

SAP5S Spec. 3.0 Compatible Universal AS-i IC



Features

- Compliant with AS-i Complete Specification V3.0
- Integrated safety code generator
- Universal application: in slaves, masters, repeaters and bus-monitors
- On-chip electronic inductor: 55 mA current drive capability
- Two LED outputs to support Spec. V3.0 status indication modes
- User programmable to operation in Standard Slave Mode, Safety Mode or Master Mode
- Supports 5.33/16 MHz crystals by automatic frequency detection
- Data preprocessing functions
- Special burst protection circuitry
- Excellent electromagnetic compatibility
- Clock and communication watchdogs for high system security
- Operation temperature -25 to 85°C
- Available in SOP20 and SOP16 package

Brief Description

SAP5S is a new generation CMOS integrated circuit for AS-i networks.

The low-level field bus AS-i (Actuator Sensor Interface) was designed for easy, safe and cost-effective interconnection of sensors, actuators and switches. It transports both power and data over the same two-wire unshielded cable.

SAP5S is used as a part of a master or slave node and works as an interface to the physical bus.

The device realizes power supply, physical data transfer and communication protocol handling and is fully compliant with AS-i Complete Specification V3.0.

SAP5S can be programmed by the user to operate in Standard Slave Mode, Safety Mode or Master Mode.

The special AS-i Safety Mode assures short response times regarding security related events.

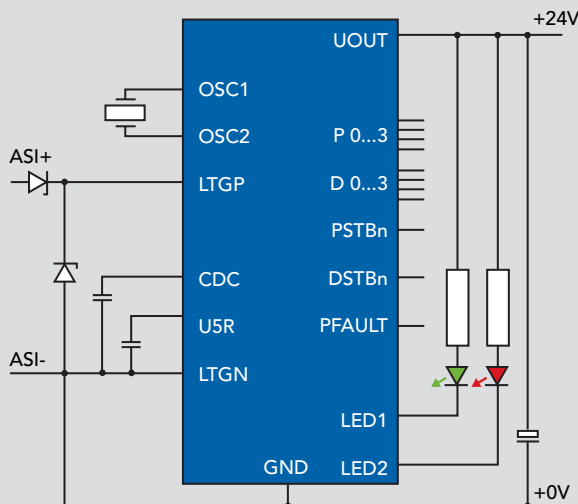
All configuration data are stored in an internal EEPROM that can be easily programmed by a stationary or handheld programming device.

SAP5S is optimized for harsh environments by its special burst protection circuitry and excellent electromagnetic compatibility.

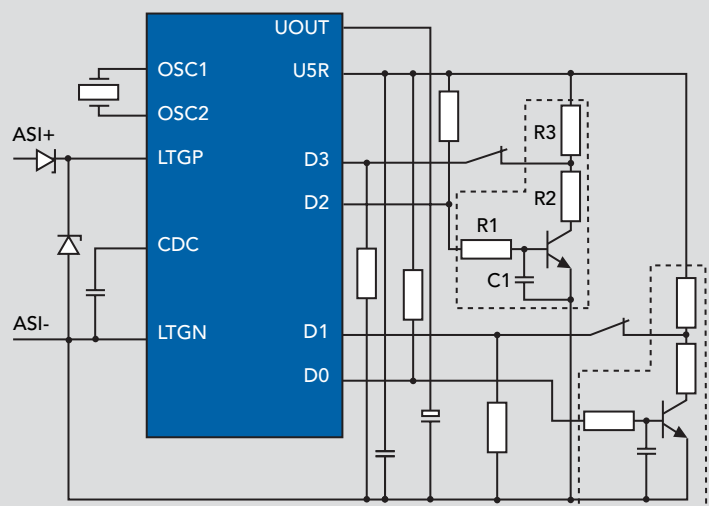
Application Examples



Application Circuit Examples

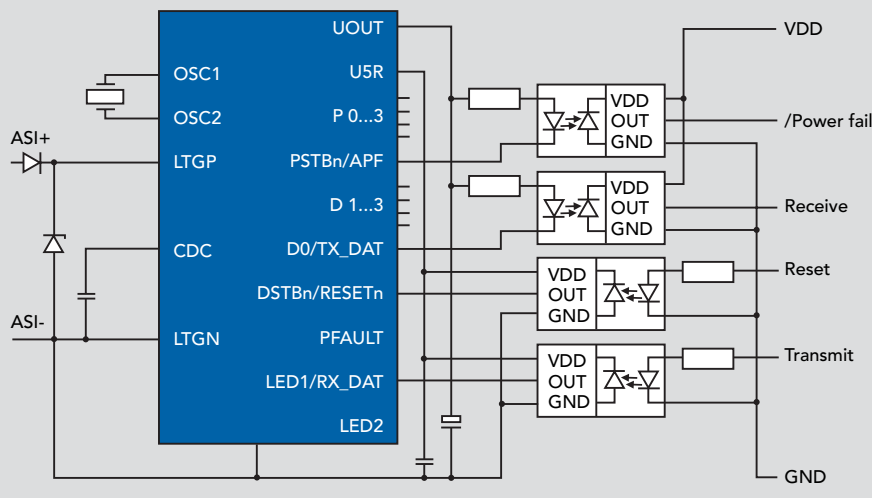


Standard Slave Application



Safety Mode Application (Slave)

Master Mode Application



Ordering Information

Ordering Code	Operating Temperature Range	Package Type	RoHs Conform	Shipping Form	Minimum Order Quantity
SAP5SB-A-T	-25°C to 85°C	SOP20/300mill	N	Tubes (37 parts/tube)	740 pcs. (20 tubes)
SAP5SB-A-R	-25°C to 85°C	SOP20/300mill	N	Tape-and-Reel (1000 parts/reel)	1000 pcs. (1 reel)
SAP5SB-A-G1-T	-25°C to 85°C	SOP20/300mill	Y	Tubes (37 parts/tube)	740 pcs. (20 tubes)
SAP5SB-A-G1-R	-25°C to 85°C	SOP20/300mill	Y	Tape-and-Reel (1000 parts/reel)	1000 pcs. (1 reel)
SAP5SB-B-T	-25°C to 85°C	SOP16/300mill	N	Tubes (46 parts/tube)	690 pcs. (15 tubes)
SAP5SB-B-R	-25°C to 85°C	SOP16/300mill	N	Tape-and-Reel (1000 parts/reel)	1000 pcs. (1 reel)
SAP5SB-B-G1-T	-25°C to 85°C	SOP16/300mill	Y	Tubes (46 parts/tube)	690 pcs. (15 tubes)
SAP5SB-B-G1-R	-25°C to 85°C	SOP16/300mill	Y	Tape-and-Reel (1000 parts/reel)	1000 pcs. (1 reel)

Application Support

Phone +49.351.8822.916
 Fax +49.351.8822.606
 Email asi@zmd.de

Development tool available:

ZMD ASI Programmer
 (PC-connectable, incl. hard- and software)

Sales Offices

ZMD AG
 Grenzstrasse 28
 01109 Dresden · Germany
 Phone +49.351.8822.366
 Fax +49.351.8822.337
 Email sales@zmd.de

ZMD America, Inc.
 201 Old Country Road, Suite 204
 Melville, NY 11747 · USA
 Phone +1.631.549.2666
 Fax +1.631.549.2882
 Email sales@zmda.com

www.zmd.biz

This information applies to a product under development. Its characteristics and specifications are subject to change without notice. ZMD assumes no obligation regarding future manufacture unless otherwise agreed in writing. The information furnished hereby is believed to be correct and accurate. However, ZMD shall not be liable to any customer, licensee or any other third party for any damages in connection with or arising out of the furnishing, performance or use of this technical data. No obligation or liability to any customer, licensee or any other third party shall result from ZMD's rendering of technical or other services.