# LAPIS 16-bit MCU Starter Kit Quickstart Guide: MCU16-STARTKIT-Q504

#### Introduction

The MCU16-STARTKIT-Q504 can be used to evaluate and prototype LAPIS Semiconductor's ML620Q504 16-bit ultra-low power MCU. This document lists what is included, where to find software, and a brief startup guide.

#### Included Materials

- · 1 dual-row, 14-pin ribbon cable
- · 1 USB standard A to mini-B cable
- · 1 ML620Q504 reference board
- · 1 NanoEASE programmer board







NanoEASE Programmer Board

### Reference Links

LAPIS Semiconductor U16 page: Provides supplementary information about LAPIS's 16-bit MCU http://bit.ly/1Xmz1ex

GitHub Documentation Reference Page: Contains supplementary information about this Starter Kit http://bit.ly/1QawvCn

LAPIS Support Site\* Registration and Login Page: Includes download links for software and supporting documents http://bit.ly/20YyEZE

\*Note: Please allow one business day for registration confirmation and access credentials

## Startup Guide

- 1. Install the U8 Development Tools (From the LAPIS Support Site under "Development Support System") on your PC.
- 2. Download the ML620Q504 reference software (From the LAPIS Support Site under "Sample Program Application Note"). Unzip and place these files anywhere on your PC.
- 3. Open the IDEU8 GUI environment on your PC (Installed with the U8 Development Tools from Step 1 above).
- 4. Go to File » Open. Then browse through the ML620Q504 Reference software for the project you want to test. (Project files use the \*.pid extension.) Choose the appropriate project file and click "Open".
- 5. Connect hardware: PC » USB cable » NanoEASE » 14-pin ribbon cable » ML620Q504 reference board



- 6. Now the project has been loaded into the IDE for your customization
  - a. F7 can be used to build the project and will generate output files to be sent to the MCU
  - b. Use CTRL+F5 to build and debug the application. The DTU8 debugger will open in a different window to allow running and breakpoint debugging for the previously built code.

