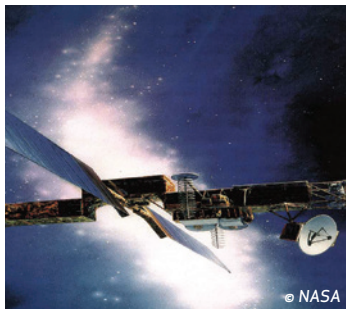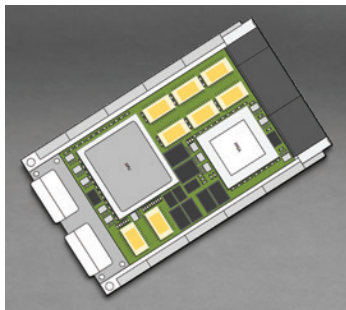# RADIATION TOLERANT, 75GFLOP 3U SpaceVPX GPU SINGLE BOARD COMPUTER

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Moog introduces the first payload processor GPU based single board computer that offers radiation tolerance by design. This product offers the low power x86 compatible AMD G-series or V-series SOC GPU and is paired with the Xilinx Ultrascale KU060 FPGA.

The architecture provides I/O interfaces needed for imaging, software defined radio and synthetic aperture radar processing in addition to command and data handling, including: Gigabit Ethernet, PCIe, SerDes, LVDS, SRIO, serial ports, GPIO, I2C and SPI.

The VITA78 (SpaceVPX) compliant backplane interface offers multilane SRIO for the data plane, Spacewire for the control plane and GPIO/SPI for the utility plane.

Moog has invested significantly in components, architectures, and automated manufacturing to provide state of the art, radiation tolerant data processing for the space market. Components selected for this product are specifically sourced for their radiation capability the screened and tested for radiation resiliency from single lot data code procurements.

GPU SBC PERFORMANCE COMPARISON		
	G-Series, Steppe Eagle	**V-Series, Ryzen**
GLFOPS	75	1000
Clock	1.2 GHz	2 GHz
DDR Memory	2 GB (DDR3)	4 GB (DDR4)
FLASH Memory	64 GB	64 GB
Power	20 W (typ)	33W (typ)
FPGA	Xilinx KU060 Ultrascale	Xilinx KU060 Ultrascale
Backplane	VITA78 (SPaceVPX)	VITA78 (SPaceVPX)
Size	3U	3U

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RADIATION TOLERANT, 75GFLOP 3U SpaceVPX GPU SINGLE BOARD COMPUTER

APPLICATIONS

- Image Processing
- Hyperspectral Processing
- Software Defined Radio Signal Processing
- Synthetic Aperture Radar Processing
- Artificial Intelligence
- Machine Learning

AVAILABILITY

- Accepting Orders for Flight Units

MOOG
SPACE AND DEFENSE GROUP

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