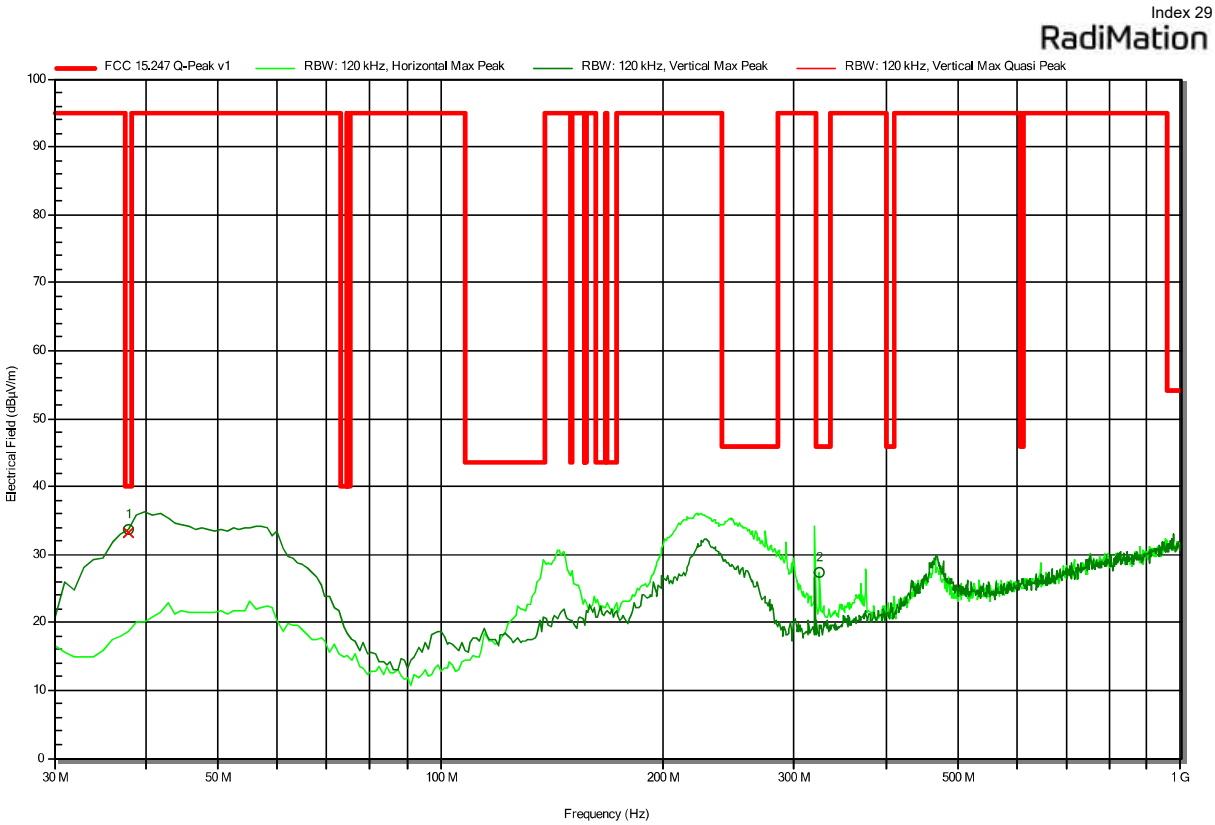
ANNEX B Transmitter spurious emissions Antenna-2

Radiated Spurious Emissions according to 47 CFR Part 15.247

Project Number:	G0M-2403-2495
Applicant:	Jungheinrich AG
Model Description:	UWB-Location-System
Model:	52445054, Anchor
Test Sample ID:	48554
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Ibraimov
Measurement software:	RadiMation, version 2023.2.6
Test Conditions:	Tnom: 25 °Celsius, Vnom: 55 V DC
Antenna:	Schwarzbeck VULB 9168
Measurement distance:	3 m
Mode:	Tx; 802.15.4_2405 MHz_Tx
Test Date:	2024-06-14

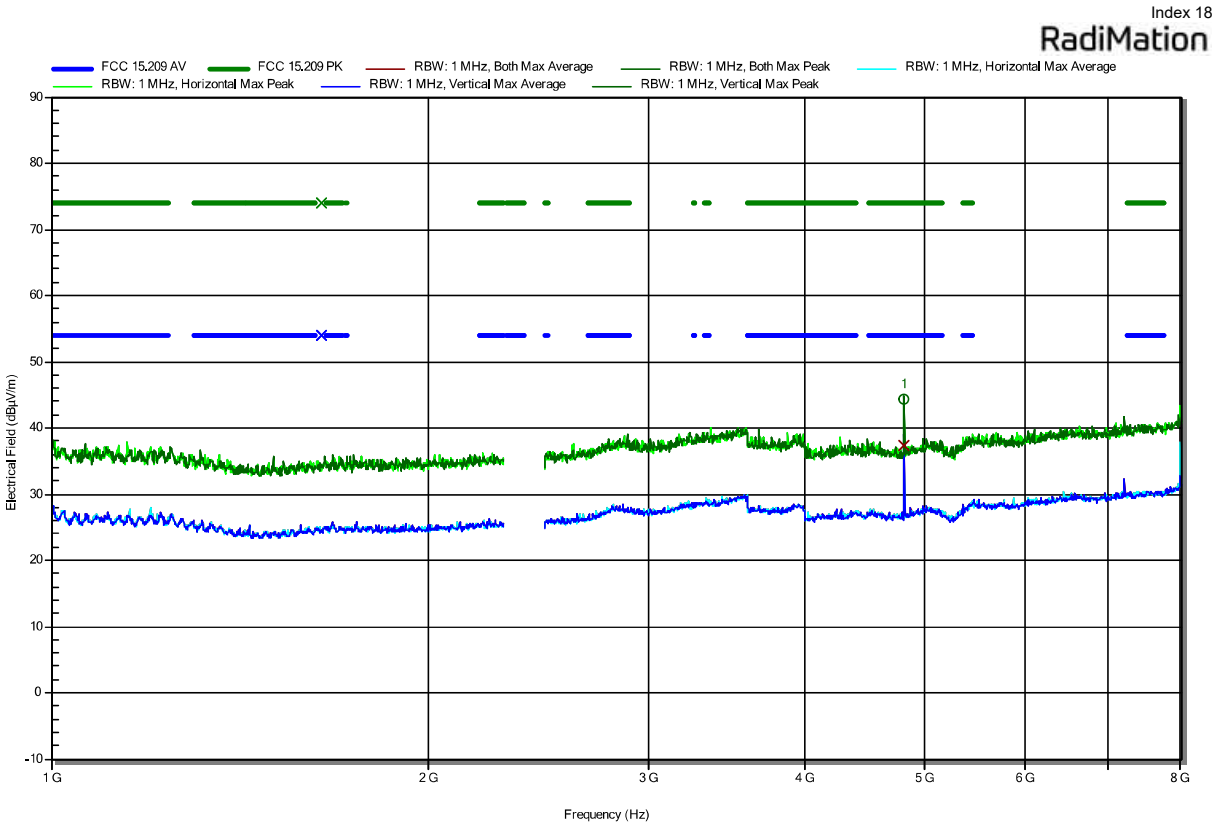


Peak Number	Frequency (MHz)	Peak (dBµV/m)	Peak Limit (dBµV/m)	Peak Difference (dB)	Peak Status	Polarization
2	324.88	27.3	46	-18.65	Pass	Horizontal

Peak Number	Frequency (MHz)	Quasi-Peak (dBµV/m)	Quasi-Peak Limit (dBµV/m)	Quasi-Peak Difference (dB)	Quasi-Peak Status	Polarization
1	37.76	33.1	40	-6.87	Pass	Vertical

Radiated Spurious Emissions according to 47 CFR Part 15.247

Project Number:	G0M-2403-2495
Applicant:	Jungheinrich AG
Model Description:	UWB-Location-System
Model:	52445054, Anchor
Test Sample ID:	48554
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Ibraimov
Measurement software:	RadiMation, version 2020.1.8
Test Conditions:	Tnom: 25 °Celsius, Vnom: 55 V DC
Antenna:	Schwarzbeck BBHA 9120B
Measurement distance:	3 m
Mode:	Tx; 802.15.4_2405 MHz_Tx
Test Date:	2024-06-13

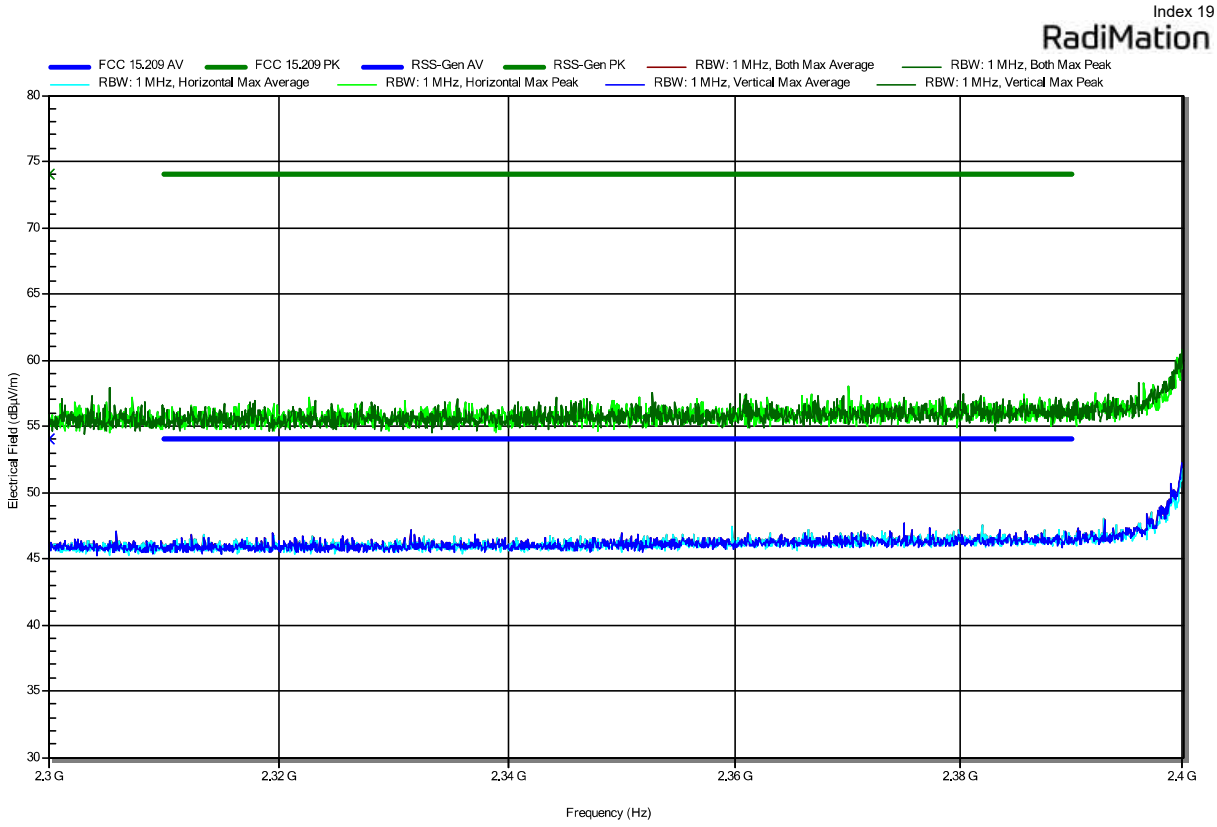


Peak Number	Frequency (MHz)	Peak (dBµV/m)	Peak Limit (dBµV/m)	Peak Difference (dB)	Peak Status	Polarization
1	4810.9333	44.42	74	-29.58	Pass	Vertical

Peak Number	Frequency (MHz)	Average (dBµV/m)	Average Limit (dBµV/m)	Average Difference (dB)	Average Status	Polarization
1	4810.9333	37.31	54	-16.69	Pass	Vertical

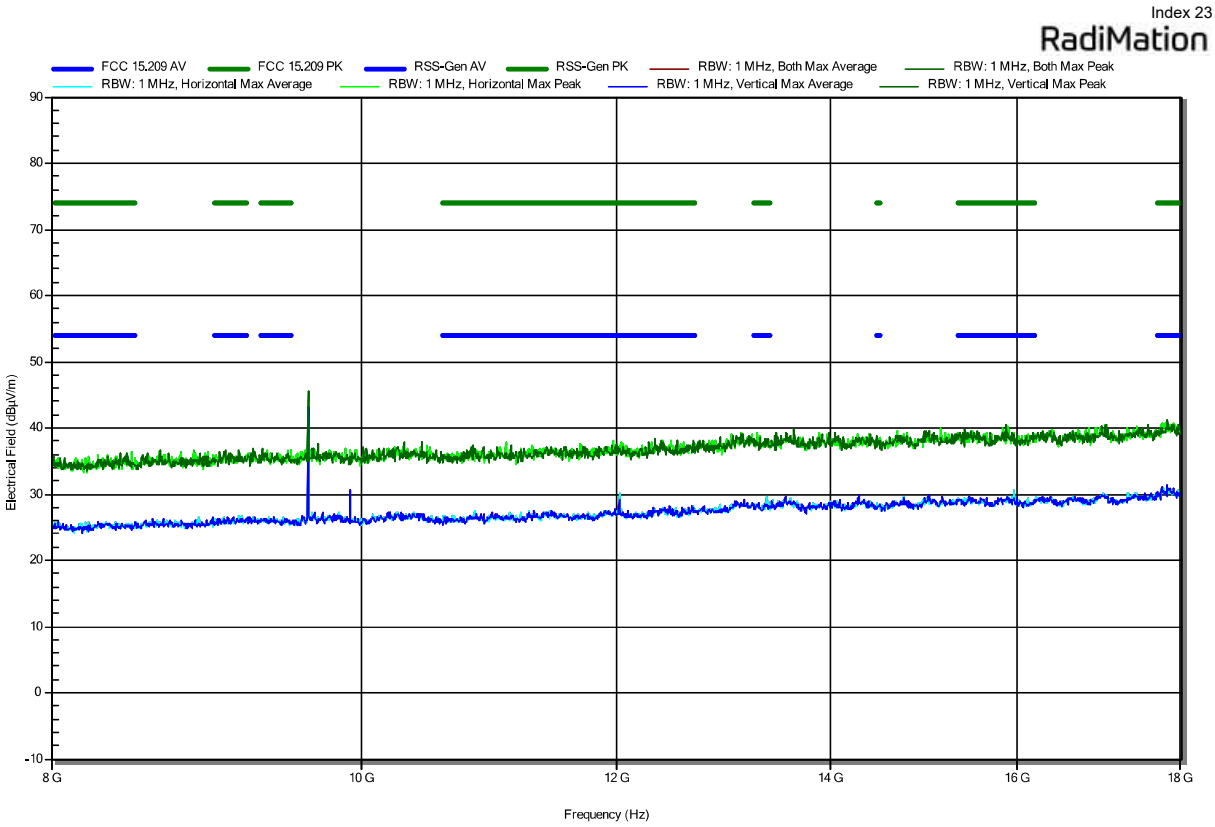
Radiated Spurious Emissions according to 47 CFR Part 15.247

Project Number:	G0M-2403-2495
Applicant:	Jungheinrich AG
Model Description:	UWB-Location-System
Model:	52445054, Anchor
Test Sample ID:	48554
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Ibraimov
Measurement software:	RadiMation, version 2020.1.8
Test Conditions:	Tnom: 25 °Celsius, Vnom: 55 V DC
Antenna:	Schwarzbeck BBHA 9120B
Measurement distance:	3 m
Mode:	Tx; 802.15.4_2405 MHz_Tx
Test Date:	2024-06-13
Note:	lower bandedge



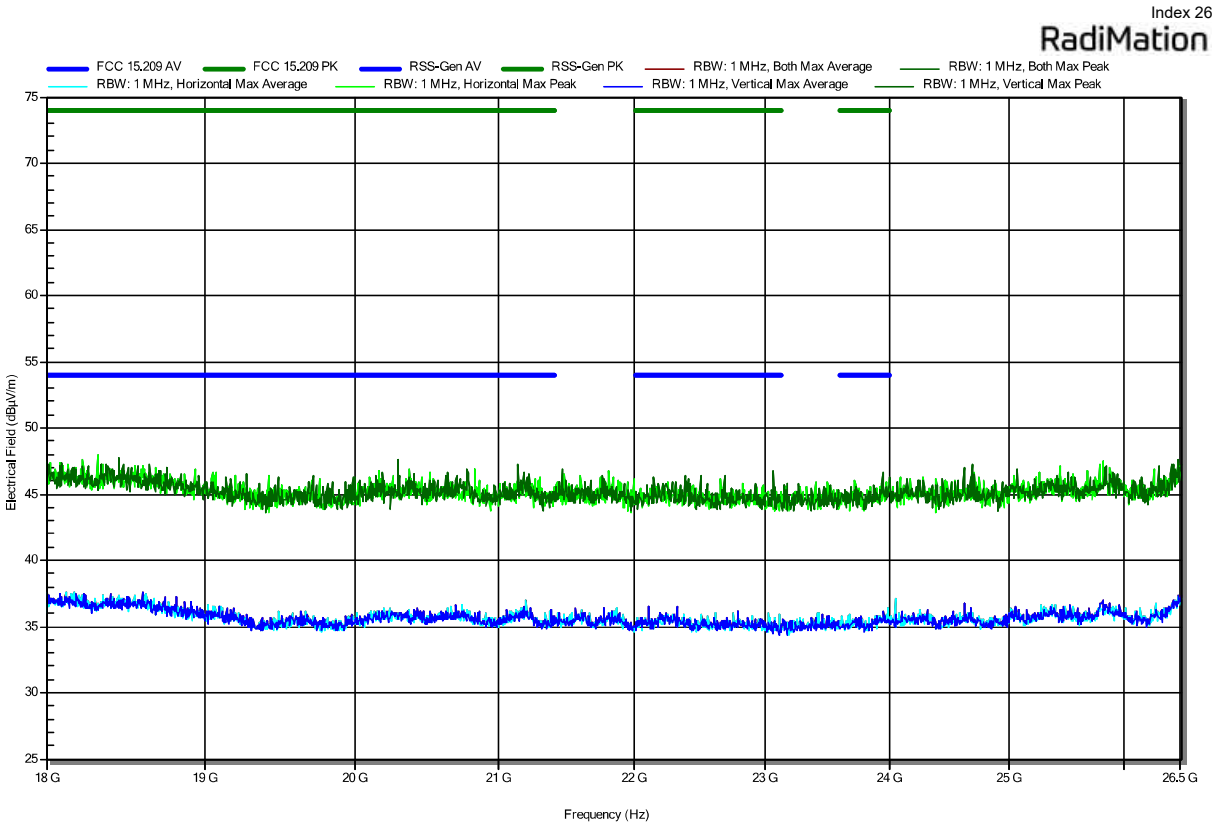
Radiated Spurious Emissions according to 47 CFR Part 15.247

Project Number:	G0M-2403-2495
Applicant:	Jungheinrich AG
Model Description:	UWB-Location-System
Model:	52445054, Anchor
Test Sample ID:	48554
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Ibraimov
Measurement software:	RadiMation, version 2020.1.8
Test Conditions:	Tnom: 25 °Celsius, Vnom: 55 V DC
Antenna:	Schwarzbeck HWRD 650
Measurement distance:	3 m
Mode:	Tx; 802.15.4_2405 MHz_Tx
Test Date:	2024-06-13



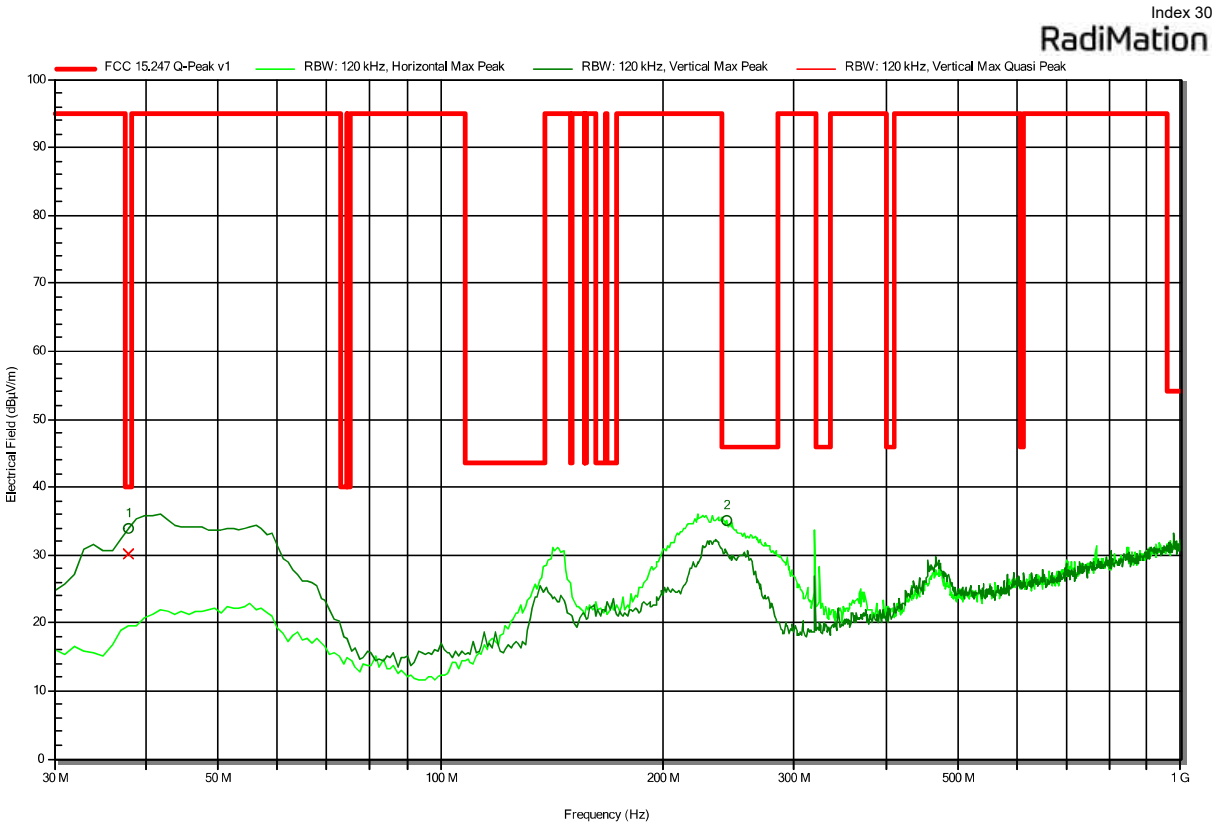
Radiated Spurious Emissions according to 47 CFR Part 15.247

Project Number:	G0M-2403-2495
Applicant:	Jungheinrich AG
Model Description:	UWB-Location-System
Model:	52445054, Anchor
Test Sample ID:	48554
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Ibraimov
Measurement software:	RadiMation, version 2020.1.8
Test Conditions:	Tnom: 25 °Celsius, Vnom: 55 V DC
Antenna:	Amplifier Research AT4560
Measurement distance:	3 m
Mode:	Tx; 802.15.4_2405 MHz_Tx
Test Date:	2024-06-13



Radiated Spurious Emissions according to 47 CFR Part 15.247

Project Number:	G0M-2403-2495
Applicant:	Jungheinrich AG
Model Description:	UWB-Location-System
Model:	52445054, Anchor
Test Sample ID:	48554
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Ibraimov
Measurement software:	RadiMation, version 2023.2.6
Test Conditions:	Tnom: 25 °Celsius, Vnom: 55 V DC
Antenna:	Schwarzbeck VULB 9168
Measurement distance:	3 m
Mode:	Tx; 802.15.4_2440 MHz_Tx
Test Date:	2024-06-14

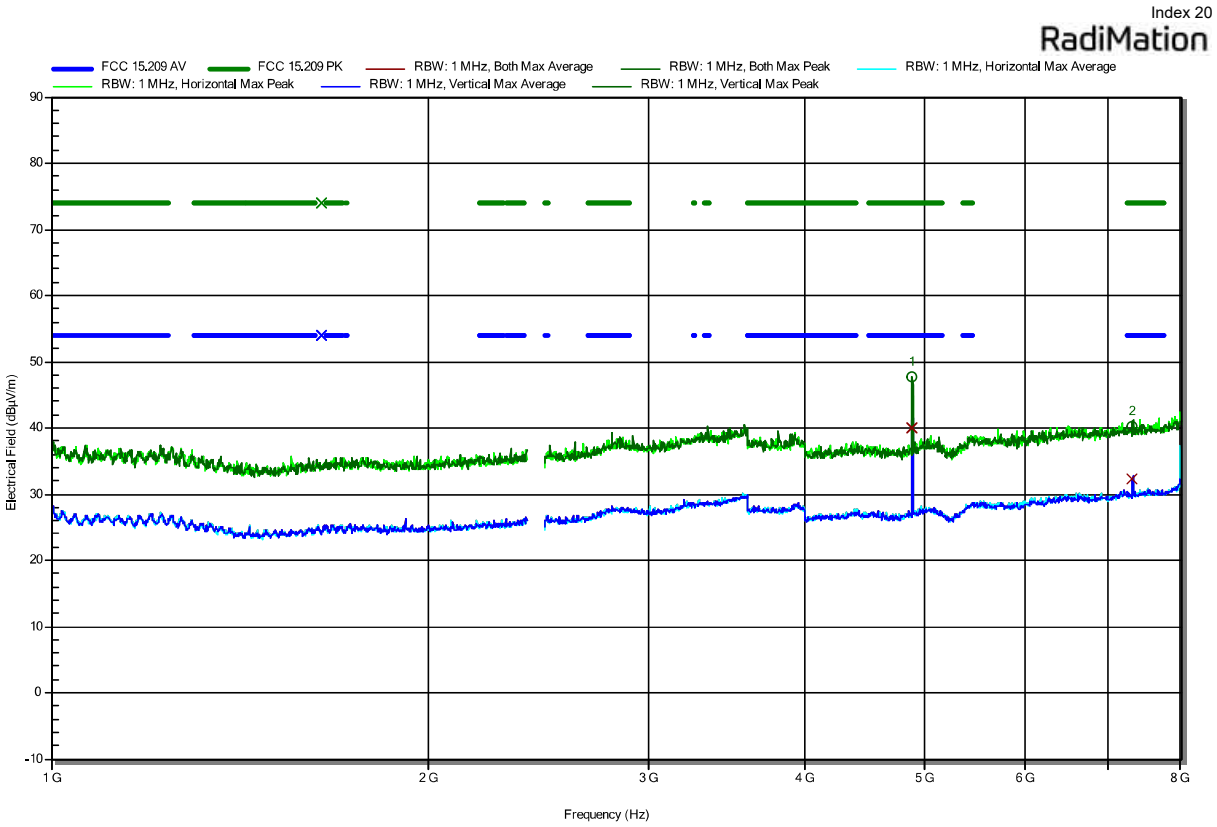


Peak Number	Frequency (MHz)	Peak (dBµV/m)	Peak Limit (dBµV/m)	Peak Difference (dB)	Peak Status	Polarization
2	243.4	35	46	-10.95	Pass	Horizontal

Peak Number	Frequency (MHz)	Quasi-Peak (dBµV/m)	Quasi-Peak Limit (dBµV/m)	Quasi-Peak Difference (dB)	Quasi-Peak Status	Polarization
1	37.76	30.1	40	-9.88	Pass	Vertical

Radiated Spurious Emissions according to 47 CFR Part 15.247

Project Number:	G0M-2403-2495
Applicant:	Jungheinrich AG
Model Description:	UWB-Location-System
Model:	52445054, Anchor
Test Sample ID:	48554
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Ibraimov
Measurement software:	RadiMation, version 2020.1.8
Test Conditions:	Tnom: 25 °Celsius, Vnom: 55 V DC
Antenna:	Schwarzbeck BBHA 9120B
Measurement distance:	3 m
Mode:	Tx; 802.15.4_2440 MHz_Tx
Test Date:	2024-06-13

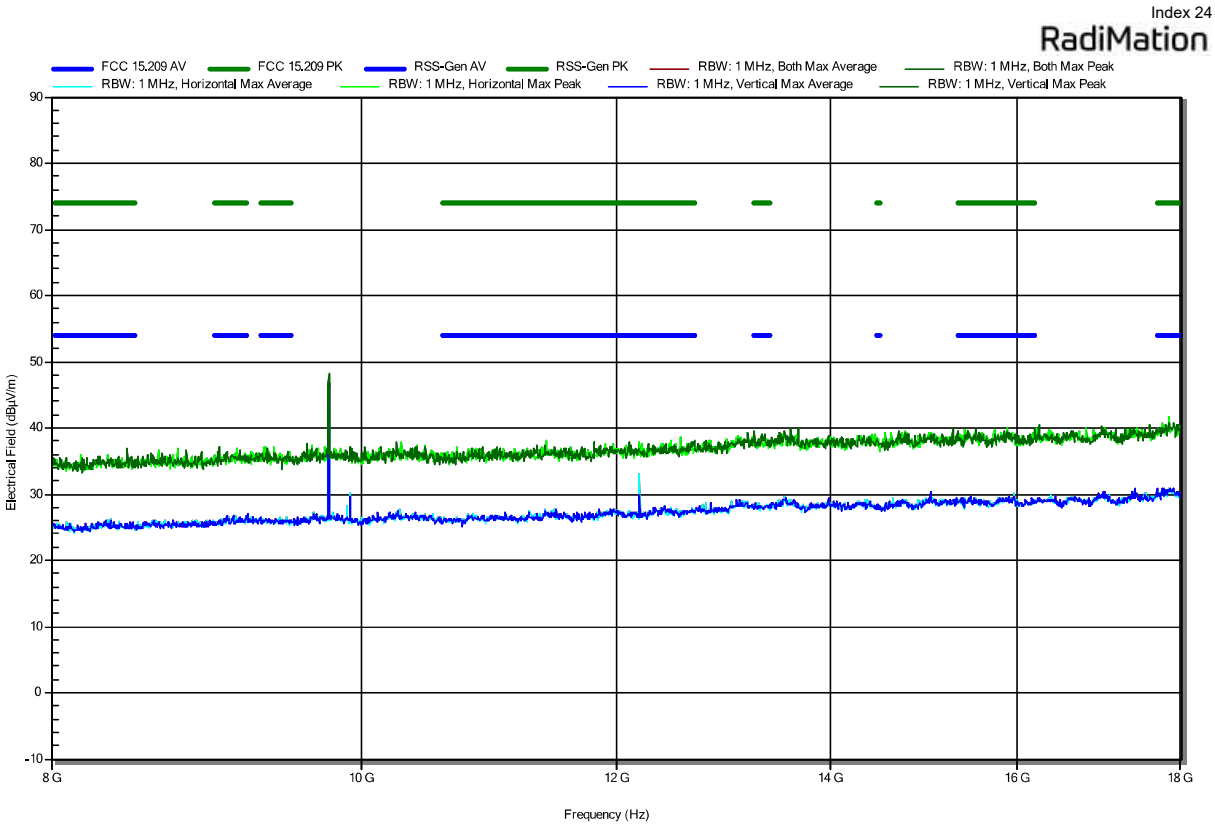


Peak Number	Frequency (MHz)	Peak (dBµV/m)	Peak Limit (dBµV/m)	Peak Difference (dB)	Peak Status	Polarization
1	4878.9333	47.74	74	-26.26	Pass	Vertical
2	7321.8667	40.14	74	-33.86	Pass	Vertical

Peak Number	Frequency (MHz)	Average (dBµV/m)	Average Limit (dBµV/m)	Average Difference (dB)	Average Status	Polarization
1	4878.9333	40.08	54	-13.92	Pass	Vertical
2	7321.8667	32.38	54	-21.62	Pass	Vertical

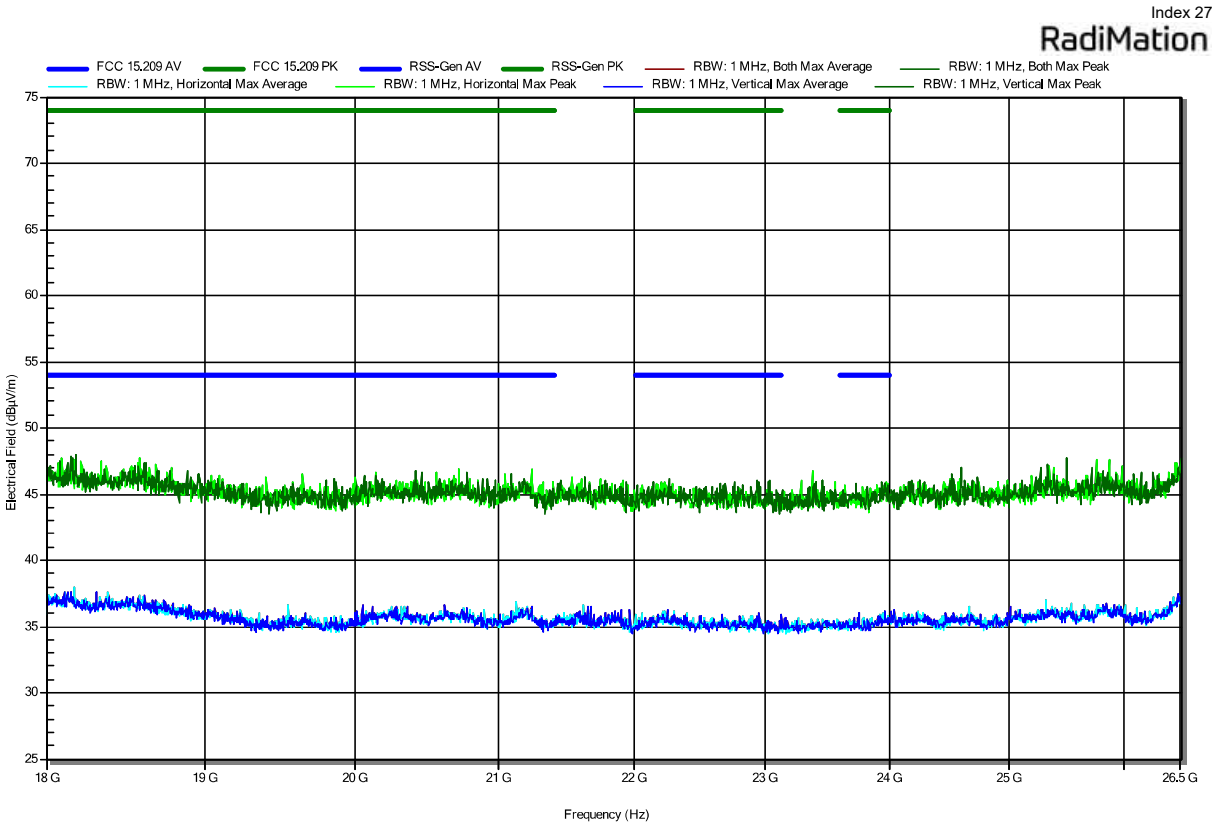
Radiated Spurious Emissions according to 47 CFR Part 15.247

Project Number:	G0M-2403-2495
Applicant:	Jungheinrich AG
Model Description:	UWB-Location-System
Model:	52445054, Anchor
Test Sample ID:	48554
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Ibraimov
Measurement software:	RadiMation, version 2020.1.8
Test Conditions:	Tnom: 25 °Celsius, Vnom: 55 V DC
Antenna:	Schwarzbeck HWRD 650
Measurement distance:	3 m
Mode:	Tx; 802.15.4_2440 MHz_Tx
Test Date:	2024-06-13



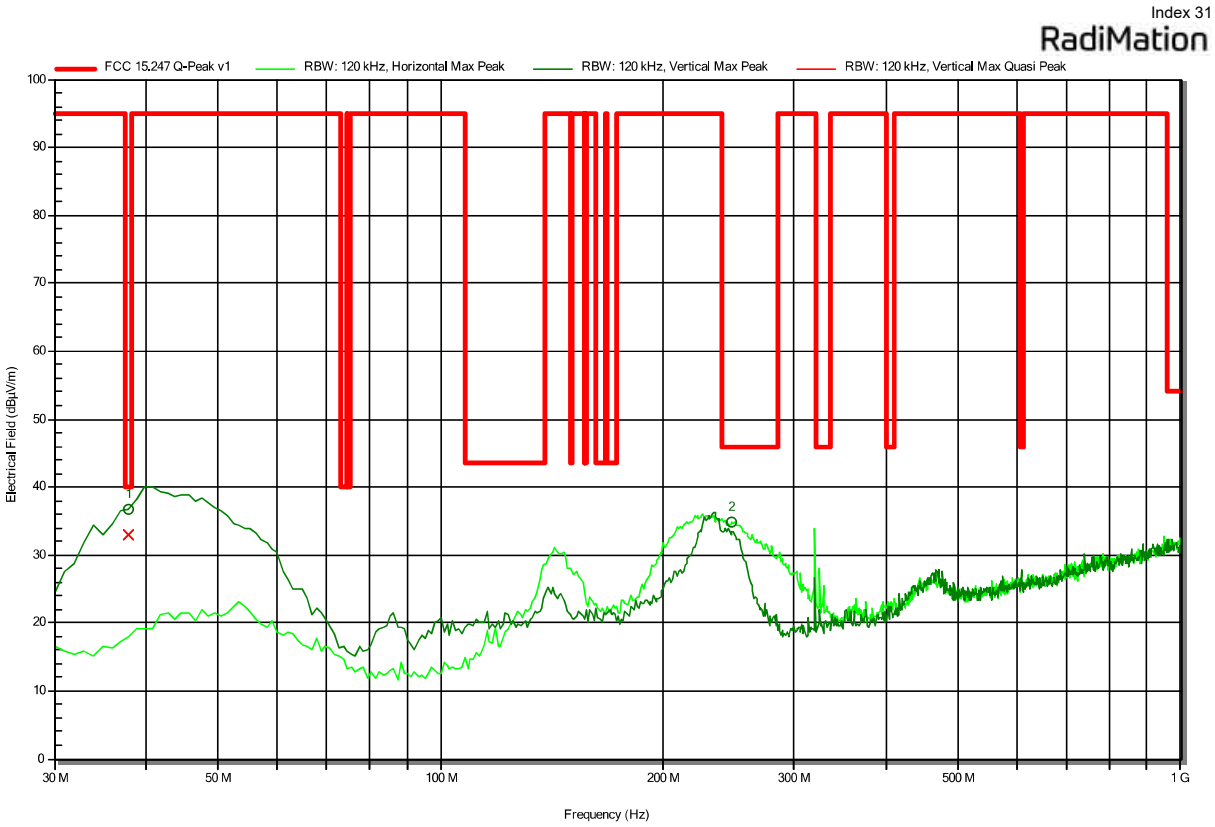
Radiated Spurious Emissions according to 47 CFR Part 15.247

Project Number:	G0M-2403-2495
Applicant:	Jungheinrich AG
Model Description:	UWB-Location-System
Model:	52445054, Anchor
Test Sample ID:	48554
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Ibraimov
Measurement software:	RadiMation, version 2020.1.8
Test Conditions:	Tnom: 25 °Celsius, Vnom: 55 V DC
Antenna:	Amplifier Research AT4560
Measurement distance:	3 m
Mode:	Tx; 802.15.4_2440 MHz_Tx
Test Date:	2024-06-13



Radiated Spurious Emissions according to 47 CFR Part 15.247

Project Number:	G0M-2403-2495
Applicant:	Jungheinrich AG
Model Description:	UWB-Location-System
Model:	52445054, Anchor
Test Sample ID:	48554
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Ibraimov
Measurement software:	RadiMation, version 2023.2.6
Test Conditions:	Tnom: 25 °Celsius, Vnom: 55 V DC
Antenna:	Schwarzbeck VULB 9168
Measurement distance:	3 m
Mode:	Tx; 802.15.4_2475 MHz_Tx
Test Date:	2024-06-14

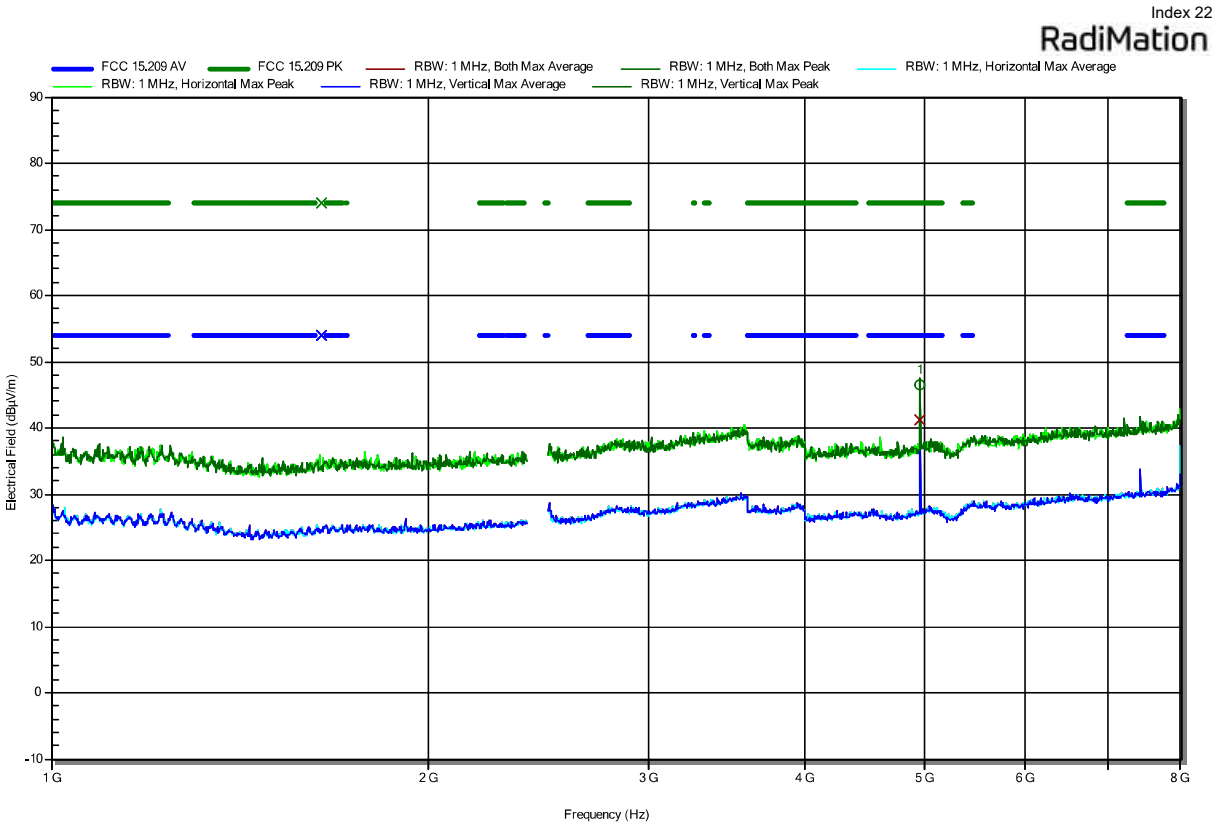


Peak Number	Frequency (MHz)	Peak (dBµV/m)	Peak Limit (dBµV/m)	Peak Difference (dB)	Peak Status	Polarization
2	247.28	34.9	46	-11.1	Pass	Horizontal

Peak Number	Frequency (MHz)	Quasi-Peak (dBµV/m)	Quasi-Peak Limit (dBµV/m)	Quasi-Peak Difference (dB)	Quasi-Peak Status	Polarization
1	37.76	33.1	40	-6.92	Pass	Vertical

Radiated Spurious Emissions according to 47 CFR Part 15.247

Project Number:	G0M-2403-2495
Applicant:	Jungheinrich AG
Model Description:	UWB-Location-System
Model:	52445054, Anchor
Test Sample ID:	48554
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Ibraimov
Measurement software:	RadiMation, version 2020.1.8
Test Conditions:	Tnom: 25 °Celsius, Vnom: 55 V DC
Antenna:	Schwarzbeck BBHA 9120B
Measurement distance:	3 m
Mode:	Tx; 802.15.4_2475 MHz_Tx
Test Date:	2024-06-13

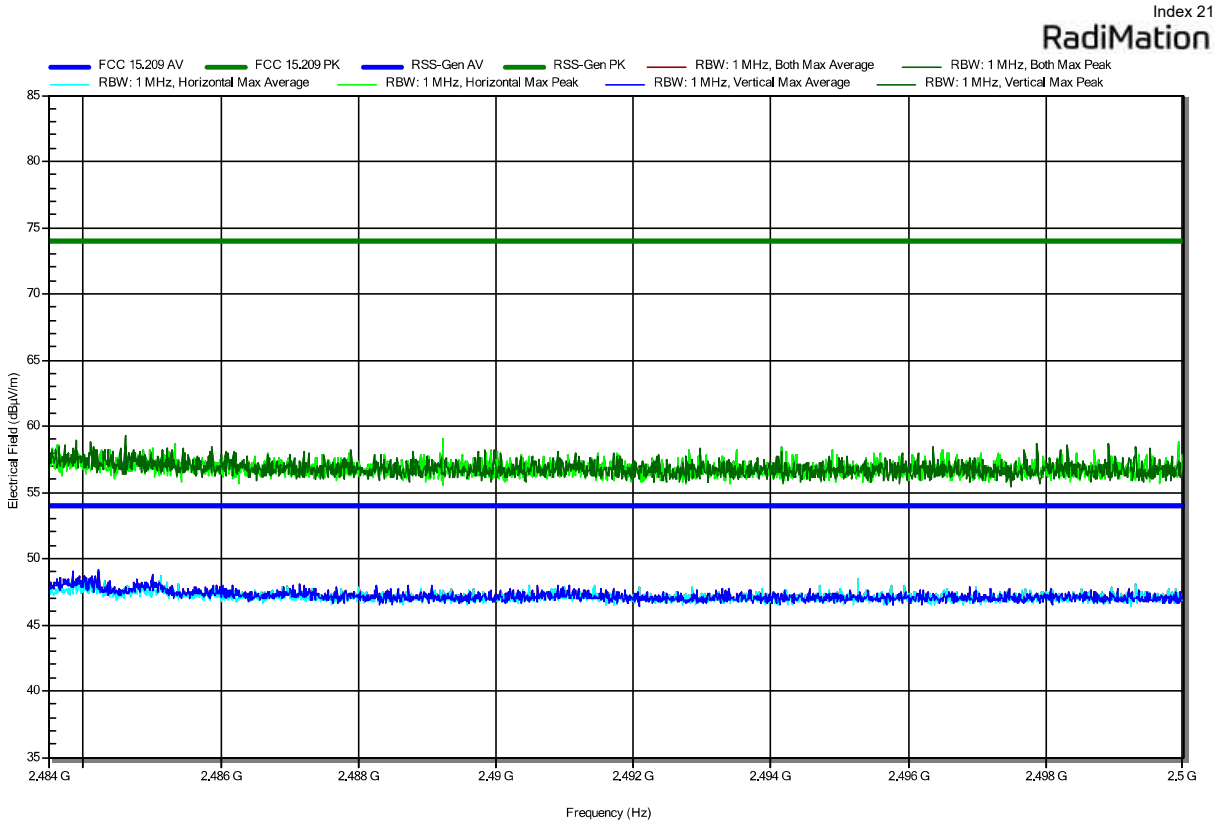


Peak Number	Frequency (MHz)	Peak (dBµV/m)	Peak Limit (dBµV/m)	Peak Difference (dB)	Peak Status	Polarization
1	4948.9333	46.47	74	-27.53	Pass	Vertical

Peak Number	Frequency (MHz)	Average (dBµV/m)	Average Limit (dBµV/m)	Average Difference (dB)	Average Status	Polarization
1	4948.9333	41.18	54	-12.82	Pass	Vertical

Radiated Spurious Emissions according to 47 CFR Part 15.247

Project Number:	G0M-2403-2495
Applicant:	Jungheinrich AG
Model Description:	UWB-Location-System
Model:	52445054, Anchor
Test Sample ID:	48554
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Ibraimov
Measurement software:	RadiMation, version 2020.1.8
Test Conditions:	Tnom: 25 °Celsius, Vnom: 55 V DC
Antenna:	Schwarzbeck BBHA 9120B
Measurement distance:	3 m
Mode:	Tx; 802.15.4_2475 MHz_Tx
Test Date:	2024-06-13
Note:	upper bandedge



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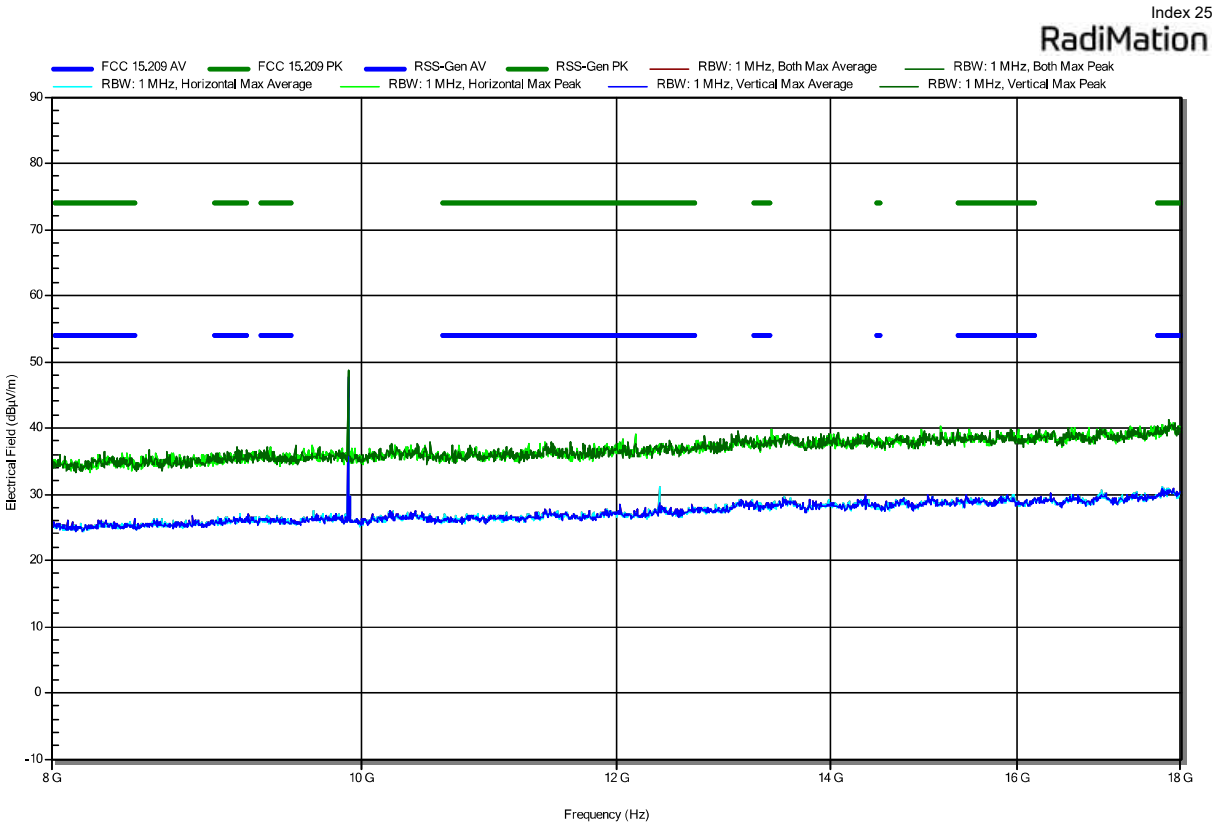
Project Number:	G0M-2403-2495
Applicant:	Jungheinrich AG
Model Description:	UWB-Location-System
Model:	52445054, Anchor
Test Sample ID:	48554
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Ibraimov
Measurement software:	RadiMation, version 2020.1.8
Test Conditions:	Tnom: 25 °Celsius, Vnom: 55 V DC
Antenna:	Schwarzbeck HWRD 650
Measurement distance:	3 m
Mode:	Tx; 802.15.4_2475 MHz_Tx
Test Date:	2024-06-13



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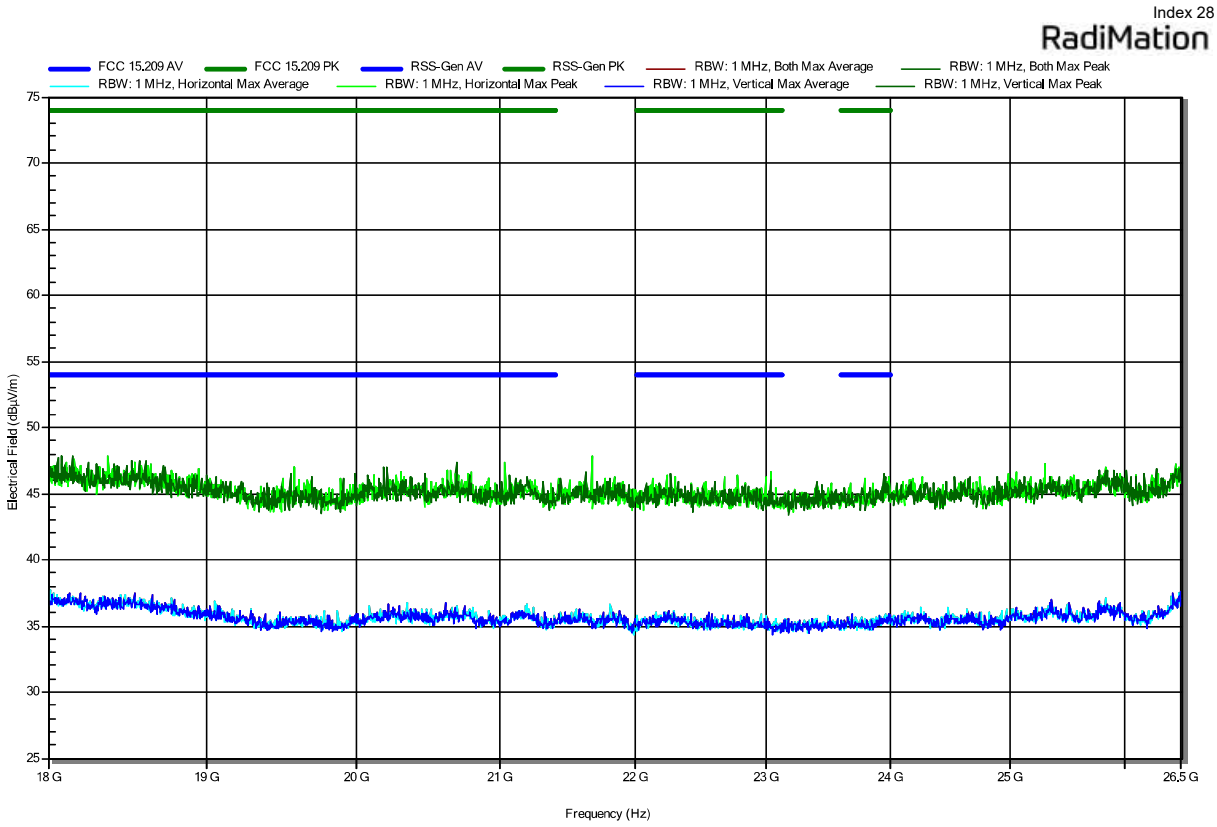
Project Number:	G0M-2403-2495
Applicant:	Jungheinrich AG
Model Description:	UWB-Location-System
Model:	52445054, Anchor
Test Sample ID:	48554
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Ibraimov
Measurement software:	RadiMation, version 2020.1.8
Test Conditions:	Tnom: 25 °Celsius, Vnom: 55 V DC
Antenna:	Amplifier Research AT4560
Measurement distance:	3 m
Mode:	Tx; 802.15.4_2475 MHz_Tx
Test Date:	2024-06-13



=== End of test report ===