

EtherCAT Development Kit

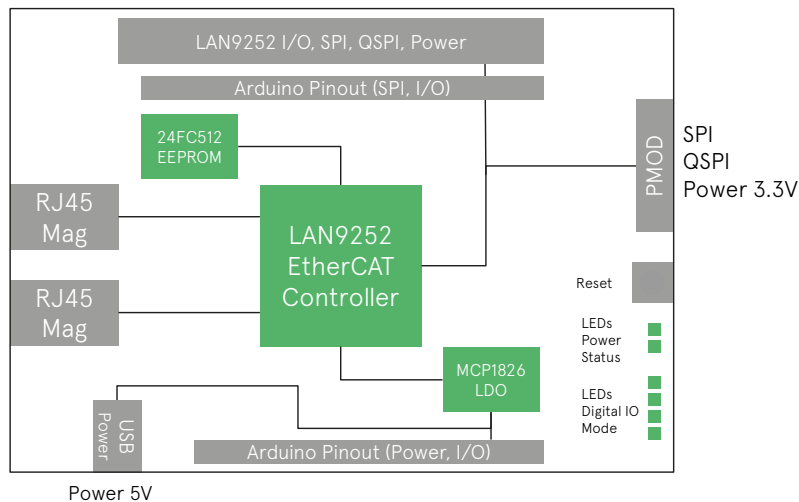
AVNET[®] SILICA

PMOD™ AND ARDUINO COMPATIBLE ETHERCAT® SLAVE STARTER KIT

The EtherCAT® Starter Kit is based on the Microchip LAN9252 EtherCAT Slave controller. The easy to use EtherCAT Starter Kit has a Pmod™ and Arduino compatible interface, as well as a header with all I/Os of the LAN9252, which allows the direct connection to microcontroller starter kits from many suppliers for fast prototyping.

The LAN9252 EtherCAT slave controller has integrated 100base-TX PHYs with auto-MDIX, cable diagnostic and support for 100base-FX fiber as well. The flexible host interface can be configured as SPI, QSPI or 8/16bit parallel interface. The LAN9252 supports single supply and extended temperature range up to 105°C.

The EtherCAT Starter Kit can be integrated in the Avnet Silica Visible Things™ platform as well.



KEY FEATURES

- Flexible, cost effective, single chip EtherCAT slave solution
- Easy development, fast time to market
- Interface to any application MCU/CPU
- LAN9252 EtherCAT Slave controller
- Pmod interface: SPI, QSPI
- Arduino interface: SPI, I/O
- Header with all LAN9252 I/O pins
- EtherCAT stack from Beckhoff and well-known third parties

TARGET APPLICATIONS

- I/O modules, distributed I/Os and control units
- Rotary encoders and sensors
- Actuators, valves and drives
- Interface modules, field bus bridges
- EtherCAT applications with 105°C extended temperature support

ORDER CODE:

PMOD-COM-ETHERCAT

EtherCAT[®]

MICROCHIP

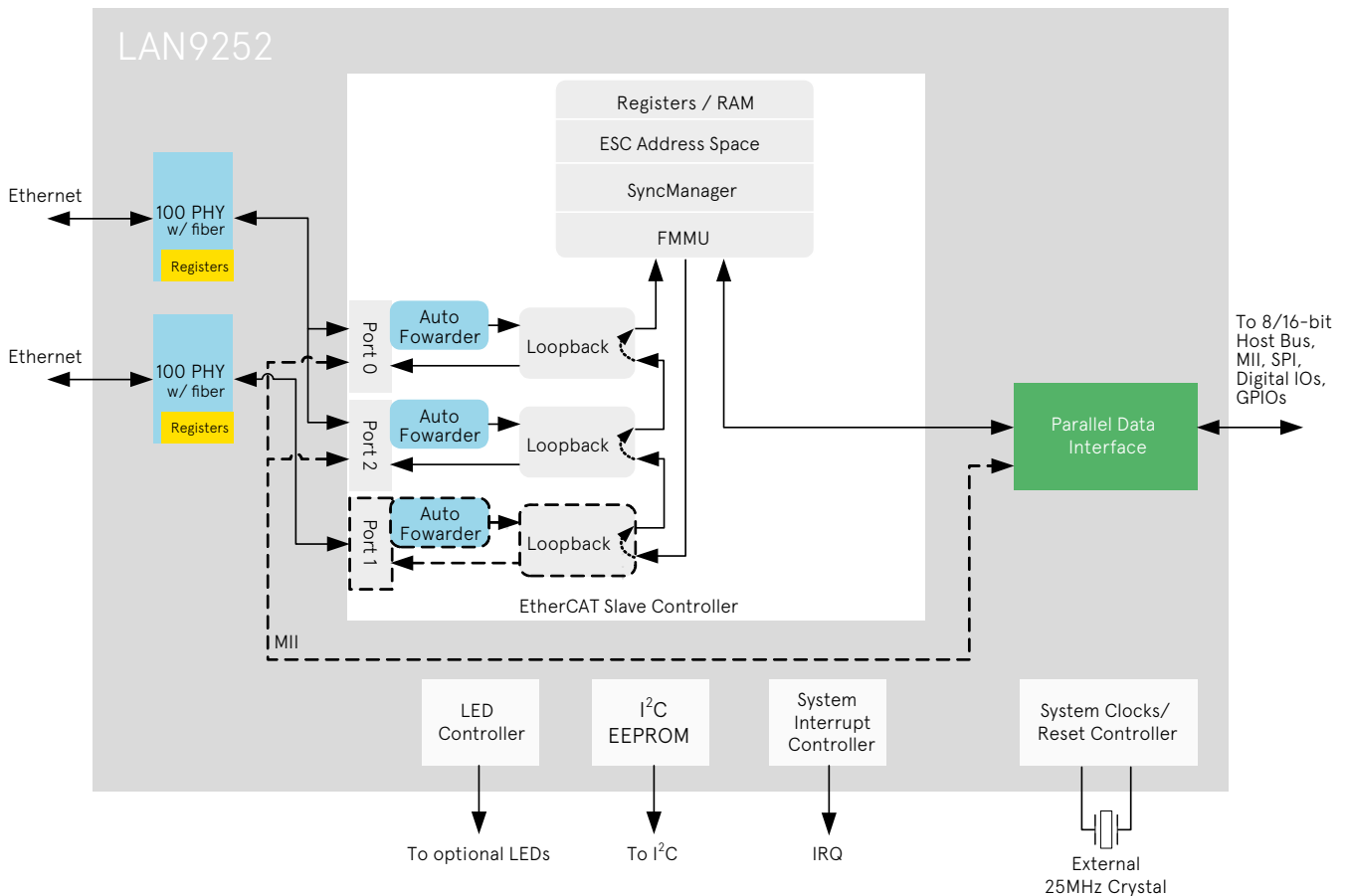
LAN9252 ETHERCAT SLAVE CONTROLLER

Microchip's LAN9252 is a 2/3-port EtherCAT slave controller with dual integrated Ethernet PHYs which each contain a full-duplex 100BASE-TX transceiver and support 100 Mbps (100BASE-TX) operation. The LAN9252 supports HP Auto-MDIX, allowing the use of direct connect or cross-over LAN cables. 100BASE-FX is supported via an external fiber transceiver (Finisar).

This device provides system developers a cost-effective solution for realizing EtherCAT slave solutions.

FEATURES

- 2/3-port EtherCAT slave controller
- Dual integrated 100BASE-TX PHY's with Auto-MDIX
- 3th port via MII
- Interfaces to most 8/16/32-bit MCU
- SPI / Quad SPI
- 8/16bit host bus interface
- Digital I/O mode with 16 I/O
- Low power modes
- 1.6 V to 3.6 V variable I/O voltage
- Integrated 1.2 V regulator enables single 3.3 V supply
- IEEE802.3u 100Base-FX Fiber Interface
- Cable Diagnostics Open, short, cable length detection
- 64-pin QFN and TQFP-EP
- Extended temperature -40 to +105 °C support



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