

# **RF TEST REPORT**

Product Name: LoRaWAN

Model Name: F8L10GW, F8L10GW-02915

FCC ID: 2ALUWF8L10GW

Issued For : Xiamen Four-Faith Communication Technology Co., Ltd.

11th Floor, A-06 Area, No.370, Chengyi Street, Jimei, Xiamen, Fujian, China.

Issued By : Shenzhen LGT Test Service Co., Ltd.

Room 205, Building 13, Zone B, Zhenxiong Industrial Park, No.177, Renmin West Road, Jinsha, Kengzi Street, Pingshan District, Shenzhen, Guangdong, China

Report Number:	LGT24L213RF07
Sample Received Date:	Jan. 06, 2025
Date of Test:	Jan. 06, 2025 – Feb. 27, 2025
Date of Issue:	Feb. 27, 2025

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### **TEST REPORT CERTIFICATION**

Applicant:	Xiamen Four-Faith Communication Technology Co., Ltd.	
Address:	11th Floor, A-06 Area, No.370, Chengyi Street, Jimei, Xiamen, Fujian, China.	
Manufacturer:	Xiamen Four-Faith Communication Technology Co., Ltd.	
Address:	11th Floor, A-06 Area, No.370, Chengyi Street, Jimei, Xiamen, Fujian, China.	
Product Name:	LoRaWAN	
Trademark:	Four-Faith	
Model Name:	F8L10GW, F8L10GW-02915	
Sample Status:	Normal	

APPLICABLE STANDARDS	
STANDARD	TEST RESULTS
FCC Part 15.247, Subpart C	
ANSI C63.10-2013	PASS
KDB558074 D01 15.247 Meas Guidance	FASS
v05r02	

Prepared by:

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tali

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### **Revision History**

Rev.	Issue Date	Revisions
00	Feb. 27, 2025	Initial Issue



#### 1. SUMMARY OF TEST RESULTS

Test procedures according to the technical standards: KDB 558074 D01 Part 15.247 Meas Guidance v05r02.

FCC Part 15.247, Subpart C			
Standard Section	Test Item	Judgment	Remark
15.207	Conducted Emission	PASS	
15.247 (a)(2)	6dB Bandwidth	PASS	
15.247 (b)(3)	Output Power	PASS	
15.209	Radiated Spurious Emission	PASS	
15.247 (d)	Conducted Spurious & Band Edge Emission	PASS	
15.247 (e)	Power Spectral Density	PASS	
15.205	Restricted Band Edge Emission	PASS	
Part 15.247(d)/ Part 15.209(a)	Band Edge Emission	PASS	
15.203	Antenna Requirement	PASS	

#### NOTE:

(1) 'N/A' denotes test is not applicable in this Test Report.

(2) All tests are according to ANSI C63.10-2013.



#### 1.1 TEST FACTORY

Company Name:	Shenzhen LGT Test Service Co., Ltd.	
Address:	Room 205, Building 13, Zone B, Zhenxiong Industrial Park, No.177, Renmin West Road, Jinsha, Kengzi Street, Pingshan District, Shenzhen, Guangdong, China	
	A2LA Certificate No.: 6727.01	
Accreditation Certificate	FCC Registration No.: 746540	
	CAB ID: CN0136	

#### **1.2 MEASUREMENT UNCERTAINTY**

The reported uncertainty of measurement  $y \pm U$ , where expended uncertainty U is based on a standard uncertainty multiplied by a coverage factor of k=2, providing a level of confidence of approximately 95 %.

No.	Item	Uncertainty
1	RF output power, conducted	±0.68dB
2	Unwanted Emissions, conducted	±2.988dB
3	All emissions, radiated 9K-30MHz	±2.84dB
4	All emissions, radiated 30M-1GHz	±4.39dB
5	All emissions, radiated 1G-6GHz	±5.10dB
6	All emissions, radiated>6G	±5.48dB
7	Conducted Emission (9KHz-150KHz)	±2.79dB
8	Conducted Emission (150KHz-30MHz)	±2.80dB
9	Emission Bandwidth	±3.2 %

Note: The measurement uncertainty is not included in the test result.



#### 2. GENERAL INFORMATION

#### 2.1 GENERAL DESCRIPTION OF THE EUT

Product Name	LoRaWAN	
Trademark	Four-Faith	
Model Name	F8L10GW	
Series Model	F8L10GW-02915	
Model Difference	Only difference in model	name
	The EUT is a LoRaWAN Operation Frequency:	902-928 MHz
Product Description	Modulation Type:	CCS
	Antenna Designation:	External
	Antenna Gain (dBi)	2.5
Channel List	Please refer to the Note 3	
Adapter:	Input: 100-240 VAC	
Hardware Version:	V1.2	
Software Version:	uimage-F8L10GW-V2-IOTGW-32M-STD-VPN	
Connecting I/O Port(s)	Please refer to the Note 1.	

Note:

- 1. For a more detailed features description, please refer to the manufacturer's specifications or the User Manual.
- 2. The antenna information refers to the manufacturer provide report, applicable only to the tested sample identified in the report. Due to the incorrect antenna information, a series of problems such as the accuracy of the test results will be borne by the customer.



#### 2.2 DESCRIPTION OF THE TEST MODES

For conducted test items and radiated spurious emissions

Each of these EUT operation mode(s) or test configuration mode(s) mentioned below was evaluated respectively.

Worst Mode	Frequency (MHz)
Mode 1	902.5
Mode 2	915
Mode 3	927.5

Note:

(1) The measurements are performed at all Bit Rate of Transmitter, the worst data was reported.

#### 2.3 TEST SOFTWARE AND POWER LEVEL

During testing channel & power controlling software provided by the customer was used to control the operating channel as well as the output power level.

Test software Version		
	Mode Or Modulation type	Power setting
	902.5	14
SecureCRT_6.5.0.380	915	14
	927.5	16



#### 2.4 DESCRIPTION OF NECESSARY ACCESSORIES AND SUPPORT UNITS

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

#### Accessories Equipment

Description	Manufacturer	Model	S/N	Rating

#### Auxiliary Equipment

Description	Manufacturer	Model	S/N	Rating

Note:

- (1) For detachable type I/O cable should be specified the length in cm in <sup>r</sup>Length <sup>l</sup> column.
- (2) "YES" is means "with core"; "NO" is means "without core".



### 2.5 EQUIPMENTS LIST

<b>Radiated Test equipment</b>					
Equipment	Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Until
EMI Test Receiver	R&S	ESU8	100372	2024.03.09	2025.03.08
Active loop Antenna	ETS	6502	00049544	2023.10.13	2025.10.12
Spectrum Analyzer	Keysight	N9010B	MY60242508	2024.08.05	2025.08.04
Bilog Antenna(30M-1G)	SCHWARZBECK	VULB 9168	2705	2022.12.12	2025.12.11
Horn Antenna(1-18G)	SCHWARZBECK	3115	10SL0060	2022.06.02	2025.06.01
Horn Antenna(18-40G)	A-INFO	LB-180400-KF	J211060273	2022.06.08	2025.06.07
Pre-amplifier(30M-1G)	EMtrace	RP01A	02019	2024.03.09	2025.03.08
Pre-amplifier(1-26.5G)	Agilent	8449B	3008A4722	2024.03.09	2025.03.08
Pre-amplifier(18-40G)	com-mw	LNPA_18-40-01	18050003	2024.03.09	2025.03.08
Wireless Communications Test Set	R&S	CMW 500	137737	2024.03.09	2025.03.08
Antenna Tower	SAEMC	BK-4AT-BS-D	SK2021093008	N.A	N.A
Temperature & Humidity	JINGCHUANG	BT-3	N.A	2024.03.11	2025.03.10
Testing Software		EMC-I	_V1.4.0.3_SKET		

RF Conducted Test equipment							
Equipment	Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Until		
Signal Analyzer	Keysight	N9010B	MY60242508	2024.08.05	2025.08.04		
Signal Analyzer	Keysight	N9020A	MY50530994	2024.03.09	2025.03.08		
RF Automatic Test system	MW	MW100-RFCB	MW220322LG-033	2024.03.09	2025.03.08		
MXG Vector Signal Generator	Keysight	N5182B	MY59100717	2024.03.09	2025.03.08		
Temperature& Humidity test chamber	AISRY	LX-1000L	171200018	2024.03.09	2025.03.08		
Attenuator	eastsheep	90db	N.A	2024.03.09	2025.03.08		
Temperature & Humidity	JINGCHUANG	BT-3	N.A	2024.03.11	2025.03.10		
Digital multimeter	MASTECH MS8261 MBGBC83053 2024.03.09 2025.03.08						
Testing Software		MTS83	310_V2.0.0.0_MW				



#### 3. EMC EMISSION TEST

#### 3.1 CONDUCTED EMISSION MEASUREMENT

#### 3.1.1 POWER LINE CONDUCTED EMISSION LIMITS

The radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies, within the band 150 kHz to 30 MHz, shall not exceed the limits in the following table.

	Conducted Emission limit (dBuV)			
FREQUENCY (MHz)	Quasi-peak	Average		
0.15 -0.5	66 - 56 *	56 - 46 *		
0.50 -5.0	56.00	46.00		
5.0 -30.0	60.00	50.00		

Note:

- (1) The tighter limit applies at the band edges.
- (2) The limit of " \* " marked band means the limitation decreases linearly with the logarithm of the frequency in the range.

The following table is the setting of the receiver

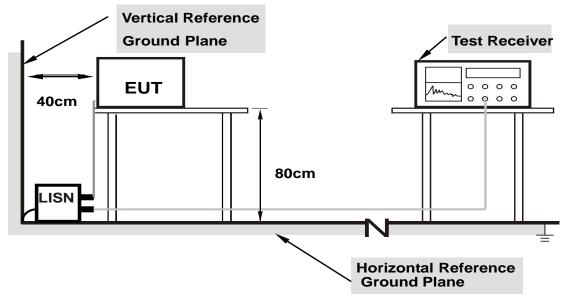
Receiver Parameters	Setting
Attenuation	10 dB
Start Frequency	0.15 MHz
Stop Frequency	30 MHz
IF Bandwidth	9 kHz



#### 3.2 TEST PROCEDURE

- a. The EUT is 0.8 m from the horizontal ground plane and 0.4 m from the vertical ground plane with EUT being connected to the power mains through a line impedance stabilization network (LISN). All other support equipments are powered from additional LISN(s). The LISN provides 50 Ohm/ 50uH of coupling impedance for the measuring instrument.
- b. 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 to 40 cm long.
- c. I/O cables that are not connected to a peripheral 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.
- d. LISN is at least 80 cm from the nearest part of EUT chassis.
- e. For the actual test configuration, please refer to the related Item -EUT Test Photos.

#### 3.3 TEST SETUP



Note: 1. Support units were connected to second LISN.

2. Both of LISNs (AMN) are 80 cm from EUT and at least 80 cm from other units and other metal planes support units.

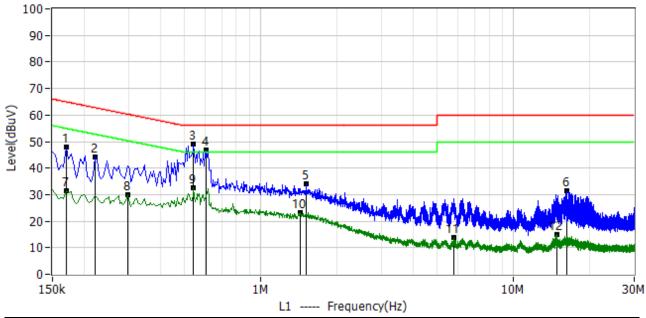
#### 3.4 EUT OPERATING CONDITIONS

The EUT was configured for testing in a typical fashion (as a customer would normally use it). The EUT has been programmed to continuously transmit during test. This operating condition was tested and used to collect the included data.



#### 3.5 TEST RESULTS

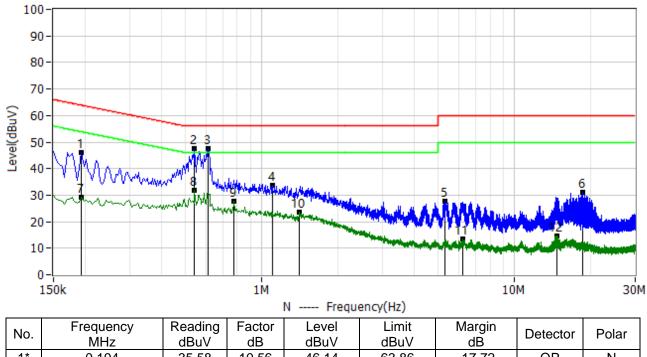
Project: LGT24L213	Test Engineer: LiuH	
EUT: LoRaWAN	Temperature: 23.2°C	
M/N: F8L10GW	Humidity: 44%RH	
Test Voltage: AC 120V/60Hz	Test Data: 2025-01-08	
Test Mode: TX 915MHz		
Note:		



No.	Frequency MHz	Reading dBuV	Factor dB	Level dBuV	Limit dBuV	Margin dB	Detector	Polar
1*	0.170	37.47	10.59	48.06	64.96	-16.90	QP	L1
2*	0.222	33.63	10.61	44.24	62.74	-18.50	QP	L1
3*	0.542	38.53	10.57	49.10	56.00	-6.90	QP	L1
4*	0.606	36.24	10.57	46.81	56.00	-9.19	QP	L1
5*	1.514	23.18	10.84	34.02	56.00	-21.98	QP	L1
6*	16.202	19.99	11.45	31.44	60.00	-28.56	QP	L1
7*	0.170	21.00	10.59	31.59	54.96	-23.37	AV	L1
8*	0.298	19.20	10.58	29.78	50.30	-20.51	AV	L1
9*	0.542	21.98	10.57	32.55	46.00	-13.45	AV	L1
10*	1.434	12.48	10.82	23.30	46.00	-22.70	AV	L1
11*	5.806	2.68	11.04	13.72	50.00	-36.28	AV	L1
12*	14.782	3.55	11.37	14.92	50.00	-35.08	AV	L1



Project: LGT24L213	Test Engineer: LiuH
EUT: LoRaWAN	Temperature: 23.2°C
M/N: F8L10GW	Humidity: 44%RH
Test Voltage: AC 120V/60Hz	Test Data: 2025-01-08
Test Mode: TX 915MHz	
Note:	



INO.	MHz	dBuV	dB	dBuV	dBuV	dB	Delector	FUIdi
1*	0.194	35.58	10.56	46.14	63.86	-17.72	QP	Ν
2*	0.542	36.98	10.54	47.52	56.00	-8.48	QP	Ν
3*	0.614	36.93	10.55	47.48	56.00	-8.52	QP	Ν
4*	1.102	23.08	10.56	33.64	56.00	-22.36	QP	Ν
5*	5.306	16.75	10.84	27.59	60.00	-32.41	QP	Ν
6*	18.518	19.40	11.56	30.96	60.00	-29.04	QP	Ν
7*	0.194	18.75	10.56	29.31	53.86	-24.56	AV	Ν
8*	0.542	21.37	10.54	31.91	46.00	-14.09	AV	Ν
9*	0.778	17.01	10.56	27.57	46.00	-18.43	AV	Ν
10*	1.410	13.00	10.63	23.63	46.00	-22.37	AV	Ν
11*	6.266	2.65	10.82	13.47	50.00	-36.53	AV	Ν
12*	14.734	3.19	11.36	14.55	50.00	-35.45	AV	Ν



#### 4. RADIATED EMISSION MEASUREMENT

#### 4.1 RADIATED EMISSION LIMITS

In case the emission fall within the Restricted band specified on Part15.205 (a)&209(a) limit in the table and according to ANSI C63.10-2013 below has to be followed.

#### LIMITS OF RADIATED EMISSION MEASUREMENT (0.009MHz - 1000MHz)

Frequencies	Field Strength	Measurement Distance
(MHz)	(micorvolts/meter)	(meters)
0.009~0.490	2400/F(KHz)	300
0.490~1.705	24000/F(KHz)	30
1.705~30.0	30	30
30~88	100	3
88~216	150	3
216~960	200	3
Above 960	500	3

#### LIMITS OF RADIATED EMISSION MEASUREMENT (1GHz-25 GHz)

FREQUENCY (MHz)	(dBuV/m) (at 3M)			
	PEAK	AVERAGE		
Above 1000	74	54		

Notes:

(1) The limit for radiated test was performed according to FCC PART 15C.

(2) The tighter limit applies at the band edges.

(3) Emission level (dBuV/m)=20log Emission level (uV/m).

#### LIMITS OF RESTRICTED FREQUENCY BANDS

FREQUENCY (MHz)	FREQUENCY (MHz)	FREQUENCY (MHz)	FREQUENCY (GHz)
0.090-0.110	16.42-16.423	399.9-410	4.5-5.15
0.495-0.505	16.69475-16.69525	608-614	5.35-5.46
2.1735-2.1905	16.80425-16.80475	960-1240	7.25-7.75
4.125-4.128	25.5-25.67	1300-1427	8.025-8.5
4.17725-4.17775	37.5-38.25	1435-1626.5	9.0-9.2
4.20725-4.20775	73-74.6	1645.5-1646.5	9.3-9.5
6.215-6.218	74.8-75.2	1660-1710	10.6-12.7
6.26775-6.26825	108-121.94	1718.8-1722.2	13.25-13.4
6.31175-6.31225	123-138	2200-2300	14.47-14.5
8.291-8.294	149.9-150.05	2310-2390	15.35-16.2
8.362-8.366	156.52475-156.52525	2483.5-2500	17.7-21.4
8.37625-8.38675	156.7-156.9	2690-2900	22.01-23.12
8.41425-8.41475	162.0125-167.17	3260-3267	23.6-24.0
12.29-12.293	167.72-173.2	3332-3339	31.2-31.8
12.51975-12.52025	240-285	3345.8-3358	36.43-36.5
12.57675-12.57725	322-335.4	3600-4400	Above 38.6
13.36-13.41			



#### For Radiated Emission

Spectrum Parameter	Setting
Attenuation	Auto
Detector	Peak/QP/AV
Start Frequency	9 KHz/150KHz (Peak/QP/AV)
Stop Frequency	150KHz/30MHz (Peak/QP/AV)
	200Hz (From 9kHz to 0.15MHz)/
RB / VB (emission in restricted	9KHz (From 0.15MHz to 30MHz);
band)	200Hz (From 9kHz to 0.15MHz)/
	9KHz (From 0.15MHz to 30MHz)

Spectrum Parameter	Setting
Attenuation	Auto
Detector	Peak/QP
Start Frequency	30 MHz (Peak/QP)
Stop Frequency	1000 MHz (Peak/QP)
RB / VB (emission in restricted	
band)	120 KHz / 300 KHz

Spectrum Parameter	Setting		
Attenuation	Auto		
Detector	Peak		
Start Frequency	1000 MHz (Peak/AV)		
Stop Frequency	10th carrier hamonic (Peak/AV)		
RB / VB (emission in restricted	1 MHz / 3 MHz(Peak)		
band)	1 MHz/1/T MHz(AVG)		
For Restricted band			
Spectrum Parameter	Setting		
Detector	Peak		
Stort/Stop Frequency	Lower Band Edge: 2310 to 2410 MHz		
Start/Stop Frequency	Upper Band Edge: 2475 to 2500 MHz		
	1 MHz / 3 MHz(Peak)		
RB / VB	1 MHz/1/T MHz(AVG)		

Receiver Parameter	Setting
Start ~ Stop Frequency	9kHz~90kHz / RB 200Hz for PK & AV
Start ~ Stop Frequency	90kHz~110kHz / RB 200Hz for QP
Start ~ Stop Frequency	110kHz~490kHz / RB 200Hz for PK & AV
Start ~ Stop Frequency	490kHz~30MHz / RB 9kHz for QP
Start ~ Stop Frequency	30MHz~1000MHz / RB 120kHz for QP



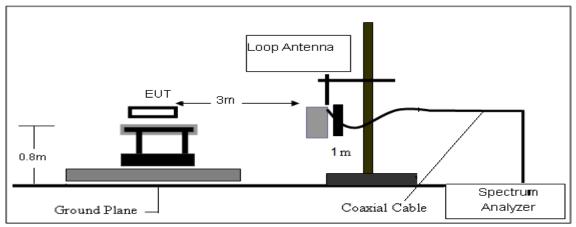
#### 4.2 TEST PROCEDURE

- a. The measuring distance at 3 m shall be used for measurements at frequency 0.009MHz up to 1GHz, and above 1GHz.
- b. The EUT was placed on the top of a rotating table 0.8 m (above 1GHz is 1.5 m) above the ground at a 3 m anechoic chamber test site. The table was rotated 360 degree to determine the position of the highest radiation.
- c. The height of the equipment shall be 0.8 m(above 1GHz is 1.5 m); the height of the test antenna shall vary between 1 m to 4 m. Horizontal and vertical polarization of the antenna are set to make the measurement.
- d. The initial step in collecting conducted emission data is a spectrum analyzer peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and QuasiPeak detector mode will be re-measured.
- e. If the Peak Mode measured value is compliance with and lower than Quasi Peak Mode Limit, the EUT shall be deemed to meet QP Limits and no additional QP Mode measurement was performed.
- f. For the actual test configuration, please refer to the related Item –EUT Test Photos. Note:

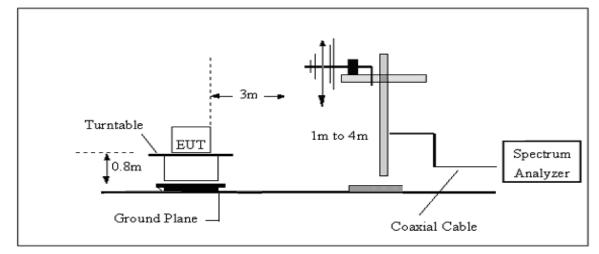
Both horizontal and vertical antenna polarities were tested and performed pretest to three orthogonal axis. The worst case emissions were reported.

#### 4.3 TEST SETUP

(A) Radiated Emission Test-Up Frequency Below 30MHz

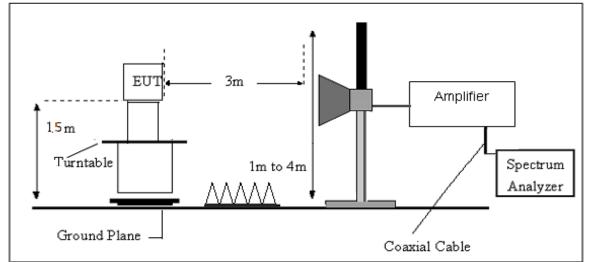


(B) Radiated Emission Test-Up Frequency 30MHz~1GHz





#### (C) Radiated Emission Test-Up Frequency Above 1GHz



#### 4.4 EUT OPERATING CONDITIONS

Please refer to section 3.4 of this report.

#### 4.5 FIELD STRENGTH CALCULATION

The field strength is calculated by adding the Antenna Factor and Cable Factor and subtracting the Amplifier Gain and Duty Cycle Correction Factor (if any) from the measured reading. The basic equation with a sample calculation is as follows:

FS = RA + AF + CL - AG Where FS = Field Strength CL = Cable Attenuation Factor (Cable Loss) RA = Reading Amplitude AG = Amplifier Gain AF = Antenna Factor For example

Frequency	FS	RA	AF	CL	AG	Factor
(MHz)	(dBµV/m)	(dBµV/m)	(dB)	(dB)	(dB)	(dB)
300	40	58.1	12.2	1.6	31.9	-18.1

Factor=AF+CL-AG



#### 4.6 TEST RESULTS

#### Results of Radiated Emissions (9 KHz~30MHz)

No.	Frequency	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Detector	Remark
1*	-	-	-	-	-	-	-	See Note

#### Note:

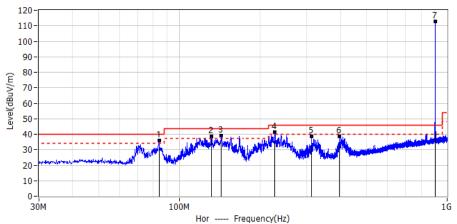
The emission from 9 kHz to 30MHz was pre-tested and found the result was 20dB lower than the limit, and the permissible value has no need to be reported.

Distance extrapolation factor = 40 log (specific distance / test distance) (dB); Limit line = specific limits (dBuV) + distance extrapolation factor.

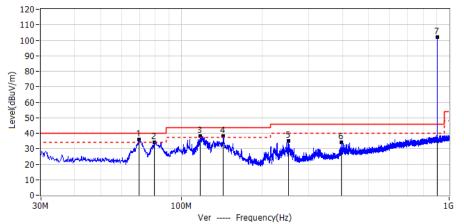


### Results of Radiated Emissions (30MHz~1000MHz)

Project: LGT24L213	Test Engineer: LiuH	
EUT: LoRaWAN	Temperature: 22°C	
M/N: F8L10GW	Humidity: 44%RH	
Test Voltage: AC 120V/60Hz	Test Data: 2025-02-27	
Test Mode: TX 902.5MHz		
Note:		



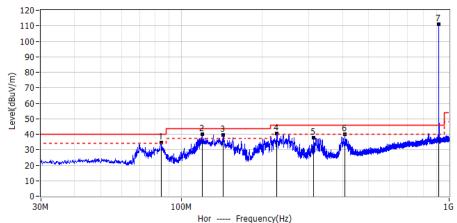
				noi riequene				
No.	Frequency MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Detector	Polar
1*	84.078	19.29	16.49	35.78	40.00	-4.22	QP	Hor
2*	132.093	18.33	20.51	38.84	43.50	-4.66	QP	Hor
3*	143.611	17.75	21.30	39.05	43.50	-4.45	QP	Hor
4*	227.880	22.99	18.30	41.29	46.00	-4.71	QP	Hor
5*	312.513	16.85	21.86	38.71	46.00	-7.29	QP	Hor
6*	396.296	14.45	24.41	38.86	46.00	-7.14	QP	Hor
!7*	902.636	79.69	33.14	112.83	46.00	66.83	QP	Hor



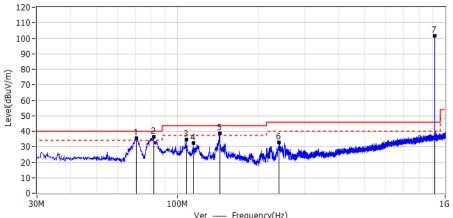
No.	Frequency MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Detector	Polar
1*	69.770	18.26	17.71	35.97	40.00	-4.03	QP	Ver
2*	79.470	17.76	16.35	34.11	40.00	-5.89	QP	Ver
3*	118.028	19.25	19.02	38.27	43.50	-5.23	QP	Ver
4*	143.733	16.85	21.29	38.14	43.50	-5.36	QP	Ver
5*	251.888	15.13	19.77	34.90	46.00	-11.10	QP	Ver
6*	396.054	9.56	24.41	33.97	46.00	-12.03	QP	Ver
!7*	902.758	68.71	33.14	101.85	46.00	55.85	QP	Ver



Project: LGT24L213	Test Engineer: LiuH
EUT: LoRaWAN	Temperature: 22°C
M/N: F8L10GW	Humidity: 44%RH
Test Voltage: AC 120V/60Hz	Test Data: 2025-02-27
Test Mode: TX 915MHz	
Note:	



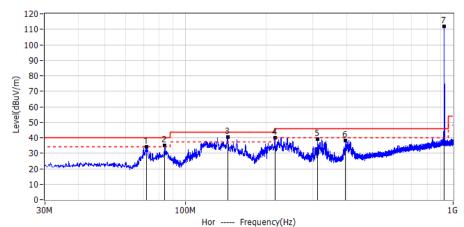
				noi riequene	10.00			
No.	Frequency	Reading	Factor	Level	Limit	Margin	Detector	Polar
INO.	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Delector	i olui
1*	84.320	18.33	16.40	34.73	40.00	-5.27	QP	Hor
2*	119.604	20.68	19.14	39.82	43.50	-3.68	QP	Hor
3*	143.854	18.41	21.28	39.69	43.50	-3.81	QP	Hor
4*	227.880	22.01	18.30	40.31	46.00	-5.69	QP	Hor
5*	311.906	16.14	21.78	37.92	46.00	-8.08	QP	Hor
6*	407.573	15.13	24.68	39.81	46.00	-6.19	QP	Hor
!7*	915.004	78.16	32.86	111.02	46.00	65.02	QP	Hor



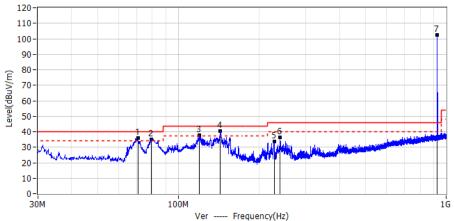
				ver Frequenc	.y(H2)			
No.	Frequency	Reading	Factor	Level	Limit	Margin	Detector	Polar
INO.	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Delector	i Ulai
1*	70.498	17.85	17.52	35.37	40.00	-4.63	QP	Ver
2*	81.653	20.08	16.31	36.39	40.00	-3.61	QP	Ver
3*	108.328	17.07	17.67	34.74	43.50	-8.76	QP	Ver
4*	115.239	13.38	18.84	32.22	43.50	-11.28	QP	Ver
5*	143.975	17.57	21.27	38.84	43.50	-4.66	QP	Ver
6*	239.763	14.17	18.79	32.96	46.00	-13.04	QP	Ver
!7*	915.246	68.47	32.89	101.36	46.00	55.36	QP	Ver



Project: LGT24L213	Test Engineer: LiuH	
EUT: LoRaWAN	Temperature: 22°C	
M/N: F8L10GW	Humidity: 44%RH	
Test Voltage: AC 120V/60Hz	Test Data: 2025-02-27	
Test Mode: TX 927.5MHz		
Note:		



				noi riequene	/(/			
No.	Frequency MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Detector	Polar
1*	71.953	16.69	17.34	34.03	40.00	-5.97	QP	Hor
2*	83.956	18.53	16.51	35.04	40.00	-4.96	QP	Hor
3*	144.096	19.05	21.26	40.31	43.50	-3.19	QP	Hor
4*	216.119	22.41	17.59	40.00	46.00	-6.00	QP	Hor
5*	312.149	17.17	21.81	38.98	46.00	-7.02	QP	Hor
6*	396.054	13.99	24.41	38.40	46.00	-7.60	QP	Hor
!7*	927.614	78.95	33.14	112.09	46.00	66.09	QP	Hor



				Ver Trequene	.,(			
No.	Frequency MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Detector	Polar
1*	70.861	18.52	17.45	35.97	40.00	-4.03	QP	Ver
2*	79.591	18.84	16.32	35.16	40.00	-4.84	QP	Ver
3*	119.725	18.41	19.20	37.61	43.50	-5.89	QP	Ver
4*	143.854	18.99	21.28	40.27	43.50	-3.23	QP	Ver
5*	228.244	15.47	18.34	33.81	46.00	-12.19	QP	Ver
6*	240.490	17.71	18.88	36.59	46.00	-9.41	QP	Ver
!7*	927.614	69.52	33.14	102.66	46.00	56.66	QP	Ver



Results of Radiated Emissions (Above 1000MHz) Note:1. All mode has been tested, only shown the worst case data, 2. The peak value is less than the AV limit, so no AV data is displayed.

Above 1000	MHz						
Frequency (MHz)	Reading (dBµV)	Corrected Factor (dB)	Result (dBµV/m)	Limits (dBµV/m)	Margin (dB)	Detector	Polarity
			Low Channel	(902.5 MHz)			
1805.06	55.75	-12.59	43.16	74.00	-30.84	PK	Vertical
1805.06	45.91	-12.59	33.32	54.00	-20.68	AV	Vertical
1805.04	55.68	-12.59	43.09	74.00	-30.91	PK	Horizontal
1805.04	45.22	-12.59	32.63	54.00	-21.37	AV	Horizontal
2707.77	54.92	-10.65	44.27	74.00	-29.73	PK	Vertical
2707.77	44.49	-10.65	33.84	54.00	-20.16	AV	Vertical
2707.99	54.56	-10.65	43.91	74.00	-30.09	PK	Horizontal
2707.99	44.61	-10.65	33.96	54.00	-20.04	AV	Horizontal
3610.79	57.45	-8.73	48.72	74.00	-25.28	PK	Vertical
3610.79	47.95	-8.73	39.22	54.00	-14.78	AV	Vertical
3610.77	57.63	-8.73	48.90	74.00	-25.10	PK	Horizontal
3610.77	47.42	-8.73	38.69	54.00	-15.31	AV	Horizontal
4513.48	60.95	-7.82	53.13	74.00	-20.87	PK	Vertical
4513.48	50.04	-7.82	42.22	54.00	-11.78	AV	Vertical
4513.44	60.21	-7.82	52.39	74.00	-21.61	PK	Horizontal
4513.44	49.60	-7.82	41.78	54.00	-12.22	AV	Horizontal
			Middle Chan	nel (915MHz)			
1829.70	56.38	-12.59	43.79	74.00	-30.21	PK	Vertical
1829.70	45.90	-12.59	33.31	54.00	-20.69	AV	Vertical
1829.51	55.32	-12.59	42.73	74.00	-31.27	PK	Horizontal
1829.51	45.30	-12.59	32.71	54.00	-21.29	AV	Horizontal
2744.51	55.39	-10.65	44.74	74.00	-29.26	PK	Vertical
2744.51	44.35	-10.65	33.70	54.00	-20.30	AV	Vertical
2744.76	54.26	-10.65	43.61	74.00	-30.39	PK	Horizontal
2744.76	45.22	-10.65	34.57	54.00	-19.43	AV	Horizontal
3659.64	56.83	-8.73	48.10	74.00	-25.90	PK	Vertical
3659.64	48.26	-8.73	39.53	54.00	-14.47	AV	Vertical
3659.66	57.23	-8.73	48.50	74.00	-25.50	PK	Horizontal
3659.66	47.04	-8.73	38.31	54.00	-15.69	AV	Horizontal
4574.74	60.54	-7.82	52.72	74.00	-21.28	PK	Vertical
4574.74	49.92	-7.82	42.10	54.00	-11.90	AV	Vertical



4574.78	60.91	-7.82	53.09	74.00	-20.91	PK	Horizontal				
4574.78	49.67	-7.82	41.85	54.00	-12.15	AV	Horizontal				
	High Channel (927.5MHz)										
1855.02	55.32	-12.59	42.73	74.00	-31.27	PK	Vertical				
1855.02	46.62	-12.59	34.03	54.00	-19.97	AV	Vertical				
1855.23	56.07	-12.59	43.48	74.00	-30.52	PK	Horizontal				
1855.23	46.46	-12.59	33.87	54.00	-20.13	AV	Horizontal				
2782.42	55.25	-10.65	44.60	74.00	-29.40	PK	Vertical				
2782.42	45.11	-10.65	34.46	54.00	-19.54	AV	Vertical				
2782.29	55.03	-10.65	44.38	74.00	-29.62	PK	Horizontal				
2782.29	45.45	-10.65	34.80	54.00	-19.20	AV	Horizontal				
3709.67	57.13	-8.73	48.40	74.00	-25.60	PK	Vertical				
3709.67	47.81	-8.73	39.08	54.00	-14.92	AV	Vertical				
3709.67	58.00	-8.73	49.27	74.00	-24.73	PK	Horizontal				
3709.67	47.45	-8.73	38.72	54.00	-15.28	AV	Horizontal				
4637.84	59.84	-7.82	52.02	74.00	-21.98	PK	Vertical				
4637.84	50.82	-7.82	43.00	54.00	-11.00	AV	Vertical				
4637.84	60.94	-7.82	53.12	74.00	-20.88	PK	Horizontal				
4637.84	49.51	-7.82	41.69	54.00	-12.31	AV	Horizontal				

#### Remark:

In frequency ranges 18~25GHz no any other harmonic emissions detected which are tested to compliance with the limit. No recording in the test report. No any other emissions level which are attenuated less than 20dB below the limit. No recording in the test report.



#### 5. CONDUCTED SPURIOUS & BAND EDGE EMISSION

#### 5.1 LIMIT

According to FCC section 15.247(d), in any 100kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20dB below that in the 100kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement.

#### 5.2 TEST PROCEDURE

Spectrum Parameter	Setting
Detector	Peak
Start/Stop Frequency	30 MHz to 10th carrier harmonic
RB / VB (emission in restricted band)	100 KHz/300 KHz
Trace-Mode:	Max hold

#### For Band edge

Spectrum Parameter	Setting			
Detector	Peak			
	Lower Band Edge: 2300 – 2407 MHz			
Start/Stop Frequency	Upper Band Edge: 2475 – 2500 MHz			
RB / VB (emission in restricted band)	100 KHz/300 KHz			
Trace-Mode:	Max hold			

5.3 TEST SETUP



The EUT which is powered by the \${ POWER BY}, is connected to the Spectrum Analyzer; the RF load attached to the EUT antenna terminal is 50 Ohm; the path loss as the factor is calibrated to correct the reading. Make the measurement with the spectrum analyzer's resolution bandwidth(RBW) = 100 kHz. In order to make an accurate measurement, set the span greater than RBW.

5.4 EUT OPERATION CONDITIONS

Please refer to section 3.4 of this report.

5.5 TEST RESULTS

For the measurement records, refer to the appendix I.

Note: Not recorded emission from 9 KHz to 30 MHz as emission level at least 20dBc lower than emission limit.

Report No.: LGT24L213RF07



#### 6. POWER SPECTRAL DENSITY TEST

#### 6.1 LIMIT

	FCC Part 15.247, Subpart C										
Section	Test Item	Limit	Frequency Range (MHz)	Result							
15.247(e)	Power Spectral Density	≤8 dBm (RBW≥3KHz)	902-928	PASS							

#### 6.2 TEST PROCEDURE

- 1. Set analyzer center frequency to DTS channel center frequency.
- 2. Set the span to 1.5 times the DTS channel bandwidth.
- 3. Set the RBW to: 100 kHz  $\ge$  RBW  $\ge$  3 kHz.
- 4. Set the VBW  $\geq$  3 x RBW.
- 5. Detector = peak.
- 6. Sweep time = auto couple.
- 7. Trace mode = max hold.
- 8. Allow trace to fully stabilize.
- 9. Use the peak marker function to determine the maximum amplitude level.
- 10. If measured value exceeds limit, reduce RBW (no less than 3 kHz) and repeat.

#### 6.3 TEST SETUP



### 6.4 EUT OPERATION CONDITIONS

Please refer to section 3.4 of this report.

#### 6.5 TEST RESULTS

For the measurement records, refer to the appendix I.



### 7. BANDWIDTH TEST

#### 7.1 LIMIT

	FCC Part 15.247, Subpart C								
Section	Test Item	Limit	Frequency Range (MHz)	Result					
15.247(a)(2)	Bandwidth	>= 500KHz (6dB bandwidth)	902-928	PASS					

#### 7.2 TEST PROCEDURE

The automatic bandwidth measurement capability of an instrument may be employed using the X dB bandwidth mode with X set to 6 dB, if the functionality described above (i.e., RBW = 100 kHz, VBW $\geq$ 3RBW, peak detector with maximum hold) is implemented by the instrumentation function. When using this capability, care shall be taken so that the bandwidth measurement is not influenced by any intermediate power nulls in the fundamental emission that might be $\geq$ 6 dB.

#### 7.3 TEST SETUP



#### 7.4 EUT OPERATION CONDITIONS Please refer to section 3.4 of this report.

#### 7.5 TEST RESULTS

For the measurement records, refer to the appendix I.



#### 8. PEAK OUTPUT POWER TEST

#### 8.1 LIMIT

FCC Part 15.247, Subpart C									
Section	Test Item	Limit	Frequency Range (MHz)	Result					
15.247(b)(3)	Output Power	1 watt or 30dBm	902-928	PASS					

#### 8.2 TEST PROCEDURE

One of the following procedures may be used to determine the maximum peak conducted output power of a DTS EUT.

 $RBW \ge DTS$  bandwidth

The following procedure shall be used when an instrument with a resolution bandwidth that is greater than the DTS bandwidth is available to perform the measurement:

a) Set the RBW  $\geq$  DTS bandwidth.

b) Set VBW  $\geq$  [3 × RBW].

c) Set span  $\geq$  [3 × RBW].

d) Sweep time = auto couple.

e) Detector = peak.

f) Trace mode = max hold.

g) Allow trace to fully stabilize.

h) Use peak marker function to determine the peak amplitude level.

Integrated band power method:

The following procedure can be used when the maximum available RBW of the instrument is less than the

DTS bandwidth:

a) Set the RBW = 1 MHz.

b) Set the VBW  $\geq$  [3 × RBW].

c) Set the span  $\geq$  [1.5 × DTS bandwidth].

d) Detector = peak.

e) Sweep time = auto couple.

f) Trace mode = max hold.

g) Allow trace to fully stabilize.

h) Use the instrument's band/channel power measurement function with the band limits set equal to the DTS bandwidth edges (for some instruments, this may require a manual override to select the peak detector). If the instrument does not have a band power function, then sum the spectrum levels (in linear power units) at intervals equal to the RBW extending across the DTS channel bandwidth.

PKPM1 Peak power meter method:

The maximum peak conducted output power may be measured using a broadband peak RF power meter. The power meter shall have a video bandwidth that is greater than or equal to the DTS bandwidth and shall use a fast-responding diode detector.

8.3 TEST SETUP

EUT	Power
	Sensor

8.4 EUT OPERATION CONDITIONS

Please refer to section 3.4 of this report.

#### 8.5 TEST RESULTS

For the measurement records, refer to the appendix I.



#### 9. ANTENNA REQUIREMENT

#### 9.1 STANDARD REQUIREMENT

15.203 requirement: For intentional device, according to 15.203: an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device.

#### 9.2 EUT ANTENNA

The EUT antenna is External Antenna. It comply with the standard requirement.

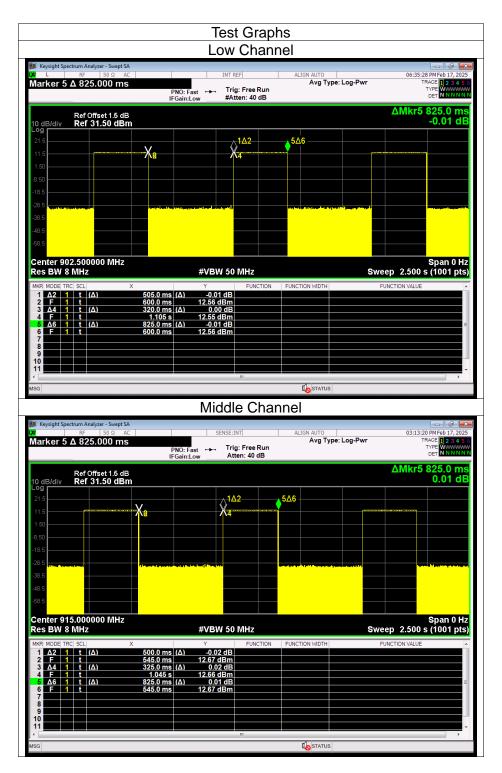


## **APPENDIX I - TEST RESULTS**

### Duty Cycle

Center Frequency(MHz)	Ton(ms)	Tp(ms)	Duty Cycle	Verdict
902.5	320	825	0.3879	Pass
915	325	825	0.3939	Pass
927.5	320	825	0.3879	Pass







		High Chan	nel	
Keysight Spectrum Analyzer - Swept SA				- 6 🛋
L RF 50 Ω AC		INT REF	ALIGN AUTO	06:55:54 PM Feb 17, 2025
arker 5 ∆ 825.000 ms	PNO: Fast IFGain:Low	Trig: Free Run #Atten: 40 dB	Avg Type: Log	Pwr TRACE 123456 TYPE WWWWWW DET NNNNN
Ref Offset 1.5 dB dB/div Ref 31.50 dBm				ΔMkr5 825.0 ms 0.00 dB
Pg		1Δ2 5Δ6		
11.5 <b>Xa</b>		4		
8.5				
8.5	a ta af priva a ta a b pain (1)			
8.5				
8.5				
enter 927.500000 MHz es BW 8 MHz	#\	/BW 50 MHz		Span 0 Hz Sweep 2.500 s (1001 pts)
KR MODE TRC SCL X	) Y		FUNCTION WIDTH	FUNCTION VALUE
1 Δ2 1 t (Δ) 2 F 1 t		-0.04 dB .13 dBm		
$\frac{1}{3} \Delta 4 = \frac{1}{1} t (\Delta)$	320.0 ms (Δ)	0.05 dB		
$\mathbf{J} \Delta \mathbf{A} \mathbf{A} \mathbf{A} \mathbf{A} \mathbf{A} \mathbf{A} \mathbf{A} \mathbf{A}$	915.0 ms 12	.08 dBm		
4 F 1 t				E
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	825.0 ms (Δ) 410.0 ms 12	0.00 dB .13 dBm		
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	825.0 ms (Δ) 410.0 ms 12	.13 dBm		
4 F 1 t 5 Δ6 1 t (Δ) 6 F 1 t 7 8	825.0 ms (Δ) 410.0 ms 12			
4 F 1 t Δ 6 Δ6 1 t (Δ) 6 F 1 t 7 8 9 0	825.0 ms (Δ) 410.0 ms 12			
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	825.0 ms (Δ) 410.0 ms 12			



### Maximum Peak Conducted Output Power

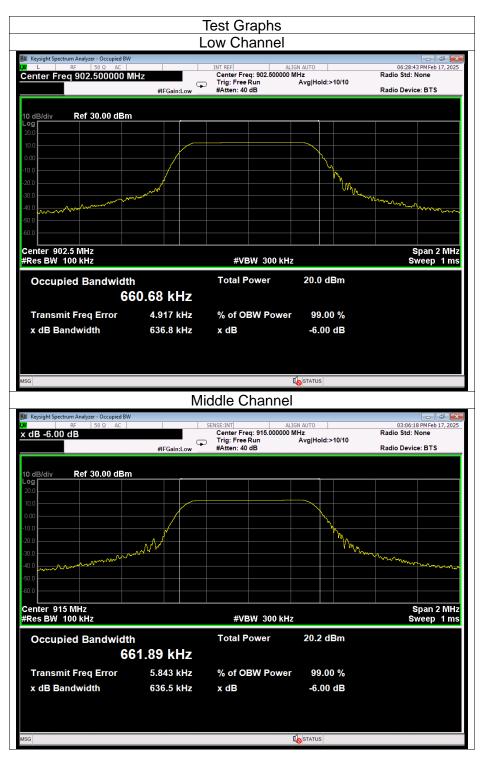
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Frequency (MHz)	Conducted Power (dBm)	Limit (dBm)	Verdict
902.5	12.617	30	Pass
915	12.805	30	Pass
927.5	12.28	30	Pass



#### -6dB Bandwidth And 99%

Frequency (MHz)	99% OBW (MHz)	-6 dB Bandwidth (MHz)	Limit -6 dB Bandwidth (MHz)	Verdict
902.5	0.6633	0.6368	0.5	Pass
915	0.6610	0.6365	0.5	Pass
927.5	0.6647	0.6374	0.5	Pass



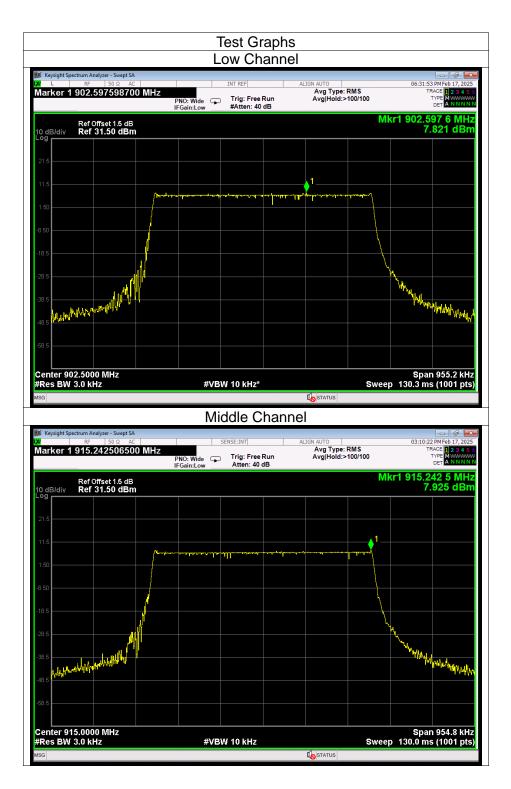


#### High Channel 06:50:07 PM Feb 17, 2025 Radio Std: None 📕 Keysight Spectrum Analyzer - Occupied BW #IFGain:Low INT REF ALIGN AUTO Center Freq: 927.500000 MHz Trig: Free Run Avg|Hold:>10/10 #Atten: 40 dB Center Freq 927.500000 MHz Radio Device: BTS Ref 30.00 dBm 10 di N Center 927.5 MHz #Res BW 100 kHz Span 2 MHz Sweep 1 ms #VBW 300 kHz **Occupied Bandwidth Total Power** 19.6 dBm 664.36 kHz % of OBW Power Transmit Freq Error 5.771 kHz 99.00 % -6.00 dB x dB Bandwidth 637.4 kHz x dB STATUS

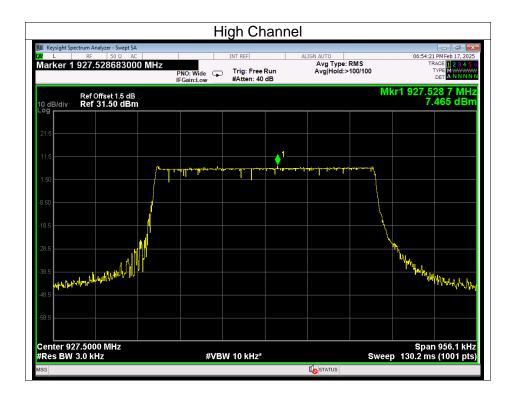


#### Maximum Power Spectral Density Level

Frequency (MHz)	Conducted PSD (dBm/3kHz)	Limit (dBm/3kHz)	Verdict
902.5	7.821	8	Pass
915	7.925	8	Pass
927.5	7.465	8	Pass



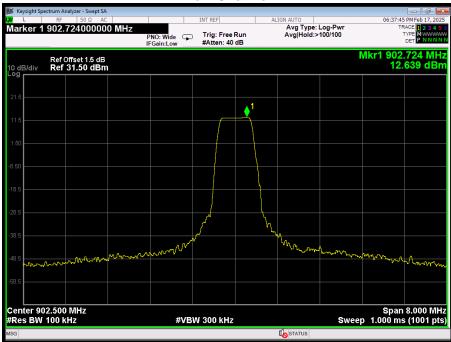






#### Band Edge

Low Channel



🎉 Keysight Sp	ectrum Analyzer - Swe								
L I	RF 50 Ω			INT REF	A	IGN AUTO			PM Feb 17, 2025
Display I	Line -7.36 dE	P	NO: Fast 😱 Gain:Low	Trig: Free Ru #Atten: 40 dE		Avg Type Avg Hold:		т	ACE 1 2 3 4 5 6 YPE MWWWWW DET P N N N N N
	Ref Offset 1.5							Mkr2 902	2.00 MHz
10 dB/div Log	Ref 31.50 d	Bm						-27.	630 dBm
21.5					1				
				$\diamond$	•				
11.5				$\square$					
1.50									-7.36 dBm
-8.50									-7.30 UDII
-18.5				2					
-28.5				<u>y</u>  _	ļ				
-38.5				/	<u>\</u>				
10.5				and a stand of the	Jord Row Ward				
partition.	hundresser	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	and a second states and a second s			and a state of the second states of the second stat	and marked and	montorio	Japanen an
-58.5									
Center 90	02.50 MHz							Span	30.00 MHz
	100 kHz		#VBV	V 300 kHz			Sweep	2.933 ms	30.00 MHz (1001 pts)
MKR MODE T	RC SCL	X	Y	FUNCTI	ON FUNC	TION WIDTH	FU	NCTION VALUE	A
1 N *	1 f	902.65 MHz 902.00 MHz	12.631 c	dBm					
3		902.00 WHZ	-27.030 (	авт					
4									
6									
7									
9									
10									
•				m					
MSG						<b>I</b> STATUS			



### High Channel

Keysight Spectrum Analyzer - Swept SA		WE OFF					
02 L RF 50 Ω AC Marker 1 927.748000000 MHz	PNO: Wide G	INT REF Trig: Free #Atten: 40	Run	IGN AUTO Avg Type: Avg Hold:>		TR	PM Feb 17, 2025 ACE 2 3 4 5 6 YPE M WWWWW DET P N N N N N
Ref Offset 1.5 dB 10 dB/div Ref 31.50 dBm					1	Vikr1 927. 12.	748 MHz 302 dBm
21.5							
11.5			1				
1.50							
-8.50							
-18.5							
-28.5							
-38.5		~ <sup>~~</sup>	٨	Lawy and the second			
-48.5 www.www.www.www.	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~				www.www.	ᠬᢦᢞᡗᡆᡐᡐᡗ᠇ᢪᠬᢦ᠕ᠰ	multim
-58.5							
Center 927.500 MHz #Res BW 100 kHz	#VB	W 300 kHz			Swee	Span 5 1.000 ms	8.000 MHz (1001 pts)
MSG				STATUS			

🎉 Keysight Sp	ectrum Analyzer - Swep								- J ×
<mark>IXI</mark> L Dicplay	⊮ୋ 50 Ω _ine -7.70 dB			INT REF		ALIGN AUTO Avg Type:	Log-Pwr		PM Feb 17, 2025
Display I	_ine -7.70 dB	PI	NO: Fast 🖵 Gain:Low	Trig: Free F #Atten: 40 d	lun 1B	Avg Hold:			
	Ref Offset 1.5							Mkr2 92	8.00 MHz 786 dBm
10 dB/div Log	Ref 31.50 d	Bm						-21.	
21.5					∧ <b>1</b>				
11.5				r	Υ				
1.50									
-8.50									-7.70 dBm
-18.5					2				
					Y				
-28.5					1				
-38.5				/	h				
-48.5	www.willianstration	+++~~[~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	wowner www.	Norway	***	and the and the second second	www.	the mark way	Annahaman
-58.5									
Center 92 #Res BW	27.50 MHz 100 kHz		#VB\	N 300 kHz			Swe	Span ep 2.933 ms	30.00 MHz (1001 pts)
MKR MODE T	RC SCL	x	Y	FUNC	TION F	UNCTION WIDTH		FUNCTION VALUE	•
	f	927.74 MHz	12.462						
2 N ·	1 f	928.00 MHz	-21.786	dBm					
4									
6									-
7									
9									
10									
				m					- F
MSG						STATUS			



### Conducted RF Spurious Emission

Low Channel

Keysight Spectrum Ana	lyzer - Swept SA					
L RF	50 Ω AC	II	NT REF	ALIGN AUTO		06:39:21 PM Feb 17,
arker 1 902.7			Trig: Free Run #Atten: 40 dB		e: Log-Pwr d:>100/100	TRACE 12 3 TYPE MWW DET P NN
) dB/div Ref 3	ffset 1.5 dB i <b>1.50 dBm</b>				Mk	r1 902.744 5 M 12.605 di
ng 1.5				1		
1.5						
50						
3.5					- Ju	
3.5 ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	month and				۰ <i>۷</i> ۰	hormon
						· mm
3.5						
enter 902.5000 Res BW 100 kH		#\/B\//	300 kHz		Sween	Span 1.500 M 1.000 ms (1001 )
R MODE TRC SCL	X	Y	FUNCTION	FUNCTION WIDTH		INCTION VALUE
	902.744 5 MH	z 12.605 dB	m			
	002.7440 1111					
2 · · · · · · · · · · · · · · · · · · ·						
1 N 1 f   3 - - -   3 - - -   4 - - -   5 - - -   6 - - -   7 - - -   8 - - -   9 - - -   0 - - -   - - - -			TII .	Lo status		

🔰 Keysight Spectrum Analyzer - Swept SA					
L RF 50 Ω AC	INT	REF	ALIGN AUTO		06:40:29 PM Feb 17, 2025
Marker 2 16.441400000000 GHz		ig: Free Run Atten: 40 dB	Avg Type Avg Hold:	: Log-Pwr 19/100	TRACE 1 2 3 4 5 6 TYPE MWWWW DET P N N N N N
Ref Offset 1.5 dB 10 dB/div Ref 31.50 dBm				М	kr2 16.441 GHz -39.492 dBm
11.5					
-8.50					-7.40 dBm
-28.5			¢ <sup>2</sup>		
-48.5	www.winter.com	an galatan ang ang ang ang ang ang ang ang ang a	and the second s		north market and the second
Start 0.03 GHz		_			Stop 26.50 GHz
#Res BW 100 kHz	#VBW 30	00 kHz		Sweep	2.530 s (1001 pts)
MKR MODE TRC SCL X	y z 12.516 dBm	FUNCTION	FUNCTION WIDTH	FUNCT	ION VALUE
2 N 1 f 16.441 GH					
					=
7 8 9 9					
10 11 • 0					
MSG			<b>I</b> o status		



#### Middle Channel

🎉 Keysight Spe		yzer - Swept SA									
Marker 1	<sup>RF</sup> 915.24	50 Ω AC 4750000	P	NO: Wide 🖵	SENSE:INT Trig: Free Atten: 40		ALIC	Avg Type: Avg Hold:>		T	7 PM Feb 17, 2025 RACE 123456 TYPE MWWWWW DET PNNNNN
10 dB/div		fset 1.5 dB 1.50 dBm							M	(r1 915.2 12.	47 5 MHz 830 dBm
Log 21.5								<b>1</b> -			
1.50											
-8.50 -18.5		٥	M						Ann and a second	hard and	
-28.5	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	malin								hor have	m.m.
-48.5 -58.5											
Center 91 #Res BW				#VB	W 300 kHz				Swee	Span 0 1.000 ms	1.500 MHz s (1001 pts)
MKR MODE TH			< 5.247 5 MHz	Y 12.830		CTION	FUNCTI	ON WIDTH	F	UNCTION VALUE	-
2		91	5.247 5 MHZ	12.830	dBm						
4											
6											
8											
10											-
•					m			1			Þ
MSG							[	STATUS			

📁 Keysight Spectrum Analyzer - Swept SA			- 0 <b>-</b>	
02 RF 50 Ω AC Display Line -7.17 dBm	PNO: Fast Free Run FGain:Low Atten: 40 dB	ALIGN AUTO Avg Type: Log-Pwr Avg Hold: 14/100	03:18:18 PM Feb 17, 2025 TRACE 1 2 3 4 5 6 TYPE MWWWW DET P N N N N N	
Ref Offset 1.5 dB 10 dB/div Ref 31.50 dBm			Mkr2 2.545 GHz -44.943 dBm	
21.5 <b>1</b>				
1.50			-7.17 dBm	
-18.5				
-38.5 2 -48.5	and an and an and an and an and an and	And the second	and the stand of t	
-68.5			Stop 26.50 GHz	
Start 0.03 GHz Sto   #Res BW 100 kHz #VBW 300 kHz Sweep 2.530				
MKR MODE TRC SCL X   1 N 1 f 904 MH;   2 N 1 f 2.545 GH;		FUNCTION WIDTH F	JNCTION VALUE	
3 4 5			E	
6 7 8 8				
	m		-	
MSG		STATUS		



### High Channel

Keysight Spectrum Analyzer						
	50 Ω AC	INT	REF	ALIGN AUTO		06:58:04 PM Feb 17, 202
arker 1 927.749			rig: Free Run Atten: 40 dB	Avg Type: L Avg Hold:>1	.og-Pwr 100/100	TRACE 1 2 3 4 5 TYPE MWWW DET PNNN
Ref Offse dB/div Ref 31.	et 1.5 dB 50 dBm				Mkr1 9	27.749 0 MH 12.302 dBr
n.5				1-		
1.5						
50						
3.5	j M				why have	
3.5	Andraw					wwwwwwwww
3.5						
3.5						
enter 927.5000 N Res BW 100 kHz	IHz	#VBW 3	00 kHz		Sweep 1.0	Span 1.500 MH 00 ms (1001 pts
R MODE TRC SCL	Х	Y	FUNCTION	FUNCTION WIDTH	FUNCTION	I VALUE
N 1 f	927.749 0 MHz	z 12.302 dBm	1			
2 3 4						
						,

LXI L	ectrum Analyzer - Swept RF 50 Ω -ine -7.70 dB	AC	I	NT REF		ALIGN AUTO	Log-Pwr	06:58:47 PM Feb 17, 2025 TRACE 12 3 4 5 6
Сторлау		F		Trig: Free   #Atten: 40		Avg Hold:		DET P NNNN
10 dB/div	Ref Offset 1.5 c Ref 31.50 dE						Μ	kr2 16.494 GHz -39.002 dBm
21.5								
11.5 Y								
-8.50								-7.70 dBm
-18.5						2		
-38.5				a who was	ر. مىلامىرىيە بىلەتر	and a way and a start of the st	and a support	What we we we we want the state of the state
-48.5	and the second s	an a	and and the second s	14-49-14) <sup>1-1</sup> 0-7-14				
Start 0.03 #Res BW		^	#\(B\\	300 kHz			Swoon	Stop 26.50 GHz 2.530 s (1001 pts)
MKR MODE T		X	#VBW		TION FU	INCTION WIDTH		
1 N 2 2 N 2		930 MHz 16.494 GHz	12.102 dE -39.002 dE	im Im				
4 5								E
6 7 8								
9 10 11								
				m		~		• •
MSG						<b>I</b> STATUS		



### **APPENDIX II - MEASUREMENT PHOTOS**

Note: Please see the attached RF\_Test Setup photos for FCC Part 15C.



Note: Please see the attached NV-09725\_EUT Photos.

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