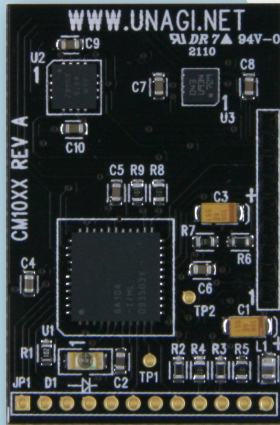


CM101x ELECTRONIC COMPASS MODULES

ADVANCED DIRECTION DETECTION



General Description

The CM101x is a line of electronic compass modules that output accurate directional data without the need for calibration or additional components. Utilizing a 3-axis magnetometer along with a highly sensitive triaxial accelerometer, the CM101x calculates its position relative to terrestrial magnetism, and outputs its direction in degrees. Gyroscopic output data is also available.

With its built-in microprocessor core, the CM101x automatically calibrates itself using patented algorithms, so that the module is always ready to operate correctly. Simply apply DC power to the module, and then read the output data to find its pointed direction. The module does all the detection and heavy calculations.

The CM101x modules are very low in power consumption, compact in size, and utilize high volume manufacturing techniques. This allows the CM101x modules to be incorporated into a wide variety of product areas, including consumer and industrial markets.

The CM1015 module has a SPI master communication port. The CM1010 module has a selectable communication port (SPI, I2C, RS232).

The CM101x modules are available in Qty 1 to 100K+, with very low OEM pricing available.

Features

- **Complete self-contained module**
No additional circuits or components required
- **Patented Auto-Calibration**
No special equipment or methods required to calibrate for accurate direction detection
- **No-hassle implementation**
No minimum order requirements and no licensing fees or source code required for use
- **Highly accurate output data**
Direction values from 0.0 to 359.9 degrees
Includes Gyro data: Inclination, Pitch, Roll, Yaw
- **Low-power consumption**
Ideal for battery operation
- **Easy to interface**
Uses a single DC supply and supports several serial data communication protocols
- **Compact size 1.0" x 1.5" x 0.13"**
Ideal for hand-held or other portable products

Applications

- Automobile navigators
- Portable GPS mapping equipment
- Weather station loggers
- Construction equipment
- Marine mapping displays

Preliminary product information.

Specifications
are subject to
change.