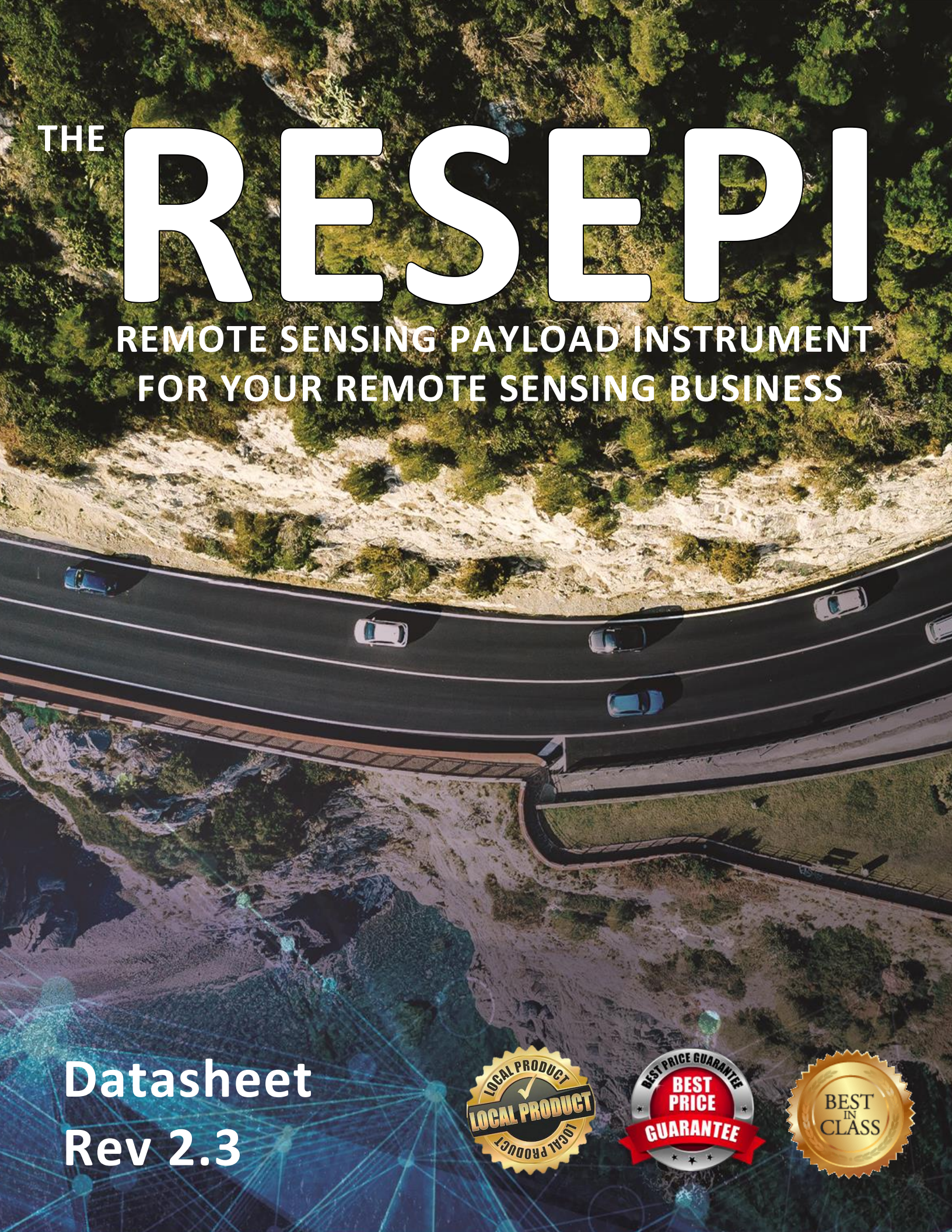


THE RESEPI

REMOTE SENSING PAYLOAD INSTRUMENT FOR YOUR REMOTE SENSING BUSINESS

Datasheet
Rev 2.3

LOCAL PRODUCT

BEST PRICE GUARANTEE

BEST IN CLASS

RESEPI
Datasheet Rev. 2.3

The Remote Sensing Payload Instrument - **RESEPI®** was designed as a cost-effective solution for extremely accurate Remote Sensing applications. **RESEPI®** utilizes a high-performance 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, external cellular modem to support RTCM corrections, datalogging software and automated post-processing. **RESEPI®** can be used with commercially available LiDARs like Hesai, Velodyne, Quanergy, Ouster, RIEGL, and LIVOX. 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** | **Hesai LiDAR**

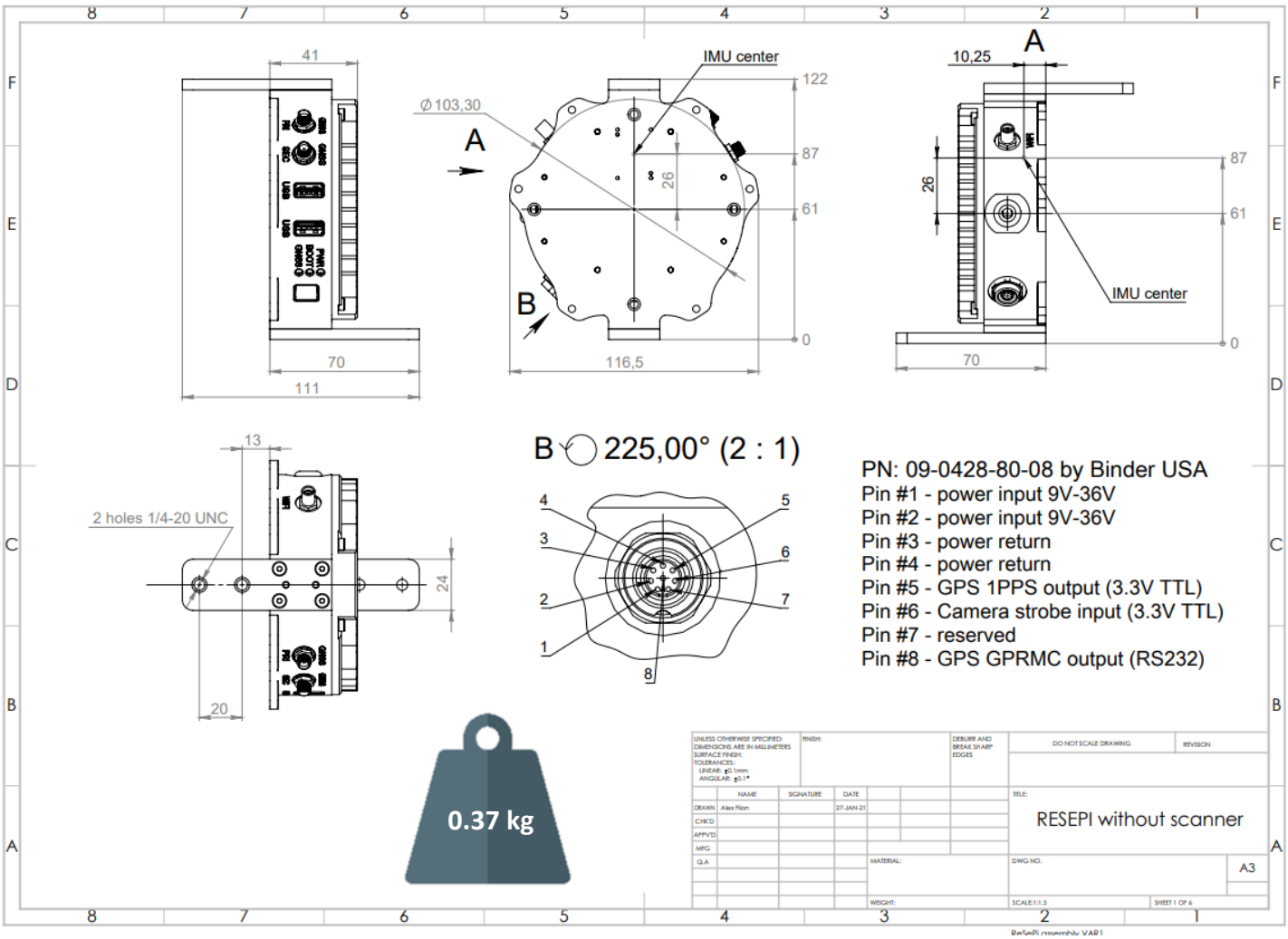
RESEPI® is completely modular. You can use your existing GNSS receiver or CEI can supply you with one. We provide everything for assembling, calibrating, and bore-sighting **RESEPI®**.

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

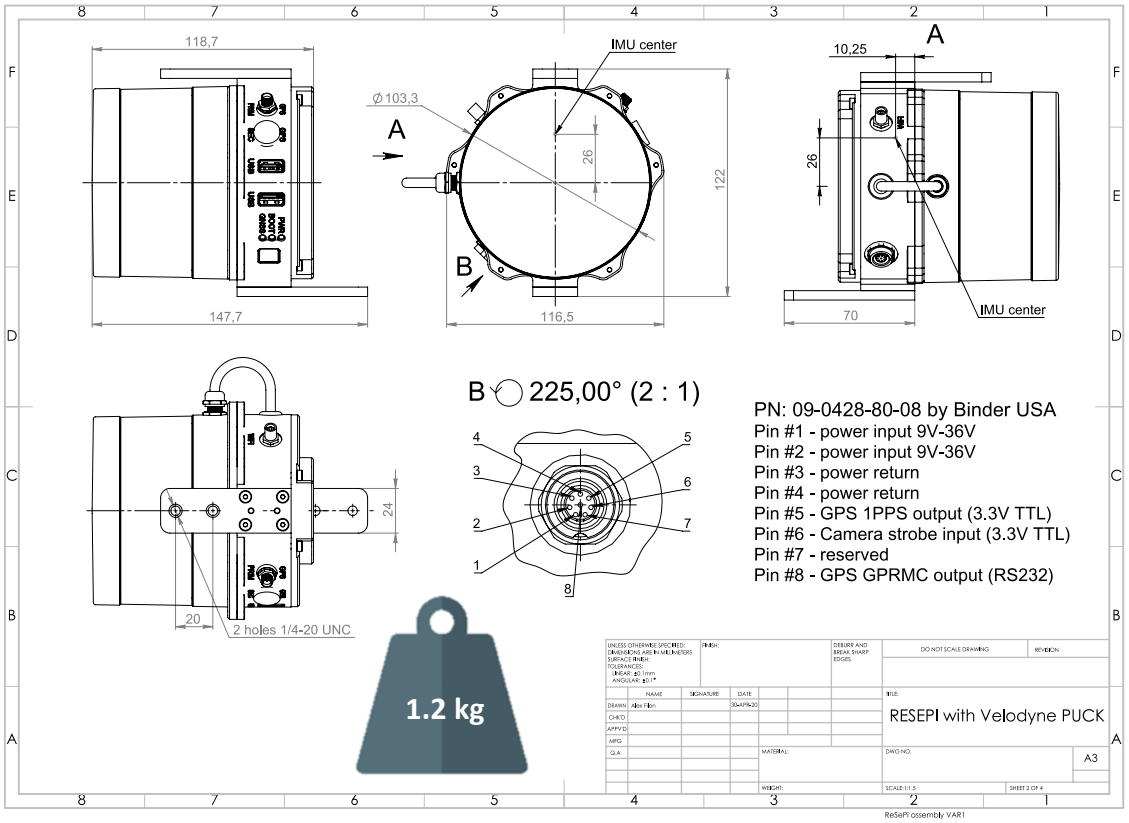
RESEPI® is ALSO a complete remote sensing solution – LiDAR, all required cables, mounting brackets, vibration isolator, LiDAR Calibration, Bore-sighting, Post-Processing (PPK) and Point Cloud software utilizing the Waypoint® post-processing engine from Hexagon | NovAtel® are available upon purchase of the RESEPI.

RESEPI® Specifications

Weight	**0.37 kg (circular enclosure w/o LiDAR); 0.42 kg (rectangular enclosure w/o 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 / Hesai**
Inertial Navigation System	**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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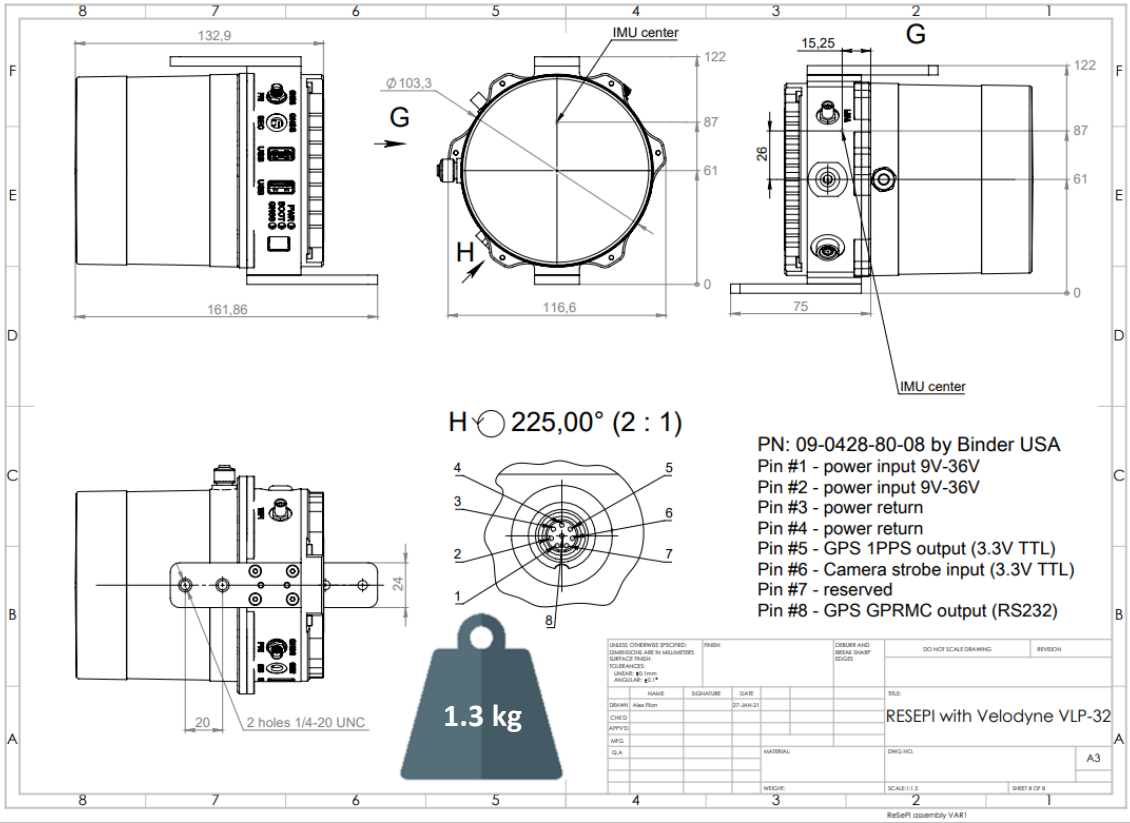

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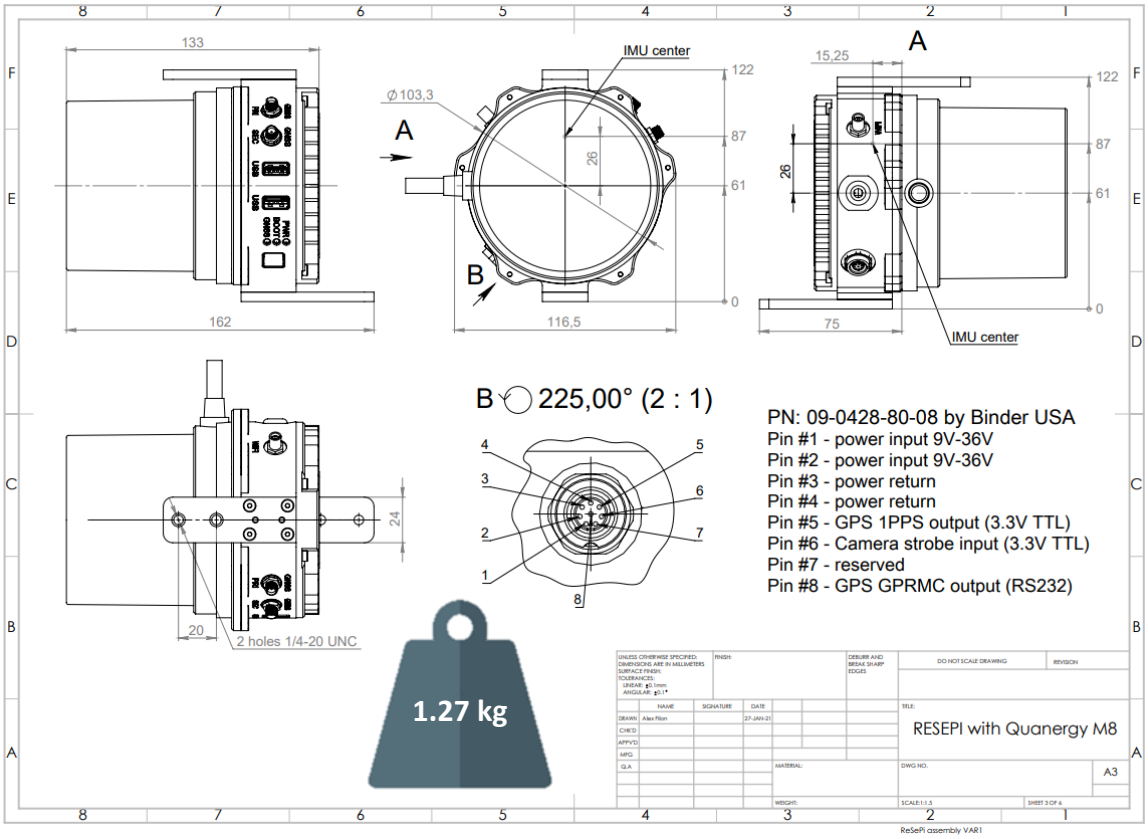

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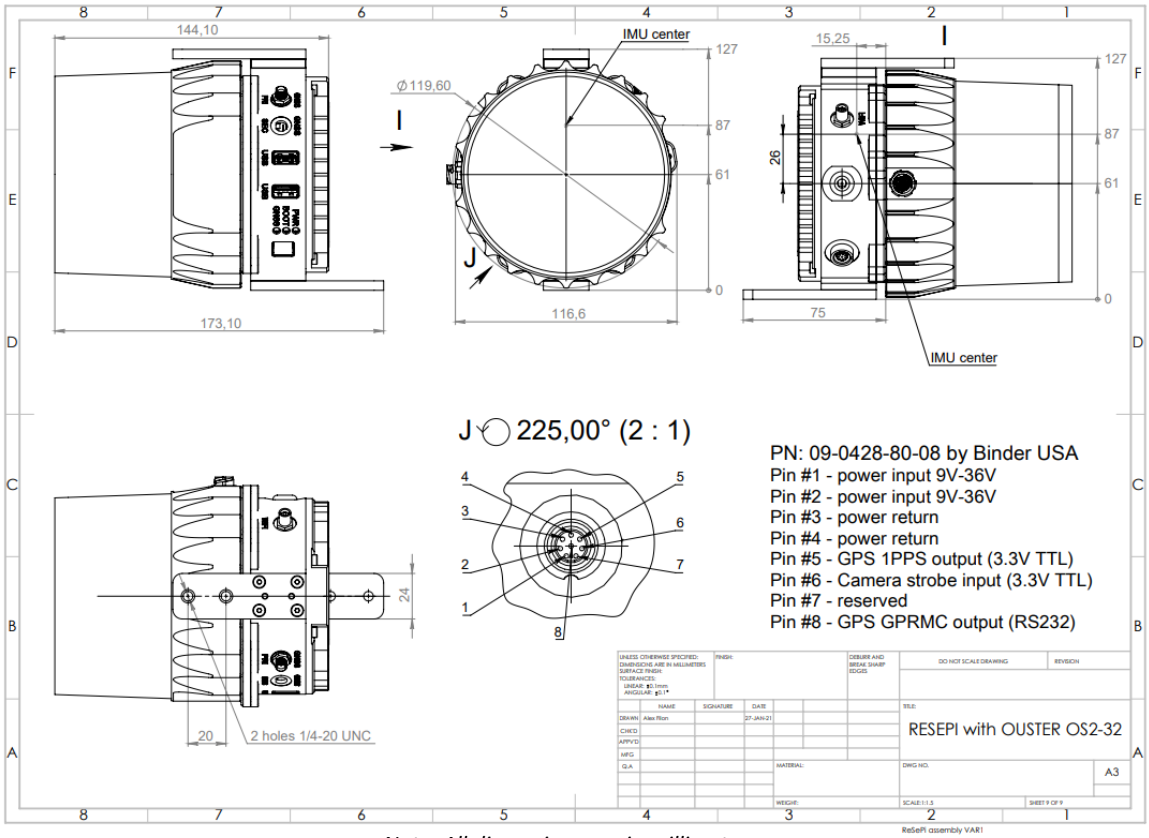

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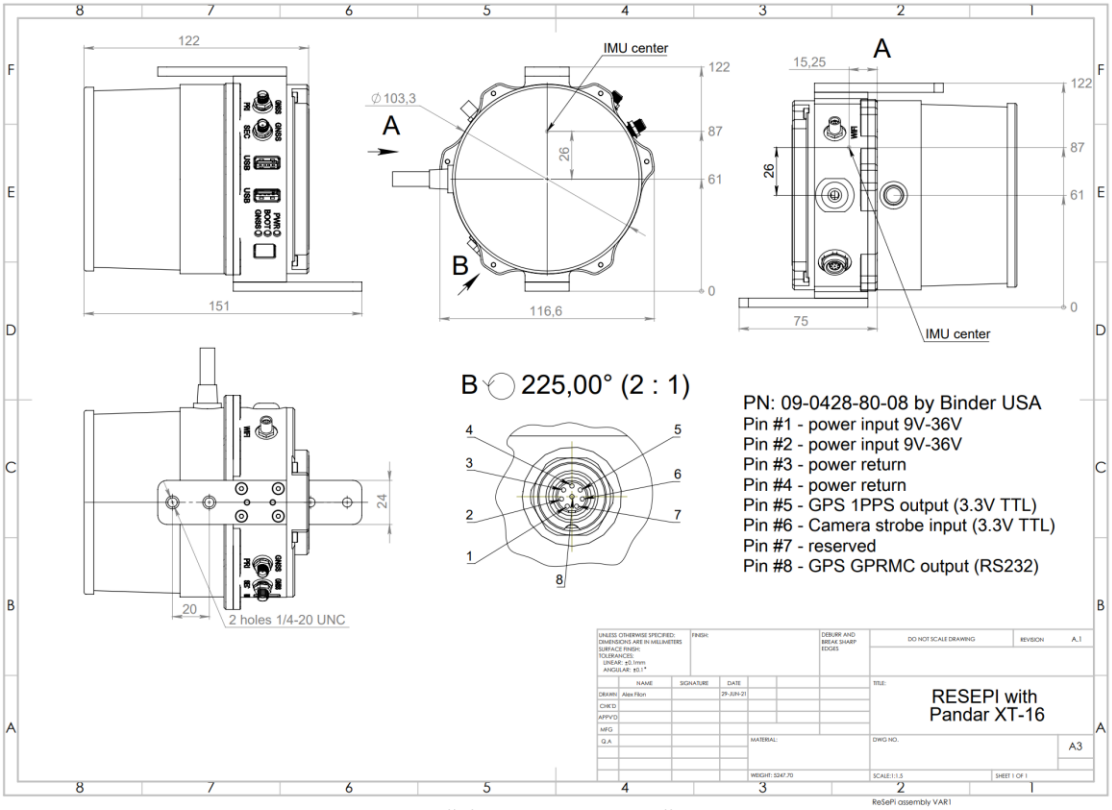

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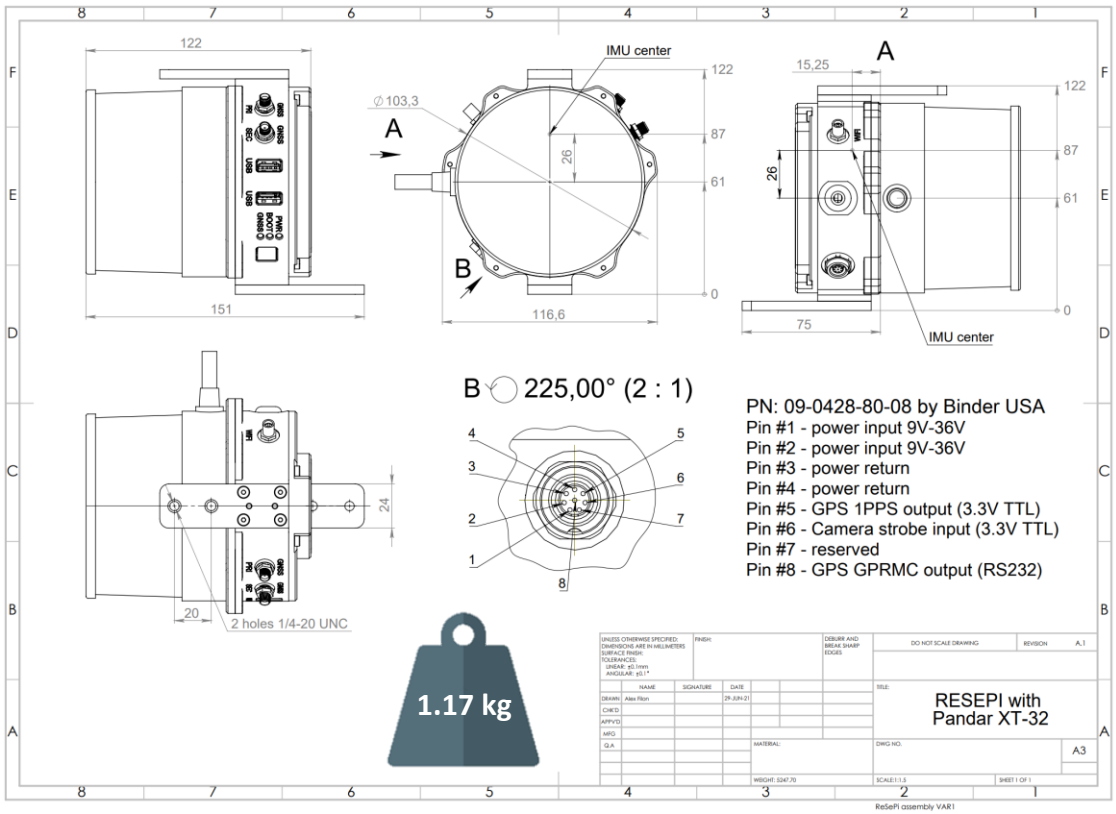

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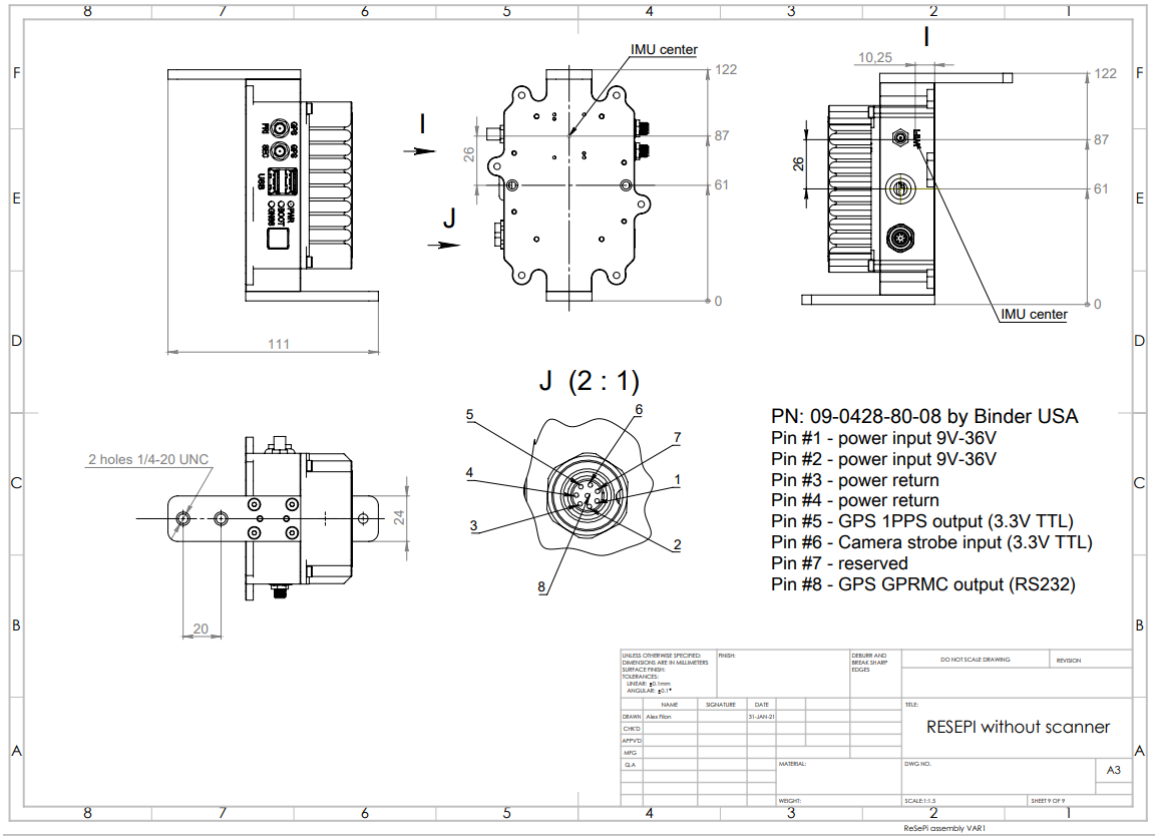

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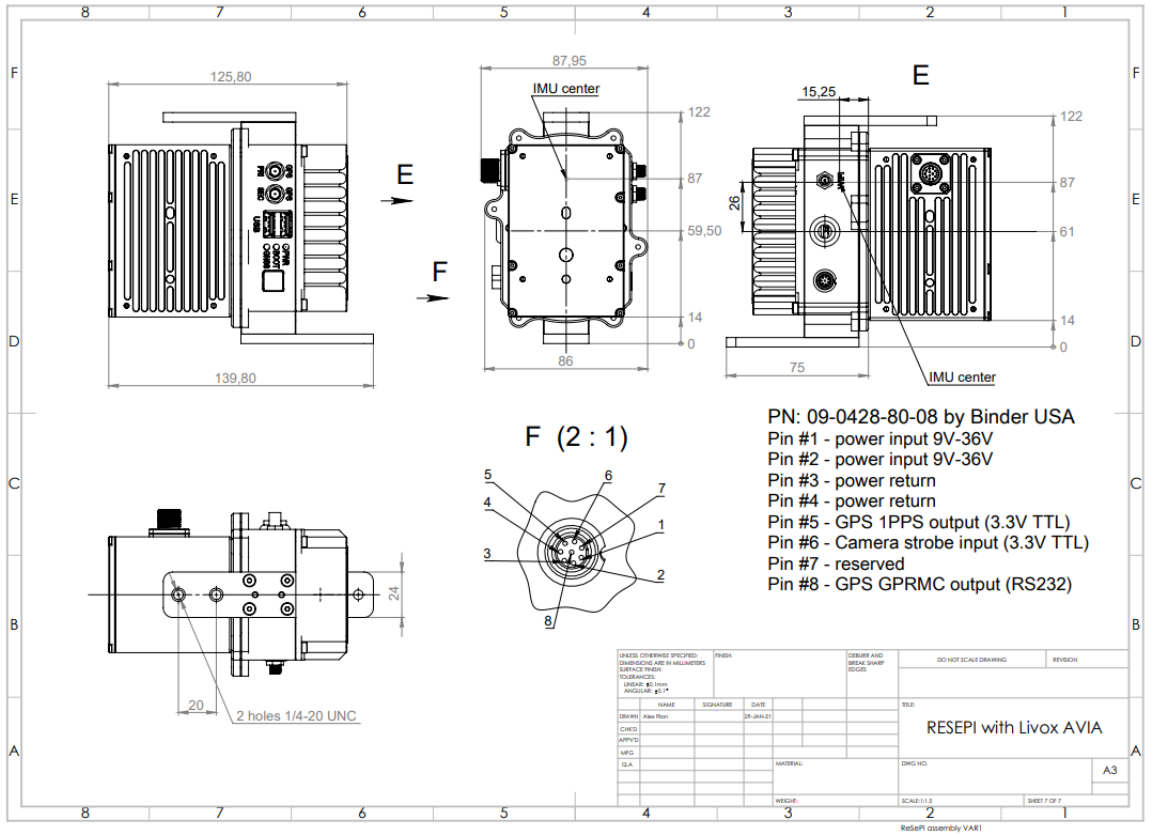

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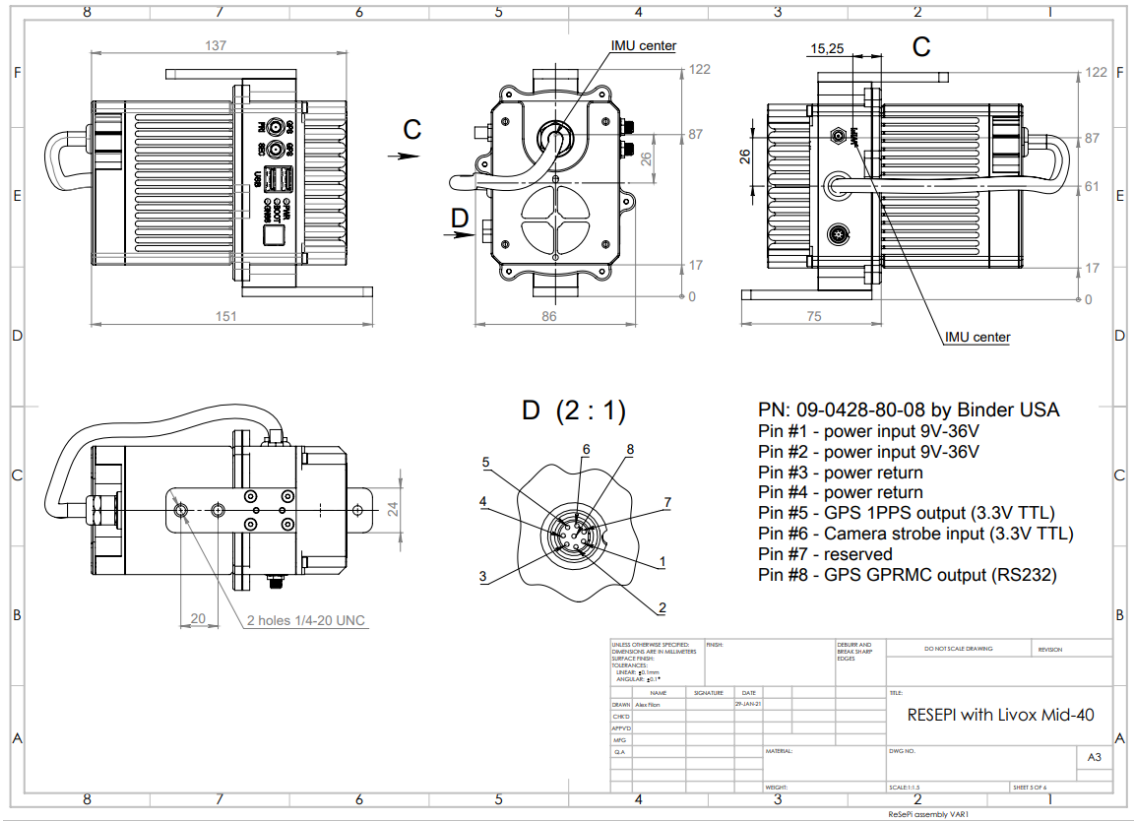

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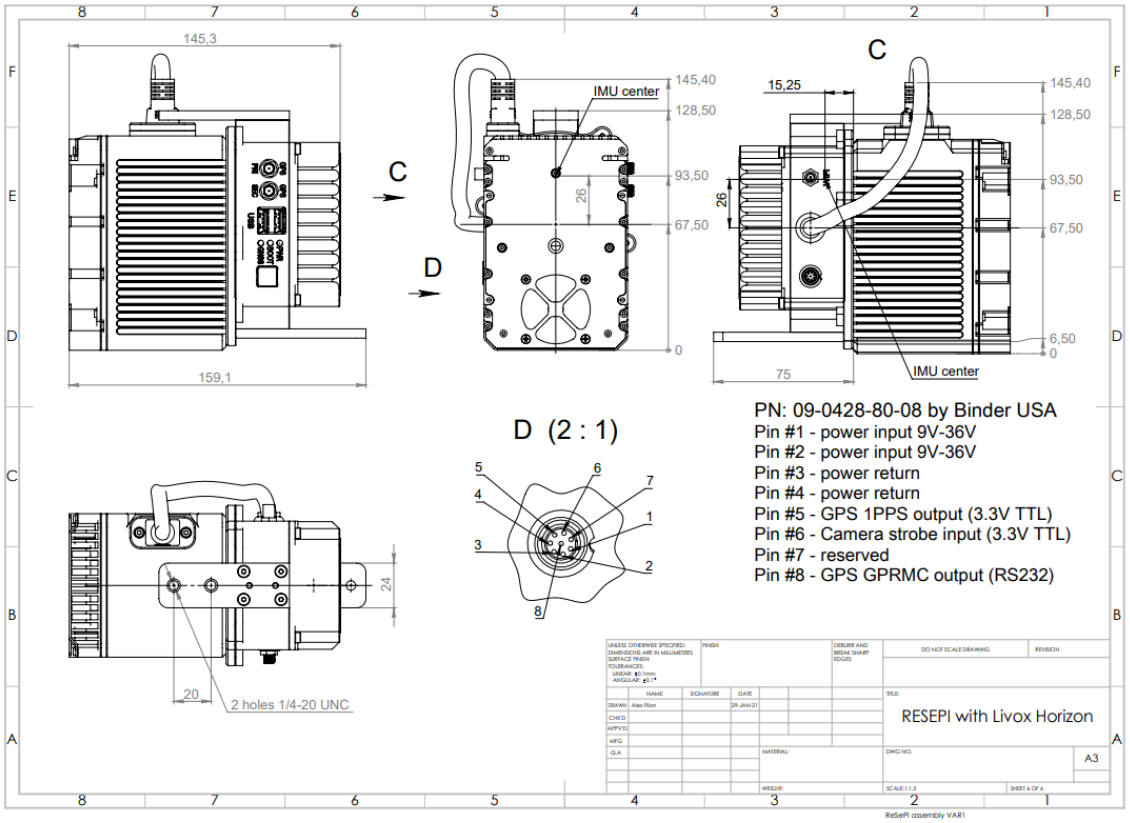

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