

# CAP50 Payload Options



American Made  
Professional Drone Platform

Offering the benefits of best-in-class data accuracy, good detection range, high point density, and versatility, this compact and light-weight LiDAR scanner is an all-around performer.

## LiDAR Solution



LIDAR Payload  
RESEPI-CDNRP-HESAI  
Model RSP-31748  
Serial N  
RESEPI  
WiFi SSID RESEPI-88888

### Flight Time With LiDAR Payload

22-25 Minutes

### Specifications

RGB Camera	Sony α5100 - 24 MP Camera
Operating Conditions	-4 - 149°F (-20°C to 65°C)
Power Consumption	16 Watts
IMU Attitude Acc	<0.006 deg Pitch and roll; < 0.03 deg Heading
IMU Position Acc	0.5cm (PPK); 1cm + 1ppm (RTK)
MAX Points Per Second	1.28M points/s (dual return)
Scan Rate	640,000 pts/s and 2 returns
Field of View	+15° -16° (Vertical) × 360° (Horizontal)

Weight	1.70 kg (3.8 lbs)
Storage	256 GB Provided (1TB supported)
System Accuracy (5m/s @ 50m)	± 3 cm
Scan Range	120 m @ 50% reflectivity (MAX)
Range Accuracy (RMS)	50 m @ 10% reflectivity (Recommended) ± 10 mm (0.5m - 50m @ 50% reflectivity)
Laser Sensor	Hesai PandarXT 32



BREAK NEW GROUND

# Photogrammetry Solution

High-resolution full-frame mirrorless camera built around a BSI-CMOS sensor that outputs 60.2MP images, complete with 35mm lens and gimbal

## Flight Time With Photogrammetry Payload

22-26 Minutes

### Specifications - Camera

Camera model	Sony α7R IV
Sensor	CMOS, 1.69" (43mm) Effective Pixels: 60.2 MP
Lens (interchangeable)	f/2.8 35mm FE E-Mount
FOV	60°
Photo formats	JPEG (Exif 2.31), RAW (14-bit ARW 2.3), RAW+JPEG
Shutter speeds	1/8000 - 30 sec
ISO range	100 - 32,000
Dimensions	5.0 x 3.8 x 2.4 in. (127 x 96 x 60 mm)

### Specifications - Environmental

Operating Temperature	14° - 122°F (-10° - 50°C)
Storage Temperature	-4° - 140°F (-20° - 60°C)



### Specifications - Gimbal

Angular Vibration Range	±0.01°
Mount	Detachable
Controllable Range	Tilt: +120° to -45°, Pan: ±345°. Roll: ±45°
Mechanical Range	Tilt: ±150°, Pan: ±345°, Roll: +80° to -264°
Max Controllable Angular Speed	Tilt: 180°/s, Pan: 180°/s, Roll: 180°/s

# Bathymetry Solution

Ultracompact, survey-grade echosounder for hydrographic and environmental survey applications

### Specifications

Sensor	ECT D052S
Type	Dual frequency
Acoustic frequency	50/200 kHz
Measurement range*	1.0 ... 200m (50 kHz) 0.5 ... 200m (200 kHz)
Beam width Conical (-3dB)	27° / 7° (50 kHz/200 kHz)
Weight (echosounder)	460 g (1.01 lbs)
Weight (full payload package in air)	2.7 kg (5.95 lbs)

