Application Brief

EtherCAT Connected Motor Drive System With Endat 2.2 Absolute Encoder Feedback

Development Platforms

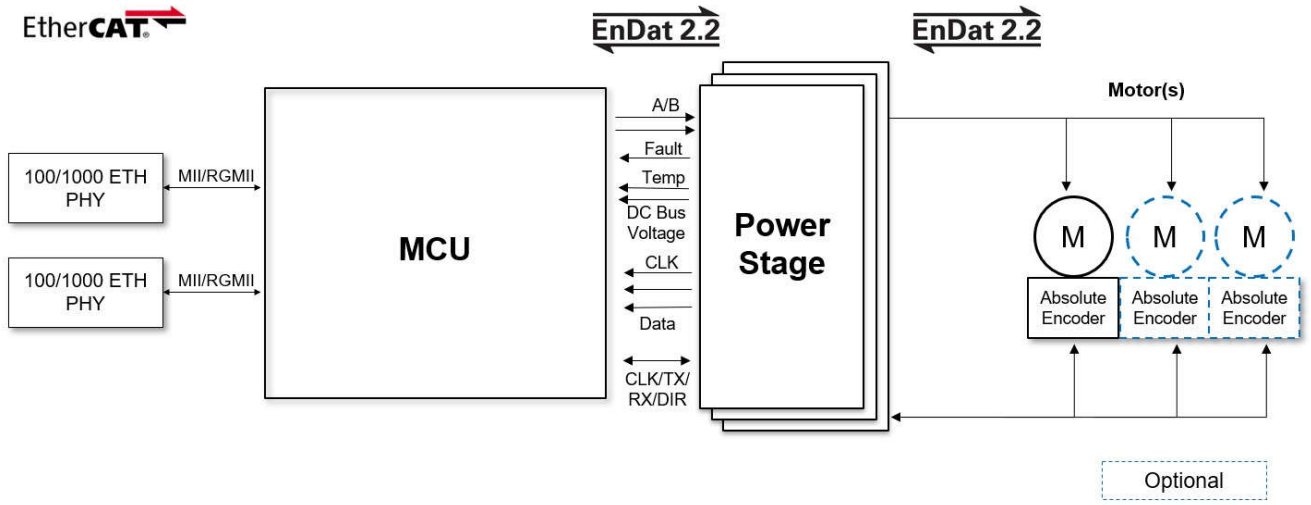

Figure 1. High-level Block Diagram

What is it?

The Motor Drive Development Platform with EtherCAT and Endat 2.2 is a scalable platform created to simplify hardware and software development for any level of motor drive applications. Developers can get started with single or dual axis control, and have the option to scale towards multi-axis control with as much or as little integration as needed. The development platform comes with supporting Software Development Kits (SDKs) that are dedicated for both motor and general board control.

Why is it needed?

Motor drive systems span a wide range of architectures and motor types. Simplifying the approach to building a motor drive solution that fits into the overall architecture of a factory or a robot is increasingly important in order to go to market faster. This motor drive platform helps hardware and software developers by amplifying the capabilities of a TI MCU driven EtherCAT + Endat 2.2 motor drive system.

To achieve high performance motor control, the system must balance the right blend of taking accurate measurements of speed and position, optimizing control loops, delivering advanced actuation capabilities, and more. Some layouts focus only on pure control of motors and leave networking tasks to other system components, while others intend to combine networking and control into the same chip. In either case, TI intends to provide a clear path to help customers choose the correct design for any system architecture.

How do you get started?

Add all the required hardware sold from the TI store to your cart and purchase any required hardware needed from recommended external vendors. Determine if you need any optional hardware for your specific application and purchase accordingly. While you are waiting for the hardware to arrive, read the online quick start guides and download all required software. To learn more about this development platform, before or after making a purchase, click the links in Related Content. These links are to videos, white papers, and application

notes related to the development platform or one of the key components.

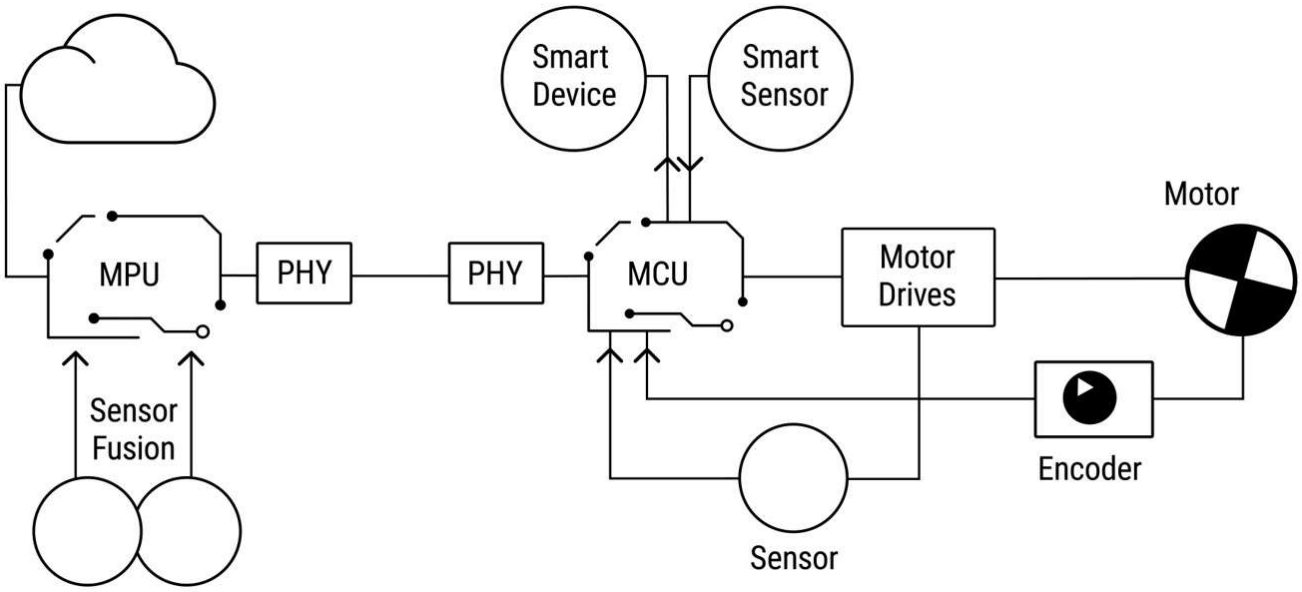

Figure 2. Example System Block Diagram

Related Content

Content Type	Title	Estimated Time
Application Overview Video	Build smart, precise motor drive systems, and cloud-connected industrial machines with AM6442, AM2434	5 minutes
Academy	AM243 MCU+ Academy	1 hour

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