

# New Products Announcement

## New Evaluation & Demonstration Products Now Available From Honeywell

### Effective Tools to Assist Integrating Honeywell's Magnetic Sensor Technology

July 16, 2008 -- 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:

- **HMC1041Z 1-axis Magnetic Sensor Evaluation Board**

The evaluation board for the HMC1041Z is the single axis sensor placed on a compact circuit board and pinned to a narrow 8pin DIP pattern for easy prototyping. This evaluation board removes the effort of hot-air reflowing this sub-miniature LCC component to a prototype circuit board, and all the interface pins are brought out for usage (offset strap, set/reset strap, and Wheatstone bridge sensor contacts).



- **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.



- **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.



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

The HMC6352 demonstration board for the 2-axis Compass IC provides the HMC6352 part mounted on a circuit board with a D9 male serial port connector for RS-232 interfacing to personal computers. Besides the circuitry for I2C to RS-232 conversion, demonstration software is provided for viewing compass heading data. This demonstration board comes with a 6-foot RS-232 cable with attached AC adapter for power supply.



HMC1042L, HMC1043 and HMC6343 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](http://www.honeywell.com/magneticsensors). From this Internet location, visitors can immediately download product specifications and other related product information. To make purchasing quick and easy, products can be ordered from our on line store at <http://shop.ssec.honeywell.com/>.

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