Protec GmbH
Vertrieb elektronischer Bauteile

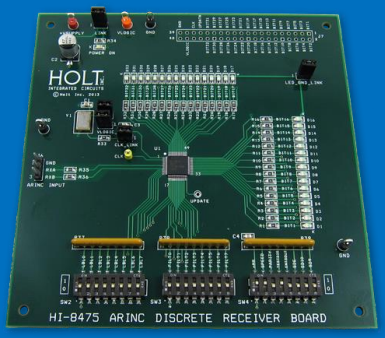
HOLT INC.
INTEGRATED CIRCUITS

AVIONIC COMPONENTS NEWSLETTER *AUGUST 2014*

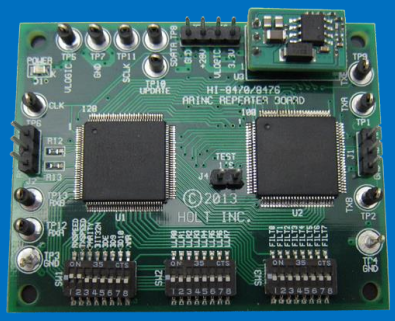
HOLT IC Development Kits:

ADK-8470 ➔ 16 Sensor Array with ARINC 429 Output, Ground/Open or Supply/Open Sensors

ADK-8475/6 ➔ ARINC 429 Receiver with parallel and serial outputs Evaluation Board



ADK-8476 RPT ➔ ARINC 429 Repeater Evaluation Board



New Products from HOLT IC

Holt's range of avionics products has served the aerospace industry for many years. Many of Holt's data bus product lines integrate analog transceiver and digital protocol functions in a single integrated circuit, resulting in significant space savings and improved reliability.

HI-3718 First 3.3V ARINC 717 / ARINC 429 Transceiver

A low-power CMOS transceiver designed to meet the requirements of the ARINC 717 and ARINC 429 specifications. The device acts as an interface between ARINC 717 or ARINC 429 digital protocols and the Harvard Bi-Phase (HBP) and/or Bi-Polar Return-to- Zero (BPRZ) encoded physical layers.

The part includes a Harvard Bi-Phase (HBP) or Bi-Polar Return-to-Zero (BPRZ) line receiver which produces correct HBP or BPRZ digital signals for input to a decoder. The device also has HBP and BPRZ line drivers capable of accepting HBP and BPRZ encoded digital signals. The device operates from a single +3.3V supply using only four external capacitors, making it the ideal interface device between an FPGA and ARINC 717 physical layer.

ARINC 429 Line Receiver Family with Built-In DO-160G Level 3 Lightning Protection

The new family comprises four devices: two single-channel receivers, HI-8450 and HI-8451 in an industry standard 8-pin SOIC package, and two quad-channel devices, HI-8454 and HI-8455 in a 20-pin TSSOP package or a 5mm square 32-pin QFN package. Each device has two test input pins which bypass analog inputs for test purposes. In the case of HI-8450, pulling both test pins high forces the receiver outputs to a high impedance state.

The new HI-8450, HI-8451 and HI-8454, HI-8455 are pin-compatible with Holt's already popular ARINC 429 receivers HI-8591, HI-8588 and HI-8444, HI-8445 respectively. The new devices eliminate external lightning-protection input resistors, yet fully comply with RTCA/DO-160G Level 3 lightning requirements.

ARINC 429 Line Receivers with Built-In Lightning Protection

HI-8450/1 and HI-8454/5, with the lightning requirements of RTCA/DO-160G, Section 22, Level 3 Pin Injection Test Waveform Set A (3 & 4), Set B (3 & 5A) and Set Z (3 & 5B), using no additional external components. Validation was carried out by an independent ISO accredited lab using industry standard procedures and practices. This compliments Holt's single-supply 3.3V ARINC 429 line driver, HI-8597, which was also independently validated to the same lightning requirements with no external components.

The HI-8450 is a single channel ARINC 429 line receiver which is pin compatible with Holt's well known HI-8591 and HI-8588. The HI-8454 is pin compatible with the quad channel HI-8444. Both devices operate from either a 3.3V or 5V supply. The built-in lightning protection on these new devices provides additional robustness and eliminates the need for external components when lightning protection is required, translating to board space saving and ultimately reduced cost.