RailNet AEI Reader System

Comet Electronics LLC, the leading provider of Automatic Equipment Identification (AEI) equipment, is now producing the RailNet AEI Reader System. With an installed base of over 4,000 AEI sites, the RailNet is the de facto standard for Class I and Regional railroad AEI applications throughout North America.

Comet’s RailNet AEI Reader System is designed to comply with the AAR S-918 Standard for Automatic Equipment Identification and is available in single or dual track configurations and is capable of handling trains operating at full track speed. The standard equipment configuration includes a 4’ x 6’ hut with standby power and lightning protection.

The standard system can handle up to ten separate host sessions and maintenance reporting sessions. This means that the system can transmit AEI “clean consist” data in up to ten different formats to four separate host locations. This feature allows railroads to share AEI data where necessary and still receive data in their standard format.

Typical System

**RAILNET AEI CONTROLLER CONFIGURATION**
- RailNet APU-102
  - Processor Board with 1 GB RAM, 1 GB Compact Flash, 10/100 Ethernet.
  - TDA-104 Digital Interface Board
  - Reader Board
  - Com4 RS-232 Interface Board (4 ports)
  - 56K Modem Board

**WHEEL DETECTOR**
- Zero-speed wheel detector complete with a TDA-105 amplifier module.

**TRAIN PRESENCE DETECTION**
- Inductive Presence Loop with amplifier.
- Audio Frequency Track Circuit.

**ANTENNAS**
Two antennas per track:
- Parapanel antennas standard for single track locations.
- Low profile log-periodic antennas for between tracks or restricted clearance locations.

**STANDBY POWER**
24 volts, 100 Ah (standard)

**ENCLOSURE**
- 4’ X 6’ walk-in aluminum hut (standard).
- 60” x 32” x 24” Signal Case (option).

**SOFTWARE**
- AAR “Clean Consist” post-train reporting (standard).
- Tracker, car-by-car reporting (special order).

**TRAIN SPEED**
- Up to 79 MPH (specify at time of order).

**TRACK CONFIGURATIONS**
- Single or Multiple Track, unrestricted or restricted clearance (specify at time of order).

**SYSTEM REPORTING SESSIONS**
- Up to ten separate consist reporting sessions with parameters for host location and reporting format.
- Maintenance reporting functions for each consist reporting session.

**COMMUNICATIONS PROTOCOL**
- S-918A (T-94) (Standard)

Specifications subject to change

R&D and New Products

Comet continues to develop new solutions to adapt to customer needs. Experience affords us the ability to make custom solutions from the ground up. From the planning floor to field deployment, we strive to create new products to help solve a customer problem. Innovation allows Comet to adapt as technology changes passing on the benefits to our customers.