

5632/3 6Gbps Quad Drive Carrier

Single Slot 6U VPX Board



Quad drives in
one 6U VPX slot

Description

The 5632/3 supports multi-terabyte storage volumes in a single 6U slot with capacities keeping pace with current drive technologies. Choose from SLC, MLC, or rotating hard drives to match the endurance and environmental toughness of your system. The 5632/3 features four on-board SATA drives which can be connected through the backplane to an offboard SATA controller to create a high capacity multi-slot and high speed storage array. Create RAID arrays using OS supported RAID software applications. Supports up to SATA III 6Gb/s interface speeds when used in conjunction with a SATA III controller. The 5632/3 carrier card allows for storage system expansion so it can scale to meet the ever-increasing needs of your application.

Features

- Largest available capacity in a single 6U VPX slot with four 2.5" SATA drives
 - Compliant with OpenVPX™ (VITA 65) profile SLT6X-STO-4U-10.3.3
- Solid state SLC, MLC drive or rotating 2.5" drives
- Designed for 5HP slot width and REDI offset faceplate
- 5HP VITA 48 REDI primary and secondary side covers
- Air cooled (5632) and conduction cooled (5633) configurations with optional conformal coating and extended temperature operation

Benefits

- Provides a building block for a high speed, high capacity storage array
- Manage your system using software RAID or hardware RAID controllers for maximum data protection and access speed
- Suitable for extreme temperature and shock resistance
- Ideal for signal processing applications demanding high data rates and large storage capacities.
- Addresses high capacity storage needs using the latest capacities in 2.5" drives

Applications and Related Products


- High capacity storage requirements for a wide range of defense applications including ground, shipboard and airborne systems
 - Signal intelligence data storage
 - Engine control systems data
 - Mission data storage
- Commercial and industrial data storage applications requiring high capacities, expandability and RAID protection.
- Rugged applications requiring resistance to a wide range of temperature extremes as well as high shock and vibration resistance.

Example Order Number: 5633512G00STMBN1E-1-DRV

Conduction cooled with one 512GB solid state MLC SATA III drive, REDI side covers, no signal ground isolation, conformal coated, -45C to +75C operating temperature at the wedgelocks

Example Order Number: 5633512G00STMBN1E

Conduction cooled with four 512GB solid state MLC SATA III drives, REDI side covers, no signal ground isolation, conformal coated, -45C to +75C operating temperature at the wedgelocks



- Custom backplanes – need a custom backplane architecture for your system?
- Embedded computing products – Single Board Computers (SBCs), networking switches, storage
- FPGA based configurable I/O
- Rear transition modules (RTMs), extender and load boards

VPX

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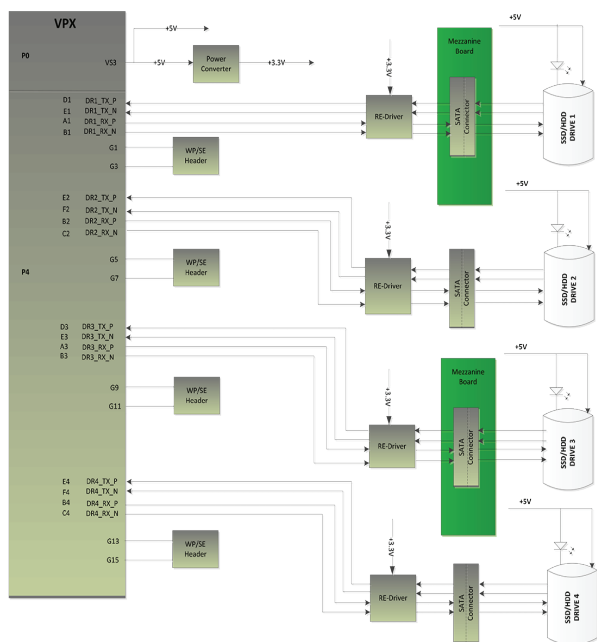
Storage



VITA

Block Diagram and Environmentals

5632/5633 Block Diagram
6U VPX 6Gbps SATA Four Fixed Drives Storage Module



General

The 5632/3 are 5HP single slot 6U VPX storage modules supporting quad SATA III 6Gbps drives.

Input / Output

The 5632/3 can be directly attached to a host single board computer or it can be used as part of an extensible multi-slot storage array when connected to a RAID controller.

Compatibility

The 5632/3 are directly compatible with 6U VPX systems including single board computers with 1 to 4 external SATA ports, system backplanes and chassis.

Power Requirements

Typical Power +5V @ .45A

Media power not included

Media +5V

Environmental

Standard Operating Temp:	0°C to 55°C
Extended Operating Temp:	-45°C to +75°C
Non-operating:	-45°C to +85°C
Operating Shock (SSD only):	20G 11ms
Operating Vibration (SSD only):	5G 10 to 2000 Hz
Humidity:	5 to 95%, non-condensing

All configurations of the 5632/3 family are RoHS compliant.

Order Information

563

4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 (18-20 Project Spec)

4) Air or conduction cooled

- 2 = air cooled (faceplate)
- 3 = conduction cooled (no faceplate)

5, 6, 7, 8) 2.5" Drive capacity,

all drives same capacity *

xxxG
xxxT

- Example
- 064G = 64GB drive
 - 500G = 500GB drive
 - 012T = 1.2TB drive

9, 10) Drive RPM

- 54
- 72
- 00 (solid state drive)

11, 12, 13) 2.5" Drive Type

- RSD= standard duty rotating
- RED= enhanced duty rotating
- RXD= extended duty rotating
- SSS= commercial solid state SLC
- SSM= commercial solid state MLC
- STS=extended temp solid state SLC
- STM=extended temp solid state MLC

14) REDI Side Covers standard configuration includes primary and secondary covers**

B = primary and secondary side covers for conduction or convection cooled versions, 5HP configuration is standard

15) Signal ground isolation (Some applications may require signal ground isolation)

Y/N

16) Conformal Coating

Y/N

17) Temperature Requirements

- S = 0°C to +55°C
- E = -40°C to +75°C convection cooled or conduction cooled (with extended solid state drives)
- O = Other

*Consult Elma for the complete range of available drive capacities.
**Standard configuration includes 5HP with REDI covers and offset faceplate. Standard configuration includes four drives.
The model description on all quotes must include any other specific drive attributes necessary to fulfilling the application requirement.

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