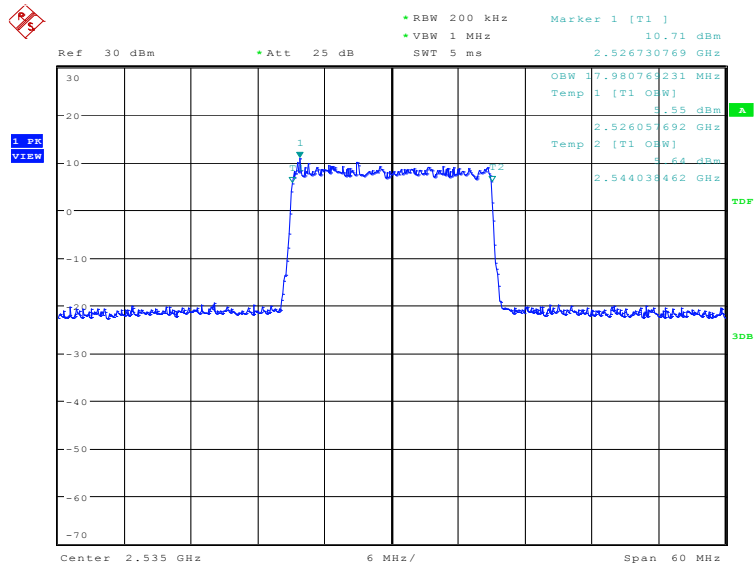
Date: 14.OCT.2019 15:54:09

LTE band 13, 10MHz Bandwidth, 16QAM (99% BW)



Date: 14.OCT.2019 15:54:09

LTE band 13, 10MHz Bandwidth, 64QAM (99% BW)

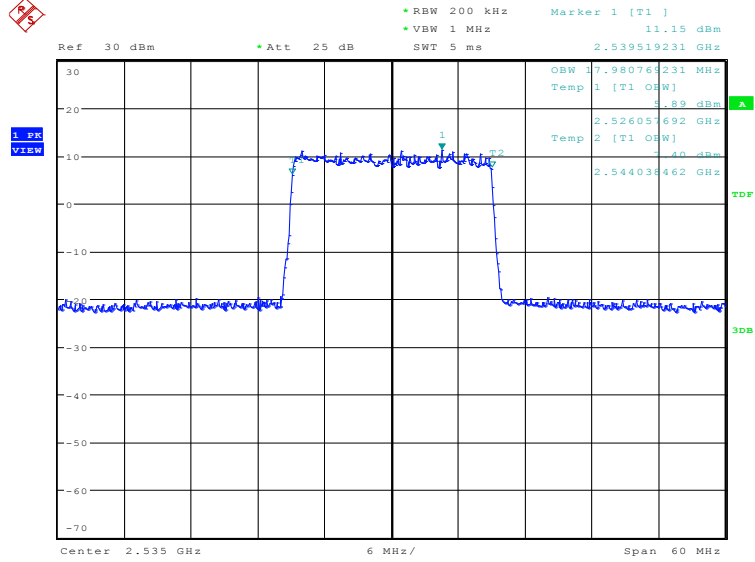


Date: 14.OCT.2019 15:50:15

LTE band 14, 10MHz (99%)

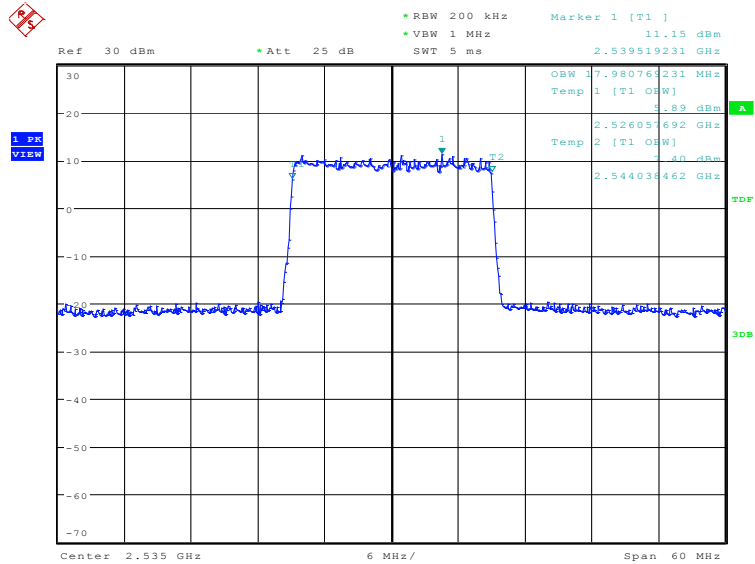
| Frequency(MHz) | Occupied Bandwidth (99%)(kHz) | | |
|----------------|--------------------------------|---------|---------|
| | QPSK | 16QAM | 64QAM |
| 793.0 | 8990.38 | 9663.46 | 8990.38 |

LTE band 14, 10MHz Bandwidth, QPSK (99% BW)



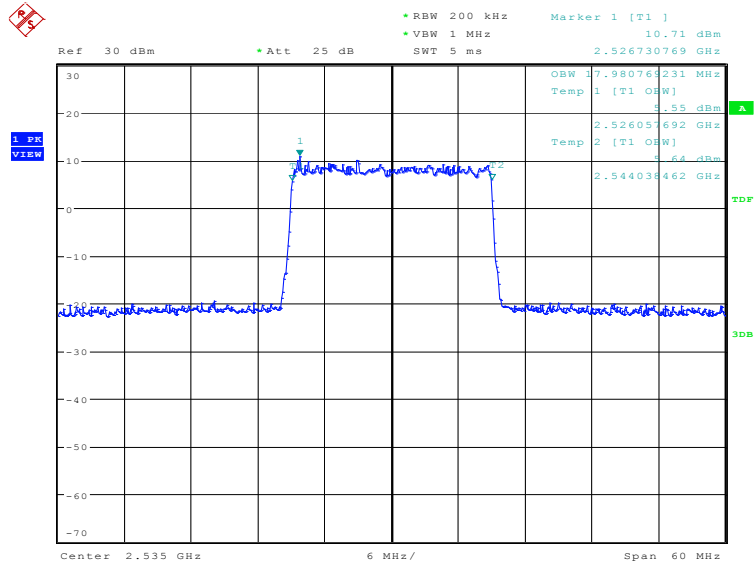
Date: 14.OCT.2019 15:54:09

LTE band 14, 10MHz Bandwidth, 16QAM (99% BW)



Date: 14.OCT.2019 15:54:09

LTE band 14, 10MHz Bandwidth,64QAM (99% BW)

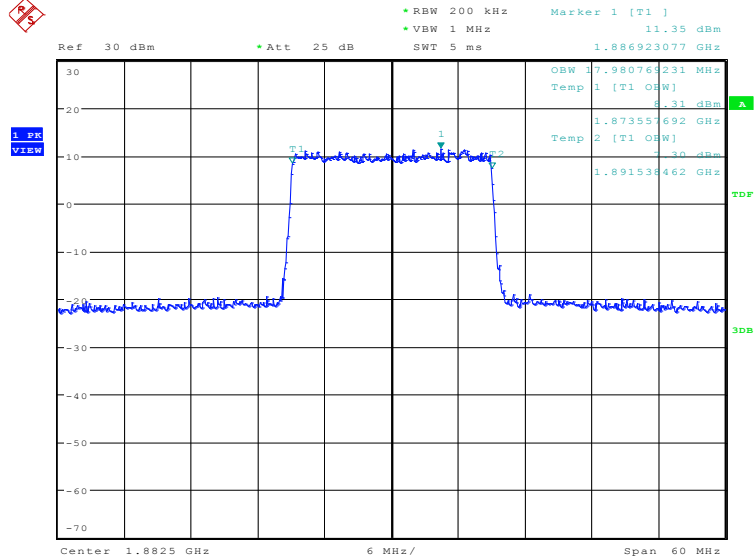


Date: 14.OCT.2019 15:50:15

LTE band 25, 20MHz (99%)

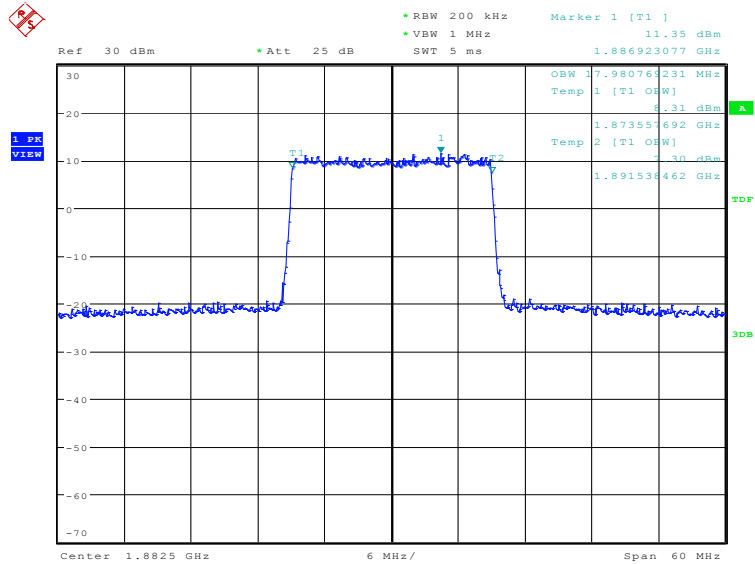
| Frequency(MHz) | Occupied Bandwidth (99%)(kHz) | | |
|----------------|-------------------------------|----------|----------|
| | QPSK | 16QAM | 64QAM |
| 1882.5 | 17980.77 | 19423.08 | 17980.77 |

LTE band 25, 20MHz Bandwidth, QPSK (99% BW)



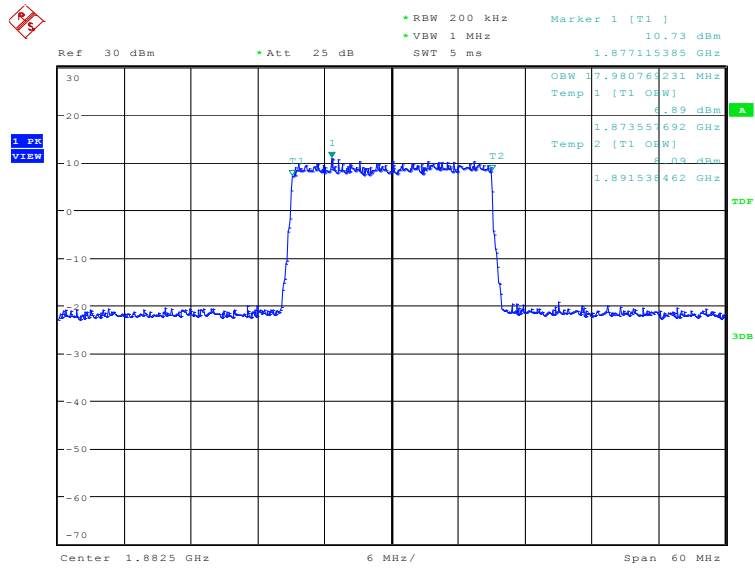
Date: 14.OCT.2019 15:57:12

LTE band 25, 20MHz Bandwidth, 16QAM (99% BW)



Date: 14.OCT.2019 15:57:12

LTE band 25, 20MHz Bandwidth, 64QAM (99% BW)

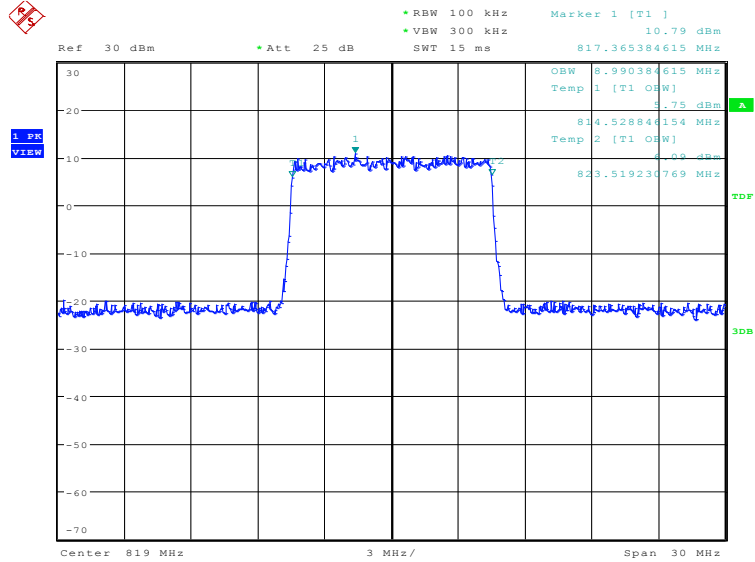


Date: 14.OCT.2019 15:55:29

LTE band 26(814MHz~824MHz), 10MHz (99%)

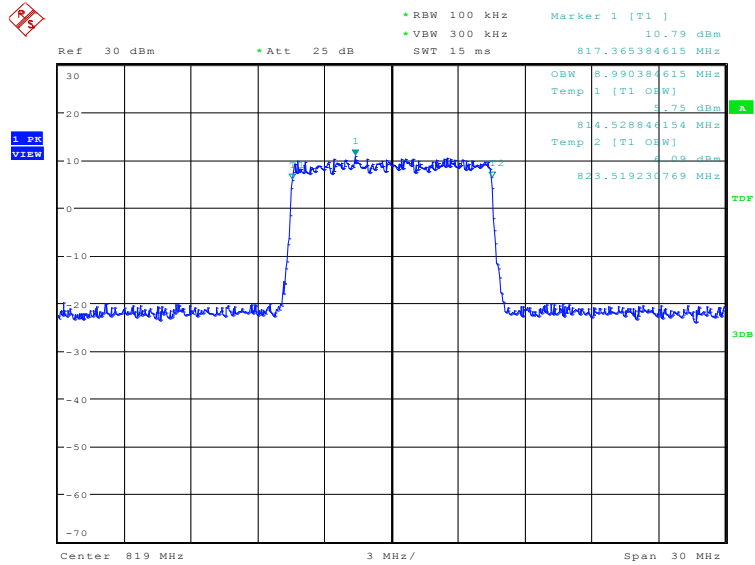
| Frequency(MHz) | Occupied Bandwidth (99%)(kHz) | | |
|----------------|--------------------------------|---------|---------|
| | QPSK | 16QAM | 64QAM |
| 819.0 | 8990.38 | 9759.62 | 8990.38 |

LTE band 26(814MHz~824MHz), 10MHz Bandwidth, QPSK (99% BW)



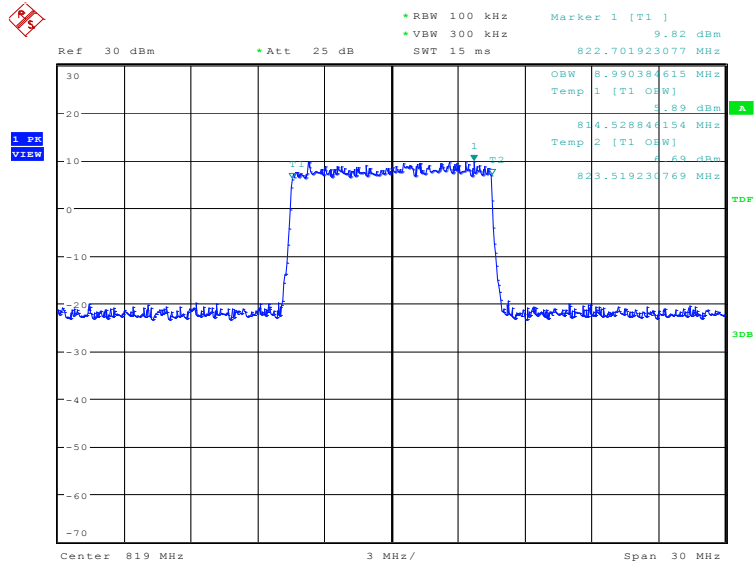
Date: 14.OCT.2019 17:02:43

LTE band 26(814MHz~824MHz), 10MHz Bandwidth, 16QAM (99% BW)



Date: 14.OCT.2019 17:02:43

LTE band 26(814MHz~824MHz), 10MHz Bandwidth,64QAM (99% BW)

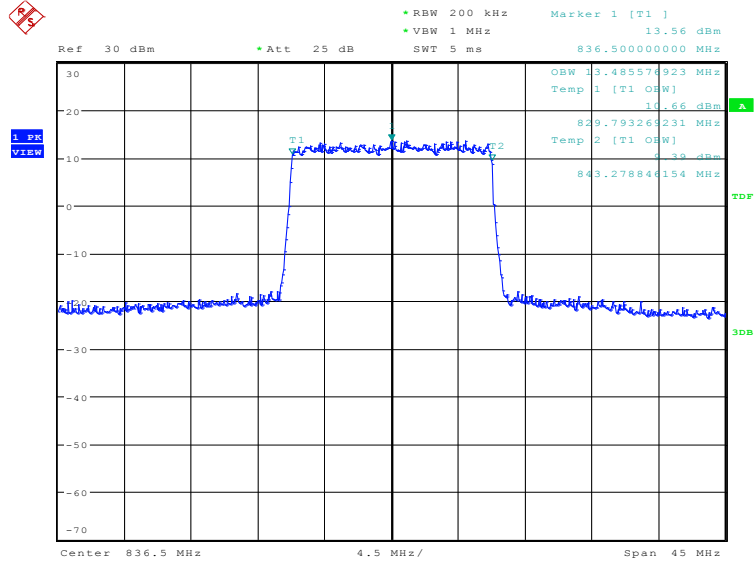


Date: 14.OCT.2019 16:58:55

LTE band 26(824MHz~849MHz), 15MHz (99%)

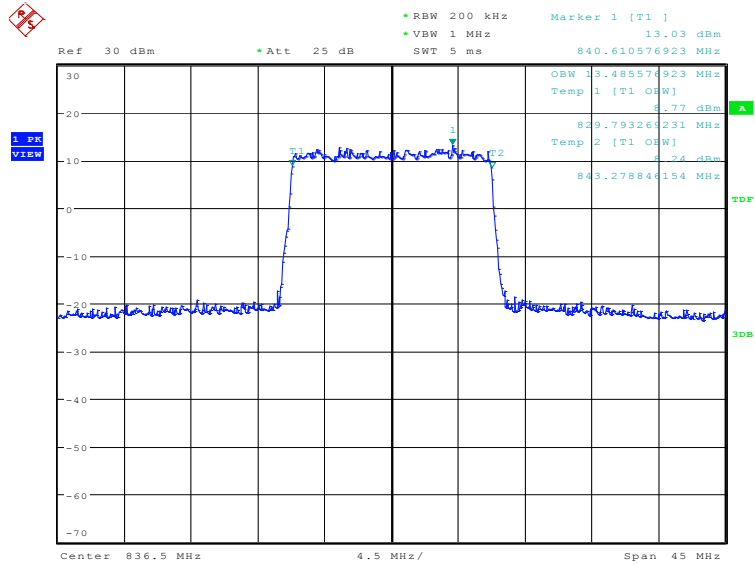
| Frequency(MHz) | Occupied Bandwidth (99%)(kHz) | | |
|----------------|-------------------------------|----------|----------|
| | QPSK | 16QAM | 64QAM |
| 836.5 | 13485.58 | 14639.42 | 13485.58 |

LTE band 26(824MHz~849MHz), 15MHz Bandwidth, QPSK (99% BW)



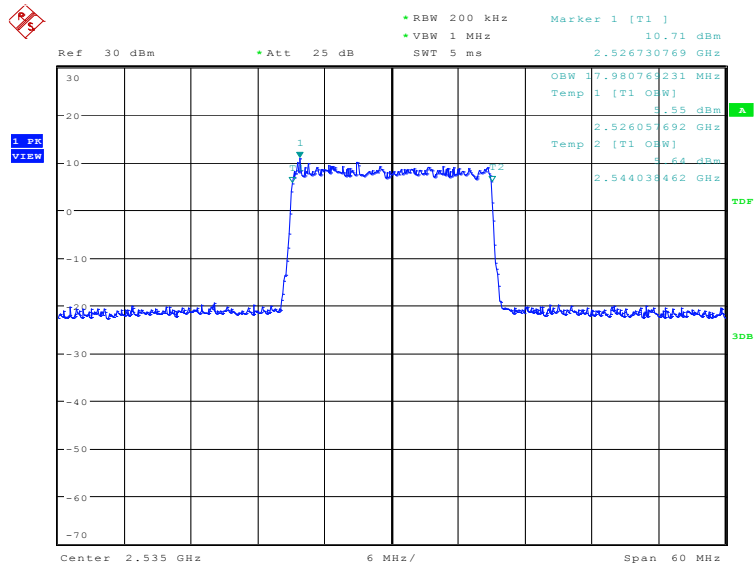
Date: 14.OCT.2019 16:50:26

LTE band 26(824MHz~849MHz), 15MHz Bandwidth, 16QAM (99% BW)



Date: 14.OCT.2019 16:49:37

LTE band 26(824MHz~849MHz), 15MHz Bandwidth,64QAM (99% BW)

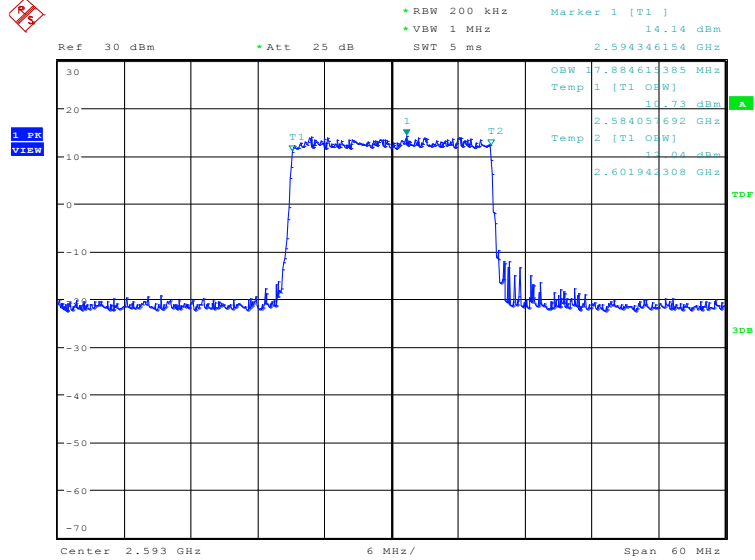


Date: 14.OCT.2019 15:50:15

LTE band 41(PC2), 20MHz (99%)

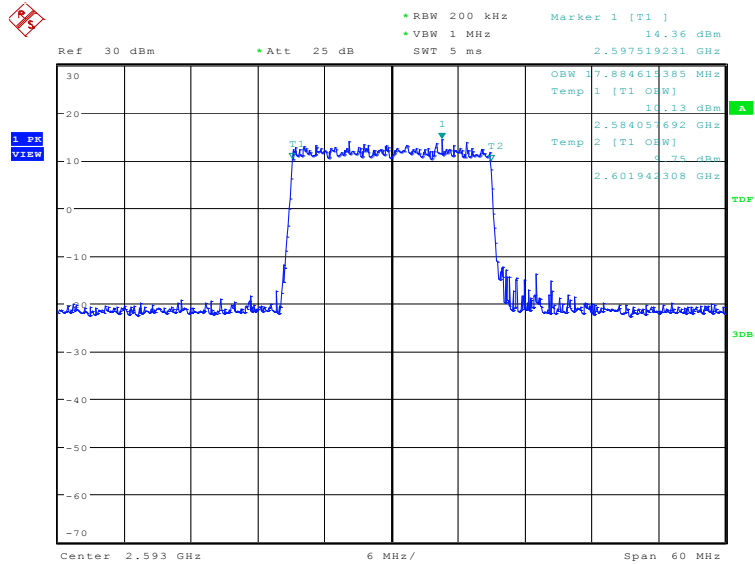
| Frequency(MHz) | Occupied Bandwidth (99%)(kHz) | | |
|----------------|-------------------------------|----------|----------|
| | QPSK | 16QAM | 64QAM |
| 2593.0 | 17884.62 | 19326.92 | 17884.62 |

LTE band 41(PC2), 20MHz Bandwidth, QPSK (99% BW)



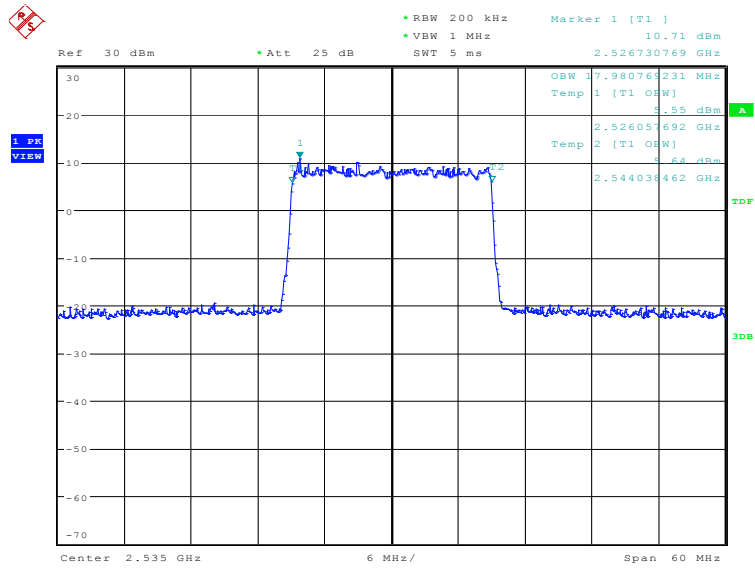
Date: 14.OCT.2019 16:05:19

LTE band 41(PC2), 20MHz Bandwidth, 16QAM (99% BW)



Date: 14.OCT.2019 16:03:13

LTE band 41(PC2), 20MHz Bandwidth,64QAM (99% BW)

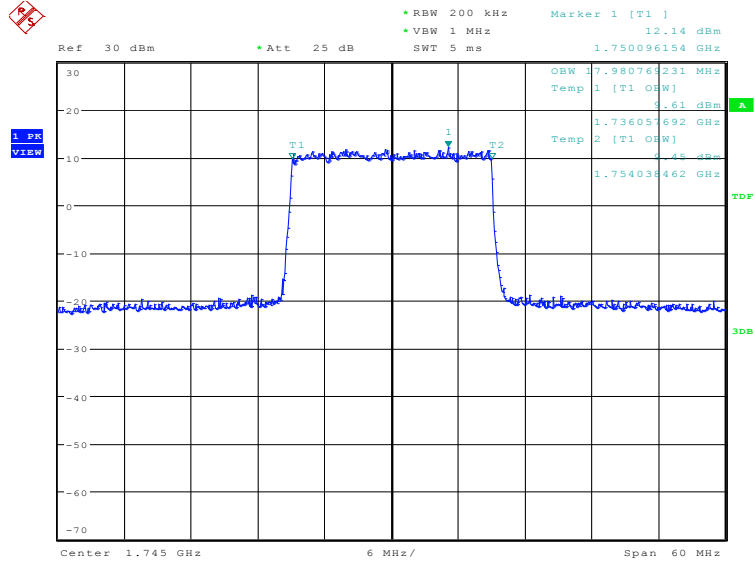


Date: 14.OCT.2019 15:50:15

LTE band 66, 20MHz (99%)

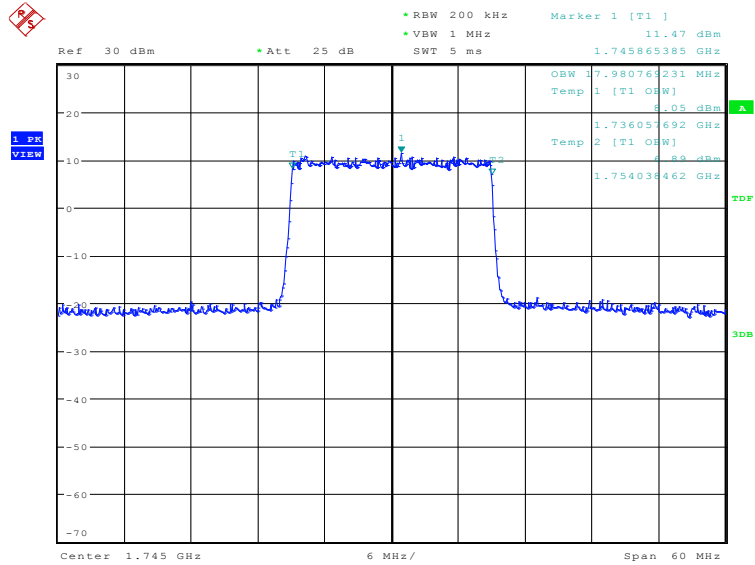
| Frequency(MHz) | Occupied Bandwidth (99%)(kHz) | | |
|----------------|-------------------------------|----------|----------|
| | QPSK | 16QAM | 64QAM |
| 1745.0 | 17980.77 | 19230.77 | 18076.92 |

LTE band 66, 20MHz Bandwidth, QPSK (99% BW)



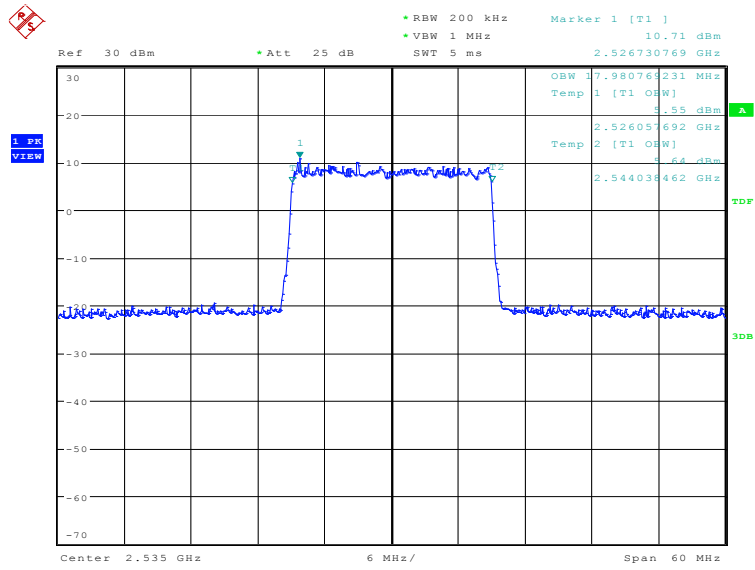
Date: 14.OCT.2019 16:10:20

LTE band 66, 20MHz Bandwidth, 16QAM (99% BW)



Date: 14.OCT.2019 16:08:45

LTE band 66, 20MHz Bandwidth, 64QAM (99% BW)

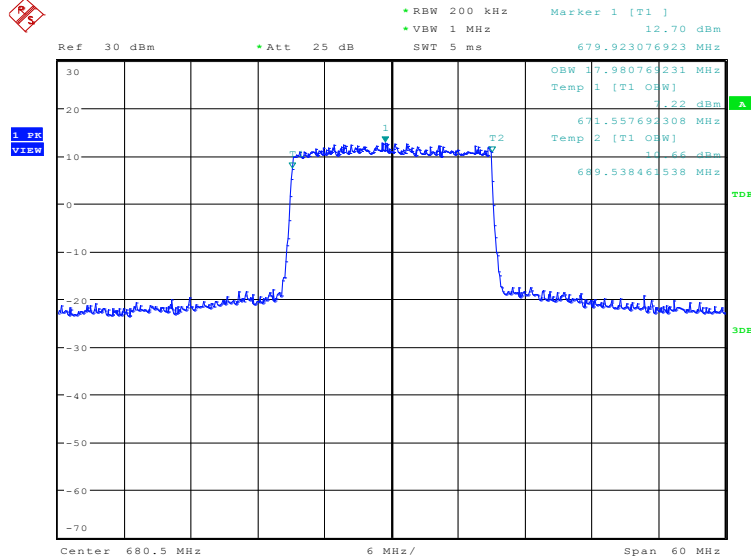


Date: 14.OCT.2019 15:50:15

LTE band 71, 20MHz (99%)

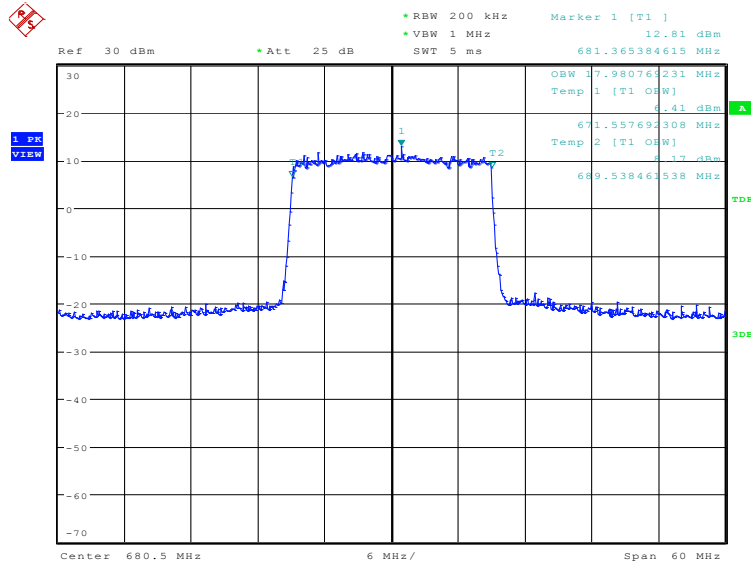
| Frequency(MHz) | Occupied Bandwidth (99%)(kHz) | | |
|----------------|-------------------------------|----------|----------|
| | QPSK | 16QAM | 64QAM |
| 680.5 | 17980.77 | 19230.77 | 17980.77 |

LTE band 71, 20MHz Bandwidth, QPSK (99% BW)



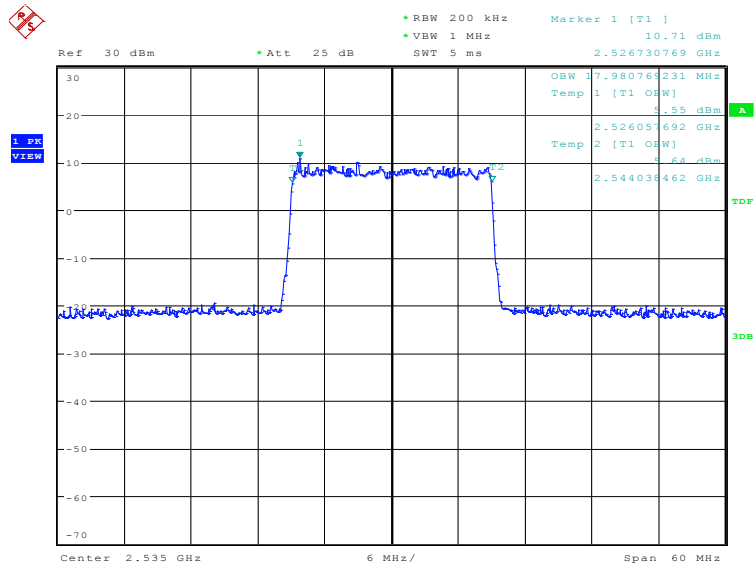
Date: 14.OCT.2019 16:37:08

LTE band 71, 20MHz Bandwidth, 16QAM (99% BW)



Date: 14.OCT.2019 16:36:13

LTE band 71, 20MHz Bandwidth, 64QAM (99% BW)



Date: 14.OCT.2019 15:50:15



A.5 EMISSION BANDWIDTH

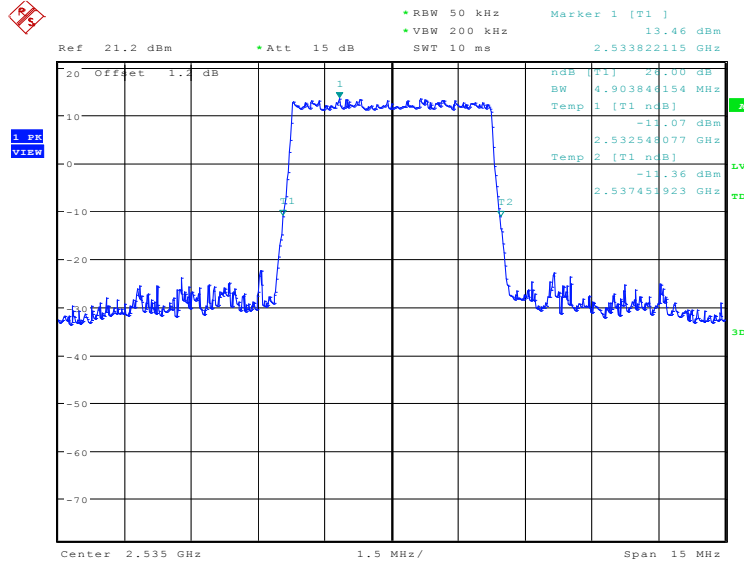
A.5.1 Emission Bandwidth Results

The emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emissions are attenuated at least 26 dB below the transmitter power. Table below lists the measured -26dBc BW. Spectrum analyzer plots are included on the following pages.

**UAT Measurement Results:
LTE band 7, 5MHz (-26dBc)**

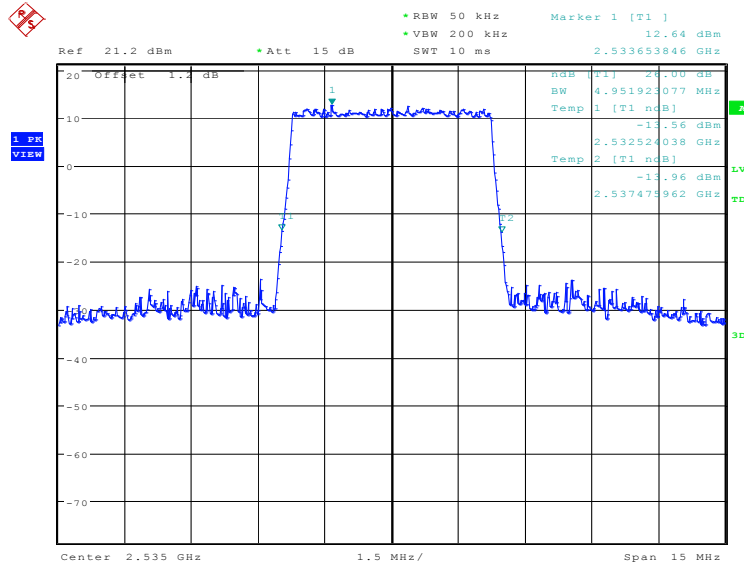
| Frequency (MHz) | Occupied Bandwidth (-26dBc) (kHz) | | |
|-----------------|-----------------------------------|---------|---------|
| 2535.0 | QPSK | 16QAM | 64QAM |
| | 4903.85 | 4951.92 | 4903.85 |

LTE band 7, 5MHz Bandwidth, QPSK (-26dBc BW)



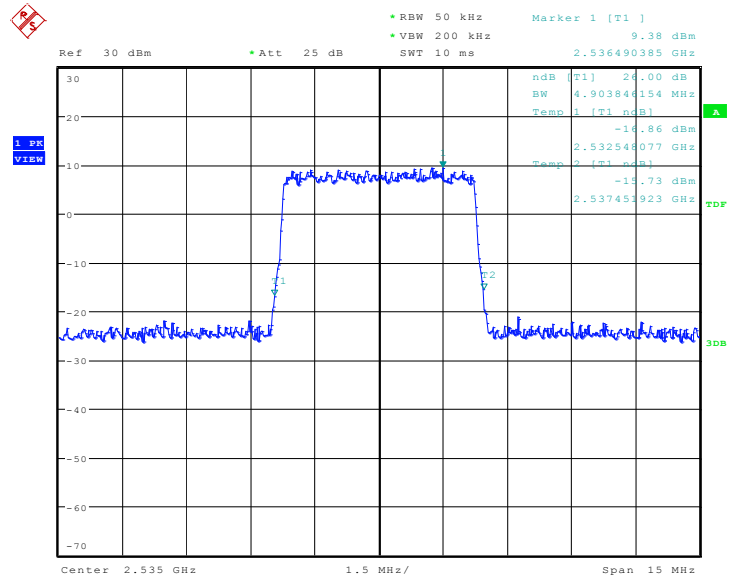
Date: 9.SEP.2019 18:58:54

LTE band 7, 5MHz Bandwidth, 16QAM (-26dBc BW)



Date: 9.SEP.2019 19:00:19

LTE band 7, 5MHz Bandwidth, 64QAM (-26dBc BW)

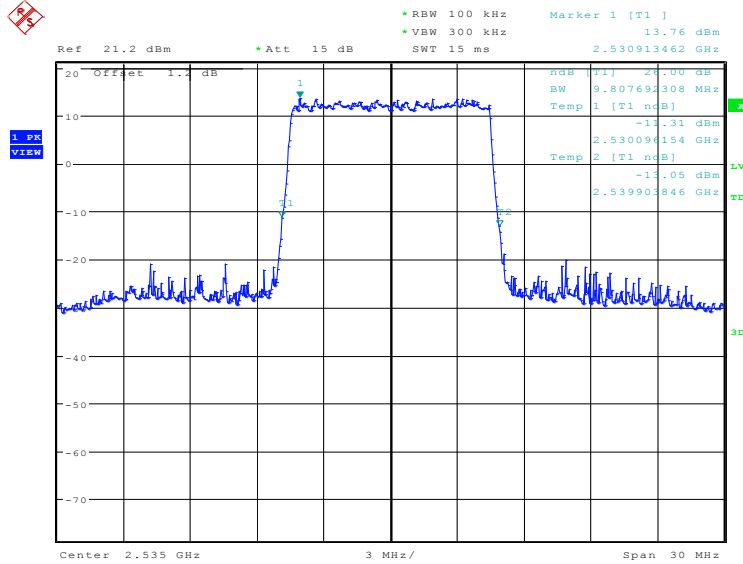


Date: 6.SEP.2019 14:32:27

LTE band 7, 10MHz (-26dBc)

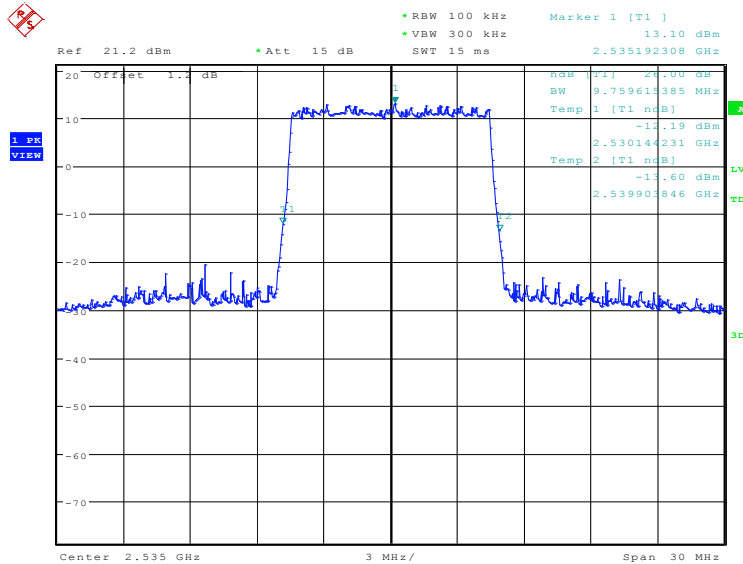
| Frequency (MHz) | Occupied Bandwidth (-26dBc) (kHz) | | |
|-----------------|-----------------------------------|---------|---------|
| | QPSK | 16QAM | 64QAM |
| 2535.0 | 9807.69 | 9759.62 | 9759.62 |

LTE band 7, 10MHz Bandwidth, QPSK (-26dBc BW)



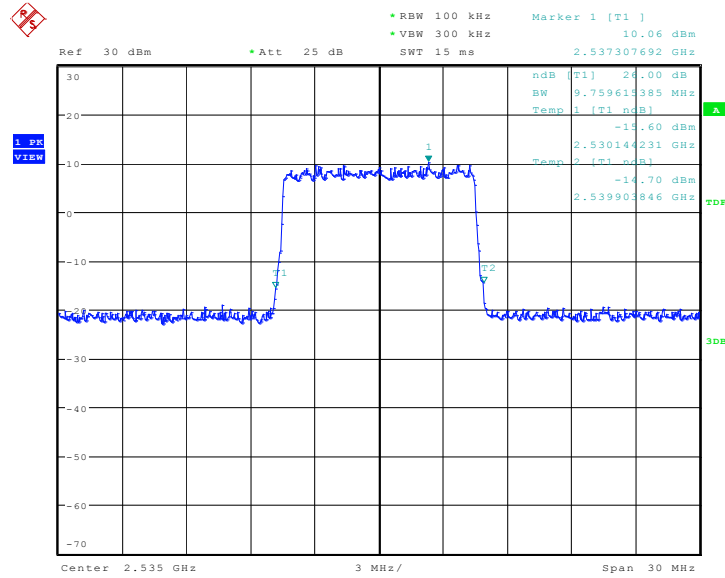
Date: 9.SEP.2019 19:01:45

LTE band 7, 10MHz Bandwidth, 16QAM (-26dBc BW)



Date: 9.SEP.2019 19:03:10

LTE band 7, 10MHz Bandwidth, 64QAM (-26dBc BW)

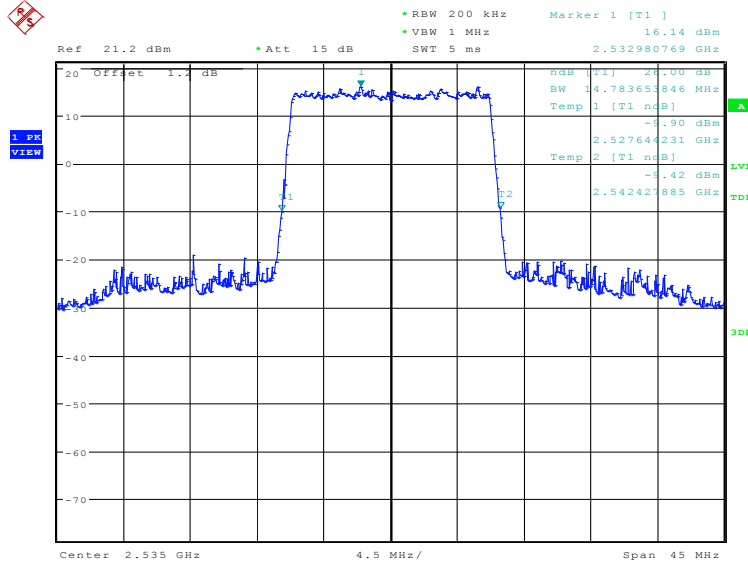


Date: 6.SEP.2019 14:33:52

LTE band 7, 15MHz (-26dBc)

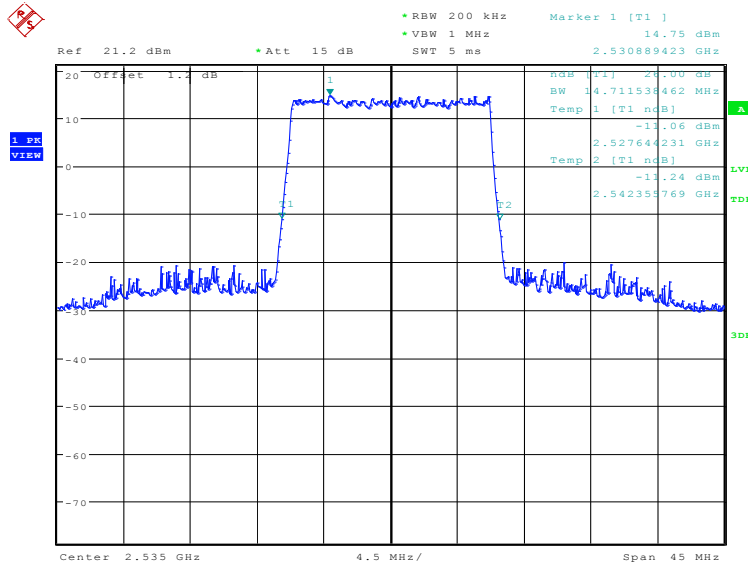
| Frequency (MHz) | Occupied Bandwidth (-26dBc) (kHz) | | |
|-----------------|-----------------------------------|----------|----------|
| | QPSK | 16QAM | 64QAM |
| 2535.0 | 14783.65 | 14711.54 | 14639.42 |

LTE band 7, 15MHz Bandwidth, QPSK (-26dBc BW)



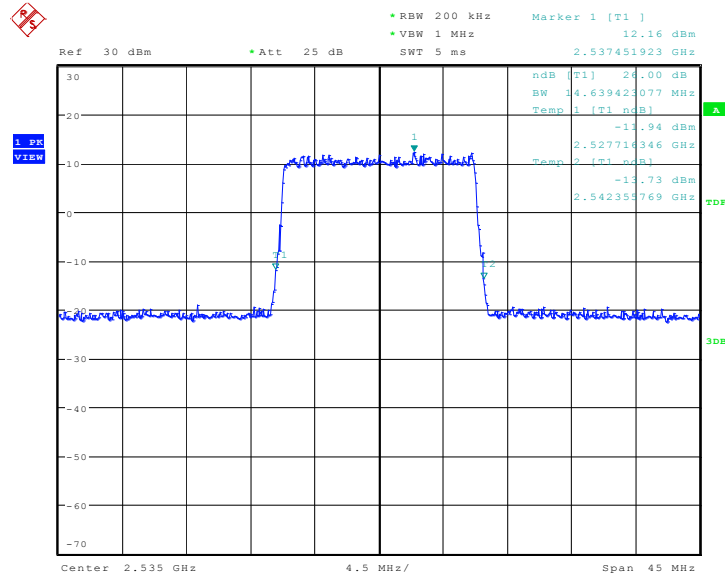
Date: 9.SEP.2019 19:04:38

LTE band 7, 15MHz Bandwidth, 16QAM (-26dBc BW)



Date: 9.SEP.2019 19:06:02

LTE band 7, 15MHz Bandwidth, 64QAM (-26dBc BW)

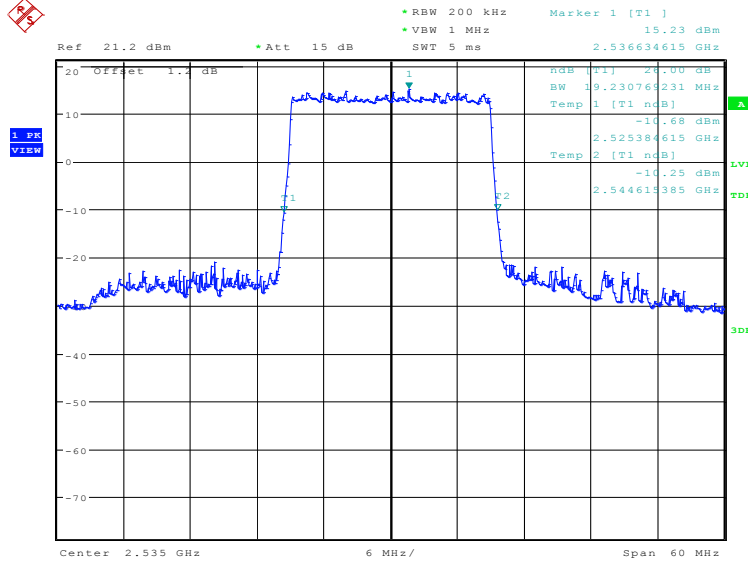


Date: 6.SEP.2019 14:35:52

LTE band 7, 20MHz (-26dBc)

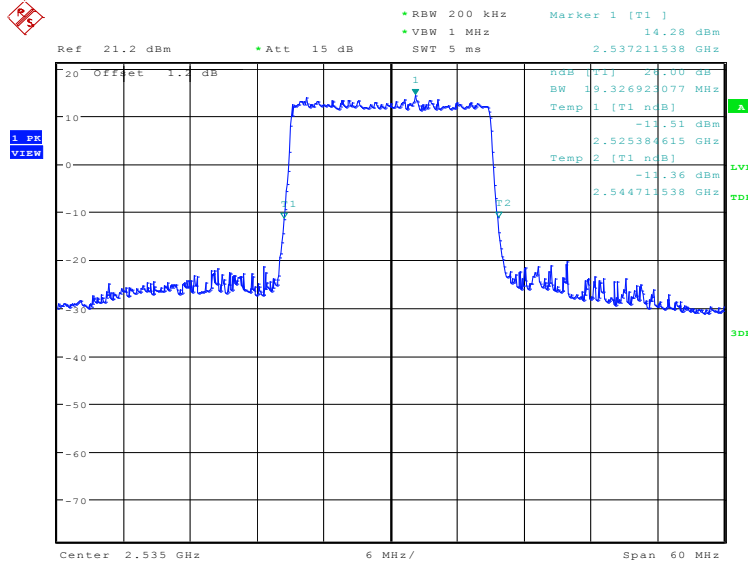
| Frequency (MHz) | Occupied Bandwidth (-26dBc) (kHz) | | |
|-----------------|-----------------------------------|----------|----------|
| | QPSK | 16QAM | 64QAM |
| 2535.0 | 19230.77 | 19326.92 | 19432.08 |

LTE band 7, 20MHz Bandwidth, QPSK (-26dBc BW)



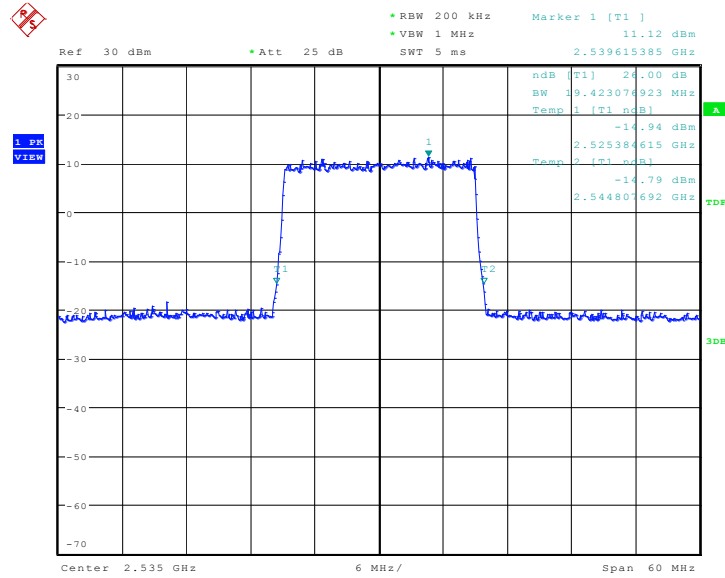
Date: 9.SEP.2019 19:07:30

LTE band 7, 20MHz Bandwidth, 16QAM (-26dBc BW)



Date: 9.SEP.2019 19:08:55

LTE band 7, 20MHz Bandwidth, 64QAM (-26dBc BW)

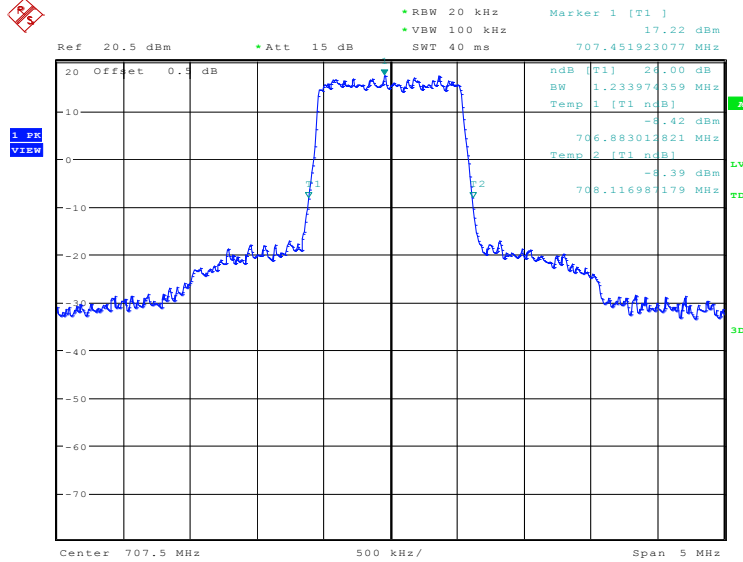


Date: 6.SEP.2019 14:38:43

LTE band 12, 1.4MHz (-26dBc)

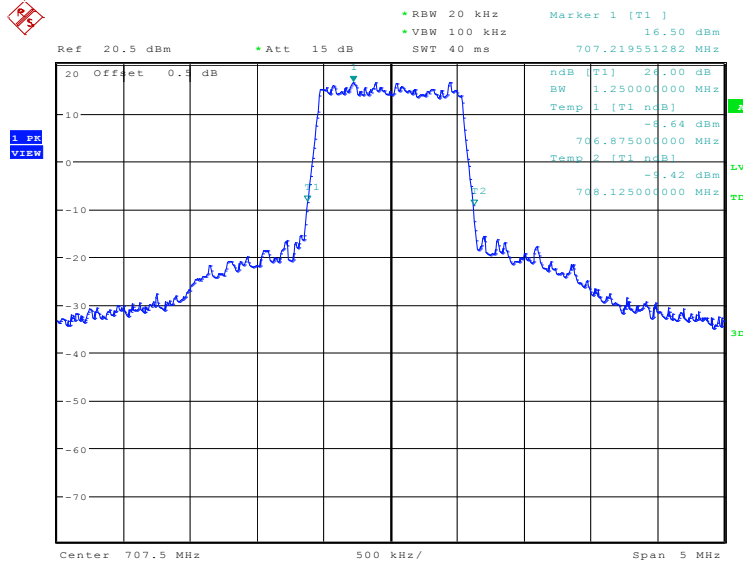
| Frequency (MHz) | Occupied Bandwidth (-26dBc) (kHz) | | |
|-----------------|-----------------------------------|---------|---------|
| | QPSK | 16QAM | 64QAM |
| 707.5 | 1233.97 | 1250.00 | 1233.97 |

LTE band 12, 1.4MHz Bandwidth, QPSK (-26dBc BW)



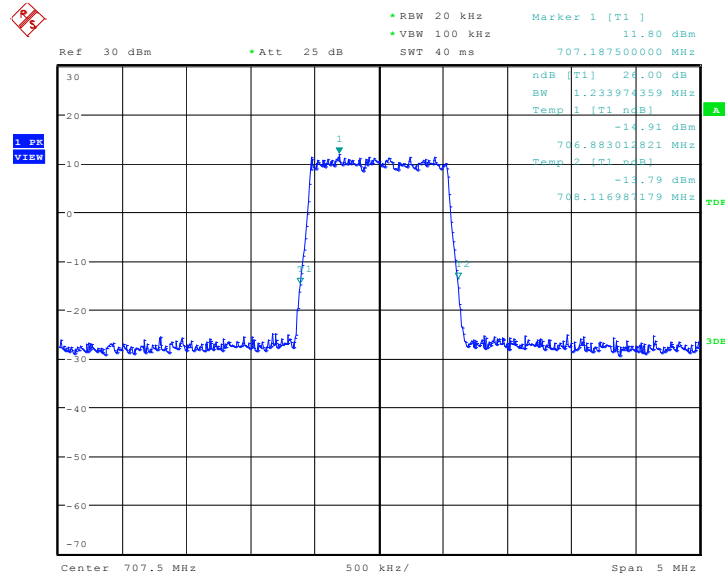
Date: 5.SEP.2019 18:56:54

LTE band 12, 1.4MHz Bandwidth, 16QAM (-26dBc BW)



Date: 5.SEP.2019 18:58:19

LTE band 12, 1.4MHz Bandwidth, 64QAM (-26dBc BW)

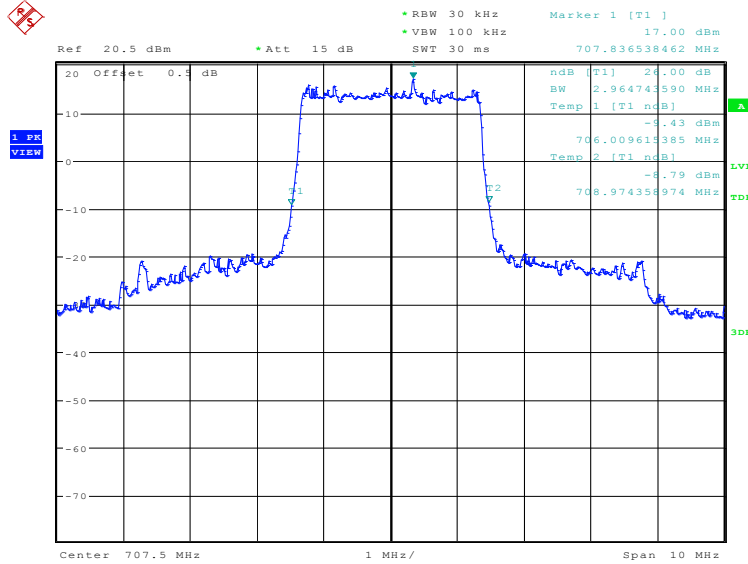


Date: 6.SEP.2019 10:03:29

LTE band 12, 3MHz (-26dBc)

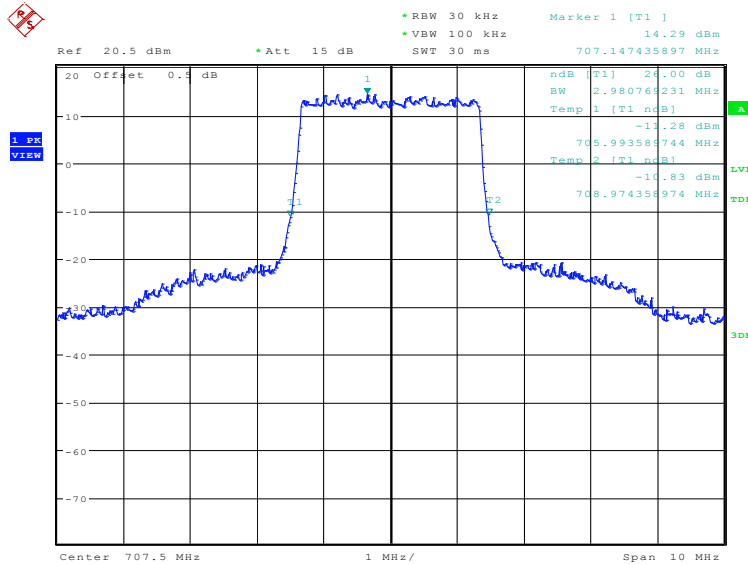
| Frequency (MHz) | Occupied Bandwidth (-26dBc) (kHz) | | |
|-----------------|-----------------------------------|---------|---------|
| | QPSK | 16QAM | 64QAM |
| 707.5 | 2964.74 | 2980.77 | 2948.72 |

LTE band 12, 3MHz Bandwidth, QPSK (-26dBc BW)



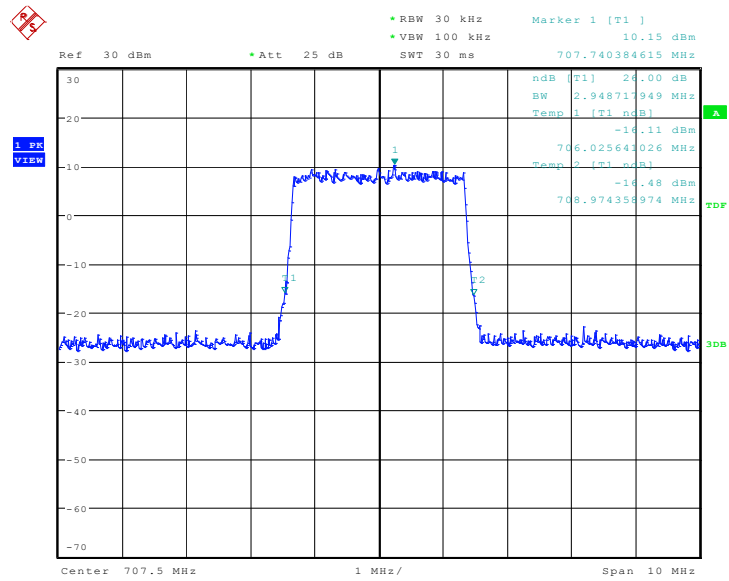
Date: 5.SEP.2019 18:59:46

LTE band 12, 3MHz Bandwidth, 16QAM (-26dBc BW)



Date: 5.SEP.2019 19:01:10

LTE band 12, 3MHz Bandwidth, 64QAM (-26dBc BW)

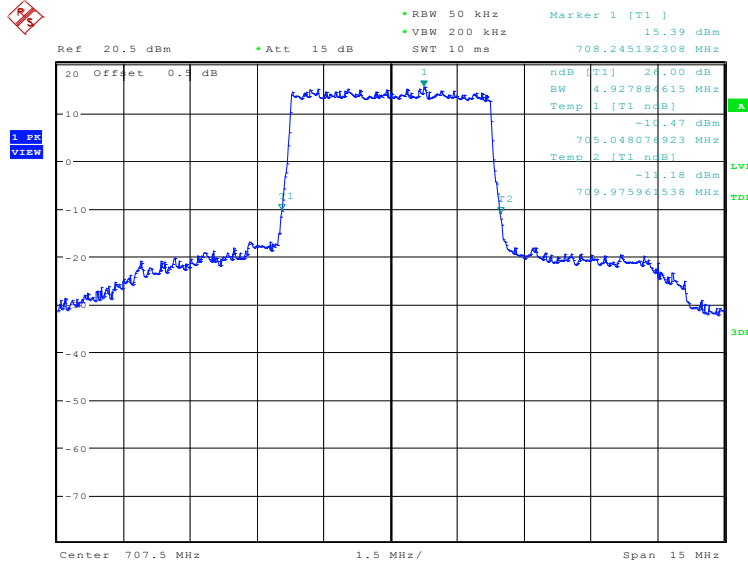


Date: 6.SEP.2019 10:05:04

LTE band 12, 5MHz (-26dBc)

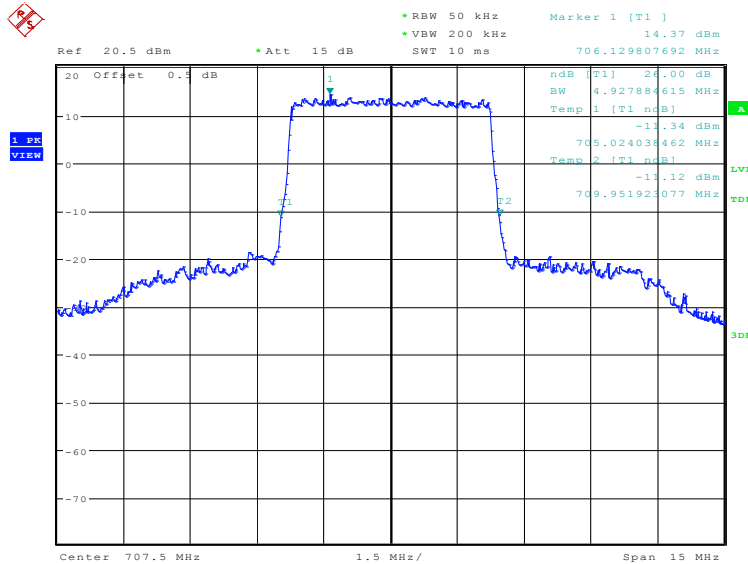
| Frequency (MHz) | Occupied Bandwidth (-26dBc) (kHz) | | |
|-----------------|-----------------------------------|---------|---------|
| | QPSK | 16QAM | 64QAM |
| 707.5 | 4927.88 | 4927.88 | 4879.81 |

LTE band 12, 5MHz Bandwidth, QPSK (-26dBc BW)



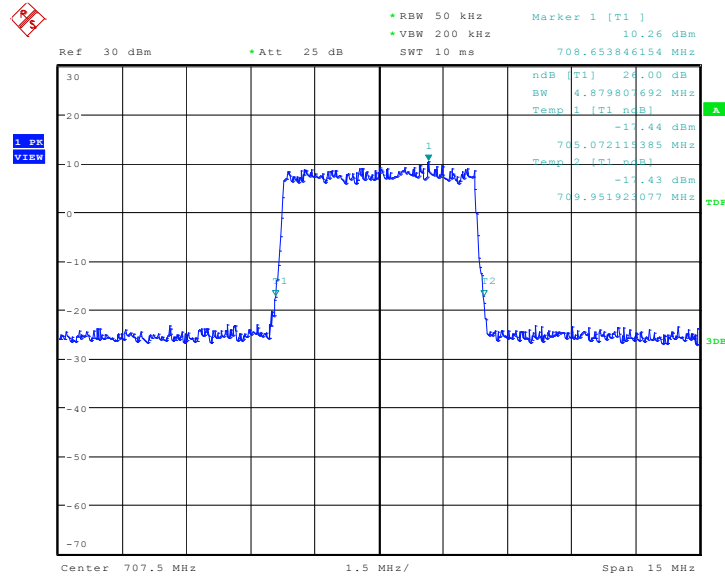
Date: 5.SEP.2019 19:02:37

LTE band 12, 5MHz Bandwidth, 16QAM (-26dBc BW)



Date: 5.SEP.2019 19:04:02

LTE band 12, 5MHz Bandwidth, 64QAM (-26dBc BW)

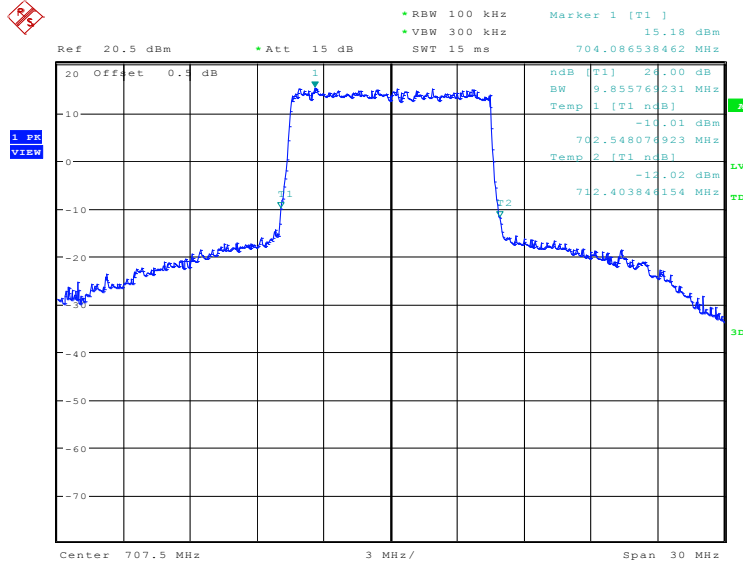


Date: 6.SEP.2019 10:06:34

LTE band 12, 10MHz (-26dBc)

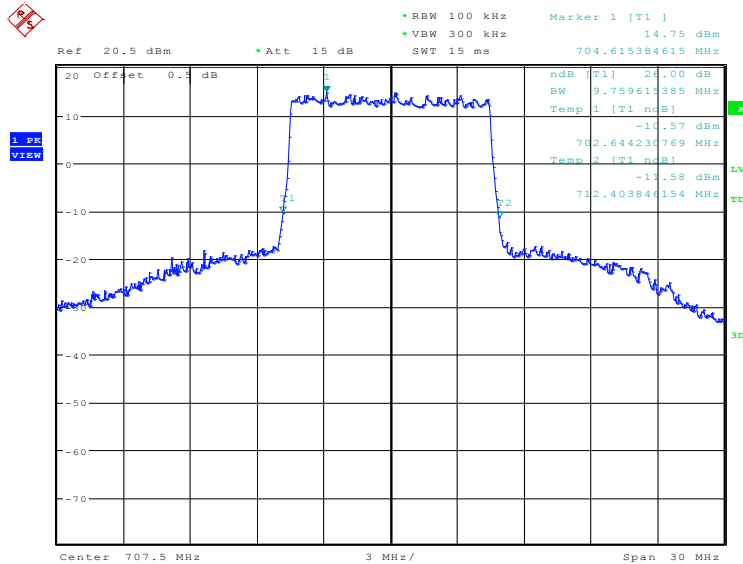
| Frequency (MHz) | Occupied Bandwidth (-26dBc) (kHz) | | |
|-----------------|-----------------------------------|---------|---------|
| | QPSK | 16QAM | 64QAM |
| 707.5 | 9855.77 | 9759.62 | 9663.46 |

LTE band 12, 10MHz Bandwidth, QPSK (-26dBc BW)



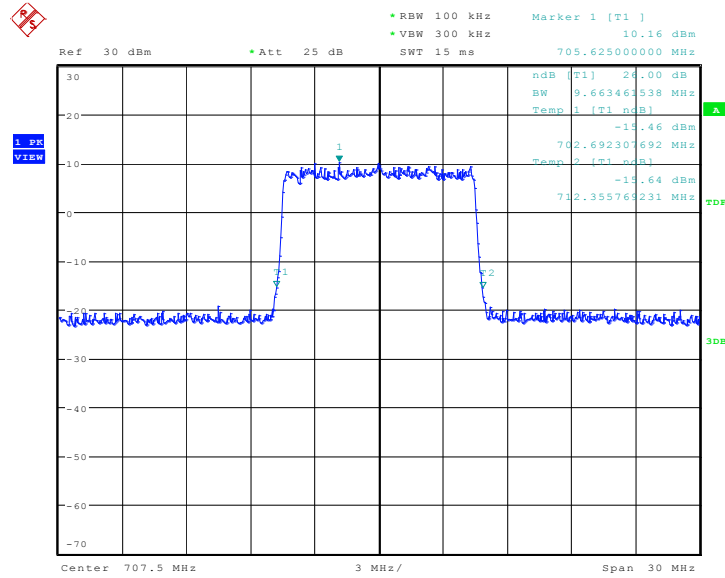
Date: 5.SEP.2019 19:05:29

LTE band 12, 10MHz Bandwidth, 16QAM (-26dBc BW)



Date: 5.SEP.2019 19:06:54

LTE band 12, 10MHz Bandwidth, 64QAM (-26dBc BW)

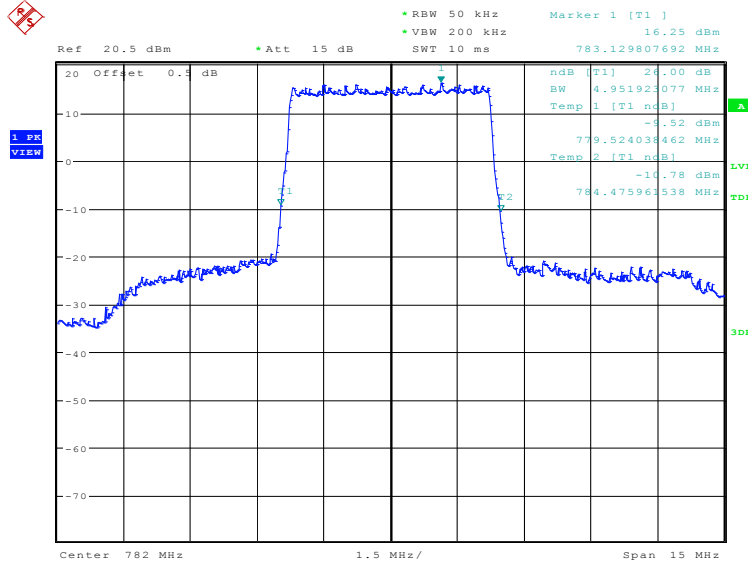


Date: 6.SEP.2019 10:08:39

LTE band 13, 5MHz (-26dBc)

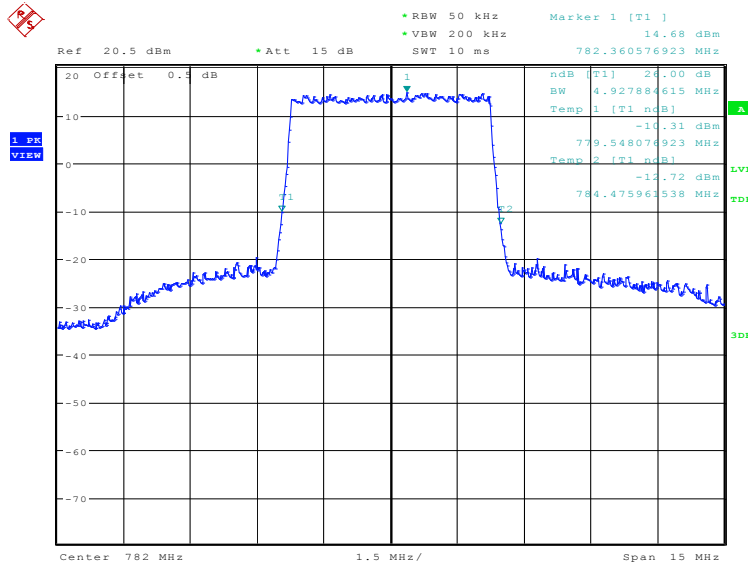
| Frequency (MHz) | Occupied Bandwidth (-26dBc) (kHz) | | |
|-----------------|-----------------------------------|---------|---------|
| | QPSK | 16QAM | 64QAM |
| 782.0 | 4951.92 | 4927.88 | 4903.85 |

LTE band 13, 5MHz Bandwidth, QPSK (-26dBc BW)



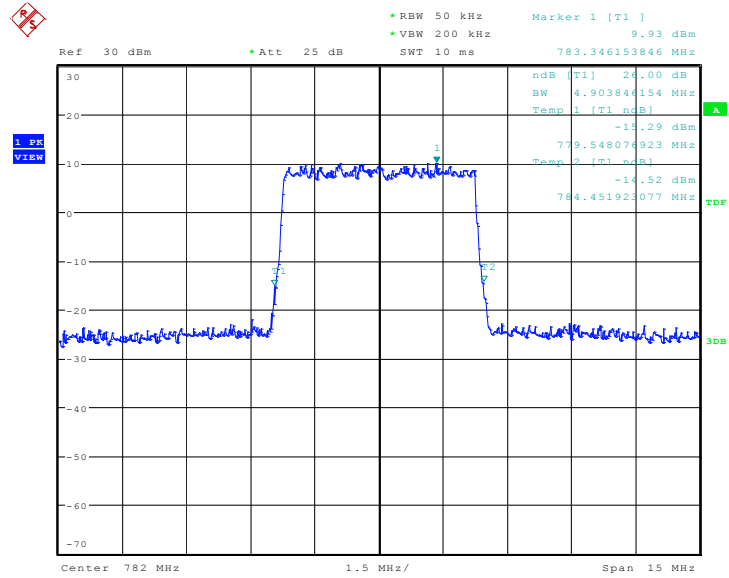
Date: 5.SEP.2019 19:08:23

LTE band 13, 5MHz Bandwidth, 16QAM (-26dBc BW)



Date: 5.SEP.2019 19:09:48

LTE band 13, 5MHz Bandwidth,64QAM (-26dBc BW)

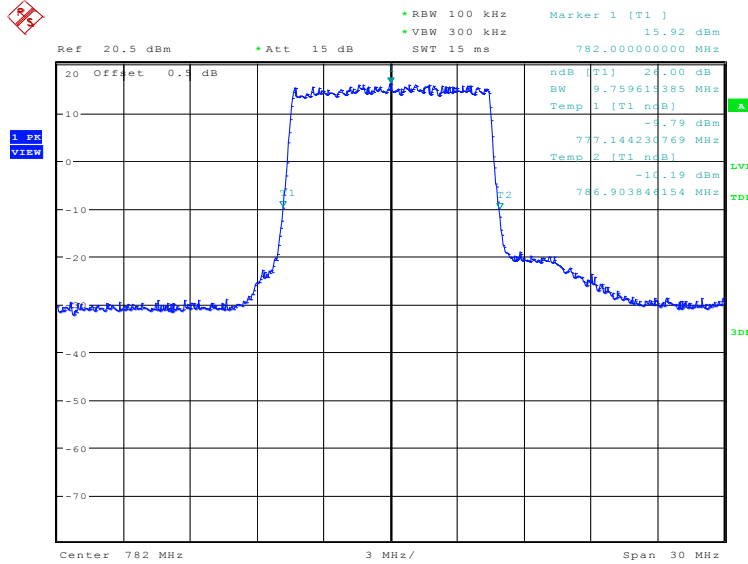


Date: 6.SEP.2019 09:47:18

LTE band 13, 10MHz (-26dBc)

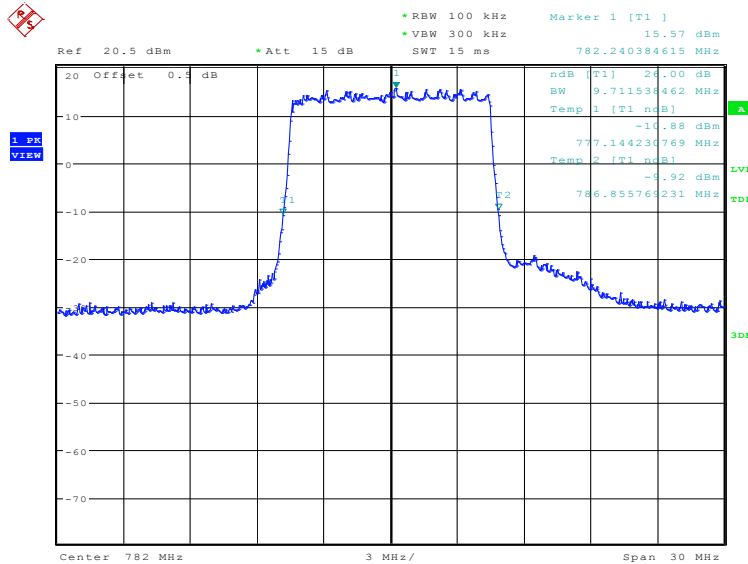
| Frequency (MHz) | Occupied Bandwidth (-26dBc) (kHz) | | |
|-----------------|-----------------------------------|---------|---------|
| | QPSK | 16QAM | 64QAM |
| 782.0 | 9759.62 | 9711.54 | 9663.46 |

LTE band 13, 10MHz Bandwidth, QPSK (-26dBc BW)



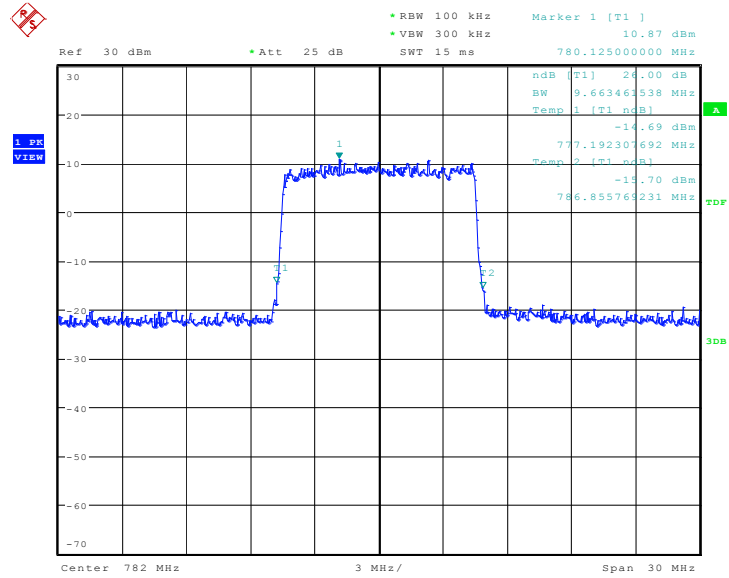
Date: 5.SEP.2019 19:11:15

LTE band 13, 10MHz Bandwidth, 16QAM (-26dBc BW)



Date: 5.SEP.2019 19:12:39

LTE band 13, 10MHz Bandwidth, 64QAM (-26dBc BW)

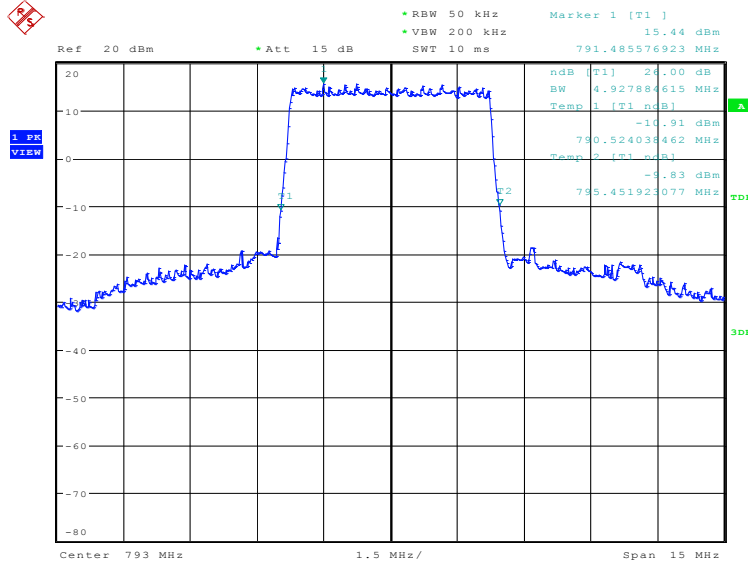


Date: 6.SEP.2019 09:58:26

LTE band 14, 5MHz (-26dBc)

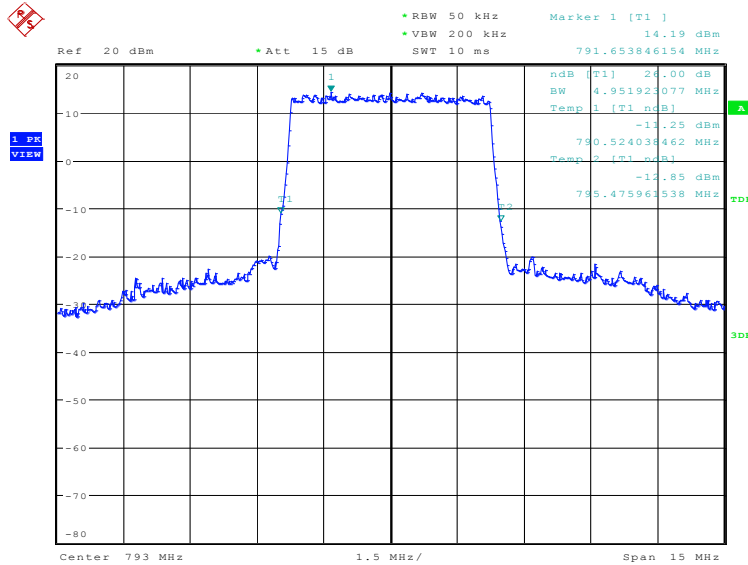
| Frequency (MHz) | Occupied Bandwidth (-26dBc)(kHz) | | |
|-----------------|-----------------------------------|---------|---------|
| | QPSK | 16QAM | 64QAM |
| 793.0 | 4927.88 | 4951.92 | 4903.85 |

LTE band 14, 5MHz Bandwidth, QPSK (-26dBc BW)



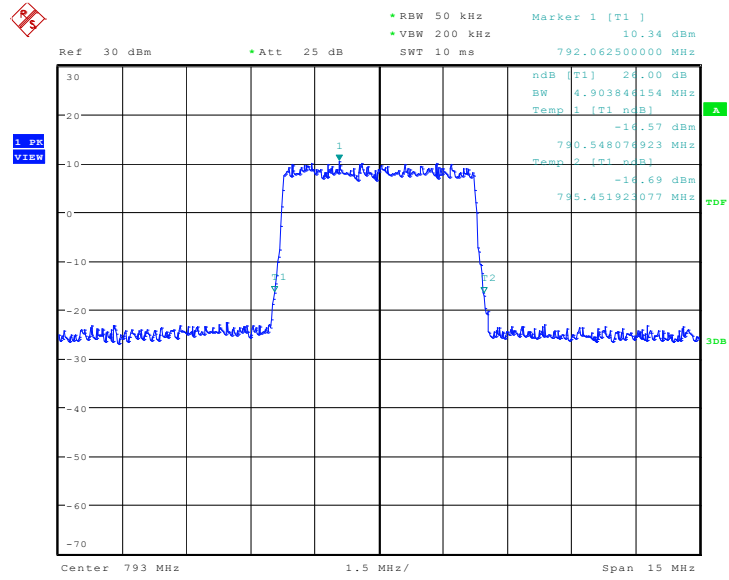
Date: 5.SEP.2019 19:14:08

LTE band 14, 5MHz Bandwidth,16QAM (-26dBc BW)



Date: 5.SEP.2019 19:15:33

LTE band 14, 5MHz Bandwidth,64QAM (-26dBc BW)

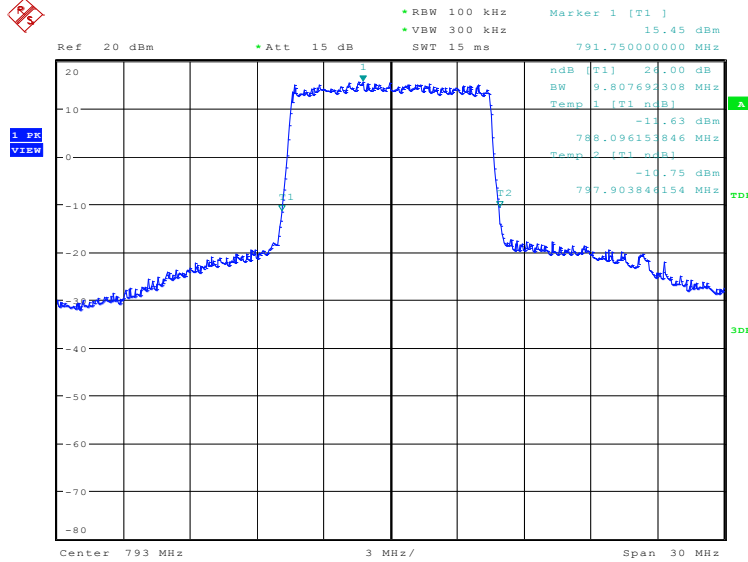


Date: 6.SEP.2019 10:11:16

LTE band 14, 10MHz (-26dBc)

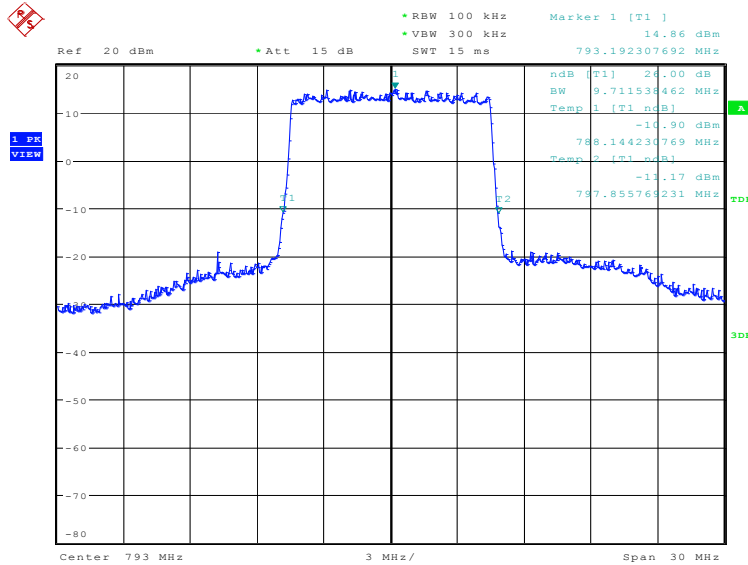
| Frequency (MHz) | Occupied Bandwidth (-26dBc)(kHz) | | |
|-----------------|-----------------------------------|---------|---------|
| | QPSK | 16QAM | 64QAM |
| 793.0 | 9807.69 | 9711.54 | 9663.46 |

LTE band 14, 10MHz Bandwidth, QPSK (-26dBc BW)



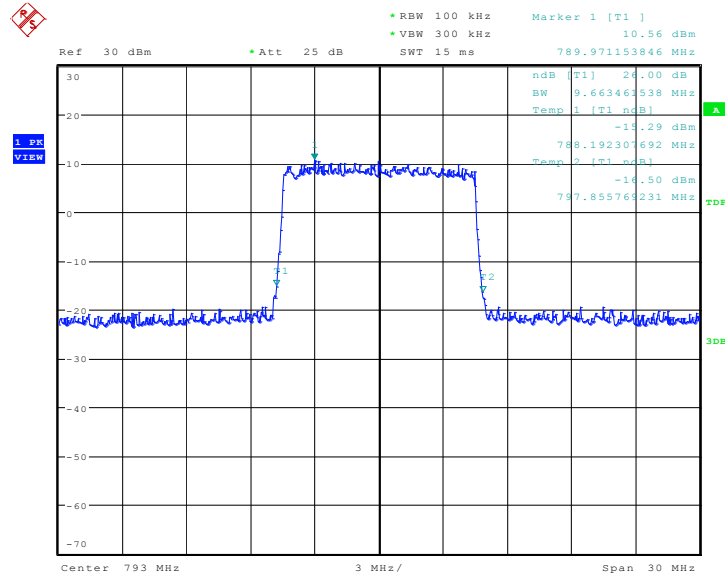
Date: 5.SEP.2019 19:17:00

LTE band 14, 10MHz Bandwidth, 16QAM (-26dBc BW)



Date: 5.SEP.2019 19:18:25

LTE band 14, 10MHz Bandwidth, 64QAM (-26dBc BW)

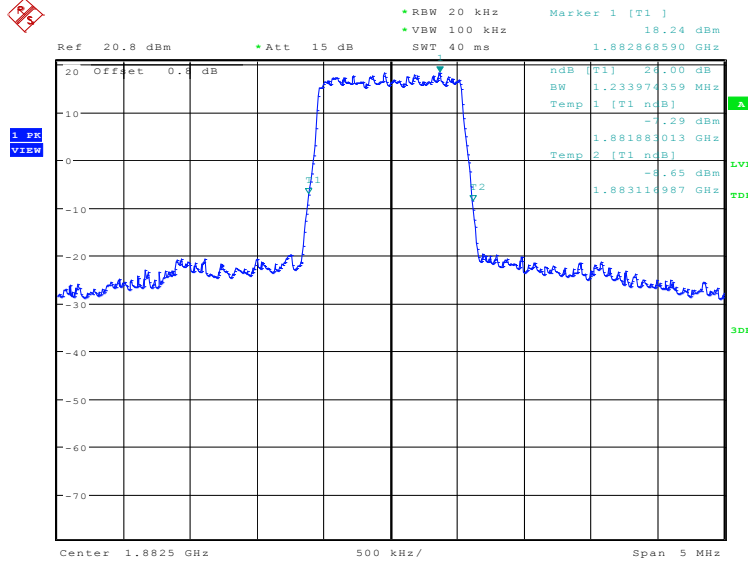


Date: 6.SEP.2019 10:13:02

LTE band 25, 1.4MHz (-26dBc)

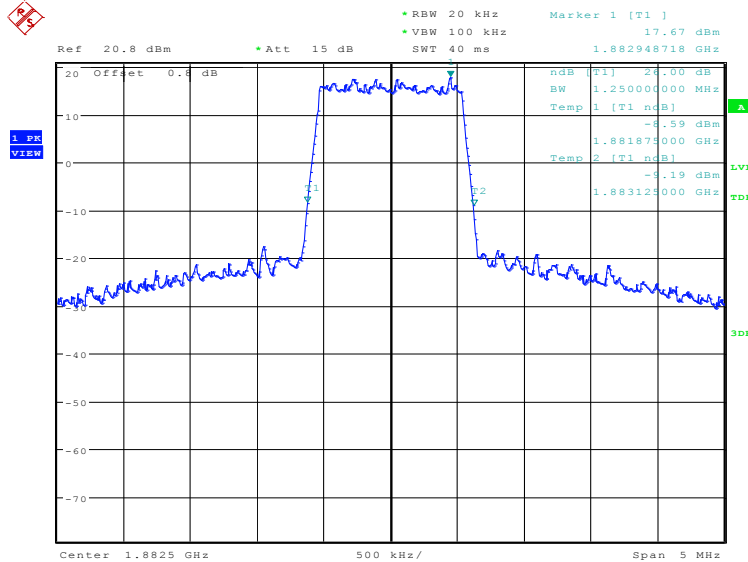
| Frequency (MHz) | Occupied Bandwidth (-26dBc) (kHz) | | |
|-----------------|-----------------------------------|---------|---------|
| | QPSK | 16QAM | 64QAM |
| 1882.5 | 1233.97 | 1250.00 | 1233.97 |

LTE band 25, 1.4MHz Bandwidth, QPSK (-26dBc BW)



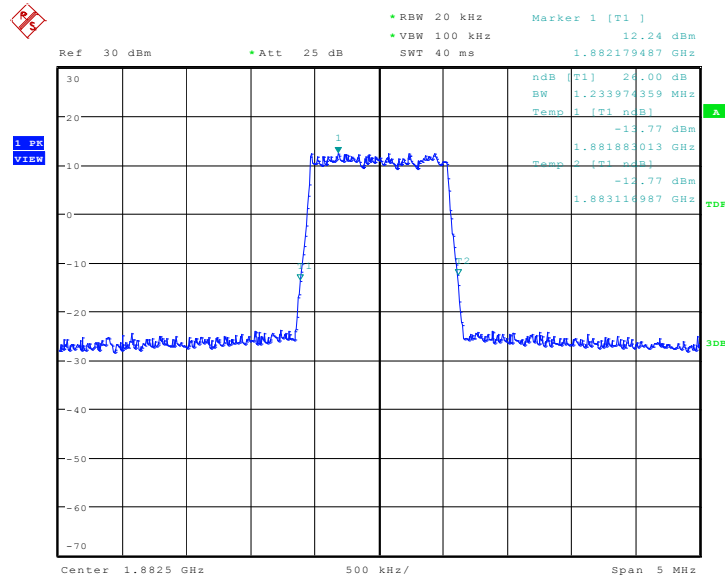
Date: 9.SEP.2019 19:10:27

LTE band 25, 1.4MHz Bandwidth, 16QAM (-26dBc BW)



Date: 9.SEP.2019 19:11:52

LTE band 25, 1.4MHz Bandwidth, 64QAM (-26dBc BW)

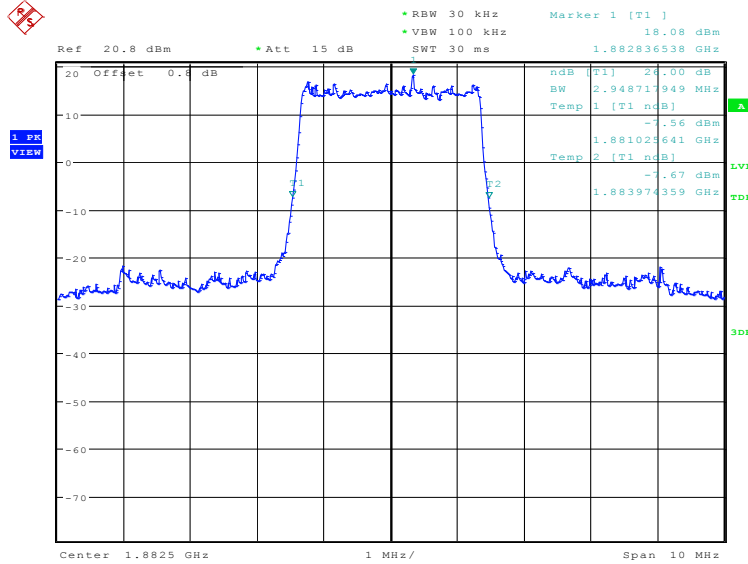


Date: 6.SEP.2019 14:42:50

LTE band 25, 3MHz (-26dBc)

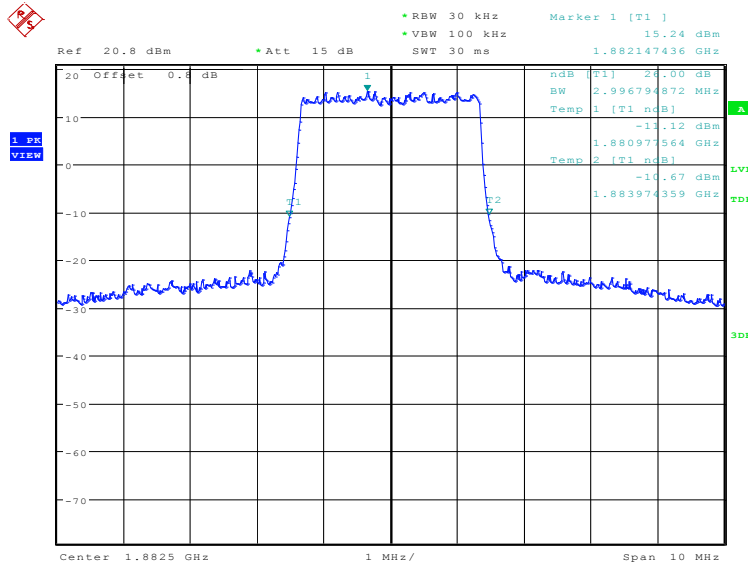
| Frequency (MHz) | Occupied Bandwidth (-26dBc) (kHz) | | |
|-----------------|-----------------------------------|---------|---------|
| | QPSK | 16QAM | 64QAM |
| 1882.5 | 2948.72 | 2996.79 | 2964.74 |

LTE band 25, 3MHz Bandwidth, QPSK (-26dBc BW)



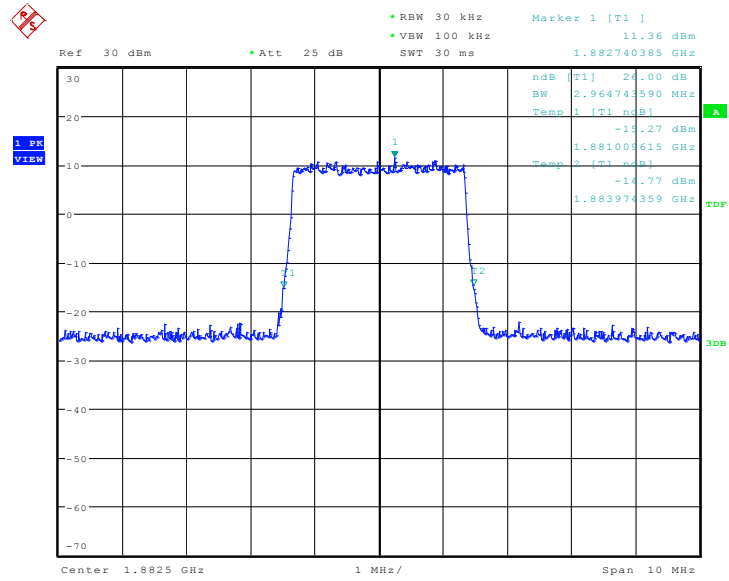
Date: 9.SEP.2019 19:13:19

LTE band 25, 3MHz Bandwidth, 16QAM (-26dBc BW)



Date: 9.SEP.2019 19:14:44

LTE band 25, 3MHz Bandwidth, 64QAM (-26dBc BW)

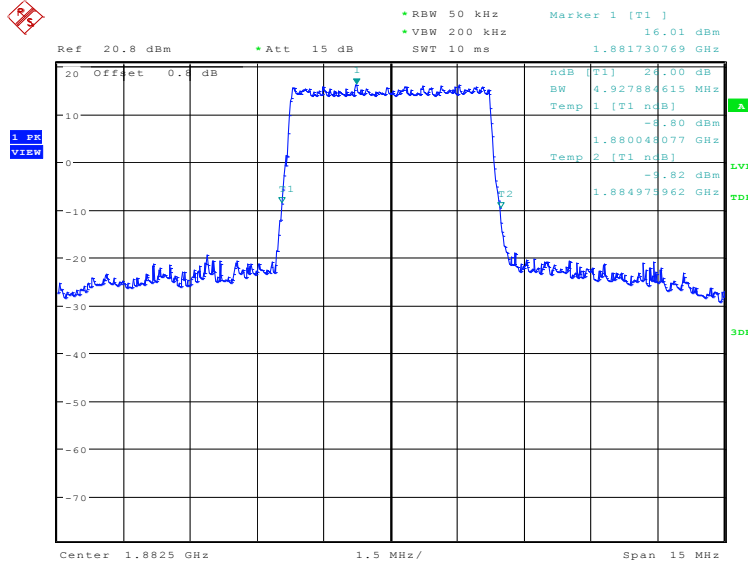


Date: 6.SEP.2019 14:50:07

LTE band 25, 5MHz (-26dBc)

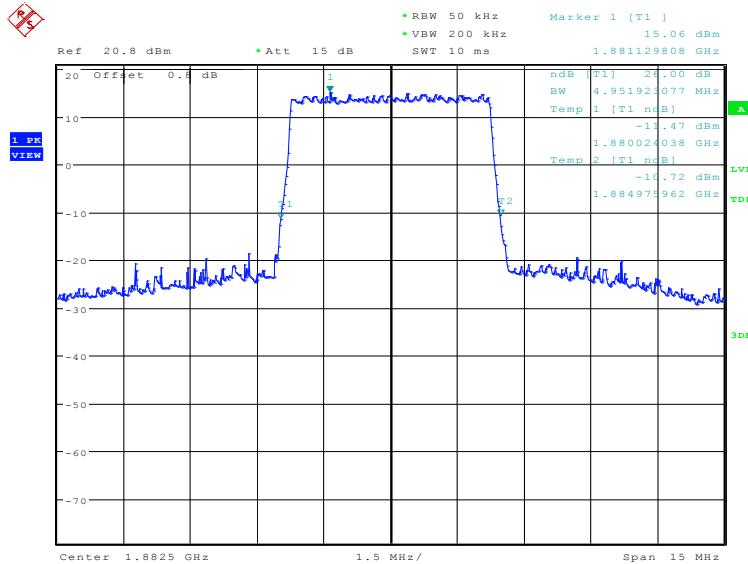
| Frequency (MHz) | Occupied Bandwidth (-26dBc) (kHz) | | |
|-----------------|-----------------------------------|---------|---------|
| | QPSK | 16QAM | 64QAM |
| 1882.5 | 4927.88 | 4951.92 | 4879.81 |

LTE band 25, 5MHz Bandwidth, QPSK (-26dBc BW)



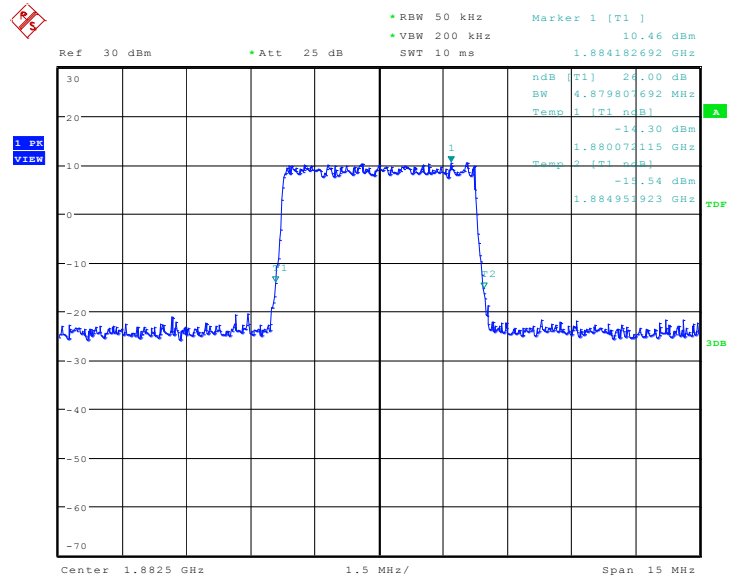
Date: 9.SEP.2019 19:16:11

LTE band 25, 5MHz Bandwidth, 16QAM (-26dBc BW)



Date: 9.SEP.2019 19:17:36

LTE band 25, 5MHz Bandwidth,64QAM (-26dBc BW)

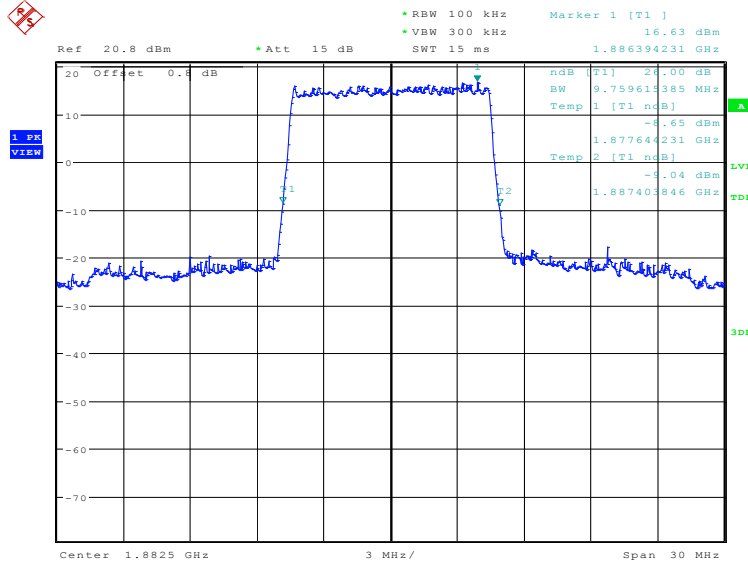


Date: 6.SEP.2019 14:51:56

LTE band 25, 10MHz (-26dBc)

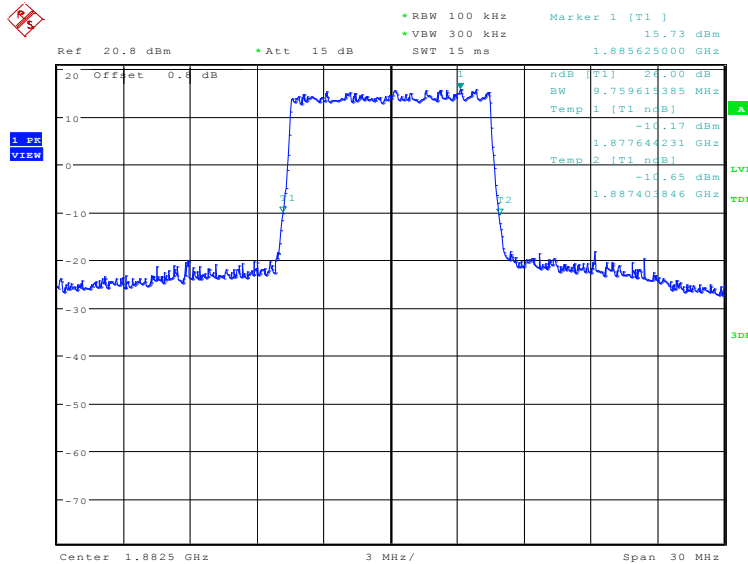
| Frequency (MHz) | Occupied Bandwidth (-26dBc) (kHz) | | |
|-----------------|-----------------------------------|---------|---------|
| | QPSK | 16QAM | 64QAM |
| 1882.5 | 9759.62 | 9759.62 | 9663.46 |

LTE band 25, 10MHz Bandwidth, QPSK (-26dBc BW)



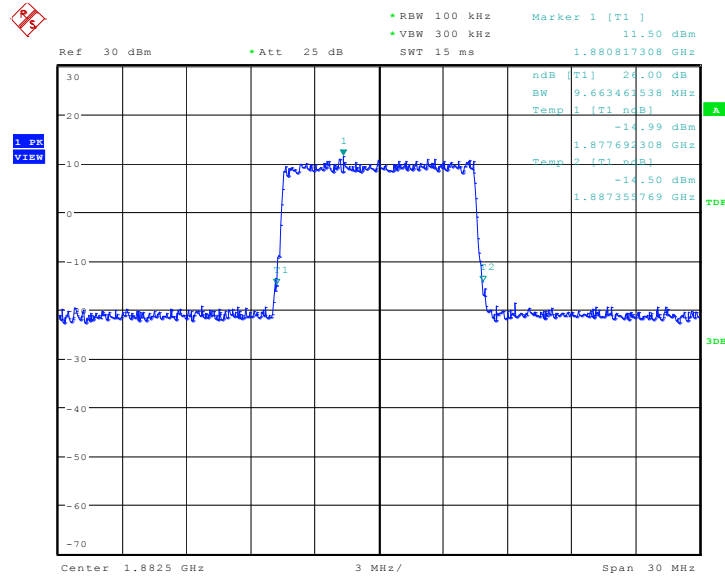
Date: 9.SEP.2019 19:19:03

LTE band 25, 10MHz Bandwidth, 16QAM (-26dBc BW)



Date: 9.SEP.2019 19:20:28

LTE band 25, 10MHz Bandwidth, 64QAM (-26dBc BW)

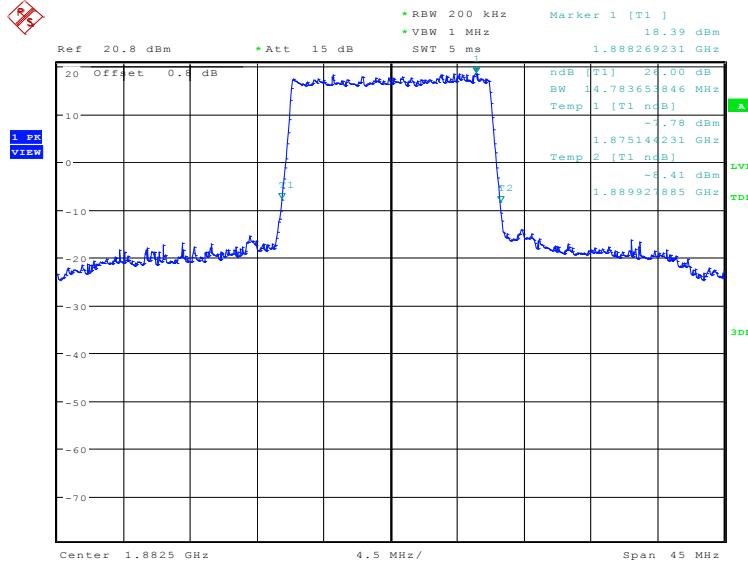


Date: 6.SEP.2019 14:53:32

LTE band 25, 15MHz (-26dBc)

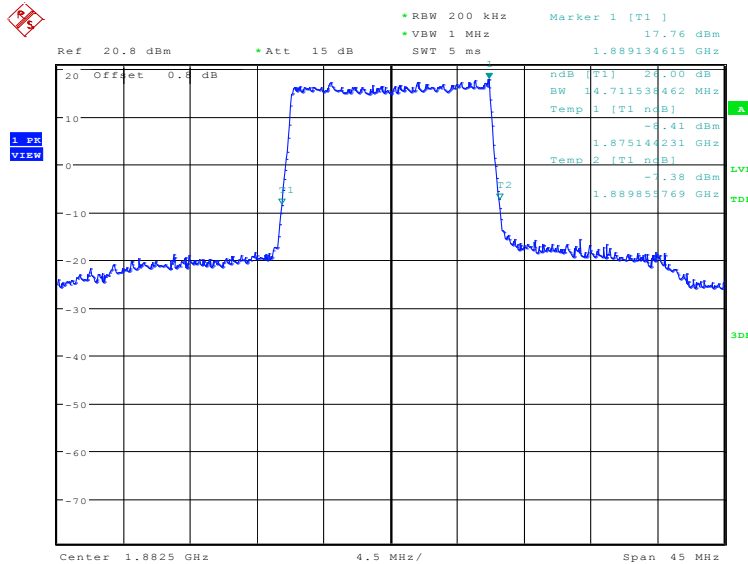
| Frequency (MHz) | Occupied Bandwidth (-26dBc) (kHz) | | |
|-----------------|-----------------------------------|----------|----------|
| | QPSK | 16QAM | 64QAM |
| 1882.5 | 14783.65 | 14711.54 | 14783.65 |

LTE band 25, 15MHz Bandwidth, QPSK (-26dBc BW)



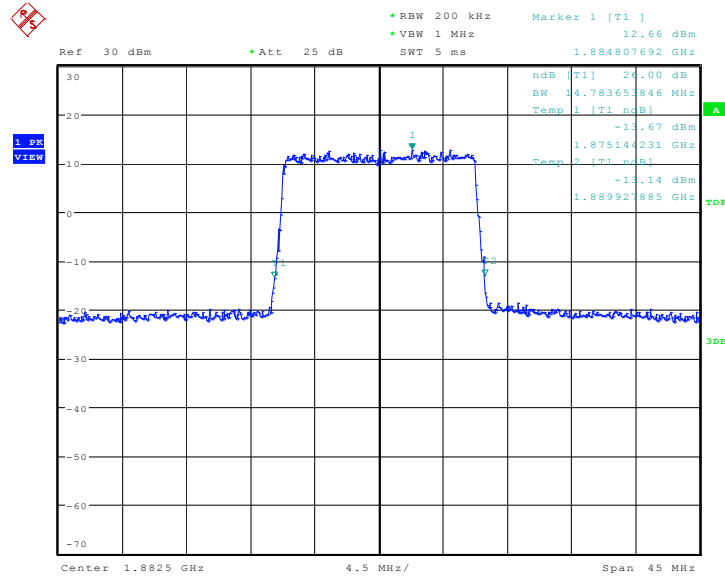
Date: 9.SEP.2019 19:21:55

LTE band 25, 15MHz Bandwidth, 16QAM (-26dBc BW)



Date: 9.SEP.2019 19:23:20

LTE band 25, 15MHz Bandwidth, 64QAM (-26dBc BW)

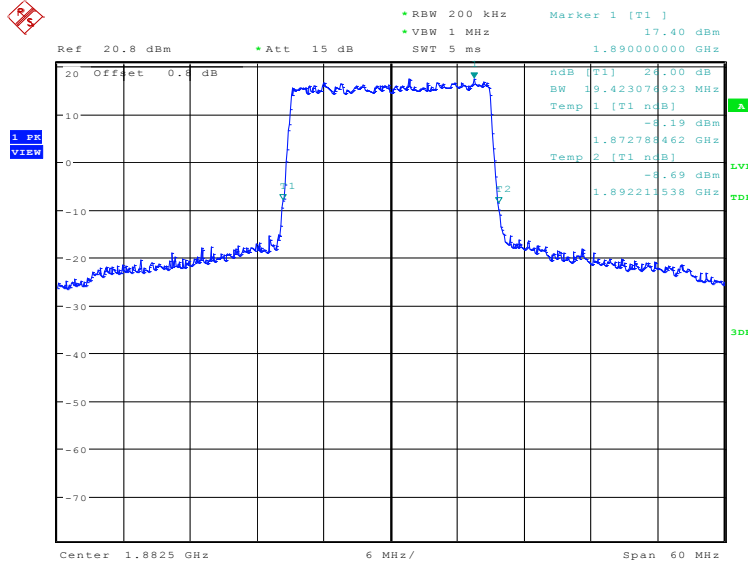


Date: 6.SEP.2019 14:56:56

LTE band 25, 20MHz (-26dBc)

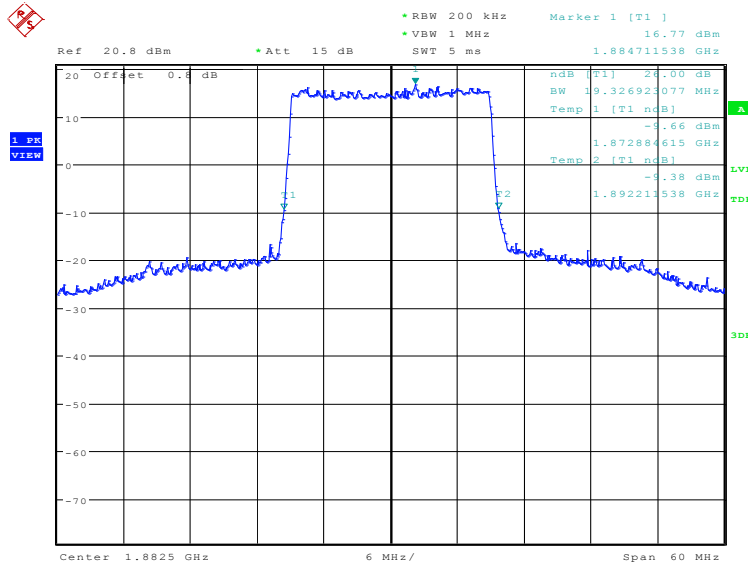
| Frequency (MHz) | Occupied Bandwidth (-26dBc) (kHz) | | |
|-----------------|-----------------------------------|----------|----------|
| | QPSK | 16QAM | 64QAM |
| 1882.5 | 19423.08 | 19326.92 | 19423.08 |

LTE band 25, 20MHz Bandwidth, QPSK (-26dBc BW)



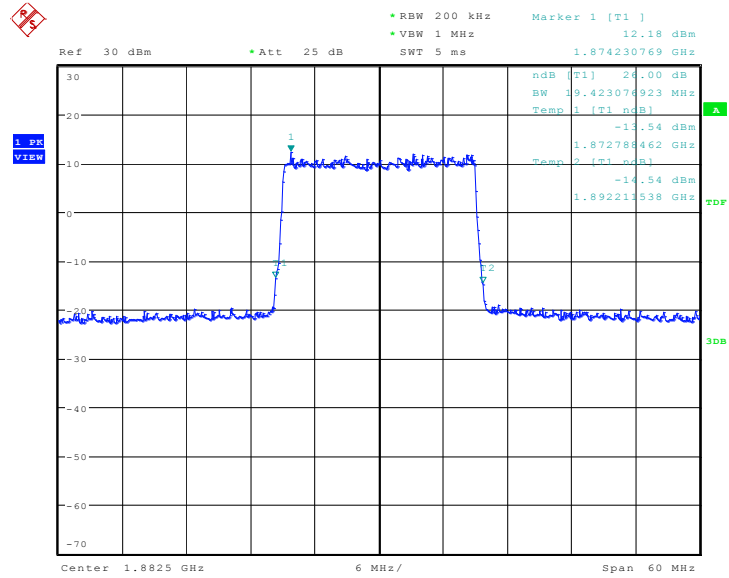
Date: 9.SEP.2019 19:24:47

LTE band 25, 20MHz Bandwidth, 16QAM (-26dBc BW)



Date: 9.SEP.2019 19:26:12

LTE band 25, 20MHz Bandwidth, 64QAM (-26dBc BW)

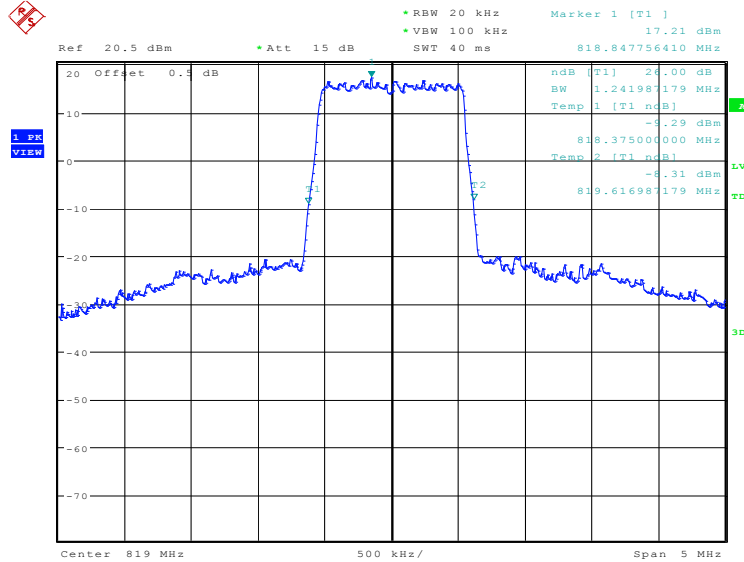


Date: 6.SEP.2019 14:58:20

LTE band 26(814MHz~824MHz), 1.4MHz (-26dBc)

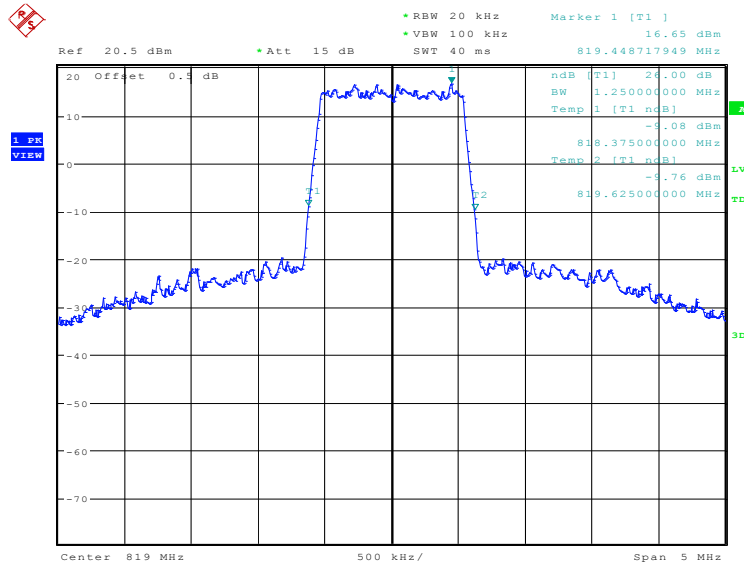
| Frequency (MHz) | Occupied Bandwidth (-26dBc)(kHz) | | |
|-----------------|-----------------------------------|---------|---------|
| 819.0 | QPSK | 16QAM | 64QAM |
| | 1241.99 | 1250.00 | 1233.97 |

LTE band 26(814MHz~824MHz), 1.4MHz Bandwidth, QPSK (-26dBc BW)



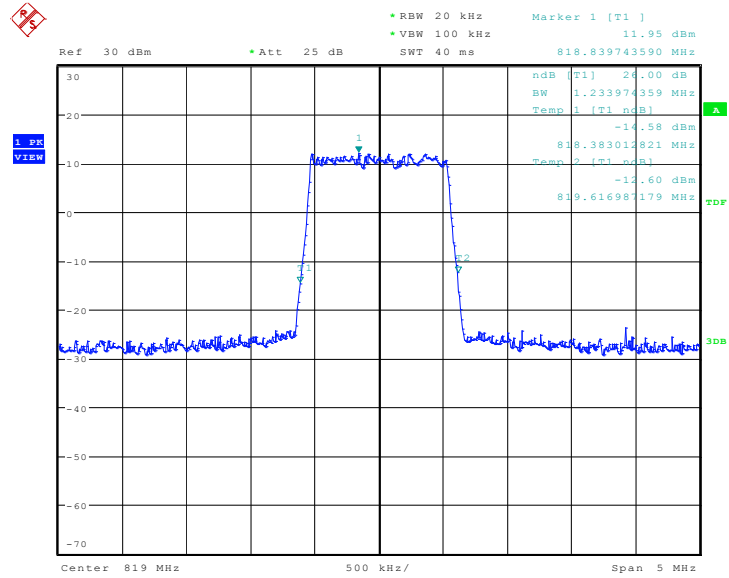
Date: 5.SEP.2019 19:35:32

LTE band 26(814MHz~824MHz), 1.4MHz Bandwidth, 16QAM (-26dBc BW)



Date: 5.SEP.2019 19:36:57

LTE band 26(814MHz~824MHz), 1.4MHz Bandwidth, 64QAM (-26dBc BW)

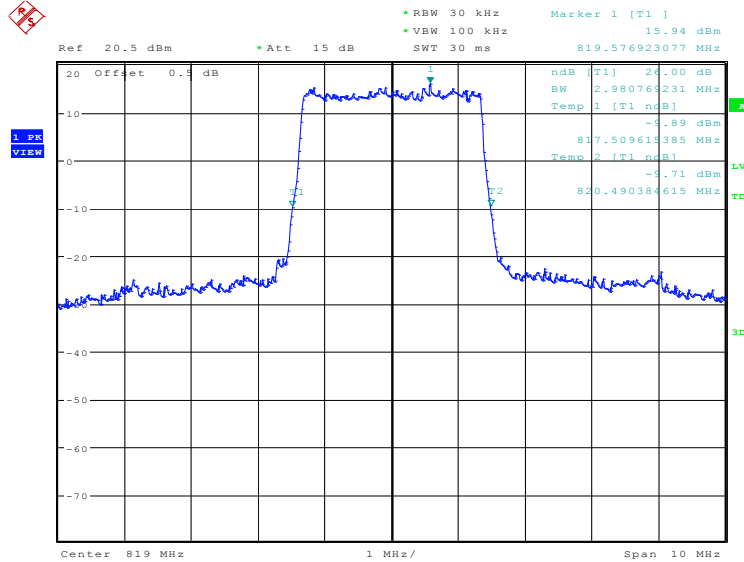


Date: 6.SEP.2019 10:46:52

LTE band 26(814MHz~824MHz), 3MHz (-26dBc)

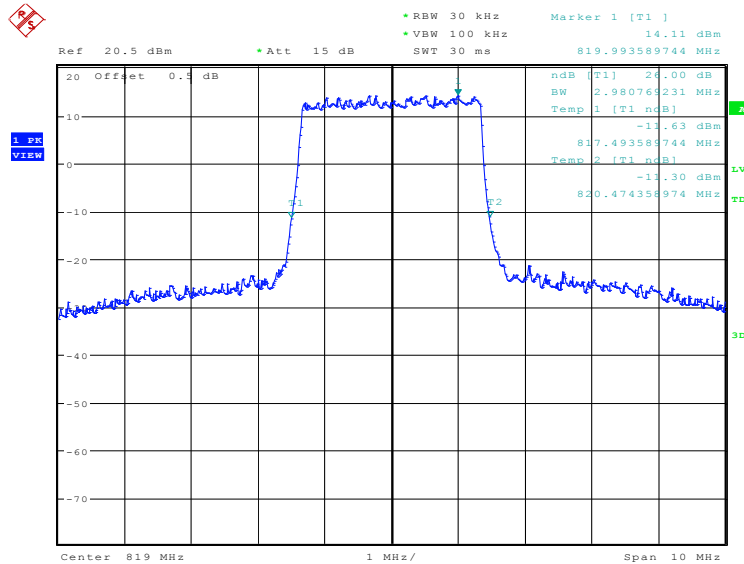
| Frequency (MHz) | Occupied Bandwidth (-26dBc)(kHz) | | |
|-----------------|-----------------------------------|---------|---------|
| | QPSK | 16QAM | 64QAM |
| 819.0 | 2980.77 | 2980.77 | 2980.77 |

LTE band 26(814MHz~824MHz), 3MHz Bandwidth, QPSK (-26dBc BW)



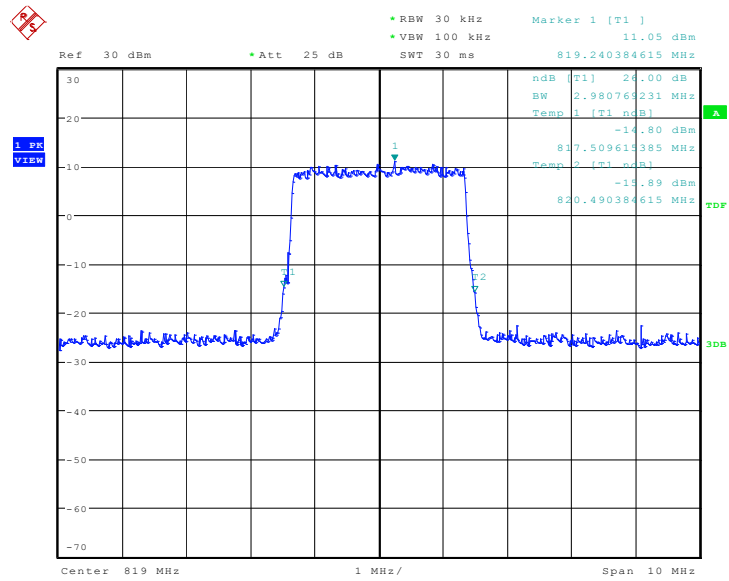
Date: 5.SEP.2019 19:38:24

LTE band 26(814MHz~824MHz), 3MHz Bandwidth, 16QAM (-26dBc BW)



Date: 5.SEP.2019 19:39:49

LTE band 26(814MHz~824MHz), 3MHz Bandwidth, 64QAM (-26dBc BW)

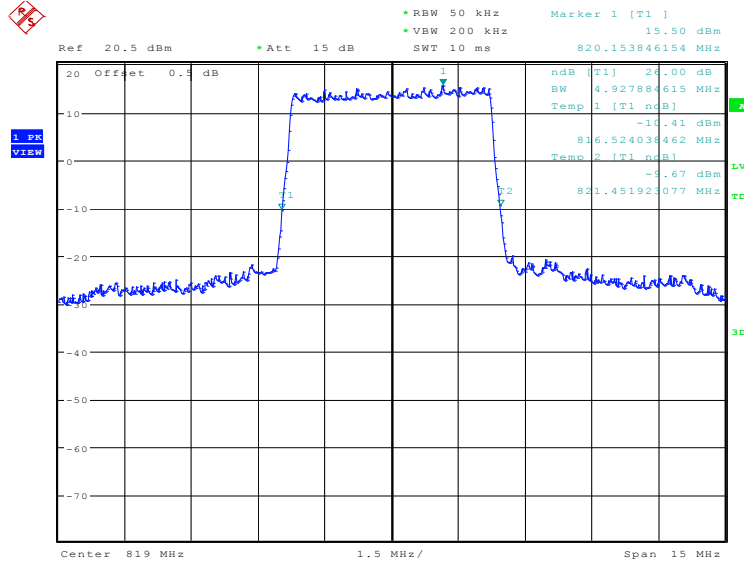


Date: 6.SEP.2019 10:48:37

LTE band 26(814MHz~824MHz), 5MHz (-26dBc)

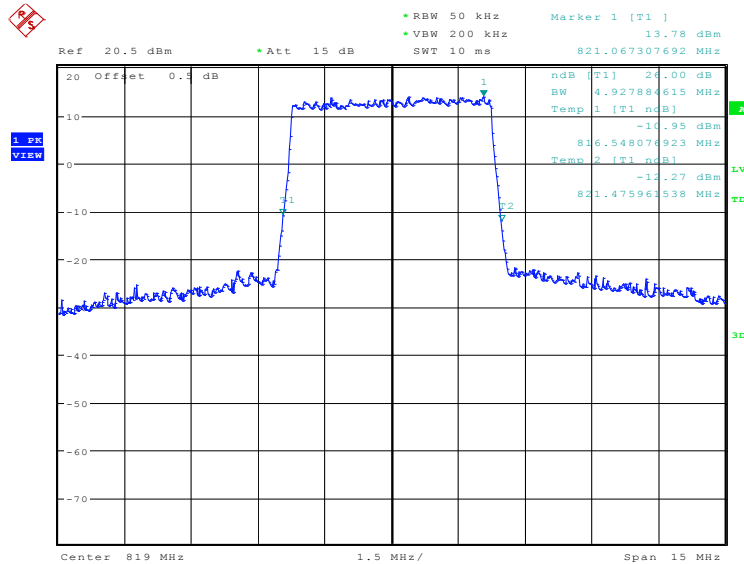
| Frequency (MHz) | Occupied Bandwidth (-26dBc)(kHz) | | |
|-----------------|-----------------------------------|---------|---------|
| | QPSK | 16QAM | 64QAM |
| 819.0 | 4927.88 | 4927.88 | 4903.85 |

LTE band 26(814MHz~824MHz), 5MHz Bandwidth, QPSK (-26dBc BW)



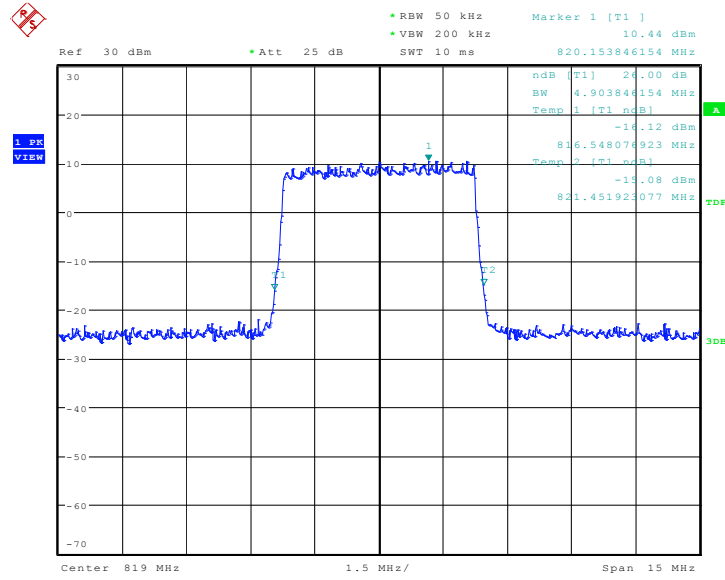
Date: 5.SEP.2019 19:41:16

LTE band 26(814MHz~824MHz), 5MHz Bandwidth, 16QAM (-26dBc BW)



Date: 5.SEP.2019 19:42:41

LTE band 26(814MHz~824MHz), 5MHz Bandwidth, 64QAM (-26dBc BW)

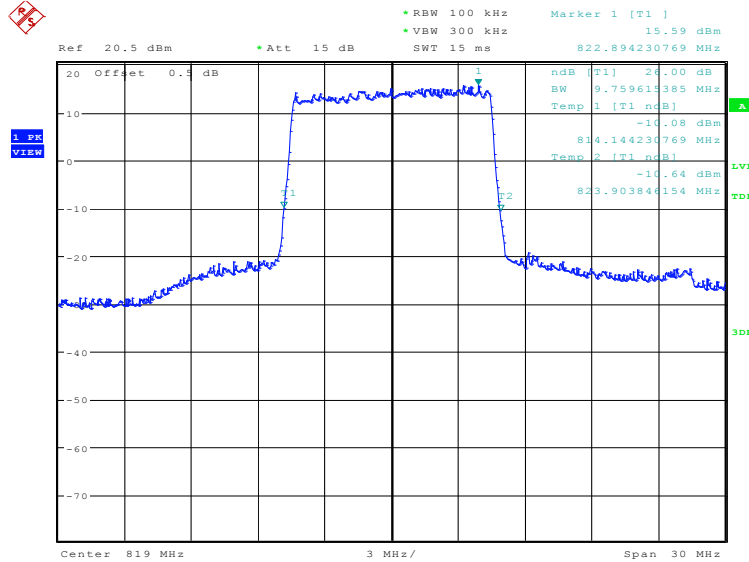


Date: 6.SEP.2019 10:50:20

LTE band 26(814MHz~824MHz), 10MHz (-26dBc)

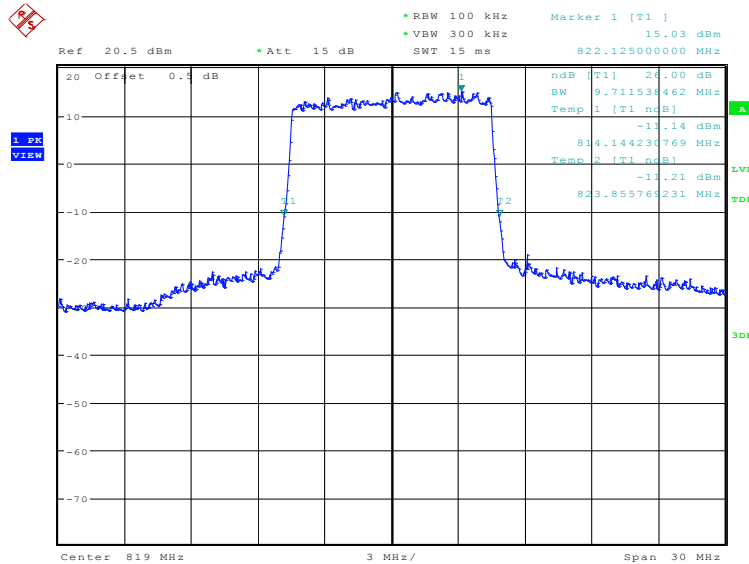
| Frequency (MHz) | Occupied Bandwidth (-26dBc)(kHz) | | |
|-----------------|-----------------------------------|---------|---------|
| | QPSK | 16QAM | 64QAM |
| 819.0 | 9759.62 | 9711.54 | 9663.46 |

LTE band 26(814MHz~824MHz), 10MHz Bandwidth, QPSK (-26dBc BW)



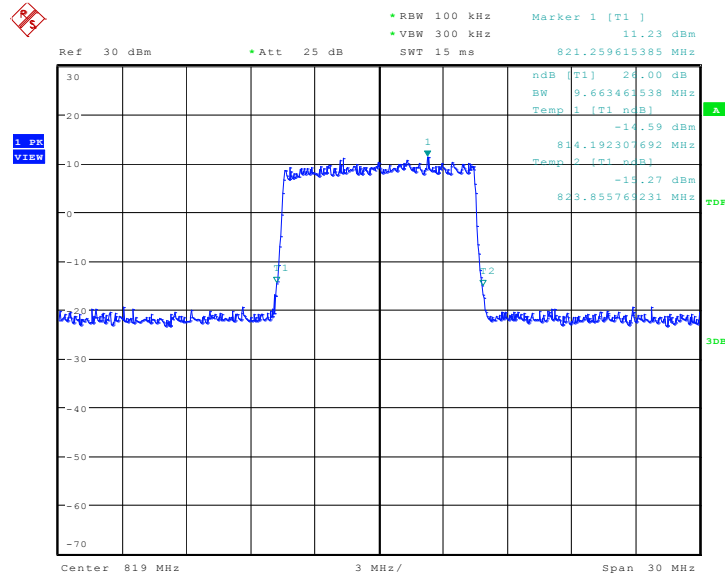
Date: 5.SEP.2019 19:44:08

LTE band 26(814MHz~824MHz), 10MHz Bandwidth, 16QAM (-26dBc BW)



Date: 5.SEP.2019 19:45:33

LTE band 26(814MHz~824MHz), 10MHz Bandwidth, 64QAM (-26dBc BW)

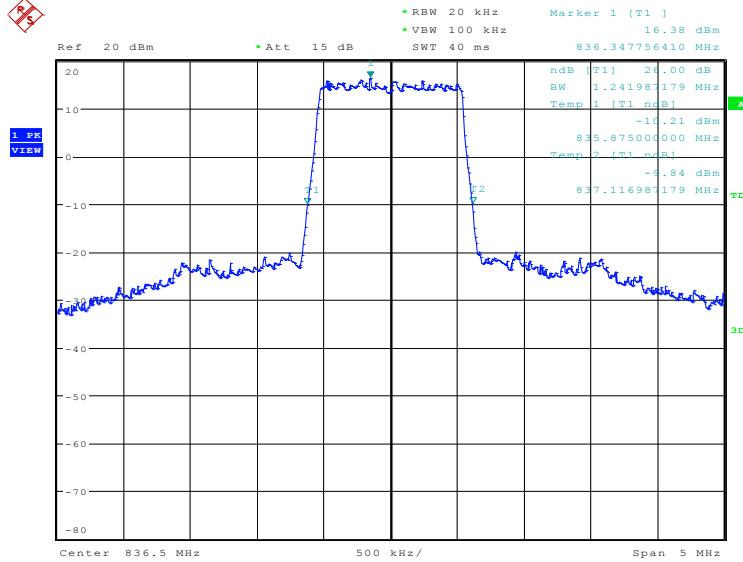


Date: 6.SEP.2019 10:51:53

LTE band 26(824MHz~849MHz), 1.4MHz (-26dBc)

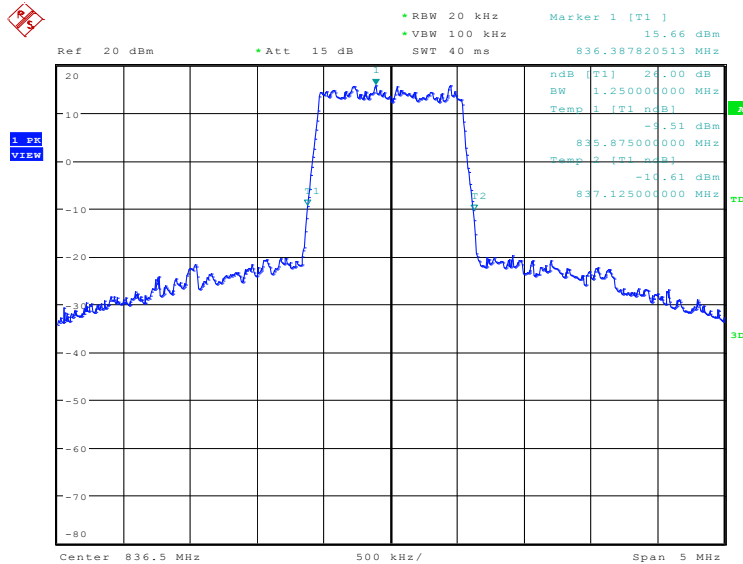
| Frequency (MHz) | Occupied Bandwidth (-26dBc) (kHz) | | |
|-----------------|-----------------------------------|---------|---------|
| | QPSK | 16QAM | 64QAM |
| 836.5 | 1241.99 | 1250.00 | 1233.97 |

LTE band 26(824MHz~849MHz), 1.4MHz Bandwidth, QPSK (-26dBc BW)



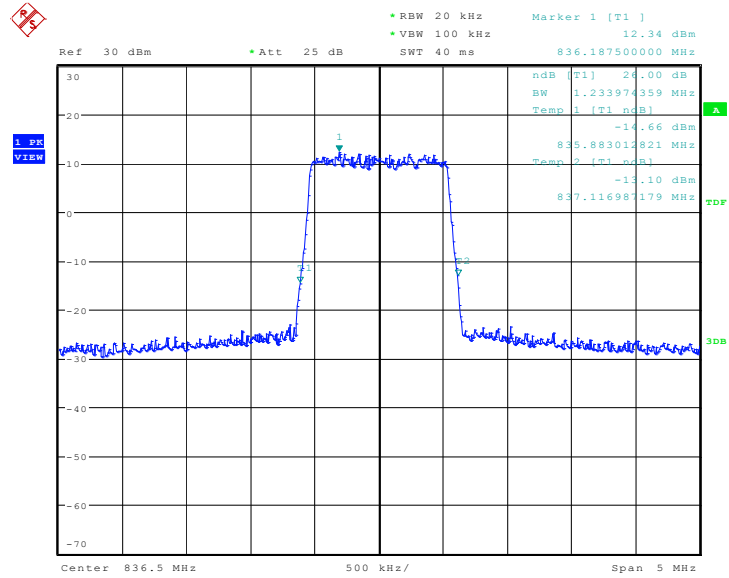
Date: 5.SEP.2019 19:19:57

LTE band 26(824MHz~849MHz), 1.4MHz Bandwidth, 16QAM (-26dBc BW)



Date: 5.SEP.2019 19:21:22

LTE band 26(824MHz~849MHz), 1.4MHz Bandwidth, 64QAM (-26dBc BW)

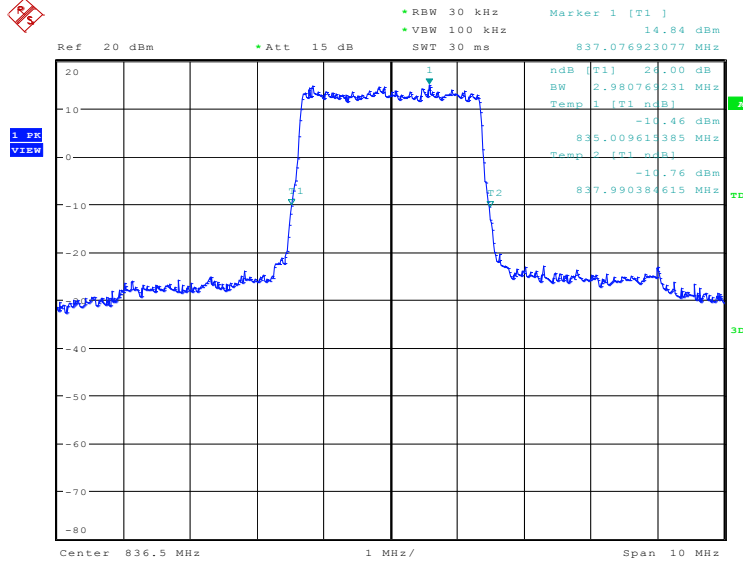


Date: 6.SEP.2019 10:18:19

LTE band 26(824MHz~849MHz), 3MHz (-26dBc)

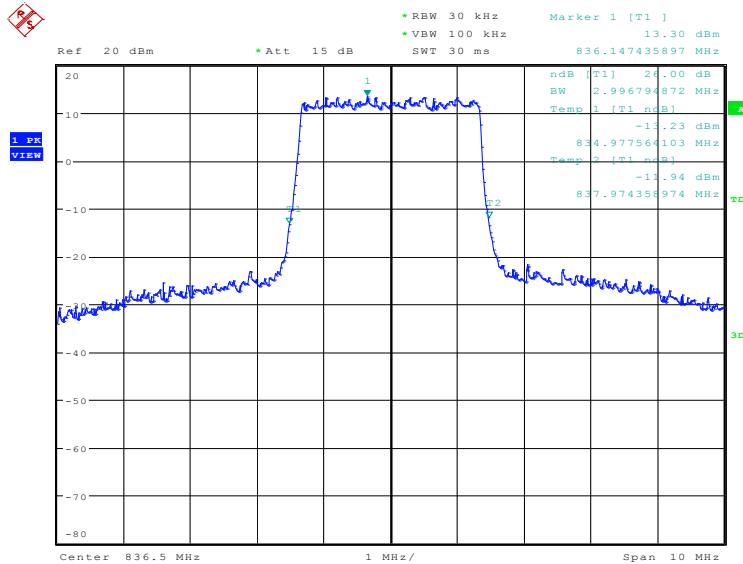
| Frequency (MHz) | Occupied Bandwidth (-26dBc) (kHz) | | |
|-----------------|-----------------------------------|---------|---------|
| | QPSK | 16QAM | 64QAM |
| 836.5 | 2980.77 | 2996.79 | 2980.77 |

LTE band 26(824MHz~849MHz), 3MHz Bandwidth, QPSK (-26dBc BW)



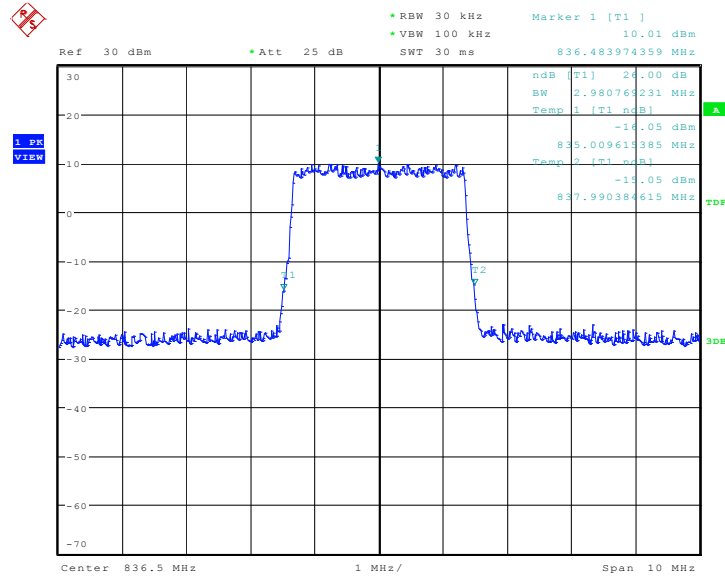
Date: 5.SEP.2019 19:22:49

LTE band 26(824MHz~849MHz), 3MHz Bandwidth, 16QAM (-26dBc BW)



Date: 5.SEP.2019 19:24:14

LTE band 26(824MHz~849MHz), 3MHz Bandwidth, 64QAM (-26dBc BW)

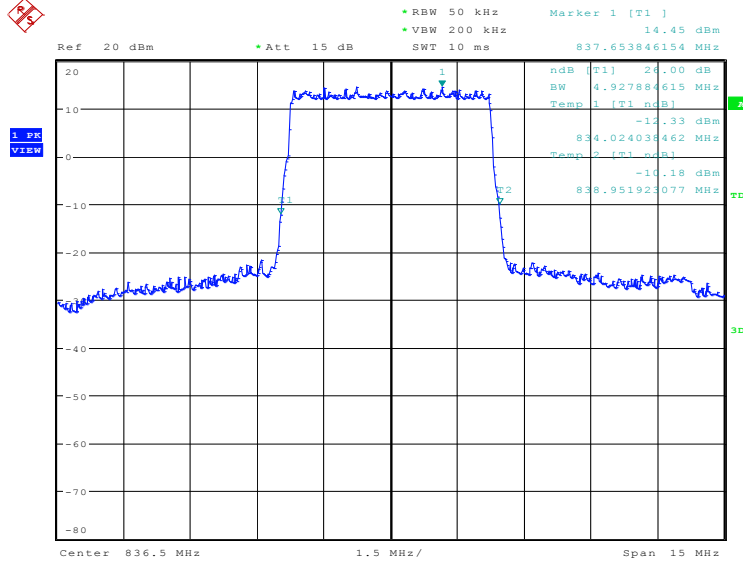


Date: 6.SEP.2019 10:21:17

LTE band 26(824MHz~849MHz), 5MHz (-26dBc)

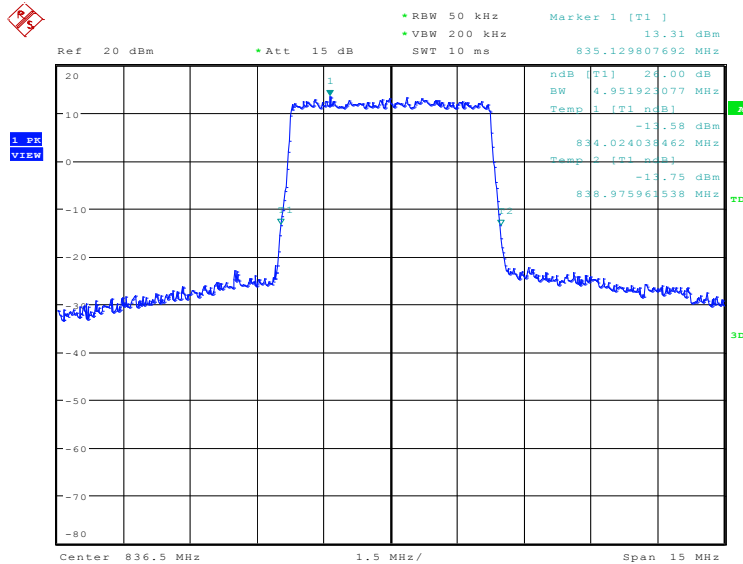
| Frequency (MHz) | Occupied Bandwidth (-26dBc) (kHz) | | |
|-----------------|-----------------------------------|---------|---------|
| | QPSK | 16QAM | 64QAM |
| 836.5 | 4927.88 | 4951.92 | 4879.81 |

LTE band 26(824MHz~849MHz), 5MHz Bandwidth, QPSK (-26dBc BW)



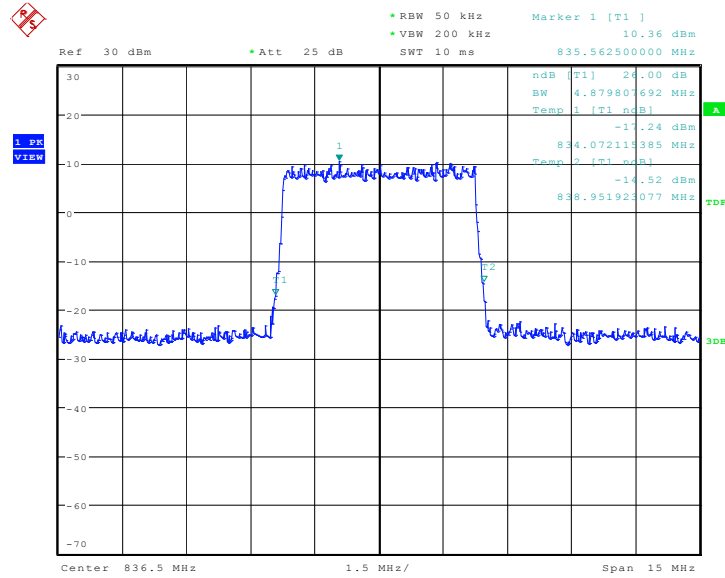
Date: 5.SEP.2019 19:25:41

LTE band 26(824MHz~849MHz), 5MHz Bandwidth, 16QAM (-26dBc BW)



Date: 5.SEP.2019 19:27:06

LTE band 26(824MHz~849MHz), 5MHz Bandwidth, 64QAM (-26dBc BW)

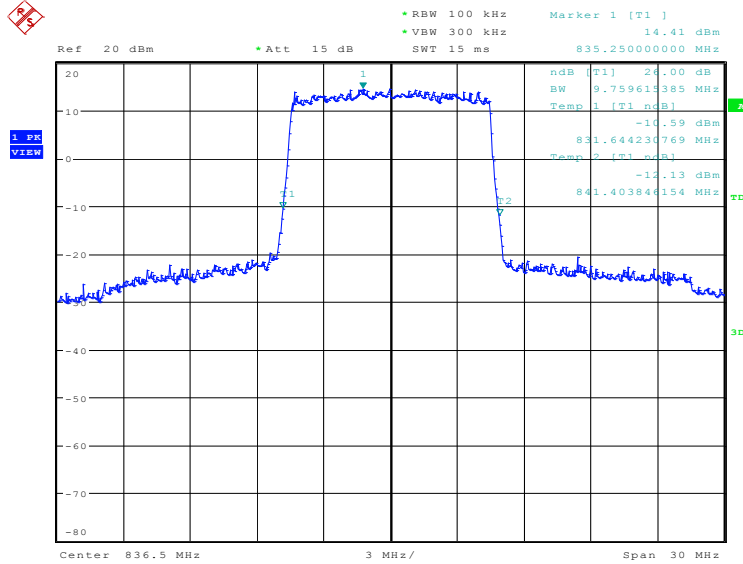


Date: 6.SEP.2019 10:38:54

LTE band 26(824MHz~849MHz), 10MHz (-26dBc)

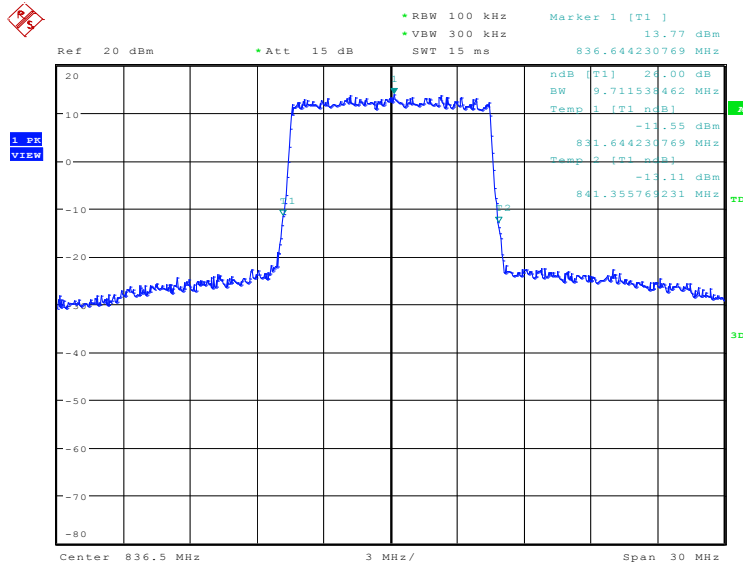
| Frequency (MHz) | Occupied Bandwidth (-26dBc) (kHz) | | |
|-----------------|-----------------------------------|---------|---------|
| | QPSK | 16QAM | 64QAM |
| 836.5 | 9759.62 | 9711.54 | 9615.38 |

LTE band 26(824MHz~849MHz), 10MHz Bandwidth, QPSK (-26dBc BW)



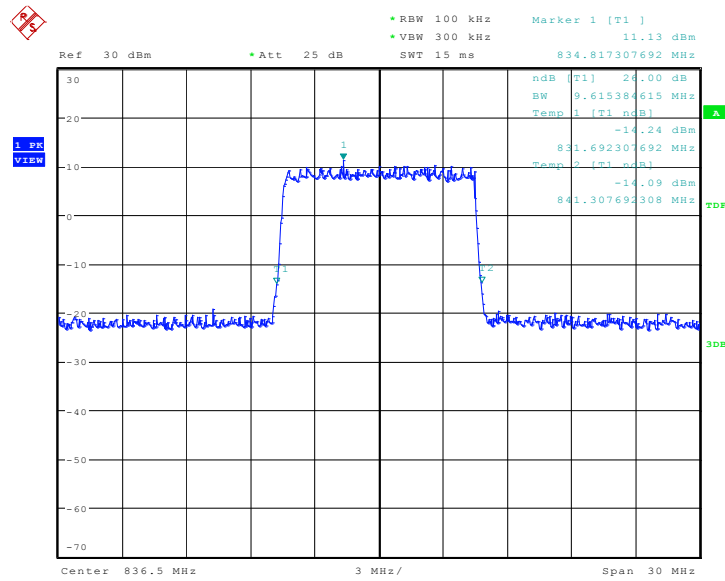
Date: 5.SEP.2019 19:28:46

LTE band 26(824MHz~849MHz), 10MHz Bandwidth, 16QAM (-26dBc BW)



Date: 5.SEP.2019 19:30:11

LTE band 26(824MHz~849MHz), 10MHz Bandwidth, 64QAM (-26dBc BW)

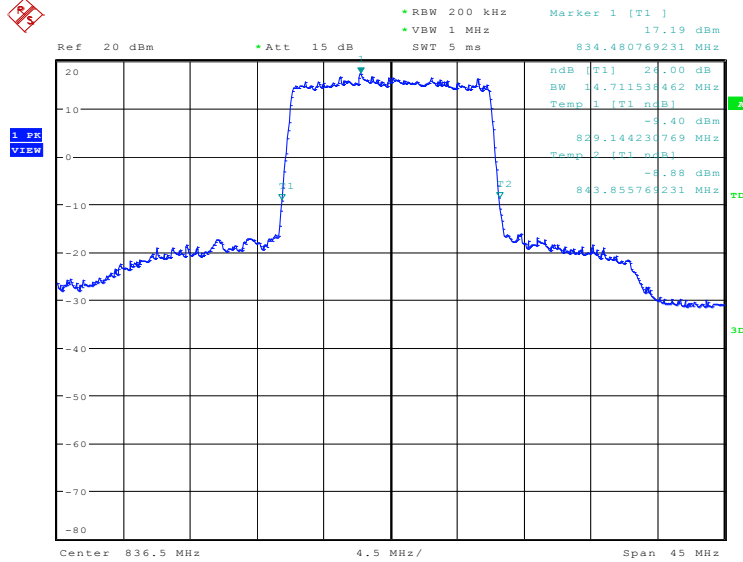


Date: 6.SEP.2019 10:40:43

LTE band 26(824MHz~849MHz), 15MHz (-26dBc)

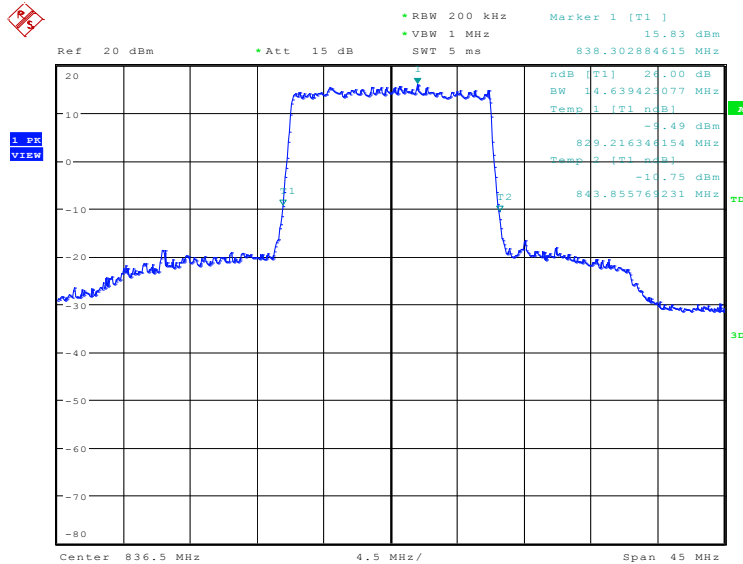
| Frequency (MHz) | Occupied Bandwidth (-26dBc) (kHz) | | |
|-----------------|-----------------------------------|----------|----------|
| | QPSK | 16QAM | 64QAM |
| 836.5 | 14711.54 | 14639.42 | 14711.54 |

LTE band 26(824MHz~849MHz), 15MHz Bandwidth, QPSK (-26dBc BW)



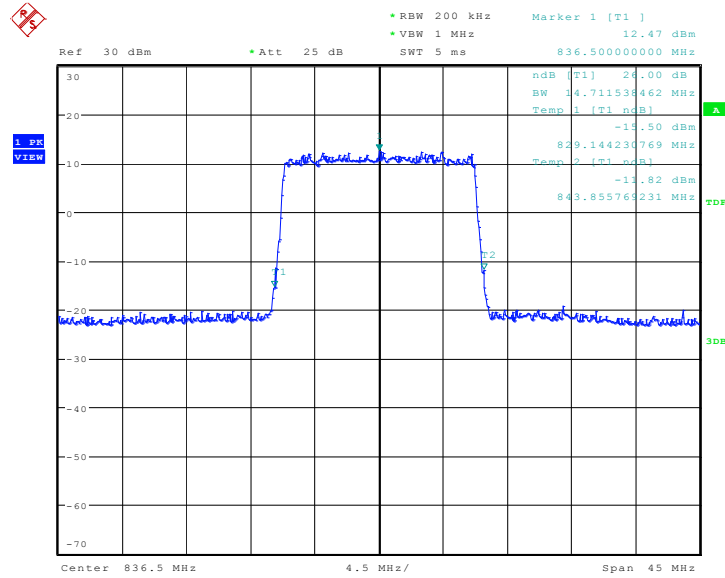
Date: 5.SEP.2019 19:31:38

LTE band 26(824MHz~849MHz), 15MHz Bandwidth, 16QAM (-26dBc BW)



Date: 5.SEP.2019 19:33:03

LTE band 26(824MHz~849MHz), 15MHz Bandwidth, 64QAM (-26dBc BW)

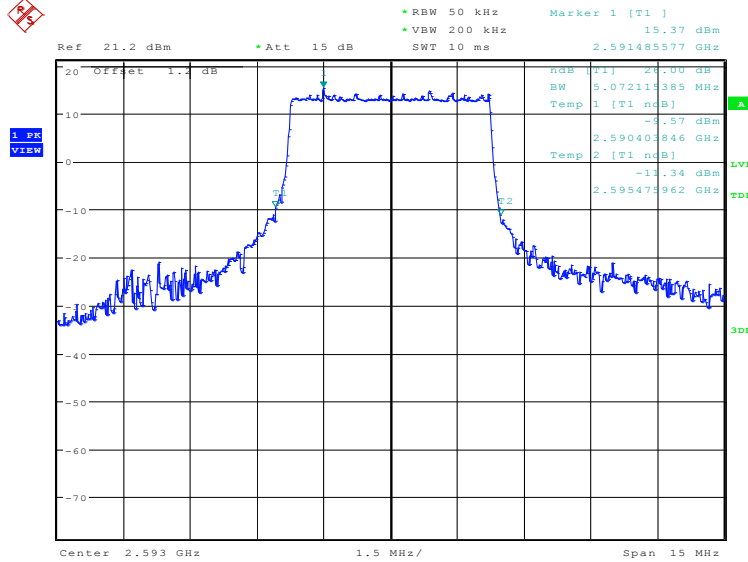


Date: 6.SEP.2019 10:43:40

LTE band 41(PC2), 5MHz (-26dBc)

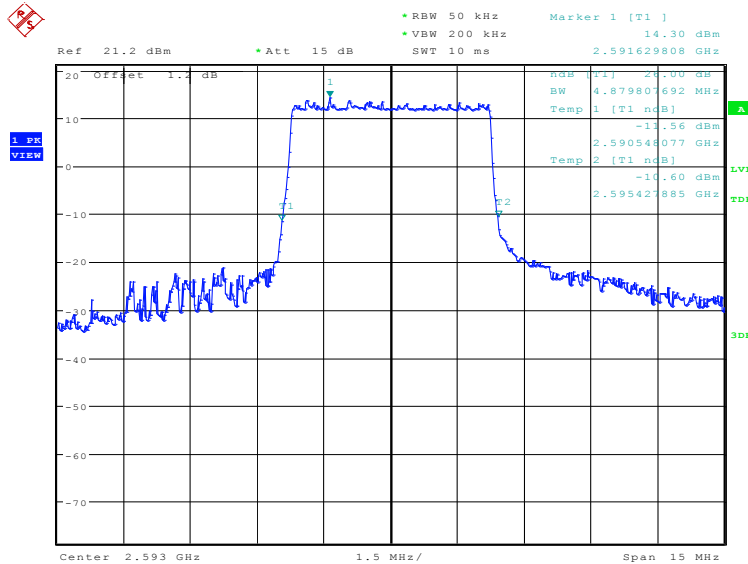
| Frequency (MHz) | Occupied Bandwidth (-26dBc) (kHz) | | |
|-----------------|-----------------------------------|---------|---------|
| | QPSK | 16QAM | 64QAM |
| 2593.0 | 5072.12 | 4879.81 | 4903.85 |

LTE band 41(PC2), 5MHz Bandwidth, QPSK (-26dBc BW)



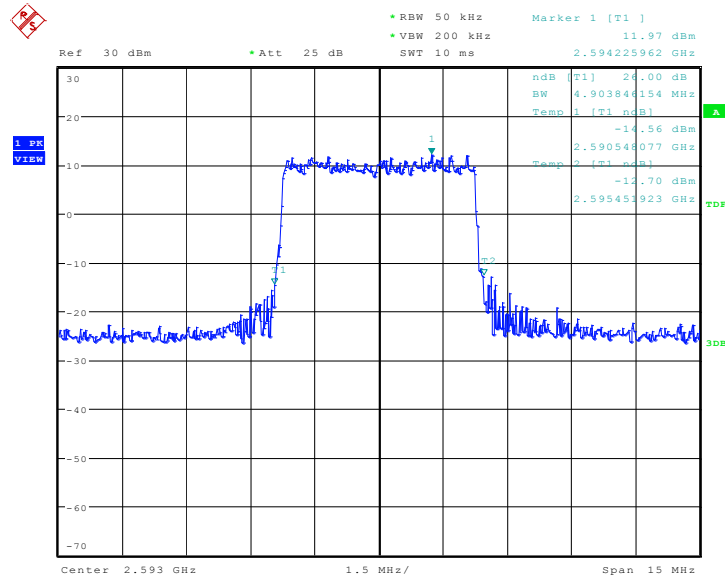
Date: 9.SEP.2019 19:52:21

LTE band 41(PC2), 5MHz Bandwidth,16QAM (-26dBc BW)



Date: 9.SEP.2019 19:53:46

LTE band 41(PC2), 5MHz Bandwidth,64QAM (-26dBc BW)

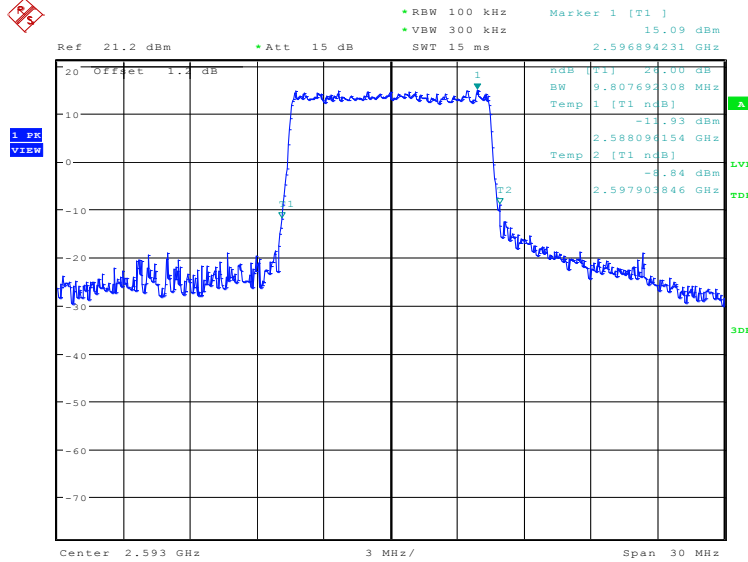


Date: 6.SEP.2019 15:08:27

LTE band 41(PC2), 10MHz (-26dBc)

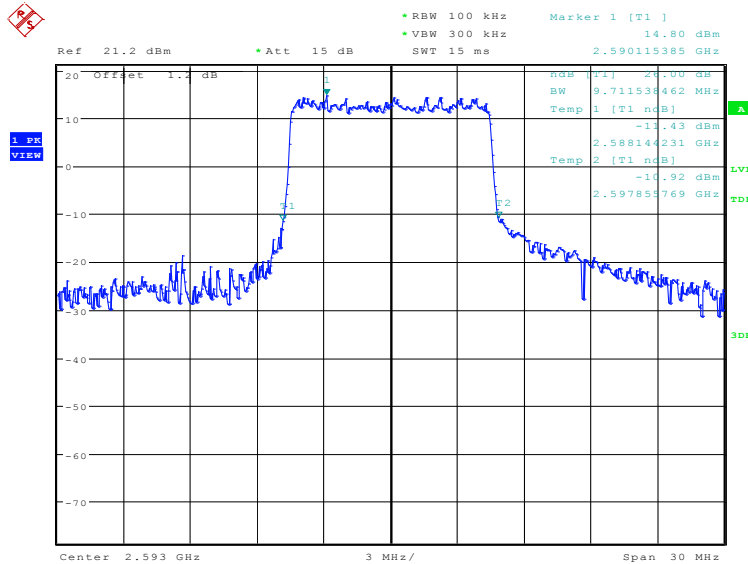
| Frequency (MHz) | Occupied Bandwidth (-26dBc) (kHz) | | |
|-----------------|-----------------------------------|---------|---------|
| | QPSK | 16QAM | 64QAM |
| 2593.0 | 9807.69 | 9711.54 | 9663.46 |

LTE band 41(PC2), 10MHz Bandwidth, QPSK (-26dBc BW)



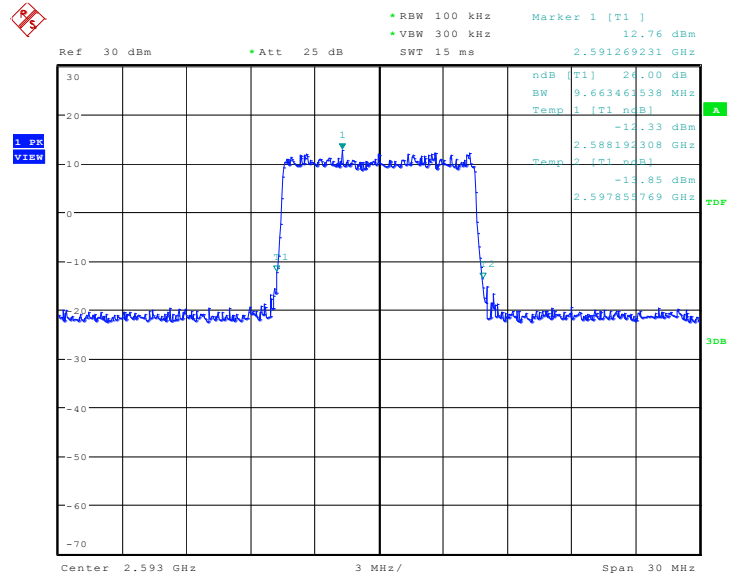
Date: 9.SEP.2019 19:55:13

LTE band 41(PC2), 10MHz Bandwidth, 16QAM (-26dBc BW)



Date: 9.SEP.2019 19:56:39

LTE band 41(PC2), 10MHz Bandwidth, 64QAM (-26dBc BW)

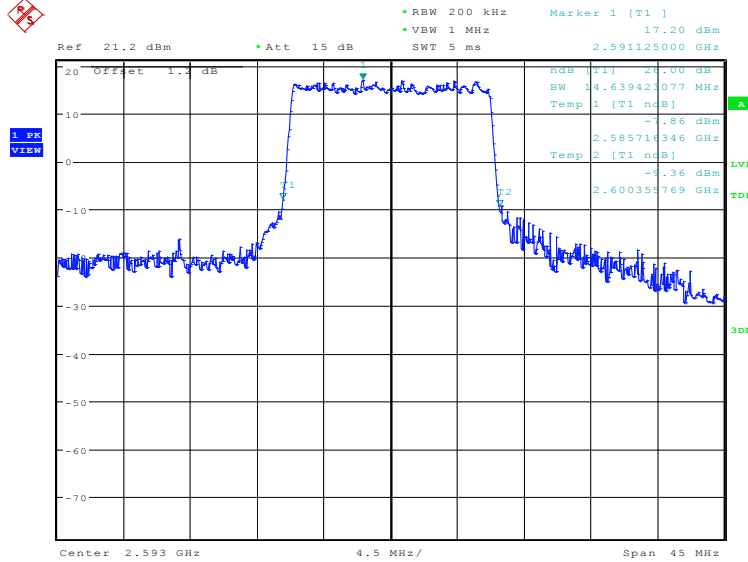


Date: 6.SEP.2019 15:10:00

LTE band 41(PC2), 15MHz (-26dBc)

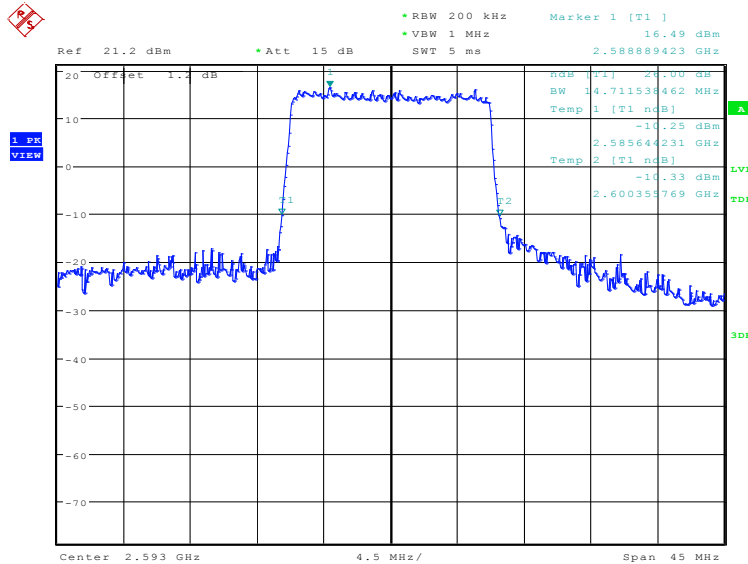
| Frequency (MHz) | Occupied Bandwidth (-26dBc) (kHz) | | |
|-----------------|-----------------------------------|----------|----------|
| | QPSK | 16QAM | 64QAM |
| 2593.0 | 14639.42 | 14711.54 | 14639.42 |

LTE band 41(PC2), 15MHz Bandwidth, QPSK (-26dBc BW)



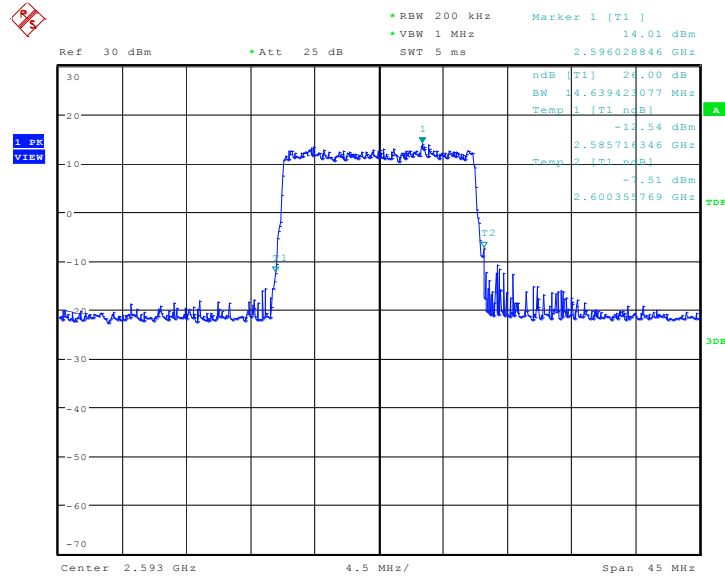
Date: 9.SEP.2019 19:58:06

LTE band 41(PC2), 15MHz Bandwidth, 16QAM (-26dBc BW)



Date: 9.SEP.2019 19:59:31

LTE band 41(PC2), 15MHz Bandwidth, 64QAM (-26dBc BW)

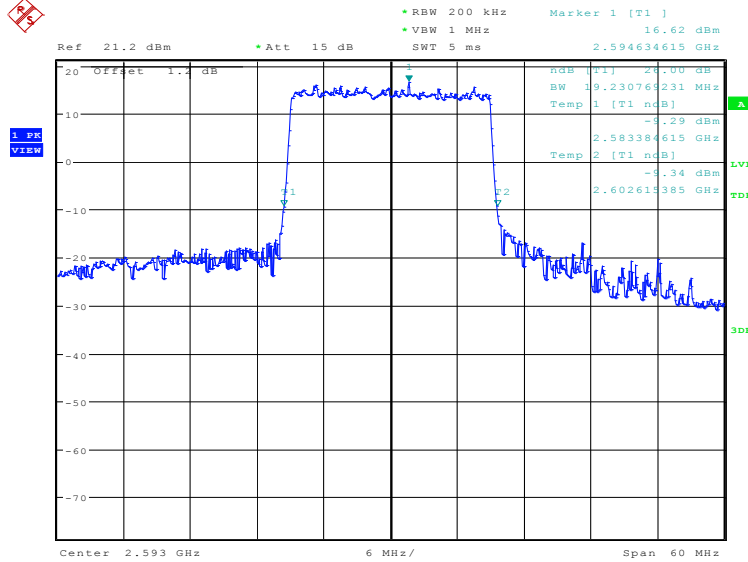


Date: 6.SEP.2019 15:12:08

LTE band 41(PC2), 20MHz (-26dBc)

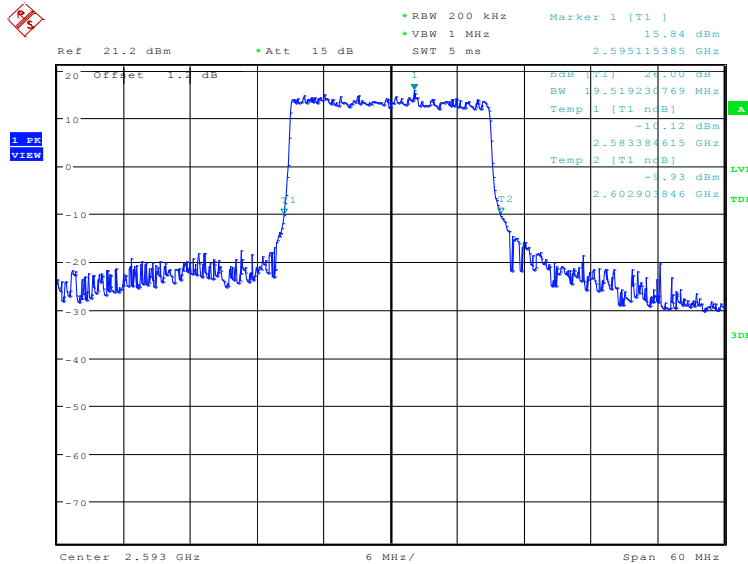
| Frequency (MHz) | Occupied Bandwidth (-26dBc) (kHz) | | |
|-----------------|-----------------------------------|----------|----------|
| | QPSK | 16QAM | 64QAM |
| 2593.0 | 19230.77 | 19519.23 | 19519.23 |

LTE band 41(PC2), 20MHz Bandwidth, QPSK (-26dBc BW)



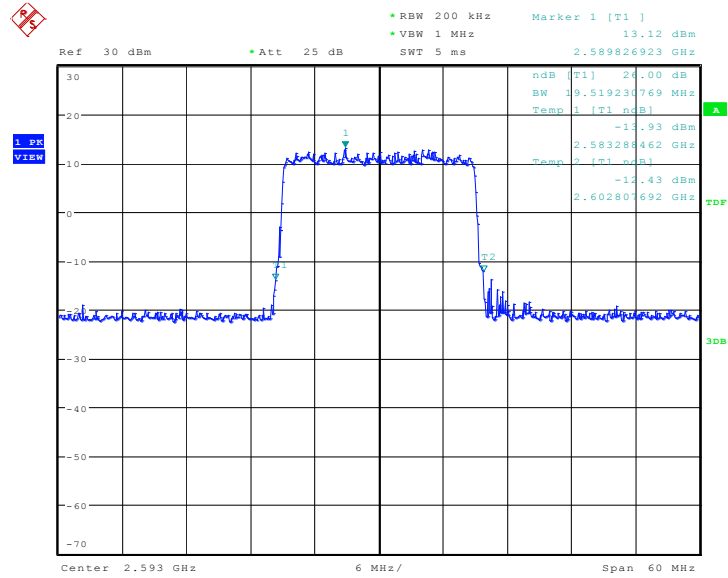
Date: 9.SEP.2019 20:00:58

LTE band 41(PC2), 20MHz Bandwidth, 16QAM (-26dBc BW)



Date: 9.SEP.2019 20:02:24

LTE band 41(PC2), 20MHz Bandwidth, 64QAM (-26dBc BW)

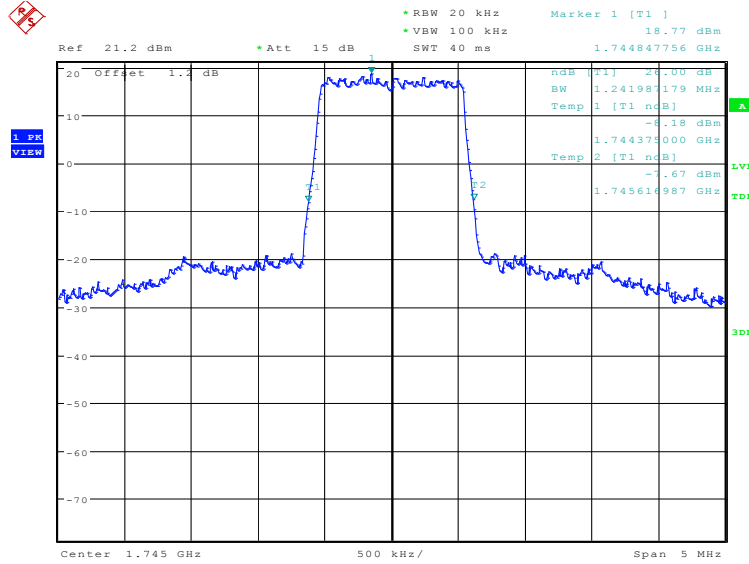


Date: 6.SEP.2019 15:15:07

LTE band 66, 1.4MHz (-26dBc)

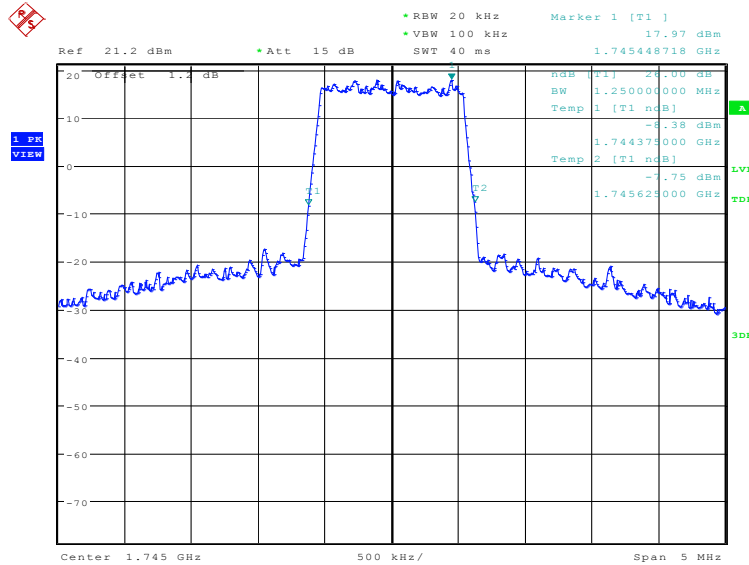
| Frequency (MHz) | Occupied Bandwidth (-26dBc) (kHz) | | |
|-----------------|-----------------------------------|---------|---------|
| | QPSK | 16QAM | 64QAM |
| 1745.0 | 1241.99 | 1250.00 | 1233.97 |

LTE band 66, 1.4MHz Bandwidth, QPSK (-26dBc BW)



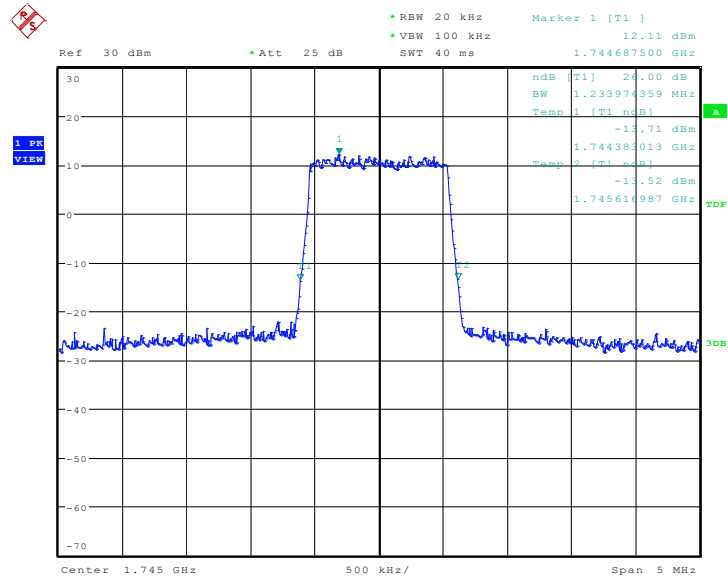
Date: 9.SEP.2019 19:34:31

LTE band 66, 1.4MHz Bandwidth, 16QAM (-26dBc BW)



Date: 9.SEP.2019 19:35:56

LTE band 66, 1.4MHz Bandwidth, 64QAM (-26dBc BW)

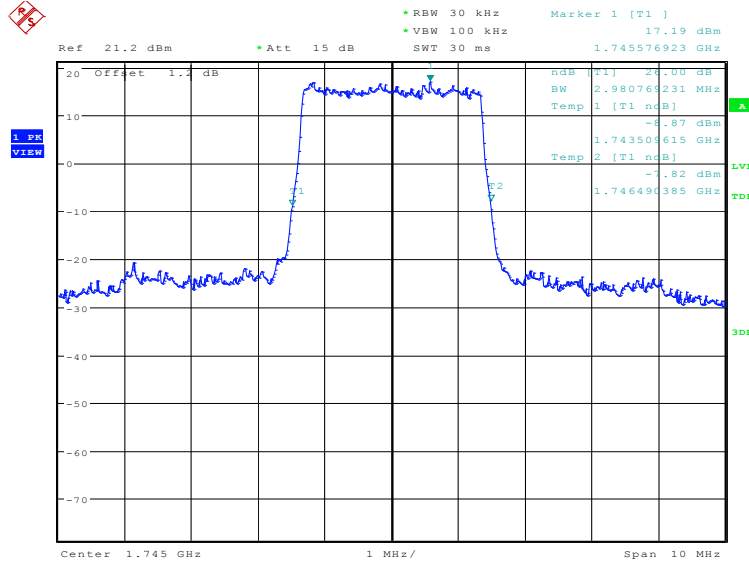


Date: 6.SEP.2019 16:30:23

LTE band 66, 3MHz (-26dBc)

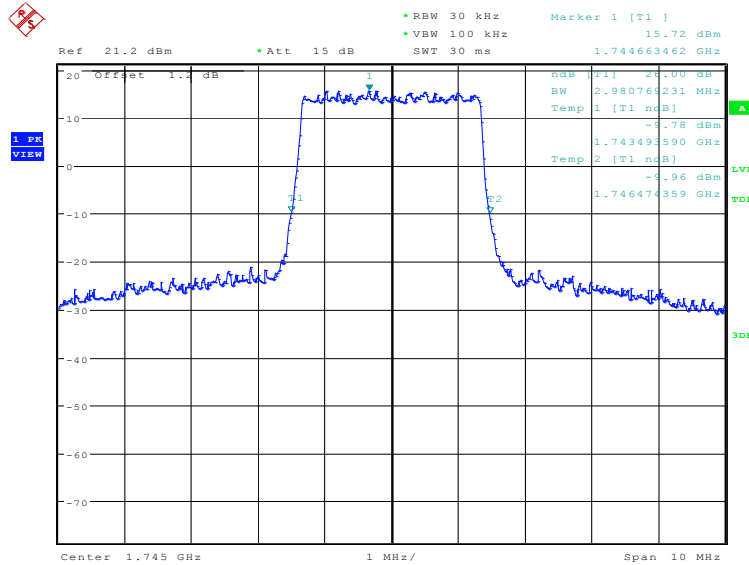
| Frequency (MHz) | Occupied Bandwidth (-26dBc) (kHz) | | |
|-----------------|-----------------------------------|---------|---------|
| | QPSK | 16QAM | 64QAM |
| 1745.0 | 2980.77 | 2980.77 | 2964.74 |

LTE band 66, 3MHz Bandwidth, QPSK (-26dBc BW)



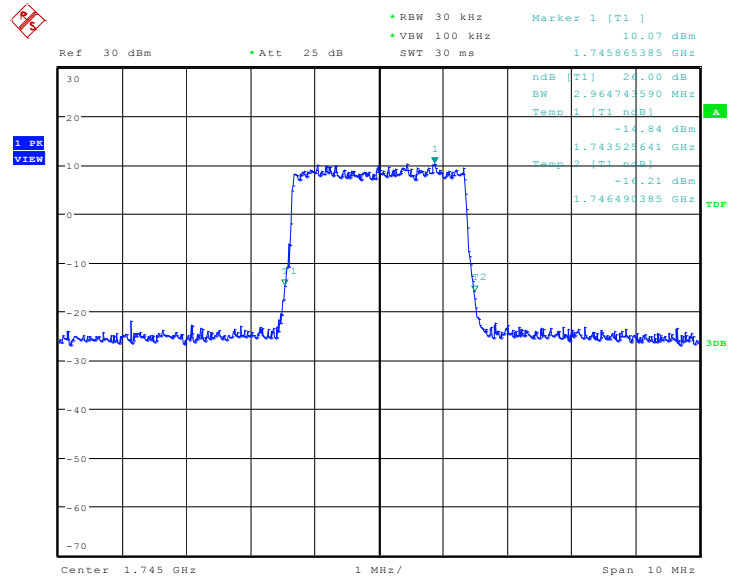
Date: 9.SEP.2019 19:37:23

LTE band 66, 3MHz Bandwidth, 16QAM (-26dBc BW)



Date: 9.SEP.2019 19:38:48

LTE band 66, 3MHz Bandwidth, 64QAM (-26dBc BW)

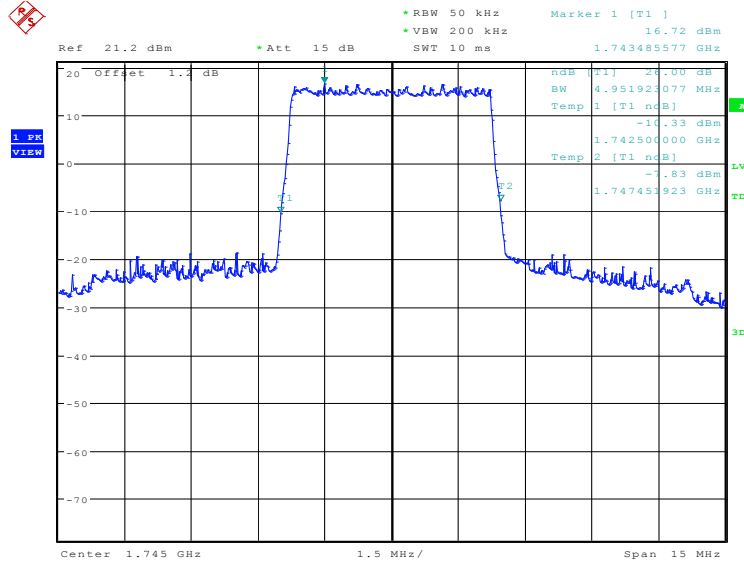


Date: 6.SEP.2019 16:31:49

LTE band 66, 5MHz (-26dBc)

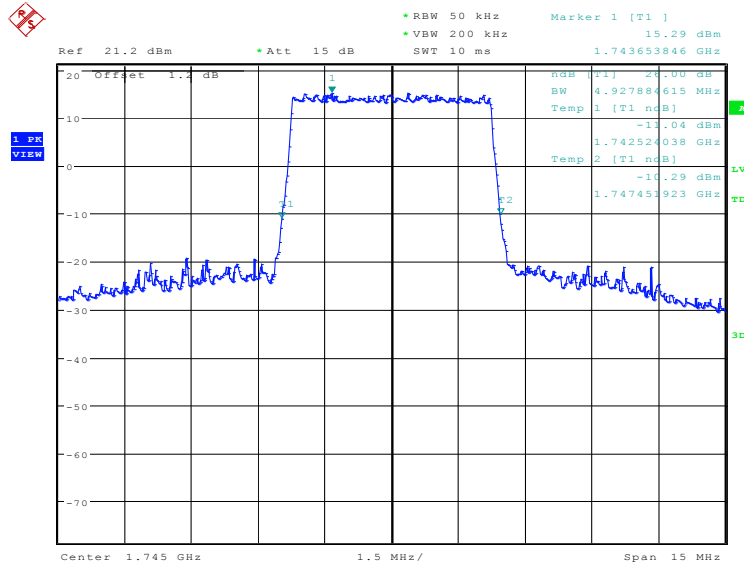
| Frequency (MHz) | Occupied Bandwidth (-26dBc) (kHz) | | |
|-----------------|-----------------------------------|---------|---------|
| | QPSK | 16QAM | 64QAM |
| 1745.0 | 4951.92 | 4927.88 | 4903.85 |

LTE band 66, 5MHz Bandwidth, QPSK (-26dBc BW)



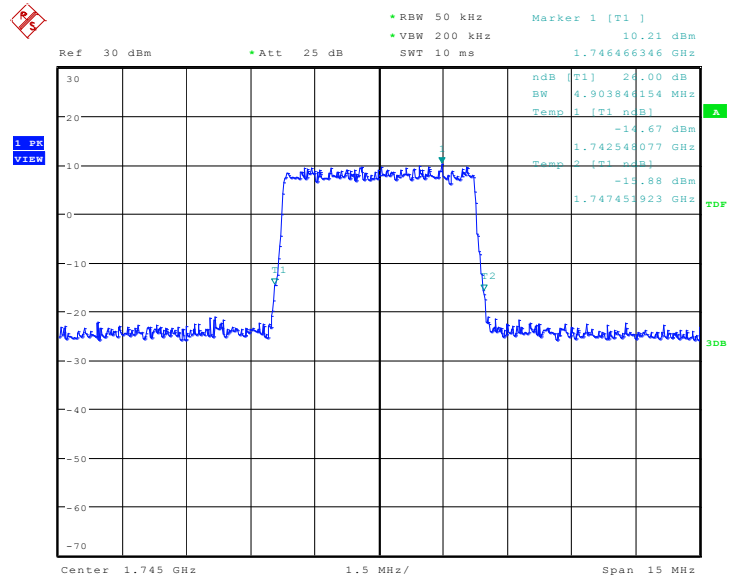
Date: 9.SEP.2019 19:40:15

LTE band 66, 5MHz Bandwidth, 16QAM (-26dBc BW)



Date: 9.SEP.2019 19:41:40

LTE band 66, 5MHz Bandwidth, 64QAM (-26dBc BW)

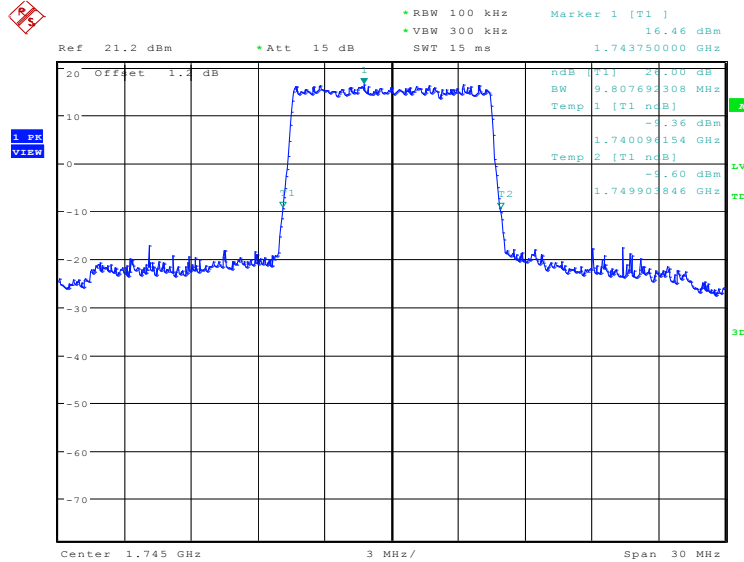


Date: 6.SEP.2019 16:33:55

LTE band 66, 10MHz (-26dBc)

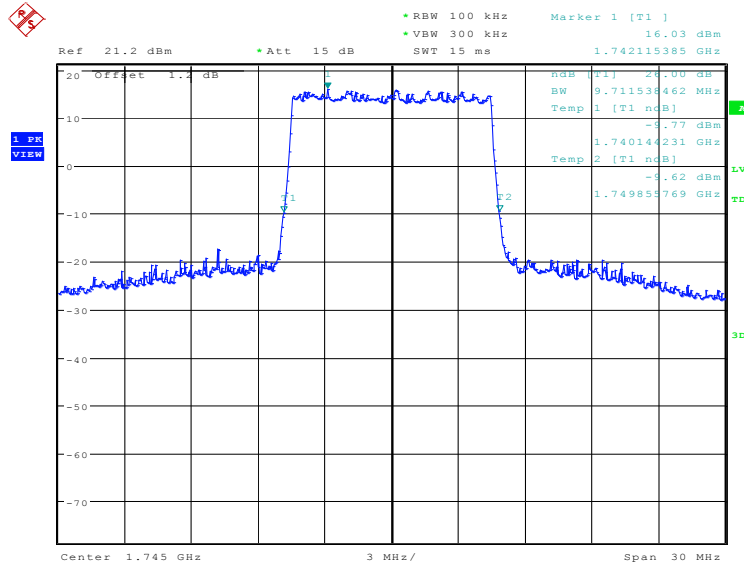
| Frequency (MHz) | Occupied Bandwidth (-26dBc) (kHz) | | |
|-----------------|-----------------------------------|---------|---------|
| | QPSK | 16QAM | 64QAM |
| 1745.0 | 9807.69 | 9711.54 | 9711.54 |

LTE band 66, 10MHz Bandwidth, QPSK (-26dBc BW)



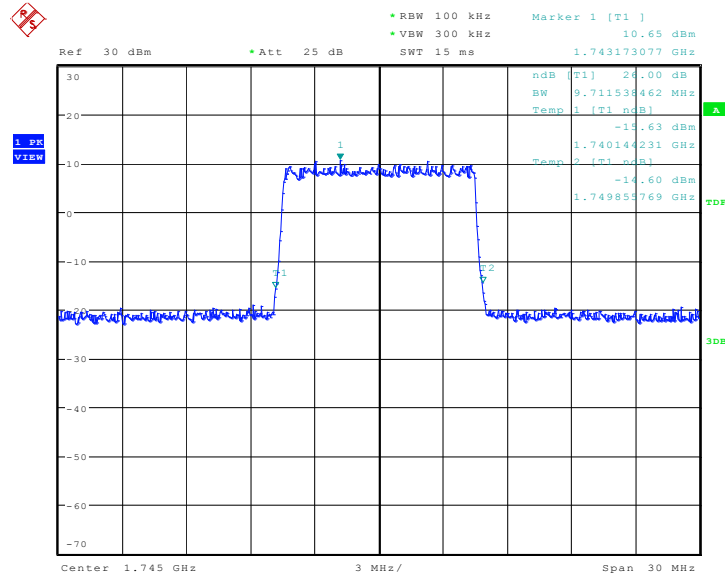
Date: 9.SEP.2019 19:43:07

LTE band 66, 10MHz Bandwidth, 16QAM (-26dBc BW)



Date: 9.SEP.2019 19:44:32

LTE band 66, 10MHz Bandwidth, 64QAM (-26dBc BW)

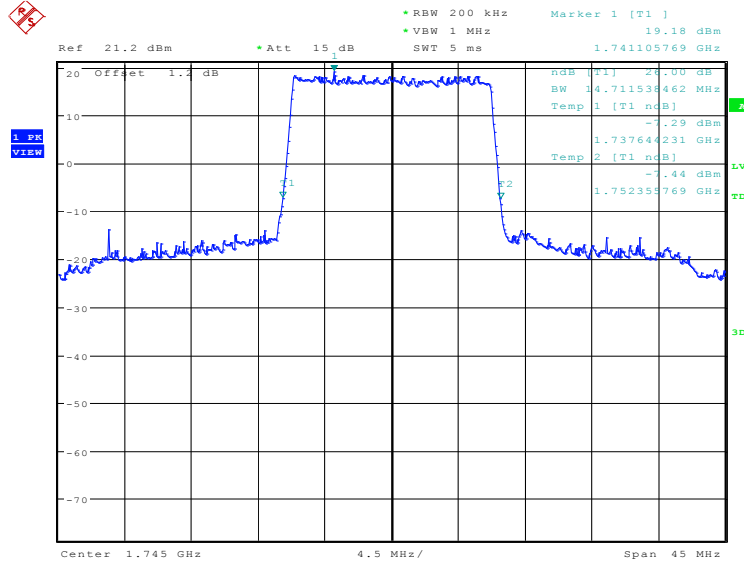


Date: 6.SEP.2019 16:35:13

LTE band 66, 15MHz (-26dBc)

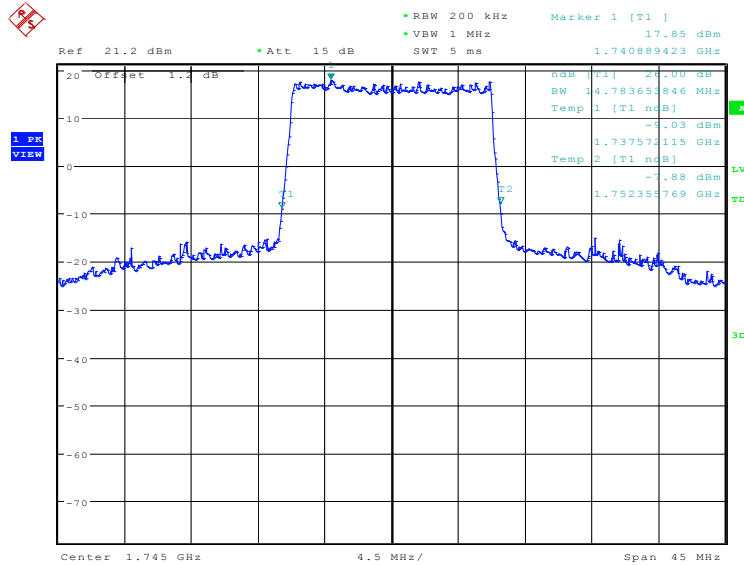
| Frequency (MHz) | Occupied Bandwidth (-26dBc) (kHz) | | |
|-----------------|-----------------------------------|----------|----------|
| | QPSK | 16QAM | 64QAM |
| 1745.0 | 14711.54 | 14783.65 | 14711.54 |

LTE band 66, 15MHz Bandwidth, QPSK (-26dBc BW)



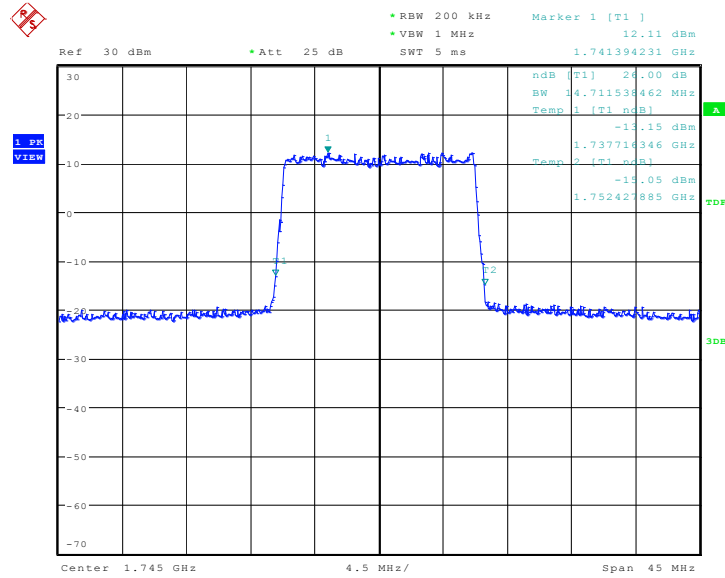
Date: 9.SEP.2019 19:45:59

LTE band 66, 15MHz Bandwidth, 16QAM (-26dBc BW)



Date: 9.SEP.2019 19:47:24

LTE band 66, 15MHz Bandwidth, 64QAM (-26dBc BW)

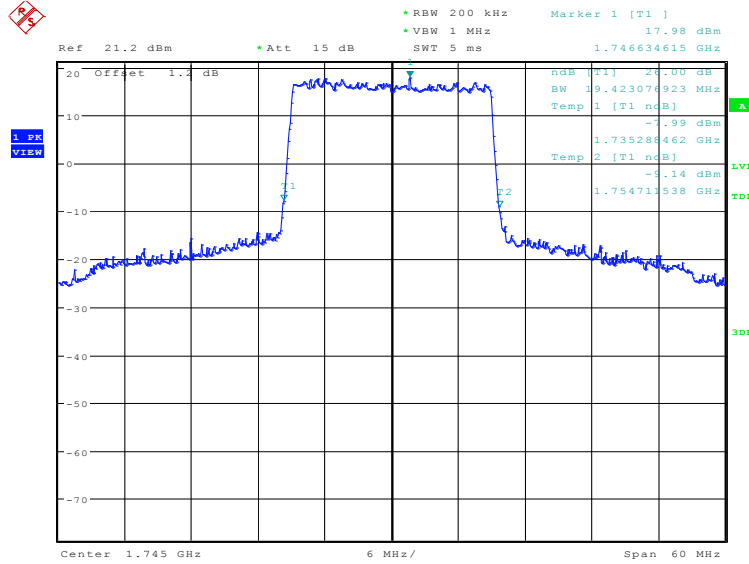


Date: 6.SEP.2019 16:45:47

LTE band 66, 20MHz (-26dBc)

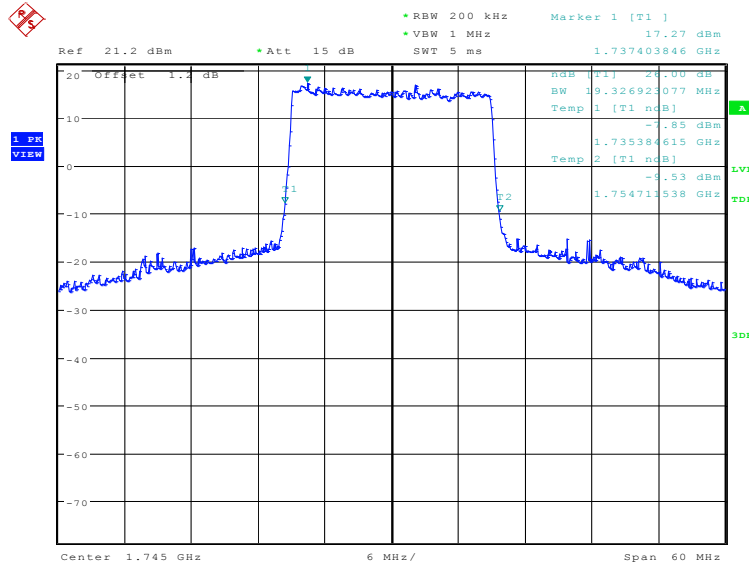
| Frequency (MHz) | Occupied Bandwidth (-26dBc) (kHz) | | |
|-----------------|-----------------------------------|----------|----------|
| | QPSK | 16QAM | 64QAM |
| 1745.0 | 19423.08 | 19326.92 | 19423.08 |

LTE band 66, 20MHz Bandwidth, QPSK (-26dBc BW)



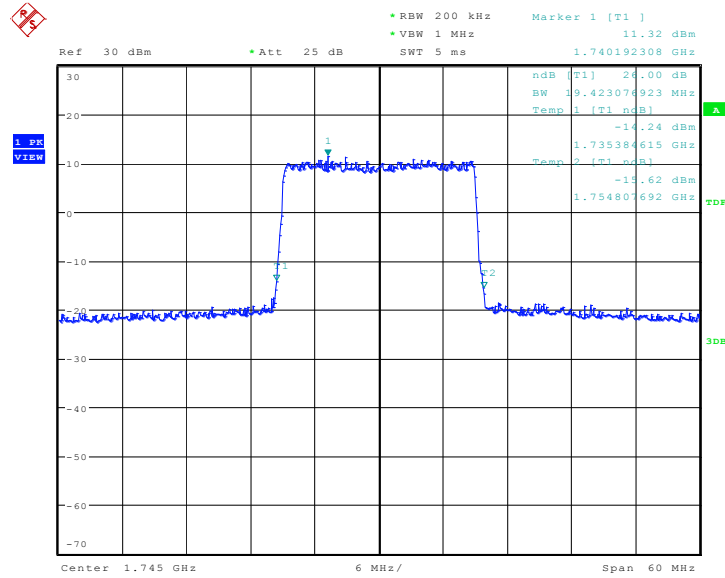
Date: 9.SEP.2019 19:48:51

LTE band 66, 20MHz Bandwidth, 16QAM (-26dBc BW)



Date: 9.SEP.2019 19:50:16

LTE band 66, 20MHz Bandwidth, 64QAM (-26dBc BW)

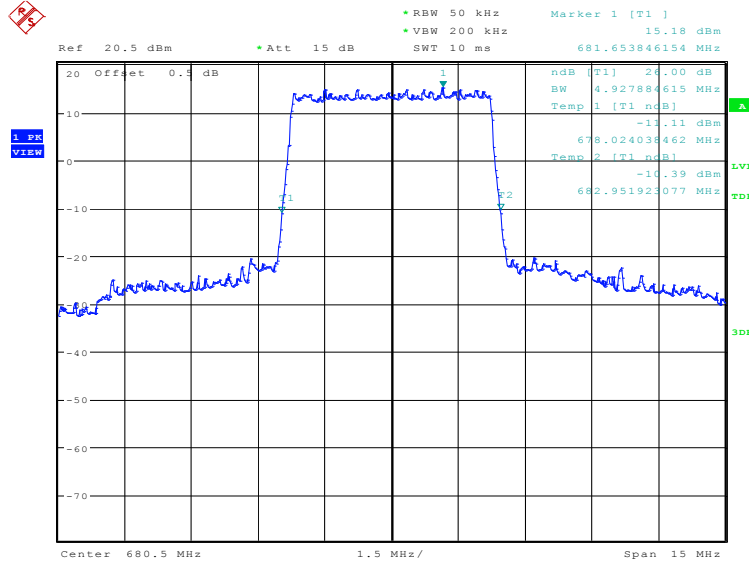


Date: 6.SEP.2019 16:48:08

LTE band 71, 5MHz (-26dBc)

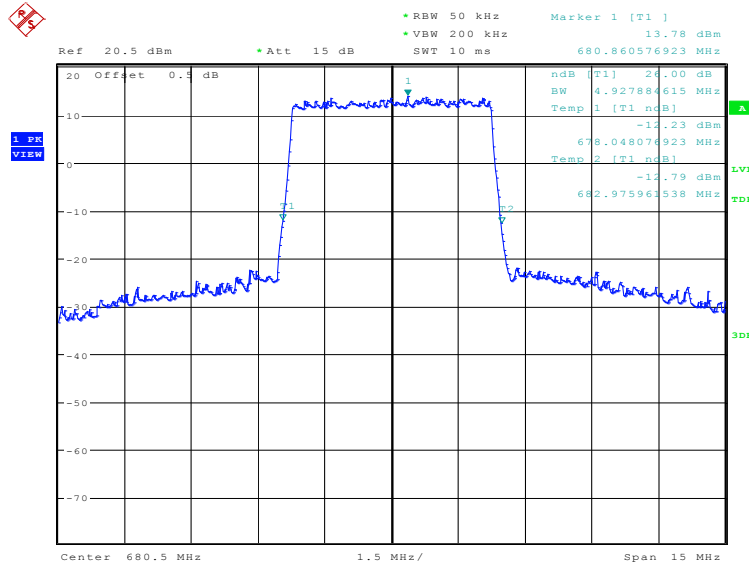
| Frequency (MHz) | Occupied Bandwidth (-26dBc) (kHz) | | |
|-----------------|-----------------------------------|---------|---------|
| | QPSK | 16QAM | 64QAM |
| 680.5 | 4927.88 | 4927.88 | 4879.81 |

LTE band 71, 5MHz Bandwidth, QPSK (-26dBc BW)



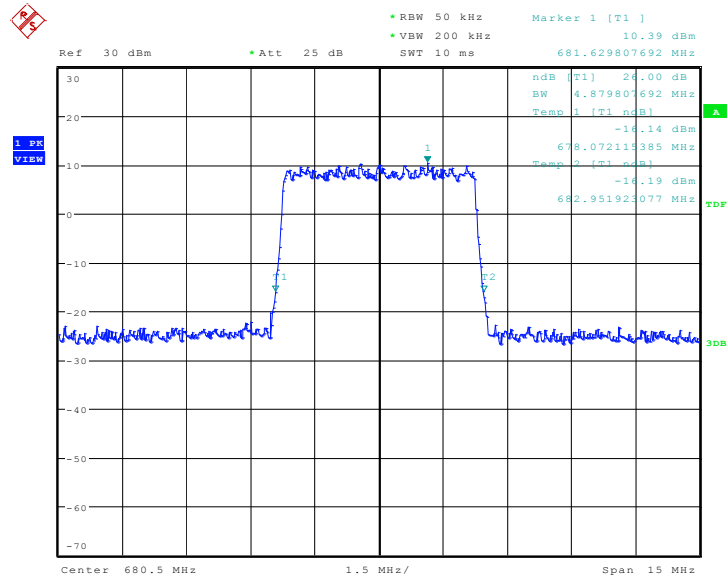
Date: 5.SEP.2019 19:48:05

LTE band 71, 5MHz Bandwidth, 16QAM (-26dBc BW)



Date: 5.SEP.2019 19:49:30

LTE band 71, 5MHz Bandwidth, 64QAM (-26dBc BW)

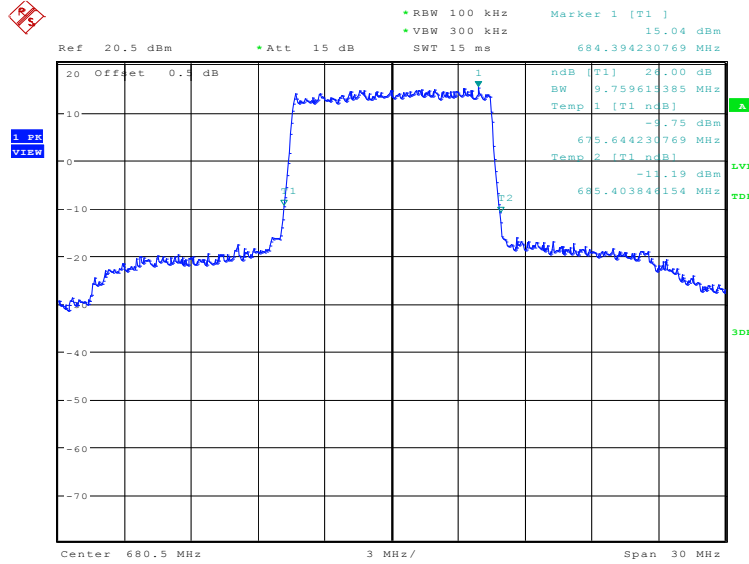


Date: 6.SEP.2019 10:55:24

LTE band 71, 10MHz (-26dBc)

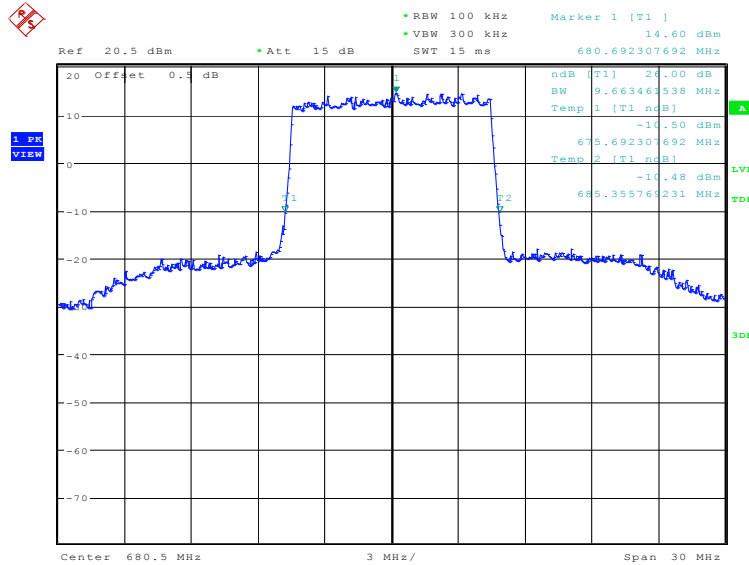
| Frequency (MHz) | Occupied Bandwidth (-26dBc) (kHz) | | |
|-----------------|-----------------------------------|---------|---------|
| | QPSK | 16QAM | 64QAM |
| 680.5 | 9759.62 | 9663.46 | 9663.46 |

LTE band 71, 10MHz Bandwidth, QPSK (-26dBc BW)



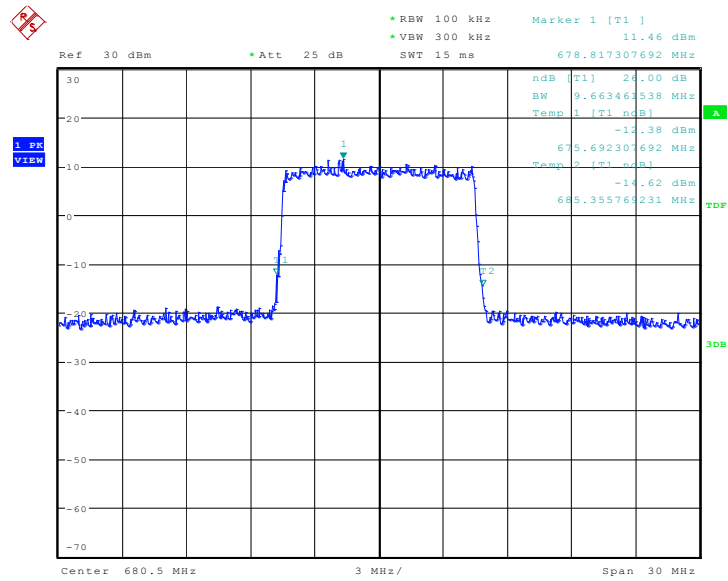
Date: 5.SEP.2019 19:50:57

LTE band 71, 10MHz Bandwidth, 16QAM (-26dBc BW)



Date: 5.SEP.2019 19:52:22

LTE band 71, 10MHz Bandwidth, 64QAM (-26dBc BW)

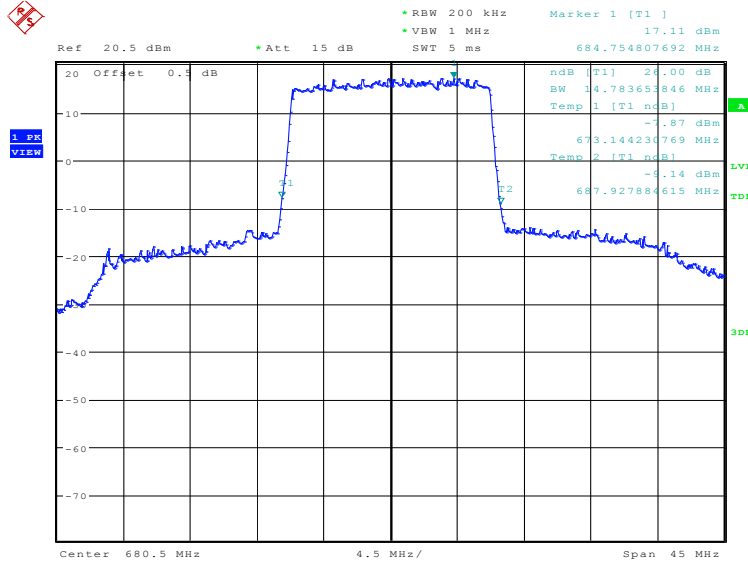


Date: 6.SEP.2019 11:01:51

LTE band 71, 15MHz (-26dBc)

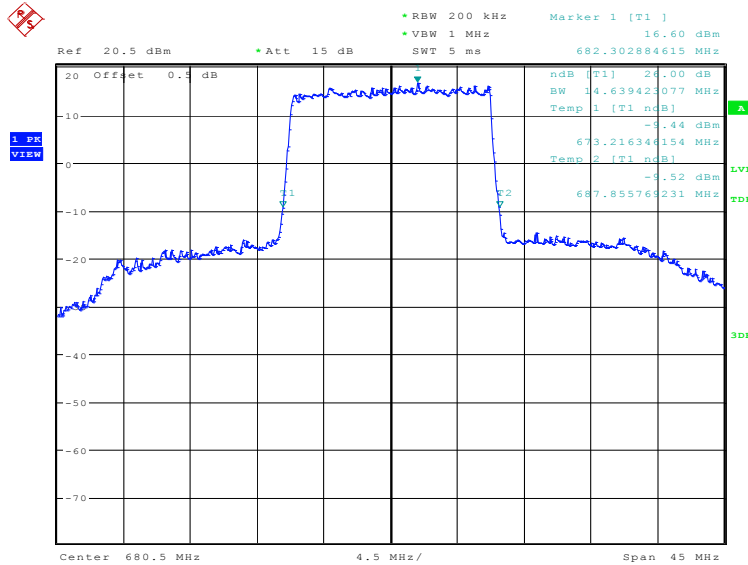
| Frequency (MHz) | Occupied Bandwidth (-26dBc) (kHz) | | |
|-----------------|-----------------------------------|----------|----------|
| | QPSK | 16QAM | 64QAM |
| 680.5 | 14783.65 | 14639.42 | 14711.54 |

LTE band 71, 15MHz Bandwidth, QPSK (-26dBc BW)



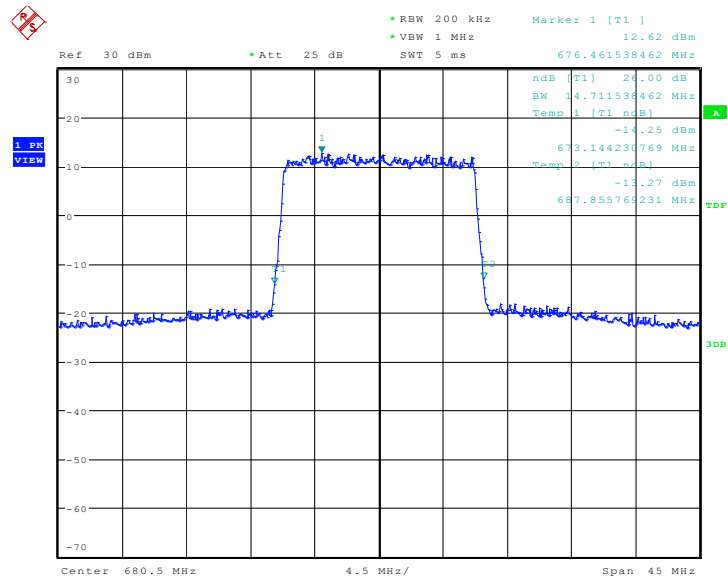
Date: 5.SEP.2019 19:53:49

LTE band 71, 15MHz Bandwidth, 16QAM (-26dBc BW)



Date: 5.SEP.2019 19:55:14

LTE band 71, 15MHz Bandwidth, 64QAM (-26dBc BW)

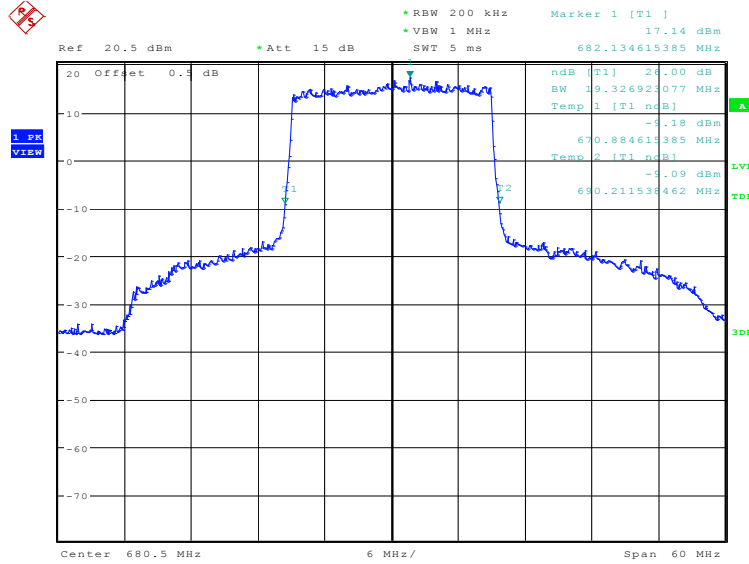


Date: 6.SEP.2019 11:03:17

LTE band 71, 20MHz (-26dBc)

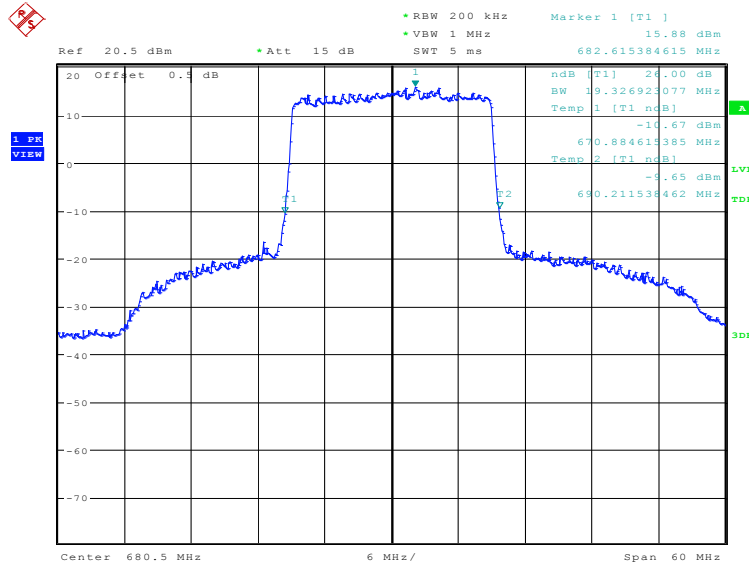
| Frequency (MHz) | Occupied Bandwidth (-26dBc) (kHz) | | |
|-----------------|-----------------------------------|----------|----------|
| | QPSK | 16QAM | 64QAM |
| 680.5 | 19326.92 | 19326.92 | 19326.92 |

LTE band 71, 20MHz Bandwidth, QPSK (-26dBc BW)



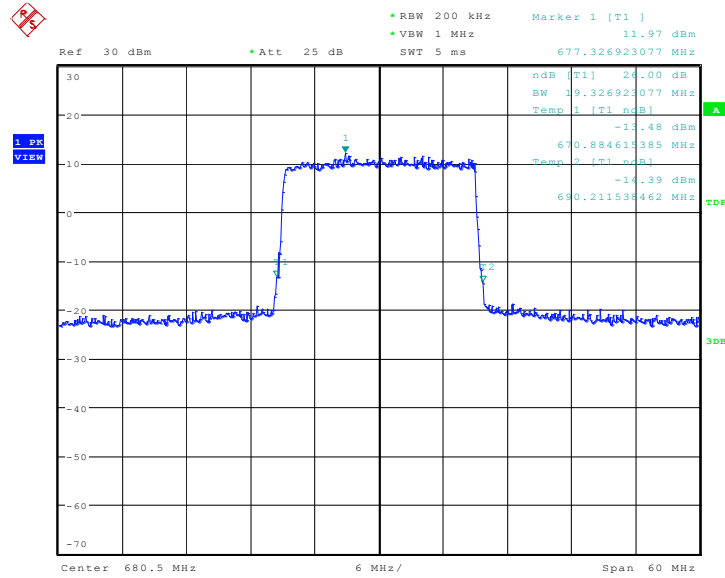
Date: 5.SEP.2019 19:56:41

LTE band 71, 20MHz Bandwidth, 16QAM (-26dBc BW)



Date: 5.SEP.2019 19:58:06

LTE band 71, 20MHz Bandwidth, 64QAM (-26dBc BW)

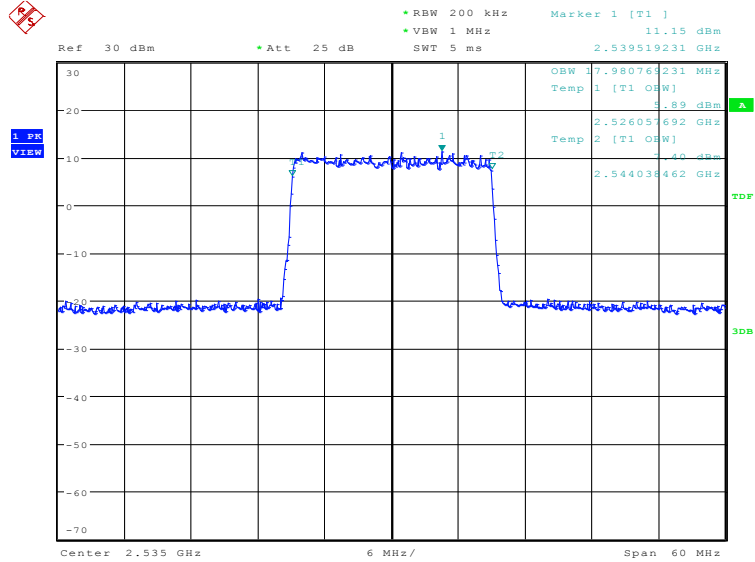


Date: 6.SEP.2019 11:05:06

**LAT Measurement Results:
LTE band 7, 20MHz (-26dBc)**

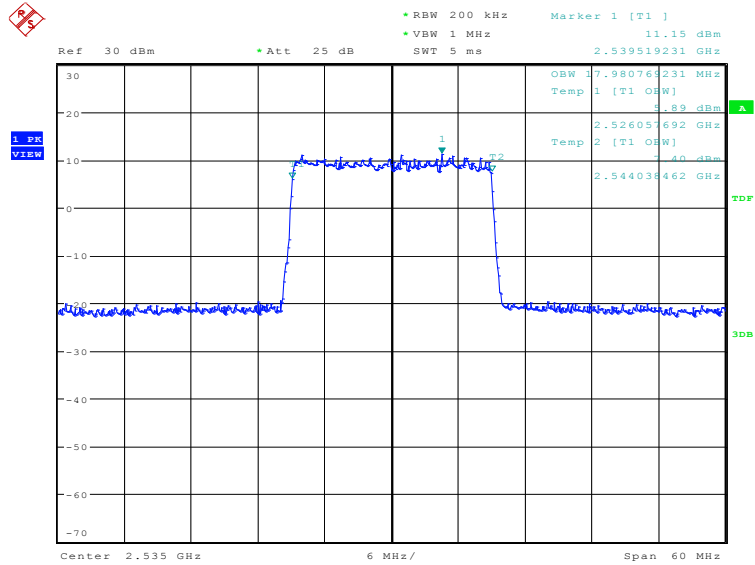
| Frequency(MHz) | Occupied Bandwidth (-26dBc)(kHz) | | |
|----------------|----------------------------------|----------|----------|
| | QPSK | 16QAM | 64QAM |
| 2535.0 | 17980.77 | 19423.08 | 19326.92 |

LTE band 7, 20MHz Bandwidth, QPSK (-26dBc BW)



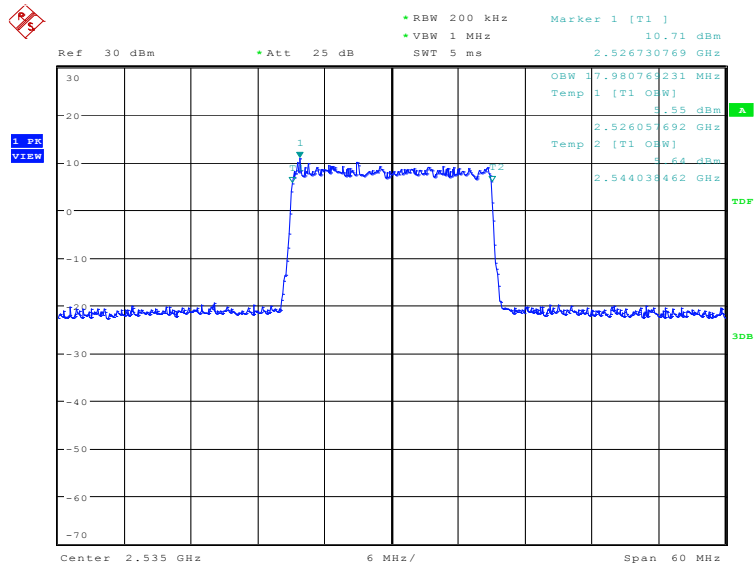
Date: 14.OCT.2019 15:54:09

LTE band 7, 20MHz Bandwidth, 16QAM (-26dBc BW)



Date: 14.OCT.2019 15:54:09

LTE band 7, 20MHz Bandwidth, 64QAM (99% BW)

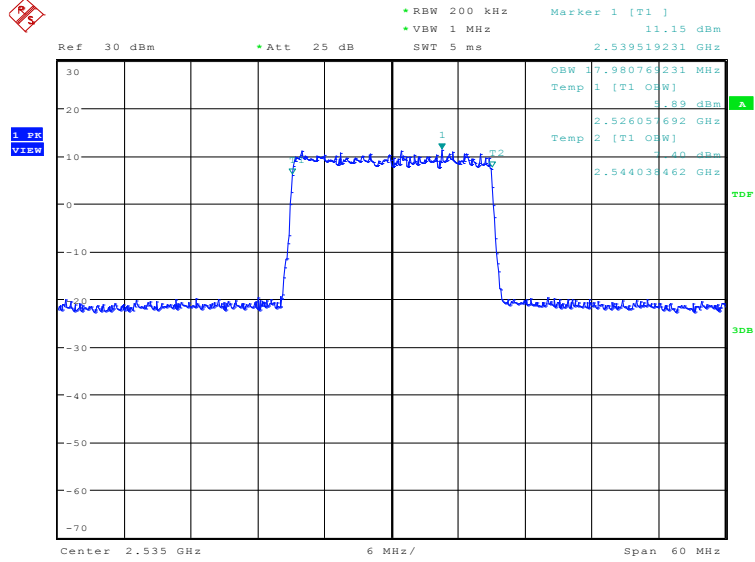


Date: 14.OCT.2019 15:50:15

LTE band 12, 10MHz (-26dBc)

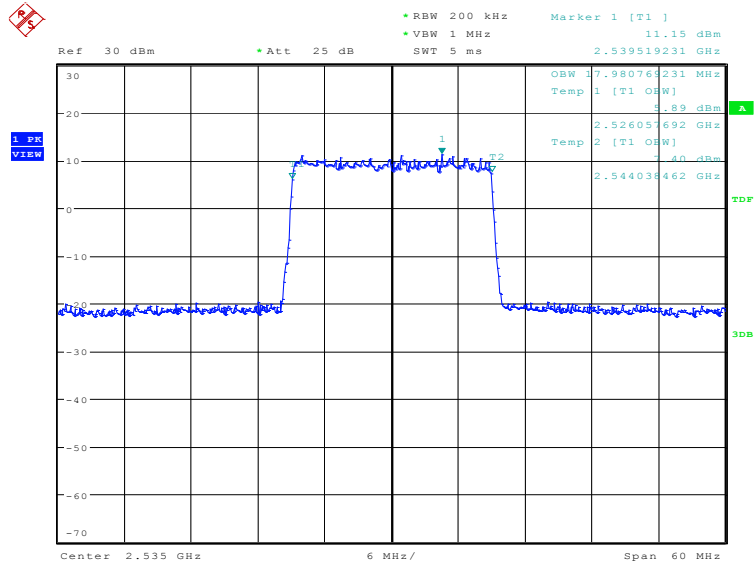
| Frequency(MHz) | Occupied Bandwidth (-26dBc)(kHz) | | |
|----------------|----------------------------------|---------|---------|
| | QPSK | 16QAM | 64QAM |
| 707.5 | 8942.31 | 9663.46 | 9663.46 |

LTE band 12, 10MHz Bandwidth, QPSK (-26dB BW)



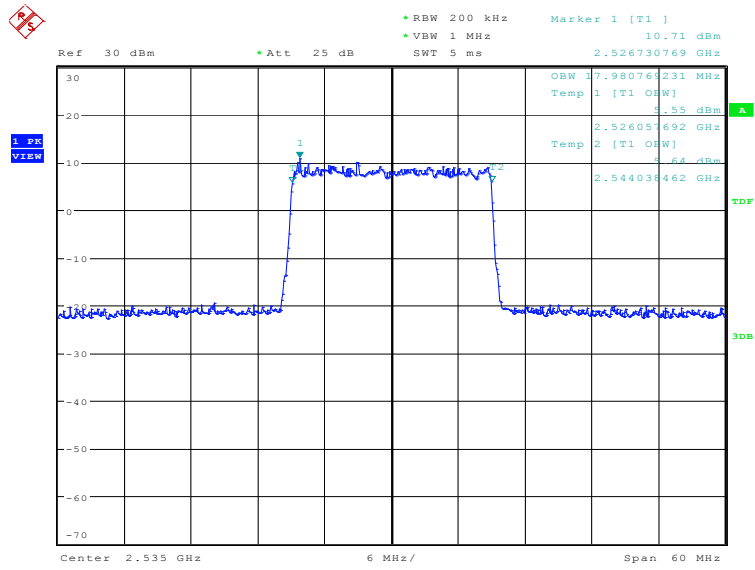
Date: 14.OCT.2019 15:54:09

LTE band 12, 10MHz Bandwidth, 16QAM (-26dB BW)



Date: 14.OCT.2019 15:54:09

LTE band 12, 10MHz Bandwidth, 64QAM (99% BW)

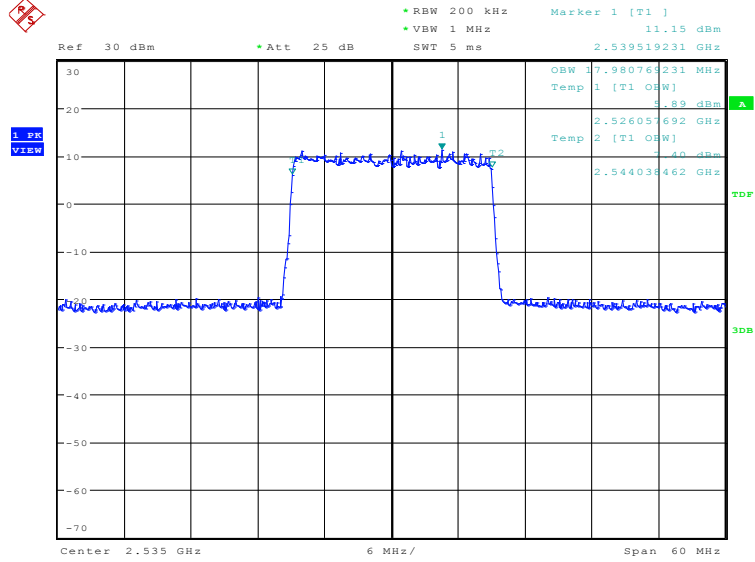


Date: 14.OCT.2019 15:50:15

LTE band 13, 10MHz (-26dBc)

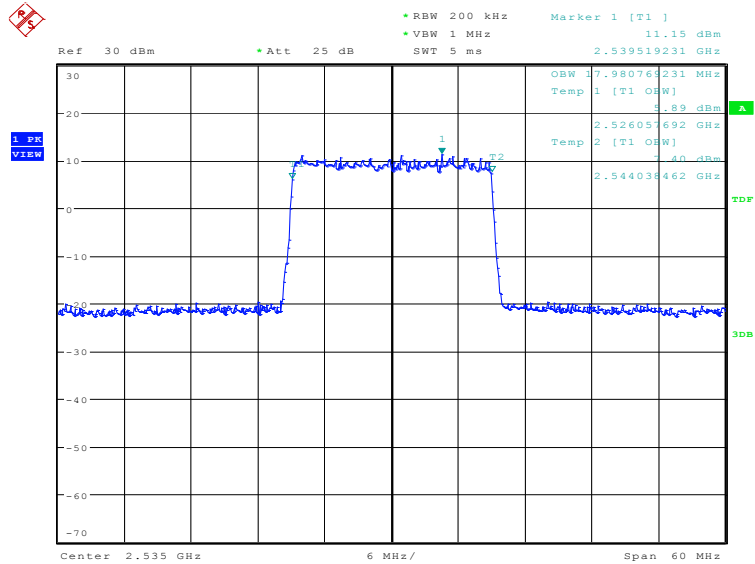
| Frequency(MHz) | Occupied Bandwidth (-26dBc)(kHz) | | |
|----------------|----------------------------------|---------|---------|
| | QPSK | 16QAM | 64QAM |
| 782.0 | 8990.38 | 9711.54 | 9663.46 |

LTE band 13, 10MHz Bandwidth, QPSK (-26dBc BW)



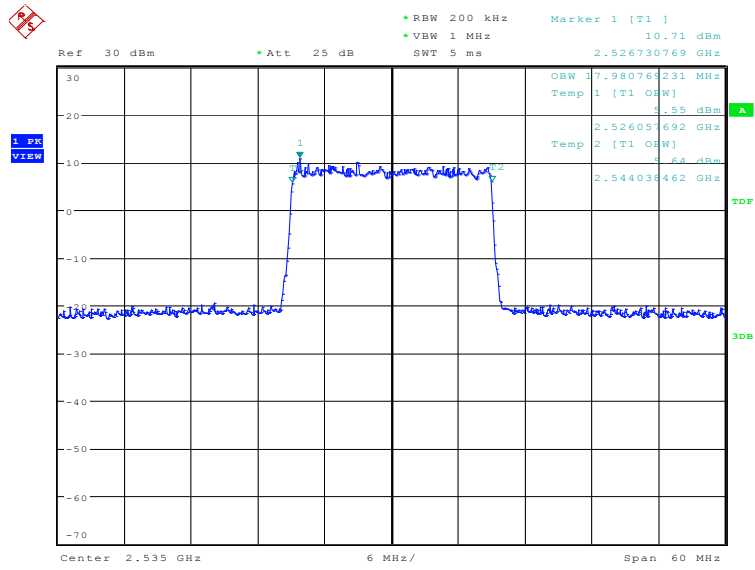
Date: 14.OCT.2019 15:54:09

LTE band 13, 10MHz Bandwidth, 16QAM (-26dBc BW)



Date: 14.OCT.2019 15:54:09

LTE band 13, 10MHz Bandwidth, 64QAM (99% BW)

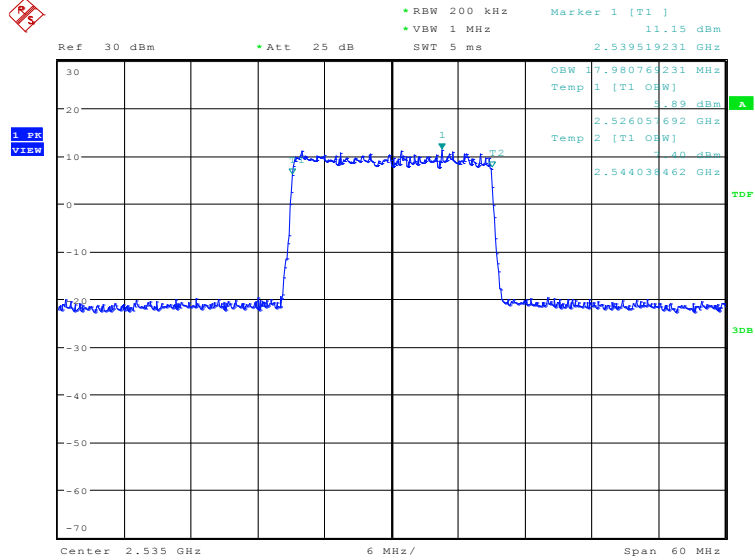


Date: 14.OCT.2019 15:50:15

LTE band 14, 10MHz (-26dBc)

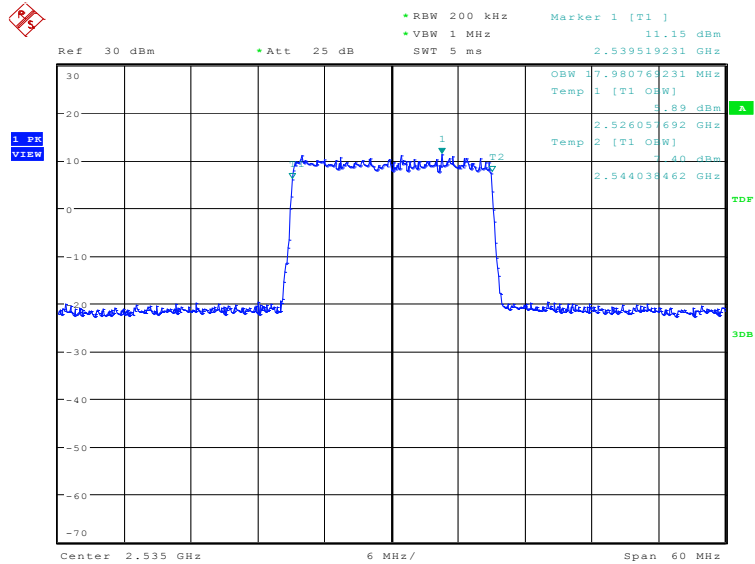
| Frequency(MHz) | Occupied Bandwidth (-26dBc)(kHz) | | |
|----------------|-----------------------------------|---------|---------|
| 793.0 | QPSK | 16QAM | 64QAM |
| | 8990.38 | 9663.46 | 9711.54 |

LTE band 14, 10MHz Bandwidth, QPSK (-26dBc BW)



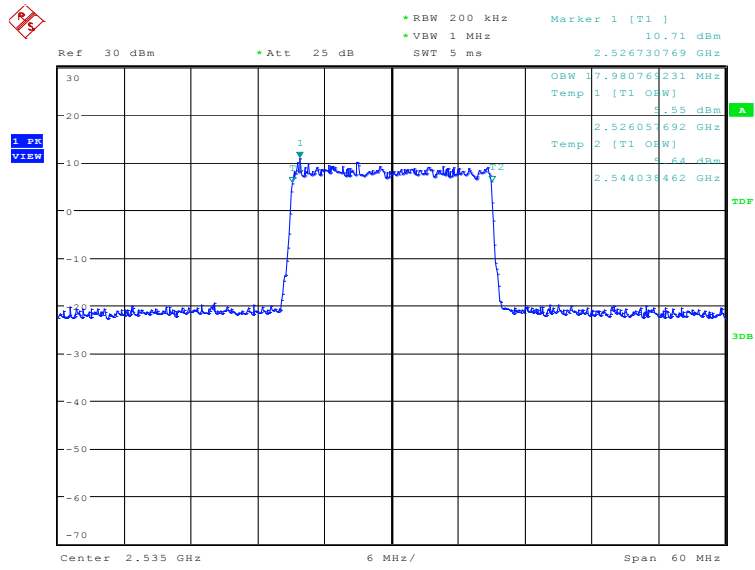
Date: 14.OCT.2019 15:54:09

LTE band 14, 10MHz Bandwidth, 16QAM (-26dBc BW)



Date: 14.OCT.2019 15:54:09

LTE band 14, 10MHz Bandwidth, 64QAM (99% BW)

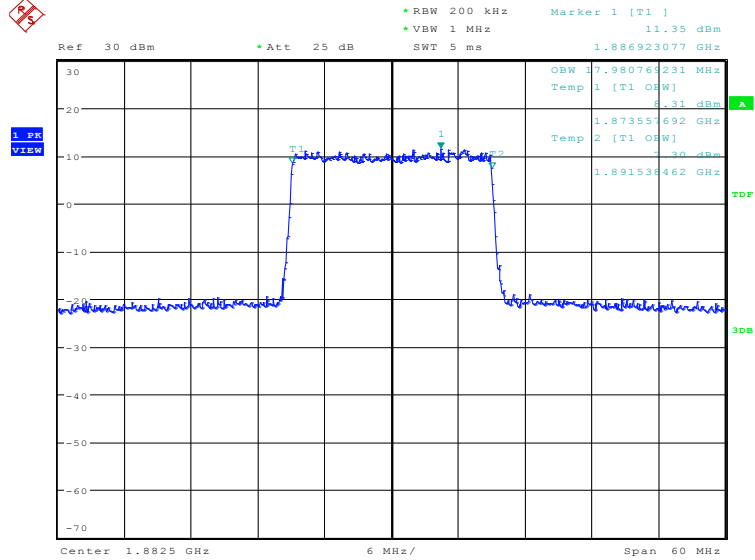


Date: 14.OCT.2019 15:50:15

LTE band 25, 20MHz (-26dBc)

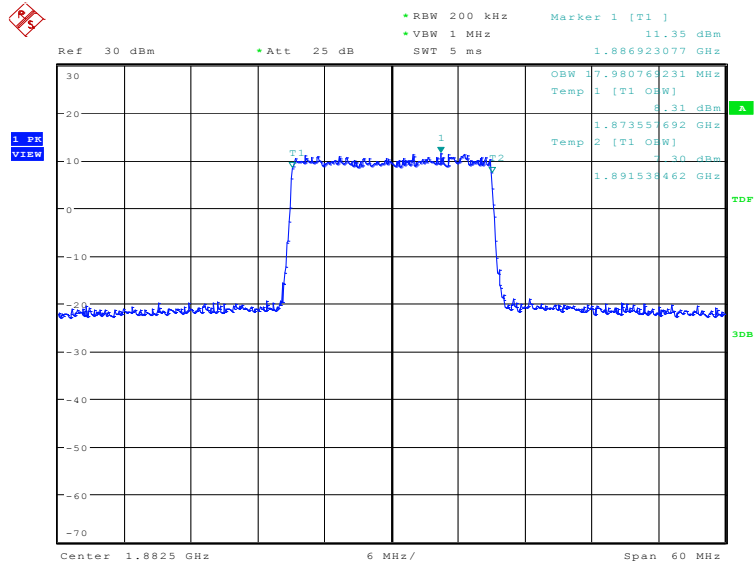
| Frequency(MHz) | Occupied Bandwidth (-26dBc)(kHz) | | |
|----------------|----------------------------------|----------|----------|
| | QPSK | 16QAM | 64QAM |
| 1882.5 | 17980.77 | 19326.92 | 19423.08 |

LTE band 25, 20MHz Bandwidth, QPSK (-26dBc BW)



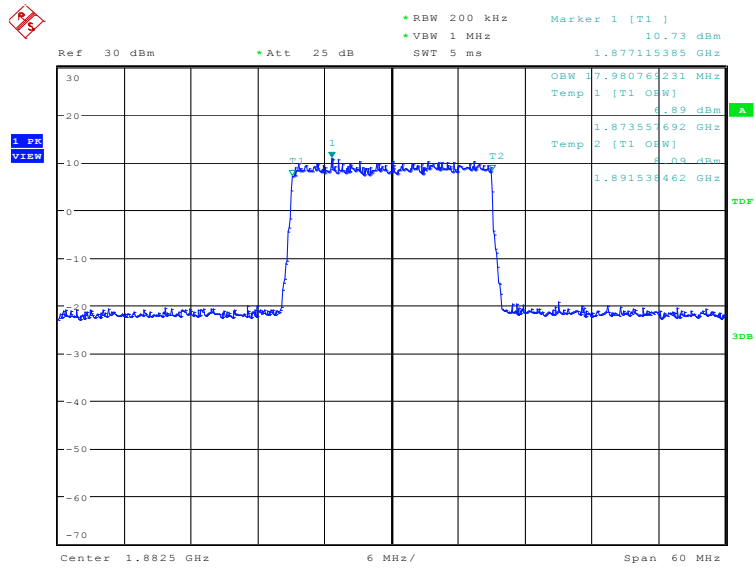
Date: 14.OCT.2019 15:57:12

LTE band 25, 20MHz Bandwidth, 16QAM (-26dBc BW)



Date: 14.OCT.2019 15:57:12

LTE band 25, 20MHz Bandwidth, 64QAM (99% BW)

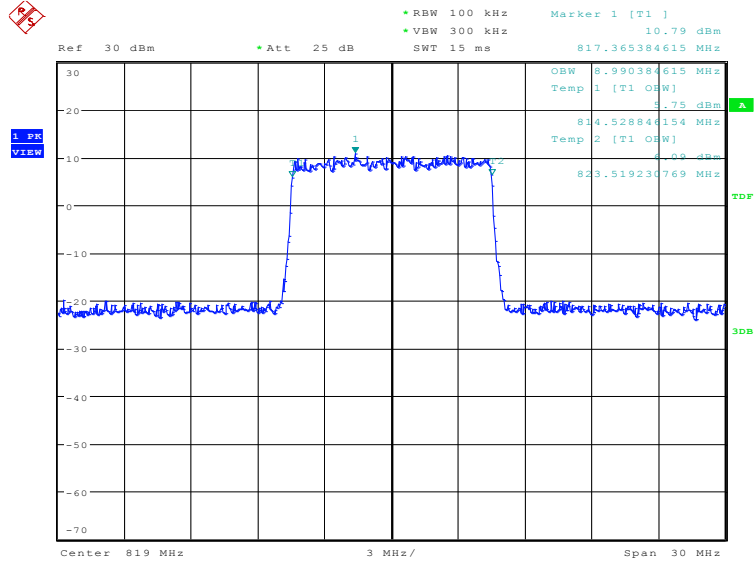


Date: 14.OCT.2019 15:55:29

LTE band 26(814MHz~824MHz), 10MHz (-26dBc)

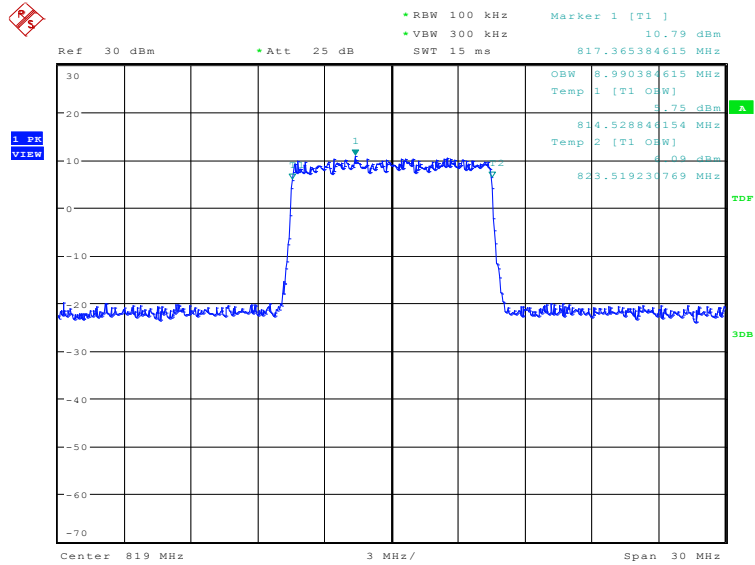
| Frequency(MHz) | Occupied Bandwidth (-26dBc)(kHz) | | |
|----------------|-----------------------------------|---------|---------|
| | QPSK | 16QAM | 64QAM |
| 819.0 | 8990.38 | 9711.54 | 9663.46 |

LTE band 26(814MHz~824MHz), 10MHz Bandwidth, QPSK (-26dBc BW)



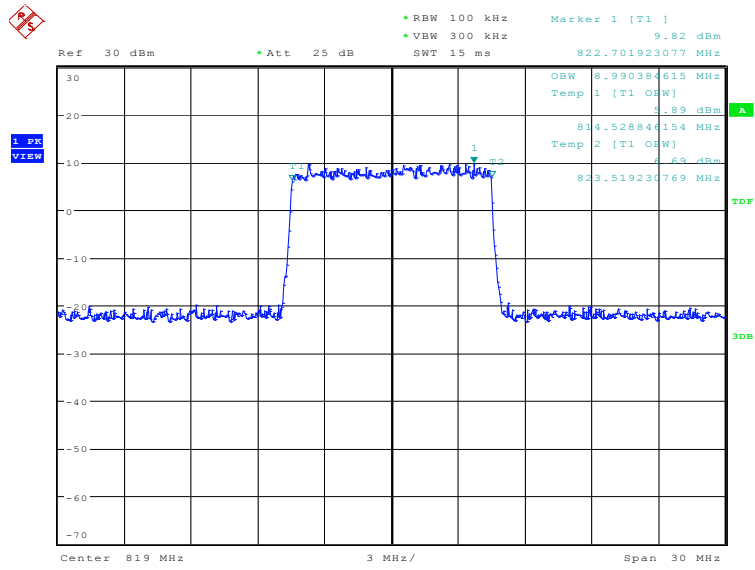
Date: 14.OCT.2019 17:02:43

LTE band 26(814MHz~824MHz), 10MHz Bandwidth, 16QAM (-26dBc BW)



Date: 14.OCT.2019 17:02:43

LTE band 26(814MHz~824MHz), 10MHz Bandwidth,64QAM (99% BW)

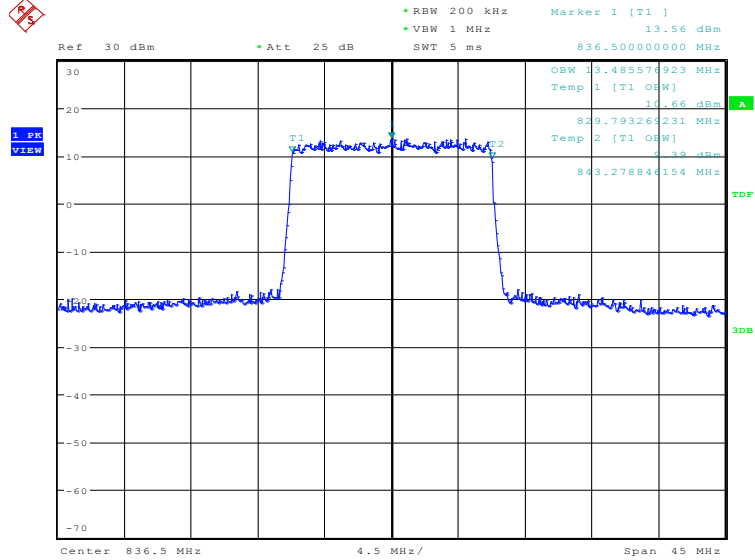


Date: 14.OCT.2019 16:58:55

LTE band 26(824MHz~849MHz),15MHz (-26dBc)

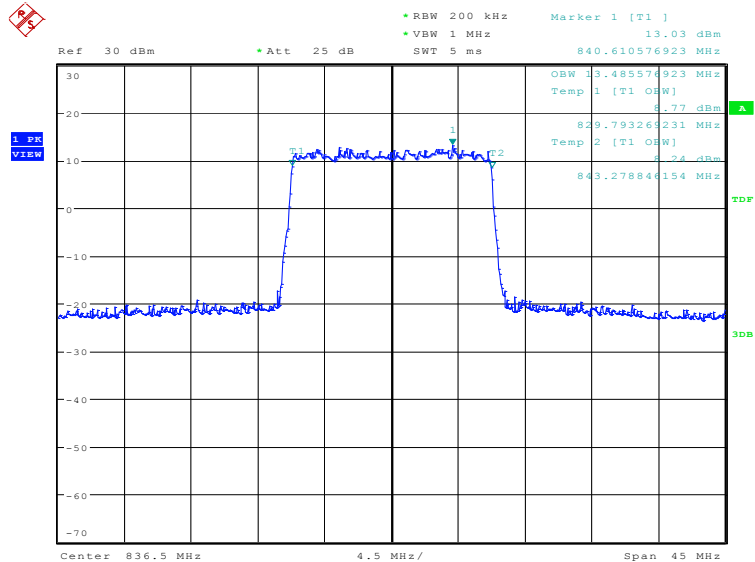
| Frequency(MHz) | Occupied Bandwidth (-26dBc)(kHz) | | |
|----------------|----------------------------------|----------|----------|
| | QPSK | 16QAM | 64QAM |
| 836.5 | 13485.58 | 14711.54 | 14639.42 |

LTE band 26(824MHz~849MHz), 15MHz Bandwidth, QPSK (-26dBc BW)



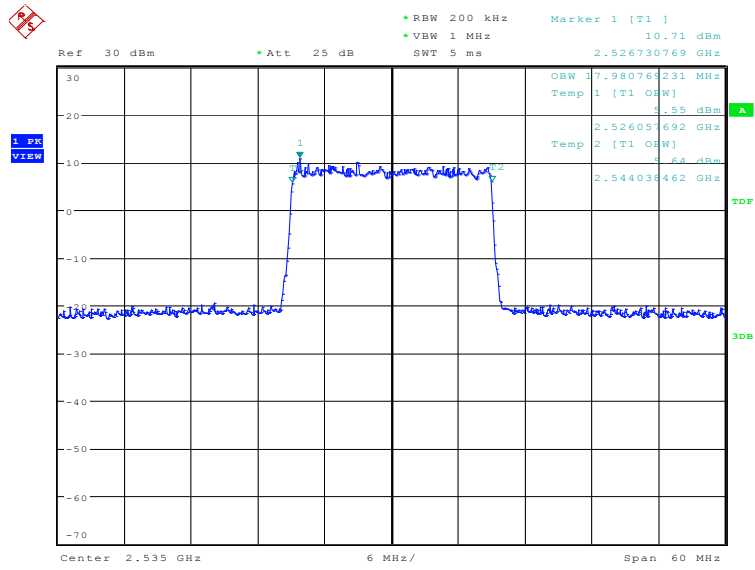
Date: 14.OCT.2019 16:50:26

LTE band 26(824MHz~849MHz), 15MHz Bandwidth, 16QAM (-26dBc BW)



Date: 14.OCT.2019 16:49:37

LTE band 26(824MHz~849MHz), 15MHz Bandwidth,64QAM (99% BW)

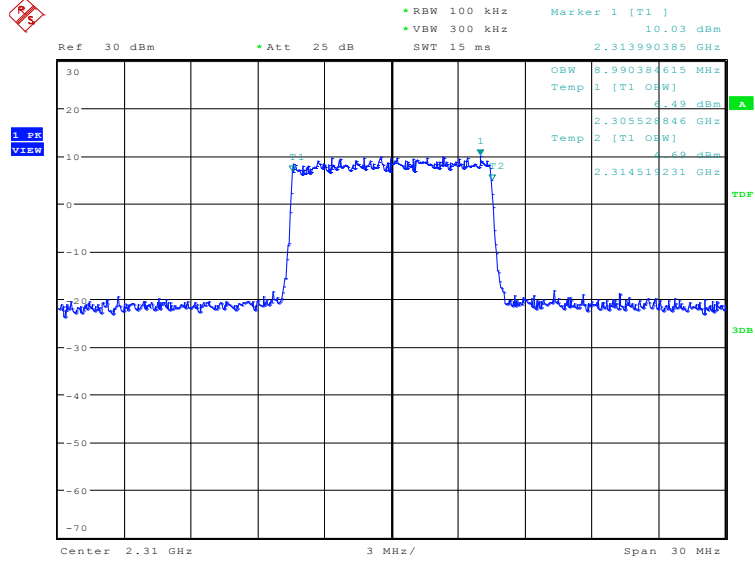


Date: 14.OCT.2019 15:50:15

LTE band 30, 10MHz (-26dBc)

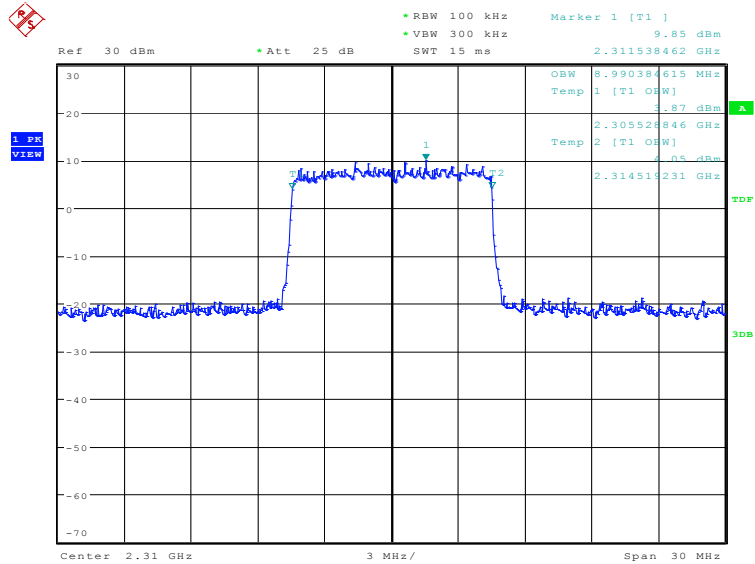
| Frequency(MHz) | Occupied Bandwidth (-26dBc)(kHz) | | |
|----------------|----------------------------------|---------|---------|
| | QPSK | 16QAM | 64QAM |
| 2310.0 | 8990.38 | 9711.54 | 9759.62 |

LTE band 30, 10MHz Bandwidth, QPSK (-26dBc BW)



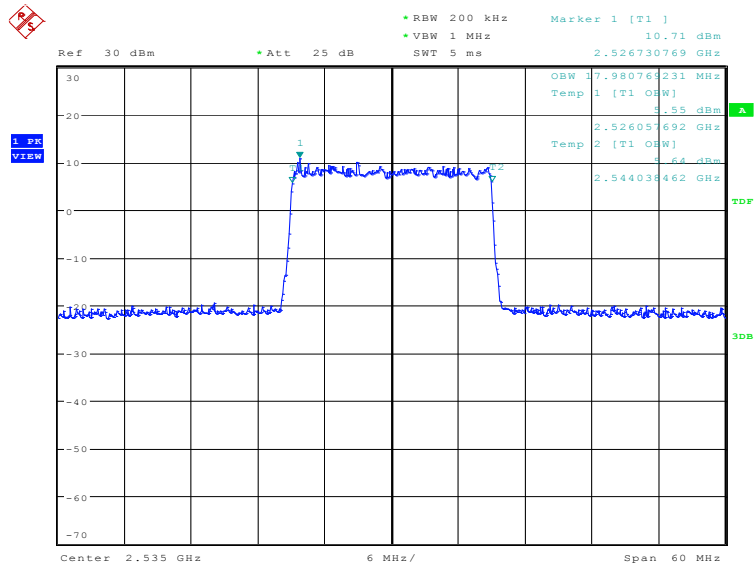
Date: 14.OCT.2019 17:14:54

LTE band 30, 10MHz Bandwidth, 16QAM (-26dBc BW)



Date: 14.OCT.2019 17:13:37

LTE band 30, 10MHz Bandwidth, 64QAM (99% BW)

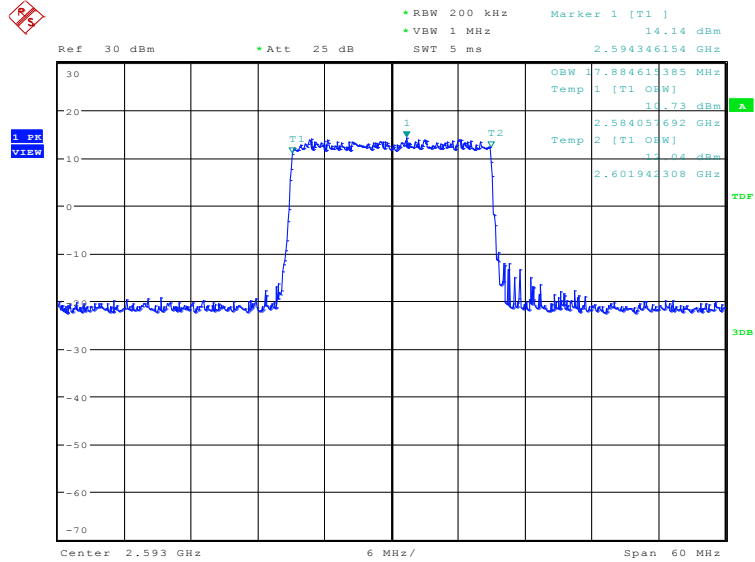


Date: 14.OCT.2019 15:50:15

LTE band 41(PC2), 20MHz (-26dBc)

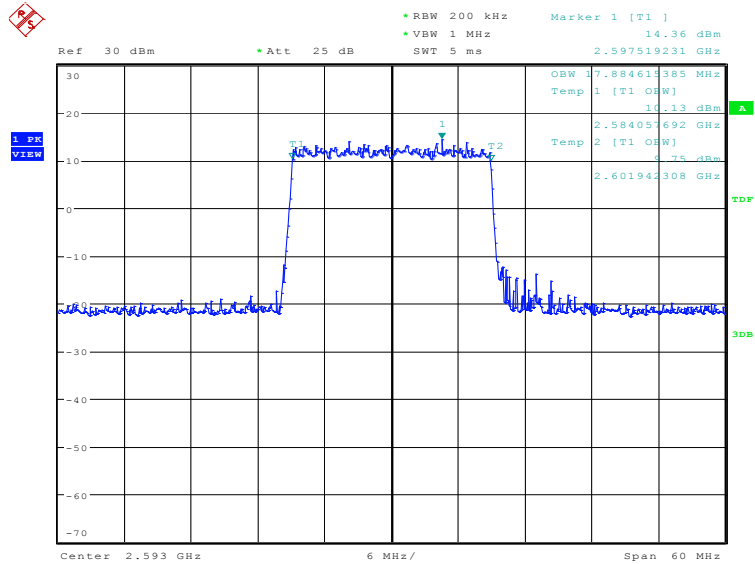
| Frequency(MHz) | Occupied Bandwidth (-26dBc)(kHz) | | |
|----------------|----------------------------------|----------|----------|
| | QPSK | 16QAM | 64QAM |
| 2593.0 | 17884.62 | 19230.77 | 19230.77 |

LTE band 41(PC2), 20MHz Bandwidth, QPSK (-26dBc BW)



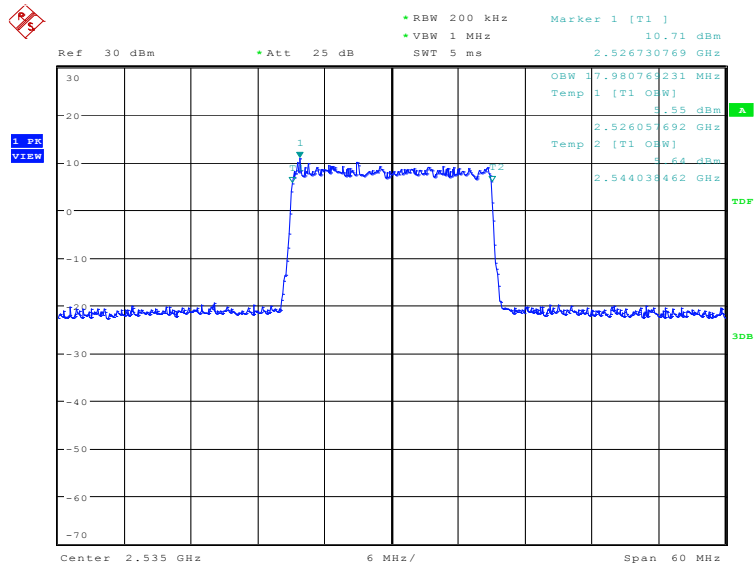
Date: 14.OCT.2019 16:05:19

LTE band 41(PC2), 20MHz Bandwidth, 16QAM (-26dBc BW)



Date: 14.OCT.2019 16:03:13

LTE band 41(PC2), 20MHz Bandwidth,64QAM (99% BW)

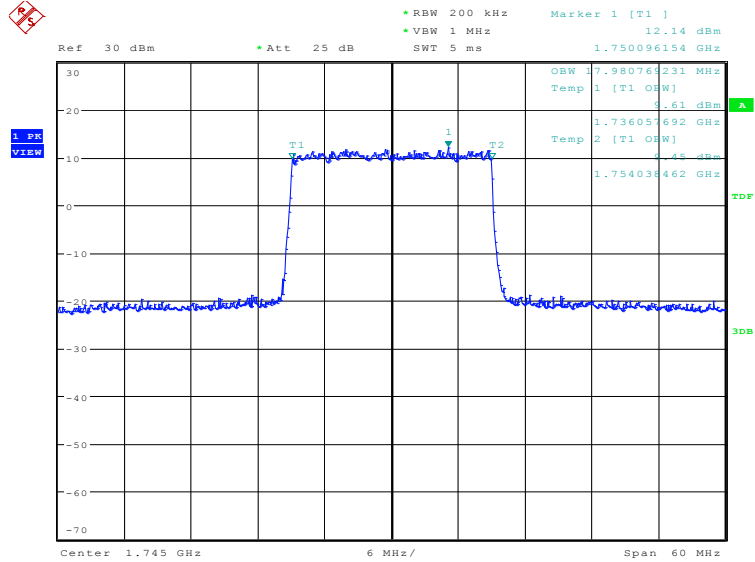


Date: 14.OCT.2019 15:50:15

LTE band 66, 20MHz (-26dBc)

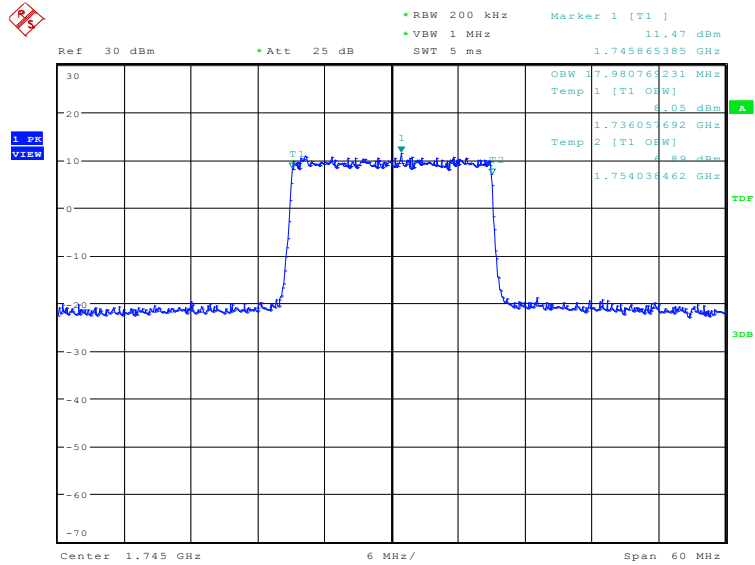
| Frequency(MHz) | Occupied Bandwidth (-26dBc)(kHz) | | |
|----------------|----------------------------------|----------|----------|
| | QPSK | 16QAM | 64QAM |
| 1745.0 | 17980.77 | 19423.08 | 19423.08 |

LTE band 66, 20MHz Bandwidth, QPSK (-26dBc BW)



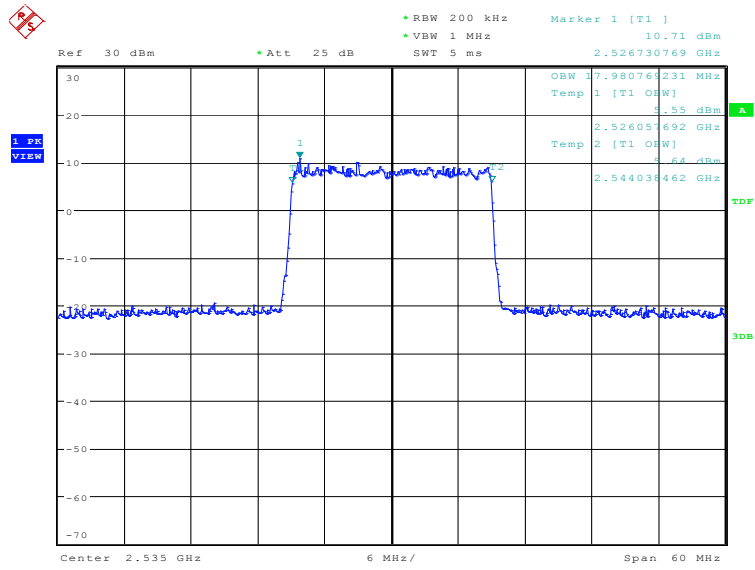
Date: 14.OCT.2019 16:10:20

LTE band 66, 20MHz Bandwidth, 16QAM (-26dBc BW)



Date: 14.OCT.2019 16:08:45

LTE band 66, 20MHz Bandwidth, 64QAM (99% BW)

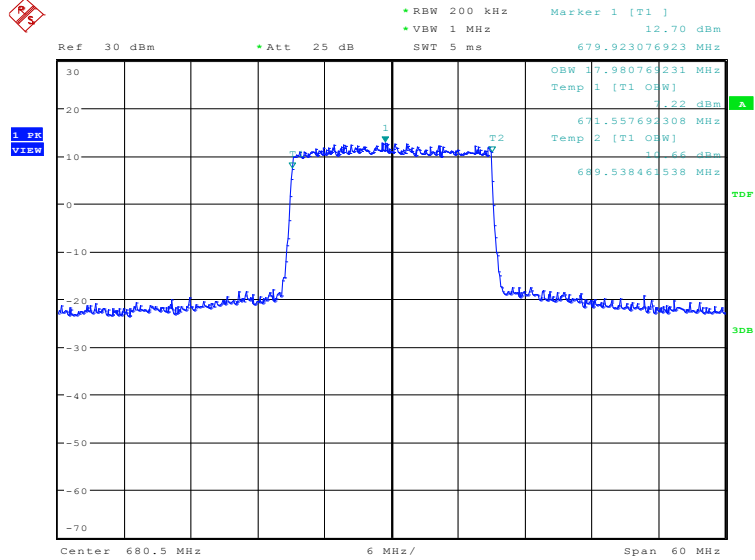


Date: 14.OCT.2019 15:50:15

LTE band 71, 20MHz (-26dBc)

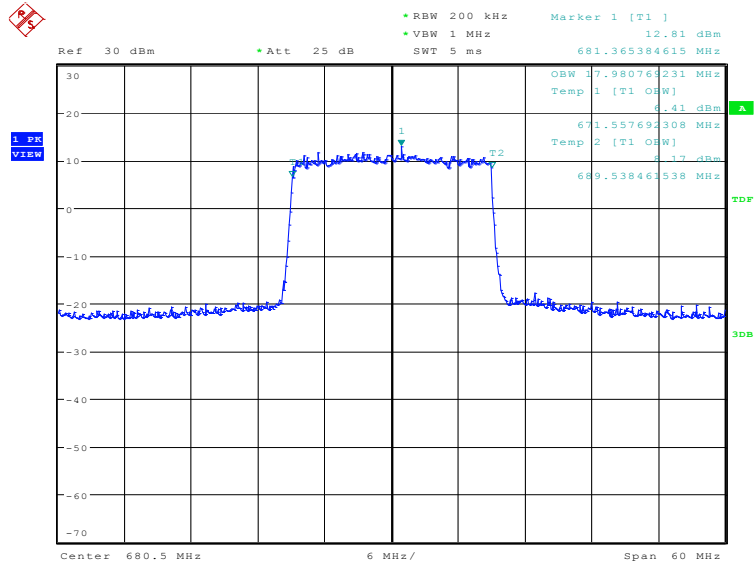
| Frequency(MHz) | Occupied Bandwidth (-26dBc)(kHz) | | |
|----------------|----------------------------------|----------|----------|
| | QPSK | 16QAM | 64QAM |
| 680.5 | 17980.77 | 19326.92 | 19326.92 |

LTE band 71, 20MHz Bandwidth, QPSK (-26dBc BW)



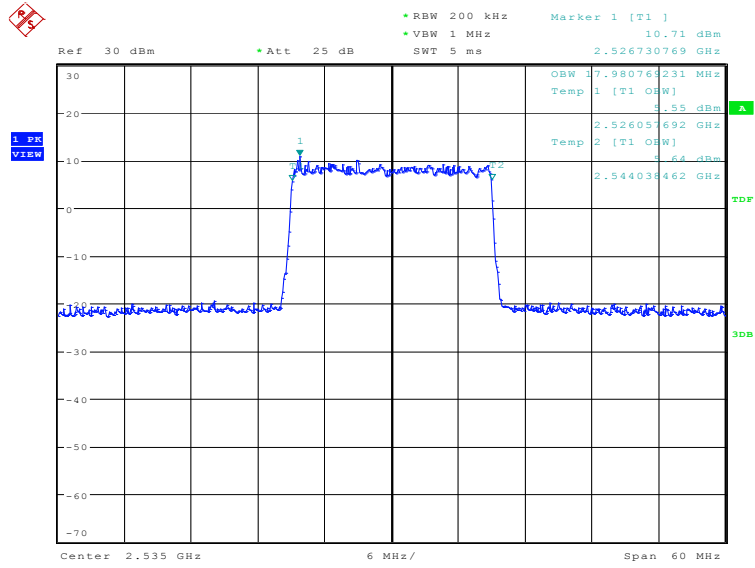
Date: 14.OCT.2019 16:37:08

LTE band 71, 20MHz Bandwidth, 16QAM (-26dBc BW)



Date: 14.OCT.2019 16:36:13

LTE band 71, 20MHz Bandwidth, 64QAM (99% BW)



Date: 14.OCT.2019 15:50:15

A.6 BAND EDGE COMPLIANCE

A.6.1 Measurement limit

Part 22.917, Part 24.238 and Part 27.53(h) specify that 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.

According to KDB 971168 6.0, a relaxation of the reference bandwidth is often provided for measurements within a specified frequency range at the edge of the authorized frequency block/band. This is often implemented by permitting the use of a narrower RBW (typically limited to a minimum RBW of 1% of the OBW) for measuring the out-of-band emissions without a requirement to integrate the result over the full reference bandwidth.

The specification that emissions shall be attenuated below the transmitter power (P) by at least $43 + 10 \log(P)$ dB, translates in the relevant power range (1 to 0.001 W) to -13 dBm. At 1 W the specified minimum attenuation becomes 43 dB and relative to a 30 dBm (1 W) carrier becomes a limit of -13 dBm. At 0.001 W (0 dBm) the minimum attenuation is 13 dB, which again yields a limit of -13 dBm. In this way a translation of the specification from relative to absolute terms is carried out.

Part 27.53(m)(4) specifies 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.

Part 27.53(c) states for operations in the 746-758 MHz band and the 776-788 MHz band, the power of any emission outside the 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, in accordance with the following: (1) On any frequency outside the 746-758 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; (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; (4) On all frequencies between 763-775 MHz and 793-805 MHz, by a factor not less than $65 + 10 \log(P)$ dB in a 6.25 kHz band segment, for mobile and portable stations.

Part 90.543 states that For operations in the 758-768 MHz and the 788-798 MHz bands, the power of any emission outside the 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, in accordance with the following: (1) On all frequencies between 769-775 MHz and 799-805 MHz, by a factor not less than $76 + 10 \log(P)$ dB in a 6.25 kHz band segment, for base and fixed

stations. (2) On all frequencies between 769–775 MHz and 799–805 MHz, by a factor not less than $65 + 10 \log (P)$ dB in a 6.25 kHz band segment, for mobile and portable stations. (3) On any frequency between 775–788 MHz, above 805 MHz, and below 758 MHz, by at least $43 + 10 \log (P)$ dB. (4) Compliance with the provisions of paragraphs (e)(1) and (2) of this section is based on the use of measurement instrumentation such that the reading taken with any resolution bandwidth setting should be adjusted to indicate spectral energy in a 6.25 kHz segment. (5) Compliance with the provisions of paragraph (e)(3) of this section is based on the use of measurement instrumentation employing a resolution bandwidth of 100 kHz or greater. However, in the 100 kHz bands immediately outside and adjacent to the frequency block, a resolution bandwidth of 30 kHz may be employed.

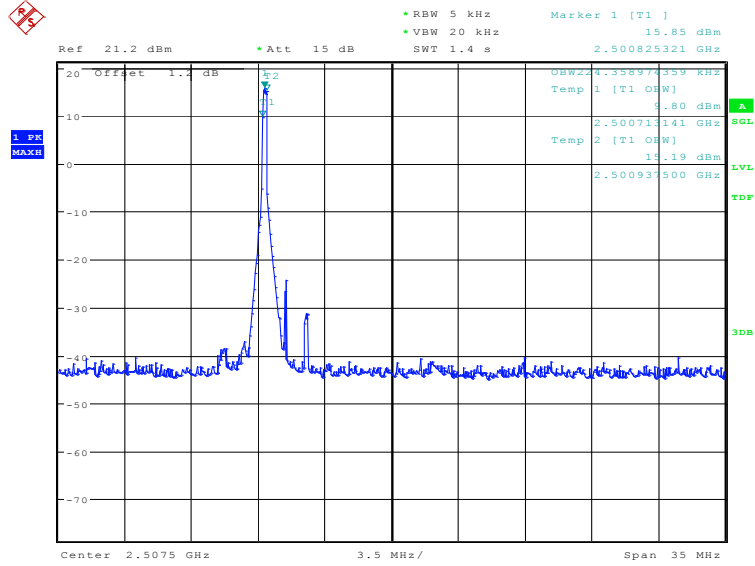
Part 90.691 states that out-of-band emission requirement shall apply only to the “outer” channels included in an EA license and to spectrum adjacent to interior channels used by incumbent licensees. The emission limits are as follows: For any frequency removed from the EA licensee’s frequency block by up to and including 37.5 kHz, the power of any emission shall be attenuated below the transmitter power (P) in watts by at least $116 \log_{10}(f/6.1)$ decibels or $50 + 10 \log_{10}(P)$ decibels or 80 decibels, whichever is the lesser attenuation, where f is the frequency removed from the center of the outer channel in the block in kilohertz and where f is greater than 12.5 kHz. For any frequency removed from the EA licensee’s frequency block greater than 37.5 kHz, the power of any emission shall be attenuated below the transmitter power (P) in watts by at least $43 + 10 \log_{10}(P)$ decibels or 80 decibels, whichever is the lesser attenuation, where f is the frequency removed from the center of the outer channel in the block in kilohertz and where f is greater than 37.5 kHz.

A.6.2 Measurement result

Only the worst case result is given below

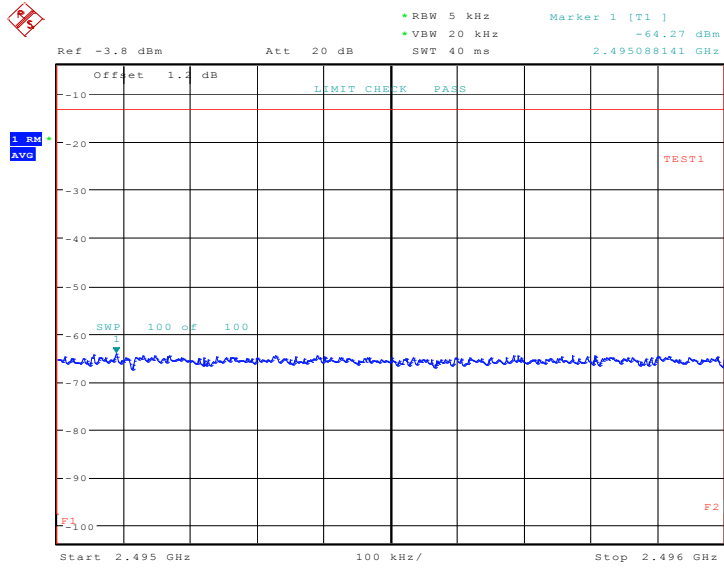
LTE band 7

OBW: 1RB-low_offset

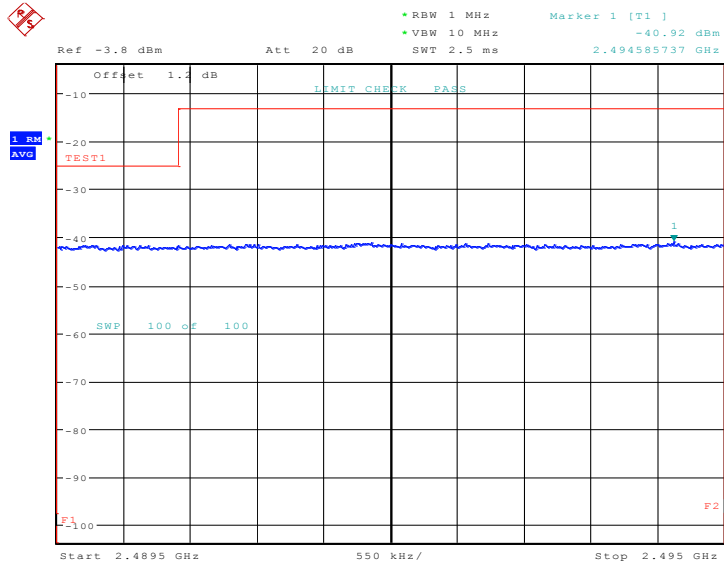


Date: 23.OCT.2019 11:34:19

LOW BAND EDGE BLOCK-1RB-low_offset

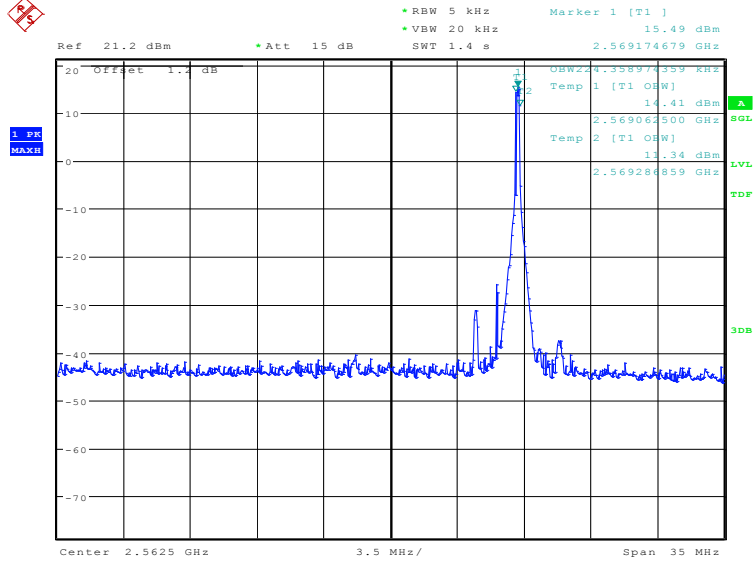


Date: 23.OCT.2019 11:34:39



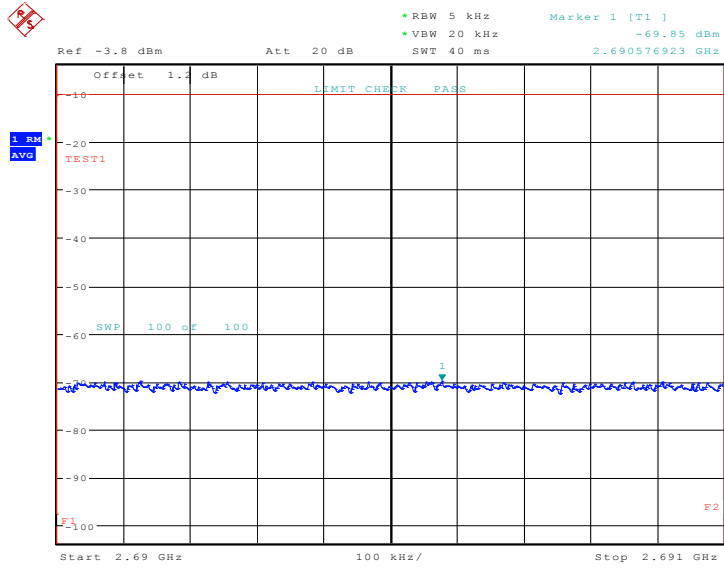
Date: 23.OCT.2019 11:34:54

OBW: 1RB-high_offset

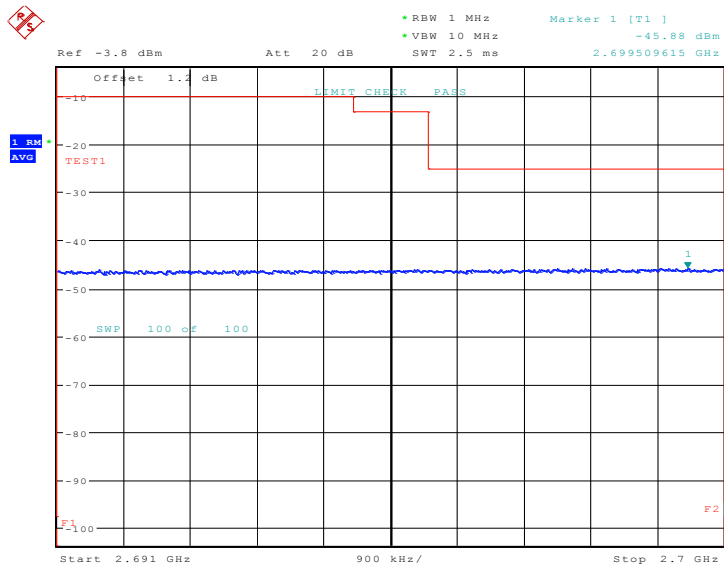


Date: 23.OCT.2019 11:38:22

HIGH BAND EDGE BLOCK-1RB-high_offset

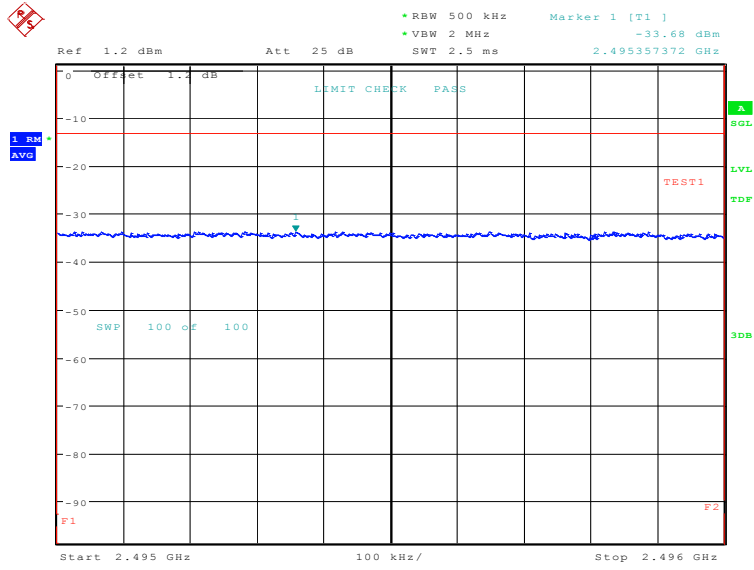


Date: 23.OCT.2019 11:38:43

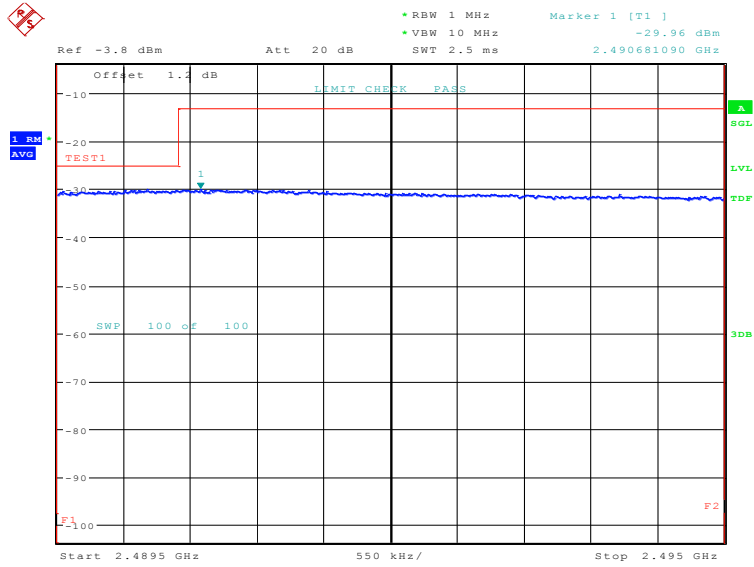


Date: 23.OCT.2019 11:38:58

LOW BAND EDGE BLOCK-20MHz-100%RB

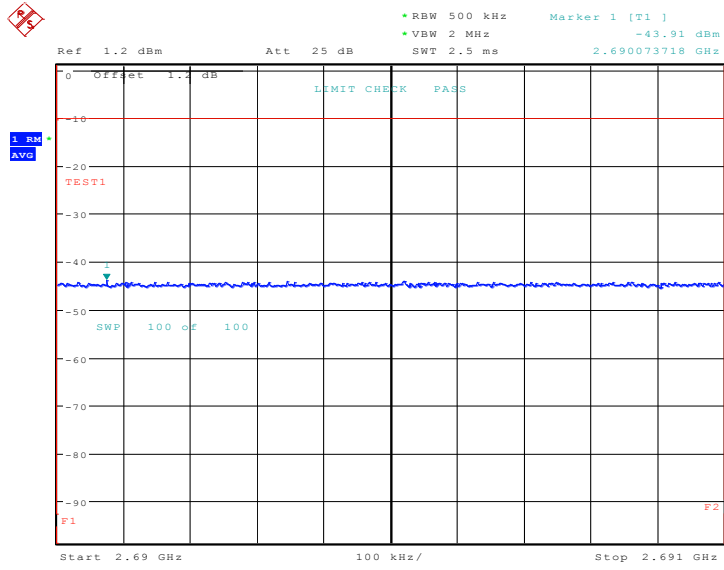


Date: 23.OCT.2019 11:35:30

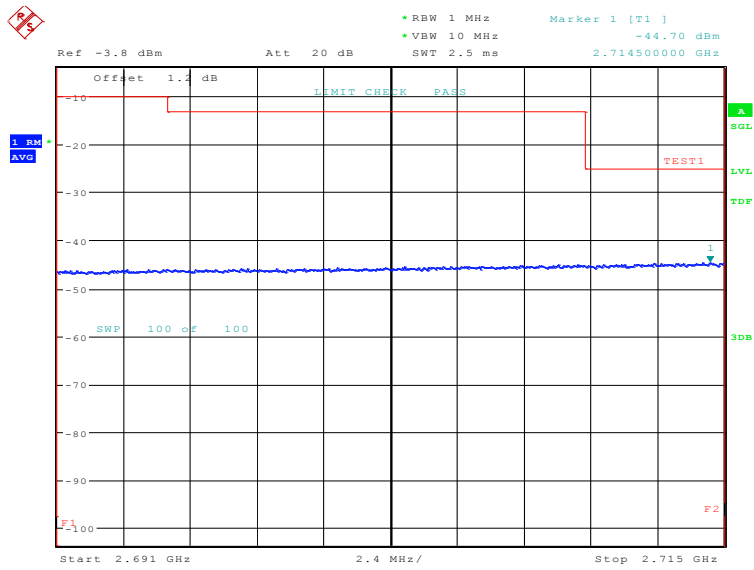


Date: 23.OCT.2019 11:35:45

HIGH BAND EDGE BLOCK-20MHz-100%RB

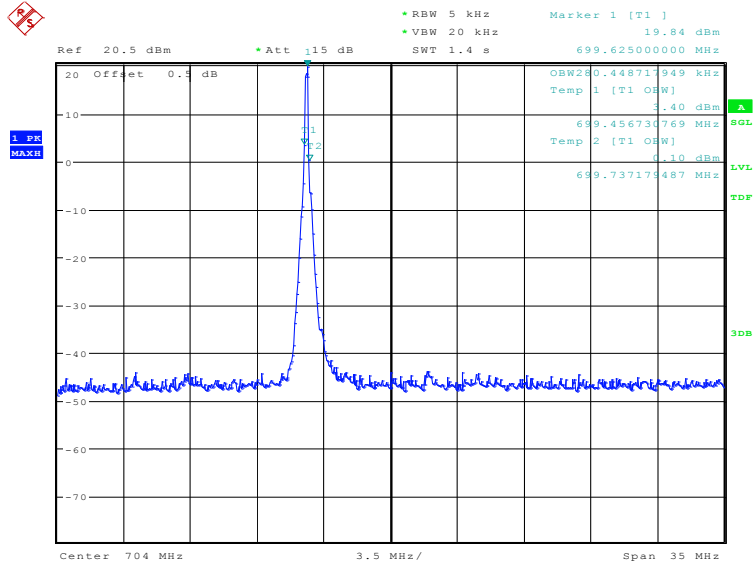


Date: 23.OCT.2019 11:39:33



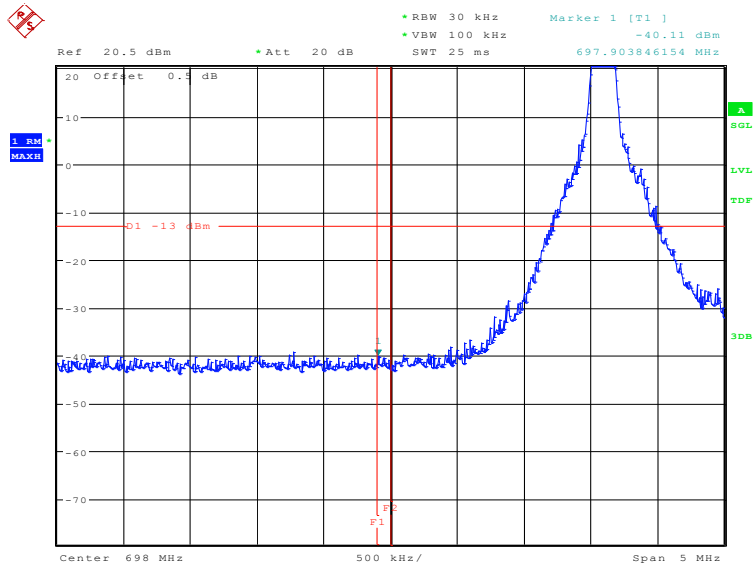
Date: 23.OCT.2019 11:39:48

LTE band 12
OBW: 1RB-low_offset



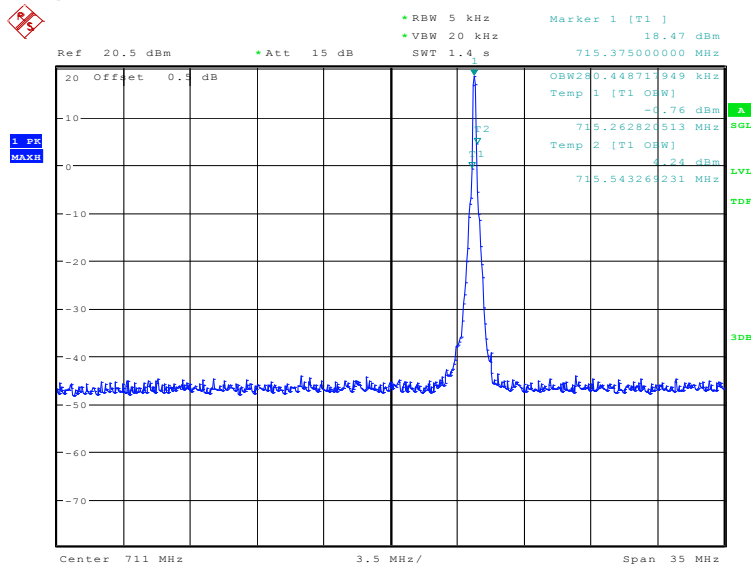
Date: 23.OCT.2019 12:15:57

LOW BAND EDGE BLOCK-1RB-low_offset



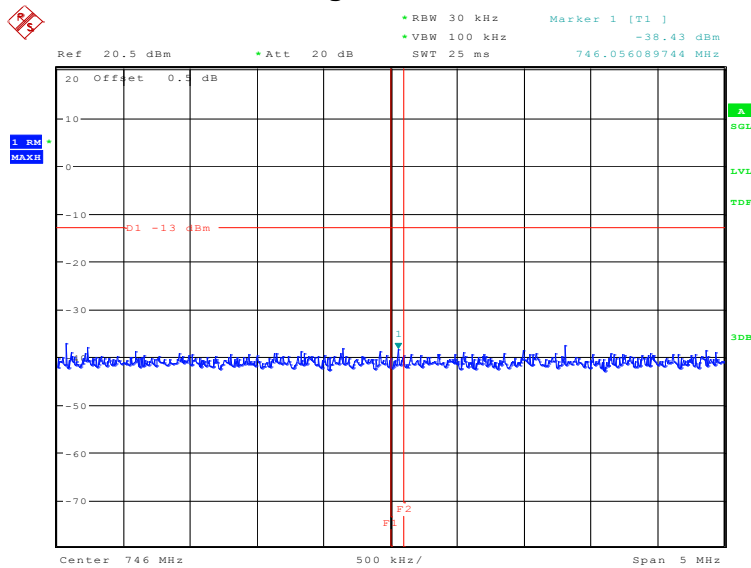
Date: 23.OCT.2019 12:16:13

OBW: 1RB-high_offset



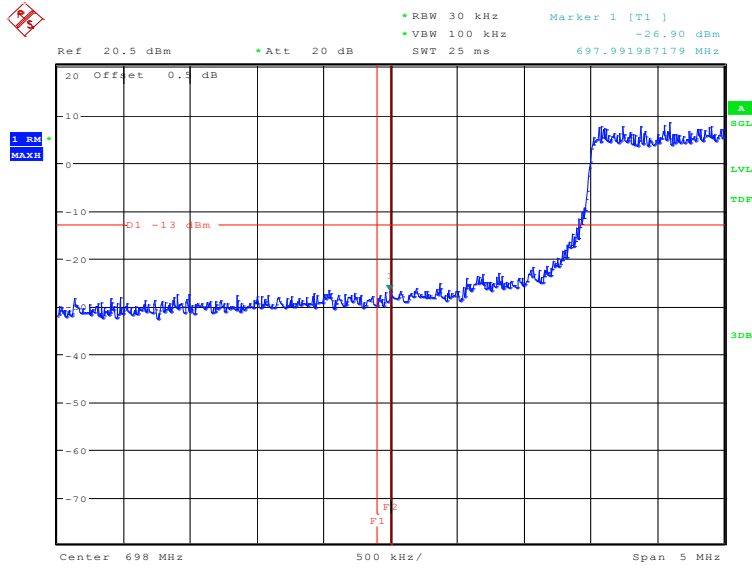
Date: 23.OCT.2019 12:18:01

HIGH BAND EDGE BLOCK-1RB-high_offset



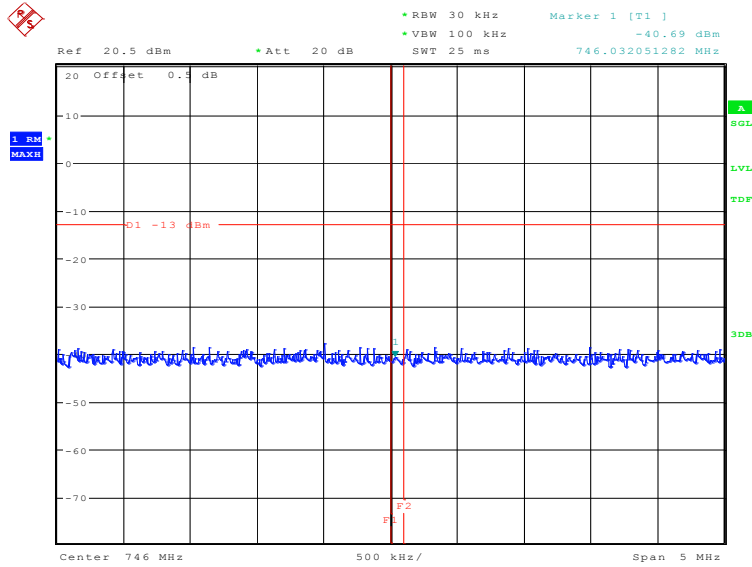
Date: 23.OCT.2019 12:18:17

LOW BAND EDGE BLOCK-10MHz-100%RB



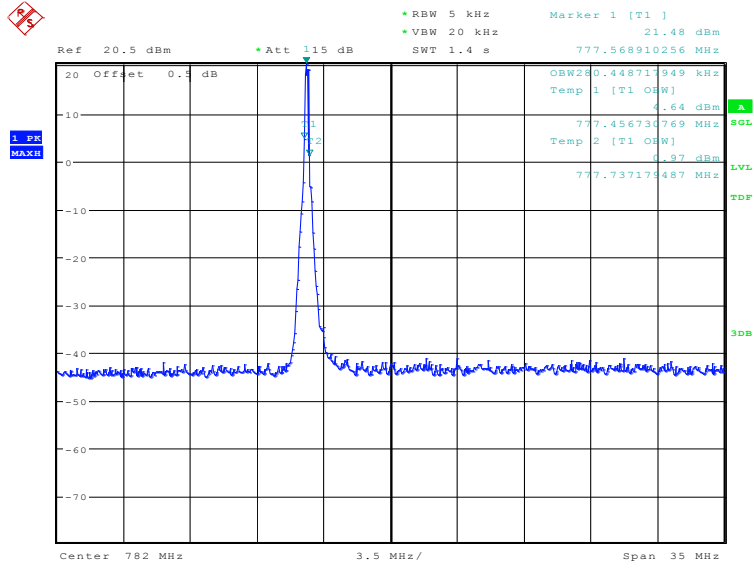
Date: 23.OCT.2019 12:16:42

HIGH BAND EDGE BLOCK-10MHz-100%RB



Date: 23.OCT.2019 12:18:46

LTE band 13
OBW: 1RB-low_offset



Date: 23.OCT.2019 12:23:08