



## Rugged DisplayPort to DVI / VGA video converter designed for MIL-STD-810

The Adapt Series products are a family of video format converters that convert DisplayPort into traditional video formats such as DVI or VGA. Two versions of products are available – rugged and industrial grade. The rugged product meets military level shock and vibration (MIL-STD-810) requirements and can operate in extended temperature environments (-40°C to 85°C). The industrial-grade product only supports extended temperature of -40°C to 85°C. Power to these active devices is available on the display port cable, no external power is required

Customers often need to support several legacy monitors with various input formats. Support of such monitors may require special graphics/video boards, incurring NRE, long lead-times, etc. Alleviating the need for board re-designs, the Adapt video format converters enable the use of the newer off-the-shelf rugged graphics cards with DisplayPort outputs to support DVI or VGA.

The Adapt video format converters are designed to work with all EIZO Rugged Solutions' Condor graphics cards. For example, the Condor 4000x-6DP XMC graphics card has six DisplayPort outputs available on rear XMC I/O. These outputs can be "adapted" to provide any combination of six video outputs – DVI or VGA, as desired for the specific application. Another example is the Condor 4000xF, which outputs a DisplayPort output on the front panel that can be easily converted with an Adapt to support DVI or VGA. The Adapt products can also be customized to support other connector types, such as male or female gender or circular connectors such as MIL-DTL-38999.

### Key features of this product:

- Converts DisplayPort to DVI or VGA
- No External Power Required
- Operating Temperature (-40°C to 85°C)
- SWaP (Size, Weight, and Power) efficient
- Small Compact Form Factor
- Long Term Product Availability

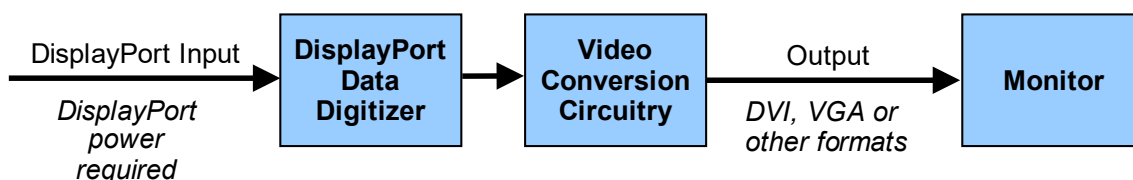
### Markets

- Military, Avionics, Defense
- C4ISR, Command, Control, Communication & Cyber, Intelligence, Surveillance, Reconnaissance,
- Transportation
- Broadcasting
- UAV, UAS, UGV

### Fully Ruggedized



## Adapt Block Diagram



# Adapt Specifications

Video Outputs	Single-Link DVI or VGA (Supports standard VESA resolutions from 640x350 to 1920x1200@60. Other options may be available)
Video Input	DisplayPort (DP_PWR pin 20 required)
Power Input	DisplayPort cable provides power. Requires GPU and cable to support pin 20 (DP_PWR, 3.3V, 500mA)
Mating Connector Gender	Male or Female
Operating Temperature	-40°C to 85°C
Vibration (MIL-STD-810)	0.1 g <sup>2</sup> /Hz (rugged version only)
Shock (MIL-STD-810)	40 g (rugged version only)
Humidity (MIL-STD-810)	95% Without Condensation (rugged version only)

# Adapt Product List

	Product Name				
	Adapt DVI (Male) (DisplayPort to DVI Industrial Grade)	Adapt DVI (Female) (DisplayPort to DVI Industrial Grade)	Adapt VGA (Male) (DisplayPort to VGA Industrial Grade)	Adapt VGA (Female) (DisplayPort to VGA Industrial Grade)	Adapt-R VGA (DisplayPort to VGA Rugged Grade)
<b>Video Input Format</b>	DisplayPort	DisplayPort	DisplayPort	DisplayPort	DisplayPort
<b>Video Input Connector</b>	Standard DisplayPort (Female Socket)	Standard DisplayPort (Female Socket)	Standard DisplayPort (Female Socket)	Standard DisplayPort (Female Socket)	MIL Circular 38999
<b>Video Output Format</b>	Single-Link DVI	Single-Link DVI	VGA	VGA	VGA
<b>Video Output Connector</b>	Standard Single-Link DVI (Male Plug)	Standard Single-Link DVI (Female Socket)	Standard VGA (Male Plug)	Standard VGA (Female Socket)	MIL Circular 38999
<b>Extended Temp (-40°C to 85°C)</b>	Yes	Yes	Yes	Yes	Yes
<b>MIL-STD- 810 Shock</b>	No	No	No	No	Yes
<b>MIL-STD-810 Vibration</b>	No	No	No	No	Yes

# Adapt Use Case

The example below demonstrates the Adapt in a typical application with the Condor 4000xX-6DP. Multiple Adapt video format converters are used to convert the native DisplayPort outputs on the Condor 4000xX-6DP to a mix of DVI, VGA, and DisplayPort outputs going to six different monitors.

