

1.1 Maximum output power

1.1.1 Maximum output power conducted – for FCC requirements

Description:

Measurement of the maximum output power conducted

Measurement:

Measurement parameter	
According to: KDB789033 D02, E.2.e.	
Detector:	RMS
Sweep time:	$\geq 10 \cdot (\text{swp points}) \cdot (\text{total on/off time})$
Resolution bandwidth:	1 MHz
Video bandwidth:	3 MHz
Span:	> EBW
Trace mode:	Max hold
Analyzer function	Band power / channel power Interval > 26 dB EBW
Used test setup:	See chapter 7.4 – A
Measurement uncertainty:	See chapter 9

Limits:

Radiated output power	Conducted output power for mobile equipment
Conducted power + 6 dBi antenna gain	250mW 5.150-5.250 GHz The lesser one of 250mW or 11 dBm + 10 log Bandwidth 5.250-5.350 GHz 250mW or 11 dBm + 10 log Bandwidth 5.470-5.725 GHz (where Bandwidth is the 26dB Bandwidth [MHz]) 1W 5.725-5.85 GHz

Result: OFDM / a – mode, UFL port

OFDM / a – mode Channel	Maximum output power conducted [dBm]			
	5180 MHz	5240 MHz	5260 MHz	5320 MHz
	9.9	11.4	11.1	5.5
Channel	5500 MHz	5600 MHz	5700 MHz	5745 MHz
	8.4	8.2	9.0	6.8
Channel	5785 MHz	5825 MHz		
	6.5	9.9		

Result: OFDM / n/ac HT20 – mode, UFL port

OFDM / n/ac HT20 – mode Channel	Maximum output power conducted [dBm]			
	5180 MHz	5240 MHz	5260 MHz	5320 MHz
	9.6	11.1	10.8	5.2
Channel	5500 MHz	5600 MHz	5700 MHz	5745 MHz
	8.2	7.9	8.7	6.5
Channel	5785 MHz	5825 MHz		
	6.3	9.7		

Result: OFDM / n/ac HT40 – mode, UFL port

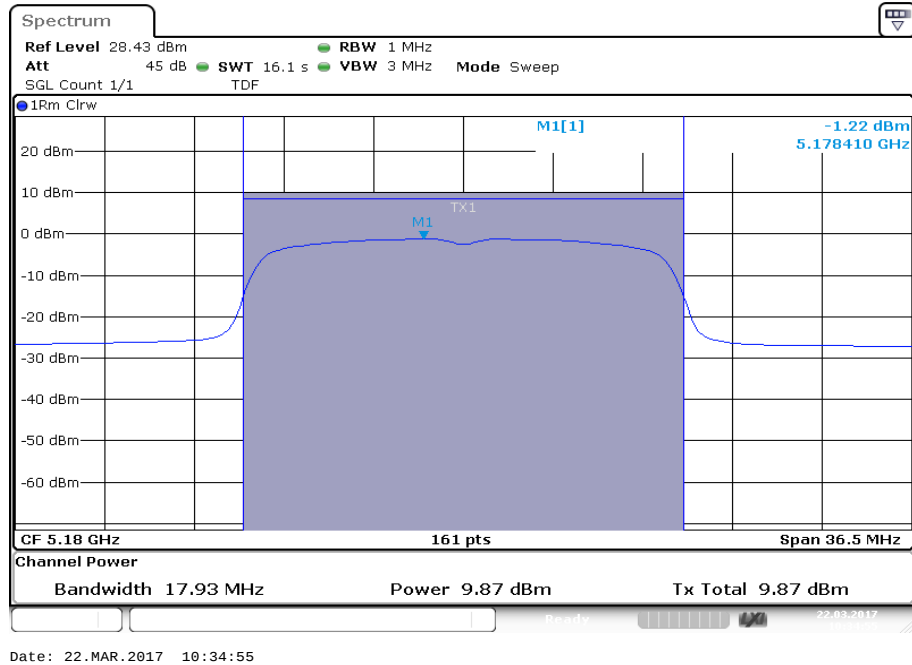
OFDM / n/ac HT40 – mode Channel	Maximum output power conducted [dBm]			
	5190 MHz	5230 MHz	5270 MHz	5310 MHz
	6.9	10.6	10.4	5.6
Channel	5510 MHz	5590 MHz	5670 MHz	5755 MHz
	10.6	10.6	10.7	10.0
Channel	5795 MHz			
	9.3			

Result: OFDM / ac HT80 – mode, UFL port

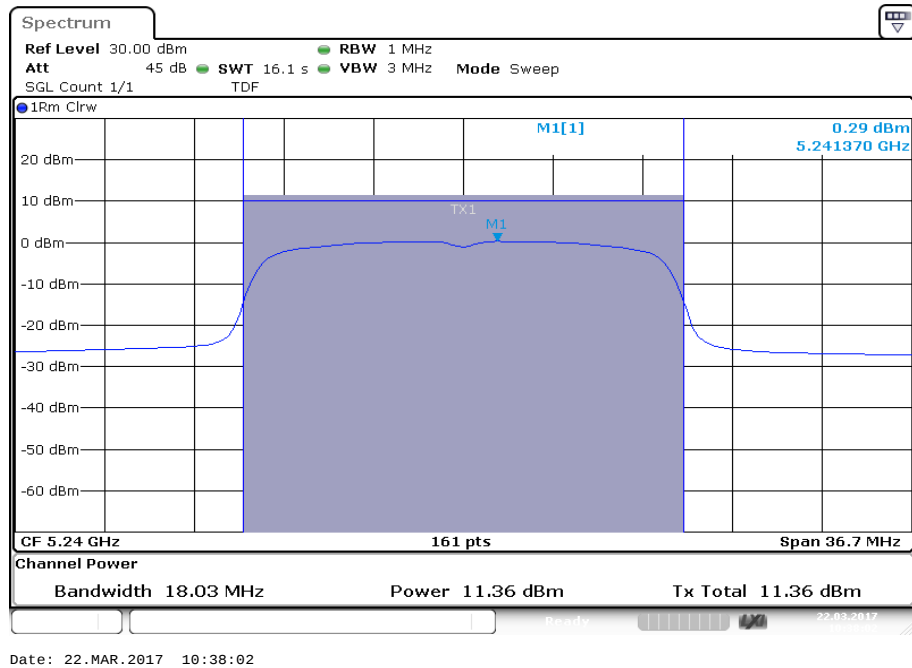
OFDM / ac HT80 – mode Channel	Maximum output power conducted [dBm]			
	5210 MHz	5290 MHz	5530 MHz	5610 MHz
	2.3	1.8	2.2	9.8
Channel	5775 MHz			
	9.0			

Plots: OFDM / a – mode, UFL port

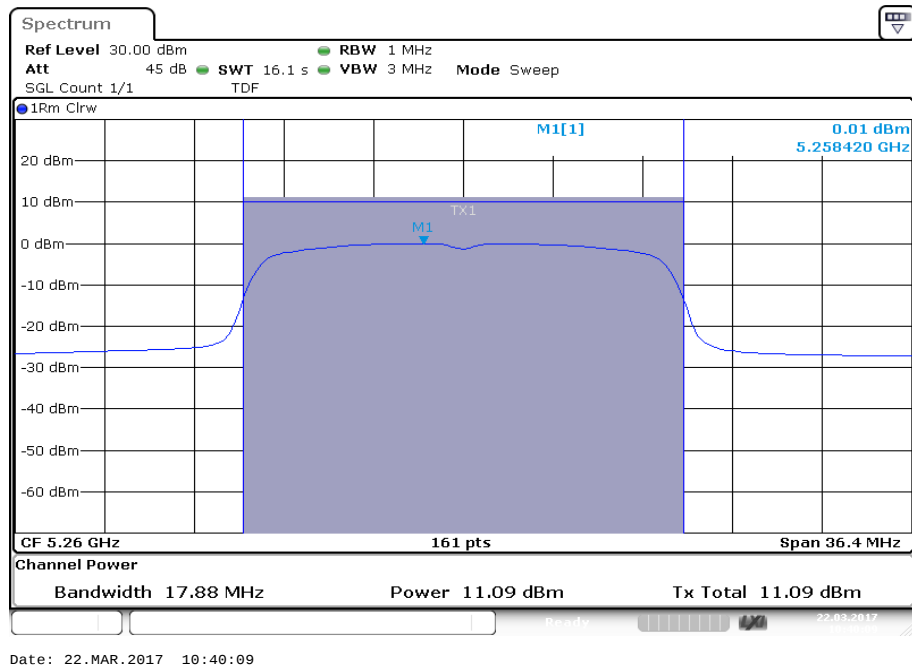
Plot 1: 5180 MHz



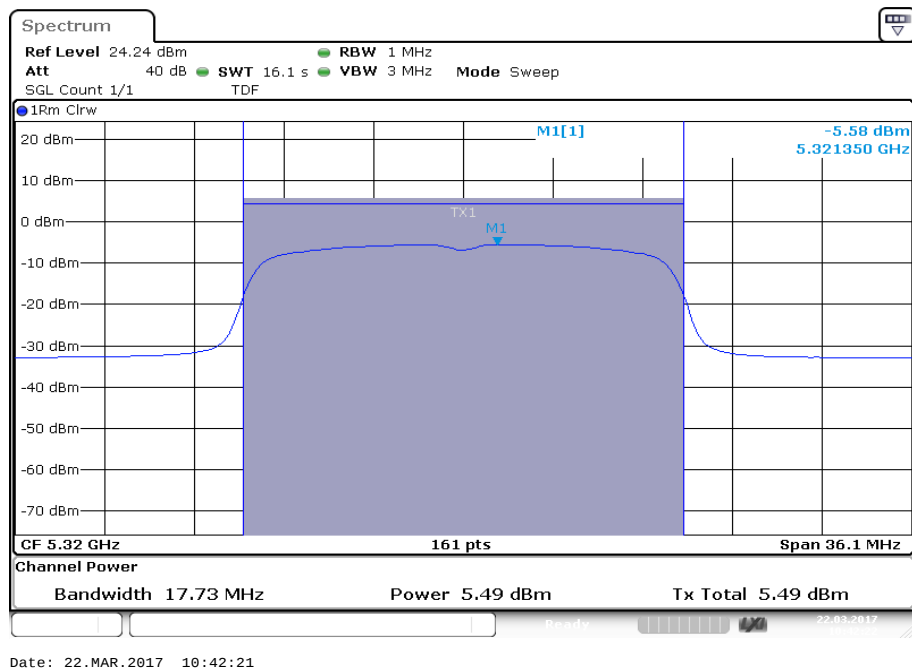
Plot 2: 5240 MHz



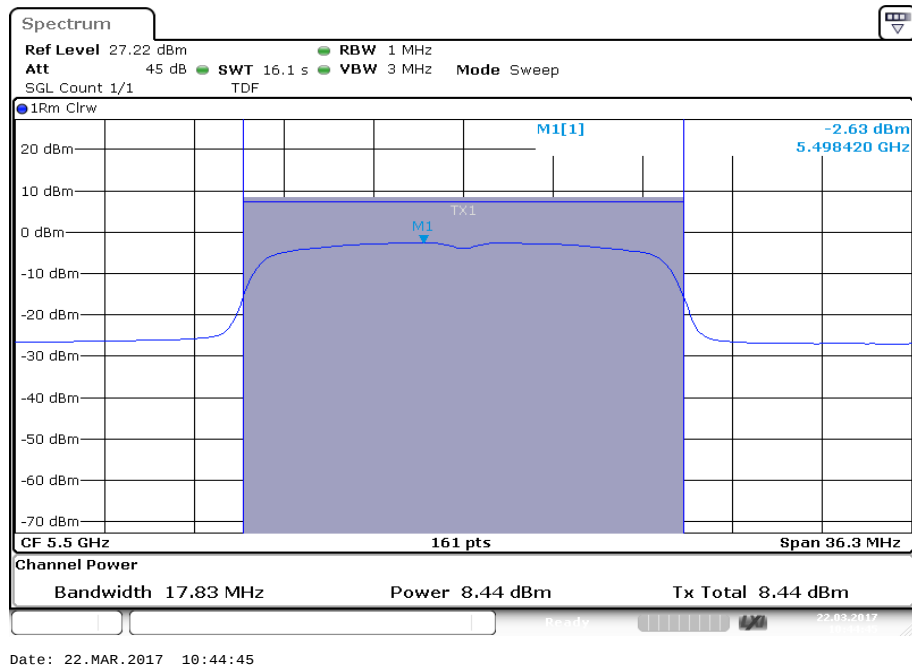
Plot 3: 5260 MHz



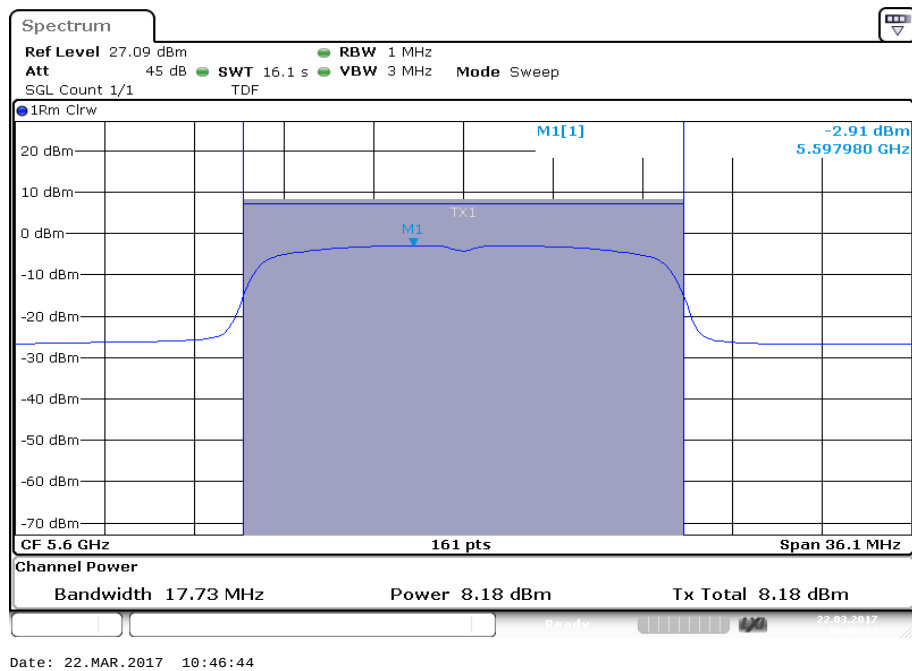
Plot 4: 5320 MHz



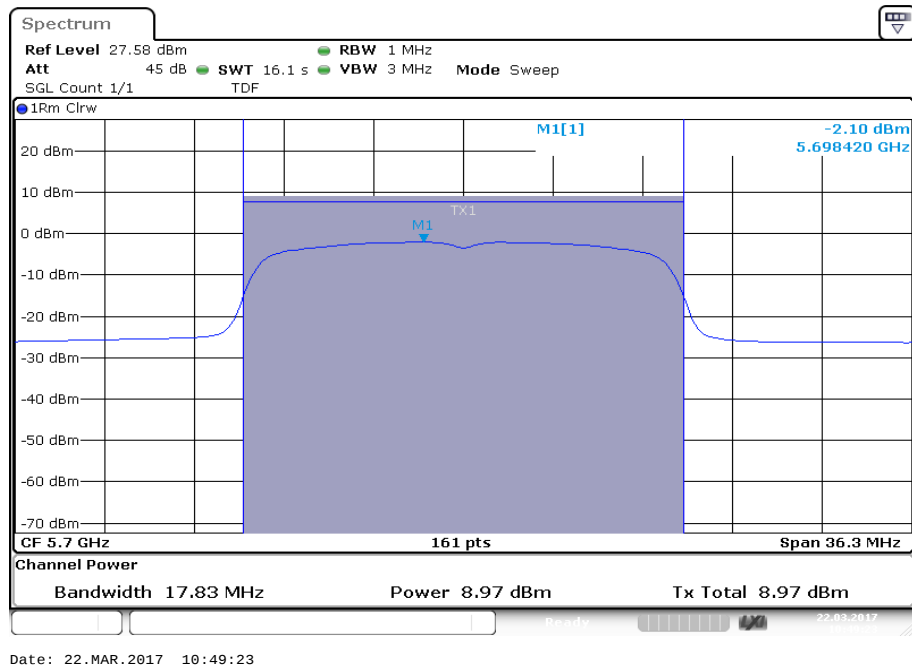
Plot 5: 5500 MHz



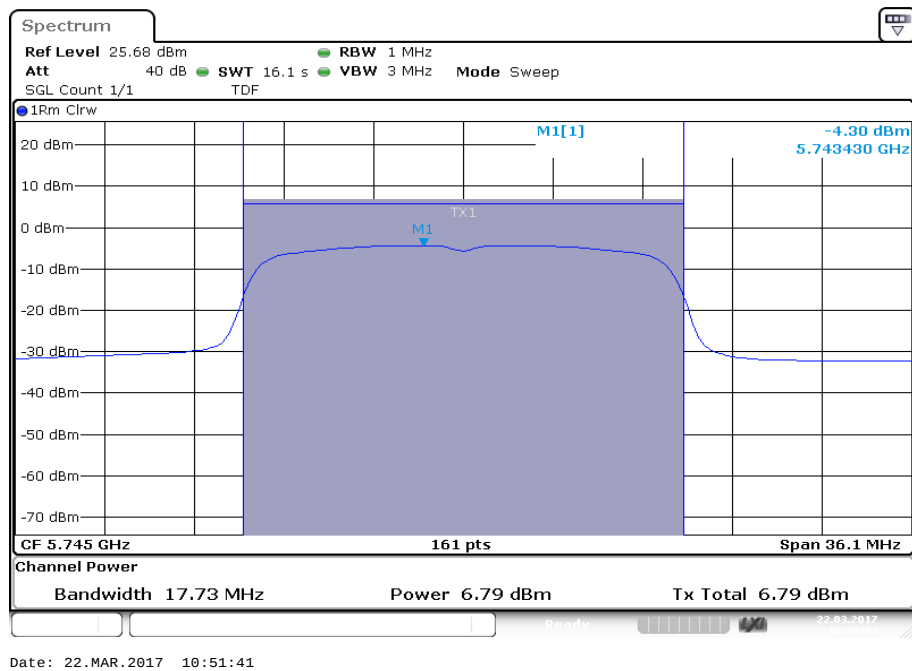
Plot 6: 5600 MHz



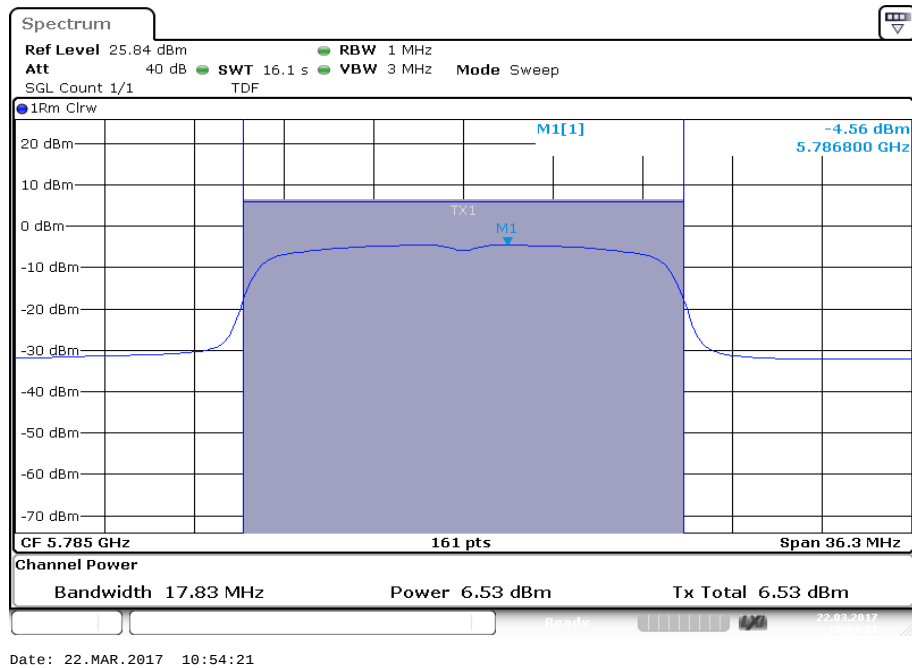
Plot 7: 5700 MHz



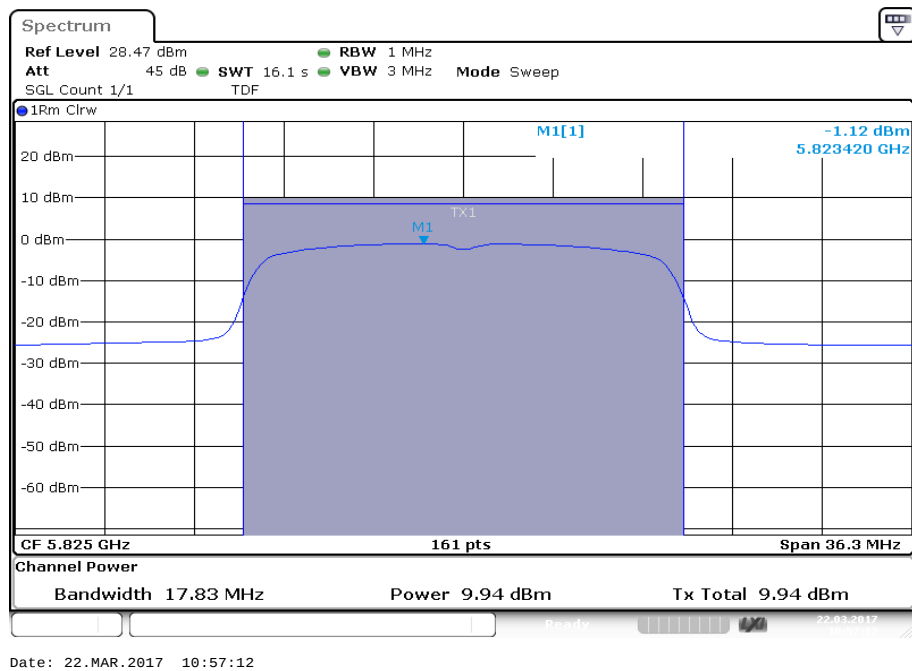
Plot 8: 5745 MHz



Plot 9: 5785 MHz

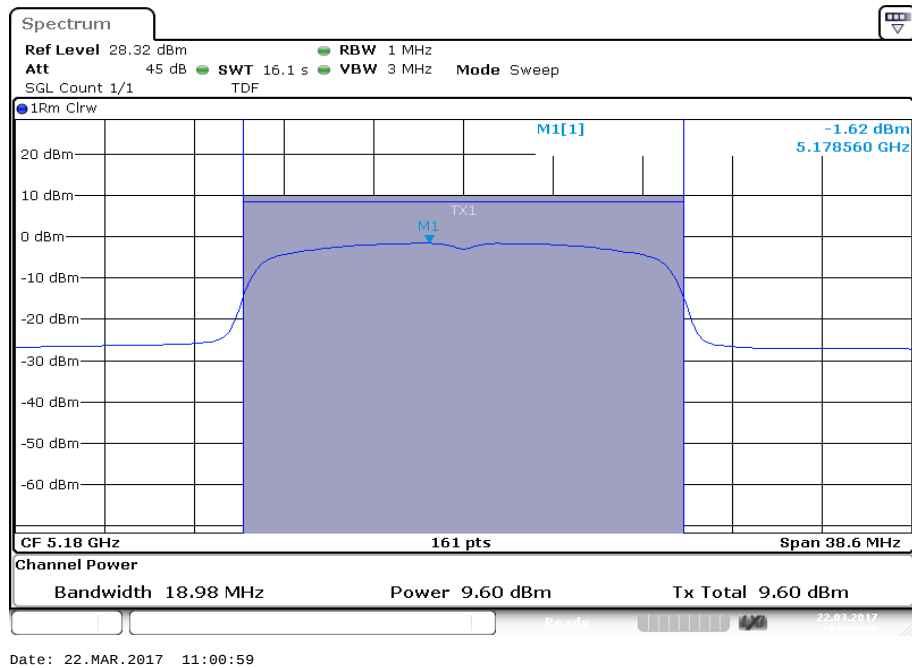


Plot 10: 5825 MHz

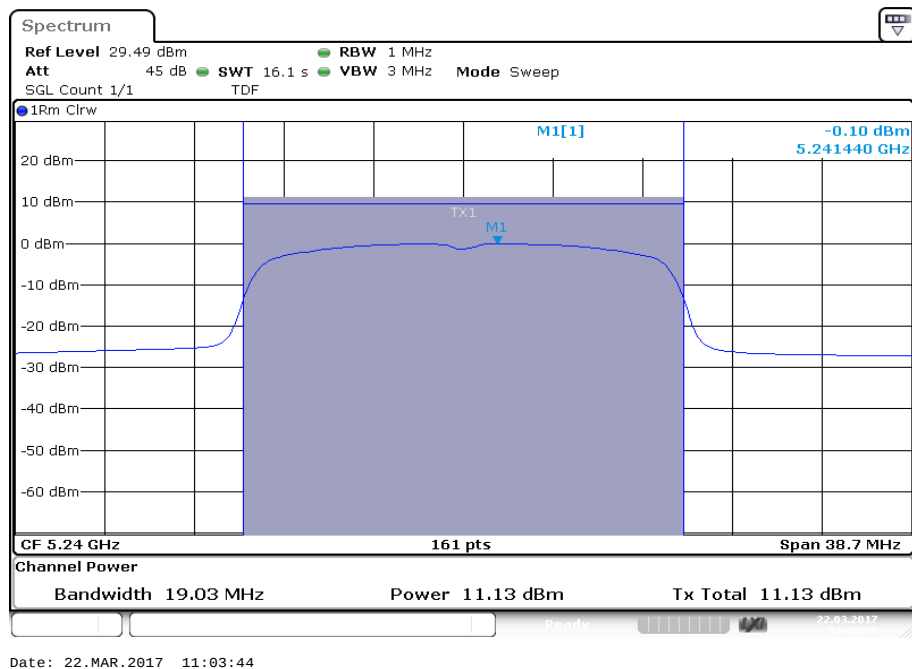


Plots: OFDM / n/ac HT20 – mode, UFL port

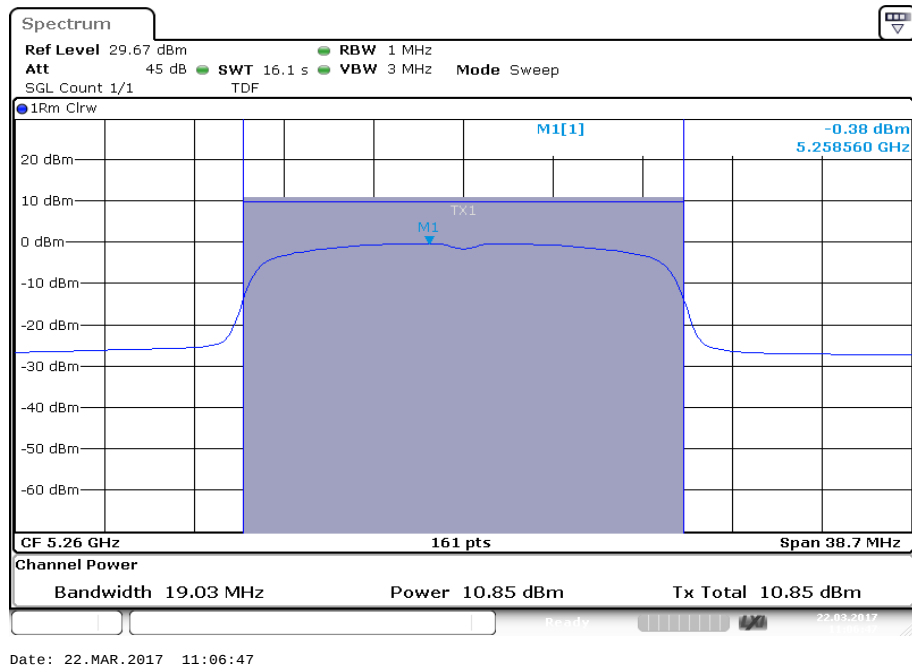
Plot 1: 5180 MHz



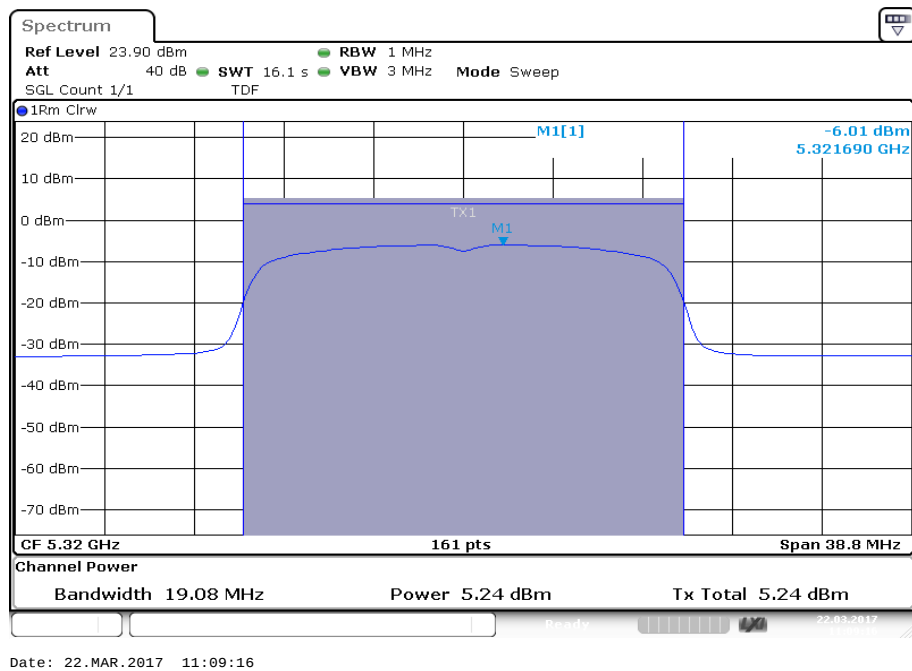
Plot 2: 5240 MHz



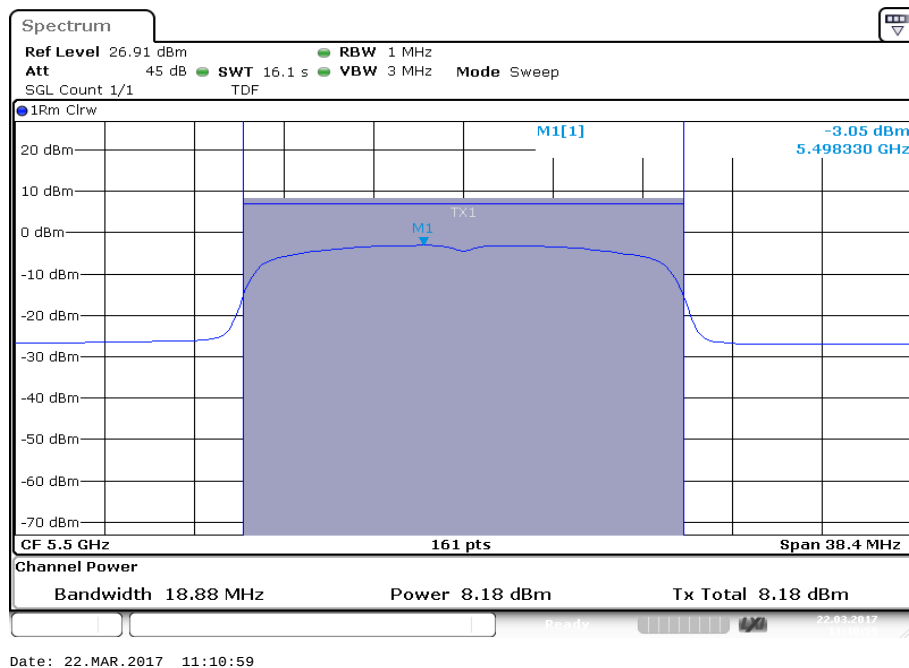
Plot 3: 5260 MHz



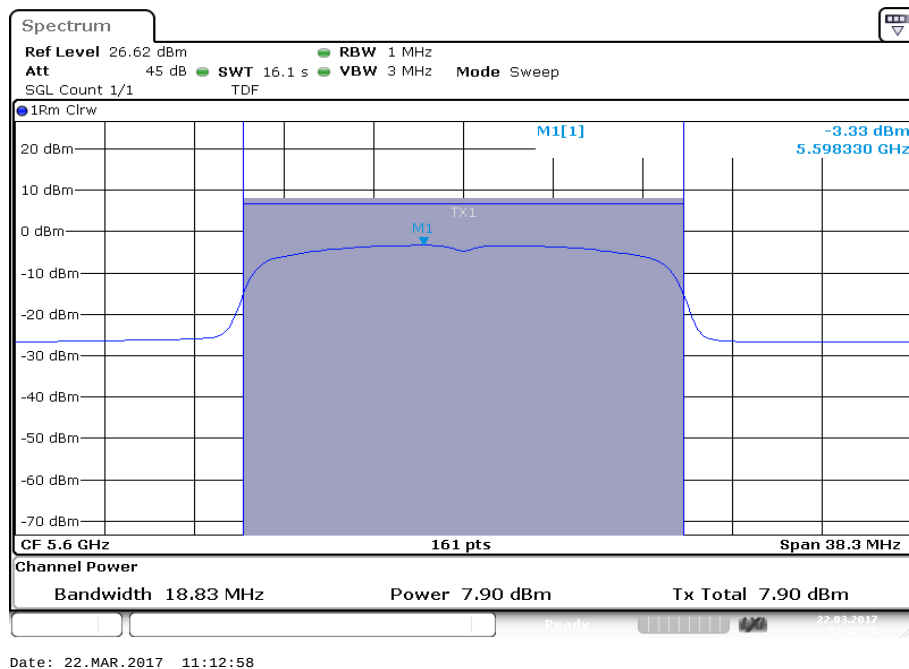
Plot 4: 5320 MHz



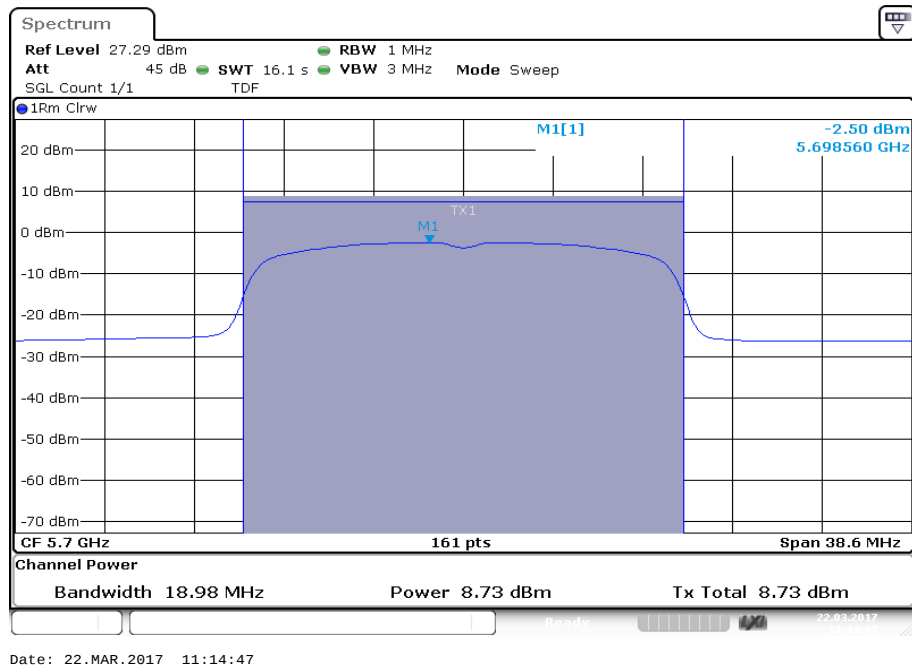
Plot 5: 5500 MHz



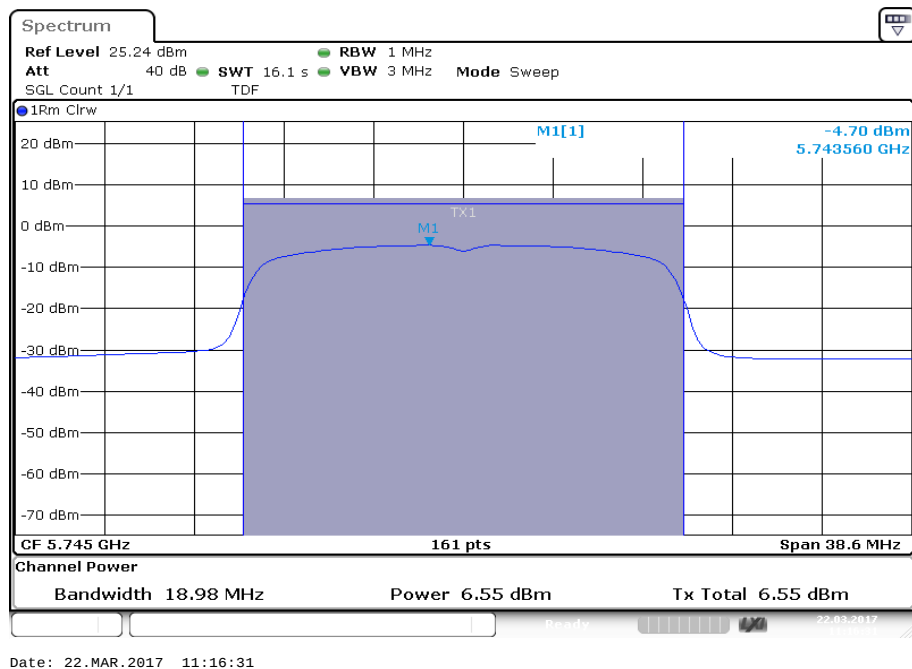
Plot 6: 5600 MHz



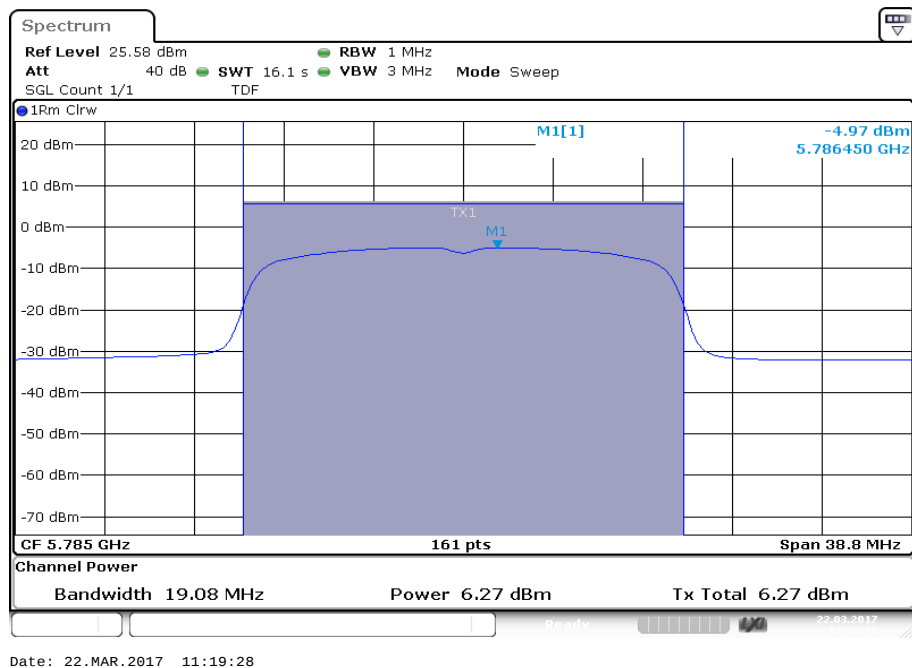
Plot 7: 5700 MHz



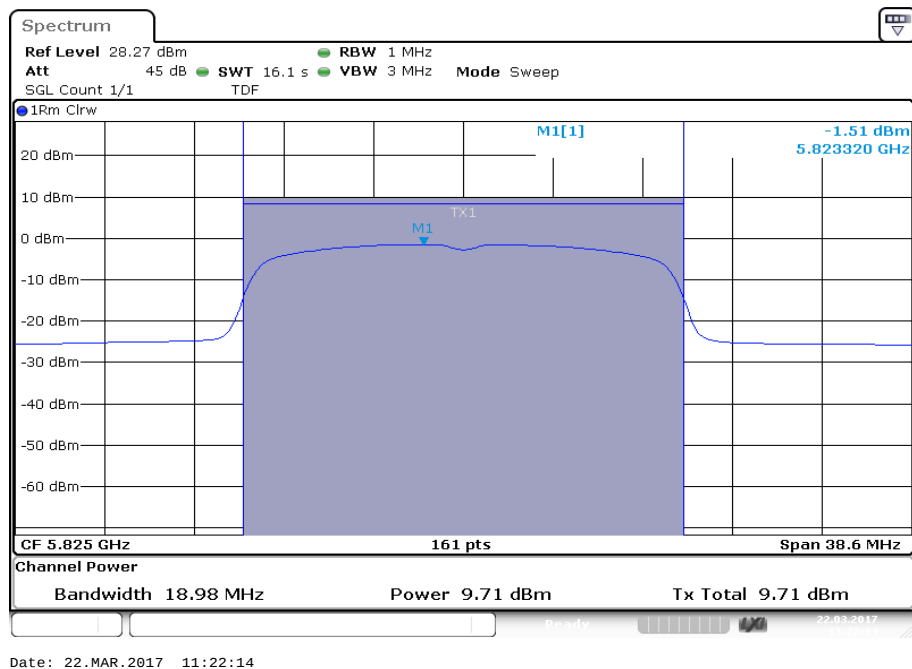
Plot 8: 5745 MHz



Plot 9: 5785 MHz

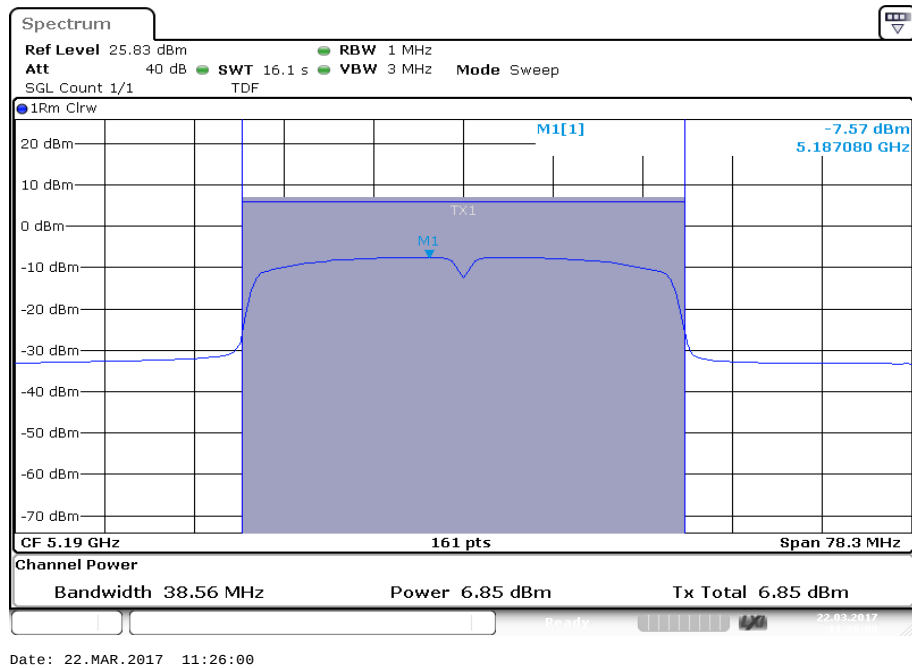


Plot 10: 5825 MHz

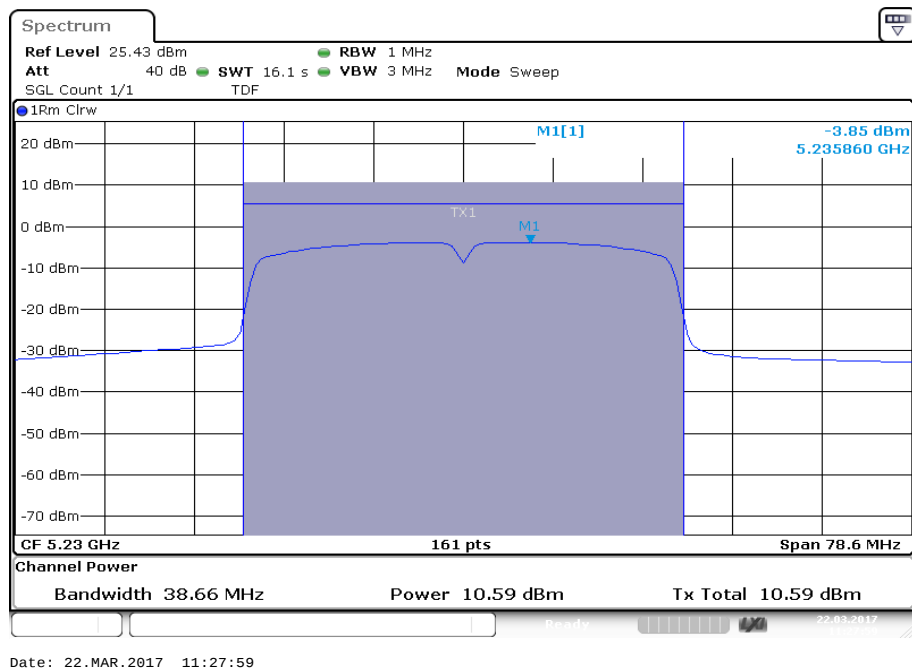


Plots: OFDM / n/ac HT40 – mode, UFL port

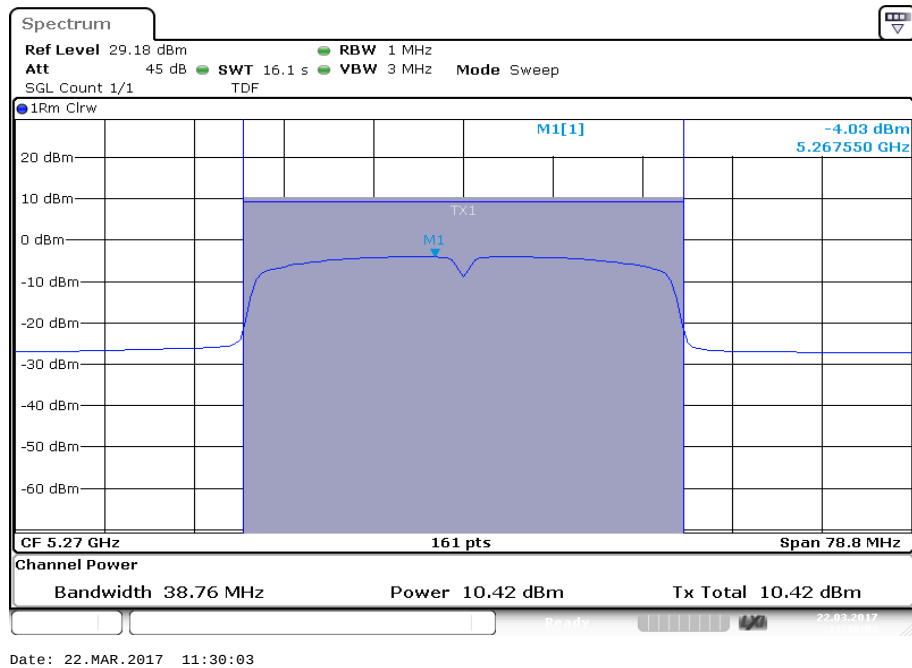
Plot 1: 5190 MHz



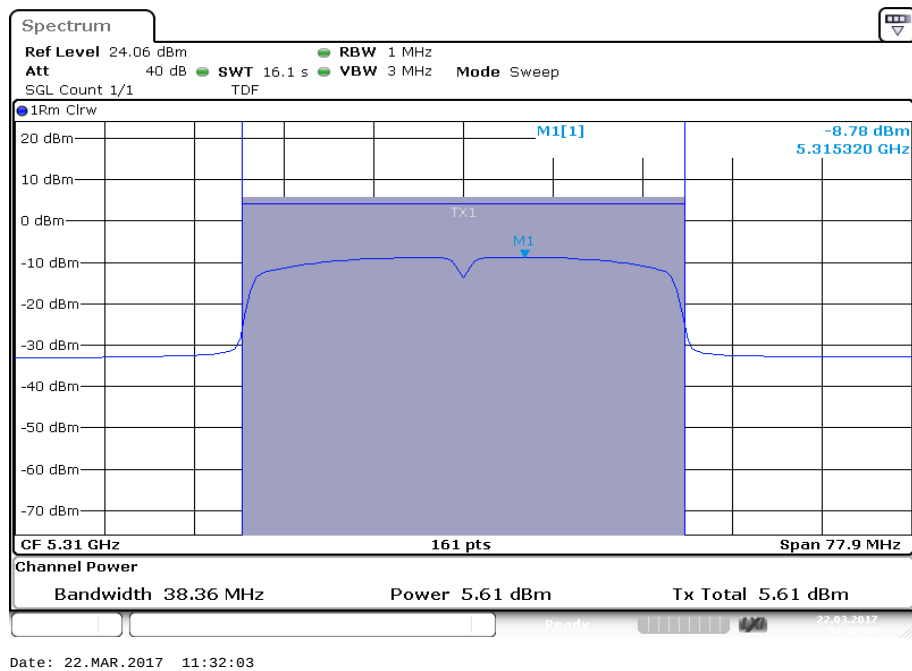
Plot 2: 5230 MHz



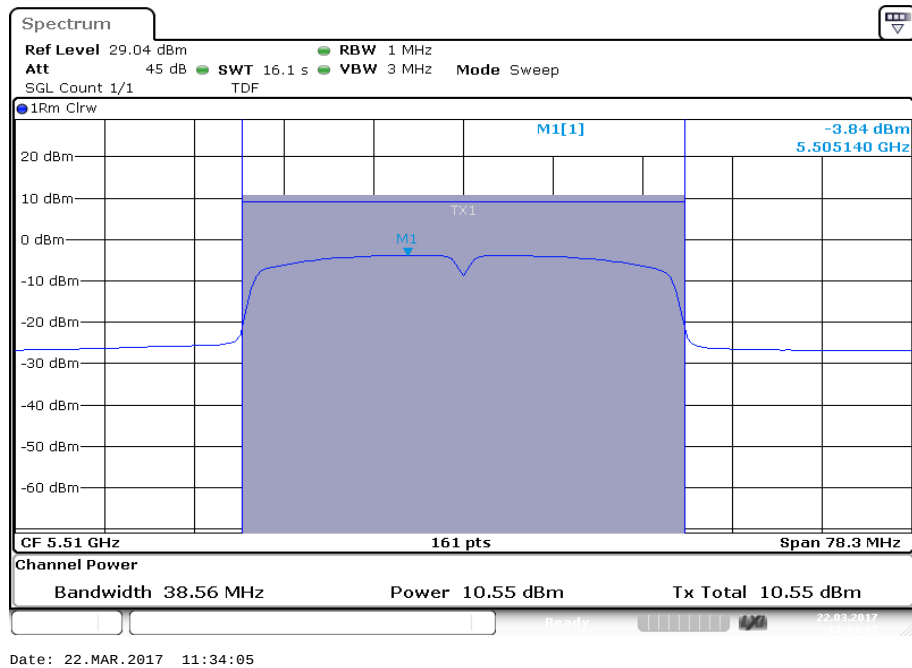
Plot 3: 5270 MHz



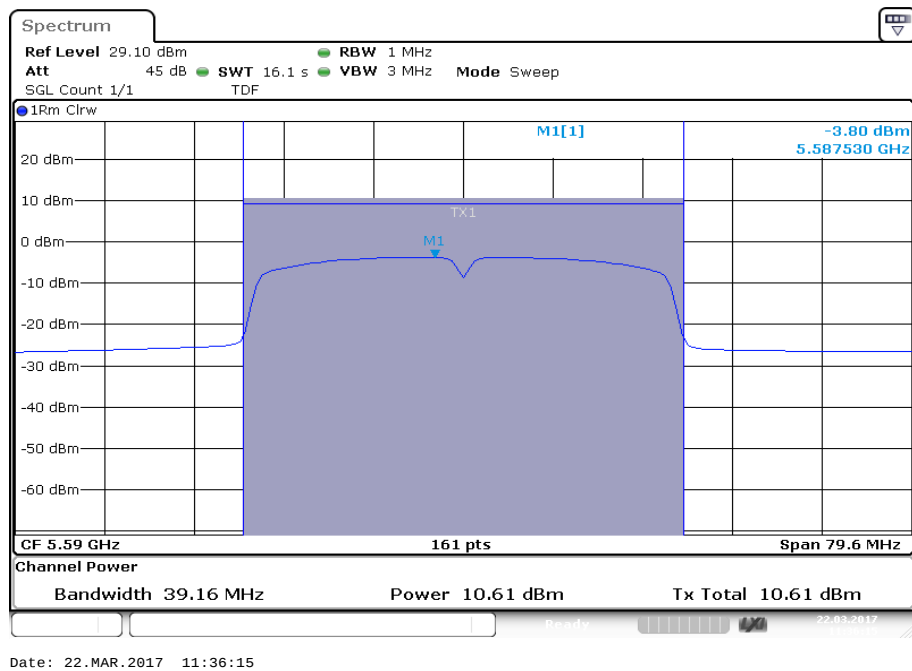
Plot 4: 5310 MHz



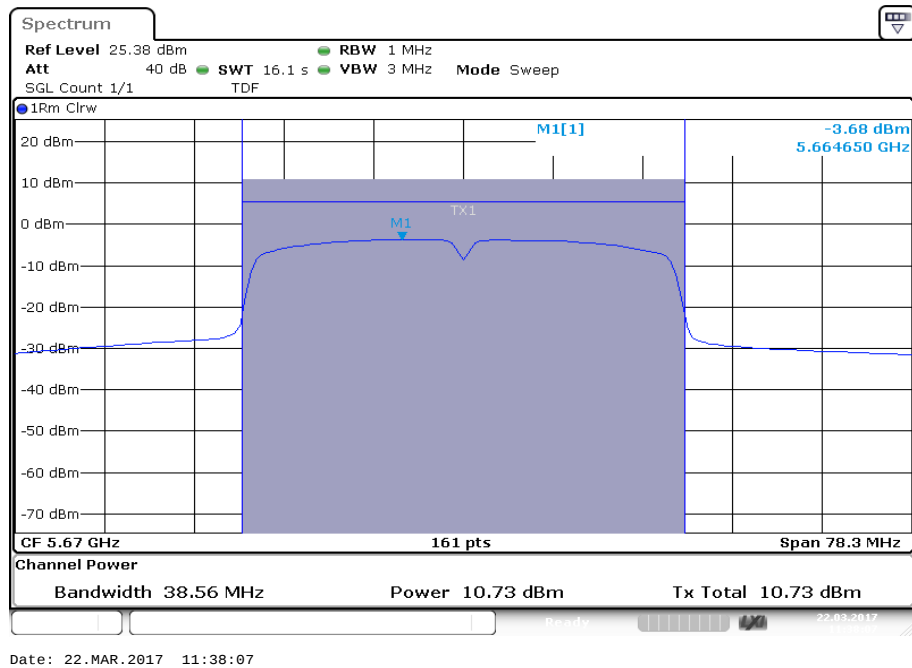
Plot 5: 5510 MHz



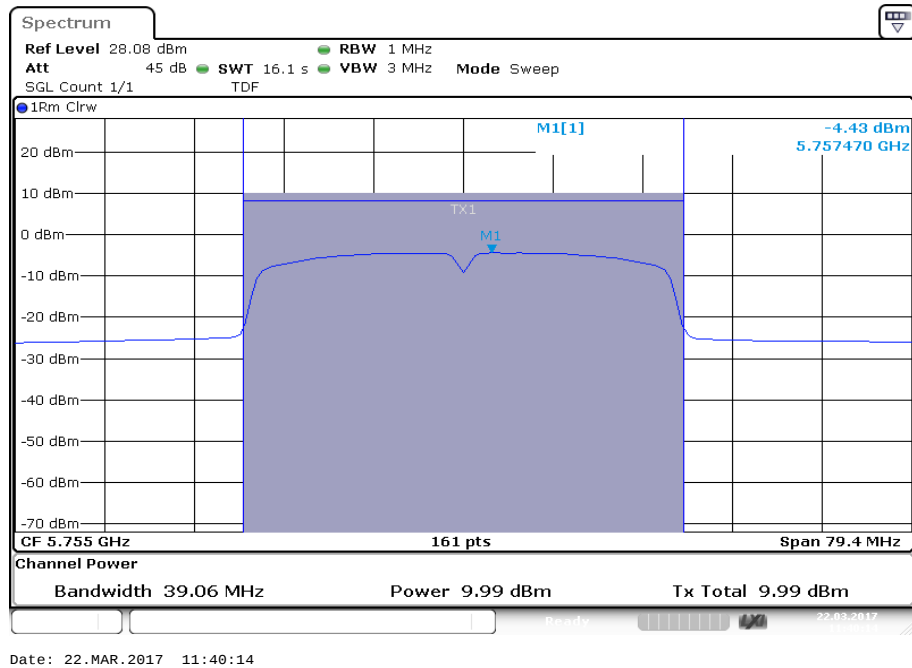
Plot 6: 5590 MHz



Plot 7: 5670 MHz

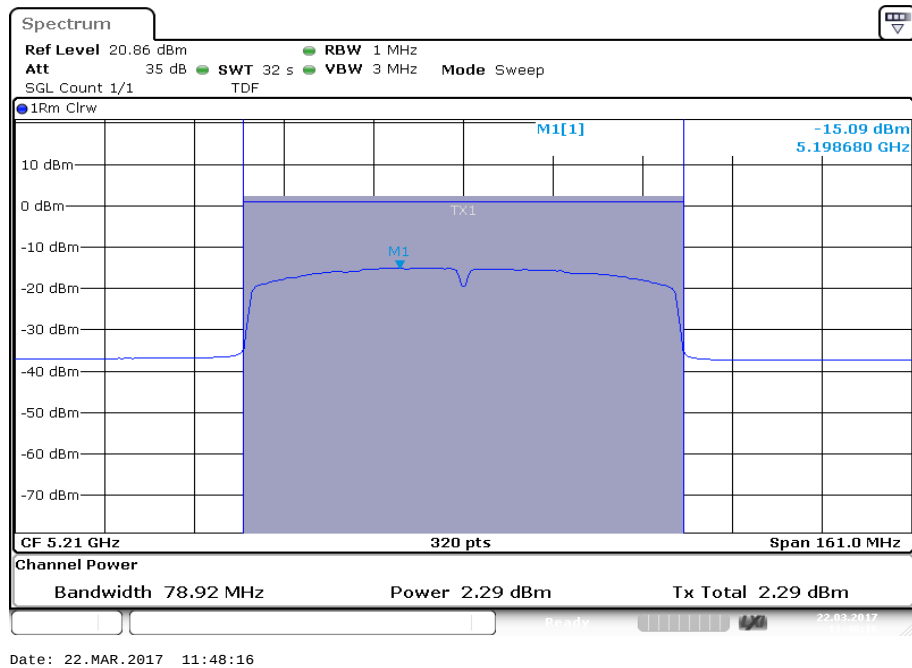


Plot 8: 5755 MHz

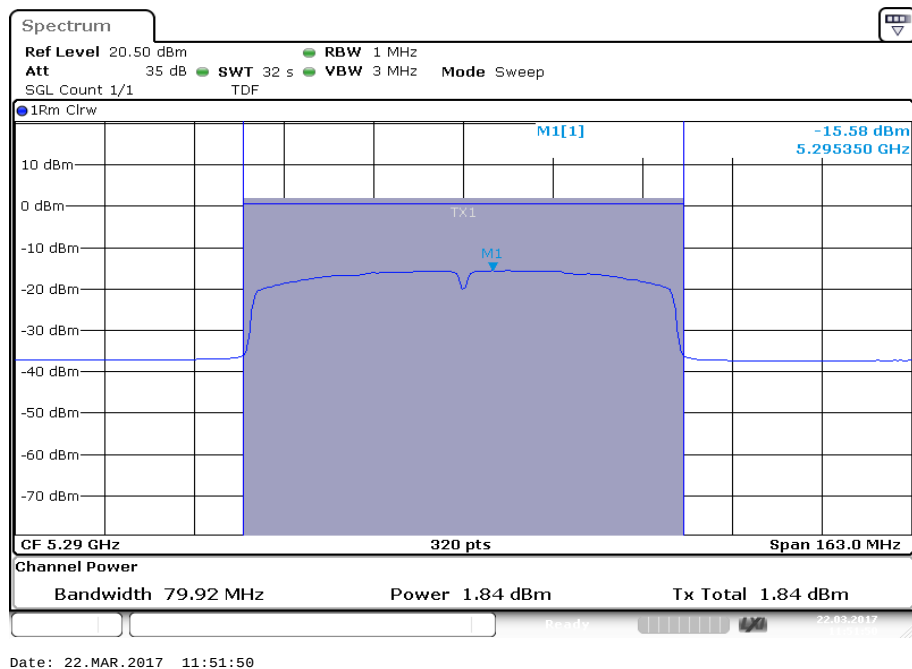


Plots: OFDM / ac HT80 – mode, UFL port

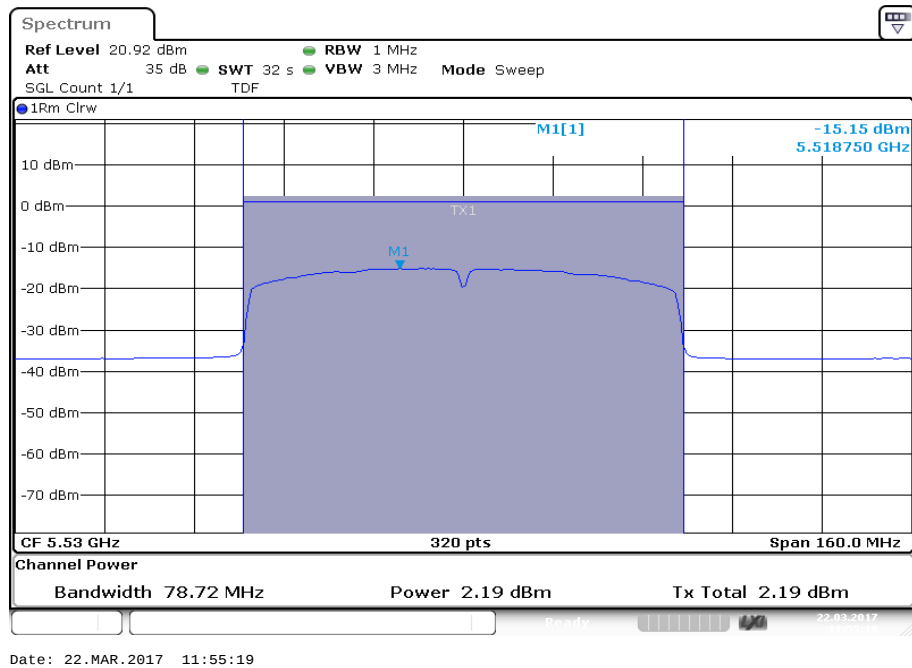
Plot 1: 5210 MHz



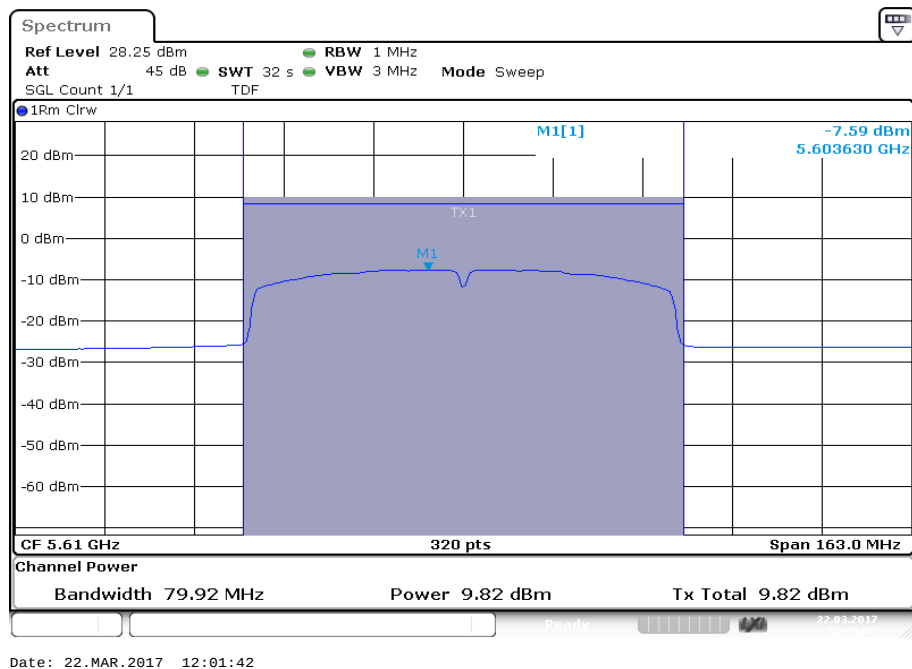
Plot 2: 5290 MHz



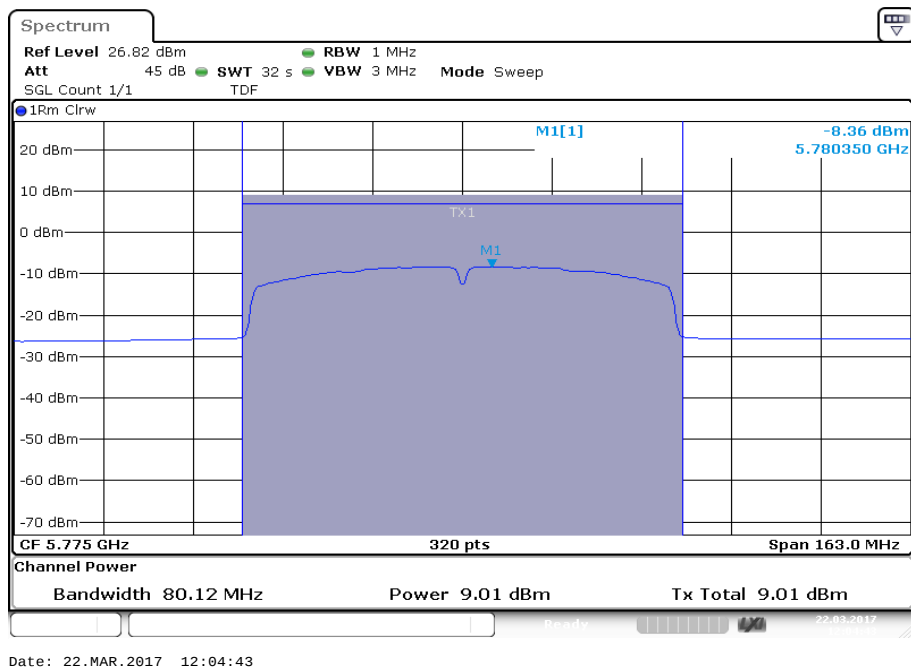
Plot 3: 5530 MHz



Plot 4: 5610 MHz



Plot 5: 5775 MHz



Result: OFDM / a – mode, MMCX port

OFDM / a – mode Channel	Maximum output power conducted [dBm]			
	5180 MHz	5240 MHz	5260 MHz	5320 MHz
	6.9	7.5	7.0	-0.3
Channel	5500 MHz	5600 MHz	5700 MHz	5745 MHz
	1.9	4.1	5.6	2.3
Channel	5785 MHz	5825 MHz		
	0.6	3.3		

Result: OFDM / n/ac HT20 – mode, MMCX port

OFDM / n/ac HT20 – mode Channel	Maximum output power conducted [dBm]			
	5180 MHz	5240 MHz	5260 MHz	5320 MHz
	6.8	7.5	7.0	-0.3
Channel	5500 MHz	5600 MHz	5700 MHz	5745 MHz
	1.8	4.0	5.4	2.2
Channel	5785 MHz	5825 MHz		
	0.5	3.3		

Result: OFDM / n/ac HT40 – mode, MMCX port

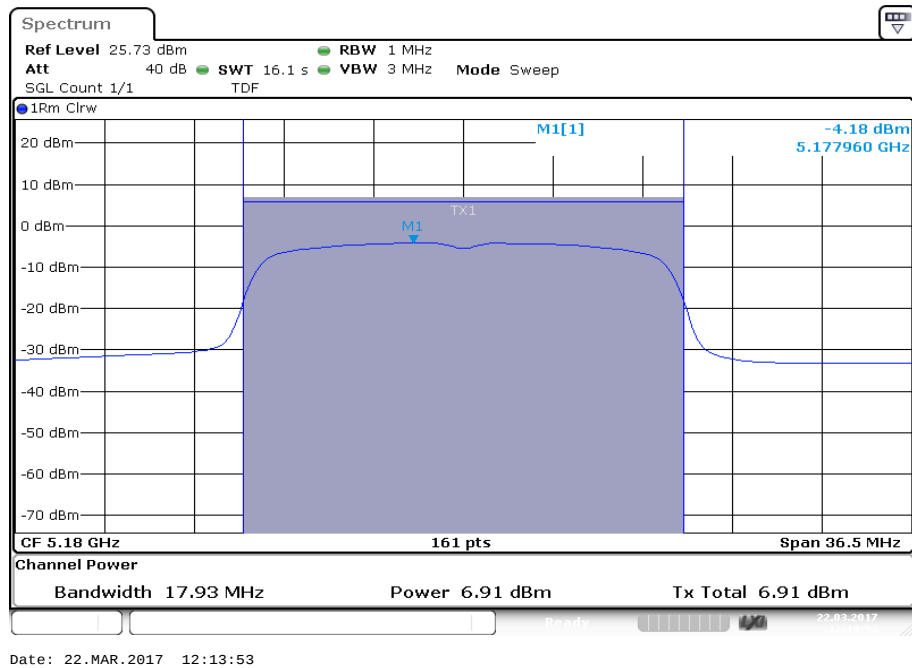
OFDM / n/ac HT40 – mode Channel	Maximum output power conducted [dBm]			
	5190 MHz	5230 MHz	5270 MHz	5310 MHz
	3.7	6.8	5.8	0.0
Channel	5510 MHz	5590 MHz	5670 MHz	5755 MHz
	4.2	6.3	7.9	5.0
Channel	5795 MHz			
	3.1			

Result: OFDM / ac HT80 – mode, MMCX port

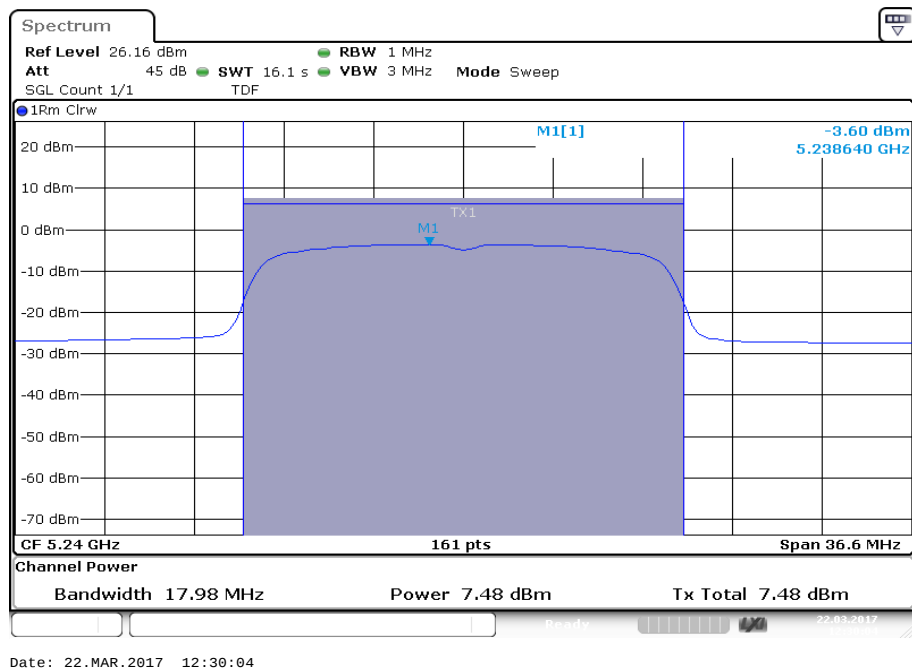
OFDM / ac HT80 – mode Channel	Maximum output power conducted [dBm]			
	5210 MHz	5290 MHz	5530 MHz	5610 MHz
	-1.0	-3.2	-3.6	5.9
Channel	5775 MHz			
	3.5			

Plots: OFDM / a – mode, MMCX port

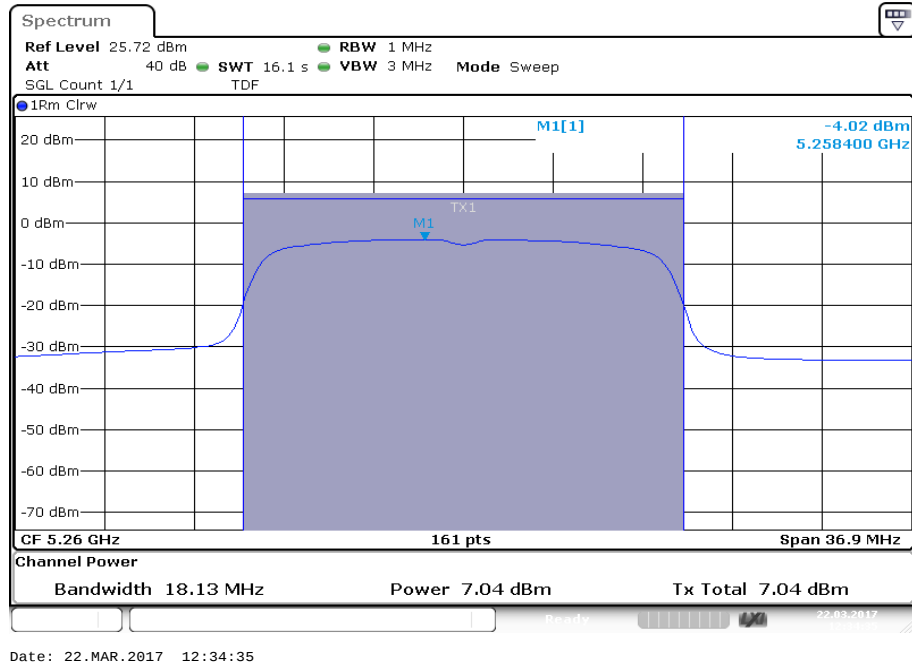
Plot 1: 5180 MHz



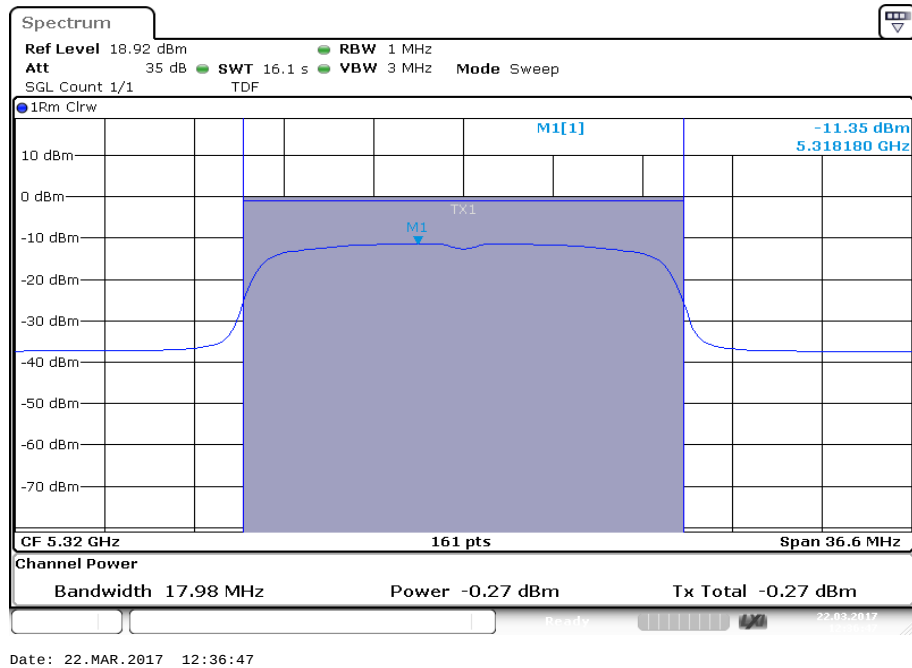
Plot 2: 5240 MHz



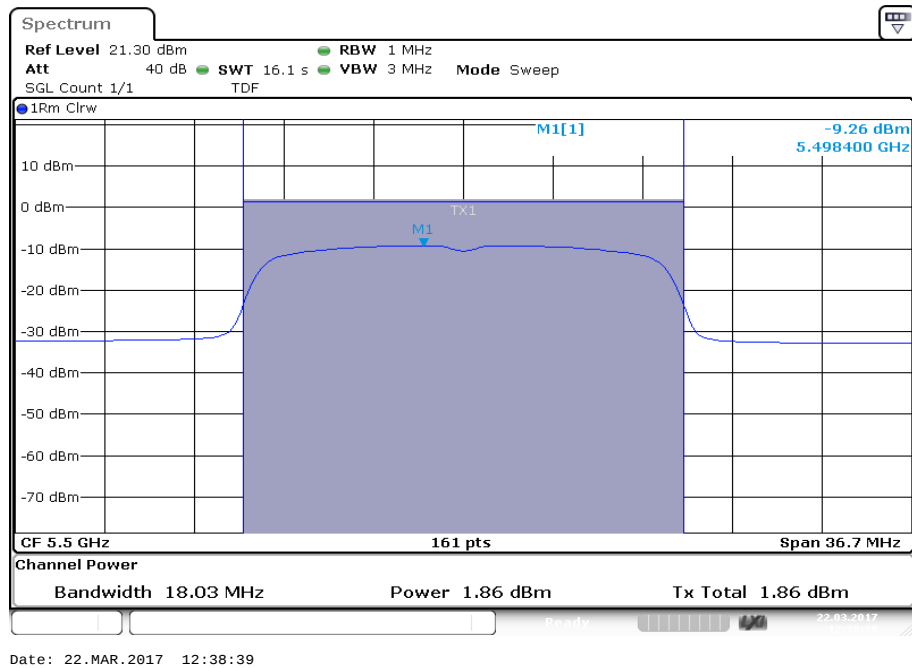
Plot 3: 5260 MHz



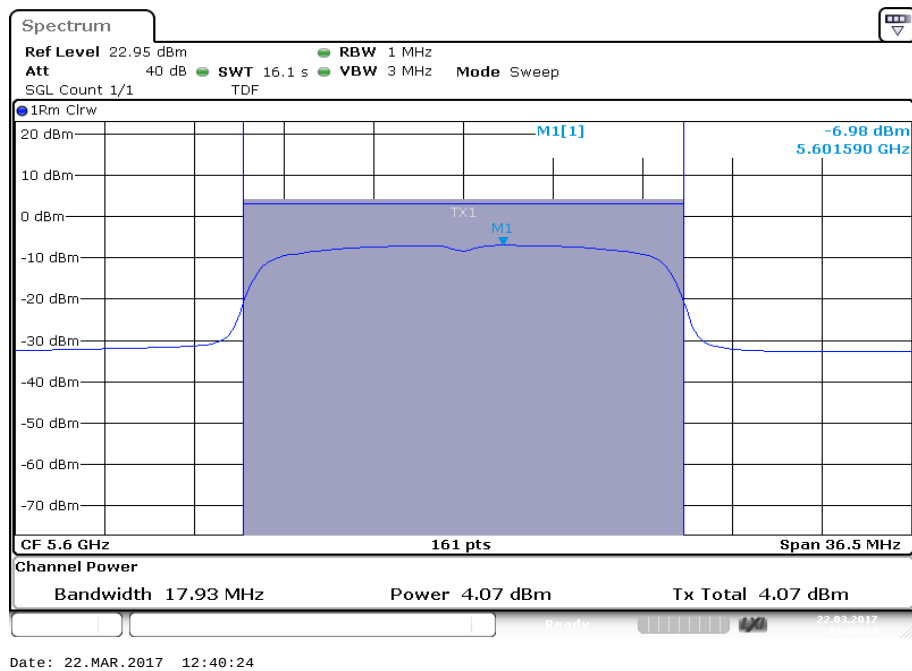
Plot 4: 5320 MHz



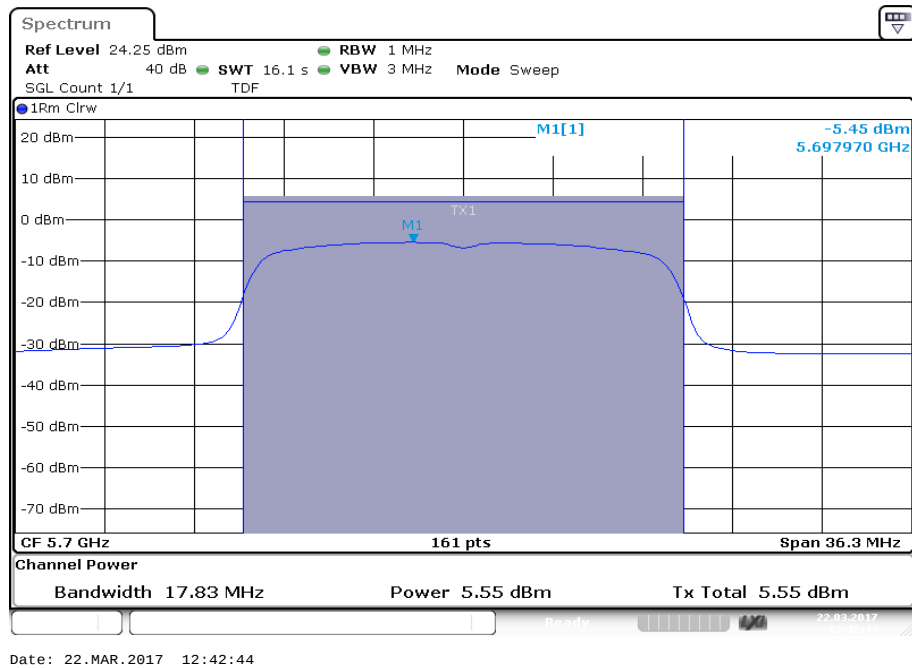
Plot 5: 5500 MHz



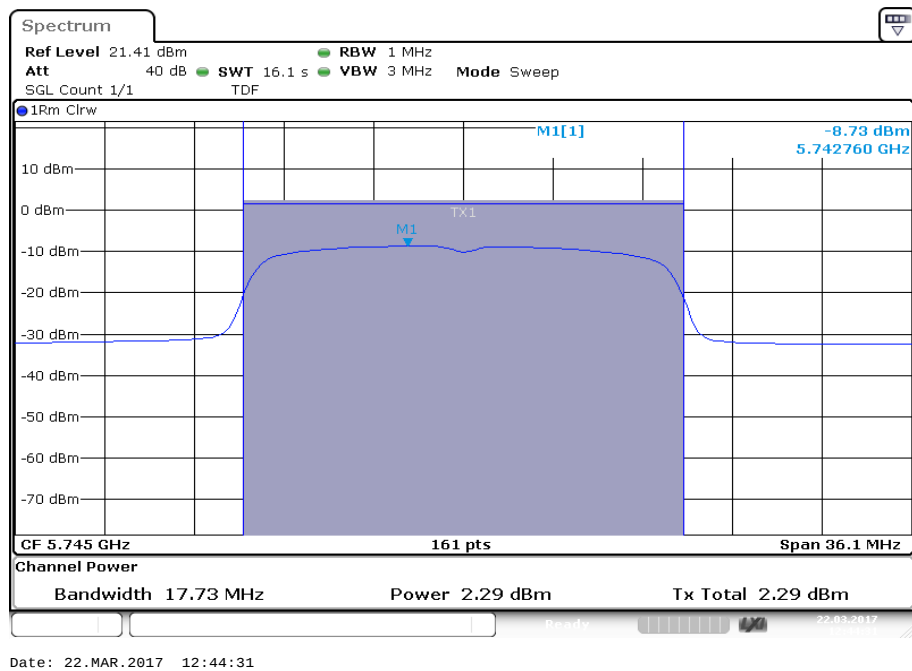
Plot 6: 5600 MHz



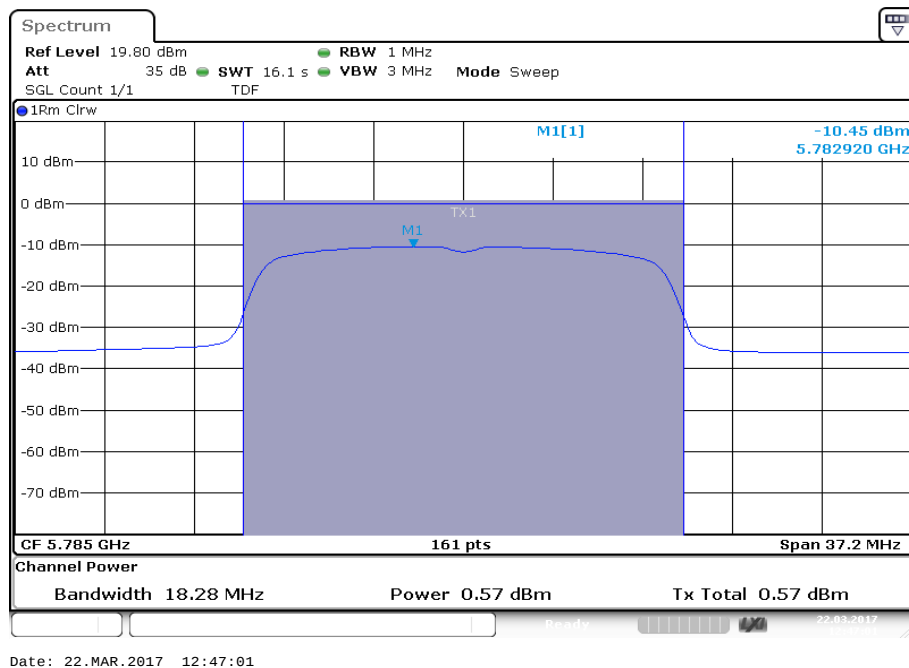
Plot 7: 5700 MHz



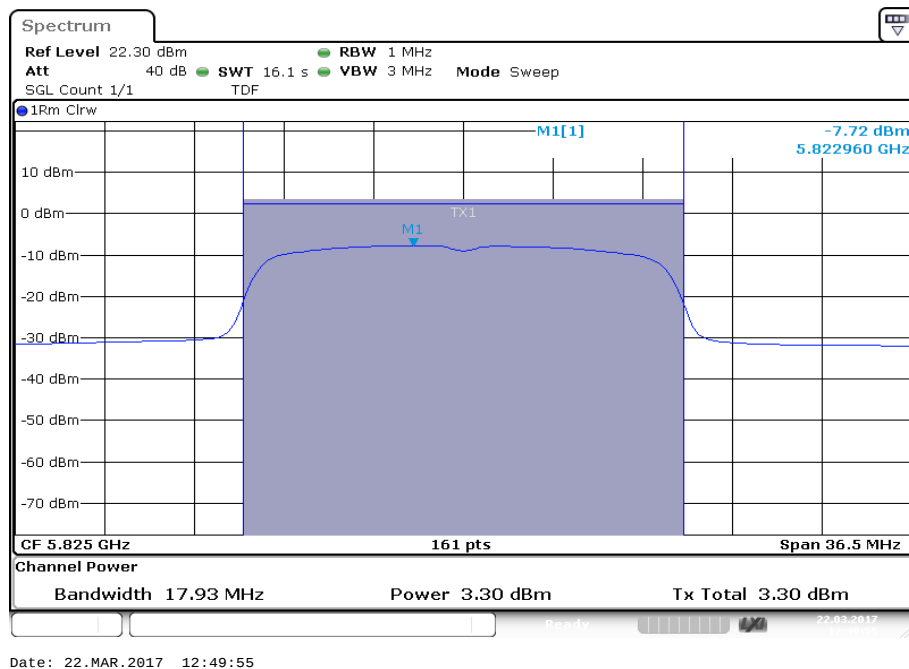
Plot 8: 5745 MHz



Plot 9: 5785 MHz

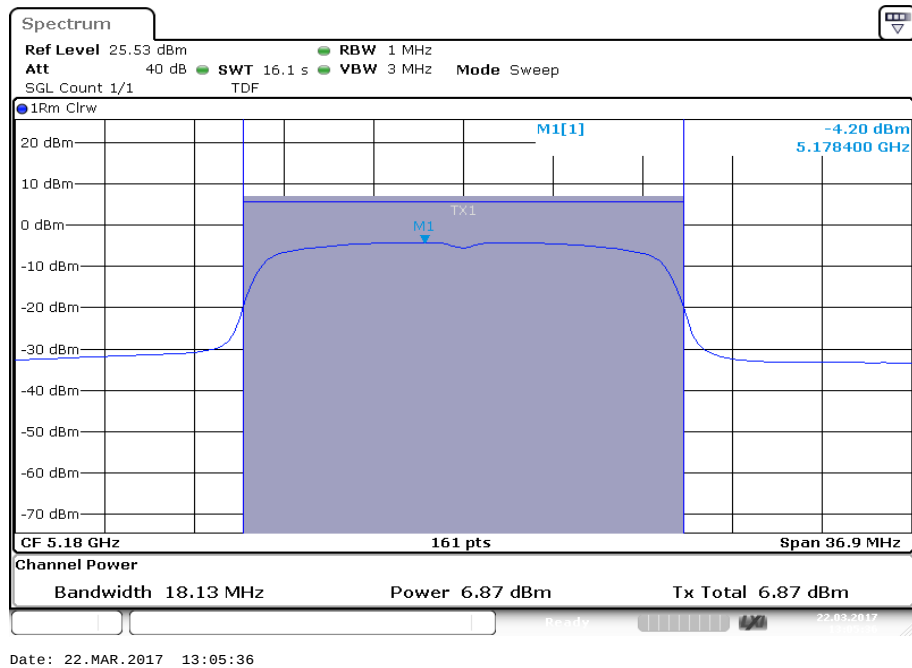


Plot 10: 5825 MHz

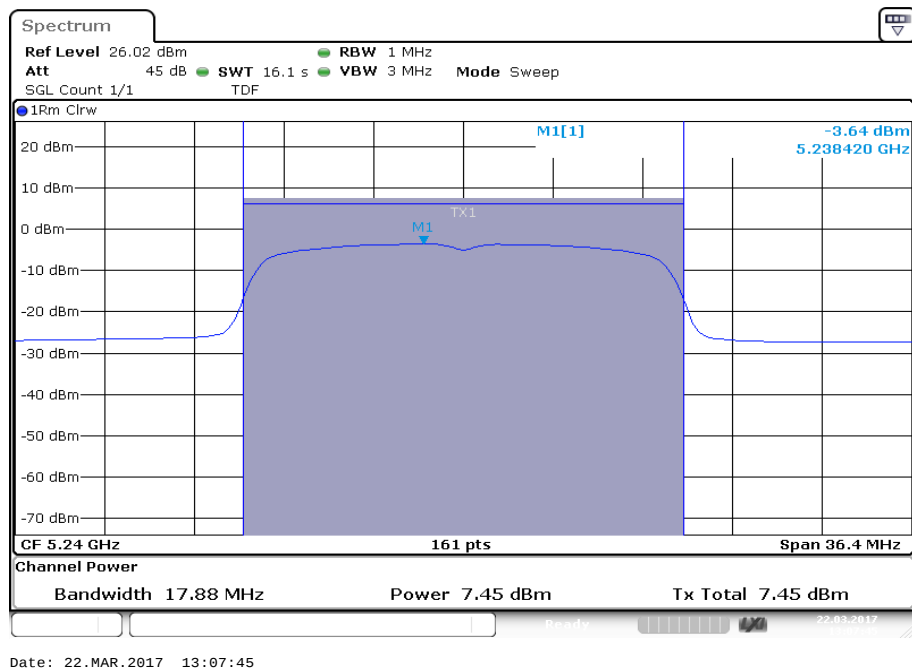


Plots: OFDM / n/ac HT20 – mode, MMCX port

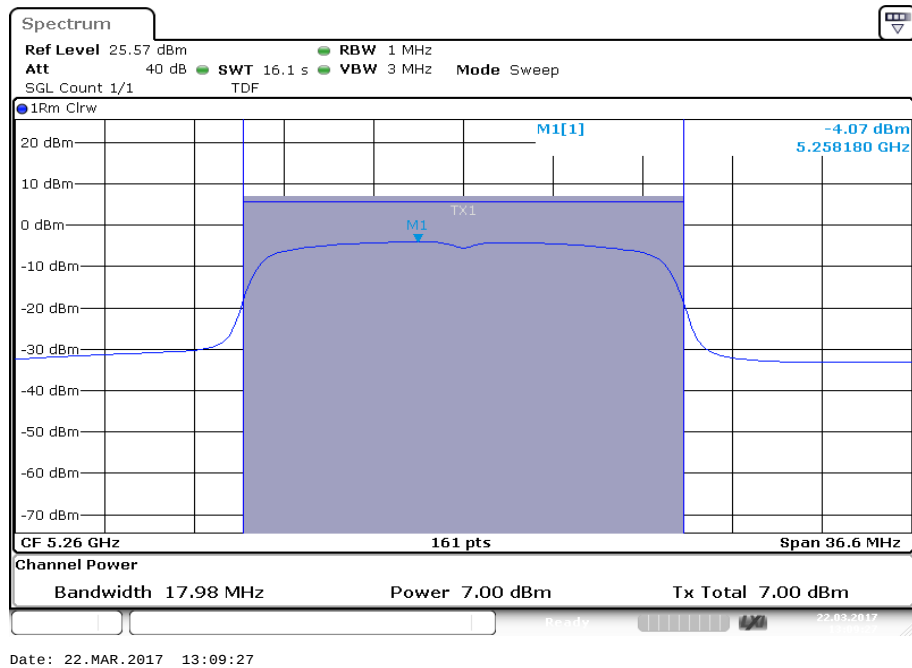
Plot 1: 5180 MHz



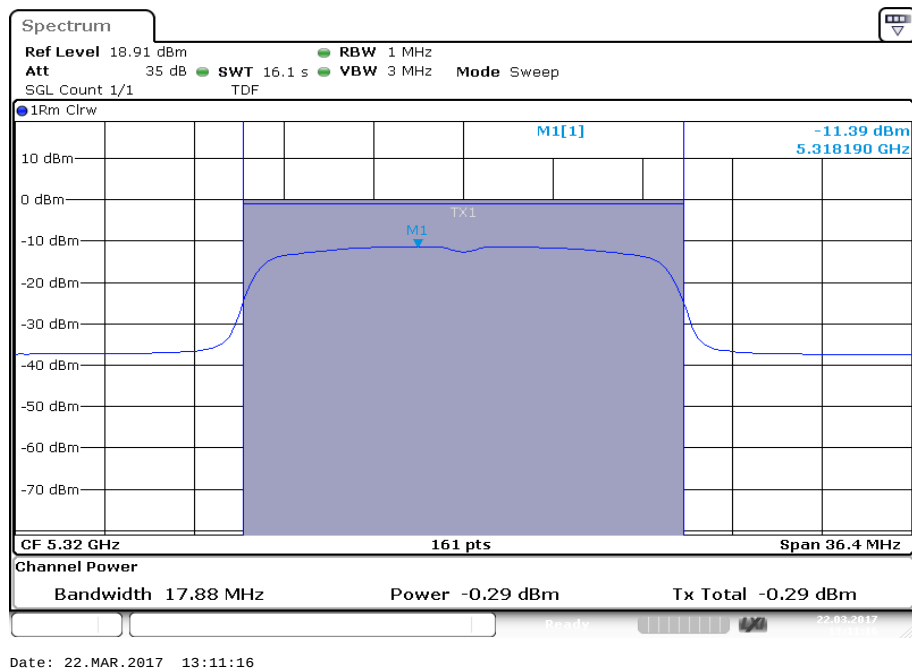
Plot 2: 5240 MHz



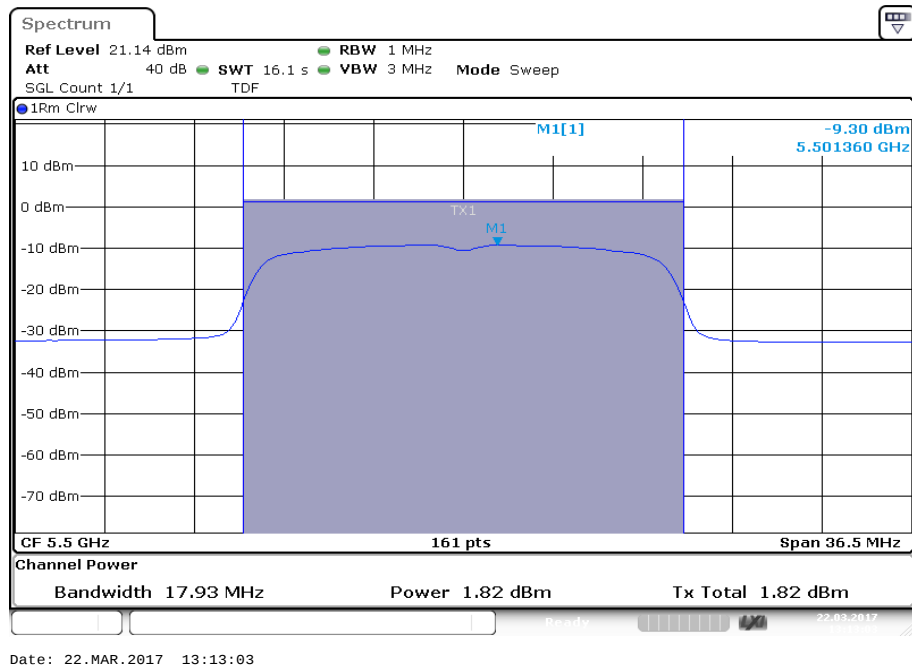
Plot 3: 5260 MHz



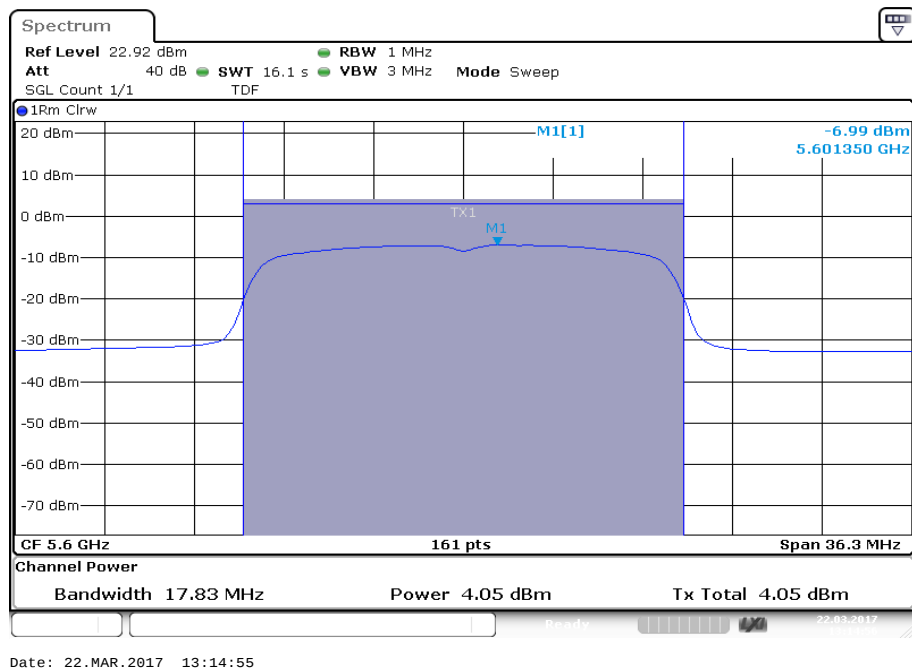
Plot 4: 5320 MHz



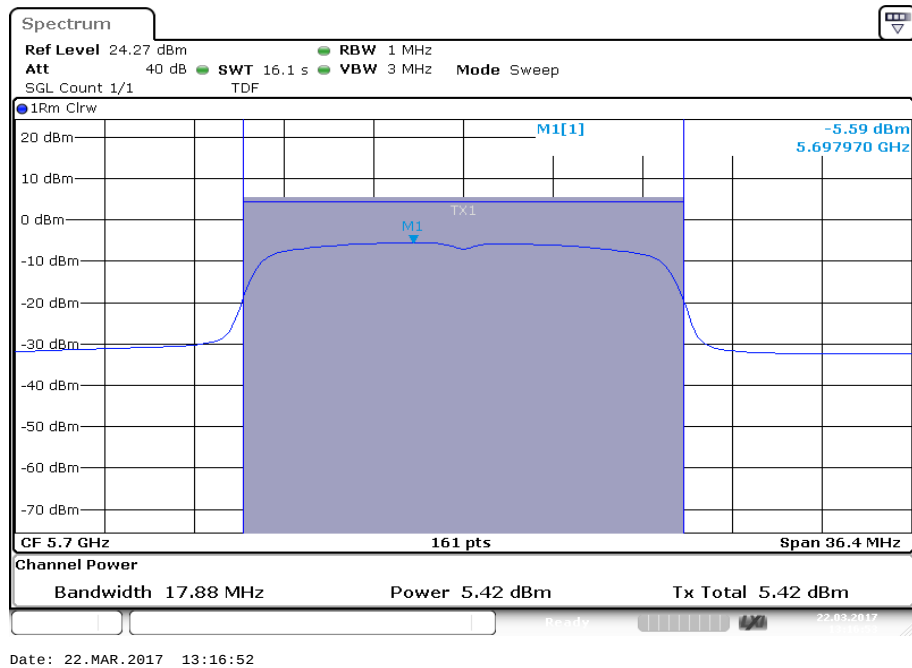
Plot 5: 5500 MHz



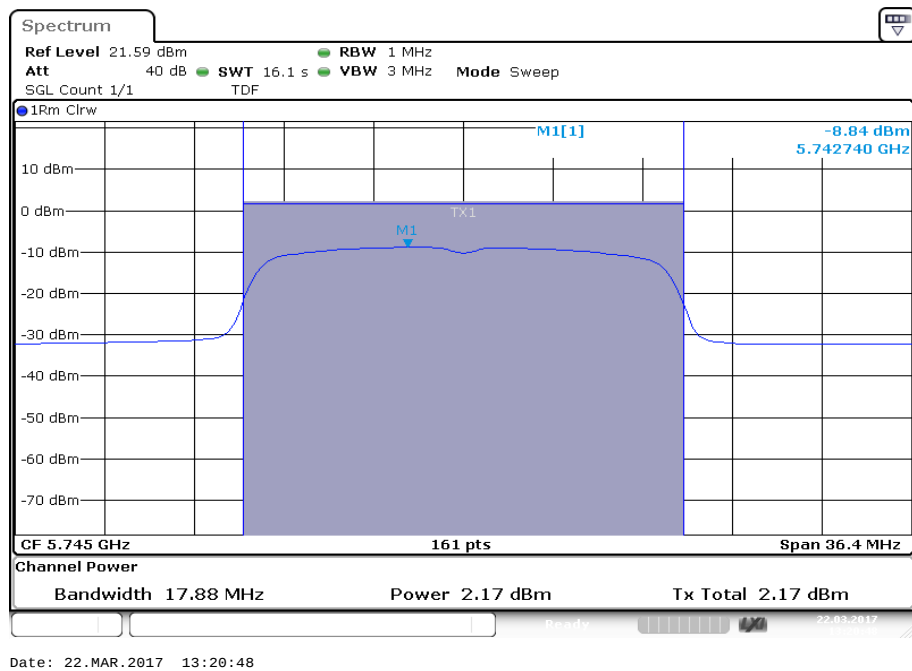
Plot 6: 5600 MHz



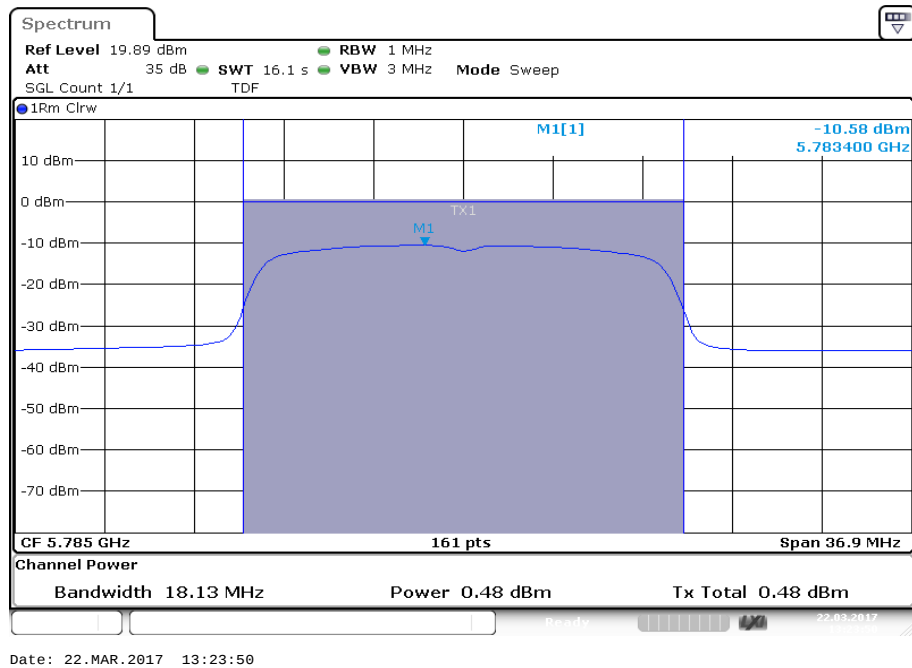
Plot 7: 5700 MHz



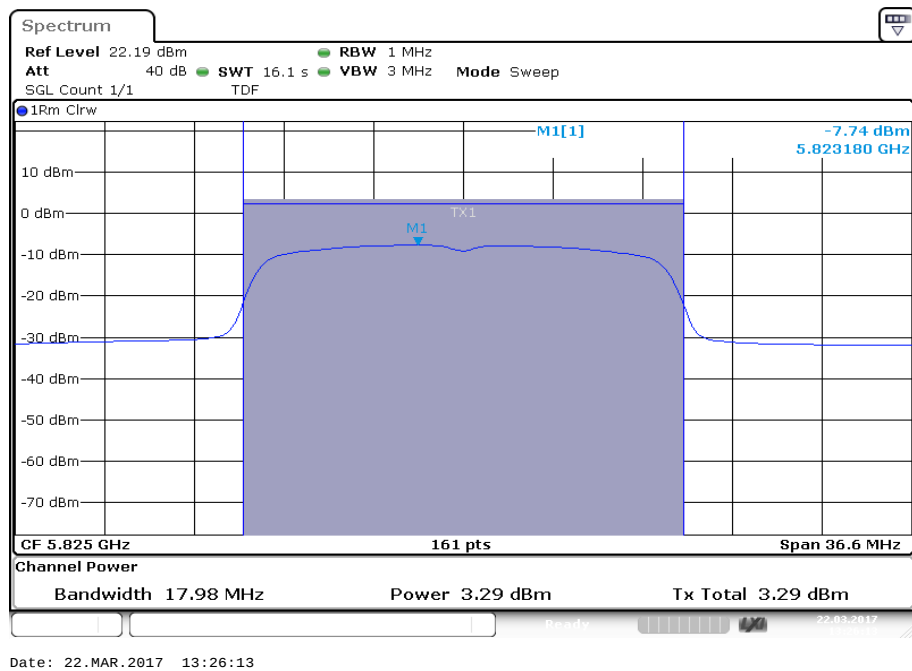
Plot 8: 5745 MHz



Plot 9: 5785 MHz

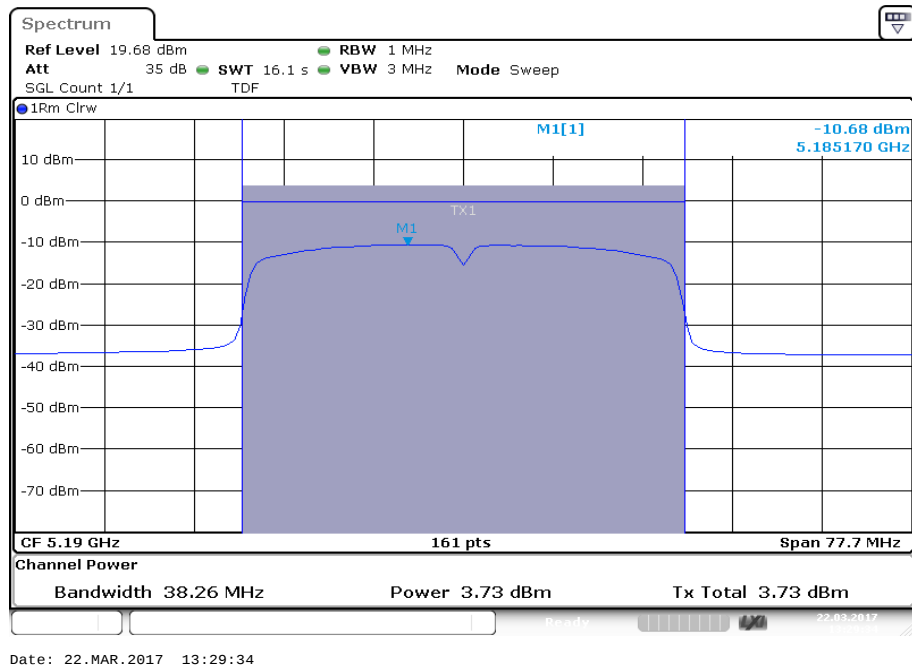


Plot 10: 5825 MHz

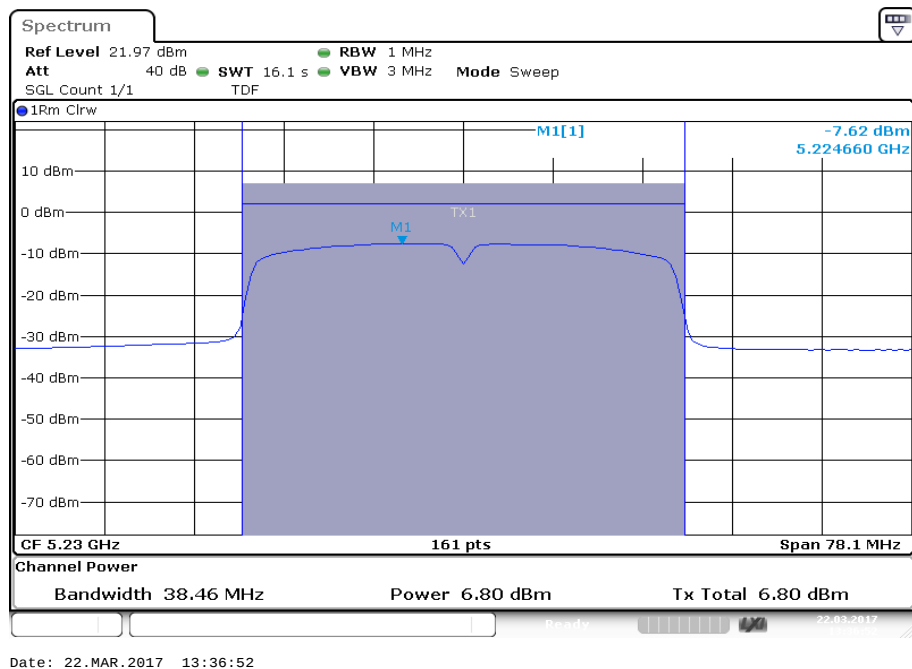


Plots: OFDM / n/ac HT40 – mode, MMCX port

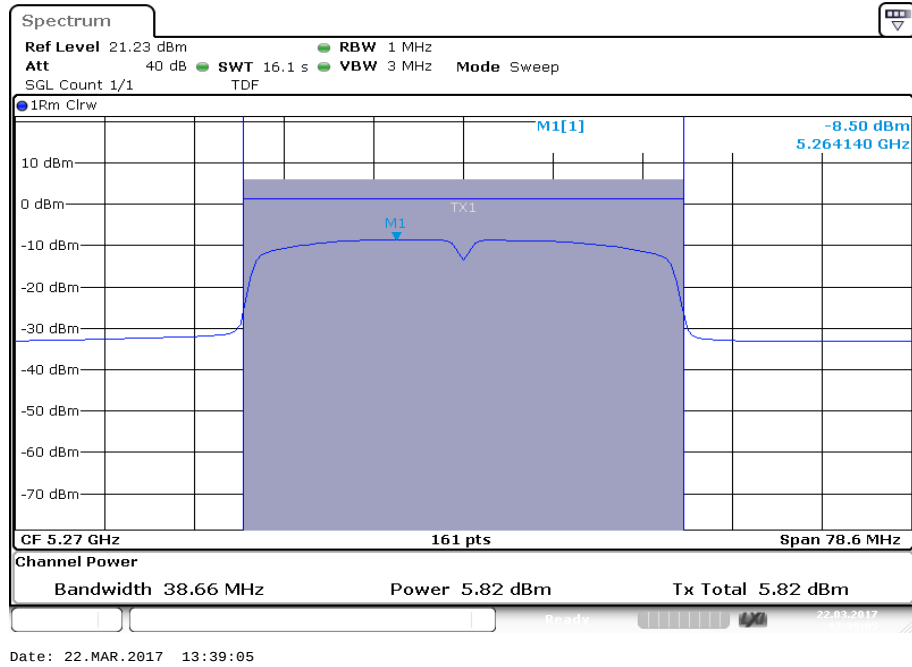
Plot 1: 5190 MHz



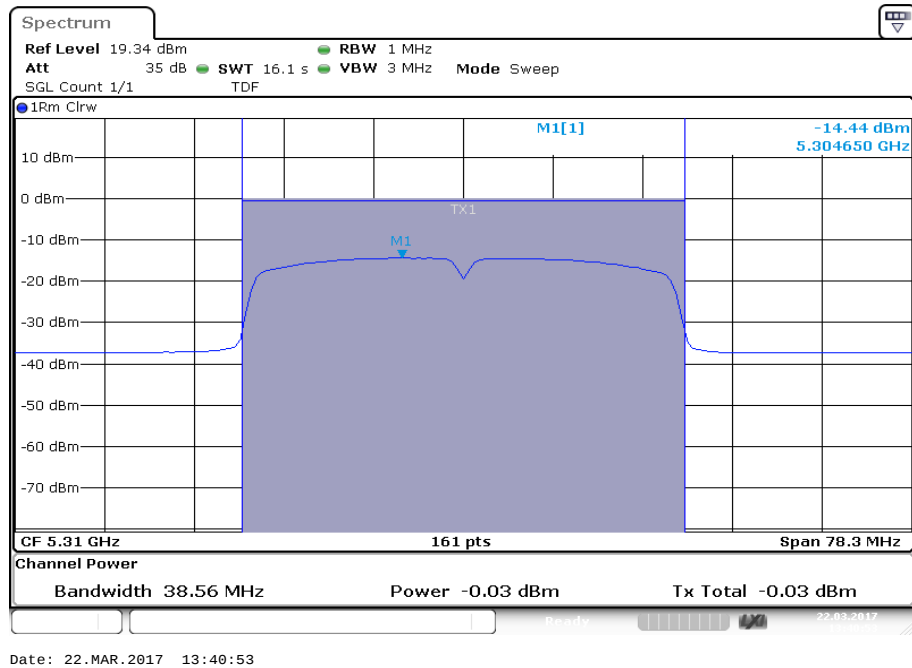
Plot 2: 5230 MHz



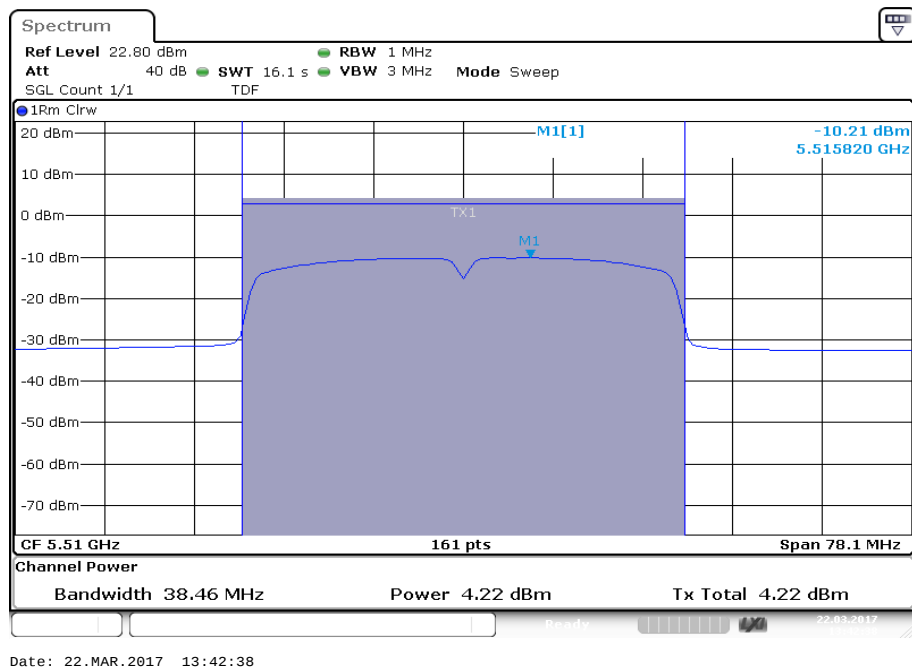
Plot 3: 5270 MHz



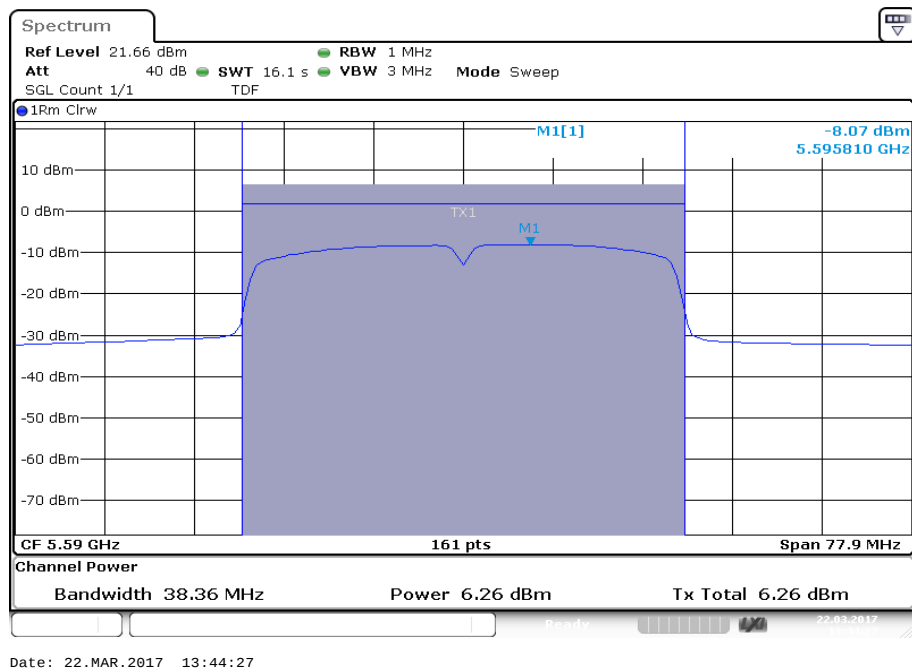
Plot 4: 5310 MHz



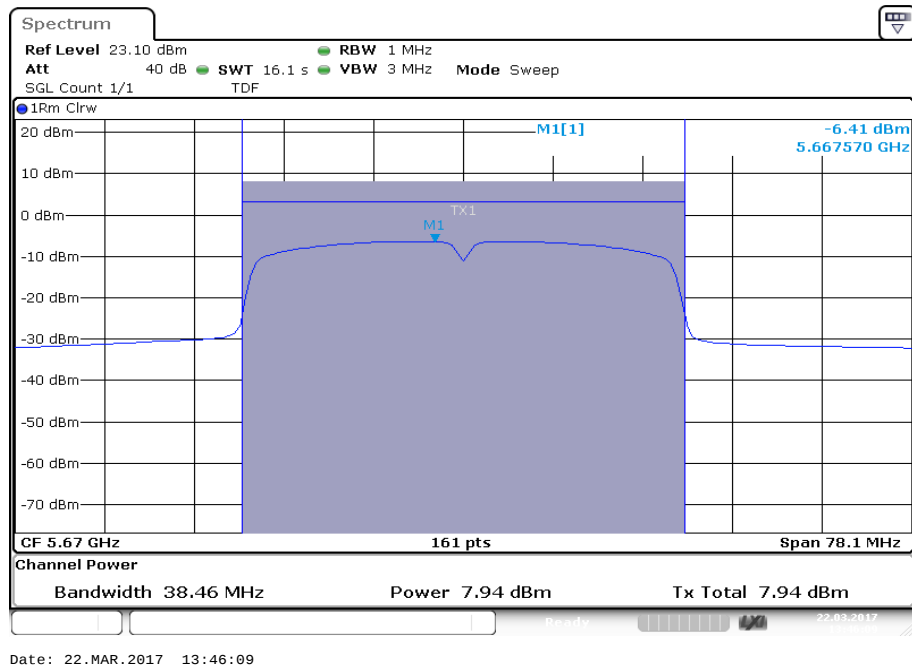
Plot 5: 5510 MHz



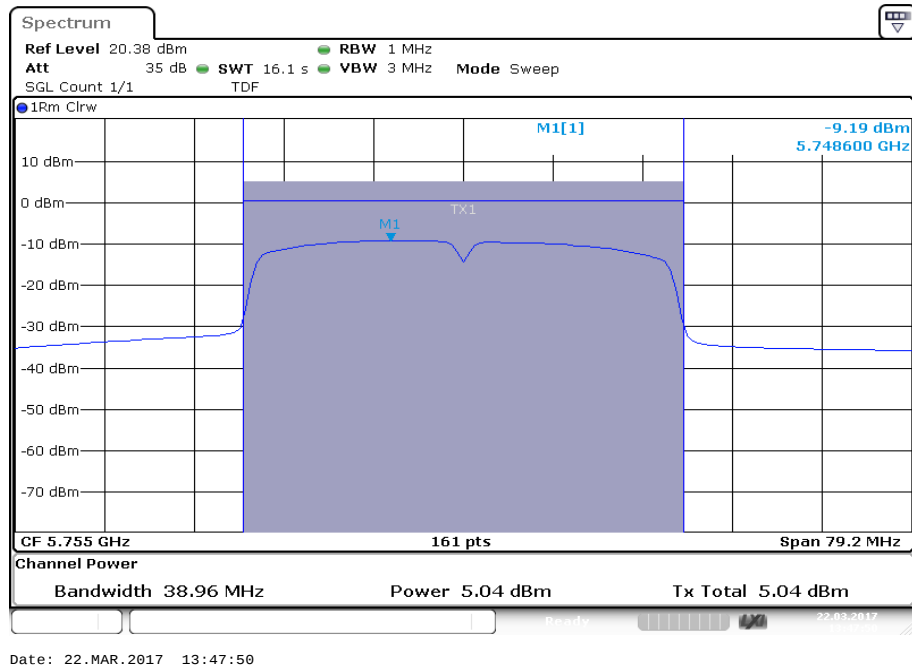
Plot 6: 5590 MHz



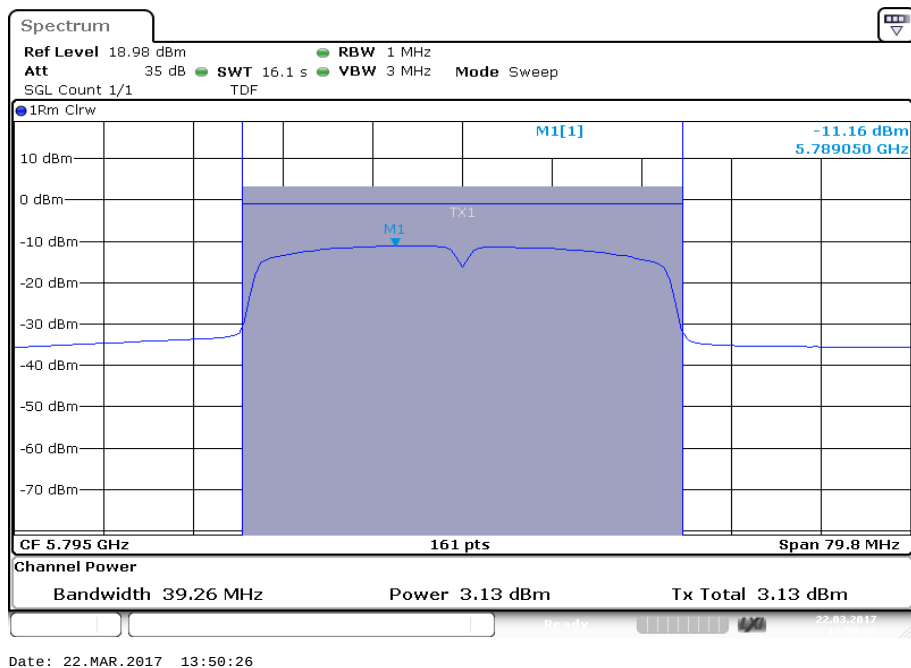
Plot 7: 5670 MHz



Plot 8: 5755 MHz

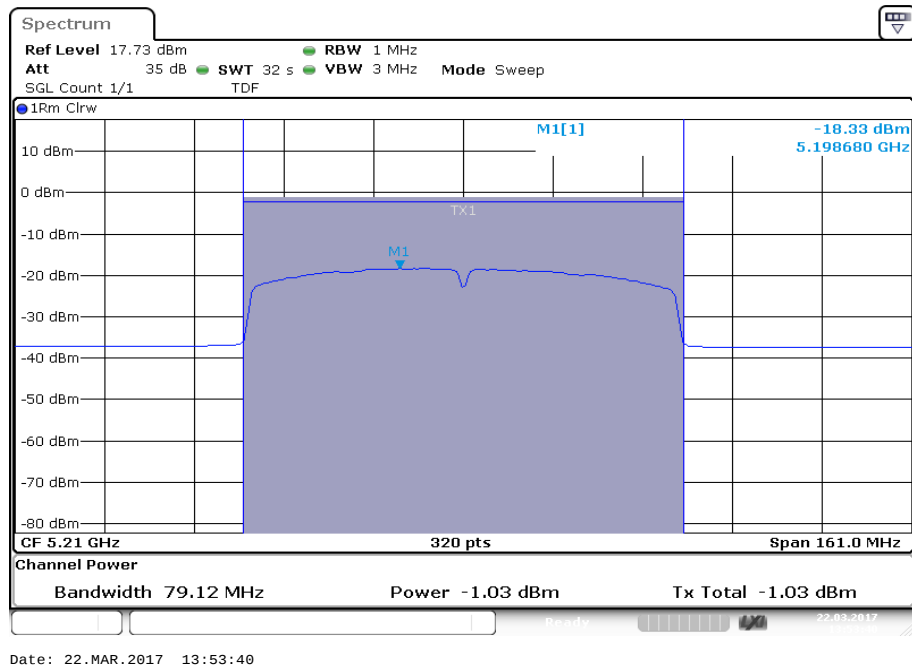


Plot 9: 5795 MHz

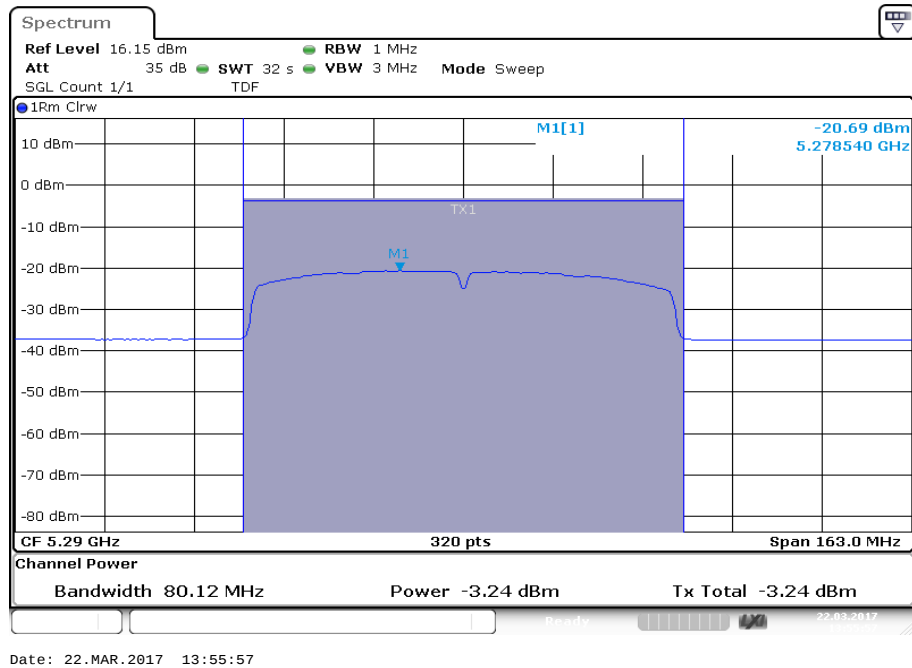


Plots: OFDM / ac HT80 – mode, MMCX port

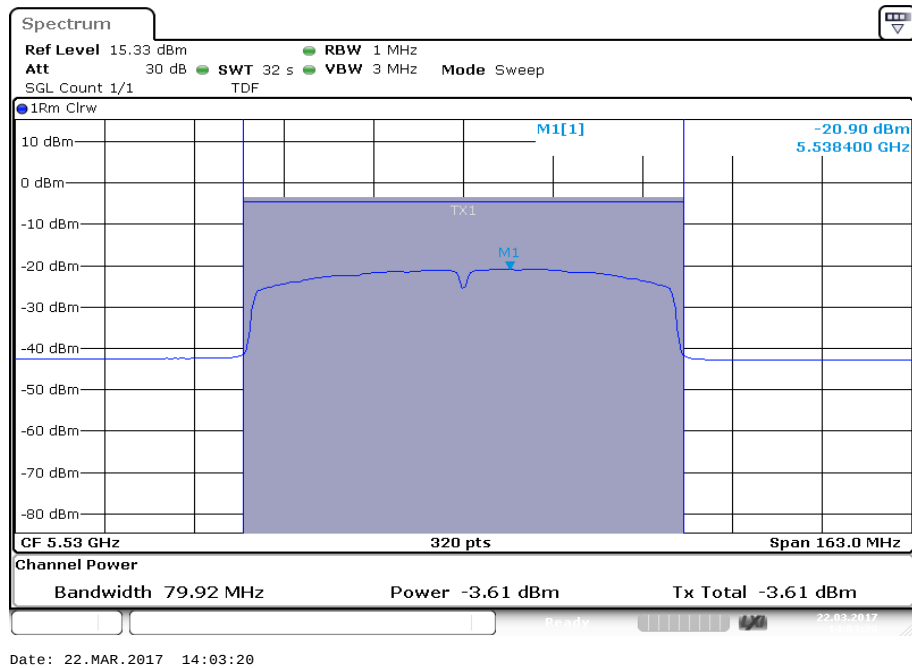
Plot 1: 5210 MHz



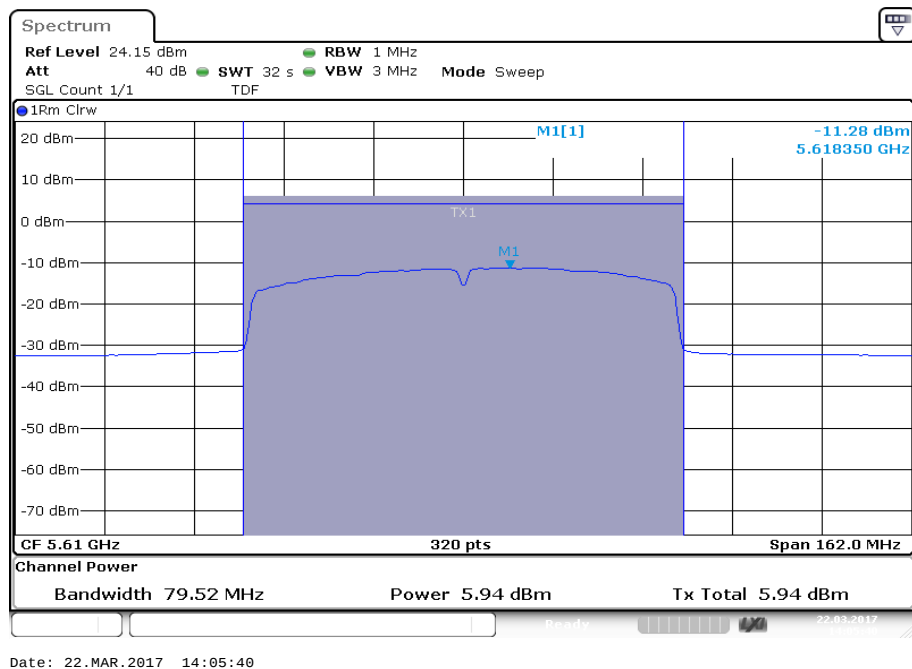
Plot 2: 5290 MHz



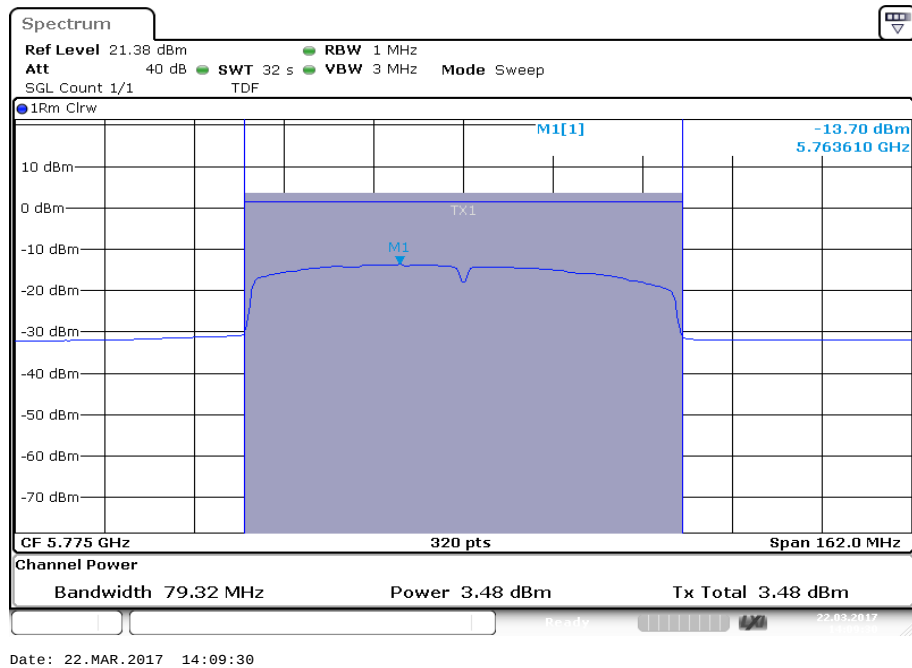
Plot 3: 5530 MHz



Plot 4: 5610 MHz



Plot 5: 5775 MHz



1.1.2 Maximum output power – for IC requirements

Description:

Measurement of the maximum output power conducted + radiated

Measurement:

Measurement parameter	
Detector:	RMS
Sweep time:	$\geq 10 \cdot (\text{swp points}) \cdot (\text{total on/off time})$
Resolution bandwidth:	1 MHz
Video bandwidth:	≥ 3 MHz
Span:	> EBW
Trace mode:	Max hold
Analyzer function	Band power / channel power Interval > 99% OBW
Used test setup:	See chapter 7.4 – A
Measurement uncertainty:	See chapter 9

Limits:

Radiated output power	Conducted output power for mobile equipment
The lesser one of 200 mW or 10 dBm + 10 log Bandwidth 5.150-5.250 GHz 1 W or 17 dBm + 10 log Bandwidth 5.250-5.350 GHz 1 W or 17 dBm + 10 log Bandwidth 5.470-5.725 GHz (where Bandwidth is the 99% Bandwidth [MHz]) Conducted power + 6dBi antenna gain 5.725-5.825 GHz	The lesser one of 250mW or 11 dBm + 10 log Bandwidth 5.250-5.350 GHz 250mW or 11 dBm + 10 log Bandwidth 5.470-5.725 GHz (where Bandwidth is the 99% Bandwidth [MHz]) 1W 5.725-5.825 GHz

Result: OFDM / a – mode, UFL port

OFDM / a – mode	Maximum output power EIRP [dBm]			
	Channel	5180 MHz	5240 MHz	
Including duty cycle correction factor		14.9	16.4	
Maximum output power conducted [dBm]				
Channel	5260 MHz	5320 MHz	5500 MHz	5600 MHz
Including duty cycle correction factor	11.0	5.4	8.4	8.1
Channel	5700 MHz	5745 MHz	5785 MHz	5825 MHz
Including duty cycle correction factor	8.9	6.7	6.5	9.9

Result: OFDM / n/ac HT20 – mode, UFL port

OFDM / n/ac HT20 – mode	Maximum output power EIRP [dBm]			
	Channel	5180 MHz	5240 MHz	
Including duty cycle correction factor		14.6	16.2	
Maximum output power conducted [dBm]				
Channel	5260 MHz	5320 MHz	5500 MHz	5600 MHz
Including duty cycle correction factor	10.8	5.2	8.1	7.9
Channel	5700 MHz	5745 MHz	5785 MHz	5825 MHz
Including duty cycle correction factor	8.7	6.5	6.2	9.6

Result: OFDM / n/ac HT40 – mode, UFL port

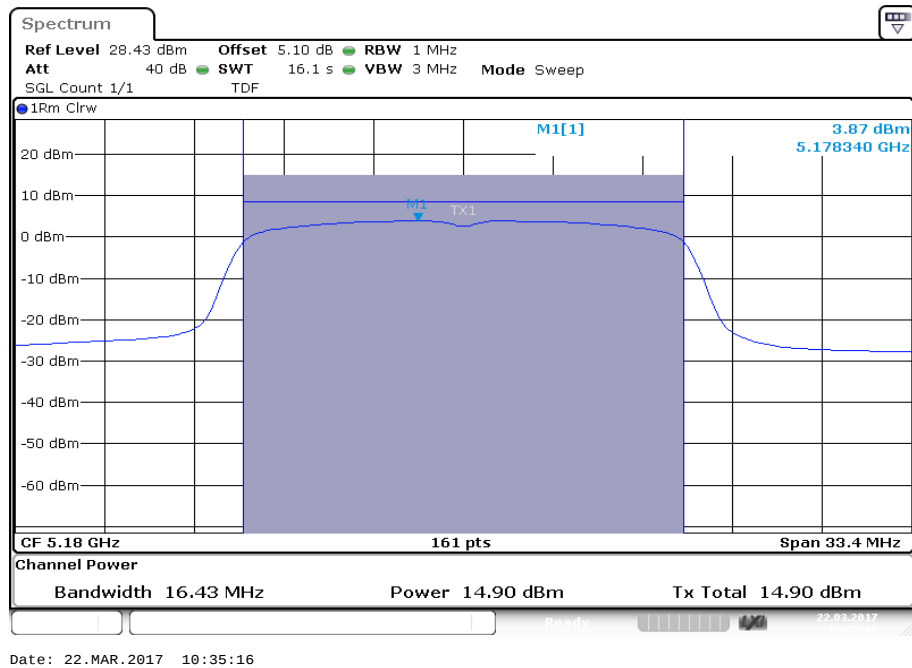
OFDM / n/ac HT40 – mode	Maximum output power EIRP [dBm]			
	Channel	5190 MHz	5230 MHz	
Including duty cycle correction factor		11.9	15.6	
	Maximum output power conducted [dBm]			
Channel	5270 MHz	5310 MHz	5510 MHz	5590 MHz
Including duty cycle correction factor	10.4	5.6	10.5	10.6
Channel	5670 MHz	5755 MHz	5795 MHz	
Including duty cycle correction factor	10.7	10.0	9.2	

Result: OFDM / ac HT80 – mode, UFL port

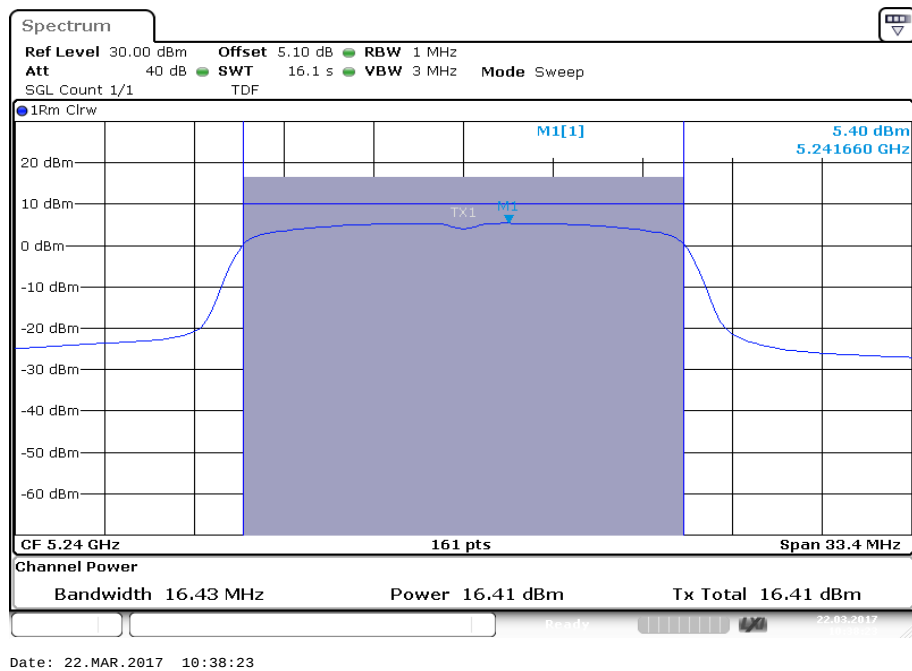
OFDM / ac HT80 – mode	Maximum output power EIRP [dBm]			
	Channel	5210 MHz		
Including duty cycle correction factor		7.3		
	Maximum output power conducted [dBm]			
Channel	5290 MHz	5530 MHz	5610 MHz	5775 MHz
Including duty cycle correction factor	1.8	2.1	9.8	9.0

Plots: OFDM / a – mode, UFL port

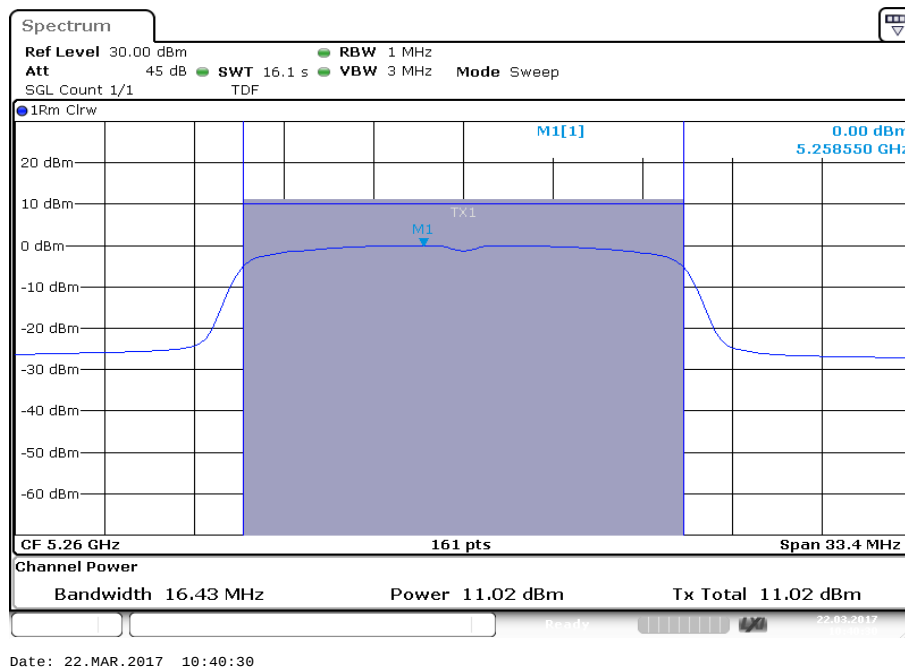
Plot 1: 5180 MHz, EIRP



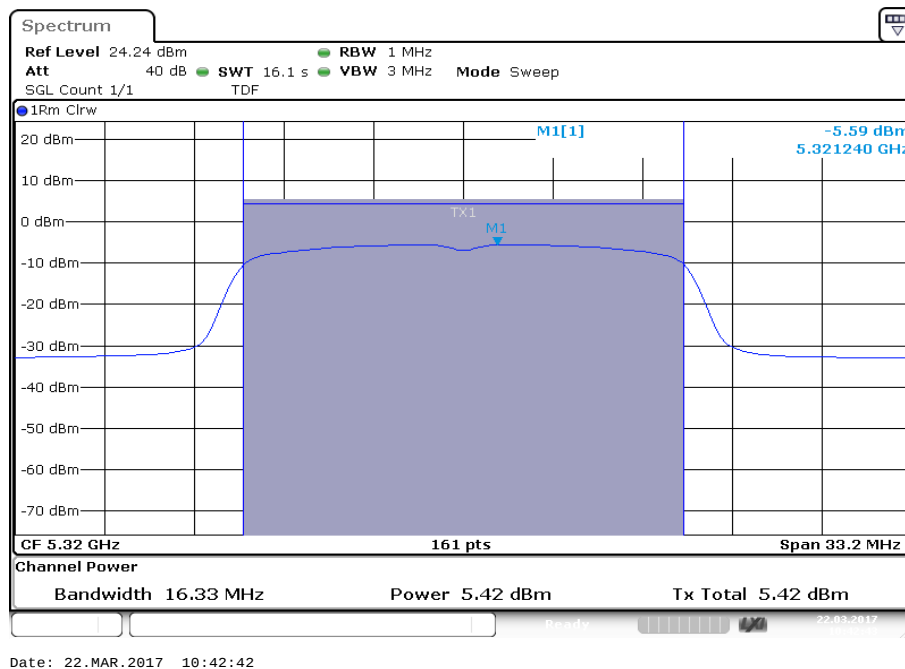
Plot 2: 5240 MHz, EIRP



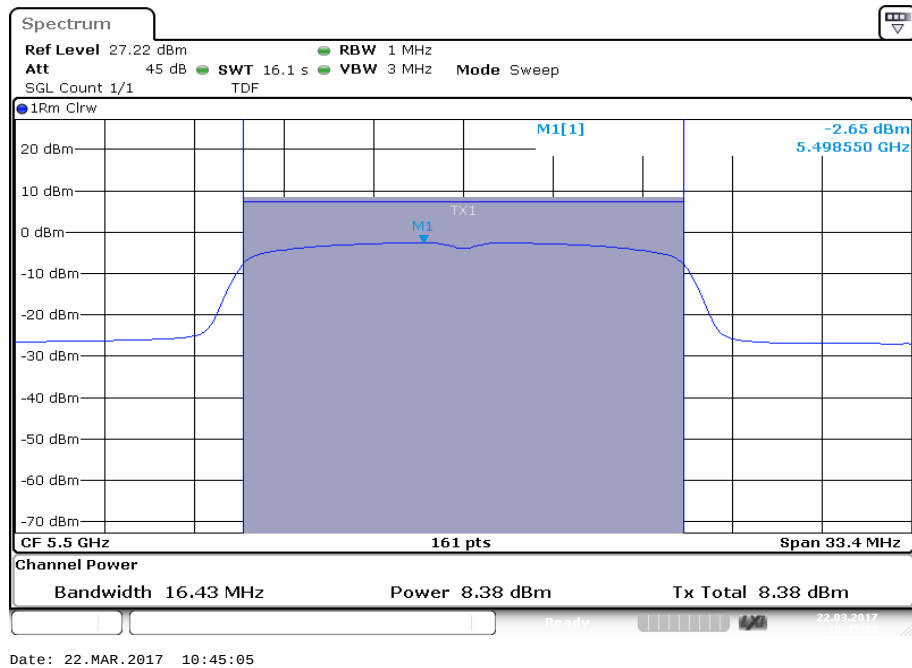
Plot 3: 5260 MHz, conducted



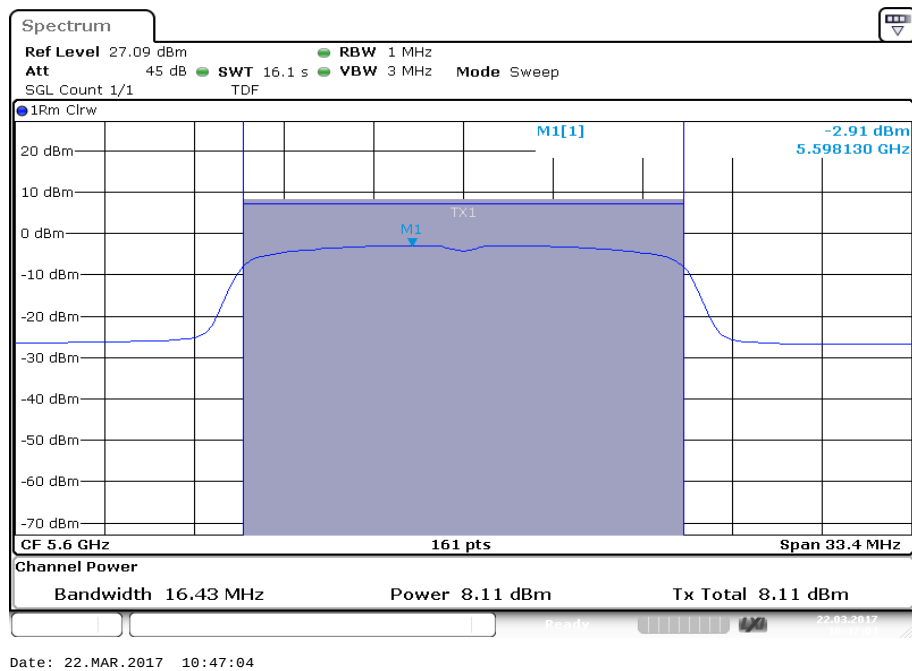
Plot 4: 5320 MHz, conducted



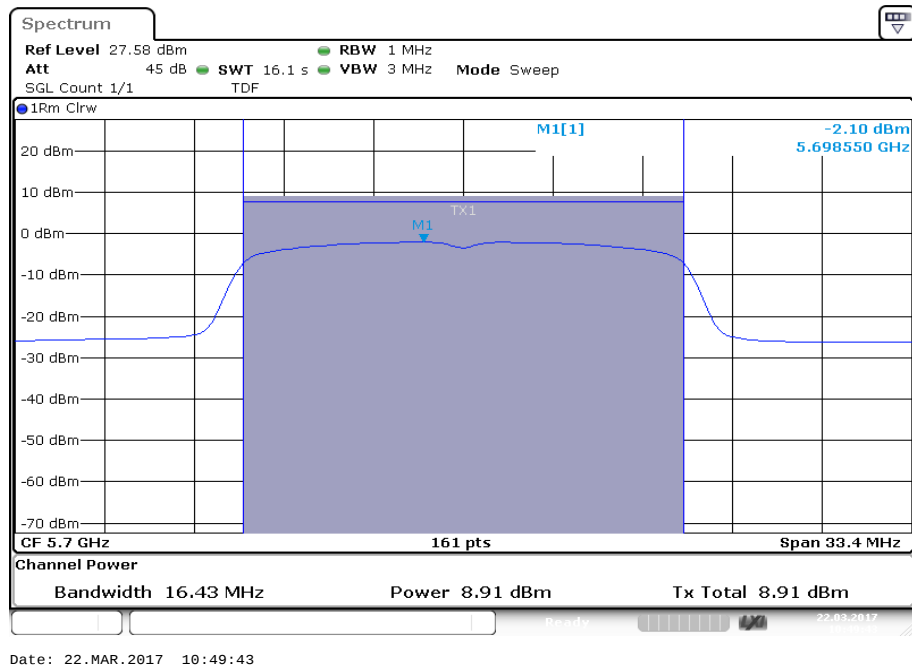
Plot 5: 5500 MHz, conducted



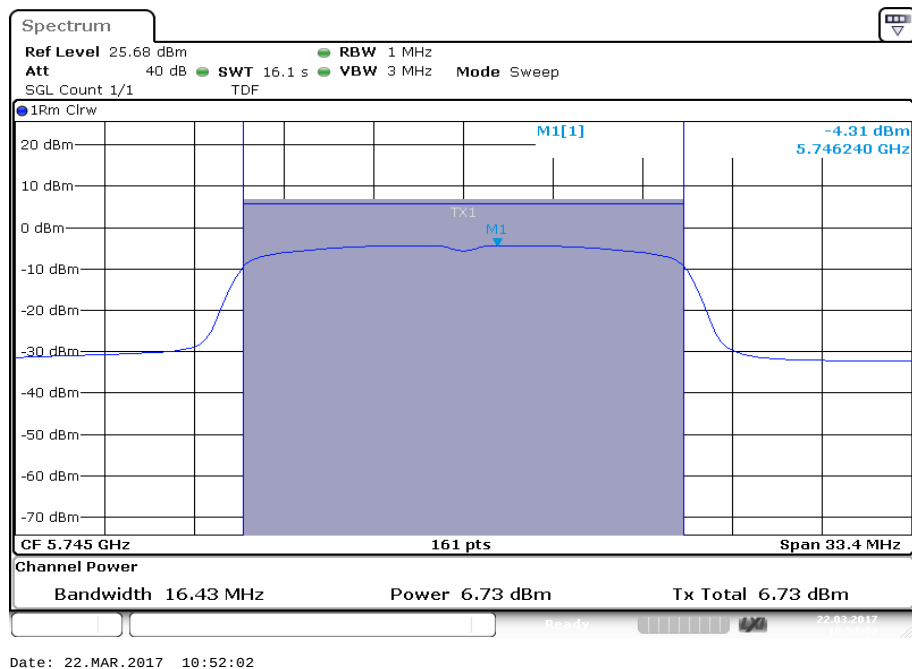
Plot 6: 5600 MHz, conducted



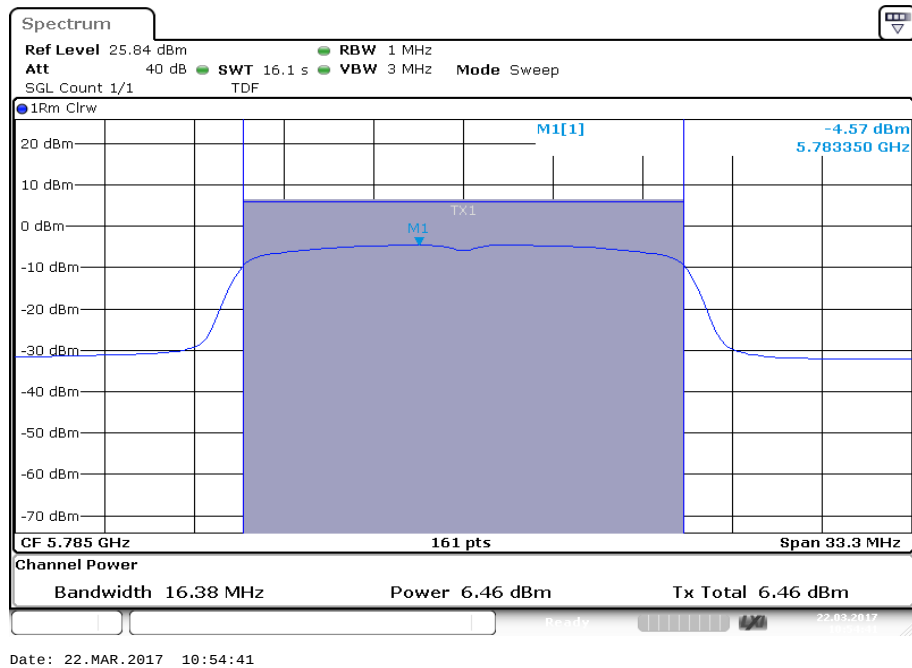
Plot 7: 5700 MHz, conducted



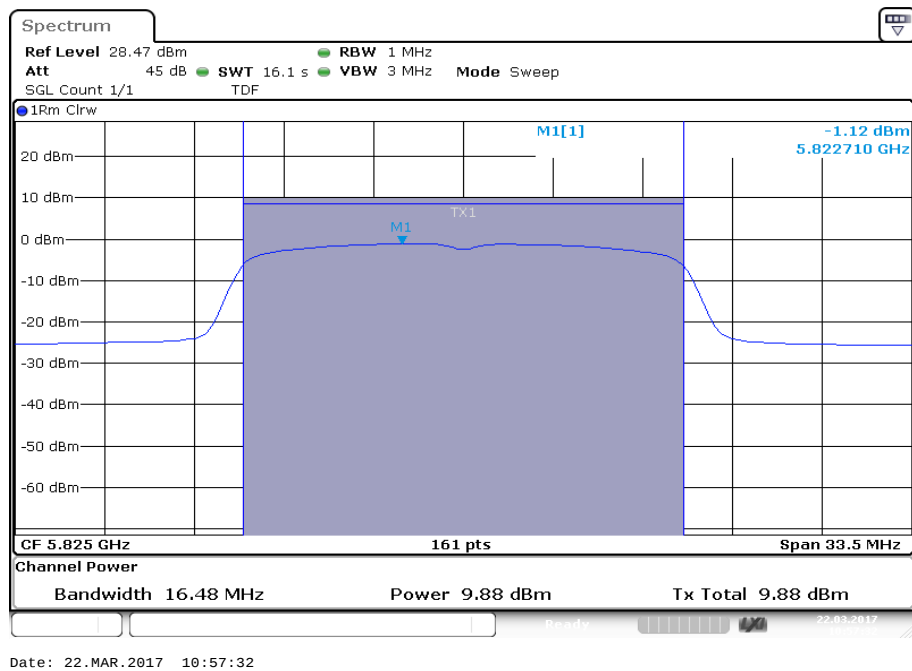
Plot 8: 5745 MHz, conducted



Plot 9: 5785 MHz, conducted

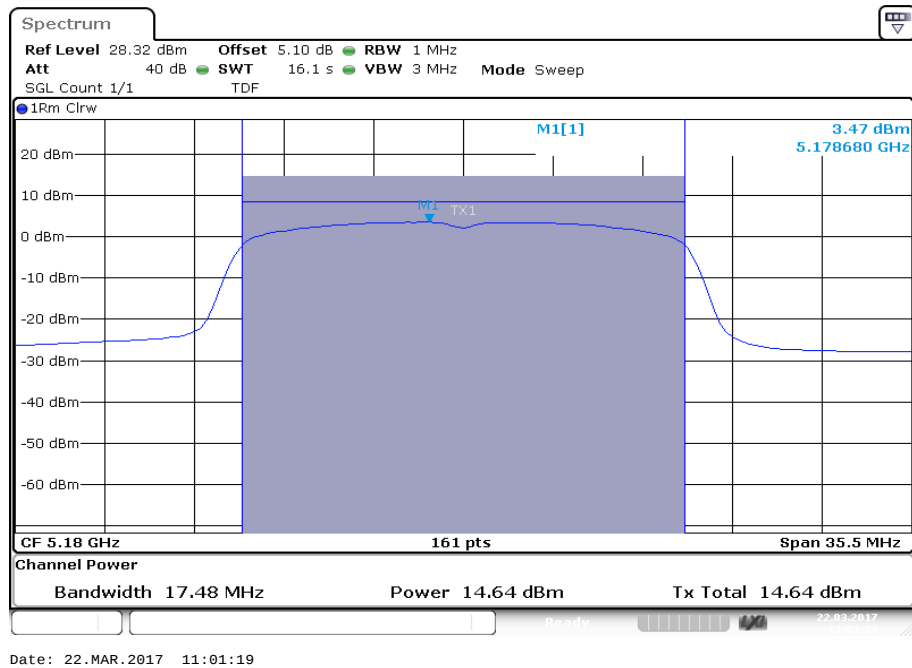


Plot 10: 5825 MHz, conducted

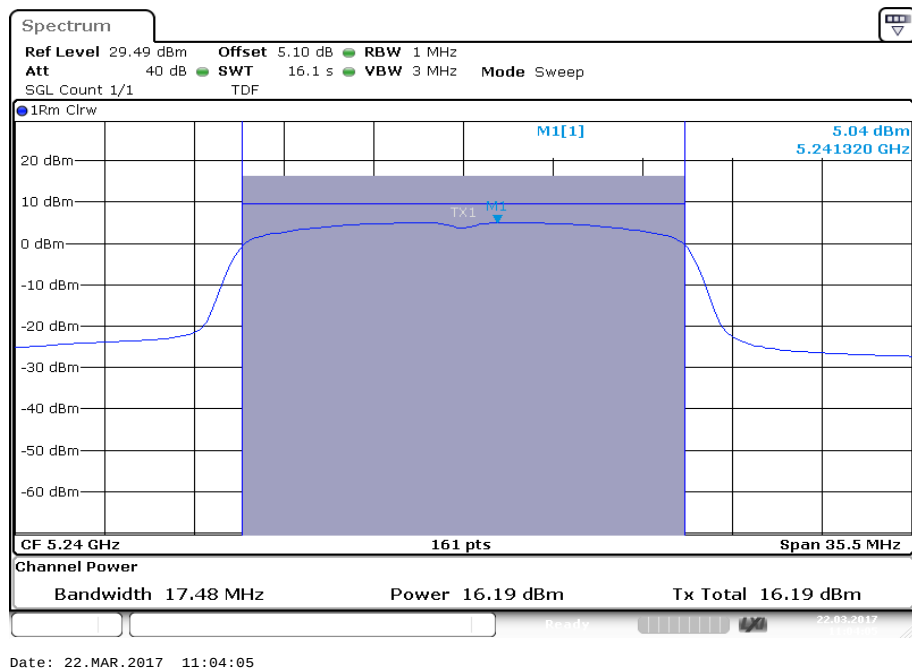


Plots: OFDM / n/ac HT20 – mode, UFL port

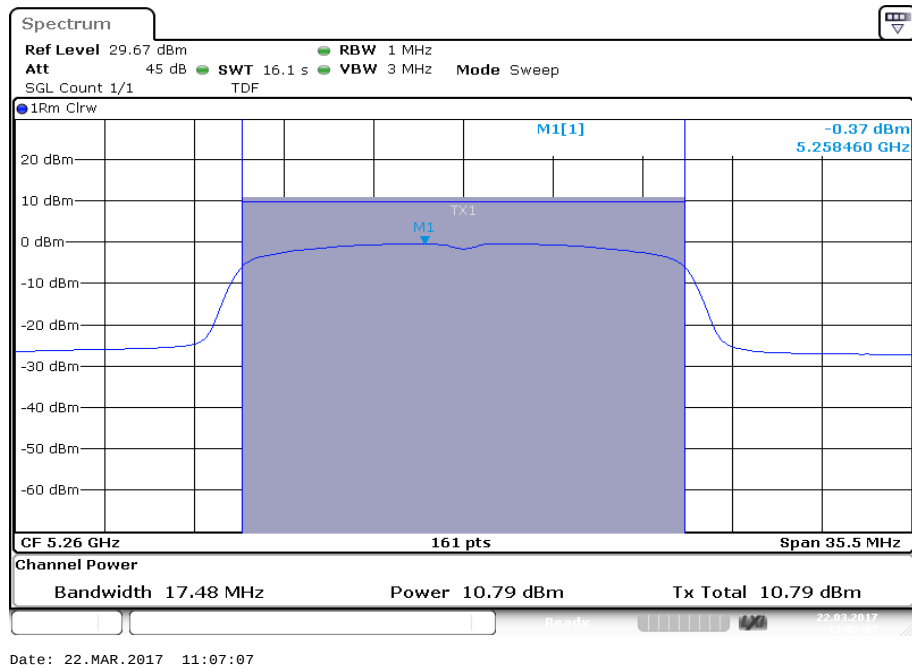
Plot 1: 5180 MHz, EIRP



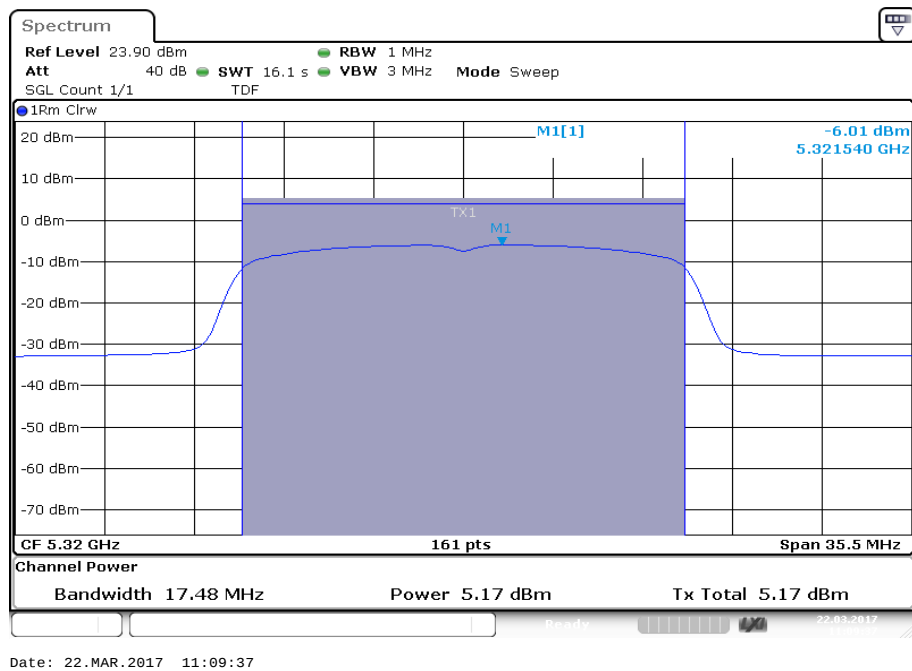
Plot 2: 5240 MHz, EIRP



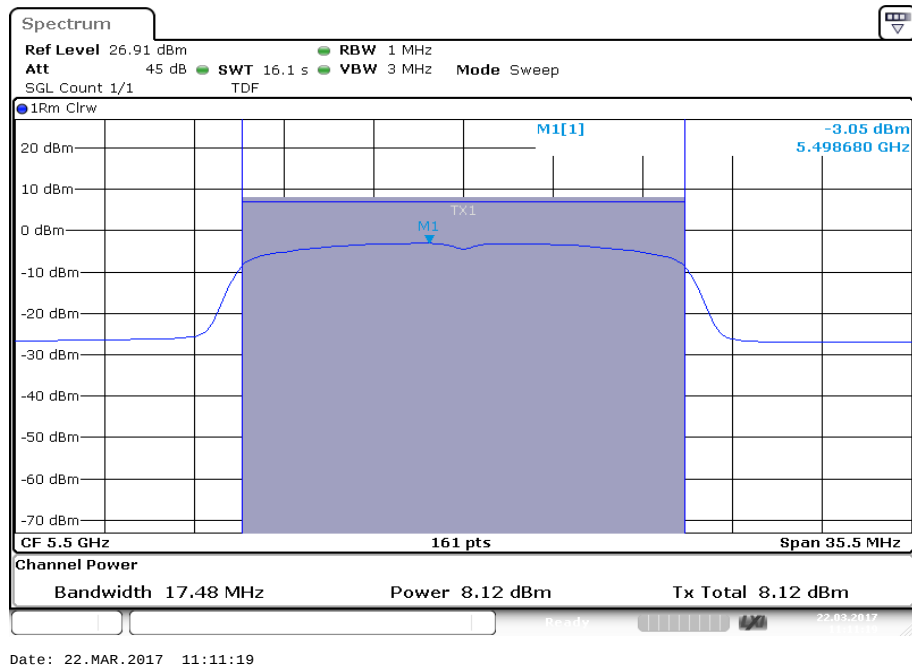
Plot 3: 5260 MHz, conducted



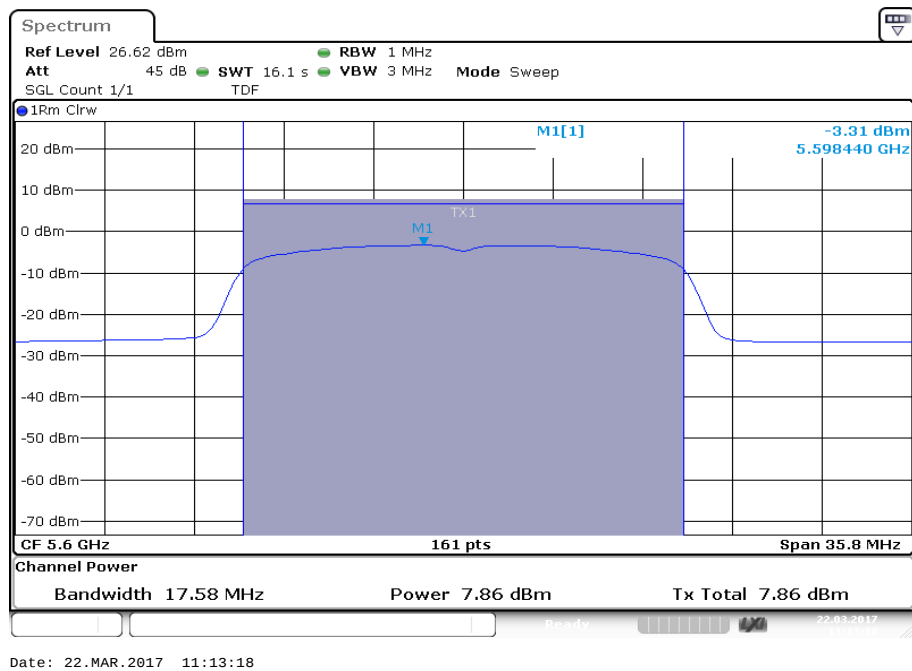
Plot 4: 5320 MHz, conducted



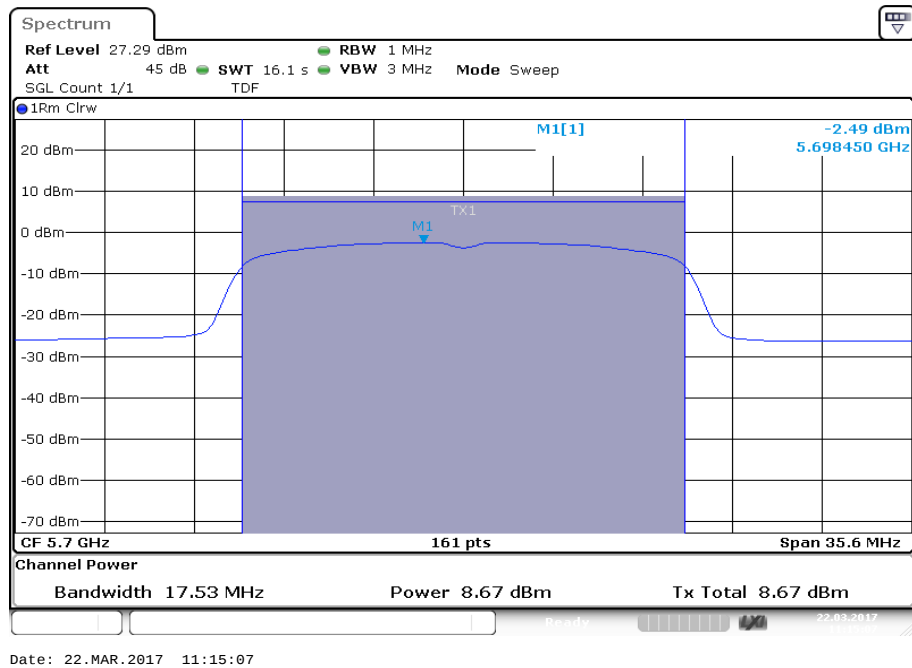
Plot 5: 5500 MHz, conducted



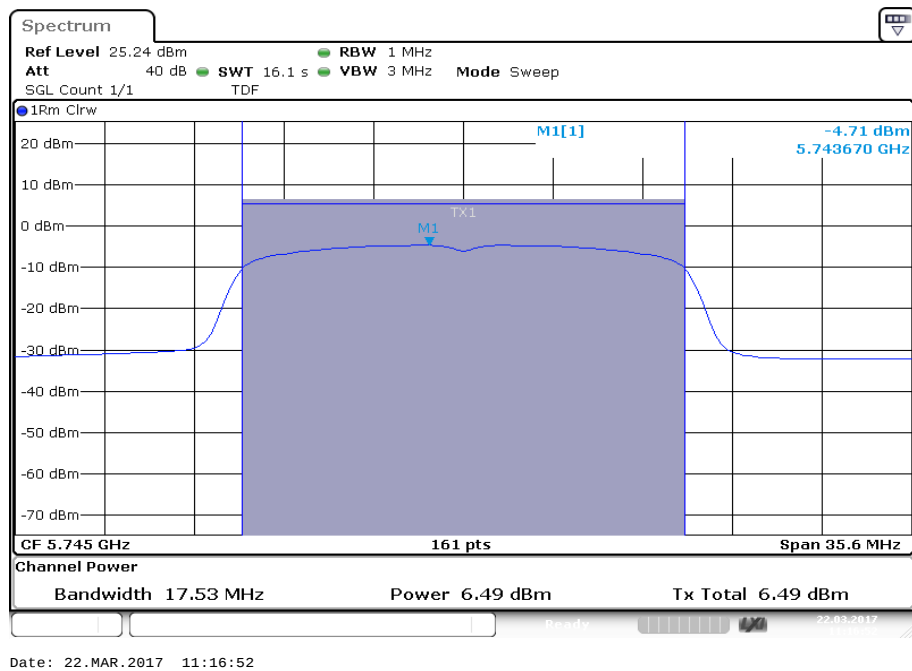
Plot 6: 5600 MHz, conducted



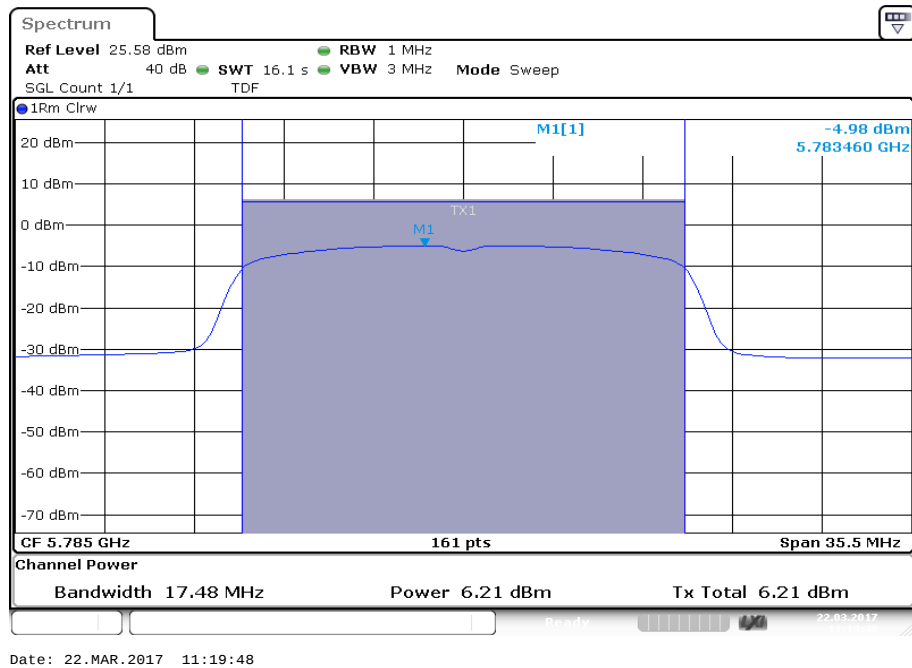
Plot 7: 5700 MHz, conducted



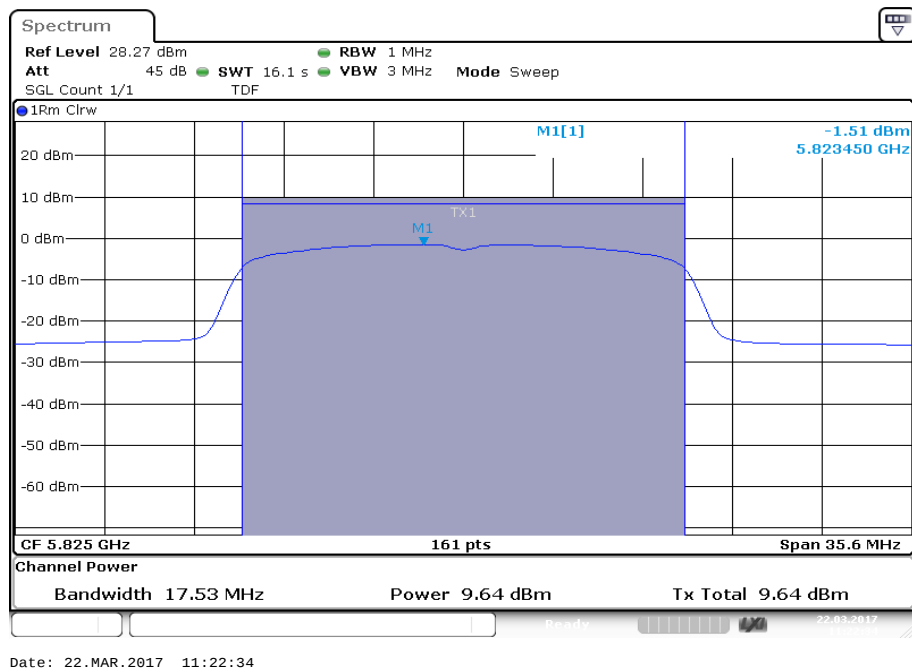
Plot 8: 5745 MHz, conducted



Plot 9: 5785 MHz, conducted

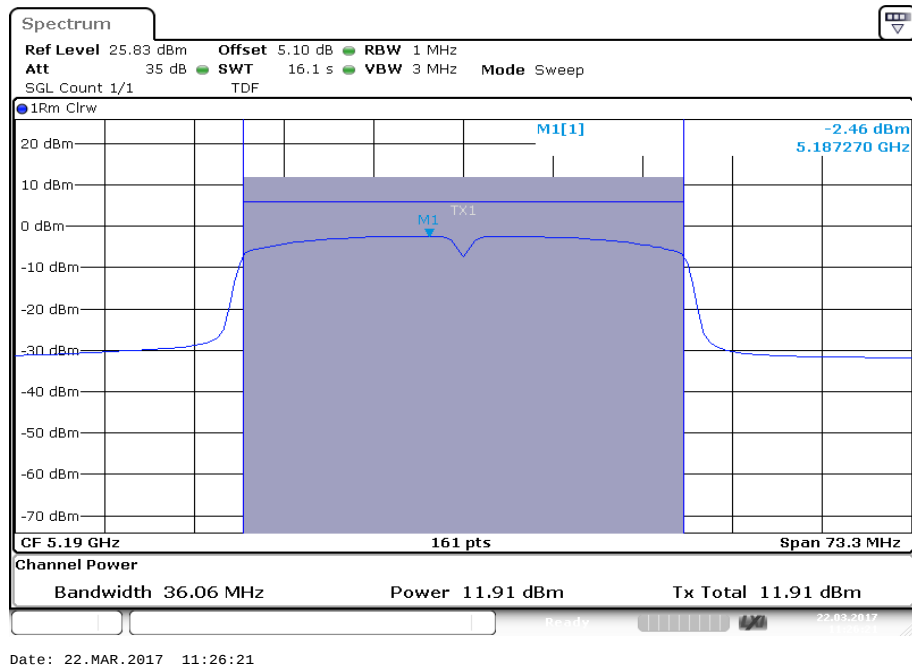


Plot 10: 5825 MHz, conducted

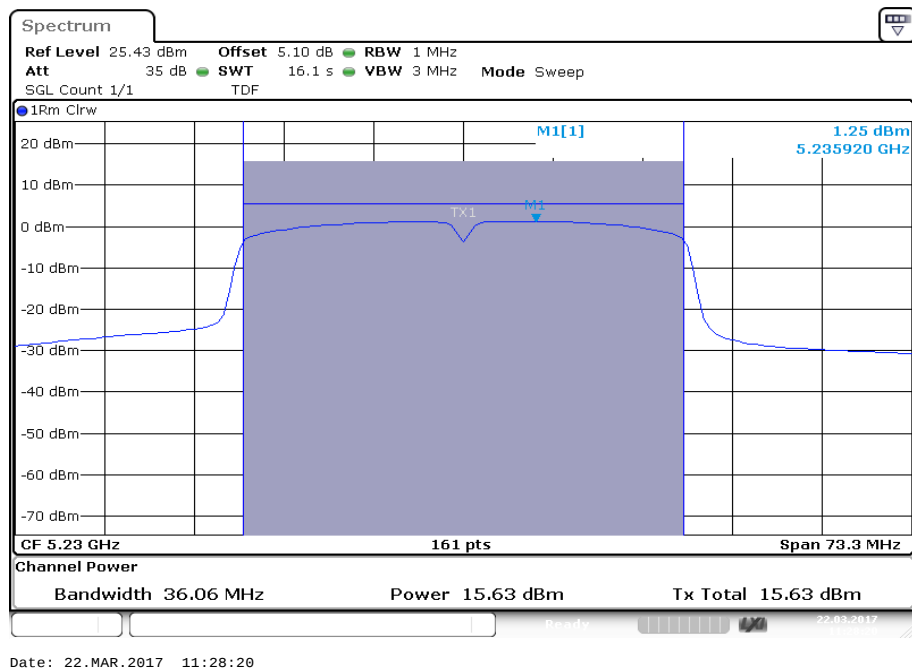


Plots: OFDM / n/ac HT40 – mode, UFL port

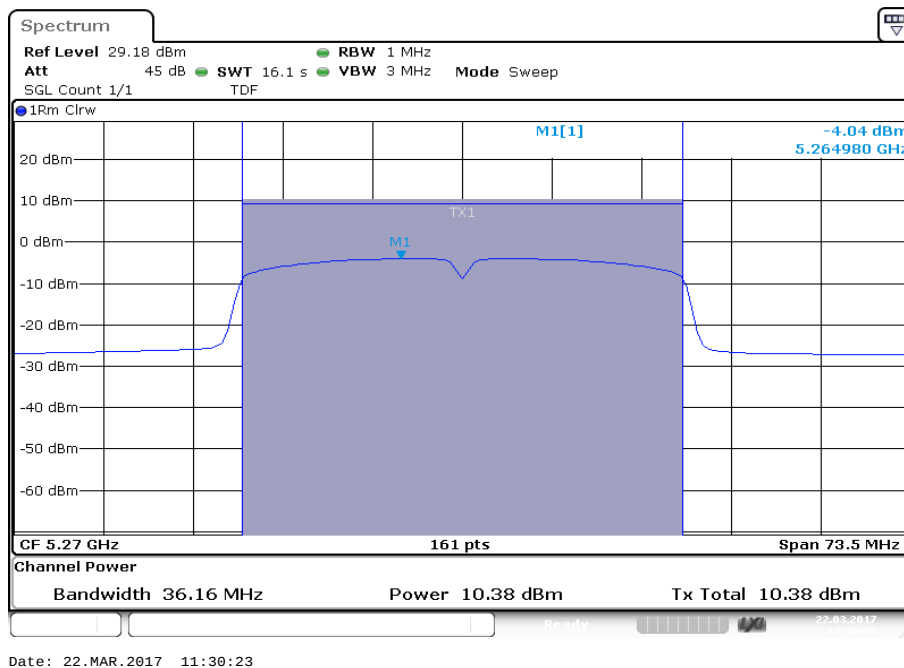
Plot 1: 5190 MHz, EIRP



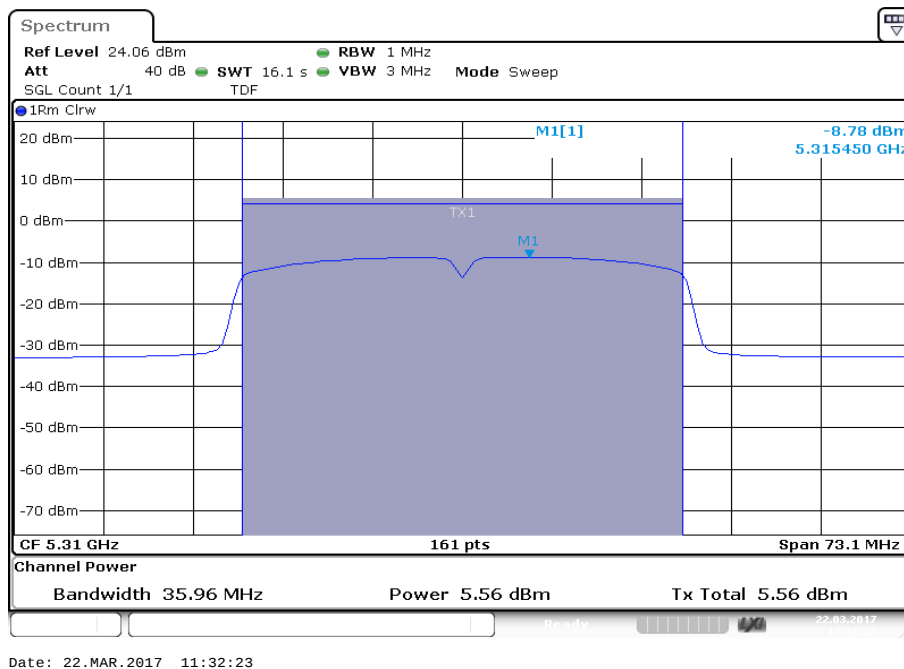
Plot 2: 5230 MHz, EIRP



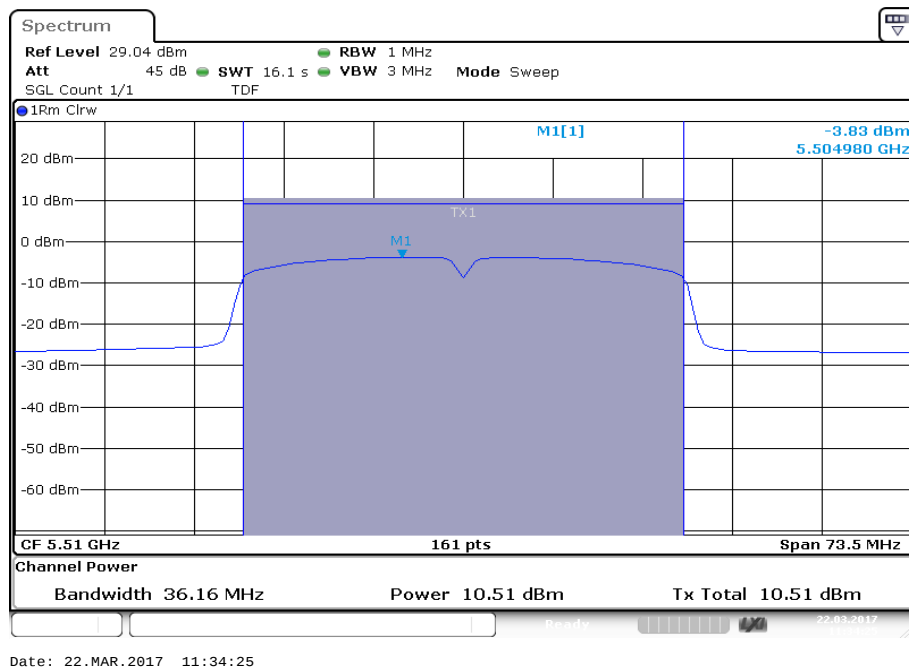
Plot 3: 5270 MHz, conducted



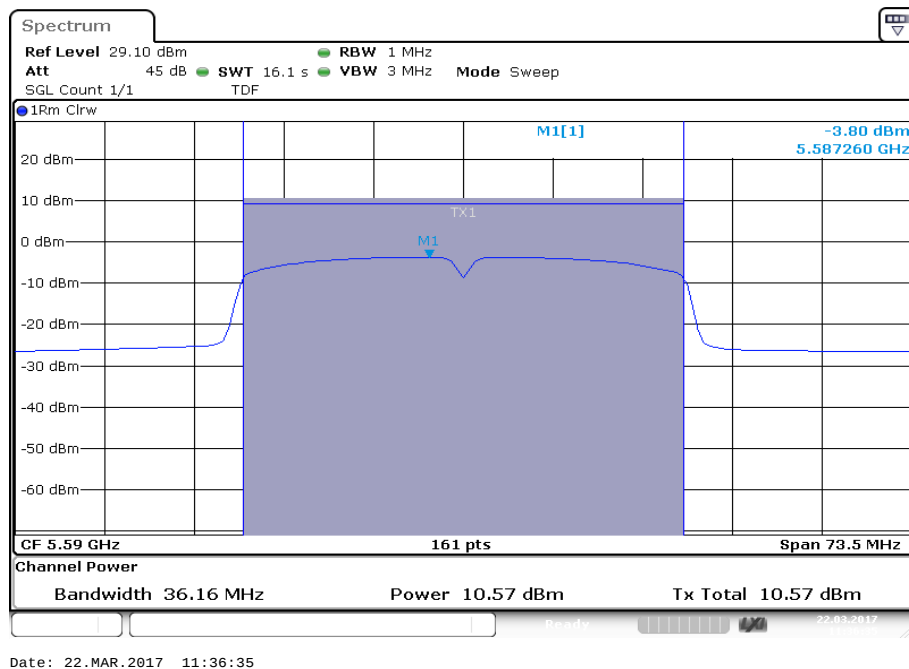
Plot 4: 5310 MHz, conducted



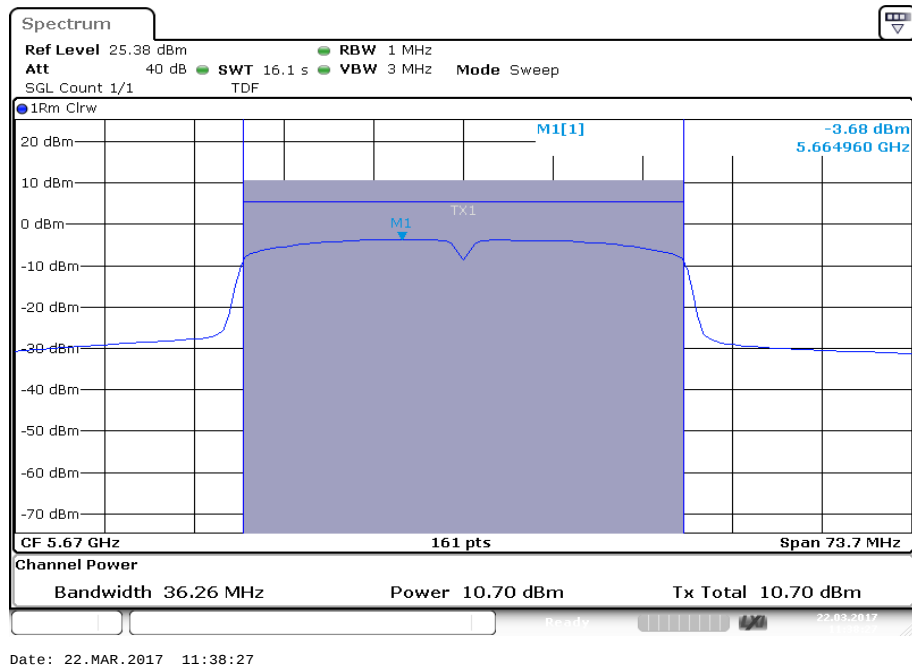
Plot 5: 5510 MHz, conducted



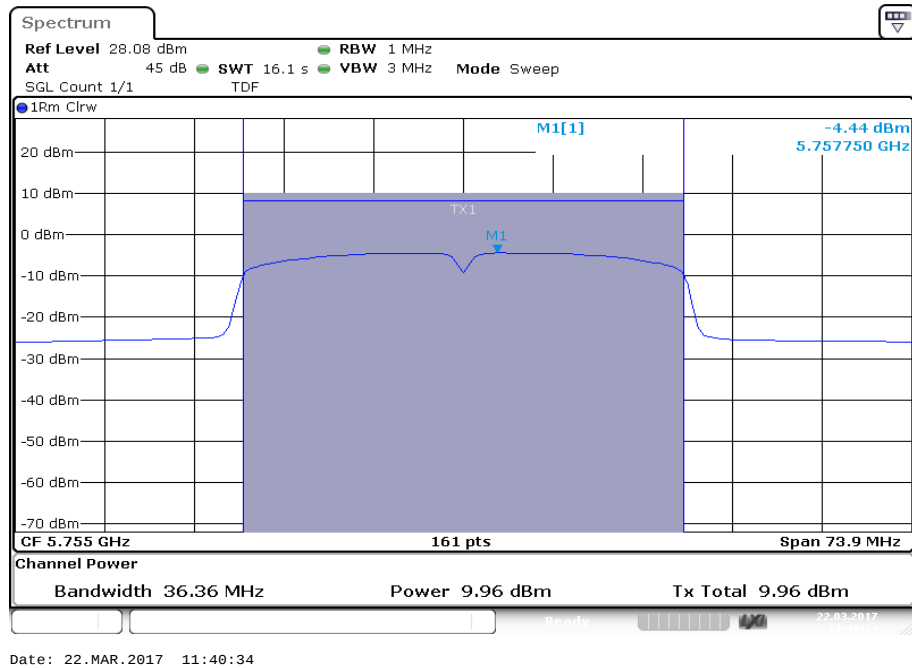
Plot 6: 5590 MHz, conducted



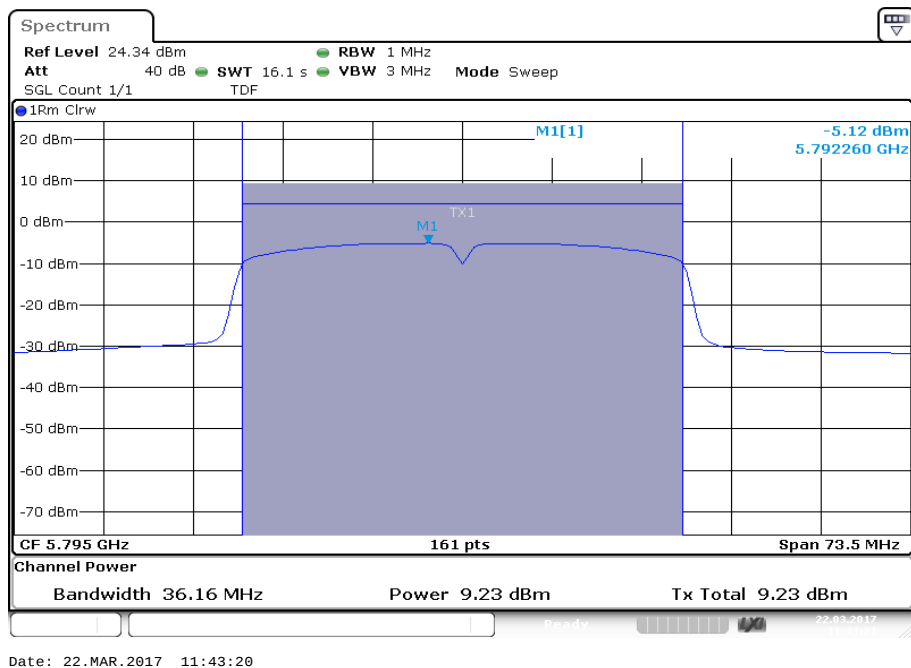
Plot 7: 5670 MHz, conducted



Plot 8: 5755 MHz, conducted

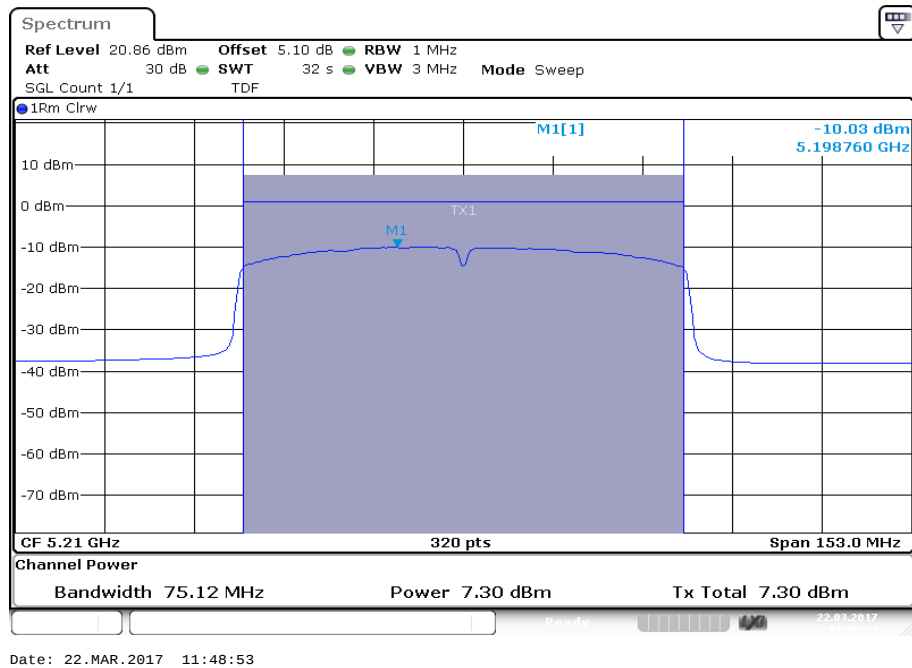


Plot 9: 5795 MHz, conducted

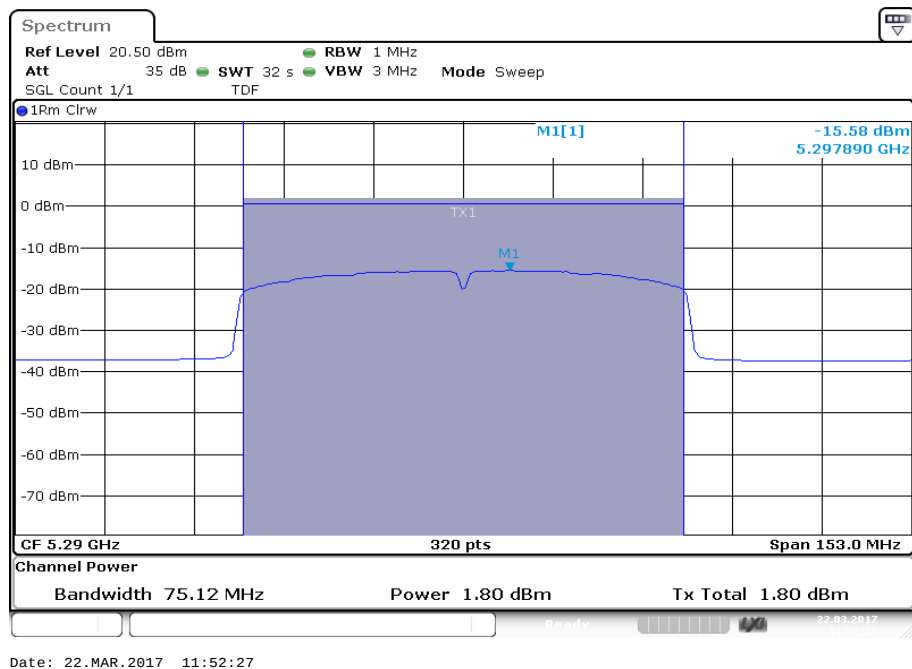


Plots: OFDM / ac HT80 – mode, UFL port

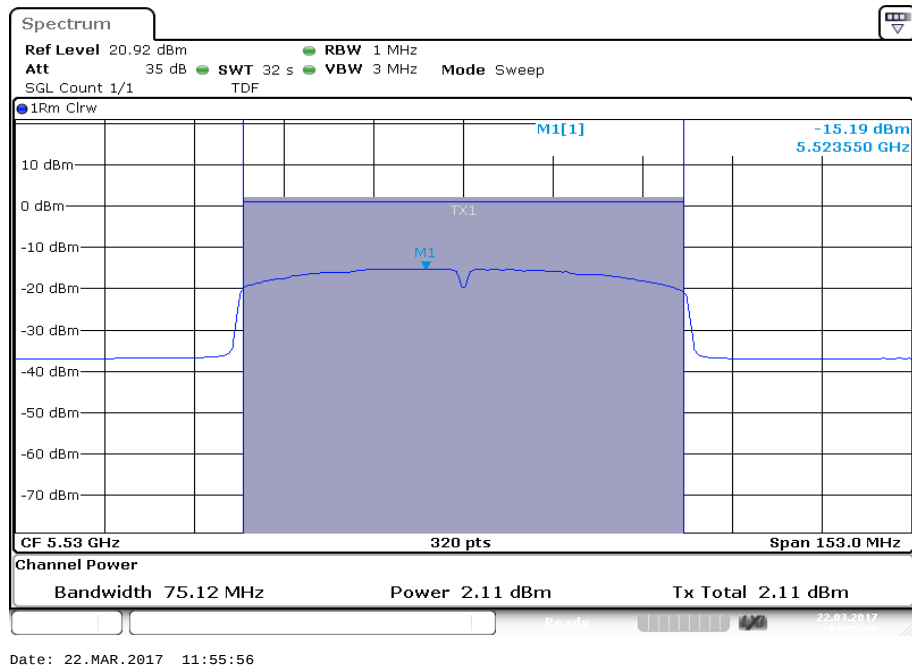
Plot 1: 5210 MHz, EIRP



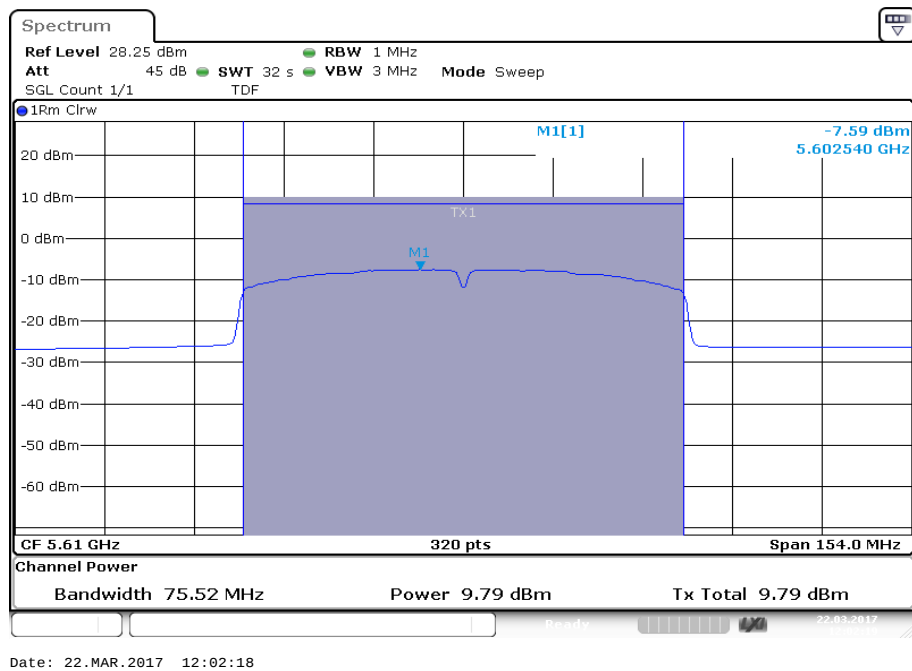
Plot 2: 5290 MHz, conducted



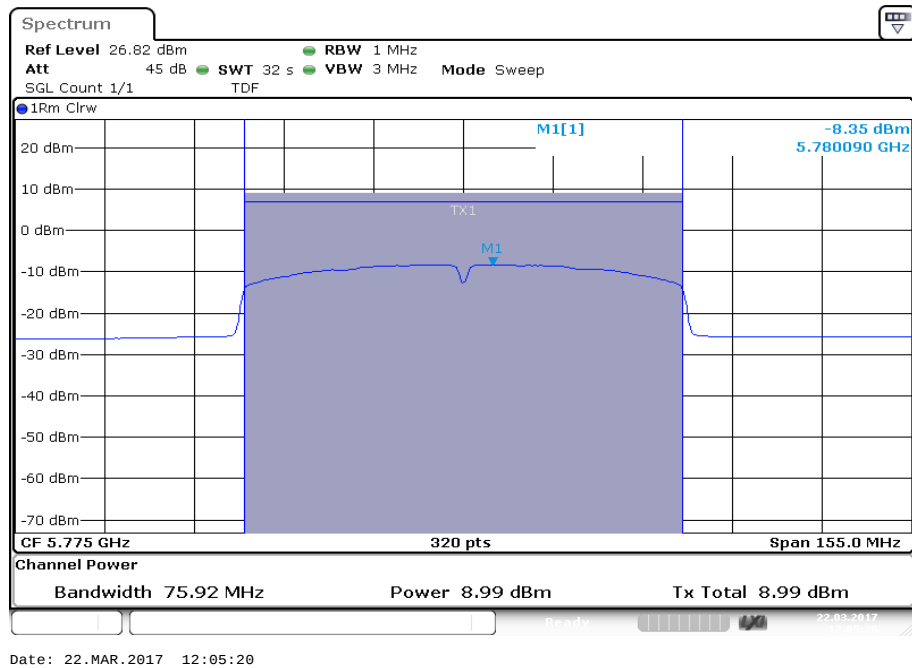
Plot 3: 5530 MHz, conducted



Plot 4: 5610 MHz, conducted



Plot 5: 5775 MHz, conducted



Result: OFDM / a – mode, MMCX port

OFDM / a – mode	Maximum output power EIRP [dBm]			
	Channel	5180 MHz	5240 MHz	
Including duty cycle correction factor		12.0	12.5	
Maximum output power conducted [dBm]				
Channel	5260 MHz	5320 MHz	5500 MHz	5600 MHz
Including duty cycle correction factor	7.0	-0.3	1.8	4.0
Channel	5700 MHz	5745 MHz	5785 MHz	5825 MHz
Including duty cycle correction factor	5.5	2.2	0.5	3.3

Result: OFDM / n/ac HT20 – mode, MMCX port

OFDM / n/ac HT20 – mode	Maximum output power EIRP [dBm]			
	Channel	5180 MHz	5240 MHz	
Including duty cycle correction factor		11.9	12.5	
Maximum output power conducted [dBm]				
Channel	5260 MHz	5320 MHz	5500 MHz	5600 MHz
Including duty cycle correction factor	6.9	-0.4	1.8	4.0
Channel	5700 MHz	5745 MHz	5785 MHz	5825 MHz
Including duty cycle correction factor	5.4	2.1	0.4	3.2

Result: OFDM / n/ac HT40 – mode, MMCX port

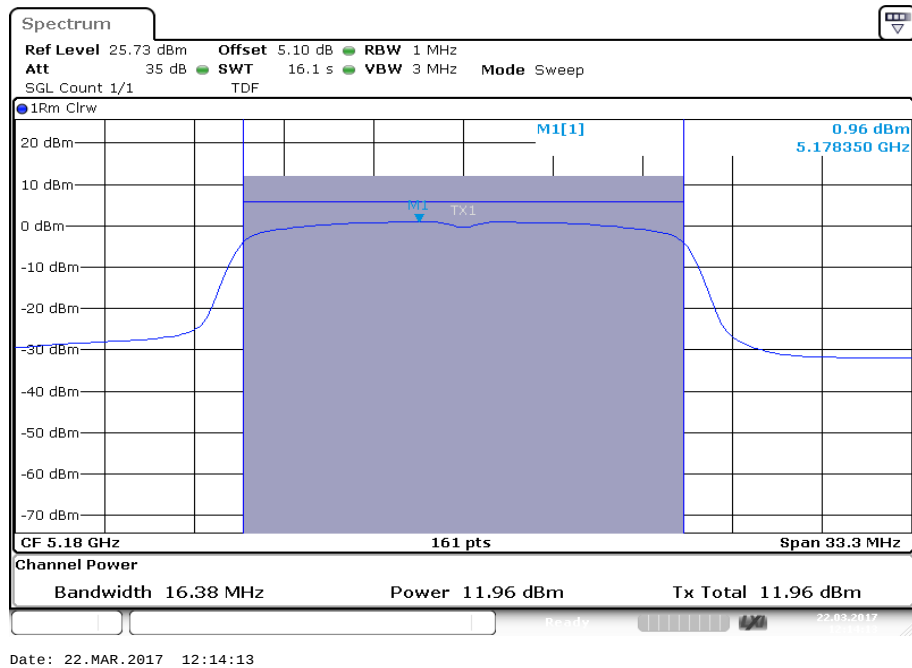
OFDM / n/ac HT40 – mode	Maximum output power EIRP [dBm]			
	Channel	5190 MHz	5230 MHz	
Including duty cycle correction factor		8.8	11.8	
Maximum output power conducted [dBm]				
Channel	5270 MHz	5310 MHz	5510 MHz	5590 MHz
Including duty cycle correction factor	5.8	-0.1	4.2	6.2
Channel	5670 MHz	5755 MHz	5795 MHz	
Including duty cycle correction factor	7.9	5.0	3.1	

Result: OFDM / ac HT80 – mode, MMCX port

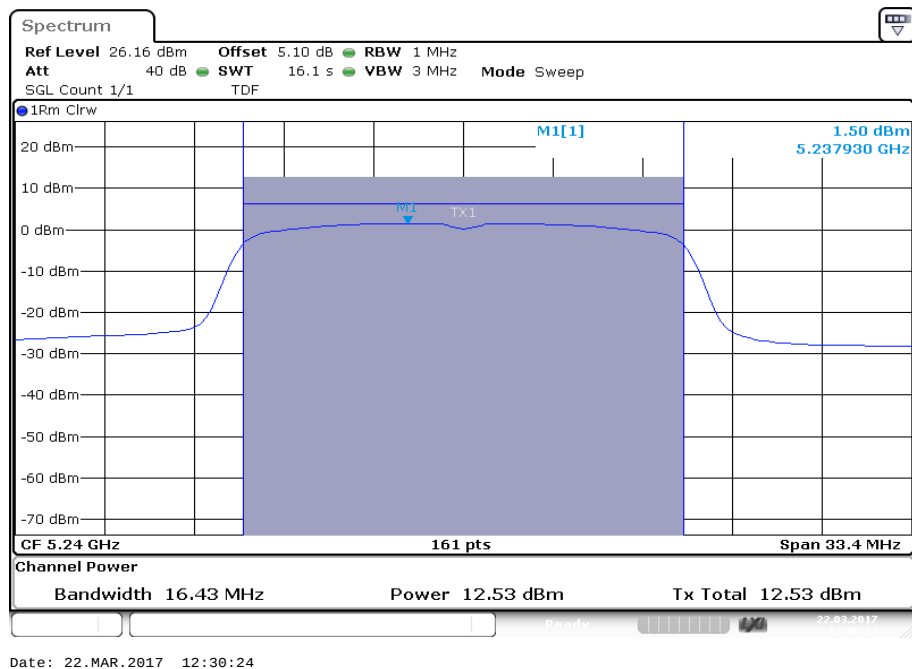
OFDM / ac HT80 – mode	Maximum output power EIRP [dBm]			
	Channel	5210 MHz		
Including duty cycle correction factor		4.0		
Maximum output power conducted [dBm]				
Channel	5290 MHz	5530 MHz	5610 MHz	5775 MHz
Including duty cycle correction factor	-3.3	-3.7	5.9	3.5

Plots: OFDM / a – mode, MMCX port

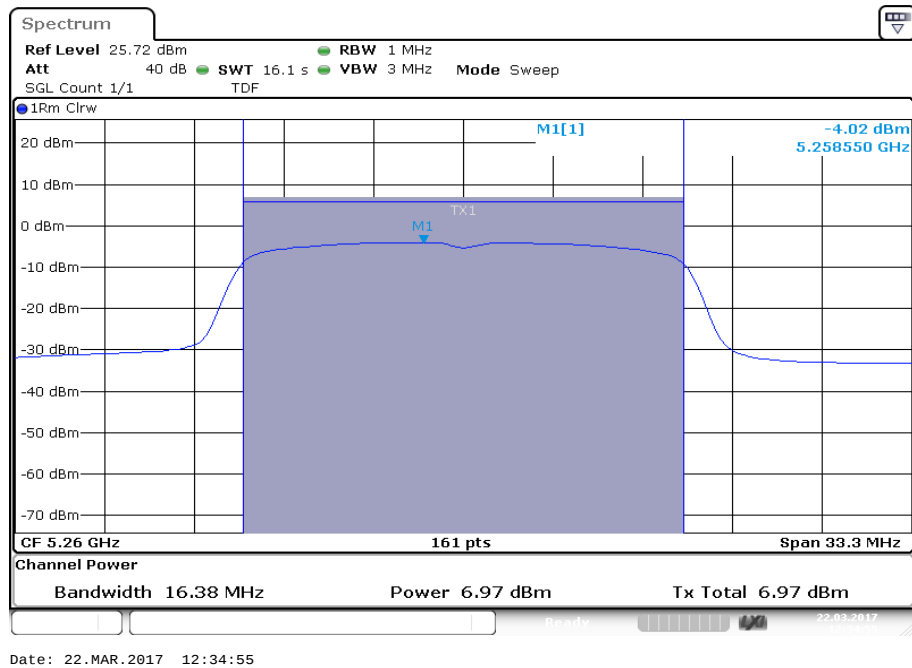
Plot 1: 5180 MHz, EIRP



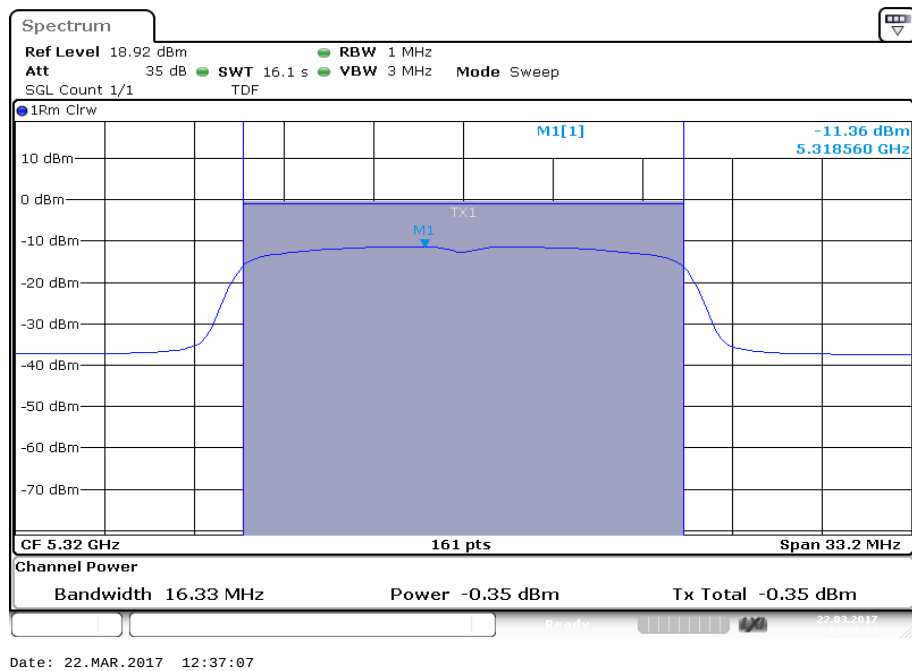
Plot 2: 5240 MHz, EIRP



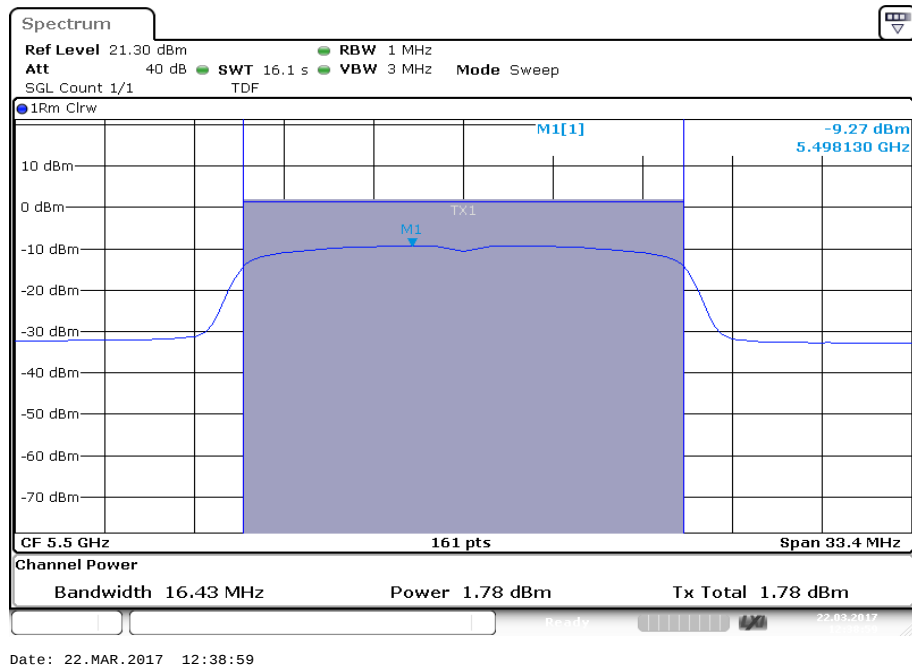
Plot 3: 5260 MHz, conducted



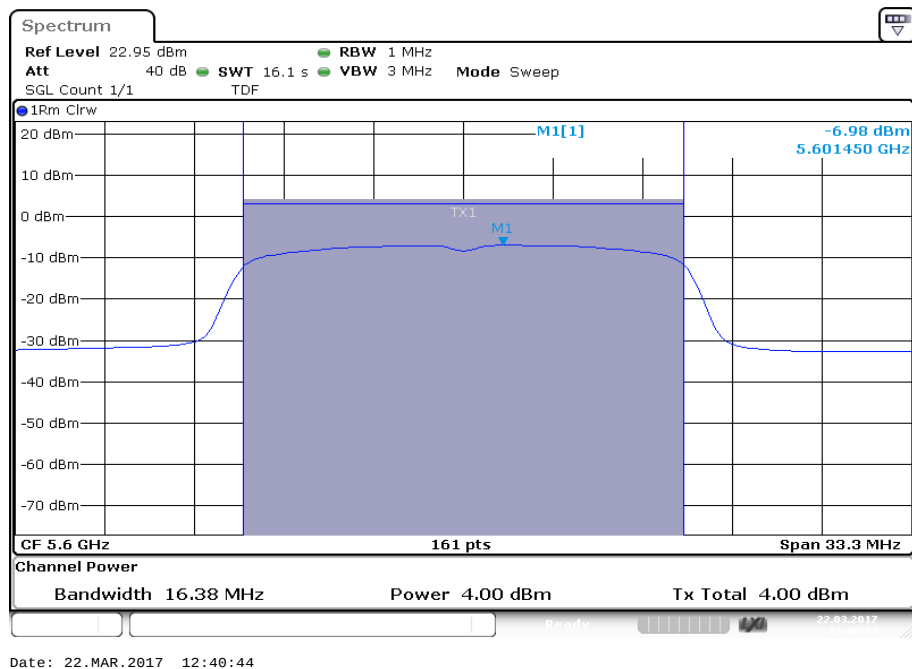
Plot 4: 5320 MHz, conducted



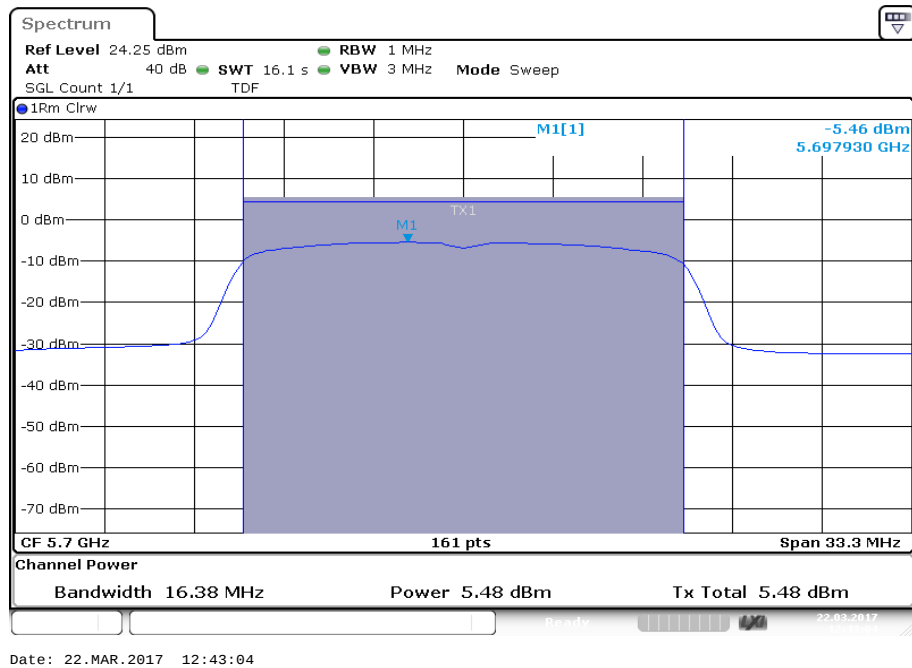
Plot 5: 5500 MHz, conducted



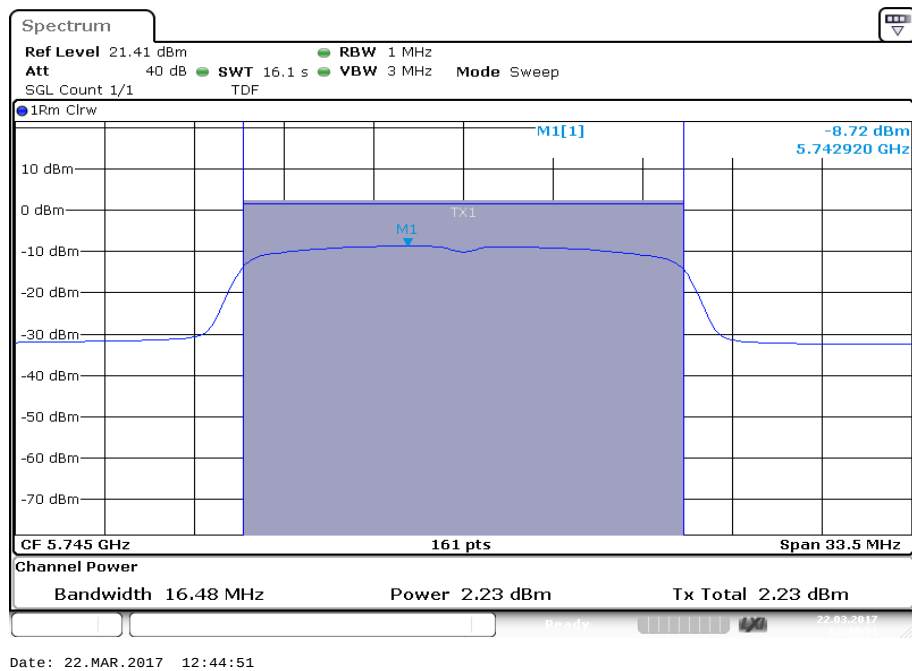
Plot 6: 5600 MHz, conducted



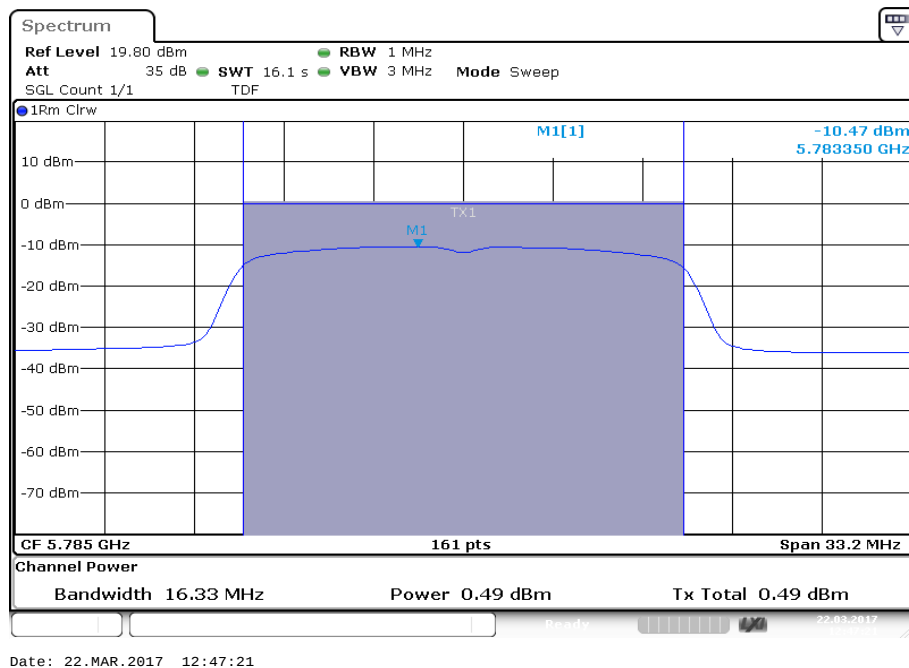
Plot 7: 5700 MHz, conducted



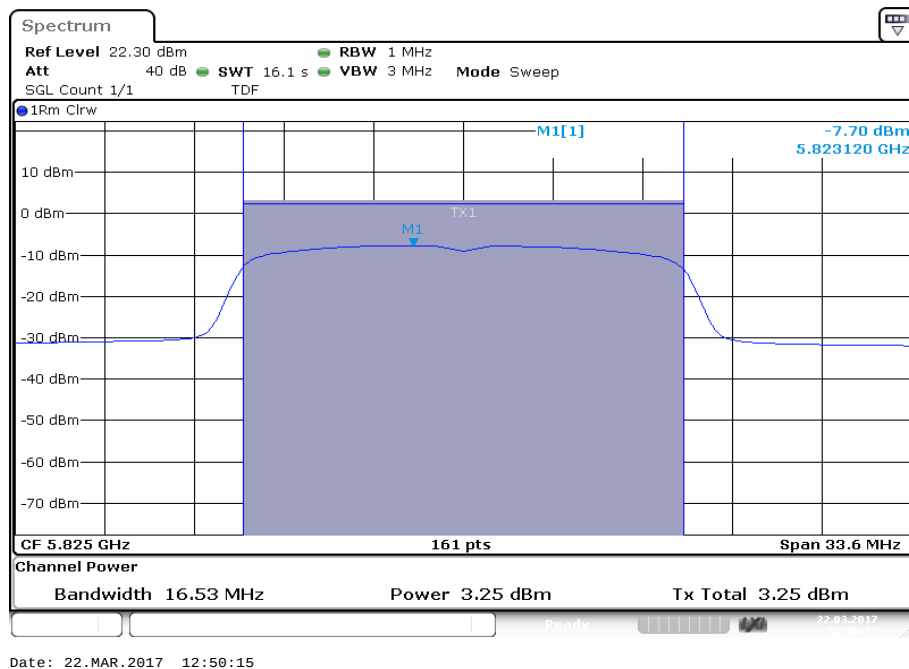
Plot 8: 5745 MHz, conducted



Plot 9: 5785 MHz, conducted

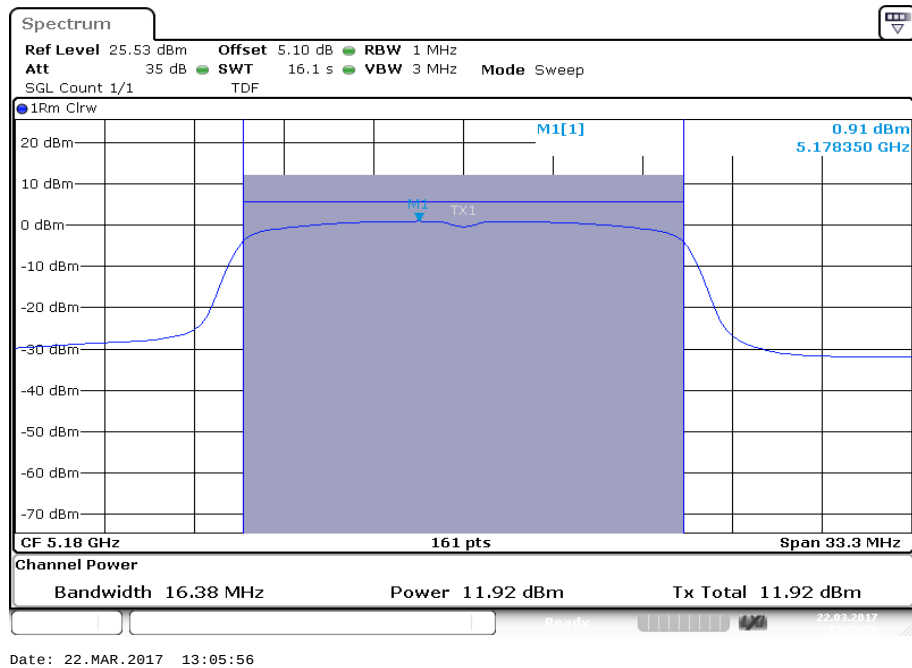


Plot 10: 5825 MHz, conducted

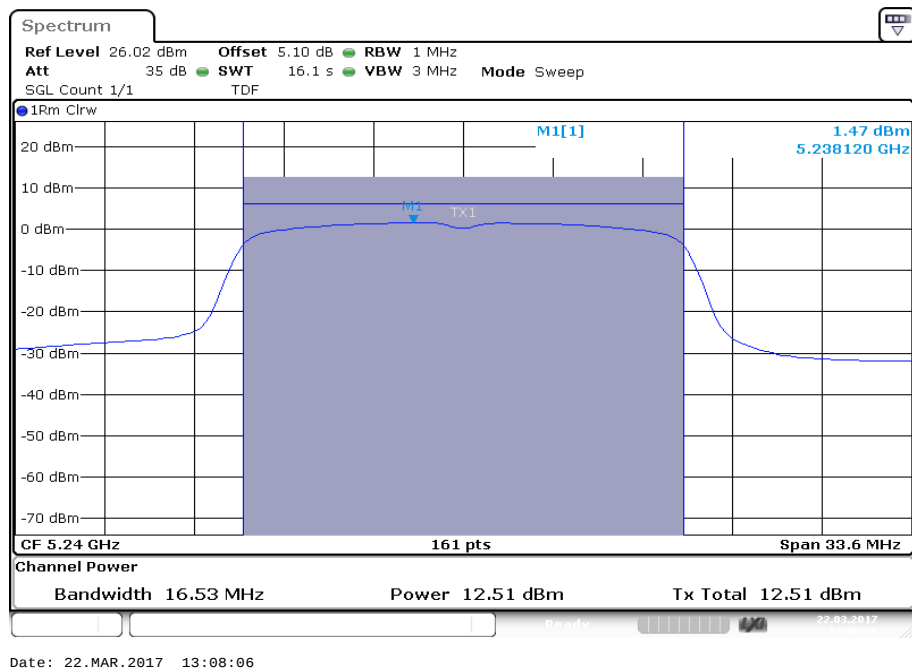


Plots: OFDM / n/ac HT20 – mode, MMCX port

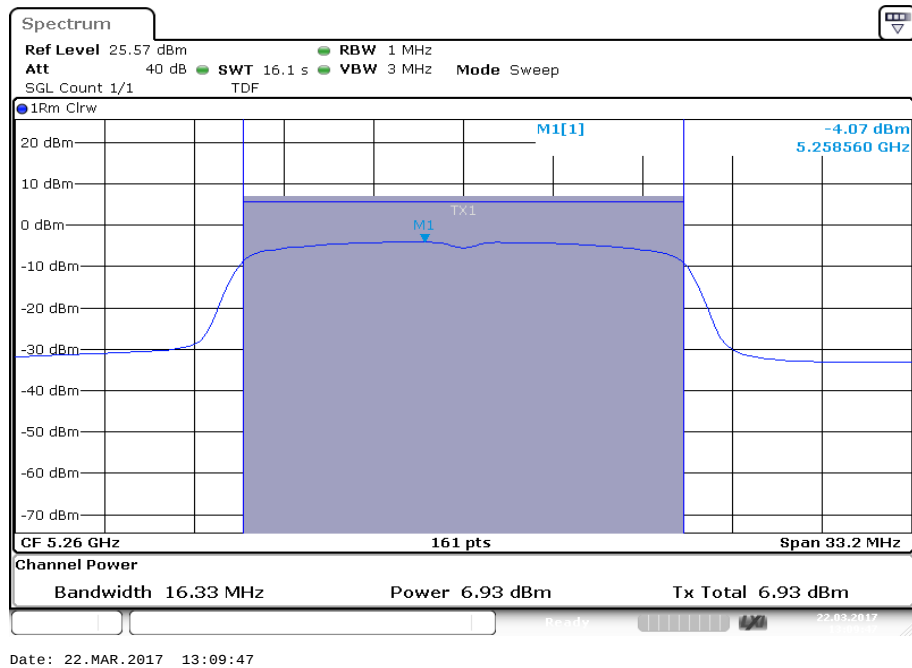
Plot 1: 5180 MHz, EIRP



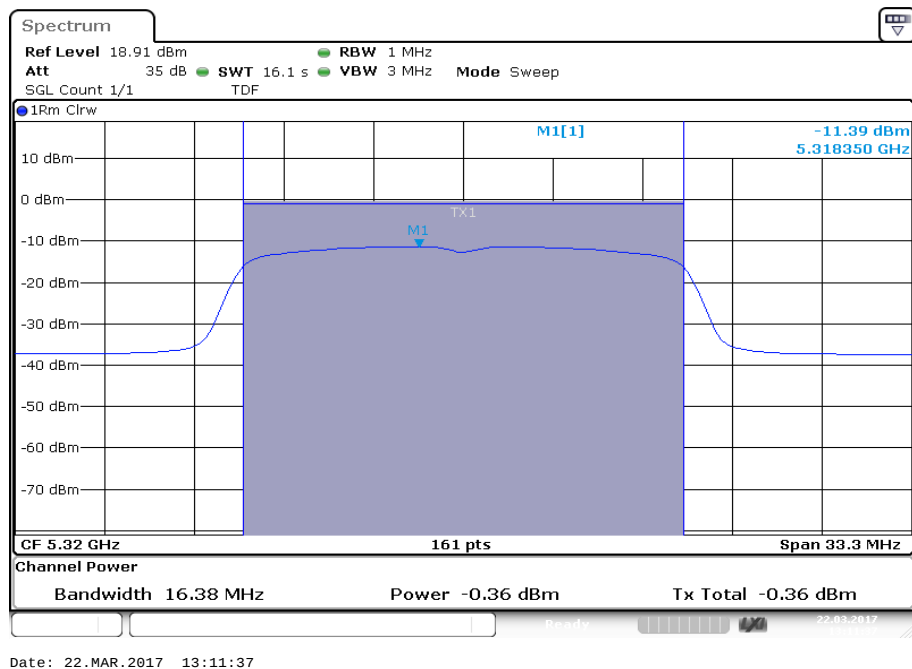
Plot 2: 5240 MHz, EIRP



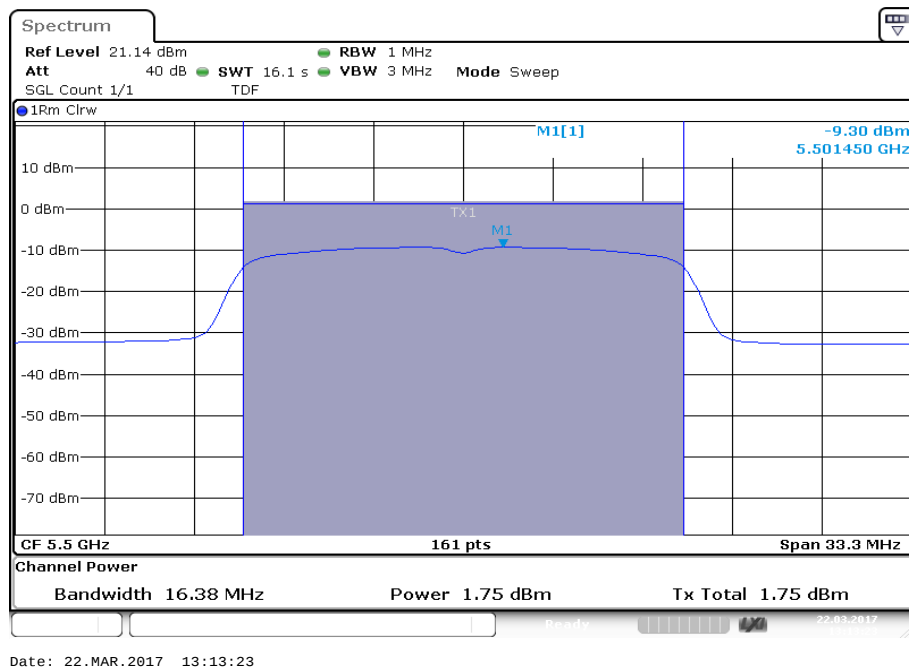
Plot 3: 5260 MHz, conducted



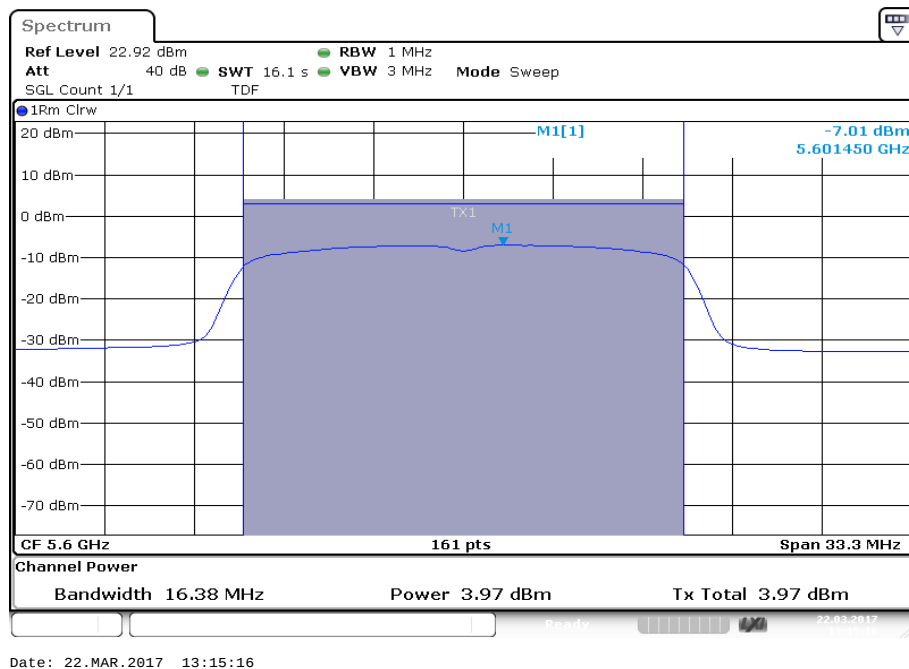
Plot 4: 5320 MHz, conducted



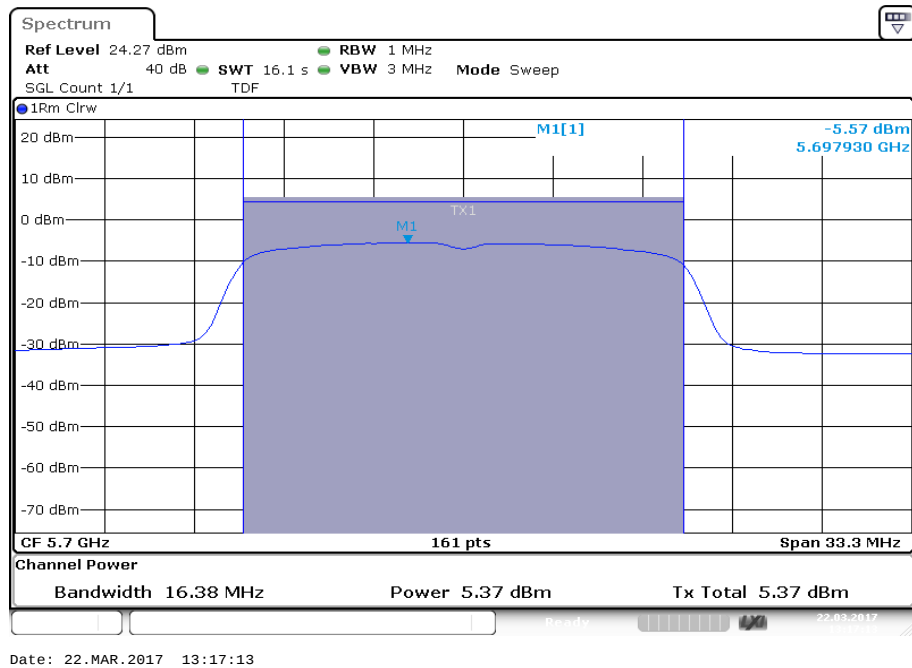
Plot 5: 5500 MHz, conducted



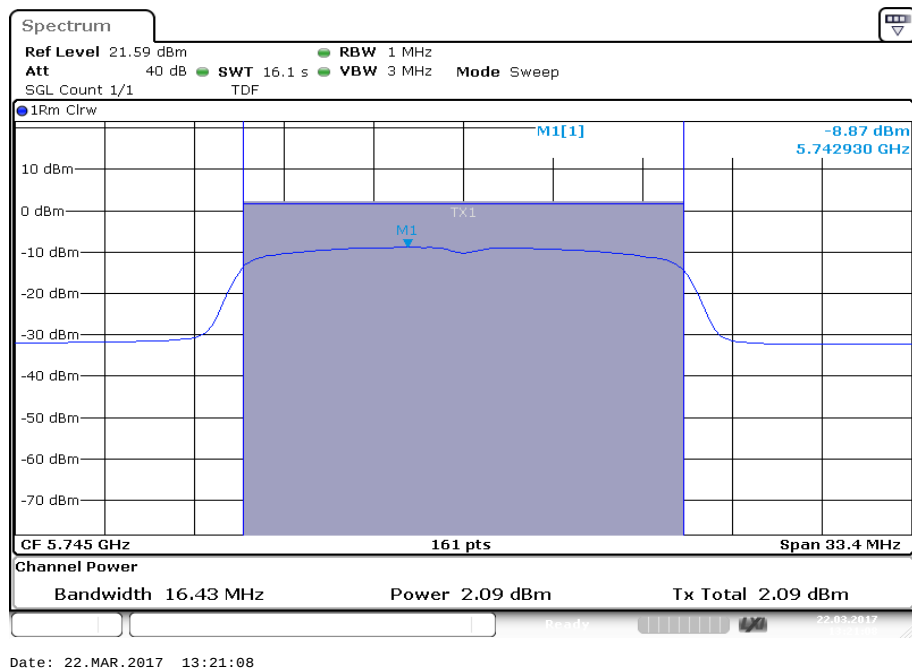
Plot 6: 5600 MHz, conducted



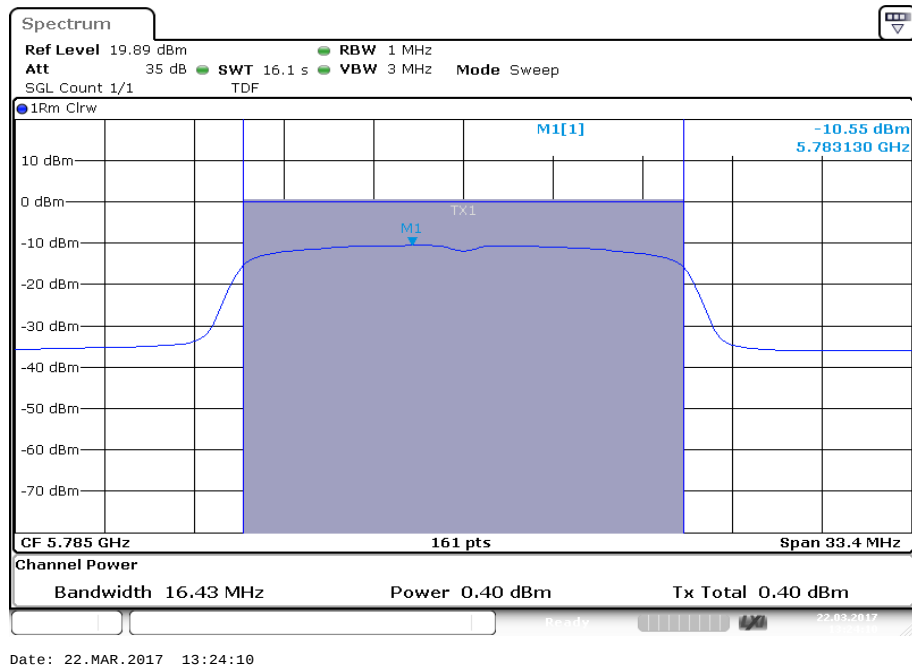
Plot 7: 5700 MHz, conducted



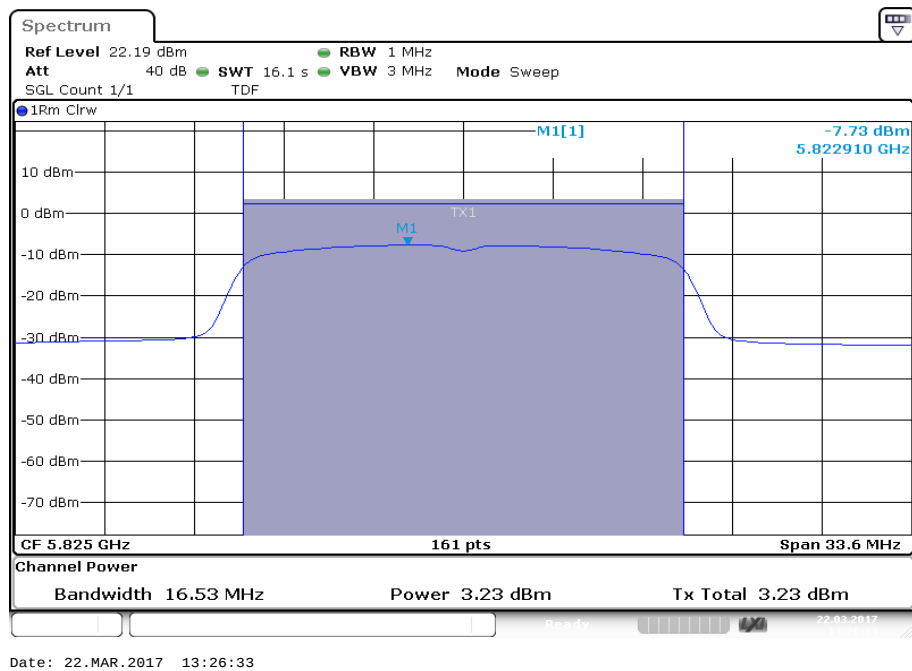
Plot 8: 5745 MHz, conducted



Plot 9: 5785 MHz, conducted

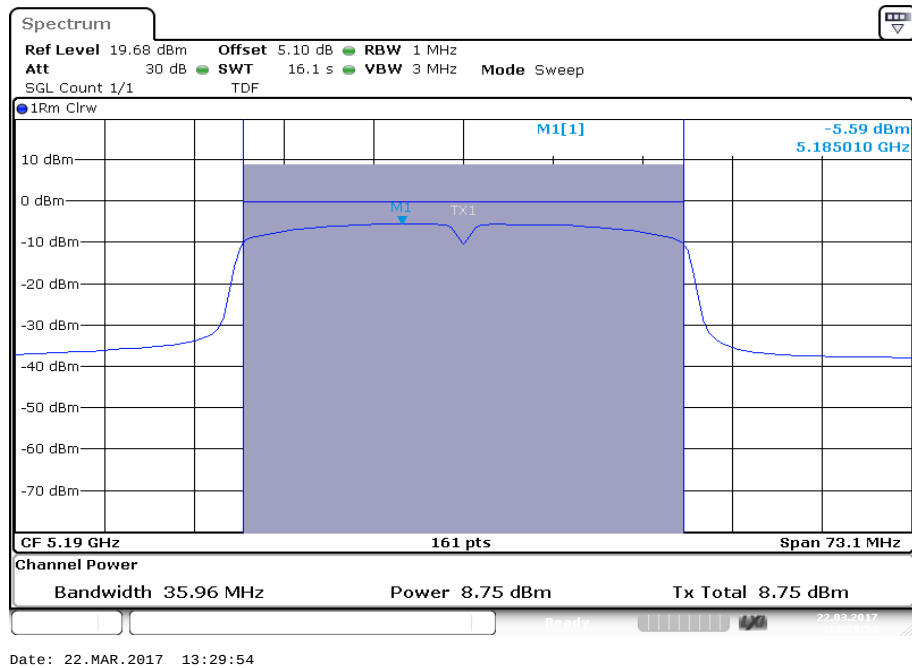


Plot 10: 5825 MHz, conducted

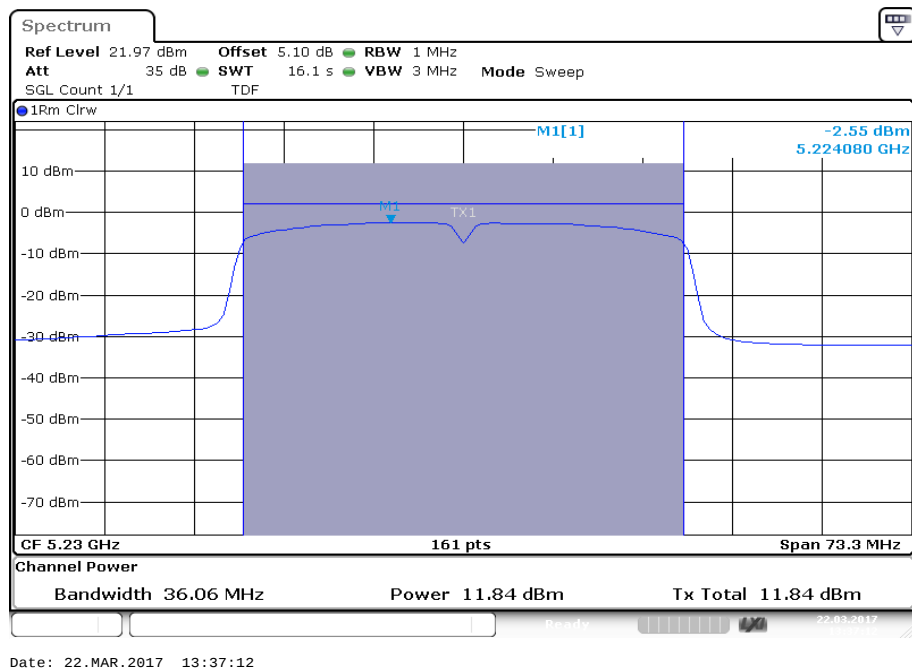


Plots: OFDM / n/ac HT40 – mode, MMCX port

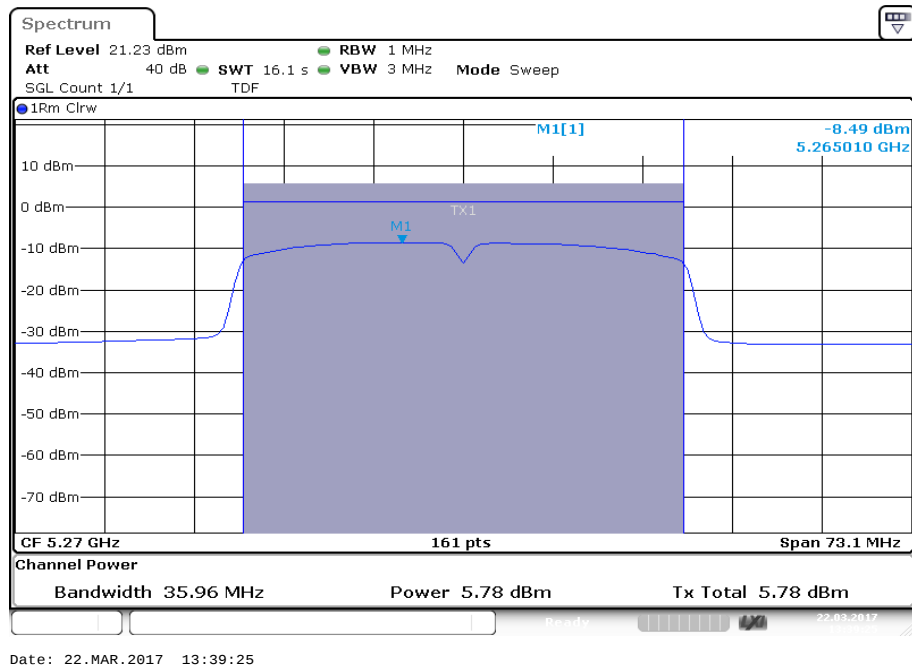
Plot 1: 5190 MHz, EIRP



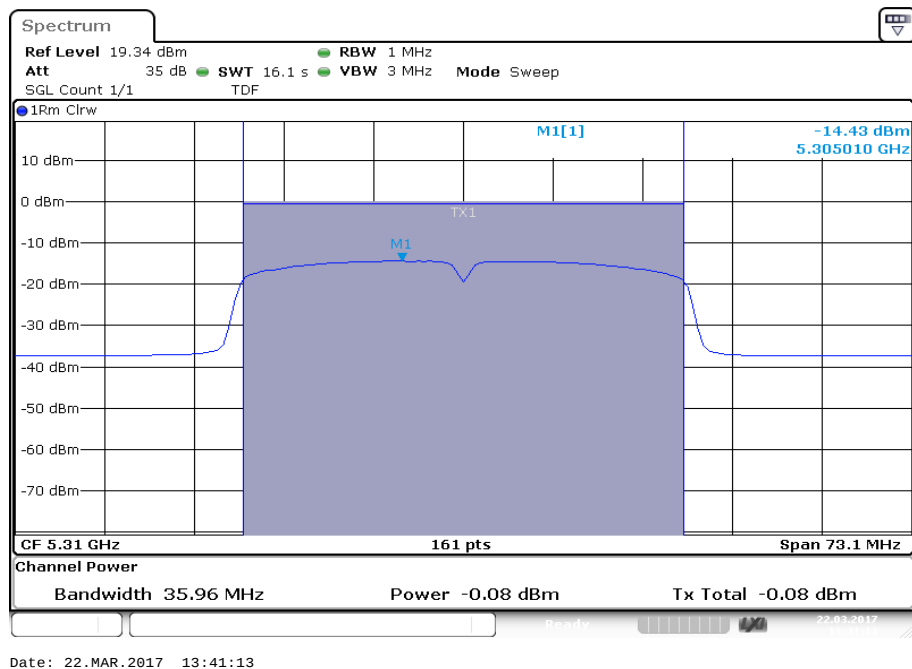
Plot 2: 5230 MHz, EIRP



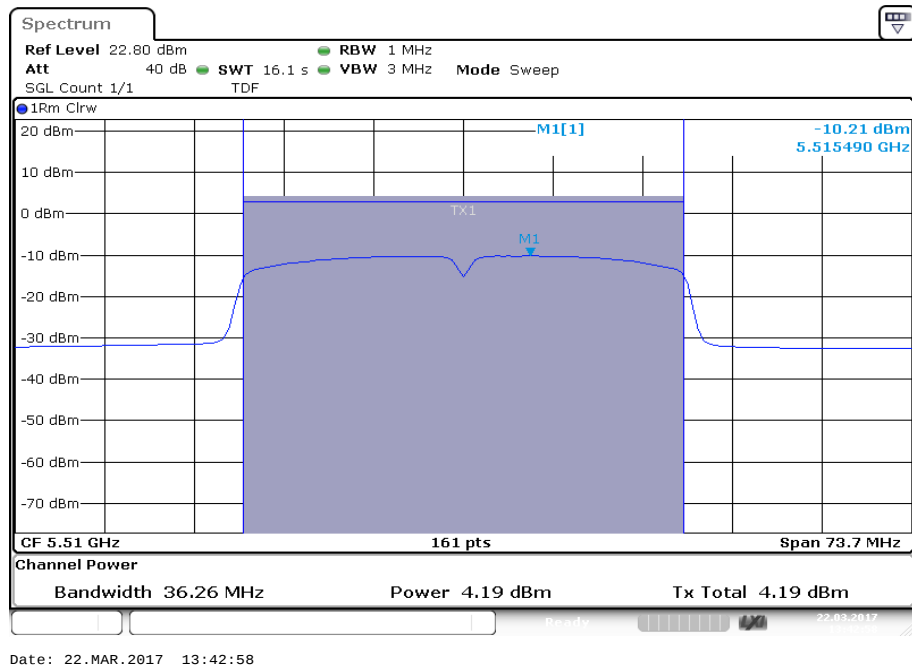
Plot 3: 5270 MHz, conducted



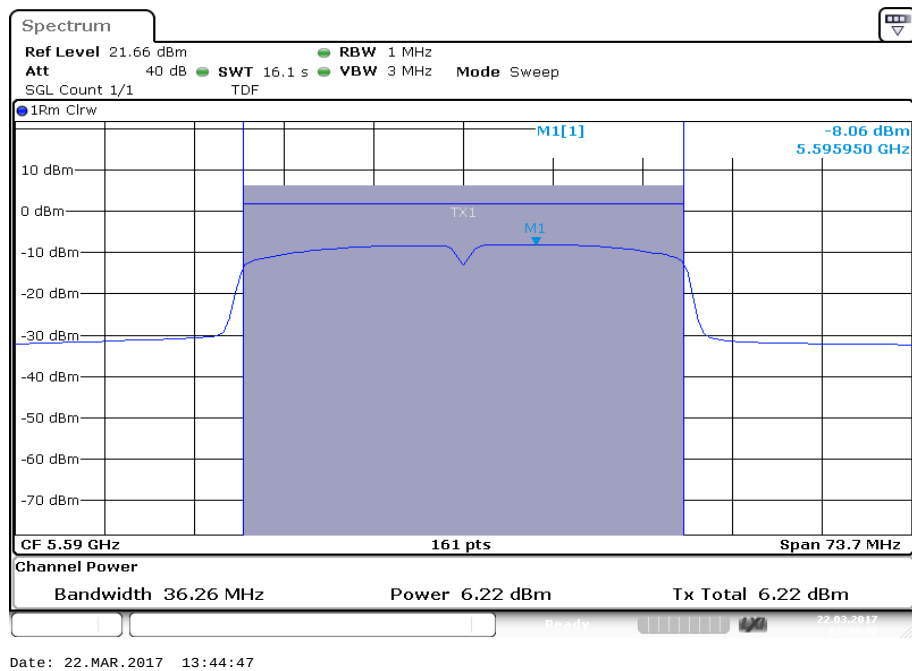
Plot 4: 5310 MHz, conducted



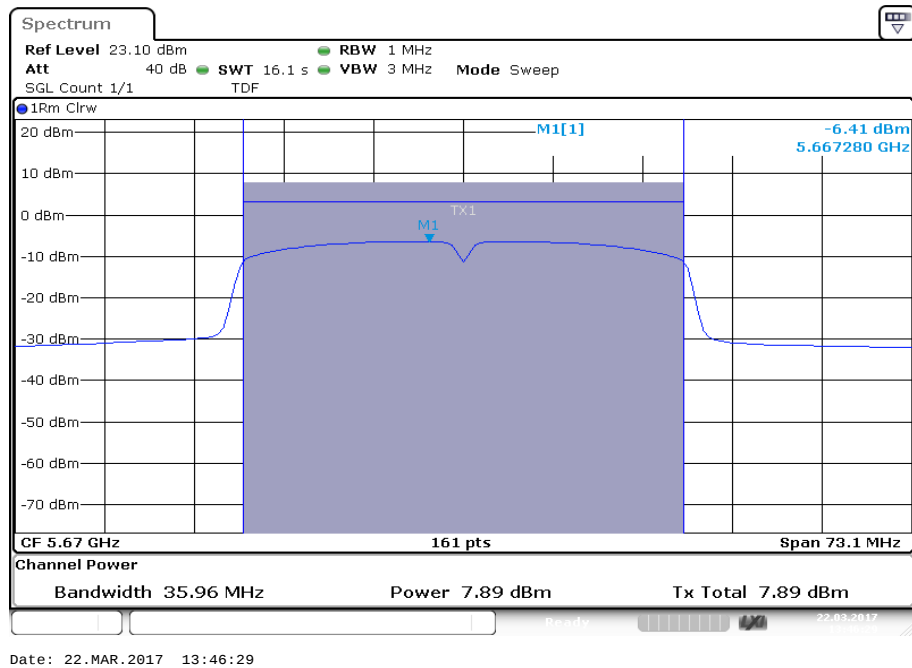
Plot 5: 5510 MHz, conducted



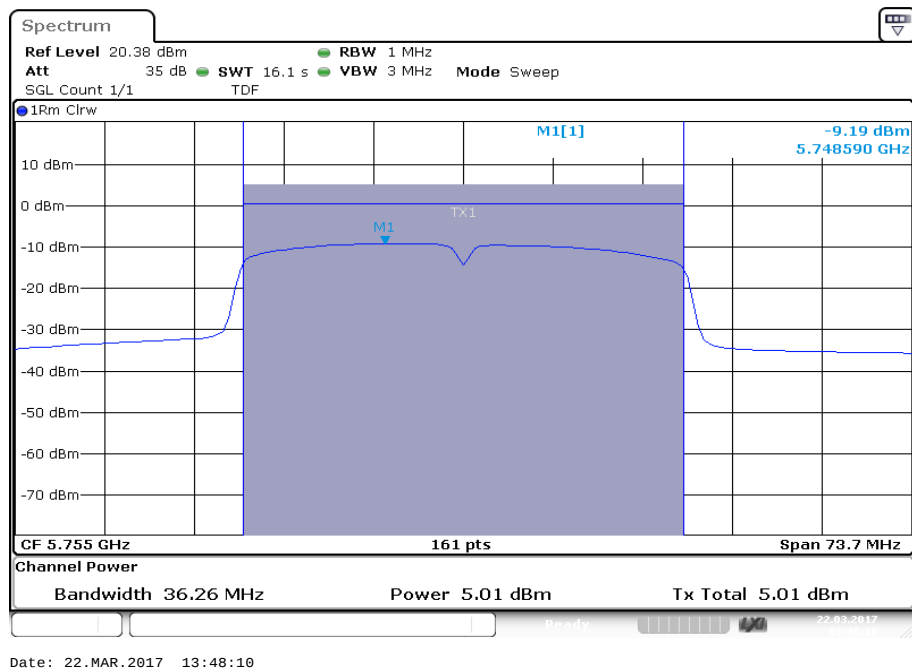
Plot 6: 5590 MHz, conducted



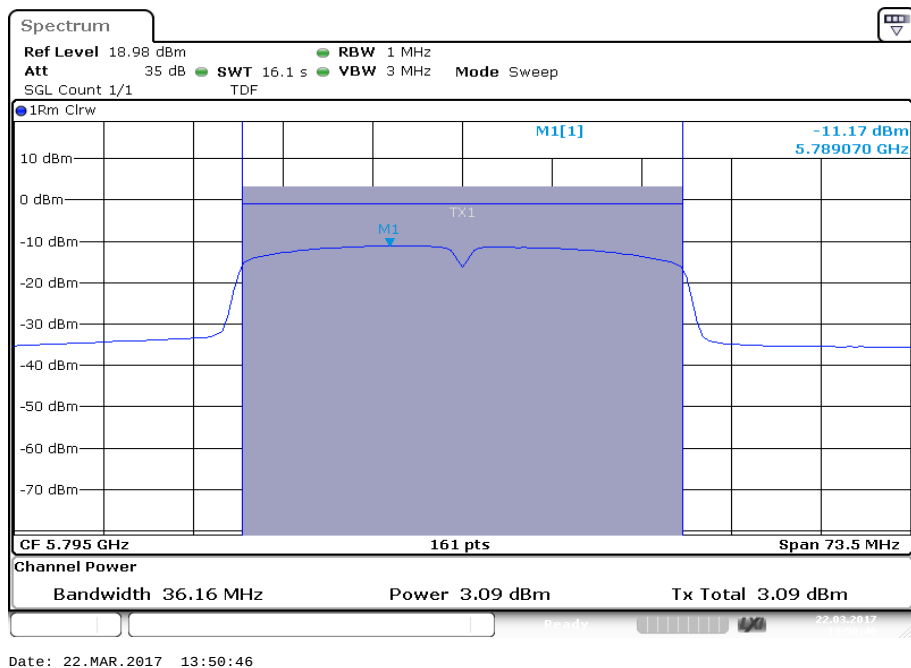
Plot 7: 5670 MHz, conducted



Plot 8: 5755 MHz, conducted

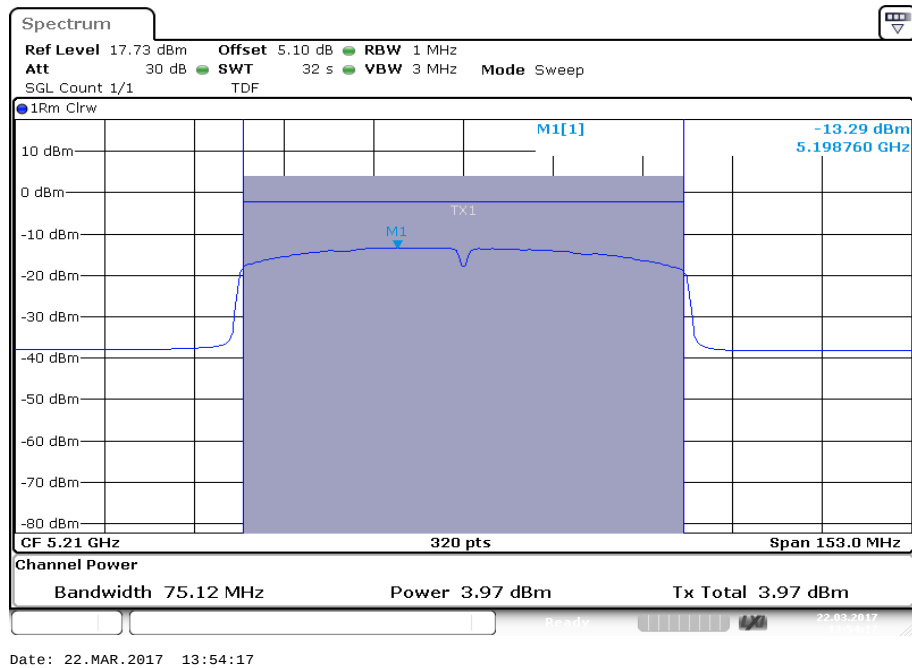


Plot 9: 5795 MHz, conducted

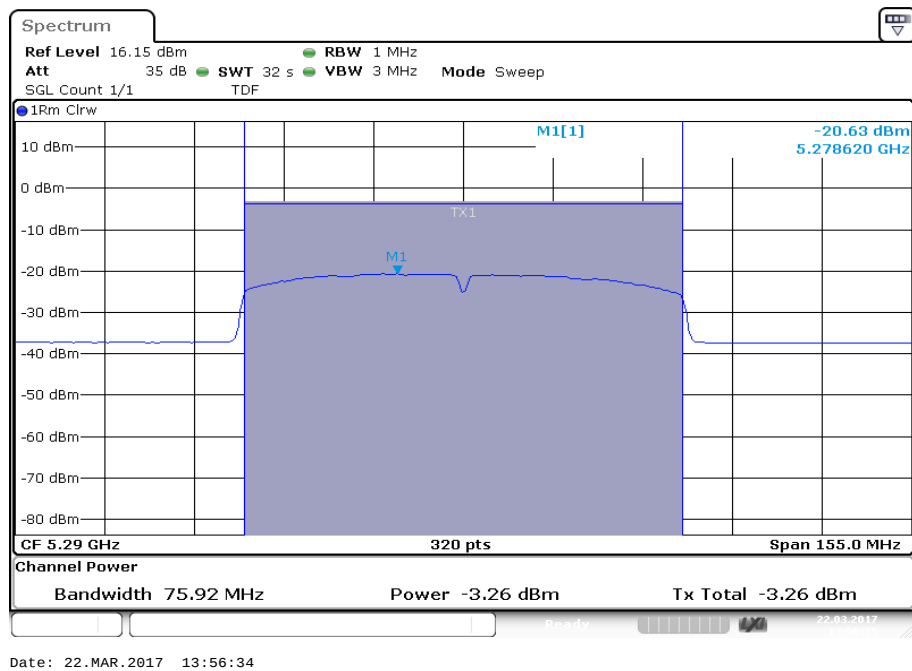


Plots: OFDM / ac HT80 – mode, MMCX port

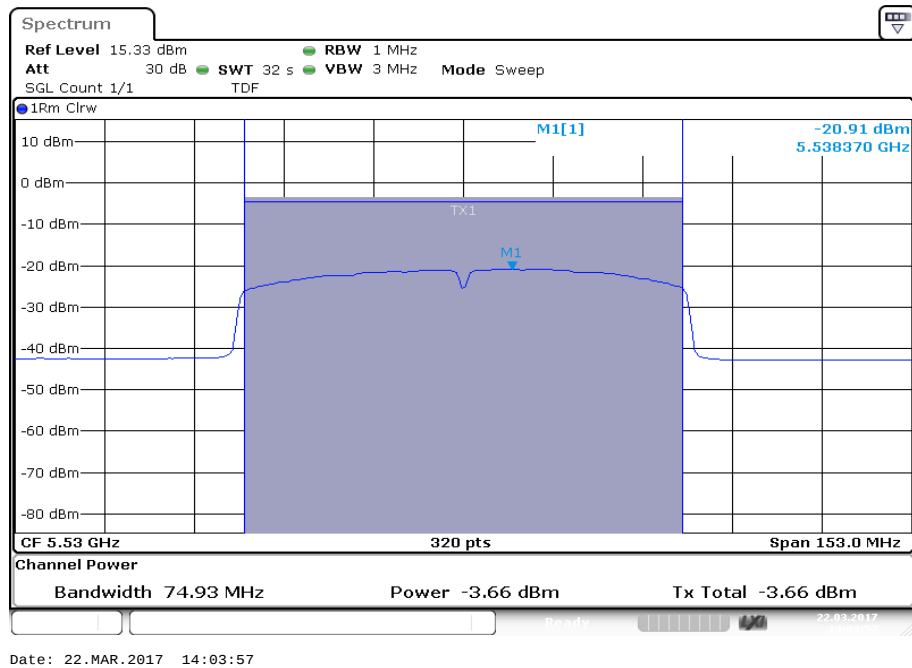
Plot 1: 5210 MHz, EIRP



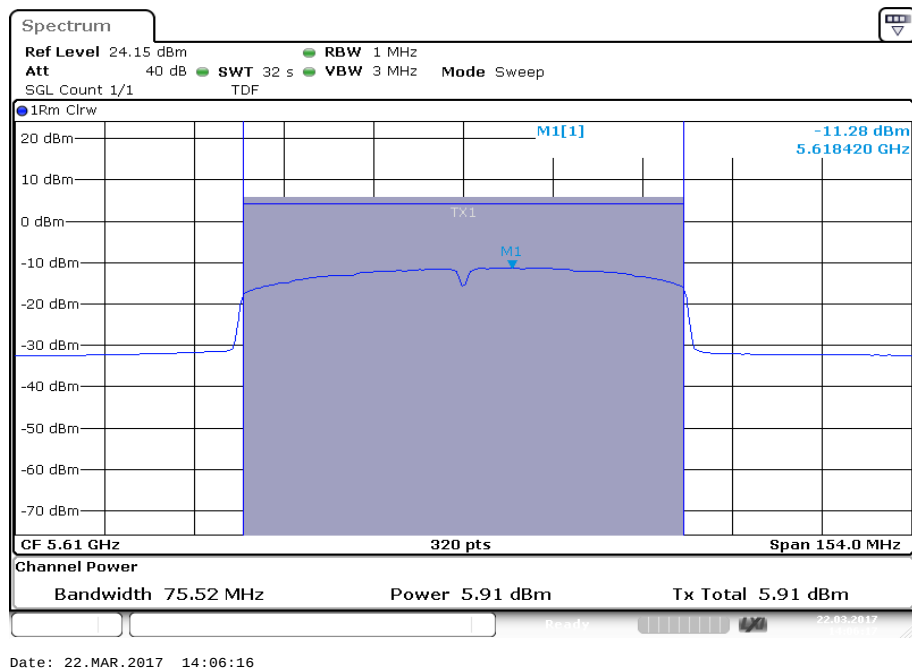
Plot 2: 5290 MHz, conducted



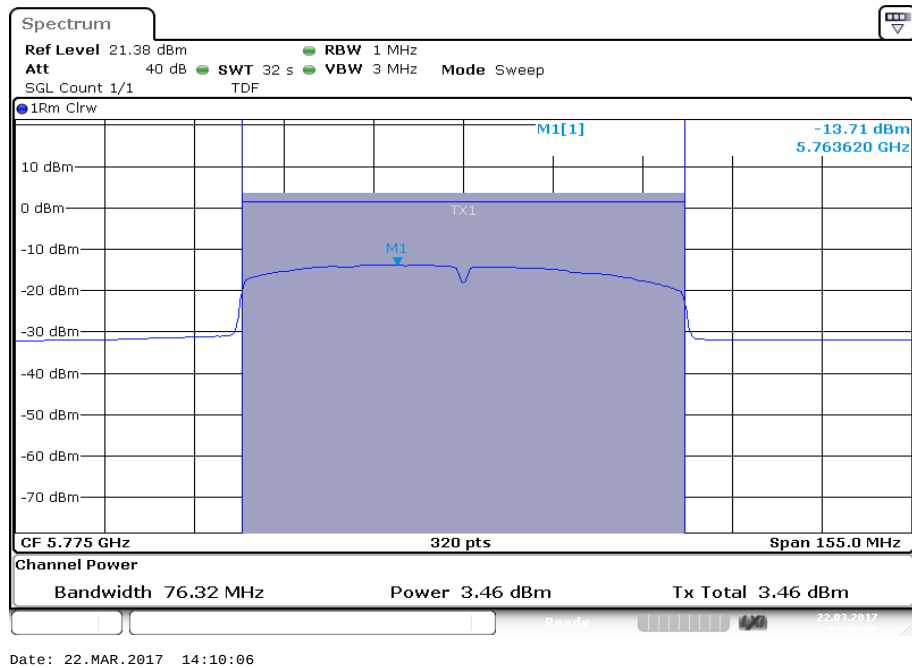
Plot 3: 5530 MHz, conducted



Plot 4: 5610 MHz, conducted



Plot 5: 5775 MHz, conducted



1.2 Power spectral density

1.2.1 Power spectral density – for FCC requirements

Description:

Measurement of the power spectral density of a digital modulated system. The measurement is repeated at the lowest, middle and highest channel.

Measurement:

Measurement parameter	
According to: KDB789033 D02, F.	
Detector:	RMS
Sweep time:	$\geq 10 \cdot (\text{swp points}) \cdot (\text{total on/off time})$
Resolution bandwidth:	1 MHz (500 kHz for 5.8 GHz band)
Video bandwidth:	$\geq 3 \cdot \text{RBW}$
Span:	$> \text{EBW}$
Trace mode:	Max hold
Used test setup:	See chapter 7.4 – A
Measurement uncertainty:	See chapter 9

Limits:

Power Spectral Density
power spectral density conducted ≤ 11 dBm in any 1 MHz band (band 5150 – 5250 MHz)
power spectral density conducted ≤ 11 dBm in any 1 MHz band (band 5250 – 5350 MHz)
power spectral density conducted ≤ 11 dBm in any 1 MHz band (band 5470 – 5725 MHz)
power spectral density conducted ≤ 30 dBm in any 500 kHz band (band 5725 – 5850 MHz)

Result: OFDM / a – mode, UFL port

OFDM / a – mode Channel	Power spectral density [dBm/MHz]			
	5180 MHz	5240 MHz	5260 MHz	5320 MHz
	-1.2	0.3	0.0	-5.6
Channel	5500 MHz	5600 MHz	5700 MHz	5745 MHz
	-2.6	-2.9	-2.1	-7.3
Channel	5785 MHz	5825 MHz		
	-7.6	-4.0		

Result: OFDM / n/ac HT20 – mode, UFL port

OFDM / n/ac HT20 – mode Channel	Power spectral density [dBm/MHz]			
	5180 MHz	5240 MHz	5260 MHz	5320 MHz
	-1.6	-0.1	-0.4	-6.0
Channel	5500 MHz	5600 MHz	5700 MHz	5745 MHz
	-3.0	-3.3	-2.5	-7.7
Channel	5785 MHz	5825 MHz		
	-7.9	-4.4		

Result: OFDM / n/ac HT40 – mode, UFL port

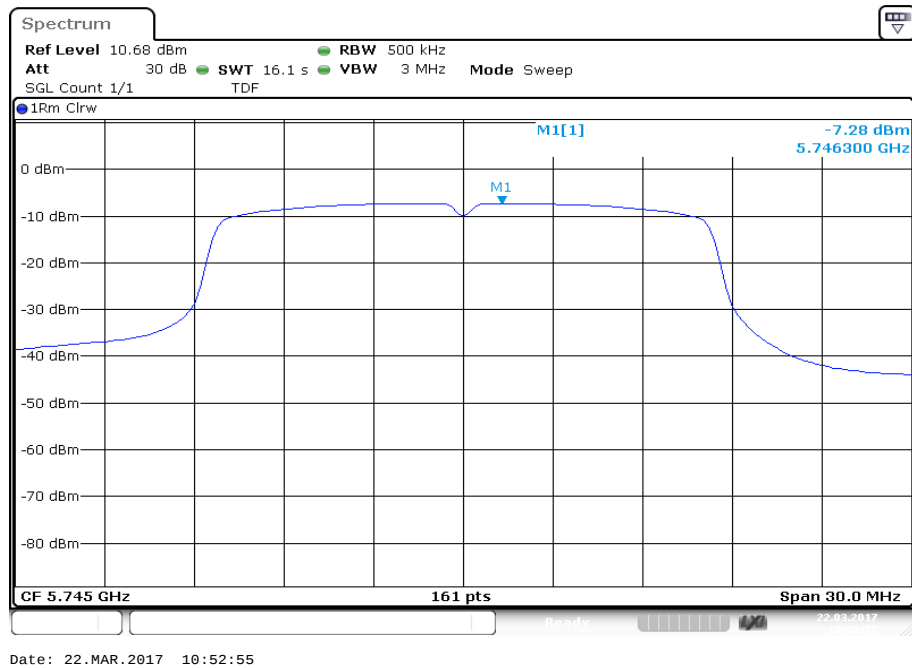
OFDM / n/ac HT40 – mode Channel	Power spectral density [dBm/MHz]			
	5190 MHz	5230 MHz	5270 MHz	5310 MHz
	-7.6	-3.8	-4.0	-8.8
Channel	5510 MHz	5590 MHz	5670 MHz	5755 MHz
	-3.8	-3.8	-3.7	-7.4
Channel	5795 MHz			
	-8.1			

Result: OFDM / ac HT80 – mode, UFL port

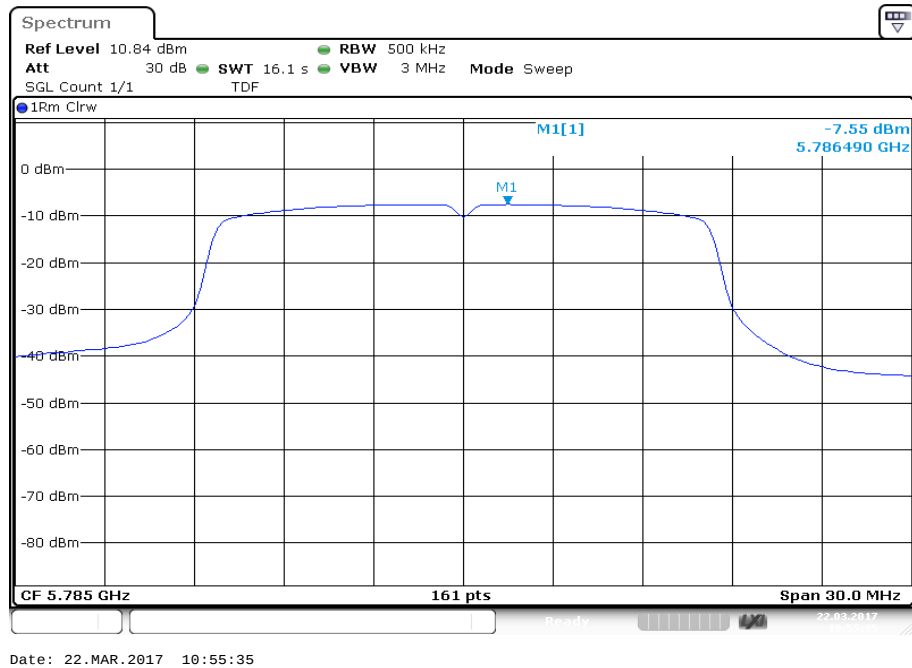
OFDM / ac HT80 – mode Channel	Power spectral density [dBm/MHz]			
	5210 MHz	5290 MHz	5530 MHz	5610 MHz
	-15.1	-15.6	-15.2	-7.6
Channel	5775 MHz			
	-11.3			

Plots: OFDM / a – mode, UFL port

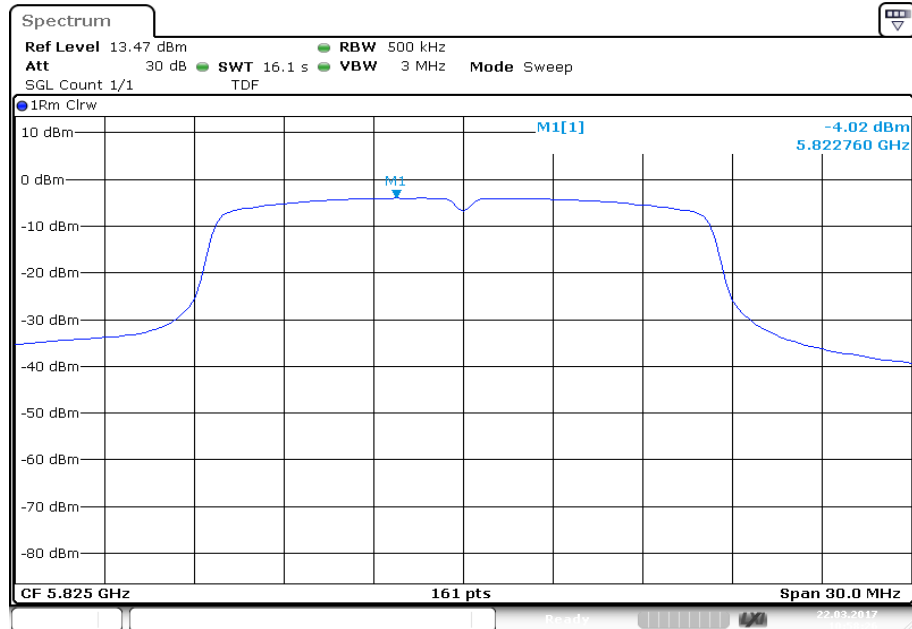
Plot 1: 5745 MHz



Plot 2: 5785 MHz



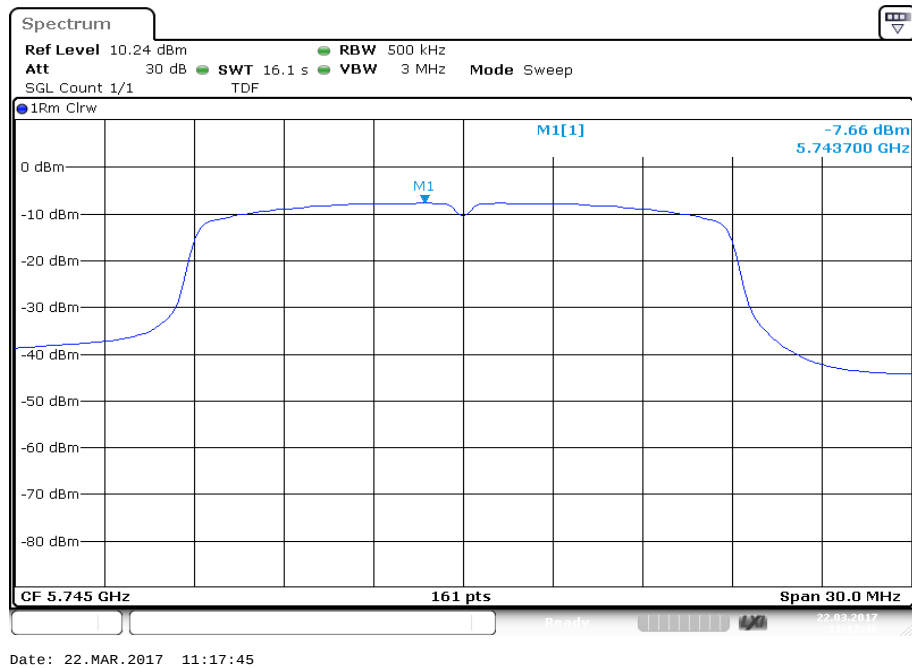
Plot 3: 5825 MHz



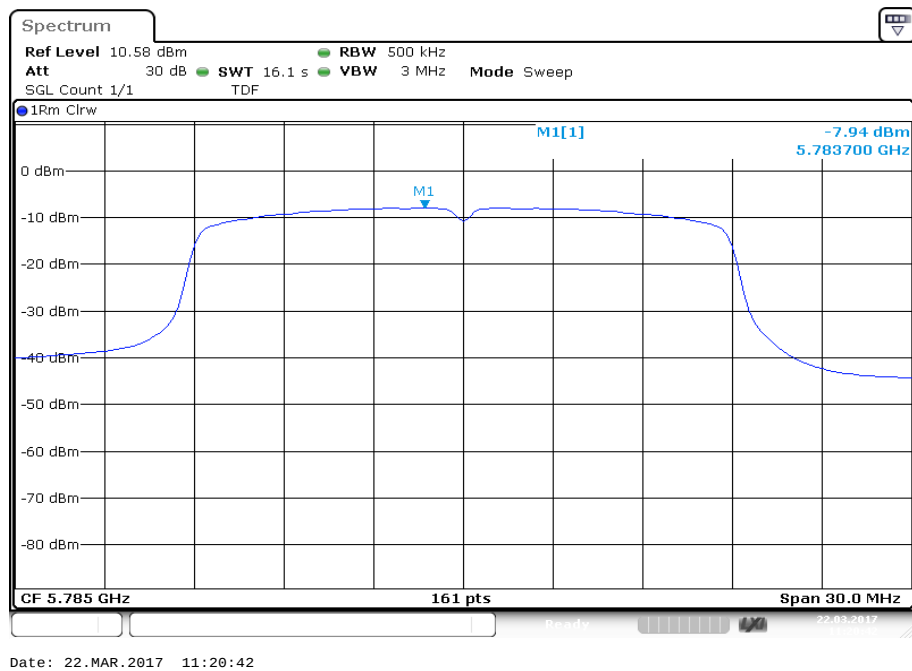
Date: 22.MAR.2017 10:58:26

Plots: OFDM / n/ac HT20 – mode, UFL port

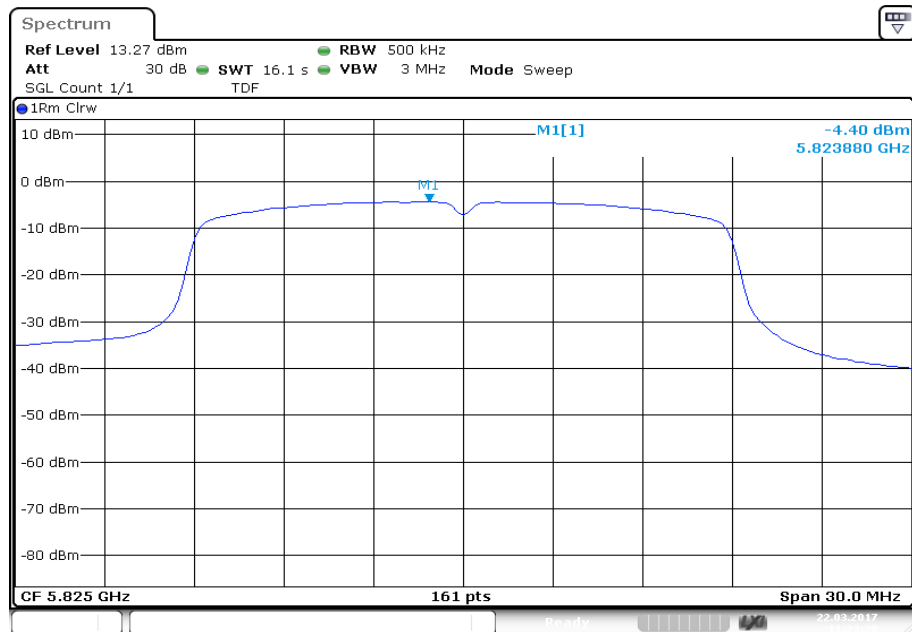
Plot 1: 5745 MHz



Plot 2: 5785 MHz

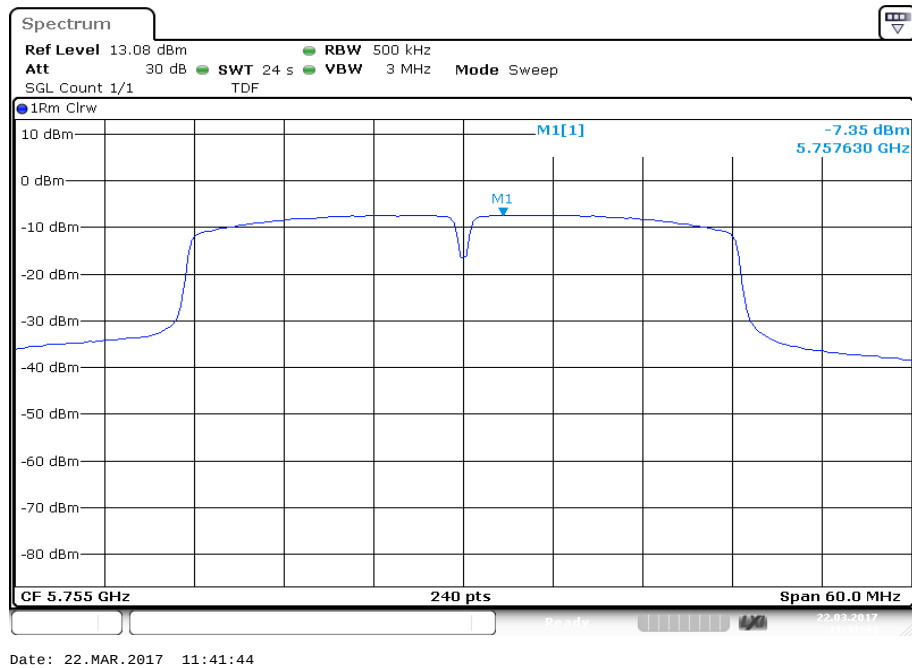


Plot 3: 5825 MHz

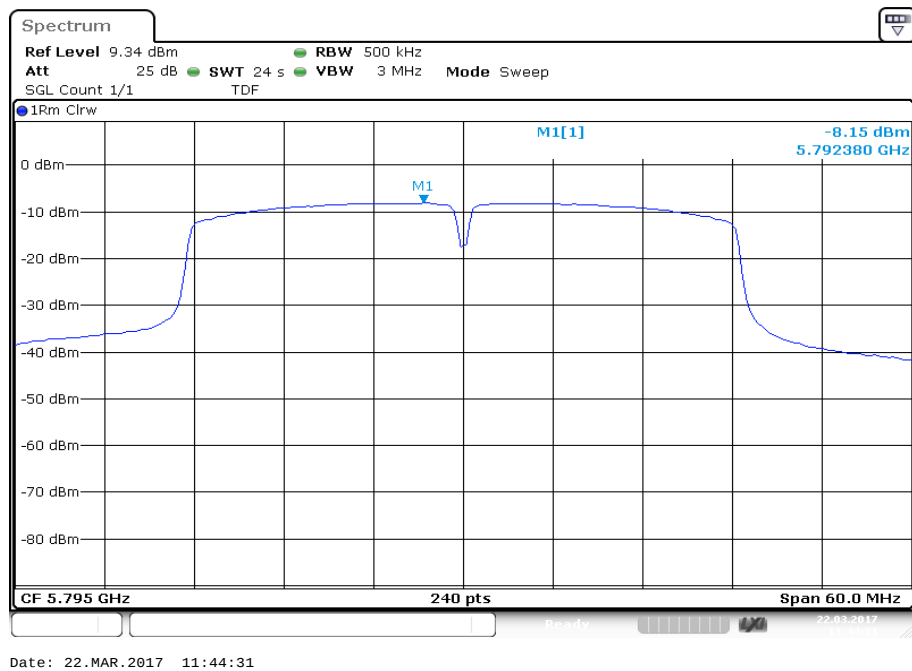


Plots: OFDM / n/ac HT40 – mode, UFL port

Plot 1: 5755 MHz

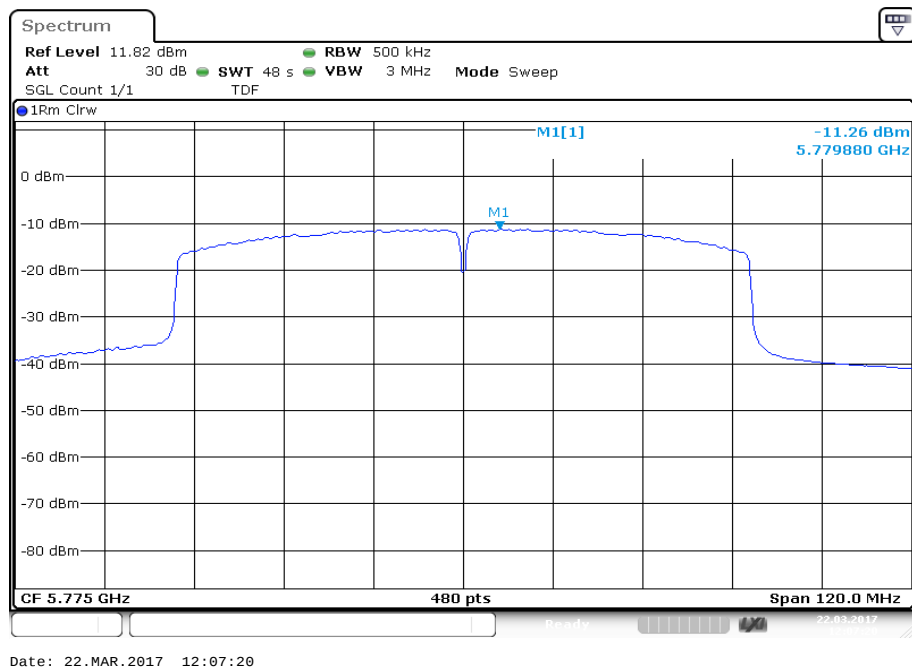


Plot 2: 5795 MHz



Plots: OFDM / ac HT80 – mode, UFL port

Plot 1: 5775 MHz



Result: OFDM / a – mode, MMCX port

OFDM / a – mode Channel	Power spectral density [dBm/MHz]			
	5180 MHz	5240 MHz	5260 MHz	5320 MHz
	-4.2	-3.6	-4.0	-11.4
Channel	5500 MHz	5600 MHz	5700 MHz	5745 MHz
	-9.3	-7.0	-5.5	-11.7
Channel	5785 MHz	5825 MHz		
	-13.5	-10.8		

Result: OFDM / n/ac HT20 – mode, MMCX port

OFDM / n/ac HT20 – mode Channel	Power spectral density [dBm/MHz]			
	5180 MHz	5240 MHz	5260 MHz	5320 MHz
	-4.2	-3.6	-4.1	-11.4
Channel	5500 MHz	5600 MHz	5700 MHz	5745 MHz
	-9.3	-7.0	-5.6	-11.8
Channel	5785 MHz	5825 MHz		
	-13.6	-10.8		

Result: OFDM / n/ac HT40 – mode, MMCX port

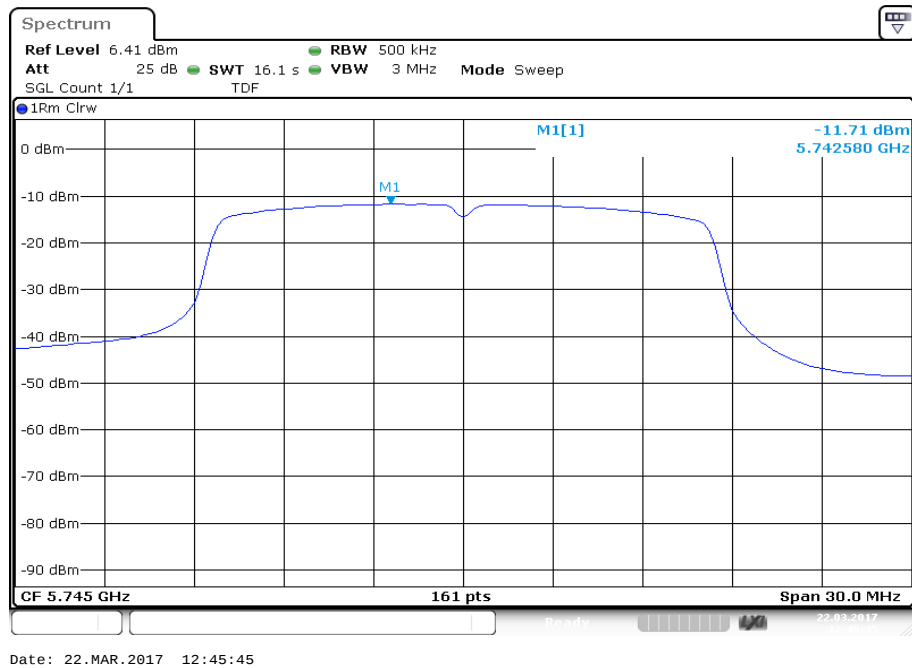
OFDM / n/ac HT40 – mode Channel	Power spectral density [dBm/MHz]			
	5190 MHz	5230 MHz	5270 MHz	5310 MHz
	-10.7	-7.6	-8.5	-14.4
Channel	5510 MHz	5590 MHz	5670 MHz	5755 MHz
	-10.2	-8.1	-6.4	-12.2
Channel	5795 MHz			
	-14.1			

Result: OFDM / ac HT80 – mode, MMCX port

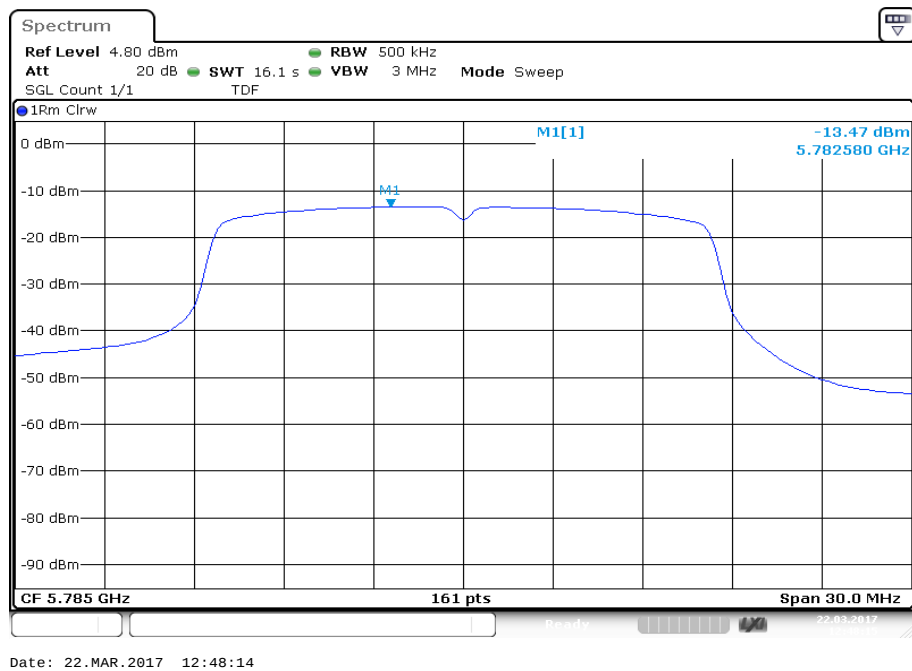
OFDM / ac HT80 – mode Channel	Power spectral density [dBm/MHz]			
	5210 MHz	5290 MHz	5530 MHz	5610 MHz
	-18.3	-20.7	-20.9	-11.3
Channel	5775 MHz			
	-7.7			

Plots: OFDM / a – mode, MMCX port

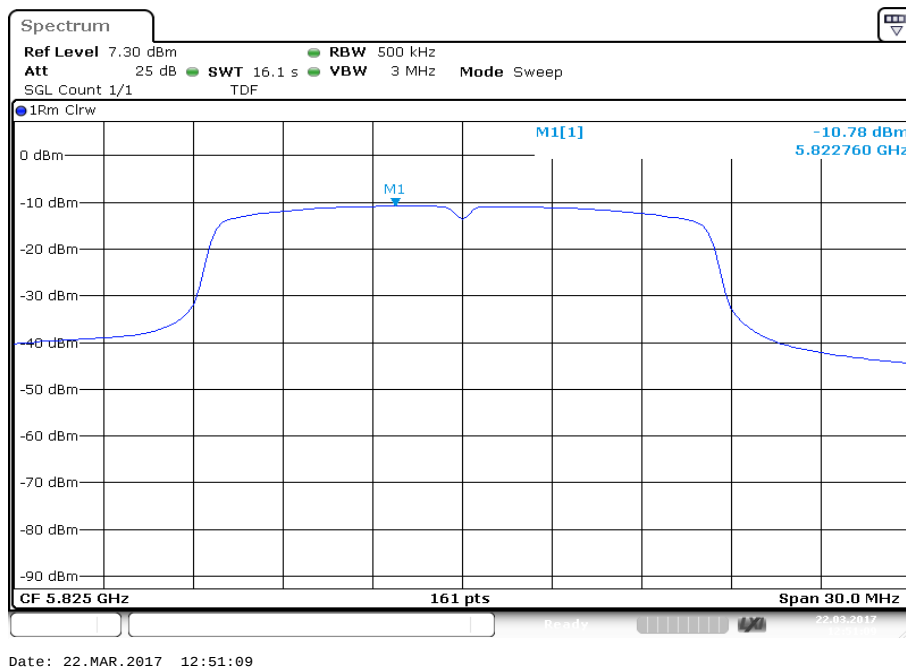
Plot 1: 5745 MHz



Plot 2: 5785 MHz

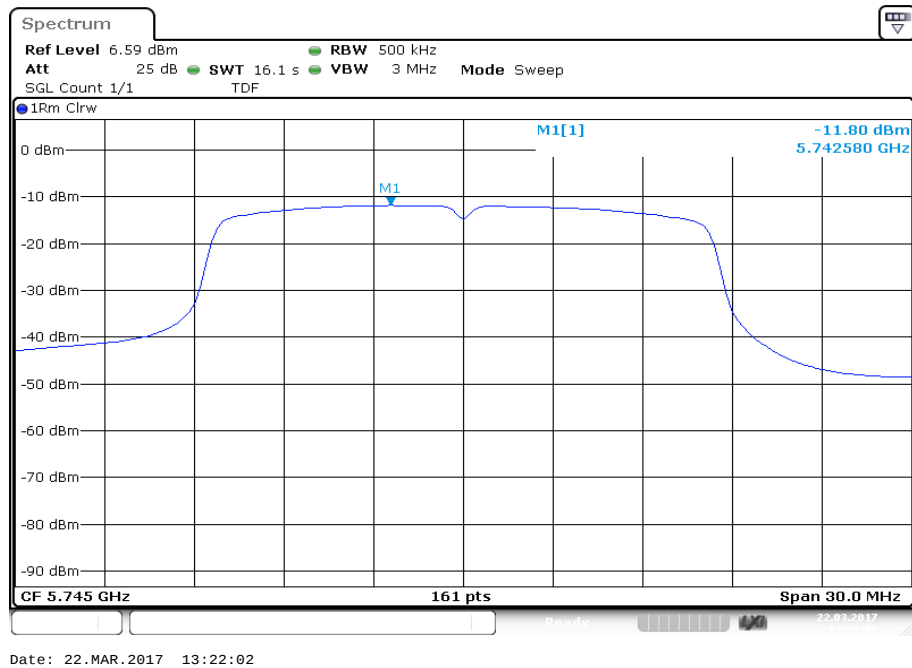


Plot 3: 5825 MHz

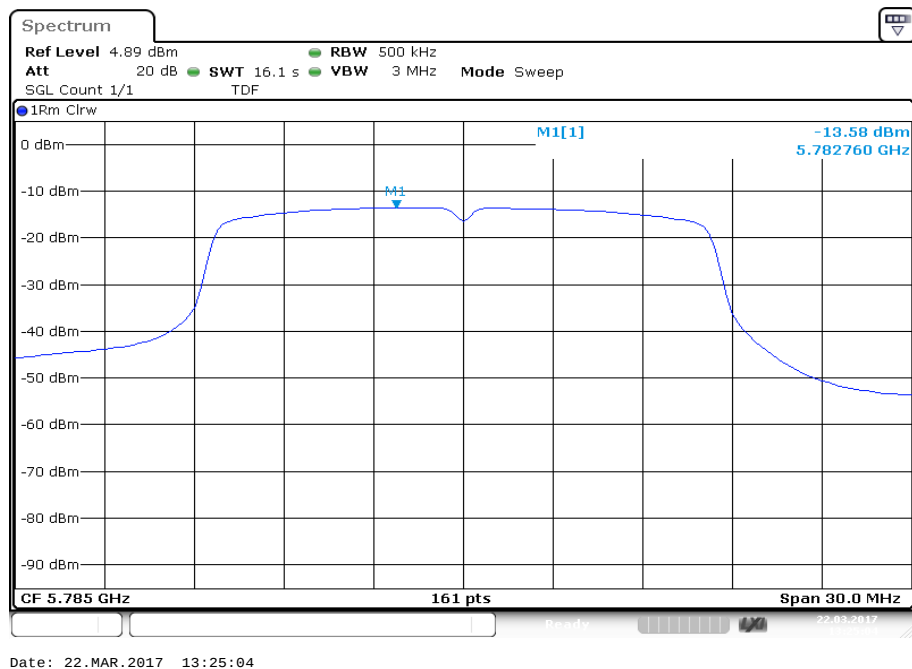


Plots: OFDM / n/ac HT20 – mode, MMCX port

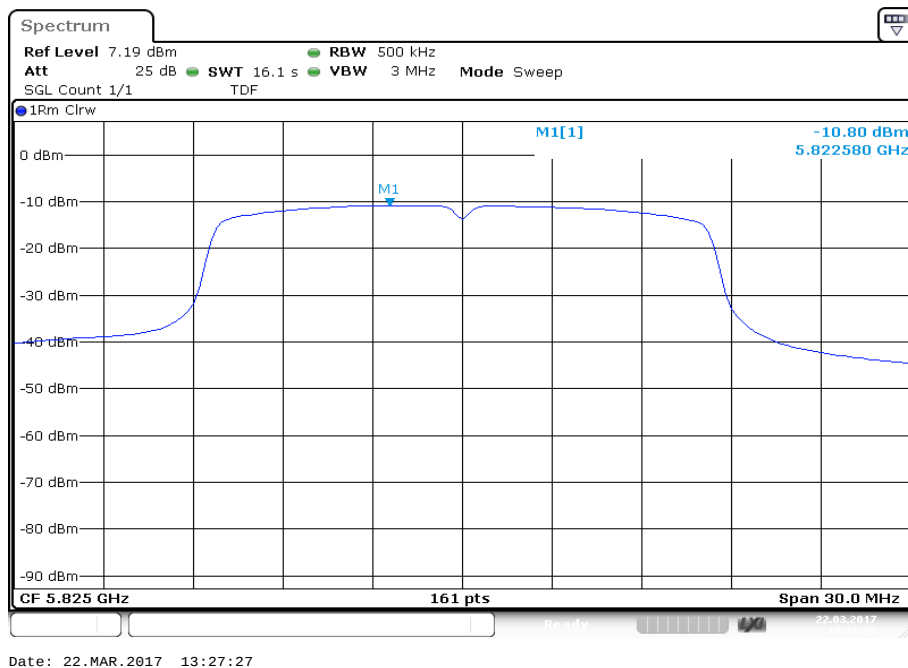
Plot 1: 5745 MHz



Plot 2: 5785 MHz

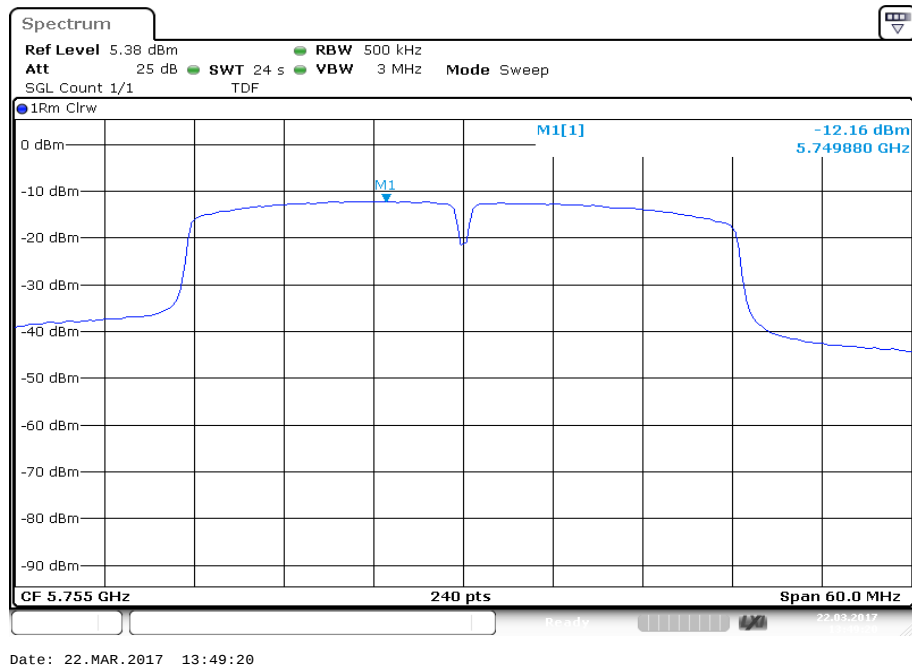


Plot 3: 5825 MHz

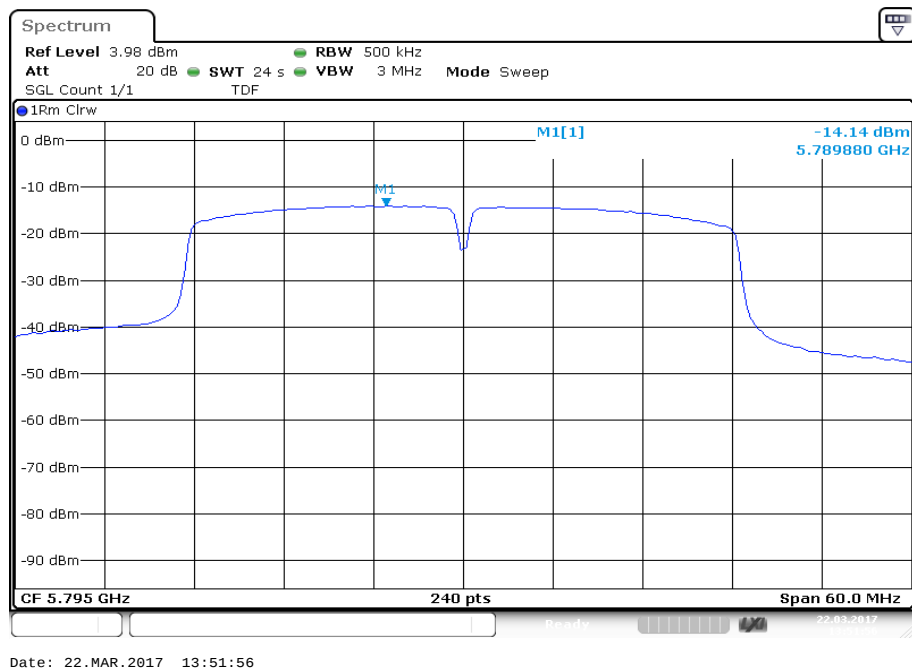


Plots: OFDM / n/ac HT40 – mode, MMCX port

Plot 1: 5755 MHz

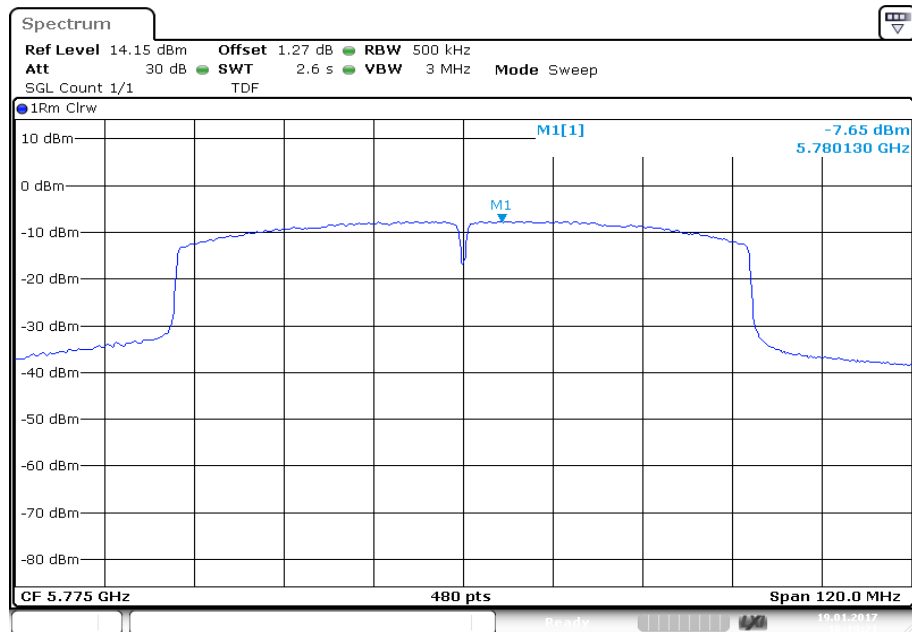


Plot 2: 5795 MHz



Plots: OFDM / ac HT80 – mode, MMCX port

Plot 1: 5775 MHz



1.2.2 Power spectral density – for IC requirements

Description:

Measurement of the power spectral density of a digital modulated system. The measurement is repeated at the lowest, middle and highest channel.

Measurement:

Measurement parameter	
Detector:	RMS
Sweep time:	$\geq 10 \cdot (\text{swp points}) \cdot (\text{total on/off time})$
Resolution bandwidth:	1 MHz (500 kHz for 5.8 GHz band)
Video bandwidth:	$\geq 3 \cdot \text{RBW}$
Span:	$> \text{EBW}$
Trace mode:	Max hold
Used test setup:	See chapter 7.4 – A
Measurement uncertainty:	See chapter 9

Limits:

Power Spectral Density
power spectral density e.i.r.p. ≤ 10 dBm in any 1 MHz band (band 5150 – 5250 MHz)
power spectral density conducted ≤ 11 dBm in any 1 MHz band (band 5250 – 5350 MHz)
power spectral density conducted ≤ 11 dBm in any 1 MHz band (band 5470 – 5725 MHz)
power spectral density conducted ≤ 30 dBm in any 500 kHz band (band 5725 – 5850 MHz)

Result: OFDM / a – mode, UFL port

OFDM / a – mode Channel	Power spectral density EIRP [dBm/MHz]			
	5180 MHz	5240 MHz		
	3.9	5.4		
	Power spectral density conducted [dBm/MHz]			
Channel	5260 MHz	5320 MHz	5500 MHz	5600 MHz
	0.0	-5.6	-2.6	-2.9
Channel	5700 MHz	5745 MHz	5785 MHz	5825 MHz
	-2.1	-7.3	-7.5	-4.0

Result: OFDM / n/ac HT20 – mode, UFL port

OFDM / n/ac HT20 – mode Channel	Power spectral density EIRP [dBm/MHz]			
	5180 MHz	5240 MHz		
	3.5	5.0		
	Power spectral density conducted [dBm/MHz]			
Channel	5260 MHz	5320 MHz	5500 MHz	5600 MHz
	-0.4	-6.0	-3.1	-3.3
Channel	5700 MHz	5745 MHz	5785 MHz	5825 MHz
	-2.5	-7.7	-7.9	-4.4

Result: OFDM / n/ac HT40 – mode, UFL port

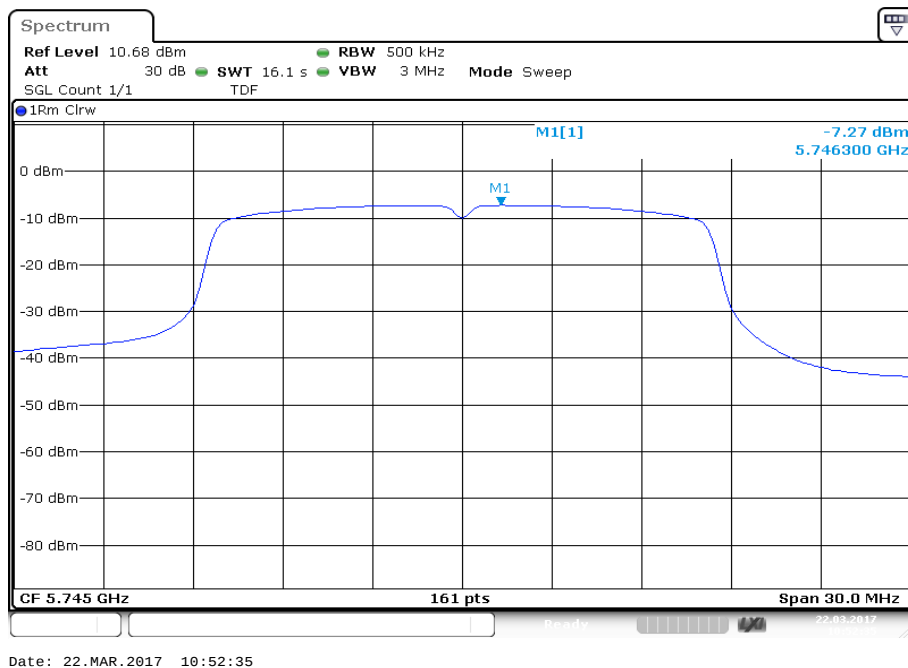
OFDM / n/ac HT40 – mode Channel	Power spectral density EIRP [dBm/MHz]			
	5190 MHz	5230 MHz		
	-2.5	1.3		
	Power spectral density conducted [dBm/MHz]			
Channel	5270 MHz	5310 MHz	5510 MHz	5590 MHz
	-4.0	-8.8	-3.8	-3.8
Channel	5670 MHz	5755 MHz	5795 MHz	
	-3.7	-7.3	-8.1	

Result: OFDM / ac HT80 – mode, UFL port

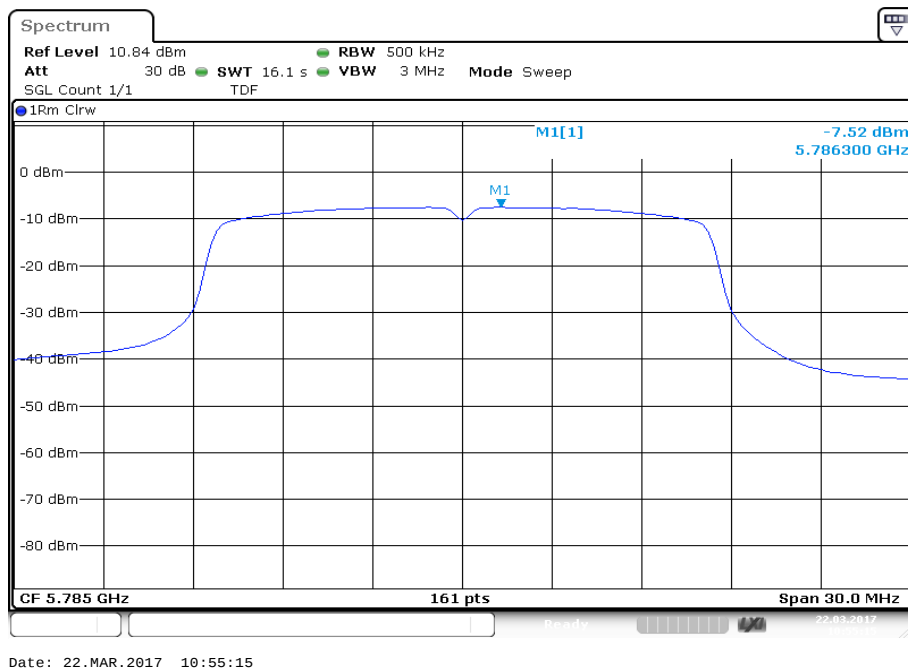
OFDM / ac HT80 – mode Channel	Power spectral density EIRP [dBm/MHz]			
	5210 MHz			
	-10.0			
	Power spectral density conducted [dBm/MHz]			
Channel	5290 MHz	5530 MHz	5610 MHz	5775 MHz
	-15.6	-15.2	-7.6	-11.2

Plots: OFDM / a – mode, UFL port

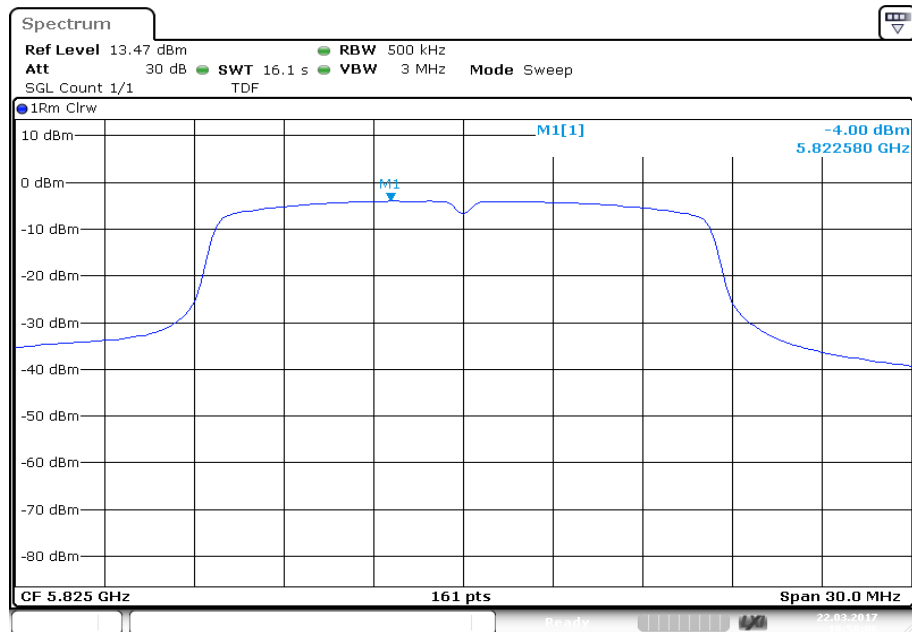
Plot 1: 5745 MHz



Plot 2: 5785 MHz



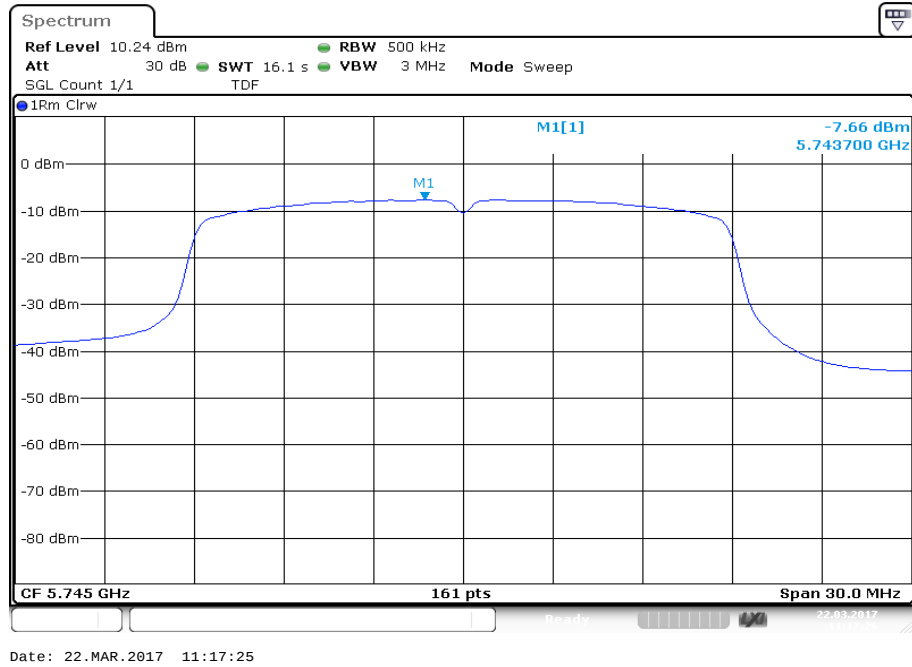
Plot 3: 5825 MHz



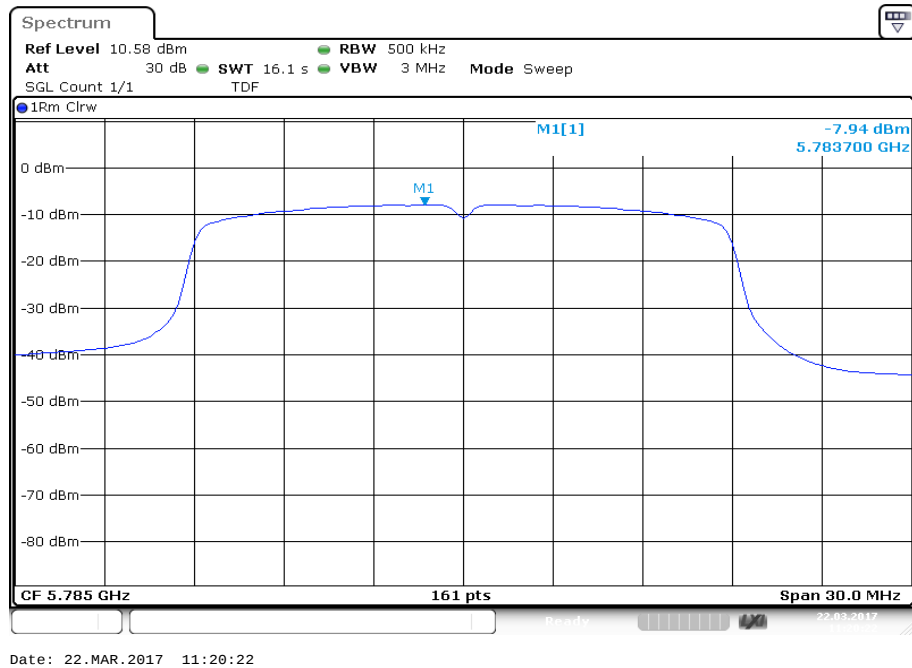
Date: 22.MAR.2017 10:58:06

Plots: OFDM / n/ac HT20 – mode, UFL port

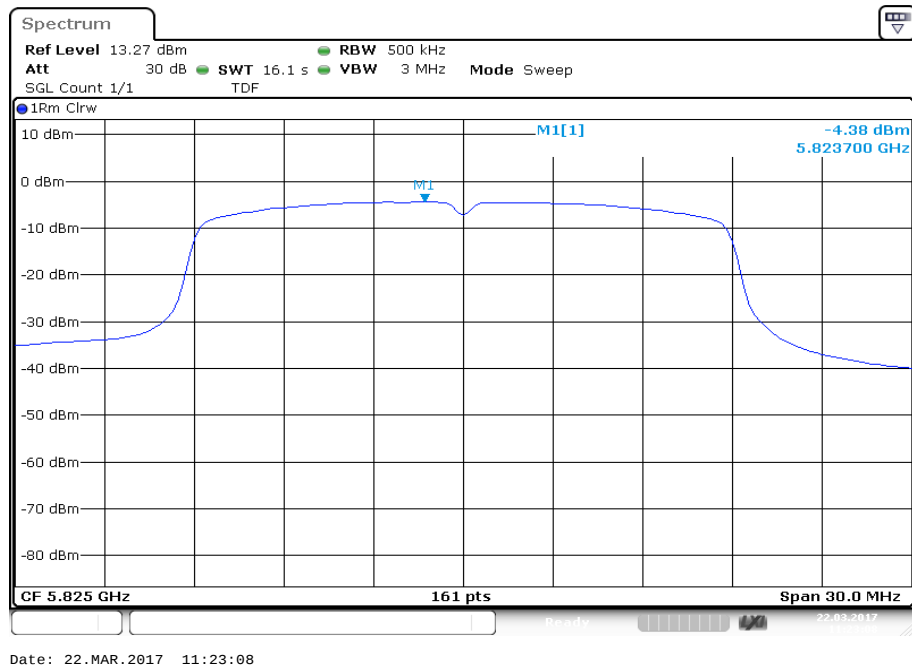
Plot 1: 5745 MHz



Plot 2: 5785 MHz

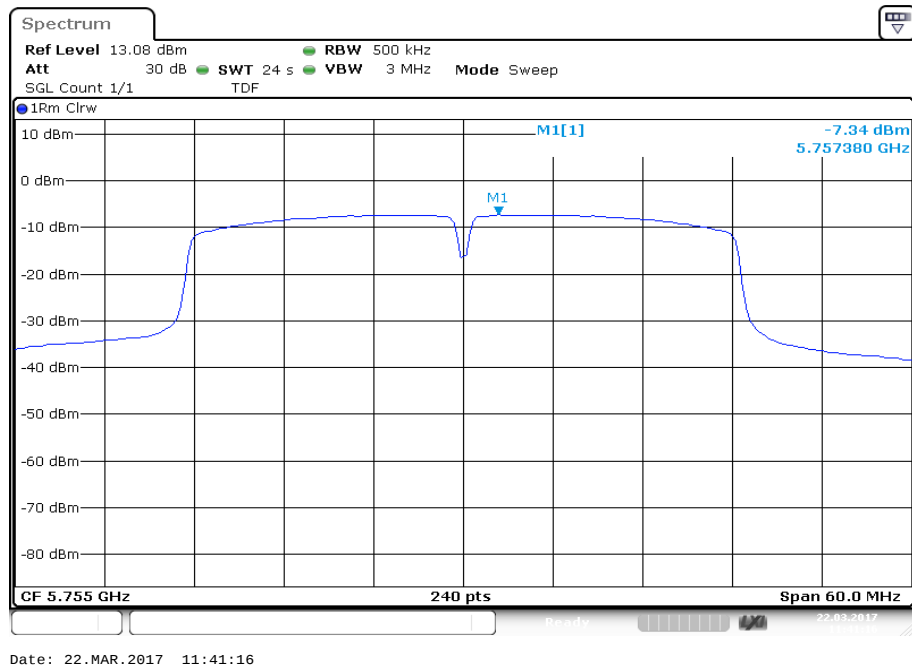


Plot 3: 5825 MHz

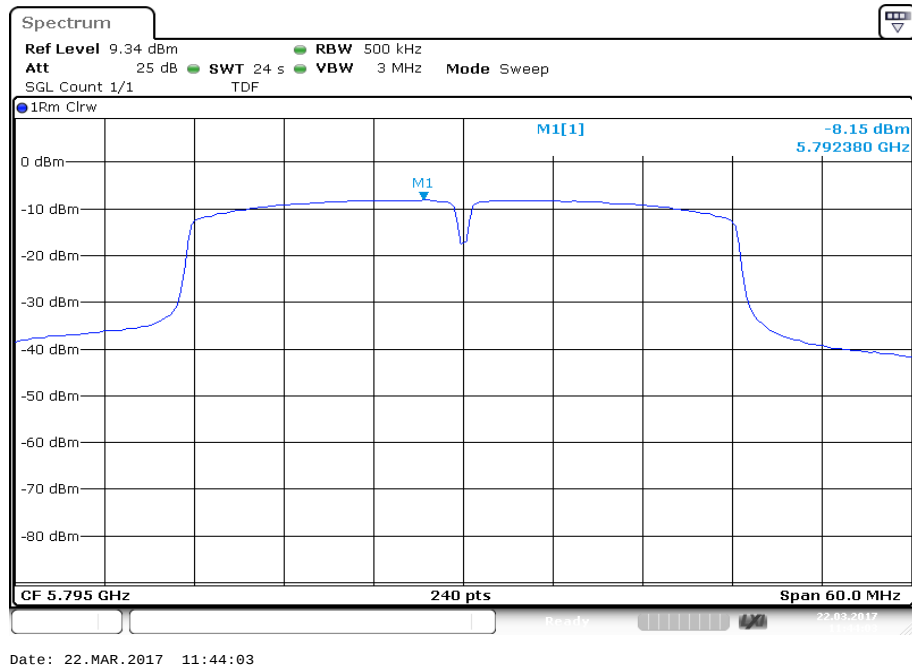


Plots: OFDM / n/ac HT40 – mode, UFL port

Plot 1: 5755 MHz

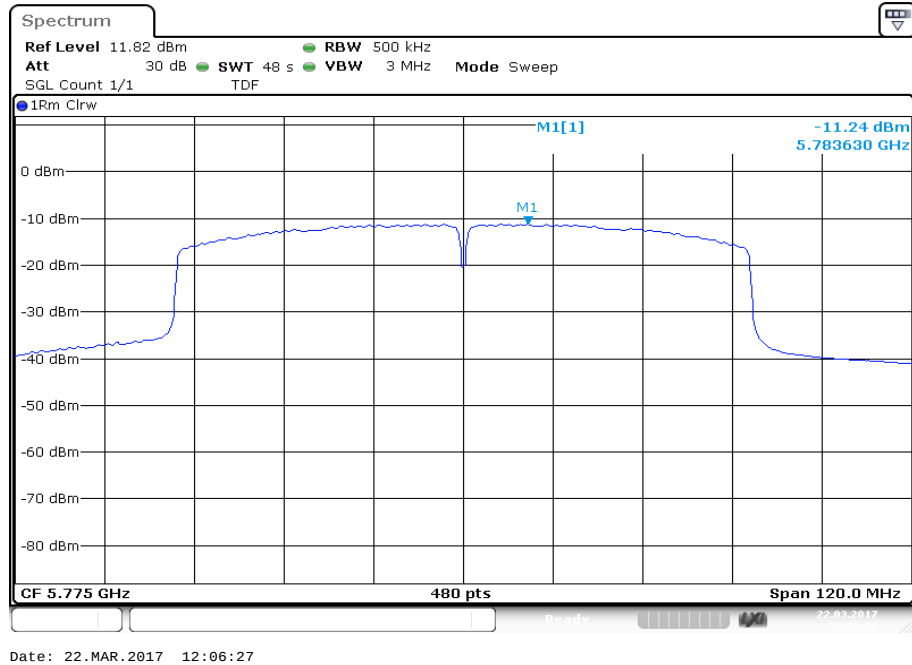


Plot 2: 5795 MHz



Plots: OFDM / ac HT80 – mode, UFL port

Plot 1: 5775 MHz



Result: OFDM / a – mode, MMCX port

OFDM / a – mode Channel	Power spectral density EIRP [dBm/MHz]			
	5180 MHz	5240 MHz		
	1.0	1.5		
Channel	Power spectral density conducted [dBm/MHz]			
	5260 MHz	5320 MHz	5500 MHz	5600 MHz
	-4.0	-11.4	-9.3	-7.0
Channel	5700 MHz	5745 MHz	5785 MHz	5825 MHz
	-5.5	-11.7	-13.5	-10.8

Result: OFDM / n/ac HT20 – mode, MMCX port

OFDM / n/ac HT20 – mode Channel	Power spectral density EIRP [dBm/MHz]			
	5180 MHz	5240 MHz		
	0.9	1.5		
Channel	Power spectral density conducted [dBm/MHz]			
	5260 MHz	5320 MHz	5500 MHz	5600 MHz
	-4.1	-11.4	-9.3	-7.0
Channel	5700 MHz	5745 MHz	5785 MHz	5825 MHz
	-5.6	-11.9	-13.6	-10.8

Result: OFDM / n/ac HT40 – mode, MMCX port

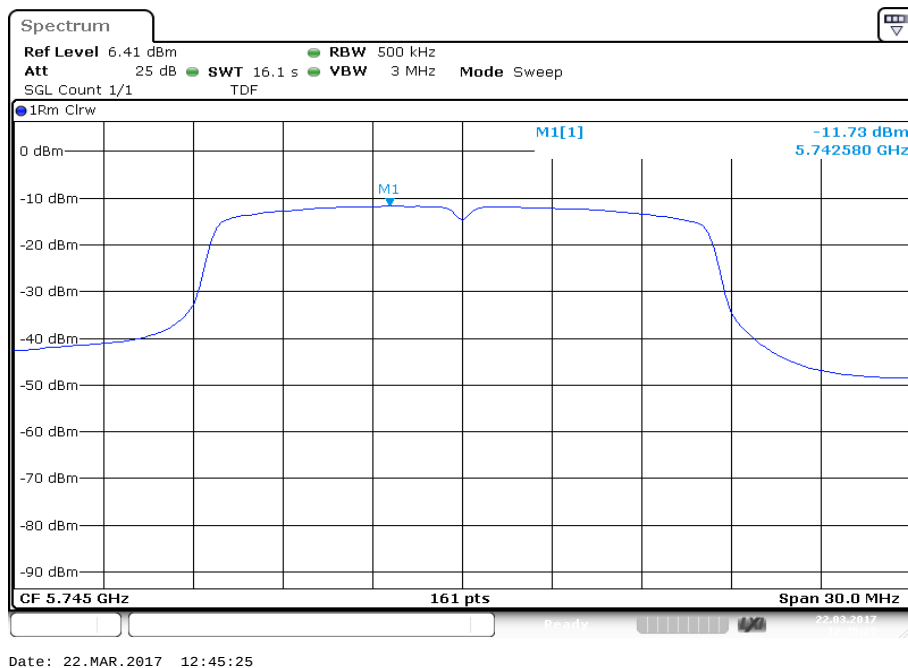
OFDM / n/ac HT40 – mode Channel	Power spectral density EIRP [dBm/MHz]			
	5190 MHz	5230 MHz		
	-5.6	-2.6		
	Power spectral density conducted [dBm/MHz]			
Channel	5270 MHz	5310 MHz	5510 MHz	5590 MHz
	-8.5	-14.4	-10.2	-8.1
Channel	5670 MHz	5755 MHz	5795 MHz	
	-6.4	-12.2	-14.1	

Result: OFDM / ac HT80 – mode, MMCX port

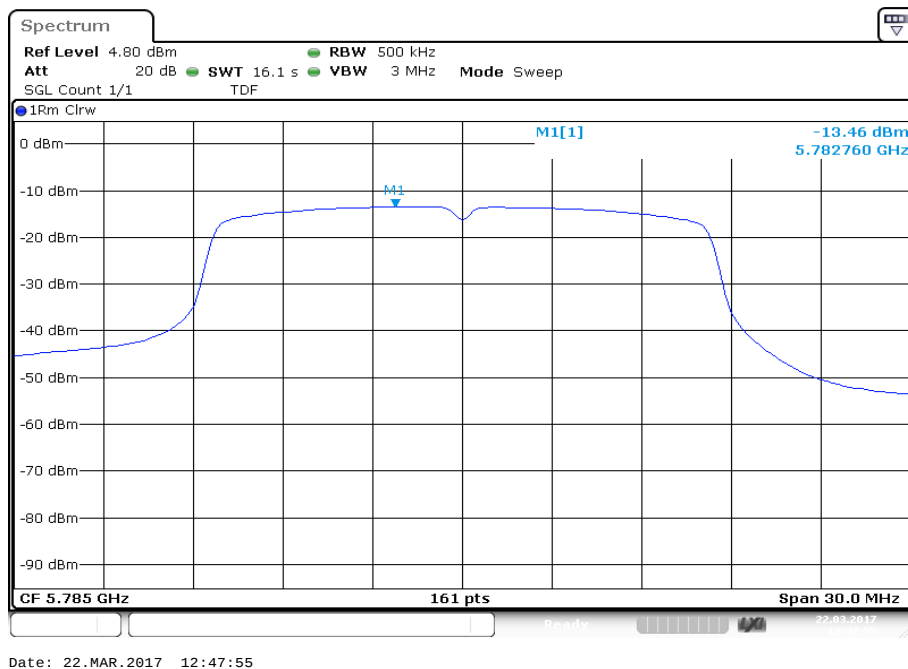
OFDM / ac HT80 – mode Channel	Power spectral density EIRP [dBm/MHz]			
	5210 MHz			
	-13.3			
	Power spectral density conducted [dBm/MHz]			
Channel	5290 MHz	5530 MHz	5610 MHz	5775 MHz
	-20.6	-20.9	-11.3	-16.6

Plots: OFDM / a – mode, MMCX port

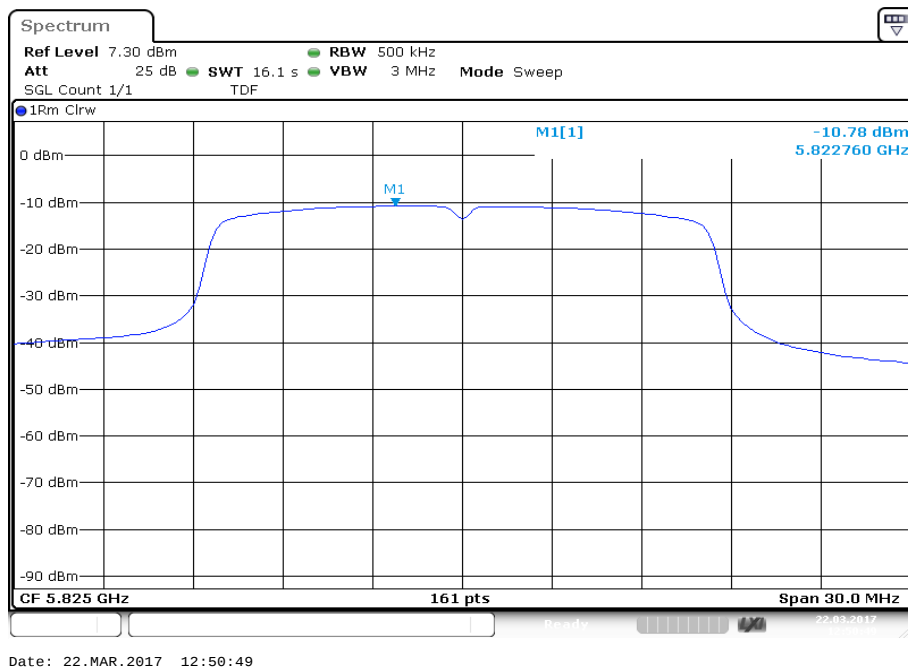
Plot 1: 5745 MHz



Plot 2: 5785 MHz

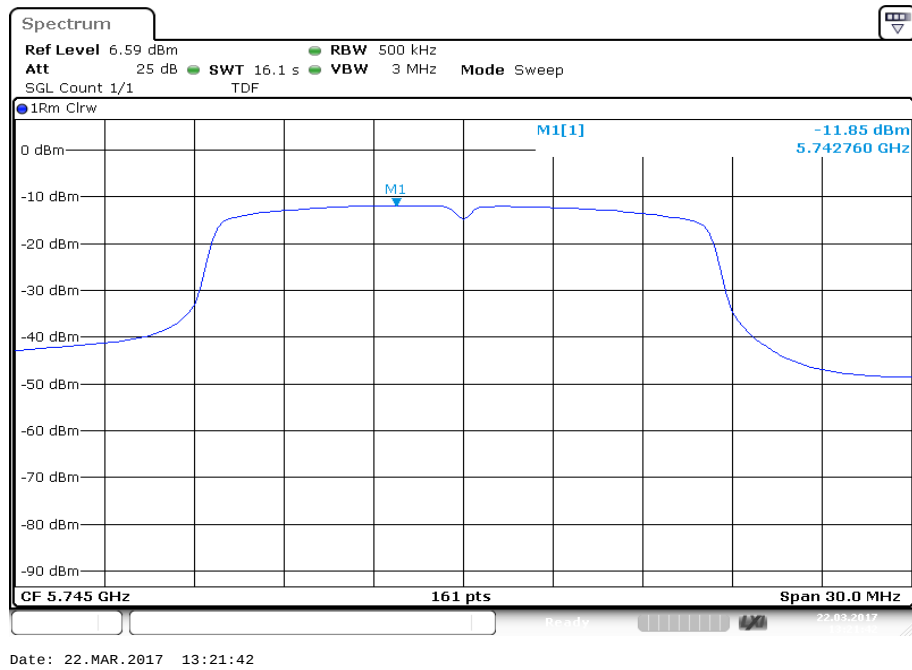


Plot 3: 5825 MHz

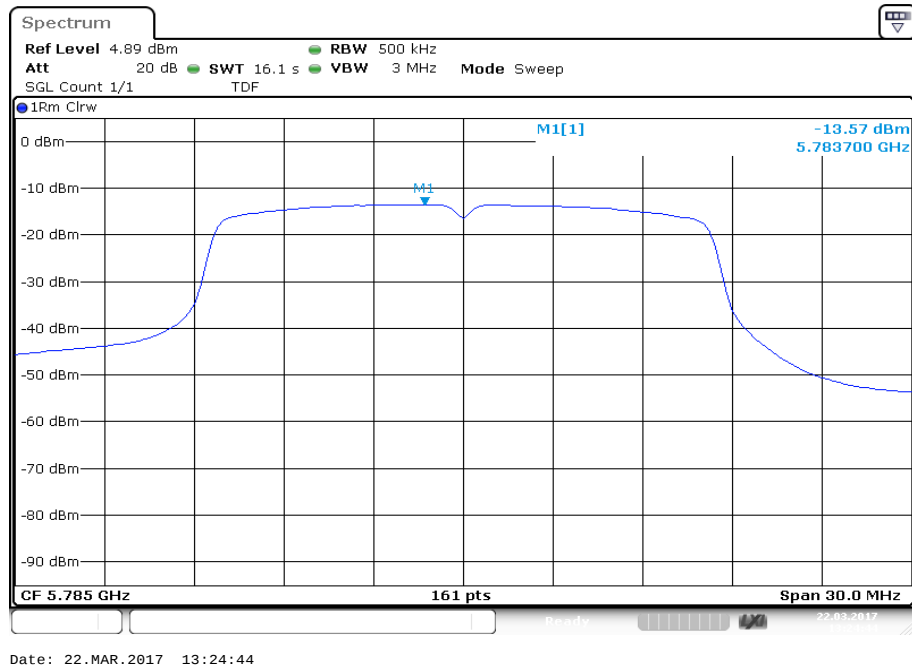


Plots: OFDM / n/ac HT20 – mode, MMCX port

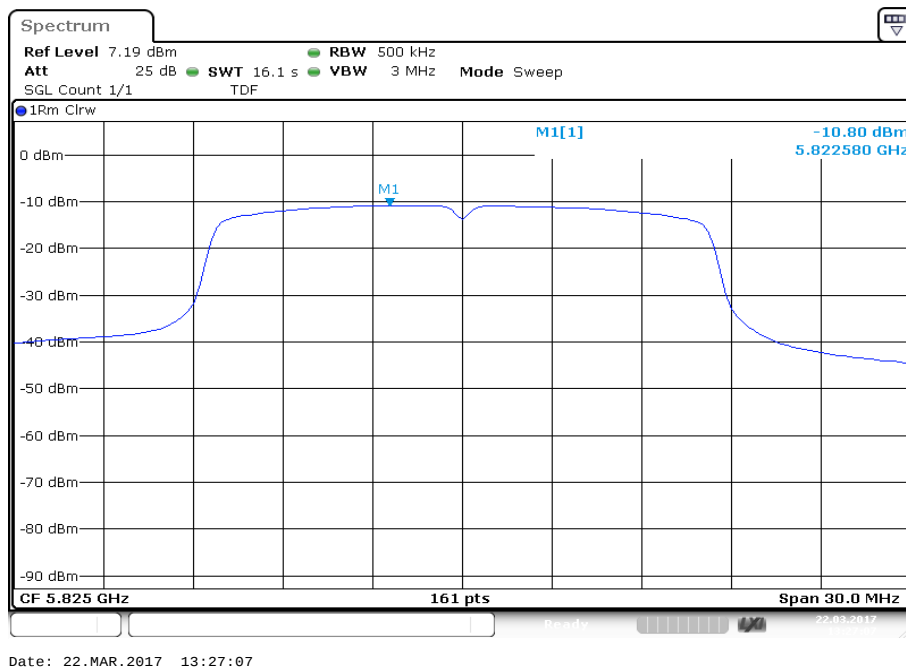
Plot 1: 5745 MHz



Plot 2: 5785 MHz

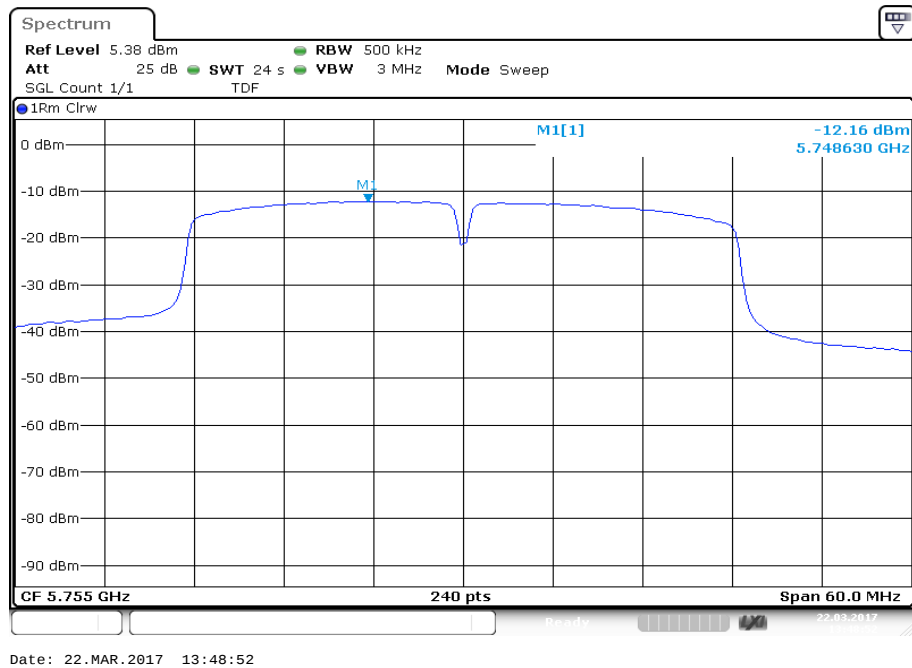


Plot 3: 5825 MHz

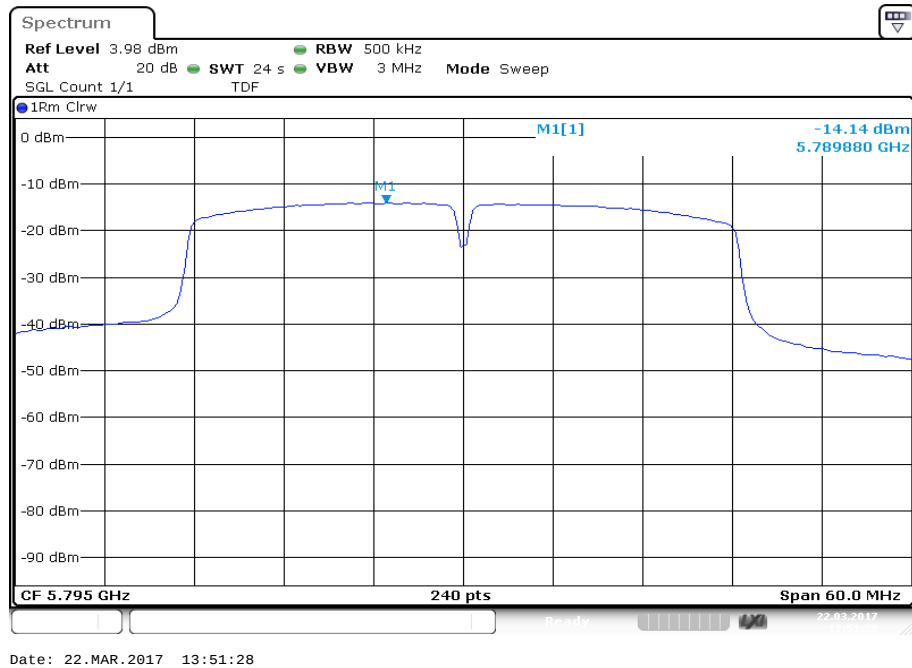


Plots: OFDM / n/ac HT40 – mode, MMCX port

Plot 1: 5755 MHz



Plot 2: 5795 MHz



Plots: OFDM / ac HT80 – mode, MMCX port

Plot 1: 5775 MHz

