The Avago Advantage

Applications Solutions

Avago Technologies Solutions for
Electric Trains & Locomotives

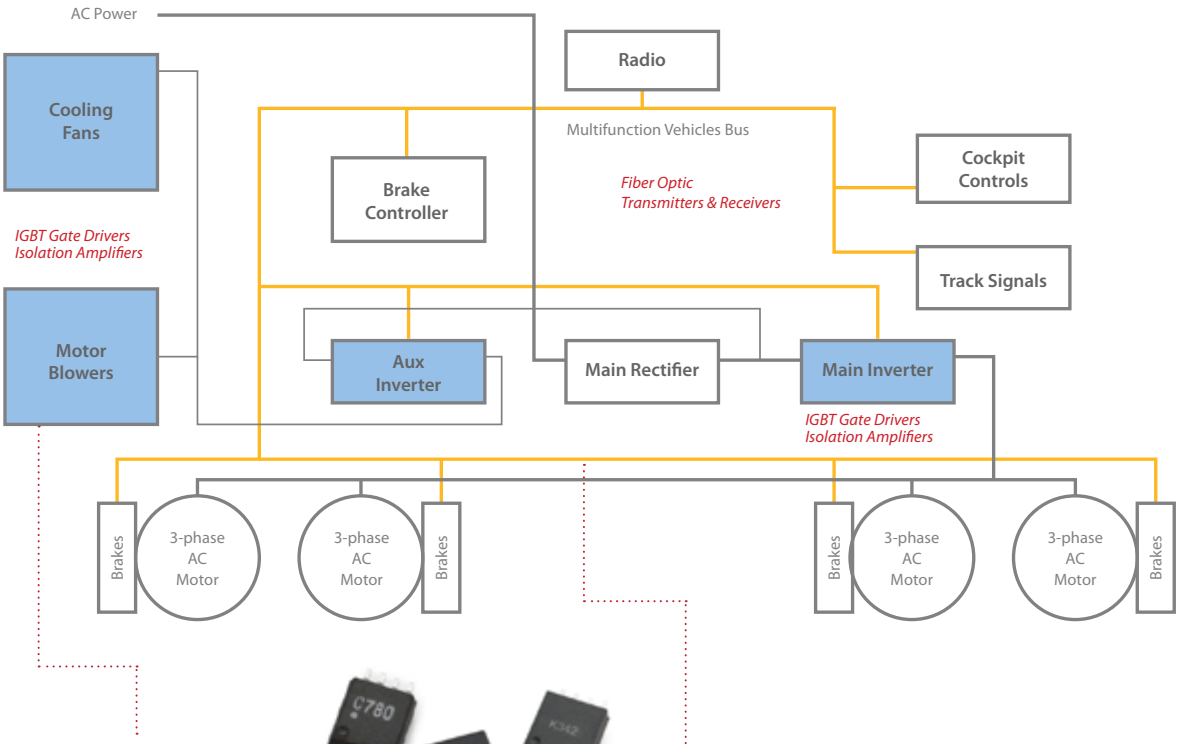
Your Imagination, Our Innovation

Sense • Illuminate • Connect

Avago Technologies Solutions for **Electric Trains & Locomotives**

Avago Technologies provides several solutions for electric or diesel-electric powered trains and locomotives including inverters and motor controls that can use Avago IGBT gate drivers and isolation amplifiers.

Communication between the different control modules, displays, and operating devices within the train or locomotive occurs in an environment with electromagnetic interference (EMI). Applications within this type of noisy environment rely on the use of a Multifunction Vehicles Bus (MVB) and Avago optical transceivers are often used for the long link distances and resistance to an electromagnetic-filled environment where the MVB operates.



Inverter and Motor Controls Isolation Amplifiers

Avago isolation amplifier optocouplers provide high precision, stability, and common mode rejection for current and voltage sensing applications without compromising high noise or magnetic field immunity.

Featured Products

- Miniature Isolation Amplifiers
- Optically Isolated Sigma-Delta Modulator (External clock) with Digital Output

IGBT Gate Drivers

Avago gate drive optocouplers provide isolated high current gate driver for IGBTs and MOSFETs. These gate drive optocouplers come in wide range of output current from 0.4A to 5A, and selected parts with integrated features such as Active Miller Clamp, under voltage lockout, fault status feedback and de-saturation detection.

Featured Products

- (Active Miller Clamp, rail-to-rail output voltage) Isolated Gate Driver
- (Fault status feedback, automatic fault reset) Isolated Gate Driver

Multifunction Vehicles Bus Data Communications Fiber Optic Transmitters & Receivers

Avago industrial fiber optic transmitter and receivers perform reliably, for data transmission, in applications where the highest electrical isolation between the transmitter and receiver sides is needed. Due to the insensitive characteristics of plastic optical fiber to electromagnetic interference (EMI), our transmitter and receiver products are suitable for use in EMI-polluted surroundings such as those found in train transportation system applications.

Featured Products

- Plastic Optical Fiber Transmitters & Receivers (Distances to 100m)
- Glass Optical Fiber Transmitters & Receivers (Distances to 5000m)
- Evaluation boards for optical fiber transmitters & receivers

Your Imagination. Our Innovation

Avago Technologies is a leading designer, developer and global supplier of a broad range of analog, mixed signal and optoelectronics components and subsystems with a focus in III-V compound semiconductor design and processing. Backed by an extensive portfolio of intellectual property. Avago products serve three primary target markets: wireless communications, wired infrastructure, and industrial and other. Avago has a global employee presence and heritage of technical innovation dating back 50 years to its Hewlett-Packard roots.

Avago products serve three diverse end markets

Wireless Communications serving the smartphone/handset and Base Station infrastructure markets with leading-edge products that include:

- Power Amplifiers
- Front End Modules
- Film Bulk Acoustic Resonator (FBAR) Filters
- GPS/GLONASS LNAs
- Optical Finger Navigation
- LED Backlighting, Screen Illumination
- Ambient Light and Proximity Sensors

Wired Infrastructure for switches/routers, data centers, supercomputers and storage/servers with products that include:

- 168Gb Parallel Optic Arrays
- 28Gb SerDes ASICs in 28nm
- Storage Fibre Channel Transceivers
- QSFP+/SFP+ Ethernet Transceivers

Industrial and Other for alternative energy power generation, electronic sign and signals, automated manufacturing, automotive lighting, GPS/GLONASS navigation, motor inverter system, battery charging and management, infotainment systems and vehicle safety systems with products that include:

- Inverters
- Isolation and Digital Optocouplers
- Motion Control Optical & Magnetic Encoders
- Polymer Optical Fiber
- Indicator and Display LEDs

Contact us for your design needs at: **www.avagotech.com**

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