



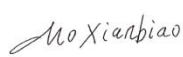
Test Report No.:
FCCSZ2024-0017-H

RF Test Report

FCC ID : 2AYHY-VS351
EUT : Mini AI Thermopile People Counter
MODEL : See Section 2.2
BRAND NAME : Milesight
APPLICANT : Xiamen Milesight IoT Co., Ltd.
Classification of Test : N/A

CVC Testing Technology (Shenzhen) Co., Ltd.



Client		Name: Xiamen Milesight IoT Co., Ltd.	
		Address: Building C09, Software Park Phase III, Xiamen 361024, Fujian, China	
Manufacturer		Name: Xiamen Milesight IoT Co., Ltd.	
		Address: Building C09, Software Park Phase III, Xiamen 361024, Fujian, China	
Equipment Under Test		Name: Mini AI Thermopile People Counter	
		Model/Type: See Section 2.2	
		Brand: Milesight	
		Serial No.: N/A	
		Sampe No.: 2-1	
Date of Receipt.	2024.03.20	Date of Testing	2024.03.20~2024.08.27
Test Specification		Test Result	
FCC Part 2 (Section 2.1091) KDB 447498 D04, IEEE C95.3		PASS	
Evaluation of Test Result	The equipment under test was found to comply with the requirements of the standards applied.		
	Seal of CVC Issue Date: 2024.09.05		
Compiled by:  <u>Cai Jianyu</u> Name Signature	Reviewed by:  <u>Mo Xianbiao</u> Name Signature	Approved by:  <u>Dong Sanbi</u> Name Signature	
Other Aspects: NONE.			
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
FCCSZ2024-0017-H	Original release	2024.09.05



1. GENERAL PRODUCT INFORMATION

PRODUCT	Mini AI Thermopile People Counter
BRAND	Milesight
MODEL	VS351-915M
ADDITIONAL MODEL	See Section 2.2
POWER SUPPLY	AC 120V/60Hz
OPERATING FREQUENCY	DTS 500kHz, 903MHz~927.5MHz
	Hybrid 125kHz, 902.3MHz~927.8MHz
	NFC, 13.56MHz
	Radar 24GHz~24.25GHz
I/O PORTS	Refer to user's manual
CABLE SUPPLIED	N/A
Remark: 1. For more detailed features description, please refer to the manufacturer's specifications or the User's Manual. 2. For the test results, the EUT had been tested with all conditions. But only the worst case was shown in test report. 3. EUT photo refer to the report (Report NO.: FCCSZ2024-0017-EUT).	

2. ADDITIONAL MODEL/TYPE

Main Model No.	Serial Model No.	Difference
VS351-915M	NF351-915M, VS351,NF351	1. only differences are the model no and appearance silkprint 2. Each model is available in two versions, either adapter or battery powered



3. RF EXPOSURE LIMIT

(Option C) Or using Table 1 and the minimum separation distance (R in meters) from the body of a nearby person for the frequency (f in MHz) at which the source operates, the ERP (watts) is no more than the calculated value prescribed for that frequency. For the exemption in Table 1 to apply, R must be at least $\lambda / 2 \pi$, where λ is the free-space operating wavelength in meters. If the ERP of a single RF source is not easily obtained, then the available maximum time-averaged power may be used in lieu of ERP if the physical dimensions of the radiating structure(s) do not exceed the electrical length of $\lambda / 4$ or if the antenna gain is less than that of a half-wave dipole (1.64 linear value).

RF SOURCE FREQUENCY (MHZ)	THRESHOLD ERP(W)
0.3 -1.34	$1,920 R^2$
1.34 - 30	$3,450 R^2 / F^2$
30 -300	$3.83 R^2$
300-1500	$0.0128 R^2 F$
1500-100,000	$19.2 R^2$



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
LORA	-2.6	PCB Antenna
Radar	2.754	Microstrip patch Antenna
NFC	N/A	Loop Antenna

This is provided by the manufacturer. The laboratory is not responsible for technical data provided by the customer.

6. CALCULATION RESULT OF MAXIMUM CONDUCTED PEAK POWER

The measured conducted Peak Power

Technology	Antenna	Maximum conducted power (dBm)	Maximum Antenna Gain (dBi)	ERP (dBm)	ERP (W)	Threshold ERP(W)	Ratio
LORA	Ant1	17.11	-2.6	12.36	0.0172	0.451	0.037

Technology	Antenna	EIRP (dBm)	ERP (dBm)	ERP (W)	Threshold ERP(W)	Ratio
NFC	Ant2	-49.97	-52.12	0.000006	0.750	0.001
Radar	Ant3	6.83	4.68	0.0029	0.768	0.004

Note1 : NFC EIRP= 5.23dBuV/m + 40(Distance 30m to 3m factor) - 95.2, for d=3m.

Note2 : Radar EIRP= 102.03dBuV/m - 95.2, for d=3m.

Note3 : LoRa threshold = $0.0128R^2F = 0.0128 \times (0.2\text{m})^2 \times 902\text{MHz}$

Note4 : NFC threshold = $3450R^2/F^2 = 3450 \times (0.2\text{m})^2 / (13.56\text{MHz})^2$

Note5 : Radar threshold = $19.2R^2 = 19.2 \times (0.2\text{m})^2$

CALCULATION FOR SIMULTANEOUS TRANSMISSION:

LoRa, NFC and Radar can transmit simultaneously, the formula of calculated the MPE is

$$\sum_{i=1}^a \frac{P_i}{P_{th,i}} + \sum_{j=1}^b \frac{ERP_j}{ERP_{th,j}} + \sum_{k=1}^c \frac{Evaluated_k}{Exposure Limit_k} \leq 1$$

Sum of Ratio = 0.001+0.037+0.004=0.0042 < 1

Conclusion:Pass.

----- End of the Report -----



Important

- (1) The test report is invalid without the official stamp of CVC;
- (2) Any part photocopies of the test report are forbidden without the written permission from CVC;
- (3) The test report is invalid without the signatures of Approval and Reviewer;
- (4) The test report is invalid if altered;
- (5) Objections to the test report must be submitted to CVC within 15 days.
- (6) Generally, commission test is responsible for the tested samples only.
- (7) As for the test result “-” or “N” means “not applicable”, “/” means “not test”, “P” means “pass” and “F” means “fail”

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