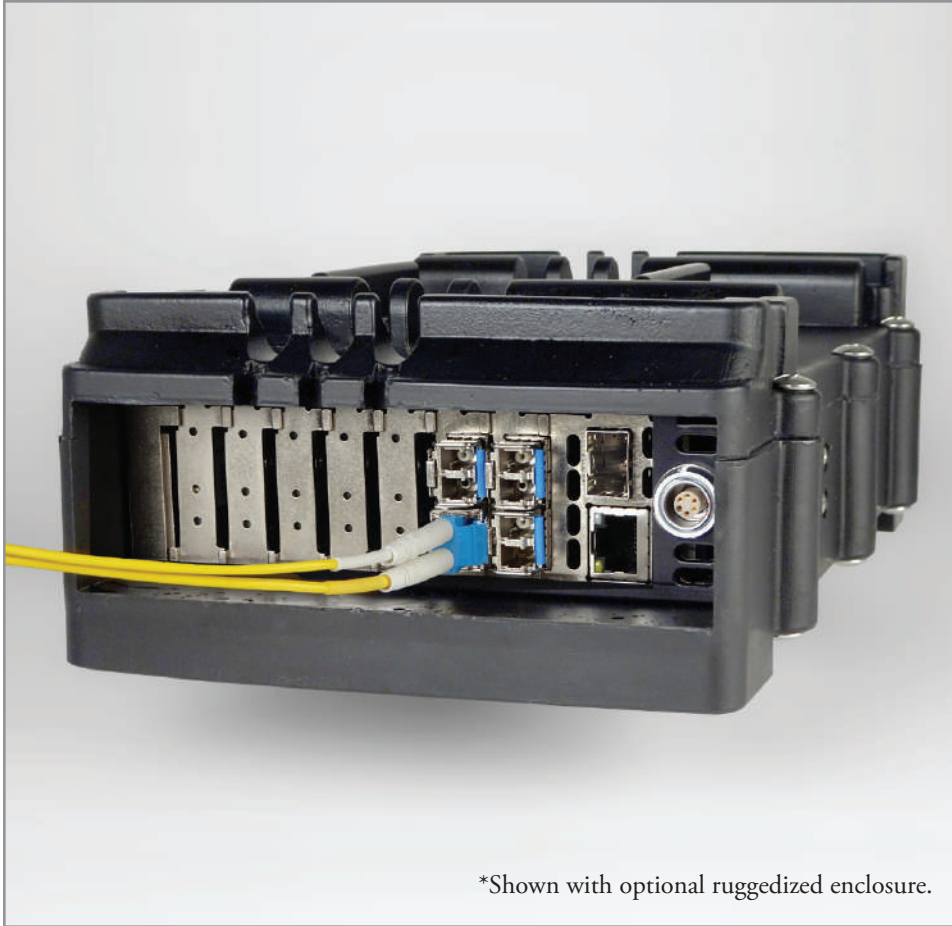# µWRAP VITA 49

VITA 49 data recorder

*Shown with optional ruggedized enclosure.

Description

The µWRAP VITA 49 is a compact, self-contained system for recording and playback of VITA 49 data streams.

With 12 or 24 TB of data storage and one or two high speed optical interfaces, it provides a reduced size, weight, and power (SWaP) VITA 49 record / playback solution.

Up to 32 streams can be read via one or two high speed optical data interfaces and recorded to files which can then be processed, offloaded to external storage, or played back as VITA 49.

Single or multiple stream IDs can be filtered when capturing packets to provide for separate storage of distinct streams. Streams can be stored as VITA 49, PCAP, raw I/Q data, or clearbit Ethernet. STM and OTU framed data is also supported, for compatibility with the µWRAP 25G.

Stored data can be played back through the optical channels, with independent control of rates from different DMA channels. Playback can be filtered on stream ID, allowing playback of a subset of the recorded streams, and separate files can be played back to separate VITA 49 streams.

The open system is powered by an AMD G-series processor (x/86 architecture) running Linux with 256 GB system storage with 8 GB DDR3 SDRAM.

Features

Supports Vita 49, Vita 49A, PCAP, raw I/Q data formats

Records and plays back up to 24 TB of data to / from high speed SSD RAID

Allows removal of Ethernet, UDP framing and headers from recorded data

Transfers data to a server via 10 Gb Ethernet

Includes 12 or optionally 24 Terabytes of high speed SSD storage

Compact, self-contained system provides reduced SWaP

Includes command-line utilities and easy to use GUI

Applications

Radar

Communications

Spectrum survey

Spectrum management

Adaptive radio

Specifications

Supported Formats	Vita 49.0, Vita 49A, PCAP (10 Gb Ethernet); Clearbit Ethernet				
Compatibility	uWRAP 25G		STM & OTU framed and clearbit data		
Data Storage	NVMe SSD		12 or 24 TB		
System Processor	**Device (x86-based)**	**Cores**	**Clock rate**	**Shared L2 cache**	**GPU clock rate**
	AMD GX-210HA (default)	2 (10 W total)	1.0 GHz	1 MB	300 MHz
	AMD GX-420CA (optional)	4 (25 W total)	2.0 GHz	2 MB	600 MHz
System Storage	SSD		256 GB		
System Memory	SDRAM: DDR3		8 GB		
Network Boot Protocol	iSCSI				

Transceivers

On each of the one or two optical interfaces, Port 0 supports one SFP/+ transceiver with the options shown below.

	OPTICAL		
PORT 0	**SFP/+***	**SFP/+***	**SFP/+***
	1550 nm	**1310 nm**	**850 nm**
Output power (dBm)	−2 to +3 / 0 to +4	−9.5 to −3 / −8.2 to +0.5	−9 to −2.5 / −5 to −1
Center wavelength (nm)	1500−1580 / 1530−1565	1270−1360 / 1260−1355	830−860 / 840−860
Sensitivity (dBm)	−28 / −23	−18 / −10.3	−18 / −7.5
Max. input power (dBm)	−9 / −7	0 / +0.5	0 / +0.5
Connector	LC	LC	LC

* An **SFP** at 1550, 1310, or 850 nm can support 1 GbE, OC3/12/48 (STM1/4/16), or OTU1.
  An **SFP+** at 1550 or 1310 nm can support 10 GbE, OC192 (STM64), or OTU2/2e/2f − or, at 850 nm, 10 GbE only.

System Interfaces	System control, 1 GbE	RJ45
	System control, USB 2.0 x2	SFB
	System control, USB 2.0 x2, not intended for normal use	microUSB
	System display, noti ntended for normal use	DisplayPort++ (with conversion cable, allows for DVI, HDMI, or VGA)
	Data I/O	SFP/+ transceiver (x2) - for data formats shown above
Power	Input voltage range	10−60 VDC
	Consumption (dependent on configuration)	Typically 100 W with two optical interfaces
	Power control	100 MbE, RJ45 connector
	Power input	10−60 VDC, 6-pin Lemo connector
Physical	Weight	TBD - about 3.25 lbs. (with six SSD blades installed)
	Dimensions	9.60 x 5.75 x 1.61 in. (including connectors)
Environmental	Temperature (operating / non-operating)	0° to 55° C / -40° to 70° C (ambient)
	Humidity (operating / non-operating)	1% to 90%, non-condensing at 40° C / 95%, non-condensing at 45° C
Software	Operating System	CentOS 7
	Record / Playback, utilities and control	Via Pre-installed GUI and command-line applications

Ordering Options

- Optical interfaces: **1** / 2 twox12.5 blades (10 Gb Ethernet)
- Data storage: **2** / 4 SSD blades (6 TB ea.)
- Transceivers: [see options above]
- Ruggedized enclosure: **0** / 1

Bold is default. **Ask** about custom options.