

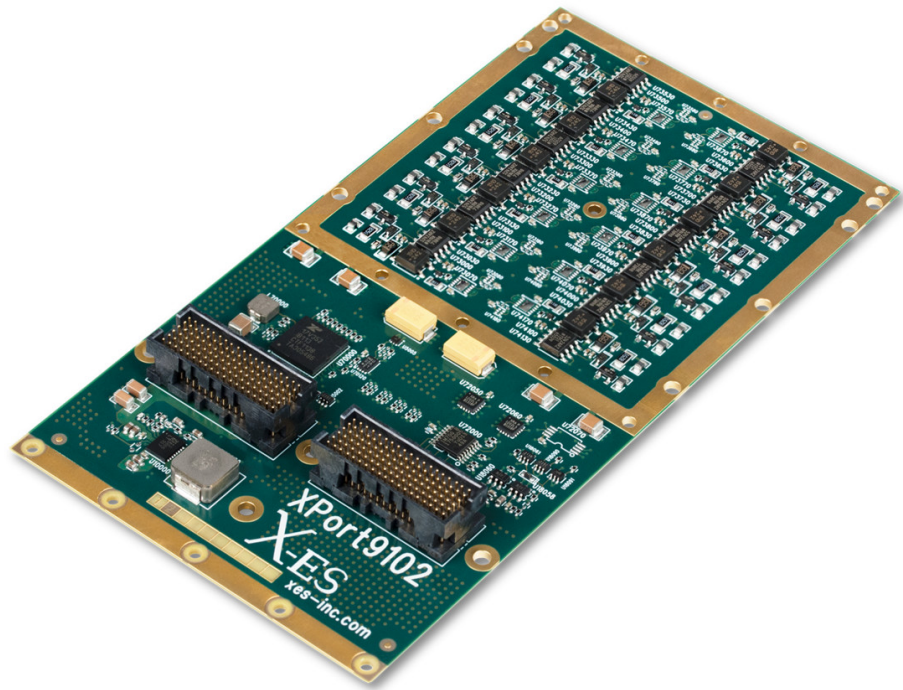
# XPort9102

**Not Recommended  
for New Designs**

Avionics-Level-Tolerant Isolated TTL Discrete I/O XMC Module

Please contact X-ES Sales

- › Conduction-cooled
- › Up to 12 avionics-level-tolerant isolated TTL discretes
- › Up to 12 RS-422 discretes
- › Each input may be configured to generate an interrupt



## XPort9102

The XPort9102 is a rugged, discrete I/O, XMC module which provides up to 12 isolated, direction-configurable, avionics-level-tolerant, TTL (5 V signal level) discretes. A 5 mA biasing resistor is included for each TTL discrete, and the discretes tolerate being pulled up externally to 28 V. These discrete inputs are ground / open sensing.

Optionally, the XPort9102 may be built with RS-422 differential discretes in place of the avionics-level-tolerant TTL discretes. Each RS-422 differential discrete is direction-configurable in software. The RS-422 differential discretes are biased and provide termination when configured as inputs.

The XPort9102 hardware supports using the discrete inputs to trigger an interrupt.

# X-ES

Extreme Engineering Solutions

*“Fast, Flexible, Customer-Focused  
Embedded Solutions”*

### Extreme Engineering Solutions

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**TTL Discretes**

- Up 12 TTL discretes
- Avionics-level-tolerant
- Galvanically isolated
- 5 mA biasing
- Output is 0.3 A clamping to return

**RS-422 Differential Discretes (Optional)**

- Up 12 RS-422 discretes
- Factory-configurable replacement for TTL discretes

**Back Panel I/O**

- x1 PCI Express interface out the P15 XMC connector
- All I/O on P16
- X12d routing

**Software Support**

- Linux
- Microsoft Windows 7
- Wind River VxWorks
- Other OS support possible - contact X-ES

**Physical Characteristics**

- XMC form factor
- Dimensions: 144 mm x 74 mm, 10 mm stacking height

**Environmental Requirements**

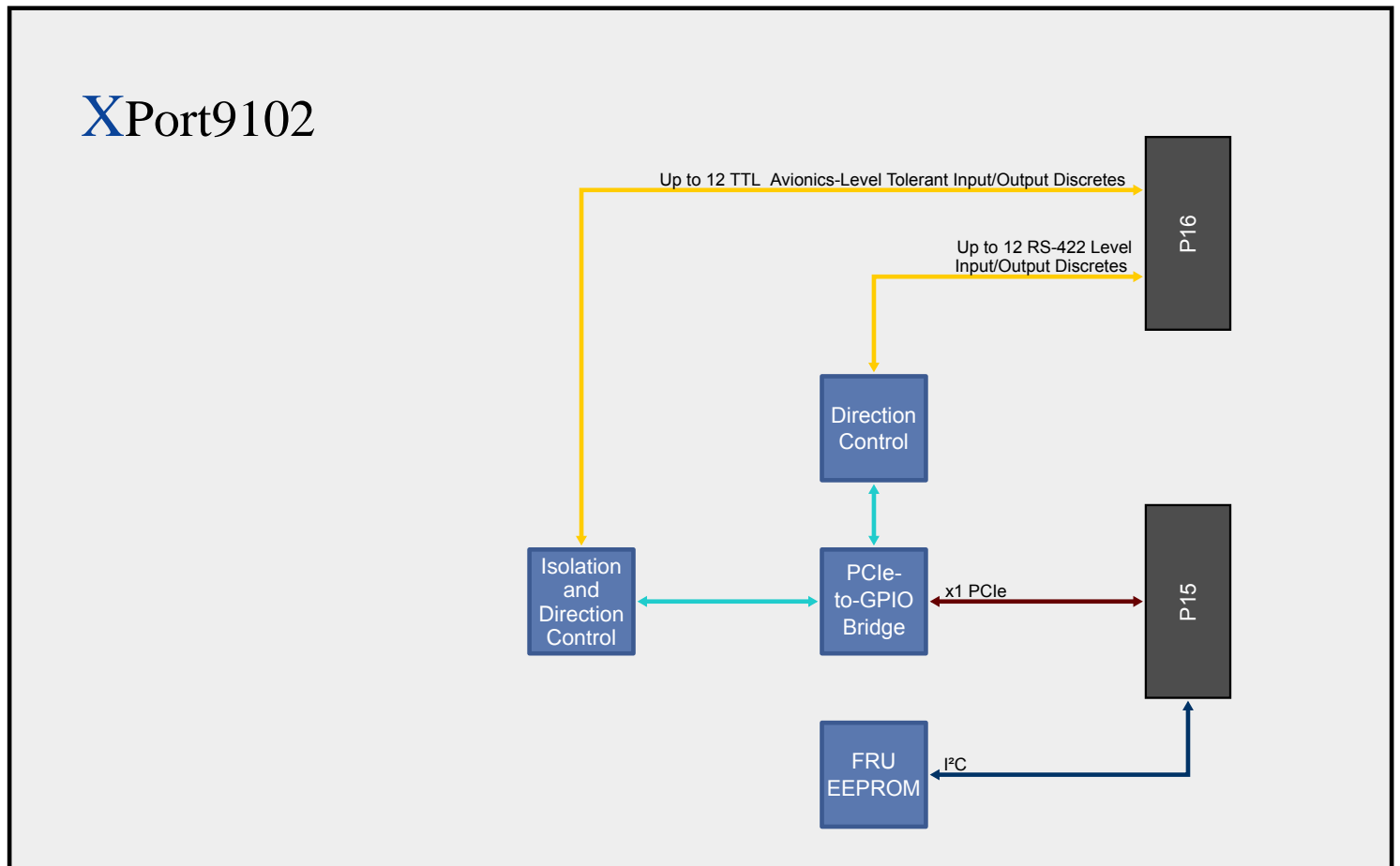
Contact factory for appropriate board configuration based on environmental requirements.

- Supported ruggedization levels (see chart below): 5
- Conformal coating available as an ordering option

**Power Requirements**

- Maximum power consumption: 7.2 W

<b>Ruggedization Level</b>	<b>Level 5</b>
<b>Cooling Method</b>	Conduction-Cooled
<b>Operating Temperature</b>	-40 to +85°C (board rail surface)
<b>Storage Temperature</b>	-55 to +105°C (maximum)
<b>Vibration</b>	0.1 g <sup>2</sup> /Hz (maximum), 5 to 2000 Hz
<b>Shock</b>	40 g, 11 ms sawtooth
<b>Humidity</b>	Up to 95% non-condensing



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