

PLC IDENTIFIER and READER MODULES

What is Power Line Carrier Technology?

Power Line Carrier Technology or PLC for short, transmits digital data onto the vehicles power line and allows tractor to trailer communications without adding any new wires.

Allows any wireless or other device, on the tractor or trailer, with a serial interface to receive PLC ID messages.

PLC Identifier



The **PLC Identifier**, once installed on a tractor or trailer, will send out the vehicle's Identification Number at regular intervals onto the vehicle's power line. This ID can be used to determine the hook and unhook times of the trailer. In addition, it can give positive confirmation that the correct trailer is hooked up to the correct tractor in real-time. The whole identification process is done automatically without any inputs from the driver. The PLC Identifier also has one digital input which can be used for a variety of other functions like letting the driver know if a trailer door is open, if the temperature of a refrigerated trailer is too low, when tire pressure is too low, or other functions.

The **PLC READER** reads the PLC Identifier, which is installed in the cab of the truck, through PLC messages and converts them to a serial interface. This allows the vehicle's Identification to be read by a wireless or other serial interface equipped device installed on the vehicle. Once this conversion is made, any wireless device, on the tractor or trailer, with a serial interface can transmit the vehicle's ID to the control center. Here, everything from the location of the truck, the time of hook-up, the time it left, until the disconnect time can be monitored in real-time. The PLC Reader also has three general purpose analog inputs.

PLC Reader



Typical Application of the PLC READER & IDENTIFIER

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PLC IDENTIFIER



PLC READER

Applications

If present on the PLC bus, the following information may be passed along to the wireless communicator:

- ABS Warning Information;
- Tire Pressure Information;
- Trailer Temperature;
- Trailer Door Status;
- Engine Data to Wireless Transceiver Located on Trailer;
- Information to Driver Received Through a Wireless Transceiver;
- Cargo Status.

Specifications:

- Supply Voltage: 9 to 16 VDC
- Reverse Battery Protection
- Load Dump Protected
- Double Battery Protection
- Reverse Transient Protection

Operating Temperature -40° to 85° C

Storage Temperature -40° to 85° C

Physical Dimensions

2.75" L X 2" W X 0.5625" H

About Hegemon Electronics

Since 1994, Hegemon Electronics has offered complete design services for the OEMs. We offer complete turnkey design services from conception through production. We specialize in the heavy-duty automotive market but are versatile enough to take on other projects such as test equipment and other areas. Here are some services offered by Hegemon Electronics:

- Analog and Digital System Design
- Embedded Electronic System Designs
- Software Development in C/ C++ and Visual Basic
- PCB Layout
- Test Equipment Design
- EMC Compatibility Solutions
- Complete System Designs
- Product Manufacturing