GEODETICS INCORPORATED

Precision in Motion.

LiDAR Sensor Options

Quanergy M8 (Plus)

Velodyne Puck (VLP-16)

Velodyne HDL-32E

Quanergy M8 (Ultra)

Velodyne Ultra Puck (32C)

Teledyne Optech CL-360

Quanergy M8 (Plus)

Tactical-Range LiDAR Unit

- Maximum range: Up to 150 m (nadir)
- Range accuracy: ± 3 cm
- Scan rate: 5-20 Hz
- Returns: 3
- Weight: 900g
- Wavelength: 905 nm
- **Notes:**
  - M8 comes in three variations – Core, Plus and Ultra
  - Core has a maximum range of < 100 m
  - Plus has a maximum range of < 150 m
  - Ultra has a maximum range of < 200 m
  - 420,000 points/second (per return)

Quanergy M8 (Ultra)

Mid-Range LiDAR Unit

- Maximum range: Up to 200 m (nadir)
- Range accuracy: ± 3cm
- Scan rate: 5-20 Hz
- Returns: 3
- Weight: 900 g
- Wavelength: 905 nm
- **Notes:**
  - M8 comes in three variations – Core, Plus and Ultra
  - Core has a maximum range of < 100 m
  - Plus has a maximum range of < 150 m
  - Ultra has a maximum range of < 200 m
  - 420,000 points/second (per return)

Velodyne Puck (VLP-16)

Tactical-Range LiDAR Unit

- Effective range: < 75 m
- Range accuracy: ± 3 cm
- Scan rate: 5-20 Hz
- Returns: 2
- Weight: 830 g
- Wavelength: 903 nm
- **Notes:**
  - Most cost-effective LiDAR sensor for most applications
  - Variations include 'Lite' and 'Hi-Res'
  - VLP-16 Lite weights 240 g less (590 g)
  - VLP-16 Hi-Res has narrower vertical FOV and thus improved vertical resolution

Velodyne Ultra Puck (32C)

Mid-Range LiDAR Unit

- Effective range: < 150 m
- Range accuracy: ± 3 cm
- Scan rate: 5-20 Hz
- Returns: 2
- Weight: 925 g
- Wavelength: 903 nm
- **Notes:**
  - Channels: 32 beams
  - 600,000 points/second (per return)
  - Horizontal FOV / Resolution: 360° / 0.1-0.4°
  - Vertical FOV / Resolution: 40° / 0.1-0.4°

Velodyne HDL-32E

Tactical-Range LiDAR Unit

- Effective range: < 75 m
- Range accuracy: ± 2 cm
- Scan rate: 5-20 Hz
- Returns: 2
- Weight: 1,000 g
- Wavelength: 903 nm
- **Notes:**
  - Highest grade LiDAR unit for tactical-range projects
  - 700,000 points/second (per return)

Teledyne Optech CL-360

Long-Range LiDAR Unit

- Maximum range: 775 m (nadir)
- Range accuracy: ± 1 cm
- Scan rate: 50-250 Hz
- Returns: Up to 4
- Weight: 3,500 g
- Wavelength: 1,550 nm
- **Notes:**
  - Highest grade UAV LiDAR unit available
  - Horizontal FOV / Resolution: 360° / 12μrad
  - Dimensions: 310(L)×160(W)×116(H) mm