



Test Report No.:  
**FCC2021-0026-EMF**

## **EMC Test Report**

**EUT** : LoRa Magnetic Contact Switch  
**MODEL** : WS301-915M  
**BRAND NAME** : Milesight  
**APPLICANT** : Xiamen Milesight IoT Co., Ltd.  
**Classification Of Test** : N/A

**CVC Testing Technology Co., Ltd.**



# CVC Testing Technology Co., Ltd.

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<b>Applicant</b>		Name : Xiamen Milesight IoT Co., Ltd. Address : 4/F,NO. 63-2 Wanghai Road, 2nd Software Park,Xiamen ,China	
<b>Manufacturer</b>		Name : Xiamen Milesight IoT Co., Ltd. Address : 4/F,NO. 63-2 Wanghai Road, 2nd Software Park,Xiamen ,China	
<b>Equipment Under Test</b>		Name : LoRa Magnetic Contact Switch Model/Type: WS301-915M Trade mark : Milesight SerialNO.:N/A Sampe NO.:6-1	
Date of Receipt.	2021.09.8	Date of Testing	2021.09.08~2021.11.08
<b>Test Specification</b>		<b>Test Result</b>	
FCC Part 2 (Section 2.1091) KDB 447498 D01 IEEE C95.1		PASS	
<b>Evaluation of Test Result</b>	The equipment under test was found to comply with the requirements of the standards applied.  <b>Issue Date: 2021.11.08</b>		
Tested by:  Xu ZhenFei Name                      Signature	Reviewed by:  Liu YongHai Name                      Signature	Approved by:  Chen HuaWen Name                      Signature	
<b>Other Aspects: NONE.</b>			
Abbreviations:OK,    Pass= passed                      Fail = failed                      N/A= not applicable                      EUT= equipment, sample(s) under tested			
This test report relates only to the EUT, and shall not be reproduced except in full, without written approval of CVC.			



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**RELEASE CONTROL RECORD**

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
FCC2021-0026-EMF	Original release	2021.11.08



## 1. GERTIFICATION

FCC ID	2AYHY-WS301
PRODUCT	LoRa Magnetic Contact Switch
BRAND	Milesight
MODEL	WS301-915M
ADDITIONAL MODEL	N/A
APPLICANT	Xiamen Milesight IoT Co., Ltd.
STANDARDS	FCC Part 2 (Section 2.1091)
	KDB 447498 D01
	IEEE C95.1

For trading purposes, the product is available in three different exterior colors

## 2. RF EXPOSURE LIMIT

### LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (MPE)

FREQUENCY RANGE (MHz)	ELECTRIC FIELD STRENGTH (V/m)	MAGNETIC FIELD STRENGTH (A/m)	POWER DENSITY (mW/cm <sup>2</sup> )	AVERAGE TIME (minutes)
<b>LIMITS FOR GENERAL POPULATION / UNCONTROLLED EXPOSURE</b>				
300-1500	...	...	F/1500	30
1500-100,000	...	...	1.0	30

F = Frequency in MHz

## 3. MPE CALCULATION FORMULA

$$Pd = (Pout * G) / (4 * pi * r^2)$$

where

Pd = power density in mW/cm<sup>2</sup>

Pout = output power to antenna in mW

G = gain of antenna in linear scale

Pi = 3.1416

R = distance between observation point and center of the radiator in cm

## 4. CLASSIFICATION

The antenna of this product, under normal use condition, is at least 20cm away from the body of the user. So, this device is classified as **Mobile Device**.



## 5. ANTENNA GAIN

The antennas provided to the EUT, please refer to the following table:

Transmitter Circuit	Peak Gain (dBi)	Antenna Type
Chain 0	1	Spring Antenna

## 6. CALCULATION RESULT OF MAXIMUM CONDUCTED AV POWER

The tuned conducted Average Power (declared by client)

Mode	Frequency (MHz)	Target Power (dBm)	Tolerance (dBm)	Lower Tolerance (dBm)	Upper Tolerance (dBm)
DR0	902.3-914.9	6	+1	5	7
DR8	903.0-914.2	6	+1	5	7

The measured conducted Average Power(worse case)

Mode	Frequency (MHz)	Averaged Power (dBm)
DR0	902.3	5.73
DR8	914.2	5.72

FREQUENCY BAND (MHz)	MAX AVERAGE POWER (dBm)	ANTENNA GAIN (dBi)	DISTANCE (cm)	POWER DENSITY (mW/cm <sup>2</sup> )	LIMIT (mW/cm <sup>2</sup> )
902.3-914.9	7	1	20	0.00126	0.602
903.0-914.2	7	1	20	0.00126	0.602



## Important

(1) The test report is valid with the official seal of the laboratory and the signatures of Test engineer, Author and Reviewer simultaneously.

(2) The test report is invalid if altered.

(3) Any photocopies or part photocopies in the test report are forbidden without the written permission from the laboratory.

(4) Objections to the test report must be submitted to the laboratory within 15 days.

(5) Generally, commission test is responsible for the tested samples only.

(6) Any photocopies or part photocopies of the test report are forbidden without the written permission from CVC;

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