

FCC RF Exposure report

for

GeoVision

Model No.: SP-LT

FCC ID: 2BODE-SP-LT-01

of

Applicant: Tensar Corporation

Address: 2500 NORTHWINDS PARKWAY SUITE 500
ALPHARETTA , GA 30009 United States

Tested and Prepared

by

Worldwide Testing Services (Taiwan) Co., Ltd.

FCC Registration No.: TW1072, TW1140, TW1146, TW1477, TW0037

Industry Canada filed test laboratory Reg. No.: 20037, 31634



Report No.: W6M22501-24046-EE

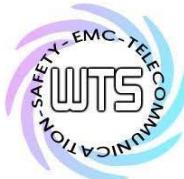


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TABLE OF CONTENTS

| | | |
|----------|---|----------|
| 1 | GENERAL INFORMATION | 2 |
| 1.1 | NOTES | 2 |
| 1.2 | TESTING LABORATORY | 3 |
| 1.3 | APPLICATION DETAILS | 3 |
| 1.4 | GENERAL INFORMATION OF TEST ITEM | 4 |
| 1.5 | DUTY CYCLE AND FACTOR | 5 |
| 1.6 | TEST STANDARDS | 6 |
| 2 | TEST CONFIGURATION | 7 |
| 2.1 | TEST ENVIRONMENT | 7 |
| 2.2 | MEASUREMENT UNCERTAINTY | 7 |
| 2.3 | TEST EQUIPMENT LIST | 7 |
| 3 | EQUIVALENT ISOTROPIC RADIATED POWER (EIRP) | 8 |
| 3.1 | EXEMPTION LIMITS FOR ROUTINE EVALUATION | 8 |



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1 General Information

1.1 Notes

The purpose of conformity testing is to increase the probability of adherence to the essential requirements or conformity specifications, as appropriate.

The complexity of the technical specifications, however, means that full and thorough testing is impractical for both technical and economic reasons.

Furthermore, there is no guarantee that a test sample which has passed all the relevant tests conforms to a specification.

Neither is there any guarantee that such a test sample will interwork with other genuinely open systems. The existence of the tests nevertheless provides the confidence that the test sample possesses the qualities as maintained and that its performance generally conforms to representative cases of communications equipment.

Laboratory disclaimer-

1. The test results of this test report relate exclusively to the item tested as specified in 1.5.
2. The test report may only be reproduced or published in full.
3. Reproduction or publication of extracts from the report requires the prior written approval of the Worldwide Testing Services(Taiwan) Co., Ltd.
4. Antenna gain is provided by applicant and laboratory issue relevant data and results.

Tester:

May 15, 2025

Sora Kuo

Date

WTS-Lab.

Name

Signature

Technical responsibility for area of testing:

May 15, 2025

Kevin Wang

Date

WTS

Name

Signature



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1.2 Testing laboratory

1.2.1 Location

10m OATS

No.5-1, Lishui, Shuang Sing Village, Wanli Dist.,
New Taipei City 207, Taiwan (R.O.C.)

3 meter semi-anechoic chamber

No. 99, Sec. 1, Balian Rd., Xizhi Dist.,
New Taipei City 221032, Taiwan (R.O.C.)

Worldwide Testing Services (Taiwan) Co., Ltd.

6F., No. 58, Ln. 188, Ruiguang Rd., Neihu Dist.,

Taipei City 114 , Taiwan (R.O.C.)

Tel: 886-2-6606-8877

1.2.2 Details of accreditation status

Accredited testing laboratory

FCC filed test laboratory Reg. No.: TW1072, TW1140, TW1146, TW1477, TW0037

Industry Canada filed test laboratory Reg. No.: 20037, 31634

Test location, where different from Worldwide Testing Services (Taiwan) Co., Ltd. :

Name: ./.

Accredited no.: ./.

Street: ./.

Town: ./.

Country: ./.

1.3 Application details

Approval holder

Name: Tensar Corporation
Street: 2500 NORTHWINDS PARKWAY SUITE 500 ALPHARETTA ,
Town: GA 30009
Country: United States

Manufacturer: (if applicable)

Name: ./.

Street: ./.

Town: ./.

Country: ./.



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Date of receipt of test item: January 08, 2025

Date of test: from January 09, 2025 to February 19, 2025

1.4 General information of Test item

Type of test item: GeoVision

Model no.: SP-LT

Multi-listing model no.: ./.

Brand name: Tensar

Power supply: Battery 3.6Vd.c.

Technical data

| Mode | Channel | Conducted Power (dBm) |
|--------|-----------|-----------------------|
| 2.4GHz | 2412 MHz | 10.68 |
| | 2437 MHz | 10.77 |
| | 2456 MHz | 10.94 |
| 900M | 902.3 MHz | -14.82 |
| | 907.7 MHz | -14.86 |
| | 912.9 MHz | -14.89 |

Type of antenna: MULTIBAND CHIP antenna

Antenna gain: 2.4GHz: 1.9 dBi / 900M: 2.3dBi

Operation modes: Duplex

Modulation type: CCS, GFSK (For 915 MHz it is CCS, For 2.4 GHz it is GFSK)

Sample no.: #01

Classification:

| | |
|--|-------------------------------------|
| Fixed Device | <input type="checkbox"/> |
| Mobile Device (Human Body distance > 20cm) | <input checked="" type="checkbox"/> |
| Portable Device (Human Body distance < 20cm) | <input type="checkbox"/> |
| Modular Radio Device | <input type="checkbox"/> |

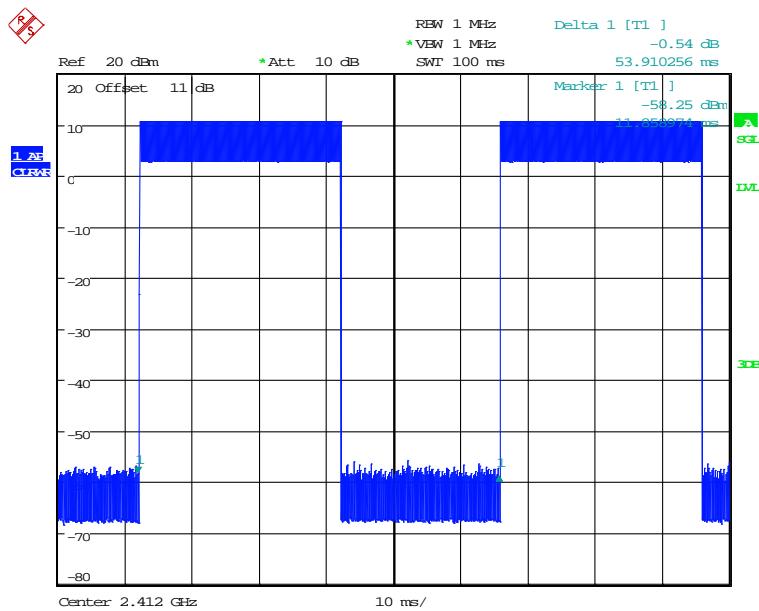
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FCC ID: 2BODE-SP-LT-01

1.5 Duty cycle and factor

The duty factor is computed as $[10 \log (1 / D)]$, where D is the duty cycle.

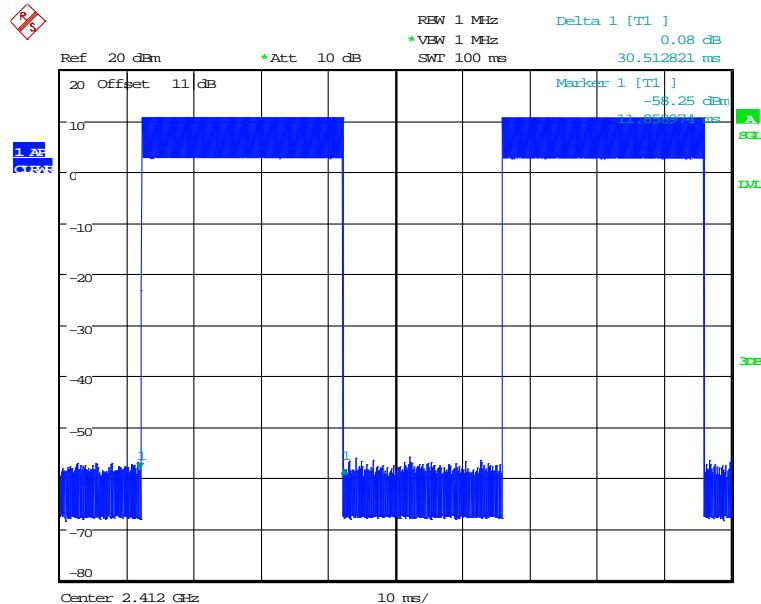
| Mode | T _{on} (ms) | T _{on} +T _{off} (ms) | Duty cycle(%) | 1/T - VBW(kHz) |
|------|----------------------|--|---------------|----------------|
| 2.4G | 30.51 | 53.91 | 56.59% | 0.03 |

Duty cycle plot



DUTY

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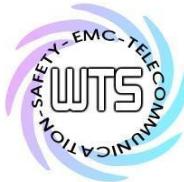


DUTY

1.7 Test standards

FCC KDB Publication

447498 D01 General RF Exposure Guidance v06



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2 Test configuration

2.1 Test environment

Relative humidity content: 20 ... 75 %

Air pressure: 86 ... 103 kPa

Extreme conditions parameters: ./.

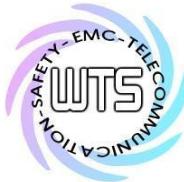
2.2 Measurement uncertainty

| Test item Name | Uncertainty |
|--|--------------------------------|
| Estimation Result of Uncertainty of Conducted Output Power Measurement (Peak Output Power (transmitter)) | Expanded Uncertainty : 1.64 dB |

The decision rule is: Measurement uncertainty is not included in the calculation of test results.

2.3 Test Equipment List

| Code No. | Test equipment | Mode No. | Serial No. | Brand | Cal. Date | Next Cal. Date |
|-----------------|-------------------|-------------------------------|------------|--------------|-----------|----------------|
| ETSTW-RE 050 | Attenuator 10dB | 50HF-010-1 | None | JFW | 2025/2/14 | 2026/2/13 |
| ETSTW-RE 055 | SPECTRUM ANALYZER | FSU 26 | 200074 | R&S | 2024/3/7 | 2025/3/6 |
| ETSTW-RE 099 | DC Block | 50DB-007-1 | None | JFW | 2025/2/14 | 2026/2/13 |
| ETSTW-Cable 030 | Microwave Cable | SUCOFLEX 104 (S_Cable 9) | 279067 | HUBER+SUHNER | 2025/2/14 | 2026/2/13 |



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3 Equivalent Isotropic Radiated Power (EIRP)

FCC Rule: 15.247

EIRP = max. conducted output power + antenna gain

EIRP = 10.94 dBm + (1.9 dBi [antenna gain claimed by manufacturer]) = 12.84dBm = 19.23mW

EIRP = max. conducted output power + antenna gain

EIRP = -14.82 dBm + (1.9 dBi [antenna gain claimed by manufacturer]) = -12.92dBm = 0.0511mW

3.1 Exemption Limits for Routine Evaluation

according to 47 CFR FCC Part 2 Subpart J, section 2.1091

FCC OET Bulletin 65 Edition 97.01 determines the equations for predicting RF fields and applicable limits.

The prediction for power density in the far-field but will over-predict power density in the near field, where it could be used for walking a “worst case” or conservative prediction.

Systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy levels in excess limit for maximum permissible exposure. In accordance with 47 CFR FCC Part 2 Subpart J, section 2.1091 this device has been defined as a mobile device whereby a distance of 20 cm normally can be maintained between the user and the device.

MPE Calculation Method

(A) Limits for Occupational/Controlled Exposure

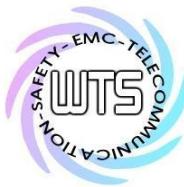
| Frequency Range (MHz) | Electric Field Strength (E) (V/m) | Magnetic Field Strength (H) (A/m) | Power Density (S) (mW/cm ²) | Averaging Time E ² , H ² or S (minutes) |
|-----------------------|-----------------------------------|-----------------------------------|---|---|
| 0.3-3.0 | 614 | 1.63 | (100)* | 6 |
| 3.0-30 | 1842/f | 4.89/f | (900/f ²)* | 6 |
| 30-300 | 61.4 | 0.163 | 1.0 | 6 |
| 300-1500 | -- | -- | f/300 | 6 |
| 1500-100,000 | -- | -- | 5 | 6 |

(B) Limits for General Population/Uncontrolled Exposure

| Frequency Range (MHz) | Electric Field Strength (E) (V/m) | Magnetic Field Strength (H) (A/m) | Power Density (S) (mW/cm ²) | Averaging Time E ² , H ² or S (minutes) |
|-----------------------|-----------------------------------|-----------------------------------|---|---|
| 0.3-1.34 | 614 | 1.63 | (100)* | 30 |
| 1.34-30 | 824/f | 2.19/f | (180/f ²)* | 30 |
| 30-300 | 27.5 | 0.073 | 0.2 | 30 |
| 300-1500 | -- | -- | f/1500 | 30 |
| 1500-100,000 | -- | -- | 1.0 | 30 |

f = frequency in MHz

*Plane-wave equivalent power density



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E = Electric field (V/m) P = output power (W) G = EUT Antenna numeric gain (numeric)

d = Separation distance between radiator and human body (m)

The formula can be changed to

$$Pd = \frac{30 \times P \times G}{377 \times d^2}$$

mW/cm².

Established separation distance is 20 cm.

Operating frequency band: 2412-2456 MHz

The product meets RF exposure requirement.

Because the power density of 0.0038 mW/cm² at 2456 MHz is below the power density limit of 1 mW/cm².

Established separation distance is 20 cm.

Operating frequency band: 902.3-912.9 MHz

The product meets RF exposure requirement.

Because the power density of 0 mW/cm² at 902.3 MHz is below the power density limit of 0.6015 mW/cm².