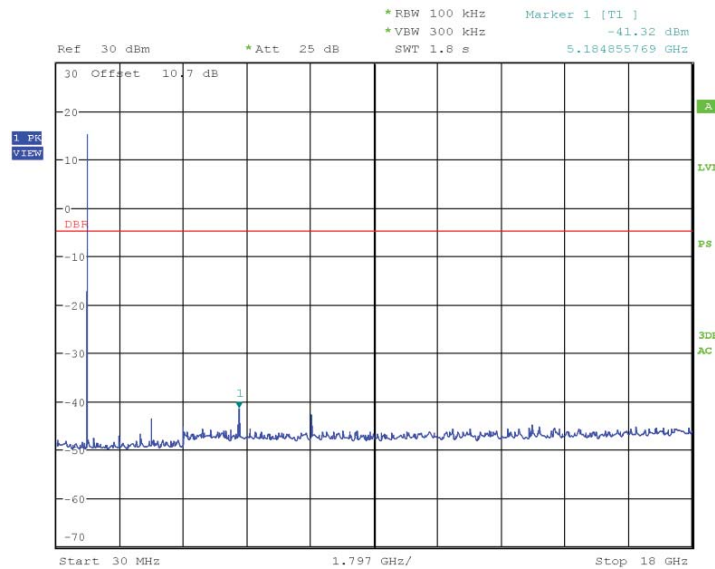


Date: 24.JUN.2021 04:24:21

Figure 27 – High Channel Conducted Spurious Emissions (LoRa)



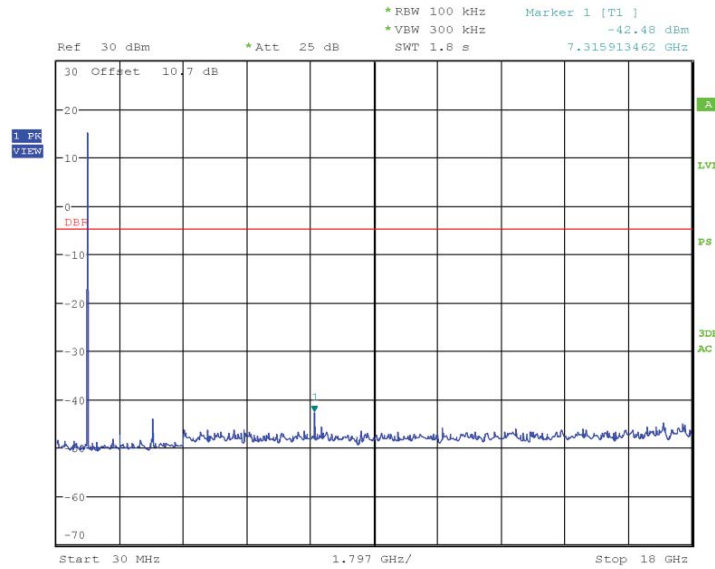
Date: 24.JUN.2021 04:20:35

Figure 28 – Low Channel Conducted Spurious Emissions (FSK)

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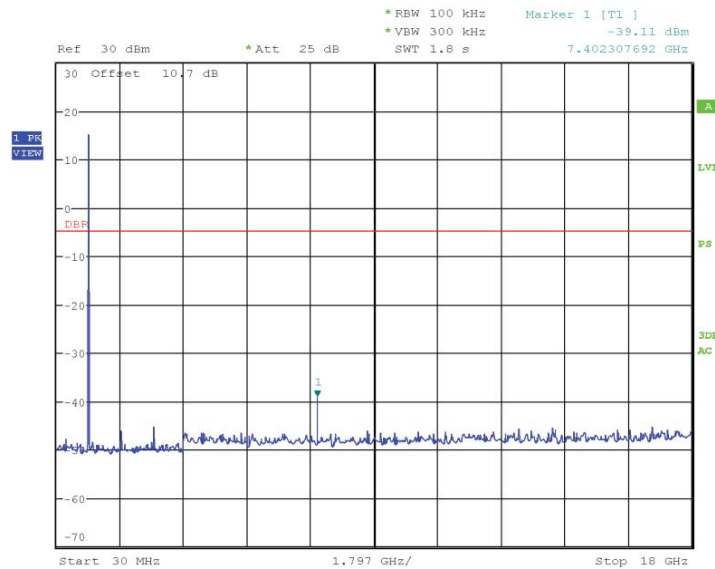
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Date: 24.JUN.2021 04:27:31

Figure 29 – Mid Channel Conducted Spurious Emissions (FSK)



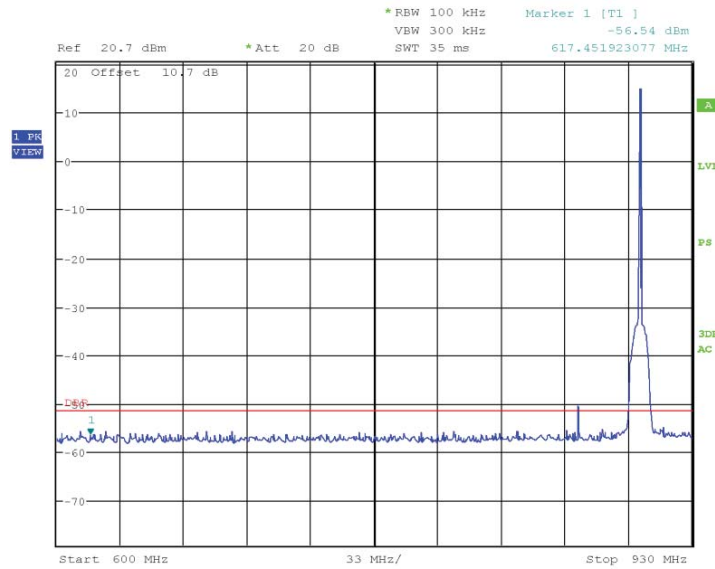
Date: 24.JUN.2021 04:25:53

Figure 30 – High Channel Conducted Spurious Emissions (FSK)

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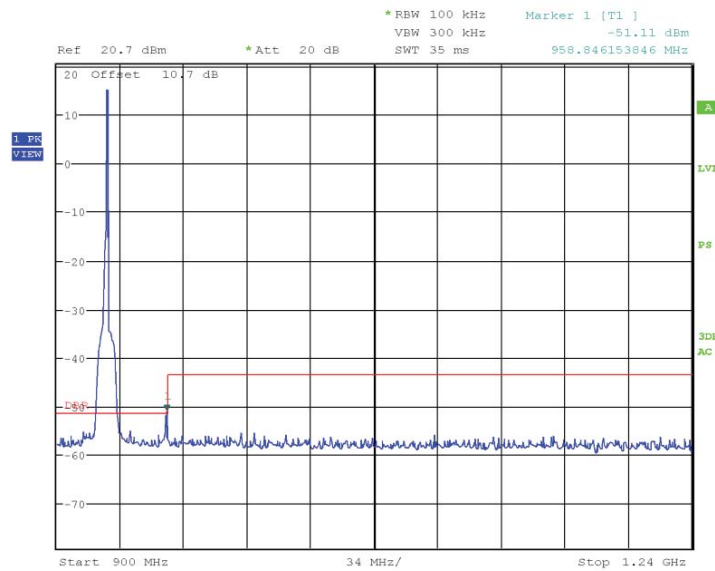
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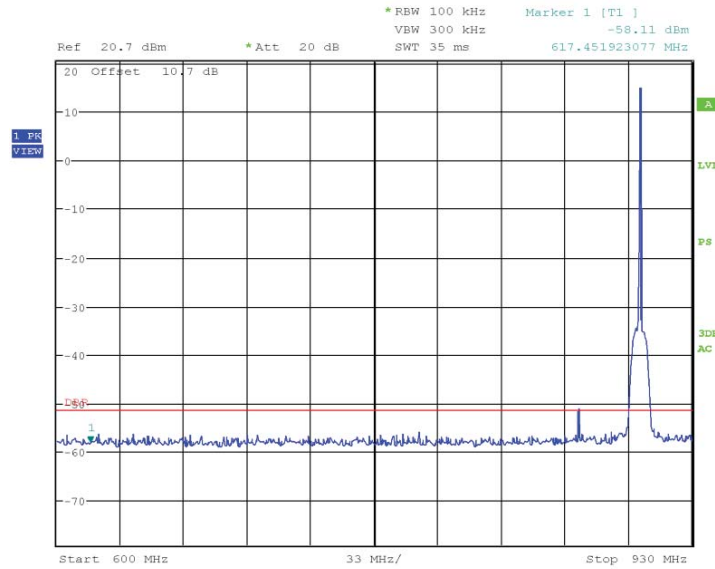
Date: 24.JUN.2021 05:12:18

Figure 31 – Low Channel Conducted Band Edge (LoRa)



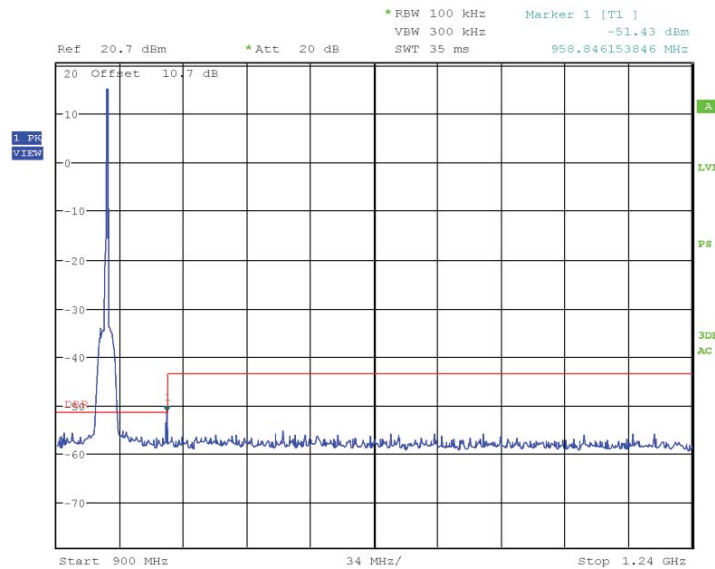
Date: 24.JUN.2021 05:16:00

Figure 32 – High Channel Conducted Band Edge (LoRa)



Date: 24.JUN.2021 05:12:55

Figure 33 – Low Channel Conducted Band Edge (FSK)



Date: 24.JUN.2021 05:16:45

Figure 34 – High Channel Conducted Band Edge (FSK)

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## 4.6 Transmitter Spurious Emissions

This test measures the electromagnetic levels of spurious signals generated by the EUT that radiated from the EUT and may affect the performance of other nearby electronic equipment.

### 4.6.1 Over View of Test

<b>Results</b>	<b>Complies</b> (as tested per this report)				<b>Date</b>	06/10/2021	
<b>Standard</b>	FCC CFR 15.209, RSS-Gen (8.9)						
<b>Product Model</b>	BLUband V3			<b>Serial#</b>	17-000006		
<b>Configuration</b>	See test plan for details.						
<b>Test Set-up</b>	Tested 3 meters semi- anechoic chamber placed on turn-table, see test plans for details.						
<b>EUT Powered By</b>	3.6 VDC	<b>Temp</b>	22°C	<b>Humidity</b>	46%	<b>Pressure</b>	1004 mbar
<b>Frequency Range</b>	30 - 1000 MHz @ 3 meters 1000 - 18000 MHz @ 3 meters						
<b>Channel Frequencies</b>	Low Channel: 903 MHz Mid Channel: 915 MHz High Channel: 927 MHz		<b>Power Setting @ Channel</b>	14 dBm			
<b>Perf. Criteria</b>	Class B (Below Limit)		<b>Perf. Verification</b>	Readings Under Limit			
<b>Mod. to EUT</b>	None		<b>Test Performed By</b>	Alexander Sowinski			

### 4.6.2 Test Procedure

Radiated emissions tests were performed using the procedures of FCC 47 CFR Part 15.209 and/or ANSI C63.10 including methods for signal maximizations and EUT configuration. The photos included with the report show the EUT in its maximized configuration. Further radiated emission tests were performed per the procedures stated in the other emissions standards listed in this report. A notch filter was installed along the signal path to protect the measurement equipment.

The frequency range 30 – 18000 MHz investigated for radiated emissions.

### 4.6.3 Deviations

There were no deviations from the test methodology listed in the test plan for the radiated emission test.

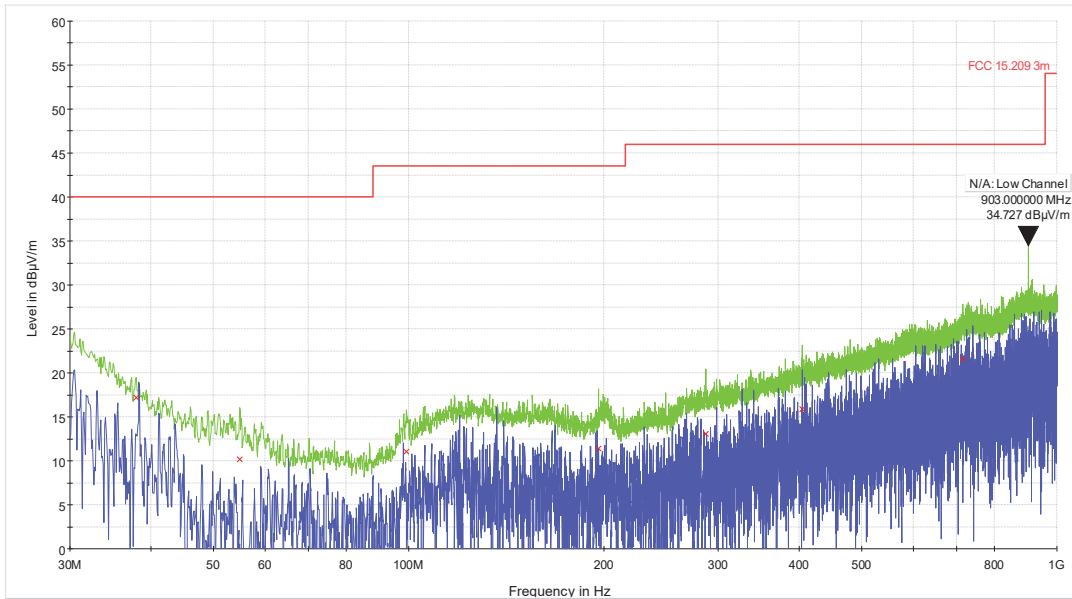
### 4.6.4 Final Test

All final radiated emissions measurements were below (in compliance) the limits.

### 4.6.5 Final Graphs

NOTES: LoRa Low Channel (903 MHz)

**Radiated Emissions 30 – 1000 MHz  
Vertical**



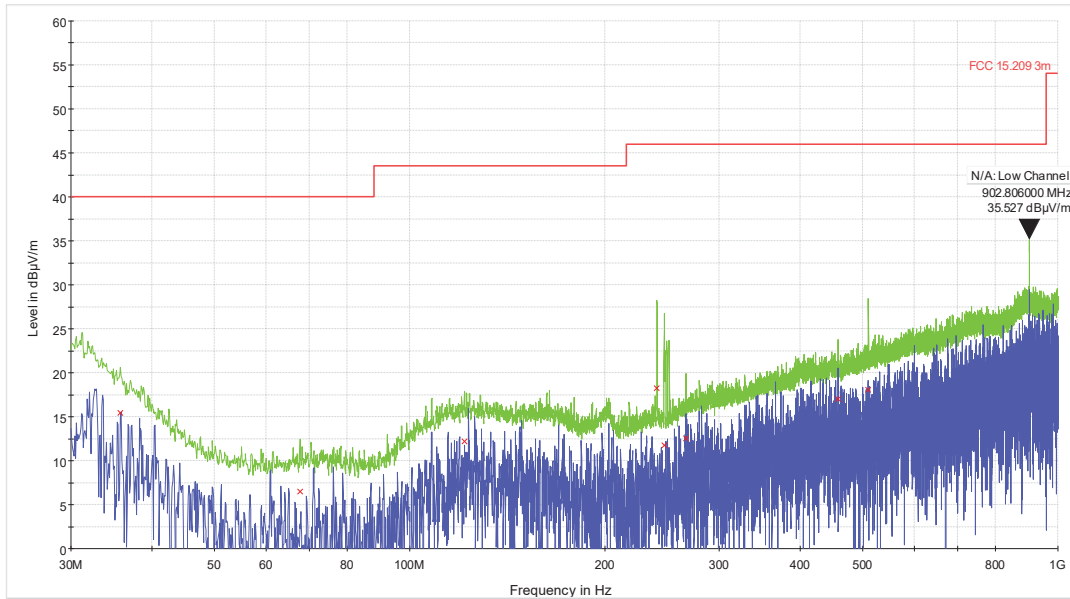
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Prüfbericht-Nr.:

NOTES: LoRa Low Channel (903 MHz)

**Radiated Emissions 30 – 1000 MHz**  
**Horizontal**



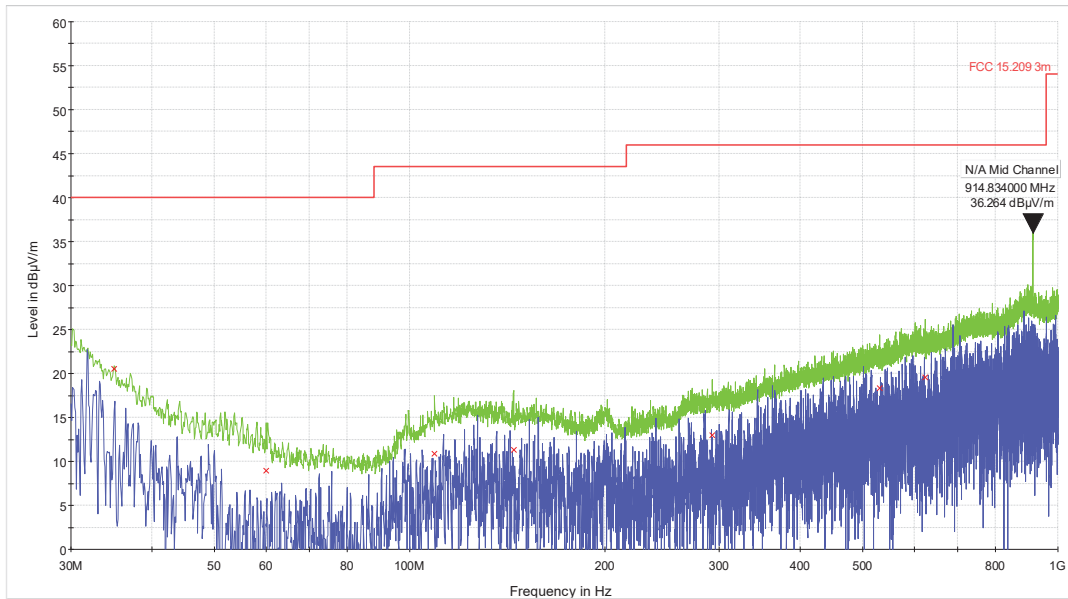
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Prüfbericht-Nr.:

NOTES: LoRa Mid Channel (915 MHz)

**Radiated Emissions 30 – 1000 MHz  
Vertical**





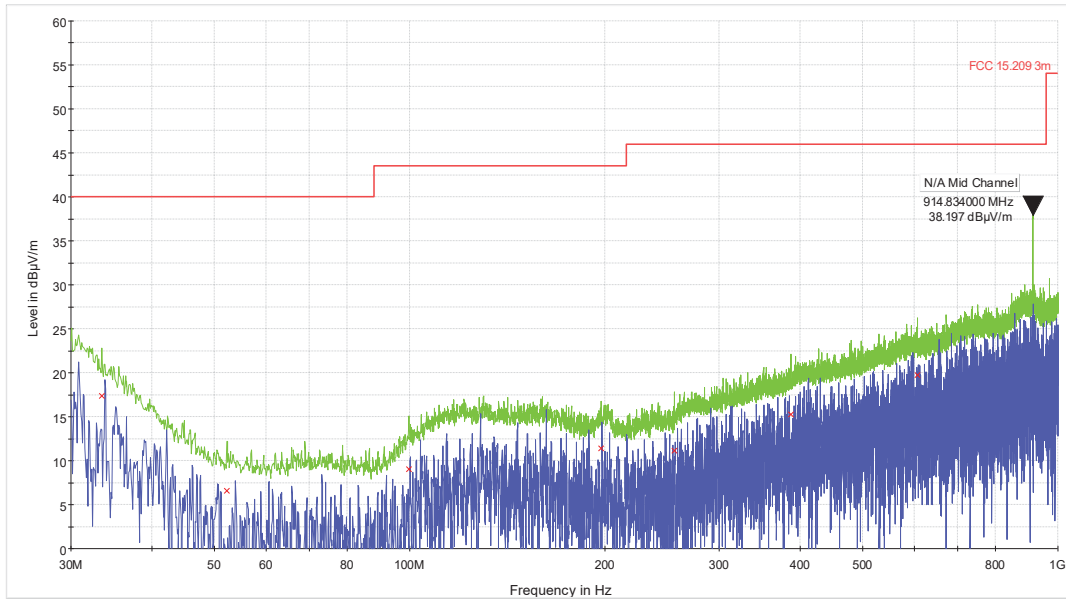
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Prüfbericht-Nr.:

NOTES: LoRa Mid Channel (915 MHz)

**Radiated Emissions 30 – 1000 MHz**  
**Horizontal**

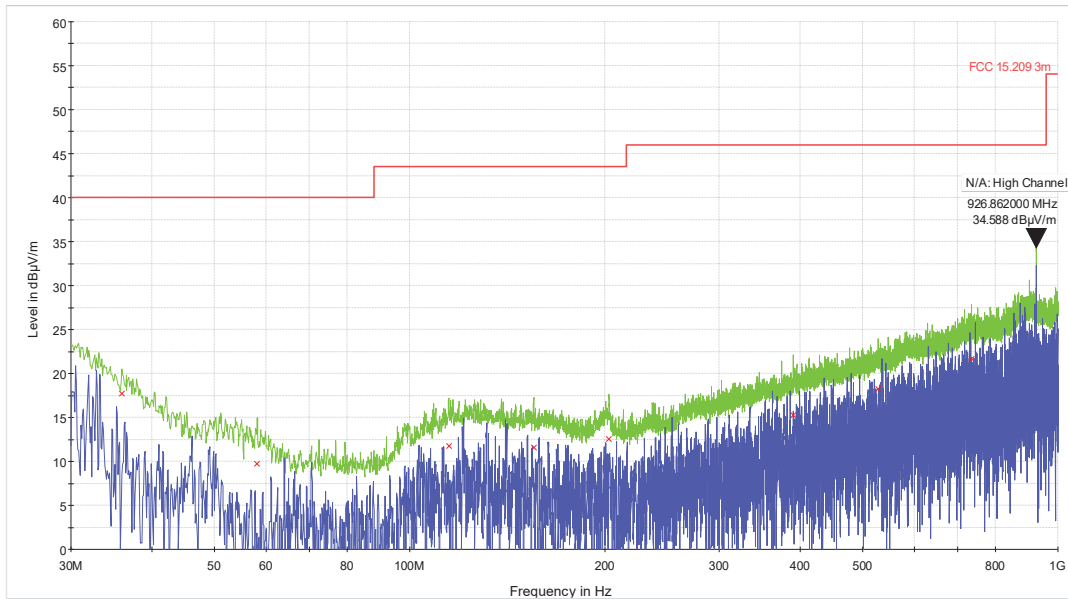


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Prüfbericht-Nr.:

NOTES: LoRa High Channel (927 MHz)  
**Radiated Emissions 30 – 1000 MHz**  
**Vertical**

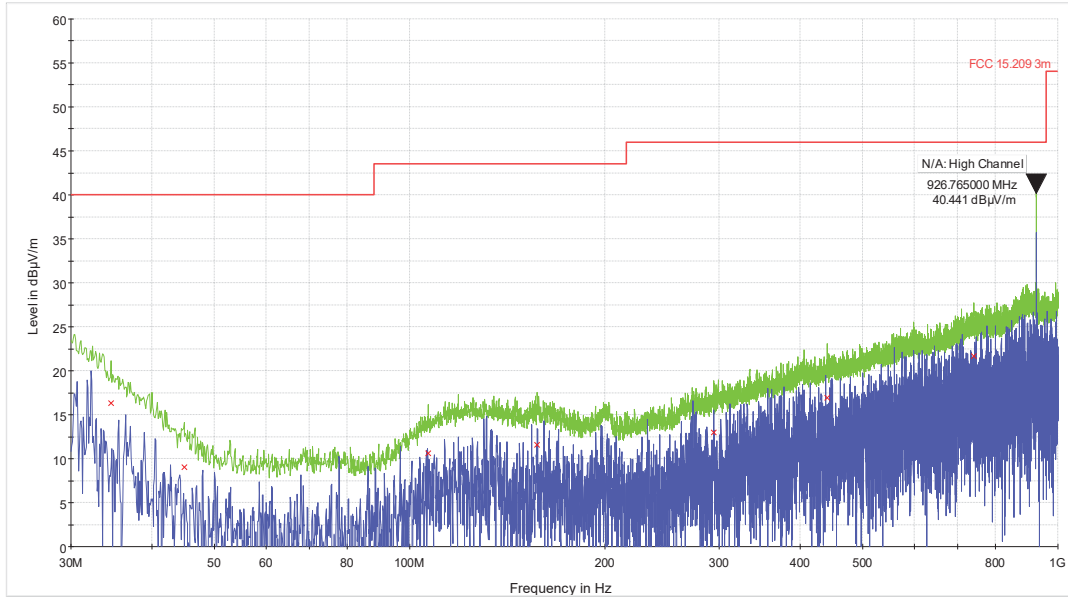


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Prüfbericht-Nr.:

NOTES: LoRa High Channel (927 MHz)  
**Radiated Emissions 30 – 1000 MHz**  
**Horizontal**



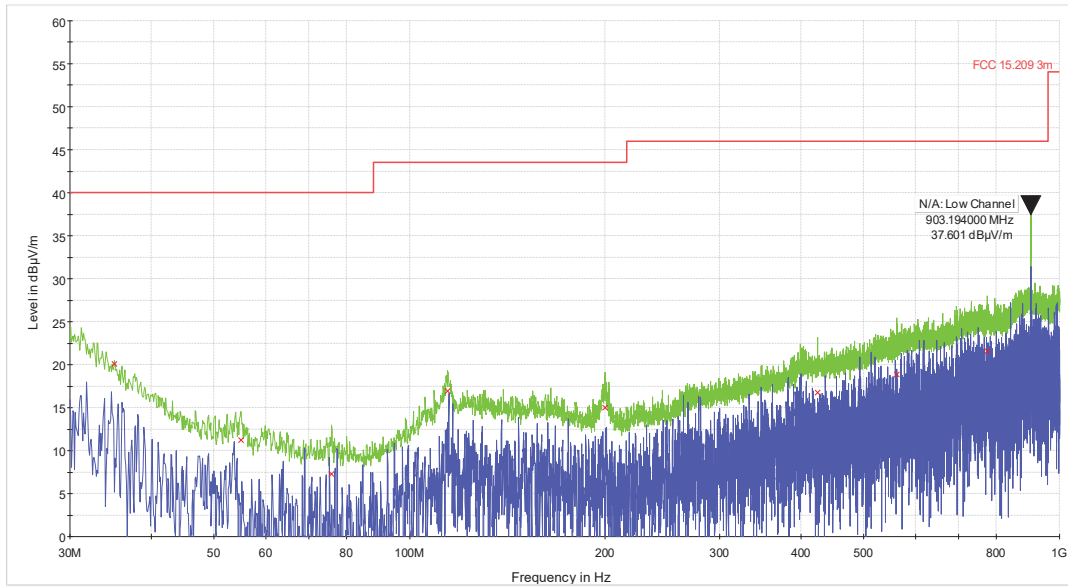
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Prüfbericht-Nr.:

NOTES: FSK Low Channel (903 MHz)

**Radiated Emissions 30 – 1000 MHz  
Vertical**



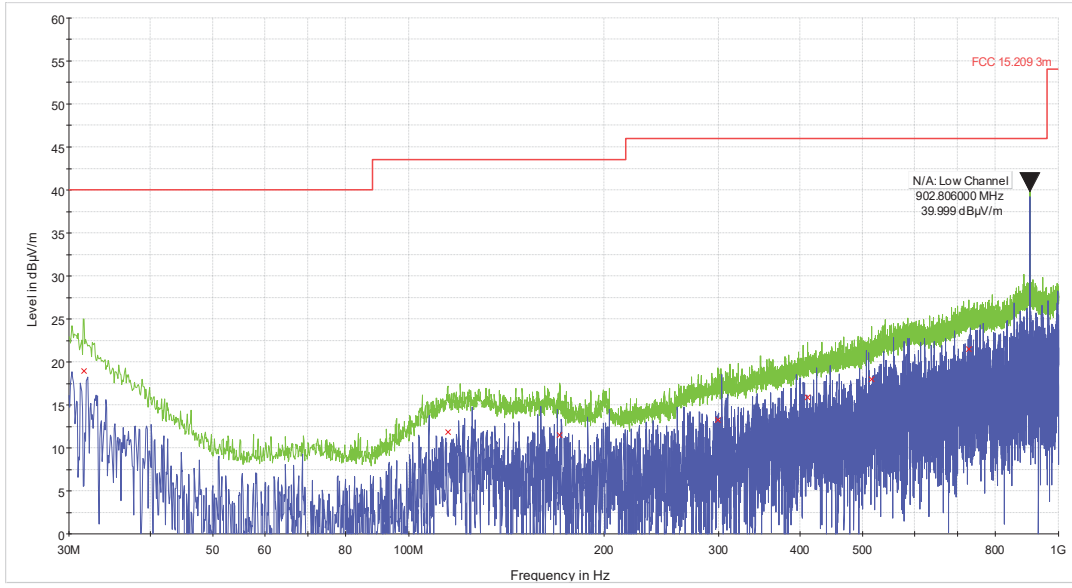
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Prüfbericht-Nr.:

NOTES: FSK Low Channel (903 MHz)

**Radiated Emissions 30 – 1000 MHz  
Horizontal**



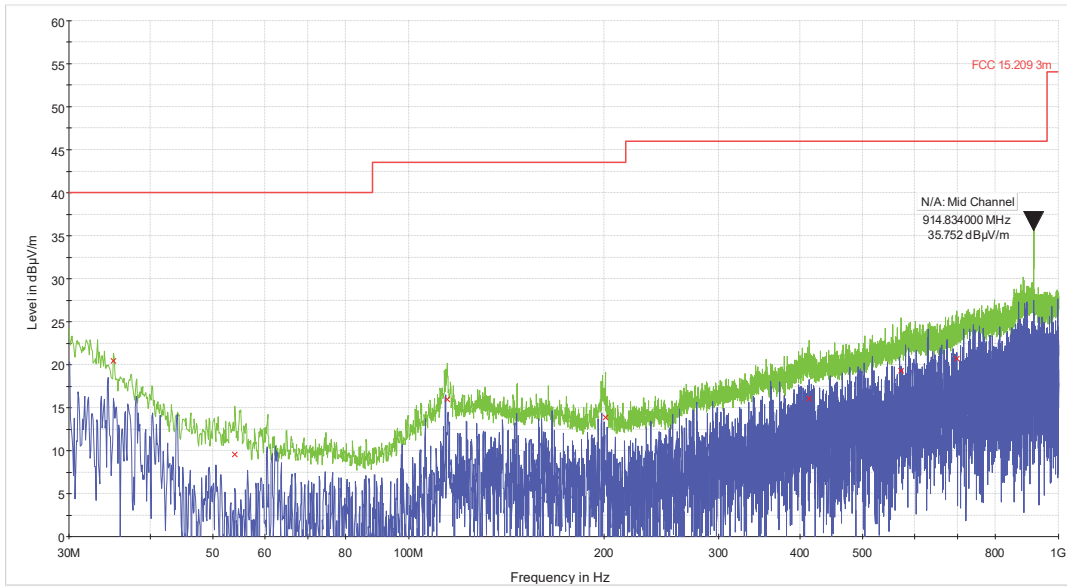
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Prüfbericht-Nr.:

NOTES: FSK Mid Channel (915 MHz)

**Radiated Emissions 30 – 1000 MHz  
Vertical**



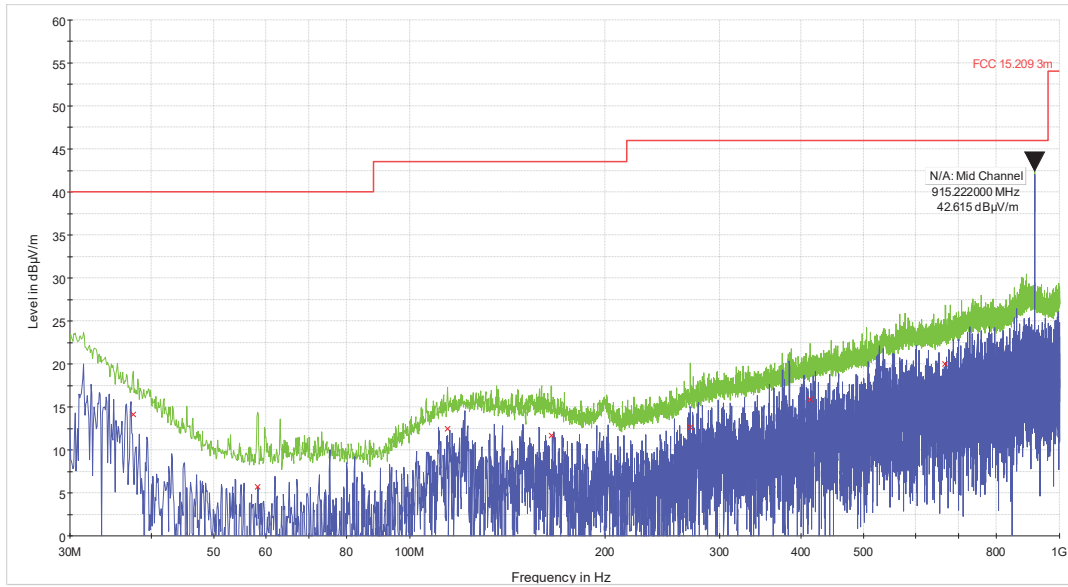
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Prüfbericht-Nr.:

NOTES: FSK Mid Channel (915 MHz)

**Radiated Emissions 30 – 1000 MHz  
Horizontal**



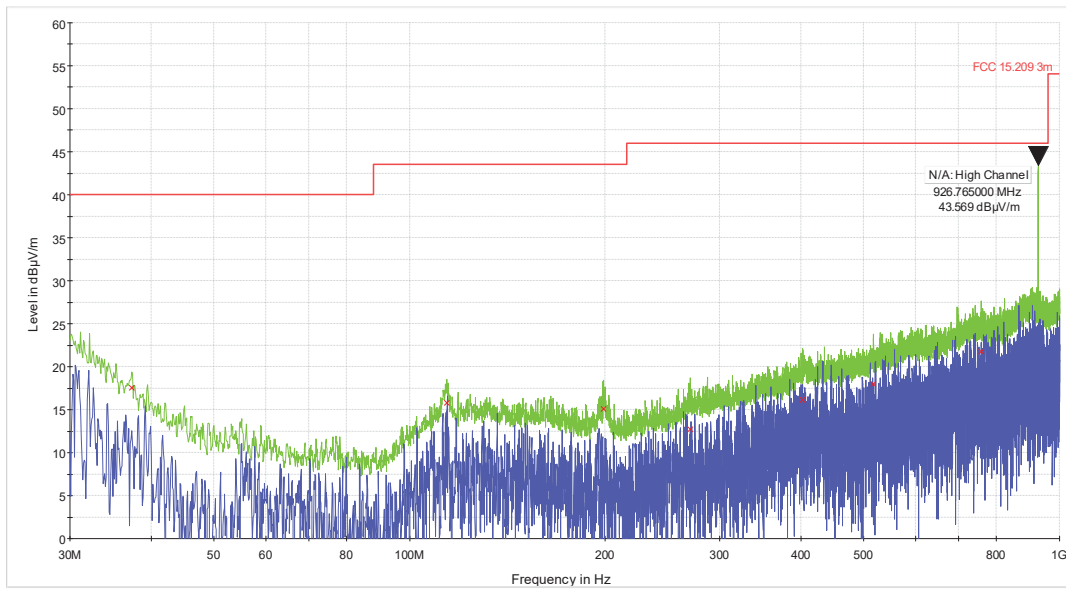
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Prüfbericht-Nr.:

NOTES: FSK High Channel (927 MHz)

**Radiated Emissions 30 – 1000 MHz  
Vertical**





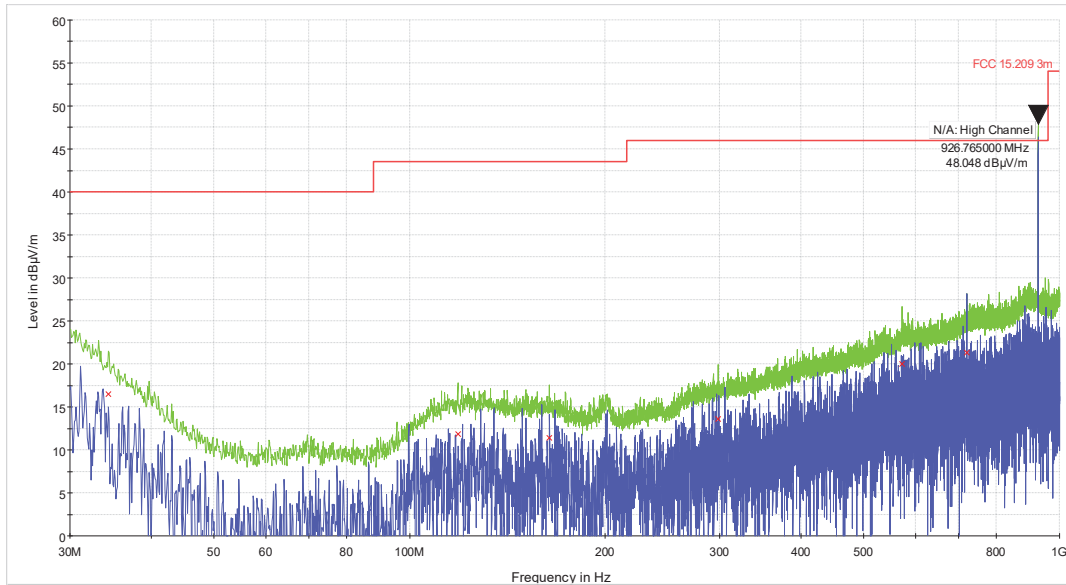
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Prüfbericht-Nr.:

NOTES: FSK High Channel (927 MHz)

**Radiated Emissions 30 – 1000 MHz**  
**Horizontal**



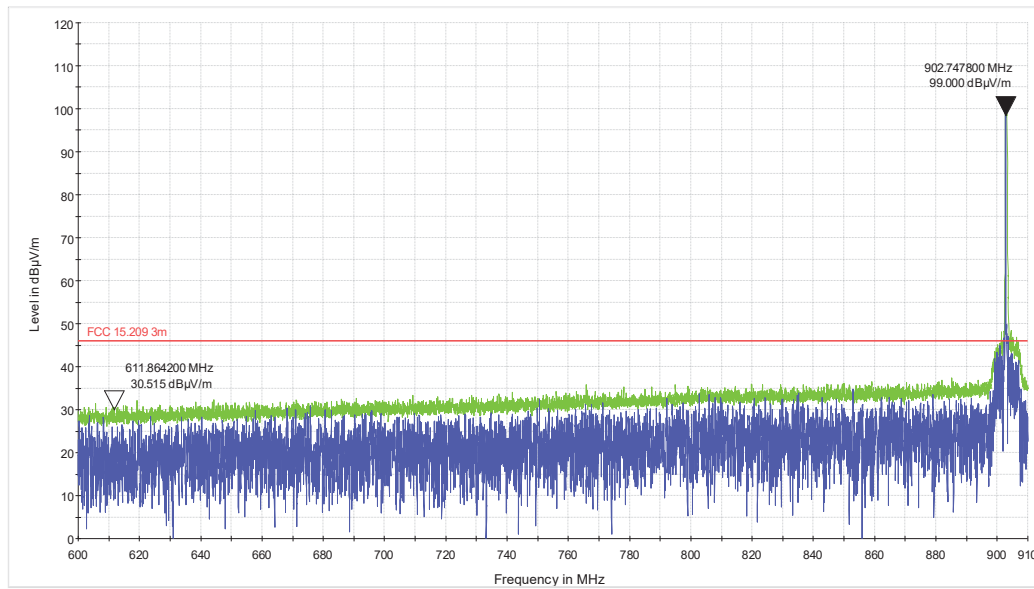
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Prüfbericht-Nr.:

NOTES: LoRa Low Channel (903 MHz)

**Radiated Emissions Band Edge  
Worst Case - Horizontal**



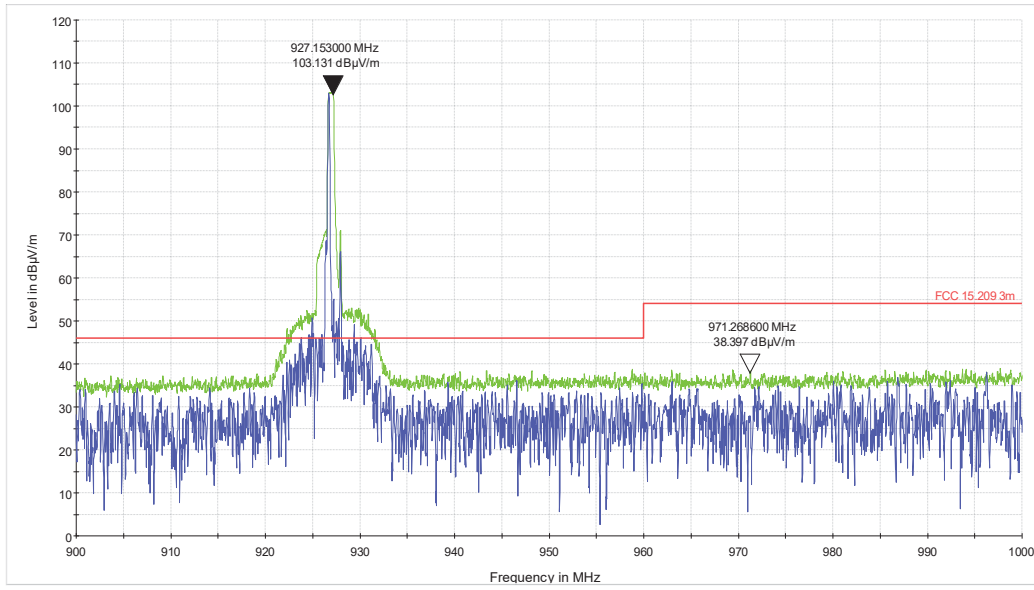
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Prüfbericht-Nr.:

NOTES: LoRa High Channel (927 MHz)

**Radiated Emissions Band Edge  
Worst Case - Horizontal**



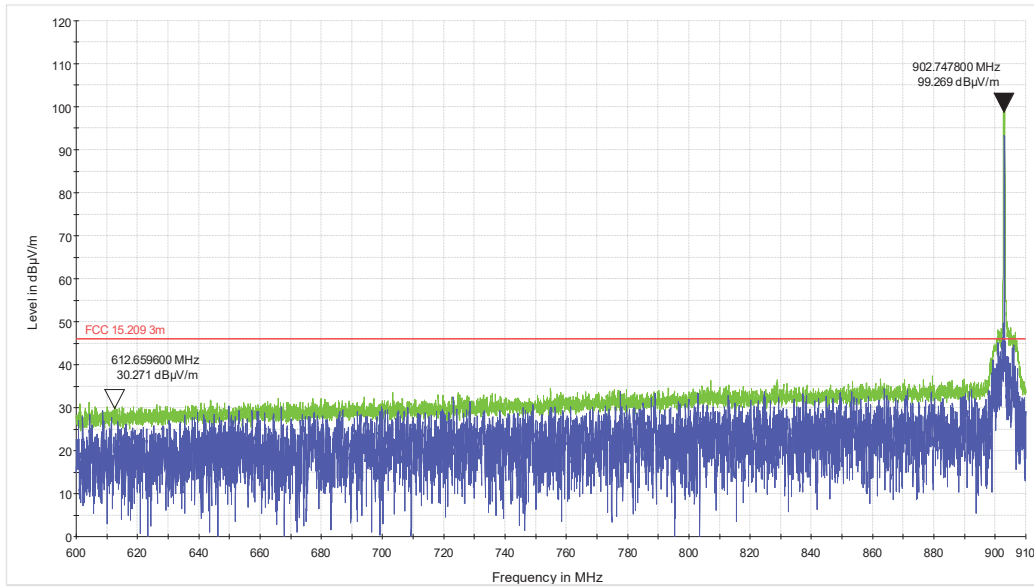
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Prüfbericht-Nr.:

NOTES: FSK Low Channel (903 MHz)

**Radiated Emissions Band Edge  
Worst Case - Horizontal**



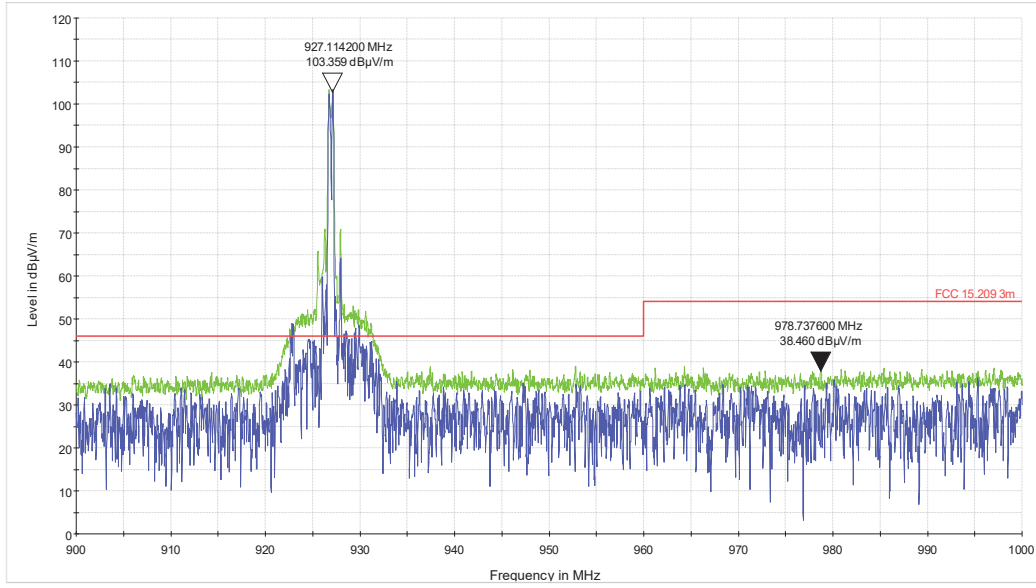
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Prüfbericht-Nr.:

NOTES: FSK High Channel (927 MHz)

**Radiated Emissions Band Edge  
Worst Case - Horizontal**



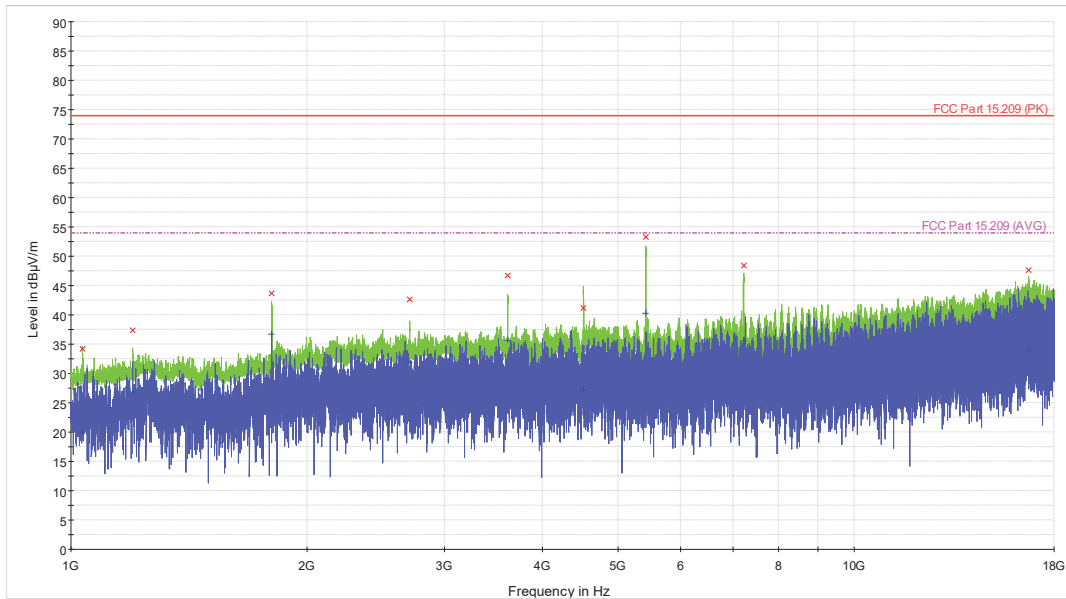
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Prüfbericht-Nr.:

NOTES: LoRa Low Channel (903 MHz)

**Radiated Emissions 1 – 18 GHz  
Vertical**



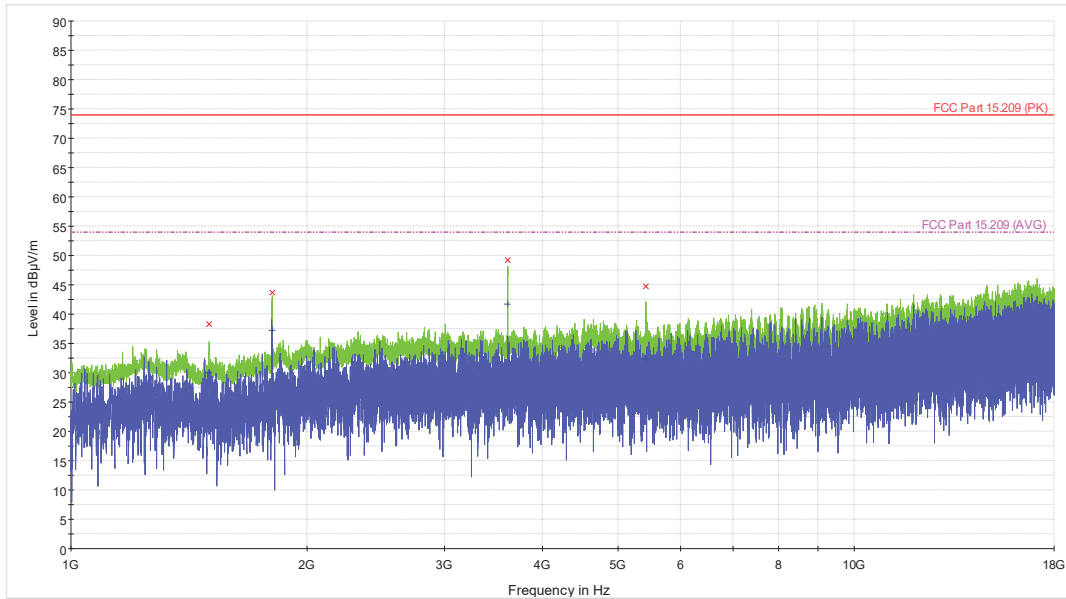
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Prüfbericht-Nr.:

NOTES: LoRa Low Channel (903 MHz)

**Radiated Emissions 1 – 18 GHz  
Horizontal**



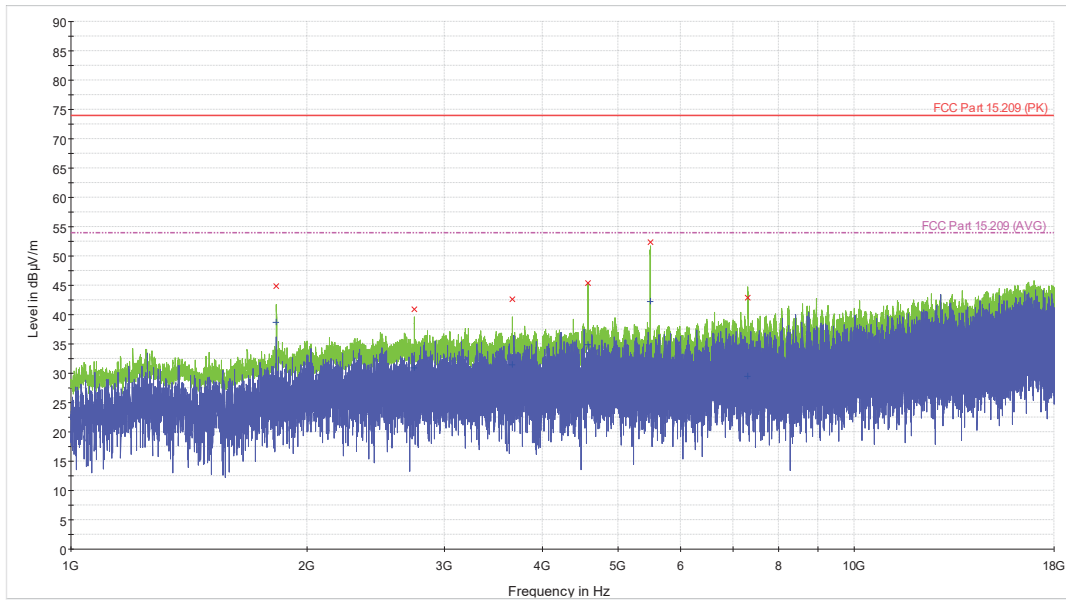
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Prüfbericht-Nr.:

NOTES: LoRa Mid Channel (915 MHz)

**Radiated Emissions 1 – 18 GHz  
Vertical**





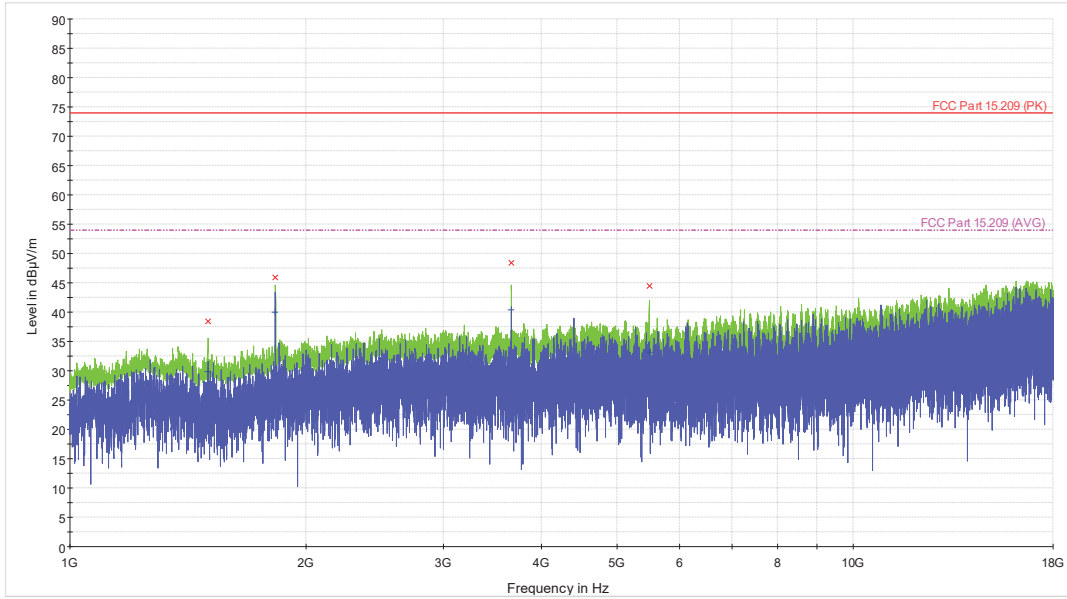
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Prüfbericht-Nr.:

NOTES: LoRa Mid Channel (915 MHz)

**Radiated Emissions 1 – 18 GHz  
Horizontal**



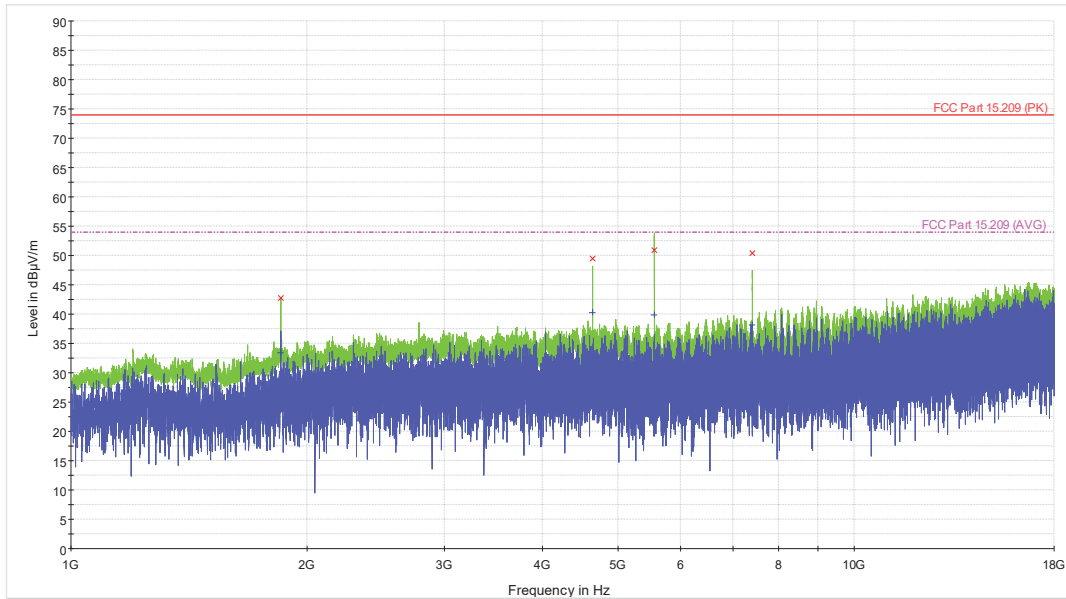
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Prüfbericht-Nr.:

NOTES: LoRa High Channel (927 MHz)

**Radiated Emissions 1 – 18 GHz  
Vertical**



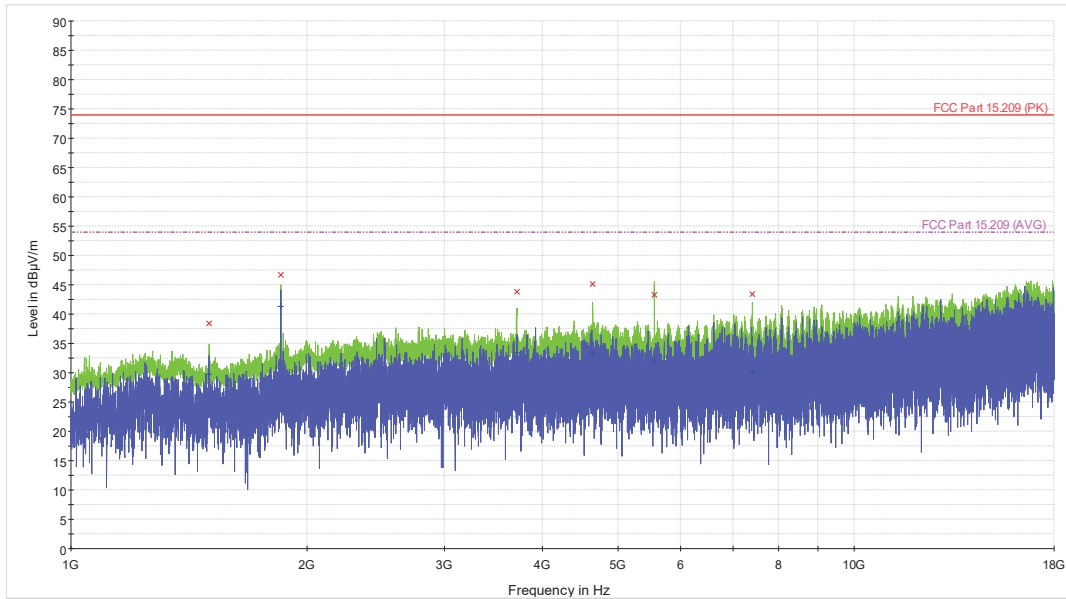
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Prüfbericht-Nr.:

NOTES: LoRa High Channel (927 MHz)

**Radiated Emissions 1 – 18 GHz  
Horizontal**



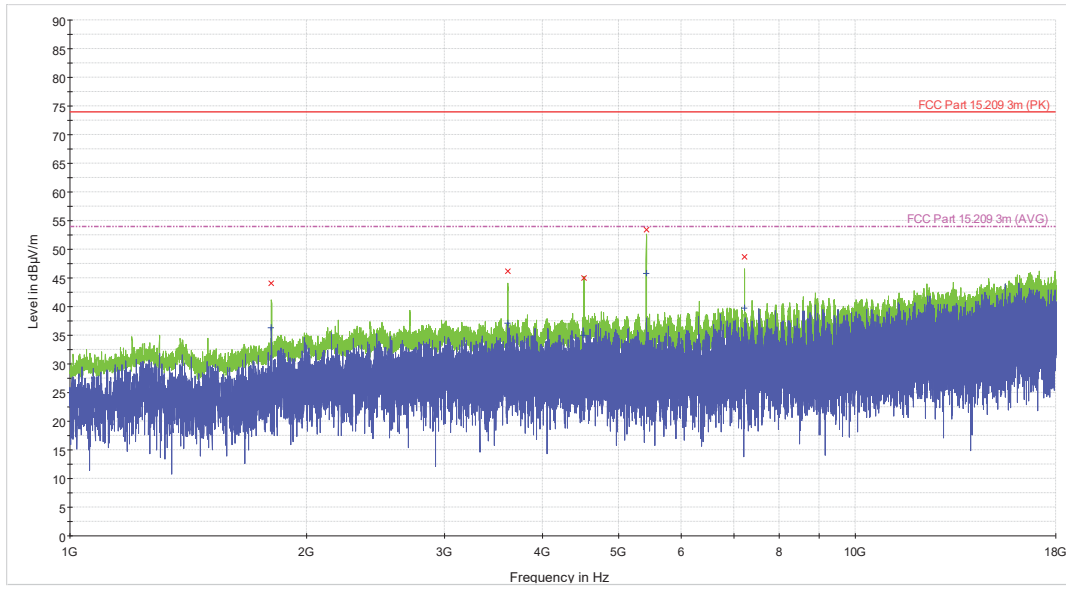
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Prüfbericht-Nr.:

NOTES: FSK Low Channel (903 MHz)

**Radiated Emissions 1 – 18 GHz  
Vertical**



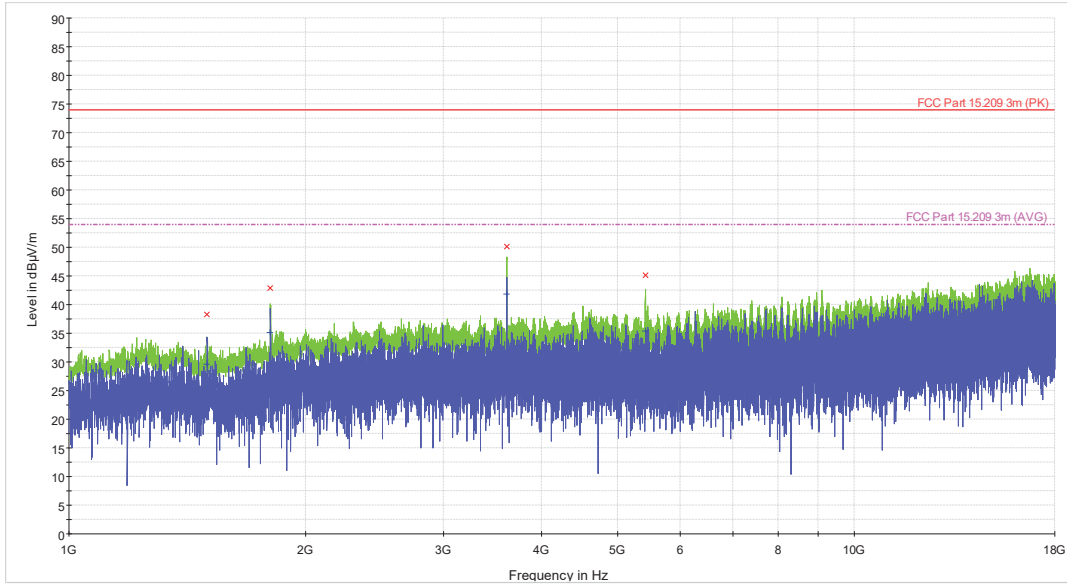
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Prüfbericht-Nr.:

NOTES: FSK Low Channel (903 MHz)

**Radiated Emissions 1 – 18 GHz  
Horizontal**



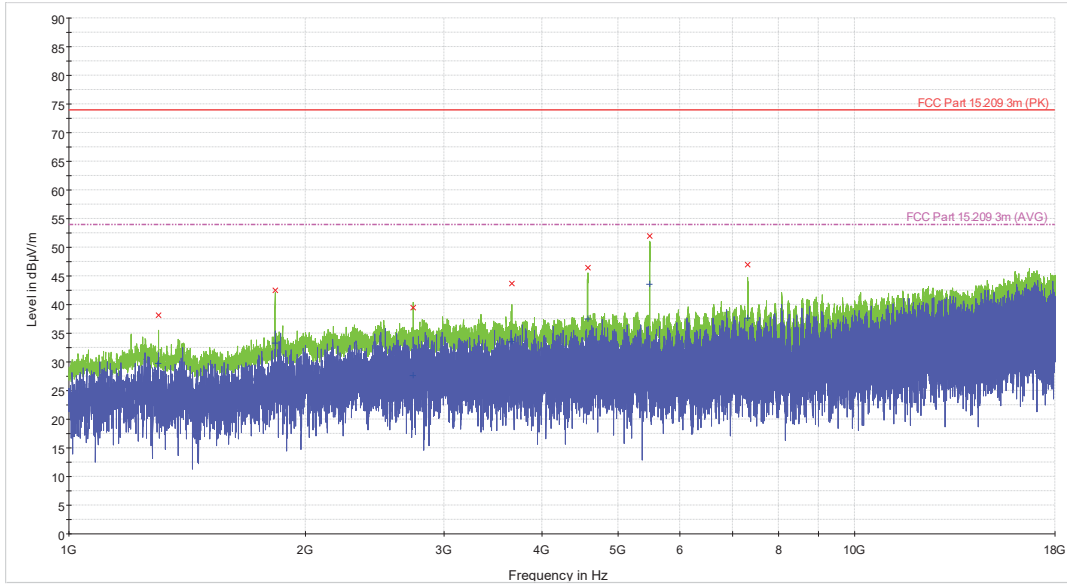
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Prüfbericht-Nr.:

NOTES: FSK Mid Channel (915 MHz)

**Radiated Emissions 1 – 18 GHz  
Vertical**



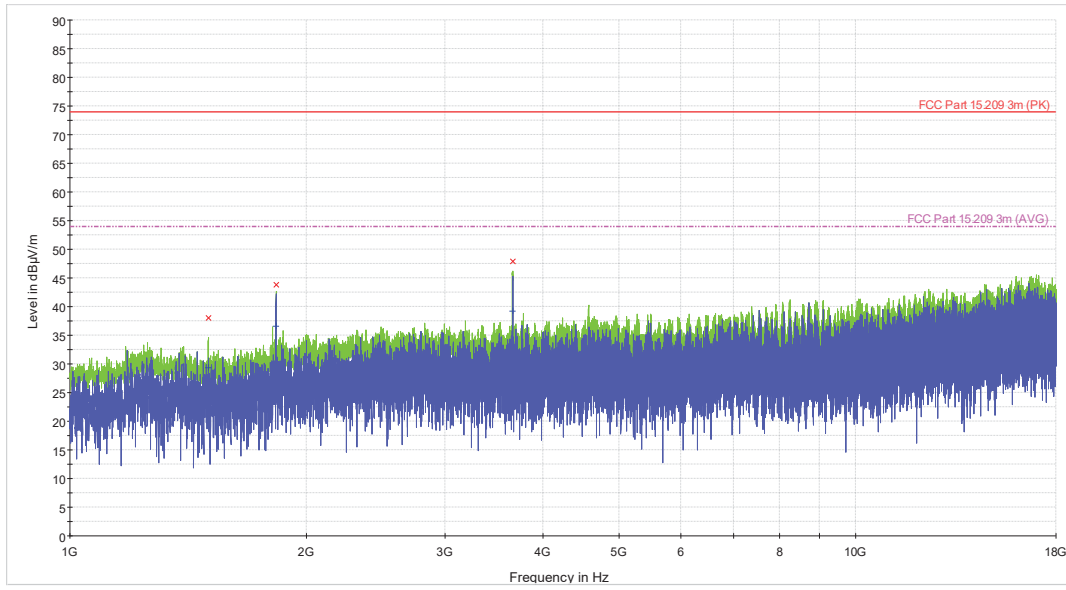
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Prüfbericht-Nr.:

NOTES: FSK Mid Channel (915 MHz)

**Radiated Emissions 1 – 18 GHz  
Horizontal**



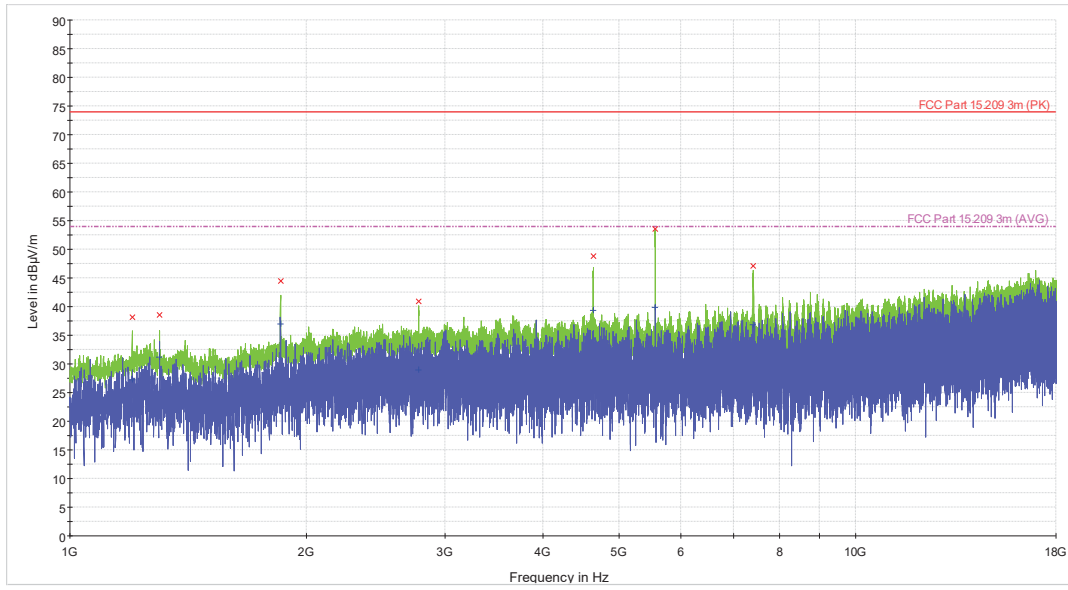
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Prüfbericht-Nr.:

NOTES: FSK High Channel (927 MHz)

**Radiated Emissions 1 – 18 GHz  
Vertical**





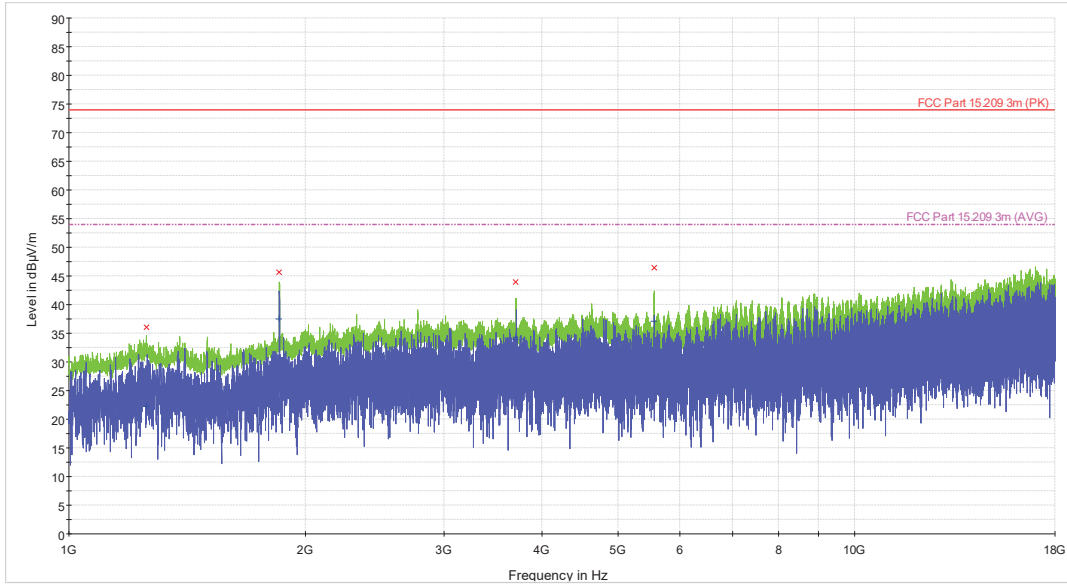
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NOTES: FSK High Channel (927 MHz)

**Radiated Emissions 1 – 18 GHz  
Horizontal**



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#### 4.6.6 Final Tabulated Data

30-1000 MHz (LoRa Low Channel 903 MHz) –

Frequency MHz	QuasiPeak dBµV/m	Height cm	Pol	Azimuth deg	Limit - QPK dBµV/m	Margin - QPK dB
35.72	15.5	250.0	H	253.0	40.0	-24.5
37.96	17.2	100.0	V	178.0	40.0	-22.8
54.84	10.1	100.0	V	80.0	40.0	-29.9
67.64	6.5	250.0	H	291.0	40.0	-33.5
99.24	11.0	100.0	V	34.0	43.5	-32.5
121.28	12.2	250.0	H	325.0	43.5	-31.3
196.16	11.4	100.0	V	117.0	43.5	-32.1
240.60	18.3	250.0	H	117.0	46.0	-27.7
246.80	11.8	250.0	H	195.0	46.0	-34.2
266.68	12.6	250.0	H	170.0	46.0	-33.4
287.04	13.1	100.0	V	213.0	46.0	-32.9
404.12	15.9	100.0	V	148.0	46.0	-30.1
457.68	17.0	250.0	H	99.0	46.0	-29.0
510.00	18.1	250.0	H	340.0	46.0	-27.9
715.20	21.6	100.0	V	248.0	46.0	-24.4

30-1000 MHz (LoRa Mid Channel 915 MHz) –

Frequency MHz	QuasiPeak dBµV/m	Height cm	Pol	Azimuth deg	Limit - QPK dBµV/m	Margin - QPK dB
33.48	17.4	250.0	H	37.0	40.0	-22.6
34.96	20.6	100.0	V	262.0	40.0	-19.4
52.20	6.5	250.0	H	119.0	40.0	-33.5
59.96	9.0	100.0	V	261.0	40.0	-31.0
99.64	9.0	250.0	H	198.0	43.5	-34.5
109.16	10.9	100.0	V	125.0	43.5	-32.6
144.56	11.3	100.0	V	2.0	43.5	-32.2
197.24	11.4	250.0	H	250.0	43.5	-32.1
255.80	11.2	250.0	H	277.0	46.0	-34.8
292.88	13.0	100.0	V	70.0	46.0	-33.0
387.56	15.3	250.0	H	158.0	46.0	-30.7
531.12	18.3	100.0	V	195.0	46.0	-27.7
606.56	19.8	250.0	H	74.0	46.0	-26.2
624.24	19.5	100.0	V	292.0	46.0	-26.5

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Prüfbericht-Nr.:

30-1000 MHz (LoRa High Channel 927 MHz) –

Frequency MHz	QuasiPeak dBµV/m	Height cm	Pol	Azimuth deg	Limit - QPK dBµV/m	Margin - QPK dB
34.56	16.3	250.0	H	286.0	40.0	-23.7
35.92	17.8	100.0	V	75.0	40.0	-22.2
44.84	9.1	250.0	H	172.0	40.0	-30.9
58.12	9.7	100.0	V	178.0	40.0	-30.3
106.72	10.6	250.0	H	124.0	43.5	-32.9
114.88	11.8	100.0	V	163.0	43.5	-31.7
155.24	11.6	100.0	V	114.0	43.5	-31.9
157.28	11.6	250.0	H	196.0	43.5	-31.9
203.04	12.5	100.0	V	276.0	43.5	-31.0
294.72	13.0	250.0	H	-2.0	46.0	-33.0
390.24	15.3	100.0	V	282.0	46.0	-30.7
440.52	16.9	250.0	H	60.0	46.0	-29.1
528.28	18.3	100.0	V	66.0	46.0	-27.7
735.08	21.7	100.0	V	94.0	46.0	-24.3
742.36	21.7	250.0	H	222.0	46.0	-24.3

30-1000 MHz (FSK Low Channel 903 MHz) –

Frequency MHz	QuasiPeak dBµV/m	Height cm	Pol	Azimuth deg	Limit - QPK dBµV/m	Margin - QPK dB
31.64	18.9	150.0	H	162.0	40.0	-21.1
35.16	20.1	100.0	V	223.0	40.0	-19.9
55.04	11.2	100.0	V	164.0	40.0	-28.8
75.88	7.3	100.0	V	57.0	40.0	-32.7
114.40	16.9	100.0	V	167.0	43.5	-26.6
114.88	11.9	150.0	H	212.0	43.5	-31.6
170.84	11.5	150.0	H	126.0	43.5	-32.0
199.56	15.0	100.0	V	266.0	43.5	-28.5
298.88	13.3	150.0	H	70.0	46.0	-32.7
410.52	15.9	150.0	H	264.0	46.0	-30.1
423.92	16.7	100.0	V	106.0	46.0	-29.3
515.88	17.9	150.0	H	346.0	46.0	-28.1
562.32	18.9	100.0	V	105.0	46.0	-27.1
728.00	21.5	150.0	H	240.0	46.0	-24.5
773.20	21.6	100.0	V	314.0	46.0	-24.4

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Prüfbericht-Nr.:

30-1000 MHz (FSK Mid Channel 915 MHz) –

Frequency MHz	QuasiPeak dBµV/m	Height cm	Pol	Azimuth deg	Limit - QPK dBµV/m	Margin - QPK dB
35.16	20.5	100.0	V	300.0	40.0	-19.5
37.56	14.1	150.0	H	68.0	40.0	-25.9
54.04	9.5	100.0	V	189.0	40.0	-30.5
58.32	5.7	150.0	H	197.0	40.0	-34.3
114.40	12.4	150.0	H	341.0	43.5	-31.1
114.60	16.0	100.0	V	71.0	43.5	-27.5
165.12	11.7	150.0	H	122.0	43.5	-31.8
200.72	13.8	100.0	V	276.0	43.5	-29.7
270.08	12.7	150.0	H	221.0	46.0	-33.3
412.96	16.1	100.0	V	130.0	46.0	-29.9
413.16	15.9	150.0	H	265.0	46.0	-30.1
572.12	19.3	100.0	V	56.0	46.0	-26.7
667.20	20.0	150.0	H	139.0	46.0	-26.0
697.64	20.7	100.0	V	232.0	46.0	-25.3

30-1000 MHz (FSK High Channel 927 MHz) –

Frequency MHz	QuasiPeak dBµV/m	Height cm	Pol	Azimuth deg	Limit - QPK dBµV/m	Margin - QPK dB
34.36	16.5	150.0	H	249.0	40.0	-23.5
37.36	17.6	100.0	V	152.0	40.0	-22.4
114.00	15.8	100.0	V	166.0	43.5	-27.7
118.56	11.8	150.0	H	31.0	43.5	-31.7
163.96	11.4	150.0	H	229.0	43.5	-32.1
198.88	15.1	100.0	V	270.0	43.5	-28.4
270.08	12.7	100.0	V	300.0	46.0	-33.3
298.40	13.6	150.0	H	325.0	46.0	-32.4
402.76	16.1	100.0	V	105.0	46.0	-29.9
517.60	18.0	100.0	V	238.0	46.0	-28.0
572.72	20.0	150.0	H	201.0	46.0	-26.0
720.56	21.3	150.0	H	174.0	46.0	-24.7
757.40	21.7	100.0	V	300.0	46.0	-24.3

1-18GHz (LoRa Low Channel 903 MHz) –

Frequency MHz	MaxPeak dBµV/m	CAverage dBµV/m	Height cm	Pol	Azimuth deg	Limit - PK dBµV/m	Margin - PK dB	Limit - AVG dBµV/m	Margin - AVG dB
1035.40	34.2	20.0	125.0	V	122.0	74.0	-39.8	54.0	-34.0
1200.00	37.4	26.9	125.0	V	303.0	74.0	-36.6	54.0	-27.1
1500.00	38.4	30.0	225.0	H	220.0	74.0	-35.6	54.0	-24.0
1805.50	43.8	36.7	125.0	V	202.0	74.0	-30.2	54.0	-17.3
1806.10	43.7	37.3	225.0	H	92.0	74.0	-30.3	54.0	-16.7
2709.20	42.6	32.0	125.0	V	219.0	74.0	-31.4	54.0	-22.0
3610.90	46.7	35.7	125.0	V	26.0	74.0	-27.3	54.0	-18.3
3611.50	49.2	41.8	225.0	H	345.0	74.0	-24.8	54.0	-12.2
4514.90	41.2	27.3	125.0	V	291.0	74.0	-32.8	54.0	-26.7
5416.30	53.2	40.3	125.0	V	219.0	74.0	-20.8	54.0	-13.7
5416.60	44.7	32.4	225.0	H	12.0	74.0	-29.3	54.0	-21.6
7222.70	48.4	35.6	125.0	V	131.0	74.0	-25.6	54.0	-18.4
16710.00	47.6	34.0	125.0	V	163.0	74.0	-26.4	54.0	-20.0

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1-18GHz (LoRa Mid Channel 915 MHz) –

Frequency MHz	MaxPeak dBµV/m	CAverage dBµV/m	Height cm	Pol	Azimuth deg	Limit - PK dBµV/m	Margin - PK dB	Limit - AVG dBµV/m	Margin - AVG dB
1500.00	38.4	29.9	225.0	H	130.0	74.0	-35.6	54.0	-24.1
1829.60	44.8	38.7	125.0	V	190.0	74.0	-29.2	54.0	-15.3
1829.60	45.9	40.0	225.0	H	97.0	74.0	-28.1	54.0	-14.0
2744.50	40.9	30.9	125.0	V	212.0	74.0	-33.1	54.0	-23.1
3659.10	42.7	31.5	125.0	V	147.0	74.0	-31.3	54.0	-22.5
3659.80	48.4	40.4	225.0	H	255.0	74.0	-25.6	54.0	-13.6
4574.40	45.3	34.9	125.0	V	213.0	74.0	-28.7	54.0	-19.1
5488.70	44.5	33.1	225.0	H	213.0	74.0	-29.5	54.0	-20.9
5489.40	52.4	42.2	125.0	V	171.0	74.0	-21.6	54.0	-11.8
7318.20	43.0	29.5	125.0	V	325.0	74.0	-31.0	54.0	-24.5

1-18GHz (LoRa High Channel 927 MHz) –

Frequency MHz	MaxPeak dBµV/m	CAverage dBµV/m	Height cm	Pol	Azimuth deg	Limit - PK dBµV/m	Margin - PK dB	Limit - AVG dBµV/m	Margin - AVG dB
1500.10	38.5	29.8	225.0	H	113.0	74.0	-35.5	54.0	-24.2
1853.40	42.8	33.4	125.0	V	201.0	74.0	-31.2	54.0	-20.6
1854.10	46.7	41.4	225.0	H	55.0	74.0	-27.3	54.0	-12.6
3707.10	43.9	33.5	225.0	H	244.0	74.0	-30.1	54.0	-20.5
4634.30	49.4	40.2	125.0	V	165.0	74.0	-24.6	54.0	-13.8
4634.90	45.1	33.3	225.0	H	265.0	74.0	-28.9	54.0	-20.7
5560.40	51.0	39.8	125.0	V	202.0	74.0	-23.0	54.0	-14.2
5562.50	43.3	31.9	225.0	H	307.0	74.0	-30.7	54.0	-22.1
7414.80	43.4	30.1	225.0	H	180.0	74.0	-30.6	54.0	-23.9
7415.10	50.4	38.1	125.0	V	0.0	74.0	-23.6	54.0	-15.9

1-18GHz (FSK Low Channel 903 MHz) –

Frequency MHz	MaxPeak dBµV/m	CAverage dBµV/m	Height cm	Pol	Azimuth deg	Limit - PK dBµV/m	Margin - PK dB	Limit - AVG dBµV/m	Margin - AVG dB
1500.00	38.2	29.6	225.0	H	203.0	74.0	-35.8	54.0	-24.4
1805.50	44.1	36.3	125.0	V	199.0	74.0	-29.9	54.0	-17.7
1805.50	42.9	35.1	225.0	H	232.0	74.0	-31.1	54.0	-18.9
3610.90	46.2	37.1	125.0	V	186.0	74.0	-27.8	54.0	-16.9
3610.90	50.2	41.9	225.0	H	128.0	74.0	-23.8	54.0	-12.1
4515.60	45.0	34.9	125.0	V	232.0	74.0	-29.0	54.0	-19.1
5416.60	45.1	35.4	225.0	H	11.0	74.0	-28.9	54.0	-18.6
5418.60	53.5	45.9	125.0	V	105.0	74.0	-20.5	54.0	-8.1
7222.00	48.8	39.8	125.0	V	74.0	74.0	-25.2	54.0	-14.2

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1-18GHz (FSK Mid Channel 915 MHz) –

Frequency MHz	MaxPeak dBµV/m	CAverage dBµV/m	Height cm	Pol	Azimuth deg	Limit - PK dBµV/m	Margin - PK dB	Limit - AVG dBµV/m	Margin - AVG dB
1300.00	38.2	29.7	125.0	V	-2.0	74.0	-35.8	54.0	-24.3
1500.00	38.0	29.4	225.0	H	260.0	74.0	-36.0	54.0	-24.6
1829.30	42.5	33.2	125.0	V	249.0	74.0	-31.5	54.0	-20.8
1829.60	43.8	36.6	225.0	H	68.0	74.0	-30.2	54.0	-17.4
2744.50	39.5	27.7	125.0	V	-2.0	74.0	-34.5	54.0	-26.3
3660.50	43.7	33.5	125.0	V	2.0	74.0	-30.3	54.0	-20.5
3660.50	47.9	39.3	225.0	H	181.0	74.0	-26.1	54.0	-14.7
4575.40	46.5	37.5	125.0	V	137.0	74.0	-27.5	54.0	-16.5
5488.30	51.9	43.6	125.0	V	147.0	74.0	-22.1	54.0	-10.4
7317.90	47.0	37.6	125.0	V	86.0	74.0	-27.0	54.0	-16.4

1-18GHz (FSK High Channel 927 MHz) –

Frequency MHz	MaxPeak dBµV/m	CAverage dBµV/m	Height cm	Pol	Azimuth deg	Limit - PK dBµV/m	Margin - PK dB	Limit - AVG dBµV/m	Margin - AVG dB
1200.00	38.1	27.3	125.0	V	163.0	74.0	-35.9	54.0	-26.7
1254.30	36.1	22.3	225.0	H	151.0	74.0	-37.9	54.0	-31.7
1300.00	38.6	31.2	125.0	V	355.0	74.0	-35.4	54.0	-22.8
1853.40	45.7	37.5	225.0	H	2.0	74.0	-28.3	54.0	-16.5
1854.10	44.5	37.0	125.0	V	70.0	74.0	-29.5	54.0	-17.0
2780.20	40.9	29.0	125.0	V	257.0	74.0	-33.1	54.0	-25.0
3706.70	44.0	34.0	225.0	H	82.0	74.0	-30.0	54.0	-20.0
4635.30	48.8	39.3	125.0	V	147.0	74.0	-25.2	54.0	-14.7
5561.10	53.6	39.8	125.0	V	292.0	74.0	-20.4	54.0	-14.2
5562.80	46.5	37.2	225.0	H	49.0	74.0	-27.5	54.0	-16.8
7414.10	47.2	36.8	125.0	V	268.0	74.0	-26.8	54.0	-17.2

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## Appendix A

### 5 Test Plan

This test report is intended to follow the test plan outlined herein unless otherwise stated. The test plan provides product information, reference standards, and testing details. The product information below came via client, product manual, product itself and or the internet. Test procedure information will reference standards or internal TUV Rheinland NA procedures.

#### 5.1 General Information

Client	Satellite Tracking of People, LLC
Address 1	5353 W Sam Houston Parkway N, Suite 190
Address 2	Houston, Texas, 77041
Contact Person	Mark Kirincic
Telephone	713-354-9393
Fax	--
e-mail	mkirincic@securustechnologies.com

#### 5.2 Model(s) Name

BLUband V3

#### 5.3 Type of Product

BLUband

#### 5.4 Equipment Under Test (EUT) Description

BLUband is our small, lightweight and extremely durable ankle-worn radio frequency (RF) transceiver. Designed to work in tandem with our BLUhome home-based receiver, BLUband records and reports the date and time when an enrollee enters or leaves a designated location. When used together, BLUband and BLUhome create an extremely effective solution for home confinement monitoring as the ankle transceiver and home monitoring unit continuously communicate with one another to monitor the presence of the enrollee while they are at home.

#### 5.5 Wireless Information

EUT Specifications	
Environment:	Body-worn
Operating Temperature Range °C:	-20°C - 50°C
Multiple Feeds:	No
FCC ID:	S5E-BBD030221
IC ID:	9086A-BBD030221
Product Marketing Name (PMN):	Bluband
Hardware Version Identification Number (HVIN):	1.0
Firmware Version Identification Number (FVIN):	1.0
RF Software Version:	1.0
Operating Modes:	LoRa, FSK
Transmitter Frequency Band:	902 - 928 MHz
Power @ Operating Channel (dBm):	+14 dBm
Antenna Type	Stamp metal embedded SMT
Antenna Gain (dBi)	+1.0 dBi
Modulation:	CSS, FSK
Data Rate	LoRa CSS : 23.810 kbps FSK : 21.875 kbps
TX/RX Chain (s):	Single
Type of Equipment:	Body-worn
*All EUT specifications are provided by the manufacturer or the TUV direct customer Note: Information supplied by the customer and can affect the validity of results	

#### 5.6 Testing Preparation

Four units were provided by the client. One (17-000006) was used for radiated measurements, while the other (17-000005) was used for antenna port conducted measurements. The remaining units were spares.

#### 5.7 General Product Information

Size	H	3.75 in	W	1.80 in	L	1.00 in
Weight	0.29 lbs		Fork-Lift Needed	No		
Notes						



### 5.8 Modifications

Custom software was used to place the device in assorted transmit modes for the purpose of testing. These settings would not be available to the end user.

### 5.9 EUT Electrical Power Information

#### 5.9.1 Electrical Power Type

<input type="checkbox"/>	AC	<input type="checkbox"/>	DC	<input checked="" type="checkbox"/>	Batteries	<input type="checkbox"/>	Host -
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#### 5.9.2 Electrical Power Information

Name	Type	Voltage		Frequency	Current	Notes
		min	max			
Internal Li-Ion Battery	DC	1.8	3.6	DC	< 1mA	
<b>Notes</b>	Battery is installed in device and is not accessible to end user					

### 5.10 EUT Modes of Operation during Testing

The EUT can be operated in two active modes. The EUT can be operated using a standard LoRa scheme or a basic FSK scheme for the purpose of transmitting data. The transmitters cannot be operated independently of each other.

### 5.11 EUT Clock/Oscillator Frequencies

Please specify the maximum clock frequency used in the product – 32.768 MHz

In the table below, please specify other clock frequencies and sensitive operating frequencies in the product.

Clock Frequencies & Sensitive Frequencies
32 MHz

### 5.12 Electrical Support Equipment

Type	Manufacturer	Model	Connected To
Laptop	Lenovo	T470	USB Serial Connection

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### 5.13 Non - Electrical Support Equipment

Item	Notes
Gas	None.
Water	None.
Air	None.

### 5.14 EUT Equipment/Cabling Information

EUT Port	Connected To	Location	Length	Shielded / Unshielded
None.				

### 5.15 EUT Configuration

Configuration	Description
Radiated	EUT is configured to transmit radiated at a desired channel
Conducted	EUT is configured to transmit along temporary SMA connection at a desired channel
<b>Notes</b>	All configurations are the same except as noted above

### 5.16 Block Diagram



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**--- Ende des Prüfberichts / End of Test Report ---**