## ITS42008-SB-D

# Industrial 8-channel PROFET Application Board User's Manual



### ITS42008-SB-D Application Board User Guide



The **ITS42008-SB-D Application Board** allows a fast and simple evaluation of the ITS42008-SB-D 8-channel protected High Side Switch (PROFET) under application-like conditions.

#### **The Application Board provides**

#### **Control Input Interface:**

- > Parallel 8-channel "Plug"-connector Input Interface ( $1k\Omega$  protection series resistor on each input)
- Optional V<sub>CC</sub> –plug connector for external control input voltages for all channels that can be manually controlled per channel via DIP-switch on PCB
- Optional 5V-voltage regulator supply (LDO) providing 5V logic levels for input pins (can be as well controlled channel resolved via DIP-switch on PCB)
- A switch to configure the IC between "full-rail V<sub>s</sub> referenced input levels" or "5V logic input levels" (grounding)
- > Test points for oscilloscope probes for each input

#### Two Output-pin interface connector types:

- > Channel resolved for plugs and channel resolved for wire attach
- > 1 LED per output that can be individually disabled via DIP-switch
- > Test points for oscilloscope probes for each output

### Switch to enable/disable LED and pulldown resistor at Status pin

### Switch to control external V<sub>s</sub> supply (on/off)

Additional test points for  $V_s$ ,  $V_{out}$  (of onboard LDO), GND, etc.

## ITS42008-SB-D Application Board Board Overview





## ITS42008-SB-D Application Board Quickstart Guide



- 1. Connect GND
- 2. Connect Input signals that control the PROFET channels (switch channels on/off):
  - For usage of 8 individual external input signals to control the PROFET channels:
    - connect the corresponding signals to the plugs of IN1-8.
    - Set PCB-switch Nr.2 according to whether full rail V<sub>S</sub> level control logic of or 5V control logic is applied.
  - For usage of one common external input signal ( $V_{CC}$ ) to control PROFET channels:
    - Connect external input signal to  $V_{CC}$
    - Set PCB-switch Nr.2 according to whether full  $V_{\rm S}$  level control logic of or 5V control logic is applied on  $V_{\rm CC}.$
    - Individual channels can now be switched manually with DIP-switch J2
  - For usage with on-board generated 5V levels by LDO:
    - Connect supply voltage for LDO to Vext. One may also use  $V_{\rm S}$  for feeding the LDO in this case connect  $V_{\rm S}$  to Vext.
    - Set PCB-switch Nr.2 according to usage of 5V logic.
- 3. Configure PCB-Switch Nr.3 according to whether Status-pin LED should be enabled or not.
- 4. Configure via DIP-Switch J3 to whether the signal LEDs of output channel OUT1-8 shall be enabled or disabled.
- 5. Attach the desired load to the output OUT1-8 of channel 1-8. One may use either of the two provided connector types according the users convenience.
- 6. Connect supply voltage to  $V_S$  and start measurements. PCB-switch Nr.1 can be used to hard switch VS on board.

## ITS42008-SB-D Application Board Schematics





## ITS42008-SB-D Application Board Top Layer





## ITS42008-SB-D Application Board Bottom Layer







Туре	SP#	OPN
DEMOBOARD ITS42008	SP001435398	DEMOBOARDITS42008TOBO1

### Disclaimer



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