Testing Laboratory
3787

RADIO TEST REPORT

FCC ID	:	2AEUPBHAFL021
Equipment	:	Floodlight Cam Wired Plus
Brand Name	:	Ring
Model Name	:	5AT3T2
Applicant	:	Ring LLC 1523 26th St Santa Monica, CA 90404 USA
Manufacturer	:	Ring LLC 1523 26th St Santa Monica, CA 90404 USA
Standard	:	47 CFR FCC Part 15.247

The product was received on Feb. 24, 2022, and testing was started from Mar. 16, 2022 and completed on May 05, 2022. We, Sporton International Inc. Hsinchu Laboratory, would like to declare that the tested sample has been evaluated in accordance with the procedures given in ANSI C63.10-2013 and shown compliance with the applicable technical standards.

The test results in this report apply exclusively to the tested model / sample. Without written approval of Sporton International Inc. Hsinchu Laboratory, the test report shall not be reproduced except in full.

Approved by: Sam Chen

Sporton International Inc. Hsinchu Laboratory
No.8, Ln. 724, Bo'ai St., Zhubei City, Hsinchu County 302010, Taiwan (R.O.C.)

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History of this test report

Report No.	Version	Description	Issued Date
FR211003-02	01	Initial issue of report	May 30, 2022

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- DTS				
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- FHSS				
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:

1. The test results with all measurement uncertainty excluded are presented in accordance with the regulation limits or requirements declared by manufacturers. It's means measurement values may risk exceeding the limit of regulation standards, if measurement uncertainty is include in test results.
2. The measurement uncertainty please refer to report "Measurement Uncertainty".

Comments and Explanations:

The declared of product specification for EUT presented in the report are provided by the manufacturer, and the manufacturer takes all the responsibilities for the accuracy of product specification.

Reviewed by: Sam Chen
Report Producer: Viola Huang

1 General Description

1.1 Information

1.1.1 RF General Information

Frequency Range	Modulation	Lora Mode	Ch. Frequency (MHz)	Channel Spacing (MHz)	Channel Number
902 MHz – 928 MHz	CCS	LoRa-500kHz	902.5-926.5	0.8	1-31 [31]
		LoRa-125kHz	902.2-927.8	0.2	1-129 [129]
	FSK	FSK-50kpbs	902.2-927.8	0.2	1-129 [129]
		FSK-150kpbs	902.4-927.6	0.4	1-64 [64]
		FSK-250kpbs	902.5-927.5	0.5	1-51 [51]

Band	Lora Mode	BWch (kHz)	Nant
902-928MHz	LoRa-500-SF5	0.5	1TX
902-928MHz	LoRa-500-SF8	0.5	1TX
902-928MHz	LoRa-500-SF9	0.5	1TX
902-928MHz	LoRa-500-SF10	0.5	1TX
902-928MHz	LoRa-500-SF11	0.5	1TX
902-928MHz	LoRa-125-FS-SF7	0.125	1TX
902-928MHz	LoRa-125-FS-SF8	0.125	1TX
902-928MHz	LoRa-125-FS-SF9	0.125	1TX
902-928MHz	FSK-50-FS	0.05	1TX
902-928MHz	FSK-150-FS	0.15	1TX
902-928MHz	FSK-250-FS	0.25	1TX

Note:
- 900M is the 900MHz band (902 MHz – 928 MHz)
- LoRa-125kHz, FSK-50kpbs, FSK-150kpbs, FSK-250kpbs uses as FHSS
- LoRa-500kHz uses as a DTS
- BWch is the nominal channel bandwidth.
- The EUT has the following transmission modes for data transmissions as described below:
  1. LoRa-125kHz, FSK-50kpbs, FSK-150kpbs, FSK-250kpbs (FHSS)
  2.LoRa-500kHz (DTS)
  Testing was performed in accordance with the applicable FCC requirement for each transmission mode.

1.1.2 Antenna Information

Ant.	Port	Brand	Model Name	Antenna Type	Connector	Gain (dBi)
1	1	INPAQ	WA-P-LALA-02-003	PCB Antenna	I-PEX	Note1
2	1	INPAQ	WA-P-LALA-02-003	PCB Antenna	I-PEX	
3	1	INPAQ	WA-P-LORA-03-001	PCB Antenna	I-PEX	

Note1:

Ant.	Gain (dBi)						
	WLAN 2.4GHz	Bluetooth	LoRa				
			863MHz	870MHz	902MHz	915MHz	928MHz
1	1.69	-	-	-	-	-	-
2	-	3.64	-	-	-	-	-
3	-	-	0.58	1.07	1.74	1.34	0.90

Note2: The above information was declared by manufacturer.

For 2.4GHz function:

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

Only Port 1 can be used as transmitting/receiving antenna.

For Bluetooth function (1TX/1RX):

Only Port 1 can be used as transmitting/receiving antenna.

For LoRa function (1TX/1RX):

Only Port 1 can be used as transmitting/receiving antenna.

1.1.3 Mode Test Duty Cycle

Mode	DC	DCF(dB)	T(s)	VBW(Hz) ≥ 1/T
LoRa-500-SF5	0.965	0.15	18.559m	100
LoRa-500-SF8	0.995	0.02	n/a (DC>=0.98)	n/a (DC>=0.98)
LoRa-500-SF9	0.997	0.01	n/a (DC>=0.98)	n/a (DC>=0.98)
LoRa-500-SF10	0.999	0.01	n/a (DC>=0.98)	n/a (DC>=0.98)
LoRa-500-SF11	0.999	0.01	n/a (DC>=0.98)	n/a (DC>=0.98)
LoRa-125-FS-SF7	0.998	0.01	n/a (DC>=0.98)	n/a (DC>=0.98)
LoRa-125-FS-SF8	0.999	0.01	n/a (DC>=0.98)	n/a (DC>=0.98)
LoRa-125-FS-SF9	0.999	0.01	n/a (DC>=0.98)	n/a (DC>=0.98)
FSK-50-FS	0.936	0.29	9.813m	300
FSK-150-FS	0.832	0.8	3.344m	300
FSK-250-FS	0.752	1.24	2.063m	1k

Note:
- DC is Duty Cycle.
- DCF is Duty Cycle Factor.

1.1.4 EUT Operational Condition

EUT Power Type	From host system			
Function	☒	Point-to-multipoint	☐	Point-to-point
Test Software Version	J-link RRT Viewer V6.60e			

Note: The above information was declared by manufacturer.

1.1.5 Table for Permissive Change

This product is an extension of original one reported under Sporton project number: FR0D3022AC

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

Modifications	Performance Checking
1. Adding LoRa-500kHz SF5, SF8, SF9, SF10, SF11 2. Adding LoRa-125kHz SF7, SF8, SF9 3. Adding FSK-50kbps, FSK-150kpbs, FSK-250kpbs	All test items

1.2 Applicable Standards

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

- 47 CFR FCC Part 15.247
- ANSI C63.10-2013

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

- FCC KDB 558074 D01 v05r02
- FCC KDB 414788 D01 v01r01

1.3 Testing Location Information

Testing Location Information	
Test Lab.：Sporton International Inc. Hsinchu Laboratory	
Hsinchu (TAF: 3787)	ADD: No.8, Ln. 724, Bo'ai St., Zhubei City, Hsinchu County 302010, Taiwan (R.O.C.) TEL: 886-3-656-9065 FAX: 886-3-656-9085 Test site Designation No. TW3787 with FCC. Conformity Assessment Body Identifier (CABID) TW3787 with ISED.

Test Condition	Test Site No.	Test Engineer	Test Environment (°C / %)	Test Date
RF Conducted	TH03-CB	Lucas Huang	21-23.2 / 61-62	Mar. 16, 2022~Apr. 30, 2022
Radiated below 1GHz	03CH05-CB	Simmon Cheng	24.5-25.6 / 56-59	Mar. 18, 2022~May 05, 2022
Radiated above 1GHz	03CH03-CB	Simmon Cheng	23.5-24.6 / 55-58	
AC Conduction	CO01-CB	Joe Chu	20-22 / 60-62	Apr. 01, 2022

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)	3.4 dB	Confidence levels of 95%
Radiated Emission (9kHz ~ 30MHz)	4.2 dB	Confidence levels of 95%
Radiated Emission (30MHz ~ 1,000MHz)	5.5 dB	Confidence levels of 95%
Radiated Emission (1GHz ~ 18GHz)	4.7 dB	Confidence levels of 95%
Radiated Emission (18GHz ~ 40GHz)	4.2 dB	Confidence levels of 95%
Conducted Emission	2.5 dB	Confidence levels of 95%
Output Power Measurement	1.3 dB	Confidence levels of 95%
Power Density Measurement	2.5 dB	Confidence levels of 95%
Bandwidth Measurement	0.9%	Confidence levels of 95%

2 Test Configuration of EUT

2.1 Test Channel Mode

Mode	Power Setting
LoRa-500-SF5_Nss1_1TX	-
902.5MHz	6
914.5MHz	6
926.5MHz	7
LoRa-500-SF8_Nss1_1TX	-
902.5MHz	13
914.5MHz	13
926.5MHz	13
LoRa-500-SF9_Nss1_1TX	-
902.5MHz	13
914.5MHz	13
926.5MHz	13
LoRa-500-SF10_Nss1_1TX	-
902.5MHz	13
914.5MHz	13
926.5MHz	13
LoRa-500-SF11_Nss1_1TX	-
902.5MHz	13
914.5MHz	13
926.5MHz	13
LoRa-125-FS-SF7_Nss1_1TX	-
902.2MHz	13
915MHz	13
927.8MHz	13
LoRa-125-FS-SF8_Nss1_1TX	-
902.2MHz	13
915MHz	13
927.8MHz	13
LoRa-125-FS-SF9_Nss1_1TX	-
902.2MHz	13
915MHz	13
927.8MHz	13
FSK-50-FS_Nss1_1TX	-
902.2MHz	12
915MHz	13

Mode	Power Setting
927.8MHz	13
FSK-150-FS_Nss1_1TX	-
902.4MHz	12
915.2MHz	13
927.6MHz	13
FSK-250-FS_Nss1_1TX	-
902.5MHz	12
915MHz	13
927.5MHz	13

2.2 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 Test Voltage: 120Vac / 60Hz
Operating Mode	CTX
1	EUT_LoRa mode
2	EUT_FSK mode
For operating mode 2 is the worst case and it was record in this test report.	

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
	For LoRa mode The EUT was performed at X axis, Y axis and Z axis position form emissions in restricted frequency bands above 1GHz and worst case was found at Y axis. So the measurement will follow this same test configuration. For FSK mode The EUT was performed at X axis, Y axis and Z axis position form emissions in restricted frequency bands above 1GHz and worst case was found at X axis. So the measurement will follow this same test configuration.
1	EUT in Y axis_LoRa mode
2	EUT in X axis_FSK mode
For operating mode 2 is the worst case and it was record in this test report.	

Operating Mode > 1GHz	CTX
	For LoRa mode The EUT was performed at X axis, Y axis and Z axis position and worst case was found at Y axis. So the measurement will follow this same test configuration. For FSK mode The EUT was performed at X axis, Y axis and Z axis position and worst case was found at X axis. So the measurement will follow this same test configuration.
1	EUT in Y axis_LoRa-500KHz
2	EUT in Y axis_LoRa-125KHz
3	EUT in X axis_FSK-50kpbs, FSK-150kpbs, FSK-250kpbs

2.3 EUT Operation during Test

The EUT was programmed to be in continuously transmitting mode.

2.4 Accessories

N/A

2.5 Support Equipment

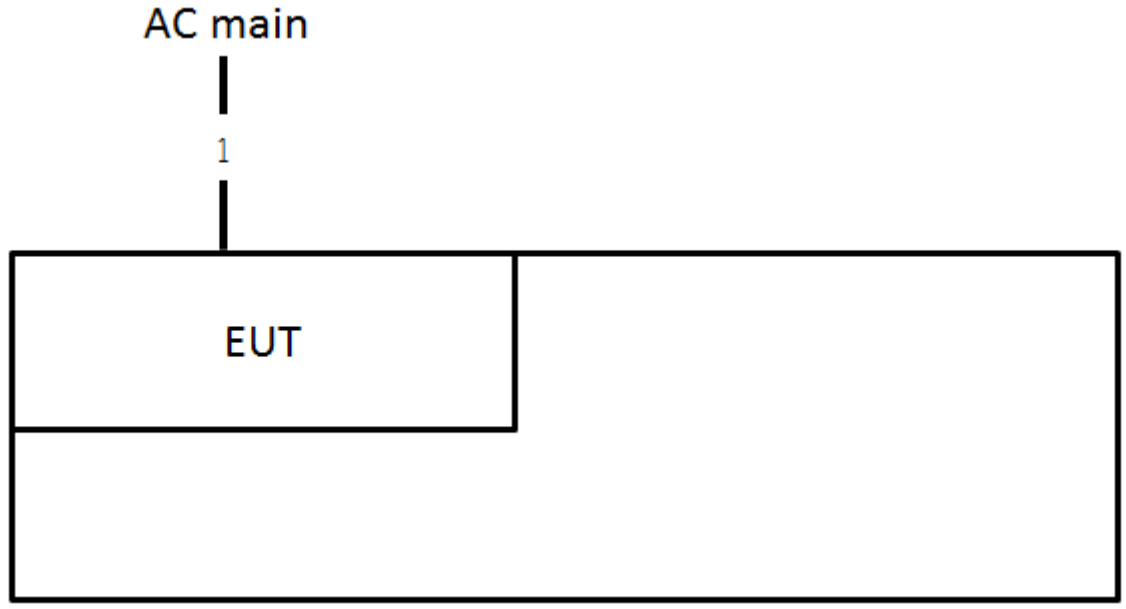
For AC Conduction and Radiated: N/A

For RF Conducted:

Support Equipment				
No.	**Equipment**	**Brand Name**	**Model Name**	**FCC ID**
A	Notebook	DELL	E4300	N/A
B	Test Fixture	Foxconn	E221612	N/A
C	Test Fixture (For BT & Lora)	Foxconn	E248779	N/A

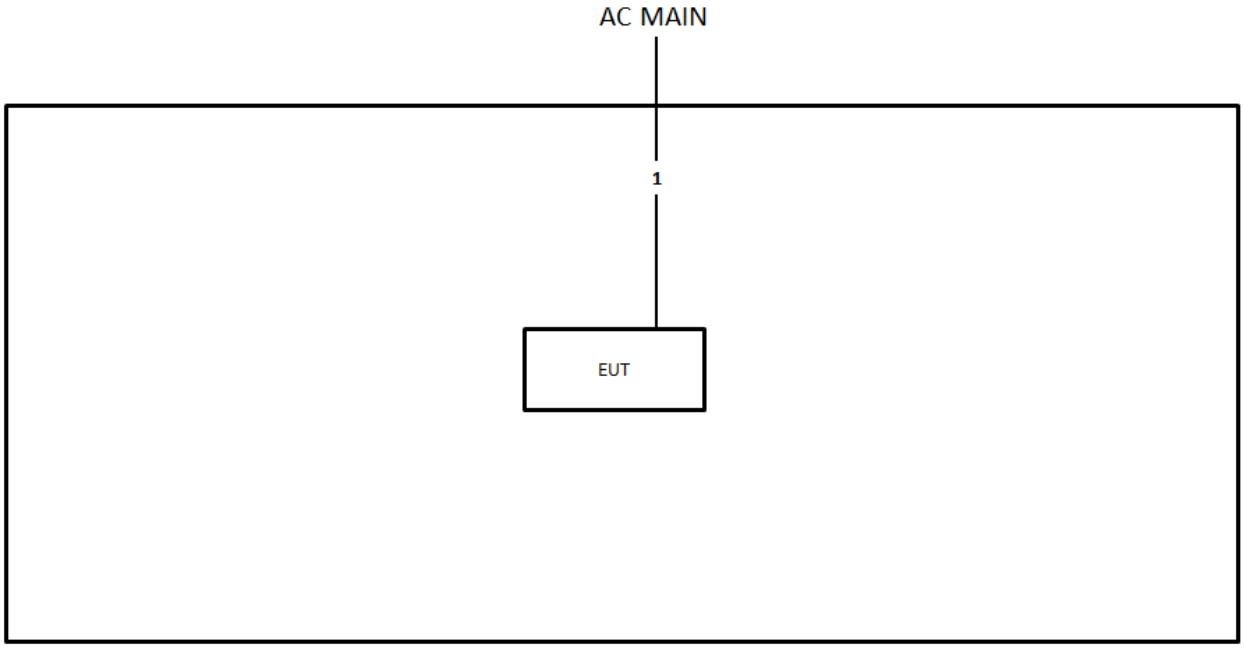
2.6 Test Setup Diagram

Test Setup Diagram – AC Line Conducted Emission Test



Item	Connection	Shielded	Length
1	Power cable	No	1.8m

Test Setup Diagram - Radiated Test



Item	Connection	Shielded	Length
1	Power cable	No	1.5m

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

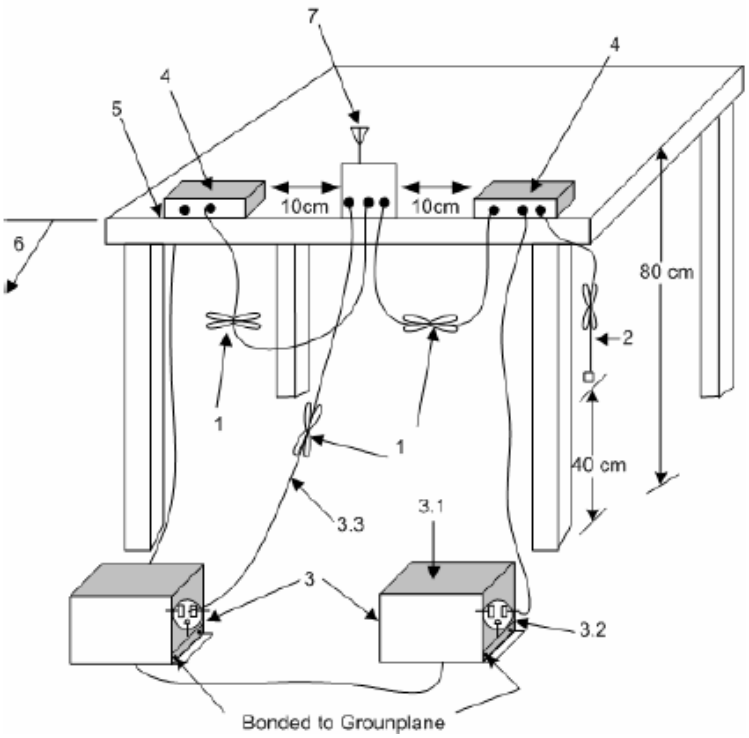
Refer a test equipment and calibration data table in this test report.

3.1.3 Test Procedures

Test Method
▪ Refer as **ANSI C63.10-2013**, clause 6.2 for AC 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 Measurement Results Calculation

The measured Level is calculated using:

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

b. Margin = -Limit + Level

3.1.6 Test Result of AC Power-line Conducted Emissions

Refer as Appendix A

4 Transmitter Test Result – DTS

4.1 DTS Bandwidth

4.1.1 6dB Bandwidth Limit

6dB Bandwidth Limit
Systems using digital modulation techniques:
▪ 6 dB bandwidth ≥ 500 kHz.

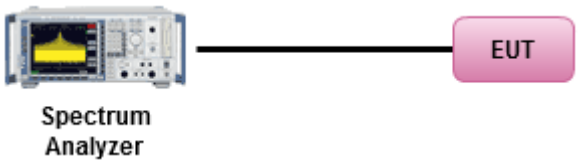
4.1.2 Measuring Instruments

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 FCC KDB 558074, clause 8.2 & C63.10 clause 11.8.1 Option 1 for 6 dB bandwidth measurement.
☐	Refer as FCC 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 FCC KDB 558074, clause 8.3.1.1 & C63.10 clause 11.9.1.1 (RBW ≥ EBW method).
	☐ Refer as FCC 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 FCC KDB 558074, clause 8.3.2.2 & C63.10 clause 11.9.2.2.2 Method AVGSA-1.
	☐ Refer as FCC 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 FCC KDB 558074, clause 8.3.2.2 & C63.10 clause 11.9.2.2.4 Method AVGSA-2.
	☐ Refer as FCC KDB 558074, clause 8.3.2.2 & C63.10 clause 11.9.2.2.5 Method AVGSA-2A (alternative)
	☐ Refer as FCC KDB 558074, clause 8.3.2.2 & C63.10 clause 11.9.2.2.6 Method AVGSA-3
	☐ Refer as FCC 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 FCC 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 FCC 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

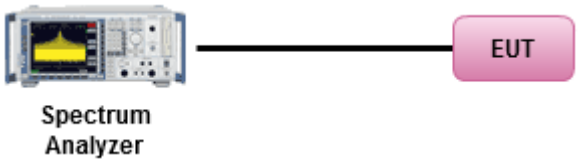
4.3.2 Measuring Instruments

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 FCC KDB 558074, clause 8.4 & C63.10 clause 11.10 Method Max. PSD.	
▪ 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.	

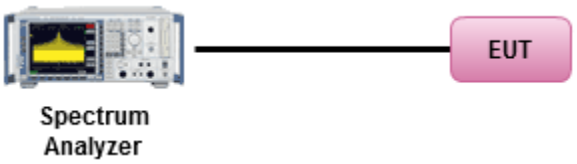
4.4.2 Measuring Instruments

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

4.4.3 Test Procedures

Test Method
▪ Refer as FCC 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.

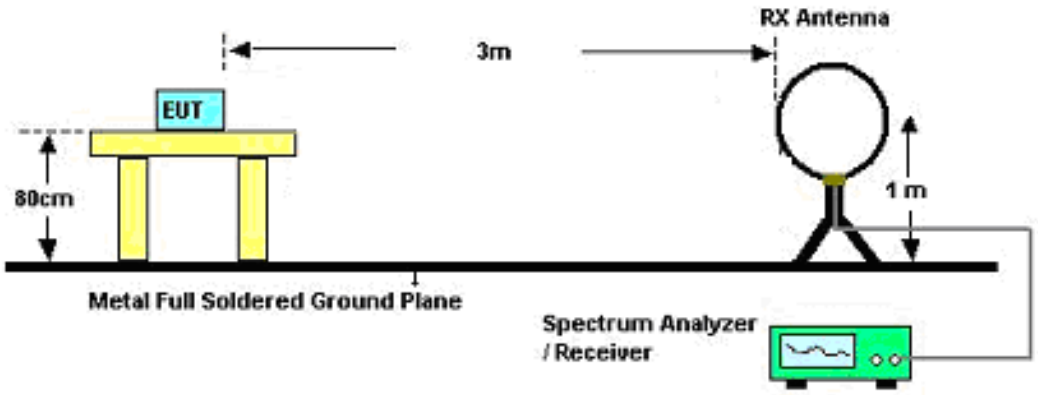
4.5.3 Test Procedures

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 FCC KDB 558074, clause 8.6 for unwanted emissions into restricted bands.		
		☐	Refer as FCC KDB 558074, clause 8.6 & C63.10 clause 11.12.2.5.1(trace averaging for duty cycle ≥98%).
		☐	Refer as FCC KDB 558074, clause 8.6 & C63.10 clause 11.12.2.5.2(trace averaging + duty factor).
		☒	Refer as FCC 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 FCC 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 FCC 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 FCC KDB 558074, clause 8.7 (ANSI C63.10, clause 6.10.6) for marker-delta method for band-edge measurements.		
	▪ Refer as FCC 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.		

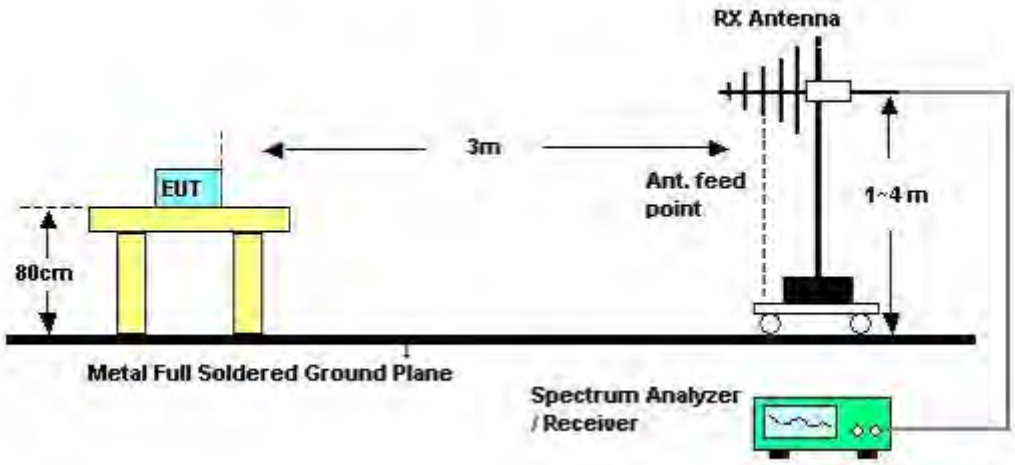
4.5.4 Test Setup

Transmitter Radiated Emissions

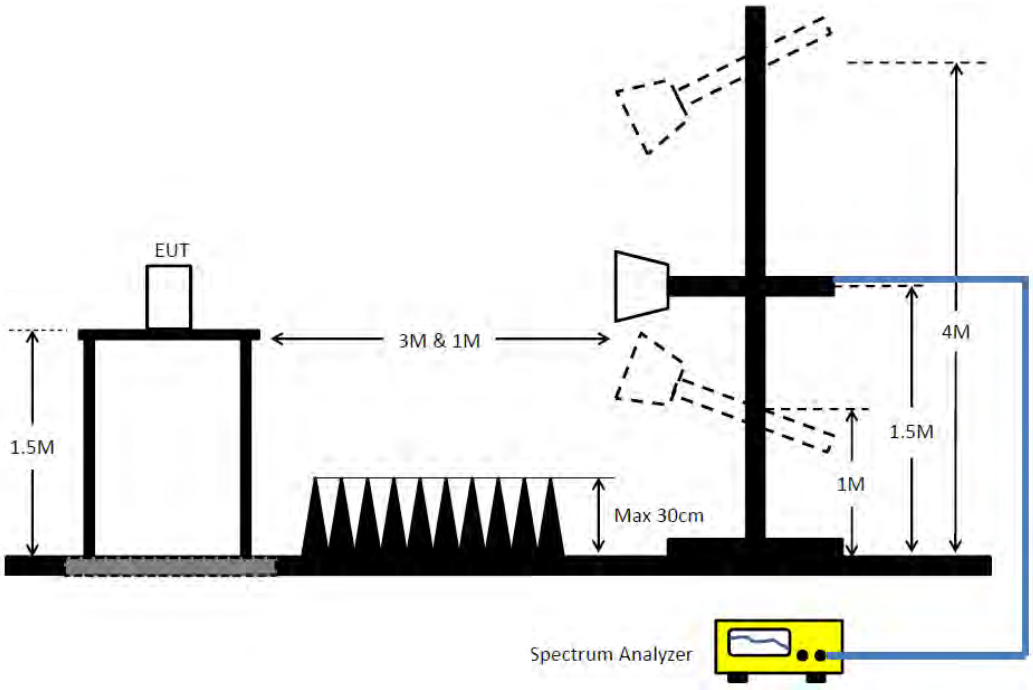
9kHz ~30MHz



30MHz~1GHz



Above 1GHz



4.5.5 Measurement Results Calculation

The measured Level is calculated using:
Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor (if applicable) = Level.

4.5.6 Transmitter Radiated Unwanted Emissions (Below 30MHz)

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

4.5.7 Transmitter Radiated Unwanted Emissions

Refer as Appendix F

5 Transmitter Test Result – FHSS

5.1 20dB Bandwidth and Carrier Frequency Separation

5.1.1 20dB Bandwidth and Carrier Frequency Separation Limit

20dB Bandwidth and Carrier Frequency Separation Limit for Frequency Hopping Systems
▪ 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

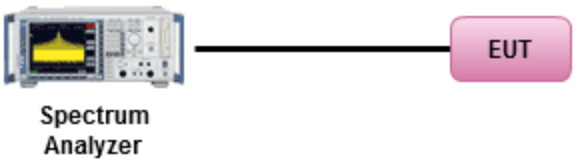
5.1.2 Measuring Instruments

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.		

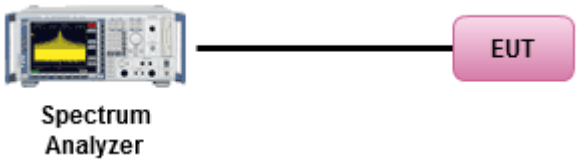
5.2.2 Measuring Instruments

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 FCC KDB 558074, clause 8.3.1.1 & C63.10 clause 11.9.1.1 (RBW ≥ EBW method).
	☒ Refer as FCC 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 FCC KDB 558074, clause 8.3.2.2 & C63.10 clause 11.9.2.2.2 Method AVGSA-1.
	☐ Refer as FCC 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 FCC KDB 558074, clause 8.3.2.2 & C63.10 clause 11.9.2.2.4 Method AVGSA-2.
	☐ Refer as FCC KDB 558074, clause 8.3.2.2 & C63.10 clause 11.9.2.2.5 Method AVGSA-2A (alternative)
	☐ Refer as FCC KDB 558074, clause 8.3.2.2 & C63.10 clause 11.9.2.2.6 Method AVGSA-3
	☐ Refer as FCC 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 FCC 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 FCC 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 (Spectrum Analyzer)


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

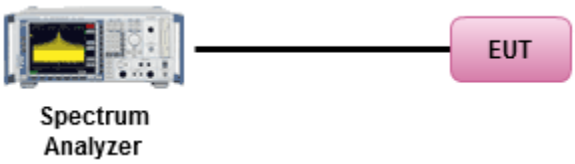
5.3.3 Measuring Instruments

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

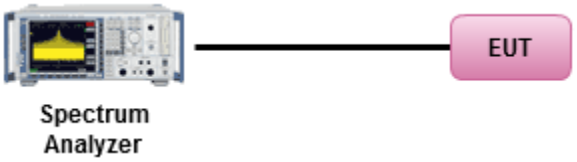
5.4.2 Measuring Instruments

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)


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.	

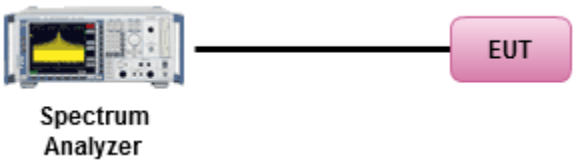
5.5.2 Measuring Instruments

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.

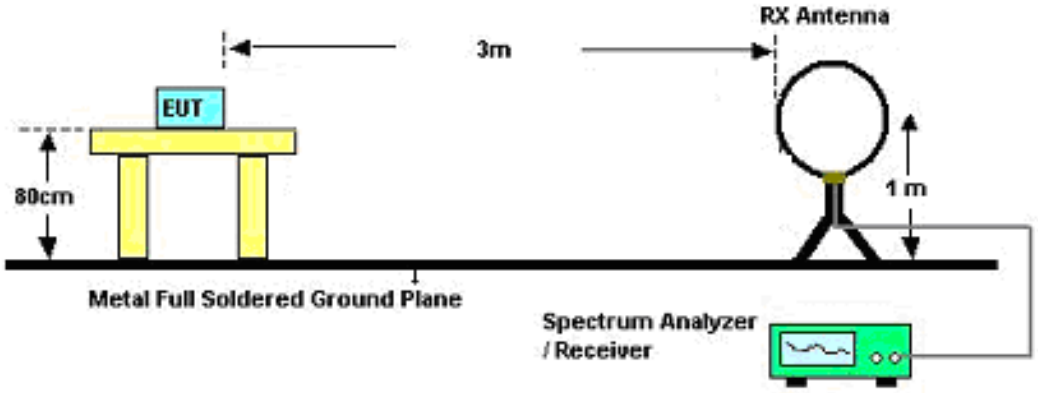
5.6.3 Test Procedures

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.

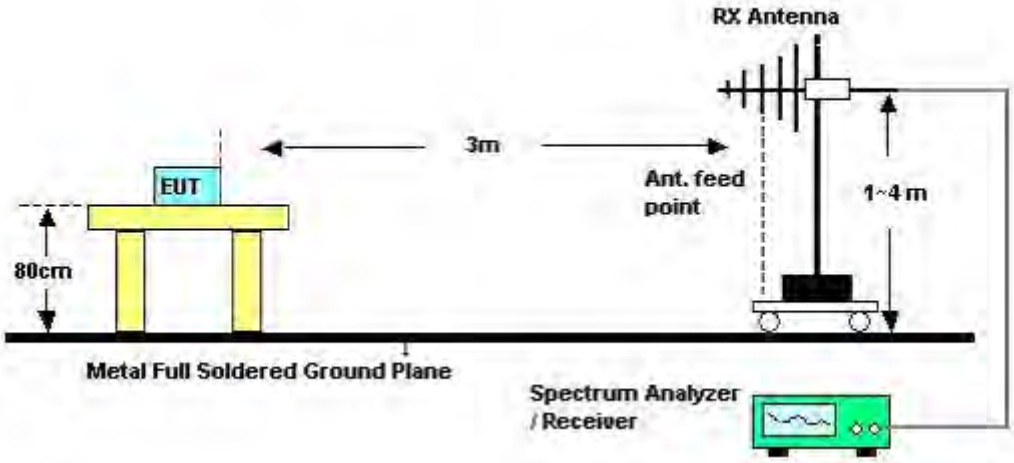
5.6.4 Test Setup

Emissions in Restricted Frequency Bands

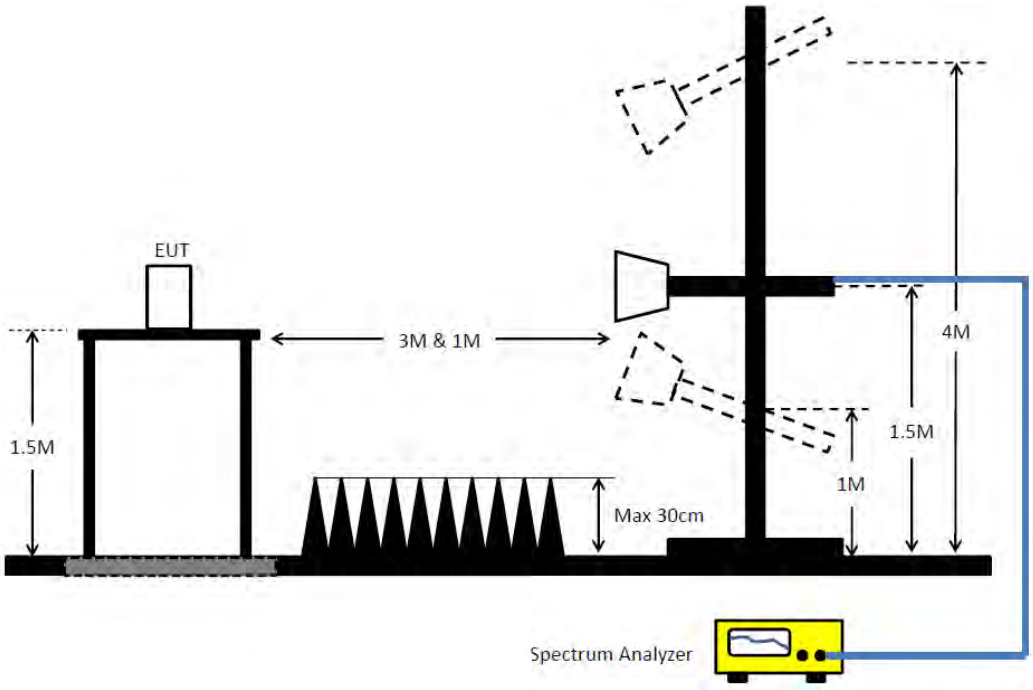
9kHz ~30MHz



30MHz~1GHz



Above 1GHz



5.6.5 Measurement Results Calculation

The measured Level is calculated using:
Corrected Reading: Antenna factor (AF) + Cable loss (CL) + Read level (Raw) - Preamp factor (PA)(if applicable) = Level.

5.6.6 Emissions in Restricted Frequency Bands (Below 30MHz)

There is a comparison data of both open-field test site and alternative test site - semi-Anechoic chamber according to KDB414788 Radiated Test Site, and the result came out very similar.
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 10th harmonic or 40 GHz, whichever is appropriate.

5.6.7 Test Result of Emissions in Restricted Frequency Bands

For below 1GHz
Refer as Appendix F

For above 1GHz
Refer as Appendix L

6 Test Equipment and Calibration Data

Instrument	Brand	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
EMI Receiver	Agilent	N9038A	My52260123	9kHz ~ 8.4GHz	Feb. 22, 2022	Feb. 21, 2023	Conduction (CO01-CB)
LISN	F.C.C.	FCC-LISN-50-16-2	04083	150kHz ~ 100MHz	Feb. 09, 2022	Feb. 08, 2023	Conduction (CO01-CB)
LISN	Schwarzbeck	NSLK 8127	8127650	9kHz ~ 30MHz	Jan. 07, 2022	Jan. 06, 2023	Conduction (CO01-CB)
Pulse Limiter	Rohde& Schwarz	ESH3-Z2	100430	9kHz ~ 30MHz	Feb. 10, 2022	Feb. 09, 2023	Conduction (CO01-CB)
COND Cable	Woken	Cable	Low cable-CO01	9kHz ~ 30MHz	May 19, 2021	May 18, 2022	Conduction (CO01-CB)
Software	SPORTON	SENSE	V5.10	-	N.C.R.	N.C.R.	Conduction (CO01-CB)
Loop Antenna	Teseq	HLA 6120	24155	9kHz - 30 MHz	Apr. 14, 2021	Apr. 13, 2022	Radiation (03CH05-CB)
Loop Antenna	Teseq	HLA 6120	31244	9kHz - 30 MHz	Mar. 18, 2022	Mar. 17, 2023	Radiation (03CH05-CB)
3m Semi Anechoic Chamber NSA	TDK	SAC-3M	03CH05-CB	30 MHz ~ 1 GHz	Aug. 09, 2021	Aug. 08, 2022	Radiation (03CH05-CB)
Bilog Antenna with 6dB Attenuator	TESEQ & EMCI	CBL 6112D & N-6-06	35236 & AT-N0610	30MHz ~ 2GHz	Mar. 26, 2021	Mar. 25, 2022	Radiation (03CH05-CB)
Bilog Antenna with 6dB Attenuator	TESEQ & EMCI	CBL 6112D & N-6-06	35236 & AT-N0610	30MHz ~ 2GHz	Mar. 25, 2022	Mar. 24, 2023	Radiation (03CH05-CB)
Pre-Amplifier	EMCI	EMC330N	980331	20MHz ~ 3GHz	Apr. 27, 2021	Apr. 26, 2022	Radiation (03CH05-CB)
Pre-Amplifier	EMCI	EMC330N	980331	20MHz ~ 3GHz	Apr. 26, 2022	Apr. 25, 2023	Radiation (03CH05-CB)
Spectrum Analyzer	R&S	FSP40	100304	9kHz ~ 40GHz	Mar. 14, 2022	Mar. 13, 2023	Radiation (03CH05-CB)
EMI Test Receiver	R&S	ESCS	826547/017	9kHz ~ 2.75GHz	Jun. 21, 2021	Jun. 20, 2022	Radiation (03CH05-CB)
RF Cable-low	Woken	RG402	Low Cable-04+23	30MHz~1GHz	Oct. 13, 2021	Oct. 12, 2022	Radiation (03CH05-CB)
Test Software	SPORTON	SENSE	V5.10	-	N.C.R.	N.C.R.	Radiation (03CH05-CB)
3m Semi Anechoic Chamber VSWR	TDK	SAC-3M	03CH03-CB	1GHz ~18GHz 3m	May 06, 2021	May 05, 2022	Radiation (03CH03-CB)
3m Semi Anechoic Chamber VSWR	TDK	SAC-3M	03CH03-CB	1GHz ~18GHz 3m	May 05, 2022	May 04, 2023	Radiation (03CH03-CB)

Instrument	Brand	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
Horn Antenna	ETS‧Lindgren	3115	6821	750MHz~18GHz	Jan. 21, 2022	Jan. 20, 2023	Radiation (03CH03-CB)
Horn Antenna	Schwarzbeck	BBHA 9170	BBHA9170252	15GHz ~ 40GHz	Aug. 05, 2021	Aug. 04, 2022	Radiation (03CH03-CB)
Pre-Amplifier	Agilent	8449B	3008A02097	1GHz ~ 26.5GHz	Jul. 02, 2021	Jul. 01, 2022	Radiation (03CH03-CB)
Pre-Amplifier	MITEQ	TTA1840-35-HG	1864479	18GHz ~ 40GHz	Jul. 13, 2021	Jul. 12, 2022	Radiation (03CH03-CB)
Spectrum Analyzer	R&S	FSP40	100019	9kHz ~ 40GHz	Jun. 04, 2021	Jun. 03, 2022	Radiation (03CH03-CB)
RF Cable-high	Woken	RG402	High Cable-20+29	1GHz ~ 18GHz	Oct. 04, 2021	Oct. 03, 2022	Radiation (03CH03-CB)
RF Cable-high	Woken	RG402	High Cable-29	1GHz ~ 18GHz	Oct. 04, 2021	Oct. 03, 2022	Radiation (03CH03-CB)
High Cable	Woken	WCA0929M	40G#5+7	1GHz ~ 40 GHz	Dec. 14, 2021	Dec. 13, 2022	Radiation (03CH03-CB)
High Cable	Woken	WCA0929M	40G#5	1GHz ~ 40 GHz	Dec. 08, 2021	Dec. 07, 2022	Radiation (03CH03-CB)
High Cable	Woken	WCA0929M	40G#7	1GHz ~ 40 GHz	Dec. 14, 2021	Dec. 13, 2022	Radiation (03CH03-CB)
Test Software	SPORTON	SENSE	V5.10	-	N.C.R.	N.C.R.	Radiation (03CH03-CB)
Spectrum analyzer	R&S	FSV40	101028	9kHz~40GHz	Jan. 07, 2022	Jan. 06, 2023	Conducted (TH03-CB)
Temp. and Humidity Chamber	Gaint Force	GTH-408-40-CP-AR	MAA1410-011	-40~100 degree	Sep. 09, 2021	Sep. 08, 2022	Conducted (TH03-CB)
Power Sensor	Anritsu	MA2411B	1726195	300MHz~40GHz	Aug. 22, 2021	Aug. 21, 2022	Conducted (TH03-CB)
Power Meter	Anritsu	ML2495A	1035008	300MHz~40GHz	Aug. 22, 2021	Aug. 21, 2022	Conducted (TH03-CB)
RF Cable-high	Woken	RG402	High Cable-11	1 GHz –18 GHz	Oct. 04, 2021	Oct. 03, 2022	Conducted (TH03-CB)
RF Cable-high	Woken	RG402	High Cable-12	1 GHz –18 GHz	Oct. 04, 2021	Oct. 03, 2022	Conducted (TH03-CB)
RF Cable-high	Woken	RG402	High Cable-13	1 GHz –18 GHz	Oct. 04, 2021	Oct. 03, 2022	Conducted (TH03-CB)
RF Cable-high	Woken	RG402	High Cable-14	1 GHz –18 GHz	Oct. 04, 2021	Oct. 03, 2022	Conducted (TH03-CB)
RF Cable-high	Woken	RG402	High Cable-15	1 GHz –18 GHz	Oct. 04, 2021	Oct. 03, 2022	Conducted (TH03-CB)
Switch	SPTCB	SP-SWI	SWI-03	1 GHz –26.5 GHz	Dec. 13, 2021	Dec. 12, 2022	Conducted (TH03-CB)
RF Cable-high	Woken	RG402	SWI-03-P1	1 GHz –26.5 GHz	Dec. 13, 2021	Dec. 12, 2022	Conducted (TH03-CB)

Instrument	Brand	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
RF Cable-high	Woken	RG402	SWI-03-P2	1 GHz –26.5 GHz	Dec. 13, 2021	Dec. 12, 2022	Conducted (TH03-CB)
RF Cable-high	Woken	RG402	SWI-03-P3	1 GHz –26.5 GHz	Dec. 13, 2021	Dec. 12, 2022	Conducted (TH03-CB)
RF Cable-high	Woken	RG402	SWI-03-P4	1 GHz –26.5 GHz	Dec. 13, 2021	Dec. 12, 2022	Conducted (TH03-CB)
RF Cable-high	Woken	RG402	SWI-03-P5	1 GHz –26.5 GHz	Dec. 13, 2021	Dec. 12, 2022	Conducted (TH03-CB)
Test Software	SPORTON	SENSE	V5.10	-	N.C.R.	N.C.R.	Conducted (TH03-CB)

Note: Calibration Interval of instruments listed above is one year.

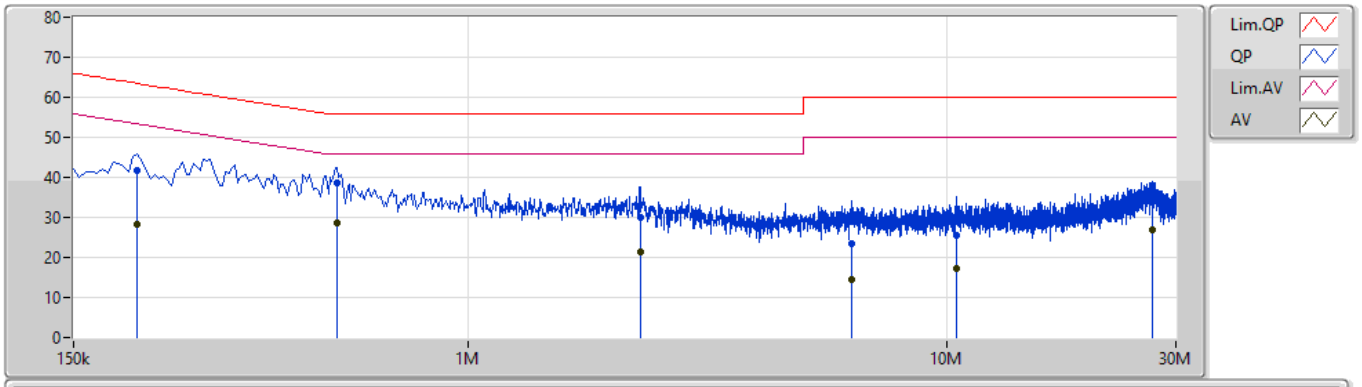
N.C.R. means Non-Calibration required.

Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Condition
Mode 2	Pass	AV	505.5k	29.06	46.00	-16.94	Neutral

Mode 2

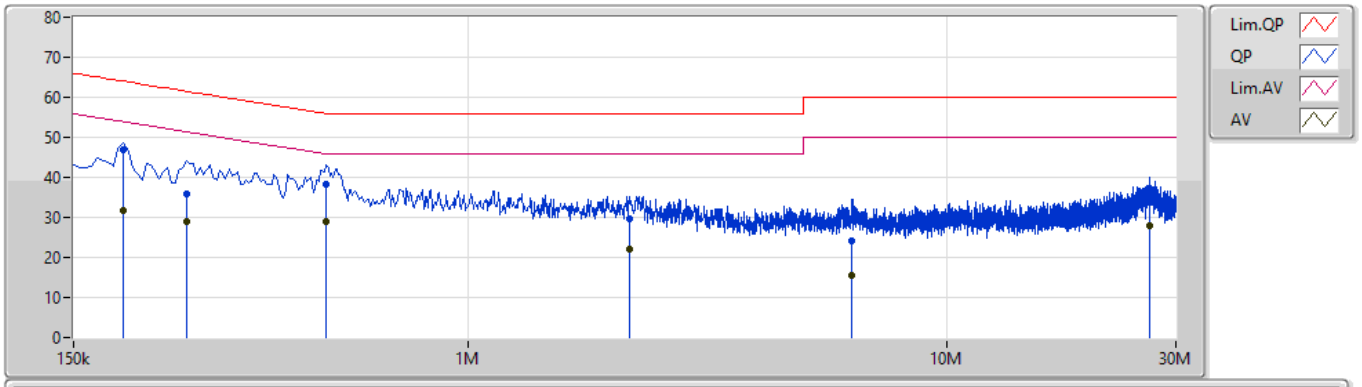
01/04/2022



Type	Freq	Level	Limit	Margin	Factor	Condition	Comment	Raw	LISN	CL	AT
	(Hz)	(dBuV)	(dBuV)	(dB)	(dB)			(dBuV)	(dB)	(dB)	(dB)
QP	204k	41.69	63.44	-21.75	10.03	Line	-	31.66	0.12	0.02	9.89
AV	204k	28.12	53.44	-25.32	10.03	Line	-	18.09	0.12	0.02	9.89
QP	532.5k	38.73	56.00	-17.27	10.04	Line	"Worst"	28.69	0.13	0.02	9.89
AV	532.5k	28.61	46.00	-17.39	10.04	Line	-	18.57	0.13	0.02	9.89
QP	2.283M	29.83	56.00	-26.17	10.12	Line	-	19.71	0.18	0.05	9.89
AV	2.283M	21.39	46.00	-24.61	10.12	Line	-	11.27	0.18	0.05	9.89
QP	6.324M	23.34	60.00	-36.66	10.25	Line	-	13.09	0.28	0.07	9.90
AV	6.324M	14.34	50.00	-35.66	10.25	Line	-	4.09	0.28	0.07	9.90
QP	10.428M	25.59	60.00	-34.41	10.32	Line	-	15.27	0.34	0.07	9.91
AV	10.428M	17.24	50.00	-32.76	10.32	Line	-	6.92	0.34	0.07	9.91
QP	26.777M	33.84	60.00	-26.16	10.62	Line	-	23.22	0.41	0.22	9.99
AV	26.777M	27.01	50.00	-22.99	10.62	Line	-	16.39	0.41	0.22	9.99

Mode 2

01/04/2022



Type	Freq	Level	Limit	Margin	Factor	Condition	Comment	Raw	LISN	CL	AT
	(Hz)	(dBuV)	(dBuV)	(dB)	(dB)			(dBuV)	(dB)	(dB)	(dB)
QP	190.5k	46.82	64.01	-17.19	10.07	Neutral	-	36.75	0.16	0.02	9.89
AV	190.5k	31.85	54.01	-22.16	10.07	Neutral	-	21.78	0.16	0.02	9.89
QP	258k	35.89	61.49	-25.60	10.07	Neutral	-	25.82	0.16	0.02	9.89
AV	258k	28.97	51.49	-22.52	10.07	Neutral	-	18.90	0.16	0.02	9.89
QP	505.5k	38.43	56.00	-17.57	10.07	Neutral	-	28.36	0.16	0.02	9.89
AV	505.5k	29.06	46.00	-16.94	10.07	Neutral	"Worst"	18.99	0.16	0.02	9.89
QP	2.171M	29.57	56.00	-26.43	10.13	Neutral	-	19.44	0.19	0.05	9.89
AV	2.171M	22.05	46.00	-23.95	10.13	Neutral	-	11.92	0.19	0.05	9.89
QP	6.333M	24.02	60.00	-35.98	10.23	Neutral	-	13.79	0.26	0.07	9.90
AV	6.333M	15.53	50.00	-34.47	10.23	Neutral	-	5.30	0.26	0.07	9.90
QP	26.439M	35.85	60.00	-24.15	10.56	Neutral	-	25.29	0.36	0.21	9.99
AV	26.439M	27.83	50.00	-22.17	10.56	Neutral	-	17.27	0.36	0.21	9.99

For LoRa_500kHz
Summary

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
902-928MHz	-	-	-	-	-
LoRa-500-SF5_Nss1_1TX	592.5k	525.987k	526KF1D	585k	516.617k
LoRa-500-SF8_Nss1_1TX	633.125k	501k	501KF1D	630.625k	499.75k
LoRa-500-SF9_Nss1_1TX	636.25k	497.876k	498KF1D	634.375k	497.251k
LoRa-500-SF10_Nss1_1TX	638.75k	498.501k	499KF1D	637.5k	497.876k
LoRa-500-SF11_Nss1_1TX	640.625k	500.375k	500KF1D	640k	499.75k

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

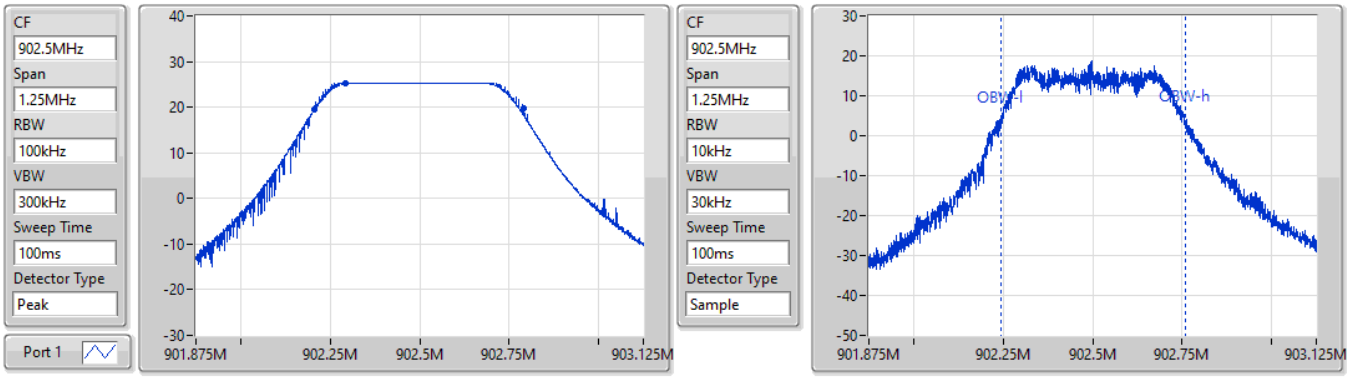
Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)
LoRa-500-SF5_Nss1_1TX	-	-	-	-
902.5MHz	Pass	500k	586.25k	516.617k
914.5MHz	Pass	500k	592.5k	517.241k
926.5MHz	Pass	500k	585k	525.987k
LoRa-500-SF8_Nss1_1TX	-	-	-	-
902.5MHz	Pass	500k	630.625k	499.75k
914.5MHz	Pass	500k	633.125k	499.75k
926.5MHz	Pass	500k	633.125k	501k
LoRa-500-SF9_Nss1_1TX	-	-	-	-
902.5MHz	Pass	500k	634.375k	497.876k
914.5MHz	Pass	500k	636.25k	497.251k
926.5MHz	Pass	500k	636.25k	497.876k
LoRa-500-SF10_Nss1_1TX	-	-	-	-
902.5MHz	Pass	500k	638.75k	497.876k
914.5MHz	Pass	500k	638.125k	497.876k
926.5MHz	Pass	500k	637.5k	498.501k
LoRa-500-SF11_Nss1_1TX	-	-	-	-
902.5MHz	Pass	500k	640.625k	500.375k
914.5MHz	Pass	500k	640.625k	499.75k
926.5MHz	Pass	500k	640k	500.375k

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

LoRa-500-SF5_Nss1_1TX EBW-DTS

902.5MHz

16/03/2022

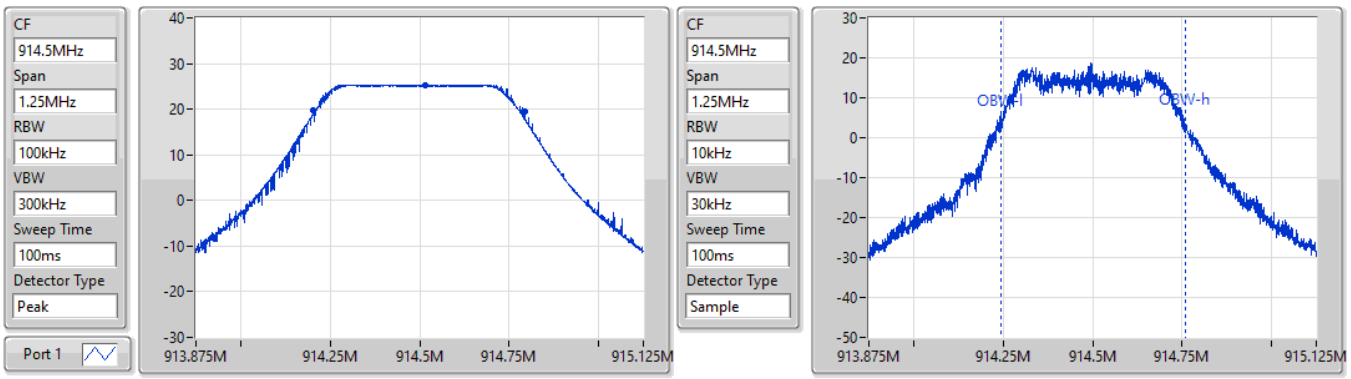


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
586.25k	902.205625M	902.791875M	516.617k	902.243253M	902.75987M	500k	1

LoRa-500-SF5_Nss1_1TX EBW-DTS

914.5MHz

16/03/2022



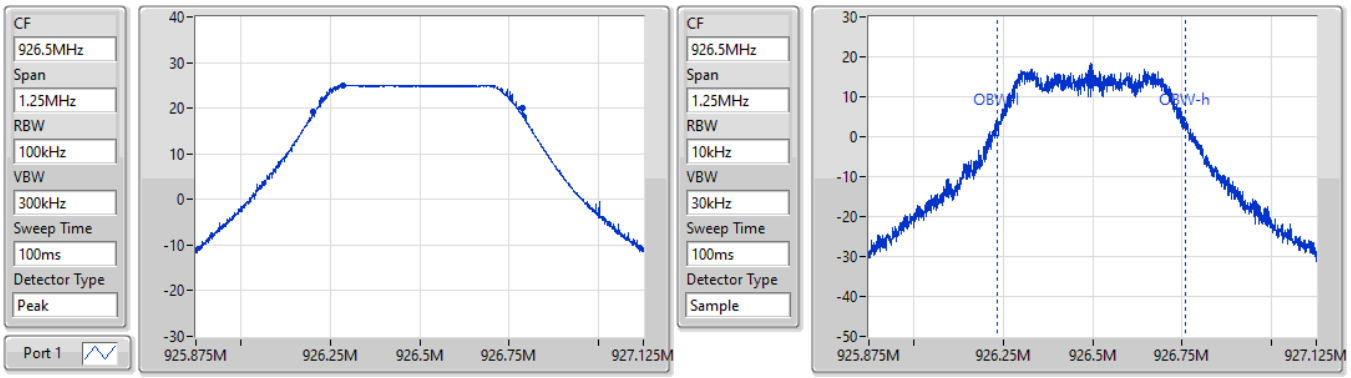
6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
592.5k	914.2025M	914.795M	517.241k	914.242629M	914.75987M	500k	1

LoRa-500-SF5_Nss1_1TX

EBW-DTS

926.5MHz

16/03/2022



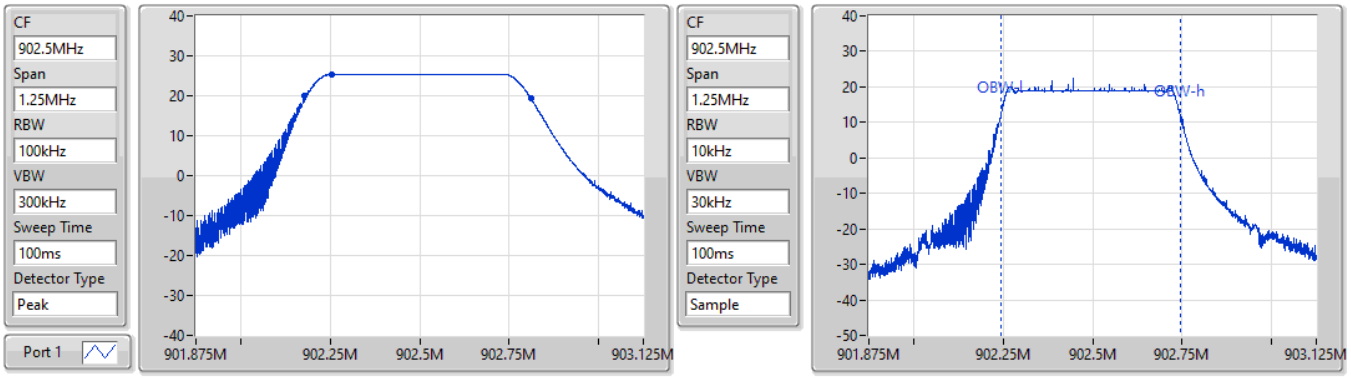
6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
585k	926.20375M	926.78875M	525.987k	926.235132M	926.761119M	500k	1

LoRa-500-SF8_Nss1_1TX

EBW-DTS

902.5MHz

16/03/2022

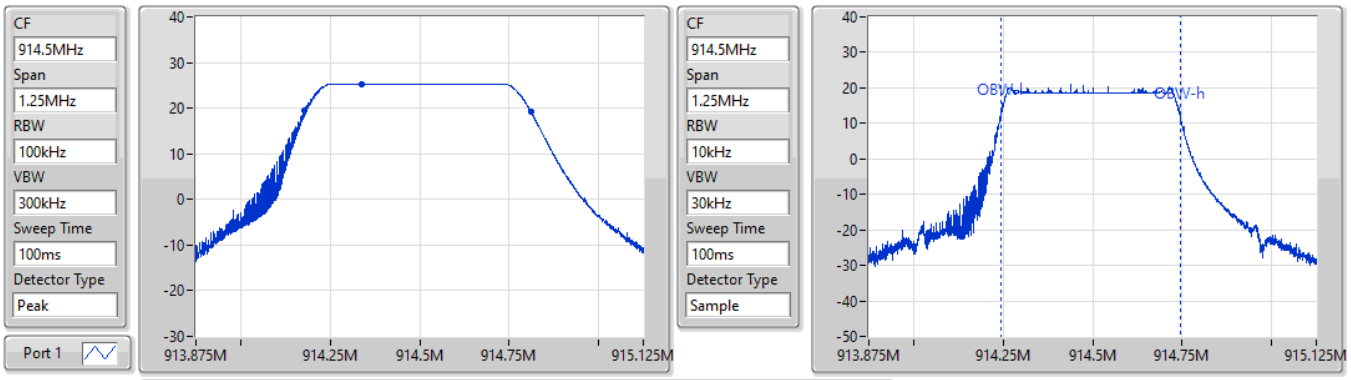


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
630.625k	902.179375M	902.81M	499.75k	902.245127M	902.744878M	500k	1

LoRa-500-SF8_Nss1_1TX EBW-DTS

914.5MHz

16/03/2022

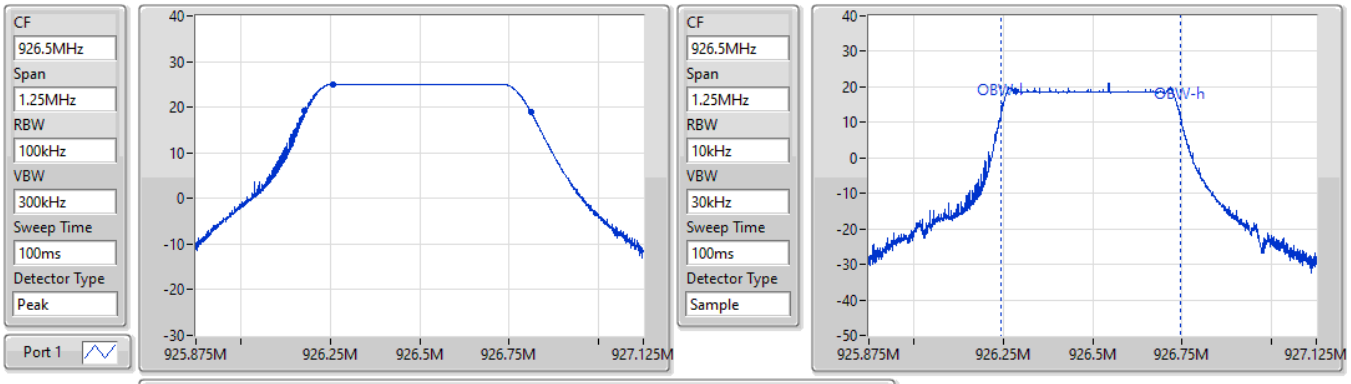


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
633.125k	914.176875M	914.81M	499.75k	914.245127M	914.744878M	500k	1

LoRa-500-SF8_Nss1_1TX EBW-DTS

926.5MHz

16/03/2022

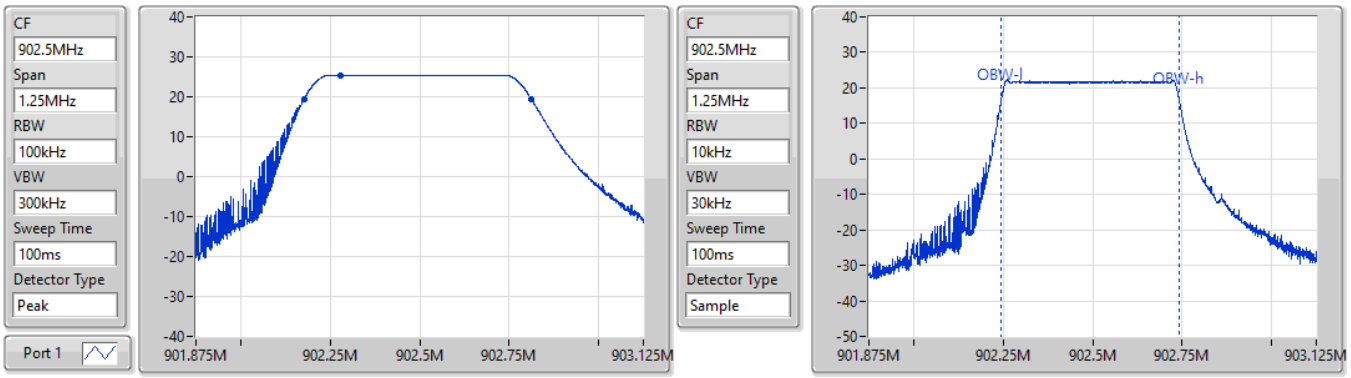


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
633.125k	926.176875M	926.81M	501k	926.243878M	926.744878M	500k	1

LoRa-500-SF9_Nss1_1TX EBW-DTS

902.5MHz

16/03/2022

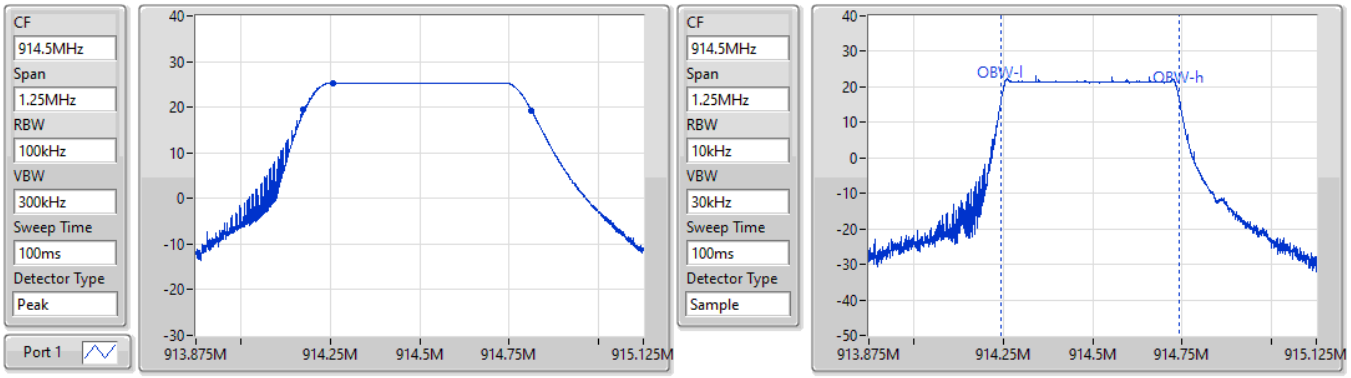


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
634.375k	902.1775M	902.811875M	497.876k	902.245127M	902.743003M	500k	1

LoRa-500-SF9_Nss1_1TX EBW-DTS

914.5MHz

16/03/2022

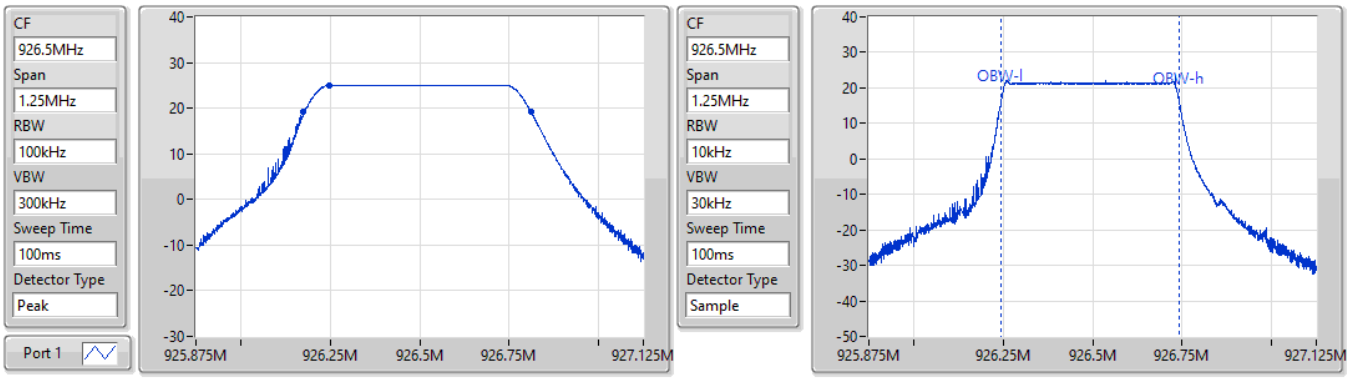


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
636.25k	914.175625M	914.811875M	497.251k	914.245752M	914.743003M	500k	1

LoRa-500-SF9_Nss1_1TX EBW-DTS

926.5MHz

16/03/2022

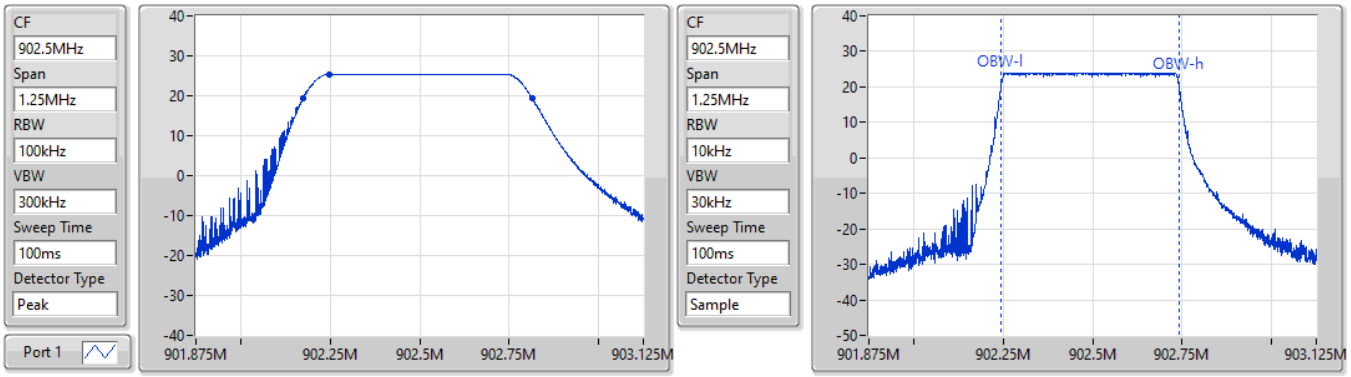


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
636.25k	926.175M	926.81125M	497.876k	926.244503M	926.742379M	500k	1

LoRa-500-SF10_Nss1_1TX EBW-DTS

902.5MHz

16/03/2022

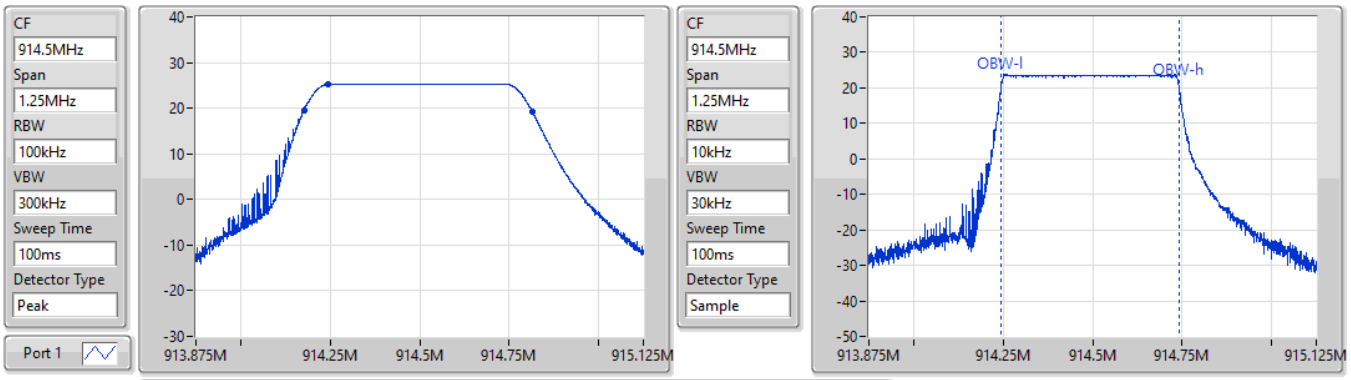


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
638.75k	902.175M	902.81375M	497.876k	902.244503M	902.742379M	500k	1

LoRa-500-SF10_Nss1_1TX EBW-DTS

914.5MHz

16/03/2022

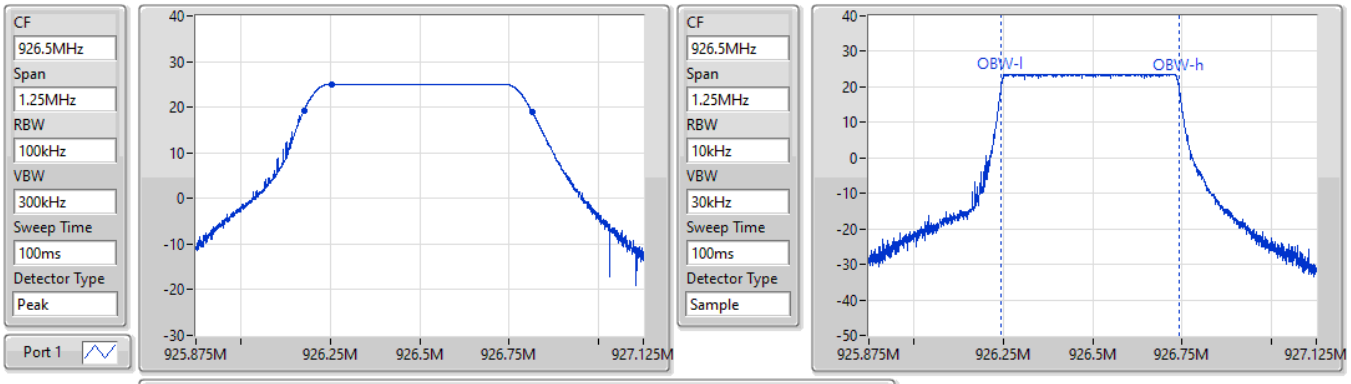


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
638.125k	914.17625M	914.814375M	497.876k	914.244503M	914.742379M	500k	1

LoRa-500-SF10_Nss1_1TX EBW-DTS

926.5MHz

16/03/2022

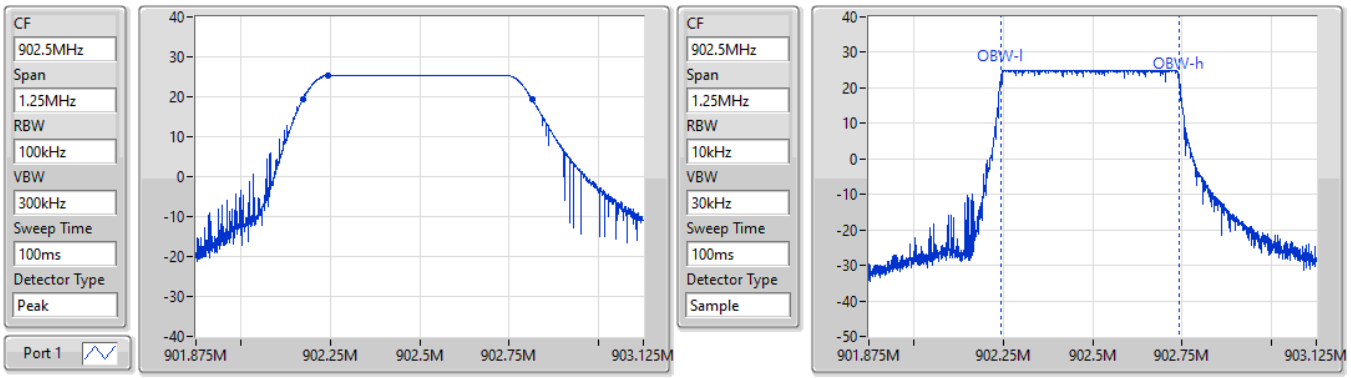


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
637.5k	926.17625M	926.81375M	498.501k	926.243878M	926.742379M	500k	1

LoRa-500-SF11_Nss1_1TX EBW-DTS

902.5MHz

16/03/2022

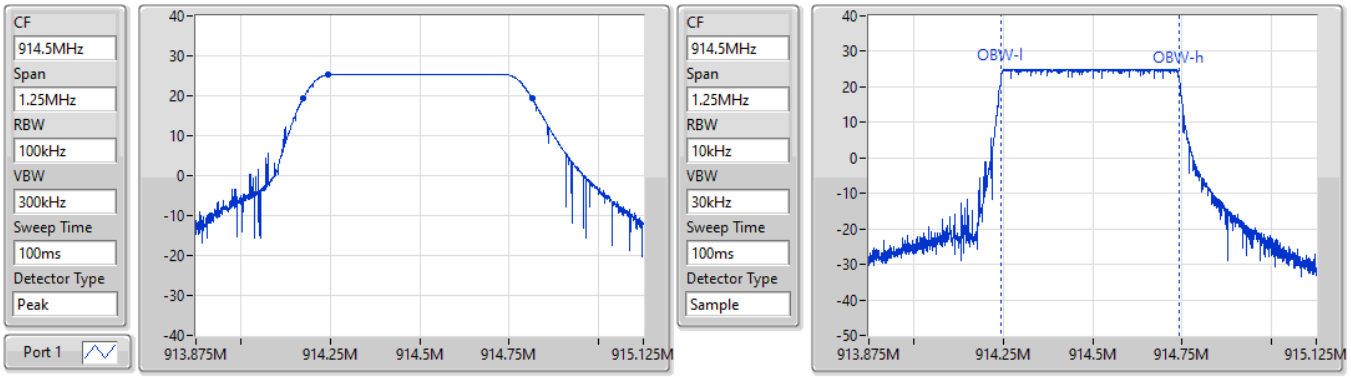


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
640.625k	902.17375M	902.814375M	500.375k	902.242629M	902.743003M	500k	1

LoRa-500-SF11_Nss1_1TX EBW-DTS

914.5MHz

16/03/2022

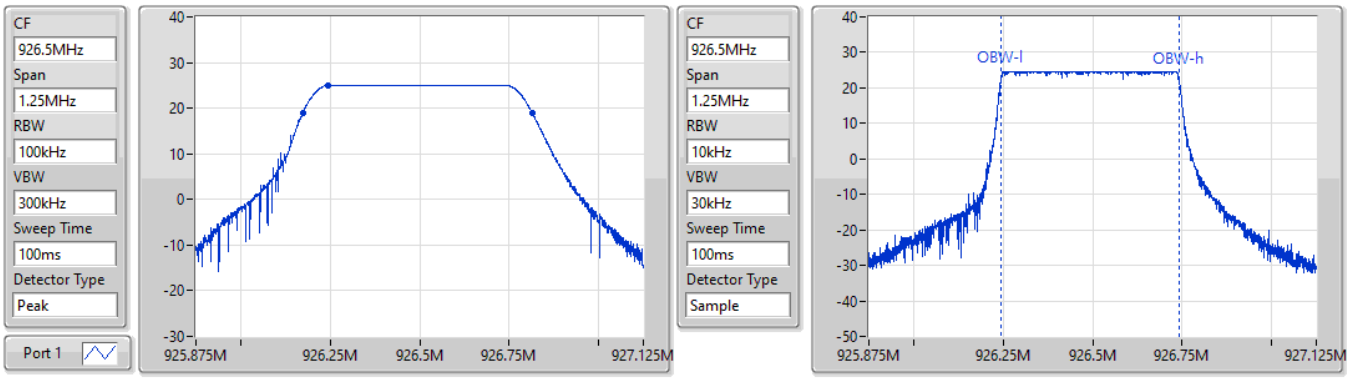


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
640.625k	914.17375M	914.814375M	499.75k	914.243253M	914.743003M	500k	1

LoRa-500-SF11_Nss1_1TX **EBW-DTS**

926.5MHz

16/03/2022



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
640k	926.17375M	926.81375M	500.375k	926.242629M	926.743003M	500k	1

For LoRa_500kHz
Summary

Mode	Power (dBm)	Power (W)
902-928MHz	-	-
LoRa-500-SF5_Nss1_1TX	20.57	0.11402
LoRa-500-SF8_Nss1_1TX	25.30	0.33884
LoRa-500-SF9_Nss1_1TX	25.30	0.33884
LoRa-500-SF10_Nss1_1TX	25.28	0.33729
LoRa-500-SF11_Nss1_1TX	25.29	0.33806

Result

Mode	Result	Gain (dBi)	Power (dBm)	Power Limit (dBm)
LoRa-500-SF5_Nss1_1TX	-	-	-	-
902.5MHz	Pass	1.74	20.28	30.00
914.5MHz	Pass	1.34	19.84	30.00
926.5MHz	Pass	0.90	20.57	30.00
LoRa-500-SF8_Nss1_1TX	-	-	-	-
902.5MHz	Pass	1.74	25.21	30.00
914.5MHz	Pass	1.34	25.30	30.00
926.5MHz	Pass	0.90	24.93	30.00
LoRa-500-SF9_Nss1_1TX	-	-	-	-
902.5MHz	Pass	1.74	25.24	30.00
914.5MHz	Pass	1.34	25.30	30.00
926.5MHz	Pass	0.90	24.91	30.00
LoRa-500-SF10_Nss1_1TX	-	-	-	-
902.5MHz	Pass	1.74	25.20	30.00
914.5MHz	Pass	1.34	25.28	30.00
926.5MHz	Pass	0.90	24.92	30.00
LoRa-500-SF11_Nss1_1TX	-	-	-	-
902.5MHz	Pass	1.74	25.21	30.00
914.5MHz	Pass	1.34	25.29	30.00
926.5MHz	Pass	0.90	24.91	30.00

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

For LoRa_500kHz
Summary

Mode	PD (dBm/RBW)
902-928MHz	-
LoRa-500-SF5_Nss1_1TX	7.69
LoRa-500-SF8_Nss1_1TX	5.39
LoRa-500-SF9_Nss1_1TX	5.46
LoRa-500-SF10_Nss1_1TX	7.27
LoRa-500-SF11_Nss1_1TX	6.04

RBW = 3kHz;

Result

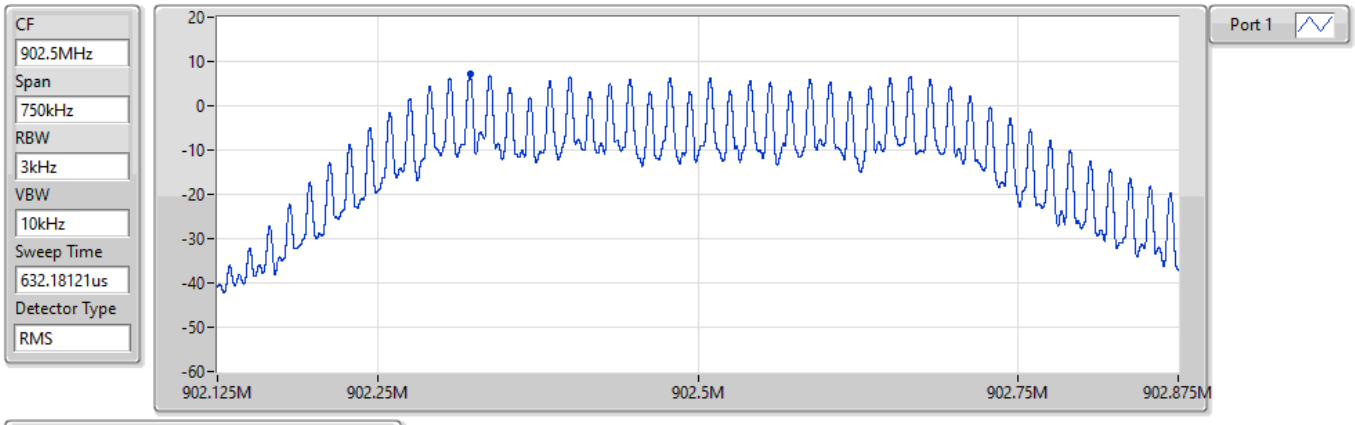
Mode	Result	Gain (dBi)	PD (dBm/RBW)	PD Limit (dBm/RBW)
LoRa-500-SF5_Nss1_1TX	-	-	-	-
902.5MHz	Pass	1.74	7.32	8.00
914.5MHz	Pass	1.34	7.27	8.00
926.5MHz	Pass	0.90	7.69	8.00
LoRa-500-SF8_Nss1_1TX	-	-	-	-
902.5MHz	Pass	1.74	5.39	8.00
914.5MHz	Pass	1.34	4.50	8.00
926.5MHz	Pass	0.90	4.09	8.00
LoRa-500-SF9_Nss1_1TX	-	-	-	-
902.5MHz	Pass	1.74	4.61	8.00
914.5MHz	Pass	1.34	5.25	8.00
926.5MHz	Pass	0.90	5.46	8.00
LoRa-500-SF10_Nss1_1TX	-	-	-	-
902.5MHz	Pass	1.74	5.66	8.00
914.5MHz	Pass	1.34	7.27	8.00
926.5MHz	Pass	0.90	4.74	8.00
LoRa-500-SF11_Nss1_1TX	-	-	-	-
902.5MHz	Pass	1.74	5.92	8.00
914.5MHz	Pass	1.34	6.04	8.00
926.5MHz	Pass	0.90	5.45	8.00

DG = Directional Gain; RBW = 3kHz;
PD = trace bin-by-bin of each transmits port summing can be performed maximum power density; Port X = Port X Power Density;

LoRa-500-SF5_Nss1_1TX PSD

902.5MHz

16/03/2022

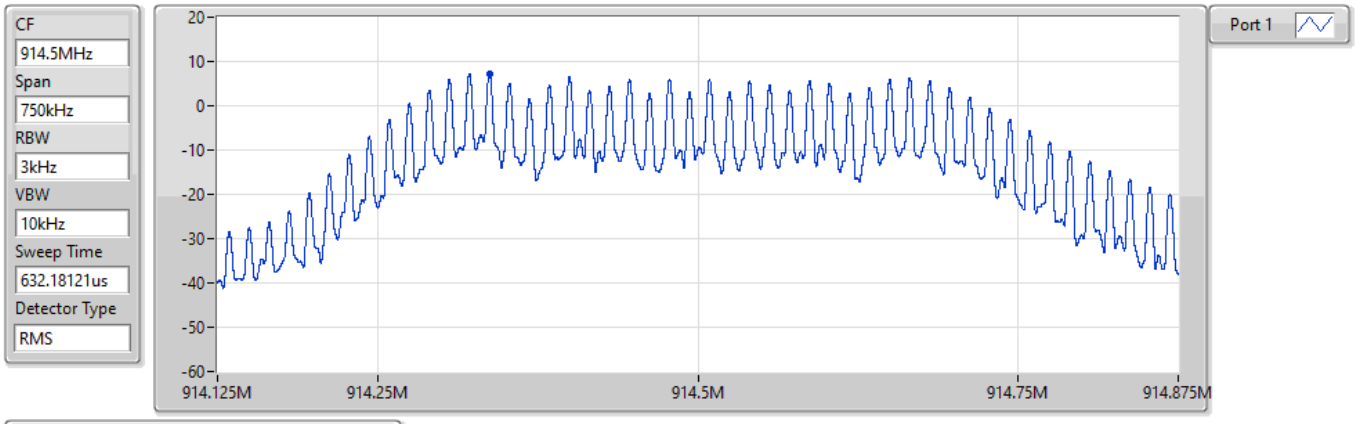


Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
7.32	7.32	7.32

LoRa-500-SF5_Nss1_1TX PSD

914.5MHz

16/03/2022

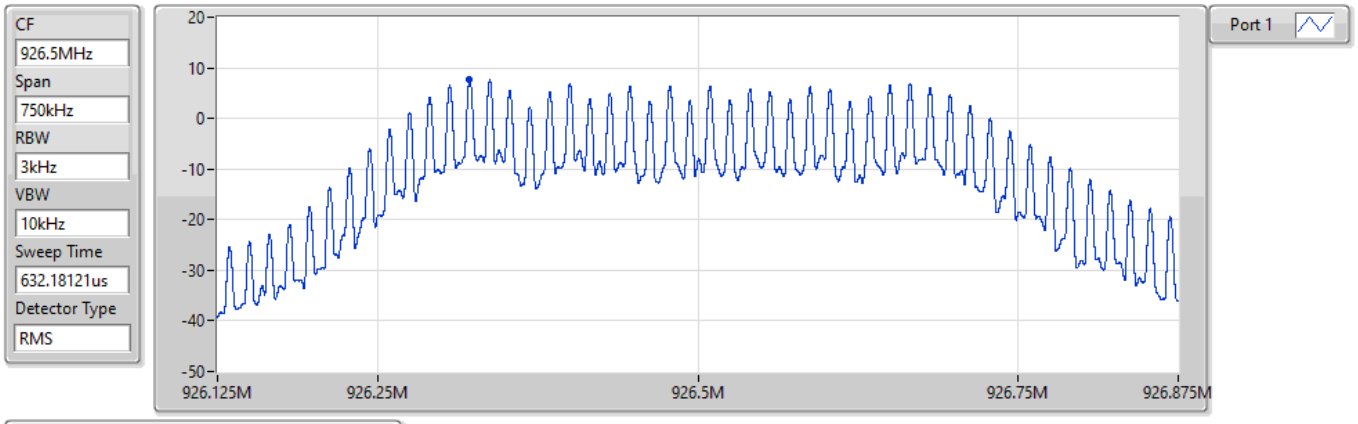


Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
7.27	7.27	7.27

LoRa-500-SF5_Nss1_1TX PSD

926.5MHz

16/03/2022

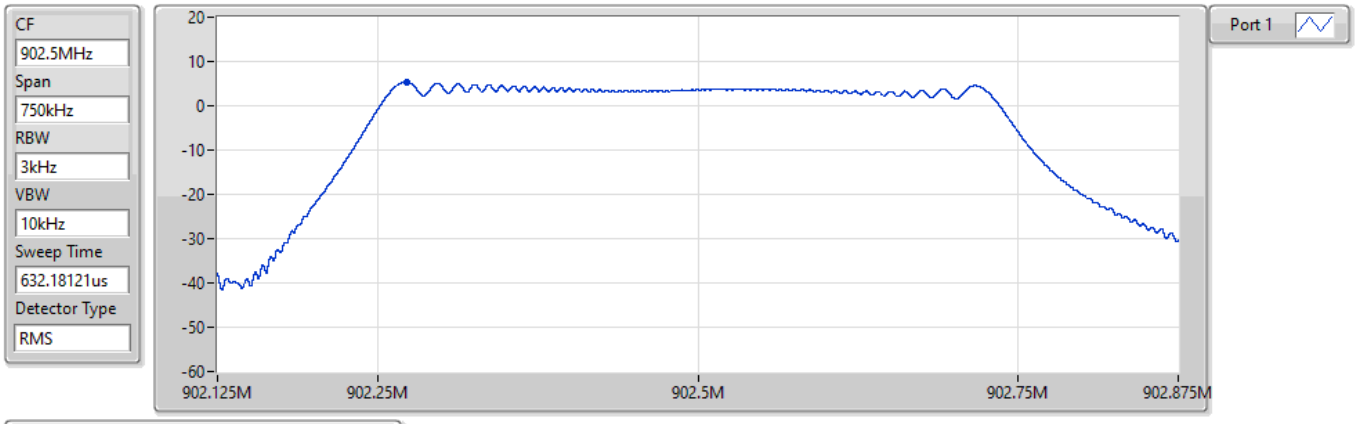


Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
7.69	7.69	7.69

LoRa-500-SF8_Nss1_1TX PSD

902.5MHz

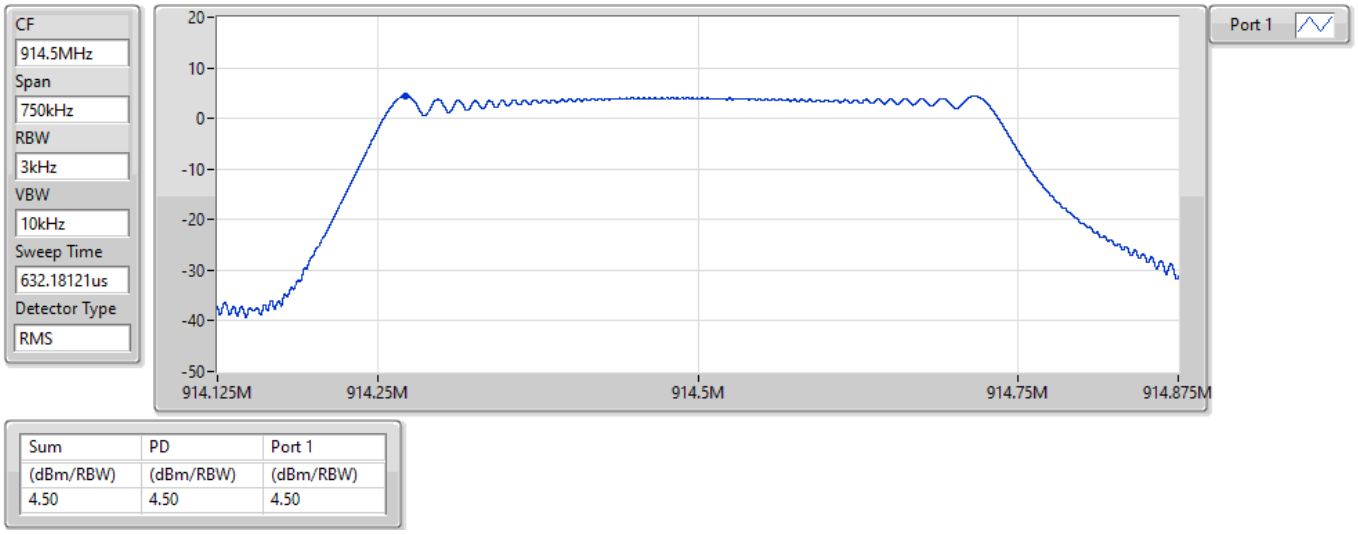
16/03/2022



Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
5.39	5.39	5.39

LoRa-500-SF8_Nss1_1TX PSD

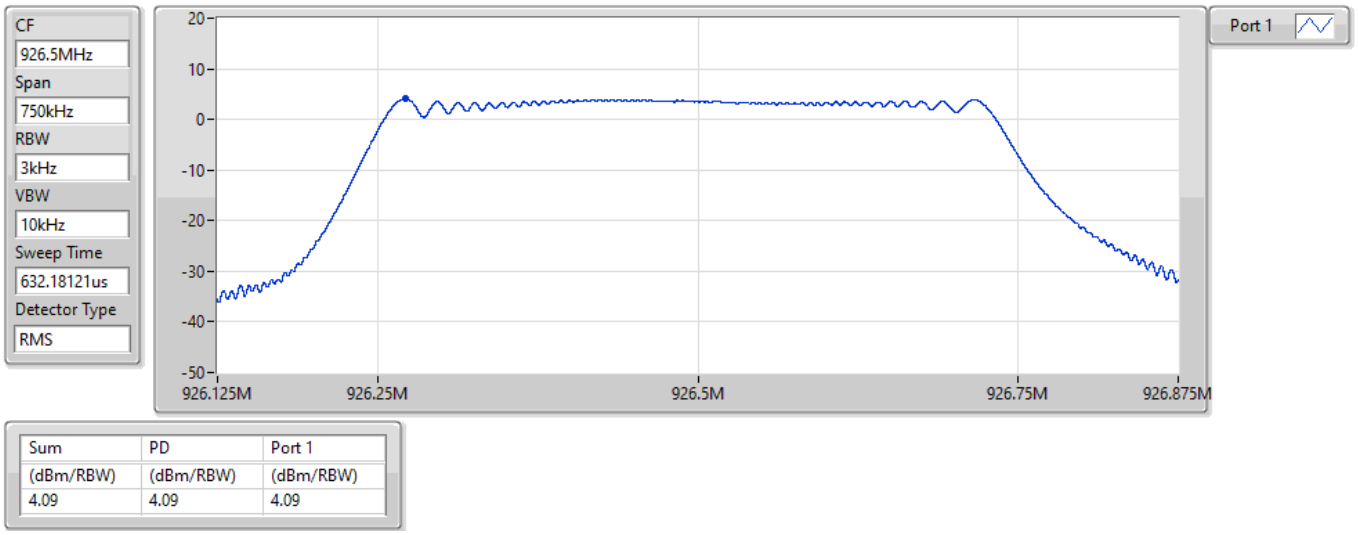
914.5MHz



Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
4.50	4.50	4.50

LoRa-500-SF8_Nss1_1TX PSD

926.5MHz

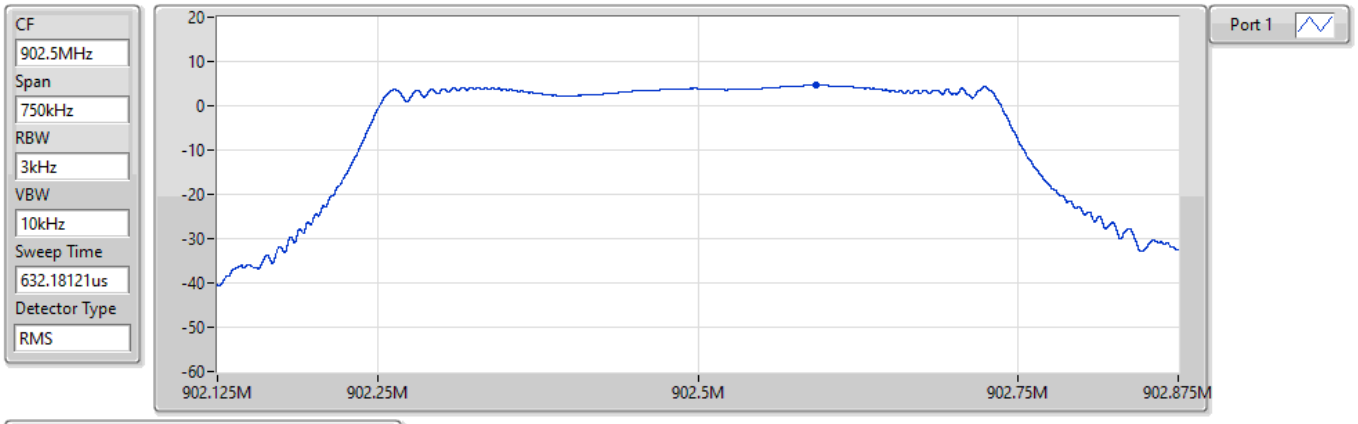


Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
4.09	4.09	4.09

LoRa-500-SF9_Nss1_1TX PSD

902.5MHz

16/03/2022

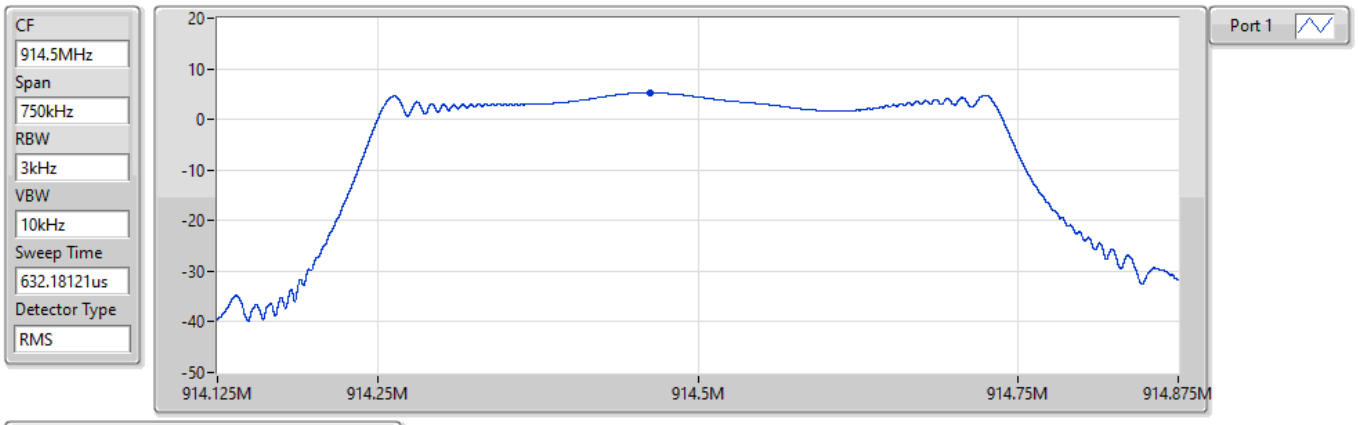


Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
4.61	4.61	4.61

LoRa-500-SF9_Nss1_1TX PSD

914.5MHz

16/03/2022

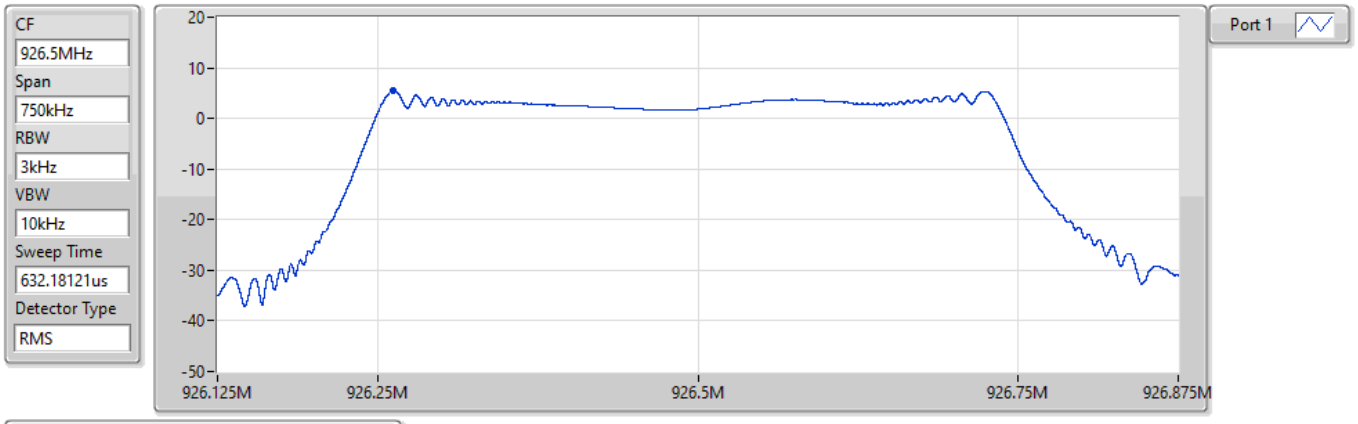


Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
5.25	5.25	5.25

LoRa-500-SF9_Nss1_1TX PSD

926.5MHz

16/03/2022

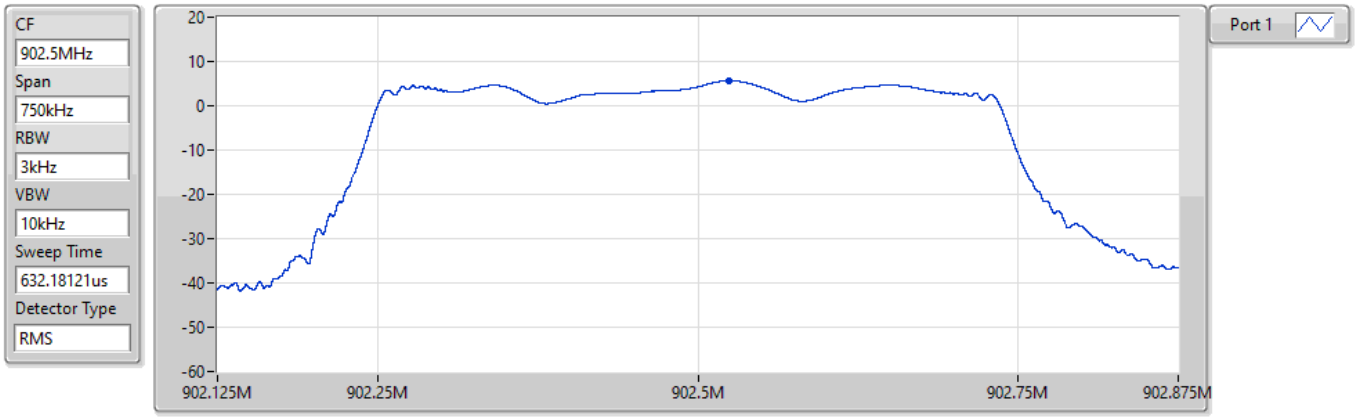


Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
5.46	5.46	5.46

LoRa-500-SF10_Nss1_1TX PSD

902.5MHz

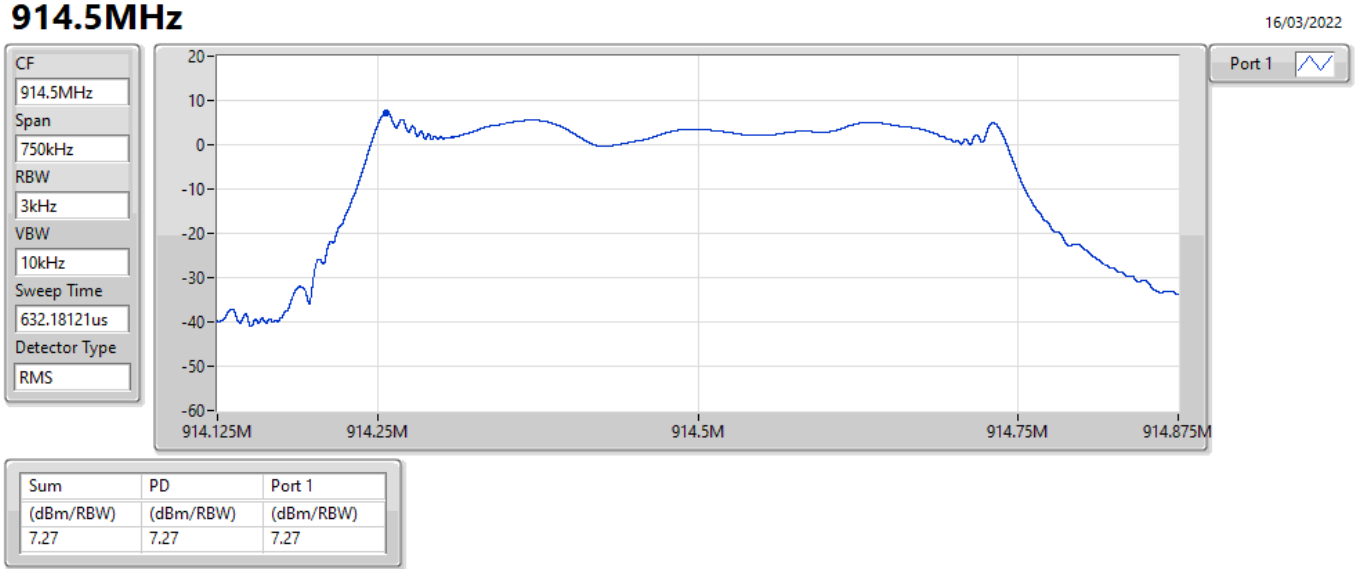
16/03/2022



Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
5.66	5.66	5.66

LoRa-500-SF10_Nss1_1TX PSD

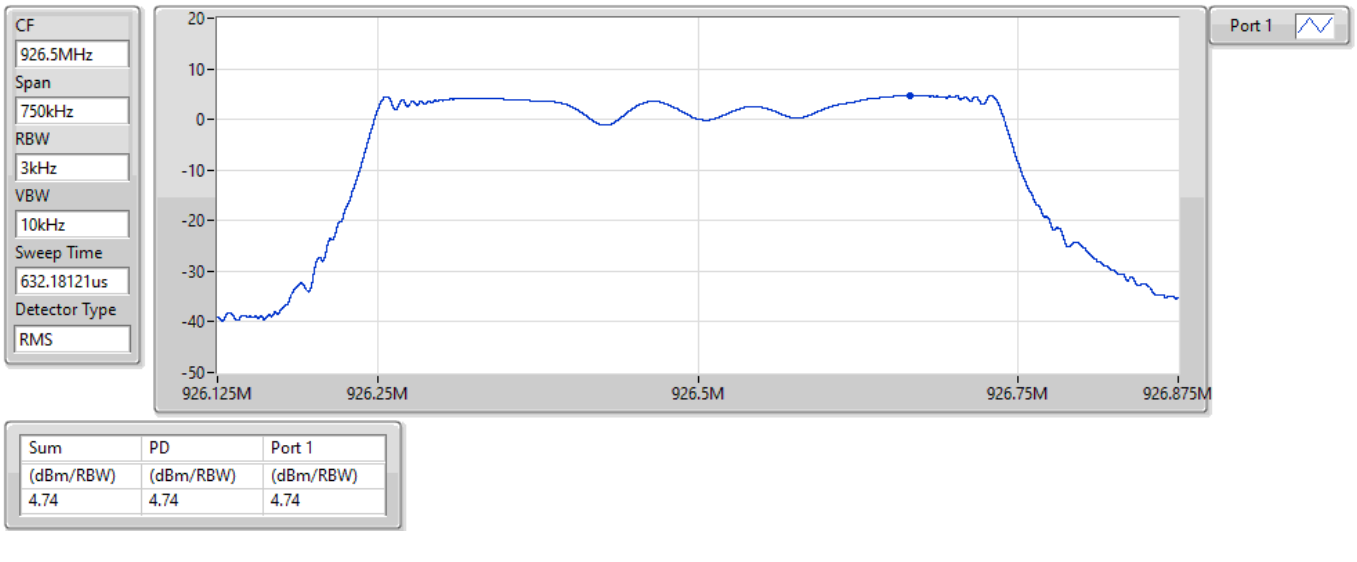
914.5MHz



Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
7.27	7.27	7.27

LoRa-500-SF10_Nss1_1TX PSD

926.5MHz

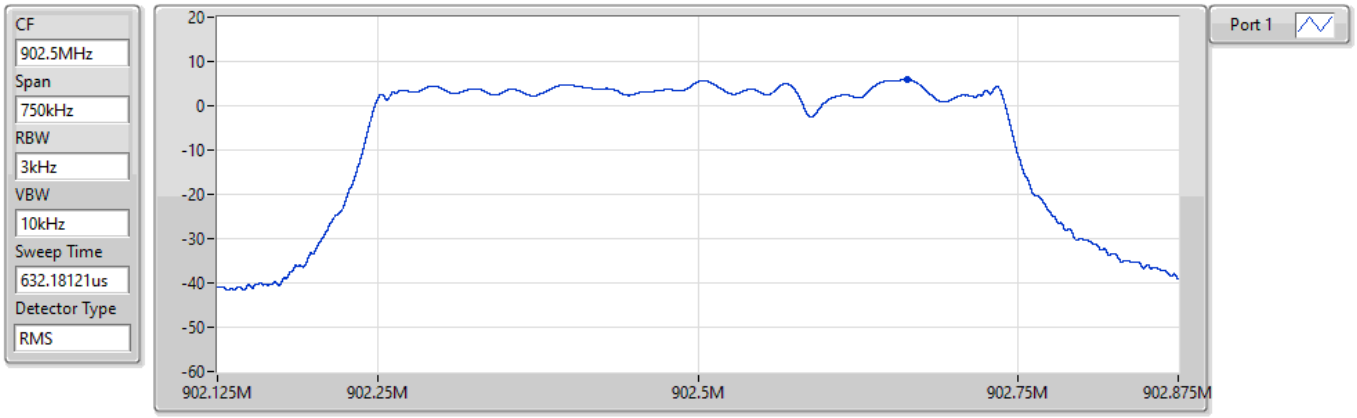


Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
4.74	4.74	4.74

LoRa-500-SF11_Nss1_1TX PSD

902.5MHz

16/03/2022

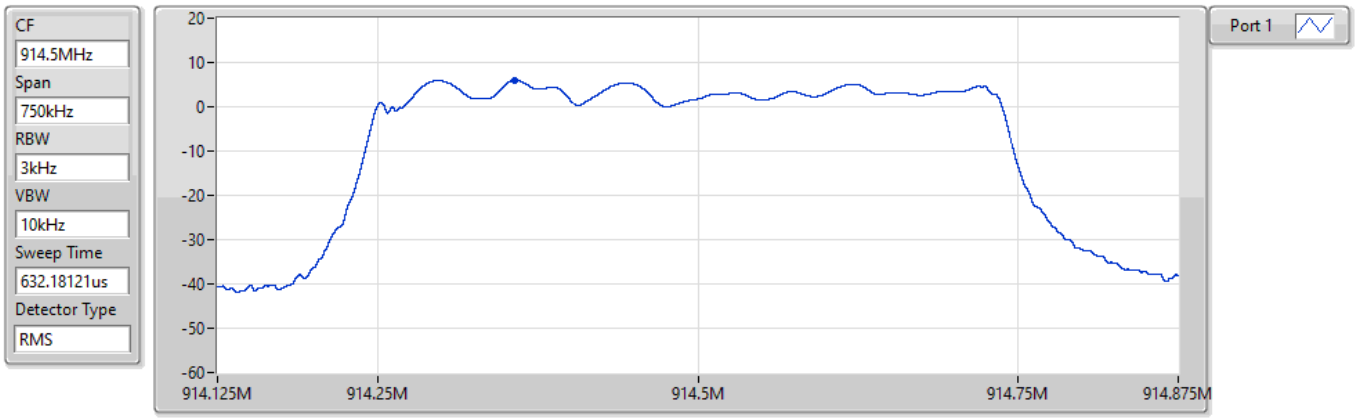


Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
5.92	5.92	5.92

LoRa-500-SF11_Nss1_1TX PSD

914.5MHz

16/03/2022

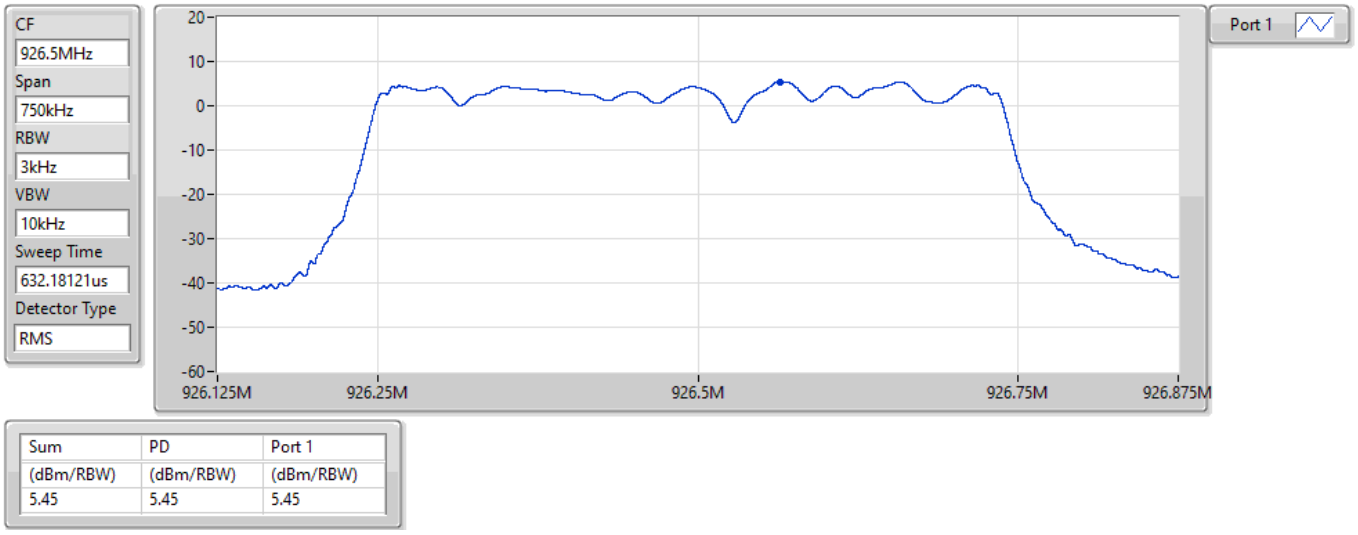


Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
6.04	6.04	6.04

LoRa-500-SF11_Nss1_1TX **PSD**

926.5MHz

16/03/2022



Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
5.45	5.45	5.45

For LoRa_500kHz
Summary

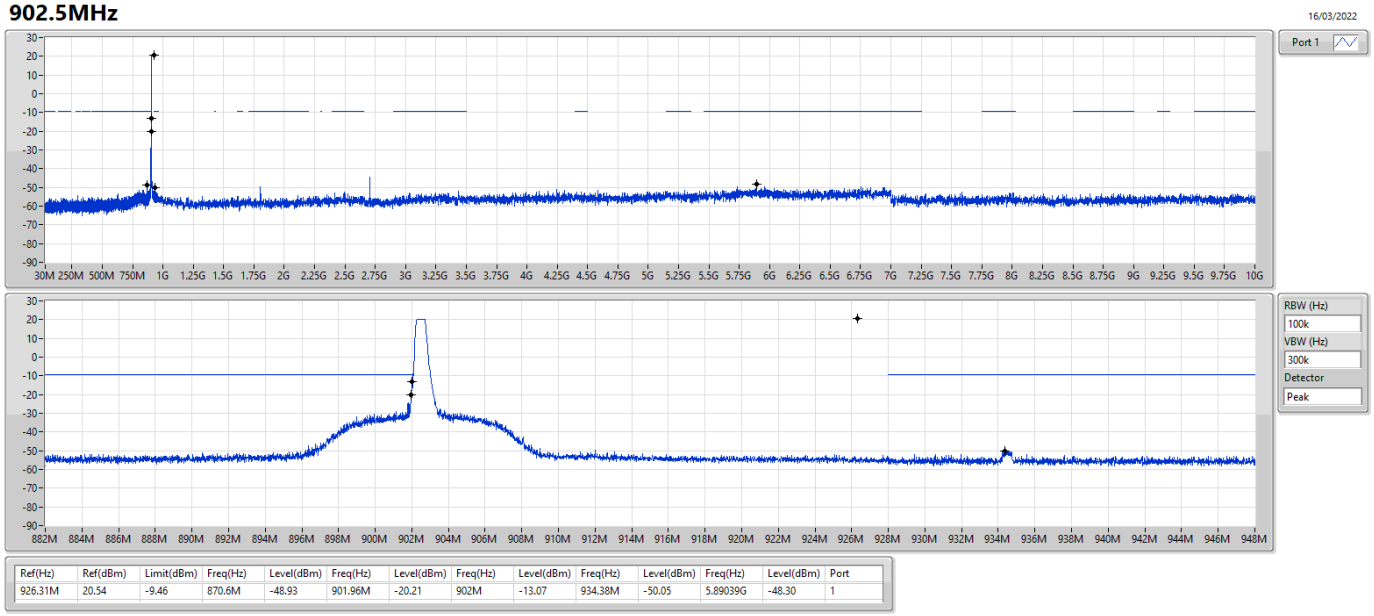
Mode	Result	Ref (Hz)	Ref (dBm)	Limit (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Port
902-928MHz	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LoRa-500-SF5_Nss1_1TX	Pass	926.31M	20.54	-9.46	870.6M	-48.93	901.96M	-20.21	902M	-13.07	934.38M	-50.05	5.89039G	-48.30	1
LoRa-500-SF8_Nss1_1TX	Pass	914.3M	25.30	-4.70	870.39M	-46.77	901.97M	-16.46	902M	-16.71	934.57M	-44.98	1.80455G	-40.94	1
LoRa-500-SF9_Nss1_1TX	Pass	914.29M	25.27	-4.73	870.71M	-46.25	901.97M	-17.36	902M	-20.20	934.56M	-45.66	1.80455G	-41.18	1
LoRa-500-SF10_Nss1_1TX	Pass	914.25M	25.26	-4.74	870.5M	-47.05	901.97M	-15.00	902M	-15.23	934.4M	-46.04	1.80455G	-41.36	1
LoRa-500-SF11_Nss1_1TX	Pass	914.27M	25.26	-4.74	870.6M	-46.58	902M	-16.74	902M	-20.55	934.33M	-45.56	1.80455G	-41.63	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)	Freq (Hz)	Level (dBm)	Port
LoRa-500-SF5_Nss1_1TX	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
902.5MHz	Pass	926.31M	20.54	-9.46	870.6M	-48.93	901.96M	-20.21	902M	-13.07	934.38M	-50.05	5.89039G	-48.30	1
914.5MHz	Pass	926.31M	20.54	-9.46	841.21M	-50.77	882.36M	-48.58	902M	-51.59	946.67M	-50.58	5.93452G	-48.45	1
926.5MHz	Pass	926.31M	20.54	-9.46	795.63M	-50.62	894.58M	-48.23	928M	-31.40	928.08M	-27.98	6.65642G	-48.60	1
LoRa-500-SF8_Nss1_1TX	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
902.5MHz	Pass	914.3M	25.30	-4.70	870.39M	-46.77	901.97M	-16.46	902M	-16.71	934.57M	-44.98	1.80455G	-40.94	1
914.5MHz	Pass	914.3M	25.30	-4.70	812.88M	-50.01	882.49M	-44.52	902M	-50.43	946.48M	-45.88	1.82944G	-42.01	1
926.5MHz	Pass	914.3M	25.30	-4.70	796.37M	-50.22	894.57M	-44.46	928M	-25.65	928.26M	-24.53	1.8532G	-45.16	1
LoRa-500-SF9_Nss1_1TX	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
902.5MHz	Pass	914.29M	25.27	-4.73	870.71M	-46.25	901.97M	-17.36	902M	-20.20	934.56M	-45.66	1.80455G	-41.18	1
914.5MHz	Pass	914.29M	25.27	-4.73	809.69M	-50.24	882.45M	-45.04	902M	-50.72	946.41M	-45.66	1.82944G	-41.74	1
926.5MHz	Pass	914.29M	25.27	-4.73	822.25M	-49.66	894.72M	-44.59	928M	-26.30	928.67M	-24.17	1.8532G	-44.84	1
LoRa-500-SF10_Nss1_1TX	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
902.5MHz	Pass	914.25M	25.26	-4.74	870.5M	-47.05	901.97M	-15.00	902M	-15.23	934.4M	-46.04	1.80455G	-41.36	1
914.5MHz	Pass	914.25M	25.26	-4.74	838.34M	-49.30	882.29M	-45.13	902M	-50.54	946.47M	-45.62	1.82831G	-41.75	1
926.5MHz	Pass	914.25M	25.26	-4.74	872.84M	-48.87	894.48M	-44.65	928M	-28.55	928.62M	-25.60	1.85207G	-45.06	1
LoRa-500-SF11_Nss1_1TX	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
902.5MHz	Pass	914.27M	25.26	-4.74	870.6M	-46.58	902M	-16.74	902M	-20.55	934.33M	-45.56	1.80455G	-41.63	1
914.5MHz	Pass	914.27M	25.26	-4.74	834.08M	-50.21	882.66M	-44.97	902M	-49.82	946.27M	-45.84	1.82831G	-41.46	1
926.5MHz	Pass	914.27M	25.26	-4.74	864M	-49.26	894.55M	-45.50	928M	-25.95	928.05M	-24.40	1.8532G	-45.12	1

LoRa-500-SF5_Nss1_1TX **CSENdB-DTS**

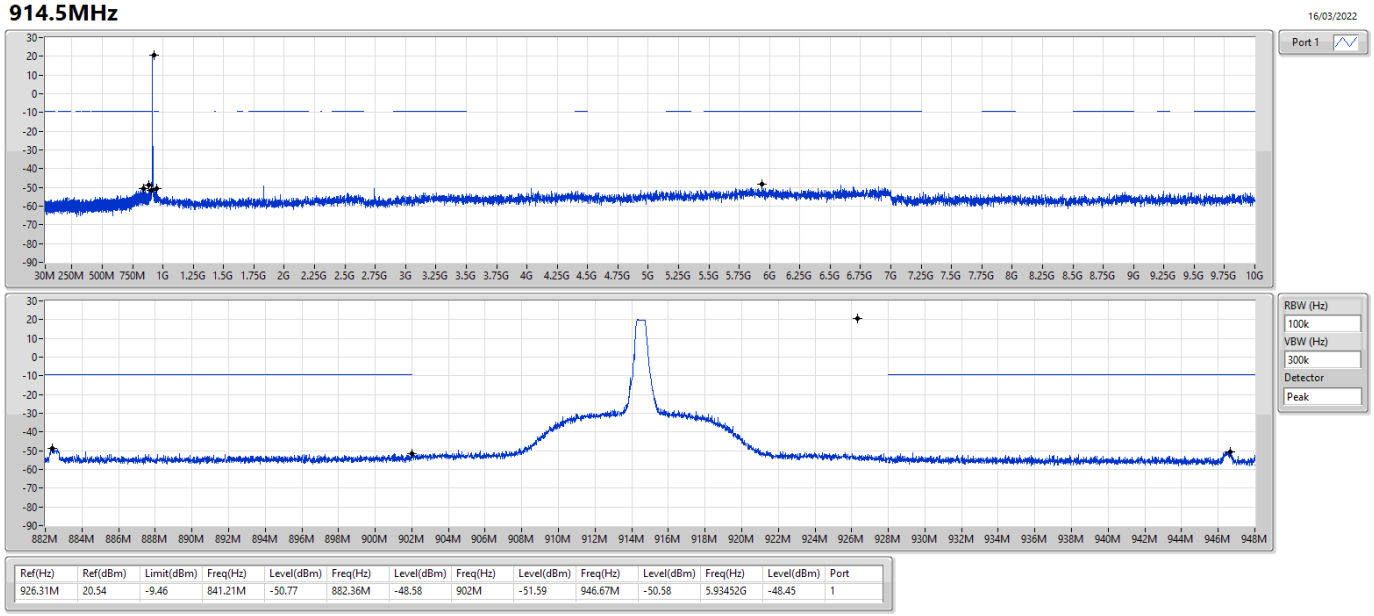
902.5MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
926.31M	20.54	-9.46	870.6M	-48.93	901.96M	-20.21	902M	-13.07	934.38M	-50.05	5.89039G	-48.30	1

LoRa-500-SF5_Nss1_1TX **CSENdB-DTS**

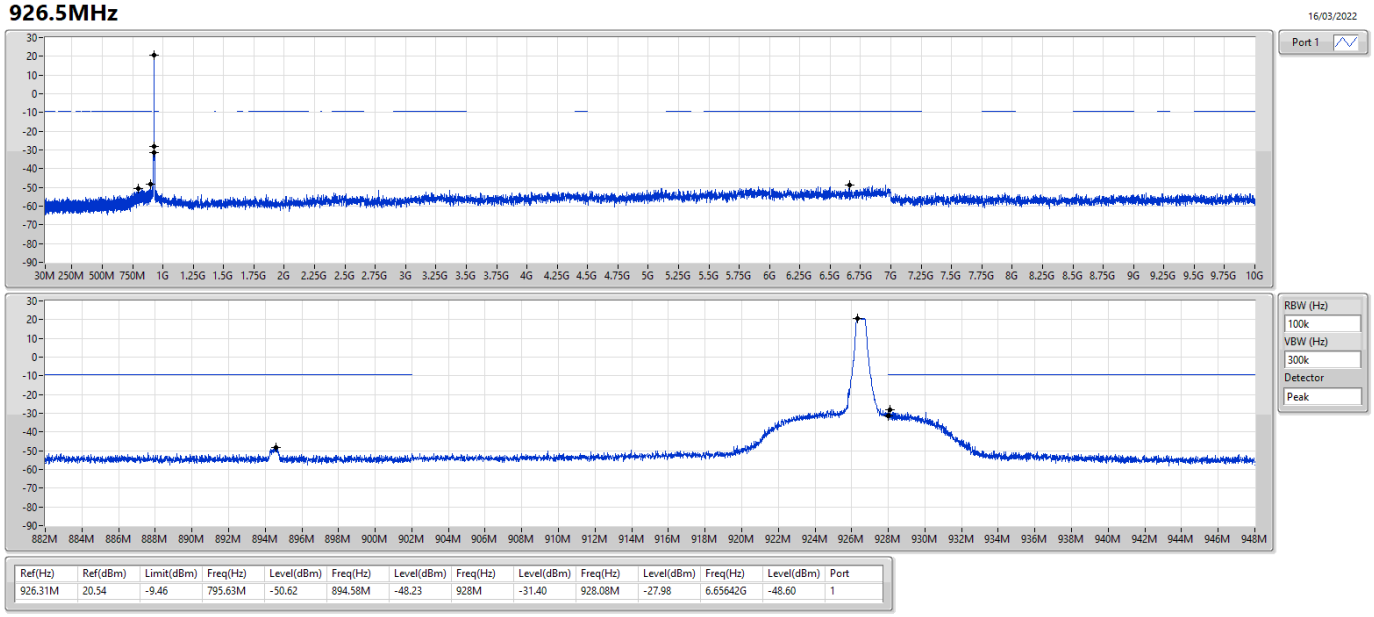
914.5MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
926.31M	20.54	-9.46	841.21M	-50.77	882.36M	-48.58	902M	-51.59	946.67M	-50.58	5.93452G	-48.45	1

LoRa-500-SF5_Nss1_1TX **CSENdB-DTS**

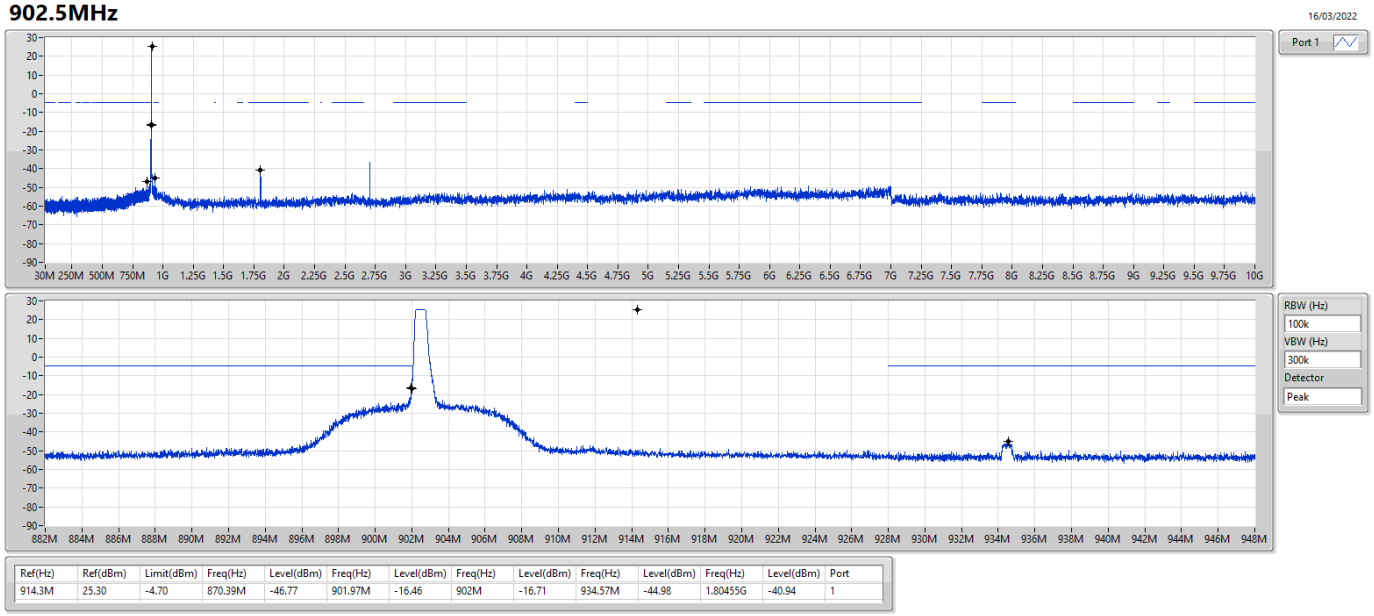
926.5MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
926.31M	20.54	-9.46	795.63M	-50.62	894.58M	-48.23	928M	-31.40	928.08M	-27.98	6.65642G	-48.60	1

LoRa-500-SF8_Nss1_1TX **CSENdB-DTS**

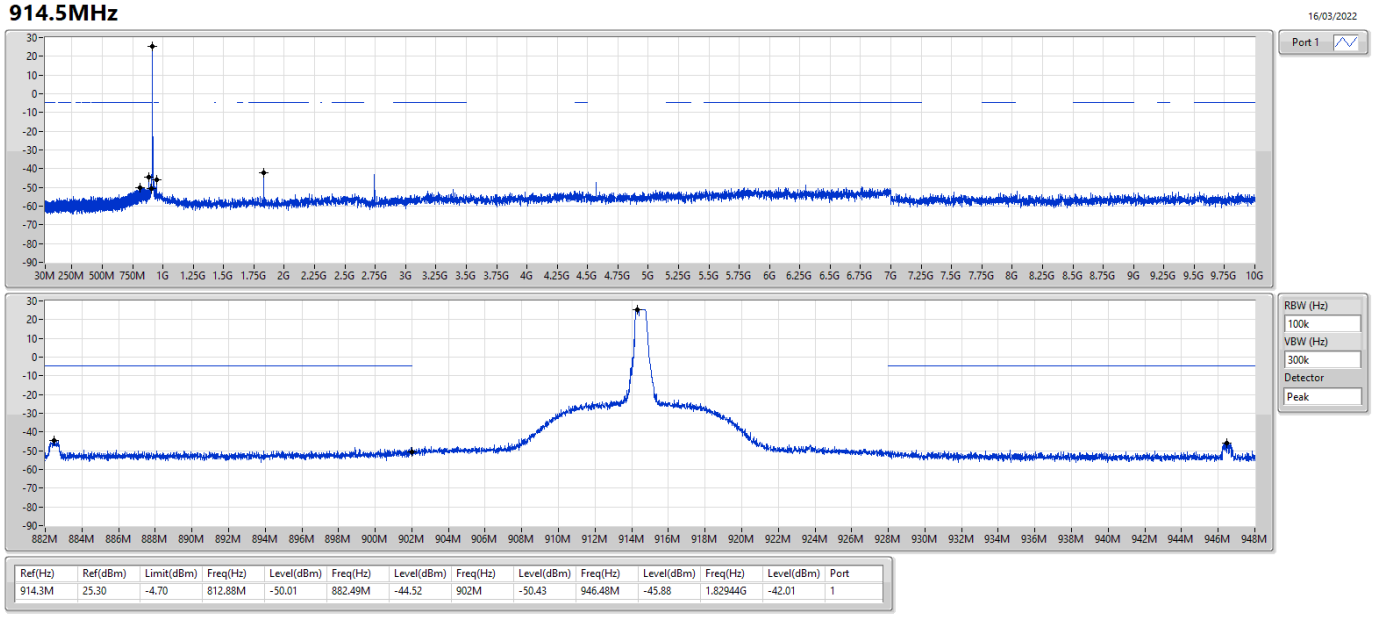
902.5MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
914.3M	25.30	-4.70	870.39M	-46.77	901.97M	-16.46	902M	-16.71	934.57M	-44.98	1.80455G	-40.94	1

LoRa-500-SF8_Nss1_1TX **CSENdB-DTS**

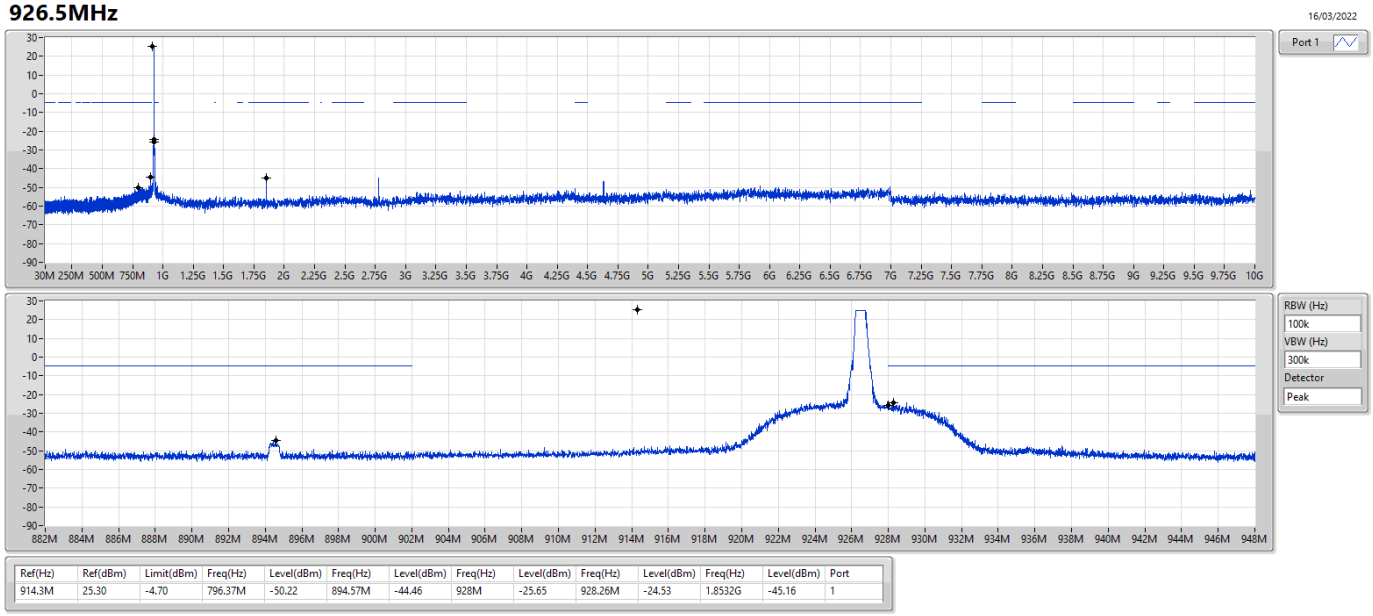
914.5MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
914.3M	25.30	-4.70	812.88M	-50.01	882.49M	-44.52	902M	-50.43	946.48M	-45.88	1.82944G	-42.01	1

LoRa-500-SF8_Nss1_1TX **CSENdB-DTS**

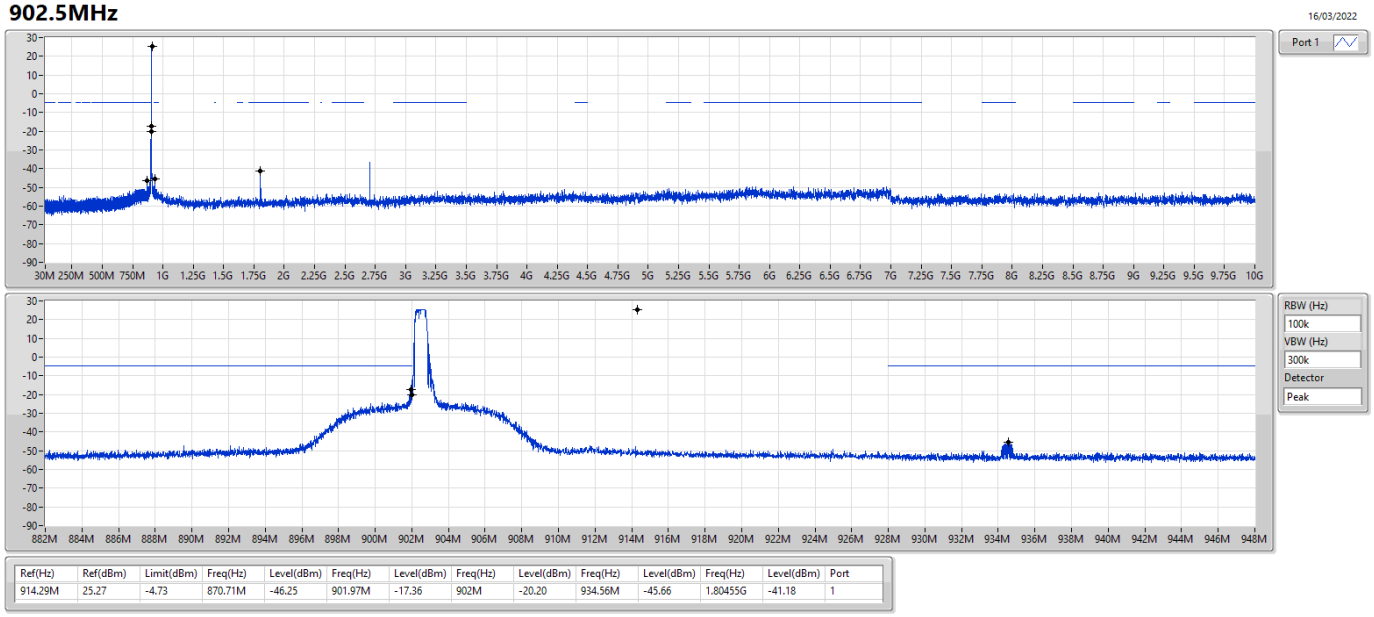
926.5MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
914.3M	25.30	-4.70	796.37M	-50.22	894.57M	-44.46	928M	-25.65	928.26M	-24.53	1.8532G	-45.16	1

LoRa-500-SF9_Nss1_1TX **CSENdB-DTS**

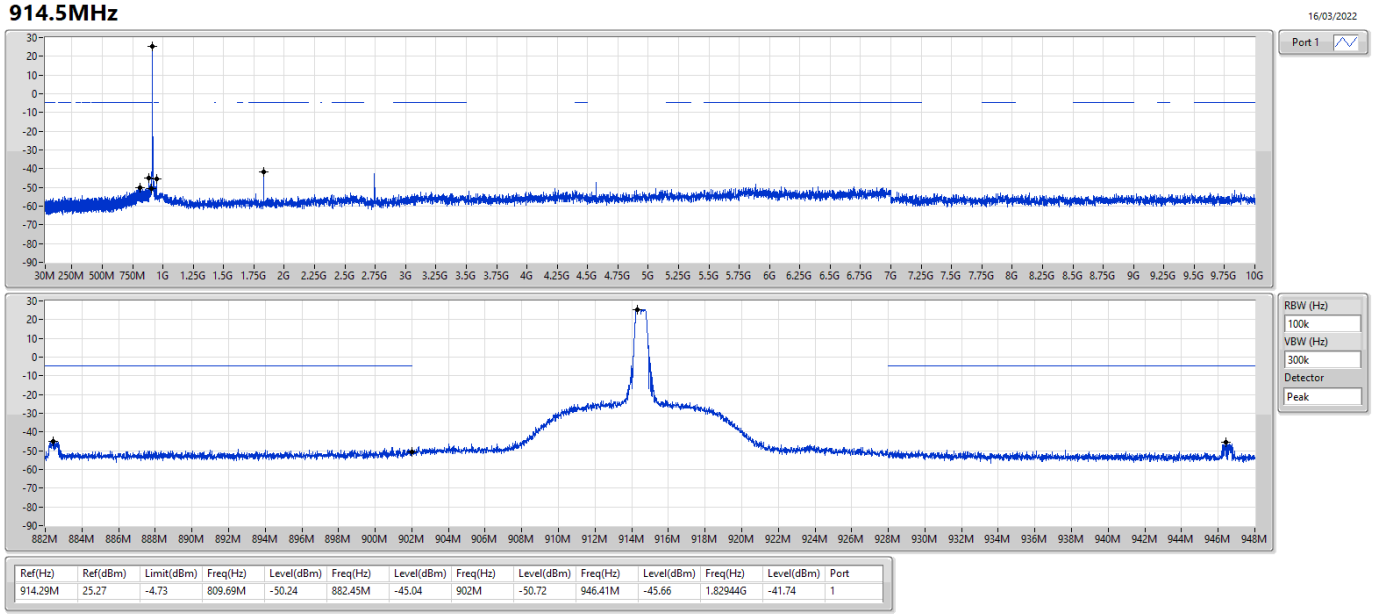
902.5MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
914.29M	25.27	-4.73	870.71M	-46.25	901.97M	-17.36	902M	-20.20	934.56M	-45.66	1.80455G	-41.18	1

LoRa-500-SF9_Nss1_1TX **CSENdB-DTS**

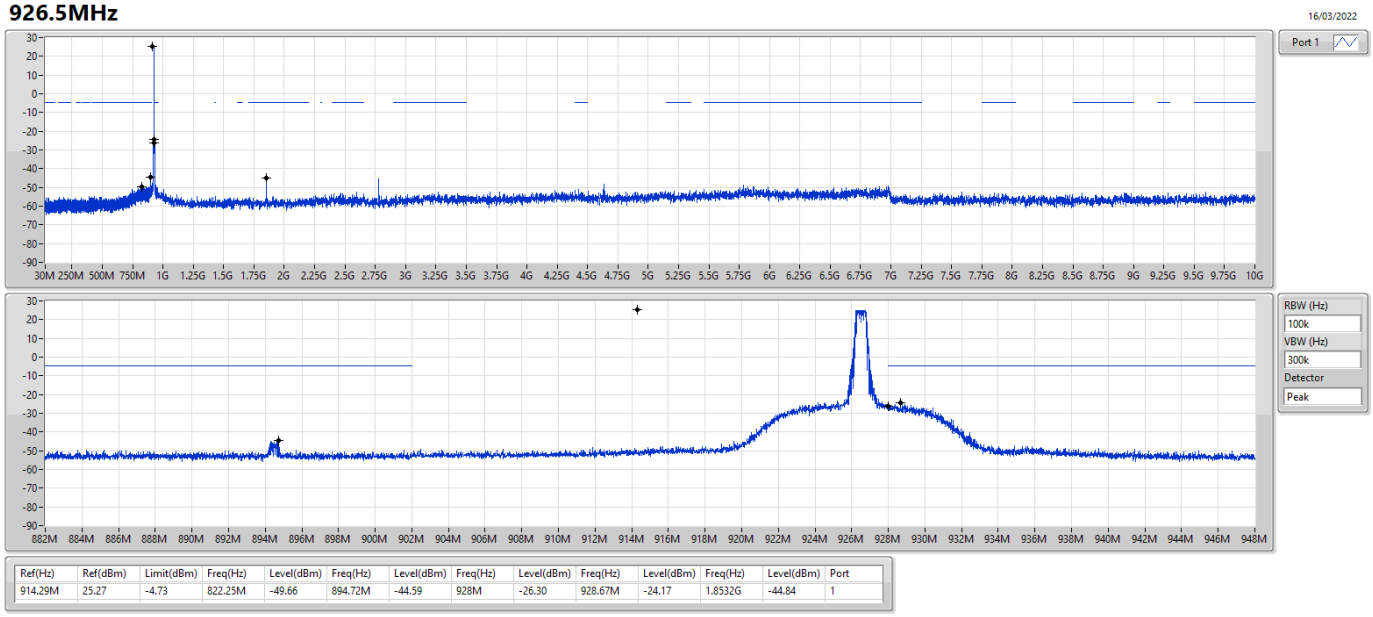
914.5MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
914.29M	25.27	-4.73	809.69M	-50.24	882.45M	-45.04	902M	-50.72	946.41M	-45.66	1.82944G	-41.74	1

LoRa-500-SF9_Nss1_1TX **CSENdB-DTS**

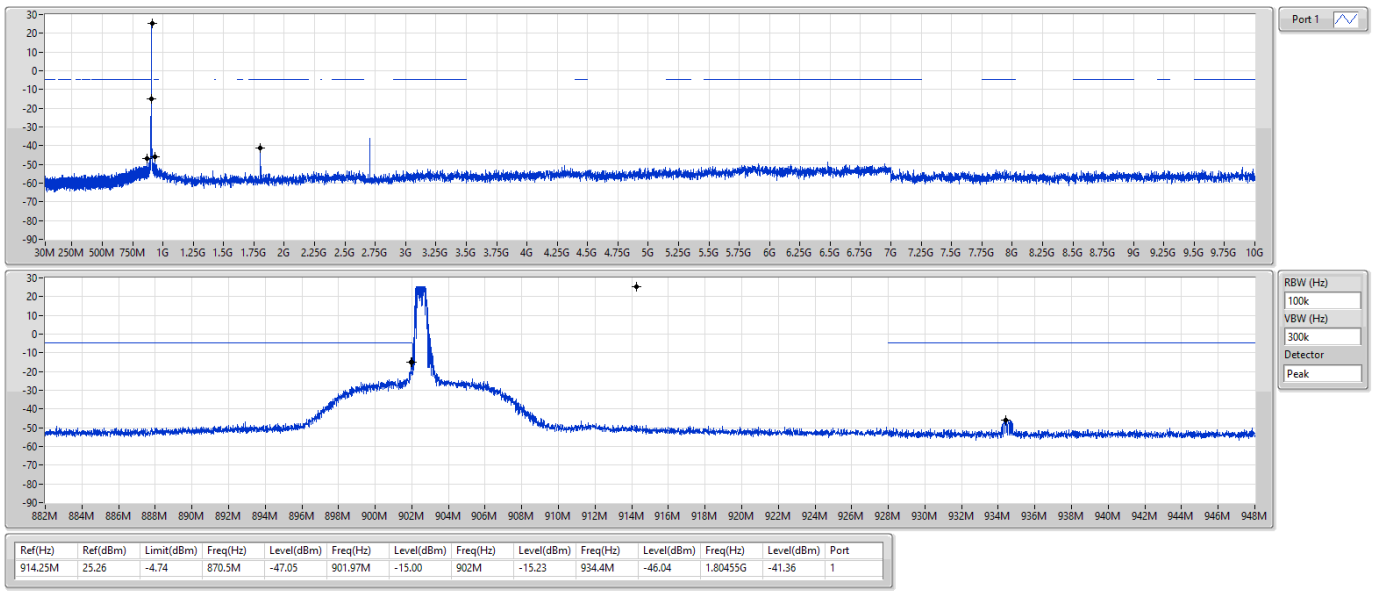
926.5MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
914.29M	25.27	-4.73	822.25M	-49.66	894.72M	-44.59	928M	-26.30	928.67M	-24.17	1.8532G	-44.84	1

LoRa-500-SF10_Nss1_1TX **CSENdB-DTS**

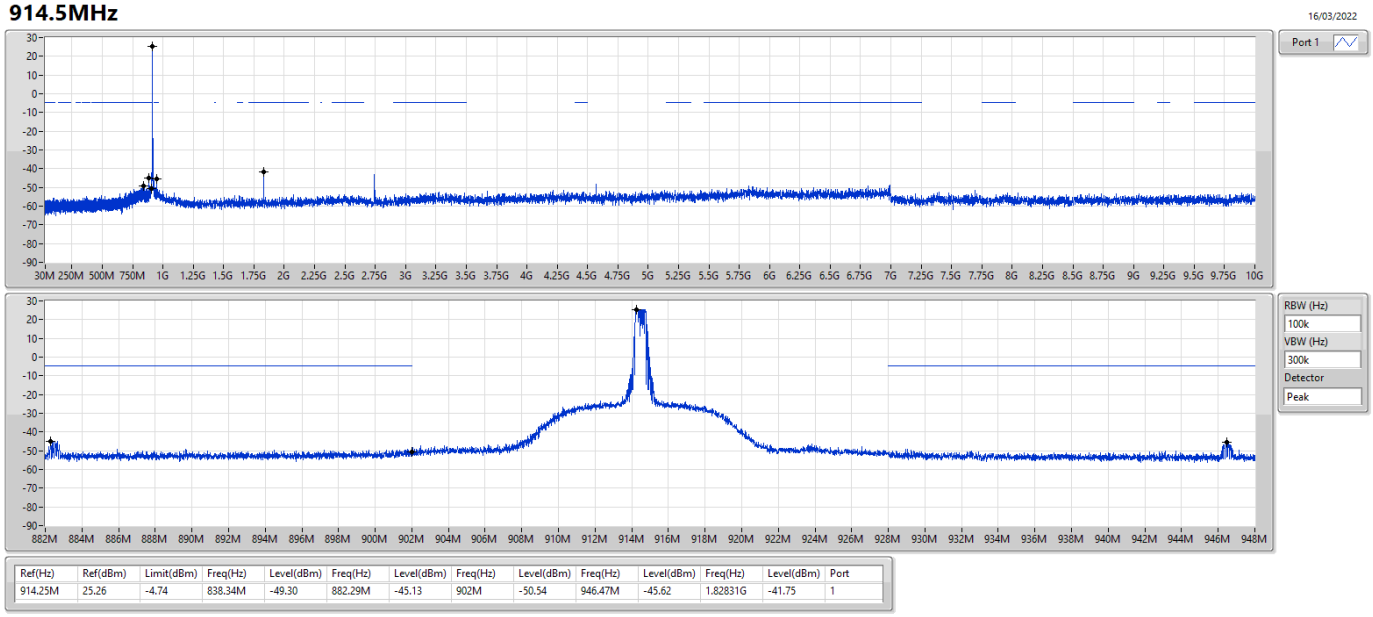
902.5MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
914.25M	25.26	-4.74	870.5M	-47.05	901.97M	-15.00	902M	-15.23	934.4M	-46.04	1.80455G	-41.36	1

LoRa-500-SF10_Nss1_1TX **CSENdB-DTS**

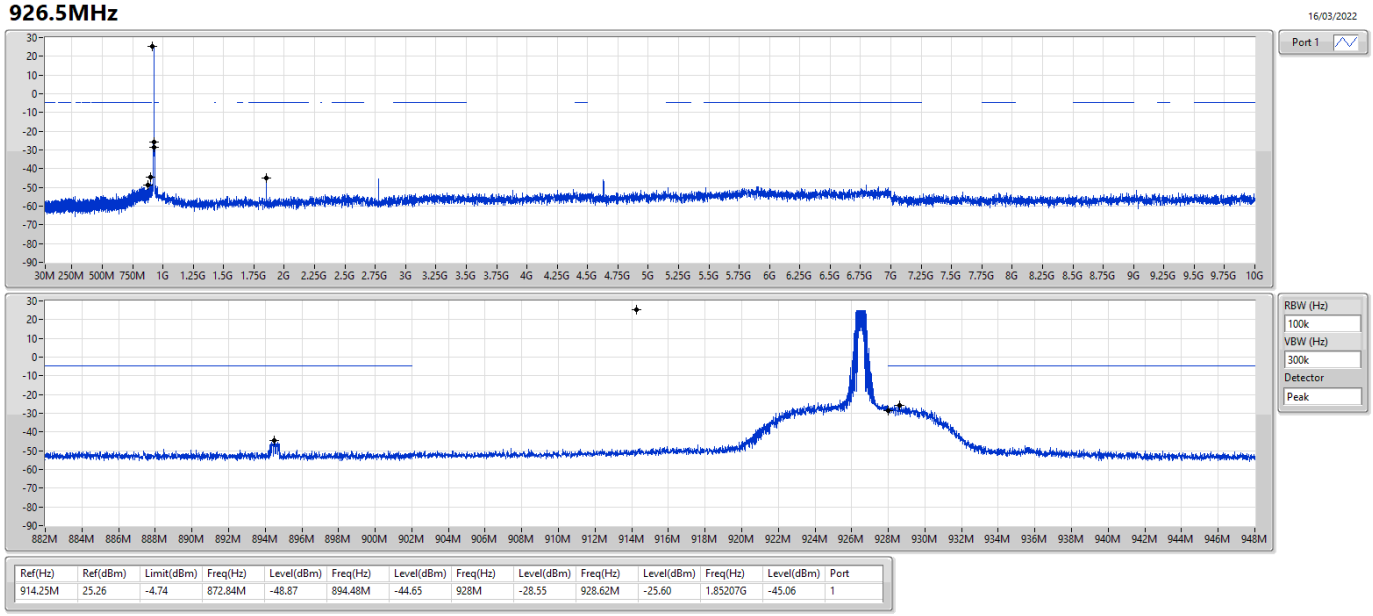
914.5MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
914.25M	25.26	-4.74	838.34M	-49.30	882.29M	-45.13	902M	-50.54	946.47M	-45.62	1.82831G	-41.75	1

LoRa-500-SF10_Nss1_1TX **CSENdB-DTS**

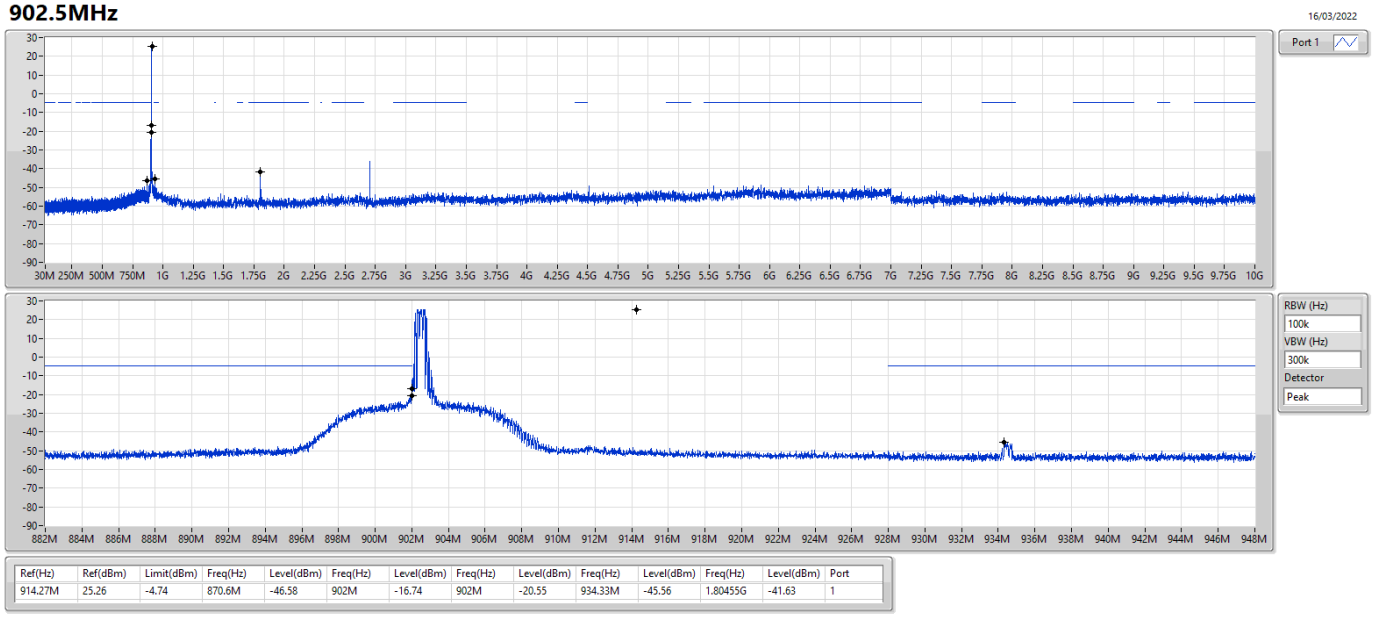
926.5MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
914.25M	25.26	-4.74	872.84M	-48.87	894.48M	-44.65	928M	-28.55	928.62M	-25.60	1.85207G	-45.06	1

LoRa-500-SF11_Nss1_1TX **CSENdB-DTS**

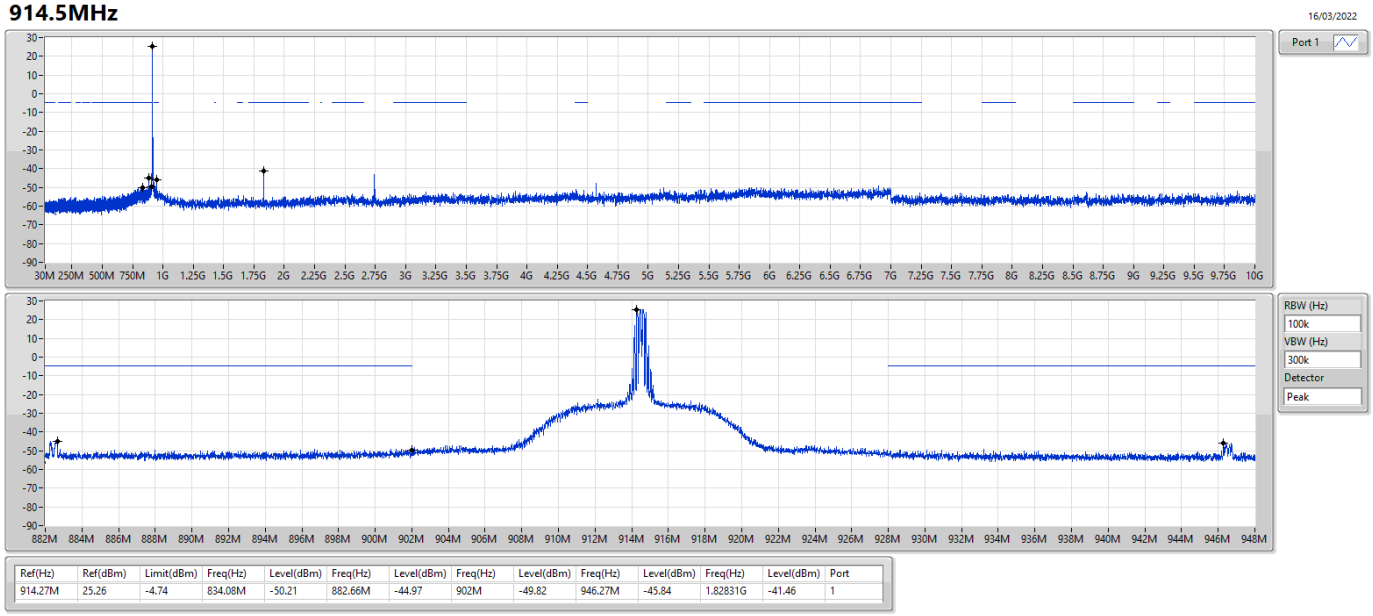
902.5MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
914.27M	25.26	-4.74	870.6M	-46.58	902M	-16.74	902M	-20.55	934.33M	-45.56	1.80455G	-41.63	1

LoRa-500-SF11_Nss1_1TX **CSENdB-DTS**

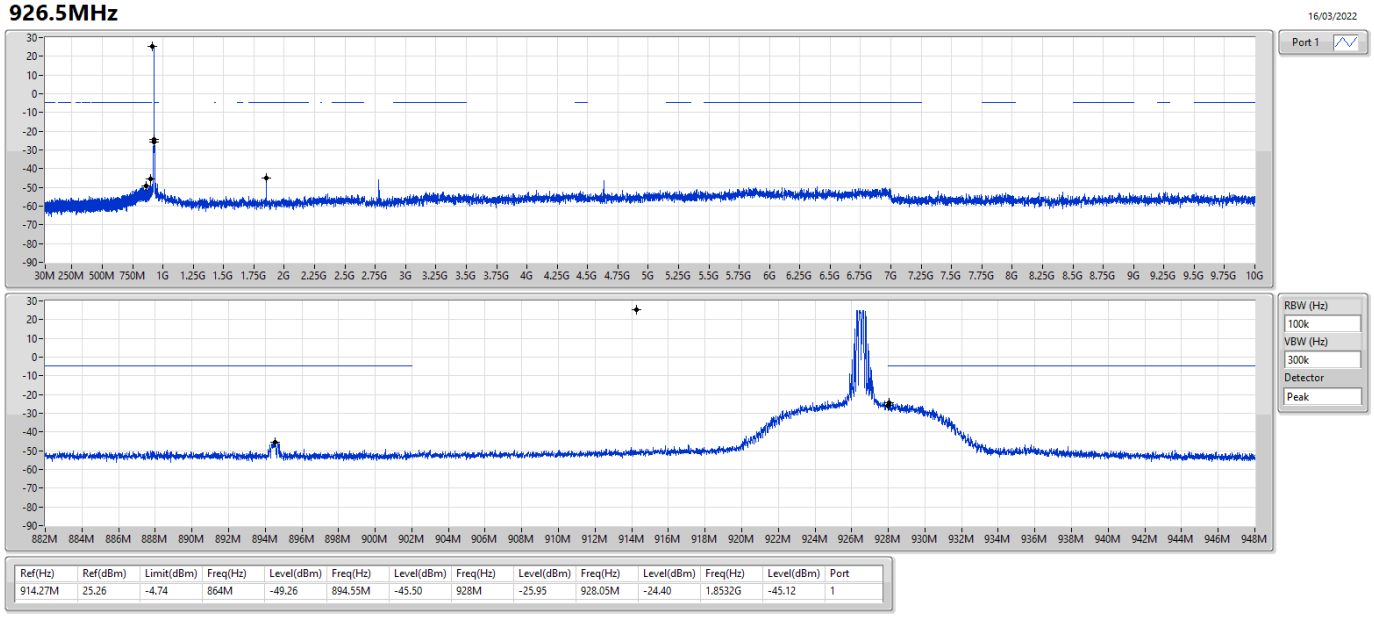
914.5MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
914.27M	25.26	-4.74	834.08M	-50.21	882.66M	-44.97	902M	-49.82	946.27M	-45.84	1.82831G	-41.46	1

LoRa-500-SF11_Nss1_1TX **CSENdB-DTS**

926.5MHz

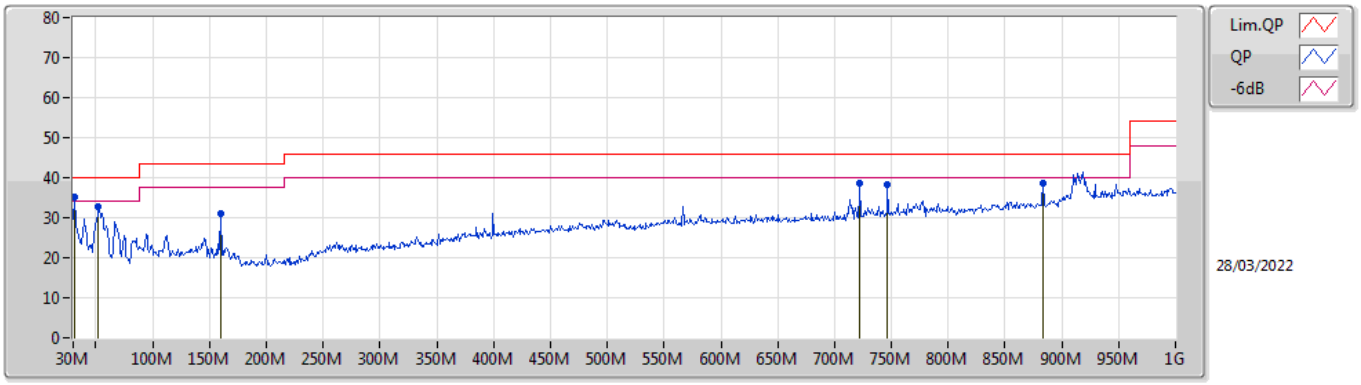


Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
914.27M	25.26	-4.74	864M	-49.26	894.55M	-45.50	928M	-25.95	928.05M	-24.40	1.8532G	-45.12	1

Summary

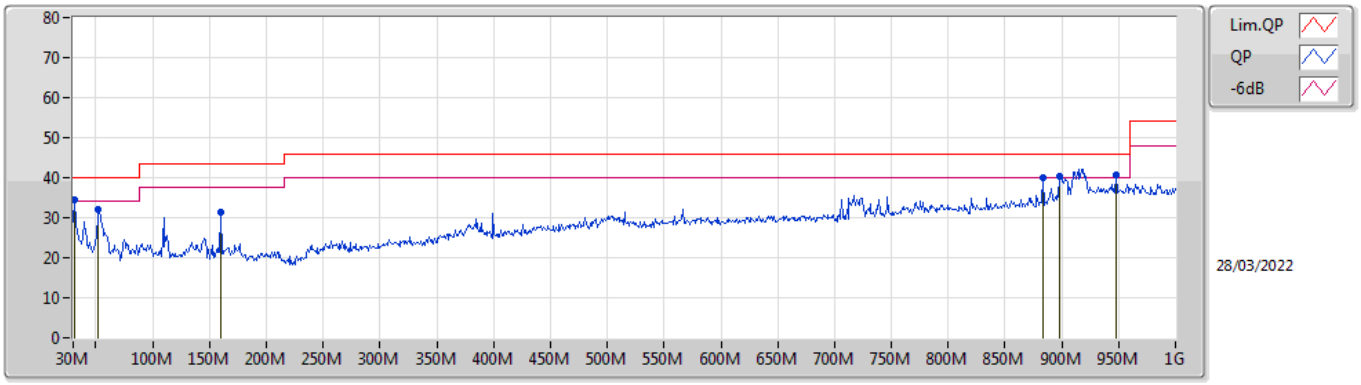
Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Condition
Mode 2	Pass	PK	30.97M	35.05	40.00	-4.95	Vertical

Mode 2



Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB/m)	(m)		(°)	(m)		(dBuV/m)	(dB/m)	(dB)	(dB)
PK	30.97M	35.05	40.00	-4.95	-7.15	3	Vertical	309	1.25	"Worst"	42.20	23.54	0.82	31.51
PK	52.31M	32.75	40.00	-7.25	-17.52	3	Vertical	4	2.00	-	50.27	13.16	1.10	31.78
PK	159.98M	31.13	43.50	-12.37	-14.21	3	Vertical	88	1.00	-	45.34	15.75	2.00	31.96
PK	722.58M	38.62	46.00	-7.38	-3.33	3	Vertical	169	1.25	-	41.95	24.76	4.59	32.68
PK	746.83M	38.16	46.00	-7.84	-2.79	3	Vertical	78	1.25	-	40.95	25.23	4.69	32.71
PK	883.6M	38.52	46.00	-7.48	-1.32	3	Vertical	25	1.50	-	39.84	26.10	5.23	32.65

Mode 2



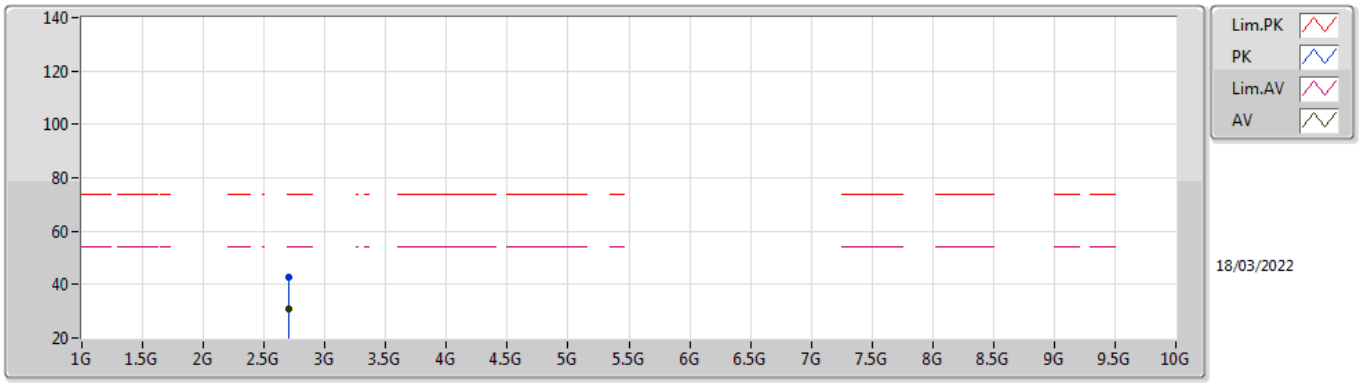
Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB/m)	(m)		(°)	(m)		(dBuV/m)	(dB/m)	(dB)	(dB)
PK	30.97M	34.49	40.00	-5.51	-7.15	3	Horizontal	360	2.00	-	41.64	23.54	0.82	31.51
PK	52.31M	32.05	40.00	-7.95	-17.52	3	Horizontal	161	2.00	-	49.57	13.16	1.10	31.78
PK	159.98M	31.31	43.50	-12.19	-14.21	3	Horizontal	357	3.00	-	45.52	15.75	2.00	31.96
PK	883.6M	39.93	46.00	-6.07	-1.32	3	Horizontal	301	1.00	-	41.25	26.10	5.23	32.65
PK	898.15M	40.51	46.00	-5.49	-1.17	3	Horizontal	27	3.00	-	41.68	26.20	5.29	32.66
PK	947.62M	40.56	46.00	-5.44	-0.53	3	Horizontal	289	1.50	"Worst"	41.09	26.45	5.59	32.57

For LoRa_500kHz
Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
902-928MHz	-	-	-	-	-	-	-	-	-	-	-
LoRa-500-SF5_Nss1_1TX	Pass	AV	2.77946G	31.84	54.00	-22.16	3	Vertical	186	1.00	-

LoRa-500-SF5_Nss1_1TX

902.5MHz_TX

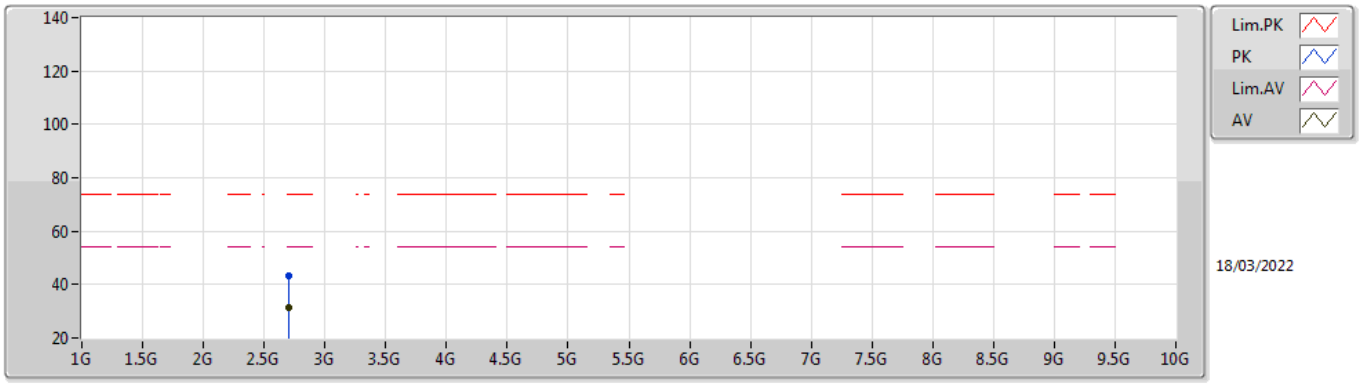


EUT Y_1TX
Setting 6
03-C-K-4

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	2.7078G	42.85	74.00	-31.15	44.57	3	Vertical	183	1.05	-	28.78	5.25	35.75
AV	2.70744G	30.90	54.00	-23.10	32.61	3	Vertical	183	1.05	-	28.79	5.25	35.75

LoRa-500-SF5_Nss1_1TX

902.5MHz_TX

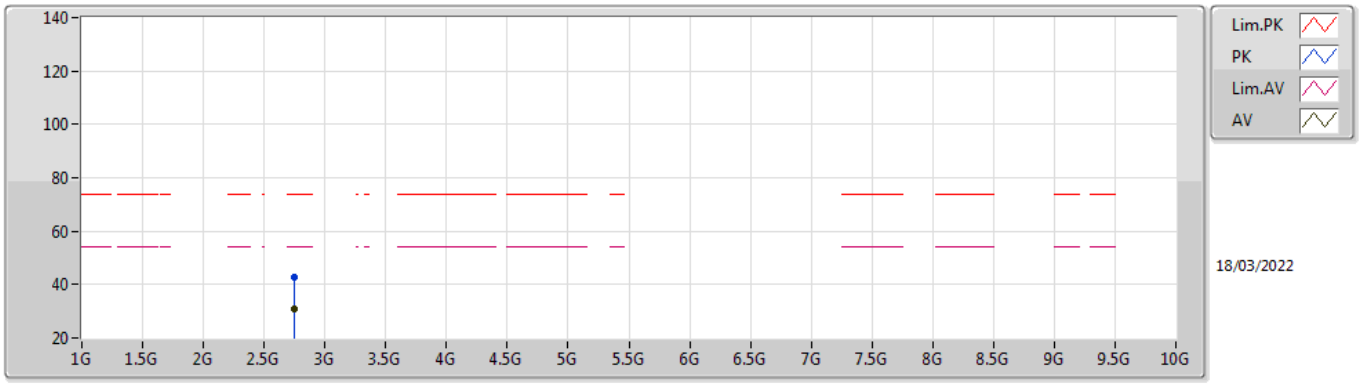


EUT Y_1TX
Setting 6
03-C-K-4

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	2.70756G	43.06	74.00	-30.94	44.78	3	Horizontal	265	2.57	-	28.78	5.25	35.75
AV	2.70732G	31.22	54.00	-22.78	32.93	3	Horizontal	265	2.57	-	28.79	5.25	35.75

LoRa-500-SF5_Nss1_1TX

914.5MHz_TX

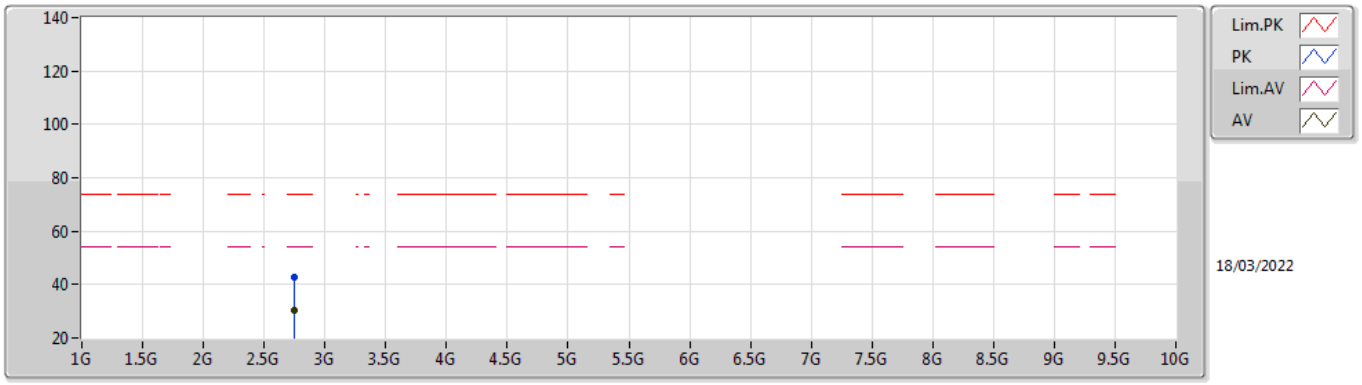


EUT Y_1TX
Setting 6
03-C-K-4

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	2.74342G	42.76	74.00	-31.24	44.54	3	Vertical	184	1.00	-	28.71	5.27	35.76
AV	2.74346G	31.03	54.00	-22.97	32.81	3	Vertical	184	1.00	-	28.71	5.27	35.76

LoRa-500-SF5_Nss1_1TX

914.5MHz_TX

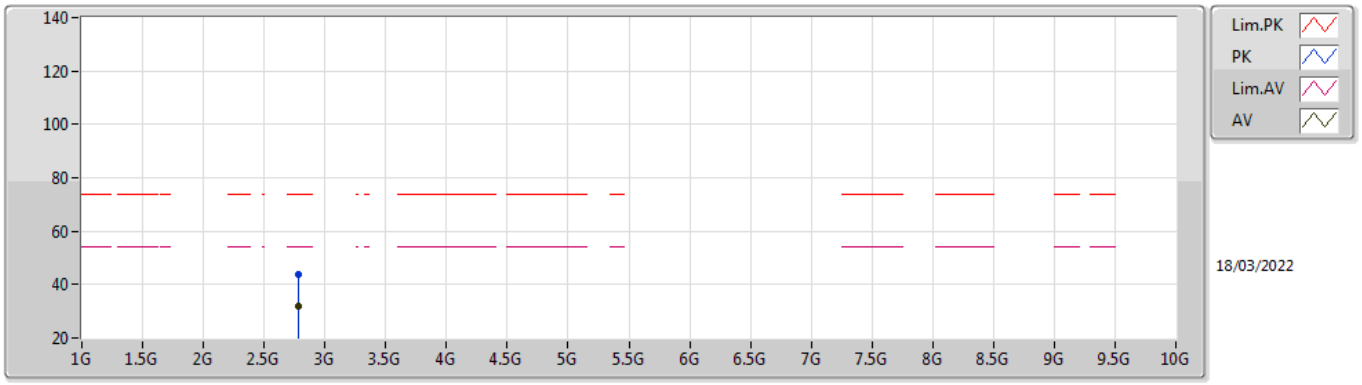


EUT Y_1TX
Setting 6
03-C-K-4

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	2.7429G	42.86	74.00	-31.14	44.64	3	Horizontal	272	2.75	-	28.71	5.27	35.76
AV	2.74352G	30.12	54.00	-23.88	31.90	3	Horizontal	272	2.75	-	28.71	5.27	35.76

LoRa-500-SF5_Nss1_1TX

926.5MHz_TX

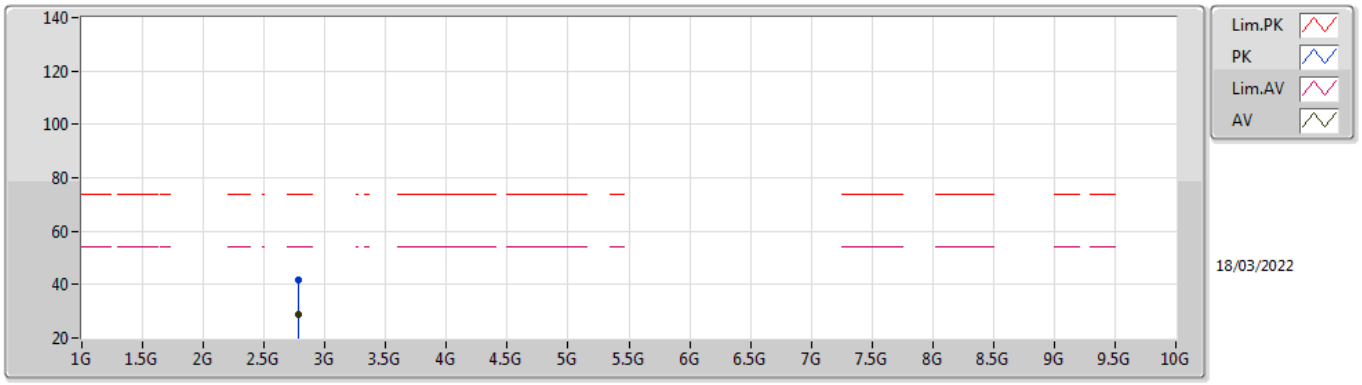


EUT Y_1TX
Setting 7
03-C-K-4

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	2.78014G	43.57	74.00	-30.43	45.24	3	Vertical	186	1.00	-	28.82	5.29	35.78
AV	2.77946G	31.84	54.00	-22.16	33.51	3	Vertical	186	1.00	-	28.82	5.29	35.78

LoRa-500-SF5_Nss1_1TX

926.5MHz_TX



EUT Y_1TX
Setting 7
03-C-K-4

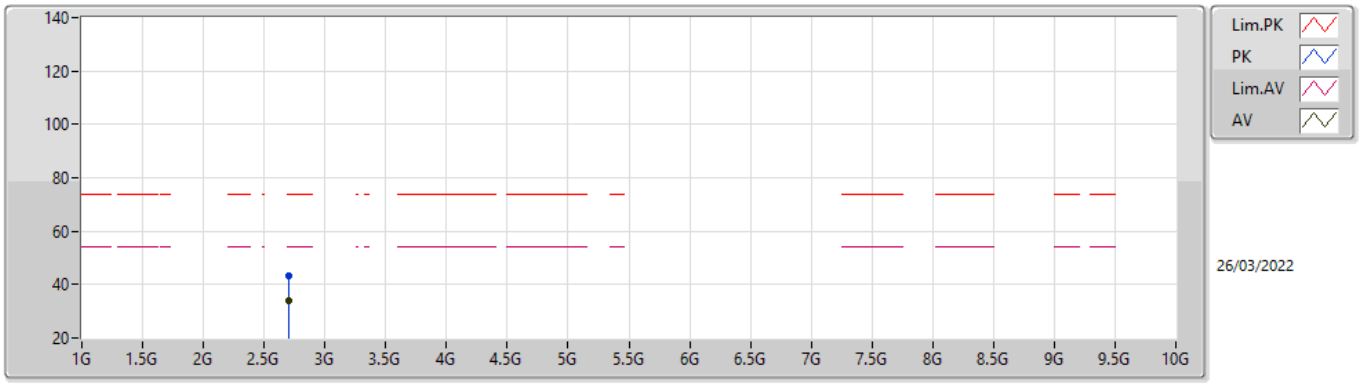
Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	2.78022G	41.64	74.00	-32.36	43.31	3	Horizontal	282	3.00	-	28.82	5.29	35.78
AV	2.7795G	29.04	54.00	-24.96	30.71	3	Horizontal	282	3.00	-	28.82	5.29	35.78

Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
902-928MHz	-	-	-	-	-	-	-	-	-	-	-
LoRa-125-SF8_Nss1_1TX	Pass	AV	2.78343G	35.79	54.00	-18.21	3	Vertical	168	2.75	-

LoRa-125-SF8_Nss1_1TX

902.2MHz_TX

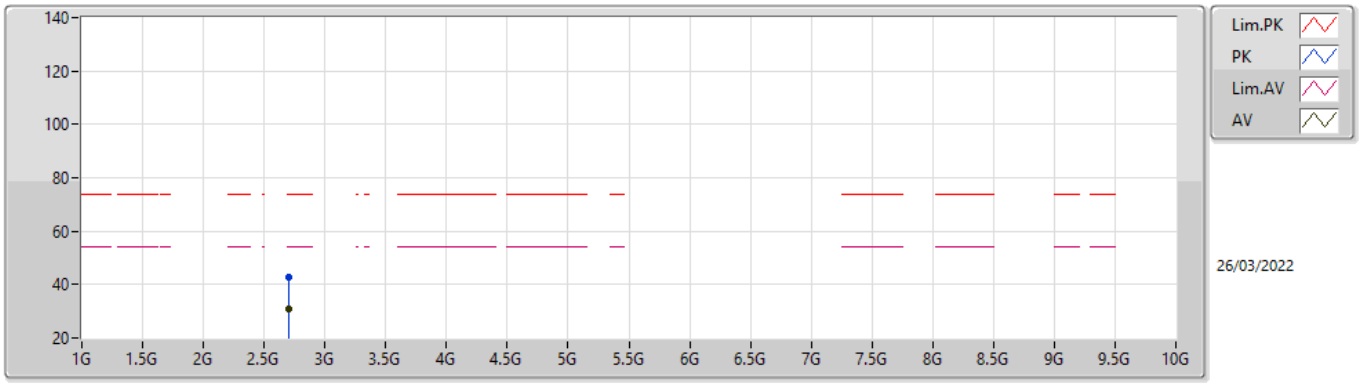


EUT Y_1TX
Setting 13
03-C-S-8

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	2.70657G	43.02	74.00	-30.98	44.73	3	Vertical	169	2.19	-	28.79	5.25	35.75
AV	2.70656G	33.88	54.00	-20.12	35.59	3	Vertical	169	2.19	-	28.79	5.25	35.75

LoRa-125-SF8_Nss1_1TX

902.2MHz_TX

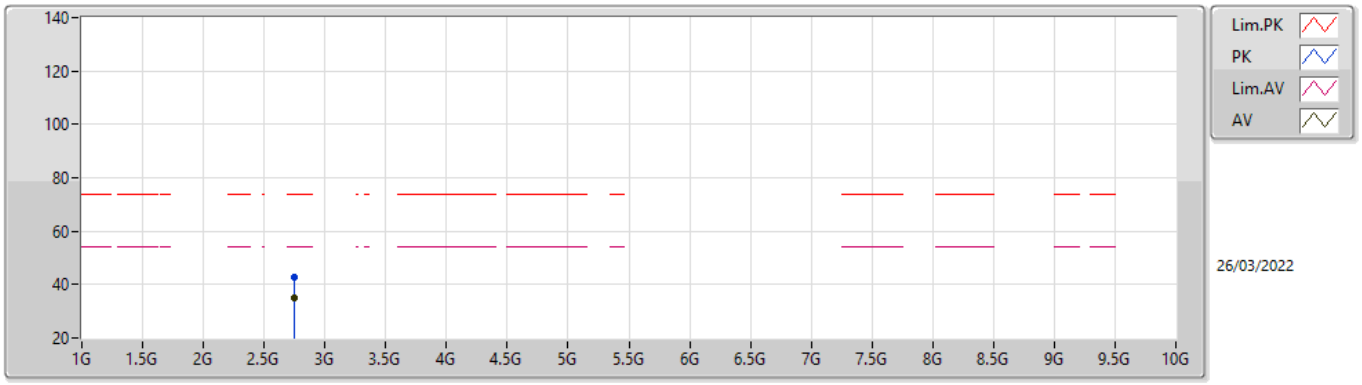


EUT Y_1TX
Setting 13
03-C-S-8

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	2.7066G	42.60	74.00	-31.40	44.31	3	Horizontal	330	2.34	-	28.79	5.25	35.75
AV	2.70654G	31.07	54.00	-22.93	32.78	3	Horizontal	330	2.34	-	28.79	5.25	35.75

LoRa-125-SF8_Nss1_1TX

915MHz_TX

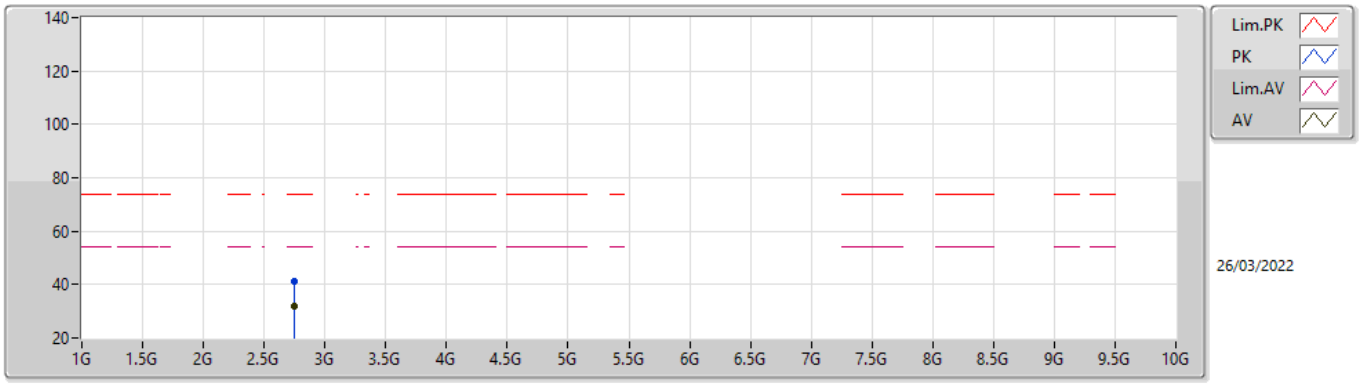


EUT Y_1TX
Setting 13
03-C-S-8

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	2.74508G	42.72	74.00	-31.28	44.50	3	Vertical	169	2.55	-	28.71	5.27	35.76
AV	2.74507G	35.11	54.00	-18.89	36.89	3	Vertical	169	2.55	-	28.71	5.27	35.76

LoRa-125-SF8_Nss1_1TX

915MHz_TX

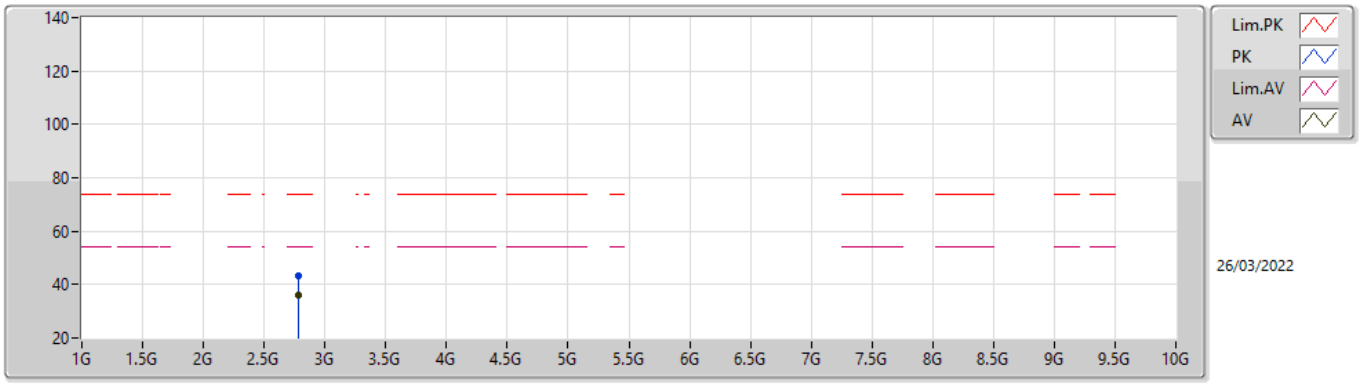


EUT Y_1TX
Setting 13
03-C-S-8

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	2.74493G	41.36	74.00	-32.64	43.14	3	Horizontal	333	1.88	-	28.71	5.27	35.76
AV	2.74485G	32.15	54.00	-21.85	33.93	3	Horizontal	333	1.88	-	28.71	5.27	35.76

LoRa-125-SF8_Nss1_1TX

927.8MHz_TX

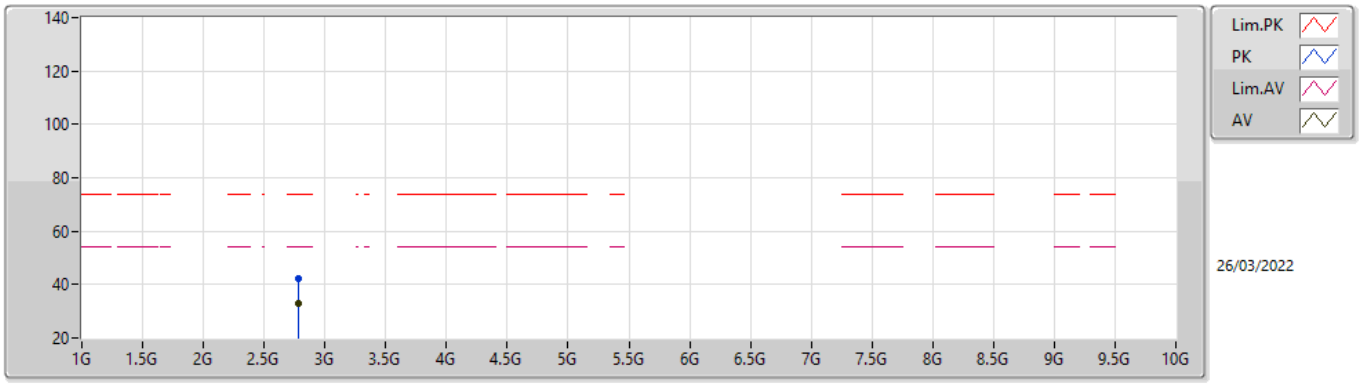


EUT Y_1TX
Setting 13
03-C-S-8

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	2.78334G	43.18	74.00	-30.82	44.84	3	Vertical	168	2.75	-	28.83	5.29	35.78
AV	2.78343G	35.79	54.00	-18.21	37.45	3	Vertical	168	2.75	-	28.83	5.29	35.78

LoRa-125-SF8_Nss1_1TX

927.8MHz_TX

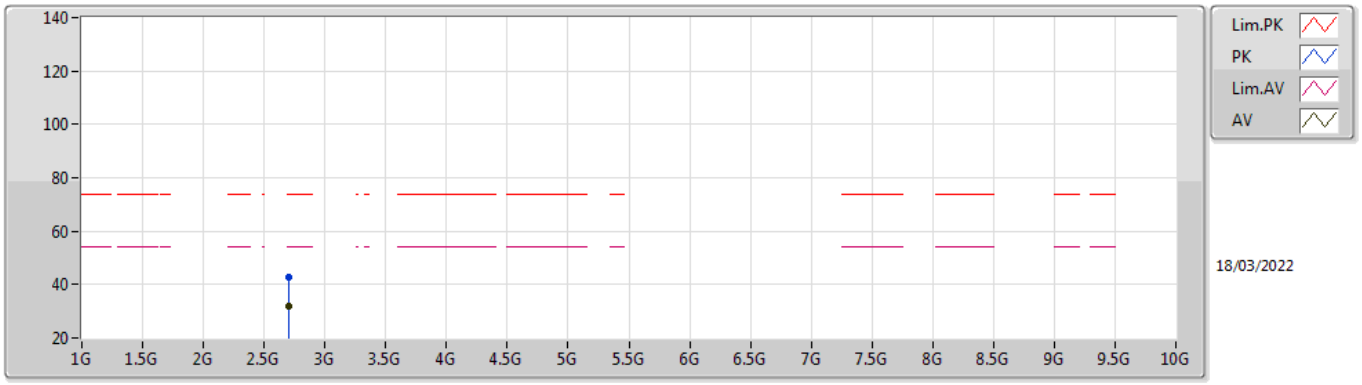


EUT Y_1TX
Setting 13
03-C-S-8

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	2.78333G	42.25	74.00	-31.75	43.91	3	Horizontal	224	2.38	-	28.83	5.29	35.78
AV	2.78334G	32.97	54.00	-21.03	34.63	3	Horizontal	224	2.38	-	28.83	5.29	35.78

LoRa-500-SF8_Nss1_1TX

902.5MHz_TX

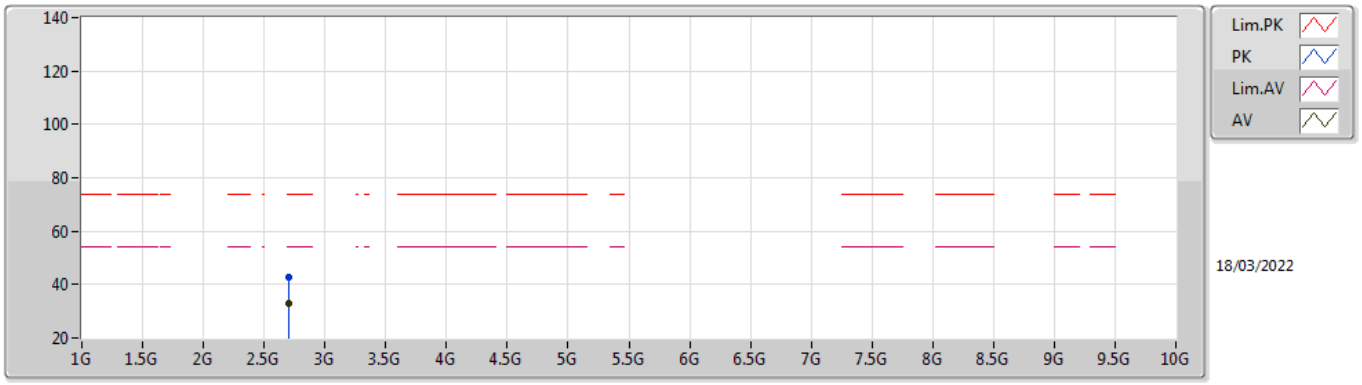


EUT Y_1TX
Setting 13
03-C-K-4

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	2.70754G	43.00	74.00	-31.00	44.72	3	Vertical	184	1.05	-	28.78	5.25	35.75
AV	2.7075G	32.10	54.00	-21.90	33.81	3	Vertical	184	1.05	-	28.79	5.25	35.75

LoRa-500-SF8_Nss1_1TX

902.5MHz_TX

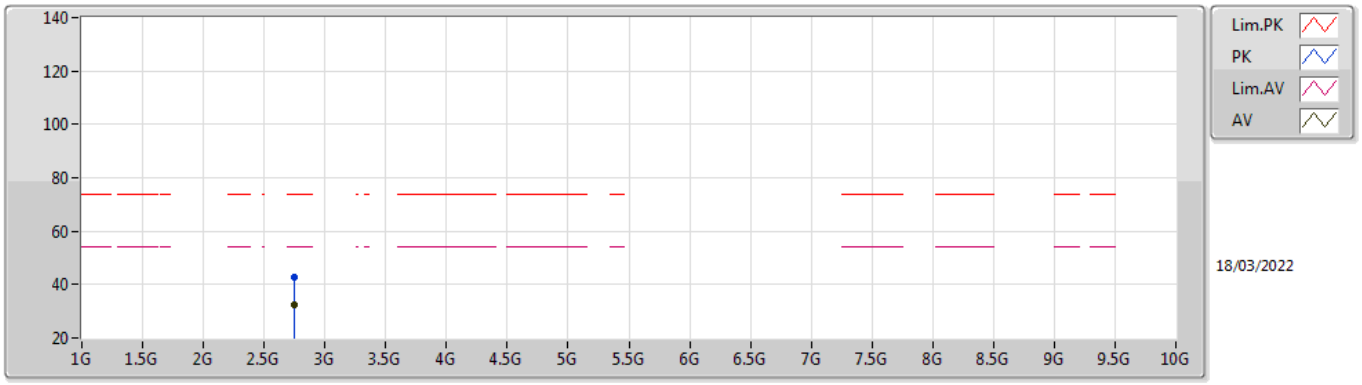


EUT Y_1TX
Setting 13
03-C-K-4

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	2.70722G	42.90	74.00	-31.10	44.61	3	Horizontal	264	2.61	-	28.79	5.25	35.75
AV	2.7077G	32.77	54.00	-21.23	34.49	3	Horizontal	264	2.61	-	28.78	5.25	35.75

LoRa-500-SF8_Nss1_1TX

914.5MHz_TX

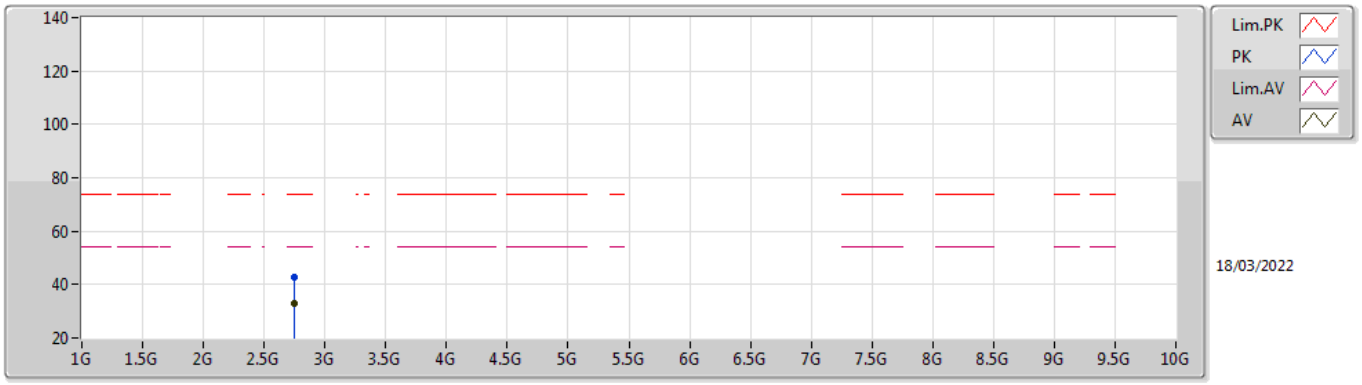


EUT Y_1TX
Setting 13
03-C-K-4

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	2.7437G	42.64	74.00	-31.36	44.42	3	Vertical	189	1.02	-	28.71	5.27	35.76
AV	2.74348G	32.54	54.00	-21.46	34.32	3	Vertical	189	1.02	-	28.71	5.27	35.76

LoRa-500-SF8_Nss1_1TX

914.5MHz_TX

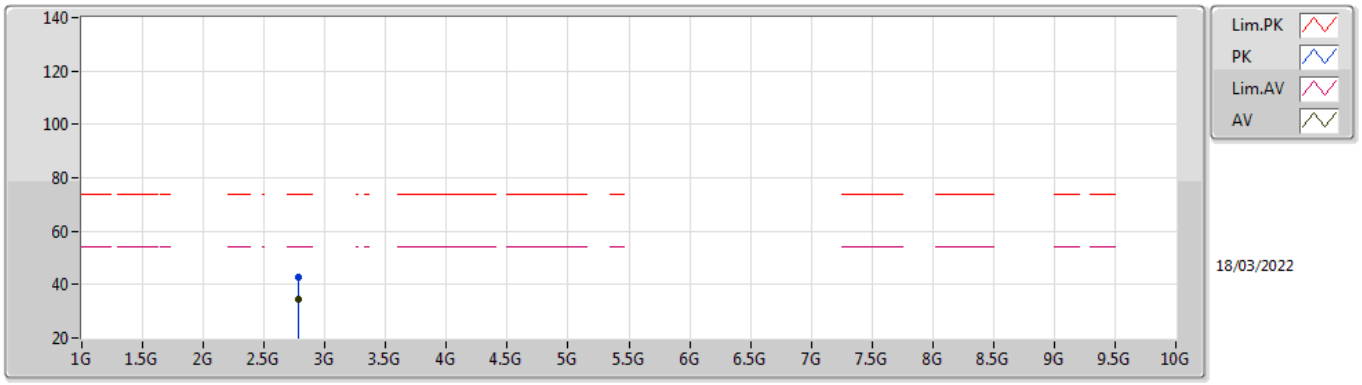


EUT Y_1TX
Setting 13
03-C-K-4

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	2.74316G	42.90	74.00	-31.10	44.68	3	Horizontal	260	3.00	-	28.71	5.27	35.76
AV	2.74362G	32.99	54.00	-21.01	34.77	3	Horizontal	260	3.00	-	28.71	5.27	35.76

LoRa-500-SF8_Nss1_1TX

926.5MHz_TX

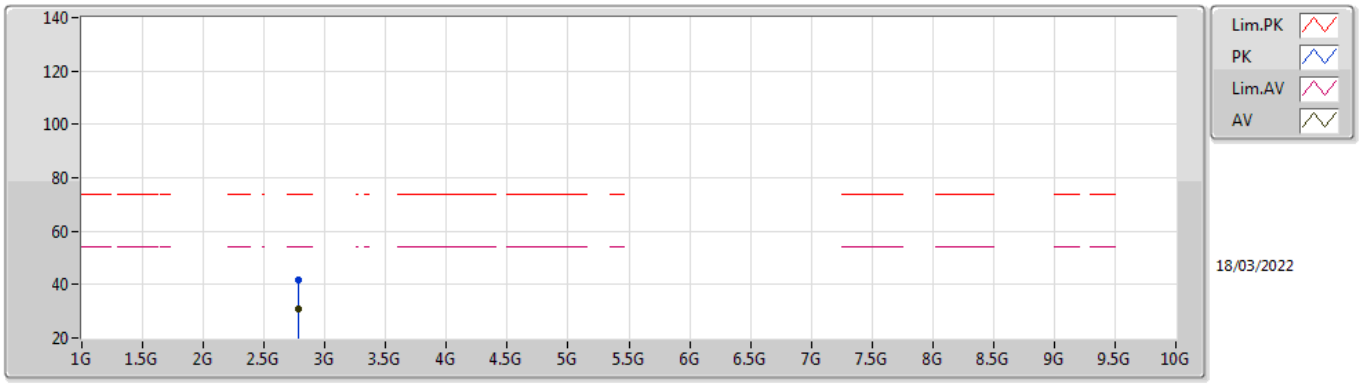


EUT Y_1TX
Setting 13
03-C-K-4

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	2.77964G	42.97	74.00	-31.03	44.64	3	Vertical	186	1.00	-	28.82	5.29	35.78
AV	2.77968G	34.23	54.00	-19.77	35.90	3	Vertical	186	1.00	-	28.82	5.29	35.78

LoRa-500-SF8_Nss1_1TX

926.5MHz_TX



EUT Y_1TX
Setting 13
03-C-K-4

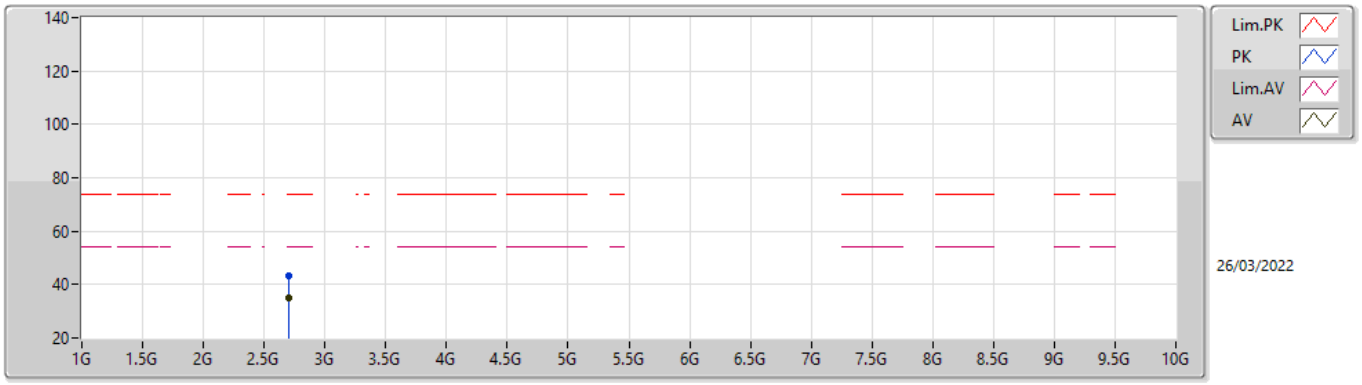
Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	2.77884G	41.48	74.00	-32.52	43.15	3	Horizontal	279	2.43	-	28.82	5.29	35.78
AV	2.77974G	30.88	54.00	-23.12	32.55	3	Horizontal	279	2.43	-	28.82	5.29	35.78

Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
902-928MHz	-	-	-	-	-	-	-	-	-	-	-
LoRa-125-SF9_Nss1_1TX	Pass	AV	2.78336G	35.63	54.00	-18.37	3	Vertical	167	2.69	-

LoRa-125-SF9_Nss1_1TX

902.2MHz_TX

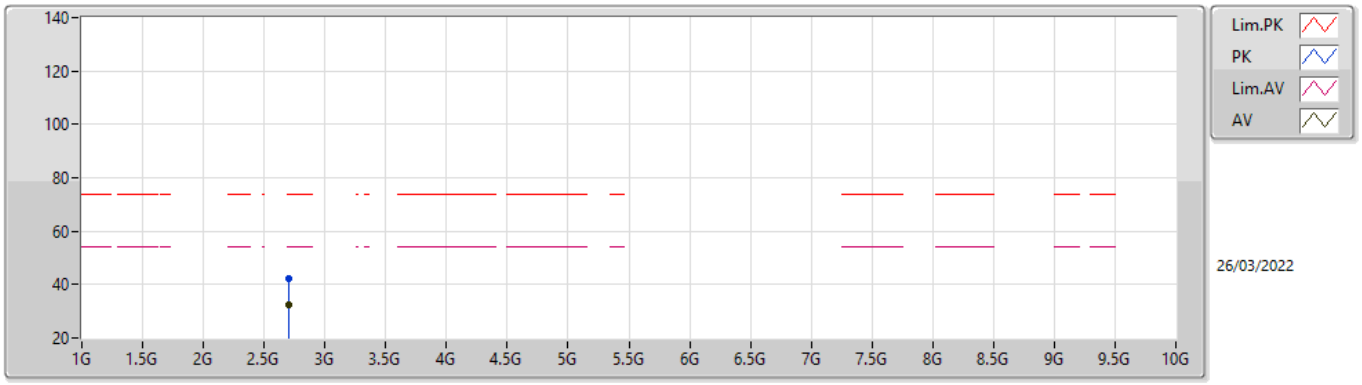


EUT Y_1TX
Setting 13
03-C-S-8

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	2.70641G	43.21	74.00	-30.79	44.92	3	Vertical	163	2.54	-	28.79	5.25	35.75
AV	2.7067G	34.84	54.00	-19.16	36.55	3	Vertical	163	2.54	-	28.79	5.25	35.75

LoRa-125-SF9_Nss1_1TX

902.2MHz_TX

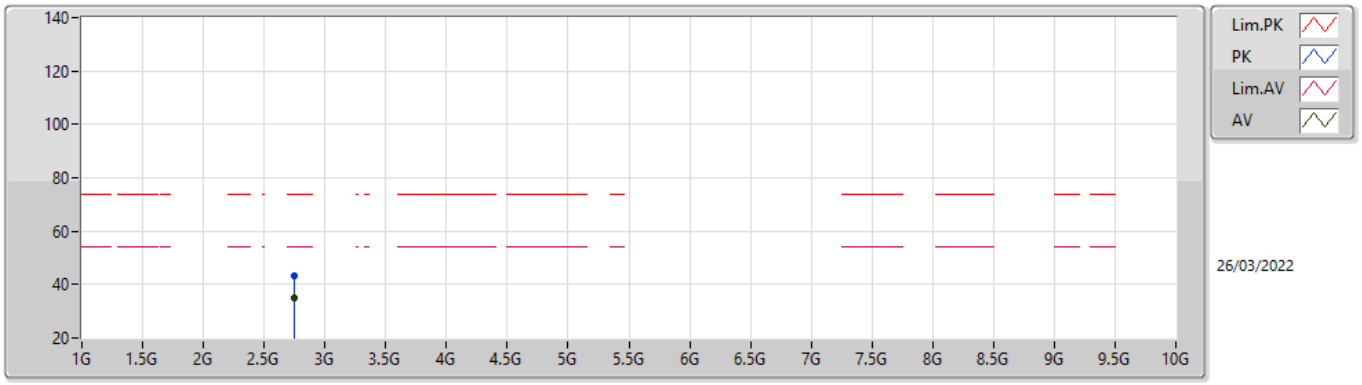


EUT Y_1TX
Setting 13
03-C-S-8

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	2.70641G	42.27	74.00	-31.73	43.98	3	Horizontal	332	1.80	-	28.79	5.25	35.75
AV	2.7067G	32.35	54.00	-21.65	34.06	3	Horizontal	332	1.80	-	28.79	5.25	35.75

LoRa-125-SF9_Nss1_1TX

915MHz_TX

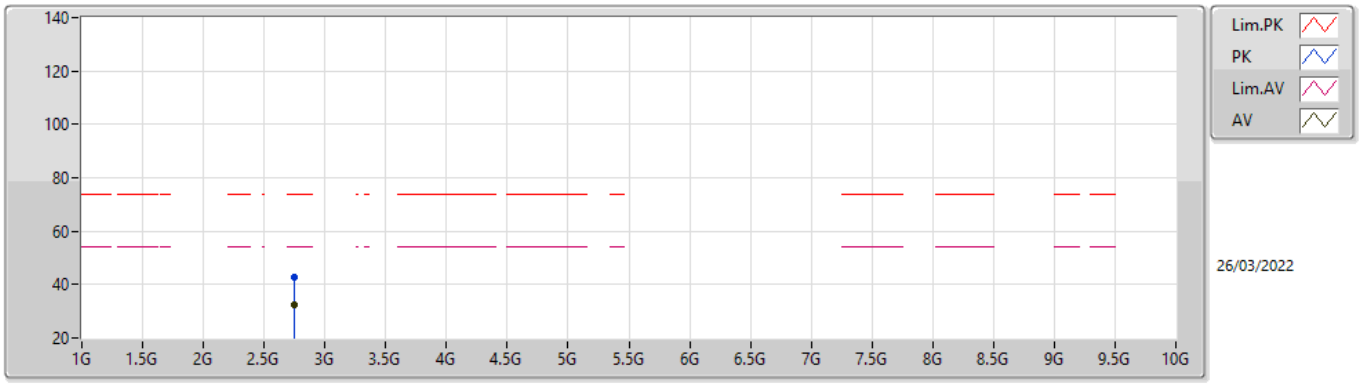


EUT Y_1TX
Setting 13
03-C-S-8

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	2.74491G	43.34	74.00	-30.66	45.12	3	Vertical	170	2.52	-	28.71	5.27	35.76
AV	2.74497G	34.95	54.00	-19.05	36.73	3	Vertical	170	2.52	-	28.71	5.27	35.76

LoRa-125-SF9_Nss1_1TX

915MHz_TX

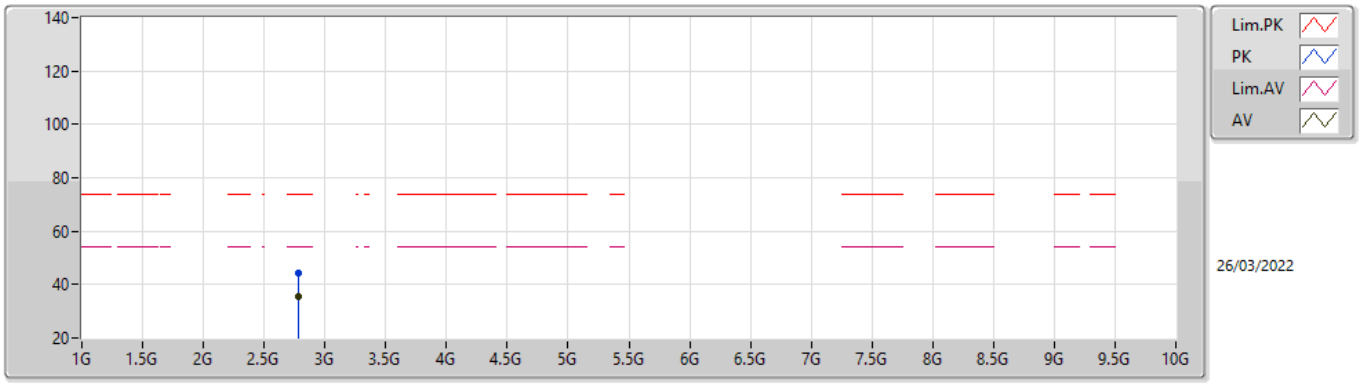


EUT Y_1TX
Setting 13
03-C-S-8

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	2.74506G	42.56	74.00	-31.44	44.34	3	Horizontal	332	1.76	-	28.71	5.27	35.76
AV	2.74498G	32.47	54.00	-21.53	34.25	3	Horizontal	332	1.76	-	28.71	5.27	35.76

LoRa-125-SF9_Nss1_1TX

927.8MHz_TX

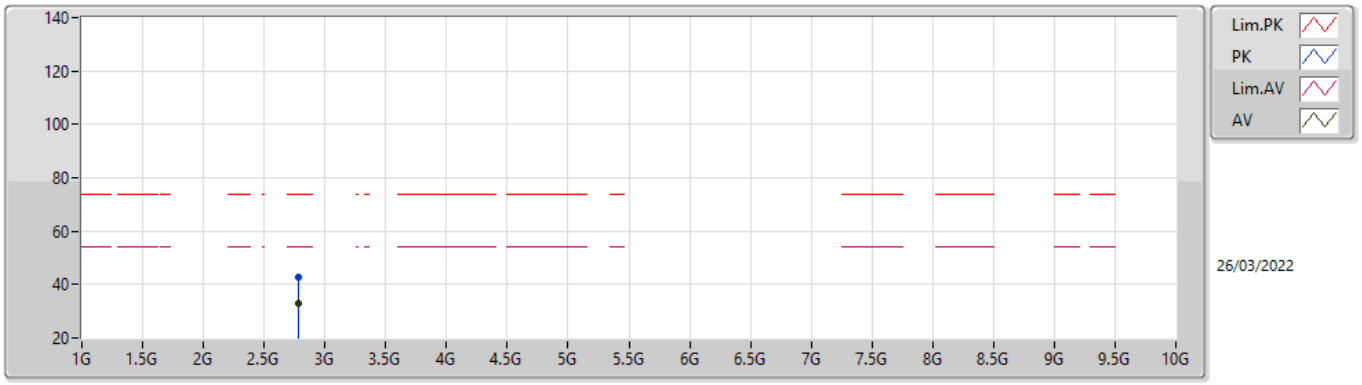


EUT Y_1TX
Setting 13
03-C-S-8

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	2.78324G	44.20	74.00	-29.80	45.86	3	Vertical	167	2.69	-	28.83	5.29	35.78
AV	2.78336G	35.63	54.00	-18.37	37.29	3	Vertical	167	2.69	-	28.83	5.29	35.78

LoRa-125-SF9_Nss1_1TX

927.8MHz_TX

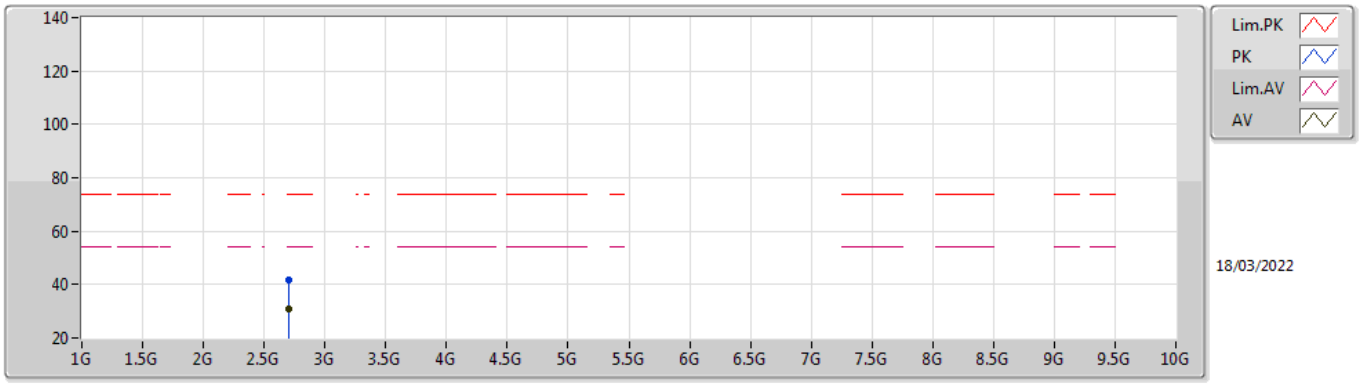


EUT Y_1TX
Setting 13
03-C-S-8

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	2.78312G	42.51	74.00	-31.49	44.17	3	Horizontal	225	2.47	-	28.83	5.29	35.78
AV	2.78344G	32.82	54.00	-21.18	34.48	3	Horizontal	225	2.47	-	28.83	5.29	35.78

LoRa-500-SF9_Nss1_1TX

902.5MHz_TX

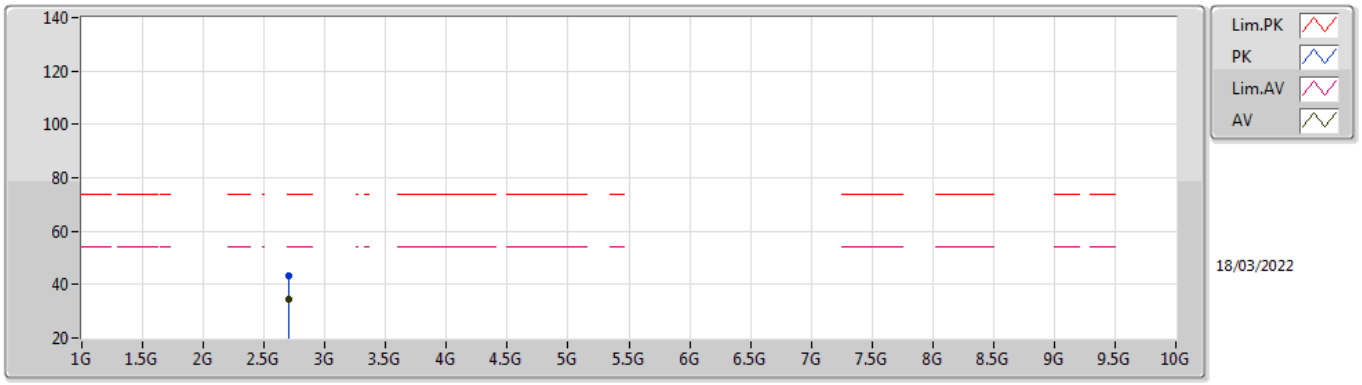


EUT Y_1TX
Setting 13
03-C-K-4

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	2.70792G	41.84	74.00	-32.16	43.56	3	Vertical	197	2.25	-	28.78	5.25	35.75
AV	2.70748G	31.08	54.00	-22.92	32.79	3	Vertical	197	2.25	-	28.79	5.25	35.75

LoRa-500-SF9_Nss1_1TX

902.5MHz_TX

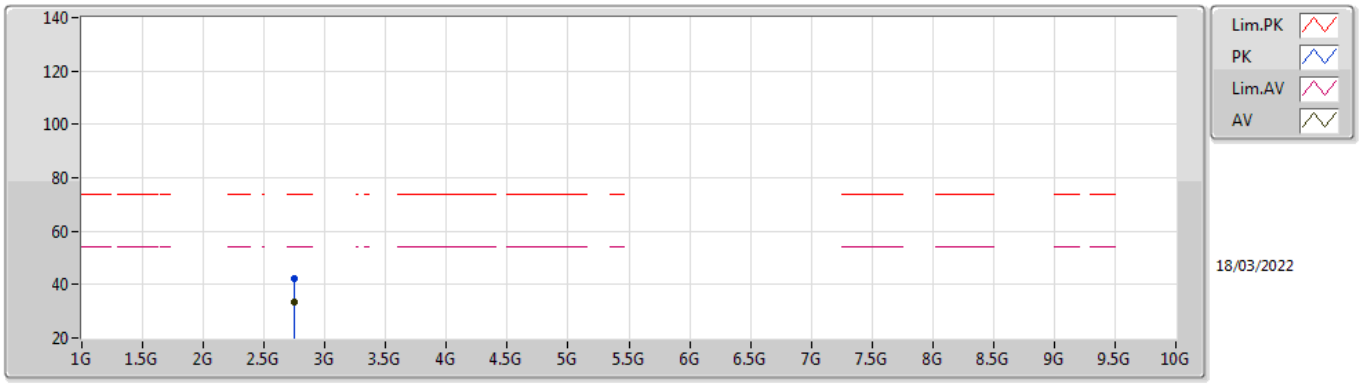


EUT Y_1TX
Setting 13
03-C-K-4

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	2.70702G	43.14	74.00	-30.86	44.85	3	Horizontal	265	2.57	-	28.79	5.25	35.75
AV	2.7079G	34.31	54.00	-19.69	36.03	3	Horizontal	265	2.57	-	28.78	5.25	35.75

LoRa-500-SF9_Nss1_1TX

914.5MHz_TX

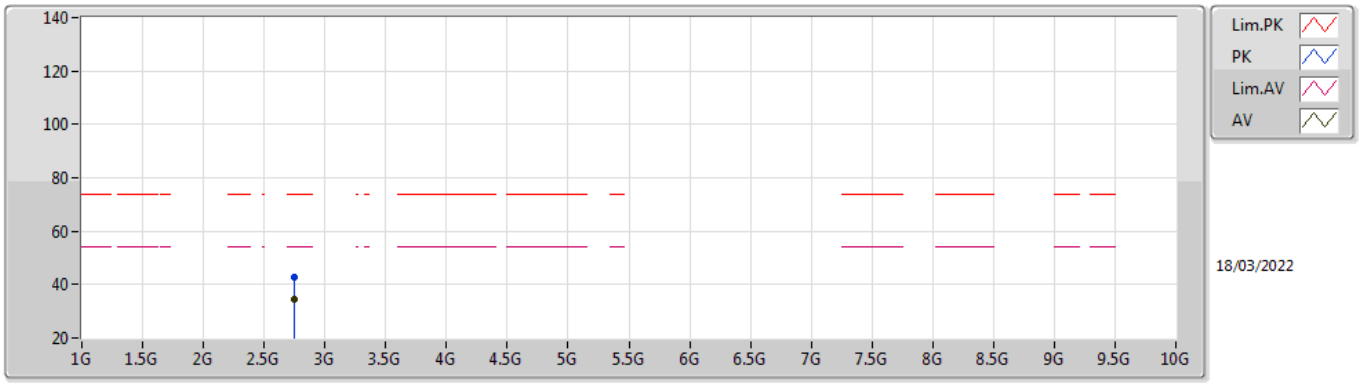


EUT Y_1TX
Setting 13
03-C-K-4

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	2.74284G	42.02	74.00	-31.98	43.80	3	Vertical	191	1.00	-	28.71	5.27	35.76
AV	2.74388G	33.36	54.00	-20.64	35.14	3	Vertical	191	1.00	-	28.71	5.27	35.76

LoRa-500-SF9_Nss1_1TX

914.5MHz_TX

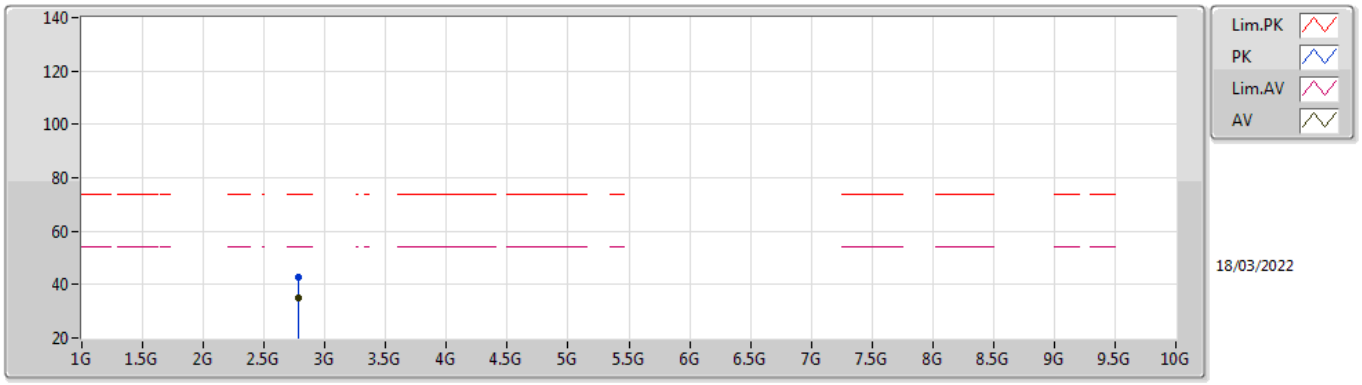


EUT Y_1TX
Setting 13
03-C-K-4

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	2.74354G	42.84	74.00	-31.16	44.62	3	Horizontal	259	3.00	-	28.71	5.27	35.76
AV	2.74352G	34.62	54.00	-19.38	36.40	3	Horizontal	259	3.00	-	28.71	5.27	35.76

LoRa-500-SF9_Nss1_1TX

926.5MHz_TX

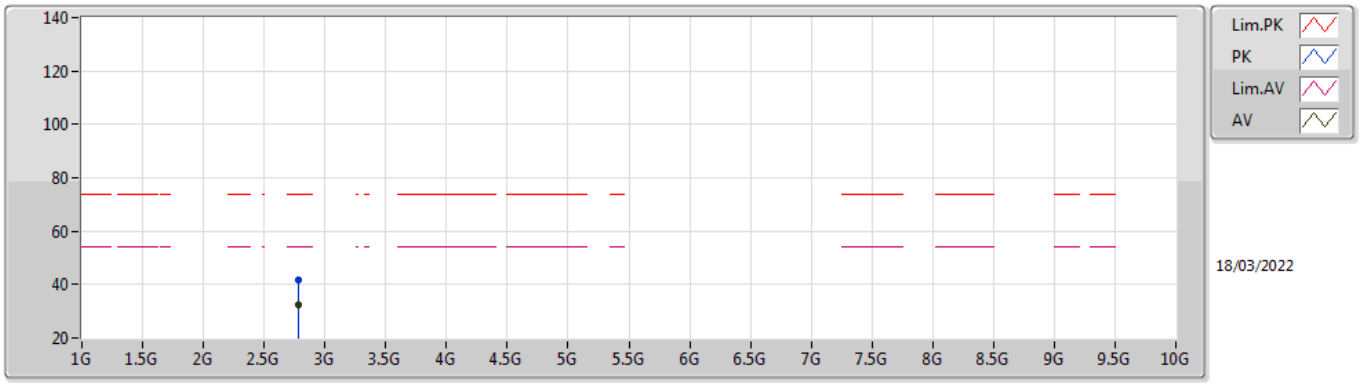


EUT Y_1TX
Setting 13
03-C-K-4

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	2.77866G	42.74	74.00	-31.26	44.42	3	Vertical	185	1.00	-	28.81	5.29	35.78
AV	2.77974G	35.24	54.00	-18.76	36.91	3	Vertical	185	1.00	-	28.82	5.29	35.78

LoRa-500-SF9_Nss1_1TX

926.5MHz_TX



EUT Y_1TX
Setting 13
03-C-K-4

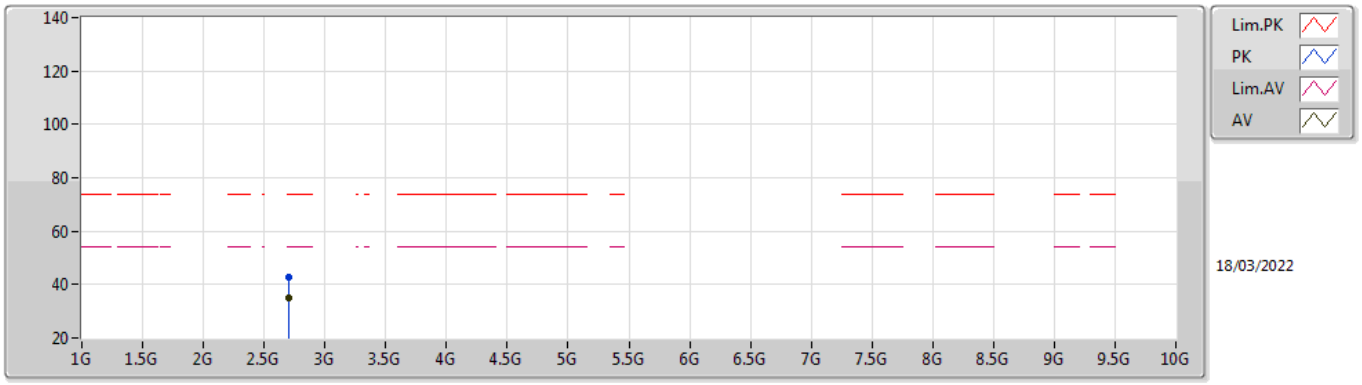
Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	2.77946G	41.84	74.00	-32.16	43.51	3	Horizontal	86	2.97	-	28.82	5.29	35.78
AV	2.77928G	32.38	54.00	-21.62	34.05	3	Horizontal	86	2.97	-	28.82	5.29	35.78

Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
902-928MHz	-	-	-	-	-	-	-	-	-	-	-
LoRa-500-SF10_Nss1_1TX	Pass	AV	2.77934G	36.77	54.00	-17.23	3	Vertical	186	1.15	-

LoRa-500-SF10_Nss1_1TX

902.5MHz_TX

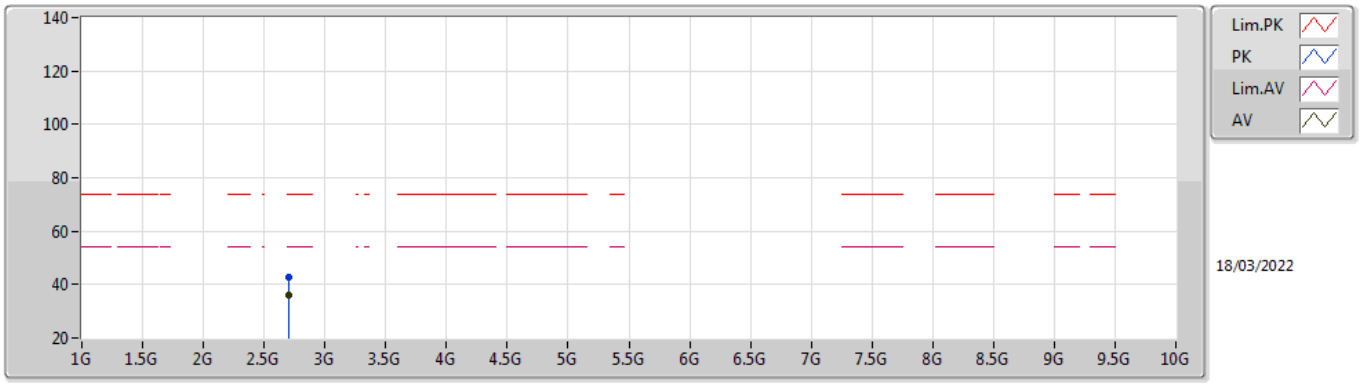


EUT Y_1TX
Setting 13
03-C-K-4

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	2.70802G	42.73	74.00	-31.27	44.45	3	Vertical	184	1.06	-	28.78	5.25	35.75
AV	2.70736G	34.93	54.00	-19.07	36.64	3	Vertical	184	1.06	-	28.79	5.25	35.75

LoRa-500-SF10_Nss1_1TX

902.5MHz_TX

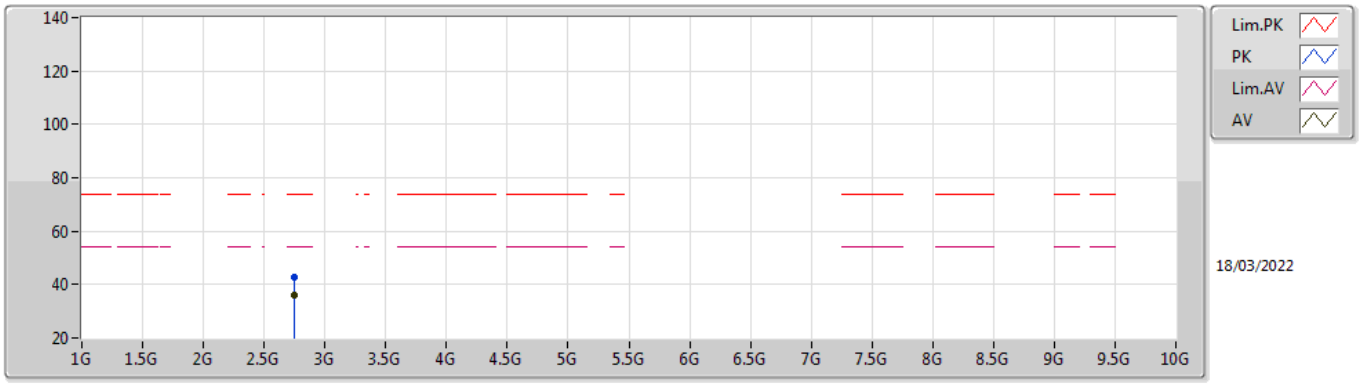


EUT Y_1TX
Setting 13
03-C-K-4

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	2.7078G	42.77	74.00	-31.23	44.49	3	Horizontal	264	2.57	-	28.78	5.25	35.75
AV	2.70722G	36.18	54.00	-17.82	37.89	3	Horizontal	264	2.57	-	28.79	5.25	35.75

LoRa-500-SF10_Nss1_1TX

914.5MHz_TX

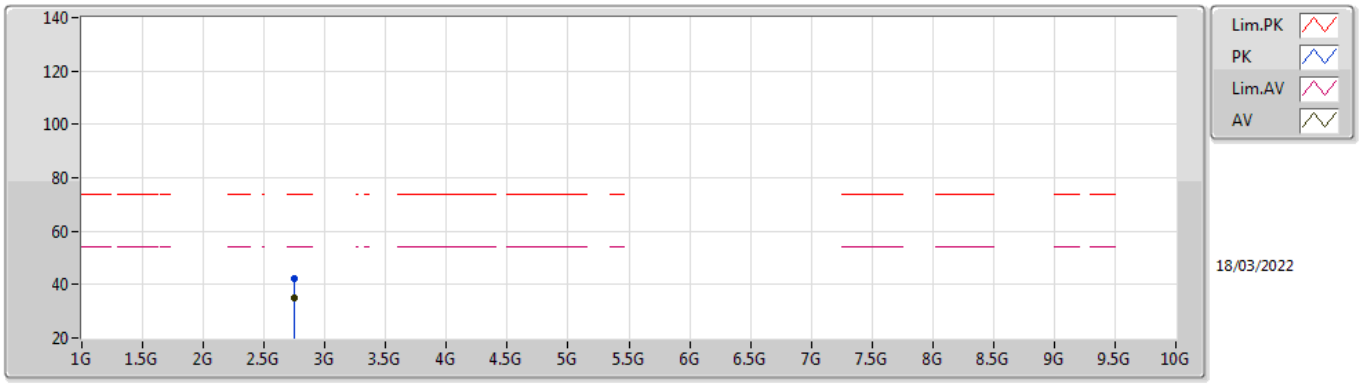


EUT Y_1TX
Setting 13
03-C-K-4

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	2.74402G	42.94	74.00	-31.06	44.72	3	Vertical	184	1.01	-	28.71	5.27	35.76
AV	2.74346G	35.79	54.00	-18.21	37.57	3	Vertical	184	1.01	-	28.71	5.27	35.76

LoRa-500-SF10_Nss1_1TX

914.5MHz_TX

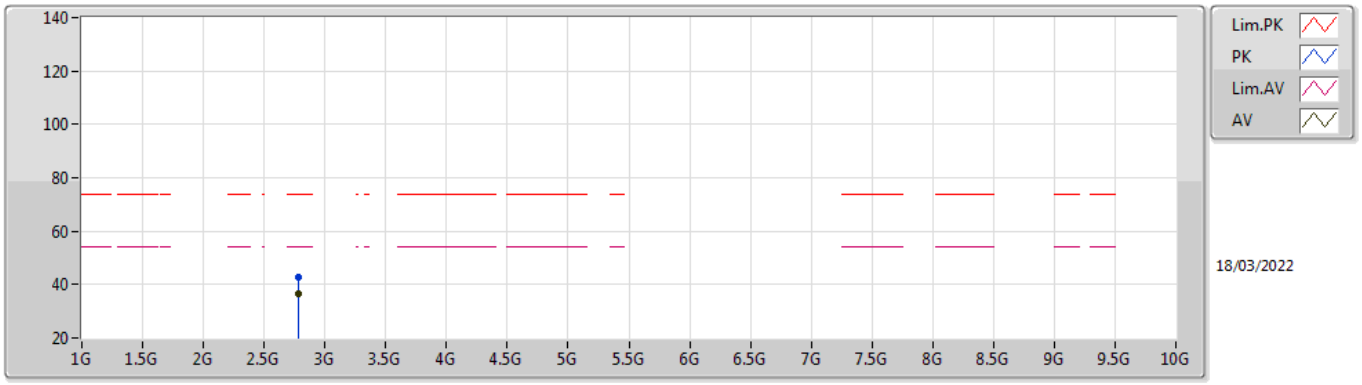


EUT Y_1TX
Setting 13
03-C-K-4

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	2.74288G	42.02	74.00	-31.98	43.80	3	Horizontal	265	2.72	-	28.71	5.27	35.76
AV	2.74274G	34.82	54.00	-19.18	36.60	3	Horizontal	265	2.72	-	28.71	5.27	35.76

LoRa-500-SF10_Nss1_1TX

926.5MHz_TX

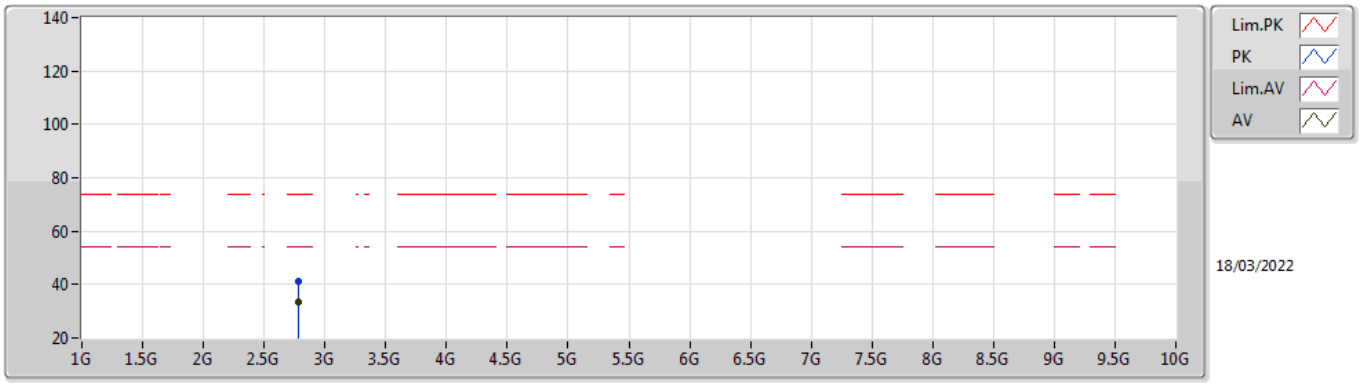


EUT Y_1TX
Setting 13
03-C-K-4

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	2.78014G	42.93	74.00	-31.07	44.60	3	Vertical	186	1.15	-	28.82	5.29	35.78
AV	2.77934G	36.77	54.00	-17.23	38.44	3	Vertical	186	1.15	-	28.82	5.29	35.78

LoRa-500-SF10_Nss1_1TX

926.5MHz_TX



EUT Y_1TX
Setting 13
03-C-K-4

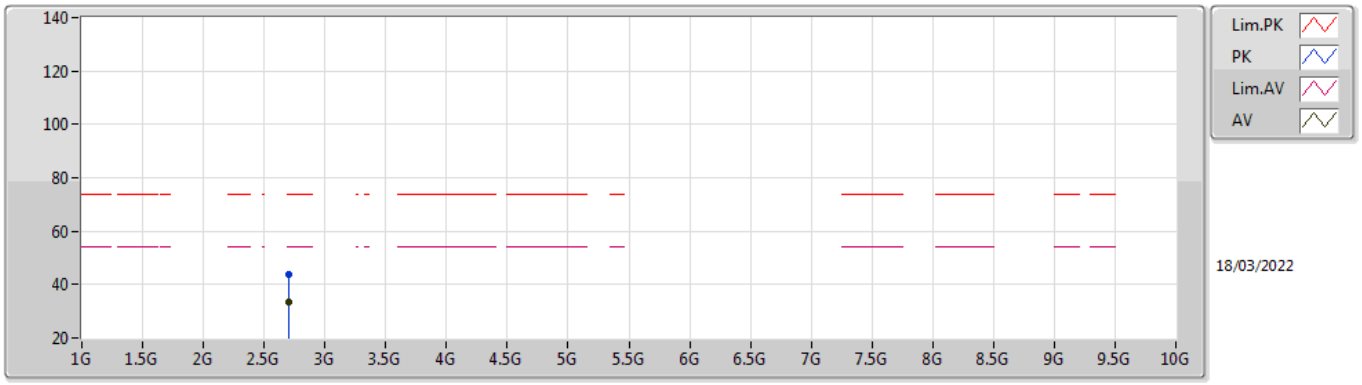
Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	2.7796G	41.21	74.00	-32.79	42.88	3	Horizontal	282	2.70	-	28.82	5.29	35.78
AV	2.77876G	33.35	54.00	-20.65	35.02	3	Horizontal	282	2.70	-	28.82	5.29	35.78

Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
902-928MHz	-	-	-	-	-	-	-	-	-	-	-
LoRa-500-SF11_Nss1_1TX	Pass	AV	2.70756G	34.59	54.00	-19.41	3	Horizontal	230	1.00	-

LoRa-500-SF11_Nss1_1TX

902.5MHz_TX

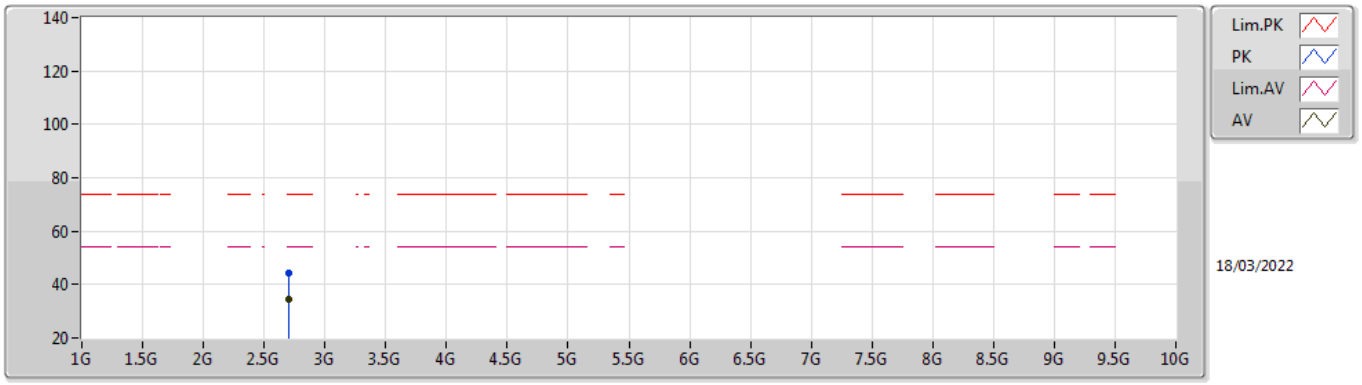


EUT Y_1TX
Setting 13
03-C-C-5

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	2.70678G	43.61	74.00	-30.39	45.32	3	Vertical	172	2.13	-	28.79	5.25	35.75
AV	2.70738G	33.27	54.00	-20.73	34.98	3	Vertical	172	2.13	-	28.79	5.25	35.75

LoRa-500-SF11_Nss1_1TX

902.5MHz_TX

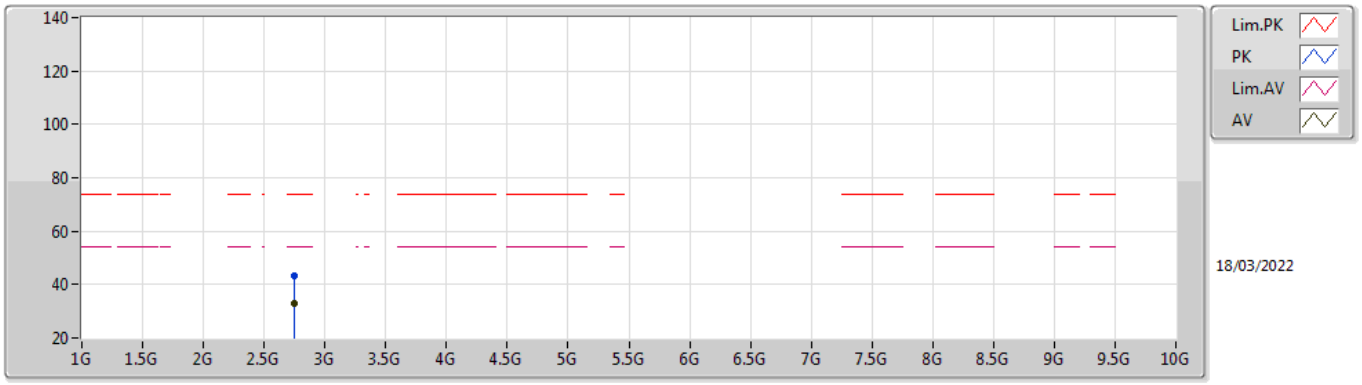


EUT Y_1TX
Setting 13
03-C-C-5

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	2.70726G	44.18	74.00	-29.82	45.89	3	Horizontal	230	1.00	-	28.79	5.25	35.75
AV	2.70756G	34.59	54.00	-19.41	36.31	3	Horizontal	230	1.00	-	28.78	5.25	35.75

LoRa-500-SF11_Nss1_1TX

914.5MHz_TX

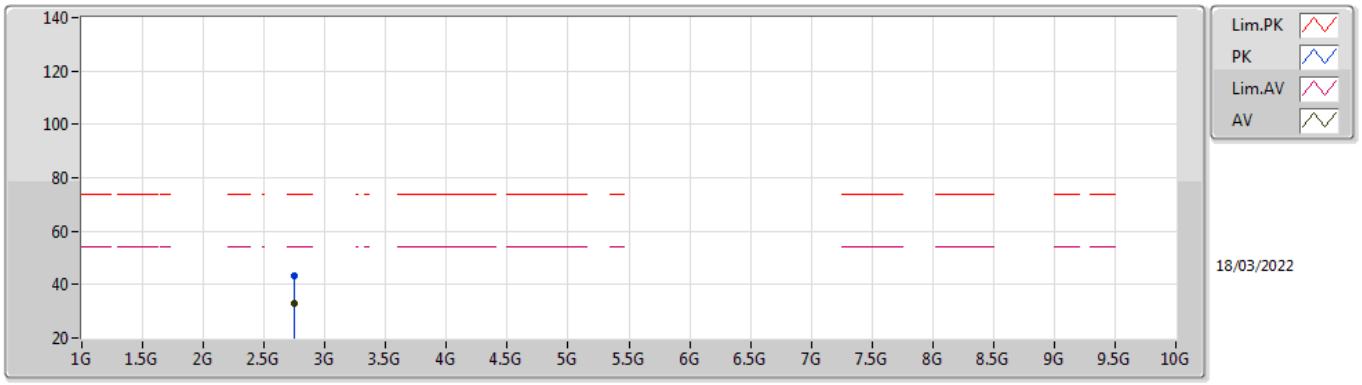


EUT Y_1TX
Setting 13
03-C-C-5

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	2.74356G	43.43	74.00	-30.57	45.21	3	Vertical	197	1.64	-	28.71	5.27	35.76
AV	2.74378G	32.81	54.00	-21.19	34.59	3	Vertical	197	1.64	-	28.71	5.27	35.76

LoRa-500-SF11_Nss1_1TX

914.5MHz_TX

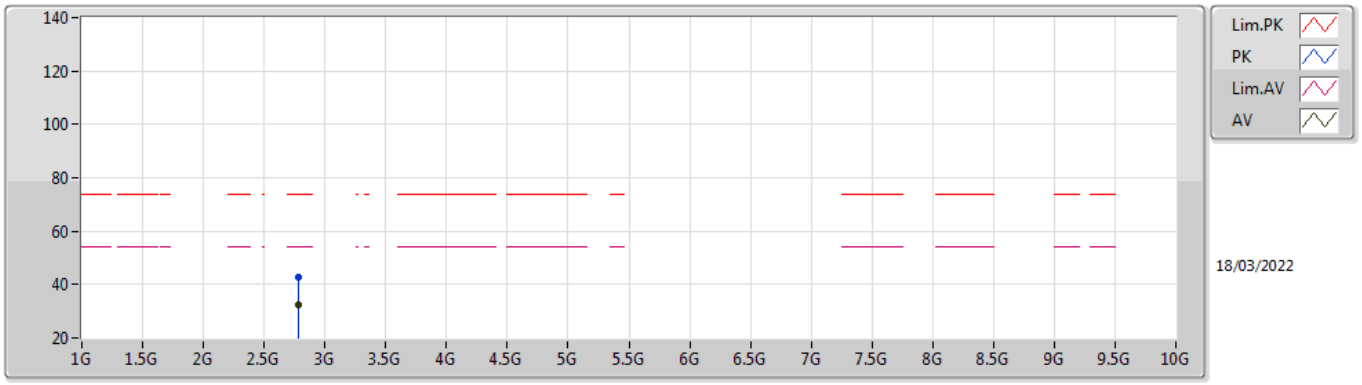


EUT Y_1TX
Setting 13
03-C-C-5

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	2.74252G	43.27	74.00	-30.73	45.05	3	Horizontal	231	1.08	-	28.71	5.27	35.76
AV	2.74364G	33.11	54.00	-20.89	34.89	3	Horizontal	231	1.08	-	28.71	5.27	35.76

LoRa-500-SF11_Nss1_1TX

926.5MHz_TX

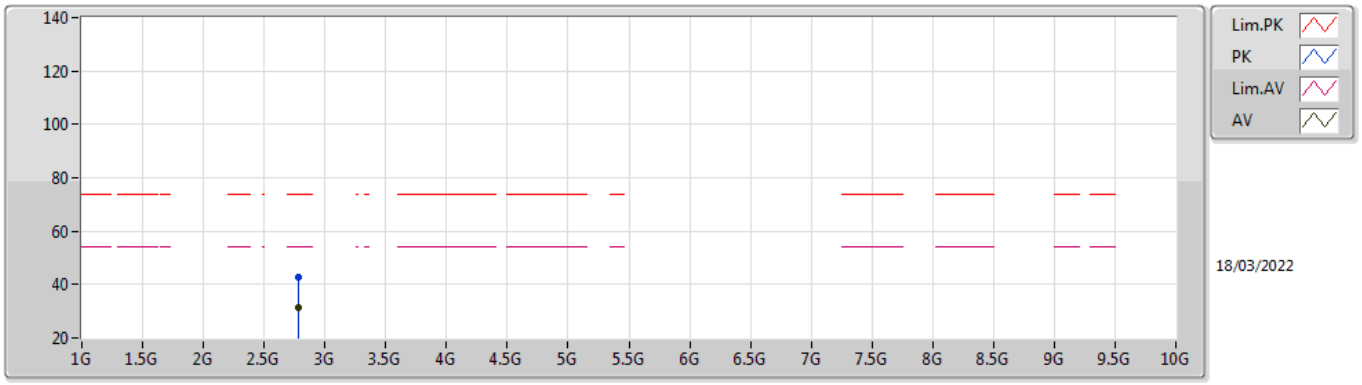


EUT Y_1TX
Setting 13
03-C-C-5

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	2.77998G	42.96	74.00	-31.04	44.63	3	Vertical	191	2.30	-	28.82	5.29	35.78
AV	2.77976G	32.61	54.00	-21.39	34.28	3	Vertical	191	2.30	-	28.82	5.29	35.78

LoRa-500-SF11_Nss1_1TX

926.5MHz_TX



EUT Y_1TX
Setting 13
03-C-C-5

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	2.77908G	42.52	74.00	-31.48	44.19	3	Horizontal	234	1.00	-	28.82	5.29	35.78
AV	2.77956G	31.47	54.00	-22.53	33.14	3	Horizontal	234	1.00	-	28.82	5.29	35.78

For LoRa_125kHz and FSK
Summary

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
902-928MHz	-	-	-	-	-
LoRa-125-FS-SF7_Nss1_1TX	144.688k	126.343k	126KF1D	141.719k	125.406k
LoRa-125-FS-SF8_Nss1_1TX	140.938k	125.562k	126KF1D	137.656k	124.625k
LoRa-125-FS-SF9_Nss1_1TX	138.281k	124.313k	124KF1D	137.344k	123.844k
FSK-50-FS_Nss1_1TX	102.25k	101.387k	101KF1D	102.062k	101.012k
FSK-150-FS_Nss1_1TX	153.562k	154.423k	154KF1D	153.375k	152.924k
FSK-250-FS_Nss1_1TX	254.375k	252.686k	253KF1D	254.062k	252.686k

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

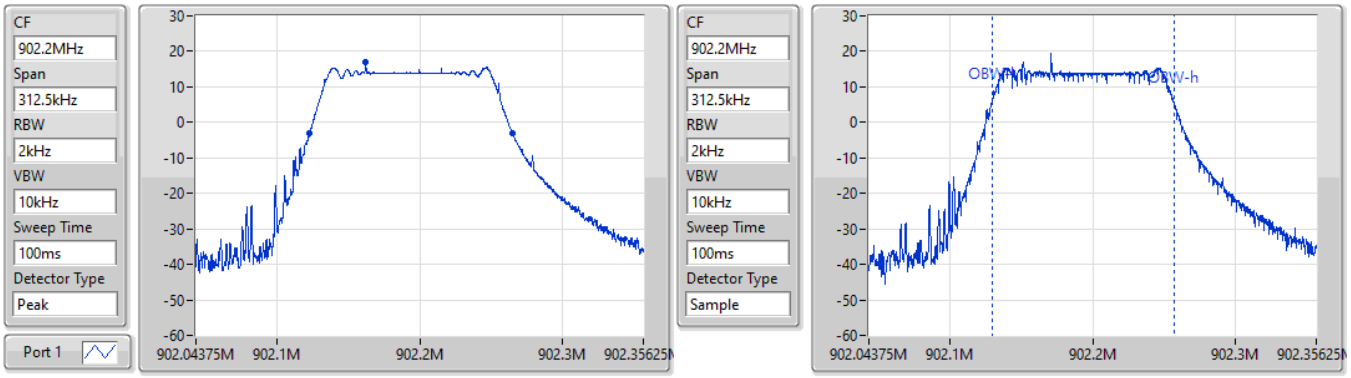
Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)
LoRa-125-FS-SF7_Nss1_1TX	-	-	-	-
902.2MHz	Pass	Inf	141.719k	126.343k
915MHz	Pass	Inf	144.688k	125.875k
927.8MHz	Pass	Inf	143.594k	125.406k
LoRa-125-FS-SF8_Nss1_1TX	-	-	-	-
902.2MHz	Pass	Inf	140.938k	125.562k
915MHz	Pass	Inf	140.938k	125.094k
927.8MHz	Pass	Inf	137.656k	124.625k
LoRa-125-FS-SF9_Nss1_1TX	-	-	-	-
902.2MHz	Pass	Inf	138.281k	124.313k
915MHz	Pass	Inf	138.125k	124.157k
927.8MHz	Pass	Inf	137.344k	123.844k
FSK-50-FS_Nss1_1TX	-	-	-	-
902.2MHz	Pass	Inf	102.062k	101.012k
915MHz	Pass	Inf	102.25k	101.137k
927.8MHz	Pass	Inf	102.125k	101.387k
FSK-150-FS_Nss1_1TX	-	-	-	-
902.4MHz	Pass	Inf	153.562k	154.048k
915.2MHz	Pass	Inf	153.375k	152.924k
927.6MHz	Pass	Inf	153.562k	154.423k
FSK-250-FS_Nss1_1TX	-	-	-	-
902.5MHz	Pass	Inf	254.062k	252.686k
915MHz	Pass	Inf	254.062k	252.686k
927.5MHz	Pass	Inf	254.375k	252.686k

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

LoRa-125-FS-SF7_Nss1_1TX EBW-FS

902.2MHz

16/03/2022

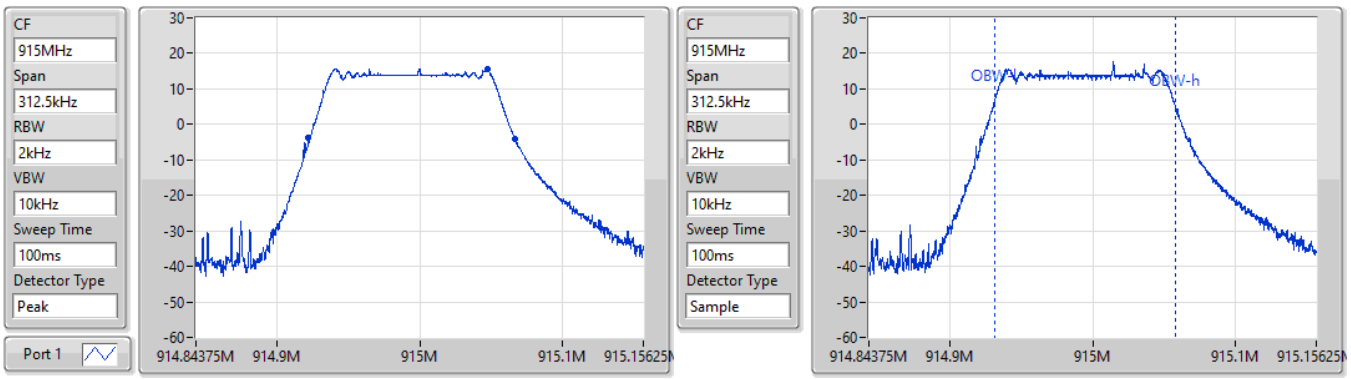


20dB(Hz)	Fl-20dB(Hz)	Fh-20dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
141.719k	902.123125M	902.264844M	126.343k	902.130347M	902.25669M	Inf	1

LoRa-125-FS-SF7_Nss1_1TX EBW-FS

915MHz

16/03/2022

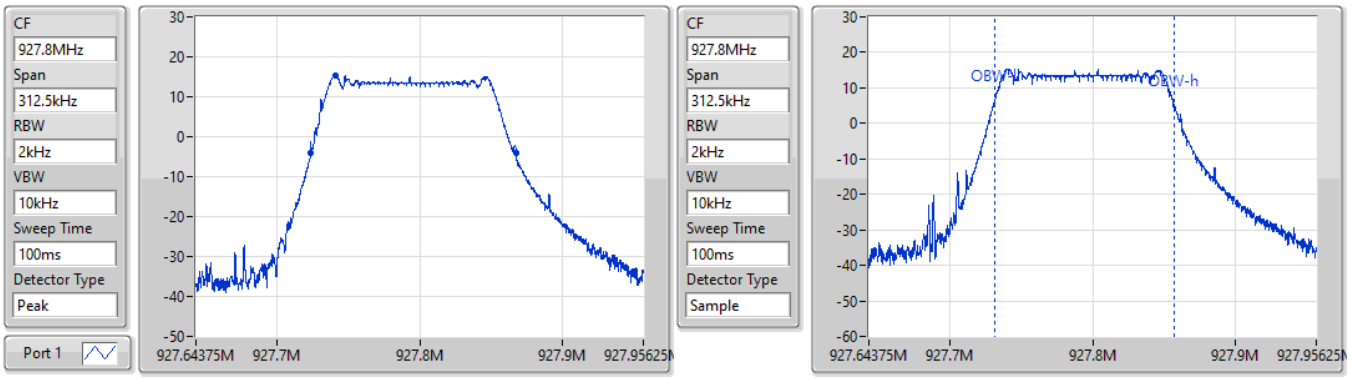


20dB(Hz)	Fl-20dB(Hz)	Fh-20dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
144.688k	914.922031M	915.066719M	125.875k	914.931597M	915.057471M	Inf	1

LoRa-125-FS-SF7_Nss1_1TX EBW-FS

927.8MHz

16/03/2022

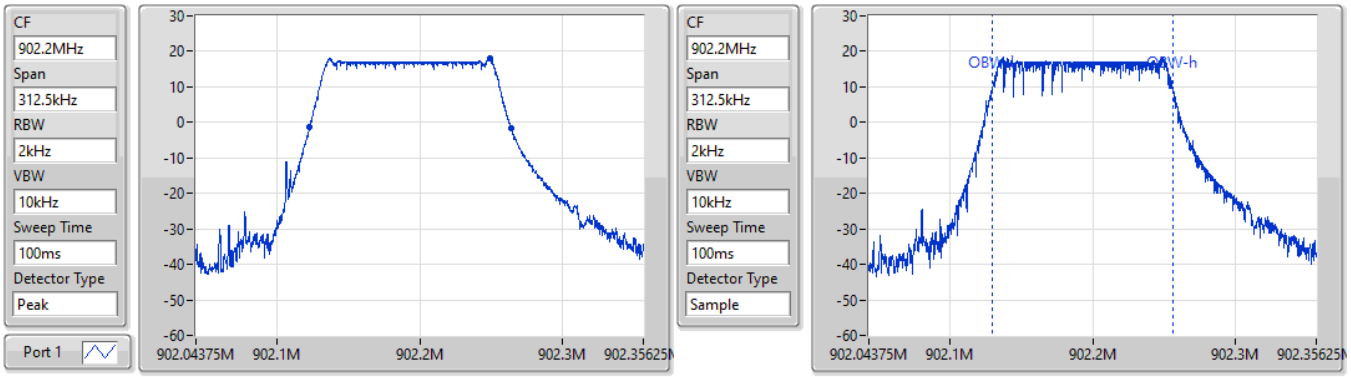


20dB(Hz)	Fl-20dB(Hz)	Fh-20dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
143.594k	927.723594M	927.867188M	125.406k	927.731753M	927.857159M	Inf	1

LoRa-125-FS-SF8_Nss1_1TX EBW-FS

902.2MHz

16/03/2022

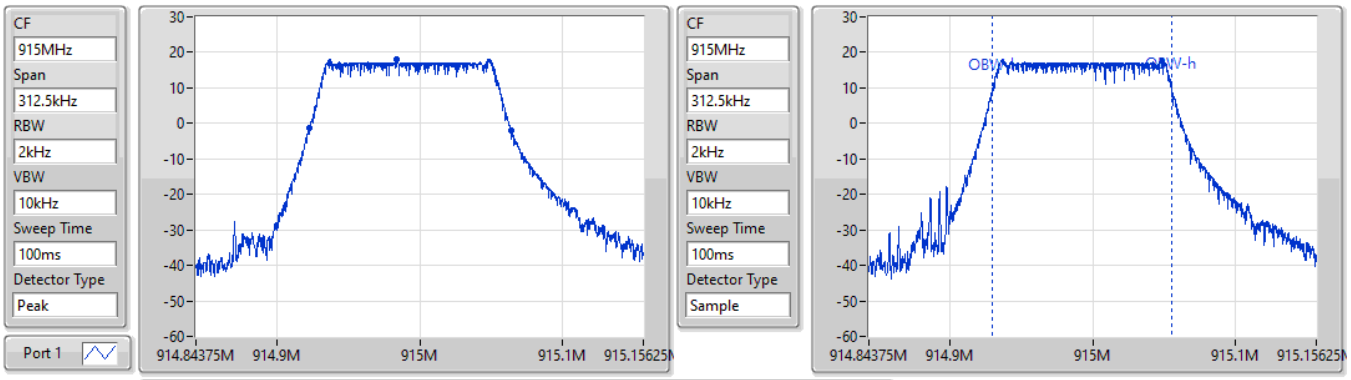


20dB(Hz)	Fl-20dB(Hz)	Fh-20dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
140.938k	902.123125M	902.264062M	125.562k	902.130191M	902.255753M	Inf	1

LoRa-125-FS-SF8_Nss1_1TX EBW-FS

915MHz

16/03/2022

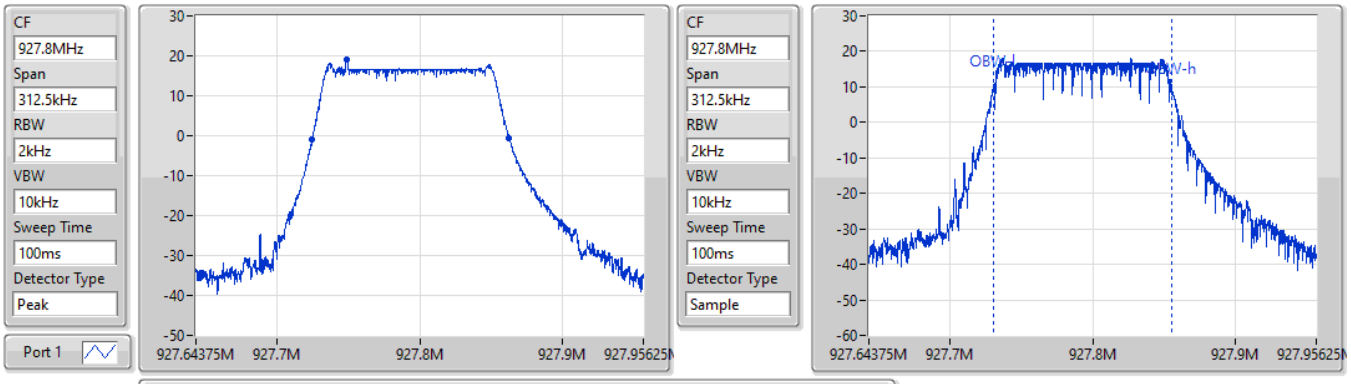


20dB(Hz)	Fl-20dB(Hz)	Fh-20dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
140.938k	914.922969M	915.063906M	125.094k	914.930347M	915.055441M	Inf	1

LoRa-125-FS-SF8_Nss1_1TX EBW-FS

927.8MHz

16/03/2022

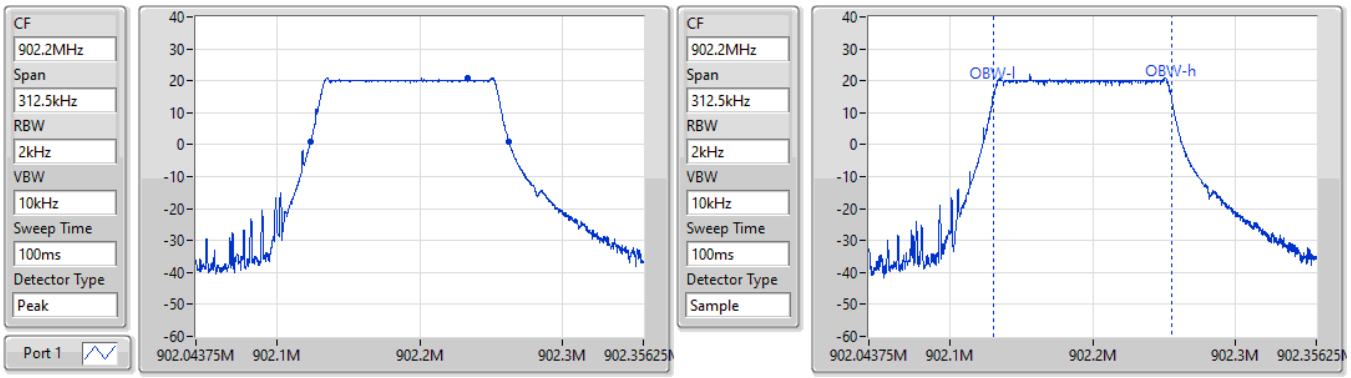


20dB(Hz)	Fl-20dB(Hz)	Fh-20dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
137.656k	927.725M	927.862656M	124.625k	927.730972M	927.855597M	Inf	1

LoRa-125-FS-SF9_Nss1_1TX EBW-FS

902.2MHz

16/03/2022

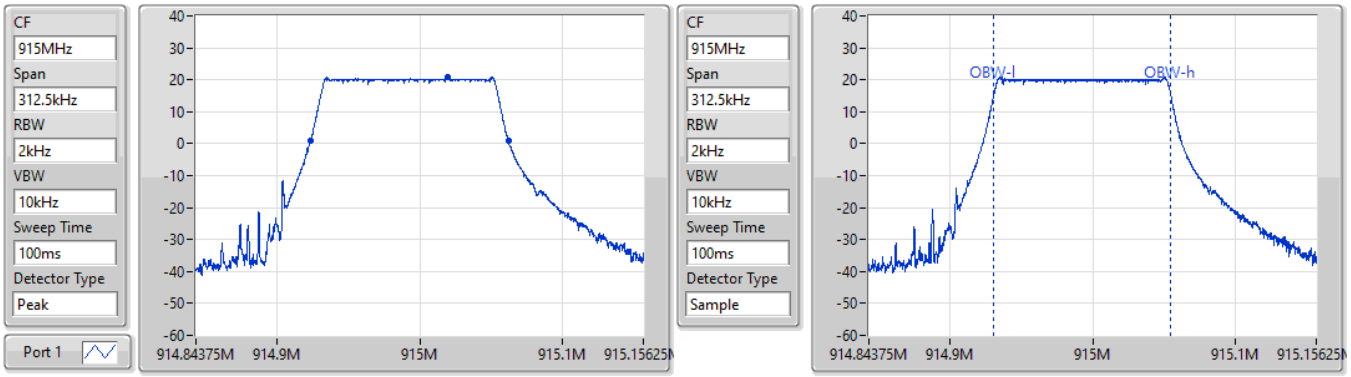


20dB(Hz)	Fl-20dB(Hz)	Fh-20dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
138.281k	902.123906M	902.262188M	124.313k	902.13066M	902.254973M	Inf	1

LoRa-125-FS-SF9_Nss1_1TX EBW-FS

915MHz

16/03/2022



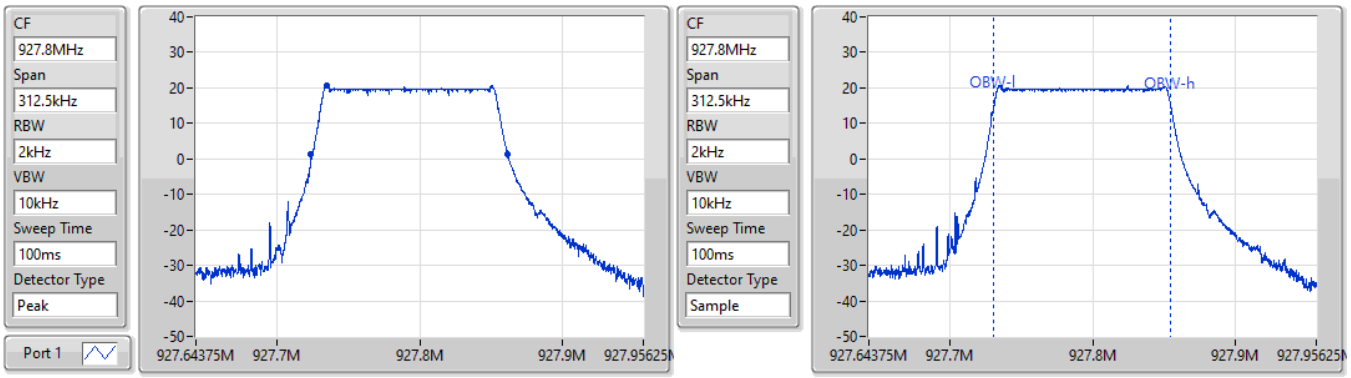
20dB(Hz)	Fl-20dB(Hz)	Fh-20dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
138.125k	914.92375M	915.061875M	124.157k	914.93066M	915.054816M	Inf	1

LoRa-125-FS-SF9_Nss1_1TX

EBW-FS

927.8MHz

16/03/2022



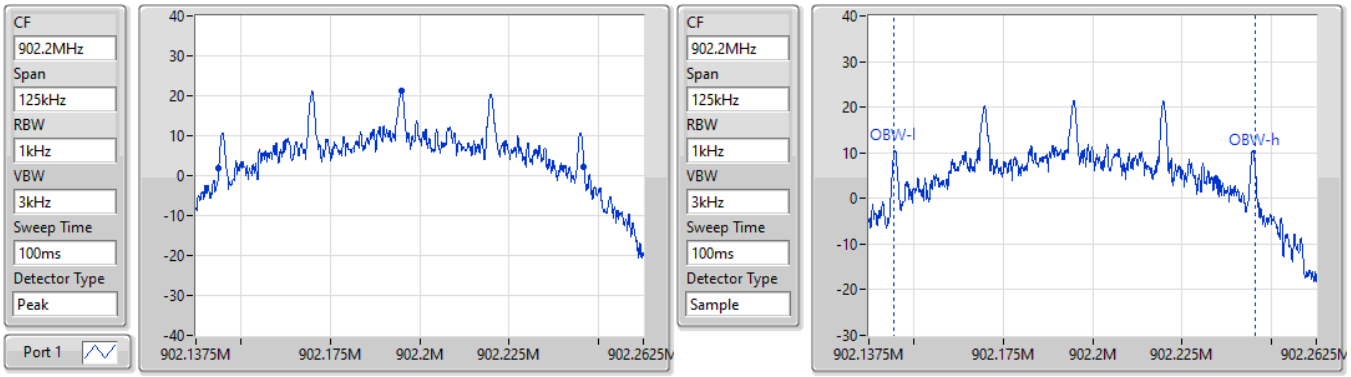
20dB(Hz)	Fl-20dB(Hz)	Fh-20dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
137.344k	927.724219M	927.861562M	123.844k	927.730972M	927.854816M	Inf	1

FSK-50-FS_Nss1_1TX

EBW-FS

902.2MHz

16/03/2022

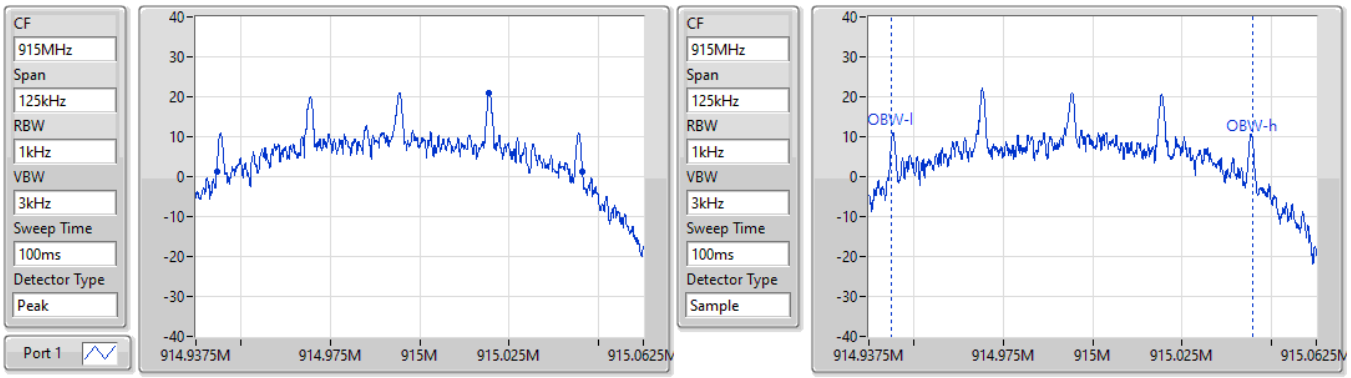


20dB(Hz)	Fl-20dB(Hz)	Fh-20dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
102.062k	902.143875M	902.245938M	101.012k	902.14434M	902.245352M	Inf	1

FSK-50-FS_Nss1_1TX EBW-FS

915MHz

16/03/2022

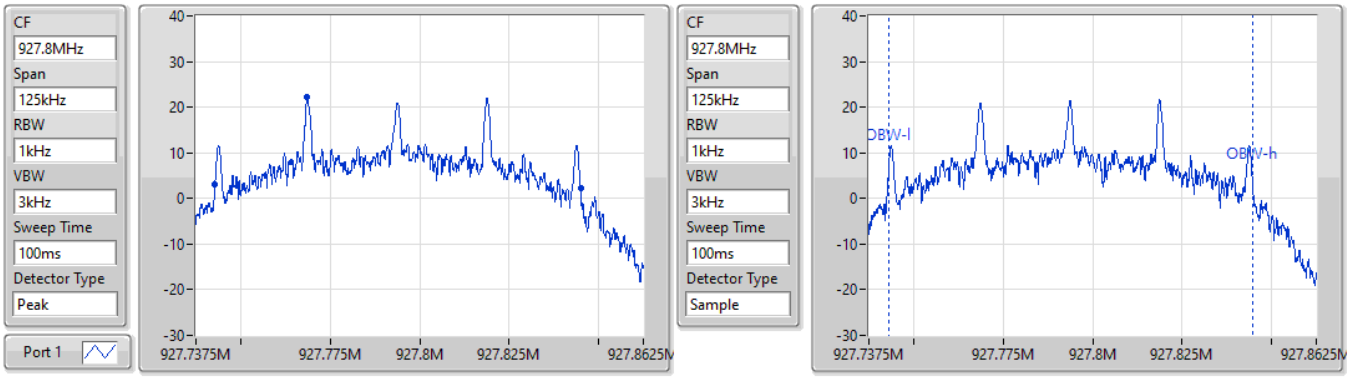


20dB(Hz)	Fl-20dB(Hz)	Fh-20dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
102.25k	914.94325M	915.0455M	101.137k	914.943778M	915.044915M	Inf	1

FSK-50-FS_Nss1_1TX EBW-FS

927.8MHz

16/03/2022

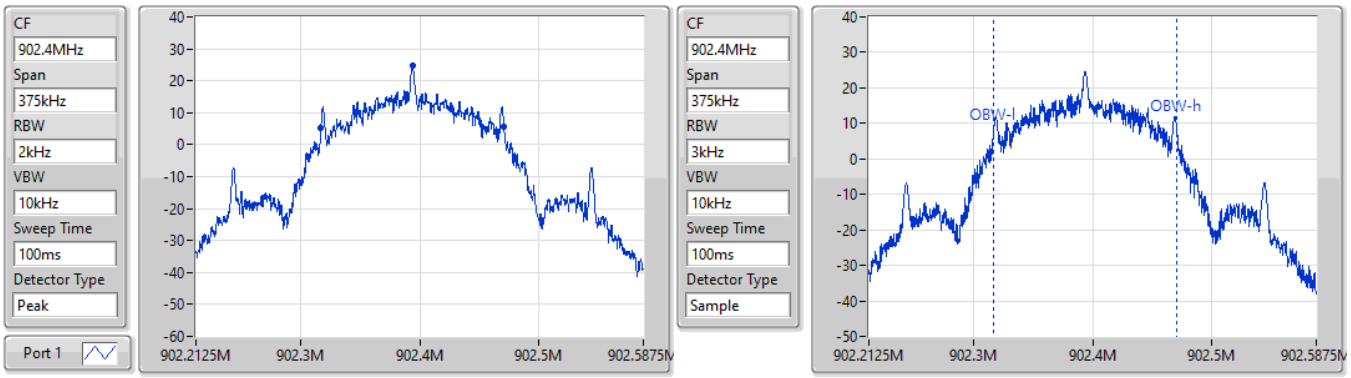


20dB(Hz)	Fl-20dB(Hz)	Fh-20dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
102.125k	927.742812M	927.844938M	101.387k	927.743216M	927.844603M	Inf	1

FSK-150-FS_Nss1_1TX EBW-FS

902.4MHz

16/03/2022

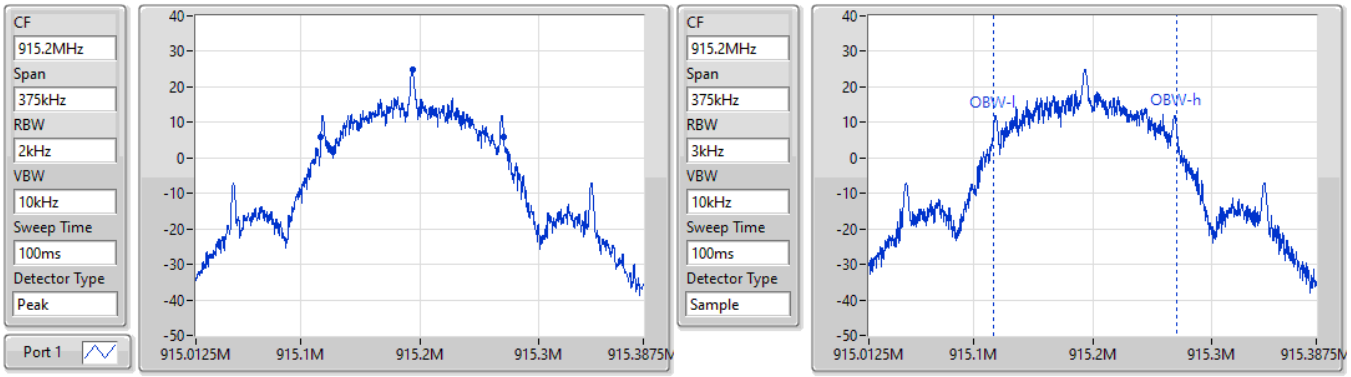


20dB(Hz)	Fl-20dB(Hz)	Fh-20dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
153.562k	902.317125M	902.470688M	154.048k	902.316604M	902.470652M	Inf	1

FSK-150-FS_Nss1_1TX EBW-FS

915.2MHz

16/03/2022



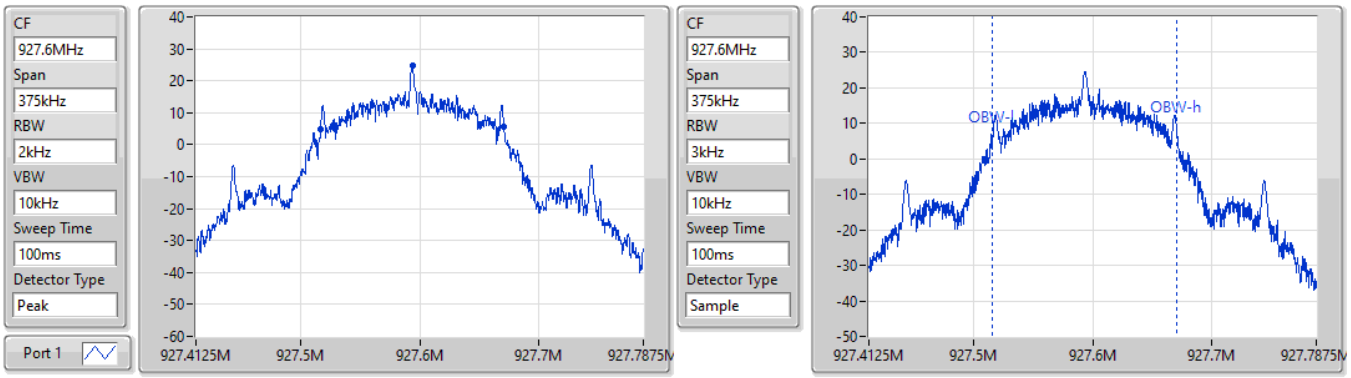
20dB(Hz)	Fl-20dB(Hz)	Fh-20dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
153.375k	915.117125M	915.2705M	152.924k	915.117166M	915.27009M	Inf	1

FSK-150-FS_Nss1_1TX

EBW-FS

927.6MHz

16/03/2022



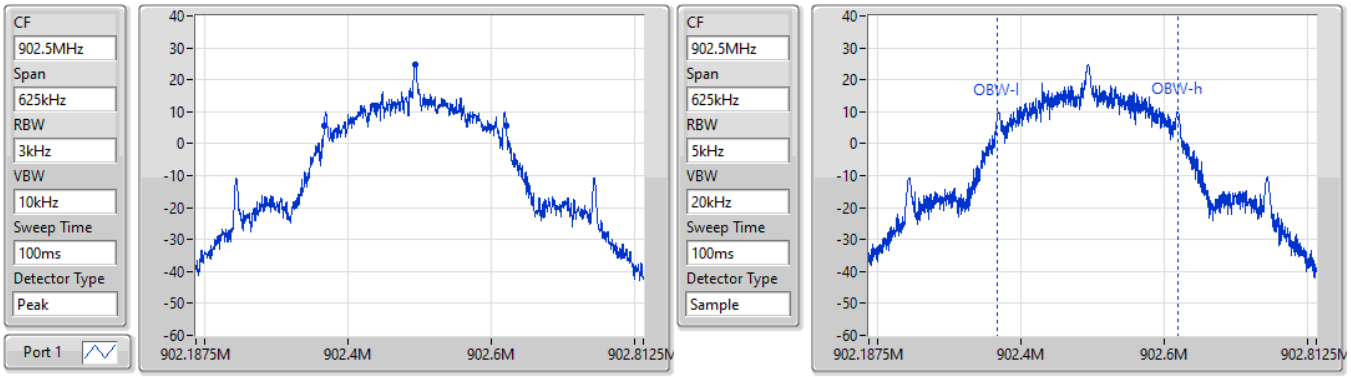
20dB(Hz)	Fl-20dB(Hz)	Fh-20dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
153.562k	927.516938M	927.6705M	154.423k	927.516229M	927.670652M	Inf	1

FSK-250-FS_Nss1_1TX

EBW-FS

902.5MHz

16/03/2022

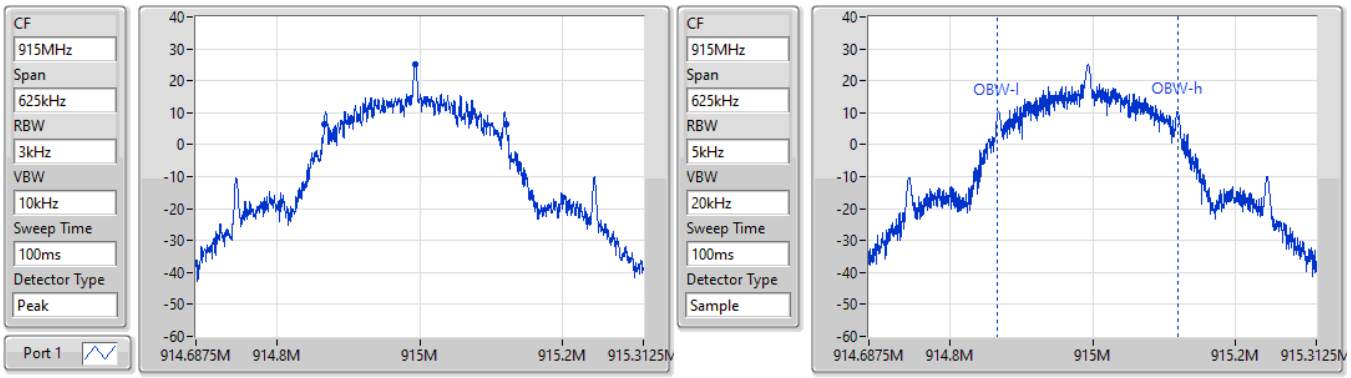


20dB(Hz)	Fl-20dB(Hz)	Fh-20dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
254.062k	902.366875M	902.620938M	252.686k	902.367254M	902.61994M	Inf	1

FSK-250-FS_Nss1_1TX EBW-FS

915MHz

16/03/2022

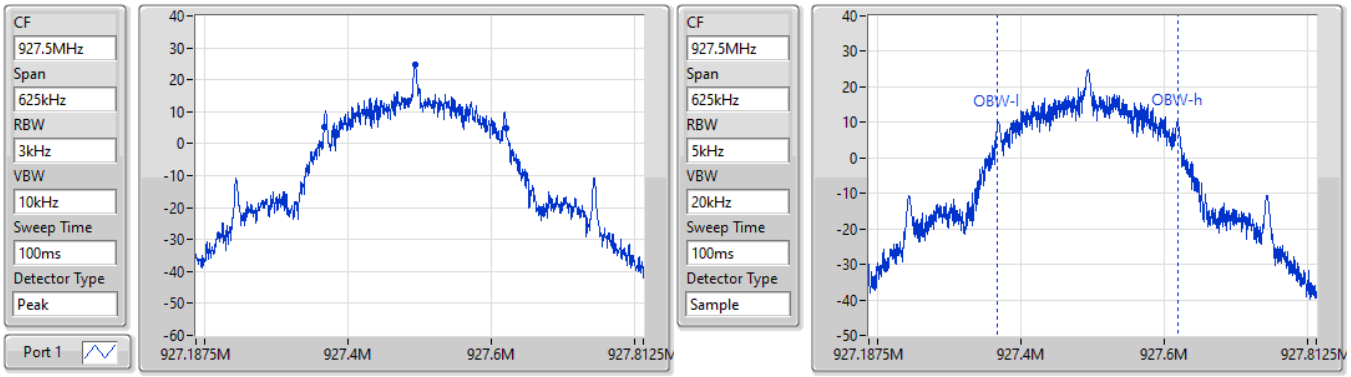


20dB(Hz)	Fl-20dB(Hz)	Fh-20dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
254.062k	914.866875M	915.120938M	252.686k	914.867254M	915.11994M	Inf	1

FSK-250-FS_Nss1_1TX EBW-FS

927.5MHz

16/03/2022



20dB(Hz)	Fl-20dB(Hz)	Fh-20dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
254.375k	927.366562M	927.620938M	252.686k	927.366942M	927.619628M	Inf	1

Summary

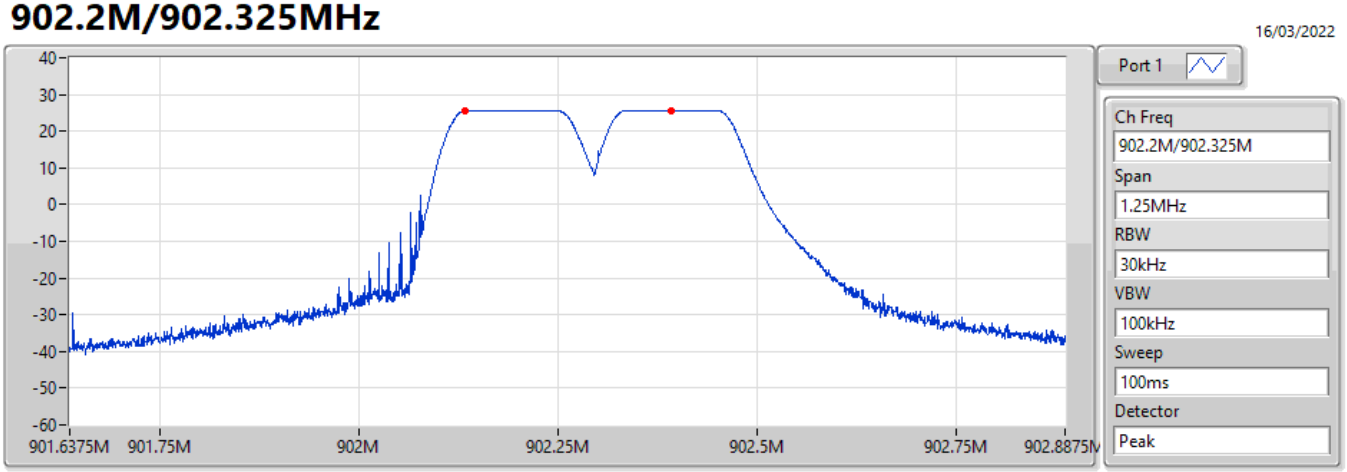
Mode	Max-Space (Hz)	Min-Space (Hz)
902-928MHz	-	-
LoRa-125-FS-SF7_Nss1_1TX	259.375k	183.125k
LoRa-125-FS-SF8_Nss1_1TX	224.375k	180k
LoRa-125-FS-SF9_Nss1_1TX	256.25k	150k
FSK-50-FS_Nss1_1TX	252k	201k
FSK-150-FS_Nss1_1TX	476.25k	393.75k
FSK-250-FS_Nss1_1TX	565k	435k

Result

Mode	Result	Fl (Hz)	Fh (Hz)	Ch.Space (Hz)	Limit (Hz)
LoRa-125-FS-SF7_Nss1_1TX	-	-	-	-	-
902.2MHz	Pass	902.13375M	902.393125M	259.375k	141.719k
915MHz	Pass	914.950625M	915.13375M	183.125k	144.688k
927.8MHz	Pass	927.53875M	927.7425M	203.75k	143.594k
LoRa-125-FS-SF8_Nss1_1TX	-	-	-	-	-
902.2MHz	Pass	902.131875M	902.35625M	224.375k	140.938k
915MHz	Pass	914.931875M	915.13875M	206.875k	140.938k
927.8MHz	Pass	927.5575M	927.7375M	180k	137.656k
LoRa-125-FS-SF9_Nss1_1TX	-	-	-	-	-
902.2MHz	Pass	902.134375M	902.390625M	256.25k	138.281k
915MHz	Pass	914.9325M	915.135M	202.5k	138.125k
927.8MHz	Pass	927.5875M	927.7375M	150k	137.344k
FSK-50-FS_Nss1_1TX	-	-	-	-	-
902.2MHz	Pass	902.168M	902.369M	201k	102.062k
915MHz	Pass	914.968M	915.22M	252k	102.25k
927.8MHz	Pass	927.59425M	927.81825M	224k	102.125k
FSK-150-FS_Nss1_1TX	-	-	-	-	-
902.4MHz	Pass	902.3565M	902.83275M	476.25k	153.562k
915.2MHz	Pass	915.15425M	915.593M	438.75k	153.375k
927.6MHz	Pass	927.23475M	927.6285M	393.75k	153.562k
FSK-250-FS_Nss1_1TX	-	-	-	-	-
902.5MHz	Pass	902.55875M	902.99375M	435k	254.062k
915MHz	Pass	914.9925M	915.5575M	565k	254.062k
927.5MHz	Pass	926.9275M	927.4925M	565k	254.375k

LoRa-125-FS-SF7_Nss1_1TX **Channel Separation-FS**

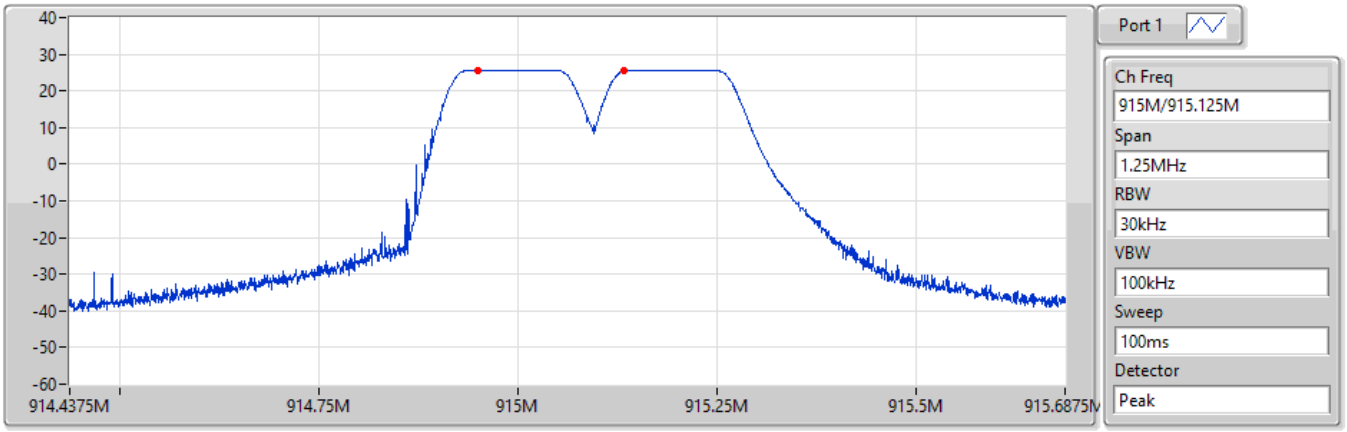
902.2M/902.325MHz



Fl(Hz)	Fh(Hz)	Ch.Space(Hz)	Limit(Hz)
902.13375M	902.393125M	259.375k	141.719k

LoRa-125-FS-SF7_Nss1_1TX **Channel Separation-FS**

915M/915.125MHz

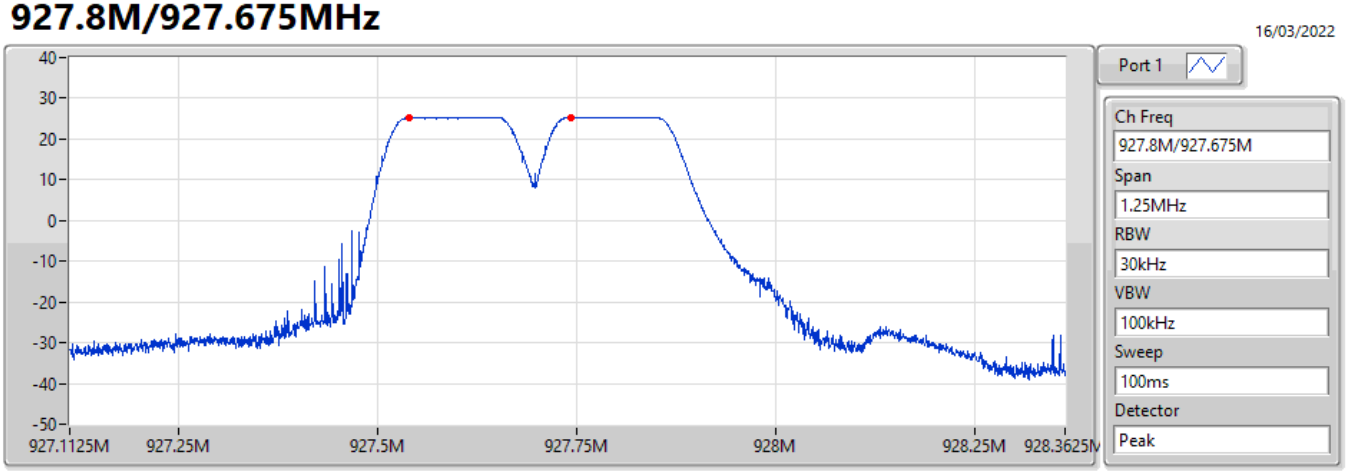


Fl(Hz)	Fh(Hz)	Ch.Space(Hz)	Limit(Hz)
914.950625M	915.13375M	183.125k	144.688k

LoRa-125-FS-SF7_Nss1_1TX

Channel Separation-FS

927.8M/927.675MHz

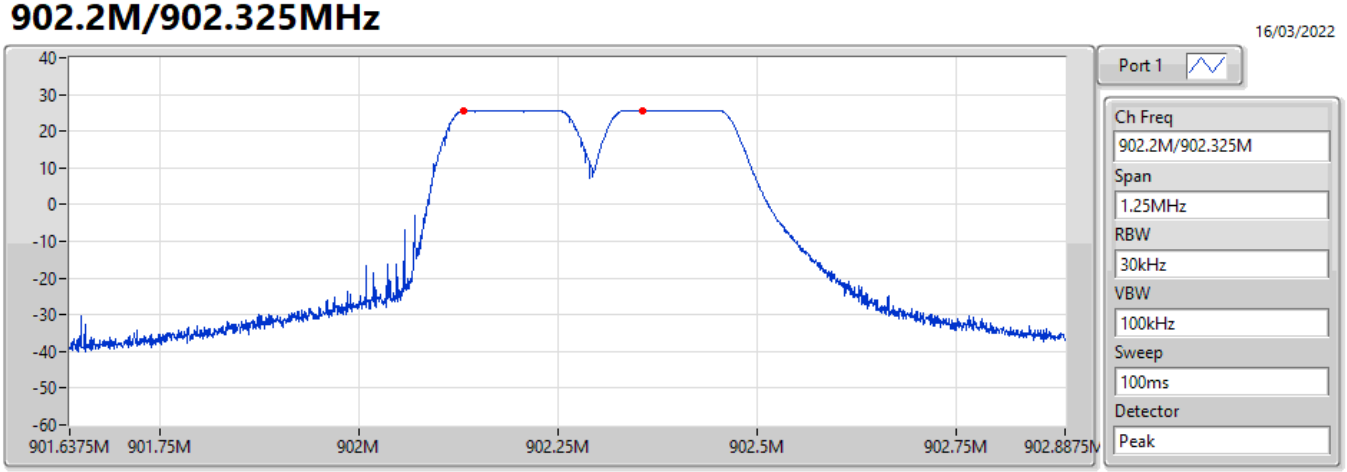


Fl(Hz)	Fh(Hz)	Ch.Space(Hz)	Limit(Hz)
927.53875M	927.7425M	203.75k	143.594k

LoRa-125-FS-SF8_Nss1_1TX

Channel Separation-FS

902.2M/902.325MHz

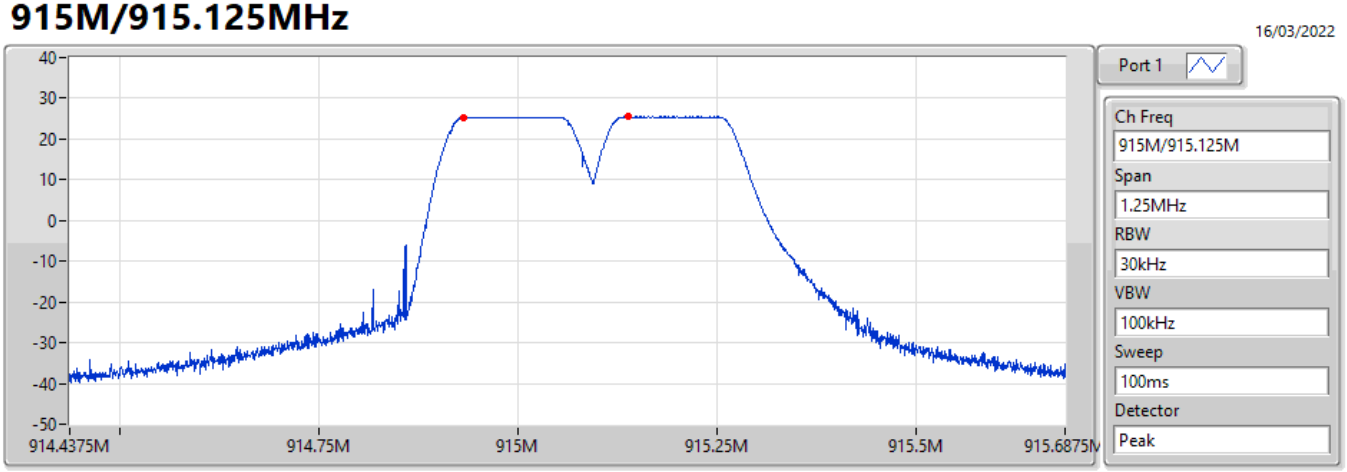


Fl(Hz)	Fh(Hz)	Ch.Space(Hz)	Limit(Hz)
902.131875M	902.35625M	224.375k	140.938k

LoRa-125-FS-SF8_Nss1_1TX

Channel Separation-FS

915M/915.125MHz

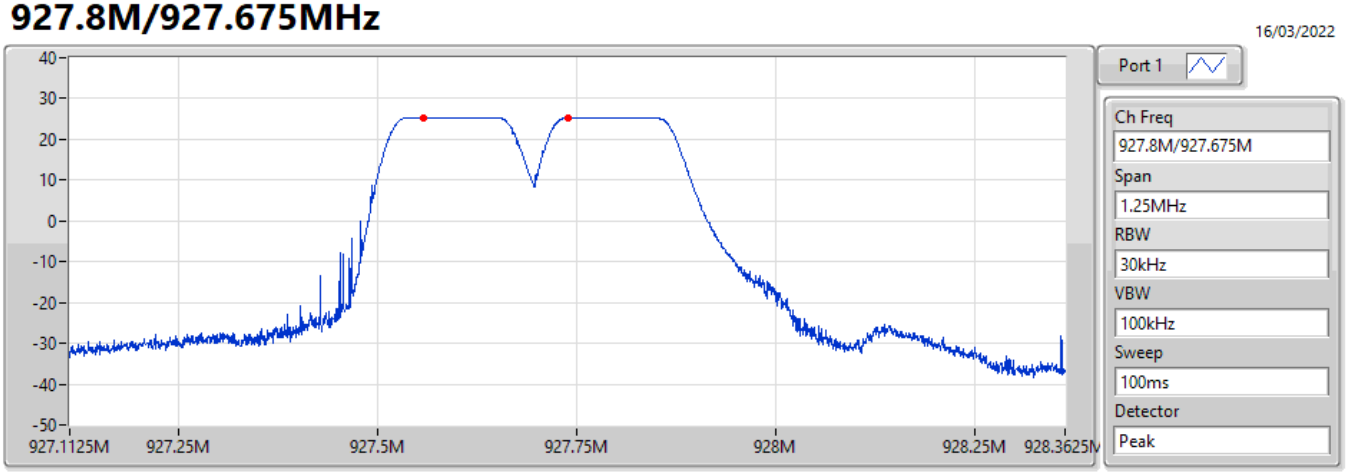


Fl(Hz)	Fh(Hz)	Ch.Space(Hz)	Limit(Hz)
914.931875M	915.13875M	206.875k	140.938k

LoRa-125-FS-SF8_Nss1_1TX

Channel Separation-FS

927.8M/927.675MHz

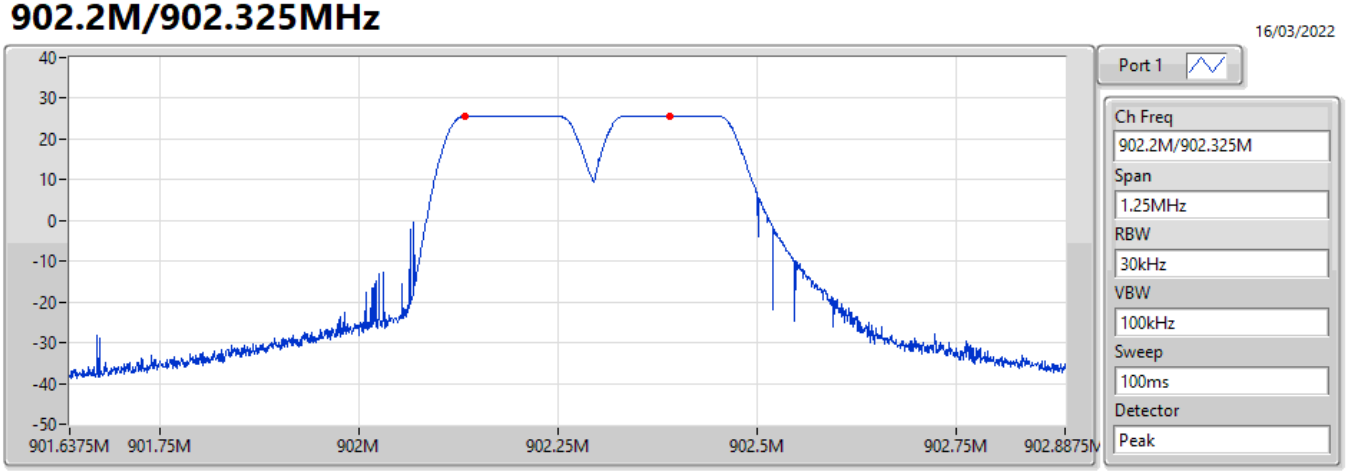


Fl(Hz)	Fh(Hz)	Ch.Space(Hz)	Limit(Hz)
927.5575M	927.7375M	180k	137.656k

LoRa-125-FS-SF9_Nss1_1TX

Channel Separation-FS

902.2M/902.325MHz

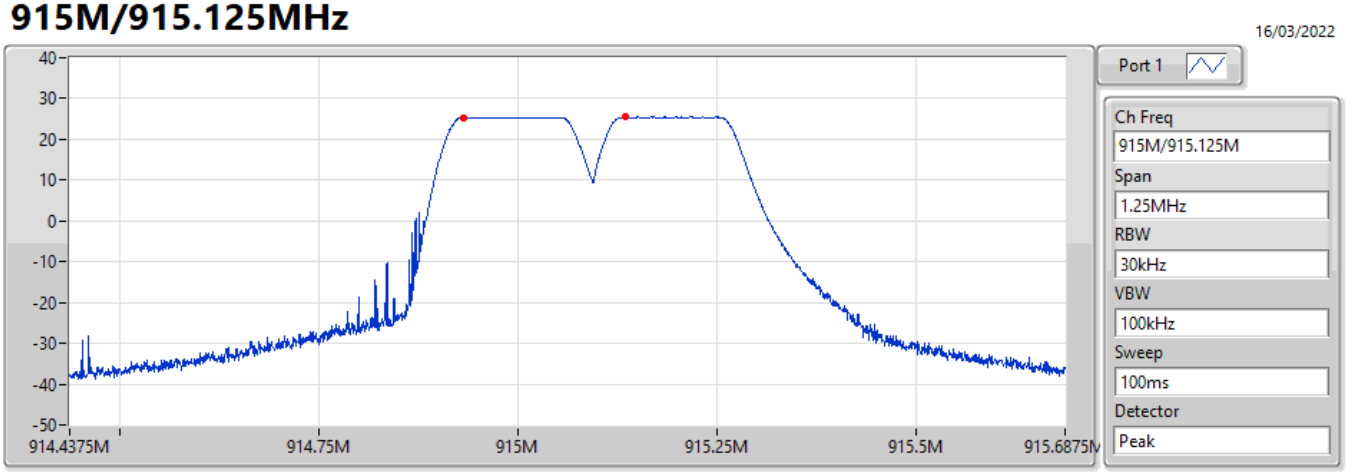


Fl(Hz)	Fh(Hz)	Ch.Space(Hz)	Limit(Hz)
902.134375M	902.390625M	256.25k	138.281k

LoRa-125-FS-SF9_Nss1_1TX

Channel Separation-FS

915M/915.125MHz

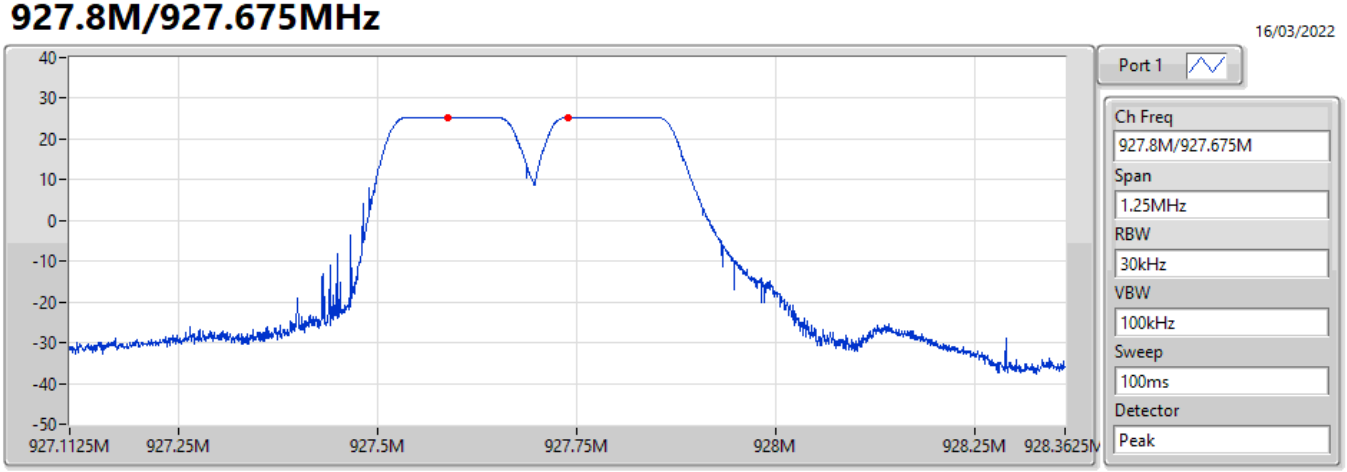


Fl(Hz)	Fh(Hz)	Ch.Space(Hz)	Limit(Hz)
914.9325M	915.135M	202.5k	138.125k

LoRa-125-FS-SF9_Nss1_1TX

Channel Separation-FS

927.8M/927.675MHz

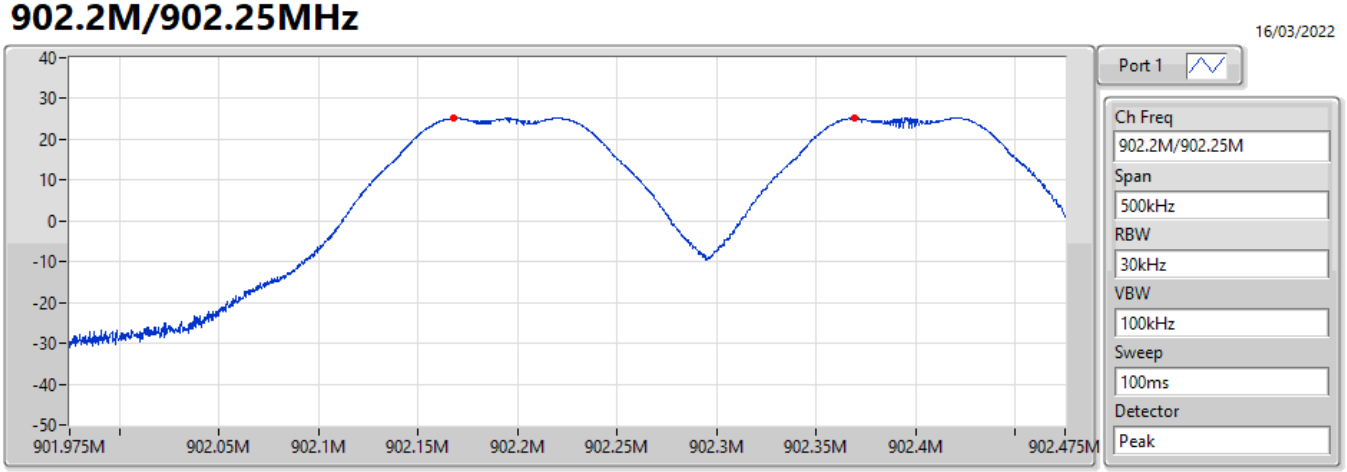


Fl(Hz)	Fh(Hz)	Ch.Space(Hz)	Limit(Hz)
927.5875M	927.7375M	150k	137.344k

FSK-50-FS_Nss1_1TX

Channel Separation-FS

902.2M/902.25MHz

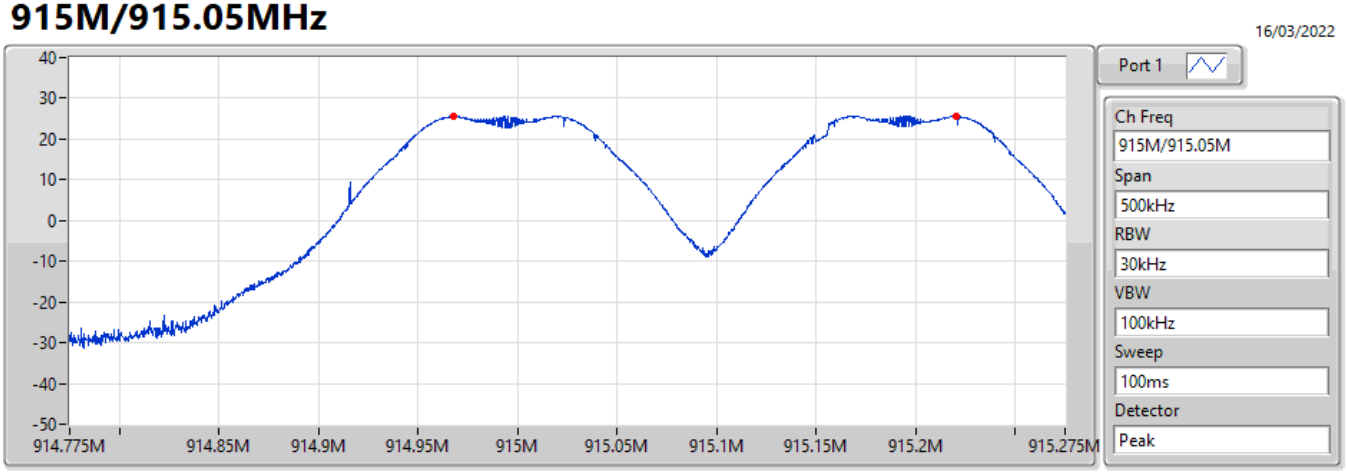


Fl(Hz)	Fh(Hz)	Ch.Space(Hz)	Limit(Hz)
902.168M	902.369M	201k	102.062k

FSK-50-FS_Nss1_1TX

Channel Separation-FS

915M/915.05MHz

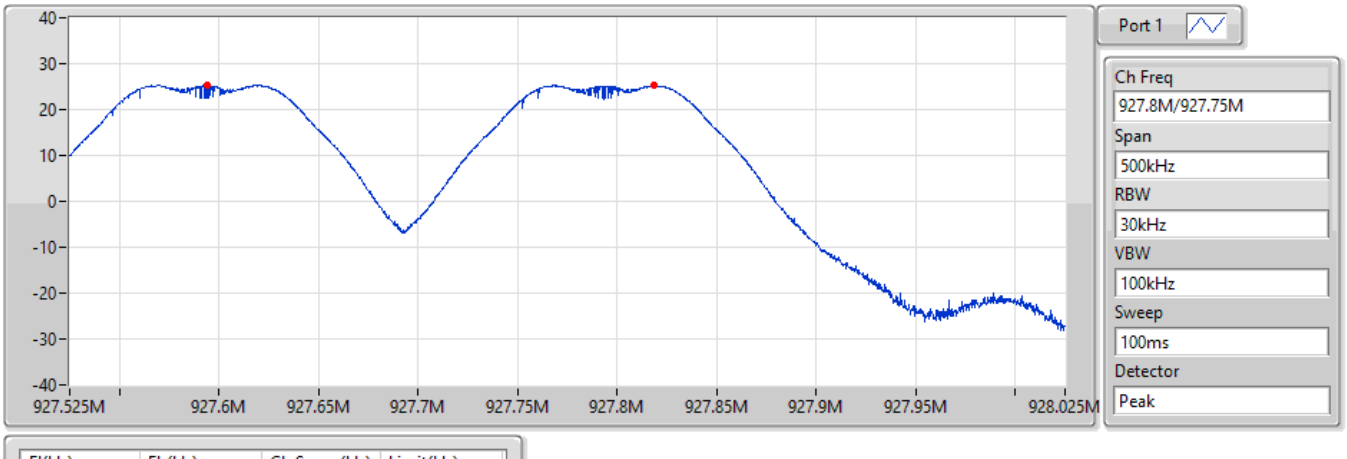


Fl(Hz)	Fh(Hz)	Ch.Space(Hz)	Limit(Hz)
914.968M	915.22M	252k	102.25k

FSK-50-FS_Nss1_1TX

Channel Separation-FS

927.8M/927.75MHz

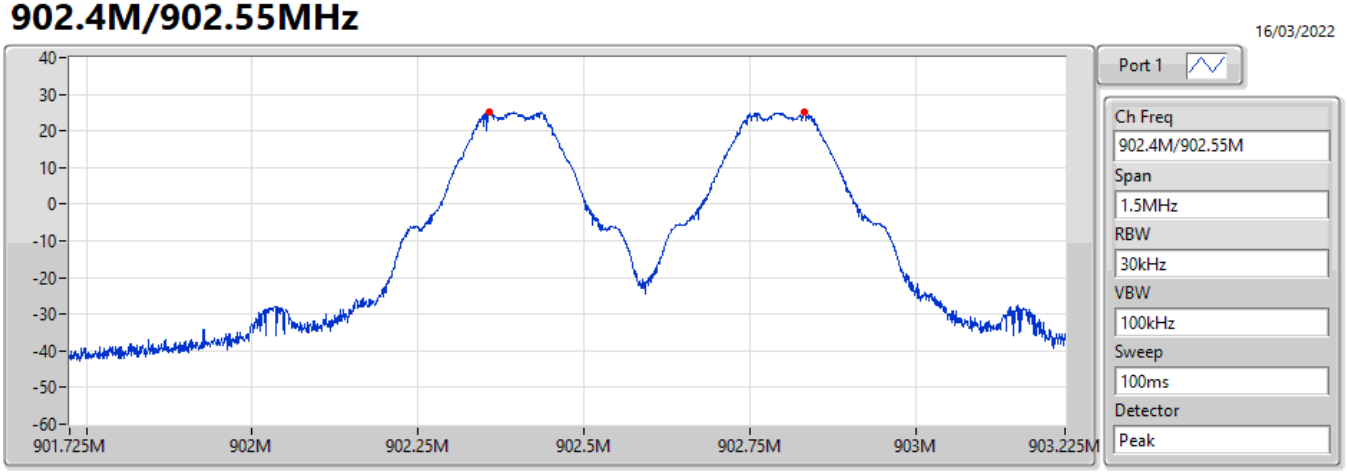


Fl(Hz)	Fh(Hz)	Ch.Space(Hz)	Limit(Hz)
927.59425M	927.81825M	224k	102.125k

FSK-150-FS_Nss1_1TX

Channel Separation-FS

902.4M/902.55MHz

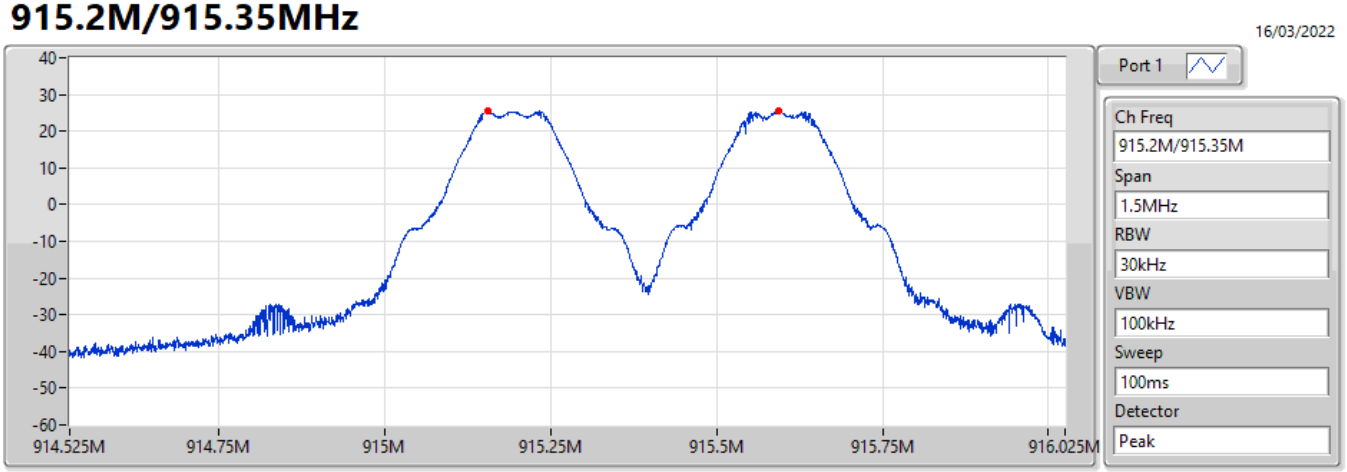


Fl(Hz)	Fh(Hz)	Ch.Space(Hz)	Limit(Hz)
902.3565M	902.83275M	476.25k	153.562k

FSK-150-FS_Nss1_1TX

Channel Separation-FS

915.2M/915.35MHz

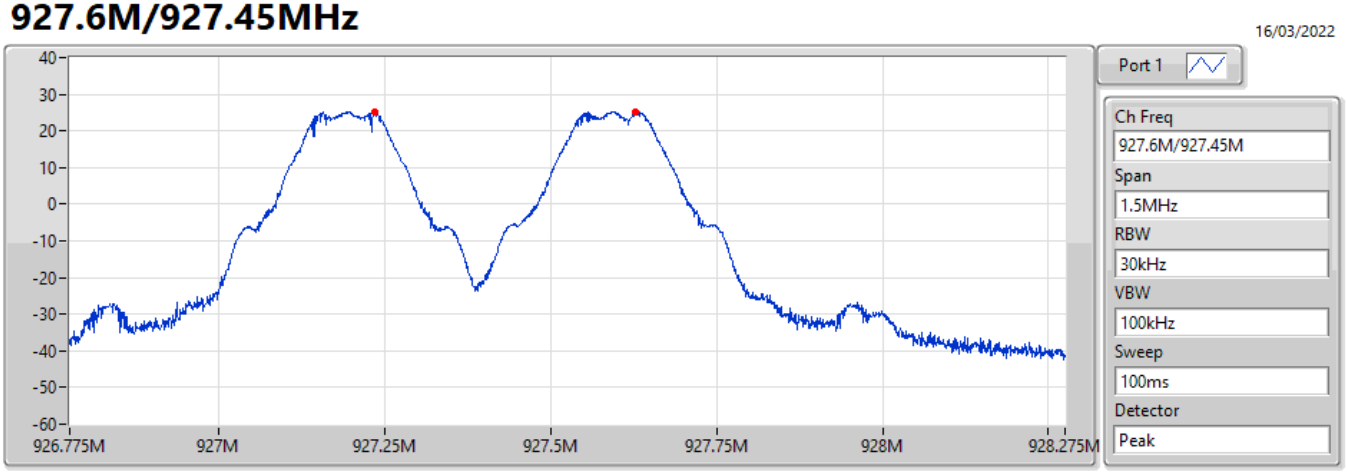


Fl(Hz)	Fh(Hz)	Ch.Space(Hz)	Limit(Hz)
915.15425M	915.593M	438.75k	153.375k

FSK-150-FS_Nss1_1TX

Channel Separation-FS

927.6M/927.45MHz

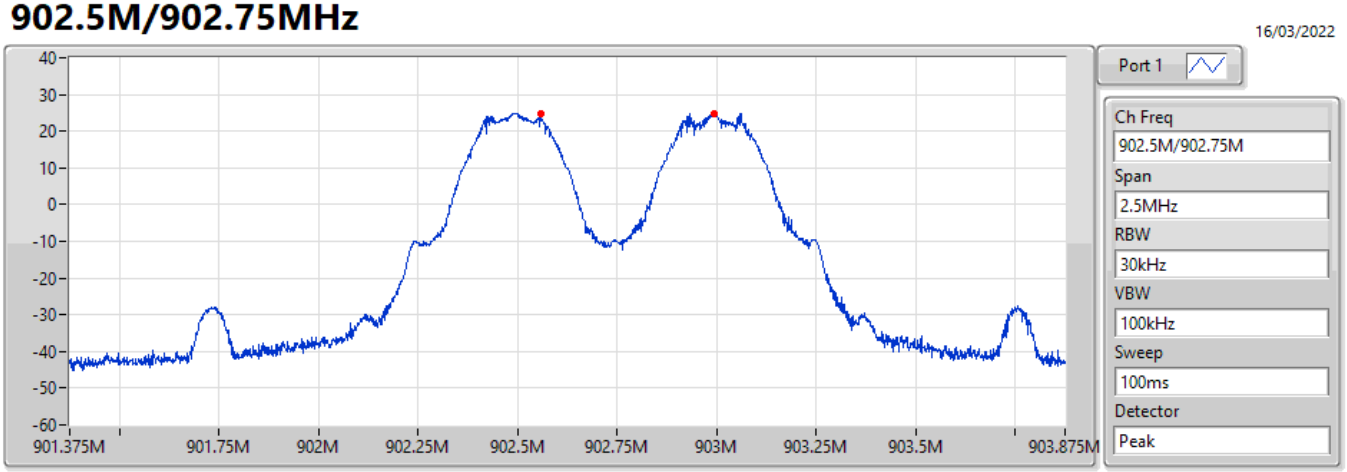


Fl(Hz)	Fh(Hz)	Ch.Space(Hz)	Limit(Hz)
927.23475M	927.6285M	393.75k	153.562k

FSK-250-FS_Nss1_1TX

Channel Separation-FS

902.5M/902.75MHz

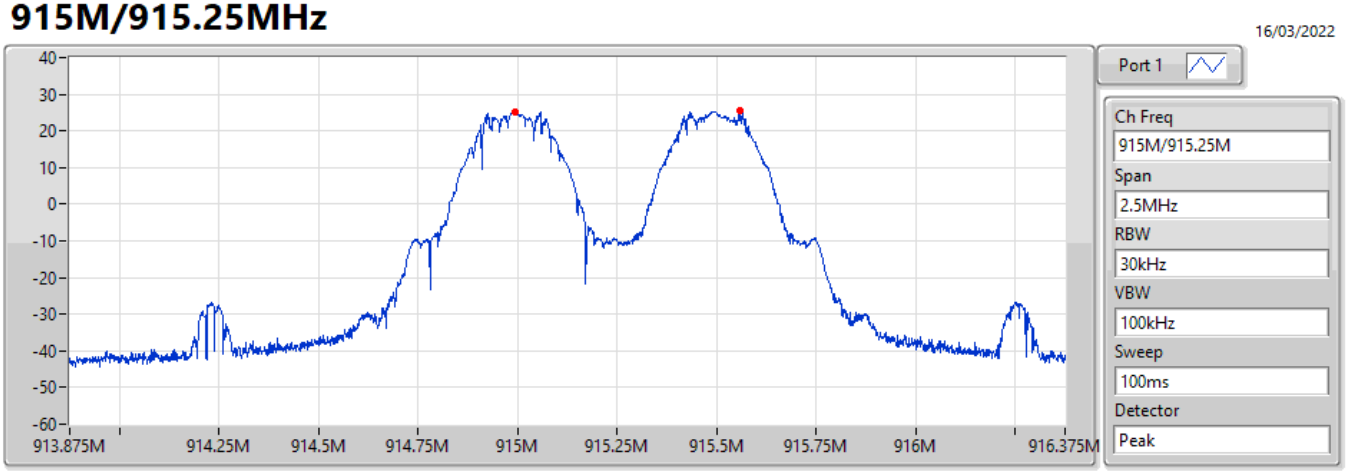


Fl(Hz)	Fh(Hz)	Ch.Space(Hz)	Limit(Hz)
902.55875M	902.99375M	435k	254.062k

FSK-250-FS_Nss1_1TX

Channel Separation-FS

915M/915.25MHz

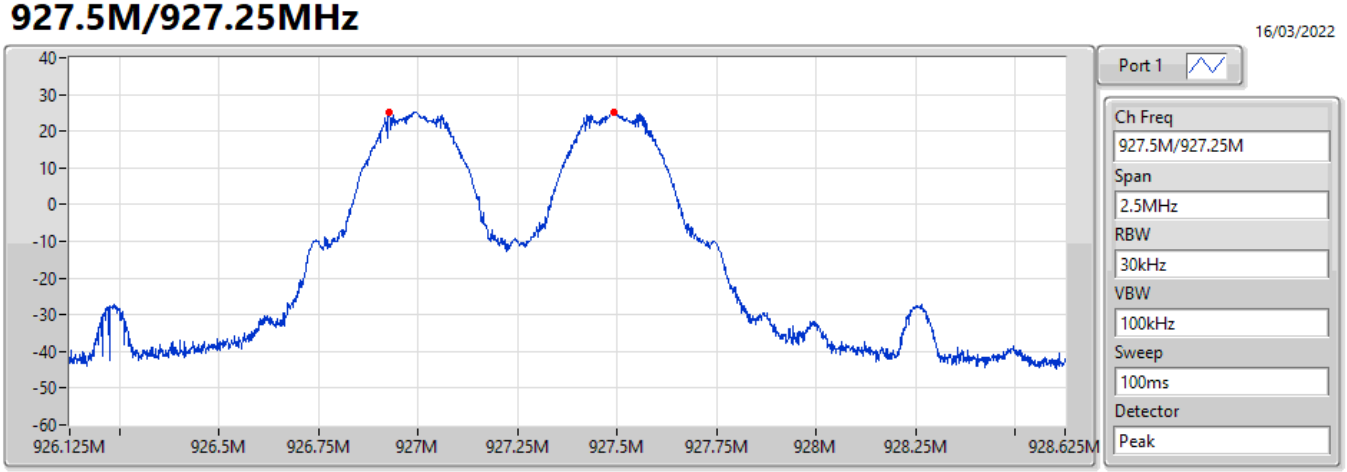


Fl(Hz)	Fh(Hz)	Ch.Space(Hz)	Limit(Hz)
914.9925M	915.5575M	565k	254.062k

FSK-250-FS_Nss1_1TX

Channel Separation-FS

927.5M/927.25MHz



Fl(Hz)	Fh(Hz)	Ch.Space(Hz)	Limit(Hz)
926.9275M	927.4925M	565k	254.375k

For LoRa_125kHz and FSK
Summary

Mode	Power (dBm)	Power (W)
902-928MHz	-	-
LoRa-125-FS-SF7_Nss1_1TX	25.27	0.33651
LoRa-125-FS-SF8_Nss1_1TX	25.27	0.33651
LoRa-125-FS-SF9_Nss1_1TX	25.23	0.33343
FSK-50-FS_Nss1_1TX	25.25	0.33497
FSK-150-FS_Nss1_1TX	25.23	0.33343
FSK-250-FS_Nss1_1TX	25.27	0.33651

Result

Mode	Result	Gain (dBi)	Power (dBm)	Power Limit (dBm)
LoRa-125-FS-SF7_Nss1_1TX	-	-	-	-
902.2MHz	Pass	1.74	25.26	30.00
915MHz	Pass	1.34	25.27	30.00
927.8MHz	Pass	0.90	24.91	30.00
LoRa-125-FS-SF8_Nss1_1TX	-	-	-	-
902.2MHz	Pass	1.74	25.27	30.00
915MHz	Pass	1.34	25.18	30.00
927.8MHz	Pass	0.90	24.87	30.00
LoRa-125-FS-SF9_Nss1_1TX	-	-	-	-
902.2MHz	Pass	1.74	25.23	30.00
915MHz	Pass	1.34	25.17	30.00
927.8MHz	Pass	0.90	24.87	30.00
FSK-50-FS_Nss1_1TX	-	-	-	-
902.2MHz	Pass	1.74	24.81	30.00
915MHz	Pass	1.34	25.25	30.00
927.8MHz	Pass	0.90	24.98	30.00
FSK-150-FS_Nss1_1TX	-	-	-	-
902.4MHz	Pass	1.74	24.73	30.00
915.2MHz	Pass	1.34	25.23	30.00
927.6MHz	Pass	0.90	25.07	30.00
FSK-250-FS_Nss1_1TX	-	-	-	-
902.5MHz	Pass	1.74	24.65	30.00
915MHz	Pass	1.34	25.27	30.00
927.5MHz	Pass	0.90	24.97	30.00

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

Summary

Mode	Power (dBm)	Power (W)
902-928MHz	-	-
LoRa-125-FS-SF7_Nss1_1TX	25.48	0.35318
LoRa-125-FS-SF8_Nss1_1TX	25.46	0.35156
LoRa-125-FS-SF9_Nss1_1TX	25.45	0.35075
FSK-50-FS_Nss1_1TX	25.47	0.35237
FSK-150-FS_Nss1_1TX	25.47	0.35237
FSK-250-FS_Nss1_1TX	25.47	0.35237

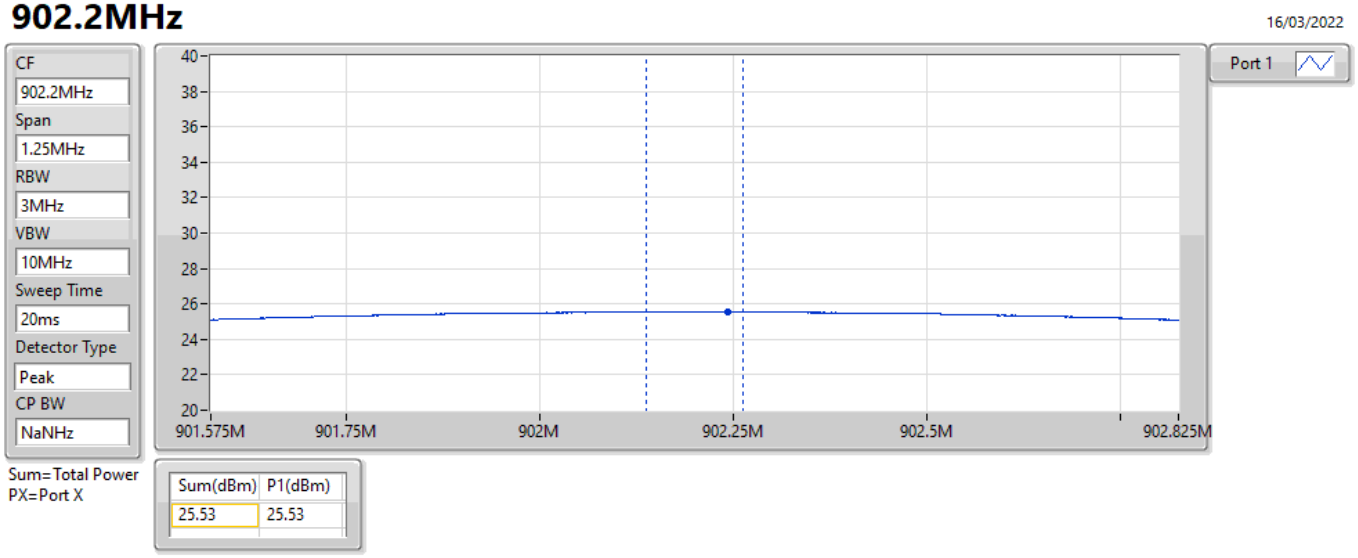
Result

Mode	Result	Gain (dBi)	Power (dBm)	Power Limit (dBm)
LoRa-125-FS-SF7_Nss1_1TX	-	-	-	-
902.2MHz	Pass	1.74	25.48	30.00
915MHz	Pass	1.34	25.47	30.00
927.8MHz	Pass	0.90	25.17	30.00
LoRa-125-FS-SF8_Nss1_1TX	-	-	-	-
902.2MHz	Pass	1.74	25.46	30.00
915MHz	Pass	1.34	25.41	30.00
927.8MHz	Pass	0.90	25.12	30.00
LoRa-125-FS-SF9_Nss1_1TX	-	-	-	-
902.2MHz	Pass	1.74	25.45	30.00
915MHz	Pass	1.34	25.40	30.00
927.8MHz	Pass	0.90	25.11	30.00
FSK-50-FS_Nss1_1TX	-	-	-	-
902.2MHz	Pass	1.74	25.21	30.00
915MHz	Pass	1.34	25.47	30.00
927.8MHz	Pass	0.90	25.25	30.00
FSK-150-FS_Nss1_1TX	-	-	-	-
902.4MHz	Pass	1.74	25.12	30.00
915.2MHz	Pass	1.34	25.47	30.00
927.6MHz	Pass	0.90	25.28	30.00
FSK-250-FS_Nss1_1TX	-	-	-	-
902.5MHz	Pass	1.74	25.15	30.00
915MHz	Pass	1.34	25.47	30.00
927.5MHz	Pass	0.90	25.29	30.00

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

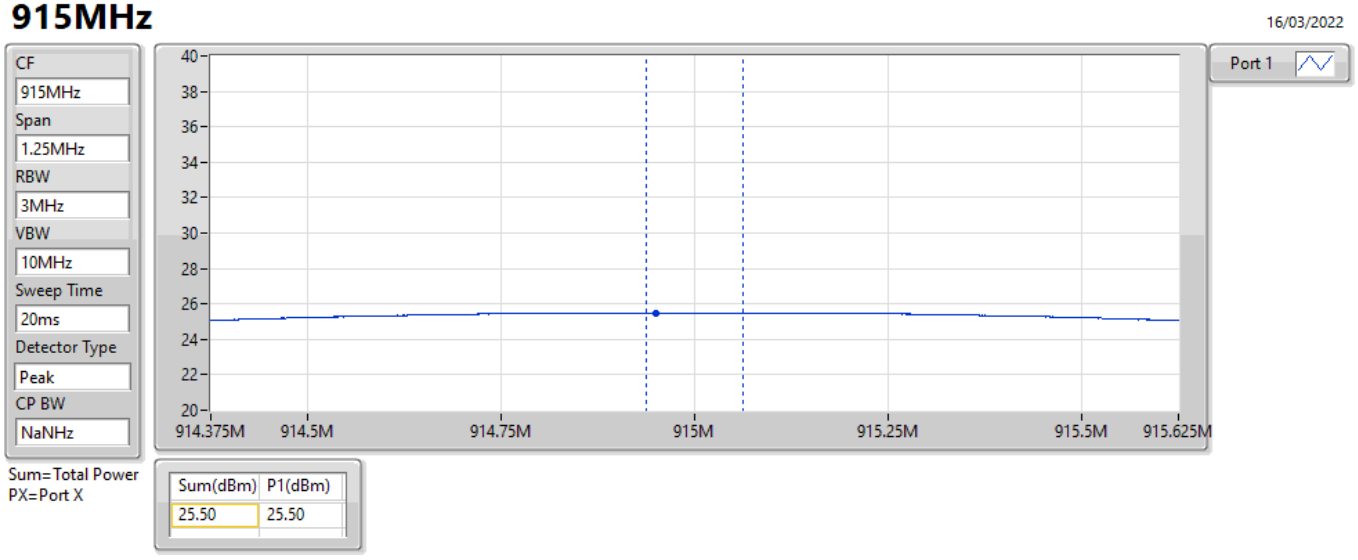
LoRa-125-FS-SF7_Nss1_1TX PK Power-FS

902.2MHz



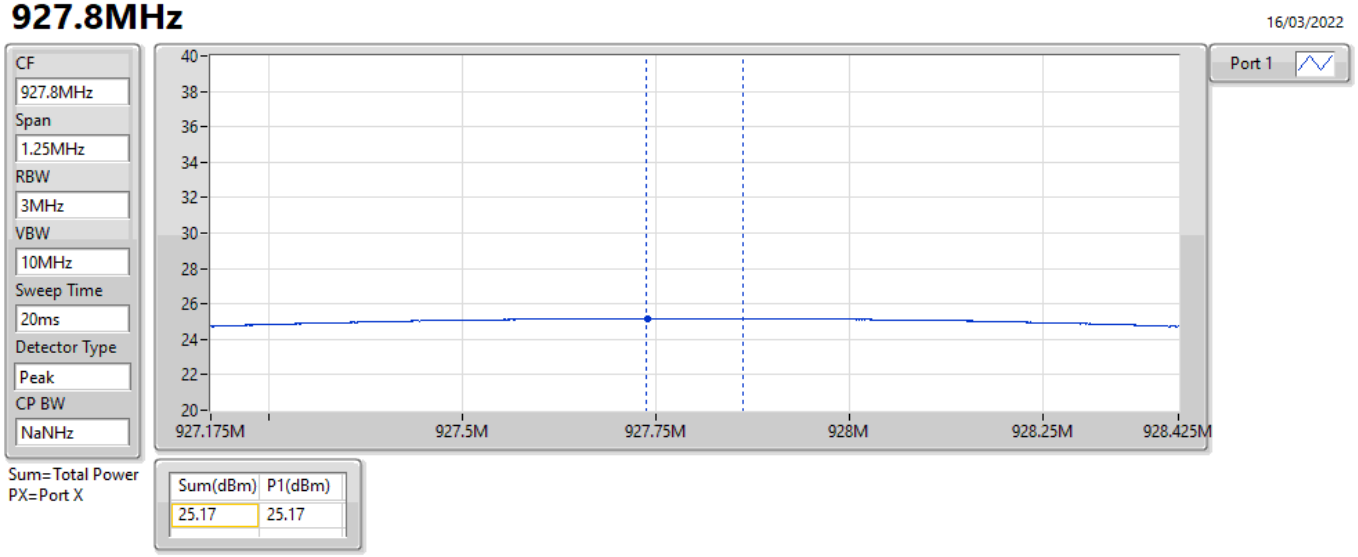
LoRa-125-FS-SF7_Nss1_1TX PK Power-FS

915MHz



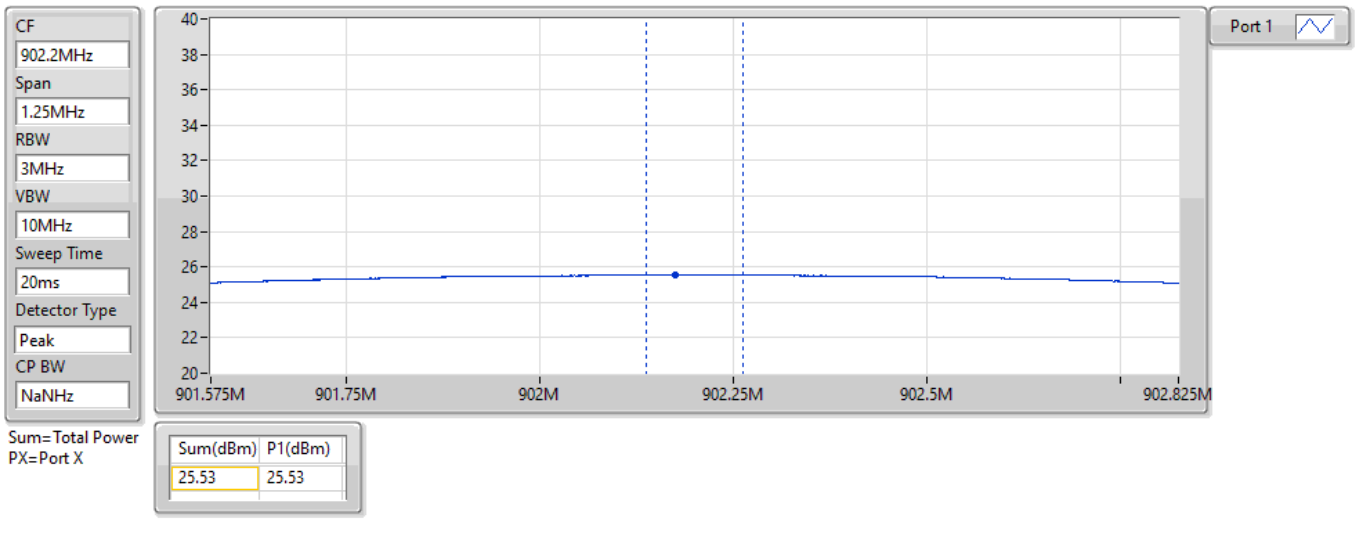
LoRa-125-FS-SF7_Nss1_1TX PK Power-FS

927.8MHz



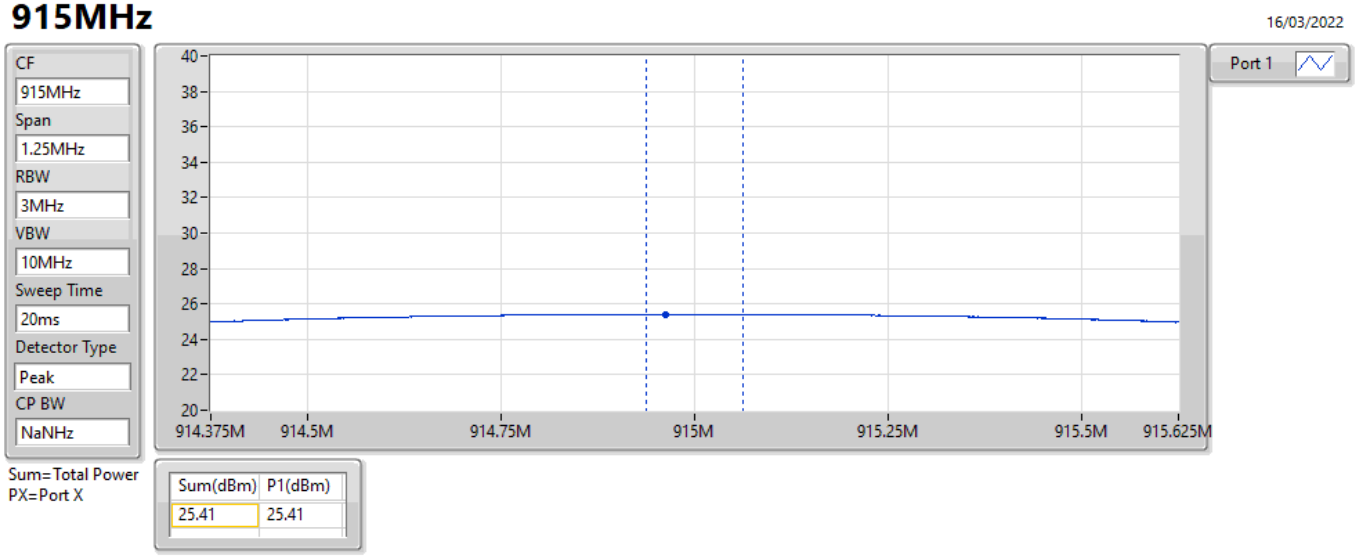
LoRa-125-FS-SF8_Nss1_1TX PK Power-FS

902.2MHz



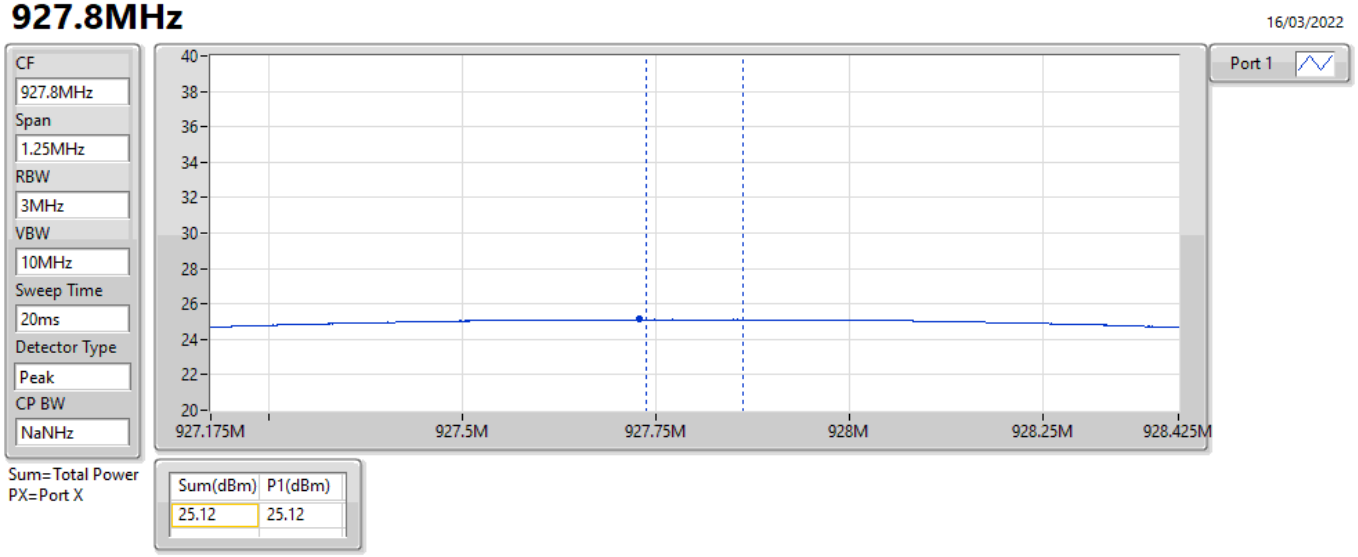
LoRa-125-FS-SF8_Nss1_1TX PK Power-FS

915MHz



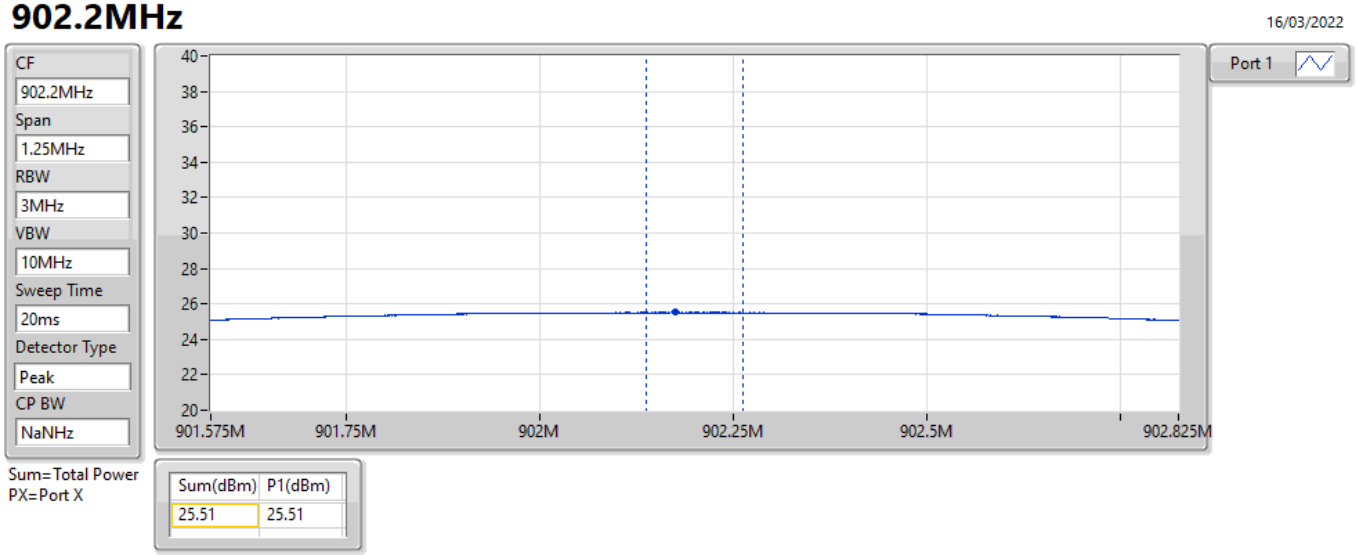
LoRa-125-FS-SF8_Nss1_1TX PK Power-FS

927.8MHz



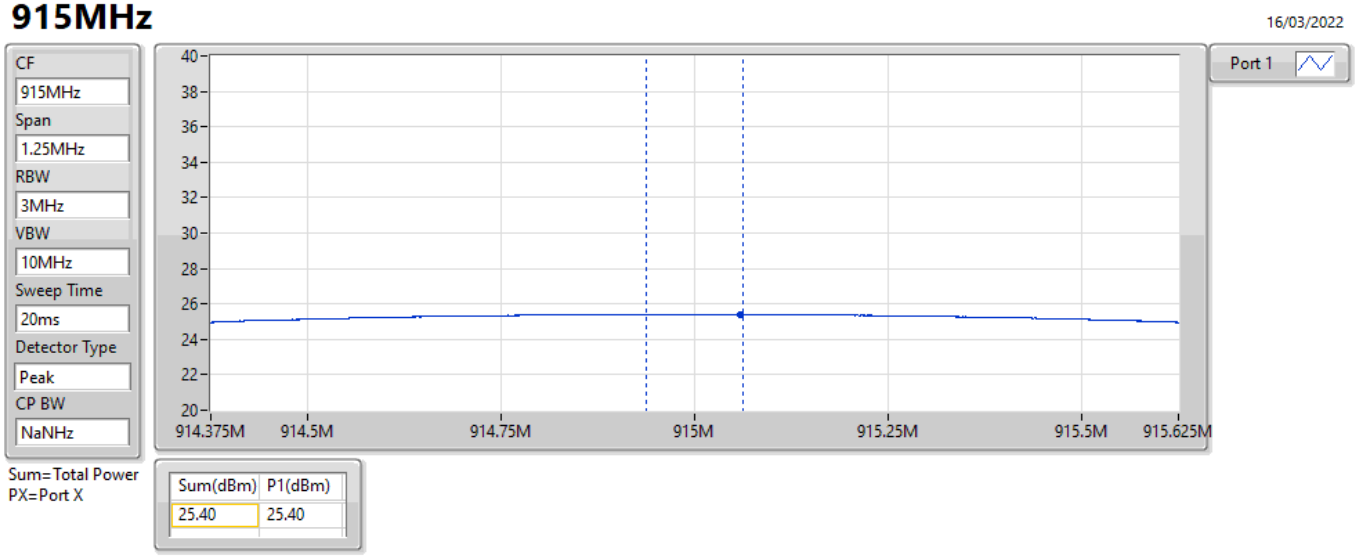
LoRa-125-FS-SF9_Nss1_1TX PK Power-FS

902.2MHz



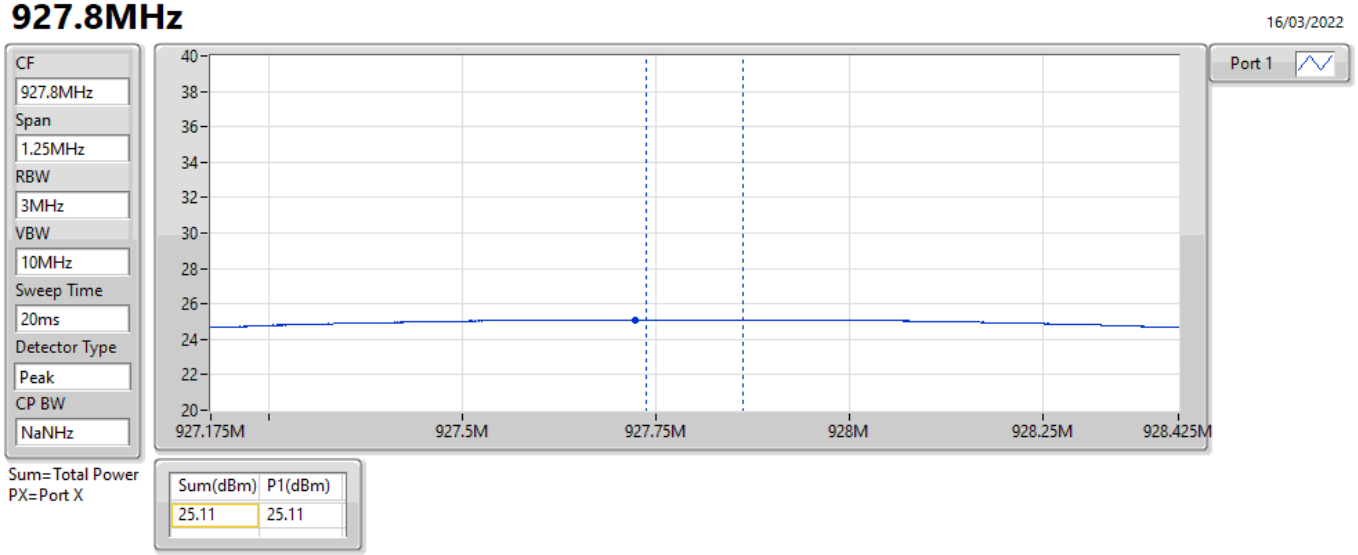
LoRa-125-FS-SF9_Nss1_1TX PK Power-FS

915MHz



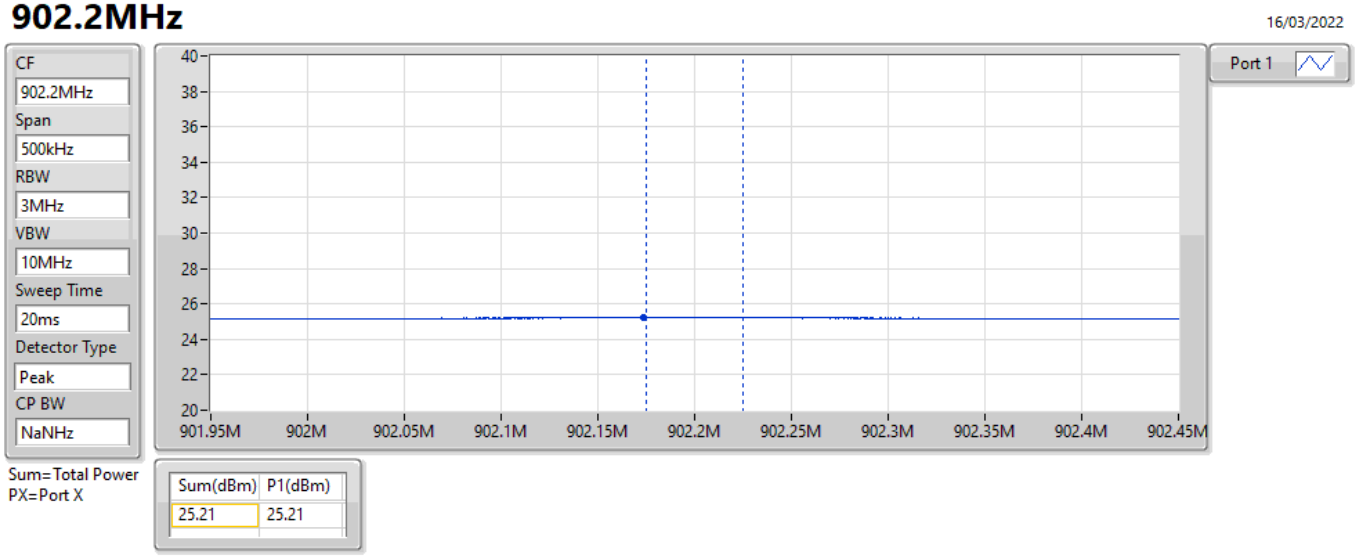
LoRa-125-FS-SF9_Nss1_1TX PK Power-FS

927.8MHz



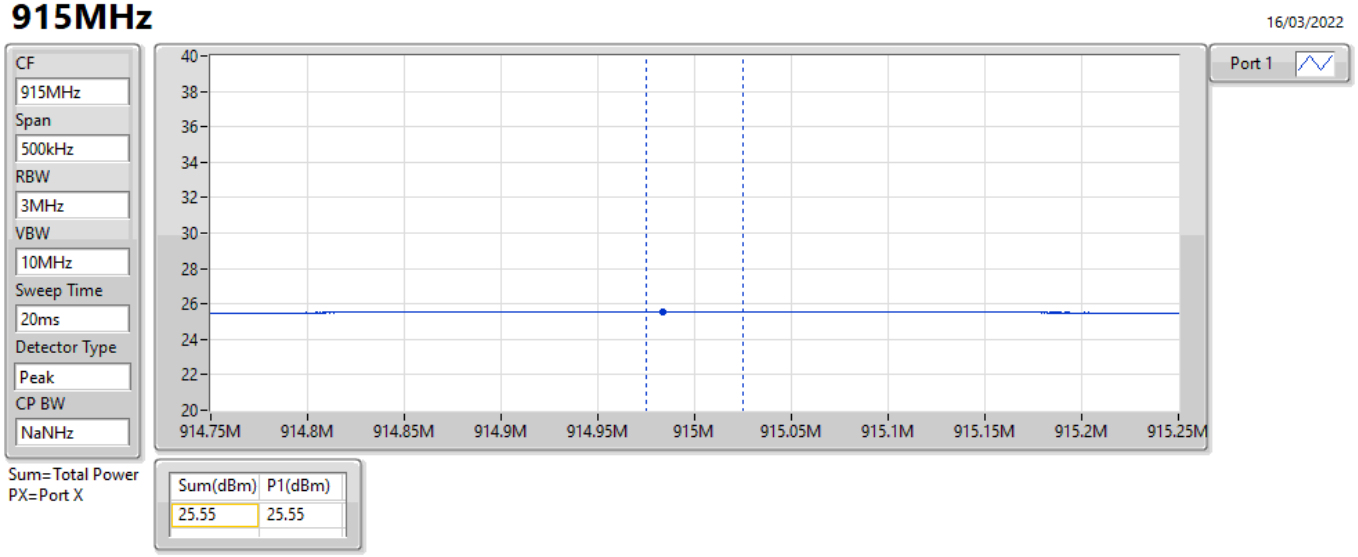
FSK-50-FS_Nss1_1TX PK Power-FS

902.2MHz



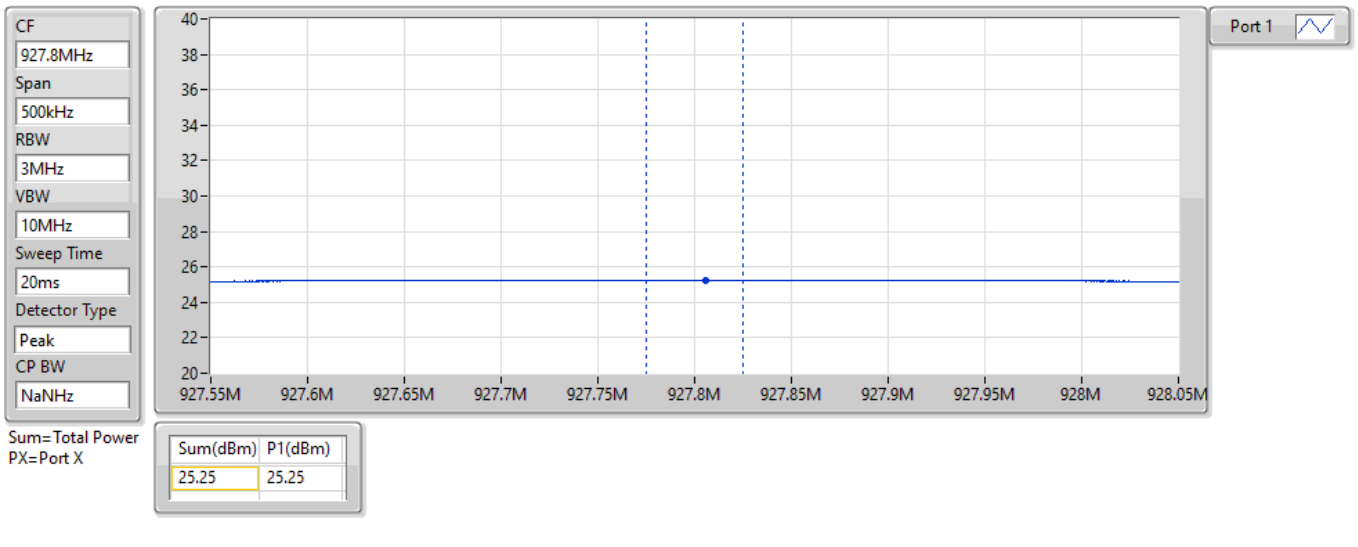
FSK-50-FS_Nss1_1TX PK Power-FS

915MHz



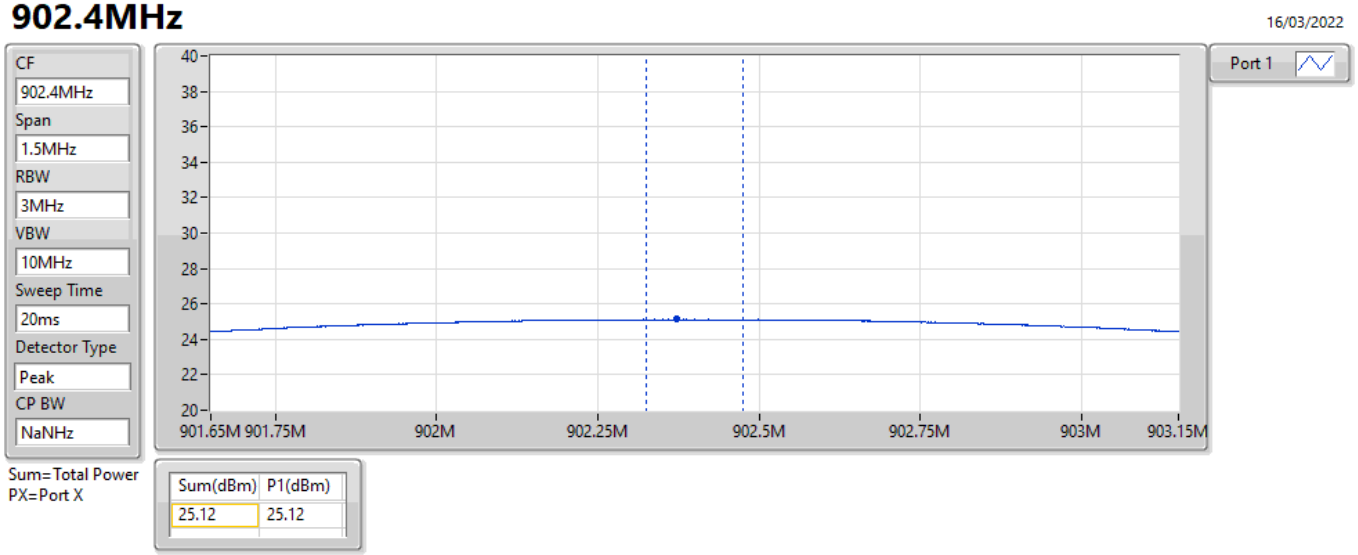
FSK-50-FS_Nss1_1TX PK Power-FS

927.8MHz



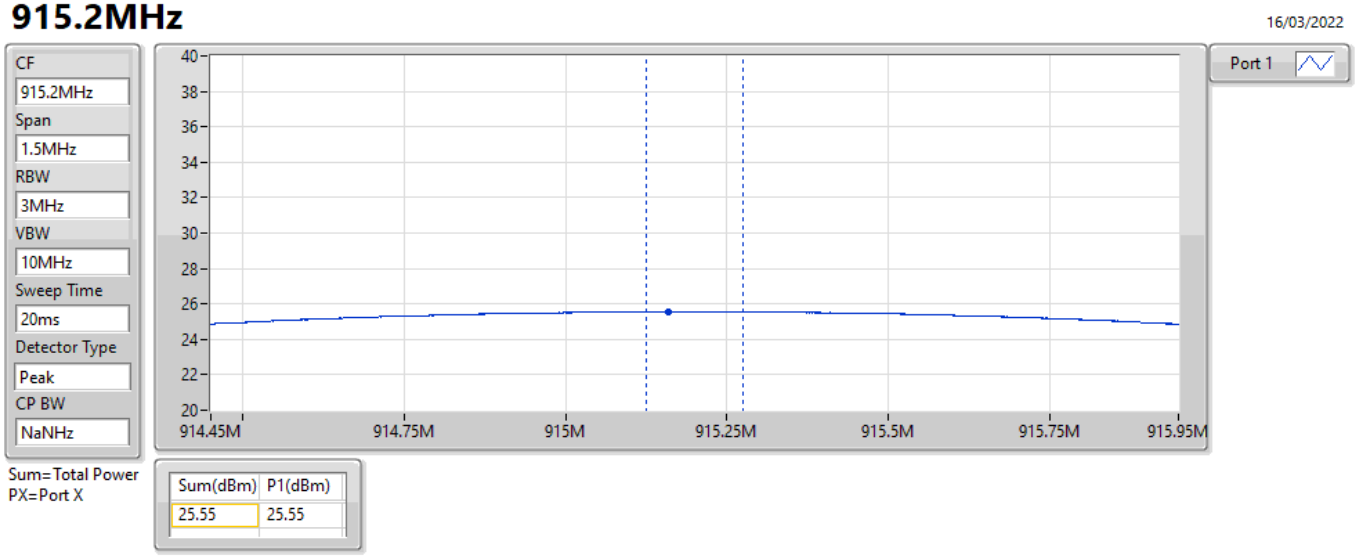
FSK-150-FS_Nss1_1TX PK Power-FS

902.4MHz



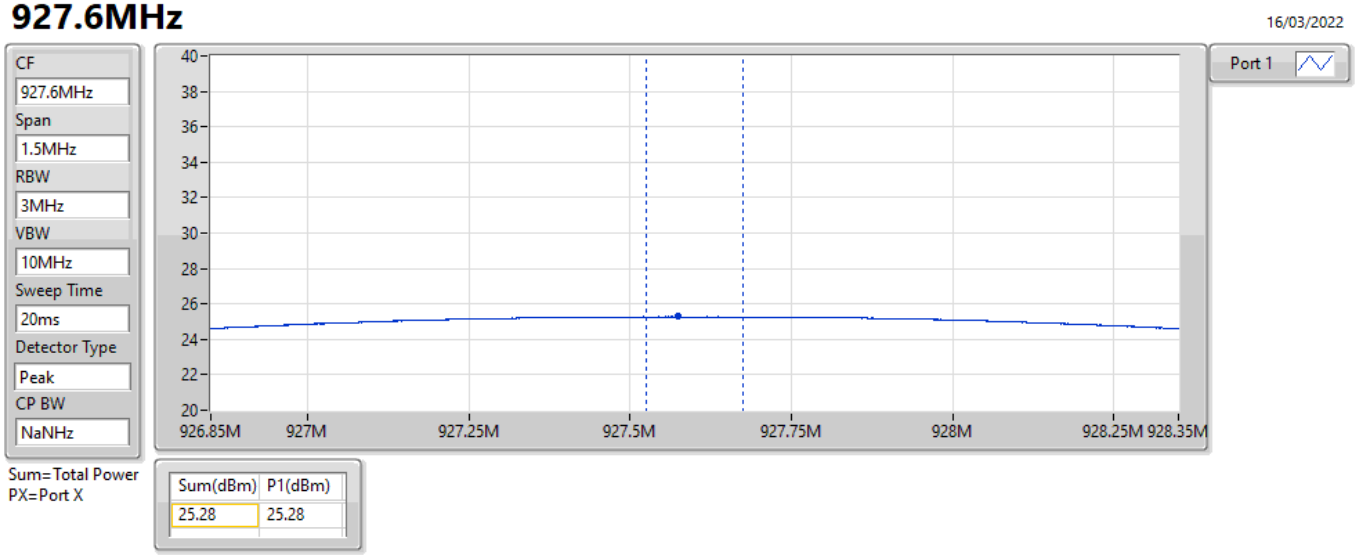
FSK-150-FS_Nss1_1TX PK Power-FS

915.2MHz



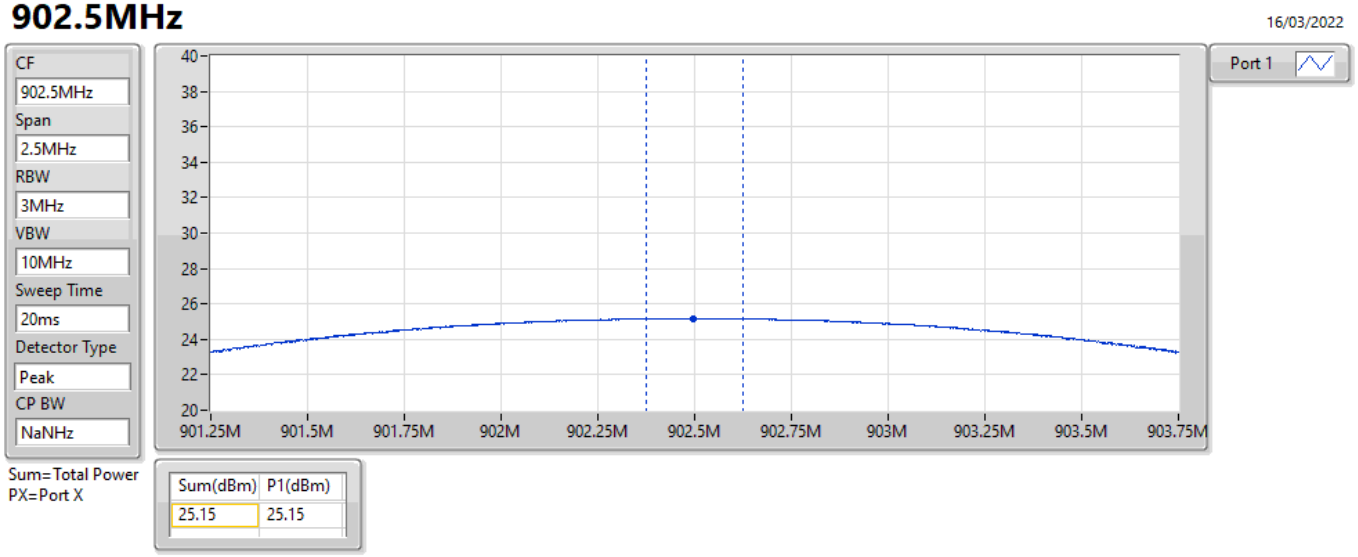
FSK-150-FS_Nss1_1TX PK Power-FS

927.6MHz



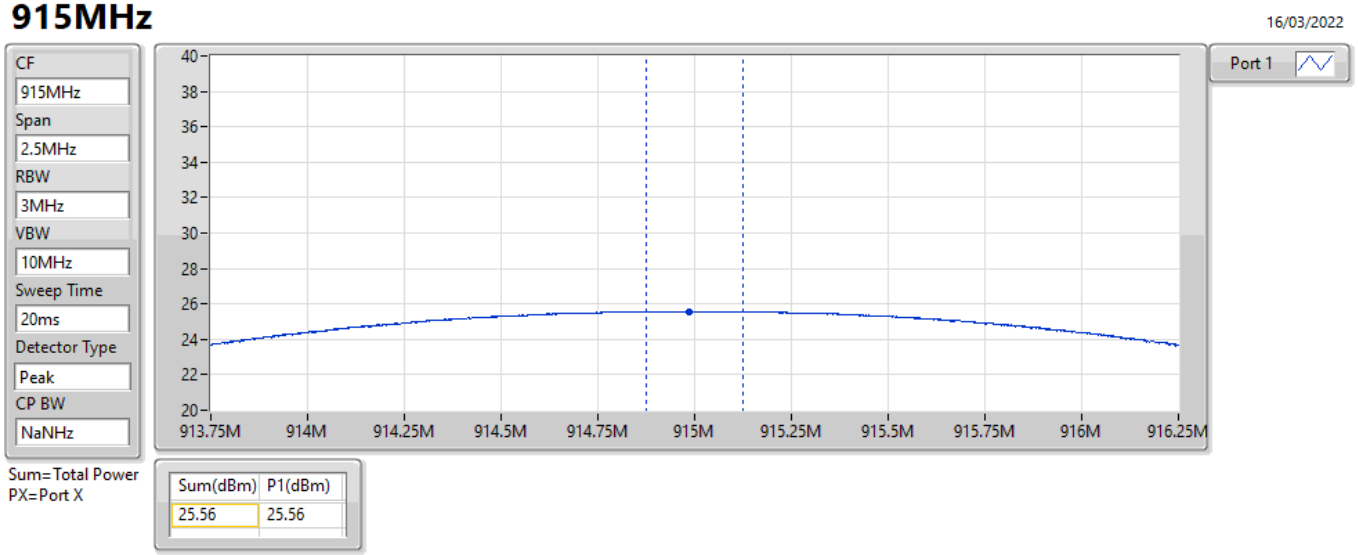
FSK-250-FS_Nss1_1TX PK Power-FS

902.5MHz



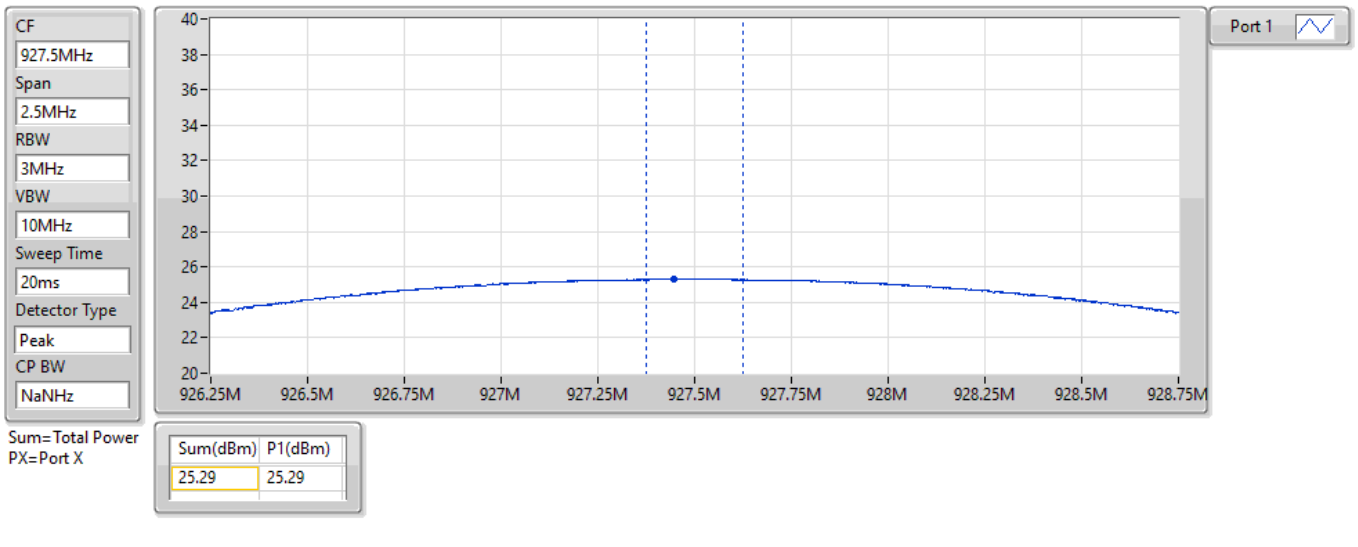
FSK-250-FS_Nss1_1TX PK Power-FS

915MHz



FSK-250-FS_Nss1_1TX PK Power-FS

927.5MHz



For LoRa_125kHz and FSK
Summary

Mode	Max-Hop No
902-928MHz	-
LoRa-125-FS-SF7_Nss1_1TX	129
LoRa-125-FS-SF8_Nss1_1TX	129
LoRa-125-FS-SF9_Nss1_1TX	129
FSK-50-FS_Nss1_1TX	129
FSK-150-FS_Nss1_1TX	64
FSK-250-FS_Nss1_1TX	51

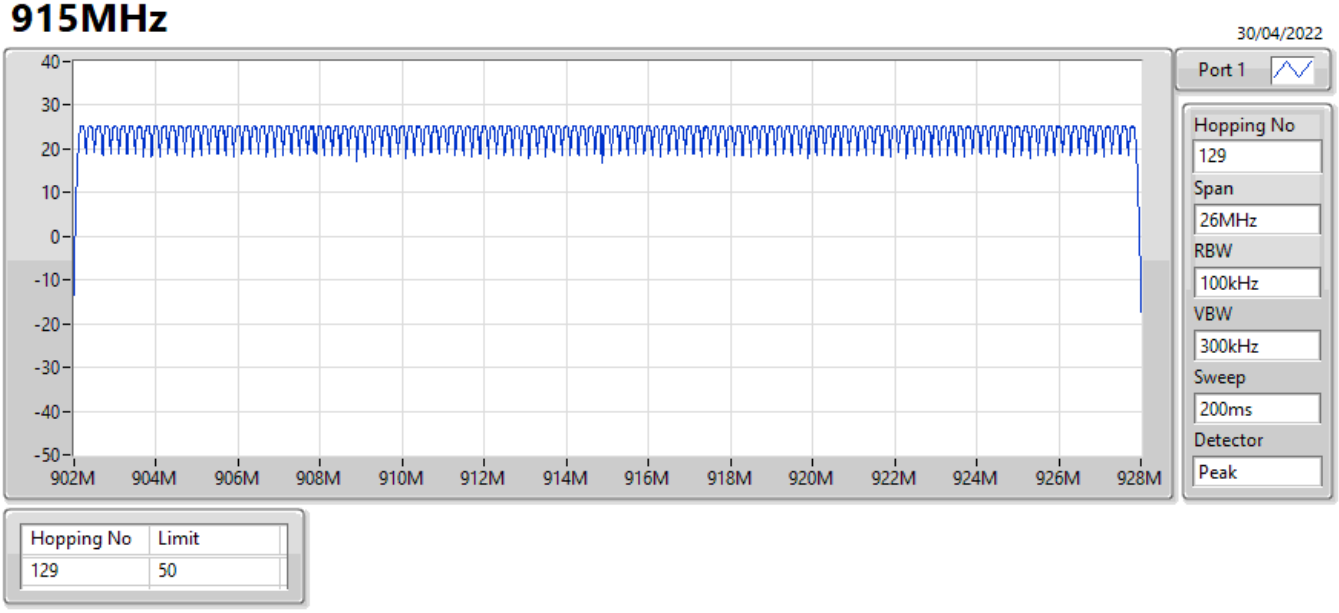
Result

Mode	Result	Hopping No	Limit
LoRa-125-FS-SF7_Nss1_1TX	-	-	-
915MHz	Pass	129	50
LoRa-125-FS-SF8_Nss1_1TX	-	-	-
915MHz	Pass	129	50
LoRa-125-FS-SF9_Nss1_1TX	-	-	-
915MHz	Pass	129	50
FSK-50-FS_Nss1_1TX	-	-	-
915MHz	Pass	129	50
FSK-150-FS_Nss1_1TX	-	-	-
915.2MHz	Pass	64	15
FSK-250-FS_Nss1_1TX	-	-	-
915MHz	Pass	51	50

LoRa-125-FS-SF7_Nss1_1TX

Hopping-FS

915MHz

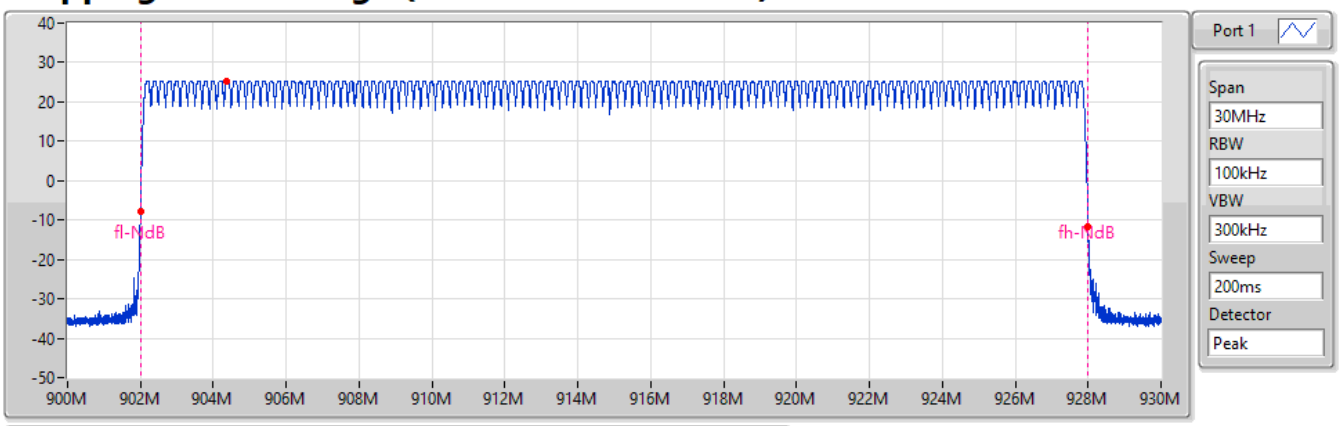


Hopping No	Limit
129	50

LoRa-125-FS-SF7_Nss1_1TX

915MHz

Hopping Ch Bandedge (Non-restricted Band)

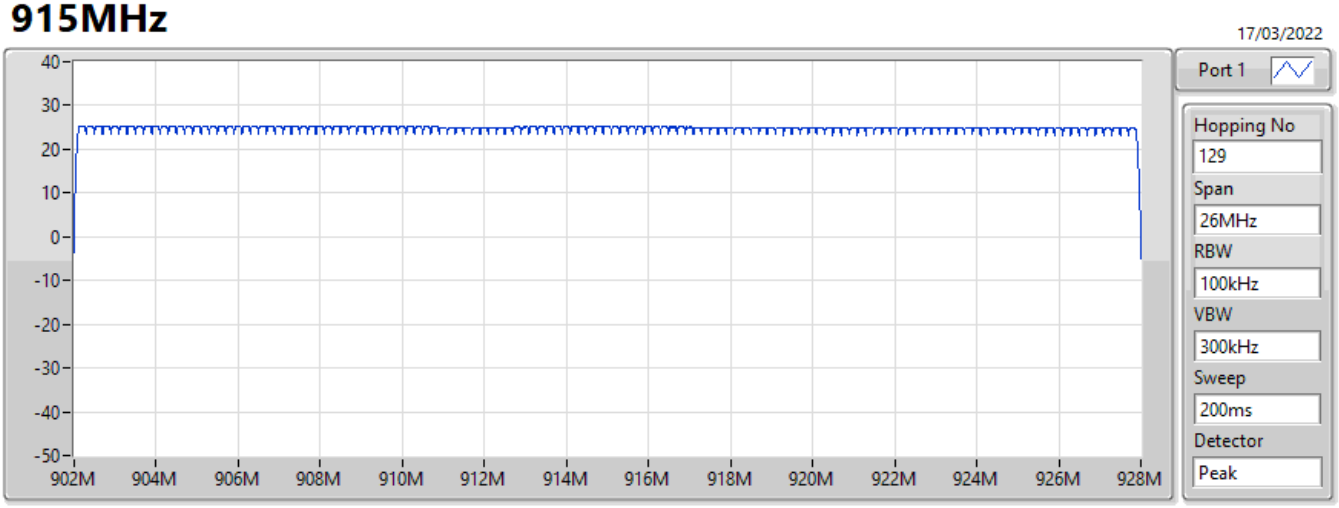


Limit(dBm)	Ref(Hz)	Ref(dBm)	BE-l(Hz)	BE-l(dBm)	BE-h(Hz)	BE-h(dBm)
5.3	904.365M	25.3	901.99875M	-7.77	928.00125M	-11.69

LoRa-125-FS-SF8_Nss1_1TX

Hopping-FS

915MHz

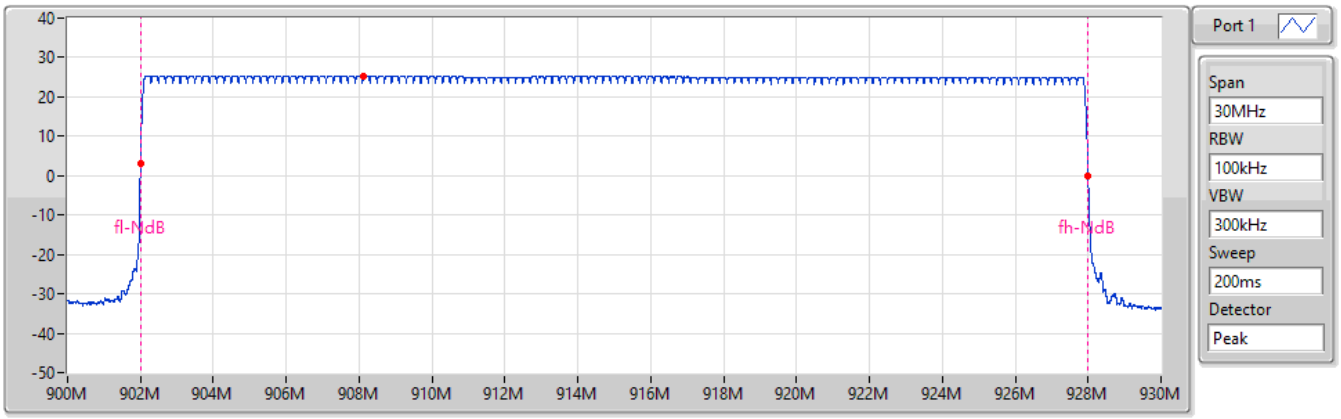


Hopping No	Limit
129	50

LoRa-125-FS-SF8_Nss1_1TX

915MHz

Hopping Ch Bandedge (Non-restricted Band)

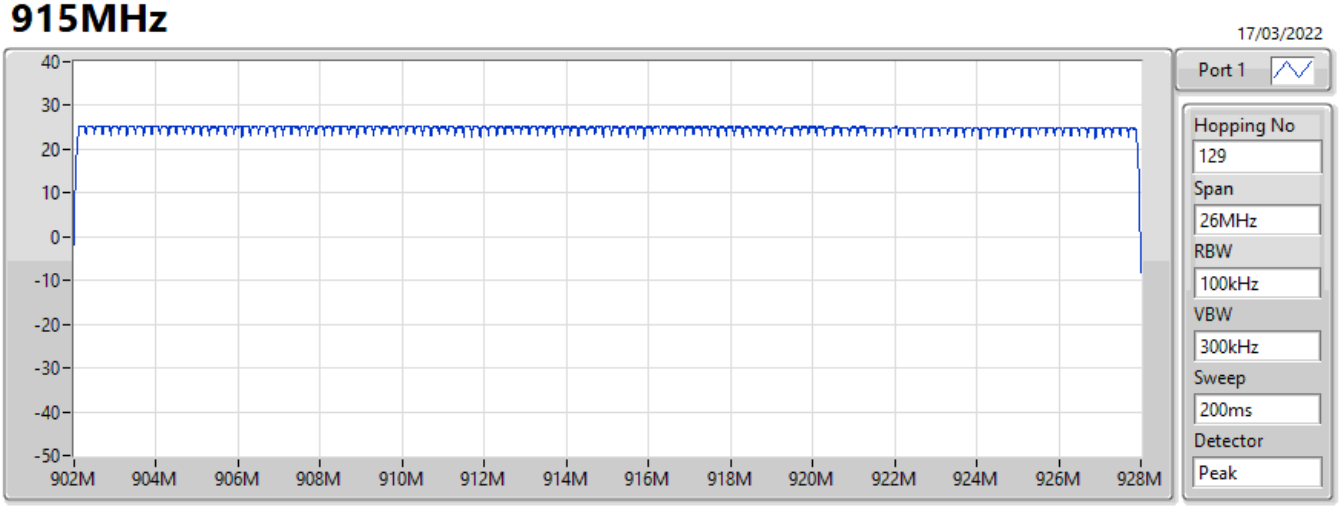


Limit(dBm)	Ref(Hz)	Ref(dBm)	BE-l(Hz)	BE-l(dBm)	BE-h(Hz)	BE-h(dBm)
5.17	908.13M	25.17	901.99875M	3.1	928.00125M	0

LoRa-125-FS-SF9_Nss1_1TX

Hopping-FS

915MHz

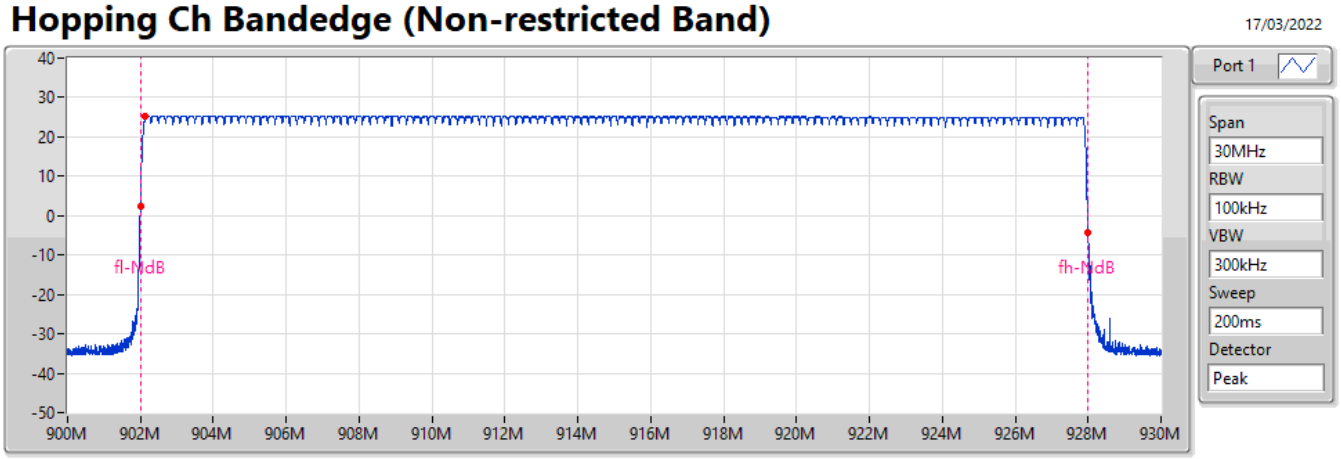


Hopping No	Limit
129	50

LoRa-125-FS-SF9_Nss1_1TX

915MHz

Hopping Ch Bandedge (Non-restricted Band)

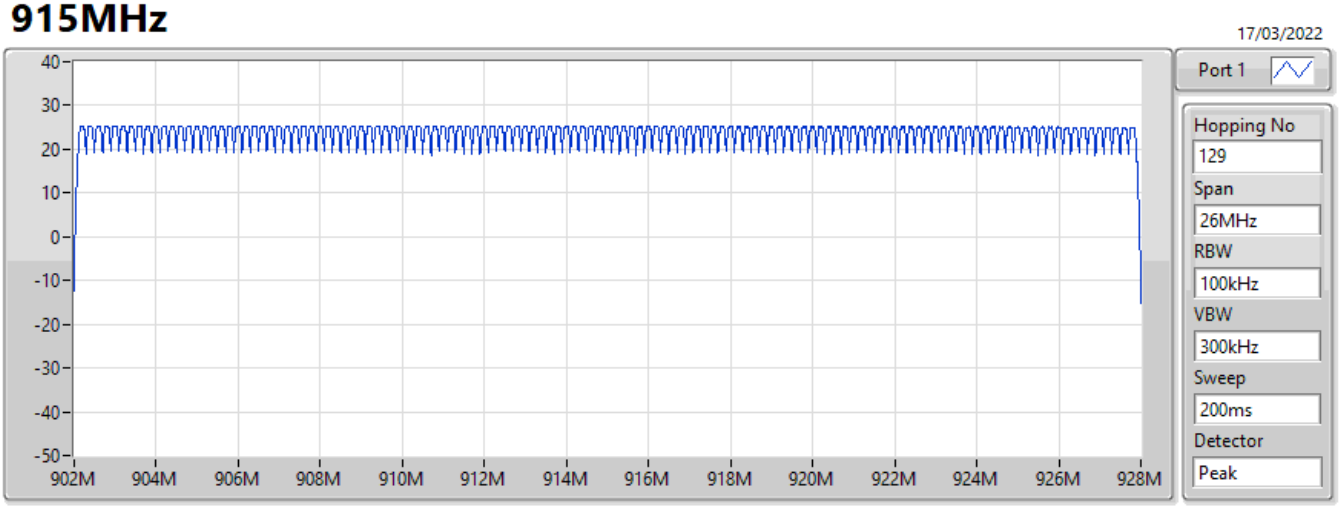


Limit(dBm)	Ref(Hz)	Ref(dBm)	BE-l(Hz)	BE-l(dBm)	BE-h(Hz)	BE-h(dBm)
5.22	902.13M	25.22	901.99875M	2.3	928.00125M	-4.18

FSK-50-FS_Nss1_1TX

Hopping-FS

915MHz

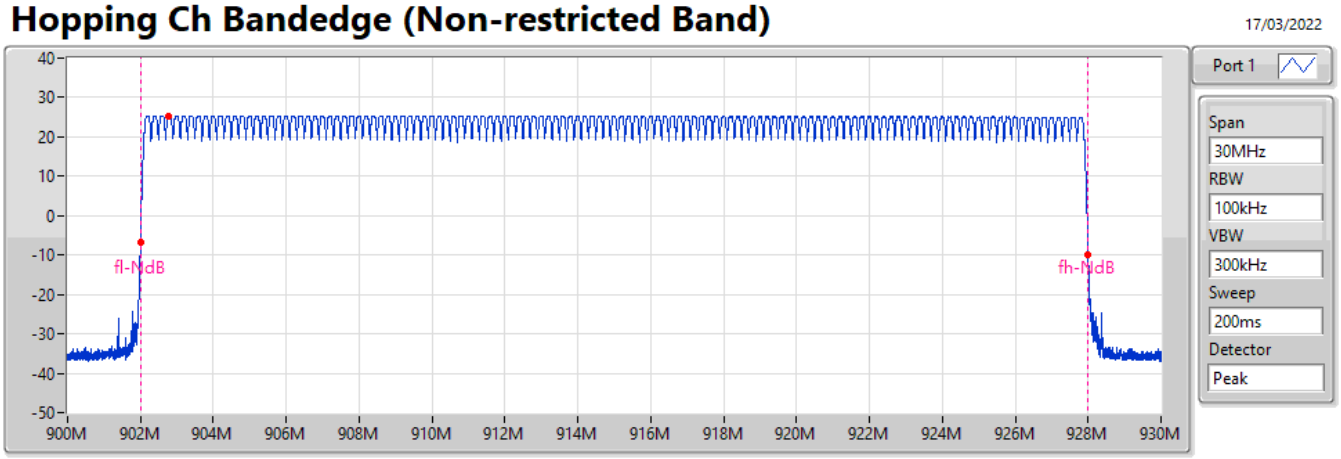


Hopping No	Limit
129	50

FSK-50-FS_Nss1_1TX

915MHz

Hopping Ch Bandedge (Non-restricted Band)

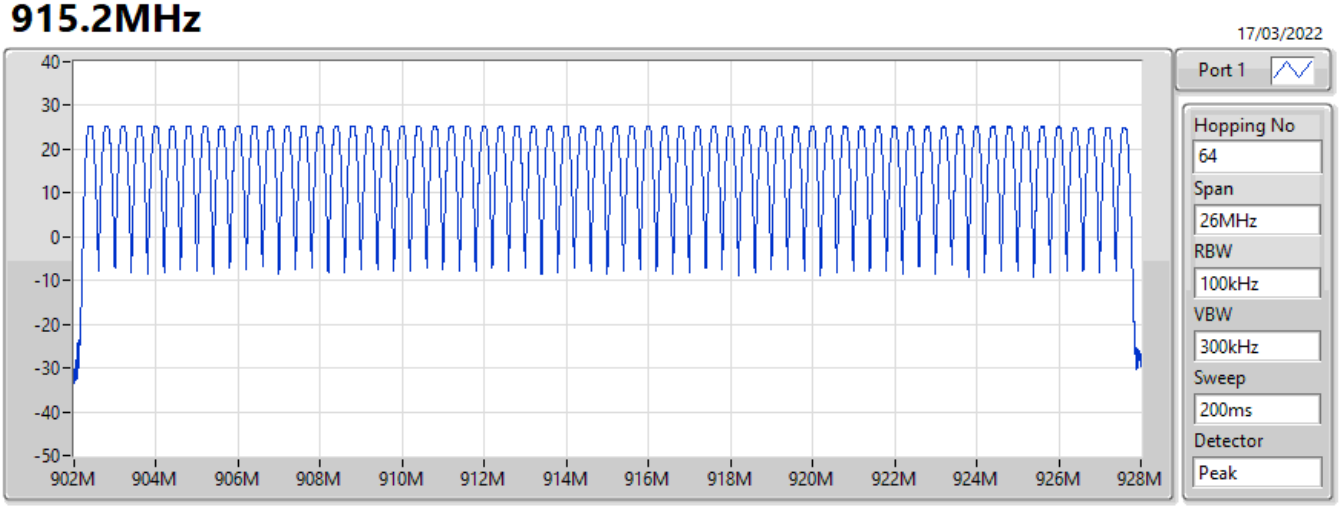


Limit(dBm)	Ref(Hz)	Ref(dBm)	BE-l(Hz)	BE-l(dBm)	BE-h(Hz)	BE-h(dBm)
5.29	902.76375M	25.29	901.99875M	-6.88	928.00125M	-10.07

FSK-150-FS_Nss1_1TX

Hopping-FS

915.2MHz

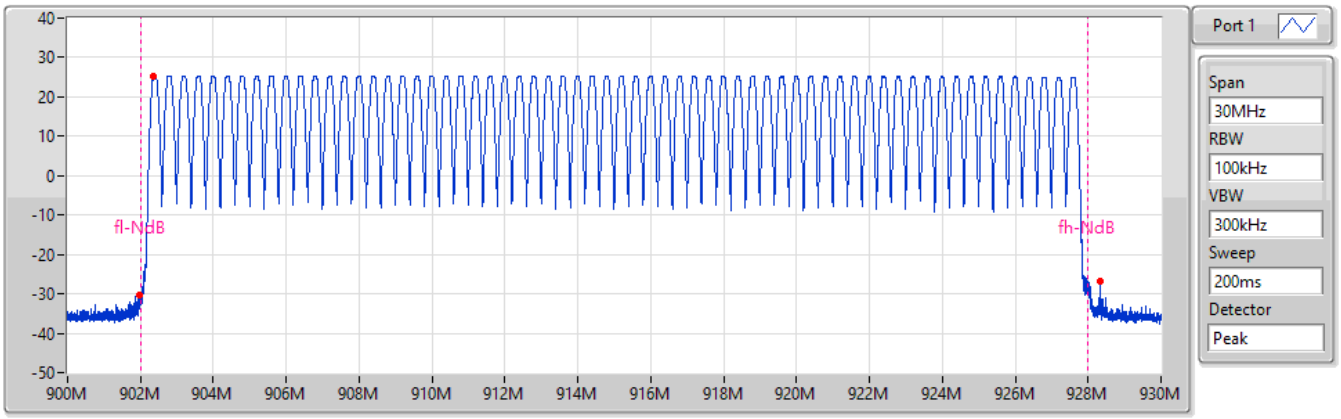


Hopping No	Limit
64	15

FSK-150-FS_Nss1_1TX

915.2MHz

Hopping Ch Bandedge (Non-restricted Band)

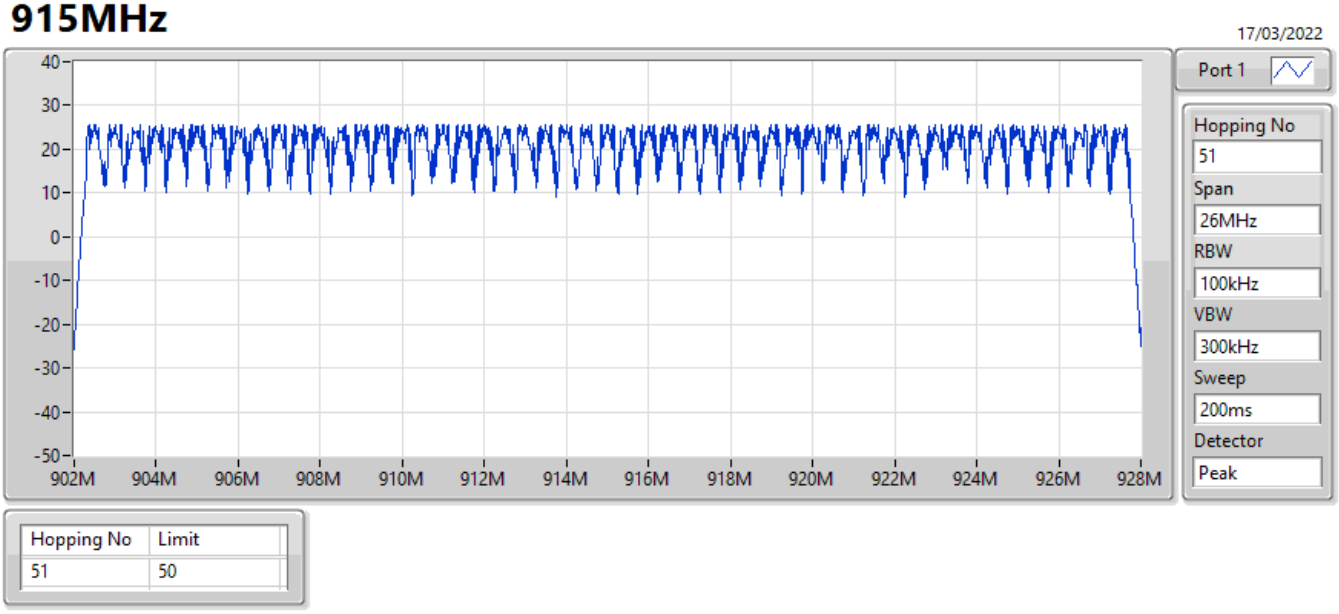


Limit(dBm)	Ref(Hz)	Ref(dBm)	BE-l(Hz)	BE-l(dBm)	BE-h(Hz)	BE-h(dBm)
5.32	902.36625M	25.32	901.96875M	-30.33	928.3125M	-26.84

FSK-250-FS_Nss1_1TX

Hopping-FS

915MHz

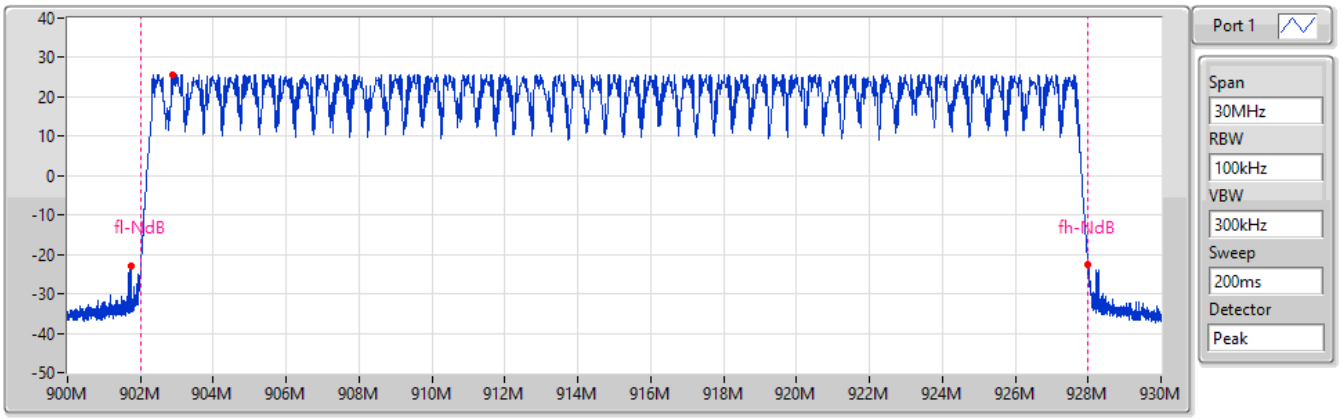


Hopping No	Limit
51	50

FSK-250-FS_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)
5.72	902.86875M	25.72	901.7475M	-22.87	928.005M	-22.74

For LoRa_125kHz and FSK
Summary

Mode	Max-Dwell (s)
902-928MHz	-
LoRa-125-FS-SF7_Nss1_1TX	287.0625m
LoRa-125-FS-SF8_Nss1_1TX	393.84375m__
LoRa-125-FS-SF9_Nss1_1TX	377.96875m__
FSK-50-FS_Nss1_1TX	48.9m__
FSK-150-FS_Nss1_1TX	16.640625m__
FSK-250-FS_Nss1_1TX	20.4m__

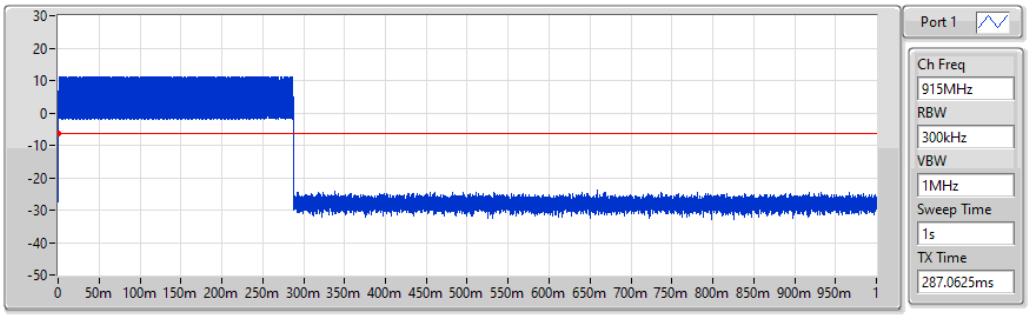
Result

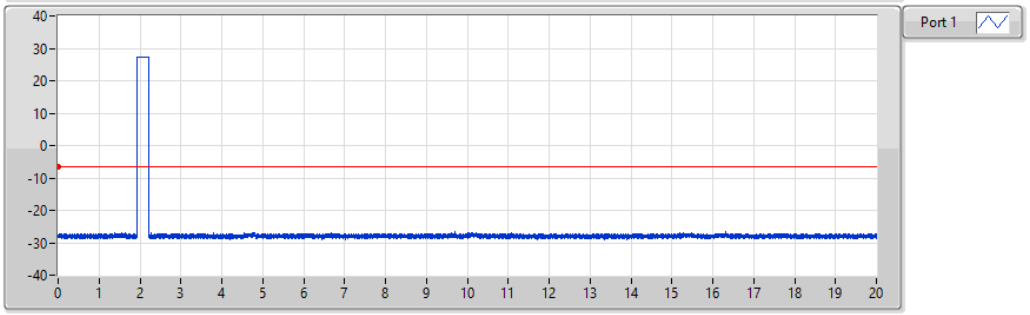
Mode	Result	Period (s)	Dwell (s)	Limit (s)	Tx On (s)
LoRa-125-FS-SF7_Nss1_1TX	-	-	-	-	-
915MHz	Pass	20	287.0625m	400m	287.0625m
LoRa-125-FS-SF8_Nss1_1TX	-	-	-	-	-
915MHz	Pass	20	393.84375m	400m	393.84375m
LoRa-125-FS-SF9_Nss1_1TX	-	-	-	-	-
915MHz	Pass	20	377.96875m	400m	377.96875m
FSK-50-FS_Nss1_1TX	-	-	-	-	-
915MHz	Pass	20	48.9m	400m	9.78m
FSK-150-FS_Nss1_1TX	-	-	-	-	-
915.2MHz	Pass	20	16.640625m	400m	3.328125m
FSK-250-FS_Nss1_1TX	-	-	-	-	-
915MHz	Pass	20	20.4m	400m	2.04m

LoRa-125-FS-SF7_Nss1_1TX **Dwell-FS**

915MHz

17/03/2022



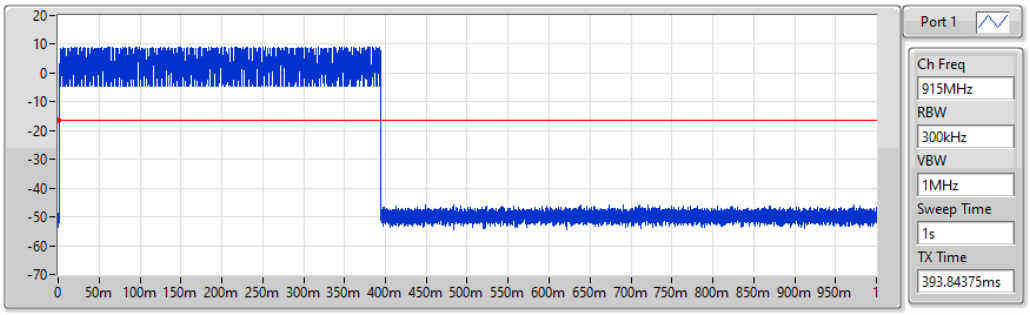


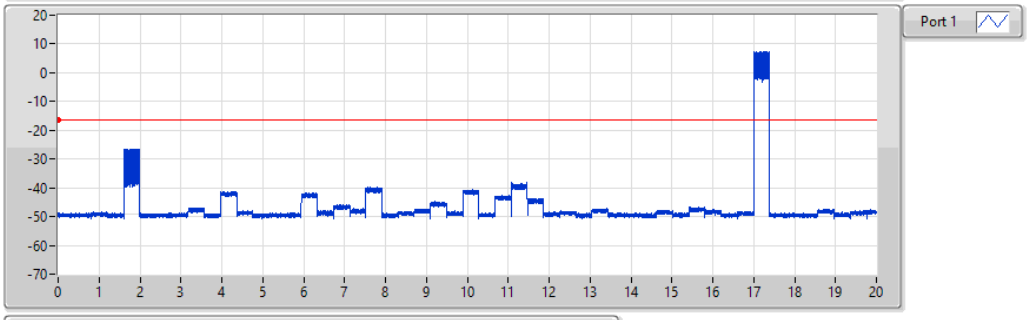
Period(s)	Dwell(s)	Limit(s)	Tx On(s)
20	287.0625m	400m	287.0625m

LoRa-125-FS-SF8_Nss1_1TX **Dwell-FS**

915MHz

30/04/2022

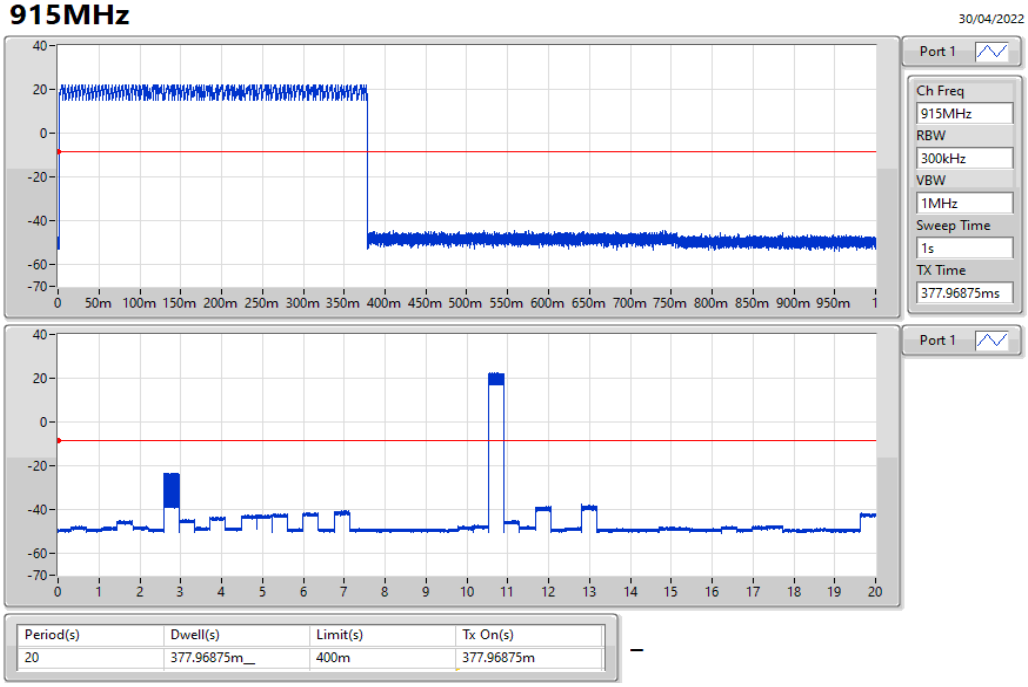




Period(s)	Dwell(s)	Limit(s)	Tx On(s)
20	393.84375m	400m	393.84375m

LoRa-125-FS-SF9_Nss1_1TX **Dwell-FS**

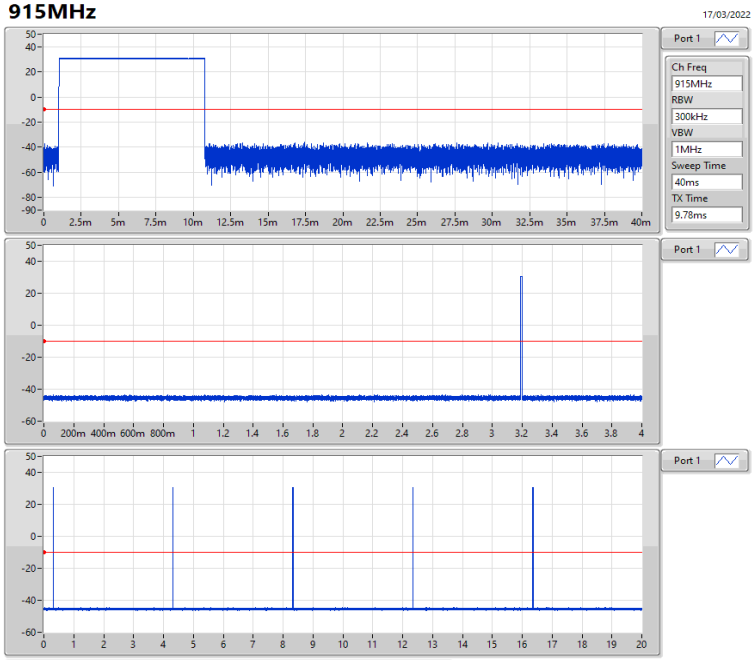
915MHz



Period(s)	Dwell(s)	Limit(s)	Tx On(s)
20	377.96875m__	400m	377.96875m

FSK-50-FS_Nss1_1TX **Dwell-FS**

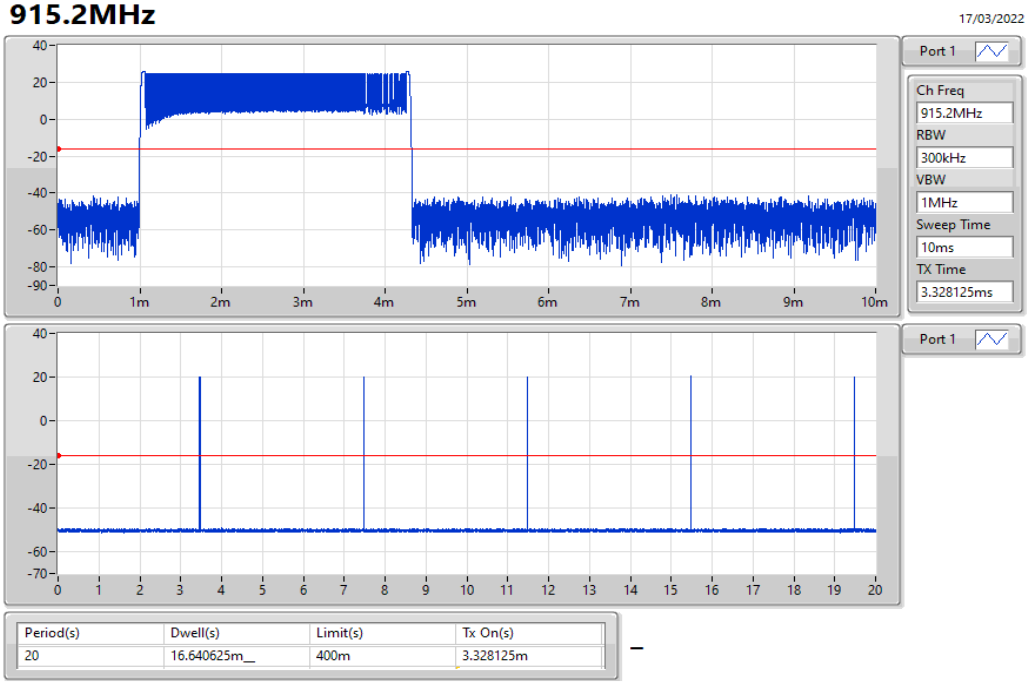
915MHz



Period(s)	Dwell(s)	Limit(s)	Tx On(s)
20	48.9m__	400m	9.78m

FSK-150-FS_Nss1_1TX **Dwell-FS**

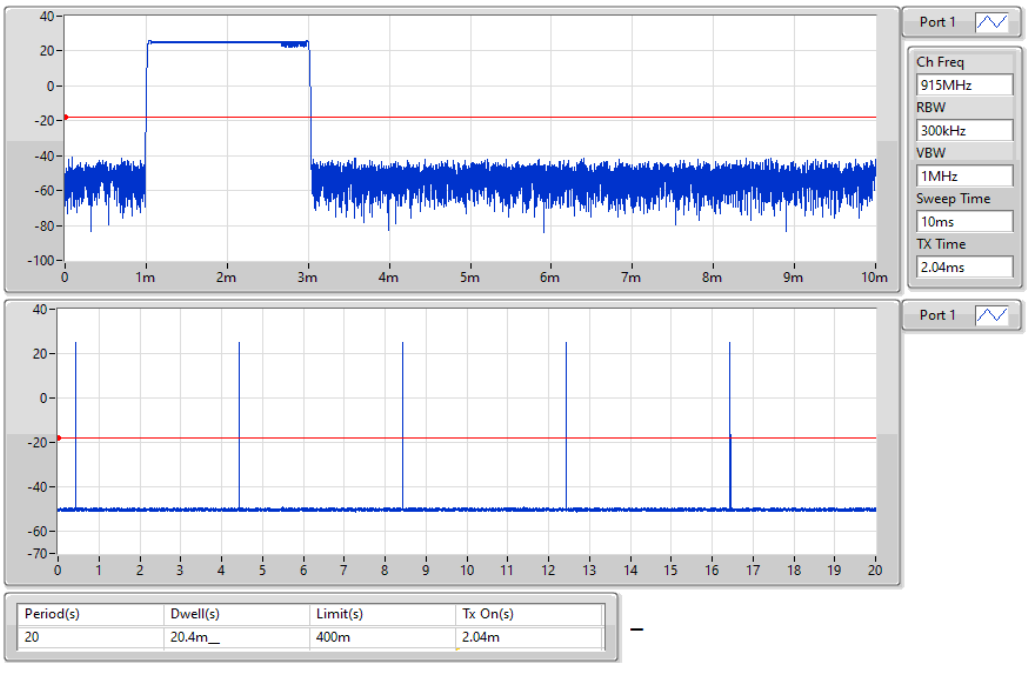
915.2MHz



Period(s)	Dwell(s)	Limit(s)	Tx On(s)
20	16.640625m__	400m	3.328125m

FSK-250-FS_Nss1_1TX **Dwell-FS**

915MHz



Period(s)	Dwell(s)	Limit(s)	Tx On(s)
20	20.4m__	400m	2.04m

For LoRa_125kHz and FSK
Summary

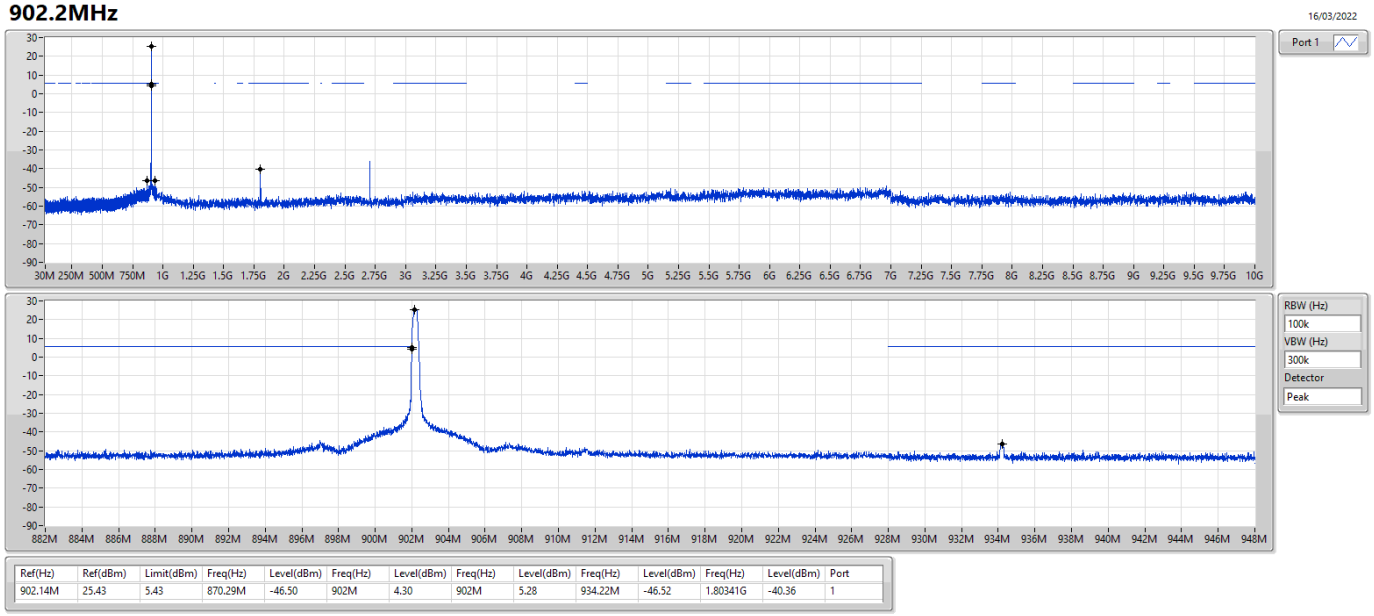
Mode	Result	Ref (Hz)	Ref (dBm)	Limit (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Port
902-928MHz	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LoRa-125-FS-SF7_Nss1_1TX	Pass	902.14M	25.43	5.43	870.29M	-46.50	902M	4.30	902M	5.28	934.22M	-46.52	1.80341G	-40.36	1
LoRa-125-FS-SF8_Nss1_1TX	Pass	902.22M	25.39	5.39	870.29M	-48.00	901.92M	-23.05	902M	0.00	934.18M	-45.72	1.80341G	-40.55	1
LoRa-125-FS-SF9_Nss1_1TX	Pass	927.75M	24.95	4.95	819.27M	-49.61	895.79M	-45.32	928M	4.60	928.02M	-6.95	1.85546G	-45.35	1
FSK-50-FS_Nss1_1TX	Pass	902.16M	25.03	5.03	870.18M	-47.03	902M	-7.61	902M	-3.24	934.17M	-46.59	1.80455G	-42.13	1
FSK-150-FS_Nss1_1TX	Pass	902.43M	24.98	4.98	870.5M	-47.91	901.65M	-25.29	902M	-30.44	934.38M	-46.84	1.80455G	-41.43	1
FSK-250-FS_Nss1_1TX	Pass	927.51M	25.12	5.12	852.71M	-49.85	895.5M	-45.46	928M	-29.81	928.25M	-25.10	1.85433G	-45.13	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)	Freq (Hz)	Level (dBm)	Port
LoRa-125-FS-SF7_Nss1_1TX	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
902.2MHz	Pass	902.14M	25.43	5.43	870.29M	-46.50	902M	4.30	902M	5.28	934.22M	-46.52	1.80341G	-40.36	1
915MHz	Pass	914.94M	25.36	5.36	842.17M	-49.76	882.99M	-45.68	902M	-51.01	946.99M	-46.06	1.82944G	-42.19	1
927.8MHz	Pass	927.77M	25.08	5.08	854.74M	-49.90	895.78M	-45.58	928M	-4.08	928M	1.12	1.85546G	-44.46	1
LoRa-125-FS-SF8_Nss1_1TX	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
902.2MHz	Pass	902.22M	25.39	5.39	870.29M	-48.00	901.92M	-23.05	902M	0.00	934.18M	-45.72	1.80341G	-40.55	1
915MHz	Pass	915M	25.28	5.28	798.5M	-50.64	883.03M	-45.50	902M	-51.00	946.93M	-46.92	1.82944G	-41.85	1
927.8MHz	Pass	927.78M	24.99	4.99	826.94M	-50.34	895.75M	-46.45	928M	-4.64	928M	-0.66	1.85546G	-44.89	1
LoRa-125-FS-SF9_Nss1_1TX	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
902.2MHz	Pass	902.17M	25.19	5.19	870.29M	-46.67	901.99M	-4.58	902M	-2.38	934.23M	-46.43	1.80341G	-40.97	1
915MHz	Pass	914.94M	25.26	5.26	813.31M	-50.30	882.99M	-44.74	928M	-51.78	947.05M	-45.62	1.82944G	-41.88	1
927.8MHz	Pass	927.75M	24.95	4.95	819.27M	-49.61	895.79M	-45.32	928M	4.60	928.02M	-6.95	1.85546G	-45.35	1
FSK-50-FS_Nss1_1TX	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
902.2MHz	Pass	902.16M	25.03	5.03	870.18M	-47.03	902M	-7.61	902M	-3.24	934.17M	-46.59	1.80455G	-42.13	1
915MHz	Pass	914.96M	24.86	4.86	874.44M	-49.12	883.03M	-45.71	928M	-52.77	947.05M	-46.79	1.82944G	-43.20	1
927.8MHz	Pass	927.77M	25.09	5.09	863.9M	-49.54	895.83M	-45.18	928M	-4.95	928M	-9.38	1.85546G	-44.62	1
FSK-150-FS_Nss1_1TX	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
902.4MHz	Pass	902.43M	24.98	4.98	870.5M	-47.91	901.65M	-25.29	902M	-30.44	934.38M	-46.84	1.80455G	-41.43	1
915.2MHz	Pass	915.23M	25.38	5.38	840.47M	-49.70	883.17M	-45.84	928M	-50.85	947.21M	-46.16	1.82944G	-42.33	1
927.6MHz	Pass	927.61M	25.11	5.11	799.14M	-49.62	895.64M	-45.35	928M	-33.77	928M	-26.47	1.85433G	-44.32	1
FSK-250-FS_Nss1_1TX	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
902.5MHz	Pass	902.56M	25.00	5.00	870.5M	-47.31	901.74M	-25.25	902M	-32.13	934.48M	-46.12	6.84651G	-49.18	1
915MHz	Pass	915.07M	25.42	5.42	814.37M	-50.09	882.98M	-45.62	928M	-52.05	946.99M	-46.38	1.82944G	-42.31	1
927.5MHz	Pass	927.51M	25.12	5.12	852.71M	-49.85	895.5M	-45.46	928M	-29.81	928.25M	-25.10	1.85433G	-45.13	1

LoRa-125-FS-SF7_Nss1_1TX **CSENdB-FS**

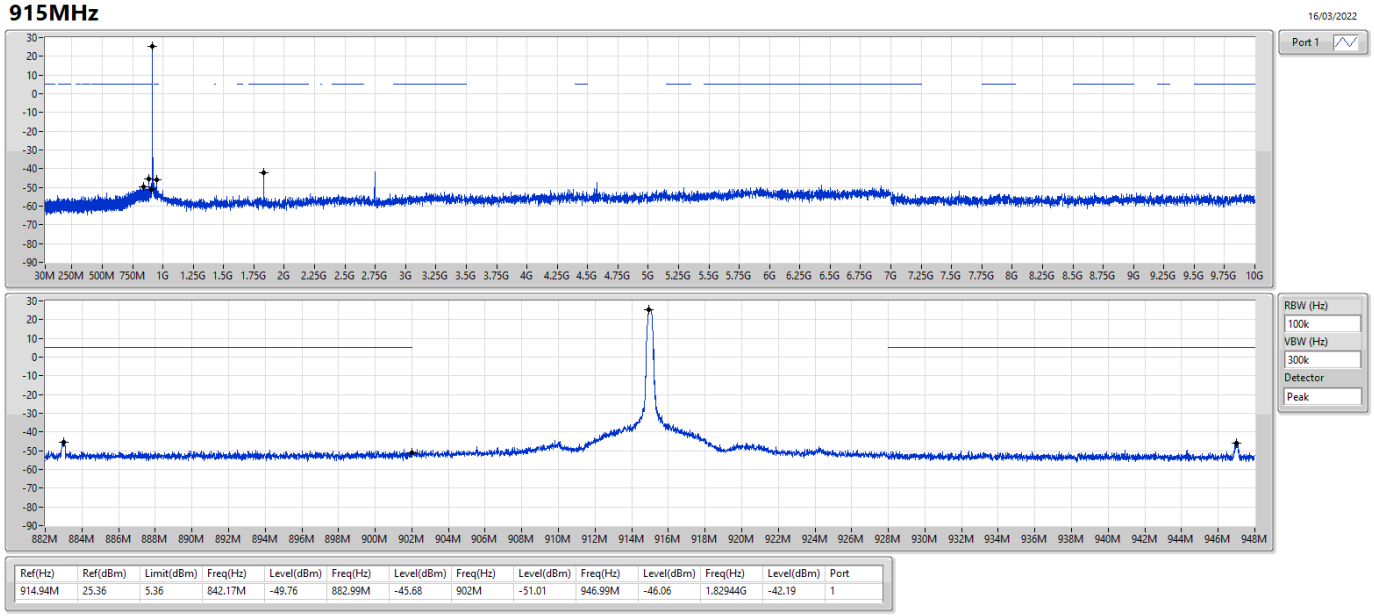
902.2MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
902.14M	25.43	5.43	870.29M	-46.50	902M	4.30	902M	5.28	934.22M	-46.52	1.80341G	-40.36	1

LoRa-125-FS-SF7_Nss1_1TX **CSENdB-FS**

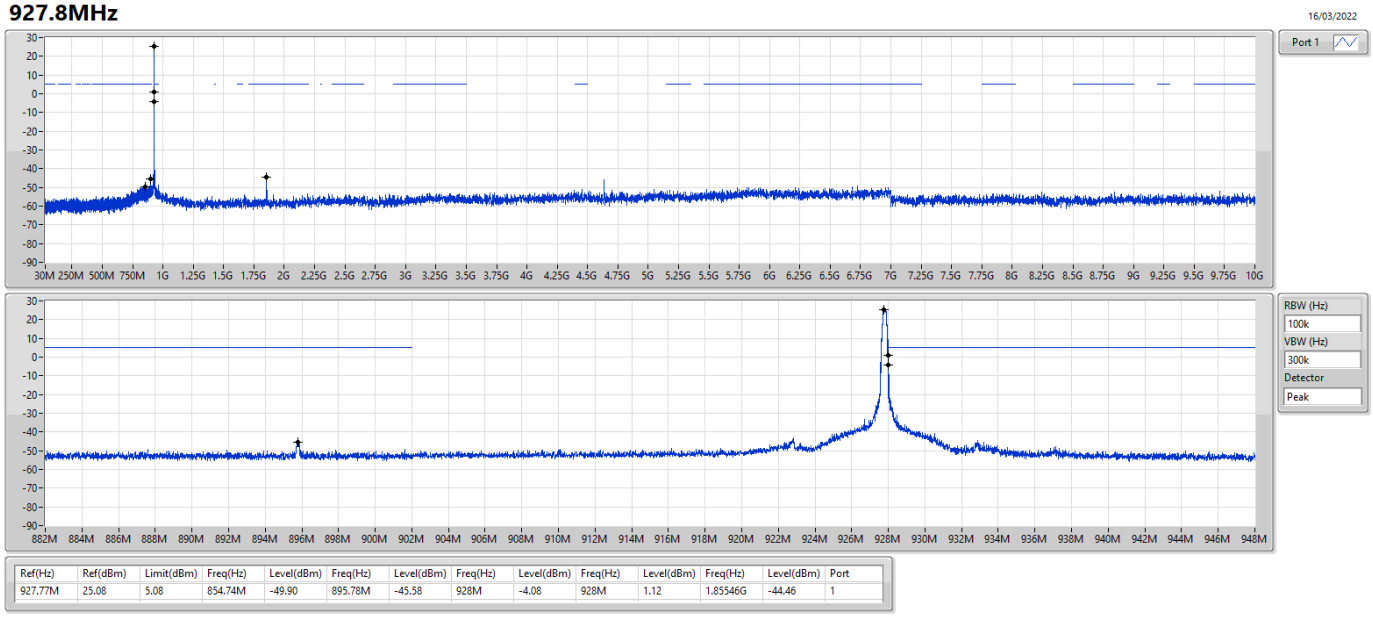
915MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
914.94M	25.36	5.36	842.17M	-49.76	882.99M	-45.68	902M	-51.01	946.99M	-46.06	1.82944G	-42.19	1

LoRa-125-FS-SF7_Nss1_1TX **CSENdB-FS**

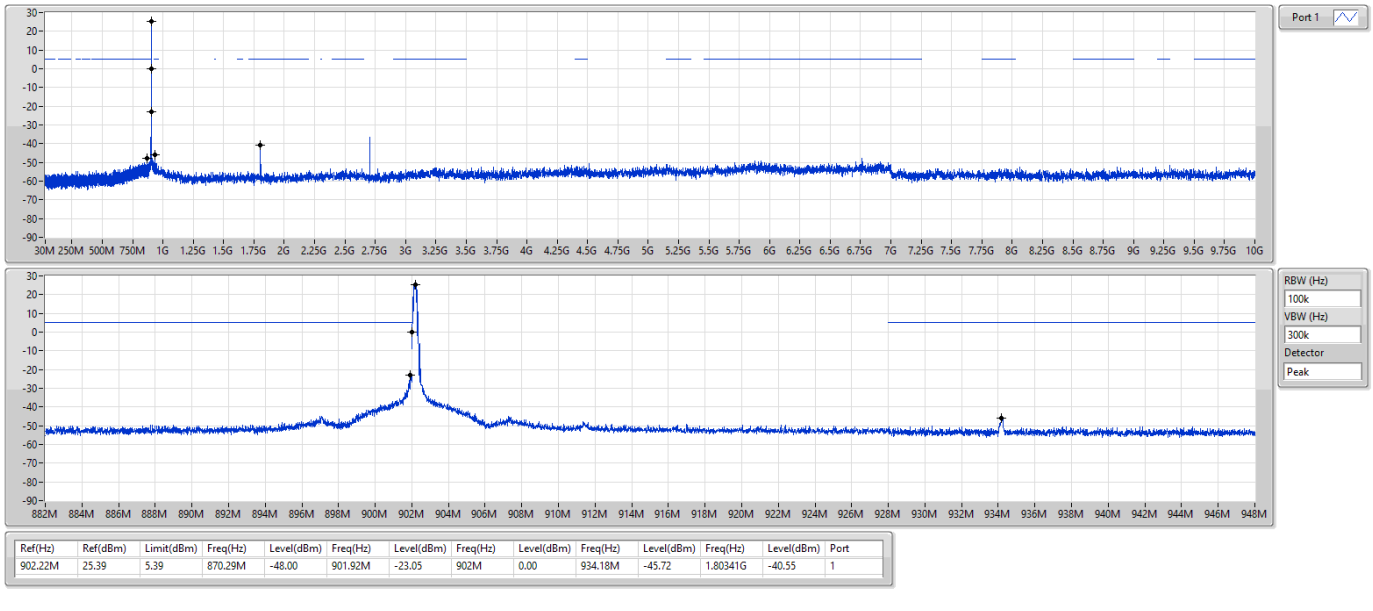
927.8MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
927.77M	25.08	5.08	854.74M	-49.90	895.78M	-45.58	928M	-4.08	928M	1.12	1.85546G	-44.46	1

LoRa-125-FS-SF8_Nss1_1TX **CSENdB-FS**

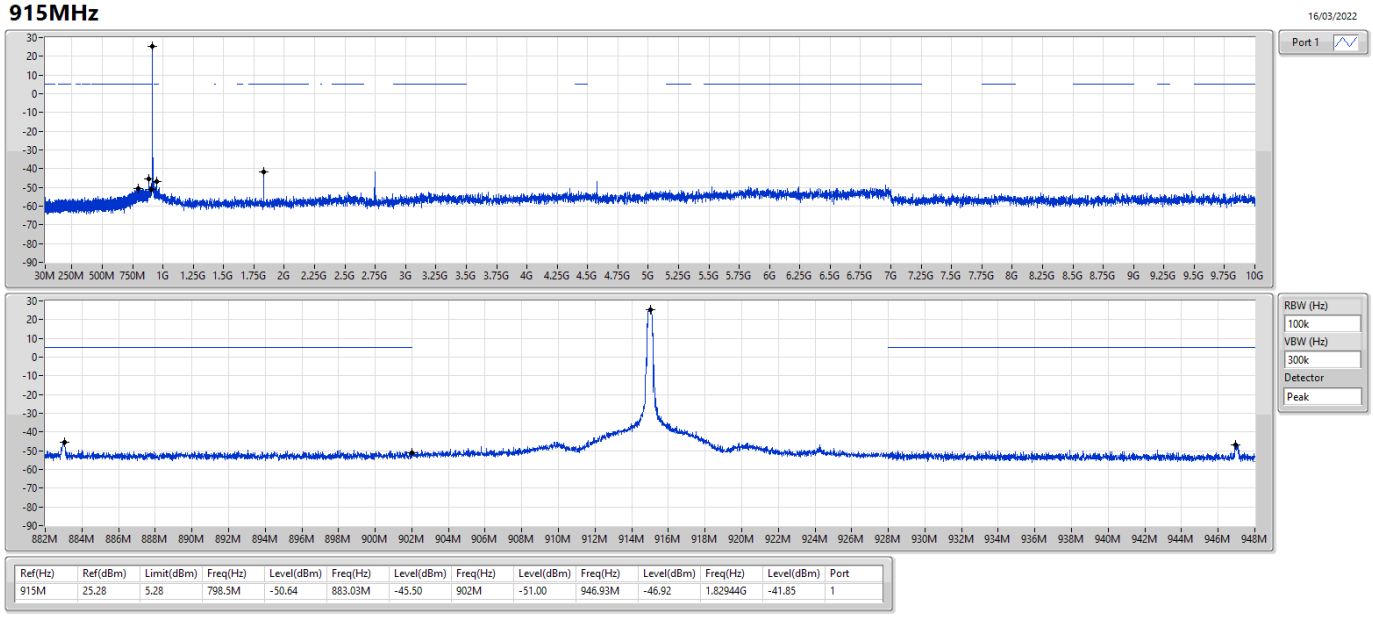
902.2MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
902.22M	25.39	5.39	870.29M	-48.00	901.92M	-23.05	902M	0.00	934.18M	-45.72	1.80341G	-40.55	1

LoRa-125-FS-SF8_Nss1_1TX **CSENdB-FS**

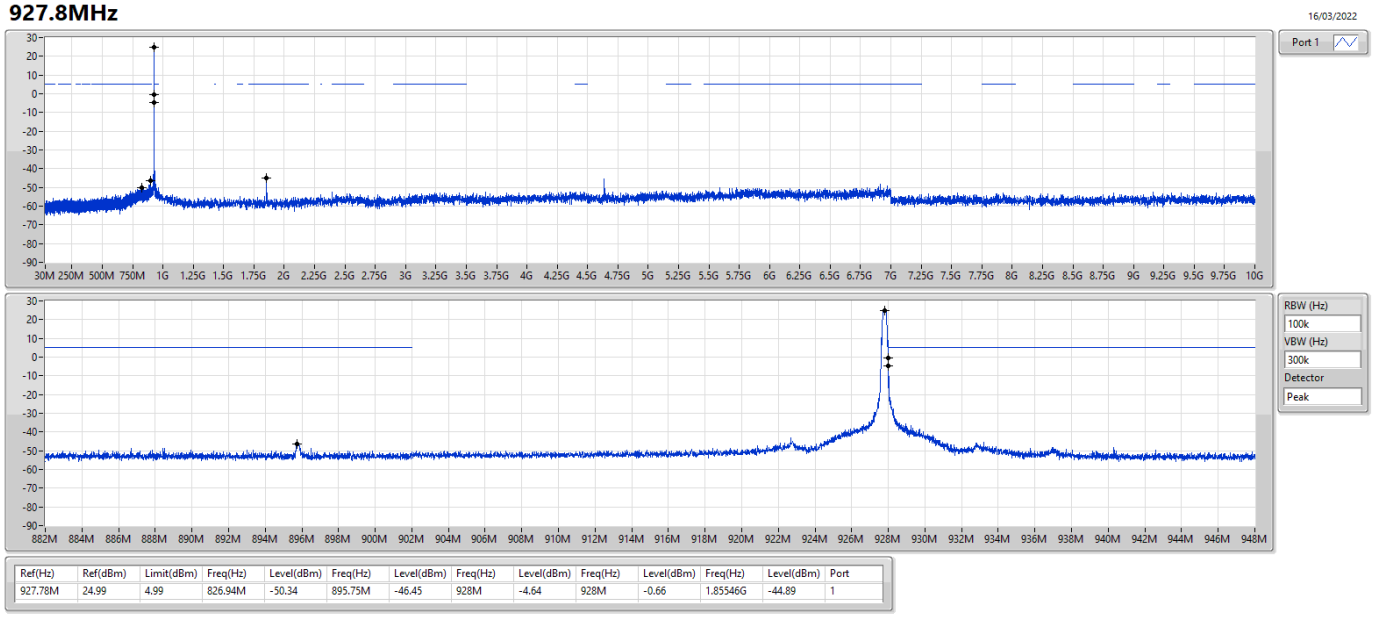
915MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
915M	25.28	5.28	798.5M	-50.64	883.03M	-45.50	902M	-51.00	946.93M	-46.92	1.82944G	-41.85	1

LoRa-125-FS-SF8_Nss1_1TX **CSENdB-FS**

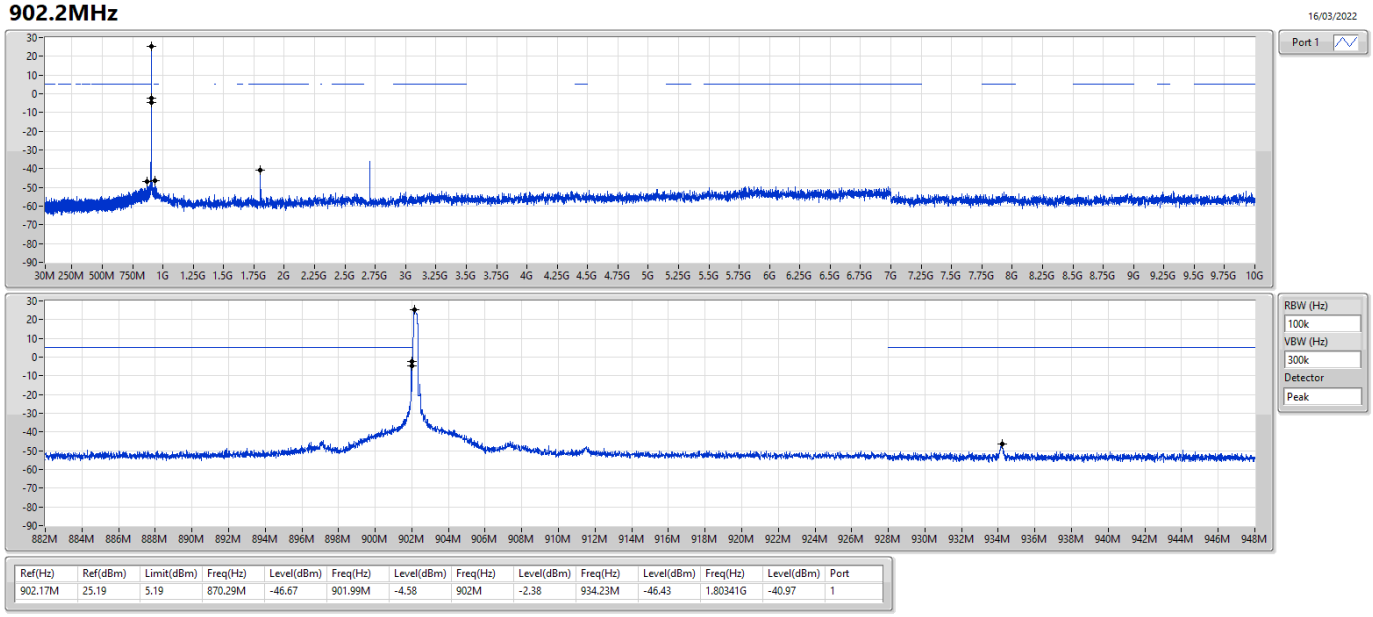
927.8MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
927.78M	24.99	4.99	826.94M	-50.34	895.75M	-46.45	928M	-4.64	928M	-0.66	1.85546G	-44.89	1

LoRa-125-FS-SF9_Nss1_1TX **CSENdB-FS**

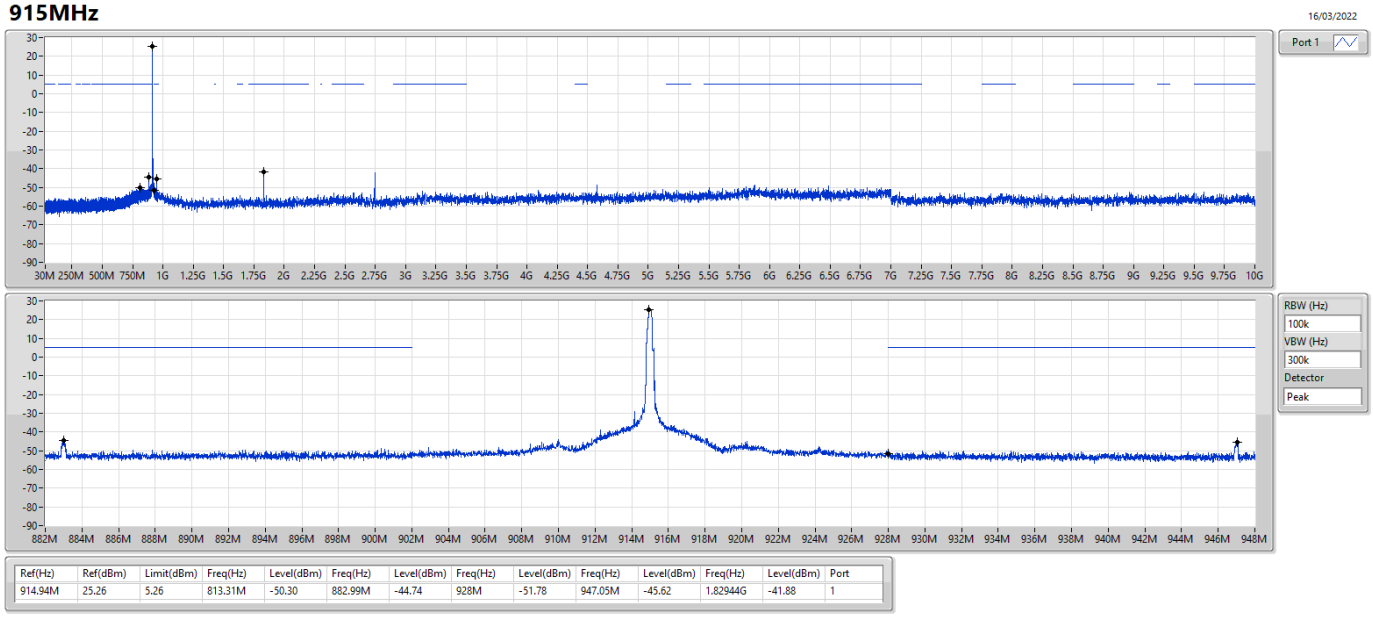
902.2MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
902.17M	25.19	5.19	870.29M	-46.67	901.99M	-4.58	902M	-2.38	934.23M	-46.43	1.80341G	-40.97	1

LoRa-125-FS-SF9_Nss1_1TX **CSENdB-FS**

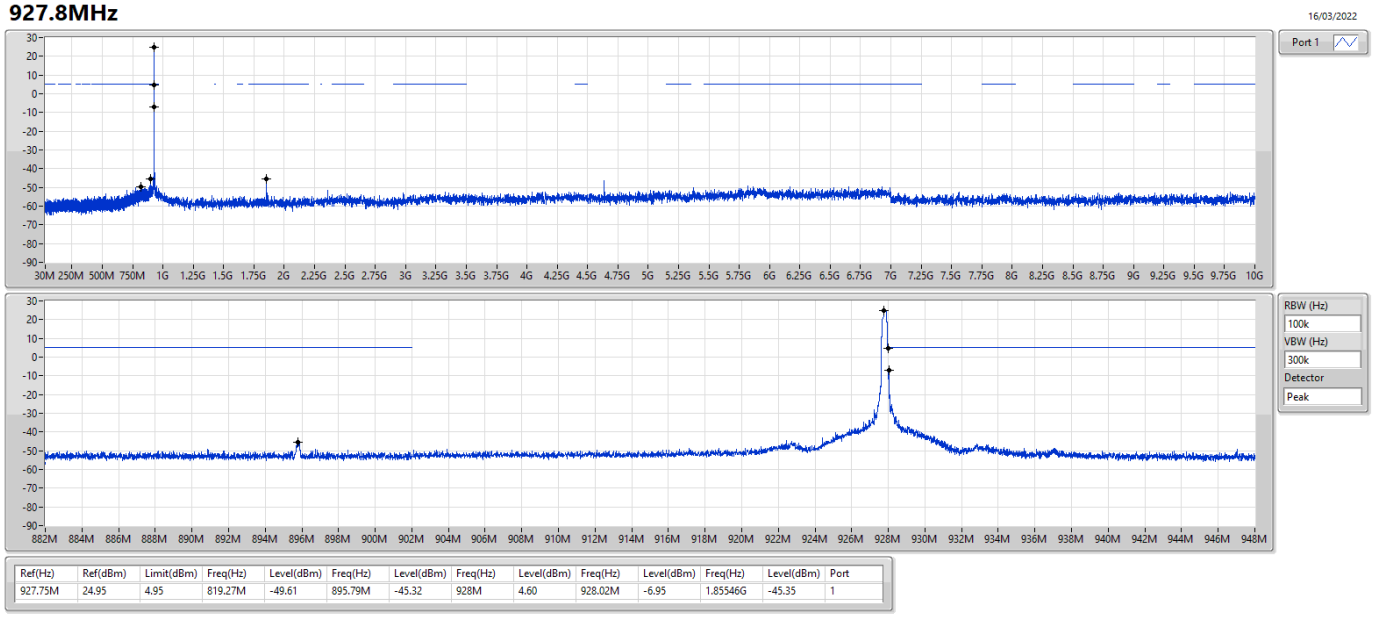
915MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
914.94M	25.26	5.26	813.31M	-50.30	882.99M	-44.74	928M	-51.78	947.05M	-45.62	1.82944G	-41.88	1

LoRa-125-FS-SF9_Nss1_1TX **CSENdB-FS**

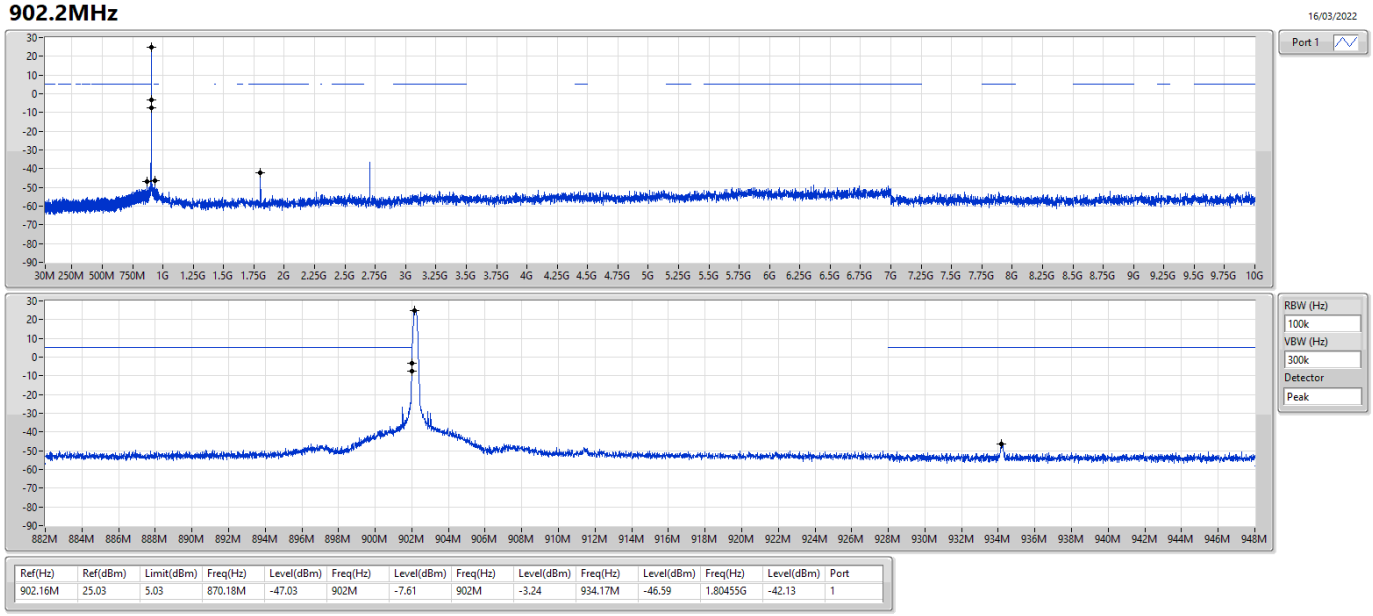
927.8MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
927.75M	24.95	4.95	819.27M	-49.61	895.79M	-45.32	928M	4.60	928.02M	-6.95	1.85546G	-45.35	1

FSK-50-FS_Nss1_1TX **CSENdB-FS**

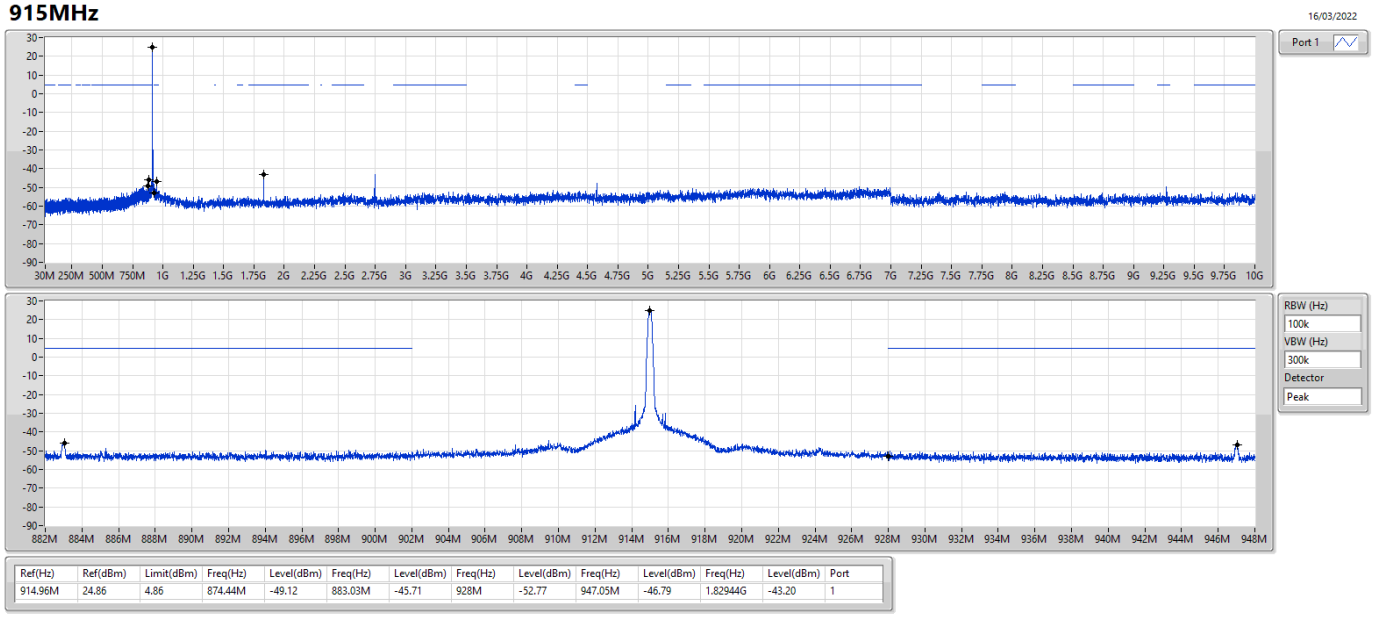
902.2MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
902.16M	25.03	5.03	870.18M	-47.03	902M	-7.61	902M	-3.24	934.17M	-46.59	1.80455G	-42.13	1

FSK-50-FS_Nss1_1TX **CSENdB-FS**

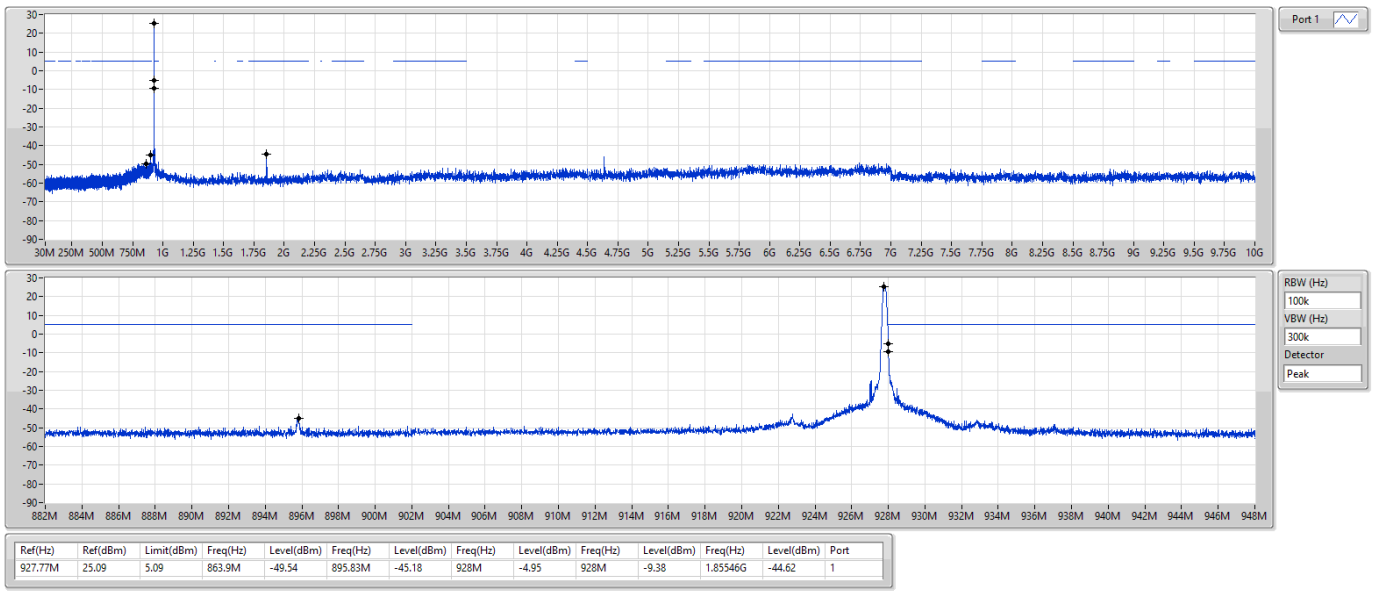
915MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
914.96M	24.86	4.86	874.44M	-49.12	883.03M	-45.71	928M	-52.77	947.05M	-46.79	1.82944G	-43.20	1

FSK-50-FS_Nss1_1TX **CSENdB-FS**

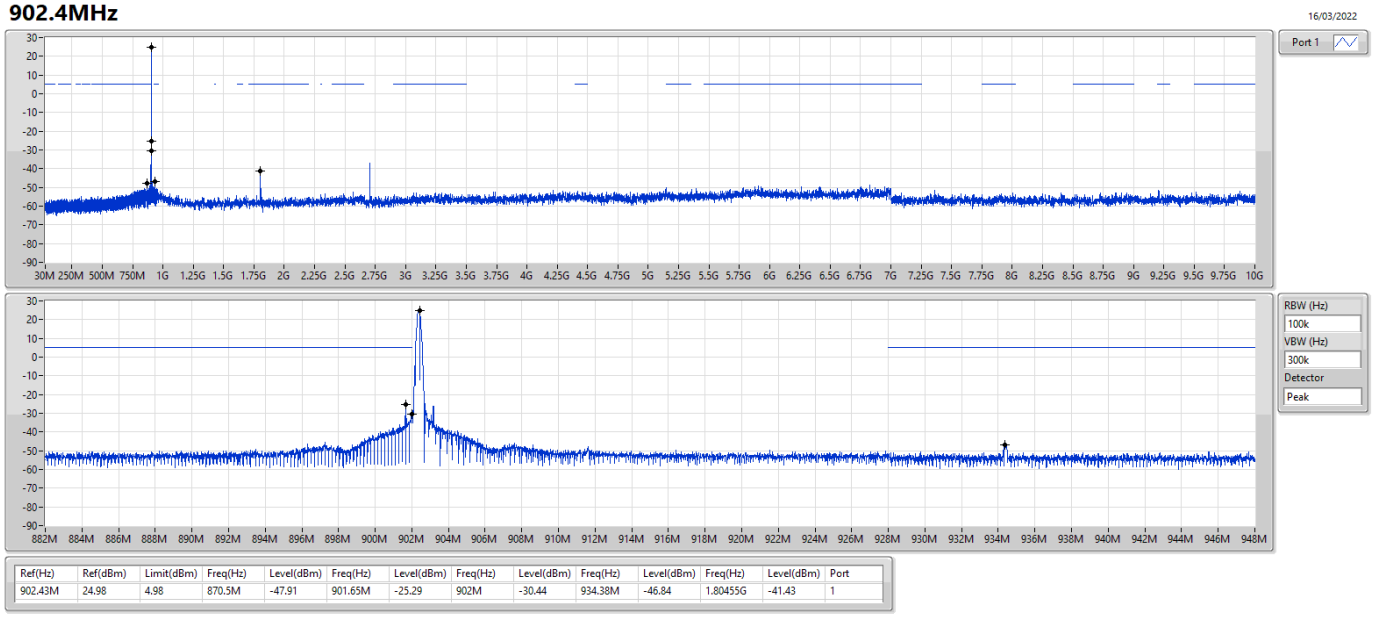
927.8MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
927.77M	25.09	5.09	863.9M	-49.54	895.83M	-45.18	928M	-4.95	928M	-9.38	1.85546G	-44.62	1

FSK-150-FS_Nss1_1TX **CSENdB-FS**

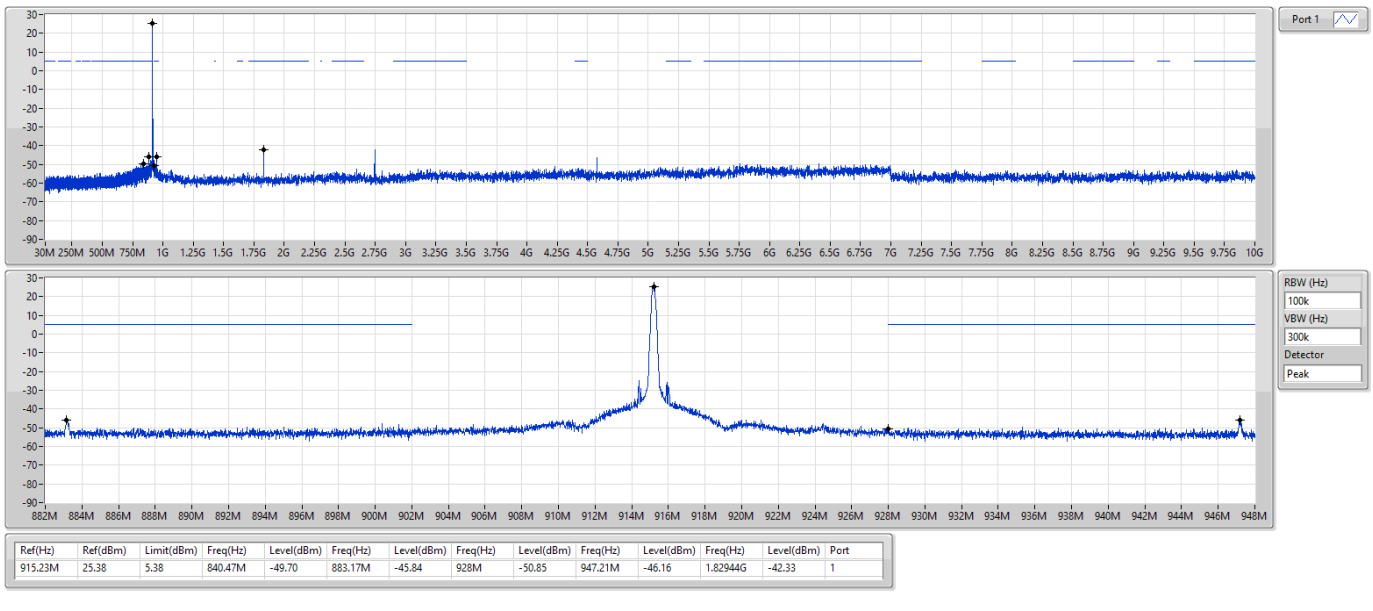
902.4MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
902.43M	24.98	4.98	870.5M	-47.91	901.65M	-25.29	902M	-30.44	934.38M	-46.84	1.80455G	-41.43	1

FSK-150-FS_Nss1_1TX **CSENdB-FS**

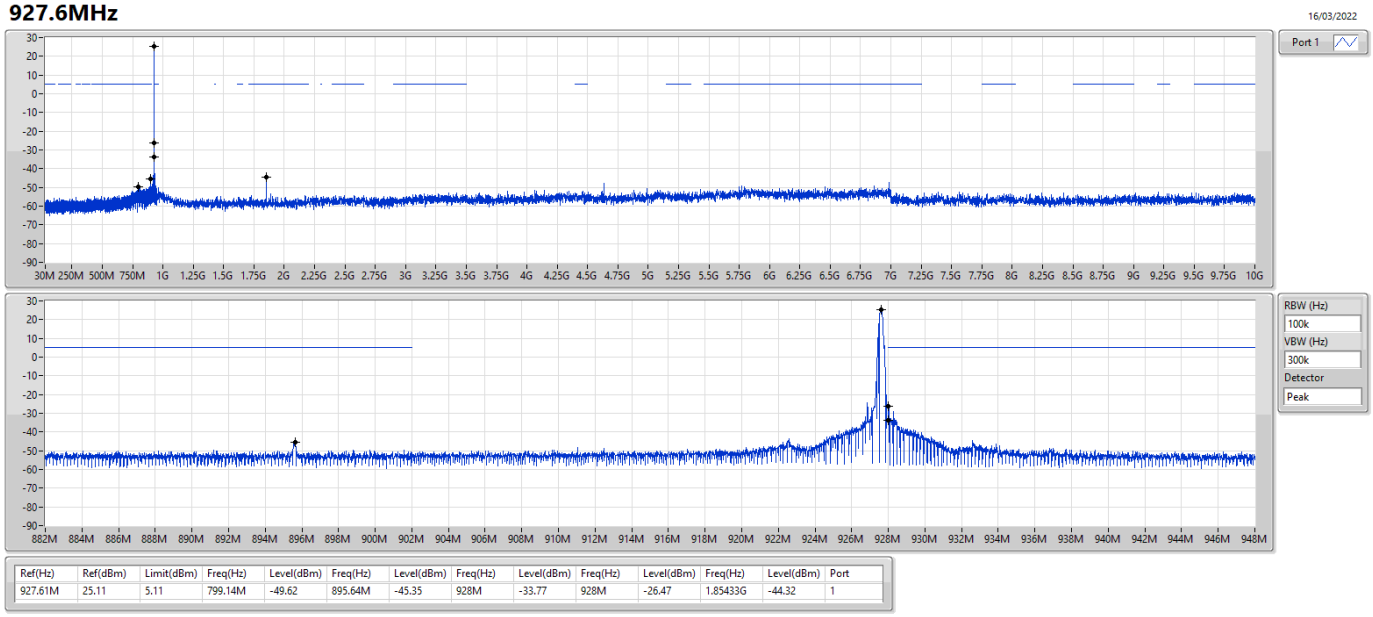
915.2MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
915.23M	25.38	5.38	840.47M	-49.70	883.17M	-45.84	928M	-50.85	947.21M	-46.16	1.82944G	-42.33	1

FSK-150-FS_Nss1_1TX **CSENdB-FS**

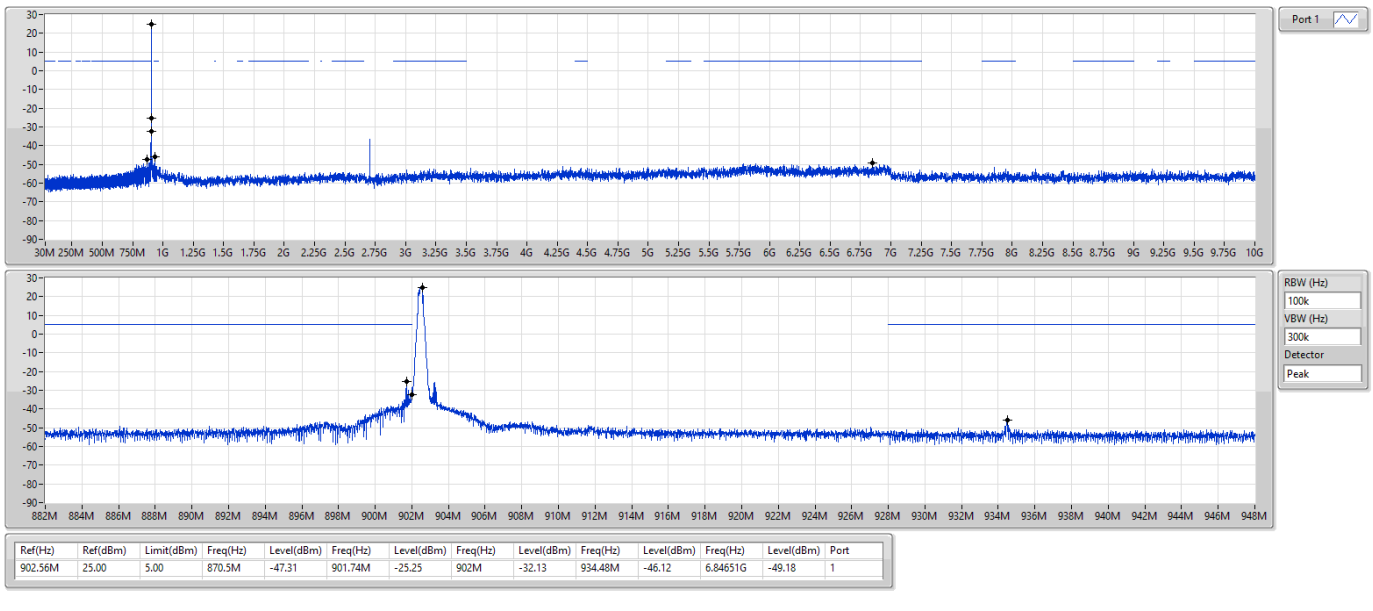
927.6MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
927.61M	25.11	5.11	799.14M	-49.62	895.64M	-45.35	928M	-33.77	928M	-26.47	1.85433G	-44.32	1

FSK-250-FS_Nss1_1TX **CSENdB-FS**

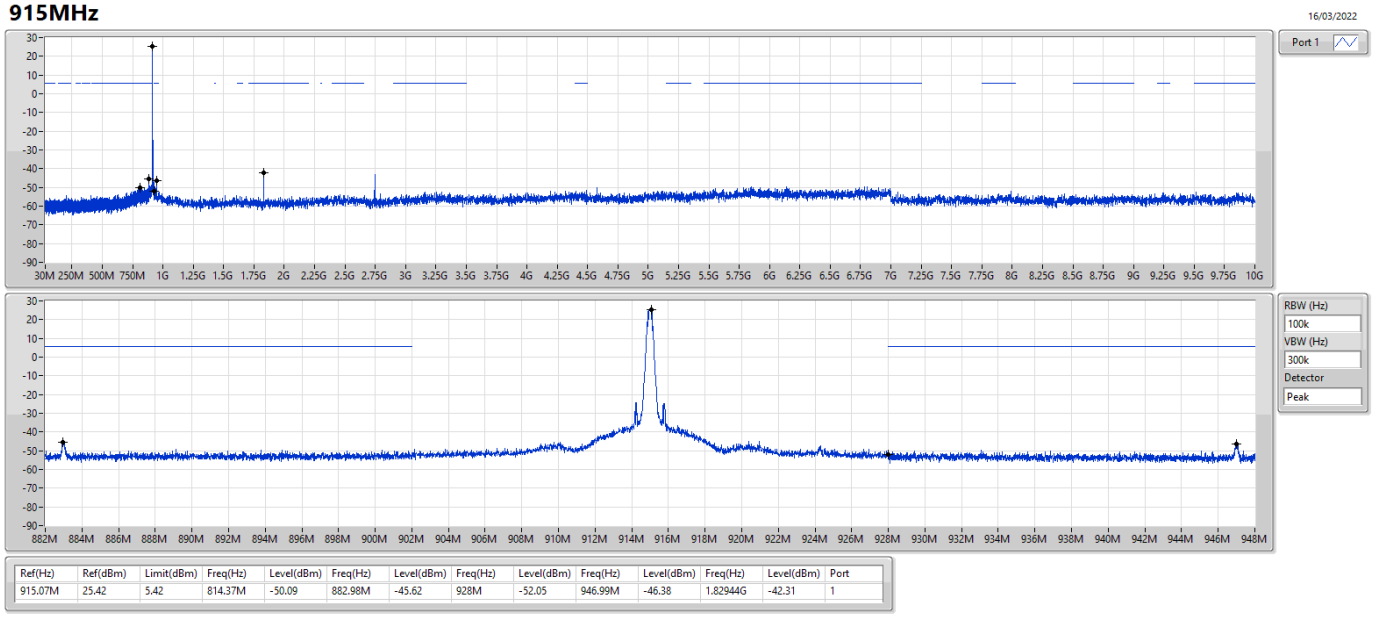
902.5MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
902.56M	25.00	5.00	870.5M	-47.31	901.74M	-25.25	902M	-32.13	934.48M	-46.12	6.84651G	-49.18	1

FSK-250-FS_Nss1_1TX **CSENdB-FS**

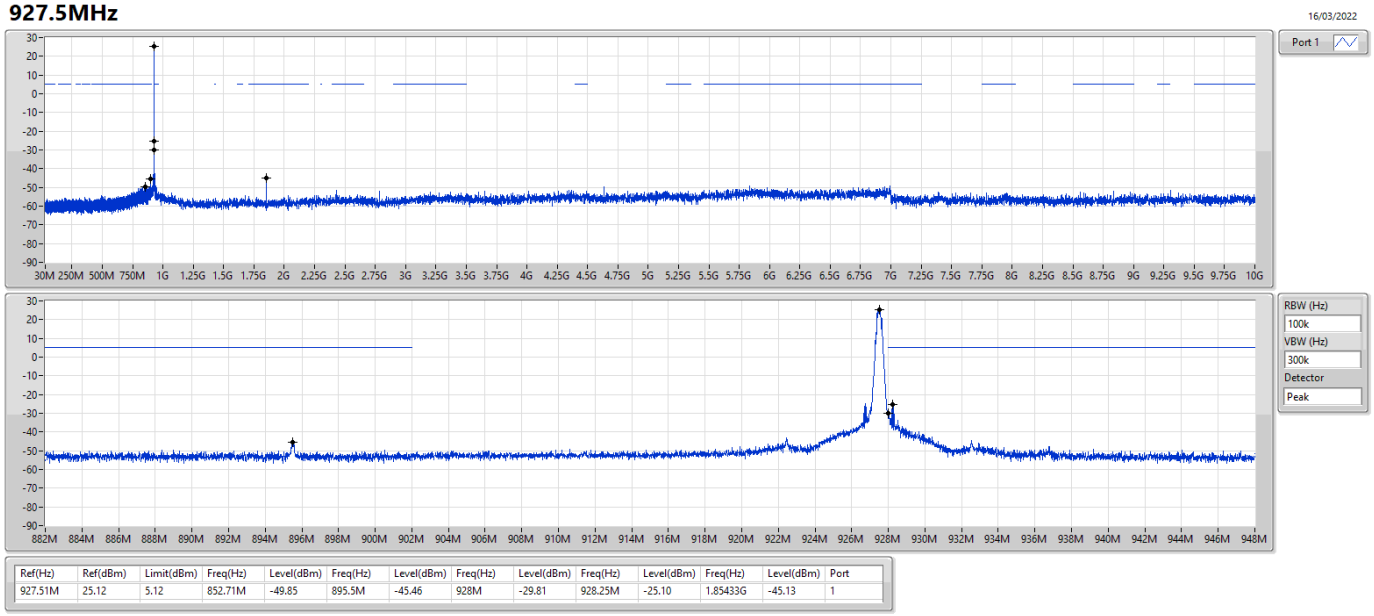
915MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
915.07M	25.42	5.42	814.37M	-50.09	882.98M	-45.62	928M	-52.05	946.99M	-46.38	1.82944G	-42.31	1

FSK-250-FS_Nss1_1TX **CSENdB-FS**

927.5MHz



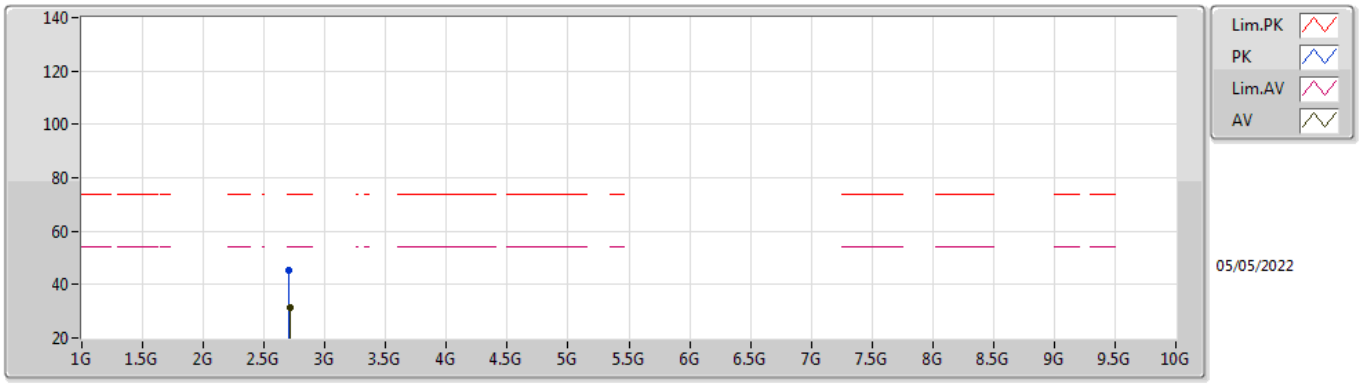
Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
927.51M	25.12	5.12	852.71M	-49.85	895.5M	-45.46	928M	-29.81	928.25M	-25.10	1.85433G	-45.13	1

For LoRa_125kHz
Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
902-928MHz	-	-	-	-	-	-	-	-	-	-	-
LoRa-125-FS-SF7_Nss1_1TX	Pass	AV	2.71002G	31.55	54.00	-22.45	3	Vertical	345	2.42	-

LoRa-125-FS-SF7_Nss1_1TX

902.2MHz_TX

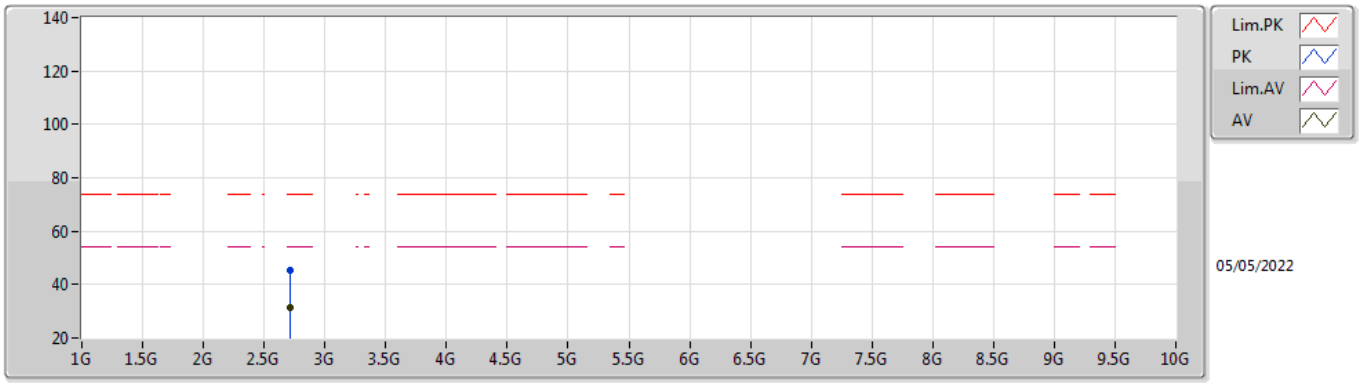


EUT Y_1TX
Setting 13
03-C-E-2

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	2.70168G	45.34	74.00	-28.66	47.03	3	Vertical	345	2.42	-	28.80	5.25	35.74
AV	2.71002G	31.55	54.00	-22.45	33.26	3	Vertical	345	2.42	-	28.78	5.26	35.75

LoRa-125-FS-SF7_Nss1_1TX

902.2MHz_TX

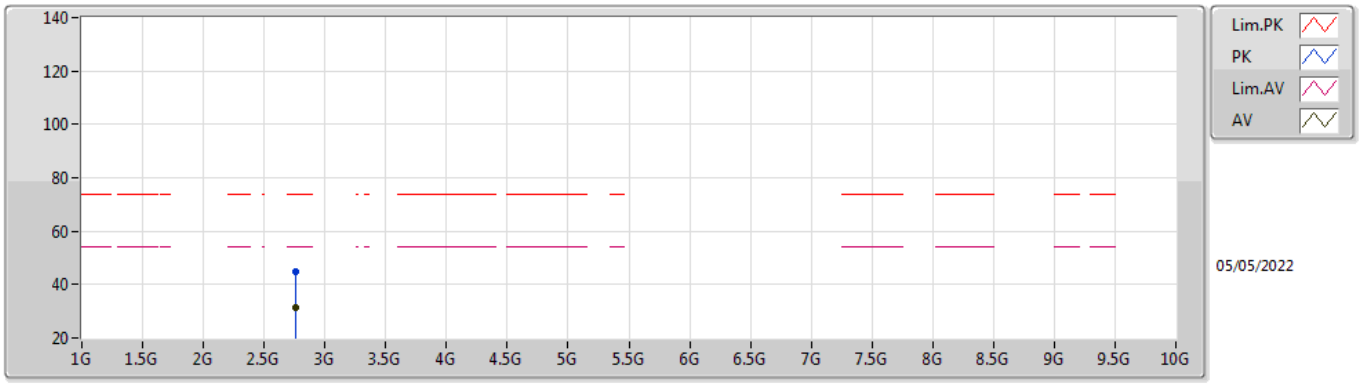


EUT Y_1TX
Setting 13
03-C-E-2

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	2.71164G	45.10	74.00	-28.90	46.81	3	Horizontal	112	1.21	-	28.78	5.26	35.75
AV	2.7093G	31.52	54.00	-22.48	33.24	3	Horizontal	112	1.21	-	28.78	5.25	35.75

LoRa-125-FS-SF7_Nss1_1TX

915MHz_TX

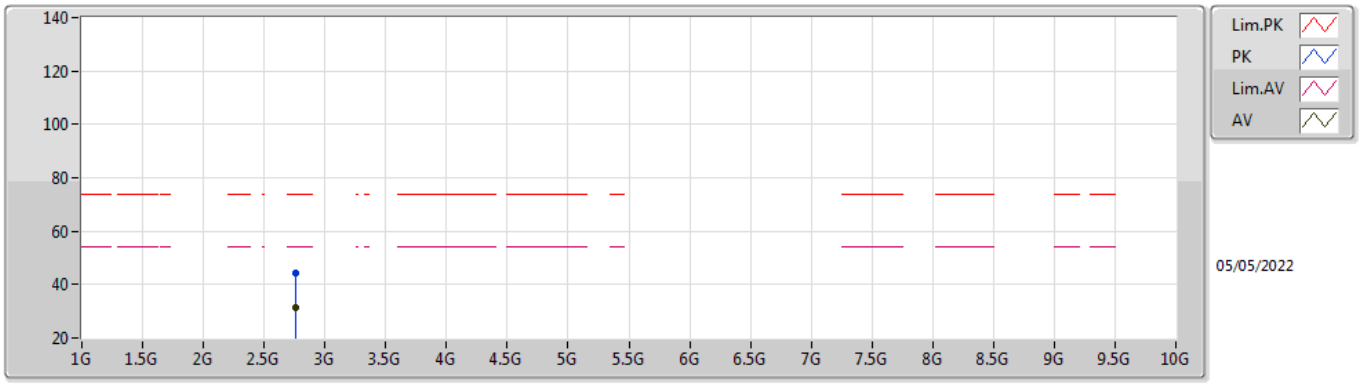


EUT Y_1TX
Setting 13
03-C-E-2

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	2.75928G	44.71	74.00	-29.29	46.46	3	Vertical	47	1.28	-	28.74	5.28	35.77
AV	2.75976G	31.21	54.00	-22.79	32.96	3	Vertical	47	1.28	-	28.74	5.28	35.77

LoRa-125-FS-SF7_Nss1_1TX

915MHz_TX

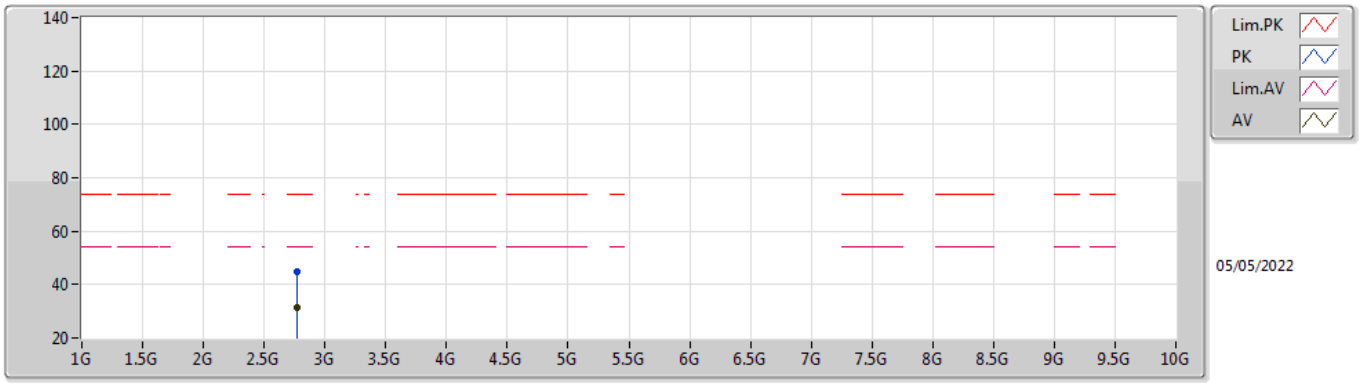


EUT Y_1TX
Setting 13
03-C-E-2

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	2.75976G	44.52	74.00	-29.48	46.27	3	Horizontal	263	2.28	-	28.74	5.28	35.77
AV	2.75988G	31.21	54.00	-22.79	32.96	3	Horizontal	263	2.28	-	28.74	5.28	35.77

LoRa-125-FS-SF7_Nss1_1TX

927.8MHz_TX

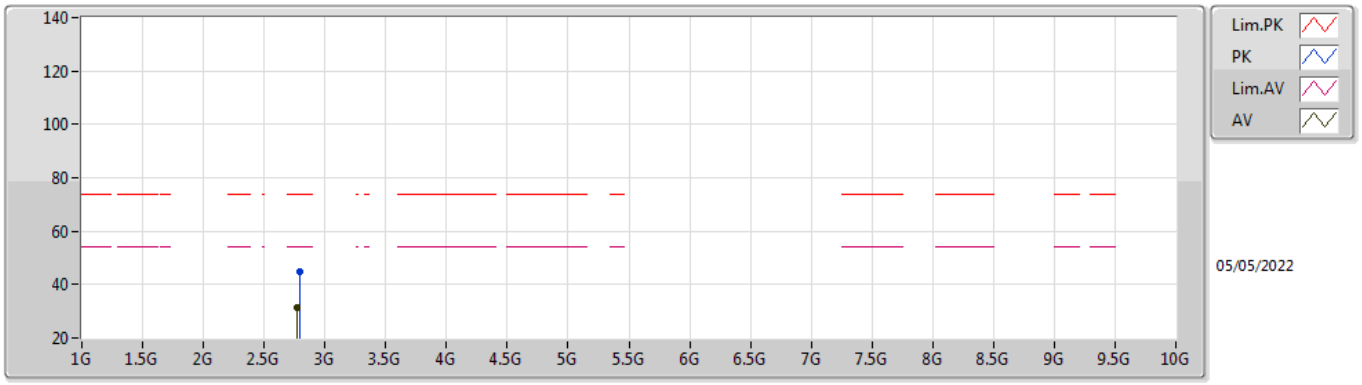


EUT Y_1TX
Setting 13
03-C-E-2

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	2.77158G	44.64	74.00	-29.36	46.33	3	Vertical	108	1.48	-	28.79	5.29	35.77
AV	2.77056G	31.27	54.00	-22.73	32.97	3	Vertical	108	1.48	-	28.78	5.29	35.77

LoRa-125-FS-SF7_Nss1_1TX

927.8MHz_TX



EUT Y_1TX
Setting 13
03-C-E-2

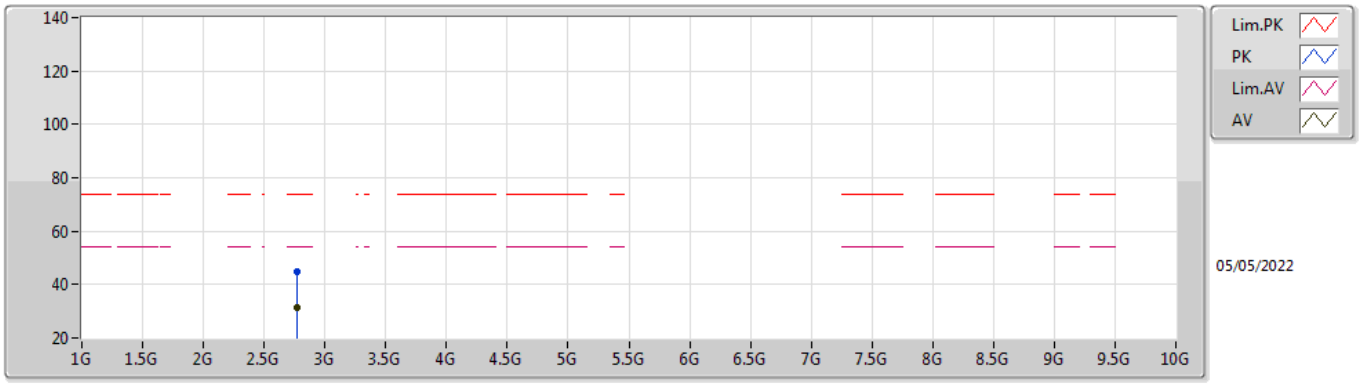
Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	2.7969G	44.63	74.00	-29.37	46.22	3	Horizontal	194	1.82	-	28.89	5.30	35.78
AV	2.77074G	31.24	54.00	-22.76	32.94	3	Horizontal	194	1.82	-	28.78	5.29	35.77

Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
902-928MHz	-	-	-	-	-	-	-	-	-	-	-
LoRa-125-SF8_Nss1_1TX	Pass	AV	2.70006G	31.39	54.00	-22.61	3	Horizontal	222	2.87	-

LoRa-125-SF8_Nss1_1TX

902.2MHz_TX

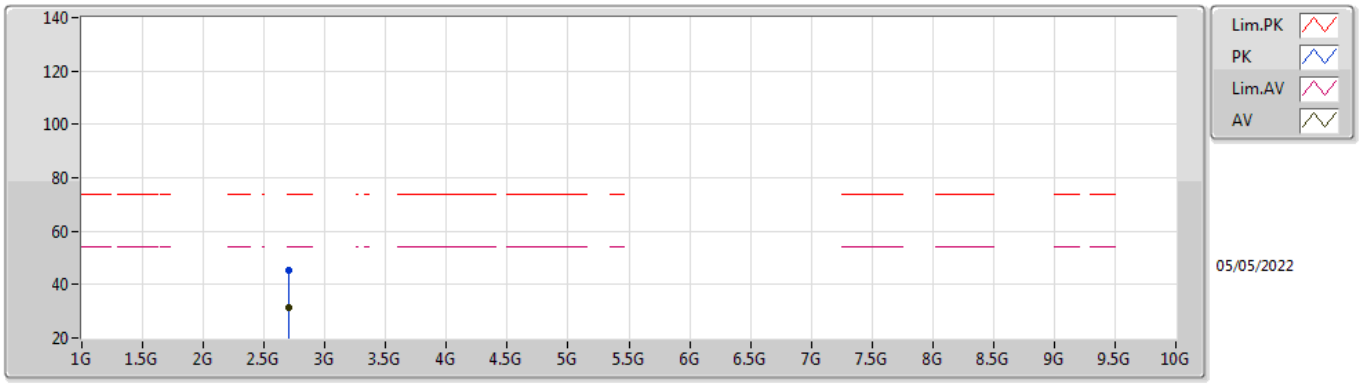


EUT Y_1TX
Setting 13
03-C-E-2

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	2.77206G	44.71	74.00	-29.29	46.40	3	Vertical	50	1.76	-	28.79	5.29	35.77
AV	2.7726G	31.37	54.00	-22.63	33.06	3	Vertical	50	1.76	-	28.79	5.29	35.77

LoRa-125-SF8_Nss1_1TX

902.2MHz_TX

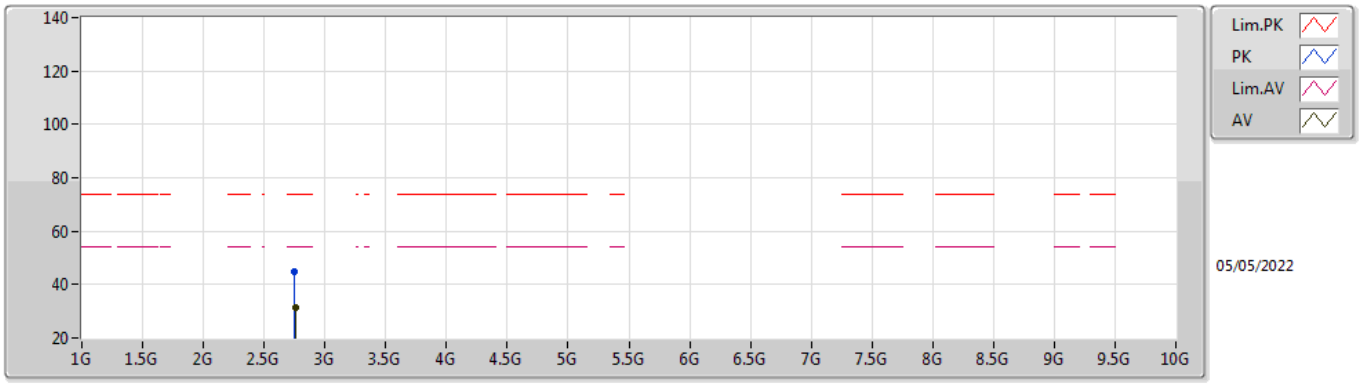


EUT Y_1TX
Setting 13
03-C-E-2

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	2.70516G	45.18	74.00	-28.82	46.89	3	Horizontal	222	2.87	-	28.79	5.25	35.75
AV	2.70006G	31.39	54.00	-22.61	33.08	3	Horizontal	222	2.87	-	28.80	5.25	35.74

LoRa-125-SF8_Nss1_1TX

915MHz_TX

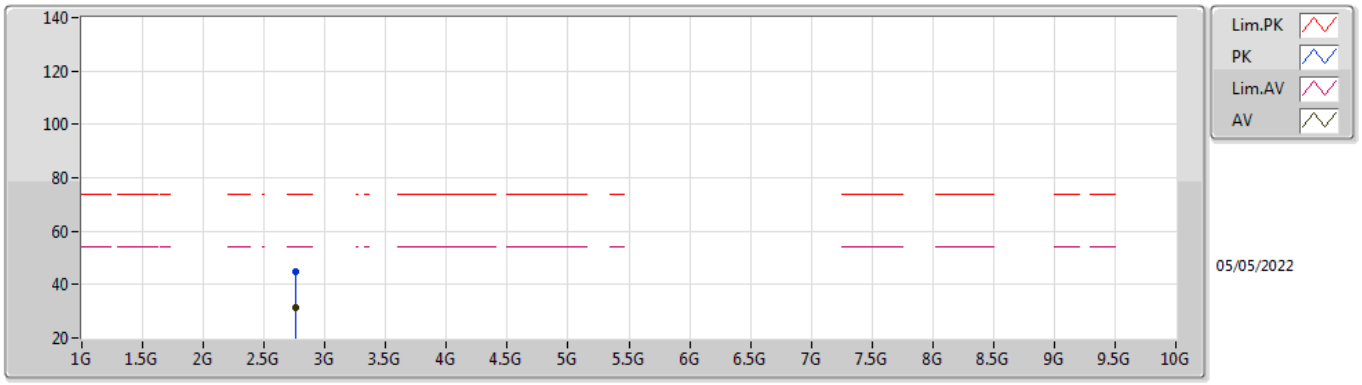


EUT Y_1TX
Setting 13
03-C-E-2

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	2.74908G	44.79	74.00	-29.21	46.58	3	Vertical	209	1.61	-	28.70	5.27	35.76
AV	2.76G	31.20	54.00	-22.80	32.95	3	Vertical	209	1.61	-	28.74	5.28	35.77

LoRa-125-SF8_Nss1_1TX

915MHz_TX

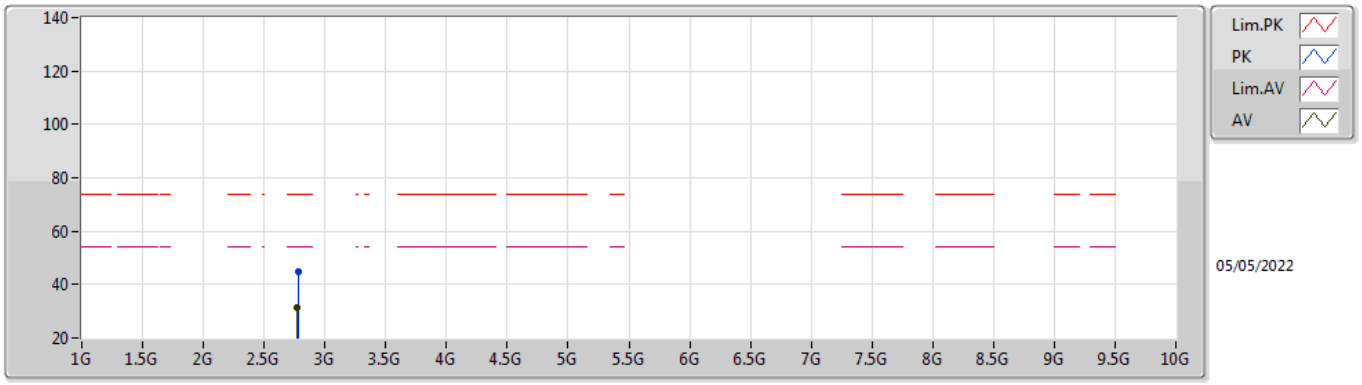


EUT Y_1TX
Setting 13
03-C-E-2

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	2.75352G	45.04	74.00	-28.96	46.82	3	Horizontal	285	2.48	-	28.71	5.28	35.77
AV	2.75988G	31.18	54.00	-22.82	32.93	3	Horizontal	285	2.48	-	28.74	5.28	35.77

LoRa-125-SF8_Nss1_1TX

927.8MHz_TX

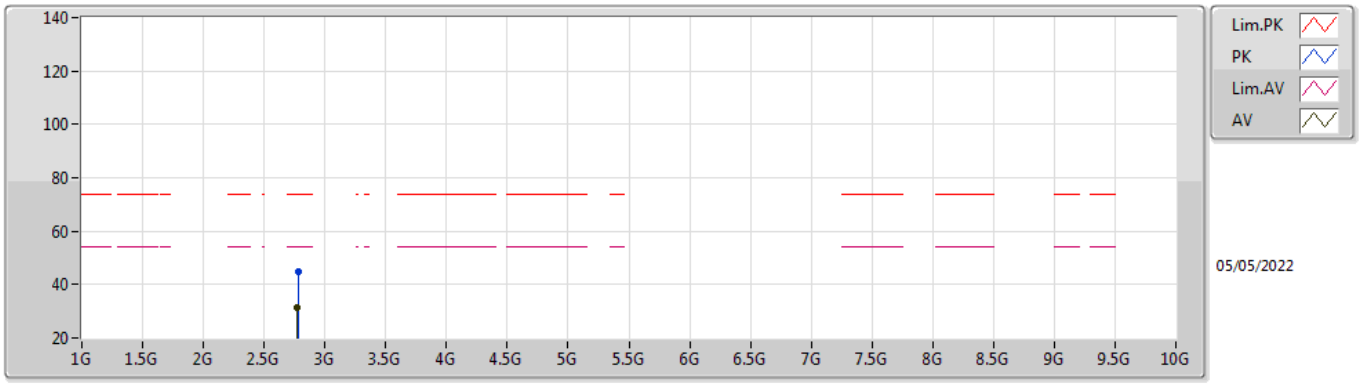


EUT Y_1TX
Setting 13
03-C-E-2

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	2.77758G	44.93	74.00	-29.07	46.61	3	Vertical	270	1.73	-	28.81	5.29	35.78
AV	2.77176G	31.22	54.00	-22.78	32.91	3	Vertical	270	1.73	-	28.79	5.29	35.77

LoRa-125-SF8_Nss1_1TX

927.8MHz_TX



EUT Y_1TX
Setting 13
03-C-E-2

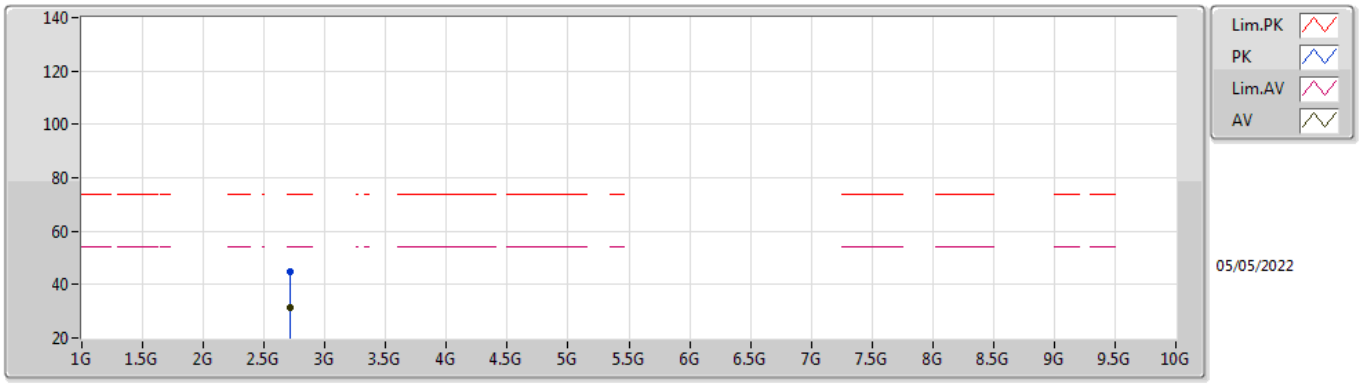
Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	2.77746G	44.96	74.00	-29.04	46.64	3	Horizontal	86	1.62	-	28.81	5.29	35.78
AV	2.77152G	31.24	54.00	-22.76	32.93	3	Horizontal	86	1.62	-	28.79	5.29	35.77

Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
902-928MHz	-	-	-	-	-	-	-	-	-	-	-
LoRa-125-SF9_Nss1_1TX	Pass	AV	2.70894G	31.41	54.00	-22.59	3	Vertical	89	1.88	-

LoRa-125-SF9_Nss1_1TX

902.2MHz_TX

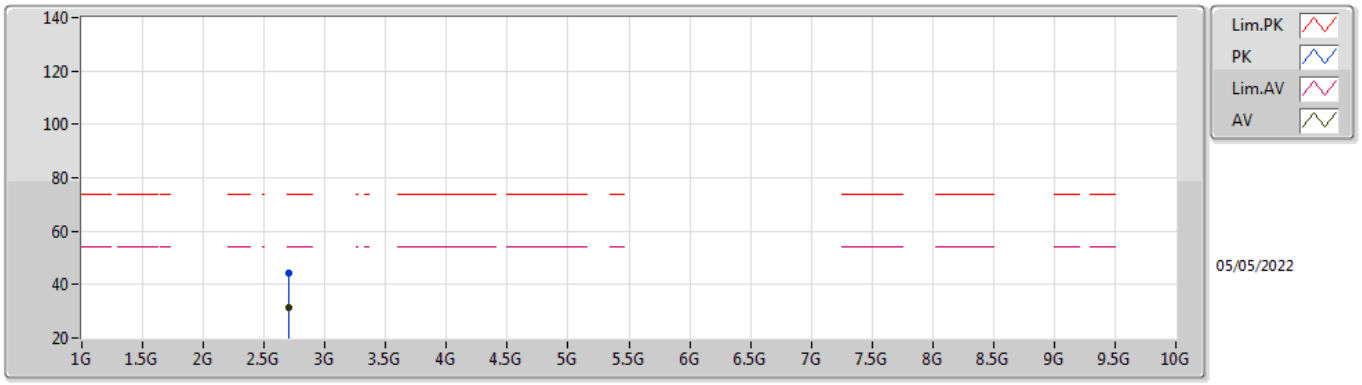


EUT Y_1TX
Setting 13
03-C-E-2

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	2.7102G	44.68	74.00	-29.32	46.39	3	Vertical	89	1.88	-	28.78	5.26	35.75
AV	2.70894G	31.41	54.00	-22.59	33.13	3	Vertical	89	1.88	-	28.78	5.25	35.75

LoRa-125-SF9_Nss1_1TX

902.2MHz_TX

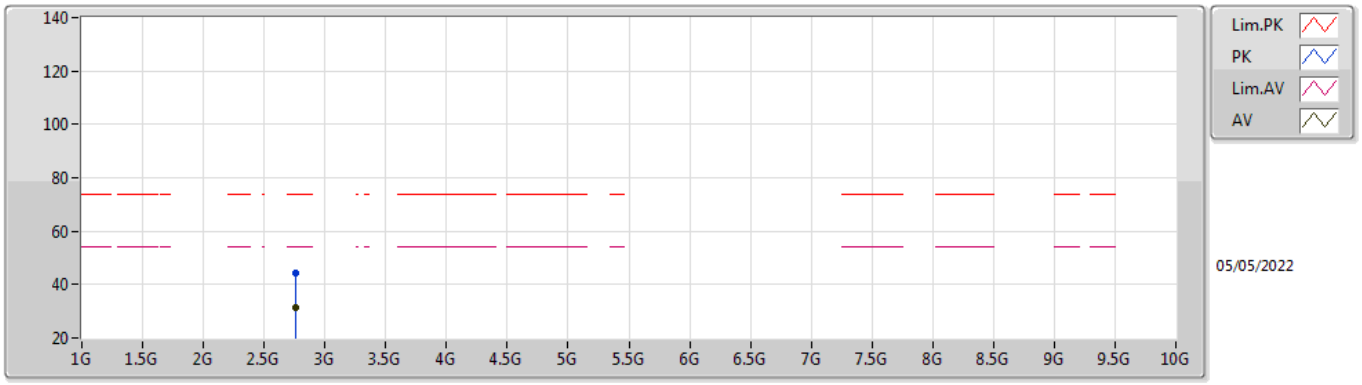


EUT Y_1TX
Setting 13
03-C-E-2

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	2.70804G	44.52	74.00	-29.48	46.24	3	Horizontal	189	2.53	-	28.78	5.25	35.75
AV	2.70132G	31.38	54.00	-22.62	33.07	3	Horizontal	189	2.53	-	28.80	5.25	35.74

LoRa-125-SF9_Nss1_1TX

915MHz_TX

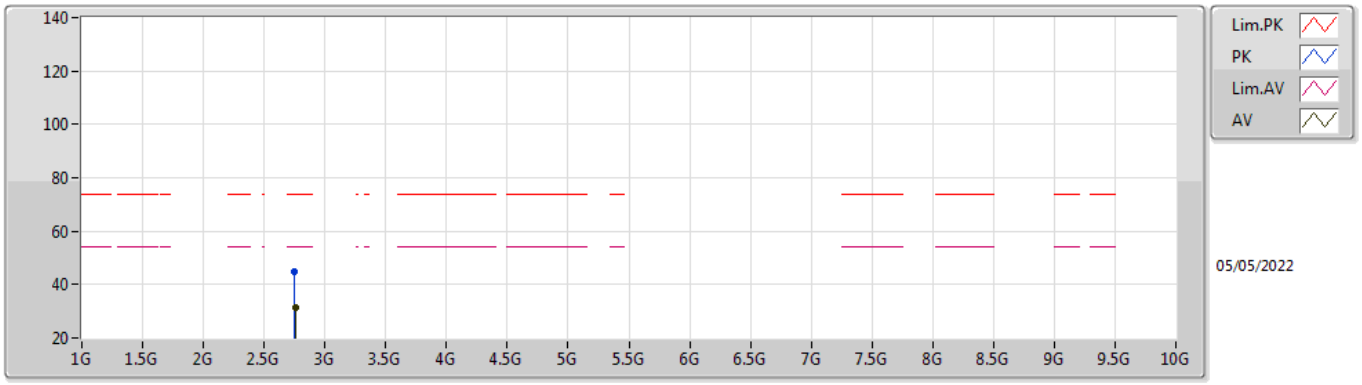


EUT Y_1TX
Setting 13
03-C-E-2

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	2.75898G	44.51	74.00	-29.49	46.26	3	Vertical	132	1.63	-	28.74	5.28	35.77
AV	2.76G	31.24	54.00	-22.76	32.99	3	Vertical	132	1.63	-	28.74	5.28	35.77

LoRa-125-SF9_Nss1_1TX

915MHz_TX

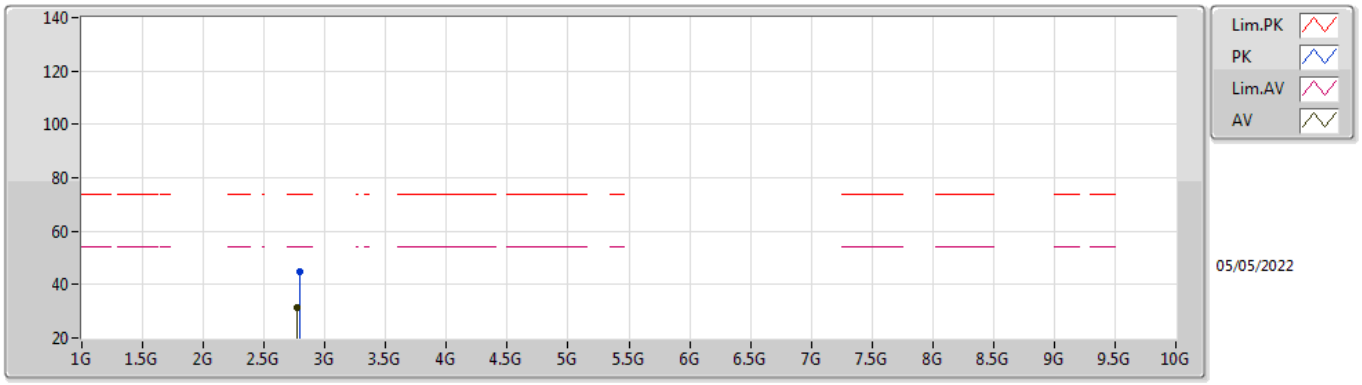


EUT Y_1TX
Setting 13
03-C-E-2

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	2.75286G	45.00	74.00	-29.00	46.78	3	Horizontal	17	2.21	-	28.71	5.28	35.77
AV	2.75988G	31.18	54.00	-22.82	32.93	3	Horizontal	17	2.21	-	28.74	5.28	35.77

LoRa-125-SF9_Nss1_1TX

927.8MHz_TX

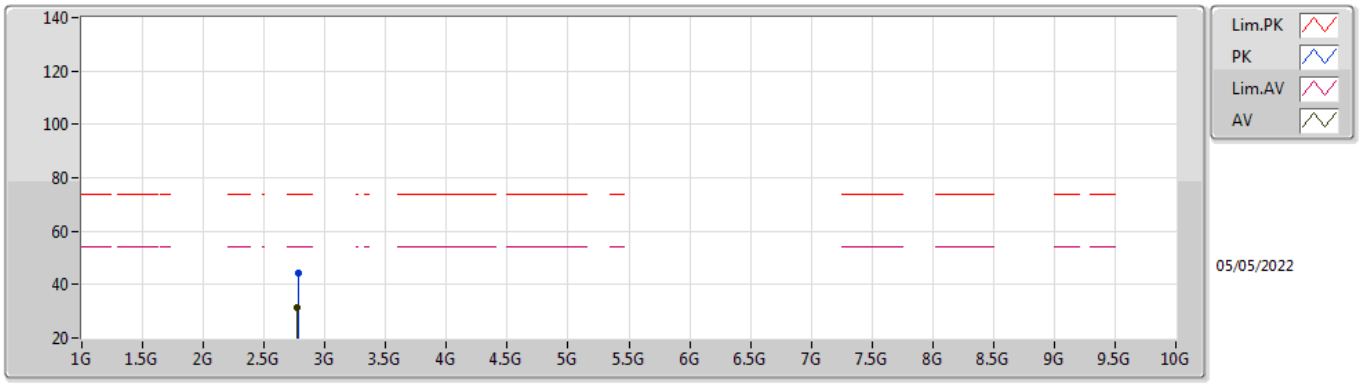


EUT Y_1TX
Setting 13
03-C-E-2

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	2.79366G	44.83	74.00	-29.17	46.44	3	Vertical	264	2.82	-	28.87	5.30	35.78
AV	2.77152G	31.26	54.00	-22.74	32.95	3	Vertical	264	2.82	-	28.79	5.29	35.77

LoRa-125-SF9_Nss1_1TX

927.8MHz_TX



EUT Y_1TX
Setting 13
03-C-E-2

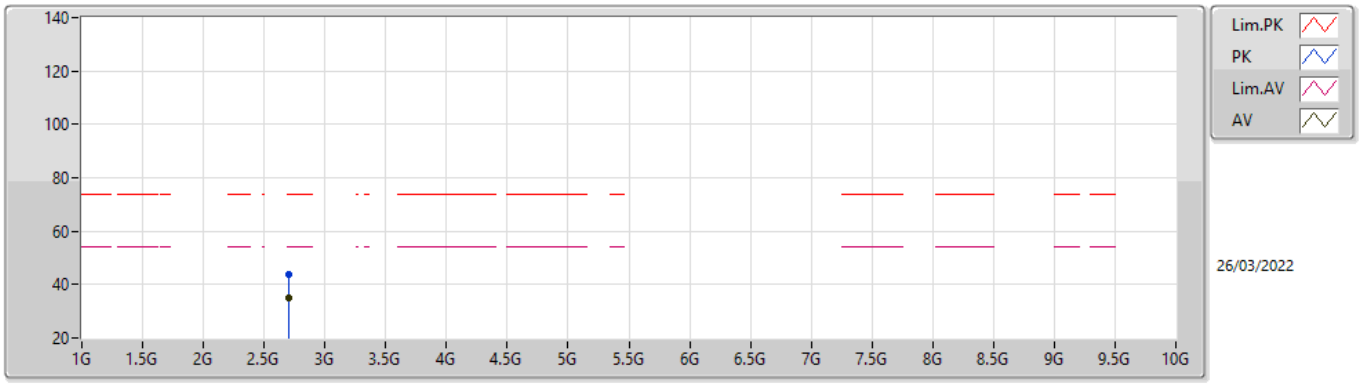
Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	2.78658G	44.46	74.00	-29.54	46.10	3	Horizontal	167	1.06	-	28.85	5.29	35.78
AV	2.77038G	31.24	54.00	-22.76	32.94	3	Horizontal	167	1.06	-	28.78	5.29	35.77

For FSK
Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
902-928MHz	-	-	-	-	-	-	-	-	-	-	-
FSK-50-FS_Nss1_1TX	Pass	AV	2.74495G	39.19	54.00	-14.81	3	Horizontal	206	2.23	-

FSK-50-FS_Nss1_1TX

902.2MHz_TX

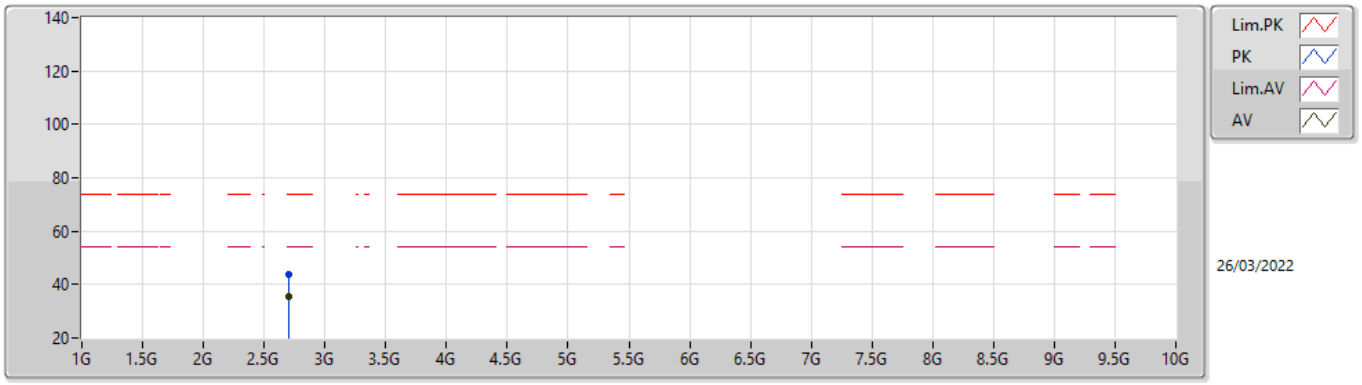


EUT X_1TX
Setting 12
03-C-S-8

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	2.70656G	43.99	74.00	-30.01	45.70	3	Vertical	210	1.78	-	28.79	5.25	35.75
AV	2.70658G	35.12	54.00	-18.88	36.83	3	Vertical	210	1.78	-	28.79	5.25	35.75

FSK-50-FS_Nss1_1TX

902.2MHz_TX

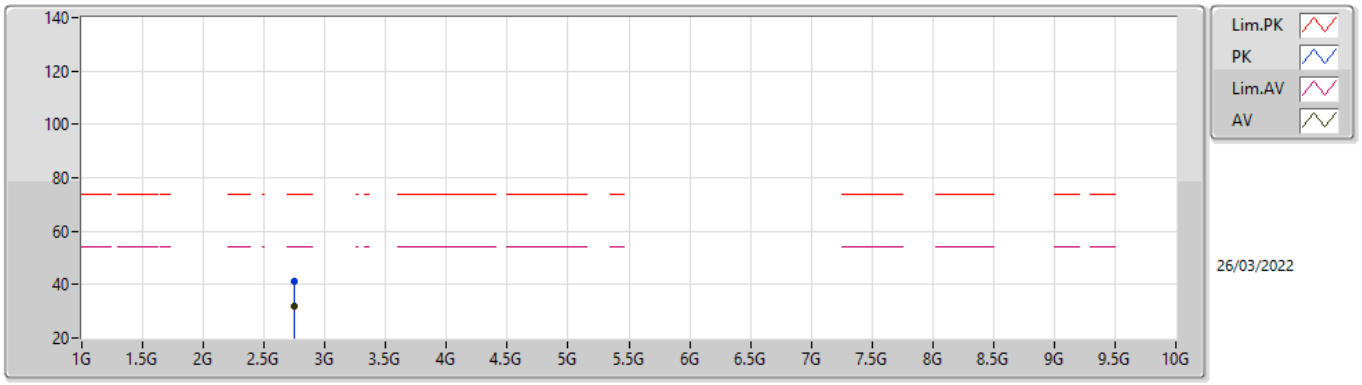


EUT X_1TX
Setting 12
03-C-S-8

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	2.70668G	43.76	74.00	-30.24	45.47	3	Horizontal	192	1.80	-	28.79	5.25	35.75
AV	2.7066G	35.38	54.00	-18.62	37.09	3	Horizontal	192	1.80	-	28.79	5.25	35.75

FSK-50-FS_Nss1_1TX

915MHz_TX

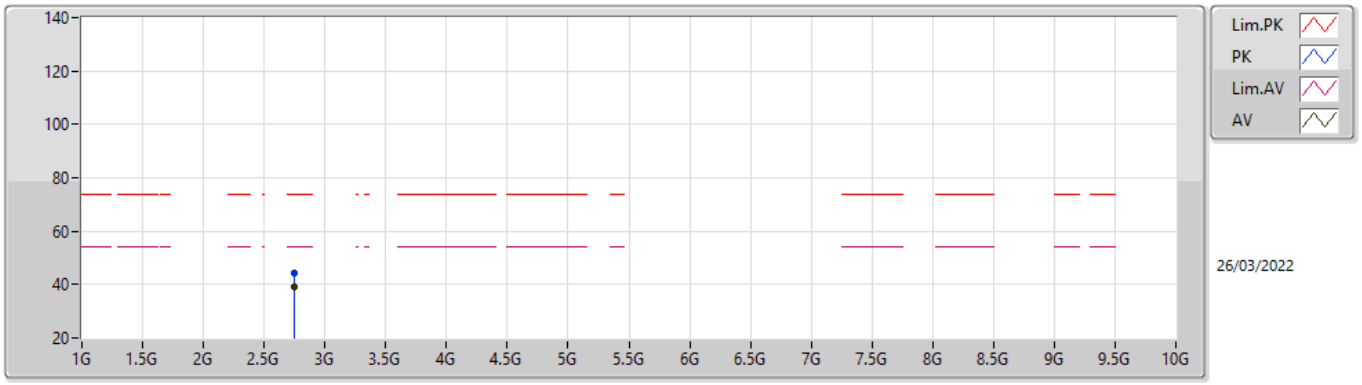


EUT X_1TX
Setting 13
03-C-S-8

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	2.74484G	41.09	74.00	-32.91	42.87	3	Vertical	5	1.47	-	28.71	5.27	35.76
AV	2.745G	32.02	54.00	-21.98	33.80	3	Vertical	5	1.47	-	28.71	5.27	35.76

FSK-50-FS_Nss1_1TX

915MHz_TX

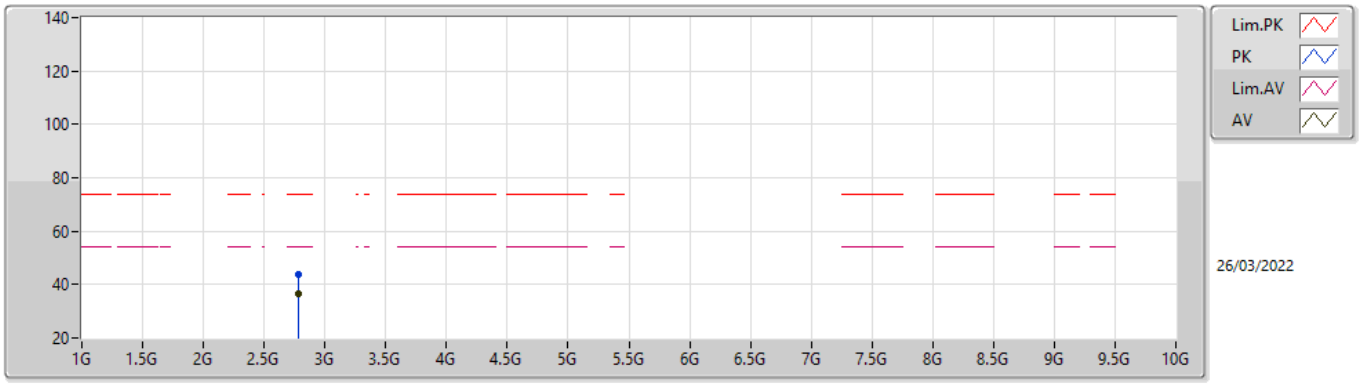


EUT X_1TX
Setting 13
03-C-S-8

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	2.74485G	44.20	74.00	-29.80	45.98	3	Horizontal	206	2.23	-	28.71	5.27	35.76
AV	2.74495G	39.19	54.00	-14.81	40.97	3	Horizontal	206	2.23	-	28.71	5.27	35.76

FSK-50-FS_Nss1_1TX

927.8MHz_TX

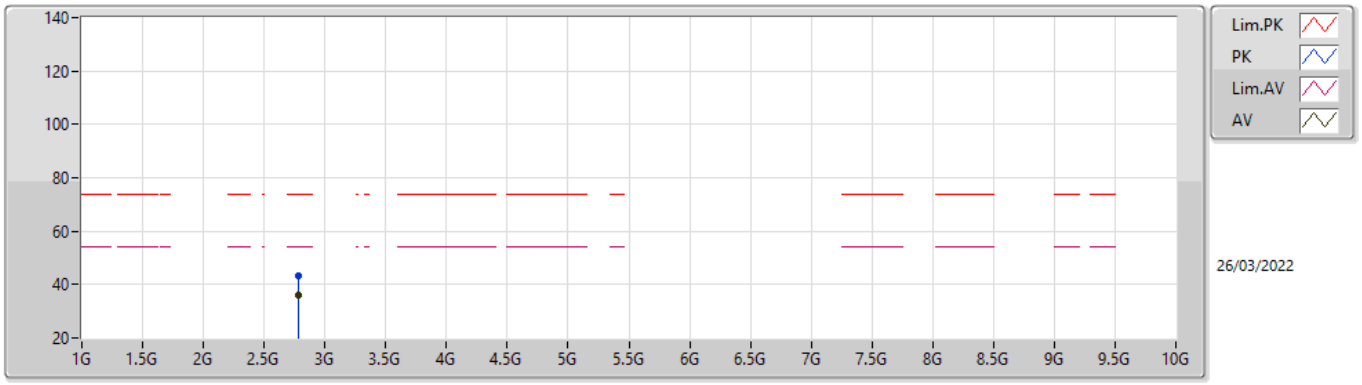


EUT X_1TX
Setting 13
03-C-S-8

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	2.78321G	43.70	74.00	-30.30	45.36	3	Vertical	328	1.65	-	28.83	5.29	35.78
AV	2.78333G	36.54	54.00	-17.46	38.20	3	Vertical	328	1.65	-	28.83	5.29	35.78

FSK-50-FS_Nss1_1TX

927.8MHz_TX

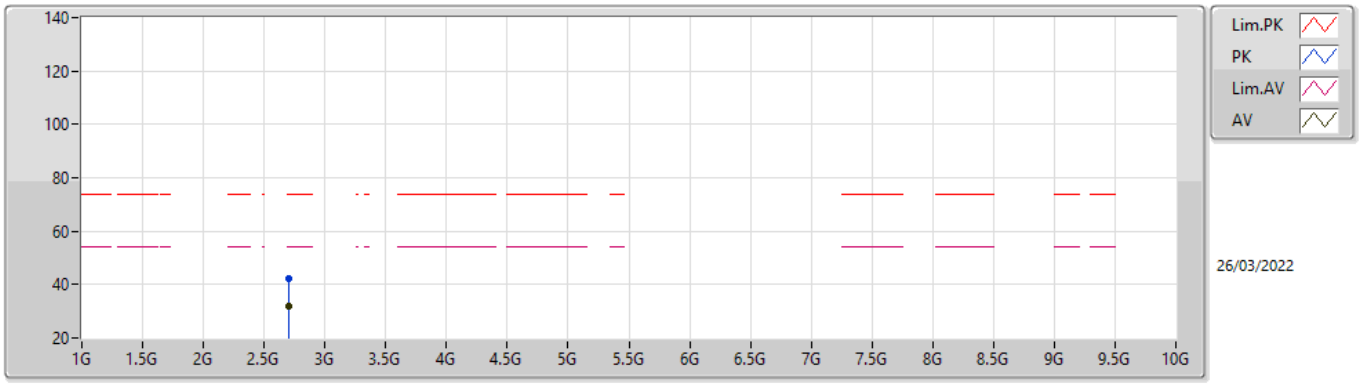


EUT X_1TX
Setting 13
03-C-S-8

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	2.78361G	43.24	74.00	-30.76	44.90	3	Horizontal	222	1.80	-	28.83	5.29	35.78
AV	2.78335G	35.93	54.00	-18.07	37.59	3	Horizontal	222	1.80	-	28.83	5.29	35.78

FSK-150-FS_Nss1_1TX

902.4MHz_TX

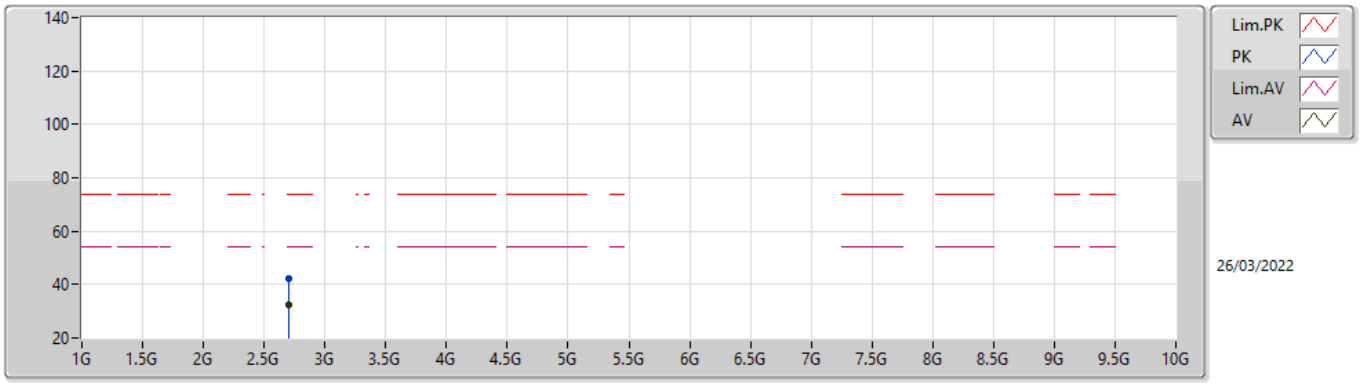


EUT X_1TX
Setting 12
03-C-S-8

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	2.7072G	42.14	74.00	-31.86	43.85	3	Vertical	295	2.00	-	28.79	5.25	35.75
AV	2.70716G	32.06	54.00	-21.94	33.77	3	Vertical	295	2.00	-	28.79	5.25	35.75

FSK-150-FS_Nss1_1TX

902.4MHz_TX

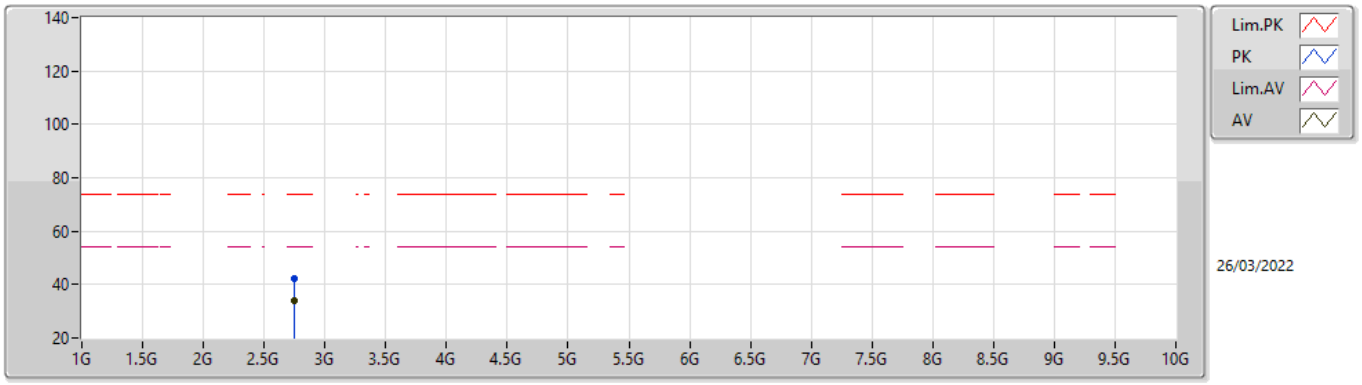


EUT X_1TX
Setting 12
03-C-S-8

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	2.70718G	42.37	74.00	-31.63	44.08	3	Horizontal	192	1.80	-	28.79	5.25	35.75
AV	2.70714G	32.67	54.00	-21.33	34.38	3	Horizontal	192	1.80	-	28.79	5.25	35.75

FSK-150-FS_Nss1_1TX

915.2MHz_TX

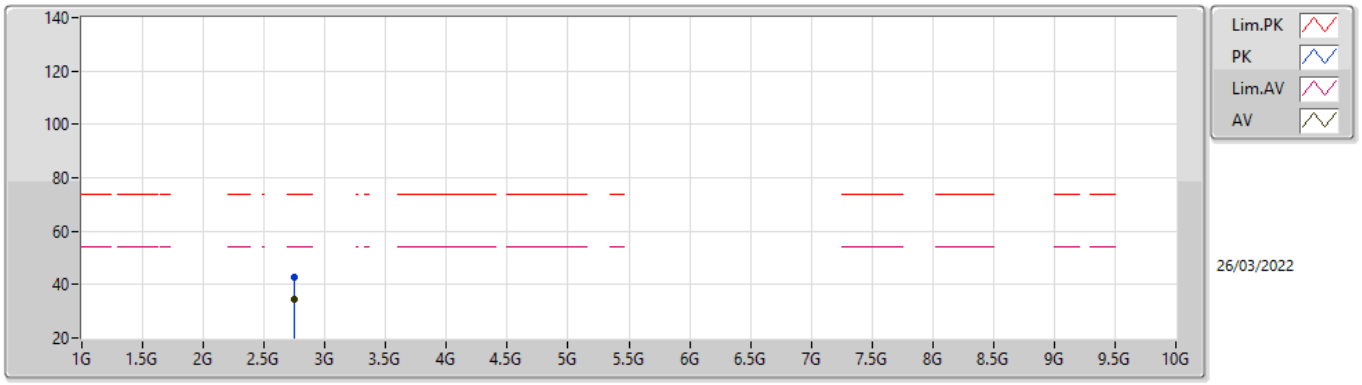


EUT X_1TX
Setting 13
03-C-S-8

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	2.74549G	42.28	74.00	-31.72	44.06	3	Vertical	198	2.57	-	28.71	5.27	35.76
AV	2.74555G	33.85	54.00	-20.15	35.63	3	Vertical	198	2.57	-	28.71	5.27	35.76

FSK-150-FS_Nss1_1TX

915.2MHz_TX

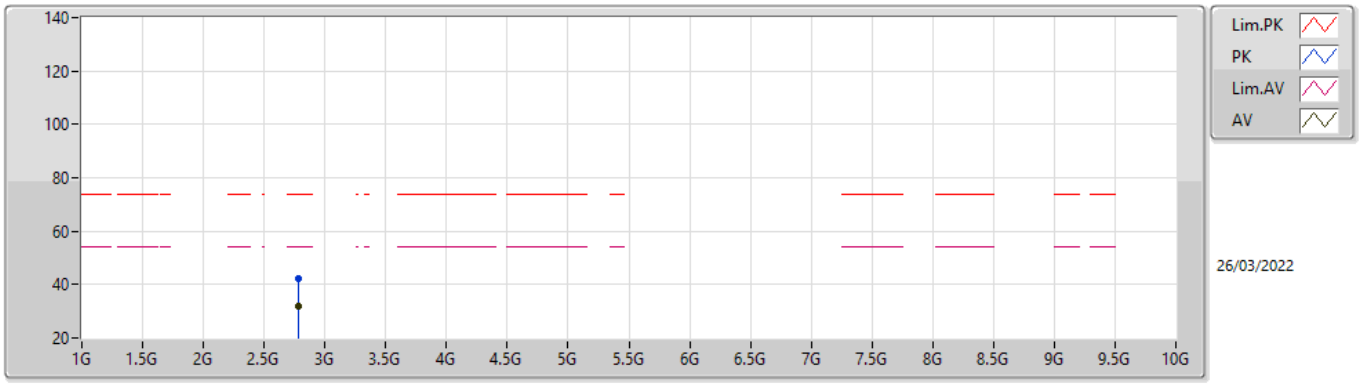


EUT X_1TX
Setting 13
03-C-S-8

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	2.74567G	42.98	74.00	-31.02	44.76	3	Horizontal	194	1.89	-	28.71	5.27	35.76
AV	2.74559G	34.48	54.00	-19.52	36.26	3	Horizontal	194	1.89	-	28.71	5.27	35.76

FSK-150-FS_Nss1_1TX

927.6MHz_TX

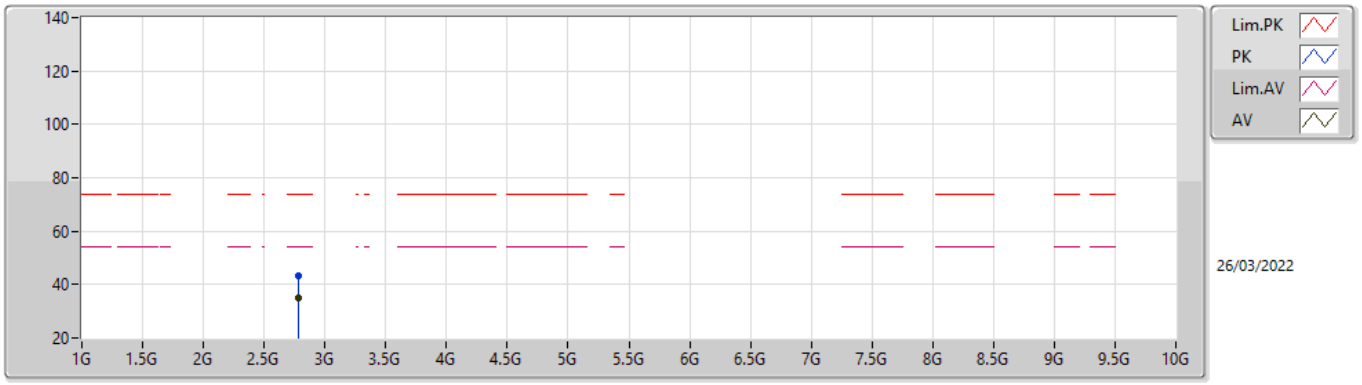


EUT X_1TX
Setting 13
03-C-S-8

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	2.78296G	42.27	74.00	-31.73	43.93	3	Vertical	262	1.67	-	28.83	5.29	35.78
AV	2.7828G	32.09	54.00	-21.91	33.75	3	Vertical	262	1.67	-	28.83	5.29	35.78

FSK-150-FS_Nss1_1TX

927.6MHz_TX

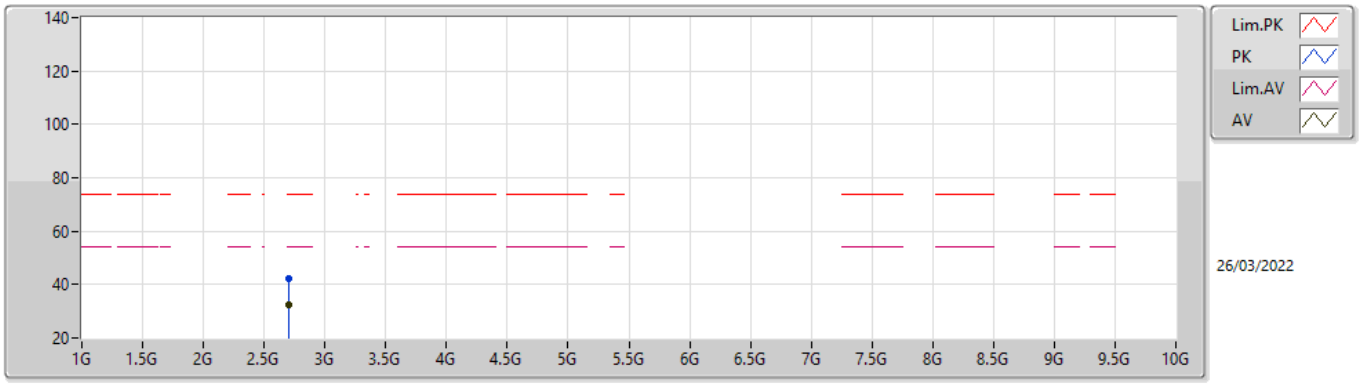


EUT X_1TX
Setting 13
03-C-S-8

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	2.78257G	43.14	74.00	-30.86	44.80	3	Horizontal	230	1.99	-	28.83	5.29	35.78
AV	2.78274G	35.15	54.00	-18.85	36.81	3	Horizontal	230	1.99	-	28.83	5.29	35.78

FSK-250-FS_Nss1_1TX

902.5MHz_TX

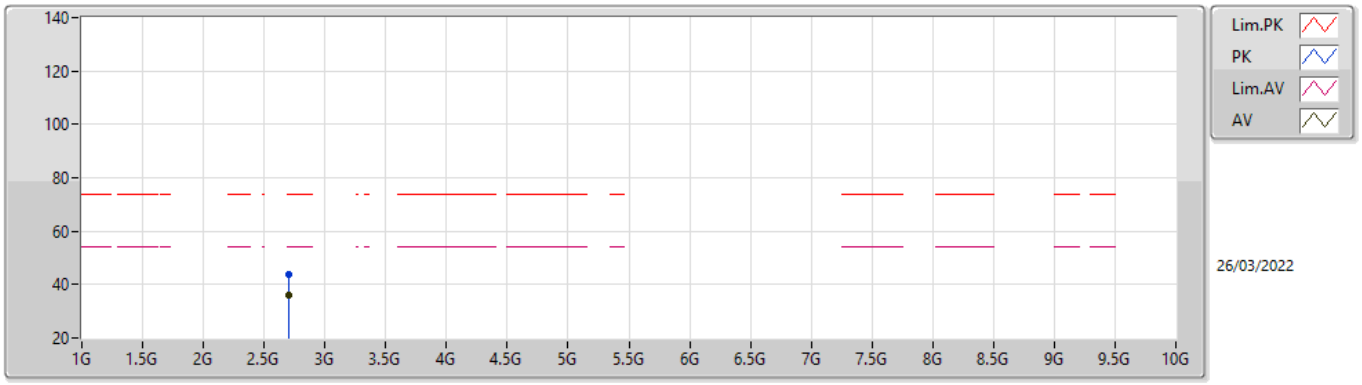


EUT X_1TX
Setting 12
03-C-S-8

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	2.70722G	42.37	74.00	-31.63	44.08	3	Vertical	174	2.07	-	28.79	5.25	35.75
AV	2.70746G	32.58	54.00	-21.42	34.29	3	Vertical	174	2.07	-	28.79	5.25	35.75

FSK-250-FS_Nss1_1TX

902.5MHz_TX

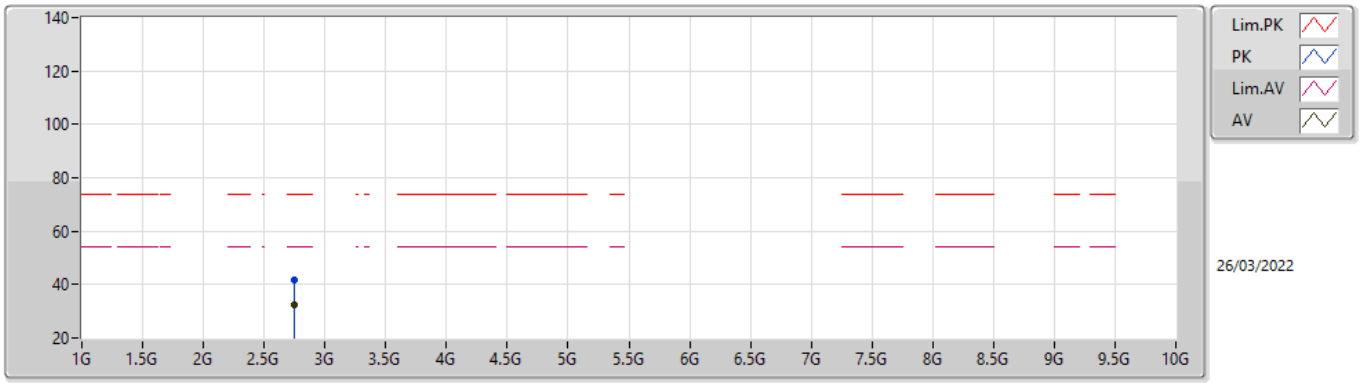


EUT X_1TX
Setting 12
03-C-S-8

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	2.70739G	43.62	74.00	-30.38	45.33	3	Horizontal	199	2.22	-	28.79	5.25	35.75
AV	2.70748G	36.03	54.00	-17.97	37.74	3	Horizontal	199	2.22	-	28.79	5.25	35.75

FSK-250-FS_Nss1_1TX

915MHz_TX

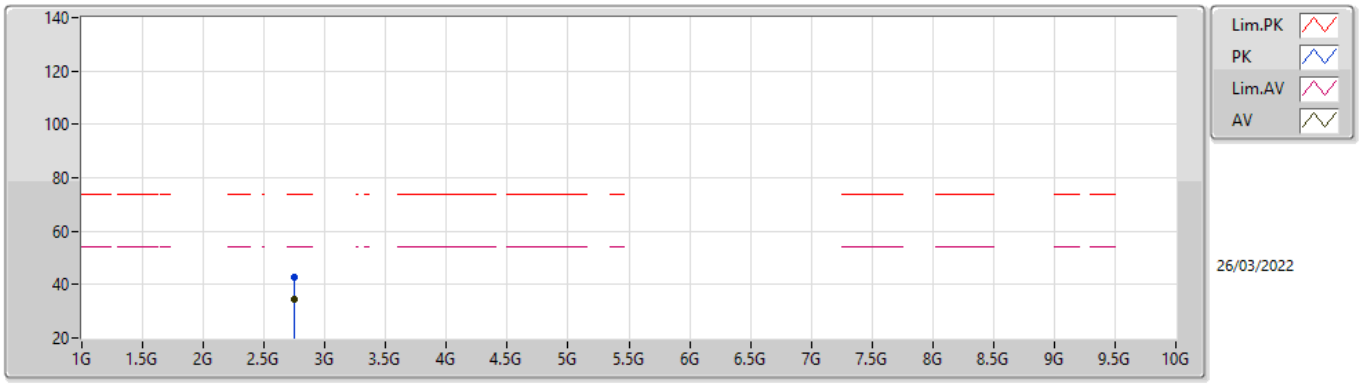


EUT X_1TX
Setting 13
03-C-S-8

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	2.74508G	41.85	74.00	-32.15	43.63	3	Vertical	215	1.57	-	28.71	5.27	35.76
AV	2.745G	32.30	54.00	-21.70	34.08	3	Vertical	215	1.57	-	28.71	5.27	35.76

FSK-250-FS_Nss1_1TX

915MHz_TX

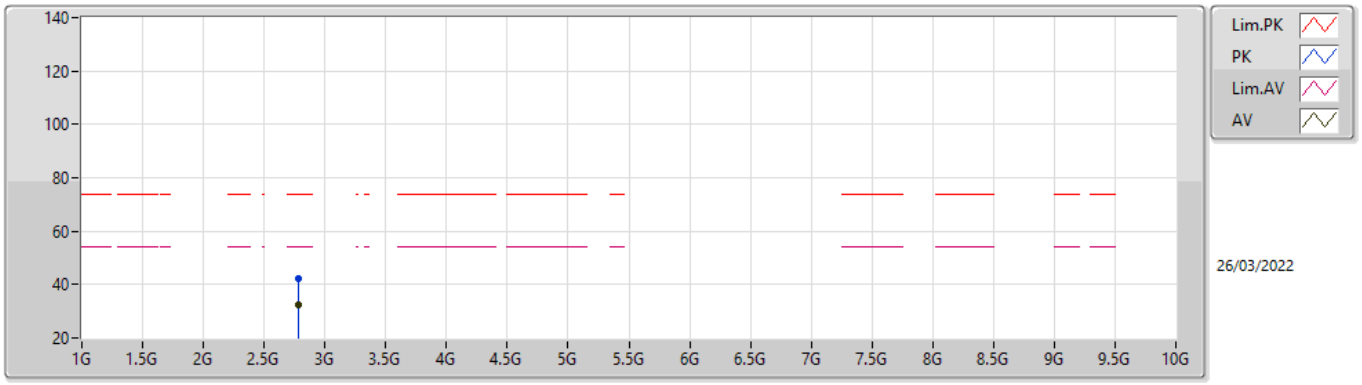


EUT X_1TX
Setting 13
03-C-S-8

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	2.74509G	42.59	74.00	-31.41	44.37	3	Horizontal	193	2.22	-	28.71	5.27	35.76
AV	2.745G	34.52	54.00	-19.48	36.30	3	Horizontal	193	2.22	-	28.71	5.27	35.76

FSK-250-FS_Nss1_1TX

927.5MHz_TX

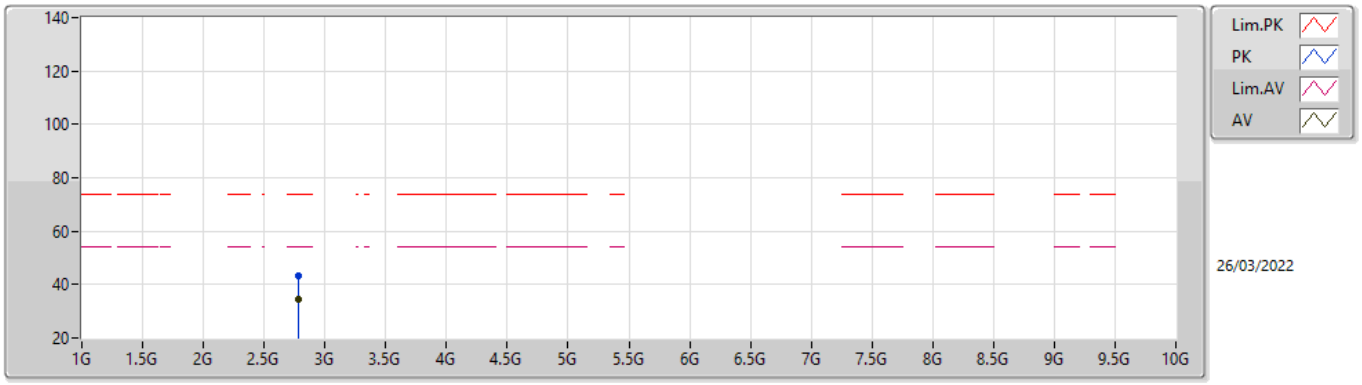


EUT X_1TX
Setting 13
03-C-S-8

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	2.78233G	42.37	74.00	-31.63	44.03	3	Vertical	210	1.37	-	28.83	5.29	35.78
AV	2.78253G	32.51	54.00	-21.49	34.17	3	Vertical	210	1.37	-	28.83	5.29	35.78

FSK-250-FS_Nss1_1TX

927.5MHz_TX



EUT X_1TX
Setting 13
03-C-S-8

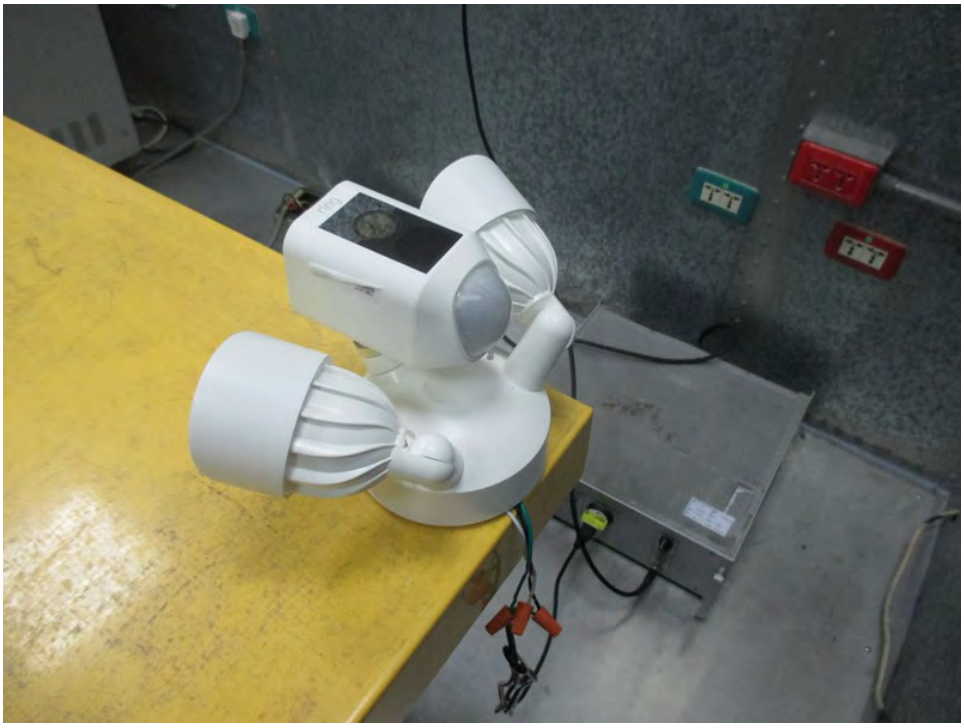
Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	2.78251G	43.33	74.00	-30.67	44.99	3	Horizontal	228	2.38	-	28.83	5.29	35.78
AV	2.78247G	34.30	54.00	-19.70	35.96	3	Horizontal	228	2.38	-	28.83	5.29	35.78

1. Photographs of Conducted Emissions Test Configuration

Test Mode: Mode 2

FRONT VIEW

REAR VIEW

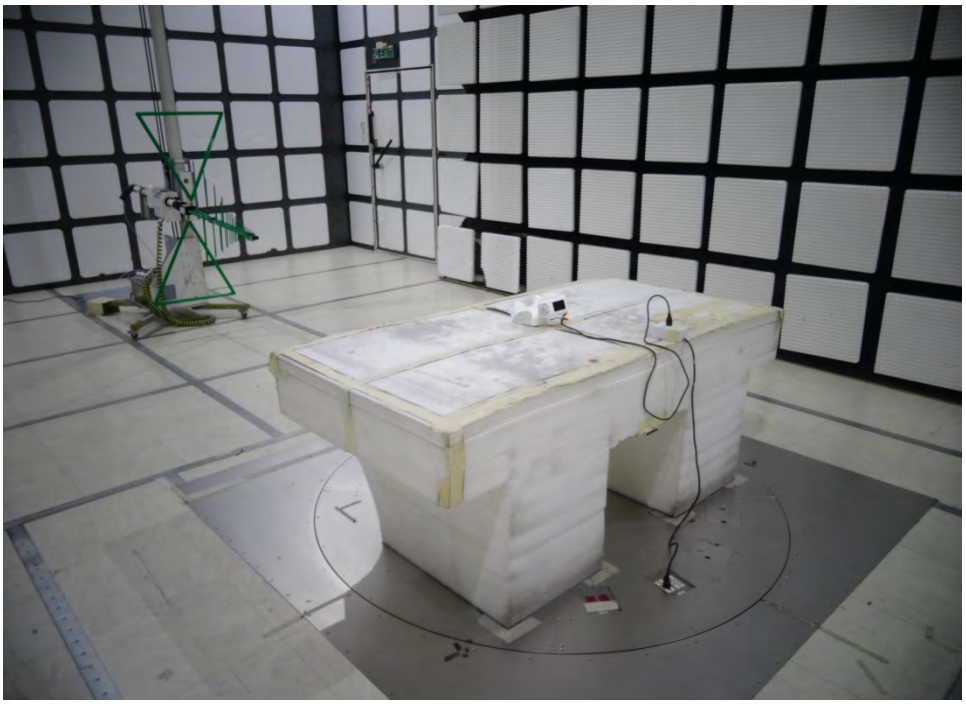


2. Photographs of Radiated Emissions Test Configuration

Test Configuration: 30MHz~1GHz / Test Mode: Mode 2

FRONT VIEW

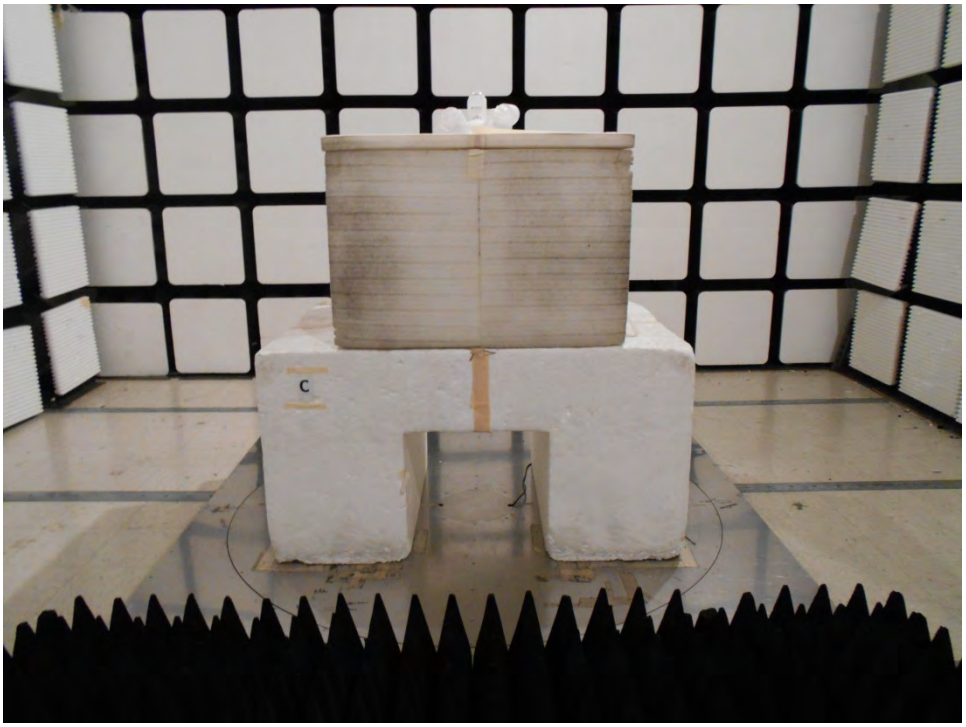
REAR VIEW



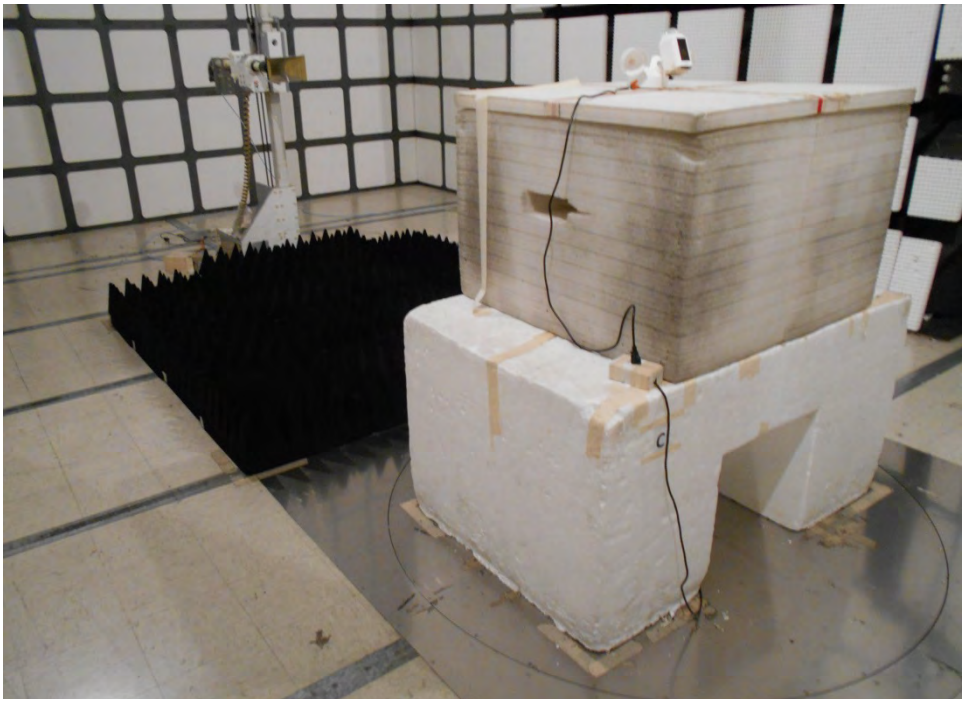
Test Configuration: Above 1GHz

Test Mode: Mode 1~Mode 2

FRONT VIEW

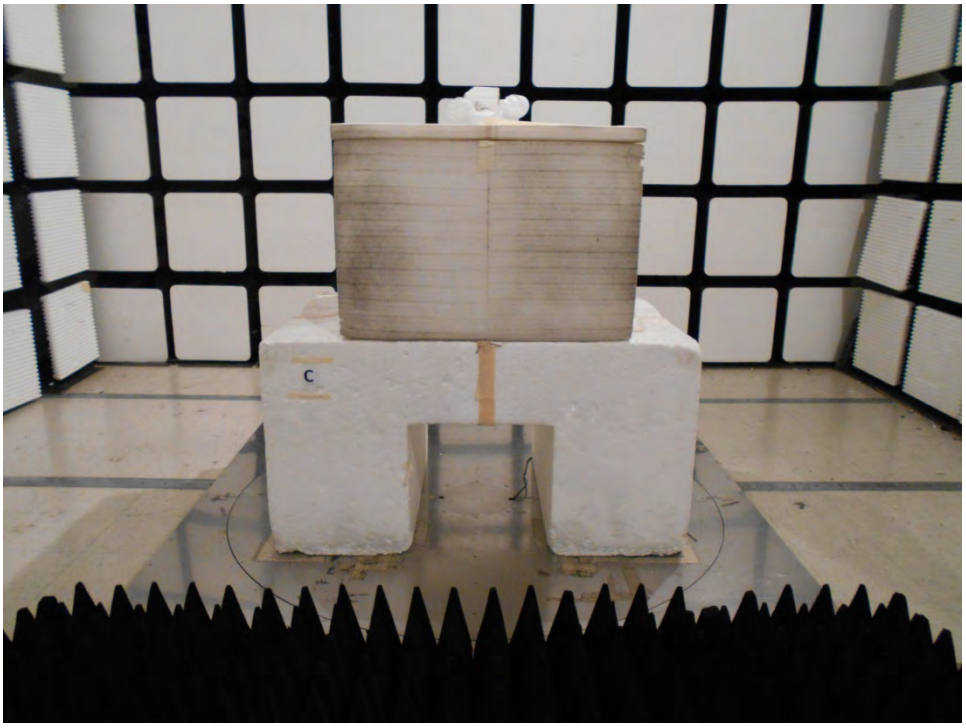


REAR VIEW

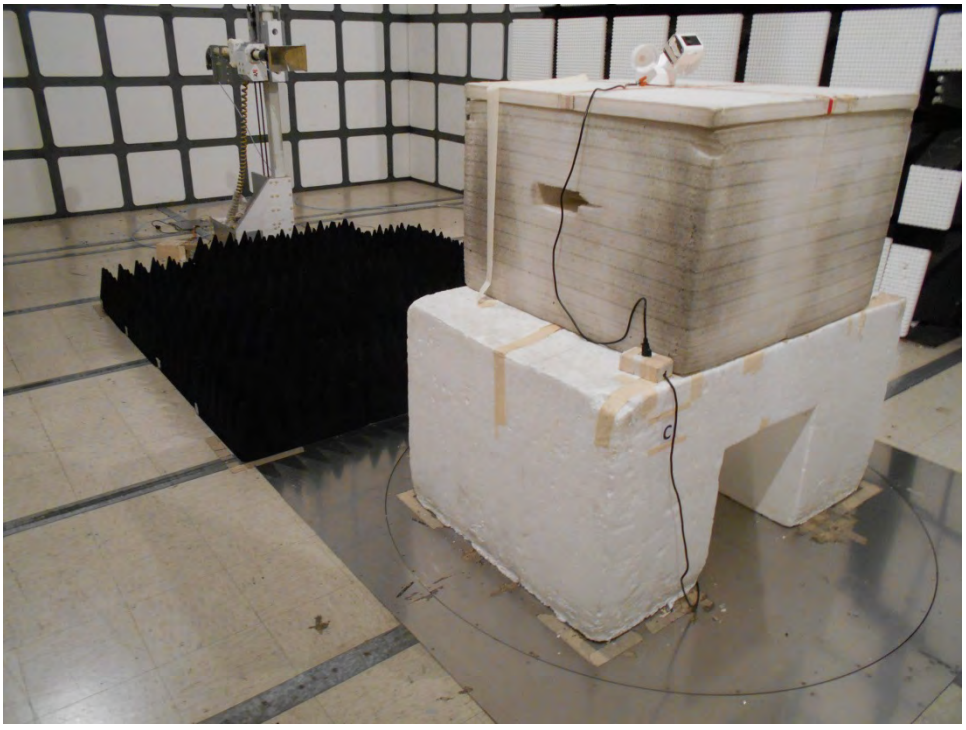


Test Mode: Mode 3

FRONT VIEW



REAR VIEW



THE END