A²SI-E

Advanced AS-Interface IC

Features

- AS-i Complete Specification V2.11 compliant
- Integrated EEPROM
- Additional addressing channel using an opto-electronic interface
- Extended address mode operation as programmable option (up to 62 slaves)
- High impedance AS-i line input, additional pins for further impedance optimizations
- DC voltage output, approximately 24 volts, not stabilized
- 5 volt DC voltage output, stabilized, CMOS logic can be supplied directly (e.g. µC)
- LED status indicator output (compliant with the standard indication recommendation)
- Integrated watchdog
- Temperature range -25°C to + 105°C

Description

A²SI-E is a monolithic CMOS integrated circuit certified for AS-i (Actuator Sensor-interface) networks. AS-i networks are intended for industrial automation.

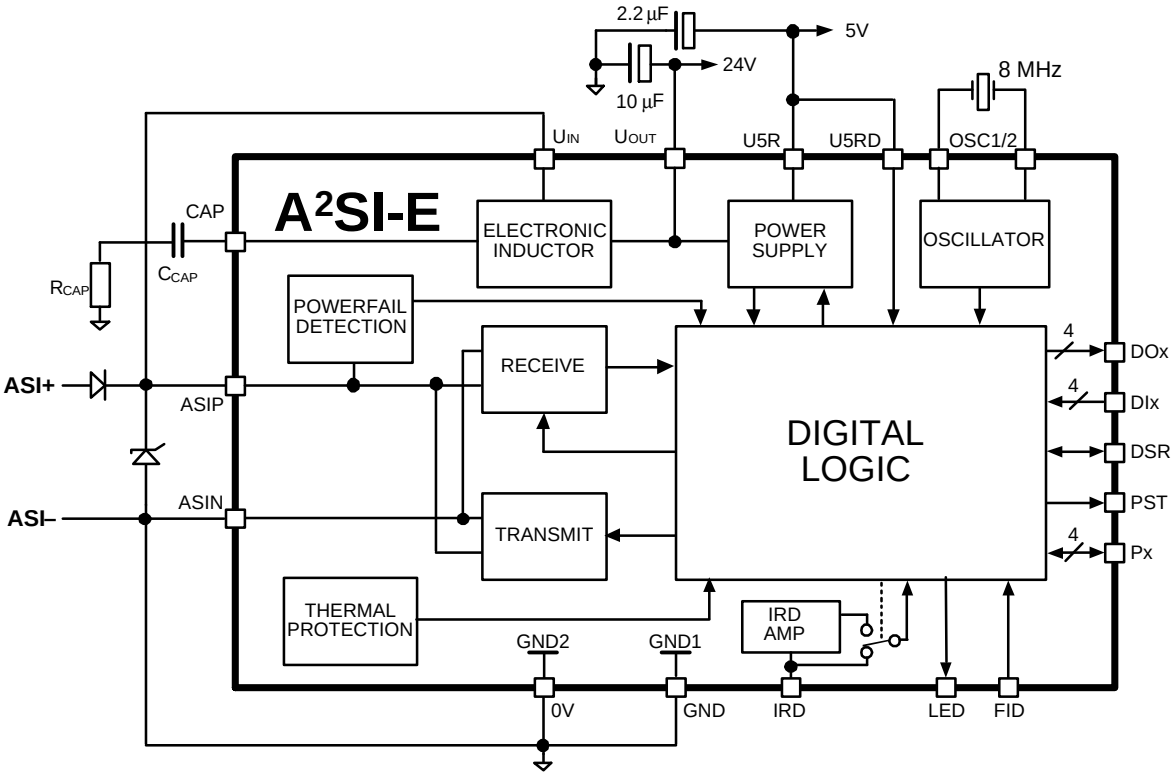
The main advantage of AS-i solutions is that actuators and sensors are connected using a two-wire unshielded cable that is easy to install. This cable transports both power and information/data.

AS-i network communication is based on the master-slave principle. The network can be extended (to cable lengths greater than 100m) by using the A²SI-E in the repeater mode configuration. Furthermore, the A²SI-E is used as slave interface to sensors / actuators and as master interface.

AS-i is a standard for the automation industry based on IEC 62026-2 and EN 50295.

The device is available in a 28-pin SOP (300 mils) package.

Block Diagram



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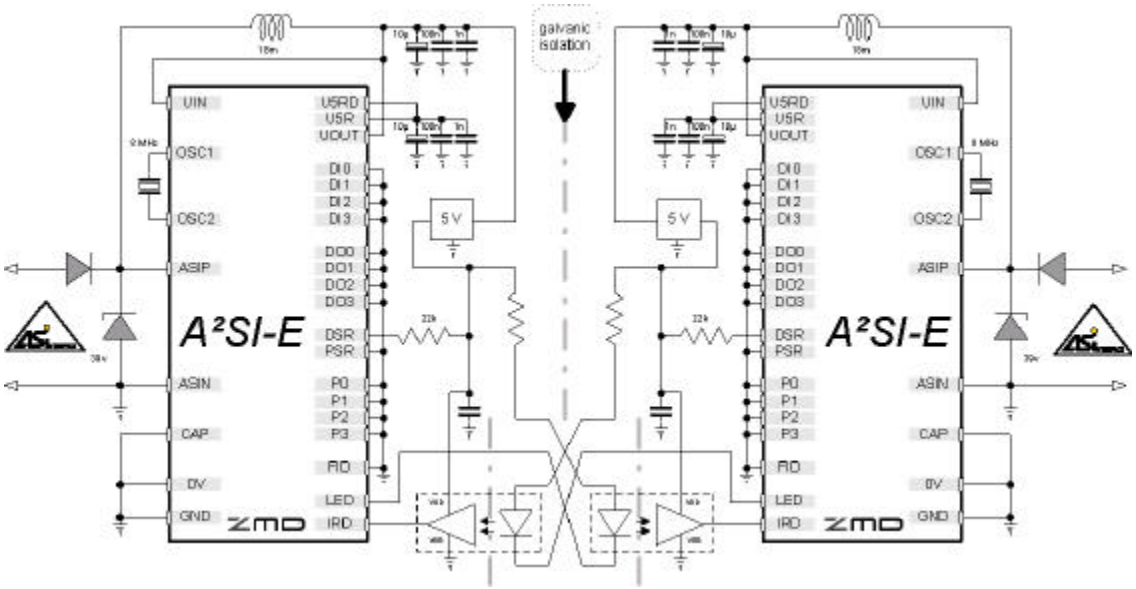
Application

The A²SI-E is packaged in 28-pin SOP, which exhibits a lower thermal resistance than the 28-pin SSOP package of A²SI IC.
Besides applications that require higher operating ambient temperature than possible with A²SI, A²SI-E accommodates applications which require a higher power dissipation of the integrated circuit. The thermal resistance of the SOP package of the A²SI-E integrated circuit is ideal for master and/or repeater applications.



Ordering Information

Ordering Code	Description	Operating Temperature Range	Package Type	Device Marking	Shipping Form
A2SI-E-ST	Standard version of A²SI-E	-25°C to 105°C	28-pin SOP (300 mils)	A²SI-E	Tubes (27 parts/tube)
A2SI-E-SR	Standard version of A²SI-E	-25°C to 105°C	28-pin SOP (300 mils)	A²SI-E	Tape-and-Reel (1000 parts/reel)
A2SI-E-MT	Pre-programmed master function	-25°C to 105°C	28-pin SOP (300 mils)	A²SI-E + yellow dot	Tubes (27 parts/tube)
A2SI-E-MR	Pre-programmed master function	-25°C to 105°C	28-pin SOP (300 mils)	A²SI-E + yellow dot	Tape-and-Reel (1000 parts/reel)

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