

Test Plots

IN23HNHD 001 & IN23HH4B 001

Seite 1 von 83
Page 1 of 83

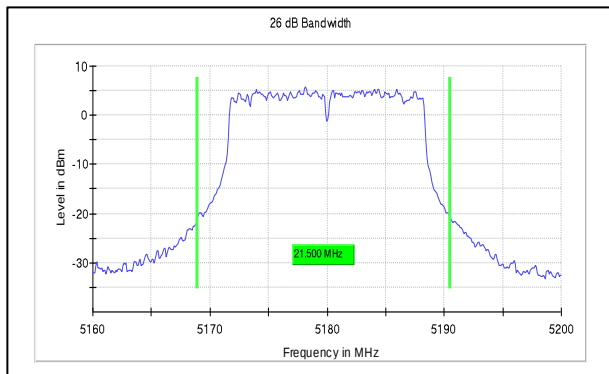
1. Test Plots Wi-Fi 5GHz

1.1 Emission Bandwidth

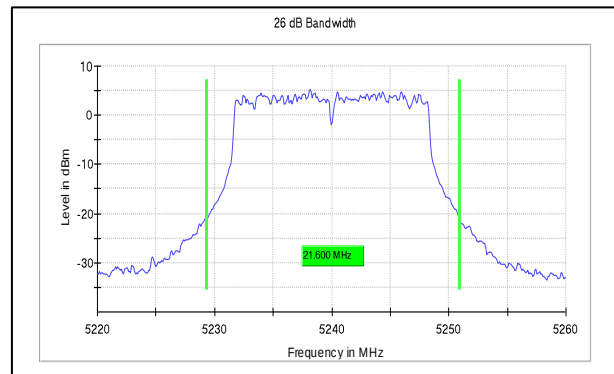
Modulation: 802.111a

Data Rate: 54Mbps

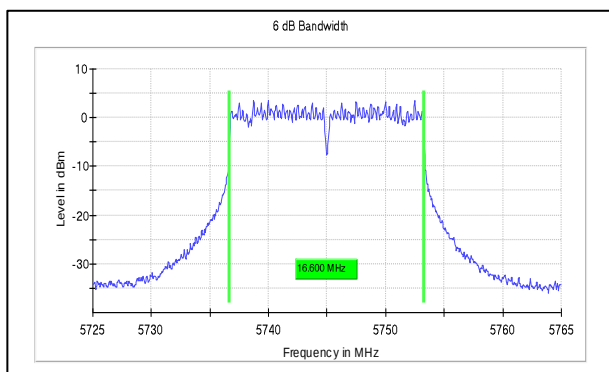
Channel Frequency:5180MHz



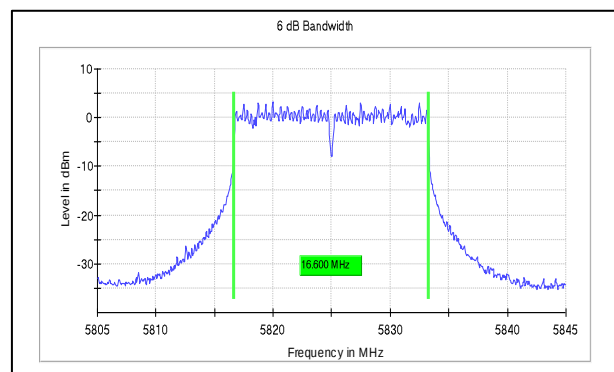
Channel Frequency:5240MHz



Channel Frequency:5745MHz



Channel Frequency:5825MHz



Test Plots

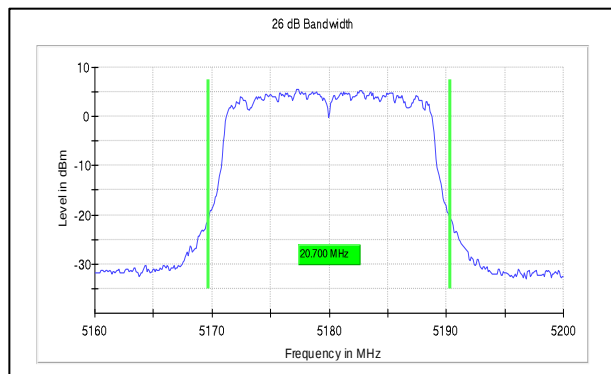
IN23HNHD 001 & IN23HH4B 001

Seite 2 von 83
Page 2 of 83

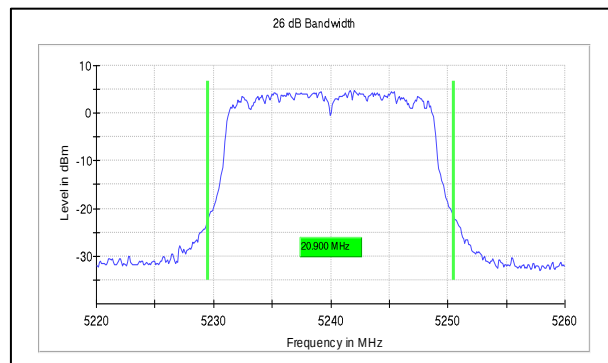
Modulation: 802.11n-20MHz

Data Rate: MCS7

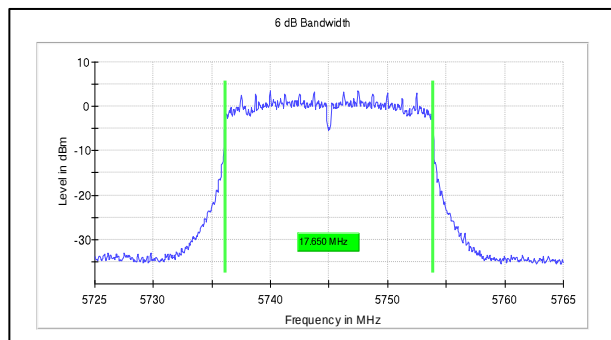
Channel Frequency:5180MHz



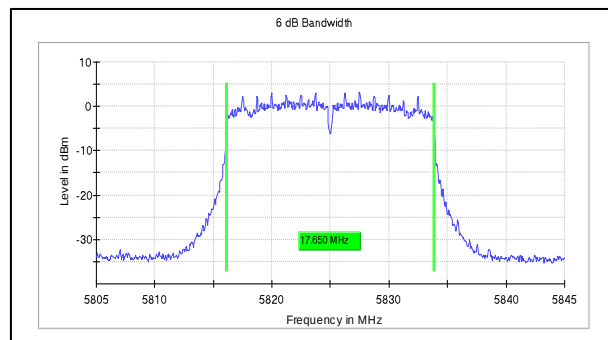
Channel Frequency:5240MHz



Channel Frequency:5745MHz



Channel Frequency:5825MHz



Test Plots

IN23HNHD 001 & IN23HH4B 001

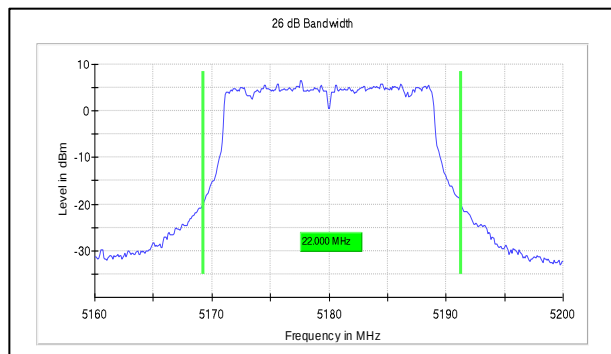
Seite 3 von 83

Page 3 of 83

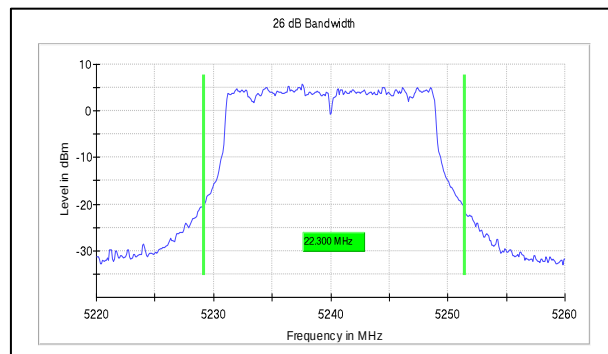
Modulation: 802.11ac-20MHz

Data Rate: MCS8

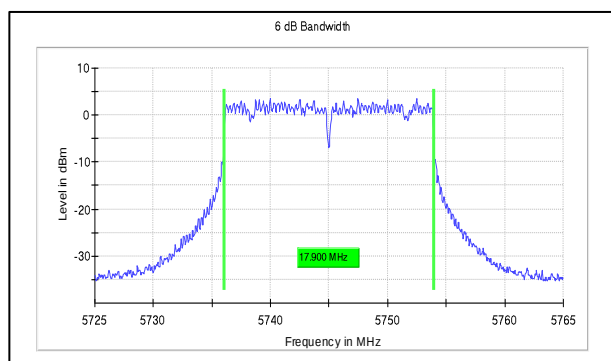
Channel Frequency:5180MHz



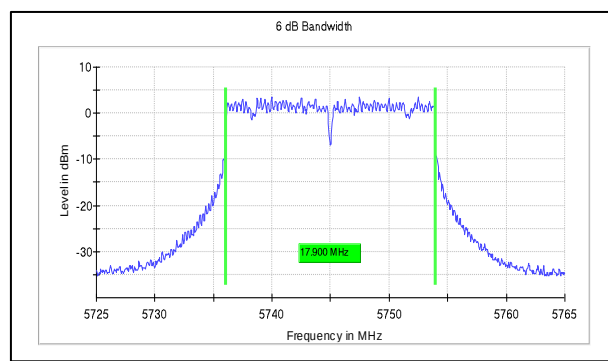
Channel Frequency:5240MHz



Channel Frequency:5745MHz



Channel Frequency:5825MHz



Test Plots

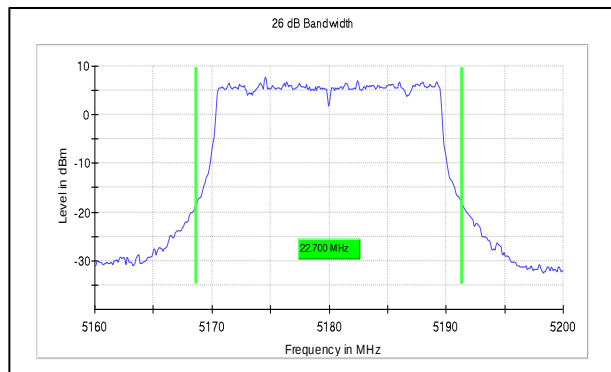
IN23HNHD 001 & IN23HH4B 001

Seite 4 von 83
Page 4 of 83

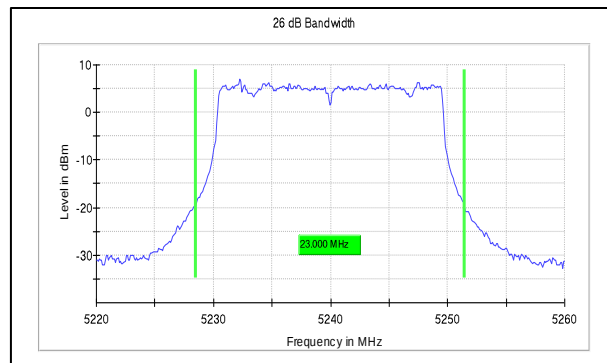
Modulation: 802.11ax-20MHz

Data Rate: MCS11

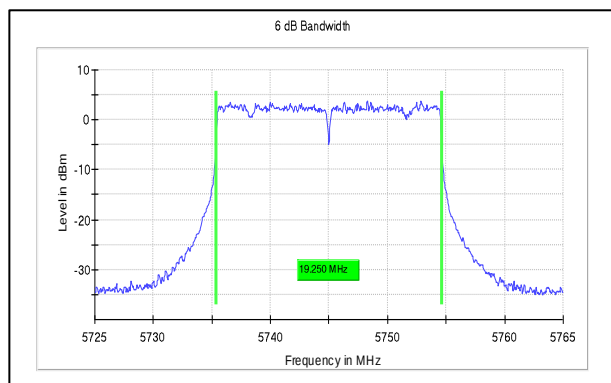
Channel Frequency:5180MHz



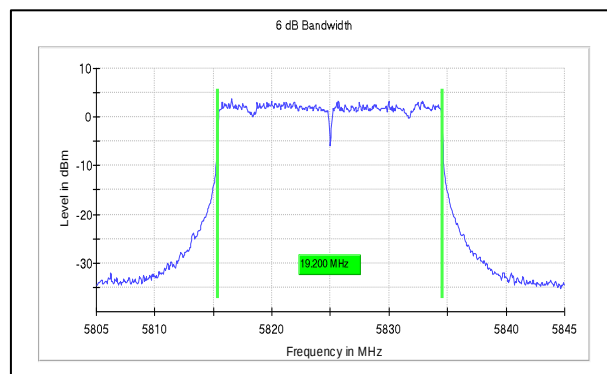
Channel Frequency:5240MHz



Channel Frequency:5745MHz



Channel Frequency:5825MHz



Test Plots

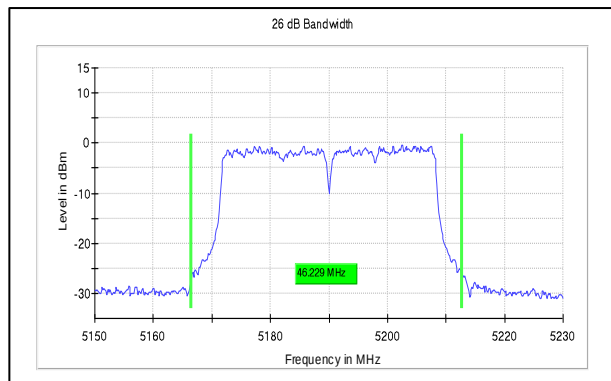
IN23HNHD 001 & IN23HH4B 001

Seite 5 von 83
Page 5 of 83

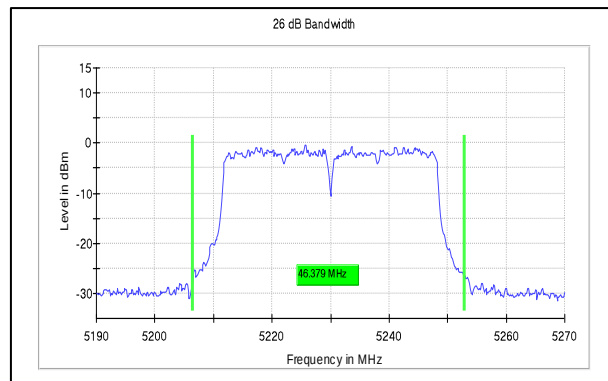
Modulation: 802.11n-40MHz

Data Rate: MCS7

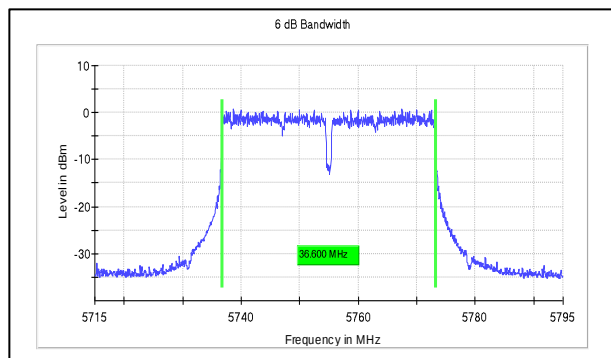
Channel Frequency:5190MHz



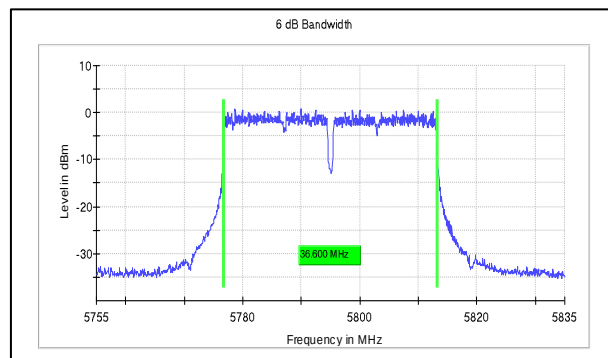
Channel Frequency:5230MHz



Channel Frequency:5755MHz



Channel Frequency:5795MHz



Test Plots

IN23HNHD 001 & IN23HH4B 001

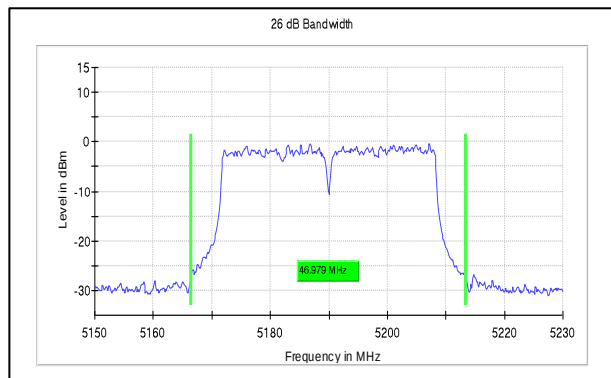
Seite 6 von 83

Page 6 of 83

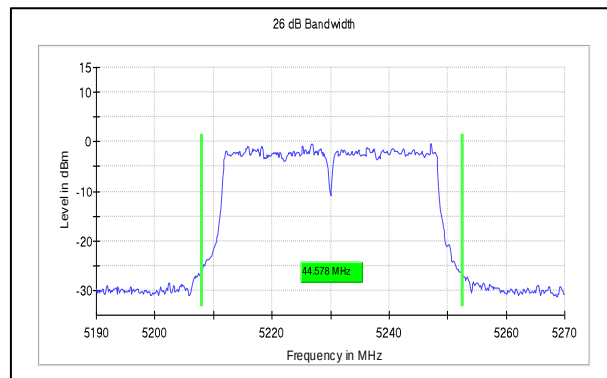
Modulation: 802.11ac-40MHz

Data Rate: MCS9

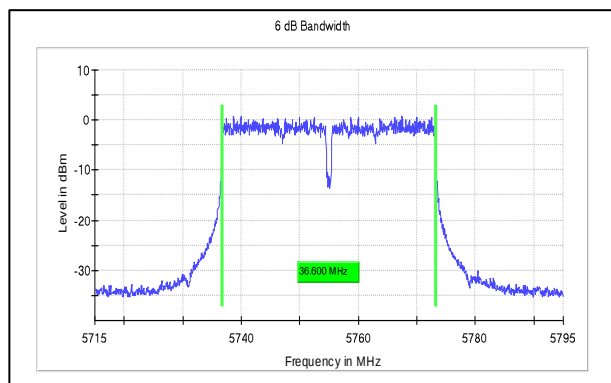
Channel Frequency:5190MHz



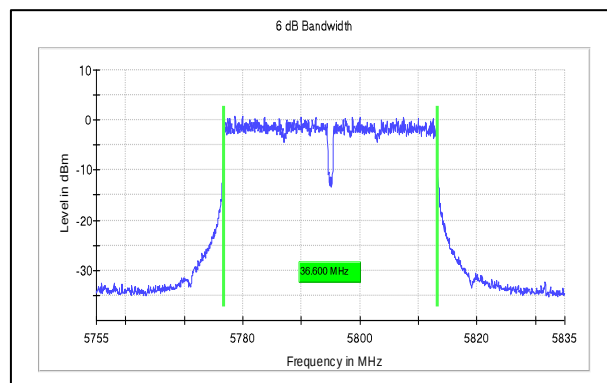
Channel Frequency:5230MHz



Channel Frequency:5755MHz



Channel Frequency:5795MHz



Test Plots

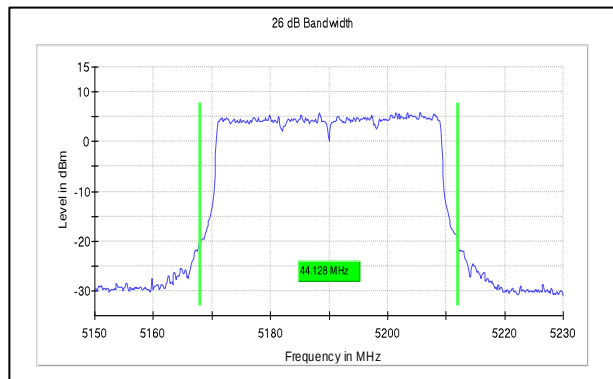
IN23HNHD 001 & IN23HH4B 001

Seite 7 von 83
Page 7 of 83

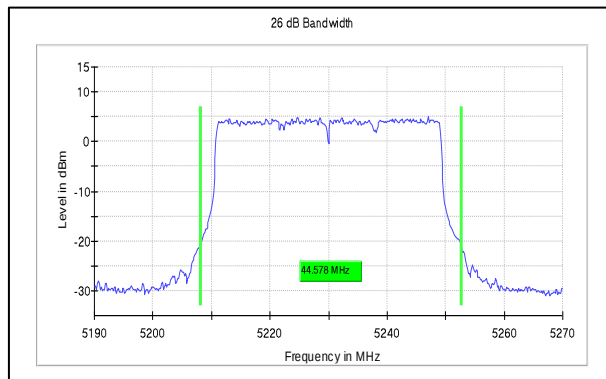
Modulation: 802.11ax-40MHz

Data Rate: MCS11

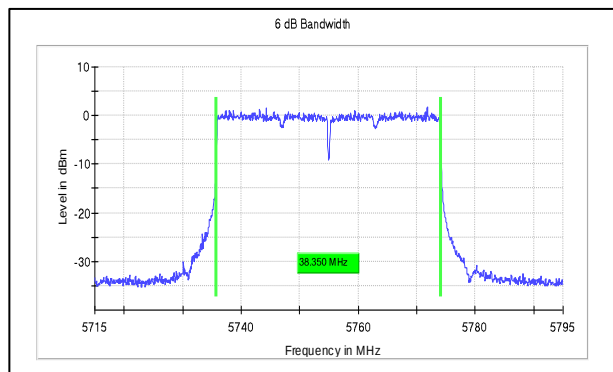
Channel Frequency:5190MHz



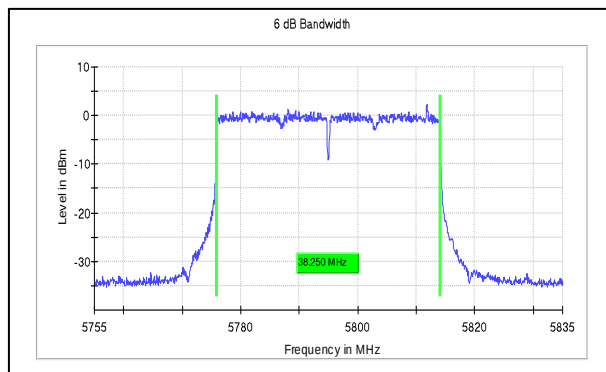
Channel Frequency:5230MHz



Channel Frequency:5755MHz



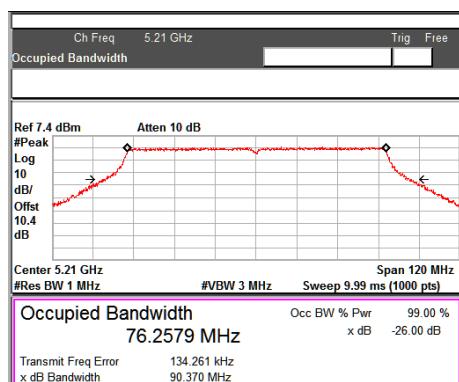
Channel Frequency:5795MHz



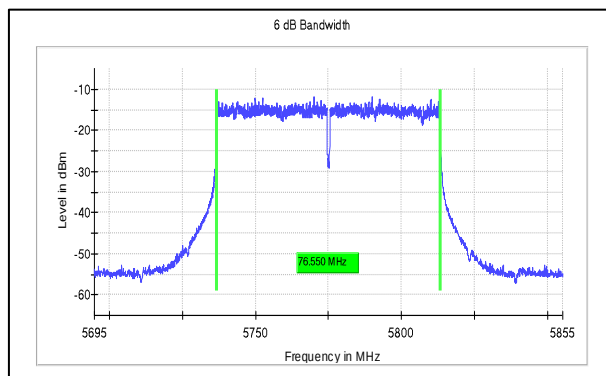
Modulation: 802.11ac-80MHz

Data Rate: MCS9

Channel Frequency:5210MHz



Channel Frequency:5775MHz



Test Plots

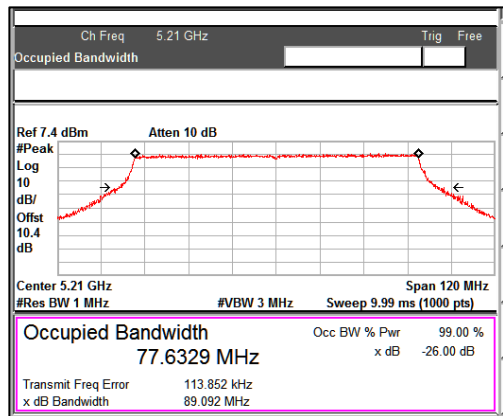
IN23HNHD 001 & IN23HH4B 001

Seite 8 von 83
Page 8 of 83

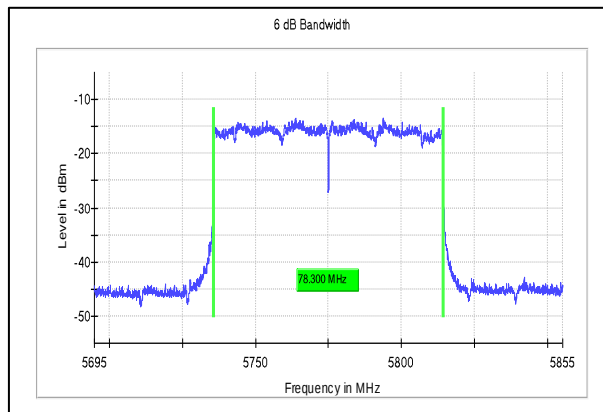
Modulation: 802.11ax-80MHz

Data Rate: MCS11

Channel Frequency: 5210MHz



Channel Frequency: 5775MHz



Test Plots

IN23HNHD 001 & IN23HH4B 001

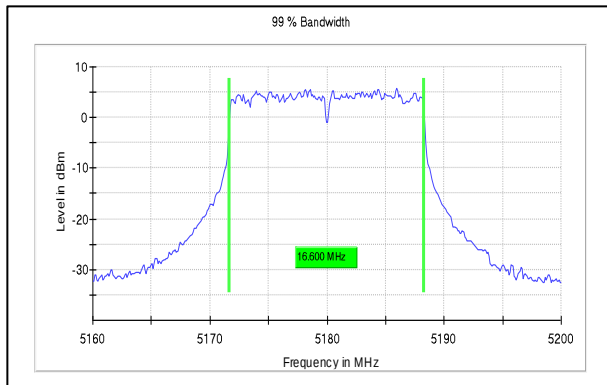
Seite 9 von 83
Page 9 of 83

1.2 Occupied Channel Bandwidth

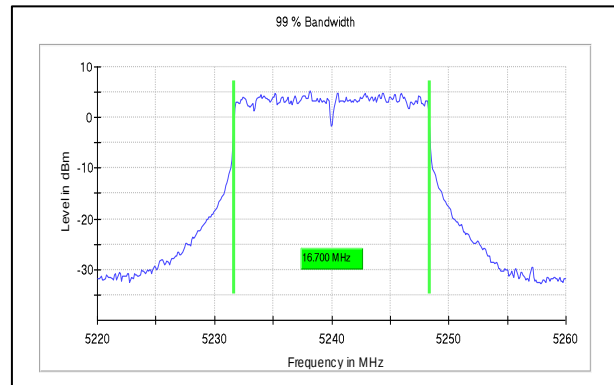
Modulation: 802.111a

Data Rate: 54Mbps

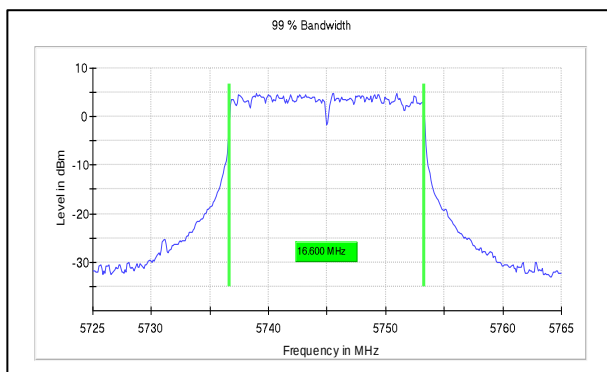
Channel Frequency:5180MHz



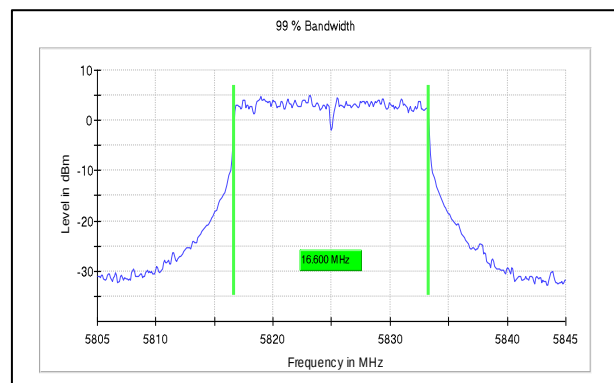
Channel Frequency:5240MHz



Channel Frequency:5745MHz



Channel Frequency:5825MHz



Test Plots

IN23HNHD 001 & IN23HH4B 001

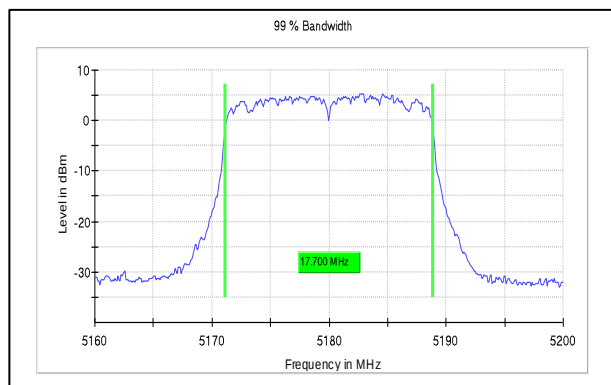
Seite 10 von 83

Page 10 of 83

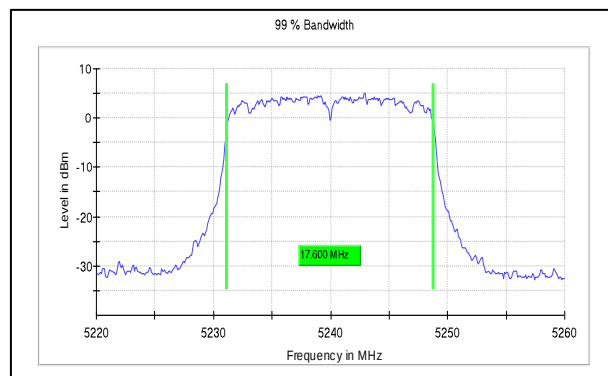
Modulation: 802.11n-20MHz

Data Rate: MCS7

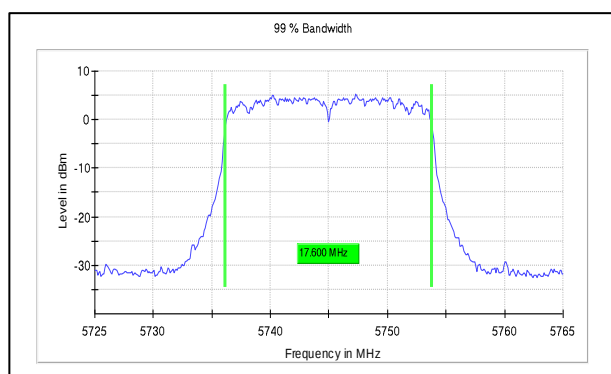
Channel Frequency:5180MHz



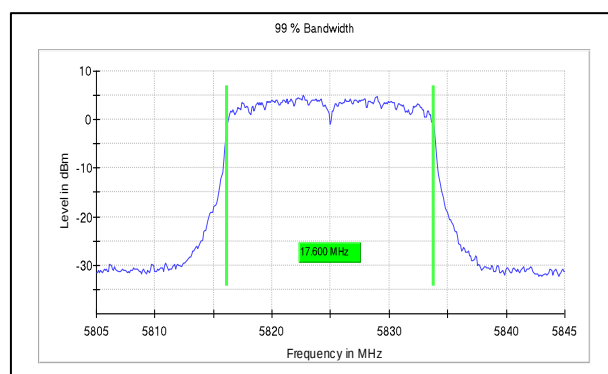
Channel Frequency:5240MHz



Channel Frequency:5745MHz



Channel Frequency:5825MHz



Test Plots

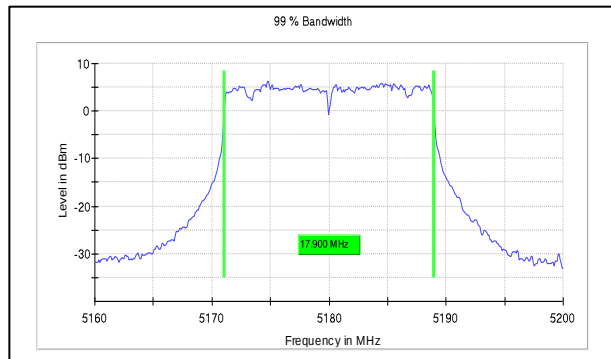
IN23HNHD 001 & IN23HH4B 001

Seite 11 von 83
Page 11 of 83

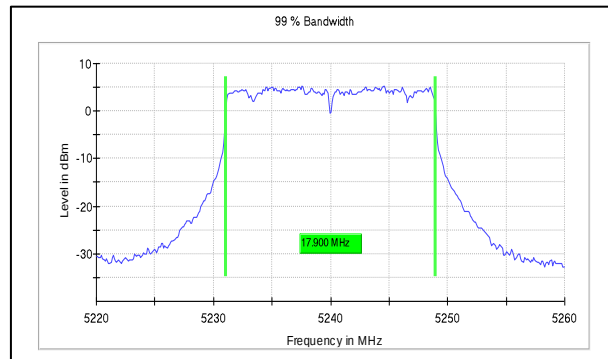
Modulation: 802.11ac-20MHz

Data Rate: MCS8

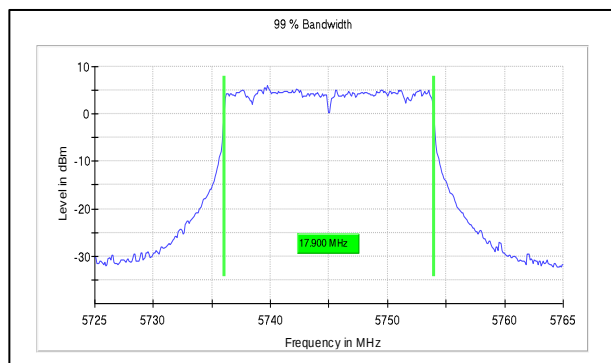
Channel Frequency:5180MHz



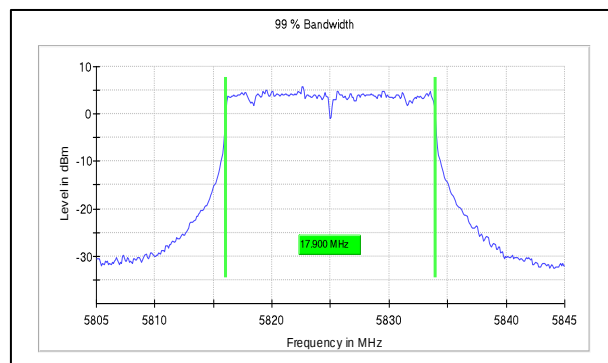
Channel Frequency:5240MHz



Channel Frequency:5745MHz



Channel Frequency:5825MHz



Test Plots

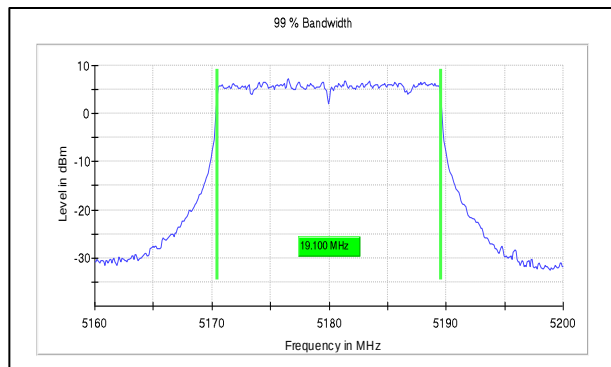
IN23HNHD 001 & IN23HH4B 001

Seite 12 von 83
Page 12 of 83

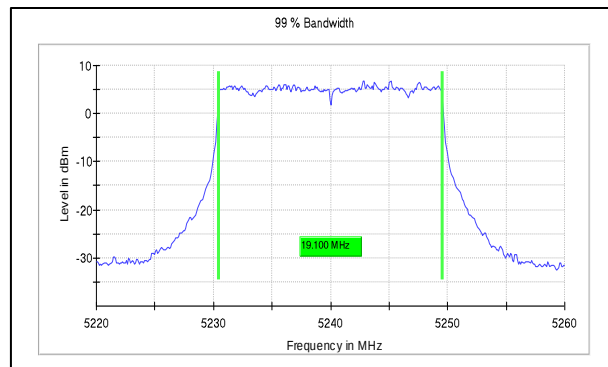
Modulation: 802.11ax-20MHz

Data Rate: MCS11

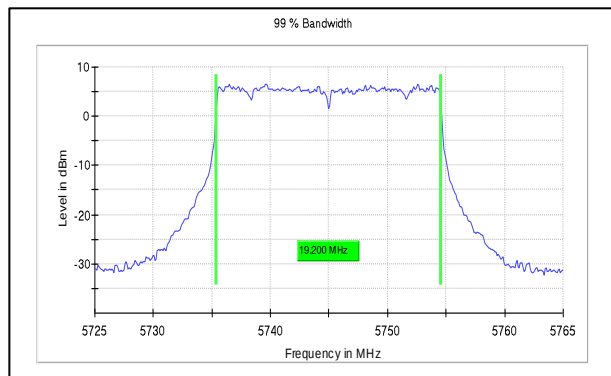
Channel Frequency:5180MHz



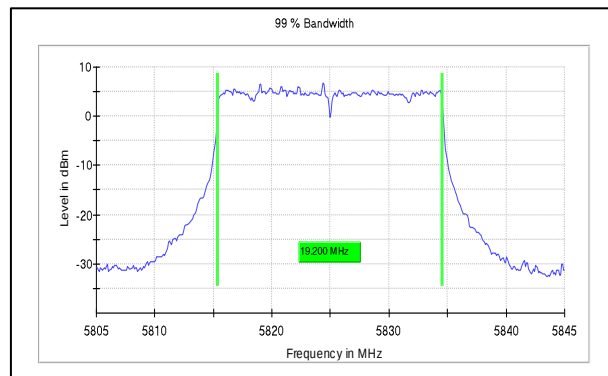
Channel Frequency:5240MHz



Channel Frequency:5745MHz



Channel Frequency:5825MHz



Test Plots

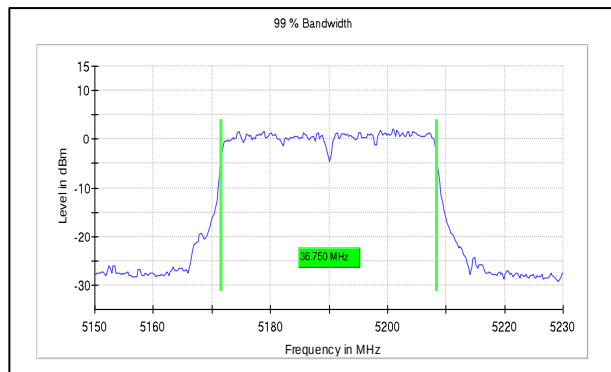
IN23HNHD 001 & IN23HH4B 001

Seite 13 von 83
Page 13 of 83

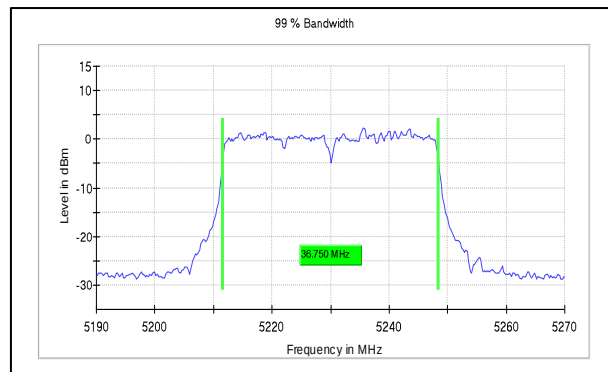
Modulation: 802.11n-40MHz

Data Rate: MCS7

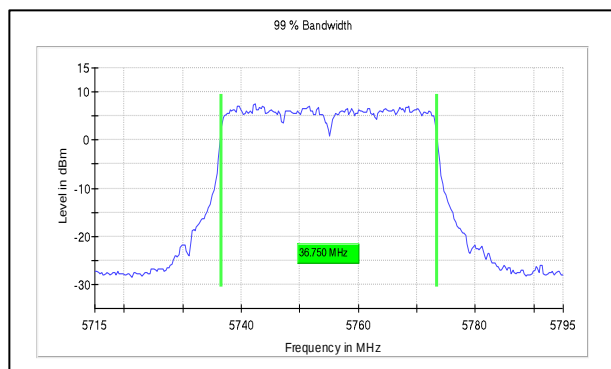
Channel Frequency:5190MHz



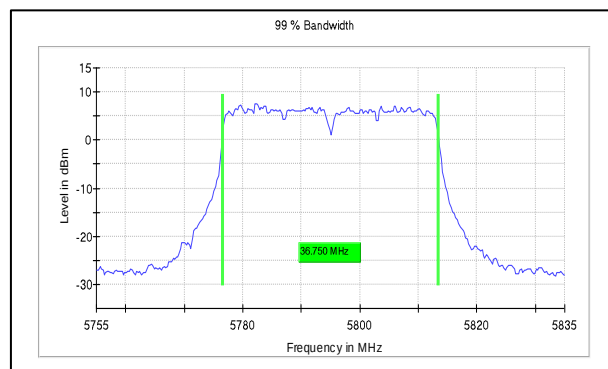
Channel Frequency:5230MHz



Channel Frequency:5755MHz



Channel Frequency:5795MHz



Test Plots

IN23HNHD 001 & IN23HH4B 001

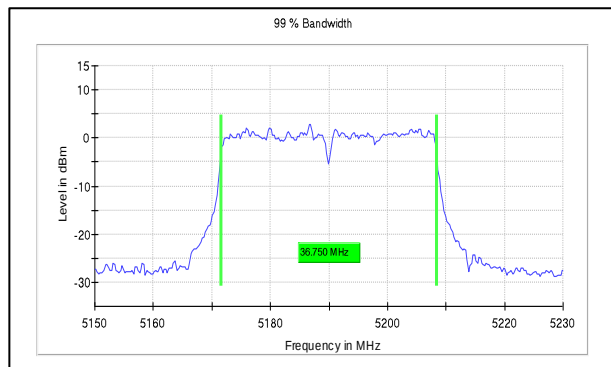
Seite 14 von 83

Page 14 of 83

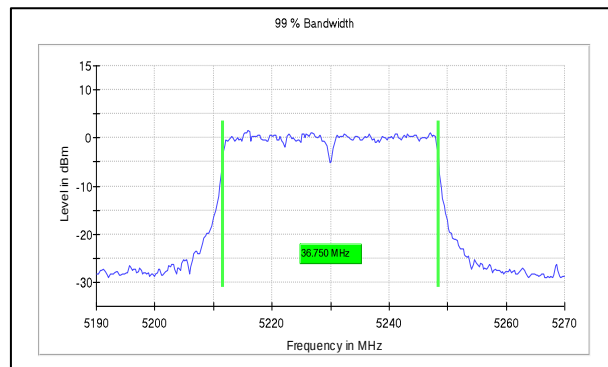
Modulation: 802.11ac-40MHz

Data Rate: MCS9

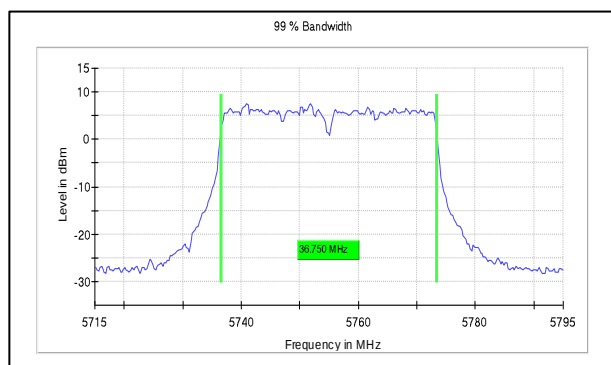
Channel Frequency: 5190MHz



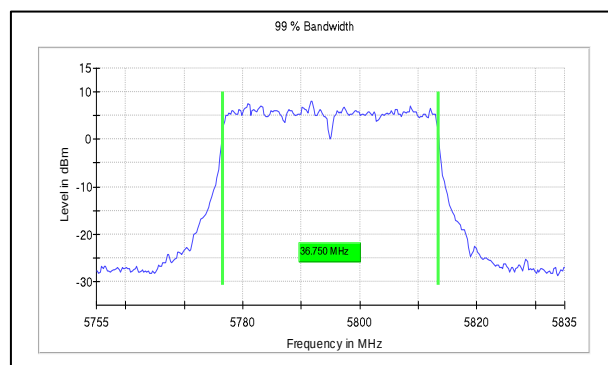
Channel Frequency: 5230MHz



Channel Frequency: 5755MHz



Channel Frequency: 5795MHz



Test Plots

IN23HNHD 001 & IN23HH4B 001

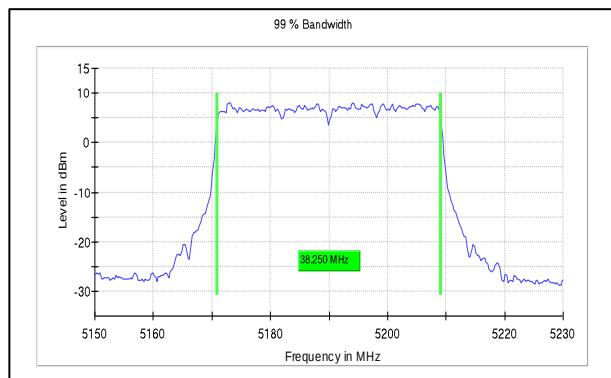
Seite 15 von 83

Page 15 of 83

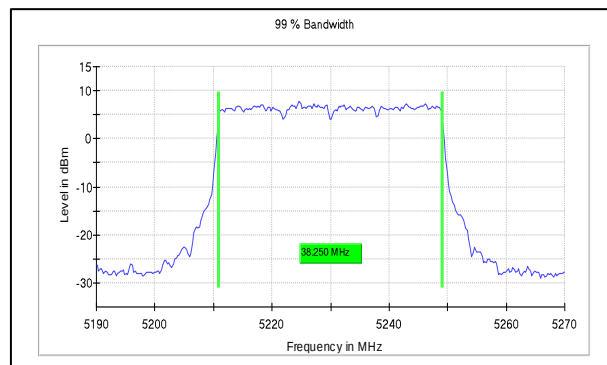
Modulation: 802.11ax-40MHz

Data Rate: MCS11

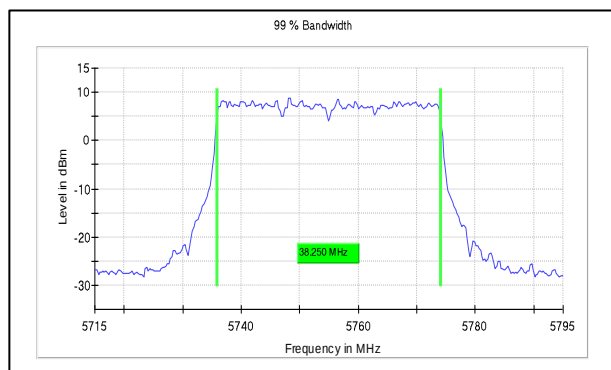
Channel Frequency:5190MHz



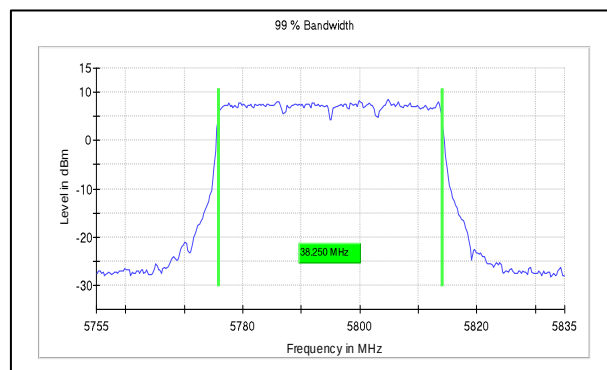
Channel Frequency:5230MHz



Channel Frequency:5755MHz



Channel Frequency:5795MHz



Test Plots

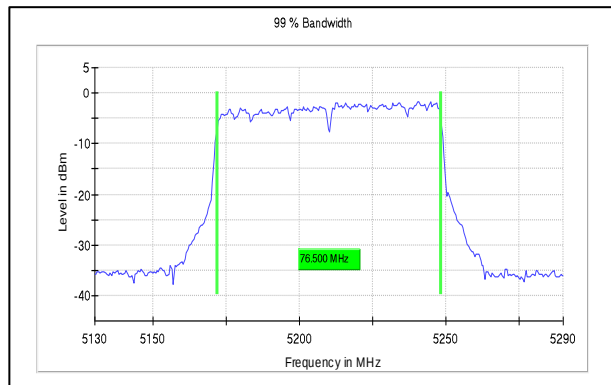
IN23HNHD 001 & IN23HH4B 001

Seite 16 von 83
Page 16 of 83

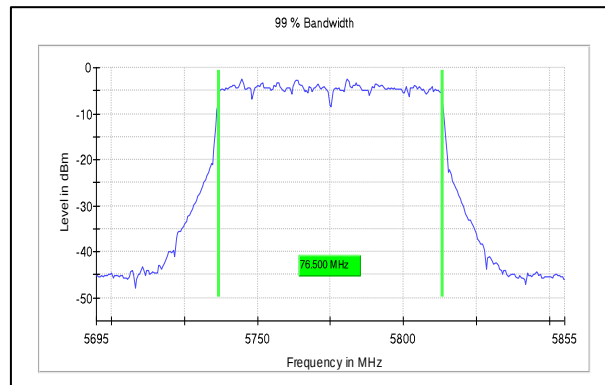
Modulation: 802.11ac-80MHz

Data Rate: MCS9

Channel Frequency: 5210MHz



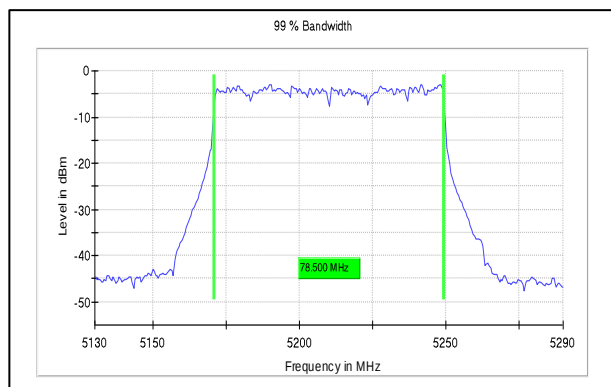
Channel Frequency: 5775MHz



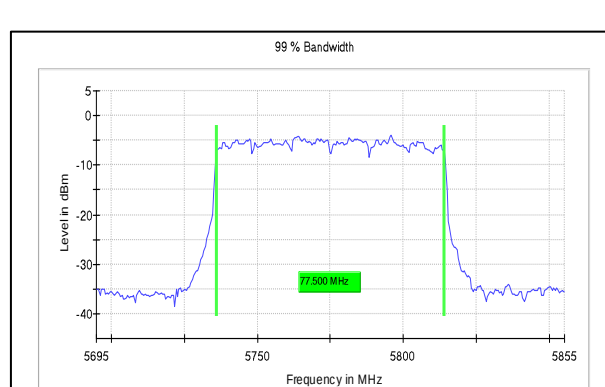
Modulation: 802.11ax-80MHz

Data Rate: MCS11

Channel Frequency: 5210MHz



Channel Frequency: 5775MHz



Test Plots

IN23HNHD 001 & IN23HH4B 001

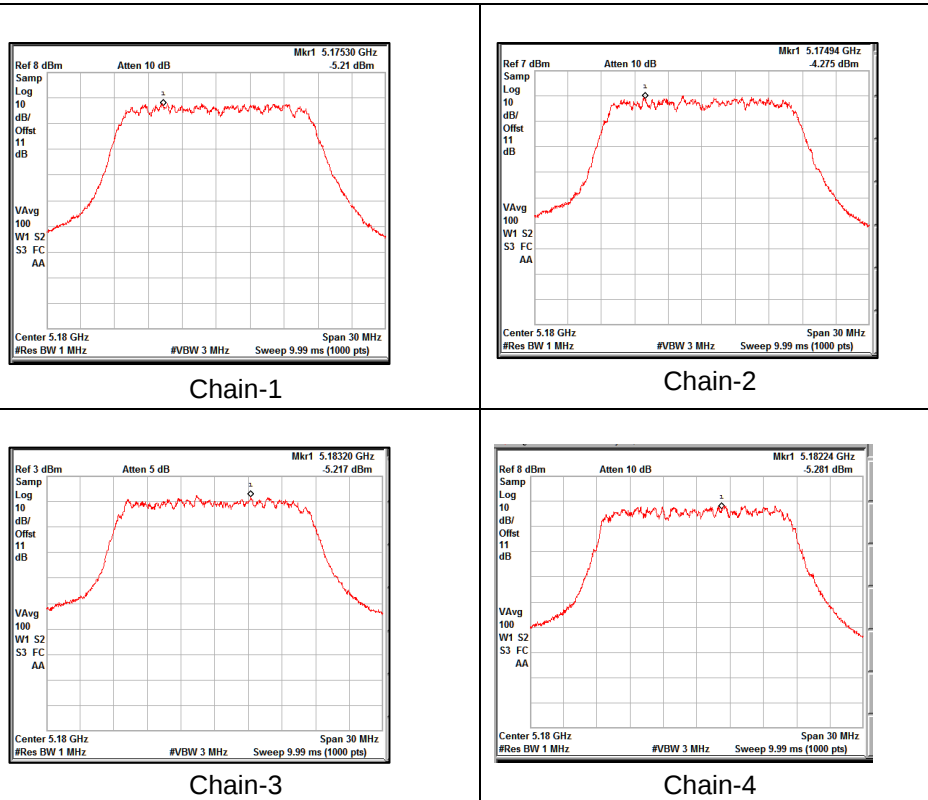
Seite 17 von 83
Page 17 of 83

1.3 Power Spectral Density

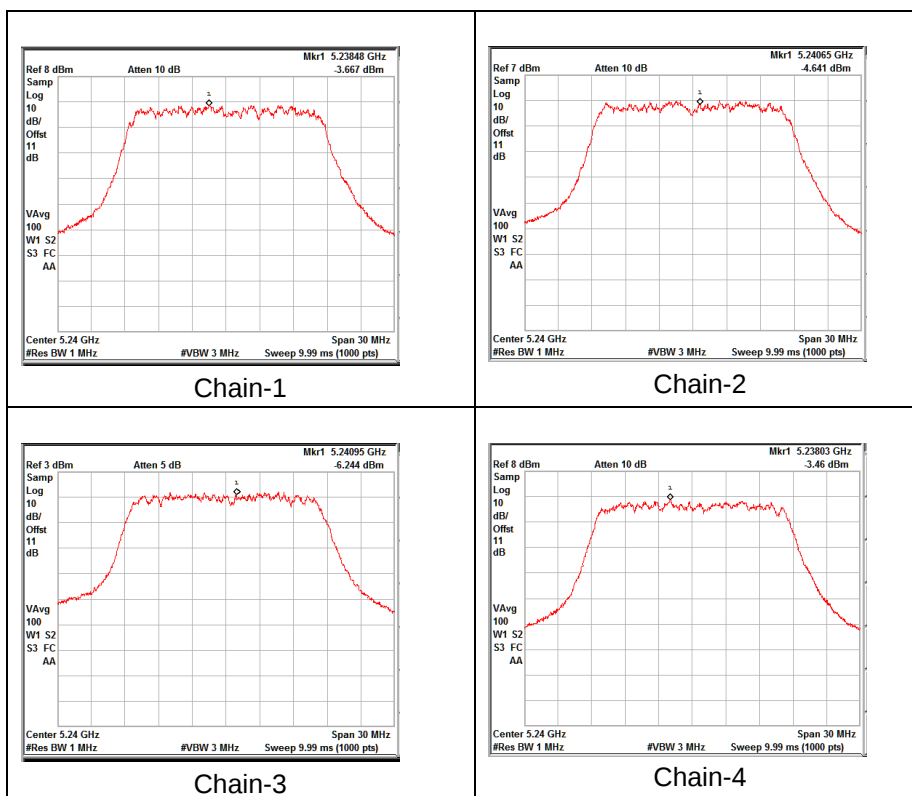
Antenna Type & Antenna Gain: Omni Antenna & 12dBi

Data Rate: 6Mbps

Channel Frequency: 5180MHz



Channel frequency: 5240MHz

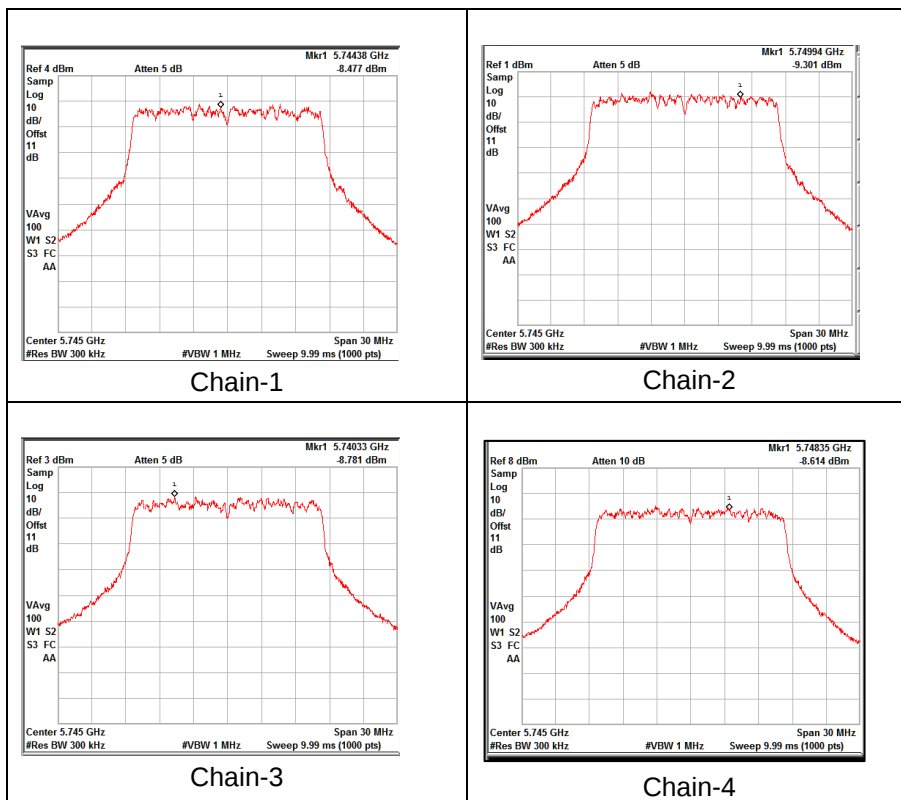


Test Plots

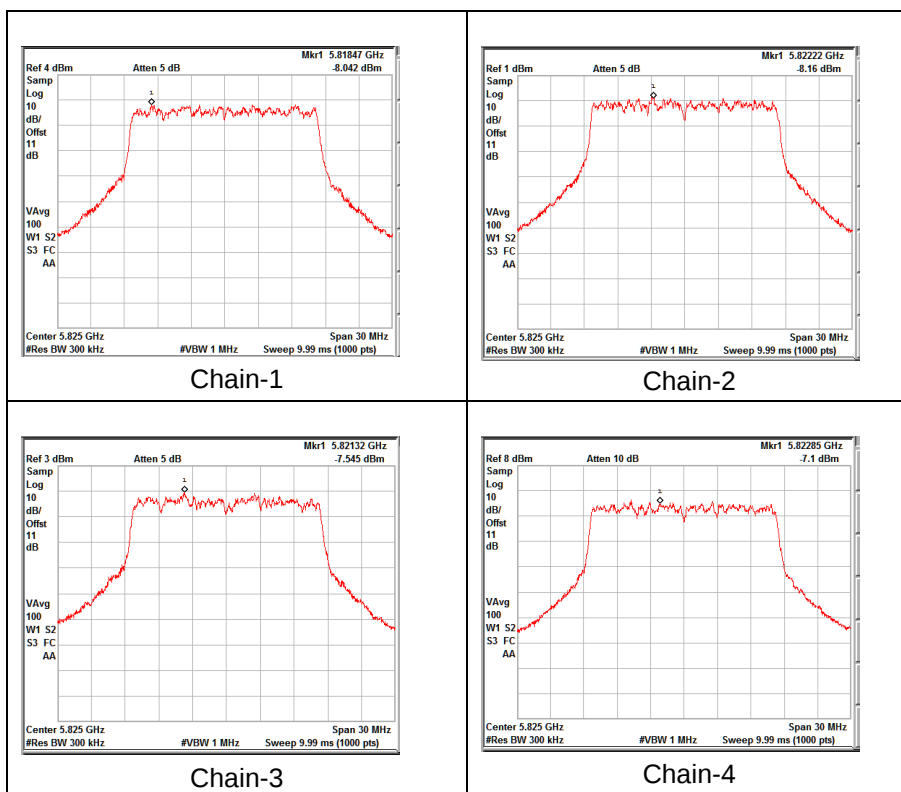
IN23HNHD 001 & IN23HH4B 001

Seite 18 von 83
Page 18 of 83

Channel frequency: 5745MHz



Channel frequency: 5825MHz



Test Plots

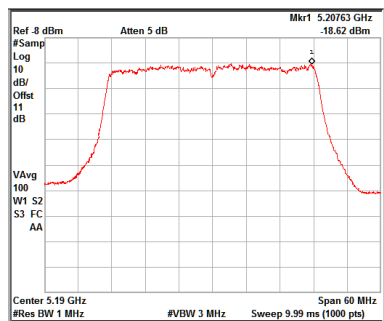
IN23HNHD 001 & IN23HH4B 001

Seite 19 von 83
Page 19 of 83

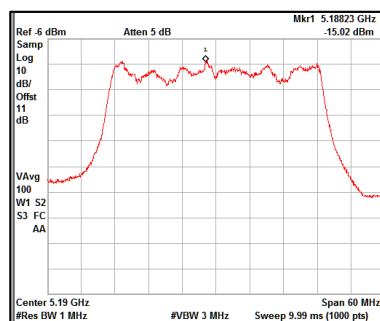
Modulation: 802.11n-40MHz

Data Rate: MCS0

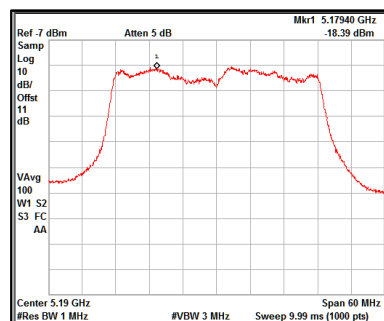
Channel Frequency: 5190MHz



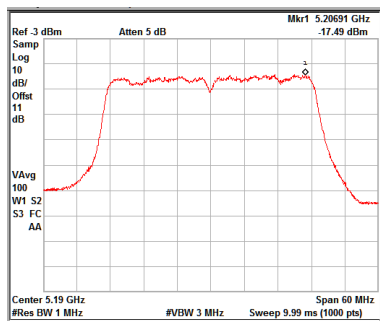
Chain-1



Chain-2

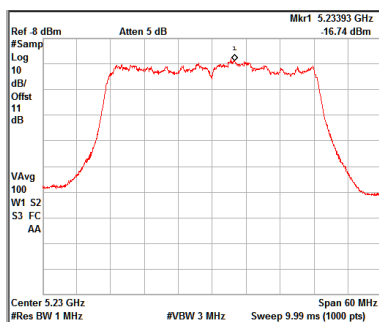


Chain-3

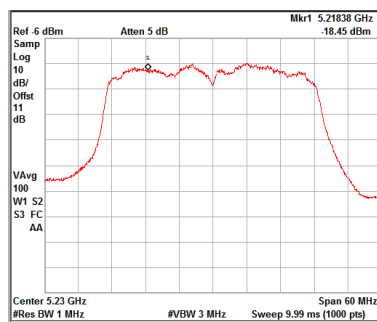


Chain-4

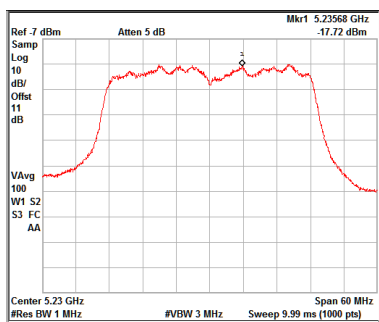
Channel frequency: 5230MHz



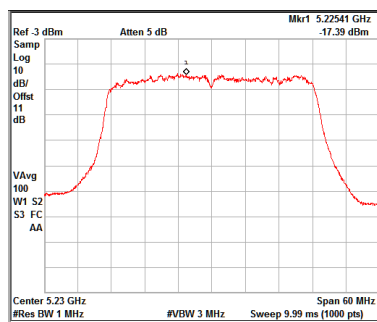
Chain-1



Chain-2



Chain-3



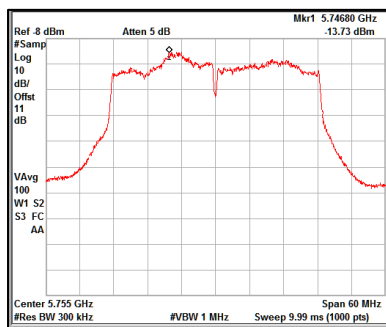
Chain-4

Test Plots

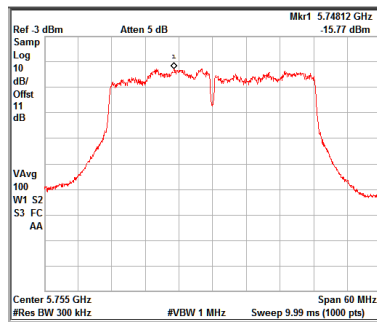
IN23HNHD 001 & IN23HH4B 001

Seite 20 von 83
Page 20 of 83

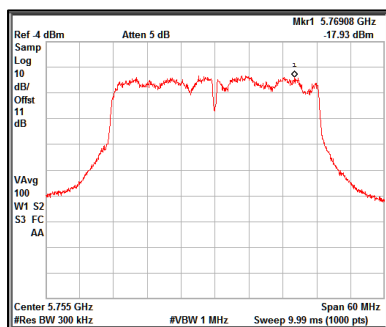
Channel frequency: 5755MHz



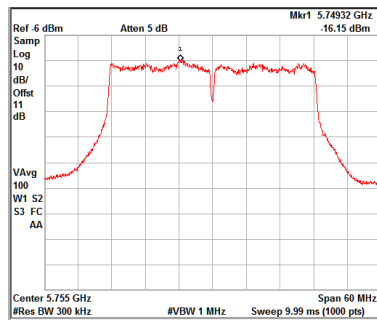
Chain-1



Chain-2

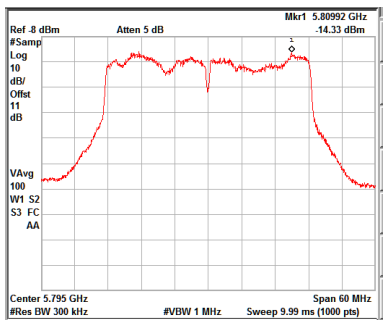


Chain-3

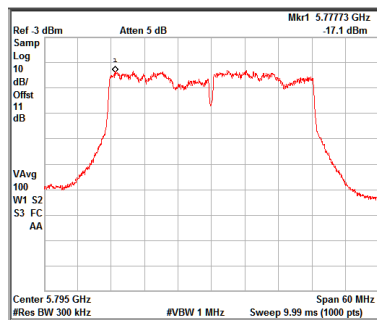


Chain-4

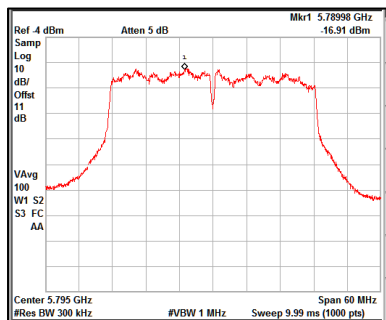
Channel frequency: 5795MHz



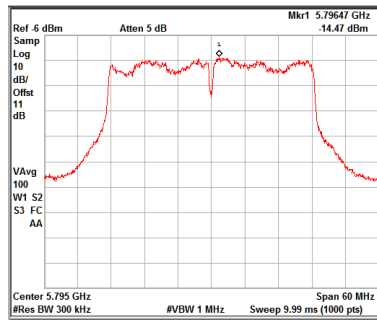
Chain-1



Chain-2



Chain-3



Chain-4

Test Plots

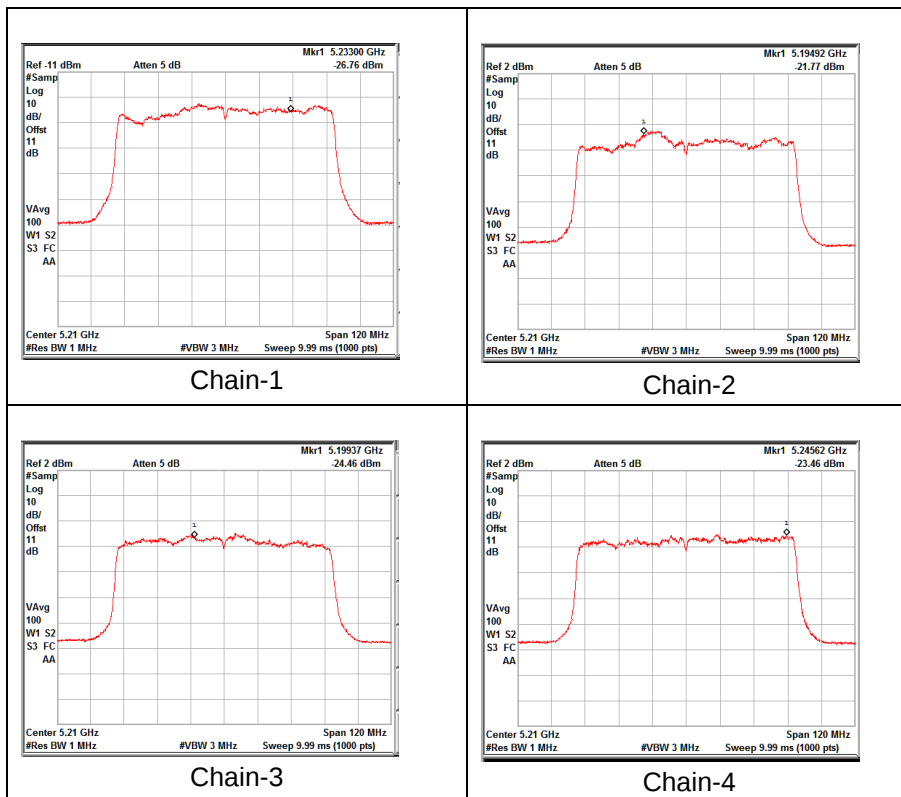
IN23HNHD 001 & IN23HH4B 001

Seite 21 von 83
Page 21 of 83

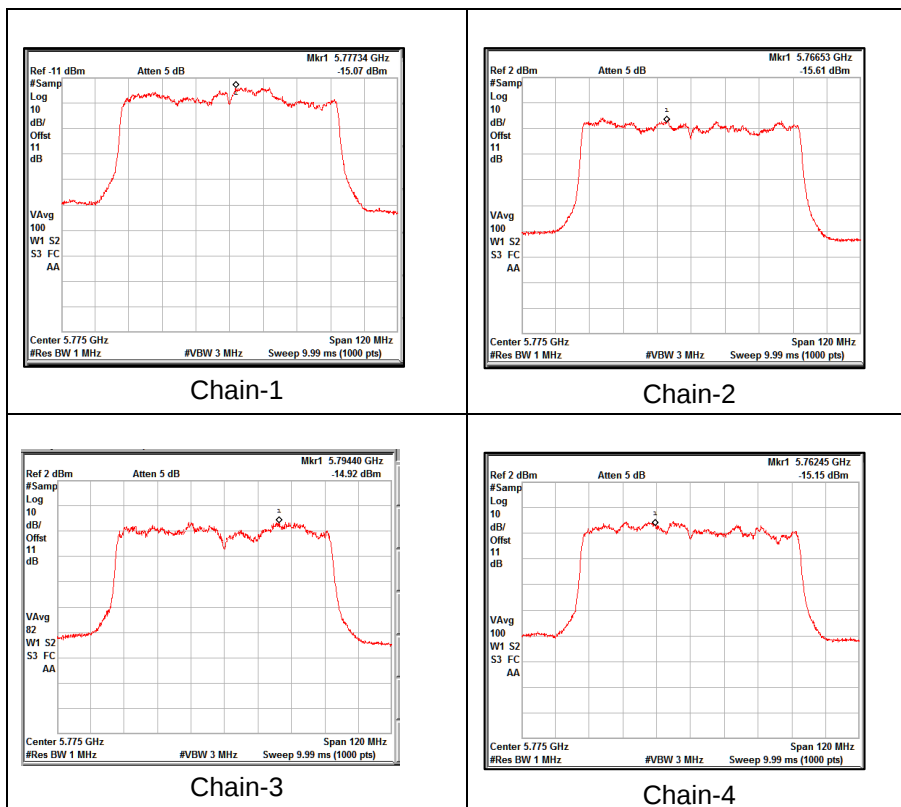
Modulation: 802.11ac-80MHz

Data Rate: MCS0

Channel Frequency: 5210MHz

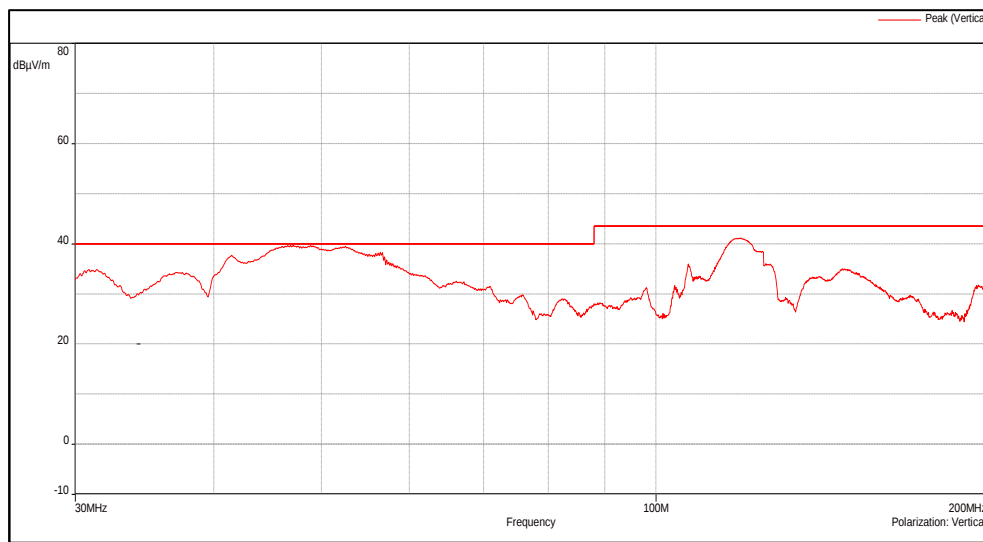


Channel Frequency: 5775MHz



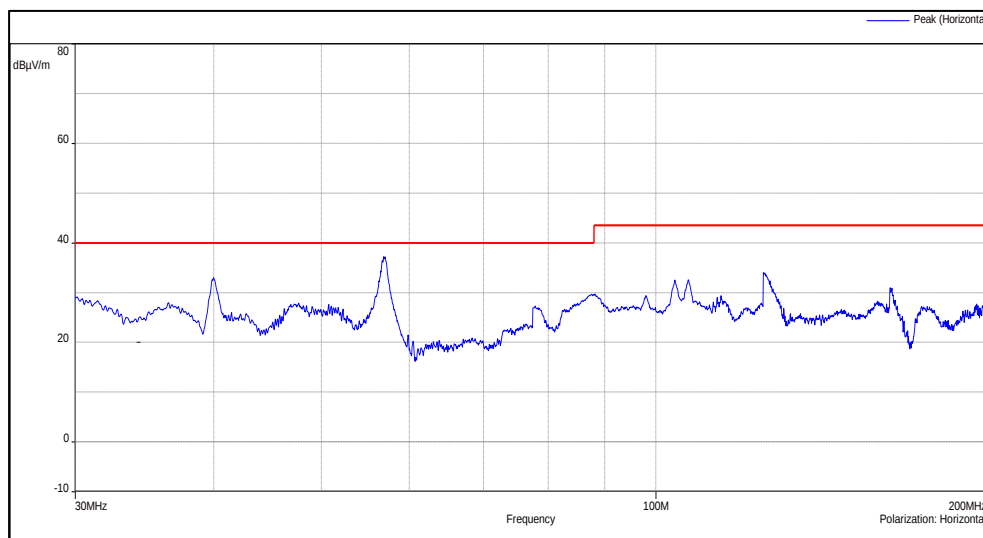
1.4 Spurious Radiated Emissions & Restricted Bands of Operation

Frequency range of 30MHz to 200MHz:



Channel Frequency 30MHz – 200MHz

Polarization Vertical



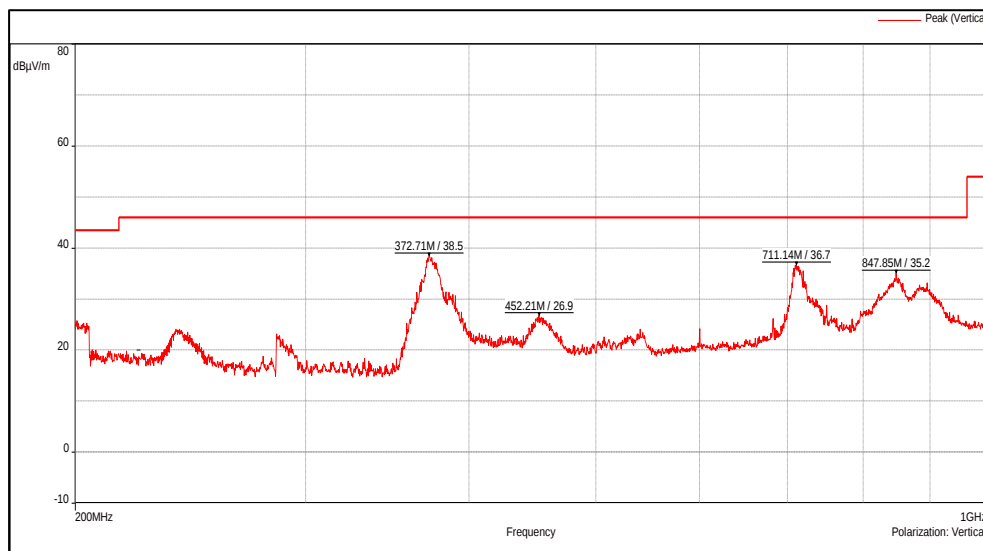
Channel Frequency 30MHz – 200MHz

Polarization Horizontal

Test Plots

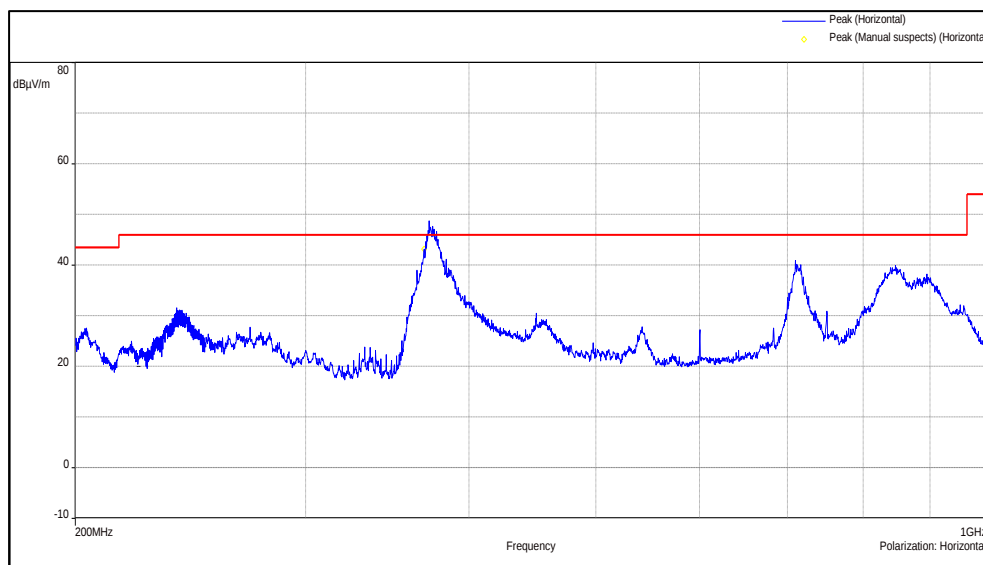
IN23HNHD 001 & IN23HH4B 001

Seite 23 von 83
Page 23 of 83



Channel Frequency 200MHz – 1GHz

Polarization Vertical



Channel Frequency 200MHz – 1GHz

Polarization Horizontal

Test Plots

IN23HNHD 001 & IN23HH4B 001

Seite 24 von 83

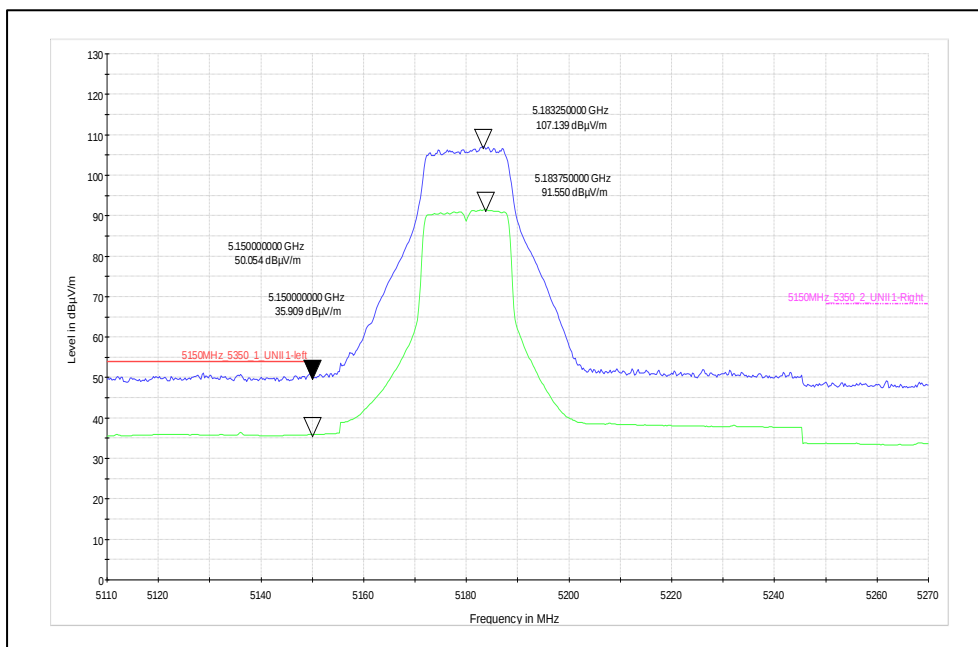
Page 24 of 83

Frequency range of 1GHz to 26GHz:

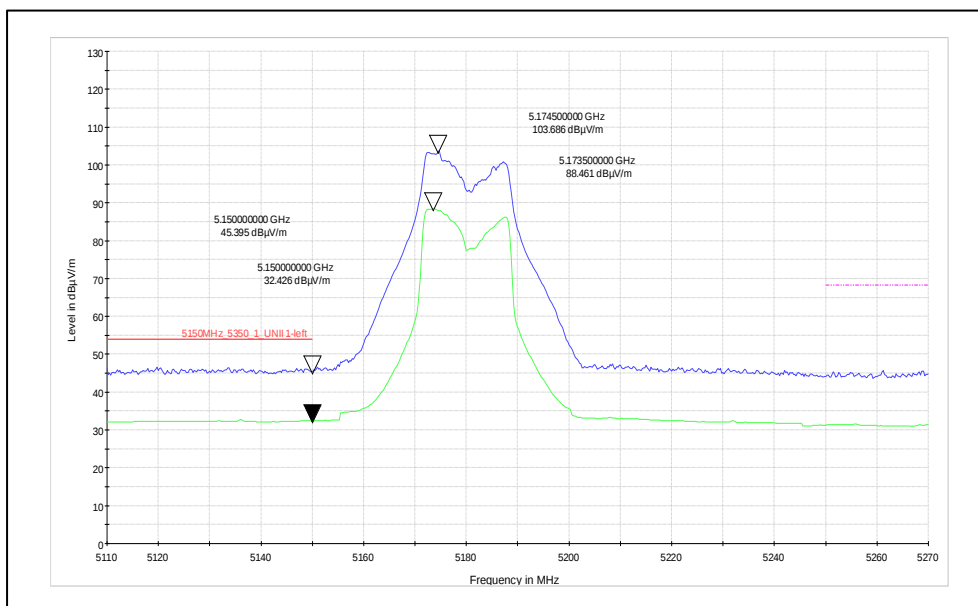
Modulation: 802.11a

Data Rate: 54Mbps

Channel Frequency: 5180MHz



Polarization: Vertical



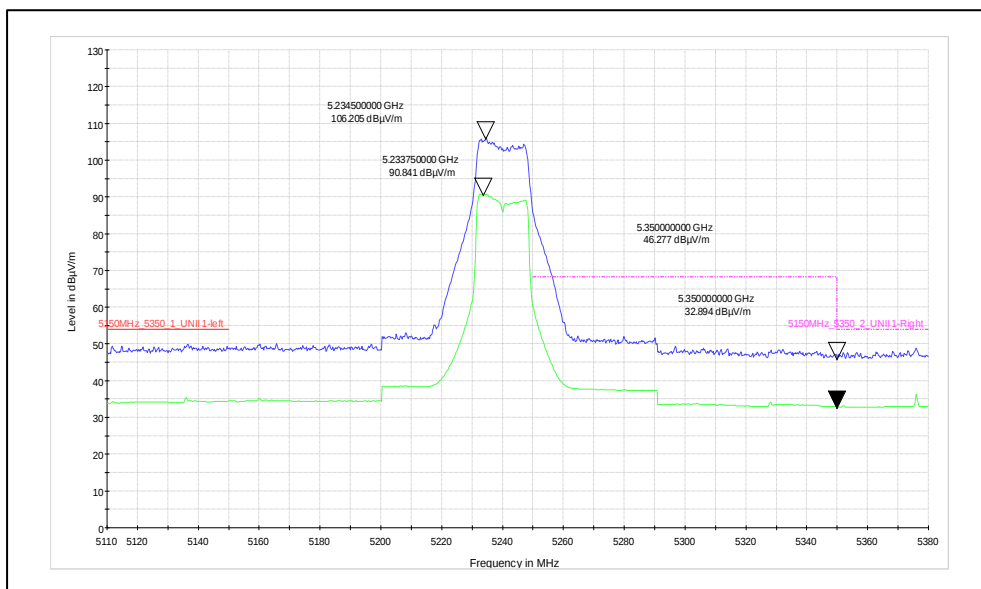
Polarization: Horizontal

Test Plots

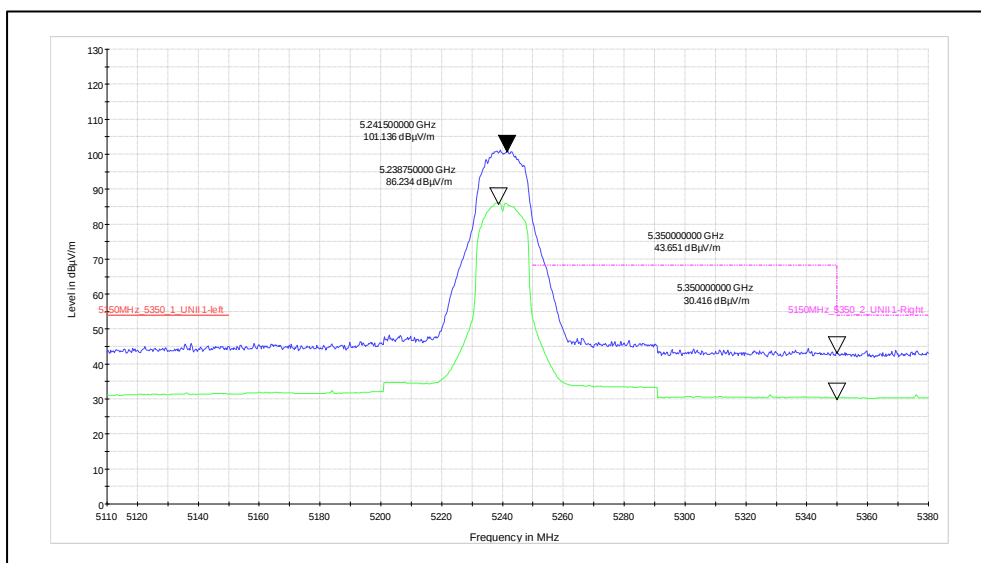
IN23HNHD 001 & IN23HH4B 001

Seite 25 von 83
Page 25 of 83

Channel Frequency: 5240MHz



Polarization: Vertical



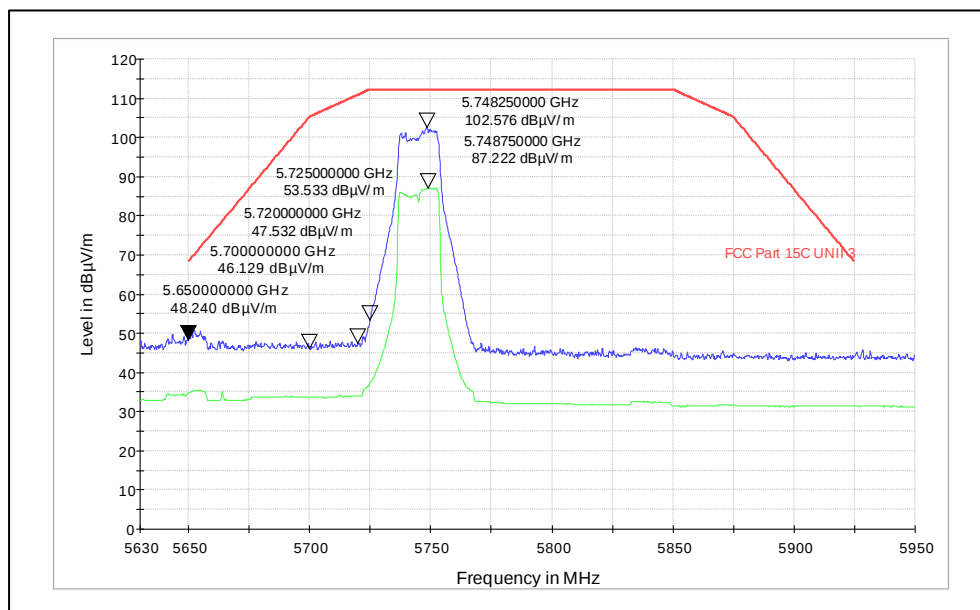
Polarization: Horizontal

Test Plots

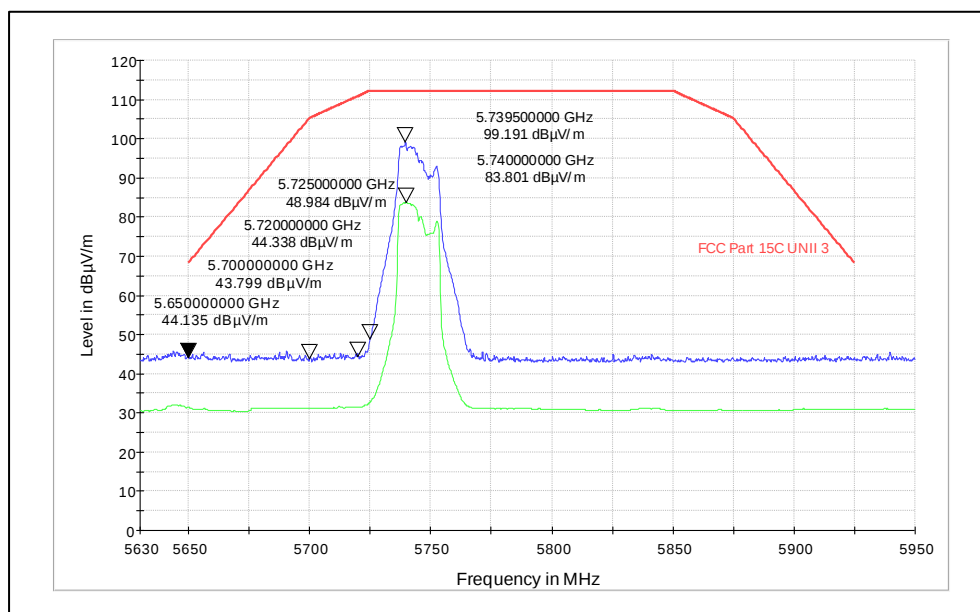
IN23HNHD 001 & IN23HH4B 001

Seite 26 von 83
Page 26 of 83

Channel Frequency: 5745MHz



Polarization: Vertical



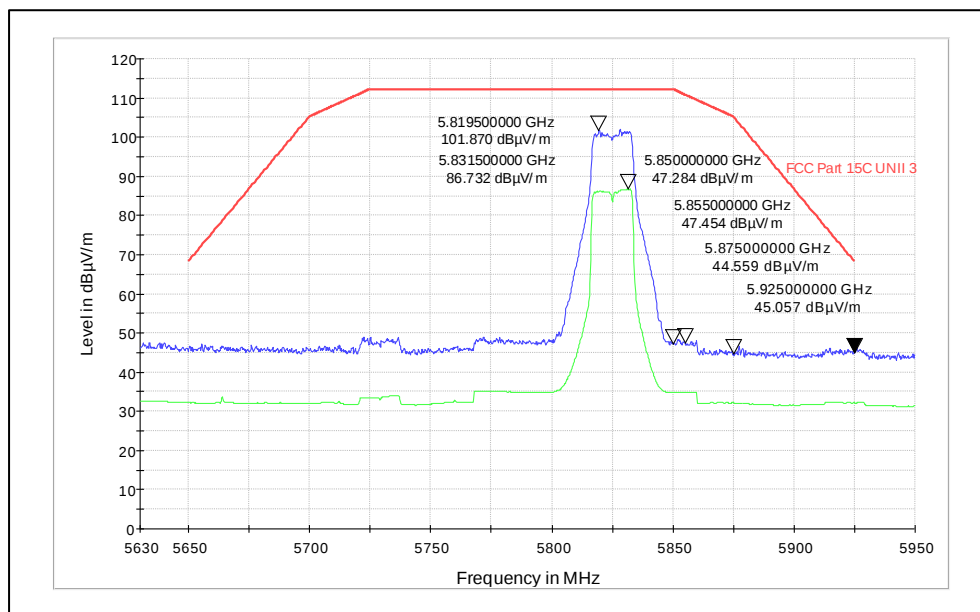
Polarization: Horizontal

Test Plots

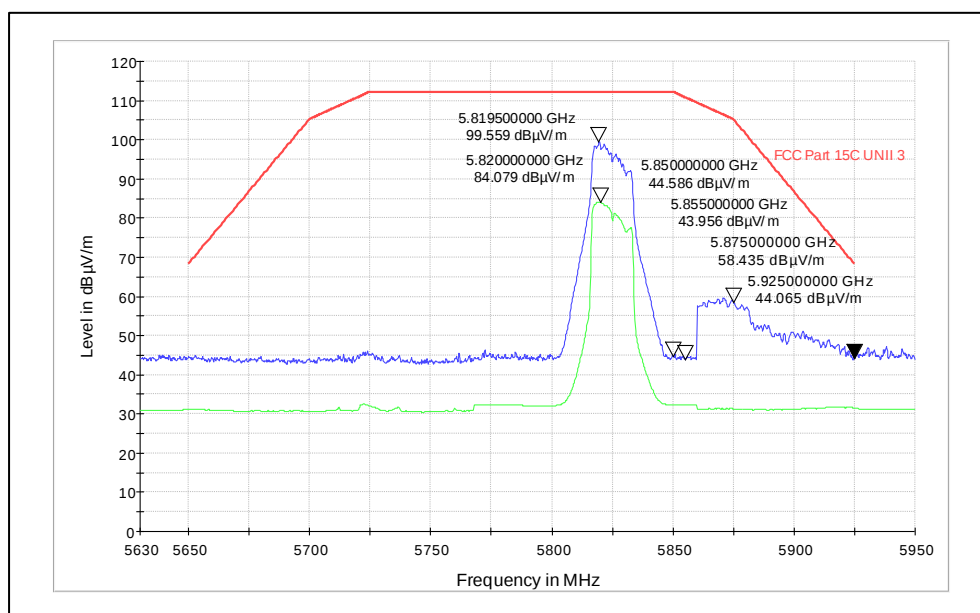
IN23HNHD 001 & IN23HH4B 001

Seite 27 von 83
Page 27 of 83

Channel Frequency: 5825MHz



Polarization: Vertical



Polarization: Horizontal

Test Plots

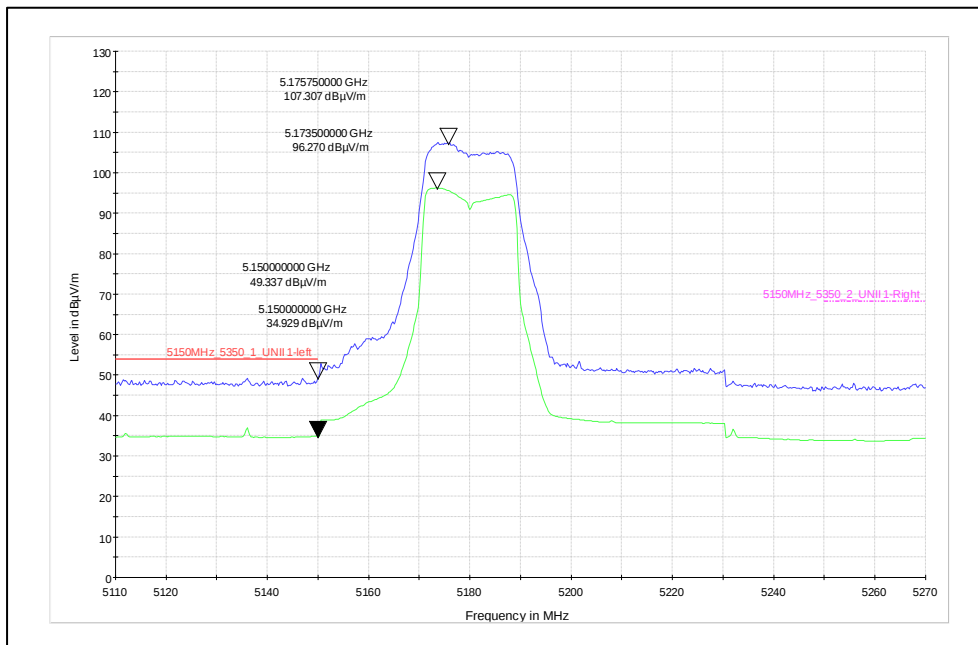
IN23HNHD 001 & IN23HH4B 001

Seite 28 von 83
Page 28 of 83

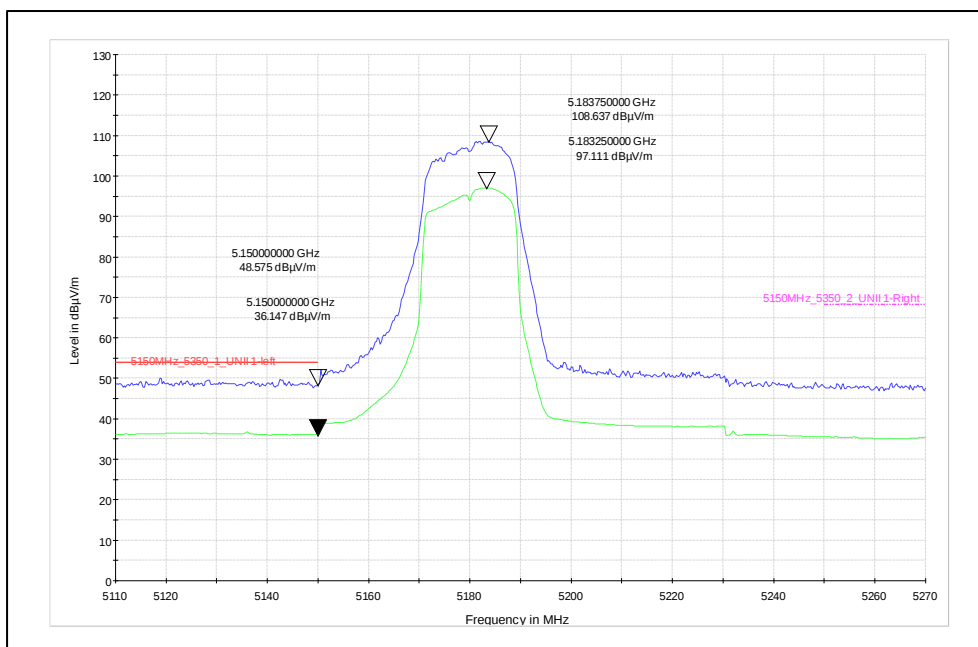
Modulation: 802.11n

Data Rate: MCS7

Channel Frequency: 5180MHz



Polarization: Vertical



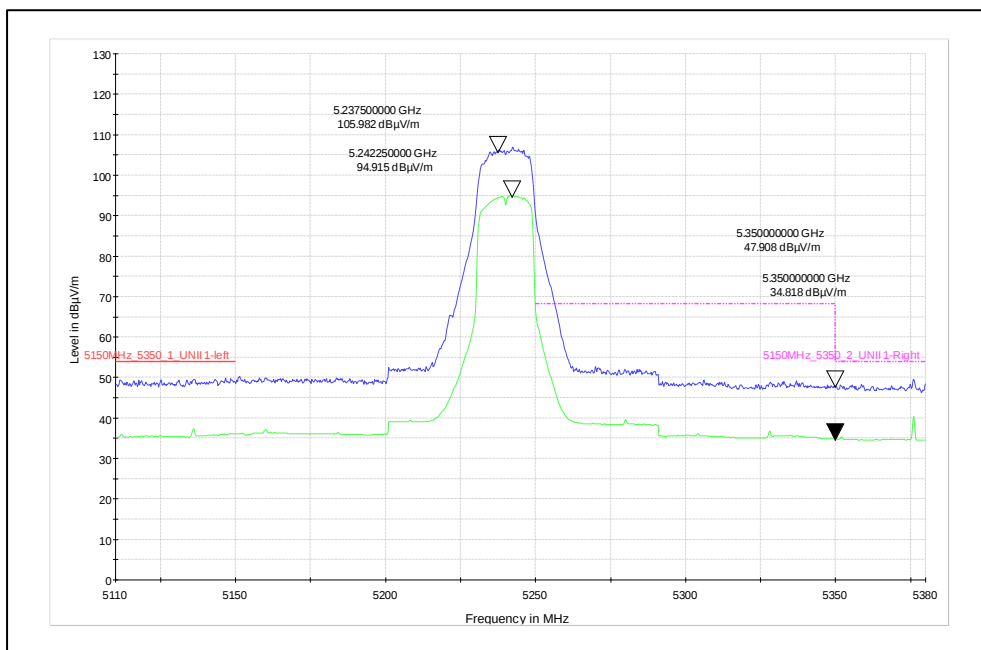
Test Plots

IN23HNHD 001 & IN23HH4B 001

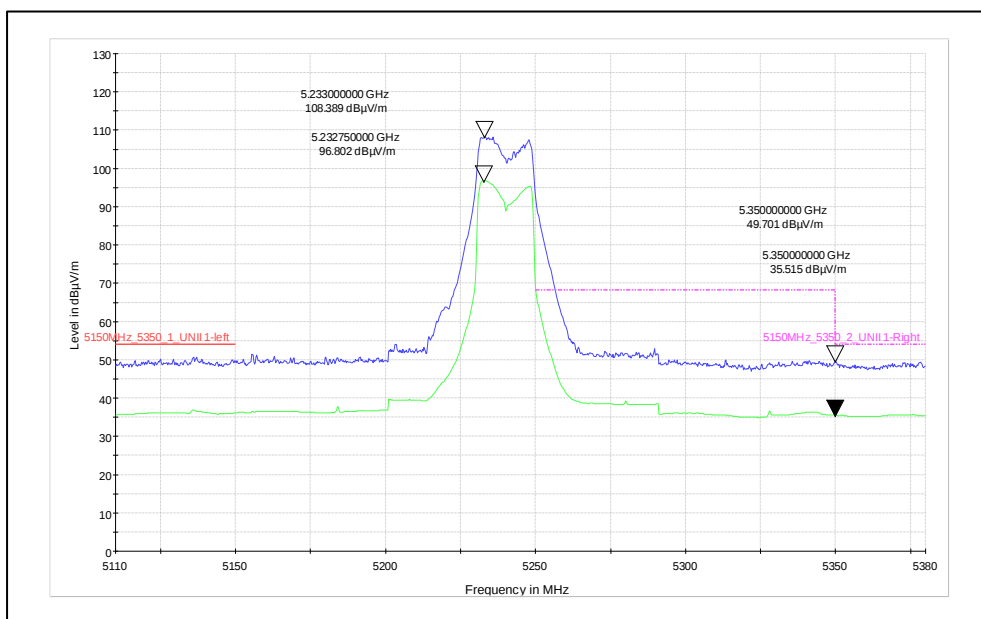
Seite 29 von 83

Page 29 of 83

Channel frequency: 5240MHz



Polarization: Vertical



Polarization: Horizontal

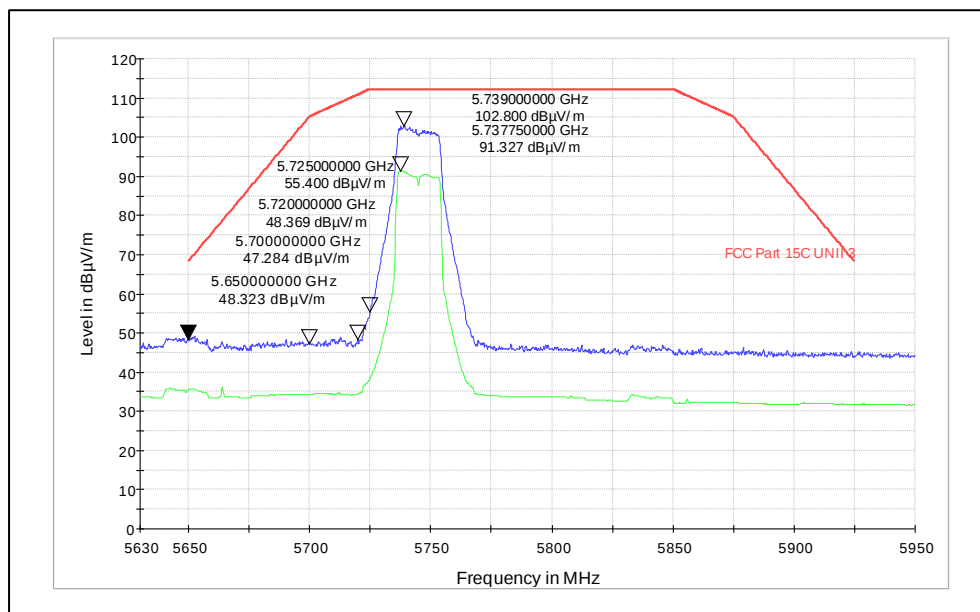
Test Plots

IN23HNHD 001 & IN23HH4B 001

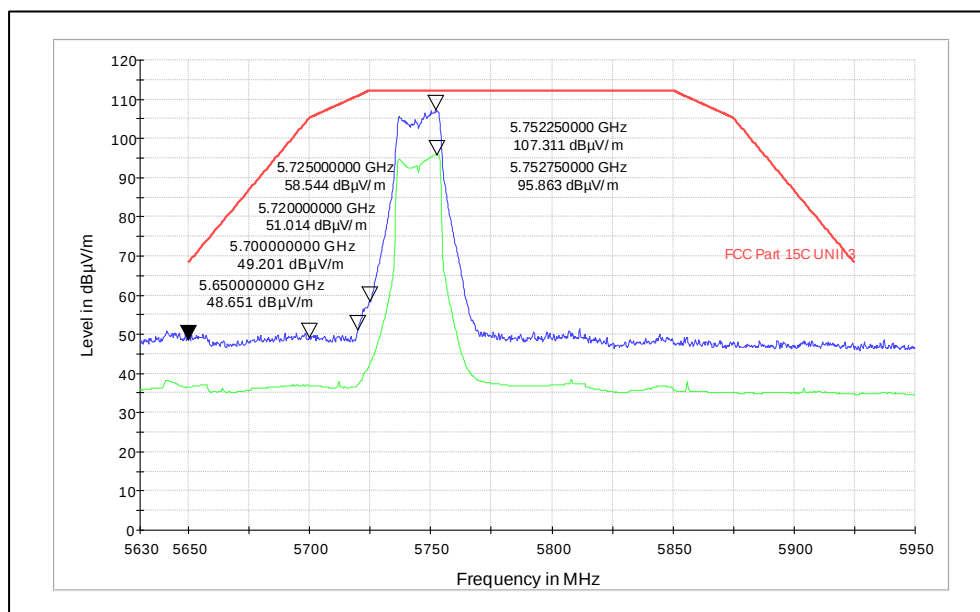
Seite 30 von 83

Page 30 of 83

Channel frequency: 5745MHz



Polarization: Vertical



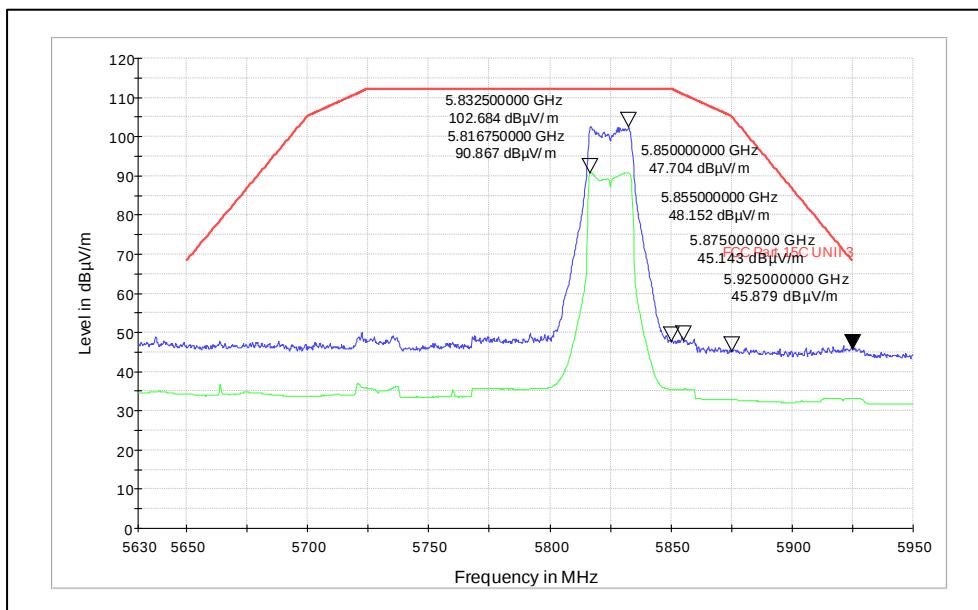
Polarization: Horizontal

Test Plots

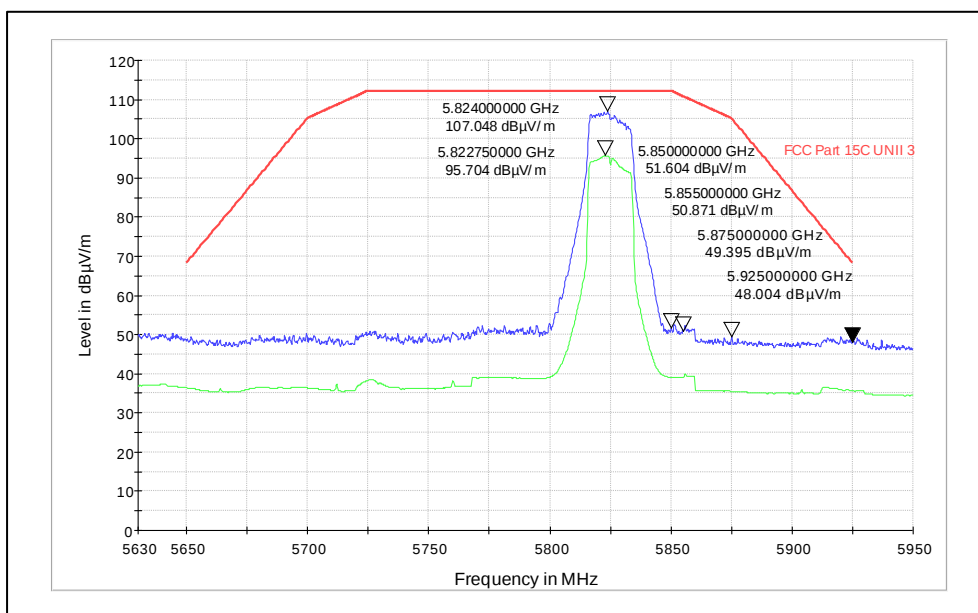
IN23HNHD 001 & IN23HH4B 001

Seite 31 von 83
Page 31 of 83

Channel frequency: 5825MHz



Polarization: Vertical



Polarization: Horizontal

Test Plots

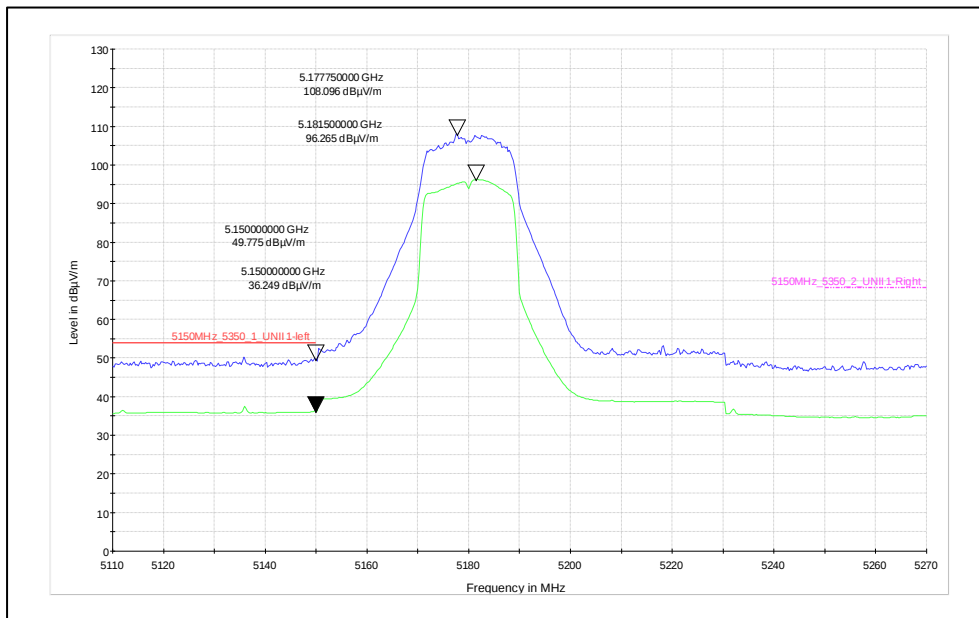
IN23HNHD 001 & IN23HH4B 001

Seite 32 von 83
Page 32 of 83

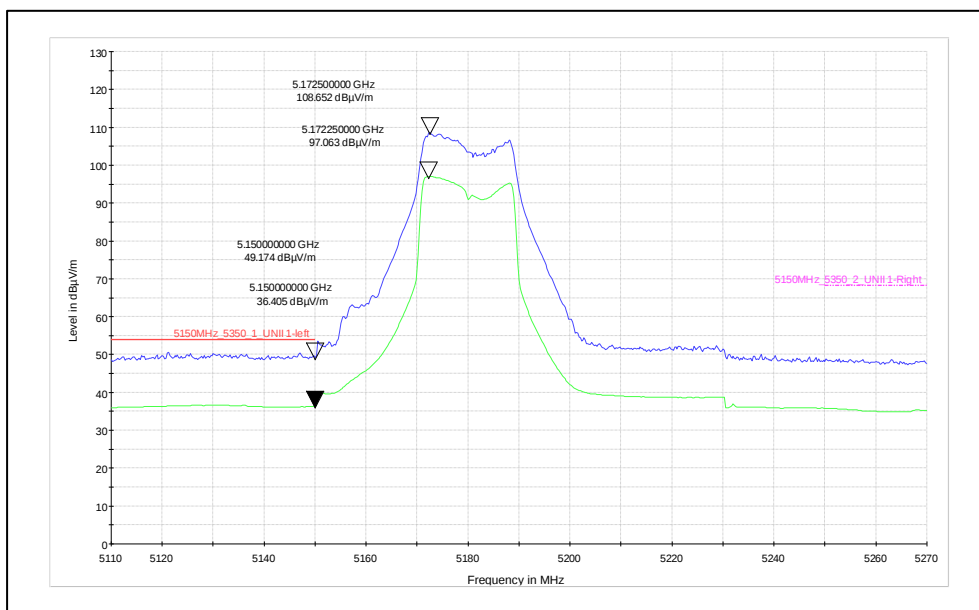
Modulation: 802.11ac

Data Rate: MCS8

Channel frequency: 5180MHz



Polarization: Vertical



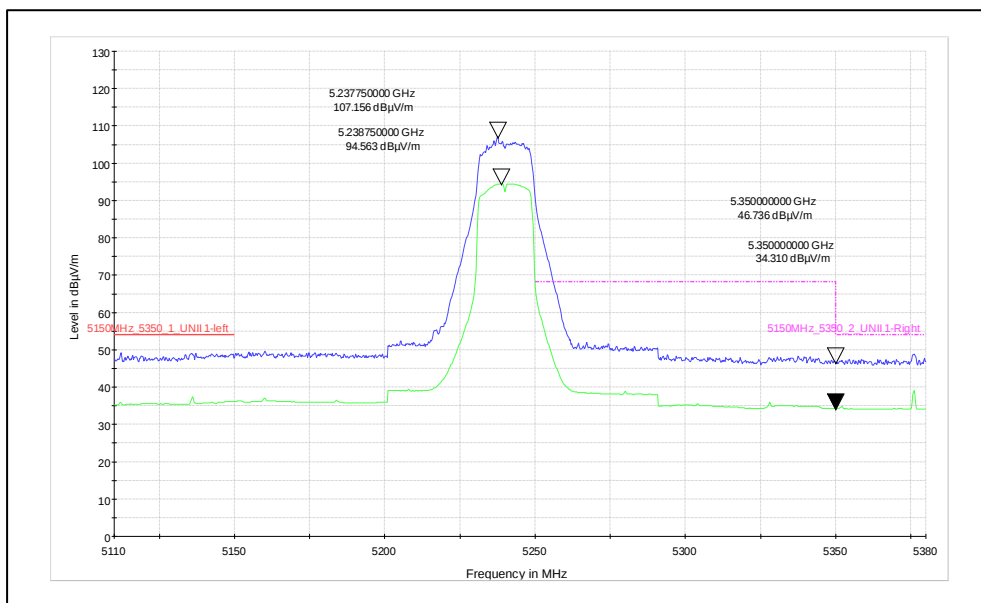
Polarization: Horizontal

Test Plots

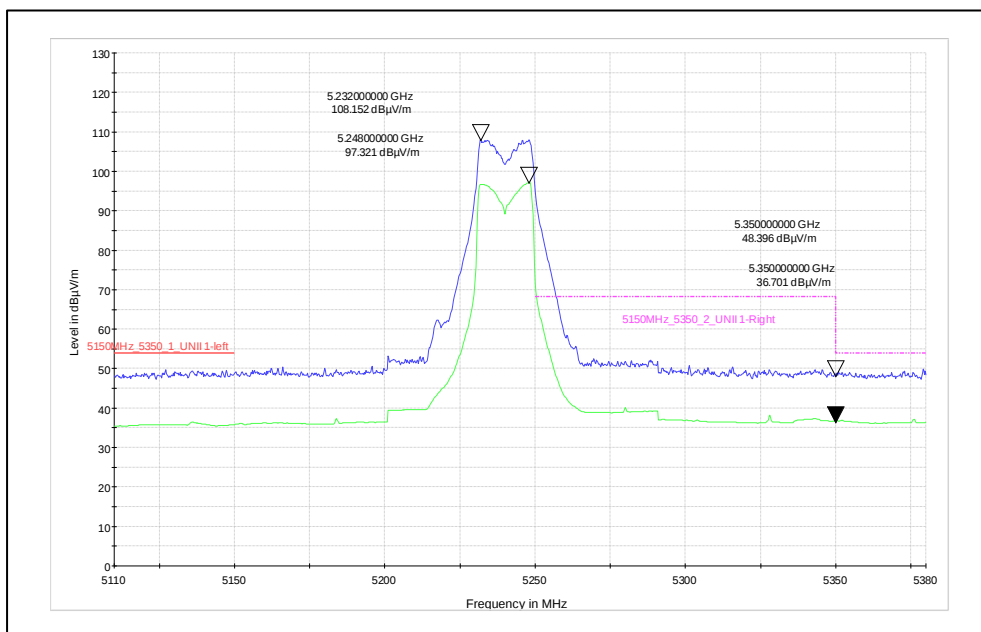
IN23HNHD 001 & IN23HH4B 001

Seite 33 von 83
Page 33 of 83

Channel frequency: 5240MHz



Polarization: Vertical



Polarization: Horizontal

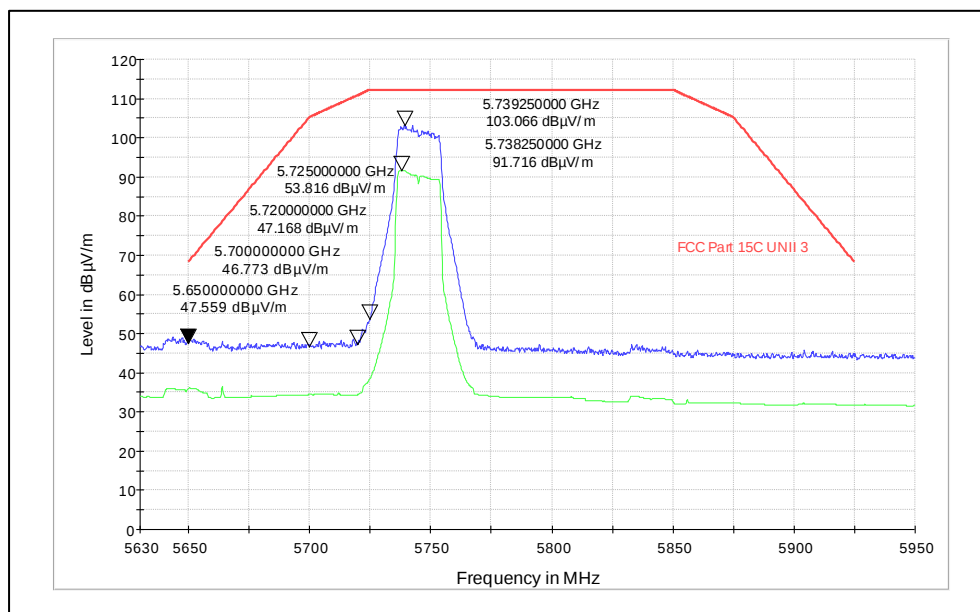
Test Plots

IN23HNHD 001 & IN23HH4B 001

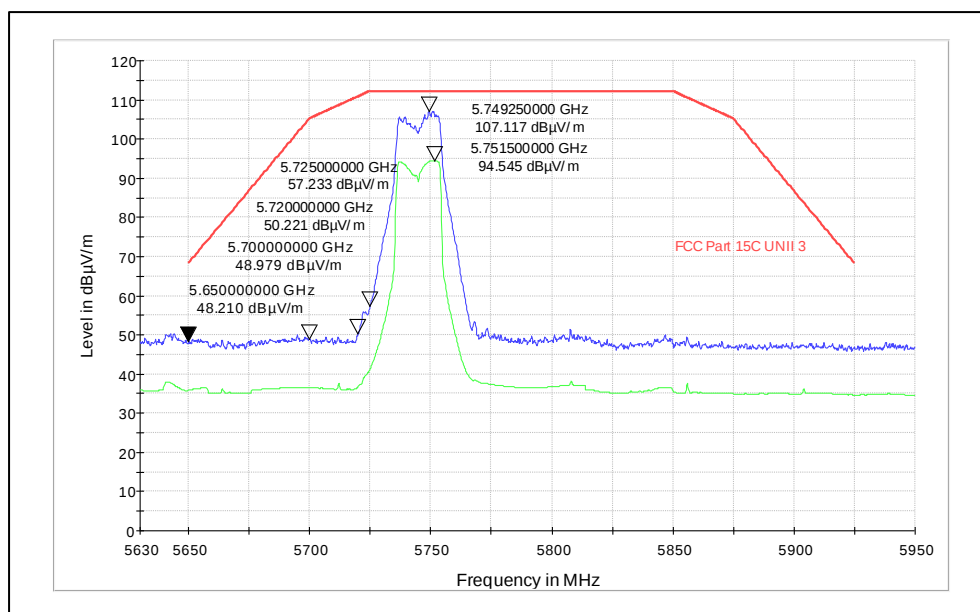
Seite 34 von 83

Page 34 of 83

Channel frequency: 5745MHz



Polarization: Vertical



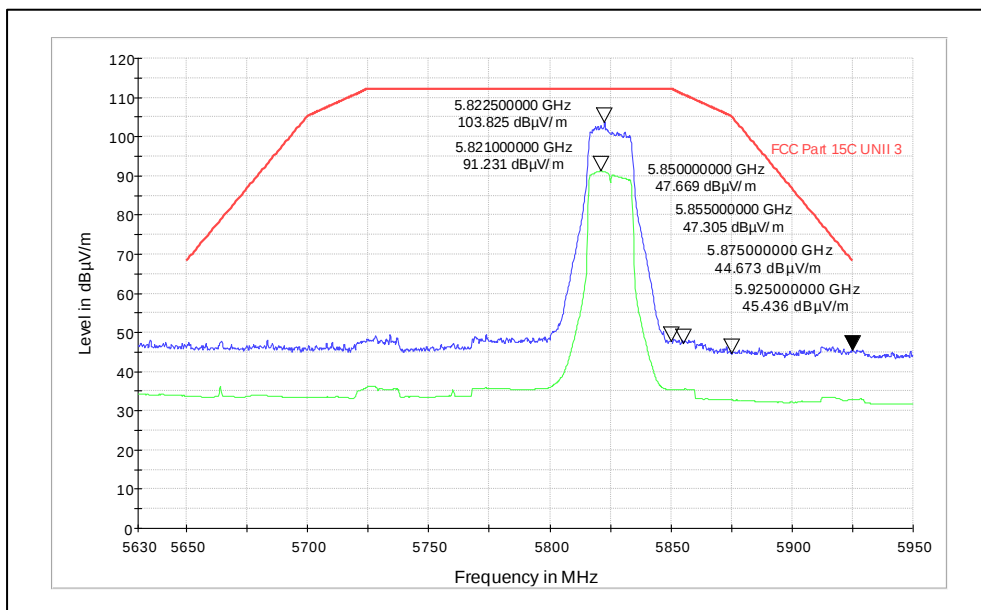
Polarization: Horizontal

Test Plots

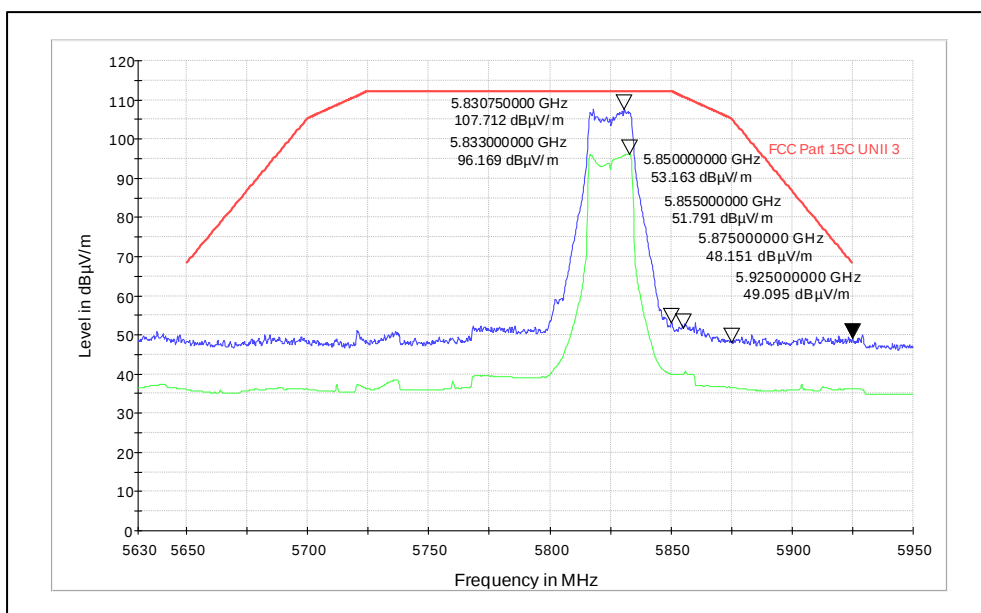
IN23HNHD 001 & IN23HH4B 001

Seite 35 von 83
Page 35 of 83

Channel frequency: 5825MHz



Polarization: Vertical



Polarization: Horizontal

Test Plots

IN23HNHD 001 & IN23HH4B 001

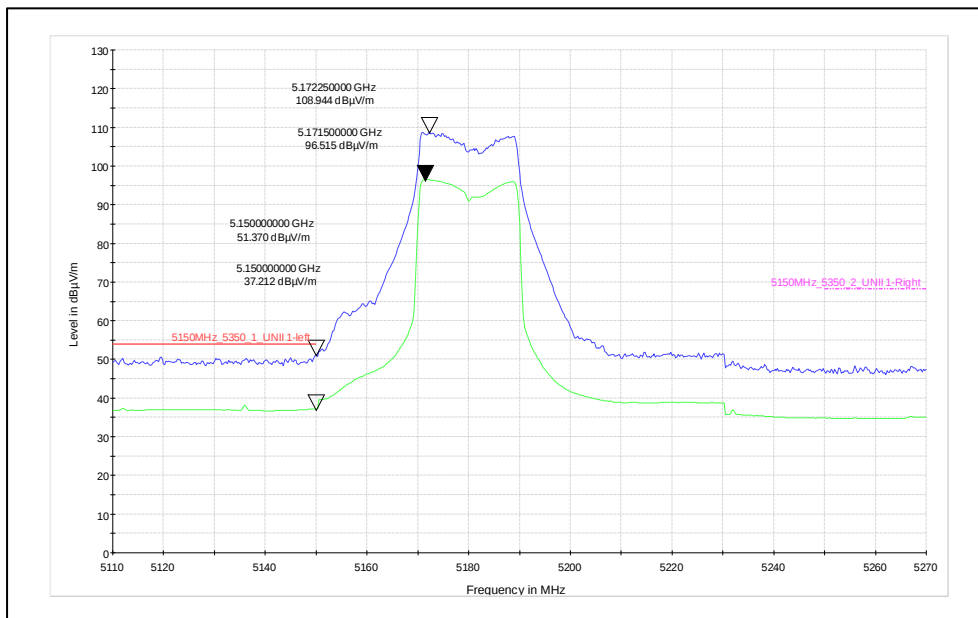
Seite 36 von 83

Page 36 of 83

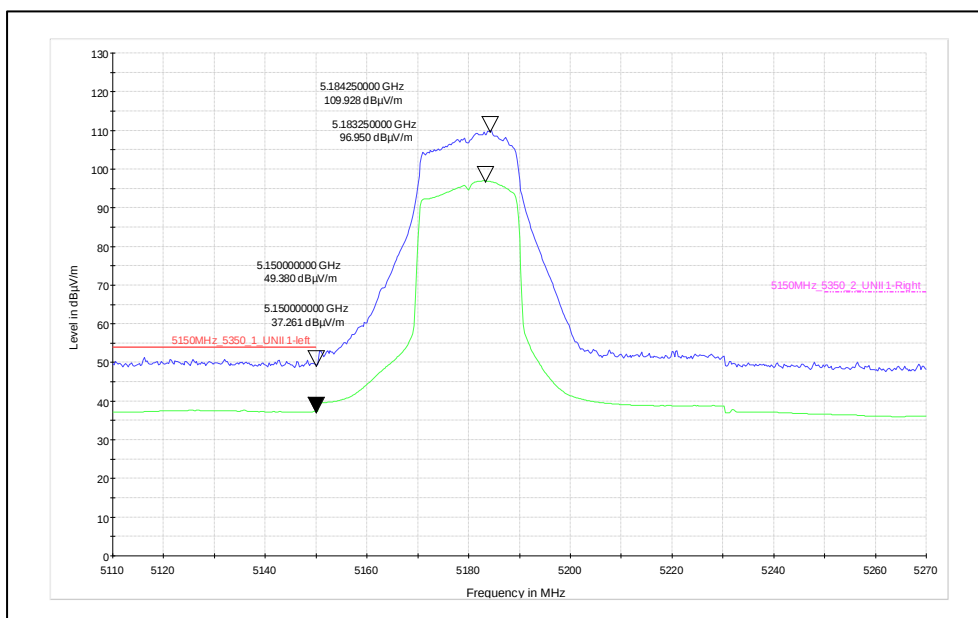
Modulation: 802.11ax

Data Rate: MCS11

Channel frequency: 5180MHz



Polarization: Vertical



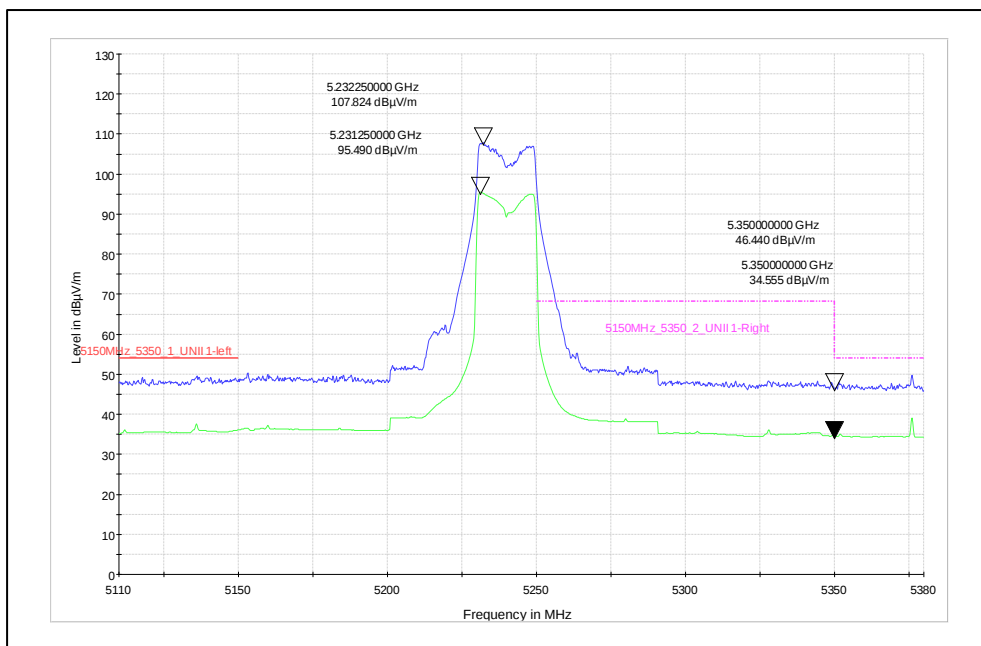
Polarization: Horizontal

Test Plots

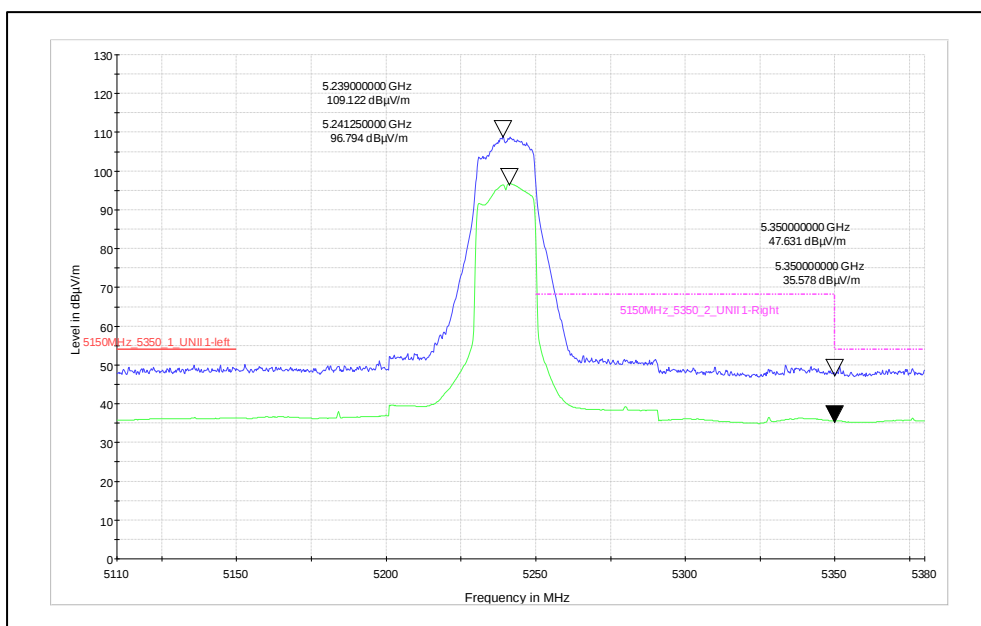
IN23HNHD 001 & IN23HH4B 001

Seite 37 von 83
Page 37 of 83

Channel frequency: 5240MHz



Polarization: Vertical



Polarization: Horizontal

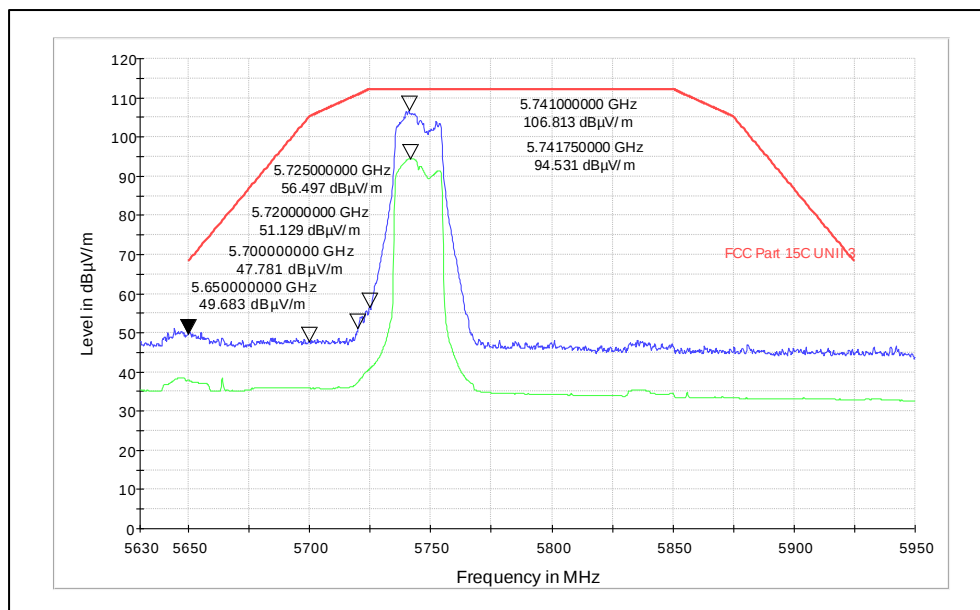
Test Plots

IN23HNHD 001 & IN23HH4B 001

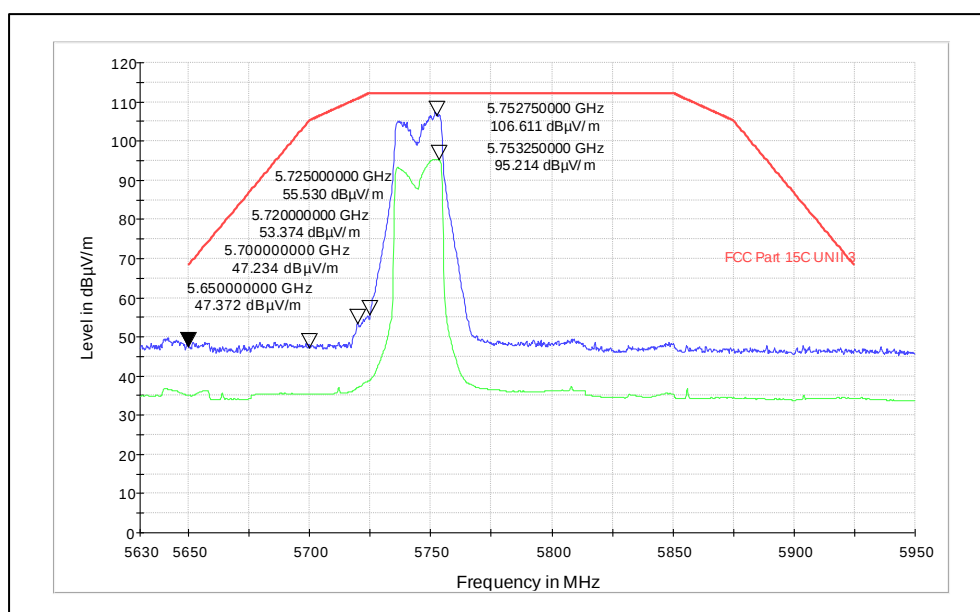
Seite 38 von 83

Page 38 of 83

Channel frequency: 5745MHz



Polarization: Vertical



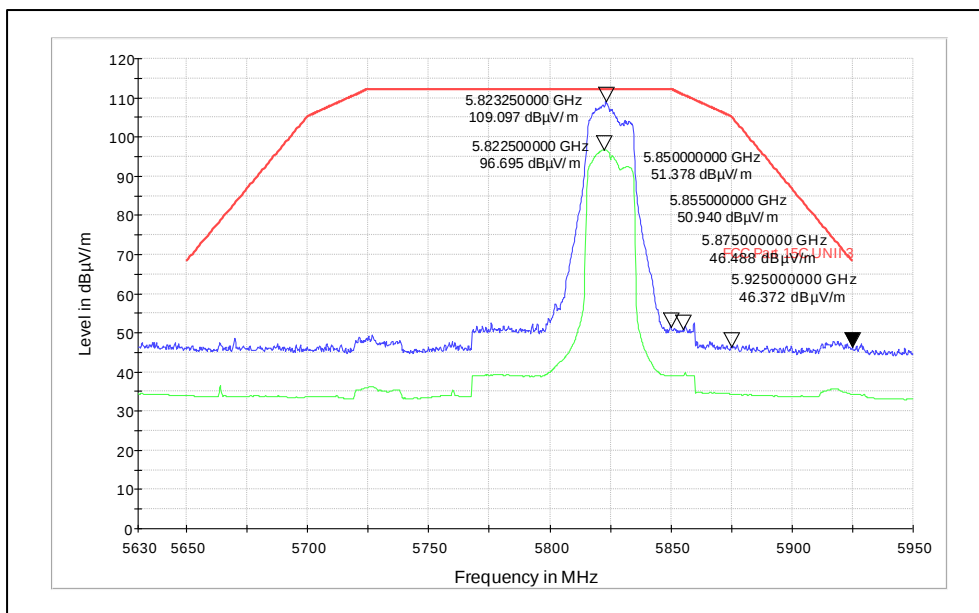
Polarization: Horizontal

Test Plots

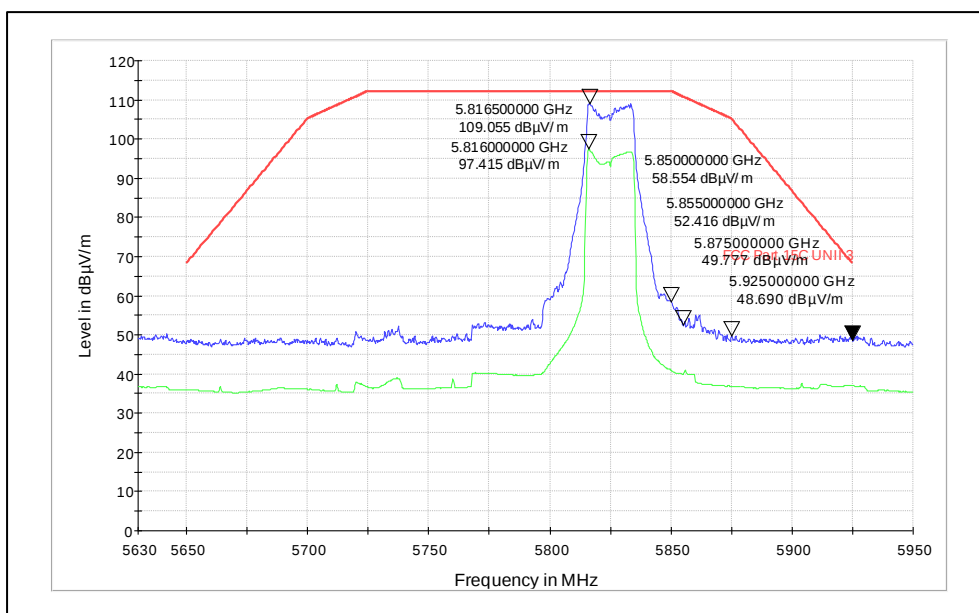
IN23HNHD 001 & IN23HH4B 001

Seite 39 von 83
Page 39 of 83

Channel frequency: 5825MHz



Polarization: Vertical



Polarization: Horizontal

Test Plots

IN23HNHD 001 & IN23HH4B 001

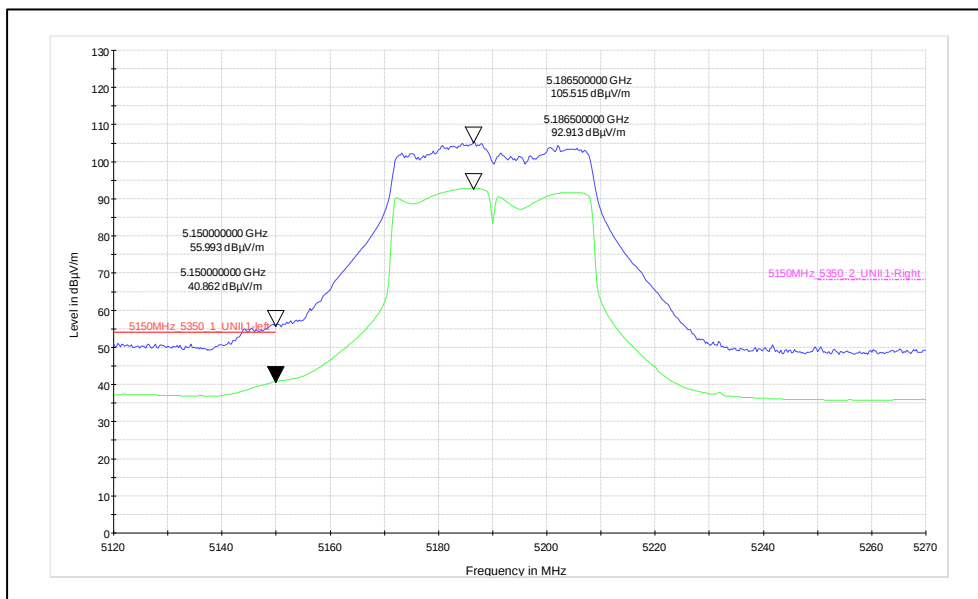
Seite 40 von 83

Page 40 of 83

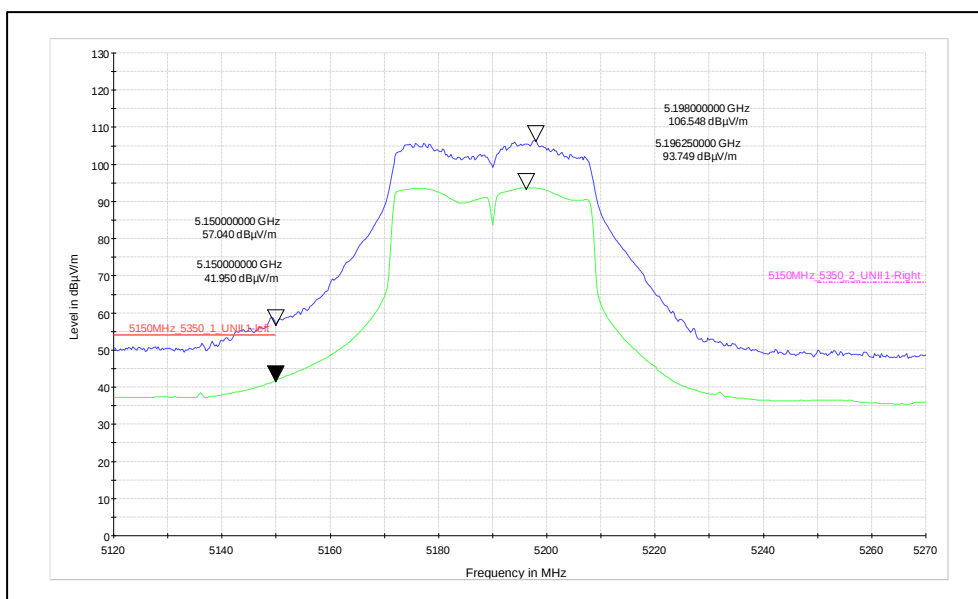
Modulation: 802.11n-40MHz

Data Rate: MCS7

Channel frequency: 5190MHz



Polarization: Vertical



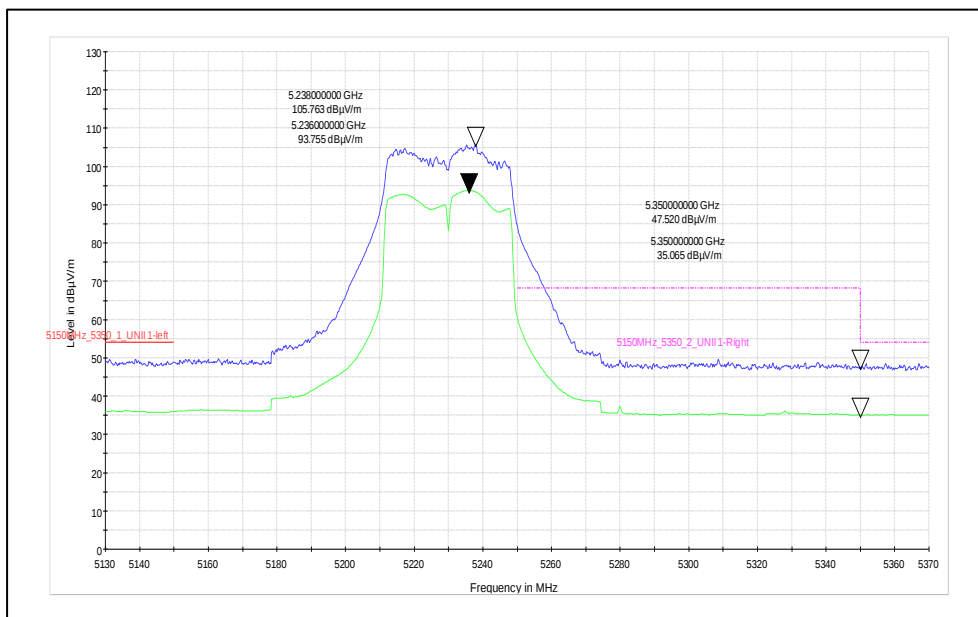
Polarization: Horizontal

Test Plots

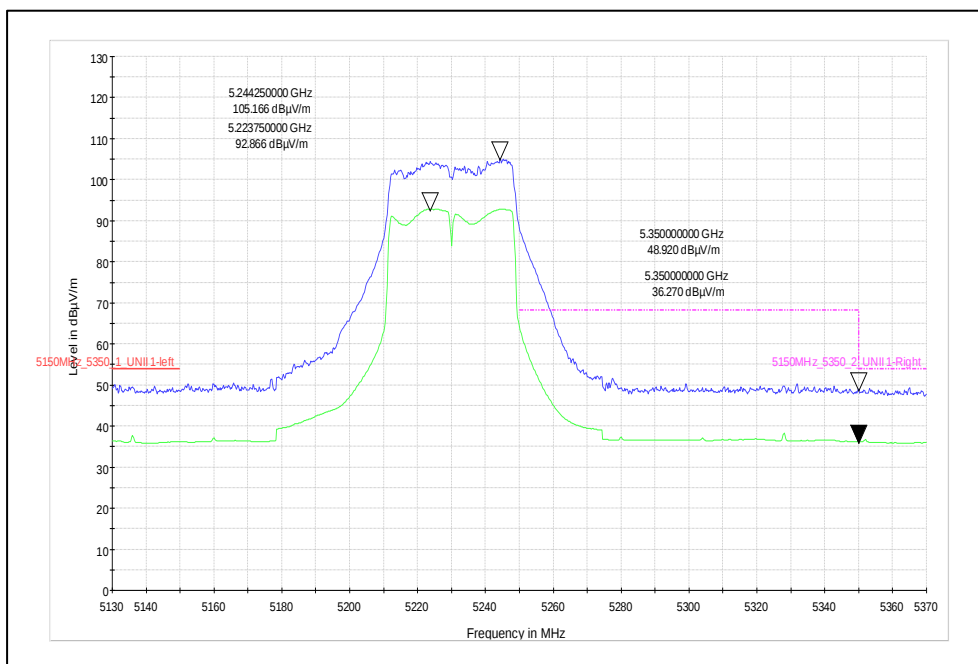
IN23HNHD 001 & IN23HH4B 001

Seite 41 von 83
Page 41 of 83

Channel frequency: 5230MHz



Polarization: Vertical



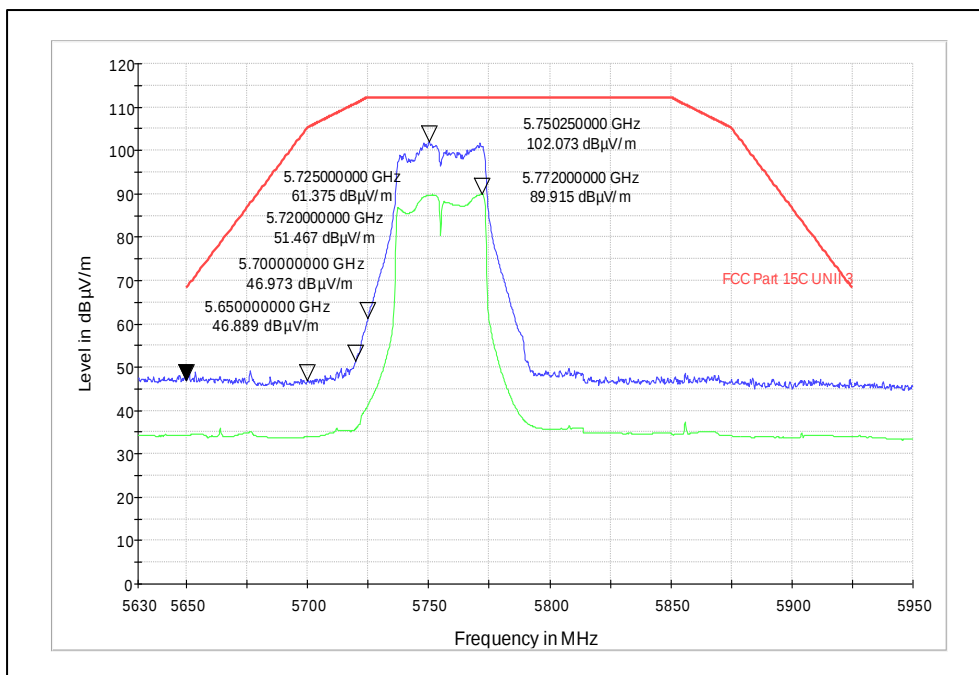
Polarization: Horizontal

Test Plots

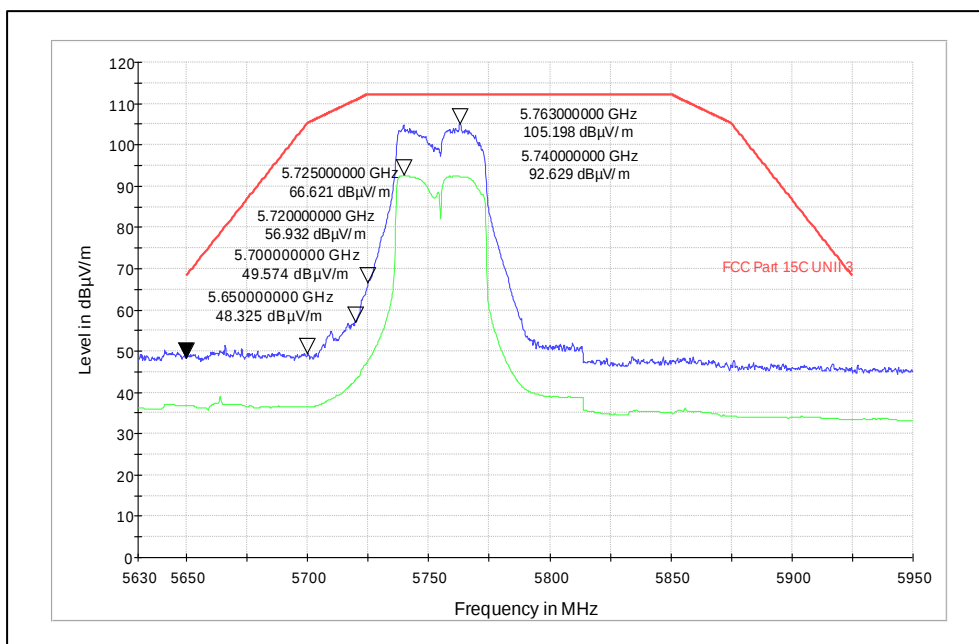
IN23HNHD 001 & IN23HH4B 001

Seite 42 von 83
Page 42 of 83

Channel frequency: 5755MHz



Polarization: Vertical



Polarization: Horizontal

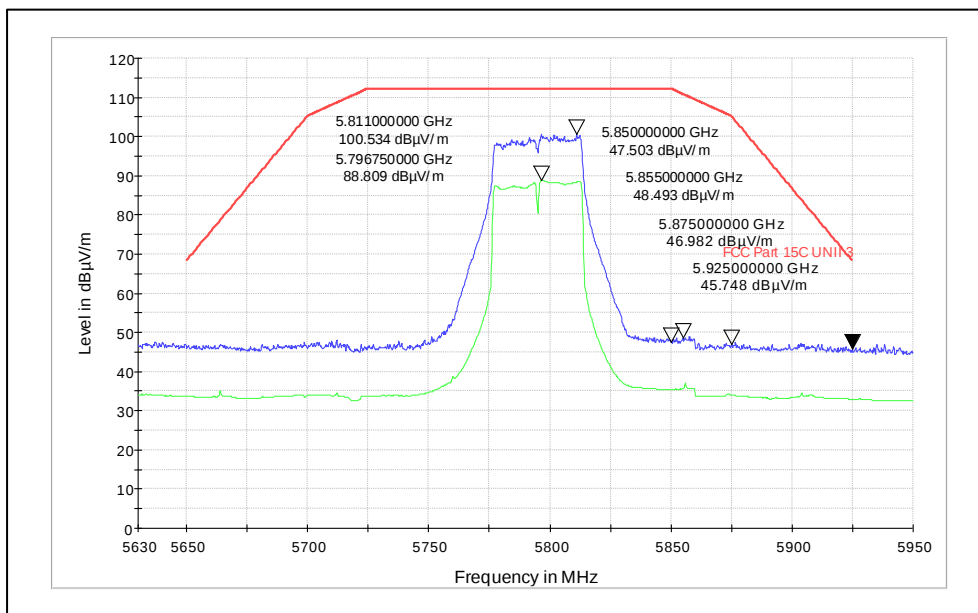
Test Plots

IN23HNHD 001 & IN23HH4B 001

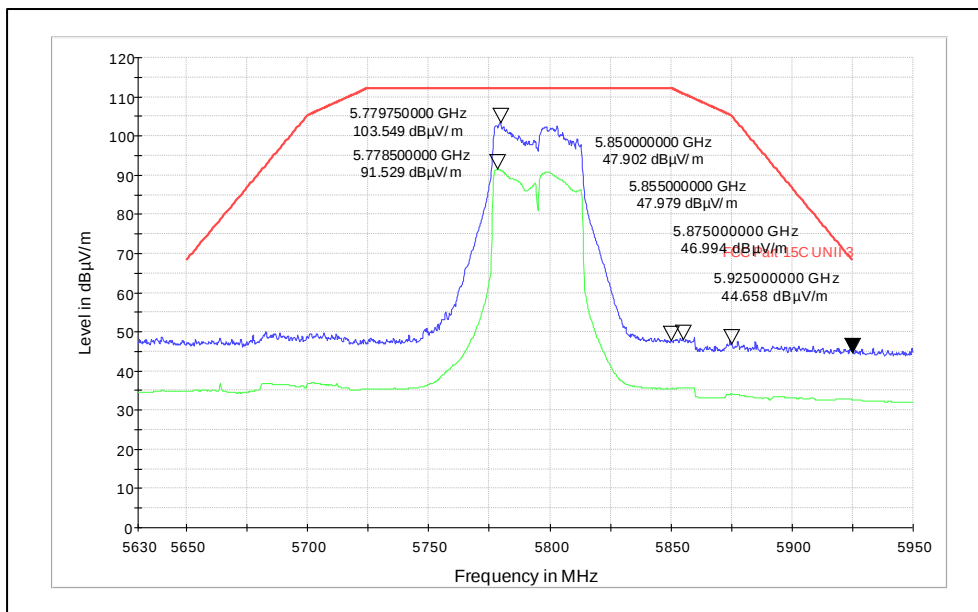
Seite 43 von 83

Page 43 of 83

Channel frequency: 5795MHz



Polarization: Vertical



Polarization: Horizontal

Test Plots

IN23HNHD 001 & IN23HH4B 001

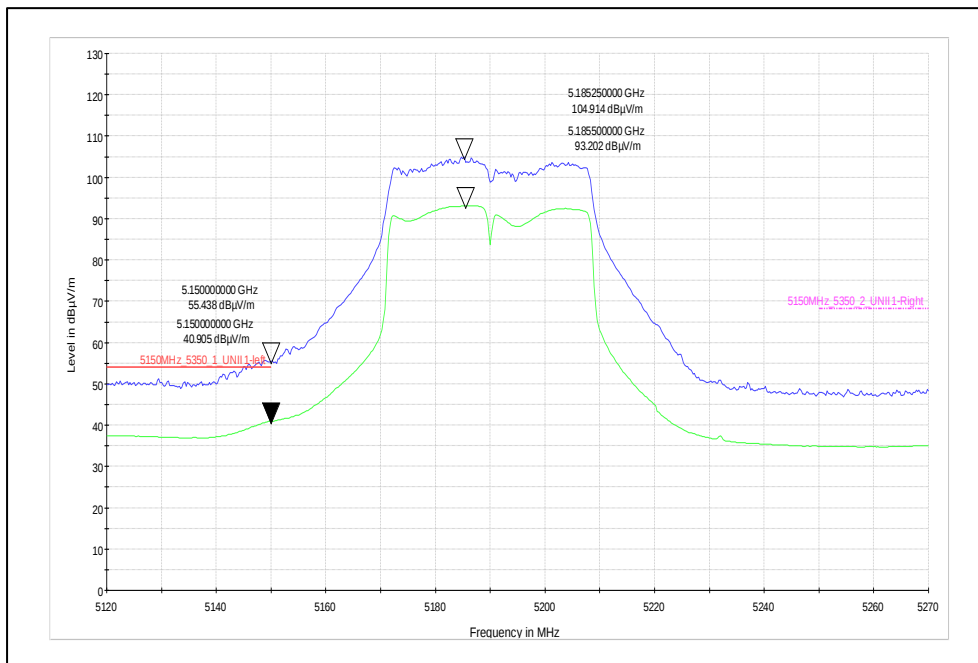
Seite 44 von 83

Page 44 of 83

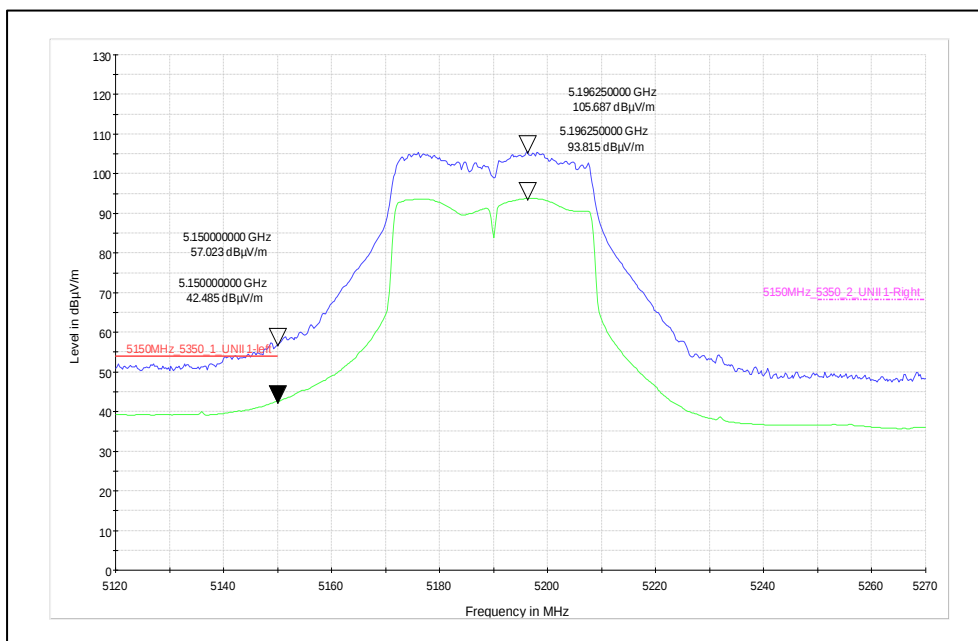
Modulation: 802.11 ac_ 40 MHz

Data Rate: MCS9

Channel frequency: 5190MHz



Polarization: Vertical



Polarization: Horizontal

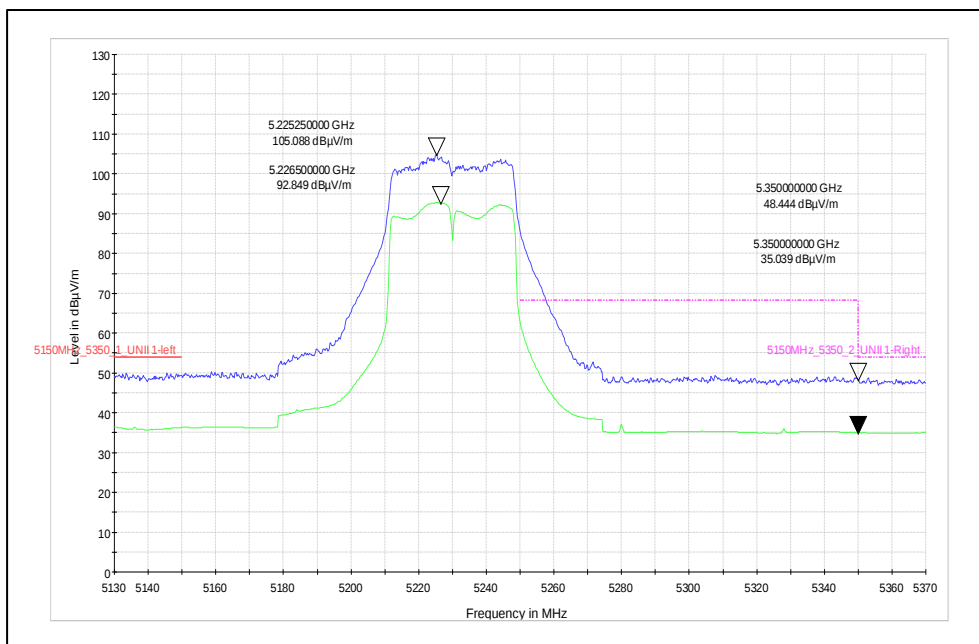
Test Plots

IN23HNHD 001 & IN23HH4B 001

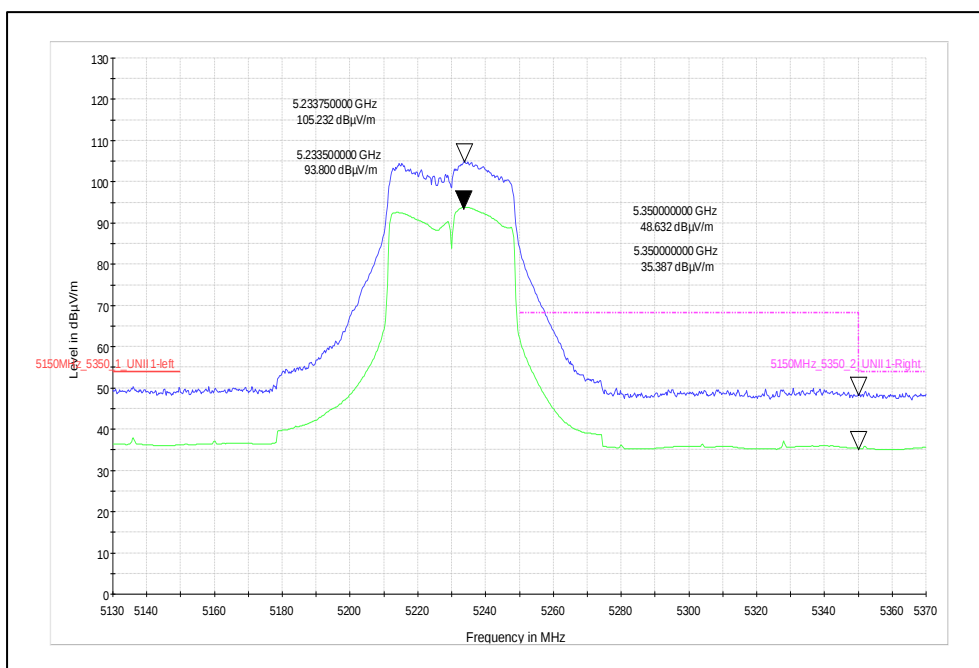
Seite 45 von 83

Page 45 of 83

Channel frequency: 5230MHz



Polarization: Vertical



Polarization: Horizontal

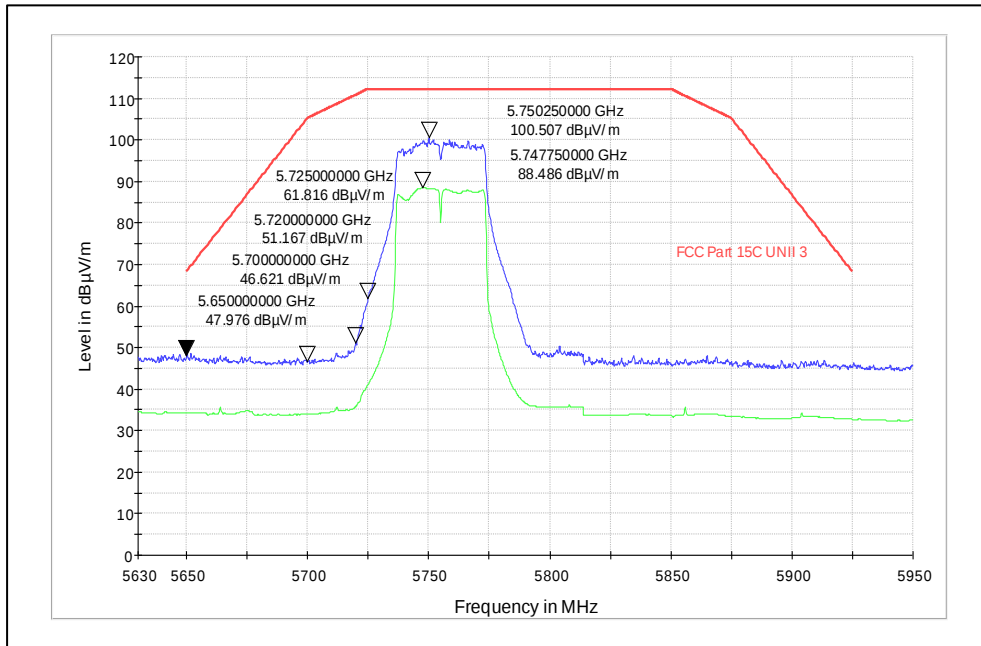
Test Plots

IN23HNHD 001 & IN23HH4B 001

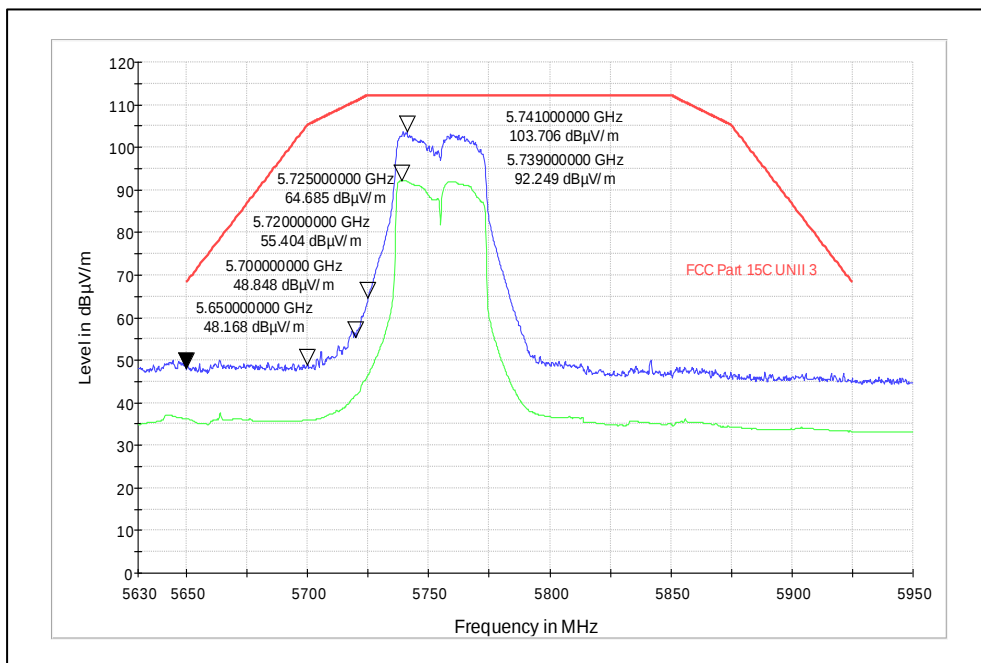
Seite 46 von 83

Page 46 of 83

Channel frequency: 5755MHz



Polarization: Vertical



Polarization: Horizontal

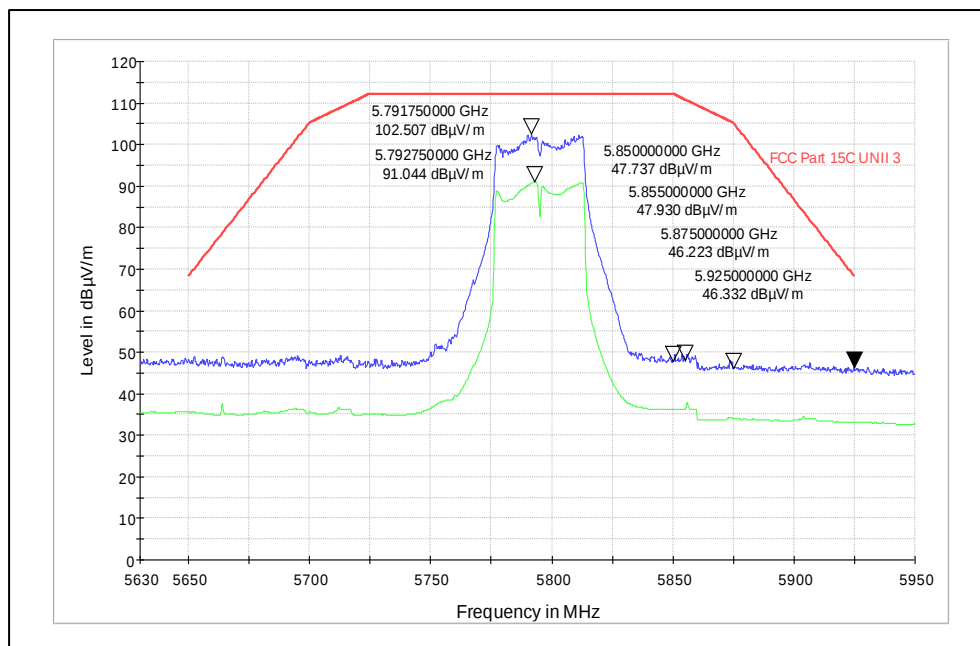
Test Plots

IN23HNHD 001 & IN23HH4B 001

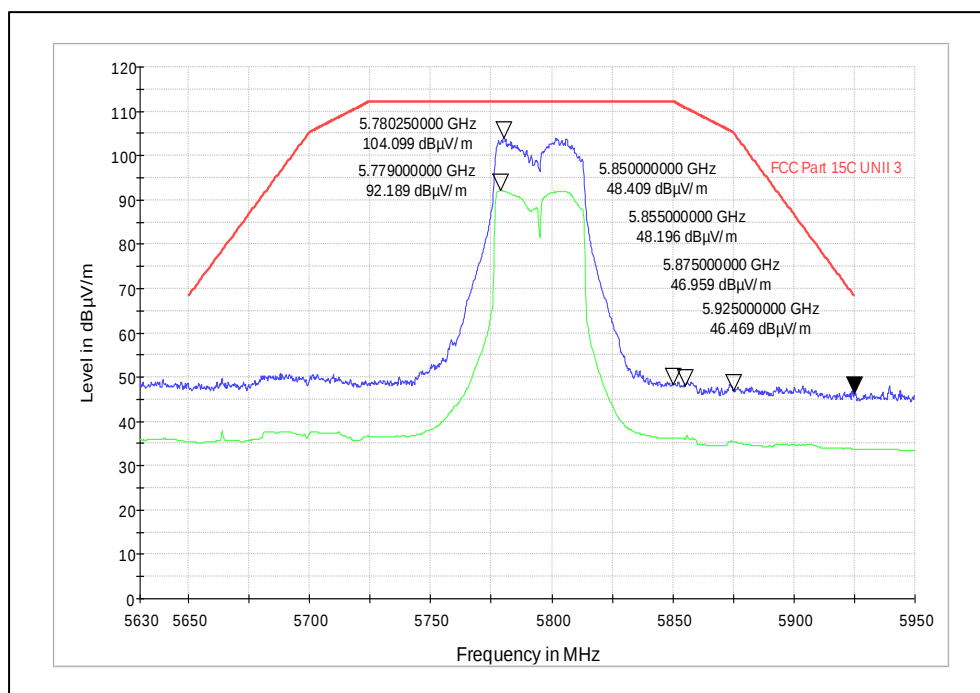
Seite 47 von 83

Page 47 of 83

Channel frequency: 5795MHz



Polarization: Vertical



Polarization: Horizontal

Test Plots

IN23HNHD 001 & IN23HH4B 001

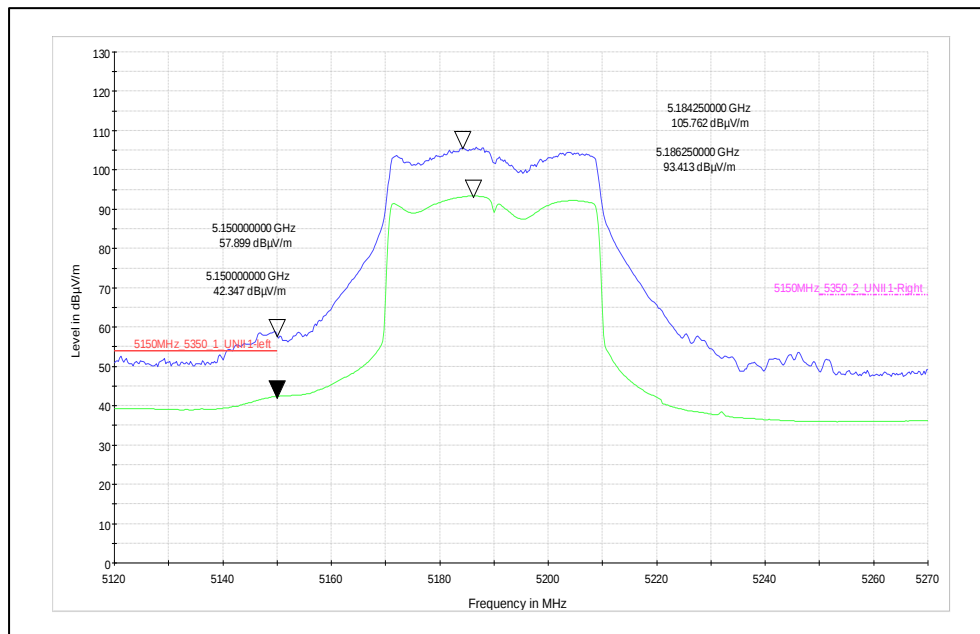
Seite 48 von 83

Page 48 of 83

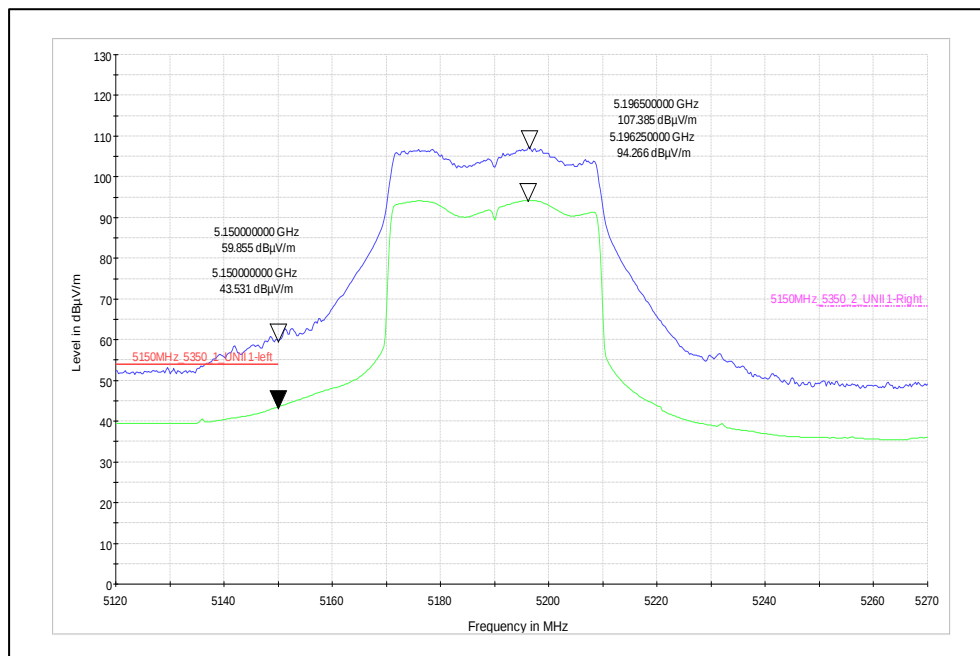
Modulation: 802.11 ax_ 40 MHz

Data Rate: MCS11

Channel frequency: 5190MHz



Polarization: Vertical



Polarization: Horizontal

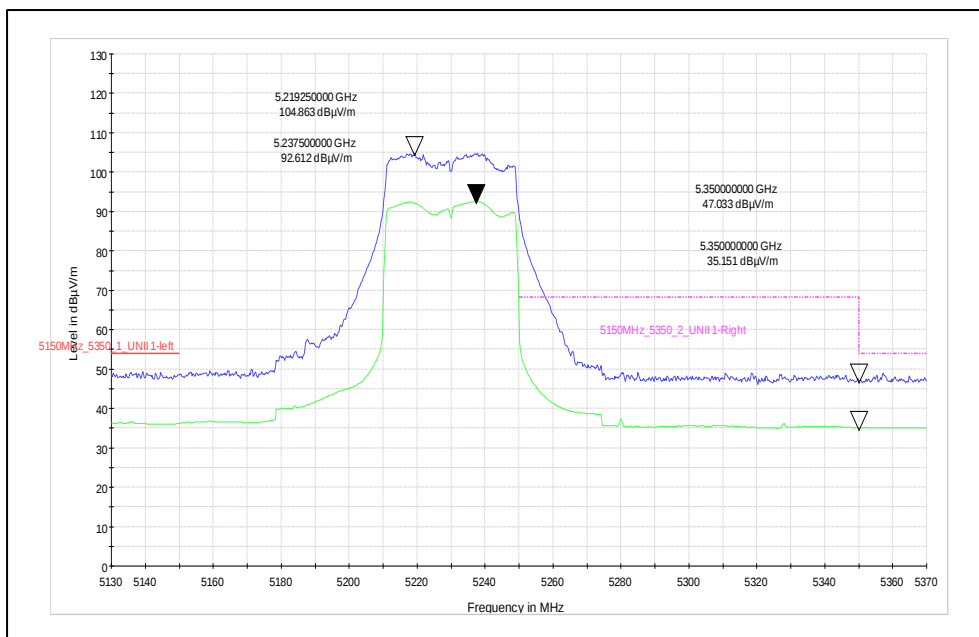
Test Plots

IN23HNHD 001 & IN23HH4B 001

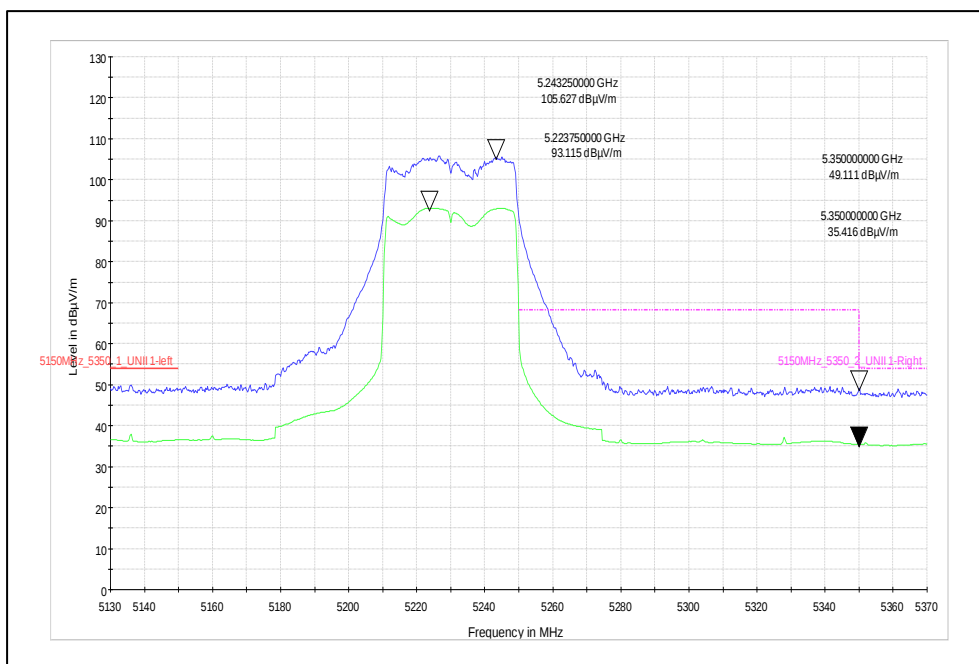
Seite 49 von 83

Page 49 of 83

Channel frequency: 5230MHz



Polarization: Vertical



Polarization: Horizontal

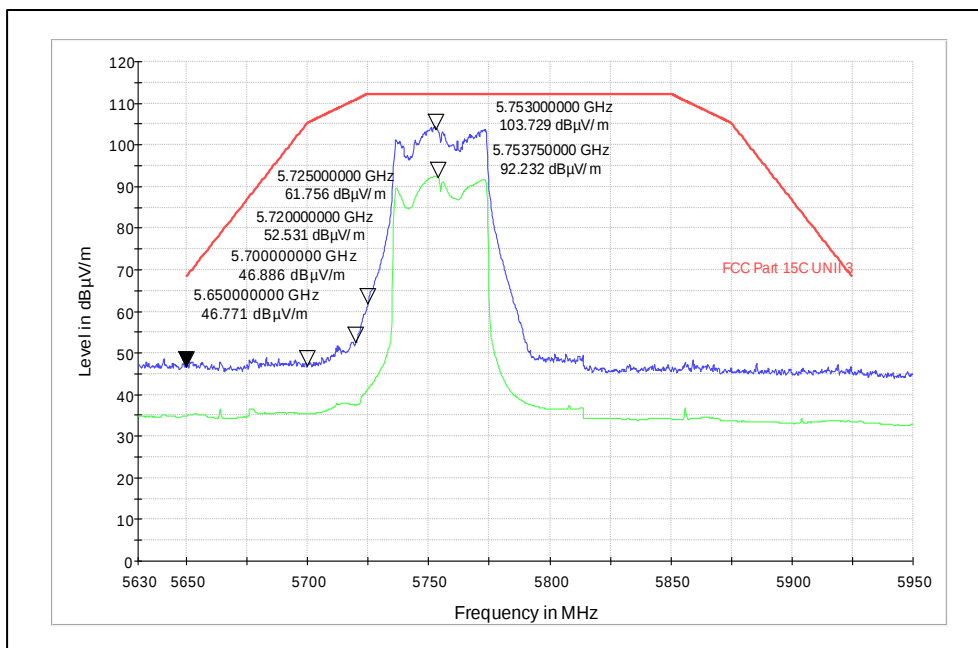
Test Plots

IN23HNHD 001 & IN23HH4B 001

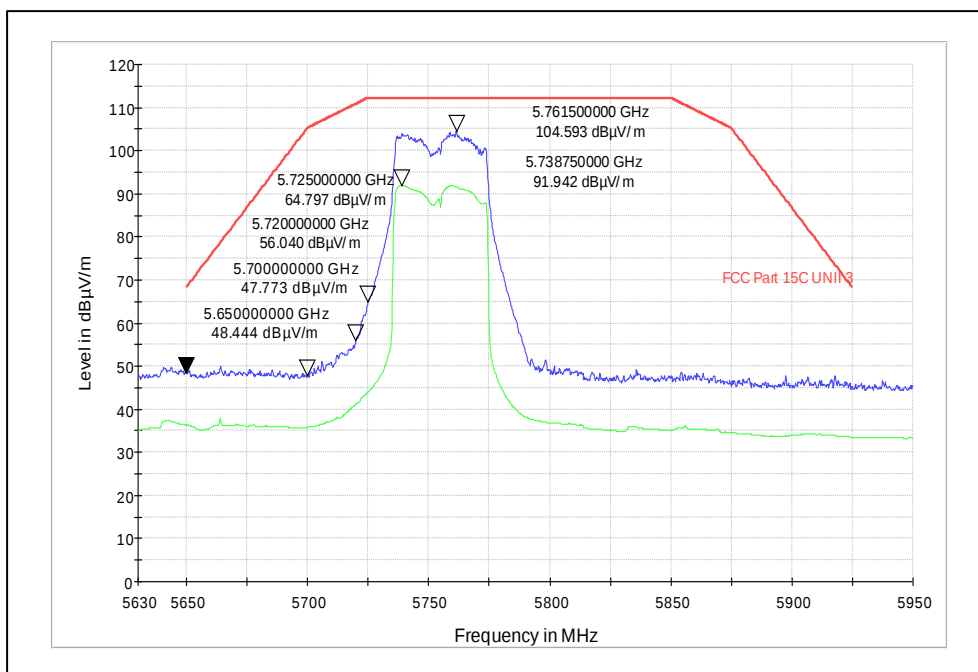
Seite 50 von 83

Page 50 of 83

Channel frequency: 5755MHz



Polarization: Vertical



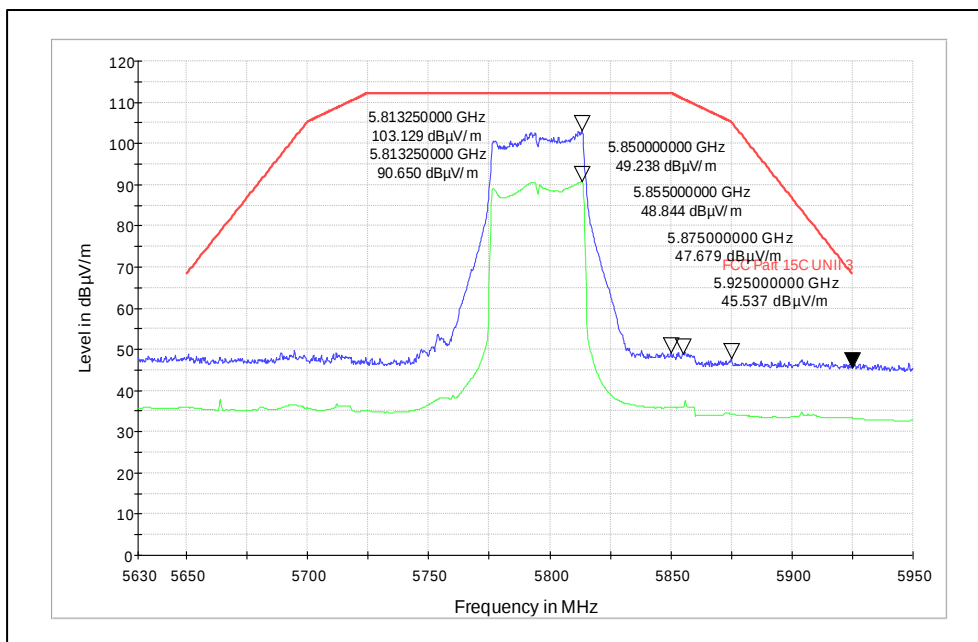
Polarization: Horizontal

Test Plots

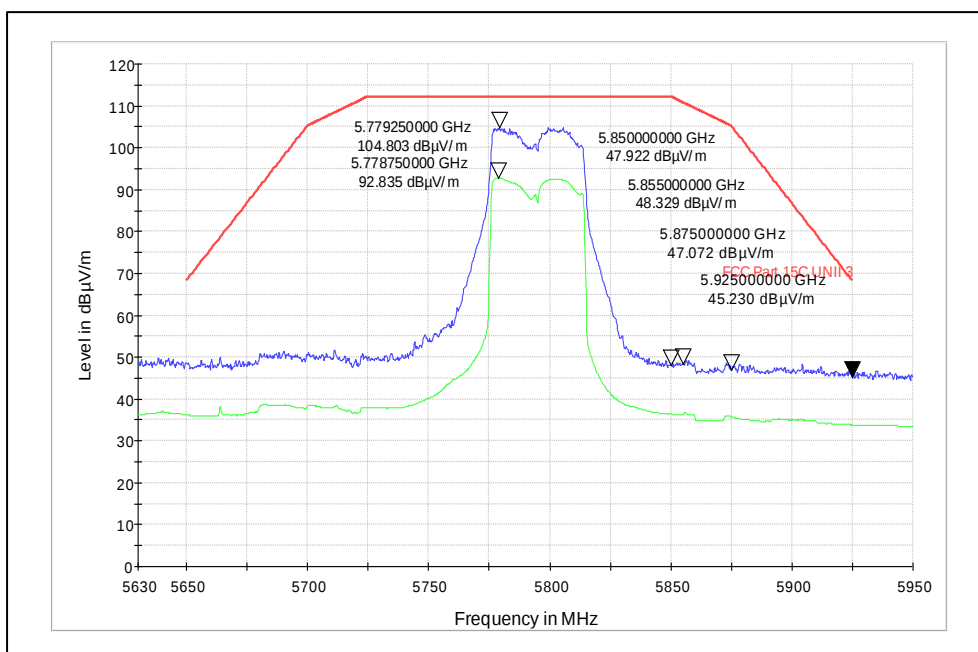
IN23HNHD 001 & IN23HH4B 001

Seite 51 von 83
Page 51 of 83

Channel frequency: 5795MHz



Polarization: Vertical



Polarization: Horizontal

Test Plots

IN23HNHD 001 & IN23HH4B 001

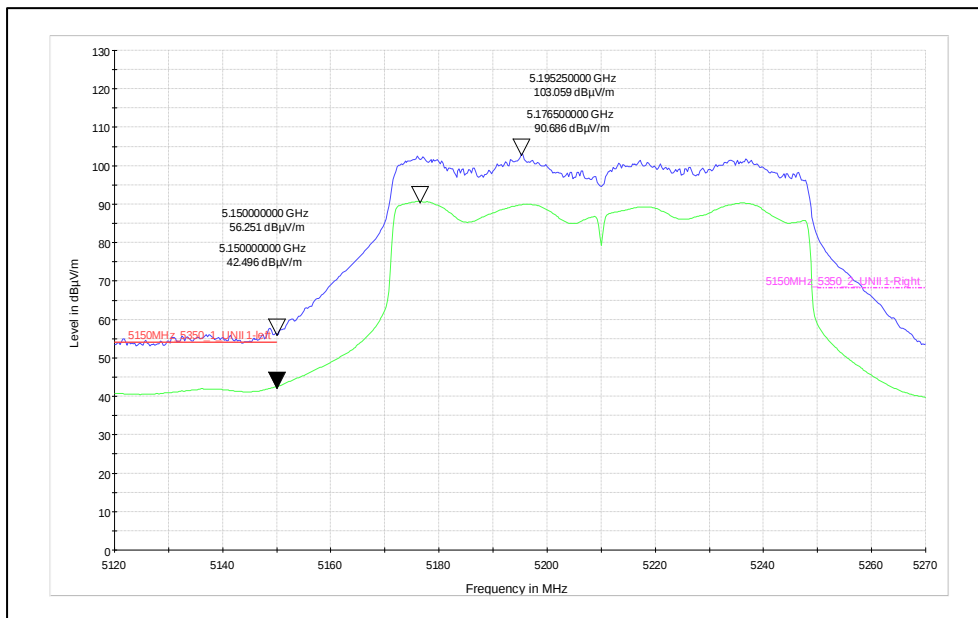
Seite 52 von 83

Page 52 of 83

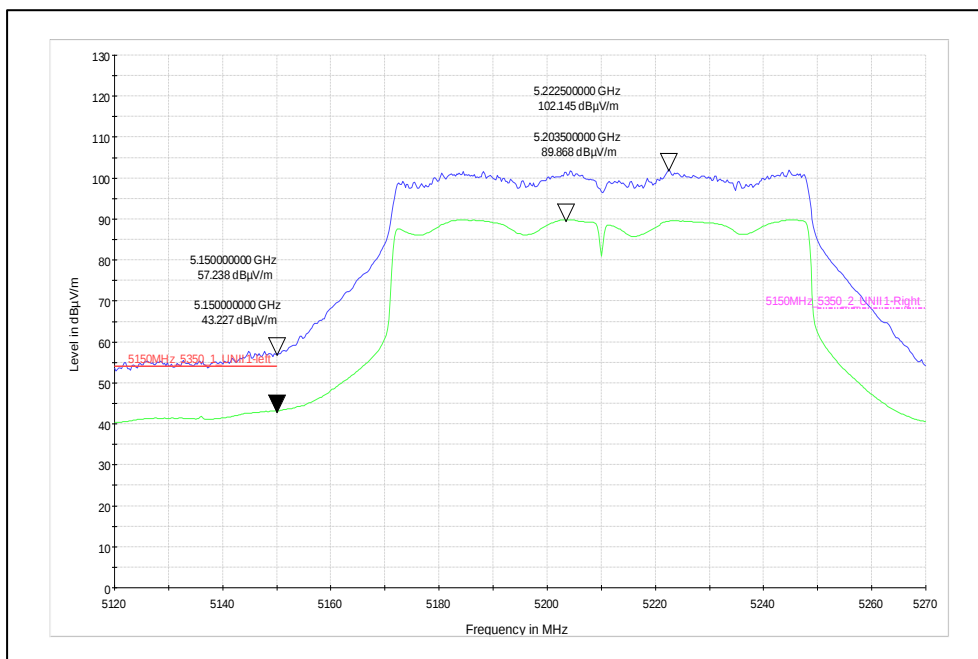
Modulation: 802.11 ac_ 80 MHz

Data Rate: MCS9

Channel frequency: 5210MHz



Polarization: Vertical



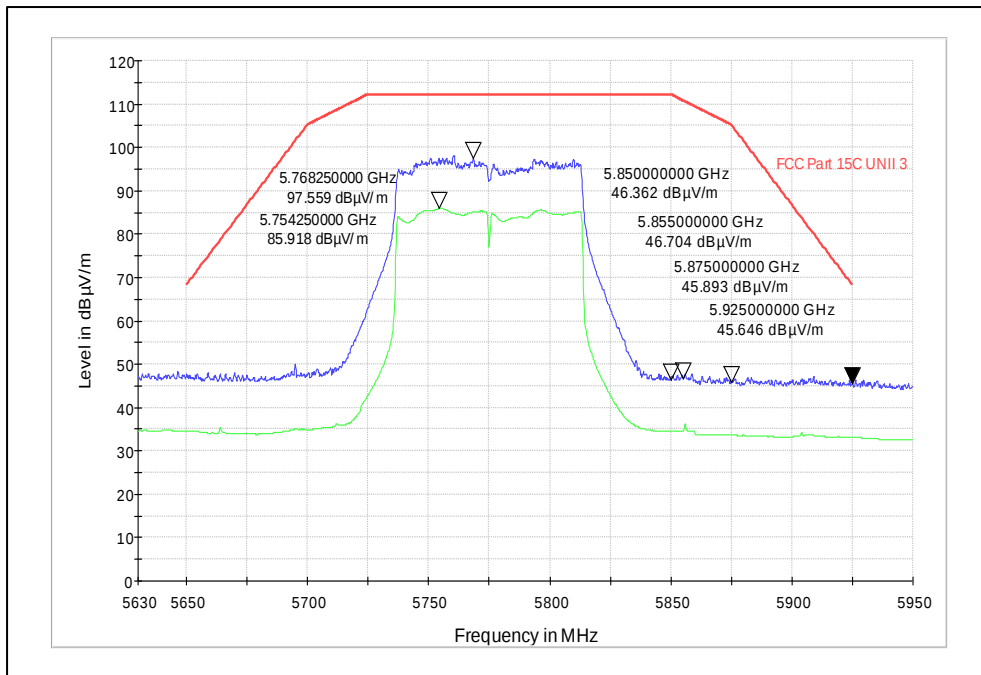
Polarization: Horizontal

Test Plots

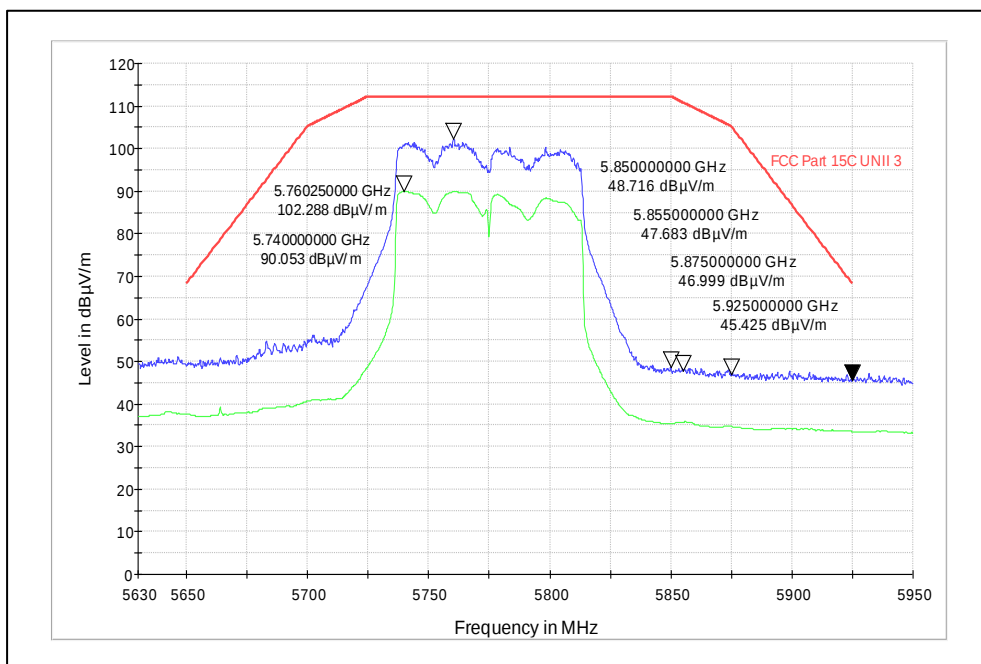
IN23HNHD 001 & IN23HH4B 001

Seite 53 von 83
Page 53 of 83

Channel frequency: 5775MHz



Polarization: Vertical



Polarization: Horizontal

Test Plots

IN23HNHD 001 & IN23HH4B 001

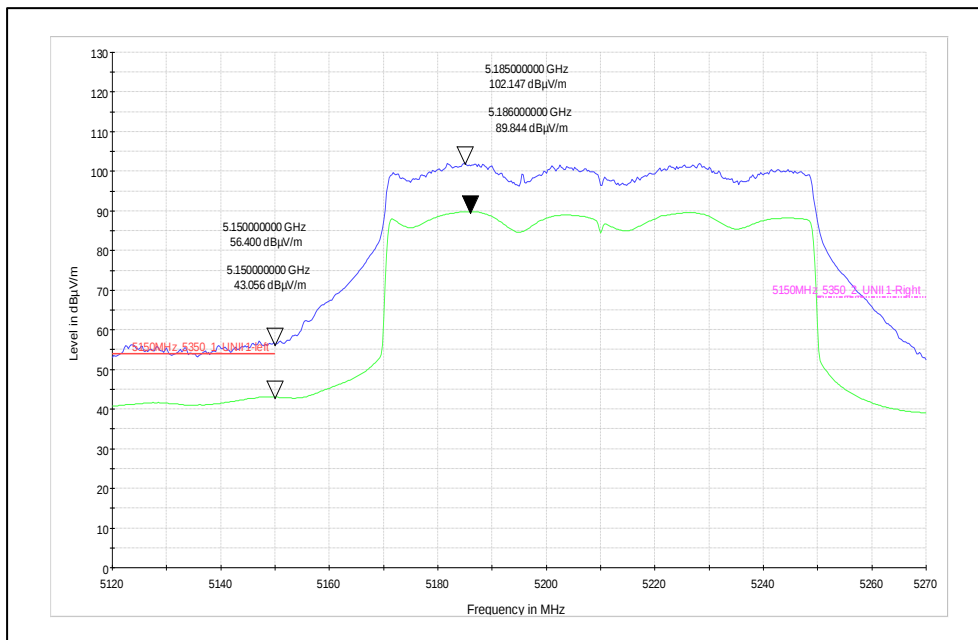
Seite 54 von 83

Page 54 of 83

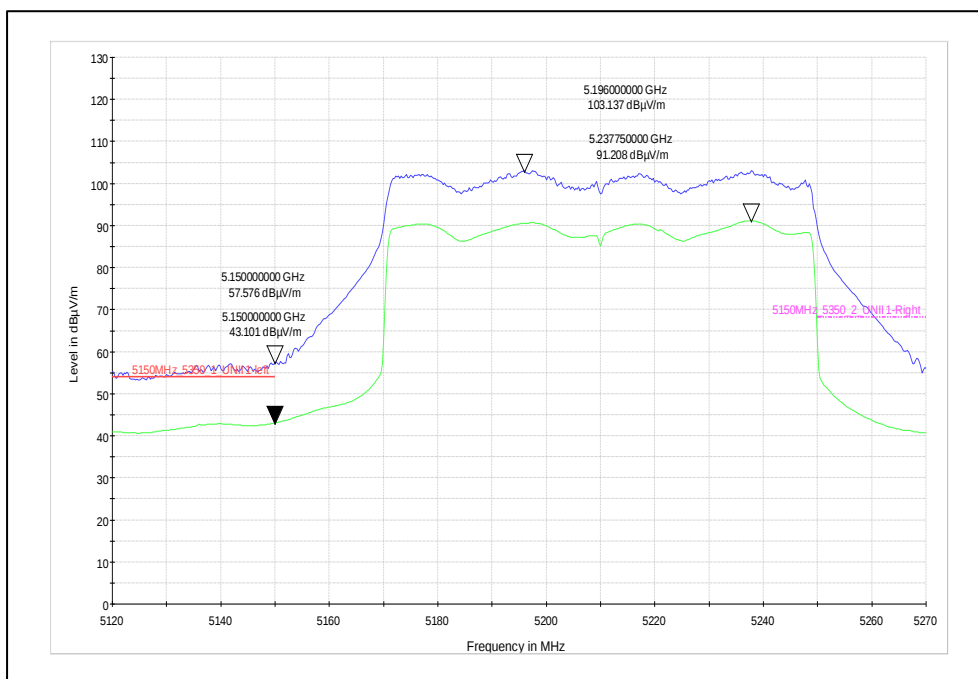
Modulation: 802.11 ax_ 80 MHz

Data Rate: MCS11

Channel frequency: 5210MHz



Polarization: Vertical



Polarization: Horizontal

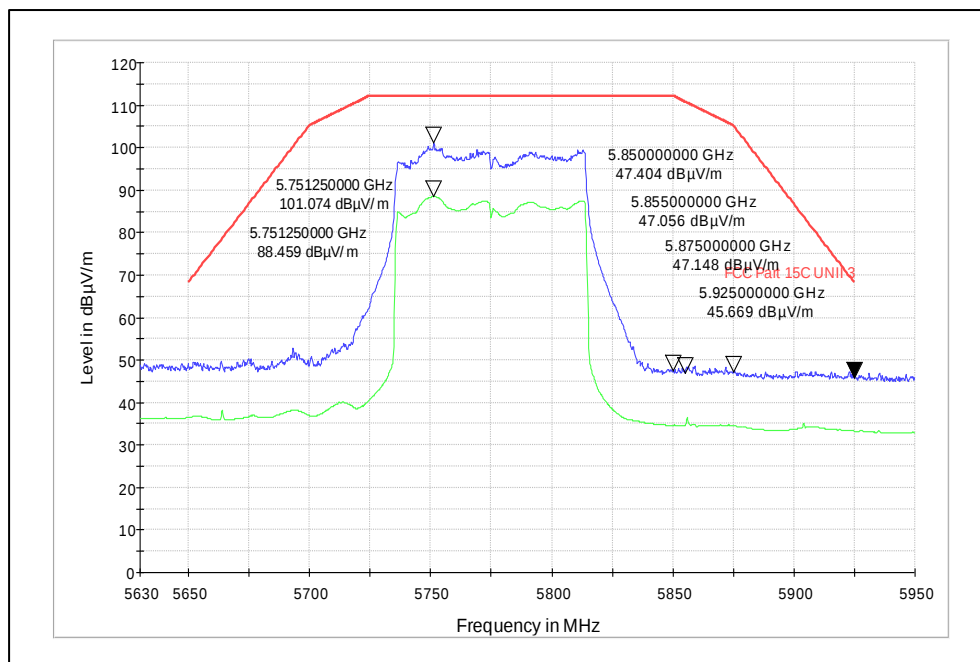
Test Plots

IN23HNHD 001 & IN23HH4B 001

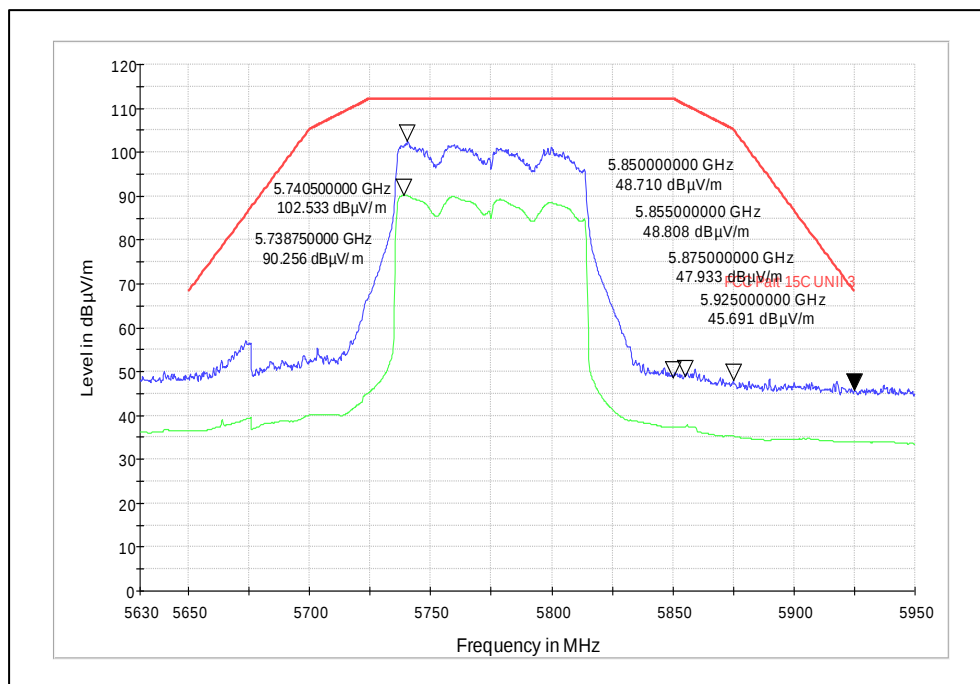
Seite 55 von 83

Page 55 of 83

Channel frequency: 5775MHz



Polarization: Vertical



Polarization: Horizontal

Test Plots

IN23HNHD 001 & IN23HH4B 001

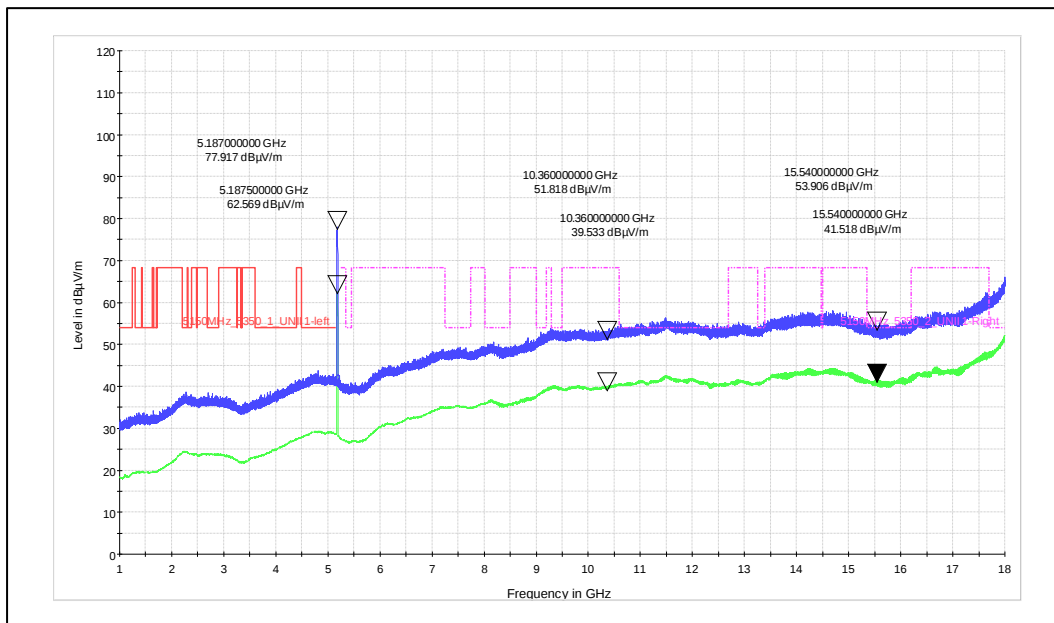
Seite 56 von 83

Page 56 of 83

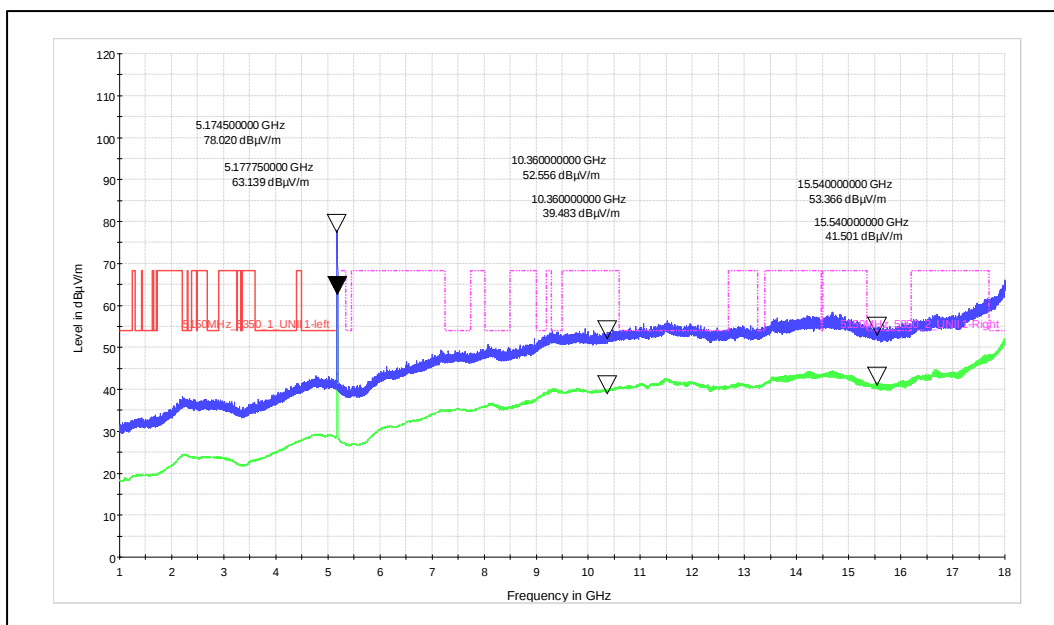
Modulation: 802.11 a_ 20 MHz

Data Rate: 54 Mbps

Channel frequency: 5180MHz



Polarization: Vertical



Polarization: Horizontal

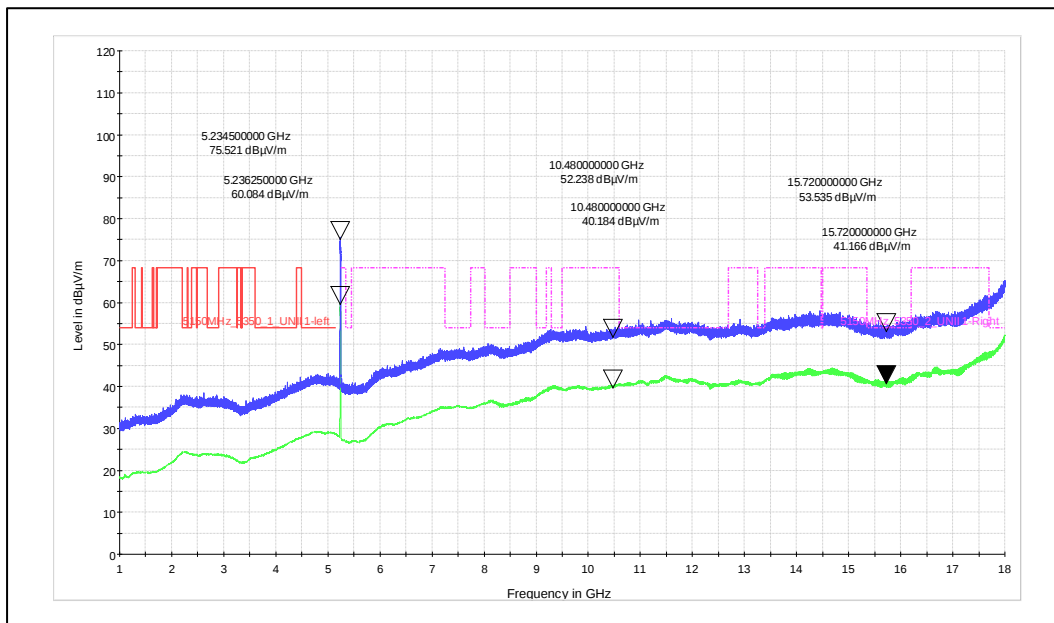
Test Plots

IN23HNHD 001 & IN23HH4B 001

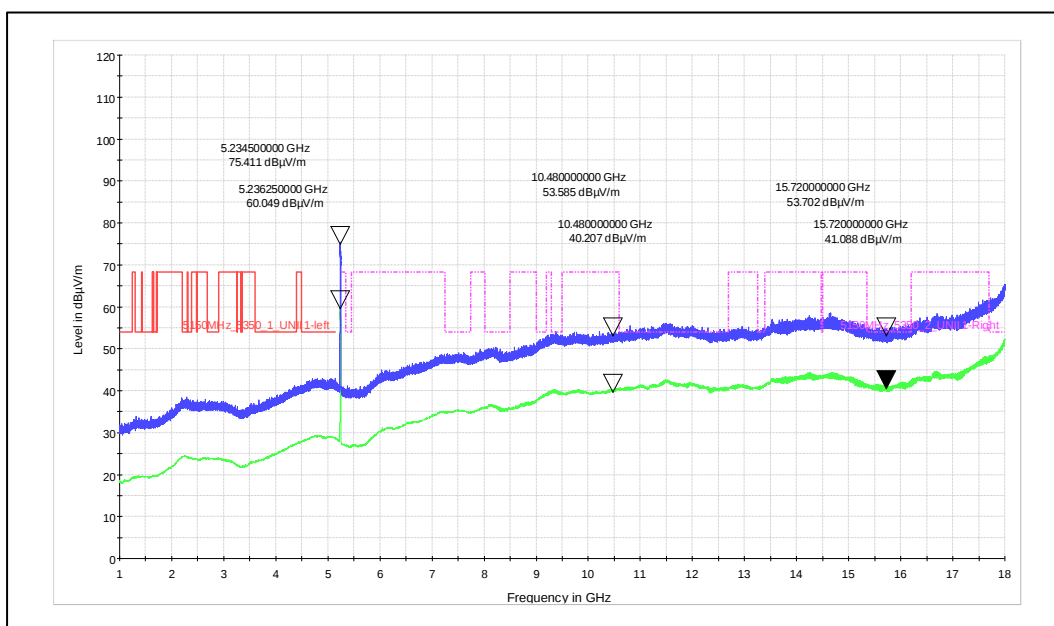
Seite 57 von 83

Page 57 of 83

Channel frequency: 5240MHz



Polarization: Vertical



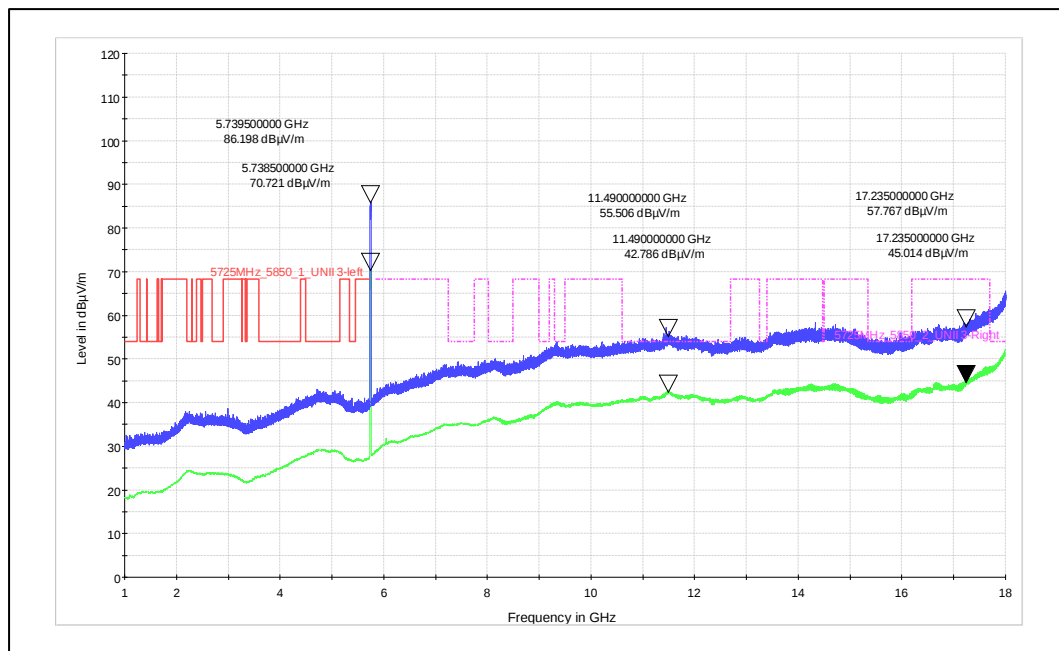
Polarization: Horizontal

Test Plots

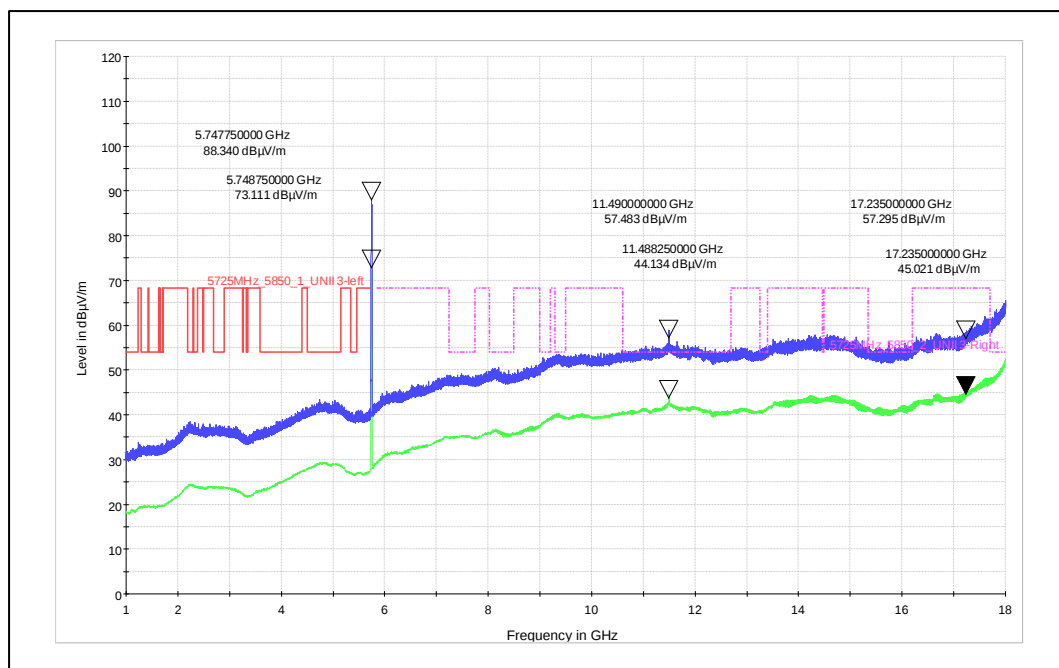
IN23HNHD 001 & IN23HH4B 001

Seite 58 von 83
Page 58 of 83

Channel frequency: 5745MHz



Polarization: Vertical



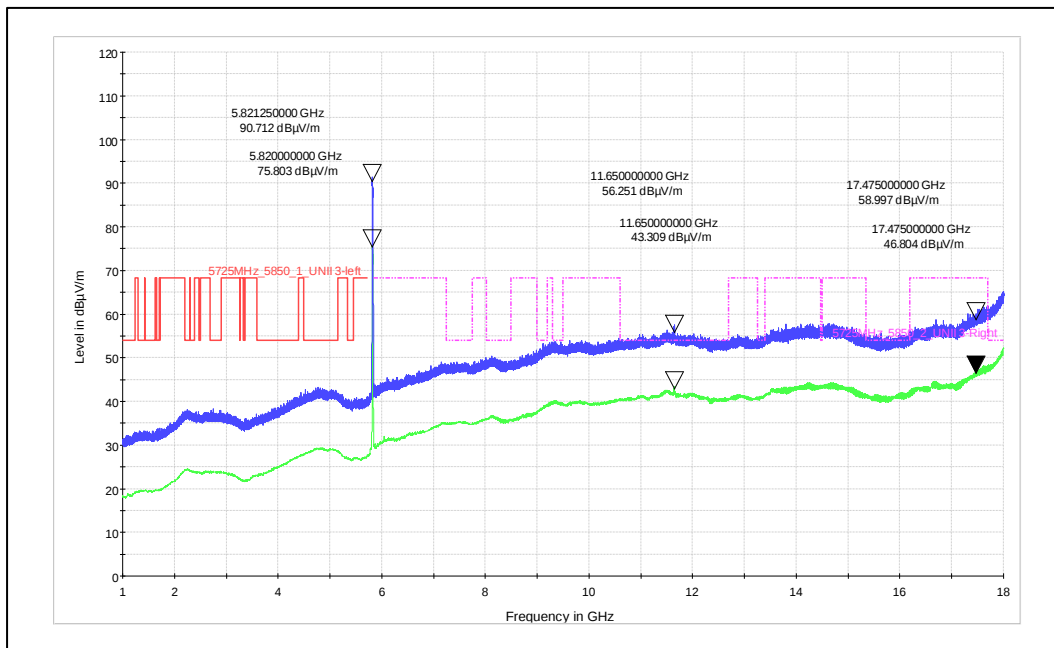
Polarization: Horizontal

Test Plots

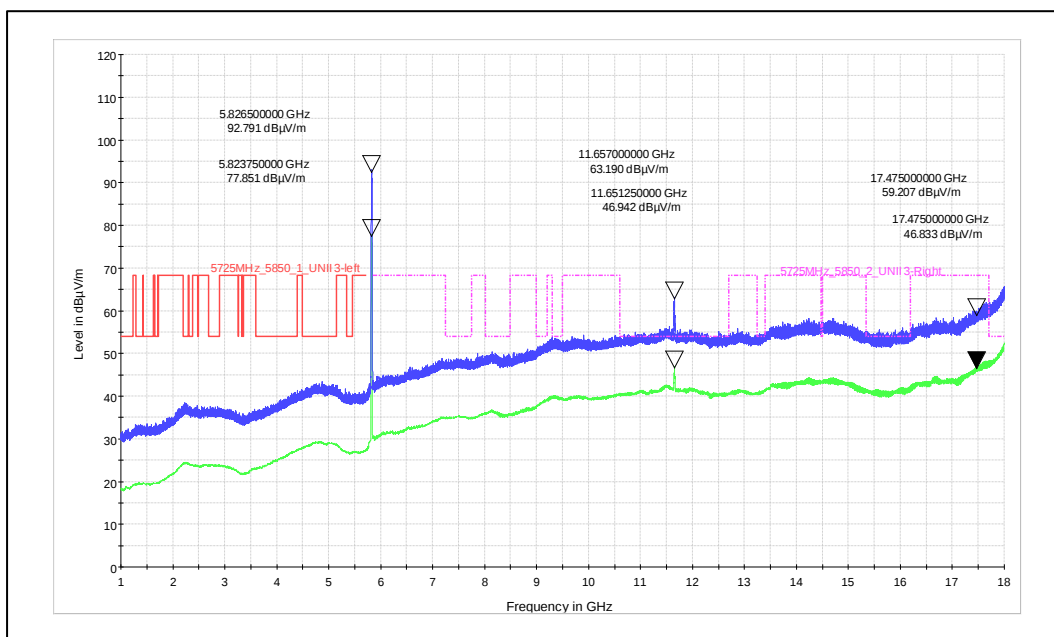
IN23HNHD 001 & IN23HH4B 001

Seite 59 von 83
Page 59 of 83

Channel frequency: 5825MHz



Polarization: Vertical



Polarization: Horizontal

Test Plots

IN23HNHD 001 & IN23HH4B 001

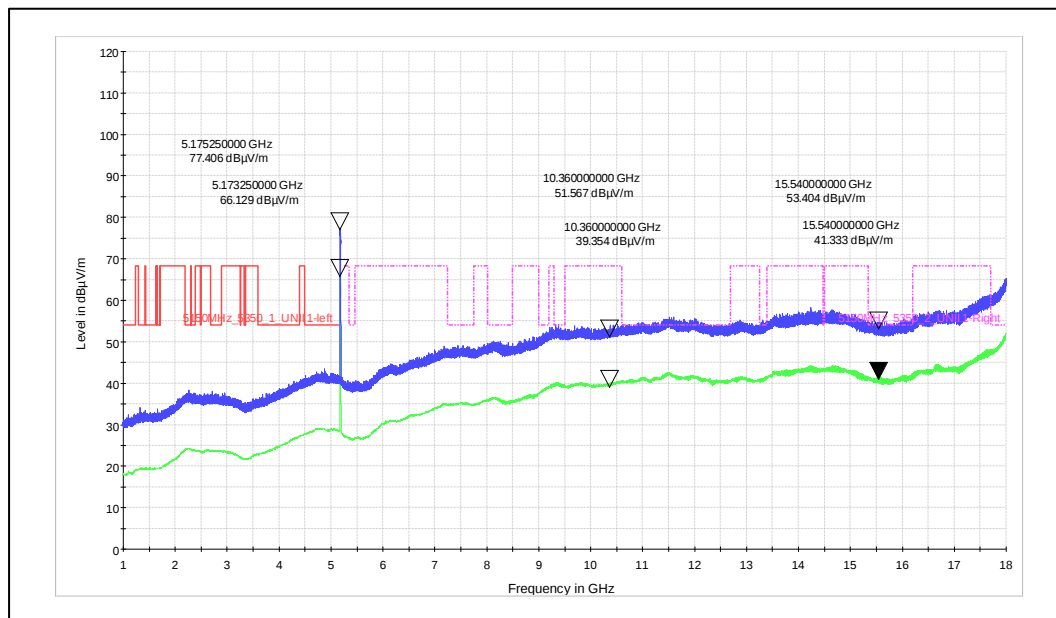
Seite 60 von 83

Page 60 of 83

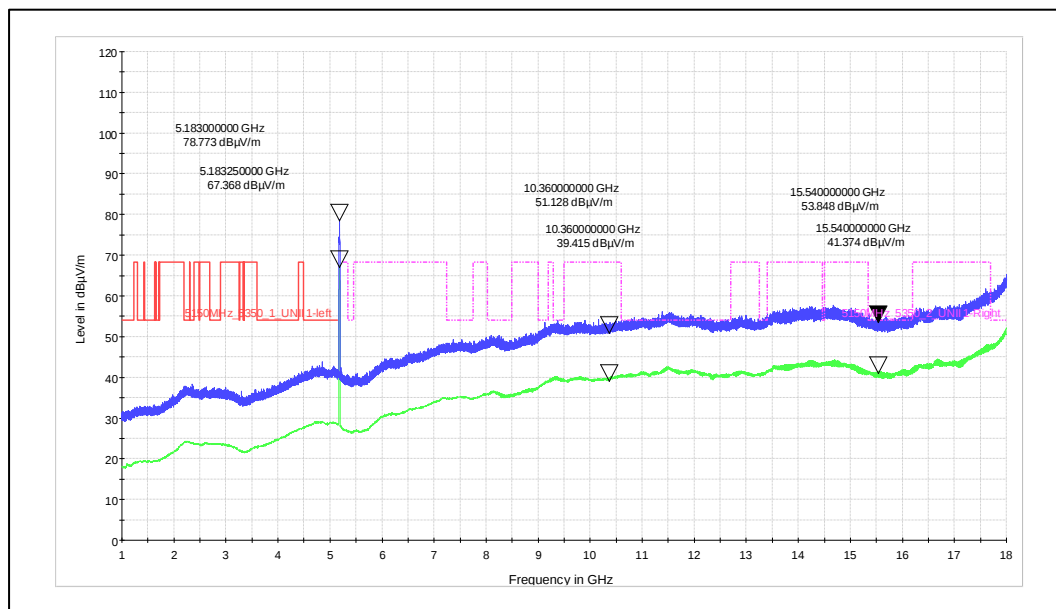
Modulation: 802.11 n_ 20 MHz

Data Rate: MCS7

Channel frequency: 5180MHz



Polarization: Vertical



Polarization: Horizontal

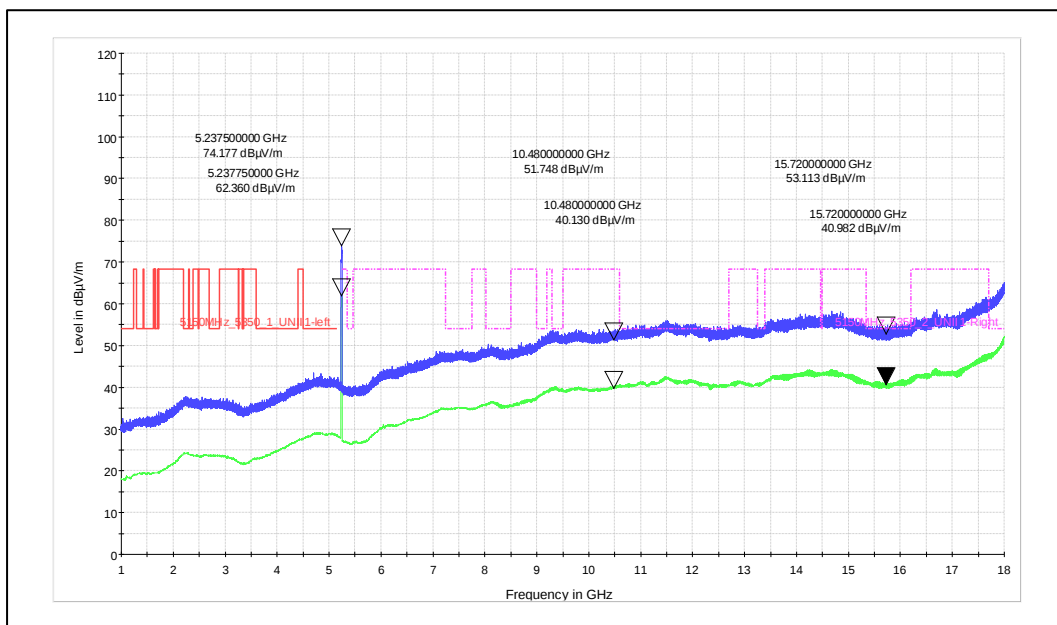
Test Plots

IN23HNHD 001 & IN23HH4B 001

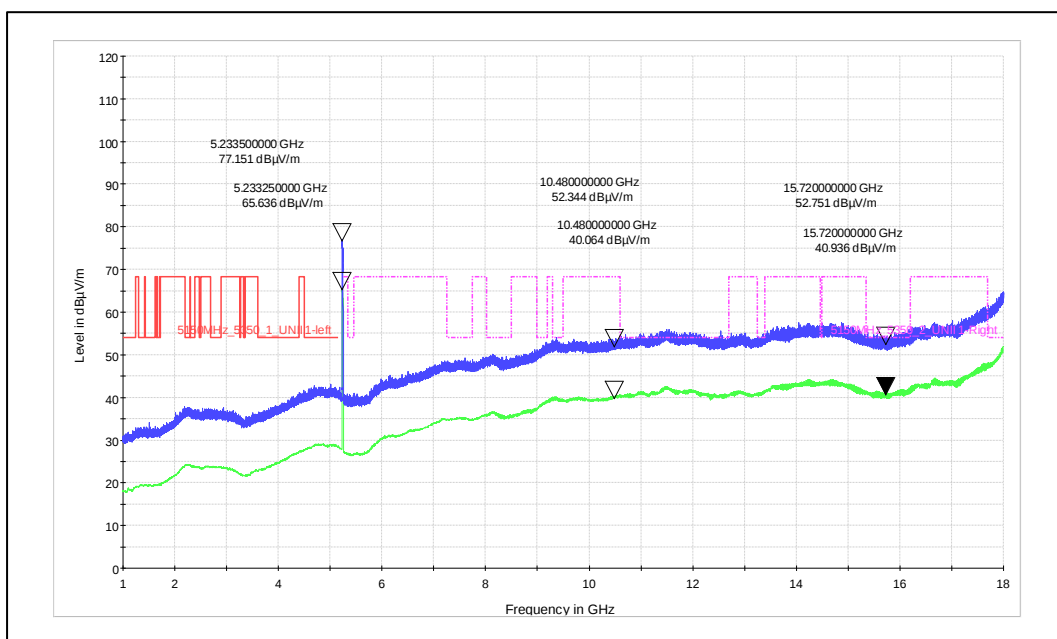
Seite 61 von 83

Page 61 of 83

Channel frequency: 5240MHz



Polarization: Vertical



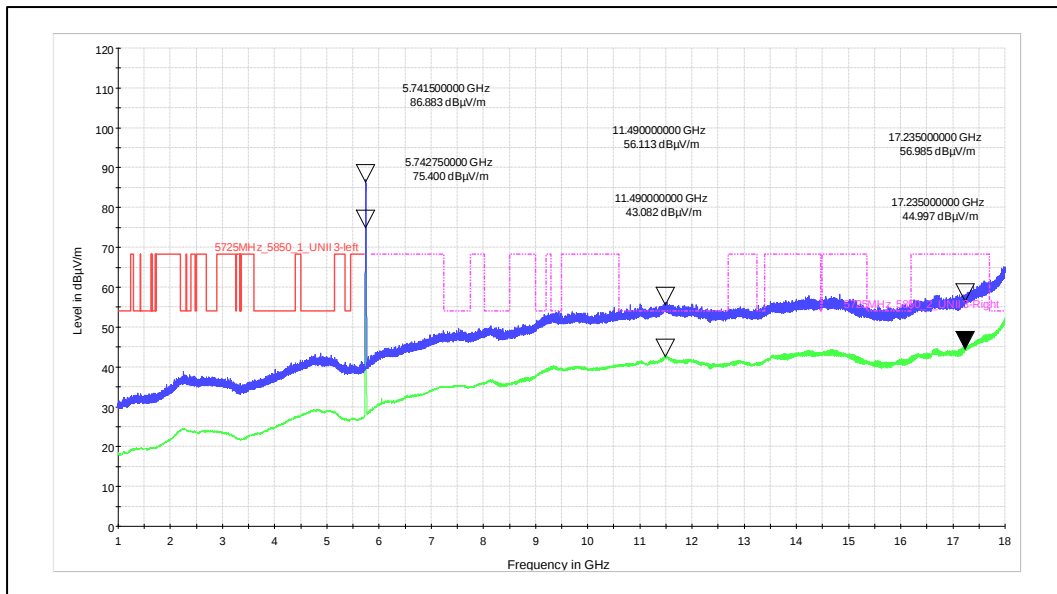
Polarization: Horizontal

Test Plots

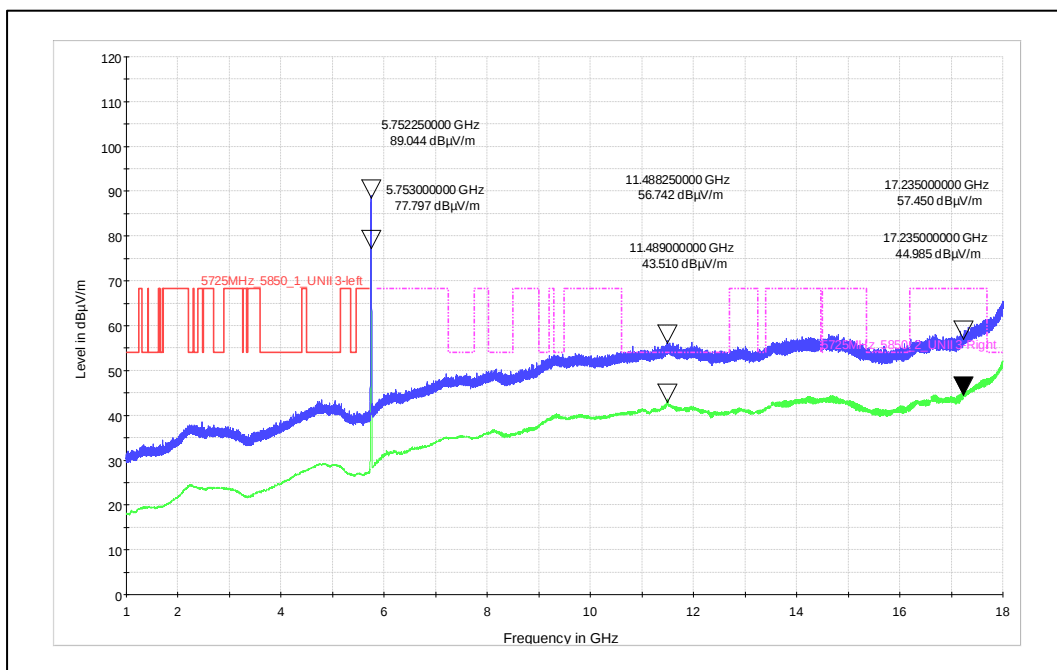
IN23HNHD 001 & IN23HH4B 001

Seite 62 von 83
Page 62 of 83

Channel frequency: 5745MHz



Polarization: Vertical



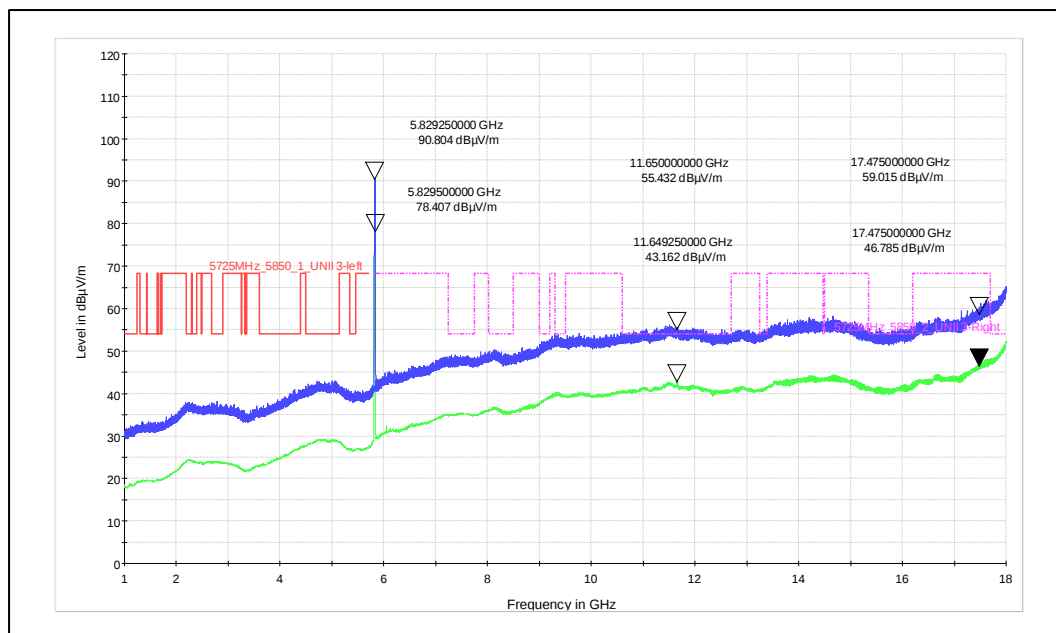
Polarization: Horizontal

Test Plots

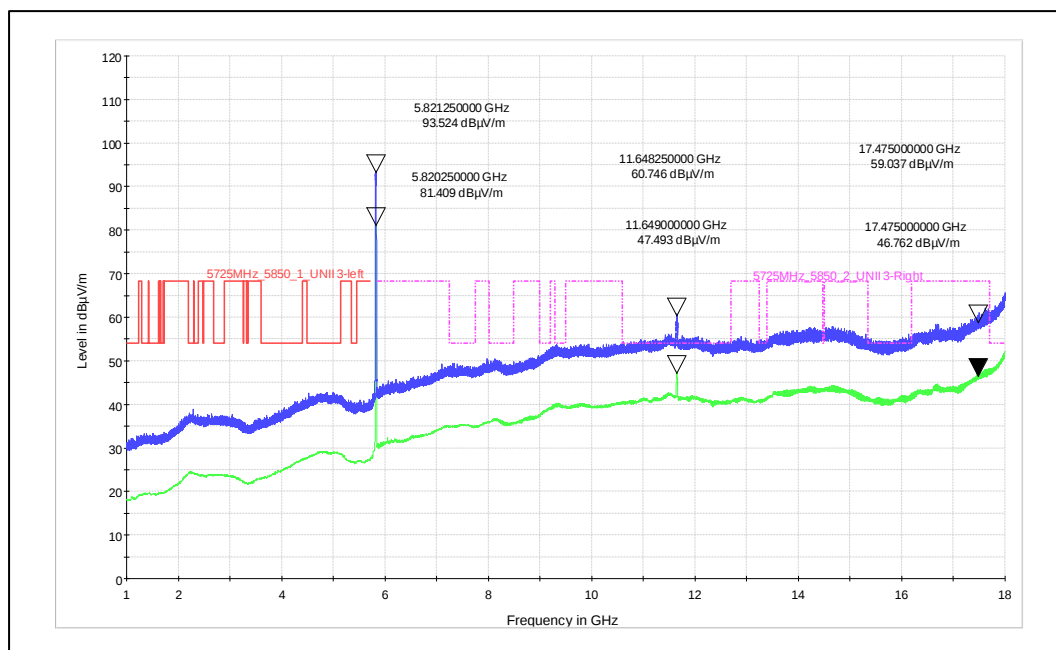
IN23HNHD 001 & IN23HH4B 001

Seite 63 von 83
Page 63 of 83

Channel frequency: 5825MHz



Polarization: Vertical



Polarization: Horizontal

Test Plots

IN23HNHD 001 & IN23HH4B 001

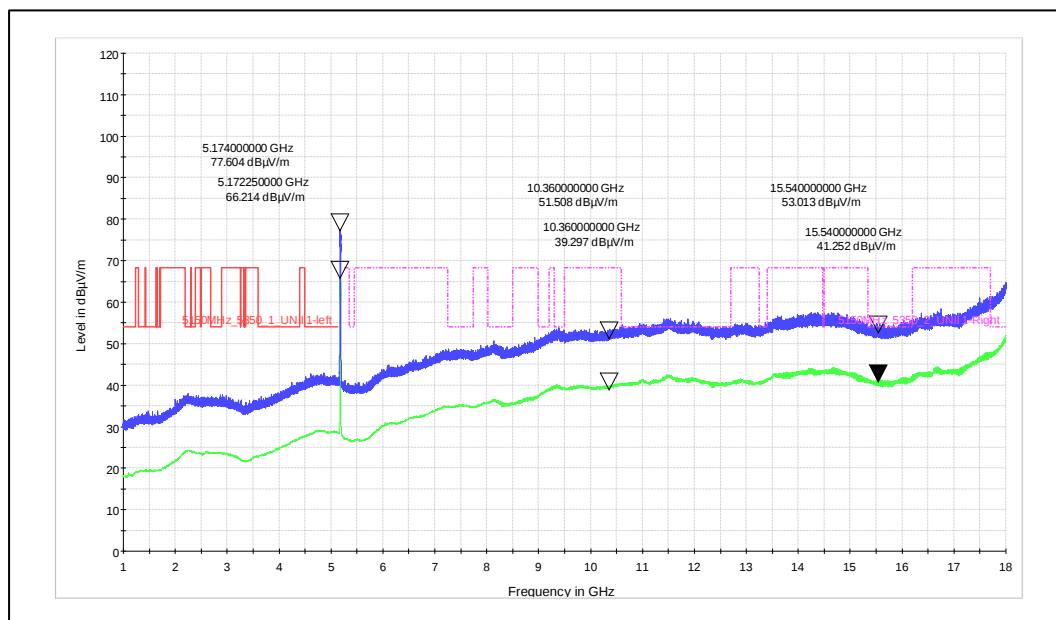
Seite 64 von 83

Page 64 of 83

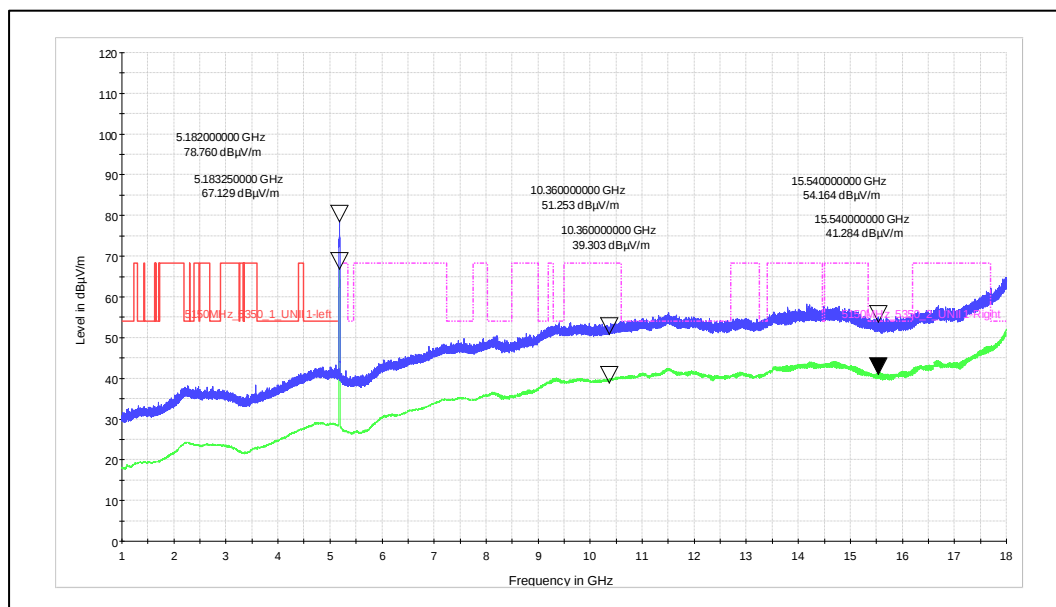
Modulation: 802.11 ac_20 MHz

Data Rate: MCS8

Channel frequency: 5180MHz



Polarization: Vertical



Polarization: Horizontal

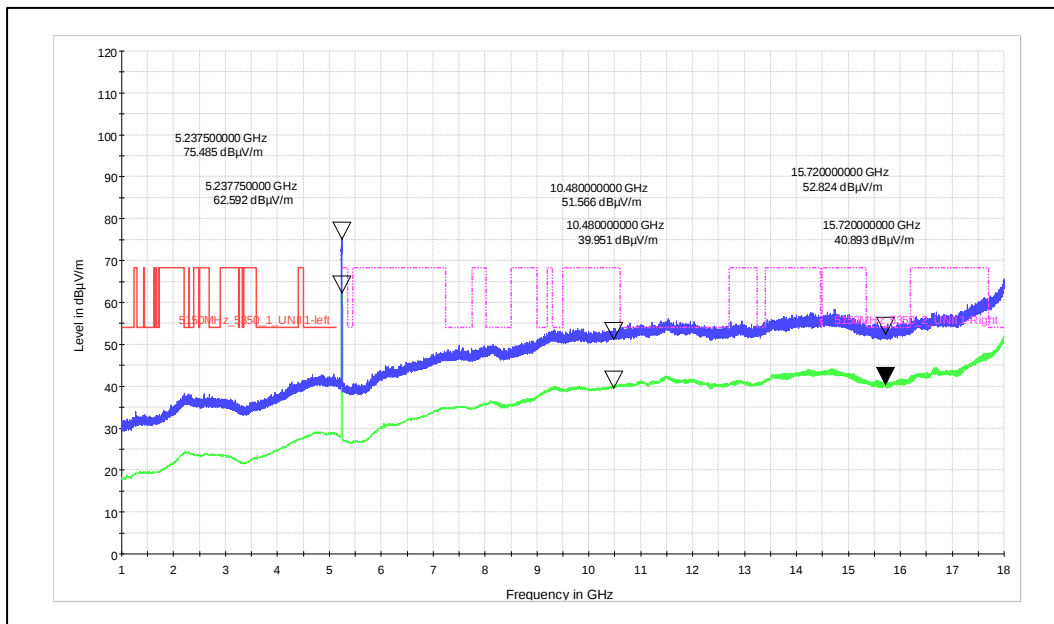
Test Plots

IN23HNHD 001 & IN23HH4B 001

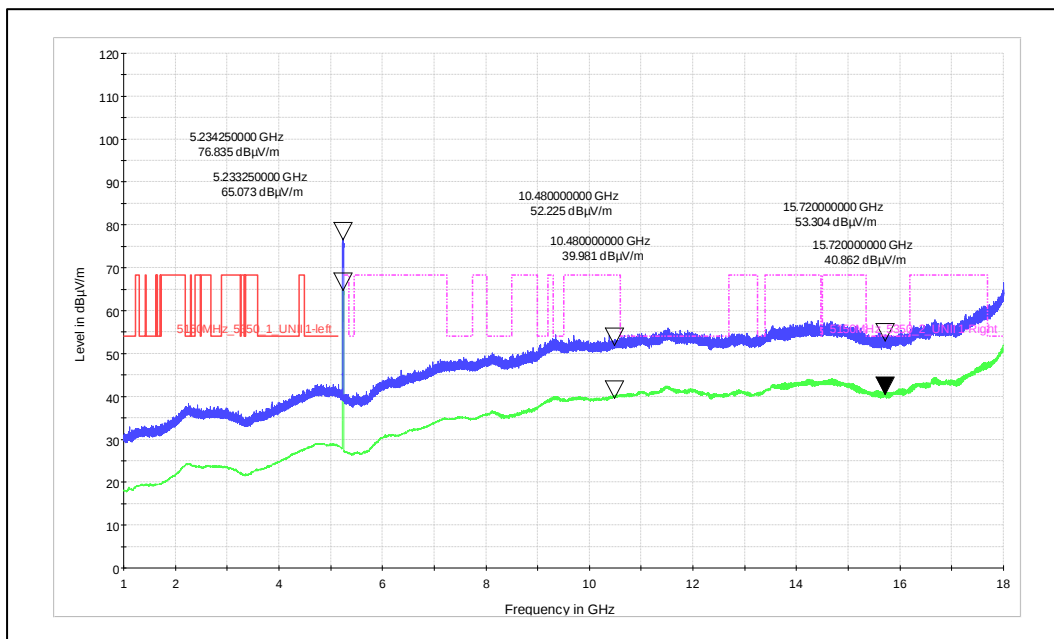
Seite 65 von 83

Page 65 of 83

Channel frequency: 5240MHz



Polarization: Vertical



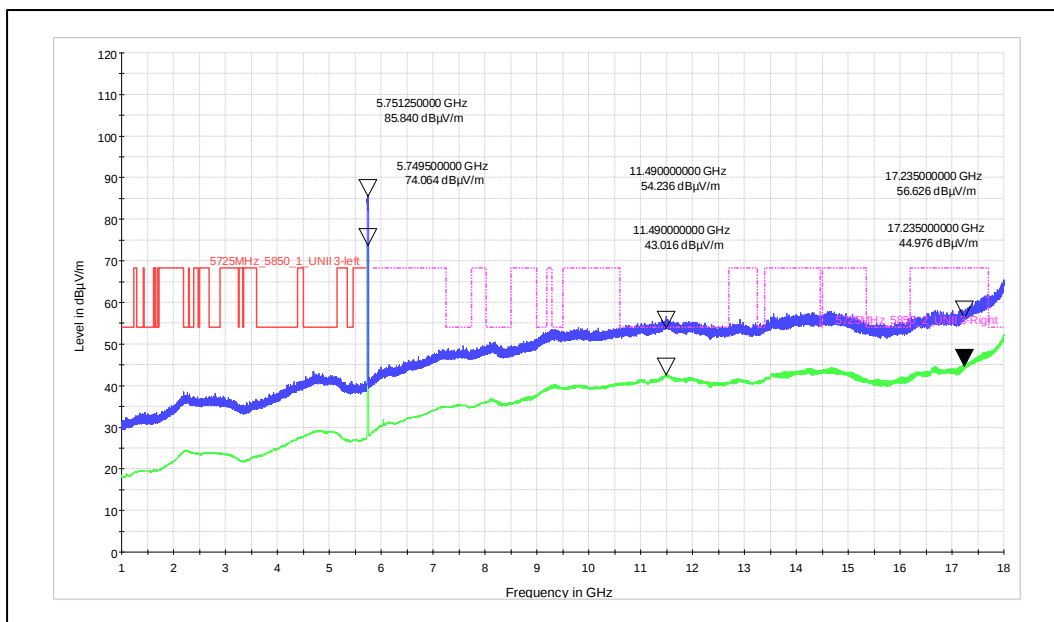
Polarization: Horizontal

Test Plots

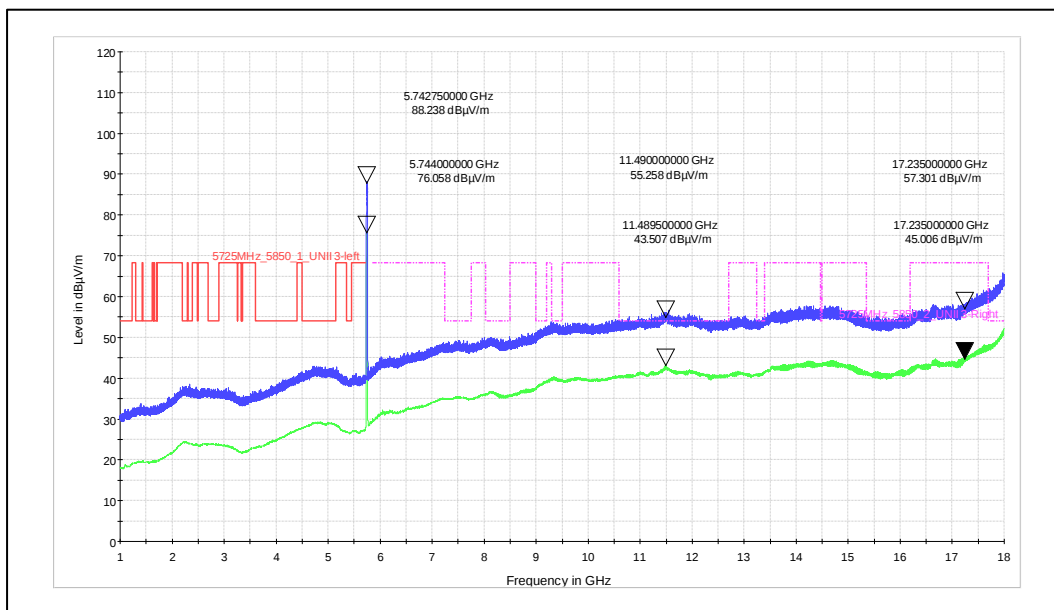
IN23HNHD 001 & IN23HH4B 001

Seite 66 von 83
Page 66 of 83

Channel frequency: 5745MHz



Polarization: Vertical



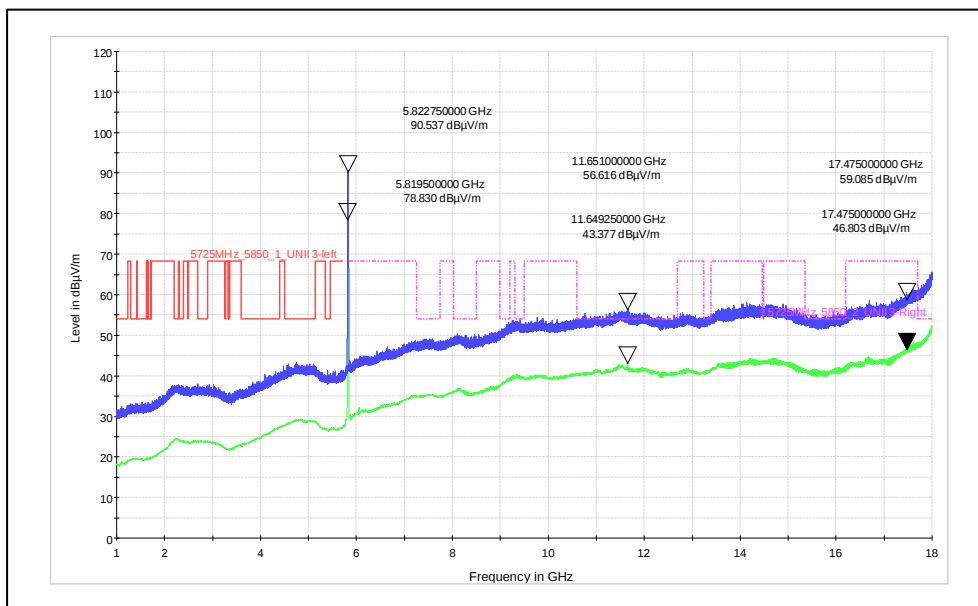
Polarization: Horizontal

Test Plots

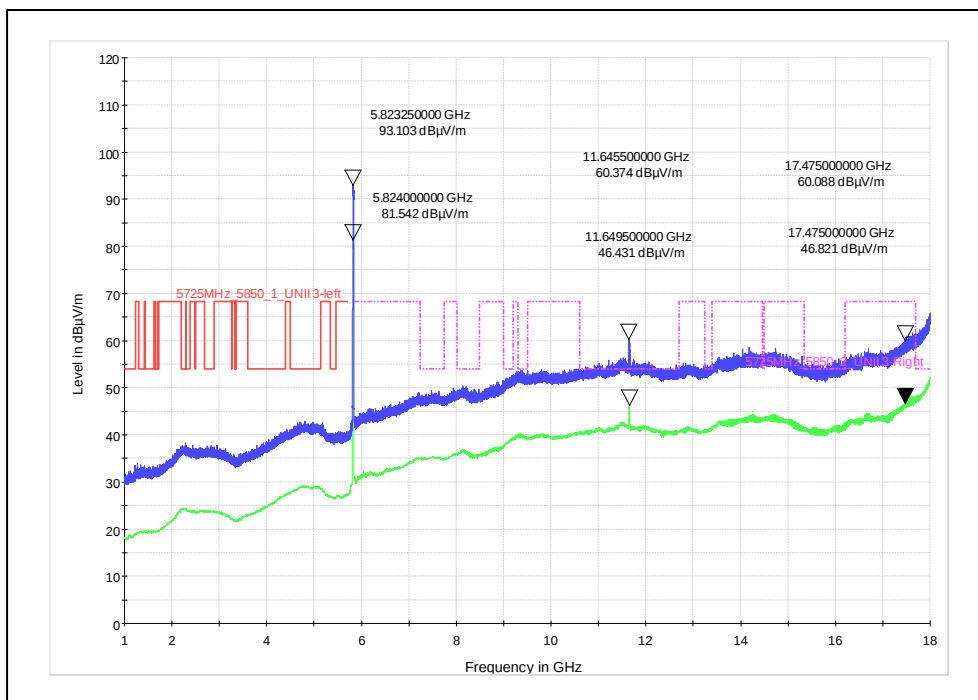
IN23HNHD 001 & IN23HH4B 001

Seite 67 von 83
Page 67 of 83

Channel frequency: 5825MHz



Polarization: Vertical



Polarization: Horizontal