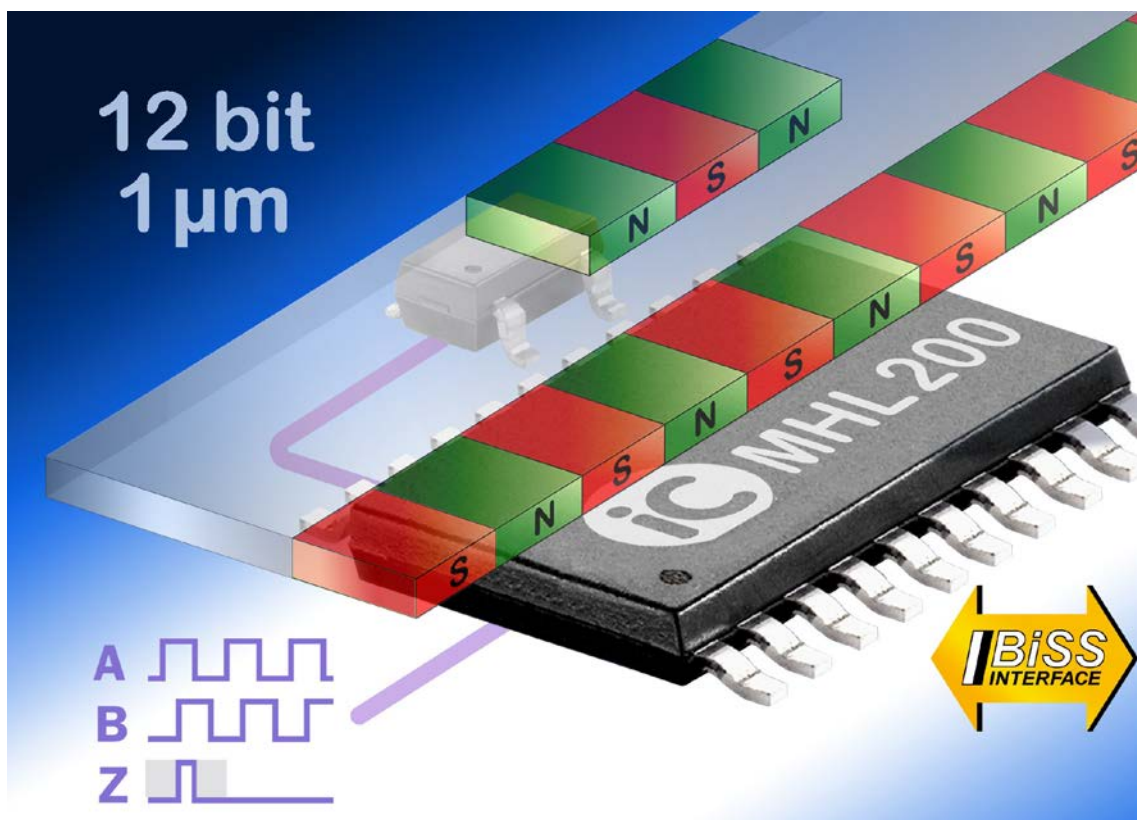


**iC-MHL200: 12 bit universal magnetic position encoder**

The iC-MHL200 is an integrated system solution for linear and angular magnetic encoder applications. Combined with a target like a magnetic tape or pole wheel an universal and rugged linear or angular incremental encoder can be realized.

The chip housed in a TSSOP20 package includes a linear Hall sensor array which is adapted to the targets' magnetic pole pitch of 2 mm. The internal signal amplification control compensates for deviations of the sensor signals due to temperature and working gap variations. Incremental (AB quadrature and Z index, 12 bit) and commutating signals (UVW) are provided at the RS422 compatible line driver outputs.



Press photo of iC-MHL200

Download text / photo at: [http://www.ichaus.com/pressroom/ichaus\\_mhl200\\_pre.zip](http://www.ichaus.com/pressroom/ichaus_mhl200_pre.zip)

An external reference signal can be used to gate the internal index Z signal to provide an absolute zero pulse. The linear resolution is configurable up to 4096 steps per each magnetic signal period of 4 mm, which corresponds to an incremental linear displacement of less than 1 micron.

At the fastest incremental output frequency of 8 MHz, linear movements of up to 8 m/s can be tracked with full 12 bit resolution. The UVW commutation signals are available for two- and four pole linear motor configuration.

iC-MHL200 is typically used in industrial, automotive, and medical applications, such as:

- Position control and acquisition
- Linear / rotary speed control
- Motor control
- As substitute for optical incremental encoders.

A synchronous serial SSI / bidirectional BiSS-C interface provides additional serial data output. Using BiSS-C allows for setting device configuration. These settings can be permanently stored in an OTP-ROM.

iC-MHL200 operates from a supply voltage of +5 V ( $\pm 10\%$ ) within an operating temperature range of -40 to +125 °C.

Further information is available at <http://www.ichaus.com/product/iC-MHL200>

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## **Introducing iC-Haus**

iC-Haus GmbH is a leading independent German manufacturer of standard iCs (ASSP) and customized ASiC semiconductor solutions. The company has been active in the design, production, and sales of application-specific iCs for industrial, automotive, and medical technology for over 25 years and is represented worldwide. The iC-Haus cell libraries in CMOS, bipolar, and BCD technologies are fully equipped to realize the design of sensor, laser/opto, and actuator iCs, among others. The iCs are assembled in standard plastic packages or using iC-Haus chip-on-board technology to manufacture complete microsystems, multichip modules, and optoBGA™ or oQFN packages, the latter two in conjunction with sensors. Further information is available at <http://www.ichaus.com/>.

### **If you have any queries, please contact:**

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