

# MFAM DEVELOPMENT KIT

## DEVKIT-LCS050G



The Geometrics MFAM Evaluation Kit is versatile easy to use development platform to allow system developers to quickly design custom application interfaces using the MFAM magnetometer sensor.



The MFAM Evaluation Kit highlights the Texas Instruments TM4C1294NCPDT Arm Cortex-M microcontroller at its core. The controller supports many different communication protocols for easy conversion of the MFAM magnetometer data into a variety of output protocols.

Supported communication channels include:

- 10/100 Ethernet MAC and PHY
- USB 2.0
- Two High Speed RS-232 ports
- Wi-Fi through TI CC3100 BoosterPack

## Features

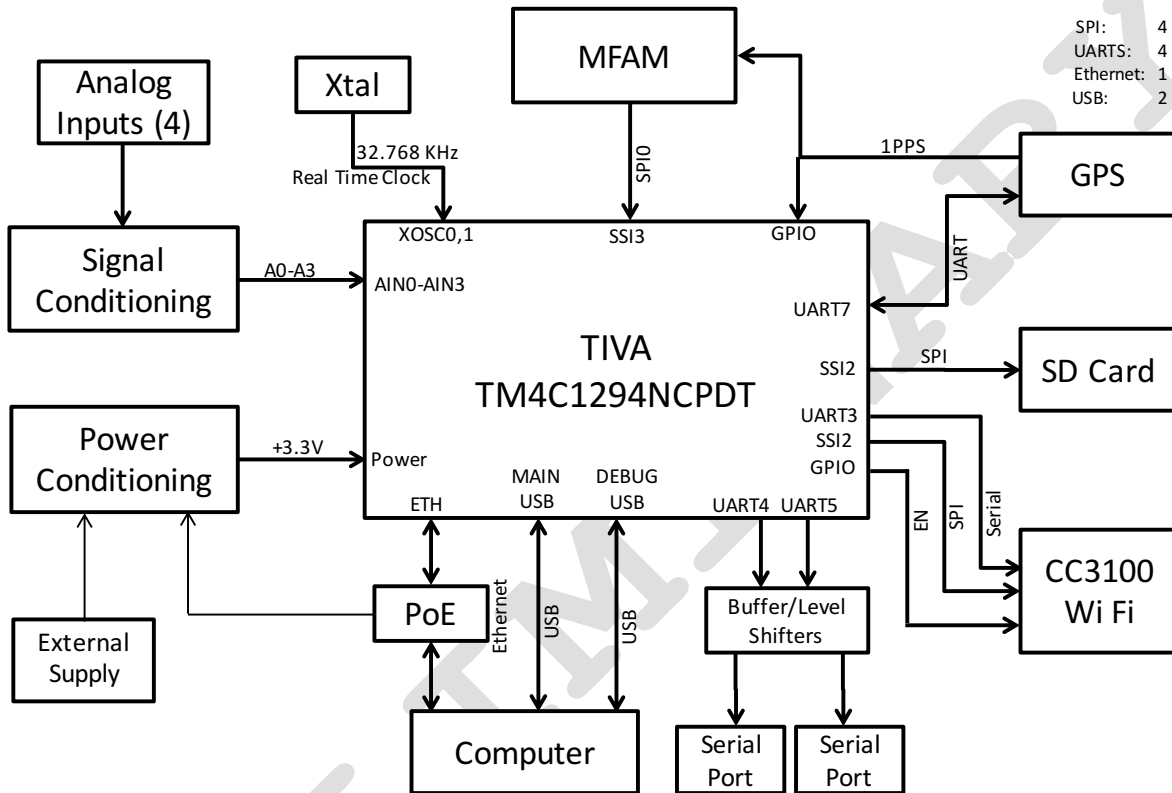
- Standard 5mm jack for external power source
- Power over Ethernet (PoE) support
- Four Differential and Scalable Analog Input Channels
- On-board GPS
- MicroSD card for storing data
- Local EEPROM for non-volatile parameter storage
- Temperature/Pressure/Humidity Sensor
- 10 MHz Reference input for disciplining master system clock



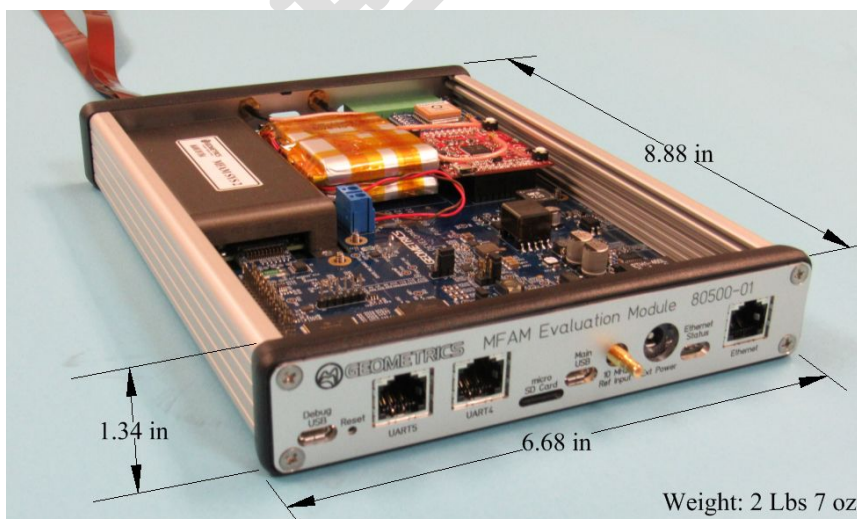
The MFAM Evaluation Kit module comes with complete schematics and example source code demonstrating MFAM data readout over SPI bus and communication using Ethernet output. The code can be compiled and loaded into the evaluation board using Texas Instrument's Code Composer Studio development suite (free from T.I.) using a built-in USB XDS110 debug port. In addition, there is a vast suite of libraries and code examples from Texas Instruments for the TM4C1294NCPDT Arm processor, along with a Real-Time Operating System (RTOS). The libraries, code examples, and RTOS are available for free from Texas Instruments.

Using the provided example source code as a starting point, the code can be modified as needed for the end user's interface requirements. After the application interface is working, and using the provided Evaluation board schematics, a custom schematic and board layout can be started. Simply jettison all the hardware not used from the Evaluation board schematic.

## Block Diagram



## Dimensions



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## Document Information

Revision	Date	Description
0.1	29 Jun 2016	Document created.
0.2	07 Mar 2017	Updated to remove references to obsolete internal battery.

### Disclaimer

Information contained in this document is preliminary and incomplete. For further information, please contact:

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