

# Titan 3U OpenVPX High Performance DAS

OpenVPX™

## Ultra High Density Rugged Storage



### FEATURES

- 3U OpenVPX
- 1" single / dual slot
- Up to 4x 2.5" Solid State Disks per module (dual slot)
- Up to 1TB SLC or 2TB MLC SSD Storage
- Very high performance JBOD configuration
- Quad 3Gbit/s SATA –II Interfaces
- Up to 1GB/s sustained read/write performance
- Rugged conduction cooled
- Cost saving air cooled, rotary drive options available for benign / lab environments

### APPLICATIONS

- UAVs, UGVs
- Data Recorders
- Medical Imaging
- Surveillance
- DSP Systems

### BENEFITS

- Rugged design
- Optimized for Size, Weight and Power (SWaP)
- High storage density
- OS agnostic
- Scalable

Galleon's Titan family of 3U VPX products supports a variety of usage models for integration of solid state storage into 3U OpenVPX systems.

Designed to meet the most demanding environmental conditions, the Titan OpenVPX rugged SATA DAS brings reliable mass storage into small rugged applications. Current Solid State Disk technology offers capacities of up to 1TB SLC FLASH or 2TB MLC FLASH storage in a dual 1" slot 3U OpenVPX form factor, making it ideally suited for use in small deployed systems like UAVs and UGVs.

Typical applications include high speed data recorders, RADAR, SONAR, medical imaging, surveillance, high resolution video, etc.

The Titan enclosure allows one 2.5" Solid State Disks to be installed in a

single 1" VPX slot. For high density storage, up to four 2.5" SSDs can be mounted in a dual slot configuration. Each SSD is connected to a dedicated SATA host link, enabling full utilization of the 250M/s SATA bandwidth per disk for an accumulated bandwidth of up to 1GB/s in a 4-disk configuration.

The Titan SATA DAS is fully OS agnostic and no SW or drivers are required. The individual disks are visible to the host OS and can be used with any file system.

The compact module design allows easy transporting of the data for secure or archival storage or for transferring data files to operational storage arrays, servers or host platforms.

Other members of the Titan family include Titan 3U VPX SATA RAID/JBOD which includes on-board RAID hardware for increased data security.

The Titan PCIe RAID/JBOD offers the same functionality as the SATA RAID, but has a x1 PCI Express host interface.



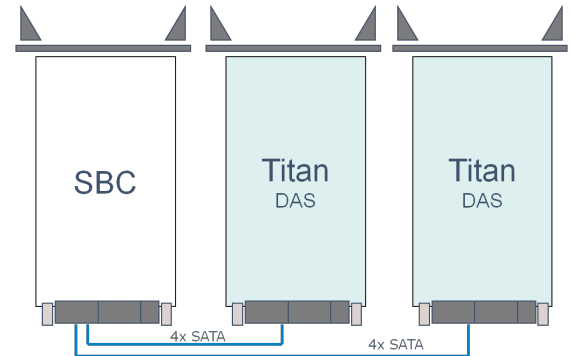
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# Titan 3U OpenVPX High Performance DAS

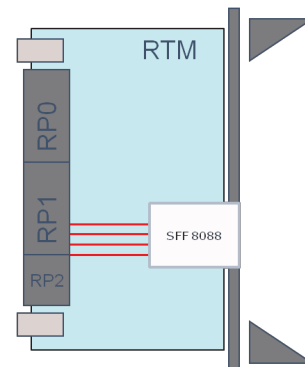
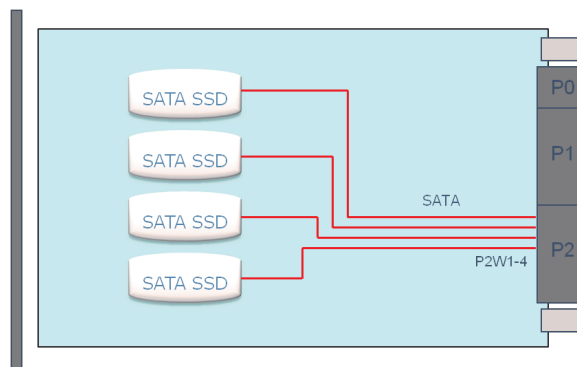
## Usage Model

The Titan OpenVPX SATA RAID/JBOD provides ultra high storage density and extreme performance. Combined with a COTS SBC or RAID controller, it is ideally suited for high bandwidth storage applications such as:

- Data Recorders
- Digital Signal Processing (DSP)
- Radar and Sonar applications
- Satellite Download
- Surveillance
- High Speed Data Acquisition
- High Resolution Video



An RTM is available bringing the four individual SATA links to a MiniSAS (SFF-8088) connector in the back panel.



### Application Example: Ultra High Performance Data Recorder

The Titan SATA DAS is the ideal building block for a very high performance rugged data recorder with ultra high storage density. Combined with a standard 3U VPX RAID controller, or a COTS single board computer with SATA connections to the backplane, the Titan DAS offers up to 1GB/s storage bandwidth in only two slots. Hence, the Titan Storage module enables in-house design of high performance rugged recorders with low effort and risk. Typical applications include re-recording of sensor data, HD Video, 10Gbps Ethernet, sFPDP, etc.

## Technical Specification

- Supports up to 4x 2.5" SSD SATA Drives
- Individual SATA-II 3Gbit/s host interface per SSD
- 1" 3U OpenVPX Compliant (single/dual slot)
- SATA connections on P2 Wafer 1-4
- Air and Conduction cooled variants available
- -40°C to +85°C Operational temperature (CC)
- -55°C to +95°C Storage temperature (CC)
- MIL-STD-810F compliant

All specifications dependent on qualification with selected storage media.

## Ordering Information

Titan VPX3-D2SSD-ccc-xyz, 1" version  
Titan VPX3-D4SSD-ccc-xyz, 2" version

- ccc denotes capacity
- xyz denotes environmental level. Contact factory for full specification.

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The Titan Express RAID/JBOD is available in a single slot version for two SATA drives and a dual slot version for up to four 2.5" SSD SATA drives.

An air cooled variant is available in both single and dual slot configurations.



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