



Product Brief

ISOFACE™

Galvanic Isolated 8-Channel High-Side Switches for Industrial Control Applications

The ISO1H81xG product family integrates

- Robust galvanic isolation (UL508 and EN 61131-2 certified) to protect the 3.3V/5V control domain of an industrial control system from the harsh 24V process side
- 8-channel high-side power-switching capabilities of up to 1.2A per channel
- Active current limitation and over temperature protection
- Common diagnostic feedback for over temperature and for V_{bb} under-voltage

The ISO1H81xG family offers parallel and serial 3.3V/5V μ C-interfaces, facilitating straight forward connection with virtually any μ C, μ P, ASIC or FPGA.

The ISO1H81xG products enable OEM-product designs which meet the stringent EMI requirements of the IEC 61131-2 norm (zone C) applicable for Programmable Logical Controllers (PLC).

Application Examples

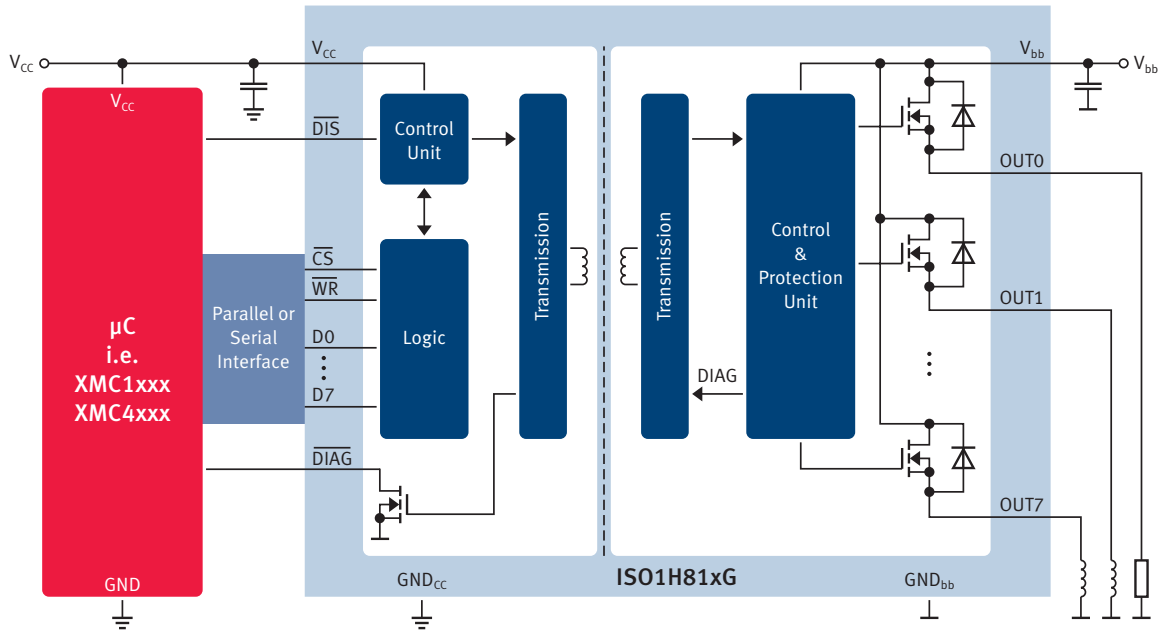
- Programmable Logic Controllers
- Distributed Control Systems
- General Control Equipment
- Robotics
- Solid-State Relay

Product Family Overview		ISO1H801G	ISO1H811G	ISO1H812G	ISO1H815G	ISO1H816G
Switch	V_{bb} operational range: 11V to 35V	✓	✓	✓	✓	✓
	Max. continuous load current per channel	0.6A	0.6A	0.6A	1.2A	1.2A
	Load current increase by using outputs in parallel	✓	✓	✓	✓	✓
	Inductive clamping energy per channel: 1Joule	✓	✓	✓	✓	✓
μ C Interface	Type	parallel	parallel	serial	parallel	serial
	Nominal voltages	5V	3.3V / 5V	3.3V / 5V	3.3V / 5V	3.3V / 5V
Safety Features	Isolation voltage: $V_{ISO} = 500V$, UL508 & EN 61131-2 certified	✓	✓	✓	✓	✓
	Active current limitation	✓	✓	✓	✓	✓
	Thermal shut-down	✓	✓	✓	✓	✓
	Common output disable pin	✓	✓	✓	✓	✓
Diagnostics Feedback	Over-temperature		✓	✓	✓	✓
	V_{bb} under-voltage		✓	✓	✓	✓
Package DSO-36 (16 x 14mm)		✓	✓	✓	✓	✓
Infineon Ordering Code		SP000722122	SP000413798	SP000413800	SP000555576	SP000555578

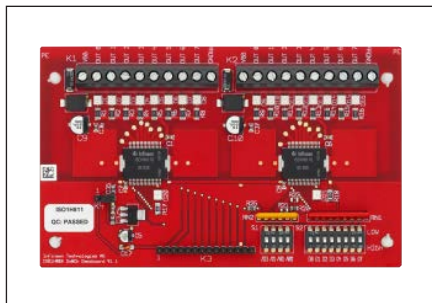
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Block Diagram



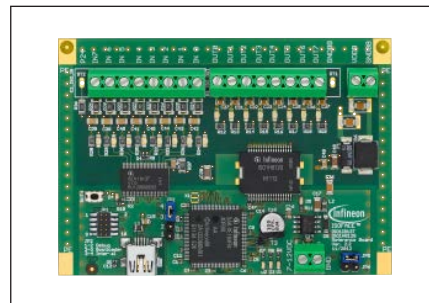
Evaluation Board



Evaluation Boards

- ISO1H811G-EVAL SP000788824
- ISO1H812G-EVAL SP000788826
- ISO1H815G-EVAL SP000788828
- ISO1H816G-EVAL SP000788830

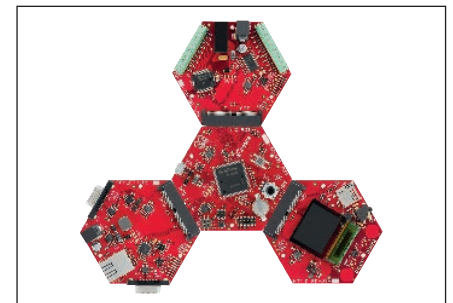
Reference Design Board



Reference Design Board containing

- ISO1H812G (Digital Out) and
 - ISO1H813T (Digital In)
- SP001074052

Industrial Automation Kit



Microcontroller XMC4500:

- 120MHz, 1MByteFlash, 160KB SRAM and ISOFACE™
- ISO1H812G (Digital Out)
 - ISO1H811T (Digital In)
- SP000963318

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