Ethernet EVB

Automotive Ethernet Evaluation Board

Low Cost Experimentation with Automotive Ethernet

The Ethernet Evaluation Board (EEVB) is a low-cost tool for learning Automotive Ethernet. The board uses USB for power and traffic monitoring, and includes two scriptable BroadR-Reach (100BASE-T1 compatible) nodes with user-controllable I/O. It also comes with a license for the Trial Edition of Intrepid's powerful Vehicle Spy software.

Benefits

- Two scriptable BroadR-Reach nodes allow you to create your own message exchange experiments
- One USB connection for power and traffic monitoring
- Programmable user inputs and output LEDs
- Includes two CAN nodes
- Hardware for sending Audio I/O over Ethernet
- Includes all cables so you can get started right away
- Includes Automotive Ethernet book and Lab Manual

Example Ethernet Experiments

The scripting engine in each of the Ethernet nodes allows you to build experiments to learn the following topics:
- Ethernet frame structures
- Signals in Ethernet frames
- Layers of Ethernet
- TCP/IP basics
- Decoding a TCP stream
- Basics of Precision Time Protocol
- Decoding a IEEE 1722 data stream
- AVB protocol suite introduction
- 14229 Diagnostics over IP
- XCP over Ethernet
- Gatewaying Ethernet over CAN
- Stress-testing Ethernet
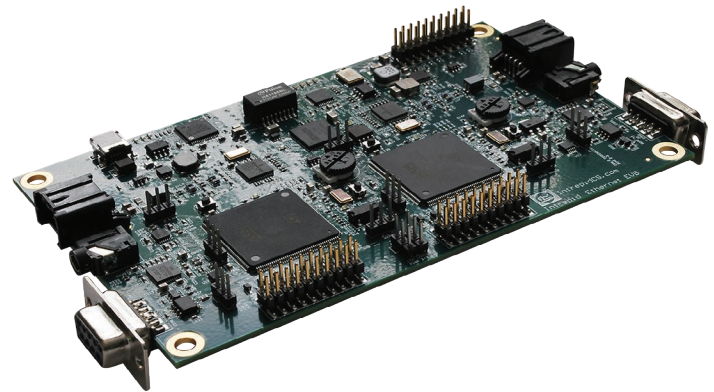
The Ethernet Evaluation Board includes everything you need to get an Ethernet network up and running
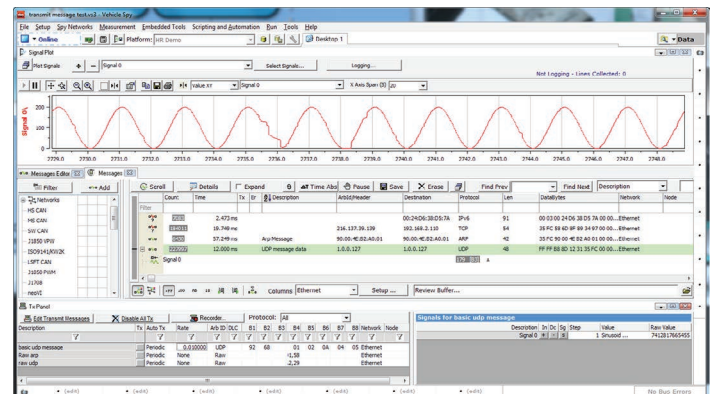
Vehicle Spy Trial Edition includes a version of Vehicle Spy software that supports monitoring, transmitting and scripting on Ethernet. Unlike the Trial Edition, the Professional Edition is not time limited and supports other networks, such as CAN, LIN, MOST and FlexRay.
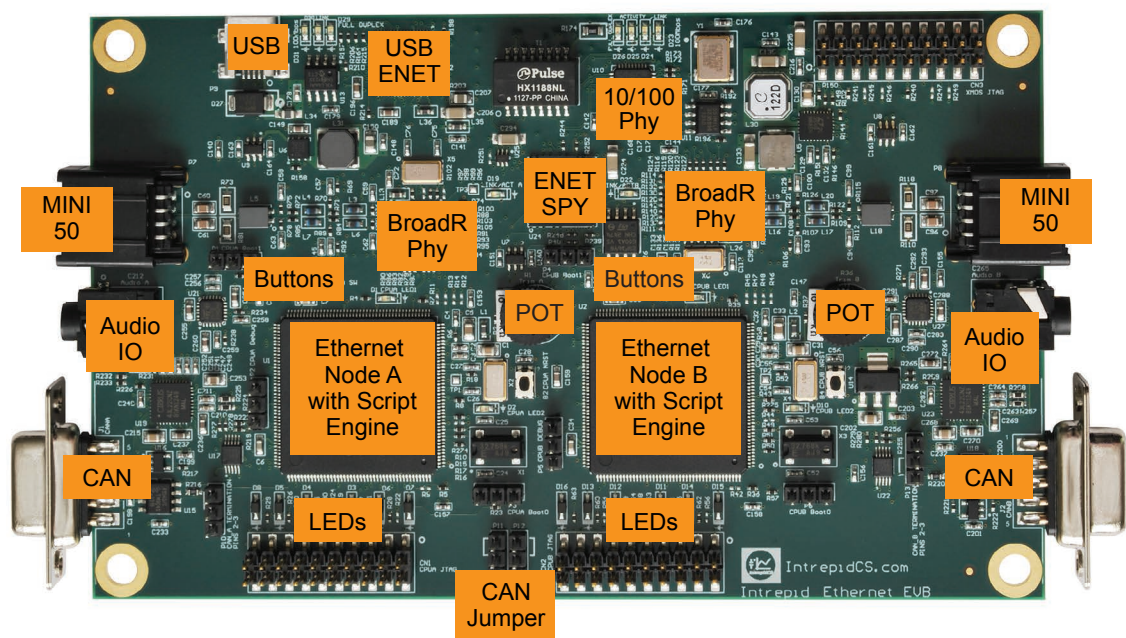
Ethernet EVB

Labels on board:
USB, USB ENET, 10/100 Phy, ENET SPY, BroadR Phy, MINI 50, BroadR Phy, Buttons, Buttons, Audio IO, POT, POT, Audio IO, Ethernet Node A with Script Engine, Ethernet Node B with Script Engine, CAN, CAN, LEDs, LEDs, CAN Jumper

A Lot of Automotive Ethernet on a Single, Low-Cost Board

Two complete Ethernet nodes each contain their own real-time scripting engine. Follow the tutorials in the included Lab Manual using downloadable setups to learn hands-on about Ethernet, TCP/IP and more. The board contains a USB/Ethernet interface allowing you to monitor all Ethernet communications between the nodes over USB. All I/O devices—including buttons, LEDs, potentiometers and CAN nodes—can be used in Vehicle Spy scripts.

Single Board Experiments

In single board experiments, the board is powered by USB and the two Ethernet nodes communicate with each other using the included BroadR-Reach cable. Many experiments can be handled in this topology.

USB
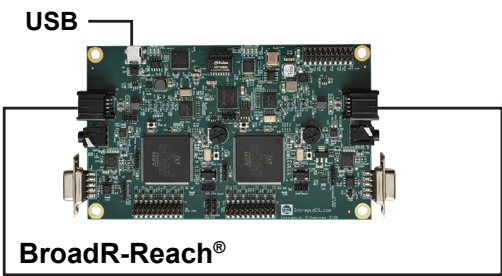
BroadR-Reach®

Switched Environment

Ethernet EVBs can also serve as test nodes with an Ethernet switch. Here two Ethernet EVBs are connected to a BroadR-Reach switch to create a typical Automotive Ethernet network.
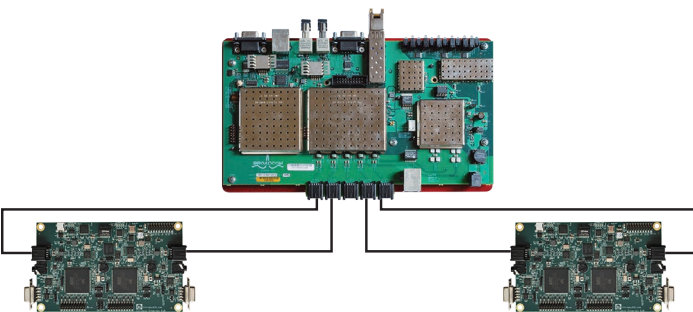
Ordering Information

Part Number	Description
ETHERNET-EVB	Ethernet evaluation board with Vehicle Spy trial

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