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.

	ELECTRICAL (1GbE)	**OPTICAL**	
PORT 0	**Fixed**	**Endurance**	**Endurance**
		1310 nm	**850 nm**
Output power (dBm)	–	–	–5 to –1
Center wavelength (nm)	–	–	840–860
Sensitivity (dBm)	–	–	–11.1
Max. input power (dBm)	–	–	+0.5
Connector	RJ45	LC	LC

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.