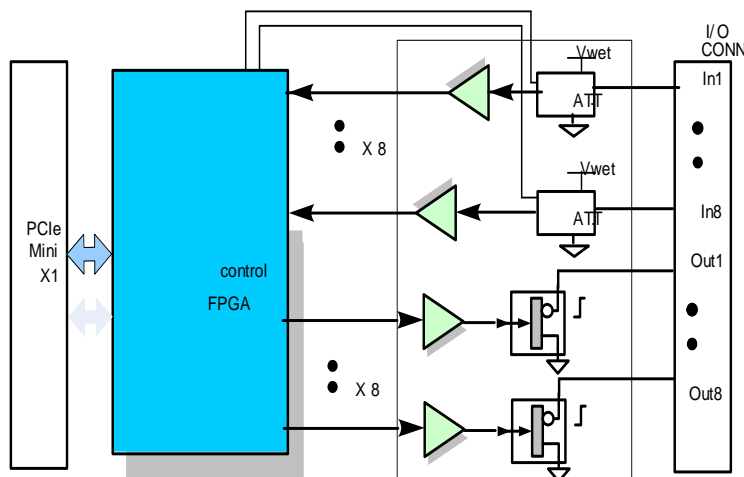


## PClexpress Mini 8 Ch Sense Input and 8 Ch Low-Side Driver Output

### Features

- 8-channel Sense Operation  
 GND/Open or 28V/Open
- Discrete Input Tolerance 0 to 70V
- Programmable Thresholds and Hysteresis
- Discrete input thresholds are programmable in the range of 2V to 12V
- Sense inputs lightning protected to RTCA/DO1060G, Section 22 Level 3
- Airbus ABD0100H compliance
- 1.2 Ohm On Resistance typical
- 8-channel Low-Side 500 mA Drivers



### Block Diagram and Operational Overview

The PCIe-Mini-AVIO-8 is an avionic compliance discrete I/O card, it monitors or controls the on/off (high/low) status of up to 8 devices. 8 channels are used as an input and output for the Low side of 500ma drivers. Input channels can be configured with interrupts for a change of state or level detection of any bit on up to 8 channels. The TTL input threshold includes hysteresis for increasing noise immunity. In order to ensure safe, reliable control under all conditions, output operation is "fail-safe." That is, the outputs are always off upon power-up and are automatically cleared following a software reset.

### Digital I/O Specifications:

- 8 input / output channels
- 0 to 28V DC Input Sensing
- TTL-compatible input threshold with hysteresis
- Interrupts are software-programmable for a change of state or level detection.
- Buffered inputs include hysteresis
- 28V DC low-side switch outputs
- Output Sink up to 500ma per channel

### Mechanical: Environmental:

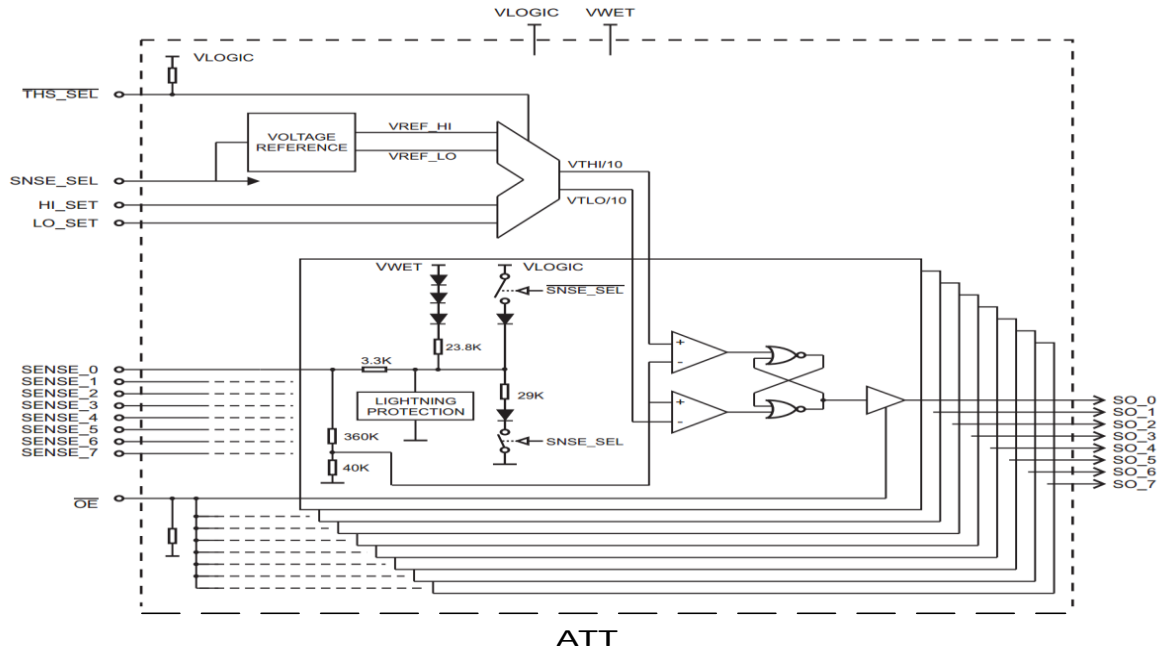
- Size – Mini PCIe Module  
 30 mm x 50.95mm
- Power – T.B.D.
- Front panel I/O
- Vibration – 0.5G, 20-2000 Hz rand
- Shock – 20G, 11 msec, ½ sine
- Weight – tbd
- MTBF – >250,000 hours

### Operating Environment

- Operating temperature  
 -40 °C to +85 °C
- Airflow requirement – 5 CFM
- Humidity – 5 to 90% (non-cond)
- Altitude – 0 to 10,000 feet

### Ordering Information

Part number: PCIe-Mini-AVIO-8      8 Channels Avionics In and  
 8 Channels Avionics Output  
 Ext Temp: - 40 °C to+ 85 °C



## AVIONICS DISCRETE SPECIFICATIONS:

VIL : Max 0.8V  
 VIH : Min 2.0 V  
 IOL : Max -1.8MA  
 ILeak : No pullup or pull Down : +/-10 uA

### Impedance to GND

- OFF State (with 28V applied to the pin)
- ON State 4.0 250K 3.5 -0.5 50 10 V V A  $\mu$ A  $\Omega$   $\Omega$

SENSE Inputs, Configured as Ground / Open (internal pull-up).