



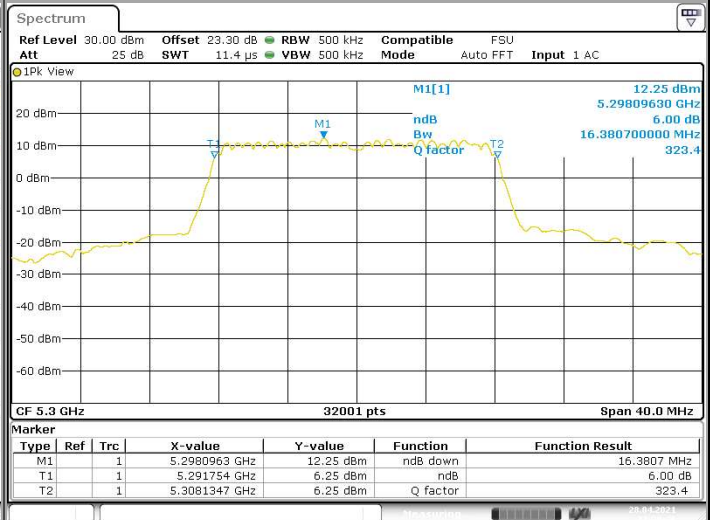
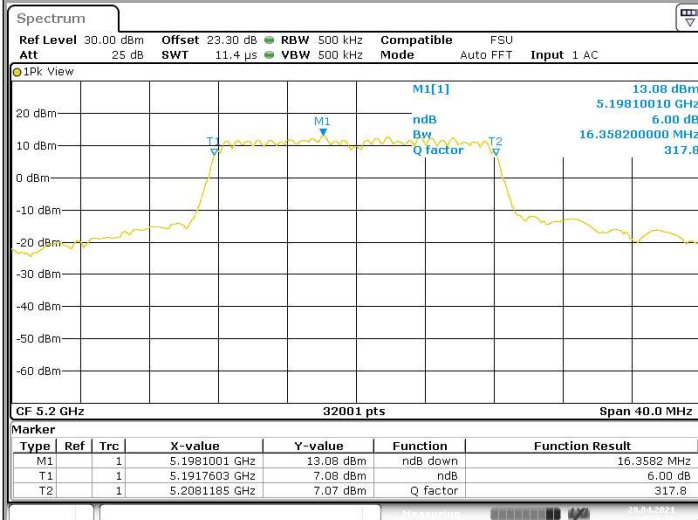
802.11a/802.11nHT20/ac VHT20

Tmax

Vnom

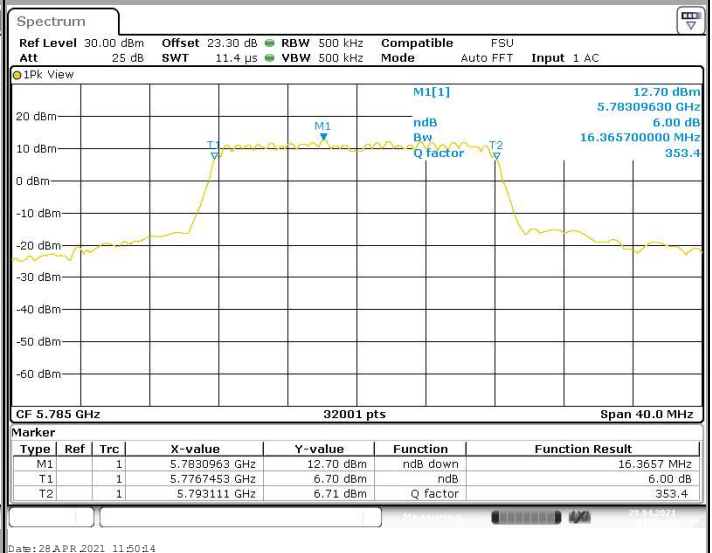
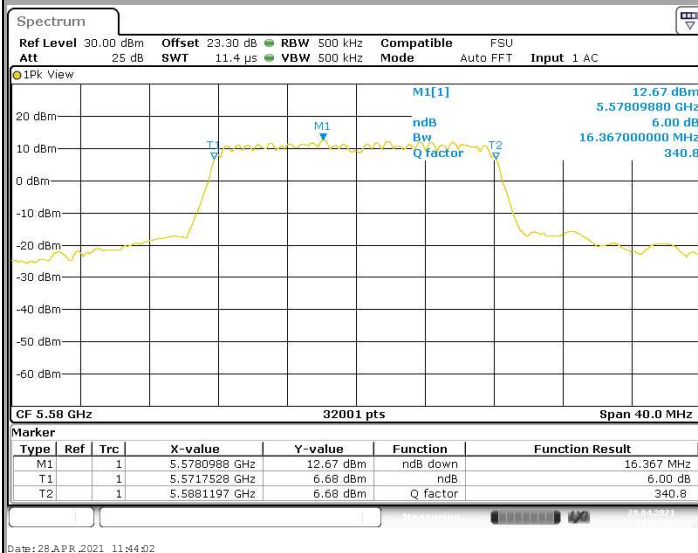
C2

C5



C8

C12





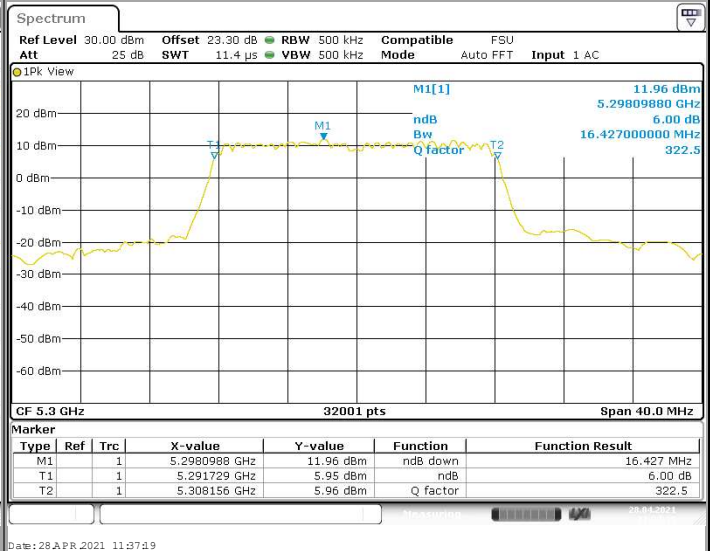
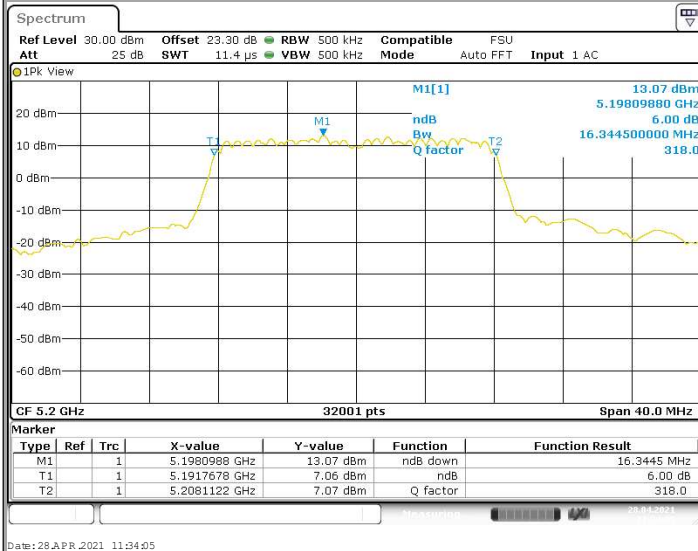
802.11a/802.11nHT20/ac VHT20

Tmax

Vmax

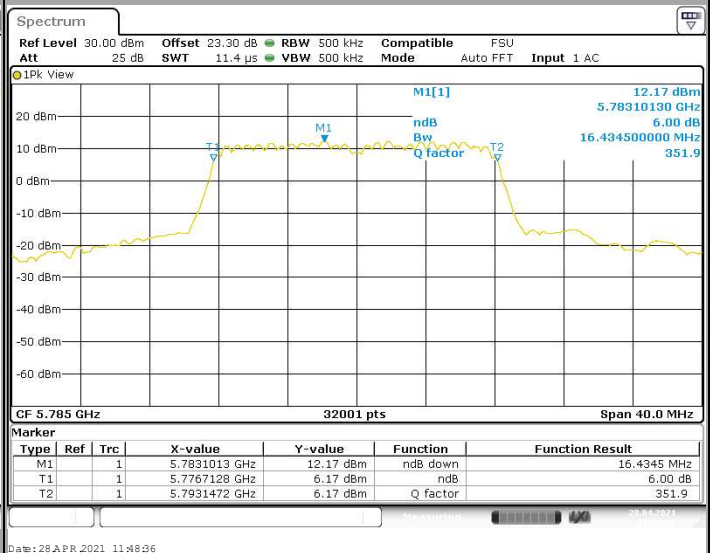
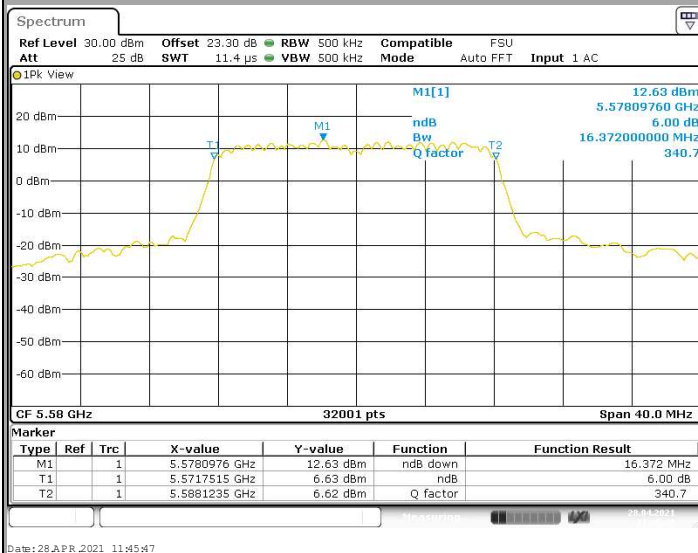
C2

C5



C8

C12



802.11a

Temperature	Tmin				Tnom				Tmax			
Voltage	Vmin											
Channel	C2	C5	C8	C12	C2	C5	C8	C12	C2	C5	C8	C12
Frequency drift (ppm)	-3,1	-2,0	-3,1	-3,7	-7,5	-11,4	-11,1	-11,5	-11,5	-11,7	-12,2	-12,4
Voltage	Vnom											
Channel	C2	C5	C8	C12	C2	C5	C8	C12	C2	C5	C8	C12
Frequency drift (ppm)	-2,6	-2,5	-3,6	-4,0	-10,6	-12,7	-11,5	-12,5	-11,7	-10,5	-11,4	-12,4
Voltage	Vmax											
Channel	C2	C5	C8	C12	C2	C5	C8	C12	C2	C5	C8	C12
Frequency drift (ppm)	-3,2	-2,9	-2,5	-3,2	-10,5	-10,1	-11,8	-11,9	-11,5	-10,8	-11,2	-12,1

4.7. CONCLUSION

Carrier frequencies measurement performed on the sample of the product **Technicolor UIW4059MIL**, SN: **LAB3-V0 nr.030**, in configuration and description presented in this test report, show levels **compliant** to the 47 CFR PART 15.407 limits.

5. 26dB EMISSION BANDWIDTH

5.1. TEST CONDITIONS

Test performed by : Armand MAHOOUNGOU
Date of test : April 22, 2021
Ambient temperature : 24°C
Relative humidity : 46%

5.2. TEST SETUP

- The Equipment Under Test is installed:

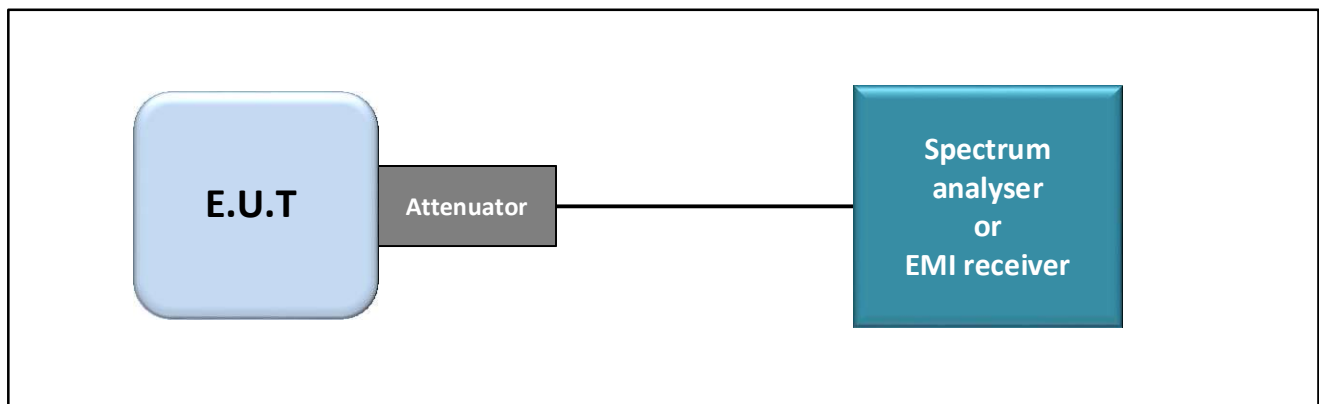
- ☒ On a table
- ☐ In an anechoic chamber

- Measurement is performed with a spectrum analyzer in:

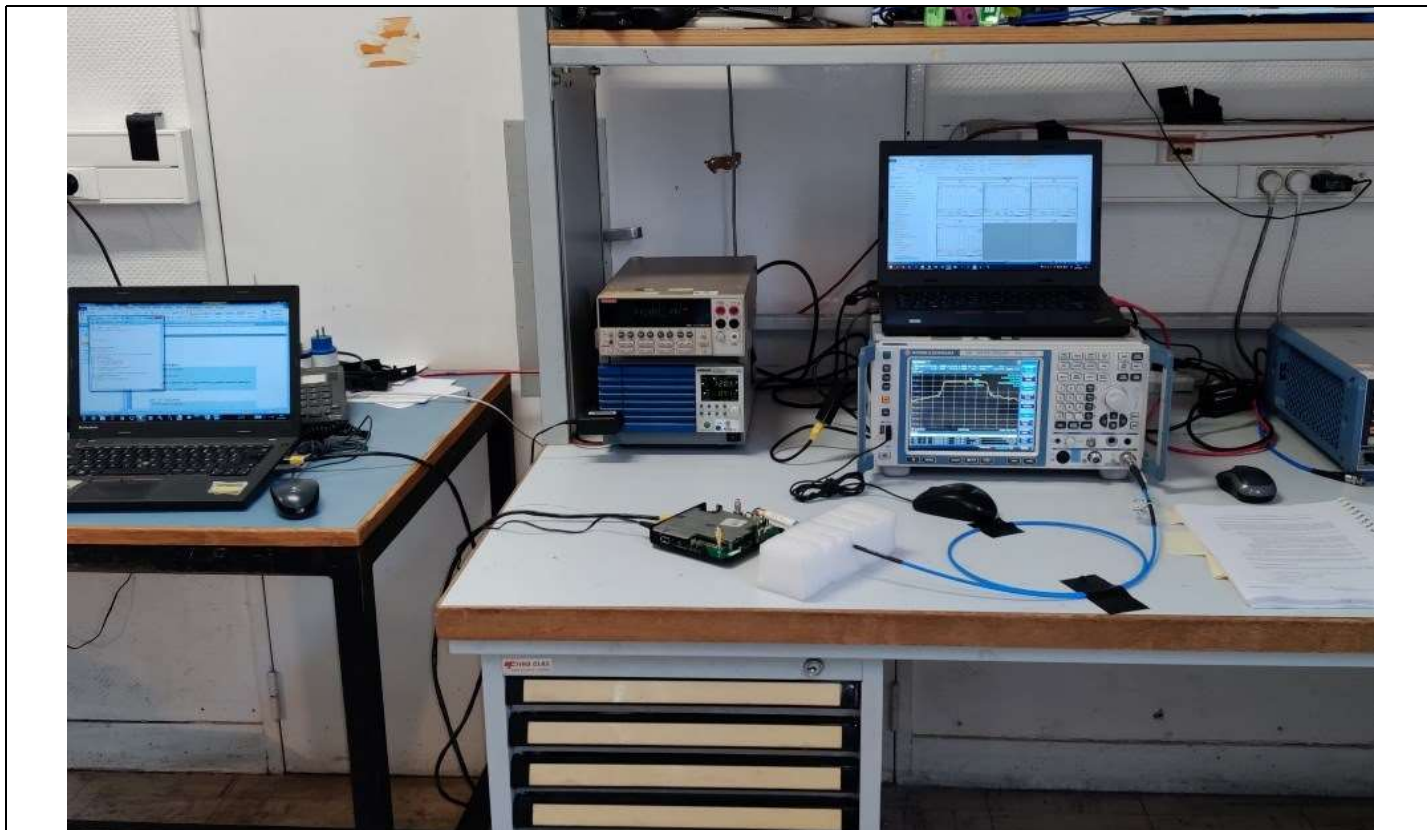
- ☒ Conducted Method
- ☐ Radiated Method

- Test Procedure:

- ☒ KDB 789033 D02 General UNII Test Procedures New Rules v02r01 § C1



Test set up of 26dB Emission Bandwidth



Photograph for 26dB emission bandwidth

5.3. LIMIT

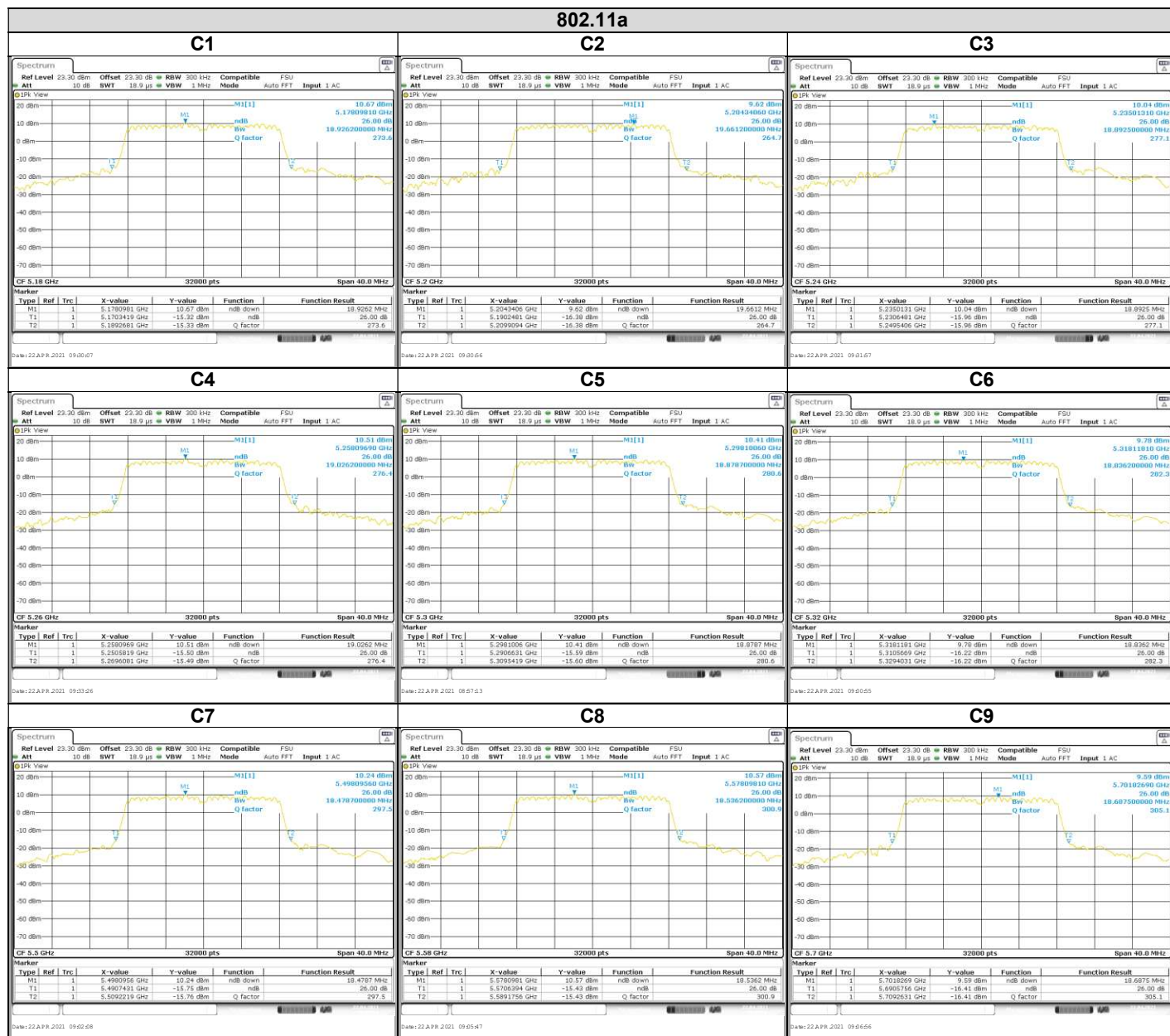
None

5.4. TEST EQUIPMENT LIST

DESCRIPTION	MANUFACTURER	MODEL	N° LCIE	Cal_Date	Cal_Due
EMI receiver	ROHDE & SCHWARZ	ESR7	A2642026	2019/07	2021/07
Cable + Attenuateur 20dB	PASTERNAK	PE350-150CM	A5329973	2020/09	2021/09
Multimeter	KEITHLEY	2000	A1242090	2019/05	2021/05
Power supply	KIKUSUI	PCR500M	A7040079	See Multimeter	See Multimeter
Load 50 ohms	TELEGARTNER	-	A7150103	2019/04	2021/04
Load 50 ohms	TELEGARTNER	-	A7150104	2019/04	2021/04

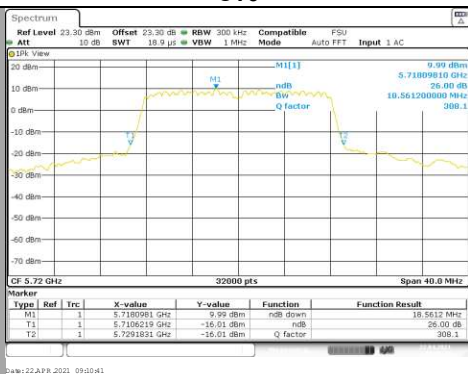
Note: In our quality system, the test equipment calibration due is more & less 2 months

5.5. RESULTS

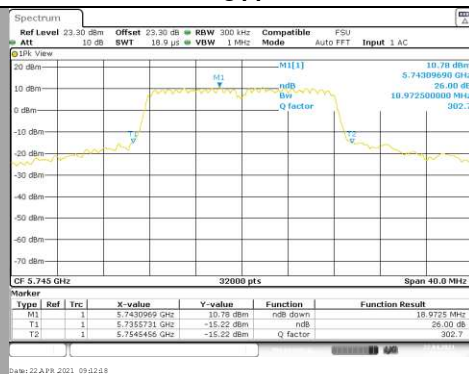


802.11a

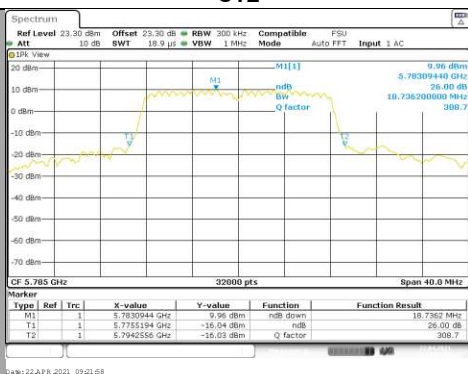
C10



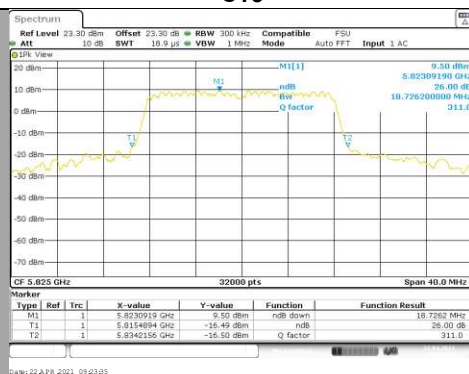
C11



C12



C13



Channel

26dB Emission Bandwidth (MHz)

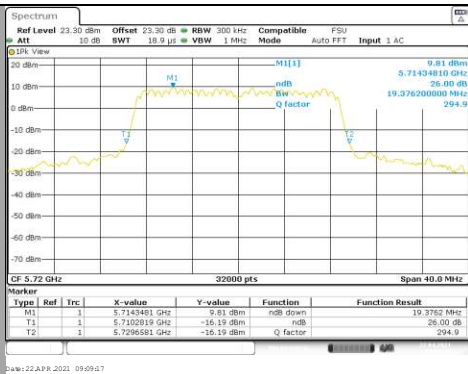
C1	18.926
C2	19.661
C3	18.892
C4	19.026
C5	18.879
C6	18.836
C7	18.479
C8	18.536
C9	18.687
C10	18.561
C11	18.972
C12	18.736
C13	18.726

802.11n HT20/ac VHT20

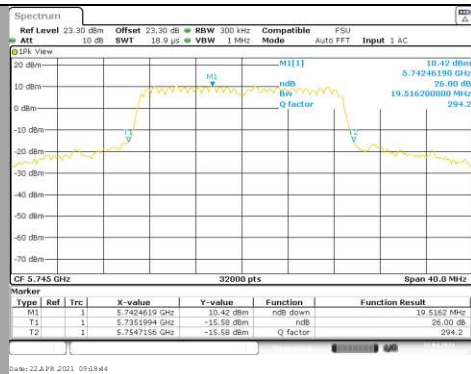


802.11n HT20/ac VHT20

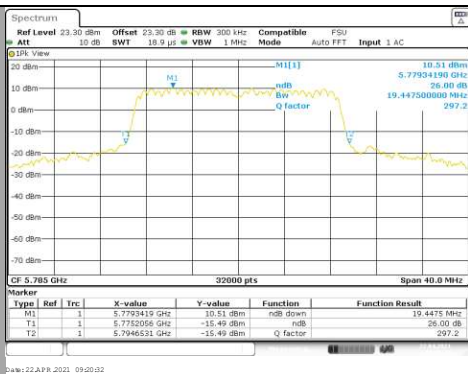
C10



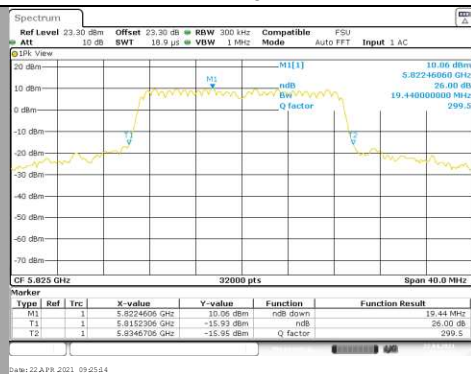
C11



C12



C13



Channel

26dB Emission Bandwidth (MHz)

C1

20.474

C2

20.159

C3

20.449

C4

19.505

C5

19.570

C6

19.435

C7

19.502

C8

19.425

C9

19.374

C10

19.376

C11

19.516

C12

19.447

C13

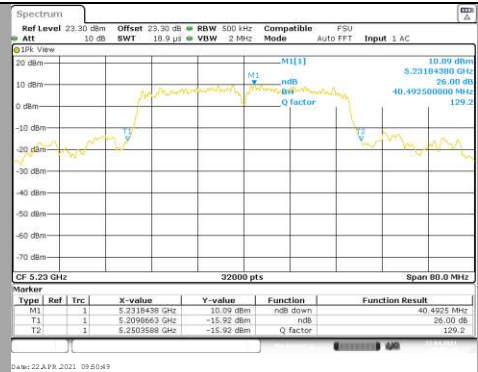
19.440

802.11n HT40/ac VHT40

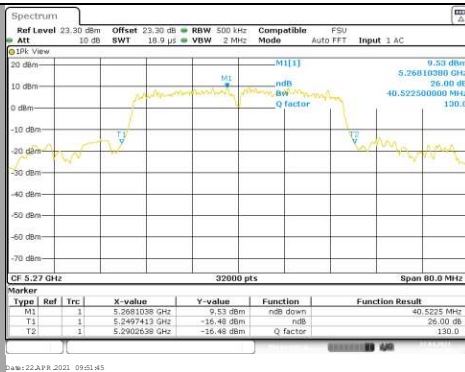
C14



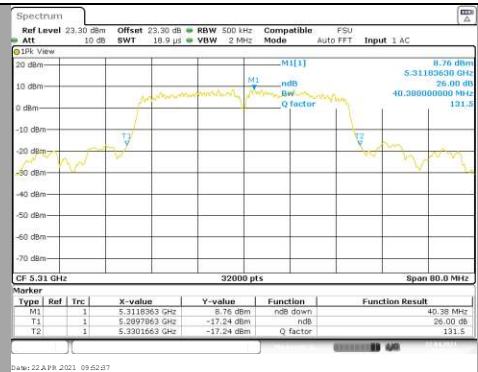
C15



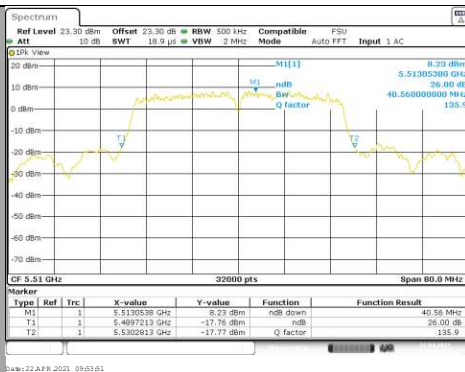
C16



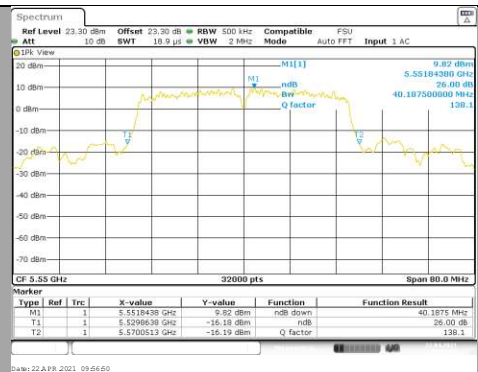
C17



C18

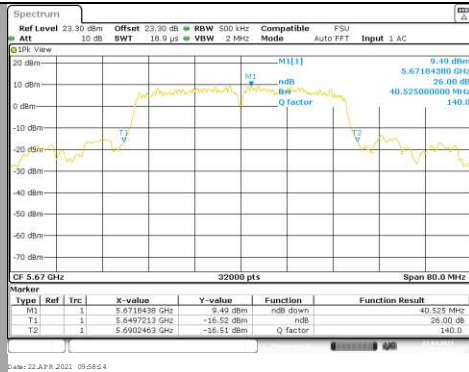


C19

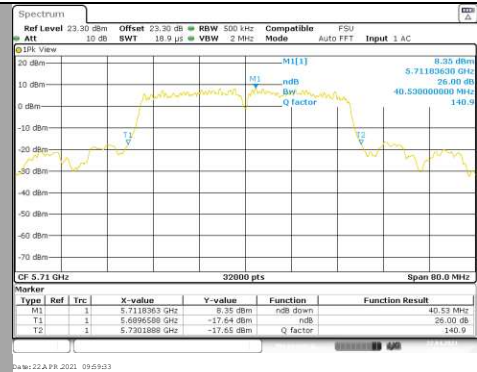


802.11n HT40/ac VHT40

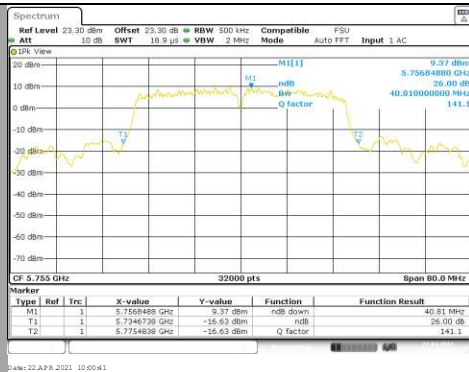
C20



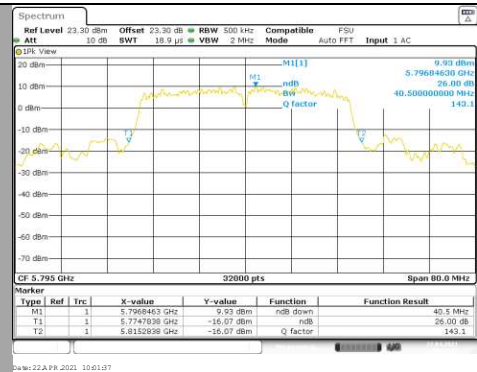
C21



C22



C23



Channel

26dB Emission Bandwidth (MHz)

C14

40.440

C15

40.492

C16

40.522

C17

40.380

C18

40.560

C19

40.187

C20

40.525

C21

40.530

C22

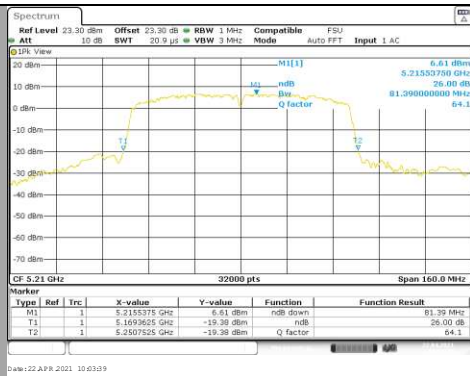
40.810

C23

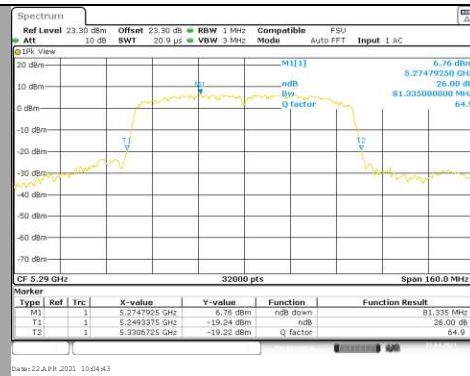
40.500

802.11ac VHT80

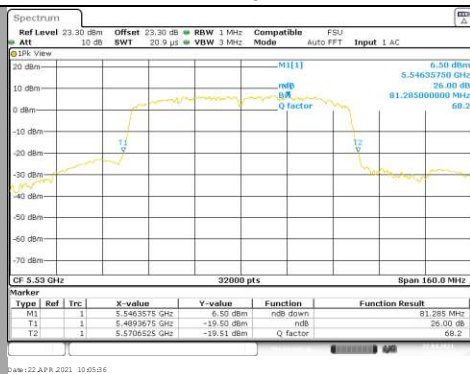
C24



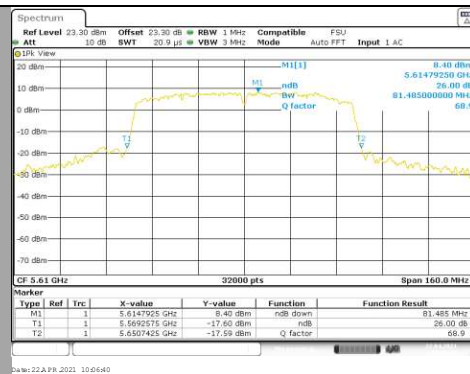
C25



C26

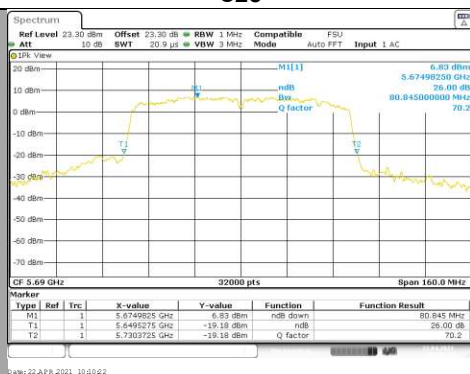


C27

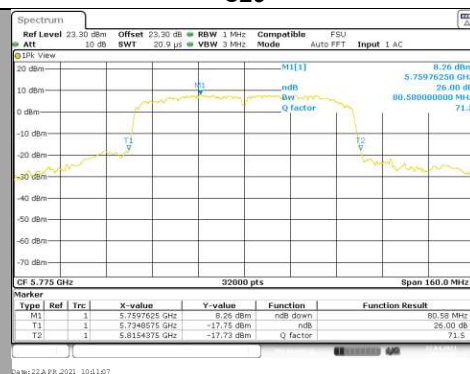


802.11ac VHT80

C28



C29



Channel

26dB Emission Bandwidth (MHz)

C24

81.390

C25

81.335

C26

81.285

C27

81.485

C28

80.845

C29

80.580



5.6. CONCLUSION

26dB Emission Bandwidth measurement performed on the sample of the product **Technicolor UIW4059MIL**, SN: **LAB3-V0 nr.030**, in configuration and description presented in this test report, show levels **compliant** to the **47 CFR PART 15.407** limits.

6. 6dB EMISSION BANDWIDTH

6.1. TEST CONDITIONS

Test performed by : Armand MAHOUNGOU
Date of test : April 22, 2021
Ambient temperature : 24°C
Relative humidity : 46%

6.2. TEST SETUP

- The Equipment Under Test is installed:

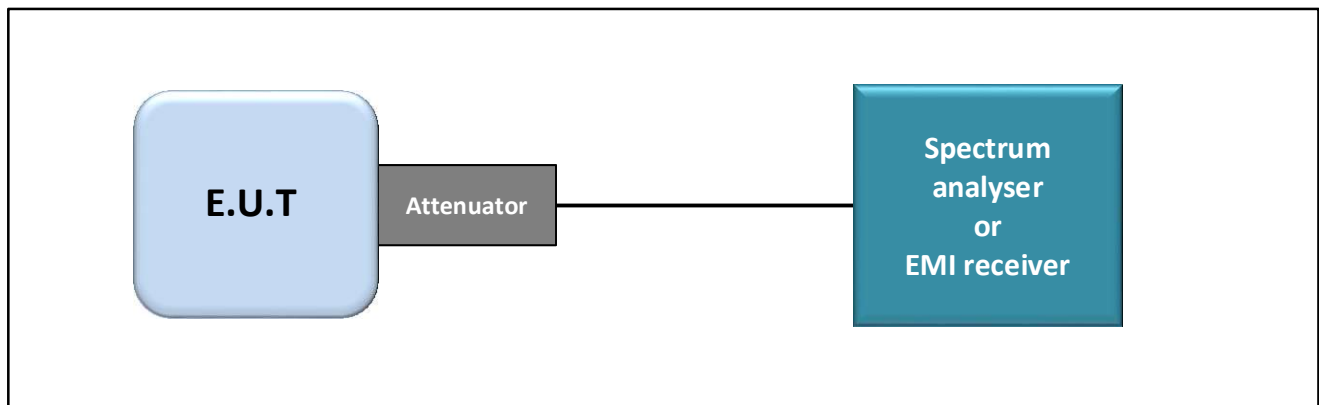
- ☒ On a table
- ☐ In an anechoic chamber

- Measurement is performed with a spectrum analyzer in:

- ☒ Conducted Method
- ☐ Radiated Method

- Test Procedure:

- ☒ KDB 789033 D02 General UNII Test Procedures New Rules v02r01 § C2



Test set up of 6dB Emission Bandwidth



Photograph for 6dB emission bandwidth

6.3. LIMIT

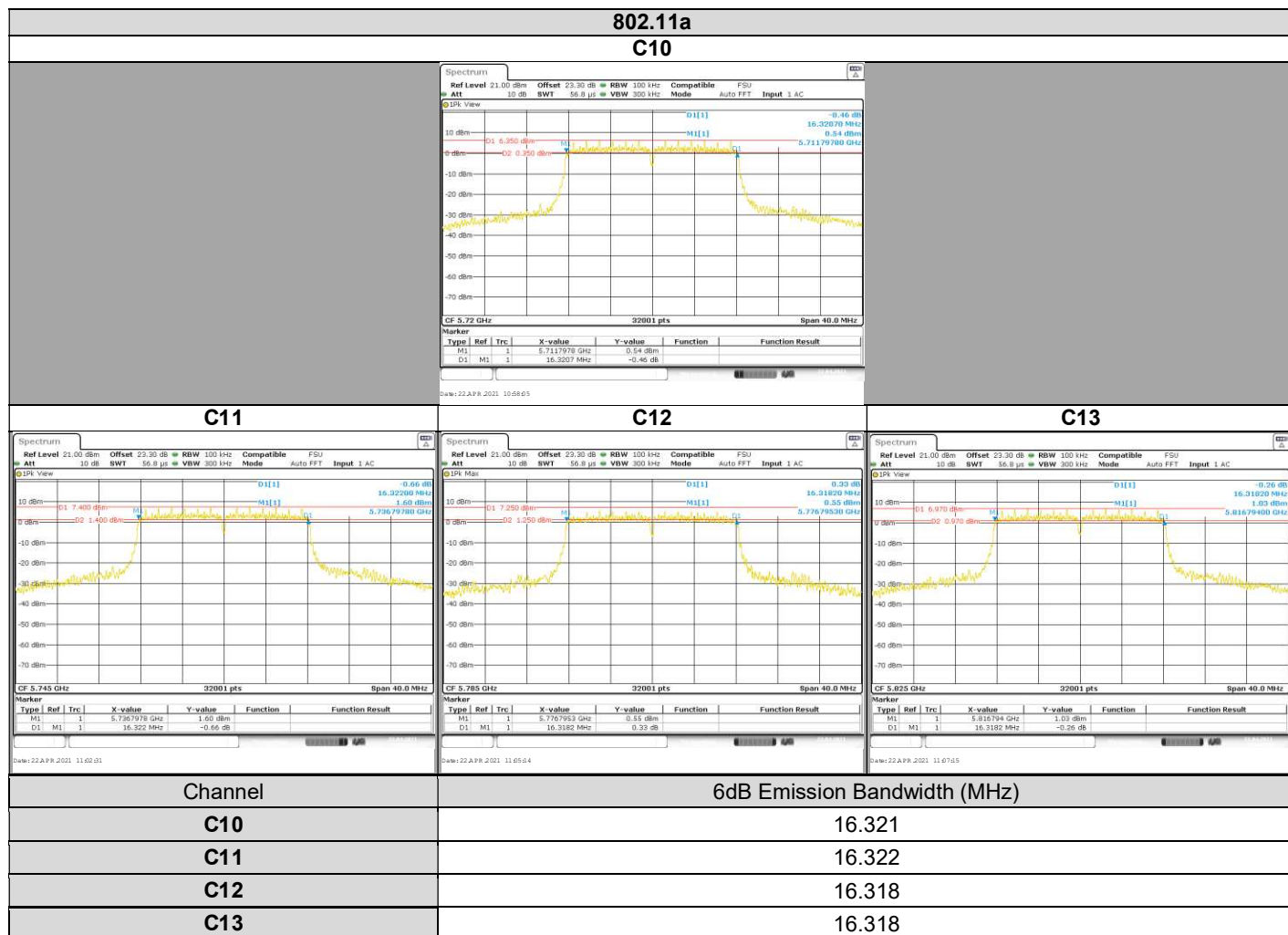
The 6dB bandwidth shall be at least 500kHz

6.4. TEST EQUIPMENT LIST

DESCRIPTION	MANUFACTURER	MODEL	N° LCIE	Cal_Date	Cal_Due
EMI receiver	ROHDE & SCHWARZ	ESR7	A2642026	2019/07	2021/07
Cable + Attenuateur 20dB	PASTERNAK	PE350-150CM	A5329973	2020/09	2021/09
Multimeter	KEITHLEY	2000	A1242090	2019/05	2021/05
Power supply	KIKUSUI	PCR500M	A7040079	See Multimeter	See Multimeter
Load 50 ohms	TELEGARTNER	-	A7150103	2019/04	2021/04
Load 50 ohms	TELEGARTNER	-	A7150104	2019/04	2021/04

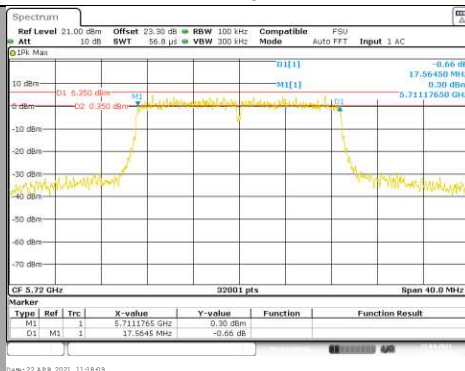
Note: In our quality system, the test equipment calibration due is more & less 2 months

6.5. RESULTS

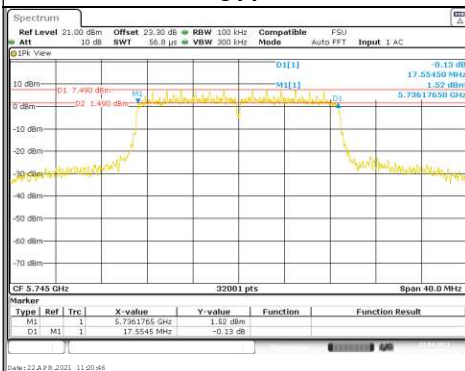


802.11n HT20/ac VHT20

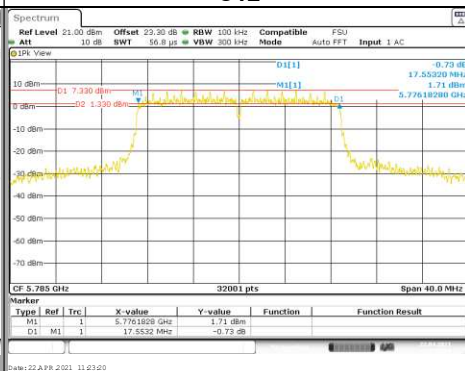
C10



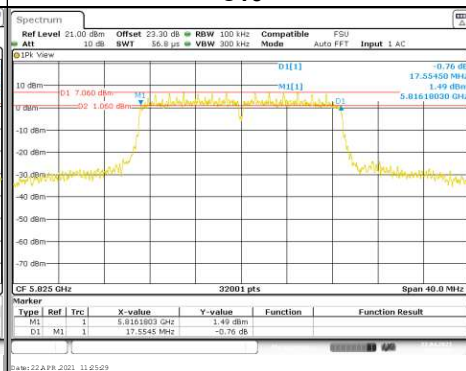
C11



C12



C13



Channel

6dB Emission Bandwidth (MHz)

C10

17.564

C11

17.554

C12

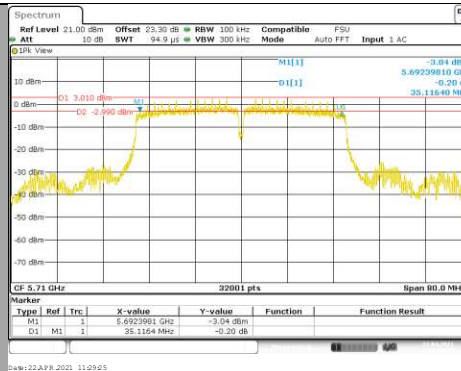
17.553

C13

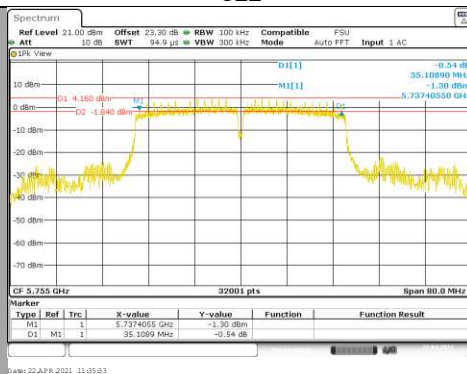
17.554

802.11n HT40/ac VHT40

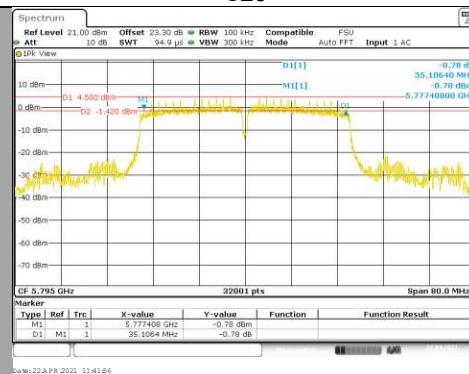
C21



C22



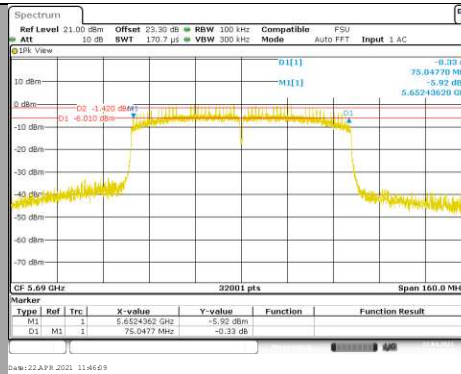
C23



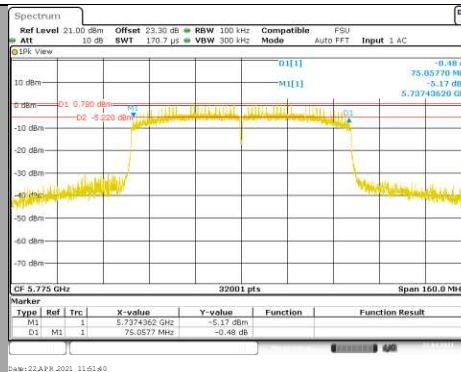
Channel	6dB Emission Bandwidth (MHz)
C21	35.116
C22	35.109
C23	35.106

802.11ac VHT80

C28



C29



Channel	6dB Emission Bandwidth (MHz)
C28	75.048
C29	75.058

6.6. CONCLUSION

6dB Emission Bandwidth measurement performed on the sample of the product **Technicolor UIW4059MIL**, SN: **LAB3-V0 nr.030**, in configuration and description presented in this test report, show levels **compliant** to the **47 CFR PART 15.407** limits.

7. DUTY CYCLE

7.1. TEST CONDITIONS

Test performed by : Armand MAHOUNGOU
Date of test : April 23, 2021
Ambient temperature : 27°C
Relative humidity : 46%

7.2. TEST SETUP

- The Equipment Under Test is installed:

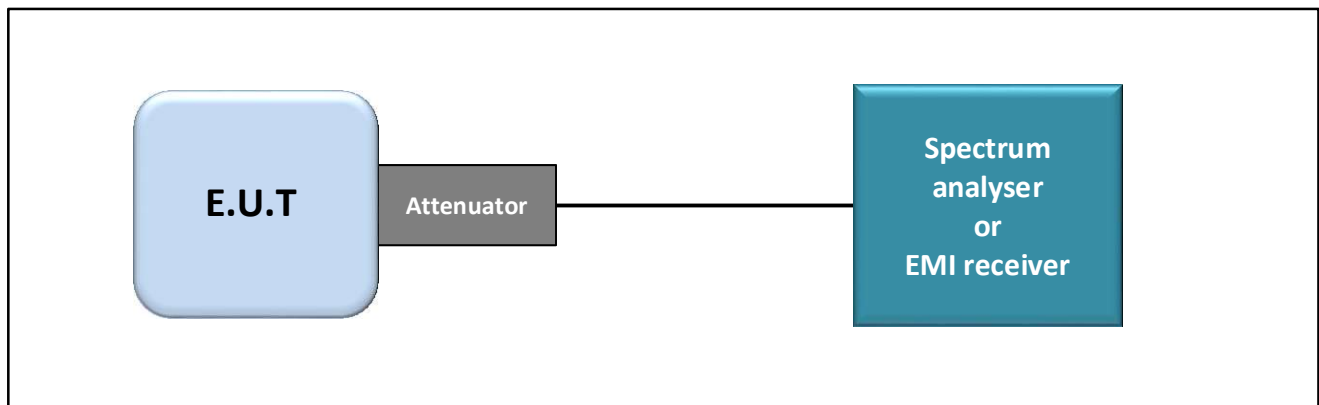
- ☒ On a table
- ☐ In an anechoic chamber

- Measurement is performed with a spectrum analyzer in:

- ☒ Conducted Method
- ☐ Radiated Method

- Test Procedure:

- ☒ KDB 789033 D02 General UNII Test Procedures New Rules v02r01 § B2 b)



Test set up of Duty Cycle



Photograph for Duty Cycle

7.3. LIMIT

None

7.4. TEST EQUIPMENT LIST

DESCRIPTION	MANUFACTURER	MODEL	N° LCIE	Cal_Date	Cal_Due
EMI receiver	ROHDE & SCHWARZ	ESR7	A2642026	2019/07	2021/07
Cable + Attenuateur 20dB	PASTERNAK	PE350-150CM	A5329973	2020/09	2021/09
Multimeter	KEITHLEY	2000	A1242090	2019/05	2021/05
Power supply	KIKUSUI	PCR500M	A7040079	See Multimeter	See Multimeter
Load 50 ohms	TELEGARTNER	-	A7150103	2019/04	2021/04
Load 50 ohms	TELEGARTNER	-	A7150104	2019/04	2021/04

Note: In our quality system, the test equipment calibration due is more & less 2 months

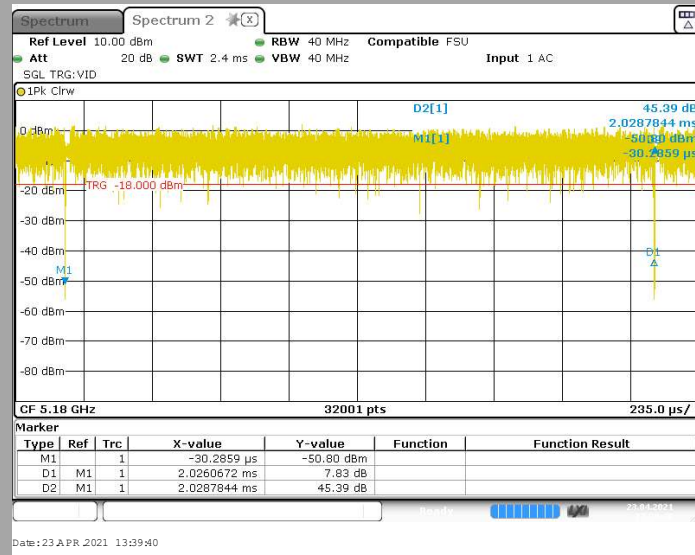


L C I E

7.5. RESULTS

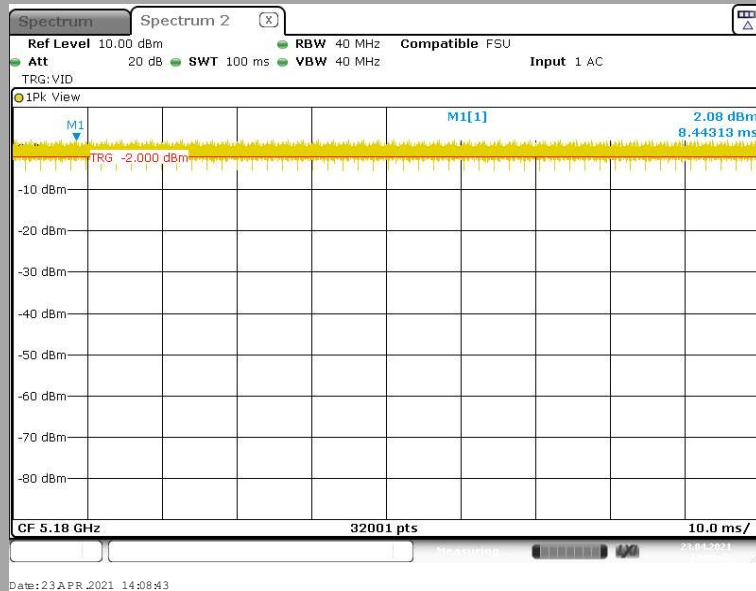
802.11a

C1



802.11a

C1

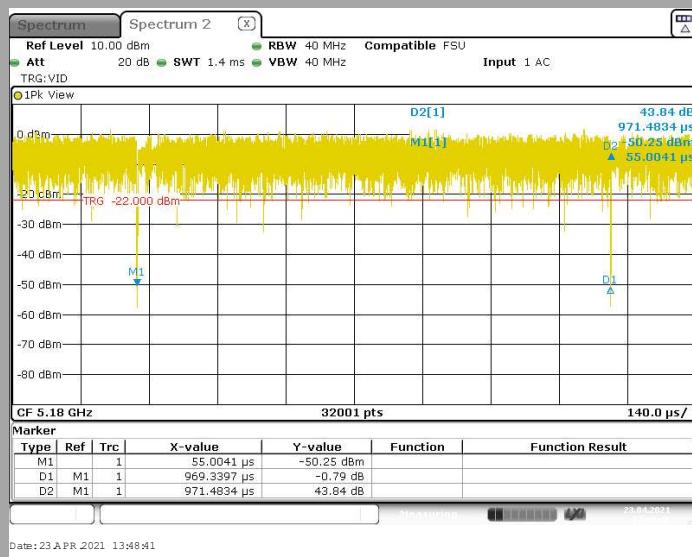


Channel

Mode	Duty Cycle (%)	Duty Cycle Correction (dB)
802.11a	99.866	$20\log\left(\frac{1}{\text{duty cycle}}\right) = 0.01164$

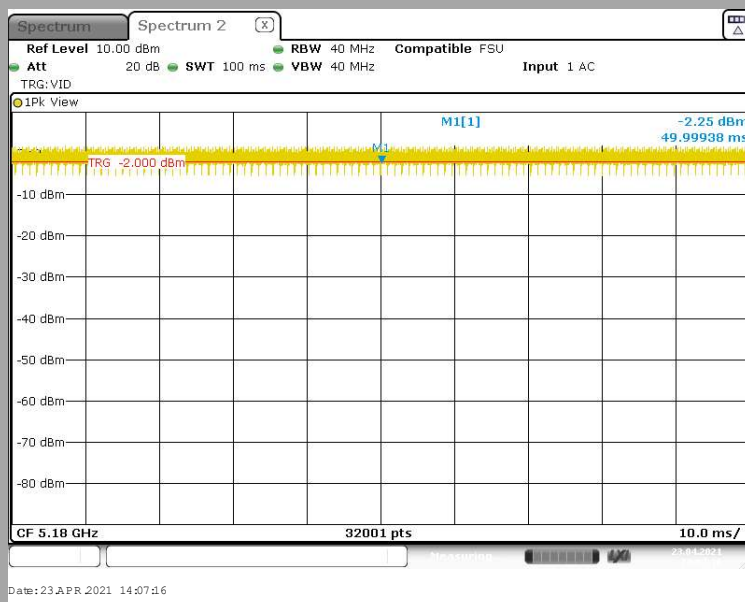
802.11n HT20/ac VHT20

C1



802.11n HT20/ac VHT20

C1



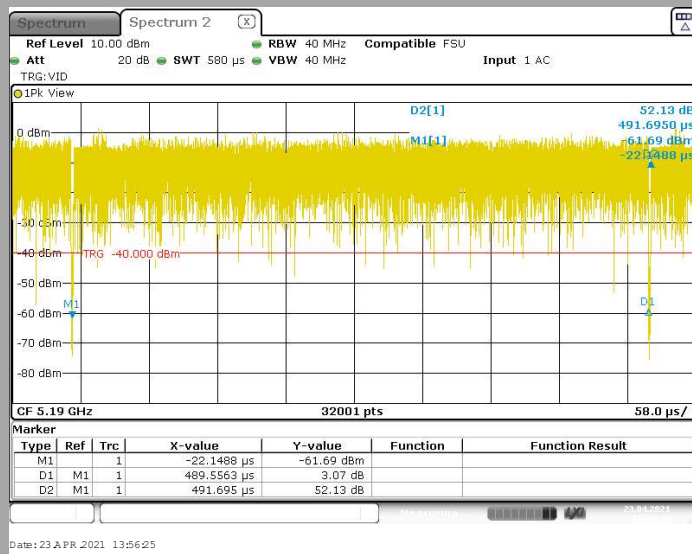
Channel

Mode	Duty Cycle (%)	Duty Cycle Correction (dB)
802.11n HT20/ac VHT20	99,779	$20\log\left(\frac{1}{\text{duty cycle}}\right) = 0.01922$



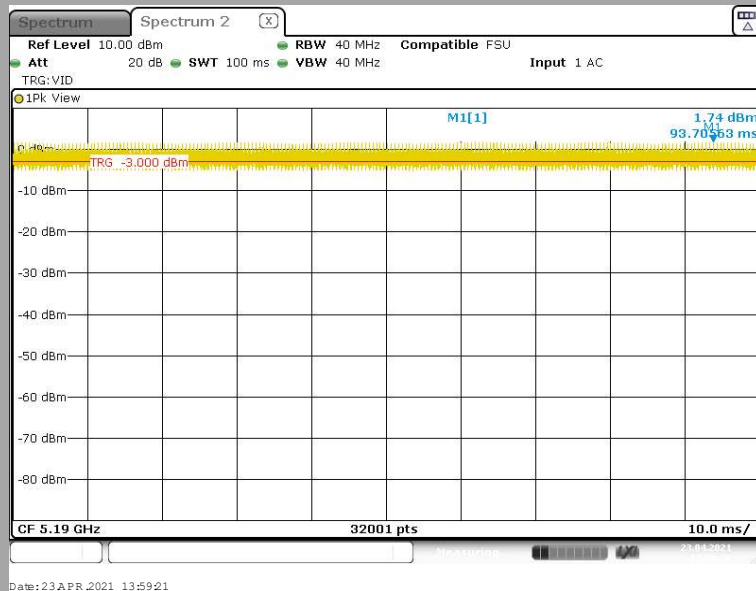
802.11n HT40/ac VHT40

C14



802.11n HT40/ac VHT40

C14

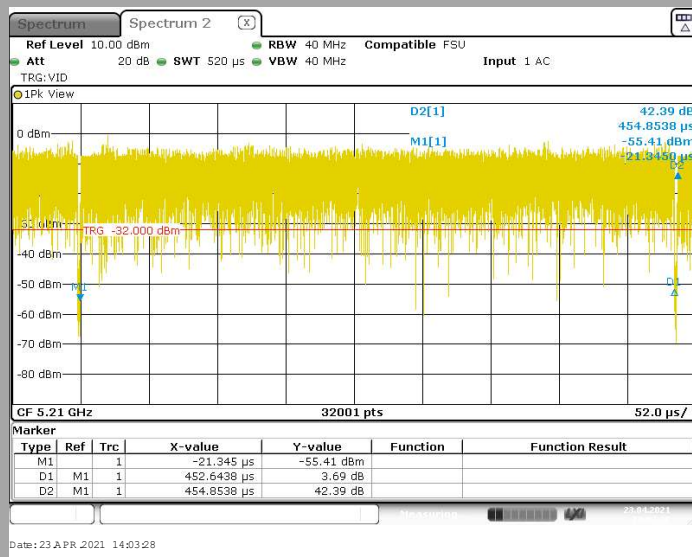


Channel

Mode	Duty Cycle (%)	Duty Cycle Correction (dB)
802.11n HT20/ac VHT20	99,565	$20\log\left(\frac{1}{\text{duty cycle}}\right) = 0.03786$

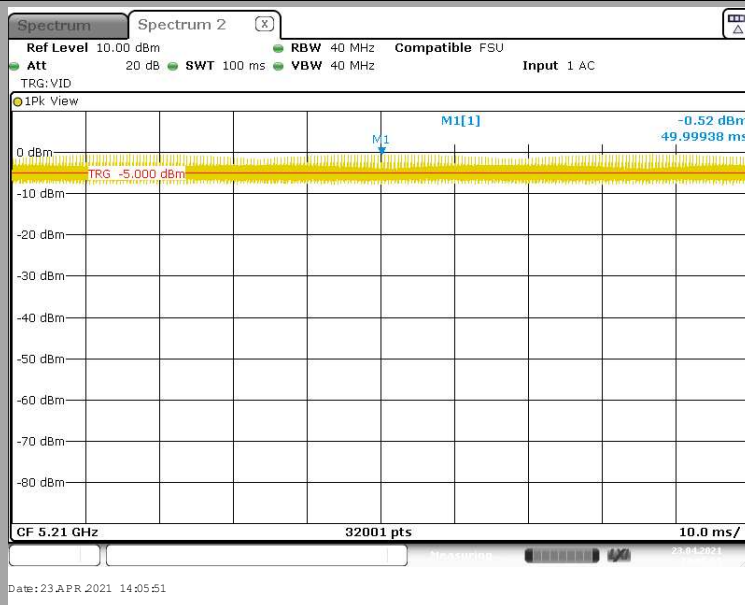
802.11ac VHT80

C24



802.11ac VHT80

C24



Channel

Mode	Duty Cycle (%)	Duty Cycle Correction (dB)
802.11n HT20/ac VHT20	99,514	$20\log\left(\frac{1}{\text{duty cycle}}\right) = 0.04232$

7.6. CONCLUSION

Duty Cycle measurement performed on the sample of the product **Technicolor UIW4059MIL**, SN: **LAB3-V0 nr.030**, in configuration and description presented in this test report, show levels **compliant** to the **47 CFR PART 15.407** limits.

8. MAXIMUM CONDUCTED OUTPUT POWER, MAXIMUM POWER SPECTRAL DENSITY, MAXIMUM EIRP, MAXIMUM EIRP SPECTRAL DENSITY

8.1. TEST CONDITIONS

Test performed by : Armand MAHOUNGOU
Date of test : April 22, 2021 to April 23, 2021
Ambient temperature : 24°C & 22°C
Relative humidity : 46% & 47%

8.2. TEST SETUP

- The Equipment Under Test is installed:

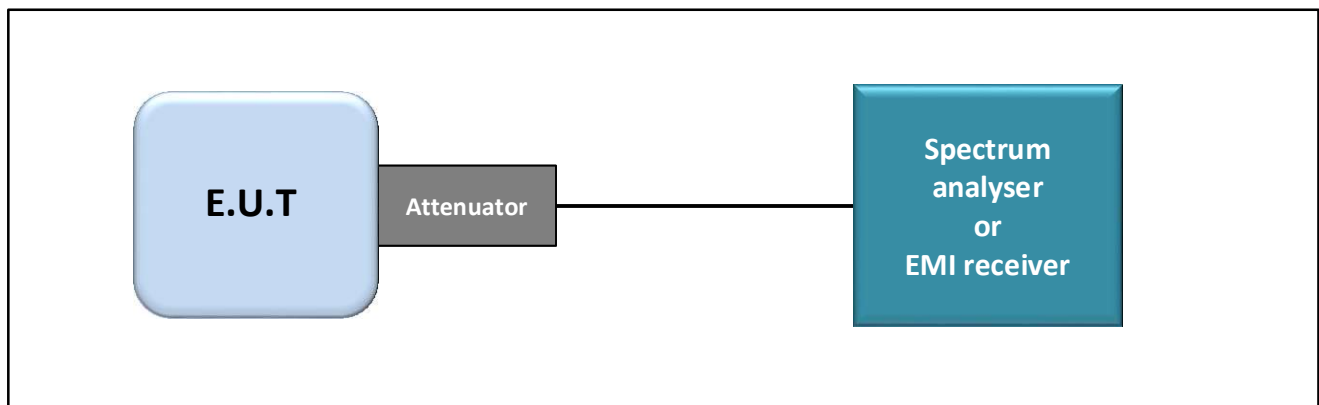
- ☒ On a table
- ☐ In an anechoic chamber

- Measurement is performed with a spectrum analyzer in:

- ☒ Conducted Method
- ☐ Radiated Method

- Test Procedure:

- ☒ KDB 789033 D02 General UNII Test Procedures New Rules v02r01 § E2 b) (Method SA-1) & F
- ☐ KDB 789033 D02 General UNII Test Procedures New Rules v02r01 § E2 c) (Method SA-2) & F
- ☒ KDB 662911 D01 Multiple Transmitter Output v02r01



Test set up of Maximum Conducted Output Power



Photograph for Maximum Conducted Output Power

8.3. LIMIT

FCC Part 15.407

Maximum Conducted Output power:

5150MHz-5250MHz: Shall not exceed 30dBm for Indoor Access Point devices & 24dBm for Client devices

5250MHz-5350MHz: Shall not exceed 24dBm or 11dBm +10*log (-26dB Bandwidth (MHz))

5470MHz-5725MHz: Shall not exceed 24dBm or 11dBm +10*log (-26dB Bandwidth (MHz))

5725MHz-5850MHz: Shall not exceed 30dBm

Limits are reduced by G-6dBi if Overall Antenna Gain above 6dBi

Maximum Power Spectral Density:

5150MHz-5250MHz: Shall not exceed 17dBm/MHz for Indoor Access Point & 11dBm/MHz for Client devices

5250MHz-5350MHz: Shall not exceed 11dBm/MHz

5470MHz-5725MHz: Shall not exceed 11dBm/MHz

5725MHz-5850MHz: Shall not exceed 30dBm/500kHz

Limits are reduced by G-6dBi if Overall Antenna Gain above 6dBi

8.4. TEST EQUIPMENT LIST

DESCRIPTION	MANUFACTURER	MODEL	N° LCIE	Cal_Date	Cal_Due
EMI receiver	ROHDE & SCHWARZ	ESR7	A2642026	2019/07	2021/07
Cable + Attenuateur 20dB	PASTERNAK	PE350-150CM	A5329973	2020/09	2021/09
Multimeter	KEITHLEY	2000	A1242090	2019/05	2021/05
Power supply	KIKUSUI	PCR500M	A7040079	See Multimeter	See Multimeter
Load 50 ohms	TELEGARTNER	-	A7150103	2019/04	2021/04
Load 50 ohms	TELEGARTNER	-	A7150104	2019/04	2021/04

Note: In our quality system, the test equipment calibration due is more & less 2 months

8.5. RESULTS

