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RF EXPOSURE REPORT

Manufacturer:	Hum Industrial Technology Inc. 4220 Duncan Avenue, Suite 201 St. Louis, Missouri 63110 USA
Applicant:	Same as Above
Product Name:	HUM Gateway V3
Product Description:	The Hum Gateway offers the most robust GPS tracker in the rail industry. Dual BLE and LoRa wireless capability offer future proof interoperability while achieving an industry leading 1.5m CEP GPS accuracy.
Operating Voltage/Freq. of EUT During Testing:	Battery-Operated (3.3V)
Model:	Hum-Gateway-V6-R2
Part No.:	HI24030204
FCC ID:	2BUPV-GW01
IC:	35176-GW01
Testing Commenced:	2026-07-21
Testing Ended:	2026-07-29
Test Results:	In Compliance

The EUT complies with the EMC requirements when manufactured identically as the unit tested in this report, including any required modifications. Any changes to the design or build of this unit subsequent to this testing may deem it non-compliant.

Standards:

- **KDB447498**
- **FCC 1.1310**
- **FCC 1.1307(b)(3)(i)(A)**
- **Safety Code 6**
- **RSS-102, Issue 6**



Evaluation Conducted by:

Erik Tobin, EMC Engineer

Report Reviewed by:

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TABLE OF CONTENTS

1	<u>ADMINISTRATIVE INFORMATION</u>
2	<u>SUMMARY OF TEST RESULTS/MODIFICATIONS</u>
3	<u>ENGINEERING STATEMENT</u>
4	<u>EUT INFORMATION AND DATA</u>
5	<u>RF EXPOSURE FOR DEVICE <5mm FROM HUMAN</u>
	➤ <u>FCC</u>
	➤ <u>IC</u>



1 ADMINISTRATIVE INFORMATION

1.1 Measurement Location:

F2 Labs in Middlefield, Ohio.

Site description and attenuation data are on file with the FCC's Sampling and Measurement Branch at the FCC Laboratory in Columbia, MD.

Site description and attenuation data are on file with the Certification and Engineering Bureau, Industry Canada, Site Number 4730B.

1.2 Measurement Procedure:

All measurements were performed according to:

- KDB558074
- FCC 15.249
- RSS-210

1.4 Document History

Document Number	Description	Issue Date	Approved By
F2P28727A-2-C3-02E	First Issue	2026-08-05	K. Littell



2 SUMMARY OF TEST RESULTS

Test Name	Standard(s)	Results
RF Exposure for Device <5mm from Human	KDB447498 FCC 1.1310 FCC 1.1307(b)(3)(i)(A) Safety Code 6 RSS-102, Issue 6	Complies

Modifications Made to the Equipment
None



3 ENGINEERING STATEMENT

This report has been prepared on behalf of Hum Industrial Technology Inc. to provide documentation for the calculations described herein, based on the measurements taken in supporting Test Reports. This equipment has been tested, and calculations were found to comply with KDB447498, FCC 1.1310, FCC 1.1307(b)(3)(i)(A), Safety Code 6 and RSS-102 Issue 6. The test results found in this test report relate only to the item(s) tested.



4 EUT INFORMATION AND DATA

4.1 Equipment Under Test:

Product: HUM Gateway V3

Model: Hum-Gateway-V6-R2

Part No.: HI24030204

Serial No.: 350457794335396

Firmware Version: 2.7.0

Hardware Version: Hum-Gateway-V6-R2

FCC ID: 2BUPV-GW01

IC: 35176-GW01



4.2 Trade Name:

Hum Industrial Technology Inc.

4.3 Power Supply:

Battery-Operated (3.3V)

4.4 Applicable Rules:

- KDB447498
- FCC 1.1310
- FCC 1.1307(b)(3)(i)(A)
- Safety Code 6
- RSS-102, Issue 6

4.5 Antenna:

LoRa Chip Antenna, -1.0dBi Gain

4.6 Accessories:

None

4.7 Test Item Condition:

The equipment to be tested was received in good condition.



5. RF EXPOSURE FOR DEVICE <5mm FROM HUMAN

5.1 Requirements: Distance used is 5mm

FCC	
Limit:	FCC 1.1307(b)(3)(i)(A) The available maximum time-averaged power is no more than 1 mW, regardless of separation distance.
Formula Used for Result:	$P(dBm) = E(dBuVm) + 20\text{LOG}(d) - G - 104.77$
Results:	927 MHz Vertical was the highest $92.8 + 9.542425 + 1.0 - 104.77 = -1.43\text{dBm}$ $P(dBm) = -1.43$ which is 0.72mW

IC	
Limit:	19mW per Table 11 in Section 6.3 of RSS-102 Issue 6
Formula Used for Result:	$P(dBm) = E(dBuVm) + 20\text{LOG}(d) - G - 104.77$
Results:	927 MHz Vertical was the highest $92.8 + 9.542425 + 1.0 - 104.77 = -1.43\text{dBm}$ $P(dBm) = -1.43$ which is 0.72mW

Note: LoRa and cellular are mutually exclusive in firmware; they are never active at the same time and never transmitting or receiving during the same time window, so simultaneous transmission is not addressed.