

New Products Announcement

New Evaluation & Demonstration Products Now Available From Honeywell

Effective Tools to Assist Integrating Honeywell's Magnetic Sensor Technology

Honeywell has recently added a new line of evaluation and demonstration boards to the magnetic sensor family. These new products allow engineers to evaluate the products in a pin-out configuration as well as provide necessary application information such as product schematics. The new products include:

- **HMC1042L 2-axis + HMC1041Z 1-axis Demonstration Board**

This demonstration board for the 2-axis HMC1042L and 1-axis HMC1041Z provides the sensors to create 3-axis magnetic sensing prototype with support analog circuitry for earth's magnetic field detection. Along with the magnetoresistive sensors, three difference amplifier circuits, and a MOSFET-based set/reset strap driver circuit are included on a 1" by 1" printed circuit board with two rows of 0.1" spaced pins for solder-less prototyping usage. The difference amplifiers are set up for high gains with a +/-1 gauss dynamic range. The magnetic XYZ vector outputs are analog voltages with respect to rail-splitter voltage reference. The set/reset input is 3 volt CMOS logic levels. Included with this demo are 3 HMC1041Z & 3 HMC1042L samples.



- **HMC1043 3-axis Demonstration Board**

This demonstration board for the 3-axis HMC1043 provides the sensors to create 3-axis magnetic sensing prototypes with support analog circuitry for earth's magnetic field detection. Along with the magnetoresistive sensors, three difference amplifier circuits, and a MOSFET-based set/reset strap driver circuit are included on a 1" by 1" printed circuit board with two rows of 0.1" spaced pins for solder-less prototyping usage. The difference amplifiers are set up for high gains with a +/-1 gauss dynamic range. The magnetic XYZ vector outputs are analog voltages with respect to rail-splitter voltage reference. The set/reset input is 3 volt CMOS logic levels. Included with this demo are 3 HMC1043 samples.



- **HMC6042 2-axis + HMC1041Z 1-axis Demonstration Board**

This demonstration board for the 2-axis plus ASIC HMC6042 and the 1-axis HMC1041Z provides the sensors and supporting circuitry for 3-axis magnetic sensing prototypes for earth's field detection. This 1" by 1" printed circuit board comes with the sensors, external capacitors and is pinned with two rows of 0.1" spaced pins for solder-less prototyping usage. The amplifier stages within the ASIC are setup for a nominal +/-2 gauss dynamic range over the 2.5 to 3.6 volt power supply range. The onboard set/reset logic input is 3 volt CMOS logic compatible. Included with this demo are 3 HMC6042 & 3 HMC1041Z samples.



- **HMC5843 3-axis Compass IC Evaluation Board**

The HMC5843 evaluation board for the Compass IC contains the HMC5843 atop a 0.8" by 0.8" plug-board with wide-DIP spaced (0.6") pins for solder less breadboard compatibility. The evaluation board also contains the two capacitors and I2C pullup resistors needed for typical function for the retrieval of the XYZ magnetic field information. Both single and dual supply configurations of the HMC5843 are supported.



- **HMC5843 3-axis Compass IC Demonstration Board**

The demonstration board for the 3-axis Compass IC provides the HMC5843 plus serial bus conversion circuits to convert the I2C data to USB interfacing for personal computers. Includes a 6-foot USB cable, software, user manual & 5 samples of the HMC5843.



- **HMC6343 3-axis Compass with Algorithms Evaluation Board**

The HMC6343 evaluation board for the tilt-compensated digital compass IC contains the HMC6343 mounted on the 0.8" by 0.8" plug-board with wide-DIP spaced (0.6") pins for solderless breadboard compatibility. The board also contains the external capacitor and I2C pullup resistors for typical function of the compass. The board contains the four connections (VDD, GND, SCL, SDA) plus other breakouts.



- **HMC6343 3-axis Compass with Algorithms Demonstration Board**

The demonstration board for the 3-axis Compass IC provides the HMC6343 part plus serial bus conversion circuits to convert the I2C data to USB interfacing to personal computers. This small printed circuit board comes with a 6-foot USB cable and Windows demonstration software to provide a user friendly way of viewing compass heading, pitch and roll data numerically and on aviation-type displays. Communication can still be enabled with the HMC6343, even without the provided demonstration software, as long as the developer creates a program to emulate the I2C data packets. This demonstration board uses the USB power supply from the host computer (~+5 volts) and a green LED indicates power presence.



- **HMC6352 2-axis Compass with Algorithms Evaluation Board**

The HMC6352 evaluation board for the 2-axis Compass IC provides the HMC6352 mounted on a wide DIP 24-pin format (EEPROM) for ease of prototyping on solder-less breadboards. The printed circuit board takes the HMC6352's LCC pin-out and pin-for-pin routes it to the corresponding DIP pins on the board. Using only four pins (5, 7, 10, and 14) for power and I2C data transfer is all that is required to operate the compass. The power supply range is 2.7 to 5.2 volts.



HMC1042L and HMC1043 evaluation boards coming soon!

For more information regarding these products and engineering development tools call 1-763-954-2474 or toll free at 1-800-323-8295 or visit the Honeywell web site at www.honeywell.com/magneticsensors. From this Internet location, visitors can immediately download product specifications and other related product information.

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