6U CompactPCI® Storage
Storage Module with SATA and DVD Drives

ELMA
Your Solution Partner

Description

Elma's Model 6050 family of 6U CompactPCI SATA Storage Modules are designed to meet the ever-increasing storage capacity and high-speed data storage needs in embedded computing systems. Using a direct SATA interface, the modules are an ideal solution for new system designs while allowing fast and easy storage upgrades in existing systems. A RAID solution can be scaled to size using multiple blades with software raid, or external raid controllers. The module is also available in a VME form factor (Model 5050).

Features

- Two available configurations:
    - o Three 2.5in drives in a single 6U slot
    - o One single 2.5in drive plus DVD
- Rotating or solid-state SATA drives
    - o Solid-state flash drives with SLC or MLC flash technology
- More than 1.8TB of SSD (solid-state drive) storage in a single blade*
- More than 3TB of rotating storage in a single blade*
- Front panel SATA ports or rear SATA ports via RTM or breakout board (BOB)
- Up to 300MB/sec individual drive data rates (configuration dependent)
- Multi-slot expansion capability for multi-terabyte array options
- Suited for high shock and vibration applications*
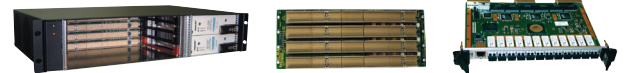- Extended temperature versions -40° C to +85° C*

Benefits

- High data rates for current application speeds
- Addresses high capacity storage needs
- Capable of providing RAID 0, 1 or 5 via software RAID
- Easy system upgrade via DVD drive
- Three drive version qualified for -40°C to +85°C operation using solid-state drives
- Trouble-free capacity upgrades for increased data storage

Related Products and Applications

- High capacity storage arrays in a wide range of defense applications including ground, shipboard and airborne systems
    - o Signal intelligence data storage
    - o Engine control systems data
    - o Flight data recorders
- Rugged industrial and defense storage arrays supporting systems requiring resistance to high temperature and high shock and vibration
- Low to moderate capacity single blade storage for medical imaging equipment with expansion capability

Example Order Number: 60501010TRNS
CPCI SATAStor with one 1TB 2.5in rotating drive and one DVD R/W, no conformal coating

- Intel & Freescale Single Board Computers
- Blade level networking boards (Ethernet, PCI Express)
- FPGA configurable I/O solutions
- Rackmount, desktop, and ATR chassis platforms
- Ruggedization programs

CPCI

6U CompactPCI®
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PICMG　　**Storage**

Environmental

General	Each module is 6U high by 4HP (0.8in) wide by 160mm deep and compatible with PICMG CompactPCI mechanical and electrical specifications. Weight: <2 pounds (configuration dependent).
Input/Output	Direct SATA access to each drive through front panel SATA connectors or rear transition module via P3
Compatibility	The Model 6050 is directly compatible with most CompactPCI Single Board Computers supporting SATA I/O connectivity
Power Requirements	**Input Power:** Typical Power Required Hard Drive: +5 V +5/-3% @ 0.75 A per drive DVD/RW Drive: +5 V +5/-3% @1.2 A +3.3 V +5/-3% @ 0.03 A
Environment	Operating Temp:　　5° C to 45° C with DVD 　　　　　　　　　　0° C to 60° C with Commercial Drive 　　　　　　　　　　-40° C to +85° C with Industrial SSD Non-operating:　　　-20° C to +60° C (limited by DVD) Operating shock:　　10Gs at 11 msecs (configuration dependent) Operating vibration: 2Gs, 20 to 2,000Hz (configuration dependent) Humidity:　　　　　5 to 95%, non-condensing All configurations are RoHS compatible.

Order Information

6050 ☐ ☐☐☐☐☐ ☐ ☐ ☐ - ☐☐☐

Configuration ☐
1 = One 2.5in drive and one DVD R/W
2 = Three 2.5in drives
(Configuration 2: all drives same capacity)*

2.5in Drive Capacity ☐
xxxG
xxxT

Example
　　008G = 8GB drive
　　064G = 64GB drive
　　500G = 500GB drive
　　012T = 1.2TB drive
　　000G = no drive installed

2.5in Drive Type ☐
R = Rotating
S = Solid State
N= Not Applicable (Applies to configuration
　　1 with no 2.5" drive installed)

Conformal Coating ☐
Y/N

Temperature Requirements ☐
S = 5° C to 45° C with DVD
O = Other

Project Specific ☐

RTM Part Number:
6050-RTM

BOB Part Number:
6050-BOB

*Drive type dependent. Consult Elma for the most recent and complete range of available drive capacities.

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