r/\etrix-A

Ride Performance Assessment System

Key Features

▶ Passenger and Freight Rail Safety Monitoring

▶ FRA 49CFR Part 213 V/TI Safety Standards

▶ US and International Ride Quality Standards

▶ Solid State Design

▶ Mounts on Any Vehicle Type

▶ Sensors for Carbody, Truck and Axle

▶ Continuous Recording of Sensor Data

▶ Wi-Fi, Ethernet and 3/4G/HSPA+ Cellular

▶ Real-Time GPS Tracking

▶ Real-Time Exception Notification

▶ Secure Web Portal

AUTONOMOUS SYSTEM for TRACK and VEHICLE SAFETY

A fully autonomous and compact system, rMetrix-*A* detects track and vehicle safety conditions, monitors the degradation of track infrastructure and vehicle performance over time, and supports proactive maintenance planning. Ride quality data is accessible in real-time through a secure web portal and intelligent reports. rMetrix-*A* is effective for increasing passenger comfort and cargo integrity.

SYSTEM SPECIFICATIONS

Certifications

EN 50121-3-2 Railway Applications-Rolling Stock - Apparatus (EMC)

Central Processing Unit

Dimensions	25.4 x 27.9 x 8.8 cm
Weight	10 kg
Temperature Range	-23 to 80°C
GPS	SMA High Gain 10 Hz Update Rate
Wi-Fi	SMA High Gain Primary · Secondary
Cellular	SMA High Gain Primary · Secondary
Ethernet	RJ45
VGA	HD15
Power	Amphenol GT · HON 110VAC · 1.24A · Conditioned
Internal Surge Protection	Included

Carbody and Truck Sensor

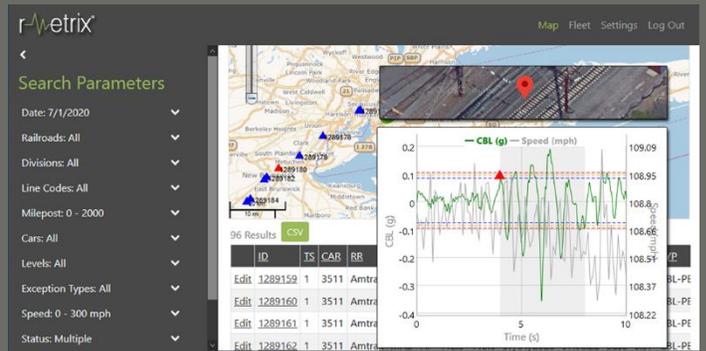|	
Update Rate – Acceleration Lateral · Vertical · Longitudinal	400/2000Hz
Update Rate – Orientation Yaw · Pitch · Roll	400Hz
Connectivity	USB
Cable Length	2.4m · 2.9m + Active USB Extenders
Dimensions	Large: 95 x 97 x 51 mm Small: 57 x 42 x 24 mm
Weight	Large: 1.3 kg Small: 55 g
Temperature Range	-40 to 85°C
Full Range Acc	20g
Bandwidth Acc	375 Hz
Vibration and Shock	2000g for 0.5ms

System Options

Combo Roof Antenna	GPS, Cellular 3/4G, Wi-Fi
Active USB Extenders	12 m · Max 36 m Linked
Sensor Magnetic Mount	Available
Multiple Sensor Systems	Available
Axle Sensors	Available

Solid State CPU with GPS, Wi-Fi, Ethernet, and Cellular

Tri-Axial Sensors for Acceleration and Orientation

Secure Web Portal with Map and Fleet Centric Views

Actionable Reporting for Fleets - Track and Vehicle

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