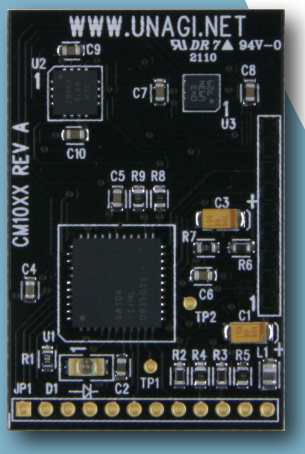
UNAGI NET LLC

CM1020 ELECTRONIC COMPASS MODULE

ADVANCED DIRECTION DETECTION



General Description

The CM1015 is a complete electronic compass module 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 CM1020 calculates it's position relative to terrestrial magnetism, and outputs it's direction in degrees. Gyroscopic output data is also available.

With it's built-in microprocessor core, the CM1020 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 it's pointed direction. The module does all the detection and heavy calculations.

The CM1020 module has a I2C communication port for reading of the data registers. The module is very low in power consumption, compact in size, and utilizes high volume manufacturing techniques. This allows the CM1020 to be incorporated into a wide variety of product areas, including portable consumer and industrial markets.

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 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 3.3 VDC supply and a I2C communication port
- 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

Access our website to download the full datasheet for the CM1020 and to see other module versions available:
http://modules.unagi.net

For technical support questions, please send E-mail to: TECHINFO@UNAGI.NET

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