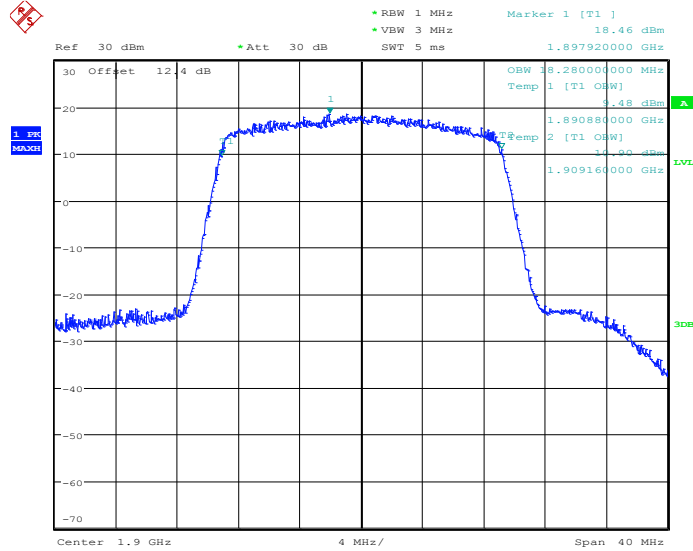


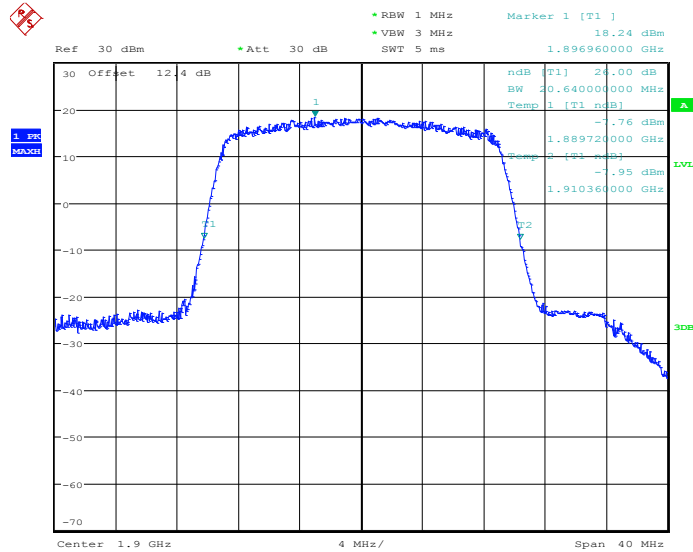


99% Occupied Bandwidth Plot on Channel 19100



Date: 9.MAY.2014 16:39:02

26dB Bandwidth Plot on Channel 19100

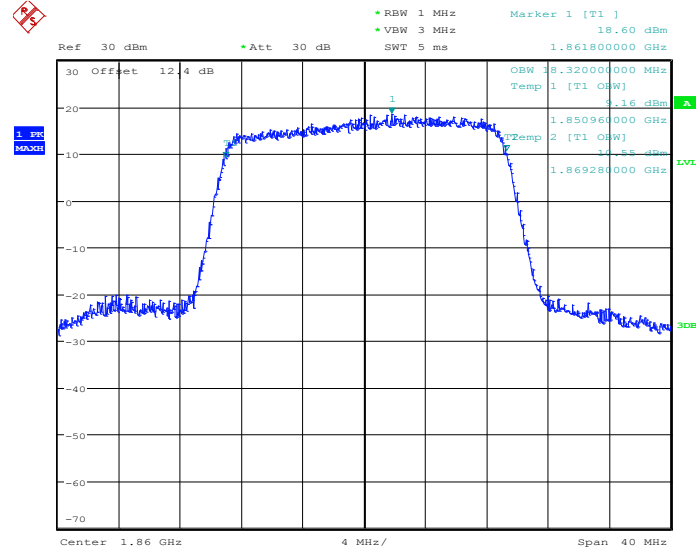


Date: 9.MAY.2014 16:39:35



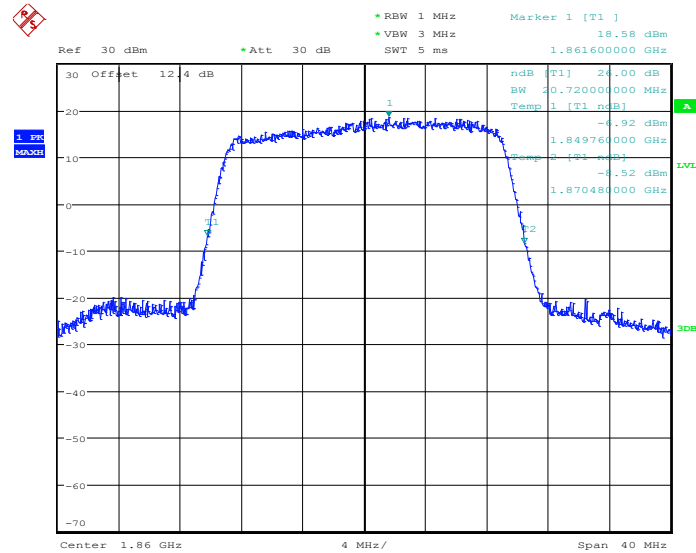
| | | | |
|---------------|------------|--------------------|---------------|
| Band : | LTE Band 2 | BW / Mod. : | 20MHz / 16QAM |
|---------------|------------|--------------------|---------------|

99% Occupied Bandwidth Plot on Channel 18700



Date: 9.MAY.2014 16:29:52

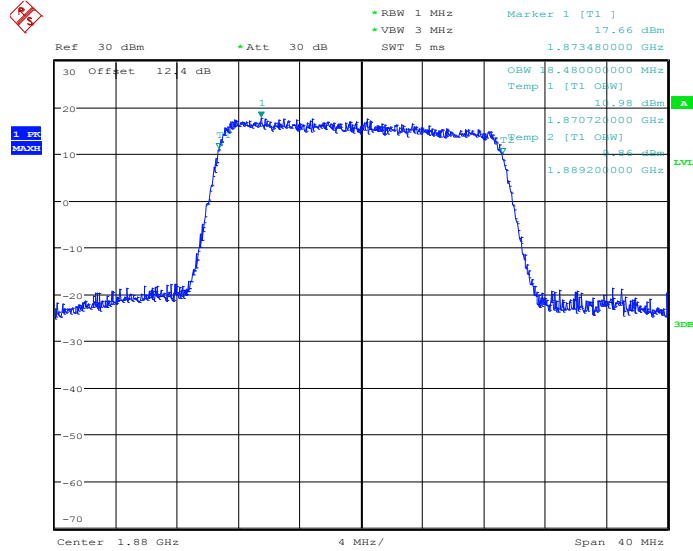
26dB Bandwidth Plot on Channel 18700



Date: 9.MAY.2014 16:30:27

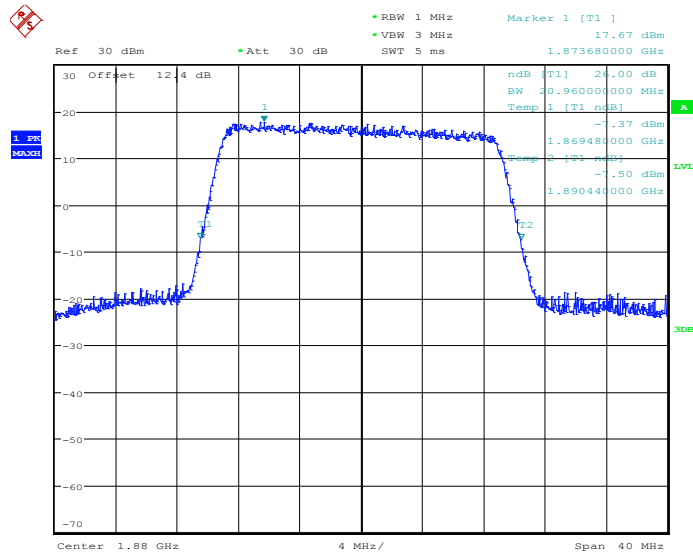


99% Occupied Bandwidth Plot on Channel 18900



Date: 9.MAY.2014 16:36:09

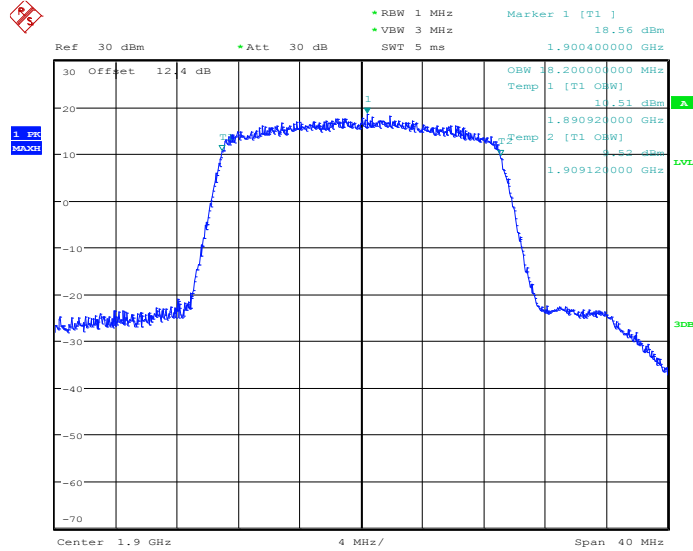
26dB Bandwidth Plot on Channel 18900



Date: 9.MAY.2014 16:36:45

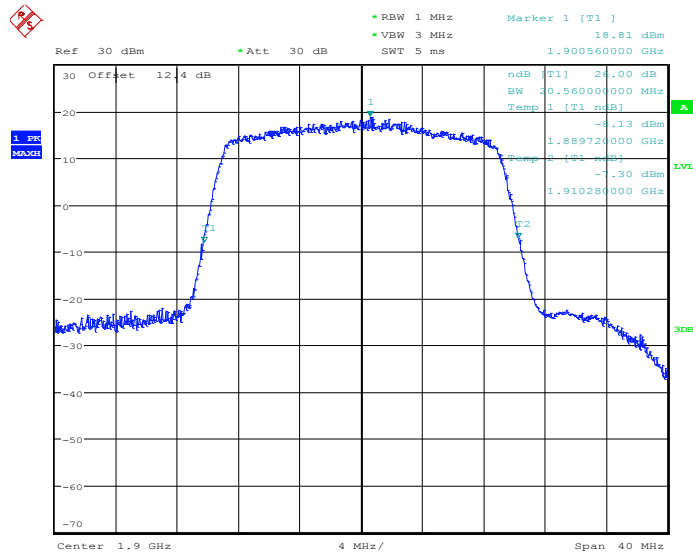


99% Occupied Bandwidth Plot on Channel 19100



Date: 9.MAY.2014 16:39:17

26dB Bandwidth Plot on Channel 19100

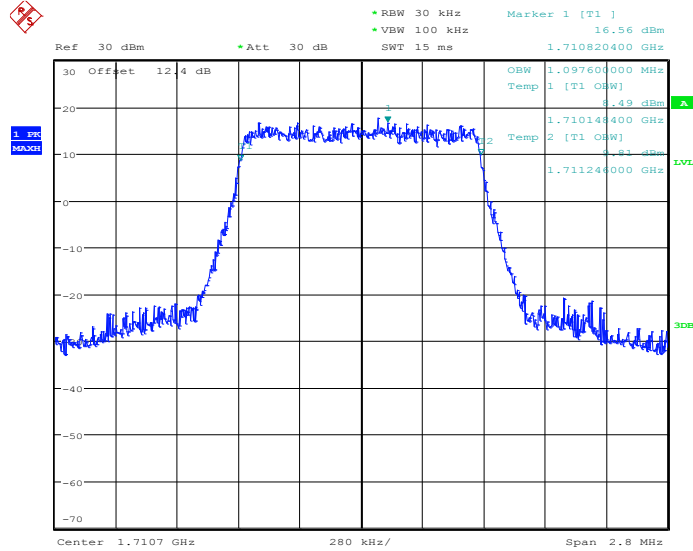


Date: 9.MAY.2014 16:39:53



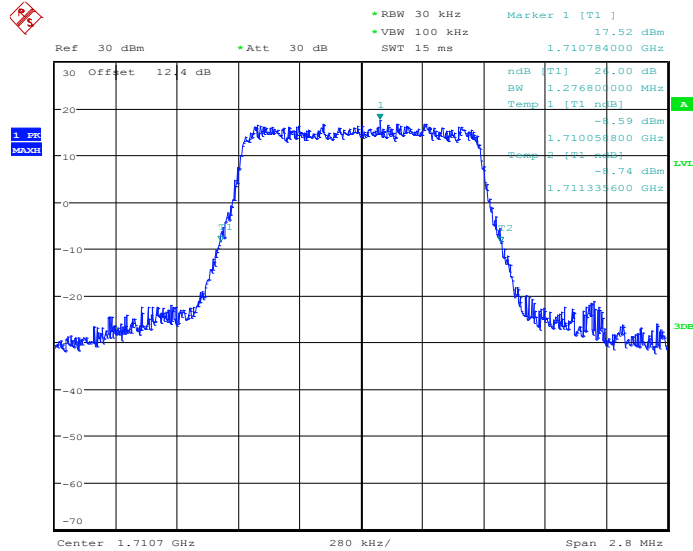
| | | | |
|---------------|------------|--------------------|---------------|
| Band : | LTE Band 4 | BW / Mod. : | 1.4MHz / QPSK |
|---------------|------------|--------------------|---------------|

99% Occupied Bandwidth Plot on Channel 1957



Date: 10.MAY.2014 08:23:24

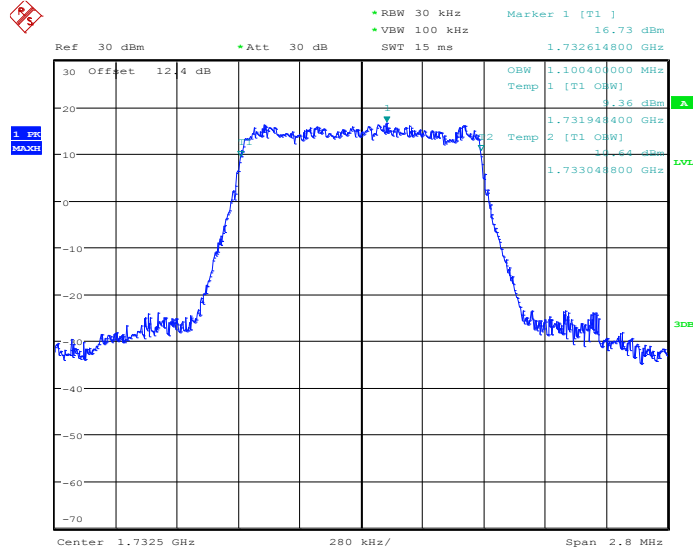
26dB Bandwidth Plot on Channel 1957



Date: 10.MAY.2014 08:23:58

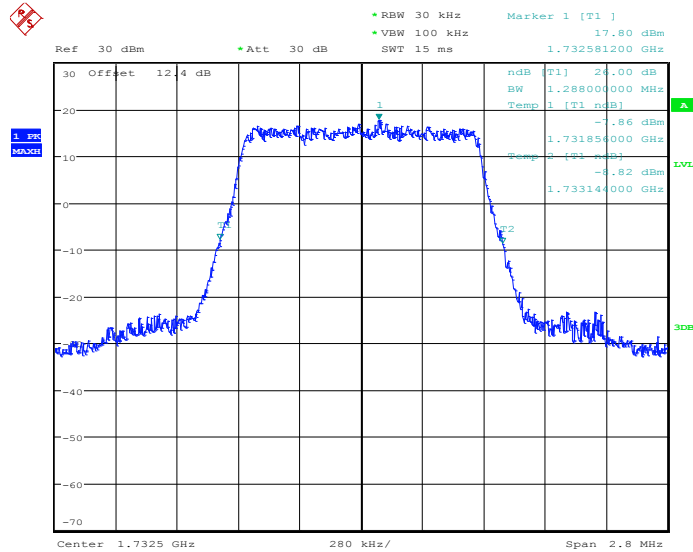


99% Occupied Bandwidth Plot on Channel 20175



Date: 10.MAY.2014 08:29:39

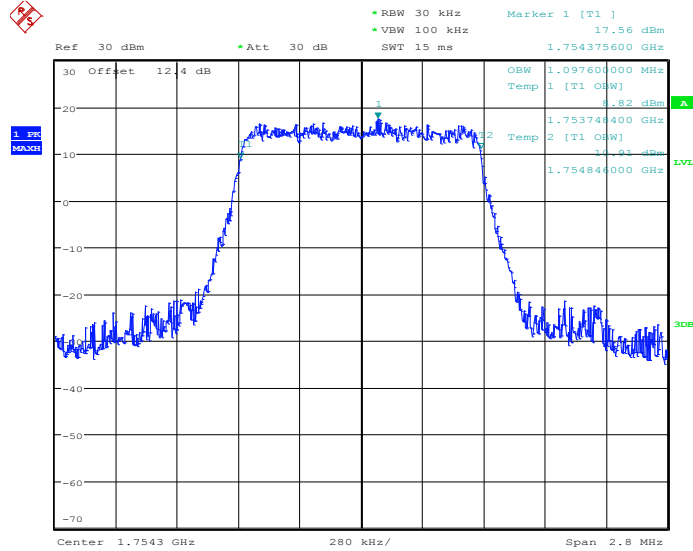
26dB Bandwidth Plot on Channel 20175



Date: 10.MAY.2014 08:30:14

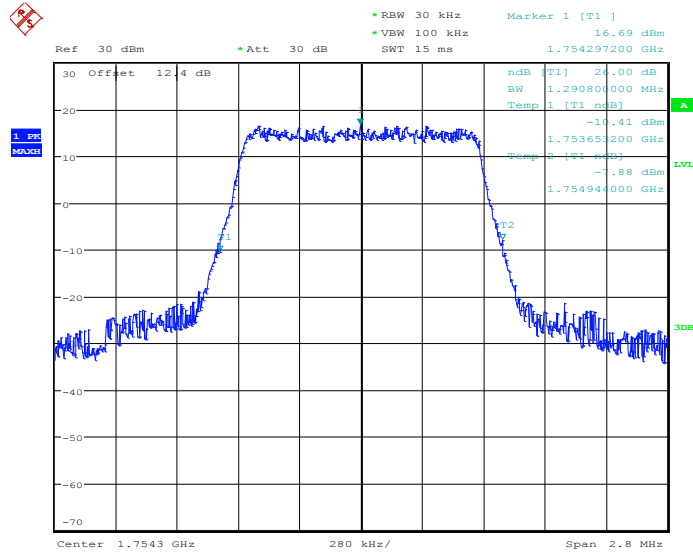


99% Occupied Bandwidth Plot on Channel 20393



Date: 10.MAY.2014 08:32:48

26dB Bandwidth Plot on Channel 20393

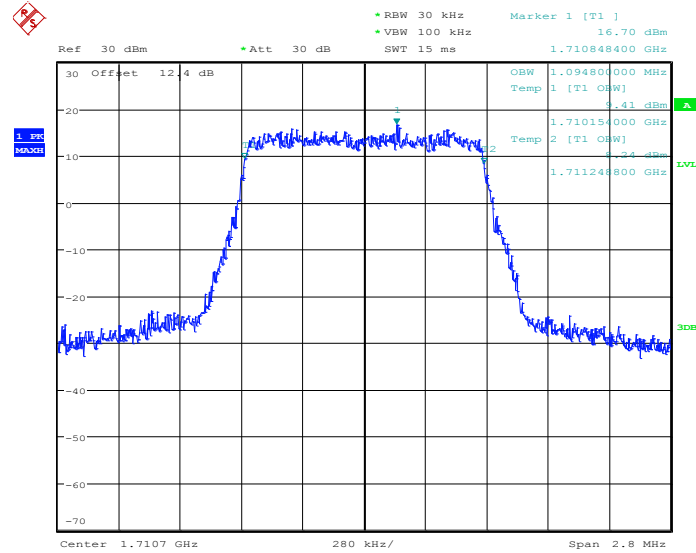


Date: 10.MAY.2014 08:33:21



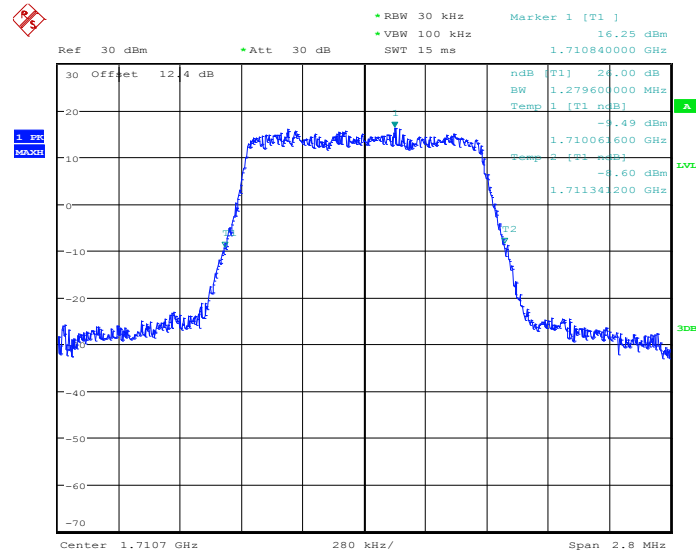
| | | | |
|---------------|------------|--------------------|----------------|
| Band : | LTE Band 4 | BW / Mod. : | 1.4MHz / 16QAM |
|---------------|------------|--------------------|----------------|

99% Occupied Bandwidth Plot on Channel 19957



Date: 10.MAY.2014 08:23:40

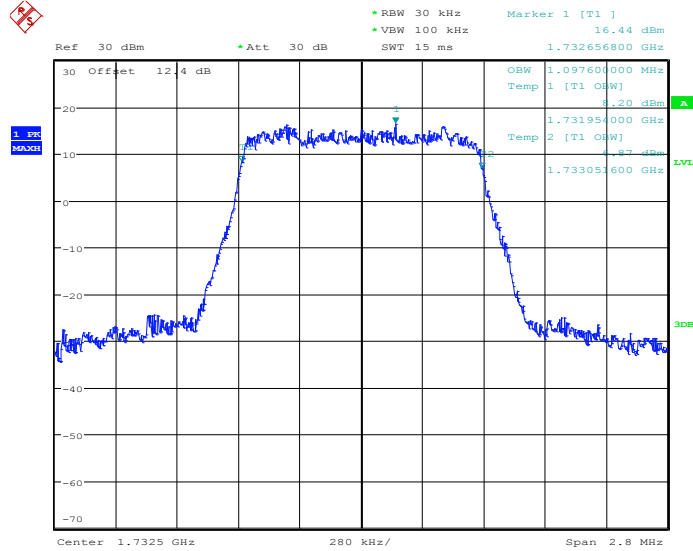
26dB Bandwidth Plot on Channel 19957



Date: 10.MAY.2014 08:24:16

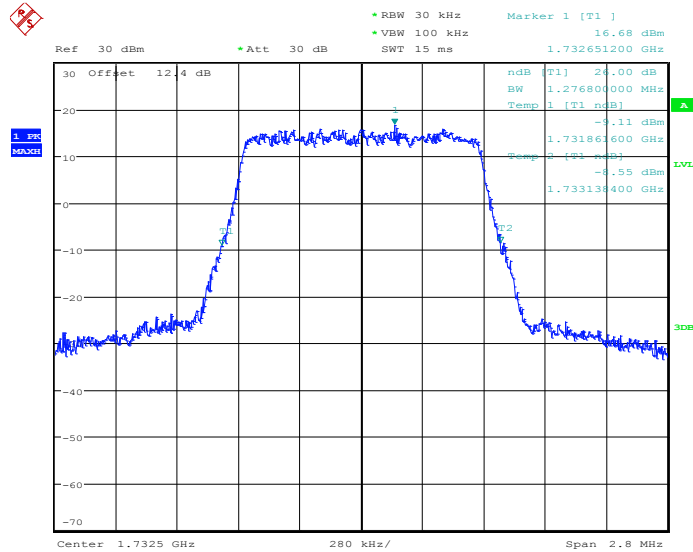


99% Occupied Bandwidth Plot on Channel 20175



Date: 10.MAY.2014 08:29:56

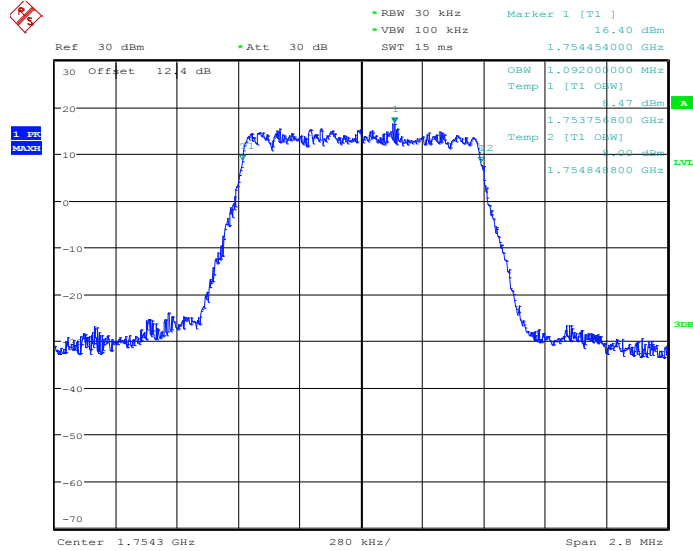
26dB Bandwidth Plot on Channel 20175



Date: 10.MAY.2014 08:30:31

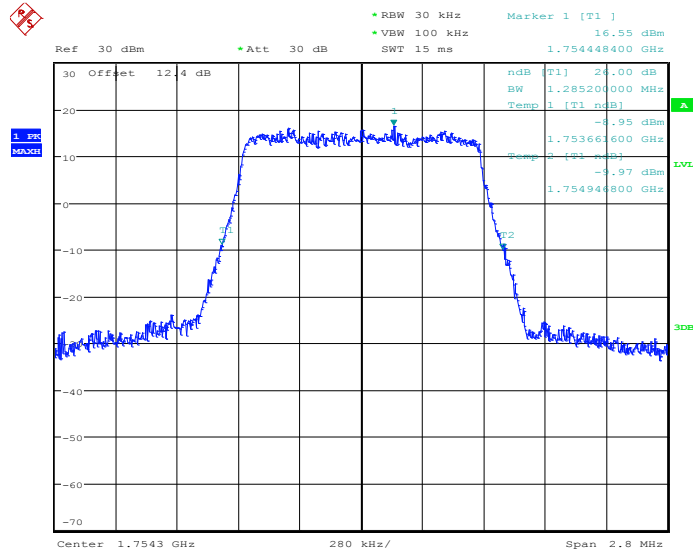


99% Occupied Bandwidth Plot on Channel 20393



Date: 10.MAY.2014 08:33:04

26dB Bandwidth Plot on Channel 20393

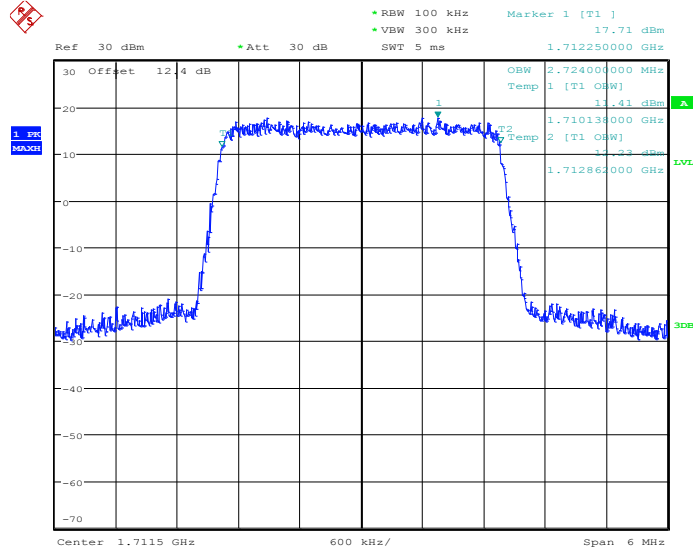


Date: 10.MAY.2014 08:33:39



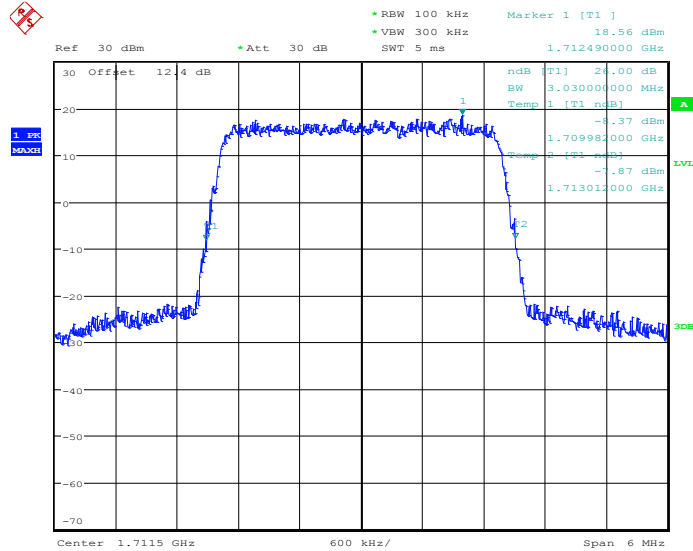
| | | | |
|--------|------------|-------------|-------------|
| Band : | LTE Band 4 | BW / Mod. : | 3MHz / QPSK |
|--------|------------|-------------|-------------|

99% Occupied Bandwidth Plot on Channel 19965



Date: 10.MAY.2014 08:39:54

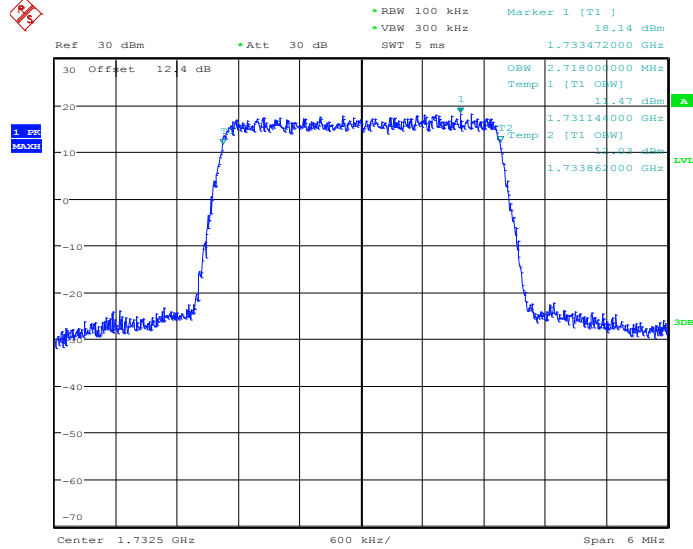
26dB Bandwidth Plot on Channel 19965



Date: 10.MAY.2014 08:40:29

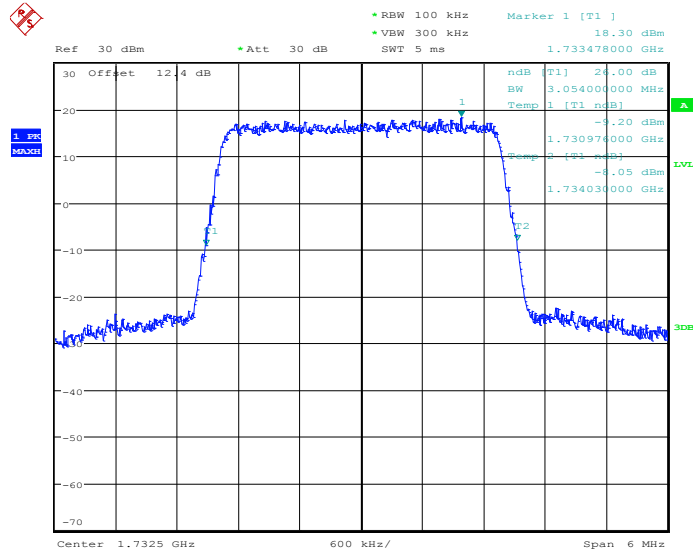


99% Occupied Bandwidth Plot on Channel 20175



Date: 10.MAY.2014 08:46:10

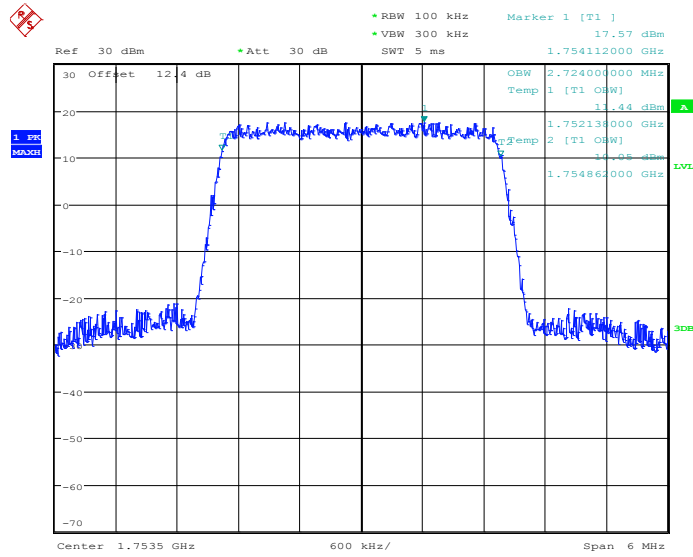
26dB Bandwidth Plot on Channel 20175



Date: 10.MAY.2014 08:46:44

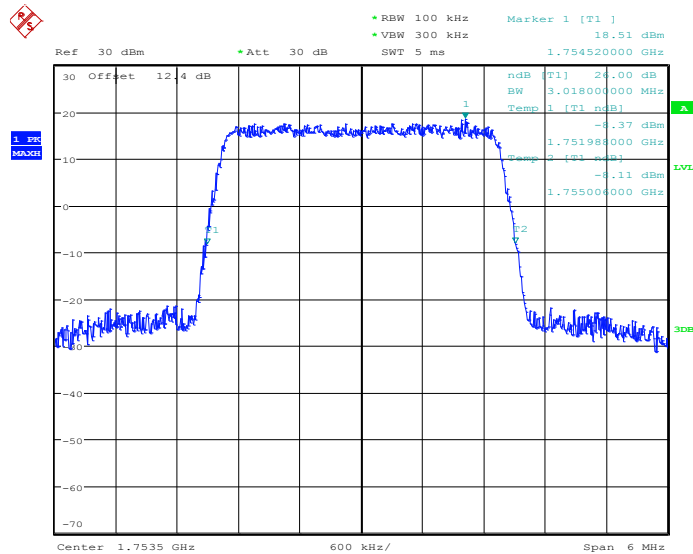


99% Occupied Bandwidth Plot on Channel 20385



Date: 10.MAY.2014 08:49:18

26dB Bandwidth Plot on Channel 20385

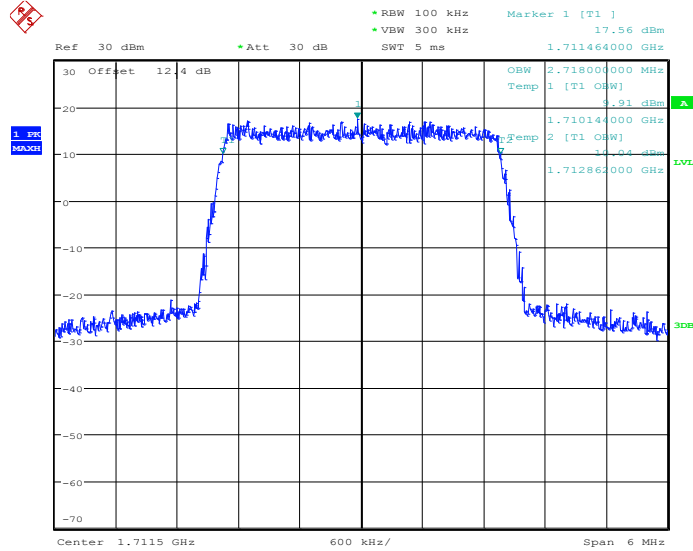


Date: 10.MAY.2014 08:49:51



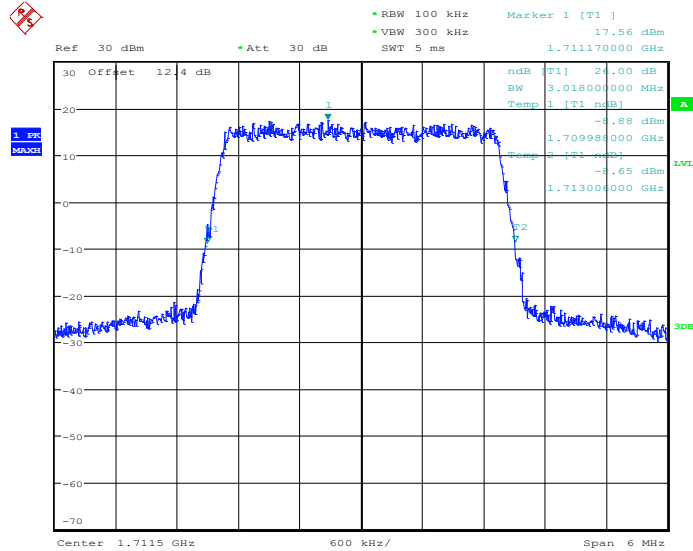
| | | | |
|---------------|------------|--------------------|--------------|
| Band : | LTE Band 4 | BW / Mod. : | 3MHz / 16QAM |
|---------------|------------|--------------------|--------------|

99% Occupied Bandwidth Plot on Channel 19965



Date: 10.MAY.2014 08:40:11

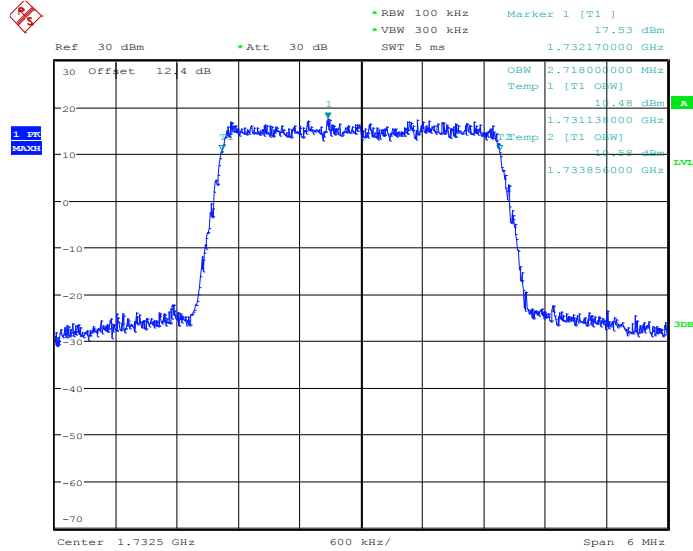
26dB Bandwidth Plot on Channel 19965



Date: 10.MAY.2014 08:40:46

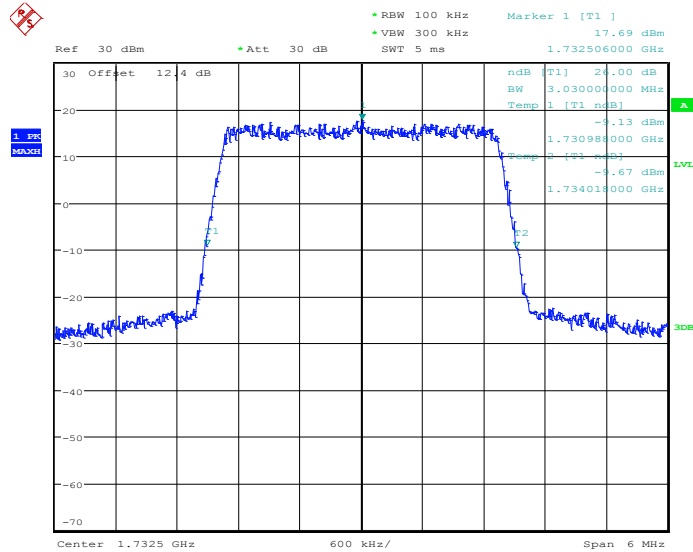


99% Occupied Bandwidth Plot on Channel 20175



Date: 10.MAY.2014 08:46:26

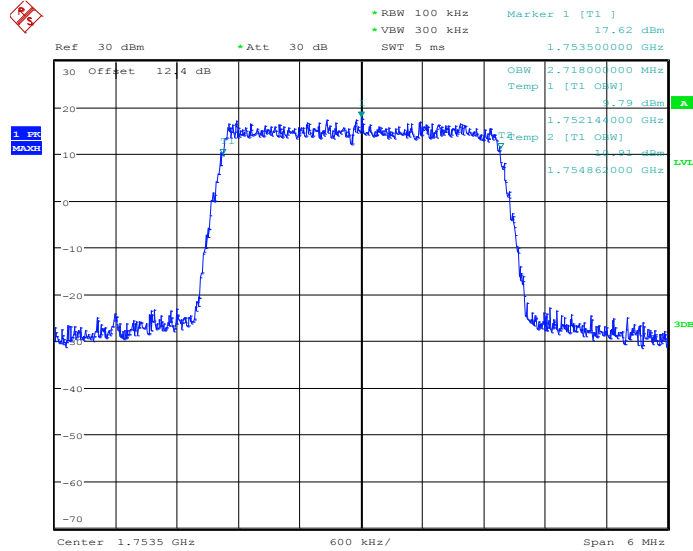
26dB Bandwidth Plot on Channel 20175



Date: 10.MAY.2014 08:47:02

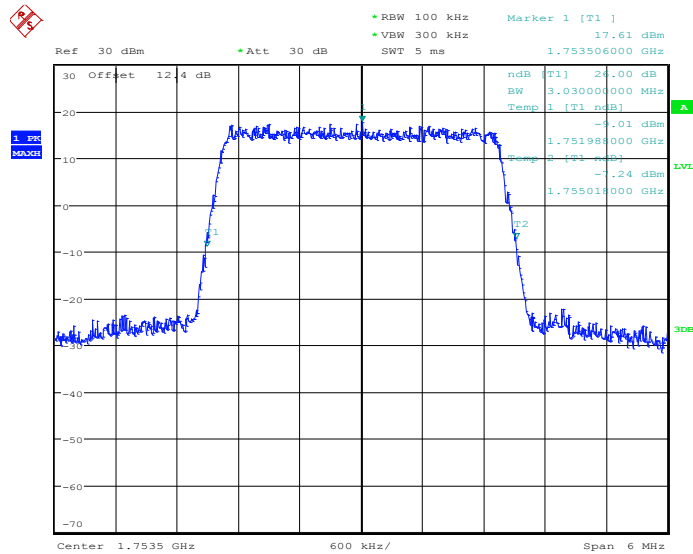


99% Occupied Bandwidth Plot on Channel 20385



Date: 10.MAY.2014 08:49:34

26dB Bandwidth Plot on Channel 20385

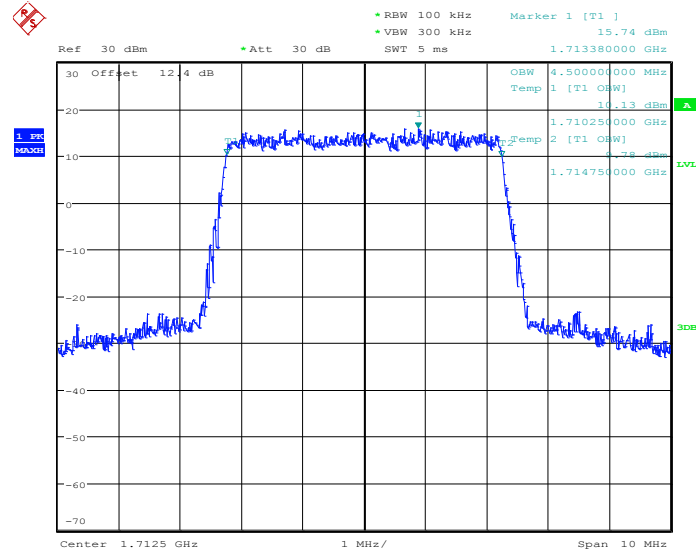


Date: 10.MAY.2014 08:50:10



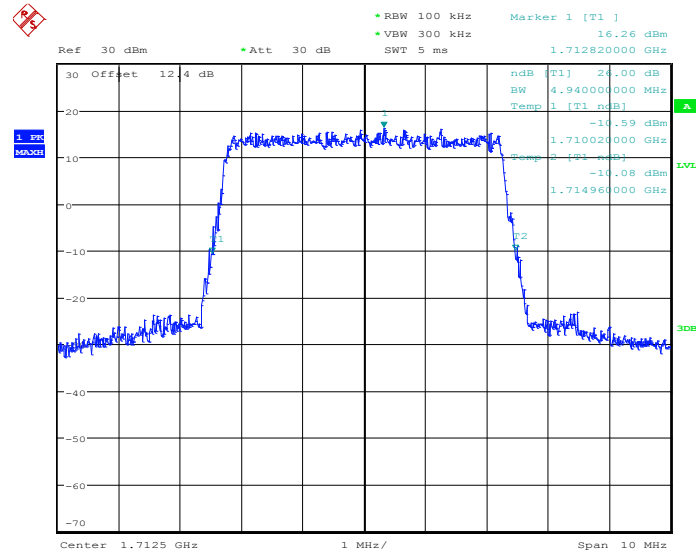
| | | | |
|---------------|------------|--------------------|-------------|
| Band : | LTE Band 4 | BW / Mod. : | 5MHz / QPSK |
|---------------|------------|--------------------|-------------|

99% Occupied Bandwidth Plot on Channel 19975



Date: 10.MAY.2014 08:55:34

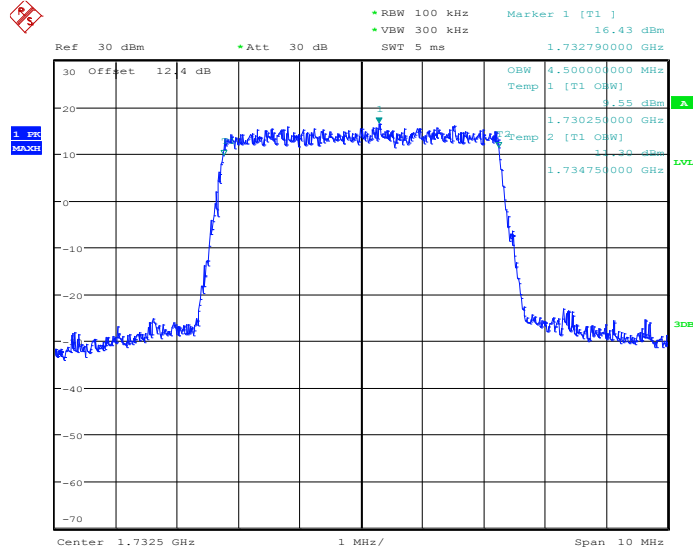
26dB Bandwidth Plot on Channel 19975



Date: 10.MAY.2014 08:56:08

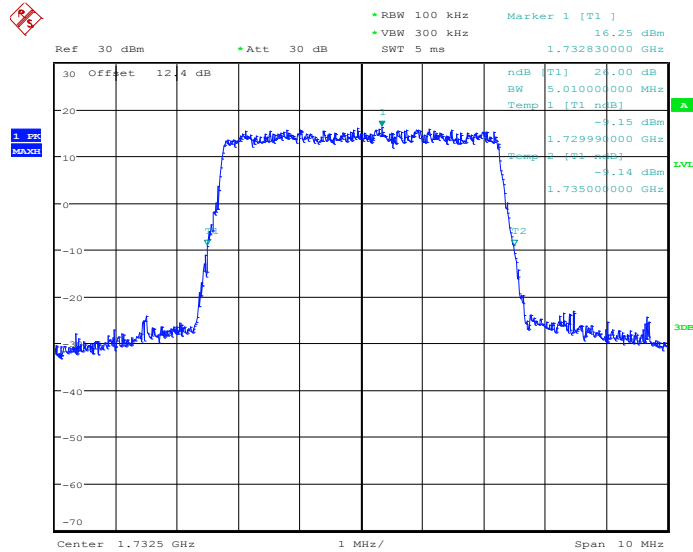


99% Occupied Bandwidth Plot on Channel 20175



Date: 10.MAY.2014 09:01:49

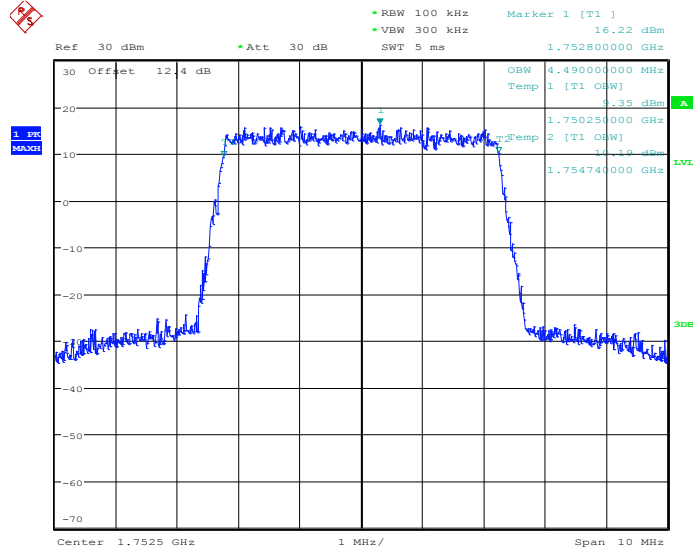
26dB Bandwidth Plot on Channel 20175



Date: 10.MAY.2014 09:02:22

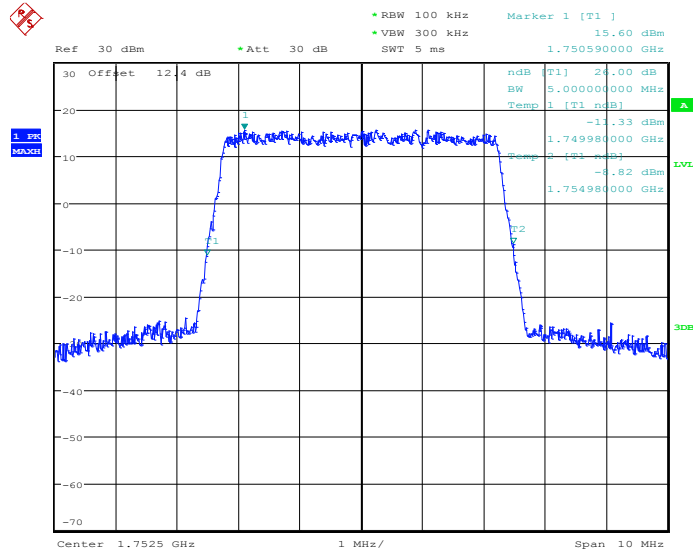


99% Occupied Bandwidth Plot on Channel 20375



Date: 10.MAY.2014 09:04:56

26dB Bandwidth Plot on Channel 20375

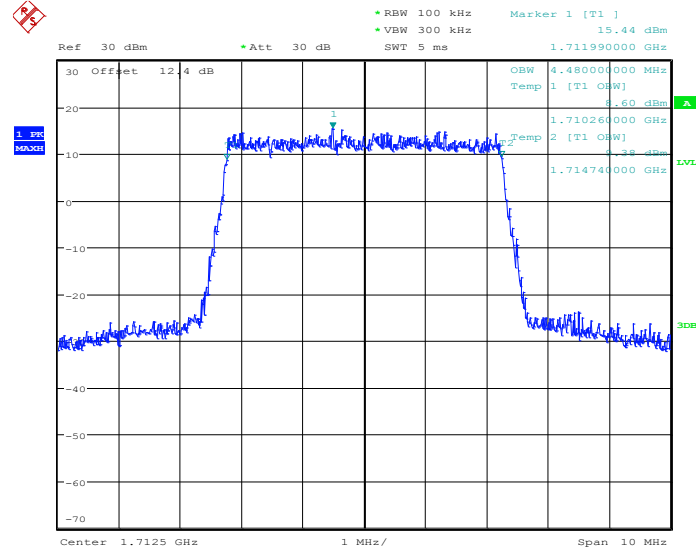


Date: 10.MAY.2014 09:05:30



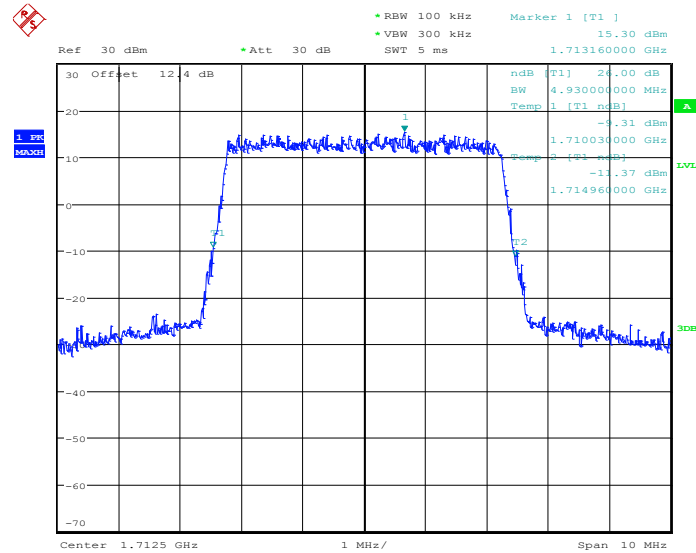
| | | | |
|---------------|------------|--------------------|--------------|
| Band : | LTE Band 4 | BW / Mod. : | 5MHz / 16QAM |
|---------------|------------|--------------------|--------------|

99% Occupied Bandwidth Plot on Channel 19975



Date: 10.MAY.2014 08:55:50

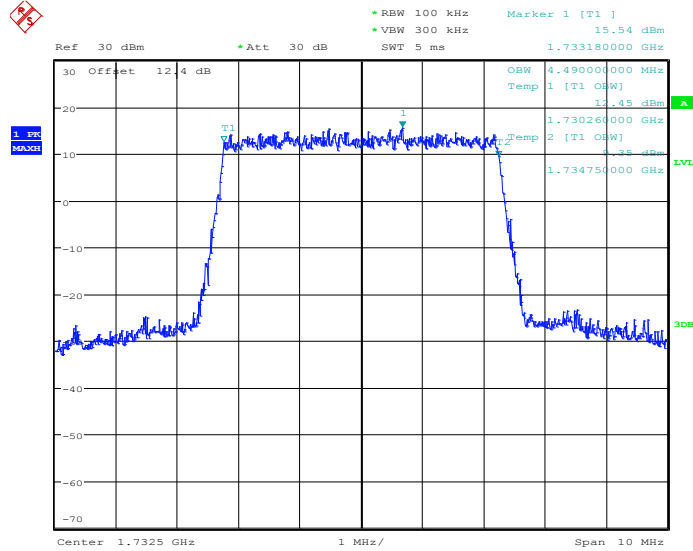
26dB Bandwidth Plot on Channel 19975



Date: 10.MAY.2014 08:56:26

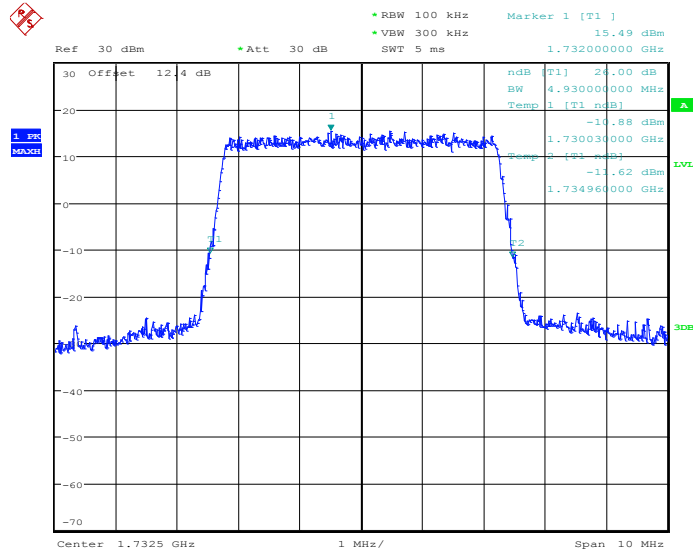


99% Occupied Bandwidth Plot on Channel 20175



Date: 10.MAY.2014 09:02:05

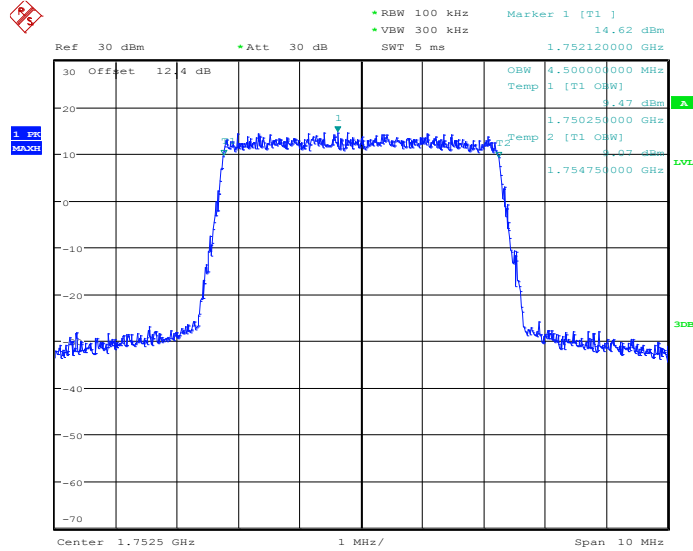
26dB Bandwidth Plot on Channel 20175



Date: 10.MAY.2014 09:02:40

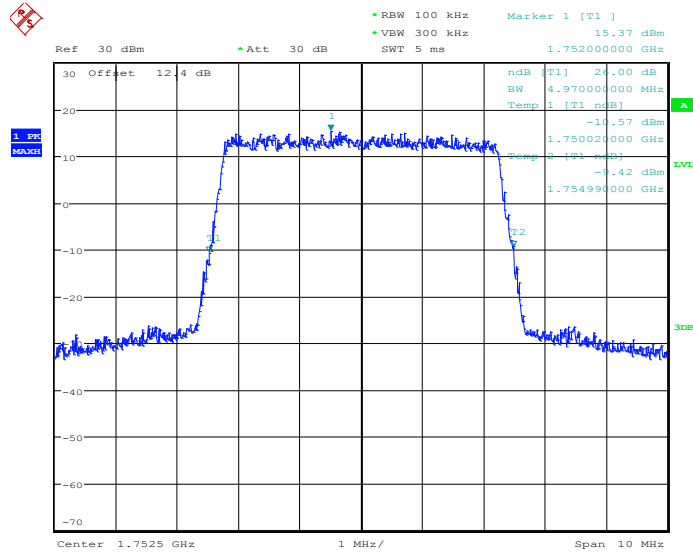


99% Occupied Bandwidth Plot on Channel 20375



Date: 10.MAY.2014 09:05:13

26dB Bandwidth Plot on Channel 20375

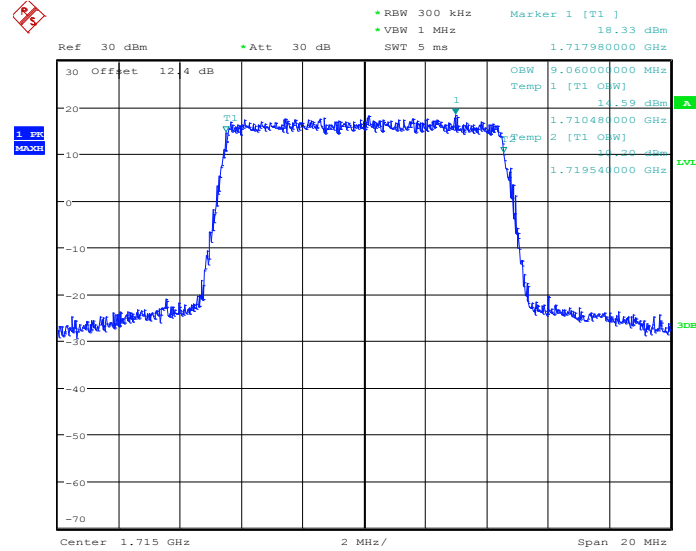


Date: 10.MAY.2014 09:05:48



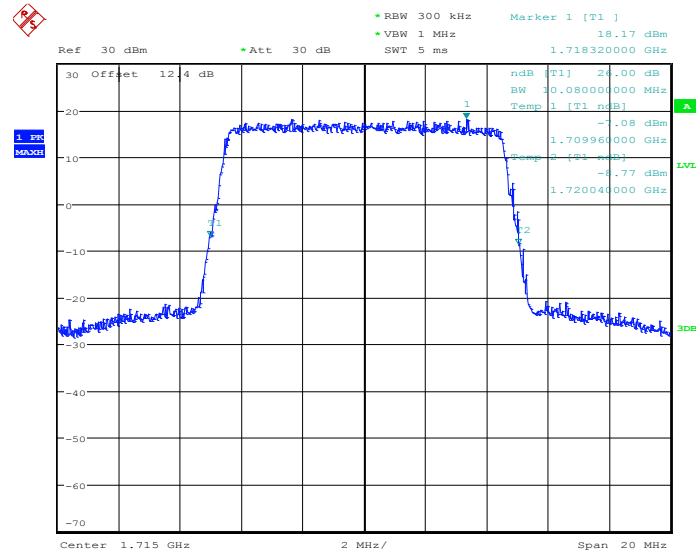
| | | | |
|--------|------------|-------------|--------------|
| Band : | LTE Band 4 | BW / Mod. : | 10MHz / QPSK |
|--------|------------|-------------|--------------|

99% Occupied Bandwidth Plot on Channel 20000



Date: 10.MAY.2014 09:11:12

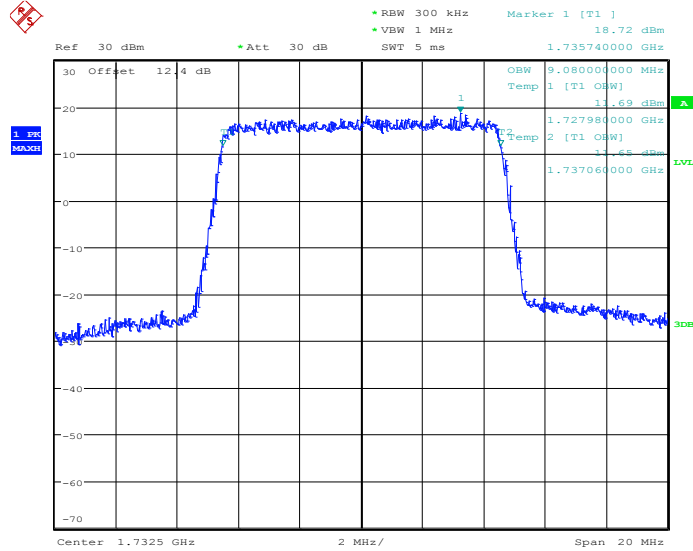
26dB Bandwidth Plot on Channel 20000



Date: 10.MAY.2014 09:11:46

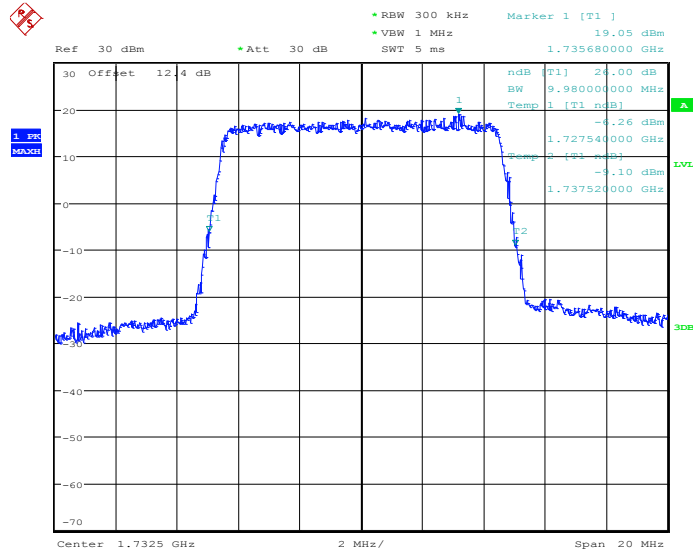


99% Occupied Bandwidth Plot on Channel 20175



Date: 10.MAY.2014 09:17:28

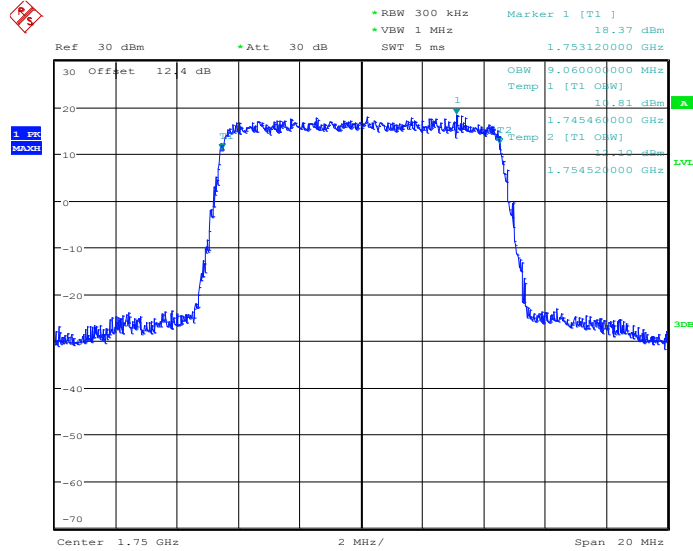
26dB Bandwidth Plot on Channel 20175



Date: 10.MAY.2014 09:18:02

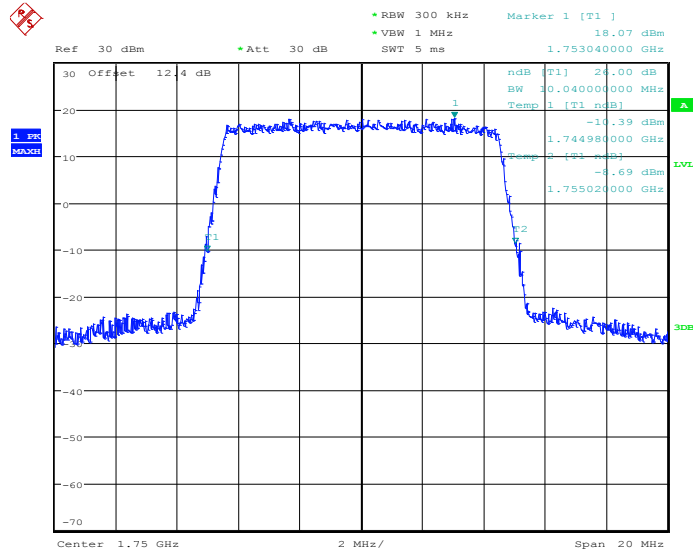


99% Occupied Bandwidth Plot on Channel 20350



Date: 10.MAY.2014 09:20:35

26dB Bandwidth Plot on Channel 20350

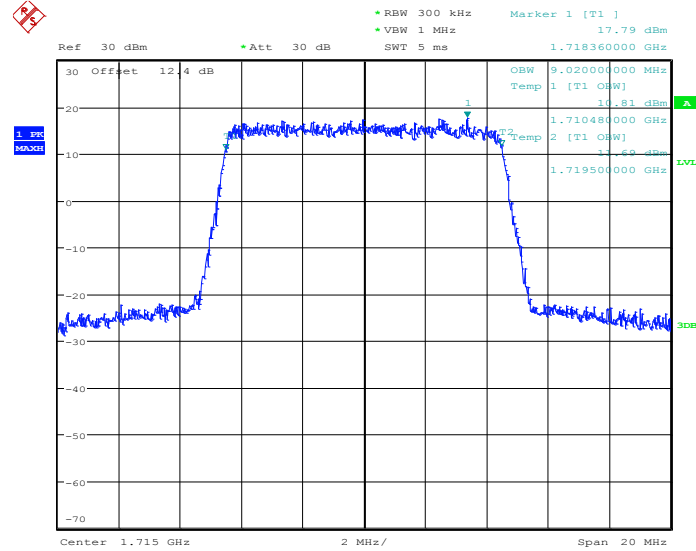


Date: 10.MAY.2014 09:21:09



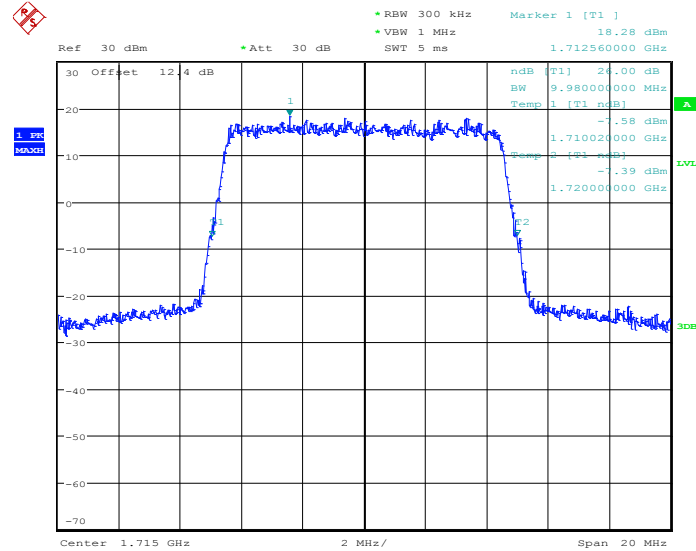
| | | | |
|--------|------------|-------------|---------------|
| Band : | LTE Band 4 | BW / Mod. : | 10MHz / 16QAM |
|--------|------------|-------------|---------------|

99% Occupied Bandwidth Plot on Channel 20000



Date: 10.MAY.2014 09:11:28

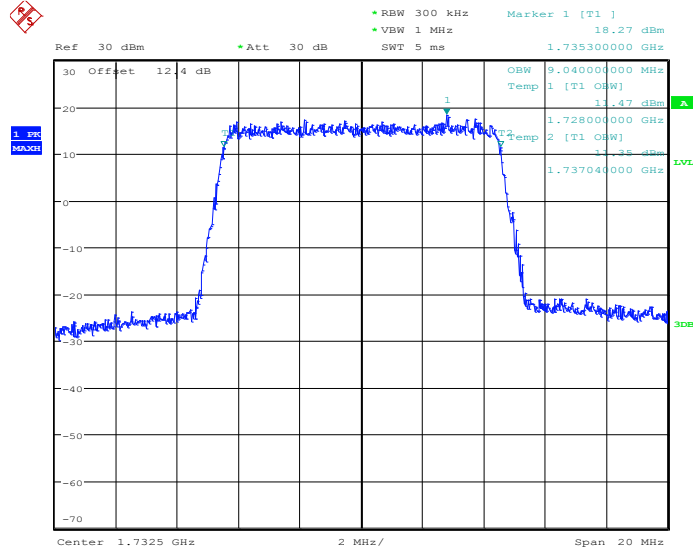
26dB Bandwidth Plot on Channel 20000



Date: 10.MAY.2014 09:12:04

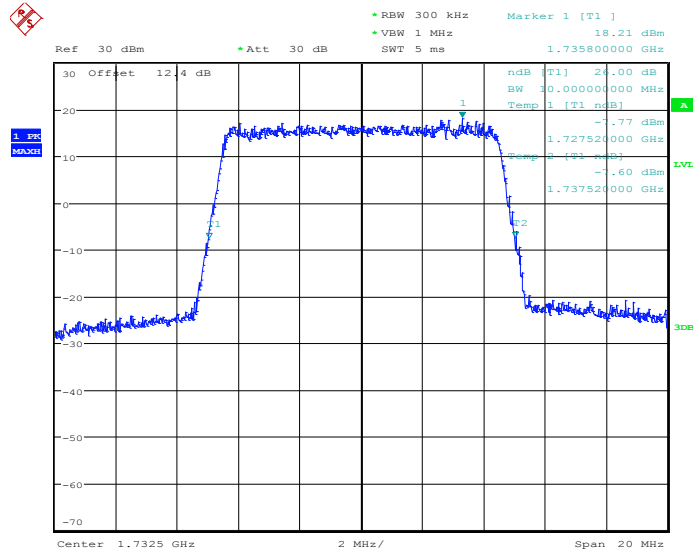


99% Occupied Bandwidth Plot on Channel 20175



Date: 10.MAY.2014 09:17:44

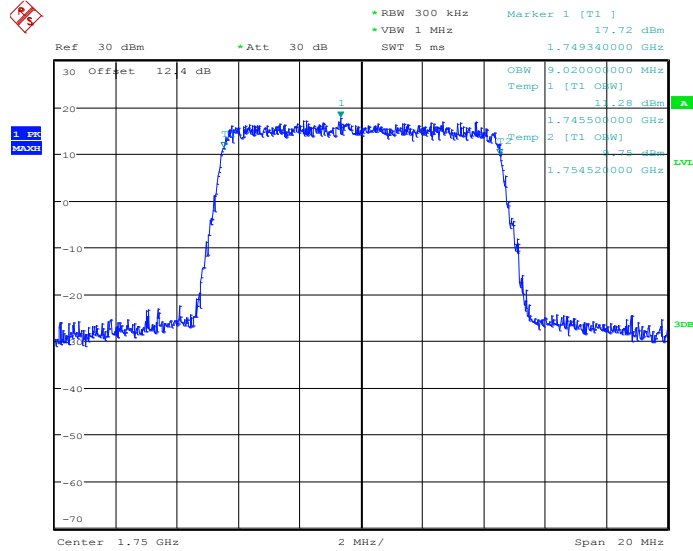
26dB Bandwidth Plot on Channel 20175



Date: 10.MAY.2014 09:18:20

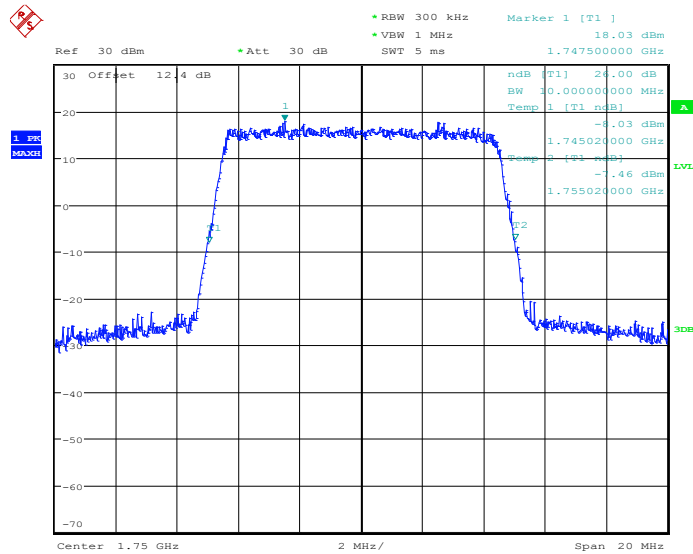


99% Occupied Bandwidth Plot on Channel 20350



Date: 10.MAY.2014 09:20:51

26dB Bandwidth Plot on Channel 20350

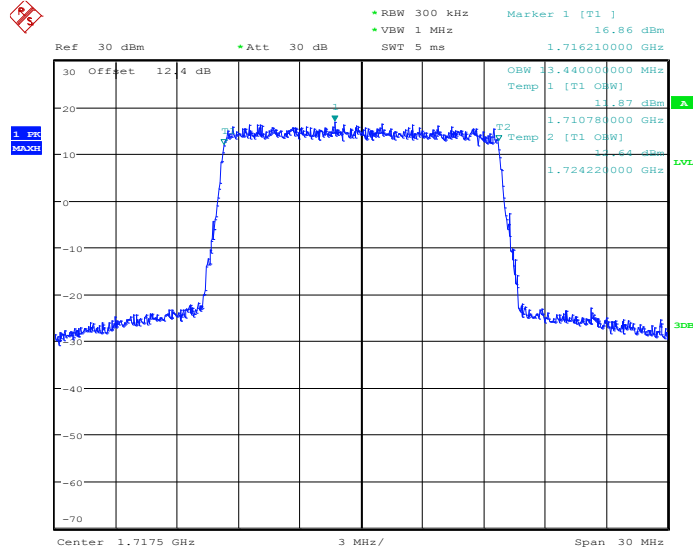


Date: 10.MAY.2014 09:21:27



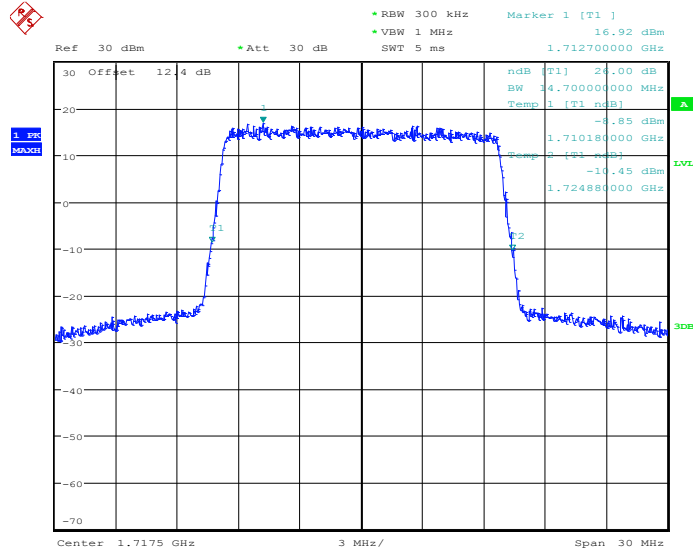
| | | | |
|--------|------------|-------------|--------------|
| Band : | LTE Band 4 | BW / Mod. : | 15MHz / QPSK |
|--------|------------|-------------|--------------|

99% Occupied Bandwidth Plot on Channel 2025



Date: 10.MAY.2014 09:26:51

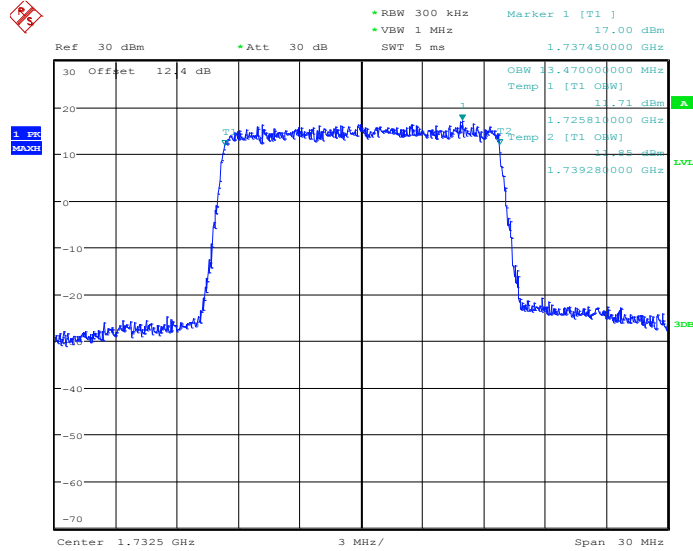
26dB Bandwidth Plot on Channel 2025



Date: 10.MAY.2014 09:27:24

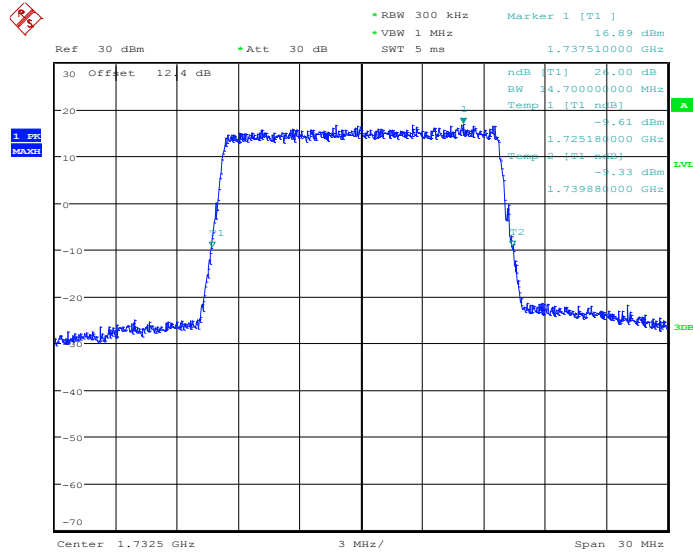


99% Occupied Bandwidth Plot on Channel 20175



Date: 10.MAY.2014 09:33:06

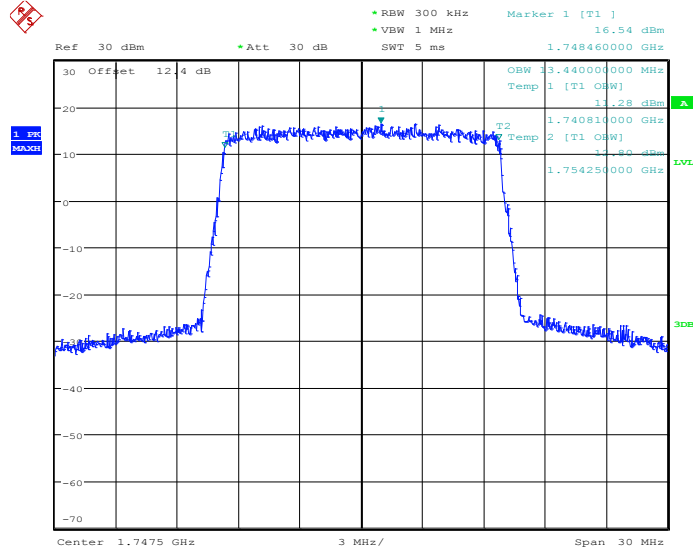
26dB Bandwidth Plot on Channel 20175



Date: 10.MAY.2014 09:33:40

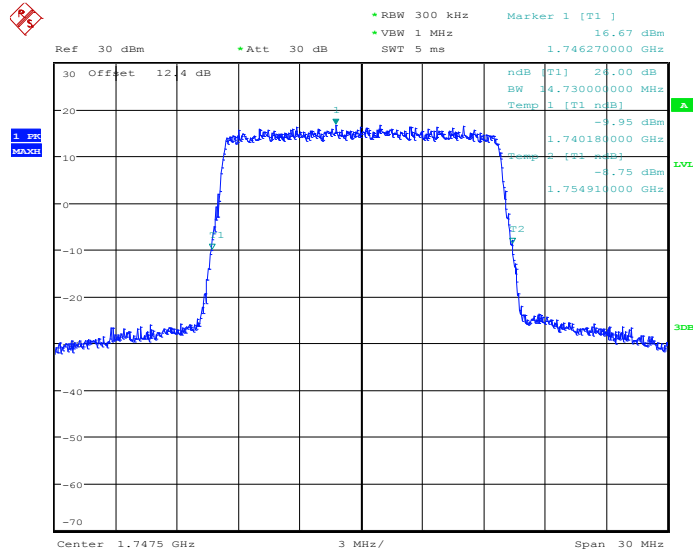


99% Occupied Bandwidth Plot on Channel 20325



Date: 10.MAY.2014 09:36:14

26dB Bandwidth Plot on Channel 20325

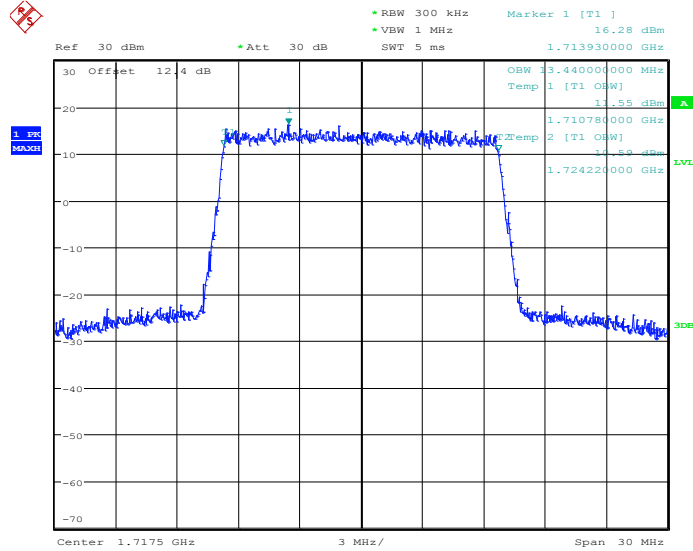


Date: 10.MAY.2014 09:36:48



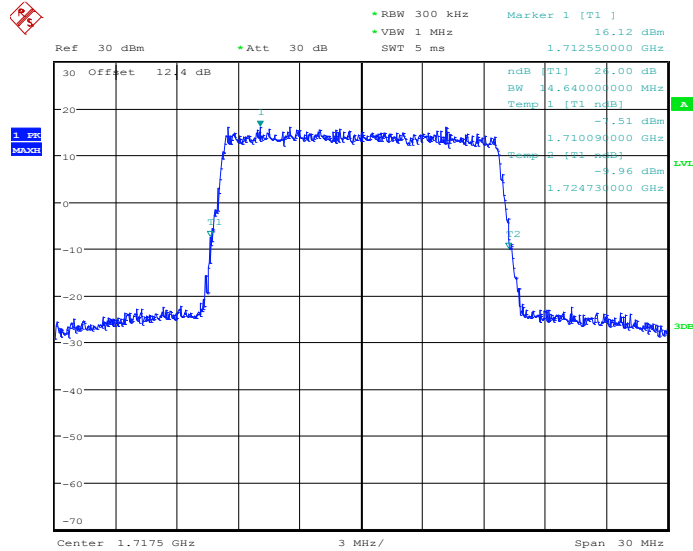
| | | | |
|---------------|------------|--------------------|---------------|
| Band : | LTE Band 4 | BW / Mod. : | 15MHz / 16QAM |
|---------------|------------|--------------------|---------------|

99% Occupied Bandwidth Plot on Channel 2025



Date: 10.MAY.2014 09:27:07

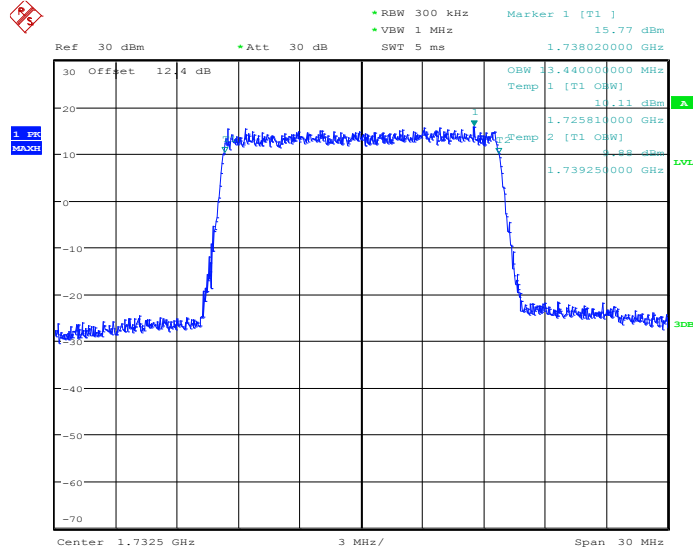
26dB Bandwidth Plot on Channel 2025



Date: 10.MAY.2014 09:27:42

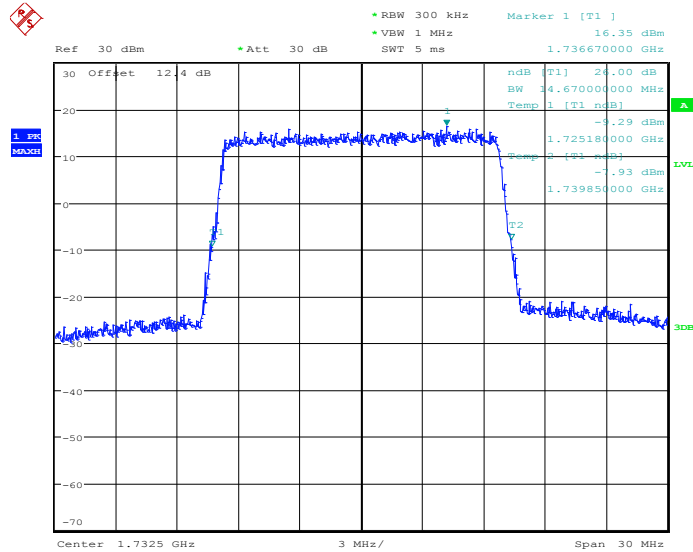


99% Occupied Bandwidth Plot on Channel 20175



Date: 10.MAY.2014 09:33:22

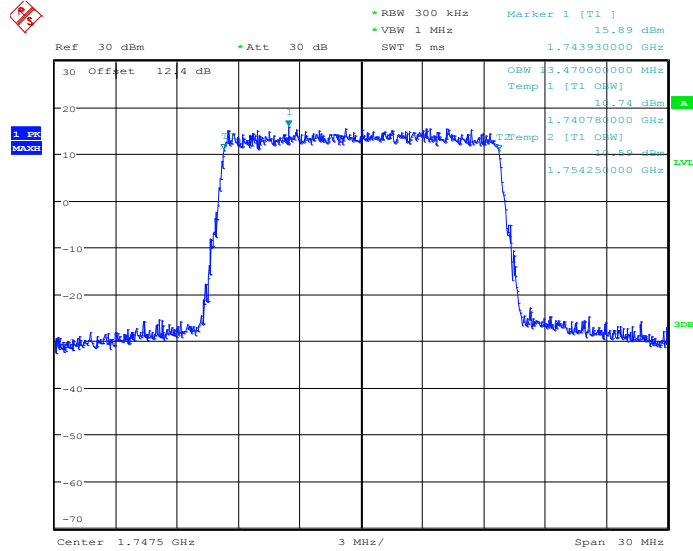
26dB Bandwidth Plot on Channel 20175



Date: 10.MAY.2014 09:33:58

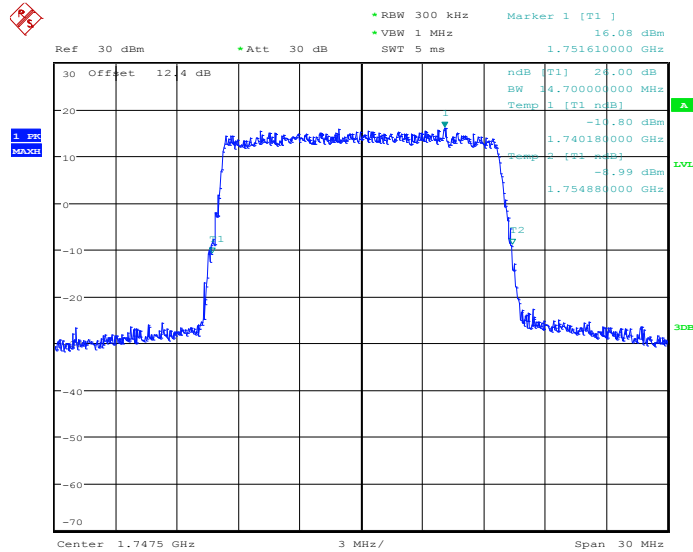


99% Occupied Bandwidth Plot on Channel 20325



Date: 10.MAY.2014 09:36:30

26dB Bandwidth Plot on Channel 20325

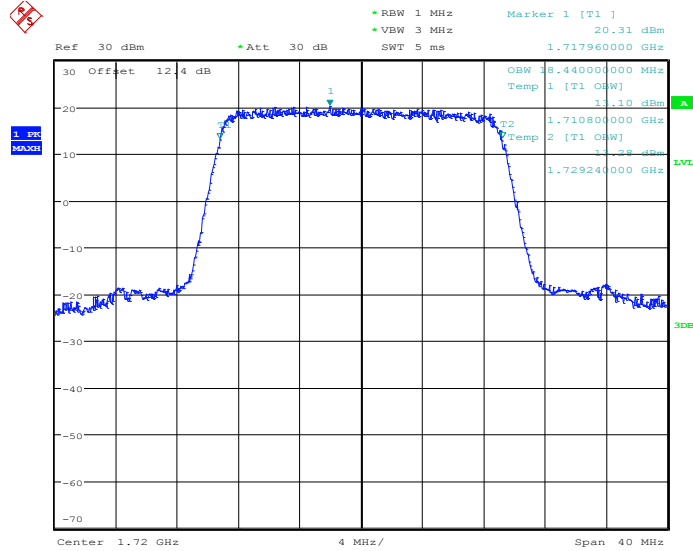


Date: 10.MAY.2014 09:37:06



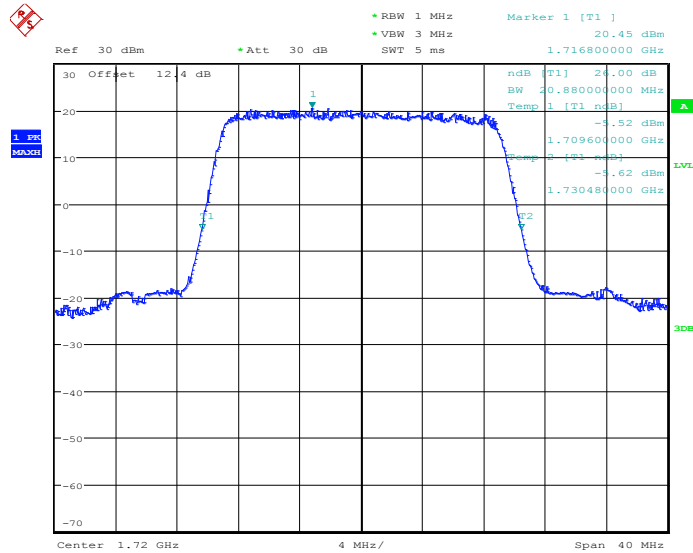
| | | | |
|--------|------------|-------------|--------------|
| Band : | LTE Band 4 | BW / Mod. : | 20MHz / QPSK |
|--------|------------|-------------|--------------|

99% Occupied Bandwidth Plot on Channel 20050



Date: 10.MAY.2014 09:42:29

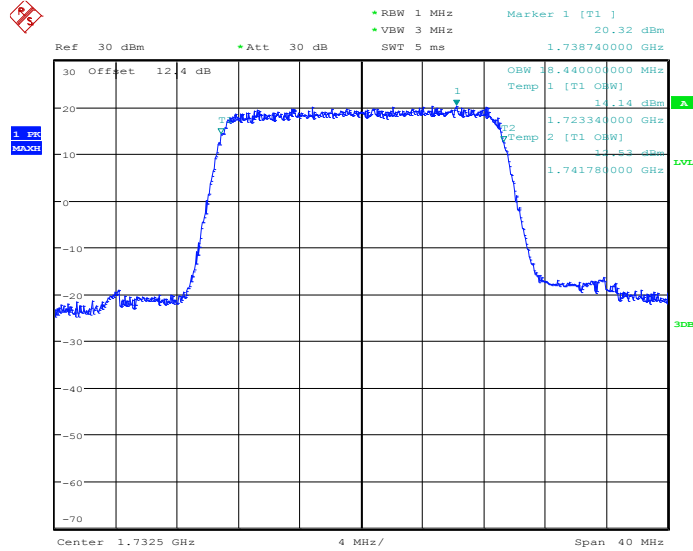
26dB Bandwidth Plot on Channel 20050



Date: 10.MAY.2014 09:43:03

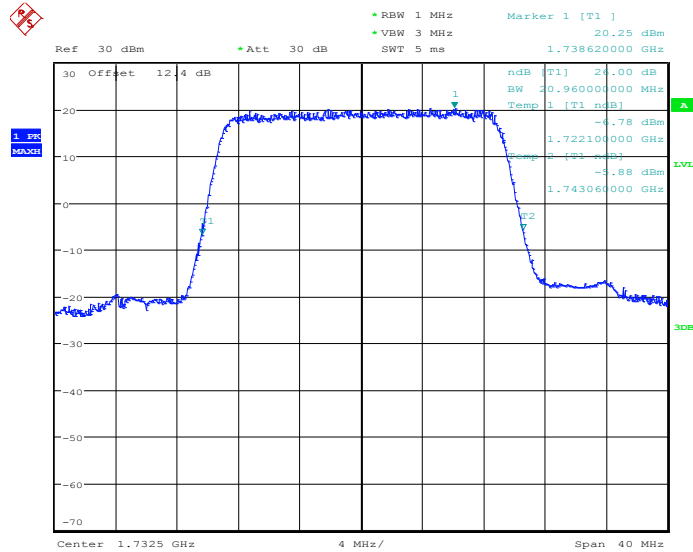


99% Occupied Bandwidth Plot on Channel 20175



Date: 10.MAY.2014 09:48:43

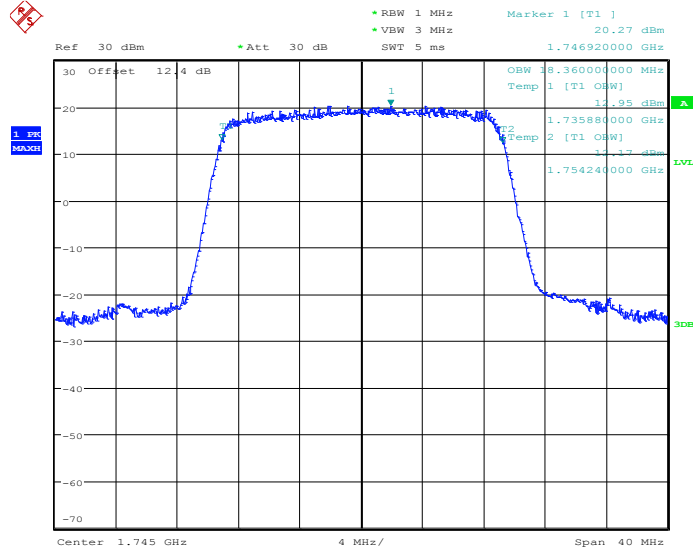
26dB Bandwidth Plot on Channel 20175



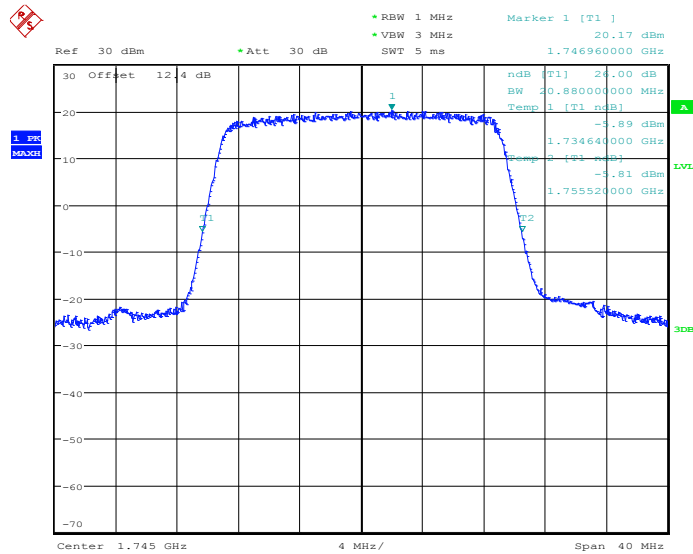
Date: 10.MAY.2014 09:49:17



99% Occupied Bandwidth Plot on Channel 20300



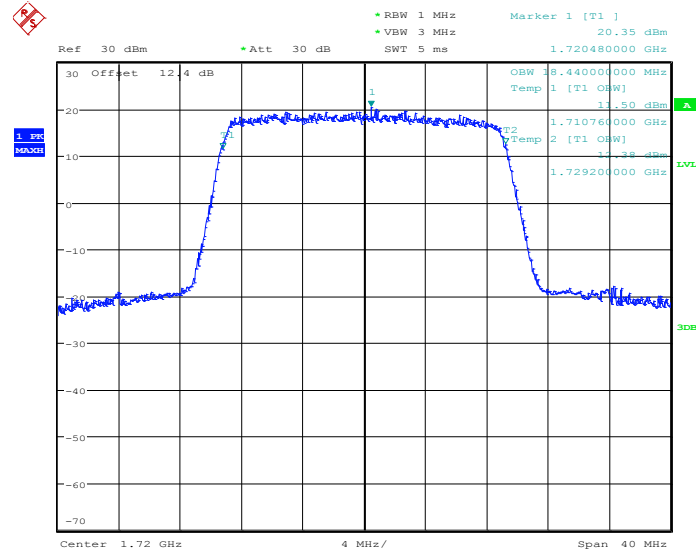
26dB Bandwidth Plot on Channel 20300





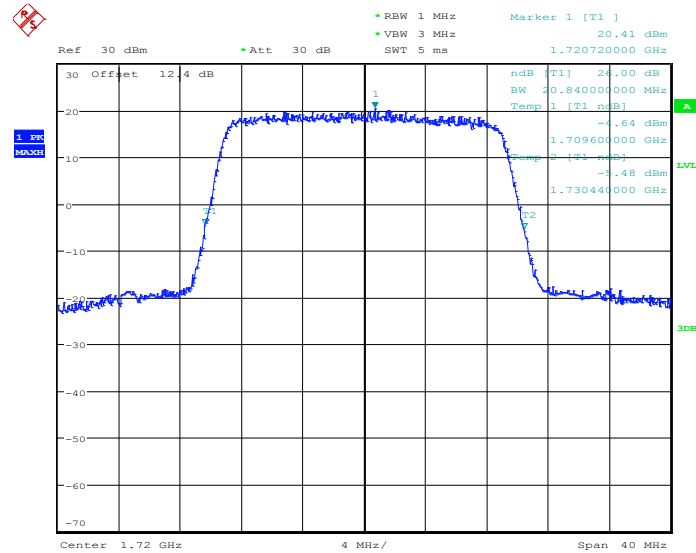
| | | | |
|---------------|------------|--------------------|---------------|
| Band : | LTE Band 4 | BW / Mod. : | 20MHz / 16QAM |
|---------------|------------|--------------------|---------------|

99% Occupied Bandwidth Plot on Channel 20050



Date: 10.MAY.2014 09:42:45

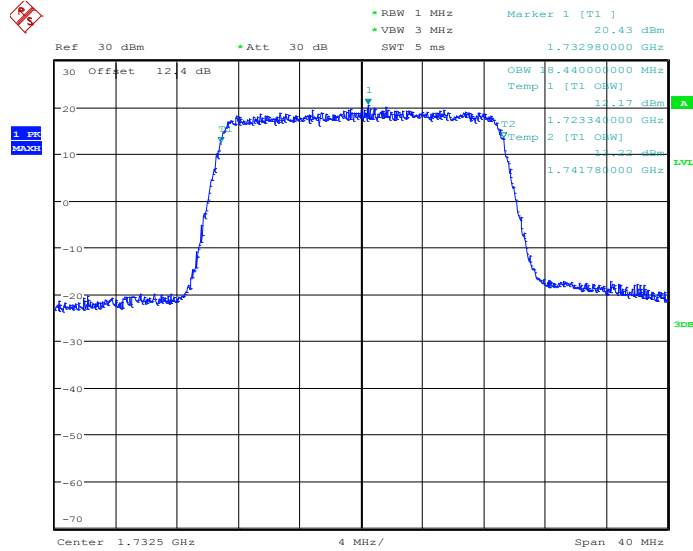
26dB Bandwidth Plot on Channel 20050



Date: 10.MAY.2014 09:43:20

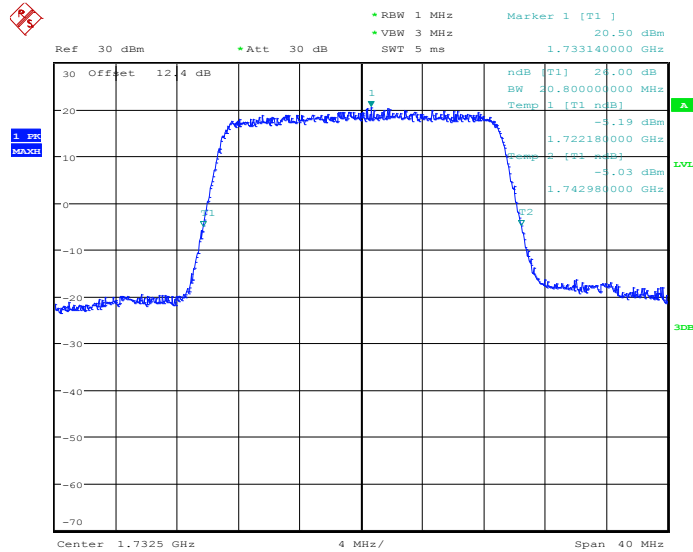


99% Occupied Bandwidth Plot on Channel 20175



Date: 10.MAY.2014 09:48:59

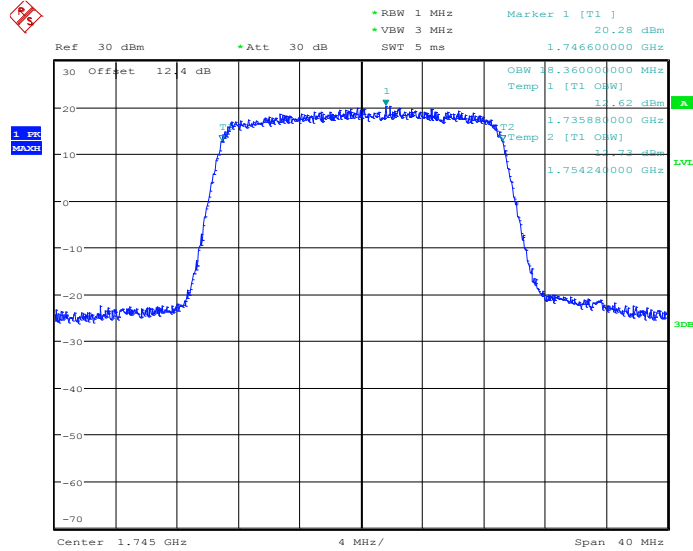
26dB Bandwidth Plot on Channel 20175



Date: 10.MAY.2014 09:49:35

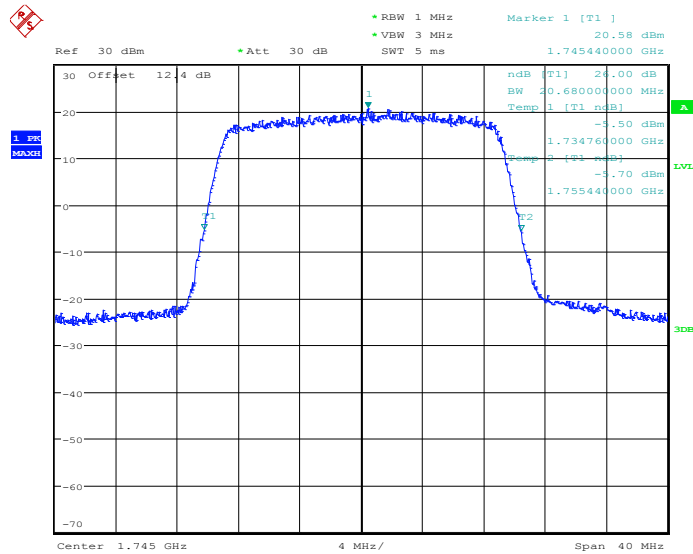


99% Occupied Bandwidth Plot on Channel 20300



Date: 10.MAY.2014 09:52:08

26dB Bandwidth Plot on Channel 20300

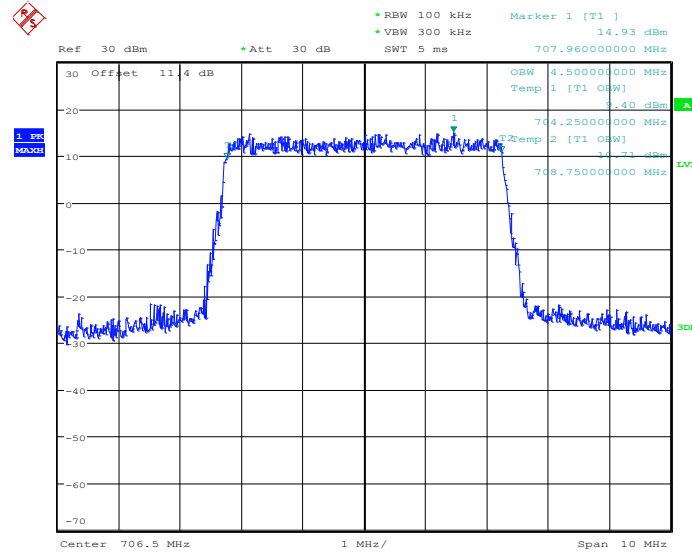


Date: 10.MAY.2014 09:52:44



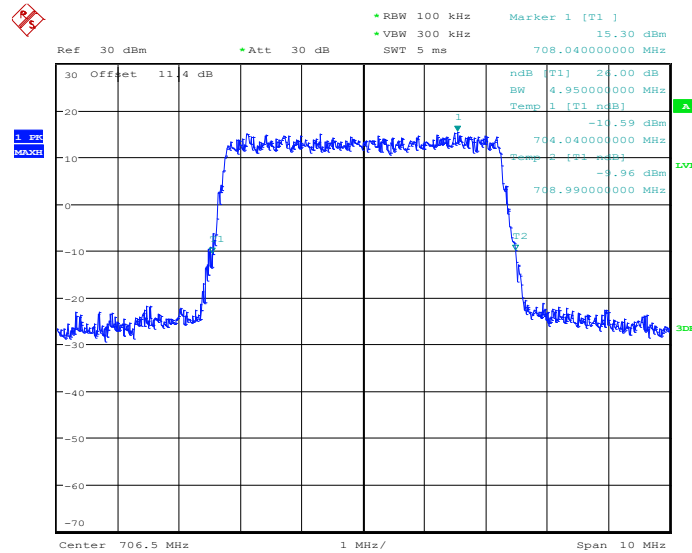
| | | | |
|---------------|-------------|--------------------|-------------|
| Band : | LTE Band 17 | BW / Mod. : | 5MHz / QPSK |
|---------------|-------------|--------------------|-------------|

99% Occupied Bandwidth Plot on Channel 23755



Date: 9.MAY.2014 11:22:02

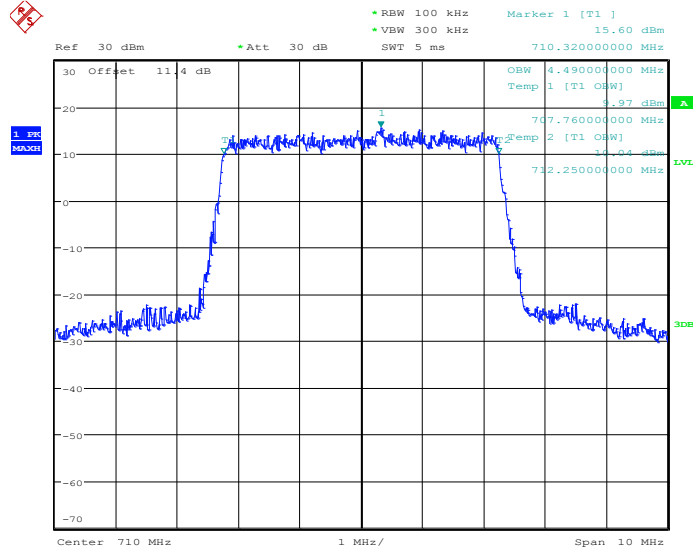
26dB Bandwidth Plot on Channel 23755



Date: 9.MAY.2014 11:22:36

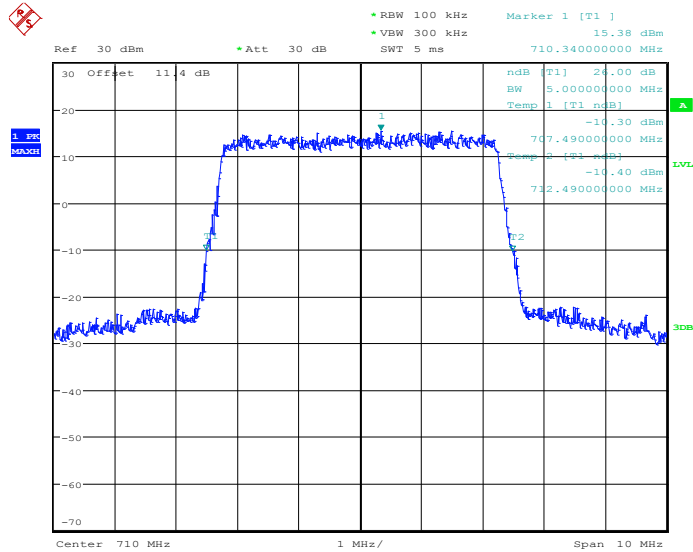


99% Occupied Bandwidth Plot on Channel 23790



Date: 9.MAY.2014 11:28:19

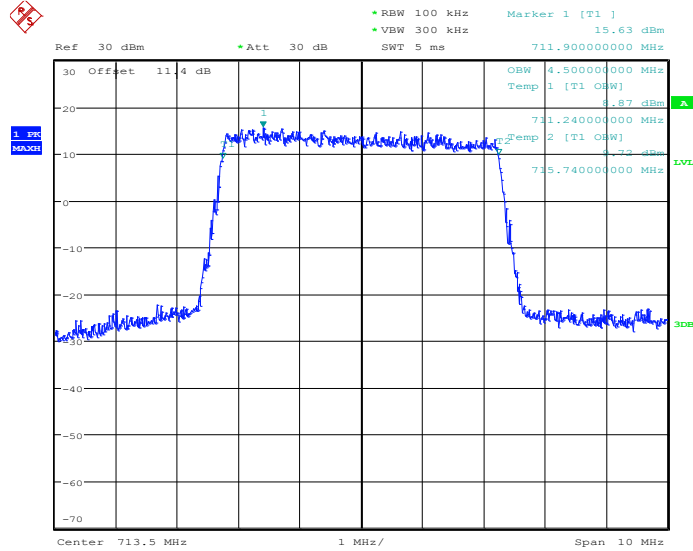
26dB Bandwidth Plot on Channel 23790



Date: 9.MAY.2014 11:28:53

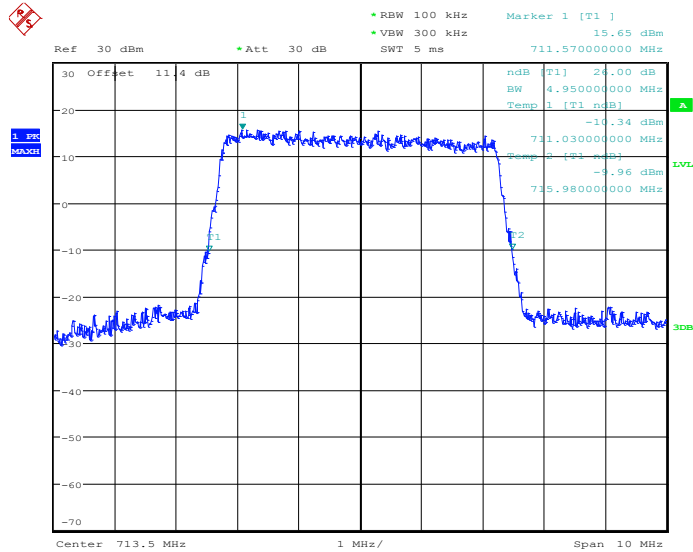


99% Occupied Bandwidth Plot on Channel 23825



Date: 9.MAY.2014 11:31:27

26dB Bandwidth Plot on Channel 23825

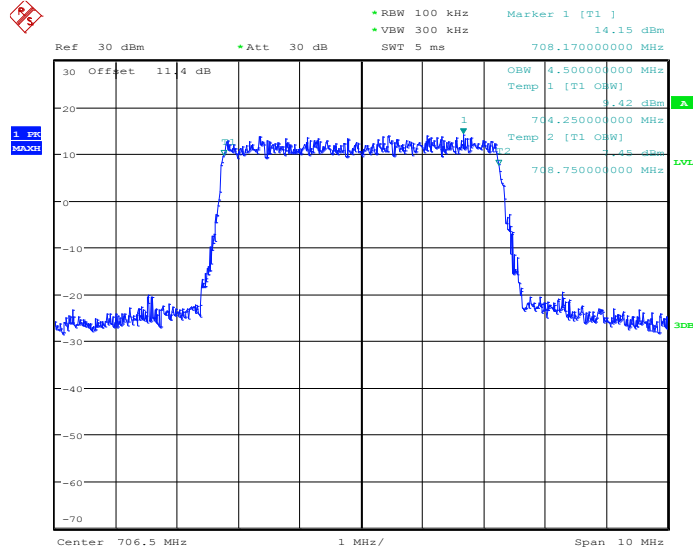


Date: 9.MAY.2014 11:32:01



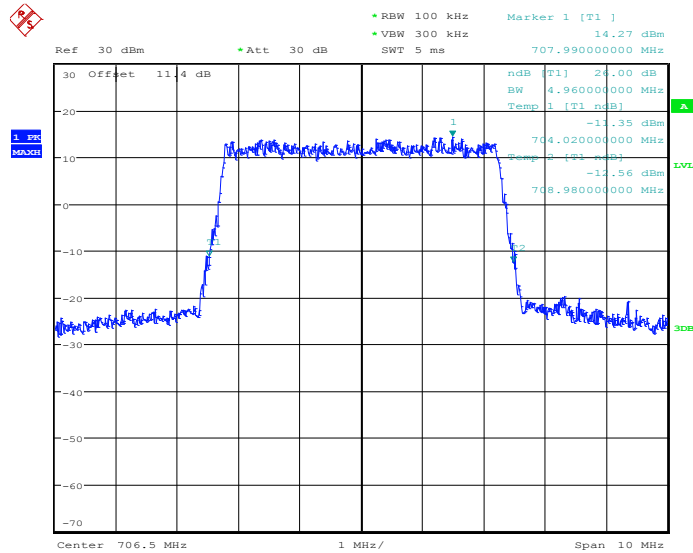
| | | | |
|---------------|-------------|--------------------|--------------|
| Band : | LTE Band 17 | BW / Mod. : | 5MHz / 16QAM |
|---------------|-------------|--------------------|--------------|

99% Occupied Bandwidth Plot on Channel 23755



Date: 9.MAY.2014 11:22:18

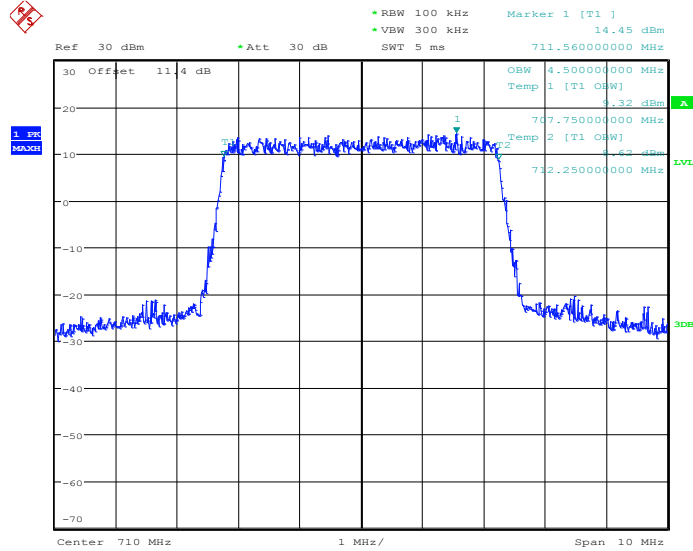
26dB Bandwidth Plot on Channel 23755



Date: 9.MAY.2014 11:22:54

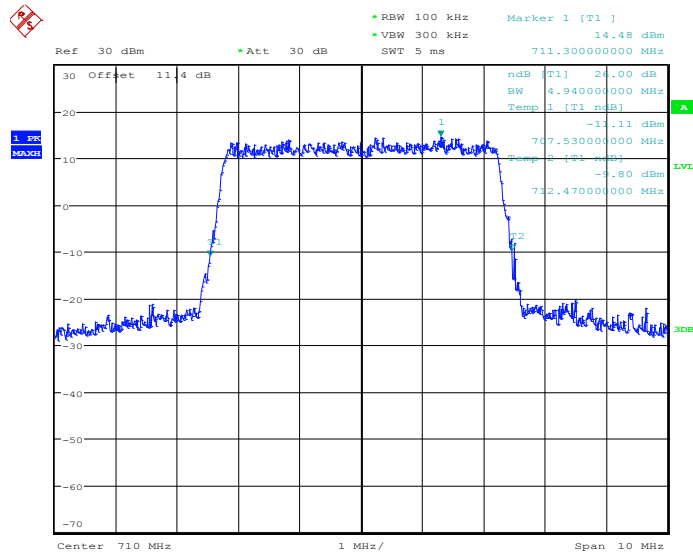


99% Occupied Bandwidth Plot on Channel 23790



Date: 9.MAY.2014 11:28:35

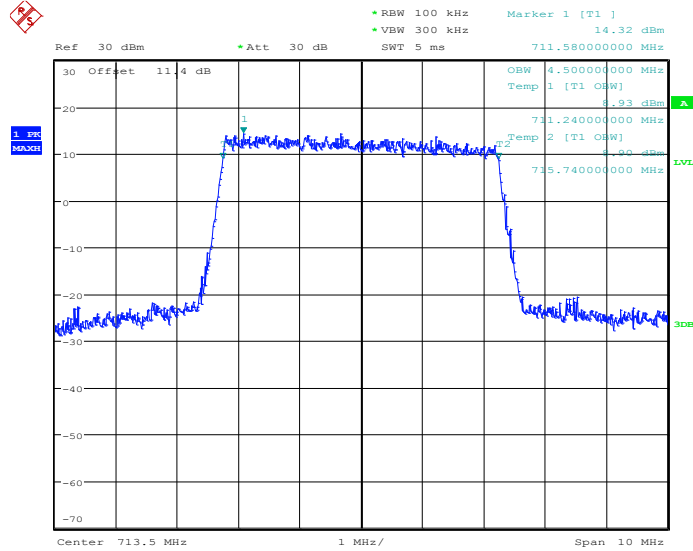
26dB Bandwidth Plot on Channel 23790



Date: 9.MAY.2014 11:29:11

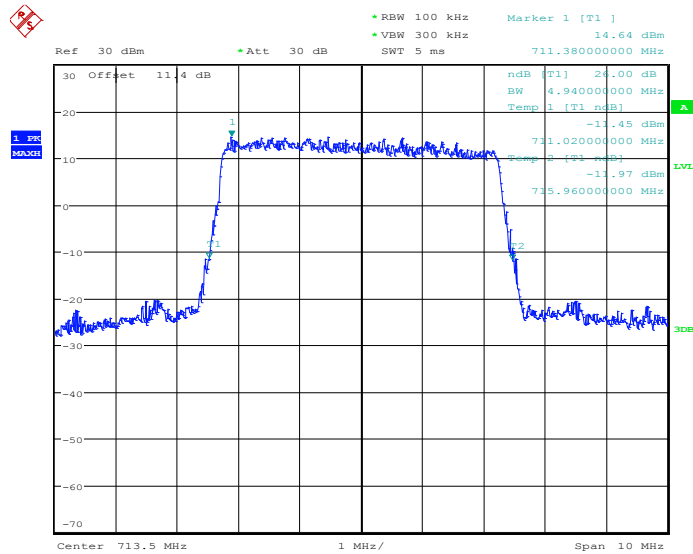


99% Occupied Bandwidth Plot on Channel 23825



Date: 9.MAY.2014 11:31:43

26dB Bandwidth Plot on Channel 23825

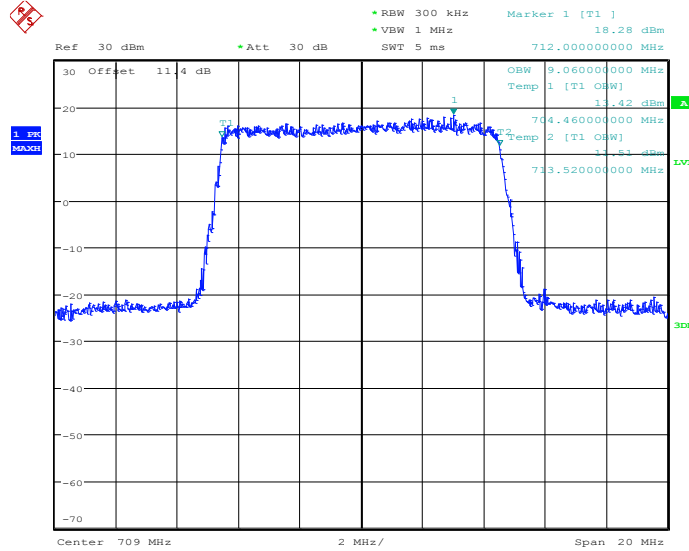


Date: 9.MAY.2014 11:32:19



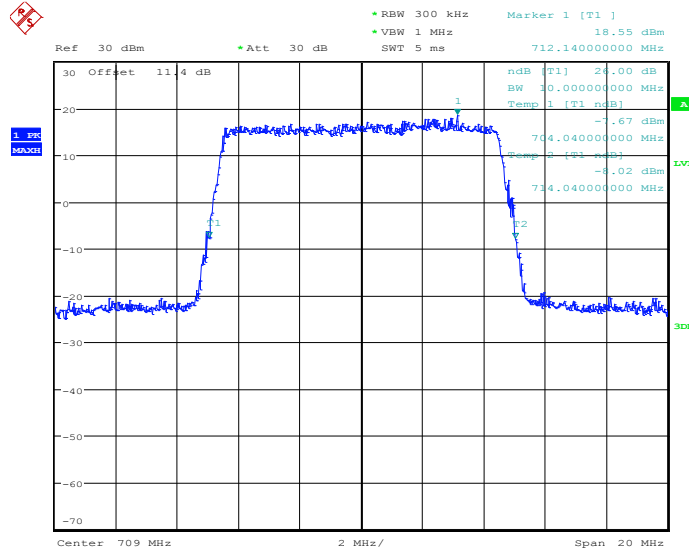
| | | | |
|--------|-------------|-------------|--------------|
| Band : | LTE Band 17 | BW / Mod. : | 10MHz / QPSK |
|--------|-------------|-------------|--------------|

99% Occupied Bandwidth Plot on Channel 23780



Date: 9.MAY.2014 11:37:45

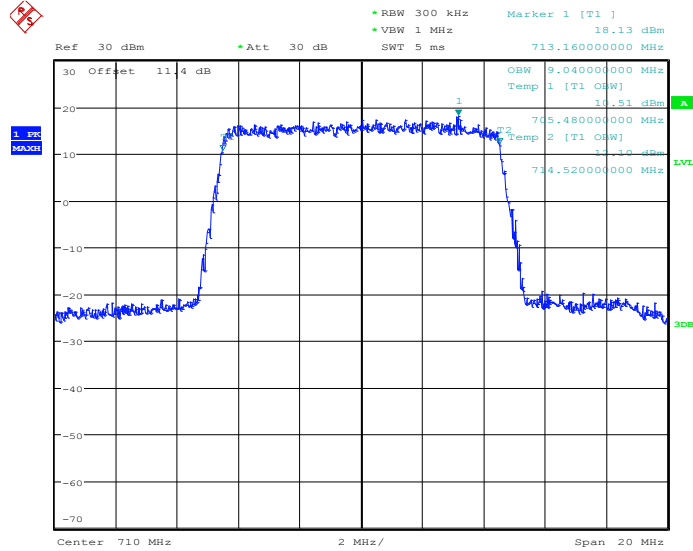
26dB Bandwidth Plot on Channel 23780



Date: 9.MAY.2014 11:38:19

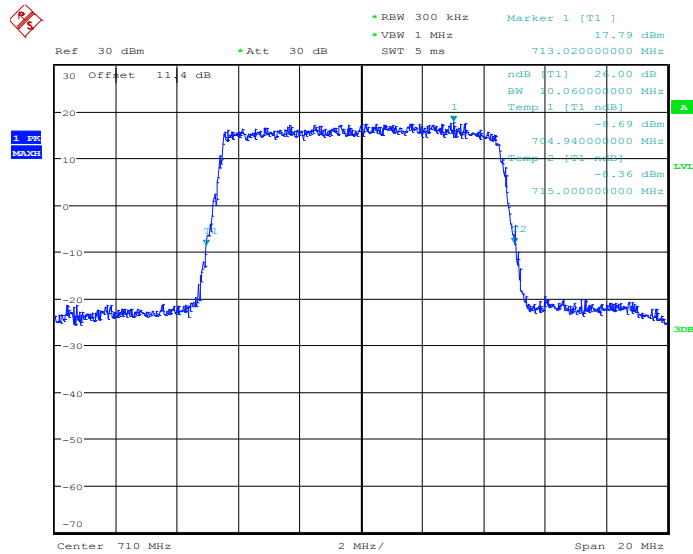


99% Occupied Bandwidth Plot on Channel 23790



Date: 9.MAY.2014 11:44:03

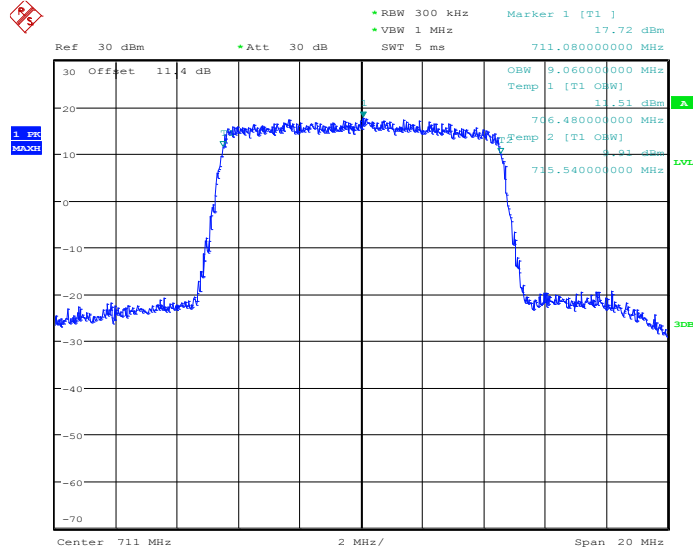
26dB Bandwidth Plot on Channel 23790



Date: 9.MAY.2014 11:44:37

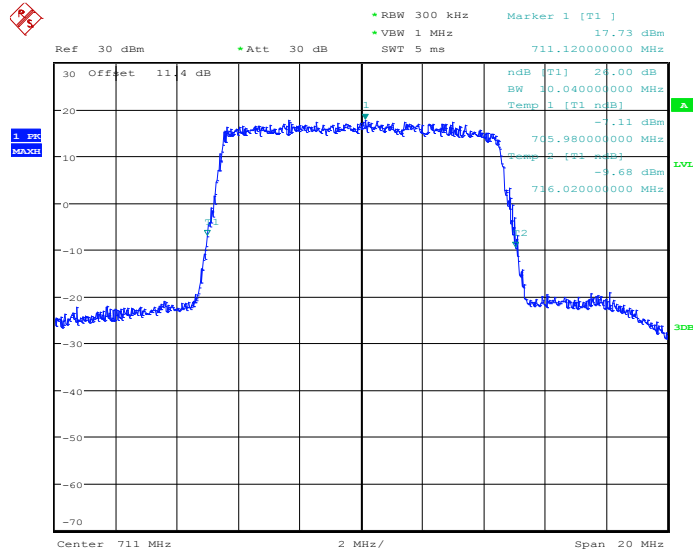


99% Occupied Bandwidth Plot on Channel 23800



Date: 9.MAY.2014 11:47:12

26dB Bandwidth Plot on Channel 23800

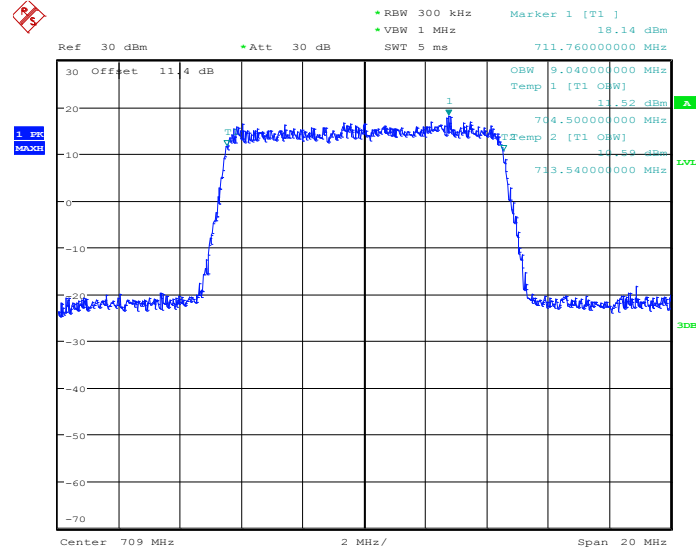


Date: 9.MAY.2014 11:47:46



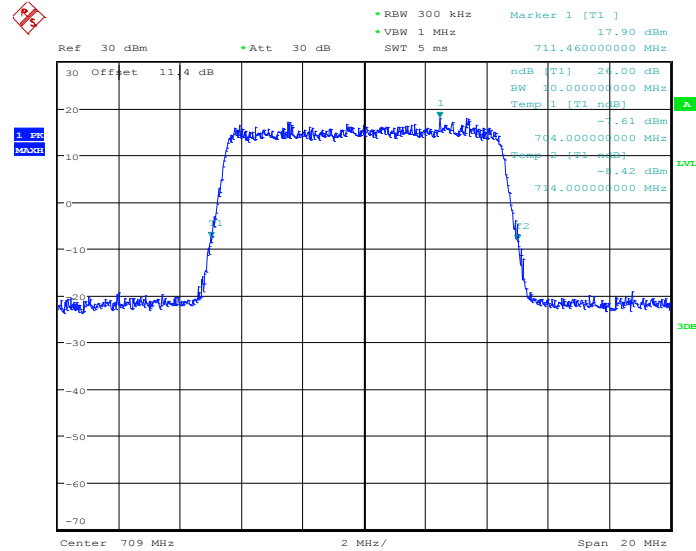
| | | | |
|--------|-------------|-------------|---------------|
| Band : | LTE Band 17 | BW / Mod. : | 10MHz / 16QAM |
|--------|-------------|-------------|---------------|

99% Occupied Bandwidth Plot on Channel 23780



Date: 9.MAY.2014 11:38:01

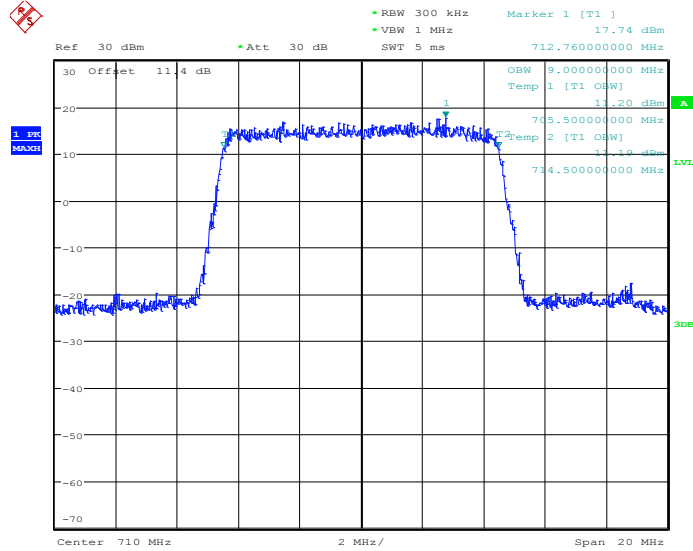
26dB Bandwidth Plot on Channel 23780



Date: 9.MAY.2014 11:38:37

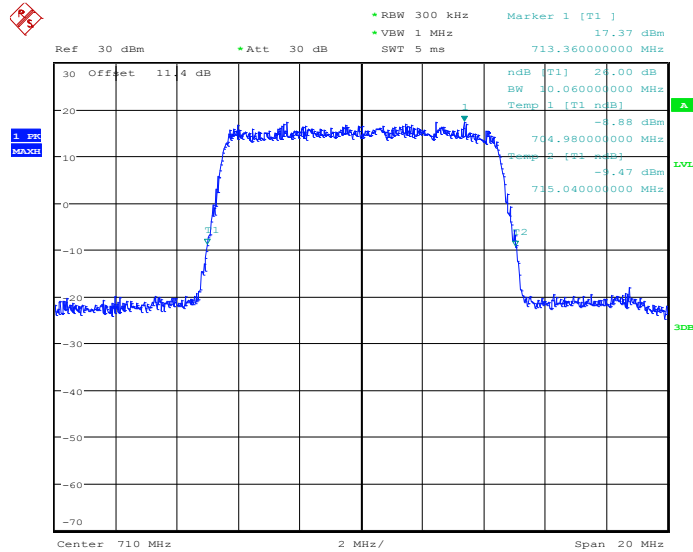


99% Occupied Bandwidth Plot on Channel 23790



Date: 9.MAY.2014 11:44:19

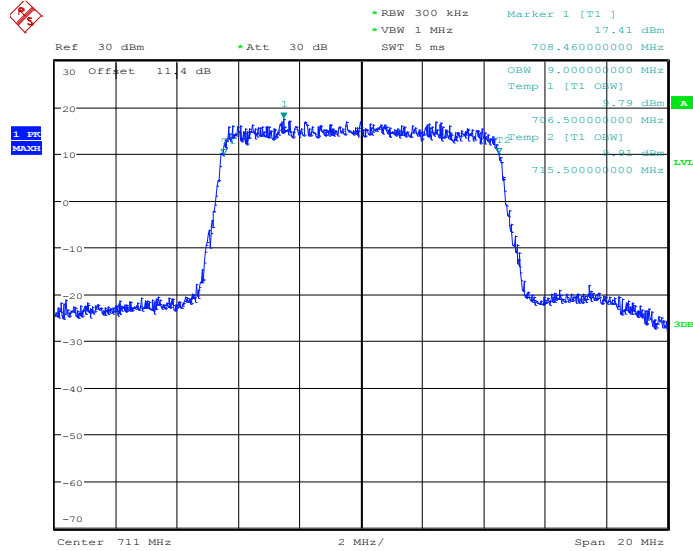
26dB Bandwidth Plot on Channel 23790



Date: 9.MAY.2014 11:44:55

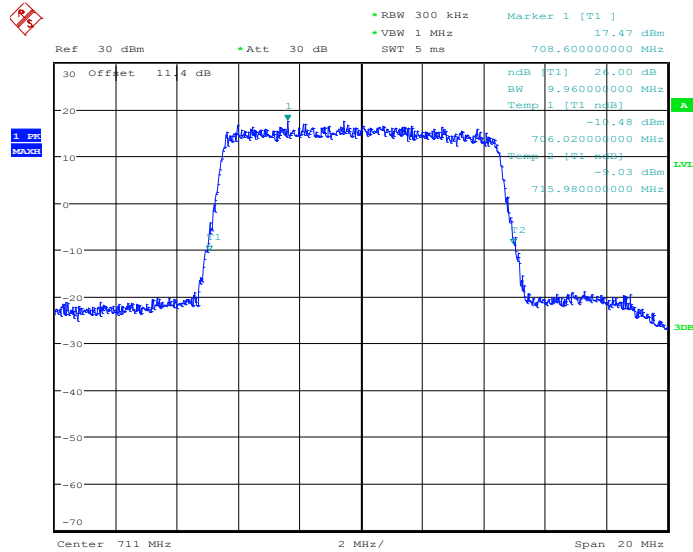


99% Occupied Bandwidth Plot on Channel 23800



Date: 9.MAY.2014 11:47:28

26dB Bandwidth Plot on Channel 23800

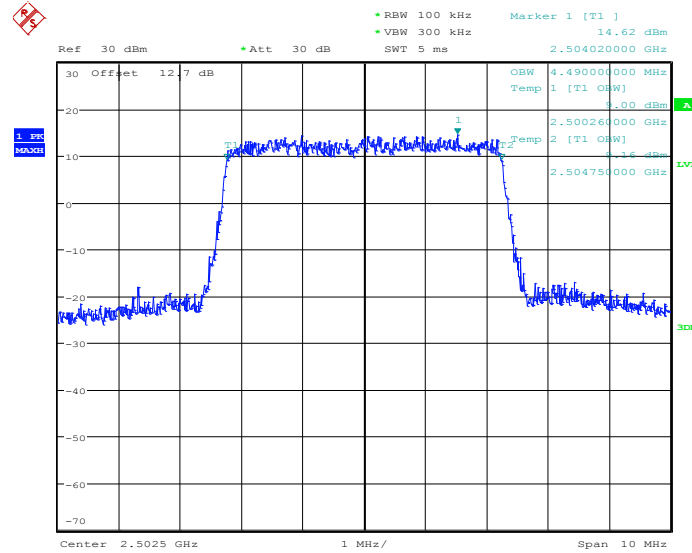


Date: 9.MAY.2014 11:48:04



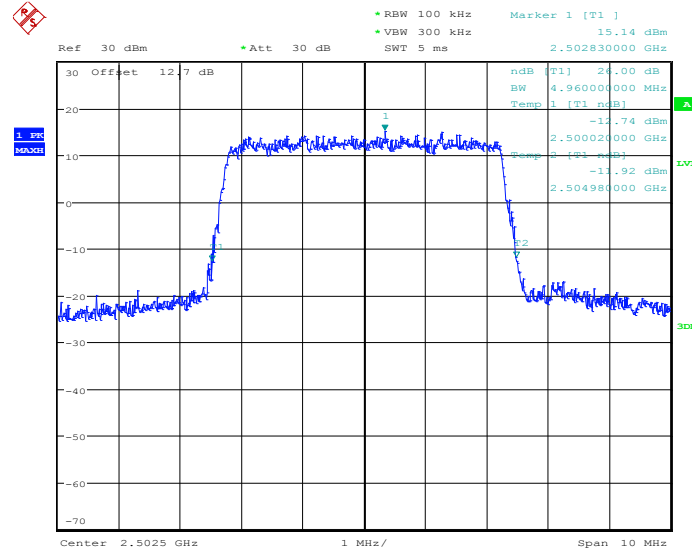
| | | | |
|--------|------------|-------------|-------------|
| Band : | LTE Band 7 | BW / Mod. : | 5MHz / QPSK |
|--------|------------|-------------|-------------|

99% Occupied Bandwidth Plot on Channel 20775



Date: 9.MAY.2014 16:54:07

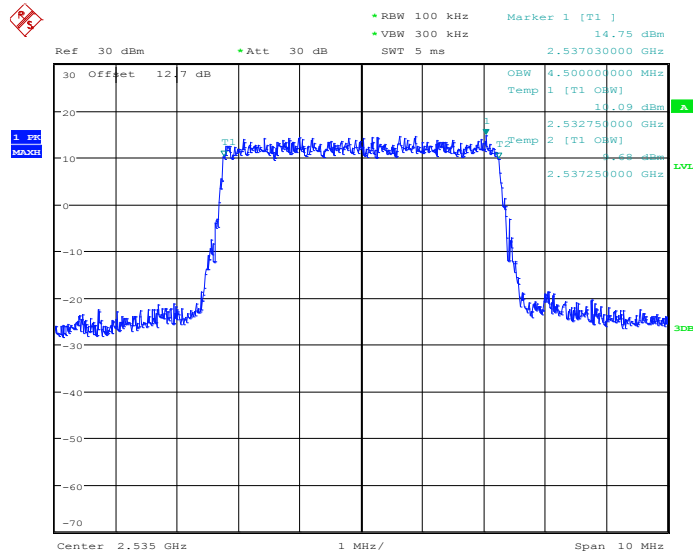
26dB Bandwidth Plot on Channel 20775



Date: 9.MAY.2014 16:54:41

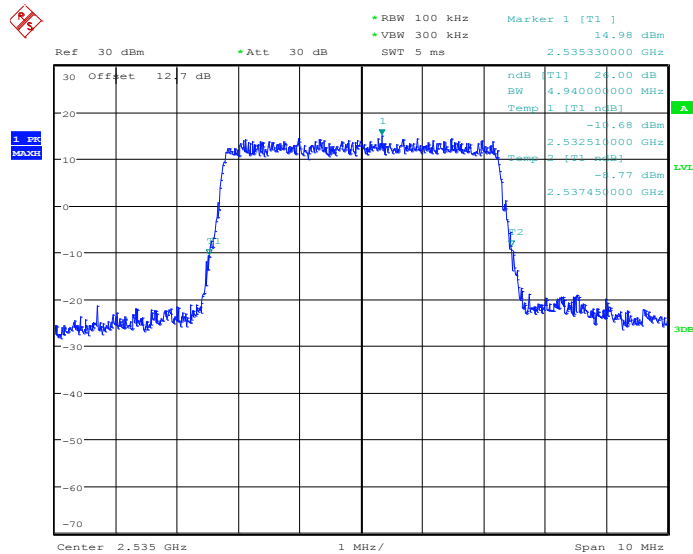


99% Occupied Bandwidth Plot on Channel 21100



Date: 9.MAY.2014 17:00:31

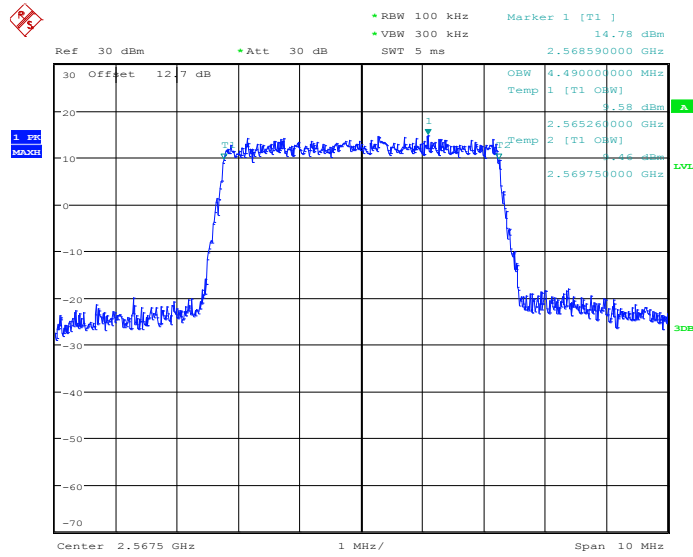
26dB Bandwidth Plot on Channel 21100



Date: 9.MAY.2014 17:01:05

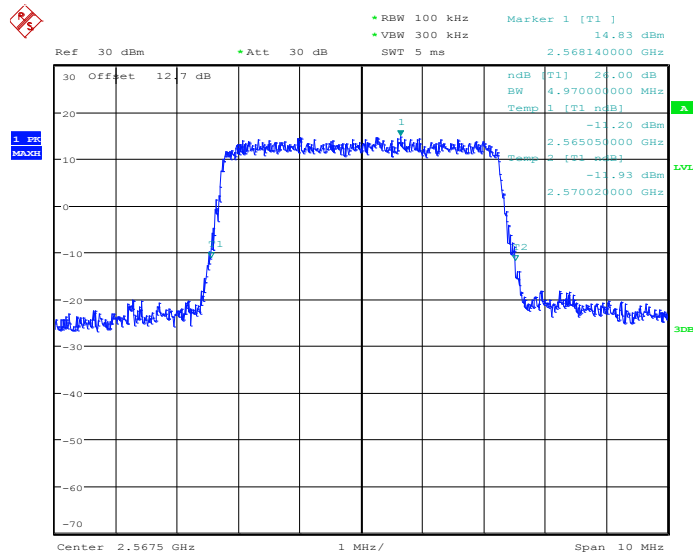


99% Occupied Bandwidth Plot on Channel 21425



Date: 9.MAY.2014 17:03:45

26dB Bandwidth Plot on Channel 21425

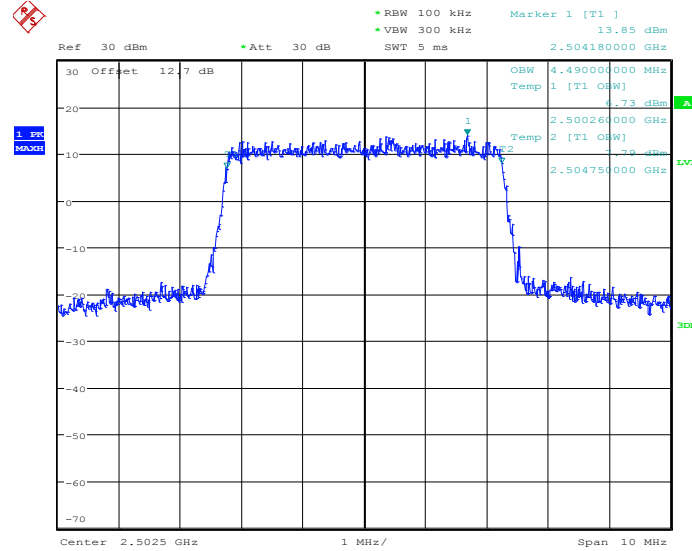


Date: 9.MAY.2014 17:04:19



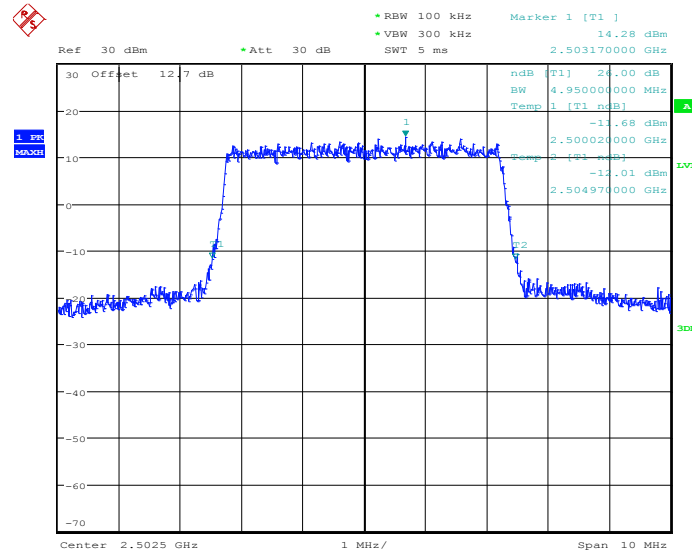
| | | | |
|---------------|------------|--------------------|--------------|
| Band : | LTE Band 7 | BW / Mod. : | 5MHz / 16QAM |
|---------------|------------|--------------------|--------------|

99% Occupied Bandwidth Plot on Channel 20775



Date: 9.MAY.2014 16:54:23

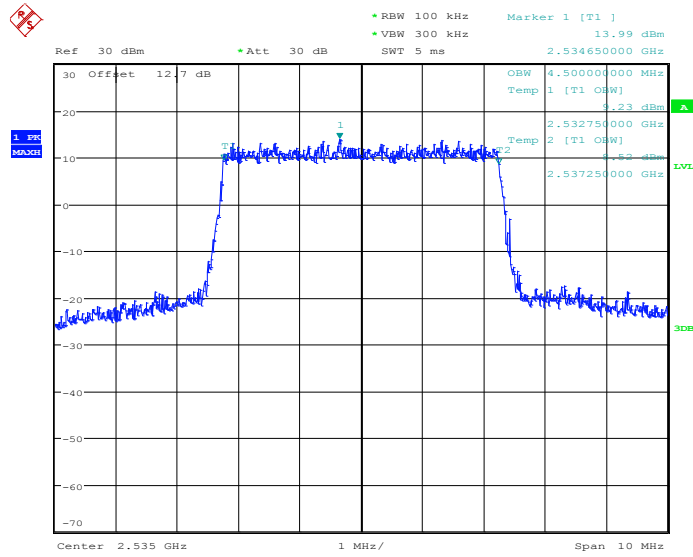
26dB Bandwidth Plot on Channel 20775



Date: 9.MAY.2014 16:54:59

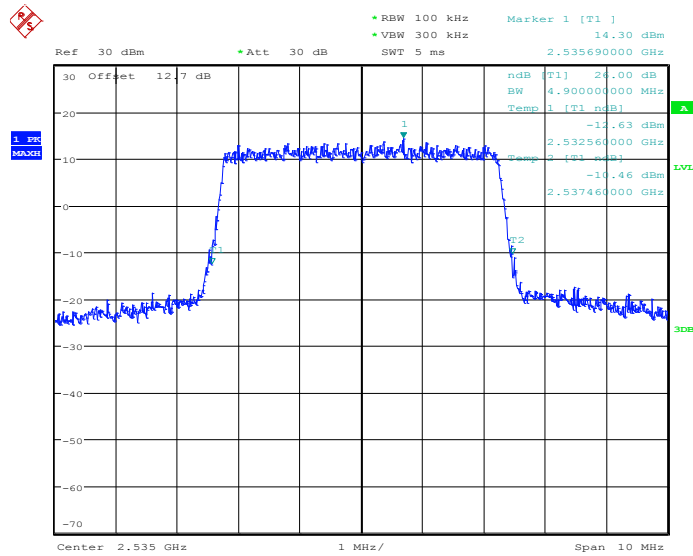


99% Occupied Bandwidth Plot on Channel 21100



Date: 9.MAY.2014 17:00:47

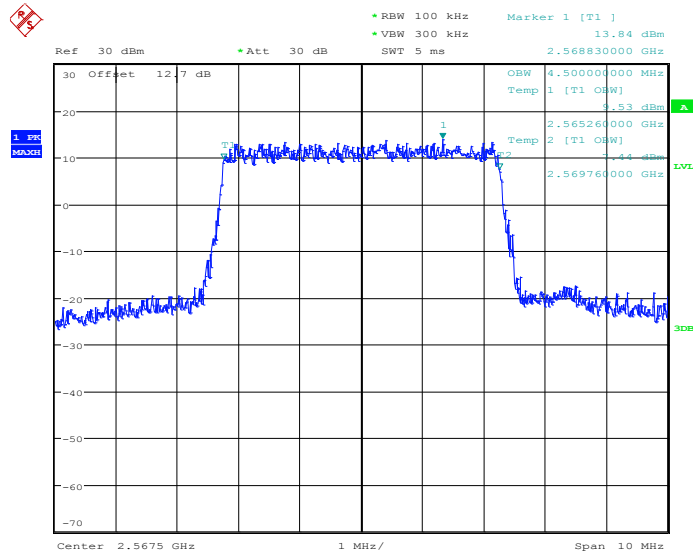
26dB Bandwidth Plot on Channel 21100



Date: 9.MAY.2014 17:01:23

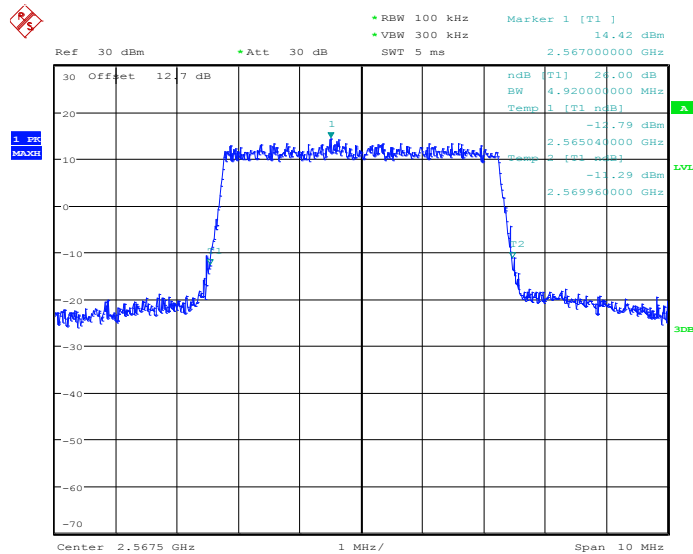


99% Occupied Bandwidth Plot on Channel 21425



Date: 9.MAY.2014 17:04:01

26dB Bandwidth Plot on Channel 21425

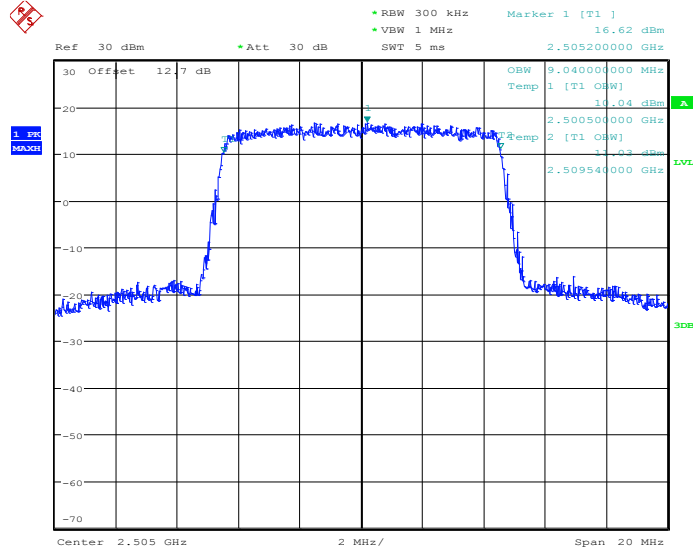


Date: 9.MAY.2014 17:04:37



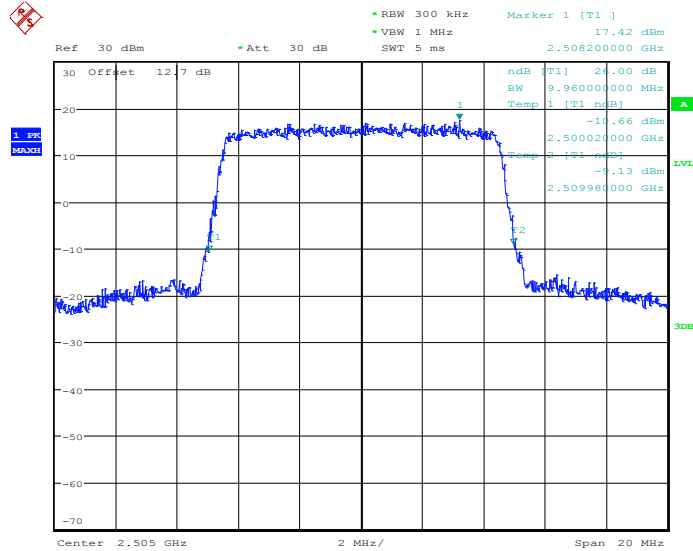
| | | | |
|--------|------------|-------------|--------------|
| Band : | LTE Band 7 | BW / Mod. : | 10MHz / QPSK |
|--------|------------|-------------|--------------|

99% Occupied Bandwidth Plot on Channel 20800



Date: 9.MAY.2014 17:10:06

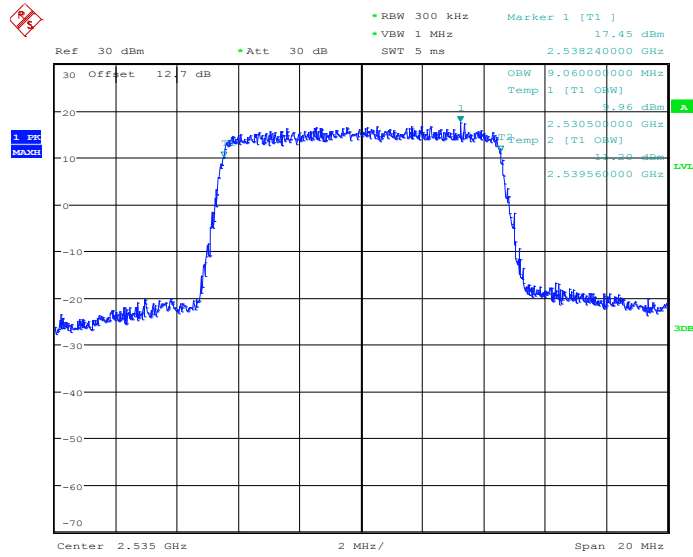
26dB Bandwidth Plot on Channel 20800



Date: 9.MAY.2014 17:10:40

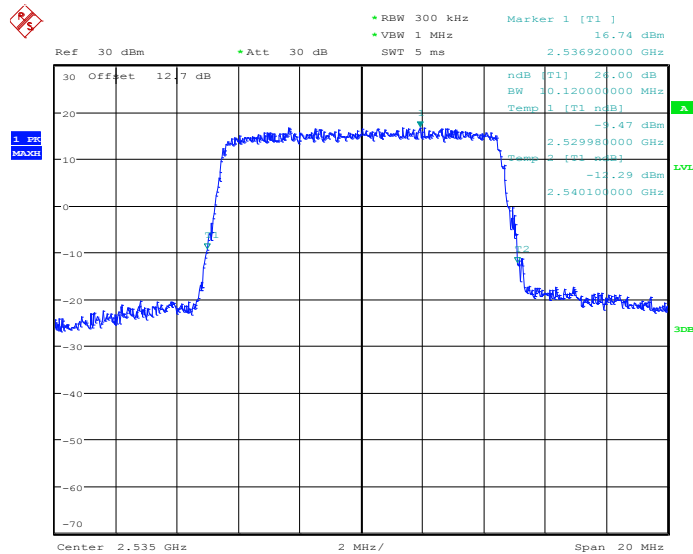


99% Occupied Bandwidth Plot on Channel 21100



Date: 9.MAY.2014 17:16:27

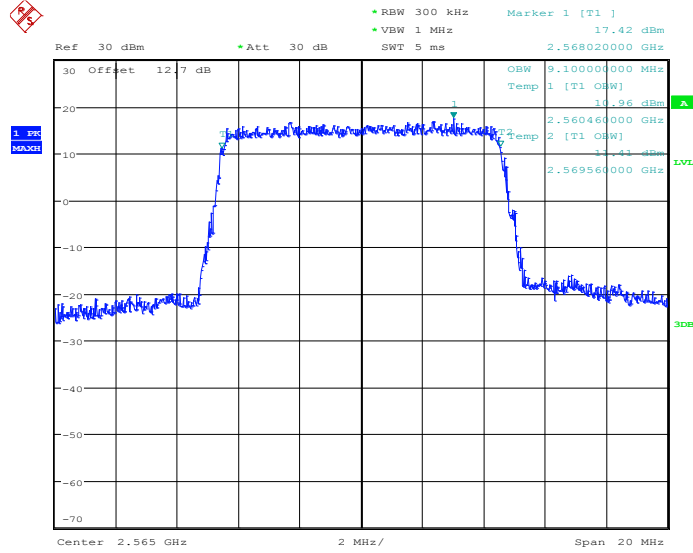
26dB Bandwidth Plot on Channel 21100



Date: 9.MAY.2014 17:17:01

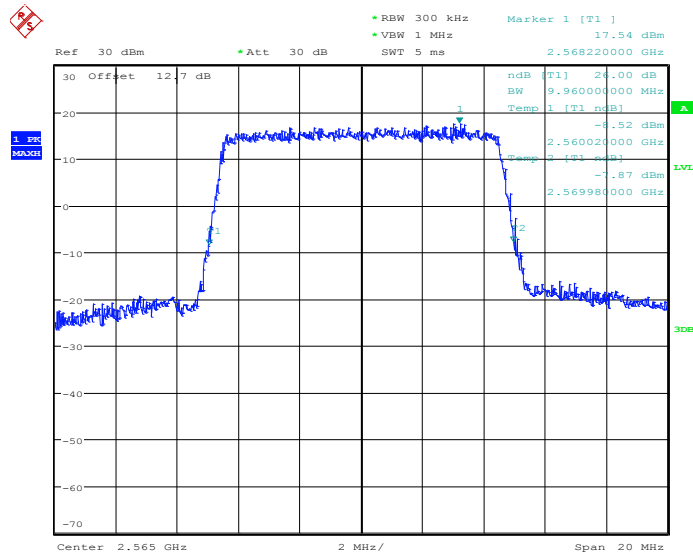


99% Occupied Bandwidth Plot on Channel 21400



Date: 9.MAY.2014 17:19:41

26dB Bandwidth Plot on Channel 21400

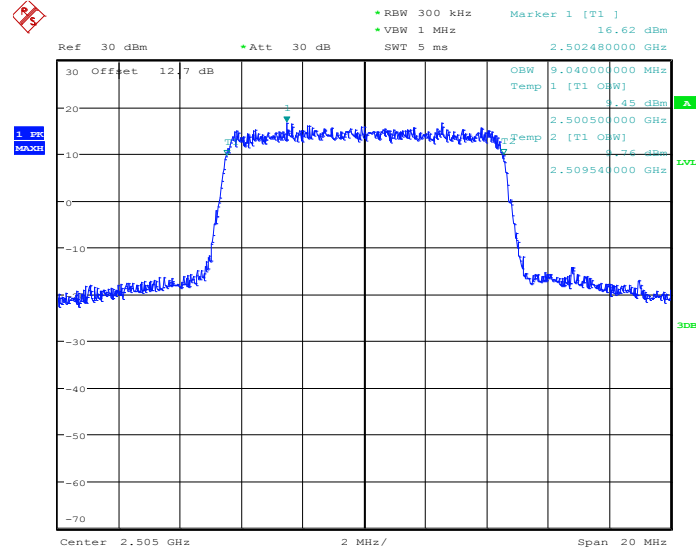


Date: 9.MAY.2014 17:20:15



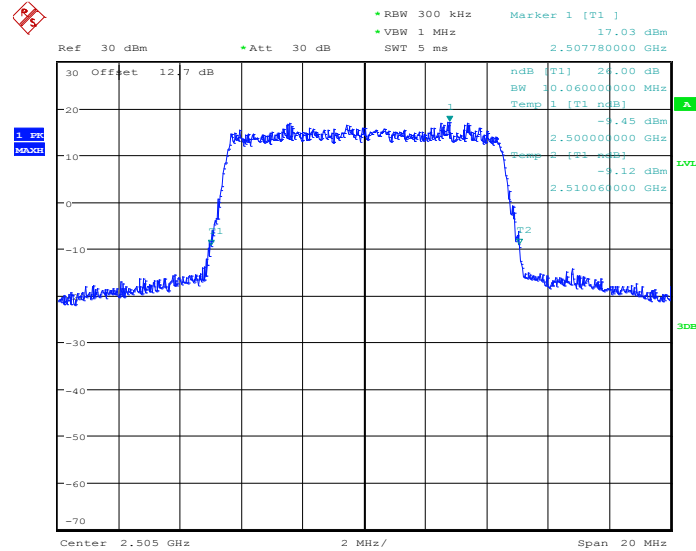
| | | | |
|---------------|------------|--------------------|---------------|
| Band : | LTE Band 7 | BW / Mod. : | 10MHz / 16QAM |
|---------------|------------|--------------------|---------------|

99% Occupied Bandwidth Plot on Channel 20800



Date: 9.MAY.2014 17:10:22

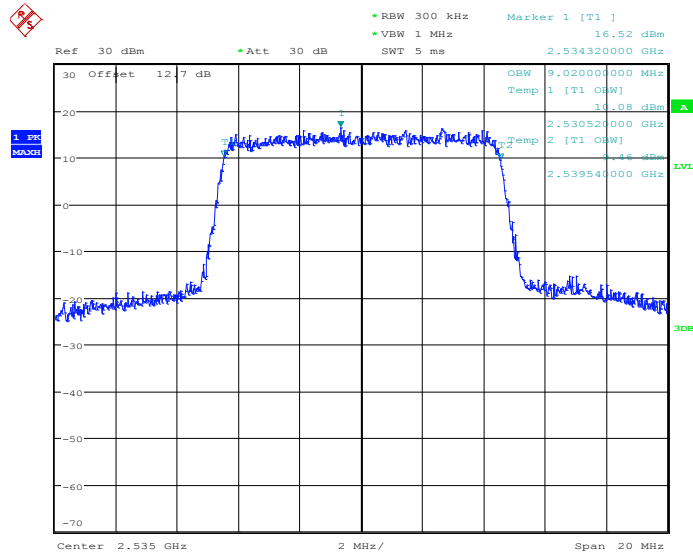
26dB Bandwidth Plot on Channel 20800



Date: 9.MAY.2014 17:10:58

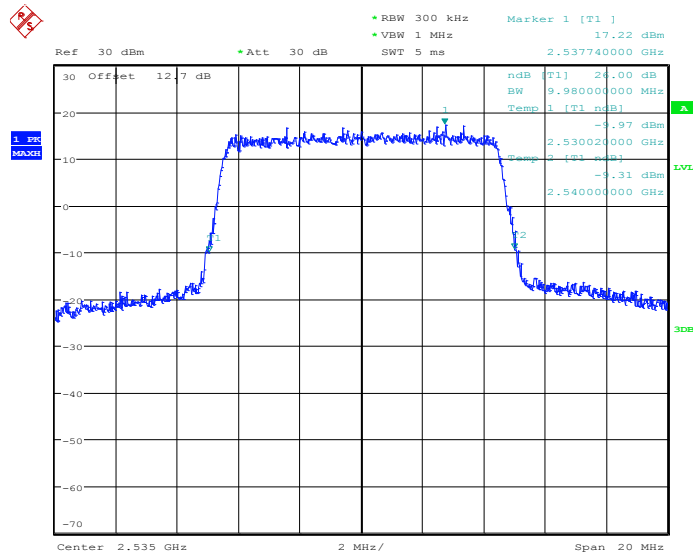


99% Occupied Bandwidth Plot on Channel 21100



Date: 9.MAY.2014 17:16:43

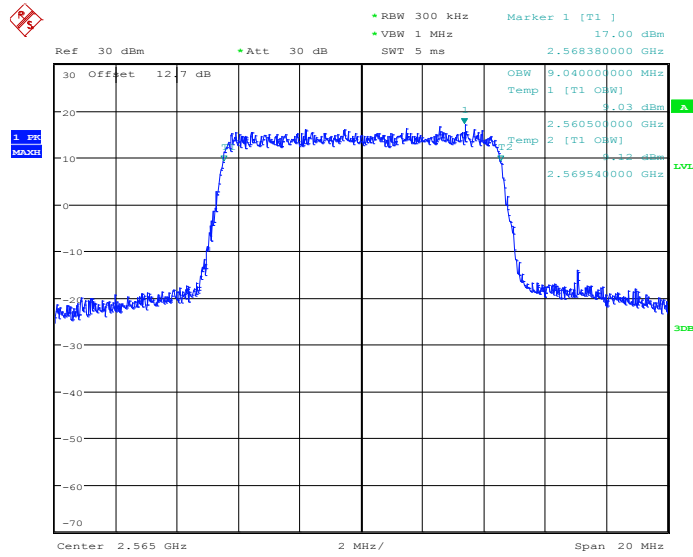
26dB Bandwidth Plot on Channel 21100



Date: 9.MAY.2014 17:17:19

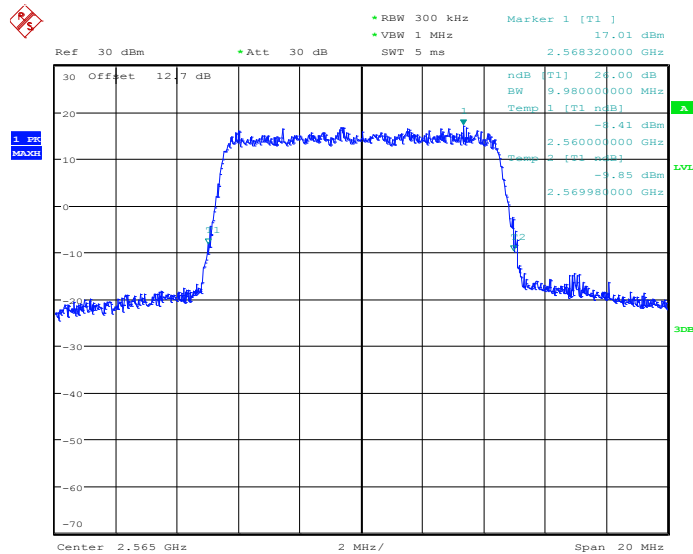


99% Occupied Bandwidth Plot on Channel 21400



Date: 9.MAY.2014 17:19:57

26dB Bandwidth Plot on Channel 21400

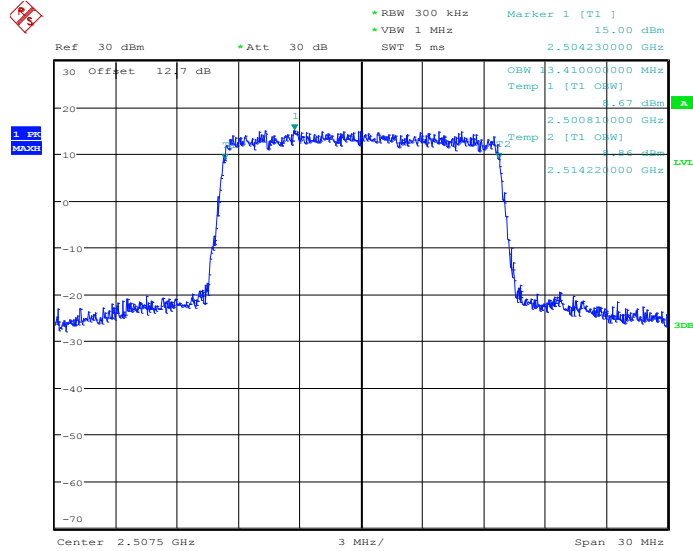


Date: 9.MAY.2014 17:20:33



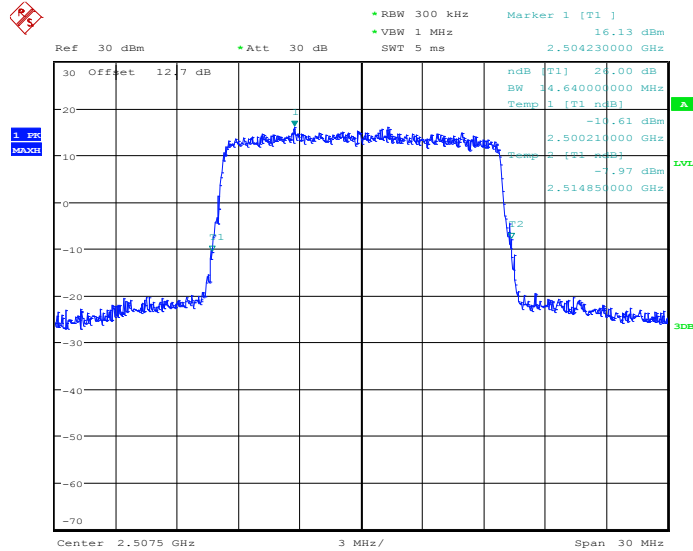
| | | | |
|--------|------------|-------------|--------------|
| Band : | LTE Band 7 | BW / Mod. : | 15MHz / QPSK |
|--------|------------|-------------|--------------|

99% Occupied Bandwidth Plot on Channel 20825



Date: 9.MAY.2014 17:26:02

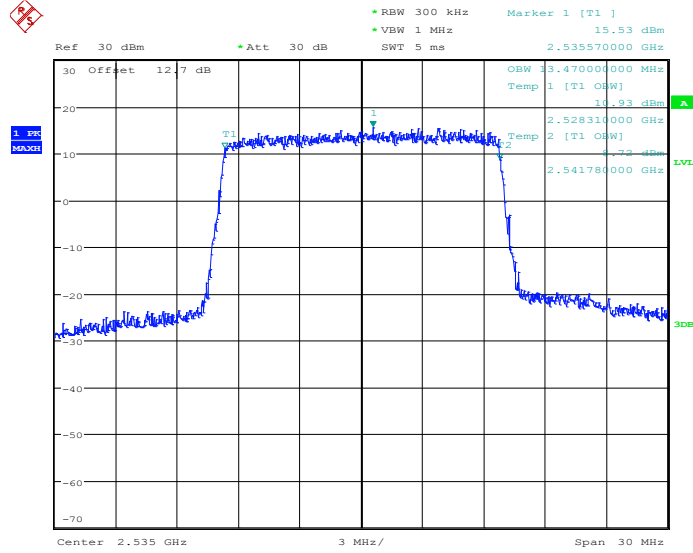
26dB Bandwidth Plot on Channel 20825



Date: 9.MAY.2014 17:26:36

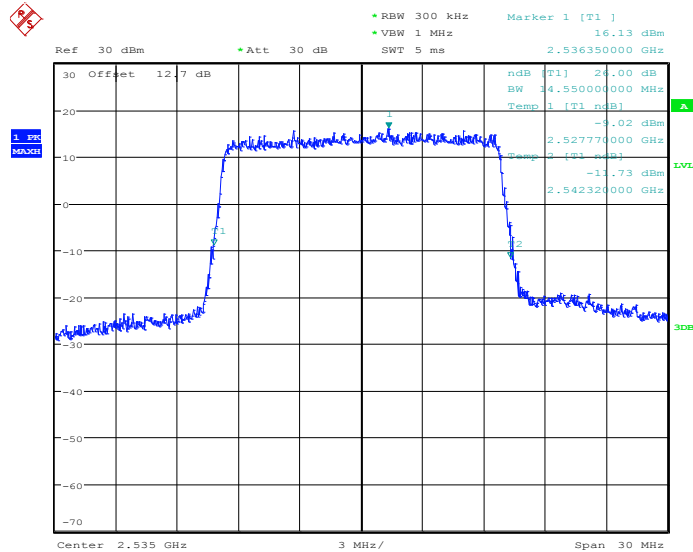


99% Occupied Bandwidth Plot on Channel 21100



Date: 9.MAY.2014 17:32:23

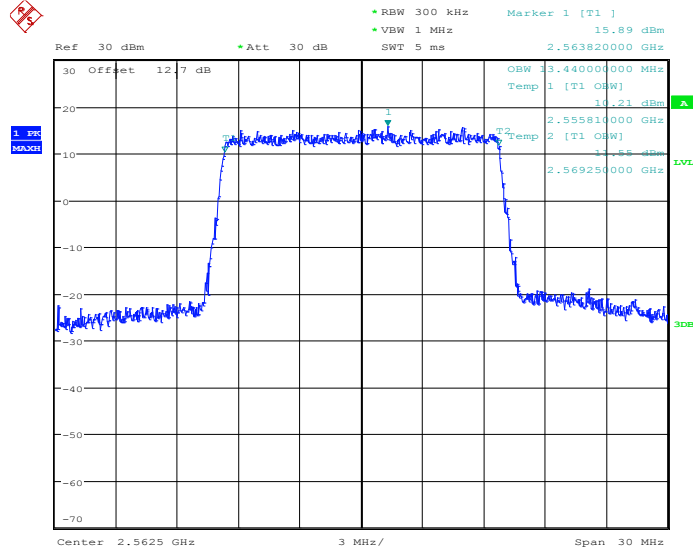
26dB Bandwidth Plot on Channel 21100



Date: 9.MAY.2014 17:32:57

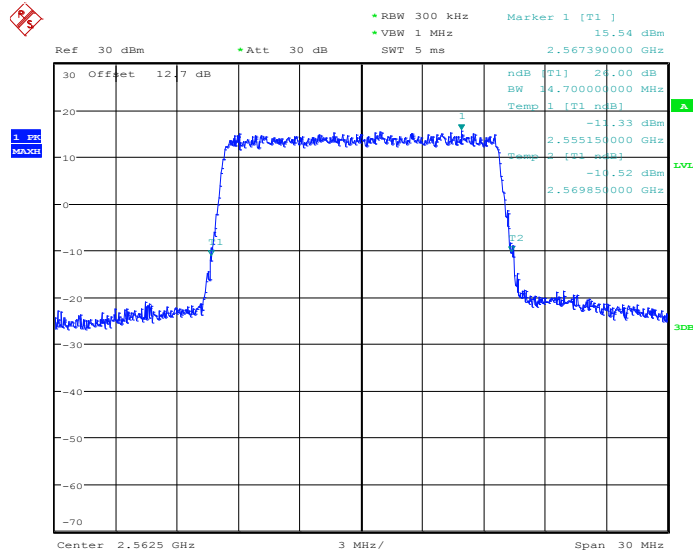


99% Occupied Bandwidth Plot on Channel 21375



Date: 9.MAY.2014 17:35:38

26dB Bandwidth Plot on Channel 21375

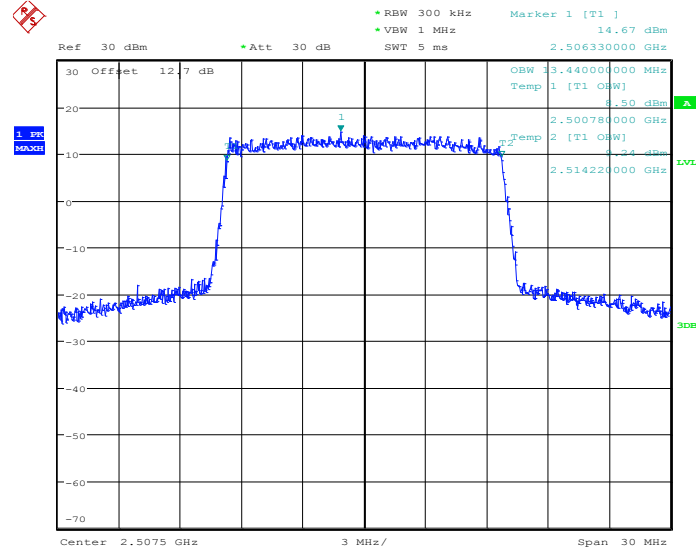


Date: 9.MAY.2014 17:36:12



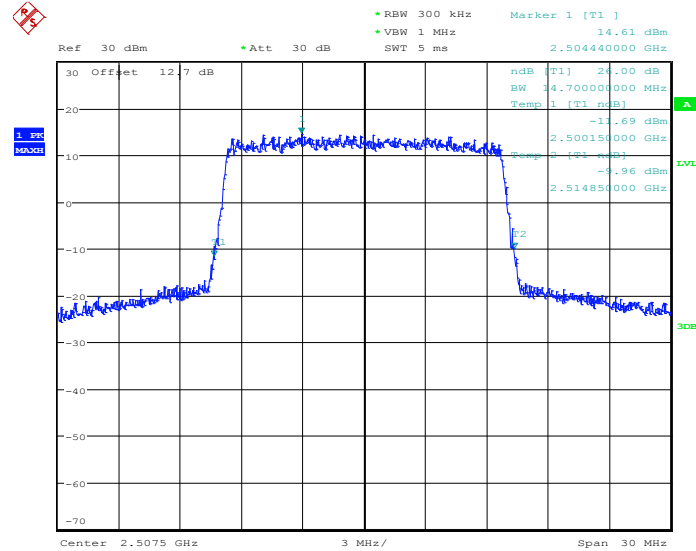
| | | | |
|--------|------------|-------------|---------------|
| Band : | LTE Band 7 | BW / Mod. : | 15MHz / 16QAM |
|--------|------------|-------------|---------------|

99% Occupied Bandwidth Plot on Channel 20825



Date: 9.MAY.2014 17:26:18

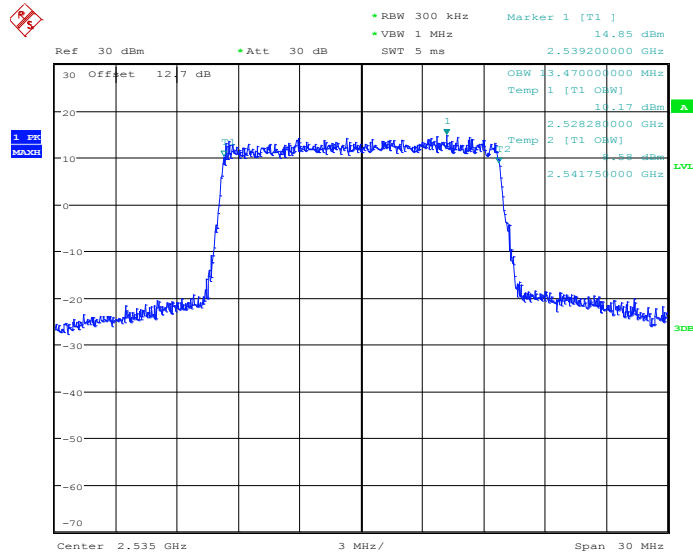
26dB Bandwidth Plot on Channel 20825



Date: 9.MAY.2014 17:26:54

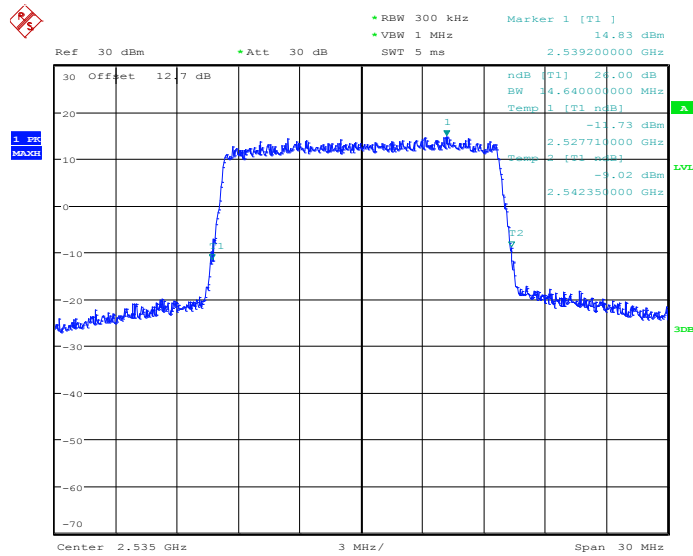


99% Occupied Bandwidth Plot on Channel 21100



Date: 9.MAY.2014 17:32:39

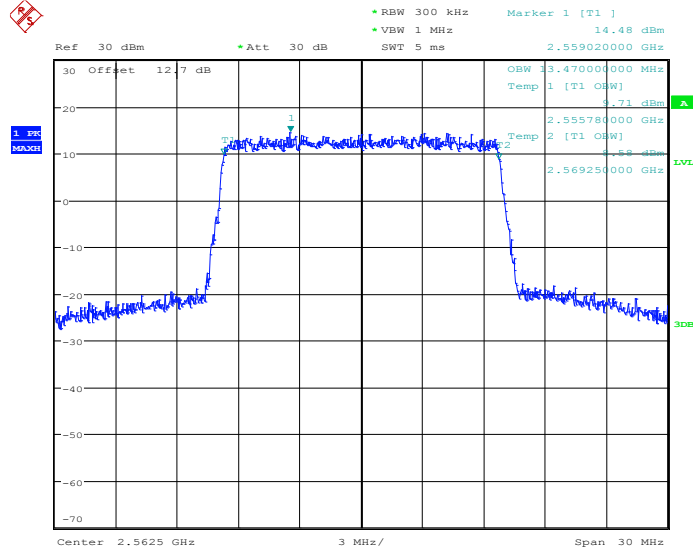
26dB Bandwidth Plot on Channel 21100



Date: 9.MAY.2014 17:33:16

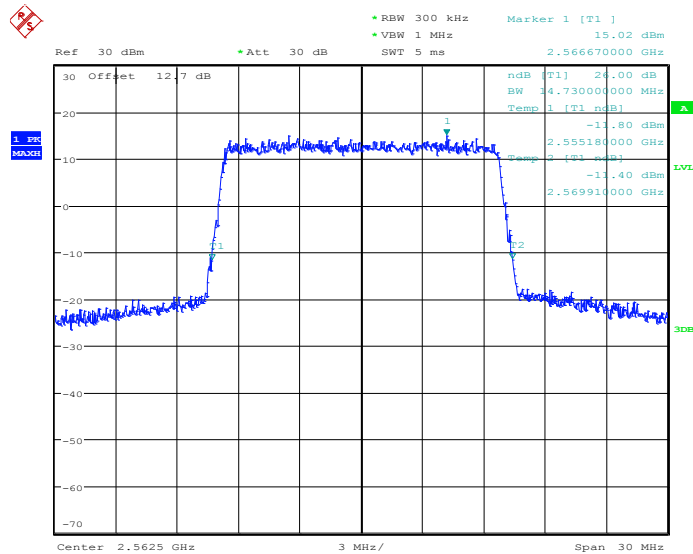


99% Occupied Bandwidth Plot on Channel 21375



Date: 9.MAY.2014 17:35:54

26dB Bandwidth Plot on Channel 21375

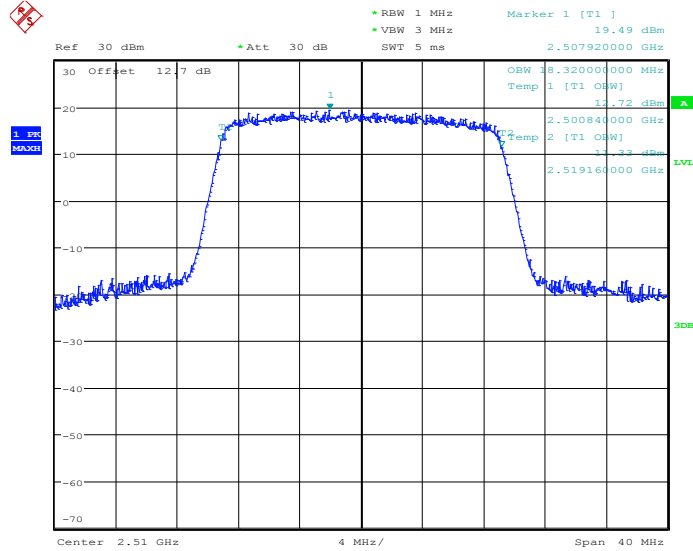


Date: 9.MAY.2014 17:36:30



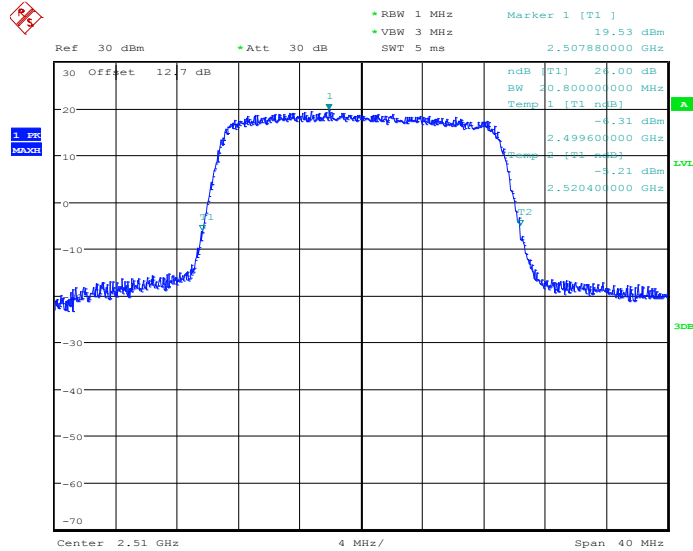
| | | | |
|--------|------------|-------------|--------------|
| Band : | LTE Band 7 | BW / Mod. : | 20MHz / QPSK |
|--------|------------|-------------|--------------|

99% Occupied Bandwidth Plot on Channel 20850



Date: 9.MAY.2014 17:42:00

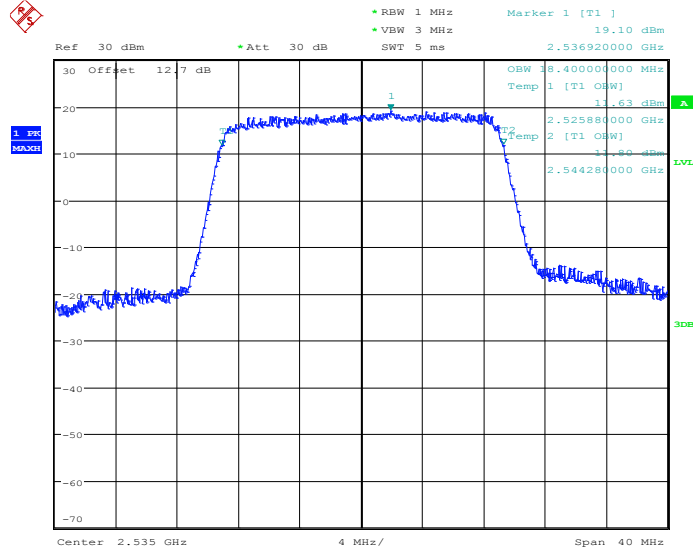
26dB Bandwidth Plot on Channel 20850



Date: 9.MAY.2014 17:42:33

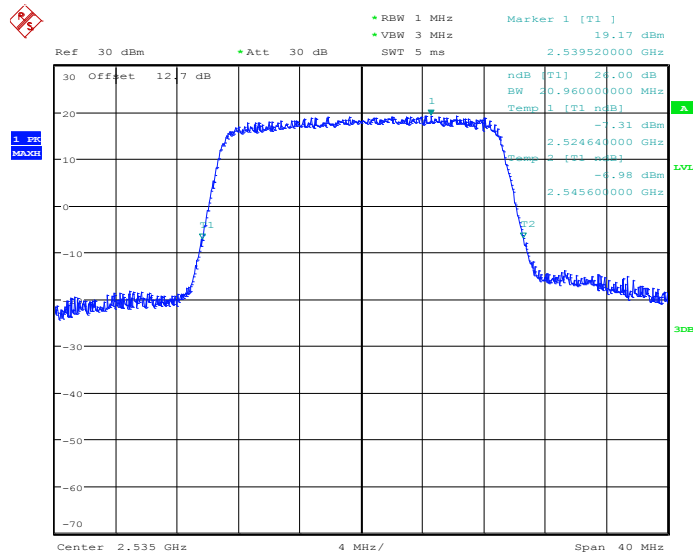


99% Occupied Bandwidth Plot on Channel 21100



Date: 9.MAY.2014 17:48:21

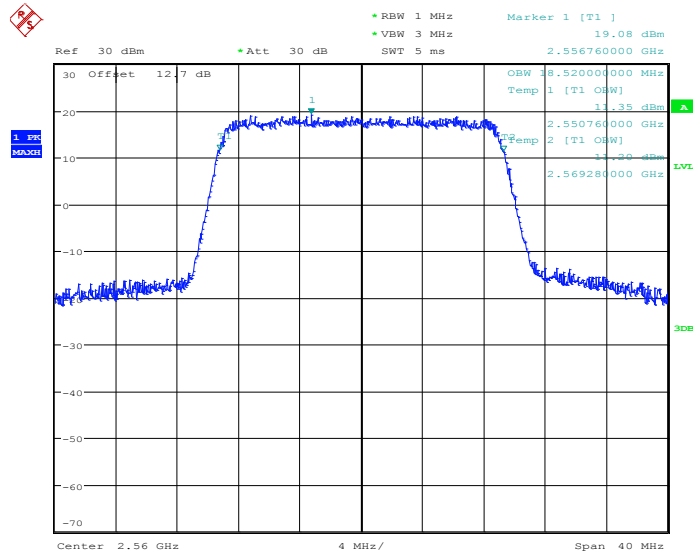
26dB Bandwidth Plot on Channel 21100



Date: 9.MAY.2014 17:48:54

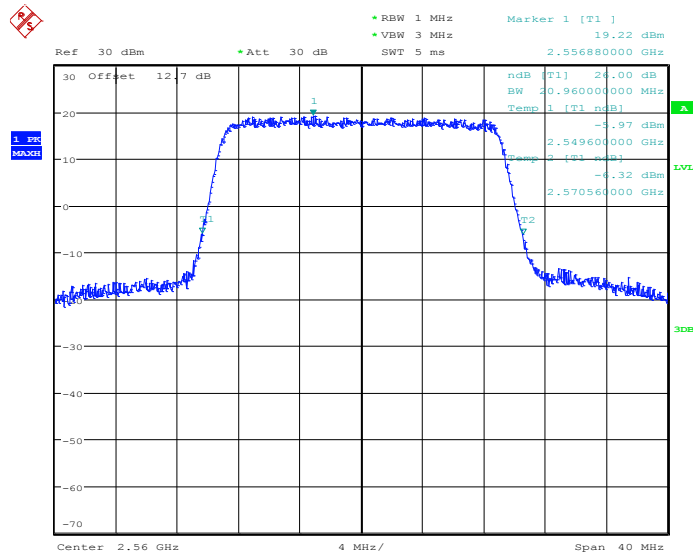


99% Occupied Bandwidth Plot on Channel 21350



Date: 9.MAY.2014 17:51:34

26dB Bandwidth Plot on Channel 21350

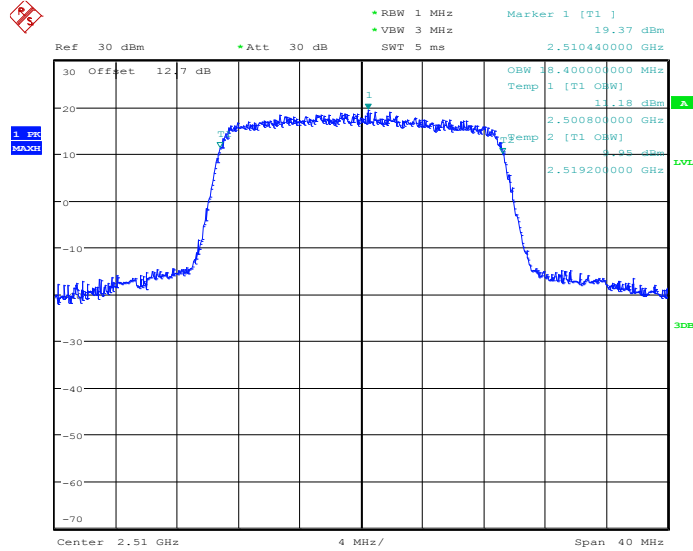


Date: 9.MAY.2014 17:52:08



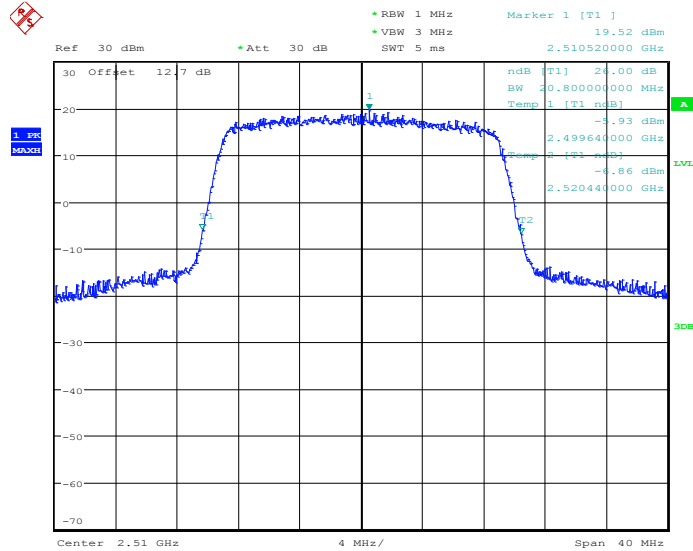
| | | | |
|--------|------------|-------------|---------------|
| Band : | LTE Band 7 | BW / Mod. : | 20MHz / 16QAM |
|--------|------------|-------------|---------------|

99% Occupied Bandwidth Plot on Channel 20850



Date: 9.MAY.2014 17:42:16

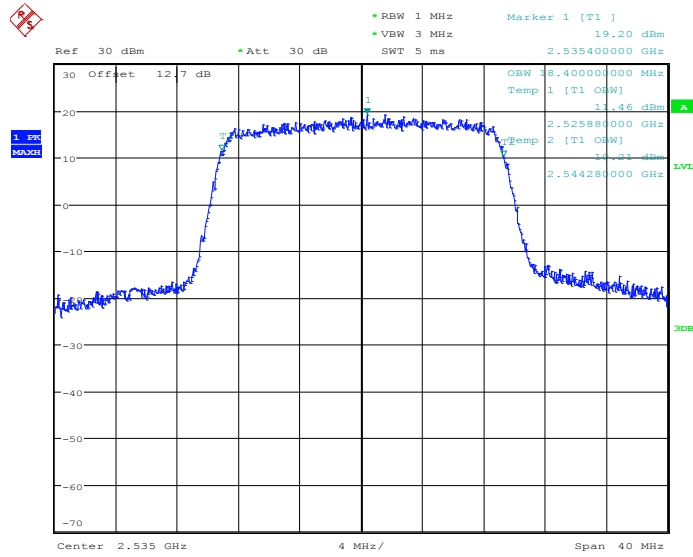
26dB Bandwidth Plot on Channel 20850



Date: 9.MAY.2014 17:42:51

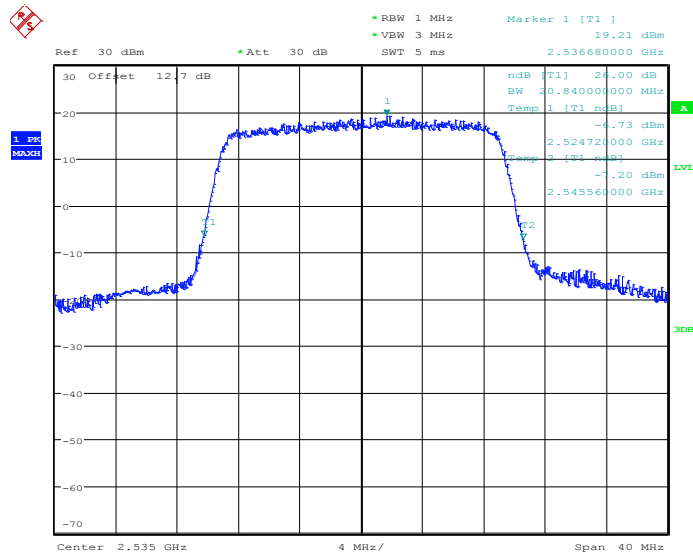


99% Occupied Bandwidth Plot on Channel 21100



Date: 9.MAY.2014 17:48:37

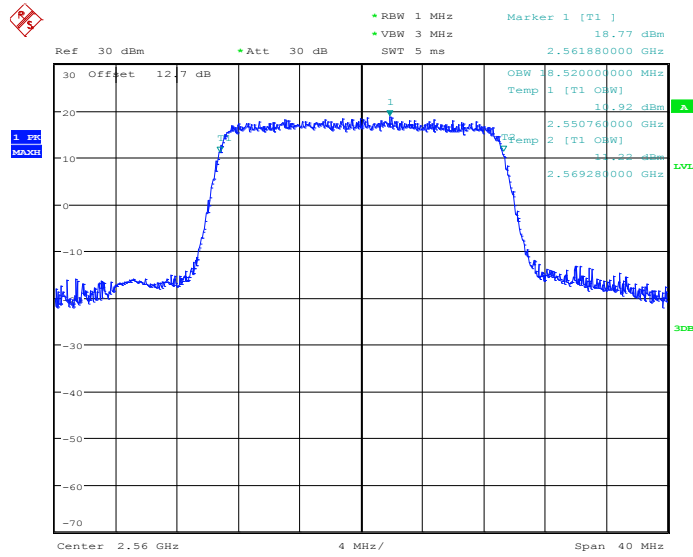
26dB Bandwidth Plot on Channel 21100



Date: 9.MAY.2014 17:49:12

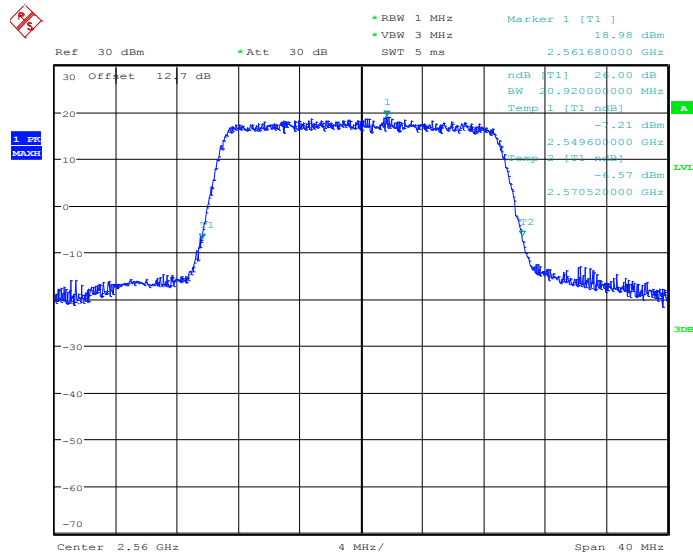


99% Occupied Bandwidth Plot on Channel 21350



Date: 9.MAY.2014 17:51:50

26dB Bandwidth Plot on Channel 21350



Date: 9.MAY.2014 17:52:26



3.5 Conducted Band Edge Measurement

3.5.1 Description of Conducted Band Edge Measurement

22.917(a) and RSS – 132 for Band 5

For operations in the 824 – 849 MHz band, the FCC limit is $43 + 10\log_{10}(P[\text{Watts}])$ dB below the transmitter power P(Watts) in a 100kHz bandwidth. However, in the 1MHz bands immediately outside and adjacent to the licensee's frequency block, a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed.

24.238 (a) and RSS – 133 for Band 2

For operations in the 1850-1910 and 1930-1990 MHz band, the FCC limit is $43 + 10\log_{10}(P[\text{Watts}])$ dB below the transmitter power P(Watts) in a 1MHz bandwidth. However, in the 1 MHz bands immediately outside and adjacent to the frequency block a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed.

27.53 (f) and RSS – 130 for Band17

For operations in the 698 -746 MHz band, the FCC limit is $43 + 10\log_{10}(P[\text{Watts}])$ dB below the transmitter power P(Watts) in a 100 kHz bandwidth. However, in the 100 kilohertz bands immediately outside and adjacent to a licensee's frequency block, a resolution bandwidth of at least 30 kHz may be employed.

27.53 (g) and RSS – 139 for Band 4

For operations in the 1710 – 1755 MHz band, the FCC limit is $43 + 10\log_{10}(P[\text{Watts}])$ dB below the transmitter power P(Watts) in a 1 MHz bandwidth. However, in the 1MHz bands immediately outside and adjacent to the licensee's frequency block, a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed.

27.53 (l)(4) and RSS – 199 for Band 7

The emissions be operated in the 2496-2690 MHz band, the attenuation factor of transmitter Power (P) shall be not less than $55 + 10 \log (P)$ dB at the channel edge

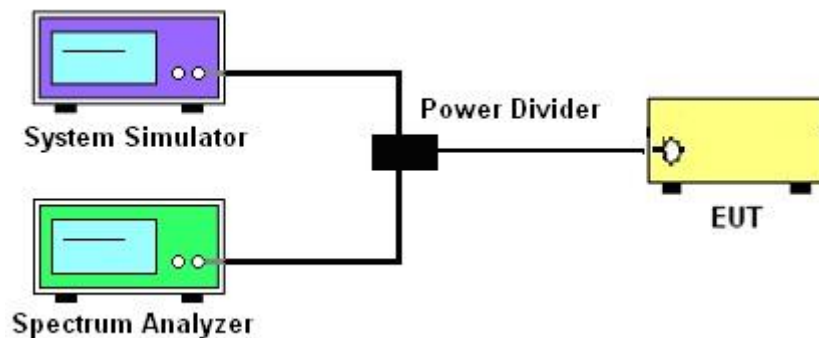
3.5.2 Measuring Instruments

The measuring equipment is listed in the section 4 of this test report.

3.5.3 Test Procedures

1. The EUT was connected to spectrum analyzer and system simulator via a power divider.
2. The band edges of low and high channels for the highest RF powers were measured. Set RBW \geq 1% EBW in the 1MHz band immediately outside and adjacent to the band edge.
3. Set spectrum analyzer with RMS detector.
4. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.
5. The limit line is derived from $43 + 10\log(P)$ dB below the transmitter power P(Watts)
 $= P(W) - [43 + 10\log(P)]$ (dB)
 $= [30 + 10\log(P)]$ (dBm) - $[43 + 10\log(P)]$ (dB)
 $= -13$ dBm.

3.5.4 Test Setup

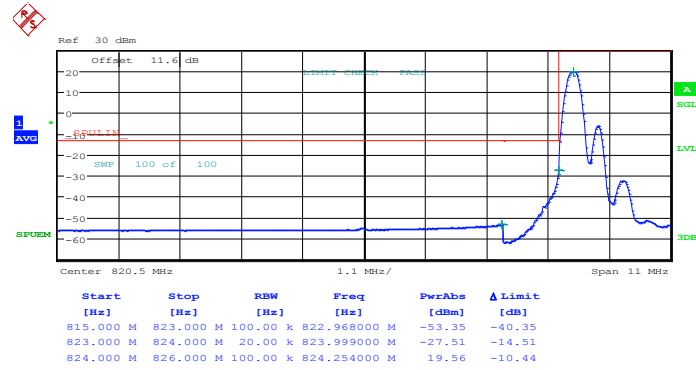




3.5.5 Test Result (Plots) of Conducted Band Edge

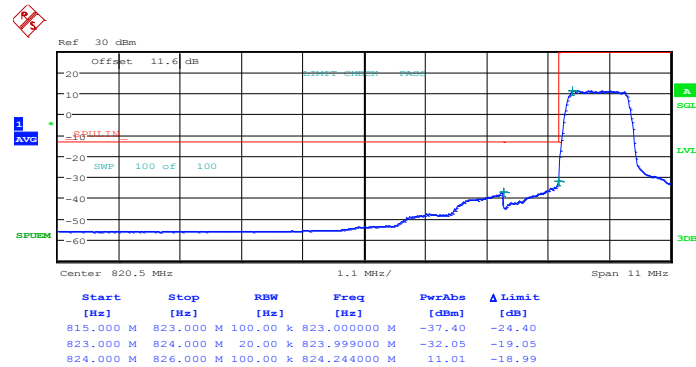
| | | | |
|--------|------------|--------------|---------------|
| Band : | LTE Band 5 | Band Width : | 1.4MHz / QPSK |
|--------|------------|--------------|---------------|

Lower Band Edge Plot for QPSK-RB Size 1, RB Offset 0



Date: 9.MAY.2014 13:44:39

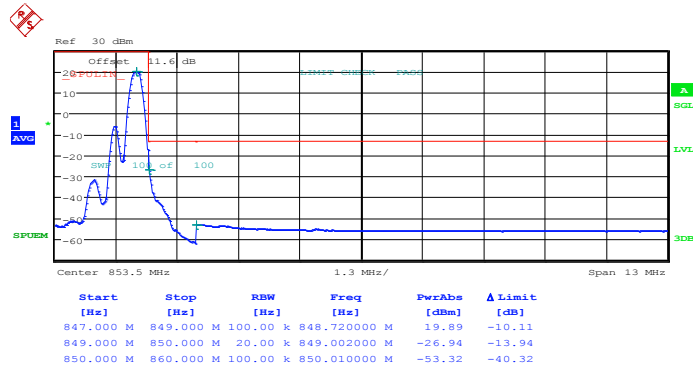
Lower Band Edge Plot for QPSK-RB Size 6, RB Offset 0



Date: 9.MAY.2014 13:46:13

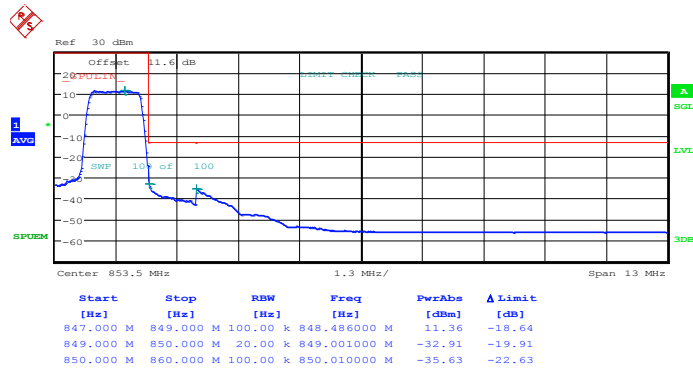


Higher Band Edge Plot for QPSK-RB Size 1, RB Offset 5



Date: 9.MAY.2014 13:55:40

Higher Band Edge Plot for QPSK-RB Size 6, RB Offset 0

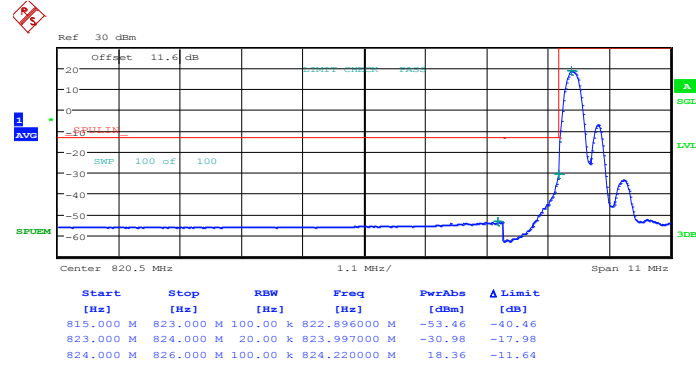


Date: 9.MAY.2014 13:54:06



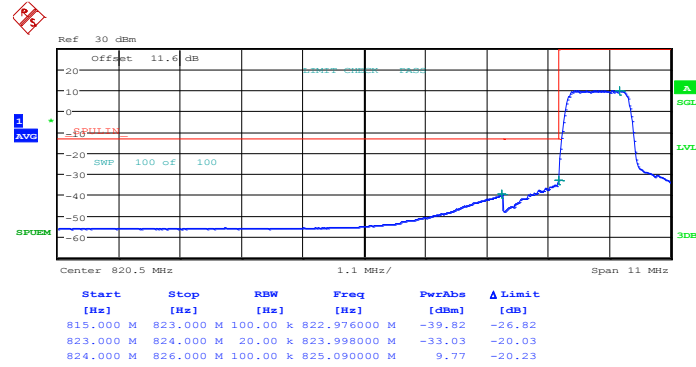
| | | | |
|---------------|------------|---------------------|----------------|
| Band : | LTE Band 5 | Band Width : | 1.4MHz / 16QAM |
|---------------|------------|---------------------|----------------|

Lower Band Edge Plot for 16QAM -RB Size 1, RB Offset 0



Date: 9.MAY.2014 13:45:26

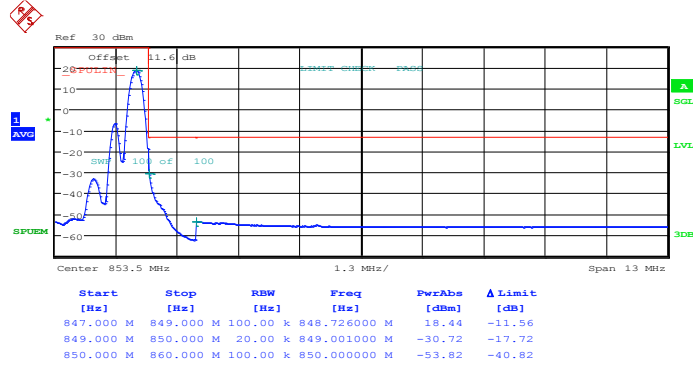
Lower Band Edge Plot for 16QAM -RB Size 6, RB Offset 0



Date: 9.MAY.2014 13:47:01

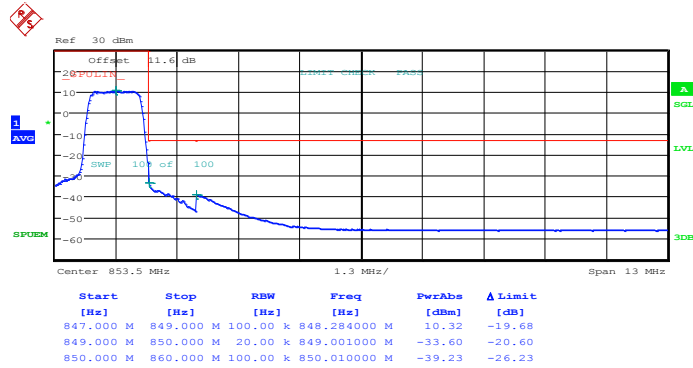


Higher Band Edge Plot for 16QAM -RB Size 1, RB Offset 5



Date: 9.MAY.2014 13:56:28

Higher Band Edge Plot for 16QAM -RB Size 6, RB Offset 0

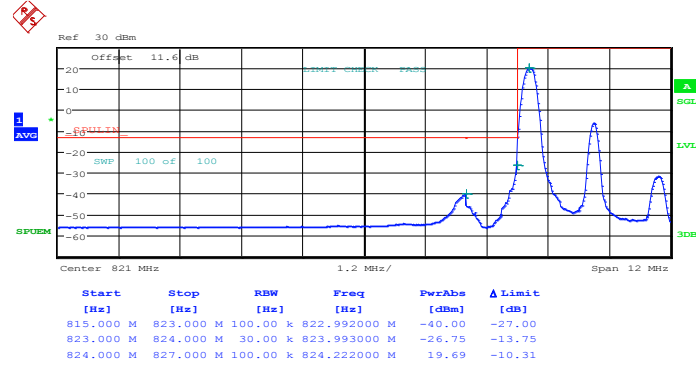


Date: 9.MAY.2014 13:54:53



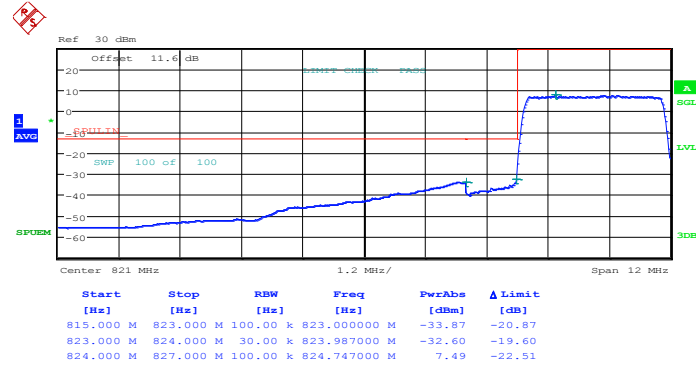
| | | | |
|--------|------------|--------------|-------------|
| Band : | LTE Band 5 | Band Width : | 3MHz / QPSK |
|--------|------------|--------------|-------------|

Lower Band Edge Plot for QPSK-RB Size 1, RB Offset 0



Date: 9.MAY.2014 14:02:53

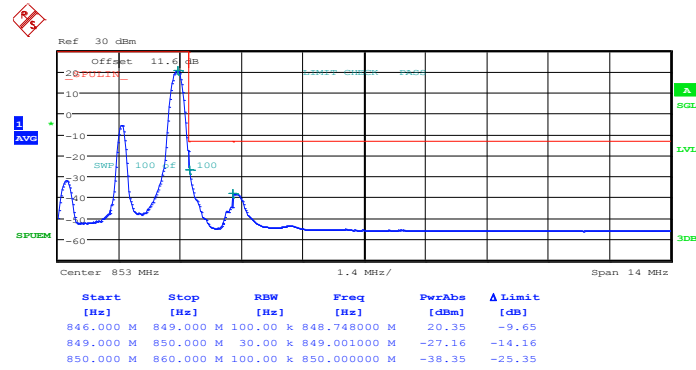
Lower Band Edge Plot for QPSK-RB Size 15, RB Offset 0



Date: 9.MAY.2014 14:04:28

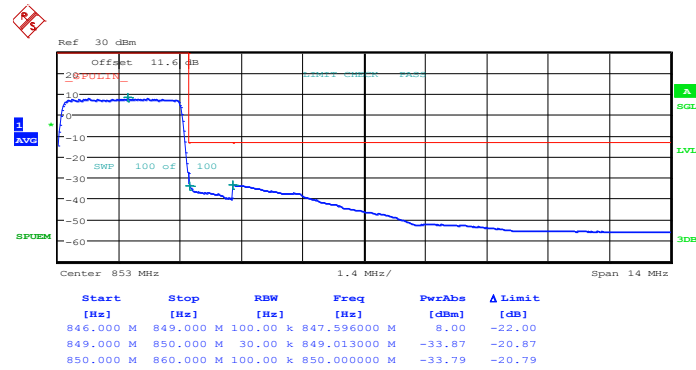


Higher Band Edge Plot for QPSK-RB Size 1, RB Offset 14



Date: 9.MAY.2014 14:12:21

Higher Band Edge Plot for QPSK-RB Size 15, RB Offset 0

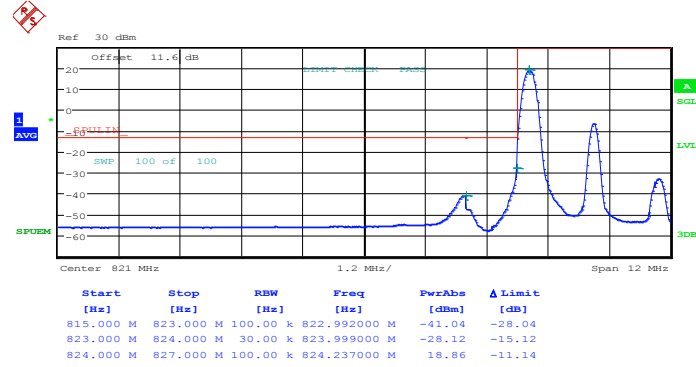


Date: 9.MAY.2014 14:13:56



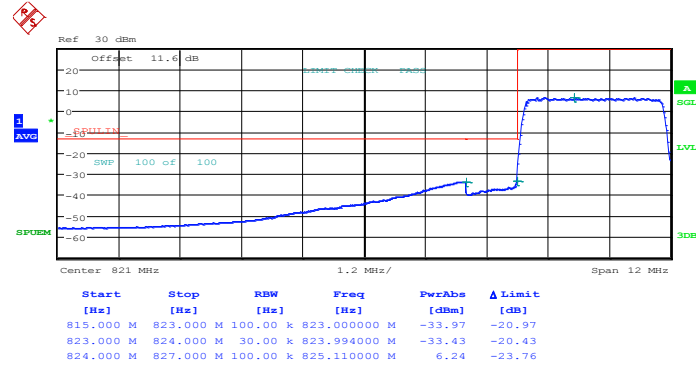
| | | | |
|---------------|------------|---------------------|--------------|
| Band : | LTE Band 5 | Band Width : | 3MHz / 16QAM |
|---------------|------------|---------------------|--------------|

Lower Band Edge Plot for 16QAM -RB Size 1, RB Offset 0



Date: 9.MAY.2014 14:03:40

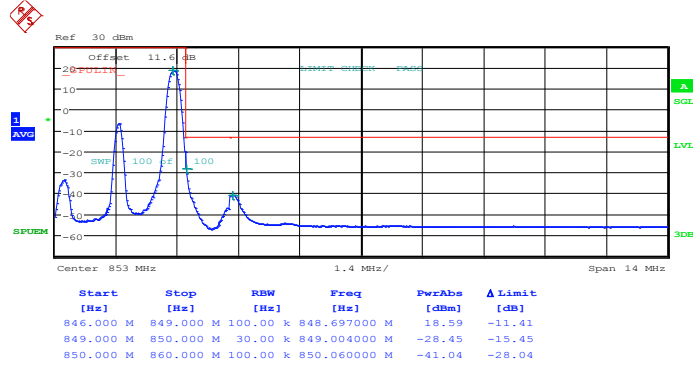
Lower Band Edge Plot for 16QAM -RB Size 15, RB Offset 0



Date: 9.MAY.2014 14:05:15

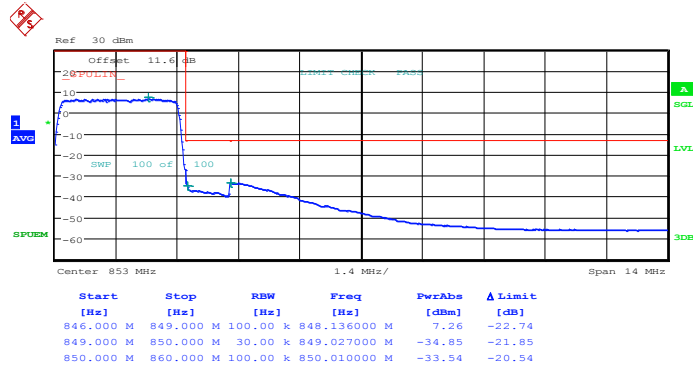


Higher Band Edge Plot for 16QAM -RB Size 1, RB Offset 14



Date: 9.MAY.2014 14:13:08

Higher Band Edge Plot for 16QAM -RB Size 15, RB Offset 0

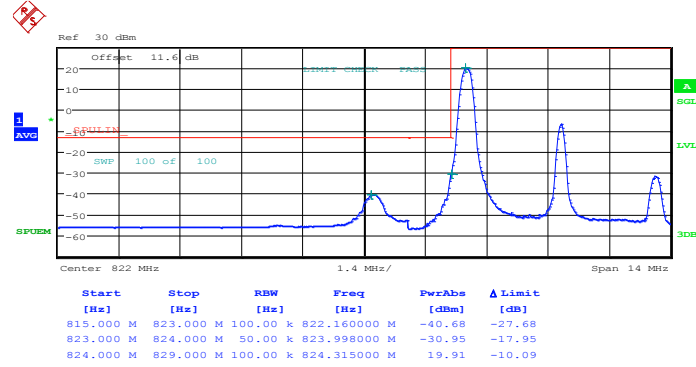


Date: 9.MAY.2014 14:14:43



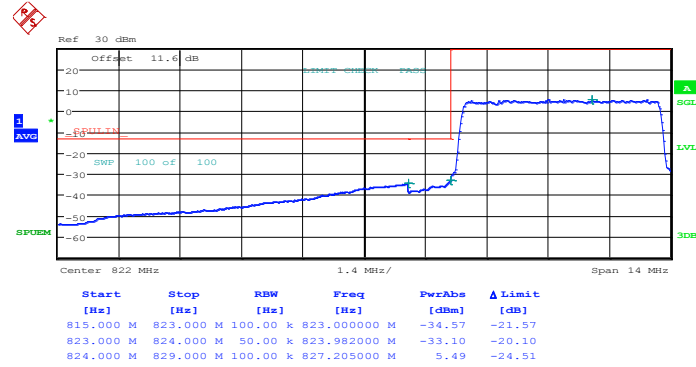
| | | | |
|---------------|------------|---------------------|-------------|
| Band : | LTE Band 5 | Band Width : | 5MHz / QPSK |
|---------------|------------|---------------------|-------------|

Lower Band Edge Plot for QPSK-RB Size 1, RB Offset 0



Date: 9.MAY.2014 14:18:39

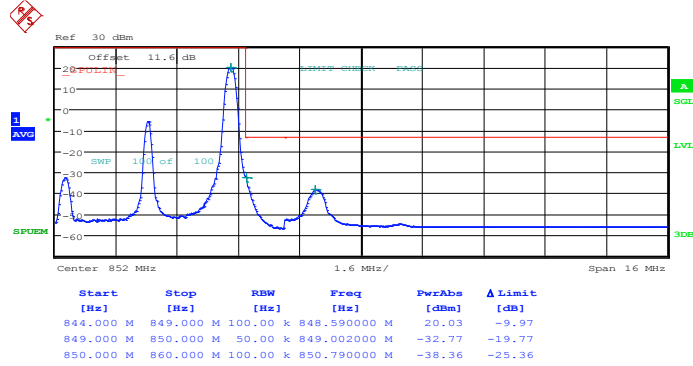
Lower Band Edge Plot for QPSK-RB Size 25, RB Offset 0



Date: 9.MAY.2014 14:20:14

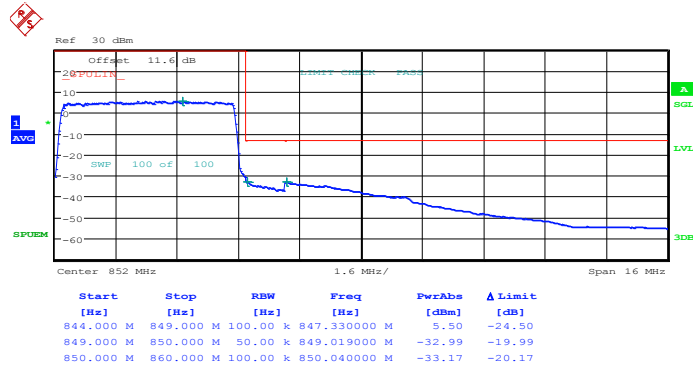


Higher Band Edge Plot for QPSK-RB Size 1, RB Offset 24



Date: 9.MAY.2014 14:28:05

Higher Band Edge Plot for QPSK-RB Size 25, RB Offset 0

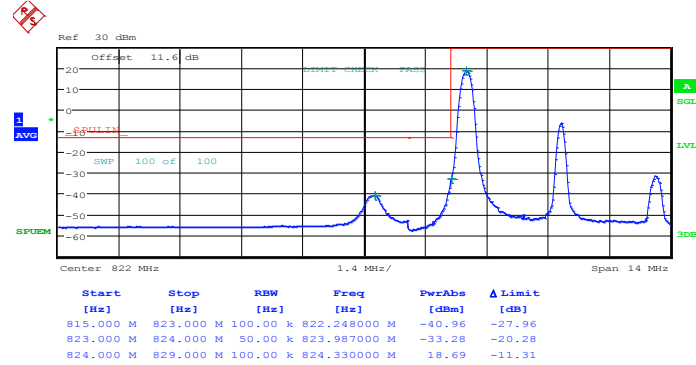


Date: 9.MAY.2014 14:29:40



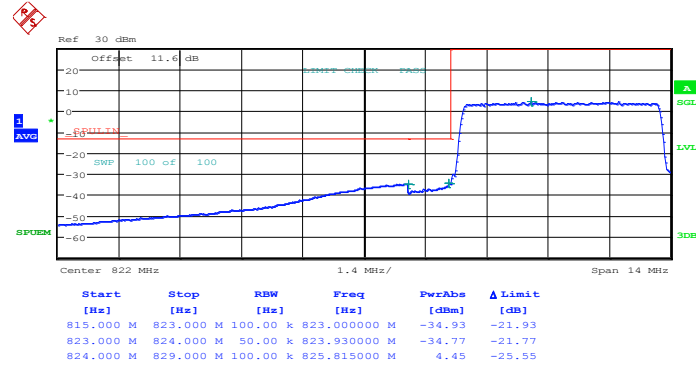
| | | | |
|---------------|------------|---------------------|--------------|
| Band : | LTE Band 5 | Band Width : | 5MHz / 16QAM |
|---------------|------------|---------------------|--------------|

Lower Band Edge Plot for 16QAM -RB Size 1, RB Offset 0



Date: 9.MAY.2014 14:19:27

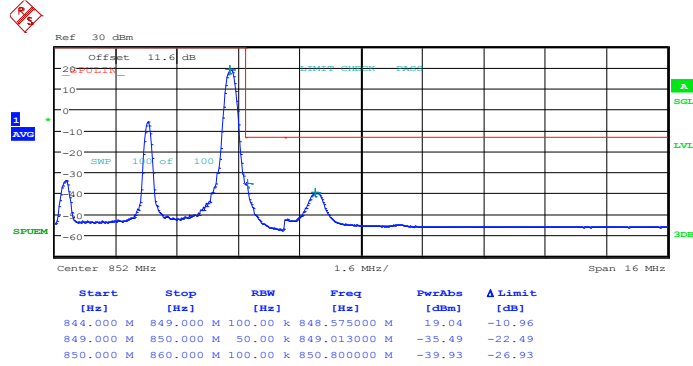
Lower Band Edge Plot for 16QAM -RB Size 25, RB Offset 0



Date: 9.MAY.2014 14:21:01

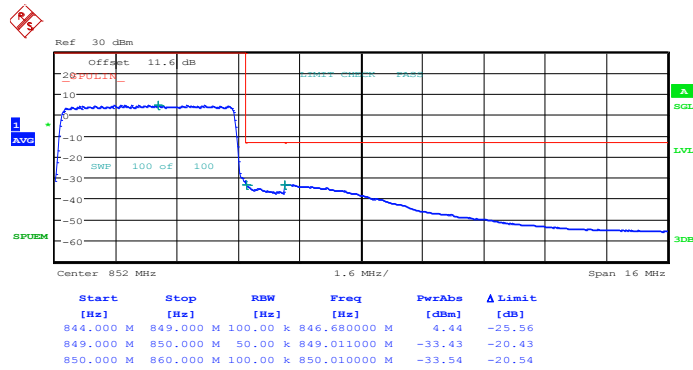


Higher Band Edge Plot for 16QAM -RB Size 1, RB Offset 24



Date: 9.MAY.2014 14:28:53

Higher Band Edge Plot for 16QAM -RB Size 25, RB Offset 0

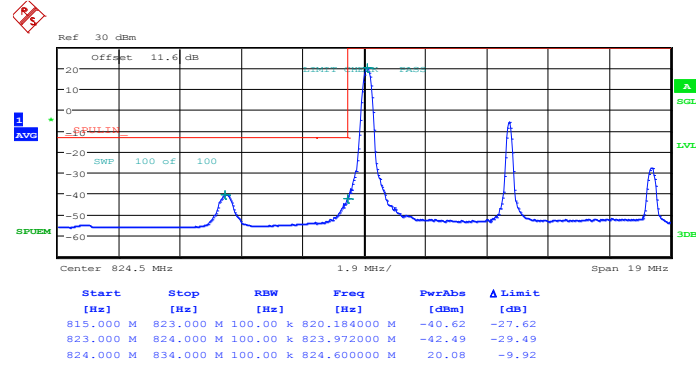


Date: 9.MAY.2014 14:30:27



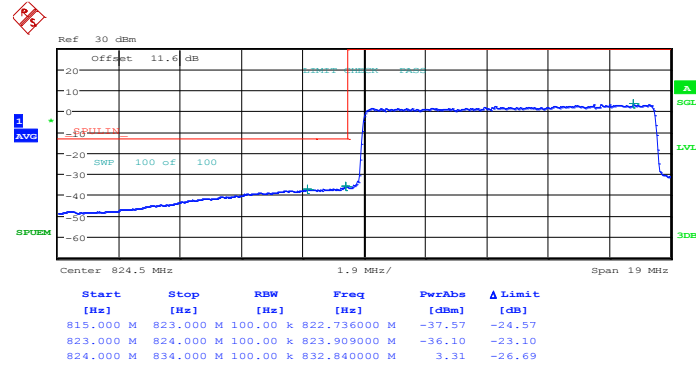
| | | | |
|---------------|------------|---------------------|--------------|
| Band : | LTE Band 5 | Band Width : | 10MHz / QPSK |
|---------------|------------|---------------------|--------------|

Lower Band Edge Plot for QPSK-RB Size 1, RB Offset 0



Date: 9.MAY.2014 14:34:23

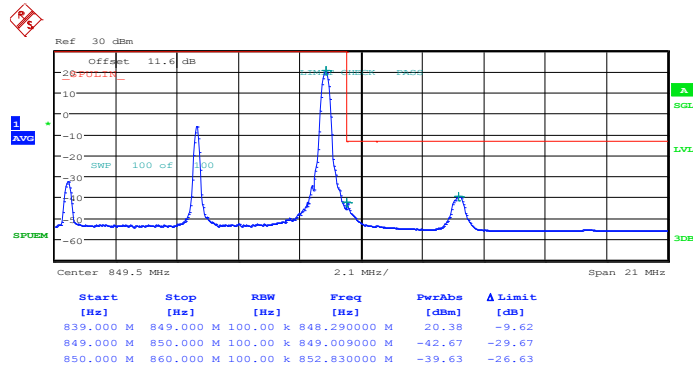
Lower Band Edge Plot for QPSK-RB Size 50, RB Offset 0



Date: 9.MAY.2014 14:35:57

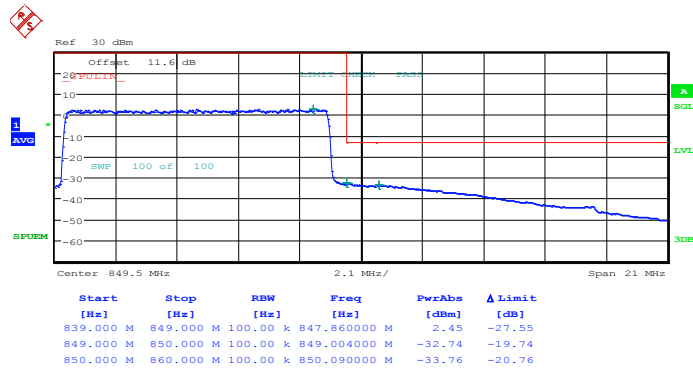


Higher Band Edge Plot for QPSK-RB Size 1, RB Offset 49



Date: 9.MAY.2014 14:43:48

Higher Band Edge Plot for QPSK-RB Size 50, RB Offset 0

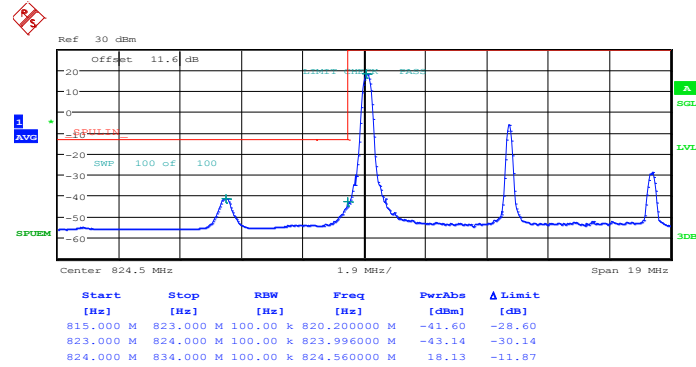


Date: 9.MAY.2014 14:45:23



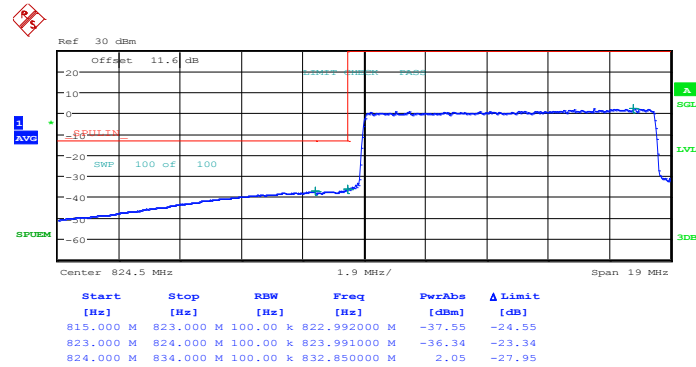
| | | | |
|---------------|------------|---------------------|---------------|
| Band : | LTE Band 5 | Band Width : | 10MHz / 16QAM |
|---------------|------------|---------------------|---------------|

Lower Band Edge Plot for 16QAM -RB Size 1, RB Offset 0



Date: 9.MAY.2014 14:35:10

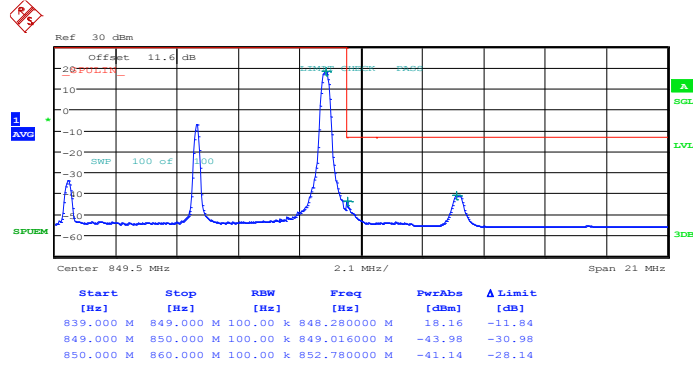
Lower Band Edge Plot for 16QAM -RB Size 50, RB Offset 0



Date: 9.MAY.2014 14:36:45

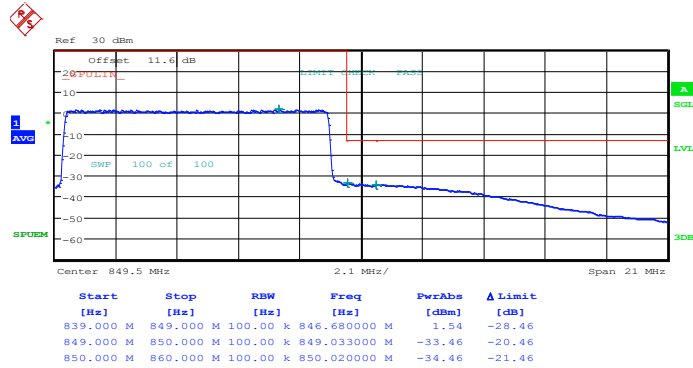


Higher Band Edge Plot for 16QAM -RB Size 1, RB Offset 49



Date: 9.MAY.2014 14:44:36

Higher Band Edge Plot for 16QAM -RB Size 50, RB Offset 0

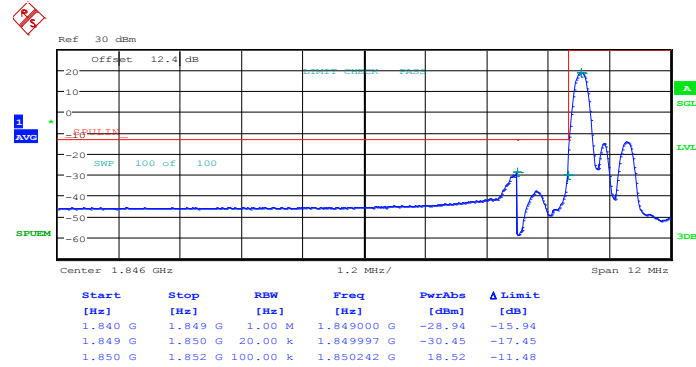


Date: 9.MAY.2014 14:46:11



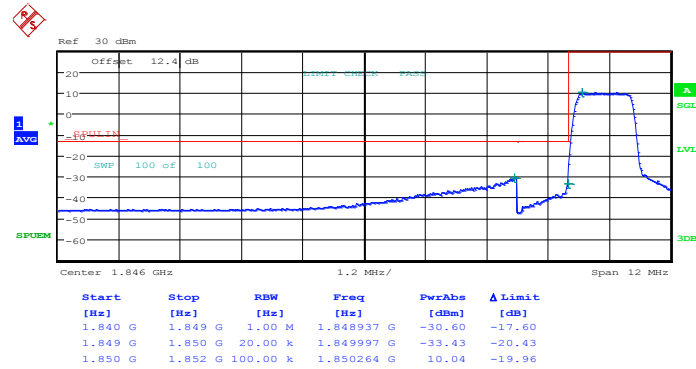
| | | | |
|--------|------------|--------------|---------------|
| Band : | LTE Band 2 | Band Width : | 1.4MHz / QPSK |
|--------|------------|--------------|---------------|

Lower Band Edge Plot for QPSK-RB Size 1, RB Offset 0



Date: 9.MAY.2014 15:03:45

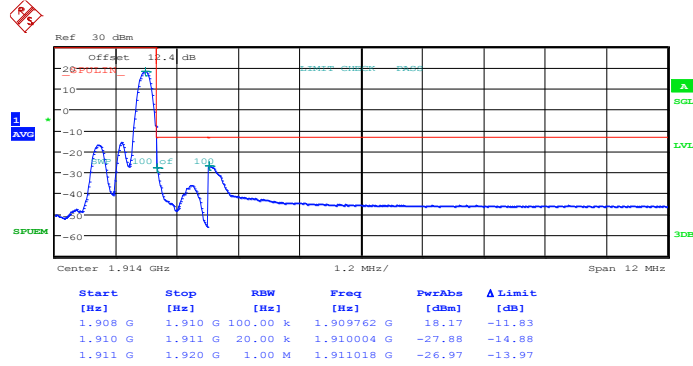
Lower Band Edge Plot for QPSK-RB Size 6, RB Offset 0



Date: 9.MAY.2014 15:05:20

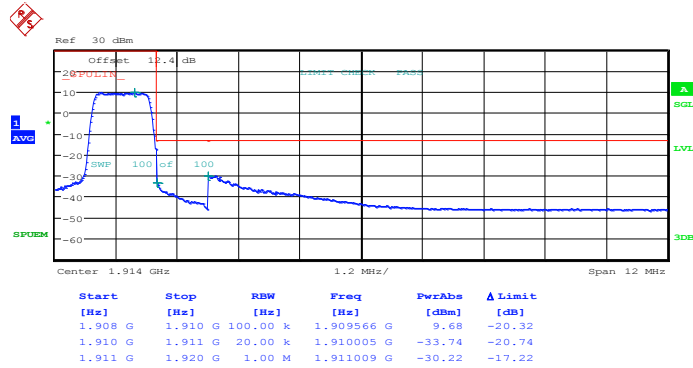


Higher Band Edge Plot for QPSK-RB Size 1, RB Offset 5



Date: 9.MAY.2014 15:13:11

Higher Band Edge Plot for QPSK-RB Size 6, RB Offset 0

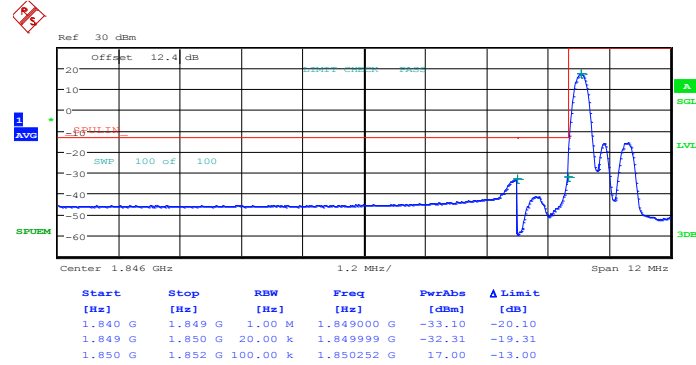


Date: 9.MAY.2014 15:14:46



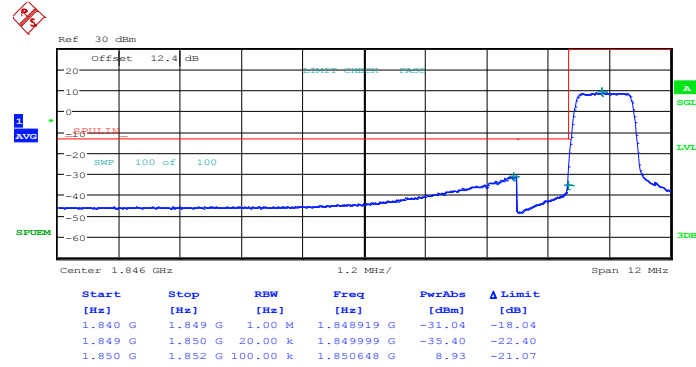
| | | | |
|---------------|------------|---------------------|----------------|
| Band : | LTE Band 2 | Band Width : | 1.4MHz / 16QAM |
|---------------|------------|---------------------|----------------|

Lower Band Edge Plot for 16QAM -RB Size 1, RB Offset 0



Date: 9.MAY.2014 15:04:32

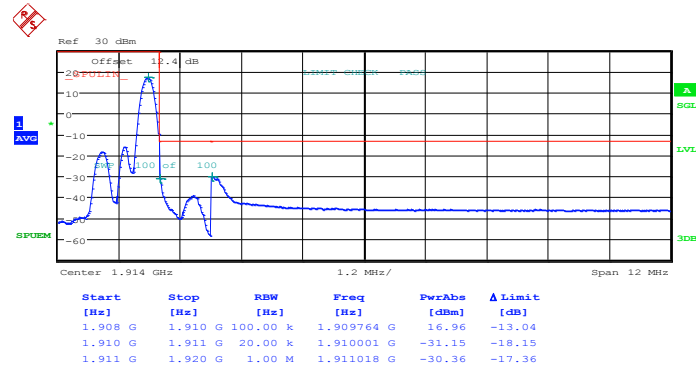
Lower Band Edge Plot for 16QAM -RB Size 6, RB Offset 0



Date: 9.MAY.2014 15:06:07

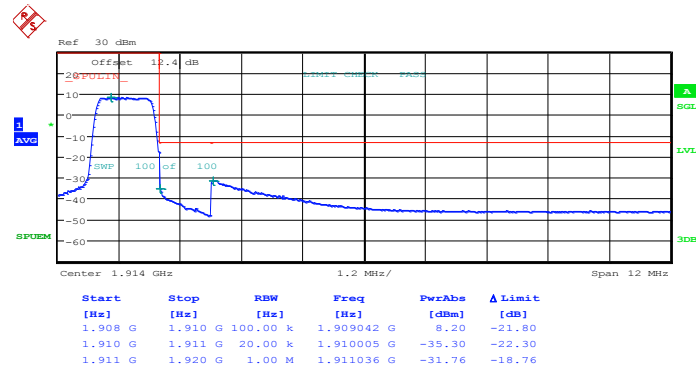


Higher Band Edge Plot for 16QAM -RB Size 1, RB Offset 5



Date: 9.MAY.2014 15:13:59

Higher Band Edge Plot for 16QAM -RB Size 6, RB Offset 0

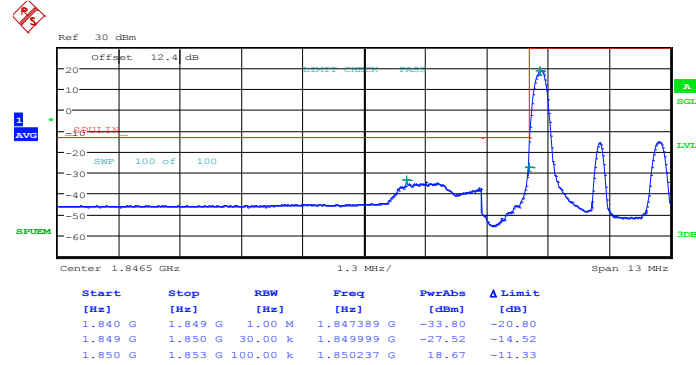


Date: 9.MAY.2014 15:15:33



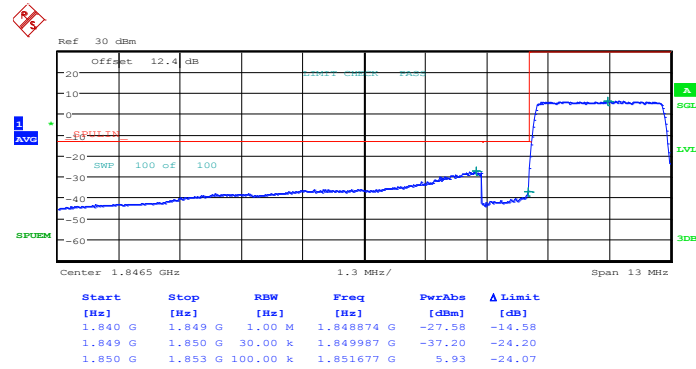
| | | | |
|---------------|------------|---------------------|-------------|
| Band : | LTE Band 2 | Band Width : | 3MHz / QPSK |
|---------------|------------|---------------------|-------------|

Lower Band Edge Plot for QPSK-RB Size 1, RB Offset 0



Date: 9.MAY.2014 15:20:06

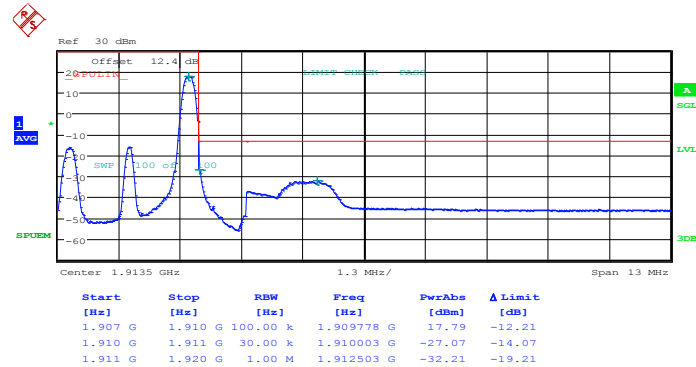
Lower Band Edge Plot for QPSK-RB Size 15, RB Offset 0



Date: 9.MAY.2014 15:29:48

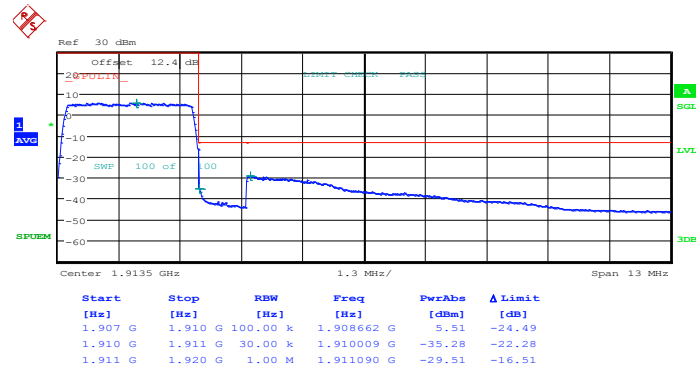


Higher Band Edge Plot for QPSK-RB Size 1, RB Offset 14



Date: 9.MAY.2014 15:37:40

Higher Band Edge Plot for QPSK-RB Size 15, RB Offset 0

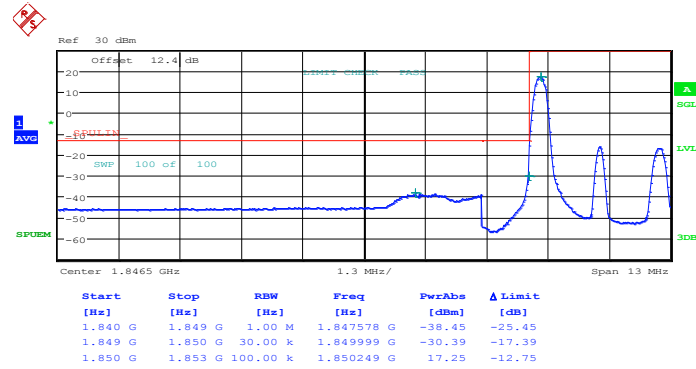


Date: 9.MAY.2014 15:39:15



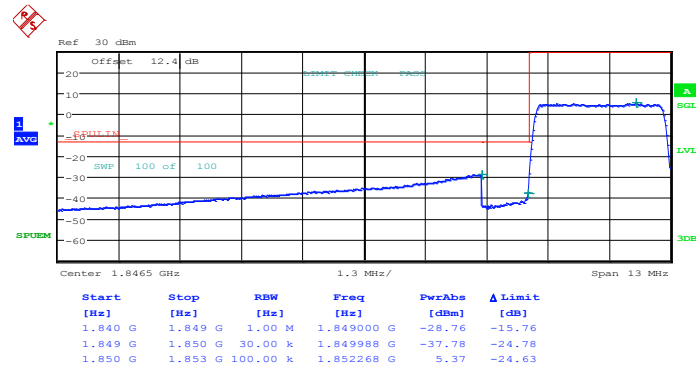
| | | | |
|---------------|------------|---------------------|--------------|
| Band : | LTE Band 2 | Band Width : | 3MHz / 16QAM |
|---------------|------------|---------------------|--------------|

Lower Band Edge Plot for 16QAM -RB Size 1, RB Offset 0



Date: 9.MAY.2014 16:51:42

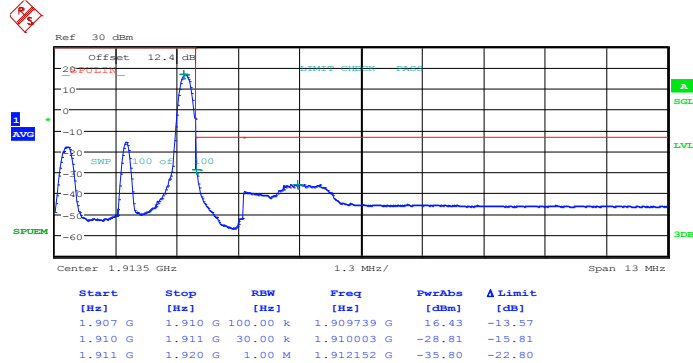
Lower Band Edge Plot for 16QAM -RB Size 15, RB Offset 0



Date: 9.MAY.2014 15:30:35

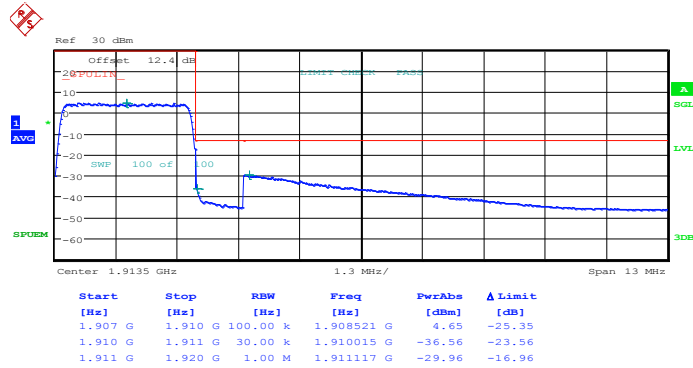


Higher Band Edge Plot for 16QAM -RB Size 1, RB Offset 14



Date: 9.MAY.2014 15:38:28

Higher Band Edge Plot for 16QAM -RB Size 15, RB Offset 0

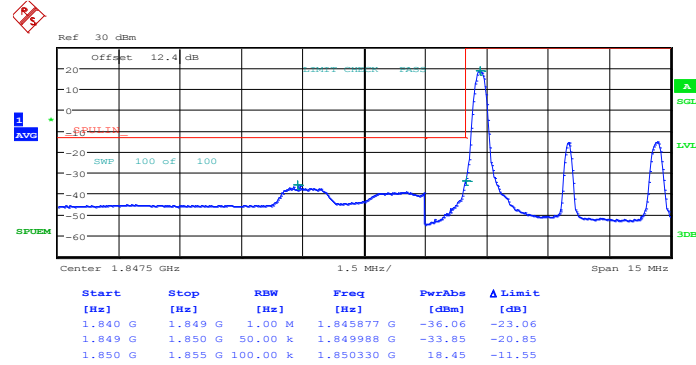


Date: 9.MAY.2014 15:40:03



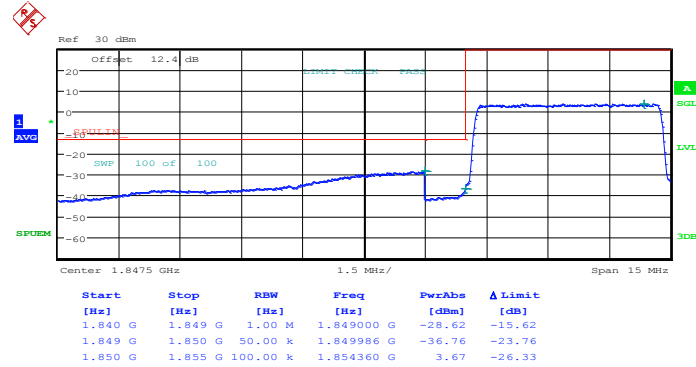
| | | | |
|---------------|------------|---------------------|-------------|
| Band : | LTE Band 2 | Band Width : | 5MHz / QPSK |
|---------------|------------|---------------------|-------------|

Lower Band Edge Plot for QPSK-RB Size 1, RB Offset 0



Date: 9.MAY.2014 15:43:59

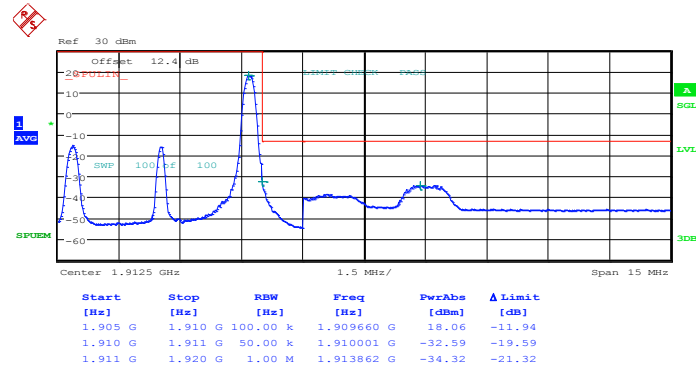
Lower Band Edge Plot for QPSK-RB Size 25, RB Offset 0



Date: 9.MAY.2014 15:45:34

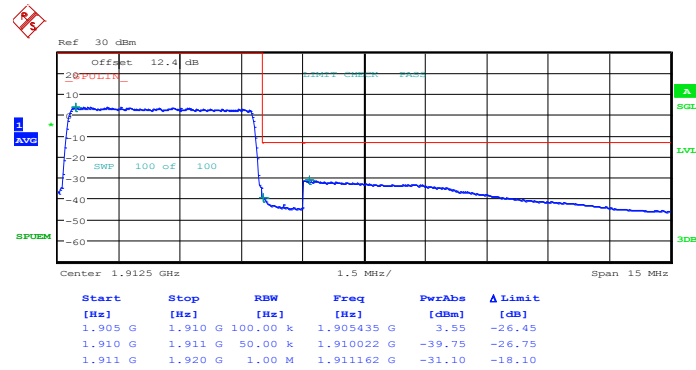


Higher Band Edge Plot for QPSK-RB Size 1, RB Offset 24



Date: 9.MAY.2014 15:53:26

Higher Band Edge Plot for QPSK-RB Size 25, RB Offset 0

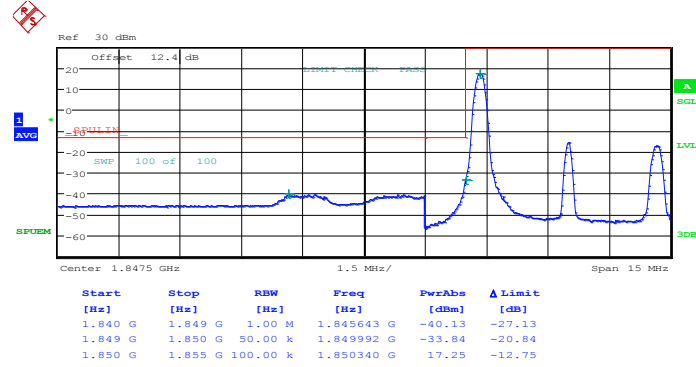


Date: 9.MAY.2014 15:55:01



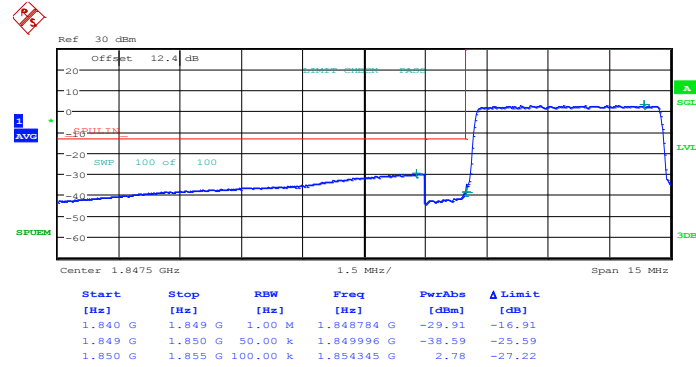
| | | | |
|---------------|------------|---------------------|--------------|
| Band : | LTE Band 2 | Band Width : | 5MHz / 16QAM |
|---------------|------------|---------------------|--------------|

Lower Band Edge Plot for 16QAM-RB Size 1, RB Offset 0



Date: 9.MAY.2014 15:44:46

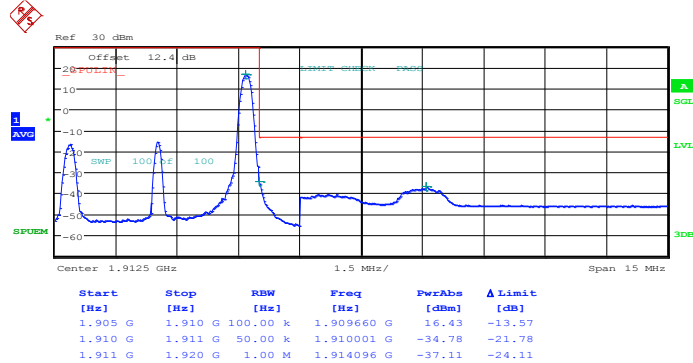
Lower Band Edge Plot for 16QAM-RB Size 25, RB Offset 0



Date: 9.MAY.2014 15:46:21

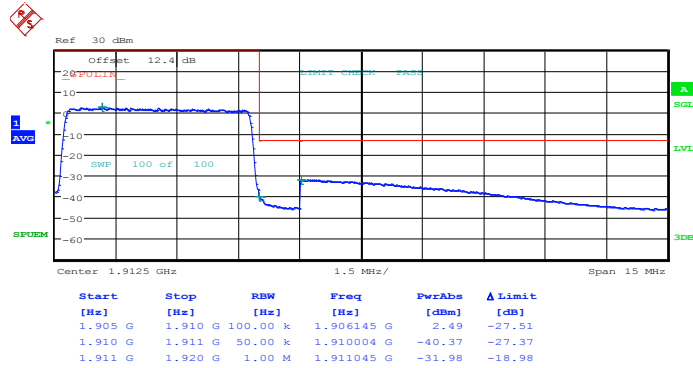


Higher Band Edge Plot for 16QAM-RB Size 1, RB Offset 24



Date: 9.MAY.2014 15:54:14

Higher Band Edge Plot for 16QAM-RB Size 25, RB Offset 0

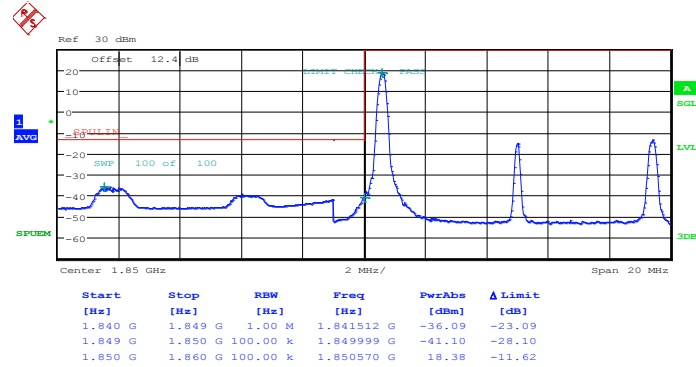


Date: 9.MAY.2014 15:55:48



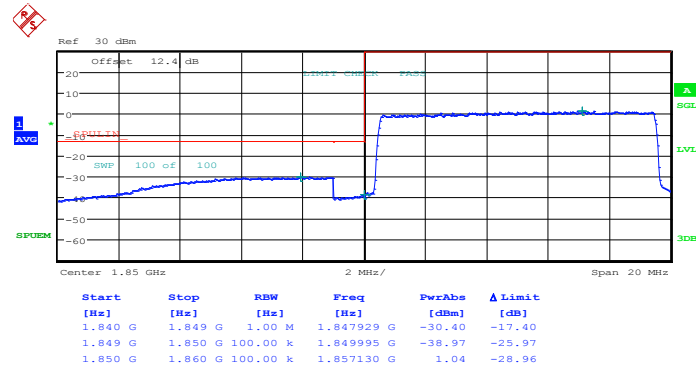
| | | | |
|---------------|------------|---------------------|--------------|
| Band : | LTE Band 2 | Band Width : | 10MHz / QPSK |
|---------------|------------|---------------------|--------------|

Lower Band Edge Plot for QPSK-RB Size 1, RB Offset 0



Date: 9.MAY.2014 15:59:44

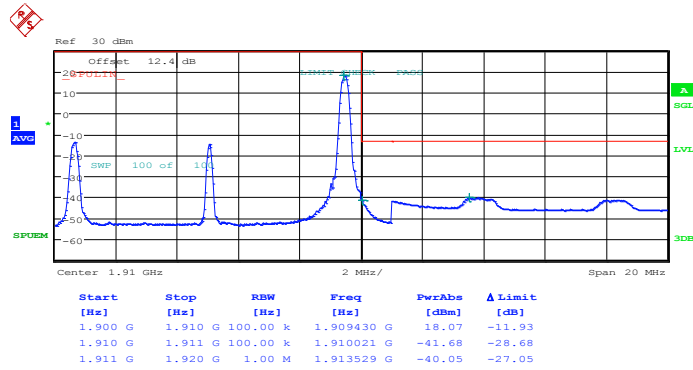
Lower Band Edge Plot for QPSK-RB Size 50, RB Offset 0



Date: 9.MAY.2014 16:01:19

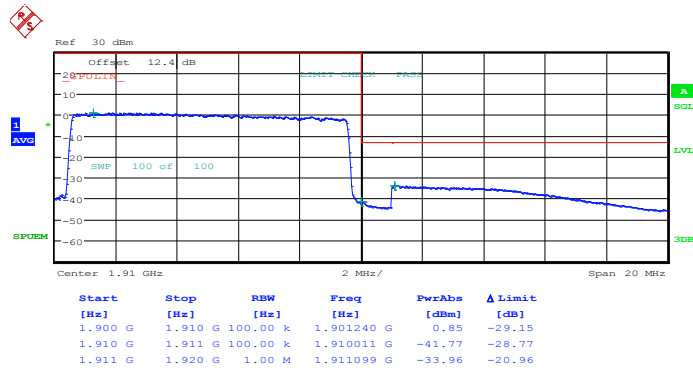


Higher Band Edge Plot for QPSK-RB Size 1, RB Offset 49



Date: 9.MAY.2014 16:09:10

Higher Band Edge Plot for QPSK-RB Size 50, RB Offset 0

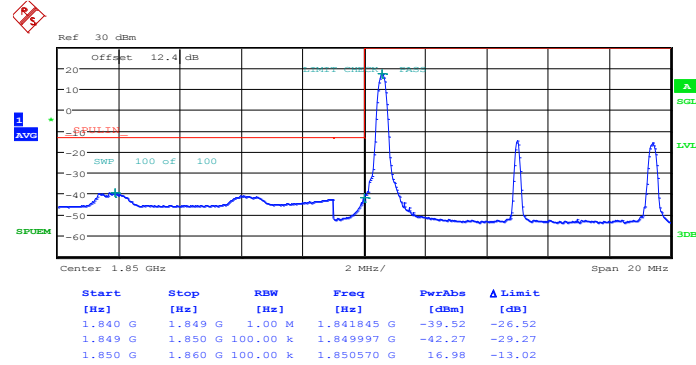


Date: 9.MAY.2014 16:10:45



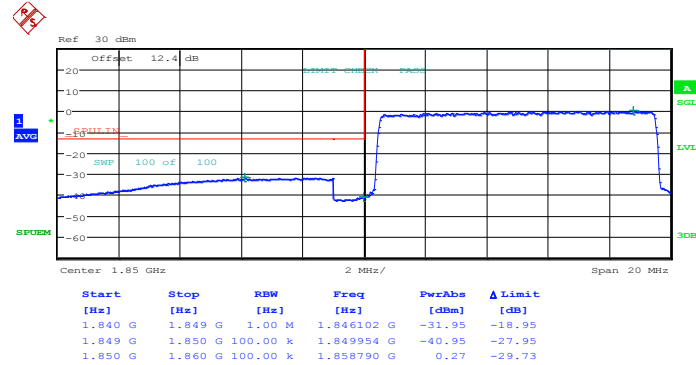
| | | | |
|---------------|------------|---------------------|---------------|
| Band : | LTE Band 2 | Band Width : | 10MHz / 16QAM |
|---------------|------------|---------------------|---------------|

Lower Band Edge Plot for 16QAM-RB Size 1, RB Offset 0



Date: 9.MAY.2014 16:00:32

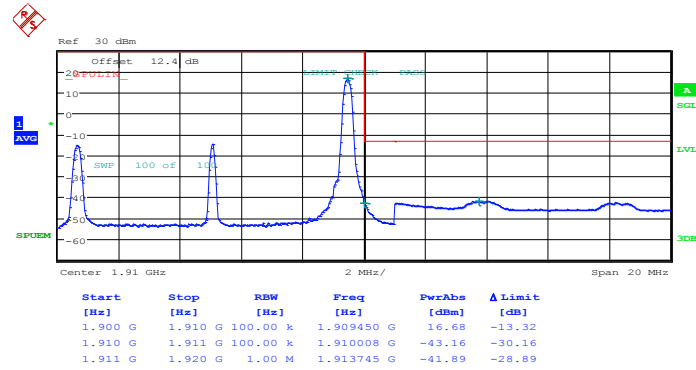
Lower Band Edge Plot for 16QAM-RB Size 50, RB Offset 0



Date: 9.MAY.2014 16:02:06

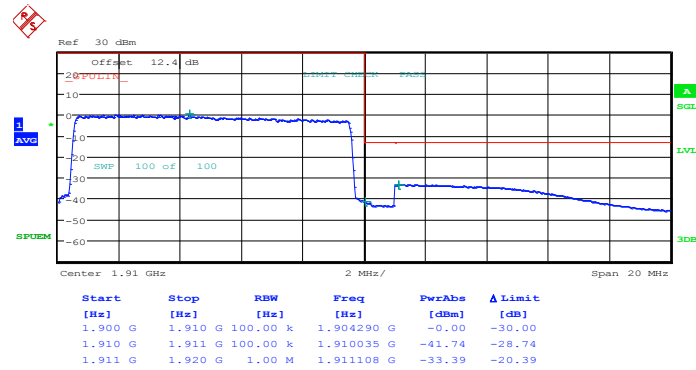


Higher Band Edge Plot for 16QAM-RB Size 1, RB Offset 49



Date: 9.MAY.2014 16:09:58

Higher Band Edge Plot for 16QAM-RB Size 50, RB Offset 0

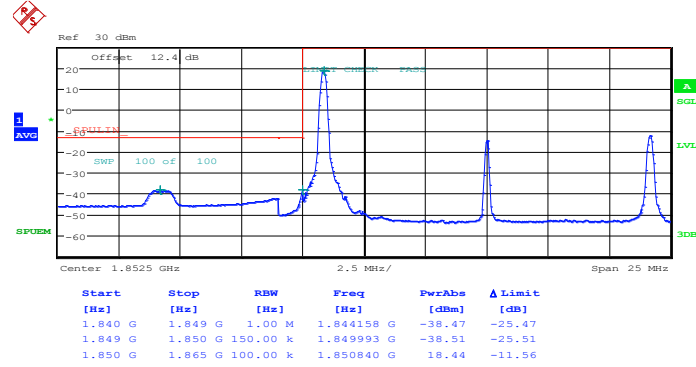


Date: 9.MAY.2014 16:11:32



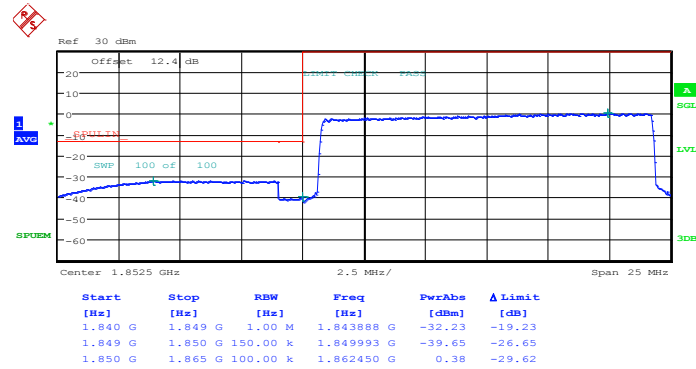
| | | | |
|---------------|------------|---------------------|--------------|
| Band : | LTE Band 2 | Band Width : | 15MHz / QPSK |
|---------------|------------|---------------------|--------------|

Lower Band Edge Plot for QPSK-RB Size 1, RB Offset 0



Date: 9.MAY.2014 16:15:28

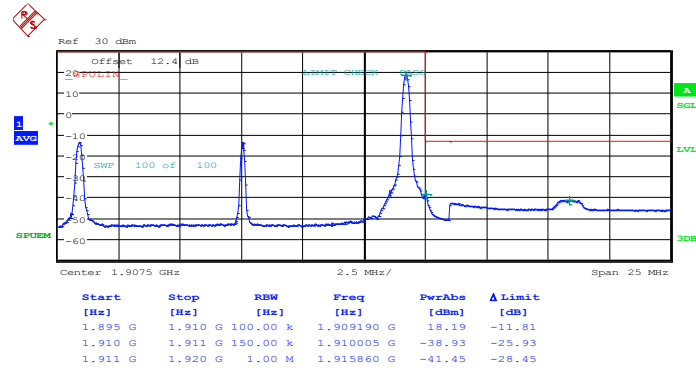
Lower Band Edge Plot for QPSK-RB Size 75, RB Offset 0



Date: 9.MAY.2014 16:17:03

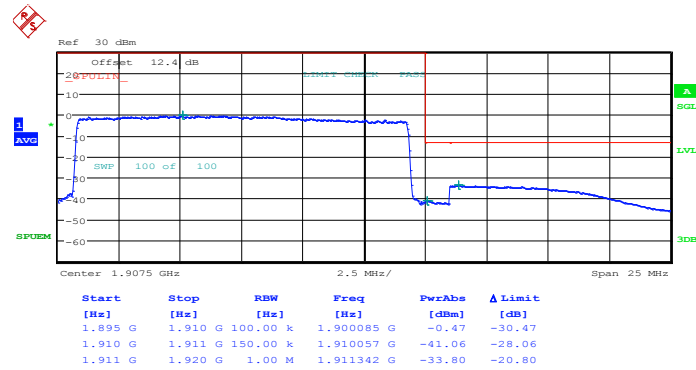


Higher Band Edge Plot for QPSK-RB Size 1, RB Offset 74



Date: 9.MAY.2014 16:24:56

Higher Band Edge Plot for QPSK-RB Size 75, RB Offset 0

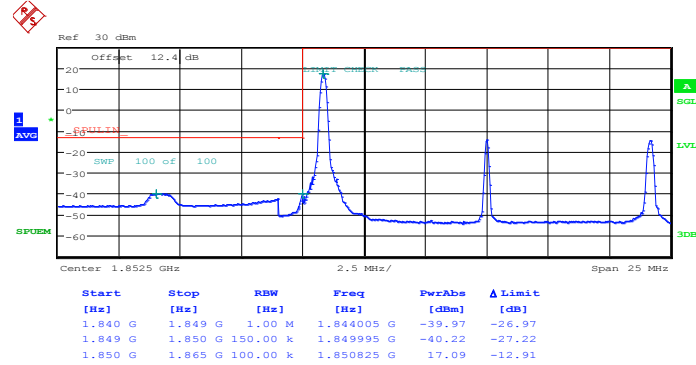


Date: 9.MAY.2014 16:26:31



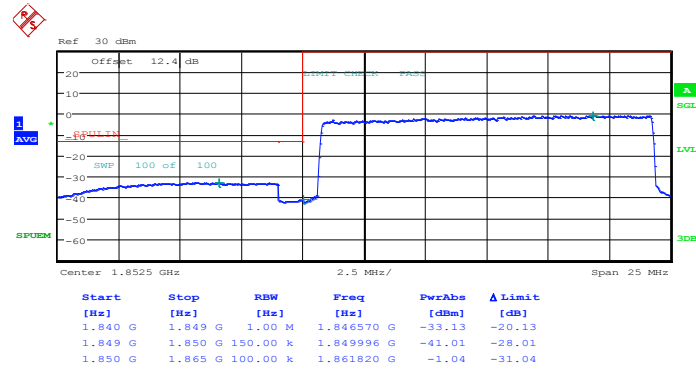
| | | | |
|---------------|------------|---------------------|---------------|
| Band : | LTE Band 2 | Band Width : | 15MHz / 16QAM |
|---------------|------------|---------------------|---------------|

Lower Band Edge Plot for 16QAM-RB Size 1, RB Offset 0



Date: 9.MAY.2014 16:16:16

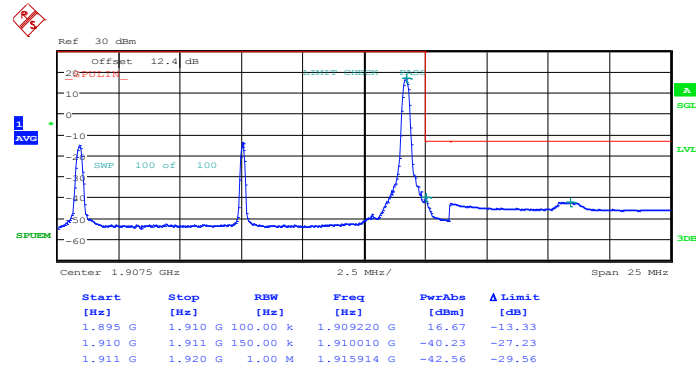
Lower Band Edge Plot for 16QAM-RB Size 75, RB Offset 0



Date: 9.MAY.2014 16:17:51

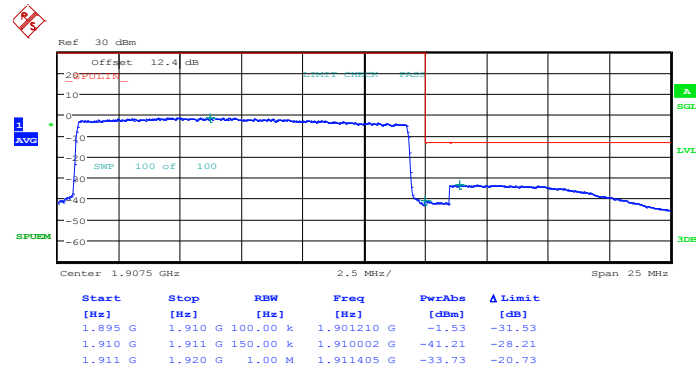


Higher Band Edge Plot for 16QAM-RB Size 1, RB Offset 74



Date: 9.MAY.2014 16:25:43

Higher Band Edge Plot for 16QAM-RB Size 75, RB Offset 0

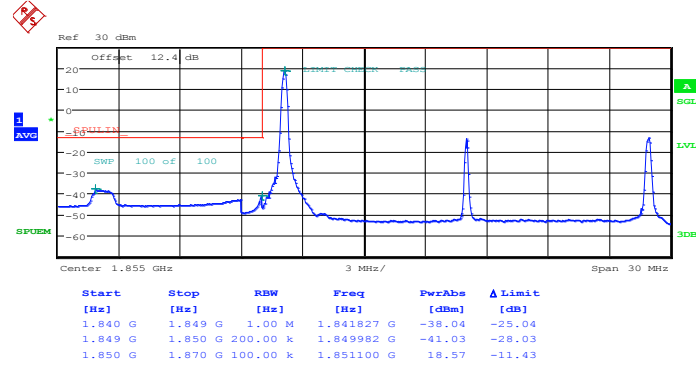


Date: 9.MAY.2014 16:27:18



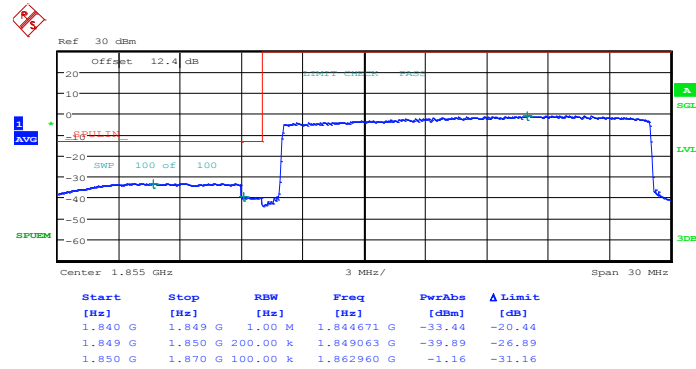
| | | | |
|--------|------------|--------------|--------------|
| Band : | LTE Band 2 | Band Width : | 20MHz / QPSK |
|--------|------------|--------------|--------------|

Lower Band Edge Plot for QPSK-RB Size 1, RB Offset 0



Date: 9.MAY.2014 16:31:15

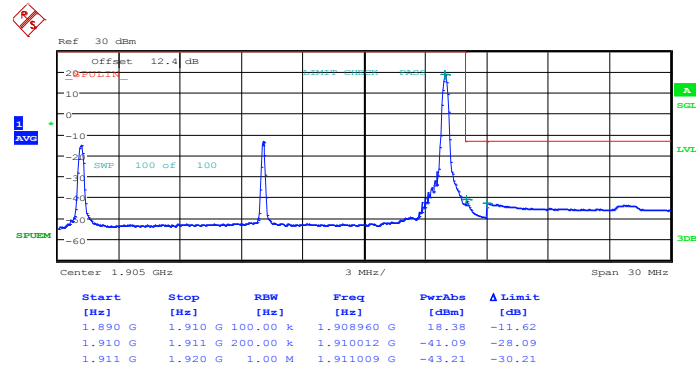
Lower Band Edge Plot for QPSK-RB Size 100, RB Offset 0



Date: 9.MAY.2014 16:32:49

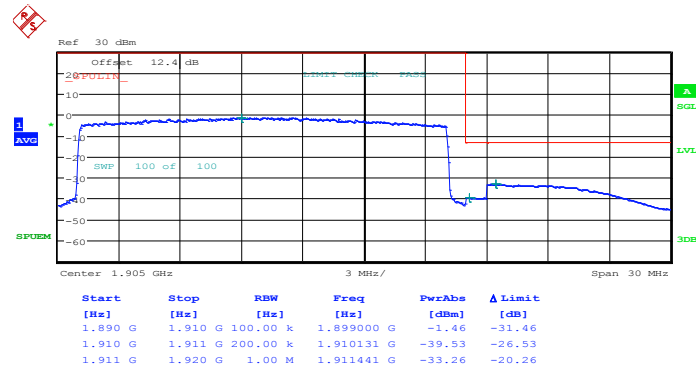


Higher Band Edge Plot for QPSK-RB Size 1, RB Offset 99



Date: 9.MAY.2014 16:40:40

Higher Band Edge Plot for QPSK-RB Size 100, RB Offset 0

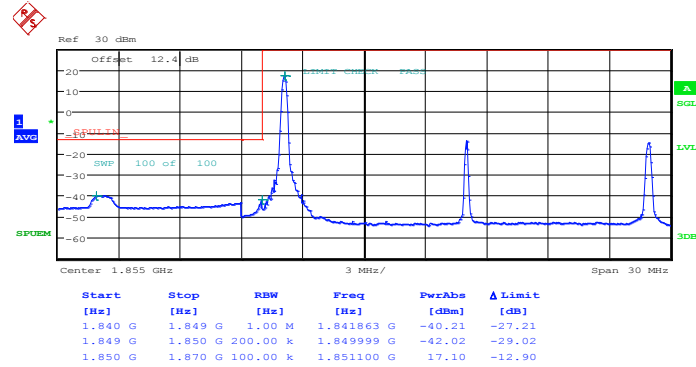


Date: 9.MAY.2014 16:42:15



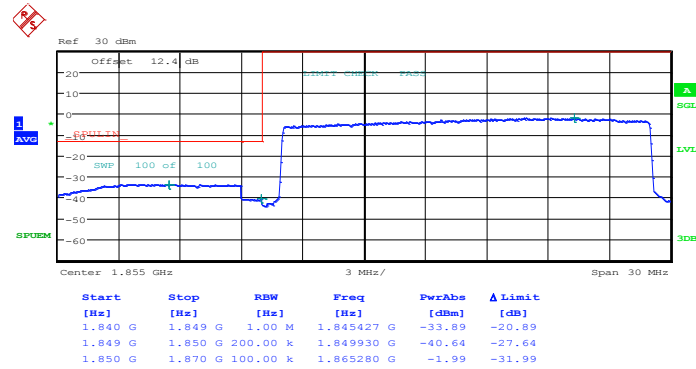
| | | | |
|---------------|------------|---------------------|---------------|
| Band : | LTE Band 2 | Band Width : | 20MHz / 16QAM |
|---------------|------------|---------------------|---------------|

Lower Band Edge Plot for 16QAM-RB Size 1, RB Offset 0



Date: 9.MAY.2014 16:32:02

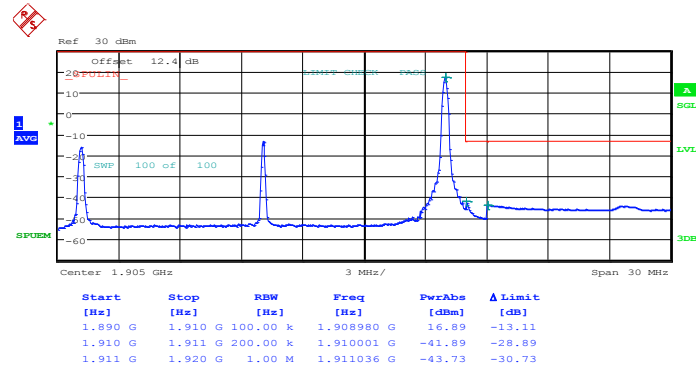
Lower Band Edge Plot for 16QAM-RB Size 100, RB Offset 0



Date: 9.MAY.2014 16:33:37

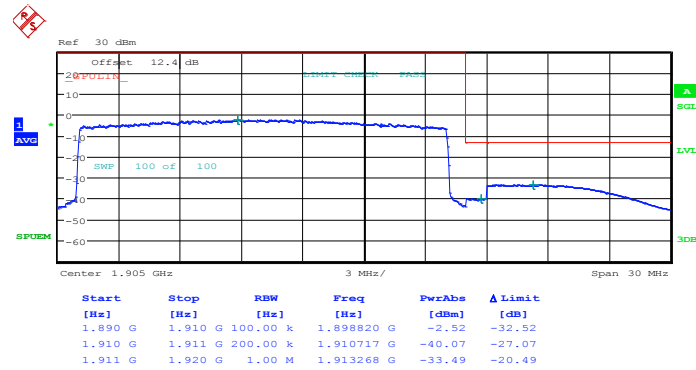


Higher Band Edge Plot for 16QAM-RB Size 1, RB Offset 99



Date: 9.MAY.2014 16:41:28

Higher Band Edge Plot for 16QAM-RB Size 100, RB Offset 0

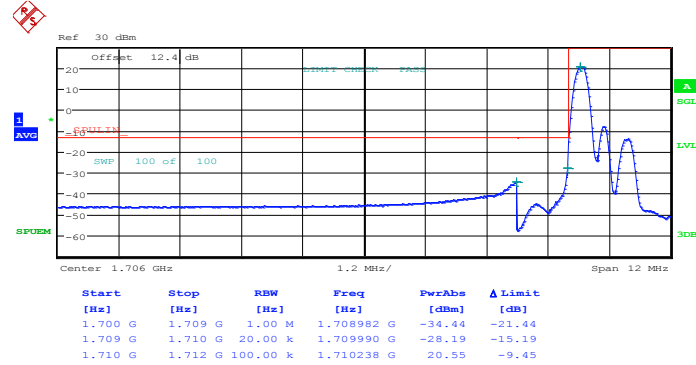


Date: 9.MAY.2014 16:43:02



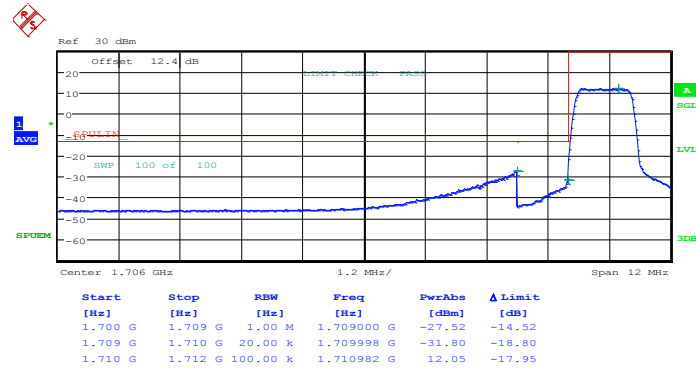
| | | | |
|---------------|------------|---------------------|---------------|
| Band : | LTE Band 4 | Band Width : | 1.4MHz / QPSK |
|---------------|------------|---------------------|---------------|

Lower Band Edge Plot for QPSK-RB Size 1, RB Offset 0



Date: 10.MAY.2014 08:25:03

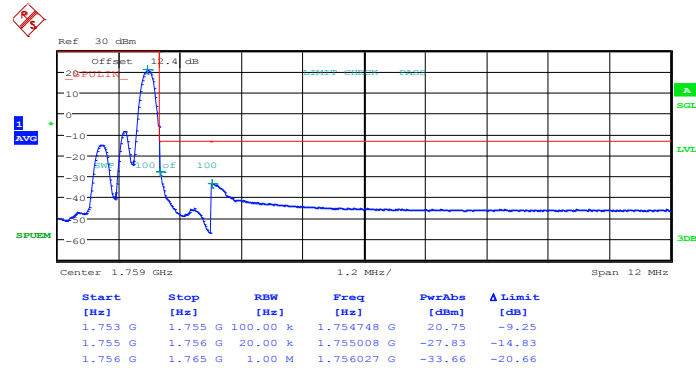
Lower Band Edge Plot for QPSK-RB Size 6, RB Offset 0



Date: 10.MAY.2014 08:26:37

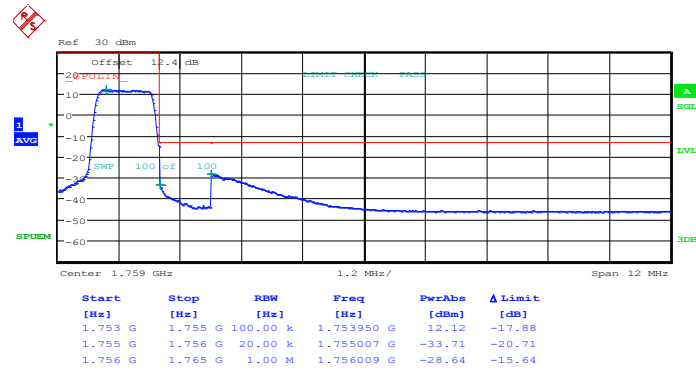


Higher Band Edge Plot for QPSK-RB Size 1, RB Offset 5



Date: 10.MAY.2014 08:34:26

Higher Band Edge Plot for QPSK-RB Size 6, RB Offset 0

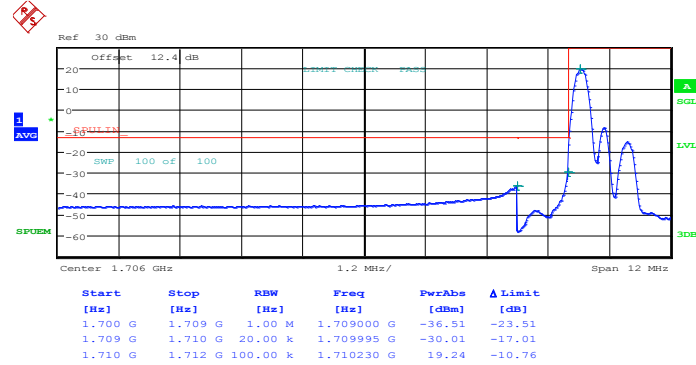


Date: 10.MAY.2014 08:36:00



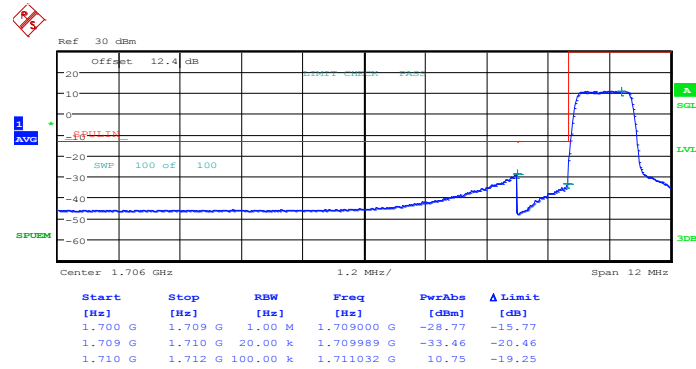
| | | | |
|---------------|------------|---------------------|----------------|
| Band : | LTE Band 4 | Band Width : | 1.4MHz / 16QAM |
|---------------|------------|---------------------|----------------|

Lower Band Edge Plot for 16QAM -RB Size 1, RB Offset 0



Date: 10.MAY.2014 08:25:50

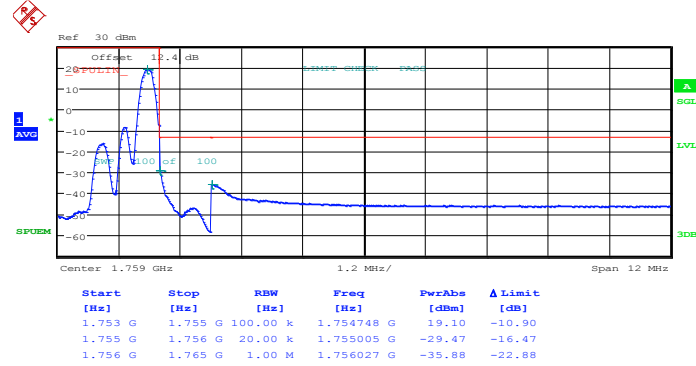
Lower Band Edge Plot for 16QAM-RB Size 6, RB Offset 0



Date: 10.MAY.2014 08:27:24

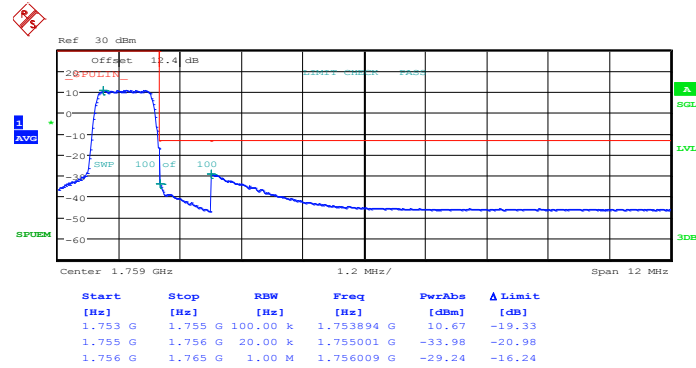


Higher Band Edge Plot for 16QAM-RB Size 1, RB Offset 5



Date: 10.MAY.2014 08:35:13

Higher Band Edge Plot for 16QAM-RB Size 6, RB Offset 0

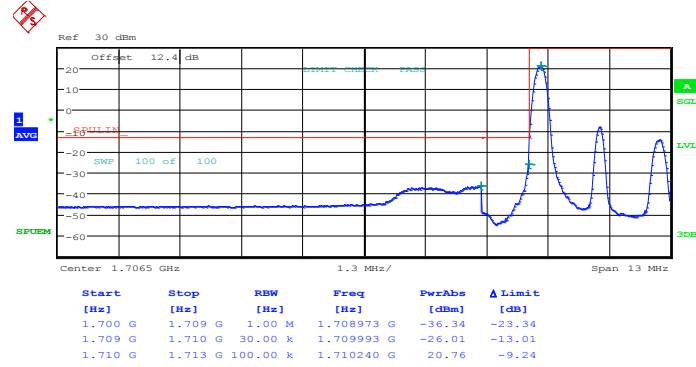


Date: 10.MAY.2014 08:36:47



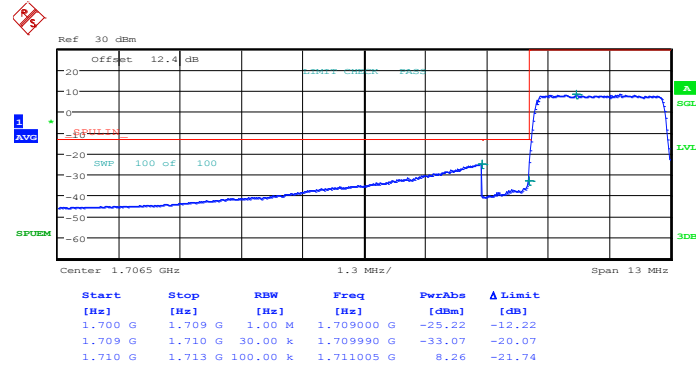
| | | | |
|--------|------------|--------------|-------------|
| Band : | LTE Band 4 | Band Width : | 3MHz / QPSK |
|--------|------------|--------------|-------------|

Lower Band Edge Plot for QPSK-RB Size 1, RB Offset 0



Date: 10.MAY.2014 08:41:33

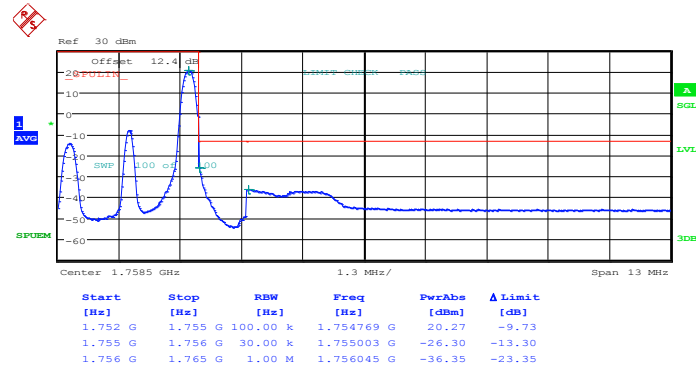
Lower Band Edge Plot for QPSK-RB Size 15, RB Offset 0



Date: 10.MAY.2014 08:43:07

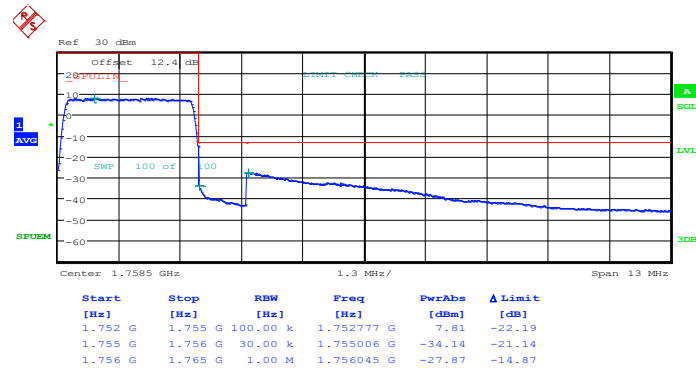


Higher Band Edge Plot for QPSK-RB Size 1, RB Offset 14



Date: 10.MAY.2014 08:50:56

Higher Band Edge Plot for QPSK-RB Size 15, RB Offset 0

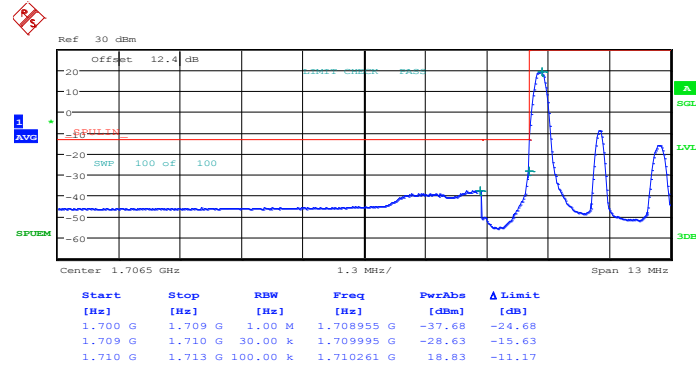


Date: 10.MAY.2014 08:52:30



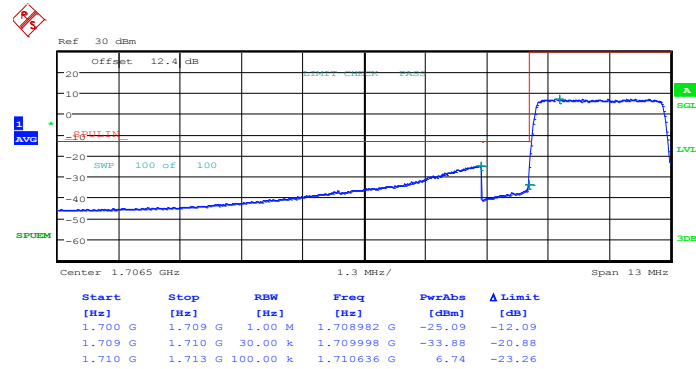
| | | | |
|---------------|------------|---------------------|--------------|
| Band : | LTE Band 4 | Band Width : | 3MHz / 16QAM |
|---------------|------------|---------------------|--------------|

Lower Band Edge Plot for 16QAM-RB Size 1, RB Offset 0



Date: 10.MAY.2014 08:42:20

Lower Band Edge Plot for 16QAM-RB Size 15, RB Offset 0



Date: 10.MAY.2014 08:43:54