

Rail Weigh-In-Motion Systems



Rugged, Reliable and Accurate

- Compliant to OIML standards
- Suitable for industrial applications such as cement, steel, ores, extraction, petrochemicals, recycling and ports
- Accuracy of better than $\pm 0.25\%$ for a full train
- Precise weight data reports can be interfaced with clients business systems via PCs, Ethernet or Internet
- Design, manufacturing, installation and after-sales support over 86 locations across the country

Essae
Protecting YOUR Profits

Essae

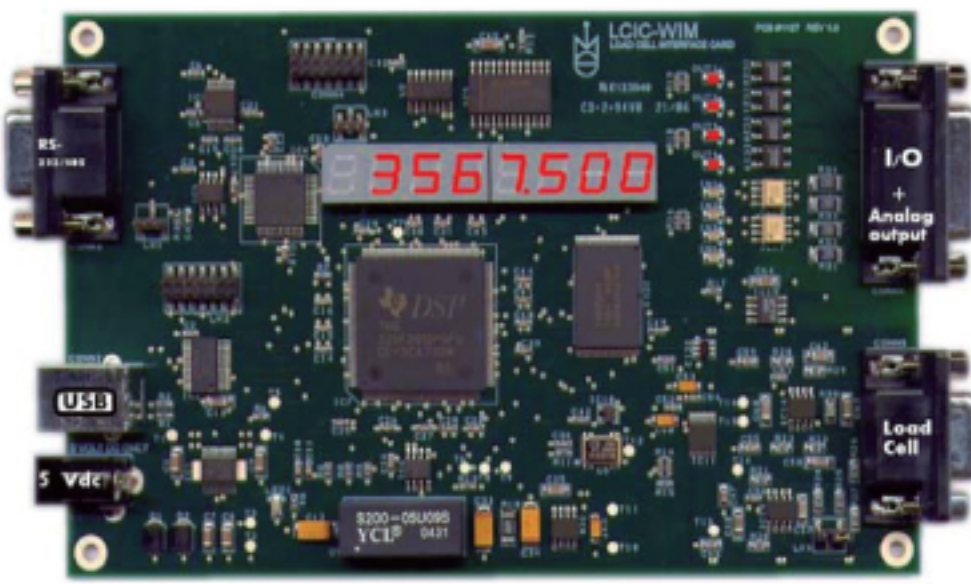
Protecting YOUR Profits



Precision bonding of strain gauges



High Temperature Curing



FEATURES

- Very high speed - up to 52,000 samples per second
- 24 bit A/D with ± 8 million counts for tension and compression applications
- Powerful 32 bit/135 MIPS DSP for high speed onboard processing.
- OEM applications can be embedded on the board
- 8 digit LED display
- On board temperature sensor
- Multiple boards may be connected via USB or RRS485

Weighing is crucial for cost-control and safety in virtually every aspect of business operations from monitoring product deliveries to avoiding overloading penalties.

Essae Digitronics, is one of the country's leading weigh scale manufacturers having a large number of In-Motion Weighing Systems operational nationwide, provides solutions that address weighing concerns.

Rail Weigh-In-Motion (Rail-WIM)

Rail Weigh-In-Motion is our RDSO approved, tailor-made, train weighing system that is easy to install at low installation cost. Our specialist team develops/ provides solutions for all rail users, from, raw material procurement to end users. Microprocessor based modular electronics and high quality strain gauges from USA ensure high accuracy even at varying speeds. The system can be designed for static and/or in-motion weighing of wheels, axles and bogies and for full draft weighing of locomotives and all types of rolling stock.

Rail-WIM provides precision data on rack and wagon weights that can be interfaced with client's business systems via PC's, Ethernet or Internet.

By automatically detecting wheel, axle and wagon overloads the system helps to identify imbalanced loads and avoid multiple weighments of the same vehicle ensuring safety and avoiding overloading penalties.





Testing

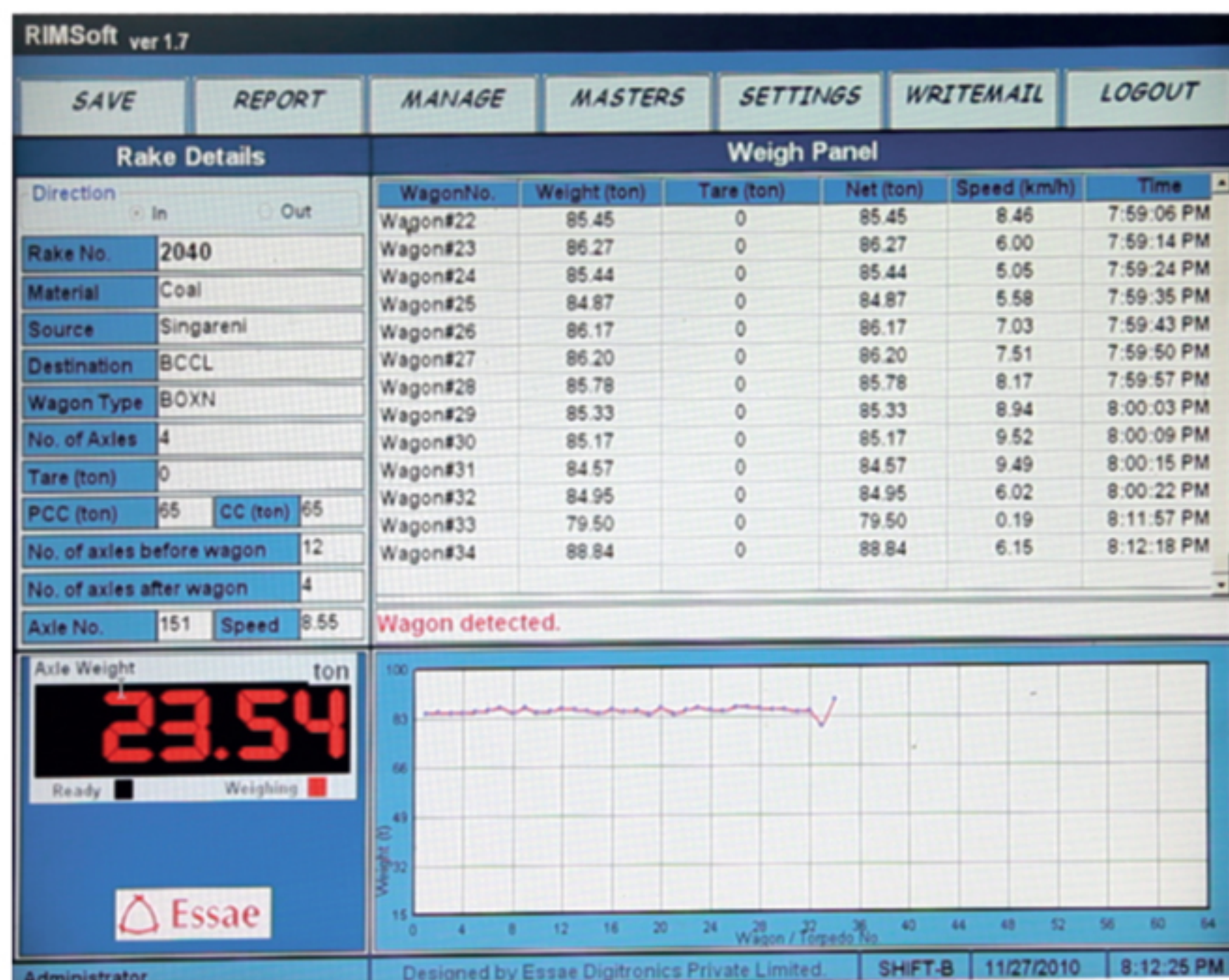


Rail Weigh-In-Motion - Rail Scale

RIMsoft : A Comprehensive and Smart Solution

Essae provides its proprietary software 'RIMsoft' which helps in getting weigh details in the desired format. It generates, stores and prints reports of weigh data.

These reports can be linked to individual wagons, loads and destinations to help you monitor deliveries to and from customers and suppliers.



A calibration software is also provided with each machine that allows user to calibrate the weighbridge for different weather conditions ensuring accurate weighing every time.



Lightening Protector

- Protects load cells against transient surges caused by lightening
- Repeated auto re-setting operation without maintenance
- Reliable protection through high surge absorption capacity
- No effect on system accuracy



Load Cells



Rail-WIM Indicator



RIMsoft

Printer



Other Applications

- Static Rail cum Road weighbridge
- Torpedo Weigh-In-Motion (800 tons)

For more information of In-Motion Low / Medium / High-speed Systems and Consultancy for specific applications, please write to us at essae@essae.in

Specifications of Weigh Rails

| | |
|-------------------------------|--|
| Weigh Sensors | : Embedded Rail Mounted Strain gauge Sensors |
| Design | : Pitless Type |
| Capacity | : 120MT / 150MT for Standard wagons |
| Resolution | : 10Kg / 20Kg / 50Kg / 100Kg |
| Selectable Calibration | : Digital calibration for Tare, Zero, Gain, Auto Zero and gain Check |
| Accuracy | : $\pm 0.5\%$ for Individual Wagon and $\pm 0.2\%$ for Unit Train |
| Weigh Bridge | : Suitable for 52Kg / 60Kg Track Grade Rails Length 5.5m |
| Weighing Speed | : Upto 15 kmp/h, Non Weighing upto 40 kmp/h as limited by Railways |
| Track Switches | : Optical Proximity |
| Wagon ID | : All Types of 4 axles / 2 axles |
| Elimination | : All types Diesel / Electric Locos |
| Direction | : Bi-directional Weighment |
| Electronics | : DIP based very High Speed Signal Processing |
| Interface | : Through USB / RS232 |
| Printout | : Date & Rake - wise and Date & Shift & Rake - wise reports |
| Computer | : Windows XP, any Intel Core processors, 1GB RAM, 40GB HDD |
| Software | : Visual Studio .NET 2008 windows based application, Crystal Report and MS Access Database |

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Disclaimer : Due to continuous R&D the specifications are subject to improvement without prior notice.