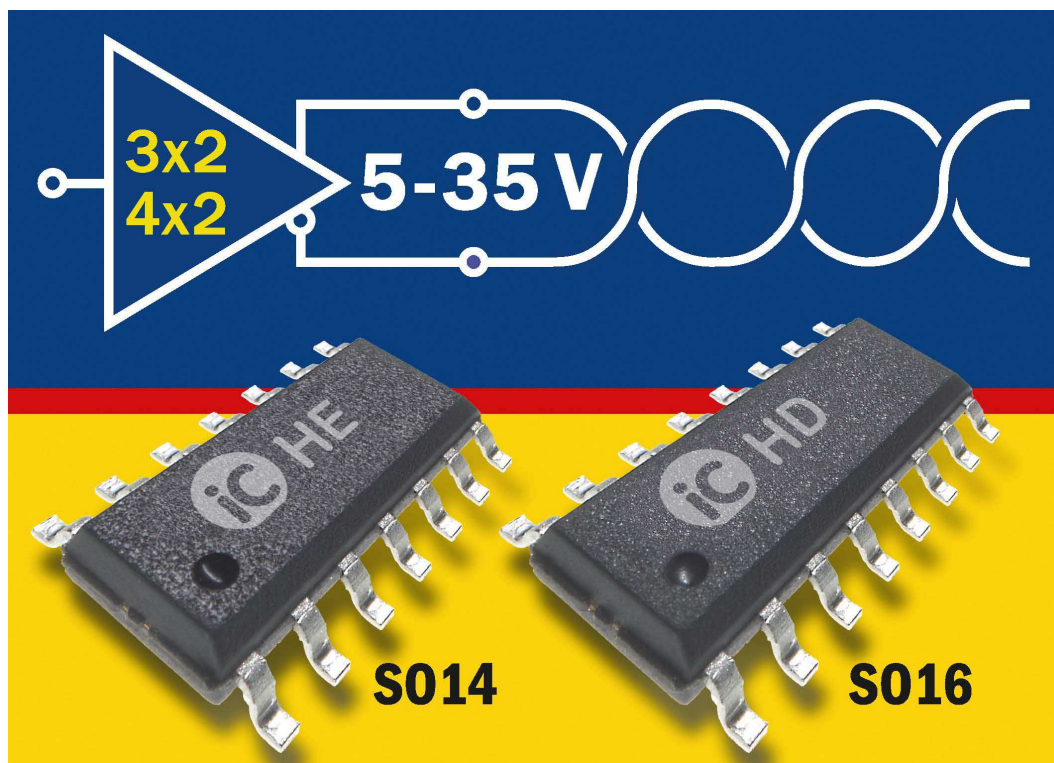


**iC-HD2 / iC-HD7 / iC-HE**

**24V line drivers with impedance adaption for encoder applications**

The devices iC-HD2, iC-HD7 and iC-HE are line drivers for 5 V and 24 V encoder applications. The output drivers are designed for cable impedances in the range of 30 to 140 Ohms. Due to the integrated wave impedance adaption, reflected signals coming from the non-terminated line end at the receiver will be absorbed and not back reflected again, thus maintaining signal integrity. For differential signal transmission, the four output stages (iC-HE: three output stages) are designed as complementary drivers.

**Product photo of iC-HE / iC-HD7 in 14 / 16-pin SO package**



Download text and photo at

[http://www.ichaus.com/pressroom/ichaus\\_hd\\_he\\_pre.zip](http://www.ichaus.com/pressroom/ichaus_hd_he_pre.zip)

The push-pull output stages are current limited and short circuit proof with thermal shutdown. They can drive typically 200 mA at 24 V supply. For bus applications, the outputs of the iC-HD2 and iC-HD7 can be switched to high impedance state using the NEN input.

The iC-HE contains a current source to supply a common LED encoder illumination. Its output current can be set by an external resistor to be in the range of 1 to 50 mA. The iC-HD2 is equipped with a 5 V reference voltage, supporting up to 5 mA output current.

All devices are featuring an undervoltage / overtemperature monitor, shutting the outputs to high impedance in case of such an event. With iC-HD2, in addition, the open drain error output NERR will be activated.

All inputs are CMOS and TTL compatible and ESD protected. The operating temperature range is from -25 °C (-40 °C optionally) up to 125 °C.

The devices iC-HD7 and iC-HE are available in SO16 resp. SO14 package. The iC-HD2 is available in a TSSOP20 package, optionally with Thermal Pad. As a special version of iC-HD2 with Thermal Pad, increased shutdown temperature, and high voltage inputs, the iC-HDH2 is recommended.

Further information is available at <http://www.ichaus.de/iC-HD2>, <http://www.ichaus.de/iC-HD7> and <http://www.ichaus.de/iC-HE> .

## **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 ASiCs, 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™, the latter in conjunction with sensors.

Further information is available at <http://www.ichaus.com>.

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