

NCC RADIO TEST REPORT

Equipment : Spotlight Cam Mount
Brand Name : RING
Model Name : 5L5C4T
Applicant : 環安智控股份有限公司
 台北市內湖區堤頂大道二段 179 號 4 樓
Manufacturer : 群光電子股份有限公司
 台灣新北市三重區光復路二段 69 號
Standard : LP0002 Section 5.8.1 (2020-07-01)

The product was received on May 31, 2019, and testing was started from Jun. 11, 2019 and completed on Aug. 24, 2020. We, SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory, would like to declare that the tested sample has been evaluated in accordance with the procedures given in ANSI C63.10-2013 and shown compliance with the applicable technical standards.

The test results in this variant report apply exclusively to the tested model / sample. Without written approval of SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory, the test report shall not be reproduced except in full.



Approved by: Allen Lin

SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory

No. 52, Huaya 1st Rd., Guishan Dist., Taoyuan City, Taiwan (R.O.C.)



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Appendix A. Test Results of AC Power-line Conducted Emissions

Appendix B. Test Results of DTS Bandwidth_DTS

Appendix C. Test Results of Maximum Conducted Output Power_ DTS

Appendix D. Test Results of Power Spectral Density_DTS

Appendix E. Test Results of Emissions in Non-restricted Frequency Bands_ DTS

Appendix F. Test Results of Emissions in Restricted Frequency Bands

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Appendix H. Test Results of Maximum Conducted Output Power_FHSS

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Appendix K. Test Results of Emissions in Non-restricted Frequency Bands_FHSS

Appendix L. Test Results of Receiver Radiated Unwanted Emissions

Appendix M. Test Photos

Photographs of EUT v01



History of this test report

TEL : 886-3-656-9065
FAX : 886-3-656-9085
Report Template No.: CB Ver1.0

Page Number : 4 of 43
Issued Date : Dec. 22, 2020
Report Version : 01



Summary of Test Result

Report Clause	Ref Std. Clause	Test Items	Result (PASS/FAIL)	Remark
1.1.2	5.8.1.3	Antenna Requirement	PASS	-
3.1	3.3	AC Power-line Conducted Emissions	PASS	Refer as 1.1.6
DTS Test Method Performed				
4.1	5.8.1.5	DTS Bandwidth	PASS	Refer as 1.1.6
4.2	5.8.1.2	Maximum Conducted Output Power	PASS	Refer as 1.1.6
4.3	5.8.1.5	Power Spectral Density	PASS	Refer as 1.1.6
4.4	5.8.1.4	Emissions in Non-restricted Frequency Bands	PASS	Refer as 1.1.6
4.5	3.6	Emissions in Restricted Frequency Bands	PASS	Refer as 1.1.6
5.7	3.9	Receiver Radiated Unwanted Emissions	PASS	Refer as 1.1.6
FHSS Test Method Performed				
5.1	5.8.1.5	20dB Bandwidth	PASS	Refer as 1.1.6
5.1	5.8.1.5	Carrier Frequency Separation	PASS	Refer as 1.1.6
5.2	5.8.1.2	Maximum Conducted Output Power	PASS	Refer as 1.1.6
5.3	5.8.1.5	Number of Hopping Frequencies and Hopping Band edge	PASS	Refer as 1.1.6
5.4	5.8.1.5	Time of Occupancy (Dwell Time)	PASS	Refer as 1.1.6
5.5	5.8.1.4	Emissions in Non-restricted Frequency Bands	PASS	Refer as 1.1.6
5.6	3.6	Emissions in Restricted Frequency Bands	PASS	Refer as 1.1.6
5.7	3.9	Receiver Radiated Unwanted Emissions	PASS	Refer as 1.1.6

Declaration of Conformity:

The test results with all measurement uncertainty excluded are presented in accordance with the regulation limits or requirements declared by manufacturers.

Comments and Explanations:

None

Reviewed by: Sam Tsai

Report Producer: Michelle Tsai

1 General Description

1.1 Information

1.1.1 RF General Information

Frequency Range	Lora Mode	Ch. Frequency (MHz)	Channel Number
920 MHz - 925 MHz	LoRa_DTS-500kHz	920.9-924.1	24-28 [5]
		923.3-924.5	1-3 [3]
	LoRa_FHSS-125kHz	920.2-924.8	91-114 [24]
	LoRa_FHSS-250kHz	920.3-924.7	46-57 [12]
	FSK-5kbps	920.2-924.8	91-114 [24]
	FSK-50kbps	920.2-924.8	91-114 [24]
	FSK-150kbps	920.4-924.8	46-57 [12]

Band	Mode	BWch (MHz)	Nant
920-925MHz	LoRa_DTS	0.5	1TX
920-925MHz	LoRa_FHSS-125k	0.125	1TX
920-925MHz	LoRa_FHSS-250k	0.25	1TX
920-925MHz	FSK-5K	0.1	1TX
920-925MHz	FSK-50K	0.1	1TX
920-925MHz	FSK-150K	0.15	1TX

Note:

- ♦ LoRa-500kHz uses as a DTS
- ♦ LoRa-500kHz uses Chirp Spread Spectrum (CSS) modulation
- ♦ BWch is the nominal channel bandwidth.
- ♦ The EUT has three transmission modes for data transmissions as described below:
 1. LoRa-500kHz(DTS)
 2. LoRa-125k/250kHz(FHSS)
 3. FSK-5k/50k/150k(FHSS)

**1.1.2 Antenna Information**

Ant.	Brand	Model Name	Antenna Type	Connector
1	WGT	Ant 1	PIFA	I-PEX
2	WGT	Ant 2	PIFA	I-PEX
3	Aristotle	Lora Ant	PIFA	I-PEX

Ant.	Port	Gain (dBi)		
		2.4G	BT	LoRa
1	2	1.06	-	-
2	1	1.27	1.06	-
3	1	-	-	0.73

Note 1: The EUT has three antennas.

For 2.4GHz function:

For IEEE 802.11 b/g/n mode (1TX/1RX)

Support diversity function and tested on each single chain.

For IEEE 802.11 n (HT20) mode (2TX/2RX)

Ant. 1 (port 2) and Ant. 2 (port 1) could transmit/receive simultaneously.

For BT function:

For IEEE 802.15.1 Bluetooth mode (1TX/1RX)

Ant. 2 (port 1) could transmit/receive.

For LoRa function:

For LoRa mode (1TX/1RX)

Ant. 3 (port 1) could transmit/receive.

1.1.3 Mode Test Duty Cycle

Mode	DC	DCF(dB)	T(s)	VBW(Hz) $\geq 1/T$
LoRa_DTS	0.991	0.04	n/a (DC $\geq$ 0.98)	n/a (DC $\geq$ 0.98)
LoRa_FHSS-125k	0.998	0.01	n/a (DC $\geq$ 0.98)	n/a (DC $\geq$ 0.98)
LoRa_FHSS-250k	0.996	0.02	n/a (DC $\geq$ 0.98)	n/a (DC $\geq$ 0.98)
FSK-5K	0.998	0.01	n/a (DC $\geq$ 0.98)	n/a (DC $\geq$ 0.98)
FSK-50K	0.983	0.07	n/a (DC $\geq$ 0.98)	n/a (DC $\geq$ 0.98)
FSK-150K	0.952	0.21	14.25m	100

Note. If DC < 0.98, the DCF was added while measuring Output power and PSD.

1.1.4 EUT Operational Condition

EUT Power Type	From Switching Power Supply		
Function	☐ Point-to-multipoint	☒ Point-to-point	

Note: The above information was declared by manufacturer.



1.1.5 Table for Multiple Listing

The model names in the following table are all refer to the identical product.

Model Name	Sample	Description
5L5C4T	1	All the samples are identical, the difference is appearance color.
	2	

1.1.6 Table for Existing Change

This product is an extension of original one reported under Sporton project number: TR953031-04AF

Below is the table for the change of the product with respect to the original one.

Modifications	Performance Checking
The equipment name was added. (Spotlight Cam Mount).	The conducted power was verified, and the deviation between the result of verification and original power is within 2dB, therefore test results refer to the original report.

1.2 Testing Applied Standards

According to the specifications of the manufacturer, the EUT must comply with the requirements of the following standards:

- ♦ LP0002 (2020-07-01)
- ♦ ANSI C63.10-2013
- ♦ ANSI C63.4-2014

The following reference test guidance is not within the scope of accreditation of TAF:

- ♦ KDB 558074 D01 v05r02
- ♦ KDB 414788 D01 v01r01

1.3 Testing Location Information

Testing Location		
☒	HWA YA	ADD : No. 52, Huaya 1st Rd., Guishan Dist., Taoyuan City, Taiwan (R.O.C.) TEL : 886-3-327-3456 FAX : 886-3-327-0973
☐	JHUBEI	ADD : No.8, Lane 724, Bo-ai St., Jhubei City, HsinChu County 302, Taiwan, R.O.C. TEL : 886-3-656-9065 FAX : 886-3-656-9085
☒	Wen Shan	ADD : No.14-1, Ln. 19, Wen 33rd St., Guishan Dist., Taoyuan City 333, Taiwan (R.O.C.) TEL : 886-3-318-0787 FAX : 886-3-318-0287

Test Condition	Test Site No.	Test Engineer	Test Environment	Test Date
AC Conduction	CO04-HY	Edward	24.8~25.5°C / 62~64%	22/Aug/2020
RF Conducted	TH06-HY	Gary	23.2~25.4°C / 62~64.2%	13/Jun/2019~18/Jun/2019
Radiated (Below 1GHz)	03CH03-HY	Edward	22.1~24.8°C / 58~64%	21/Aug/2020~24/Aug/2020
Radiated (Above 1GHz)	03CH01-HY	Justin	21.2~22.8°C / 51.1~52.9%	11/Jun/2019~20/Jun/2019
	03CH09-HY	Daniel	21.8~23.1°C / 49.8~54.8%	

1.4 Measurement Uncertainty

ISO/IEC 17025 requires that an estimate of the measurement uncertainties associated with the emissions test results be included in the report. The measurement uncertainties given below are based on a 95% confidence level (based on a coverage factor (k=2))

Test Items	Uncertainty	Remark
Conducted Emission (150kHz ~ 30MHz)	0.9 dB	Confidence levels of 95%
Radiated Emission (30MHz ~ 1,000MHz)	3.7 dB	Confidence levels of 95%
Radiated Emission (1GHz ~ 18GHz)	3.7 dB	Confidence levels of 95%
Radiated Emission (18GHz ~ 40GHz)	3.5 dB	Confidence levels of 95%
Conducted Emission	1.7 dB	Confidence levels of 95%
Output Power Measurement	1.33 dB	Confidence levels of 95%
Power Density Measurement	1.27 dB	Confidence levels of 95%
Bandwidth Measurement	9.74 x10 ⁻⁸	Confidence levels of 95%

2 Test Configuration of EUT

2.1 Test Condition

Condition Item	Abbreviation/Remark	Remark
TnomVnom	Tnom	20°C
	Vnom	110V

2.2 Test Channel Mode

Test Software Version	Microsoft Windows Version 6.1
-----------------------	-------------------------------

Mode	Power Setting
LoRa_DTS_Nss1_1TX	-
920.9MHz	20
923.3MHz	20
924.1MHz	20
924.5MHz	20
LoRa_FHSS-125k_Nss1_1TX	-
920.2MHz	17
924.8MHz	18
LoRa_FHSS-250k_Nss1_1TX	-
920.3MHz	18
924.7MHz	17
FSK-5K_Nss1_1TX	-
920.2MHz	18
924.8MHz	17
FSK-50K_Nss1_1TX	-
920.2MHz	18
924.8MHz	18
FSK-150K_Nss1_1TX	-
920.4MHz	18
924.8MHz	18

2.3 The Worst Case Measurement Configuration

The Worst Case Mode for Following Conformance Tests	
Tests Item	AC power-line conducted emissions
Condition	AC power-line conducted measurement for line and neutral
Operating Mode	CTX/CRX
1	Switching Power Supply Mode; LoRa_FSK TX
2	Switching Power Supply Mode; LoRa_FSK RX
3	Switching Power Supply Mode; LoRa_DTS TX
4	Switching Power Supply Mode; LoRa_DTS RX
5	Switching Power Supply Mode; LoRa_FHSS TX
6	Switching Power Supply Mode; LoRa_FHSS RX

The Worst Case Mode for Following Conformance Tests	
Tests Item	DTS Bandwidth Maximum Conducted Output Power Power Spectral Density 20dB Bandwidth Carrier Frequency Separation Maximum Conducted Output Power Number of Hopping Frequencies and Hopping Bandedge Time of Occupancy (Dwell Time) Emissions in Non-restricted Frequency Bands
Test Condition	Conducted measurement at transmit chains

The Worst Case Mode for Following Conformance Tests	
Tests Item	Emissions in Restricted Frequency Bands Receiver Radiated Unwanted Emissions
Test Condition	Radiated measurement If EUT consist of multiple antenna assembly (multiple antenna are used in EUT regardless of spatial multiplexing MIMO configuration), the radiated test should be performed with highest antenna gain of each antenna type.
Operating Mode < 1GHz	CTX/CRX
1	Switching Power Supply Mode
Operating Mode > 1GHz	CTX/CRX



2.4 Accessories

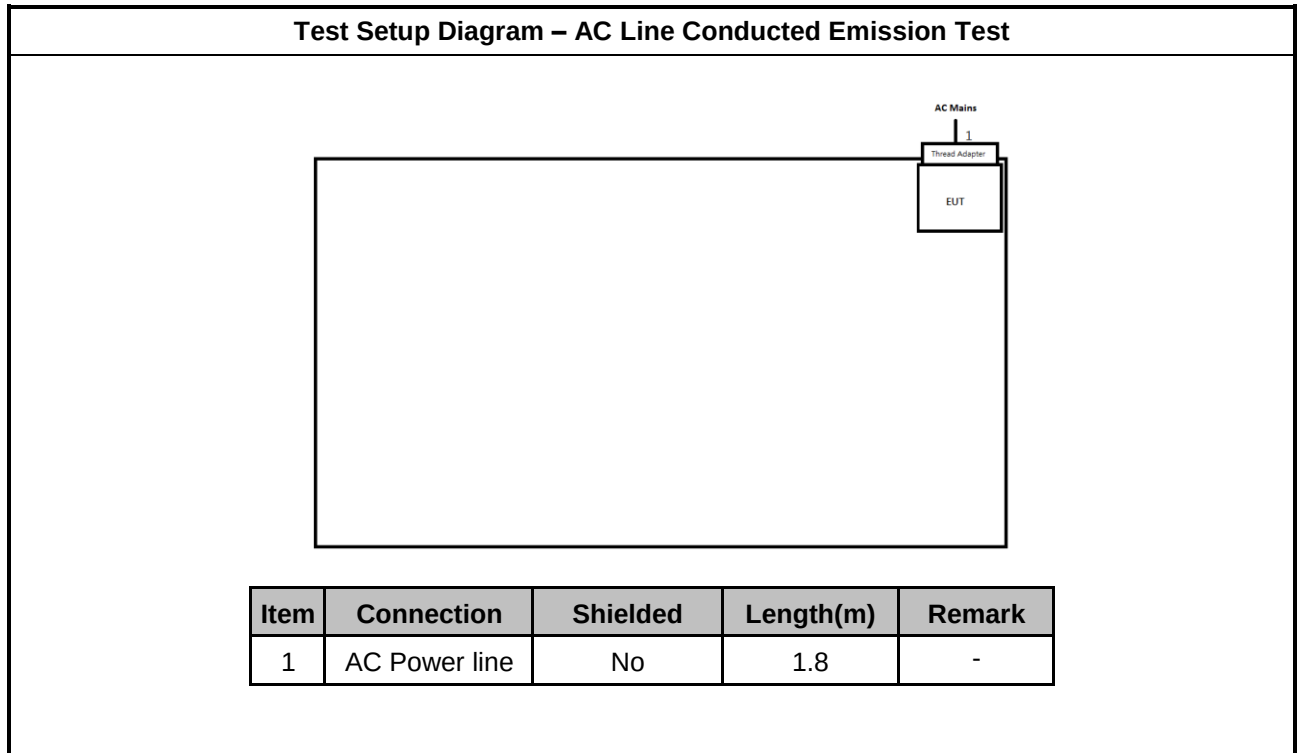
Accessories				
AC Power Cord	Brand Name	Ring	Model Name	UE-251
	Power Cord	6.1 meter, Non-shielded cable, w/o ferrite core		
Thread Adaptor	Brand Name	Ring	Model Name	Hedge Hog

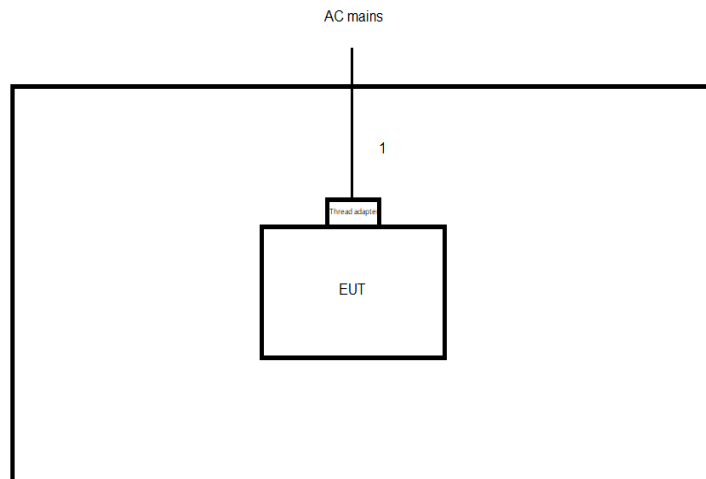
Reminder: Regarding to more detail and other information, please refer to user manual.

2.5 Support Equipment

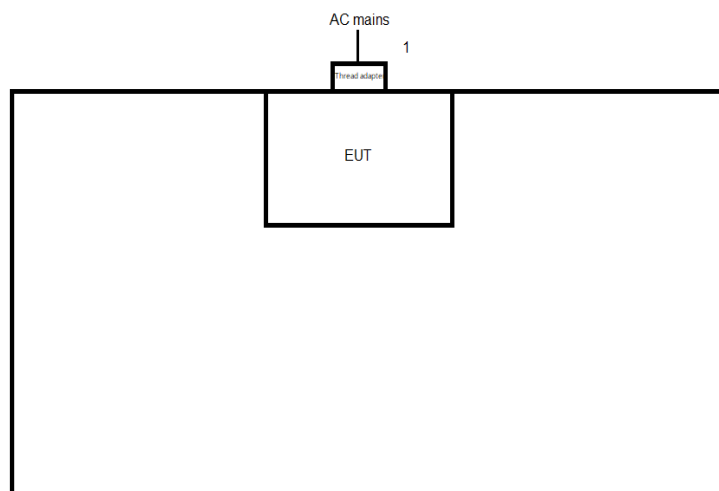
Support Equipment – RF Conducted				
No.	Equipment	Brand Name	Model Name	FCC ID
1	Notebook	DELL	E5410	DoC
2	Adapter for Notebook	DELL	HA65NM130	DoC

2.6 Test Setup Diagram

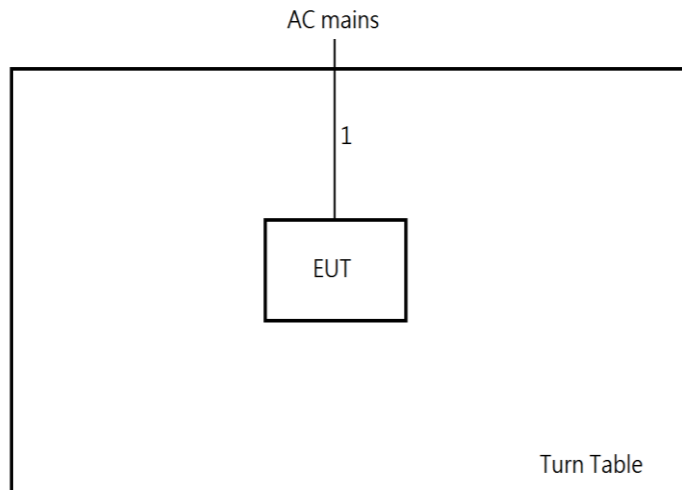


Test Setup Diagram - Radiated Test (Below 1GHz) TX


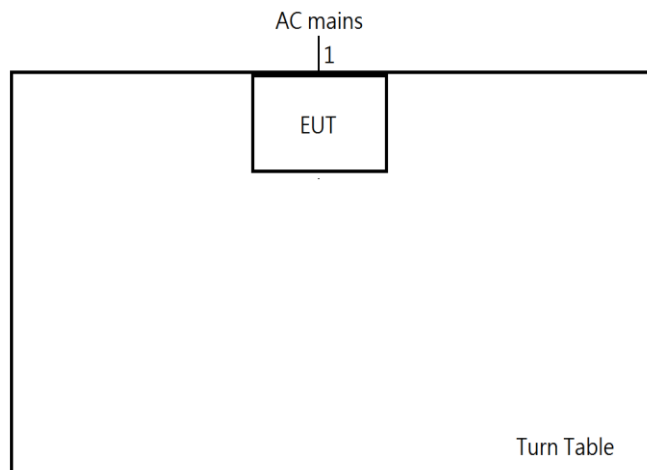
Item	Connection	Shielded	Length(m)	Remark
1	AC Power line	No	1.8	-

Test Setup Diagram - Radiated Test (Below 1GHz) RX


Item	Connection	Shielded	Length(m)	Remark
1	AC Power line	No	1.8	-

Test Setup Diagram - Radiated Test (Above 1GHz) TX


Item	Connection	Shielded	Length(m)	Remark
1	AC Power line	No	6.1	-

Test Setup Diagram - Radiated Test (Above 1GHz) RX


Item	Connection	Shielded	Length(m)	Remark
1	AC Power line	No	6.1	-

3 Test Result

3.1 AC Power-line Conducted Emissions

3.1.1 AC Power-line Conducted Emissions Limit

AC Power-line Conducted Emissions Limit		
Frequency Emission (MHz)	Quasi-Peak	Average
0.15-0.5	66 - 56 *	56 - 46 *
0.5-5	56	46
5-30	60	50
Note 1: * Decreases with the logarithm of the frequency.		

3.1.2 Measuring Instruments

Refer a test equipment and calibration data table in this test report.

3.1.3 Test Procedures

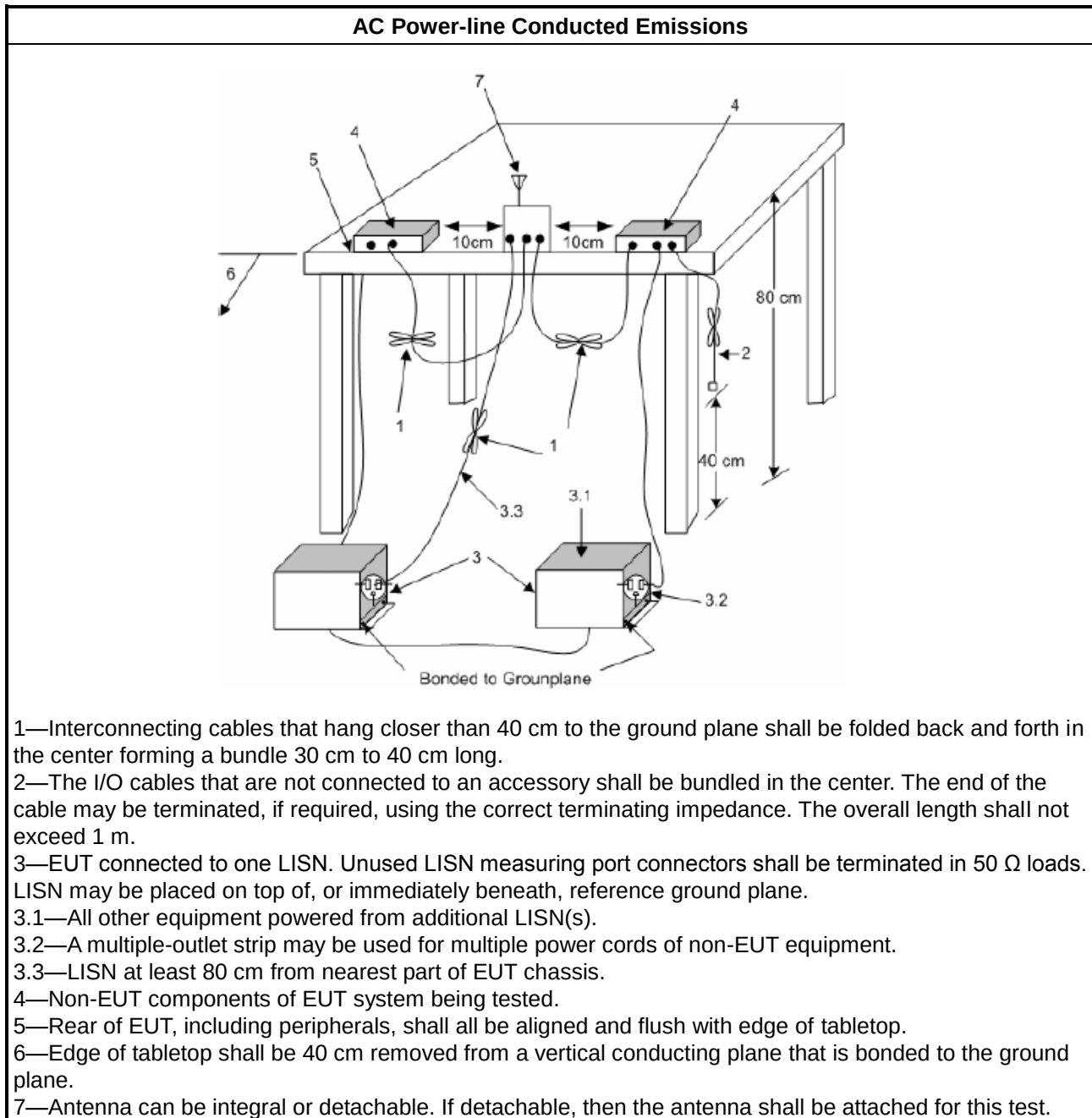
Test Method
▪ Refer as ANSI C63.10-2013 , clause 6.2 foray power-line conducted emissions.

3.1.4 Measurement Results Calculation

The measured Level is calculated using:

Corrected Reading: Raw(Read Level) + LISN(LISN Factor) + CL(Cable Loss) + AT(Attenuator).

3.1.5 Test Setup



3.1.6 Test Result of AC Power-line Conducted Emissions

Refer as Appendix A

4 Transmitter Test Result – DTS

4.1 DTS Bandwidth

4.1.1 6dB Bandwidth Limit

6dB Bandwidth Limit
Systems using digital modulation techniques:
6 dB bandwidth $\geq$ 500 kHz.

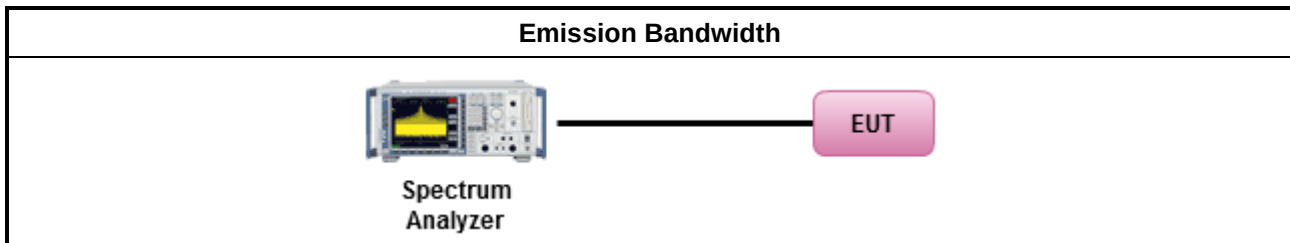
4.1.2 Measuring Instruments

Refer a test equipment and calibration data table in this test report.

4.1.3 Test Procedures

Test Method
For the emission bandwidth shall be measured using one of the options below:
☒ Refer as KDB 558074, clause 8.2 & C63.10 clause 11.8.1 Option 1 for 6 dB bandwidth measurement.
☐ Refer as KDB 558074, clause 8.2 & C63.10 clause 11.8.2 Option 2 for 6 dB bandwidth measurement.
☐ Refer as ANSI C63.10, clause 6.9.1 for occupied bandwidth testing.

4.1.4 Test Setup



4.1.5 Test Result of Emission Bandwidth

Refer as Appendix B

4.2 Maximum Conducted Output Power

4.2.1 Maximum Conducted Output Power Limit

Maximum Conducted Output Power Limit	
	▪ If $G_{TX} \leq 6$ dBi, then $P_{Out} \leq 30$ dBm (1 W)
	▪ Point-to-multipoint systems (P2M): If $G_{TX} > 6$ dBi, then $P_{Out} = 30 - (G_{TX} - 6)$ dBm
	▪ Point-to-point systems (P2P): If $G_{TX} > 6$ dBi, then $P_{Out} = 30 - (G_{TX} - 6)/3$ dBm
	▪ Smart antenna system (SAS):
	- Single beam: If $G_{TX} > 6$ dBi, then $P_{Out} = 30 - (G_{TX} - 6)/3$ dBm
	- Overlap beam: If $G_{TX} > 6$ dBi, then $P_{Out} = 30 - (G_{TX} - 6)/3$ dBm
	- Aggregate power on all beams: If $G_{TX} > 6$ dBi, then $P_{Out} = 30 - (G_{TX} - 6)/3 + 8$ dB dBm
P_{Out} = maximum peak conducted output power or maximum conducted output power in dBm, G_{TX} = the maximum transmitting antenna directional gain in dBi.	

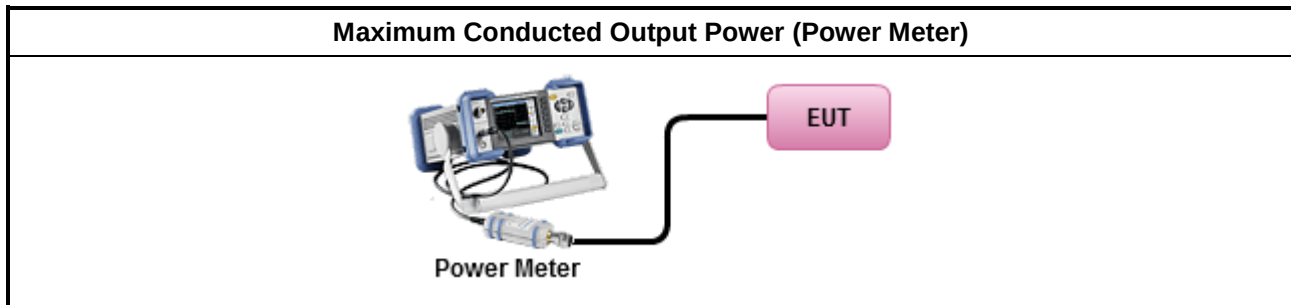
4.2.2 Measuring Instruments

Refer a test equipment and calibration data table in this test report.

4.2.3 Test Procedures

Test Method	
Maximum Peak Conducted Output Power	
☐	Refer as KDB 558074, clause 8.3.1.1 & C63.10 clause 11.9.1.1 (RBW ≥ EBW method).
☒	Refer as KDB 558074, clause 8.3.1.3 & C63.10 clause 11.9.1.3 (peak power meter).
Maximum Conducted Output Power	
[duty cycle ≥ 98% or external video / power trigger]	
☐	Refer as KDB 558074, clause 8.3.2.2 & C63.10 clause 11.9.2.2.2 Method AVGSA-1.
☐	Refer as KDB 558074, clause 8.3.2.2 & C63.10 clause 11.9.2.2.3 Method AVGSA-1A. (alternative)
duty cycle < 98% and average over on/off periods with duty factor	
☐	Refer as KDB 558074, clause 8.3.2.2 & C63.10 clause 11.9.2.2.4 Method AVGSA-2.
☐	Refer as KDB 558074, clause 8.3.2.2 & C63.10 clause 11.9.2.2.5 Method AVGSA-2A (alternative)
☐	Refer as KDB 558074, clause 8.3.2.2 & C63.10 clause 11.9.2.2.6 Method AVGSA-3
☐	Refer as KDB 558074, clause 8.3.2.2 & C63.10 clause 11.9.2.2.7 Method AVGSA-3A (alternative)
Measurement using a power meter (PM)	
☒	Refer as KDB 558074, clause 8.3.2.3 & C63.10 clause 11.9.2.3.1 Method AVGPM (using an RF average power meter).
☐	Refer as KDB 558074, clause 8.3.2.3 & C63.10 clause 11.9.2.3.2 Method AVGPM-G (using an gate RF average power meter).
For conducted measurement.	
If the EUT supports multiple transmit chains using options given below: Refer as FCC KDB 662911, In-band power measurements. Using the measure-and-sum approach, measured all transmit ports individually. Sum the power (in linear power units e.g., mW) of all ports for each individual sample and save them.	
If multiple transmit chains, EIRP calculation could be following as methods: $P_{\text{total}} = P_1 + P_2 + \dots + P_n$ (calculated in linear unit [mW] and transfer to log unit [dBm]) $\text{EIRP}_{\text{total}} = P_{\text{total}} + \text{DG}$	

4.2.4 Test Setup



4.2.5 Test Result of Maximum Conducted Output Power

Refer as Appendix C

4.3 Power Spectral Density

4.3.1 Power Spectral Density Limit

Power Spectral Density Limit
Power Spectral Density (PSD) ≤ 8 dBm/3kHz

4.3.2 Measuring Instruments

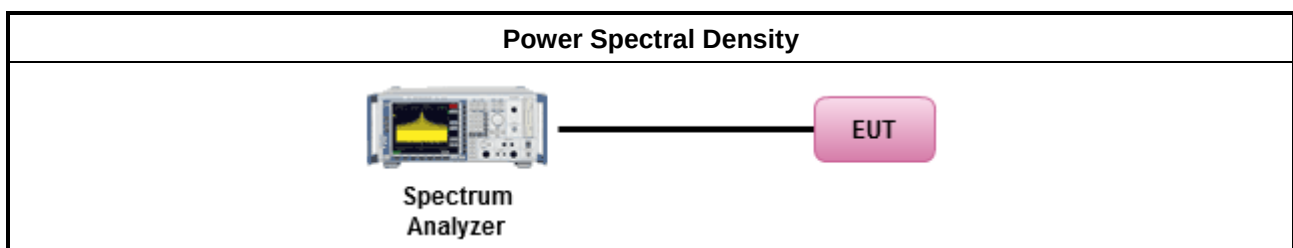
Refer a test equipment and calibration data table in this test report.

4.3.3 Test Procedures

Test Method
Peak power spectral density procedures that the same method as used to determine the conducted output power. If maximum peak conducted output power was measured to demonstrate compliance to the output power limit, then the peak PSD procedure below (Method PKPSD) shall be used. If maximum conducted output power was measured to demonstrate compliance to the output power limit, then one of the average PSD procedures shall be used, as applicable based on the following criteria (the peak PSD procedure is also an acceptable option).
☒ Refer as KDB 558074, clause 8.4 & C63.10 clause 11.10.2 Method PKPSD. [duty cycle $\geq 98\%$ or external video / power trigger]
☐ Refer as KDB 558074, clause 8.4 & C63.10 clause 11.10.3 Method AVGPSD-1.
☐ Refer as KDB 558074, clause 8.4 & C63.10 clause 11.10.5 Method AVGPSD-2.
☐ Refer as KDB 558074, clause 8.4 & C63.10 clause 11.10.7 Method AVGPSD-3.
duty cycle $< 98\%$ and average over on/off periods with duty factor
☐ Refer as KDB 558074, clause 8.4 & C63.10 clause 11.10.4 Method AVGPSD-1A. (alternative).
☐ Refer as KDB 558074, clause 8.4 & C63.10 clause 11.10.6 Method AVGPSD-2A. (alternative)
☐ Refer as KDB 558074, clause 8.4 & C63.10 clause 11.10.8 Method AVGPSD-3A. (alternative)

For conducted measurement.	
	- If The EUT supports multiple transmit chains using options given below: ☒ Option 1: Measure and sum the spectra across the outputs. Refer as FCC KDB 662911, In-band power spectral density (PSD). Sample all transmit ports simultaneously using a spectrum analyzer for each transmit port. Where the trace bin-by-bin of each transmit port summing can be performed. (i.e., in the first spectral bin of output 1 is summed with that in the first spectral bin of output 2 and that from the first spectral bin of output 3, and so on up to the NTX output to obtain the value for the first frequency bin of the summed spectrum.). Add up the amplitude (power) values for the different transmit chains and use this as the new data trace. ☐ Option 2: Measure and sum spectral maxima across the outputs. With this technique, spectra are measured at each output of the device at the required resolution bandwidth. The maximum value (peak) of each spectrum is determined. These maximum values are then summed mathematically in linear power units across the outputs. These operations shall be performed separately over frequency spans that have different out-of-band or spurious emission limits, ☐ Option 3: Measure and add 10 log(N) dB, where N is the number of transmit chains. Refer as FCC KDB 662911, In-band power spectral density (PSD). Performed at each transmit chains and each transmit chains shall be compared with the limit have been reduced with 10 log(N). Or each transmit chains shall be add 10 log(N) to compared with the limit.

4.3.4 Test Setup



4.3.5 Test Result of Power Spectral Density

Refer as Appendix D

4.4 Emissions in Non-restricted Frequency Bands

4.4.1 Emissions in Non-restricted Frequency Bands Limit

Un-restricted Band Emissions Limit	
RF output power procedure	Limit (dB)
Peak output power procedure	20
Average output power procedure	30
Note 1: If the peak output power procedure is used to measure the fundamental emission power to demonstrate compliance to requirements, then the peak conducted output power measured within any 100 kHz outside the authorized frequency band shall be attenuated by at least 20 dB relative to the maximum measured in-band peak PSD level. Note 2: If the average output power procedure is used to measure the fundamental emission power to demonstrate compliance to requirements, then the power in any 100 kHz outside of the authorized frequency band shall be attenuated by at least 30 dB relative to the maximum measured in-band average PSD level.	

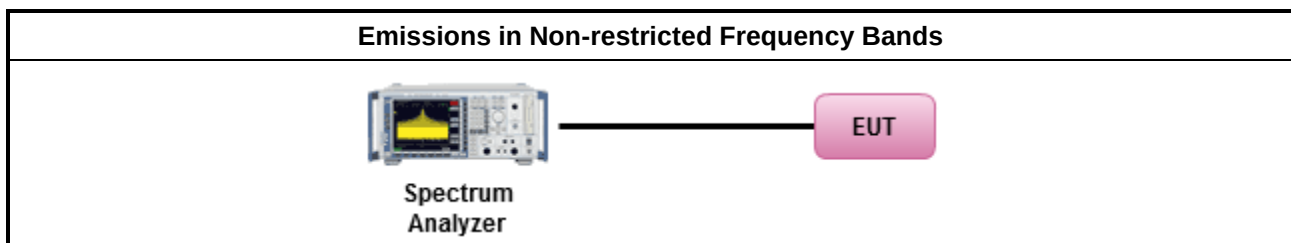
4.4.2 Measuring Instruments

Refer a test equipment and calibration data table in this test report.

4.4.3 Test Procedures

Test Method
Refer as KDB 558074, clause 8.5 for unwanted emissions into non-restricted bands.

4.4.4 Test Setup



4.4.5 Test Result of Emissions in Non-restricted Frequency Bands

Refer as Appendix E

4.5 Emissions in Restricted Frequency Bands

4.5.1 Emissions in Restricted Frequency Bands Limit

Restricted Band Emissions Limit			
Frequency Range (MHz)	Field Strength (uV/m)	Field Strength (dBuV/m)	Measure Distance (m)
0.009~0.490	2400/F(kHz)	48.5 - 13.8	300
0.490~1.705	24000/F(kHz)	33.8 - 23	30
1.705~30.0	30	29	30
30~88	100	40	3
88~216	150	43.5	3
216~960	200	46	3
Above 960	500	54	3

Note 1: Test distance for frequencies at or above 30 MHz, measurements may be performed at a distance other than the limit distance provided they are not performed in the near field and the emissions to be measured can be detected by the measurement equipment. When performing measurements at a distance other than that specified, the results shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade (inverse of linear distance for field-strength measurements, inverse of linear distance-squared for power-density measurements).

Note 2: Test distance for frequencies at below 30 MHz, measurements may be performed at a distance closer than the EUT limit distance; however, an attempt should be made to avoid making measurements in the near field. When performing measurements below 30 MHz at a closer distance than the limit distance, the results shall be extrapolated to the specified distance by either making measurements at a minimum of two or more distances on at least one radial to determine the proper extrapolation factor or by using the square of an inverse linear distance extrapolation factor (40 dB / decade). The test report shall specify the extrapolation method used to determine compliance of the EUT.

Note 3: Using the distance of 1m during the test for above 18 GHz, and the test value to correct for the distance factor at 3m.

4.5.2 Measuring Instruments

Refer a test equipment and calibration data table in this test report.

4.5.3 Test Procedures

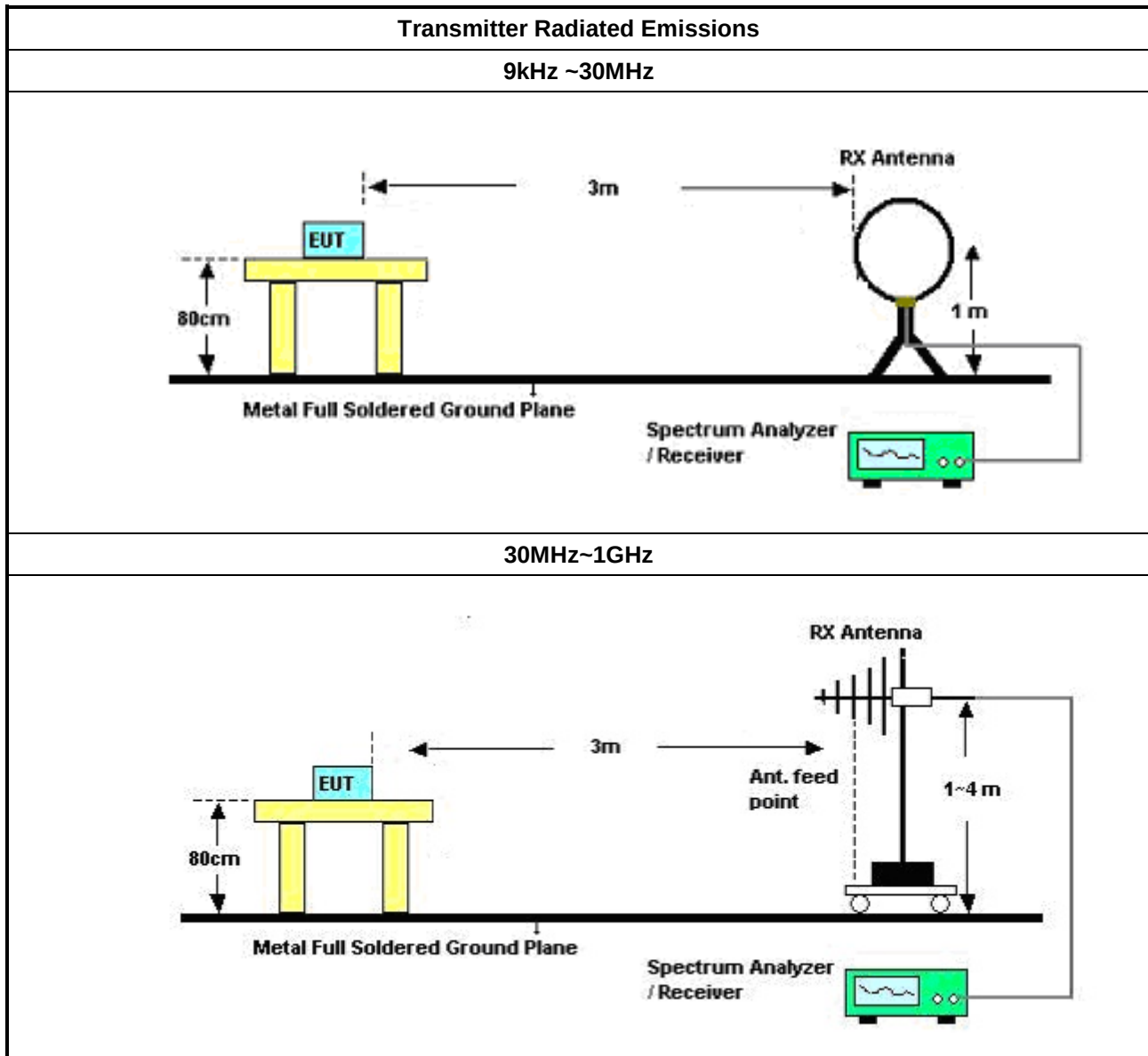
Test Method	
The average emission levels shall be measured in [duty cycle $\geq$ 98 or duty factor].	
Refer as ANSI C63.10, clause 6.10.3 band-edge testing shall be performed at the lowest frequency channel and highest frequency channel within the allowed operating band.	
For the transmitter unwanted emissions shall be measured using following options below:	
	Refer as KDB 558074, clause 8. 6 (11.12 of ANSI C63.10) for restricted frequency bands.
For the transmitter band-edge emissions shall be measured using following options below:	
	Refer as KDB 558074 clause 8.7.1, When the performing peak or average radiated measurements, emissions within 2 MHz of the authorized band edge may be measured using the marker-delta method described below.
	Refer as KDB 558074, clause 8.7 (6.10.6 of ANSI C63.10) for marker-delta method for band-edge measurements.
	Refer as KDB 558074, clause 8.7.3 for narrower resolution bandwidth (100kHz) using the band power and summing the spectral levels
Use the following spectrum analyzer settings:	
	Set RBW=100 kHz for $f < 1$ GHz; VBW=3 * RBW; Sweep = auto; Detector function = peak; Trace = max hold.
	Set RBW = 1 MHz, VBW= 3MHz for $f \geq 1$ GHz for peak measurement. For average measurement, refer as 1.1.4.
KDB 414788 Open-Field Test Sites and Chamber Correlation Justification.	
	Based on LP0002 5.5.2: measurements may be performed at a distance closer than that specified in regulations; however, an attempt should be made to avoid making measurements in the near field.
	Open-field site and chamber correlation testing had been performed and chamber measured test result is the worst case test result.

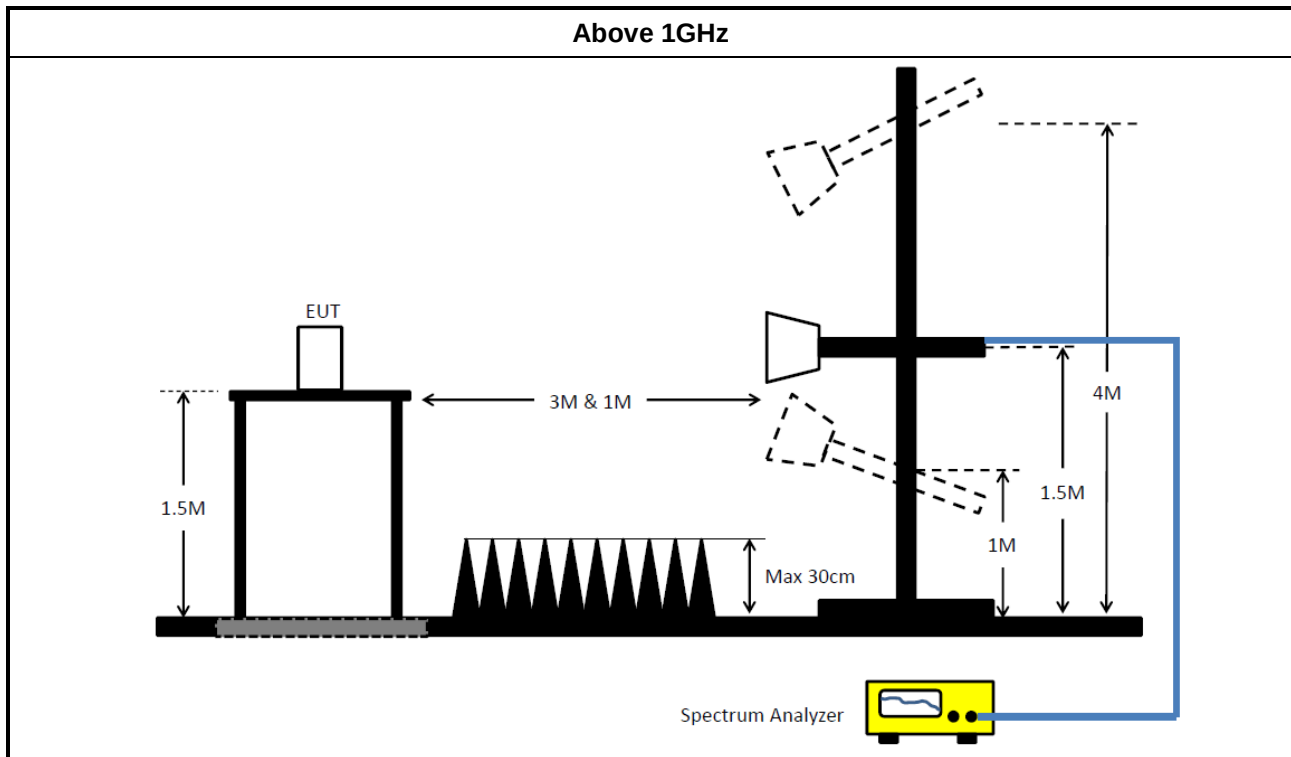
4.5.4 Measurement Results Calculation

The measured Level is calculated using:

Corrected Reading: Raw(Read Level) + AF(Antenna Factor) + CL(Cable Loss) - PA(Preamplifier Factor)

4.5.5 Test Setup





4.5.6 Transmitter Radiated Unwanted Emissions (Below 30MHz)

All amplitude of spurious emissions that are attenuated by more than 20 dB below the permissible value has no need to be reported.

4.5.7 Transmitter Radiated Unwanted Emissions

Refer as Appendix F

5 Transmitter Test Result – FHSS

5.1 20dB Bandwidth and Carrier Frequency Separation

5.1.1 20dB Bandwidth and Carrier Frequency Separation Limit

20dB Bandwidth and Carrier Frequency Separation Limit for Frequency Hopping Systems	
▪ 920-925 MHz Band:	
▪ $N \geq 50$ and $ChS \geq \text{MAX}$ (20 dB bandwidth, 25 kHz); 20 dB bandwidth $\leq$ 250 kHz.	
▪ $50 > N \geq 25$ and $ChS \geq \text{MAX}$ (20 dB bandwidth, 25 kHz); 20 dB bandwidth $>$ 250 kHz.	
▪ 2400-2483.5 MHz Band:	
▪ $N \geq 75$ and $ChS \geq \text{MAX}$ (20 dB bandwidth, 25 kHz).	
▪ $75 > N \geq 15$ and $ChS \geq \text{MAX}$ (20 dB bandwidth 2/3, 25 kHz).	
▪ 5725-5850 MHz Band:	
▪ $N \geq 75$ and $ChS \geq \text{MAX}$ (20 dB bandwidth, 25 kHz); 20 dB bandwidth $\leq$ 1 MHz.	
N: Number of Hopping Frequencies; ChS: Hopping Channel Separation	

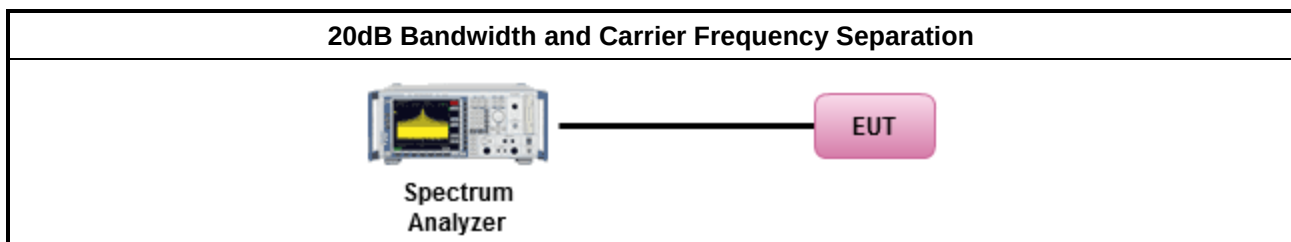
5.1.2 Measuring Instruments

Refer a test equipment and calibration data table in this test report.

5.1.3 Test Procedures

Test Method
▪ Refer as ANSI C63.10-2013, clause 6.9.1 for 20 dB bandwidth measurement.
▪ Refer as ANSI C63.10-2013, clause 7.8.2 for carrier frequency separation measurement.

5.1.4 Test Setup



5.1.5 Test Result of 20dB Bandwidth

Refer as Appendix G

5.1.6 Test Result of Carrier Frequency Separation

Refer as Appendix G

5.2 Maximum Conducted Output Power

5.2.1 Maximum Conducted Output Power Limit

Maximum Conducted Output Power Limit	
	▪ If $G_{TX} \leq 6$ dBi, then $P_{Out} \leq 30$ dBm (1 W)
	▪ Point-to-multipoint systems (P2M): If $G_{TX} > 6$ dBi, then $P_{Out} = 30 - (G_{TX} - 6)$ dBm
	▪ Point-to-point systems (P2P): If $G_{TX} > 6$ dBi, then $P_{Out} = 30 - (G_{TX} - 6)/3$ dBm
	▪ Smart antenna system (SAS):
	- Single beam: If $G_{TX} > 6$ dBi, then $P_{Out} = 30 - (G_{TX} - 6)/3$ dBm
	- Overlap beam: If $G_{TX} > 6$ dBi, then $P_{Out} = 30 - (G_{TX} - 6)/3$ dBm
	- Aggregate power on all beams: If $G_{TX} > 6$ dBi, then $P_{Out} = 30 - (G_{TX} - 6)/3 + 8$ dB dBm
P_{Out} = maximum peak conducted output power or maximum conducted output power in dBm, G_{TX} = the maximum transmitting antenna directional gain in dBi.	

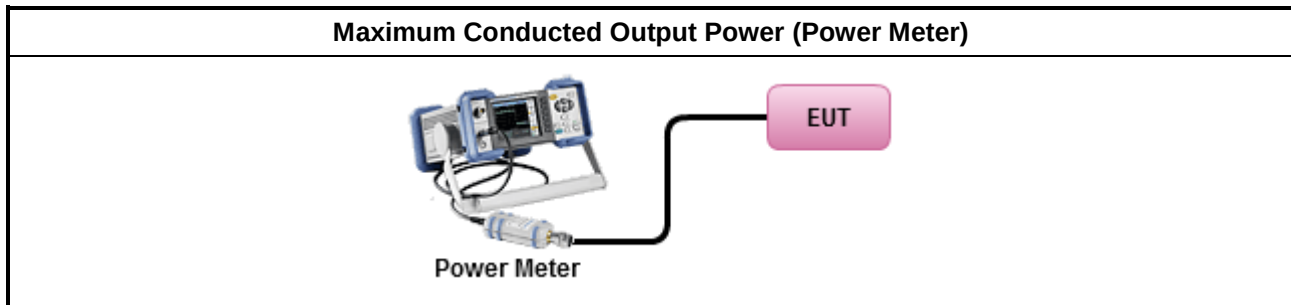
5.2.2 Measuring Instruments

Refer a test equipment and calibration data table in this test report.

5.2.3 Test Procedures

Test Method	
Maximum Peak Conducted Output Power	
☐	Refer as KDB 558074, clause 8.3.1.1 & C63.10 clause 11.9.1.1 (RBW ≥ EBW method).
☒	Refer as KDB 558074, clause 8.3.1.3 & C63.10 clause 11.9.1.3 (peak power meter).
Maximum Conducted Output Power	
[duty cycle ≥ 98% or external video / power trigger]	
☐	Refer as KDB 558074, clause 8.3.2.2 & C63.10 clause 11.9.2.2.2 Method AVGSA-1.
☐	Refer as KDB 558074, clause 8.3.2.2 & C63.10 clause 11.9.2.2.3 Method AVGSA-1A. (alternative)
duty cycle < 98% and average over on/off periods with duty factor	
☐	Refer as KDB 558074, clause 8.3.2.2 & C63.10 clause 11.9.2.2.4 Method AVGSA-2.
☐	Refer as KDB 558074, clause 8.3.2.2 & C63.10 clause 11.9.2.2.5 Method AVGSA-2A (alternative)
☐	Refer as KDB 558074, clause 8.3.2.2 & C63.10 clause 11.9.2.2.6 Method AVGSA-3
☐	Refer as KDB 558074, clause 8.3.2.2 & C63.10 clause 11.9.2.2.7 Method AVGSA-3A (alternative)
Measurement using a power meter (PM)	
☒	Refer as KDB 558074, clause 8.3.2.3 & C63.10 clause 11.9.2.3.1 Method AVGPM (using an RF average power meter).
☐	Refer as KDB 558074, clause 8.3.2.3 & C63.10 clause 11.9.2.3.2 Method AVGPM-G (using an gate RF average power meter).
For conducted measurement.	
If the EUT supports multiple transmit chains using options given below: Refer as FCC KDB 662911, In-band power measurements. Using the measure-and-sum approach, measured all transmit ports individually. Sum the power (in linear power units e.g., mW) of all ports for each individual sample and save them.	
If multiple transmit chains, EIRP calculation could be following as methods: $P_{\text{total}} = P_1 + P_2 + \dots + P_n$ (calculated in linear unit [mW] and transfer to log unit [dBm]) $\text{EIRP}_{\text{total}} = P_{\text{total}} + \text{DG}$	

5.2.4 Test Setup



5.2.5 Test Result of Maximum Conducted Output Power

Refer as Appendix H

5.3 Number of Hopping Frequencies and Hopping Bandedge

5.3.1 Number of Hopping Frequencies Limit

Number of Hopping Frequencies Limit	
▪ 920-925 MHz Band:	
▪ ChS $\geq$ MAX (20 dB bandwidth, 25 kHz); 20 dB bandwidth $\leq$ 250 kHz.	
▪ ChS $\geq$ MAX (20 dB bandwidth, 25 kHz); 20 dB bandwidth $>$ 250 kHz.	
▪ 2400-2483.5 MHz Band:	
▪ ChS $\geq$ MAX (20 dB bandwidth, 25 kHz).	
▪ ChS $\geq$ MAX (20 dB bandwidth 2/3, 25 kHz).	
▪ 5725-5850 MHz Band:	
▪ ChS $\geq$ MAX (20 dB bandwidth, 25 kHz); 20 dB bandwidth $\leq$ 1 MHz.	
ChS : Hopping Channel Separation	

5.3.2 Hopping Bandedge Limit

Refer clause 5.5.1 and clause 5.6.1

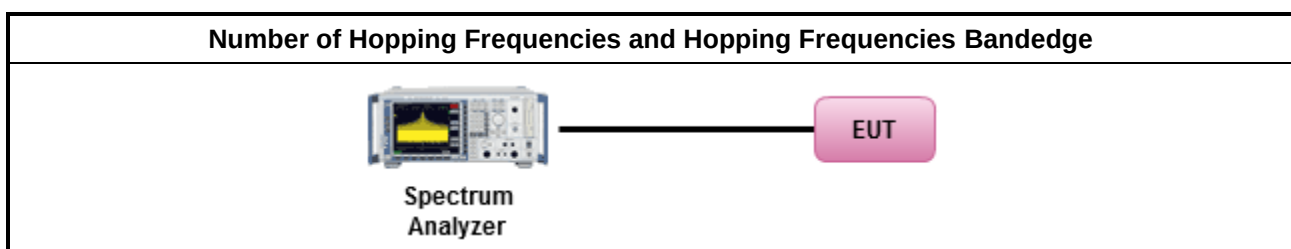
5.3.3 Measuring Instruments

Refer a test equipment and calibration data table in this test report.

5.3.4 Test Procedures

Test Method
▪ Refer as ANSI C63.10-2013, clause 7.8.3 for number of hopping frequencies measurement.
▪ Refer as ANSI C63.10-2013, clause 7.8.6 for hopping frequencies Bandedge measurement.

5.3.5 Test Setup



5.3.6 Test Result of Number of Hopping Frequencies

Refer as Appendix I

5.3.7 Test Result of Number of Hopping Frequencies Bandedge

Refer as Appendix I

5.4 Time of Occupancy (Dwell Time)

5.4.1 Time of Occupancy (Dwell Time) Limit

20dB Bandwidth and Carrier Frequency Separation Limit for Frequency Hopping Systems	
▪ 920-925 MHz Band:	
▪ 0.4s in N x 0.4 period	
▪ 2400-2483.5 MHz Band:	
▪ 0.4s in N x 0.4 period	
▪ 5725-5850 MHz Band:	
▪ 0.4s in N x 0.4 period	
N: Number of Hopping Frequencies	

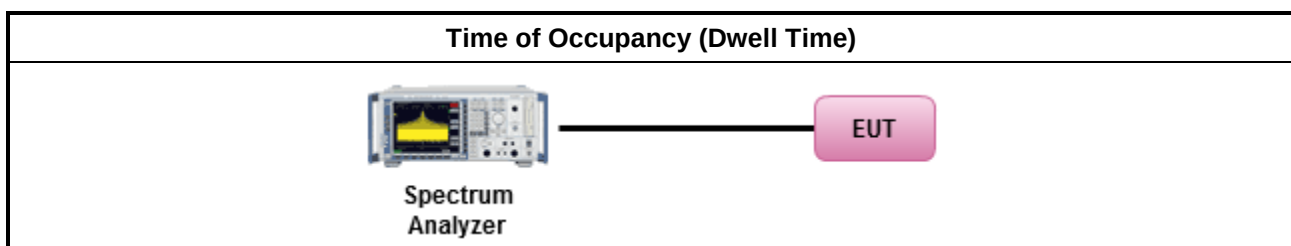
5.4.2 Measuring Instruments

Refer a test equipment and calibration data table in this test report.

5.4.3 Test Procedures

Test Method	
▪ Refer as ANSI C63.10-2013, clause 7.8.4 for dwell time measurement.	
▪ Bluetooth ACL packets can be 1, 3, or 5 time slots. Following as dwell time. Operate DH5 at maximum dwell time and maximum duty cycle.	
▪ The DH5 packet can cover up to 5 time slots. Operate DH5 at maximum dwell time and maximum duty cycle. A maximum length packet has duration of 5 time slots. The hopping rate is 1600 hops/second so the maximum dwell time is 5/1600 seconds, or 3.125ms. DH5 Packet permit maximum $1600 / 79 / 6 = 3.37$ hops per second in each channel.	

5.4.4 Test Setup



5.4.5 Test Result of Time of Occupancy (Dwell Time)

Refer as Appendix J

5.5 Emissions in Non-restricted Frequency Bands

5.5.1 Emissions in Non-restricted Frequency Bands Limit

Un-restricted Band Emissions Limit	
RF output power procedure	Limit (dBc)
Peak output power procedure	20
Average output power procedure	30
Note 1: If the peak output power procedure is used to measure the fundamental emission power to demonstrate compliance to requirements, then the peak conducted output power measured within any 100 kHz outside the authorized frequency band shall be attenuated by at least 20 dB relative to the maximum measured in-band peak PSD level. Note 2: If the average output power procedure is used to measure the fundamental emission power to demonstrate compliance to requirements, then the power in any 100 kHz outside of the authorized frequency band shall be attenuated by at least 30 dB relative to the maximum measured in-band average PSD level.	

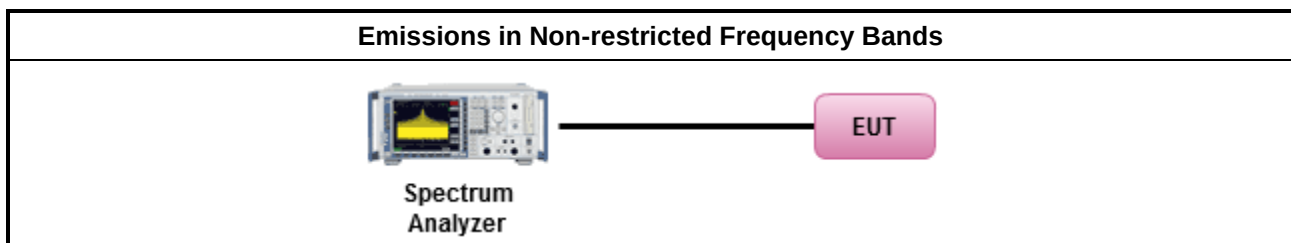
5.5.2 Measuring Instruments

Refer a test equipment and calibration data table in this test report.

5.5.3 Test Procedures

Test Method
Refer as ANSI C63.10-2013, clause 7.8.8 for unwanted emissions into non-restricted bands.

5.5.4 Test Setup



5.5.5 Test Result of Emissions in Non-restricted Frequency Bands

Refer as Appendix K



5.6 Emissions in Restricted Frequency Bands

5.6.1 Emissions in Restricted Frequency Bands Limit

Restricted Band Emissions Limit			
Frequency Range (MHz)	Field Strength (uV/m)	Field Strength (dBuV/m)	Measure Distance (m)
0.009~0.490	2400/F(kHz)	48.5 - 13.8	300
0.490~1.705	24000/F(kHz)	33.8 - 23	30
1.705~30.0	30	29	30
30~88	100	40	3
88~216	150	43.5	3
216~960	200	46	3
Above 960	500	54	3

Note 1: Test distance for frequencies at or above 30 MHz, measurements may be performed at a distance other than the limit distance provided they are not performed in the near field and the emissions to be measured can be detected by the measurement equipment. When performing measurements at a distance other than that specified, the results shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade (inverse of linear distance for field-strength measurements, inverse of linear distance-squared for power-density measurements).

Note 2: Test distance for frequencies at below 30 MHz, measurements may be performed at a distance closer than the EUT limit distance; however, an attempt should be made to avoid making measurements in the near field. When performing measurements below 30 MHz at a closer distance than the limit distance, the results shall be extrapolated to the specified distance by either making measurements at a minimum of two or more distances on at least one radial to determine the proper extrapolation factor or by using the square of an inverse linear distance extrapolation factor (40 dB / decade). The test report shall specify the extrapolation method used to determine compliance of the EUT.

5.6.2 Measuring Instruments

Refer a test equipment and calibration data table in this test report.

5.6.3 Test Procedures

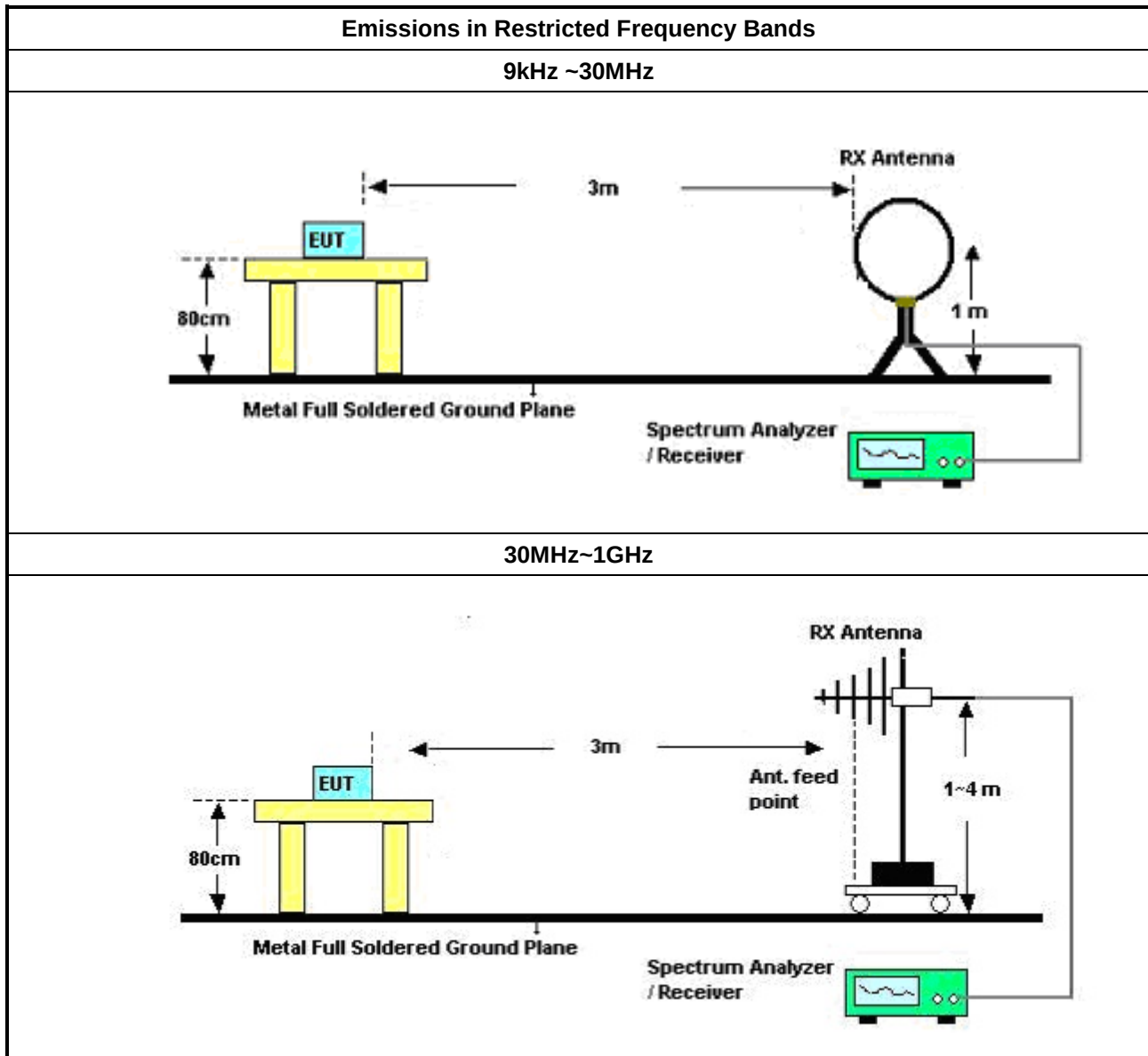
Test Method	
▪ The average emission levels shall be measured in [hopping duty factor].	
▪ Refer as ANSI C63.10; clause 6.10.3 band-edge testing shall be performed at the lowest frequency channel and highest frequency channel within the allowed operating band.	
▪ For the transmitter unwanted emissions shall be measured using following options below:	
	▪ Refer as ANSI C63.10, clause 4.1.4.2.1 QP value.
	▪ Refer as ANSI C63.10, clause 4.1.4.2.2 measurement procedure peak.
	▪ Refer as ANSI C63.10, clause 4.1.4.2.4 average value of hopping pulsed emissions.

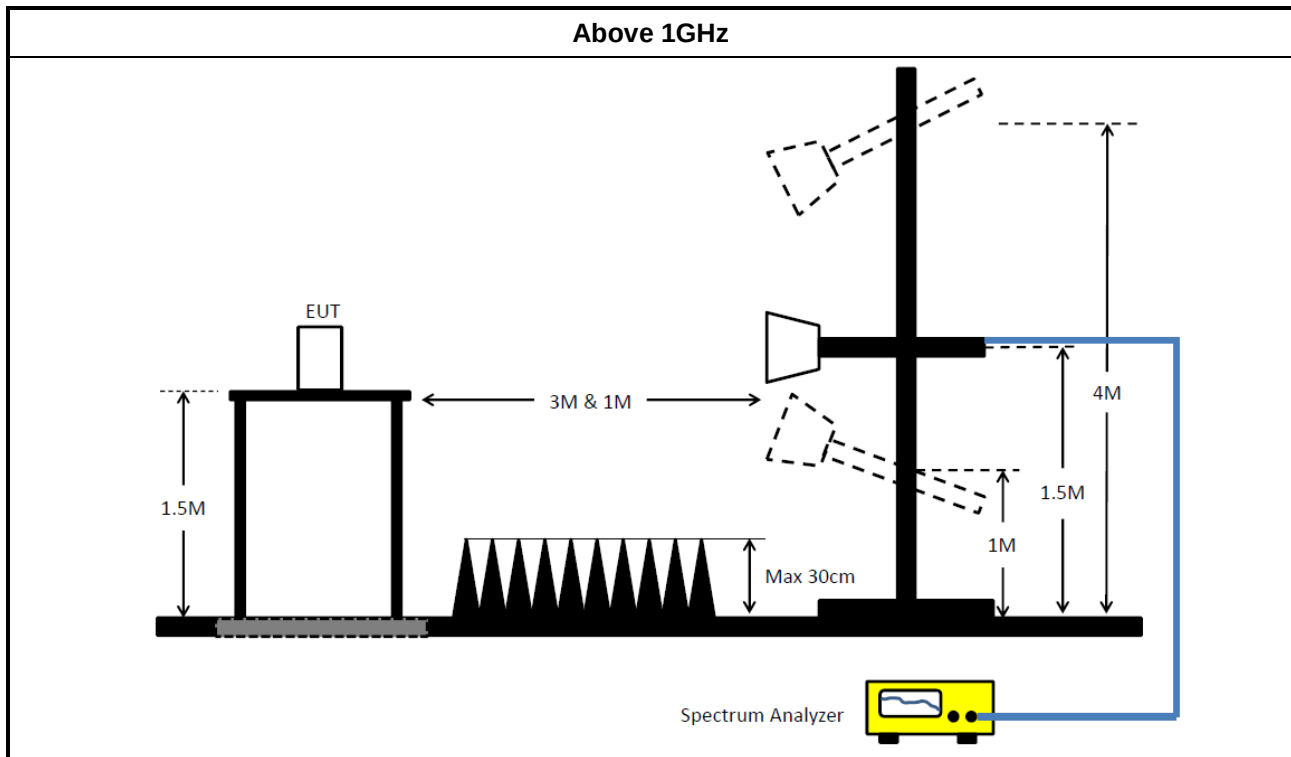
5.6.4 Measurement Results Calculation

The measured Level is calculated using:

Corrected Reading: Raw(Read Level) + AF(Antenna Factor) + CL(Cable Loss) - PA(Preamplifier Factor)

5.6.5 Test Setup





5.6.6 Emissions in Restricted Frequency Bands (Below 30MHz)

All amplitude of spurious emissions that are attenuated by more than 20 dB below the permissible value has no need to be reported.

The radiated emissions were investigated from 9 kHz or the lowest frequency generated within the device, up to the 10 harmonic or 40 GHz, whichever is appropriate.

5.6.7 Test Result of Emissions in Restricted Frequency Bands

Refer as Appendix F

5.7 Receiver Radiated Spurious Emissions

5.7.1 Receiver in Radiated Spurious Emissions Limit

Restricted Spurious Emissions Limit			
Frequency Range (MHz)	Field Strength (uV/m)	Field Strength (dBuV/m)	Measure Distance (m)
0.009~0.490	2400/F(kHz)	48.5 - 13.8	300
0.490~1.705	24000/F(kHz)	33.8 - 23	30
1.705~30.0	30	29	30
30~88	100	40	3
88~216	150	43.5	3
216~960	200	46	3
Above 960	500	54	3

Note 1: Test distance for frequencies at or above 30 MHz, measurements may be performed at a distance other than the limit distance provided they are not performed in the near field and the emissions to be measured can be detected by the measurement equipment. When performing measurements at a distance other than that specified, the results shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade (inverse of linear distance for field-strength measurements, inverse of linear distance-squared for power-density measurements).

Note 2: Test distance for frequencies at below 30 MHz, measurements may be performed at a distance closer than the EUT limit distance; however, an attempt should be made to avoid making measurements in the near field. When performing measurements below 30 MHz at a closer distance than the limit distance, the results shall be extrapolated to the specified distance by either making measurements at a minimum of two or more distances on at least one radial to determine the proper extrapolation factor or by using the square of an inverse linear distance extrapolation factor (40 dB/decade). The test report shall specify the extrapolation method used to determine compliance of the EUT.

5.7.2 Measuring Instruments

Refer a test equipment and calibration data table in this test report.

5.7.3 Test Procedures

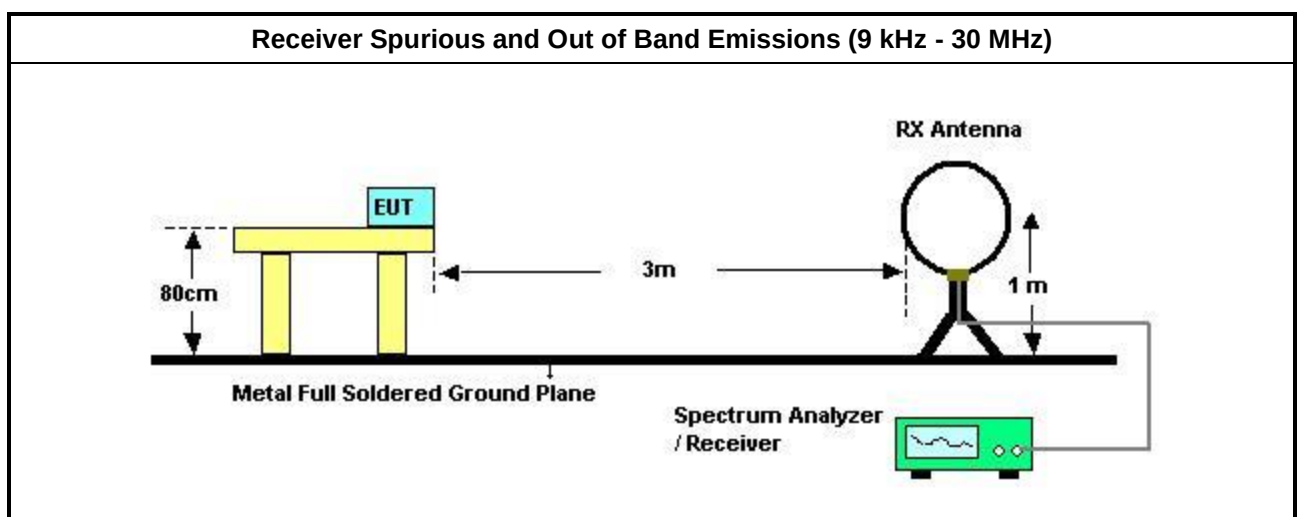
Test Method	
☒	The search for spurious emissions shall be from the lowest frequency internally generated or used in the receiver (e.g. local oscillator, intermediate or carrier frequency), or 30 MHz, whichever is higher, to at least 3 times the highest tuneable or local oscillator frequency, whichever is higher, without exceeding 40 GHz.
☒	Measurements may be performed at a distance other than the limit distance provided they are not performed in the near field and the emissions to be measured can be detected by the measurement equipment. When performing measurements at a distance other than that specified, the results shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade (inverse of linear distance for field-strength measurements, inverse of linear distance-squared for power-density measurements).
☒	For radiated measurement, refer as ANSI C63.4, clause 8.3.
☒	Refer as ANSI C63.4, clause 8.3.1.1 and 8.3.2.1 for radiated emissions from below 30 MHz.
☒	Refer as ANSI C63.4, clause 8.3.1.1 and 8.3.2.1 for radiated emissions from 30 MHz-1 GHz. For the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the QP-Limit so that the QP level does not need to be reported in addition.
☒	Refer as ANSI C63.4, clause 8.3.1.2 and 8.3.2.2 for radiated emissions from above 1 GHz. For the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.
☒	All amplitude of spurious emissions that are attenuated by more than 30 dB below the permissible value has no need to be reported.

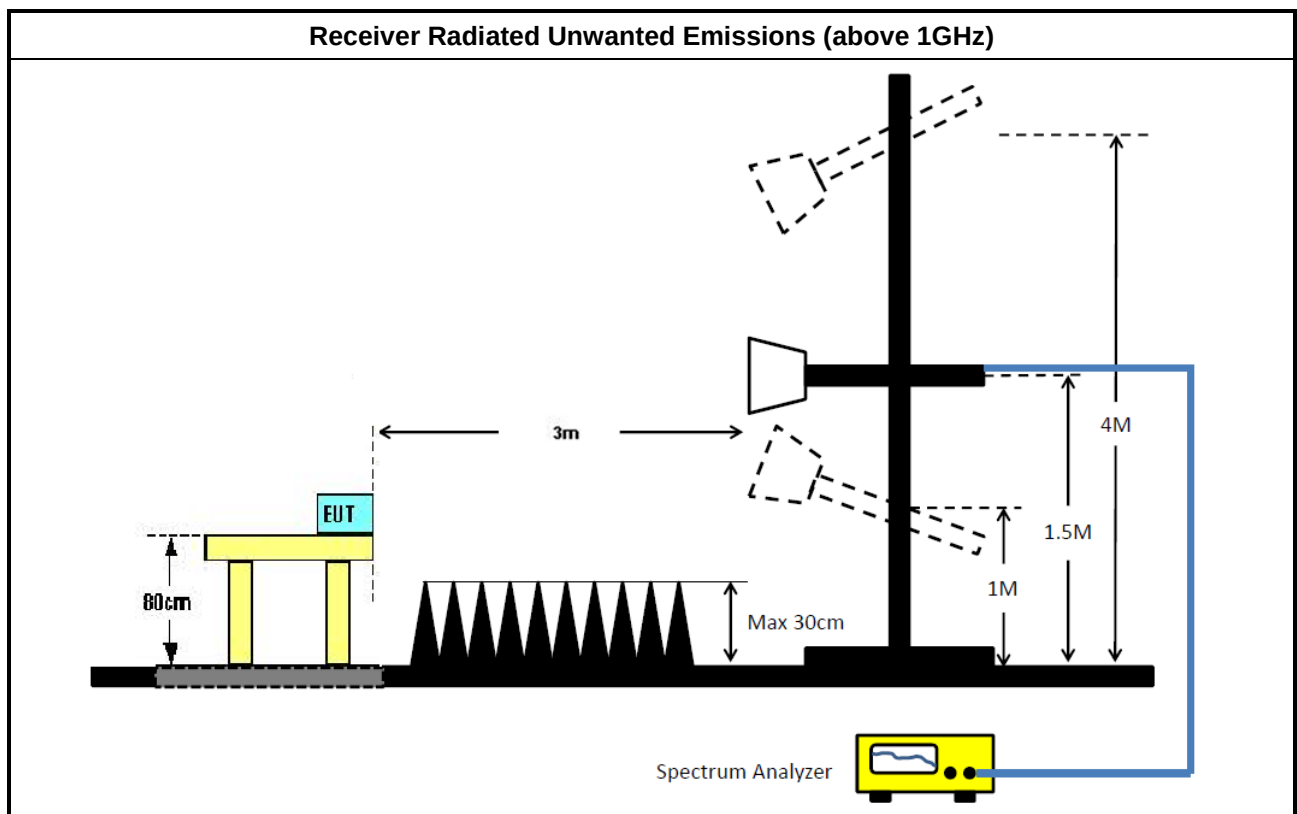
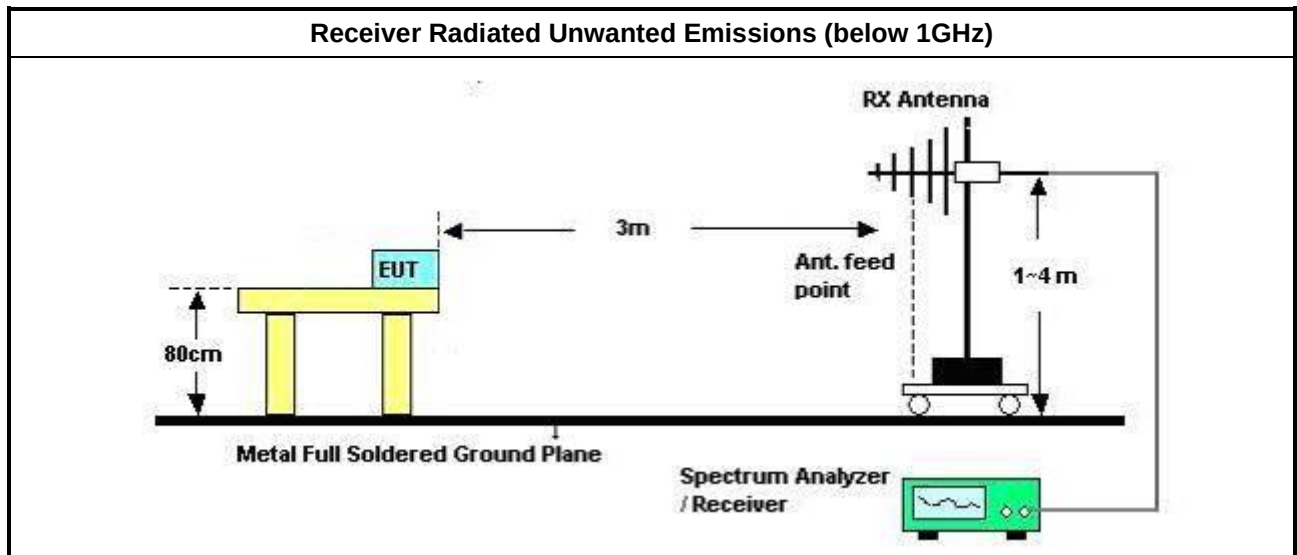
5.7.4 Measurement Results Calculation

The measured Level is calculated using:

Corrected Reading: Raw(Read Level) + AF(Antenna Factor) + CL(Cable Loss) - PA(Preamplifier Factor)

5.7.5 Test Setup





5.7.6 Receiver Radiated Unwanted Emissions (Below 30MHz)

The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.

5.7.7 Test Result of Receiver Radiated Unwanted Emissions

Refer as Appendix L

6 Test Equipment and Calibration Data

Instrument for AC Conduction

Instrument	Manufacturer	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
EMI Test Receiver	R&S	ESR3	102051	9kHz ~ 3.6GHz	29/May/2020	28/May/2021
LISN	R&S	ENV216	101295	9kHz ~ 30MHz	05/Nov/2019	04/Nov/2020
RF Cable-CON	MTJ	RG142	CB002-CO	9kHz ~ 200MHz	23/Sep/2019	22/Sep/2020
Impuls Begrenzer Pulse Limiter	SCHWARZBECK	VTSD 9561-F	9561-F041	9kHz ~ 30MHz	24/Sep/2019	23/Sep/2020

Instrument for Conducted Test

Instrument	Manufacturer	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
Spectrum Analyzer	R&S	FSV 40	101013	10Hz~40GHz	13/Mar/2019	12/Mar/2020
Power Sensor	Anritsu	MA2411B	1339407	300MHz ~ 40GHz	17/Nov/2018	16/Nov/2019
Power Meter	Anritsu	ML2495A	1517010	300MHz ~ 40GHz	17/Nov/2018	16/Nov/2019
Cable 0.2m	HUBER	MY10710/4	RF Cable - 01	30MHz ~18G	21/Mar/2019	20/Mar/2020
Cable 0.2m	HUBER	MY10711/4	RF Cable - 02	30MHz ~18G	21/Mar/2019	20/Mar/2020
Cable 0.5m	HUBER	MY39470/4	RF Cable - 29	30MHz ~18G	21/Mar/2019	20/Mar/2020
SMB100A Signal Generator	R&S	SMB100A03	181147	100kHz~40GHz	12/Nov/2018	10/Nov/2020

Instrument for Radiated Test below 1GHz (03CH03-HY)

Instrument	Manufacturer	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
3m Semi Anechoic Chamber	SIDT FRANKONIA	SAC-3M	03CH03-HY	30MHz~1GHz 3m	06/Aug/2020	05/Aug/2021
Signal Analyzer	R&S	FSP30	100793	9kHz~30GHz	03/Jun/2020	02/Jun/2021
Amplifier	HP	8447D	2944A08033	10kHz~1.3GHz	14/Apr/2020	13/Apr/2021
Bilog Antenna & 6dB Attenuator	SCHAFFNER / EMCI	CBL6112B / N-6-05	22237 / AT-N-0603	30MHz~1GHz	19/Apr/2020	18/Apr/2021
RF Cable-R03m	Jye Bao	RG142	CB021	30MHz~1GHz	18/Mar/2020	17/Mar/2021
Loop Antenna	TESEQ	HLA 6120	31244	9kHz~30MHz	16/Mar/2020	15/Mar/2021
EMI Test Receiver	R&S	ESR3	102051	9kHz~3.6GHz	29/May/2020	28/May/2021

Instrument for Radiated Test above 1GHz (03CH01-HY)

Instrument	Manufacturer	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
Microwave Preamplifier	Agilent	8449B	3008A02602	1GHz~26.5GHz	27/Mar/2019	26/Mar/2020
Site V.S.W.R	Riken	3m SAC	03CH01-HY	1 GHz ~ 18 GHz 3m	09/Jan/2019	08/Jan/2020
Spectrum Analyzer	R&S	FSV 40	101407	10Hz ~ 40GHz	31/Jul/2017	30/Jul/2018
Spectrum Analyzer	R&S	FSV 40	101407	10Hz ~ 40GHz	16/Aug/2018	15/Aug/2019
Preamplifier	MITEQ	TTA1840-35-HG	1864481	18GHz ~ 40GHz	24/Aug/2018	23/Aug/2019
Horn Antenna	SCHWARZBECK	BBHA9120	BBHA9120D0 1834	1 GHz ~ 18 GHz	30/Jan/2019	29/Jan/2020
Horn Antenna	SCHWARZBECK	BBHA9170	BBHA 9170221	18GHz ~ 40GHz	22/Mar/2019	21/Mar/2020
RF Cable	HUBER+SUHNER	SUCOFLEX 102	SN805196/4+ MY39495	1 GHz~40 GHz	13/Mar/2019	12/Mar/2020

Instrument for Radiated Test above 1GHz (03CH09-HY)

Instrument	Manufacturer	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
3m Semi Anechoic Chamber	TDK	SAC-3M	03CH09-HY	1GHz~18GHz	20/Mar/2019	19/Mar/2020
Microwave Preamplifier	KEYSIGHT	83017A	MY53270197	1GHz~26.5GHz	30/Nov/2018	29/Nov/2019
EXA Signal Analyzer	KEYSIGHT	N9010A	MY54200885	10Hz~44GHz	31/Jul/2018	30/Jul/2019
Double Ridged Guide Horn Antenna	SCHWARZBECK	BBHA 9120 D	BBHA9120 D 1534	1GHz~18GHz	22/May/2019	21/May/2020
Broadband Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA 9170221	18GHz~40GHz	22/Mar/2019	21/Mar/2020
Preamplifier	MITEQ	TTA1840-35-HG	1864481	18GHz~40GHz	24/Aug/2018	23/Aug/2019
RF Cable-high	HUBER+SUHNER	SUCOFLEX104	SN 556626/4 + 556627/4	1GHz~40GHz	13/Mar/2019	12/Mar/2020

Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Condition
Mode 1	Pass	QP	156.109k	43.07	65.67	-22.60	Line
Mode 2	Pass	QP	159.256k	42.12	65.50	-23.38	Line
Mode 3	Pass	AV	2.15M	23.52	46.00	-22.48	Neutral
Mode 4	Pass	AV	2.15M	23.27	46.00	-22.73	Neutral
Mode 5	Pass	AV	2.229M	22.20	46.00	-23.80	Neutral
Mode 6	Pass	AV	2.211M	22.66	46.00	-23.34	Neutral

Mode Configure

Mode	Result	Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Condition	Comments
Mode 1	Pass	QP	156.109k	43.07	65.67	-22.60	Line	"Worst"
Mode 1	Pass	AV	156.109k	25.03	55.67	-30.64	Line	-
Mode 1	Pass	QP	180.236k	40.80	64.47	-23.67	Line	-
Mode 1	Pass	AV	180.236k	25.71	54.47	-28.76	Line	-
Mode 1	Pass	QP	487.008k	27.02	56.21	-29.19	Line	-
Mode 1	Pass	AV	487.008k	21.20	46.21	-25.01	Line	-
Mode 1	Pass	QP	2.058M	21.78	56.00	-34.22	Line	-
Mode 1	Pass	AV	2.058M	16.82	46.00	-29.18	Line	-
Mode 1	Pass	QP	3.79M	23.07	56.00	-32.93	Line	-
Mode 1	Pass	AV	3.79M	19.46	46.00	-26.54	Line	-
Mode 1	Pass	QP	4.759M	22.32	56.00	-33.68	Line	-
Mode 1	Pass	AV	4.759M	19.71	46.00	-26.29	Line	-
Mode 1	Pass	QP	166.406k	41.30	65.14	-23.84	Neutral	"Worst"
Mode 1	Pass	AV	166.406k	24.04	55.14	-31.10	Neutral	-
Mode 1	Pass	QP	210.599k	36.12	63.19	-27.07	Neutral	-
Mode 1	Pass	AV	210.599k	23.51	53.19	-29.68	Neutral	-
Mode 1	Pass	QP	483.136k	28.09	56.29	-28.20	Neutral	-
Mode 1	Pass	AV	483.136k	21.97	46.29	-24.32	Neutral	-
Mode 1	Pass	QP	2.15M	25.40	56.00	-30.60	Neutral	-
Mode 1	Pass	AV	2.15M	18.91	46.00	-27.09	Neutral	-
Mode 1	Pass	QP	3.836M	22.69	56.00	-33.31	Neutral	-
Mode 1	Pass	AV	3.836M	19.31	46.00	-26.69	Neutral	-
Mode 1	Pass	QP	4.759M	19.71	56.00	-36.29	Neutral	-
Mode 1	Pass	AV	4.759M	16.94	46.00	-29.06	Neutral	-
Mode 2	Pass	QP	159.256k	42.12	65.50	-23.38	Line	"Worst"
Mode 2	Pass	AV	159.256k	24.94	55.50	-30.56	Line	-
Mode 2	Pass	QP	219.176k	34.99	62.85	-27.86	Line	-
Mode 2	Pass	AV	219.176k	23.58	52.85	-29.27	Line	-
Mode 2	Pass	QP	475.482k	26.08	56.42	-30.34	Line	-
Mode 2	Pass	AV	475.482k	20.01	46.42	-26.41	Line	-
Mode 2	Pass	QP	2.211M	22.02	56.00	-33.98	Line	-
Mode 2	Pass	AV	2.211M	16.49	46.00	-29.51	Line	-
Mode 2	Pass	QP	3.322M	21.96	56.00	-34.04	Line	-
Mode 2	Pass	AV	3.322M	18.28	46.00	-27.72	Line	-
Mode 2	Pass	QP	6.343M	20.43	60.00	-39.57	Line	-
Mode 2	Pass	AV	6.343M	17.49	50.00	-32.51	Line	-
Mode 2	Pass	QP	157.99k	42.06	65.56	-23.50	Neutral	"Worst"
Mode 2	Pass	AV	157.99k	24.35	55.56	-31.21	Neutral	-
Mode 2	Pass	QP	209.76k	36.79	63.21	-26.42	Neutral	-

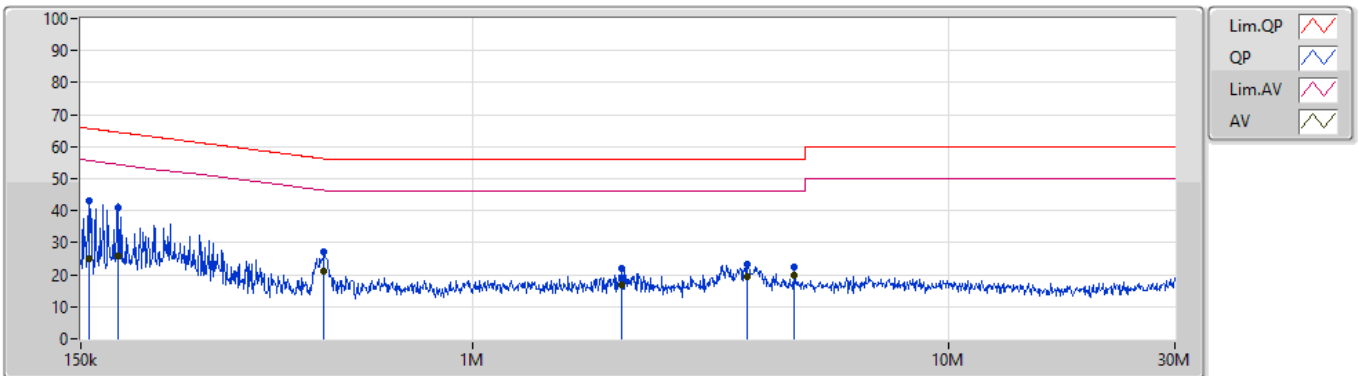
Mode	Result	Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Condition	Comments
Mode 2	Pass	AV	209.76k	23.56	53.21	-29.65	Neutral	-
Mode 2	Pass	QP	483.136k	28.15	56.29	-28.14	Neutral	-
Mode 2	Pass	AV	483.136k	22.03	46.29	-24.26	Neutral	-
Mode 2	Pass	QP	2.256M	23.08	56.00	-32.92	Neutral	-
Mode 2	Pass	AV	2.256M	17.17	46.00	-28.83	Neutral	-
Mode 2	Pass	QP	3.96M	25.31	56.00	-30.69	Neutral	-
Mode 2	Pass	AV	3.96M	21.79	46.00	-24.21	Neutral	-
Mode 2	Pass	QP	8.028M	17.92	60.00	-42.08	Neutral	-
Mode 2	Pass	AV	8.028M	15.34	50.00	-34.66	Neutral	-
Mode 3	Pass	QP	174.571k	39.65	64.74	-25.09	Line	-
Mode 3	Pass	AV	174.571k	25.16	54.74	-29.58	Line	-
Mode 3	Pass	QP	294.502k	27.78	60.40	-32.62	Line	-
Mode 3	Pass	AV	294.502k	21.01	50.40	-29.39	Line	-
Mode 3	Pass	QP	485.068k	27.00	56.25	-29.25	Line	-
Mode 3	Pass	AV	485.068k	21.11	46.25	-25.14	Line	-
Mode 3	Pass	QP	2.025M	25.14	56.00	-30.86	Line	-
Mode 3	Pass	AV	2.025M	20.18	46.00	-25.82	Line	-
Mode 3	Pass	QP	3.96M	25.06	56.00	-30.94	Line	-
Mode 3	Pass	AV	3.96M	21.52	46.00	-24.48	Line	"Worst"
Mode 3	Pass	QP	6.445M	18.49	60.00	-41.51	Line	-
Mode 3	Pass	AV	6.445M	15.79	50.00	-34.21	Line	-
Mode 3	Pass	QP	162.467k	41.68	65.33	-23.65	Neutral	-
Mode 3	Pass	AV	162.467k	24.13	55.33	-31.20	Neutral	-
Mode 3	Pass	QP	233.633k	33.39	62.31	-28.92	Neutral	-
Mode 3	Pass	AV	233.633k	24.40	52.31	-27.91	Neutral	-
Mode 3	Pass	QP	469.822k	25.91	56.52	-30.61	Neutral	-
Mode 3	Pass	AV	469.822k	20.48	46.52	-26.04	Neutral	-
Mode 3	Pass	QP	2.15M	31.95	56.00	-24.05	Neutral	-
Mode 3	Pass	AV	2.15M	23.52	46.00	-22.48	Neutral	"Worst"
Mode 3	Pass	QP	3.76M	22.47	56.00	-33.53	Neutral	-
Mode 3	Pass	AV	3.76M	18.92	46.00	-27.08	Neutral	-
Mode 3	Pass	QP	10.787M	17.62	60.00	-42.38	Neutral	-
Mode 3	Pass	AV	10.787M	15.09	50.00	-34.91	Neutral	-
Mode 4	Pass	QP	150k	42.83	66.00	-23.17	Line	"Worst"
Mode 4	Pass	AV	150k	24.93	56.00	-31.07	Line	-
Mode 4	Pass	QP	196.781k	37.60	63.74	-26.14	Line	-
Mode 4	Pass	AV	196.781k	23.87	53.74	-29.87	Line	-
Mode 4	Pass	QP	483.136k	26.83	56.29	-29.46	Line	-
Mode 4	Pass	AV	483.136k	20.86	46.29	-25.43	Line	-
Mode 4	Pass	QP	2.274M	24.92	56.00	-31.08	Line	-
Mode 4	Pass	AV	2.274M	18.23	46.00	-27.77	Line	-
Mode 4	Pass	QP	3.96M	25.36	56.00	-30.64	Line	-
Mode 4	Pass	AV	3.96M	21.81	46.00	-24.19	Line	-
Mode 4	Pass	QP	6.735M	20.83	60.00	-39.17	Line	-
Mode 4	Pass	AV	6.735M	17.76	50.00	-32.24	Line	-
Mode 4	Pass	QP	154.251k	42.56	65.77	-23.21	Neutral	-
Mode 4	Pass	AV	154.251k	24.04	55.77	-31.73	Neutral	-
Mode 4	Pass	QP	224.49k	34.91	62.65	-27.74	Neutral	-
Mode 4	Pass	AV	224.49k	25.43	52.65	-27.22	Neutral	-
Mode 4	Pass	QP	481.211k	27.98	56.33	-28.35	Neutral	-

Mode	Result	Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Condition	Comments
Mode 4	Pass	AV	481.211k	21.70	46.33	-24.63	Neutral	-
Mode 4	Pass	QP	2.15M	31.61	56.00	-24.39	Neutral	-
Mode 4	Pass	AV	2.15M	23.27	46.00	-22.73	Neutral	"Worst"
Mode 4	Pass	QP	3.701M	23.01	56.00	-32.99	Neutral	-
Mode 4	Pass	AV	3.701M	18.52	46.00	-27.48	Neutral	-
Mode 4	Pass	QP	6.735M	19.99	60.00	-40.01	Neutral	-
Mode 4	Pass	AV	6.735M	17.20	50.00	-32.80	Neutral	-
Mode 5	Pass	QP	167.071k	40.11	65.10	-24.99	Line	-
Mode 5	Pass	AV	167.071k	24.07	55.10	-31.03	Line	-
Mode 5	Pass	QP	219.176k	34.61	62.85	-28.24	Line	-
Mode 5	Pass	AV	219.176k	23.35	52.85	-29.50	Line	-
Mode 5	Pass	QP	485.068k	26.97	56.25	-29.28	Line	-
Mode 5	Pass	AV	485.068k	21.12	46.25	-25.13	Line	-
Mode 5	Pass	QP	2.025M	24.77	56.00	-31.23	Line	-
Mode 5	Pass	AV	2.025M	19.95	46.00	-26.05	Line	-
Mode 5	Pass	QP	3.96M	25.39	56.00	-30.61	Line	-
Mode 5	Pass	AV	3.96M	21.90	46.00	-24.10	Line	"Worst"
Mode 5	Pass	QP	9.531M	17.93	60.00	-42.07	Line	-
Mode 5	Pass	AV	9.531M	15.37	50.00	-34.63	Line	-
Mode 5	Pass	QP	156.734k	41.73	65.64	-23.91	Neutral	-
Mode 5	Pass	AV	156.734k	23.91	55.64	-31.73	Neutral	-
Mode 5	Pass	QP	206.437k	36.85	63.34	-26.49	Neutral	-
Mode 5	Pass	AV	206.437k	24.16	53.34	-29.18	Neutral	-
Mode 5	Pass	QP	487.008k	27.90	56.21	-28.31	Neutral	-
Mode 5	Pass	AV	487.008k	22.25	46.21	-23.96	Neutral	-
Mode 5	Pass	QP	2.229M	29.69	56.00	-26.31	Neutral	-
Mode 5	Pass	AV	2.229M	22.20	46.00	-23.80	Neutral	-
Mode 5	Pass	QP	3.745M	22.27	56.00	-33.73	Neutral	-
Mode 5	Pass	AV	3.745M	18.69	46.00	-27.31	Neutral	-
Mode 5	Pass	QP	8.157M	18.05	60.00	-41.95	Neutral	-
Mode 5	Pass	AV	8.157M	15.44	50.00	-34.56	Neutral	-
Mode 6	Pass	QP	172.493k	40.32	64.83	-24.51	Line	"Worst"
Mode 6	Pass	AV	172.493k	24.32	54.83	-30.51	Line	-
Mode 6	Pass	QP	263.357k	27.58	61.32	-33.74	Line	-
Mode 6	Pass	AV	263.357k	19.94	51.32	-31.38	Line	-
Mode 6	Pass	QP	490.912k	25.93	56.15	-30.22	Line	-
Mode 6	Pass	AV	490.912k	20.61	46.15	-25.54	Line	-
Mode 6	Pass	QP	2.211M	26.17	56.00	-29.83	Line	-
Mode 6	Pass	AV	2.211M	18.75	46.00	-27.25	Line	-
Mode 6	Pass	QP	3.775M	22.37	56.00	-33.63	Line	-
Mode 6	Pass	AV	3.775M	18.90	46.00	-27.10	Line	-
Mode 6	Pass	QP	6.071M	18.09	60.00	-41.91	Line	-
Mode 6	Pass	AV	6.071M	15.50	50.00	-34.50	Line	-
Mode 6	Pass	QP	158.622k	41.79	65.54	-23.75	Neutral	-
Mode 6	Pass	AV	158.622k	23.93	55.54	-31.61	Neutral	-
Mode 6	Pass	QP	246.077k	32.08	61.89	-29.81	Neutral	-
Mode 6	Pass	AV	246.077k	23.07	51.89	-28.82	Neutral	-
Mode 6	Pass	QP	487.008k	27.94	56.21	-28.27	Neutral	-
Mode 6	Pass	AV	487.008k	22.17	46.21	-24.04	Neutral	-
Mode 6	Pass	QP	2.211M	31.15	56.00	-24.85	Neutral	-

Mode	Result	Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Condition	Comments
Mode 6	Pass	AV	2.211M	22.66	46.00	-23.34	Neutral	"Worst"
Mode 6	Pass	QP	3.73M	22.25	56.00	-33.75	Neutral	-
Mode 6	Pass	AV	3.73M	18.53	46.00	-27.47	Neutral	-
Mode 6	Pass	QP	5.718M	17.92	60.00	-42.08	Neutral	-
Mode 6	Pass	AV	5.718M	15.36	50.00	-34.64	Neutral	-

Conducted Emissions at Powerline_Mode 1

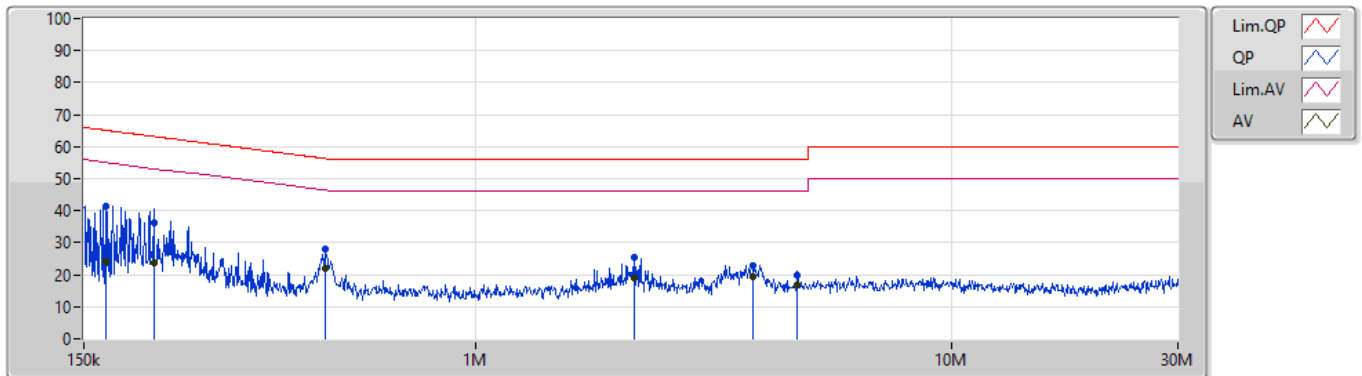
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Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Factor (dB)	Condition	Comment	Raw (dBuV)	LISN (dB)	CL (dB)	AT (dB)			
QP	156.109k	43.07	65.67	-22.60	19.64	Line	"Worst"	23.43	9.66	0.11	9.87			
AV	156.109k	25.03	55.67	-30.64	19.64	Line	-	5.39	9.66	0.11	9.87			
QP	180.236k	40.80	64.47	-23.67	19.63	Line	-	21.17	9.65	0.11	9.87			
AV	180.236k	25.71	54.47	-28.76	19.63	Line	-	6.08	9.65	0.11	9.87			
QP	487.008k	27.02	56.21	-29.19	19.64	Line	-	7.38	9.64	0.13	9.87			
AV	487.008k	21.20	46.21	-25.01	19.64	Line	-	1.56	9.64	0.13	9.87			
QP	2.058M	21.78	56.00	-34.22	19.66	Line	-	2.12	9.65	0.14	9.87			
AV	2.058M	16.82	46.00	-29.18	19.66	Line	-	-2.84	9.65	0.14	9.87			
QP	3.79M	23.07	56.00	-32.93	19.72	Line	-	3.35	9.66	0.18	9.88			
AV	3.79M	19.46	46.00	-26.54	19.72	Line	-	-0.26	9.66	0.18	9.88			
QP	4.759M	22.32	56.00	-33.68	19.75	Line	-	2.57	9.67	0.20	9.88			
AV	4.759M	19.71	46.00	-26.29	19.75	Line	-	-0.04	9.67	0.20	9.88			

Conducted Emissions at Powerline_Mode 1

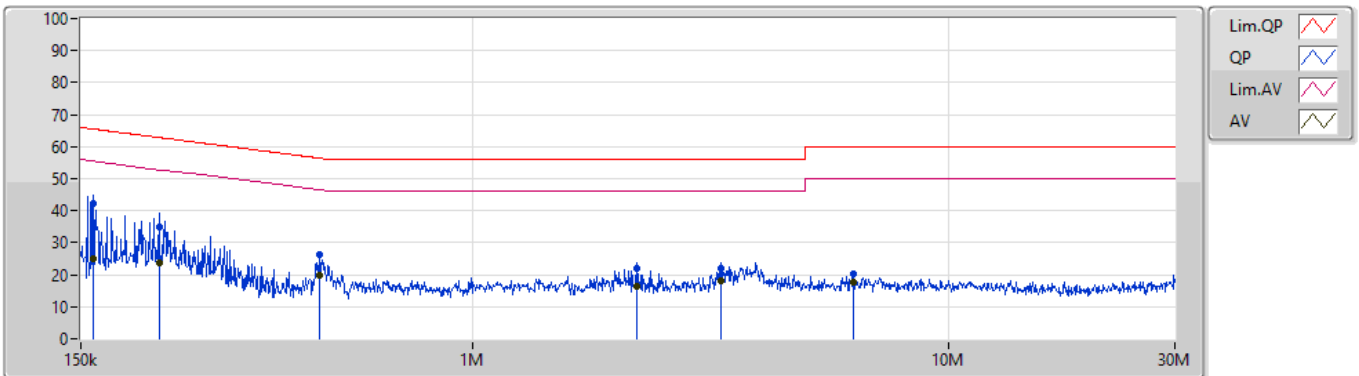
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Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Factor (dB)	Condition	Comment	Raw (dBuV)	LISN (dB)	CL (dB)	AT (dB)			
QP	166.406k	41.30	65.14	-23.84	19.63	Neutral	"Worst"	21.67	9.65	0.11	9.87			
AV	166.406k	24.04	55.14	-31.10	19.63	Neutral	-	4.41	9.65	0.11	9.87			
QP	210.599k	36.12	63.19	-27.07	19.62	Neutral	-	16.50	9.64	0.11	9.87			
AV	210.599k	23.51	53.19	-29.68	19.62	Neutral	-	3.89	9.64	0.11	9.87			
QP	483.136k	28.09	56.29	-28.20	19.63	Neutral	-	8.46	9.63	0.13	9.87			
AV	483.136k	21.97	46.29	-24.32	19.63	Neutral	-	2.34	9.63	0.13	9.87			
QP	2.15M	25.40	56.00	-30.60	19.66	Neutral	-	5.74	9.65	0.14	9.87			
AV	2.15M	18.91	46.00	-27.09	19.66	Neutral	-	-0.75	9.65	0.14	9.87			
QP	3.836M	22.69	56.00	-33.31	19.72	Neutral	-	2.97	9.66	0.18	9.88			
AV	3.836M	19.31	46.00	-26.69	19.72	Neutral	-	-0.41	9.66	0.18	9.88			
QP	4.759M	19.71	56.00	-36.29	19.75	Neutral	-	-0.04	9.67	0.20	9.88			
AV	4.759M	16.94	46.00	-29.06	19.75	Neutral	-	-2.81	9.67	0.20	9.88			

Conducted Emissions at Powerline_Mode 2

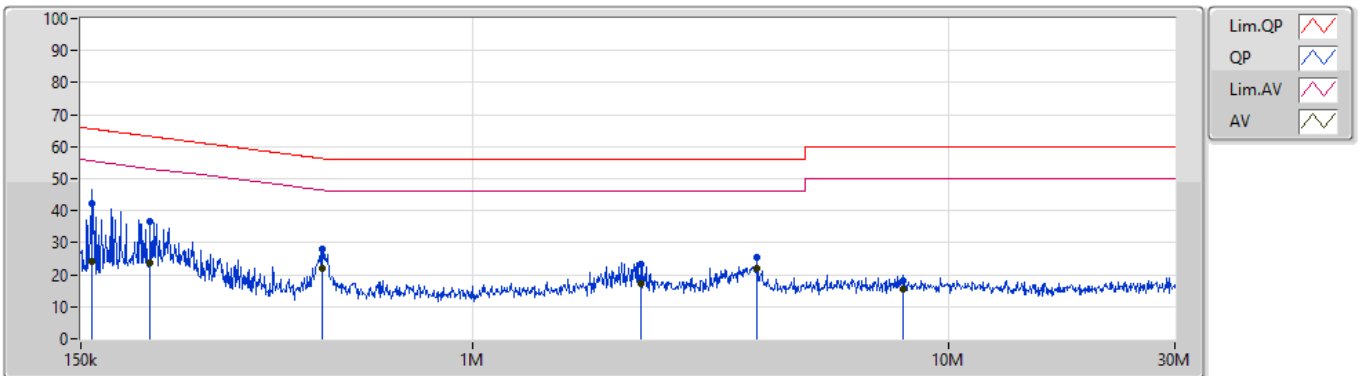
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Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Factor (dB)	Condition	Comment	Raw (dBuV)	LISN (dB)	CL (dB)	AT (dB)			
QP	159.256k	42.12	65.50	-23.38	19.64	Line	"Worst"	22.48	9.66	0.11	9.87			
AV	159.256k	24.94	55.50	-30.56	19.64	Line	-	5.30	9.66	0.11	9.87			
QP	219.176k	34.99	62.85	-27.86	19.63	Line	-	15.36	9.65	0.11	9.87			
AV	219.176k	23.58	52.85	-29.27	19.63	Line	-	3.95	9.65	0.11	9.87			
QP	475.482k	26.08	56.42	-30.34	19.64	Line	-	6.44	9.64	0.13	9.87			
AV	475.482k	20.01	46.42	-26.41	19.64	Line	-	0.37	9.64	0.13	9.87			
QP	2.211M	22.02	56.00	-33.98	19.67	Line	-	2.35	9.65	0.15	9.87			
AV	2.211M	16.49	46.00	-29.51	19.67	Line	-	-3.18	9.65	0.15	9.87			
QP	3.322M	21.96	56.00	-34.04	19.71	Line	-	2.25	9.66	0.17	9.88			
AV	3.322M	18.28	46.00	-27.72	19.71	Line	-	-1.43	9.66	0.17	9.88			
QP	6.343M	20.43	60.00	-39.57	19.79	Line	-	0.64	9.68	0.23	9.88			
AV	6.343M	17.49	50.00	-32.51	19.79	Line	-	-2.30	9.68	0.23	9.88			

Conducted Emissions at Powerline_Mode 2

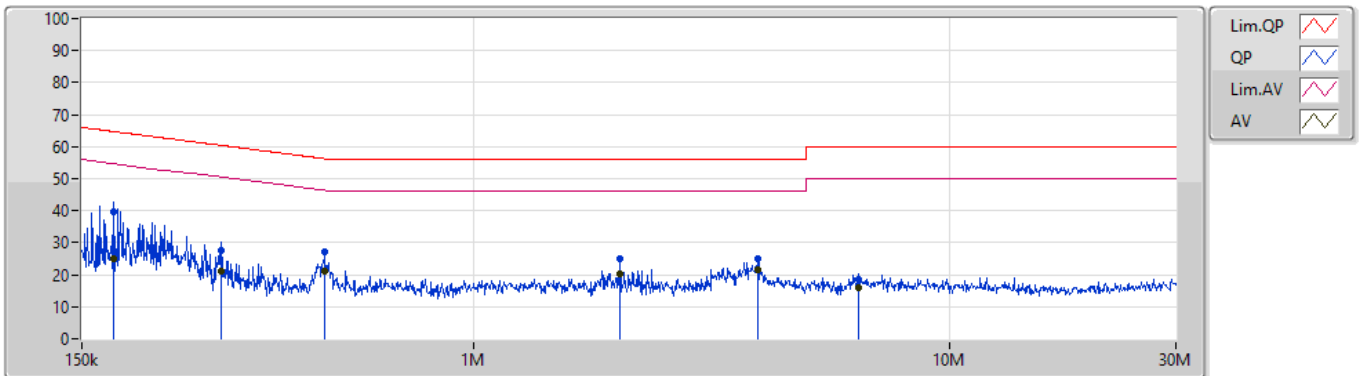
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Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Factor (dB)	Condition	Comment	Raw (dBuV)	LISN (dB)	CL (dB)	AT (dB)			
QP	157.99k	42.06	65.56	-23.50	19.63	Neutral	"Worst"	22.43	9.65	0.11	9.87			
AV	157.99k	24.35	55.56	-31.21	19.63	Neutral	-	4.72	9.65	0.11	9.87			
QP	209.76k	36.79	63.21	-26.42	19.62	Neutral	-	17.17	9.64	0.11	9.87			
AV	209.76k	23.56	53.21	-29.65	19.62	Neutral	-	3.94	9.64	0.11	9.87			
QP	483.136k	28.15	56.29	-28.14	19.63	Neutral	-	8.52	9.63	0.13	9.87			
AV	483.136k	22.03	46.29	-24.26	19.63	Neutral	-	2.40	9.63	0.13	9.87			
QP	2.256M	23.08	56.00	-32.92	19.67	Neutral	-	3.41	9.65	0.15	9.87			
AV	2.256M	17.17	46.00	-28.83	19.67	Neutral	-	-2.50	9.65	0.15	9.87			
QP	3.96M	25.31	56.00	-30.69	19.72	Neutral	-	5.59	9.66	0.18	9.88			
AV	3.96M	21.79	46.00	-24.21	19.72	Neutral	-	2.07	9.66	0.18	9.88			
QP	8.028M	17.92	60.00	-42.08	19.82	Neutral	-	-1.90	9.69	0.25	9.88			
AV	8.028M	15.34	50.00	-34.66	19.82	Neutral	-	-4.48	9.69	0.25	9.88			

Conducted Emissions at Powerline_Mode 3

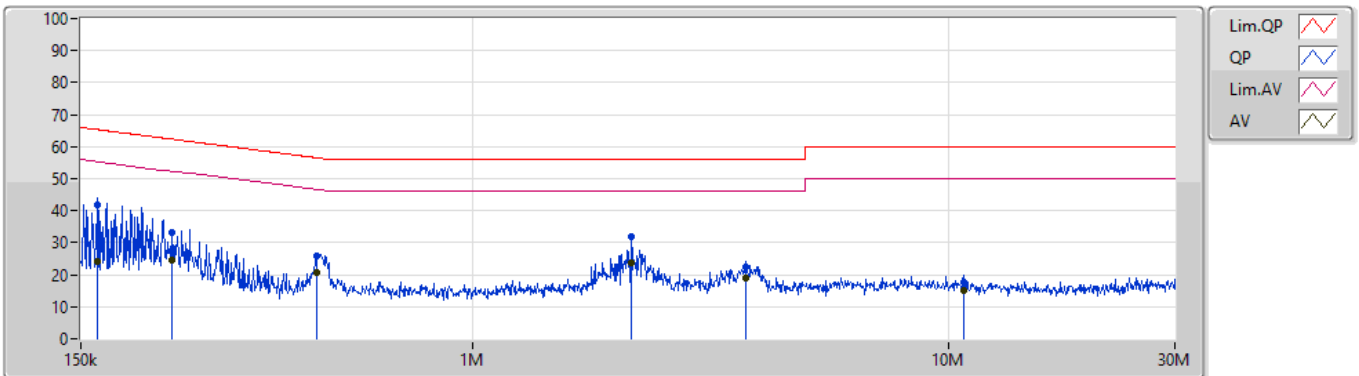
22/08/2020



Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Factor (dB)	Condition	Comment	Raw (dBuV)	LISN (dB)	CL (dB)	AT (dB)			
QP	174.571k	39.65	64.74	-25.09	19.63	Line	-	20.02	9.65	0.11	9.87			
AV	174.571k	25.16	54.74	-29.58	19.63	Line	-	5.53	9.65	0.11	9.87			
QP	294.502k	27.78	60.40	-32.62	19.63	Line	-	8.15	9.64	0.12	9.87			
AV	294.502k	21.01	50.40	-29.39	19.63	Line	-	1.38	9.64	0.12	9.87			
QP	485.068k	27.00	56.25	-29.25	19.64	Line	-	7.36	9.64	0.13	9.87			
AV	485.068k	21.11	46.25	-25.14	19.64	Line	-	1.47	9.64	0.13	9.87			
QP	2.025M	25.14	56.00	-30.86	19.66	Line	-	5.48	9.65	0.14	9.87			
AV	2.025M	20.18	46.00	-25.82	19.66	Line	-	0.52	9.65	0.14	9.87			
QP	3.96M	25.06	56.00	-30.94	19.72	Line	-	5.34	9.66	0.18	9.88			
AV	3.96M	21.52	46.00	-24.48	19.72	Line	"Worst"	1.80	9.66	0.18	9.88			
QP	6.445M	18.49	60.00	-41.51	19.79	Line	-	-1.30	9.68	0.23	9.88			
AV	6.445M	15.79	50.00	-34.21	19.79	Line	-	-4.00	9.68	0.23	9.88			

Conducted Emissions at Powerline_Mode 3

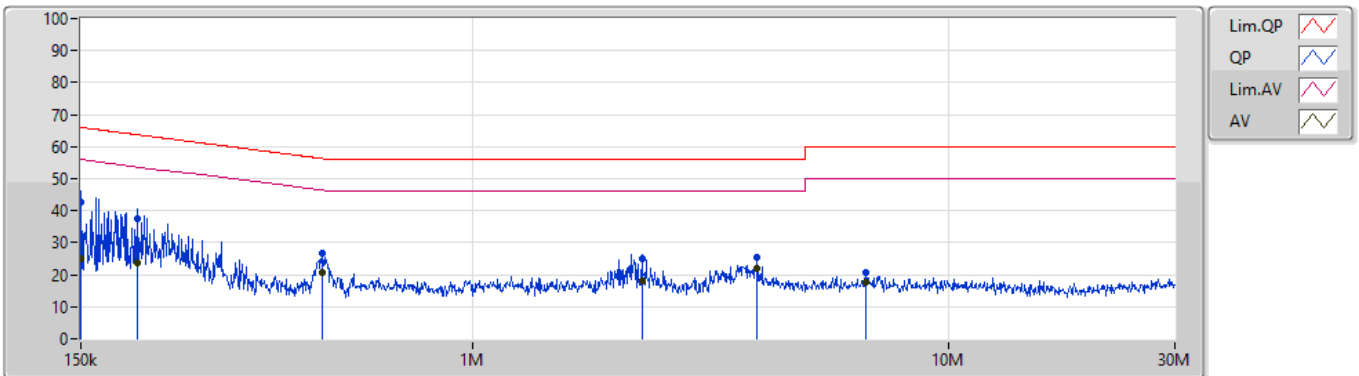
22/08/2020



Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Factor (dB)	Condition	Comment	Raw (dBuV)	LISN (dB)	CL (dB)	AT (dB)			
QP	162.467k	41.68	65.33	-23.65	19.63	Neutral	-	22.05	9.65	0.11	9.87			
AV	162.467k	24.13	55.33	-31.20	19.63	Neutral	-	4.50	9.65	0.11	9.87			
QP	233.633k	33.39	62.31	-28.92	19.62	Neutral	-	13.77	9.64	0.11	9.87			
AV	233.633k	24.40	52.31	-27.91	19.62	Neutral	-	4.78	9.64	0.11	9.87			
QP	469.822k	25.91	56.52	-30.61	19.63	Neutral	-	6.28	9.63	0.13	9.87			
AV	469.822k	20.48	46.52	-26.04	19.63	Neutral	-	0.85	9.63	0.13	9.87			
QP	2.15M	31.95	56.00	-24.05	19.66	Neutral	-	12.29	9.65	0.14	9.87			
AV	2.15M	23.52	46.00	-22.48	19.66	Neutral	"Worst"	3.86	9.65	0.14	9.87			
QP	3.76M	22.47	56.00	-33.53	19.72	Neutral	-	2.75	9.66	0.18	9.88			
AV	3.76M	18.92	46.00	-27.08	19.72	Neutral	-	-0.80	9.66	0.18	9.88			
QP	10.787M	17.62	60.00	-42.38	19.86	Neutral	-	-2.24	9.70	0.28	9.88			
AV	10.787M	15.09	50.00	-34.91	19.86	Neutral	-	-4.77	9.70	0.28	9.88			

Conducted Emissions at Powerline_Mode 4

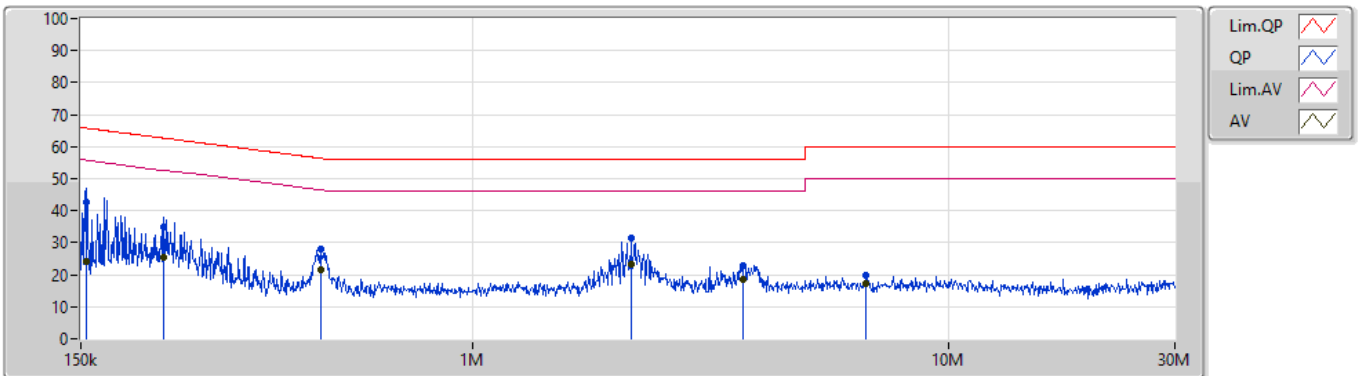
22/08/2020



Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Factor (dB)	Condition	Comment	Raw (dBuV)	LISN (dB)	CL (dB)	AT (dB)			
QP	150k	42.83	66.00	-23.17	19.64	Line	"Worst"	23.19	9.66	0.11	9.87			
AV	150k	24.93	56.00	-31.07	19.64	Line	-	5.29	9.66	0.11	9.87			
QP	196.781k	37.60	63.74	-26.14	19.63	Line	-	17.97	9.65	0.11	9.87			
AV	196.781k	23.87	53.74	-29.87	19.63	Line	-	4.24	9.65	0.11	9.87			
QP	483.136k	26.83	56.29	-29.46	19.64	Line	-	7.19	9.64	0.13	9.87			
AV	483.136k	20.86	46.29	-25.43	19.64	Line	-	1.22	9.64	0.13	9.87			
QP	2.274M	24.92	56.00	-31.08	19.67	Line	-	5.25	9.65	0.15	9.87			
AV	2.274M	18.23	46.00	-27.77	19.67	Line	-	-1.44	9.65	0.15	9.87			
QP	3.96M	25.36	56.00	-30.64	19.72	Line	-	5.64	9.66	0.18	9.88			
AV	3.96M	21.81	46.00	-24.19	19.72	Line	-	2.09	9.66	0.18	9.88			
QP	6.735M	20.83	60.00	-39.17	19.79	Line	-	1.04	9.68	0.23	9.88			
AV	6.735M	17.76	50.00	-32.24	19.79	Line	-	-2.03	9.68	0.23	9.88			

Conducted Emissions at Powerline_Mode 4

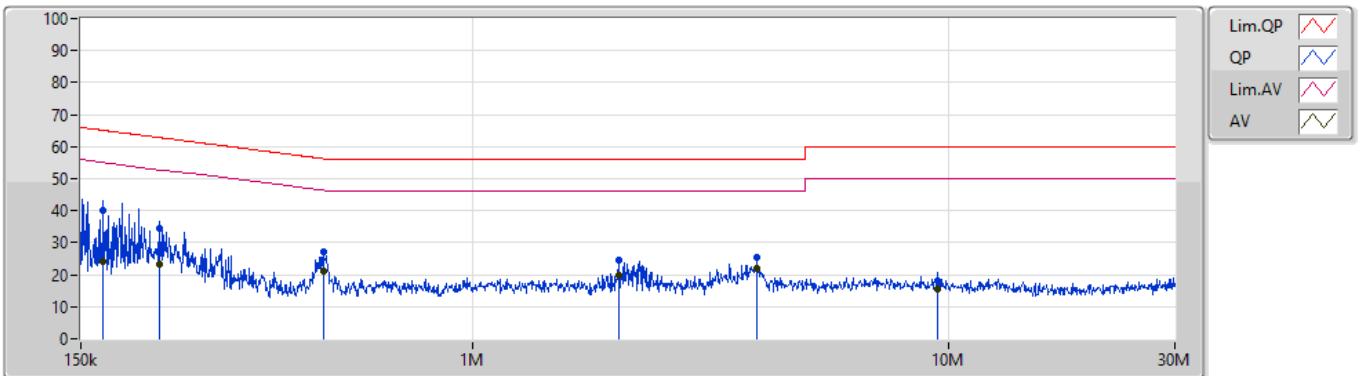
22/08/2020



Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Factor (dB)	Condition	Comment	Raw (dBuV)	LISN (dB)	CL (dB)	AT (dB)			
QP	154.251k	42.56	65.77	-23.21	19.63	Neutral	-	22.93	9.65	0.11	9.87			
AV	154.251k	24.04	55.77	-31.73	19.63	Neutral	-	4.41	9.65	0.11	9.87			
QP	224.49k	34.91	62.65	-27.74	19.62	Neutral	-	15.29	9.64	0.11	9.87			
AV	224.49k	25.43	52.65	-27.22	19.62	Neutral	-	5.81	9.64	0.11	9.87			
QP	481.211k	27.98	56.33	-28.35	19.63	Neutral	-	8.35	9.63	0.13	9.87			
AV	481.211k	21.70	46.33	-24.63	19.63	Neutral	-	2.07	9.63	0.13	9.87			
QP	2.15M	31.61	56.00	-24.39	19.66	Neutral	-	11.95	9.65	0.14	9.87			
AV	2.15M	23.27	46.00	-22.73	19.66	Neutral	"Worst"	3.61	9.65	0.14	9.87			
QP	3.701M	23.01	56.00	-32.99	19.72	Neutral	-	3.29	9.66	0.18	9.88			
AV	3.701M	18.52	46.00	-27.48	19.72	Neutral	-	-1.20	9.66	0.18	9.88			
QP	6.735M	19.99	60.00	-40.01	19.79	Neutral	-	0.20	9.68	0.23	9.88			
AV	6.735M	17.20	50.00	-32.80	19.79	Neutral	-	-2.59	9.68	0.23	9.88			

Conducted Emissions at Powerline_Mode 5

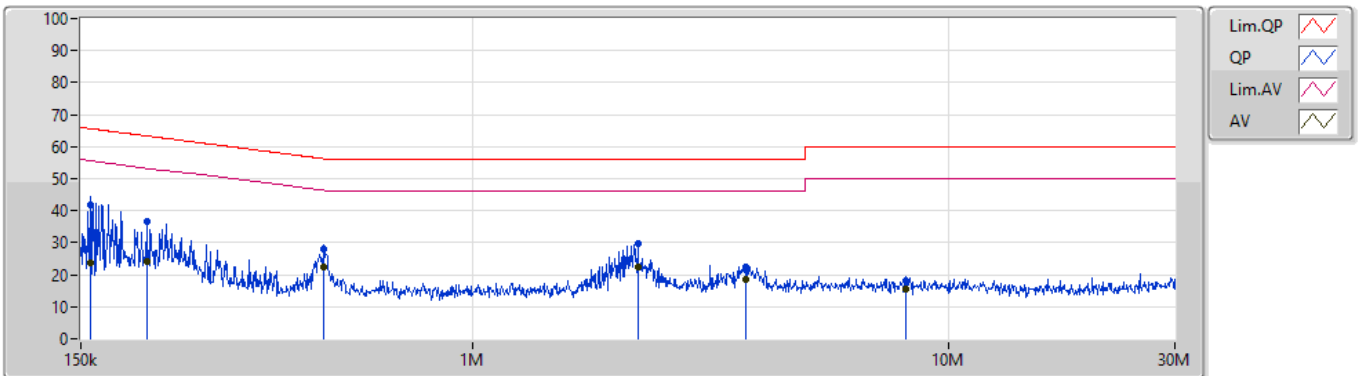
22/08/2020



Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Factor (dB)	Condition	Comment	Raw (dBuV)	LISN (dB)	CL (dB)	AT (dB)			
QP	167.071k	40.11	65.10	-24.99	19.64	Line	-	20.47	9.66	0.11	9.87			
AV	167.071k	24.07	55.10	-31.03	19.64	Line	-	4.43	9.66	0.11	9.87			
QP	219.176k	34.61	62.85	-28.24	19.63	Line	-	14.98	9.65	0.11	9.87			
AV	219.176k	23.35	52.85	-29.50	19.63	Line	-	3.72	9.65	0.11	9.87			
QP	485.068k	26.97	56.25	-29.28	19.64	Line	-	7.33	9.64	0.13	9.87			
AV	485.068k	21.12	46.25	-25.13	19.64	Line	-	1.48	9.64	0.13	9.87			
QP	2.025M	24.77	56.00	-31.23	19.66	Line	-	5.11	9.65	0.14	9.87			
AV	2.025M	19.95	46.00	-26.05	19.66	Line	-	0.29	9.65	0.14	9.87			
QP	3.96M	25.39	56.00	-30.61	19.72	Line	-	5.67	9.66	0.18	9.88			
AV	3.96M	21.90	46.00	-24.10	19.72	Line	"Worst"	2.18	9.66	0.18	9.88			
QP	9.531M	17.93	60.00	-42.07	19.84	Line	-	-1.91	9.69	0.27	9.88			
AV	9.531M	15.37	50.00	-34.63	19.84	Line	-	-4.47	9.69	0.27	9.88			

Conducted Emissions at Powerline_Mode 5

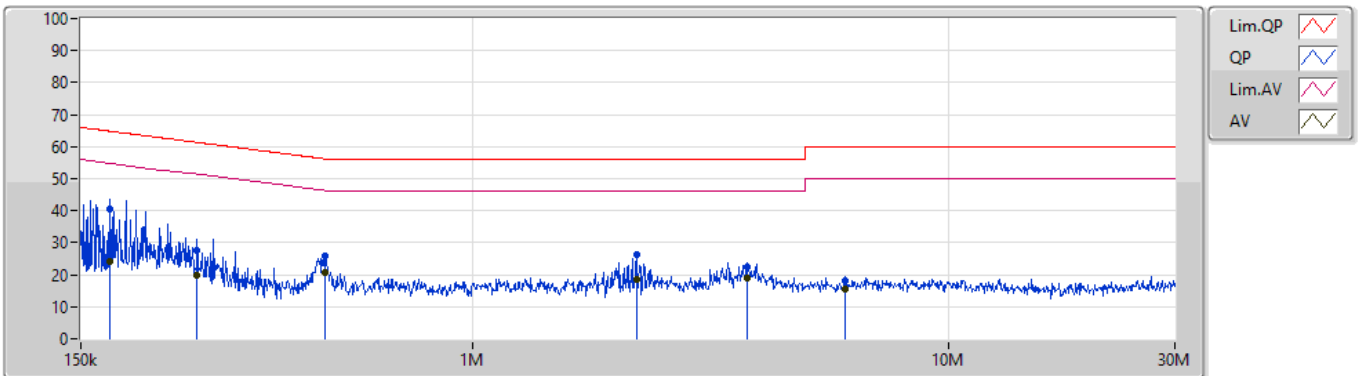
22/08/2020



Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Factor (dB)	Condition	Comment	Raw (dBuV)	LISN (dB)	CL (dB)	AT (dB)			
QP	156.734k	41.73	65.64	-23.91	19.63	Neutral	-	22.10	9.65	0.11	9.87			
AV	156.734k	23.91	55.64	-31.73	19.63	Neutral	-	4.28	9.65	0.11	9.87			
QP	206.437k	36.85	63.34	-26.49	19.62	Neutral	-	17.23	9.64	0.11	9.87			
AV	206.437k	24.16	53.34	-29.18	19.62	Neutral	-	4.54	9.64	0.11	9.87			
QP	487.008k	27.90	56.21	-28.31	19.63	Neutral	-	8.27	9.63	0.13	9.87			
AV	487.008k	22.25	46.21	-23.96	19.63	Neutral	-	2.62	9.63	0.13	9.87			
QP	2.229M	29.69	56.00	-26.31	19.67	Neutral	-	10.02	9.65	0.15	9.87			
AV	2.229M	22.20	46.00	-23.80	19.67	Neutral	-	2.53	9.65	0.15	9.87			
QP	3.745M	22.27	56.00	-33.73	19.72	Neutral	-	2.55	9.66	0.18	9.88			
AV	3.745M	18.69	46.00	-27.31	19.72	Neutral	-	-1.03	9.66	0.18	9.88			
QP	8.157M	18.05	60.00	-41.95	19.82	Neutral	-	-1.77	9.69	0.25	9.88			
AV	8.157M	15.44	50.00	-34.56	19.82	Neutral	-	-4.38	9.69	0.25	9.88			

Conducted Emissions at Powerline_Mode 6

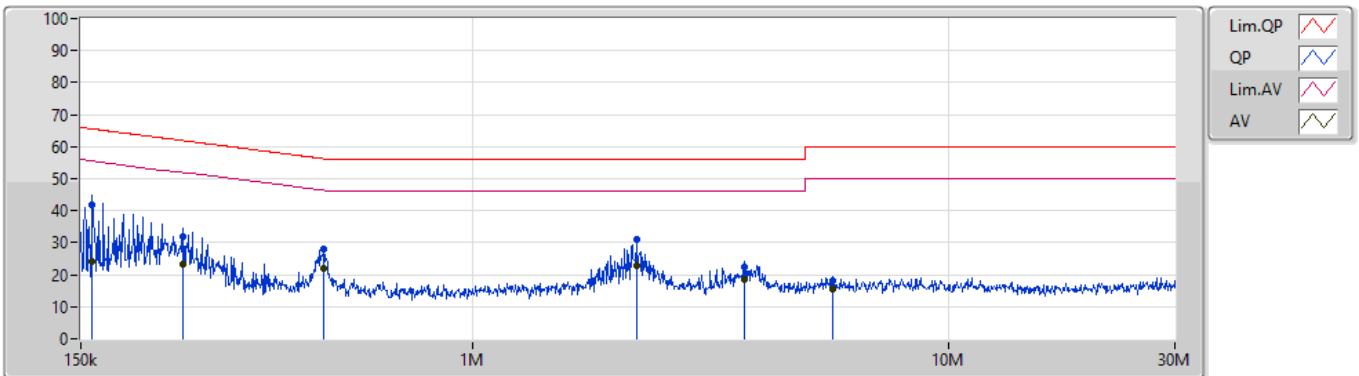
22/08/2020



Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Factor (dB)	Condition	Comment	Raw (dBuV)	LISN (dB)	CL (dB)	AT (dB)			
QP	172.493k	40.32	64.83	-24.51	19.64	Line	"Worst"	20.68	9.66	0.11	9.87			
AV	172.493k	24.32	54.83	-30.51	19.64	Line	-	4.68	9.66	0.11	9.87			
QP	263.357k	27.58	61.32	-33.74	19.64	Line	-	7.94	9.65	0.12	9.87			
AV	263.357k	19.94	51.32	-31.38	19.64	Line	-	0.30	9.65	0.12	9.87			
QP	490.912k	25.93	56.15	-30.22	19.64	Line	-	6.29	9.64	0.13	9.87			
AV	490.912k	20.61	46.15	-25.54	19.64	Line	-	0.97	9.64	0.13	9.87			
QP	2.211M	26.17	56.00	-29.83	19.67	Line	-	6.50	9.65	0.15	9.87			
AV	2.211M	18.75	46.00	-27.25	19.67	Line	-	-0.92	9.65	0.15	9.87			
QP	3.775M	22.37	56.00	-33.63	19.72	Line	-	2.65	9.66	0.18	9.88			
AV	3.775M	18.90	46.00	-27.10	19.72	Line	-	-0.82	9.66	0.18	9.88			
QP	6.071M	18.09	60.00	-41.91	19.77	Line	-	-1.68	9.67	0.22	9.88			
AV	6.071M	15.50	50.00	-34.50	19.77	Line	-	-4.27	9.67	0.22	9.88			

Conducted Emissions at Powerline_Mode 6

22/08/2020



Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Factor (dB)	Condition	Comment	Raw (dBuV)	LISN (dB)	CL (dB)	AT (dB)			
QP	158.622k	41.79	65.54	-23.75	19.63	Neutral	-	22.16	9.65	0.11	9.87			
AV	158.622k	23.93	55.54	-31.61	19.63	Neutral	-	4.30	9.65	0.11	9.87			
QP	246.077k	32.08	61.89	-29.81	19.63	Neutral	-	12.45	9.64	0.12	9.87			
AV	246.077k	23.07	51.89	-28.82	19.63	Neutral	-	3.44	9.64	0.12	9.87			
QP	487.008k	27.94	56.21	-28.27	19.63	Neutral	-	8.31	9.63	0.13	9.87			
AV	487.008k	22.17	46.21	-24.04	19.63	Neutral	-	2.54	9.63	0.13	9.87			
QP	2.211M	31.15	56.00	-24.85	19.67	Neutral	-	11.48	9.65	0.15	9.87			
AV	2.211M	22.66	46.00	-23.34	19.67	Neutral	"Worst"	2.99	9.65	0.15	9.87			
QP	3.73M	22.25	56.00	-33.75	19.72	Neutral	-	2.53	9.66	0.18	9.88			
AV	3.73M	18.53	46.00	-27.47	19.72	Neutral	-	-1.19	9.66	0.18	9.88			
QP	5.718M	17.92	60.00	-42.08	19.78	Neutral	-	-1.86	9.68	0.22	9.88			
AV	5.718M	15.36	50.00	-34.64	19.78	Neutral	-	-4.42	9.68	0.22	9.88			

Summary

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
920-928MHz	-	-	-	-	-
LoRa_DTS_Nss1_1TX	628.125k	513.493k	513KF1D	613.75k	502.249k

Max-N dB = Maximum 6dB down bandwidth; **Max-OBW** = Maximum 99% occupied bandwidth;

Min-N dB = Minimum 6dB down bandwidth; **Min-OBW** = Minimum 99% occupied bandwidth;

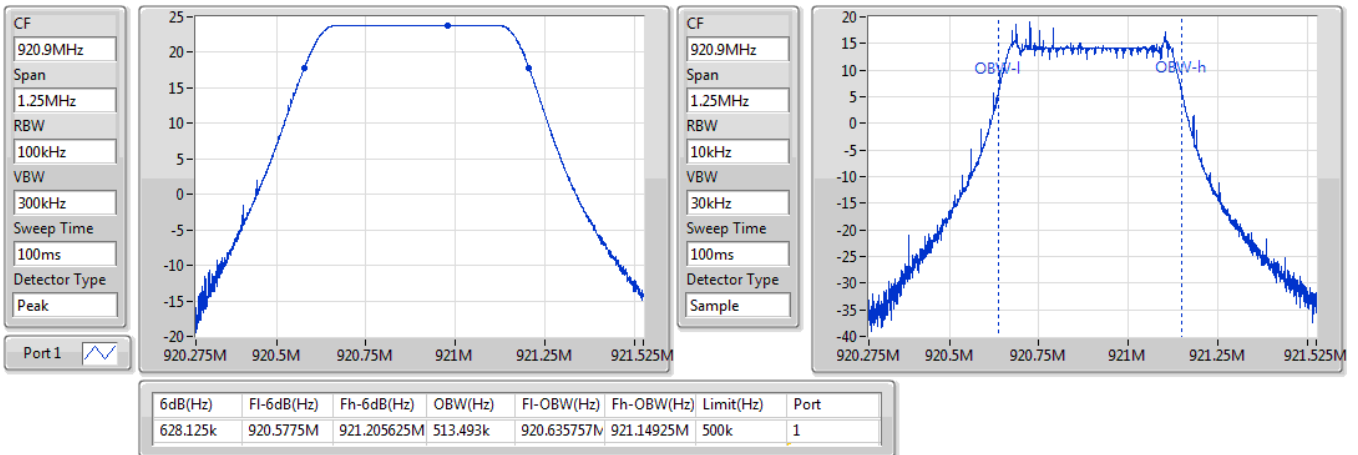
Result

Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)
LoRa_DTS_Nss1_1TX	-	-	-	-
920.9MHz	Pass	500k	628.125k	513.493k
924.1MHz	Pass	500k	621.25k	509.12k
923.3MHz	Pass	500k	613.75k	502.249k
924.5MHz	Pass	500k	622.5k	505.372k

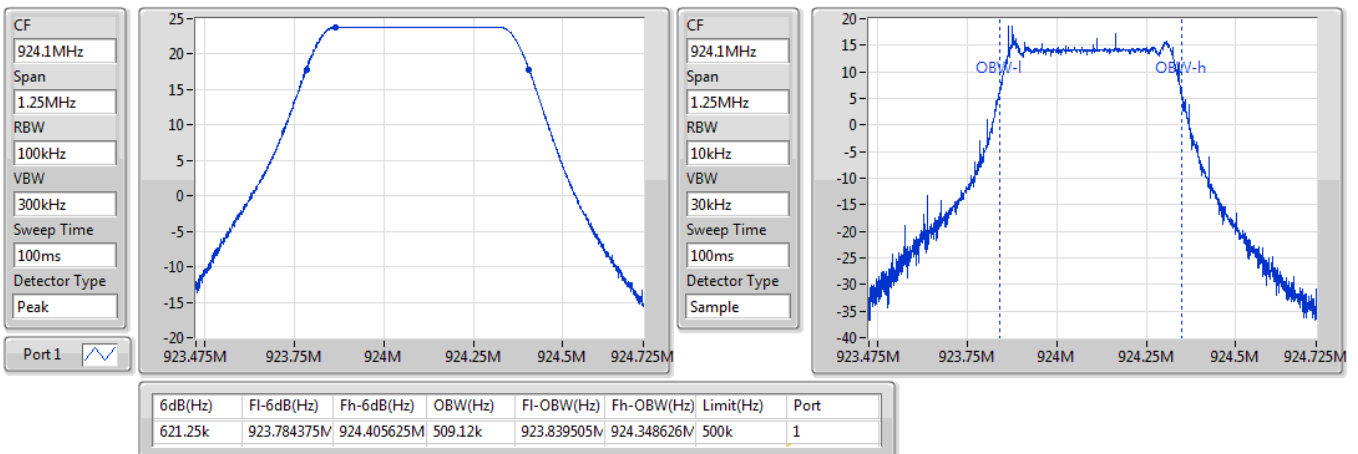
Port X-N dB = Port X 6dB down bandwidth; **Port X-OBW** = Port X 99% occupied bandwidth;

LoRa_DTS_Nss1_1TX
EBW
920.9MHz

13/06/2019

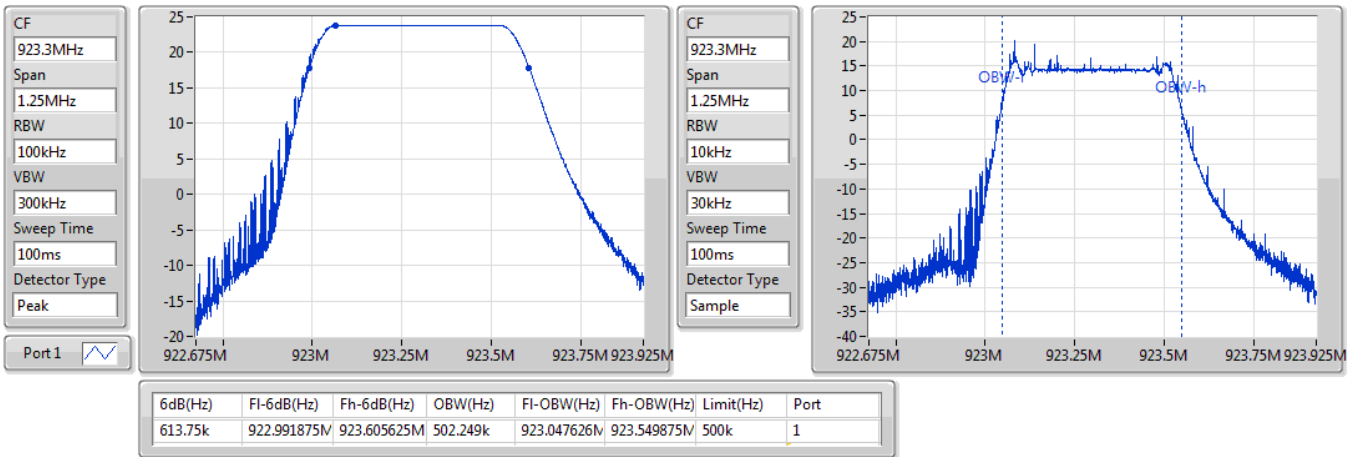

LoRa_DTS_Nss1_1TX
EBW
924.1MHz

13/06/2019

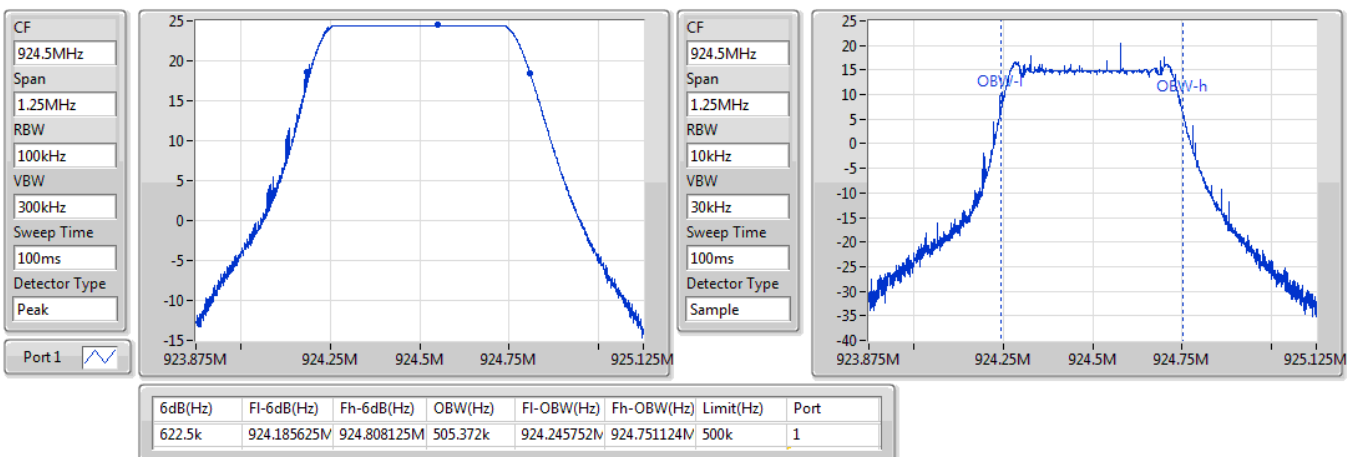


LoRa_DTS_Nss1_1TX
EBW
923.3MHz

13/06/2019


LoRa_DTS_Nss1_1TX
EBW
924.5MHz

13/06/2019





Summary

Mode	Power (dBm)	Power (W)
920-928MHz	-	-
LoRa_DTS_Nss1_1TX	26.21	0.41783



Average Power-DTS

Appendix C

Result

Mode	Result	Gain (dBi)	Power (dBm)	Power Limit (dBm)
LoRa_DTS_Nss1_1TX	-	-	-	-
920.9MHz	Pass	0.73	25.97	30.00
924.1MHz	Pass	0.73	25.91	30.00
923.3MHz	Pass	0.73	25.92	30.00
924.5MHz	Pass	0.73	26.21	30.00

DG = Directional Gain; **Port X** = Port X output power



Summary

Mode	PD (dBm/RBW)
920-928MHz	-
LoRa_DTS_Nss1_1TX	5.23

RBW=3 kHz.

Result

Mode	Result	Gain (dBi)	PD (dBm/RBW)	PD Limit (dBm/RBW)
LoRa_DTS_Nss1_1TX	-	-	-	-
920.9MHz	Pass	0.73	4.47	8.00
924.1MHz	Pass	0.73	4.69	8.00
923.3MHz	Pass	0.73	5.17	8.00
924.5MHz	Pass	0.73	5.23	8.00

DG = Directional Gain; RBW=3 kHz;

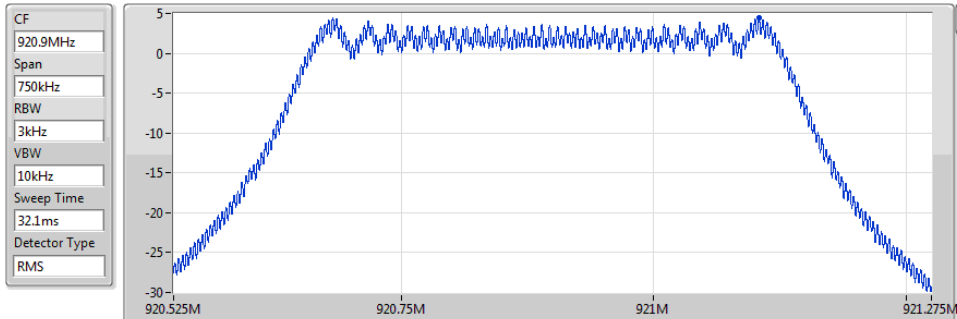
PD = trace bin-by-bin of each transmits port summing can be performed maximum power density; **Port X** = Port X power density;

LoRa_DTS_Nss1_1TX

PSD

920.9MHz

13/06/2019



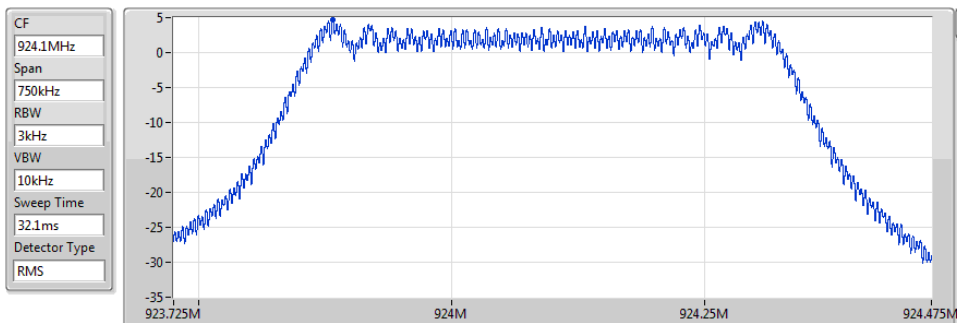
Sum	PD	Port 1
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
4.47	4.47	4.47

LoRa_DTS_Nss1_1TX

PSD

924.1MHz

13/06/2019



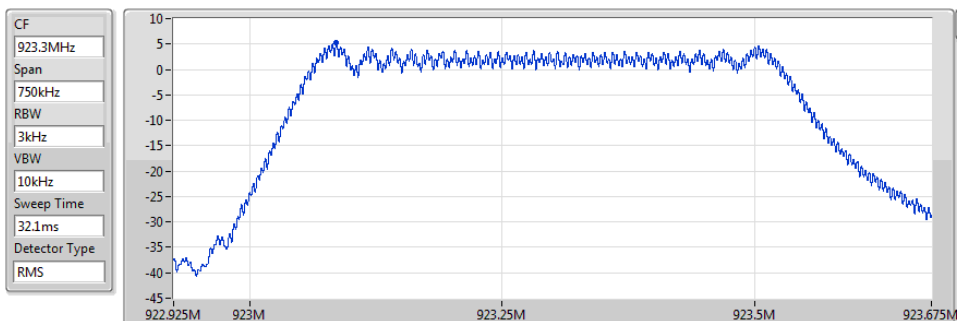
Sum	PD	Port 1
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
4.69	4.69	4.69

LoRa_DTS_Nss1_1TX

PSD

923.3MHz

13/06/2019



Sum	PD	Port 1
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
5.17	5.17	5.17

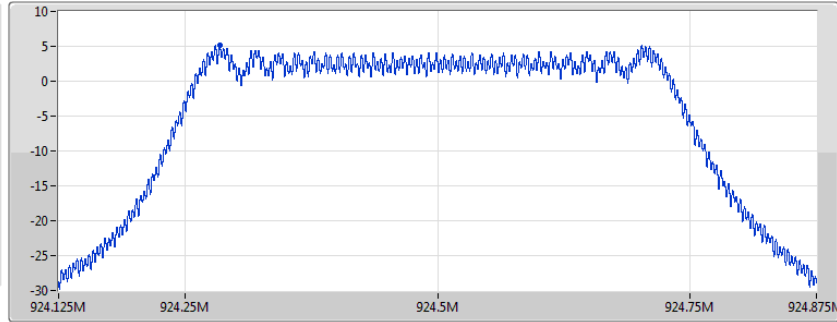
LoRa_DTS_Nss1_1TX

PSD

924.5MHz

13/06/2019

CF
924.5MHz
Span
750kHz
RBW
3kHz
VBW
10kHz
Sweep Time
32.1ms
Detector Type
RMS



Port 1

Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
5.23	5.23	5.23



Summary

Mode	Result	Ref (Hz)	Ref (dBm)	Limit (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Port
920-928MHz	-	-	-	-	-	-	-	-	-	-	-	-	-
LoRa_DTS_Nss1_1TX	Pass	924.27M	24.08	-5.92	892.33M	-47.54	919.94M	-35.52	925M	-6.08	926M	-34.55	1

Result

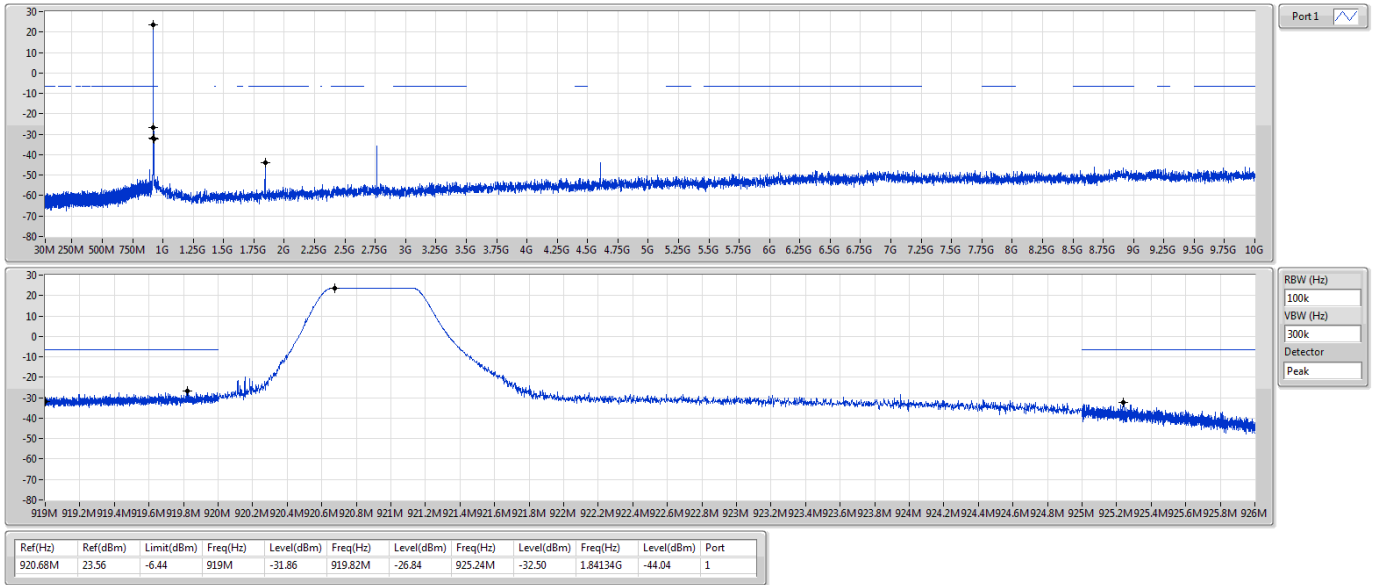
Mode	Result	Ref (Hz)	Ref (dBm)	Limit (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Port
LoRa_DTS_Nss1_1TX	-	-	-	-	-	-	-	-	-	-	-	-	-
920.9MHz	Pass	920.68M	23.56	-6.44	919M	-31.86	919.82M	-26.84	925.24M	-32.50	1.84134G	-44.04	1
924.1MHz	Pass	920.68M	23.56	-6.44	919M	-46.57	919.96M	-32.54	925.39M	-26.66	926M	-33.40	1
923.3MHz	Pass	924.27M	24.08	-5.92	919M	-36.03	919.86M	-25.54	925.2M	-24.54	926M	-26.68	1
924.5MHz	Pass	924.27M	24.08	-5.92	892.33M	-47.54	919.94M	-35.52	925M	-6.08	926M	-34.55	1

LoRa_DTS_Nss1_1TX

CSE NdB

920.9MHz

13/06/2019

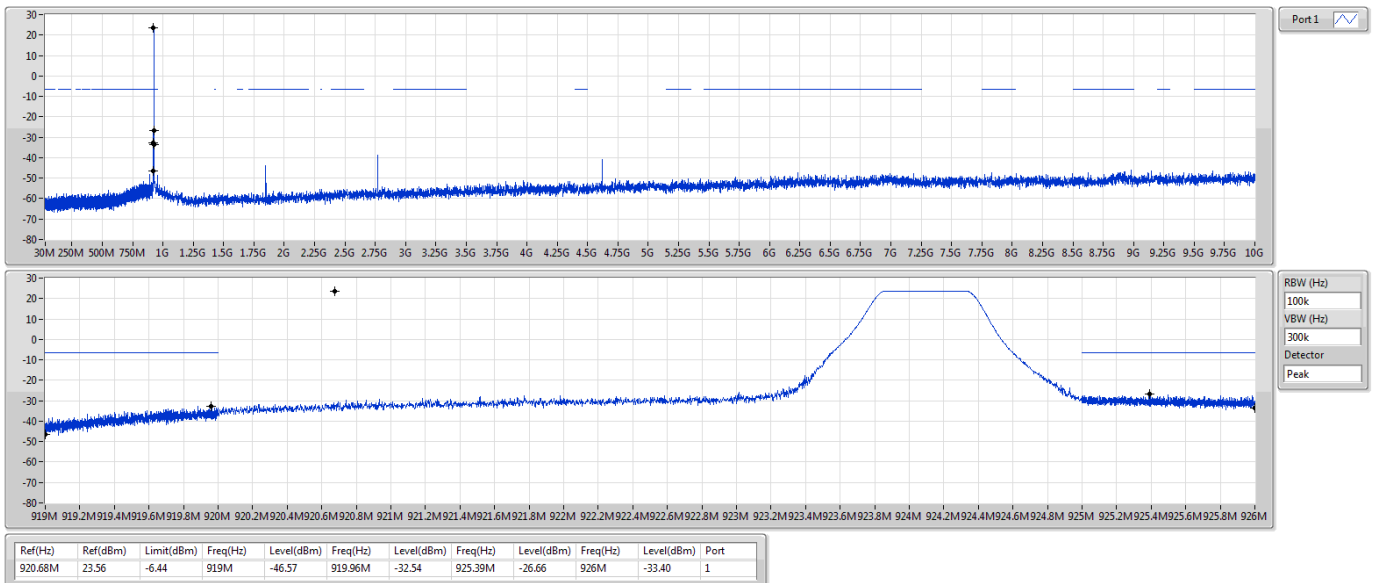


LoRa_DTS_Nss1_1TX

CSE NdB

924.1MHz

13/06/2019

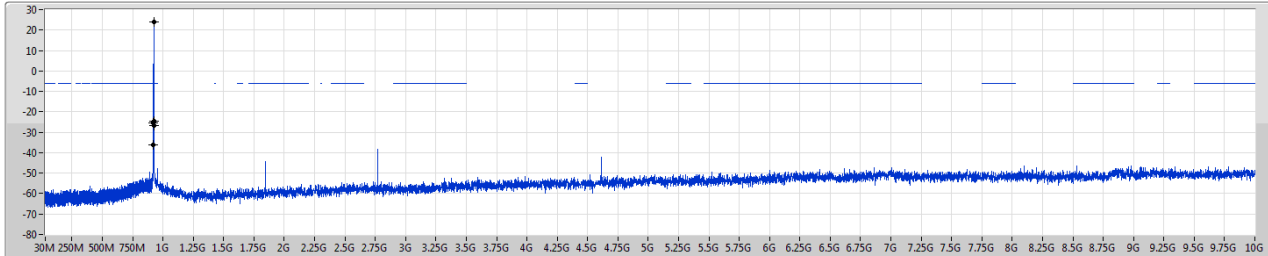


LoRa_DTS_Nss1_1TX

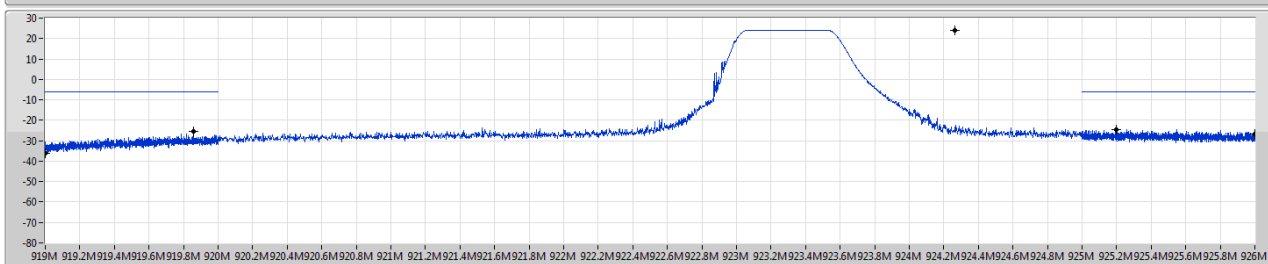
CSE NdB

923.3MHz

13/06/2019



Port1



RBW (Hz)
100k
VBW (Hz)
300k
Detector
Peak

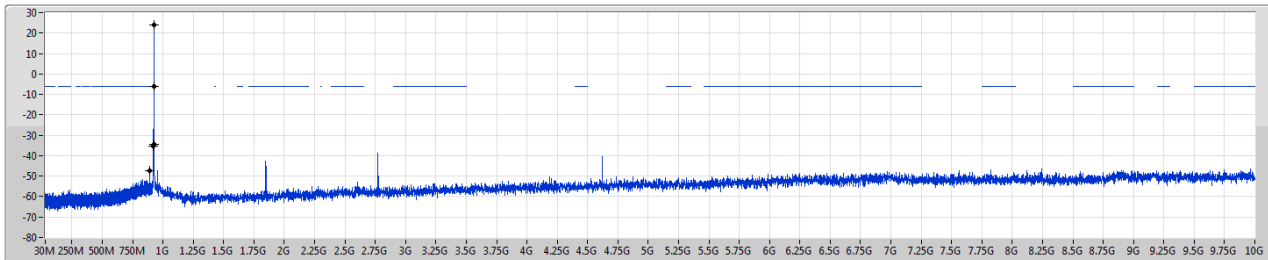
Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
924.27M	24.08	-5.92	919M	-36.03	919.86M	-25.54	925.2M	-24.54	926M	-26.68	1

LoRa_DTS_Nss1_1TX

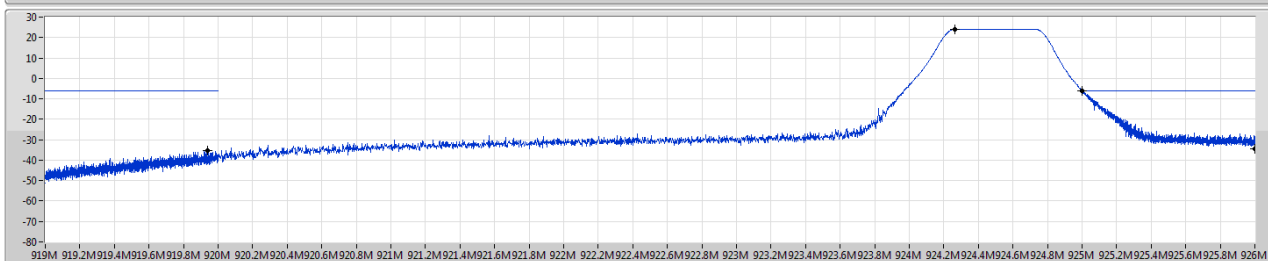
CSE NdB

924.5MHz

13/06/2019



Port1



RBW (Hz)
100k
VBW (Hz)
300k
Detector
Peak

Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
924.27M	24.08	-5.92	892.33M	-47.54	919.94M	-35.52	925M	-6.08	926M	-34.55	1



Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
0.9G-T	-	-	-	-	-	-	-	-	-	-	-	-
LoRa_DTS_Nss1_1TX	Pass	PK	30M	36.90	40.00	-3.10	-3.35	3	Vertical	0	1.00	-
LoRa_FHSS-250k_Nss1_1TX	Pass	PK	753.99M	42.43	46.00	-3.57	1.37	3	Horizontal	0	1.00	-

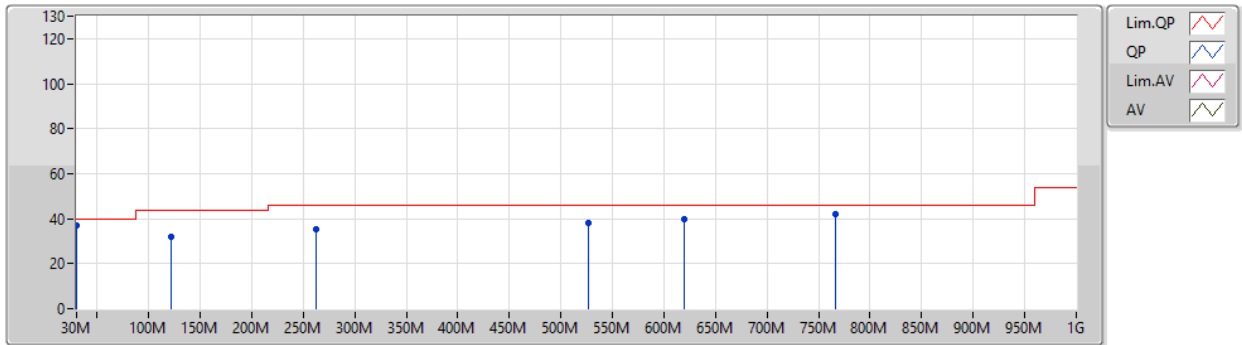
Result

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
LoRa_DTS_Nss1_1TX	-	-	-	-	-	-	-	-	-	-	-	-
924.1MHz	Pass	PK	30M	36.90	40.00	-3.10	-3.35	3	Vertical	0	1.00	-
924.1MHz	Pass	PK	121.38M	32.03	43.50	-11.47	-8.13	3	Vertical	0	1.00	-
924.1MHz	Pass	PK	261.96M	35.24	46.00	-10.76	-5.36	3	Vertical	0	1.00	-
924.1MHz	Pass	PK	526.25M	38.01	46.00	-7.99	-1.35	3	Vertical	0	1.00	-
924.1MHz	Pass	PK	619.03M	39.74	46.00	-6.26	0.00	3	Vertical	0	1.00	-
924.1MHz	Pass	PK	766.64M	42.22	46.00	-3.78	1.50	3	Vertical	0	1.00	-
924.1MHz	Pass	PK	35.62M	35.10	40.00	-4.90	-6.56	3	Horizontal	360	1.00	-
924.1MHz	Pass	PK	121.38M	32.68	43.50	-10.82	-8.13	3	Horizontal	360	1.00	-
924.1MHz	Pass	PK	256.33M	35.73	46.00	-10.27	-5.61	3	Horizontal	360	1.00	-
924.1MHz	Pass	PK	479.86M	37.71	46.00	-8.29	-1.72	3	Horizontal	360	1.00	-
924.1MHz	Pass	PK	550.14M	38.91	46.00	-7.09	-0.18	3	Horizontal	360	1.00	-
924.1MHz	Pass	PK	752.58M	42.21	46.00	-3.79	1.35	3	Horizontal	360	1.00	-
LoRa_FHSS-250k_Nss1_1TX	-	-	-	-	-	-	-	-	-	-	-	-
924.7MHz	Pass	PK	121.38M	32.68	43.50	-10.82	-8.13	3	Horizontal	0	1.00	-
924.7MHz	Pass	PK	218.38M	32.04	46.00	-13.96	-10.33	3	Horizontal	0	1.00	-
924.7MHz	Pass	PK	252.12M	34.15	46.00	-11.85	-6.19	3	Horizontal	0	1.00	-
924.7MHz	Pass	PK	389.88M	35.93	46.00	-10.07	-3.32	3	Horizontal	0	1.00	-
924.7MHz	Pass	PK	432.06M	37.67	46.00	-8.33	-2.35	3	Horizontal	0	1.00	-
924.7MHz	Pass	PK	753.99M	42.43	46.00	-3.57	1.37	3	Horizontal	0	1.00	-
924.7MHz	Pass	PK	31.41M	36.35	40.00	-3.65	-4.38	3	Horizontal	360	1.00	-
924.7MHz	Pass	PK	121.38M	32.68	43.50	-10.82	-8.13	3	Horizontal	360	1.00	-
924.7MHz	Pass	PK	256.33M	35.73	46.00	-10.27	-5.61	3	Horizontal	360	1.00	-
924.7MHz	Pass	PK	427.84M	37.53	46.00	-8.47	-2.33	3	Horizontal	360	1.00	-
924.7MHz	Pass	PK	479.86M	37.71	46.00	-8.29	-1.72	3	Horizontal	360	1.00	-
924.7MHz	Pass	PK	703.38M	39.82	46.00	-6.18	0.33	3	Horizontal	360	1.00	-

LoRa_DTS_Nss1_1TX

24/08/2020

924.1MHz_Switching power supply

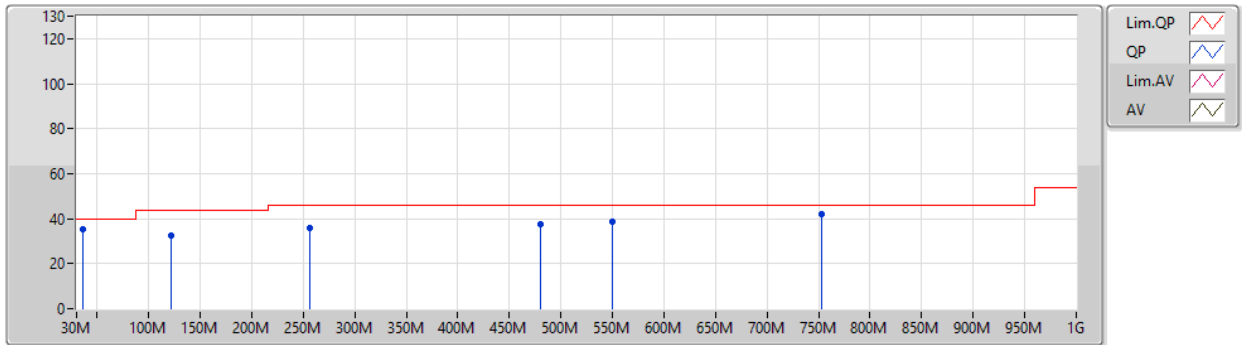


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
PK	30M	36.90	40.00	-3.10	-3.35	3	Vertical	0	1.00	-	40.25	23.33	0.90	27.58
PK	121.38M	32.03	43.50	-11.47	-8.13	3	Vertical	0	1.00	-	40.16	17.35	1.81	27.29
PK	261.96M	35.24	46.00	-10.76	-5.36	3	Vertical	0	1.00	-	40.60	18.67	2.67	26.70
PK	526.25M	38.01	46.00	-7.99	-1.35	3	Vertical	0	1.00	-	39.36	22.75	3.81	27.91
PK	619.03M	39.74	46.00	-6.26	0.00	3	Vertical	0	1.00	-	39.74	23.86	4.18	28.04
PK	766.64M	42.22	46.00	-3.78	1.50	3	Vertical	0	1.00	-	40.72	24.77	4.67	27.94

LoRa_DTS_Nss1_1TX

24/08/2020

924.1MHz_Switching power supply

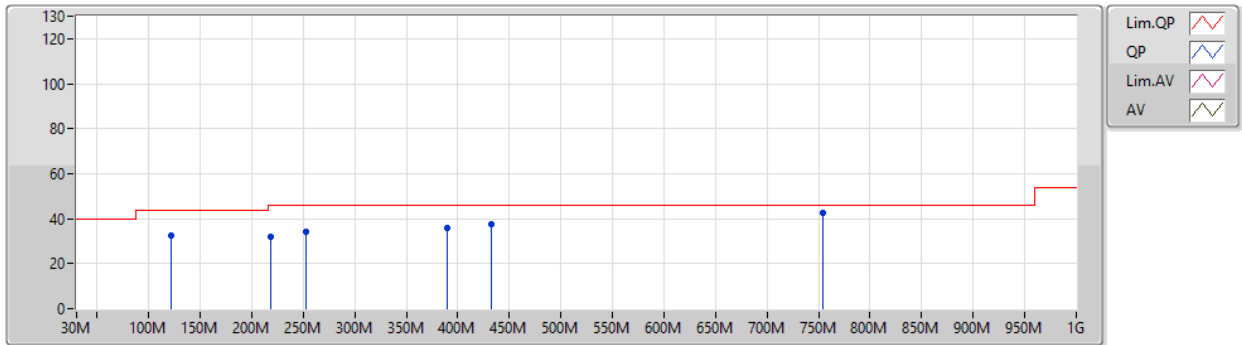


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
PK	35.62M	35.10	40.00	-4.90	-6.56	3	Horizontal	360	1.00	-	41.66	20.08	0.91	27.55
PK	121.38M	32.68	43.50	-10.82	-8.13	3	Horizontal	360	1.00	-	40.81	17.35	1.81	27.29
PK	256.33M	35.73	46.00	-10.27	-5.61	3	Horizontal	360	1.00	-	41.34	18.45	2.64	26.70
PK	479.86M	37.71	46.00	-8.29	-1.72	3	Horizontal	360	1.00	-	39.43	22.45	3.58	27.75
PK	550.14M	38.91	46.00	-7.09	-0.18	3	Horizontal	360	1.00	-	39.09	23.94	3.90	28.02
PK	752.58M	42.21	46.00	-3.79	1.35	3	Horizontal	360	1.00	-	40.86	24.74	4.61	28.00

LoRa_FHSS-250k_Nss1_1TX

24/08/2020

924.7MHz_Switching power supply

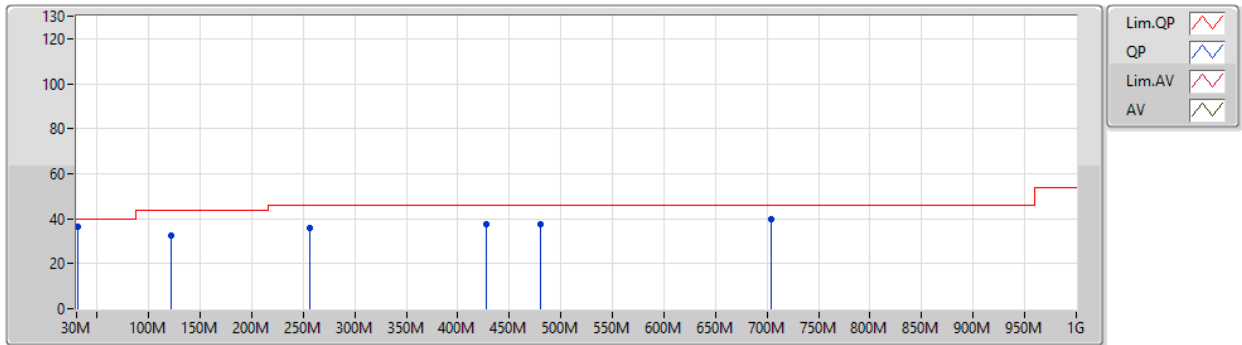


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
PK	121.38M	32.68	43.50	-10.82	-8.13	3	Horizontal	0	1.00	-	40.81	17.35	1.81	27.29
PK	218.38M	32.04	46.00	-13.96	-10.33	3	Horizontal	0	1.00	-	42.37	14.10	2.41	26.84
PK	252.12M	34.15	46.00	-11.85	-6.19	3	Horizontal	0	1.00	-	40.34	17.91	2.61	26.71
PK	389.88M	35.93	46.00	-10.07	-3.32	3	Horizontal	0	1.00	-	39.25	20.61	3.26	27.19
PK	432.06M	37.67	46.00	-8.33	-2.35	3	Horizontal	0	1.00	-	40.02	21.82	3.36	27.53
PK	753.99M	42.43	46.00	-3.57	1.37	3	Horizontal	0	1.00	-	41.06	24.74	4.62	27.99

LoRa_FHSS-250k_Nss1_1TX

24/08/2020

924.7MHz_Switching power supply



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
PK	31.41M	36.35	40.00	-3.65	-4.38	3	Horizontal	360	1.00	-	40.73	22.29	0.90	27.57
PK	121.38M	32.68	43.50	-10.82	-8.13	3	Horizontal	360	1.00	-	40.81	17.35	1.81	27.29
PK	256.33M	35.73	46.00	-10.27	-5.61	3	Horizontal	360	1.00	-	41.34	18.45	2.64	26.70
PK	427.84M	37.53	46.00	-8.47	-2.33	3	Horizontal	360	1.00	-	39.86	21.80	3.36	27.49
PK	479.86M	37.71	46.00	-8.29	-1.72	3	Horizontal	360	1.00	-	39.43	22.45	3.58	27.75
PK	703.38M	39.82	46.00	-6.18	0.33	3	Horizontal	360	1.00	-	39.49	23.90	4.41	27.98

**Summary**

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
0.9G-T	-	-	-	-	-	-	-	-	-	-	-	-
LoRa_DTS_Nss1_1TX	Pass	AV	3.69319G	51.25	54.00	-2.75	-0.58	3	Horizontal	81	1.83	-
FSK-5k_Nss1_1TX	Pass	AV	3.68078G	50.26	54.00	-3.74	3.97	3	Horizontal	117	1.06	-
FSK-50k_Nss1_1TX	Pass	AV	3.69919G	50.23	54.00	-3.77	4.00	3	Vertical	137	2.16	-
FSK-150k_Nss1_1TX	Pass	AV	3.68162G	50.24	54.00	-3.76	3.97	3	Vertical	147	1.50	-
LoRa_FHSS-125k_Nss1_1TX	Pass	AV	3.68077G	50.40	54.00	-3.60	-0.64	3	Horizontal	103	2.00	-
LoRa_FHSS-250k_Nss1_1TX	Pass	AV	3.6812G	53.18	54.00	-0.82	3.97	3	Vertical	76	1.52	-

Result

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
LoRa_DTS_Nss1_1TX	-	-	-	-	-	-	-	-	-	-	-	-
920.9MHz	Pass	AV	1.84181G	45.57	54.00	-8.43	-3.01	3	Vertical	353	1.22	-
920.9MHz	Pass	AV	2.76269G	38.14	54.00	-15.86	1.31	3	Vertical	233	1.50	-
920.9MHz	Pass	AV	3.68355G	45.14	54.00	-8.86	3.97	3	Vertical	105	2.76	-
920.9MHz	Pass	AV	4.6048G	39.78	54.00	-14.22	6.84	3	Vertical	196	1.01	-
920.9MHz	Pass	PK	1.84197G	49.88	74.00	-24.12	-3.01	3	Vertical	353	1.22	-
920.9MHz	Pass	PK	2.76324G	47.18	74.00	-26.82	1.31	3	Vertical	233	1.50	-
920.9MHz	Pass	PK	3.68413G	55.31	74.00	-18.69	3.97	3	Vertical	105	2.76	-
920.9MHz	Pass	PK	4.60516G	52.86	74.00	-21.14	6.84	3	Vertical	196	1.01	-
920.9MHz	Pass	AV	1.8418G	44.77	54.00	-9.23	-3.01	3	Horizontal	155	2.53	-
920.9MHz	Pass	AV	2.76269G	34.21	54.00	-19.79	1.31	3	Horizontal	110	1.06	-
920.9MHz	Pass	AV	3.68363G	42.75	54.00	-11.25	3.97	3	Horizontal	114	1.06	-
920.9MHz	Pass	AV	4.6048G	39.38	54.00	-14.62	6.84	3	Horizontal	37	1.07	-
920.9MHz	Pass	PK	1.84187G	49.27	74.00	-24.73	-3.01	3	Horizontal	155	2.53	-
920.9MHz	Pass	PK	2.76321G	44.70	74.00	-29.30	1.31	3	Horizontal	110	1.06	-
920.9MHz	Pass	PK	3.68444G	53.14	74.00	-20.86	3.97	3	Horizontal	114	1.06	-
920.9MHz	Pass	PK	4.60512G	52.32	74.00	-21.68	6.84	3	Horizontal	37	1.07	-
924.1MHz	Pass	AV	1.84816G	47.33	54.00	-6.67	-7.35	3	Vertical	344	1.34	-
924.1MHz	Pass	AV	2.77231G	42.71	54.00	-11.29	-3.43	3	Vertical	13	1.05	-
924.1MHz	Pass	AV	3.69634G	47.77	54.00	-6.23	-0.58	3	Vertical	45	2.45	-
924.1MHz	Pass	AV	4.62016G	44.65	54.00	-9.35	1.63	3	Vertical	178	2.52	-
924.1MHz	Pass	PK	1.84792G	50.44	74.00	-23.56	-7.35	3	Vertical	344	1.34	-
924.1MHz	Pass	PK	2.77171G	49.03	74.00	-24.97	-3.44	3	Vertical	13	1.05	-
924.1MHz	Pass	PK	3.69552G	54.82	74.00	-19.18	-0.58	3	Vertical	45	2.45	-
924.1MHz	Pass	PK	4.61959G	53.95	74.00	-20.05	1.63	3	Vertical	178	2.52	-
924.1MHz	Pass	AV	1.84817G	49.51	54.00	-4.49	-7.35	3	Horizontal	27	2.15	-
924.1MHz	Pass	AV	2.77227G	41.03	54.00	-12.97	-3.43	3	Horizontal	80	2.45	-
924.1MHz	Pass	AV	3.69639G	45.67	54.00	-8.33	-0.58	3	Horizontal	32	1.59	-
924.1MHz	Pass	AV	4.62048G	44.54	54.00	-9.46	1.63	3	Horizontal	23	1.65	-
924.1MHz	Pass	PK	1.84784G	52.65	74.00	-21.35	-7.35	3	Horizontal	27	2.15	-
924.1MHz	Pass	PK	2.77231G	47.65	74.00	-26.35	-3.43	3	Horizontal	80	2.45	-
924.1MHz	Pass	PK	3.69707G	52.94	74.00	-21.06	-0.58	3	Horizontal	32	1.59	-
924.1MHz	Pass	PK	4.62G	53.81	74.00	-20.19	1.63	3	Horizontal	23	1.65	-
923.3MHz	Pass	AV	1.84658G	47.96	54.00	-6.04	-7.36	3	Vertical	350	1.54	-
923.3MHz	Pass	AV	2.76983G	45.30	54.00	-8.70	-3.45	3	Vertical	260	1.15	-
923.3MHz	Pass	AV	3.69325G	51.12	54.00	-2.88	-0.58	3	Vertical	73	1.50	-
923.3MHz	Pass	AV	4.61684G	40.13	54.00	-13.87	1.61	3	Vertical	187	2.80	-
923.3MHz	Pass	PK	1.84679G	51.16	74.00	-22.84	-7.36	3	Vertical	350	1.54	-
923.3MHz	Pass	PK	2.76987G	51.00	74.00	-23.00	-3.45	3	Vertical	260	1.15	-
923.3MHz	Pass	PK	3.69346G	57.64	74.00	-16.36	-0.58	3	Vertical	73	1.50	-
923.3MHz	Pass	PK	4.61724G	50.85	74.00	-23.15	1.61	3	Vertical	187	2.80	-
923.3MHz	Pass	AV	1.84656G	49.50	54.00	-4.50	-7.36	3	Horizontal	0	1.84	-
923.3MHz	Pass	AV	2.76988G	43.88	54.00	-10.12	-3.45	3	Horizontal	22	1.60	-
923.3MHz	Pass	AV	3.69319G	51.25	54.00	-2.75	-0.58	3	Horizontal	81	1.83	-
923.3MHz	Pass	AV	4.6163G	43.93	54.00	-10.07	1.60	3	Horizontal	16	1.53	-
923.3MHz	Pass	PK	1.84686G	52.68	74.00	-21.32	-7.36	3	Horizontal	0	1.84	-
923.3MHz	Pass	PK	2.77G	50.02	74.00	-23.98	-3.45	3	Horizontal	22	1.60	-
923.3MHz	Pass	PK	3.694G	57.74	74.00	-16.26	-0.58	3	Horizontal	81	1.83	-

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
923.3MHz	Pass	PK	4.61751G	53.60	74.00	-20.40	1.61	3	Horizontal	16	1.53	-
924.5MHz	Pass	AV	1.84894G	47.77	54.00	-6.23	-7.35	3	Vertical	347	1.31	-
924.5MHz	Pass	AV	2.77345G	44.25	54.00	-9.75	-3.42	3	Vertical	259	1.05	-
924.5MHz	Pass	AV	3.69795G	47.17	54.00	-6.83	-0.57	3	Vertical	72	1.69	-
924.5MHz	Pass	AV	4.62258G	41.60	54.00	-12.40	1.64	3	Vertical	206	1.27	-
924.5MHz	Pass	PK	1.84895G	50.98	74.00	-23.02	-7.35	3	Vertical	347	1.31	-
924.5MHz	Pass	PK	2.77297G	50.24	74.00	-23.76	-3.43	3	Vertical	259	1.05	-
924.5MHz	Pass	PK	3.69748G	54.32	74.00	-19.68	-0.58	3	Vertical	72	1.69	-
924.5MHz	Pass	PK	4.62166G	51.49	74.00	-22.51	1.64	3	Vertical	206	1.27	-
924.5MHz	Pass	AV	1.84895G	45.90	54.00	-8.10	-7.35	3	Horizontal	25	2.14	-
924.5MHz	Pass	AV	2.77352G	36.90	54.00	-17.10	-3.42	3	Horizontal	163	2.46	-
924.5MHz	Pass	AV	3.69798G	51.09	54.00	-2.91	-0.57	3	Horizontal	103	2.12	-
924.5MHz	Pass	AV	4.62267G	44.88	54.00	-9.12	1.64	3	Horizontal	28	1.37	-
924.5MHz	Pass	PK	1.84873G	49.48	74.00	-24.52	-7.35	3	Horizontal	25	2.14	-
924.5MHz	Pass	PK	2.7739G	43.81	74.00	-30.19	-3.42	3	Horizontal	163	2.46	-
924.5MHz	Pass	PK	3.697G	57.57	74.00	-16.43	-0.58	3	Horizontal	103	2.12	-
924.5MHz	Pass	PK	4.62277G	54.21	74.00	-19.79	1.64	3	Horizontal	28	1.37	-
FSK-5k_Nss1_1TX	-	-	-	-	-	-	-	-	-	-	-	-
920.2MHz	Pass	AV	1.84038G	47.55	54.00	-6.45	-3.02	3	Vertical	339	1.49	-
920.2MHz	Pass	AV	2.76058G	39.98	54.00	-14.02	1.29	3	Vertical	24	2.09	-
920.2MHz	Pass	AV	3.6808G	50.23	54.00	-3.77	3.97	3	Vertical	147	1.66	-
920.2MHz	Pass	AV	4.60102G	46.33	54.00	-7.67	6.82	3	Vertical	166	1.34	-
920.2MHz	Pass	PK	1.84032G	49.90	74.00	-24.10	-3.02	3	Vertical	339	1.49	-
920.2MHz	Pass	PK	2.76048G	46.67	74.00	-27.33	1.29	3	Vertical	24	2.09	-
920.2MHz	Pass	PK	3.68061G	53.80	74.00	-20.20	3.97	3	Vertical	147	1.66	-
920.2MHz	Pass	PK	4.60079G	50.83	74.00	-23.17	6.82	3	Vertical	166	1.34	-
920.2MHz	Pass	AV	1.8404G	44.67	54.00	-9.33	-3.02	3	Horizontal	153	1.50	-
920.2MHz	Pass	AV	2.7606G	39.56	54.00	-14.44	1.29	3	Horizontal	281	1.05	-
920.2MHz	Pass	AV	3.68078G	50.26	54.00	-3.74	3.97	3	Horizontal	117	1.06	-
920.2MHz	Pass	AV	4.60099G	44.63	54.00	-9.37	6.82	3	Horizontal	37	2.05	-
920.2MHz	Pass	PK	1.84044G	47.68	74.00	-26.32	-3.02	3	Horizontal	153	1.50	-
920.2MHz	Pass	PK	2.76066G	45.52	74.00	-28.48	1.29	3	Horizontal	281	1.05	-
920.2MHz	Pass	PK	3.68059G	53.34	74.00	-20.66	3.97	3	Horizontal	117	1.06	-
920.2MHz	Pass	PK	4.601G	50.07	74.00	-23.93	6.82	3	Horizontal	37	2.05	-
924.8MHz	Pass	AV	1.8496G	44.72	54.00	-9.28	-2.96	3	Vertical	357	1.00	-
924.8MHz	Pass	AV	2.77442G	46.33	54.00	-7.67	1.37	3	Vertical	13	1.13	-
924.8MHz	Pass	AV	3.69922G	50.17	54.00	-3.83	4.00	3	Vertical	157	1.20	-
924.8MHz	Pass	AV	4.62399G	38.68	54.00	-15.32	6.94	3	Vertical	124	2.10	-
924.8MHz	Pass	PK	1.84961G	47.50	74.00	-26.50	-2.96	3	Vertical	357	1.00	-
924.8MHz	Pass	PK	2.77447G	49.82	74.00	-24.18	1.37	3	Vertical	13	1.13	-
924.8MHz	Pass	PK	3.6993G	56.18	74.00	-17.82	4.00	3	Vertical	157	1.20	-
924.8MHz	Pass	PK	4.62378G	48.13	74.00	-25.87	6.94	3	Vertical	124	2.10	-
924.8MHz	Pass	AV	1.84962G	43.66	54.00	-10.34	-2.96	3	Horizontal	167	1.03	-
924.8MHz	Pass	AV	2.77439G	44.53	54.00	-9.47	1.37	3	Horizontal	88	2.01	-
924.8MHz	Pass	AV	3.69918G	45.46	54.00	-8.54	4.00	3	Horizontal	106	2.13	-
924.8MHz	Pass	AV	4.62394G	41.57	54.00	-12.43	6.94	3	Horizontal	42	1.03	-
924.8MHz	Pass	PK	1.8496G	47.27	74.00	-26.73	-2.96	3	Horizontal	167	1.03	-
924.8MHz	Pass	PK	2.77434G	48.49	74.00	-25.51	1.37	3	Horizontal	88	2.01	-
924.8MHz	Pass	PK	3.69899G	49.90	74.00	-24.10	4.00	3	Horizontal	106	2.13	-

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
924.8MHz	Pass	PK	4.624G	48.53	74.00	-25.47	6.94	3	Horizontal	42	1.03	-
FSK-50k_Nss1_1TX	-	-	-	-	-	-	-	-	-	-	-	-
920.2MHz	Pass	AV	1.8404G	45.60	54.00	-8.40	-3.02	3	Vertical	358	1.45	-
920.2MHz	Pass	AV	2.76059G	40.79	54.00	-13.21	1.29	3	Vertical	183	1.71	-
920.2MHz	Pass	AV	3.68077G	50.19	54.00	-3.81	3.97	3	Vertical	138	1.84	-
920.2MHz	Pass	AV	4.60101G	41.66	54.00	-12.34	6.82	3	Vertical	267	2.86	-
920.2MHz	Pass	PK	1.84052G	48.38	74.00	-25.62	-3.02	3	Vertical	358	1.45	-
920.2MHz	Pass	PK	2.76056G	46.56	74.00	-27.44	1.29	3	Vertical	183	1.71	-
920.2MHz	Pass	PK	3.68092G	54.30	74.00	-19.70	3.97	3	Vertical	138	1.84	-
920.2MHz	Pass	PK	4.60085G	48.93	74.00	-25.07	6.82	3	Vertical	267	2.86	-
920.2MHz	Pass	AV	1.8404G	46.27	54.00	-7.73	-3.02	3	Horizontal	151	1.26	-
920.2MHz	Pass	AV	2.7606G	41.76	54.00	-12.24	1.29	3	Horizontal	311	1.50	-
920.2MHz	Pass	AV	3.68078G	48.94	54.00	-5.06	3.97	3	Horizontal	263	2.23	-
920.2MHz	Pass	AV	4.60007G	41.04	54.00	-12.96	6.82	3	Horizontal	36	1.50	-
920.2MHz	Pass	PK	1.84046G	48.85	74.00	-25.15	-3.02	3	Horizontal	151	1.26	-
920.2MHz	Pass	PK	2.7608G	46.98	74.00	-27.02	1.30	3	Horizontal	311	1.50	-
920.2MHz	Pass	PK	3.6809G	52.21	74.00	-21.79	3.97	3	Horizontal	263	2.23	-
920.2MHz	Pass	PK	4.60081G	45.10	74.00	-28.90	6.82	3	Horizontal	36	1.50	-
924.8MHz	Pass	AV	1.84961G	45.71	54.00	-8.29	-2.96	3	Vertical	356	1.00	-
924.8MHz	Pass	AV	2.77438G	37.88	54.00	-16.12	1.37	3	Vertical	360	1.50	-
924.8MHz	Pass	AV	3.69919G	50.23	54.00	-3.77	4.00	3	Vertical	137	2.16	-
924.8MHz	Pass	AV	4.62398G	42.87	54.00	-11.13	6.94	3	Vertical	267	2.99	-
924.8MHz	Pass	PK	1.84957G	48.44	74.00	-25.56	-2.96	3	Vertical	356	1.00	-
924.8MHz	Pass	PK	2.77435G	44.90	74.00	-29.10	1.37	3	Vertical	360	1.50	-
924.8MHz	Pass	PK	3.69904G	53.57	74.00	-20.43	4.00	3	Vertical	137	2.16	-
924.8MHz	Pass	PK	4.62378G	49.58	74.00	-24.42	6.94	3	Vertical	267	2.99	-
924.8MHz	Pass	AV	1.84959G	45.20	54.00	-8.80	-2.96	3	Horizontal	149	1.27	-
924.8MHz	Pass	AV	2.77442G	35.45	54.00	-18.55	1.37	3	Horizontal	260	1.10	-
924.8MHz	Pass	AV	3.6992G	49.81	54.00	-4.19	4.00	3	Horizontal	139	1.50	-
924.8MHz	Pass	AV	4.62398G	45.53	54.00	-8.47	6.94	3	Horizontal	38	2.08	-
924.8MHz	Pass	PK	1.84951G	48.10	74.00	-25.90	-2.96	3	Horizontal	149	1.27	-
924.8MHz	Pass	PK	2.77453G	43.99	74.00	-30.01	1.37	3	Horizontal	260	1.10	-
924.8MHz	Pass	PK	3.69906G	52.64	74.00	-21.36	4.00	3	Horizontal	139	1.50	-
924.8MHz	Pass	PK	4.62405G	50.77	74.00	-23.23	6.94	3	Horizontal	38	2.08	-
FSK-150k_Nss1_1TX	-	-	-	-	-	-	-	-	-	-	-	-
920.4MHz	Pass	AV	1.84079G	46.38	54.00	-7.62	-3.02	3	Vertical	354	1.50	-
920.4MHz	Pass	AV	2.7612G	37.19	54.00	-16.81	1.30	3	Vertical	2	1.50	-
920.4MHz	Pass	AV	3.68162G	50.24	54.00	-3.76	3.97	3	Vertical	147	1.50	-
920.4MHz	Pass	AV	4.60199G	41.71	54.00	-12.29	6.83	3	Vertical	203	1.01	-
920.4MHz	Pass	PK	1.84081G	48.71	74.00	-25.29	-3.02	3	Vertical	354	1.50	-
920.4MHz	Pass	PK	2.76114G	43.44	74.00	-30.56	1.30	3	Vertical	2	1.50	-
920.4MHz	Pass	PK	3.68148G	53.00	74.00	-21.00	3.97	3	Vertical	147	1.50	-
920.4MHz	Pass	PK	4.6021G	48.51	74.00	-25.49	6.83	3	Vertical	203	1.01	-
920.4MHz	Pass	AV	1.84082G	46.35	54.00	-7.65	-3.02	3	Horizontal	145	1.21	-
920.4MHz	Pass	AV	2.7612G	34.00	54.00	-20.00	1.30	3	Horizontal	172	1.00	-
920.4MHz	Pass	AV	3.68158G	48.08	54.00	-5.92	3.97	3	Horizontal	173	2.30	-
920.4MHz	Pass	AV	4.6018G	40.57	54.00	-13.43	6.83	3	Horizontal	38	1.50	-
920.4MHz	Pass	PK	1.84073G	48.77	74.00	-25.23	-3.02	3	Horizontal	145	1.21	-
920.4MHz	Pass	PK	2.76116G	42.68	74.00	-31.32	1.30	3	Horizontal	172	1.00	-

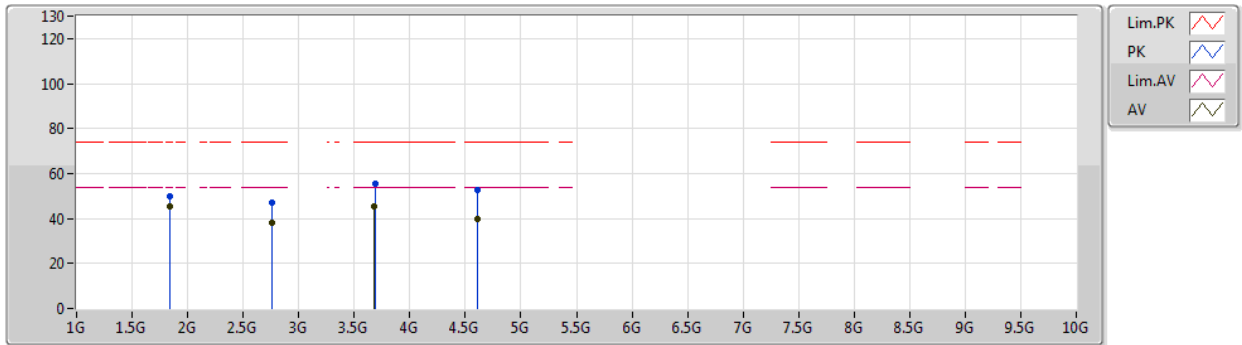
Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
920.4MHz	Pass	PK	3.68146G	51.86	74.00	-22.14	3.97	3	Horizontal	173	2.30	-
920.4MHz	Pass	PK	4.6014G	44.29	74.00	-29.71	6.83	3	Horizontal	38	1.50	-
924.8MHz	Pass	AV	1.84959G	45.54	54.00	-8.46	-2.96	3	Vertical	356	1.00	-
924.8MHz	Pass	AV	2.7744G	45.31	54.00	-8.69	1.37	3	Vertical	16	1.24	-
924.8MHz	Pass	AV	3.69918G	50.19	54.00	-3.81	4.00	3	Vertical	146	1.49	-
924.8MHz	Pass	AV	4.62398G	40.91	54.00	-13.09	6.94	3	Vertical	119	2.11	-
924.8MHz	Pass	PK	1.84967G	48.11	74.00	-25.89	-2.96	3	Vertical	356	1.00	-
924.8MHz	Pass	PK	2.77426G	48.88	74.00	-25.12	1.37	3	Vertical	16	1.24	-
924.8MHz	Pass	PK	3.69919G	52.90	74.00	-21.10	4.00	3	Vertical	146	1.49	-
924.8MHz	Pass	PK	4.62395G	48.48	74.00	-25.52	6.94	3	Vertical	119	2.11	-
924.8MHz	Pass	AV	1.84959G	45.53	54.00	-8.47	-2.96	3	Horizontal	146	1.01	-
924.8MHz	Pass	AV	2.77441G	46.17	54.00	-7.83	1.37	3	Horizontal	89	2.43	-
924.8MHz	Pass	AV	3.69922G	48.02	54.00	-5.98	4.00	3	Horizontal	171	2.28	-
924.8MHz	Pass	AV	4.624G	44.74	54.00	-9.26	6.94	3	Horizontal	37	2.08	-
924.8MHz	Pass	PK	1.84957G	48.37	74.00	-25.63	-2.96	3	Horizontal	146	1.01	-
924.8MHz	Pass	PK	2.77432G	49.55	74.00	-24.45	1.37	3	Horizontal	89	2.43	-
924.8MHz	Pass	PK	3.69935G	51.63	74.00	-22.37	4.00	3	Horizontal	171	2.28	-
924.8MHz	Pass	PK	4.62383G	50.38	74.00	-23.62	6.94	3	Horizontal	37	2.08	-
LoRa_FHSS-125k_Nss1_1TX	-	-	-	-	-	-	-	-	-	-	-	-
920.2MHz	Pass	AV	1.84038G	44.86	54.00	-9.14	-7.39	3	Vertical	316	1.57	-
920.2MHz	Pass	AV	2.76057G	41.05	54.00	-12.95	-3.55	3	Vertical	0	1.11	-
920.2MHz	Pass	AV	3.68078G	47.39	54.00	-6.61	-0.64	3	Vertical	91	2.16	-
920.2MHz	Pass	AV	4.60096G	41.66	54.00	-12.34	1.53	3	Vertical	200	1.34	-
920.2MHz	Pass	PK	1.8404G	47.58	74.00	-26.42	-7.39	3	Vertical	316	1.57	-
920.2MHz	Pass	PK	2.76086G	45.72	74.00	-28.28	-3.53	3	Vertical	0	1.11	-
920.2MHz	Pass	PK	3.6807G	50.63	74.00	-23.37	-0.64	3	Vertical	91	2.16	-
920.2MHz	Pass	PK	4.6011G	48.04	74.00	-25.96	1.53	3	Vertical	200	1.34	-
920.2MHz	Pass	AV	1.8404G	45.48	54.00	-8.52	-7.39	3	Horizontal	17	1.92	-
920.2MHz	Pass	AV	2.76059G	38.98	54.00	-15.02	-3.55	3	Horizontal	0	1.73	-
920.2MHz	Pass	AV	3.68077G	50.40	54.00	-3.60	-0.64	3	Horizontal	103	2.00	-
920.2MHz	Pass	AV	4.60096G	44.64	54.00	-9.36	1.53	3	Horizontal	24	1.43	-
920.2MHz	Pass	PK	1.84034G	47.64	74.00	-26.36	-7.39	3	Horizontal	17	1.92	-
920.2MHz	Pass	PK	2.76055G	44.80	74.00	-29.20	-3.55	3	Horizontal	0	1.73	-
920.2MHz	Pass	PK	3.68062G	53.23	74.00	-20.77	-0.64	3	Horizontal	103	2.00	-
920.2MHz	Pass	PK	4.60091G	50.02	74.00	-23.98	1.53	3	Horizontal	24	1.43	-
924.8MHz	Pass	AV	1.84961G	45.67	54.00	-8.33	-2.96	3	Vertical	355	1.01	-
924.8MHz	Pass	AV	2.77438G	47.37	54.00	-6.63	1.37	3	Vertical	15	1.26	-
924.8MHz	Pass	AV	3.69919G	50.17	54.00	-3.83	4.00	3	Vertical	147	1.50	-
924.8MHz	Pass	AV	4.62398G	38.90	54.00	-15.10	6.94	3	Vertical	163	1.42	-
924.8MHz	Pass	PK	1.84964G	48.30	74.00	-25.70	-2.96	3	Vertical	355	1.01	-
924.8MHz	Pass	PK	2.77452G	50.54	74.00	-23.46	1.37	3	Vertical	15	1.26	-
924.8MHz	Pass	PK	3.69907G	53.37	74.00	-20.63	4.00	3	Vertical	147	1.50	-
924.8MHz	Pass	PK	4.62387G	48.35	74.00	-25.65	6.94	3	Vertical	163	1.42	-
924.8MHz	Pass	AV	1.84961G	45.21	54.00	-8.79	-2.96	3	Horizontal	144	1.32	-
924.8MHz	Pass	AV	2.7744G	48.93	54.00	-5.07	1.37	3	Horizontal	208	1.03	-
924.8MHz	Pass	AV	3.6992G	48.30	54.00	-5.70	4.00	3	Horizontal	262	2.08	-
924.8MHz	Pass	AV	4.62399G	46.40	54.00	-7.60	6.94	3	Horizontal	34	2.07	-
924.8MHz	Pass	PK	1.8495G	48.37	74.00	-25.63	-2.96	3	Horizontal	144	1.32	-
924.8MHz	Pass	PK	2.7743G	51.65	74.00	-22.35	1.37	3	Horizontal	208	1.03	-

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
924.8MHz	Pass	PK	3.69904G	51.96	74.00	-22.04	4.00	3	Horizontal	262	2.08	-
924.8MHz	Pass	PK	4.62363G	51.57	74.00	-22.43	6.93	3	Horizontal	34	2.07	-
LoRa_FHSS-250k_Nss1_1TX	-	-	-	-	-	-	-	-	-	-	-	-
920.3MHz	Pass	AV	1.84058G	49.63	54.00	-4.37	-3.02	3	Vertical	351	1.01	-
920.3MHz	Pass	AV	2.76089G	49.59	54.00	-4.41	1.30	3	Vertical	1	1.50	-
920.3MHz	Pass	AV	3.6812G	53.18	54.00	-0.82	3.97	3	Vertical	76	1.52	-
920.3MHz	Pass	AV	4.60146G	48.38	54.00	-5.62	6.83	3	Vertical	136	2.95	-
920.3MHz	Pass	PK	1.84048G	52.40	74.00	-21.60	-3.02	3	Vertical	351	1.01	-
920.3MHz	Pass	PK	2.7606G	52.26	74.00	-21.74	1.29	3	Vertical	1	1.50	-
920.3MHz	Pass	PK	3.68133G	57.20	74.00	-16.80	3.97	3	Vertical	76	1.52	-
920.3MHz	Pass	PK	4.60158G	55.24	74.00	-18.76	6.83	3	Vertical	136	2.95	-
920.3MHz	Pass	AV	1.8406G	43.04	54.00	-10.96	-7.39	3	Horizontal	120	1.86	-
920.3MHz	Pass	AV	2.76088G	40.56	54.00	-13.44	-3.53	3	Horizontal	128	1.27	-
920.3MHz	Pass	AV	3.68117G	50.85	54.00	-3.15	-0.63	3	Horizontal	100	2.12	-
920.3MHz	Pass	AV	4.60146G	45.98	54.00	-8.02	1.54	3	Horizontal	24	1.80	-
920.3MHz	Pass	PK	1.84048G	46.01	74.00	-27.99	-7.39	3	Horizontal	120	1.86	-
920.3MHz	Pass	PK	2.76112G	46.12	74.00	-27.88	-3.53	3	Horizontal	128	1.27	-
920.3MHz	Pass	PK	3.68093G	54.46	74.00	-19.54	-0.64	3	Horizontal	100	2.12	-
920.3MHz	Pass	PK	4.60128G	51.62	74.00	-22.38	1.54	3	Horizontal	24	1.80	-
924.7MHz	Pass	AV	1.84938G	41.72	54.00	-12.28	-7.35	3	Vertical	229	1.48	-
924.7MHz	Pass	AV	2.77408G	40.34	54.00	-13.66	-3.42	3	Vertical	0	1.05	-
924.7MHz	Pass	AV	3.69876G	46.00	54.00	-8.00	-0.57	3	Vertical	66	1.46	-
924.7MHz	Pass	AV	4.62346G	38.80	54.00	-15.20	1.64	3	Vertical	210	1.28	-
924.7MHz	Pass	PK	1.84918G	45.40	74.00	-28.60	-7.35	3	Vertical	229	1.48	-
924.7MHz	Pass	PK	2.77424G	45.76	74.00	-28.24	-3.42	3	Vertical	0	1.05	-
924.7MHz	Pass	PK	3.69887G	50.66	74.00	-23.34	-0.57	3	Vertical	66	1.46	-
924.7MHz	Pass	PK	4.6239G	48.09	74.00	-25.91	1.65	3	Vertical	210	1.28	-
924.7MHz	Pass	AV	1.8494G	42.95	54.00	-11.05	-7.35	3	Horizontal	157	1.14	-
924.7MHz	Pass	AV	2.77409G	38.11	54.00	-15.89	-3.42	3	Horizontal	83	2.19	-
924.7MHz	Pass	AV	3.6988G	48.86	54.00	-5.14	-0.57	3	Horizontal	100	2.10	-
924.7MHz	Pass	AV	4.62349G	43.47	54.00	-10.53	1.64	3	Horizontal	28	1.50	-
924.7MHz	Pass	PK	1.84926G	46.36	74.00	-27.64	-7.35	3	Horizontal	157	1.14	-
924.7MHz	Pass	PK	2.77438G	44.40	74.00	-29.60	-3.41	3	Horizontal	83	2.19	-
924.7MHz	Pass	PK	3.69892G	52.59	74.00	-21.41	-0.57	3	Horizontal	100	2.10	-
924.7MHz	Pass	PK	4.62363G	50.25	74.00	-23.75	1.64	3	Horizontal	28	1.50	-

LoRa_DTS_Nss1_1TX

11/06/2019

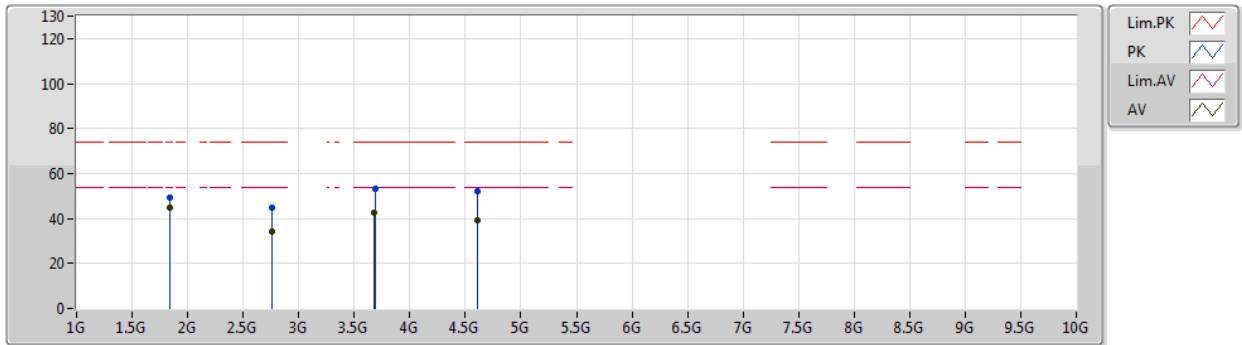
920.9MHz_TX



LoRa_DTS_Nss1_1TX

11/06/2019

920.9MHz_TX

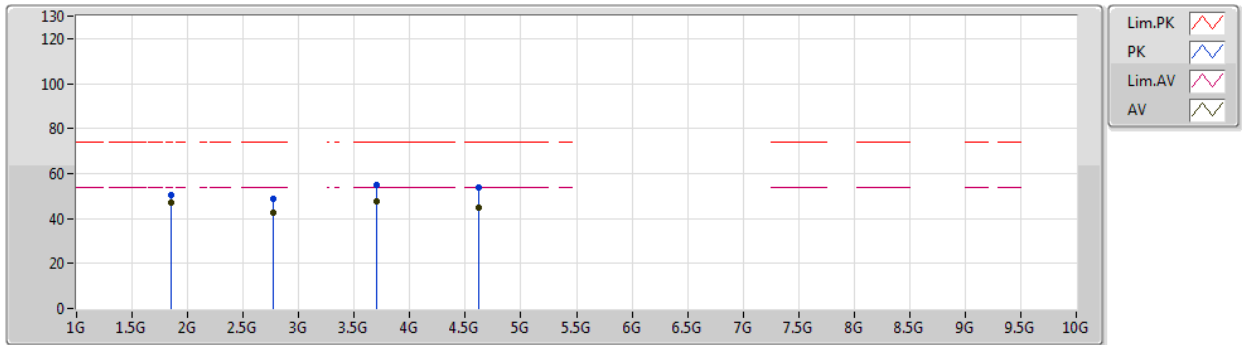


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	1.8418G	44.77	54.00	-9.23	-3.01	3	Horizontal	155	2.53	-	47.78	25.37	3.11	31.49
AV	2.76269G	34.21	54.00	-19.79	1.31	3	Horizontal	110	1.06	-	32.90	27.95	4.37	31.01
AV	3.68363G	42.75	54.00	-11.25	3.97	3	Horizontal	114	1.06	-	38.78	29.20	5.48	30.71
AV	4.6048G	39.38	54.00	-14.62	6.84	3	Horizontal	37	1.07	-	32.54	30.92	6.28	30.36
PK	1.84187G	49.27	74.00	-24.73	-3.01	3	Horizontal	155	2.53	-	52.28	25.37	3.11	31.49
PK	2.76321G	44.70	74.00	-29.30	1.31	3	Horizontal	110	1.06	-	43.39	27.95	4.37	31.01
PK	3.68444G	53.14	74.00	-20.86	3.97	3	Horizontal	114	1.06	-	49.17	29.20	5.48	30.71
PK	4.60512G	52.32	74.00	-21.68	6.84	3	Horizontal	37	1.07	-	45.48	30.92	6.28	30.36

LoRa_DTS_Nss1_1TX

11/06/2019

924.1MHz_TX

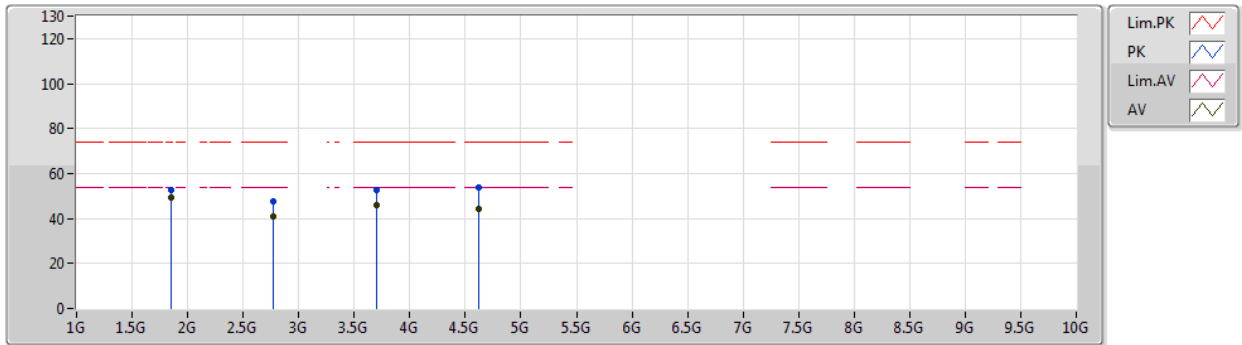


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	1.84816G	47.33	54.00	-6.67	-7.35	3	Vertical	344	1.34	-	54.68	25.40	3.21	35.96
AV	2.77231G	42.71	54.00	-11.29	-3.43	3	Vertical	13	1.05	-	46.14	27.98	4.08	35.49
AV	3.69634G	47.77	54.00	-6.23	-0.58	3	Vertical	45	2.45	-	48.35	29.29	5.18	35.05
AV	4.62016G	44.65	54.00	-9.35	1.63	3	Vertical	178	2.52	-	43.02	30.98	5.27	34.62
PK	1.84792G	50.44	74.00	-23.56	-7.35	3	Vertical	344	1.34	-	57.79	25.40	3.21	35.96
PK	2.77171G	49.03	74.00	-24.97	-3.44	3	Vertical	13	1.05	-	52.47	27.97	4.08	35.49
PK	3.69552G	54.82	74.00	-19.18	-0.58	3	Vertical	45	2.45	-	55.40	29.29	5.18	35.05
PK	4.61959G	53.95	74.00	-20.05	1.63	3	Vertical	178	2.52	-	52.32	30.98	5.27	34.62

LoRa_DTS_Nss1_1TX

11/06/2019

924.1MHz_TX

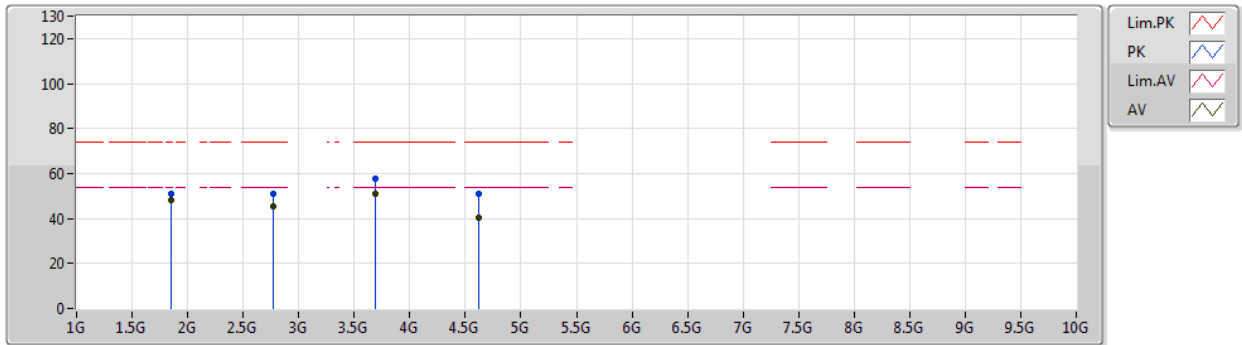


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	1.84817G	49.51	54.00	-4.49	-7.35	3	Horizontal	27	2.15	-	56.86	25.40	3.21	35.96
AV	2.77227G	41.03	54.00	-12.97	-3.43	3	Horizontal	80	2.45	-	44.46	27.98	4.08	35.49
AV	3.69639G	45.67	54.00	-8.33	-0.58	3	Horizontal	32	1.59	-	46.25	29.29	5.18	35.05
AV	4.62048G	44.54	54.00	-9.46	1.63	3	Horizontal	23	1.65	-	42.91	30.98	5.27	34.62
PK	1.84784G	52.65	74.00	-21.35	-7.35	3	Horizontal	27	2.15	-	60.00	25.40	3.21	35.96
PK	2.77231G	47.65	74.00	-26.35	-3.43	3	Horizontal	80	2.45	-	51.08	27.98	4.08	35.49
PK	3.69707G	52.94	74.00	-21.06	-0.58	3	Horizontal	32	1.59	-	53.52	29.29	5.18	35.05
PK	4.62G	53.81	74.00	-20.19	1.63	3	Horizontal	23	1.65	-	52.18	30.98	5.27	34.62

LoRa_DTS_Nss1_1TX

11/06/2019

923.3MHz_TX

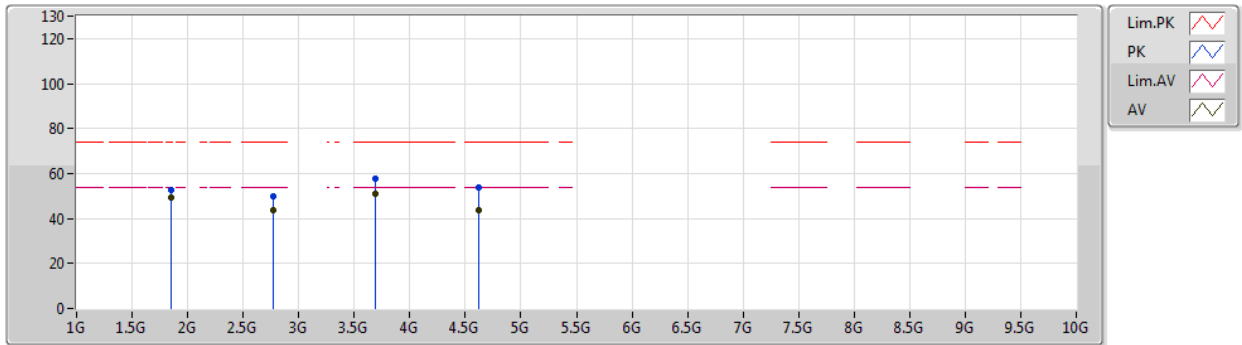


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	1.84658G	47.96	54.00	-6.04	-7.36	3	Vertical	350	1.54	-	55.32	25.39	3.21	35.96
AV	2.76983G	45.30	54.00	-8.70	-3.45	3	Vertical	260	1.15	-	48.75	27.96	4.08	35.49
AV	3.69325G	51.12	54.00	-2.88	-0.58	3	Vertical	73	1.50	-	51.70	29.29	5.18	35.05
AV	4.61684G	40.13	54.00	-13.87	1.61	3	Vertical	187	2.80	-	38.52	30.97	5.27	34.63
PK	1.84679G	51.16	74.00	-22.84	-7.36	3	Vertical	350	1.54	-	58.52	25.39	3.21	35.96
PK	2.76987G	51.00	74.00	-23.00	-3.45	3	Vertical	260	1.15	-	54.45	27.96	4.08	35.49
PK	3.69346G	57.64	74.00	-16.36	-0.58	3	Vertical	73	1.50	-	58.22	29.29	5.18	35.05
PK	4.61724G	50.85	74.00	-23.15	1.61	3	Vertical	187	2.80	-	49.24	30.97	5.27	34.63

LoRa_DTS_Nss1_1TX

11/06/2019

923.3MHz_TX

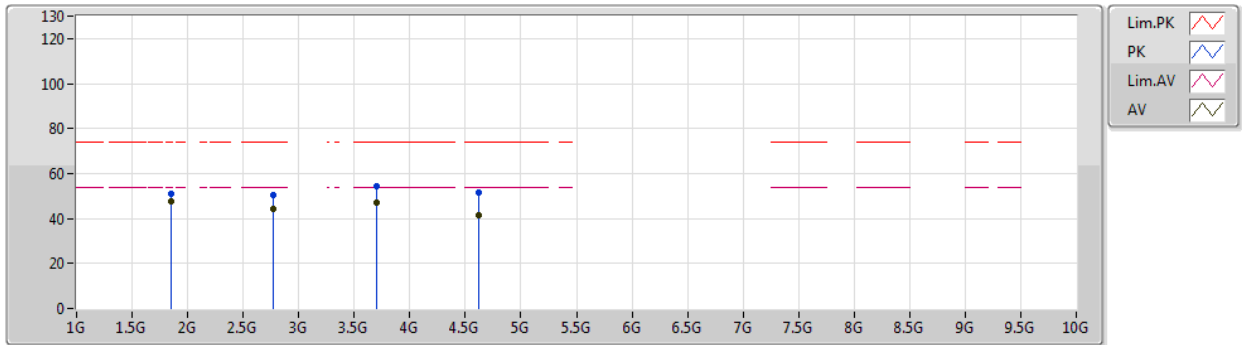


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	1.84656G	49.50	54.00	-4.50	-7.36	3	Horizontal	0	1.84	-	56.86	25.39	3.21	35.96
AV	2.76988G	43.88	54.00	-10.12	-3.45	3	Horizontal	22	1.60	-	47.33	27.96	4.08	35.49
AV	3.69319G	51.25	54.00	-2.75	-0.58	3	Horizontal	81	1.83	-	51.83	29.29	5.18	35.05
AV	4.6163G	43.93	54.00	-10.07	1.60	3	Horizontal	16	1.53	-	42.33	30.97	5.26	34.63
PK	1.84686G	52.68	74.00	-21.32	-7.36	3	Horizontal	0	1.84	-	60.04	25.39	3.21	35.96
PK	2.77G	50.02	74.00	-23.98	-3.45	3	Horizontal	22	1.60	-	53.47	27.96	4.08	35.49
PK	3.694G	57.74	74.00	-16.26	-0.58	3	Horizontal	81	1.83	-	58.32	29.29	5.18	35.05
PK	4.61751G	53.60	74.00	-20.40	1.61	3	Horizontal	16	1.53	-	51.99	30.97	5.27	34.63

LoRa_DTS_Nss1_1TX

11/06/2019

924.5MHz_TX

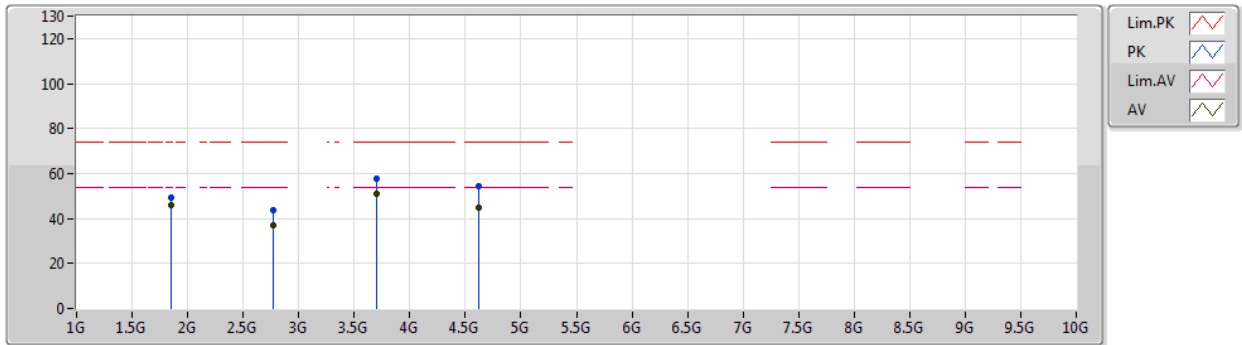


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	1.84894G	47.77	54.00	-6.23	-7.35	3	Vertical	347	1.31	-	55.12	25.40	3.21	35.96
AV	2.77345G	44.25	54.00	-9.75	-3.42	3	Vertical	259	1.05	-	47.67	27.99	4.08	35.49
AV	3.69795G	47.17	54.00	-6.83	-0.57	3	Vertical	72	1.69	-	47.74	29.30	5.18	35.05
AV	4.62258G	41.60	54.00	-12.40	1.64	3	Vertical	206	1.27	-	39.96	30.99	5.27	34.62
PK	1.84895G	50.98	74.00	-23.02	-7.35	3	Vertical	347	1.31	-	58.33	25.40	3.21	35.96
PK	2.77297G	50.24	74.00	-23.76	-3.43	3	Vertical	259	1.05	-	53.67	27.98	4.08	35.49
PK	3.69748G	54.32	74.00	-19.68	-0.58	3	Vertical	72	1.69	-	54.90	29.29	5.18	35.05
PK	4.62166G	51.49	74.00	-22.51	1.64	3	Vertical	206	1.27	-	49.85	30.99	5.27	34.62

LoRa_DTS_Nss1_1TX

11/06/2019

924.5MHz_TX

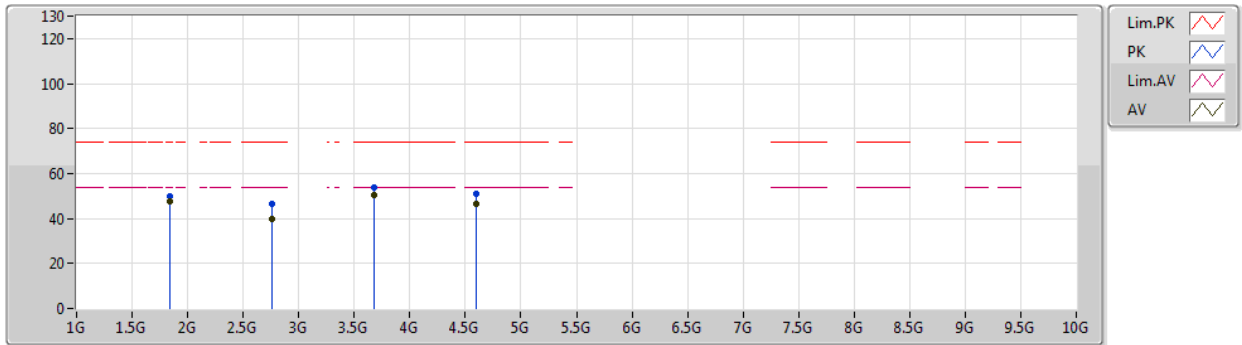


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	1.84895G	45.90	54.00	-8.10	-7.35	3	Horizontal	25	2.14	-	53.25	25.40	3.21	35.96
AV	2.77352G	36.90	54.00	-17.10	-3.42	3	Horizontal	163	2.46	-	40.32	27.99	4.08	35.49
AV	3.69798G	51.09	54.00	-2.91	-0.57	3	Horizontal	103	2.12	-	51.66	29.30	5.18	35.05
AV	4.62267G	44.88	54.00	-9.12	1.64	3	Horizontal	28	1.37	-	43.24	30.99	5.27	34.62
PK	1.84873G	49.48	74.00	-24.52	-7.35	3	Horizontal	25	2.14	-	56.83	25.40	3.21	35.96
PK	2.7739G	43.81	74.00	-30.19	-3.42	3	Horizontal	163	2.46	-	47.23	27.99	4.08	35.49
PK	3.697G	57.57	74.00	-16.43	-0.58	3	Horizontal	103	2.12	-	58.15	29.29	5.18	35.05
PK	4.62277G	54.21	74.00	-19.79	1.64	3	Horizontal	28	1.37	-	52.57	30.99	5.27	34.62

FSK-5k_Nss1_1TX

11/06/2019

920.2MHz_TX

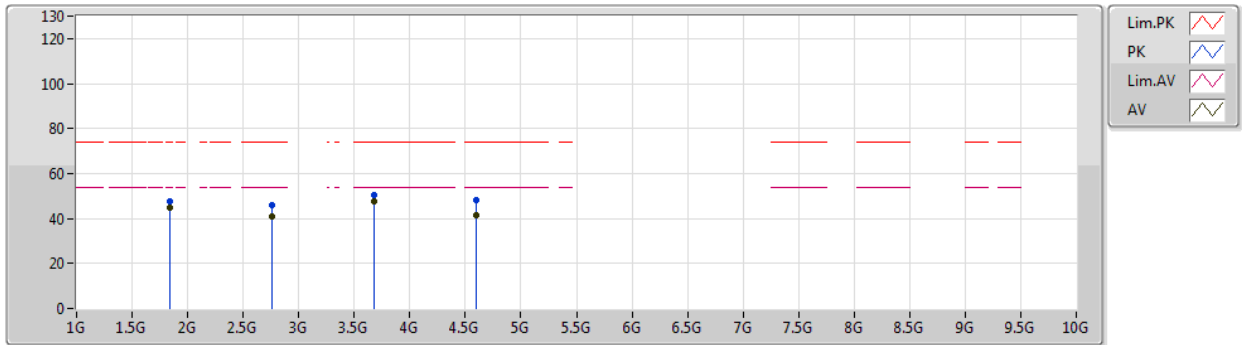


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	1.84038G	47.55	54.00	-6.45	-3.02	3	Vertical	339	1.49	-	50.57	25.36	3.11	31.49
AV	2.76058G	39.98	54.00	-14.02	1.29	3	Vertical	24	2.09	-	38.69	27.94	4.36	31.01
AV	3.6808G	50.23	54.00	-3.77	3.97	3	Vertical	147	1.66	-	46.26	29.20	5.48	30.71
AV	4.60102G	46.33	54.00	-7.67	6.82	3	Vertical	166	1.34	-	39.51	30.90	6.28	30.36
PK	1.84032G	49.90	74.00	-24.10	-3.02	3	Vertical	339	1.49	-	52.92	25.36	3.11	31.49
PK	2.76048G	46.67	74.00	-27.33	1.29	3	Vertical	24	2.09	-	45.38	27.94	4.36	31.01
PK	3.68061G	53.80	74.00	-20.20	3.97	3	Vertical	147	1.66	-	49.83	29.20	5.48	30.71
PK	4.60079G	50.83	74.00	-23.17	6.82	3	Vertical	166	1.34	-	44.01	30.90	6.28	30.36

LoRa_FHSS-125k_Nss1_1TX

11/06/2019

920.2MHz_TX

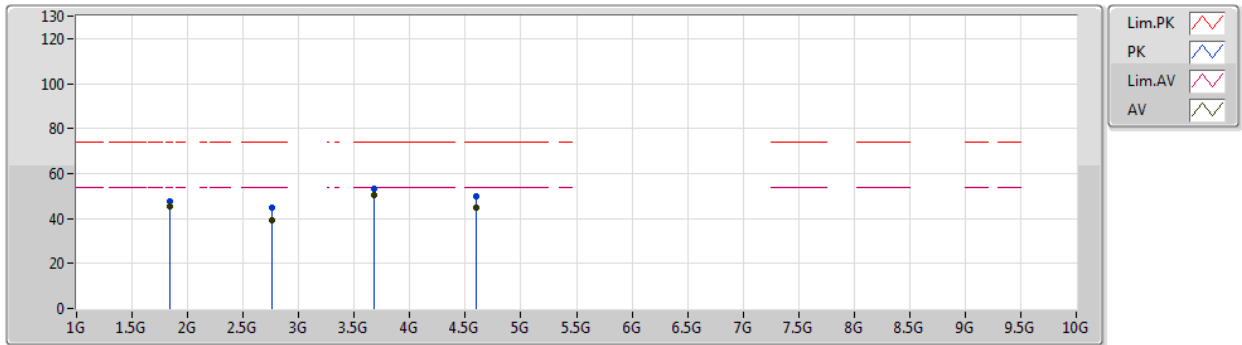


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	1.84038G	44.86	54.00	-9.14	-7.39	3	Vertical	316	1.57	-	52.25	25.38	3.20	35.97
AV	2.76057G	41.05	54.00	-12.95	-3.55	3	Vertical	0	1.11	-	44.60	27.88	4.06	35.49
AV	3.68078G	47.39	54.00	-6.61	-0.64	3	Vertical	91	2.16	-	48.03	29.26	5.16	35.06
AV	4.60096G	41.66	54.00	-12.34	1.53	3	Vertical	200	1.34	-	40.13	30.90	5.26	34.63
PK	1.8404G	47.58	74.00	-26.42	-7.39	3	Vertical	316	1.57	-	54.97	25.38	3.20	35.97
PK	2.76086G	45.72	74.00	-28.28	-3.53	3	Vertical	0	1.11	-	49.25	27.89	4.07	35.49
PK	3.6807G	50.63	74.00	-23.37	-0.64	3	Vertical	91	2.16	-	51.27	29.26	5.16	35.06
PK	4.6011G	48.04	74.00	-25.96	1.53	3	Vertical	200	1.34	-	46.51	30.90	5.26	34.63

LoRa_FHSS-125k_Nss1_1TX

11/06/2019

920.2MHz_TX

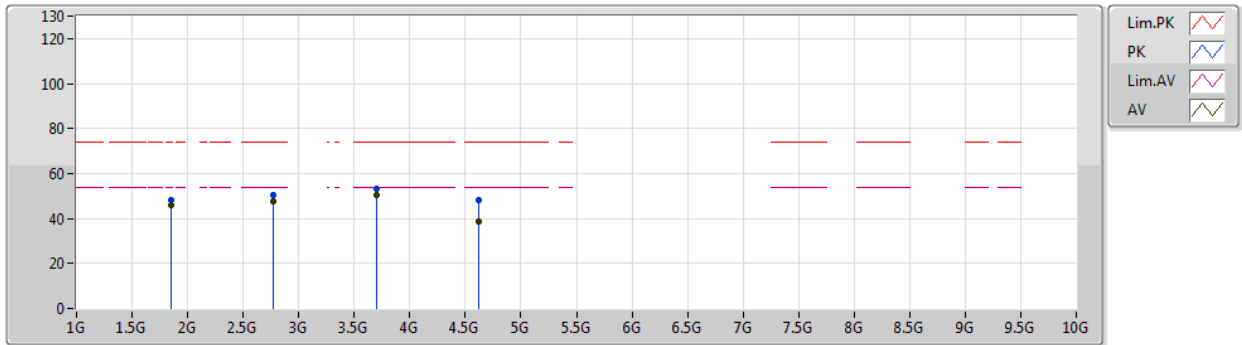


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	1.8404G	45.48	54.00	-8.52	-7.39	3	Horizontal	17	1.92	-	52.87	25.38	3.20	35.97
AV	2.76059G	38.98	54.00	-15.02	-3.55	3	Horizontal	0	1.73	-	42.53	27.88	4.06	35.49
AV	3.68077G	50.40	54.00	-3.60	-0.64	3	Horizontal	103	2.00	-	51.04	29.26	5.16	35.06
AV	4.60096G	44.64	54.00	-9.36	1.53	3	Horizontal	24	1.43	-	43.11	30.90	5.26	34.63
PK	1.84034G	47.64	74.00	-26.36	-7.39	3	Horizontal	17	1.92	-	55.03	25.38	3.20	35.97
PK	2.76055G	44.80	74.00	-29.20	-3.55	3	Horizontal	0	1.73	-	48.35	27.88	4.06	35.49
PK	3.68062G	53.23	74.00	-20.77	-0.64	3	Horizontal	103	2.00	-	53.87	29.26	5.16	35.06
PK	4.60091G	50.02	74.00	-23.98	1.53	3	Horizontal	24	1.43	-	48.49	30.90	5.26	34.63

LoRa_FHSS-125k_Nss1_1TX

11/06/2019

924.8MHz_TX

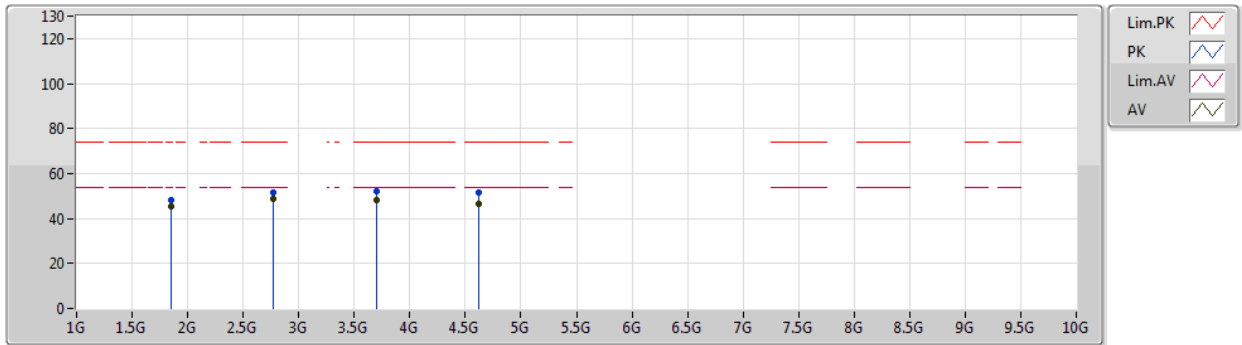


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	1.84961G	45.67	54.00	-8.33	-2.96	3	Vertical	355	1.01	-	48.63	25.40	3.12	31.48
AV	2.77438G	47.37	54.00	-6.63	1.37	3	Vertical	15	1.26	-	46.00	28.00	4.38	31.01
AV	3.69919G	50.17	54.00	-3.83	4.00	3	Vertical	147	1.50	-	46.17	29.20	5.50	30.70
AV	4.62398G	38.90	54.00	-15.10	6.94	3	Vertical	163	1.42	-	31.96	31.00	6.30	30.36
PK	1.84964G	48.30	74.00	-25.70	-2.96	3	Vertical	355	1.01	-	51.26	25.40	3.12	31.48
PK	2.77452G	50.54	74.00	-23.46	1.37	3	Vertical	15	1.26	-	49.17	28.00	4.38	31.01
PK	3.69907G	53.37	74.00	-20.63	4.00	3	Vertical	147	1.50	-	49.37	29.20	5.50	30.70
PK	4.62387G	48.35	74.00	-25.65	6.94	3	Vertical	163	1.42	-	41.41	31.00	6.30	30.36

LoRa_FHSS-125k_Nss1_1TX

11/06/2019

924.8MHz_TX

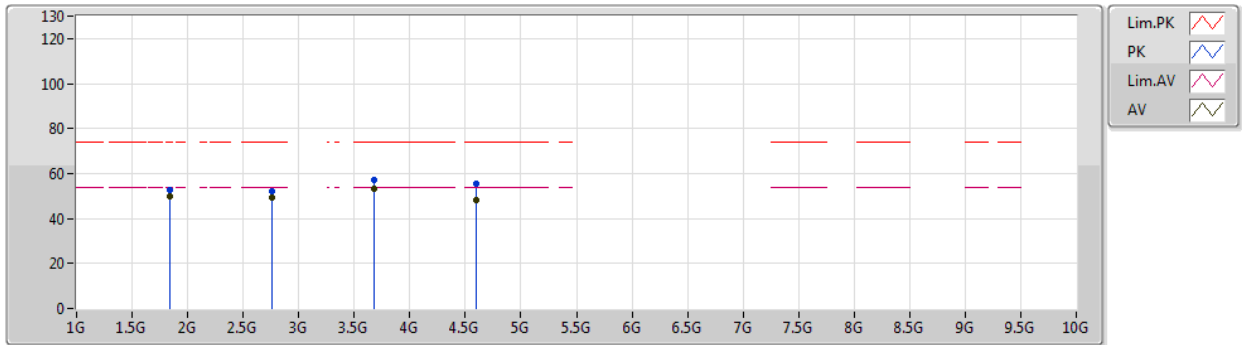


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	1.84961G	45.21	54.00	-8.79	-2.96	3	Horizontal	144	1.32	-	48.17	25.40	3.12	31.48
AV	2.7744G	48.93	54.00	-5.07	1.37	3	Horizontal	208	1.03	-	47.56	28.00	4.38	31.01
AV	3.6992G	48.30	54.00	-5.70	4.00	3	Horizontal	262	2.08	-	44.30	29.20	5.50	30.70
AV	4.62399G	46.40	54.00	-7.60	6.94	3	Horizontal	34	2.07	-	39.46	31.00	6.30	30.36
PK	1.8495G	48.37	74.00	-25.63	-2.96	3	Horizontal	144	1.32	-	51.33	25.40	3.12	31.48
PK	2.7743G	51.65	74.00	-22.35	1.37	3	Horizontal	208	1.03	-	50.28	28.00	4.38	31.01
PK	3.69904G	51.96	74.00	-22.04	4.00	3	Horizontal	262	2.08	-	47.96	29.20	5.50	30.70
PK	4.62363G	51.57	74.00	-22.43	6.93	3	Horizontal	34	2.07	-	44.64	30.99	6.30	30.36

LoRa_FHSS-250k_Nss1_1TX

11/06/2019

920.3MHz_TX

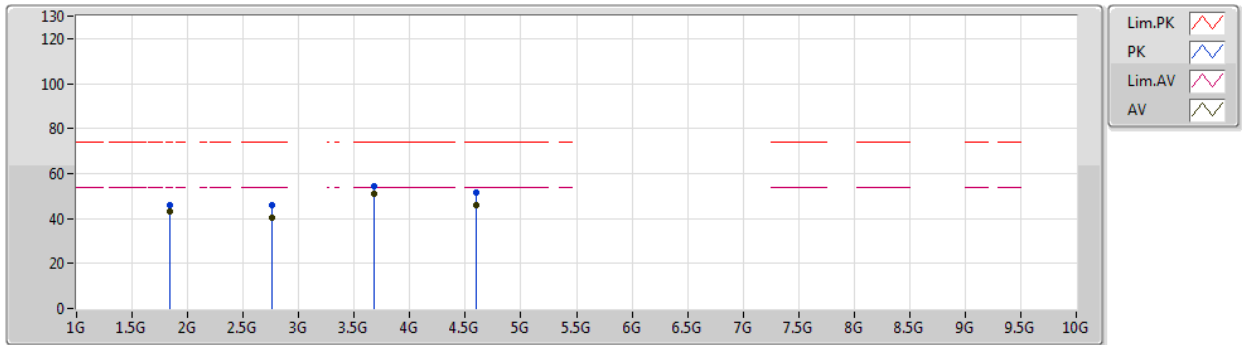


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	1.84058G	49.63	54.00	-4.37	-3.02	3	Vertical	351	1.01	-	52.65	25.36	3.11	31.49
AV	2.76089G	49.59	54.00	-4.41	1.30	3	Vertical	1	1.50	-	48.29	27.94	4.37	31.01
AV	3.6812G	53.18	54.00	-0.82	3.97	3	Vertical	76	1.52	-	49.21	29.20	5.48	30.71
AV	4.60146G	48.38	54.00	-5.62	6.83	3	Vertical	136	2.95	-	41.55	30.91	6.28	30.36
PK	1.84048G	52.40	74.00	-21.60	-3.02	3	Vertical	351	1.01	-	55.42	25.36	3.11	31.49
PK	2.7606G	52.26	74.00	-21.74	1.29	3	Vertical	1	1.50	-	50.97	27.94	4.36	31.01
PK	3.68133G	57.20	74.00	-16.80	3.97	3	Vertical	76	1.52	-	53.23	29.20	5.48	30.71
PK	4.60158G	55.24	74.00	-18.76	6.83	3	Vertical	136	2.95	-	48.41	30.91	6.28	30.36

LoRa_FHSS-250k_Nss1_1TX

11/06/2019

920.3MHz_TX

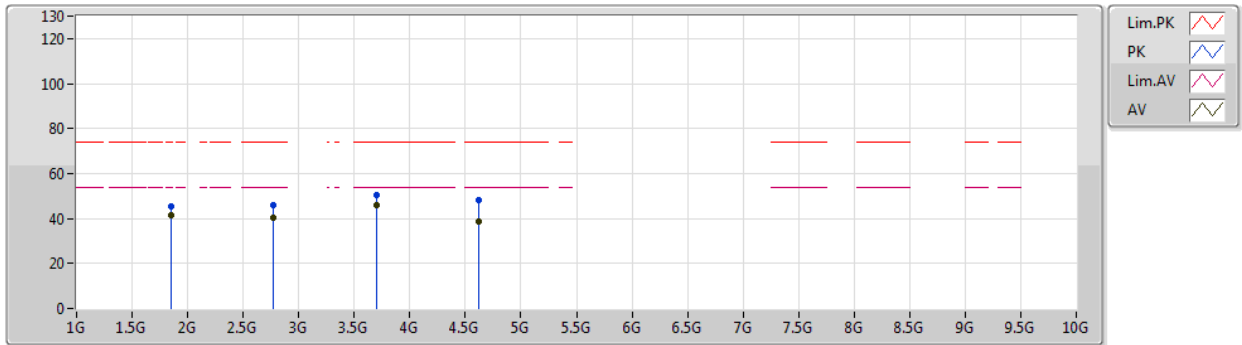


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	1.8406G	43.04	54.00	-10.96	-7.39	3	Horizontal	120	1.86	-	50.43	25.38	3.20	35.97
AV	2.76088G	40.56	54.00	-13.44	-3.53	3	Horizontal	128	1.27	-	44.09	27.89	4.07	35.49
AV	3.68117G	50.85	54.00	-3.15	-0.63	3	Horizontal	100	2.12	-	51.48	29.26	5.17	35.06
AV	4.60146G	45.98	54.00	-8.02	1.54	3	Horizontal	24	1.80	-	44.44	30.91	5.26	34.63
PK	1.84048G	46.01	74.00	-27.99	-7.39	3	Horizontal	120	1.86	-	53.40	25.38	3.20	35.97
PK	2.76112G	46.12	74.00	-27.88	-3.53	3	Horizontal	128	1.27	-	49.65	27.89	4.07	35.49
PK	3.68093G	54.46	74.00	-19.54	-0.64	3	Horizontal	100	2.12	-	55.10	29.26	5.16	35.06
PK	4.60128G	51.62	74.00	-22.38	1.54	3	Horizontal	24	1.80	-	50.08	30.91	5.26	34.63

LoRa_FHSS-250k_Nss1_1TX

11/06/2019

924.7MHz_TX

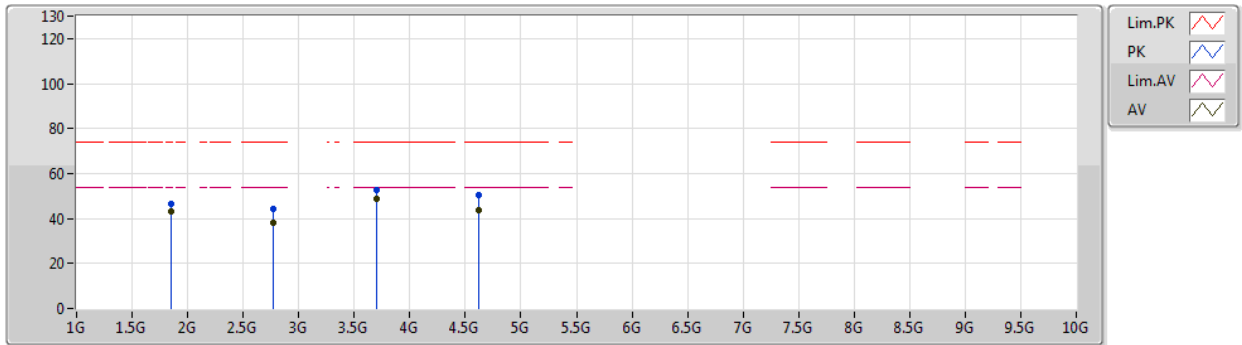


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	1.84938G	41.72	54.00	-12.28	-7.35	3	Vertical	229	1.48	-	49.07	25.40	3.21	35.96
AV	2.77408G	40.34	54.00	-13.66	-3.42	3	Vertical	0	1.05	-	43.76	27.99	4.08	35.49
AV	3.69876G	46.00	54.00	-8.00	-0.57	3	Vertical	66	1.46	-	46.57	29.30	5.18	35.05
AV	4.62346G	38.80	54.00	-15.20	1.64	3	Vertical	210	1.28	-	37.16	30.99	5.27	34.62
PK	1.84918G	45.40	74.00	-28.60	-7.35	3	Vertical	229	1.48	-	52.75	25.40	3.21	35.96
PK	2.77424G	45.76	74.00	-28.24	-3.42	3	Vertical	0	1.05	-	49.18	27.99	4.08	35.49
PK	3.69887G	50.66	74.00	-23.34	-0.57	3	Vertical	66	1.46	-	51.23	29.30	5.18	35.05
PK	4.6239G	48.09	74.00	-25.91	1.65	3	Vertical	210	1.28	-	46.44	31.00	5.27	34.62

LoRa_FHSS-250k_Nss1_1TX

11/06/2019

924.7MHz_TX



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	1.8494G	42.95	54.00	-11.05	-7.35	3	Horizontal	157	1.14	-	50.30	25.40	3.21	35.96
AV	2.77409G	38.11	54.00	-15.89	-3.42	3	Horizontal	83	2.19	-	41.53	27.99	4.08	35.49
AV	3.6988G	48.86	54.00	-5.14	-0.57	3	Horizontal	100	2.10	-	49.43	29.30	5.18	35.05
AV	4.62349G	43.47	54.00	-10.53	1.64	3	Horizontal	28	1.50	-	41.83	30.99	5.27	34.62
PK	1.84926G	46.36	74.00	-27.64	-7.35	3	Horizontal	157	1.14	-	53.71	25.40	3.21	35.96
PK	2.77438G	44.40	74.00	-29.60	-3.41	3	Horizontal	83	2.19	-	47.81	28.00	4.08	35.49
PK	3.69892G	52.59	74.00	-21.41	-0.57	3	Horizontal	100	2.10	-	53.16	29.30	5.18	35.05
PK	4.62363G	50.25	74.00	-23.75	1.64	3	Horizontal	28	1.50	-	48.61	30.99	5.27	34.62

Summary

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
920-928MHz	-	-	-	-	-
FSK-5K_Nss1_1TX	61.625k	57.846k	57K8F1D	61.625k	57.596k
FSK-50K_Nss1_1TX	109.75k	103.323k	103KF1D	105.125k	102.449k
FSK-150K_Nss1_1TX	155.062k	152.174k	152KF1D	154.875k	151.987k
LoRa_FHSS-125k_Nss1_1TX	144.219k	125.718k	126KF1D	138.906k	125.718k
LoRa_FHSS-250k_Nss1_1TX	303.125k	272.989k	273KF1D	297.188k	260.495k

Max-N dB = Maximum 20dB down bandwidth; **Max-OBW** = Maximum 99% occupied bandwidth;

Min-N dB = Minimum 20dB down bandwidth; **Min-OBW** = Minimum 99% occupied bandwidth;

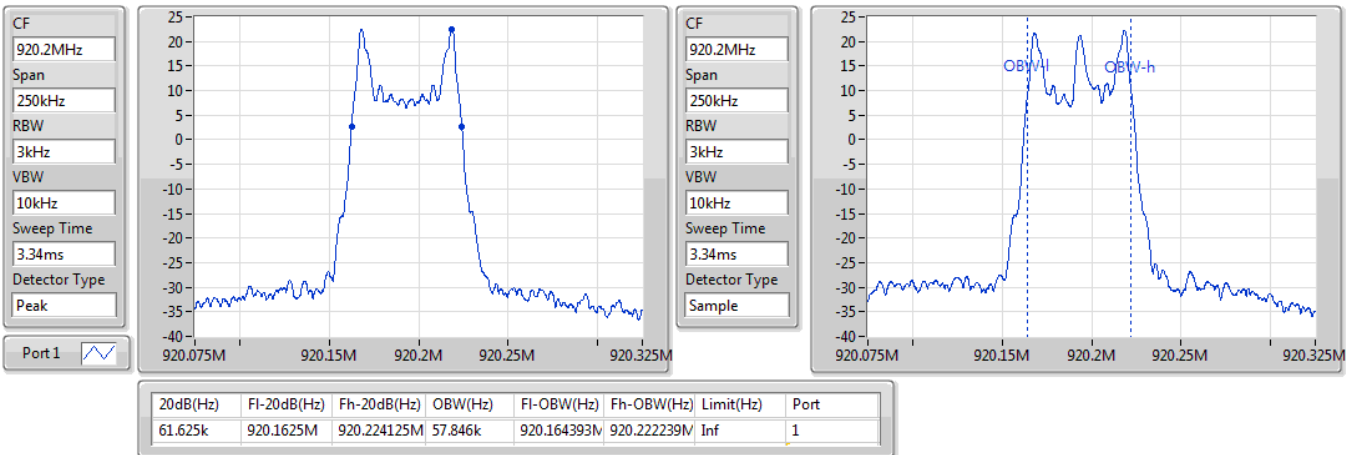
Result

Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)
FSK-5K_Nss1_1TX	-	-	-	-
920.2MHz	Pass	Inf	61.625k	57.846k
924.8MHz	Pass	Inf	61.625k	57.596k
FSK-50K_Nss1_1TX	-	-	-	-
920.2MHz	Pass	Inf	109.75k	103.323k
924.8MHz	Pass	Inf	105.125k	102.449k
FSK-150K_Nss1_1TX	-	-	-	-
920.4MHz	Pass	Inf	154.875k	151.987k
924.8MHz	Pass	Inf	155.062k	152.174k
LoRa_FHSS-125k_Nss1_1TX	-	-	-	-
920.2MHz	Pass	Inf	138.906k	125.718k
924.8MHz	Pass	Inf	144.219k	125.718k
LoRa_FHSS-250k_Nss1_1TX	-	-	-	-
920.3MHz	Pass	Inf	297.188k	272.989k
924.7MHz	Pass	Inf	303.125k	260.495k

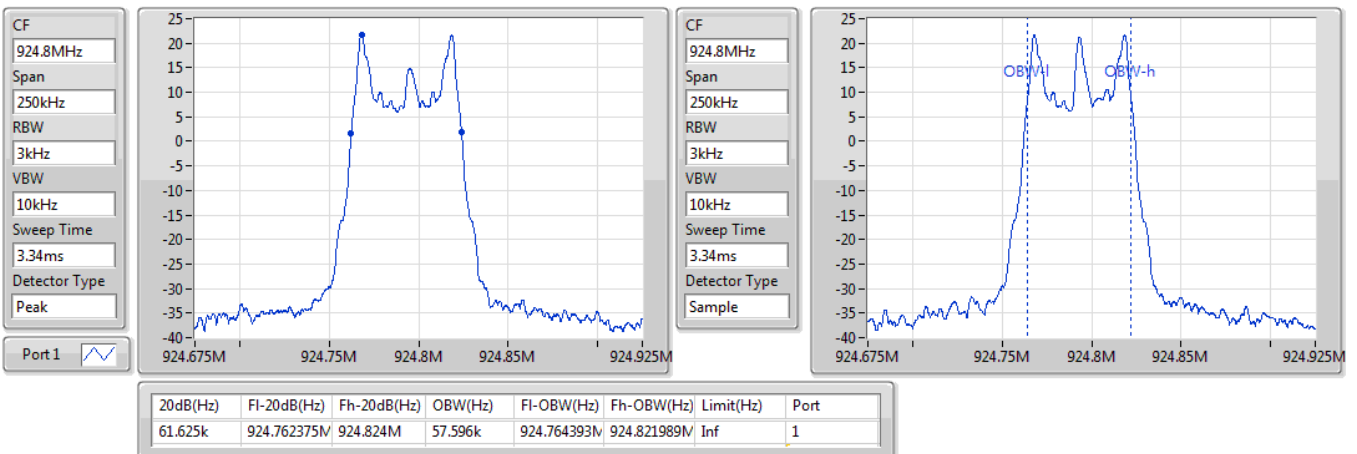
Port X-N dB = Port X 20dB down bandwidth; **Port X-OBW** = Port X 99% occupied bandwidth;

FSK-5K_Nss1_1TX
EBW
920.2MHz

13/06/2019

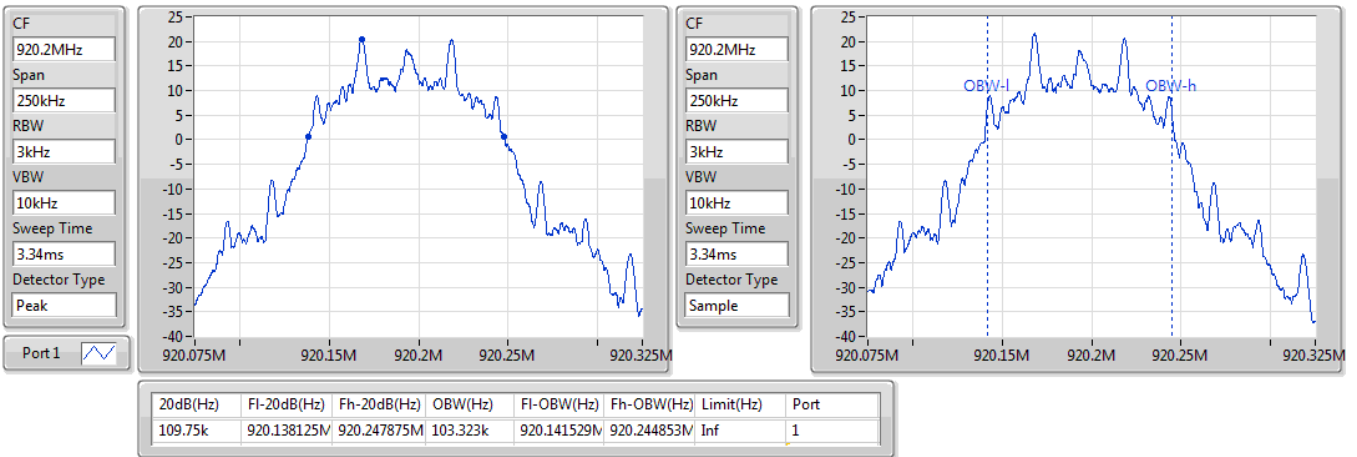

FSK-5K_Nss1_1TX
EBW
924.8MHz

13/06/2019

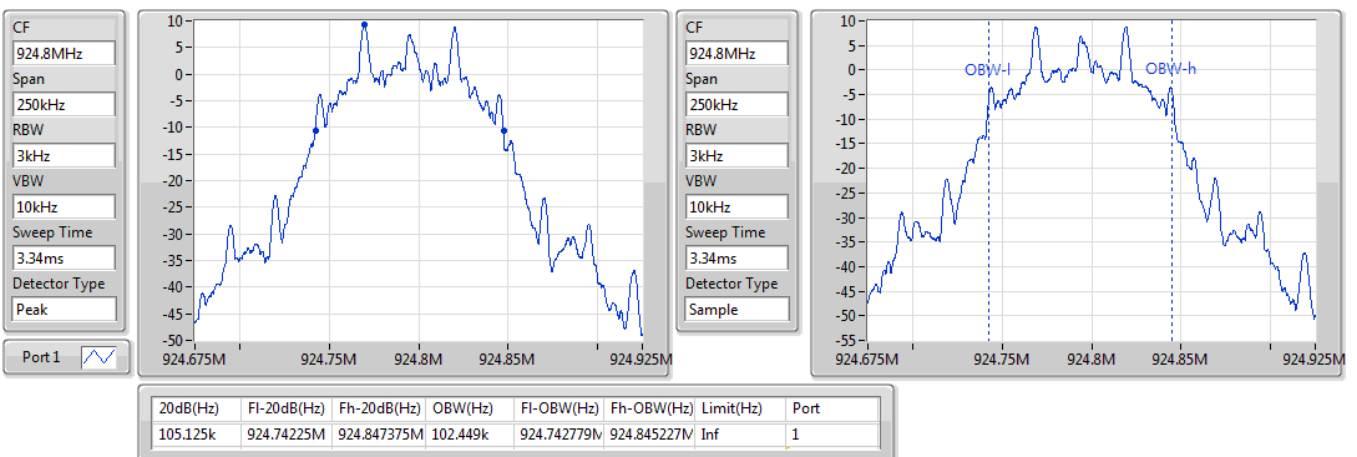


FSK-50K_Nss1_1TX
EBW
920.2MHz

13/06/2019

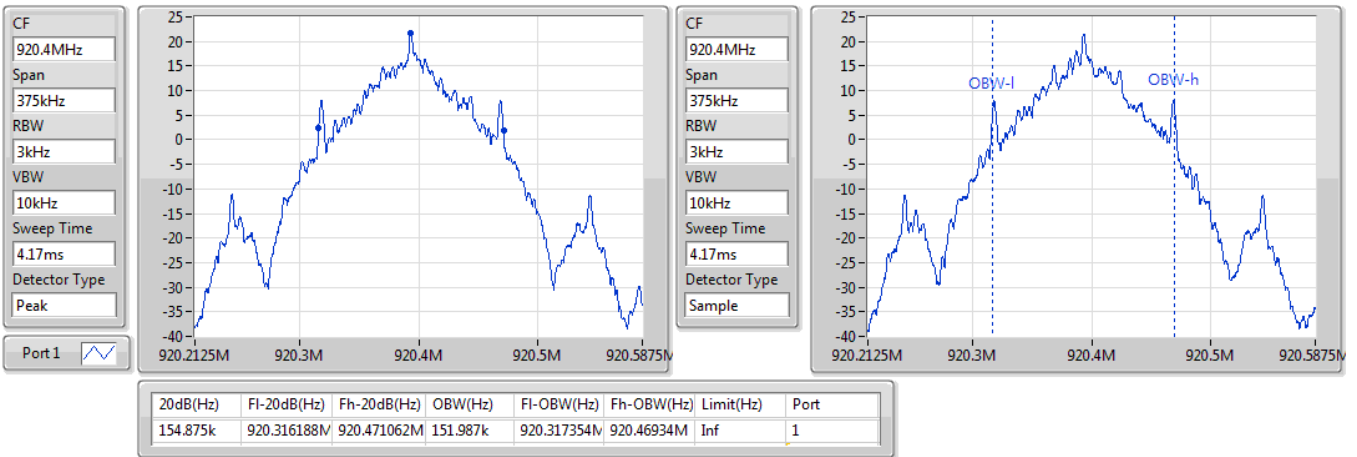

FSK-50K_Nss1_1TX
EBW
924.8MHz

13/06/2019

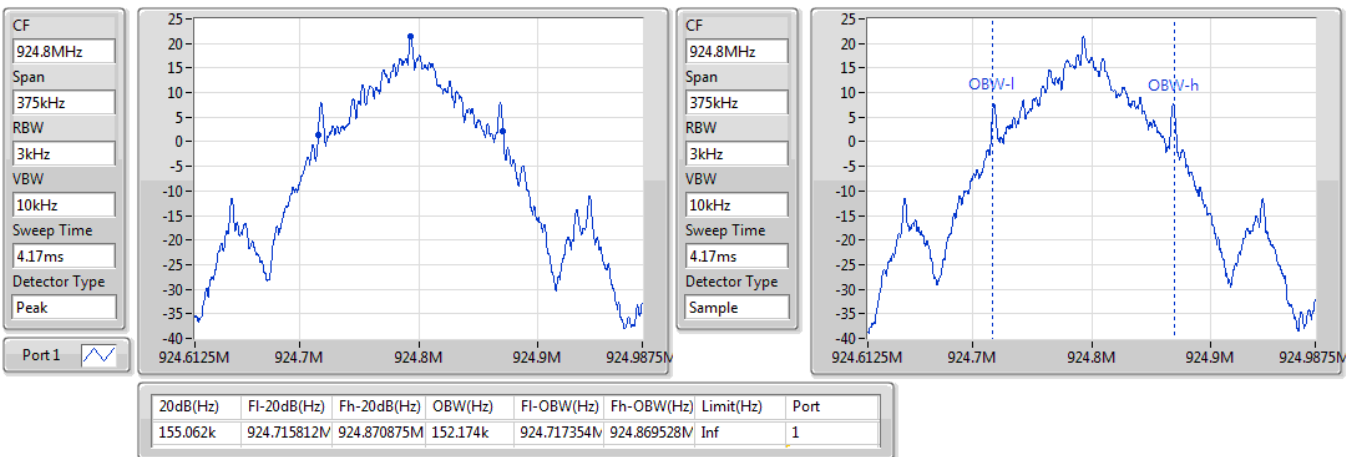


FSK-150K_Nss1_1TX
EBW
920.4MHz

13/06/2019

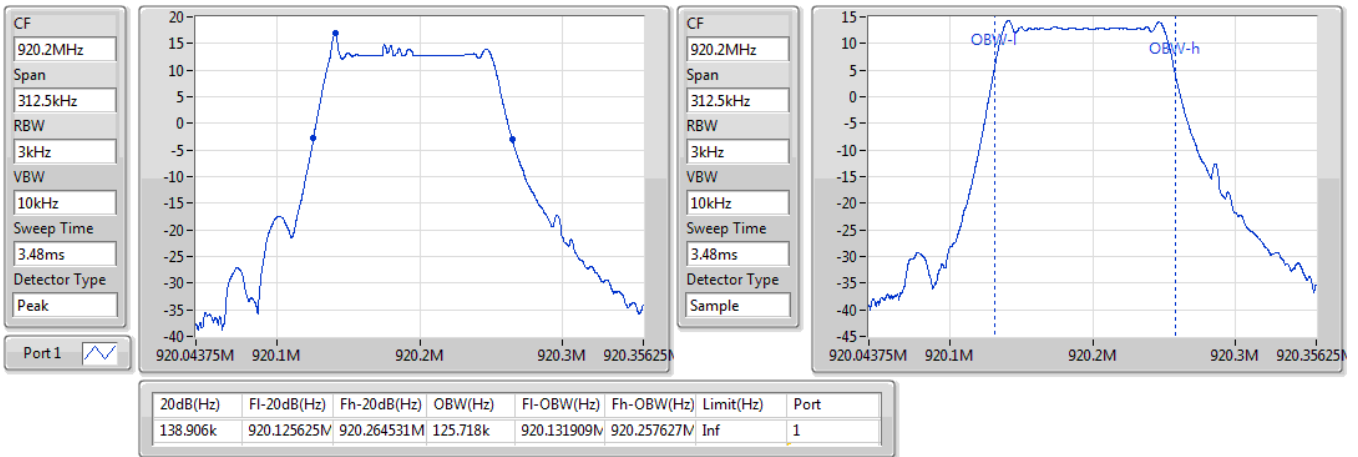

FSK-150K_Nss1_1TX
EBW
924.8MHz

13/06/2019

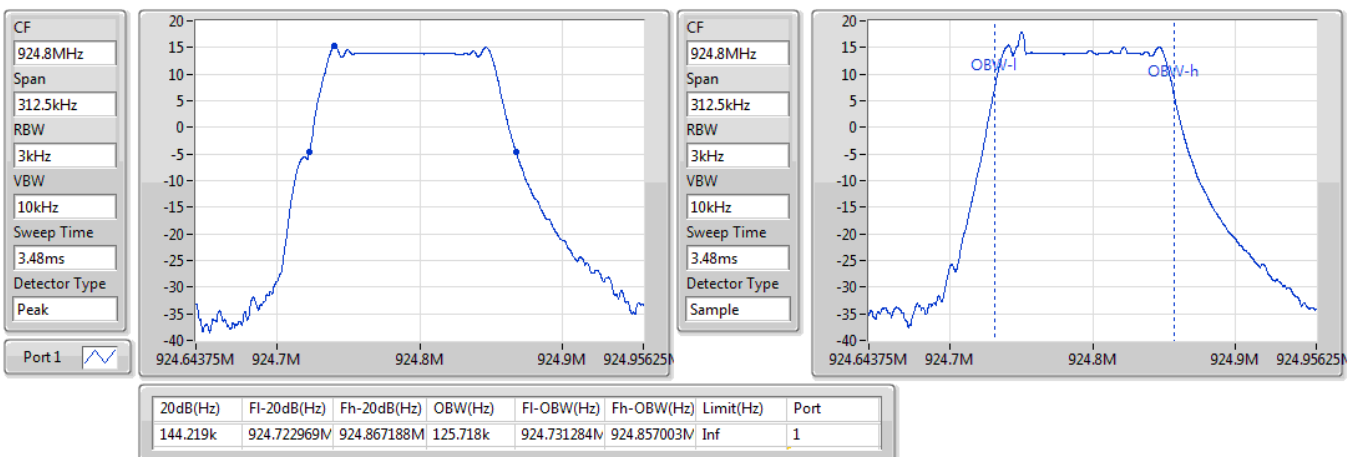


LoRa_FHSS-125k_Nss1_1TX
EBW
920.2MHz

13/06/2019

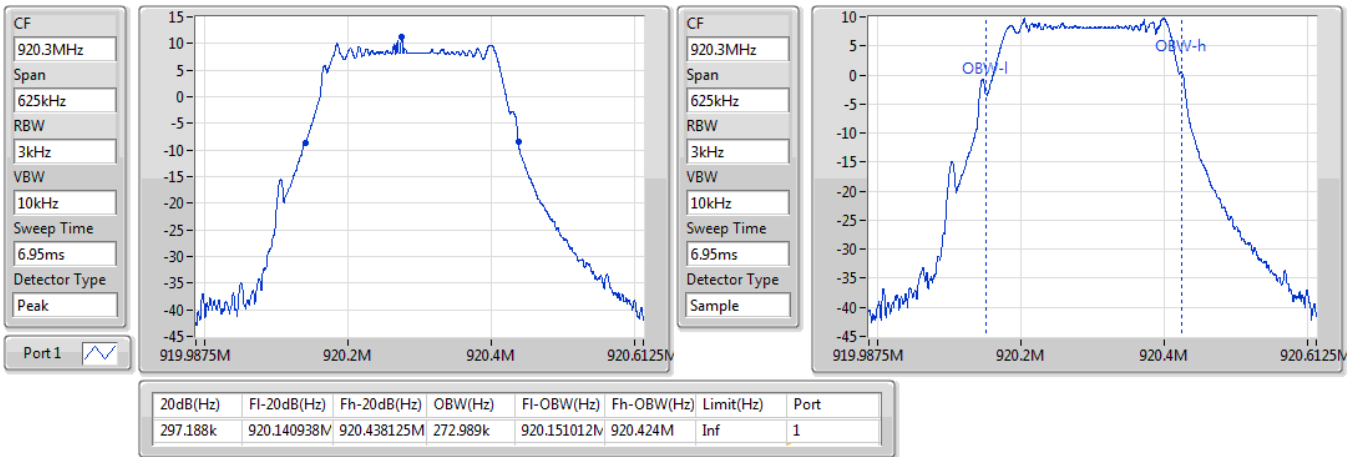

LoRa_FHSS-125k_Nss1_1TX
EBW
924.8MHz

13/06/2019

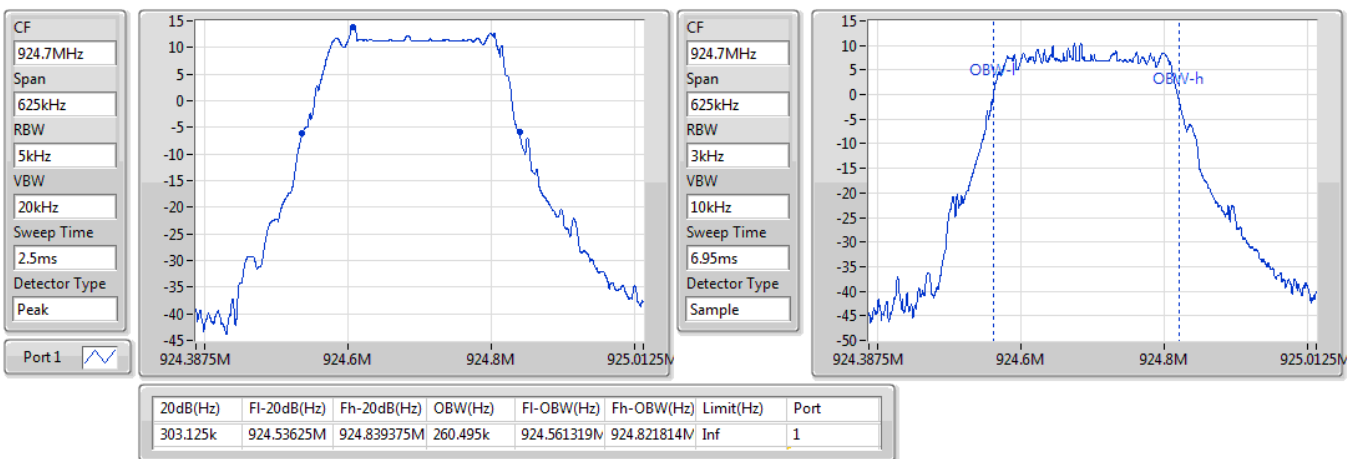


LoRa_FHSS-250k_Nss1_1TX
EBW
920.3MHz

13/06/2019


LoRa_FHSS-250k_Nss1_1TX
EBW
924.7MHz

13/06/2019





Summary

Mode	Max-Space (Hz)	Min-Space (Hz)
920-928MHz	-	-
FSK-5K_Nss1_1TX	200.4k	199.8k
FSK-50K_Nss1_1TX	201k	200.1k
FSK-150K_Nss1_1TX	349.8k	348.6k
LoRa_FHSS-125k_Nss1_1TX	210.6k	198.3k
LoRa_FHSS-250k_Nss1_1TX	404.4k	381.6k

Result

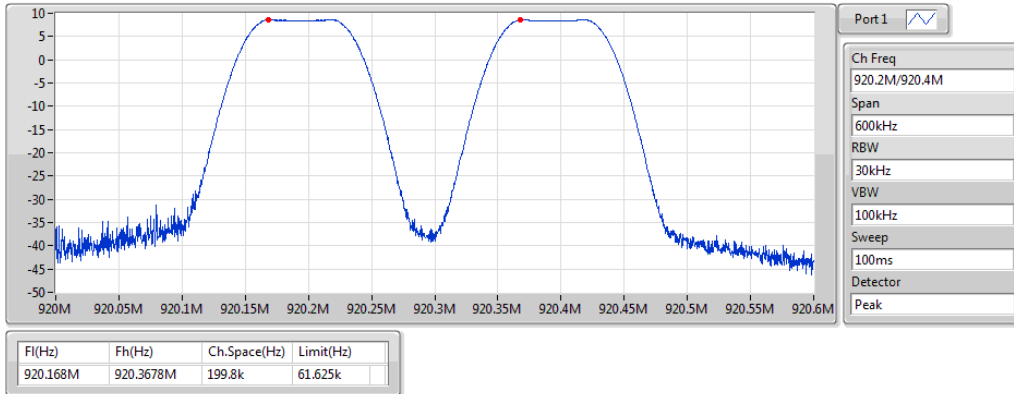
Mode	Result	Fl (Hz)	Fh (Hz)	Ch.Space (Hz)	Limit (Hz)
FSK-5K_Nss1_1TX	-	-	-	-	-
920.2MHz	Pass	920.168M	920.3678M	199.8k	61.625k
924.8MHz	Pass	924.568M	924.7684M	200.4k	61.625k
FSK-50K_Nss1_1TX	-	-	-	-	-
920.2MHz	Pass	920.1677M	920.3687M	201k	109.75k
924.8MHz	Pass	924.5683M	924.7684M	200.1k	105.125k
FSK-150K_Nss1_1TX	-	-	-	-	-
920.4MHz	Pass	920.4188M	920.7674M	348.6k	154.875k
924.8MHz	Pass	924.4182M	924.768M	349.8k	155.062k
LoRa_FHSS-125k_Nss1_1TX	-	-	-	-	-
920.2MHz	Pass	920.1353M	920.3459M	210.6k	138.906k
924.8MHz	Pass	924.5368M	924.7351M	198.3k	144.219k
LoRa_FHSS-250k_Nss1_1TX	-	-	-	-	-
920.3MHz	Pass	920.197M	920.6014M	404.4k	297.188k
924.7MHz	Pass	924.2192M	924.6008M	381.6k	303.125k

FSK-5K_Nss1_1TX

920.2M/920.4MHz

Channel Separation

13/06/2019

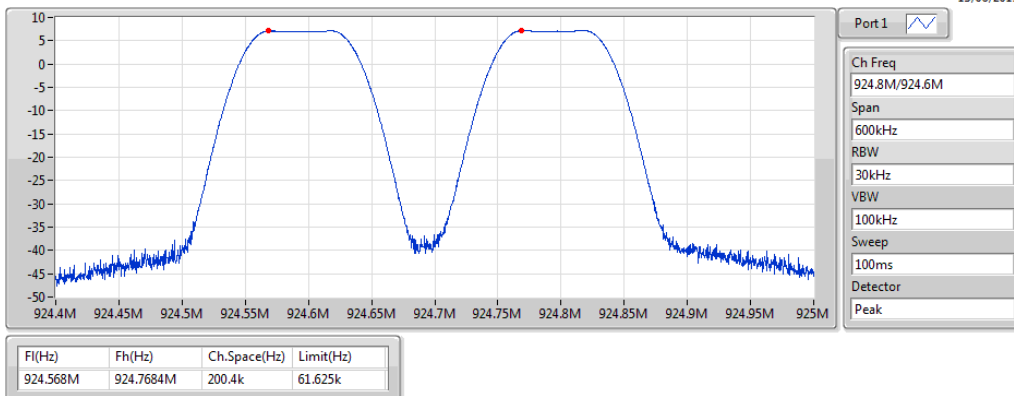


FSK-5K_Nss1_1TX

924.8M/924.6MHz

Channel Separation

13/06/2019

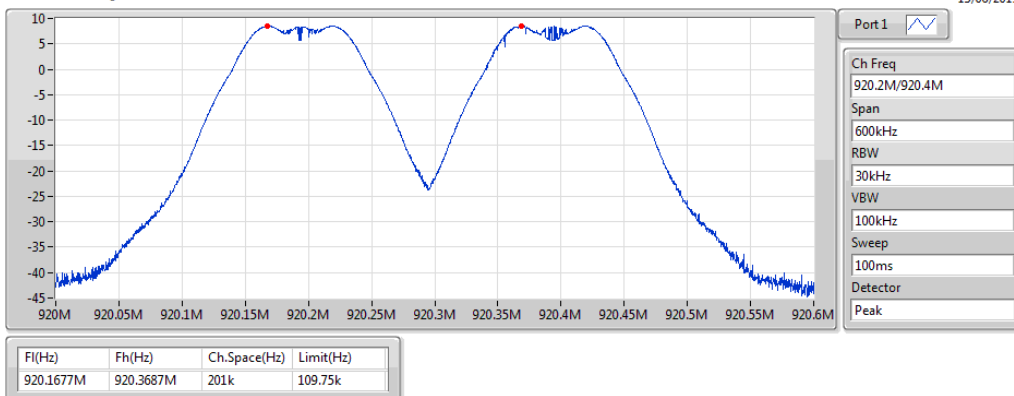


FSK-50K_Nss1_1TX

920.2M/920.4MHz

Channel Separation

13/06/2019

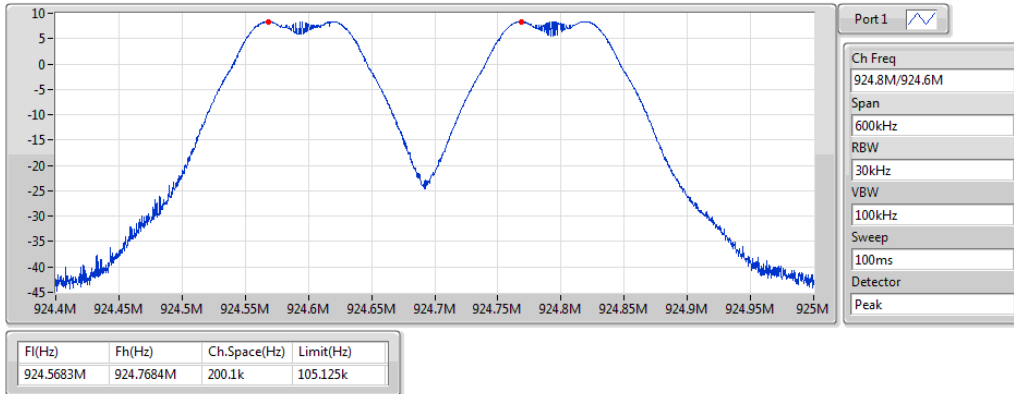


FSK-50K_Nss1_1TX

924.8M/924.6MHz

Channel Separation

13/06/2019

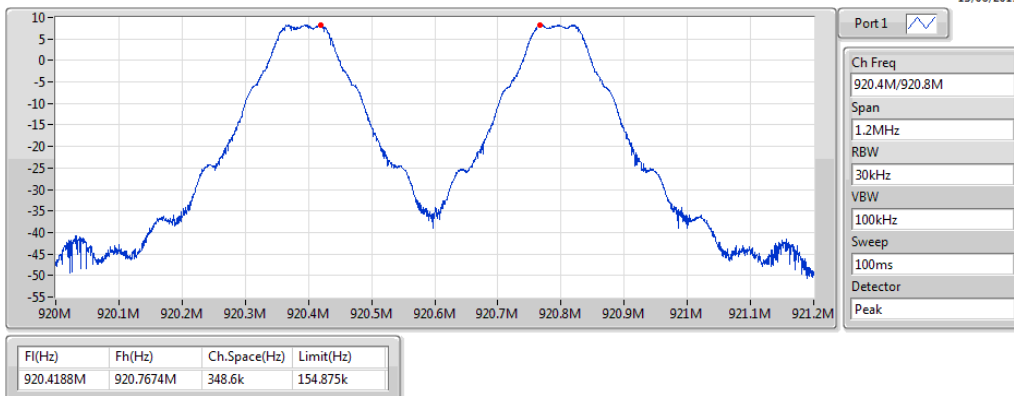


FSK-150K_Nss1_1TX

920.4M/920.8MHz

Channel Separation

13/06/2019

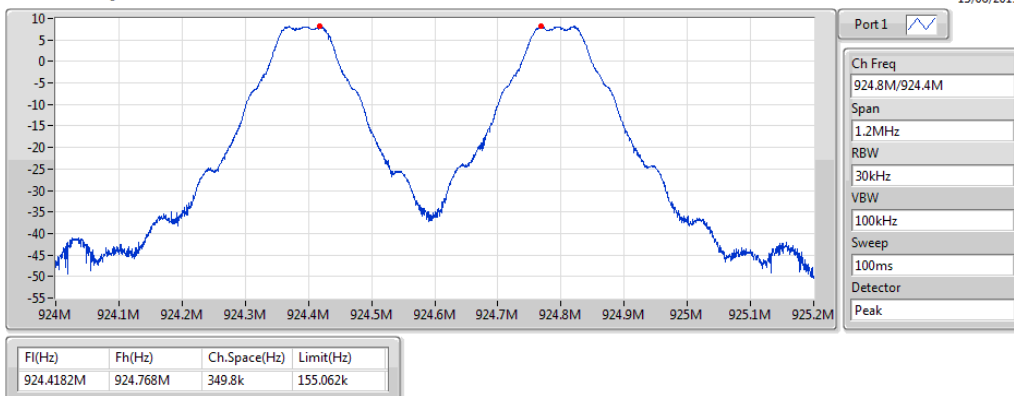


FSK-150K_Nss1_1TX

924.8M/924.4MHz

Channel Separation

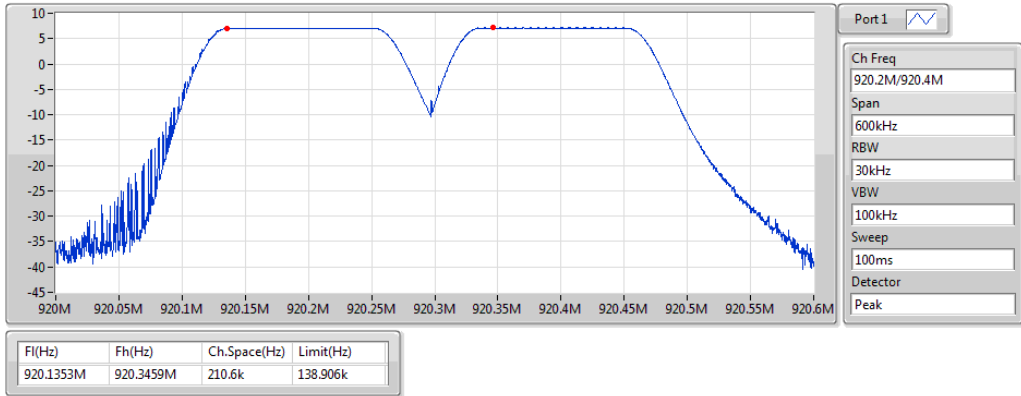
13/06/2019



LoRa_FHSS-125k_Nss1_1TX

Channel Separation

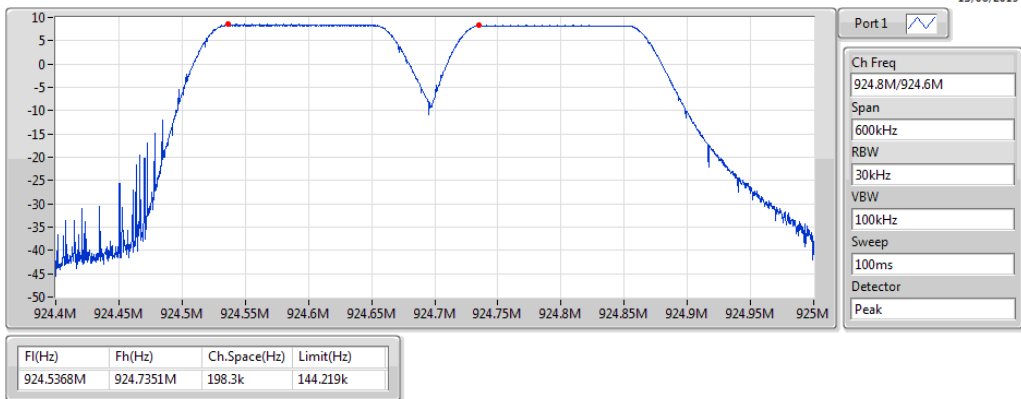
920.2M/920.4MHz



LoRa_FHSS-125k_Nss1_1TX

Channel Separation

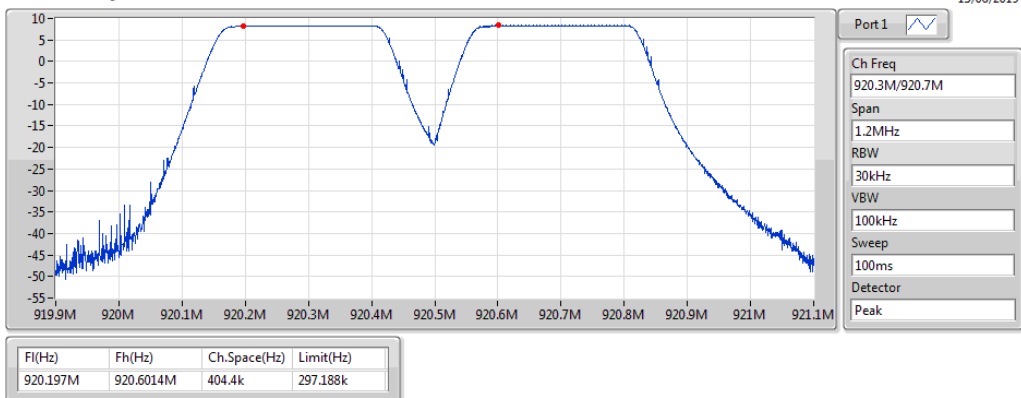
924.8M/924.6MHz



LoRa_FHSS-250k_Nss1_1TX

Channel Separation

920.3M/920.7MHz

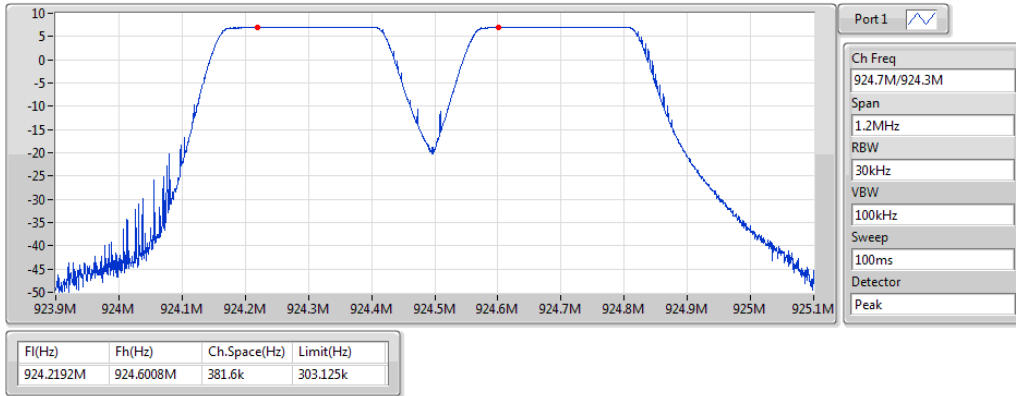


LoRa_FHSS-250k_Nss1_1TX

Channel Separation

924.7M/924.3MHz

13/06/2019





Summary

Mode	Power (dBm)	Power (W)
920-928MHz	-	-
FSK-5K_Nss1_1TX	25.43	0.34914
FSK-50K_Nss1_1TX	25.43	0.34914
FSK-150K_Nss1_1TX	25.43	0.34914
LoRa_FHSS-125k_Nss1_1TX	25.43	0.34914
LoRa_FHSS-250k_Nss1_1TX	25.42	0.34834

Result

Mode	Result	Gain (dBi)	Power (dBm)	Power Limit (dBm)
FSK-5K_Nss1_1TX	-	-	-	-
920.2MHz	Pass	0.73	25.43	30.00
924.8MHz	Pass	0.73	24.40	30.00
FSK-50K_Nss1_1TX	-	-	-	-
920.2MHz	Pass	0.73	25.43	30.00
924.8MHz	Pass	0.73	25.39	30.00
FSK-150K_Nss1_1TX	-	-	-	-
920.4MHz	Pass	0.73	25.43	30.00
924.8MHz	Pass	0.73	25.40	30.00
LoRa_FHSS-125k_Nss1_1TX	-	-	-	-
920.2MHz	Pass	0.73	24.46	30.00
924.8MHz	Pass	0.73	25.43	30.00
LoRa_FHSS-250k_Nss1_1TX	-	-	-	-
920.3MHz	Pass	0.73	25.42	30.00
924.7MHz	Pass	0.73	24.41	30.00

DG = Directional Gain; **Port X** = Port X output power



Summary

Mode	Power (dBm)	Power (W)
920-928MHz	-	-
FSK-5K_Nss1_1TX	25.41	0.34754
FSK-50K_Nss1_1TX	25.38	0.34514
FSK-150K_Nss1_1TX	25.41	0.34754
LoRa_FHSS-125k_Nss1_1TX	25.37	0.34435
LoRa_FHSS-250k_Nss1_1TX	25.37	0.34435

Result

Mode	Result	Gain (dBi)	Power (dBm)	Power Limit (dBm)
FSK-5K_Nss1_1TX	-	-	-	-
920.2MHz	Pass	0.73	25.41	30.00
924.8MHz	Pass	0.73	24.35	30.00
FSK-50K_Nss1_1TX	-	-	-	-
920.2MHz	Pass	0.73	25.38	30.00
924.8MHz	Pass	0.73	25.36	30.00
FSK-150K_Nss1_1TX	-	-	-	-
920.4MHz	Pass	0.73	25.41	30.00
924.8MHz	Pass	0.73	25.38	30.00
LoRa_FHSS-125k_Nss1_1TX	-	-	-	-
920.2MHz	Pass	0.73	24.42	30.00
924.8MHz	Pass	0.73	25.37	30.00
LoRa_FHSS-250k_Nss1_1TX	-	-	-	-
920.3MHz	Pass	0.73	25.37	30.00
924.7MHz	Pass	0.73	24.34	30.00

DG = Directional Gain; **Port X** = Port X output power



Summary

Mode	Max-Hop No
920-928MHz	-
FSK-5K_Nss1_1TX	24
FSK-50K_Nss1_1TX	24
FSK-150K_Nss1_1TX	12
LoRa_FHSS-125k_Nss1_1TX	24
LoRa_FHSS-250k_Nss1_1TX	12

Result

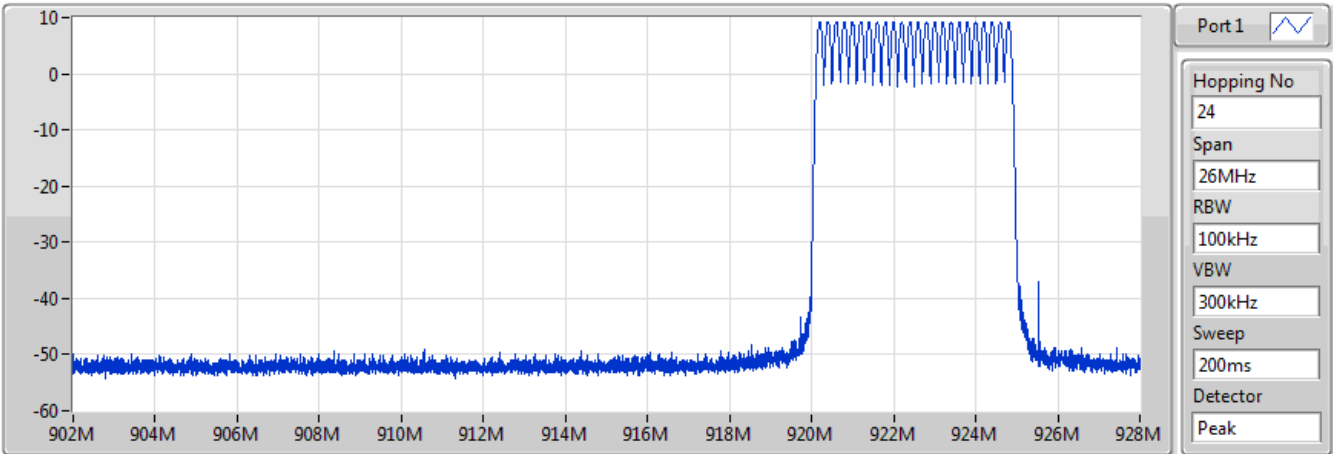
Mode	Result	Hopping No	Limit
FSK-5K_Nss1_1TX	-	-	-
922.4MHz	Pass	24	10
FSK-50K_Nss1_1TX	-	-	-
922.4MHz	Pass	24	10
FSK-150K_Nss1_1TX	-	-	-
922.4MHz	Pass	12	10
LoRa_FHSS-125k_Nss1_1TX	-	-	-
922.4MHz	Pass	24	10
LoRa_FHSS-250k_Nss1_1TX	-	-	-
922.3MHz	Pass	12	10

FSK-5K_Nss1_1TX

922.4MHz

Hopping Ch

13/06/2019



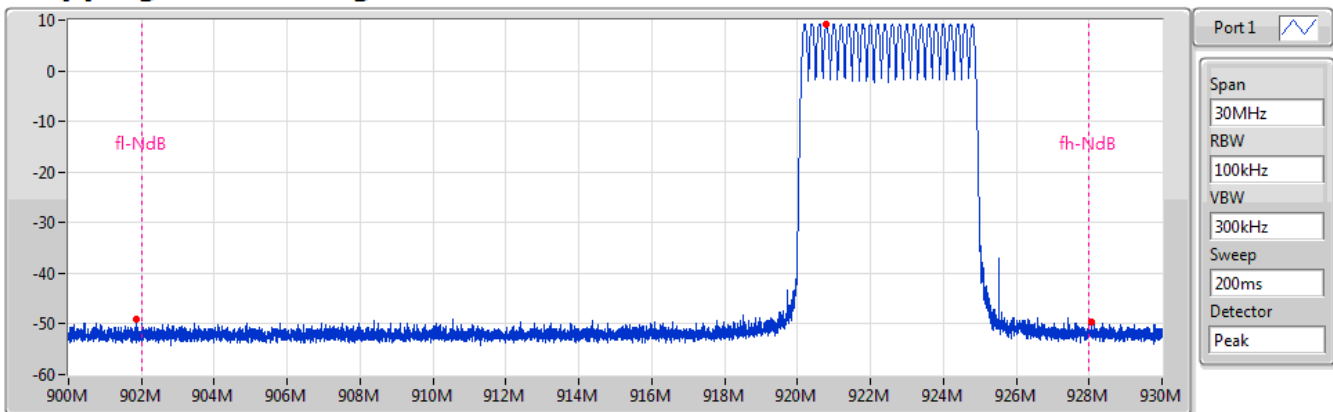
Hopping No	Limit
24	10

FSK-5K_Nss1_1TX

922.4MHz

Hopping Ch Bandedge (Non-restricted Band)

13/06/2019



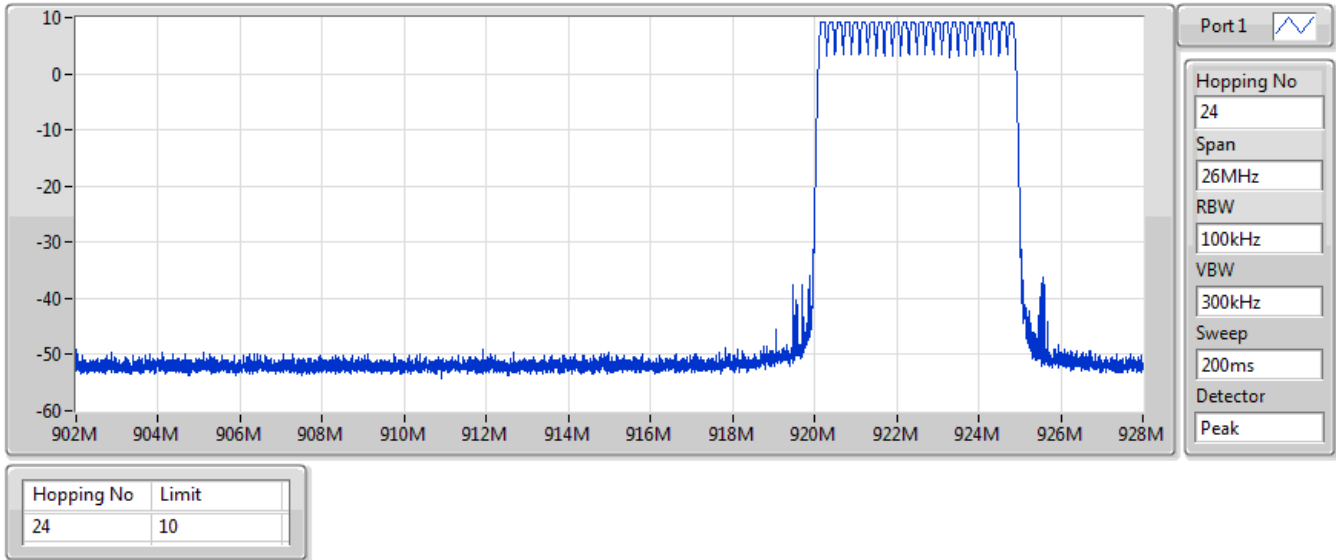
Limit(dBm)	Ref(Hz)	Ref(dBm)	BE-l(Hz)	BE-l(dBm)	BE-h(Hz)	BE-h(dBm)
-10.73	920.79375M	9.27	901.84125M	-48.99	928.0575M	-49.6

FSK-50K_Nss1_1TX

Hopping Ch

922.4MHz

13/06/2019

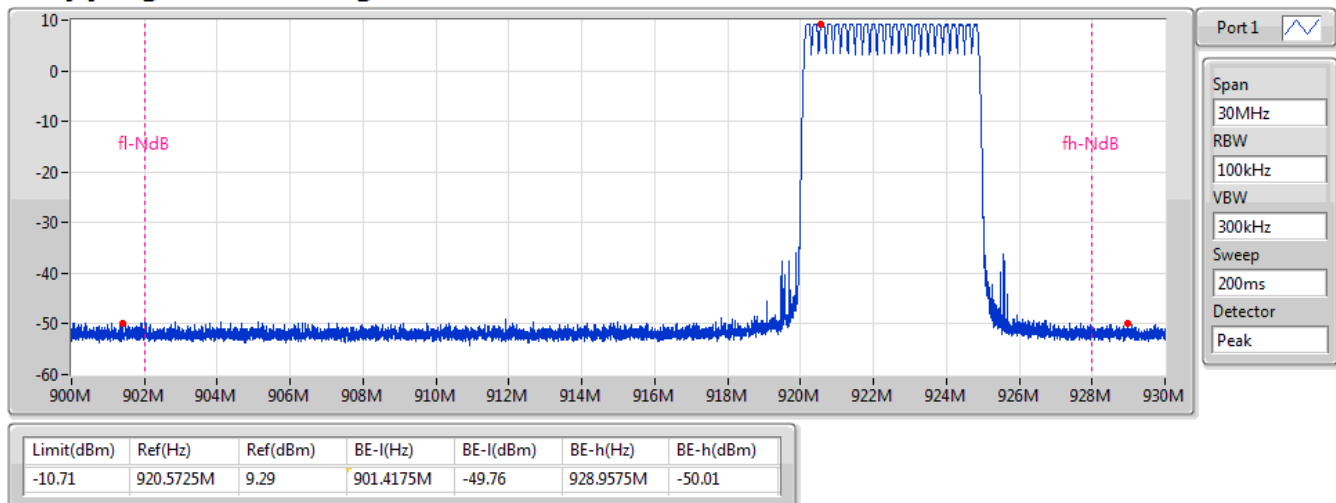


FSK-50K_Nss1_1TX

922.4MHz

Hopping Ch Bandedge (Non-restricted Band)

13/06/2019

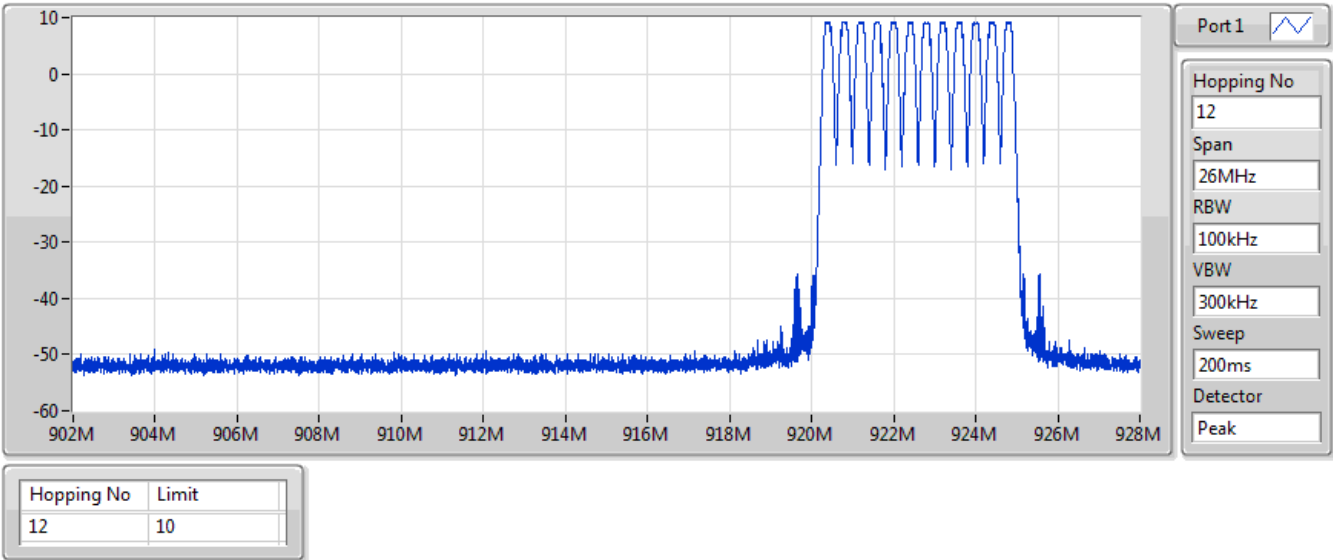


FSK-150K_Nss1_1TX

Hopping Ch

922.4MHz

13/06/2019

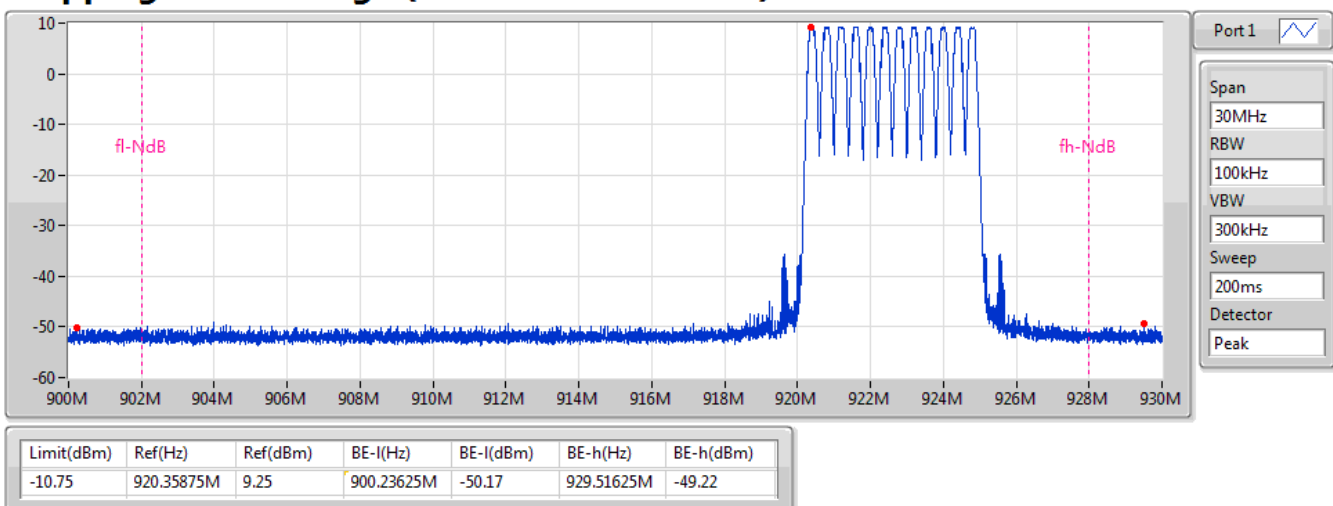


FSK-150K_Nss1_1TX

922.4MHz

Hopping Ch Bandedge (Non-restricted Band)

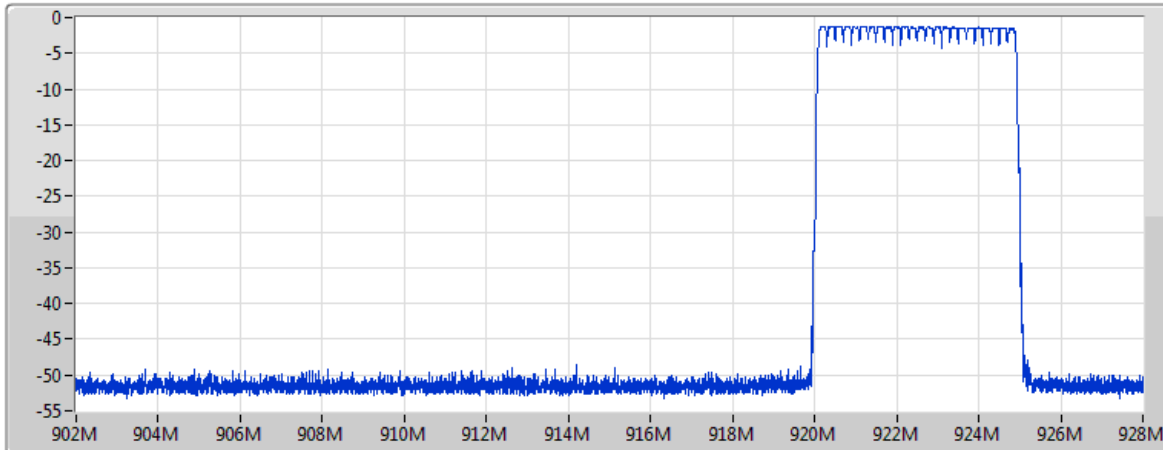
13/06/2019



LoRa_FHSS-125k_Nss1_1TX 922.4MHz

Hopping Ch

13/06/2019



Port 1 

Hopping No
24

Span
26MHz

RBW
100kHz

VBW
300kHz

Sweep
200ms

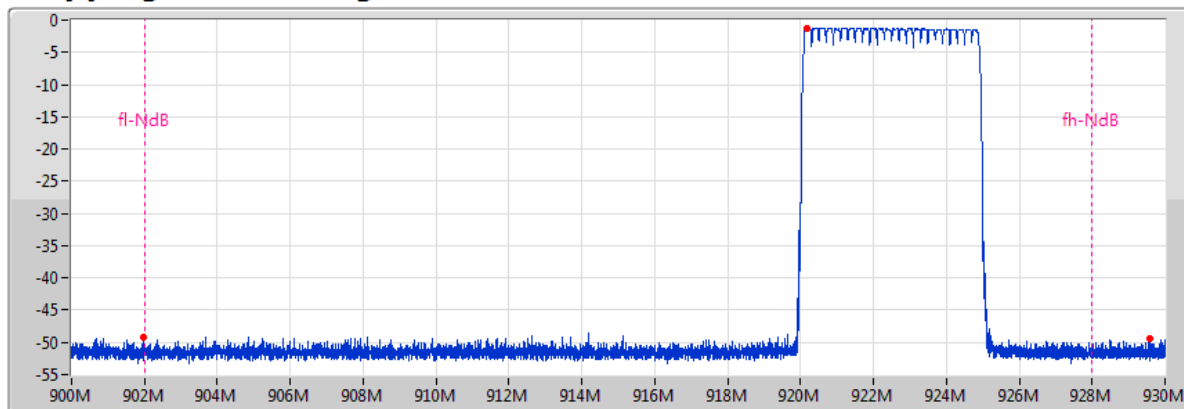
Detector
Peak

Hopping No	Limit
24	10

LoRa_FHSS-125k_Nss1_1TX 922.4MHz

Hopping Ch Bandedge (Non-restricted Band)

13/06/2019



Port 1 

Span
30MHz

RBW
100kHz

VBW
300kHz

Sweep
200ms

Detector
Peak

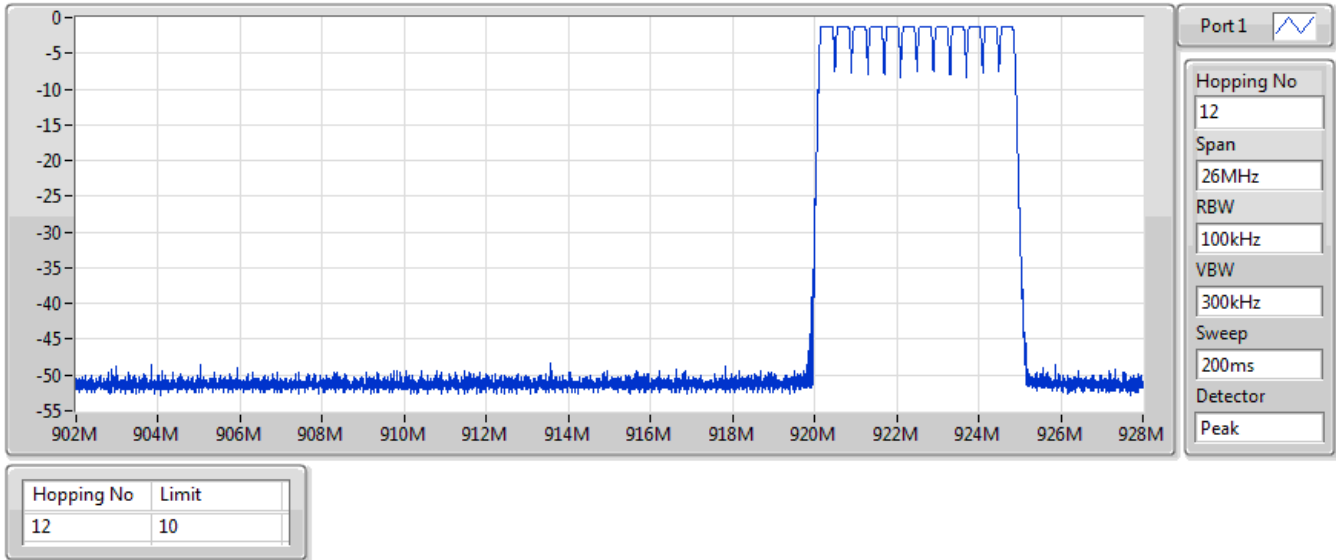
Limit(dBm)	Ref(Hz)	Ref(dBm)	BE-l(Hz)	BE-l(dBm)	BE-h(Hz)	BE-h(dBm)
-21.31	920.175M	-1.31	901.96875M	-49.17	929.58375M	-49.41

LoRa_FHSS-250k_Nss1_1TX

Hopping Ch

922.3MHz

13/06/2019

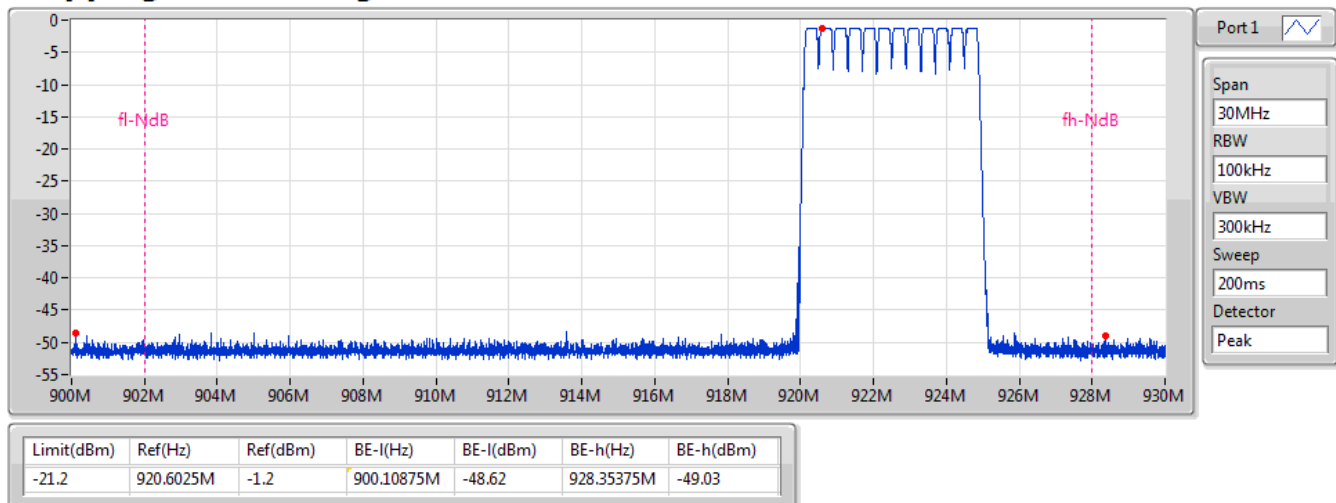


LoRa_FHSS-250k_Nss1_1TX

922.3MHz

Hopping Ch Bandedge (Non-restricted Band)

13/06/2019



Summary

Mode	Max-Dwell (s)
920-928MHz	-
FSK-5K_Nss1_1TX	356.484375m
FSK-50K_Nss1_1TX	324.84375m
FSK-150K_Nss1_1TX	293.78125m
LoRa_FHSS-125k_Nss1_1TX	388m
LoRa_FHSS-250k_Nss1_1TX	364.453125m

Result

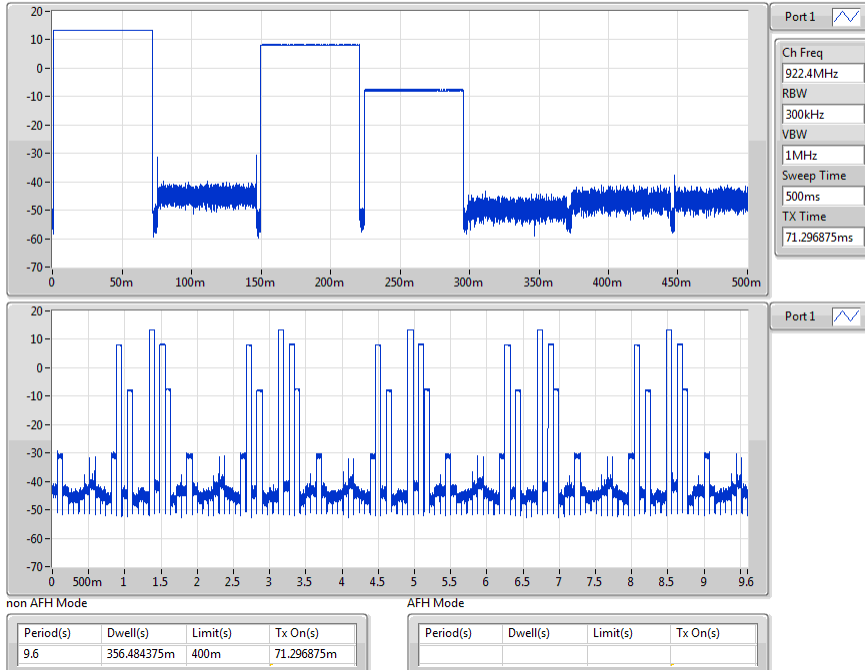
Mode	Result	Period (s)	Dwell (s)	Limit (s)	Tx On (s)
FSK-5K_Nss1_1TX	-	-	-	-	-
922.4MHz	Pass	9.6	356.484375m	400m	71.296875m
FSK-50K_Nss1_1TX	-	-	-	-	-
922.4MHz	Pass	9.6	324.84375m	400m	7.21875m
FSK-150K_Nss1_1TX	-	-	-	-	-
922.4MHz	Pass	4.8	293.78125m	400m	2.46875m
LoRa_FHSS-125k_Nss1_1TX	-	-	-	-	-
922.4MHz	Pass	9.6	388m	400m	48.5m
LoRa_FHSS-250k_Nss1_1TX	-	-	-	-	-
922.3MHz	Pass	4.8	364.453125m	400m	24.296875m

FSK-5K_Nss1_1TX

922.4MHz

Dwell

18/06/2019

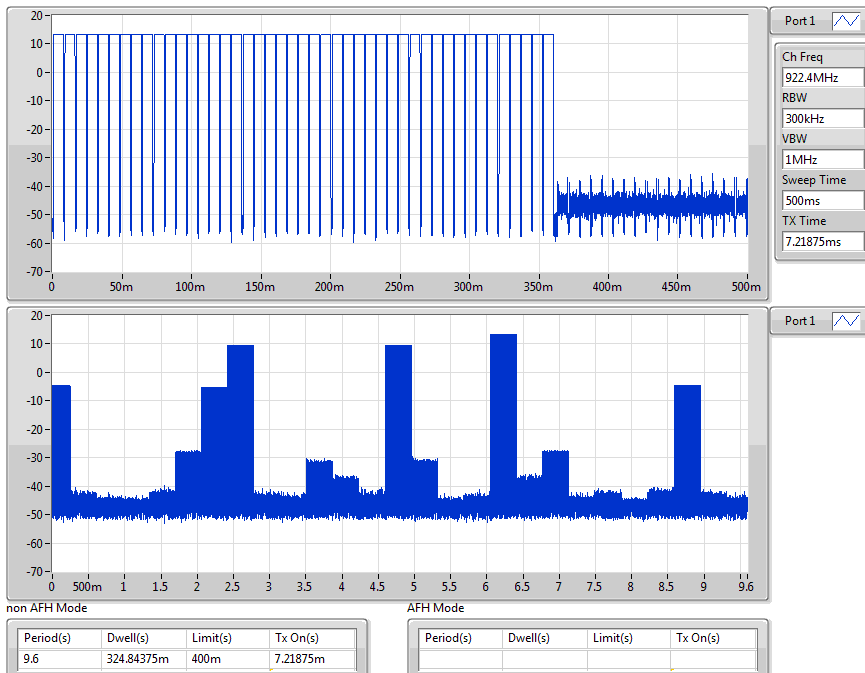


FSK-50K_Nss1_1TX

922.4MHz

Dwell

18/06/2019

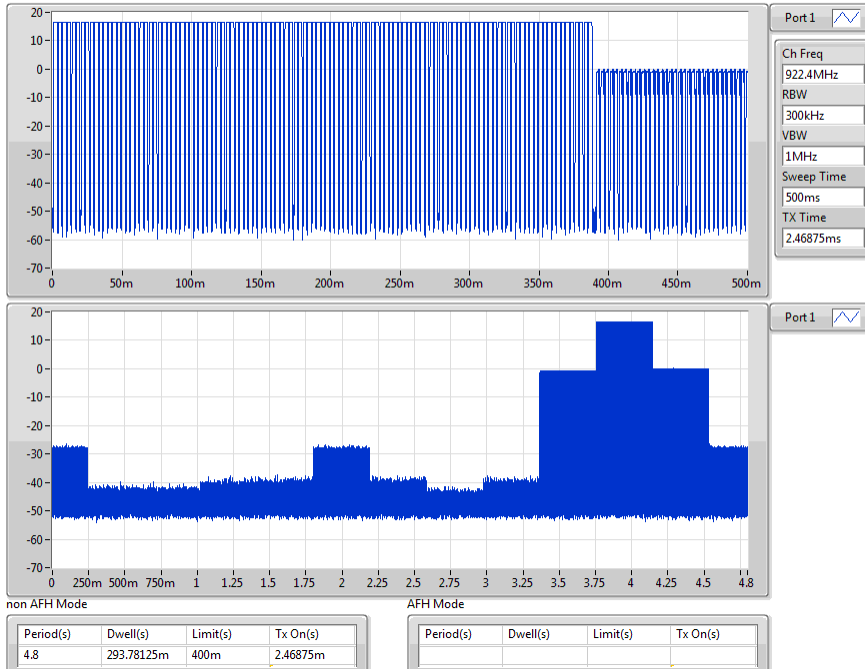


FSK-150K_Nss1_1TX

Dwell

922.4MHz

18/06/2019

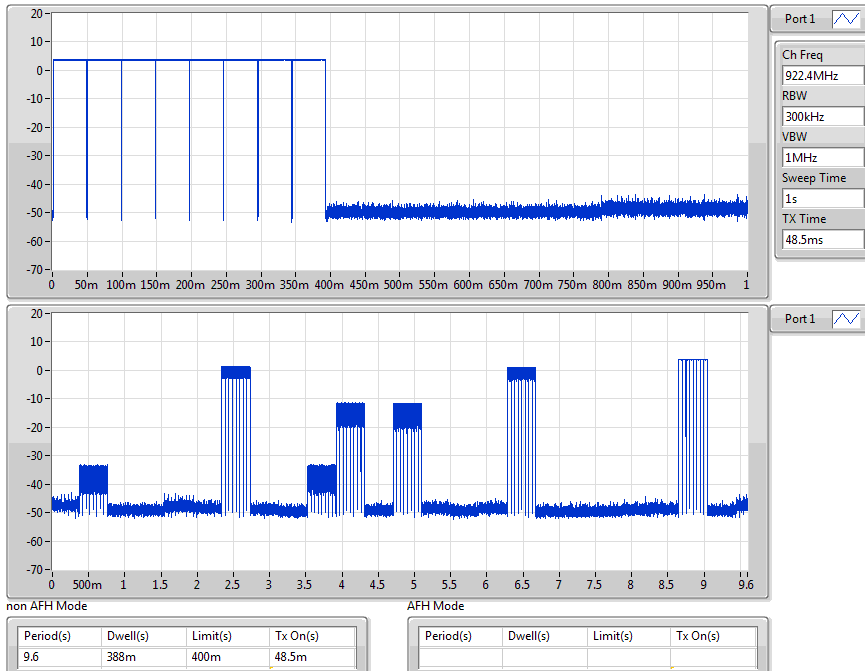


LoRa_FHSS-125k_Nss1_1TX

Dwell

922.4MHz

18/06/2019

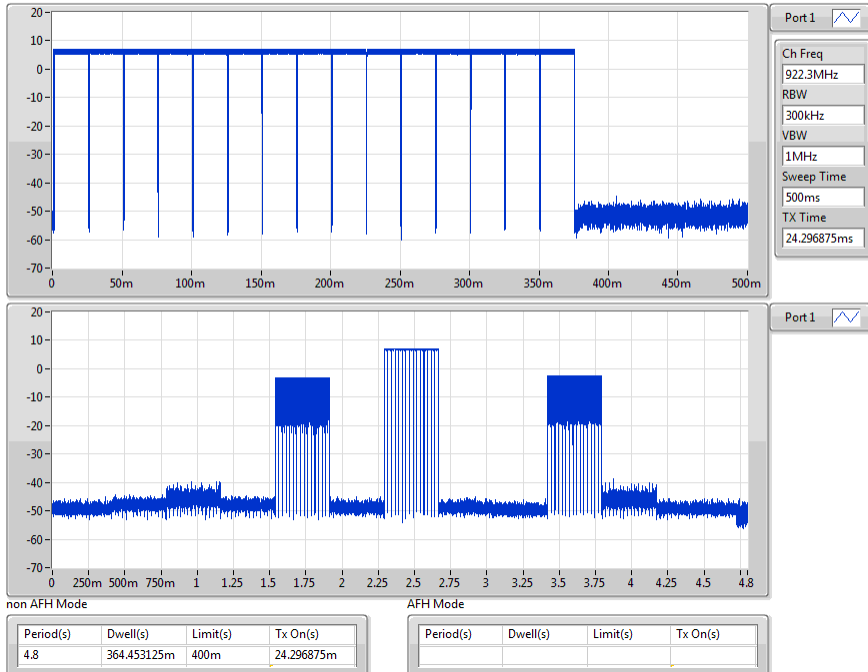


LoRa_FHSS-250k_Nss1_1TX

Dwell

922.3MHz

18/06/2019



Summary

Mode	Result	Ref (Hz)	Ref (dBm)	Limit (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Port
920-928MHz	-	-	-	-	-	-	-	-	-	-	-	-	-
FSK-5K_Nss1_1TX	Pass	920.17M	22.34	2.34	919.8M	-33.40	920M	-8.75	925.11M	-46.02	1.83949G	-45.19	1
FSK-50K_Nss1_1TX	Pass	920.16M	22.35	2.35	919.8M	-36.27	920M	-7.63	925.19M	-46.39	9.94669G	-45.82	1
FSK-150K_Nss1_1TX	Pass	924.77M	21.46	1.46	827.84M	-48.08	919.89M	-47.24	925M	-7.70	925.3M	-39.60	1
LoRa_FHSS-125k_Nss1_1TX	Pass	920.14M	20.34	0.34	919.75M	-40.77	920M	-1.37	925.16M	-47.71	8.97228G	-46.50	1
LoRa_FHSS-250k_Nss1_1TX	Pass	920.16M	21.69	1.69	919.5M	-40.34	920M	-4.48	925.17M	-47.21	9.28198G	-46.47	1

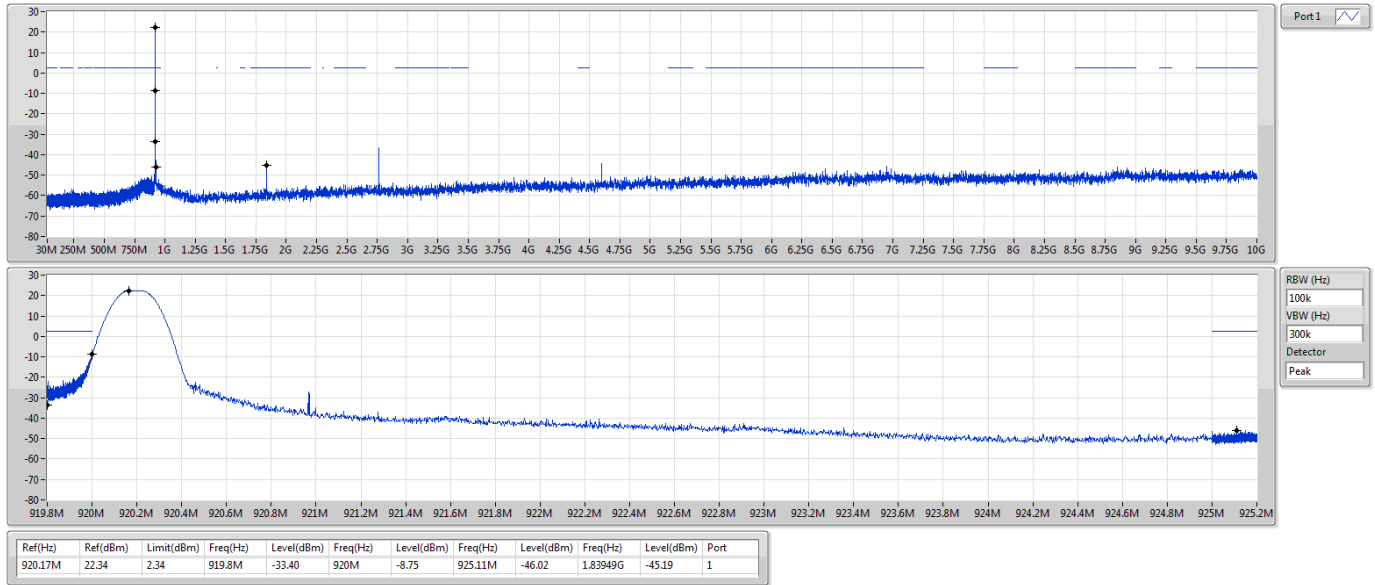
Result

Mode	Result	Ref (Hz)	Ref (dBm)	Limit (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Port
FSK-5K_Nss1_1TX	-	-	-	-	-	-	-	-	-	-	-	-	-
920.2MHz	Pass	920.17M	22.34	2.34	919.8M	-33.40	920M	-8.75	925.11M	-46.02	1.83949G	-45.19	1
924.8MHz	Pass	924.77M	21.41	1.41	892.77M	-49.78	919.88M	-46.49	925M	-15.67	925.2M	-35.56	1
FSK-50K_Nss1_1TX	-	-	-	-	-	-	-	-	-	-	-	-	-
920.2MHz	Pass	920.16M	22.35	2.35	919.8M	-36.27	920M	-7.63	925.19M	-46.39	9.94669G	-45.82	1
924.8MHz	Pass	924.77M	21.81	1.81	820.81M	-49.29	919.85M	-47.08	925M	-13.44	925.2M	-35.94	1
FSK-150K_Nss1_1TX	-	-	-	-	-	-	-	-	-	-	-	-	-
920.4MHz	Pass	920.36M	21.64	1.64	919.59M	-40.50	919.99M	-29.08	925.01M	-47.63	8.89969G	-45.46	1
924.8MHz	Pass	924.77M	21.46	1.46	827.84M	-48.08	919.89M	-47.24	925M	-7.70	925.3M	-39.60	1
LoRa_FHSS-125k_Nss1_1TX	-	-	-	-	-	-	-	-	-	-	-	-	-
920.2MHz	Pass	920.14M	20.34	0.34	919.75M	-40.77	920M	-1.37	925.16M	-47.71	8.97228G	-46.50	1
924.8MHz	Pass	924.74M	21.48	1.48	814.2M	-49.27	919.76M	-45.79	925M	-1.70	925.25M	-37.37	1
LoRa_FHSS-250k_Nss1_1TX	-	-	-	-	-	-	-	-	-	-	-	-	-
920.3MHz	Pass	920.16M	21.69	1.69	919.5M	-40.34	920M	-4.48	925.17M	-47.21	9.28198G	-46.47	1
924.7MHz	Pass	924.57M	20.37	0.37	822.32M	-49.50	919.63M	-47.67	925M	-8.08	925.5M	-44.72	1

FSK-5K_Nss1_1TX

CSE NdB

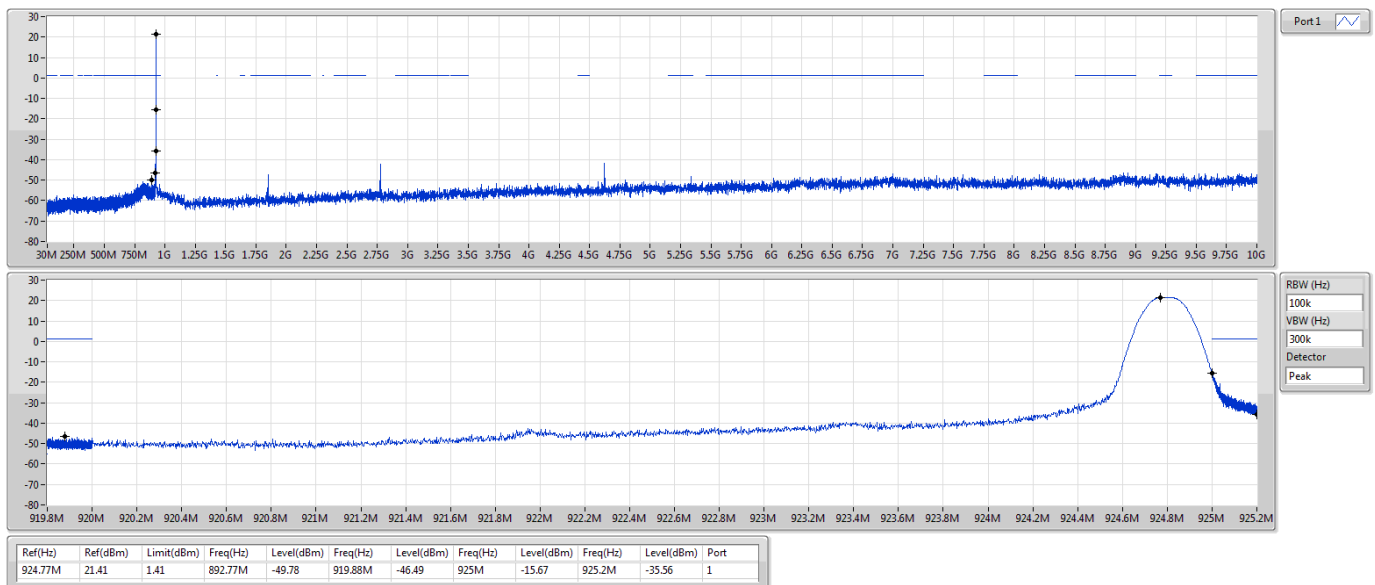
920.2MHz



FSK-5K_Nss1_1TX

CSE NdB

924.8MHz

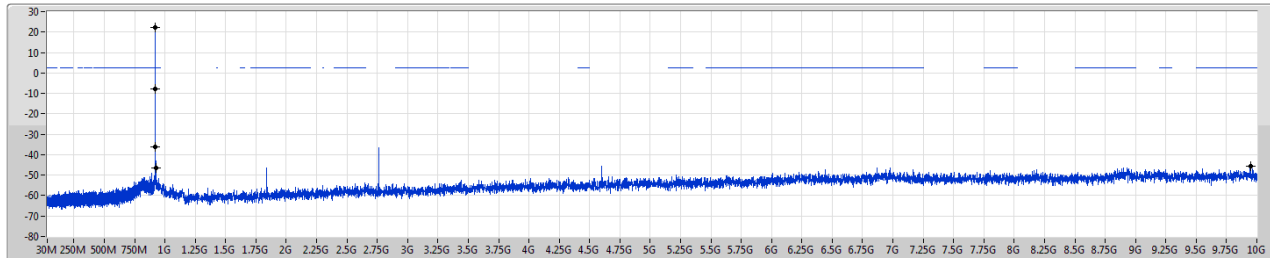


FSK-50K_Nss1_1TX

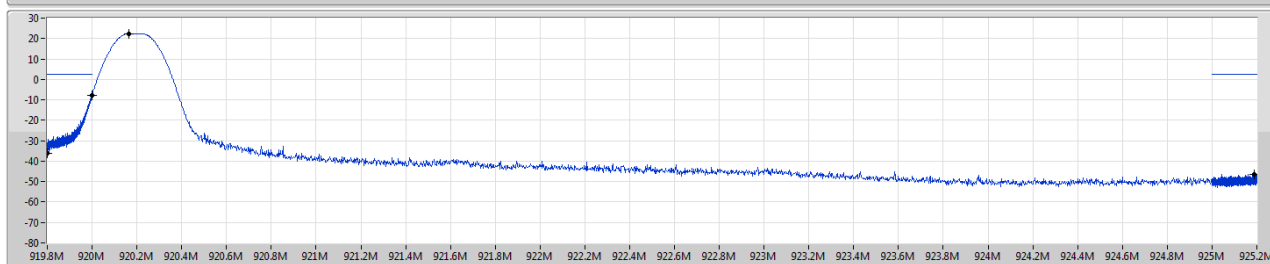
CSE NdB

920.2MHz

13/06/2019



Port1



RBW (Hz)
100k
VBW (Hz)
300k
Detector
Peak

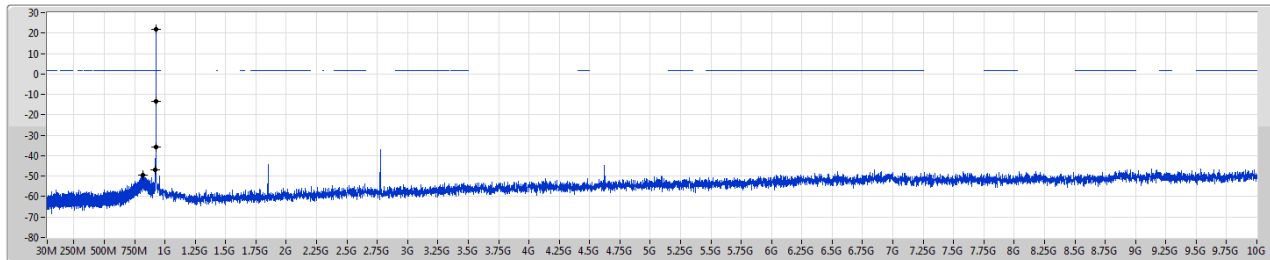
Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
920.16M	22.35	2.35	919.8M	-36.27	920M	-7.63	925.19M	-46.39	9.94669G	-45.82	1

FSK-50K_Nss1_1TX

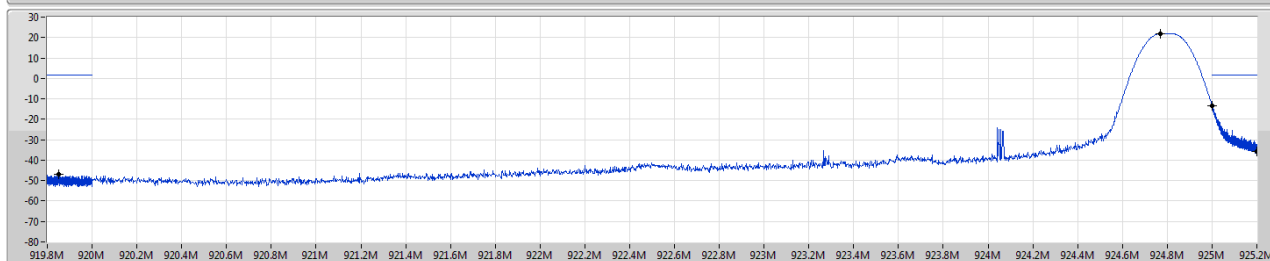
CSE NdB

924.8MHz

13/06/2019



Port1



RBW (Hz)
100k
VBW (Hz)
300k
Detector
Peak

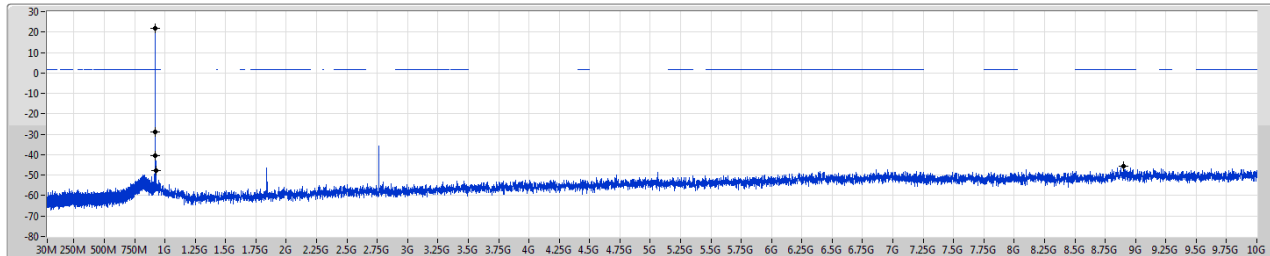
Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
924.77M	21.81	1.81	820.81M	-49.29	919.85M	-47.08	925M	-13.44	925.2M	-35.94	1

FSK-150K_Nss1_1TX

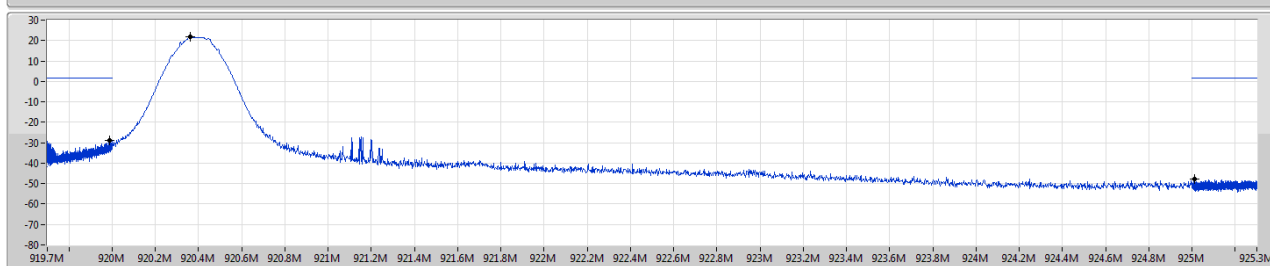
CSE NdB

920.4MHz

13/06/2019



Port1



RBW (Hz)
100k
VBW (Hz)
300k
Detector
Peak

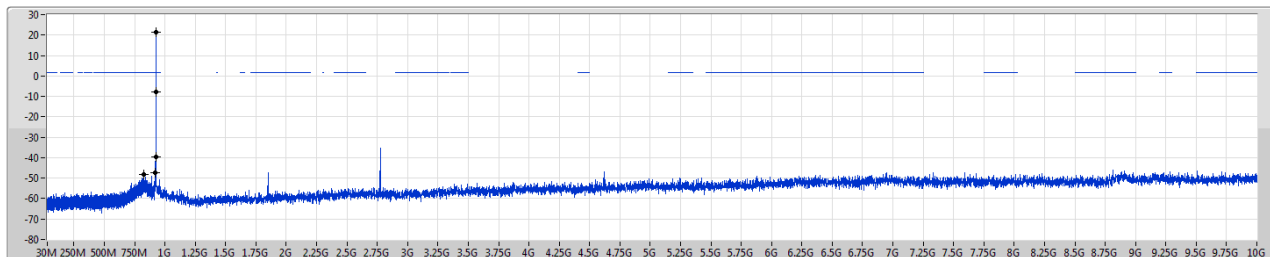
Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
920.36M	21.64	1.64	919.59M	-40.50	919.99M	-29.08	925.01M	-47.63	8.89969G	-45.46	1

FSK-150K_Nss1_1TX

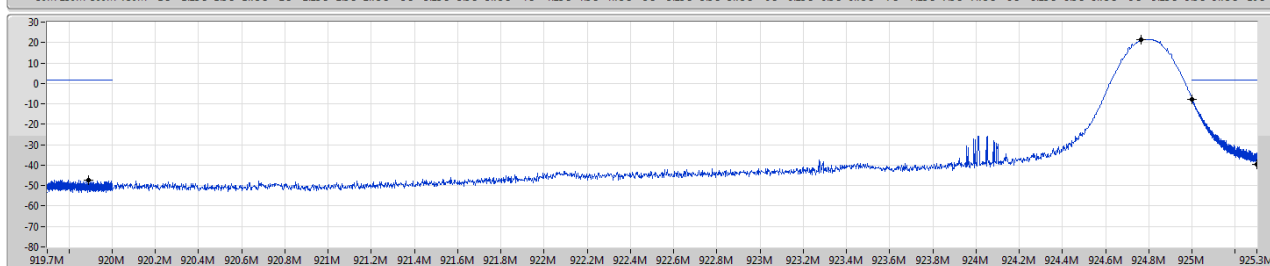
CSE NdB

924.8MHz

13/06/2019



Port1



RBW (Hz)
100k
VBW (Hz)
300k
Detector
Peak

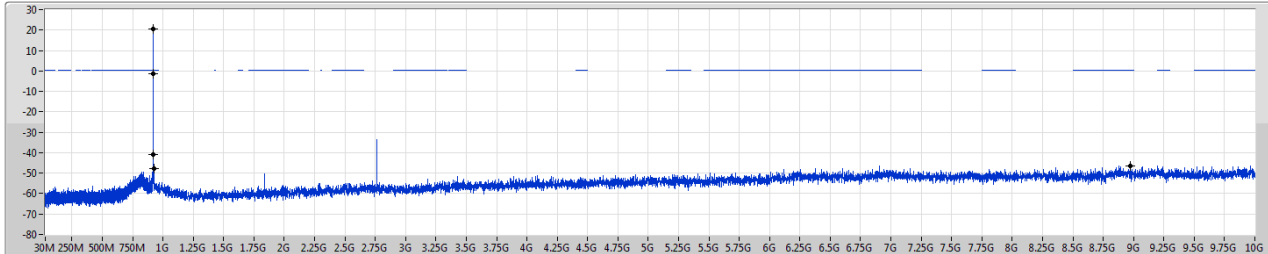
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924.77M	21.46	1.46	827.84M	-48.08	919.89M	-47.24	925M	-7.70	925.3M	-39.60	1

LoRa_FHSS-125k_Nss1_1TX

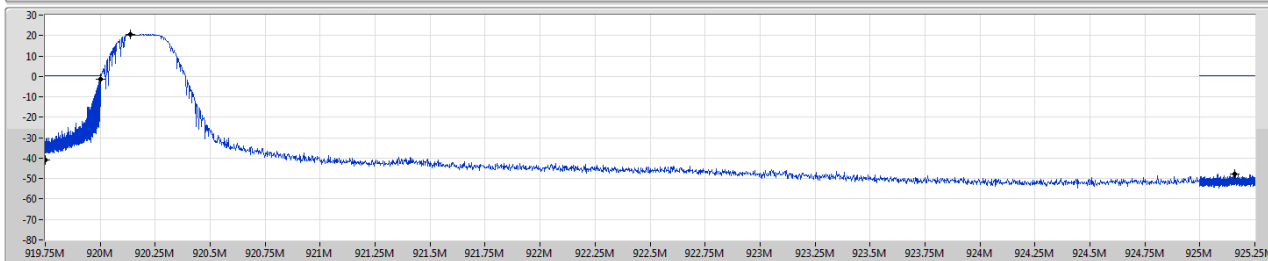
CSE NdB

920.2MHz

13/06/2019



Port1



RBW (Hz)
100k
VBW (Hz)
300k
Detector
Peak

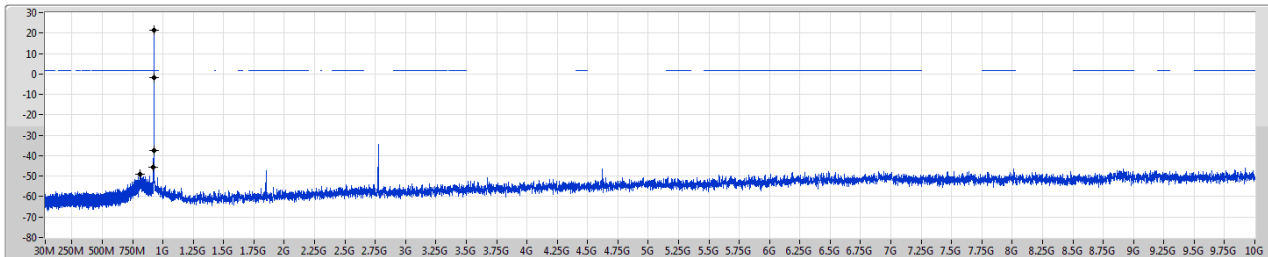
Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
920.14M	20.34	0.34	919.75M	-40.77	920M	-1.37	925.16M	-47.71	8.97228G	-46.50	1

LoRa_FHSS-125k_Nss1_1TX

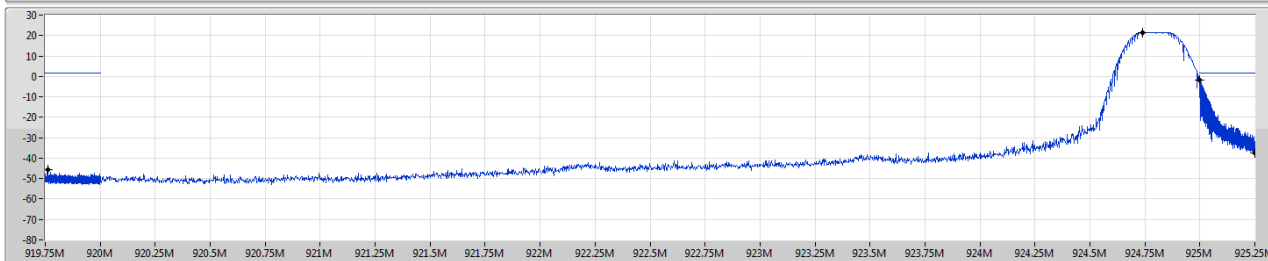
CSE NdB

924.8MHz

13/06/2019



Port1



RBW (Hz)
100k
VBW (Hz)
300k
Detector
Peak

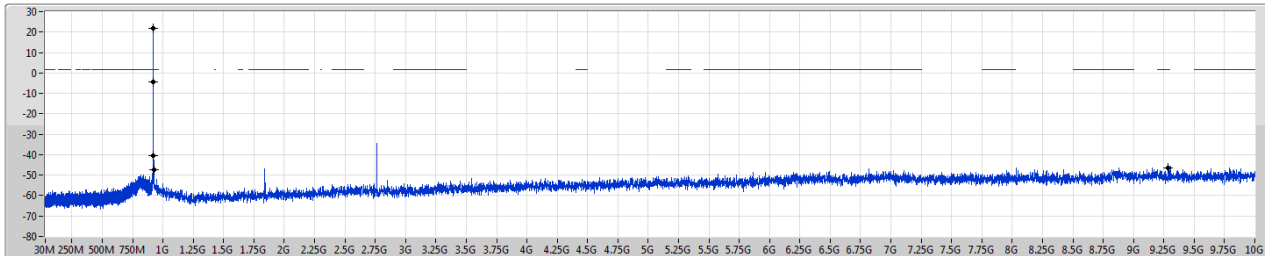
Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
924.74M	21.48	1.48	814.2M	-49.27	919.76M	-45.79	925M	-1.70	925.25M	-37.37	1

LoRa_FHSS-250k_Nss1_1TX

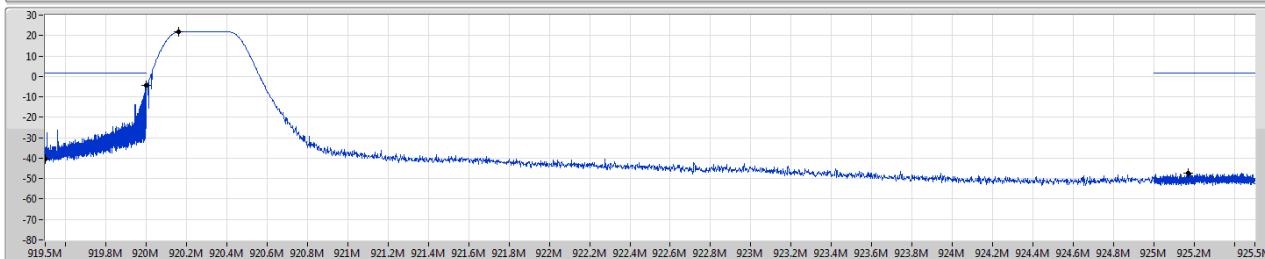
CSE NdB

920.3MHz

13/06/2019



Port1

RBW (Hz)
100k
VBW (Hz)
300k
Detector
Peak

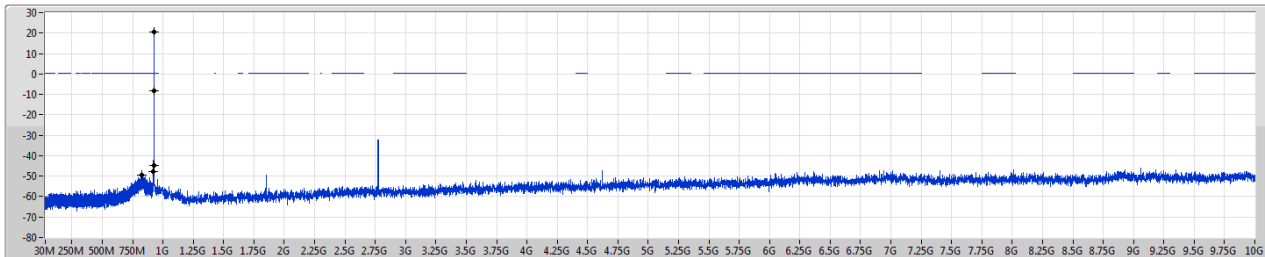
Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
920.16M	21.69	1.69	919.5M	-40.34	920M	-4.48	925.17M	-47.21	9.28198G	-46.47	1

LoRa_FHSS-250k_Nss1_1TX

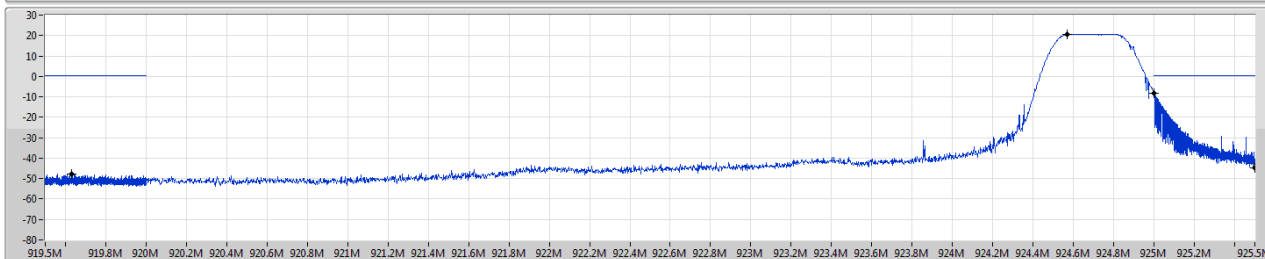
CSE NdB

924.7MHz

13/06/2019



Port1

RBW (Hz)
100k
VBW (Hz)
300k
Detector
Peak

Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
924.57M	20.37	0.37	822.32M	-49.50	919.63M	-47.67	925M	-8.08	925.5M	-44.72	1



Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
0.9G-T	-	-	-	-	-	-	-	-	-	-	-	-
LoRa_DTS_Nss1_1TX	Pass	PK	35M	32.36	40.00	-7.64	-6.27	3	Vertical	0	1.00	-
LoRa_FHSS-250k_Nss1_1TX	Pass	PK	30M	33.14	40.00	-6.86	-3.35	3	Horizontal	0	1.00	-

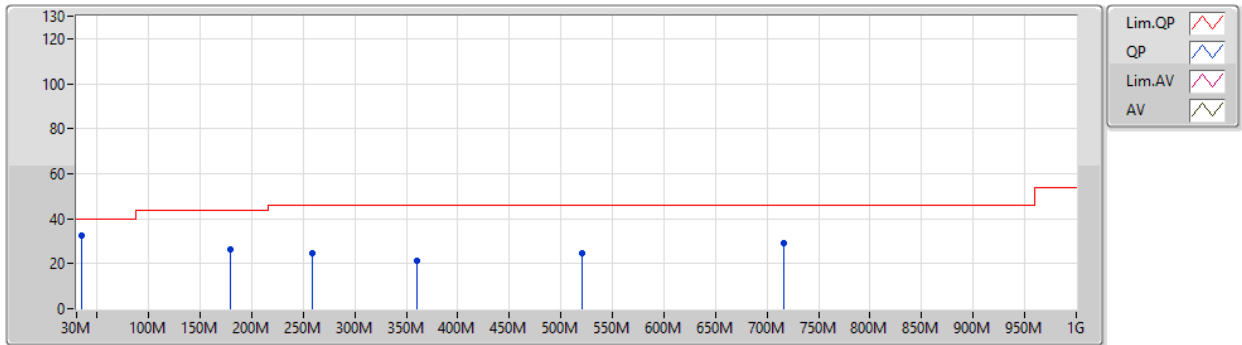
Result

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
LoRa_DTS_Nss1_1TX	-	-	-	-	-	-	-	-	-	-	-	-
924.1MHz	Pass	PK	35M	32.36	40.00	-7.64	-6.27	3	Vertical	0	1.00	-
924.1MHz	Pass	PK	178.62M	26.14	43.50	-17.36	-10.59	3	Vertical	0	1.00	-
924.1MHz	Pass	PK	259.31M	24.59	46.00	-21.41	-5.22	3	Vertical	0	1.00	-
924.1MHz	Pass	PK	360M	21.28	46.00	-24.72	-4.10	3	Vertical	0	1.00	-
924.1MHz	Pass	PK	520.69M	24.90	46.00	-21.10	-1.57	3	Vertical	0	1.00	-
924.1MHz	Pass	PK	715.71M	29.17	46.00	-16.83	0.60	3	Vertical	0	1.00	-
924.1MHz	Pass	PK	36.35M	22.49	40.00	-17.51	-6.89	3	Horizontal	360	1.00	-
924.1MHz	Pass	PK	95.54M	18.13	43.50	-25.37	-10.66	3	Horizontal	360	1.00	-
924.1MHz	Pass	PK	200.15M	18.77	43.50	-24.73	-10.40	3	Horizontal	360	1.00	-
924.1MHz	Pass	PK	368.8M	23.42	46.00	-22.58	-3.97	3	Horizontal	360	1.00	-
924.1MHz	Pass	PK	430.65M	23.92	46.00	-22.08	-2.35	3	Horizontal	360	1.00	-
924.1MHz	Pass	PK	660M	30.21	46.00	-15.79	0.03	3	Horizontal	360	1.00	-
LoRa_FHSS-250k_Nss1_1TX	-	-	-	-	-	-	-	-	-	-	-	-
924.7MHz	Pass	PK	30M	31.94	40.00	-8.06	-3.35	3	Vertical	360	1.00	-
924.7MHz	Pass	PK	64.92M	22.35	40.00	-17.65	-14.95	3	Vertical	360	1.00	-
924.7MHz	Pass	PK	127M	22.63	43.50	-20.87	-8.32	3	Vertical	360	1.00	-
924.7MHz	Pass	PK	330.7M	26.74	46.00	-19.26	-4.91	3	Vertical	360	1.00	-
924.7MHz	Pass	PK	392.78M	25.53	46.00	-20.47	-3.23	3	Vertical	360	1.00	-
924.7MHz	Pass	PK	660.5M	29.02	46.00	-16.98	0.05	3	Vertical	360	1.00	-
924.7MHz	Pass	PK	30M	33.14	40.00	-6.86	-3.35	3	Horizontal	0	1.00	-
924.7MHz	Pass	PK	132.82M	21.20	43.50	-22.30	-8.58	3	Horizontal	0	1.00	-
924.7MHz	Pass	PK	218.18M	18.96	46.00	-27.04	-10.35	3	Horizontal	0	1.00	-
924.7MHz	Pass	PK	307.42M	31.96	46.00	-14.04	-5.14	3	Horizontal	0	1.00	-
924.7MHz	Pass	PK	344.28M	22.94	46.00	-23.06	-4.59	3	Horizontal	0	1.00	-
924.7MHz	Pass	PK	660.5M	27.90	46.00	-18.10	0.05	3	Horizontal	0	1.00	-

LoRa_DTS_Nss1_1RX

24/08/2020

924.1MHz_Switching power supply

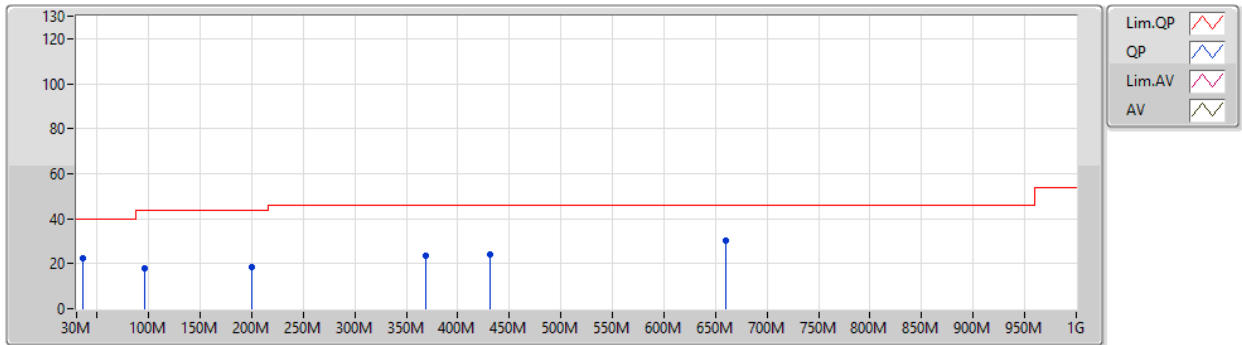


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
PK	35M	32.36	40.00	-7.64	-6.27	3	Vertical	0	1.00	-	38.63	20.38	0.90	27.55
PK	178.62M	26.14	43.50	-17.36	-10.59	3	Vertical	0	1.00	-	36.73	14.25	2.19	27.03
PK	259.31M	24.59	46.00	-21.41	-5.22	3	Vertical	0	1.00	-	29.81	18.82	2.66	26.70
PK	360M	21.28	46.00	-24.72	-4.10	3	Vertical	0	1.00	-	25.38	19.76	3.14	27.00
PK	520.69M	24.90	46.00	-21.10	-1.57	3	Vertical	0	1.00	-	26.47	22.54	3.78	27.89
PK	715.71M	29.17	46.00	-16.83	0.60	3	Vertical	0	1.00	-	28.57	24.13	4.46	27.99

LoRa_DTS_Nss1_1RX

24/08/2020

924.1MHz_Switching power supply

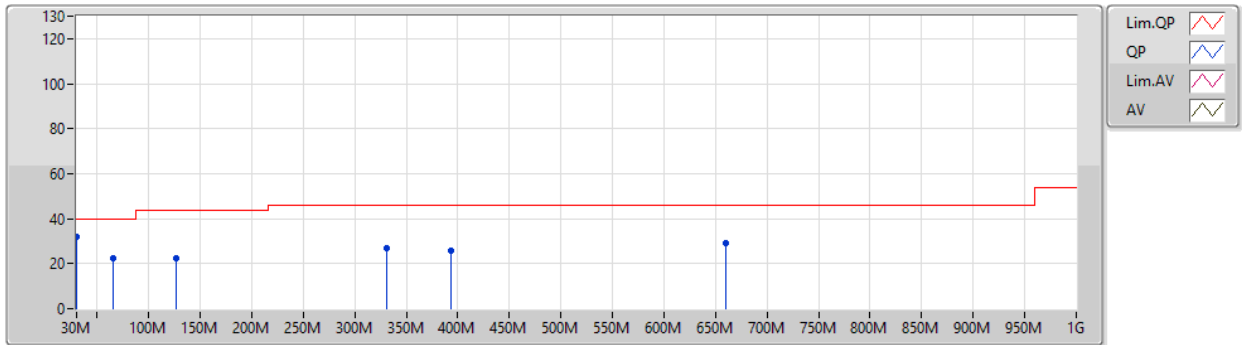


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
PK	36.35M	22.49	40.00	-17.51	-6.89	3	Horizontal	360	1.00	-	29.38	19.73	0.93	27.55
PK	95.54M	18.13	43.50	-25.37	-10.66	3	Horizontal	360	1.00	-	28.79	15.12	1.60	27.38
PK	200.15M	18.77	43.50	-24.73	-10.40	3	Horizontal	360	1.00	-	29.17	14.22	2.30	26.92
PK	368.8M	23.42	46.00	-22.58	-3.97	3	Horizontal	360	1.00	-	27.39	19.91	3.18	27.06
PK	430.65M	23.92	46.00	-22.08	-2.35	3	Horizontal	360	1.00	-	26.27	21.81	3.36	27.52
PK	660M	30.21	46.00	-15.79	0.03	3	Horizontal	360	1.00	-	30.18	23.79	4.32	28.08

LoRa_FHSS-250k_Nss1_1RX

24/08/2020

924.7MHz_Switching power supply

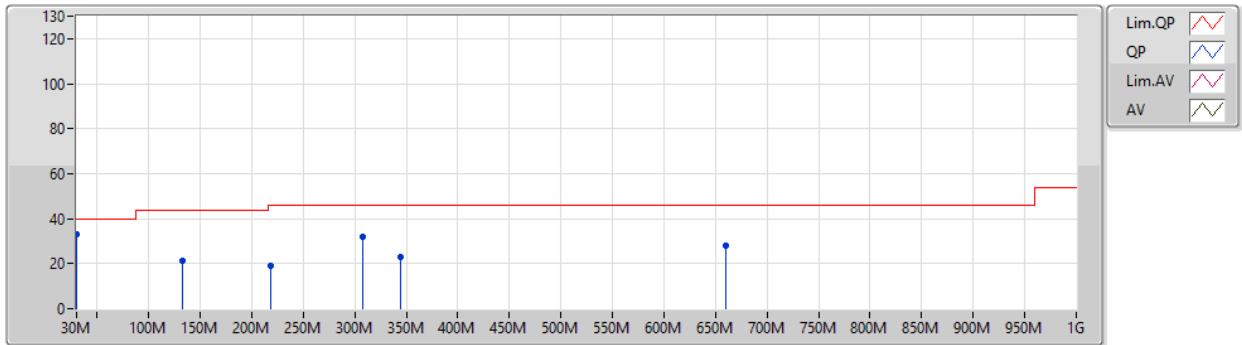


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
PK	30M	31.94	40.00	-8.06	-3.35	3	Vertical	360	1.00	-	35.29	23.33	0.90	27.58
PK	64.92M	22.35	40.00	-17.65	-14.95	3	Vertical	360	1.00	-	37.30	11.22	1.30	27.47
PK	127M	22.63	43.50	-20.87	-8.32	3	Vertical	360	1.00	-	30.95	17.12	1.83	27.27
PK	330.7M	26.74	46.00	-19.26	-4.91	3	Vertical	360	1.00	-	31.65	18.90	3.02	26.83
PK	392.78M	25.53	46.00	-20.47	-3.23	3	Vertical	360	1.00	-	28.76	20.71	3.27	27.21
PK	660.5M	29.02	46.00	-16.98	0.05	3	Vertical	360	1.00	-	28.97	23.80	4.32	28.07

LoRa_FHSS-250k_Nss1_1RX

24/08/2020

924.7MHz_Switching power supply



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
PK	30M	33.14	40.00	-6.86	-3.35	3	Horizontal	0	1.00	-	36.49	23.33	0.90	27.58
PK	132.82M	21.20	43.50	-22.30	-8.58	3	Horizontal	0	1.00	-	29.78	16.81	1.86	27.25
PK	218.18M	18.96	46.00	-27.04	-10.35	3	Horizontal	0	1.00	-	29.31	14.08	2.41	26.84
PK	307.42M	31.96	46.00	-14.04	-5.14	3	Horizontal	0	1.00	-	37.10	18.62	2.93	26.69
PK	344.28M	22.94	46.00	-23.06	-4.59	3	Horizontal	0	1.00	-	27.53	19.24	3.08	26.91
PK	660.5M	27.90	46.00	-18.10	0.05	3	Horizontal	0	1.00	-	27.85	23.80	4.32	28.07

**Summary**

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
0.9G-T	-	-	-	-	-	-	-	-	-	-	-	-
LoRa_DTS_Nss1_1TX	Pass	AV	4.13333G	30.58	54.00	-23.42	0.35	3	Horizontal	0	1.00	-
FSK-5k_Nss1_1TX	Pass	AV	2.664G	32.76	54.00	-21.24	-3.71	3	Vertical	0	1.00	-
FSK-50k_Nss1_1TX	Pass	AV	3.18841G	31.86	54.00	-22.14	-1.72	3	Vertical	0	1.00	-
FSK-150k_Nss1_1TX	Pass	AV	3.97681G	30.68	54.00	-23.32	0.29	3	Horizontal	0	1.00	-
LoRa_FHSS-125k_Nss1_1TX	Pass	AV	3.1971G	32.81	54.00	-21.19	-1.72	3	Vertical	360	1.00	-
LoRa_FHSS-250k_Nss1_1TX	Pass	AV	3.1913G	37.51	54.00	-16.49	-1.72	3	Vertical	360	1.00	-

Result

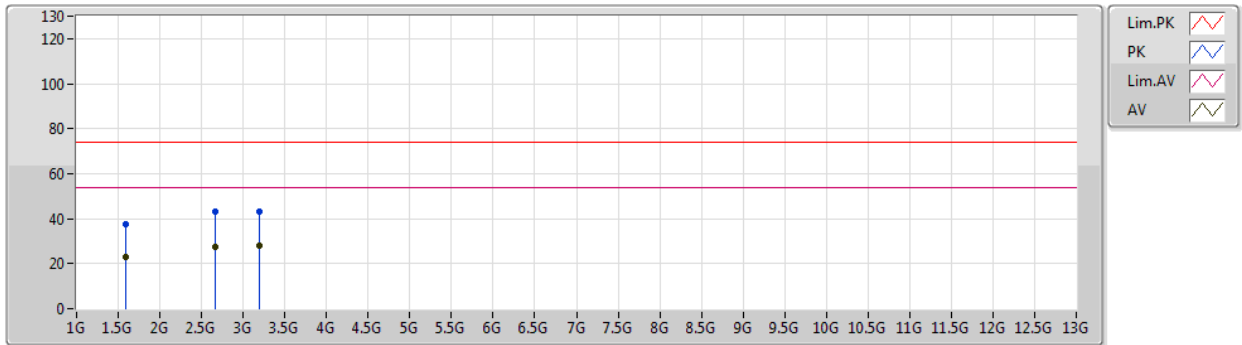
Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
LoRa_DTS_Nss1_1TX	-	-	-	-	-	-	-	-	-	-	-	-
924.1MHz	Pass	AV	1.5971G	23.13	54.00	-30.87	-7.99	3	Vertical	360	1.00	-
924.1MHz	Pass	AV	2.65797G	27.70	54.00	-26.30	-3.73	3	Vertical	360	1.00	-
924.1MHz	Pass	AV	3.1913G	28.13	54.00	-25.87	-1.72	3	Vertical	360	1.00	-
924.1MHz	Pass	PK	1.5971G	37.56	74.00	-36.44	-7.99	3	Vertical	360	1.00	-
924.1MHz	Pass	PK	2.65797G	42.87	74.00	-31.13	-3.73	3	Vertical	360	1.00	-
924.1MHz	Pass	PK	3.1913G	43.03	74.00	-30.97	-1.72	3	Vertical	360	1.00	-
924.1MHz	Pass	AV	1.1971G	21.80	54.00	-32.20	-8.32	3	Horizontal	0	1.00	-
924.1MHz	Pass	AV	2.13044G	24.56	54.00	-29.44	-4.89	3	Horizontal	0	1.00	-
924.1MHz	Pass	AV	4.13333G	30.58	54.00	-23.42	0.35	3	Horizontal	0	1.00	-
924.1MHz	Pass	PK	1.1971G	39.08	74.00	-34.92	-8.32	3	Horizontal	0	1.00	-
924.1MHz	Pass	PK	2.13044G	40.57	74.00	-33.43	-4.89	3	Horizontal	0	1.00	-
924.1MHz	Pass	PK	4.13333G	43.72	74.00	-30.28	0.35	3	Horizontal	0	1.00	-
924.5MHz	Pass	AV	2.12754G	28.18	54.00	-25.82	-4.93	3	Vertical	0	1.00	-
924.5MHz	Pass	AV	2.66667G	28.24	54.00	-25.76	-3.71	3	Vertical	0	1.00	-
924.5MHz	Pass	AV	3.18841G	30.51	54.00	-23.49	-1.72	3	Vertical	0	1.00	-
924.5MHz	Pass	PK	2.12754G	43.47	74.00	-30.53	-4.93	3	Vertical	0	1.00	-
924.5MHz	Pass	PK	2.66667G	43.55	74.00	-30.45	-3.71	3	Vertical	0	1.00	-
924.5MHz	Pass	PK	3.18841G	46.30	74.00	-27.70	-1.72	3	Vertical	0	1.00	-
924.5MHz	Pass	AV	1.1971G	20.64	54.00	-33.36	-8.32	3	Horizontal	360	1.00	-
924.5MHz	Pass	AV	2.24638G	25.13	54.00	-28.87	-4.20	3	Horizontal	360	1.00	-
924.5MHz	Pass	AV	3.74493G	28.56	54.00	-25.44	-0.41	3	Horizontal	360	1.00	-
924.5MHz	Pass	PK	1.1971G	37.97	74.00	-36.03	-8.32	3	Horizontal	360	1.00	-
924.5MHz	Pass	PK	2.24638G	40.25	74.00	-33.75	-4.20	3	Horizontal	360	1.00	-
924.5MHz	Pass	PK	3.74493G	43.10	74.00	-30.90	-0.41	3	Horizontal	360	1.00	-
FSK-5k_Nss1_1TX	-	-	-	-	-	-	-	-	-	-	-	-
924.8MHz	Pass	AV	1.596G	24.19	54.00	-29.81	-7.98	3	Vertical	0	1.00	-
924.8MHz	Pass	AV	2.664G	32.76	54.00	-21.24	-3.71	3	Vertical	0	1.00	-
924.8MHz	Pass	AV	3.196G	32.13	54.00	-21.87	-1.72	3	Vertical	0	1.00	-
924.8MHz	Pass	PK	1.596G	37.49	74.00	-36.51	-7.98	3	Vertical	0	1.00	-
924.8MHz	Pass	PK	2.664G	45.08	74.00	-28.92	-3.71	3	Vertical	0	1.00	-
924.8MHz	Pass	PK	3.196G	45.02	74.00	-28.98	-1.72	3	Vertical	0	1.00	-
924.8MHz	Pass	AV	1.196G	24.37	54.00	-29.63	-8.32	3	Horizontal	360	1.00	-
924.8MHz	Pass	AV	2.476G	24.52	54.00	-29.48	-4.31	3	Horizontal	360	1.00	-
924.8MHz	Pass	AV	3.88G	27.71	54.00	-26.29	0.12	3	Horizontal	360	1.00	-
924.8MHz	Pass	PK	1.196G	39.00	74.00	-35.00	-8.32	3	Horizontal	360	1.00	-
924.8MHz	Pass	PK	2.476G	38.95	74.00	-35.05	-4.31	3	Horizontal	360	1.00	-
924.8MHz	Pass	PK	3.88G	42.68	74.00	-31.32	0.12	3	Horizontal	360	1.00	-
FSK-50k_Nss1_1TX	-	-	-	-	-	-	-	-	-	-	-	-
924.8MHz	Pass	AV	1.596G	24.47	54.00	-29.53	-7.98	3	Vertical	0	1.00	-
924.8MHz	Pass	AV	2.132G	29.40	54.00	-24.60	-4.87	3	Vertical	0	1.00	-
924.8MHz	Pass	AV	3.18841G	31.86	54.00	-22.14	-1.72	3	Vertical	0	1.00	-
924.8MHz	Pass	PK	1.596G	37.88	74.00	-36.12	-7.98	3	Vertical	0	1.00	-
924.8MHz	Pass	PK	2.132G	43.57	74.00	-30.43	-4.87	3	Vertical	0	1.00	-
924.8MHz	Pass	PK	3.18841G	44.45	74.00	-29.55	-1.72	3	Vertical	0	1.00	-
924.8MHz	Pass	AV	1.336G	24.68	54.00	-29.32	-7.43	3	Horizontal	360	1.00	-
924.8MHz	Pass	AV	1.672G	24.28	54.00	-29.72	-7.80	3	Horizontal	360	1.00	-
924.8MHz	Pass	AV	3.928G	30.01	54.00	-23.99	0.27	3	Horizontal	360	1.00	-

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
924.8MHz	Pass	PK	1.336G	38.13	74.00	-35.87	-7.43	3	Horizontal	360	1.00	-
924.8MHz	Pass	PK	1.672G	36.41	74.00	-37.59	-7.80	3	Horizontal	360	1.00	-
924.8MHz	Pass	PK	3.928G	43.39	74.00	-30.61	0.27	3	Horizontal	360	1.00	-
FSK-150k_Nss1_1TX	-	-	-	-	-	-	-	-	-	-	-	-
924.8MHz	Pass	AV	1.44058G	25.32	54.00	-28.68	-7.33	3	Vertical	360	1.00	-
924.8MHz	Pass	AV	2.13044G	28.29	54.00	-25.71	-4.89	3	Vertical	360	1.00	-
924.8MHz	Pass	AV	3.1971G	28.42	54.00	-25.58	-1.72	3	Vertical	360	1.00	-
924.8MHz	Pass	PK	1.44058G	39.28	74.00	-34.72	-7.33	3	Vertical	360	1.00	-
924.8MHz	Pass	PK	2.13044G	43.05	74.00	-30.95	-4.89	3	Vertical	360	1.00	-
924.8MHz	Pass	PK	3.1971G	43.43	74.00	-30.57	-1.72	3	Vertical	360	1.00	-
924.8MHz	Pass	AV	1.2029G	24.88	54.00	-29.12	-8.29	3	Horizontal	0	1.00	-
924.8MHz	Pass	AV	1.93044G	24.94	54.00	-29.06	-6.91	3	Horizontal	0	1.00	-
924.8MHz	Pass	AV	3.97681G	30.68	54.00	-23.32	0.29	3	Horizontal	0	1.00	-
924.8MHz	Pass	PK	1.2029G	38.38	74.00	-35.62	-8.29	3	Horizontal	0	1.00	-
924.8MHz	Pass	PK	1.93044G	37.58	74.00	-36.42	-6.91	3	Horizontal	0	1.00	-
924.8MHz	Pass	PK	3.97681G	43.50	74.00	-30.50	0.29	3	Horizontal	0	1.00	-
LoRa_FHSS-125k_Nss1_1TX	-	-	-	-	-	-	-	-	-	-	-	-
924.8MHz	Pass	AV	1.5913G	26.24	54.00	-27.76	-7.99	3	Vertical	360	1.00	-
924.8MHz	Pass	AV	2.28116G	25.00	54.00	-29.00	-4.22	3	Vertical	360	1.00	-
924.8MHz	Pass	AV	3.1971G	32.81	54.00	-21.19	-1.72	3	Vertical	360	1.00	-
924.8MHz	Pass	PK	1.5913G	39.22	74.00	-34.78	-7.99	3	Vertical	360	1.00	-
924.8MHz	Pass	PK	2.28116G	39.70	74.00	-34.30	-4.22	3	Vertical	360	1.00	-
924.8MHz	Pass	PK	3.1971G	48.24	74.00	-25.76	-1.72	3	Vertical	360	1.00	-
924.8MHz	Pass	AV	1.51594G	23.48	54.00	-30.52	-7.71	3	Horizontal	0	1.00	-
924.8MHz	Pass	AV	2.21739G	25.65	54.00	-28.35	-4.17	3	Horizontal	0	1.00	-
924.8MHz	Pass	AV	3.94493G	30.01	54.00	-23.99	0.29	3	Horizontal	0	1.00	-
924.8MHz	Pass	PK	1.51594G	37.81	74.00	-36.19	-7.71	3	Horizontal	0	1.00	-
924.8MHz	Pass	PK	2.21739G	39.43	74.00	-34.57	-4.17	3	Horizontal	0	1.00	-
924.8MHz	Pass	PK	3.94493G	43.68	74.00	-30.32	0.29	3	Horizontal	0	1.00	-
LoRa_FHSS-250k_Nss1_1TX	-	-	-	-	-	-	-	-	-	-	-	-
924.7MHz	Pass	AV	2.12754G	31.26	54.00	-22.74	-4.93	3	Vertical	360	1.00	-
924.7MHz	Pass	AV	2.66667G	29.85	54.00	-24.15	-3.71	3	Vertical	360	1.00	-
924.7MHz	Pass	AV	3.1913G	37.51	54.00	-16.49	-1.72	3	Vertical	360	1.00	-
924.7MHz	Pass	PK	2.12754G	43.04	74.00	-30.96	-4.93	3	Vertical	360	1.00	-
924.7MHz	Pass	PK	2.66667G	41.73	74.00	-32.27	-3.71	3	Vertical	360	1.00	-
924.7MHz	Pass	PK	3.1913G	50.17	74.00	-23.83	-1.72	3	Vertical	360	1.00	-
924.7MHz	Pass	AV	1.5971G	21.24	54.00	-32.76	-7.99	3	Horizontal	0	1.00	-
924.7MHz	Pass	AV	2.28116G	25.90	54.00	-28.10	-4.22	3	Horizontal	0	1.00	-
924.7MHz	Pass	AV	3.71015G	28.26	54.00	-25.74	-0.52	3	Horizontal	0	1.00	-
924.7MHz	Pass	PK	1.5971G	36.85	74.00	-37.15	-7.99	3	Horizontal	0	1.00	-
924.7MHz	Pass	PK	2.28116G	39.89	74.00	-34.11	-4.22	3	Horizontal	0	1.00	-
924.7MHz	Pass	PK	3.71015G	43.16	74.00	-30.84	-0.52	3	Horizontal	0	1.00	-

LoRa_DTS_Nss1_1RX

12/06/2019

924.1MHz_RX

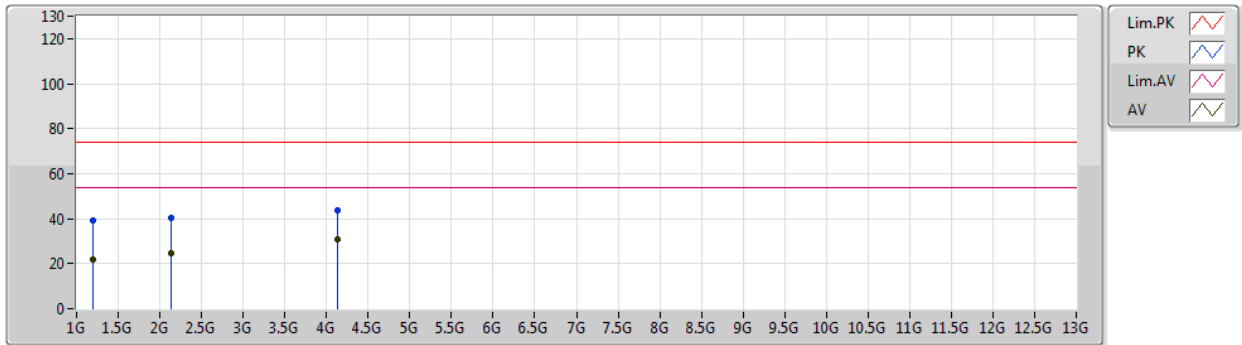


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	1.5971G	23.13	54.00	-30.87	-7.99	3	Vertical	360	1.00	-	31.12	25.11	2.99	36.09
AV	2.65797G	27.70	54.00	-26.30	-3.73	3	Vertical	360	1.00	-	31.43	27.90	3.92	35.55
AV	3.1913G	28.13	54.00	-25.87	-1.72	3	Vertical	360	1.00	-	29.85	29.02	4.54	35.28
PK	1.5971G	37.56	74.00	-36.44	-7.99	3	Vertical	360	1.00	-	45.55	25.11	2.99	36.09
PK	2.65797G	42.87	74.00	-31.13	-3.73	3	Vertical	360	1.00	-	46.60	27.90	3.92	35.55
PK	3.1913G	43.03	74.00	-30.97	-1.72	3	Vertical	360	1.00	-	44.75	29.02	4.54	35.28

LoRa_DTS_Nss1_1RX

12/06/2019

924.1MHz_RX

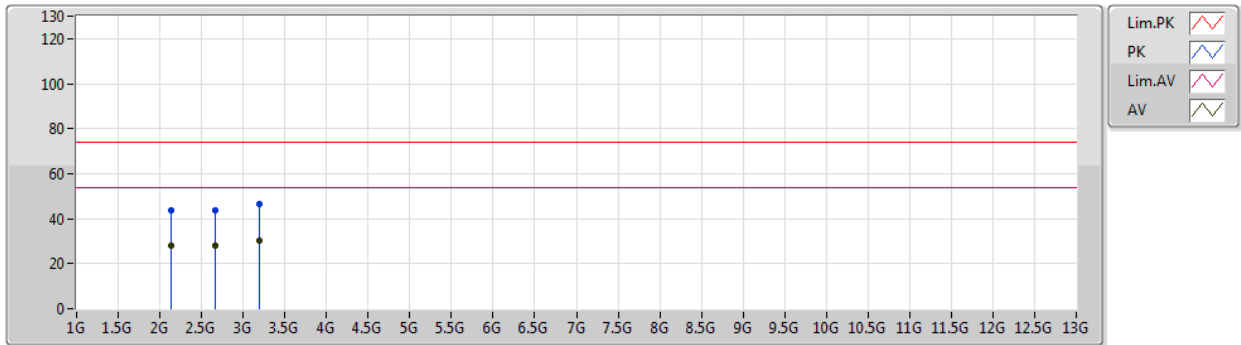


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	1.1971G	21.80	54.00	-32.20	-8.32	3	Horizontal	0	1.00	-	30.12	25.38	2.60	36.30
AV	2.13044G	24.56	54.00	-29.44	-4.89	3	Horizontal	0	1.00	-	29.45	27.47	3.46	35.82
AV	4.13333G	30.58	54.00	-23.42	0.35	3	Horizontal	0	1.00	-	30.23	29.77	5.43	34.85
PK	1.1971G	39.08	74.00	-34.92	-8.32	3	Horizontal	0	1.00	-	47.40	25.38	2.60	36.30
PK	2.13044G	40.57	74.00	-33.43	-4.89	3	Horizontal	0	1.00	-	45.46	27.47	3.46	35.82
PK	4.13333G	43.72	74.00	-30.28	0.35	3	Horizontal	0	1.00	-	43.37	29.77	5.43	34.85

LoRa_DTS_Nss1_1RX

12/06/2019

924.5MHz_RX

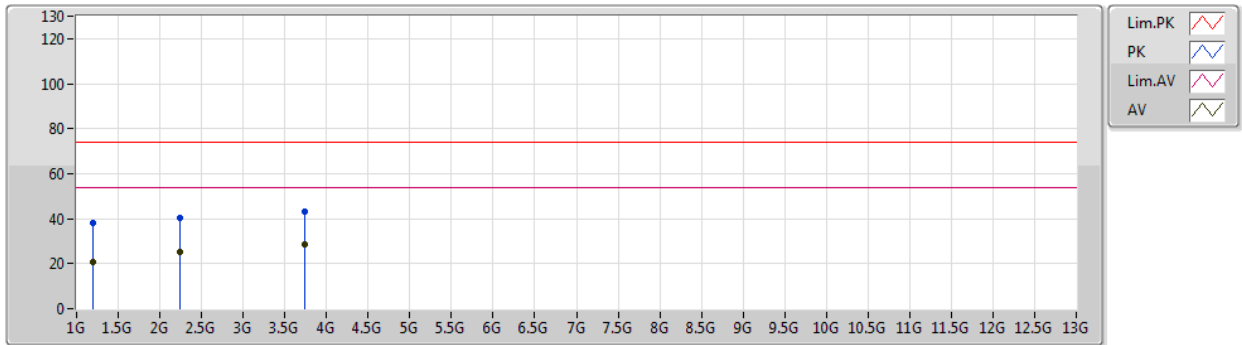


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.12754G	28.18	54.00	-25.82	-4.93	3	Vertical	0	1.00	-	33.11	27.43	3.46	35.82
AV	2.66667G	28.24	54.00	-25.76	-3.71	3	Vertical	0	1.00	-	31.95	27.90	3.93	35.54
AV	3.18841G	30.51	54.00	-23.49	-1.72	3	Vertical	0	1.00	-	32.23	29.02	4.54	35.28
PK	2.12754G	43.47	74.00	-30.53	-4.93	3	Vertical	0	1.00	-	48.40	27.43	3.46	35.82
PK	2.66667G	43.55	74.00	-30.45	-3.71	3	Vertical	0	1.00	-	47.26	27.90	3.93	35.54
PK	3.18841G	46.30	74.00	-27.70	-1.72	3	Vertical	0	1.00	-	48.02	29.02	4.54	35.28

LoRa_DTS_Nss1_1RX

12/06/2019

924.5MHz_RX

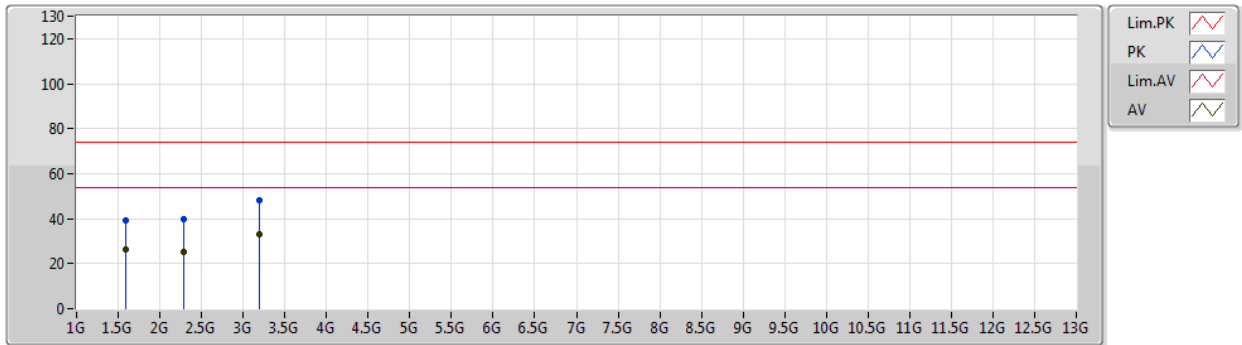


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	1.1971G	20.64	54.00	-33.36	-8.32	3	Horizontal	360	1.00	-	28.96	25.38	2.60	36.30
AV	2.24638G	25.13	54.00	-28.87	-4.20	3	Horizontal	360	1.00	-	29.33	28.01	3.55	35.76
AV	3.74493G	28.56	54.00	-25.44	-0.41	3	Horizontal	360	1.00	-	28.97	29.39	5.23	35.03
PK	1.1971G	37.97	74.00	-36.03	-8.32	3	Horizontal	360	1.00	-	46.29	25.38	2.60	36.30
PK	2.24638G	40.25	74.00	-33.75	-4.20	3	Horizontal	360	1.00	-	44.45	28.01	3.55	35.76
PK	3.74493G	43.10	74.00	-30.90	-0.41	3	Horizontal	360	1.00	-	43.51	29.39	5.23	35.03

LoRa_FHSS-125k_Nss1_1RX

12/06/2019

924.8MHz_RX

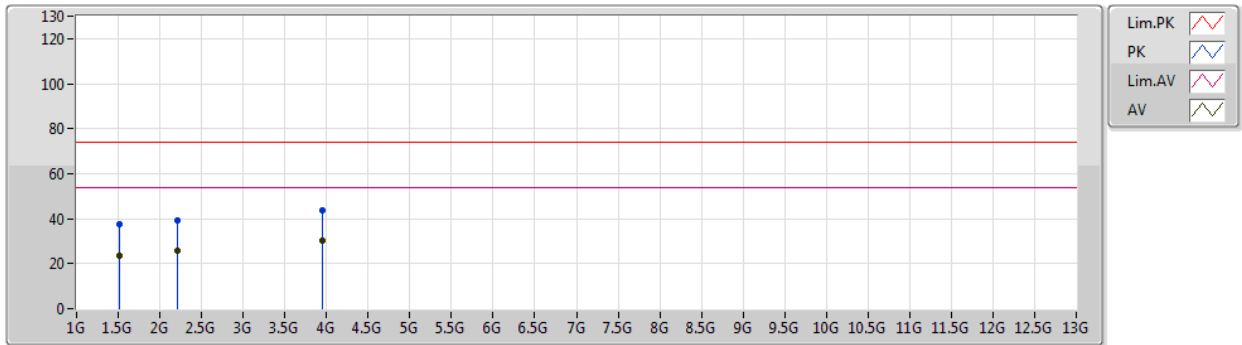


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	1.5913G	26.24	54.00	-27.76	-7.99	3	Vertical	360	1.00	-	34.23	25.13	2.98	36.10
AV	2.28116G	25.00	54.00	-29.00	-4.22	3	Vertical	360	1.00	-	29.22	27.94	3.58	35.74
AV	3.1971G	32.81	54.00	-21.19	-1.72	3	Vertical	360	1.00	-	34.53	29.01	4.55	35.28
PK	1.5913G	39.22	74.00	-34.78	-7.99	3	Vertical	360	1.00	-	47.21	25.13	2.98	36.10
PK	2.28116G	39.70	74.00	-34.30	-4.22	3	Vertical	360	1.00	-	43.92	27.94	3.58	35.74
PK	3.1971G	48.24	74.00	-25.76	-1.72	3	Vertical	360	1.00	-	49.96	29.01	4.55	35.28

LoRa_FHSS-125k_Nss1_1RX

12/06/2019

924.8MHz_RX

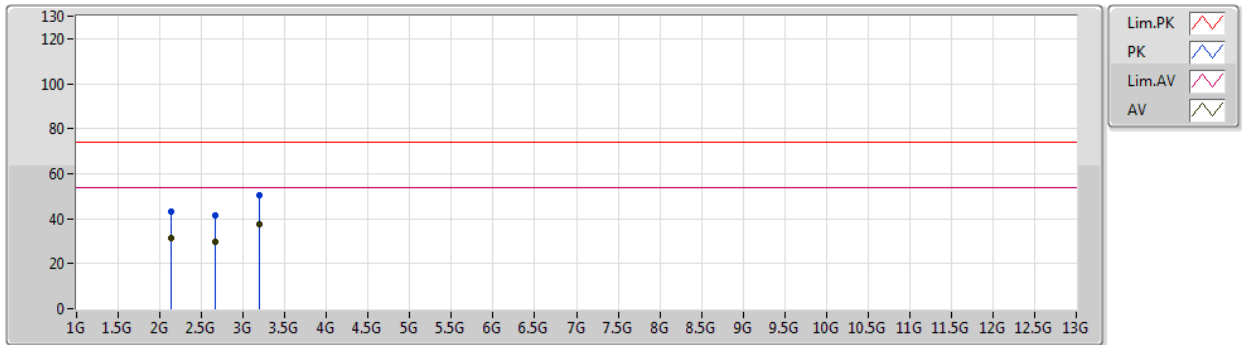


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	1.51594G	23.48	54.00	-30.52	-7.71	3	Horizontal	0	1.00	-	31.19	25.50	2.92	36.13
AV	2.21739G	25.65	54.00	-28.35	-4.17	3	Horizontal	0	1.00	-	29.82	28.07	3.53	35.77
AV	3.94493G	30.01	54.00	-23.99	0.29	3	Horizontal	0	1.00	-	29.72	29.80	5.43	34.94
PK	1.51594G	37.81	74.00	-36.19	-7.71	3	Horizontal	0	1.00	-	45.52	25.50	2.92	36.13
PK	2.21739G	39.43	74.00	-34.57	-4.17	3	Horizontal	0	1.00	-	43.60	28.07	3.53	35.77
PK	3.94493G	43.68	74.00	-30.32	0.29	3	Horizontal	0	1.00	-	43.39	29.80	5.43	34.94

LoRa_FHSS-250k_Nss1_1RX

12/06/2019

924.7MHz_RX

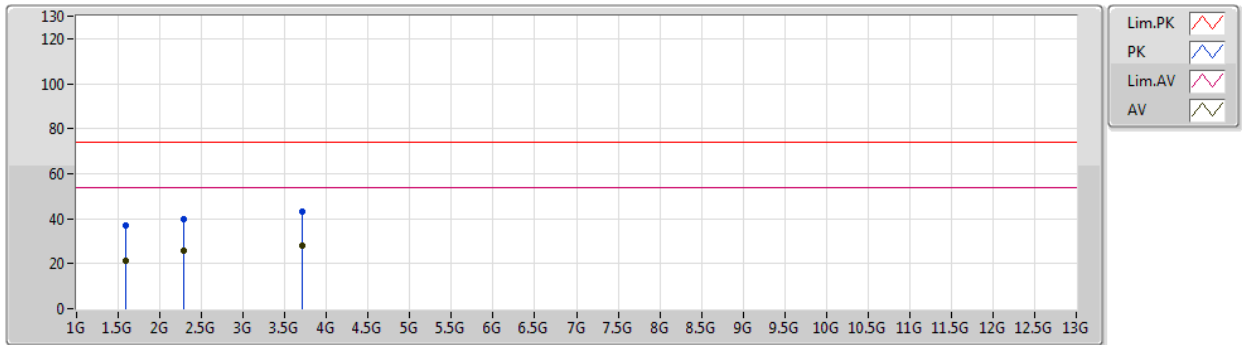


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.12754G	31.26	54.00	-22.74	-4.93	3	Vertical	360	1.00	-	36.19	27.43	3.46	35.82
AV	2.66667G	29.85	54.00	-24.15	-3.71	3	Vertical	360	1.00	-	33.56	27.90	3.93	35.54
AV	3.1913G	37.51	54.00	-16.49	-1.72	3	Vertical	360	1.00	-	39.23	29.02	4.54	35.28
PK	2.12754G	43.04	74.00	-30.96	-4.93	3	Vertical	360	1.00	-	47.97	27.43	3.46	35.82
PK	2.66667G	41.73	74.00	-32.27	-3.71	3	Vertical	360	1.00	-	45.44	27.90	3.93	35.54
PK	3.1913G	50.17	74.00	-23.83	-1.72	3	Vertical	360	1.00	-	51.89	29.02	4.54	35.28

LoRa_FHSS-250k_Nss1_1RX

12/06/2019

924.7MHz_RX



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	1.5971G	21.24	54.00	-32.76	-7.99	3	Horizontal	0	1.00	-	29.23	25.11	2.99	36.09
AV	2.28116G	25.90	54.00	-28.10	-4.22	3	Horizontal	0	1.00	-	30.12	27.94	3.58	35.74
AV	3.71015G	28.26	54.00	-25.74	-0.52	3	Horizontal	0	1.00	-	28.78	29.32	5.20	35.04
PK	1.5971G	36.85	74.00	-37.15	-7.99	3	Horizontal	0	1.00	-	44.84	25.11	2.99	36.09
PK	2.28116G	39.89	74.00	-34.11	-4.22	3	Horizontal	0	1.00	-	44.11	27.94	3.58	35.74
PK	3.71015G	43.16	74.00	-30.84	-0.52	3	Horizontal	0	1.00	-	43.68	29.32	5.20	35.04