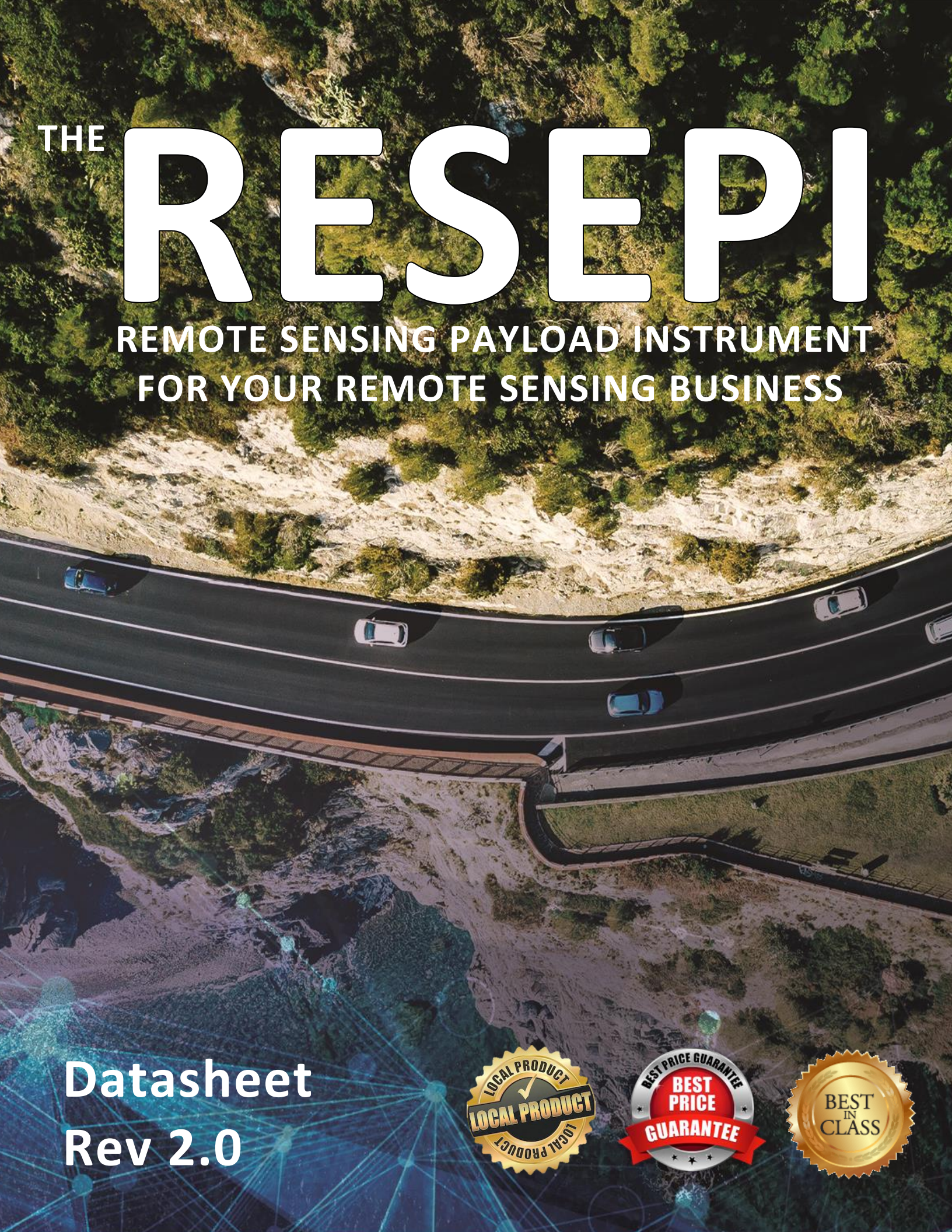

THE
RESEPI
REMOTE SENSING PAYLOAD INSTRUMENT
FOR YOUR REMOTE SENSING BUSINESS
Datasheet
Rev 2.0
LOCAL PRODUCT
BEST PRICE GUARANTEE
BEST PRICE
GUARANTEE
BEST IN CLASS

The Remote Sensing Payload Instrument - **RESEPI®** was designed as a cost-effective solution for extremely accurate Remote Sensing applications. **RESEPI®** utilizes a high-performance Inertial Labs GPS-Aided Inertial Navigation System (INS) with Novatel RTK/PPK single or dual antenna GNSS receiver, integrated with a Linux-based processing platform. The processing platform contains a WiFi interface, embedded cellular modem to support RTCM corrections, datalogging software and gigabit ethernet. **RESEPI®** can be used with commercially available LiDARs like Velodyne, Quanergy, Ouster, RIEGL, and LIVOX. The device was built with the purpose of white-labeling.

Your Logo can be placed on all software: LIDAR calibration software, Bore-sighting software, Point Cloud Software powered by Waypoint® Inertial Explorer from Hexagon | NovAtel®, web-interfaces, and hardware. All components are mounted into one compact and light-weight enclosure and the bore-sighting and point cloud software powered by Waypoint® Inertial Explorer from Hexagon | NovAtel® is fully automated to provide optimized PPK results.


"Your LIDAR"


Velodyne LIDAR


Quanergy LIDAR

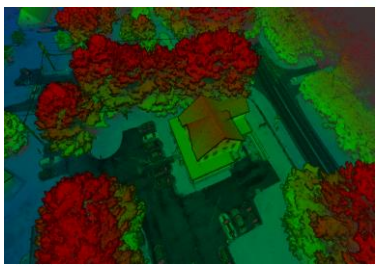

Ouster LIDAR

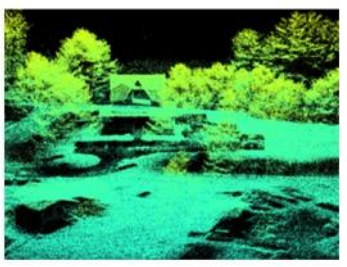

LIVOX LIDAR

RESEPI® is completely modular. You can supply the GNSS receiver. You can supply the LiDAR. We provide everything for assembling, calibrating, and bore-sighting **RESEPI®**. This allows you to maintain existing relationships and meet local production requirements. You have full control for customization.

0.37 kg Weight w/o LIDAR	PPK / RTK Dual / Single GPS-Aided INS	Up to 1 TB USB Memory Drive	3 - 5 cm Point Cloud Accuracy	WiFi & GSM Embedded WiFi, Cellular Modem	Up to 200 m AGL - Above Ground Level	USB Camera Interface

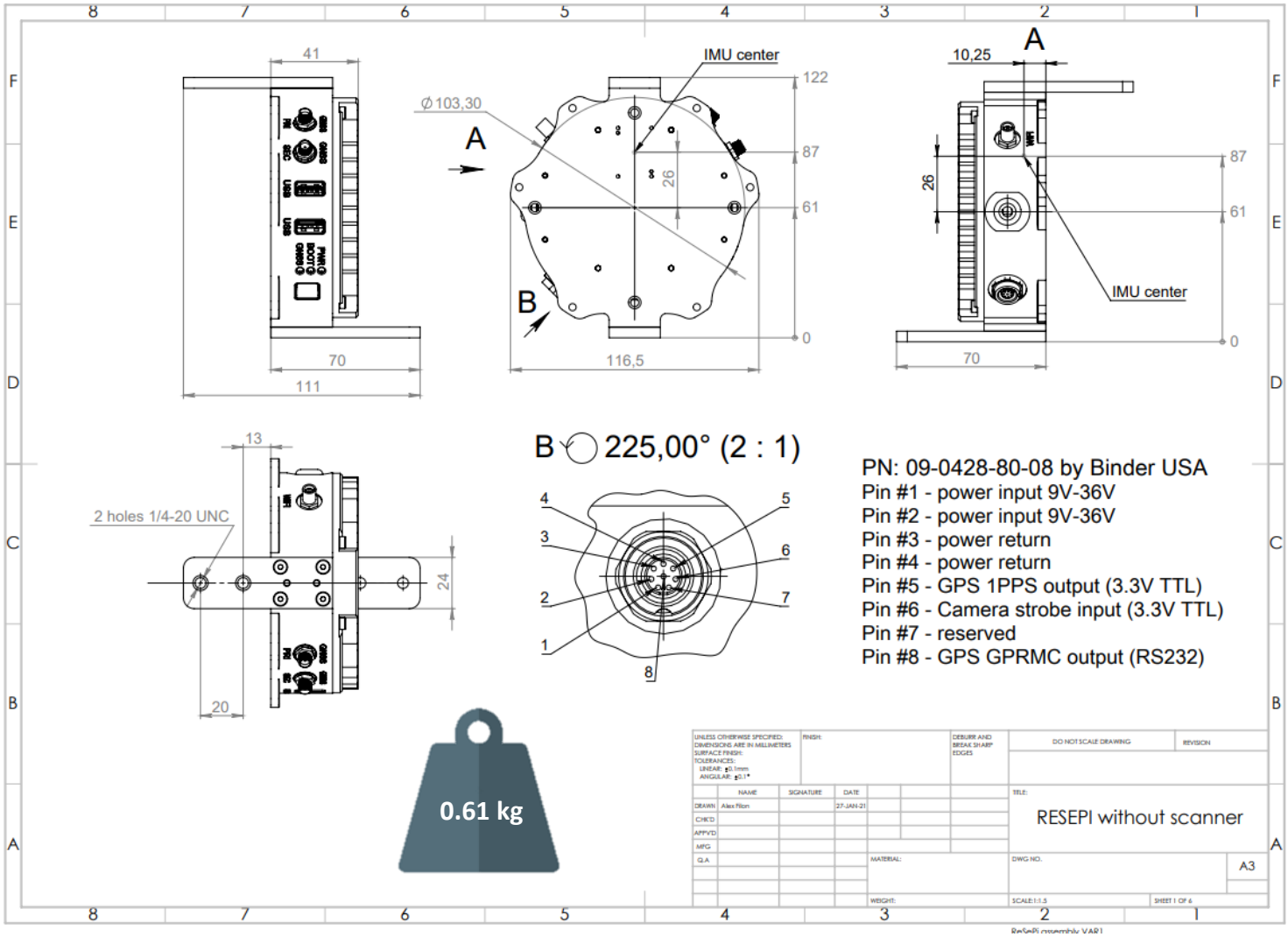
RESEPI® is ALSO a complete remote sensing solution – LiDAR, all required cables, mounting brackets, vibration isolator, LiDAR Calibration, Bore-sighting, Post-Processing (PPK) and Point Cloud software utilizing the Waypoint® post-processing engine from Hexagon | NovAtel® are available upon purchase of the RESEPI. Value Added Resellers can focus on growing their business rather than developing the payload product. We will support and grow the product together to meet the market requirements with a commitment to supplying the best price/performance solution to our Business Partner.



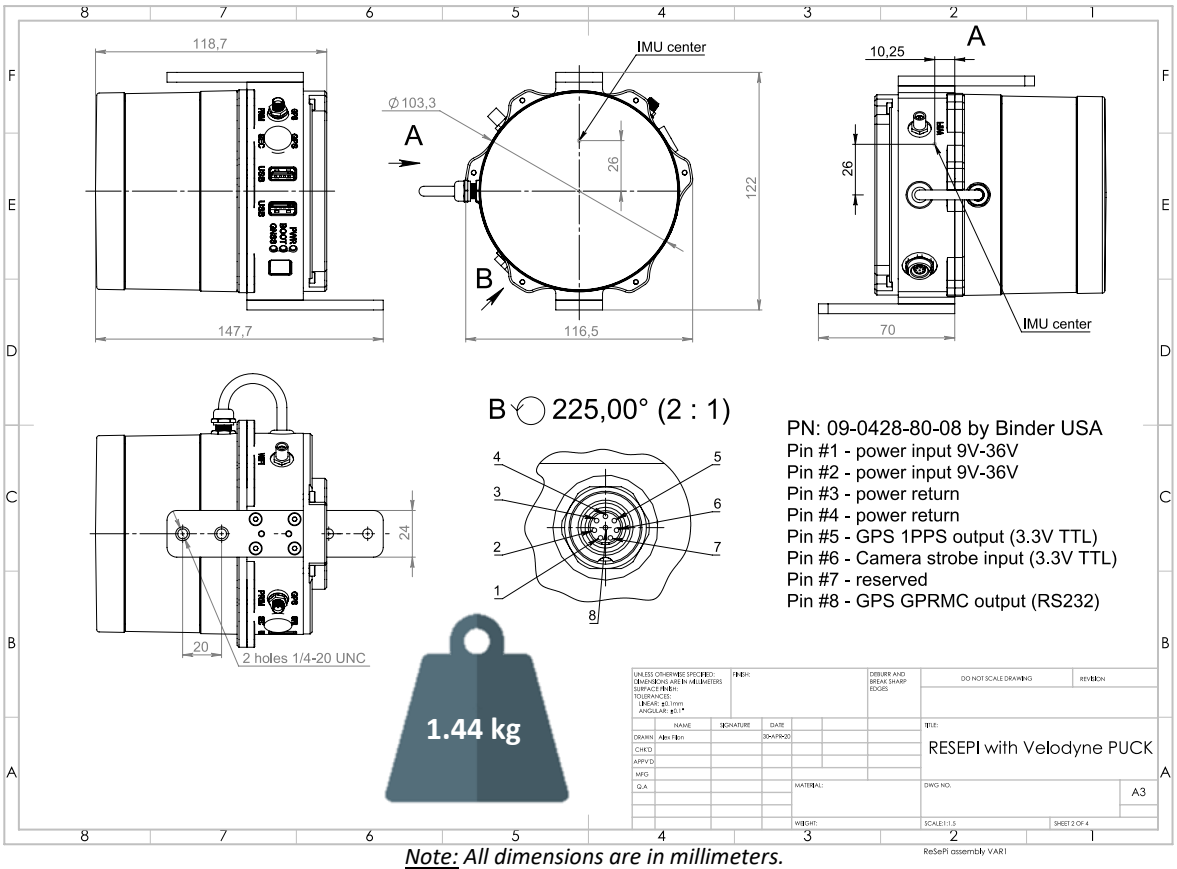


RESEPI® Specifications

Weight	**0.37 kg (without LIDAR)**
Power Consumption	**12 W (with VLP-16 LIDAR)**
Position Accuracy (GPS-Aided INS)	**0.5 cm (PPK estimated) / 1 cm + 1 ppm (RTK)**
Attitude Accuracy (GPS-Aided INS)	**<0.01 deg Pitch & Roll; <0.05 deg Heading**
Precision (Point Cloud)	**3 - 5 cm (dependent on LiDAR, taken on the same target @ 50 m AGL)**
Scanner field of View (FOV)	**360 deg (depend on LiDAR selection)**
Scanner (LIDAR)	**VELODYNE VLP / QUANERGY / RIEGL / OUSTER / Livox**
Inertial Navigation System	**Inertial Labs INS-B-OEM; INS-D-OEM**
Type of recorded data	**GNSS data for PPK; GNSS time-stamped INS & IMU data; GNSS time-stamped LiDAR scans; GNSS time-stamps for camera strobe pulses**



Note: All dimensions are in millimeters.



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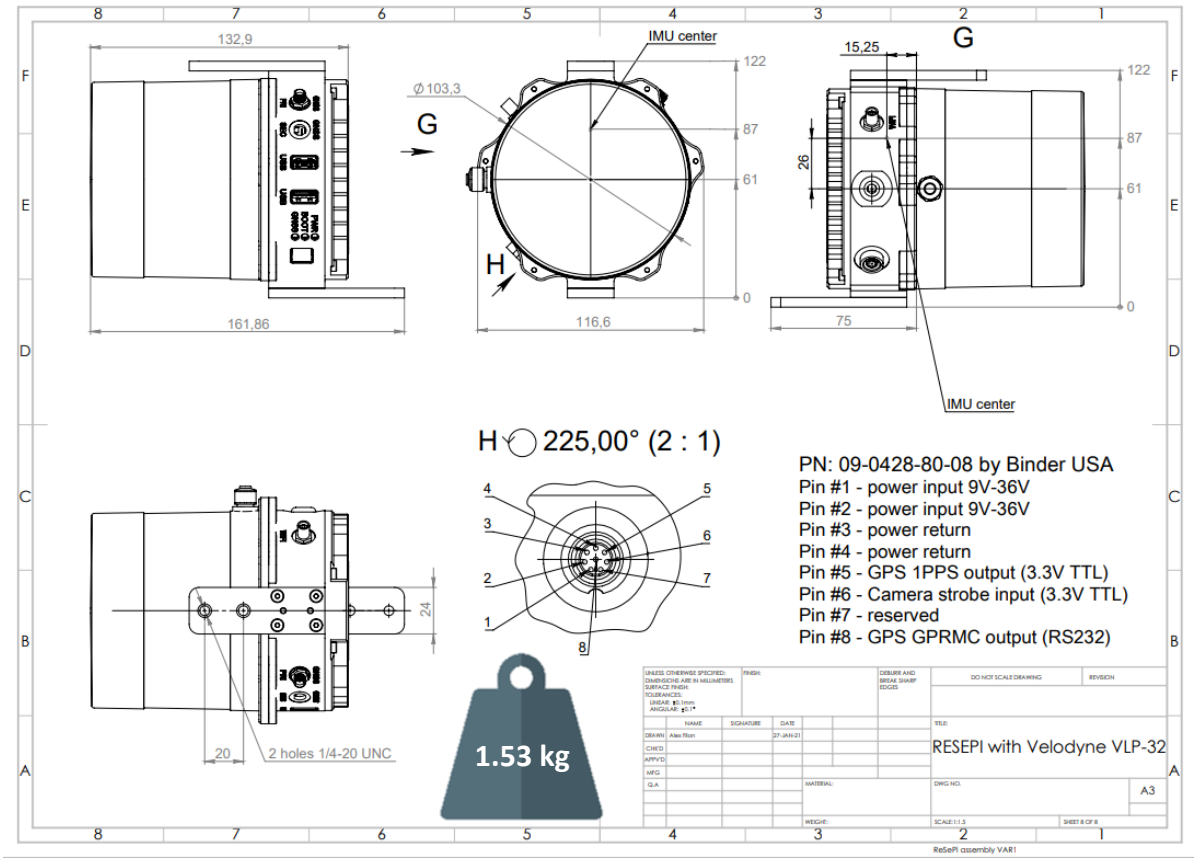

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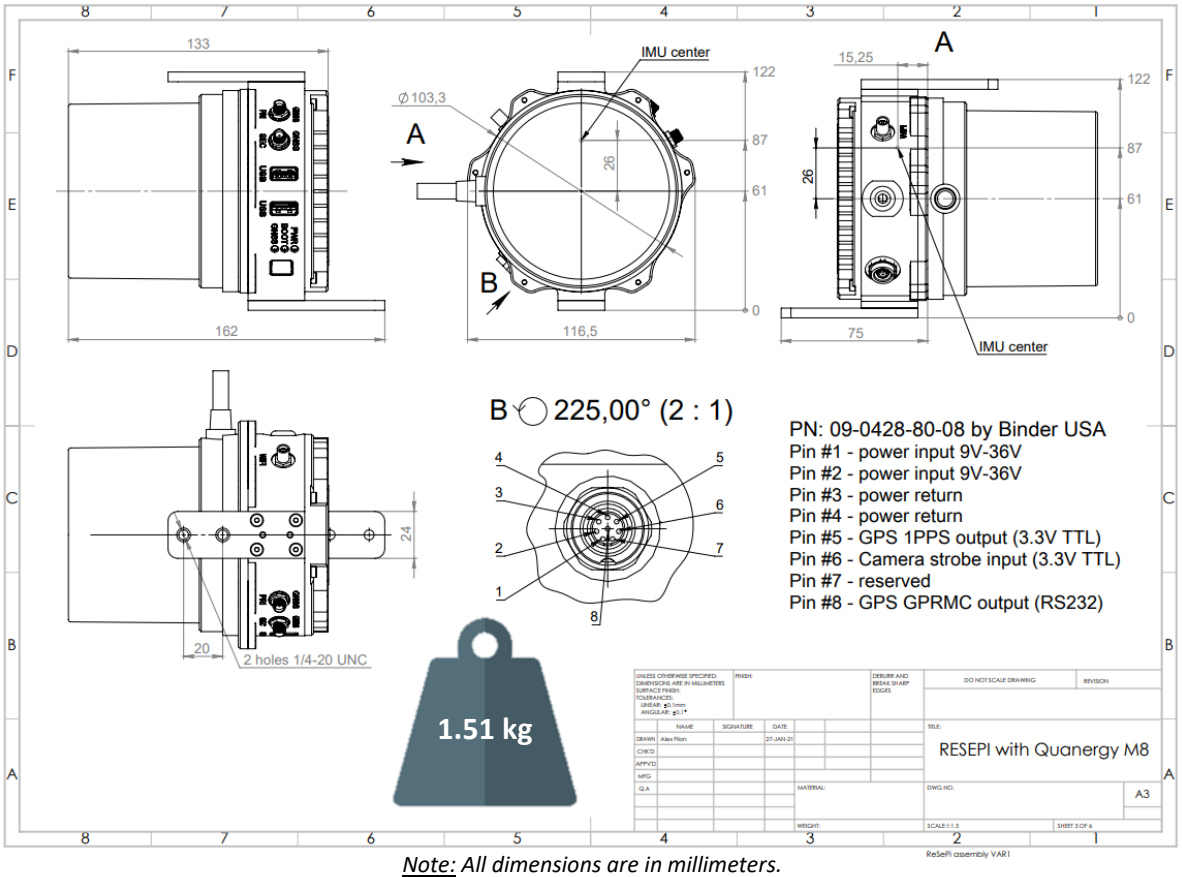

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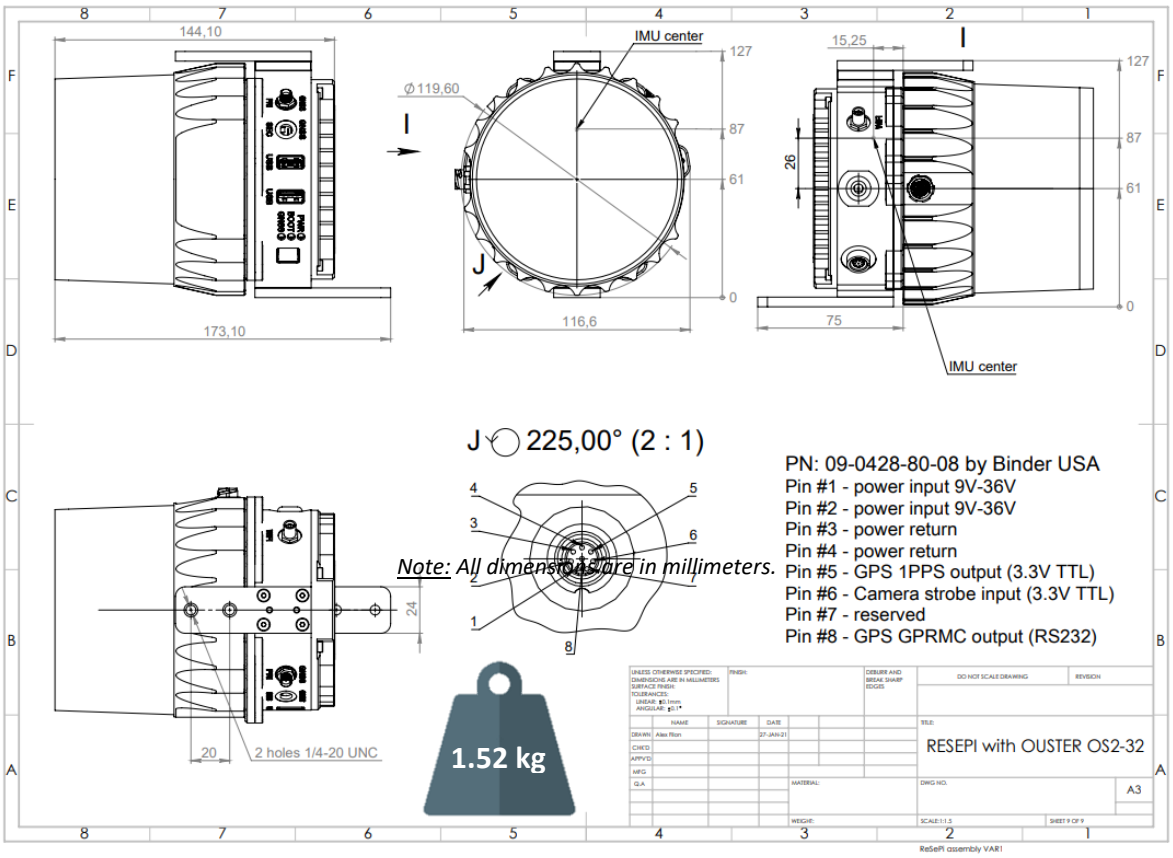

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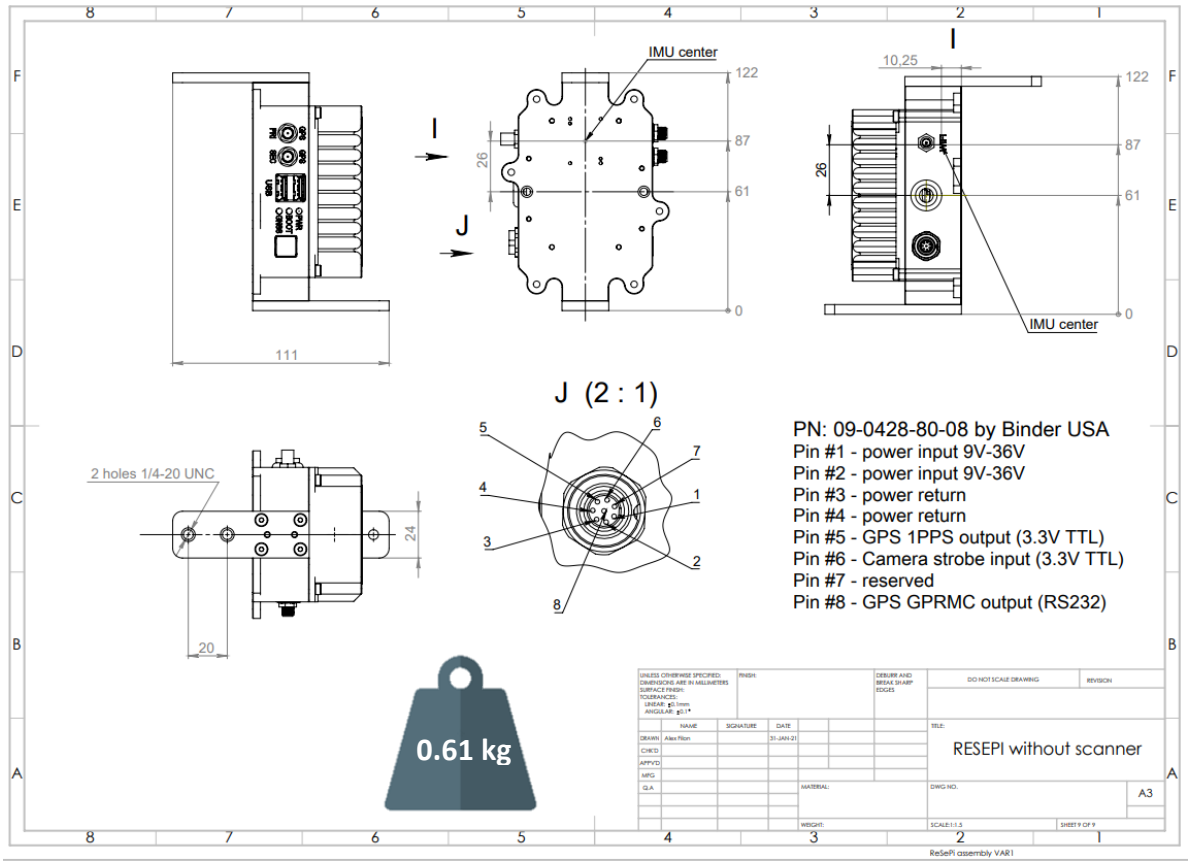

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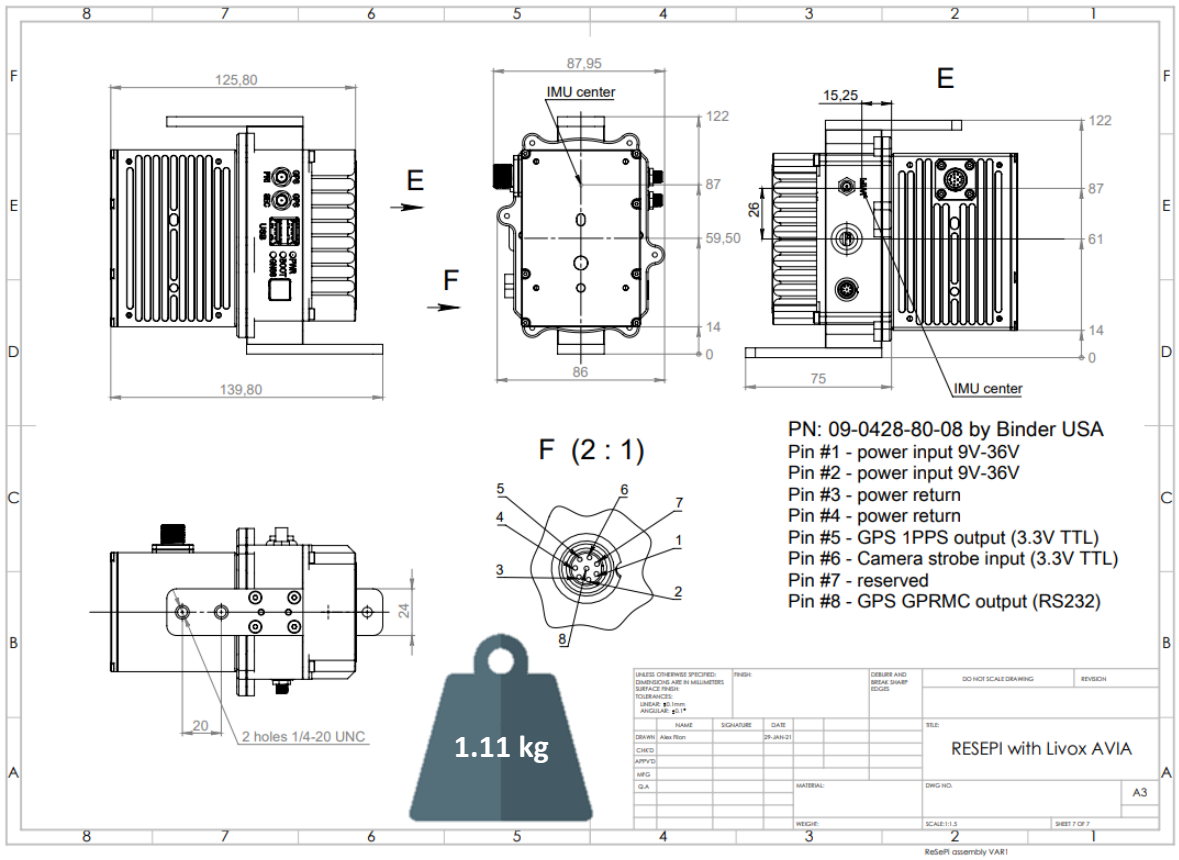

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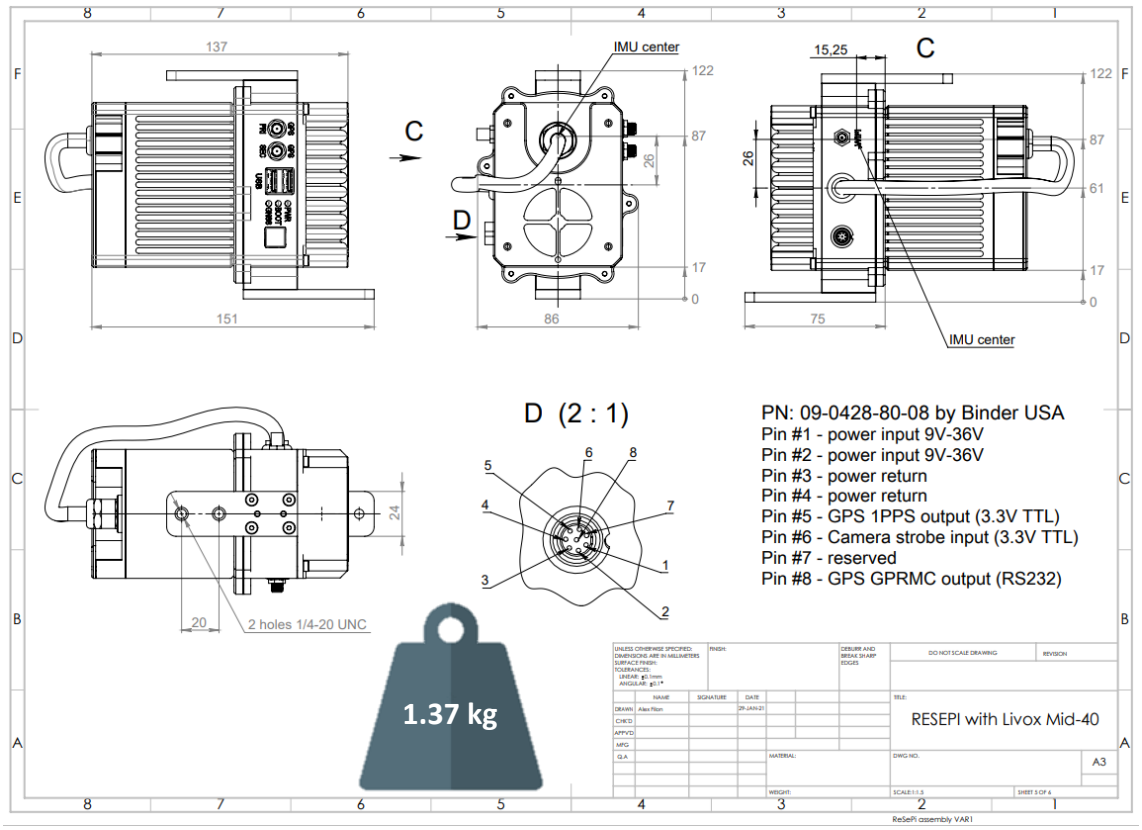

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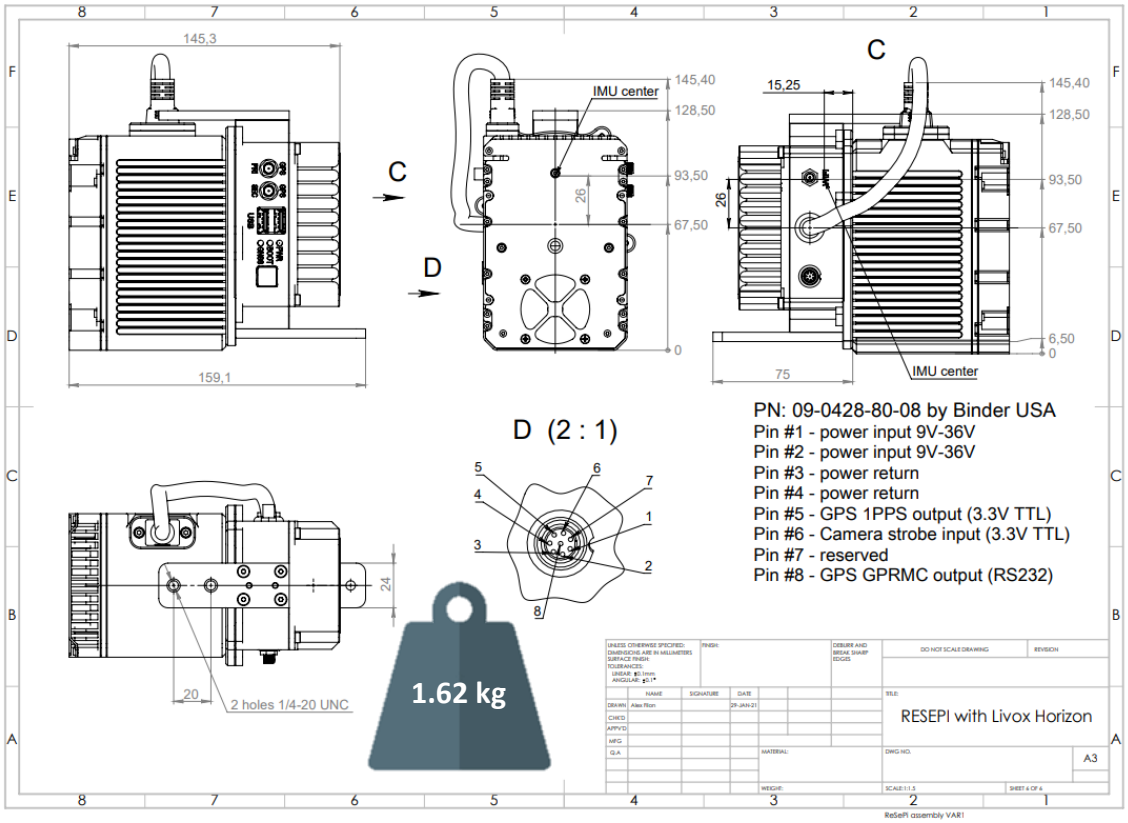

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