

SAP51 Spec. 3.0 Compatible AS-i Slave IC



Features

- Compliant with AS-i Complete Specification V3.0
- Application in slave modules
- On-chip electronic inductor with current drive capability of 55 mA
- Two LED outputs supporting Spec. V3.0 status indication modes
- Drop-in compatible with SAP4.1
- Support of 5.33 / 16 MHz crystals by automatic frequency detection
- Data preprocessing functions
- Clock watchdog for high system security
- Communication watchdog
- Operation voltage typ. 30 V
- Supply current ≤ 6 mA
- Operation temperature -25 to 85°C
- Special burst protection circuitry
- Excellent electromagnetic compatibility
- Available in SOP20 and SOP16 package

Brief Description

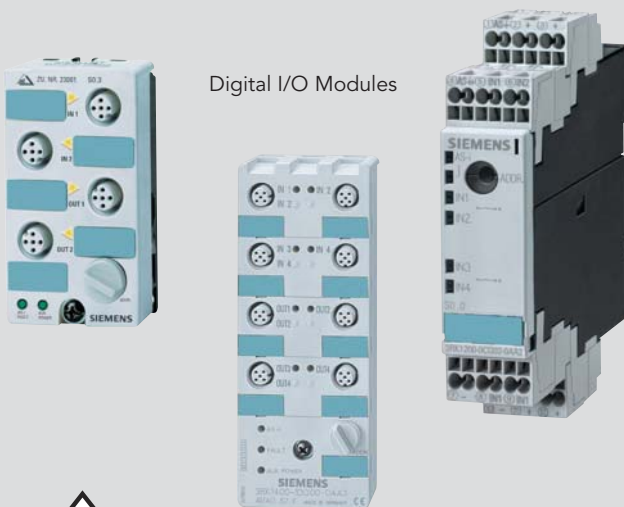
SAP51 is a new generation CMOS integrated circuit for AS-i networks.

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.

SAP51 is used as a part of a slave node and works as an interface between the physical bus and the application. It realizes power supply, physical data transfer and communication protocol handling. The device is fully compliant with AS-i Complete Specification V3.0 and can replace SAP4.1 in existing layouts. All configuration data are stored in an internal EEPROM that can be easily programmed by a stationary or handheld programming device.

SAP51 is optimized for harsh environments by its special burst protection circuitry and excellent electromagnetic compatibility.

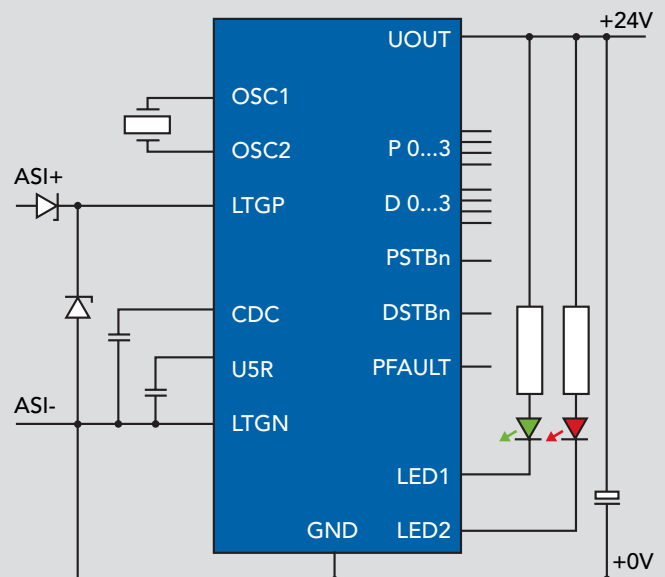
Application Examples



Digital I/O Modules



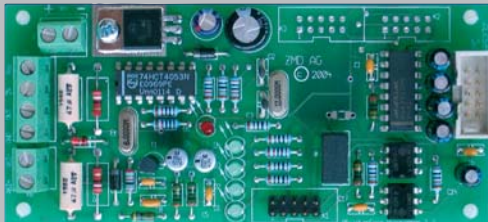
Application Circuit



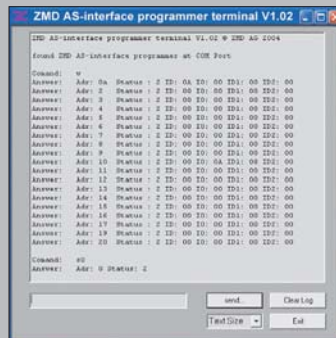
Ordering Information

Ordering Code	Operating Temperature Range	Package Type	RoHs Conform	Shipping Form	Minimum Order Quantity
SAP51B-A-T	-25°C to 85°C	SOP20/300mill	N	Tubes (37 parts/tube)	740 pcs. (20 tubes)
SAP51B-A-R	-25°C to 85°C	SOP20/300mill	N	Tape-and-Reel (1000 parts/reel)	1000 pcs. (1 reel)
SAP51B-A-G1-T	-25°C to 85°C	SOP20/300mill	Y	Tubes (37 parts/tube)	740 pcs. (20 tubes)
SAP51B-A-G1-R	-25°C to 85°C	SOP20/300mill	Y	Tape-and-Reel (1000 parts/reel)	1000 pcs. (1 reel)
SAP51B-B-T	-25°C to 85°C	SOP16/300mill	N	Tubes (46 parts/tube)	690 pcs. (15 tubes)
SAP51B-B-R	-25°C to 85°C	SOP16/300mill	N	Tape-and-Reel (1000 parts/reel)	1000 pcs. (1 reel)
SAP51B-B-G1-T	-25°C to 85°C	SOP16/300mill	Y	Tubes (46 parts/tube)	690 pcs. (15 tubes)
SAP51B-B-G1-R	-25°C to 85°C	SOP16/300mill	Y	Tape-and-Reel (1000 parts/reel)	1000 pcs. (1 reel)

Development Tool: ZMD ASI Programmer



ASI Programmer PCB



ASI Programmer Software



Application Support

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Development tool available:

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

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