



Ettiksoft

Talent Innovation Solution

ABS FOR L2

ABS Product Spec Overview

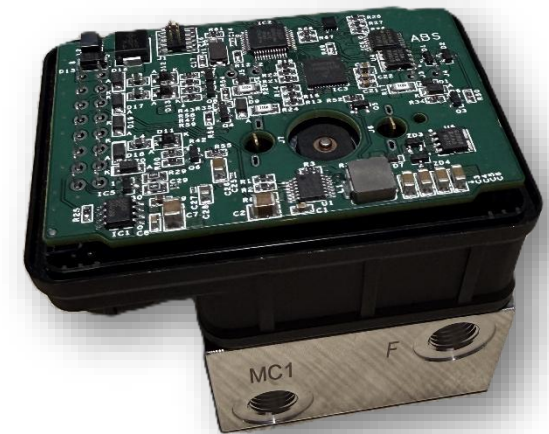
System Highlights	Description
Wheel slip based control algorithm	1. Maintains within 10 – 30% slip 2. >95% lock avoidance during emergency braking
Braking Stability	1. High μ / Low μ surfaces 2. Wet, Gravel, and Uneven roads μ -split conditions
Hydraulic Performance	1. Pressure build-up rate: >100 bar/sec 2. Pressure release rate: >150 bar/sec
Stopping Distance Improvement	10% - 25% reduction
MFDD (Mean Fully Developed Deceleration)	1. 6.5 to 8.5 m/s² on dry asphalt 2. 4.0 to 5.5 m/s² on wet asphalt 3. Meets AIS 146 / IS14664 standards

Final performance values depend on vehicle mass, tire characteristics, brake hardware, and calibration. Vehicle-specific tuning and validation supported.

ABS Product Spec Overview

Robust ECU Design:

- Automotive-grade electronics, microcontroller & drivers – up to ASIL C
- Operating temperature -20°C to $+85^{\circ}\text{C}$
- Safety fault monitoring coverage as per ISO 26262
- Fail-safe fallback to conventional braking
- 8–10 Hz typical ABS pressure cycles
- Optimized for Electric scooter and motorcycles supporting Regen.
- Designed for IP67
- Supports OTA and remote diagnostics



Vehicle Testing

Below are the mechanical fitments required from OEM side for the vehicle-level testing

1. ABS Mounting Bracket (Ettiksoft will provide the dimension and Orientation)
2. Hydraulic Tube to integrate master caliber to ABS & ABS to brake caliber (Port Size M10)
3. Wheel speed tone ring mounted in the Wheel
4. Speed sensor mounted and pin details to Integrate with our ABS unit
5. Wiring Harness (Ettiksoft will provide the Connector Part number and Pin Details).





Model Details

Features	PERFORMANCE	PERFORMANCE PLUS (Recommended)	PREMIUM
Front Wheel Anti lock braking	Yes	Yes	Yes
Redundant Wheel speed sensing for Safety	Yes	Yes	Yes
Wheel Speed output Analog	Yes	Yes	Yes
Wheel Speed output CAN	Yes	Yes	Yes
Remote Software update	Yes	Yes	Yes
Remote Diagnosis	No	Yes	Yes
Smart Regen Coordination	No	Yes	Yes
Cyber Security AIS-189 Compliance support	No	Yes	Yes
Functional Safety AIS-038 Compliance support	No	Yes	Yes
AVAS Support	No	No	Yes
Brake Modulation per sec	6 per sec	10 per sec	10 per sec
Redundant Rear Wheel speed sensing for Plausibility	No	No	Yes
Corner Aware ABS	No	No	Yes
Adaptive braking for Speed bumps	No	No	Yes



Ref: Hydraulic Control Unit



A photograph showing several hands of different skin tones stacked together in a pyramid shape, symbolizing teamwork and collaboration. The hands are wearing white dress shirts. One person on the left is wearing a brown leather watch.

Let's get in to action!