

RADIO TEST REPORT

FCC 47 CFR Part 15C

Digital transmission systems operating within the 902.0 MHz - 928.0 MHz band

Report Reference No	G0M-2605-3687-TFC247DT01-V01
Testing Laboratory	Eurofins Product Service GmbH
Address	Storkower Str. 38c 15526 Reichenwalde Germany
Accreditation	  Deutsche Akkreditierungsstelle D-PL-12092-01-00 DAkkS - Registration number : D-PL-12092-01-00 FCC Filed Test Laboratory, Reg.-No.: 96970
Applicant	Javelot
Address	1001 Avenue de la république Newton Office 59700 Marcq-en-baroeul France
Test Specification	47 CFR Part 15C
Non-Standard Test Method	None
Equipment under Test (EUT):	
Product Description	LoRaWAN 1-Wire Transmitter
Model(s)	UTSP-2
Brand Name(s)	None
Hardware Version(s)	1.0
Software Version(s)	1.0
FCC ID	2BXG2-12210011
Test Result	PASSED

Possible test case verdicts:		
Required by standard but not tested	N/T	
Not required by standard	N/R	
Not applicable to EUT	N/A	
Test object does meet the requirement	P(PASS)	
Test object does not meet the requirement	F(FAIL)	
Testing:		
Test Lab Temperature	20 °C - 30 °C	
Test Lab Humidity	25 % - 55 %	
Date of receipt of test item	See test sample identification table on page 6	
Report:		
Compiled by	Md Abu Bakar Siddique	
Tested by (+ signature) (Responsible for Test)	Md Abu Bakar Siddique	
Approved by (+ signature) (Senior Radio Expert)	Radwan Jaafar	
Date of Issue	2026-09-09	
Total number of pages	55	
General Remarks:		
1. The test results presented in this report relate only to the object tested, as it was provided by the customer, and under the test conditions described in this report. The results contained in this report reflect the results for this particular model and serial number. It is the responsibility of the manufacturer to ensure that all production models meet the intent of the requirements detailed within this report. 2. The relevant information are provided by customers in this test report. According to the correctness, appropriateness or completeness of the information provided by the customer, if there is any doubt or error in the information which affects the validity of the test results, the laboratory does not take the responsibility. 3. The issuing testing laboratory tested the equipment mentioned on first page in accordance with the requirements set forth in the test specifications mentioned on first page. All indications of Pass/Fail in this report are opinions expressed by Eurofins Product Service GmbH based on interpretations and/or observations of test results. When the test result on first page shows the status "PASSED", the equipment tested is capable of demonstrating compliance with requirements as documented in this test report. 4. This report shall not be reproduced, except in full, without the written approval of the issuing testing laboratory.		
Additional Comments:		
None		

VERSION HISTORY

Version History			
Version	Issue Date	Remarks	Revised By
01	2026-09-09	Initial Release	--

ABBREVIATIONS AND ACRONYMS

Acronyms	
Acronym	Description
EUT	Equipment Under Test
FCC	Federal Communications Commission
RBW	Resolution bandwidth
RMS	Root mean square
VBW	Video bandwidth
V _{NOM}	Nominal supply voltage

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1 Equipment (Test Item) Under Test

Description	LoRaWAN 1-Wire Transmitter			
Model	UTSP-2			
Brand Name(s)	None			
Sample Identification	EUT #	Sample-ID	Serial Number	Date of receipt
	EUT 1	53581(Radiated)	00003	2026-06-03
	EUT 2	53585(Conducted)	00038	2026-06-03
Hardware Version(s)	1.0			
Software Version(s)	1.0			
FCC ID	2BXG2-12210011			
Equipment type	End Product			
Radio type	Transceiver			
Assigned frequency bands	903.9 MHz – 905.3 MHz			
Radio technology	LoRa (Hybrid system)			
Modulation	LoRa (CSS)			
Emission designator	125KF1D			
Number of antenna ports	1			
Antenna	Type	Integrated antenna		
	Model	ANT1204F005R0915A		
	Manufacturer	Pulse Electronics		
	Gain	1.59 dBi (antenna datasheet)		
Supply Voltage	V _{NOM}	3.6 V DC via internal non-rechargeable lithium battery		
Operating Temperature	T _{NOM}	25°C		
Dedicated AC/DC-Adaptor	None			
Manufacturer	Javelot 1001 Avenue de la république Newton Office 59700 Marcq-en-baroeul France			

1.1 Support Equipment

Product Type	Device	Manufacturer	Model	Comment
AE	Laptop	Lenovo	L14	Customer Support Equipment
SFT	Nucleo Radio Flasher & Configurator	Javelot	--	Software to program EUT
AE	ST-Link V2	STMicroelectronics	B 2018 52	Interface device
CBL	mini USB to USB A cable	--	--	--
Description:				
AE	Auxiliary Equipment			
SIM	Simulator			
CBL	Connecting Cable			
SFT	Software			
Comment: --				

1.2 EUT Configuration

Configuration #	Description
1	Radiated test configuration: EUT is powered by internal non-rechargeable battery, I/O ports are connected to ancillary equipment but are inactive.
2	Conducted test configuration: The Equipment Under Test (EUT) is powered by an internal non-rechargeable battery. All I/O ports are connected to ancillary equipment but remain inactive during the test. The connection to the internal antenna has been modified by the applicant; specifically, the antenna feed point was replaced with a temporary U. FL (male) connector. A U. FL (female) to SMA cable was subsequently connected to the EUT to provide a conducted measurement interface. Additionally, the EUT enclosure was removed for the purpose of testing.
Comment: --	

1.3 Test mode duty cycle

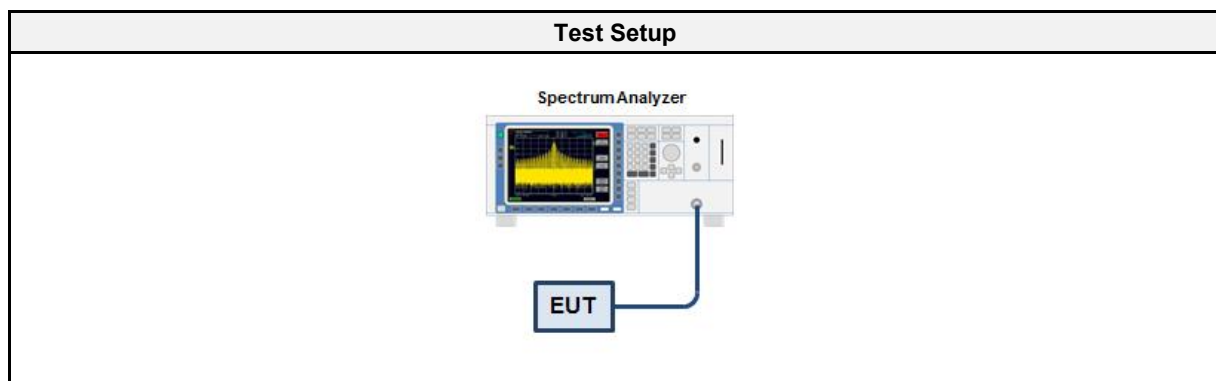
1.3.1 Information

Test Information	
Measurement Method	ANSI C63.10-2020 11.6

1.3.2 Requirements

Requirements	
Duty cycle	Duty cycle correction
$\geq 98 \%$	No correction required
$< 98 \%$	Correction required ($20 \times \log_{10}(1/DC)$)

1.3.3 Setup



1.3.4 Equipment

Test Equipment					
Description	Manufacturer	Model	Identifier	Cal. Date	Cal. Due
Spectrum Analyzer	R&S	FSU 26	EF01407	2025-08	2026-08

1.3.5 Procedure

Test Procedure
1. EUT set to test mode 2. Span is set to zero span 3. Detector set to peak 4. Sweep time is set long enough to capture at least 5 bursts 5. Envelope peak value of emission spectrum is selected 6. The maximum burst duration T_{ON} is measured using two markers set to the start and the end of the longest burst 7. The minimum idle duration T_{OFF} is measured using two markers set to the start and the end of the shortest idle period 8. The duty cycle is calculated by $DC = T_{ON} / (T_{ON} + T_{OFF})$ 9. The duty cycle correction is calculated by $DC = 20 \times \log_{10}(T_{ON} / (T_{ON} + T_{OFF}))$

1.3.6 Results

Duty Cycle Results		
Mode	Duty Cycle	Correction Factor [dB]
Mode 1	100	0
Mode 2	100	0
Mode 3	1	-40

1.4 Test Modes

Mode	Description
Mode 1	Mode = Transmit Modulation = LoRa/CSS Bandwidth = 125 kHz Duty cycle = 100% Power setting = 14 dBm Spreading factor = SF10 Payload size = 24 NB Message = 200
Mode 2	Mode = Transmit Modulation = LoRa/CSS Bandwidth = 125 kHz Duty cycle = 100% Power setting = 14 dBm Spreading factor = SF7 Payload size = 255 NB Message = 200
Mode 3	Mode = FHSS Transmit mode Modulation = LoRa/CSS Bandwidth = 125 kHz Duty cycle = 1% Power setting = 14 dBm Spreading factor = SF10 Payload size = 24 NB Message = 200
Comment: Applicant provided software was used for setting the parameters.	

1.5 Test Frequencies

Designator	Mode	Channel	Frequency [MHz]
F1	Tx	8	903.9
F2	Tx	11	904.5
F3	Tx	15	905.3

1.6 Sample emission level calculation

The following is a description of terms and a sample calculation, as appears in the radiated emissions data table. The numbers used in the calculation are for example only. There is no direct correlation to the specific data taken for the product described in this document:

Reading:

This is the reading obtained on the spectrum analyzer in dBμV. Any external preamplifiers used are taken into account through internal analyzer settings.

A.F.:

This is the antenna factor for the receiving antenna. It is a conversion factor, which converts electric fields strengths to voltages, which can be measured directly on the spectrum analyzer. It is treated as a loss in dB. Cable losses have been included with the A.F. to simplify the calculations. The antenna factor is used in calculations as follows:

$$\text{Reading on Analyzer (dB}\mu\text{V)} + \text{A.F. (dB/m)} = \text{Net field strength (dB}\mu\text{V/m)}$$

Net:

This is the net field strength measurement (as shown above).

Margin:

This is the margin of compliance below the FCC limit. The units are given in dB. A negative margin indicates the emission was below the limit. A positive margin indicates that the emission exceeds the limit.

Field strength limit:

This is the FCC Class B radiated emission limit (in units of dBμV/m). The FCC limits are given in units of μV/m. The following formula is used to convert the units of μV/m to dBμV/m:

$$\text{Field strength limit (dB}\mu\text{V/m)} = 20 \cdot \log (\mu\text{V/m})$$

Example only for radiated field strength:

$$\text{Reading} + \text{AF} = \text{Net Reading} \quad : \quad \text{Net reading} - \text{Field strength limit} = \text{Margin}$$

1.7 Measurement Uncertainties

Test case	Maximum measurement uncertainty
Occupied Bandwidth	1.3 %
20 dB Bandwidth	1.3 %
Frequency hopping channel separation	3.14 %
Time of occupancy (Dwell time)	78.53 %
Maximum peak conducted power	0.662 dB
AC power line conducted emissions	3.82 dB
Band edge compliance	1.8 dB
Conducted spurious emissions	4.25 dB
Transmitter radiated spurious emissions	5.95 dB
Receiver radiated spurious emissions	5.95 dB
6 dB Bandwidth	1.3 %
Power spectral density	1.73 dB

2 Result Summary

FCC 47 CFR Part 15C				
Product Standard Reference	Requirement	Reference Method	Result	Remarks
FCC § 15.247(a)(1)	20 dB Bandwidth	ANSI C63.10-2020	PASS	--
FCC § 15.247(a)(1)(i)	Number of hopping frequencies	ANSI C63.10-2020	N/R	Not required for hybrid system
FCC § 15.247(a)(1)	Frequency hopping channel separation	ANSI C63.10-2020	PASS	--
FCC § 15.247(a)(1)(i)	Time of occupancy (Dwell time)	ANSI C63.10-2020	PASS	--
FCC § 15.247(a)(2)	6 dB Bandwidth	ANSI C63.10-2020	N/R	Not required for hybrid system
FCC § 15.247(e)	Power spectral density	ANSI C63.10-2020	PASS	--
FCC § 15.247(b)	Maximum peak conducted power	ANSI C63.10-2020	PASS	--
FCC § 15.207	AC power line conducted emissions	ANSI C63.10-2020	N/R	Not directly or indirectly connected to AC-Mains
FCC § 15.247(d)	Band edge compliance	ANSI C63.10-2020	PASS	--
FCC § 15.247(d)	Conducted spurious emissions	ANSI C63.10-2020	PASS	--
FCC § 15.247(d) FCC § 15.209	Transmitter radiated spurious emissions	ANSI C63.10-2020	PASS	--
Comment: The Decision Rule is applied on the basis of ANSI C63.23 and ETSI TR 100 028. These standards provide guidance on how to calculate and apply measurement uncertainty whilst providing maximum uncertainties allowance. In all cases due consideration will be given to ILAC-G8:09/2019. Where a result is considered conditional in respect of its proximity to the limit line, the customer would be made aware of situation so that they can make an informed decision on how to proceed.				

Possible Test Case Verdicts	
PASS	Test object does meet the requirements
FAIL	Test object does not meet the requirements
N/T	Required by standard but not tested
N/R	Not required by standard for the test object

3 Test Conditions and Results

3.1 Test Conditions and Results - Occupied bandwidth and 20 dB bandwidth

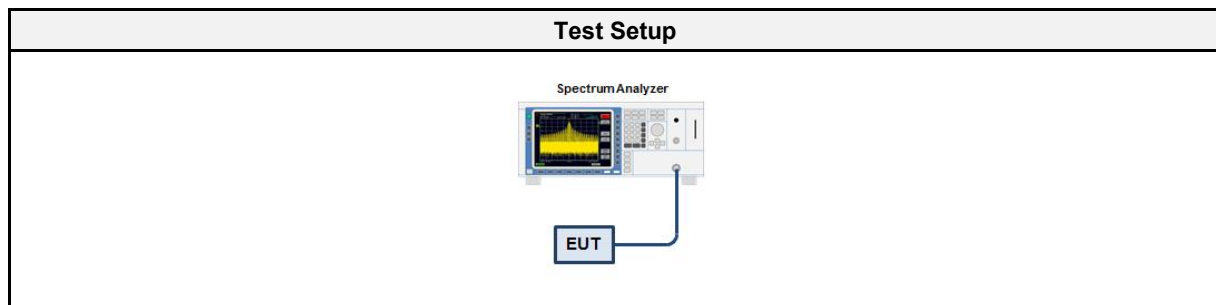
3.1.1 Information

Test Information	
Reference	FCC § 15.247(a)(1)
Measurement Method	ANSI C63.10 6.9.3; ANSI C63.10 6.9.2
Test Sample ID	53585
Operator	Md Abu Bakar Siddique
Date	2026-06-29

3.1.2 Limits

Limits	
Number of hopping channels ≥ 50 Time of occupancy ≤ 0.4 s within 20 s	20 dB BW < 250 kHz
Number of hopping channels ≥ 25 Time of occupancy ≤ 0.4 s within 10 s	250 kHz $\leq$ 20 dB BW < 500 kHz

3.1.3 Setup



3.1.4 Equipment

Test Equipment					
Description	Manufacturer	Model	Identifier	Cal. Date	Cal. Due
Spectrum Analyzer	R&S	FSU 26	EF01407	2025-08	2026-08
Cable	GIGALANE	SMS111B-GL200sC-SMS111B-1.0M	EF00779 CAABC	2026-03	2027-03

3.1.5 Procedure

Test Procedure - Occupied Bandwidth	
1.	EUT transmitter is activated in test mode under normal conditions
2.	The spectrum analyzer is set to peak detection and maximum hold with a span twice the emission spectrum
3.	The resolution bandwidth is set to the range of 1 % to 5 % of the occupied bandwidth
4.	The occupied bandwidth is measured with the build-in analyzer function

Test Procedure - 20 dB Bandwidth	
1.	EUT set to test mode (Communication tester is used if needed)
2.	Span set to at least twice the emission spectrum
3.	Detector set to peak and max hold
4.	RBW is set to 1% to 5% of occupied bandwidth, VBW is set to 3 times RBW
5.	Envelope peak value of emission spectrum is selected
6.	Marker on envelope of spectrum is set to level of -20 dB to the left of the peak
7.	Marker on envelope of spectrum is set to level of -20 dB to the right of the peak
8.	20dB Bandwidth is determined by marker frequency separation

3.1.6 Results

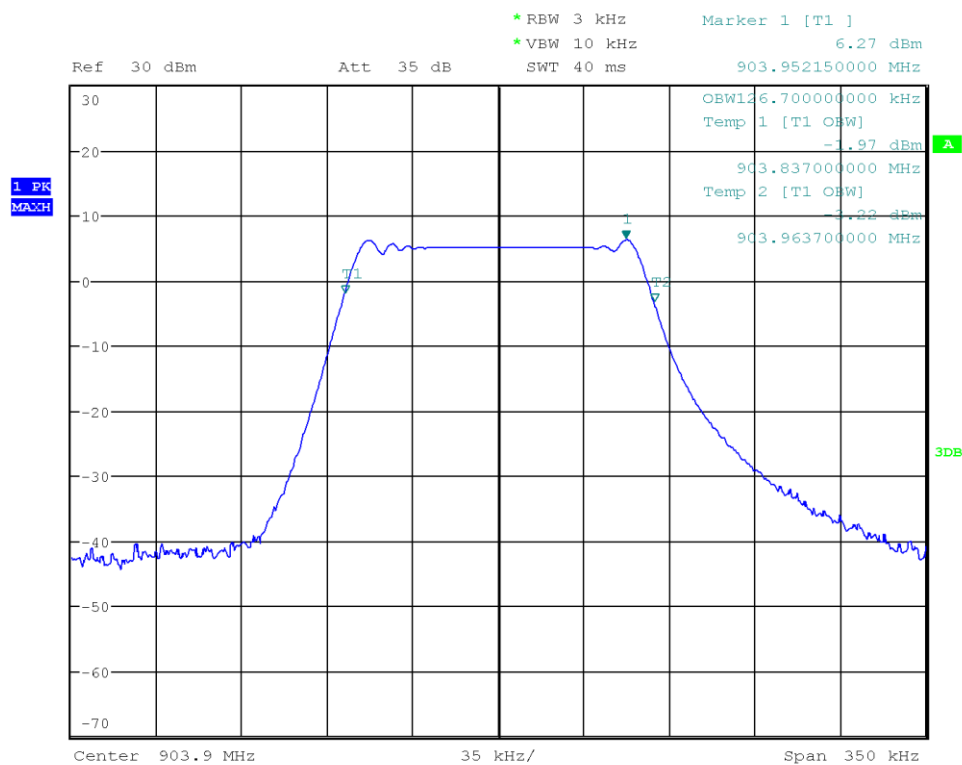
Test Results - Occupied Bandwidth		
Mode	Frequency [MHz]	Bandwidth [MHz]
Mode 2	903.9	0.127
Mode 2	904.5	0.126
Mode 2	905.3	0.127

Test Results - 20 dB Bandwidth		
Mode	Frequency [MHz]	Bandwidth [MHz]
Mode 2	903.9	0.145
Mode 2	904.5	0.144
Mode 2	905.3	0.145

Occupied Bandwidth

Project Number: G0M-2605-3687
 Applicant: Javelot
 Model Description: LoRaWan 1-Wire Transmitter
 Model: UTSP-2
 Test Sample ID: 53585
 Reference Standards: FCC 15.247
 Reference Method: ANSI C63.10:2020, Section 11.8.1 Option 1, Section 6.9.3
 Operational Mode: CSS, Channel: 903.9 MHz
 Operating Conditions: Tnom/Vnom
 Operator: Md Abu Bakar Siddique
 Test Site: Eurofins Product Service GmbH
 Test Date: 2026-06-29
 Note: LoRa, Channel 8, 903.9 MHz, 125 kHz BW, SF7, Power = 14 dBm

Occupied Bandwidth [MHz]: 0.127

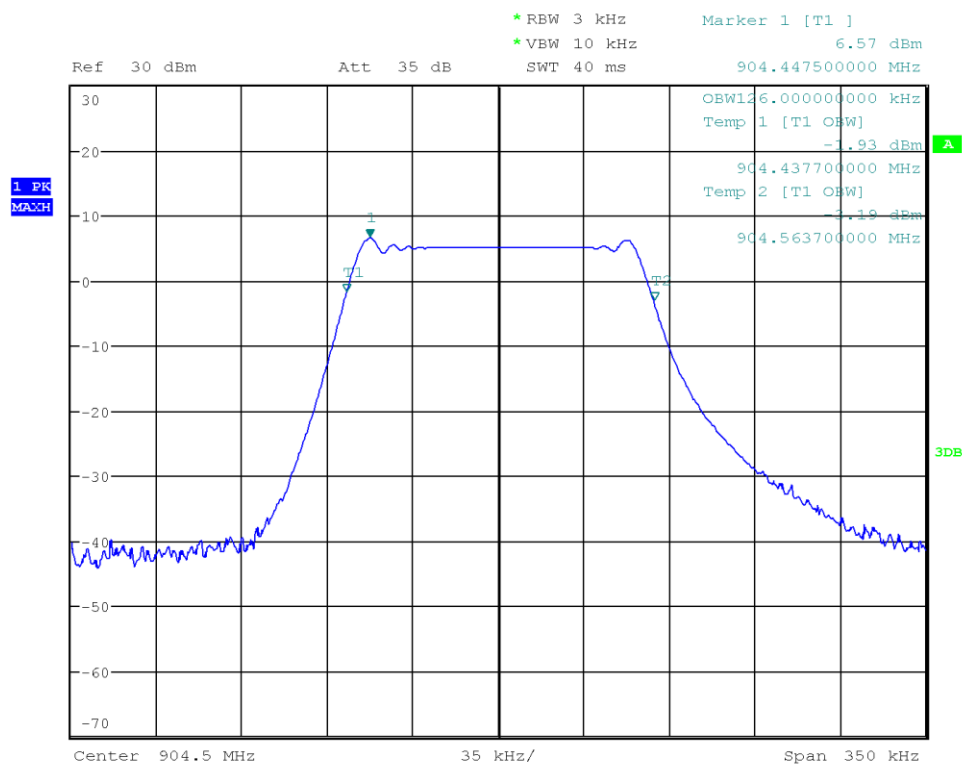


Date: 29.JUN.2026 13:16:38

Occupied Bandwidth

Project Number: G0M-2605-3687
 Applicant: Javelot
 Model Description: LoRaWan 1-Wire Transmitter
 Model: UTSP-2
 Test Sample ID: 53585
 Reference Standards: FCC 15.247
 Reference Method: ANSI C63.10:2020, Section 11.8.1 Option 1, Section 6.9.3
 Operational Mode: CSS, Channel: 904.5 MHz
 Operating Conditions: Tnom/Vnom
 Operator: Md Abu Bakar Siddique
 Test Site: Eurofins Product Service GmbH
 Test Date: 2026-06-29
 Note: LoRa, Channel 11, 904.5 MHz, 125 kHz BW, SF7, Power = 14 dBm

Occupied Bandwidth [MHz]: 0.126

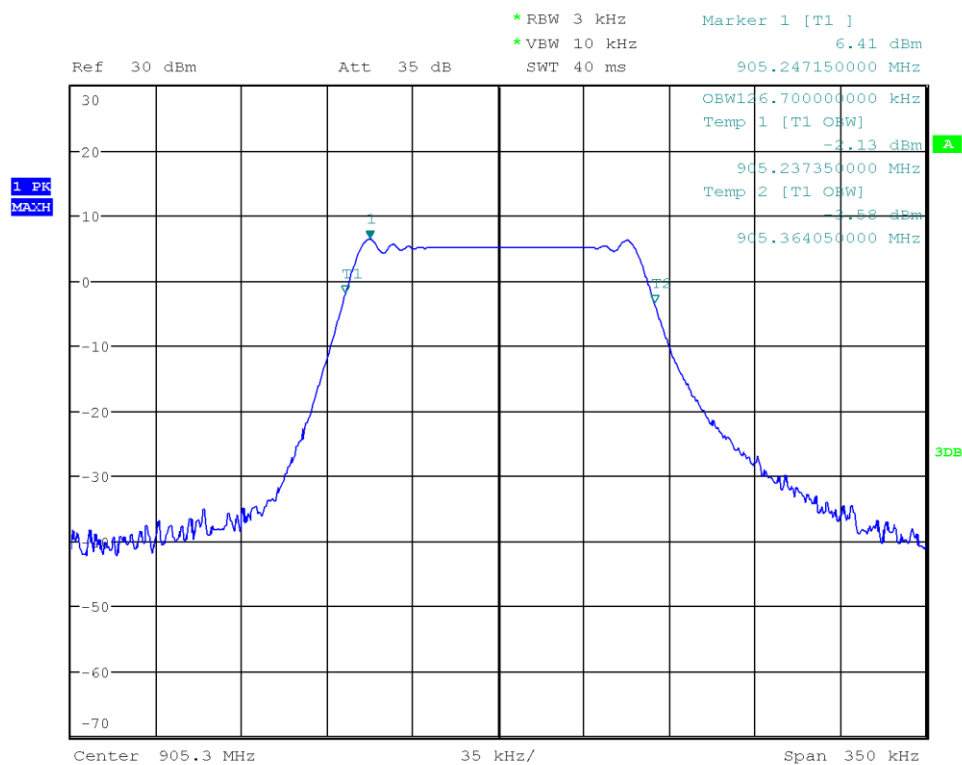


Date: 29.JUN.2026 13:24:39

Occupied Bandwidth

Project Number: G0M-2605-3687
 Applicant: Javelot
 Model Description: LoRaWan 1-Wire Transmitter
 Model: UTSP-2
 Test Sample ID: 53585
 Reference Standards: FCC 15.247
 Reference Method: ANSI C63.10:2020, Section 11.8.1 Option 1, Section 6.9.3
 Operational Mode: CSS, Channel: 905.3 MHz
 Operating Conditions: Tnom/Vnom
 Operator: Md Abu Bakar Siddique
 Test Site: Eurofins Product Service GmbH
 Test Date: 2026-06-29
 Note: LoRa, Channel 15, 905.3 MHz, 125 kHz BW, SF7, Power = 14 dBm

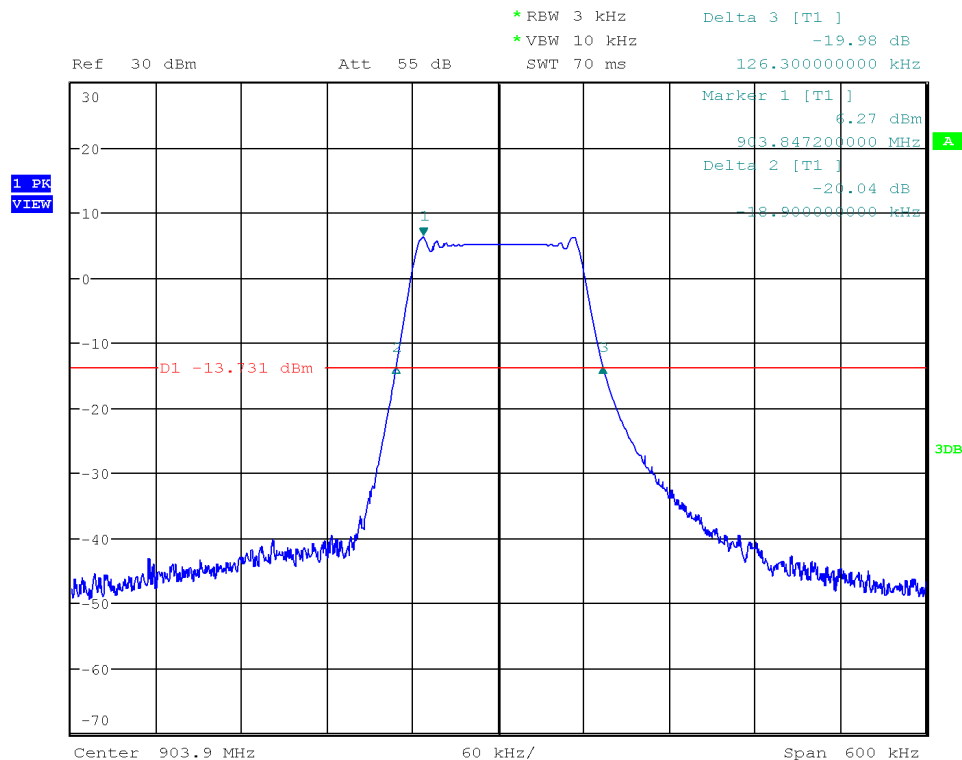
Occupied Bandwidth [MHz]: 0.127



Date: 29.JUN.2026 13:26:57

20 dB Bandwidth

Project Number: G0M-2605-3687
 Applicant: Javelot
 Model Description: LoRaWan 1-Wire Transmitter
 Model: UTSP-2
 Test Sample ID: 53585
 Reference Standards: FCC 15.247
 Reference Method: ANSI C63.10:2020, Section 6.9.2
 Operational Mode: CSS, single, Channel: 903.9 MHz
 Operating Conditions: Tnom/Vnom
 Operator: Md Abu Bakar Siddique
 Test Site: Eurofins Product Service GmbH
 Test Date: 2026-06-29
 Note: LoRa, Channel 8, 903.9 MHz, 125 kHz BW, SF7, Power = 14 dBm
 Lower Frequency [MHz]: 903.828
 Upper Frequency [MHz]: 903.973
 20 dB Bandwidth [kHz]: 145



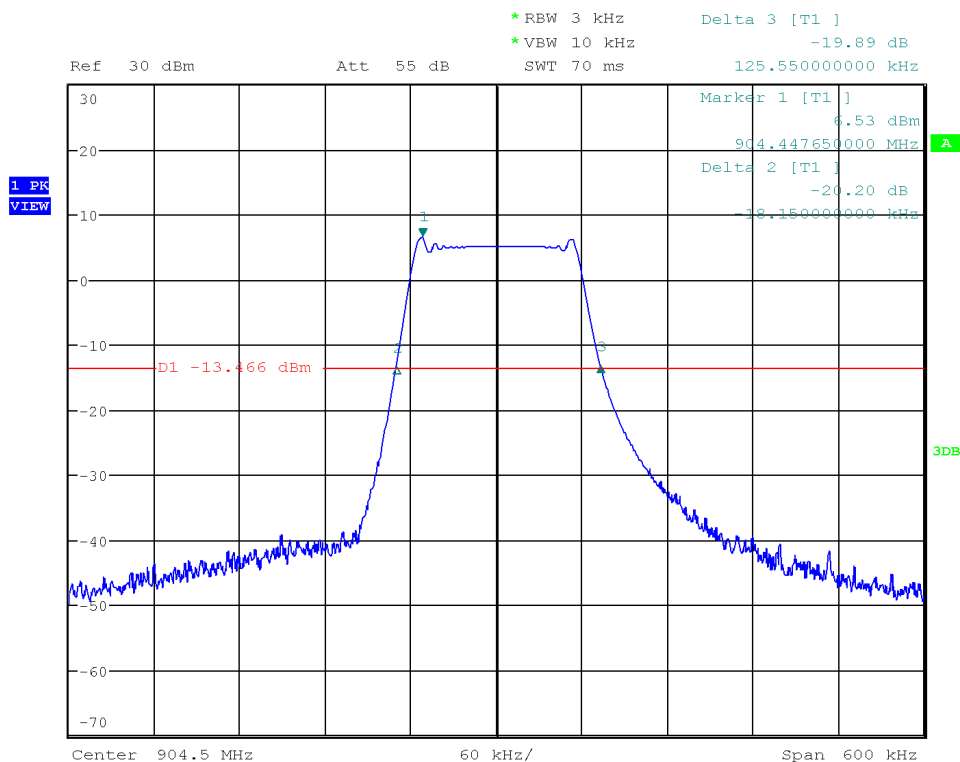
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Test Report No.: G0M-2605-3687-TFC247DT01-V01

Eurofins Product Service GmbH
 Storkower Str. 38c, D-15526 Reichenwalde, Germany

20 dB Bandwidth

Project Number: G0M-2605-3687
 Applicant: Javelot
 Model Description: LoRaWan 1-Wire Transmitter
 Model: UTSP-2
 Test Sample ID: 53585
 Reference Standards: FCC 15.247
 Reference Method: ANSI C63.10:2020, Section 6.9.2
 Operational Mode: CSS, single, Channel: 904.5 MHz
 Operating Conditions: Tnom/Vnom
 Operator: Md Abu Bakar Siddique
 Test Site: Eurofins Product Service GmbH
 Test Date: 2026-06-29
 Note: LoRa, Channel 11, 904.5 MHz, 125 kHz BW, SF7, Power = 14 dBm
 Lower Frequency [MHz]: 904.429
 Upper Frequency [MHz]: 904.573
 20 dB Bandwidth [kHz]: 144



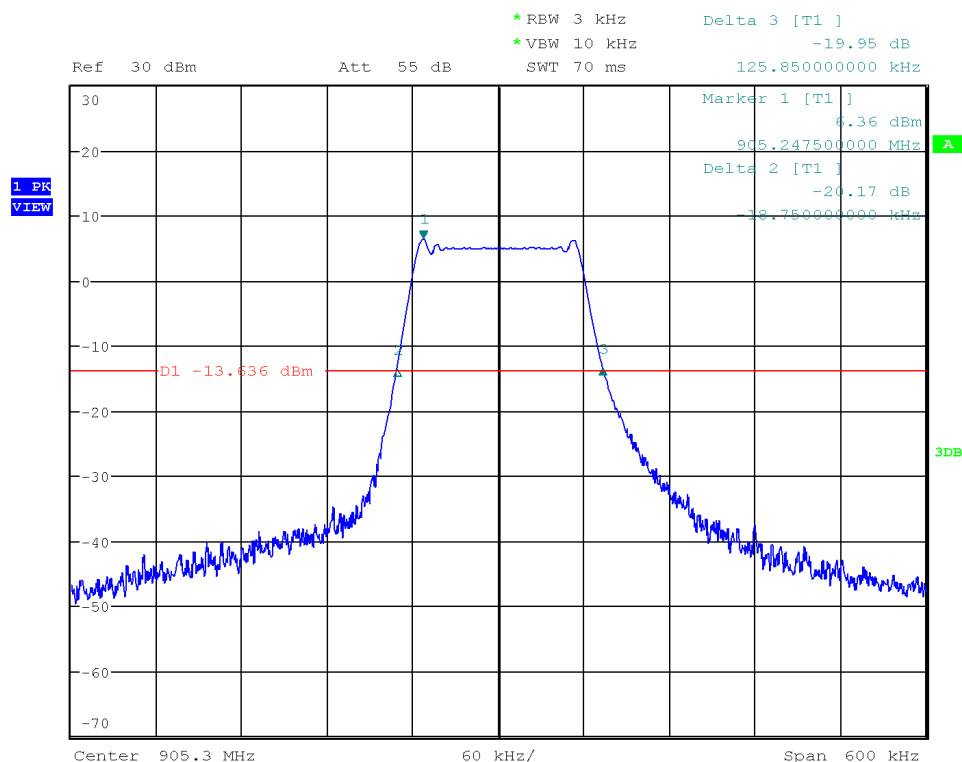
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Test Report No.: G0M-2605-3687-TFC247DT01-V01

Eurofins Product Service GmbH
 Storkower Str. 38c, D-15526 Reichenwalde, Germany

20 dB Bandwidth

Project Number: G0M-2605-3687
 Applicant: Javelot
 Model Description: LoRaWan 1-Wire Transmitter
 Model: UTSP-2
 Test Sample ID: 53585
 Reference Standards: FCC 15.247
 Reference Method: ANSI C63.10:2020, Section 6.9.2
 Operational Mode: CSS, single, Channel: 905.3 MHz
 Operating Conditions: Tnom/Vnom
 Operator: Md Abu Bakar Siddique
 Test Site: Eurofins Product Service GmbH
 Test Date: 2026-06-29
 Note: LoRa, Channel 15, 905.3 MHz, 125 kHz BW, SF7, Power = 14 dBm
 Lower Frequency [MHz]: 905.229
 Upper Frequency [MHz]: 905.373
 20 dB Bandwidth [kHz]: 145



Date: 29.JUN.2026 13:43:42

3.2 Test Conditions and Results - Frequency hopping channel separation

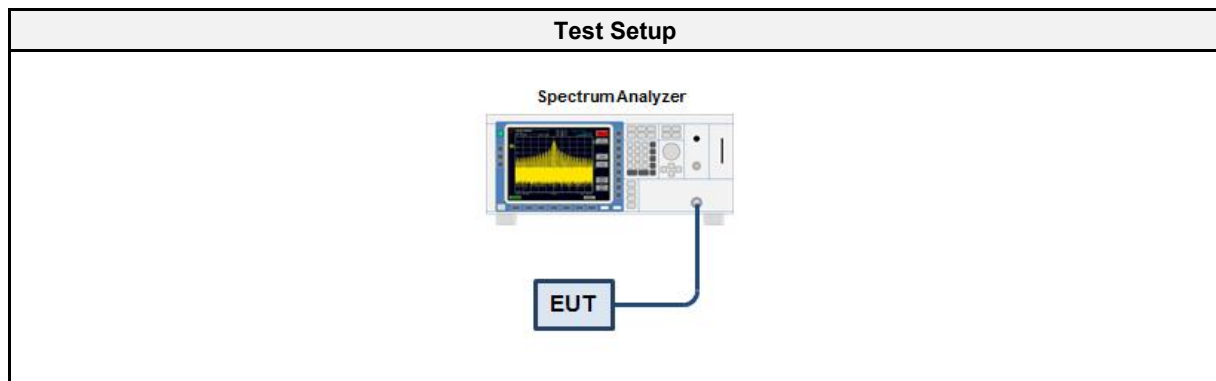
3.2.1 Information

Test Information	
Reference	FCC § 15.247(a)(1)
Measurement Method	ANSI C63.10 7.8.2
Operator	Md Abu Bakar Siddique
Date	2026-06-30

3.2.2 Limits

Limit
≥ 25 kHz or 20 dB bandwidth, whichever is greater

3.2.3 Setup



3.2.4 Equipment

Test Equipment					
Description	Manufacturer	Model	Identifier	Cal. Date	Cal. Due
Spectrum Analyzer	R&S	FSU 26	EF01407	2025-08	2026-08
Cable	GIGALANE	SMS111B-GL200sC-SMS111B-1.0M	EF00779 CAABC	2026-03	2027-03

3.2.5 Procedure

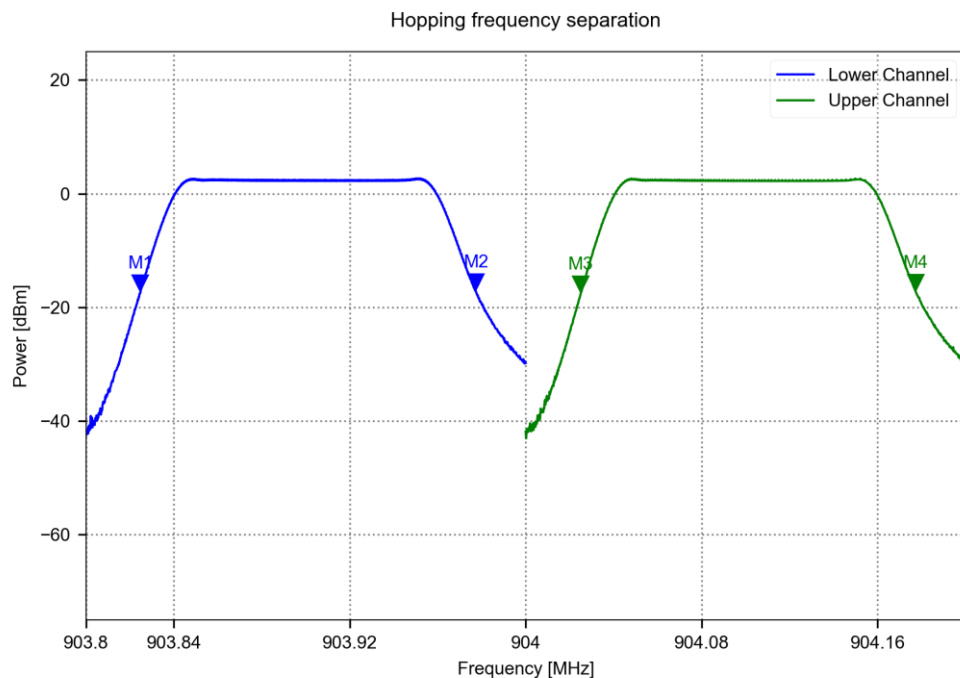
Test Procedure
1. EUT set to test mode (Communication tester is used if needed) 2. Span set to measurement frequency range 3. Detector set to peak and max hold 4. Resolution bandwidth is set small enough to resolve hopping channel emission spectra 5. The two adjacent channel peaks are marked 6. Channel separation is determined from frequency separation of markers

3.2.6 Results

Test Results		
Channel separation [kHz]	Limit [kHz]	Verdict
200	≥145	PASS

Carrier frequency separation

Project Number:	G0M-2605-3687
Applicant:	Javelot
Model Description:	LoRaWan 1-Wire Transmitter
Model:	UTSP-2
Test Sample ID:	53585
Reference Standards:	FCC 15.247(a)(1)
Reference Method:	ANSI C63.10:2020 7.8.2
Operational Mode:	Mode 1, CSS, Channels: 903.9 + 904.1 MHz
Operating Conditions:	Tnom/Vnom
Operator:	Md Abu Bakar Siddique
Test Site:	Eurofins Product Service GmbH
Test Date:	2026-06-30
Lower Frequency (M1) [MHz]:	903.825
Upper Frequency (M2) [MHz]:	903.977
Lower Frequency (M3) [MHz]:	904.025
Upper Frequency (M4) [MHz]:	904.177
Lower center Frequency [MHz]:	903.901
Upper center Frequency [MHz]:	904.101
Hopping Frequency Separation [MHz]:	0.200



3.3 Test Conditions and Results - Time of occupancy (Dwell time)

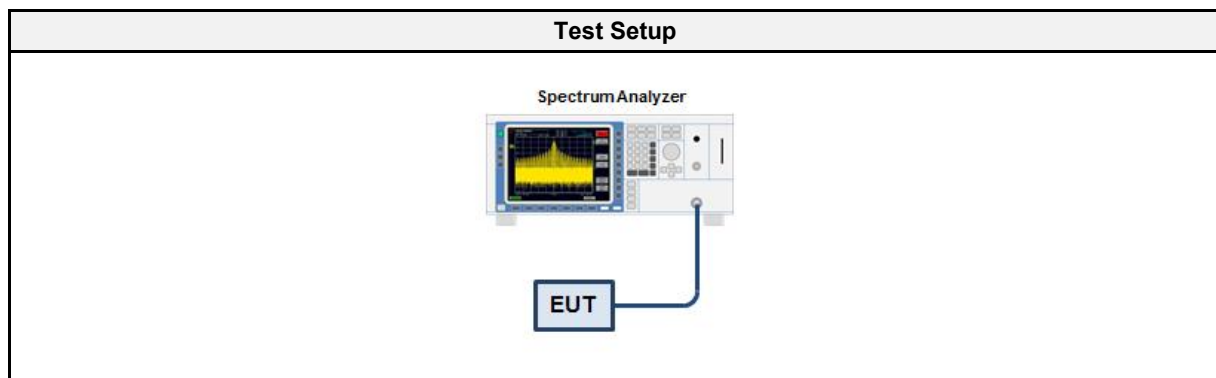
3.3.1 Information

Test Information	
Reference	FCC § 15.247(a)(1)(i)
Measurement Method	ANSI C63.10 7.8.4
Operator	Md Abu Bakar Siddique
Date	2026-07-01

3.3.2 Limits

Limits	
Condition	Limit
20 dB BW < 250 kHz Number of hopping channels ≥ 50	Time of occupancy ≤ 0.4 s within 20 s
250 kHz ≤ 20 dB BW < 500 kHz Number of hopping channels ≥ 25	Time of occupancy ≤ 0.4 s within 10 s

3.3.3 Setup



3.3.4 Equipment

Test Equipment					
Description	Manufacturer	Model	Identifier	Cal. Date	Cal. Due
Spectrum Analyzer	R&S	FSU 26	EF01407	2025-08	2026-08
Cable	GIGALANE	SMS111B-GL200sC-SMS111B-1.0M	EF00779 CAABC	2026-03	2027-03

3.3.5 Procedure

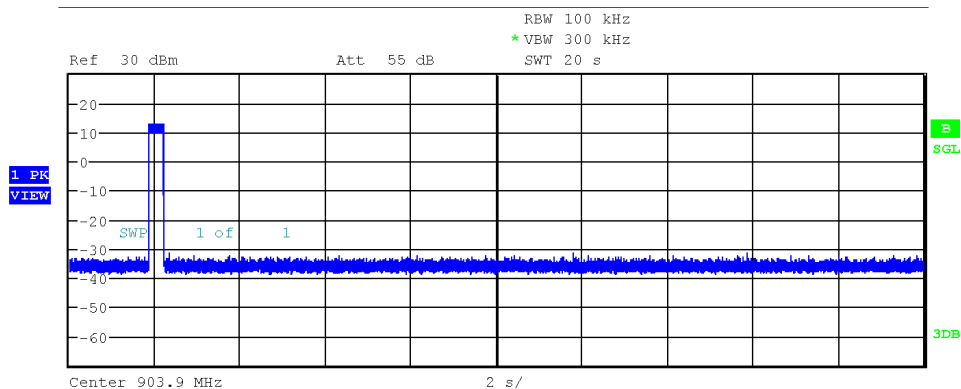
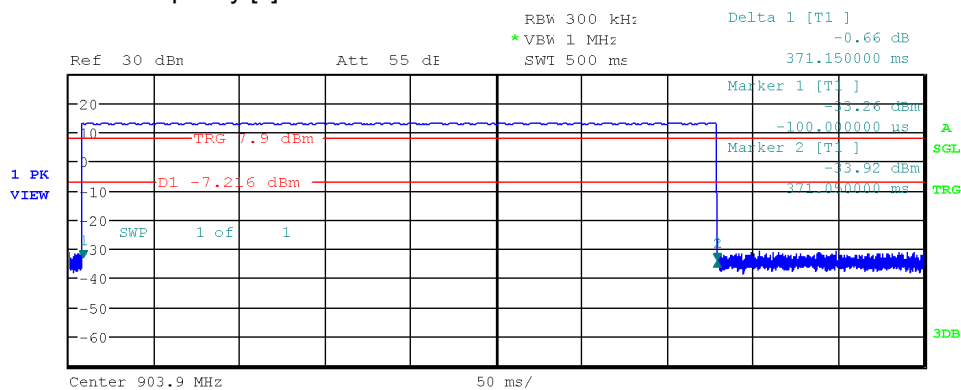
Test Procedure	
1.	EUT set to test hopping mode (Communication tester is used if needed)
2.	Analyzer span is set to zero span
3.	Detector set to peak and max hold
4.	RBW is set to 100 kHz and VBW to 300 kHz
5.	The sweep time is set to capture a bit more than one single dwell time
6.	Trigger is set to video trigger
7.	A marker is set to the start and end positions of the burst
8.	The dwell time is determined from the marker difference
9.	Another sweep is initiated without trigger and sweep time set to the observation time
10.	The number of hops is counted
11.	The total time of occupancy is calculated from the dwell time per hop multiplied by the number of hops

3.3.6 Results

Test Results					
Observation Period [s]	Number of Hops	Dwell time per Hop [s]	Time of occupancy [s]	Limit [s]	Margin [s]
20	1	0.371	0.371	0.4	-0.029

Time of occupancy

Project Number: G0M-2605-3687
 Applicant: Javelot
 Model Description: LoRaWan 1-Wire Transmitter
 Model: UTSP-2
 Test Sample ID: 53585
 Reference Method: ANSI C63.10:2020 7.8.4
 Operational Mode: Mode 3
 Operating Conditions: Tnom/Vnom
 Operator: Md Abu Bakar Siddique
 Test Site: Eurofins Product Service GmbH
 Test Date: 2026-07-01
 Dwell Time per Hop [ms]: 371.150
 Number of Hops: 1
 Time of occupancy [s]: 0.371



Date: 1.JUL.2026 06:06:16

3.4 Test Conditions and Results - Maximum peak conducted output power

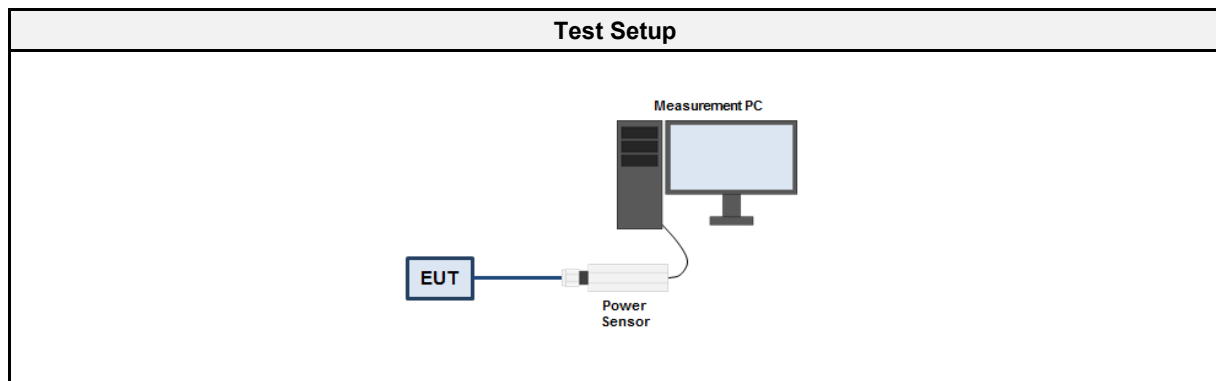
3.4.1 Information

Test Information	
Reference	FCC § 15.247(b)
Measurement Method	ANSI C63.10 11.9.1
Operator	Md Abu Bakar Siddique
Date	2026-06-30

3.4.2 Limits

Limits
Conducted: 1 W (30 dBm); EIRP: 4 W (36 dBm)

3.4.3 Setup



3.4.4 Equipment

Test Software			
Description	Manufacturer	Name	Version
EMC Software	Raditeq B.V.	RadiMation	2024.2.5

Test Equipment					
Description	Manufacturer	Model	Identifier	Cal. Date	Cal. Due
Power sensor	ETS-Lindgren	7002-006	EF00934	2022-07	2023-07
USB Power Sensor	Raditeq B.V.	RPR3008W	EF01877	2025-08	2026-08

3.4.5 Procedure

Test Procedure
1. EUT set to test mode (Communication tester is used if needed) 2. Gated wide band power sensor is connected to antenna port of the EUT 3. The output power is measured at antenna ports 4. The maximum RMS power level is determined

3.4.6 Results

Test Results								
Channel [MHz]	Power [dBm]	Mode	Power [W]	Limit [W]	Antenna Gain [dBi]	E.I.R.P. [W]	E.I.R.P. Limit [W]	Verdict
903.9	13.2	Mode 1	0.0209	1.0	1.59	0.0301	4.0	PASS
904.5	13.2	Mode 1	0.0209	1.0	1.59	0.0301	4.0	PASS
905.3	13.2	Mode 1	0.0209	1.0	1.59	0.0301	4.0	PASS
Comment: Based on the pre-evaluation, Mode 1 was identified as the operating mode producing the maximum output power.								

3.5 Test Conditions and Results - Power spectral density

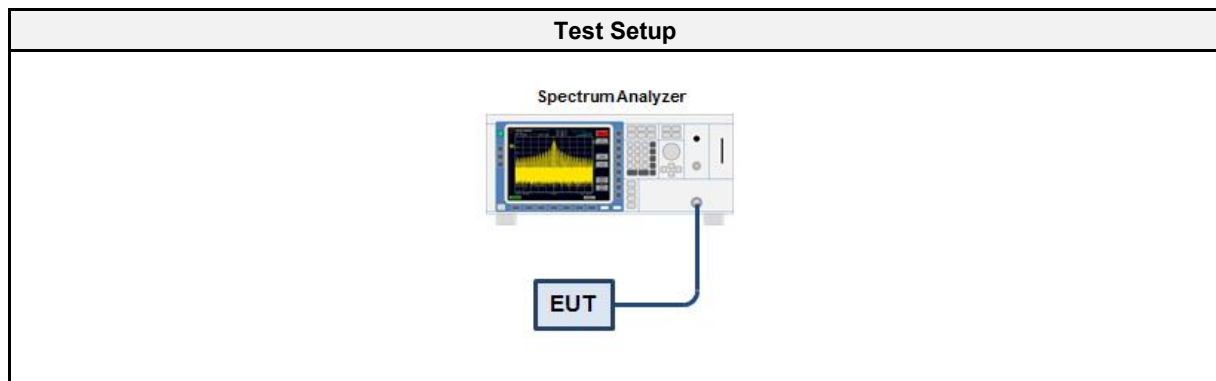
3.5.1 Information

Test Information	
Reference	FCC § 15.247(e)
Measurement Method	ANSI C63.10 11.10.2, 14.5.2
Operator	Md Abu Bakar Siddique
Date	2026-06-30

3.5.2 Limits

Limits
8 dBm / 3 kHz

3.5.3 Setup



3.5.4 Equipment

Test Equipment					
Description	Manufacturer	Model	Identifier	Cal. Date	Cal. Due
Spectrum Analyzer	R&S	FSU 26	EF01407	2025-08	2026-08
Cable	GIGALANE	SMS111B-GL200sC-SMS111B-1.0M	EF00779 CAABC	2026-03	2027-03

3.5.5 Procedure

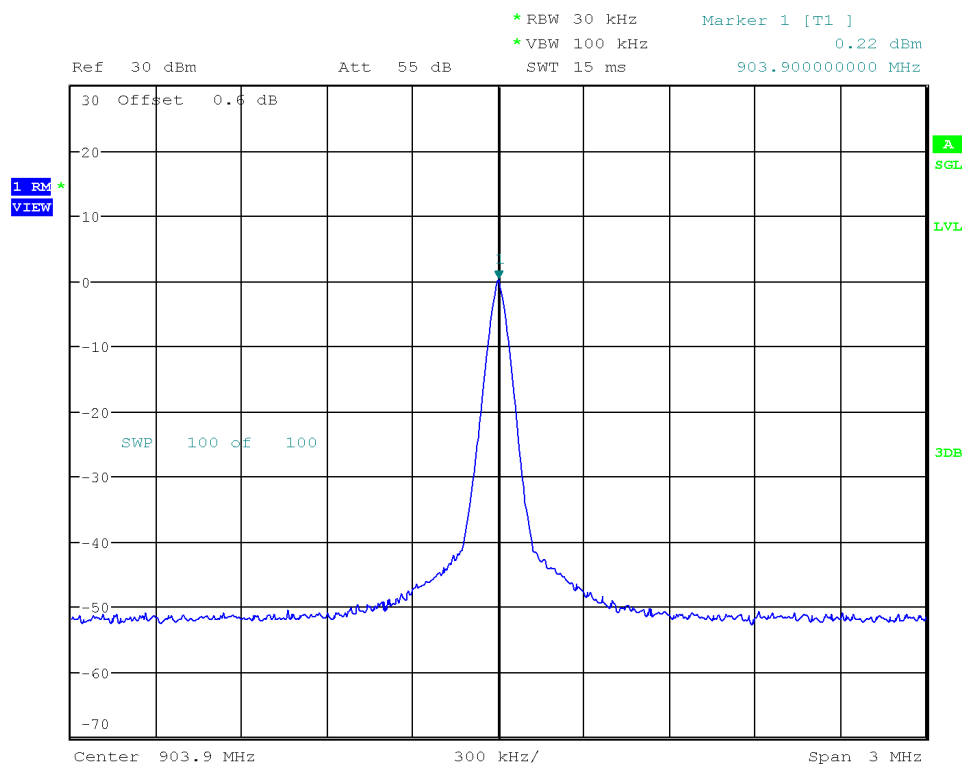
Test Procedure
1. EUT set to test mode 2. The analyzer is set to DTS channel center frequency with a span of 1.5 times the DTS bandwidth 3. The RBW is set to 100 kHz with VBW $\geq$ RBW and the detector is set to peak with max hold 4. After the trace has stabilized a marker is set to the envelope maximum 5. If the power spectral density is above the limit the RBW is reduced (not lower than 3 kHz) and the measurement is repeated 6. If the EUT has more than one transmit chain the procedure is repeated for each transmit chain

3.5.6 Results

Test Results				
Channel [MHz]	Mode	PSD [dBm/RBW]	Limit [dBm/3kHz]	Verdict
903.9	Mode 1	0.223	8.0	PASS
904.5	Mode 1	-0.122	8.0	PASS
905.3	Mode 1	-0.426	8.0	PASS
RBW = 30 kHz				

Average Power Spectral Density

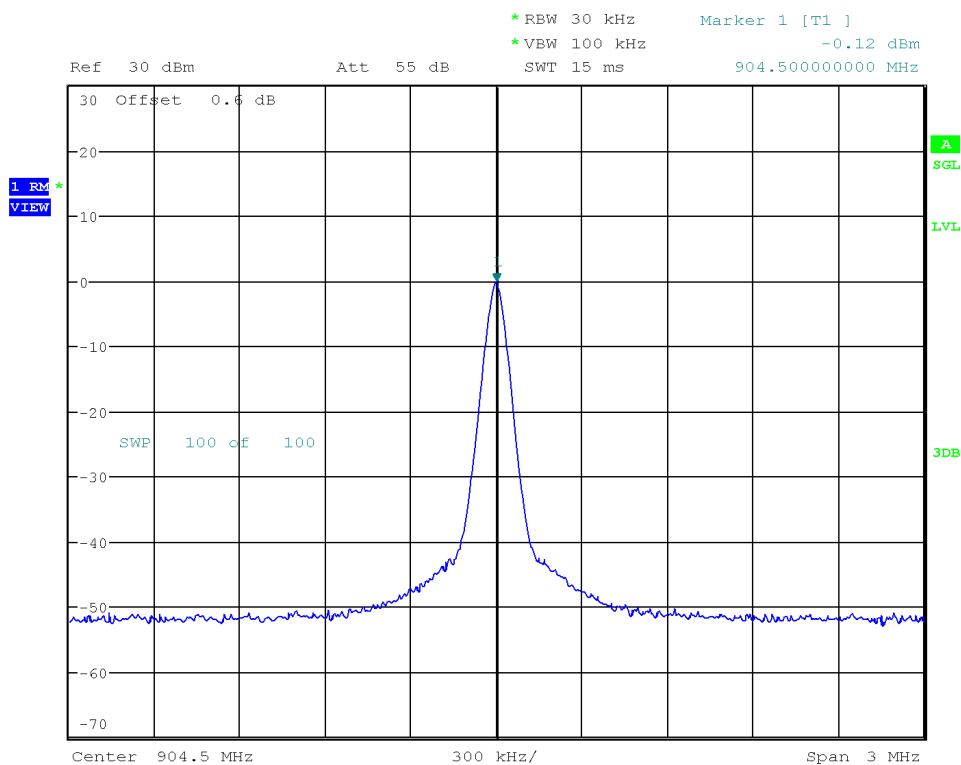
Project Number: G0M-2605-3687
 Applicant: Javelot
 Model Description: LoRaWan 1-Wire Transmitter
 Model: UTSP-2
 Test Sample ID: 53585
 Reference Standards: FCC 15.247
 Reference Method: ANSI C63.10:2020, Section 11.10.3
 Operational Mode: Mode 1, Channel: 903.9 MHz
 Operating Conditions: Tnom/Vnom
 Operator: Md Abu Bakar Siddique
 Test Site: Eurofins Product Service GmbH
 Test Date: 2026-06-30
 Note: Based on max. cond. average output power
 Peak Frequency [MHz]: 903.900
 Spectral Density [dBm/RBW]: 0.223
 Resolution Bandwidth [kHz]: 30 kHz



Date: 30.JUN.2026 13:00:30

Average Power Spectral Density

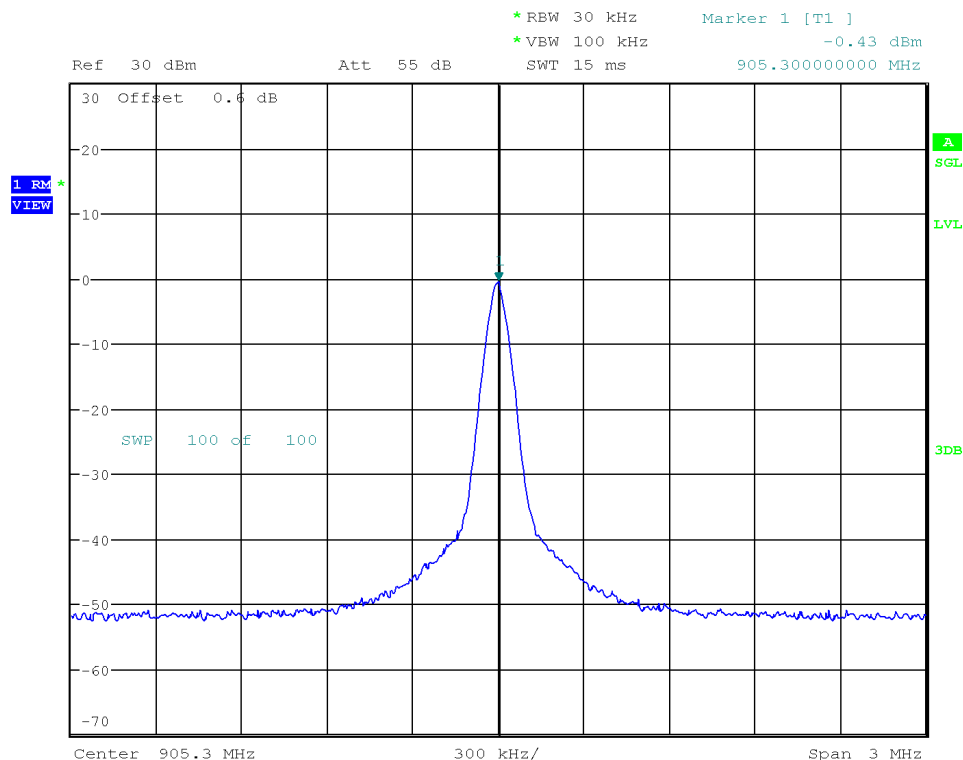
Project Number: G0M-2605-3687
 Applicant: Javelot
 Model Description: LoRaWan 1-Wire Transmitter
 Model: UTSP-2
 Test Sample ID: 53585
 Reference Standards: FCC 15.247
 Reference Method: ANSI C63.10:2020, Section 11.10.3
 Operational Mode: Mode 1, Channel: 904.5 MHz
 Operating Conditions: Tnom/Vnom
 Operator: Md Abu Bakar Siddique
 Test Site: Eurofins Product Service GmbH
 Test Date: 2026-06-30
 Note: Based on max. cond. average output power
 Peak Frequency [MHz]: 904.500
 Spectral Density [dBm/RBW]: -0.122
 Resolution Bandwidth [kHz]: 30 kHz



Date: 30.JUN.2026 13:02:26

Average Power Spectral Density

Project Number: G0M-2605-3687
 Applicant: Javelot
 Model Description: LoRaWan 1-Wire Transmitter
 Model: UTSP-2
 Test Sample ID: 53585
 Reference Standards: FCC 15.247
 Reference Method: ANSI C63.10:2020, Section 11.10.3
 Operational Mode: Mode 1, Channel: 905.3 MHz
 Operating Conditions: Tnom/Vnom
 Operator: Md Abu Bakar Siddique
 Test Site: Eurofins Product Service GmbH
 Test Date: 2026-06-30
 Note: Based on max. cond. average output power
 Peak Frequency [MHz]: 905.300
 Spectral Density [dBm/RBW]: -0.426
 Resolution Bandwidth [kHz]: 30 kHz



Date: 30.JUN.2026 13:04:31

Test Report No.: G0M-2605-3687-TFC247DT01-V01

Eurofins Product Service GmbH
 Storkower Str. 38c, D-15526 Reichenwalde, Germany

3.6 Test Conditions and Results - Band-edge compliance

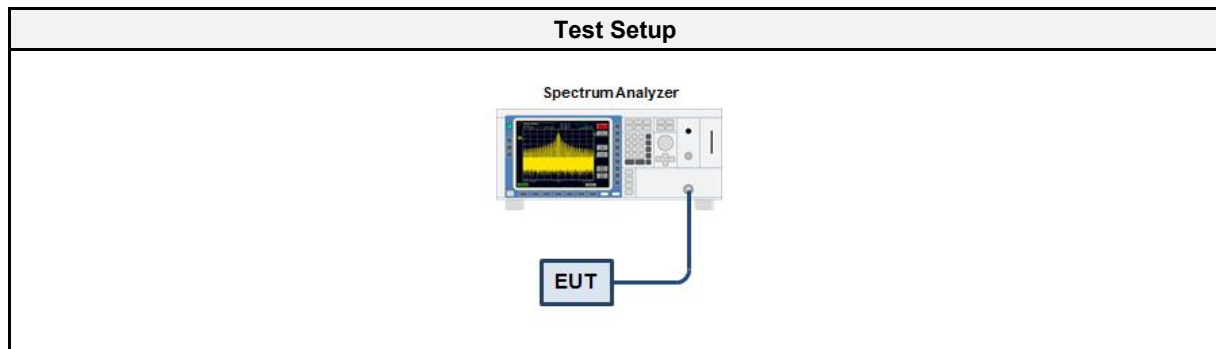
3.6.1 Information

Test Information	
Reference	FCC § 15.247(d)
Measurement Method	ANSI C63.10 6.10; ANSI C63.10 11.11;
Operator	Md Abu Bakar Siddique
Date	2026-06-30

3.6.2 Limits

Limits	
Power Measurement	Out-of-band attenuation [dB]
Peak	20
RMS	30

3.6.3 Setup



3.6.4 Equipment

Test Equipment					
Description	Manufacturer	Model	Identifier	Cal. Date	Cal. Due
Spectrum Analyzer	R&S	FSU 26	EF01407	2025-08	2026-08
Cable	GIGALANE	SMS111B-GL200sC-SMS111B-1.0M	EF00779 CAABC	2026-03	2027-03

3.6.5 Procedure

Test Procedure
1. EUT set to test mode (Communication tester is used if needed) 2. Span set around lower band edge and detector is set to peak and max hold 3. Resolution bandwidth is set to 100 kHz 4. Markers are set to peak emission levels within frequency band and outside frequency band 5. Band edge attenuation is determined from level difference

3.6.6 Results

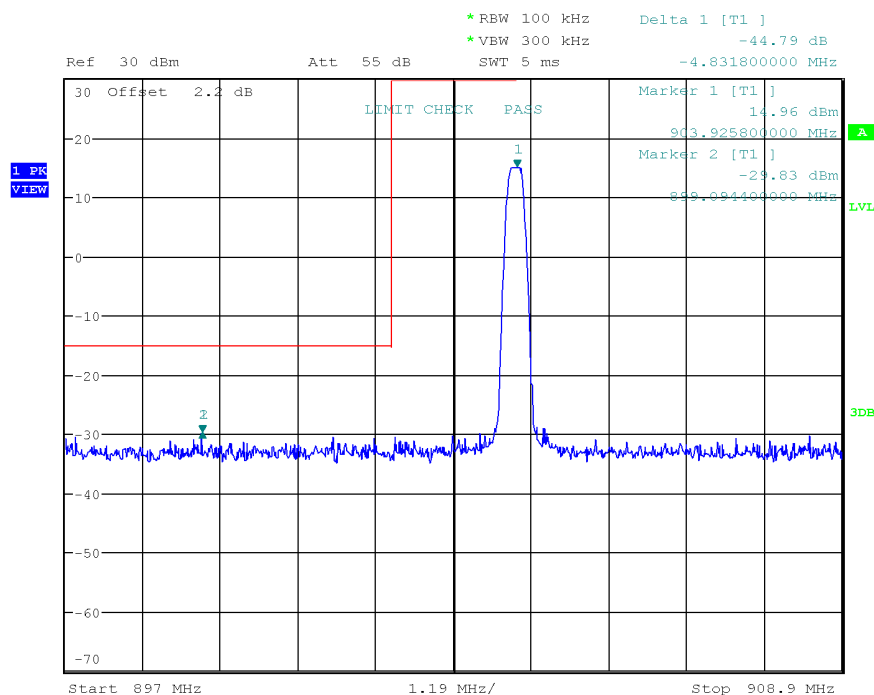
Test Results				
Mode	Channel [MHz]	Out-of-band Attenuation [dB]	Limit [dB]	Verdict
Single	903.9	-44.79	-20	PASS
Single	905.3	-55.12	-20	PASS

Test Report No.: G0M-2605-3687-TFC247DT01-V01

Eurofins Product Service GmbH
Storkower Str. 38c, D-15526 Reichenwalde, Germany

Emissions in nonrestricted frequency bands at the Band-edge

Project Number: G0M-2605-3687
Applicant: Javelot
Model Description: LoRaWan 1-Wire Transmitter
Model: UTSP-2
Test Sample ID: 53585
Reference Standards: FCC 15.247
Reference Method: ANSI C63.10:2020, Section 11.11, 6.10
Operational Mode: single frequency, Channel: 903.9 MHz
Operating Conditions: Tnom/Vnom
Operator: Md Abu Bakar Siddique
Test Site: Eurofins Product Service GmbH
Test Date: 2026-06-30
Note: Based on max. cond. average output power (limit = -30dBc)
Band-edge Lower
In-band Frequency [MHz]: 903.926
Max. in-band Level [dBm/100 kHz]: 14.961
Out-of-band Frequency [MHz]: 899.094
Max. out-of-band Level [dBm/100 kHz]: -29.833
Attenuation [dB]: -44.79



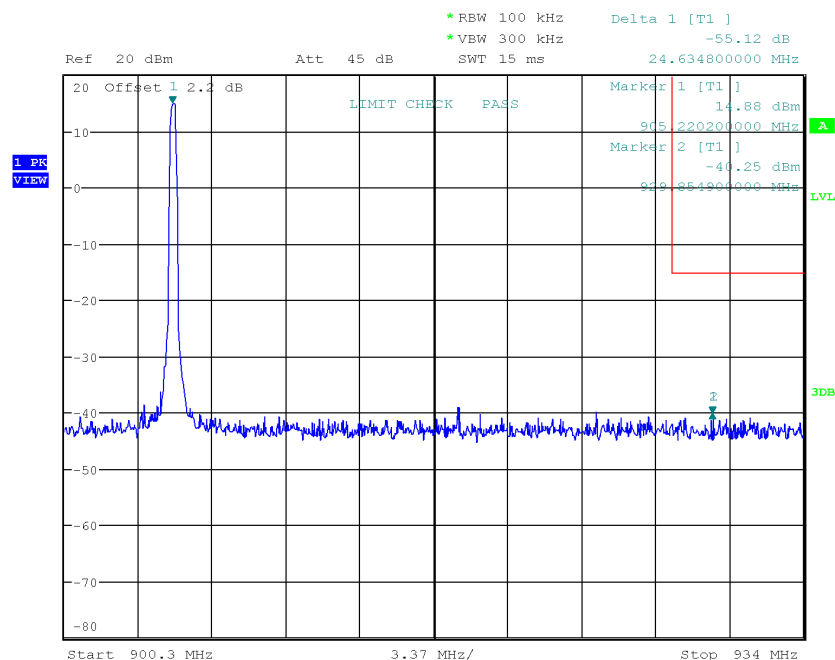
Date: 30.JUN.2026 13:36:17

Test Report No.: G0M-2605-3687-TFC247DT01-V01

Eurofins Product Service GmbH
Storkower Str. 38c, D-15526 Reichenwalde, Germany

Emissions in nonrestricted frequency bands at the Band-edge

Project Number: G0M-2605-3687
 Applicant: Javelot
 Model Description: LoRaWan 1-Wire Transmitter
 Model: UTSP-2
 Test Sample ID: 53585
 Reference Standards: FCC 15.247
 Reference Method: ANSI C63.10:2020, Section 11.11, 6.10
 Operational Mode: single frequency, Channel: 905.3 MHz
 Operating Conditions: Tnom/Vnom
 Operator: Md Abu Bakar Siddique
 Test Site: Eurofins Product Service GmbH
 Test Date: 2026-06-30
 Note: Based on max. cond. average output power (limit = -30dBc)
 Band-edge: Upper
 In-band Frequency [MHz]: 905.22
 Max. in-band Level [dBm/100 kHz]: 14.875
 Out-of-band Frequency [MHz]: 929.855
 Max. out-of-band Level [dBm/100 kHz]: -40.25
 Attenuation [dB]: -55.12



Date: 30.JUN.2026 13:37:37

Test Report No.: G0M-2605-3687-TFC247DT01-V01

Eurofins Product Service GmbH
 Storkower Str. 38c, D-15526 Reichenwalde, Germany

3.7 Test Conditions and Results - Conducted spurious emissions

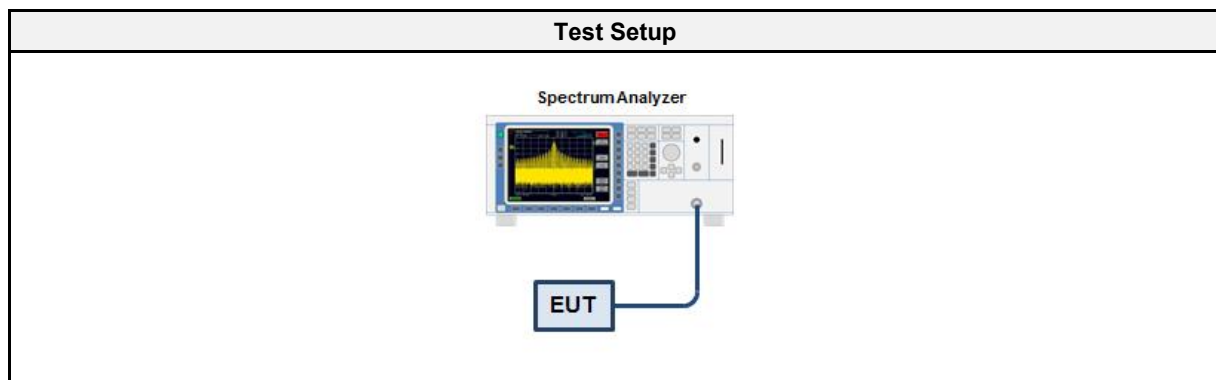
3.7.1 Information

Test Information	
Reference	FCC § 15.247(d)
Measurement Method	ANSI C63.10 11.11
Operator	Md Abu Bakar Siddique
Date	2026-06-30

3.7.2 Limits

Limits	
Power Measurement	Out-of-band attenuation [dB]
Peak	20
RMS	30

3.7.3 Setup



3.7.4 Equipment

Test Equipment					
Description	Manufacturer	Model	Identifier	Cal. Date	Cal. Due
Spectrum Analyzer	R&S	FSU 26	EF01407	2025-08	2026-08
Cable	GIGALANE	SMS111B-GL200sC-SMS111B-1.0M	EF00779 CAABC	2026-03	2027-03

3.7.5 Procedure

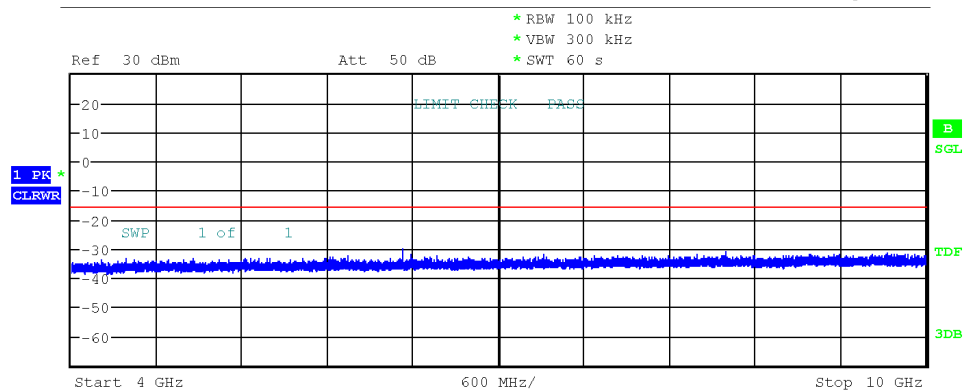
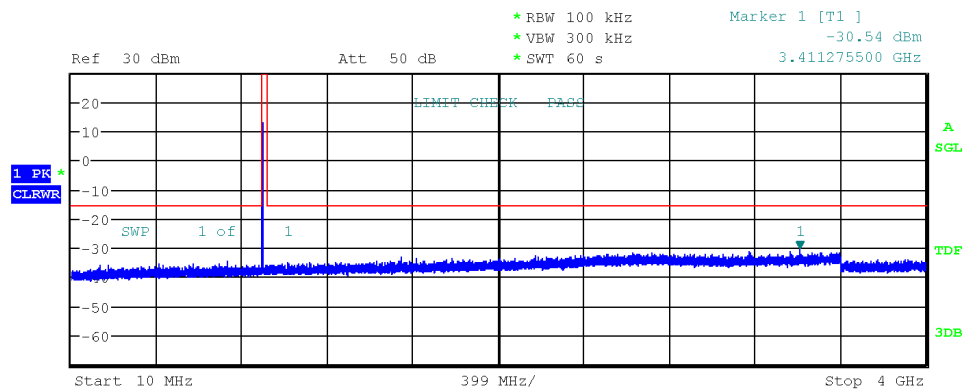
Test Procedure
1. EUT set to test mode (Communication tester is used if needed) 2. Span set around lower band edge and detector is set to peak and max hold 3. Resolution bandwidth is set to 100 kHz 4. Markers are set to peak emission levels outside frequency band

3.7.6 Results

Test Results		
Mode	Channel [MHz]	Verdict
Mode 1	903.9	PASS
Mode 1	904.5	PASS
Mode 1	905.3	PASS

Conducted Spurious Emissions

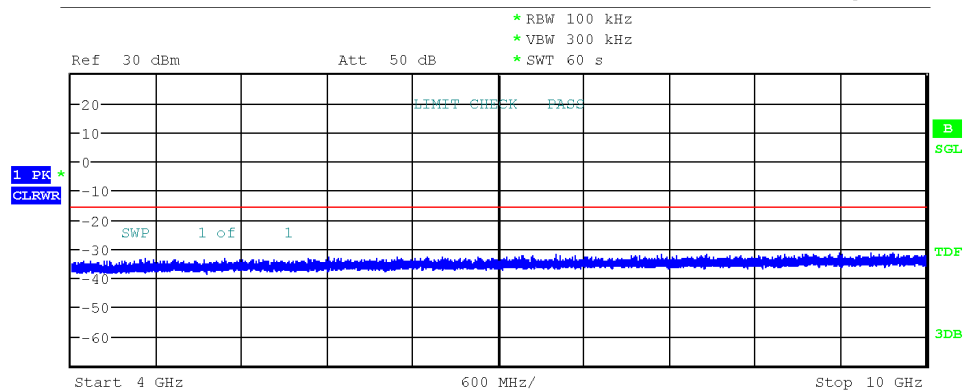
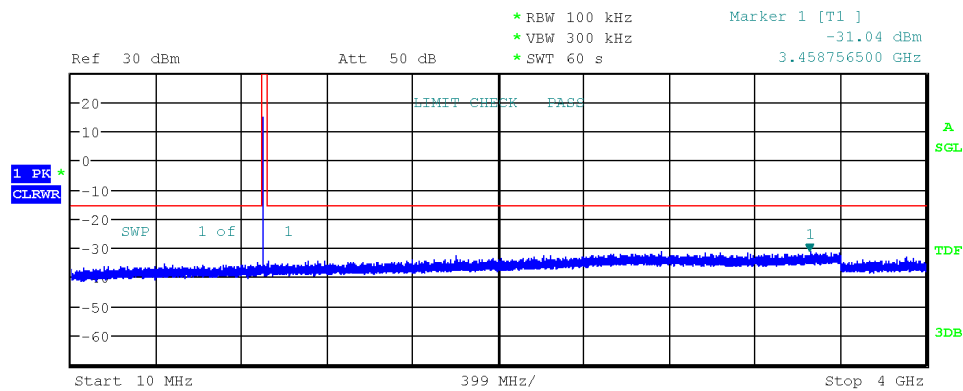
Project Number: G0M-2605-3687
 Applicant: Javelot
 Model Description: LoRaWan 1-Wire Transmitter
 Model: UTSP-2
 Test Sample ID: 53585
 Reference Standards: FCC 15.247
 Reference Method: ANSI C63.10:2020, Section 11.11
 Operational Mode: CSS, Channel: 903.9 MHz
 Operating Conditions: Tnom/Vnom
 Operator: Md Abu Bakar Siddique
 Test Site: Eurofins Product Service GmbH
 Test Date: 2026-06-30
 Note: Based on max. cond. average output power (limit = -30dBc)
 Max. in-band Frequency [MHz]: 904.0
 Max. in-band Level [dBm/100 kHz]: 14.7
 Out-of-band Limit [dBm/100 kHz]: -15.3



Date: 30.JUN.2026 13:22:05

Conducted Spurious Emissions

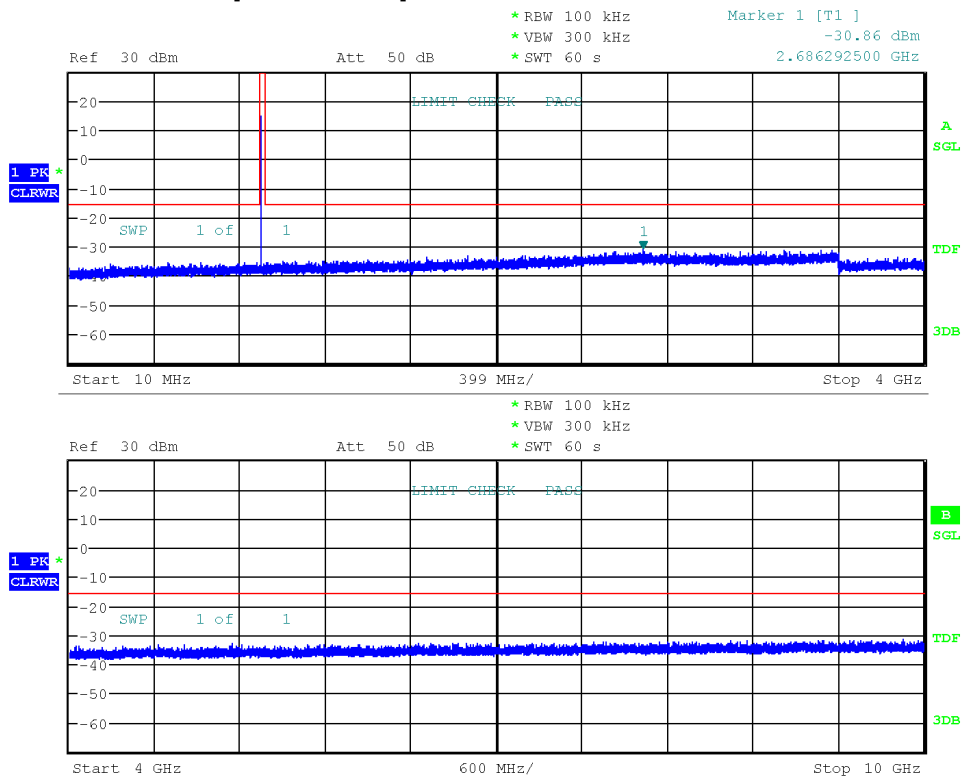
Project Number: G0M-2605-3687
 Applicant: Javelot
 Model Description: LoRaWan 1-Wire Transmitter
 Model: UTSP-2
 Test Sample ID: 53585
 Reference Standards: FCC 15.247
 Reference Method: ANSI C63.10:2020, Section 11.11
 Operational Mode: CSS, Channel: 904.5 MHz
 Operating Conditions: Tnom/Vnom
 Operator: Md Abu Bakar Siddique
 Test Site: Eurofins Product Service GmbH
 Test Date: 2026-06-30
 Note: Based on max. cond. average output power (limit = -30dBc)
 Max. in-band Frequency [MHz]: 904.5
 Max. in-band Level [dBm/100 kHz]: 14.7
 Out-of-band Limit [dBm/100 kHz]: -15.3



Date: 30.JUN.2026 13:25:29

Conducted Spurious Emissions

Project Number: G0M-2605-3687
 Applicant: Javelot
 Model Description: LoRaWan 1-Wire Transmitter
 Model: UTSP-2
 Test Sample ID: 53585
 Reference Standards: FCC 15.247
 Reference Method: ANSI C63.10:2020, Section 11.11
 Operational Mode: CSS, Channel: 905.3 MHz
 Operating Conditions: Tnom/Vnom
 Operator: Md Abu Bakar Siddique
 Test Site: Eurofins Product Service GmbH
 Test Date: 2026-06-30
 Note: Based on max. cond. average output power (limit = -30dBc)
 Max. in-band Frequency [MHz]: 905.3
 Max. in-band Level [dBm/100 kHz]: 14.7
 Out-of-band Limit [dBm/100 kHz]: -15.3



Date: 30.JUN.2026 13:28:39

3.8 Test Conditions and Results - Transmitter radiated emissions

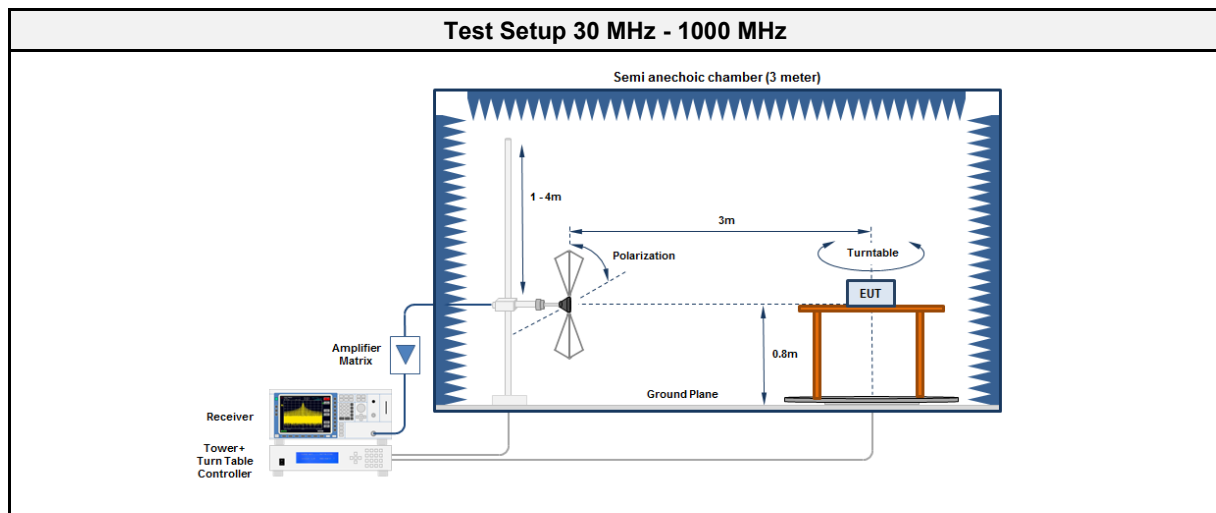
3.8.1 Information

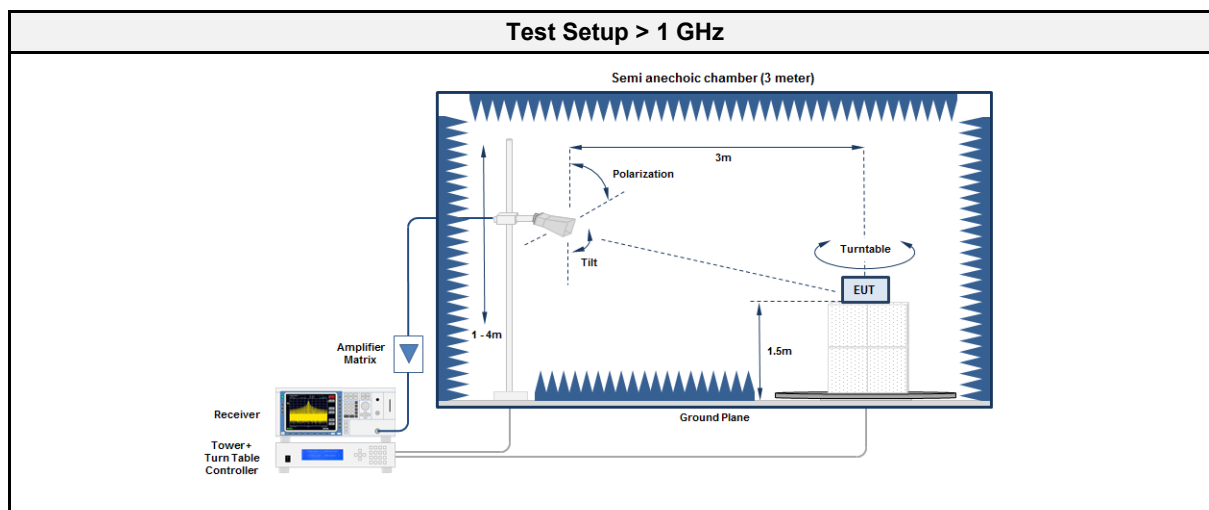
Test Information	
Reference	FCC § 15.247(d); FCC § 15.209
Measurement Method	ANSI C63.10 6.4, 6.5, 6.6, 11.12
Operator	Md Abu Bakar Siddique
Date	2026-06-26

3.8.2 Limits

Limits			
Frequency range [MHz]	Detector	Field strength [μV/m]	Measurement distance [m]
0.009 - 0.09	Average	2400/F[kHz]	300
0.09 - 0.110	Quasi-Peak	2400/F[kHz]	300
0.110 - 0.490	Average	2400/F[kHz]	300
0.490 - 1.705	Quasi-Peak	24000/F[kHz]	30
1.705 - 30.0	Quasi-Peak	30	30
30 - 88	Quasi-Peak	100	3
88 - 216	Quasi-Peak	150	3
216 - 960	Quasi-Peak	200	3
960 - 1000	Quasi-Peak	500	3
>1000	Average	500	3

3.8.3 Setup





3.8.4 Equipment

Test Software			
Description	Manufacturer	Name	Version
EMC Software	Raditeq B.V.	RadiMation	2024.2.5

Test Equipment 30 MHz - 1000 MHz					
Description	Manufacturer	Model	Identifier	Cal. Date	Cal. Due
Semi-Anechoic chamber (NSA)	Frankonia	AC1	EF00062	2024-07	2027-07
Trilog Broadband Antenna	Schwarzbeck	VULB 9168	EF01824	2025-10	2028-10
EMI Test Receiver	R&S	ESW 44	EF01856	2025-10	2026-10

Test Equipment > 1 GHz					
Description	Manufacturer	Model	Identifier	Cal. Date	Cal. Due
Semi-Anechoic chamber (SVSWR)	Frankonia	AC1	EF01011	2024-07	2027-07
Horn antenna	Schwarzbeck	BBHA 9120D	EF01561	2024-11	2027-11
Antenna	Schwarzbeck	HWRD 650	EF01679	2024-05	2027-05
EMI Test Receiver	R&S	ESW 44	EF01856	2025-10	2026-10

3.8.5 Procedure

Test Procedure 30 MHz - 1000 MHz	
1. EUT is placed on a non-conducting support at the center of a turn table 0.8 m above the ground 2. EUT set to test mode 3. The receiver is set to peak detection with max hold 4. The EUT is rotated through 360° and the height of the antenna is varied from 1 m to 4 m 5. All significant emissions are measured again using the corresponding final detector	

Test Procedure > 1 GHz	
1. EUT is placed on a non conducting support at the center of a turn table 1.5 m above the ground 2. EUT set to test mode 3. The receiver is set to peak detection with max hold 4. The EUT is rotated through 360° and the height of the antenna is varied from 1 m to 4 m 5. All significant emissions are measured again using the corresponding final detector	

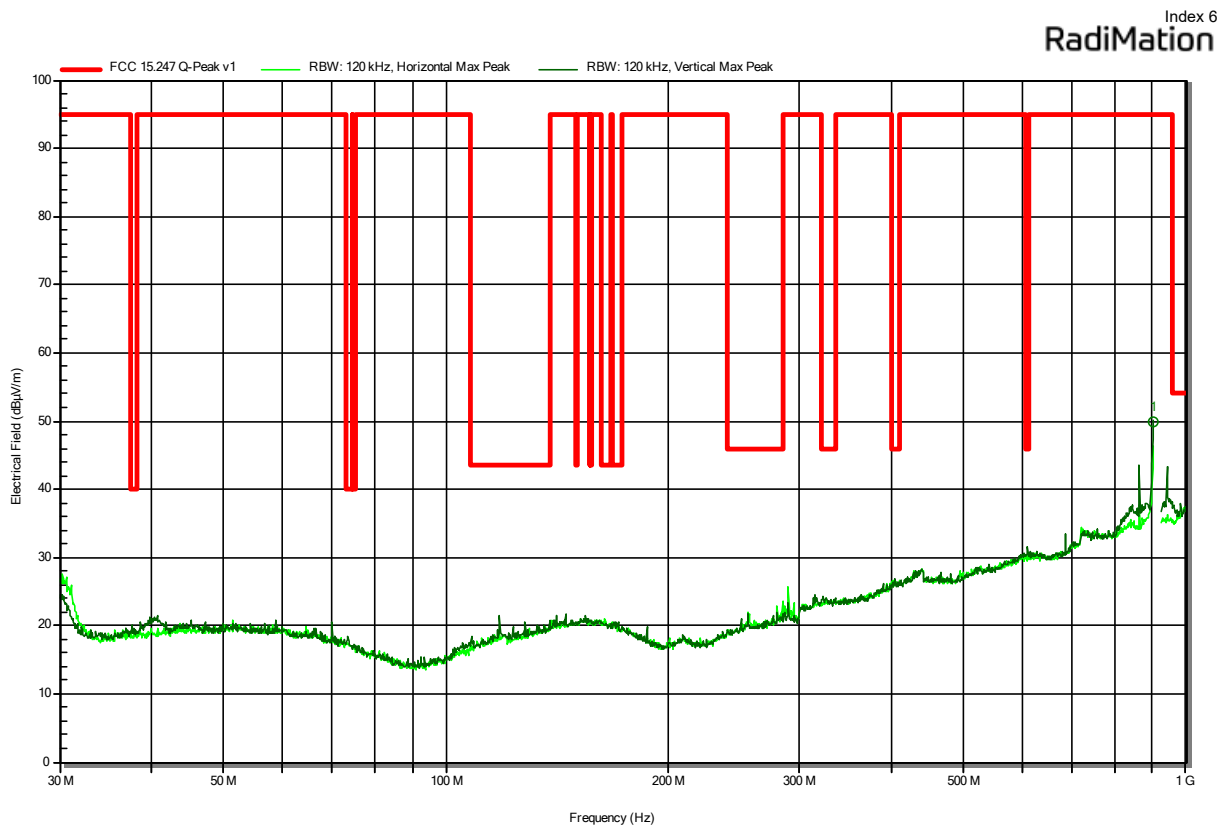
3.8.6 Results

Test Results						
Channel [MHz]	Emission [MHz]	Level [dBμV/m]	Det.	Pol.	Limit [dBμV/m]	Margin [dB]
903.9	902	49.9	pk	ver	95	-45.06
903.9	2711.5	58.26	pk	ver	74	-15.74
903.9	2711.5	49.65	avg	ver	54	-4.35
903.9	4519.5	60.97	pk	hor	74	-13.03
903.9	4519.5	52.62	avg	hor	54	-1.38
903.9	8135.4333	47.88	pk	ver	74	-26.12
903.9	8135.4333	46.09	avg	ver	54	-7.91
903.9	9038.6667	43.42	pk	ver	74	-30.58
903.9	9038.6667	41.36	avg	ver	54	-12.64
904.5	902	48.4	pk	ver	95	-46.56
904.5	2713.5	52.71	pk	ver	74	-21.29
904.5	2713.5	47.96	avg	ver	54	-6.04
904.5	4522.2994	57.57	pk	hor	74	-16.43
904.5	4522.2994	51.67	avg	hor	54	-2.33
904.5	8140.45	48.51	pk	ver	74	-25.49
904.5	8140.45	47.27	avg	ver	54	-6.73
904.5	9044.6167	44.01	pk	ver	74	-29.99
904.5	9044.6167	41.71	avg	ver	54	-12.29
905.3	900.3	44.9	pk	hor	95	-50.14
905.3	2716	58.14	pk	ver	74	-15.86
905.3	2716	48.51	avg	ver	54	-5.49
905.3	4526.5	61.14	pk	hor	74	-12.86
905.3	4526.5	53.01	avg	hor	54	-0.99
905.3	8147.9167	48.67	pk	ver	74	-25.33
905.3	8147.9167	47.74	avg	ver	54	-6.26
905.3	9052.7833	43.06	pk	ver	74	-30.94
905.3	9052.7833	41.33	avg	ver	54	-12.67

ANNEX A Transmitter spurious emissions

Radiated Spurious Emissions according to 47 CFR Part 15.247

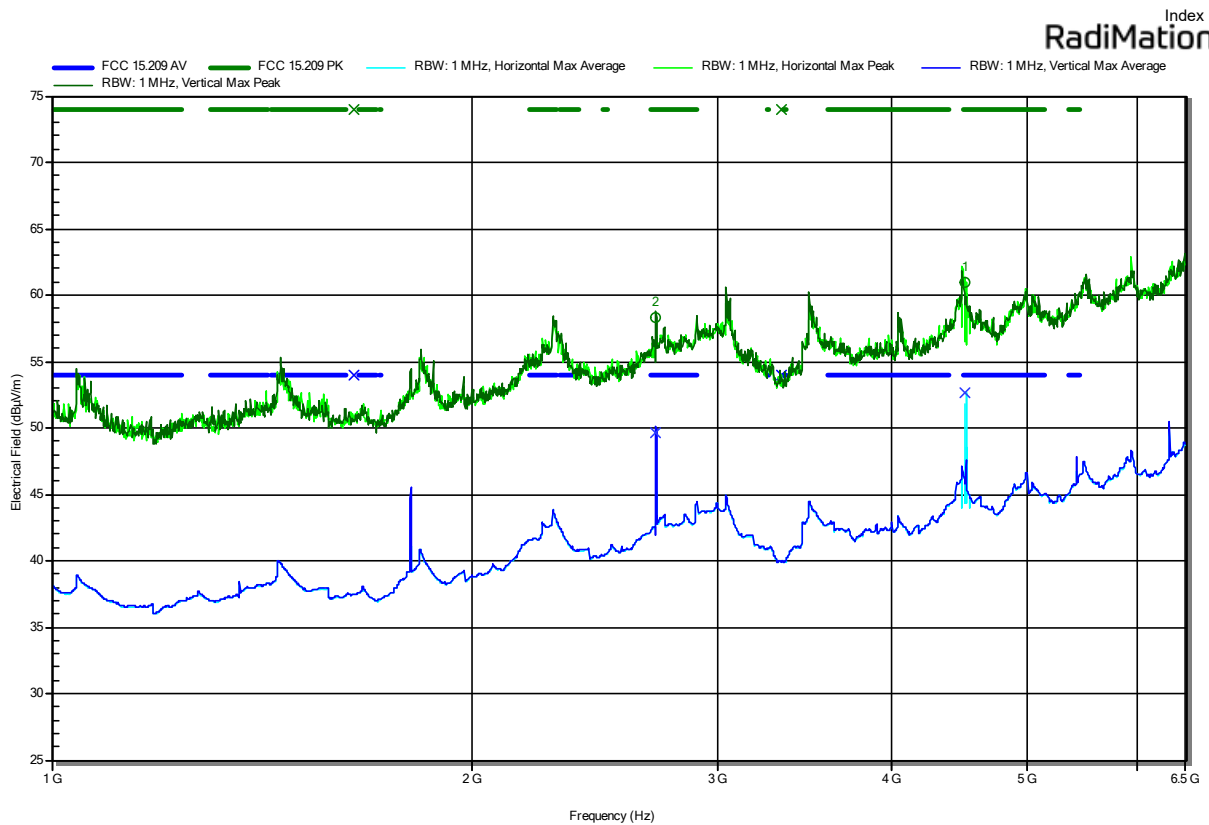
Project Number: G0M-2605-3687
 Applicant: Javelot
 Model Description: LoRaWan 1-Wire Transmitter
 Model: UTSP-2
 Test Sample ID: 53581
 Test Site: Eurofins Product Service GmbH
 Operator: Mr. Siddique
 Measurement software: RadiMation, version 2024.2.5
 Test Conditions: Tnom: 28 °Celsius, Vnom: 3.6 V DC
 Antenna: Schwarzbeck VULB 9168
 Measurement distance: 3 m
 Mode: Tx; LoRa, Channel 8, 903.9 MHz, 125 kHz BW, SF10, Power = 14 dBm
 Test Date: 2026-06-26



Peak Number	Frequency (MHz)	Peak (dBμV/m)	Peak (dBμV/m)	Limit (dB)	Peak Difference	Peak Status	Polarization
1	902	49.9	95	-45.06		Pass	Vertical

Radiated Spurious Emissions according to 47 CFR Part 15.247

Project Number: G0M-2605-3687
 Applicant: Javelot
 Model Description: LoRaWan 1-Wire Transmitter
 Model: UTSP-2
 Test Sample ID: 53581
 Test Site: Eurofins Product Service GmbH
 Operator: Mr. Siddique
 Measurement software: RadiMation, version 2024.2.5
 Test Conditions: Tnom: 28 °Celsius, Vnom: 3.6 V DC
 Antenna: Schwarzbeck BBHA 9120D
 Measurement distance: 3 m
 Mode: Tx; LoRa, Channel 8, 903.9 MHz, 125 kHz BW, SF10, Power = 14 dBm
 Test Date: 2026-06-26



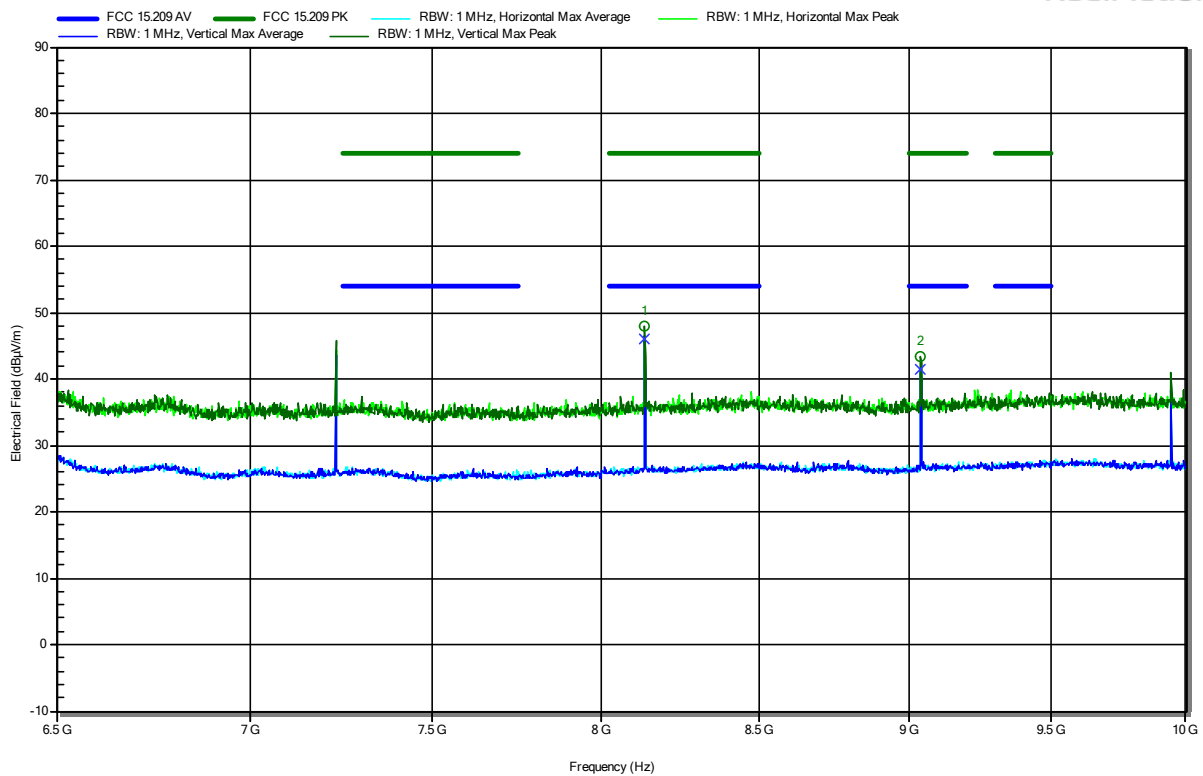
Peak Number	Frequency (MHz)	Peak (dBμV/m)	Peak (dBμV/m)	Limit	Peak Difference (dB)	Peak Status	Polarization
1	4519.5	60.97	74		-13.03	Pass	Horizontal
2	2711.5	58.26	74		-15.74	Pass	Vertical

Peak Number	Frequency (MHz)	Average (dBμV/m)	Average (dBμV/m)	Limit	Average Difference (dB)	Average Status	Polarization
1	4519.5	52.62	54		-1.38	Pass	Horizontal
2	2711.5	49.65	54		-4.35	Pass	Vertical

Radiated Spurious Emissions according to 47 CFR Part 15.247

Project Number: G0M-2605-3687
 Applicant: Javelot
 Model Description: LoRaWan 1-Wire Transmitter
 Model: UTSP-2
 Test Sample ID: 53581
 Test Site: Eurofins Product Service GmbH
 Operator: Mr. Siddique
 Measurement software: RadiMation, version 2024.2.5
 Test Conditions: Tnom: 28 °Celsius, Vnom: 3.6 V DC
 Antenna: Schwarzbeck HWRD 650
 Measurement distance: 3 m
 Mode: Tx; LoRa, Channel 8, 903.9 MHz, 125 kHz BW, SF10, Power = 14 dBm
 Test Date: 2026-06-26

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RadiMation



Peak Number	Frequency (MHz)	Peak (dBμV/m)	Peak (dBμV/m)	Limit	Peak Difference (dB)	Peak Status	Polarization
1	8135.4333	47.88	74		-26.12	Pass	Vertical
2	9038.6667	43.42	74		-30.58	Pass	Vertical

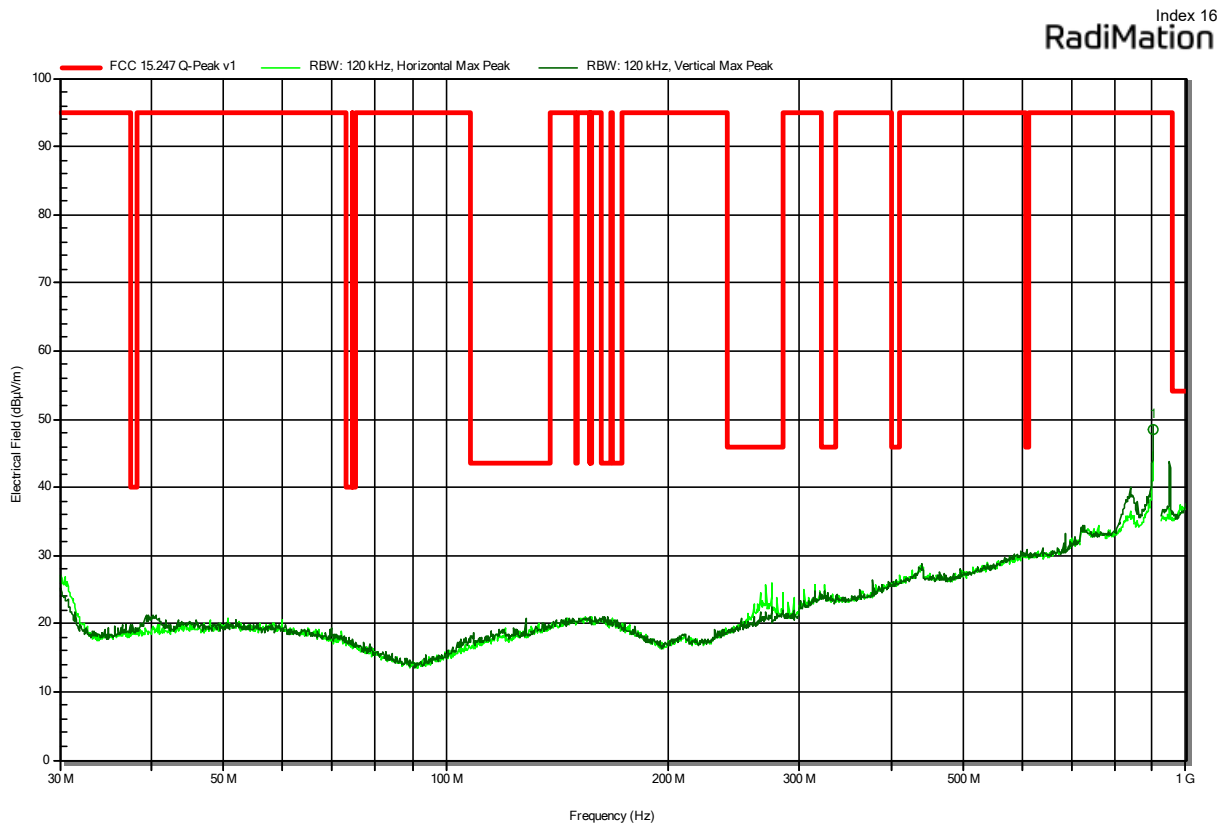
Peak Number	Frequency (MHz)	Average (dBμV/m)	Average (dBμV/m)	Limit	Average Difference (dB)	Average Status	Polarization
1	8135.4333	46.09	54		-7.91	Pass	Vertical
2	9038.6667	41.36	54		-12.64	Pass	Vertical

Test Report No.: G0M-2605-3687-TFC247DT01-V01

Eurofins Product Service GmbH
 Storkower Str. 38c, D-15526 Reichenwalde, Germany

Radiated Spurious Emissions according to 47 CFR Part 15.247

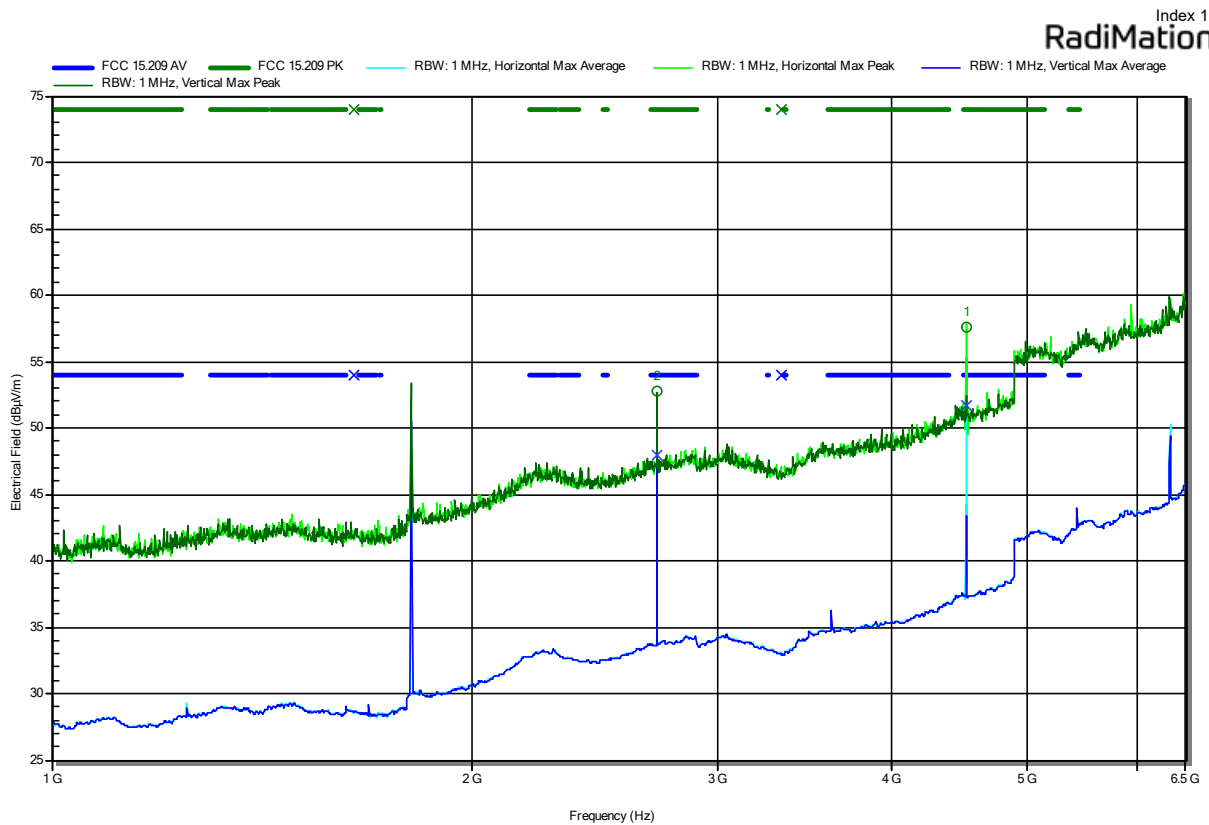
Project Number: G0M-2605-3687
 Applicant: Javelot
 Model Description: LoRaWan 1-Wire Transmitter
 Model: UTSP-2
 Test Sample ID: 53581
 Test Site: Eurofins Product Service GmbH
 Operator: Mr. Siddique
 Measurement software: RadiMation, version 2024.2.5
 Test Conditions: Tnom: 28 °Celsius, Vnom: 3.6 V DC
 Antenna: Schwarzbeck VULB 9168
 Measurement distance: 3 m
 Mode: Tx; LoRa, Channel 8, 904.5 MHz, 125 kHz BW, SF10, Power = 14 dBm
 Test Date: 2026-06-26



Peak Number	Frequency (MHz)	Peak (dBμV/m)	Peak (dBμV/m)	Limit (dB)	Peak Difference	Peak Status	Polarization
1	902	48.4	95	-46.56		Pass	Vertical

Radiated Spurious Emissions according to 47 CFR Part 15.247

Project Number: G0M-2605-3687
 Applicant: Javelot
 Model Description: LoRaWan 1-Wire Transmitter
 Model: UTSP-2
 Test Sample ID: 53581
 Test Site: Eurofins Product Service GmbH
 Operator: Mr. Siddique
 Measurement software: RadiMation, version 2024.2.5
 Test Conditions: Tnom: 28 °Celsius, Vnom: 3.6 V DC
 Antenna: Schwarzbeck BBHA 9120D
 Measurement distance: 3 m
 Mode: Tx; LoRa, Channel 8, 904.5 MHz, 125 kHz BW, SF10, Power = 14 dBm
 Test Date: 2026-06-26

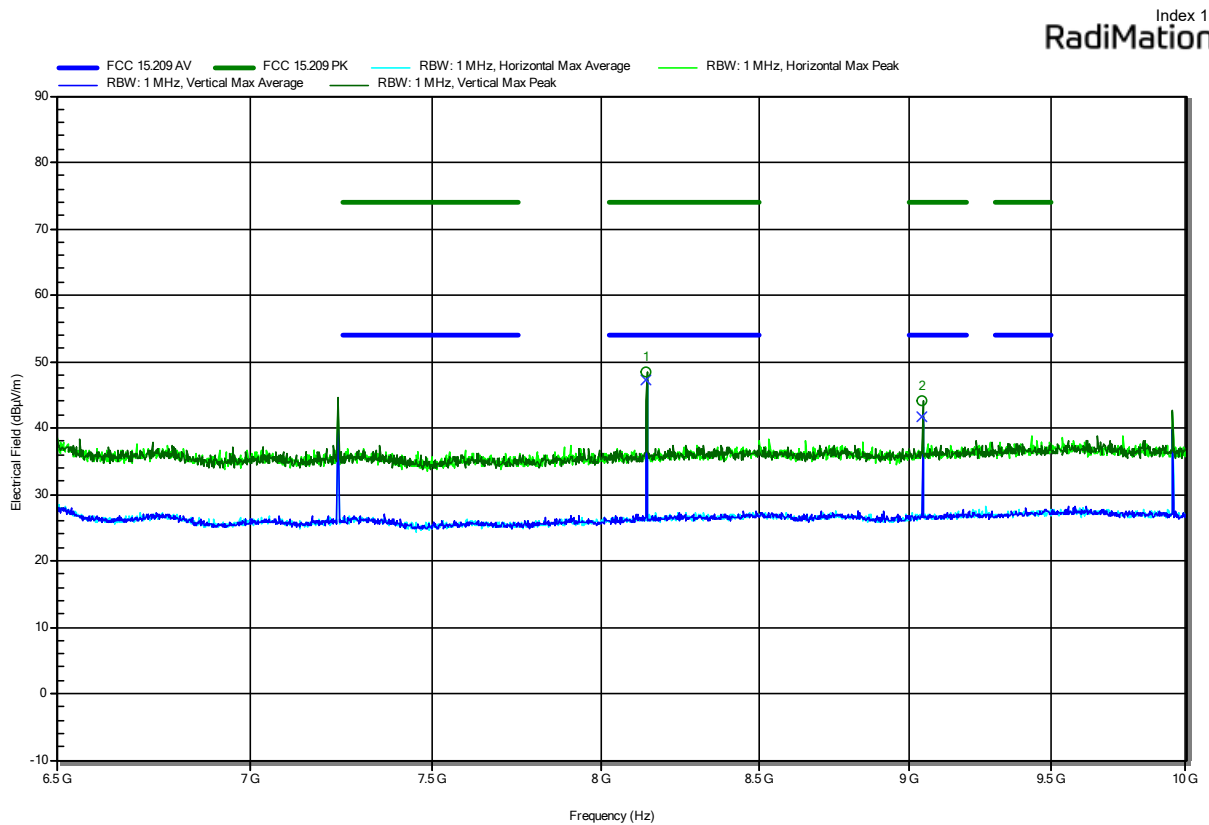


Peak Number	Frequency (MHz)	Peak (dBµV/m)	Peak (dBµV/m)	Limit	Peak Difference (dB)	Peak Status	Polarization
1	4522.2994	57.57	74		-16.43	Pass	Horizontal
2	2713.5	52.71	74		-21.29	Pass	Vertical

Peak Number	Frequency (MHz)	Average (dBµV/m)	Average (dBµV/m)	Limit	Average Difference (dB)	Average Status	Polarization
1	4522.2994	51.67	54		-2.33	Pass	Horizontal
2	2713.5	47.96	54		-6.04	Pass	Vertical

Radiated Spurious Emissions according to 47 CFR Part 15.247

Project Number: G0M-2605-3687
 Applicant: Javelot
 Model Description: LoRaWan 1-Wire Transmitter
 Model: UTSP-2
 Test Sample ID: 53581
 Test Site: Eurofins Product Service GmbH
 Operator: Mr. Siddique
 Measurement software: RadiMation, version 2024.2.5
 Test Conditions: Tnom: 28 °Celsius, Vnom: 3.6 V DC
 Antenna: Schwarzbeck HWRD 650
 Measurement distance: 3 m
 Mode: Tx; LoRa, Channel 8, 904.5 MHz, 125 kHz BW, SF10, Power = 14 dBm
 Test Date: 2026-06-26



Peak Number	Frequency (MHz)	Peak (dBµV/m)	Peak (dBµV/m)	Limit	Peak Difference (dB)	Peak Status	Polarization
1	8140.45	48.51	74		-25.49	Pass	Vertical
2	9044.6167	44.01	74		-29.99	Pass	Vertical

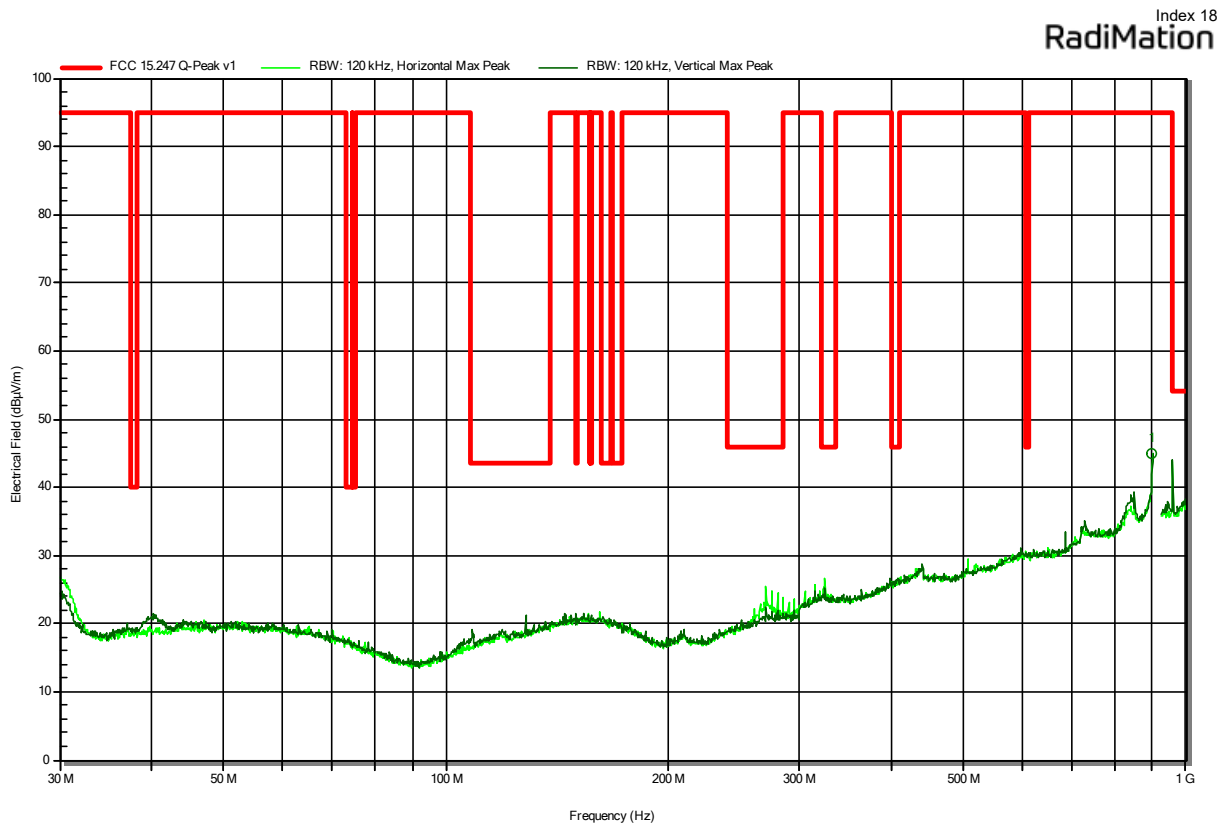
Peak Number	Frequency (MHz)	Average (dBµV/m)	Average (dBµV/m)	Limit	Average Difference (dB)	Average Status	Polarization
1	8140.45	47.27	54		-6.73	Pass	Vertical
2	9044.6167	41.71	54		-12.29	Pass	Vertical

Test Report No.: G0M-2605-3687-TFC247DT01-V01

Eurofins Product Service GmbH
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Radiated Spurious Emissions according to 47 CFR Part 15.247

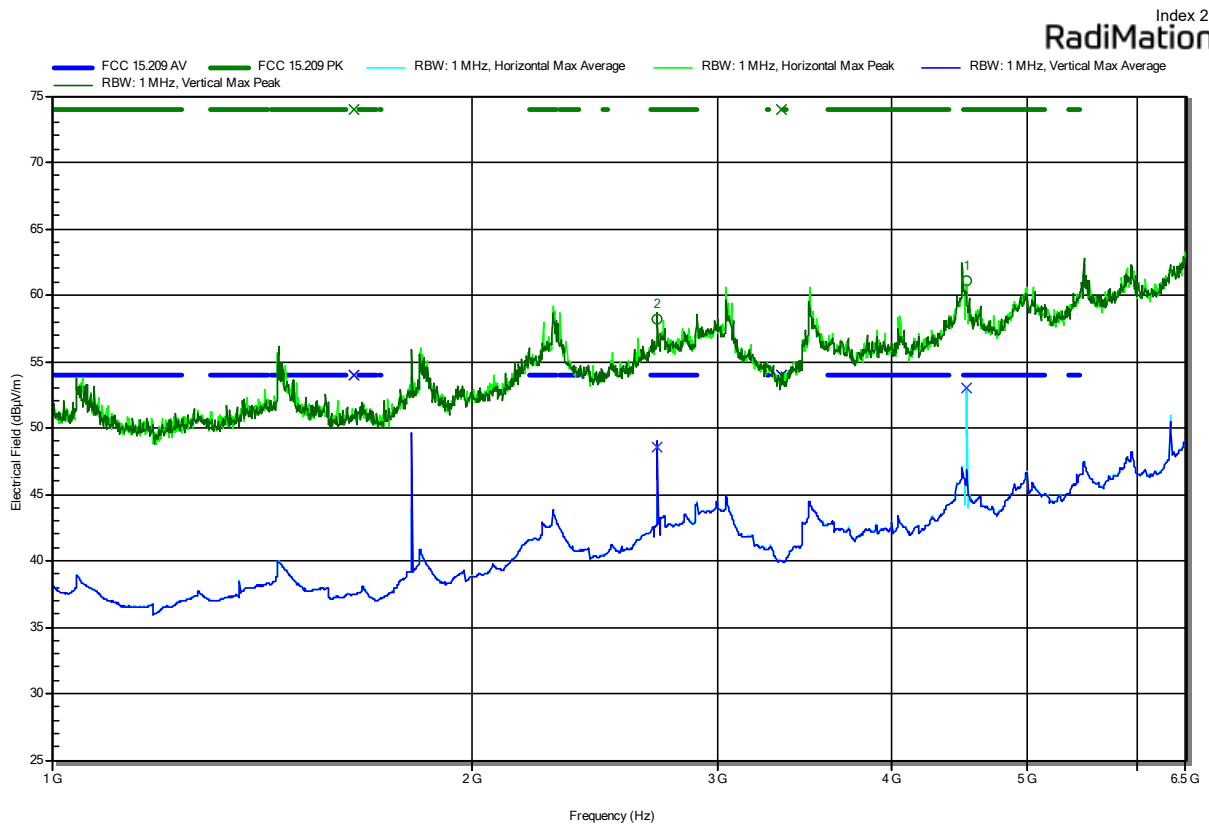
Project Number: G0M-2605-3687
 Applicant: Javelot
 Model Description: LoRaWan 1-Wire Transmitter
 Model: UTSP-2
 Test Sample ID: 53581
 Test Site: Eurofins Product Service GmbH
 Operator: Mr. Siddique
 Measurement software: RadiMation, version 2024.2.5
 Test Conditions: Tnom: 28 °Celsius, Vnom: 3.6 V DC
 Antenna: Schwarzbeck VULB 9168
 Measurement distance: 3 m
 Mode: Tx; LoRa, Channel 8, 905.3 MHz, 125 kHz BW, SF10, Power = 14 dBm
 Test Date: 2026-06-26



Peak Number	Frequency (MHz)	Peak (dBμV/m)	Peak (dBμV/m)	Limit (dB)	Peak Difference	Peak Status	Polarization
1	900.3	44.9	95	-50.14		Pass	Horizontal

Radiated Spurious Emissions according to 47 CFR Part 15.247

Project Number: G0M-2605-3687
 Applicant: Javelot
 Model Description: LoRaWan 1-Wire Transmitter
 Model: UTSP-2
 Test Sample ID: 53581
 Test Site: Eurofins Product Service GmbH
 Operator: Mr. Siddique
 Measurement software: RadiMation, version 2024.2.5
 Test Conditions: Tnom: 28 °Celsius, Vnom: 3.6 V DC
 Antenna: Schwarzbeck BBHA 9120D
 Measurement distance: 3 m
 Mode: Tx; LoRa, Channel 8, 905.3 MHz, 125 kHz BW, SF10, Power = 14 dBm
 Test Date: 2026-06-26



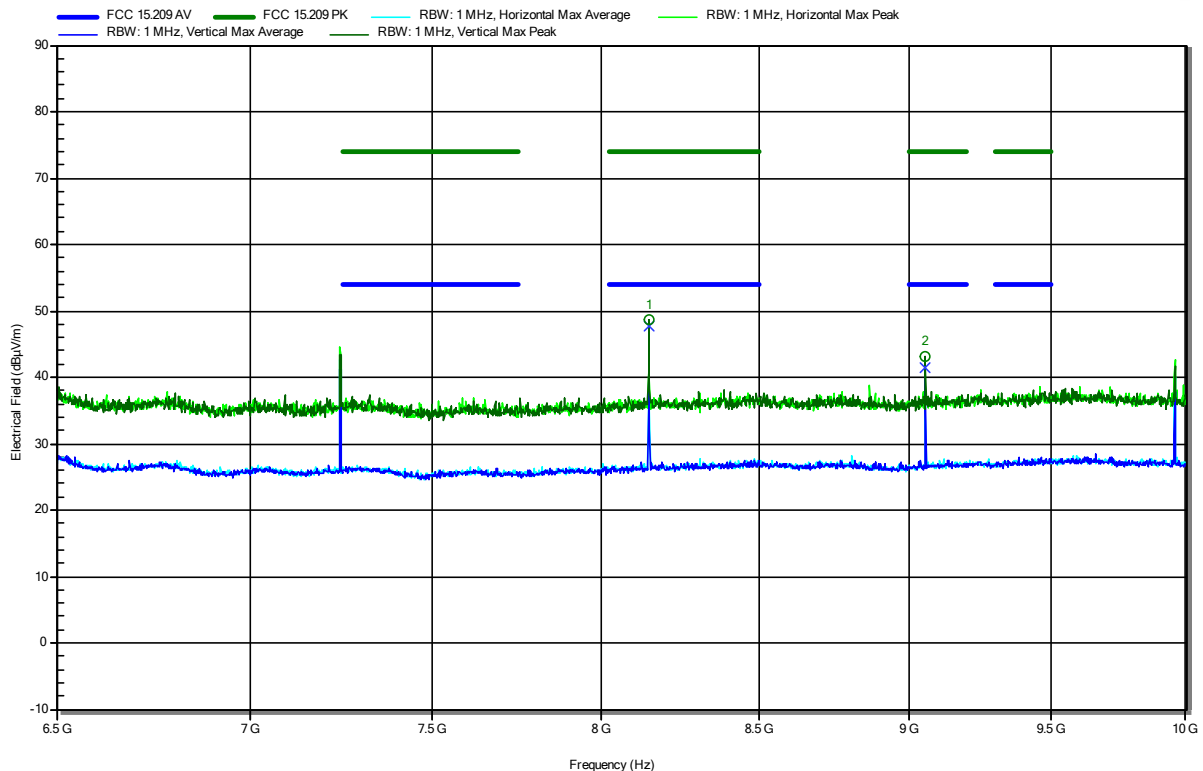
Peak Number	Frequency (MHz)	Peak (dBμV/m)	Peak (dBμV/m)	Limit	Peak Difference (dB)	Peak Status	Polarization
1	4526.5	61.14	74		-12.86	Pass	Horizontal
2	2716	58.14	74		-15.86	Pass	Vertical

Peak Number	Frequency (MHz)	Average (dBμV/m)	Average (dBμV/m)	Limit	Average Difference (dB)	Average Status	Polarization
1	4526.5	53.01	54		-0.99	Pass	Horizontal
2	2716	48.51	54		-5.49	Pass	Vertical

Radiated Spurious Emissions according to 47 CFR Part 15.247

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 Applicant: Javelot
 Model Description: LoRaWan 1-Wire Transmitter
 Model: UTSP-2
 Test Sample ID: 53581
 Test Site: Eurofins Product Service GmbH
 Operator: Mr. Siddique
 Measurement software: RadiMation, version 2024.2.5
 Test Conditions: Tnom: 28 °Celsius, Vnom: 3.6 V DC
 Antenna: Schwarzbeck HWRD 650
 Measurement distance: 3 m
 Mode: Tx; LoRa, Channel 8, 905.3 MHz, 125 kHz BW, SF10, Power = 14 dBm
 Test Date: 2026-06-26

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Peak Number	Frequency (MHz)	Peak (dBμV/m)	Peak (dBμV/m)	Limit	Peak Difference (dB)	Peak Status	Polarization
1	8147.9167	48.67	74		-25.33	Pass	Vertical
2	9052.7833	43.06	74		-30.94	Pass	Vertical

Peak Number	Frequency (MHz)	Average (dBμV/m)	Average (dBμV/m)	Limit	Average Difference (dB)	Average Status	Polarization
1	8147.9167	47.74	54		-6.26	Pass	Vertical
2	9052.7833	41.33	54		-12.67	Pass	Vertical

=== End of test report ===

Test Report No.: G0M-2605-3687-TFC247DT01-V01

Eurofins Product Service GmbH
 Storkower Str. 38c, D-15526 Reichenwalde, Germany