

TACWRAP

Conduction Cooled V.49 record / playback up to 24 TB



Description

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

With 8, 16 or 24 TB of hot swappable 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.

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 Intel Atom E3900 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 8 or optionally 16 or 24 Terabytes of high speed SSD storage
- Hot swappable storage modules allow for continuous record
- Conduction cooled or optional Quiet Fan
- 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			
Data Storage	NVMe SSD		8, 16 or 24 TB	
System Processor	Device (x86-based)	Cores	Clock rate	Shared L2 cache
	Intel Atom E3930 (default)	2 (6 W total)	1.3/1.8 GHz	2 MB
	Intel Atom E3950 (optional)	4 (12 W total)	1.6/2.0 GHz	2 MB
System Storage	SSD		256 Gb	
System Memory	SDRAM: DDR3		8 Gb	
Transceivers	One or two fixed optical interfaces, Finisar Endurance compact transceiver with the options shown below.			
	PORT 0	ELECTRICAL (1GbE)	OPTICAL	Endurance
	Fixed	Endurance	Endurance	
	Output power (dBm)	-	1310 nm	850 nm
	Center wavelength (nm)	-	-	-5 to -1
	Sensitivity (dBm)	-	-	840-860
	Max. input power (dBm)	-	-	-11.1
	Connector	RJ45	LC	+0.5
System Interfaces	System control, 1 GbE		RJ45	
	Data I/O		Finisar Endurance fixed transceiver (x2) - for data formats shown above	
Power	Input voltage range		8-28 VDC	
	Consumption (dependent on configuration)		Typically 50 W (60W Peak) with one optical interface	
	Power input		8-28 VDC, 2-pin Lemo connector	
Physical	Weight		TBD - about 7 lbs. (with three storage modules installed)	
	Dimensions		TBD - 7.0 x 5.75 x 7.0 in.	
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

General

- Processor: Intel Atom **E3930** / 3950
- Data storage: **1** / 2 / 3 Storage Modules (8 TB ea.)
- Transceivers: [see options above]
- Quiet Fan: **0** / 1

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

International Distributors



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