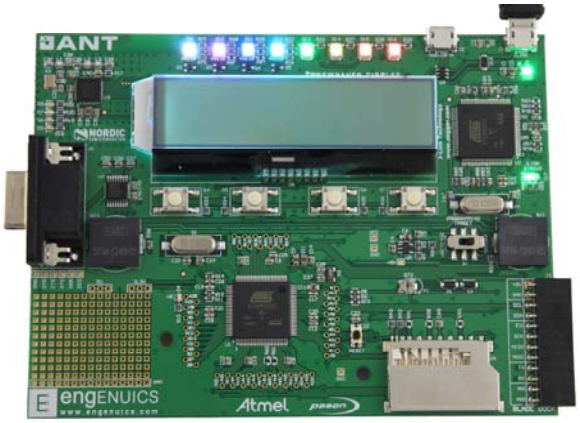
FEATURES

- SAM3U2C Cortex-M3 microcontroller, 128kB flash, 36kB RAM; 12MHz and 32.768kHz crystals
- NRF51422 ANT+/BLE/Cortex-M0 SoC with 256kB flash, 16kB RAM; 16MHz crystal and PCB antenna
- J-Link Onboard programmer with target selection switch
- 3.3V and 5V supply rails
- 2 x 20 character ASCII LCD with RGB backlight (I^2C interface)
- Dual piezoelectric buzzers
- 4 ultra bright RGB LEDs configured for white, purple, blue, and cyan but can be customized with resistor selection
- 4 additional indicator LEDs green, yellow, orange and red
- 4 indicator LEDs directly connected to NRF51422
- Power, J-Link status and Heartbeat LEDs
- 4 input buttons
- DB9 with RS-232 signal transceiver for PC connection
- SD card slot with SPI and HSMC interface
- USB high speed connector to Cortex-M3 with onboard ESD protection
- Trim pot for ADC testing
- Processor pin breakout for access (top and bottom sides)
- Optional CR2032 battery
- Thru-hole / SMT prototyping area
- Blade™ daughter board connector
- No-slip rubber feet
- Fully documented firmware library and open source training modules via Engenuics MPG™ program



APPLICATIONS

- Education and development training
- Prototyping and evaluation

OVERVIEW

The MPGL1 development board features two state-of-the art ARM-based microcontrollers that enable development from high-powered embedded systems to ultra low power Internet of Things (IoT).

The board features an onboard full J-Link debugger/programmer that can target the SAM3U2C or NRF51422 to allow both processors to be used for development.

A rich set of peripherals offers developers a wide range of common hardware used on many existing IoT devices including USB and SD. The Blade™ daughter board connector offers infinite expansion capability to daisy chain any Engenuics Blade daughter board or custom-designed hardware.

Hardware and firmware for the MPGL1 development board is open source and complimented by full documentation and training material.

ORDERING INFORMATION

SKU	PART NUMBER	NOTES
200047	MPGL1-EHDW-03	Fully assembled development board with USB cable
200042	MPGL1-EHDW-03-KIT	MPG Program kit (requires soldering) with USB cable

ELECTRICAL SPECIFICATIONS

PARAMETER	MIN	NOM	MAX	UNITS
Supply voltage	4.5	5	5.5	V
Supply current – active mode at 48MHz, radio transmitting, all LEDs on			100	mA
Operating temperature	0	25	50	°C

Processor-specific specifications can be found in their respective datasheets at www.atmel.com and www.nordicsemi.com

DATASHEET REVISION HISTORY

DATE	VERSION	RELEASE NOTES
January 1, 2015	1	First release.