



**Rocket Science
Technologies**



Picture for reference only, subject to actual product.

AgniBaan (अग्निबाण)

SINGLE LANE AND MULTI LANE LiDAR

Data Sheet - v1.0 - 2025

Rocket's AgniBaan is a new-generation, high-performance LiDAR sensor engineered for intelligent traffic systems. Combining advanced Time-of-Flight technology, precise optics, and robust multi-echo capabilities, it delivers reliable performance in all conditions—rain, fog, snow, or shine.

Key Features

- **Ready-to-Deploy Intelligence — inbuilt classification engine means zero coding or integration hassles for System Integrators**
- 180° Scanning Angle | Max Range: 40m
- Ultra-Fast Scanning: 50Hz / 100Hz (customizable)
- Resolution: 0.25° / 0.5°
- Multi-Echo Support: Up to 3 echoes
- Response Time: < 20ms
- IP68 Rated | Rugged & Waterproof
- Working Temp: -55°C to 70°C
- Safe Laser Class 1 (905nm)

Visual Intelligence in Action

- Point cloud output: Detailed 3D outlines
- Ideal for Multi-Lane Free Flow tolling, toll plazas, highways, tunnels, and urban roads
- Integrates seamlessly with ANPR & tolling systems

Primary Applications

Traffic Data Collection

- Real-time vehicle count, speed, headway & occupancy
- Supports multi-lane detection
- Operates 24/7 in all weather and lighting conditions
- Easy installation on gantries or roadside poles
- Accuracy: Traffic Count: ≥98%, Speed: ≥95%, Classification: ≥95%

Automatic Vehicle Classification (AVC)

- Real-time classification
- Classifies vehicles by size, shape, axle & tyre type

- Works seamlessly with toll systems and ANPR
- Classification Accuracy: Vehicle type: ≥99%, Axle count: ≥99%

Vehicle Dimension Detection System (VDDS)

- Measures vehicle length, width & height
- Prevents defined over-sized vehicles from entering sensitive zones
- Supports free-flow, high-speed (up to 120 km/h) detection
- Accurate in complex scenarios (cross-lane, parallel driving)

* Product information is subject to change without prior notice.

Technical Specifications

Laser Wavelength	905nm (Eye-safe Class 1)
Scanning Range	0.5m to 40m (30m @ 10% reflectivity)
Voltage	20–28V DC (Solar Capable)
Power Consumption	9W (normal) / 60W (heating)
Dimensions (w/ shield)	221×270×394 mm
Weight	4.4 kg
Communication	Ethernet (TCP/IP)
Protection Rating	IP68
Laser Wavelength	905nm (Eye-safe Class 1)
Scanning Range	0.5m to 40m (30m @ 10% reflectivity)

Integration and Software

- Compatible with Windows and Linux
- Dual TCP ports for simultaneous multi-device access
- Real-time point cloud display, waveform, and parameter control
- Supports dynamic IP and gateway settings
- Built-in factory reset, diagnostics, and calibration

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What's Inside the Box

- Rocket AgniBaan LiDAR Sensor
- Power & Signal Cables
- Instruction Manual

Optional Accessories

- Light Shield
- Rain Cover
- Custom-length aviation cables

Why Choose Rocket - AgniBaan?

- Proven performance in diverse conditions
- Minimal maintenance, quick installation
- Flexible SDK & API integration

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