

Safety Experts in Cab Electronics

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Siemens Mobility is an innovative supplier of **products for railroad and mass transit applications**

Siemens Mobility uses its extensive design experience to customize, engineer, and manufacture products that play an integral role in ensuring safe, reliable transportation on many of the busiest railroads and mass transit systems in operation in North America today. Many of our onboard products are used to protect safety-critical railroad operations on a daily basis and have been in service for well over twenty years.

Siemens Mobility offers an ever-expanding line of products. Experience in design, manufacturing, training, and service has allowed Siemens to establish and maintain a respectable industry reputation. The engineering staff brings years of collective carborne related experience into every job Siemens wins.

Siemens Mobility has recently moved into its new 60,000 square foot engineering office facility in Homestead, Pa. It is minutes from Siemens' existing 38,000 square foot manufacturing facility, both which are located in Pittsburgh, Pa. This new world-class building allows Siemens Mobility to grow and expand well into the future.



Siemens Mobility's customers consist of: Amtrak, SEPTA, ConnDOT, CSX, LIRR, MARC, MBTA, Metra, Metrolink, Metro-North, NJ Transit, P&W, Union Pacific, Virginia Railway Express and many others. This satisfaction also extends to the major car builders that we have partnered with over the years, such as Alstom, Bombardier, MotivePower Ind., GE, Kawasaki and Progress Rail.

Continuous Cab Signal Systems

Continuous cab signal systems receive steady streams of signal aspect information from modulated carriers in the rails. This data is continually scrutinized by a safety-critical onboard computer which determines overspeed conditions and issues appropriate alerts and/or penalties.

Siemens Mobility custom designs and builds these systems according to the specific territories and vehicles on which they will be used. Examples of basic configurations include 4-Aspect, 9-Aspect, and Composite (multiple aspects across multiple territories) systems. Typical system options include braking assurance, vehicle network interfacing, GPS, braking profile generation, etc.









Positive Train Control

Positive Train Control (PTC) systems provide an increased level of protection and Siemens Mobility offers a field-proven PTC solution that has been in revenue service since 2001 on the Northeast Corridor (NEC). Our 9-Aspect Automatic Train Control (ATC) and Advanced Civil Speed Enforcement System (ACSES) together provide an FDA compliant PTC implementation.







Intermittent Cab Signal Systems

Intermittent cab signal systems receive signal aspect information on a periodic basis as trains pass over wayside indicators. Siemens Mobility continues to supply equipment for the complete spectrum of intermittent applications – including the legacy Intermittent Train Stop (ITS).





Operator Displays

An Aspect Display Unit (ADU) is the primary visual interface between the vehicle operator and the cab signal system. It indicates the aspect being received at any given time. Speed displays or other vehicle status indicators are often integrated into the ADU. All displays use long life solid state indicators so as to minimize equipment failures and vehicle downtime.





Approx. 5" H x 6" W







Approx. 18" H x 4.5" W



Approx. 4.5" H x 9" W



Approx. 7" H x 11.5" W



Approx. 10.5" H x 6.5" W



Approx. 8" H x 6" W



Approx. 8" H x 4" W



Approx. 15" H x 7.5" W



| Cab Signal Accessories



Axle Generators

Axle generators use internal speed sensors to count pulses related to specific gear rotations. This speed data is then relayed to the onboard computer for determination of potential overspeed conditions.









Track receivers inductively receive coded signals from the rails. These signals are then processed by the onboard computer as continuous signal aspects.

Siemens Mobility offers a variety of track receiver bars, including both conventional and patented, high AC traction immunity versions.

Cab Signal Tester

Calibrated cab signal loop testers are available to provide compliance with FRA mandated 92-day inspections for proper equipment operation.



Power Supplies

Siemens Mobility builds power supplies for our own cab signal systems. We also custom build power supplies to serve most any existing onboard electronics application.



Cab Signal Diagnostic and Test Software

In addition to the software that is the logic behind our onboard computers, Siemens Mobility software engineers custom develop cab signal diagnostic and test software packages to provide solutions for system diagnostics, performance monitoring, and wayside troubleshooting. These tools provide answers to situations that would otherwise go unresolved and be reported as "No defect found".

Misc. Vehicle Equipment/ Services



GPS Monitoring System

Siemens Mobility's GPS monitoring system works by continually comparing satellite-derived coordinates to coordinates in the cab signal system's onboard database. Warnings and brake applications can then be initiated if, for instance, a cab signal territory switch has been placed in the wrong position.



Junction Boxes

Siemens Mobility supplies junction boxes for a variety of vehicle applications. These junction boxes are ruggedized castings that provide durable protection for connections to track receivers or speed sensors.

Services

Siemens Mobility repairs, inspects, calibrates, and rebuilds vehicle equipment (including older, relay-based products) according to the original manufacturer's specifications.



Key Lock Switches

Siemens Mobility offers key lock switches for a variety of on- and off-vehicle applications. Each one is made according to a customer's unique requirements.

Floor Heater Fault Detectors

This unit helps prevent hazardous vehicle fires and features:

- Dual channel fault current monitoring for AC or DC loads up to 30 A.
- Programmable trip threshold settings in .1 A increments from .1 to 2 A.
- Automatic reset capability after a tripping with a programmable number of resets.
- Testability by maintenance personnel using a plug-in external portable test unit.
- Both internal and external trip indicators.
- Small size (Approx. 6.5" H x 2" W).



Bench Test Equipment/Services

Relay Calibration Unit

Siemens Mobility designs and builds calibration test units to allow customers to perform simple Go/No-Go testing of a variety of industry standard relays. The computer-controlled test bench provides for complete test control and automatic test documentation.

Bench Test Unit

Siemens Mobility designs and builds printed circuit board (PCB) bench test units to allow customers to perform detailed PCB testing and repair of its circuit boards.

The computer-controlled bench provides fixturing, automatic and semi-automatic test, documentation and report generation.

Services

Siemens Mobility repairs, inspects, calibrates, and rebuilds wayside equipment (including older, relay-based products) according to the original manufacturer's specifications.



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