



## IoT Ethernet Monitoring Kit Powered by Medium One

Part Number: DM990101



From Sensor to Cloud. The DM990101 IoT Ethernet Monitoring kit powered by Medium One (Software-as-a-Service) offers an all-in-one IoT package. To address Industrial Internet of Things (IIoT) projects, the Ethernet technology becomes the most reliable and stable connectivity. This IoT kit uses an **Ethernet LAN8740A** and comes pre-loaded with Medium One cloud service, mobile application (from Saritasa) as well as corresponding Microchip firmware. The firmware in the kit makes use of MPLAB®Harmony, FreeRTOS™, and WolfMQTT allowing you to quick-start your IIoT design. The Ethernet port is controlled by a 32-bit micro-controller that benefits from a 2MB Flash of the **PIC32MZ EF** providing plenty of memory space for your application code.

The security is addressed using WolfSSL features. The kit communicates with the Medium One cloud over MQTT with TLS security, using both publish and subscribe topics. The mobile app communicates with the Medium One cloud via REST over HTTPS.

The DM990101 comes with pre-configured code to support 4 sensors : pressure, temperature/humidity, air quality and motion. In addition, hundreds of other different sensors can be plugged into the MikroElektronika mikroBUS™ footprint allowing for prototyping a large variety of IIoT proof-of-concepts. Sensors needs to be purchased separately on MikroElektronika.

### Features

Connect your IIoT product to cloud and customize your applications in no time

Connect 100's of sensors or your own sensor to cloud with minimum modification using the reference design

Leverage the PIC32MZ EF and Ethernet LAN8740A PHY to aggregate data and connect

Utilize production ready reliability and secure cloud connectivity and identity management over MQTT with TLS

Extract data intelligence from your sensor data

Perform data analytics with Medium One's machine learning libraries

Get daily and weekly reports on your sensor data

## **Package Contents**

IoT Ethernet Monitoring kit

PICkit3 in-circuit debugger

USB Male-A to Male Mini-B cable

USB Male-A to Male Micro-B cable