

## 12.8 Occupied bandwidth – 99% emission bandwidth

### Description:

Measurement of the 99% bandwidth of the modulated signal acc. RSS-GEN.

### Measurement:

Measurement parameter	
According to: KDB789033 D02, D.	
Detector:	Peak
Sweep time:	Auto
Resolution bandwidth:	300 kHz / 500 kHz
Video bandwidth:	1 MHz / 3 MHz
Span:	50 MHz / 100 MHz
Measurement procedure:	Measurement of the 99% bandwidth using the integration function of the analyzer
Trace-Mode:	Max hold (allow trace to stabilize)
Used test setup:	see chapter 7.4 – A
Measurement uncertainty:	see chapter 9

### Usage:

-/-	IC
Occupied Bandwidth – 99% emission bandwidth	
OBW is necessary for Emission Designator	

**Result:** antenna port 1

<b>OFDM / a – mode</b>	<b>99% bandwidth [kHz]</b>			
	5180 MHz	5200 MHz	5300 MHz	5320 MHz
Channel	16933	16883	16983	16933
Channel	5500 MHz	5600 MHz	5700 MHz	-/-
	16983	17033	16933	-/-
Channel	5745 MHz	5765 MHz	5805 MHz	5825 MHz
	16933	16983	16983	16933

<b>OFDM / n HT20 – mode</b>	<b>99% bandwidth [kHz]</b>			
	5180 MHz	5200 MHz	5300 MHz	5320 MHz
Channel	18032	17982	17982	18032
Channel	5500 MHz	5600 MHz	5700 MHz	-/-
	17982	17982	17982	-/-
Channel	5745 MHz	5765 MHz	5805 MHz	5825 MHz
	17982	18082	18082	18032

<b>OFDM / n HT40 – mode</b>	<b>99% bandwidth [kHz]</b>			
	5190 MHz	5230 MHz	5270 MHz	5310 MHz
Channel	36763	36763	36863	36663
Channel	5510 MHz	5550 MHz	5630 MHz	5670 MHz
	36863	36763	36763	36863
Channel	5755 MHz	5795 MHz	-/-	-/-
	36763	36863	-/-	-/-

**Result:** antenna port 2

<b>OFDM / a – mode</b>	<b>99% bandwidth [kHz]</b>			
	5180 MHz	5200 MHz	5300 MHz	5320 MHz
Channel	16983	16983	16883	16983
Channel	5500 MHz	5600 MHz	5700 MHz	-/-
	16883	16883	16933	-/-
Channel	5745 MHz	5765 MHz	5805 MHz	5825 MHz
	16933	16933	16883	16883

<b>OFDM / n HT20 – mode</b>	<b>99% bandwidth [kHz]</b>			
	5180 MHz	5200 MHz	5300 MHz	5320 MHz
Channel	17982	18032	18032	17982
Channel	5500 MHz	5600 MHz	5700 MHz	-/-
	18032	17932	18032	-/-
Channel	5745 MHz	5765 MHz	5805 MHz	5825 MHz
	18032	18032	17982	17982

<b>OFDM / n HT40 – mode</b>	<b>99% bandwidth [kHz]</b>			
	5190 MHz	5230 MHz	5270 MHz	5310 MHz
Channel	36763	36763	36763	36763
Channel	5510 MHz	5550 MHz	5630 MHz	5670 MHz
	36863	36663	36763	36763
Channel	5755 MHz	5795 MHz	-/-	-/-
	36663	36763	-/-	-/-

**Result:** antenna port 3

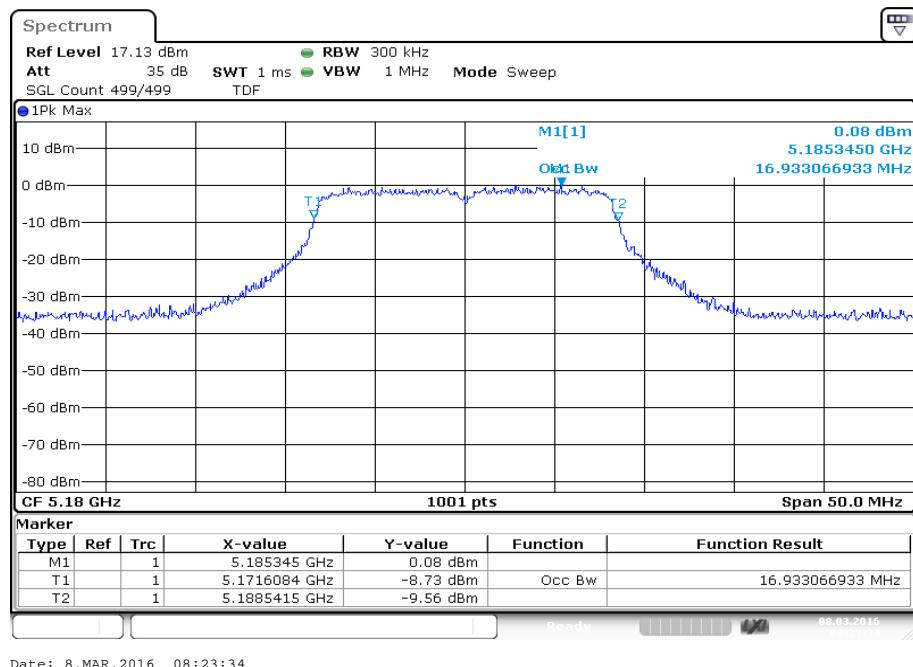
<b>OFDM / a – mode</b>	<b>99% bandwidth [kHz]</b>			
	5180 MHz	5200 MHz	5300 MHz	5320 MHz
Channel	16933	16933	16933	16933
Channel	5500 MHz	5600 MHz	5700 MHz	-/-
	16883	16933	16983	-/-
Channel	5745 MHz	5765 MHz	5805 MHz	5825 MHz
	16933	16933	16983	16883

<b>OFDM / n HT20 – mode</b>	<b>99% bandwidth [kHz]</b>			
	5180 MHz	5200 MHz	5300 MHz	5320 MHz
Channel	17982	17982	17982	18032
Channel	5500 MHz	5600 MHz	5700 MHz	-/-
	18032	18032	18032	-/-
Channel	5745 MHz	5765 MHz	5805 MHz	5825 MHz
	18032	18032	18032	18032

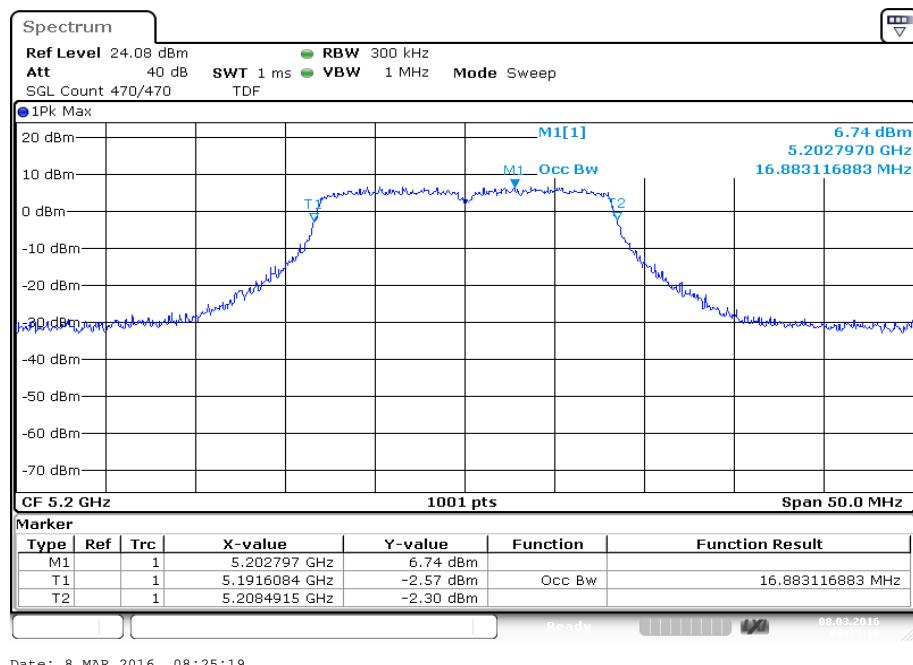
<b>OFDM / n HT40 – mode</b>	<b>99% bandwidth [kHz]</b>			
	5190 MHz	5230 MHz	5270 MHz	5310 MHz
	36763	36663	36663	36663
Channel	5510 MHz	5550 MHz	5630 MHz	5670 MHz
	36863	36863	36763	36863
Channel	5755 MHz	5795 MHz	-/-	-/-
	36863	36663	-/-	-/-

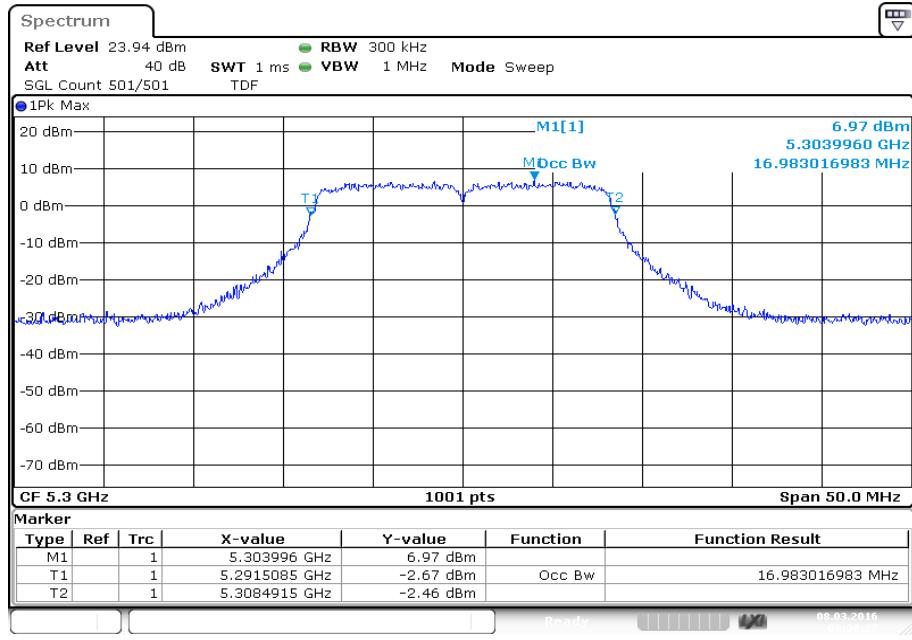
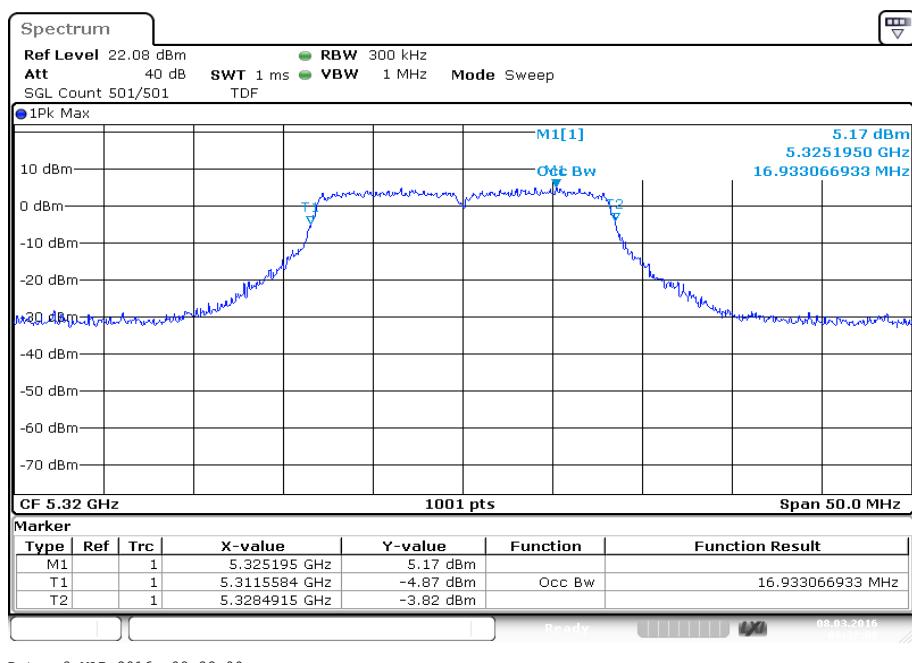
**Plots:** OFDM / a – mode, antenna port 1

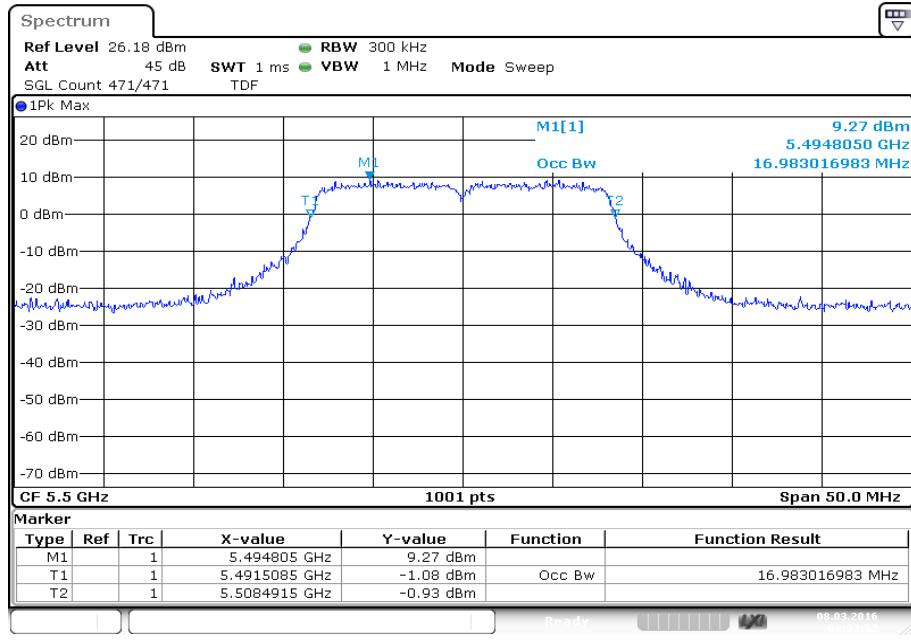
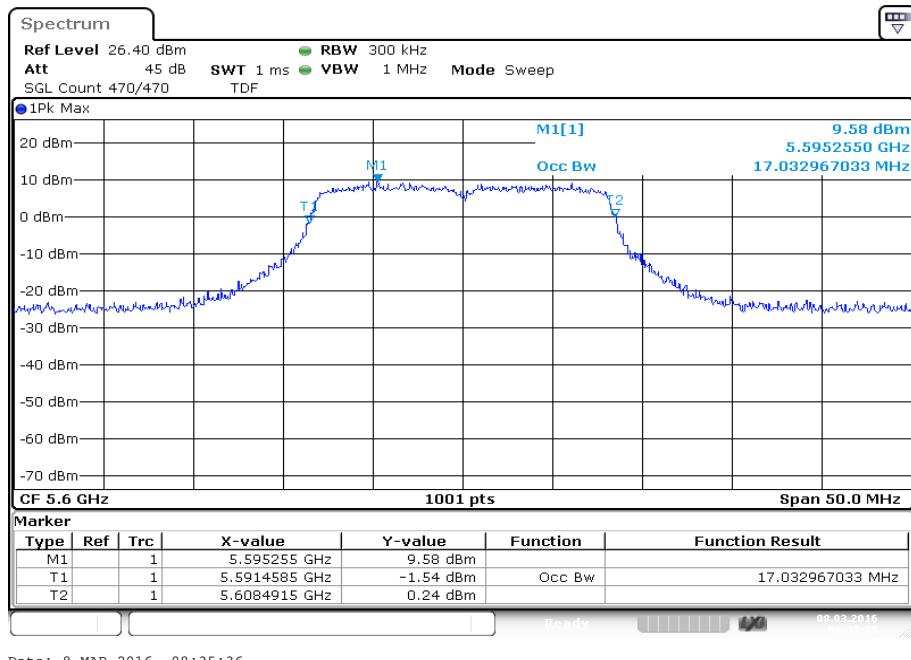
**Plot 1:** 5180 MHz

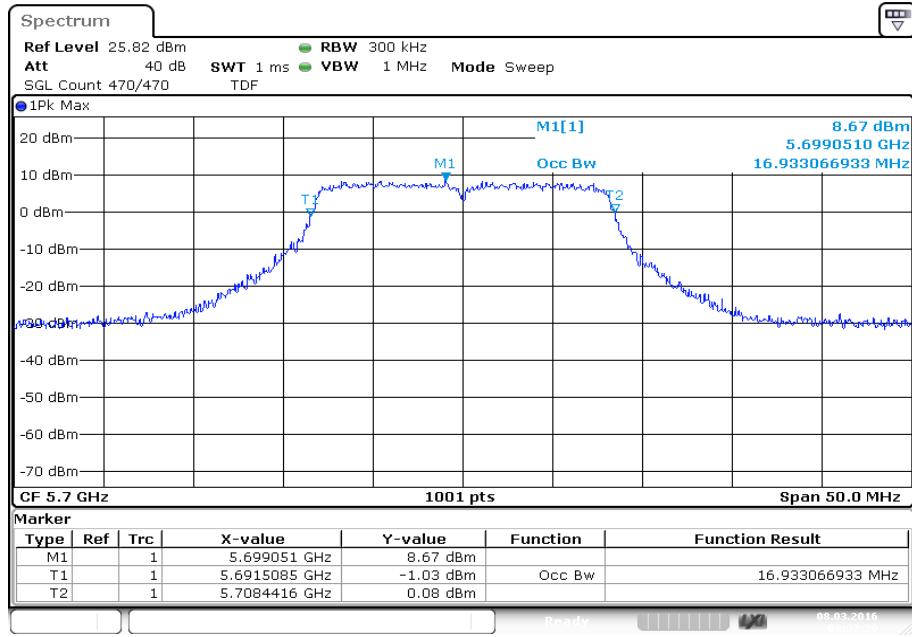
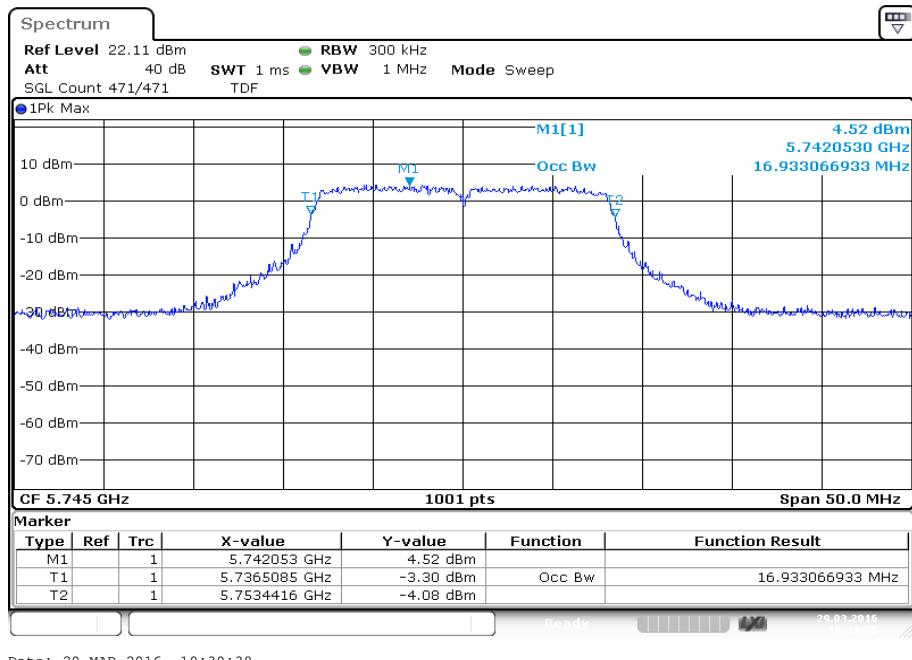


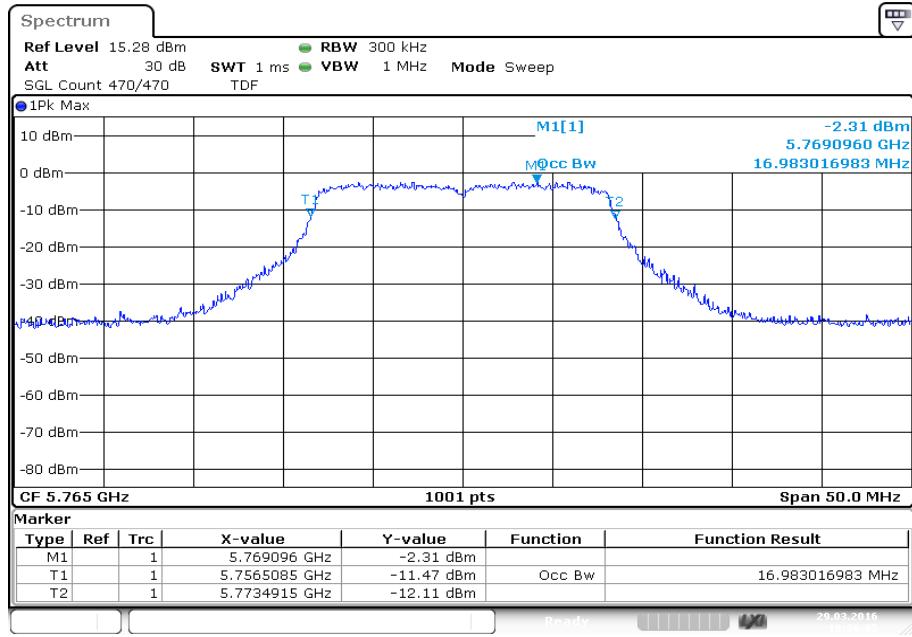
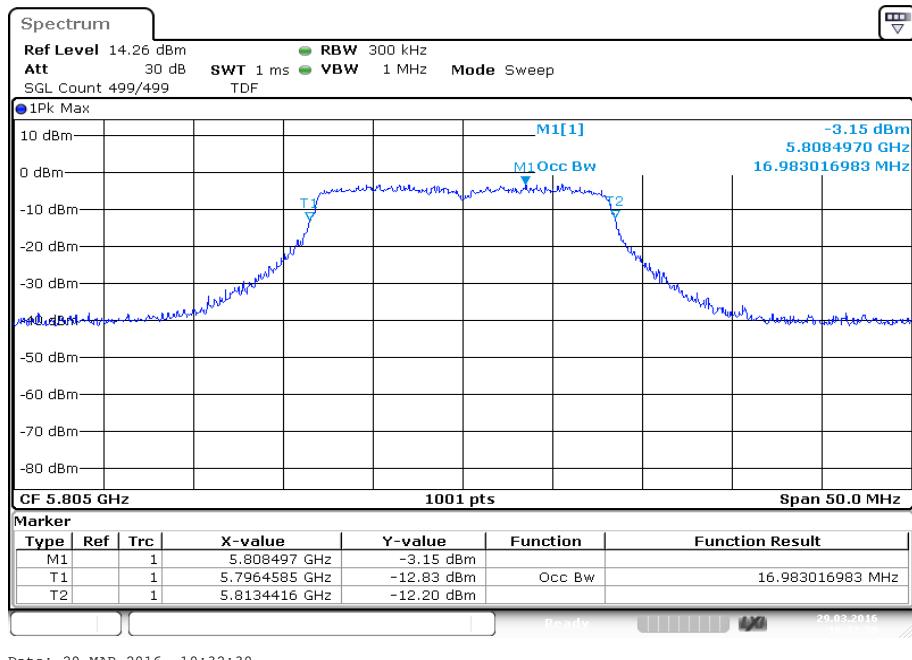
**Plot 2:** 5200 MHz

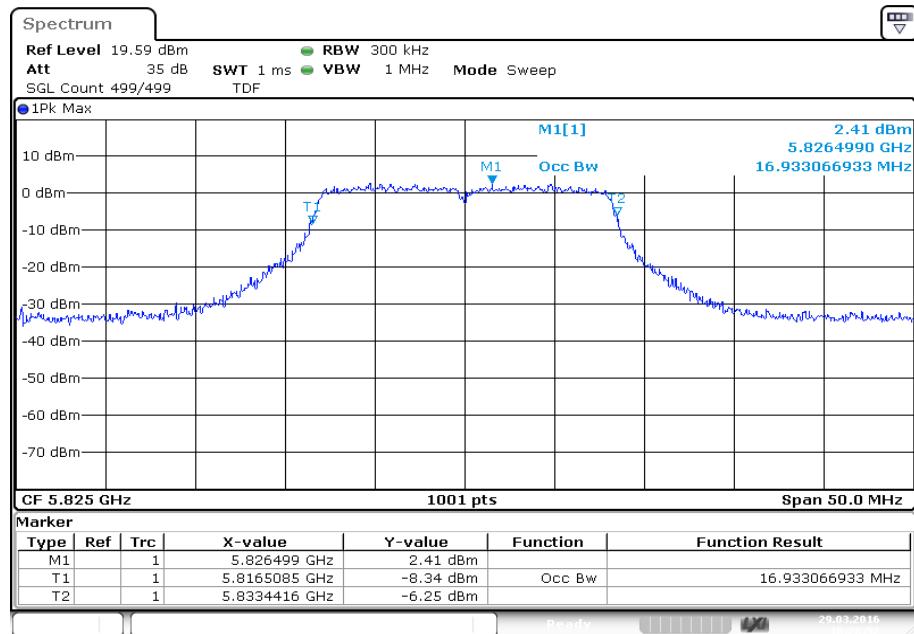


**Plot 3: 5300 MHz****Plot 4: 5320 MHz**

**Plot 5: 5500 MHz****Plot 6: 5600 MHz**

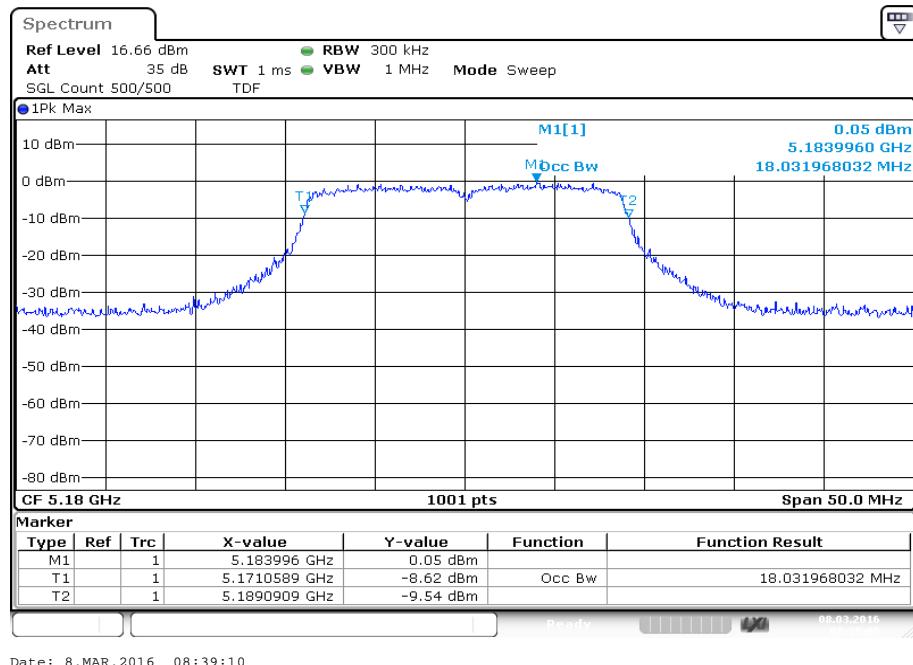
**Plot 7:** 5700 MHz**Plot 8:** 5745 MHz

**Plot 9: 5765 MHz****Plot 10: 5805 MHz**

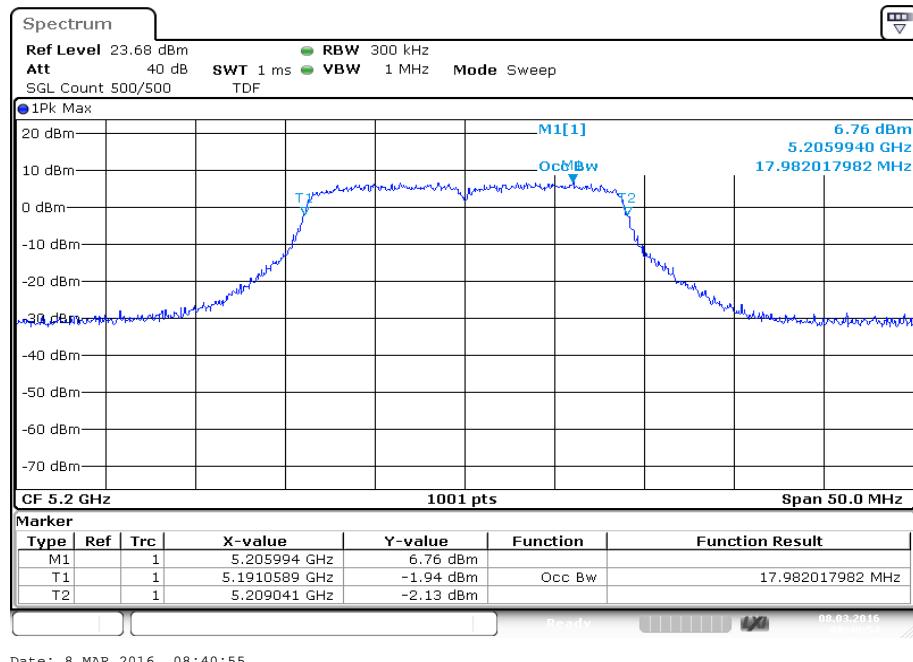
**Plot 11: 5825 MHz**

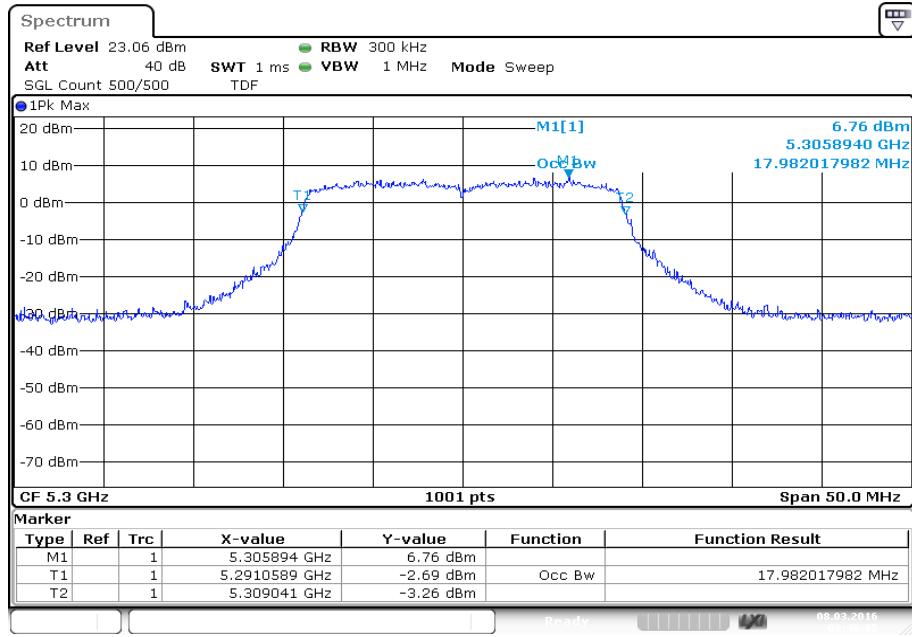
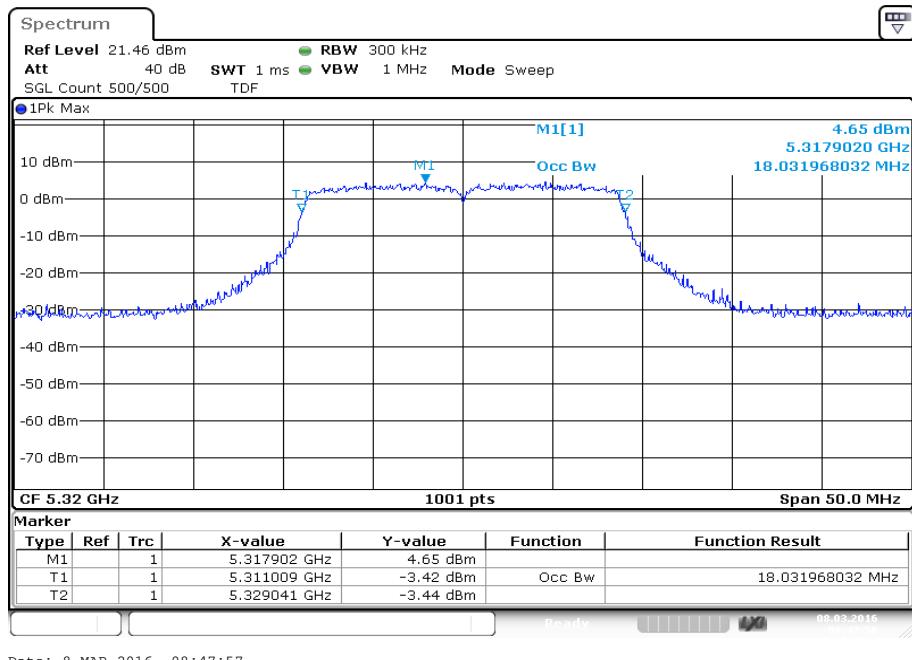
**Plots:** OFDM / n HT20 – mode, antenna port 1

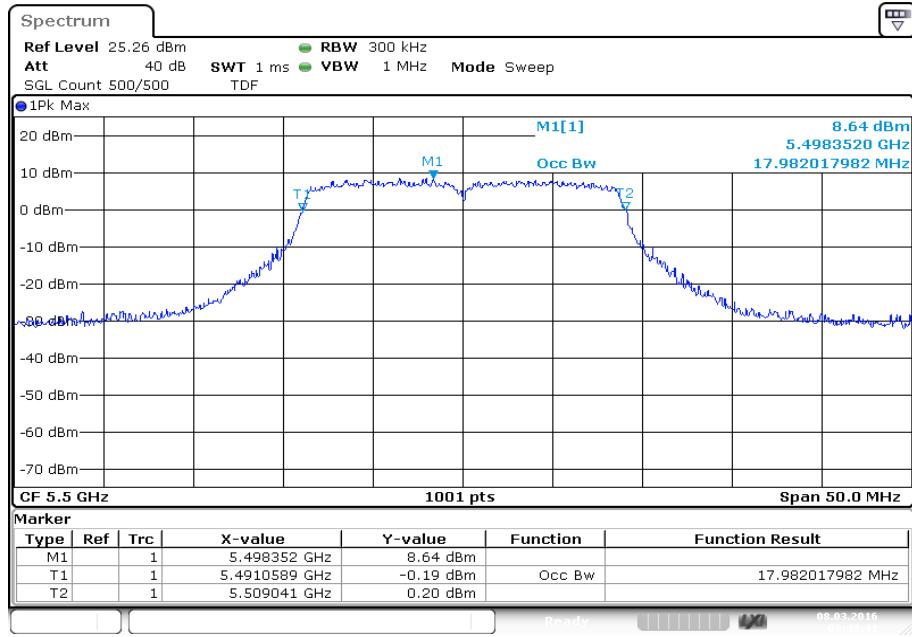
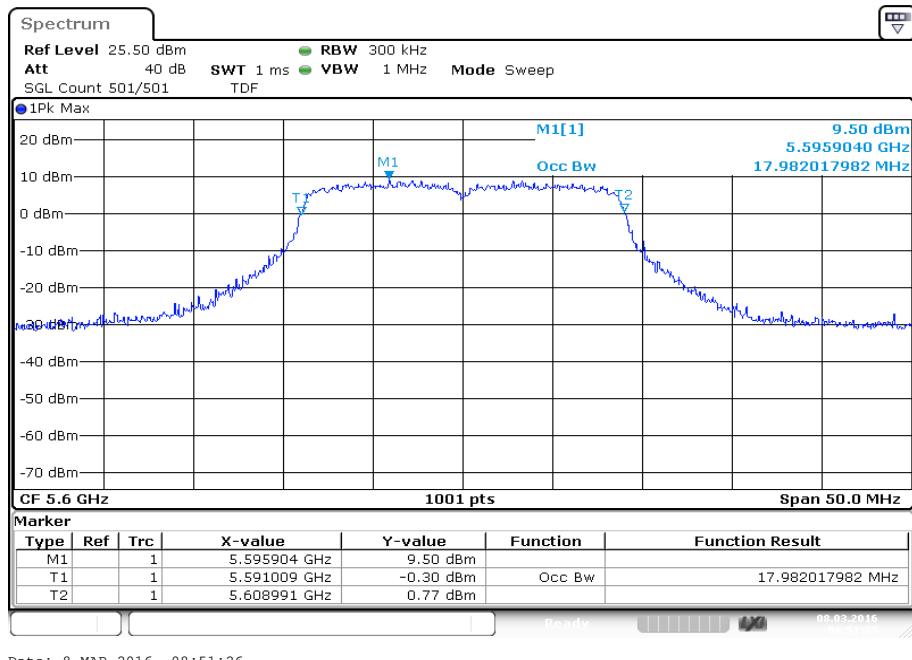
**Plot 1:** 5180 MHz

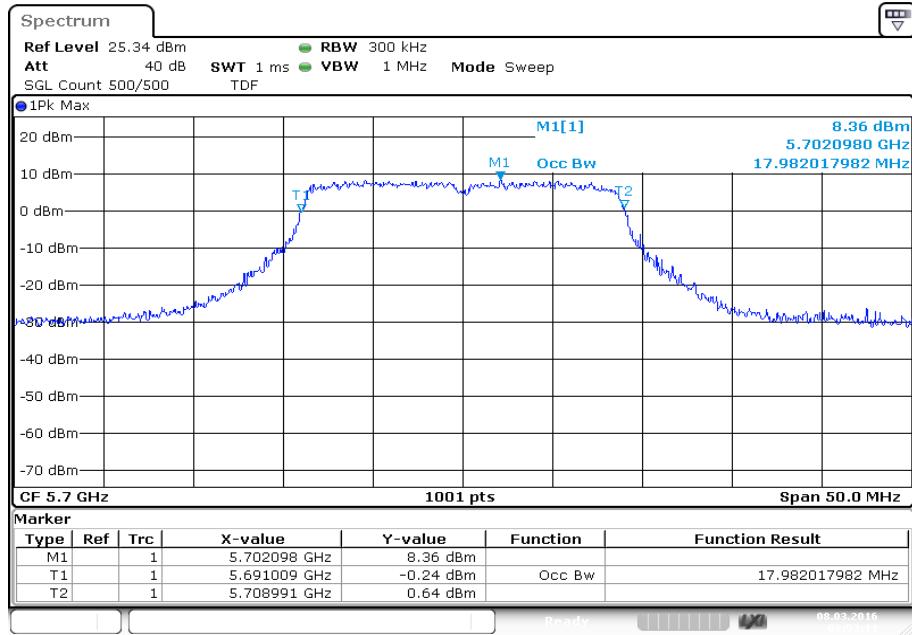
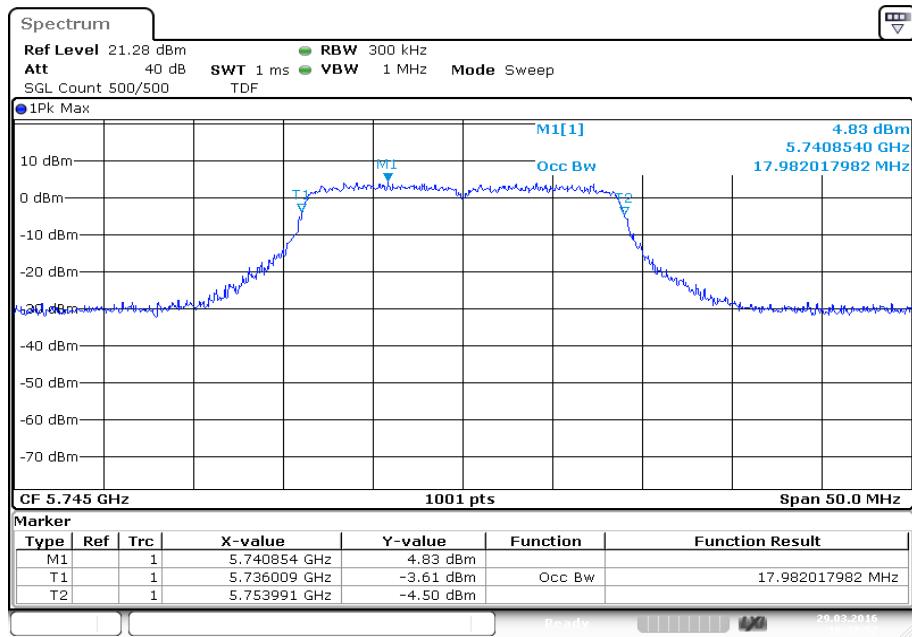


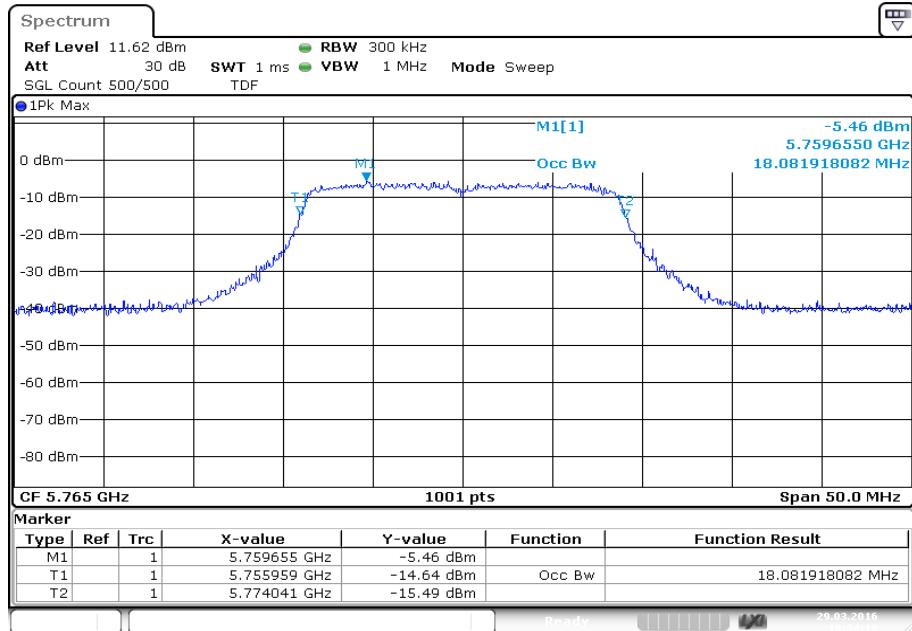
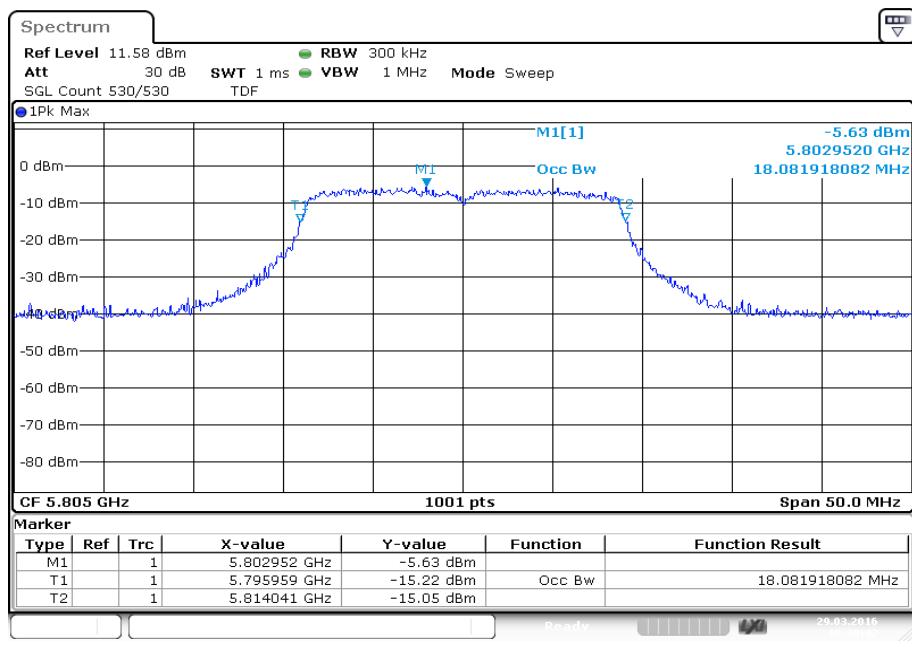
**Plot 2:** 5200 MHz

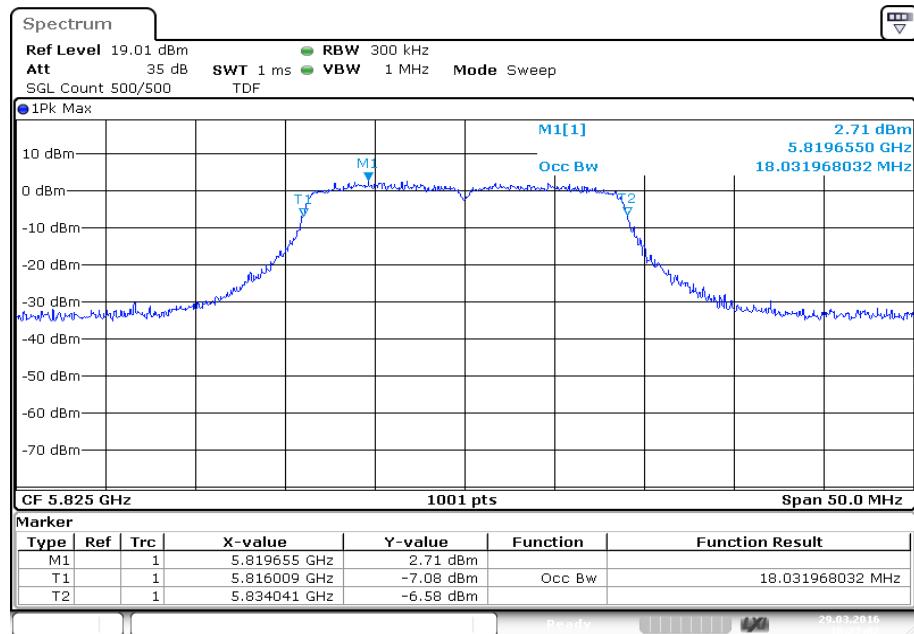


**Plot 3: 5300 MHz****Plot 4: 5320 MHz**

**Plot 5: 5500 MHz****Plot 6: 5600 MHz**

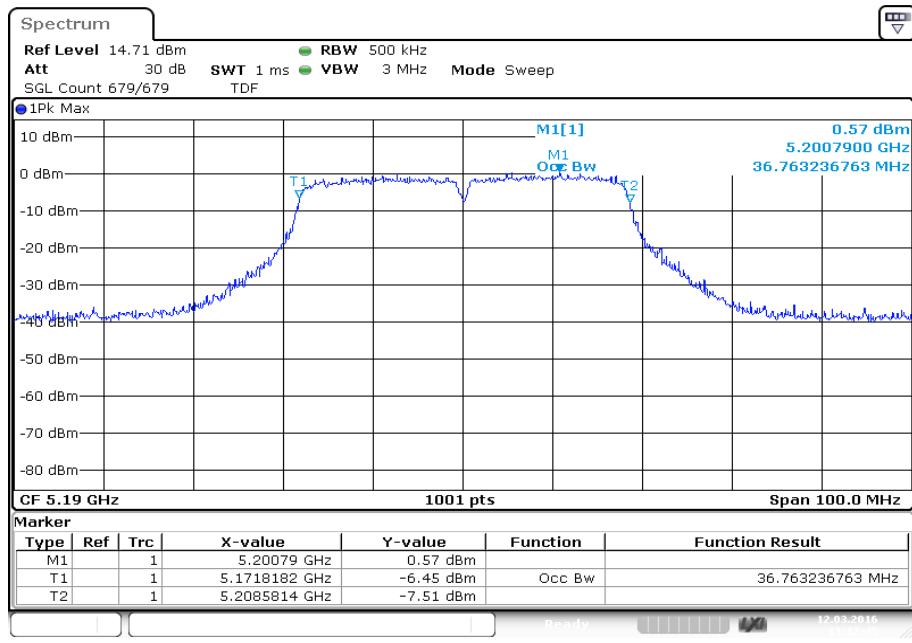
**Plot 7: 5700 MHz****Plot 8: 5745 MHz**

**Plot 9: 5765 MHz****Plot 10: 5805 MHz**

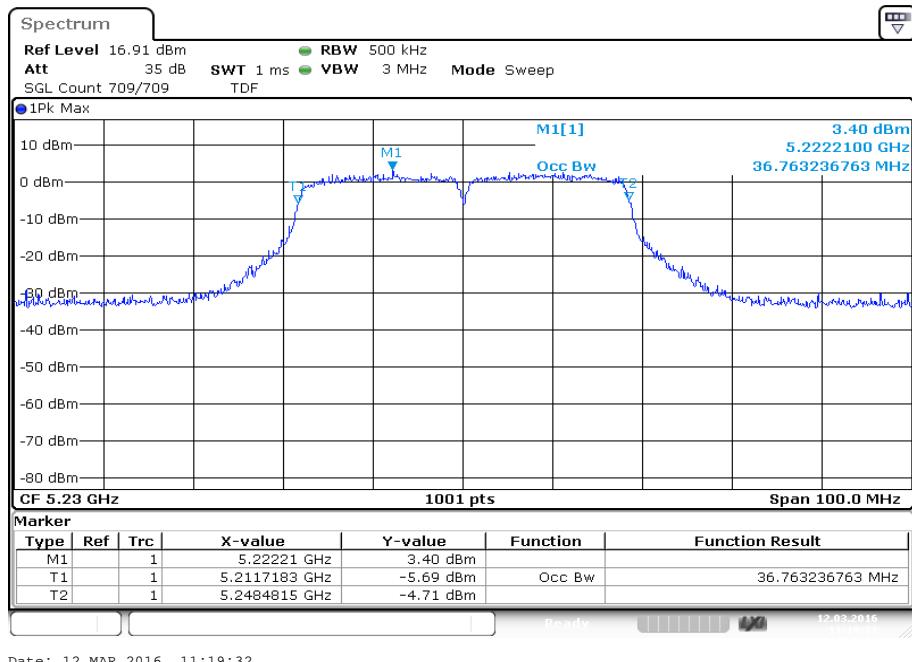
**Plot 11: 5825 MHz**

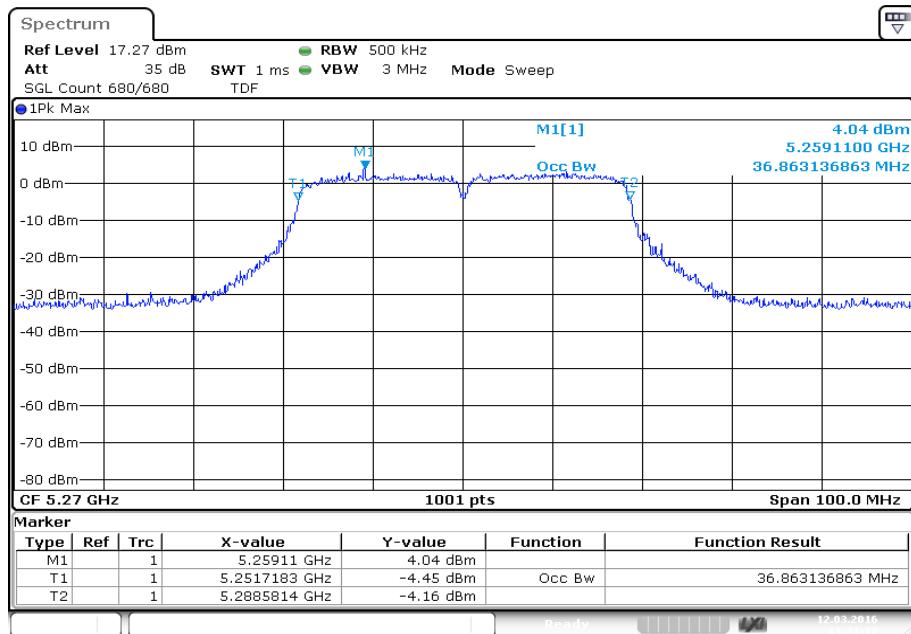
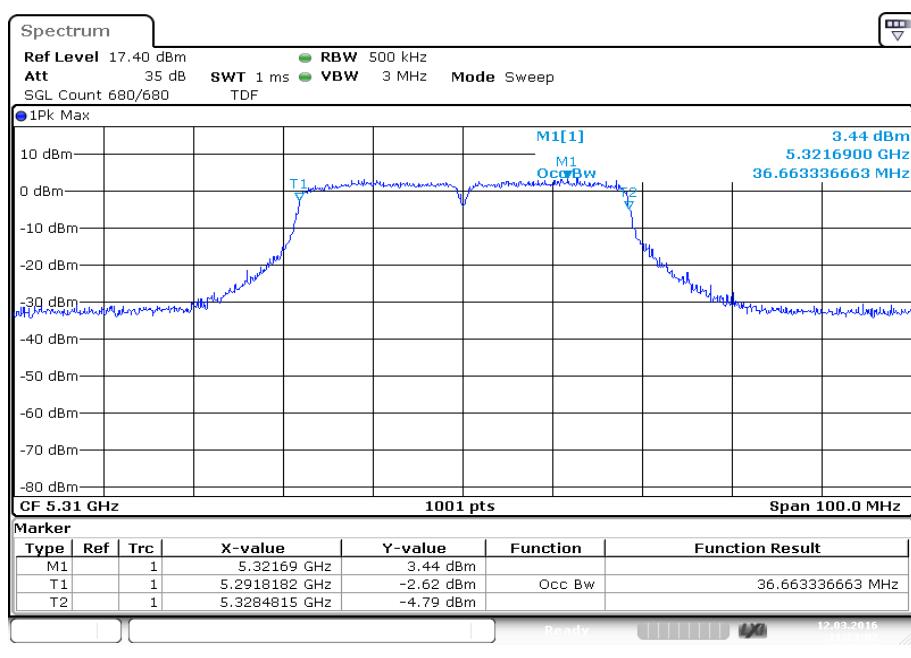
**Plots:** OFDM / n HT40 – mode, antenna port 1

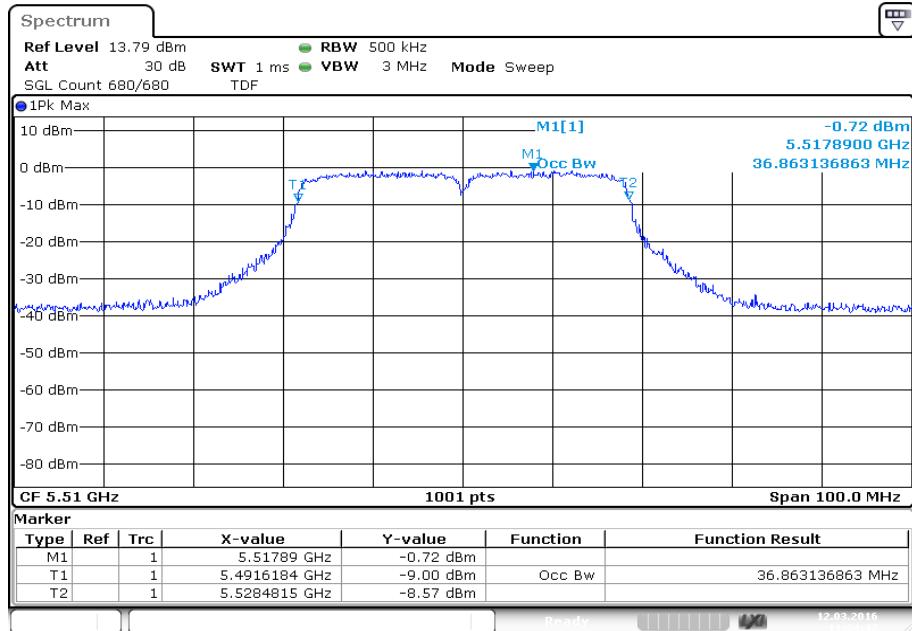
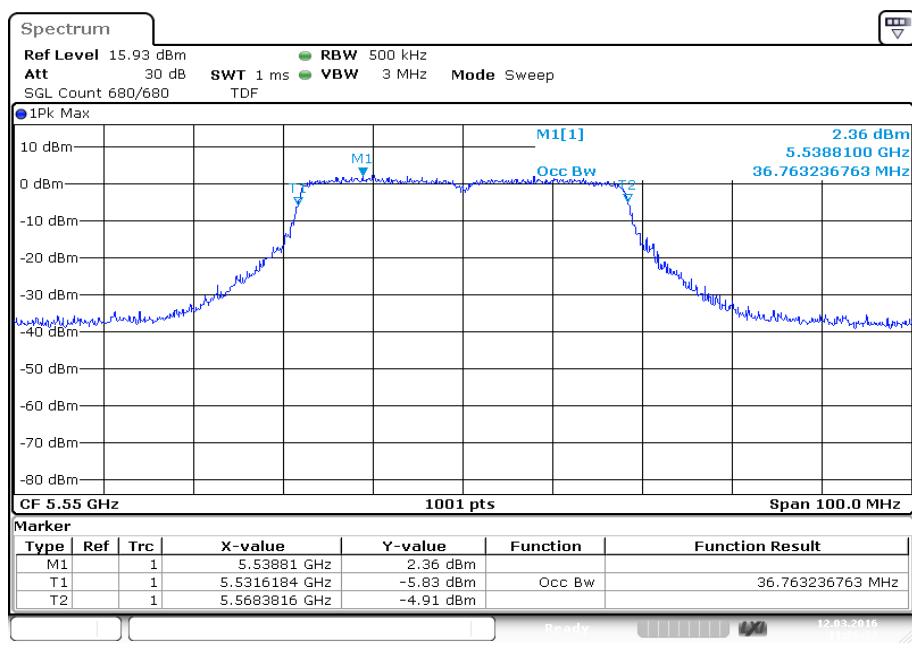
**Plot 1:** 5190 MHz

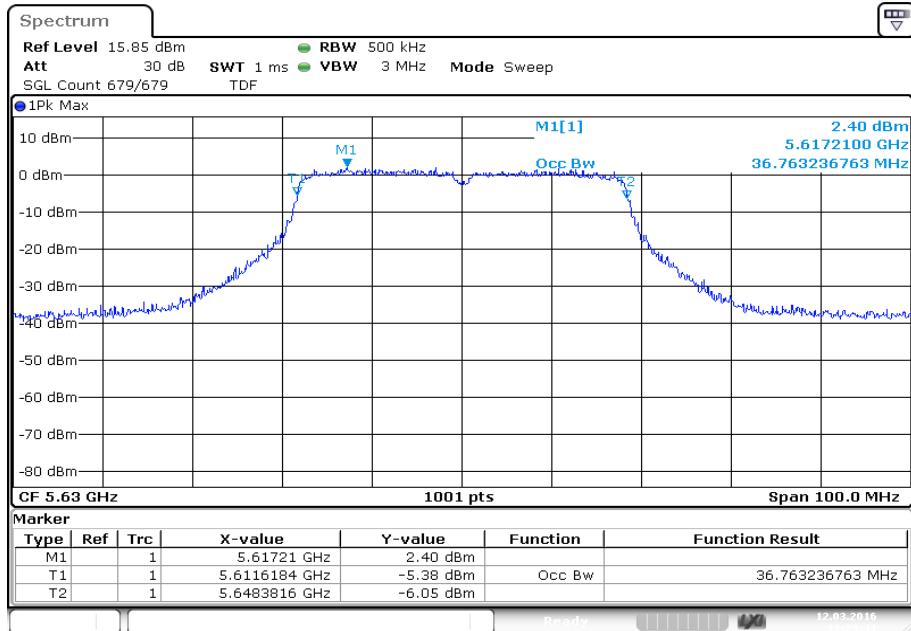
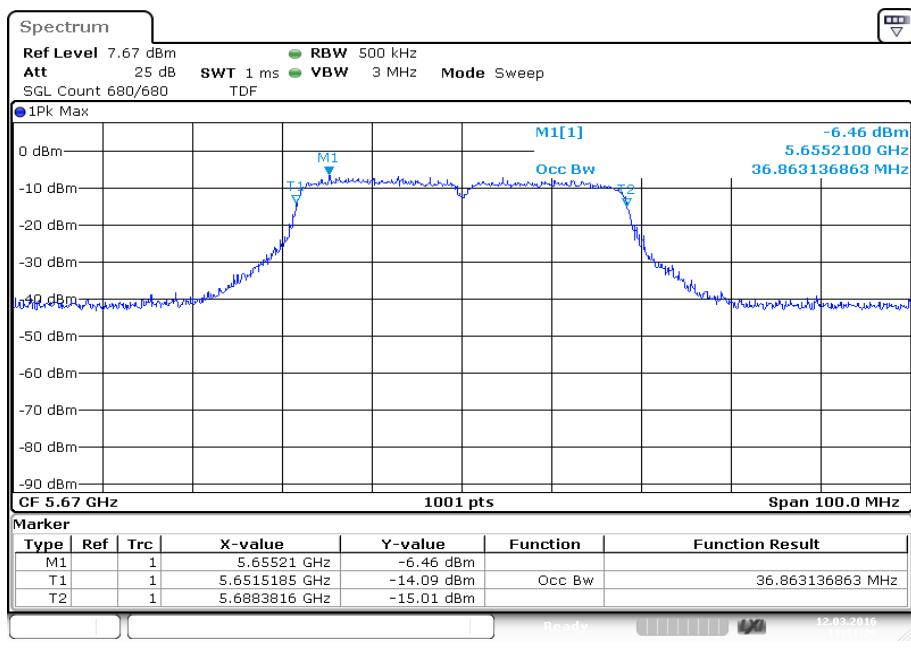


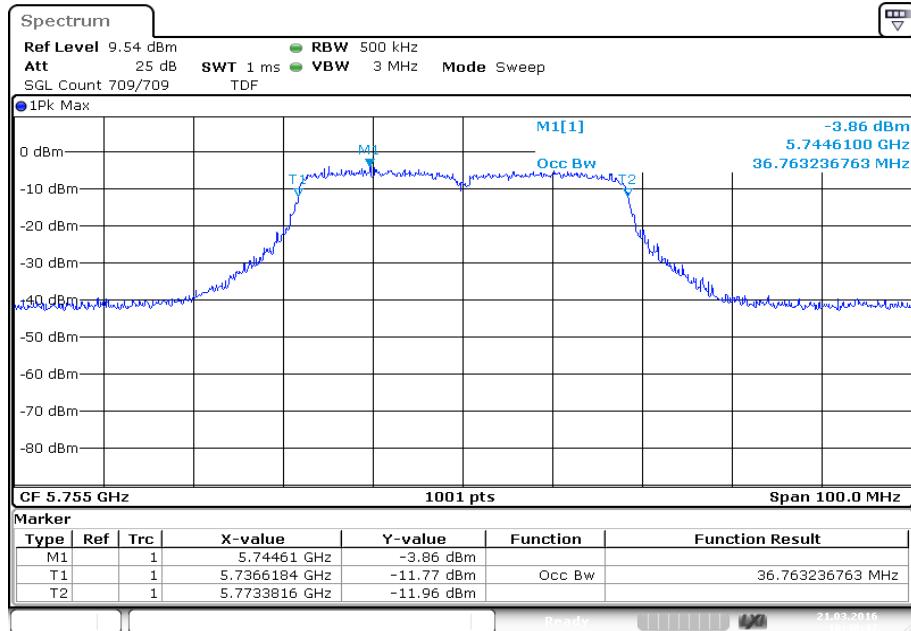
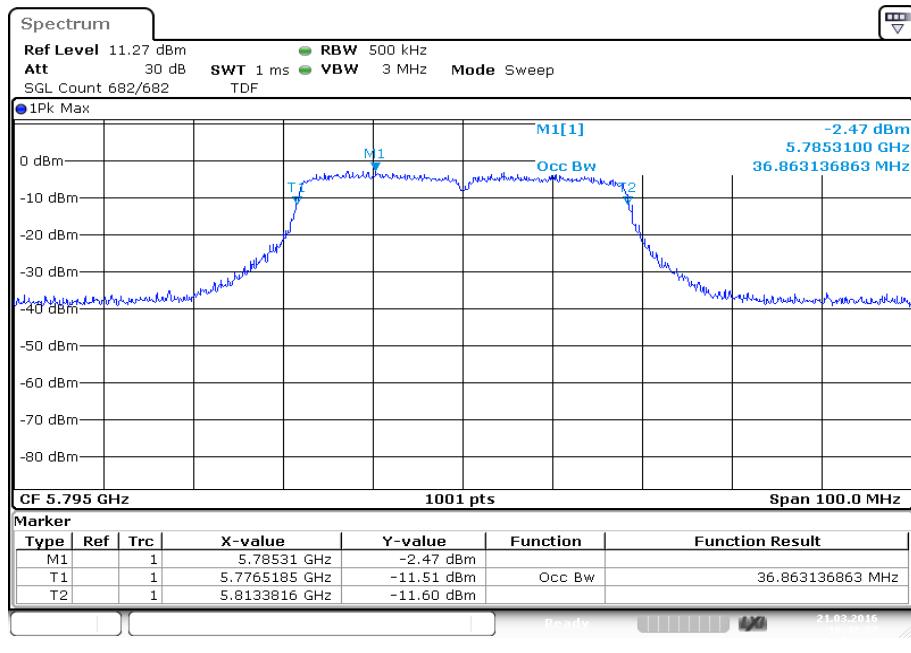
**Plot 2:** 5230 MHz



**Plot 3: 5270 MHz****Plot 4: 5310 MHz**

**Plot 5: 5510 MHz****Plot 6: 5550 MHz**

**Plot 7:** 5630 MHz**Plot 8:** 5670 MHz

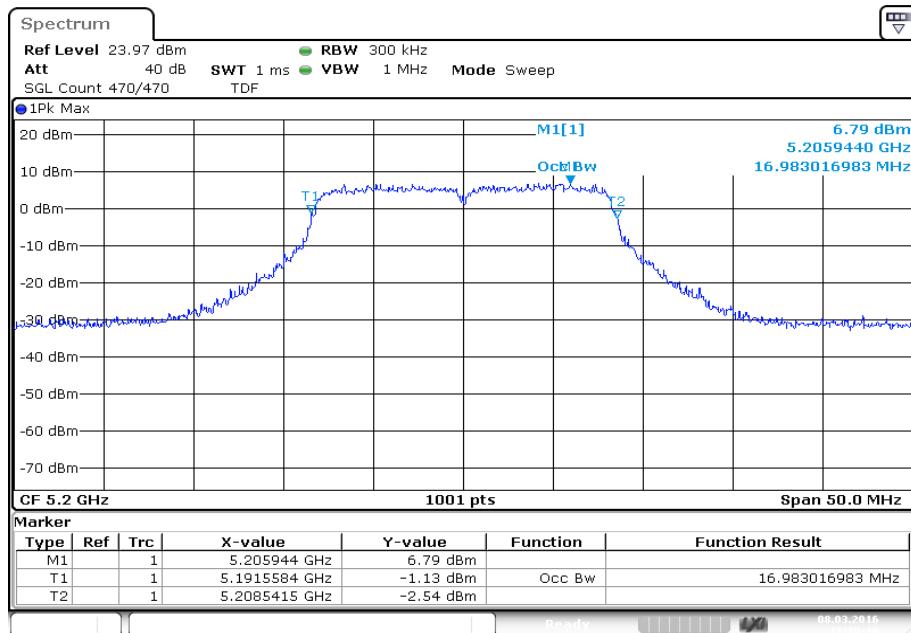
**Plot 9: 5755 MHz****Plot 10: 5795 MHz**

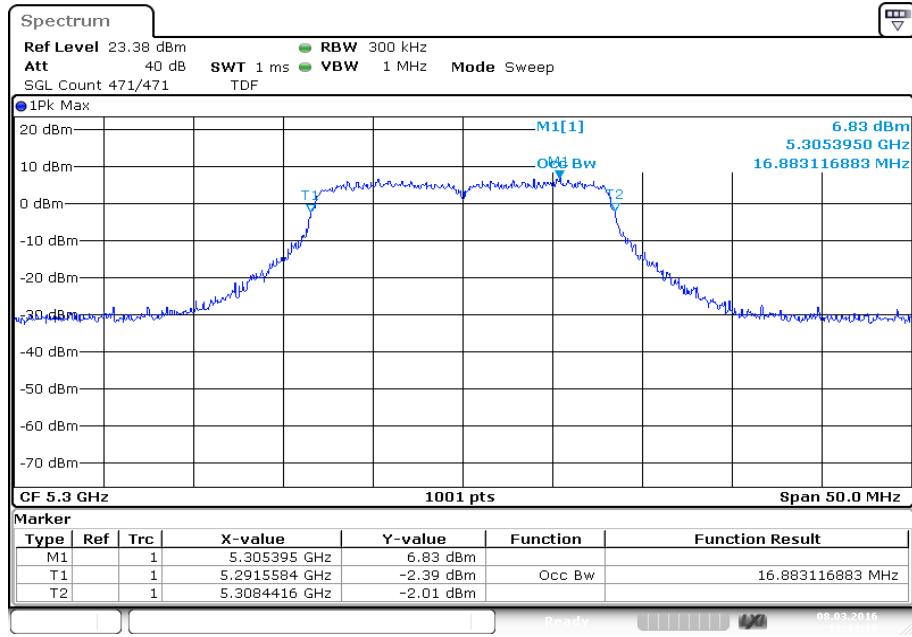
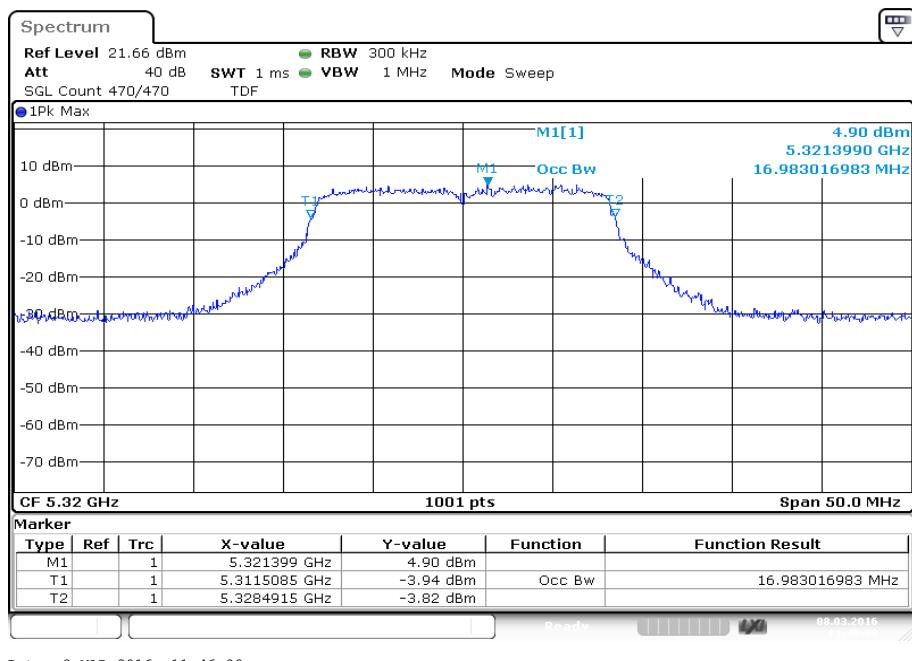
**Plots:** OFDM / a – mode, antenna port 2

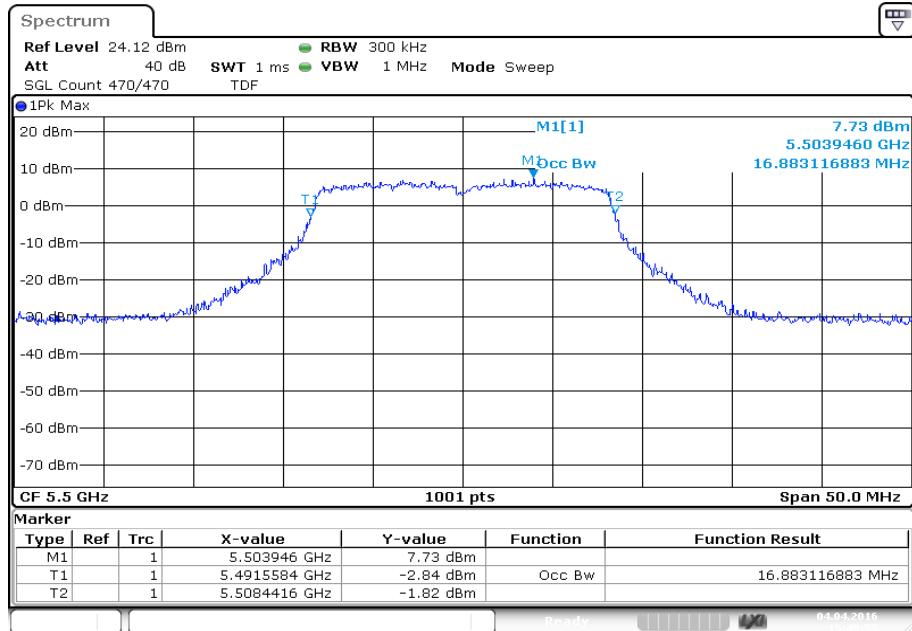
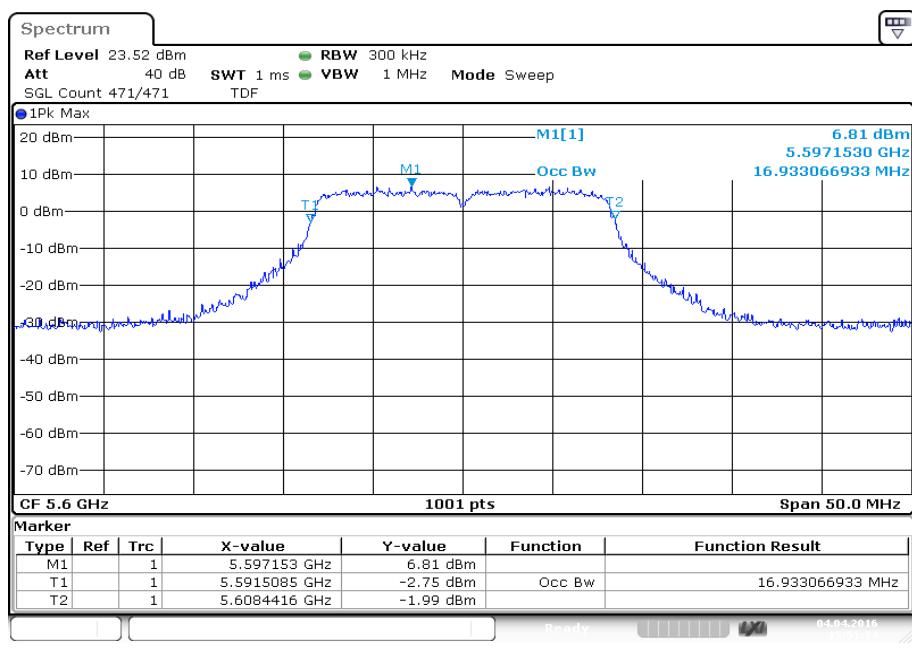
**Plot 1:** 5180 MHz

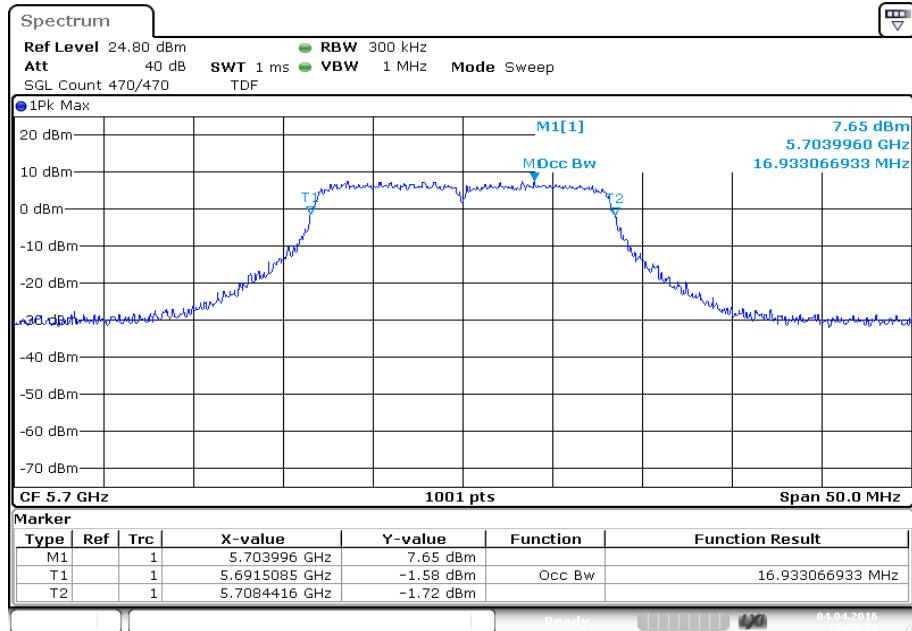
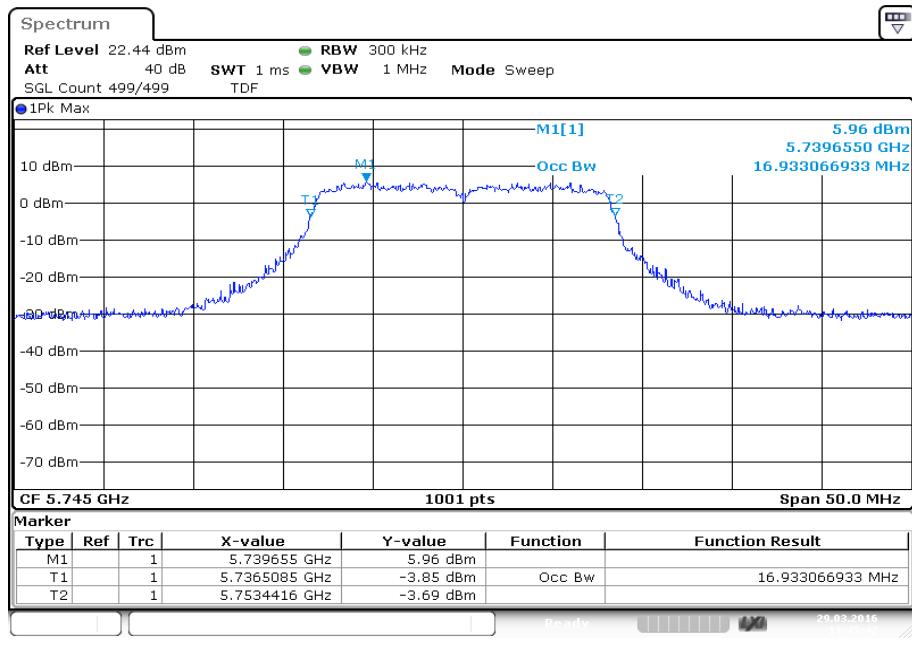


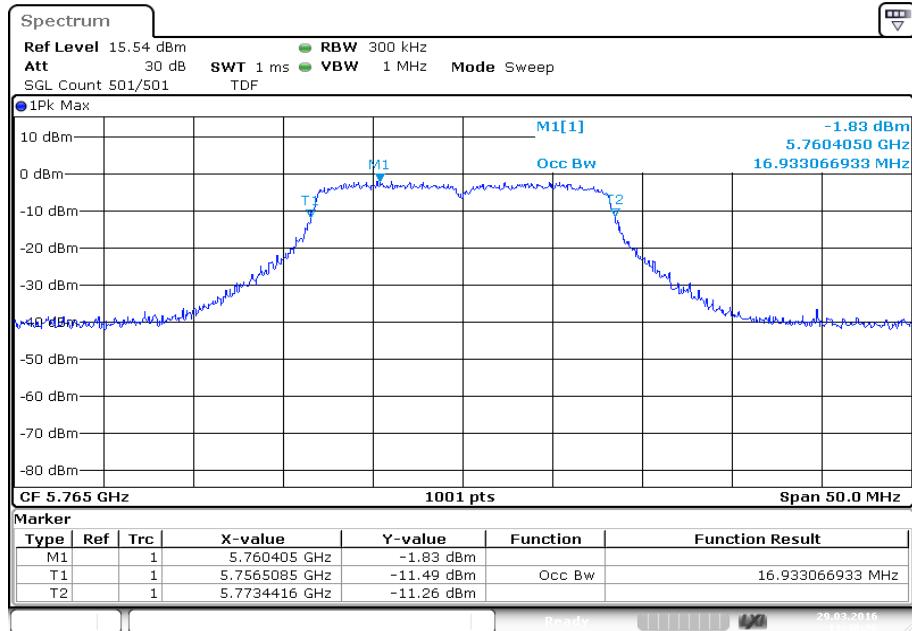
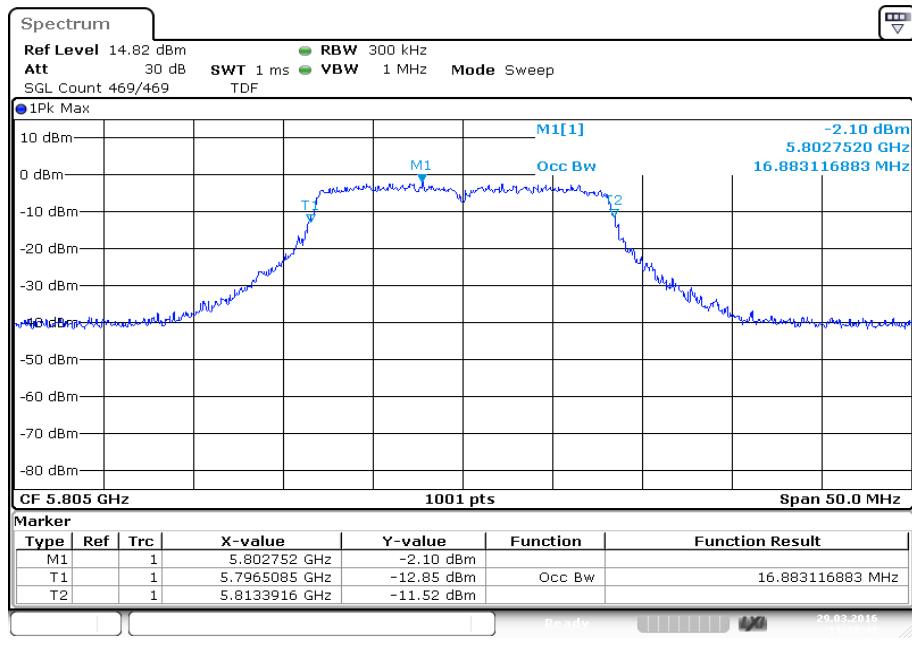
**Plot 2:** 5200 MHz



**Plot 3: 5300 MHz****Plot 4: 5320 MHz**

**Plot 5: 5500 MHz****Plot 6: 5600 MHz**

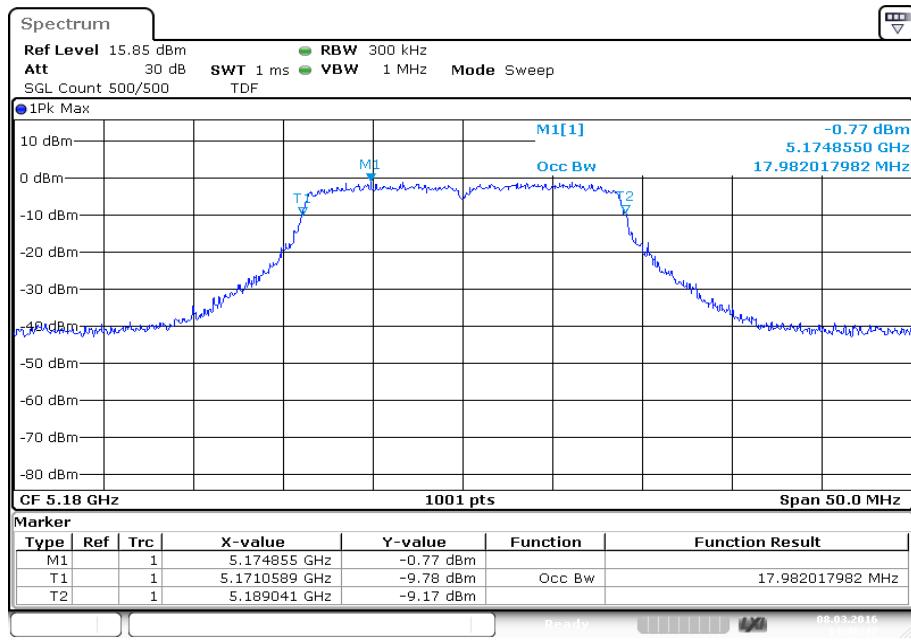
**Plot 7:** 5700 MHz**Plot 8:** 5745 MHz

**Plot 9: 5765 MHz****Plot 10: 5805 MHz**

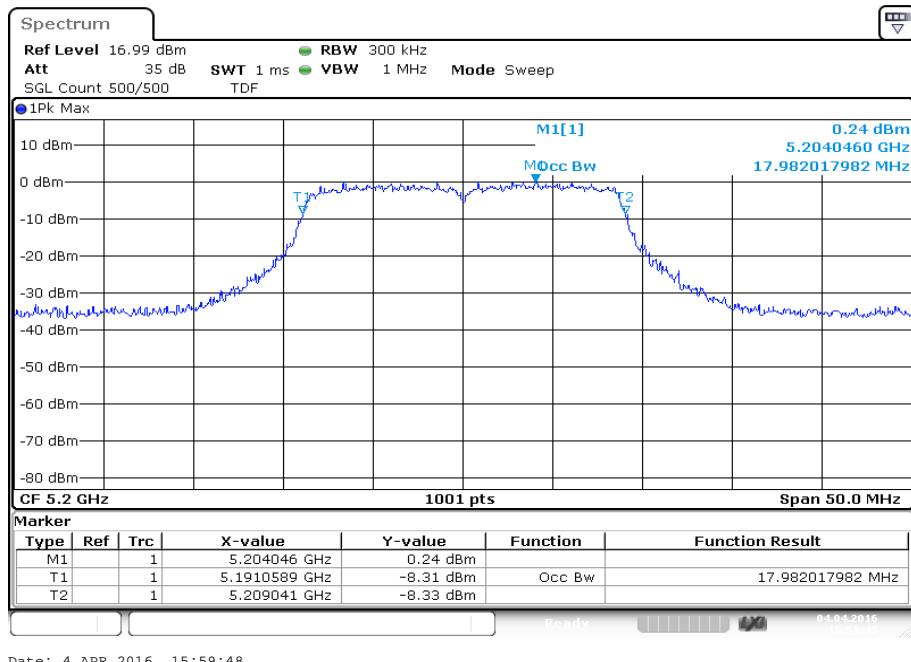
**Plot 11: 5825 MHz**

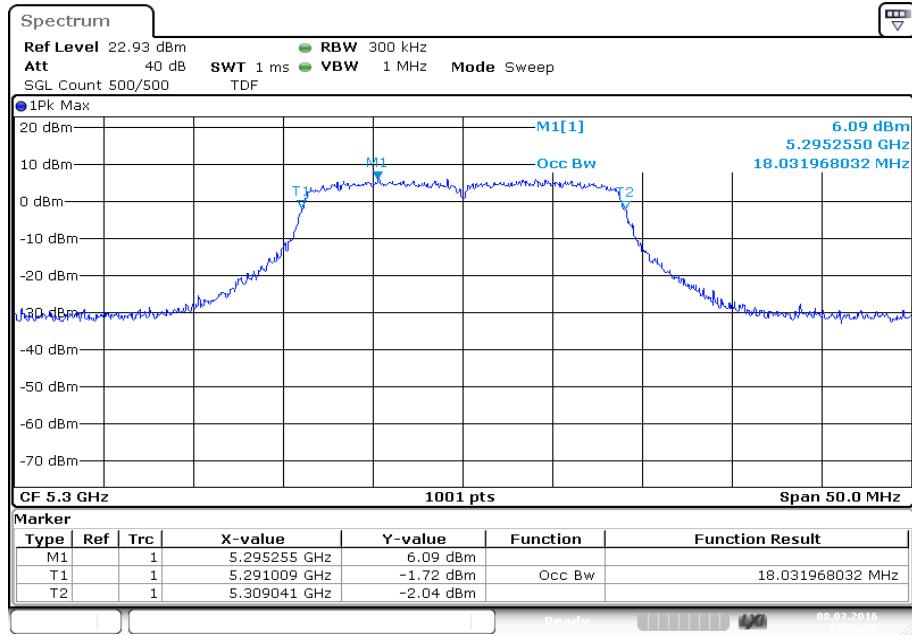
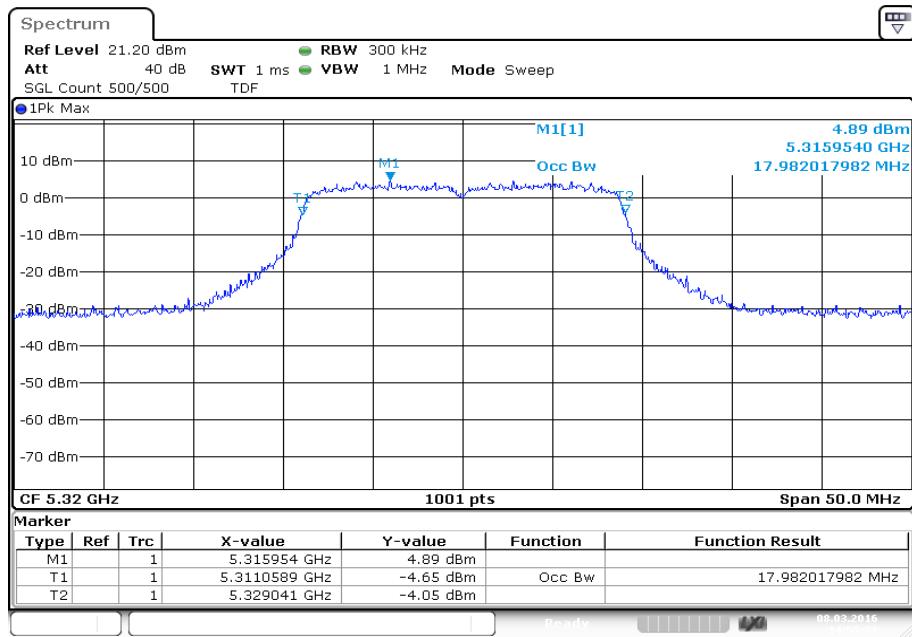
**Plots:** OFDM / n HT20 – mode, antenna port 2

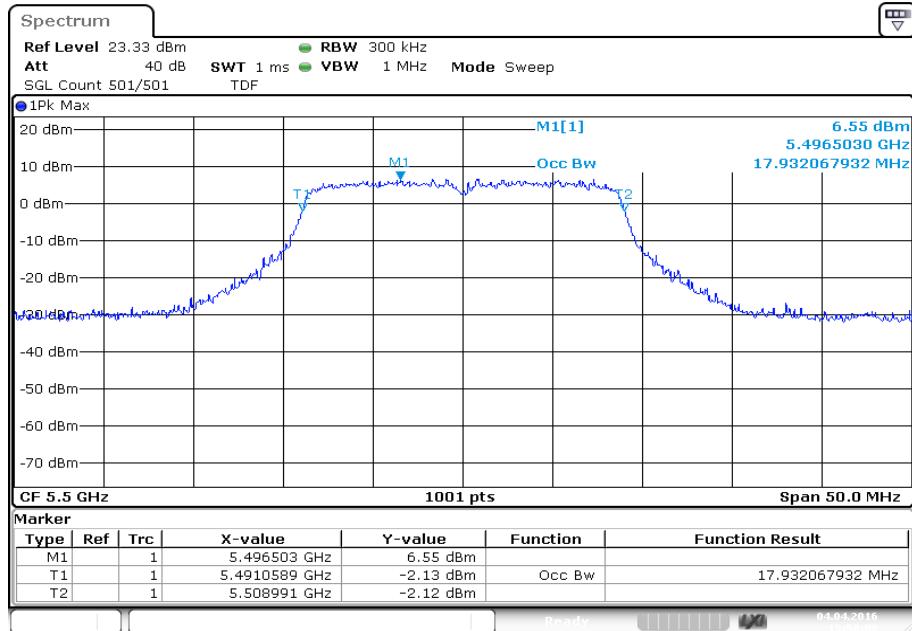
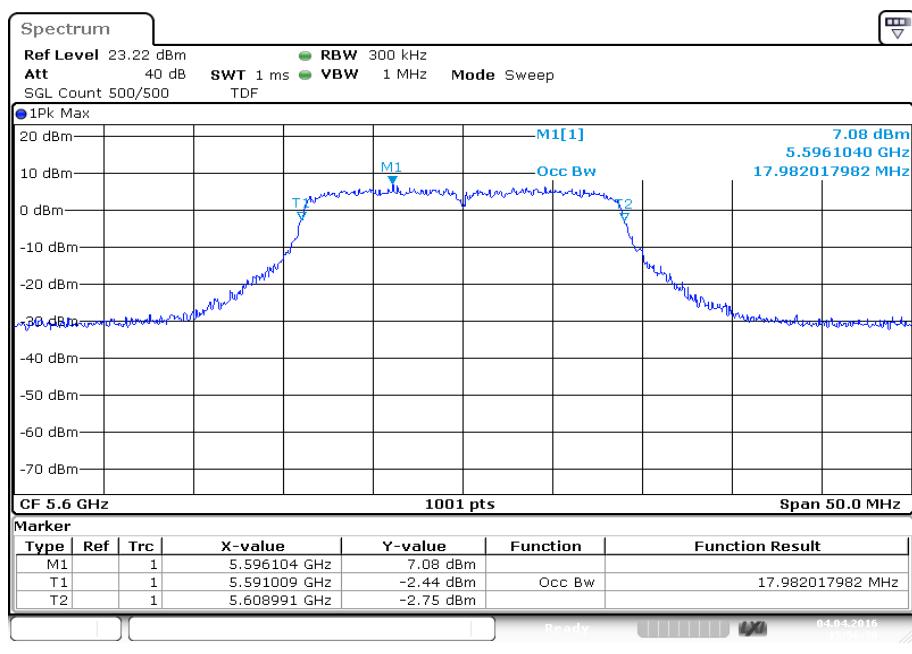
**Plot 1:** 5180 MHz

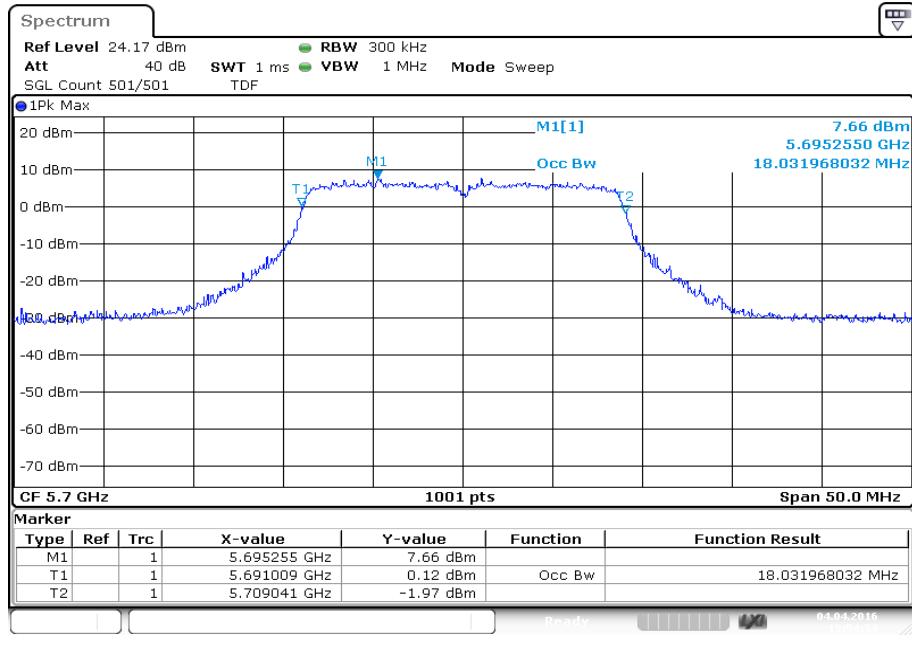
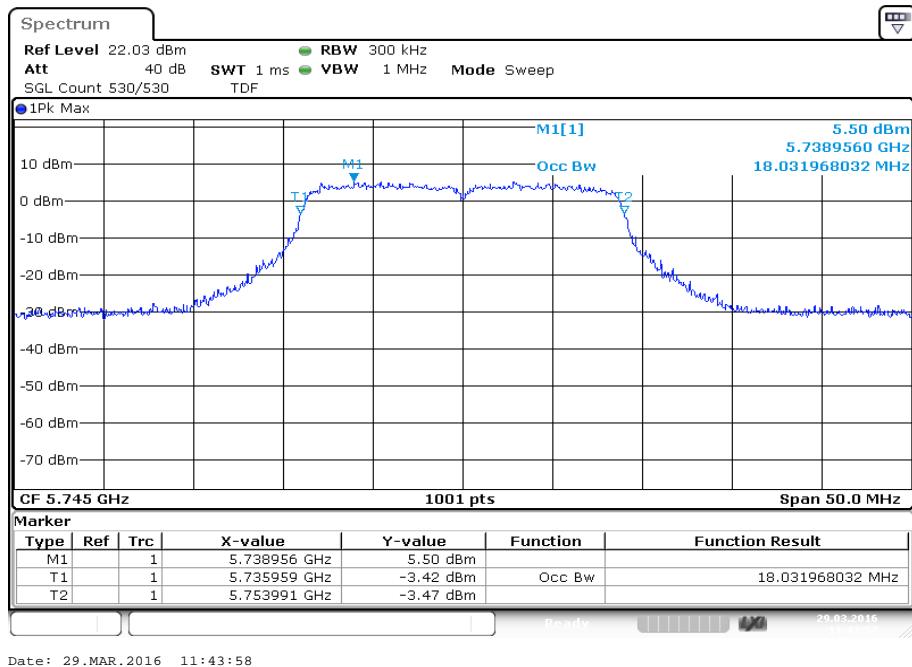


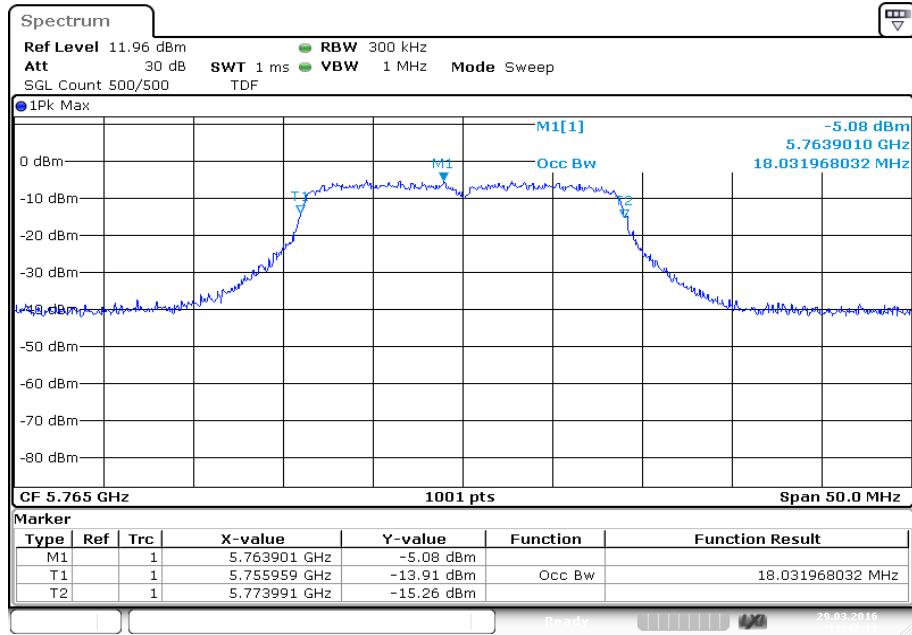
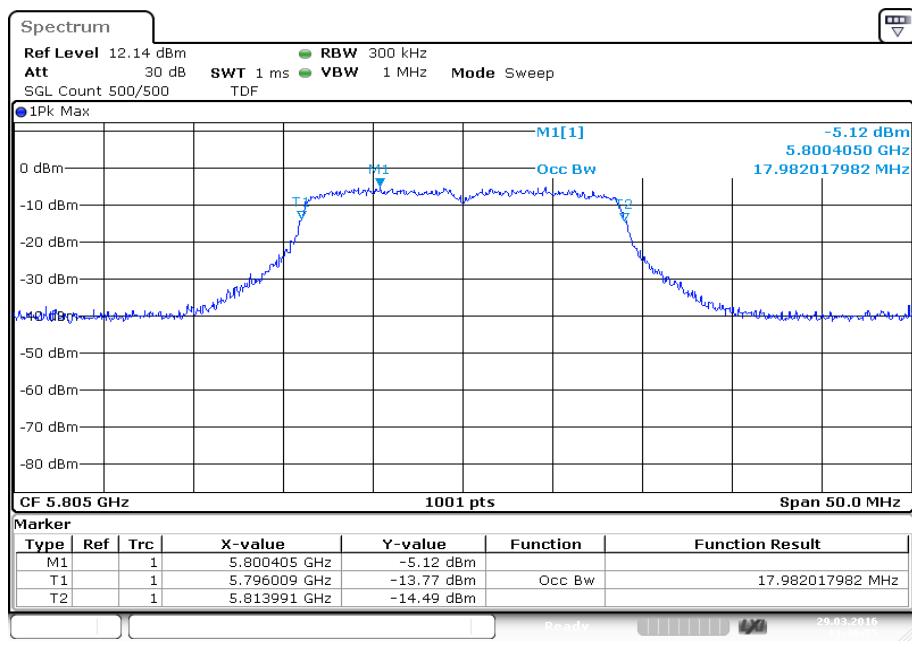
**Plot 2:** 5200 MHz

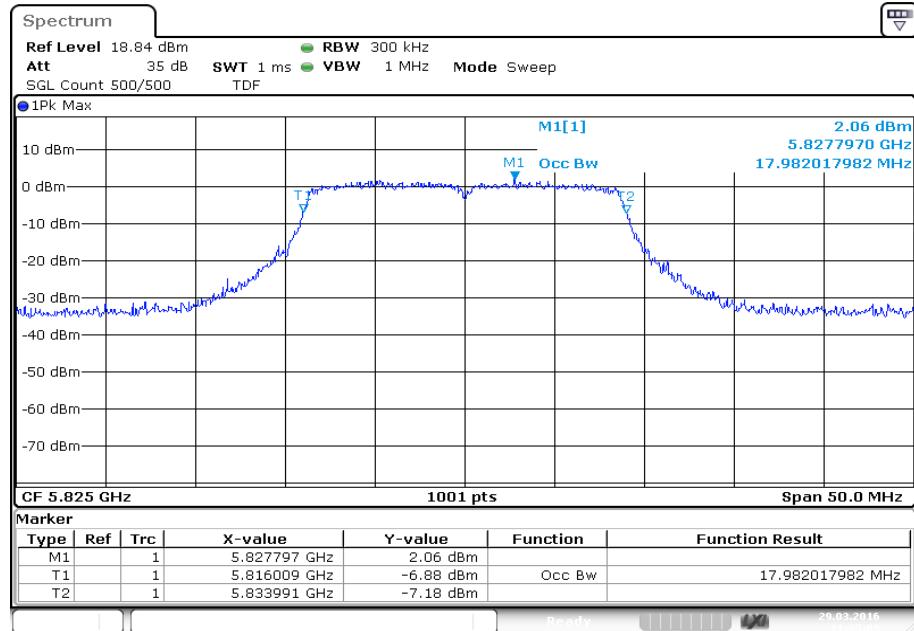


**Plot 3: 5300 MHz****Plot 4: 5320 MHz**

**Plot 5: 5500 MHz**

**Plot 6: 5600 MHz**


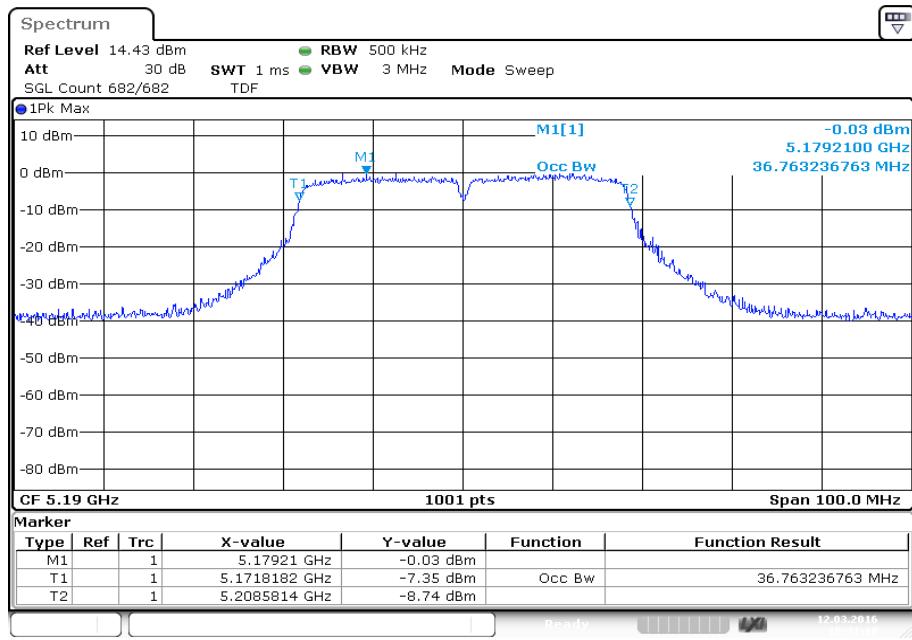
**Plot 7:** 5700 MHz**Plot 8:** 5745 MHz

**Plot 9: 5765 MHz****Plot 10: 5805 MHz**

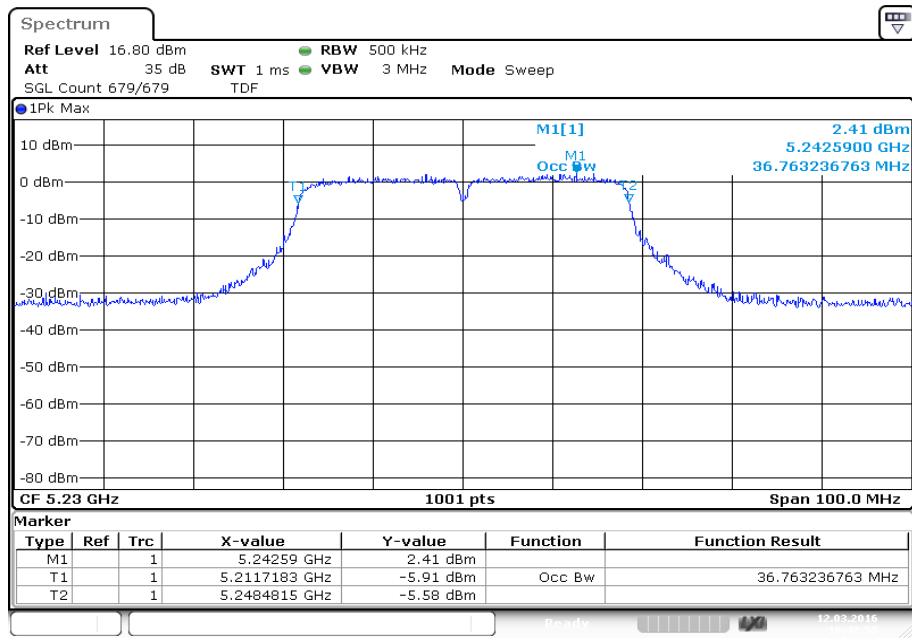
**Plot 11: 5825 MHz**

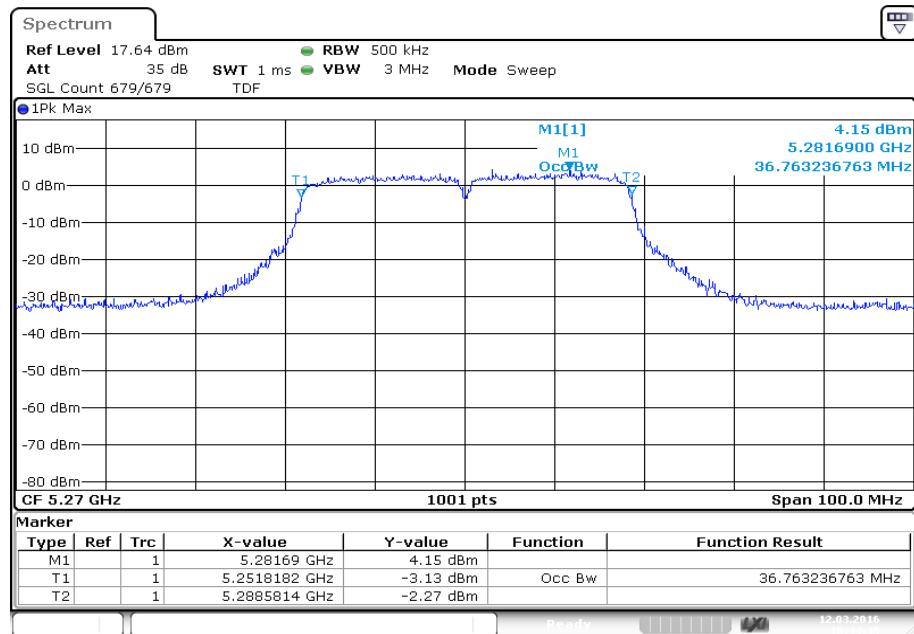
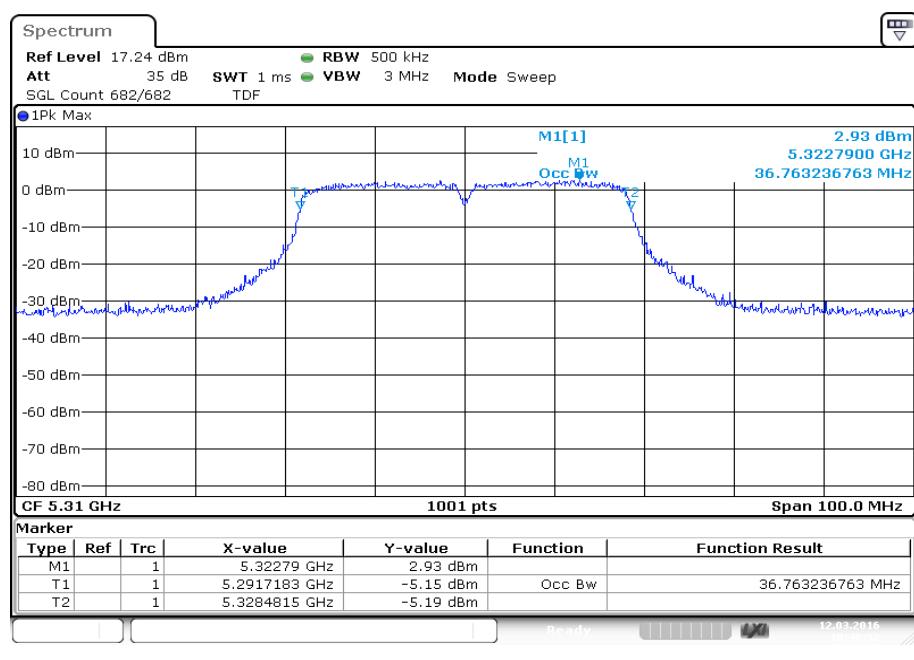
**Plots:** OFDM / n HT40 – mode, antenna port 2

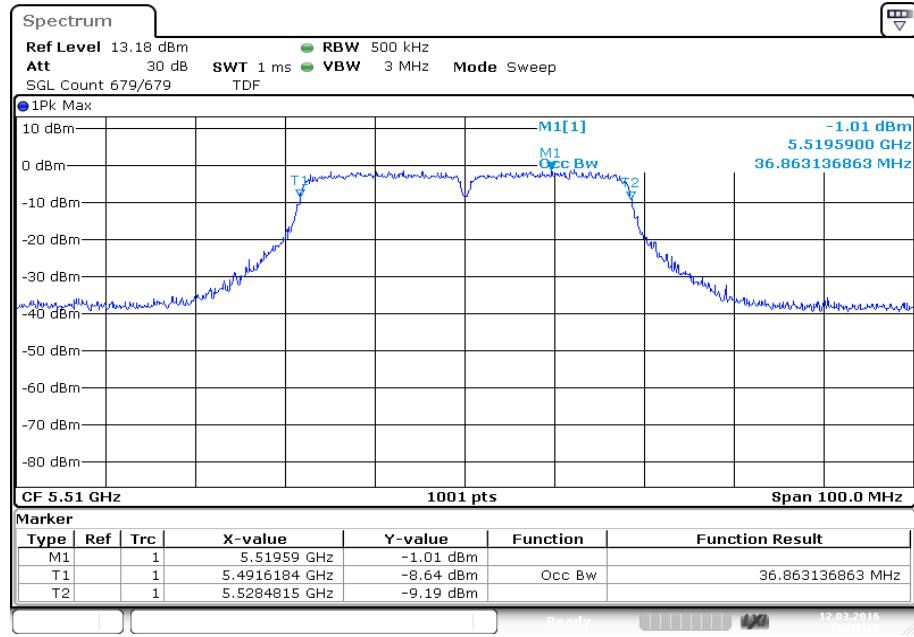
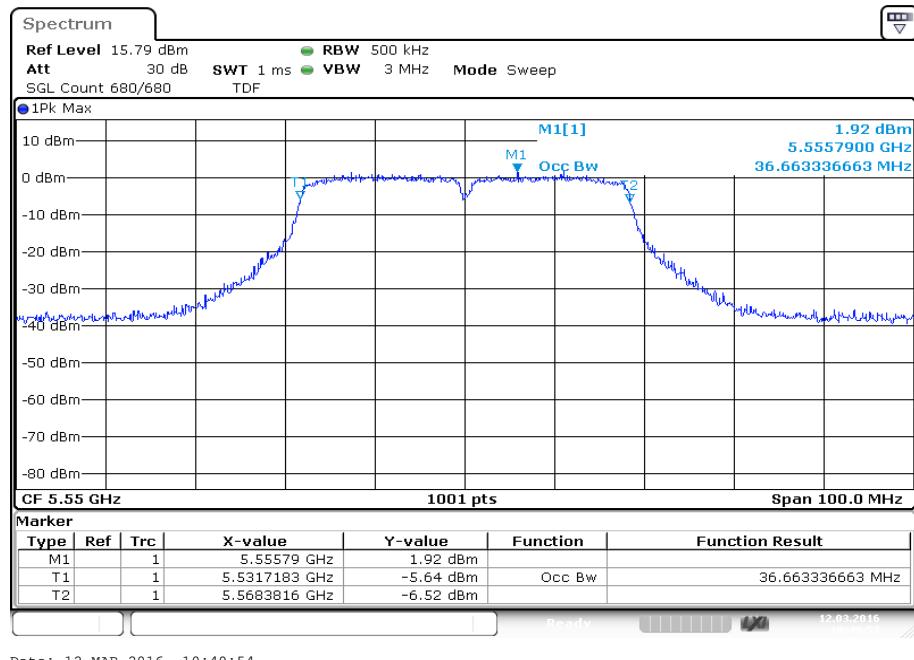
**Plot 1:** 5190 MHz

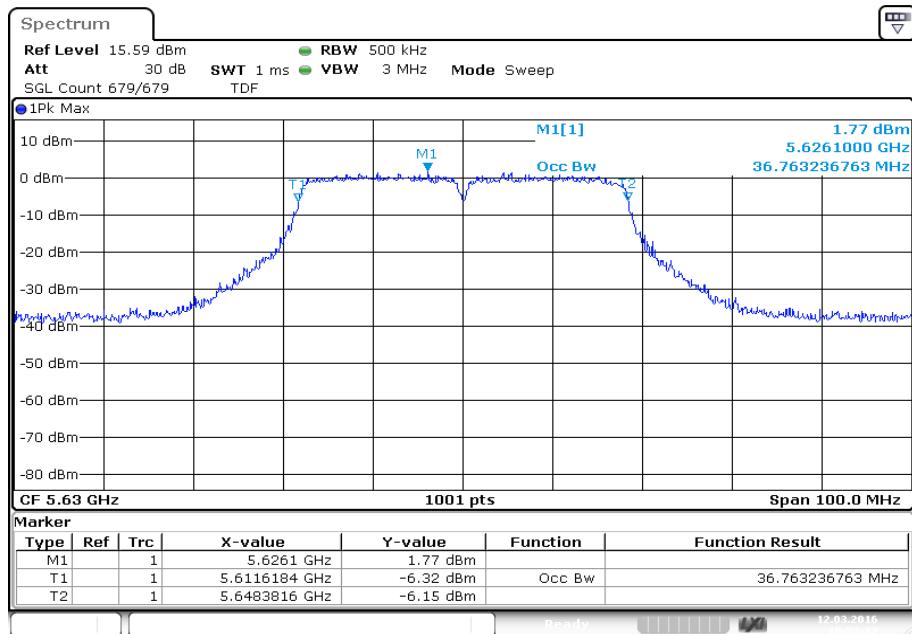
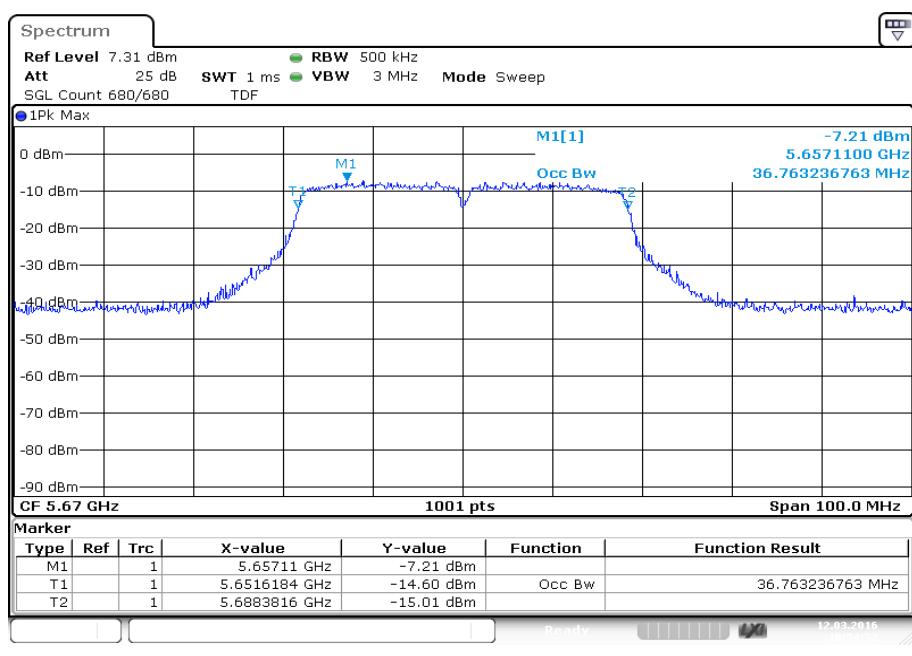


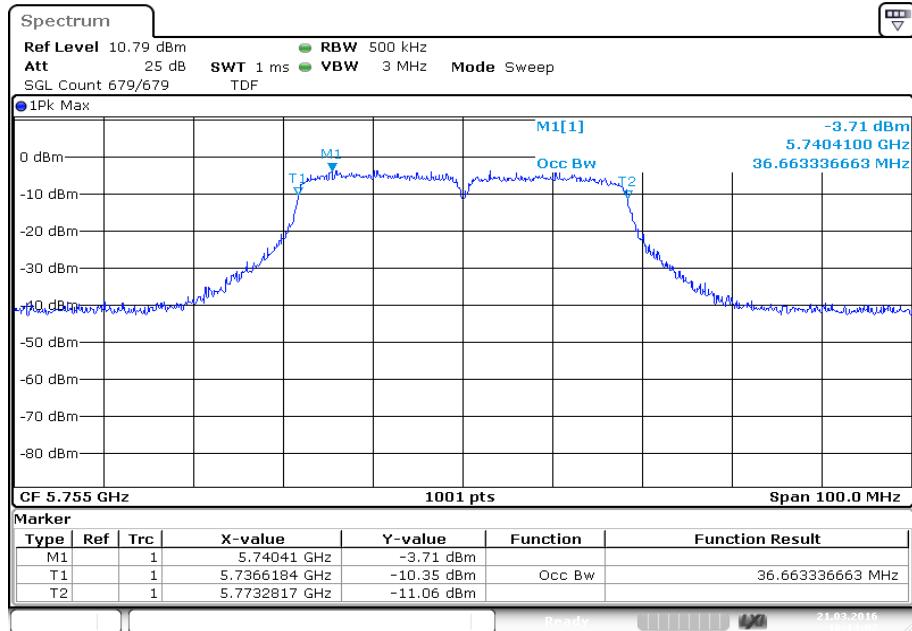
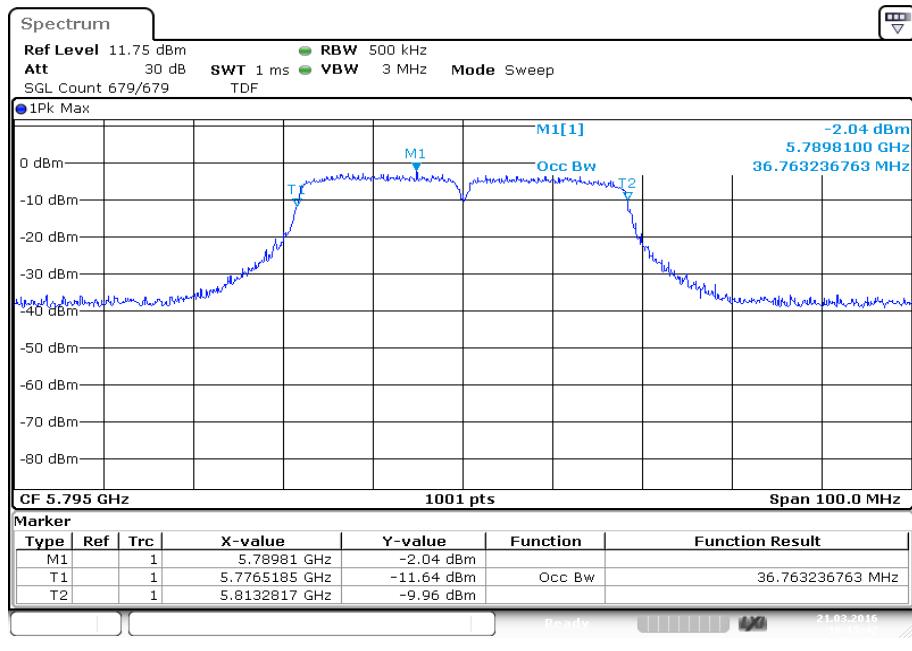
**Plot 2:** 5230 MHz



**Plot 3: 5270 MHz****Plot 4: 5310 MHz**

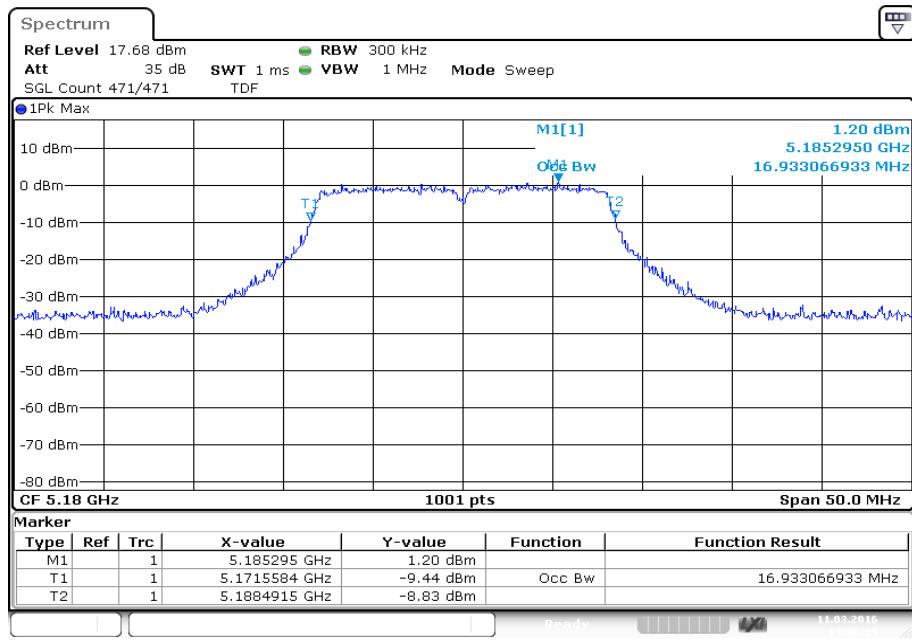
**Plot 5: 5510 MHz****Plot 6: 5550 MHz**

**Plot 7:** 5630 MHz**Plot 8:** 5670 MHz

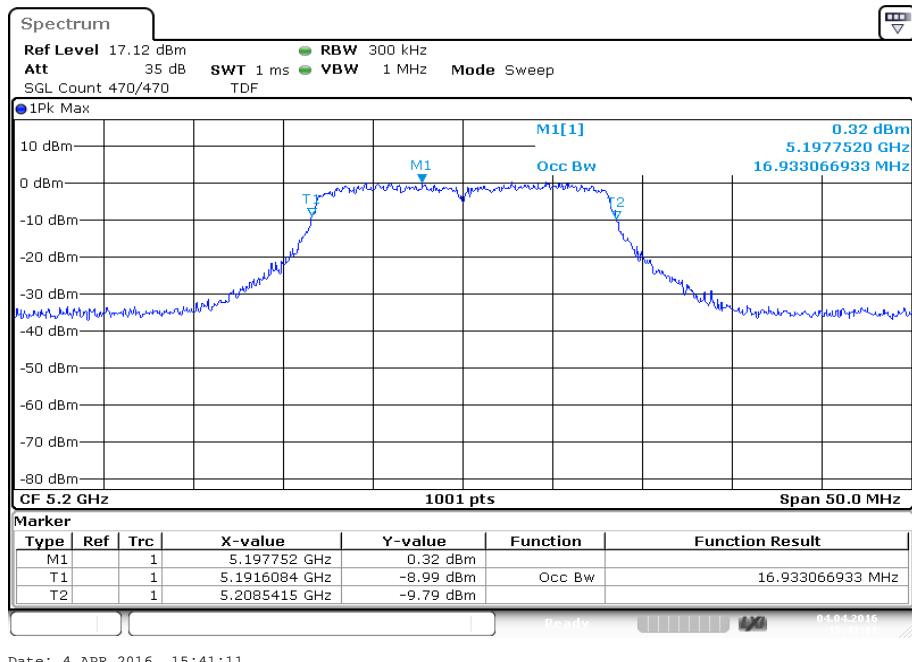
**Plot 9: 5755 MHz****Plot 10: 5795 MHz**

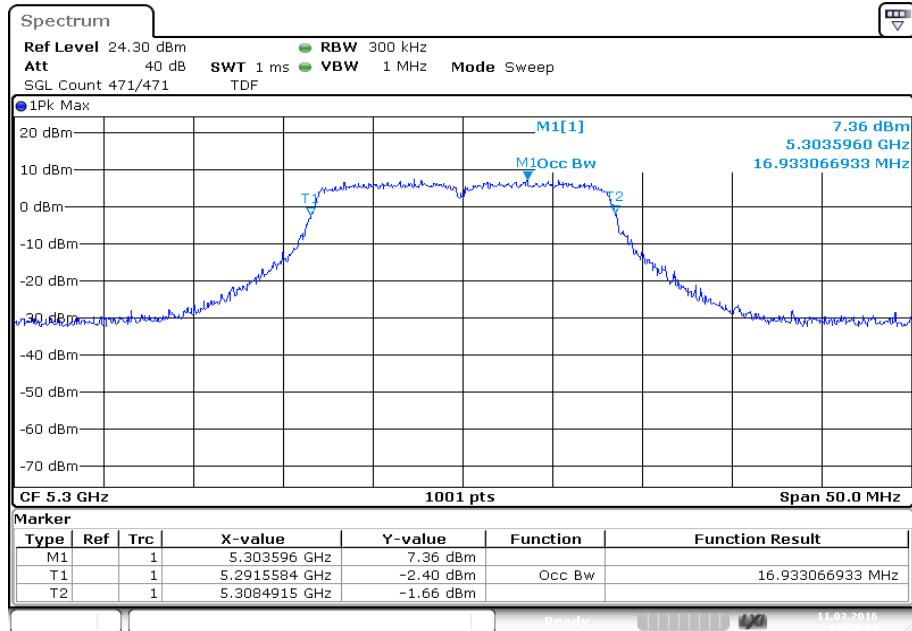
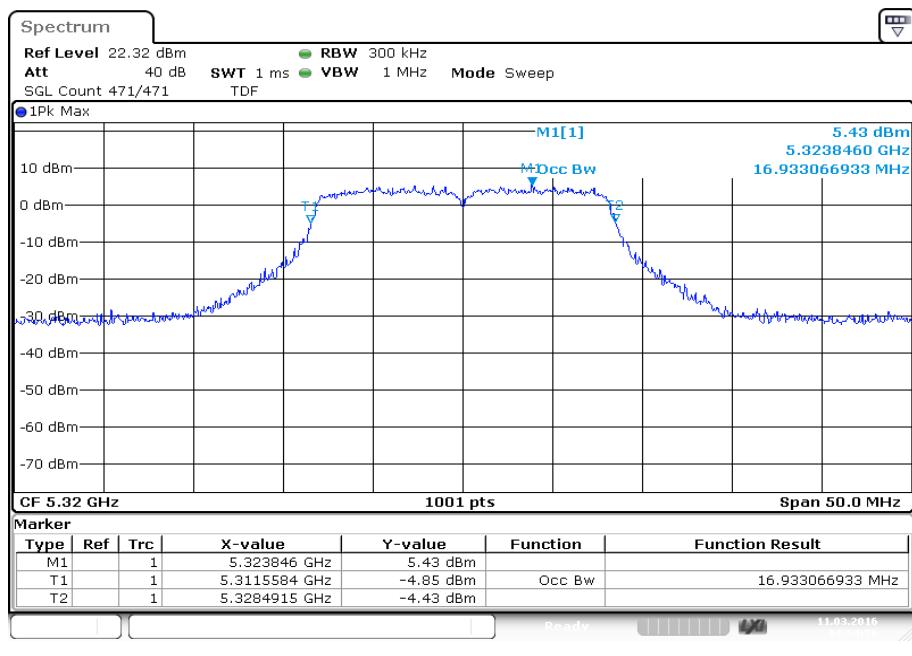
**Plots:** OFDM / a – mode, antenna port 3

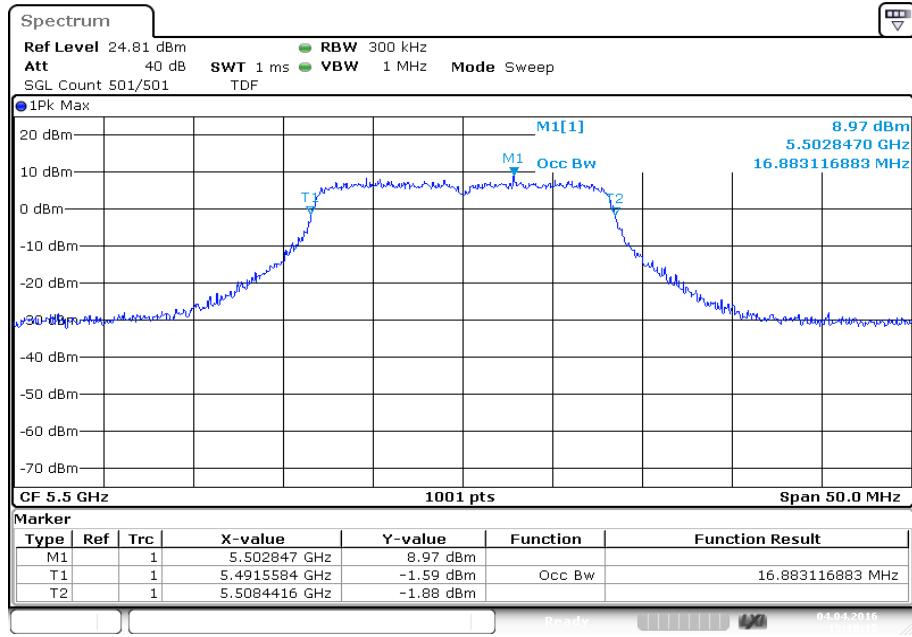
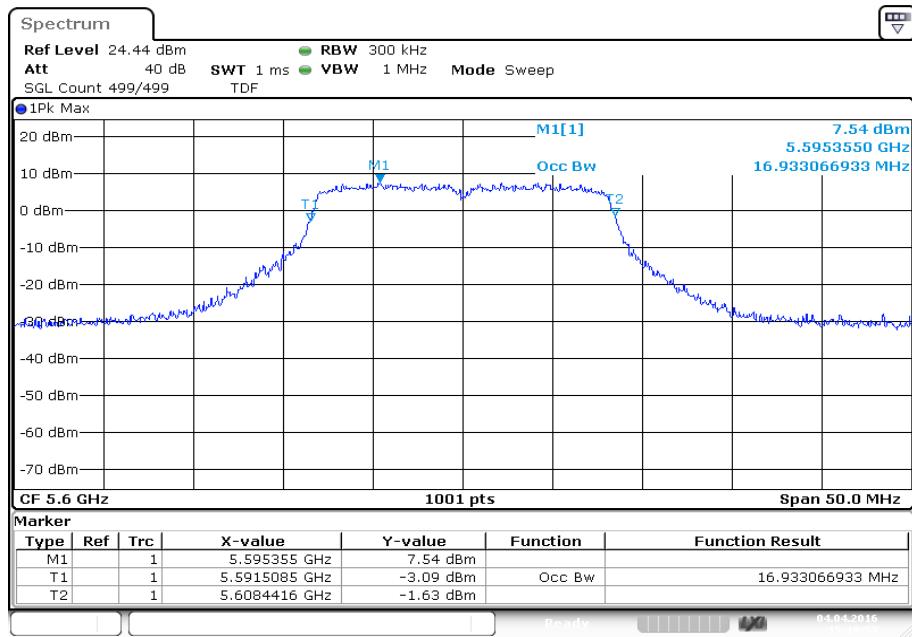
**Plot 1:** 5180 MHz

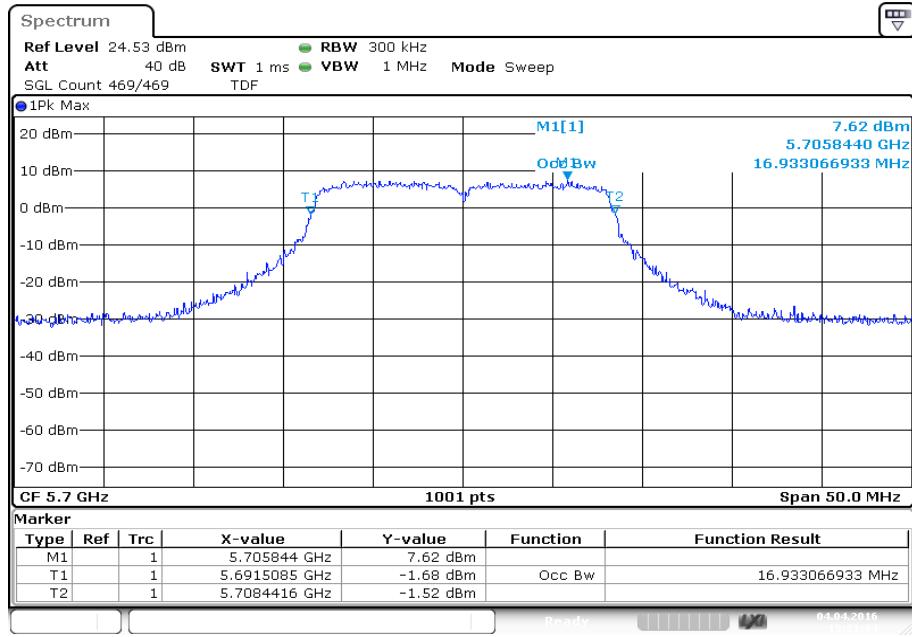
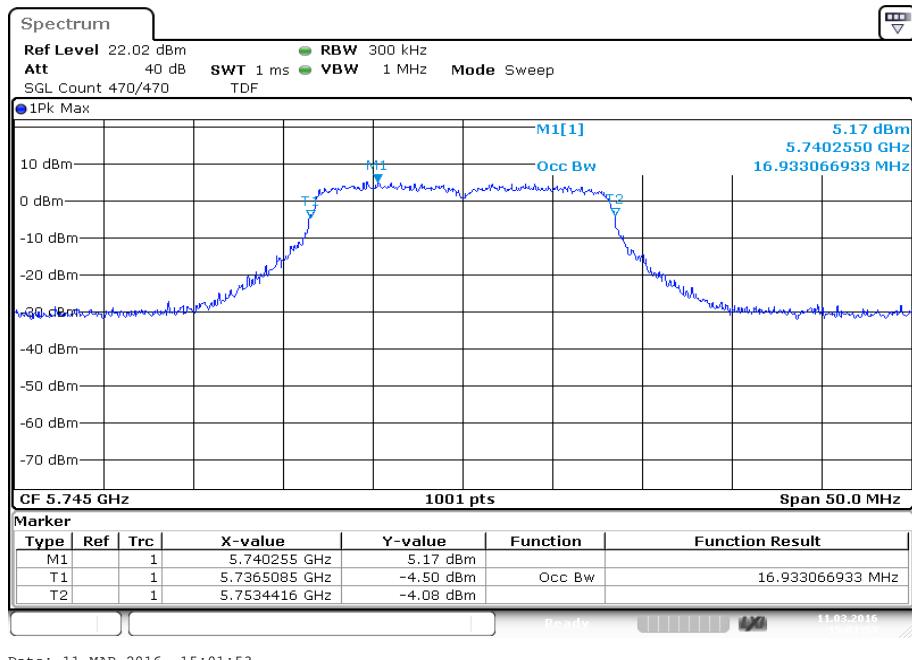


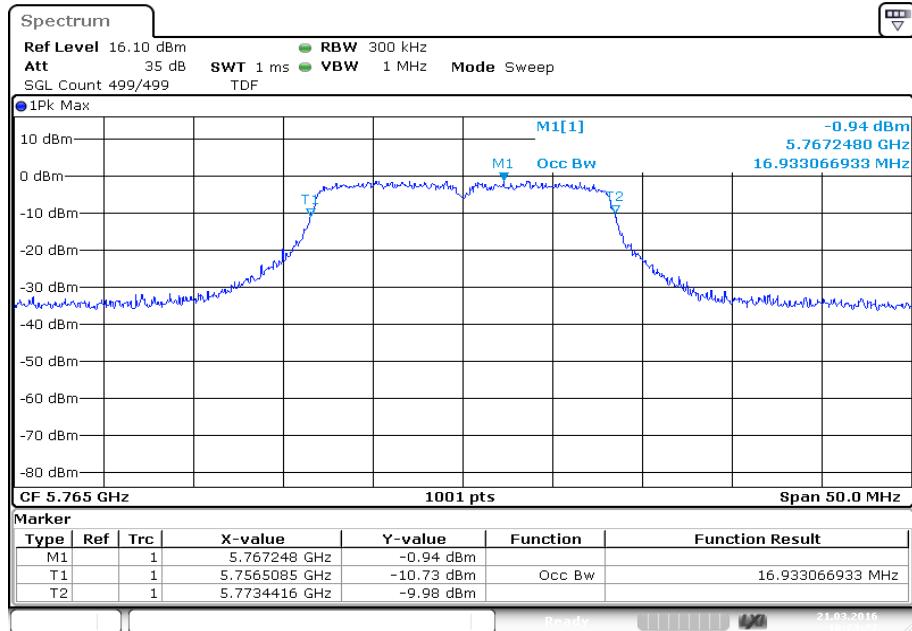
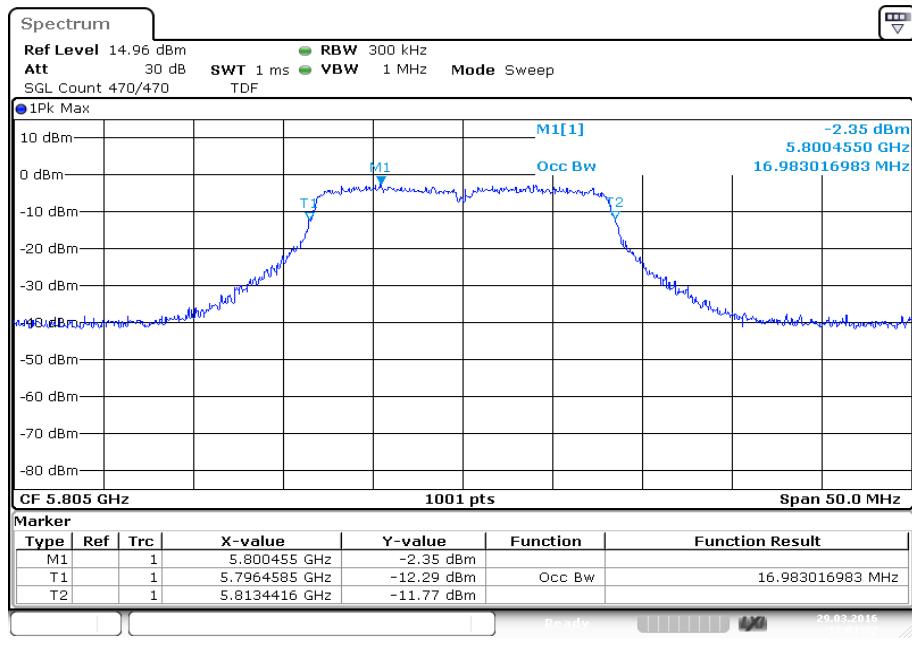
**Plot 2:** 5200 MHz

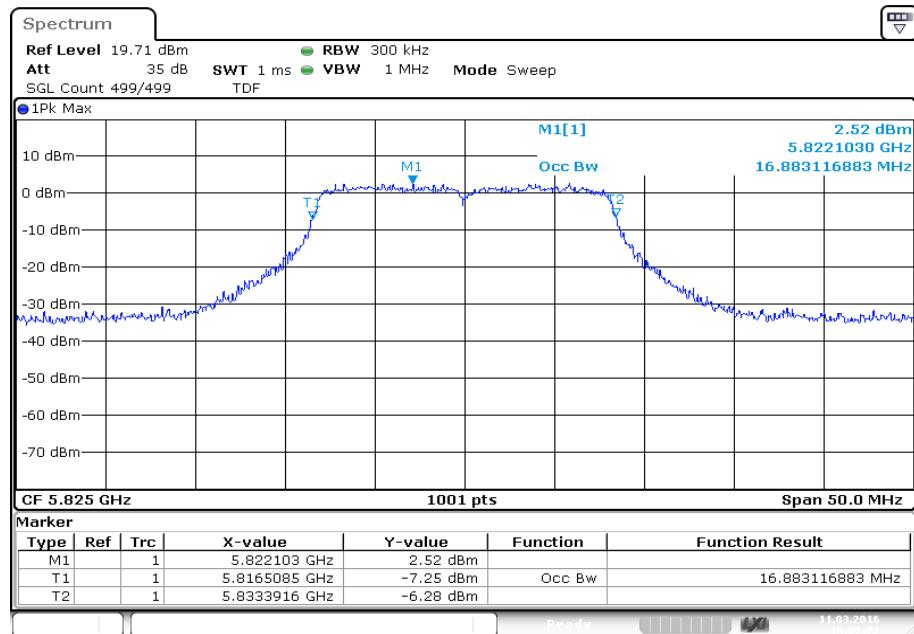


**Plot 3: 5300 MHz****Plot 4: 5320 MHz**

**Plot 5: 5500 MHz****Plot 6: 5600 MHz**

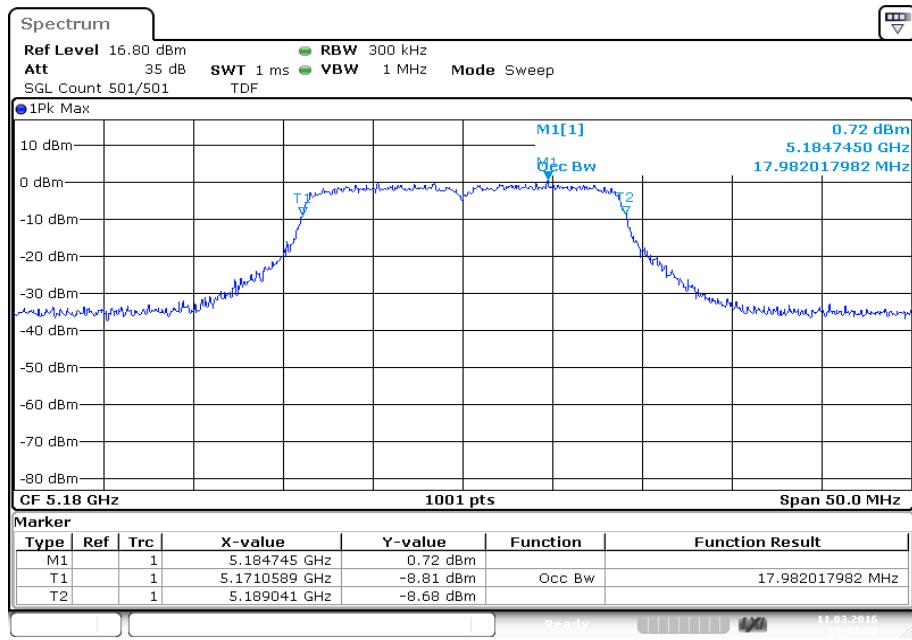
**Plot 7:** 5700 MHz**Plot 8:** 5745 MHz

**Plot 9: 5765 MHz****Plot 10: 5805 MHz**

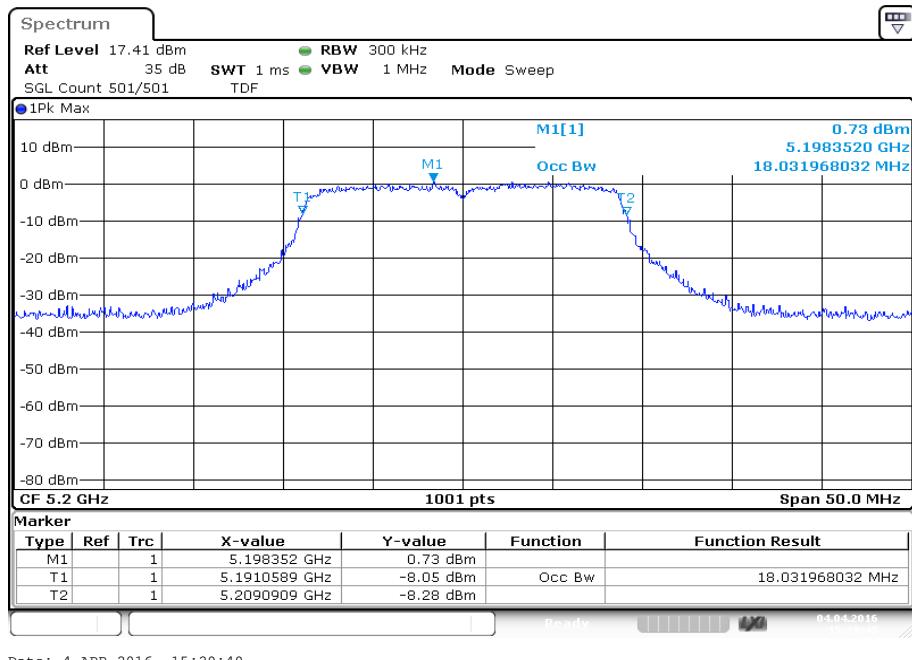
**Plot 11: 5825 MHz**

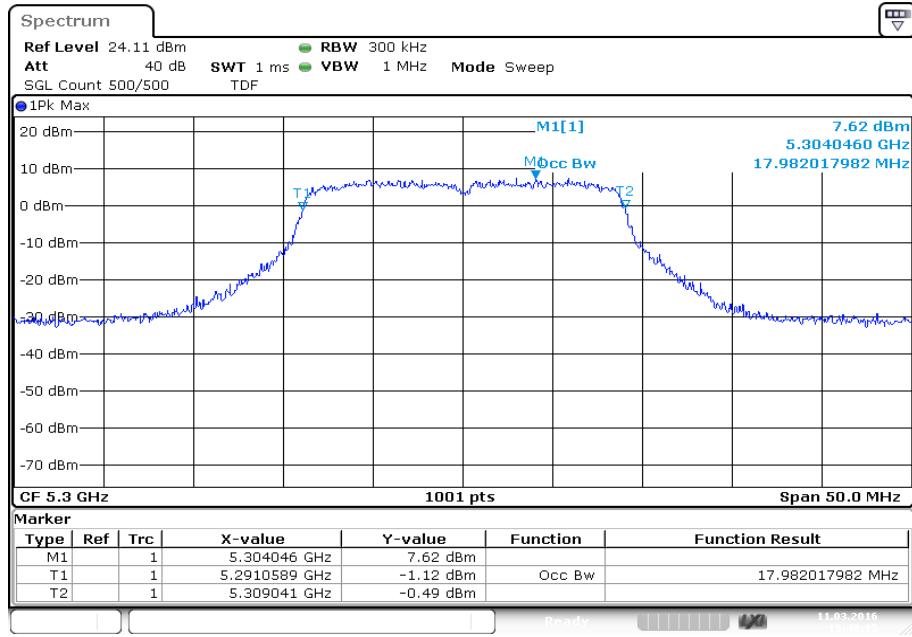
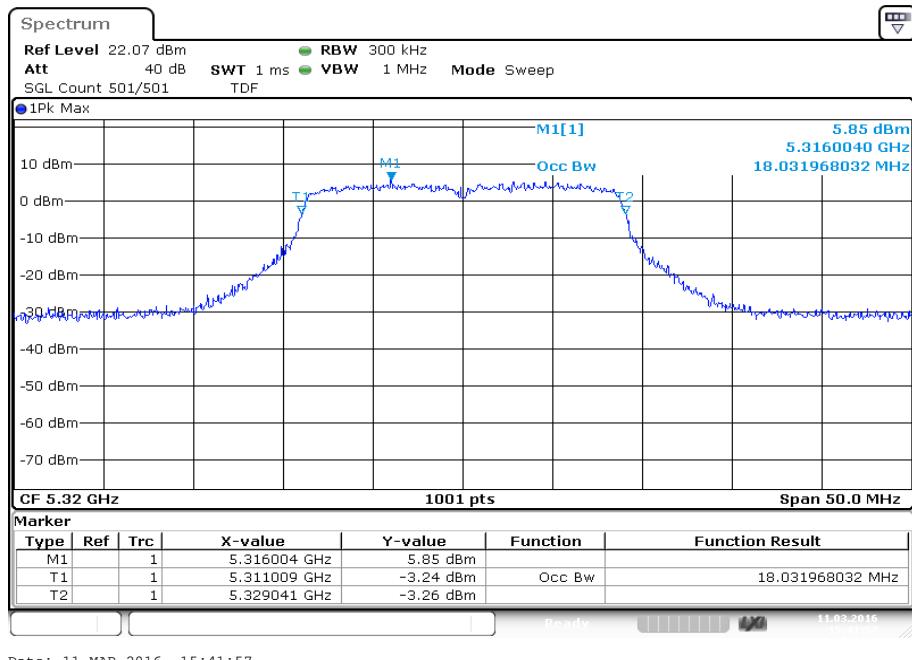
**Plots:** OFDM / n HT20 – mode, antenna port 3

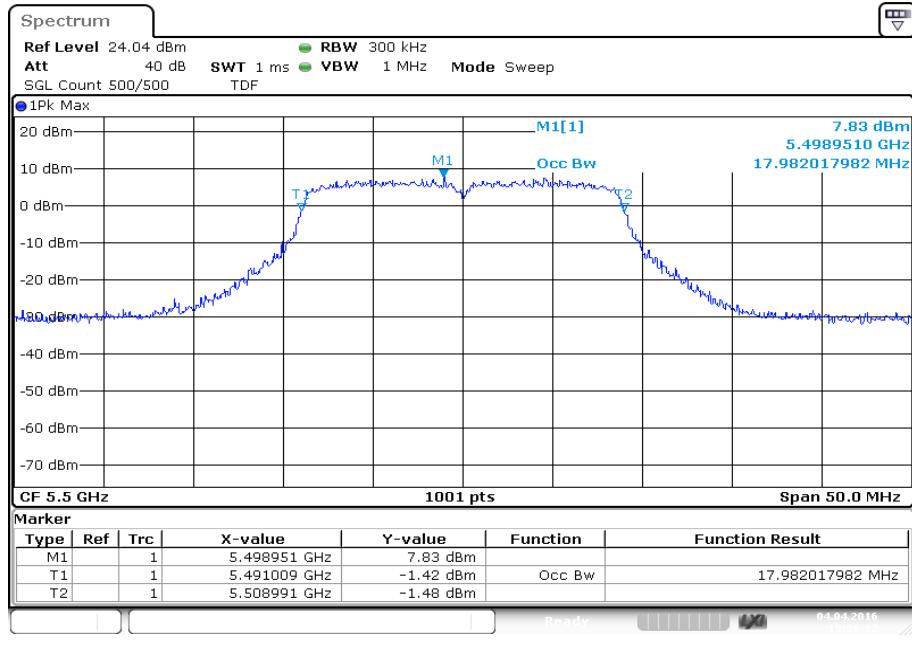
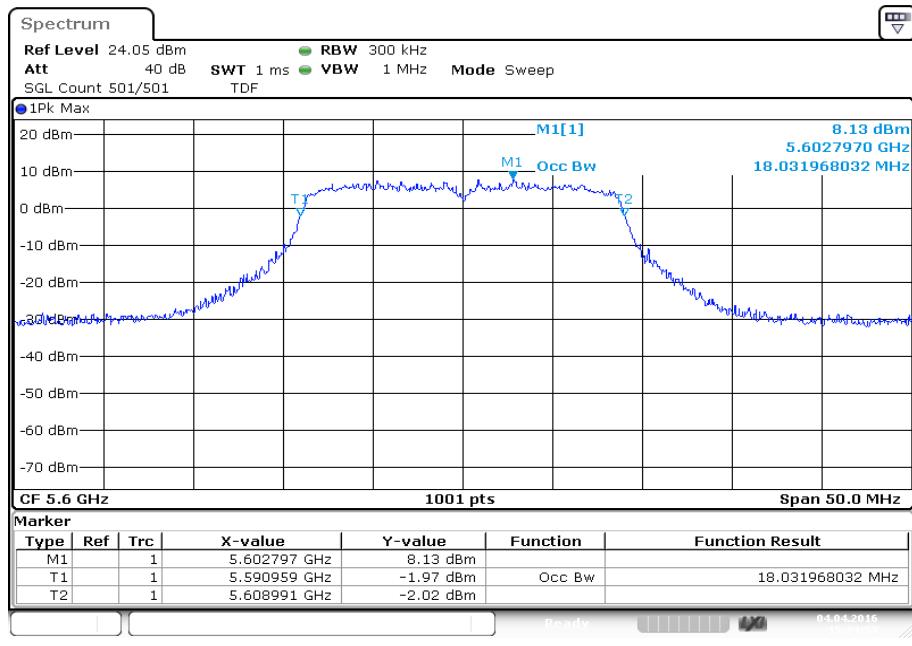
**Plot 1:** 5180 MHz

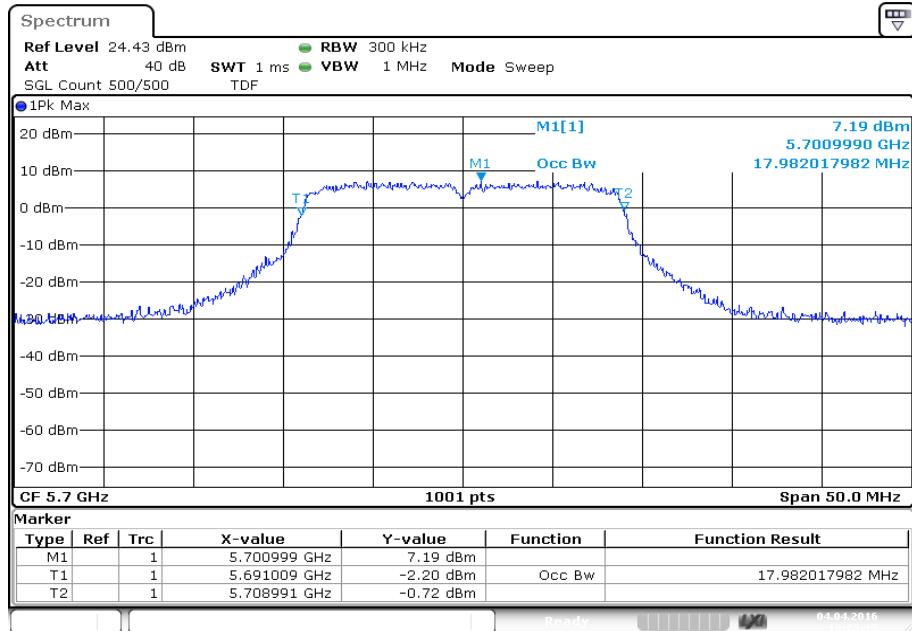
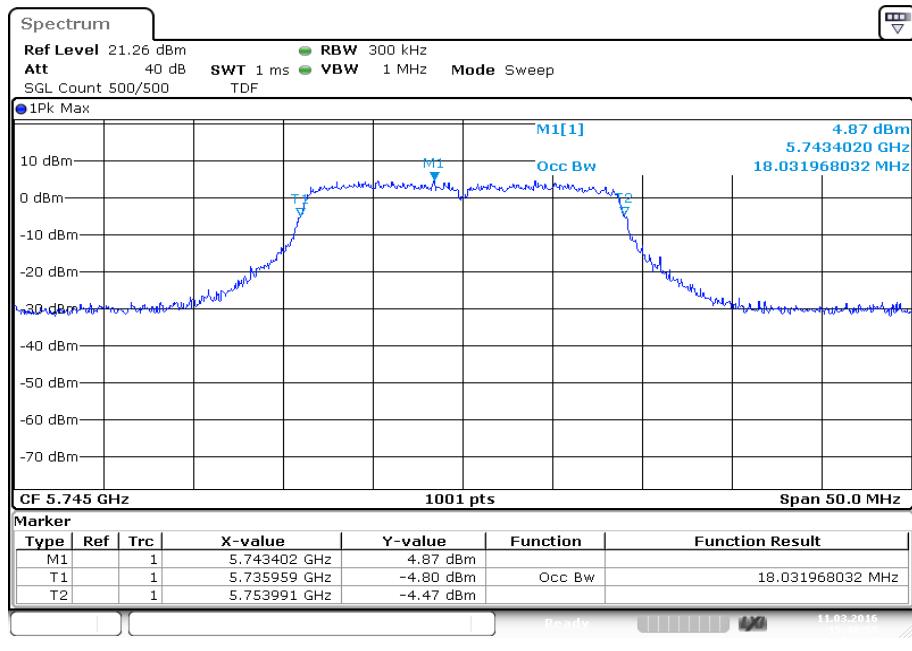


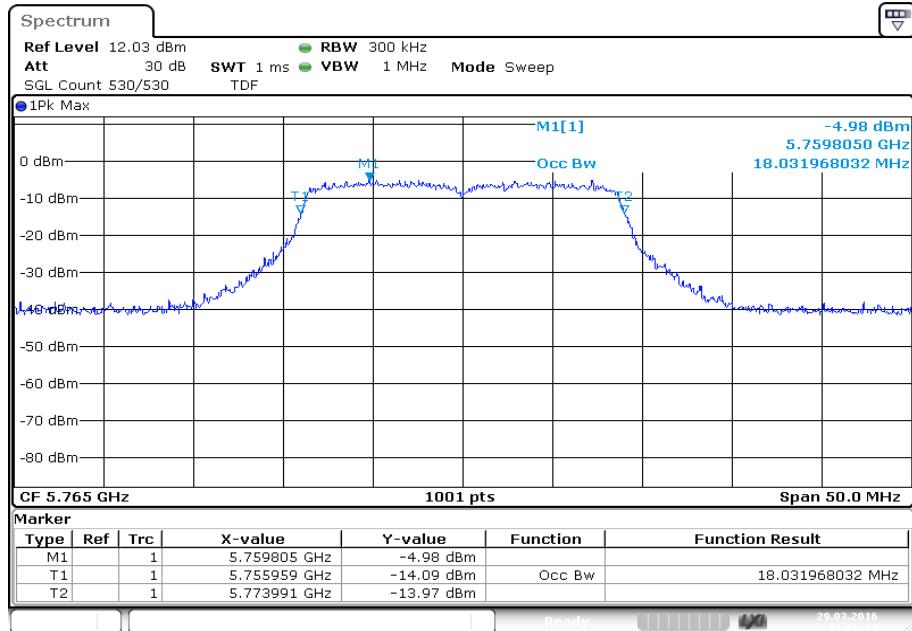
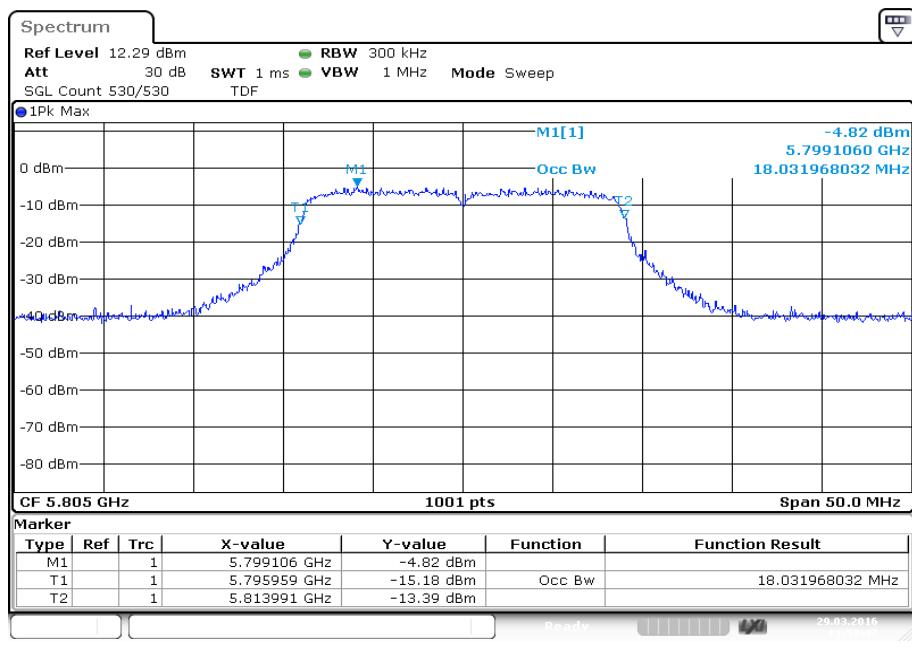
**Plot 2:** 5200 MHz

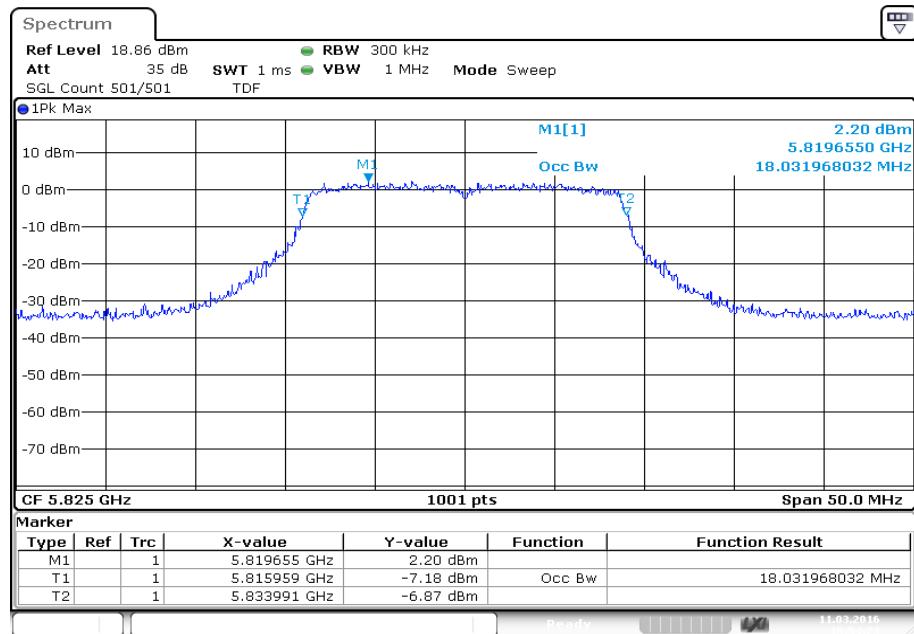


**Plot 3: 5300 MHz****Plot 4: 5320 MHz**

**Plot 5: 5500 MHz****Plot 6: 5600 MHz**

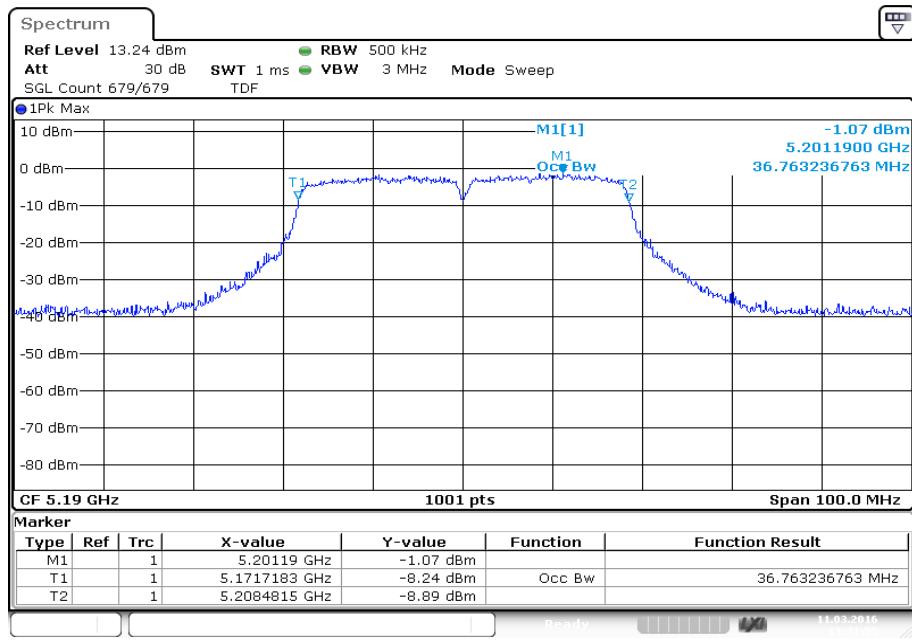
**Plot 7:** 5700 MHz**Plot 8:** 5745 MHz

**Plot 9: 5765 MHz**

**Plot 10: 5805 MHz**


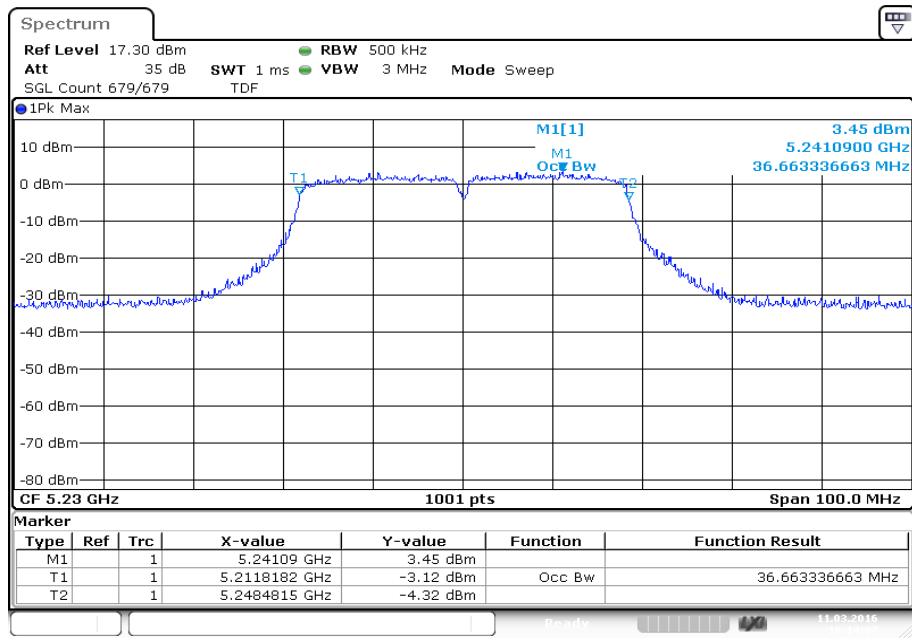
**Plot 11: 5825 MHz**

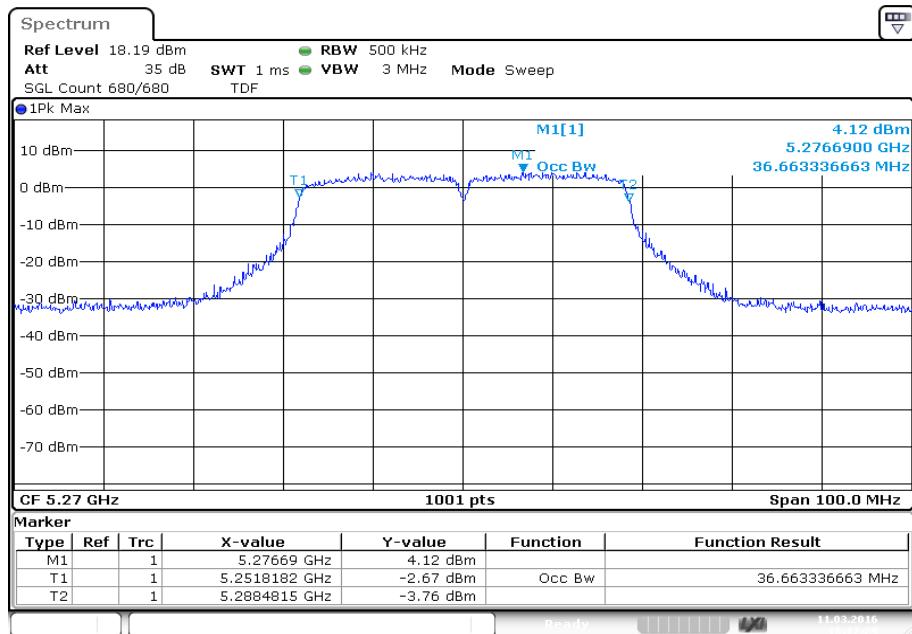
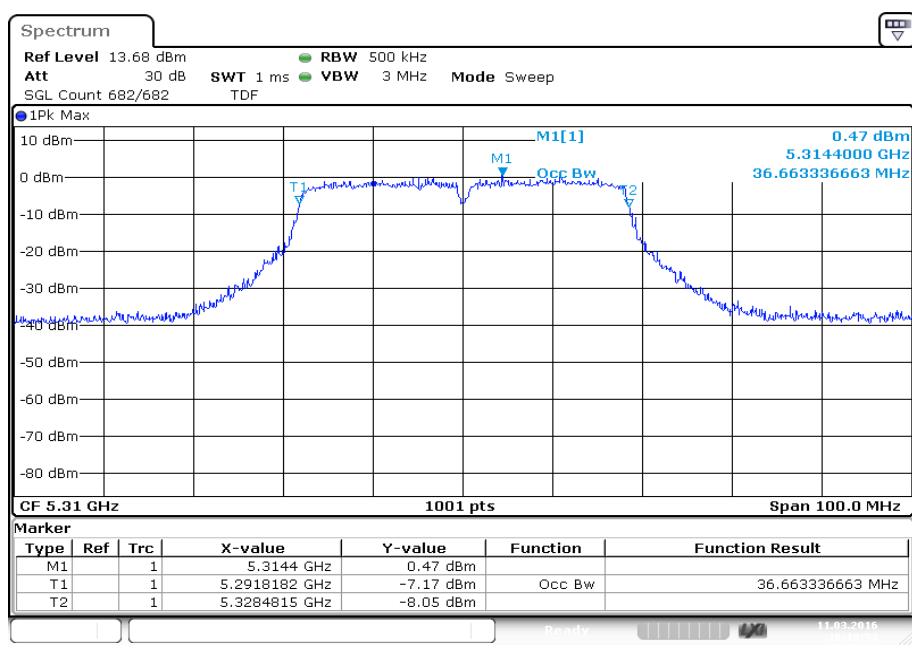
**Plots:** OFDM / n HT40 – mode, antenna port 3

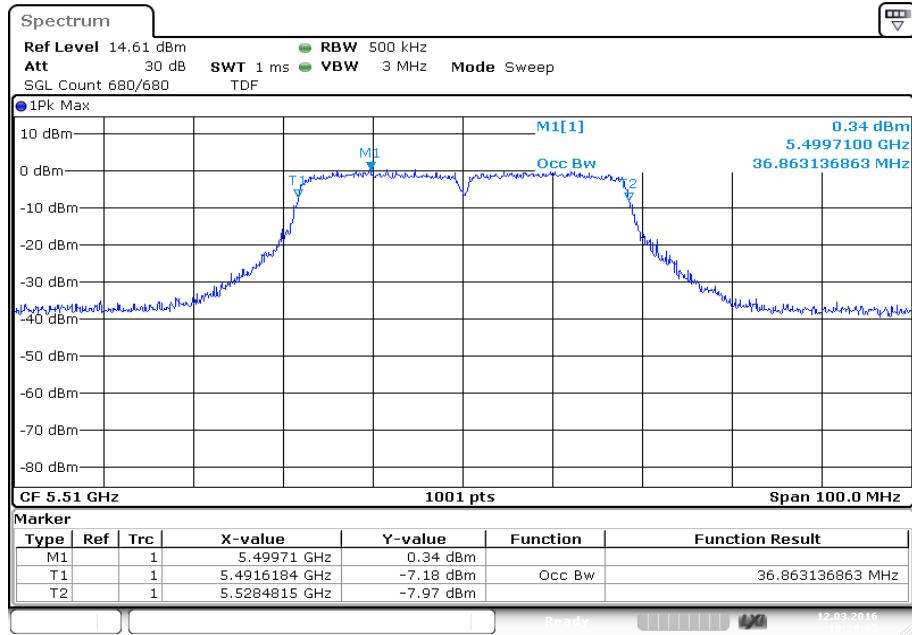
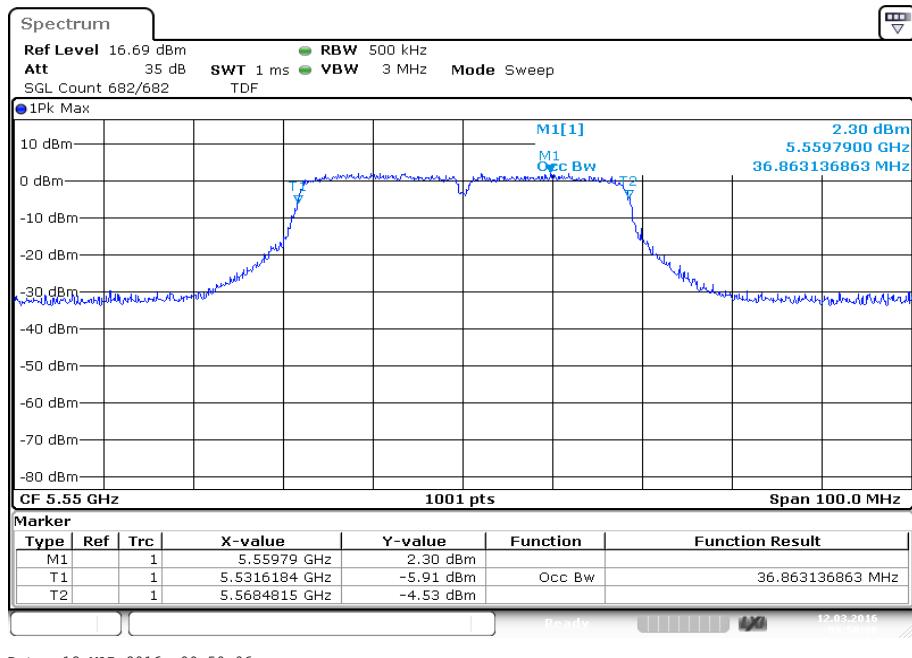
**Plot 1:** 5190 MHz

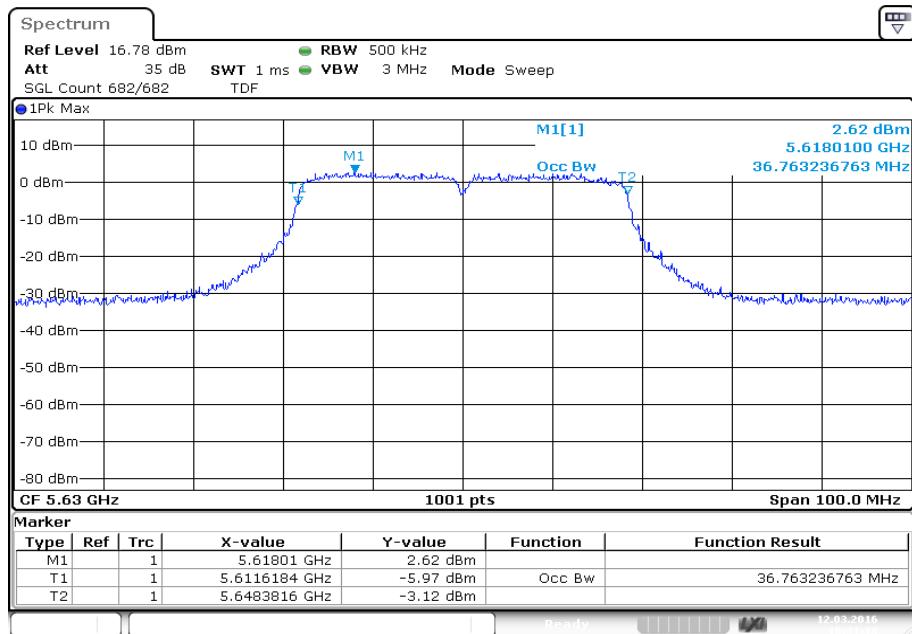
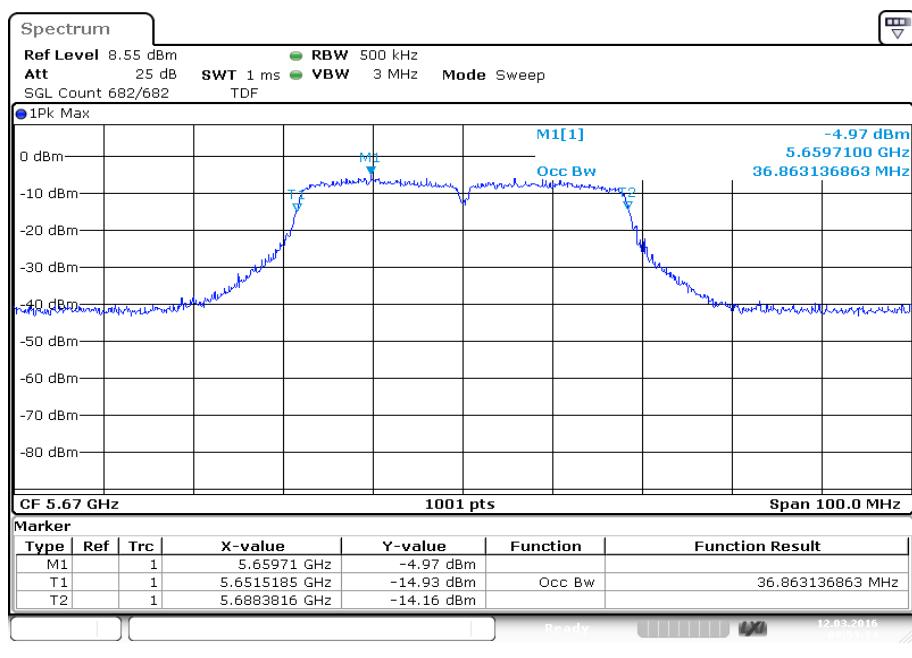


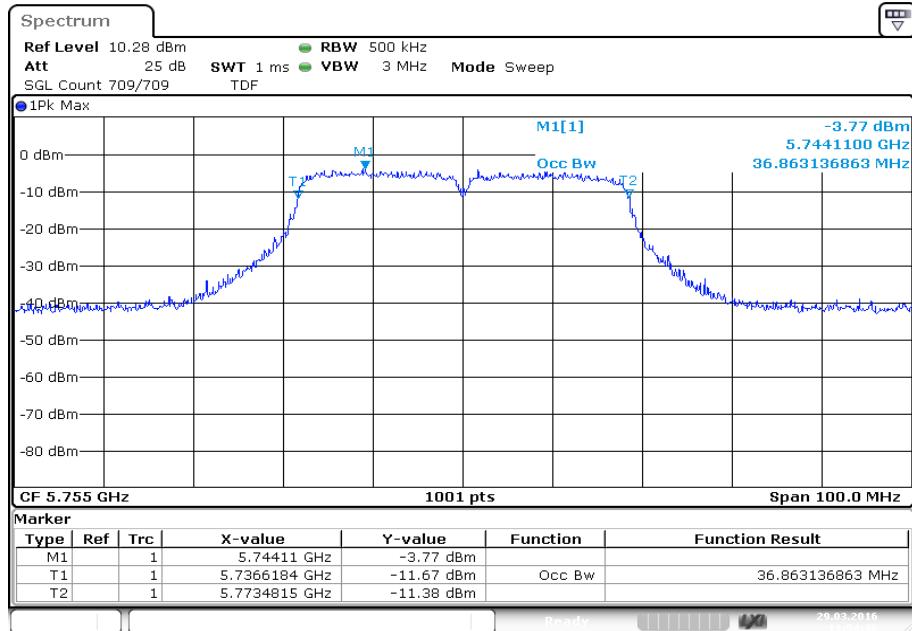
**Plot 2:** 5230 MHz



**Plot 3: 5270 MHz****Plot 4: 5310 MHz**

**Plot 5: 5510 MHz****Plot 6: 5550 MHz**

**Plot 7: 5630 MHz****Plot 8: 5670 MHz**

**Plot 9: 5755 MHz****Plot 10: 5795 MHz**