

VAADR MIL-SU

VAADR MIL-SU is a high bandwidth airborne record platform for UAV and other applications.

Features and Capabilities

- A key differentiator from VAADR MIL-N is that the recorder and the storage are both housed in what used be just the storage module. It is thus very small (6.5”Lx4.7”Wx1.4”H) and light (2 lbs. 3 oz.)
- Very high write and read bandwidth, supports very high resolution
- Very fast debrief
- Records high resolution raw imagery for great lengths of time
- Very rugged solution for all sorts of combat applications.
- Low cost.
- Low power (< 25 W)
- Very Small form factor. Recorder and storage media in a single VRMM chassis
- Many drive sizes: 1T, 2T, 4T, 8T, and others as needed
- Field upgradeable
- Image enhancement ready
- Optional full debrief groundstation with corresponding playback of synchronized metadata and satellite data, and full bookmark capabilities and format conversions. Full plug-and-play with VAADR.

General Information

The VAADR MIL-SU provides real-time recording of high frame-rate imagery from any number of sources, high read/write bandwidth. Records RAW imagery and associated meta-data (GPS, timestamp, IRIG codes, vehicular info, etc.). The RAW imagery recording and associated playback allows unprecedented advanced image analysis and processing during debriefing.



Best Performance to SWaP Ratio:
High Bandwidth up to 16TB Storage in .2 Cubic Feet



Interfaces

- **Back connector:** Standard 36 pin 3M MDR connector
- **Custom:** Customizable for your application requirements
- **Networking Capabilities:** XAUI

Performance

- High bandwidth read and write

Environmental / Physical

- **Dimensions:** 6.5”Lx4.7”Wx1.4”H
- **Power/Temp:**
 - 19W maximum dissipation
 - -40 to +60C ambient operation (all component rated to -40 to +85C)
 - Storage -55 to +125C
 - Built-in temperature monitor
- **Operational Envelope:** The VAADR is capable of being carried within a 7.5g envelope
- **Vibration:** MIL-STD-810F, Method 514.5, Procedure 1.
- **Mechanical Shock:** MIL-STD-810F, Method 516.5, in opposite directions along each of three orthogonal axes, with waveform and amplitude of the shock impulse characteristics as follows: Operating: ± 20 G, all shocks are half sine pulses, 11 milliseconds in duration in all 3 axes.

VAADRView Console and Debriefing Software (Optional)

Running on almost any PC or laptop, and directly connecting to VAADR hardware via USB, the VAADRView application can *instantly* open up (or drag and drop) *all* of the VAADR video and data, and pan through it, play it, single step through it, fast forward, rewind, all while zoomed, or with other contrast, analysis, or processing operations. Works on VAADR or other imagery, and raw or compressed.

Front Panel



Back Panel



VAADR MIL-SU models available

- DDC-VAADR3-1T-001 (1TB Solid State Drive)
- DDC-VAADR3-2T-001 (2TB Solid State Drive)
- DDC-VAADR3-4T-001 (4TB Solid State Drive)
- DDC-VAADR3-8T-001 (8TB Solid State Drive)
- DDC-VAADR3-16T-001 (16TB Solid State Drive)

VAADR Example Record Times

Video		1 TB	2 TB	4TB	8TB	16 TB
640x480 (16 bit, 30 fps)	RAW	16h	32h	2.6d	5.3d	10.7d
	MPEG2	8d	16.1d	32.3d	64.7d	129.45d
640x512 (16 bit, 60 fps)	RAW	7.5h	15h	30h	2.5d	5d
	MPEG2	3.7d	7.5d	15d	20.3d	60.6d
1024x1024 (16 bit, 30 fps)	RAW	4.7h	9.4h	18h	37h	3.1d
	MPEG2	2.3d	4.7d	9.4d	18.9d	37.9d
1024x1024 (16 bit, 60 fps)	RAW	2.3h	4.7h	9.4h	18h	37h
	MPEG2	28h	2.3d	4.7d	9.4d	18.9d
2048x2048 (16 bit, 60 fps)	RAW	35m	1.1h	2.3h	4.7h	9.4h
	MPEG2	7.1h	14.1h	28h	2.3d	4.7d

*Table assumes a compression factor of 12. Larger compression factors of 25 or beyond are possible, but will affect video quality.

