

Front Removable cPCI Storage

6U SATA Storage Module





Description

The 6055 is a 6U SATA storage module with dual front removable storage drives. It is configured to provide SATA I/O for dual 2.5" drives using a rear transition module or break out board via the J3 connector. Each single drive can be removed independently for easy system upgrade, data transport or drive replacement. The 6055 may be utilized singularly or integrated as part of a multi-slot storage array using an external SATA RAID controller.

Features

- Choose the latest in solid state drive technology; SLC, MLC or eMLC or standard, enhanced or extended duty rotating drives
- Supports current drive capacties (currently over 2TB per board)
- 3Gbs data rates are supported
- Standard 6U x 4HP x160mm cPCI form factor
- Drive activity LEDs
- Extended temperature operation from -40°C to +85°C
- Module is hot pluggable, individual drive sleds are removable and not hot pluggable
- Rear Transition Module (RTM) or Break out Board (BoB)
 provide SATA port connectivity from the rear
- RoHS compliant
- Also available in 6U VME

Benefits

- · High data rates for current application needs
- Addresses high capacity storage needs
- Capable of providing RAID 0, 1 or 5 via software RAID
- Easy system upgrade, data transport or maintenance with front removability
- Operates in temperature extremes of -40°C to +85°C using solid-state drives
- Multi-slot expansion capability enables high capacity array design

Applications and Related Products

- High capacity storage requirements for a wide range of defense applications including ground, shipboard and airborne systems
 - o Signal intelligence data storage
 - o 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: 6055200256GBSTSYE

Model 6055 with two 256GB SLC solid state drives, conformal coating, for use in extended temperature environments.







- 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

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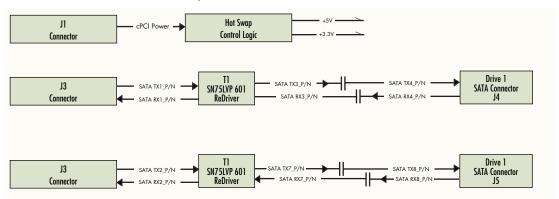
Storage

PICMG

Block Diagram and Environmentals

	Specification	With Typical HDD	With Typical SSD				
Temperature	Operating (Ambient)	0 to 60 C	-40 to +85 C				
	Non-operating	-40 to 65 C	-40 to +85C				
Relative Humidity	Operating	8% to 90% Non-condensing	5% to 95% Non-condensing				
Vibration (Sine)	Operating	1G (5 to 500 Hz)	5G (10 to 2000 Hz)				
Shock	Operating	400G (2 ms)	20G (11 ms)				
Altitude	Operating	40,000 ft)	80,000 ft				

Shock and vibration values are media dependent.



Genera

The 6055 is a 6U SATA single slot (4HP) storage module with dual front removable drives accessed via dual rear SATA ports.

Input / Output

When attached to a host Single Board Computer (SBC), the 6055 provides direct access for up to two 2.5" SSD or rotating drives from the host SATA ports via J3 and a rear transition module (model 6050-RTM).

Compatibility

The 6055 is directly compatible with 6U cPCI system architectures including single board computers and system chassis.

Power Requirements

- 5V ±5% @ .004A 3.3V ±5% @ 0.16A
- Typical HDD, add 5V ±5% @ 1.1A
- Typical SSD, add 5V ±5% @ 0.8A

Order Information

Configuration

1 = One 2.5" drive
2 = Two 2.5" drives

Drive RPM

54
72
00 (solid state drive)

2.5" Drive capacity (configuration 2 – both drives same capacity)

xxxG xxxT Example 500G = 500GB drive 012T = 1.2TB drive

*Consult Elma for the complete range of available drive capacities.

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RSD = standard duty rotating
RED = enhanced duty rotating
RXD = extended duty rotating
RXD = extended duty rotating

SSM = commercial solid state MLC SSE = commercial solid state eMLC STS = extended temp solid state SLC

STM = extended temp solid state MLC STE = extended temp solid state eMLC

Conformal Coating

SSS = commercial solid state SLC

Y/N

Temperature Requirements

 $S = 0^{\circ}C \text{ to } +55^{\circ}C$ $E = -40^{\circ}C \text{ to } +85^{\circ}C$ O = O ther

I/O Board Model Numbers:

6050-RTM, rear transition module 6050-BoB, rear break out board