

# VPU-101S

## Video processing unit for IP video signals



Barco's VPU-101S is a video processing unit used to process and manipulate IP video streams. The VPU-101S provides high-tech image processing capabilities, such as image blending, fusion, and stitching to provide operators and decision-makers with all-round information and profound situational understanding in mission-critical environments.

A 10 Gbps optical network connection captures the IP signals from cameras, sensors, and other IP-based devices and distributes the uncompressed IP streams to different operator positions according to the new Video over Ethernet standard (DEF STAN 00-82). The VPU-101S has been selected for the British Army's Specialist Vehicle Platform.

### **Barco's VPU-101S features:**

- FPGA-based for minimal latency
- Multiple simultaneous output streams
- User configurable & selectable compositions
- Advanced video processing (scaling, cropping, fusion, blending...)
- HUMS & BIT capability
- Intelligent heater system for quick start-up in cold conditions
- Full SWaP-C compliance
- Fully sealed, fanless design
- Video over Ethernet: DEF STAN 00-82 compliant
- EMI/EMC: DEF STAN 59-411 Land Class A compliant

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- PSU: DEF STAN 61-5 part 6 Issue 6
- DEF STAN 23-09 compliant

**Product specifications****VPU-101S**

<b>Inputs - Outputs</b>	1 x 10 Gbps FO Ethernet (DEF STAN 00-82 uncompressed video) Number of simultaneous input & output streams only limited by bandwidth
<b>Video Processing</b>	Scaling, cropping, blending, fusion, image compositions
<b>Control</b>	2 Digital Inputs (Power, Blackout) 10/100 MB Ethernet port (maintenance)
<b>Connectors</b>	MIL-D-38999/3 (DEF STAN 23-09 compliant)
<b>Power Supply</b>	28 VDC (DEF STAN 61-5 part 6 Issue 6)
<b>Max. power consumption</b>	80 W With heating: 120 W
<b>Operating temperature</b>	Low: -46°C High: +63°C
<b>Storage temperature</b>	Low: -46°C High: +71°C
<b>Humidity</b>	Operating & storage: 95% at 40°C
<b>Vibration</b>	Test M1 (tracked vehicles)
<b>Shock</b>	30g 18 ms half sine, 200g 3 ms half sine
<b>Ingress protection</b>	IP65 (IEC 60529)
<b>Altitude</b>	Operating: up to 12,000 ft Storage: up to 50,000 ft
<b>Sand and dust</b>	Compliant at unit level
<b>Salt fog</b>	Compliant at unit level
<b>EMI / EMC</b>	DEF STAN 59-411 Part 3 Issue 1 Land Class A