

RAIL

TagMaster

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Crossroad Priority Request (CPR)

Tram and Light Rail Safety System

The challenge

In the bustling heart of our cities, where the rhythm of life moves swiftly, the seamless flow of trams and light trains alongside pedestrians, cyclists, and vehicles is critical. As urban areas expand and traffic density increases, the imperative for innovative solutions to enhance the safety and efficiency of tram and light rail systems has never been more crucial. These modes of transportation, essential to the urban tapestry, require a signalling solution that is not just sophisticated but also highly adaptable to the dynamic urban environment.

Introducing the Crossroad Priority Request System (CPR)

At the forefront of addressing this challenge is the Crossroad Priority Request System (CPR), a beacon of innovation designed to:

- **Maintain Uninterrupted Transit Flow:** By granting trams priority at intersections, ensuring their seamless progression through the urban landscape.
- **Enhance Intersection Safety:** The system is triggering both audible and visible alarms and announcing approaching tram. Additionally the onboard MOL 81 can be shared with an AVLS "Automatic Vehicle Location Solution" Application, enabling a PIS Activation.

Modern Technology for Urban Mobility

The CPR System, crafted with precision, employs two main components to guarantee safety and efficiency into the fabric of urban transport:

The Onboard ATP MOL 81 1350 Reader:

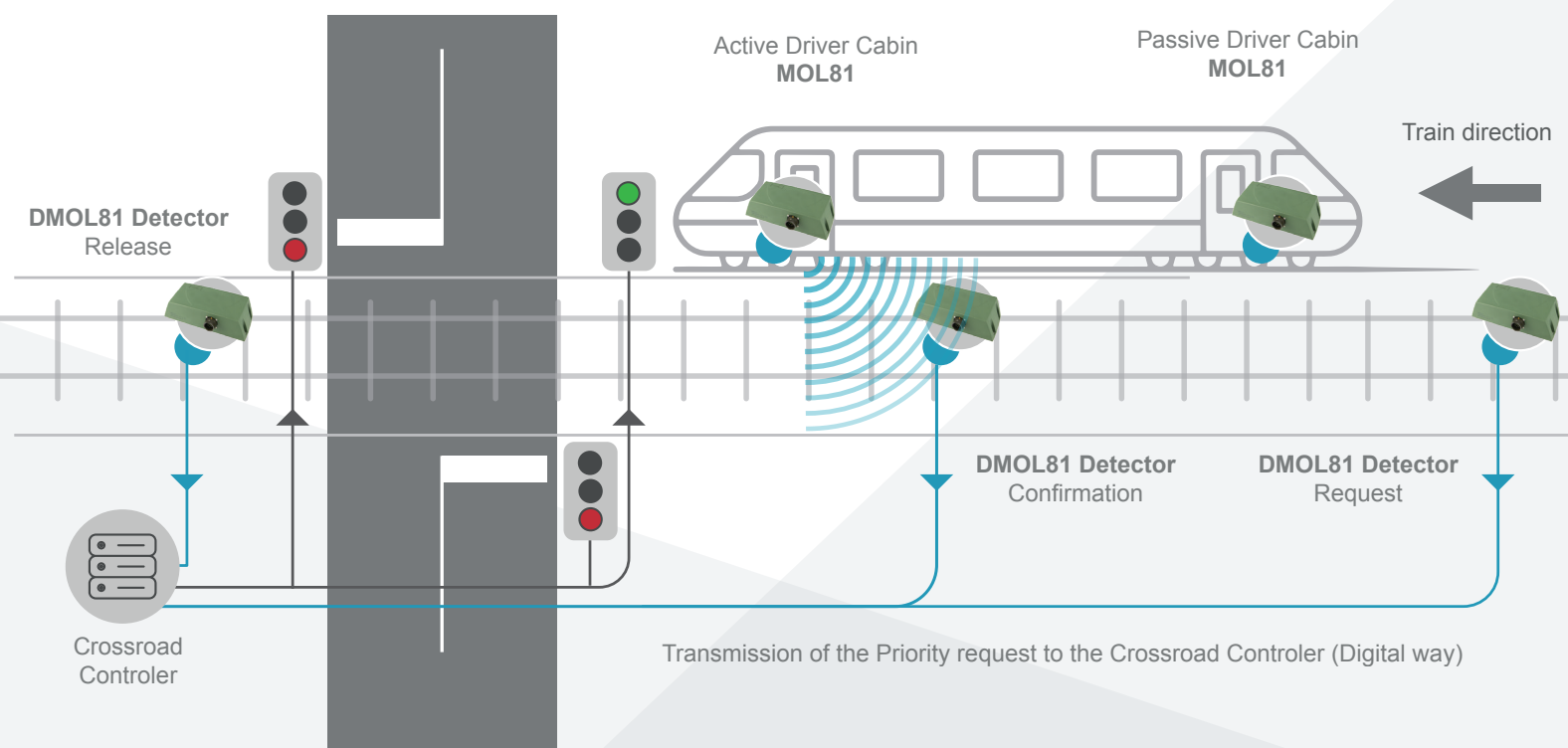
A state-of-the-art Crossroad Priority Request RFID Reader installed on trams, featuring a dual-frequency system that ensures impeccable data transmission and a self-test mechanism for unrivalled reliability.

The Trackside DMOL 81 Detector

Strategically positioned to detect the presence of the MOL 81 reader, this all-in-one device is the cornerstone of ensuring trams receive priority at critical intersections, streamlining urban mobility.

The process is very simple and then reliable. The DMOL81 sensor activates a standard digital output when it detects the magnetic field transmitted by MOL81 reader. That reliable signal is transmitted to the Traffic Light Controller.

To avoid any false Detection and then ensure seamless and very efficient urban mobility flow, the bandwidth of the emitter frequency is very narrow. The solution is then very selective.



Simplifying Complexity

Additionally, the system plays a crucial role in crossroad overpassing scenarios. The trackside controller can use it to grant or deny train passage (indicated by green or red lights) at crossings, enhancing safety at these critical points.

Architecting Safety and Efficiency

The CPR System architecture guarantees tram priority, minimizing delays and enhancing safety for all urban travellers. Integrated seamlessly with traffic light controllers, this system requires no Driver manual intervention, embodying the pinnacle of automated urban transit management.

Solution benefits

Sustainable Reliability:

Our TM RFID CPR system stands as a testament to sustainability, offering a cost-effective solution over its lifetime, not just at purchase.

Dual Functionality:

Enable sharing of equipment for priority requests and precise location in station.

Resilient Design:

Engineered to withstand the mechanical stress of heavy trams in the trackside structure, our RFID trackside subsystem ensures accuracy and reliability, eliminating false or missed detections.

Simplicity and Compatibility: With a standard digital output, our system integrates effortlessly into existing infrastructures, requiring no additional signal conditioning.

All-Weather Performance:

Designed to operate flawlessly across diverse weather conditions, ensuring reliability when it's needed most.

Compliance and Excellence: Meeting and exceeding European and SNCF STME 001 standards, our system sets the benchmark for safety and performance in urban rail systems.

Advanced HF Technology:

Utilizing magnetic field inductive coupling, our system focuses protection precisely where it's needed, enhancing safety and operational security.

The CPR System isn't just a solution; it's a revolution in urban rail safety and efficiency, designed to meet the demands of modern cities and their inhabitants. Embrace the future of urban transit with TagMaster

TagMaster

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TagMaster, an application-driven technology company founded in 1994, specializes in designing and marketing advanced sensor systems and solutions. Our expertise lies in utilizing radio, radar, vision, and wireless magnetic technology to cater to demanding environments. Our business is segmented into Traffic Solutions and Rail Solutions, offering innovative mobility solutions under the renowned brands TagMaster, Sensys Networks, and Citilog. Our aim is to enhance efficiency, security, and convenience while reducing the environmental impact within Smart Cities.

Headquartered in Stockholm, Sweden, with additional offices in the UK, France, and the USA, and dedicated agencies in the US and China, TagMaster has established a strong global presence. We primarily export to Europe, the Middle East, Asia, and North America, leveraging a vast network of partners, systems integrators, and distributors.

Our journey began in the RFID sector in 1994, where we quickly became pioneers in RFID technology. We expanded into the RAIL Activity, focusing on the AVLS Application 'Location' for trams and metros in outdoor environments. This expansion was a pivotal moment, demonstrating our adaptability and commitment to innovation.

In 2003, we undertook a significant project in collaboration with a prominent safety partner, designing our RFID ATP Solution. This project marked a major milestone, catering to prominent tram lines in France and Belgium and solidifying our market presence.

Our global clientele includes Metro, Light Train, and Tram Operators. We strategically target main rail integrators to ensure a broad and impactful reach. Our RFID solutions are globally recognized, with successful operations in regions including APAC and China.

To date, TagMaster has installed approximately 200 Tram and LRV lines worldwide, a clear indication of our expertise and the trust our clients have in us. These installations are meticulously detailed in our joint project reference table, showcasing our extensive experience and success in this domain.

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