FCC RADIO TEST REPORT

FCC ID	:	2AEUPBHARC011
Equipment	:	Spotlight cam wired
Brand Name	:	RING
Model Name	:	5L5C4T
Applicant	:	Ring LLC 1523 26th St, Santa Monica, CA 90404, USA
Manufacturer	:	Chicony Electronics (Dong Guan) Co.,Ltd. San Zhong Guan Li Qu, Qingxi Town, Dongguan City Guangdong 523651 China
Standard	:	47 CFR FCC Part 15.247

The product was received on May 31, 2019, and testing was started from Jun. 09, 2019 and completed on Jun. 21, 2019. 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 report must not be used by the client to claim product certification, approval, or endorsement by TAF or any agency of government.

The test results in this 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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History of this test report

Report No.	Version	Description	Issued Date
FR953031AF	01	Initial issue of report	Aug. 16, 2019

Summary of Test Result

Report Clause	Ref Std. Clause	Test Items	Result (PASS/FAIL)	Remark
1.1.2	15.203	Antenna Requirement	PASS	-
3.1	15.207	AC Power-line Conducted Emissions	PASS	-
DTS Test Method Performed				
4.1	15.247(a)	DTS Bandwidth	PASS	-
4.2	15.247(b)	Maximum Conducted Output Power	PASS	-
4.3	15.247(e)	Power Spectral Density	PASS	-
4.4	15.247(d)	Emissions in Non-restricted Frequency Bands	PASS	-
4.5	15.247(d)	Emissions in Restricted Frequency Bands	PASS	-
FHSS Test Method Performed				
5.1	15.247(a)	20dB Bandwidth	PASS	-
5.1	15.247(a)	Carrier Frequency Separation	PASS	-
5.2	15.247(b)	Maximum Conducted Output Power	PASS	-
5.3	15.247(a)	Number of Hopping Frequencies and Hopping Band edge	PASS	-
5.4	15.247(a)	Time of Occupancy (Dwell Time)	PASS	-
5.5	15.247(d)	Emissions in Non-restricted Frequency Bands	PASS	-
5.6	15.247(d)	Emissions in Restricted Frequency Bands	PASS	-

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: Jackson Tsai

Report Producer: Ann Hou

1 General Description

1.1 Information

1.1.1 RF General Information

Frequency Range	Lora Mode	Ch. Frequency (MHz)	Channel Number
902 MHz – 928 MHz	LoRa_DTS-500kHz	902.5-927.3	1-32 [32]
		903-914.2	1-8 [8]
		923.3-927.5	1-8 [8]
	LoRa_FHSS-125kHz	902.2-927.8	1-129 [129]
		902.3-914.9	1-64 [64]
	LoRa_FHSS-250kHz	902.3-927.5	1-64 [64]
	FSK-5kbps	902.2-927.8	1-129 [129]
	FSK-50kbps	902.2-927.8	1-129 [129]
	FSK-150kbps	902.4-927.6	1-64 [64]

Band	Mode	BWch (MHz)	Nant
902-928MHz	LoRa_DTS	0.5	1TX
902-928MHz	LoRa_FHSS-125k	0.125	1TX
902-928MHz	LoRa_FHSS-250k	0.25	1TX
902-928MHz	FSK-5k	0.1	1TX
902-928MHz	FSK-50k	0.1	1TX
902-928MHz	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)
- Testing was performed in accordance with the applicable FCC requirement for each of three transmission modes.

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 simultaneously.

For LoRa function:

For LoRa mode (1TX/1RX)

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

1.1.3 Mode Test Duty Cycle

Mode	DC	DCF(dB)	T(s)	VBW(Hz) ≥ 1/T
LoRa_DTS	0.991	0.04	n/a (DC>=0.98)	n/a (DC>=0.98)
LoRa_FHSS-125k	0.998	0.01	n/a (DC>=0.98)	n/a (DC>=0.98)
LoRa_FHSS-250k	0.996	0.02	n/a (DC>=0.98)	n/a (DC>=0.98)
FSK-5k	0.998	0.01	n/a (DC>=0.98)	n/a (DC>=0.98)
FSK-50k	0.983	0.07	n/a (DC>=0.98)	n/a (DC>=0.98)
FSK-150k	0.949	0.23	14.219m	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 AC mains			
Function	☐	Point-to-multipoint	☒	Point-to-point

Note: The above information was declared by manufacturer.

1.2 Testing Applied Standards

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

- 47 CFR FCC Part 15
- ANSI C63.10-2013
- KDB 558074 D01 v05r02

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	
Test site Designation No. TW1190 with FCC.			
☐	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	
Test site Designation No. TW0006 with FCC.			

Test Condition	Test Site No.	Test Engineer	Test Environment	Test Date
AC Conduction	CO04-HY	Jeff	23.5~24.2°C / 53.5~55.3%	14/Jun/2019
RF Conducted	TH06-HY	Gary	24.2~25.4°C / 59.8~64.2%	12/Jun/2019~ 17/Jun/2019
Radiated	03CH02-HY	Andy	21.3~22.4°C / 51.2~52.6%	09/Jun/2019~ 21/Jun/2019

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)	2.0 dB	Confidence levels of 95%
Radiated Emission (30MHz ~ 1,000MHz)	3.6 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	9.74×10^{-8}	Confidence levels of 95%

2 Test Configuration of EUT

2.1 Test Condition

Condition Item	Abbreviation/Remark	Remark
TnomVnom	Tnom	20°C
	Vnom	120V

2.2 Test Channel Mode

Test Software	DoS

Mode	PowerSetting
LoRa_DTS_Nss1_1TX	-
903MHz	12
907.8MHz	12
914.2MHz	12
902.5MHz	4
914.5MHz	12
927.3MHz	12
923.3MHz	12
925.1MHz	12
927.5MHz	9
LoRa_FHSS-125k_Nss1_1TX	-
902.2MHz	18
915MHz	17
927.8MHz	16
902.3MHz	18
908.5MHz	17
914.9MHz	17
LoRa_FHSS-250k_Nss1_1TX	-
902.3MHz	18
914.3MHz	18
927.5MHz	18

FSK-5K_Nss1_1TX	-
902.2MHz	20
915MHz	20
927.8MHz	20
FSK-50K_Nss1_1TX	-
902.2MHz	20
915MHz	20
927.8MHz	20
FSK-150K_Nss1_1TX	-
902.4MHz	20
914.8MHz	19
927.6MHz	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
1	AC mains mode

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
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
1	AC mains mode
Operating Mode > 1GHz	CTX

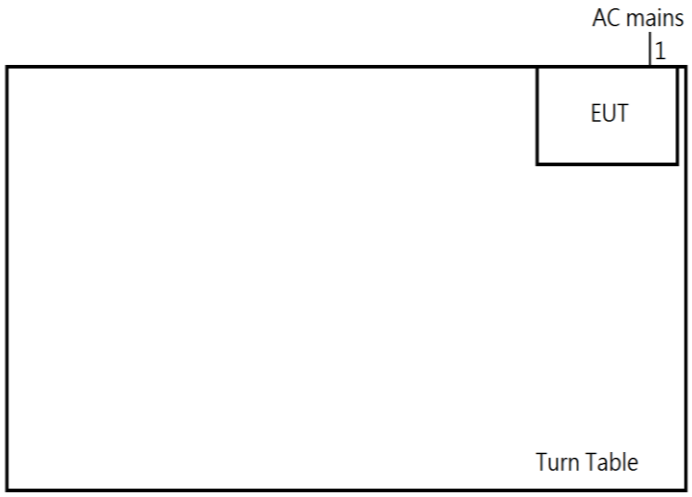
The Worst Case Mode for Following Conformance Tests	
Tests Item	Simultaneous Transmission Analysis
Operating Mode	CTX
1	LoRa + WLAN 2.4GHz
2	LoRa + Bluetooth
Refer to Sporton Test Report No.: FA953031 for Co-location RF Exposure Evaluation.	

2.4 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

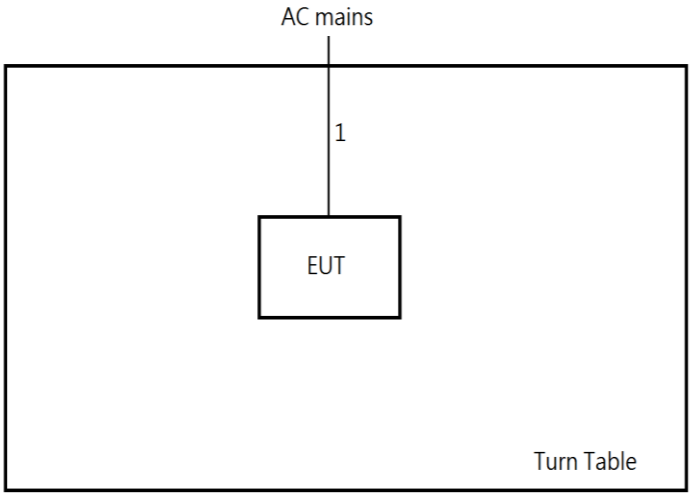
2.5 Test Setup Diagram

Test Setup Diagram – AC Line Conducted Emission Test



Item	Connection	Shielded	Length
1	AC Power line	No	6 m

Test Setup Diagram - Radiated Test



Item	Connection	Shielded	Length
1	AC Power line	No	6 m

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

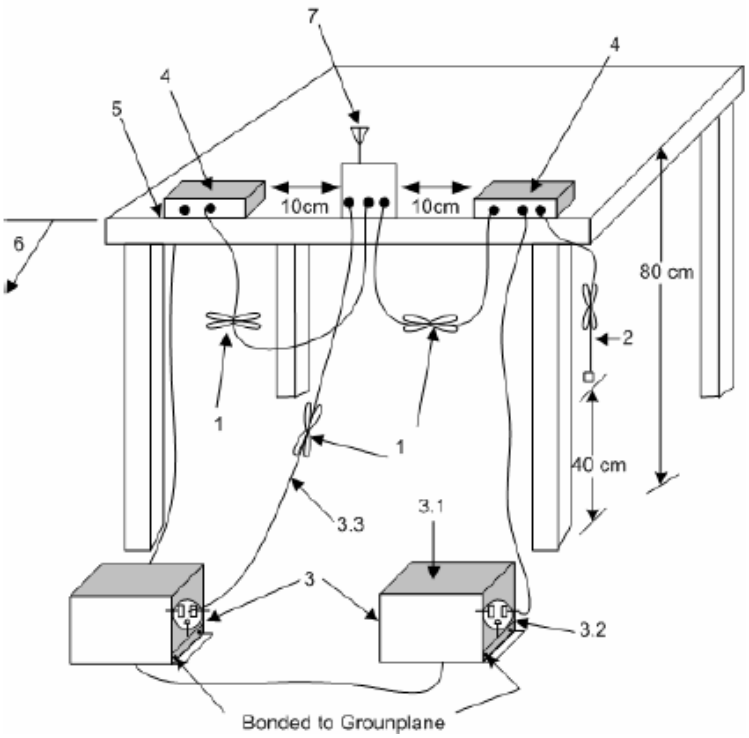
Refer a test equipment and calibration data table in this test report.

3.1.3 Test Procedures

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

3.1.4 Test Setup

AC Power-line Conducted Emissions



1—Interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth in the center forming a bundle 30 cm to 40 cm long.
2—The I/O cables that are not connected to an accessory shall be bundled in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. The overall length shall not exceed 1 m.
3—EUT connected to one LISN. Unused LISN measuring port connectors shall be terminated in 50 Ω loads. LISN may be placed on top of, or immediately beneath, reference ground plane.
3.1—All other equipment powered from additional LISN(s).
3.2—A multiple-outlet strip may be used for multiple power cords of non-EUT equipment.
3.3—LISN at least 80 cm from nearest part of EUT chassis.
4—Non-EUT components of EUT system being tested.
5—Rear of EUT, including peripherals, shall all be aligned and flush with edge of tabletop.
6—Edge of tabletop shall be 40 cm removed from a vertical conducting plane that is bonded to the ground plane.
7—Antenna can be integral or detachable. If detachable, then the antenna shall be attached for this test.

3.1.5 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 ≥ 500 kHz.

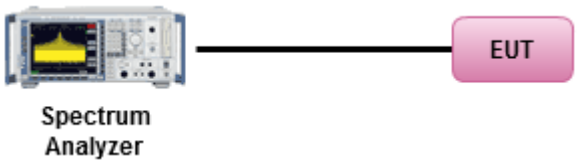
4.1.2 Measuring Instruments

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

Emission Bandwidth


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.		

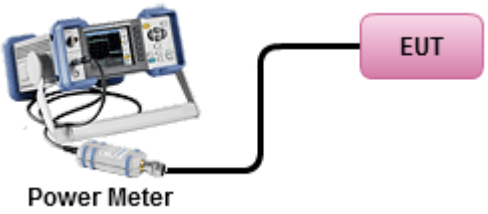
4.2.2 Measuring Instruments

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: $P_{total} = P_1 + P_2 + \ldots + P_n$ (calculated in linear unit [mW] and transfer to log unit [dBm]) $EIRP_{total} = P_{total} + DG$

4.2.4 Test Setup

Maximum Conducted Output Power (Power Meter)


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.

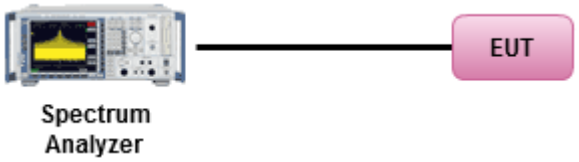
4.3.3 Test Procedures

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 ≥ 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

Power Spectral Density



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.	

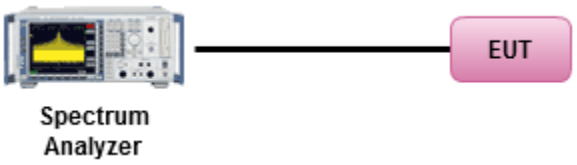
4.4.2 Measuring Instruments

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

Emissions in Non-restricted Frequency Bands


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 below30 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.

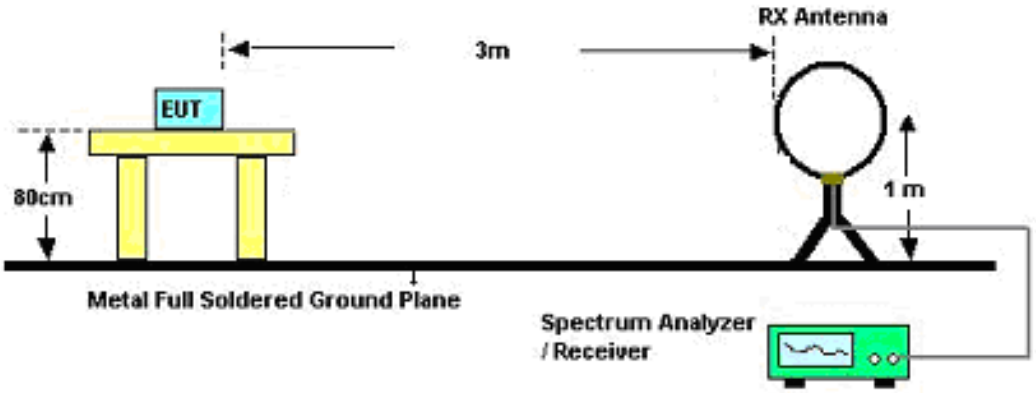
4.5.3 Test Procedures

Test Method		
▪ The average emission levels shall be measured in [duty cycle ≥ 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 for unwanted emissions into restricted bands.	
		☐ Refer as KDB 558074, clause 8.6 & C63.10 clause 11.12.2.5.1(trace averaging for duty cycle ≥98%).
		☐ Refer as KDB 558074, clause 8.6 & C63.10 clause 11.12.2.5.2(trace averaging + duty factor).
		☒ Refer as KDB 558074, clause 8.6 & C63.10 clause 11.12.2.5.3(Reduced VBW≥1/T).
		☐ Refer as ANSI C63.10, clause 11.12.2.5.3 (Reduced VBW). VBW ≥ 1/T, where T is pulse time.
		☐ Refer as ANSI C63.10, clause 7.5 average value of pulsed emissions.
		☒ Refer as KDB 558074, clause 8.6 & C63.10 clause 11.12.2.4 measurement procedure peak limit.
▪ For the transmitter band-edge emissions shall be measured using following options below:		
	▪ Refer as KDB 558074 clause 8.7 & C63.10 clause 11.13.1, 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 (ANSI C63.10, clause 6.10.6) for marker-delta method for band-edge measurements.	
	▪ Refer as KDB 558074, clause 8.7 for narrower resolution bandwidth (100kHz) using the band power and summing the spectral levels (i.e., 1 MHz).	
	▪ For conducted unwanted emissions into restricted bands (absolute emission limits). Devices with multiple transmit chains using options given below: (1) Measure and sum the spectra across the outputs or (2) Measure and add 10 log(N) dB	
	▪ For FCC KDB 662911 The methodology described here may overestimate array gain, thereby resulting in apparent failures to satisfy the out-of-band limits even if the device is actually compliant. In such cases, compliance may be demonstrated by performing radiated tests around the frequencies at which the apparent failures occurred.	

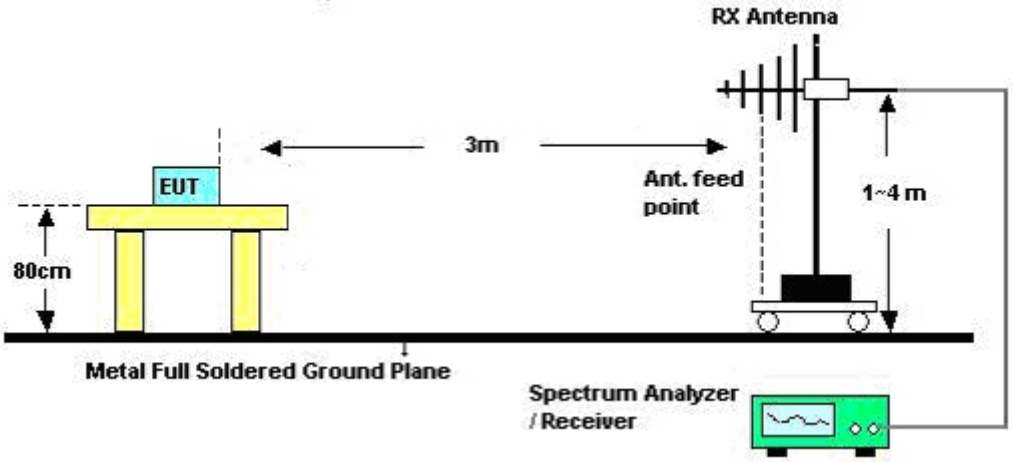
4.5.4 Test Setup

Transmitter Radiated Emissions

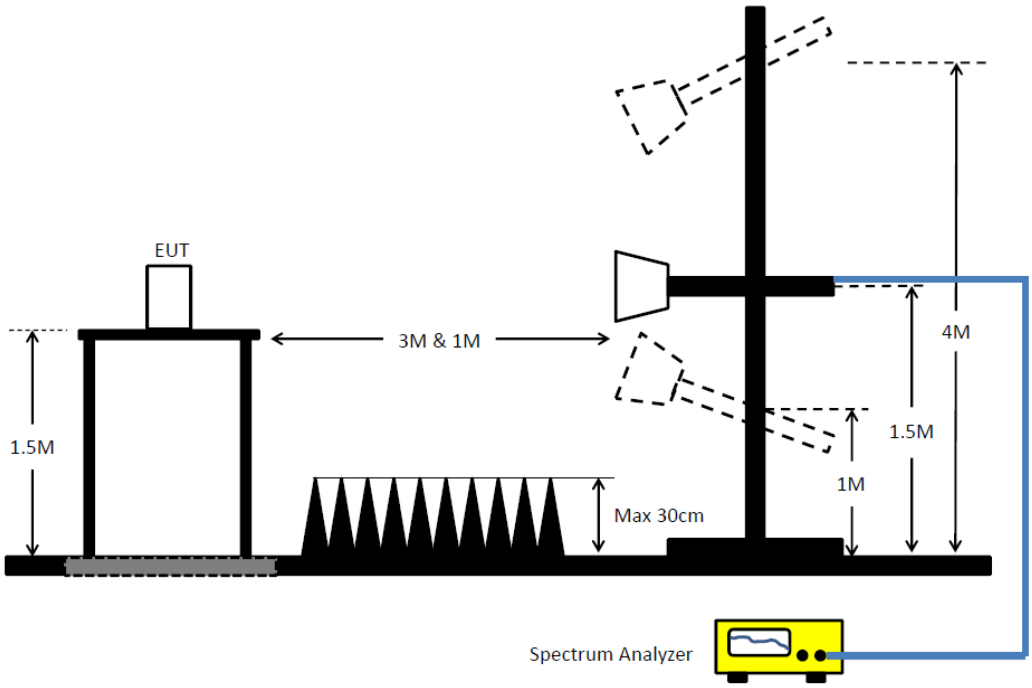
9kHz ~30MHz



30MHz~1GHz



Above 1GHz



4.5.5 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.

4.5.6 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
▪ 902-928 MHz Band:
▪ N ≥50 and ChS ≥ MAX (20 dB bandwidth, 25 kHz); 20 dB bandwidth≤ 250 kHz.
▪ 50 >N≥25 and ChS ≥ MAX (20 dB bandwidth, 25 kHz); 20 dB bandwidth>250 kHz.
▪ 2400-2483.5 MHz Band:
▪ N ≥75 and ChS ≥ MAX (20 dB bandwidth, 25 kHz).
▪ 75>N ≥ 15 and ChS ≥ MAX (20 dB bandwidth 2/3,25 kHz).
▪ 5725-5850 MHz Band:
▪ N ≥ 75 and ChS ≥ MAX (20 dB bandwidth, 25 kHz); 20 dB bandwidth≤ 1 MHz.
N:Number of Hopping Frequencies; **ChS**: Hopping Channel Separation

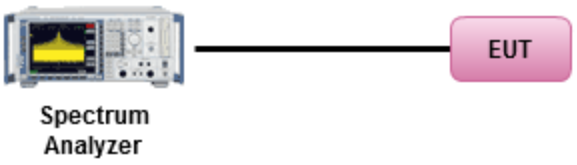
5.1.2 Measuring Instruments

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

20dB Bandwidth and Carrier Frequency Separation


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.		

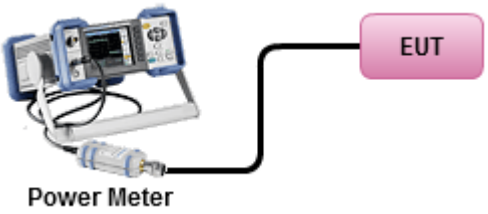
5.2.2 Measuring Instruments

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: $P_{total} = P_1 + P_2 + \ldots + P_n$ (calculated in linear unit [mW] and transfer to log unit [dBm]) $EIRP_{total} = P_{total} + DG$

5.2.4 Test Setup

Maximum Conducted Output Power (Power Meter)


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
▪ 902-928 MHz Band:
▪ ChS ≥ MAX (20 dB bandwidth, 25 kHz); 20 dB bandwidth≤ 250 kHz.
▪ ChS ≥ MAX (20 dB bandwidth, 25 kHz); 20 dB bandwidth>250 kHz.
▪ 2400-2483.5 MHz Band:
▪ ChS ≥ MAX (20 dB bandwidth, 25 kHz).
▪ ChS ≥ MAX (20 dB bandwidth 2/3,25 kHz).
▪ 5725-5850 MHz Band:
▪ ChS ≥ MAX (20 dB bandwidth, 25 kHz); 20 dB bandwidth≤ 1 MHz.
ChS : Hopping Channel Separation

5.3.2 Hopping Bandedge Limit

Refer clause 5.5.1 and clause 5.6.1

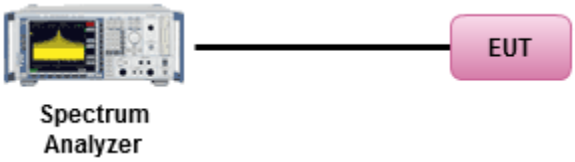
5.3.3 Measuring Instruments

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

Number of Hopping Frequencies and Hopping Frequencies Bandedge


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
▪ 902-928 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

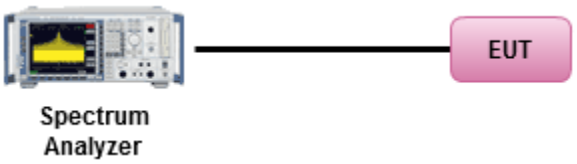
5.4.2 Measuring Instruments

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

Time of Occupancy (Dwell Time)
 Spectrum Analyzer

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.	

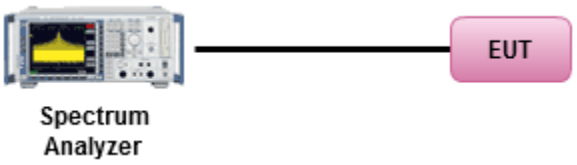
5.5.2 Measuring Instruments

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

Emissions in Non-restricted Frequency Bands


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 below30 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.

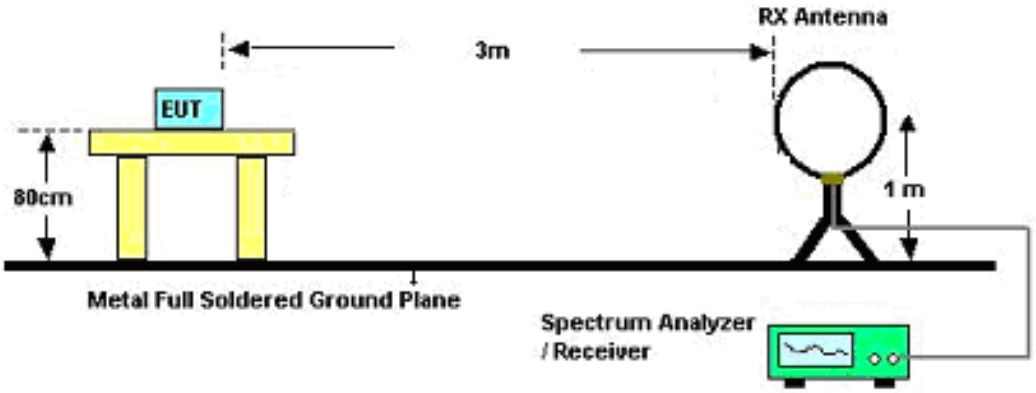
5.6.3 Test Procedures

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.

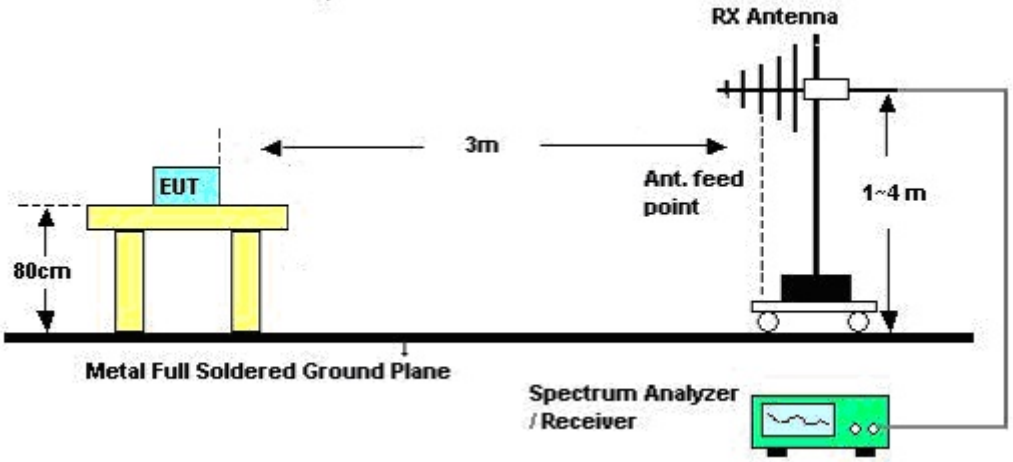
5.6.4 Test Setup

Emissions in Restricted Frequency Bands

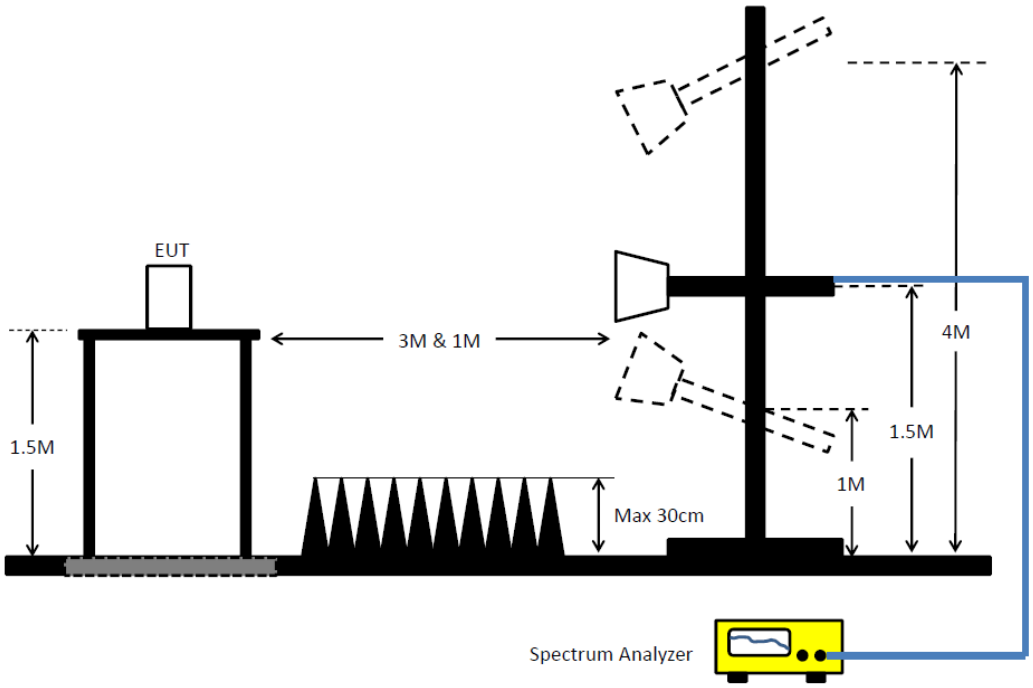
9kHz ~30MHz



30MHz~1GHz



Above 1GHz



5.6.5 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.

5.6.6 Test Result of Emissions in Restricted Frequency Bands

Refer as Appendix F

6 Test Equipment and Calibration Data

Instrument for AC Conduction

Instrument	Manufacturer	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
EMC Receiver	R&S	ESR3	102052	9kHz ~ 3.6GHz	09/Apr/2019	08/Apr/2020
LISN	R&S	ENV216	101295	9kHz ~ 30MHz	08/Nov/2018	07/Nov/2019
RF Cable-CON	MTJ	RG142	CB002-CO	9kHz ~ 200MHz	17/Sep/2018	16/Sep/2019
AC POWER	APC	AFC-11005G	F310050055	47Hz~63Hz 5~300V	NCR	NCR
Impuls Begrenzer Pulse Limiter	SCHWARZBECK	VTSD 9561-F	9561-F041	9 kHz ~ 30 MHz	12/Oct/2018	11/Oct/2019

NCR : Non-Calibration Require

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

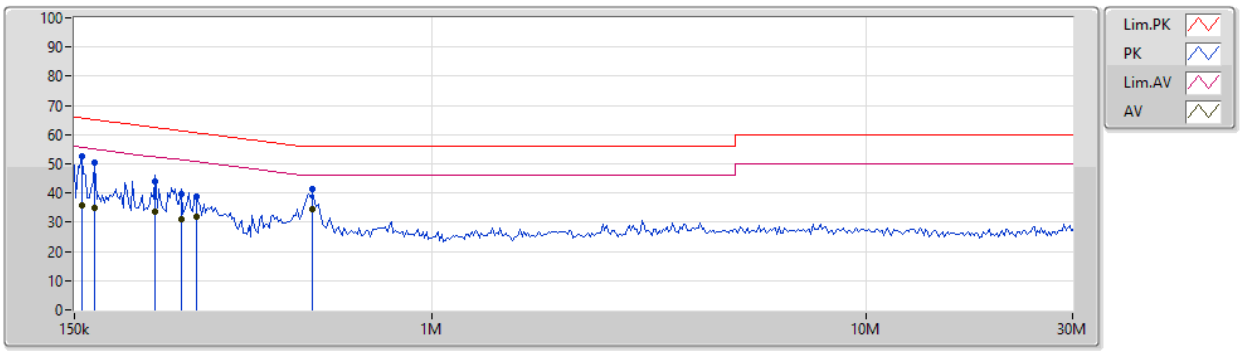
Instrument for Radiated Test

Instrument	Manufacturer	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
3m Semi Anechoic Chamber	SIDT FRANKONIA	SAC-3M	03CH02-HY	30MHz ~ 1GHz 3m	19/Oct/2018	18/Oct/2019
3m Semi Anechoic Chamber	SIDT FRANKONIA	SAC-3M	03CH02-HY	1GHz ~ 18GHz 3m	17/Oct/2018	16/Oct/2019
Amplifier	Agilent	8447D	2944A11149	100kHz ~ 1.3GHz	27Jul/2018	02/Jul/2019
Amplifier	KEYSIGHT	83017A	MY53270197	1GHz ~ 26.5GHz	30/Nov/2018	29/Nov/2019
Spectrum Analyzer	Rohde & Schwarz	FSP40	100593	9KHz - 40GHz	27/Dec/2018	26/Dec/2019
EMI Test Receiver	R&S	ESR3	102052	9kHz ~ 3.6GHz	09/Apr/2019	08/Apr/2020
RF Cable-R03m	Jye Bao	RG142	CB017	9kHz ~ 1GHz	26/Mar/2019	25/Mar/2020
RF Cable-high 6m	SUHNER	SUCOFLEX104	10567868 / SN805193/4	1GHz~40GHz	09/Apr/2019	08/Apr/2020
RF Cable-high 7m	SUHNER	SUCOFLEX104	10567868 / SN805192/4	1GHz~40GHz	09/Apr/2019	08/Apr/2020
Bilog Antenna & 5dB Attenuator	SCHAFFNER / MTJ	CBL 6112B / MTJ6102-05	2723 / 2	30MHz ~ 1GHz	08/Sep/2018	07/Sep/2019
Broadband Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA 9170221	15GHz ~ 40GHz	22/Mar/2019	21/Mar/2020
Loop Antenna	TESEQ	HLA 6120	31244	9k-30MHz	15/Mar/2019	14/Mar/2020
Double Ridged Guide Horn Antenna	SCHWARZBECK	BBHA 9120 D	BBHA 9120 D 01543	1GHz ~ 18GHz	03/Jun/2019	02/Jun/2020

———THE END———

AC Power-line Conducted Emissions Result			
Operating Mode	1	**Power Phase**	Neutral
Operating Function	AC mains mode ; DTS-500kHz		

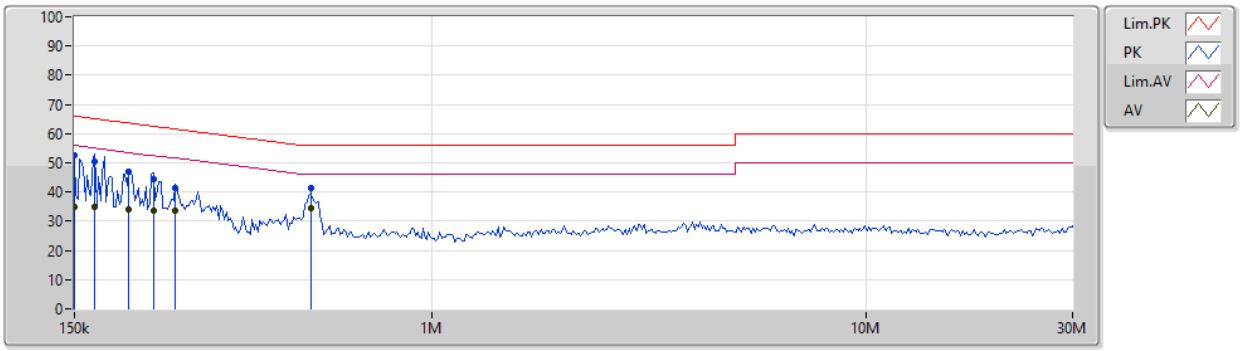
14/06/2019



Type	Freq	Level	Limit	Margin	Factor	Condition	Comment	Raw	LISN	CL	AT
	(Hz)	(dBuV)	(dBuV)	(dB)	(dB)			(dBuV)	(dB)	(dB)	(dB)
QP	156.091k	52.48	65.67	-13.19	19.48	Neutral	-	33.00	9.60	0.01	9.87
AV	156.091k	35.93	55.67	-19.74	19.48	Neutral	-	16.45	9.60	0.01	9.87
QP	167.35k	50.33	65.08	-14.75	19.48	Neutral	-	30.85	9.60	0.01	9.87
AV	167.35k	34.79	55.08	-20.29	19.48	Neutral	-	15.31	9.60	0.01	9.87
QP	230.097k	44.02	62.44	-18.42	19.47	Neutral	-	24.55	9.59	0.01	9.87
AV	230.097k	33.42	52.44	-19.02	19.47	Neutral	-	13.95	9.59	0.01	9.87
QP	264.49k	39.57	61.30	-21.73	19.47	Neutral	-	20.10	9.59	0.01	9.87
AV	264.49k	30.89	51.30	-20.41	19.47	Neutral	-	11.42	9.59	0.01	9.87
QP	286.405k	38.82	60.63	-21.81	19.48	Neutral	-	19.34	9.59	0.01	9.88
AV	286.405k	31.87	50.63	-18.76	19.48	Neutral	-	12.39	9.59	0.01	9.88
QP	530.769k	41.31	56.00	-14.69	19.48	Neutral	-	21.83	9.59	0.01	9.88
AV	530.769k	34.54	46.00	-11.46	19.48	Neutral	"Worst"	15.06	9.59	0.01	9.88

AC Power-line Conducted Emissions Result			
Operating Mode	1	**Power Phase**	Line
Operating Function	AC mains mode ; DTS-500kHz		

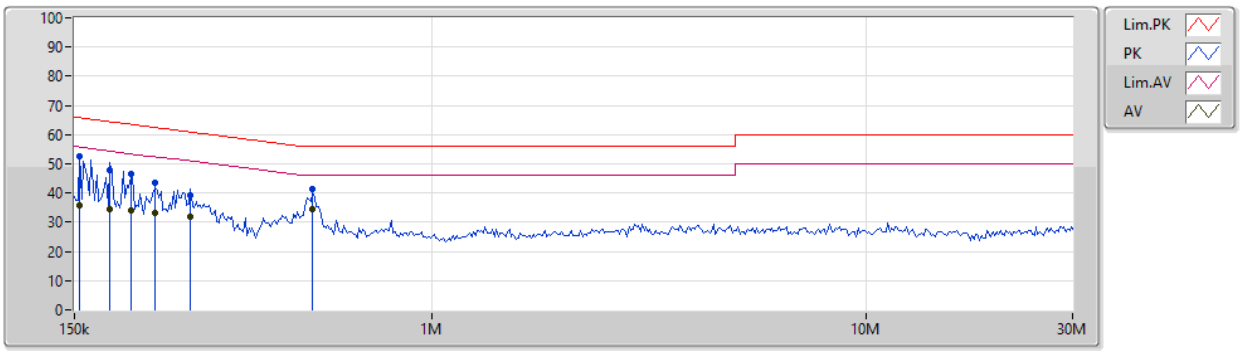
14/06/2019



Type	Freq	Level	Limit	Margin	Factor	Condition	Comment	Raw	LISN	CL	AT
	(Hz)	(dBuV)	(dBuV)	(dB)	(dB)			(dBuV)	(dB)	(dB)	(dB)
QP	150k	52.49	66.00	-13.51	19.48	Line	-	33.01	9.60	0.01	9.87
AV	150k	34.75	56.00	-21.25	19.48	Line	-	15.27	9.60	0.01	9.87
QP	167.35k	50.44	65.08	-14.64	19.48	Line	-	30.96	9.60	0.01	9.87
AV	167.35k	34.70	55.08	-20.38	19.48	Line	-	15.22	9.60	0.01	9.87
QP	200.176k	47.05	63.61	-16.56	19.48	Line	-	27.57	9.60	0.01	9.87
AV	200.176k	34.10	53.61	-19.51	19.48	Line	-	14.62	9.60	0.01	9.87
QP	227.818k	44.30	62.52	-18.22	19.48	Line	-	24.82	9.60	0.01	9.87
AV	227.818k	33.83	52.52	-18.69	19.48	Line	-	14.35	9.60	0.01	9.87
QP	256.712k	41.52	61.54	-20.02	19.48	Line	-	22.04	9.60	0.01	9.87
AV	256.712k	33.79	51.54	-17.75	19.48	Line	-	14.31	9.60	0.01	9.87
QP	525.514k	41.26	56.00	-14.74	19.48	Line	-	21.78	9.59	0.01	9.88
AV	525.514k	34.61	46.00	-11.39	19.48	Line	"Worst"	15.13	9.59	0.01	9.88

AC Power-line Conducted Emissions Result			
Operating Mode	1	**Power Phase**	Neutral
Operating Function	AC mains mode ; FHSS-125kHz		

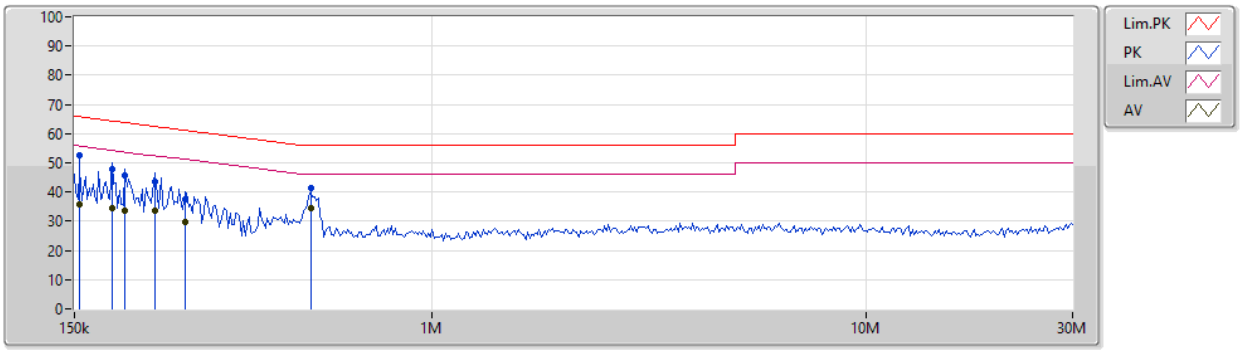
14/06/2019



Type	Freq	Level	Limit	Margin	Factor	Condition	Comment	Raw	LISN	CL	AT
	(Hz)	(dBuV)	(dBuV)	(dB)	(dB)			(dBuV)	(dB)	(dB)	(dB)
QP	154.545k	52.44	65.75	-13.31	19.48	Neutral	-	32.96	9.60	0.01	9.87
AV	154.545k	35.95	55.75	-19.80	19.48	Neutral	-	16.47	9.60	0.01	9.87
QP	181.216k	47.80	64.43	-16.63	19.47	Neutral	-	28.33	9.59	0.01	9.87
AV	181.216k	34.42	54.43	-20.01	19.47	Neutral	-	14.95	9.59	0.01	9.87
QP	202.177k	46.55	63.51	-16.96	19.47	Neutral	-	27.08	9.59	0.01	9.87
AV	202.177k	33.89	53.51	-19.62	19.47	Neutral	-	14.42	9.59	0.01	9.87
QP	230.097k	43.57	62.44	-18.87	19.47	Neutral	-	24.10	9.59	0.01	9.87
AV	230.097k	33.38	52.44	-19.06	19.47	Neutral	-	13.91	9.59	0.01	9.87
QP	277.982k	39.26	60.88	-21.62	19.47	Neutral	-	19.79	9.59	0.01	9.87
AV	277.982k	32.05	50.88	-18.83	19.47	Neutral	-	12.58	9.59	0.01	9.87
QP	530.769k	41.26	56.00	-14.74	19.48	Neutral	-	21.78	9.59	0.01	9.88
AV	530.769k	34.51	46.00	-11.49	19.48	Neutral	"Worst"	15.03	9.59	0.01	9.88

AC Power-line Conducted Emissions Result			
Operating Mode	1	**Power Phase**	Line
Operating Function	AC mains mode ; FHSS-125kHz		

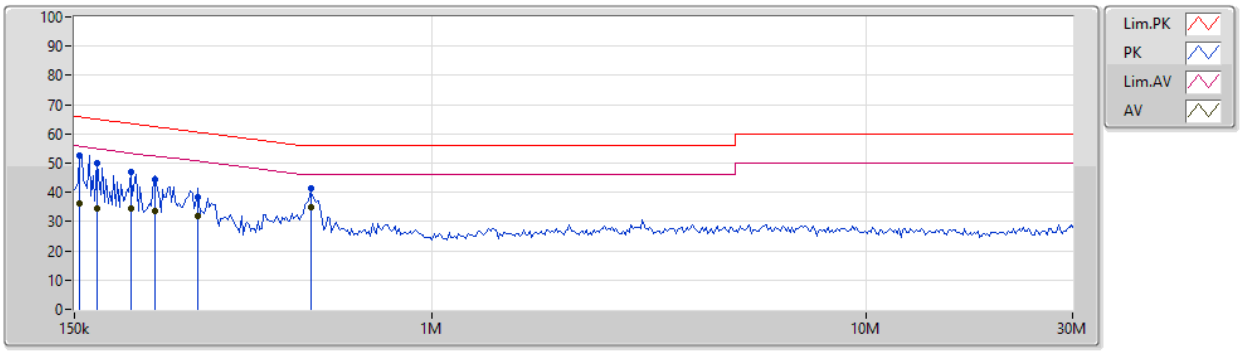
14/06/2019



Type	Freq	Level	Limit	Margin	Factor	Condition	Comment	Raw	LISN	CL	AT
	(Hz)	(dBuV)	(dBuV)	(dB)	(dB)			(dBuV)	(dB)	(dB)	(dB)
QP	154.545k	52.58	65.75	-13.17	19.48	Line	-	33.10	9.60	0.01	9.87
AV	154.545k	35.65	55.75	-20.10	19.48	Line	-	16.17	9.60	0.01	9.87
QP	183.029k	48.02	64.34	-16.32	19.48	Line	-	28.54	9.60	0.01	9.87
AV	183.029k	34.36	54.34	-19.98	19.48	Line	-	14.88	9.60	0.01	9.87
QP	196.231k	45.68	63.76	-18.08	19.48	Line	-	26.20	9.60	0.01	9.87
AV	196.231k	33.46	53.76	-20.30	19.48	Line	-	13.98	9.60	0.01	9.87
QP	230.097k	43.66	62.44	-18.78	19.48	Line	-	24.18	9.60	0.01	9.87
AV	230.097k	33.41	52.44	-19.03	19.48	Line	-	13.93	9.60	0.01	9.87
QP	269.806k	37.33	61.12	-23.79	19.48	Line	-	17.85	9.60	0.01	9.87
AV	269.806k	29.82	51.12	-21.30	19.48	Line	-	10.34	9.60	0.01	9.87
QP	525.514k	41.22	56.00	-14.78	19.48	Line	-	21.74	9.59	0.01	9.88
AV	525.514k	34.62	46.00	-11.38	19.48	Line	"Worst"	15.14	9.59	0.01	9.88

AC Power-line Conducted Emissions Result			
Operating Mode	1	**Power Phase**	Neutral
Operating Function	AC mains mode ; FSK-50kbps		

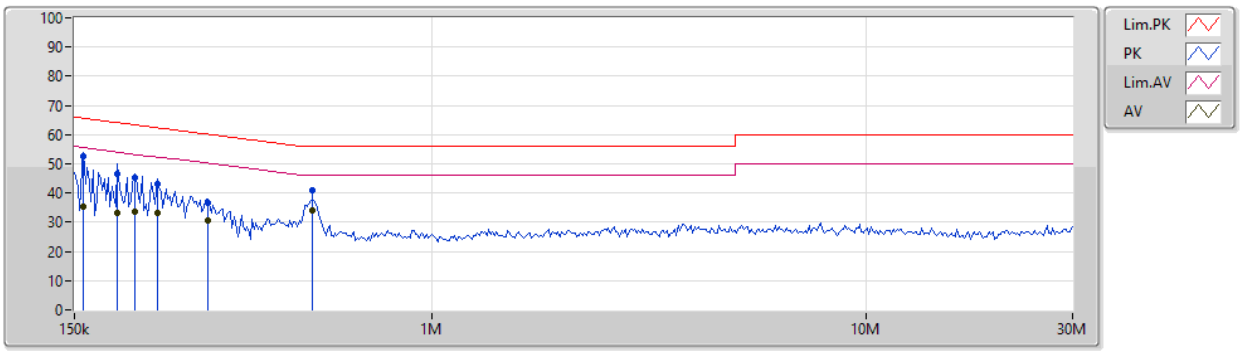
14/06/2019



Type	Freq	Level	Limit	Margin	Factor	Condition	Comment	Raw	LISN	CL	AT
	(Hz)	(dBuV)	(dBuV)	(dB)	(dB)			(dBuV)	(dB)	(dB)	(dB)
QP	154.545k	52.78	65.75	-12.97	19.48	Neutral	-	33.30	9.60	0.01	9.87
AV	154.545k	36.18	55.75	-19.57	19.48	Neutral	-	16.70	9.60	0.01	9.87
QP	169.024k	50.05	65.01	-14.96	19.48	Neutral	-	30.57	9.60	0.01	9.87
AV	169.024k	34.68	55.01	-20.33	19.48	Neutral	-	15.20	9.60	0.01	9.87
QP	202.177k	47.18	63.51	-16.33	19.47	Neutral	-	27.71	9.59	0.01	9.87
AV	202.177k	34.42	53.51	-19.09	19.47	Neutral	-	14.95	9.59	0.01	9.87
QP	230.097k	44.19	62.44	-18.25	19.47	Neutral	-	24.72	9.59	0.01	9.87
AV	230.097k	33.56	52.44	-18.88	19.47	Neutral	-	14.09	9.59	0.01	9.87
QP	289.269k	38.51	60.55	-22.04	19.48	Neutral	-	19.03	9.59	0.01	9.88
AV	289.269k	32.09	50.55	-18.46	19.48	Neutral	-	12.61	9.59	0.01	9.88
QP	525.514k	41.40	56.00	-14.60	19.48	Neutral	-	21.92	9.59	0.01	9.88
AV	525.514k	34.77	46.00	-11.23	19.48	Neutral	"Worst"	15.29	9.59	0.01	9.88

AC Power-line Conducted Emissions Result			
Operating Mode	1	**Power Phase**	Line
Operating Function	AC mains mode ; FSK-50kbps		

14/06/2019



Type	Freq	Level	Limit	Margin	Factor	Condition	Comment	Raw	LISN	CL	AT
	(Hz)	(dBuV)	(dBuV)	(dB)	(dB)			(dBuV)	(dB)	(dB)	(dB)
QP	157.652k	52.66	65.58	-12.92	19.48	Line	-	33.18	9.60	0.01	9.87
AV	157.652k	35.30	55.58	-20.28	19.48	Line	-	15.82	9.60	0.01	9.87
QP	188.574k	46.50	64.11	-17.61	19.48	Line	-	27.02	9.60	0.01	9.87
AV	188.574k	33.08	54.11	-21.03	19.48	Line	-	13.60	9.60	0.01	9.87
QP	206.241k	45.30	63.36	-18.06	19.48	Line	-	25.82	9.60	0.01	9.87
AV	206.241k	33.66	53.36	-19.70	19.48	Line	-	14.18	9.60	0.01	9.87
QP	232.398k	43.14	62.37	-19.23	19.48	Line	-	23.66	9.60	0.01	9.87
AV	232.398k	33.19	52.37	-19.18	19.48	Line	-	13.71	9.60	0.01	9.87
QP	304.025k	36.54	60.13	-23.59	19.48	Line	-	17.06	9.59	0.01	9.88
AV	304.025k	30.45	50.13	-19.68	19.48	Line	-	10.97	9.59	0.01	9.88
QP	530.769k	41.05	56.00	-14.95	19.48	Line	-	21.57	9.59	0.01	9.88
AV	530.769k	34.26	46.00	-11.74	19.48	Line	"Worst"	14.78	9.59	0.01	9.88

Summary

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
902-928MHz	-	-	-	-	-
LoRa_DTS_Nss1_1TX	623.75k	510.995k	511KF1D	613.75k	498.501k

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

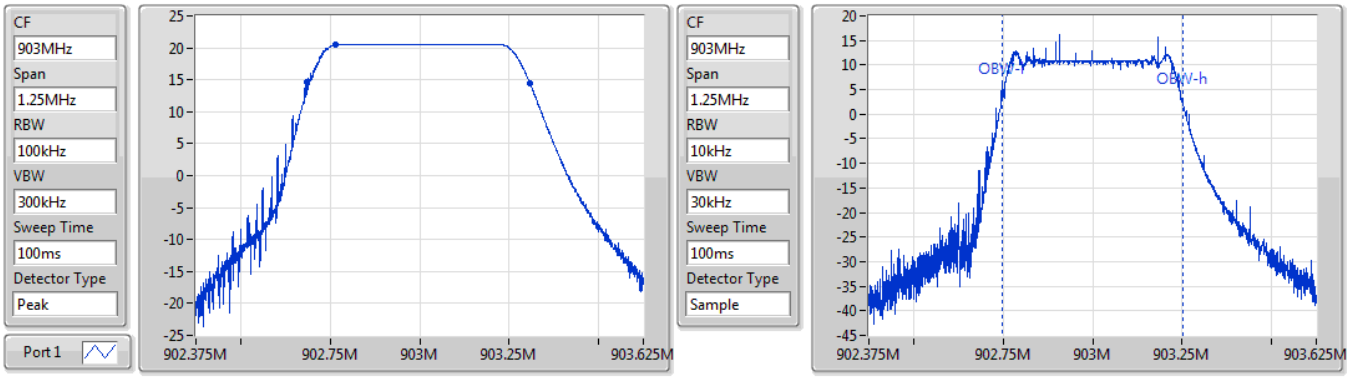
Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)
LoRa_DTS_Nss1_1TX	-	-	-	-
903MHz	Pass	500k	623.125k	503.498k
907.8MHz	Pass	500k	623.75k	499.125k
914.2MHz	Pass	500k	620.625k	499.125k
902.5MHz	Pass	500k	623.125k	510.995k
914.5MHz	Pass	500k	617.5k	499.75k
927.3MHz	Pass	500k	613.75k	501k
923.3MHz	Pass	500k	620k	504.748k
925.1MHz	Pass	500k	616.875k	503.498k
927.5MHz	Pass	500k	613.75k	498.501k

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

LoRa_DTS_Nss1_1TX EBW

903MHz

12/06/2019

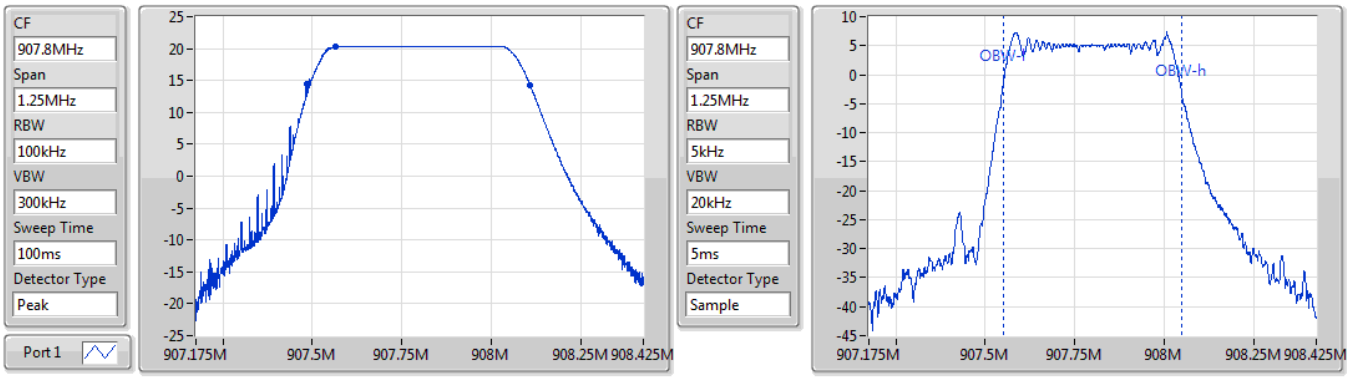


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
623.125k	902.685M	903.308125M	503.498k	902.748251M	903.251749M	500k	1

LoRa_DTS_Nss1_1TX EBW

907.8MHz

12/06/2019

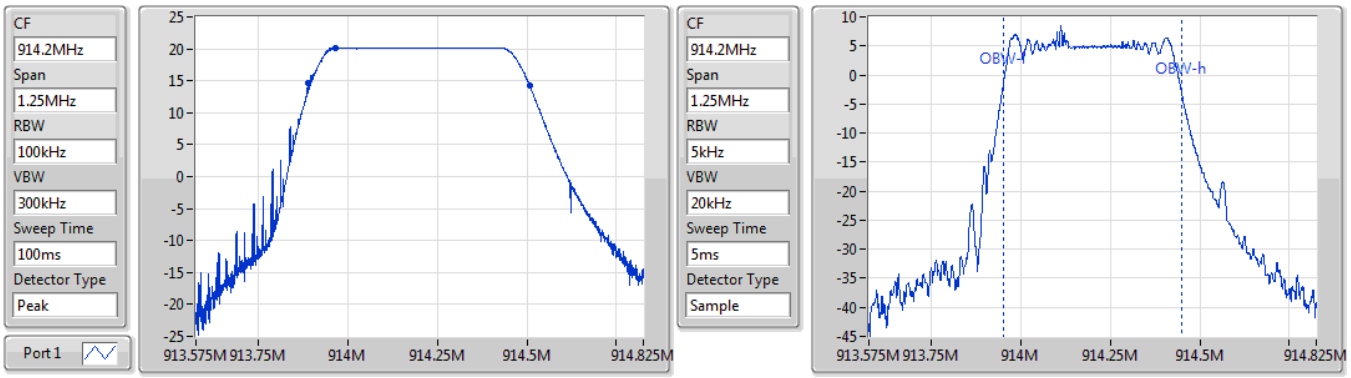


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
623.75k	907.484375M	908.108125M	499.125k	907.55075M	908.049875M	500k	1

LoRa_DTS_Nss1_1TX **EBW**

914.2MHz

12/06/2019

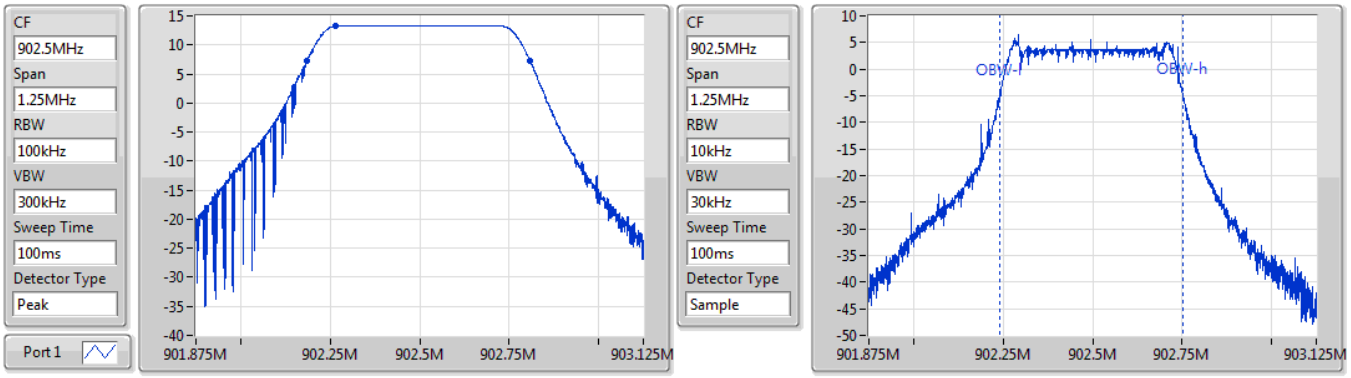


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
620.625k	913.886875M	914.5075M	499.125k	913.95075M	914.449875M	500k	1

LoRa_DTS_Nss1_1TX **EBW**

902.5MHz

12/06/2019



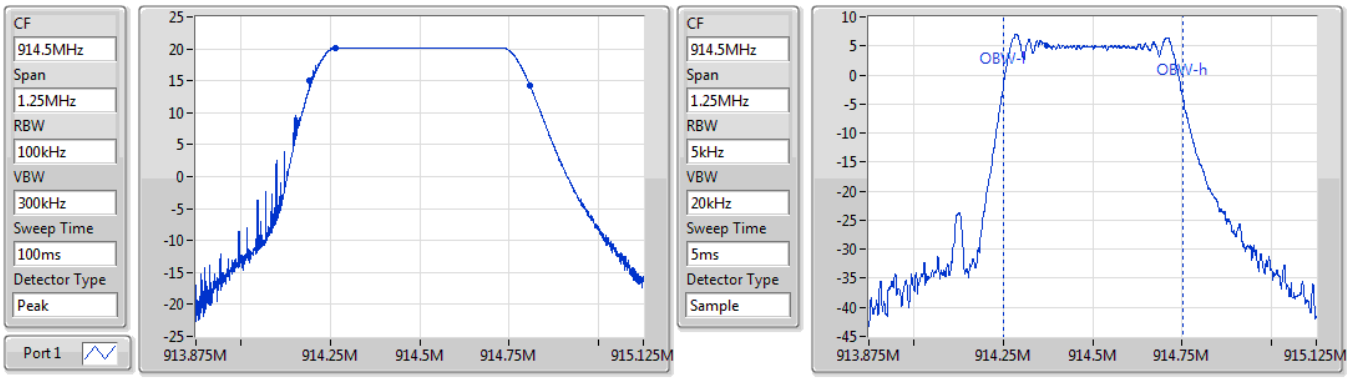
6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
623.125k	902.185M	902.808125M	510.995k	902.240755M	902.751749M	500k	1

LoRa_DTS_Nss1_1TX

EBW

914.5MHz

12/06/2019



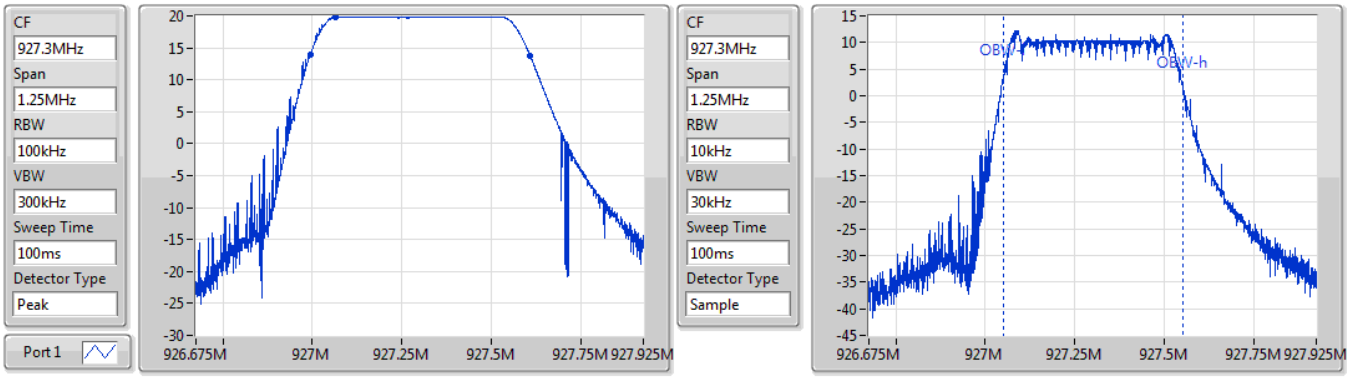
6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
617.5k	914.19125M	914.80875M	499.75k	914.251374M	914.751124M	500k	1

LoRa_DTS_Nss1_1TX

EBW

927.3MHz

12/06/2019



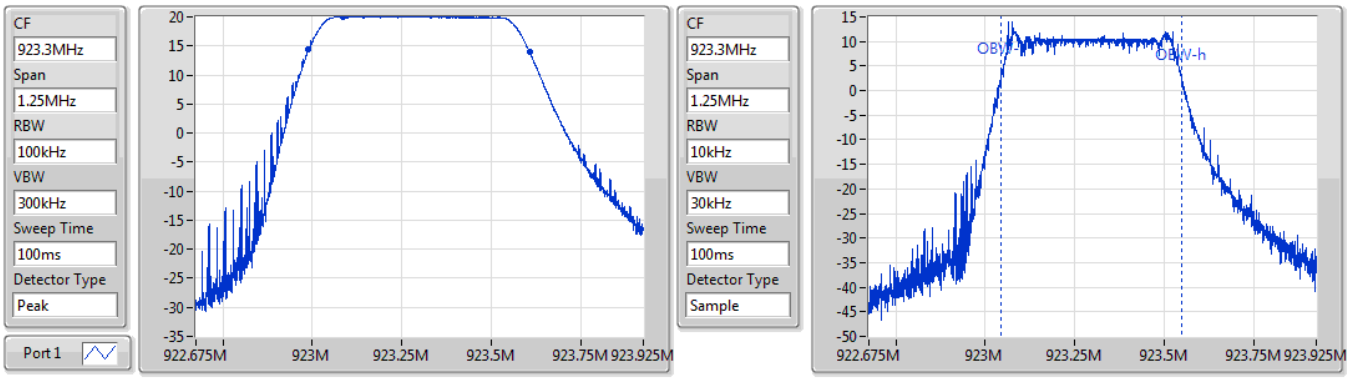
6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
613.75k	926.994375M	927.608125M	501k	927.05075M	927.551749M	500k	1

LoRa_DTS_Nss1_1TX

EBW

923.3MHz

12/06/2019



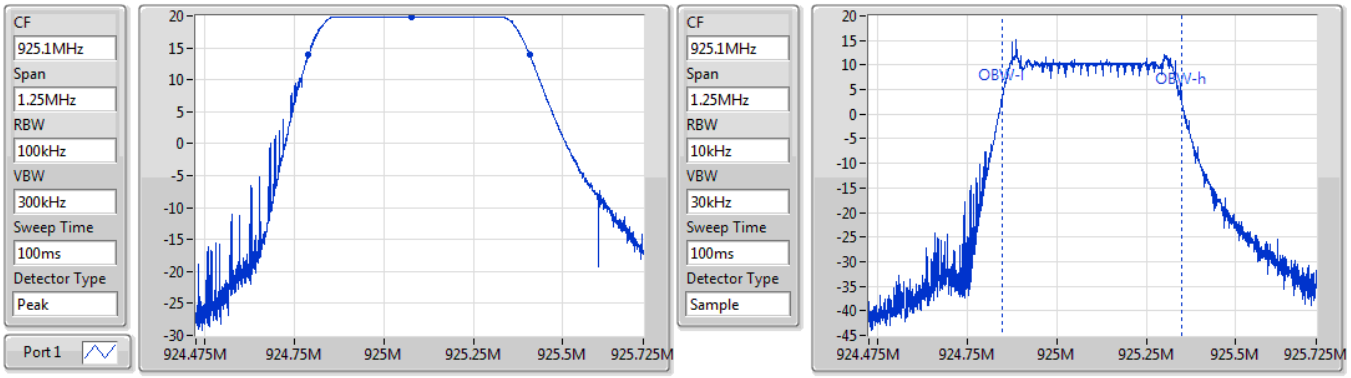
6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
620k	922.986875M	923.606875M	504.748k	923.045752M	923.5505M	500k	1

LoRa_DTS_Nss1_1TX

EBW

925.1MHz

12/06/2019

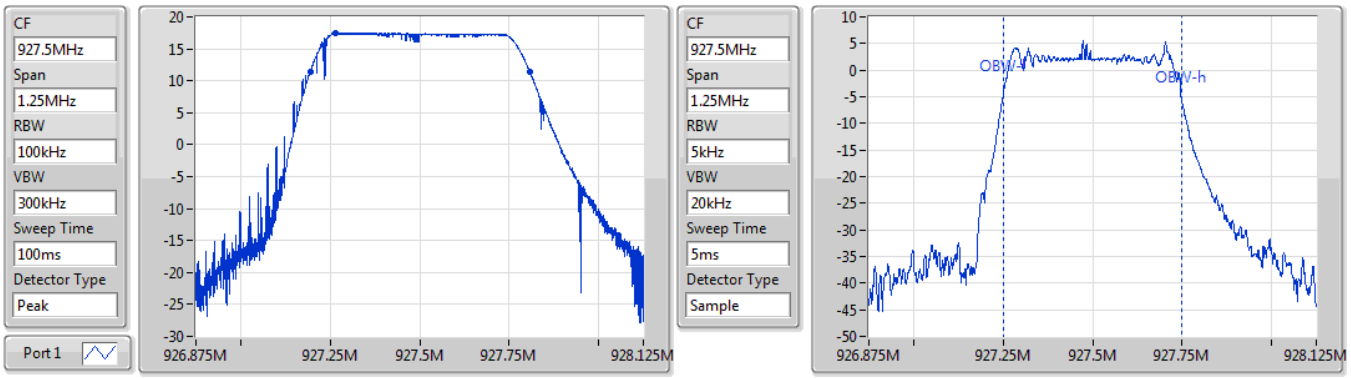


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
616.875k	924.79M	925.406875M	503.498k	924.847001M	925.3505M	500k	1

LoRa_DTS_Nss1_1TX **EBW**

927.5MHz

12/06/2019



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
613.75k	927.19375M	927.8075M	498.501k	927.251374M	927.749875M	500k	1

Summary

Mode	Power (dBm)	Power (W)
902-928MHz	-	-
LoRa_DTS_Nss1_1TX	20.69	0.11722

Result

Mode	Result	Gain (dBi)	Power (dBm)	Power Limit (dBm)
LoRa_DTS_Nss1_1TX	-	-	-	-
903MHz	Pass	0.73	20.69	30.00
907.8MHz	Pass	0.73	20.53	30.00
914.2MHz	Pass	0.73	20.30	30.00
902.5MHz	Pass	0.73	13.39	30.00
914.5MHz	Pass	0.73	20.42	30.00
927.3MHz	Pass	0.73	20.08	30.00
923.3MHz	Pass	0.73	20.10	30.00
925.1MHz	Pass	0.73	20.05	30.00
927.5MHz	Pass	0.73	17.51	30.00

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

Summary

Mode	PD (dBm/RBW)
902-928MHz	-
LoRa_DTS_Nss1_1TX	7.85

RBW=3 kHz.

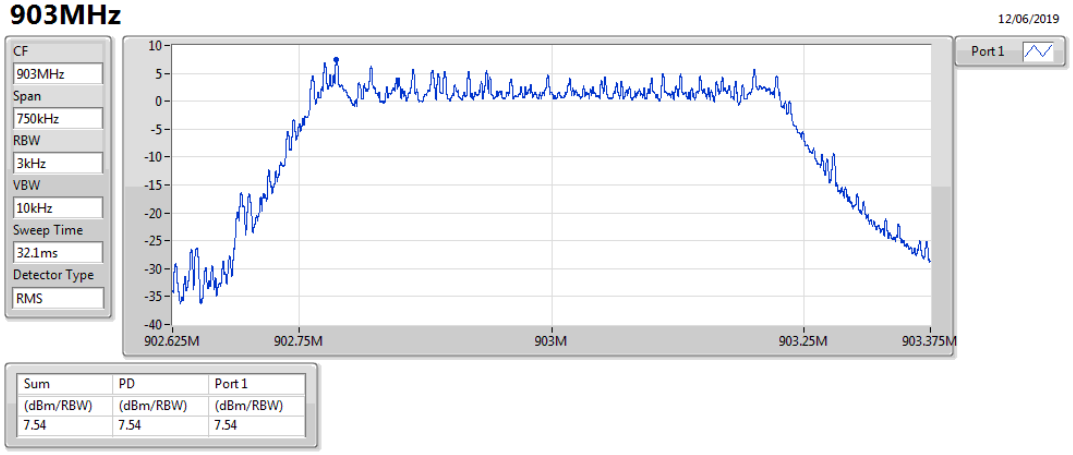
Result

Mode	Result	Gain (dBi)	PD (dBm/RBW)	PD Limit (dBm/RBW)
LoRa_DTS_Nss1_1TX	-	-	-	-
903MHz	Pass	0.73	7.54	8.00
907.8MHz	Pass	0.73	7.85	8.00
914.2MHz	Pass	0.73	7.13	8.00
902.5MHz	Pass	0.73	0.27	8.00
914.5MHz	Pass	0.73	7.45	8.00
927.3MHz	Pass	0.73	7.60	8.00
923.3MHz	Pass	0.73	7.37	8.00
925.1MHz	Pass	0.73	7.39	8.00
927.5MHz	Pass	0.73	4.99	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**

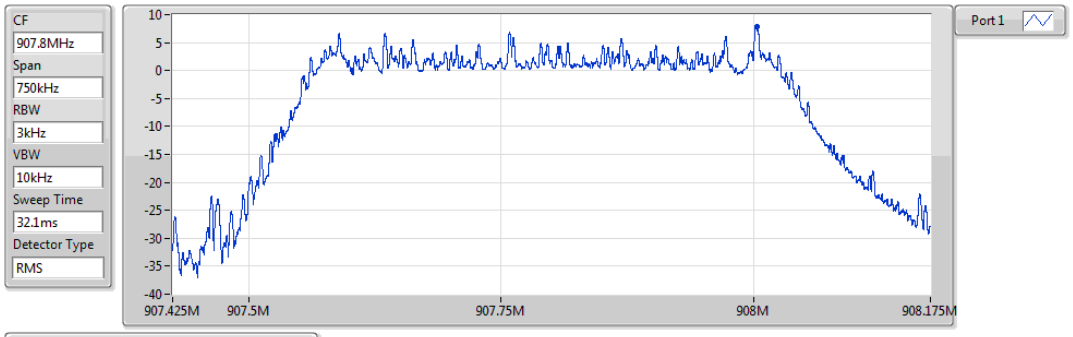
903MHz



Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
7.54	7.54	7.54

LoRa_DTS_Nss1_1TX **PSD**

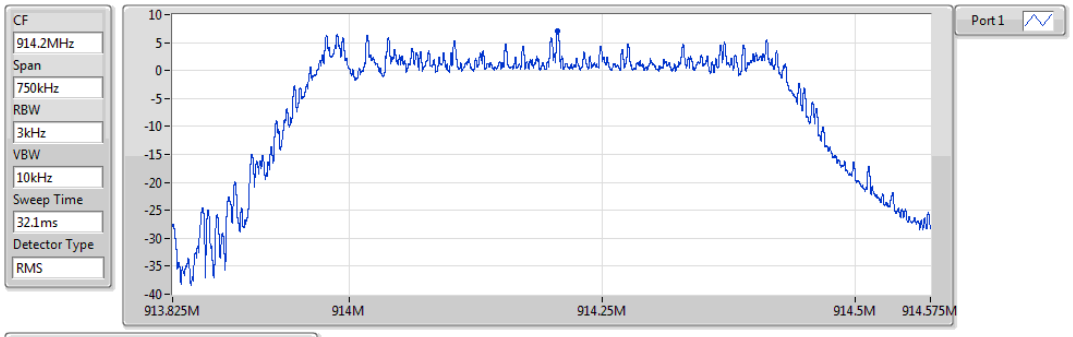
907.8MHz



Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
7.85	7.85	7.85

LoRa_DTS_Nss1_1TX **PSD**

914.2MHz

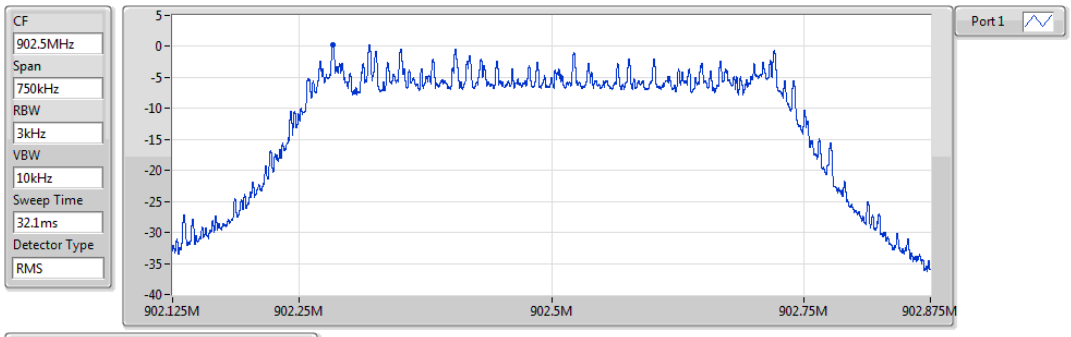


Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
7.13	7.13	7.13

LoRa_DTS_Nss1_1TX **PSD**

902.5MHz

12/06/2019

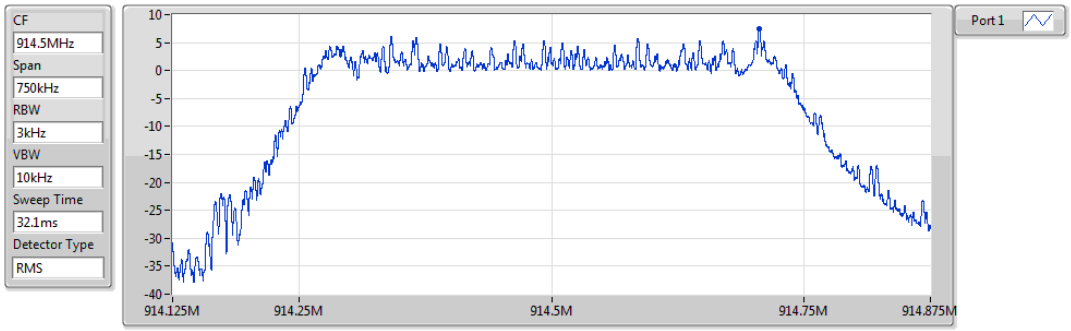


Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
0.27	0.27	0.27

LoRa_DTS_Nss1_1TX **PSD**

914.5MHz

12/06/2019

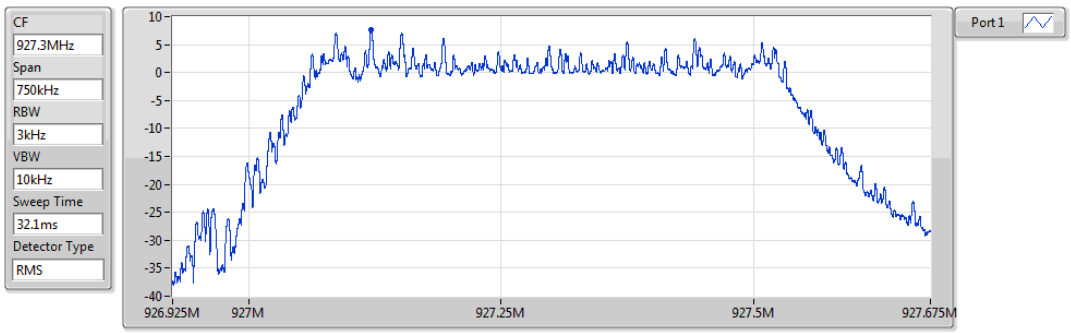


Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
7.45	7.45	7.45

LoRa_DTS_Nss1_1TX **PSD**

927.3MHz

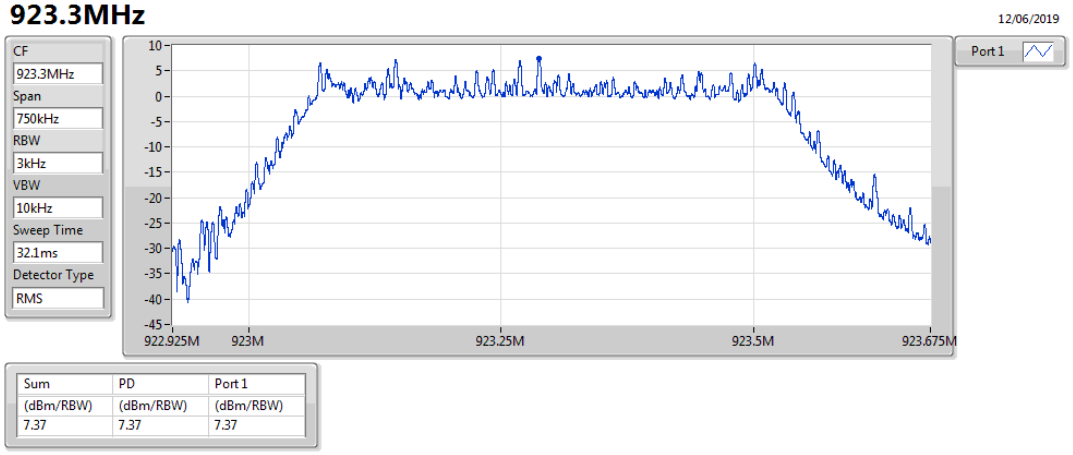
12/06/2019



Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
7.60	7.60	7.60

LoRa_DTS_Nss1_1TX **PSD**

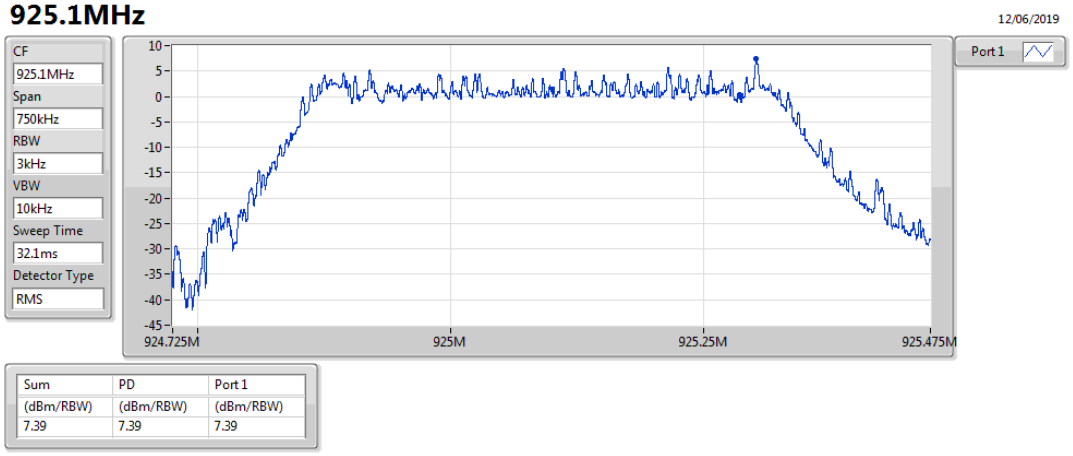
923.3MHz



Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
7.37	7.37	7.37

LoRa_DTS_Nss1_1TX **PSD**

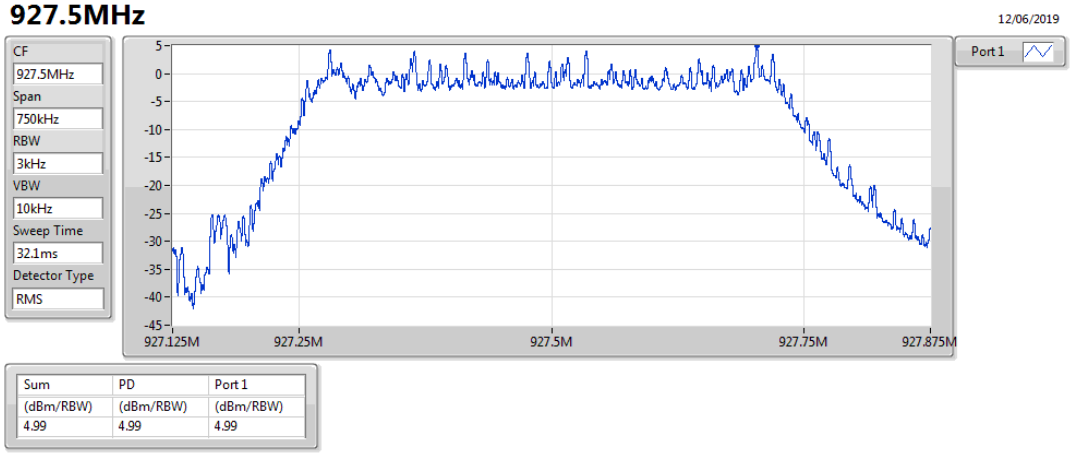
925.1MHz



Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
7.39	7.39	7.39

LoRa_DTS_Nss1_1TX **PSD**

927.5MHz



Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
4.99	4.99	4.99

Summary

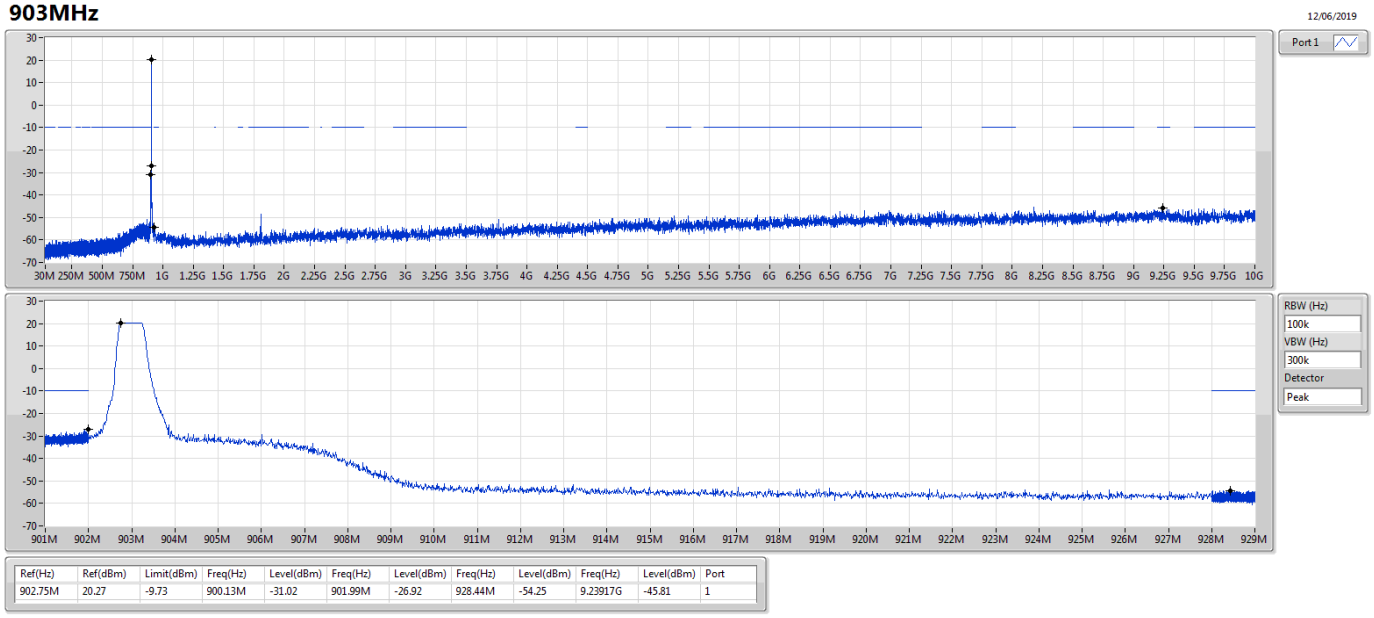
Mode	Result	Ref (Hz)	Ref (dBm)	Limit (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Port
902-928MHz	-	-	-	-	-	-	-	-	-	-	-	-	-
LoRa_DTS_Nss1_1TX	Pass	914.27M	19.96	-10.04	900.56M	-38.31	902M	-10.10	928.25M	-55.89	9.26298G	-45.79	1

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	-	-	-	-	-	-	-	-	-	-	-	-	-
903MHz	Pass	902.75M	20.27	-9.73	900.13M	-31.02	901.99M	-26.92	928.44M	-54.25	9.23917G	-45.81	1
907.8MHz	Pass	902.75M	20.27	-9.73	875.85M	-50.63	901.98M	-44.04	928.62M	-52.99	9.60314G	-45.46	1
914.2MHz	Pass	902.75M	20.27	-9.73	799.96M	-51.89	901.92M	-51.11	928.91M	-52.38	9.20629G	-45.48	1
902.5MHz	Pass	914.27M	19.96	-10.04	900.56M	-38.31	902M	-10.10	928.25M	-55.89	9.26298G	-45.79	1
914.5MHz	Pass	914.27M	19.96	-10.04	882.38M	-49.84	901.81M	-49.89	928.29M	-52.98	9.20289G	-43.84	1
927.3MHz	Pass	914.27M	19.96	-10.04	808.67M	-52.41	901M	-52.89	928M	-17.31	929M	-31.69	1
923.3MHz	Pass	923.07M	19.77	-10.23	891.2M	-51.47	901.7M	-52.18	928.1M	-37.57	9.21196G	-44.86	1
925.1MHz	Pass	923.07M	19.77	-10.23	893.05M	-50.09	901.37M	-52.04	928.53M	-30.20	929M	-37.13	1
927.5MHz	Pass	923.07M	19.77	-10.23	895.34M	-51.71	901.66M	-54.02	928M	-11.04	930.13M	-35.56	1

LoRa_DTS_Nss1_1TX **CSE NdB**

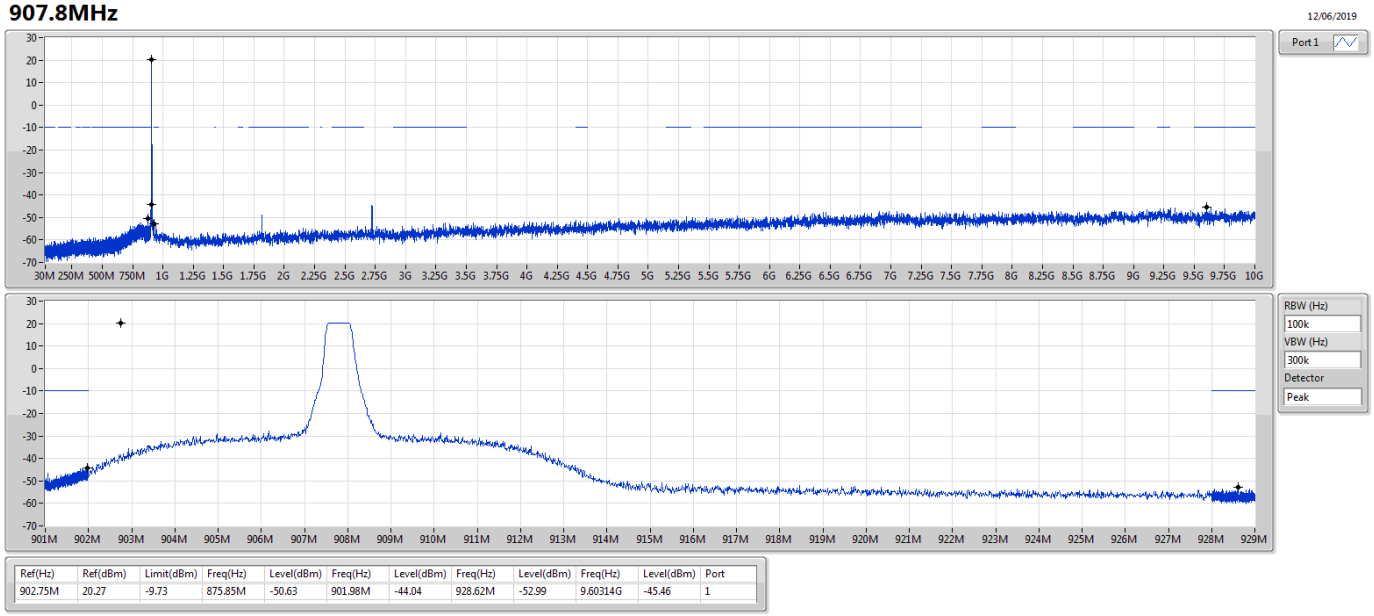
903MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
902.75M	20.27	-9.73	900.13M	-31.02	901.99M	-26.92	928.44M	-54.25	9.23917G	-45.81	1

LoRa_DTS_Nss1_1TX **CSE NdB**

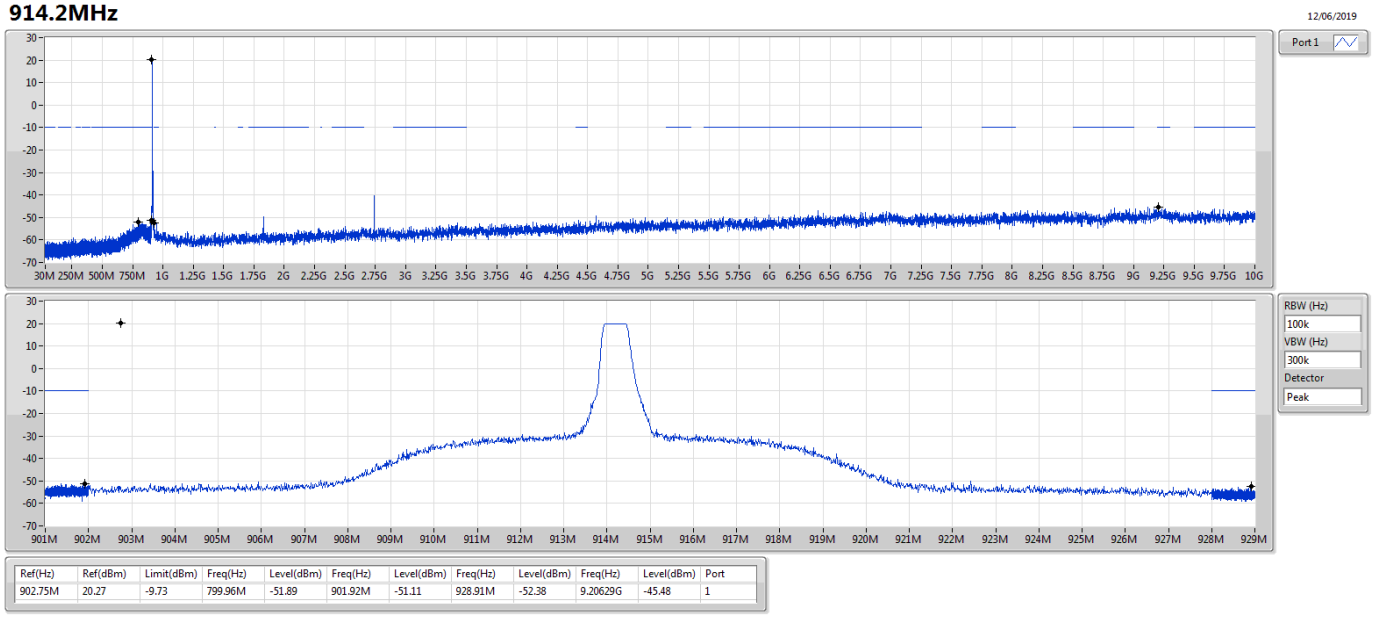
907.8MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
902.75M	20.27	-9.73	875.85M	-50.63	901.98M	-44.04	928.62M	-52.99	9.60314G	-45.46	1

LoRa_DTS_Nss1_1TX **CSE NdB**

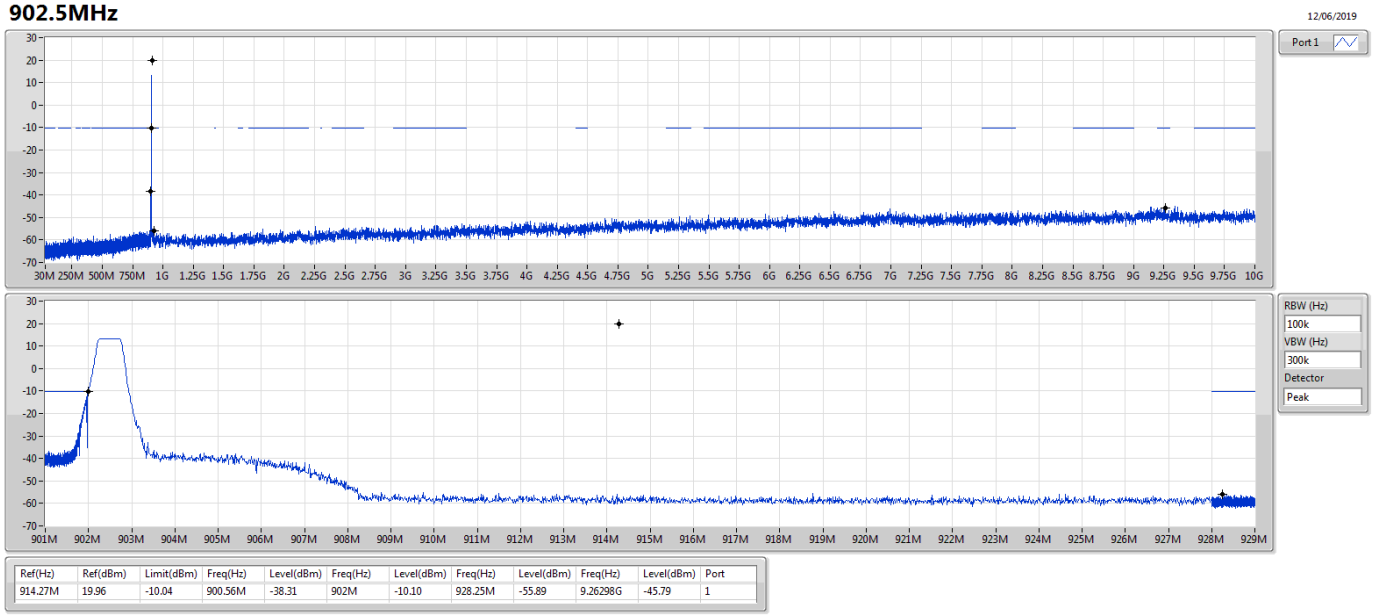
914.2MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
902.75M	20.27	-9.73	799.96M	-51.89	901.92M	-51.11	928.91M	-52.38	9.20629G	-45.48	1

LoRa_DTS_Nss1_1TX **CSE NdB**

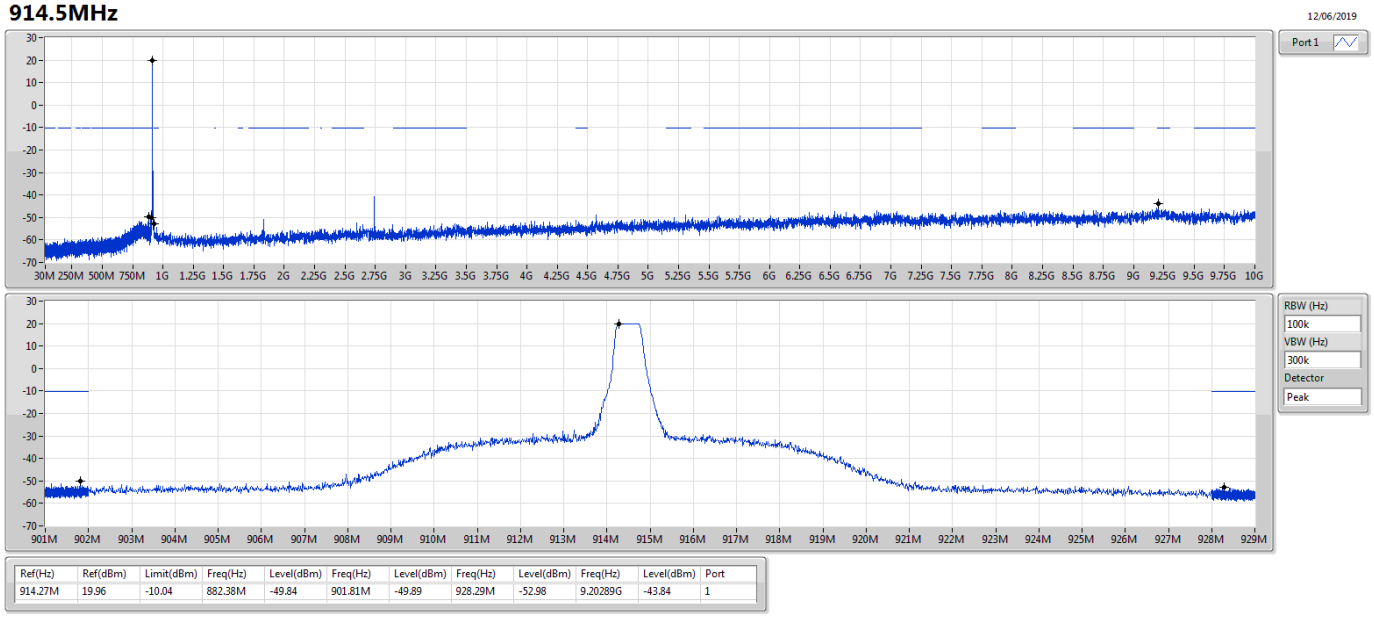
902.5MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
914.27M	19.96	-10.04	900.56M	-38.31	902M	-10.10	928.25M	-55.89	9.26298G	-45.79	1

LoRa_DTS_Nss1_1TX **CSE NdB**

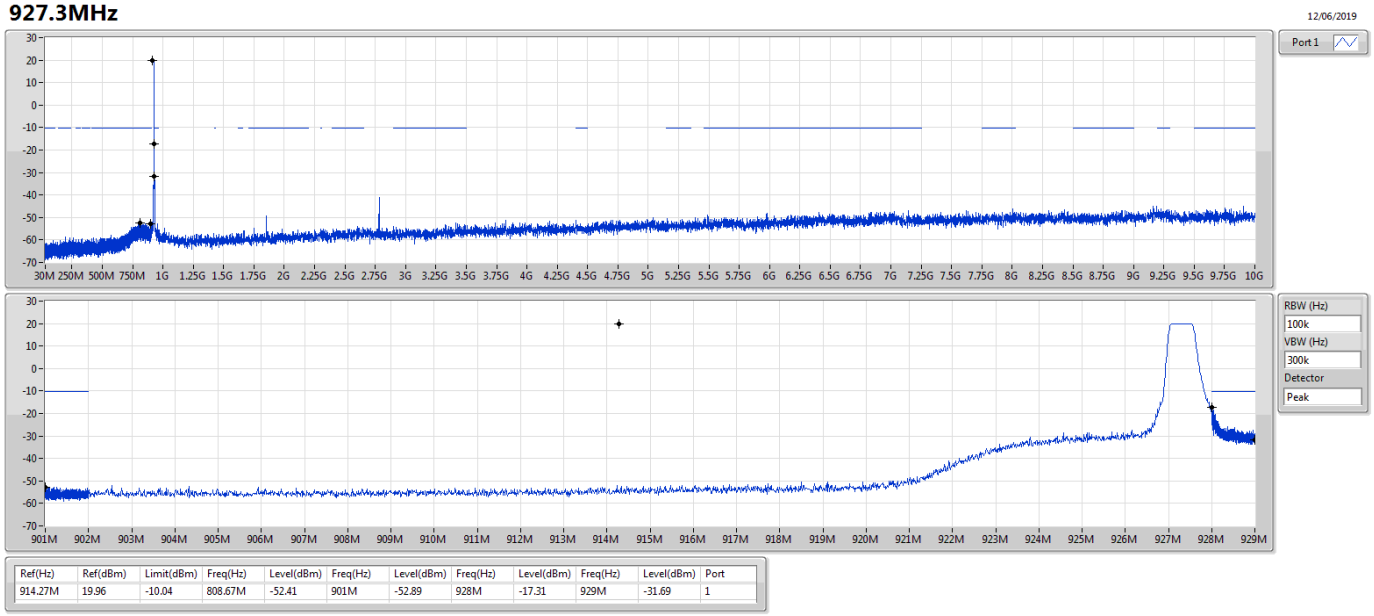
914.5MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
914.27M	19.96	-10.04	882.38M	-49.84	901.81M	-49.89	928.29M	-52.98	9.20289G	-43.84	1

LoRa_DTS_Nss1_1TX **CSE NdB**

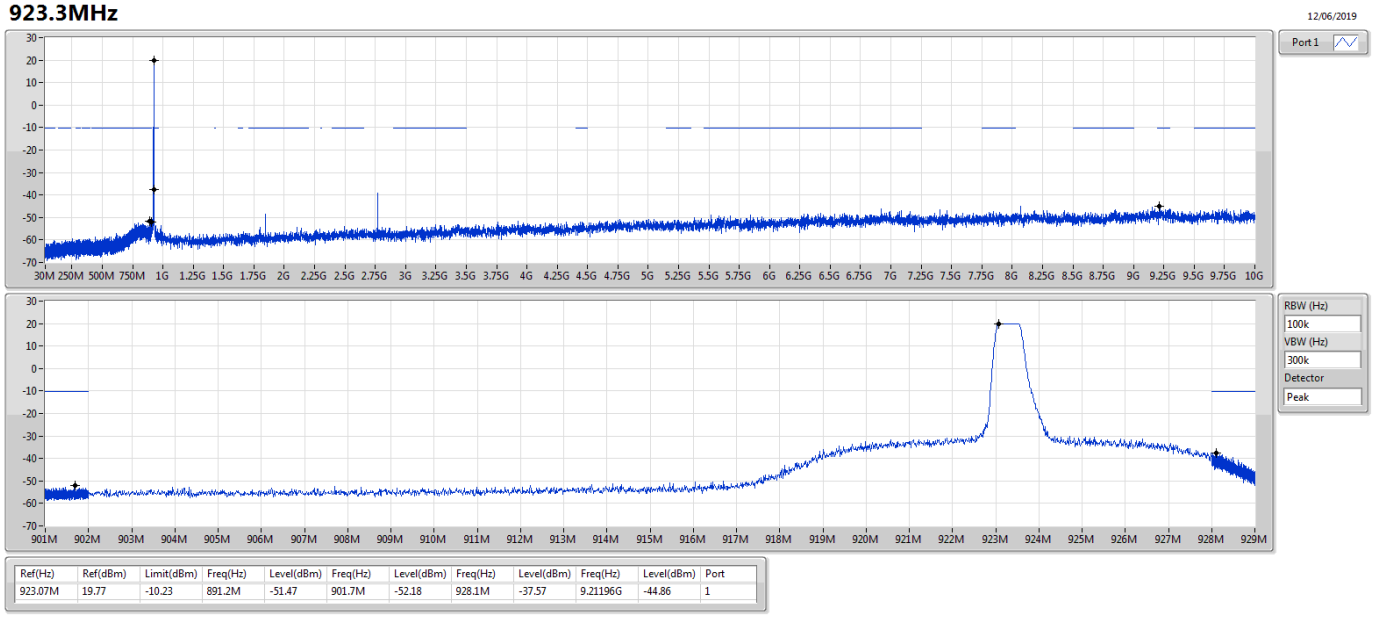
927.3MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
914.27M	19.96	-10.04	808.67M	-52.41	901M	-52.89	928M	-17.31	929M	-31.69	1

LoRa_DTS_Nss1_1TX **CSE NdB**

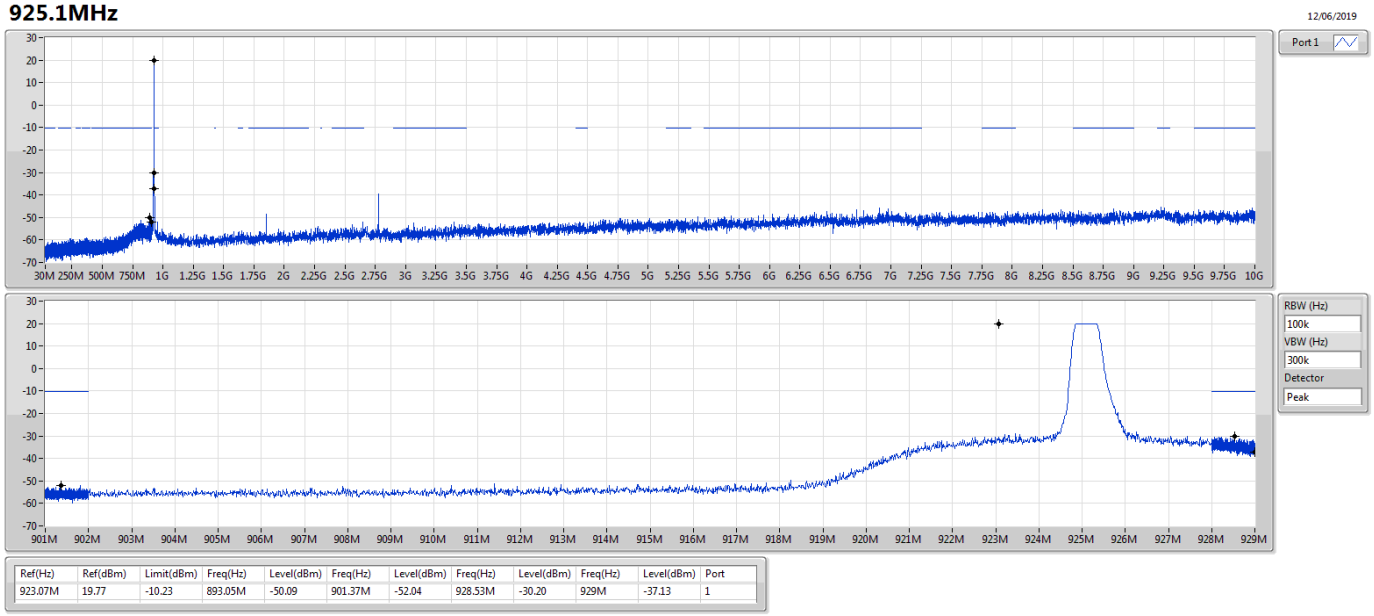
923.3MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
923.07M	19.77	-10.23	891.2M	-51.47	901.7M	-52.18	928.1M	-37.57	9.21196G	-44.86	1

LoRa_DTS_Nss1_1TX **CSE NdB**

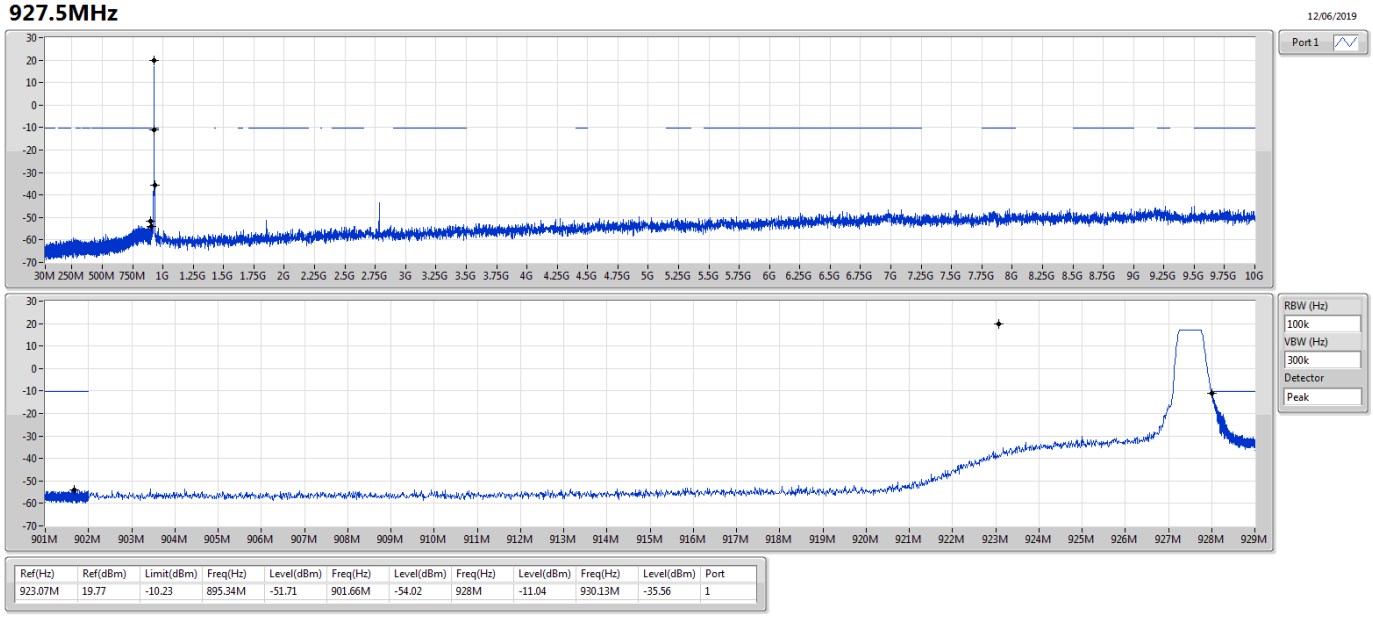
925.1MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
923.07M	19.77	-10.23	893.05M	-50.09	901.37M	-52.04	928.53M	-30.20	929M	-37.13	1

LoRa_DTS_Nss1_1TX **CSE NdB**

927.5MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
923.07M	19.77	-10.23	895.34M	-51.71	901.66M	-54.02	928M	-11.04	930.13M	-35.56	1

Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
902-928MHz	-	-	-	-	-	-	-	-	-	-	-	-
LoRa_DTS_Nss1_1TX	Pass	PK	773.02M	42.84	46.00	-3.16	-2.94	3	Horizontal	0	2.00	-
LoRa_FHSS-250k_Nss1_1TX	Pass	PK	773.02M	42.81	46.00	-3.19	-2.94	3	Horizontal	360	2.00	-

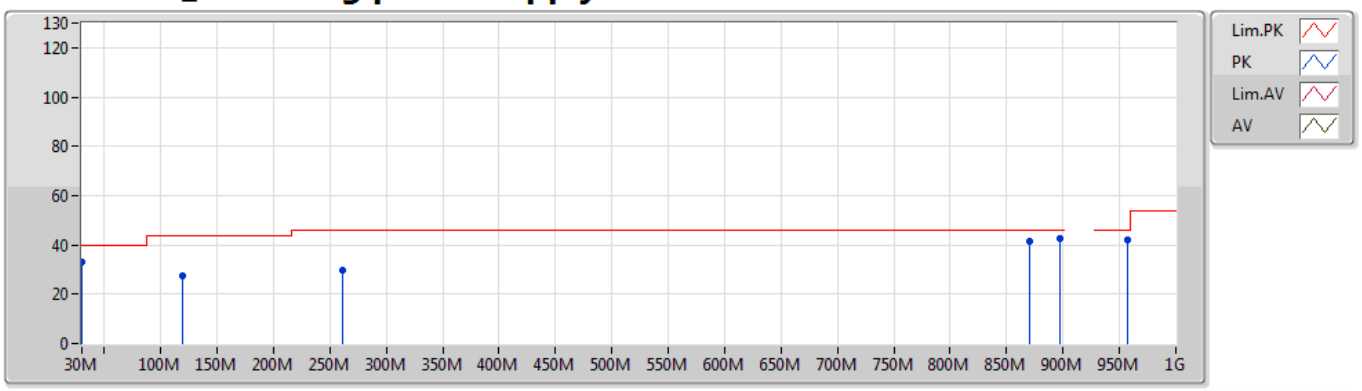
Result

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	-	-	-	-	-	-	-	-	-	-	-	-
907.8MHz	Pass	PK	30M	32.97	40.00	-7.03	-8.16	3	Vertical	360	2.00	-
907.8MHz	Pass	PK	119.24M	27.51	43.50	-15.99	-13.70	3	Vertical	360	2.00	-
907.8MHz	Pass	PK	260.86M	29.58	46.00	-16.42	-11.15	3	Vertical	360	2.00	-
907.8MHz	Pass	PK	870.02M	41.66	46.00	-4.34	-2.04	3	Vertical	360	2.00	-
907.8MHz	Pass	PK	897.18M	42.74	46.00	-3.26	-1.92	3	Vertical	360	2.00	-
907.8MHz	Pass	PK	957.32M	41.80	46.00	-4.20	-0.76	3	Vertical	360	2.00	-
907.8MHz	Pass	PK	33.88M	31.94	40.00	-8.06	-10.01	3	Horizontal	0	2.00	-
907.8MHz	Pass	PK	127M	27.63	43.50	-15.87	-13.87	3	Horizontal	0	2.00	-
907.8MHz	Pass	PK	251.16M	29.23	46.00	-16.77	-12.31	3	Horizontal	0	2.00	-
907.8MHz	Pass	PK	773.02M	42.84	46.00	-3.16	-2.94	3	Horizontal	0	2.00	-
907.8MHz	Pass	PK	871.96M	40.00	46.00	-6.00	-2.02	3	Horizontal	0	2.00	-
907.8MHz	Pass	PK	957.32M	40.89	46.00	-5.11	-0.76	3	Horizontal	0	2.00	-
LoRa_FHSS-250k_Nss1_1TX	-	-	-	-	-	-	-	-	-	-	-	-
914.3MHz	Pass	PK	30M	33.02	40.00	-6.98	-8.16	3	Vertical	0	2.00	-
914.3MHz	Pass	PK	124.19M	28.39	43.50	-15.11	-13.79	3	Vertical	0	2.00	-
914.3MHz	Pass	PK	259.14M	29.52	46.00	-16.48	-11.21	3	Vertical	0	2.00	-
914.3MHz	Pass	PK	675.26M	36.61	46.00	-9.39	-4.01	3	Vertical	0	2.00	-
914.3MHz	Pass	PK	865.04M	42.16	46.00	-3.84	-2.07	3	Vertical	0	2.00	-
914.3MHz	Pass	PK	957.83M	41.70	46.00	-4.30	-0.76	3	Vertical	0	2.00	-
914.3MHz	Pass	PK	30M	33.71	40.00	-6.29	-8.16	3	Horizontal	360	2.00	-
914.3MHz	Pass	PK	111.48M	28.04	43.50	-15.46	-13.95	3	Horizontal	360	2.00	-
914.3MHz	Pass	PK	260.86M	30.72	46.00	-15.28	-11.15	3	Horizontal	360	2.00	-
914.3MHz	Pass	PK	773.02M	42.81	46.00	-3.19	-2.94	3	Horizontal	360	2.00	-
914.3MHz	Pass	PK	893.3M	42.27	46.00	-3.73	-1.93	3	Horizontal	360	2.00	-
914.3MHz	Pass	PK	957.32M	41.34	46.00	-4.66	-0.76	3	Horizontal	360	2.00	-

LoRa_DTS_Nss1_1TX

21/06/2019

907.8MHz_Switching power supply

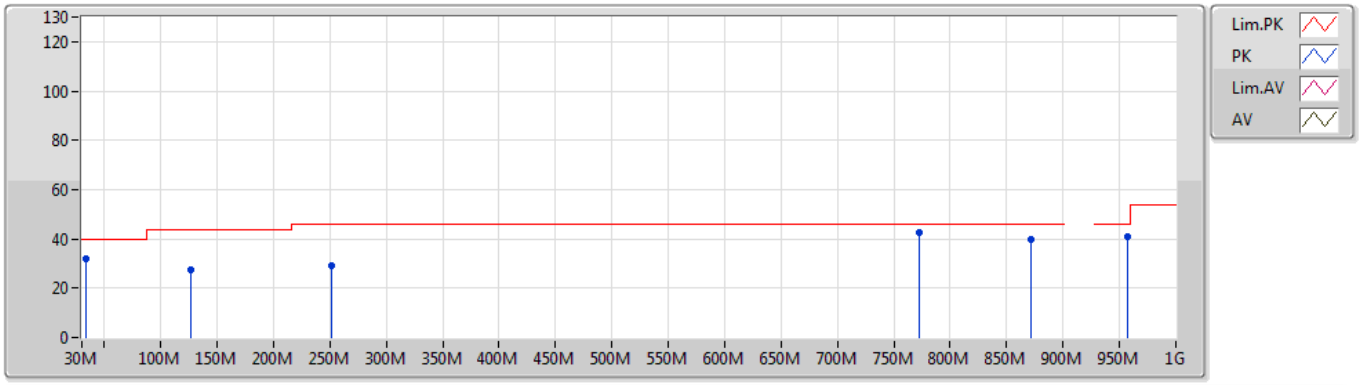


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	30M	32.97	40.00	-7.03	-8.16	3	Vertical	360	1.00	-
PK	119.24M	27.51	43.50	-15.99	-13.70	3	Vertical	360	1.00	-
PK	260.86M	29.58	46.00	-16.42	-11.15	3	Vertical	360	1.00	-
PK	870.02M	41.66	46.00	-4.34	-2.04	3	Vertical	360	1.00	-
PK	897.18M	42.74	46.00	-3.26	-1.92	3	Vertical	360	1.00	-
PK	957.32M	41.80	46.00	-4.20	-0.76	3	Vertical	360	1.00	-

LoRa_DTS_Nss1_1TX

21/06/2019

907.8MHz_Switching power supply

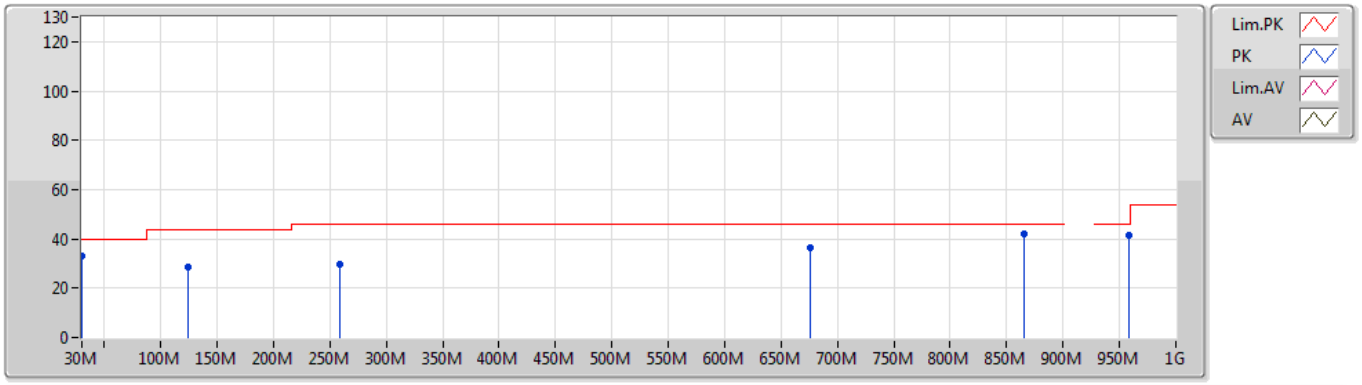


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	33.88M	31.94	40.00	-8.06	-10.01	3	Horizontal	0	1.00	-
PK	127M	27.63	43.50	-15.87	-13.87	3	Horizontal	0	1.00	-
PK	251.16M	29.23	46.00	-16.77	-12.31	3	Horizontal	0	1.00	-
PK	773.02M	42.84	46.00	-3.16	-2.94	3	Horizontal	0	1.00	-
PK	871.96M	40.00	46.00	-6.00	-2.02	3	Horizontal	0	1.00	-
PK	957.32M	40.89	46.00	-5.11	-0.76	3	Horizontal	0	1.00	-

LoRa_FHSS-250k_Nss1_1TX

21/06/2019

914.3MHz_Switching power supply

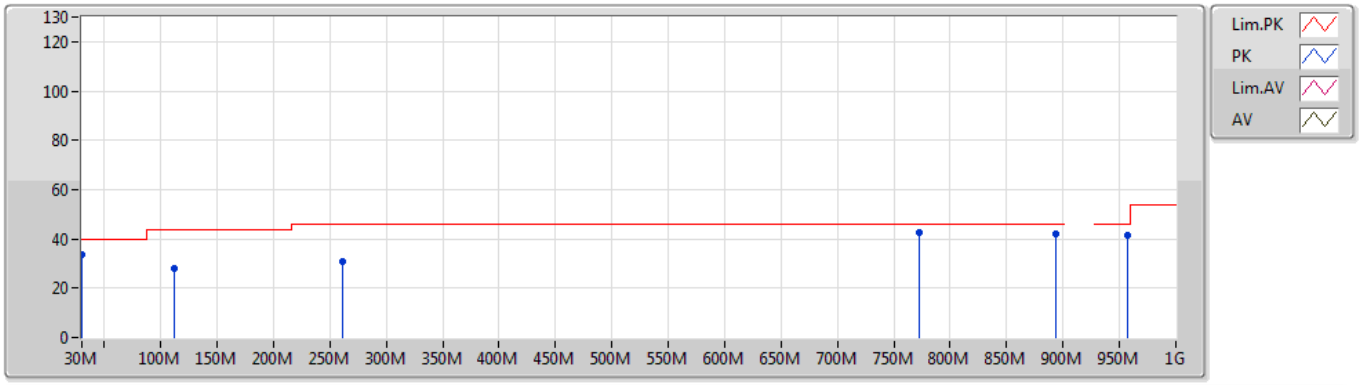


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	30M	33.02	40.00	-6.98	-8.16	3	Vertical	0	1.00	-
PK	124.19M	28.39	43.50	-15.11	-13.79	3	Vertical	0	1.00	-
PK	259.14M	29.52	46.00	-16.48	-11.21	3	Vertical	0	1.00	-
PK	675.26M	36.61	46.00	-9.39	-4.01	3	Vertical	0	1.00	-
PK	865.04M	42.16	46.00	-3.84	-2.07	3	Vertical	0	1.00	-
PK	957.83M	41.70	46.00	-4.30	-0.76	3	Vertical	0	1.00	-

LoRa_FHSS-250k_Nss1_1TX

21/06/2019

914.3MHz_Switching power supply



Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	30M	33.71	40.00	-6.29	-8.16	3	Horizontal	360	1.00	-
PK	111.48M	28.04	43.50	-15.46	-13.95	3	Horizontal	360	1.00	-
PK	260.86M	30.72	46.00	-15.28	-11.15	3	Horizontal	360	1.00	-
PK	773.02M	42.81	46.00	-3.19	-2.94	3	Horizontal	360	1.00	-
PK	893.3M	42.27	46.00	-3.73	-1.93	3	Horizontal	360	1.00	-
PK	957.32M	41.34	46.00	-4.66	-0.76	3	Horizontal	360	1.00	-

Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
902-928MHz	-	-	-	-	-	-	-	-	-	-	-	-
LoRa_DTS_Nss1_1TX	Pass	AV	3.61201G	50.90	54.00	-3.10	4.89	3	Vertical	75	1.06	-
FSK-5k_Nss1_1TX	Pass	AV	3.71121G	50.53	54.00	-3.47	4.74	3	Vertical	119	2.14	-
FSK-50k_Nss1_1TX	Pass	AV	3.7112G	50.89	54.00	-3.11	4.74	3	Horizontal	114	1.03	-
FSK-150k_Nss1_1TX	Pass	AV	3.65919G	50.47	54.00	-3.53	4.62	3	Vertical	116	2.82	-
LoRa_FHSS-125k_Nss1_1TX	Pass	AV	3.66G	50.14	54.00	-3.86	4.92	3	Horizontal	29	1.06	-
LoRa_FHSS-250k_Nss1_1TX	Pass	AV	3.65717G	50.96	54.00	-3.04	4.92	3	Vertical	55	1.97	-

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	-	-	-	-	-	-	-	-	-	-	-	-
903MHz	Pass	AV	2.70884G	45.64	54.00	-8.36	2.43	3	Vertical	223	1.93	-
903MHz	Pass	AV	3.61201G	50.90	54.00	-3.10	4.89	3	Vertical	75	1.06	-
903MHz	Pass	AV	4.51448G	45.07	54.00	-8.93	7.30	3	Vertical	47	2.90	-
903MHz	Pass	PK	2.70898G	49.96	74.00	-24.04	2.43	3	Vertical	223	1.93	-
903MHz	Pass	PK	3.61186G	57.19	74.00	-16.81	4.89	3	Vertical	75	1.06	-
903MHz	Pass	PK	4.51518G	52.19	74.00	-21.81	7.30	3	Vertical	47	2.90	-
903MHz	Pass	AV	2.70897G	45.03	54.00	-8.97	2.43	3	Horizontal	260	1.48	-
903MHz	Pass	AV	3.61193G	50.36	54.00	-3.64	4.89	3	Horizontal	41	1.11	-
903MHz	Pass	AV	4.51515G	46.15	54.00	-7.85	7.30	3	Horizontal	28	1.60	-
903MHz	Pass	PK	2.70861G	49.61	74.00	-24.39	2.43	3	Horizontal	260	1.48	-
903MHz	Pass	PK	3.61251G	55.71	74.00	-18.29	4.90	3	Horizontal	41	1.11	-
903MHz	Pass	PK	4.51431G	52.71	74.00	-21.29	7.30	3	Horizontal	28	1.60	-
907.8MHz	Pass	AV	2.72326G	45.06	54.00	-8.94	2.48	3	Vertical	217	1.43	-
907.8MHz	Pass	AV	3.6315G	50.88	54.00	-3.12	4.90	3	Vertical	44	1.46	-
907.8MHz	Pass	AV	4.53887G	43.67	54.00	-10.33	7.36	3	Vertical	284	2.99	-
907.8MHz	Pass	PK	2.72312G	49.66	74.00	-24.34	2.48	3	Vertical	217	1.43	-
907.8MHz	Pass	PK	3.63159G	55.57	74.00	-18.43	4.90	3	Vertical	44	1.46	-
907.8MHz	Pass	PK	4.53837G	51.32	74.00	-22.68	7.36	3	Vertical	284	2.99	-
907.8MHz	Pass	AV	2.72323G	43.25	54.00	-10.75	2.48	3	Horizontal	261	1.11	-
907.8MHz	Pass	AV	3.63145G	50.75	54.00	-3.25	4.90	3	Horizontal	18	1.20	-
907.8MHz	Pass	AV	4.5391G	46.54	54.00	-7.46	7.36	3	Horizontal	29	1.47	-
907.8MHz	Pass	PK	2.72273G	48.51	74.00	-25.49	2.48	3	Horizontal	261	1.11	-
907.8MHz	Pass	PK	3.63119G	55.36	74.00	-18.64	4.90	3	Horizontal	18	1.20	-
907.8MHz	Pass	PK	4.53853G	53.21	74.00	-20.79	7.36	3	Horizontal	29	1.47	-
914.2MHz	Pass	AV	2.74265G	44.61	54.00	-9.39	2.55	3	Vertical	234	1.52	-
914.2MHz	Pass	AV	3.6568G	50.38	54.00	-3.62	4.92	3	Vertical	56	1.90	-
914.2MHz	Pass	AV	4.5714G	42.78	54.00	-11.22	7.45	3	Vertical	275	1.80	-
914.2MHz	Pass	PK	2.74267G	49.54	74.00	-24.46	2.55	3	Vertical	234	1.52	-
914.2MHz	Pass	PK	3.65716G	56.89	74.00	-17.11	4.92	3	Vertical	56	1.90	-
914.2MHz	Pass	PK	4.57088G	50.49	74.00	-23.51	7.45	3	Vertical	275	1.80	-
914.2MHz	Pass	AV	2.74276G	42.95	54.00	-11.05	2.55	3	Horizontal	294	1.01	-
914.2MHz	Pass	AV	3.65712G	50.68	54.00	-3.32	4.92	3	Horizontal	24	1.49	-
914.2MHz	Pass	AV	4.57089G	46.41	54.00	-7.59	7.45	3	Horizontal	37	1.13	-
914.2MHz	Pass	PK	2.74231G	48.22	74.00	-25.78	2.55	3	Horizontal	294	1.01	-
914.2MHz	Pass	PK	3.65742G	55.47	74.00	-18.53	4.92	3	Horizontal	24	1.49	-
914.2MHz	Pass	PK	4.5698G	53.19	74.00	-20.81	7.45	3	Horizontal	37	1.13	-
902.5MHz	Pass	AV	2.70741G	44.83	54.00	-9.17	2.42	3	Vertical	219	1.53	-
902.5MHz	Pass	AV	3.6101G	49.51	54.00	-4.49	4.89	3	Vertical	43	1.27	-
902.5MHz	Pass	AV	4.5127G	43.62	54.00	-10.38	7.30	3	Vertical	36	2.86	-
902.5MHz	Pass	PK	2.70714G	49.84	74.00	-24.16	2.42	3	Vertical	219	1.53	-
902.5MHz	Pass	PK	3.60907G	55.11	74.00	-18.89	4.89	3	Vertical	43	1.27	-
902.5MHz	Pass	PK	4.51173G	51.66	74.00	-22.34	7.29	3	Vertical	36	2.86	-
902.5MHz	Pass	AV	2.70756G	43.63	54.00	-10.37	2.42	3	Horizontal	265	1.17	-
902.5MHz	Pass	AV	3.61001G	49.70	54.00	-4.30	4.89	3	Horizontal	21	1.36	-
902.5MHz	Pass	AV	4.51295G	44.70	54.00	-9.30	7.30	3	Horizontal	29	1.15	-
902.5MHz	Pass	PK	2.70732G	49.19	74.00	-24.81	2.42	3	Horizontal	265	1.17	-
902.5MHz	Pass	PK	3.61008G	55.45	74.00	-18.55	4.89	3	Horizontal	21	1.36	-

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
902.5MHz	Pass	PK	4.51304G	52.61	74.00	-21.39	7.30	3	Horizontal	29	1.15	-
914.5MHz	Pass	AV	2.74354G	50.58	54.00	-3.42	2.55	3	Vertical	5	1.50	-
914.5MHz	Pass	AV	3.65762G	50.87	54.00	-3.13	4.92	3	Vertical	55	1.90	-
914.5MHz	Pass	AV	4.57275G	39.63	54.00	-14.37	7.46	3	Vertical	278	2.99	-
914.5MHz	Pass	PK	2.74287G	54.40	74.00	-19.60	2.55	3	Vertical	5	1.50	-
914.5MHz	Pass	PK	3.65788G	56.44	74.00	-17.56	4.92	3	Vertical	55	1.90	-
914.5MHz	Pass	PK	4.57282G	49.53	74.00	-24.47	7.46	3	Vertical	278	2.99	-
914.5MHz	Pass	AV	2.74346G	49.26	54.00	-4.74	2.55	3	Horizontal	292	1.33	-
914.5MHz	Pass	AV	3.65788G	48.40	54.00	-5.60	4.92	3	Horizontal	23	1.02	-
914.5MHz	Pass	AV	4.57218G	44.83	54.00	-9.17	7.45	3	Horizontal	37	1.13	-
914.5MHz	Pass	PK	2.74401G	53.37	74.00	-20.63	2.56	3	Horizontal	292	1.33	-
914.5MHz	Pass	PK	3.65722G	54.97	74.00	-19.03	4.92	3	Horizontal	23	1.02	-
914.5MHz	Pass	PK	4.57276G	52.87	74.00	-21.13	7.46	3	Horizontal	37	1.13	-
927.3MHz	Pass	AV	2.78189G	41.26	54.00	-12.74	2.72	3	Vertical	98	1.01	-
927.3MHz	Pass	AV	3.70953G	50.72	54.00	-3.28	4.96	3	Vertical	96	1.01	-
927.3MHz	Pass	AV	4.63608G	39.07	54.00	-14.93	7.71	3	Vertical	22	1.26	-
927.3MHz	Pass	PK	2.78214G	47.51	74.00	-26.49	2.72	3	Vertical	98	1.01	-
927.3MHz	Pass	PK	3.70848G	56.47	74.00	-17.53	4.96	3	Vertical	96	1.01	-
927.3MHz	Pass	PK	4.63663G	48.78	74.00	-25.22	7.72	3	Vertical	22	1.26	-
927.3MHz	Pass	AV	2.78174G	37.25	54.00	-16.75	2.72	3	Horizontal	96	2.29	-
927.3MHz	Pass	AV	3.70936G	49.71	54.00	-4.29	4.96	3	Horizontal	327	1.15	-
927.3MHz	Pass	AV	4.63702G	40.77	54.00	-13.23	7.72	3	Horizontal	311	1.66	-
927.3MHz	Pass	PK	2.78167G	45.46	74.00	-28.54	2.72	3	Horizontal	96	2.29	-
927.3MHz	Pass	PK	3.70994G	55.17	74.00	-18.83	4.96	3	Horizontal	327	1.15	-
927.3MHz	Pass	PK	4.63743G	49.72	74.00	-24.28	7.72	3	Horizontal	311	1.66	-
923.3MHz	Pass	AV	2.76975G	46.15	54.00	-7.85	2.67	3	Vertical	14	1.04	-
923.3MHz	Pass	AV	3.69305G	50.85	54.00	-3.15	4.94	3	Vertical	123	1.95	-
923.3MHz	Pass	AV	4.61699G	41.11	54.00	-12.89	7.62	3	Vertical	19	1.61	-
923.3MHz	Pass	PK	2.76943G	51.10	74.00	-22.90	2.67	3	Vertical	14	1.04	-
923.3MHz	Pass	PK	3.69323G	56.22	74.00	-17.78	4.94	3	Vertical	123	1.95	-
923.3MHz	Pass	PK	4.61699G	50.50	74.00	-23.50	7.62	3	Vertical	19	1.61	-
923.3MHz	Pass	AV	2.76989G	44.09	54.00	-9.91	2.67	3	Horizontal	90	2.01	-
923.3MHz	Pass	AV	3.69337G	47.25	54.00	-6.75	4.94	3	Horizontal	23	1.46	-
923.3MHz	Pass	AV	4.61701G	42.75	54.00	-11.25	7.62	3	Horizontal	37	1.47	-
923.3MHz	Pass	PK	2.76917G	49.46	74.00	-24.54	2.67	3	Horizontal	90	2.01	-
923.3MHz	Pass	PK	3.6922G	53.17	74.00	-20.83	4.94	3	Horizontal	23	1.46	-
923.3MHz	Pass	PK	4.61624G	51.25	74.00	-22.75	7.61	3	Horizontal	37	1.47	-
925.1MHz	Pass	AV	2.77545G	40.96	54.00	-13.04	2.69	3	Vertical	97	1.50	-
925.1MHz	Pass	AV	3.70027G	49.47	54.00	-4.53	4.94	3	Vertical	75	1.10	-
925.1MHz	Pass	AV	4.625G	40.55	54.00	-13.45	7.66	3	Vertical	22	1.62	-
925.1MHz	Pass	PK	2.77505G	47.64	74.00	-26.36	2.69	3	Vertical	97	1.50	-
925.1MHz	Pass	PK	3.701G	55.36	74.00	-18.64	4.94	3	Vertical	75	1.10	-
925.1MHz	Pass	PK	4.62527G	50.05	74.00	-23.95	7.66	3	Vertical	22	1.62	-
925.1MHz	Pass	AV	2.7754G	36.56	54.00	-17.44	2.69	3	Horizontal	0	2.52	-
925.1MHz	Pass	AV	3.69994G	47.02	54.00	-6.98	4.94	3	Horizontal	336	1.04	-
925.1MHz	Pass	AV	4.62504G	39.56	54.00	-14.44	7.66	3	Horizontal	26	1.24	-
925.1MHz	Pass	PK	2.7756G	44.69	74.00	-29.31	2.69	3	Horizontal	0	2.52	-
925.1MHz	Pass	PK	3.69981G	53.23	74.00	-20.77	4.94	3	Horizontal	336	1.04	-
925.1MHz	Pass	PK	4.62468G	49.07	74.00	-24.93	7.65	3	Horizontal	26	1.24	-

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
927.5MHz	Pass	AV	2.78246G	38.63	54.00	-15.37	2.72	3	Vertical	319	1.52	-
927.5MHz	Pass	AV	3.71G	50.73	54.00	-3.27	4.96	3	Vertical	98	1.63	-
927.5MHz	Pass	AV	4.63722G	40.20	54.00	-13.80	7.72	3	Vertical	9	1.65	-
927.5MHz	Pass	PK	2.78284G	46.31	74.00	-27.69	2.72	3	Vertical	319	1.52	-
927.5MHz	Pass	PK	3.71078G	56.85	74.00	-17.15	4.96	3	Vertical	98	1.63	-
927.5MHz	Pass	PK	4.63728G	50.47	74.00	-23.53	7.72	3	Vertical	9	1.65	-
927.5MHz	Pass	AV	2.78244G	39.89	54.00	-14.11	2.72	3	Horizontal	85	1.50	-
927.5MHz	Pass	AV	3.70991G	50.43	54.00	-3.57	4.96	3	Horizontal	46	1.11	-
927.5MHz	Pass	AV	4.63695G	40.09	54.00	-13.91	7.72	3	Horizontal	31	1.03	-
927.5MHz	Pass	PK	2.78256G	47.24	74.00	-26.76	2.72	3	Horizontal	85	1.50	-
927.5MHz	Pass	PK	3.71002G	56.68	74.00	-17.32	4.96	3	Horizontal	46	1.11	-
927.5MHz	Pass	PK	4.63682G	50.15	74.00	-23.85	7.72	3	Horizontal	31	1.03	-
FSK-5k_Nss1_1TX	-	-	-	-	-	-	-	-	-	-	-	-
902.2MHz	Pass	AV	2.70661G	48.02	54.00	-5.98	1.84	3	Vertical	167	2.96	-
902.2MHz	Pass	AV	3.60881G	45.29	54.00	-8.71	4.49	3	Vertical	170	1.53	-
902.2MHz	Pass	AV	4.51097G	44.87	54.00	-9.13	6.61	3	Vertical	163	1.48	-
902.2MHz	Pass	PK	2.70653G	50.77	74.00	-23.23	1.84	3	Vertical	167	2.96	-
902.2MHz	Pass	PK	3.60907G	49.52	74.00	-24.48	4.49	3	Vertical	170	1.53	-
902.2MHz	Pass	PK	4.51091G	49.77	74.00	-24.23	6.61	3	Vertical	163	1.48	-
902.2MHz	Pass	AV	2.70659G	48.46	54.00	-5.54	1.84	3	Horizontal	321	2.99	-
902.2MHz	Pass	AV	3.60879G	47.72	54.00	-6.28	4.49	3	Horizontal	27	1.50	-
902.2MHz	Pass	AV	4.51099G	48.41	54.00	-5.59	6.61	3	Horizontal	99	1.97	-
902.2MHz	Pass	PK	2.70668G	51.37	74.00	-22.63	1.84	3	Horizontal	321	2.99	-
902.2MHz	Pass	PK	3.60863G	51.21	74.00	-22.79	4.49	3	Horizontal	27	1.50	-
902.2MHz	Pass	PK	4.51107G	52.38	74.00	-21.62	6.61	3	Horizontal	99	1.97	-
915MHz	Pass	AV	2.745G	46.70	54.00	-7.30	2.01	3	Vertical	203	1.00	-
915MHz	Pass	AV	3.66G	47.30	54.00	-6.70	4.62	3	Vertical	40	1.02	-
915MHz	Pass	AV	4.57503G	48.42	54.00	-5.58	7.23	3	Vertical	272	2.89	-
915MHz	Pass	PK	2.74505G	50.24	74.00	-23.76	2.01	3	Vertical	203	1.00	-
915MHz	Pass	PK	3.65995G	50.80	74.00	-23.20	4.62	3	Vertical	40	1.02	-
915MHz	Pass	PK	4.57497G	52.19	74.00	-21.81	7.22	3	Vertical	272	2.89	-
915MHz	Pass	AV	2.74501G	41.51	54.00	-12.49	2.01	3	Horizontal	107	1.01	-
915MHz	Pass	AV	3.66G	48.58	54.00	-5.42	4.62	3	Horizontal	356	1.50	-
915MHz	Pass	AV	4.57501G	48.07	54.00	-5.93	7.23	3	Horizontal	26	1.92	-
915MHz	Pass	PK	2.74491G	46.97	74.00	-27.03	2.00	3	Horizontal	107	1.01	-
915MHz	Pass	PK	3.66009G	51.77	74.00	-22.23	4.62	3	Horizontal	356	1.50	-
915MHz	Pass	PK	4.5751G	52.05	74.00	-21.95	7.23	3	Horizontal	26	1.92	-
927.8MHz	Pass	AV	2.78339G	39.43	54.00	-14.57	2.19	3	Vertical	0	1.50	-
927.8MHz	Pass	AV	3.71121G	50.53	54.00	-3.47	4.74	3	Vertical	119	2.14	-
927.8MHz	Pass	AV	4.63899G	48.14	54.00	-5.86	7.65	3	Vertical	187	2.87	-
927.8MHz	Pass	PK	2.78354G	45.48	74.00	-28.52	2.19	3	Vertical	0	1.50	-
927.8MHz	Pass	PK	3.71123G	53.20	74.00	-20.80	4.74	3	Vertical	119	2.14	-
927.8MHz	Pass	PK	4.63903G	52.06	74.00	-21.94	7.65	3	Vertical	187	2.87	-
927.8MHz	Pass	AV	2.7834G	41.00	54.00	-13.00	2.19	3	Horizontal	324	2.99	-
927.8MHz	Pass	AV	3.71122G	47.65	54.00	-6.35	4.74	3	Horizontal	271	1.50	-
927.8MHz	Pass	AV	4.639G	48.15	54.00	-5.85	7.65	3	Horizontal	35	1.25	-
927.8MHz	Pass	PK	2.78338G	46.58	74.00	-27.42	2.19	3	Horizontal	324	2.99	-
927.8MHz	Pass	PK	3.71126G	51.22	74.00	-22.78	4.74	3	Horizontal	271	1.50	-
927.8MHz	Pass	PK	4.63875G	52.10	74.00	-21.90	7.64	3	Horizontal	35	1.25	-

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
FSK-50k_Nss1_1TX	-	-	-	-	-	-	-	-	-	-	-	-
902.2MHz	Pass	AV	2.7066G	44.96	54.00	-9.04	1.84	3	Vertical	139	1.10	-
902.2MHz	Pass	AV	3.60879G	48.88	54.00	-5.12	4.49	3	Vertical	116	2.27	-
902.2MHz	Pass	AV	4.51099G	46.13	54.00	-7.87	6.61	3	Vertical	158	2.90	-
902.2MHz	Pass	PK	2.70654G	49.14	74.00	-24.86	1.84	3	Vertical	139	1.10	-
902.2MHz	Pass	PK	3.60891G	52.34	74.00	-21.66	4.49	3	Vertical	116	2.27	-
902.2MHz	Pass	PK	4.51102G	51.24	74.00	-22.76	6.61	3	Vertical	158	2.90	-
902.2MHz	Pass	AV	2.70662G	44.45	54.00	-9.55	1.84	3	Horizontal	220	1.50	-
902.2MHz	Pass	AV	3.6088G	47.77	54.00	-6.23	4.49	3	Horizontal	105	1.92	-
902.2MHz	Pass	AV	4.511G	48.67	54.00	-5.33	6.61	3	Horizontal	39	1.01	-
902.2MHz	Pass	PK	2.70644G	48.75	74.00	-25.25	1.84	3	Horizontal	220	1.50	-
902.2MHz	Pass	PK	3.60892G	51.61	74.00	-22.39	4.49	3	Horizontal	105	1.92	-
902.2MHz	Pass	PK	4.51077G	52.69	74.00	-21.31	6.61	3	Horizontal	39	1.01	-
915MHz	Pass	AV	2.74501G	46.03	54.00	-7.97	2.01	3	Vertical	231	1.00	-
915MHz	Pass	AV	3.66001G	50.85	54.00	-3.15	4.62	3	Vertical	125	2.32	-
915MHz	Pass	AV	4.57498G	48.00	54.00	-6.00	7.22	3	Vertical	279	2.92	-
915MHz	Pass	PK	2.74505G	49.85	74.00	-24.15	2.01	3	Vertical	231	1.00	-
915MHz	Pass	PK	3.65982G	53.52	74.00	-20.48	4.62	3	Vertical	125	2.32	-
915MHz	Pass	PK	4.57476G	52.37	74.00	-21.63	7.22	3	Vertical	279	2.92	-
915MHz	Pass	AV	2.745G	38.80	54.00	-15.20	2.01	3	Horizontal	94	1.50	-
915MHz	Pass	AV	3.66G	50.59	54.00	-3.41	4.62	3	Horizontal	114	2.05	-
915MHz	Pass	AV	4.57495G	49.11	54.00	-4.89	7.22	3	Horizontal	36	1.04	-
915MHz	Pass	PK	2.74511G	45.83	74.00	-28.17	2.01	3	Horizontal	94	1.50	-
915MHz	Pass	PK	3.66021G	53.35	74.00	-20.65	4.62	3	Horizontal	114	2.05	-
915MHz	Pass	PK	4.5751G	52.88	74.00	-21.12	7.23	3	Horizontal	36	1.04	-
927.8MHz	Pass	AV	2.78342G	42.31	54.00	-11.69	2.19	3	Vertical	129	1.02	-
927.8MHz	Pass	AV	3.71121G	50.53	54.00	-3.47	4.74	3	Vertical	120	2.82	-
927.8MHz	Pass	AV	4.63899G	50.31	54.00	-3.69	7.65	3	Vertical	198	1.01	-
927.8MHz	Pass	PK	2.78332G	47.15	74.00	-26.85	2.19	3	Vertical	129	1.02	-
927.8MHz	Pass	PK	3.71102G	55.14	74.00	-18.86	4.74	3	Vertical	120	2.82	-
927.8MHz	Pass	PK	4.6391G	53.99	74.00	-20.01	7.65	3	Vertical	198	1.01	-
927.8MHz	Pass	AV	2.78337G	39.50	54.00	-14.50	2.19	3	Horizontal	114	1.50	-
927.8MHz	Pass	AV	3.7112G	50.89	54.00	-3.11	4.74	3	Horizontal	114	1.03	-
927.8MHz	Pass	AV	4.63899G	47.85	54.00	-6.15	7.65	3	Horizontal	39	1.01	-
927.8MHz	Pass	PK	2.78323G	45.93	74.00	-28.07	2.19	3	Horizontal	114	1.50	-
927.8MHz	Pass	PK	3.71125G	53.74	74.00	-20.26	4.74	3	Horizontal	114	1.03	-
927.8MHz	Pass	PK	4.63917G	52.46	74.00	-21.54	7.65	3	Horizontal	39	1.01	-
FSK-150k_Nss1_1TX	-	-	-	-	-	-	-	-	-	-	-	-
902.4MHz	Pass	AV	2.70719G	47.00	54.00	-7.00	2.42	3	Vertical	226	1.61	-
902.4MHz	Pass	AV	3.60954G	44.39	54.00	-9.61	4.89	3	Vertical	26	1.07	-
902.4MHz	Pass	AV	4.51196G	44.49	54.00	-9.51	7.29	3	Vertical	30	2.99	-
902.4MHz	Pass	PK	2.70712G	49.69	74.00	-24.31	2.42	3	Vertical	226	1.61	-
902.4MHz	Pass	PK	3.6094G	48.87	74.00	-25.13	4.89	3	Vertical	26	1.07	-
902.4MHz	Pass	PK	4.51221G	49.45	74.00	-24.55	7.29	3	Vertical	30	2.99	-
902.4MHz	Pass	AV	2.70718G	47.47	54.00	-6.53	2.42	3	Horizontal	261	1.16	-
902.4MHz	Pass	AV	3.60956G	47.11	54.00	-6.89	4.89	3	Horizontal	57	1.04	-
902.4MHz	Pass	AV	4.51197G	44.76	54.00	-9.24	7.29	3	Horizontal	36	1.15	-
902.4MHz	Pass	PK	2.70731G	49.88	74.00	-24.12	2.42	3	Horizontal	261	1.16	-
902.4MHz	Pass	PK	3.60947G	50.22	74.00	-23.78	4.89	3	Horizontal	57	1.04	-

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
902.4MHz	Pass	PK	4.51178G	49.73	74.00	-24.27	7.29	3	Horizontal	36	1.15	-
914.8MHz	Pass	AV	2.7444G	44.39	54.00	-9.61	2.00	3	Vertical	234	1.00	-
914.8MHz	Pass	AV	3.65919G	50.47	54.00	-3.53	4.62	3	Vertical	116	2.82	-
914.8MHz	Pass	AV	4.57398G	43.34	54.00	-10.66	7.21	3	Vertical	157	1.09	-
914.8MHz	Pass	PK	2.74444G	48.70	74.00	-25.30	2.00	3	Vertical	234	1.00	-
914.8MHz	Pass	PK	3.65923G	53.62	74.00	-20.38	4.62	3	Vertical	116	2.82	-
914.8MHz	Pass	PK	4.57415G	49.62	74.00	-24.38	7.21	3	Vertical	157	1.09	-
914.8MHz	Pass	AV	2.74438G	38.12	54.00	-15.88	2.00	3	Horizontal	95	1.54	-
914.8MHz	Pass	AV	3.65919G	49.11	54.00	-4.89	4.62	3	Horizontal	111	1.10	-
914.8MHz	Pass	AV	4.57398G	47.34	54.00	-6.66	7.21	3	Horizontal	42	1.01	-
914.8MHz	Pass	PK	2.7442G	45.35	74.00	-28.65	2.00	3	Horizontal	95	1.54	-
914.8MHz	Pass	PK	3.65906G	52.27	74.00	-21.73	4.62	3	Horizontal	111	1.10	-
914.8MHz	Pass	PK	4.57383G	51.66	74.00	-22.34	7.21	3	Horizontal	42	1.01	-
927.6MHz	Pass	AV	2.7828G	38.03	54.00	-15.97	2.18	3	Vertical	129	1.50	-
927.6MHz	Pass	AV	3.71039G	50.14	54.00	-3.86	4.74	3	Vertical	110	2.49	-
927.6MHz	Pass	AV	4.638G	47.17	54.00	-6.83	7.63	3	Vertical	199	1.00	-
927.6MHz	Pass	PK	2.78276G	45.30	74.00	-28.70	2.18	3	Vertical	129	1.50	-
927.6MHz	Pass	PK	3.71052G	53.15	74.00	-20.85	4.74	3	Vertical	110	2.49	-
927.6MHz	Pass	PK	4.63793G	51.93	74.00	-22.07	7.63	3	Vertical	199	1.00	-
927.6MHz	Pass	AV	2.78281G	38.48	54.00	-15.52	2.18	3	Horizontal	114	1.26	-
927.6MHz	Pass	AV	3.7104G	49.90	54.00	-4.10	4.74	3	Horizontal	107	2.31	-
927.6MHz	Pass	AV	4.63797G	45.13	54.00	-8.87	7.63	3	Horizontal	47	1.01	-
927.6MHz	Pass	PK	2.78284G	45.36	74.00	-28.64	2.18	3	Horizontal	114	1.26	-
927.6MHz	Pass	PK	3.71042G	53.00	74.00	-21.00	4.74	3	Horizontal	107	2.31	-
927.6MHz	Pass	PK	4.63785G	50.52	74.00	-23.48	7.63	3	Horizontal	47	1.01	-
LoRa_FHSS-125k_Nss1_1TX	-	-	-	-	-	-	-	-	-	-	-	-
902.2MHz	Pass	AV	2.70657G	47.74	54.00	-6.26	2.42	3	Vertical	222	1.61	-
902.2MHz	Pass	AV	3.6088G	49.88	54.00	-4.12	4.89	3	Vertical	41	1.59	-
902.2MHz	Pass	AV	4.51093G	44.91	54.00	-9.09	7.29	3	Vertical	54	2.86	-
902.2MHz	Pass	PK	2.70667G	50.48	74.00	-23.52	2.42	3	Vertical	222	1.61	-
902.2MHz	Pass	PK	3.60862G	52.61	74.00	-21.39	4.89	3	Vertical	41	1.59	-
902.2MHz	Pass	PK	4.51123G	49.78	74.00	-24.22	7.29	3	Vertical	54	2.86	-
902.2MHz	Pass	AV	2.70656G	46.33	54.00	-7.67	2.42	3	Horizontal	260	1.16	-
902.2MHz	Pass	AV	3.60878G	50.07	54.00	-3.93	4.89	3	Horizontal	29	1.38	-
902.2MHz	Pass	AV	4.51094G	46.96	54.00	-7.04	7.29	3	Horizontal	35	1.37	-
902.2MHz	Pass	PK	2.70648G	49.37	74.00	-24.63	2.42	3	Horizontal	260	1.16	-
902.2MHz	Pass	PK	3.60863G	52.39	74.00	-21.61	4.89	3	Horizontal	29	1.38	-
902.2MHz	Pass	PK	4.51092G	51.40	74.00	-22.60	7.29	3	Horizontal	35	1.37	-
915MHz	Pass	AV	2.745G	42.33	54.00	-11.67	2.57	3	Vertical	20	1.34	-
915MHz	Pass	AV	3.65999G	49.45	54.00	-4.55	4.92	3	Vertical	42	1.59	-
915MHz	Pass	AV	4.57494G	40.08	54.00	-13.92	7.46	3	Vertical	258	2.88	-
915MHz	Pass	PK	2.74503G	46.46	74.00	-27.54	2.57	3	Vertical	20	1.34	-
915MHz	Pass	PK	3.65982G	52.01	74.00	-21.99	4.92	3	Vertical	42	1.59	-
915MHz	Pass	PK	4.57474G	47.21	74.00	-26.79	7.46	3	Vertical	258	2.88	-
915MHz	Pass	AV	2.745G	39.50	54.00	-14.50	2.57	3	Horizontal	35	1.05	-
915MHz	Pass	AV	3.66G	50.14	54.00	-3.86	4.92	3	Horizontal	29	1.06	-
915MHz	Pass	AV	4.575G	45.32	54.00	-8.68	7.47	3	Horizontal	34	1.24	-
915MHz	Pass	PK	2.74506G	45.48	74.00	-28.52	2.57	3	Horizontal	35	1.05	-
915MHz	Pass	PK	3.65977G	52.53	74.00	-21.47	4.92	3	Horizontal	29	1.06	-

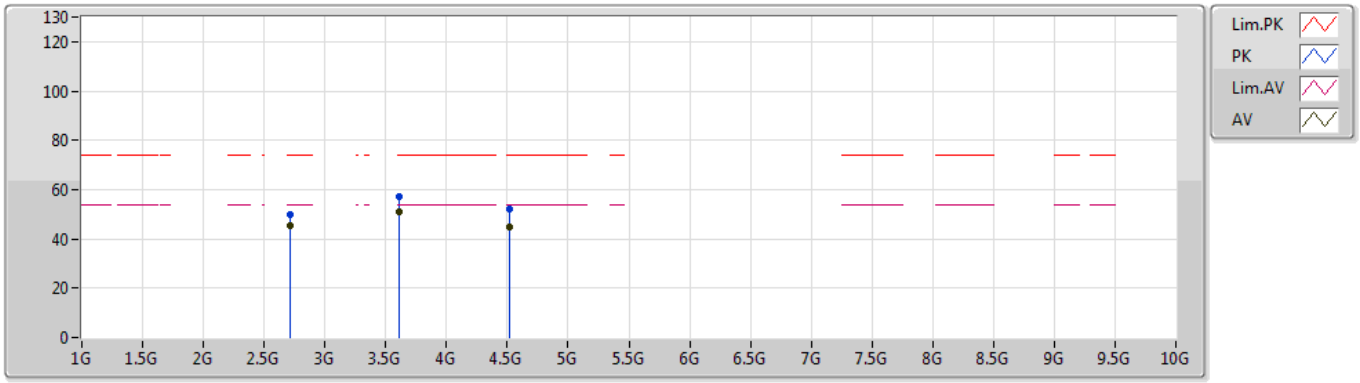
Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
915MHz	Pass	PK	4.57464G	50.42	74.00	-23.58	7.46	3	Horizontal	34	1.24	-
927.8MHz	Pass	AV	2.7834G	38.19	54.00	-15.81	2.72	3	Vertical	352	1.17	-
927.8MHz	Pass	AV	3.71116G	48.53	54.00	-5.47	4.96	3	Vertical	47	1.62	-
927.8MHz	Pass	AV	4.63894G	38.44	54.00	-15.56	7.73	3	Vertical	268	1.85	-
927.8MHz	Pass	PK	2.78345G	44.80	74.00	-29.20	2.72	3	Vertical	352	1.17	-
927.8MHz	Pass	PK	3.7112G	51.24	74.00	-22.76	4.96	3	Vertical	47	1.62	-
927.8MHz	Pass	PK	4.6393G	46.65	74.00	-27.35	7.73	3	Vertical	268	1.85	-
927.8MHz	Pass	AV	2.78337G	37.52	54.00	-16.48	2.72	3	Horizontal	87	1.80	-
927.8MHz	Pass	AV	3.71116G	49.31	54.00	-4.69	4.96	3	Horizontal	29	1.26	-
927.8MHz	Pass	AV	4.63891G	39.65	54.00	-14.35	7.73	3	Horizontal	37	1.34	-
927.8MHz	Pass	PK	2.78328G	44.49	74.00	-29.51	2.72	3	Horizontal	87	1.80	-
927.8MHz	Pass	PK	3.711G	52.00	74.00	-22.00	4.96	3	Horizontal	29	1.26	-
927.8MHz	Pass	PK	4.6389G	47.55	74.00	-26.45	7.73	3	Horizontal	37	1.34	-
902.3MHz	Pass	AV	2.70688G	48.01	54.00	-5.99	2.42	3	Vertical	224	1.60	-
902.3MHz	Pass	AV	3.60916G	48.04	54.00	-5.96	4.89	3	Vertical	42	1.58	-
902.3MHz	Pass	AV	4.51146G	46.67	54.00	-7.33	7.29	3	Vertical	27	2.99	-
902.3MHz	Pass	PK	2.70674G	50.51	74.00	-23.49	2.42	3	Vertical	224	1.60	-
902.3MHz	Pass	PK	3.60938G	51.03	74.00	-22.97	4.89	3	Vertical	42	1.58	-
902.3MHz	Pass	PK	4.51169G	51.20	74.00	-22.80	7.29	3	Vertical	27	2.99	-
902.3MHz	Pass	AV	2.7069G	45.83	54.00	-8.17	2.42	3	Horizontal	259	1.17	-
902.3MHz	Pass	AV	3.60917G	50.04	54.00	-3.96	4.89	3	Horizontal	29	1.38	-
902.3MHz	Pass	AV	4.51147G	47.80	54.00	-6.20	7.29	3	Horizontal	35	1.50	-
902.3MHz	Pass	PK	2.7069G	48.59	74.00	-25.41	2.42	3	Horizontal	259	1.17	-
902.3MHz	Pass	PK	3.60939G	52.52	74.00	-21.48	4.89	3	Horizontal	29	1.38	-
902.3MHz	Pass	PK	4.51143G	51.65	74.00	-22.35	7.29	3	Horizontal	35	1.50	-
908.5MHz	Pass	AV	2.72547G	45.30	54.00	-8.70	2.49	3	Vertical	237	1.30	-
908.5MHz	Pass	AV	3.63397G	47.75	54.00	-6.25	4.90	3	Vertical	41	1.45	-
908.5MHz	Pass	AV	4.5425G	41.78	54.00	-12.22	7.38	3	Vertical	31	2.99	-
908.5MHz	Pass	PK	2.72538G	48.68	74.00	-25.32	2.49	3	Vertical	237	1.30	-
908.5MHz	Pass	PK	3.63382G	50.98	74.00	-23.02	4.90	3	Vertical	41	1.45	-
908.5MHz	Pass	PK	4.54245G	48.04	74.00	-25.96	7.37	3	Vertical	31	2.99	-
908.5MHz	Pass	AV	2.72545G	41.44	54.00	-12.56	2.49	3	Horizontal	0	1.28	-
908.5MHz	Pass	AV	3.63396G	49.13	54.00	-4.87	4.90	3	Horizontal	27	1.20	-
908.5MHz	Pass	AV	4.54248G	44.84	54.00	-9.16	7.37	3	Horizontal	32	1.20	-
908.5MHz	Pass	PK	2.72561G	45.89	74.00	-28.11	2.49	3	Horizontal	0	1.28	-
908.5MHz	Pass	PK	3.63424G	52.01	74.00	-21.99	4.90	3	Horizontal	27	1.20	-
908.5MHz	Pass	PK	4.54249G	49.77	74.00	-24.23	7.37	3	Horizontal	32	1.20	-
914.9MHz	Pass	AV	2.74467G	42.73	54.00	-11.27	2.56	3	Vertical	27	1.34	-
914.9MHz	Pass	AV	3.65956G	49.26	54.00	-4.74	4.92	3	Vertical	37	1.50	-
914.9MHz	Pass	AV	4.57446G	39.86	54.00	-14.14	7.46	3	Vertical	38	2.97	-
914.9MHz	Pass	PK	2.74486G	46.73	74.00	-27.27	2.56	3	Vertical	27	1.34	-
914.9MHz	Pass	PK	3.65941G	52.03	74.00	-21.97	4.92	3	Vertical	37	1.50	-
914.9MHz	Pass	PK	4.57444G	47.52	74.00	-26.48	7.46	3	Vertical	38	2.97	-
914.9MHz	Pass	AV	2.74468G	39.83	54.00	-14.17	2.56	3	Horizontal	312	1.03	-
914.9MHz	Pass	AV	3.65956G	50.02	54.00	-3.98	4.92	3	Horizontal	33	1.50	-
914.9MHz	Pass	AV	4.57443G	45.43	54.00	-8.57	7.46	3	Horizontal	32	1.24	-
914.9MHz	Pass	PK	2.74467G	45.27	74.00	-28.73	2.56	3	Horizontal	312	1.03	-
914.9MHz	Pass	PK	3.65946G	52.52	74.00	-21.48	4.92	3	Horizontal	33	1.50	-
914.9MHz	Pass	PK	4.57426G	49.94	74.00	-24.06	7.46	3	Horizontal	32	1.24	-

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
LoRa_FHSS-250k_Nss1_1TX	-	-	-	-	-	-	-	-	-	-	-	-
902.3MHz	Pass	AV	2.70688G	46.44	54.00	-7.56	2.42	3	Vertical	255	1.15	-
902.3MHz	Pass	AV	3.60916G	50.49	54.00	-3.51	4.89	3	Vertical	94	1.44	-
902.3MHz	Pass	AV	4.51144G	44.65	54.00	-9.35	7.29	3	Vertical	35	2.87	-
902.3MHz	Pass	PK	2.70698G	49.94	74.00	-24.06	2.42	3	Vertical	255	1.15	-
902.3MHz	Pass	PK	3.60886G	53.98	74.00	-20.02	4.89	3	Vertical	94	1.44	-
902.3MHz	Pass	PK	4.51214G	50.41	74.00	-23.59	7.29	3	Vertical	35	2.87	-
902.3MHz	Pass	AV	2.70685G	32.98	54.00	-21.02	2.42	3	Horizontal	41	1.50	-
902.3MHz	Pass	AV	3.60916G	50.74	54.00	-3.26	4.89	3	Horizontal	29	1.13	-
902.3MHz	Pass	AV	4.51147G	44.71	54.00	-9.29	7.29	3	Horizontal	31	1.50	-
902.3MHz	Pass	PK	2.70681G	41.95	74.00	-32.05	2.42	3	Horizontal	41	1.50	-
902.3MHz	Pass	PK	3.60922G	54.07	74.00	-19.93	4.89	3	Horizontal	29	1.13	-
902.3MHz	Pass	PK	4.51146G	50.79	74.00	-23.21	7.29	3	Horizontal	31	1.50	-
914.3MHz	Pass	AV	2.7429G	40.25	54.00	-13.75	2.55	3	Vertical	256	1.06	-
914.3MHz	Pass	AV	3.65717G	50.96	54.00	-3.04	4.92	3	Vertical	55	1.97	-
914.3MHz	Pass	AV	4.57144G	41.05	54.00	-12.95	7.45	3	Vertical	264	2.99	-
914.3MHz	Pass	PK	2.74296G	45.06	74.00	-28.94	2.55	3	Vertical	256	1.06	-
914.3MHz	Pass	PK	3.65733G	54.13	74.00	-19.87	4.92	3	Vertical	55	1.97	-
914.3MHz	Pass	PK	4.57186G	48.31	74.00	-25.69	7.45	3	Vertical	264	2.99	-
914.3MHz	Pass	AV	2.74291G	40.44	54.00	-13.56	2.55	3	Horizontal	309	1.03	-
914.3MHz	Pass	AV	3.65717G	47.37	54.00	-6.63	4.92	3	Horizontal	43	1.01	-
914.3MHz	Pass	AV	4.57143G	42.72	54.00	-11.28	7.45	3	Horizontal	30	1.13	-
914.3MHz	Pass	PK	2.74291G	46.06	74.00	-27.94	2.55	3	Horizontal	309	1.03	-
914.3MHz	Pass	PK	3.65675G	51.18	74.00	-22.82	4.92	3	Horizontal	43	1.01	-
914.3MHz	Pass	PK	4.57152G	49.43	74.00	-24.57	7.45	3	Horizontal	30	1.13	-
927.5MHz	Pass	AV	2.78248G	41.59	54.00	-12.41	2.72	3	Vertical	134	1.14	-
927.5MHz	Pass	AV	3.70996G	50.66	54.00	-3.34	4.96	3	Vertical	46	1.10	-
927.5MHz	Pass	AV	4.63744G	43.55	54.00	-10.45	7.72	3	Vertical	30	1.50	-
927.5MHz	Pass	PK	2.78289G	46.74	74.00	-27.26	2.72	3	Vertical	134	1.14	-
927.5MHz	Pass	PK	3.70976G	53.93	74.00	-20.07	4.96	3	Vertical	46	1.10	-
927.5MHz	Pass	PK	4.6373G	50.30	74.00	-23.70	7.72	3	Vertical	30	1.50	-
927.5MHz	Pass	AV	2.78249G	38.33	54.00	-15.67	2.72	3	Horizontal	29	2.57	-
927.5MHz	Pass	AV	3.70997G	47.74	54.00	-6.26	4.96	3	Horizontal	327	1.02	-
927.5MHz	Pass	AV	4.63743G	43.83	54.00	-10.17	7.72	3	Horizontal	27	1.23	-
927.5MHz	Pass	PK	2.78262G	45.08	74.00	-28.92	2.72	3	Horizontal	29	2.57	-
927.5MHz	Pass	PK	3.71G	51.88	74.00	-22.12	4.96	3	Horizontal	327	1.02	-
927.5MHz	Pass	PK	4.63744G	50.15	74.00	-23.85	7.72	3	Horizontal	27	1.23	-

LoRa_DTS_Nss1_1TX

903MHz_TX

10/06/2019

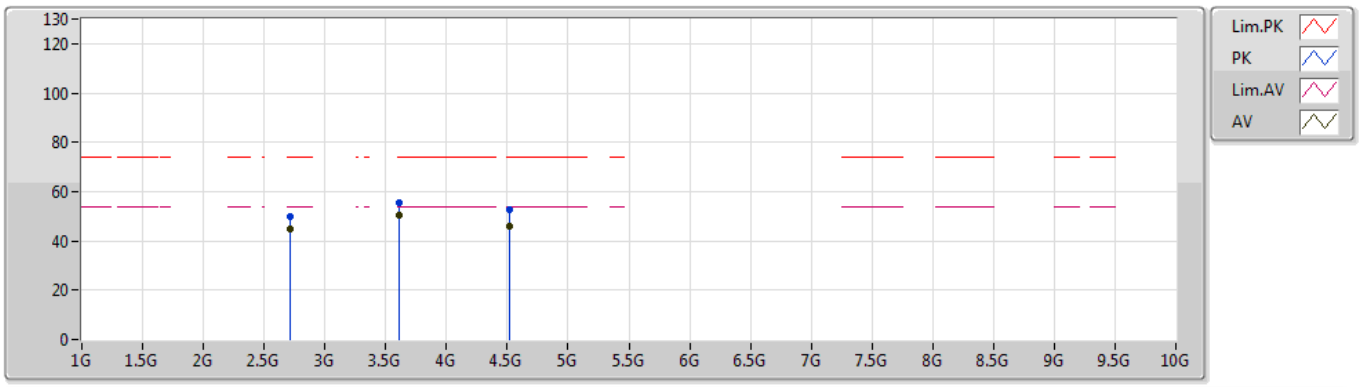


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	2.70884G	45.64	54.00	-8.36	2.43	3	Vertical	223	1.93	-
AV	3.61201G	50.90	54.00	-3.10	4.89	3	Vertical	75	1.06	-
AV	4.51448G	45.07	54.00	-8.93	7.30	3	Vertical	47	2.90	-
PK	2.70898G	49.96	74.00	-24.04	2.43	3	Vertical	223	1.93	-
PK	3.61186G	57.19	74.00	-16.81	4.89	3	Vertical	75	1.06	-
PK	4.51518G	52.19	74.00	-21.81	7.30	3	Vertical	47	2.90	-

LoRa_DTS_Nss1_1TX

903MHz_TX

10/06/2019

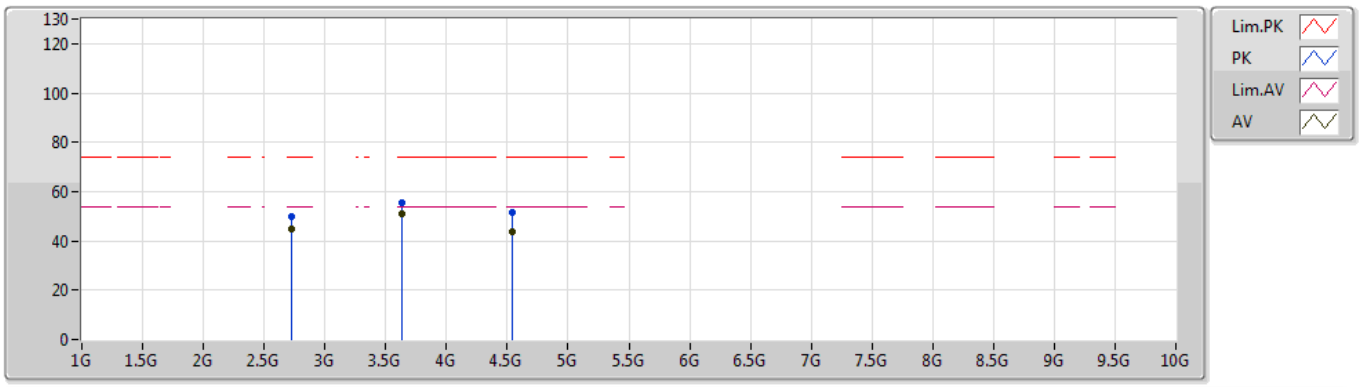


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	2.70897G	45.03	54.00	-8.97	2.43	3	Horizontal	260	1.48	-
AV	3.61193G	50.36	54.00	-3.64	4.89	3	Horizontal	41	1.11	-
AV	4.51515G	46.15	54.00	-7.85	7.30	3	Horizontal	28	1.60	-
PK	2.70861G	49.61	74.00	-24.39	2.43	3	Horizontal	260	1.48	-
PK	3.61251G	55.71	74.00	-18.29	4.90	3	Horizontal	41	1.11	-
PK	4.51431G	52.71	74.00	-21.29	7.30	3	Horizontal	28	1.60	-

LoRa_DTS_Nss1_1TX

907.8MHz_TX

09/06/2019

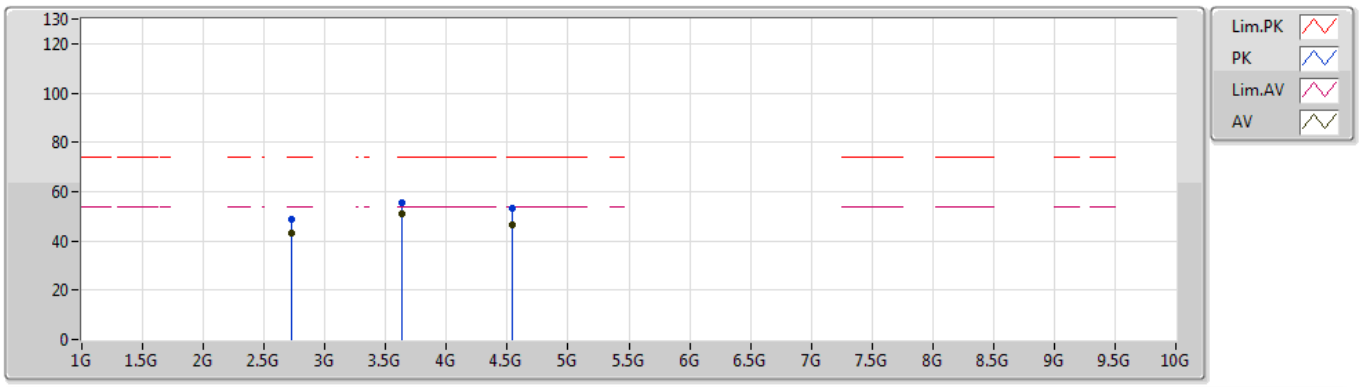


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	2.72326G	45.06	54.00	-8.94	2.48	3	Vertical	217	1.43	-
AV	3.6315G	50.88	54.00	-3.12	4.90	3	Vertical	44	1.46	-
AV	4.53887G	43.67	54.00	-10.33	7.36	3	Vertical	284	2.99	-
PK	2.72312G	49.66	74.00	-24.34	2.48	3	Vertical	217	1.43	-
PK	3.63159G	55.57	74.00	-18.43	4.90	3	Vertical	44	1.46	-
PK	4.53837G	51.32	74.00	-22.68	7.36	3	Vertical	284	2.99	-

LoRa_DTS_Nss1_1TX

907.8MHz_TX

09/06/2019

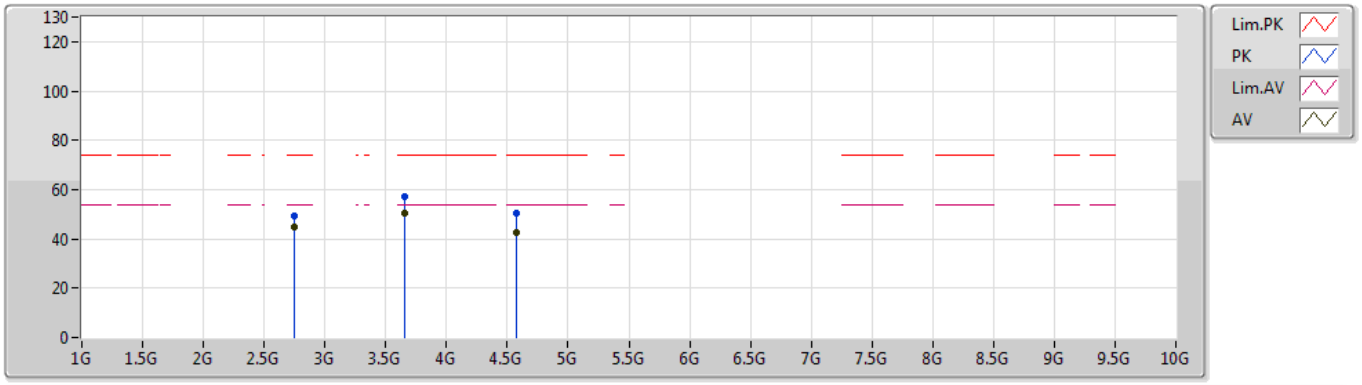


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	2.72323G	43.25	54.00	-10.75	2.48	3	Horizontal	261	1.11	-
AV	3.63145G	50.75	54.00	-3.25	4.90	3	Horizontal	18	1.20	-
AV	4.5391G	46.54	54.00	-7.46	7.36	3	Horizontal	29	1.47	-
PK	2.72273G	48.51	74.00	-25.49	2.48	3	Horizontal	261	1.11	-
PK	3.63119G	55.36	74.00	-18.64	4.90	3	Horizontal	18	1.20	-
PK	4.53853G	53.21	74.00	-20.79	7.36	3	Horizontal	29	1.47	-

LoRa_DTS_Nss1_1TX

09/06/2019

914.2MHz_TX

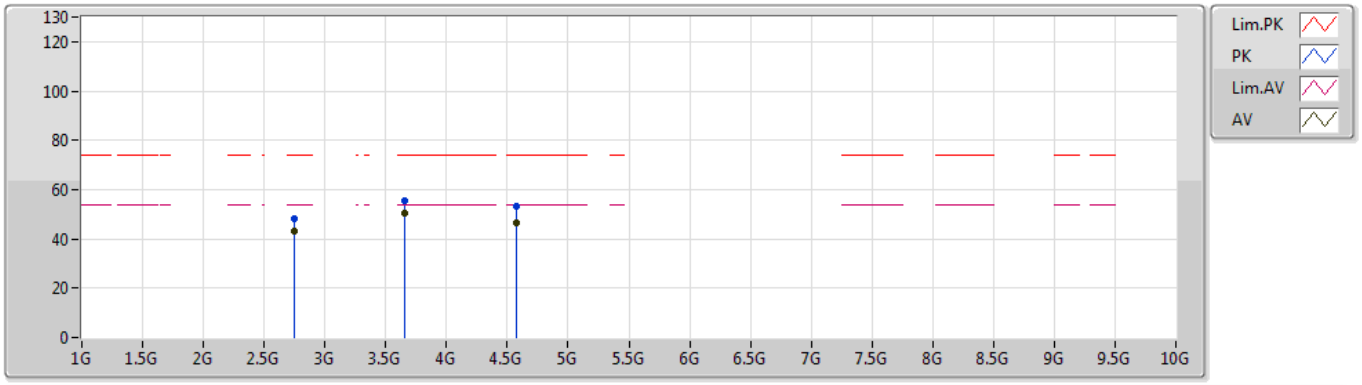


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	2.74265G	44.61	54.00	-9.39	2.55	3	Vertical	234	1.52	-
AV	3.6568G	50.38	54.00	-3.62	4.92	3	Vertical	56	1.90	-
AV	4.5714G	42.78	54.00	-11.22	7.45	3	Vertical	275	1.80	-
PK	2.74267G	49.54	74.00	-24.46	2.55	3	Vertical	234	1.52	-
PK	3.65716G	56.89	74.00	-17.11	4.92	3	Vertical	56	1.90	-
PK	4.57088G	50.49	74.00	-23.51	7.45	3	Vertical	275	1.80	-

LoRa_DTS_Nss1_1TX

09/06/2019

914.2MHz_TX

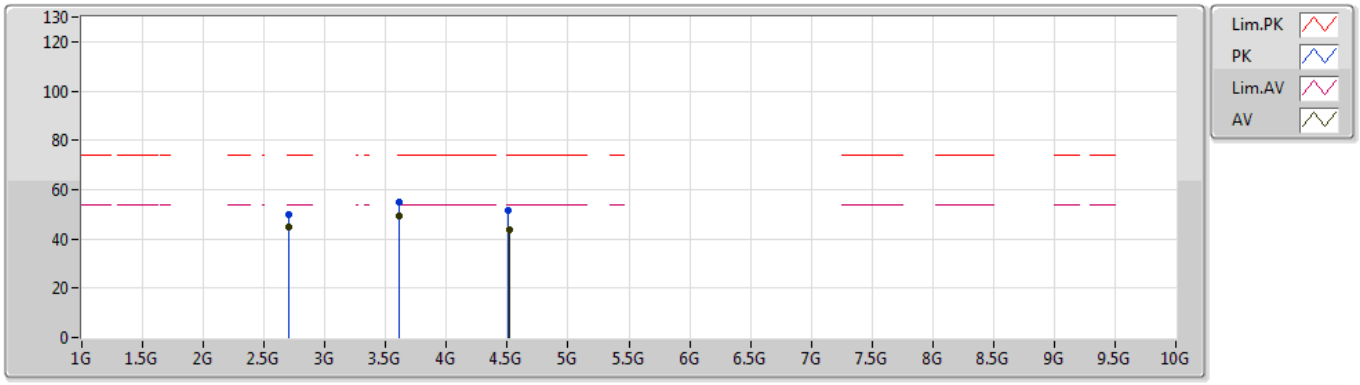


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	2.74276G	42.95	54.00	-11.05	2.55	3	Horizontal	294	1.01	-
AV	3.65712G	50.68	54.00	-3.32	4.92	3	Horizontal	24	1.49	-
AV	4.57089G	46.41	54.00	-7.59	7.45	3	Horizontal	37	1.13	-
PK	2.74231G	48.22	74.00	-25.78	2.55	3	Horizontal	294	1.01	-
PK	3.65742G	55.47	74.00	-18.53	4.92	3	Horizontal	24	1.49	-
PK	4.5698G	53.19	74.00	-20.81	7.45	3	Horizontal	37	1.13	-

LoRa_DTS_Nss1_1TX

902.5MHz_TX

09/06/2019

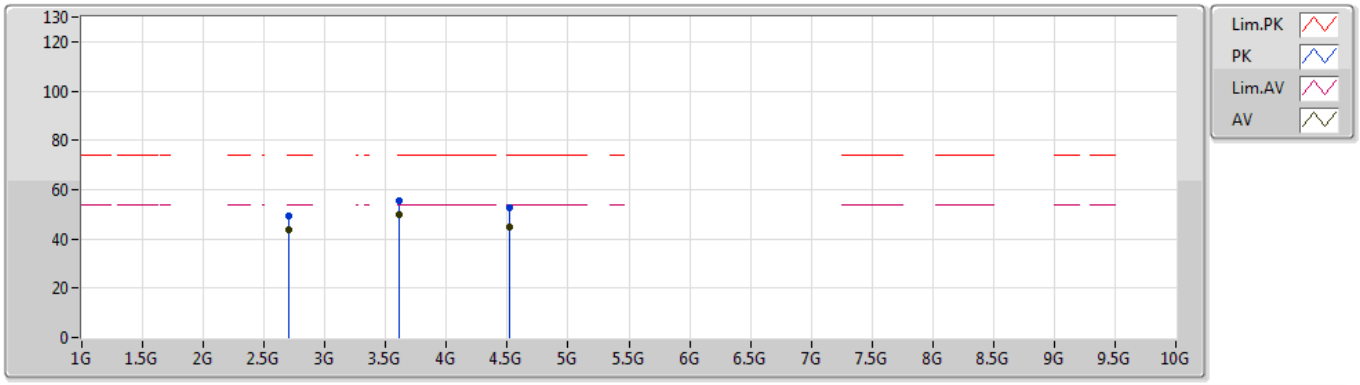


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	2.70741G	44.83	54.00	-9.17	2.42	3	Vertical	219	1.53	-
AV	3.6101G	49.51	54.00	-4.49	4.89	3	Vertical	43	1.27	-
AV	4.5127G	43.62	54.00	-10.38	7.30	3	Vertical	36	2.86	-
PK	2.70714G	49.84	74.00	-24.16	2.42	3	Vertical	219	1.53	-
PK	3.60907G	55.11	74.00	-18.89	4.89	3	Vertical	43	1.27	-
PK	4.51173G	51.66	74.00	-22.34	7.29	3	Vertical	36	2.86	-

LoRa_DTS_Nss1_1TX

902.5MHz_TX

09/06/2019

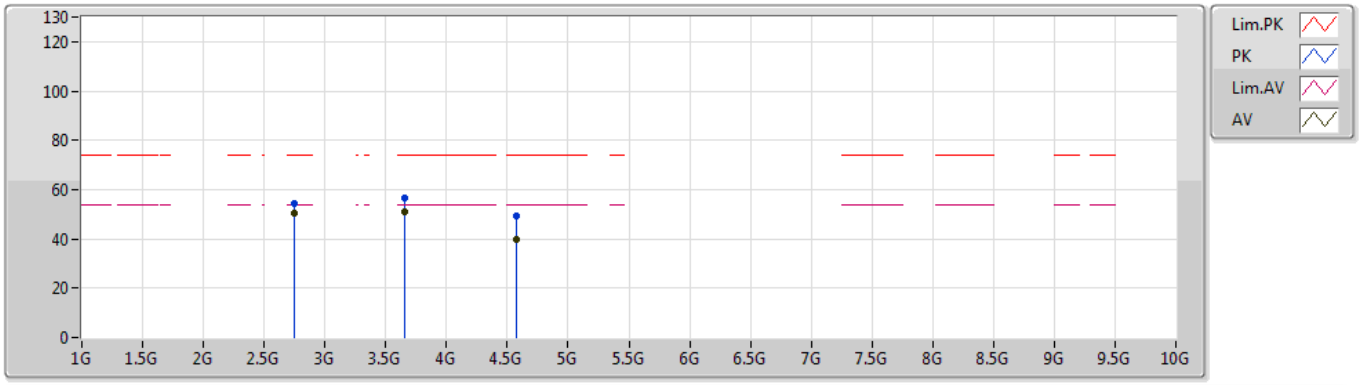


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	2.70756G	43.63	54.00	-10.37	2.42	3	Horizontal	265	1.17	-
AV	3.61001G	49.70	54.00	-4.30	4.89	3	Horizontal	21	1.36	-
AV	4.51295G	44.70	54.00	-9.30	7.30	3	Horizontal	29	1.15	-
PK	2.70732G	49.19	74.00	-24.81	2.42	3	Horizontal	265	1.17	-
PK	3.61008G	55.45	74.00	-18.55	4.89	3	Horizontal	21	1.36	-
PK	4.51304G	52.61	74.00	-21.39	7.30	3	Horizontal	29	1.15	-

LoRa_DTS_Nss1_1TX

914.5MHz_TX

09/06/2019

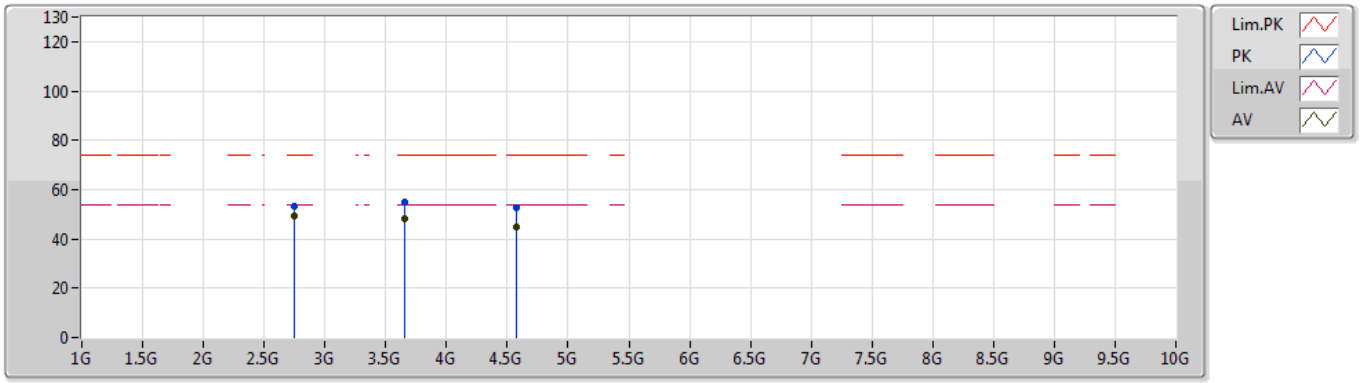


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	2.74354G	50.58	54.00	-3.42	2.55	3	Vertical	5	1.50	-
AV	3.65762G	50.87	54.00	-3.13	4.92	3	Vertical	55	1.90	-
AV	4.57275G	39.63	54.00	-14.37	7.46	3	Vertical	278	2.99	-
PK	2.74287G	54.40	74.00	-19.60	2.55	3	Vertical	5	1.50	-
PK	3.65788G	56.44	74.00	-17.56	4.92	3	Vertical	55	1.90	-
PK	4.57282G	49.53	74.00	-24.47	7.46	3	Vertical	278	2.99	-

LoRa_DTS_Nss1_1TX

914.5MHz_TX

09/06/2019

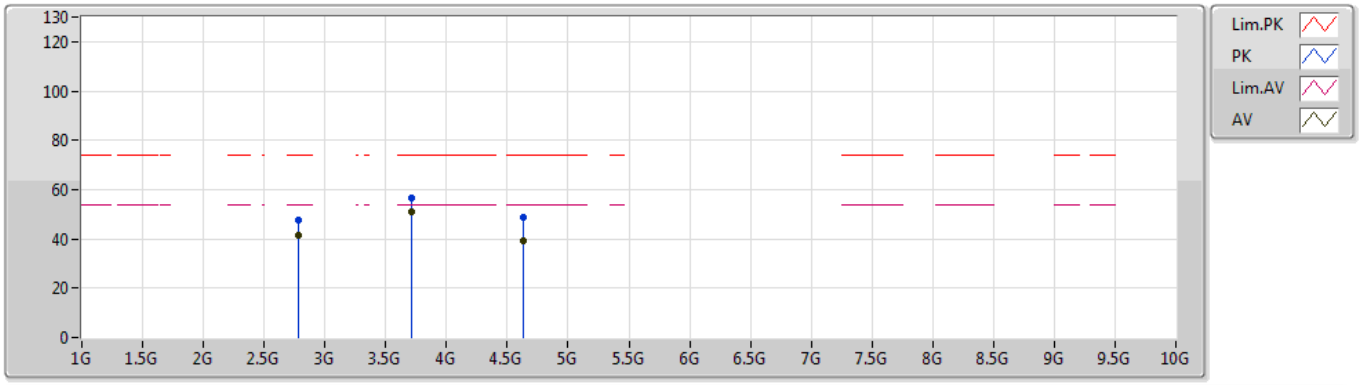


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	2.74346G	49.26	54.00	-4.74	2.55	3	Horizontal	292	1.33	-
AV	3.65788G	48.40	54.00	-5.60	4.92	3	Horizontal	23	1.02	-
AV	4.57218G	44.83	54.00	-9.17	7.45	3	Horizontal	37	1.13	-
PK	2.74401G	53.37	74.00	-20.63	2.56	3	Horizontal	292	1.33	-
PK	3.65722G	54.97	74.00	-19.03	4.92	3	Horizontal	23	1.02	-
PK	4.57276G	52.87	74.00	-21.13	7.46	3	Horizontal	37	1.13	-

LoRa_DTS_Nss1_1TX

927.3MHz_TX

09/06/2019

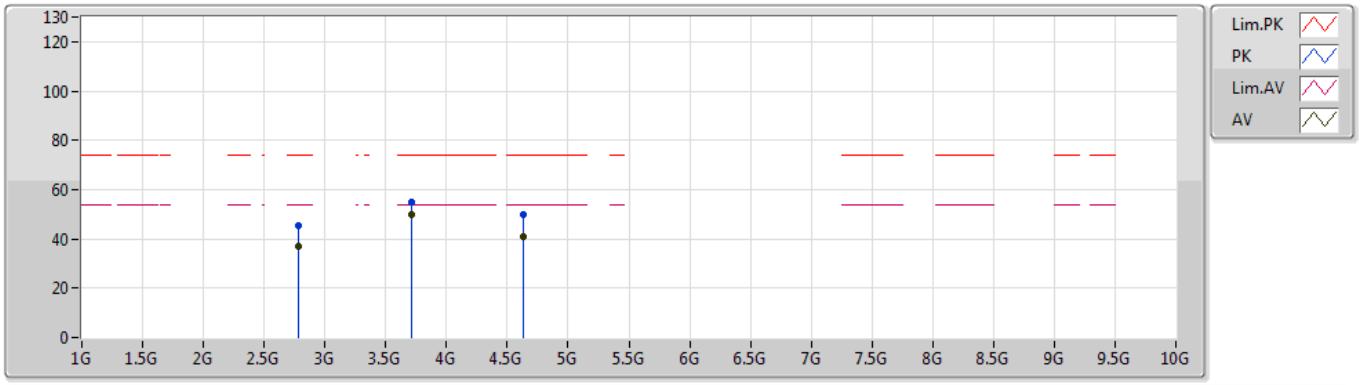


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	2.78189G	41.26	54.00	-12.74	2.72	3	Vertical	98	1.01	-
AV	3.70953G	50.72	54.00	-3.28	4.96	3	Vertical	96	1.01	-
AV	4.63608G	39.07	54.00	-14.93	7.71	3	Vertical	22	1.26	-
PK	2.78214G	47.51	74.00	-26.49	2.72	3	Vertical	98	1.01	-
PK	3.70848G	56.47	74.00	-17.53	4.96	3	Vertical	96	1.01	-
PK	4.63663G	48.78	74.00	-25.22	7.72	3	Vertical	22	1.26	-

LoRa_DTS_Nss1_1TX

927.3MHz_TX

09/06/2019

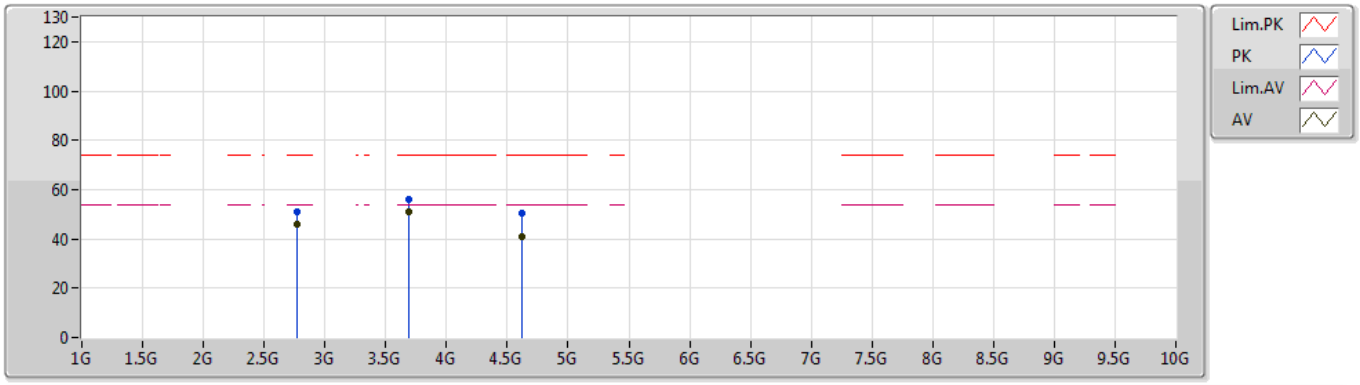


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	2.78174G	37.25	54.00	-16.75	2.72	3	Horizontal	96	2.29	-
AV	3.70936G	49.71	54.00	-4.29	4.96	3	Horizontal	327	1.15	-
AV	4.63702G	40.77	54.00	-13.23	7.72	3	Horizontal	311	1.66	-
PK	2.78167G	45.46	74.00	-28.54	2.72	3	Horizontal	96	2.29	-
PK	3.70994G	55.17	74.00	-18.83	4.96	3	Horizontal	327	1.15	-
PK	4.63743G	49.72	74.00	-24.28	7.72	3	Horizontal	311	1.66	-

LoRa_DTS_Nss1_1TX

923.3MHz_TX

09/06/2019

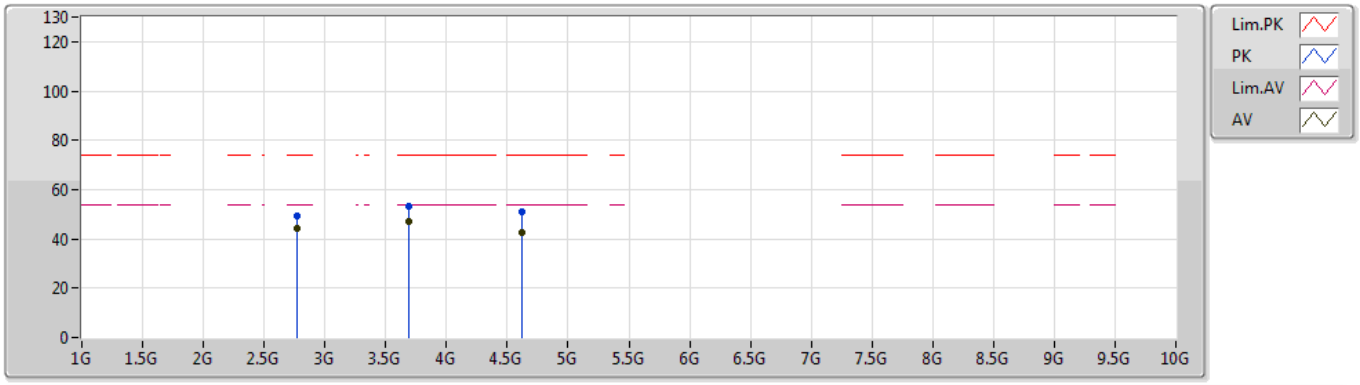


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	2.76975G	46.15	54.00	-7.85	2.67	3	Vertical	14	1.04	-
AV	3.69305G	50.85	54.00	-3.15	4.94	3	Vertical	123	1.95	-
AV	4.61699G	41.11	54.00	-12.89	7.62	3	Vertical	19	1.61	-
PK	2.76943G	51.10	74.00	-22.90	2.67	3	Vertical	14	1.04	-
PK	3.69323G	56.22	74.00	-17.78	4.94	3	Vertical	123	1.95	-
PK	4.61699G	50.50	74.00	-23.50	7.62	3	Vertical	19	1.61	-

LoRa_DTS_Nss1_1TX

923.3MHz_TX

09/06/2019

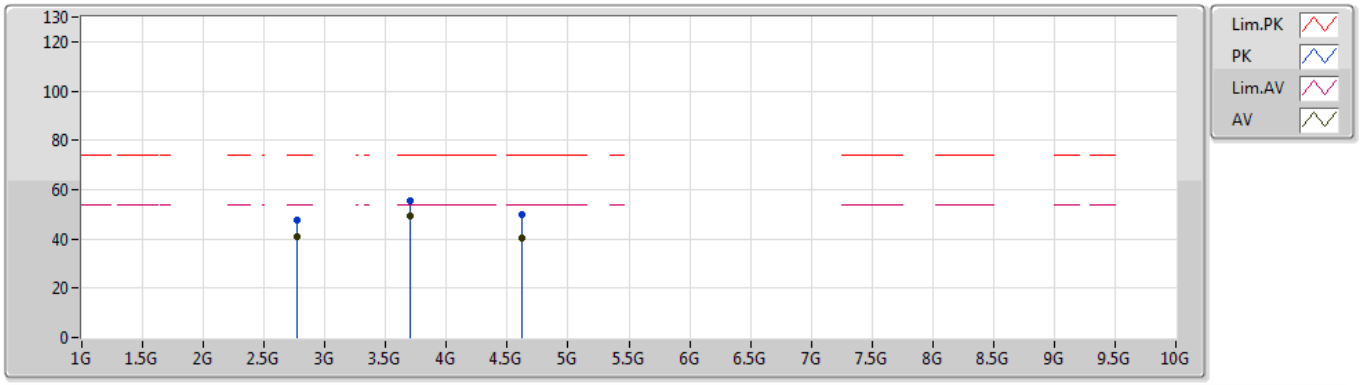


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	2.76989G	44.09	54.00	-9.91	2.67	3	Horizontal	90	2.01	-
AV	3.69337G	47.25	54.00	-6.75	4.94	3	Horizontal	23	1.46	-
AV	4.61701G	42.75	54.00	-11.25	7.62	3	Horizontal	37	1.47	-
PK	2.76917G	49.46	74.00	-24.54	2.67	3	Horizontal	90	2.01	-
PK	3.6922G	53.17	74.00	-20.83	4.94	3	Horizontal	23	1.46	-
PK	4.61624G	51.25	74.00	-22.75	7.61	3	Horizontal	37	1.47	-

LoRa_DTS_Nss1_1TX

925.1MHz_TX

09/06/2019

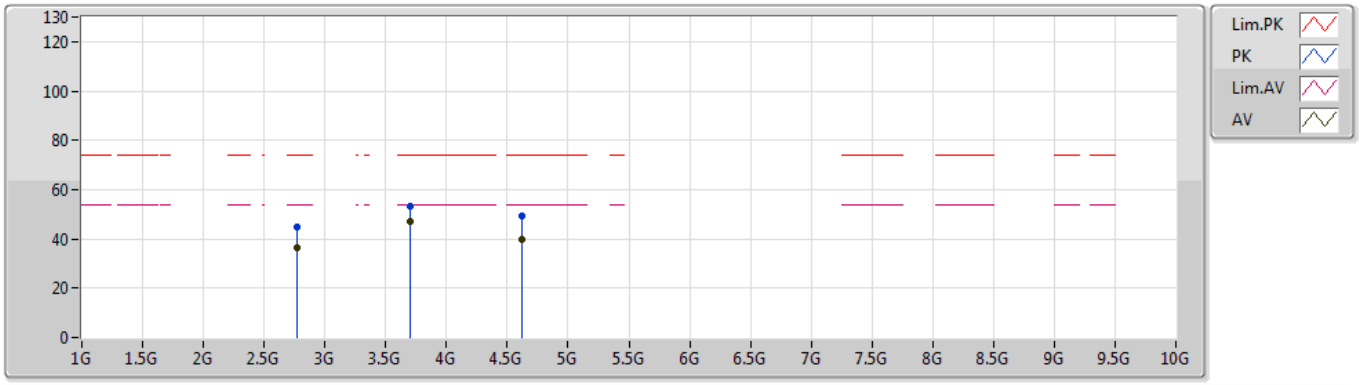


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	2.77545G	40.96	54.00	-13.04	2.69	3	Vertical	97	1.50	-
AV	3.70027G	49.47	54.00	-4.53	4.94	3	Vertical	75	1.10	-
AV	4.625G	40.55	54.00	-13.45	7.66	3	Vertical	22	1.62	-
PK	2.77505G	47.64	74.00	-26.36	2.69	3	Vertical	97	1.50	-
PK	3.701G	55.36	74.00	-18.64	4.94	3	Vertical	75	1.10	-
PK	4.62527G	50.05	74.00	-23.95	7.66	3	Vertical	22	1.62	-

LoRa_DTS_Nss1_1TX

925.1MHz_TX

09/06/2019

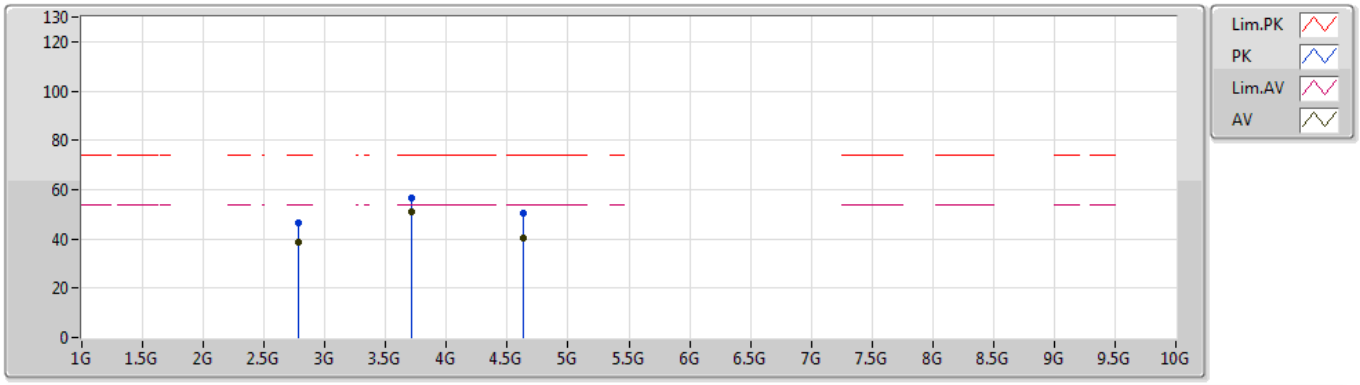


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	2.7754G	36.56	54.00	-17.44	2.69	3	Horizontal	0	2.52	-
AV	3.69994G	47.02	54.00	-6.98	4.94	3	Horizontal	336	1.04	-
AV	4.62504G	39.56	54.00	-14.44	7.66	3	Horizontal	26	1.24	-
PK	2.7756G	44.69	74.00	-29.31	2.69	3	Horizontal	0	2.52	-
PK	3.69981G	53.23	74.00	-20.77	4.94	3	Horizontal	336	1.04	-
PK	4.62468G	49.07	74.00	-24.93	7.65	3	Horizontal	26	1.24	-

LoRa_DTS_Nss1_1TX

927.5MHz_TX

09/06/2019

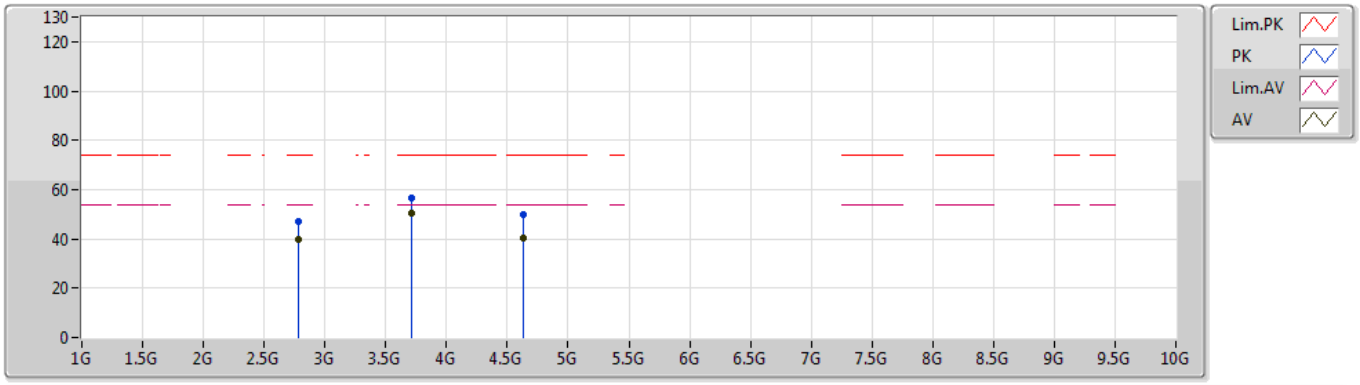


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	2.78246G	38.63	54.00	-15.37	2.72	3	Vertical	319	1.52	-
AV	3.71G	50.73	54.00	-3.27	4.96	3	Vertical	98	1.63	-
AV	4.63722G	40.20	54.00	-13.80	7.72	3	Vertical	9	1.65	-
PK	2.78284G	46.31	74.00	-27.69	2.72	3	Vertical	319	1.52	-
PK	3.71078G	56.85	74.00	-17.15	4.96	3	Vertical	98	1.63	-
PK	4.63728G	50.47	74.00	-23.53	7.72	3	Vertical	9	1.65	-

LoRa_DTS_Nss1_1TX

927.5MHz_TX

09/06/2019

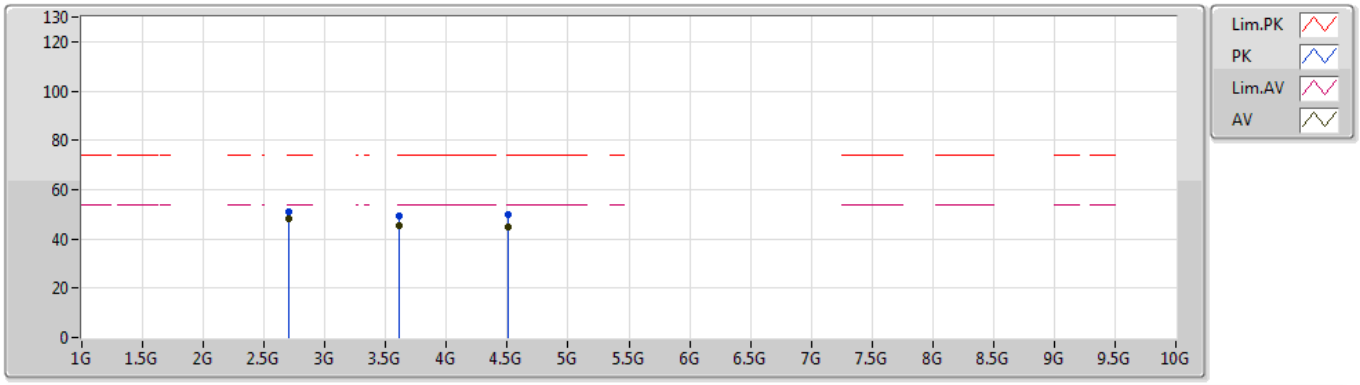


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	2.78244G	39.89	54.00	-14.11	2.72	3	Horizontal	85	1.50	-
AV	3.70991G	50.43	54.00	-3.57	4.96	3	Horizontal	46	1.11	-
AV	4.63695G	40.09	54.00	-13.91	7.72	3	Horizontal	31	1.03	-
PK	2.78256G	47.24	74.00	-26.76	2.72	3	Horizontal	85	1.50	-
PK	3.71002G	56.68	74.00	-17.32	4.96	3	Horizontal	46	1.11	-
PK	4.63682G	50.15	74.00	-23.85	7.72	3	Horizontal	31	1.03	-

FSK-5k_Nss1_1TX

902.2MHz_TX

10/06/2019

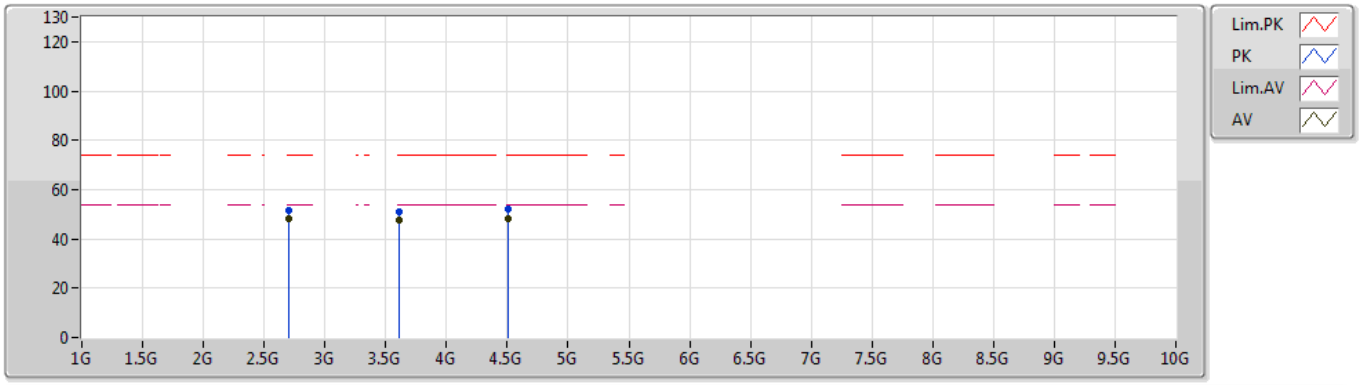


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	2.70661G	48.02	54.00	-5.98	1.84	3	Vertical	167	2.96	-
AV	3.60881G	45.29	54.00	-8.71	4.49	3	Vertical	170	1.53	-
AV	4.51097G	44.87	54.00	-9.13	6.61	3	Vertical	163	1.48	-
PK	2.70653G	50.77	74.00	-23.23	1.84	3	Vertical	167	2.96	-
PK	3.60907G	49.52	74.00	-24.48	4.49	3	Vertical	170	1.53	-
PK	4.51091G	49.77	74.00	-24.23	6.61	3	Vertical	163	1.48	-

FSK-5k_Nss1_1TX

902.2MHz_TX

10/06/2019

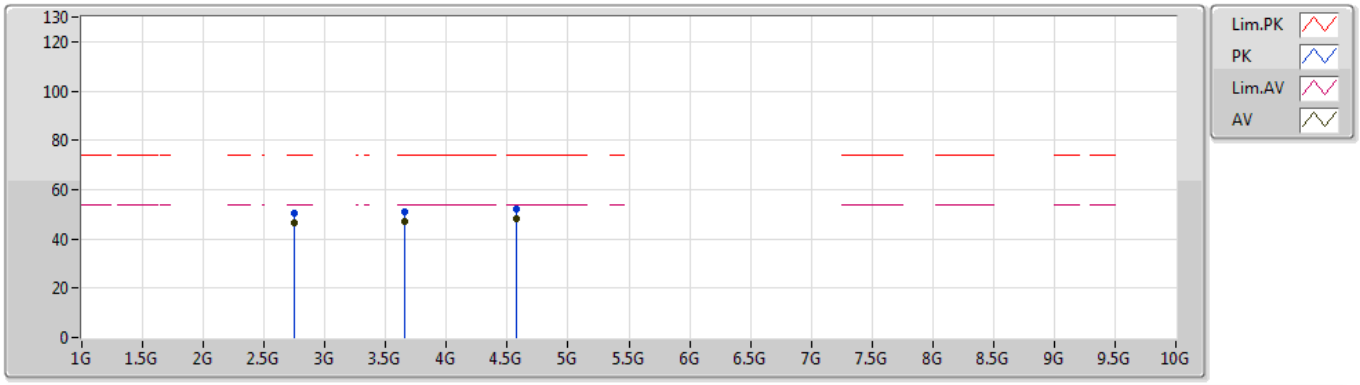


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	2.70659G	48.46	54.00	-5.54	1.84	3	Horizontal	321	2.99	-
AV	3.60879G	47.72	54.00	-6.28	4.49	3	Horizontal	27	1.50	-
AV	4.51099G	48.41	54.00	-5.59	6.61	3	Horizontal	99	1.97	-
PK	2.70668G	51.37	74.00	-22.63	1.84	3	Horizontal	321	2.99	-
PK	3.60863G	51.21	74.00	-22.79	4.49	3	Horizontal	27	1.50	-
PK	4.51107G	52.38	74.00	-21.62	6.61	3	Horizontal	99	1.97	-

FSK-5k_Nss1_1TX

915MHz_TX

10/06/2019

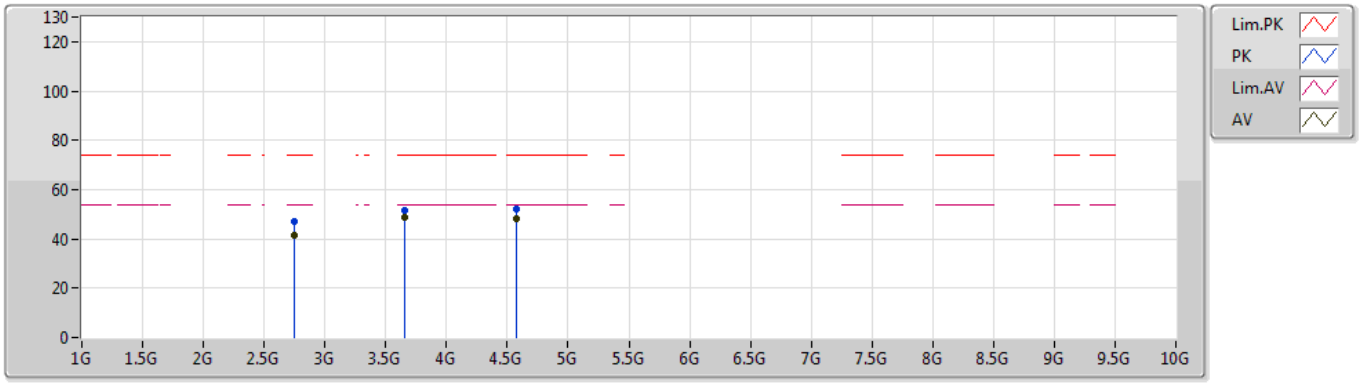


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	2.745G	46.70	54.00	-7.30	2.01	3	Vertical	203	1.00	-
AV	3.66G	47.30	54.00	-6.70	4.62	3	Vertical	40	1.02	-
AV	4.57503G	48.42	54.00	-5.58	7.23	3	Vertical	272	2.89	-
PK	2.74505G	50.24	74.00	-23.76	2.01	3	Vertical	203	1.00	-
PK	3.65995G	50.80	74.00	-23.20	4.62	3	Vertical	40	1.02	-
PK	4.57497G	52.19	74.00	-21.81	7.22	3	Vertical	272	2.89	-

FSK-5k_Nss1_1TX

915MHz_TX

10/06/2019

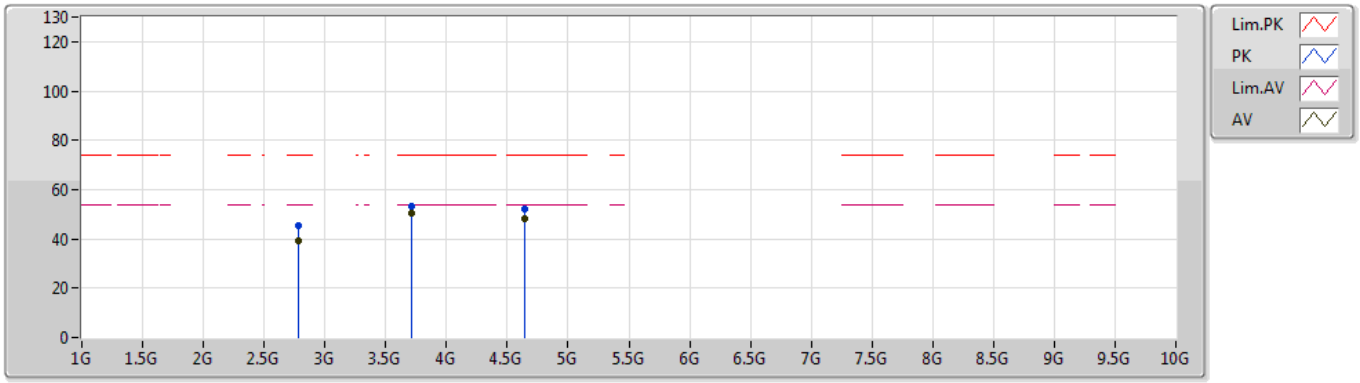


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	2.74501G	41.51	54.00	-12.49	2.01	3	Horizontal	107	1.01	-
AV	3.66G	48.58	54.00	-5.42	4.62	3	Horizontal	356	1.50	-
AV	4.57501G	48.07	54.00	-5.93	7.23	3	Horizontal	26	1.92	-
PK	2.74491G	46.97	74.00	-27.03	2.00	3	Horizontal	107	1.01	-
PK	3.66009G	51.77	74.00	-22.23	4.62	3	Horizontal	356	1.50	-
PK	4.5751G	52.05	74.00	-21.95	7.23	3	Horizontal	26	1.92	-

FSK-5k_Nss1_1TX

927.8MHz_TX

10/06/2019

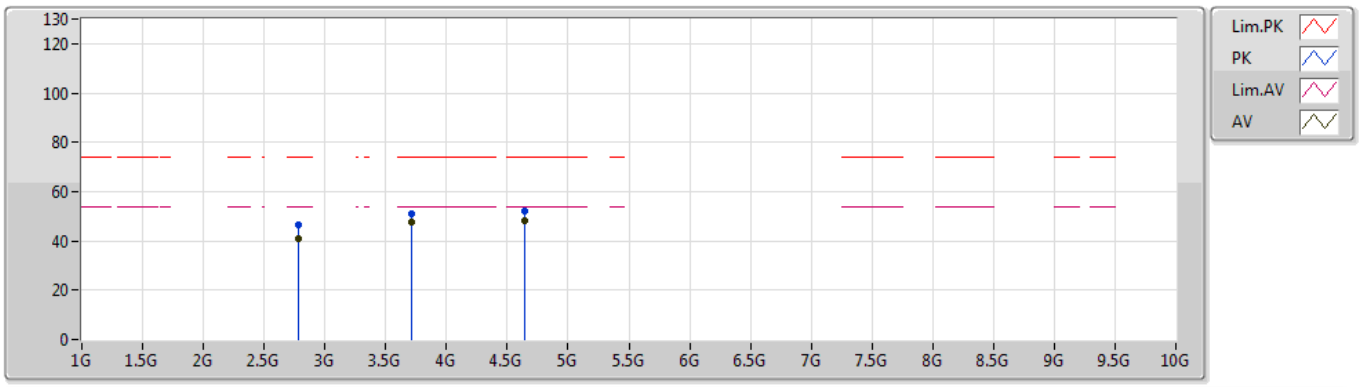


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	2.78339G	39.43	54.00	-14.57	2.19	3	Vertical	0	1.50	-
AV	3.71121G	50.53	54.00	-3.47	4.74	3	Vertical	119	2.14	-
AV	4.63899G	48.14	54.00	-5.86	7.65	3	Vertical	187	2.87	-
PK	2.78354G	45.48	74.00	-28.52	2.19	3	Vertical	0	1.50	-
PK	3.71123G	53.20	74.00	-20.80	4.74	3	Vertical	119	2.14	-
PK	4.63903G	52.06	74.00	-21.94	7.65	3	Vertical	187	2.87	-

FSK-5k_Nss1_1TX

927.8MHz_TX

10/06/2019

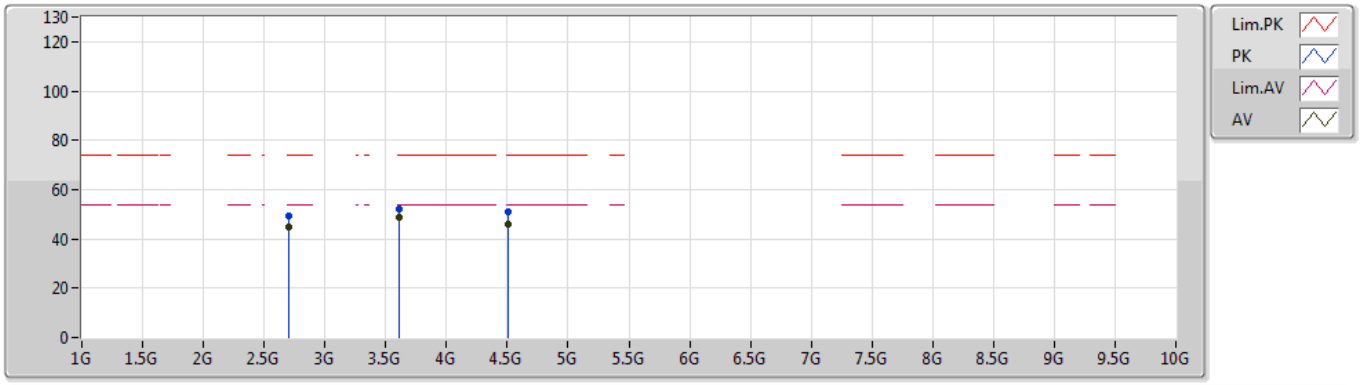


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	2.7834G	41.00	54.00	-13.00	2.19	3	Horizontal	324	2.99	-
AV	3.71122G	47.65	54.00	-6.35	4.74	3	Horizontal	271	1.50	-
AV	4.639G	48.15	54.00	-5.85	7.65	3	Horizontal	35	1.25	-
PK	2.78338G	46.58	74.00	-27.42	2.19	3	Horizontal	324	2.99	-
PK	3.71126G	51.22	74.00	-22.78	4.74	3	Horizontal	271	1.50	-
PK	4.63875G	52.10	74.00	-21.90	7.64	3	Horizontal	35	1.25	-

FSK-50k_Nss1_1TX

902.2MHz_TX

10/06/2019

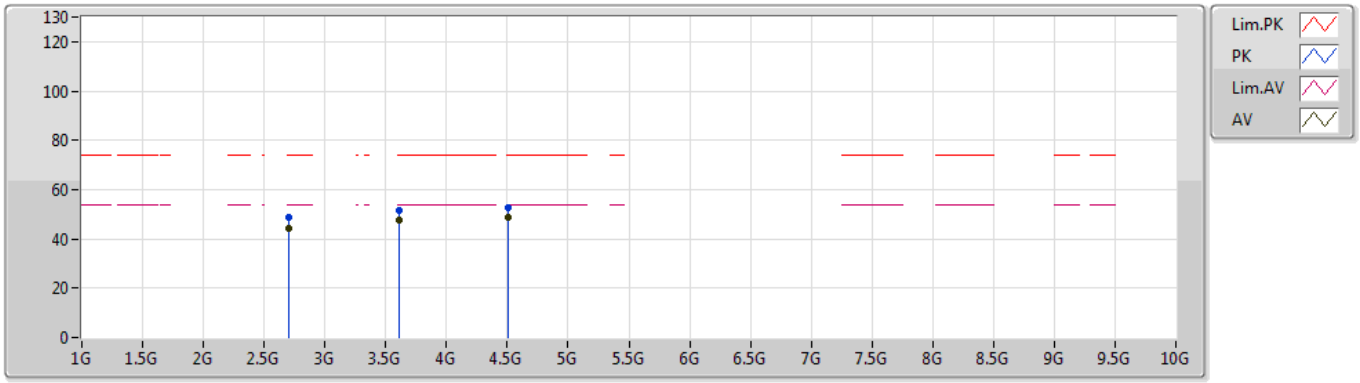


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	2.7066G	44.96	54.00	-9.04	1.84	3	Vertical	139	1.10	-
AV	3.60879G	48.88	54.00	-5.12	4.49	3	Vertical	116	2.27	-
AV	4.51099G	46.13	54.00	-7.87	6.61	3	Vertical	158	2.90	-
PK	2.70654G	49.14	74.00	-24.86	1.84	3	Vertical	139	1.10	-
PK	3.60891G	52.34	74.00	-21.66	4.49	3	Vertical	116	2.27	-
PK	4.51102G	51.24	74.00	-22.76	6.61	3	Vertical	158	2.90	-

FSK-50k_Nss1_1TX

902.2MHz_TX

10/06/2019

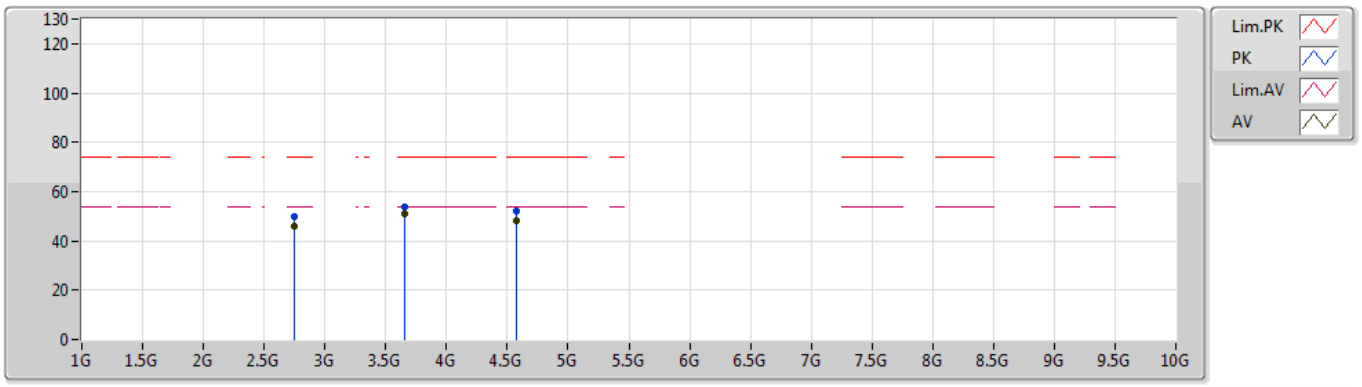


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	2.70662G	44.45	54.00	-9.55	1.84	3	Horizontal	220	1.50	-
AV	3.6088G	47.77	54.00	-6.23	4.49	3	Horizontal	105	1.92	-
AV	4.511G	48.67	54.00	-5.33	6.61	3	Horizontal	39	1.01	-
PK	2.70644G	48.75	74.00	-25.25	1.84	3	Horizontal	220	1.50	-
PK	3.60892G	51.61	74.00	-22.39	4.49	3	Horizontal	105	1.92	-
PK	4.51077G	52.69	74.00	-21.31	6.61	3	Horizontal	39	1.01	-

FSK-50k_Nss1_1TX

915MHz_TX

10/06/2019

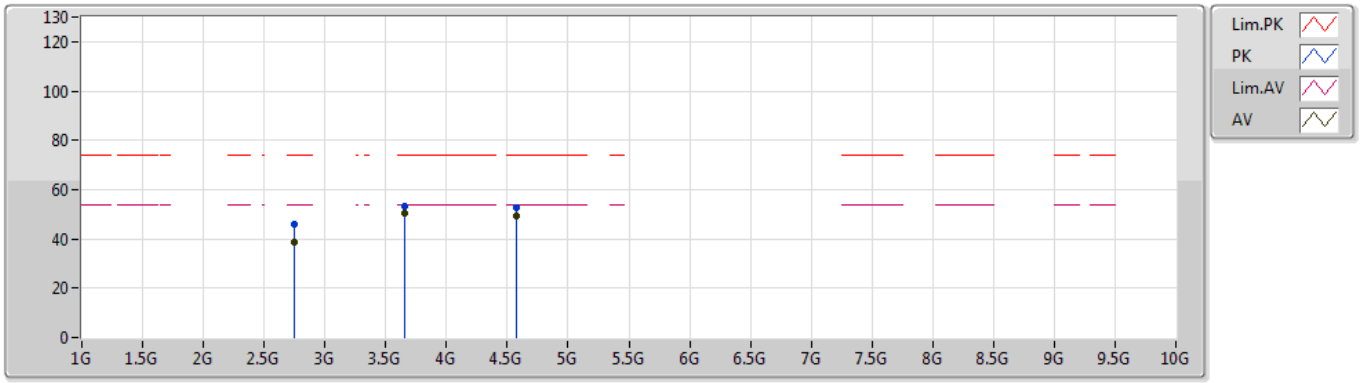


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	2.74501G	46.03	54.00	-7.97	2.01	3	Vertical	231	1.00	-
AV	3.66001G	50.85	54.00	-3.15	4.62	3	Vertical	125	2.32	-
AV	4.57498G	48.00	54.00	-6.00	7.22	3	Vertical	279	2.92	-
PK	2.74505G	49.85	74.00	-24.15	2.01	3	Vertical	231	1.00	-
PK	3.65982G	53.52	74.00	-20.48	4.62	3	Vertical	125	2.32	-
PK	4.57476G	52.37	74.00	-21.63	7.22	3	Vertical	279	2.92	-

FSK-50k_Nss1_1TX

915MHz_TX

10/06/2019

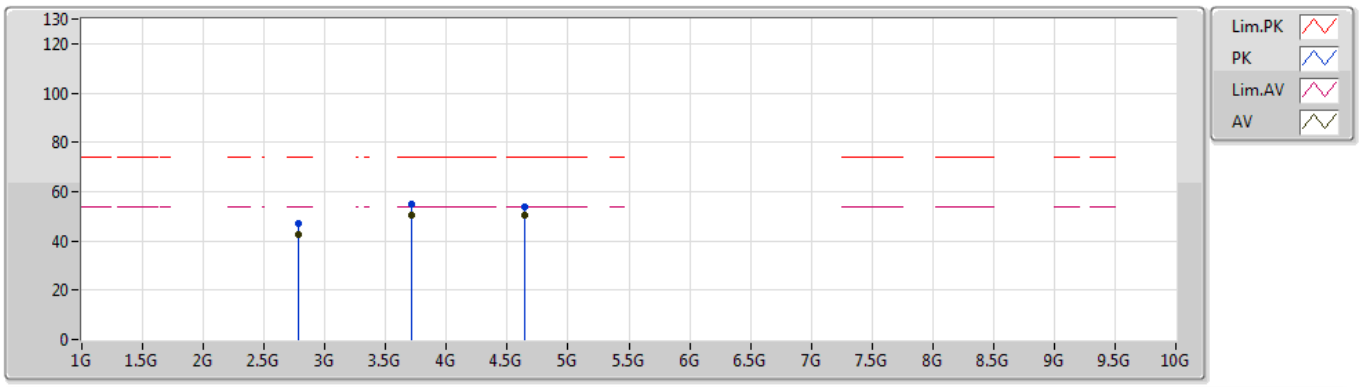


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	2.745G	38.80	54.00	-15.20	2.01	3	Horizontal	94	1.50	-
AV	3.66G	50.59	54.00	-3.41	4.62	3	Horizontal	114	2.05	-
AV	4.57495G	49.11	54.00	-4.89	7.22	3	Horizontal	36	1.04	-
PK	2.74511G	45.83	74.00	-28.17	2.01	3	Horizontal	94	1.50	-
PK	3.66021G	53.35	74.00	-20.65	4.62	3	Horizontal	114	2.05	-
PK	4.5751G	52.88	74.00	-21.12	7.23	3	Horizontal	36	1.04	-

FSK-50k_Nss1_1TX

927.8MHz_TX

10/06/2019

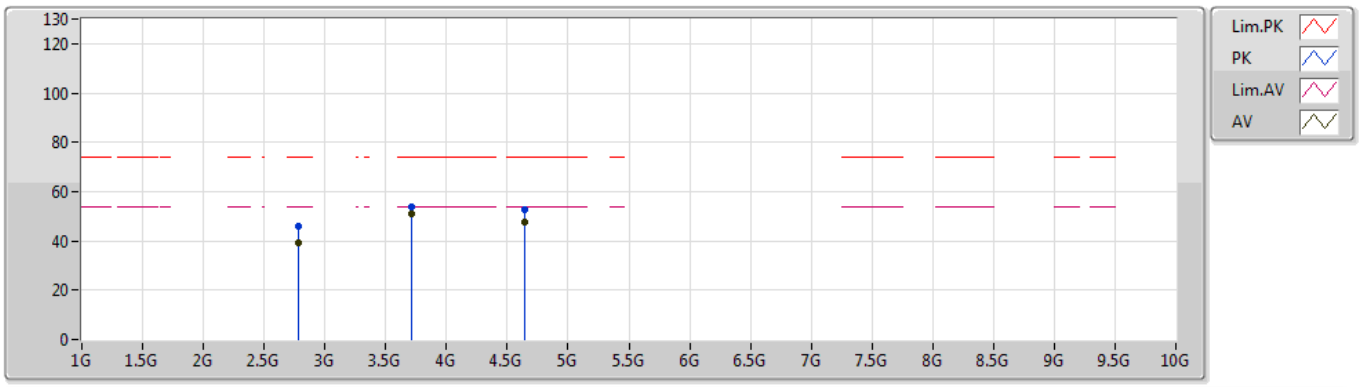


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	2.78342G	42.31	54.00	-11.69	2.19	3	Vertical	129	1.02	-
AV	3.71121G	50.53	54.00	-3.47	4.74	3	Vertical	120	2.82	-
AV	4.63899G	50.31	54.00	-3.69	7.65	3	Vertical	198	1.01	-
PK	2.78332G	47.15	74.00	-26.85	2.19	3	Vertical	129	1.02	-
PK	3.71102G	55.14	74.00	-18.86	4.74	3	Vertical	120	2.82	-
PK	4.6391G	53.99	74.00	-20.01	7.65	3	Vertical	198	1.01	-

FSK-50k_Nss1_1TX

927.8MHz_TX

10/06/2019

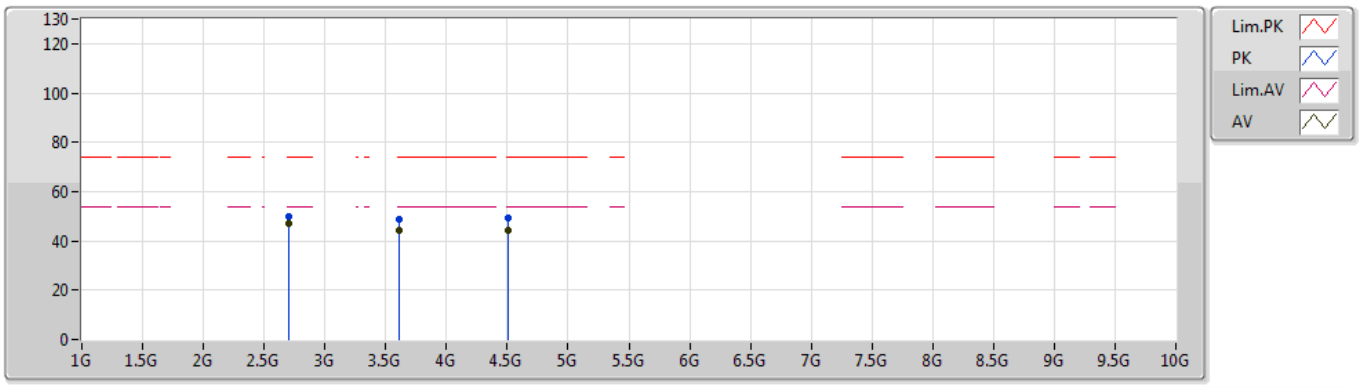


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	2.78337G	39.50	54.00	-14.50	2.19	3	Horizontal	114	1.50	-
AV	3.7112G	50.89	54.00	-3.11	4.74	3	Horizontal	114	1.03	-
AV	4.63899G	47.85	54.00	-6.15	7.65	3	Horizontal	39	1.01	-
PK	2.78323G	45.93	74.00	-28.07	2.19	3	Horizontal	114	1.50	-
PK	3.71125G	53.74	74.00	-20.26	4.74	3	Horizontal	114	1.03	-
PK	4.63917G	52.46	74.00	-21.54	7.65	3	Horizontal	39	1.01	-

FSK-150k_Nss1_1TX

902.4MHz_TX

10/06/2019

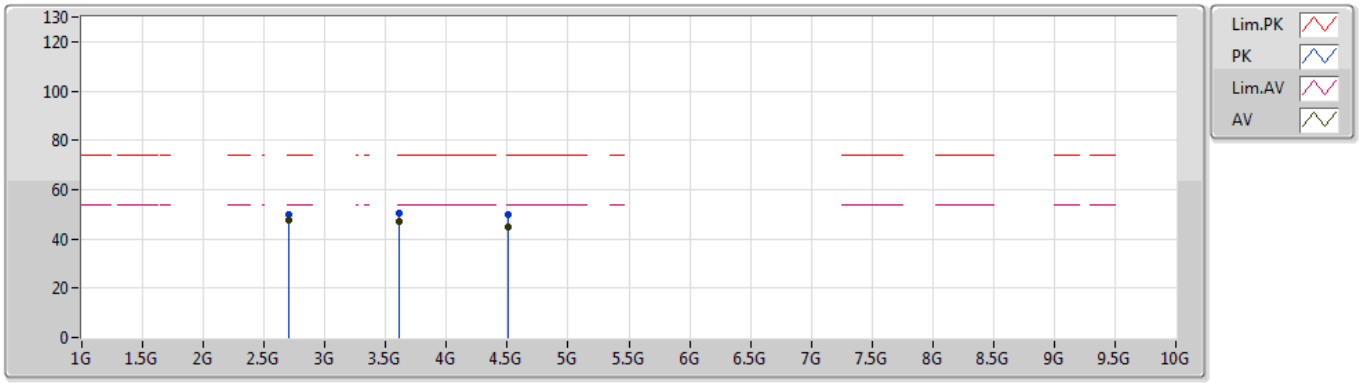


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	2.70719G	47.00	54.00	-7.00	2.42	3	Vertical	226	1.61	-
AV	3.60954G	44.39	54.00	-9.61	4.89	3	Vertical	26	1.07	-
AV	4.51196G	44.49	54.00	-9.51	7.29	3	Vertical	30	2.99	-
PK	2.70712G	49.69	74.00	-24.31	2.42	3	Vertical	226	1.61	-
PK	3.6094G	48.87	74.00	-25.13	4.89	3	Vertical	26	1.07	-
PK	4.51221G	49.45	74.00	-24.55	7.29	3	Vertical	30	2.99	-

FSK-150k_Nss1_1TX

902.4MHz_TX

10/06/2019

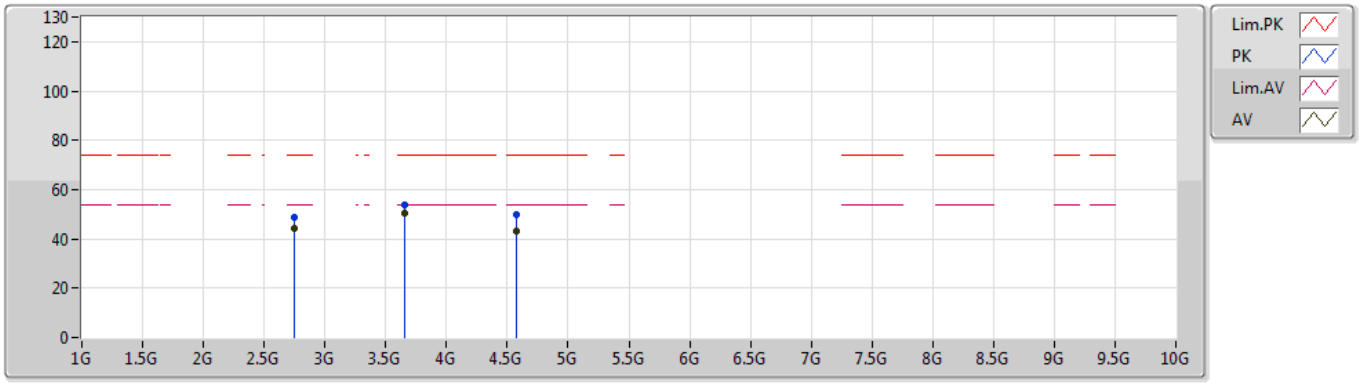


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	2.70718G	47.47	54.00	-6.53	2.42	3	Horizontal	261	1.16	-
AV	3.60956G	47.11	54.00	-6.89	4.89	3	Horizontal	57	1.04	-
AV	4.51197G	44.76	54.00	-9.24	7.29	3	Horizontal	36	1.15	-
PK	2.70731G	49.88	74.00	-24.12	2.42	3	Horizontal	261	1.16	-
PK	3.60947G	50.22	74.00	-23.78	4.89	3	Horizontal	57	1.04	-
PK	4.51178G	49.73	74.00	-24.27	7.29	3	Horizontal	36	1.15	-

FSK-150k_Nss1_1TX

914.8MHz_TX

10/06/2019

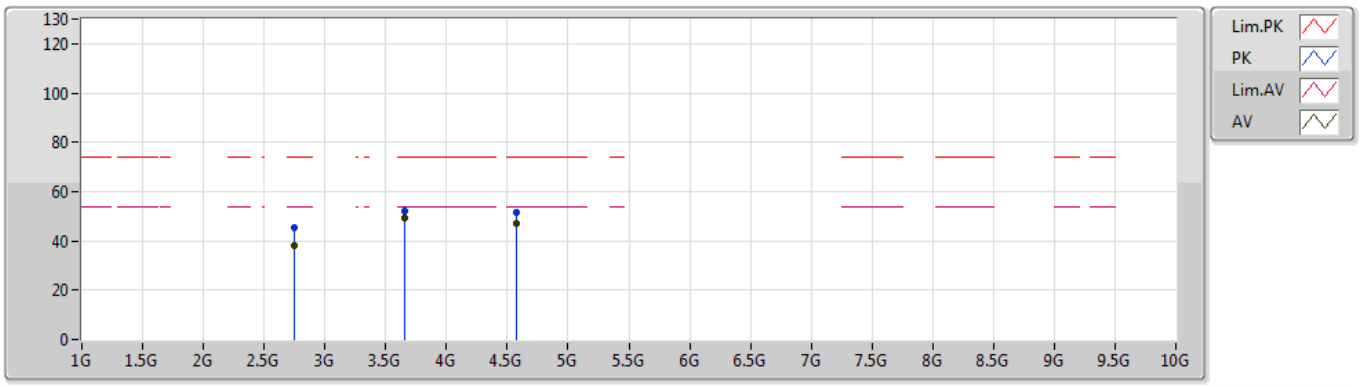


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	2.7444G	44.39	54.00	-9.61	2.00	3	Vertical	234	1.00	-
AV	3.65919G	50.47	54.00	-3.53	4.62	3	Vertical	116	2.82	-
AV	4.57398G	43.34	54.00	-10.66	7.21	3	Vertical	157	1.09	-
PK	2.74444G	48.70	74.00	-25.30	2.00	3	Vertical	234	1.00	-
PK	3.65923G	53.62	74.00	-20.38	4.62	3	Vertical	116	2.82	-
PK	4.57415G	49.62	74.00	-24.38	7.21	3	Vertical	157	1.09	-

FSK-150k_Nss1_1TX

914.8MHz_TX

10/06/2019

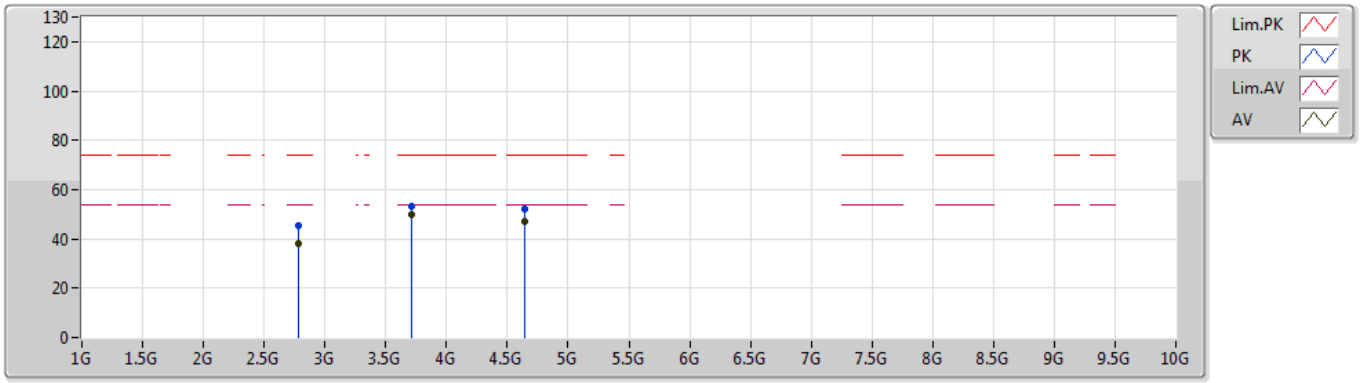


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	2.74438G	38.12	54.00	-15.88	2.00	3	Horizontal	95	1.54	-
AV	3.65919G	49.11	54.00	-4.89	4.62	3	Horizontal	111	1.10	-
AV	4.57398G	47.34	54.00	-6.66	7.21	3	Horizontal	42	1.01	-
PK	2.7442G	45.35	74.00	-28.65	2.00	3	Horizontal	95	1.54	-
PK	3.65906G	52.27	74.00	-21.73	4.62	3	Horizontal	111	1.10	-
PK	4.57383G	51.66	74.00	-22.34	7.21	3	Horizontal	42	1.01	-

FSK-150k_Nss1_1TX

927.6MHz_TX

10/06/2019

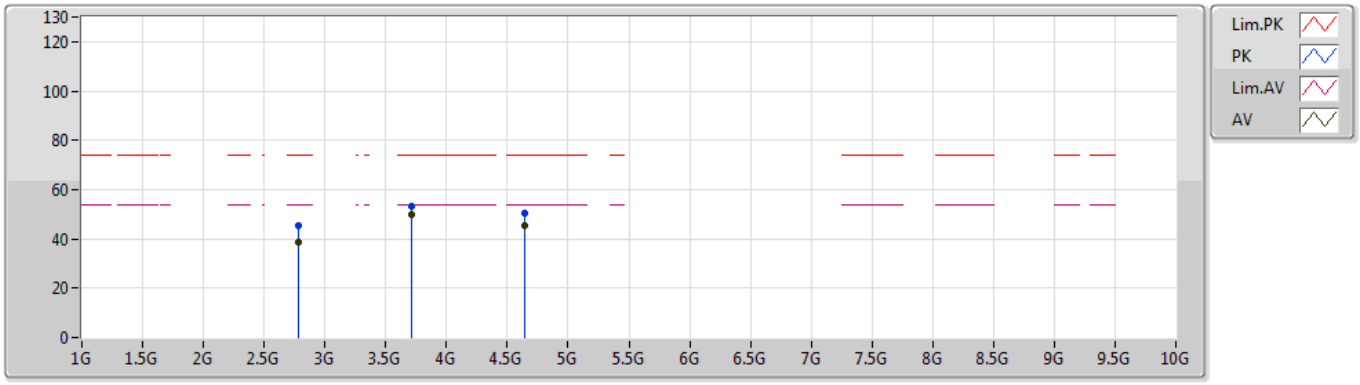


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	2.7828G	38.03	54.00	-15.97	2.18	3	Vertical	129	1.50	-
AV	3.71039G	50.14	54.00	-3.86	4.74	3	Vertical	110	2.49	-
AV	4.638G	47.17	54.00	-6.83	7.63	3	Vertical	199	1.00	-
PK	2.78276G	45.30	74.00	-28.70	2.18	3	Vertical	129	1.50	-
PK	3.71052G	53.15	74.00	-20.85	4.74	3	Vertical	110	2.49	-
PK	4.63793G	51.93	74.00	-22.07	7.63	3	Vertical	199	1.00	-

FSK-150k_Nss1_1TX

927.6MHz_TX

10/06/2019

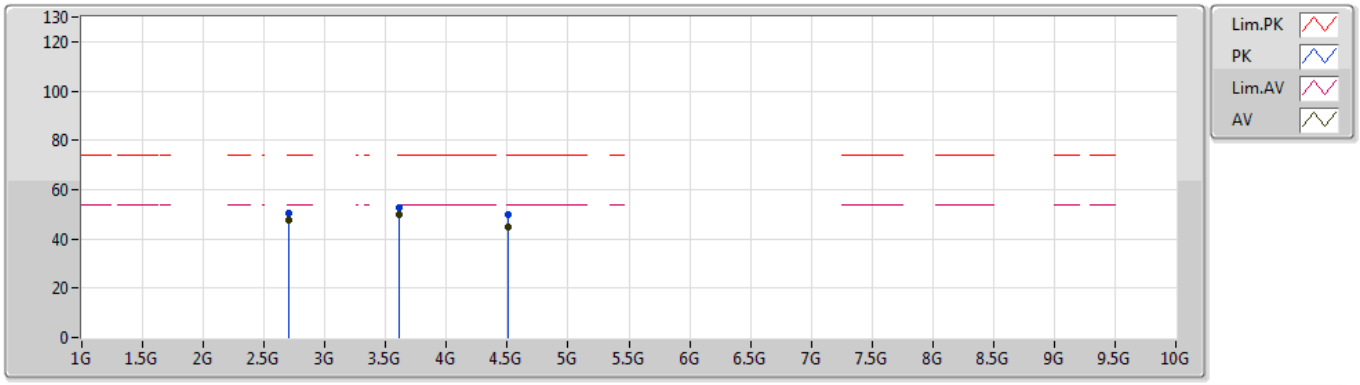


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	2.78281G	38.48	54.00	-15.52	2.18	3	Horizontal	114	1.26	-
AV	3.7104G	49.90	54.00	-4.10	4.74	3	Horizontal	107	2.31	-
AV	4.63797G	45.13	54.00	-8.87	7.63	3	Horizontal	47	1.01	-
PK	2.78284G	45.36	74.00	-28.64	2.18	3	Horizontal	114	1.26	-
PK	3.71042G	53.00	74.00	-21.00	4.74	3	Horizontal	107	2.31	-
PK	4.63785G	50.52	74.00	-23.48	7.63	3	Horizontal	47	1.01	-

LoRa_FHSS-125k_Nss1_1TX

902.2MHz_TX

10/06/2019

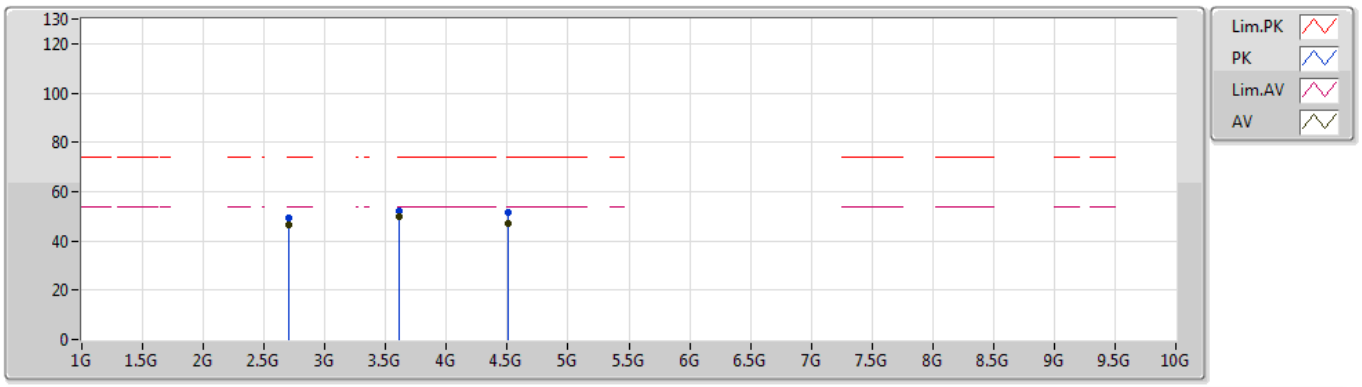


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	2.70657G	47.74	54.00	-6.26	2.42	3	Vertical	222	1.61	-
AV	3.6088G	49.88	54.00	-4.12	4.89	3	Vertical	41	1.59	-
AV	4.51093G	44.91	54.00	-9.09	7.29	3	Vertical	54	2.86	-
PK	2.70667G	50.48	74.00	-23.52	2.42	3	Vertical	222	1.61	-
PK	3.60862G	52.61	74.00	-21.39	4.89	3	Vertical	41	1.59	-
PK	4.51123G	49.78	74.00	-24.22	7.29	3	Vertical	54	2.86	-

LoRa_FHSS-125k_Nss1_1TX

902.2MHz_TX

10/06/2019

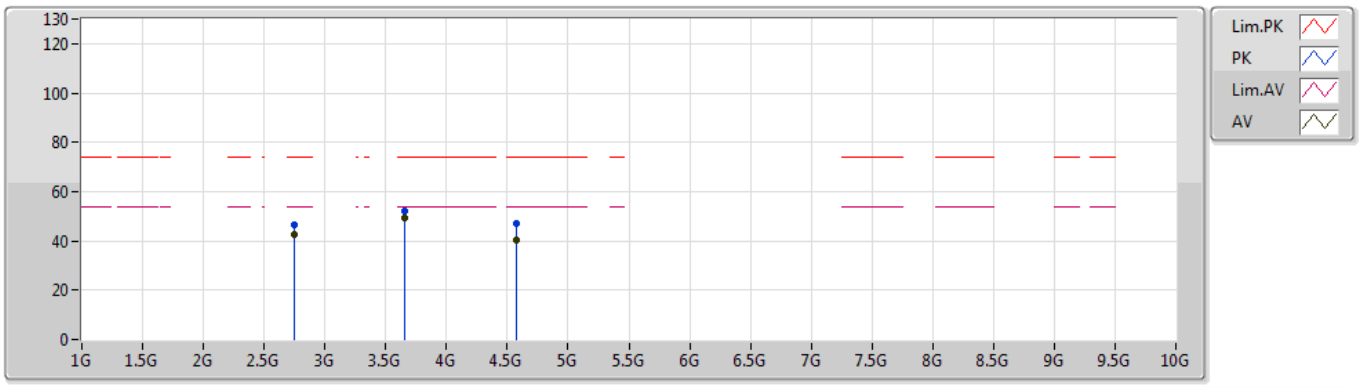


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	2.70656G	46.33	54.00	-7.67	2.42	3	Horizontal	260	1.16	-
AV	3.60878G	50.07	54.00	-3.93	4.89	3	Horizontal	29	1.38	-
AV	4.51094G	46.96	54.00	-7.04	7.29	3	Horizontal	35	1.37	-
PK	2.70648G	49.37	74.00	-24.63	2.42	3	Horizontal	260	1.16	-
PK	3.60863G	52.39	74.00	-21.61	4.89	3	Horizontal	29	1.38	-
PK	4.51092G	51.40	74.00	-22.60	7.29	3	Horizontal	35	1.37	-

LoRa_FHSS-125k_Nss1_1TX

915MHz_TX

10/06/2019

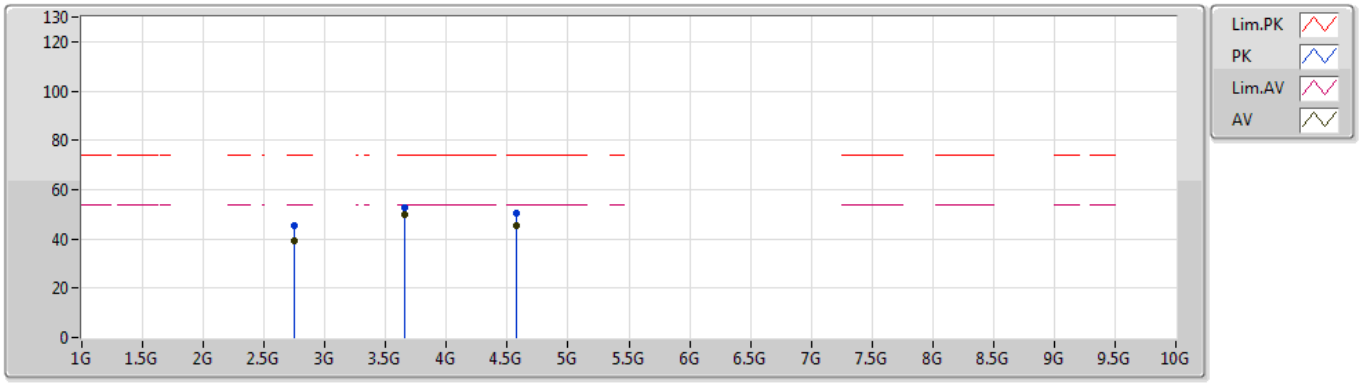


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	2.745G	42.33	54.00	-11.67	2.57	3	Vertical	20	1.34	-
AV	3.65999G	49.45	54.00	-4.55	4.92	3	Vertical	42	1.59	-
AV	4.57494G	40.08	54.00	-13.92	7.46	3	Vertical	258	2.88	-
PK	2.74503G	46.46	74.00	-27.54	2.57	3	Vertical	20	1.34	-
PK	3.65982G	52.01	74.00	-21.99	4.92	3	Vertical	42	1.59	-
PK	4.57474G	47.21	74.00	-26.79	7.46	3	Vertical	258	2.88	-

LoRa_FHSS-125k_Nss1_1TX

915MHz_TX

10/06/2019

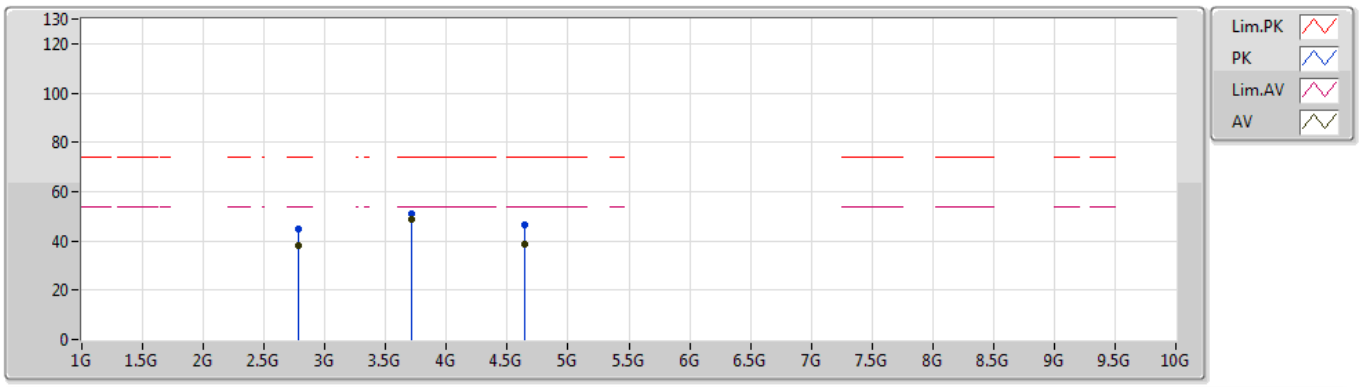


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	2.745G	39.50	54.00	-14.50	2.57	3	Horizontal	35	1.05	-
AV	3.66G	50.14	54.00	-3.86	4.92	3	Horizontal	29	1.06	-
AV	4.575G	45.32	54.00	-8.68	7.47	3	Horizontal	34	1.24	-
PK	2.74506G	45.48	74.00	-28.52	2.57	3	Horizontal	35	1.05	-
PK	3.65977G	52.53	74.00	-21.47	4.92	3	Horizontal	29	1.06	-
PK	4.57464G	50.42	74.00	-23.58	7.46	3	Horizontal	34	1.24	-

LoRa_FHSS-125k_Nss1_1TX

927.8MHz_TX

10/06/2019

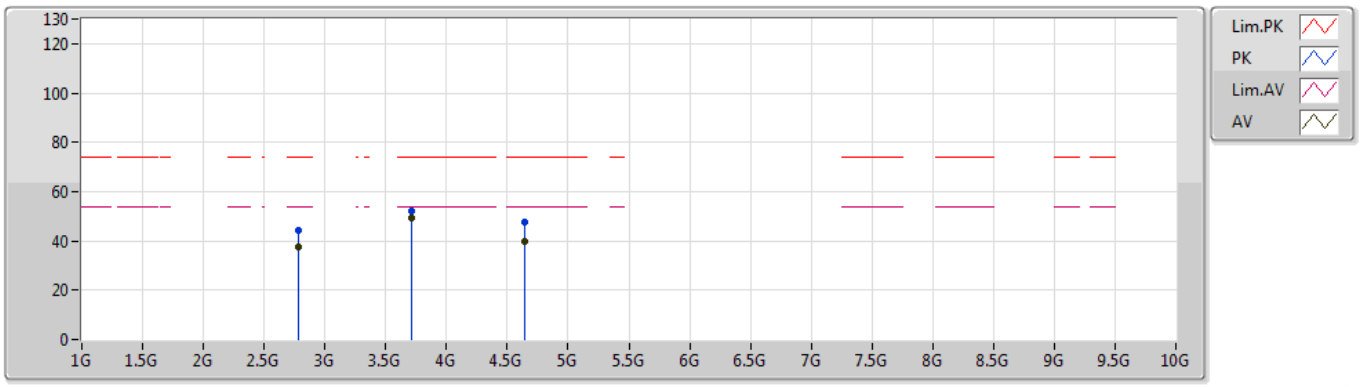


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	2.7834G	38.19	54.00	-15.81	2.72	3	Vertical	352	1.17	-
AV	3.71116G	48.53	54.00	-5.47	4.96	3	Vertical	47	1.62	-
AV	4.63894G	38.44	54.00	-15.56	7.73	3	Vertical	268	1.85	-
PK	2.78345G	44.80	74.00	-29.20	2.72	3	Vertical	352	1.17	-
PK	3.7112G	51.24	74.00	-22.76	4.96	3	Vertical	47	1.62	-
PK	4.6393G	46.65	74.00	-27.35	7.73	3	Vertical	268	1.85	-

LoRa_FHSS-125k_Nss1_1TX

927.8MHz_TX

10/06/2019

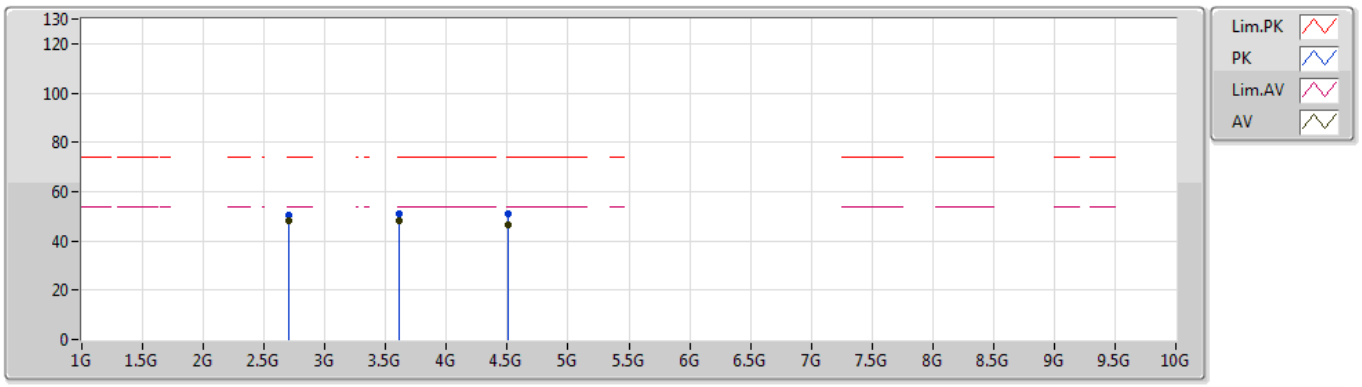


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	2.78337G	37.52	54.00	-16.48	2.72	3	Horizontal	87	1.80	-
AV	3.71116G	49.31	54.00	-4.69	4.96	3	Horizontal	29	1.26	-
AV	4.63891G	39.65	54.00	-14.35	7.73	3	Horizontal	37	1.34	-
PK	2.78328G	44.49	74.00	-29.51	2.72	3	Horizontal	87	1.80	-
PK	3.711G	52.00	74.00	-22.00	4.96	3	Horizontal	29	1.26	-
PK	4.6389G	47.55	74.00	-26.45	7.73	3	Horizontal	37	1.34	-

LoRa_FHSS-125k_Nss1_1TX

902.3MHz_TX

10/06/2019

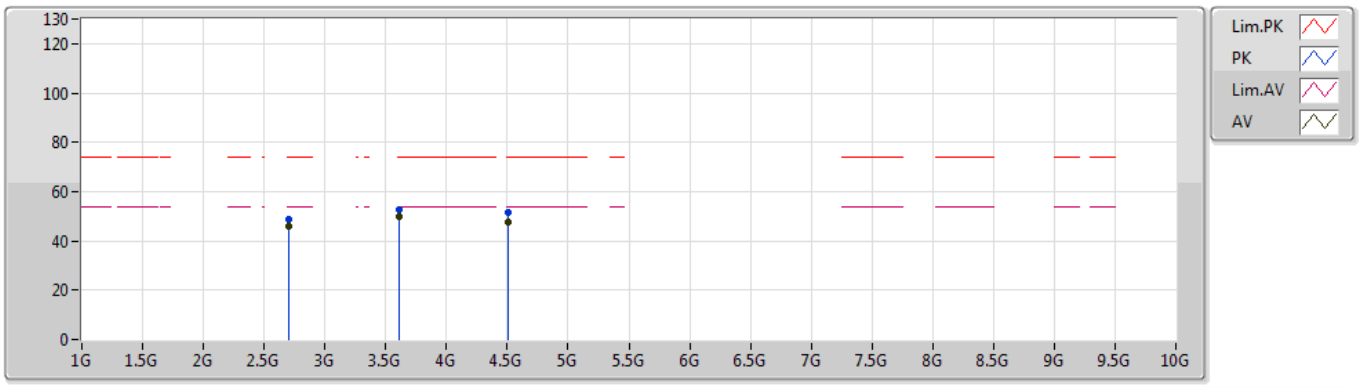


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	2.70688G	48.01	54.00	-5.99	2.42	3	Vertical	224	1.60	-
AV	3.60916G	48.04	54.00	-5.96	4.89	3	Vertical	42	1.58	-
AV	4.51146G	46.67	54.00	-7.33	7.29	3	Vertical	27	2.99	-
PK	2.70674G	50.51	74.00	-23.49	2.42	3	Vertical	224	1.60	-
PK	3.60938G	51.03	74.00	-22.97	4.89	3	Vertical	42	1.58	-
PK	4.51169G	51.20	74.00	-22.80	7.29	3	Vertical	27	2.99	-

LoRa_FHSS-125k_Nss1_1TX

902.3MHz_TX

10/06/2019

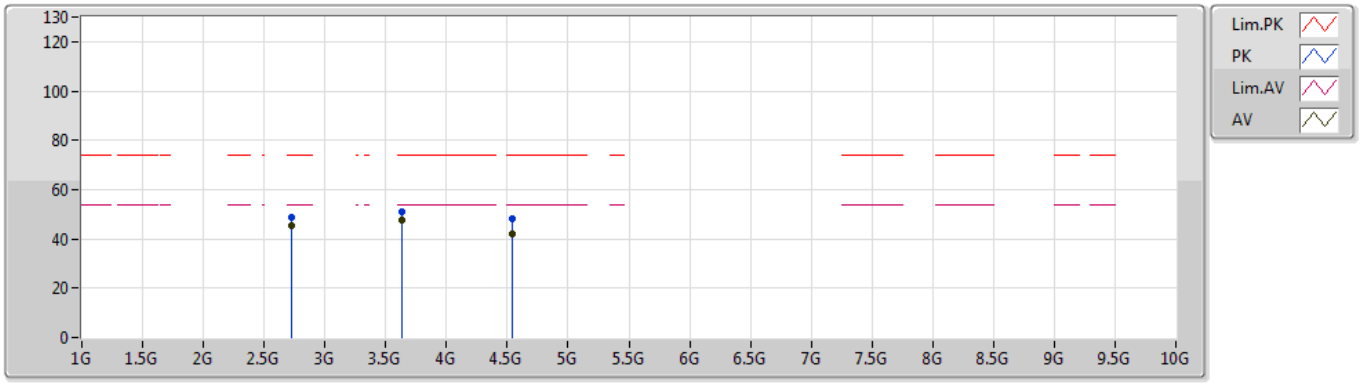


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	2.7069G	45.83	54.00	-8.17	2.42	3	Horizontal	259	1.17	-
AV	3.60917G	50.04	54.00	-3.96	4.89	3	Horizontal	29	1.38	-
AV	4.51147G	47.80	54.00	-6.20	7.29	3	Horizontal	35	1.50	-
PK	2.7069G	48.59	74.00	-25.41	2.42	3	Horizontal	259	1.17	-
PK	3.60939G	52.52	74.00	-21.48	4.89	3	Horizontal	29	1.38	-
PK	4.51143G	51.65	74.00	-22.35	7.29	3	Horizontal	35	1.50	-

LoRa_FHSS-125k_Nss1_1TX

10/06/2019

908.5MHz_TX

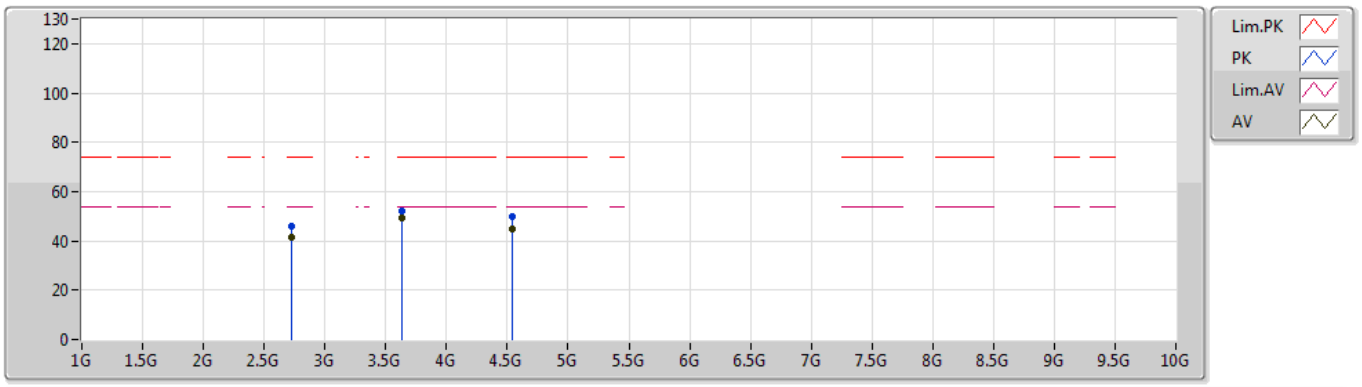


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	2.72547G	45.30	54.00	-8.70	2.49	3	Vertical	237	1.30	-
AV	3.63397G	47.75	54.00	-6.25	4.90	3	Vertical	41	1.45	-
AV	4.5425G	41.78	54.00	-12.22	7.38	3	Vertical	31	2.99	-
PK	2.72538G	48.68	74.00	-25.32	2.49	3	Vertical	237	1.30	-
PK	3.63382G	50.98	74.00	-23.02	4.90	3	Vertical	41	1.45	-
PK	4.54245G	48.04	74.00	-25.96	7.37	3	Vertical	31	2.99	-

LoRa_FHSS-125k_Nss1_1TX

908.5MHz_TX

10/06/2019

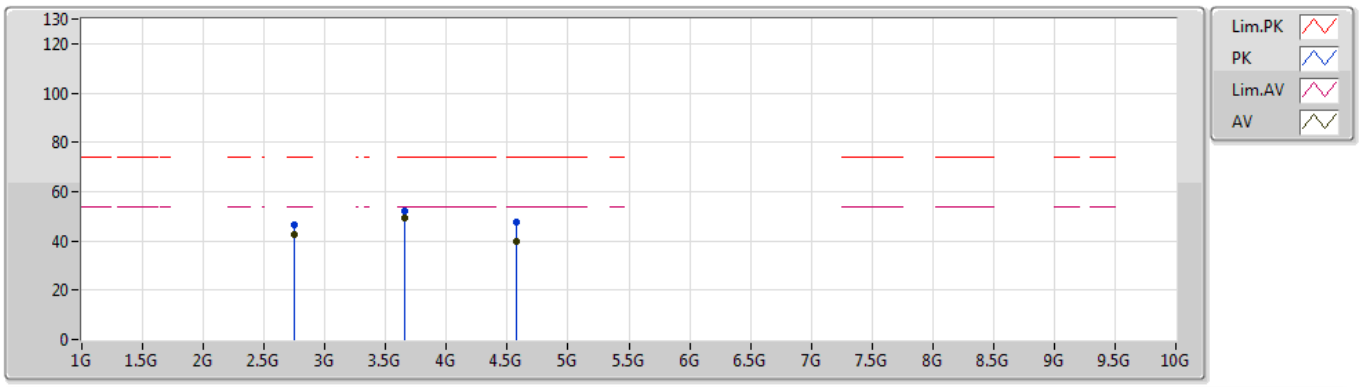


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	2.72545G	41.44	54.00	-12.56	2.49	3	Horizontal	0	1.28	-
AV	3.63396G	49.13	54.00	-4.87	4.90	3	Horizontal	27	1.20	-
AV	4.54248G	44.84	54.00	-9.16	7.37	3	Horizontal	32	1.20	-
PK	2.72561G	45.89	74.00	-28.11	2.49	3	Horizontal	0	1.28	-
PK	3.63424G	52.01	74.00	-21.99	4.90	3	Horizontal	27	1.20	-
PK	4.54249G	49.77	74.00	-24.23	7.37	3	Horizontal	32	1.20	-

LoRa_FHSS-125k_Nss1_1TX

10/06/2019

914.9MHz_TX

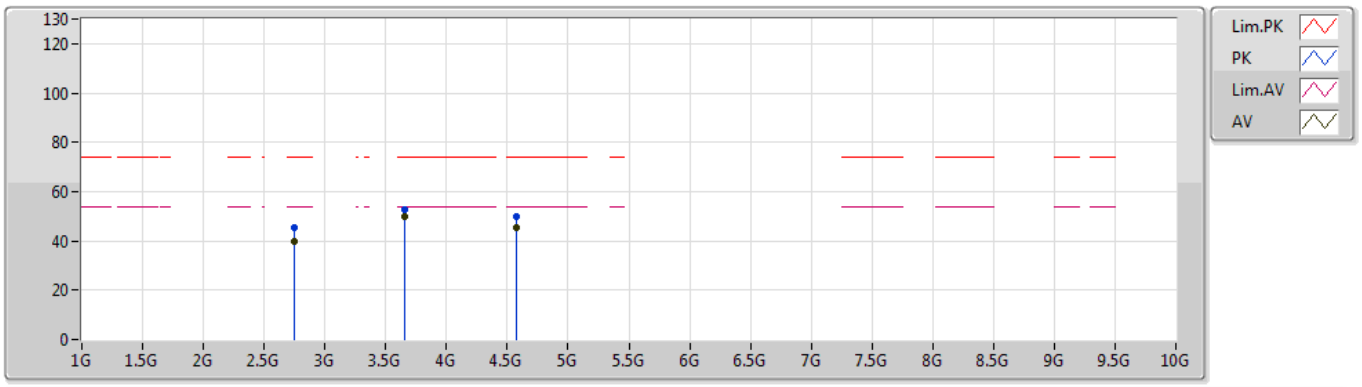


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	2.74467G	42.73	54.00	-11.27	2.56	3	Vertical	27	1.34	-
AV	3.65956G	49.26	54.00	-4.74	4.92	3	Vertical	37	1.50	-
AV	4.57446G	39.86	54.00	-14.14	7.46	3	Vertical	38	2.97	-
PK	2.74486G	46.73	74.00	-27.27	2.56	3	Vertical	27	1.34	-
PK	3.65941G	52.03	74.00	-21.97	4.92	3	Vertical	37	1.50	-
PK	4.57444G	47.52	74.00	-26.48	7.46	3	Vertical	38	2.97	-

LoRa_FHSS-125k_Nss1_1TX

914.9MHz_TX

10/06/2019

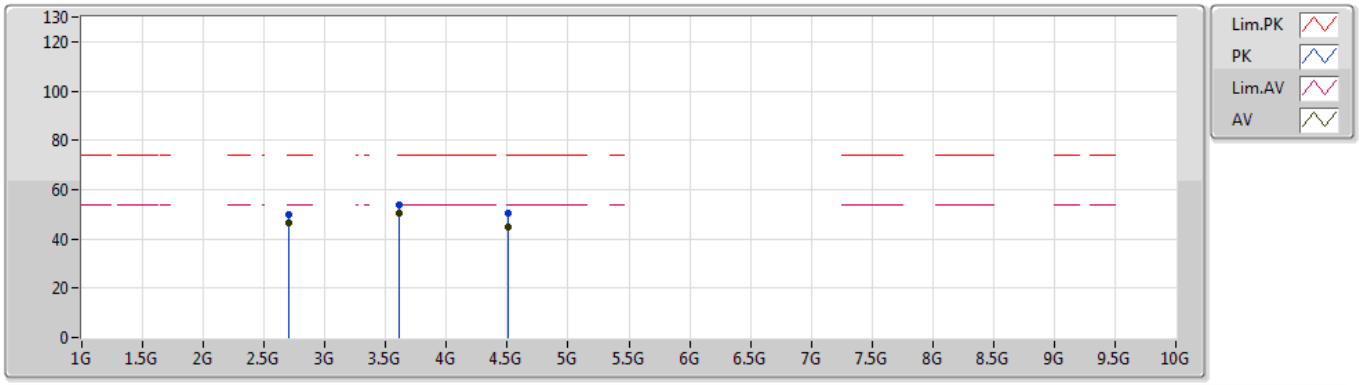


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	2.74468G	39.83	54.00	-14.17	2.56	3	Horizontal	312	1.03	-
AV	3.65956G	50.02	54.00	-3.98	4.92	3	Horizontal	33	1.50	-
AV	4.57443G	45.43	54.00	-8.57	7.46	3	Horizontal	32	1.24	-
PK	2.74467G	45.27	74.00	-28.73	2.56	3	Horizontal	312	1.03	-
PK	3.65946G	52.52	74.00	-21.48	4.92	3	Horizontal	33	1.50	-
PK	4.57426G	49.94	74.00	-24.06	7.46	3	Horizontal	32	1.24	-

LoRa_FHSS-250k_Nss1_1TX

902.3MHz_TX

09/06/2019

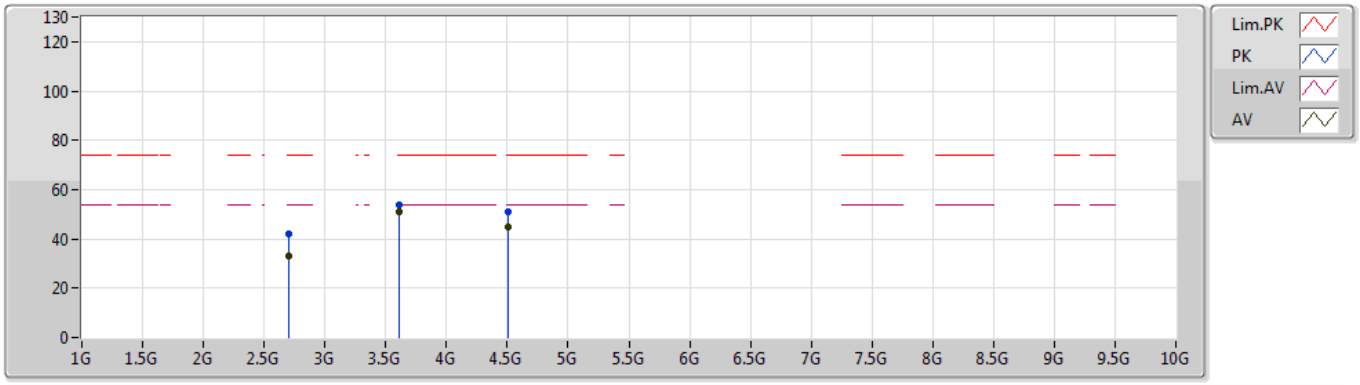


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	2.70688G	46.44	54.00	-7.56	2.42	3	Vertical	255	1.15	-
AV	3.60916G	50.49	54.00	-3.51	4.89	3	Vertical	94	1.44	-
AV	4.51144G	44.65	54.00	-9.35	7.29	3	Vertical	35	2.87	-
PK	2.70698G	49.94	74.00	-24.06	2.42	3	Vertical	255	1.15	-
PK	3.60886G	53.98	74.00	-20.02	4.89	3	Vertical	94	1.44	-
PK	4.51214G	50.41	74.00	-23.59	7.29	3	Vertical	35	2.87	-

LoRa_FHSS-250k_Nss1_1TX

902.3MHz_TX

09/06/2019

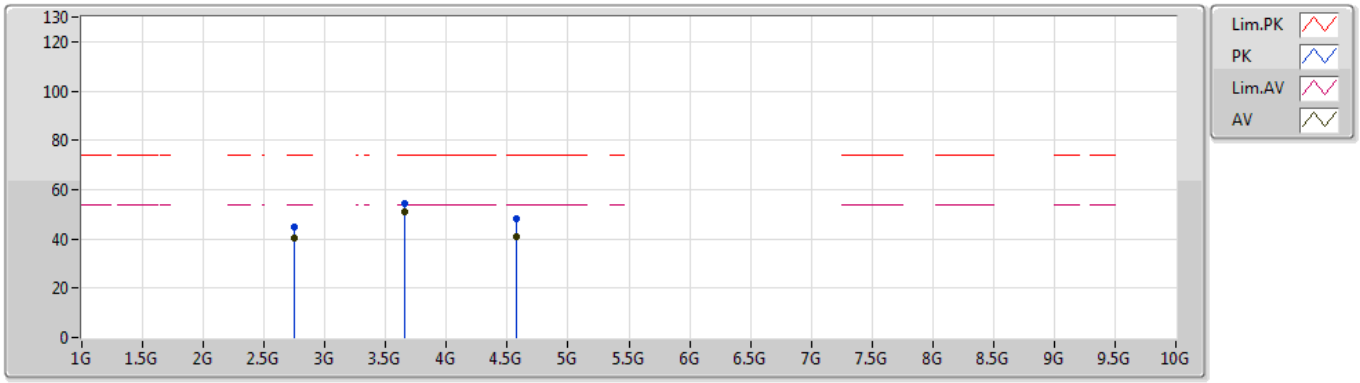


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	2.70685G	32.98	54.00	-21.02	2.42	3	Horizontal	41	1.50	-
AV	3.60916G	50.74	54.00	-3.26	4.89	3	Horizontal	29	1.13	-
AV	4.51147G	44.71	54.00	-9.29	7.29	3	Horizontal	31	1.50	-
PK	2.70681G	41.95	74.00	-32.05	2.42	3	Horizontal	41	1.50	-
PK	3.60922G	54.07	74.00	-19.93	4.89	3	Horizontal	29	1.13	-
PK	4.51146G	50.79	74.00	-23.21	7.29	3	Horizontal	31	1.50	-

LoRa_FHSS-250k_Nss1_1TX

09/06/2019

914.3MHz_TX

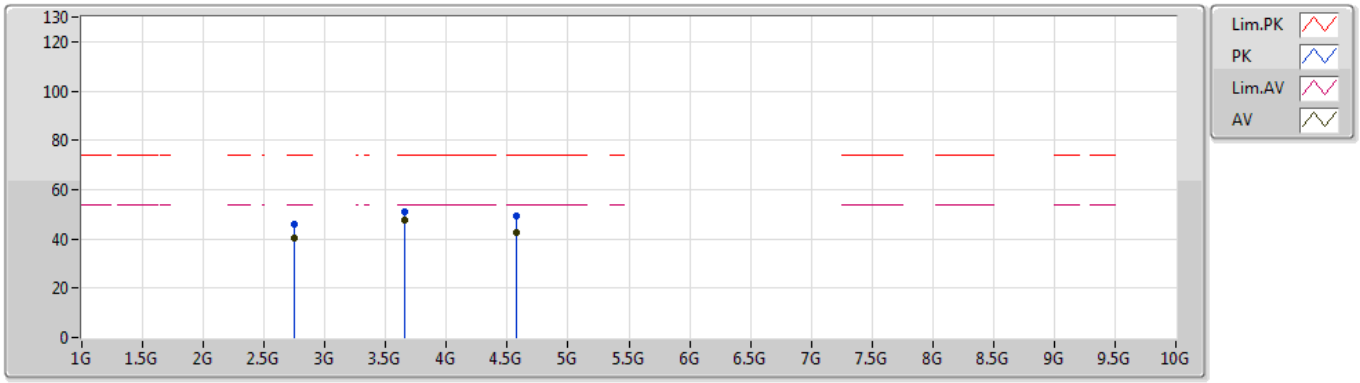


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	2.7429G	40.25	54.00	-13.75	2.55	3	Vertical	256	1.06	-
AV	3.65717G	50.96	54.00	-3.04	4.92	3	Vertical	55	1.97	-
AV	4.57144G	41.05	54.00	-12.95	7.45	3	Vertical	264	2.99	-
PK	2.74296G	45.06	74.00	-28.94	2.55	3	Vertical	256	1.06	-
PK	3.65733G	54.13	74.00	-19.87	4.92	3	Vertical	55	1.97	-
PK	4.57186G	48.31	74.00	-25.69	7.45	3	Vertical	264	2.99	-

LoRa_FHSS-250k_Nss1_1TX

914.3MHz_TX

09/06/2019

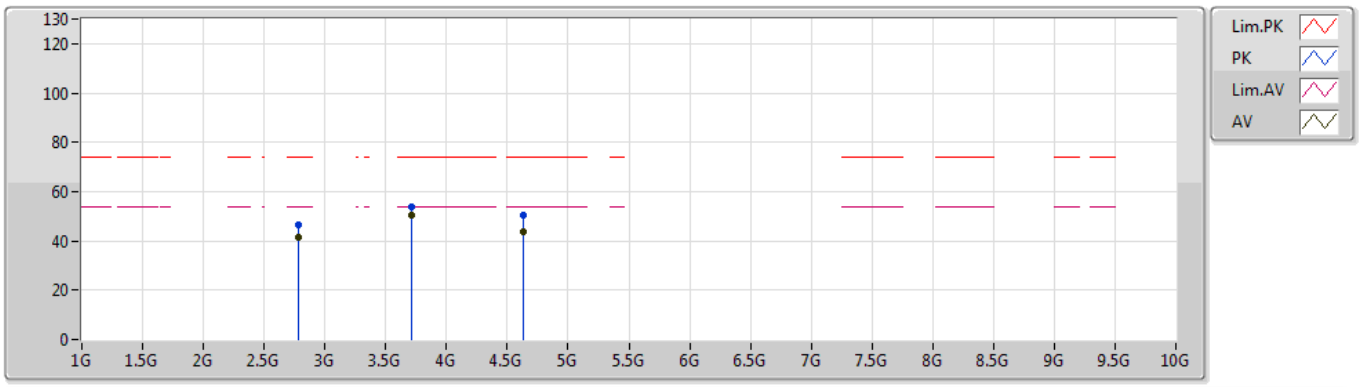


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	2.74291G	40.44	54.00	-13.56	2.55	3	Horizontal	309	1.03	-
AV	3.65717G	47.37	54.00	-6.63	4.92	3	Horizontal	43	1.01	-
AV	4.57143G	42.72	54.00	-11.28	7.45	3	Horizontal	30	1.13	-
PK	2.74291G	46.06	74.00	-27.94	2.55	3	Horizontal	309	1.03	-
PK	3.65675G	51.18	74.00	-22.82	4.92	3	Horizontal	43	1.01	-
PK	4.57152G	49.43	74.00	-24.57	7.45	3	Horizontal	30	1.13	-

LoRa_FHSS-250k_Nss1_1TX

927.5MHz_TX

10/06/2019

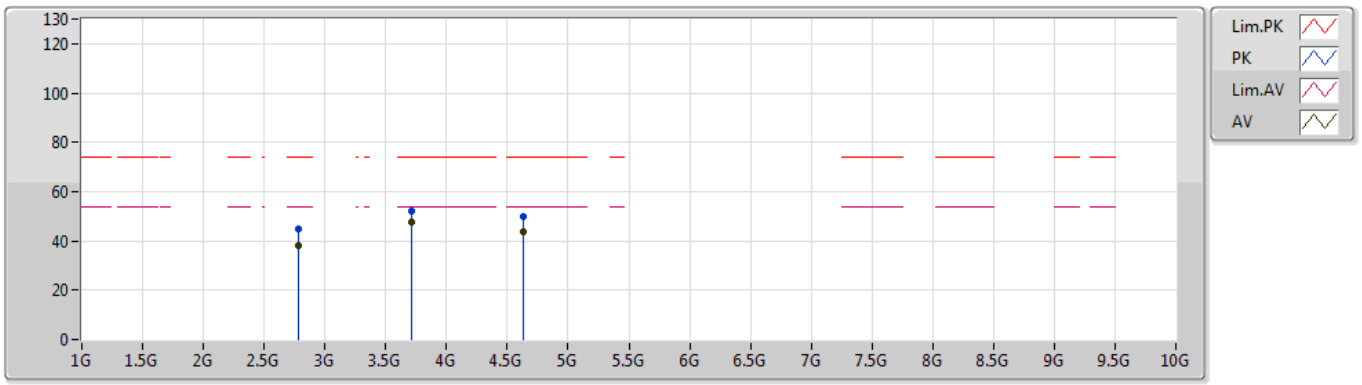


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	2.78248G	41.59	54.00	-12.41	2.72	3	Vertical	134	1.14	-
AV	3.70996G	50.66	54.00	-3.34	4.96	3	Vertical	46	1.10	-
AV	4.63744G	43.55	54.00	-10.45	7.72	3	Vertical	30	1.50	-
PK	2.78289G	46.74	74.00	-27.26	2.72	3	Vertical	134	1.14	-
PK	3.70976G	53.93	74.00	-20.07	4.96	3	Vertical	46	1.10	-
PK	4.6373G	50.30	74.00	-23.70	7.72	3	Vertical	30	1.50	-

LoRa_FHSS-250k_Nss1_1TX

10/06/2019

927.5MHz_TX



Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	2.78249G	38.33	54.00	-15.67	2.72	3	Horizontal	29	2.57	-
AV	3.70997G	47.74	54.00	-6.26	4.96	3	Horizontal	327	1.02	-
AV	4.63743G	43.83	54.00	-10.17	7.72	3	Horizontal	27	1.23	-
PK	2.78262G	45.08	74.00	-28.92	2.72	3	Horizontal	29	2.57	-
PK	3.71G	51.88	74.00	-22.12	4.96	3	Horizontal	327	1.02	-
PK	4.63744G	50.15	74.00	-23.85	7.72	3	Horizontal	27	1.23	-

Summary

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
902-928MHz	-	-	-	-	-
FSK-5K_Nss1_1TX	63.125k	59.47k	59K5F1D	61.875k	58.596k
FSK-50K_Nss1_1TX	105.5k	103.448k	103KF1D	105.375k	102.949k
FSK-150K_Nss1_1TX	154.5k	153.111k	153KF1D	154.312k	152.174k
LoRa_FHSS-125k_Nss1_1TX	145.625k	127.592k	128KF1D	144.062k	126.031k
LoRa_FHSS-250k_Nss1_1TX	302.188k	262.056k	262KF1D	290.312k	259.87k

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

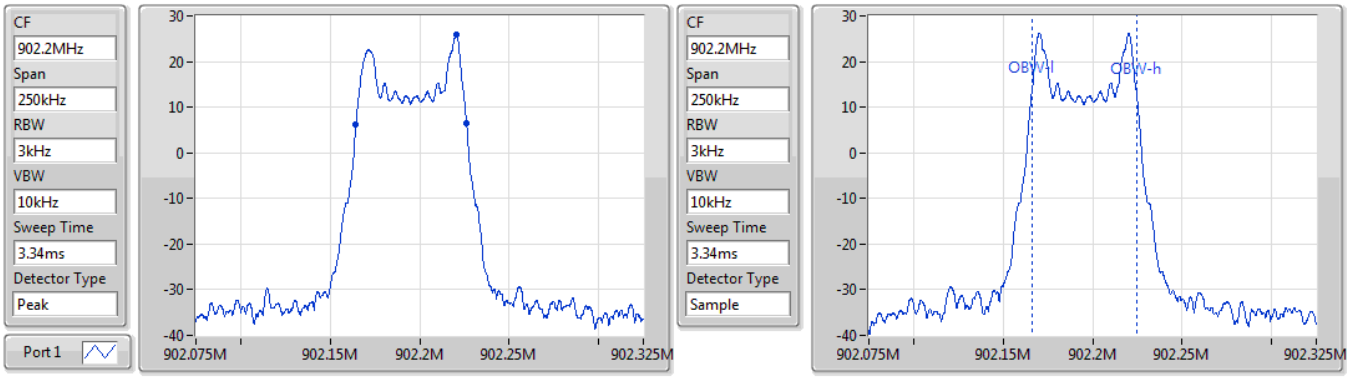
Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)
FSK-5K_Nss1_1TX	-	-	-	-
902.2MHz	Pass	Inf	61.875k	58.596k
915MHz	Pass	Inf	63.125k	59.345k
927.8MHz	Pass	Inf	62k	59.47k
FSK-50K_Nss1_1TX	-	-	-	-
902.2MHz	Pass	Inf	105.5k	103.448k
915MHz	Pass	Inf	105.375k	102.949k
927.8MHz	Pass	Inf	105.375k	103.073k
FSK-150K_Nss1_1TX	-	-	-	-
902.4MHz	Pass	Inf	154.5k	152.174k
914.8MHz	Pass	Inf	154.5k	152.361k
927.6MHz	Pass	Inf	154.312k	153.111k
LoRa_FHSS-125k_Nss1_1TX	-	-	-	-
902.2MHz	Pass	Inf	145.469k	127.592k
915MHz	Pass	Inf	144.062k	126.031k
927.8MHz	Pass	Inf	145k	126.031k
902.3MHz	Pass	Inf	145.625k	127.124k
908.5MHz	Pass	Inf	144.688k	126.655k
914.9MHz	Pass	Inf	145.625k	126.655k
LoRa_FHSS-250k_Nss1_1TX	-	-	-	-
902.3MHz	Pass	Inf	296.25k	259.87k
914.3MHz	Pass	Inf	290.312k	262.056k
927.5MHz	Pass	Inf	302.188k	261.744k

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

FSK-5K_Nss1_1TX **EBW**

902.2MHz

12/06/2019

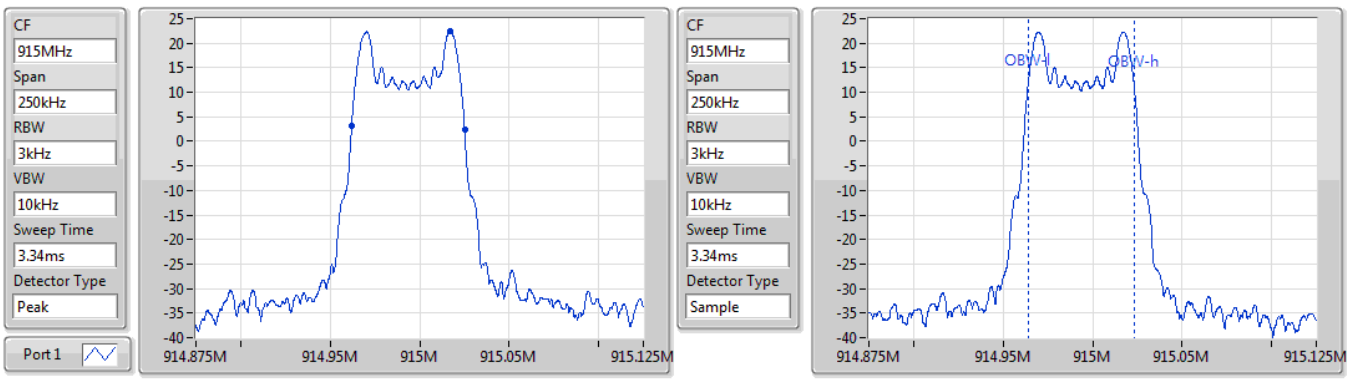


20dB(Hz)	Fl-20dB(Hz)	Fh-20dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
61.875k	902.164375M	902.22625M	58.596k	902.166017M	902.224613M	Inf	1

FSK-5K_Nss1_1TX **EBW**

915MHz

12/06/2019



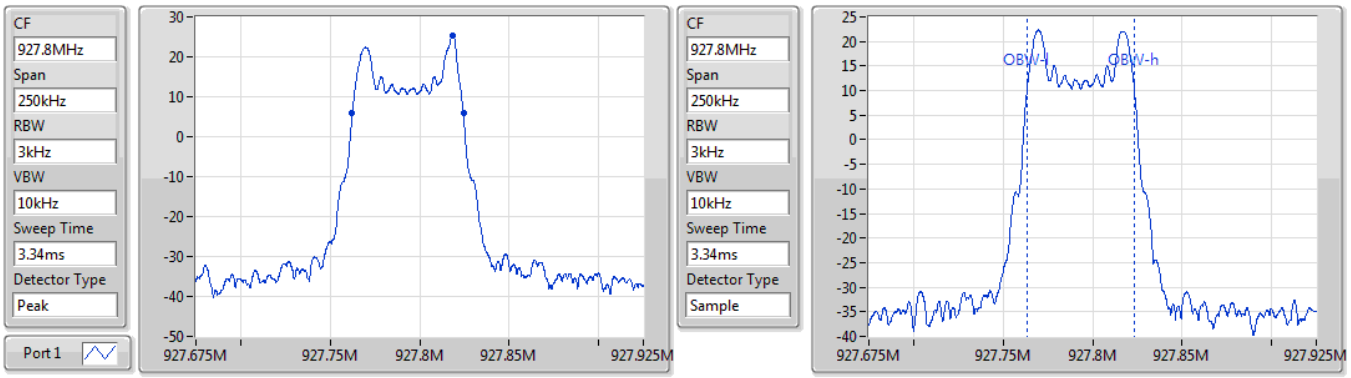
20dB(Hz)	Fl-20dB(Hz)	Fh-20dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
63.125k	914.962M	915.025125M	59.345k	914.963893M	915.023238M	Inf	1

FSK-5K_Nss1_1TX

EBW

927.8MHz

12/06/2019



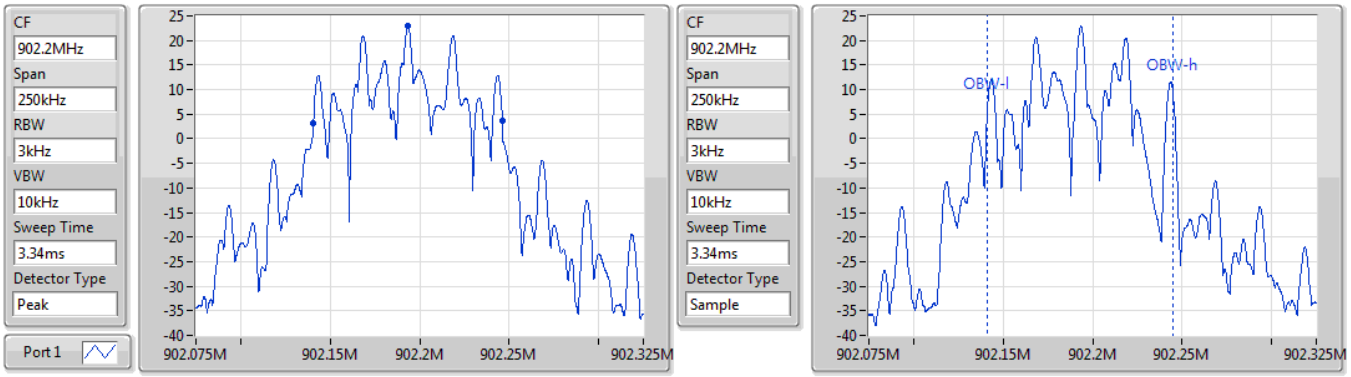
20dB(Hz)	Fl-20dB(Hz)	Fh-20dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
62k	927.762375M	927.824375M	59.47k	927.763643M	927.823113M	Inf	1

FSK-50K_Nss1_1TX

EBW

902.2MHz

12/06/2019

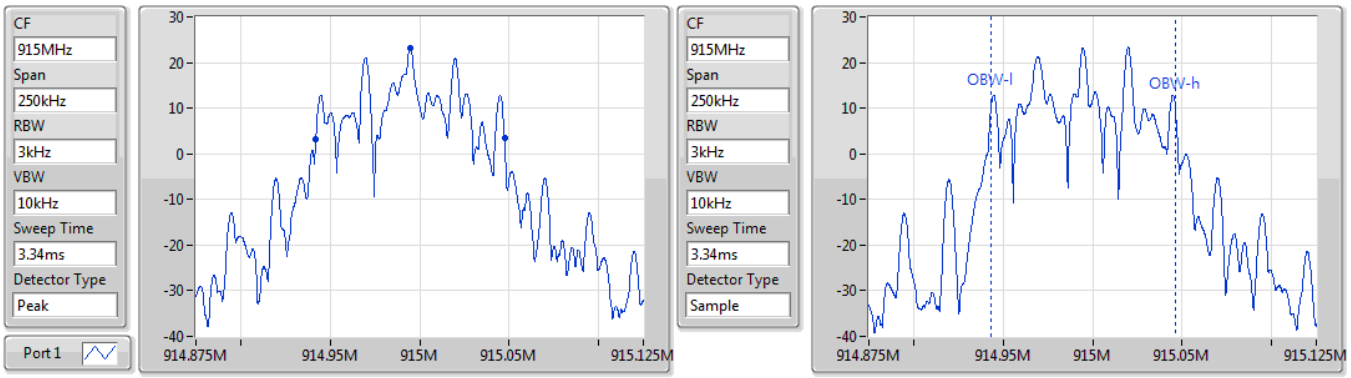


20dB(Hz)	Fl-20dB(Hz)	Fh-20dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
105.5k	902.14075M	902.24625M	103.448k	902.141279M	902.244728M	Inf	1

FSK-50K_Nss1_1TX EBW

915MHz

12/06/2019

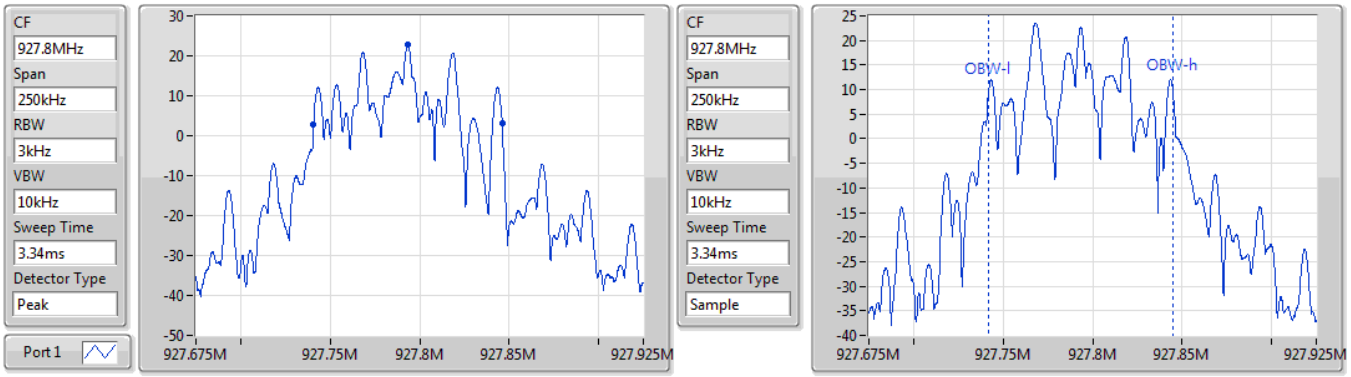


20dB(Hz)	Fl-20dB(Hz)	Fh-20dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
105.375k	914.942M	915.047375M	102.949k	914.943403M	915.046352M	Inf	1

FSK-50K_Nss1_1TX EBW

927.8MHz

12/06/2019

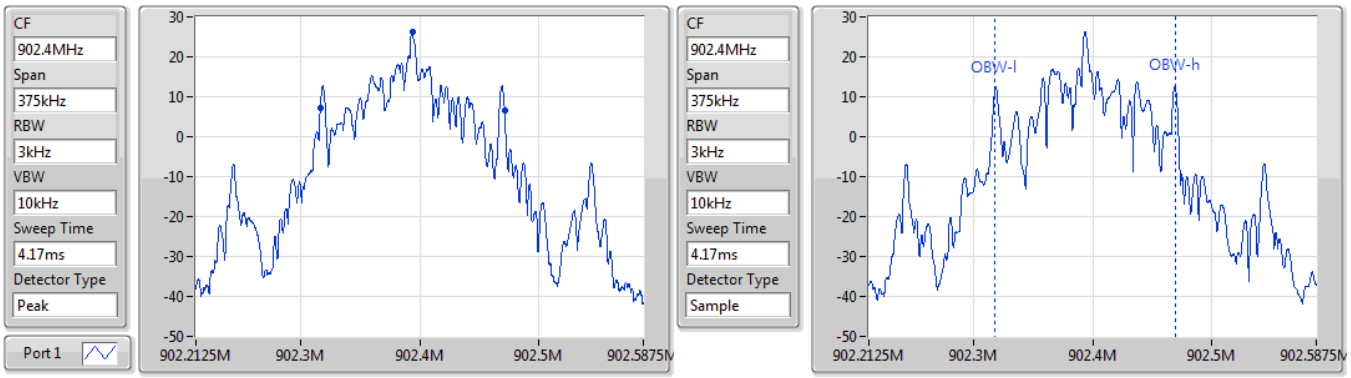


20dB(Hz)	Fl-20dB(Hz)	Fh-20dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
105.375k	927.74075M	927.846125M	103.073k	927.741779M	927.844853M	Inf	1

FSK-150K_Nss1_1TX EBW

902.4MHz

12/06/2019

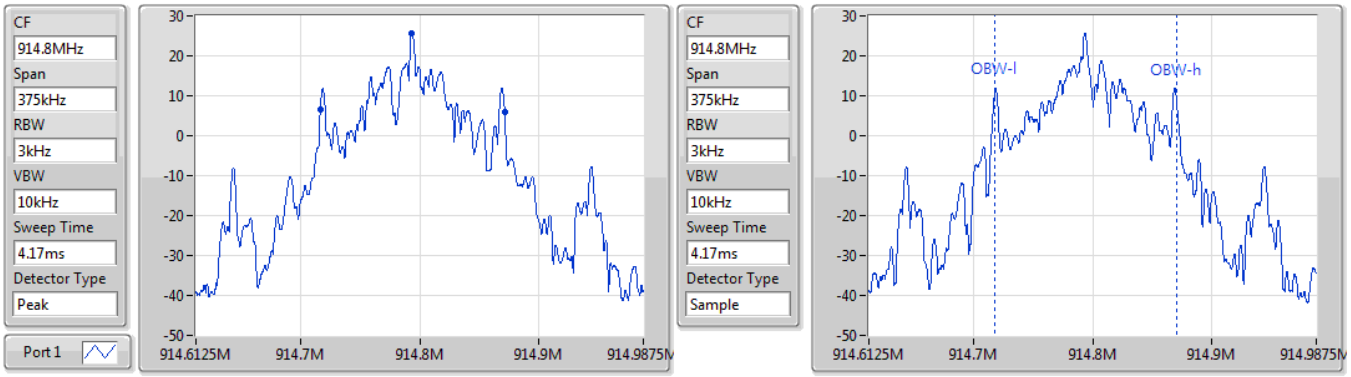


20dB(Hz)	Fl-20dB(Hz)	Fh-20dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
154.5k	902.31675M	902.47125M	152.174k	902.317729M	902.469903M	Inf	1

FSK-150K_Nss1_1TX EBW

914.8MHz

12/06/2019



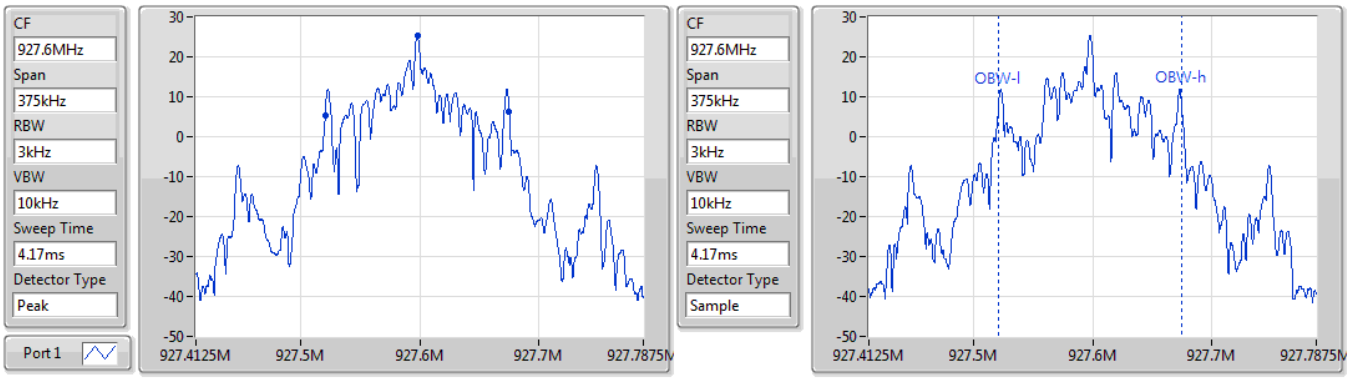
20dB(Hz)	Fl-20dB(Hz)	Fh-20dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
154.5k	914.71675M	914.87125M	152.361k	914.717729M	914.87009M	Inf	1

FSK-150K_Nss1_1TX

EBW

927.6MHz

12/06/2019



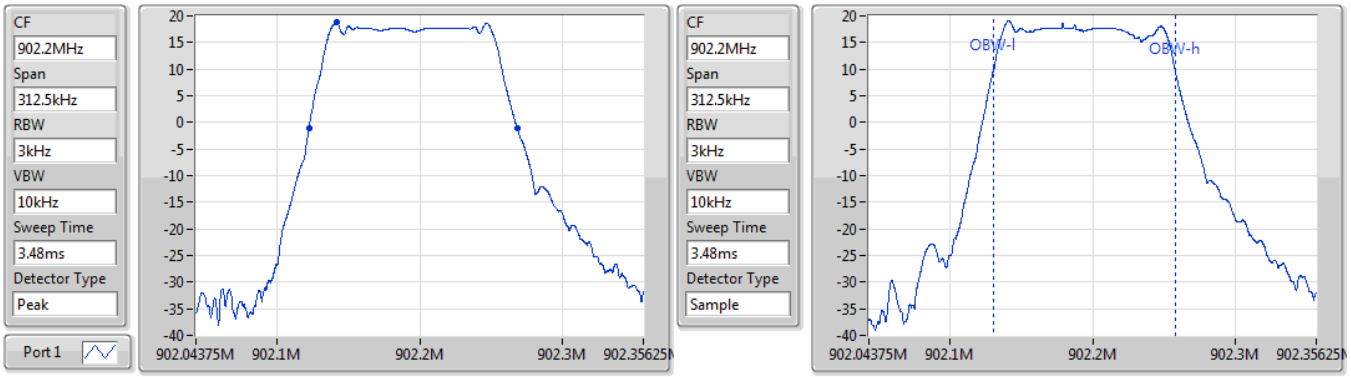
20dB(Hz)	Fl-20dB(Hz)	Fh-20dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
154.312k	927.520875M	927.675188M	153.111k	927.521289M	927.6744M	Inf	1

LoRa_FHSS-125k_Nss1_1TX

EBW

902.2MHz

12/06/2019

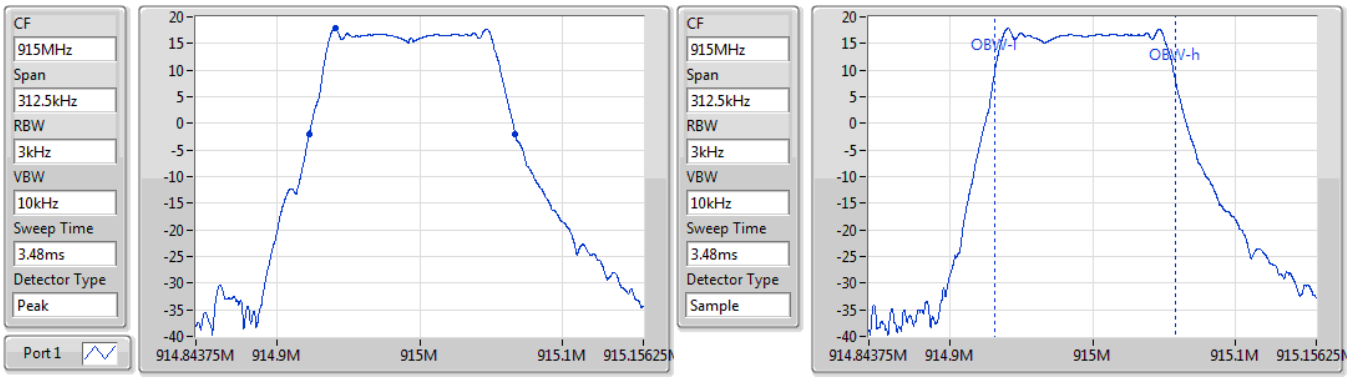


20dB(Hz)	Fl-20dB(Hz)	Fh-20dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
145.469k	902.122656M	902.268125M	127.592k	902.13066M	902.258252M	Inf	1

LoRa_FHSS-125k_Nss1_1TX EBW

915MHz

12/06/2019

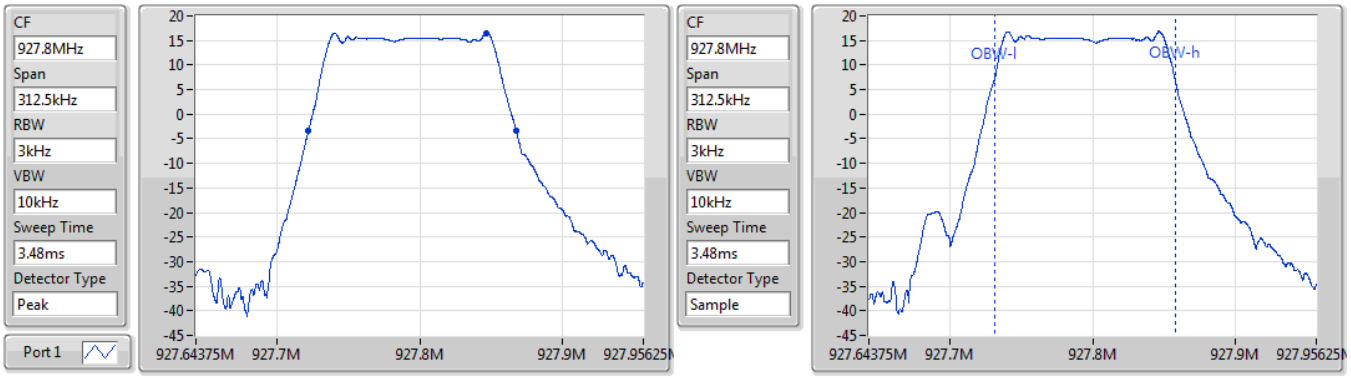


20dB(Hz)	Fl-20dB(Hz)	Fh-20dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
144.062k	914.922812M	915.066875M	126.031k	914.931753M	915.057784M	Inf	1

LoRa_FHSS-125k_Nss1_1TX EBW

927.8MHz

12/06/2019

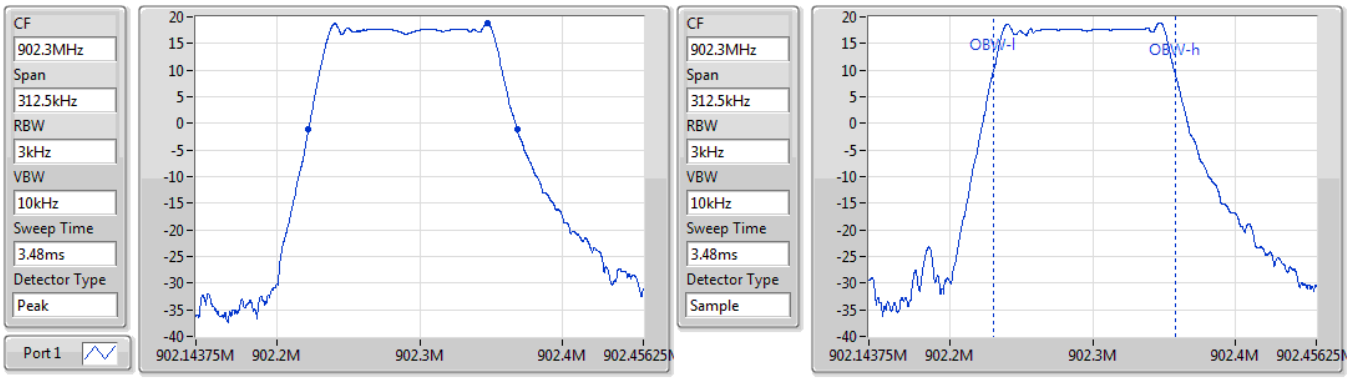


20dB(Hz)	Fl-20dB(Hz)	Fh-20dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
145k	927.7225M	927.8675M	126.031k	927.731441M	927.857471M	Inf	1

LoRa_FHSS-125k_Nss1_1TX EBW

902.3MHz

12/06/2019

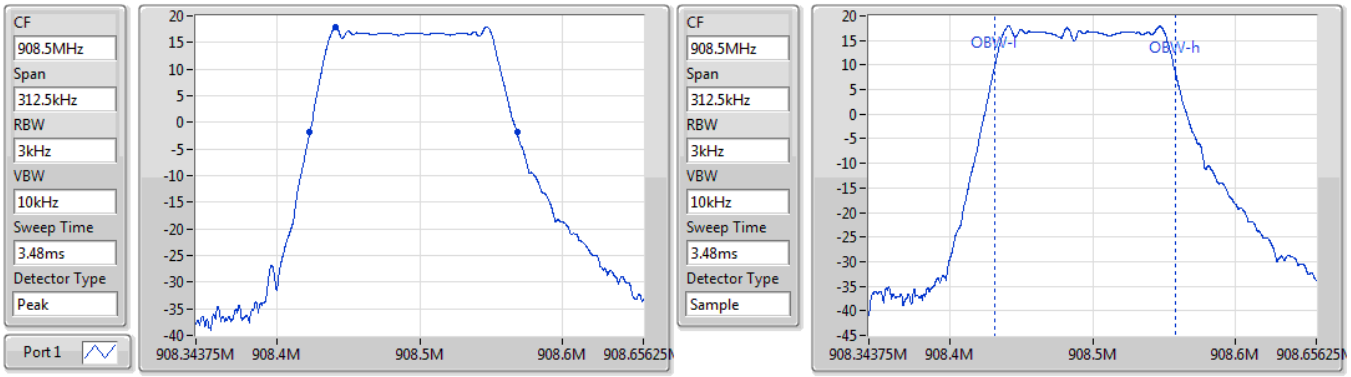


20dB(Hz)	Fl-20dB(Hz)	Fh-20dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
145.625k	902.2225M	902.368125M	127.124k	902.230816M	902.35794M	Inf	1

LoRa_FHSS-125k_Nss1_1TX EBW

908.5MHz

12/06/2019

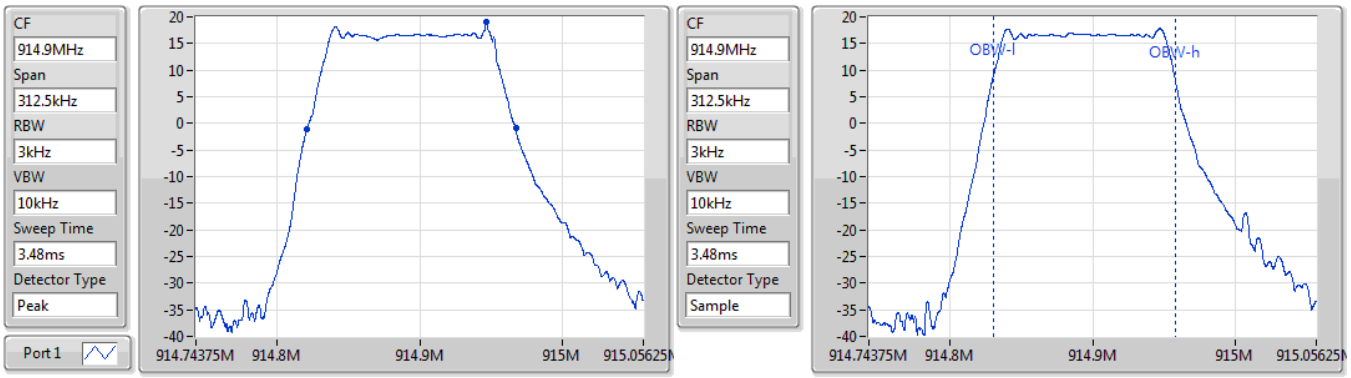


20dB(Hz)	Fl-20dB(Hz)	Fh-20dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
144.688k	908.423281M	908.567969M	126.655k	908.431284M	908.55794M	Inf	1

LoRa_FHSS-125k_Nss1_1TX EBW

914.9MHz

12/06/2019

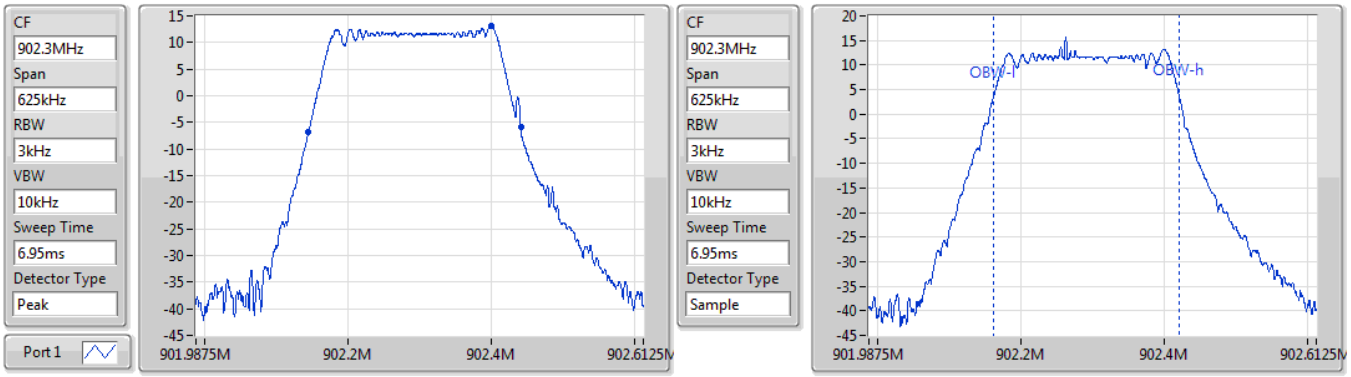


20dB(Hz)	Fl-20dB(Hz)	Fh-20dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
145.625k	914.821406M	914.967031M	126.655k	914.830816M	914.957471M	Inf	1

LoRa_FHSS-250k_Nss1_1TX EBW

902.3MHz

12/06/2019

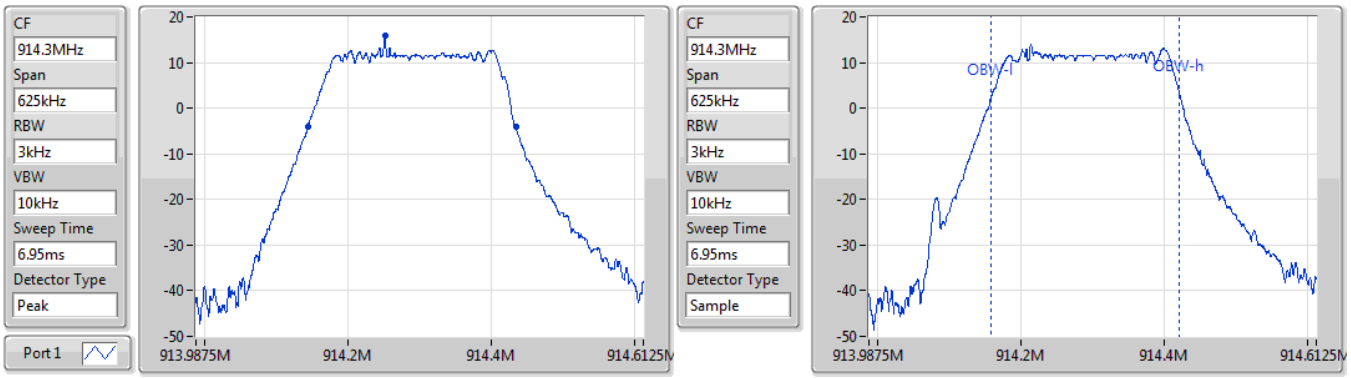


20dB(Hz)	Fl-20dB(Hz)	Fh-20dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
296.25k	902.145M	902.44125M	259.87k	902.161007M	902.420877M	Inf	1

LoRa_FHSS-250k_Nss1_1TX EBW

914.3MHz

12/06/2019

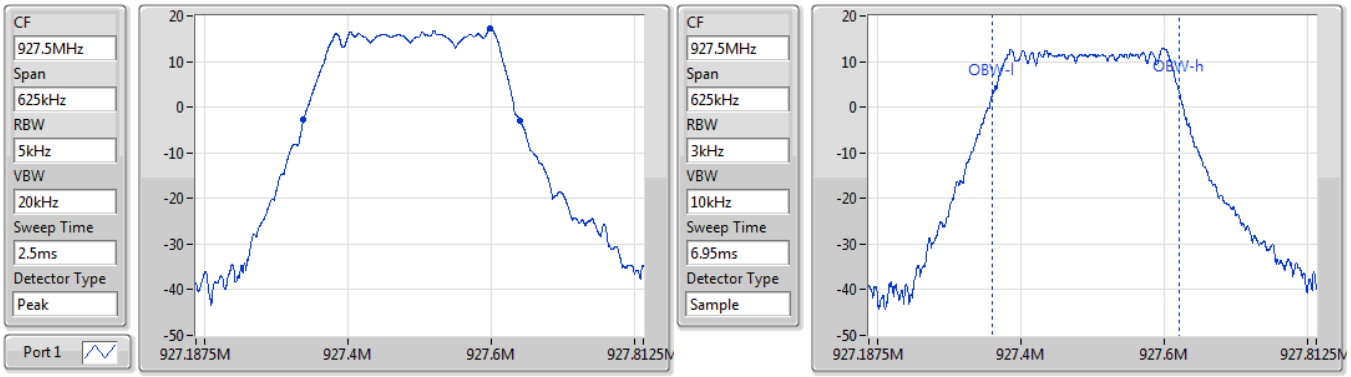


20dB(Hz)	Fl-20dB(Hz)	Fh-20dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
290.312k	914.14375M	914.434062M	262.056k	914.158821M	914.420877M	Inf	1

LoRa_FHSS-250k_Nss1_1TX EBW

927.5MHz

12/06/2019



20dB(Hz)	Fl-20dB(Hz)	Fh-20dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
302.188k	927.337812M	927.64M	261.744k	927.359445M	927.621189M	Inf	1

Summary

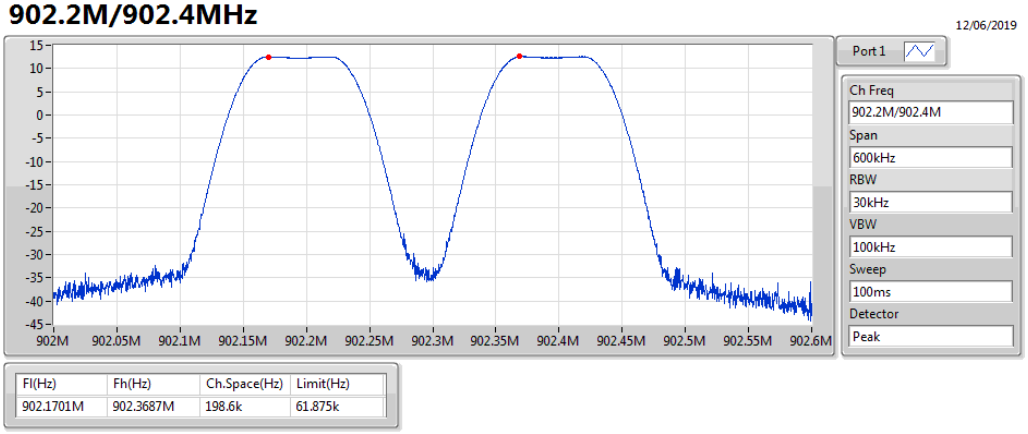
Mode	Max-Space (Hz)	Min-Space (Hz)
902-928MHz	-	-
FSK-5K_Nss1_1TX	201.3k	198.6k
FSK-50K_Nss1_1TX	200.4k	198.3k
FSK-150K_Nss1_1TX	398.4k	376.8k
LoRa_FHSS-125k_Nss1_1TX	217.5k	161.4k
LoRa_FHSS-250k_Nss1_1TX	404.2k	307.2k

Result

Mode	Result	Fl (Hz)	Fh (Hz)	Ch.Space (Hz)	Limit (Hz)
FSK-5K_Nss1_1TX	-	-	-	-	-
902.2MHz	Pass	902.1701M	902.3687M	198.6k	61.875k
915MHz	Pass	914.968M	915.1693M	201.3k	63.125k
927.8MHz	Pass	927.5683M	927.769M	200.7k	62k
FSK-50K_Nss1_1TX	-	-	-	-	-
902.2MHz	Pass	902.1683M	902.3681M	199.8k	105.5k
915MHz	Pass	915.0187M	915.2191M	200.4k	105.375k
927.8MHz	Pass	927.5686M	927.7669M	198.3k	105.375k
FSK-150K_Nss1_1TX	-	-	-	-	-
902.4MHz	Pass	902.4194M	902.7962M	376.8k	154.5k
914.8MHz	Pass	914.82M	915.2184M	398.4k	154.5k
927.6MHz	Pass	927.22M	927.6184M	398.4k	154.312k
LoRa_FHSS-125k_Nss1_1TX	-	-	-	-	-
902.2MHz	Pass	902.1344M	902.3393M	204.9k	145.469k
902.3MHz	Pass	902.2686M	902.448M	179.4k	144.062k
908.5MHz	Pass	908.4863M	908.6477M	161.4k	145k
914.9MHz	Pass	914.6347M	914.8522M	217.5k	145.625k
915MHz	Pass	914.9395M	915.1366M	197.1k	144.688k
927.8MHz	Pass	927.5368M	927.7357M	198.9k	145.625k
LoRa_FHSS-250k_Nss1_1TX	-	-	-	-	-
902.3MHz	Pass	902.2158M	902.62M	404.2k	296.25k
914.3MHz	Pass	914.3182M	914.6254M	307.2k	290.312k
927.5MHz	Pass	926.994M	927.3834M	389.4k	302.188k

FSK-5K_Nss1_1TX **Channel Separation**

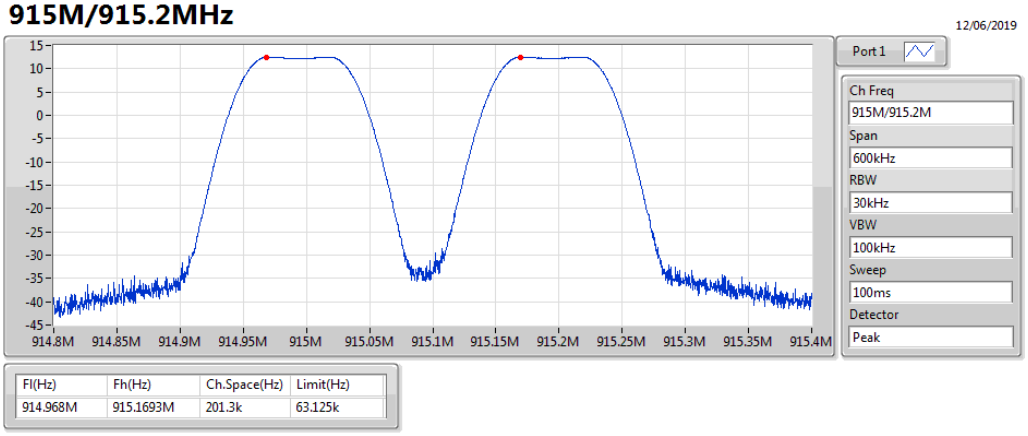
902.2M/902.4MHz



Fl(Hz)	Fh(Hz)	Ch.Space(Hz)	Limit(Hz)
902.1701M	902.3687M	198.6k	61.875k

FSK-5K_Nss1_1TX **Channel Separation**

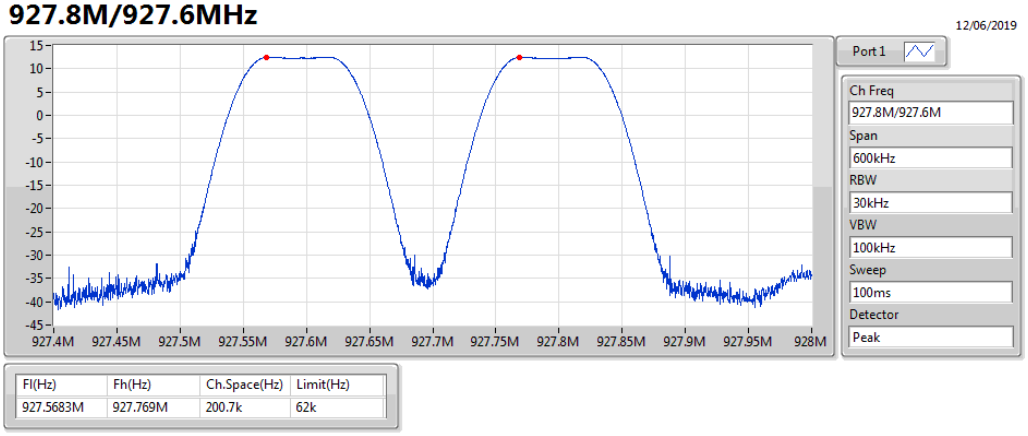
915M/915.2MHz



Fl(Hz)	Fh(Hz)	Ch.Space(Hz)	Limit(Hz)
914.968M	915.1693M	201.3k	63.125k

FSK-5K_Nss1_1TX **Channel Separation**

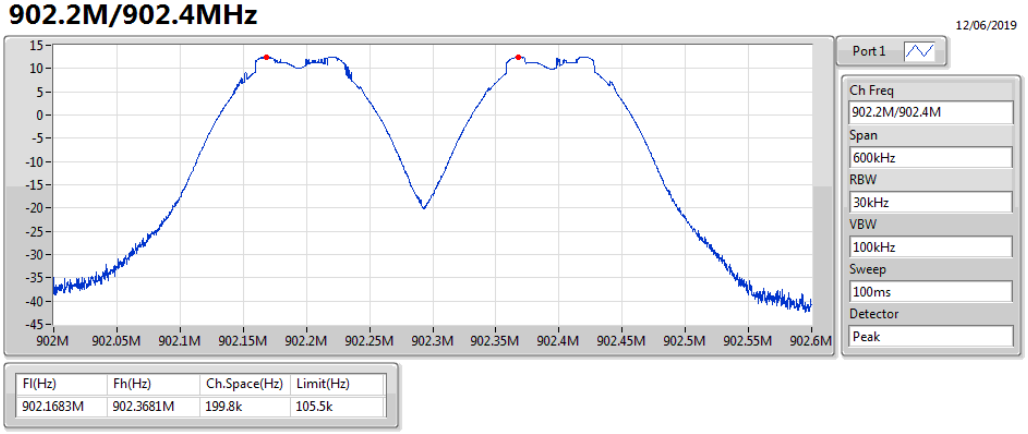
927.8M/927.6MHz



Fl(Hz)	Fh(Hz)	Ch.Space(Hz)	Limit(Hz)
927.5683M	927.769M	200.7k	62k

FSK-50K_Nss1_1TX **Channel Separation**

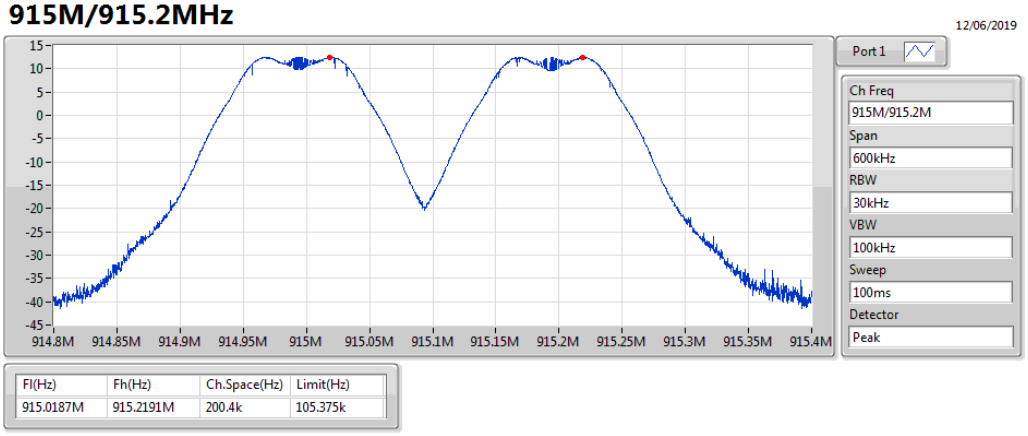
902.2M/902.4MHz



Fl(Hz)	Fh(Hz)	Ch.Space(Hz)	Limit(Hz)
902.1683M	902.3681M	199.8k	105.5k

FSK-50K_Nss1_1TX **Channel Separation**

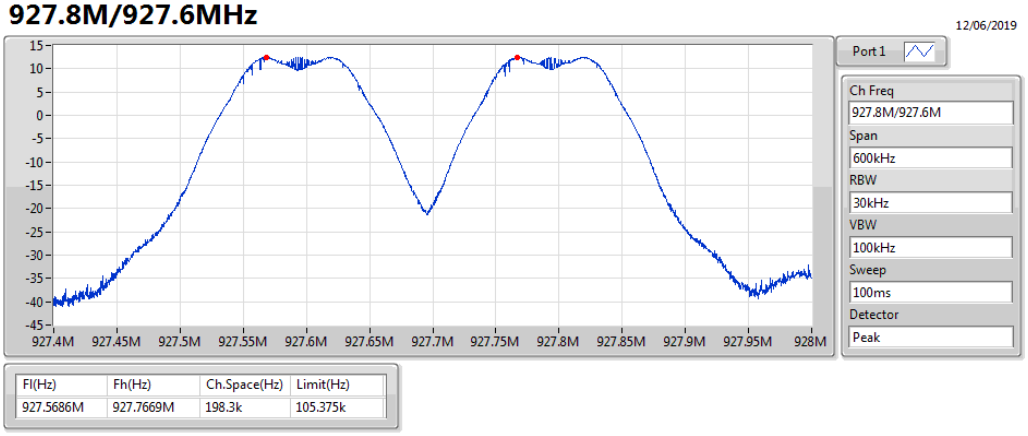
915M/915.2MHz



Fl(Hz)	Fh(Hz)	Ch.Space(Hz)	Limit(Hz)
915.0187M	915.2191M	200.4k	105.375k

FSK-50K_Nss1_1TX **Channel Separation**

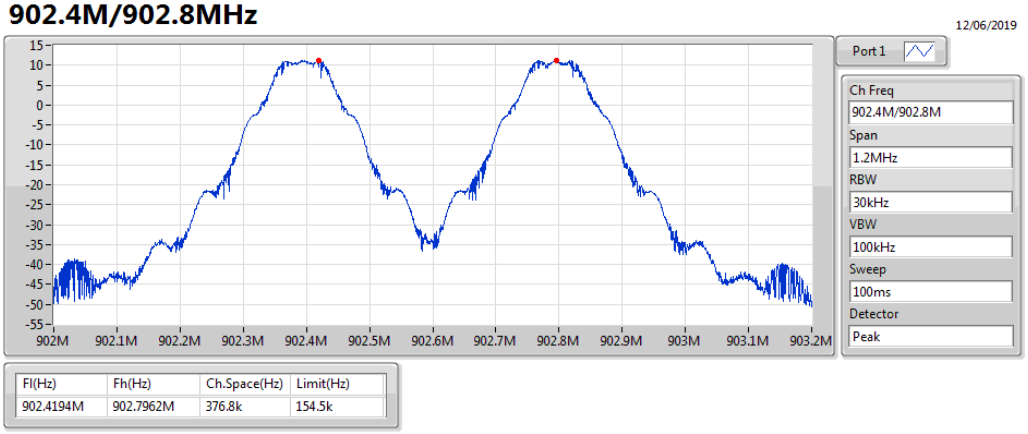
927.8M/927.6MHz



Fl(Hz)	Fh(Hz)	Ch.Space(Hz)	Limit(Hz)
927.5686M	927.7669M	198.3k	105.375k

FSK-150K_Nss1_1TX **Channel Separation**

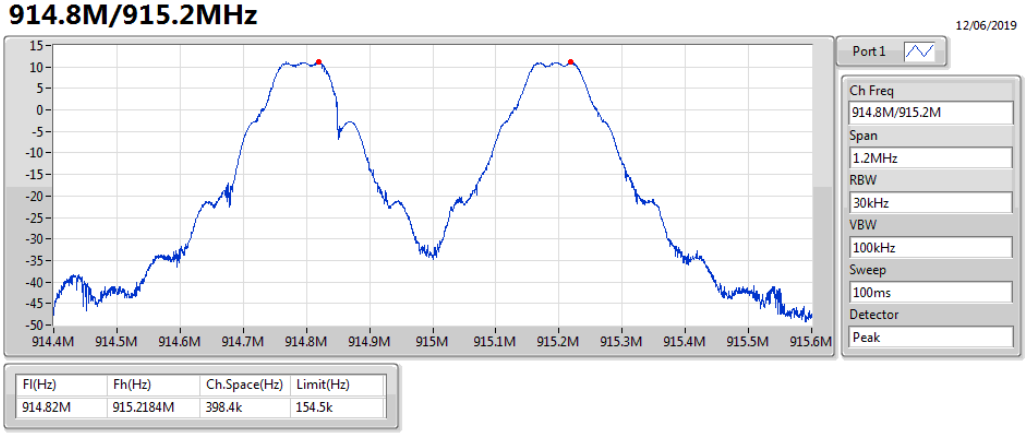
902.4M/902.8MHz



Fl(Hz)	Fh(Hz)	Ch.Space(Hz)	Limit(Hz)
902.4194M	902.7962M	376.8k	154.5k

FSK-150K_Nss1_1TX **Channel Separation**

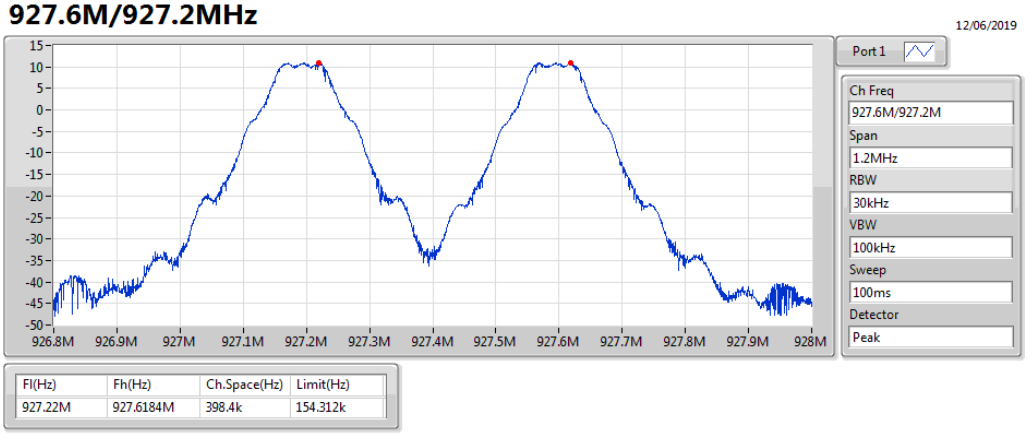
914.8M/915.2MHz



Fl(Hz)	Fh(Hz)	Ch.Space(Hz)	Limit(Hz)
914.82M	915.2184M	398.4k	154.5k

FSK-150K_Nss1_1TX **Channel Separation**

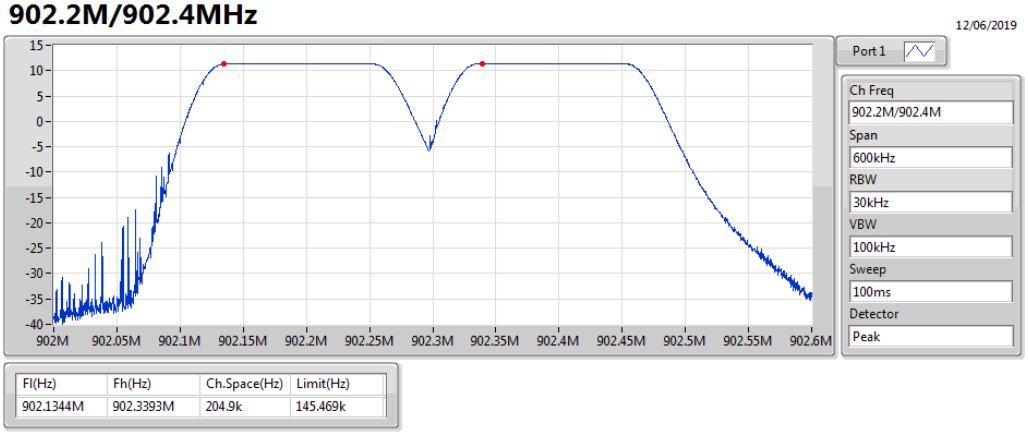
927.6M/927.2MHz



Fl(Hz)	Fh(Hz)	Ch.Space(Hz)	Limit(Hz)
927.22M	927.6184M	398.4k	154.312k

LoRa_FHSS-125k_Nss1_1TX **Channel Separation**

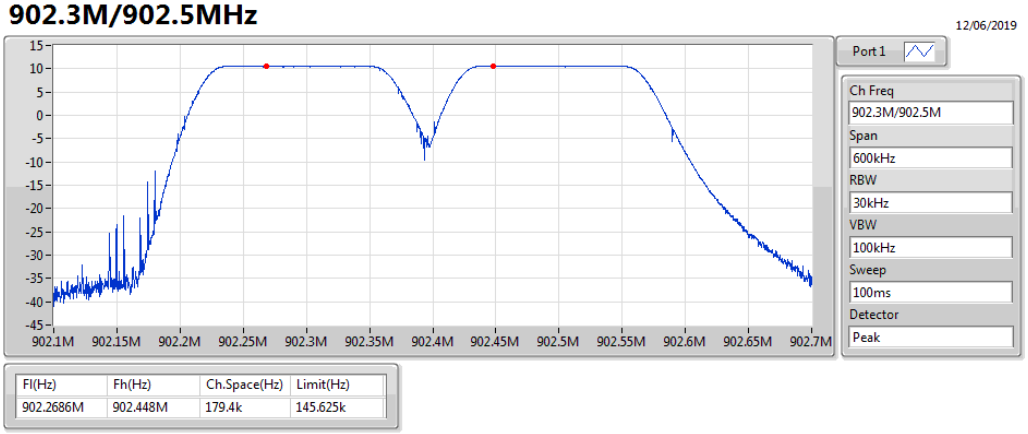
902.2M/902.4MHz



Fl(Hz)	Fh(Hz)	Ch.Space(Hz)	Limit(Hz)
902.1344M	902.3393M	204.9k	145.469k

LoRa_FHSS-125k_Nss1_1TX **Channel Separation**

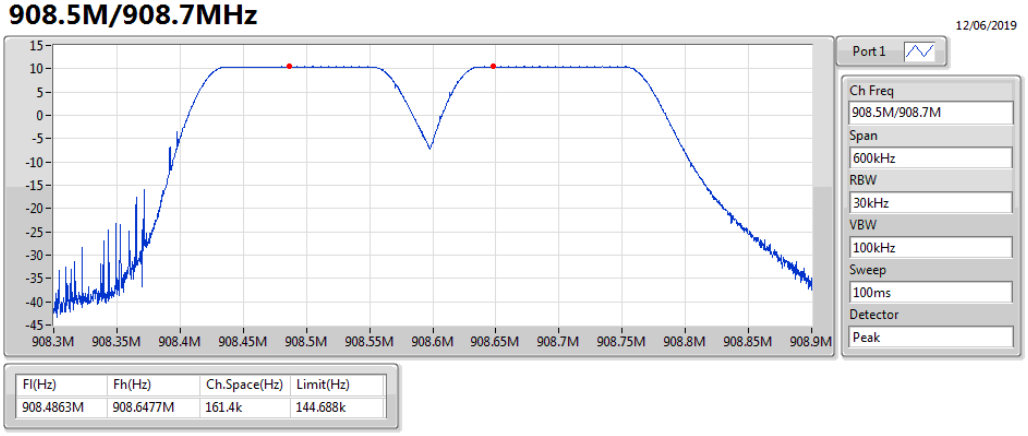
902.3M/902.5MHz



Fl(Hz)	Fh(Hz)	Ch.Space(Hz)	Limit(Hz)
902.2686M	902.448M	179.4k	145.625k

LoRa_FHSS-125k_Nss1_1TX **Channel Separation**

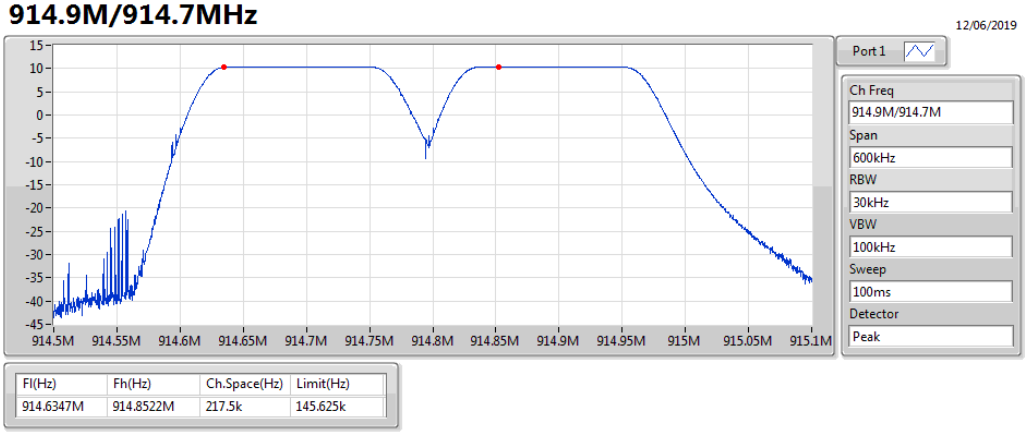
908.5M/908.7MHz



Fl(Hz)	Fh(Hz)	Ch.Space(Hz)	Limit(Hz)
908.4863M	908.6477M	161.4k	144.688k

LoRa_FHSS-125k_Nss1_1TX **Channel Separation**

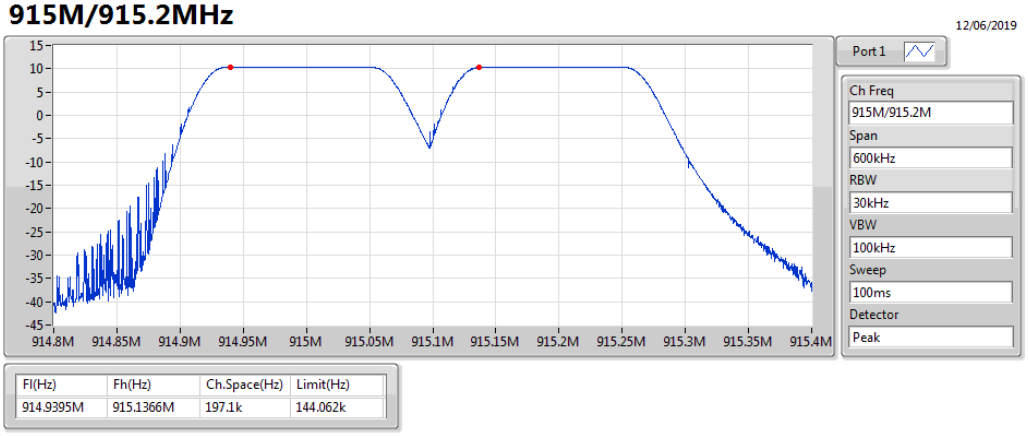
914.9M/914.7MHz



Fl(Hz)	Fh(Hz)	Ch.Space(Hz)	Limit(Hz)
914.6347M	914.8522M	217.5k	145.625k

LoRa_FHSS-125k_Nss1_1TX **Channel Separation**

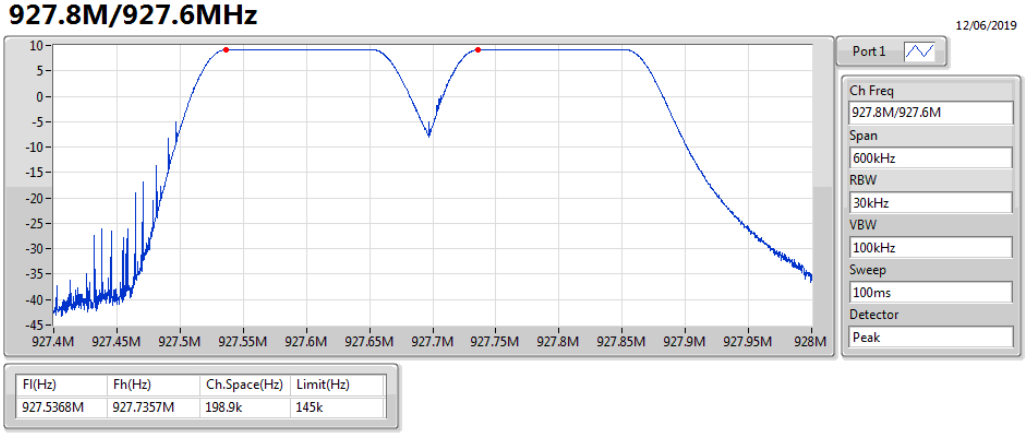
915M/915.2MHz



Fl(Hz)	Fh(Hz)	Ch.Space(Hz)	Limit(Hz)
914.9395M	915.1366M	197.1k	144.062k

LoRa_FHSS-125k_Nss1_1TX **Channel Separation**

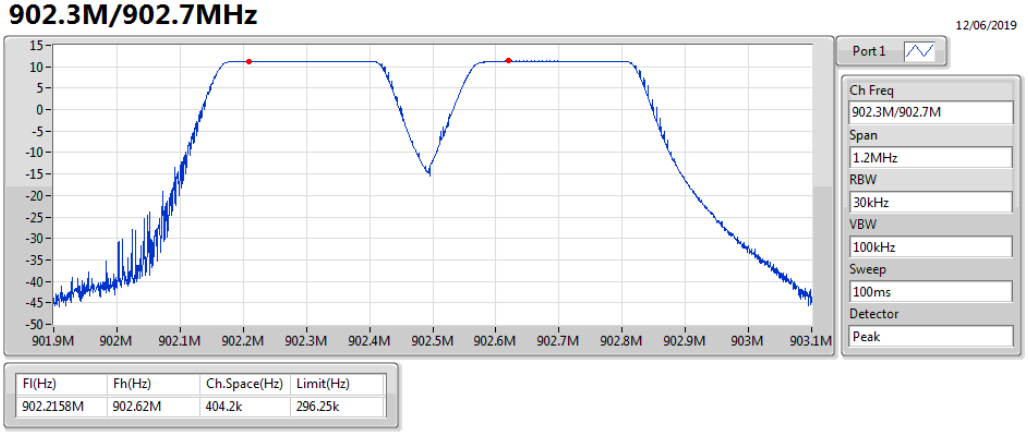
927.8M/927.6MHz



Fl(Hz)	Fh(Hz)	Ch.Space(Hz)	Limit(Hz)
927.5368M	927.7357M	198.9k	145k

LoRa_FHSS-250k_Nss1_1TX **Channel Separation**

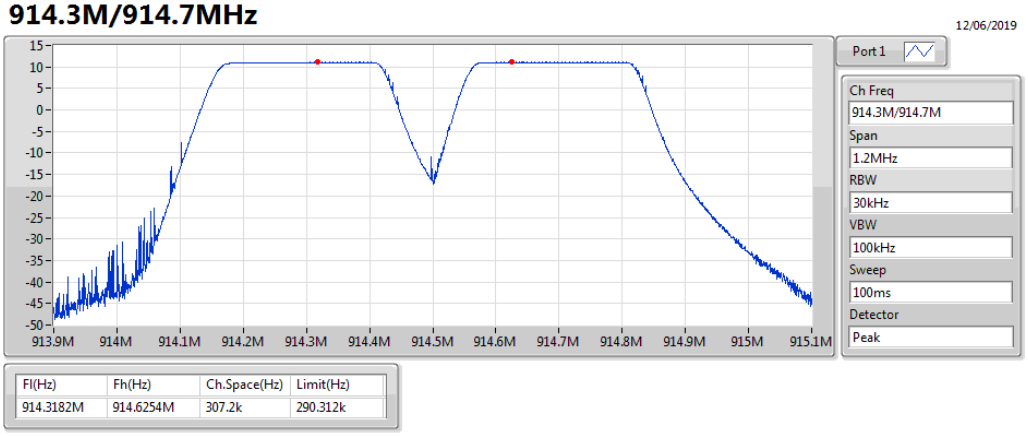
902.3M/902.7MHz



Fl(Hz)	Fh(Hz)	Ch.Space(Hz)	Limit(Hz)
902.2158M	902.62M	404.2k	296.25k

LoRa_FHSS-250k_Nss1_1TX **Channel Separation**

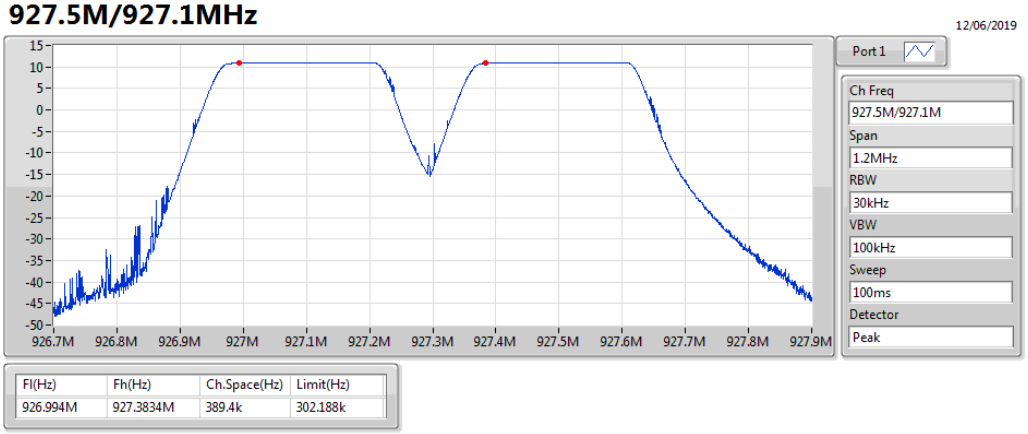
914.3M/914.7MHz



Fl(Hz)	Fh(Hz)	Ch.Space(Hz)	Limit(Hz)
914.3182M	914.6254M	307.2k	290.312k

LoRa_FHSS-250k_Nss1_1TX **Channel Separation**

927.5M/927.1MHz



Fl(Hz)	Fh(Hz)	Ch.Space(Hz)	Limit(Hz)
926.994M	927.3834M	389.4k	302.188k

Summary

Mode	Power (dBm)	Power (W)
902-928MHz	-	-
FSK-5K_Nss1_1TX	27.00	0.50119
FSK-50K_Nss1_1TX	26.81	0.47973
FSK-150K_Nss1_1TX	26.86	0.48529
LoRa_FHSS-125k_Nss1_1TX	25.67	0.36898
LoRa_FHSS-250k_Nss1_1TX	25.63	0.36559

Result

Mode	Result	Gain (dBi)	Power (dBm)	Power Limit (dBm)
FSK-5K_Nss1_1TX	-	-	-	-
902.2MHz	Pass	0.73	27.00	30.00
915MHz	Pass	0.73	26.80	30.00
927.8MHz	Pass	0.73	26.77	30.00
FSK-50K_Nss1_1TX	-	-	-	-
902.2MHz	Pass	0.73	26.81	30.00
915MHz	Pass	0.73	26.81	30.00
927.8MHz	Pass	0.73	26.80	30.00
FSK-150K_Nss1_1TX	-	-	-	-
902.4MHz	Pass	0.73	26.86	30.00
914.8MHz	Pass	0.73	26.26	30.00
927.6MHz	Pass	0.73	25.87	30.00
LoRa_FHSS-125k_Nss1_1TX	-	-	-	-
902.2MHz	Pass	0.73	25.67	30.00
915MHz	Pass	0.73	24.58	30.00
927.8MHz	Pass	0.73	23.34	30.00
902.3MHz	Pass	0.73	25.67	30.00
908.5MHz	Pass	0.73	24.68	30.00
914.9MHz	Pass	0.73	24.60	30.00
LoRa_FHSS-250k_Nss1_1TX	-	-	-	-
902.3MHz	Pass	0.73	25.63	30.00
914.3MHz	Pass	0.73	25.51	30.00
927.5MHz	Pass	0.73	25.39	30.00

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

Summary

Mode	Power (dBm)	Power (W)
902-928MHz	-	-
FSK-5K_Nss1_1TX	26.96	0.49659
FSK-50K_Nss1_1TX	26.77	0.47534
FSK-150K_Nss1_1TX	26.82	0.48084
LoRa_FHSS-125k_Nss1_1TX	25.61	0.36392
LoRa_FHSS-250k_Nss1_1TX	25.58	0.36141

Result

Mode	Result	Gain (dBi)	Power (dBm)	Power Limit (dBm)
FSK-5K_Nss1_1TX	-	-	-	-
902.2MHz	Pass	0.73	26.96	30.00
915MHz	Pass	0.73	26.75	30.00
927.8MHz	Pass	0.73	26.72	30.00
FSK-50K_Nss1_1TX	-	-	-	-
902.2MHz	Pass	0.73	26.76	30.00
915MHz	Pass	0.73	26.77	30.00
927.8MHz	Pass	0.73	26.73	30.00
FSK-150K_Nss1_1TX	-	-	-	-
902.4MHz	Pass	0.73	26.82	30.00
914.8MHz	Pass	0.73	26.16	30.00
927.6MHz	Pass	0.73	25.79	30.00
LoRa_FHSS-125k_Nss1_1TX	-	-	-	-
902.2MHz	Pass	0.73	25.61	30.00
915MHz	Pass	0.73	24.52	30.00
927.8MHz	Pass	0.73	23.31	30.00
902.3MHz	Pass	0.73	25.61	30.00
908.5MHz	Pass	0.73	24.62	30.00
914.9MHz	Pass	0.73	24.53	30.00
LoRa_FHSS-250k_Nss1_1TX	-	-	-	-
902.3MHz	Pass	0.73	25.58	30.00
914.3MHz	Pass	0.73	25.45	30.00
927.5MHz	Pass	0.73	25.33	30.00

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

Summary

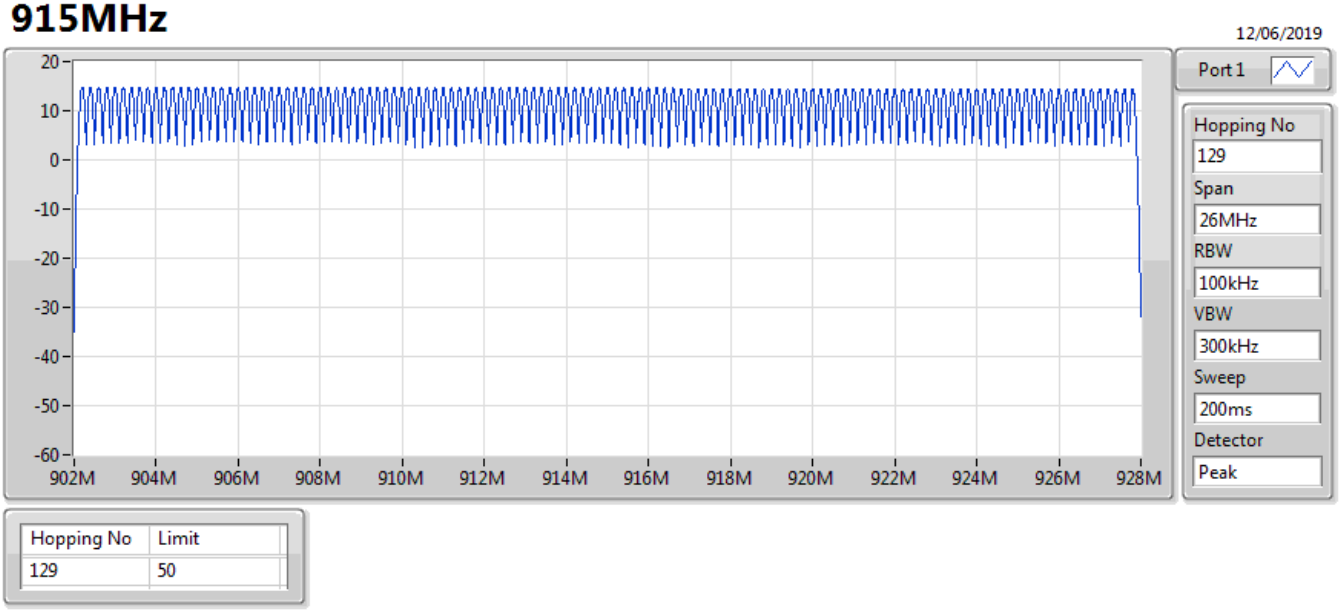
Mode	Max-Hop No
902-928MHz	-
FSK-5K_Nss1_1TX	129
FSK-50K_Nss1_1TX	129
FSK-150K_Nss1_1TX	64
LoRa_FHSS-125k_Nss1_1TX	129
LoRa_FHSS-250k_Nss1_1TX	64

Result

Mode	Result	Hopping No	Limit
FSK-5K_Nss1_1TX	-	-	-
915MHz	Pass	129	50
FSK-50K_Nss1_1TX	-	-	-
915MHz	Pass	129	50
FSK-150K_Nss1_1TX	-	-	-
914.8MHz	Pass	64	50
LoRa_FHSS-125k_Nss1_1TX	-	-	-
915MHz	Pass	129	50
908.5MHz	Pass	64	50
LoRa_FHSS-250k_Nss1_1TX	-	-	-
914.3MHz	Pass	64	25

FSK-5K_Nss1_1TX **Hopping Ch**

915MHz

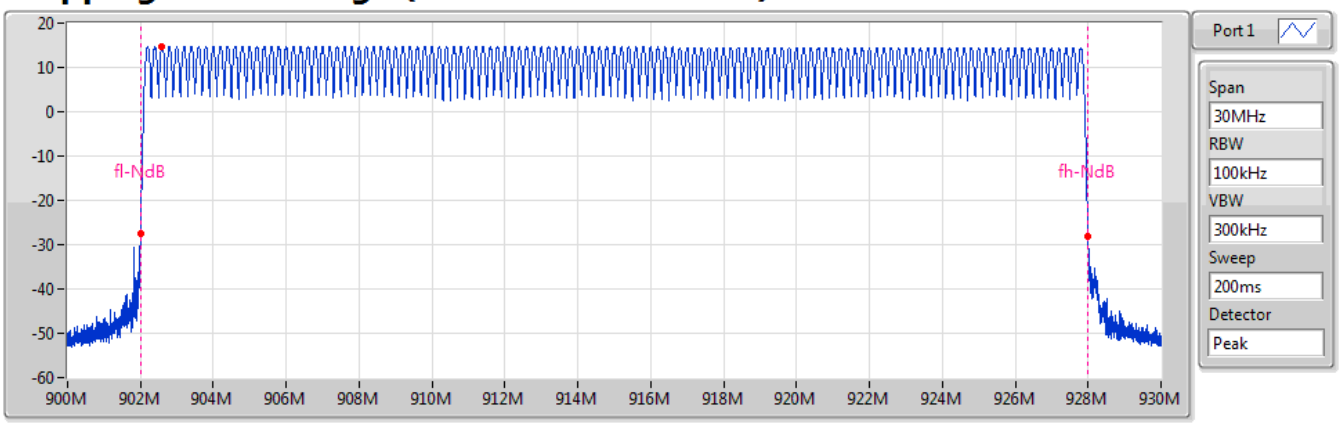


Hopping No	Limit
129	50

FSK-5K_Nss1_1TX

915MHz

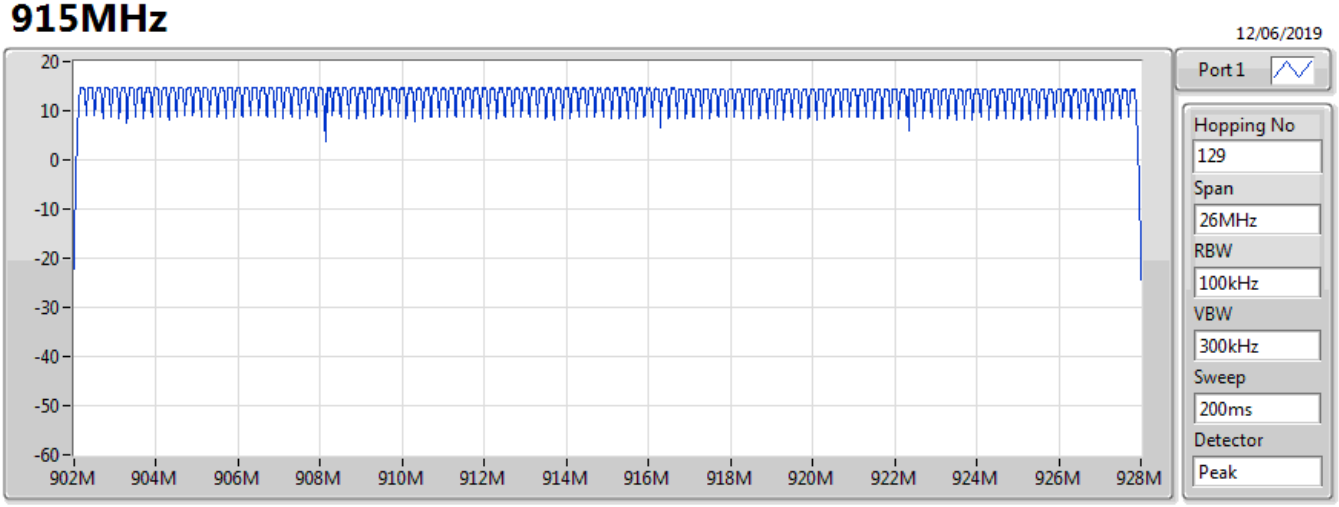
Hopping Ch Bandedge (Non-restricted Band)



Limit(dBm)	Ref(Hz)	Ref(dBm)	BE-l(Hz)	BE-l(dBm)	BE-h(Hz)	BE-h(dBm)
-5.21	902.59125M	14.79	901.995M	-27.6	928.00125M	-28.13

FSK-50K_Nss1_1TX **Hopping Ch**

915MHz

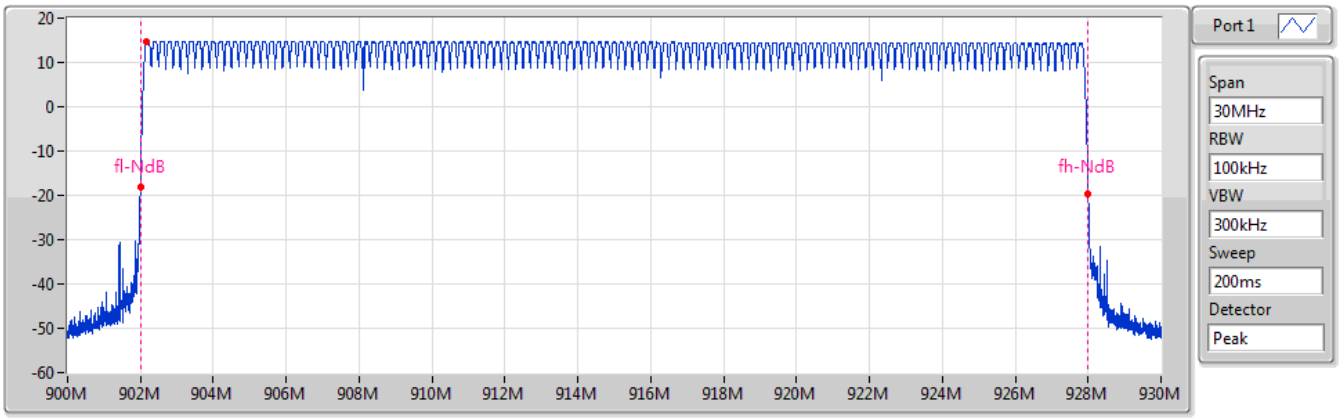


Hopping No	Limit
129	50

FSK-50K_Nss1_1TX

915MHz

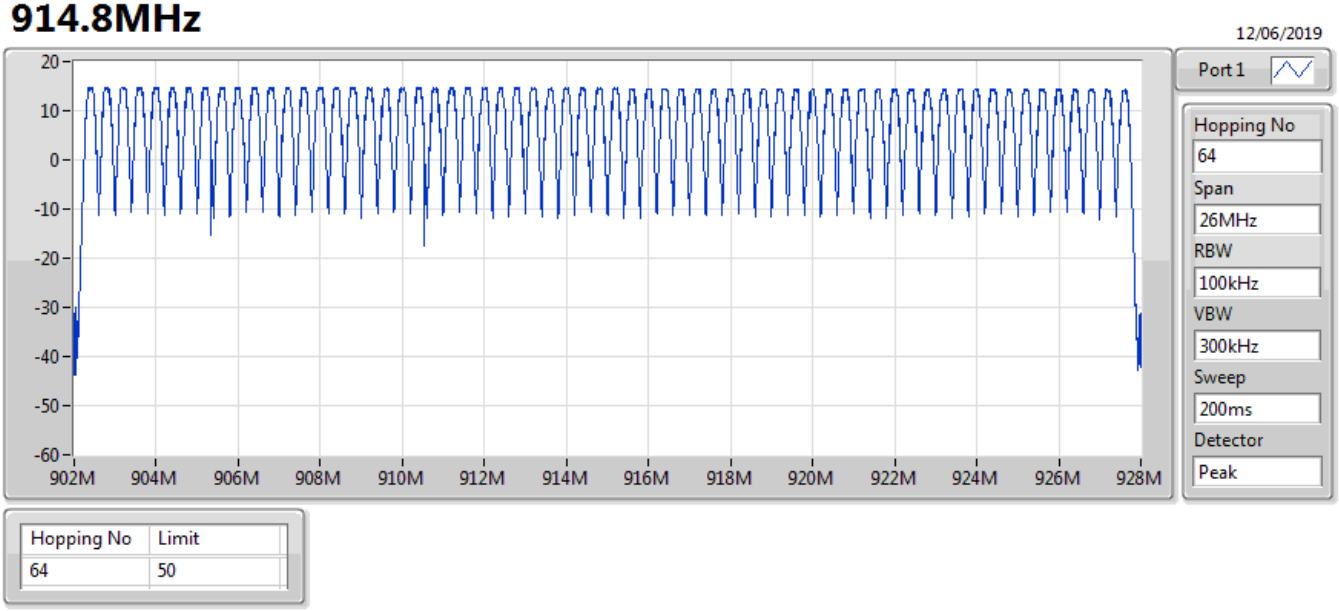
Hopping Ch Bandedge (Non-restricted Band)



Limit(dBm)	Ref(Hz)	Ref(dBm)	BE-l(Hz)	BE-l(dBm)	BE-h(Hz)	BE-h(dBm)
-5.21	902.17125M	14.79	901.99875M	-18.24	928.005M	-19.61

FSK-150K_Nss1_1TX **Hopping Ch**

914.8MHz

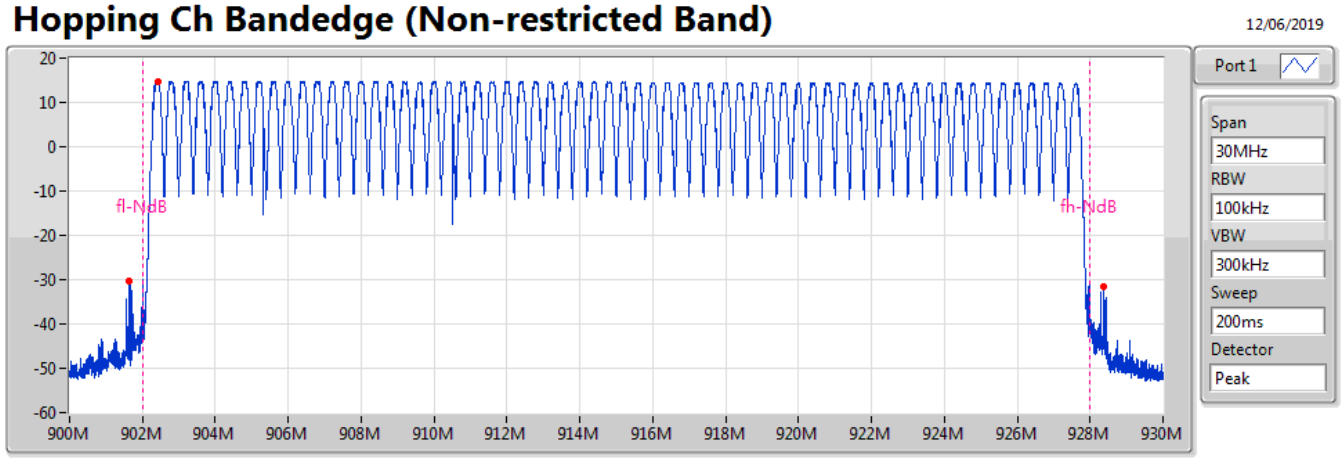


Hopping No	Limit
64	50

FSK-150K_Nss1_1TX

914.8MHz

Hopping Ch Bandedge (Non-restricted Band)

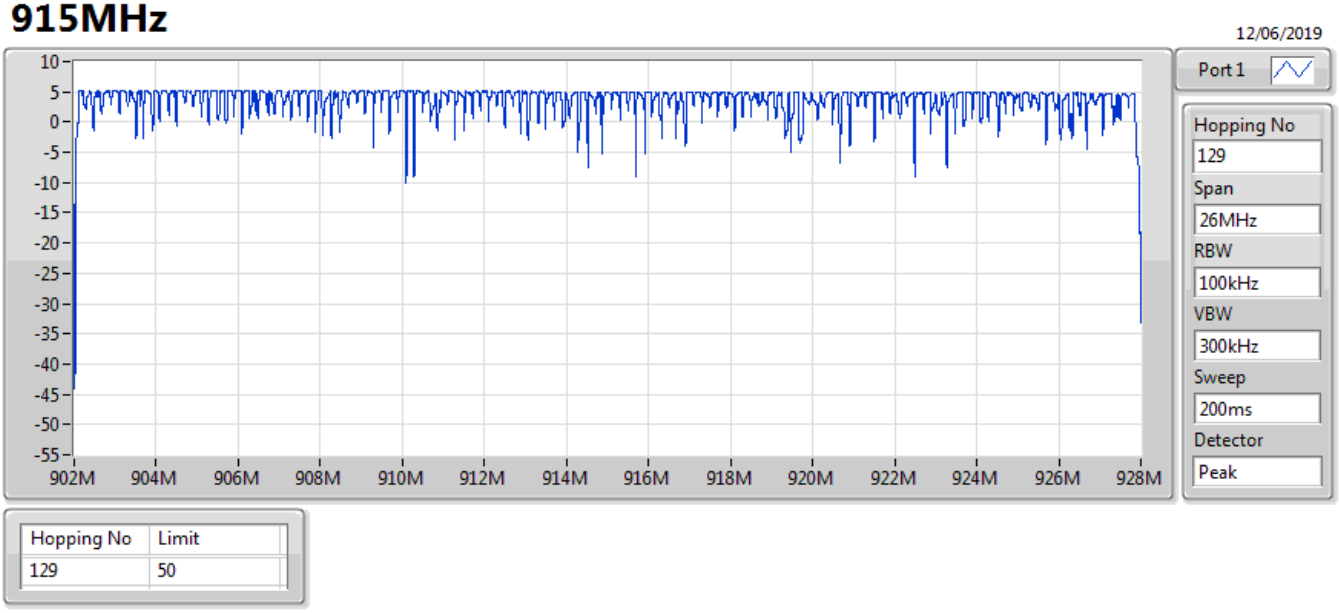


Limit(dBm)	Ref(Hz)	Ref(dBm)	BE-l(Hz)	BE-l(dBm)	BE-h(Hz)	BE-h(dBm)
-5.24	902.4375M	14.76	901.62M	-30.19	928.36125M	-31.55

LoRa_FHSS-125k_Nss1_1TX

Hopping Ch

915MHz

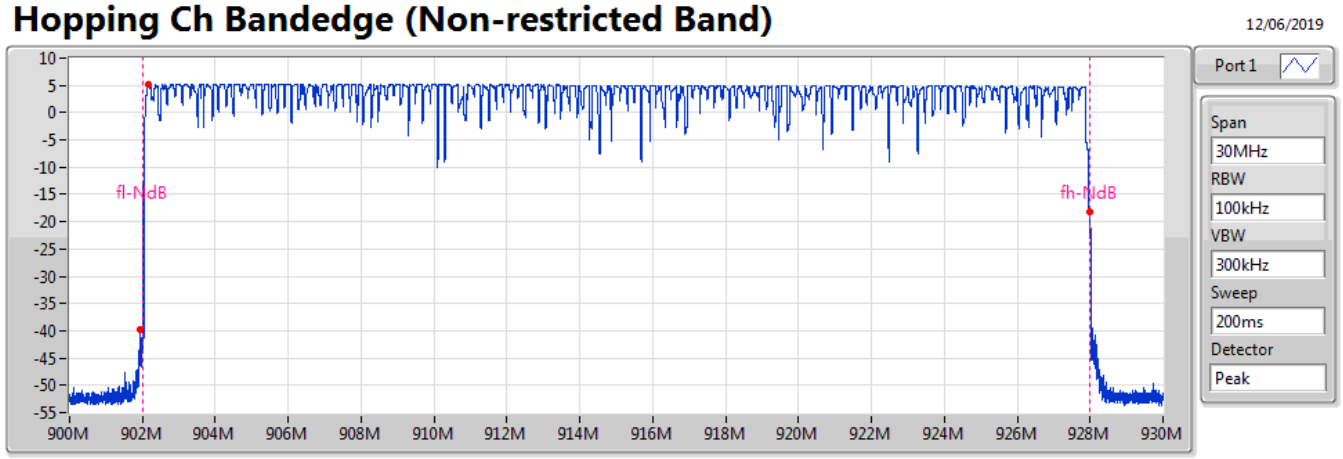


Hopping No	Limit
129	50

LoRa_FHSS-125k_Nss1_1TX

915MHz

Hopping Ch Bandedge (Non-restricted Band)

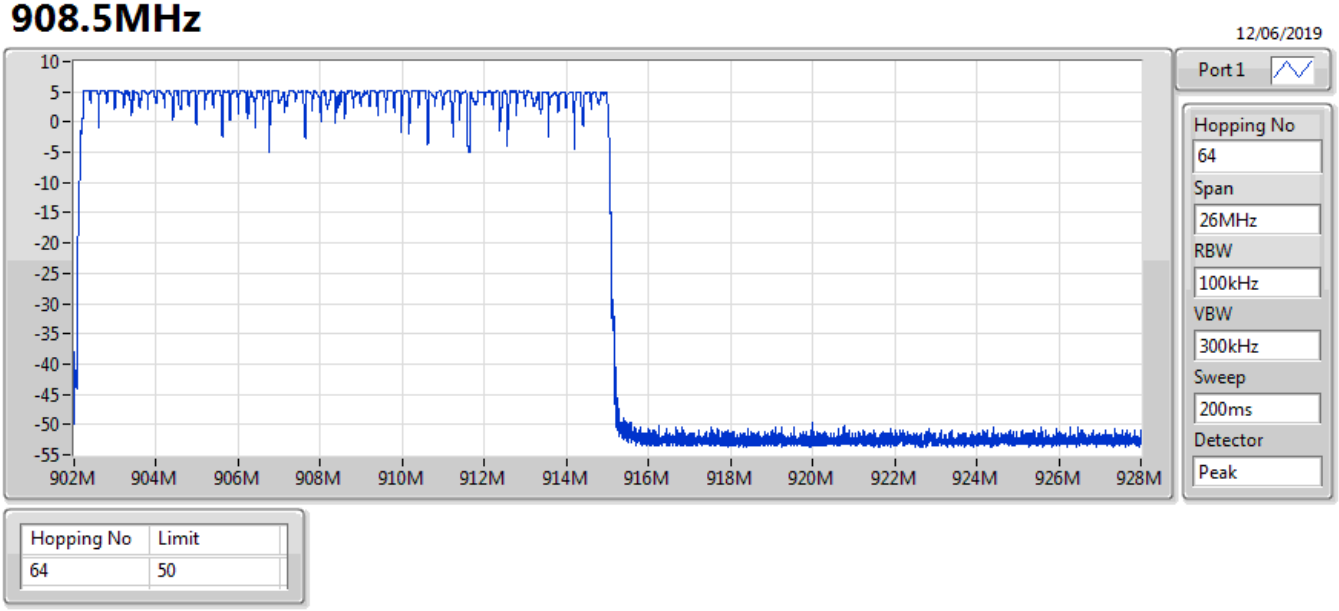


Limit(dBm)	Ref(Hz)	Ref(dBm)	BE-l(Hz)	BE-l(dBm)	BE-h(Hz)	BE-h(dBm)
-14.75	902.14875M	5.25	901.92M	-39.84	928.005M	-18.16

LoRa_FHSS-125k_Nss1_1TX

Hopping Ch

908.5MHz

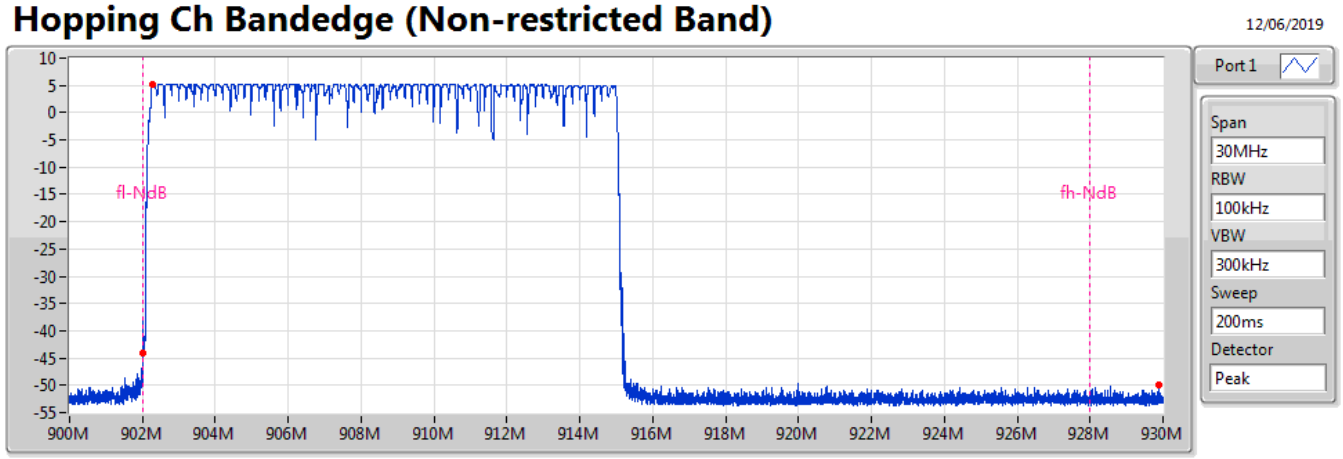


Hopping No	Limit
64	50

LoRa_FHSS-125k_Nss1_1TX

908.5MHz

Hopping Ch Bandedge (Non-restricted Band)

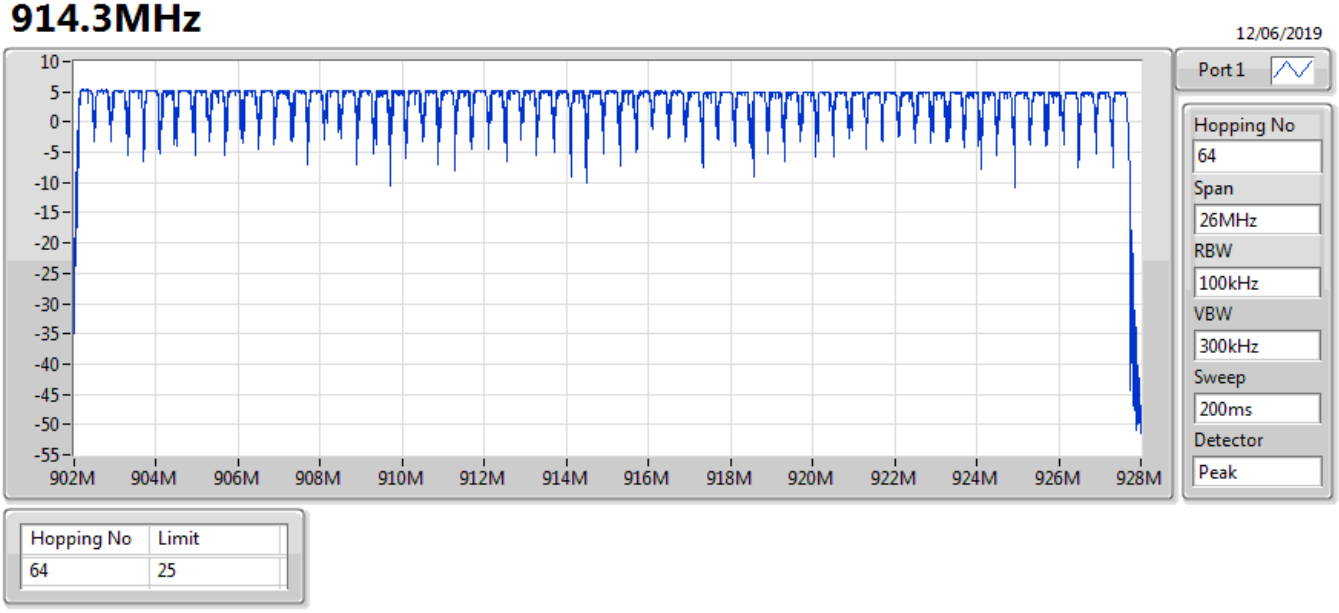


Limit(dBm)	Ref(Hz)	Ref(dBm)	BE-l(Hz)	BE-l(dBm)	BE-h(Hz)	BE-h(dBm)
-14.76	902.28M	5.24	901.995M	-44.2	929.8725M	-50.04

LoRa_FHSS-250k_Nss1_1TX

Hopping Ch

914.3MHz

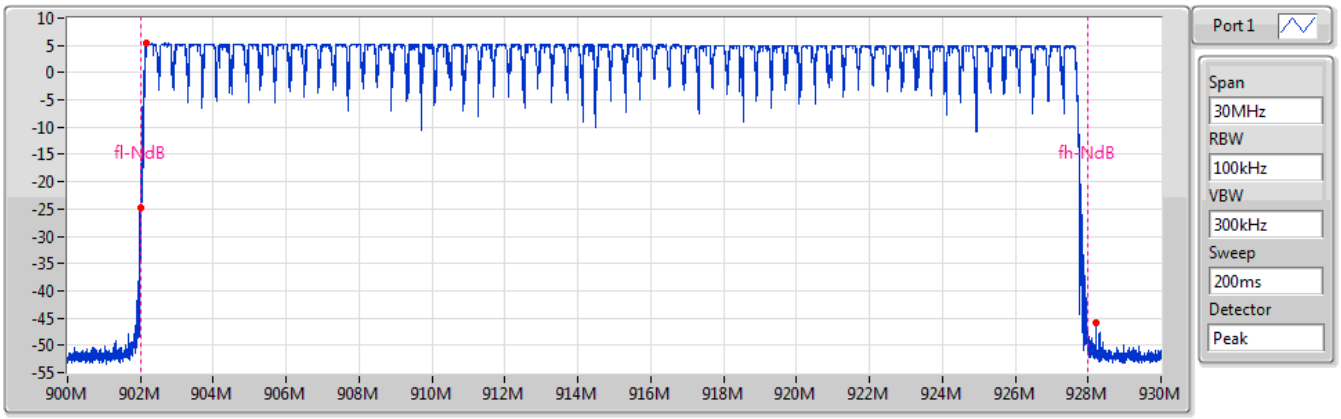


Hopping No	Limit
64	25

LoRa_FHSS-250k_Nss1_1TX

914.3MHz

Hopping Ch Bandedge (Non-restricted Band)



Limit(dBm)	Ref(Hz)	Ref(dBm)	BE-l(Hz)	BE-l(dBm)	BE-h(Hz)	BE-h(dBm)
-14.69	902.175M	5.31	901.995M	-24.85	928.2075M	-45.97

Summary

Mode	Max-Dwell (s)
902-928MHz	-
FSK-5K_Nss1_1TX	165.890625m
FSK-50K_Nss1_1TX	327.15625m
FSK-150K_Nss1_1TX	277.0625m
LoRa_FHSS-125k_Nss1_1TX	371.4m
LoRa_FHSS-250k_Nss1_1TX	364.453125m

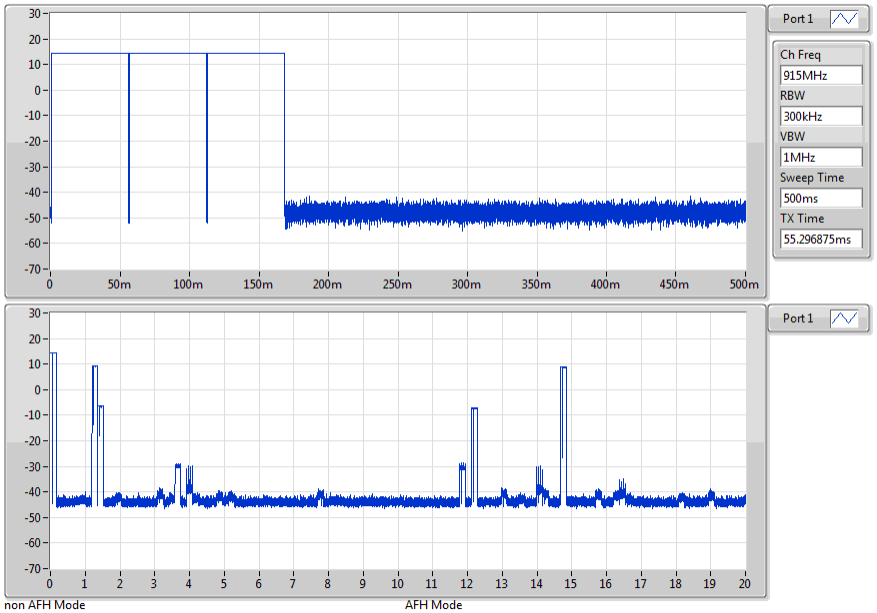
Result

Mode	Result	Period (s)	Dwell (s)	Limit (s)	Tx On (s)
FSK-5K_Nss1_1TX	-	-	-	-	-
915MHz	Pass	20	165.890625m	400m	55.296875m
FSK-50K_Nss1_1TX	-	-	-	-	-
915MHz	Pass	20	327.15625m	400m	5.640625m
FSK-150K_Nss1_1TX	-	-	-	-	-
914.8MHz	Pass	20	277.0625m	400m	1.9375m
LoRa_FHSS-125k_Nss1_1TX	-	-	-	-	-
915MHz	Pass	20	371.4m	400m	46.425m
908.5MHz	Pass	20	371.4m	400m	46.425m
LoRa_FHSS-250k_Nss1_1TX	-	-	-	-	-
914.3MHz	Pass	10	364.453125m	400m	24.296875m

FSK-5K_Nss1_1TX **Dwell**

915MHz

12/06/2019



non AFH Mode

Period(s)	Dwell(s)	Limit(s)	Tx On(s)
20	165.890625m	400m	55.296875m

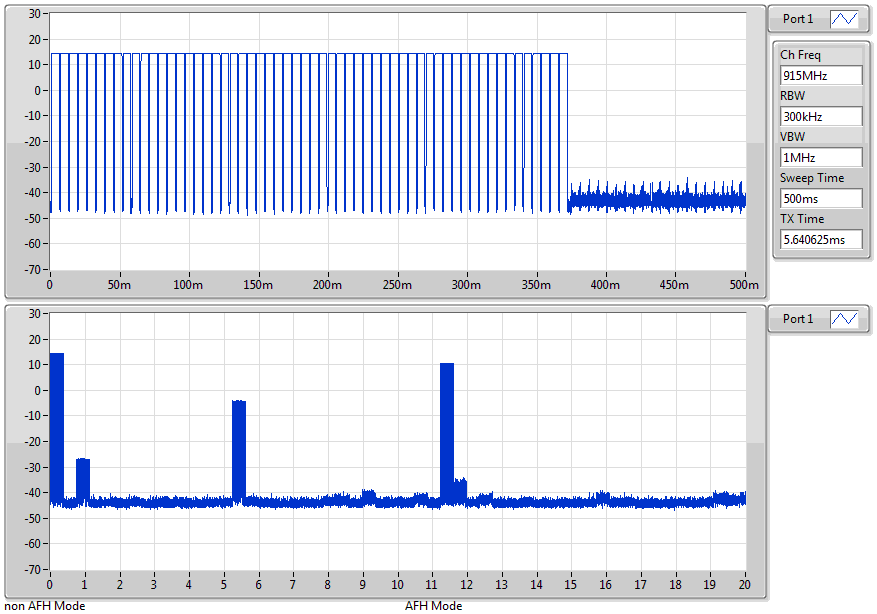
AFH Mode

Period(s)	Dwell(s)	Limit(s)	Tx On(s)

FSK-50K_Nss1_1TX **Dwell**

915MHz

12/06/2019



non AFH Mode

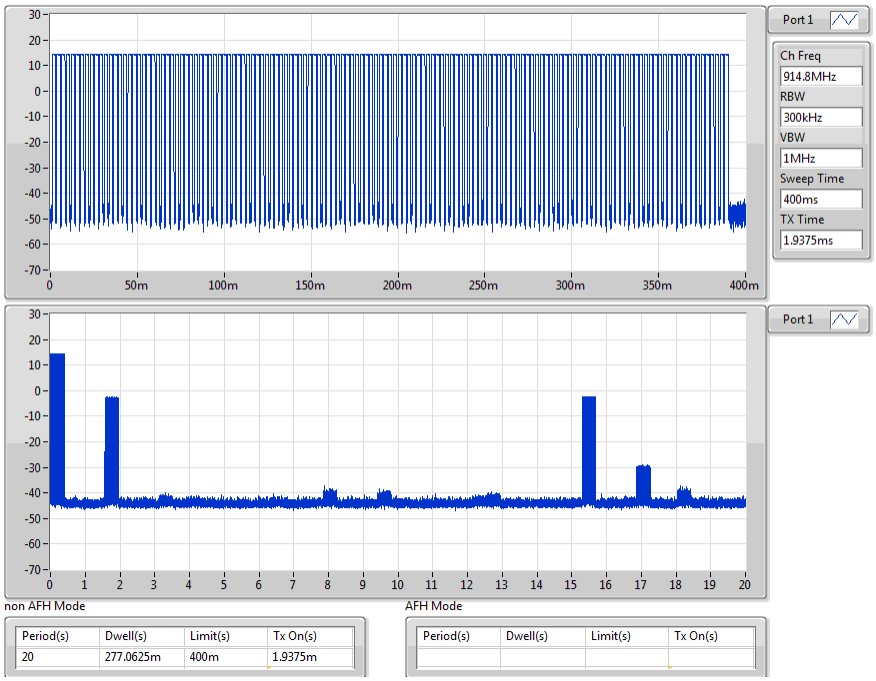
Period(s)	Dwell(s)	Limit(s)	Tx On(s)
20	327.15625m	400m	5.640625m

AFH Mode

Period(s)	Dwell(s)	Limit(s)	Tx On(s)

FSK-150K_Nss1_1TX **Dwell**

914.8MHz



non AFH Mode

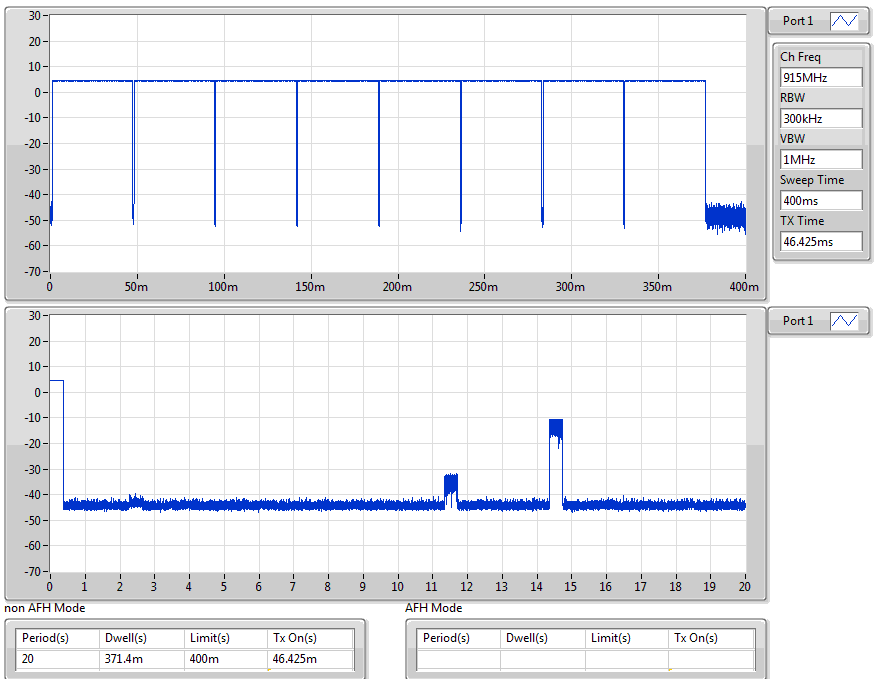
Period(s)	Dwell(s)	Limit(s)	Tx On(s)
20	277.0625m	400m	1.9375m

AFH Mode

Period(s)	Dwell(s)	Limit(s)	Tx On(s)

LoRa_FHSS-125k_Nss1_1TX **Dwell**

915MHz



non AFH Mode

Period(s)	Dwell(s)	Limit(s)	Tx On(s)
20	371.4m	400m	46.425m

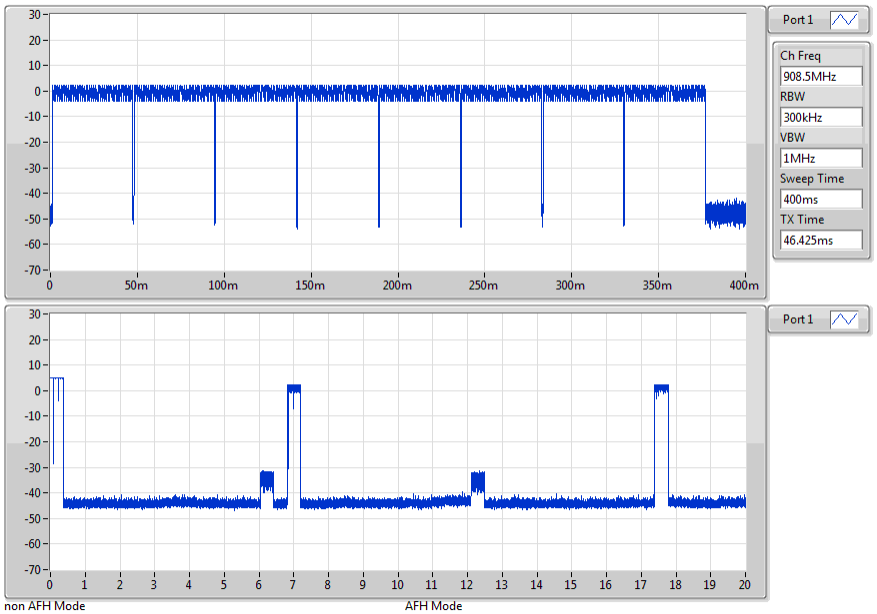
AFH Mode

Period(s)	Dwell(s)	Limit(s)	Tx On(s)

LoRa_FHSS-125k_Nss1_1TX **Dwell**

908.5MHz

12/06/2019



non AFH Mode

Period(s)	Dwell(s)	Limit(s)	Tx On(s)
20	371.4m	400m	46.425m

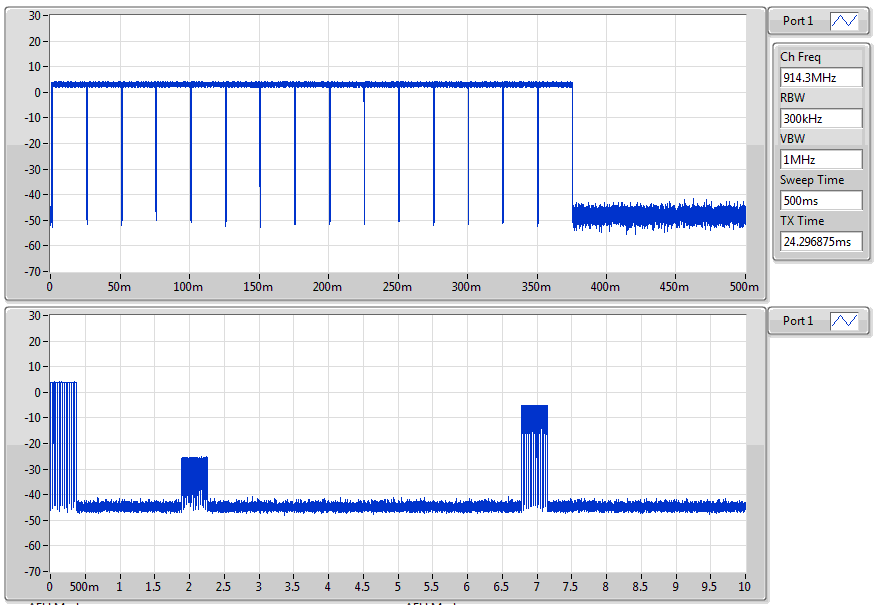
AFH Mode

Period(s)	Dwell(s)	Limit(s)	Tx On(s)

LoRa_FHSS-250k_Nss1_1TX **Dwell**

914.3MHz

17/06/2019



non AFH Mode

Period(s)	Dwell(s)	Limit(s)	Tx On(s)
10	364.453125m	400m	24.296875m

AFH Mode

Period(s)	Dwell(s)	Limit(s)	Tx On(s)

Summary

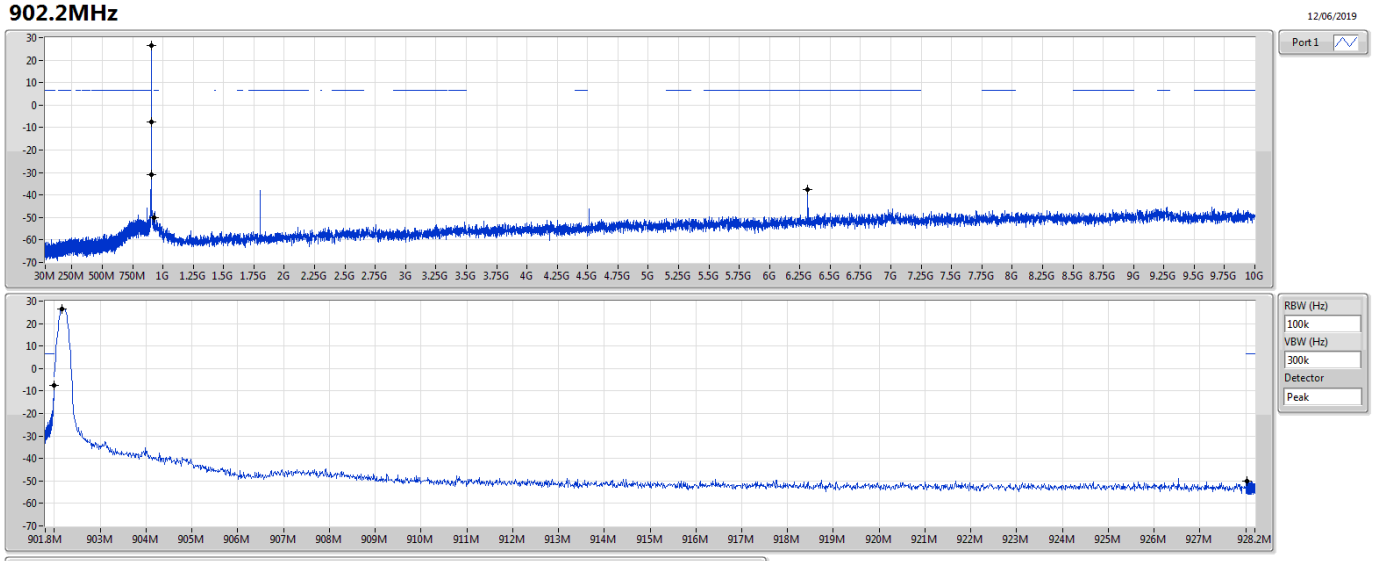
Mode	Result	Ref (Hz)	Ref (dBm)	Limit (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Port
902-928MHz	-	-	-	-	-	-	-	-	-	-	-	-	-
FSK-5K_Nss1_1TX	Pass	902.17M	26.56	6.56	901.69M	-30.92	902M	-7.49	928.03M	-49.89	6.31572G	-37.41	1
FSK-50K_Nss1_1TX	Pass	902.16M	26.34	6.34	901.8M	-31.09	902M	-4.27	928.03M	-49.83	6.31572G	-37.88	1
FSK-150K_Nss1_1TX	Pass	902.38M	26.33	6.33	901.37M	-35.78	901.7M	-21.86	928.02M	-50.15	1.80485G	-38.34	1
LoRa_FHSS-125k_Nss1_1TX	Pass	902.13M	25.26	5.26	901.75M	-34.69	902M	3.66	928.2M	-49.95	6.31574G	-38.61	1
LoRa_FHSS-250k_Nss1_1TX	Pass	902.2M	25.18	5.18	901.5M	-33.32	902M	-6.82	928.05M	-49.62	6.31697G	-38.60	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	-	-	-	-	-	-	-	-	-	-	-	-	-
902.2MHz	Pass	902.17M	26.56	6.56	901.69M	-30.92	902M	-7.49	928.03M	-49.89	6.31572G	-37.41	1
915MHz	Pass	914.97M	26.35	6.35	883.06M	-45.12	901.98M	-48.36	928.09M	-48.67	6.4053G	-35.11	1
927.8MHz	Pass	927.78M	26.34	6.34	895.81M	-46.59	901.83M	-49.19	928M	-9.89	928.2M	-27.55	1
FSK-50K_Nss1_1TX	-	-	-	-	-	-	-	-	-	-	-	-	-
902.2MHz	Pass	902.16M	26.34	6.34	901.8M	-31.09	902M	-4.27	928.03M	-49.83	6.31572G	-37.88	1
915MHz	Pass	914.96M	26.36	6.36	883.06M	-45.86	901.89M	-48.40	928.03M	-48.39	6.4053G	-35.65	1
927.8MHz	Pass	927.77M	26.37	6.37	895.92M	-47.28	901.88M	-49.18	928M	-7.82	928.2M	-26.51	1
FSK-150K_Nss1_1TX	-	-	-	-	-	-	-	-	-	-	-	-	-
902.4MHz	Pass	902.38M	26.33	6.33	901.37M	-35.78	901.7M	-21.86	928.02M	-50.15	1.80485G	-38.34	1
914.8MHz	Pass	914.77M	25.84	5.84	882.85M	-48.11	901.88M	-48.49	928.15M	-49.30	6.40307G	-37.96	1
927.6MHz	Pass	927.58M	25.34	5.34	895.6M	-47.25	901.73M	-49.51	928M	-26.17	928.3M	-37.02	1
LoRa_FHSS-125k_Nss1_1TX	-	-	-	-	-	-	-	-	-	-	-	-	-
902.2MHz	Pass	902.13M	25.26	5.26	901.75M	-34.69	902M	3.66	928.2M	-49.95	6.31574G	-38.61	1
915MHz	Pass	914.96M	24.21	4.21	883.01M	-47.37	901.95M	-48.98	928.14M	-49.16	6.40532G	-39.29	1
927.8MHz	Pass	927.74M	23.08	3.08	828.63M	-48.14	901.78M	-49.58	928M	0.10	928.25M	-33.30	1
902.3MHz	Pass	902.23M	25.27	5.27	901.64M	-33.54	901.99M	-20.27	928.07M	-49.58	6.31574G	-37.74	1
908.5MHz	Pass	908.44M	24.30	4.30	817.84M	-47.40	901.84M	-46.41	928.23M	-50.54	6.35883G	-39.36	1
914.9MHz	Pass	914.84M	24.21	4.21	883.01M	-47.20	901.87M	-48.37	928.06M	-49.33	6.40419G	-38.15	1
LoRa_FHSS-250k_Nss1_1TX	-	-	-	-	-	-	-	-	-	-	-	-	-
902.3MHz	Pass	902.2M	25.18	5.18	901.5M	-33.32	902M	-6.82	928.05M	-49.62	6.31697G	-38.60	1
914.3MHz	Pass	914.18M	25.06	5.06	882.22M	-47.43	901.87M	-47.61	928.32M	-49.17	6.39975G	-37.42	1
927.5MHz	Pass	927.38M	24.96	4.96	895.62M	-46.45	901.71M	-49.52	928M	-23.99	6.49273G	-37.46	1

FSK-5K_Nss1_1TX **CSE NdB**

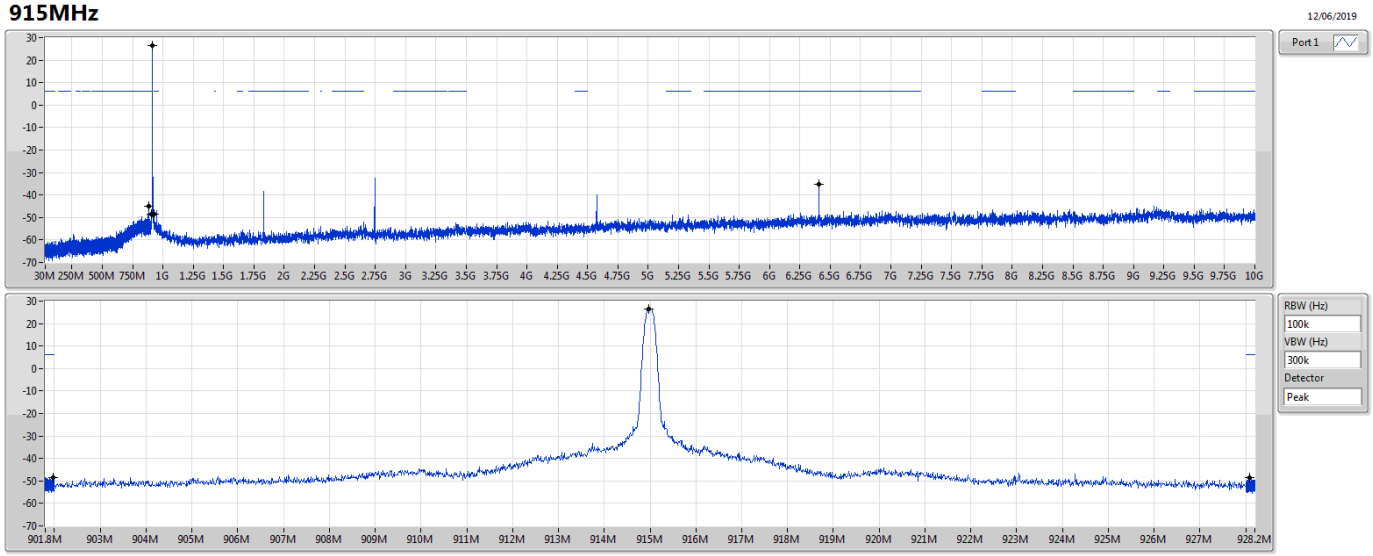
902.2MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
902.17M	26.56	6.56	901.69M	-30.92	902M	-7.49	928.03M	-49.89	6.31572G	-37.41	1

FSK-5K_Nss1_1TX **CSE NdB**

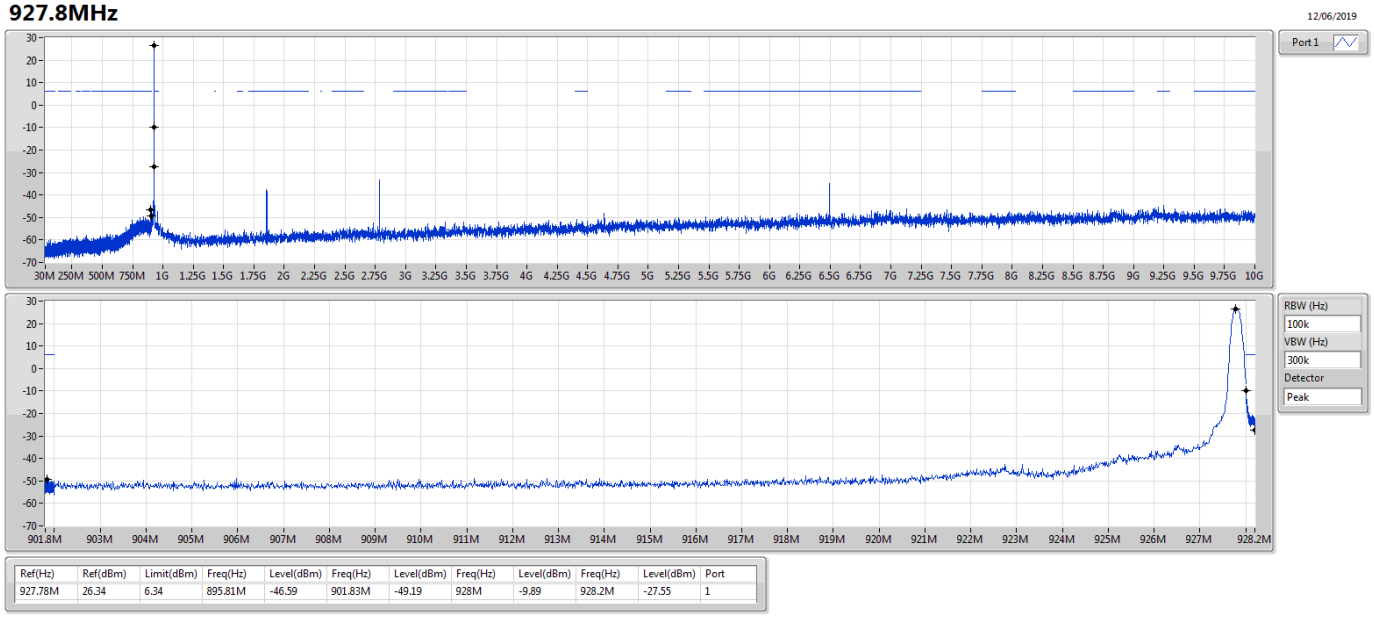
915MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
914.97M	26.35	6.35	883.06M	-45.12	901.98M	-48.36	928.09M	-48.67	6.4053G	-35.11	1

FSK-5K_Nss1_1TX **CSE NdB**

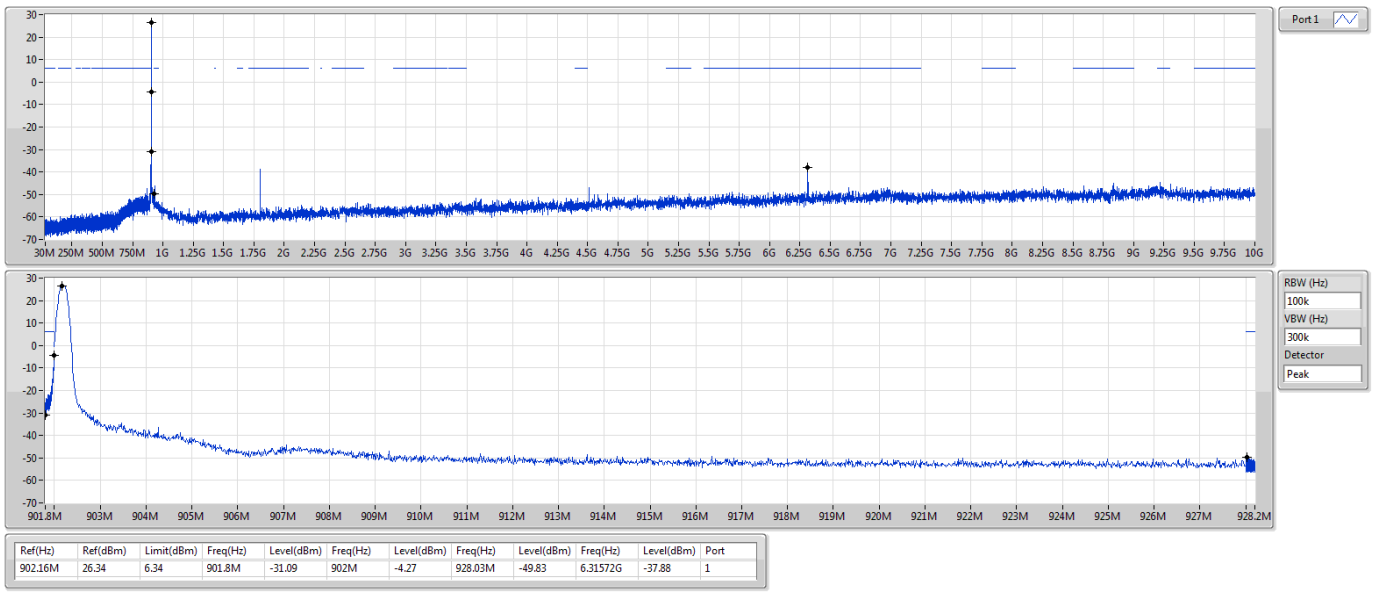
927.8MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
927.78M	26.34	6.34	895.81M	-46.59	901.83M	-49.19	928M	-9.89	928.2M	-27.55	1

FSK-50K_Nss1_1TX **CSE NdB**

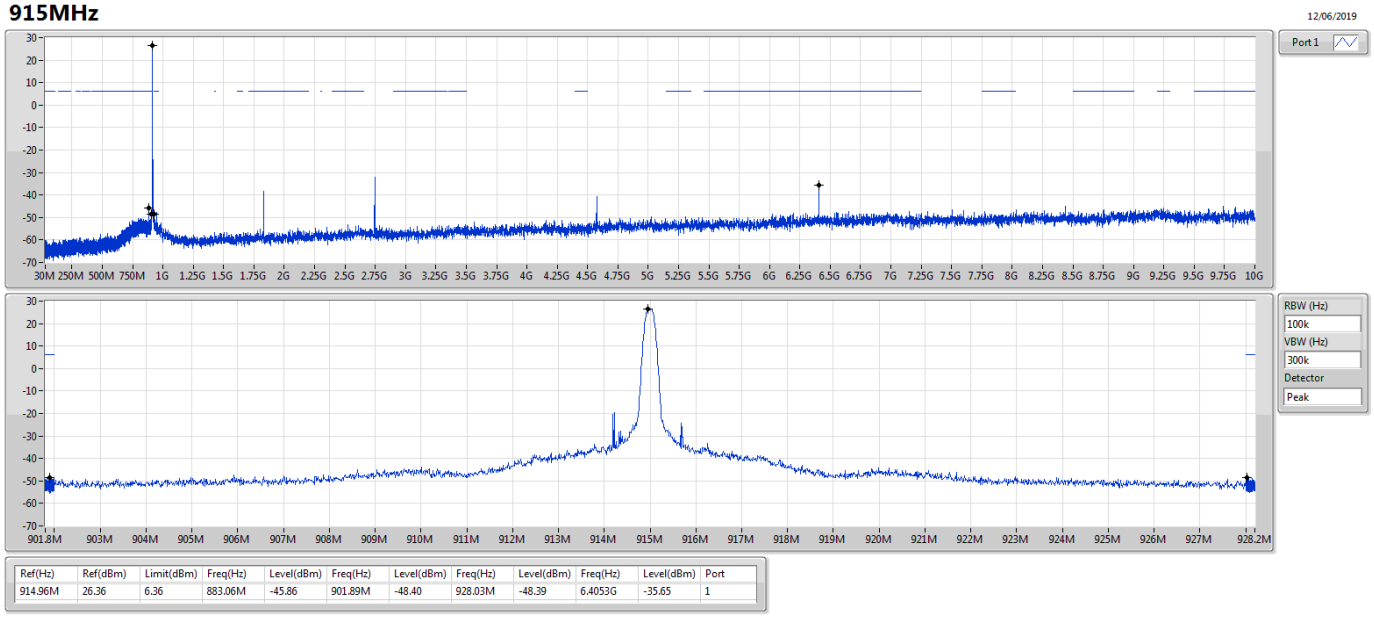
902.2MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
902.16M	26.34	6.34	901.8M	-31.09	902M	-4.27	928.03M	-49.83	6.31572G	-37.88	1

FSK-50K_Nss1_1TX **CSE NdB**

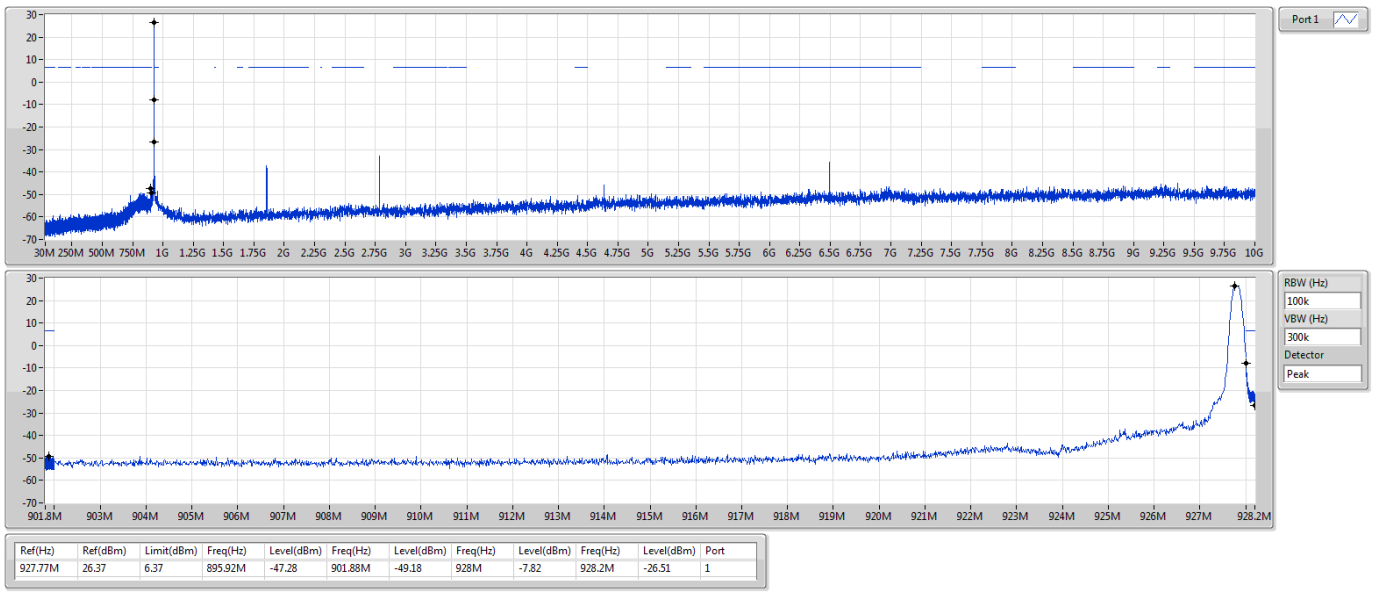
915MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
914.96M	26.36	6.36	883.06M	-45.86	901.89M	-48.40	928.03M	-48.39	6.4053G	-35.65	1

FSK-50K_Nss1_1TX **CSE NdB**

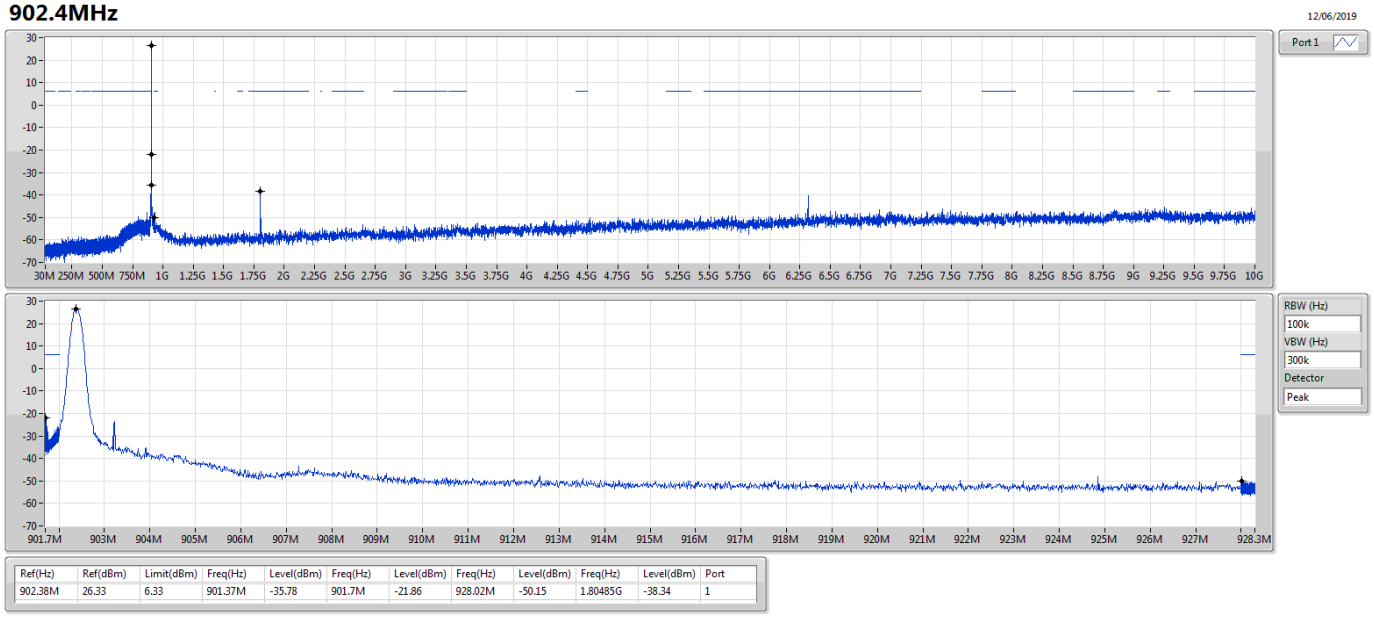
927.8MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
927.77M	26.37	6.37	895.92M	-47.28	901.88M	-49.18	928M	-7.82	928.2M	-26.51	1

FSK-150K_Nss1_1TX **CSE NdB**

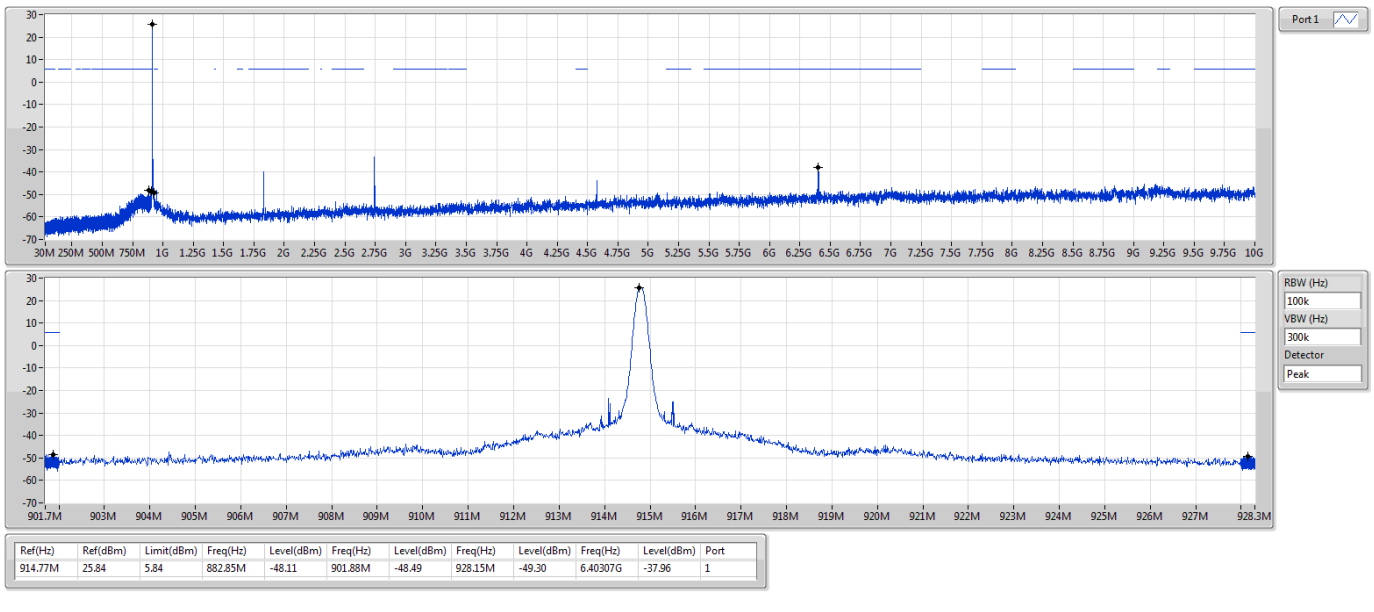
902.4MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
902.38M	26.33	6.33	901.37M	-35.78	901.7M	-21.86	928.02M	-50.15	1.80485G	-38.34	1

FSK-150K_Nss1_1TX **CSE NdB**

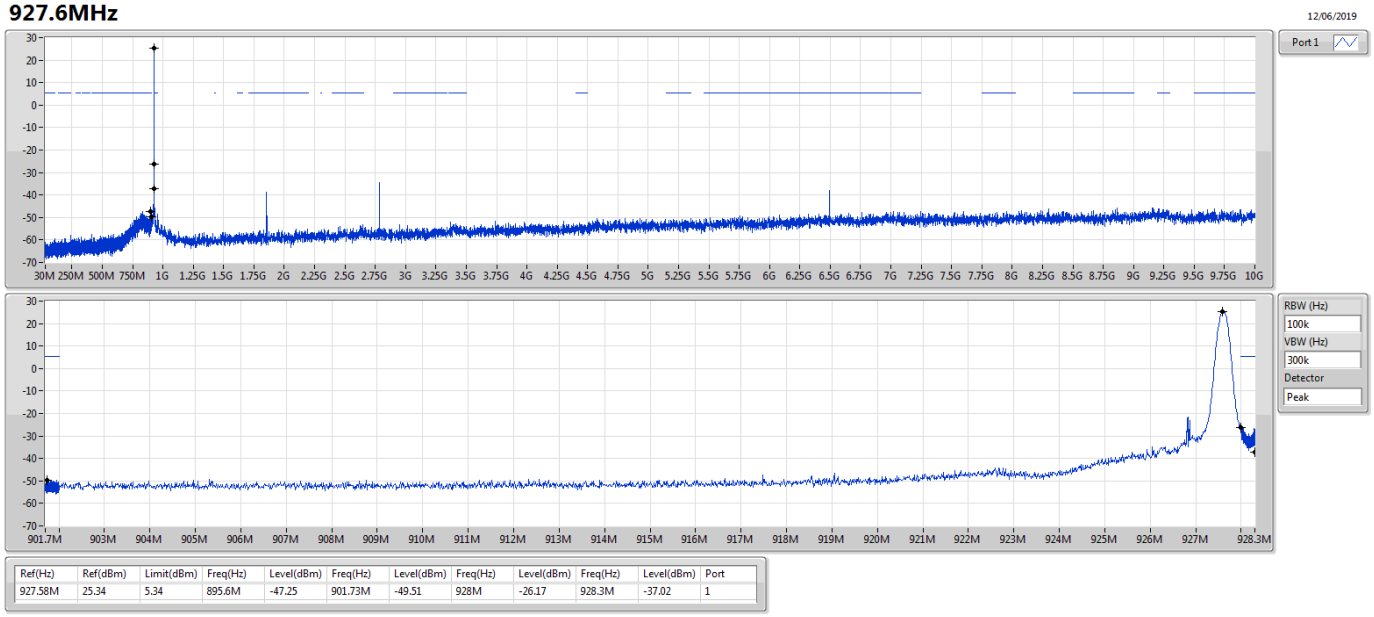
914.8MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
914.77M	25.84	5.84	882.85M	-48.11	901.88M	-48.49	928.15M	-49.30	6.40307G	-37.96	1

FSK-150K_Nss1_1TX **CSE NdB**

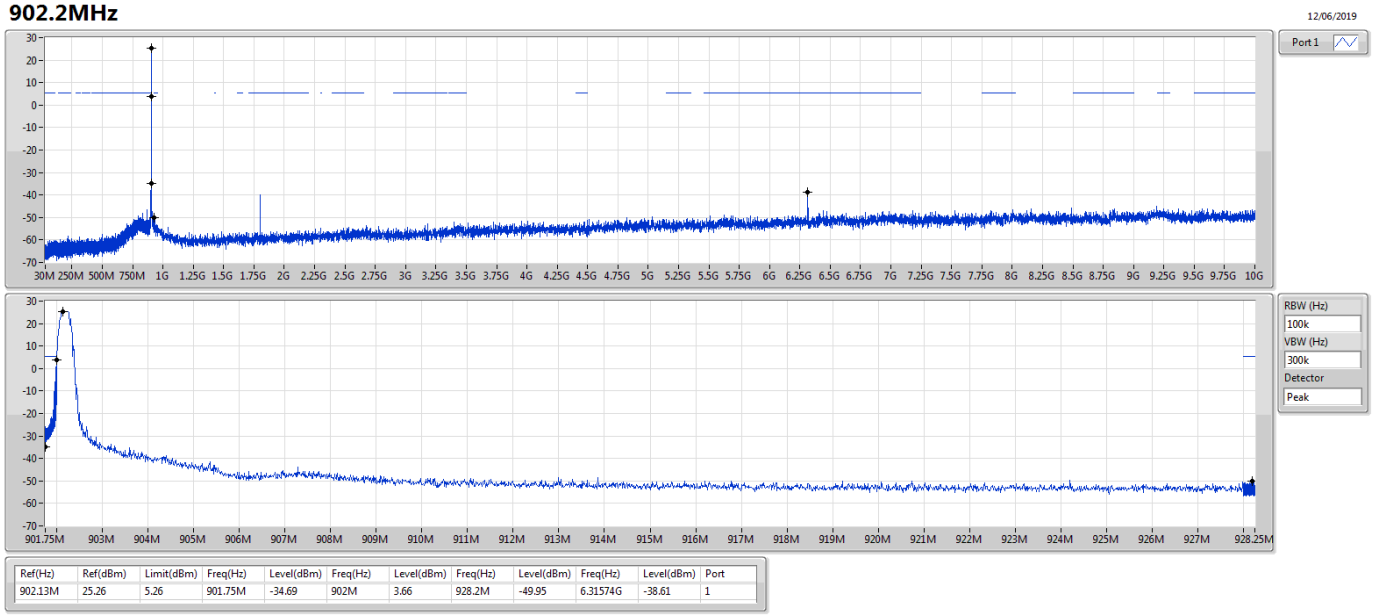
927.6MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
927.58M	25.34	5.34	895.6M	-47.25	901.73M	-49.51	928M	-26.17	928.3M	-37.02	1

LoRa_FHSS-125k_Nss1_1TX **CSE NdB**

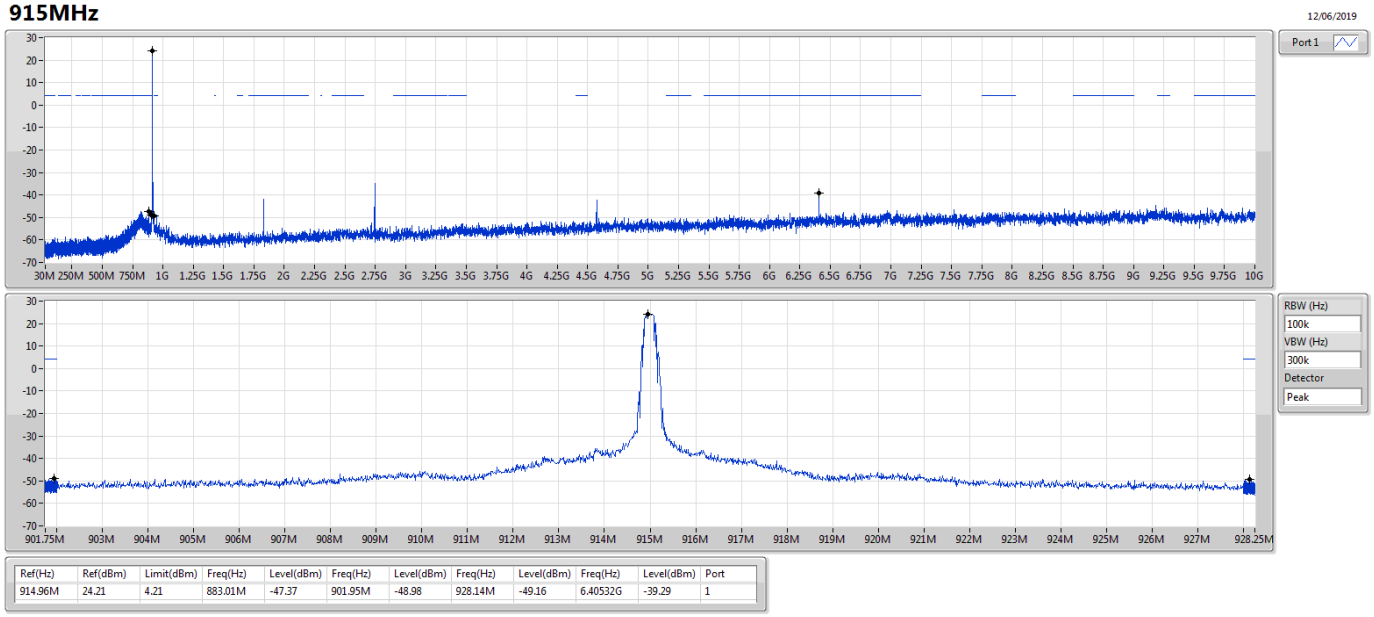
902.2MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
902.13M	25.26	5.26	901.75M	-34.69	902M	3.66	928.2M	-49.95	6.31574G	-38.61	1

LoRa_FHSS-125k_Nss1_1TX **CSE NdB**

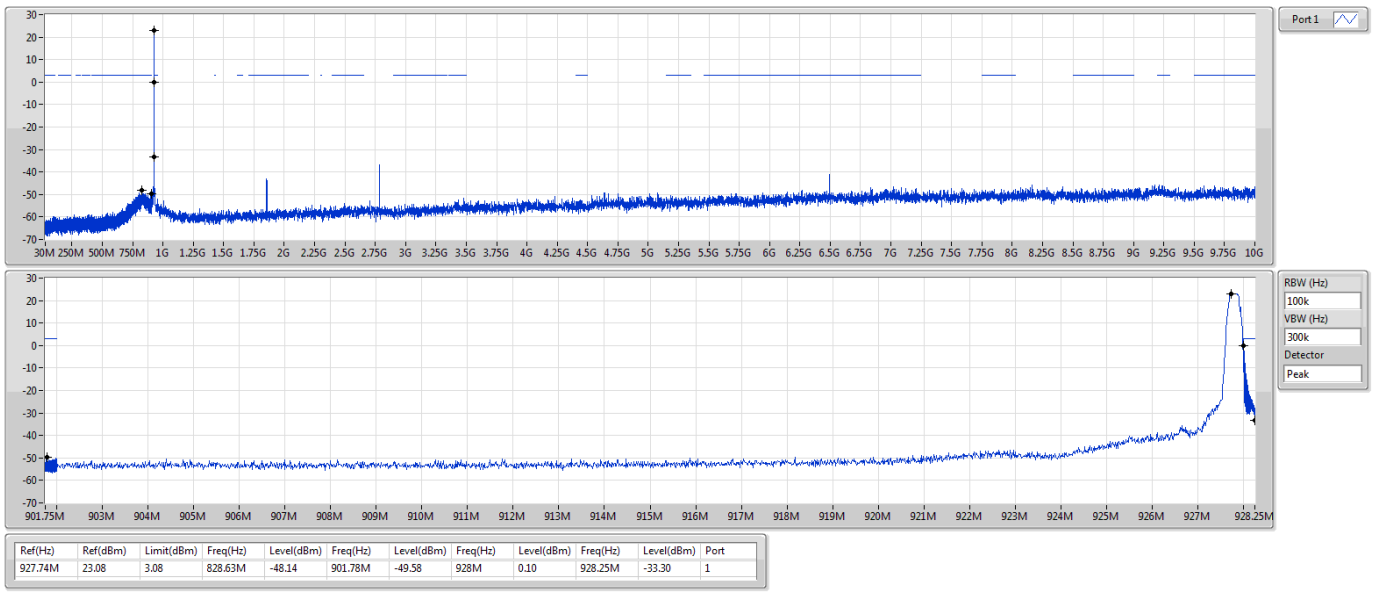
915MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
914.96M	24.21	4.21	883.01M	-47.37	901.95M	-48.98	928.14M	-49.16	6.40532G	-39.29	1

LoRa_FHSS-125k_Nss1_1TX **CSE NdB**

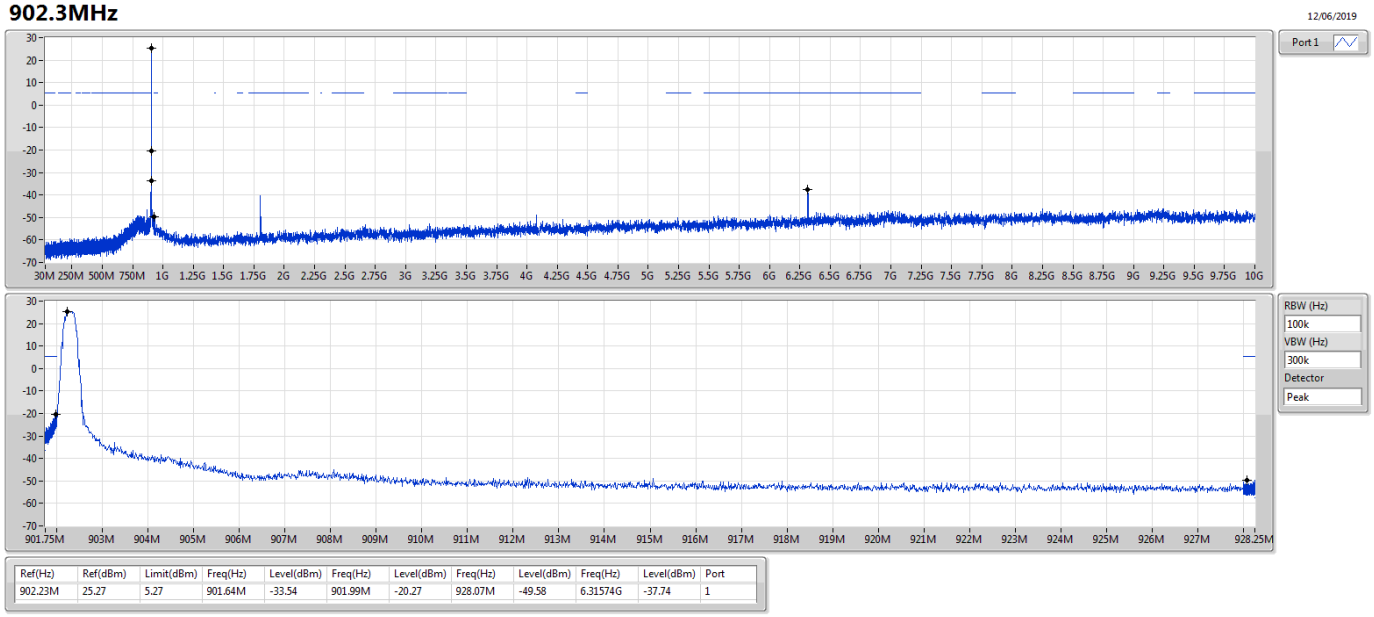
927.8MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
927.74M	23.08	3.08	828.63M	-48.14	901.78M	-49.58	928M	0.10	928.25M	-33.30	1

LoRa_FHSS-125k_Nss1_1TX **CSE NdB**

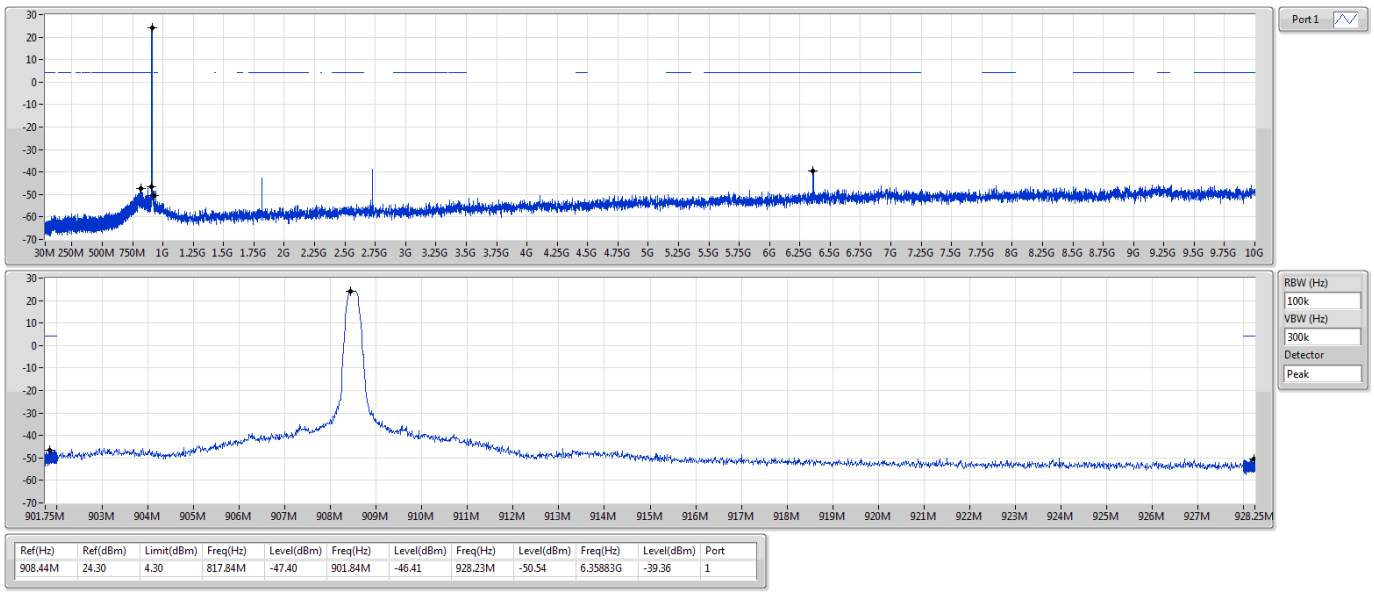
902.3MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
902.23M	25.27	5.27	901.64M	-33.54	901.99M	-20.27	928.07M	-49.58	6.31574G	-37.74	1

LoRa_FHSS-125k_Nss1_1TX **CSE NdB**

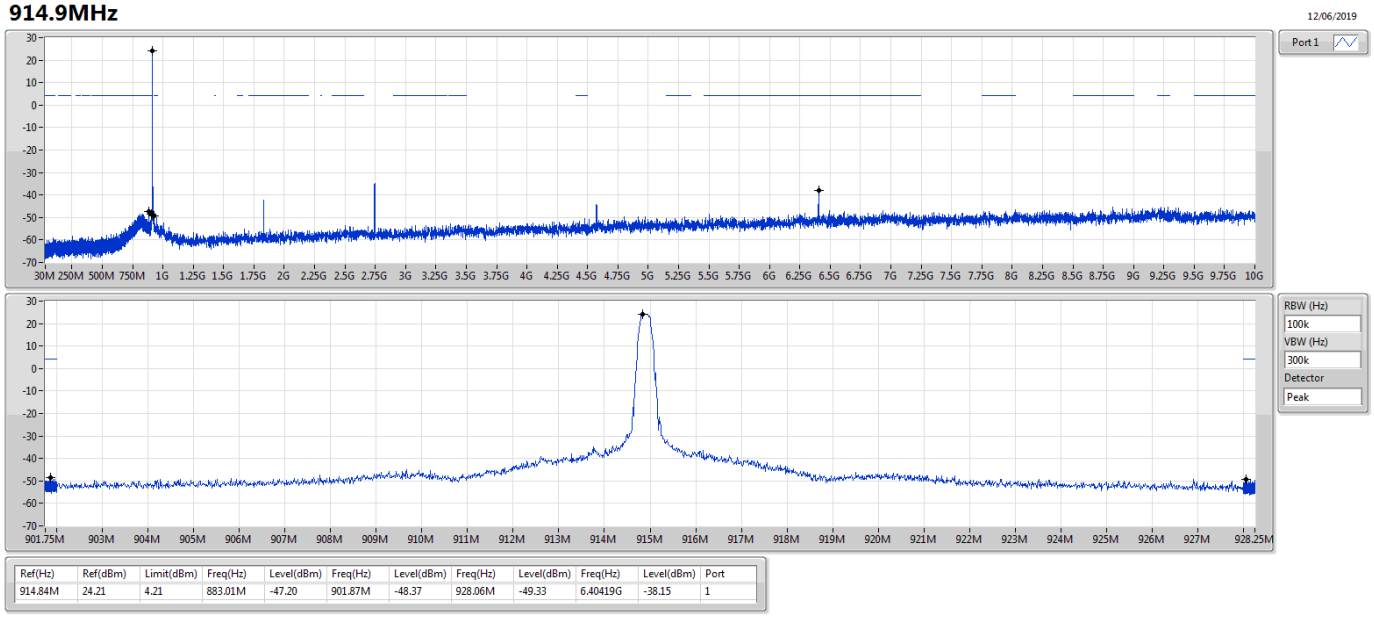
908.5MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
908.44M	24.30	4.30	817.84M	-47.40	901.84M	-46.41	928.23M	-50.54	6.35883G	-39.36	1

LoRa_FHSS-125k_Nss1_1TX **CSE NdB**

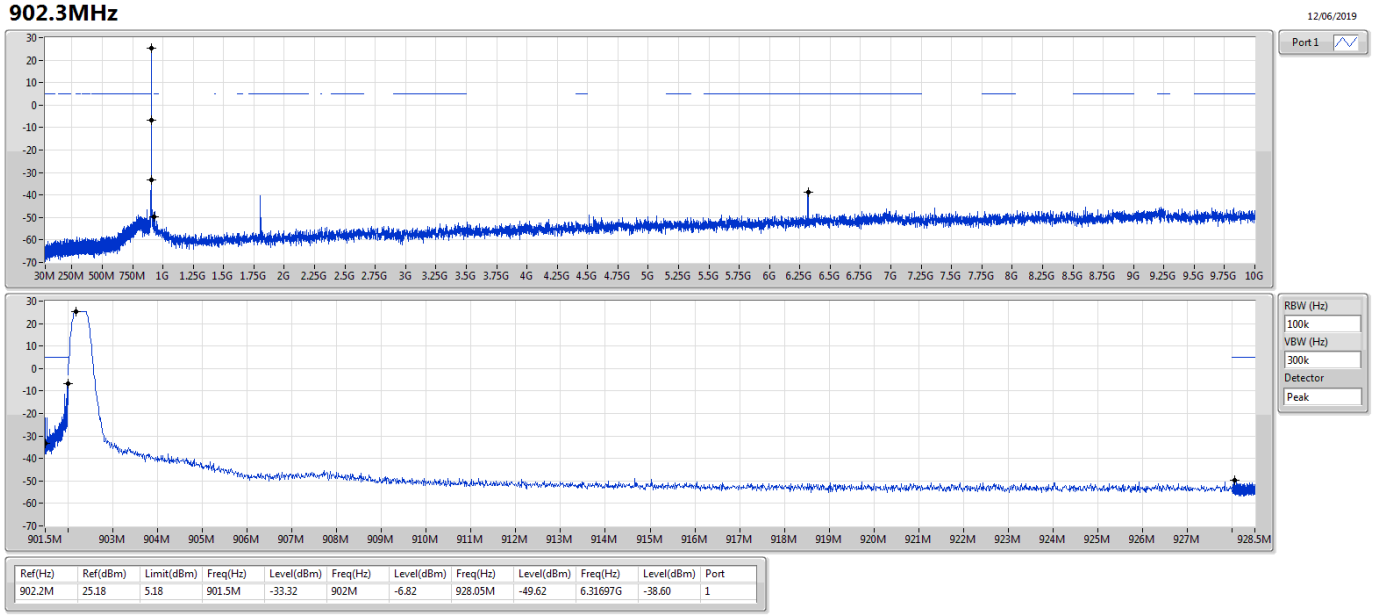
914.9MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
914.84M	24.21	4.21	883.01M	-47.20	901.87M	-48.37	928.06M	-49.33	6.40419G	-38.15	1

LoRa_FHSS-250k_Nss1_1TX **CSE NdB**

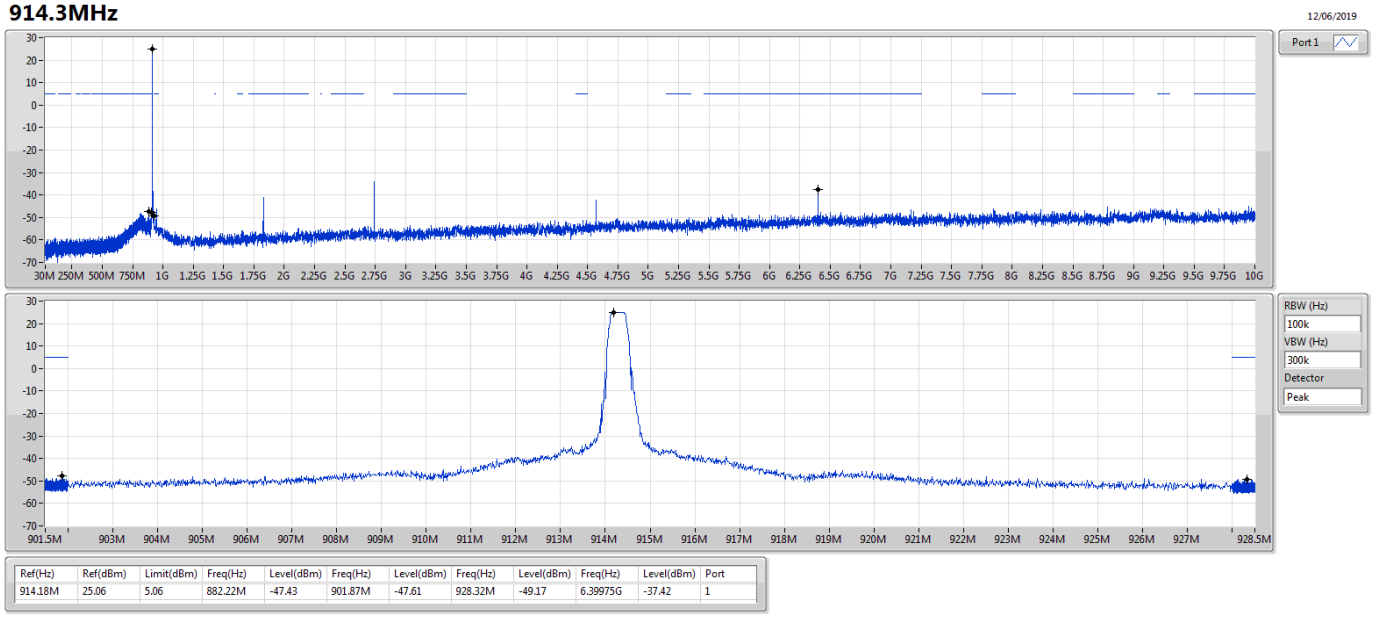
902.3MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
902.2M	25.18	5.18	901.5M	-33.32	902M	-6.82	928.05M	-49.62	6.31697G	-38.60	1

LoRa_FHSS-250k_Nss1_1TX **CSE NdB**

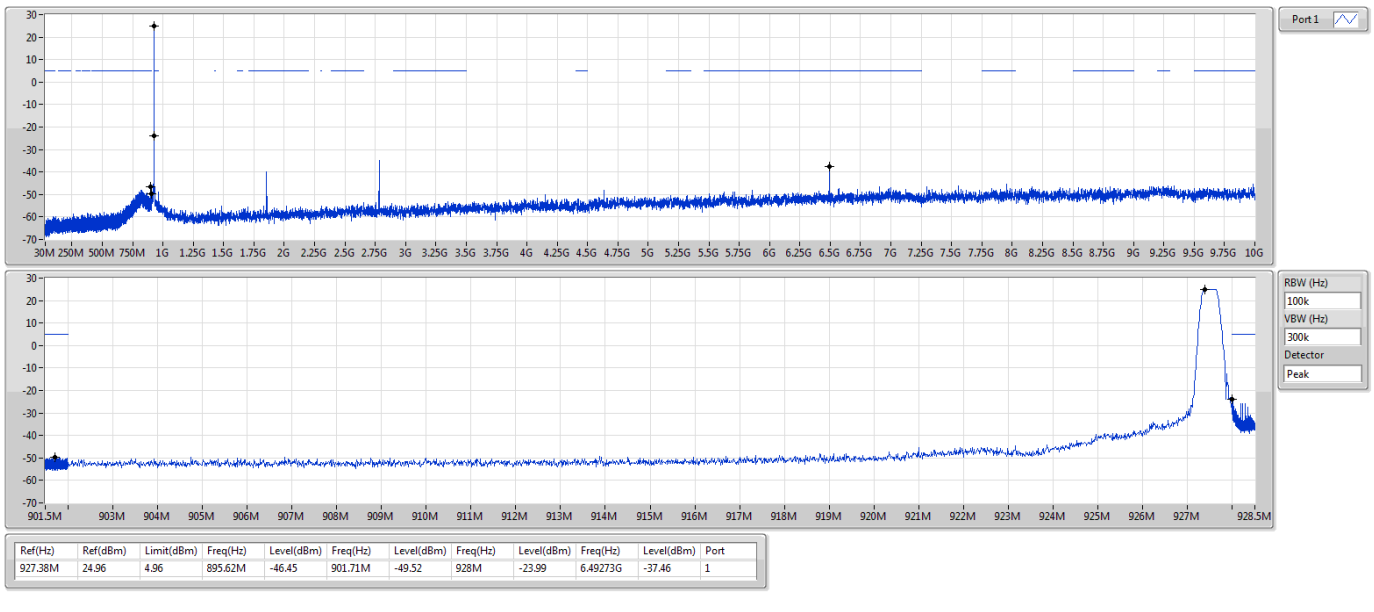
914.3MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
914.18M	25.06	5.06	882.22M	-47.43	901.87M	-47.61	928.32M	-49.17	6.39975G	-37.42	1

LoRa_FHSS-250k_Nss1_1TX **CSE NdB**

927.5MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
927.38M	24.96	4.96	895.62M	-46.45	901.71M	-49.52	928M	-23.99	6.49273G	-37.46	1