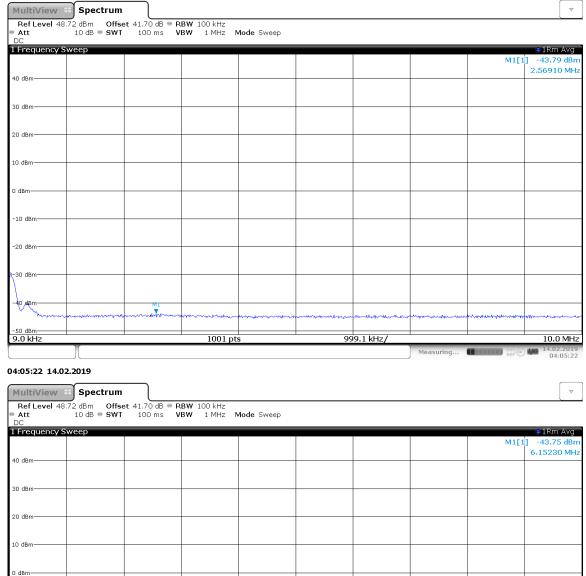
5M+5M-2147.5MHz-Port1~4:



04:05:28 14.02.2019

-10 dBm

-20 dBm

30 dBm

-50 dBm-**9.0 kH**z

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1001 pts

999.1 kHz/

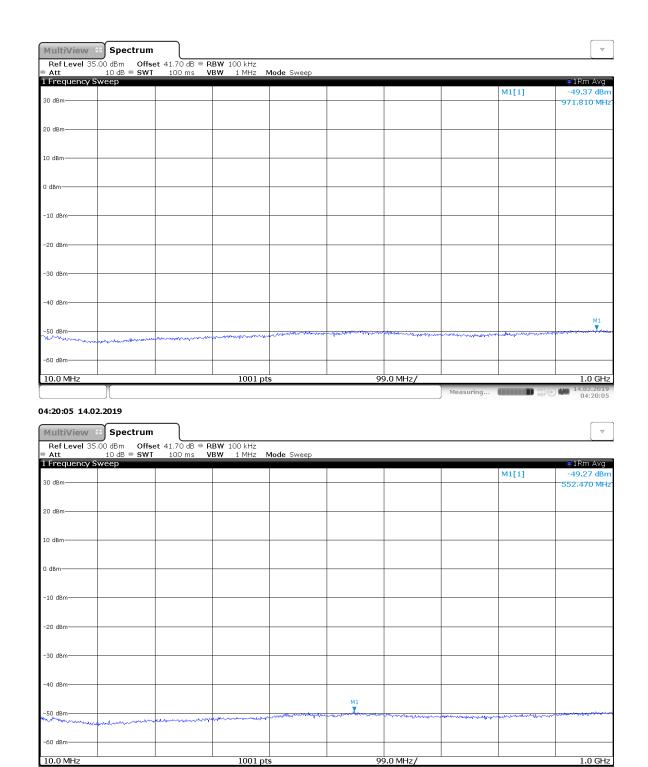
10.0 MHz

Measuring... 14.02.2019 04:05:27



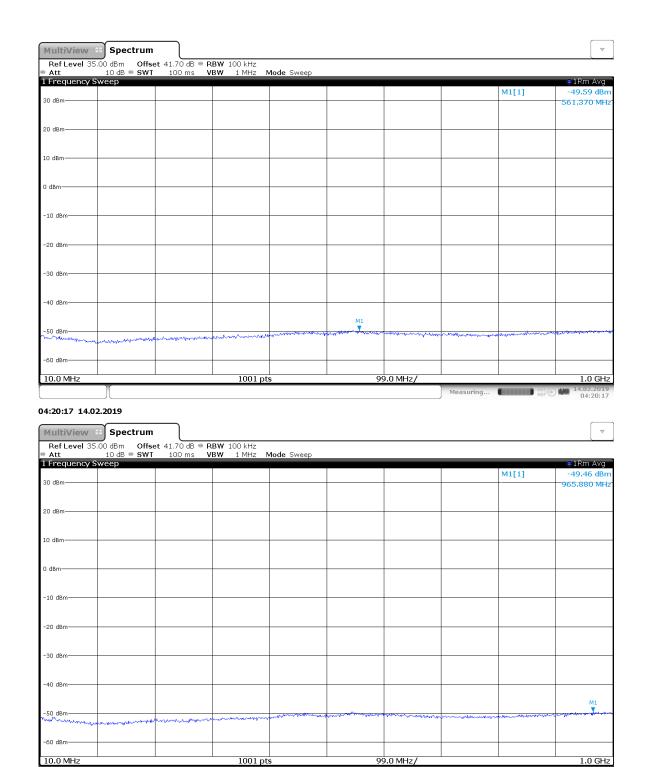
04:09:42 14.02.2019

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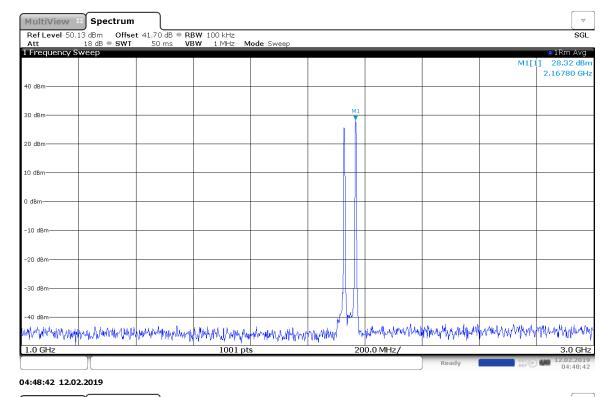
04:20:11 14.02.2019

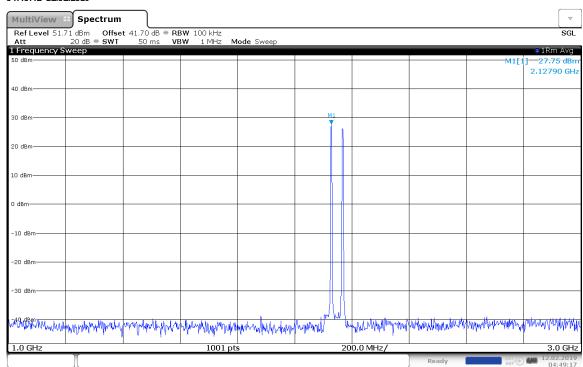
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04:20:24 14.02.2019

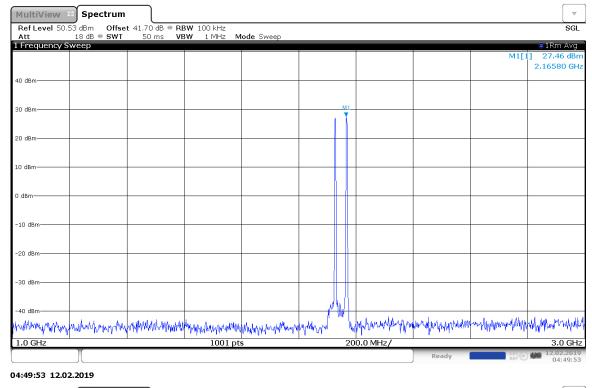
Report No.:WT198001218 Page 183 of 291

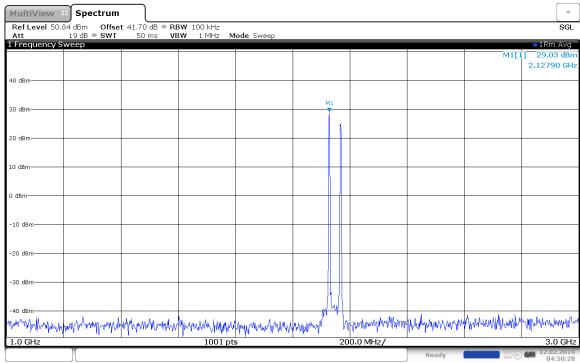




04:49:18 12.02.2019

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04:50:29 12.02.2019

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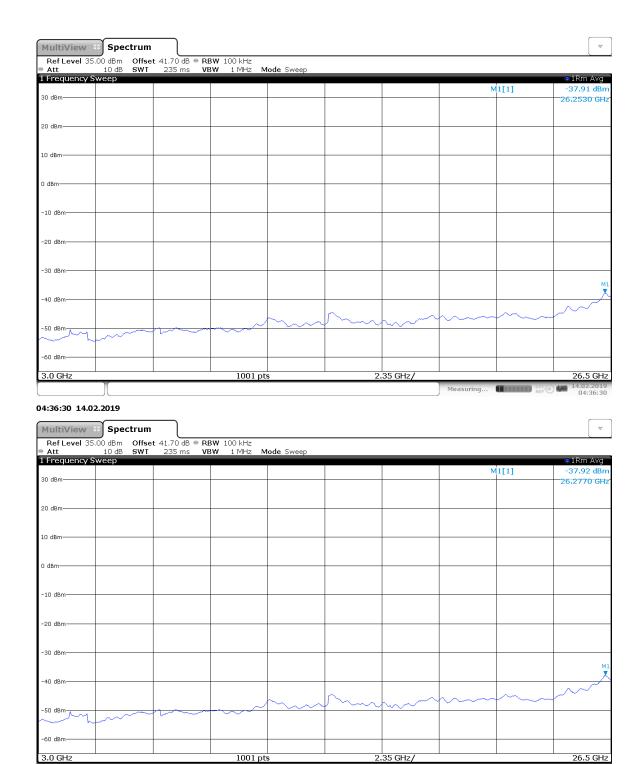


04:36:24 14.02.2019

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1001 pts

2.35 GHz/



04:36:37 14.02.2019

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20M+20M-2132.5MHz-Port1~4:



04:09:48 14.02.2019

-50 dBm-**9.0 kH**z

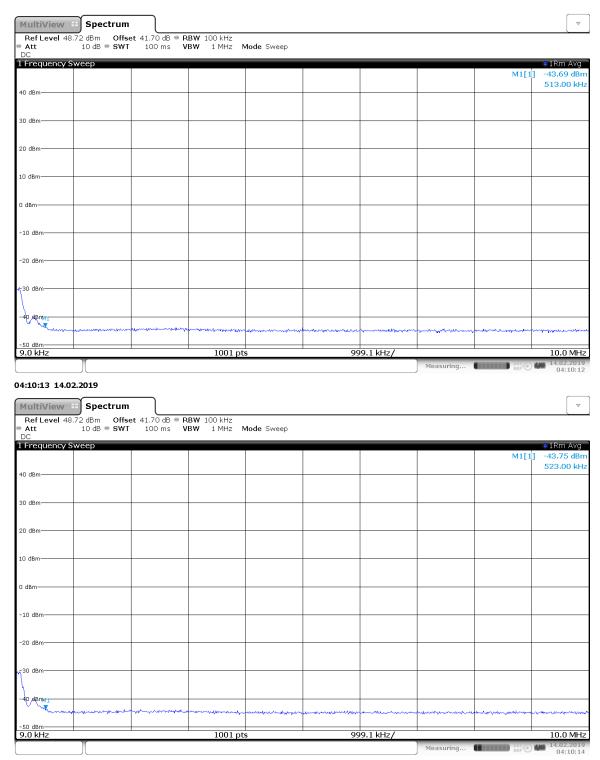
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1001 pts

999.1 kHz/

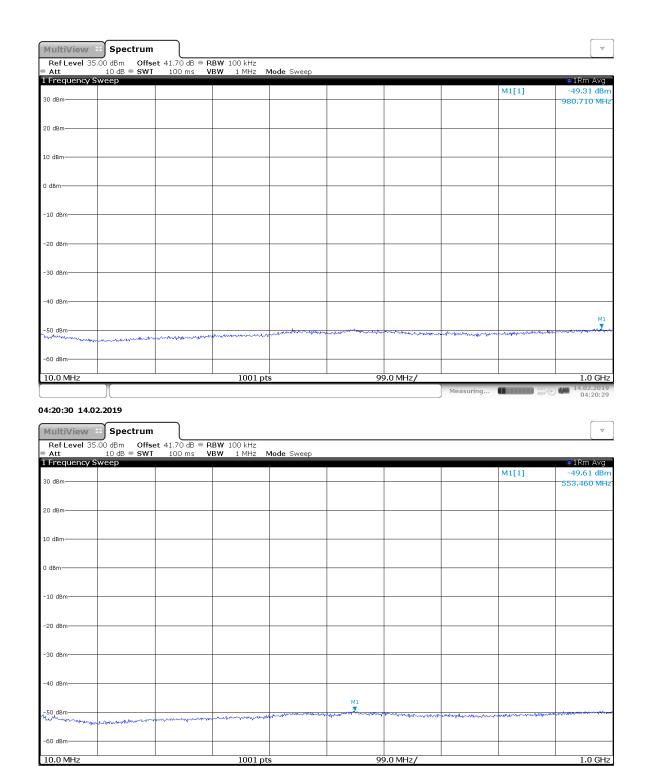
10.0 MHz

Measuring... 14.02.2019 04:09:48



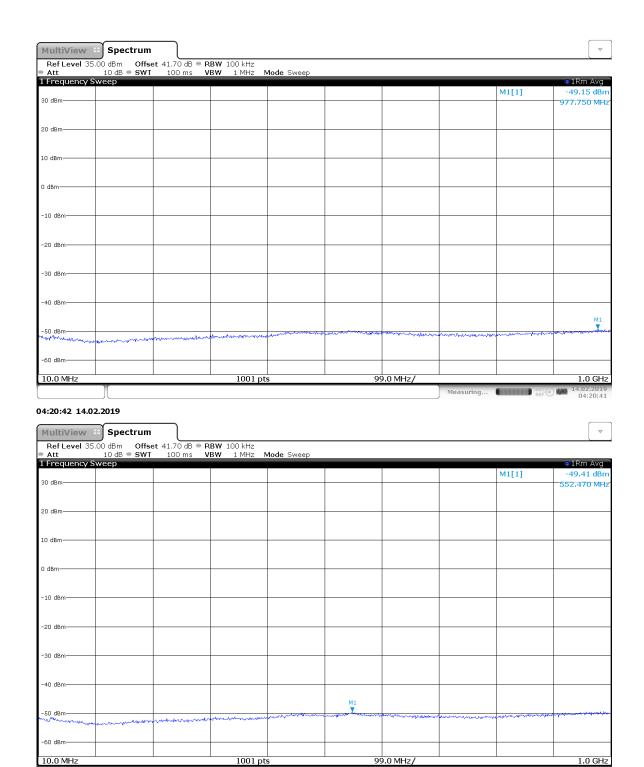
04:10:15 14.02.2019

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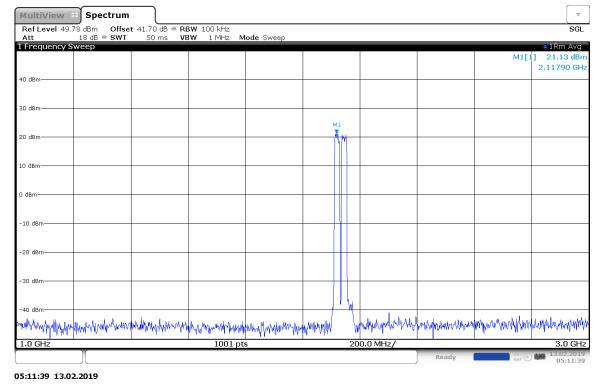
04:20:36 14.02.2019

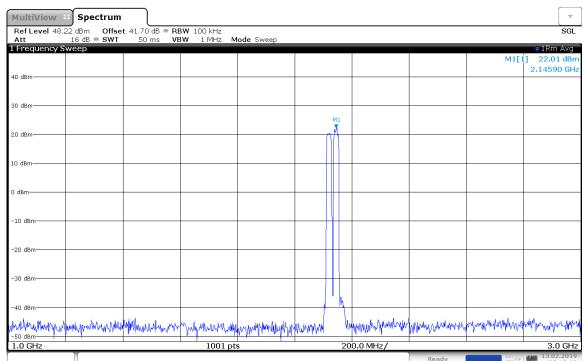
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04:20:48 14.02.2019

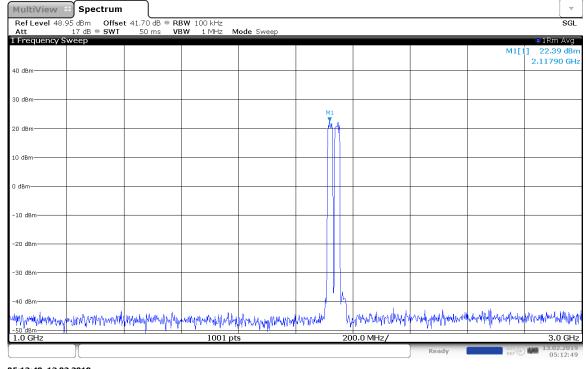
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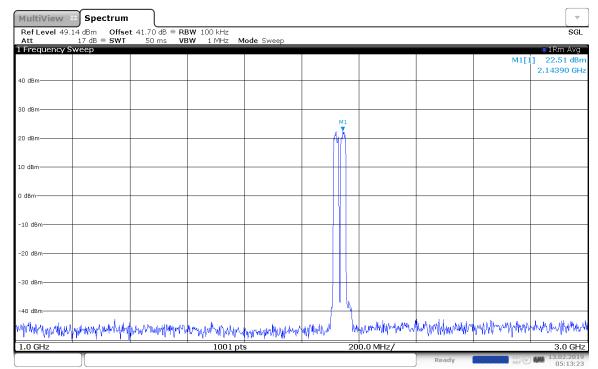


05:12:14 13.02.2019

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05:12:49 13.02.2019



05:13:23 13.02.2019

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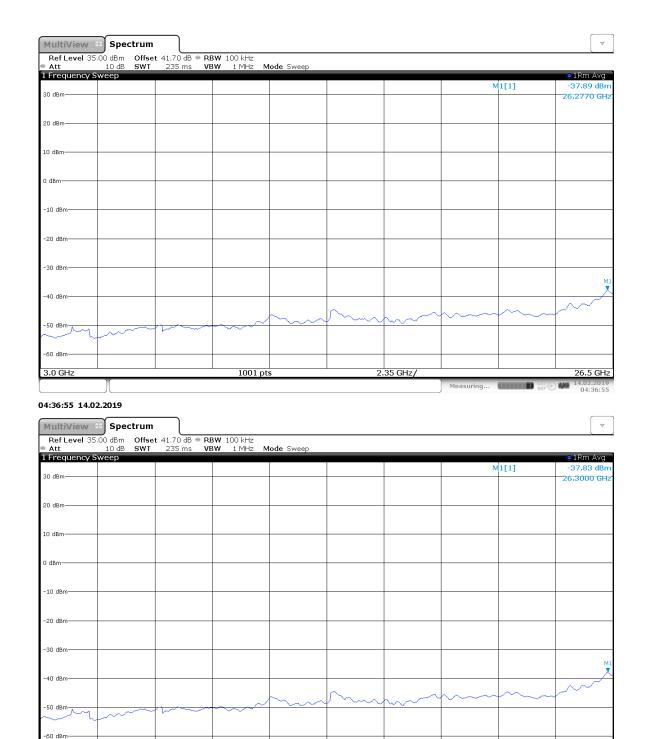
04:36:49 14.02.2019

-60 dBm

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1001 pts

2.35 GHz/



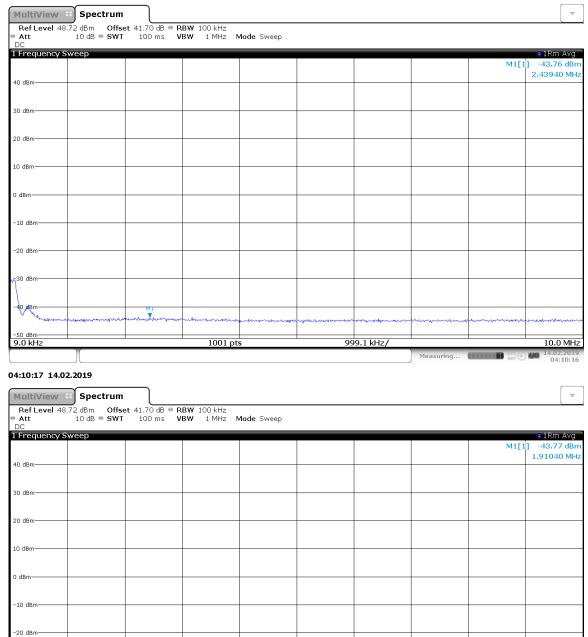
04:37:01 14.02.2019

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1001 pts

2.35 GHz/

20M+20M-2140MHz-Port1~4:



04:10:19 14.02.2019

30 dBm

-50 dBm-**9.0 kH**z

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1001 pts

999.1 kHz/

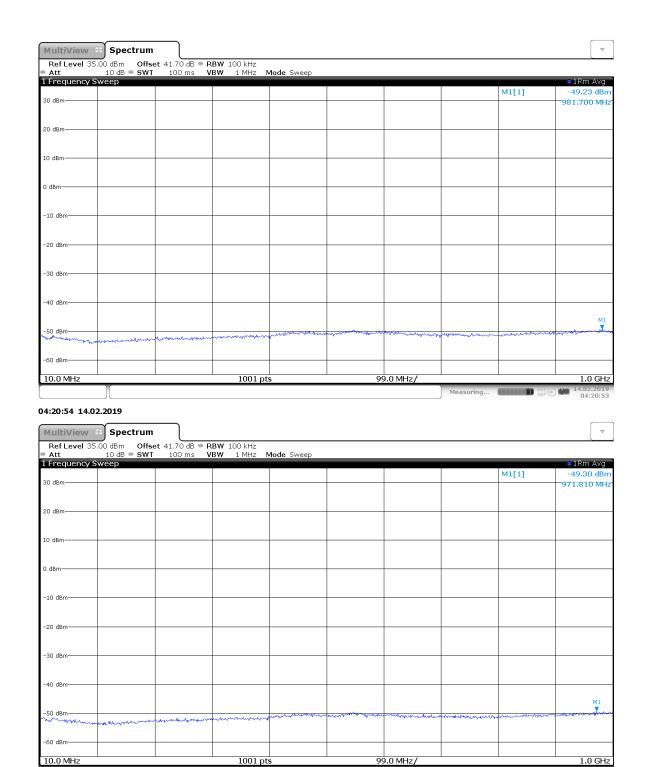
10.0 MHz

Measuring... 14.02.2019 04:10:18



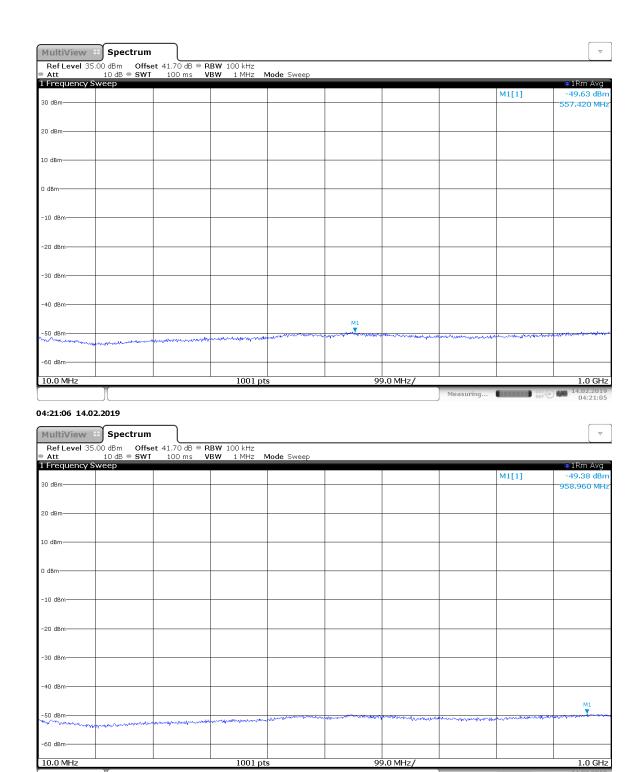
04:10:22 14.02.2019

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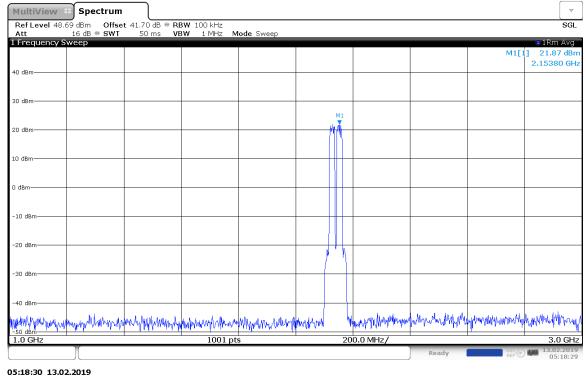
04:21:00 14.02.2019

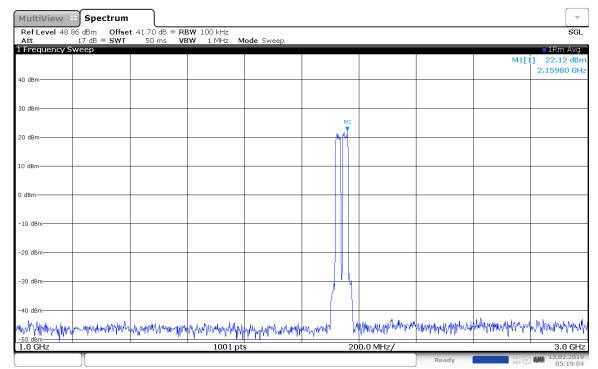
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04:21:12 14.02.2019

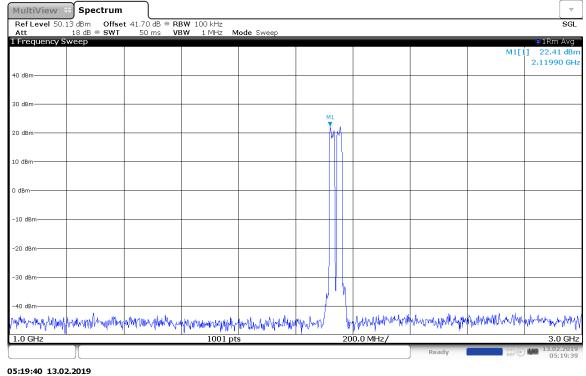
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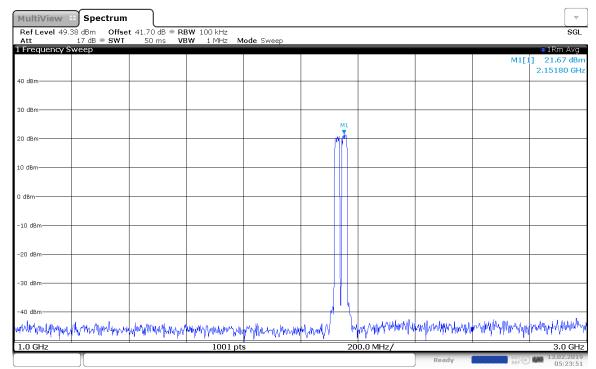




05:19:04 13.02.2019

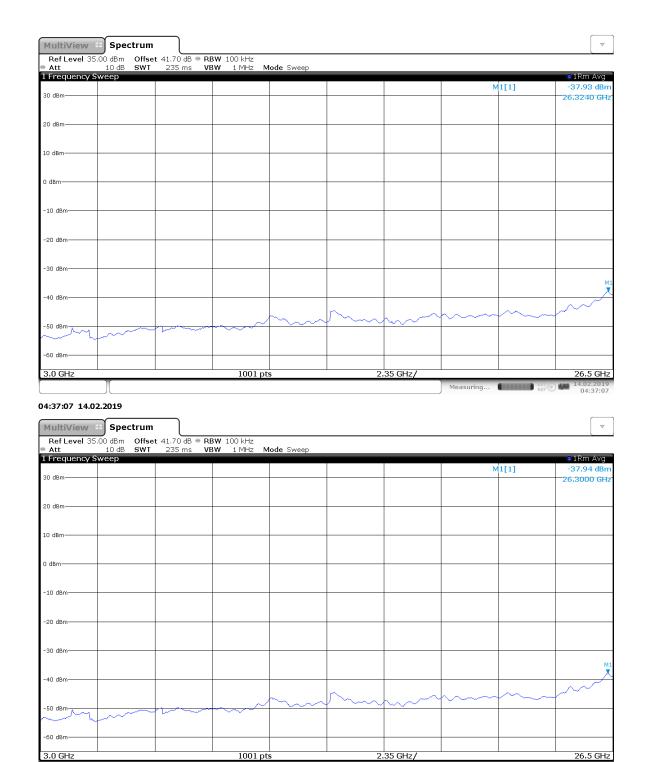
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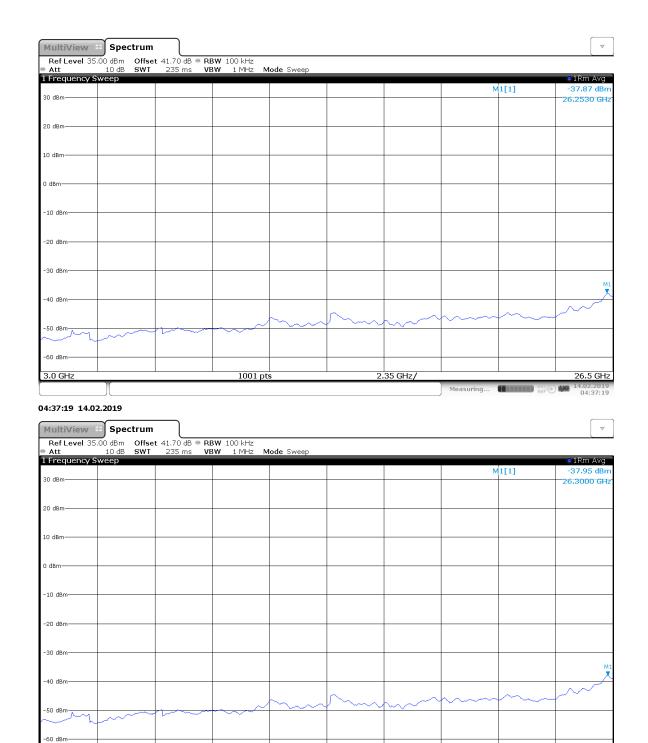
05:23:51 13.02.2019

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04:37:13 14.02.2019

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04:37:25 14.02.2019

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1001 pts

2.35 GHz/

20M+20M-2147.5MHz-Port1~4:



04:10:29 14.02.2019

-50 dBm-**9.0 kH**z

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1001 pts

999.1 kHz/

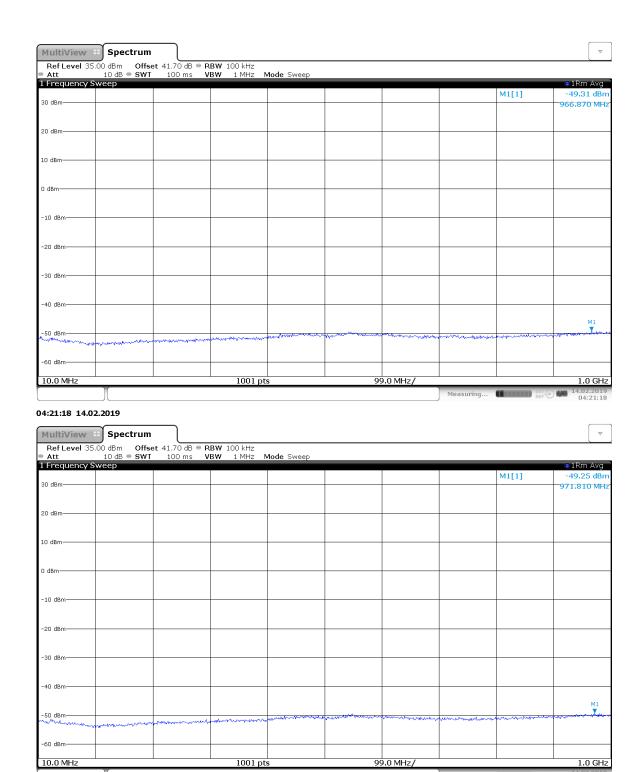
10.0 MHz

Measuring... 14.02.2019 04:10:29



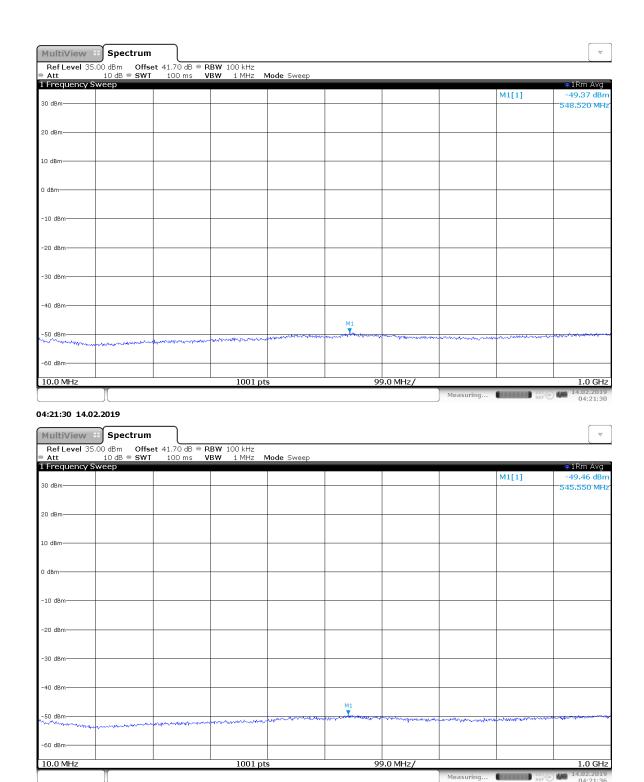
04:10:35 14.02.2019

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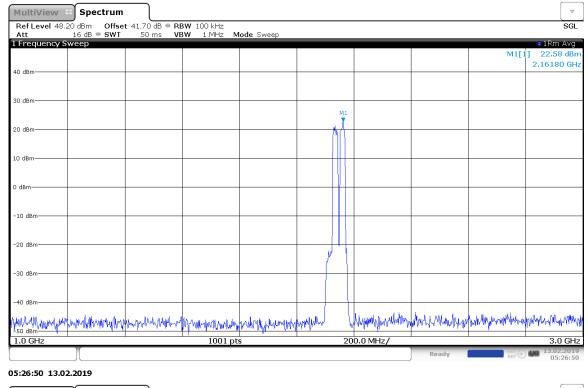
04:21:24 14.02.2019

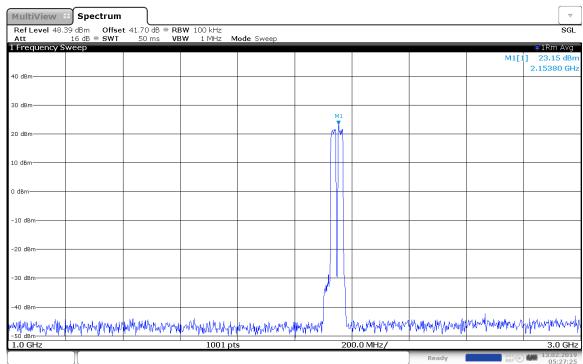
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04:21:37 14.02.2019

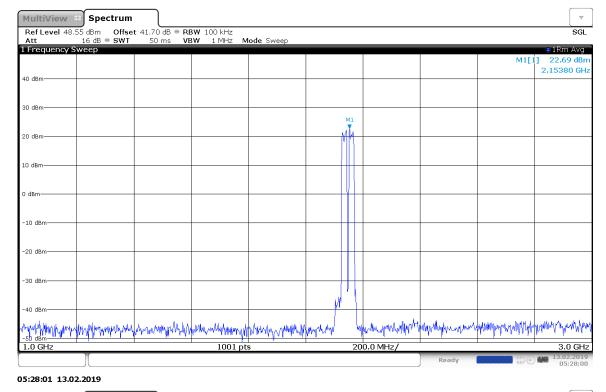
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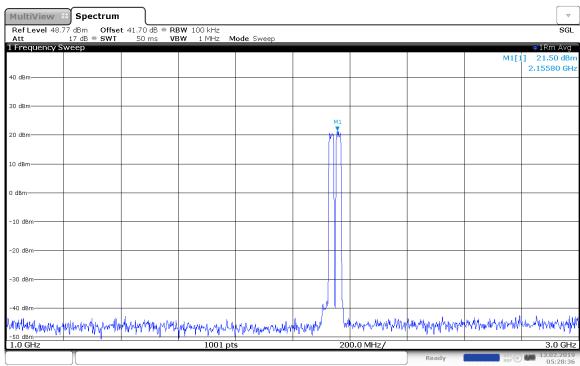




05:27:26 13.02.2019

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05:28:36 13.02.2019

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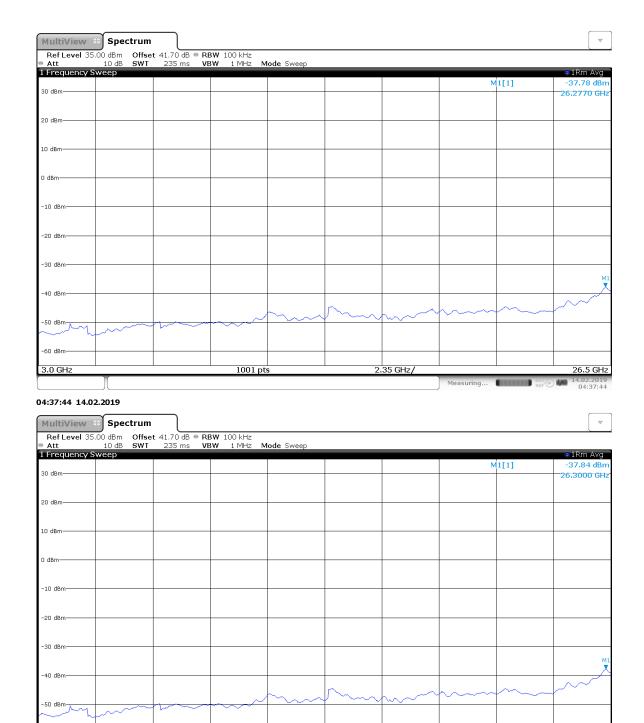
04:37:38 14.02.2019

-60 dBm

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1001 pts

2.35 GHz/



04:37:50 14.02.2019

-60 dBm

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1001 pts

2.35 GHz/

9. OCCUPIED BANDWIDTH

9.1. Applicable Standard:

FCC §2.1049

9.2. Test Equipment List and Details:

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	Signal & Spectrum Analyzer	FSW26	SB12724/01	2018.06.06	2019.06.05
DTS	DTS 40dB Attenuator	DTS100-40-3-1	09112005	2018.07.19	2019.07.19
Radiall	RF Cable	1807188			

^{*}statement of traceability: SMQ attests that all calibration has been performed per the A2LA requirements, traceable to NIM.

9.3. Test Procedure:

The RF out of the transmitter was connected to the input of the spectrum analyzer through sufficient attenuation. 99%Power bandwidth was recorded.

9.4. Environmental Conditions:

Temperature:	22 °C
Relative Humidity:	51 %
ATM Pressure:	1020 mbar

9.5.Test Result: Pass

9.6.Test Mode: Transmitting LTE

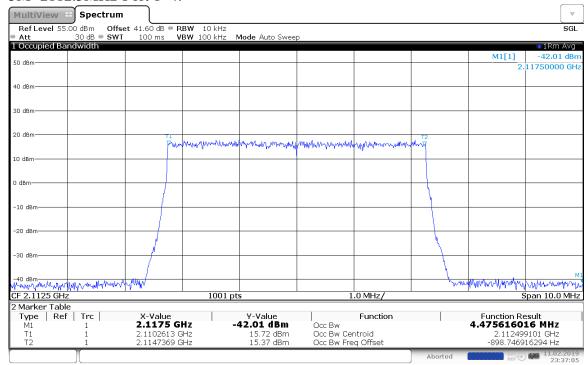
9.7.Test Data:

Dual Carrier:

Channel Bandwidth:5M+5M(2112.5MHz & 2152.5MHz)

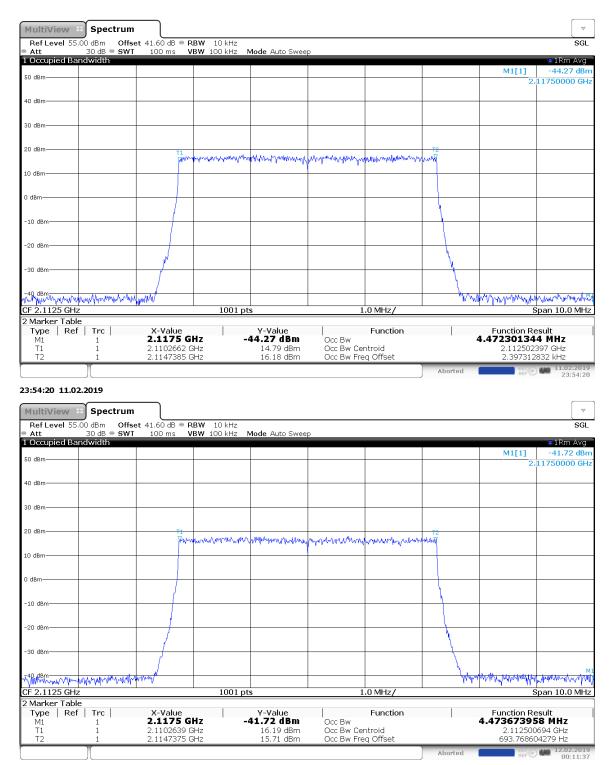
Port	Carrier1 Center Freq. (MHz)	Carrier1 99% Power Bandwidth (MHz)	Carrier2 Center Freq. (MHz)	Carrier2 99% Power Bandwidth (MHz)	Limit (MHz)
1	2112.5	4.4756		4.4749	5
2		4.4723	2152.5	4.4737	5
3		4.4736	2102.0	4.4768	5
4		4.4742		4.4712	5

5M -2112.5MHz-Port 1~4:



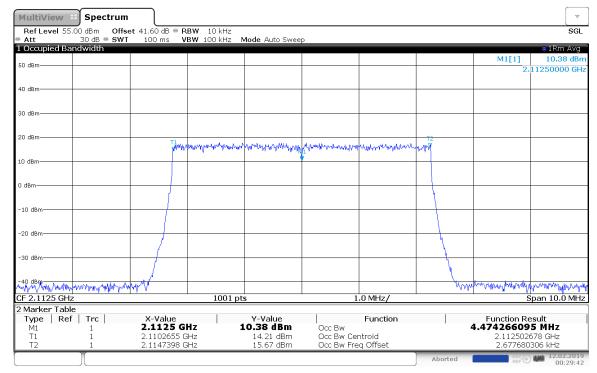
23:37:05 11.02.2019

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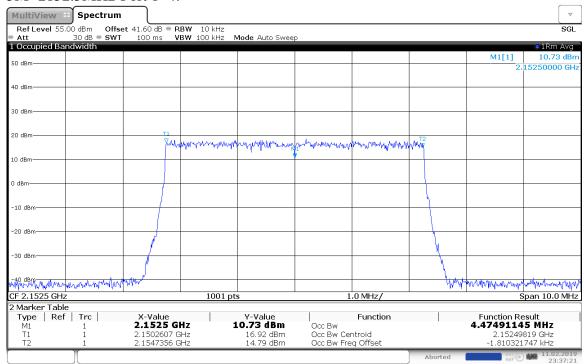
00:11:37 12.02.2019

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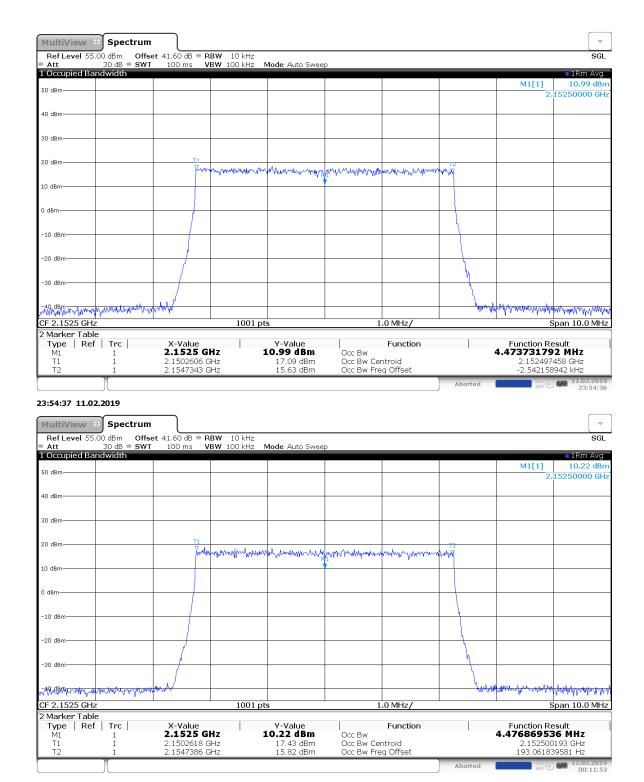
00:29:43 12.02.2019

5M -2152.5MHz-Port 1~4:



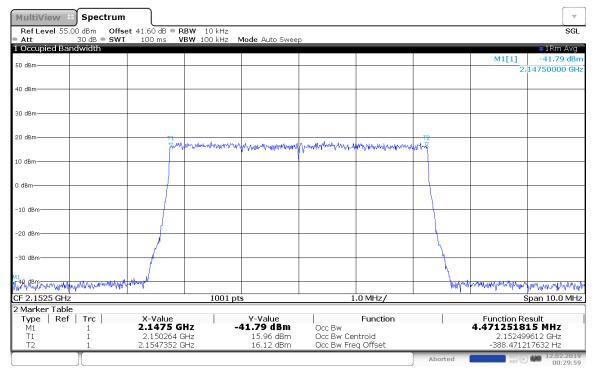
23:37:21 11.02.2019

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00:11:54 12.02.2019

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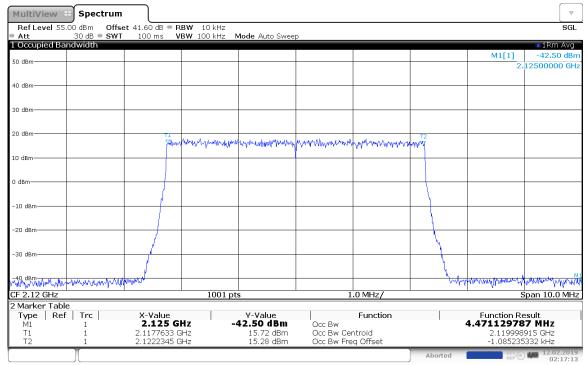


00:30:00 12.02.2019

Channel Bandwidth:5M+5M(2120MHz & 2160MHz)

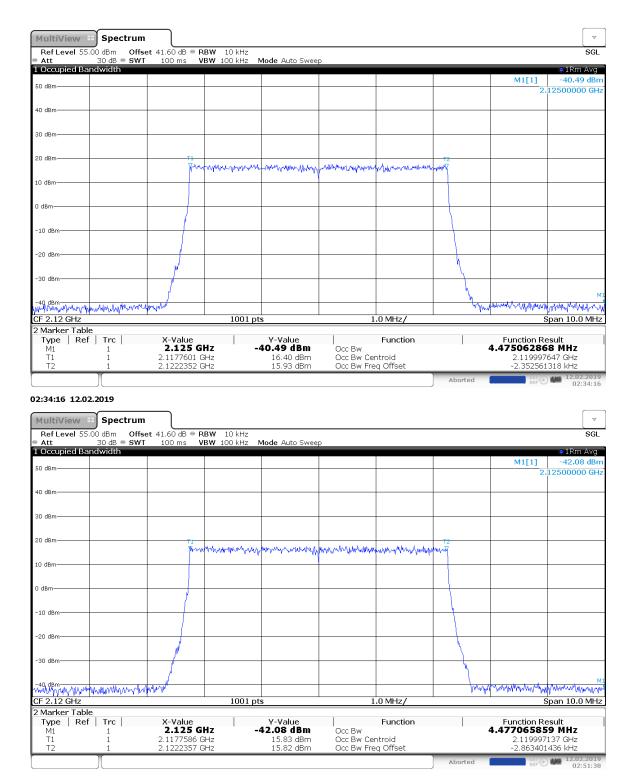
Port	Carrier1 Center Freq. (MHz)	Carrier1 99% Power Bandwidth (MHz)	Carrier2 Center Freq. (MHz)	Carrier2 99% Power Bandwidth (MHz)	Limit (MHz)
1		4.4711		4.4720	5
2	2120	4.4750	2160	4.4716	5
3	2120	4.4770	2100	4.4696	5
4		4.4750		4.4748	5

5M -2120MHz-Port 1~4:



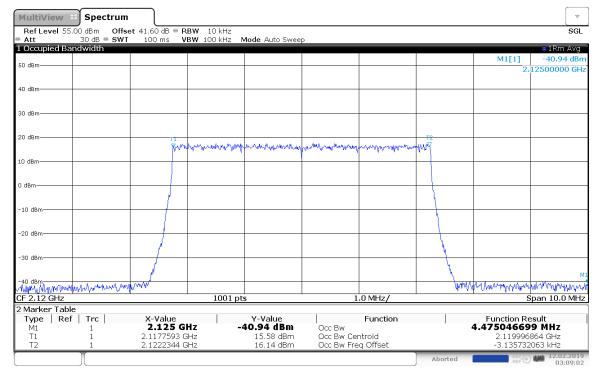
02:17:13 12.02.2019

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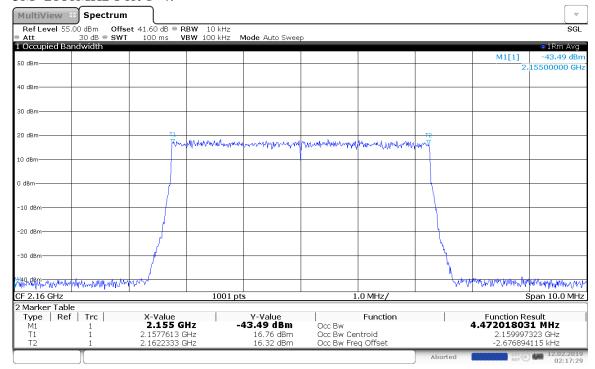
02:51:38 12.02.2019

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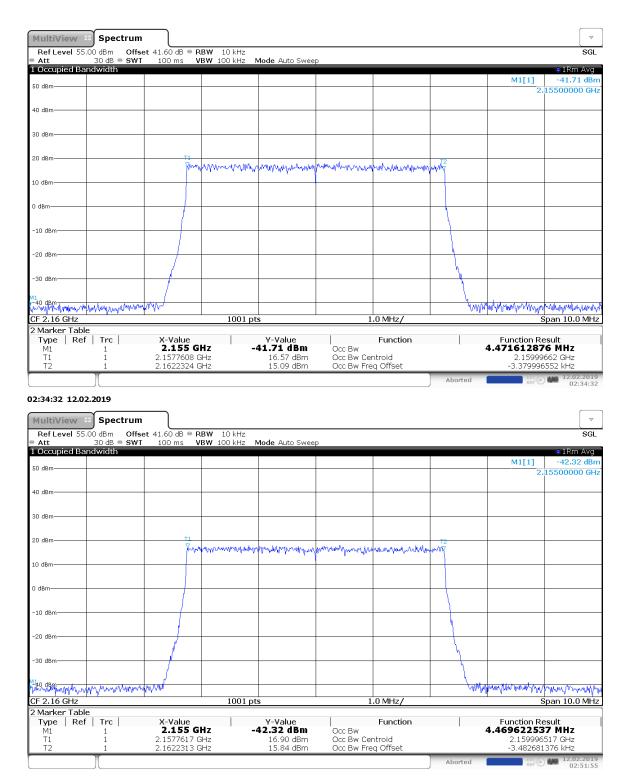
03:09:03 12.02.2019

5M -2160MHz-Port 1~4:



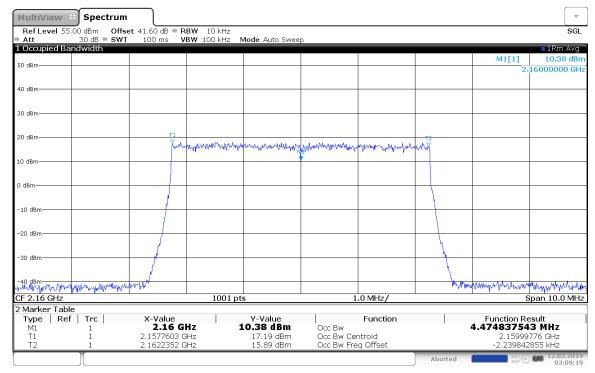
02:17:30 12.02.2019

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02:51:56 12.02.2019

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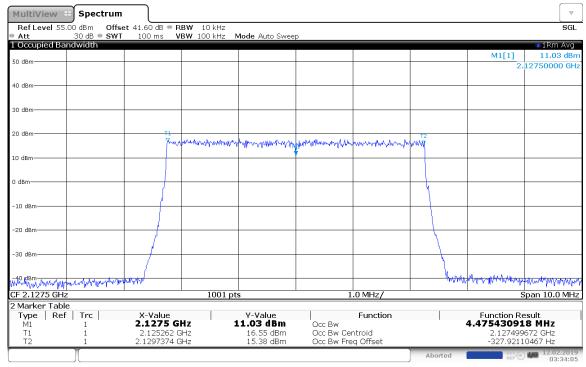


03:09:20 12.02.2019

Channel Bandwidth: 5M+5M(2127.5MHz & 2167.5MHz)

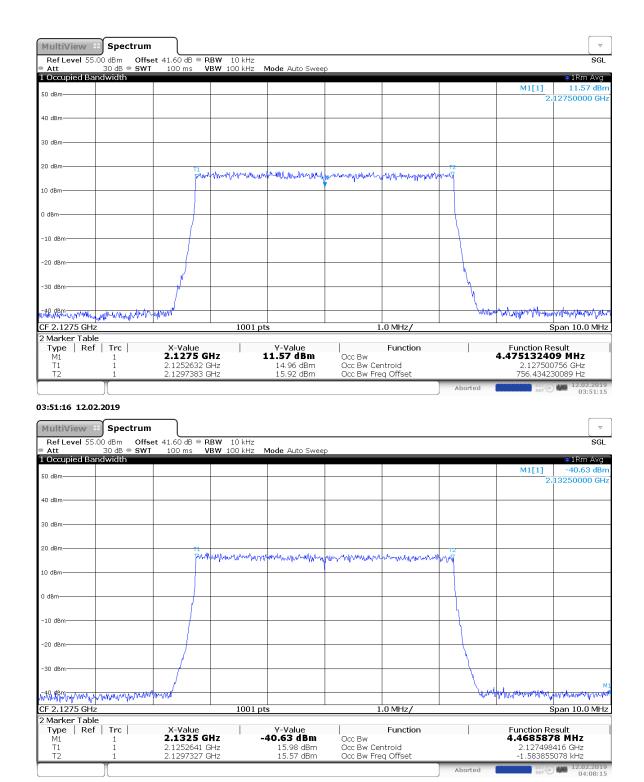
Port	Carrier1 Center Freq. (MHz)	Carrier1 99% Power Bandwidth (MHz)	Carrier2 Center Freq. (MHz)	Carrier2 99% Power Bandwidth (MHz)	Limit (MHz)
1		4.4754		4.4775	5
2	2127.5	4.4751	2167.5	4.4681	5
3	2127.5	4.4685	2107.5	4.4682	5
4		4.4720		4.4682	5

5M -2127.5MHz-Port 1~4:



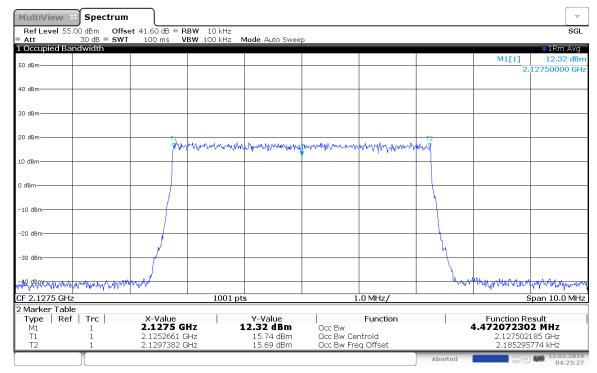
03:34:05 12.02.2019

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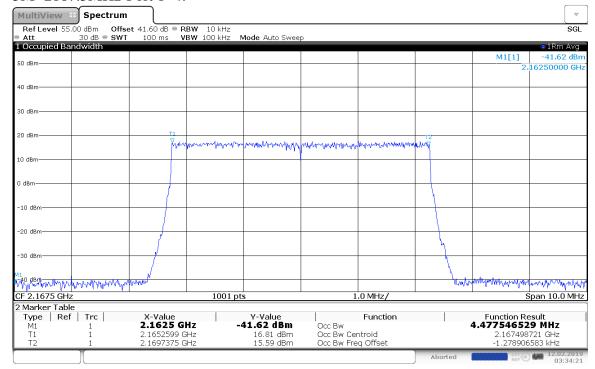
04:08:16 12.02.2019

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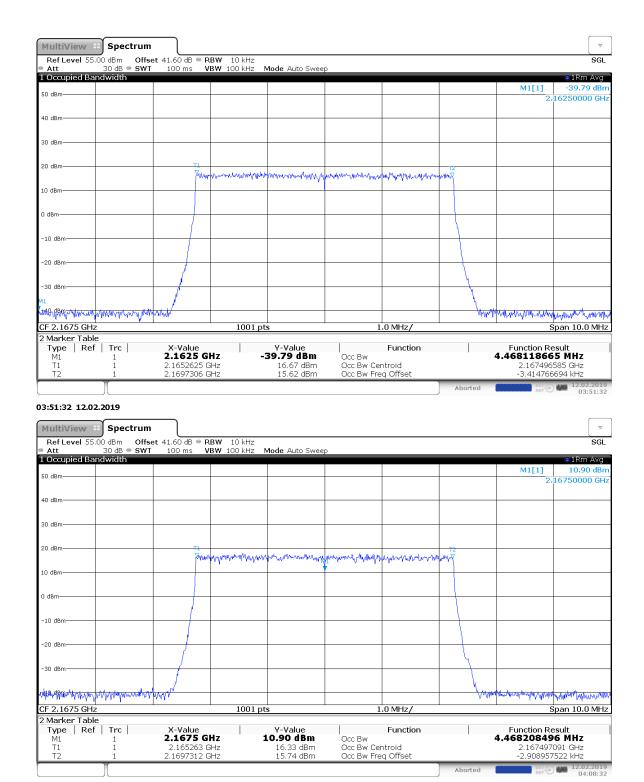
04:25:28 12.02.2019

5M -2167.5MHz-Port 1~4:



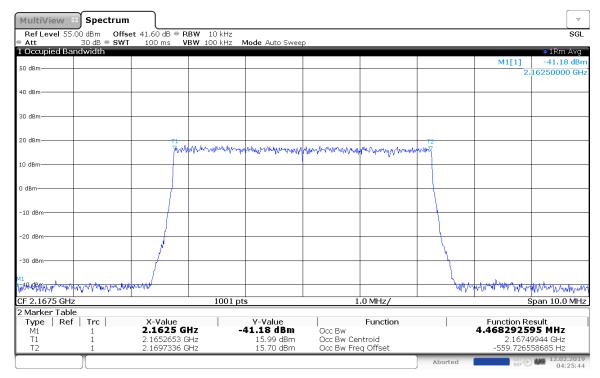
03:34:22 12.02.2019

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04:08:33 12.02.2019

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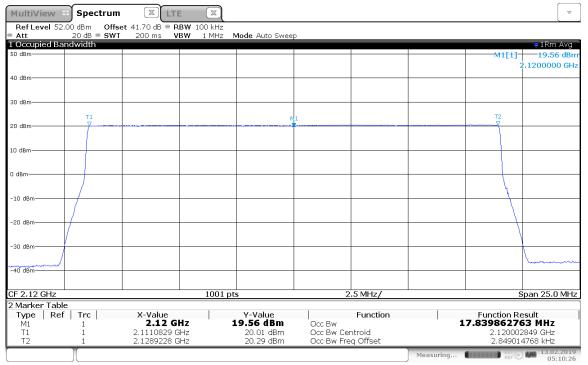


04:25:44 12.02.2019

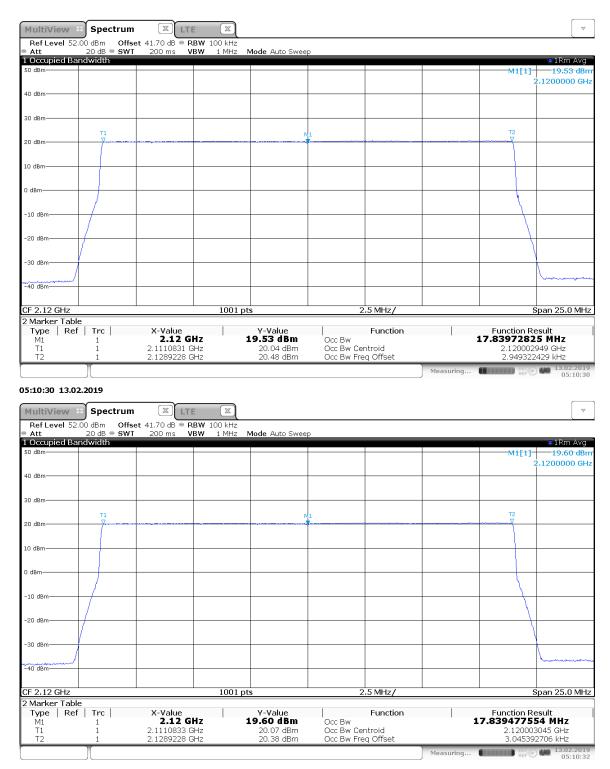
Channel Bandwidth: 20M+20M(2120MHz & 2145MHz)

Port	Carrier1 Center Freq. (MHz)	Carrier1 99% Power Bandwidth (MHz)	Carrier2 Center Freq. (MHz)	Carrier2 99% Power Bandwidth (MHz)	Limit (MHz)
1		17.8398		17.8349	20
2	2120	17.8397	2145	17.8347	20
3	2120	17.8394	2143	17.8345	20
4		17.8400		17.8354	20



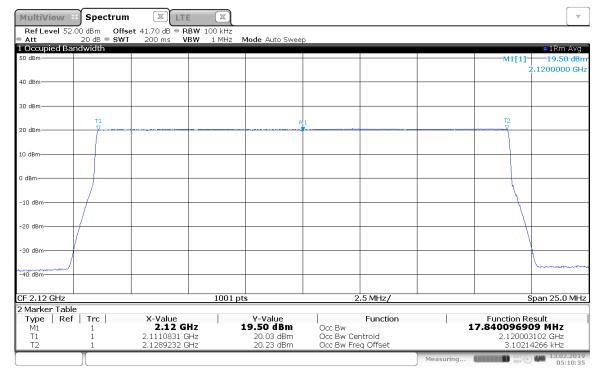


05:10:26 13.02.2019



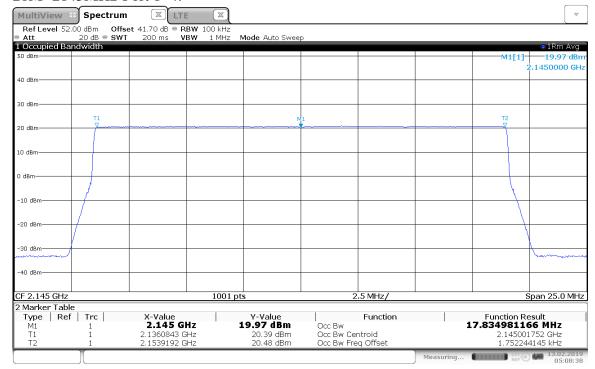
05:10:32 13.02.2019

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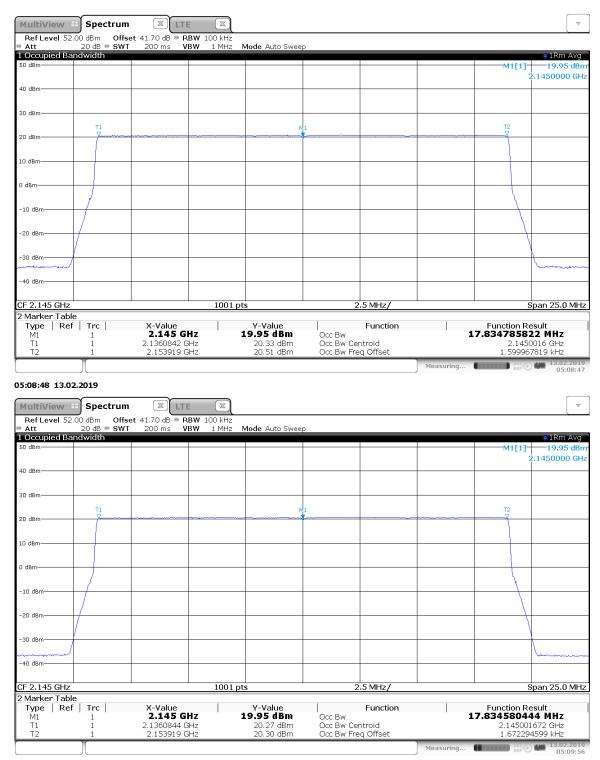
05:10:35 13.02.2019

20M -2145MHz-Port 1~4:



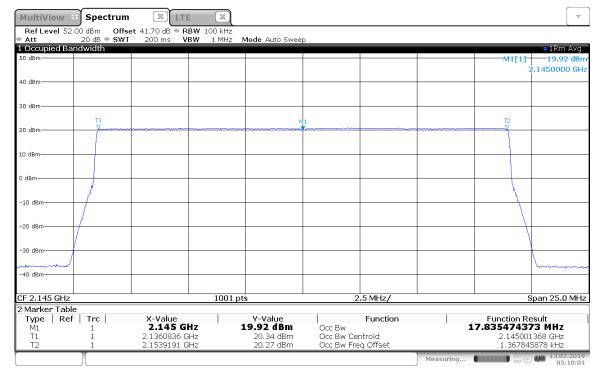
05:08:39 13.02.2019

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05:09:57 13.02.2019

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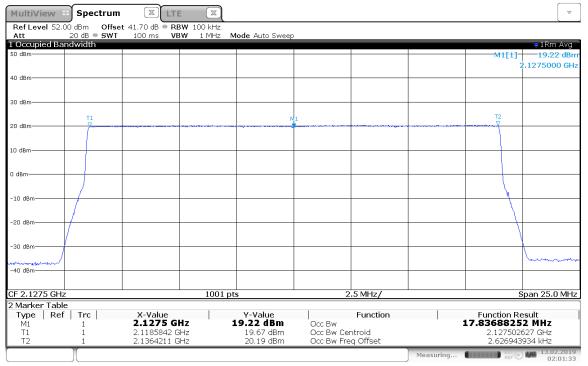


05:10:01 13.02.2019

Channel Bandwidth :20M+20M(2127.5MHz & 2152.5MHz)

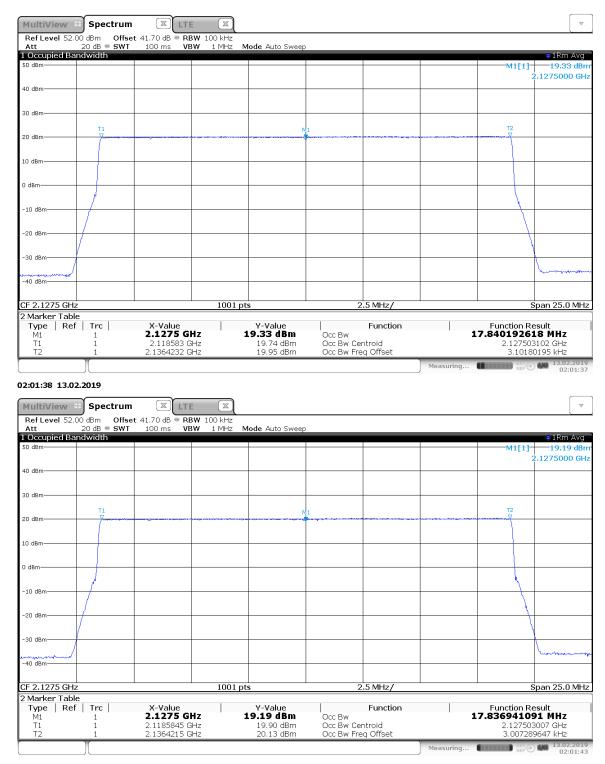
Port	Carrier1 Center Freq. (MHz)	Carrier1 99% Power Bandwidth (MHz)	Carrier2 Center Freq. (MHz)	Carrier2 99% Power Bandwidth (MHz)	Limit (MHz)
1		17.8368		17.8384	20
2	2127.5	17.8401	2152.5	17.8356	20
3	2127.5	17.8369	2132.3	17.8370	20
4		17.8384		17.8377	20

20M -2127.5MHz-Port 1~4:



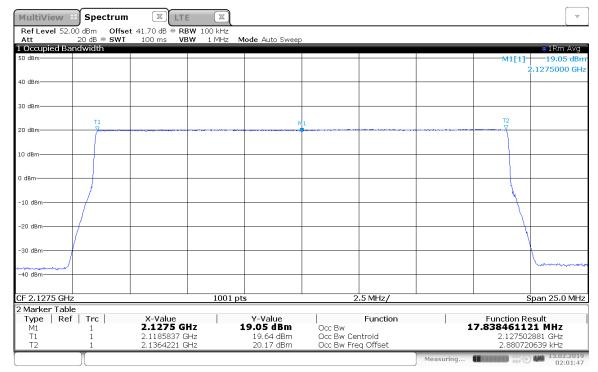
02:01:34 13.02.2019

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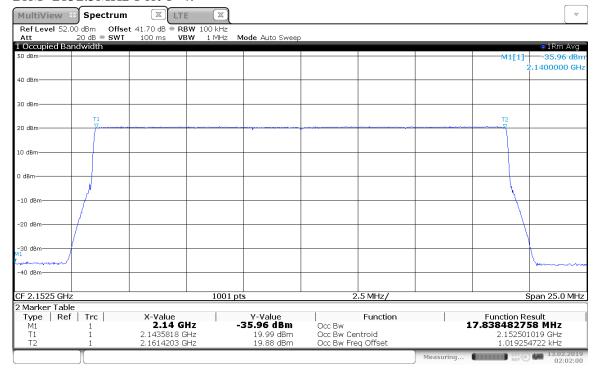
02:01:44 13.02.2019

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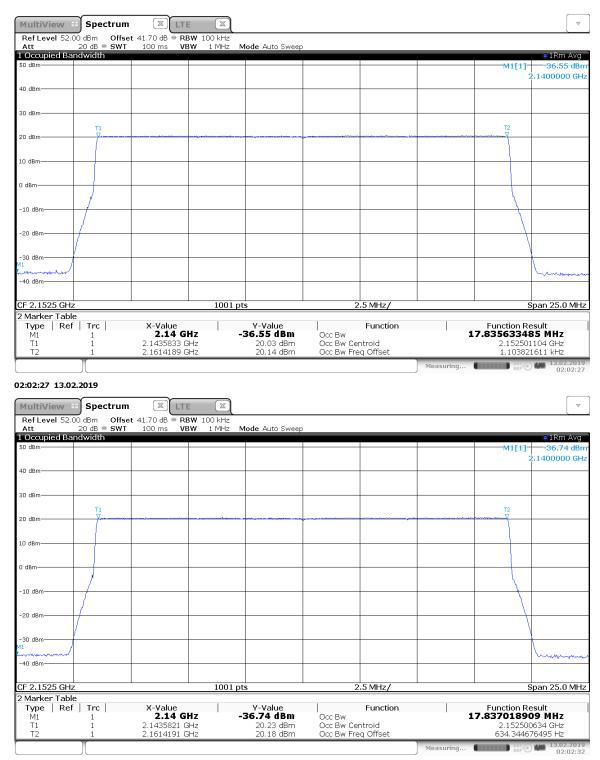
02:01:48 13.02.2019

20M -2152.5MHz-Port 1~4:



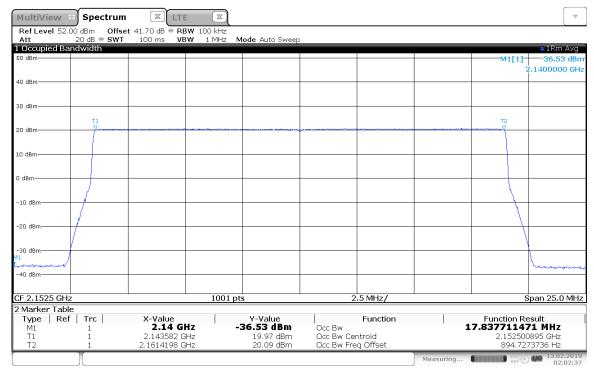
02:02:00 13.02.2019

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02:02:33 13.02.2019

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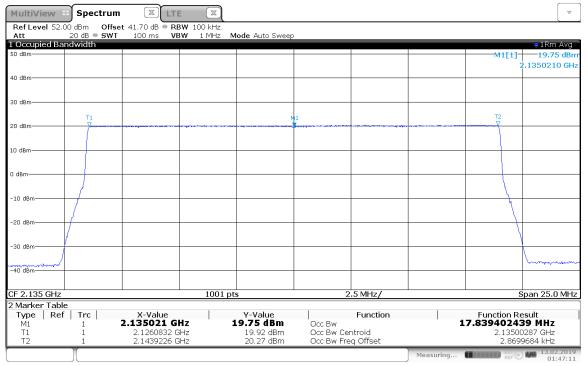


02:02:38 13.02.2019

Channel Bandwidth: 20M+20M(2135MHz & 2160MHz)

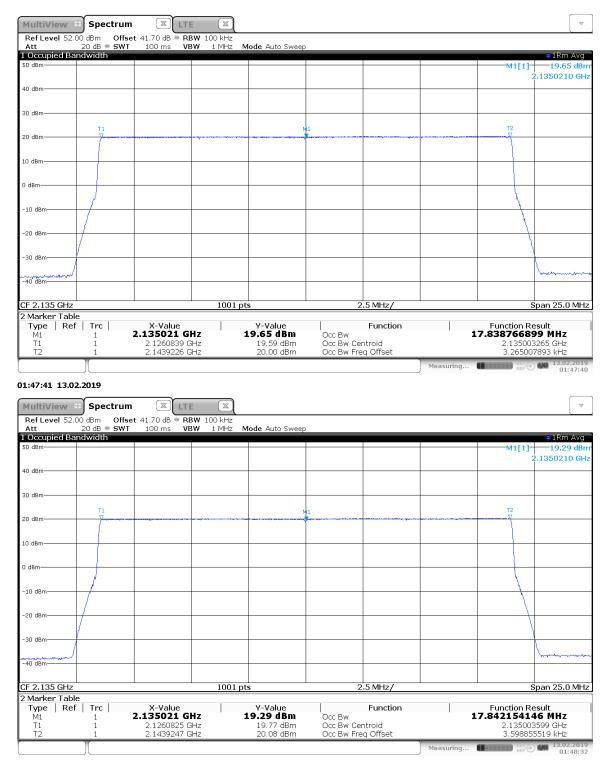
Port	Carrier1 Center Freq. (MHz)	Carrier1 99% Power Bandwidth (MHz)	Carrier2 Center Freq. (MHz)	Carrier2 99% Power Bandwidth (MHz)	Limit (MHz)
1		17.8394		17.8349	20
2	2135	17.8387	2160	17.8358	20
3	2100	17.8421	2100	17.8358	20
4		17.8402		17.8364	20

20M -2135MHz-Port 1~4:



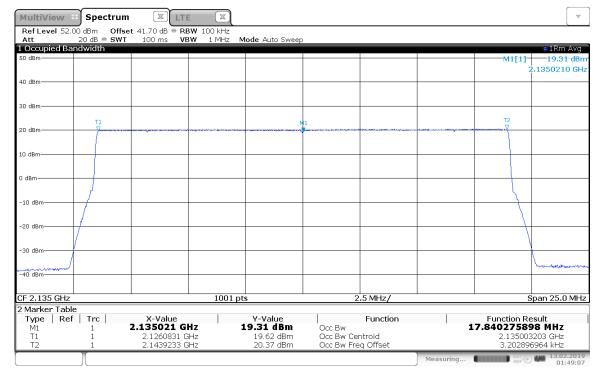
01:47:12 13.02.2019

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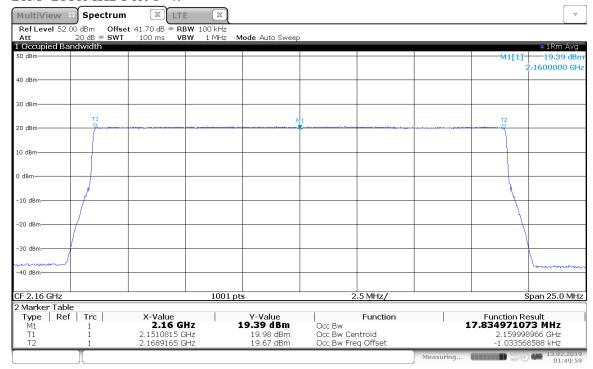
01:48:33 13.02.2019

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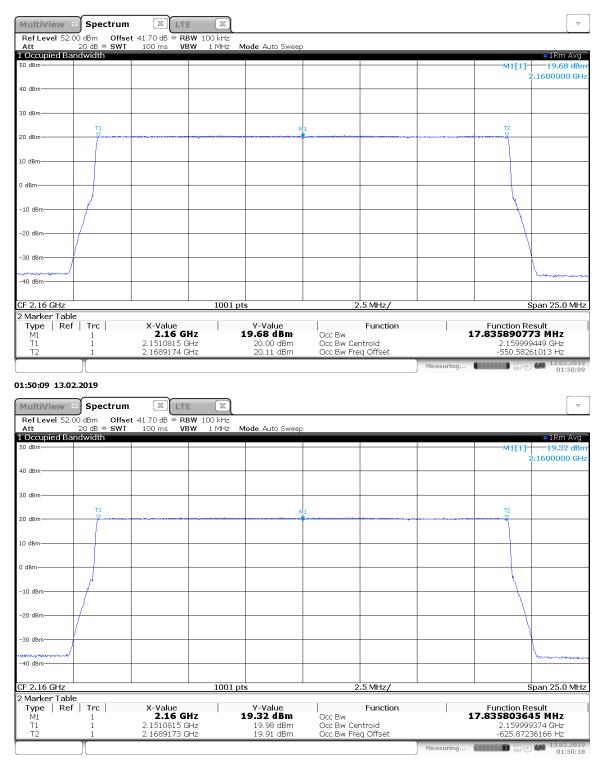
01:49:08 13.02.2019

20M -2160MHz-Port 1~4:



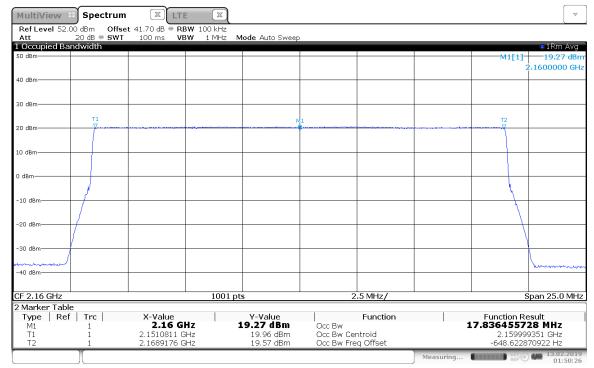
01:49:59 13.02.2019

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01:50:19 13.02.2019

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01:50:27 13.02.2019

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10.BAND EDGES

10.1.Applicable Standard:

FCC §2.1051, §27.53

10.2.Test Equipment List and Details:

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	Signal & Spectrum Analyzer	FSW26	SB12724/01	2018.06.06	2019.06.05
DTS	DTS 40dB Attenuator	DTS100-40-3-1	09112005	2018.07.19	2019.07.19
Radiall	RF Cable	1807188			

^{*}statement of traceability: SMQ attests that all calibration has been performed per the A2LA requirements, traceable to NIM.

10.3.Test Procedure:

The RF output of the transmitter was connected to the input of the spectrum analyzer through sufficient attenuation.

The center of the spectrum analyzer was set to block edge frequency.

10.4. Environmental Conditions:

Temperature:	23 ° C
Relative Humidity:	42%
ATM Pressure:	1020mbar

10.5.Test Result: Pass

10.6.Test Mode: Transmitting LTE

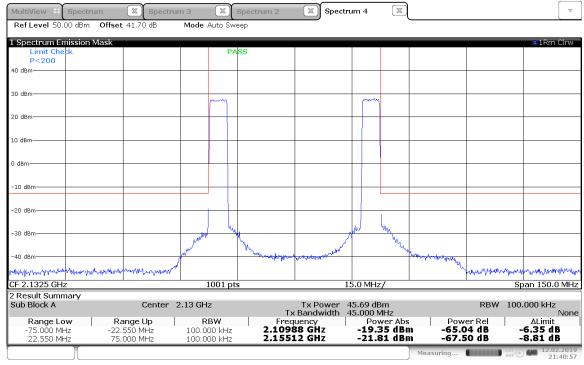
10.7.Test Data:

Dual Carrier:

Channel Bandwidth:5M+5M

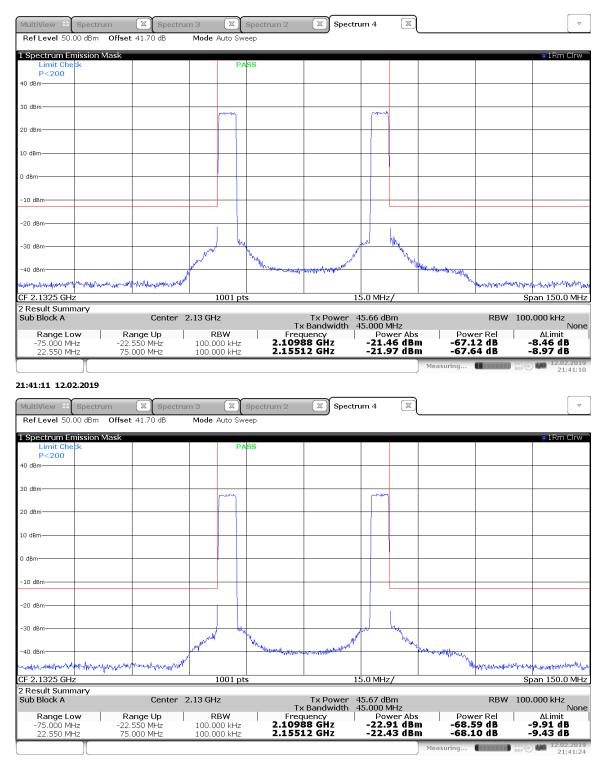
Port	RF Carrier Center	Max bandedge	Limit (dBm)
Port	Frequency. (MHz)	Emission (dBm)	
1	2132.5	-19.35	-13
	2140	-20.34	-13
	2147.5	-22.23	-13
2	2132.5	-21.46	-13
	2140	-21.03	-13
	2147.5	-19.70	-13
3	2132.5	-22.43	-13
	2140	-22.18	-13
	2147.5	-22.21	-13
4	2132.5	-22.54	-13
	2140	-22.46	-13
	2147.5	-23.07	-13

5M+5M -2132.5MHz-Port 1~4:



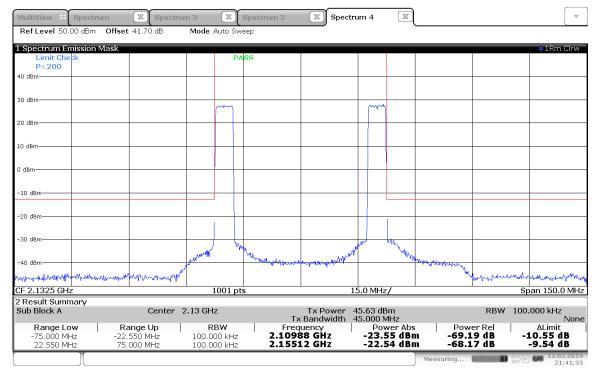
21:40:58 12.02.2019

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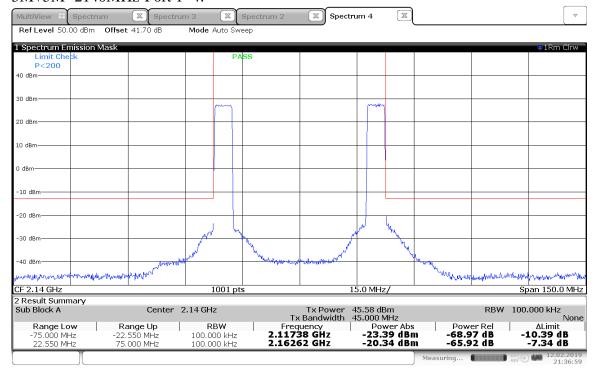
21:41:25 12.02.2019

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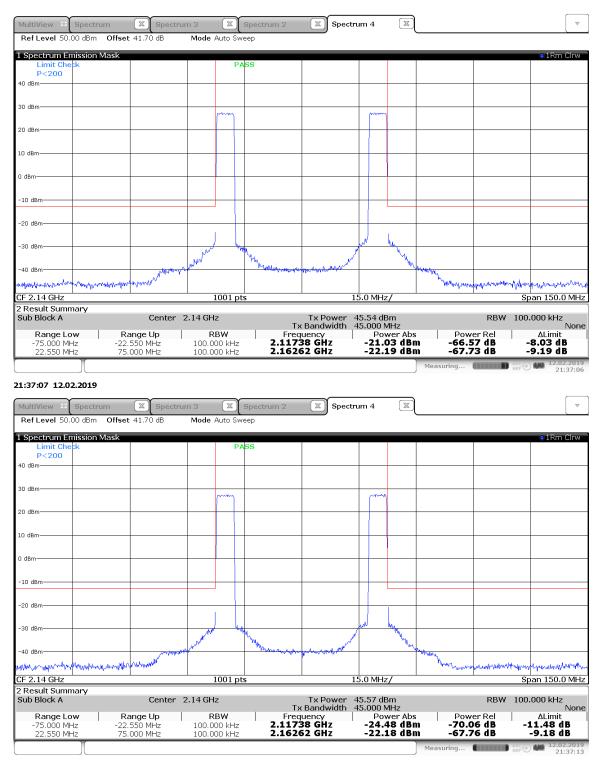
21:41:36 12.02.2019

5M+5M -2140MHz-Port 1~4:



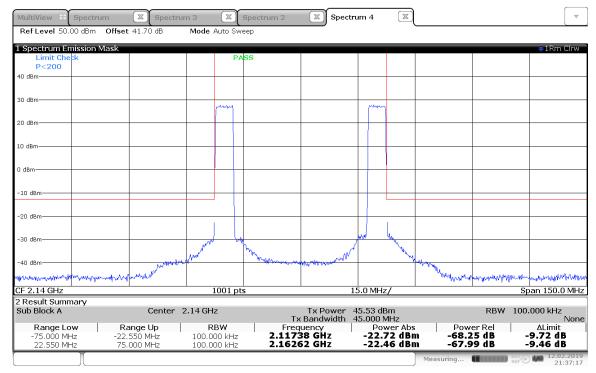
21:36:59 12.02.2019

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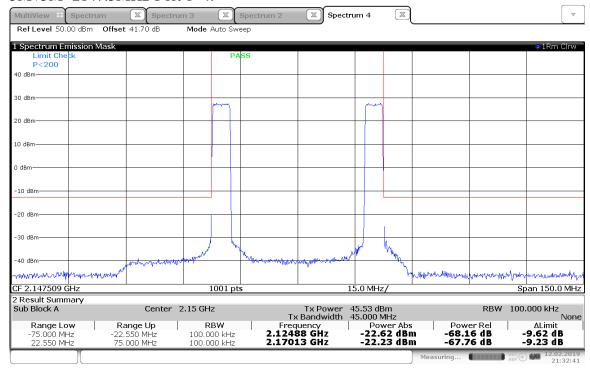
21:37:13 12.02.2019

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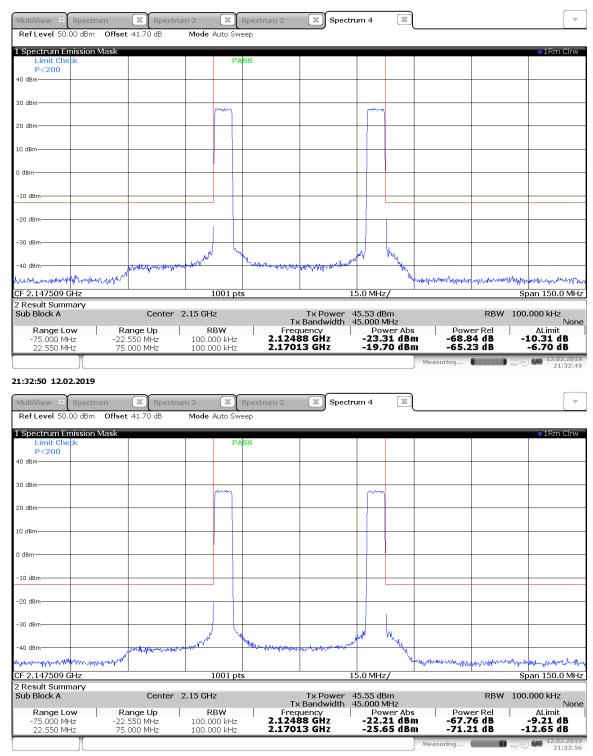
21:37:17 12.02.2019

5M+5M -2147.5MHz-Port 1~4:



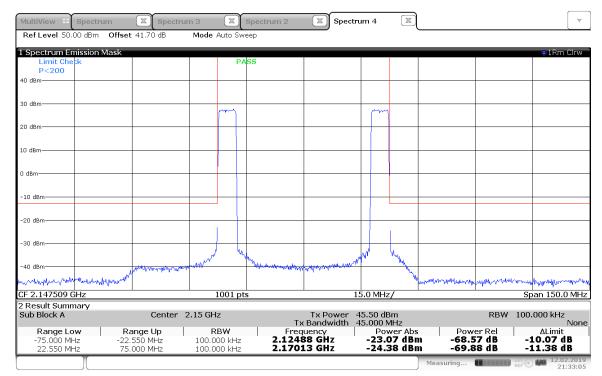
21:32:41 12.02.2019

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21:32:57 12.02.2019

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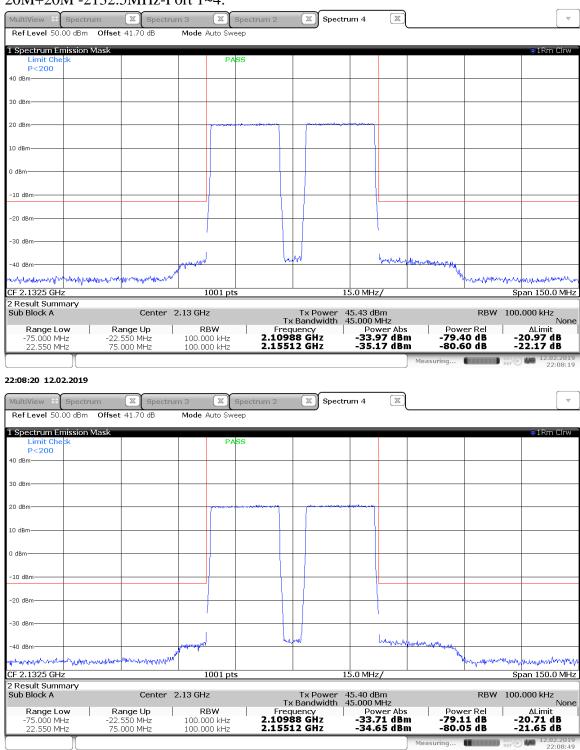
21:33:05 12.02.2019

Channel Bandwidth: 20M+20M

Port	RF Carrier Center Frequency. (MHz)	Max bandedge Emission (dBm)	Limit (dBm)
1	2132.5	-33.97	-13
	2140	-32.89	-13
	2147.5	-34.88	-13
2	2132.5	-33.71	-13
	2140	-33.17	-13
	2147.5	-33.19	-13
3	2132.5	-35.05	-13
	2140	-34.34	-13
	2147.5	-34.14	-13
4	2132.5	-33.68	-13
	2140	-33.00	-13
	2147.5	-33.87	-13

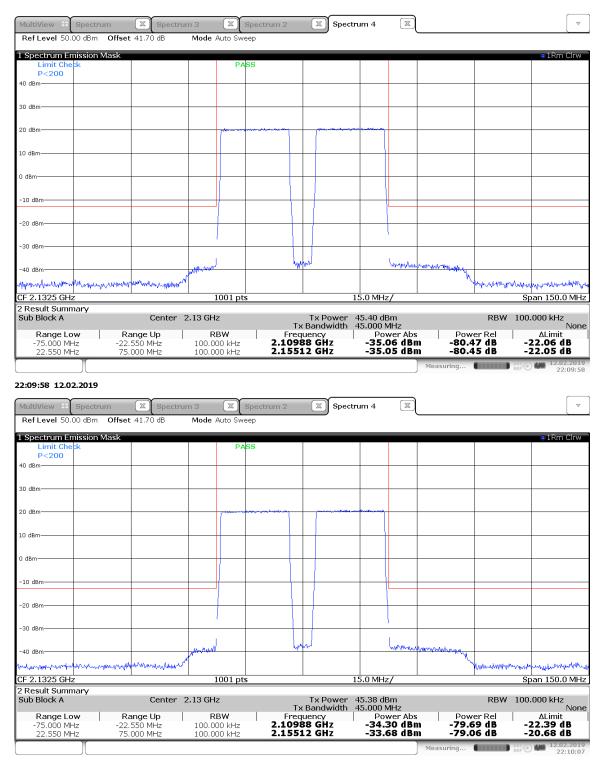
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20M+20M -2132.5MHz-Port 1~4:



22:08:50 12.02.2019

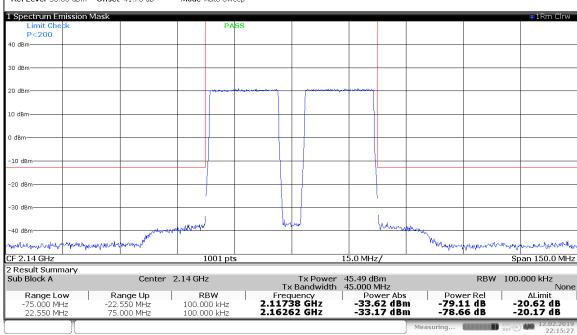
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22:10:08 12.02.2019

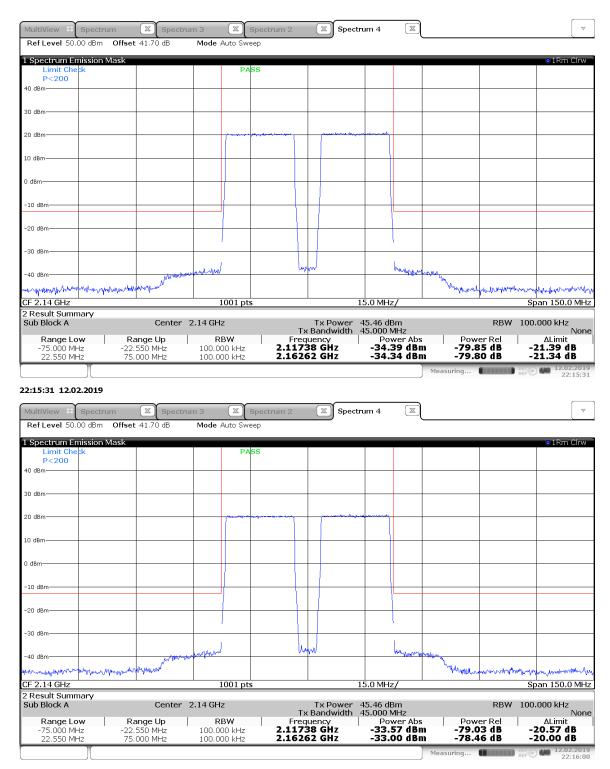
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20M+20M -2140MHz-Port 1~4: MultiView E Spectrum S Spectrum 2 Spectrum 2 Spectrum 4 \mathbb{Z} Ref Level 50.00 dBm Offset 41.70 dB Mode Auto Sweep 1 Spectrum Emission Mask Limit Ch P<200 40 dBm-20 dBm 10 dBm 0 dBm -20 dBm -30 dBm -40 dBm May 150 0 MH unitally and party Span 150.0 MHz CF 2.14 GHz 1001 pts 15.0 MHz/ 2 Result Summary Sub Block A RBW 100.000 kHz None Rel | ALimit dB -22.75 dB dB -19.89 dB Tx Power 45.50 dBm 45.000 MHz Frequency Power Abs 2.11738 GHz -35.75 dBm -32.89 dBm Center 2.14 GHz **RBW** 100.000 kHz 100.000 kHz Power Rel -81.25 dB -78.38 dB Range Low Range Up -75.000 MHz 22.550 MHz -22.550 MHz 75.000 MHz 22:15:20 22:15:21 12.02.2019 MultiView B Spectrum Spectrum 3 Spectrum 2 Spectrum 4 \mathbb{X} ∇ Ref Level 50.00 dBm Offset 41.70 dB Mode Auto Sweep 1 Spectrum Emission Mask Limit Ch P<200 40 dBm-



22:15:27 12.02.2019

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22:16:01 12.02.2019

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20M+20M -2147.5MHz-Port 1~4: MultiView Spectrum X Spectrum 3 X Spectrum 2 Spectrum 4 \mathbb{Z} Ref Level 50.00 dBm Offset 41.70 dB Mode Auto Sweep 1 Spectrum Emission Mask Limit Ch P<200 40 dBm-20 dBm 10 dBm 0 dBm -20 dBm -30 dBm -40 dBm hergermeny postrologic washir how the was a few from the way Span 150.0 MHz CF 2.1475 GHz 1001 pts 15.0 MHz/ 2 Result Summary Sub Block A Tx Power 45.42 dBm Tx Bandwidth 45.000 MHz Frequency Power Abs 2.12488 GHz 2.17012 GHz -34.98 dBm Center 2.15 GHz **RBW** 100.000 kHz 100.000 kHz Power Rel -80.30 dB -80.40 dB Range Low Range Up

22:23:09 12.02.2019 MultiView # Spectrum Spectrum 3 Spectrum 2 Spectrum 4 \mathbb{X} ∇ Ref Level 50.00 dBm Offset 41.70 dB Mode Auto Sweep 1 Spectrum Emission Mask Limit Ch P<200 40 dBm-20 dBm 10 dBm 0 dBm 10 dBm -20 dBm -30 dBm -4∩ dBm Market Harman Land March CF 2.1475 GHz 1001 pts 15.0 MHz/ Span 150.0 MHz 2 Result Summary Sub Block A Tx Power 45.44 dBm Tx Bandwidth 45.000 MHz Frequency Power Abs 2.12488 GHz -33.93 dBm -33.19 dBm Center 2.15 GHz RBW 100.000 kHz 100.000 kHz Power Rel -79.36 dB -78.63 dB Range Low Range Up -75.000 MHz 22.550 MHz -22.550 MHz 75.000 MHz EXT (202.20

22:23:12 12:02:2019

-75.000 MHz 22.550 MHz

-22.550 MHz 75.000 MHz

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