

piper®

RELIABLY INNOVATIVE
TRANSIT SOLUTIONS



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WORLD'S FIRST SIL4 SAFETY CERTIFIED UWB TRAIN POSITIONING SYSTEM

Recently, Piper Networks received a CENELEC Safety Integrity Level 4 (SIL-4) Certification for its Ultra Wideband (UWB) train control system from independent safety assessor, TÜV SÜD. The certification is a milestone achievement for Piper and the transportation industry as it becomes the first ever UWB-based position and speed technology to achieve vitality. The system is now ready for integration with signaling and train control programs being implemented by transportation agencies and their engineering contractors in the US and worldwide.



PROJECT: AMTRAK MOW

Amtrak selected Piper's innovative Limits Compliance, and Collision Avoidance System (LCCAS) to protect and monitor their Maintenance of Way (MOW) vehicles to ensure safe operation. Piper is equipping hundreds of Amtrak's rail-bound and hi-rail equipped vehicles in the Northeast corridor with Piper's advanced LCCAS devices and delivering real-time telematics data to Amtrak's dispatch system.



PROJECT: MTA SIGNALING

Piper's ongoing UWB project with MTA has delivered cutting edge train positioning solutions. Piper, in partnership with Thales, was awarded a Pilot Program for an Ultra-Wideband Based Train Control System to be installed on the 7 (Flushing) Line. The UWB RPS provides the absolute reference locations on the guideway to the OBCU which uses the data to initialize localization of the train and re-localize, as needed.

Q Coney Island-Stillwell Av 1 min
N Coney Island-Stillwell Av 4 min
R Bay Ridge-95 St 6 min



09:39 AM 75°F 1 Queensboro Plaza and Times Sq-42 St

PROJECT: MTA PIDS

Piper developed the technology that runs the new MTA countdown clocks at B Division station platforms and mezzanines. Our low-power Bluetooth radios are installed on every train in the B Division, including the 7 Line, and communicate with wayside gateways in stations to power the countdown clock arrival information.



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ABOUT PIPER

Piper Networks is an innovative rail engineering solutions provider and systems integrator specializing in the development of transportation technologies. Founded in 2011, Piper has four primary product lines that serve the industry, including: Vital Train Positioning, Maintenance of Way (MOW) Protection, Automatic Train Protection (ATP), and Passenger Information Display Systems (PIDS). Piper's proprietary Ultra Wideband (UWB), GPS-RTK, and patent-pending TrackSight™ LiDAR image positioning technology are designed to operate in some of the most challenging transportation environments while maintaining pinpoint accuracy that improves performance for train operators and train control suppliers.



RAIL SOLUTIONS

PIPER HELIX

LIDAR, UWB, GPS-RTK, IMU

LIMITS COMPLIANCE & COLLISION AVOIDANCE SYSTEM

Helix™ is an advanced, multi-sensor Limits Compliance and Collision Avoidance System (LCCAS) that integrates LiDAR, UWB and other technologies. The Maintenance of Way (MoW) safety solution allows for fleets of rail-bound and hi-rail equipment to be accurately detected and tracked on the railroad in real-time, thereby reducing the potential for worker injury, equipment damage, and operational disruptions resulting from accidents or major rule violations.

PIPER ETLS

UWB

VITAL UWB TRAIN POSITIONING

Piper's ETLS (Enhanced Transit Location System) uses Ultra Wideband (UWB) Technology to track the location and movement of trains, vehicles, equipment, people and other objects in real-time for various location awareness needs. Piper's ETLS determines the location of trains throughout a system in real-time with unmatched positional certainty. The system is like a blanket of radio coverage over the subway lines - virtually surrounding the tracks with smart sensors that pinpoint train location down to a few inches.

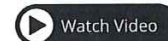
PIPER SAFEGRADE

UWB, LIDAR

GRADE CROSSING SAFETY

Piper's SAFEGRADE system provides remote monitoring of grade crossings to detect occupancy and alert rail system operators to potential hazards. Using Piper's patented LiDAR technology, the integrated system is designed to capture the presence of vehicles, pedestrians, cyclists, and objects within the crossing quadrant with high resolution.

VIDEOS



LOCATIONS

California (HQ) San Diego

Delaware Wilmington

New York New York City

INTERVIEWS

Robert Hanczor CEO

Areas of Expertise:

Train navigation, Maintenance of Way Safety, Grade Crossing Safety, CBTC, Signaling, Ultra Wideband, LiDAR, GPS-RTK, Safety Certification