



## RAKTEL 8020

### Universal Traffic Event Logger



### A logger for all popular WIM and Axle sensors

The Mikros **RAKTEL 8020** a Universal Traffic Event Logger is an accurate and reliable traffic data logger. The **RAKTEL 8020** can be used all popular Weigh in Motion and Axle sensors. The **RAKTEL 8020** is certified to the strict TMH3 type A1 monitoring and class I WIM specification, ensuring highly reliable traffic data collection.

The **RAKTEL 8020** can be used as both a traffic data logger and/or a WIM controller on complex Integrated Traffic Control Centres. Ideally suited for virtual Weigh Control systems.

#### Description

The Mikros Systems RAKTEL 8020 is a Universal Traffic Data Logger and WIM controller that is equipped with:

- High performance crosstalk-free digital loop detectors with inductive profiling.
- Digitally configurable axle and WIM sensor interfaces.

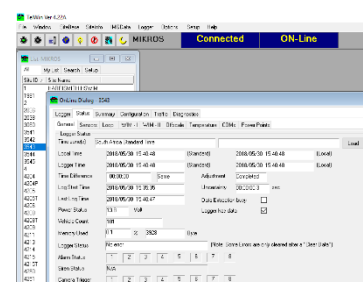
#### Major features

- Upgrade from the RAKTEL 8010 with faster processor, on-board flash data storage.
- Downloadable firmware and system updates.
- High speed data extraction.
- Supports mixed WIM sensor type arrays.
  - Load cell platforms.
  - Load cell WIM strip sensors.
  - Bending plates.
  - Piezo axle & WIM sensors.
  - Quartz crystal WIM strip sensors.
  - Fibre optic axle detection.
  - In-lane detection.
  - Wheel type detection.
  - Off-scale detection.
- Flexible sensor configuration.

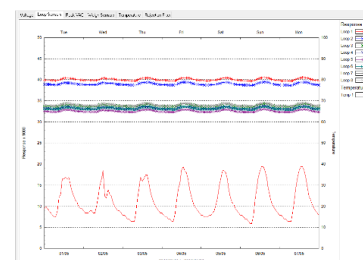
- Comprehensive sensor status and long term performance diagnostics.
- Quick setup mode.
- Built-in coincidence detection.
- Tidal flow indication.
- Multiple traffic data logging options (VBV and-or binned data)
- User selectable classification schemes.
- Post processing that allows for re-classification to any scheme.
- Hot swappable battery management.
- Low voltage managed shut down.
- Power management for external devices.
- 48 input channels for mix of WIM and axle detectors.

#### Setup and communications software

The RAKTEL 8020 is supported by the Mikros Systems **TelWin** program allowing for comprehensive on site and remote monitoring.



Detailed instrument, sensor and site performance parameters are monitored and plotted over time.

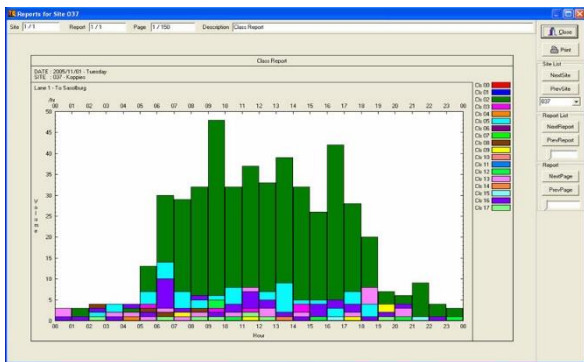


## Data management

Data retrieval is automated by the **TelDailer** program that can simultaneously manage up to 50 incoming channels. For outstations fitted with GPRS a GPRS Server is available.

All raw data is stored in an encoded secure binary format. The Traffic Data Base is automatically populated and comprehensively validated on a macro and micro level to ensure quality data.

The Mikros Systems **TrafBase** data management program has a wide range of reporting and plotting modules, with exports to standard data formats including CSV all relevant FHWA card formats.



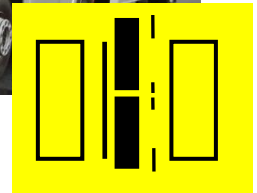
## Real time and statistical data

The RALTEL8020 records and transmits data independently. Basic vehicle information depending on sensor configuration and requirement can be selectively exported in real time for any control function.

## Ground truth and calibration verification

Video to data synchronization is an integral part of the **TelWin** program. **TelWin** performs all vehicle parameter calibration (mass, length, spacing, count) and prepares ASTM and COST 323 certification. In addition **TrafBase** has the unique **TT** statistical post calibration method build in.

## Available sensor configurations (ASTM/COST/TMH3)



Typical for:  
ASTM E1318 Type II  
COST323 A5  
TMH3 Type A1 Class I  
(Sensor type and installation quality dependant)

A complete range of sensor configurations is available to accommodate many applications.

## Optional accessories

- 19" 1U Instrumentation rack
- Control PC (IPC) with bespoke software
- Cellular modem (GPRS/3G/4G)
- Bluetooth serial adapter

## Technical Data

Dimensions:	7, 8 kg 19" 3U rack, 490 x 320 x 140 mm
Interface slots:	6 - 10
Voltage supply:	12 v (nominal)
Power supply:	110-230V AC with solar charge 0, 6 – 6 Watt *
Power management:	Low battery protection Managed power to external devices. Hot swappable battery control
Communication:	RS232; Ethernet LAN/WAN GPRS: 3G/4G
Data storage:	32 Mb flash
Operation temp:	-20°C - 60°C
Units:	Metric or Imperial (selectable)
Sensor inputs:	<32 inductive loops * <32 axle/wheel detectors * <16 WIM sensors* <32 Lane/off-scale detectors * Model and configuration dependant



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