



# nomadic 1U 12xPro SSS

## Nomadic 1U 6TB Solid State Storage

The 12xPro is high performance and extremely rugged yet light weight, and because it uses Solid State Drives. which have no moving parts, it is extremely quiet, uses less power, can withstand extreme shock, high altitude, vibrations and other harsh environments and has a significantly reduced risk of mechanical failure.

Supported Capacities Start from:

# 6TB - 12TB



Available Options include:

- Single or dual hardware RAID 4480C controllers
- Drive capacities 500GB, 1,000GB SOLID STATE DRIVE (SSD).
- 4Gb Fibre host interface total of 4
- 1-2 124 port SAS expansion port (up to 500TB SSD)
- iSCSI Independent host interface option
- Hardware and Software management with TCP/IP and RS232 ports
- RAID 0, 1 ,3 ,5 , 6, 50, 51, 60, 61, 1+0, & 0+1
- 12 SSD hot-swap drive bays
- 24 drive bay Expansion with SAS or Fibre interface in a 2U rack space
- Dual 275W hot-swap Power supplies
- Three removable cooling systems
- Dual Battery backup for cache memory
- Desktop or rack install kit included
- High G-Force vibration control drive system for mobile environment up to 16G (operating), shock control 1500G (operating)
- High temperature and radiation resistant
- LED drive status indicator for each read/write
- Rear access for all LCD visual displays, all access port in the back, front to back cooling with custom filter
- Multiple layers of built-in security
- Over 5,000PB write life
- Unlimited read function
- Write/Erase 280 years with 50GB write-erase/day

## GVS Solid State Drive RAID



Nomadic 500GB SSD Drive

In data intensive environments, increasing the capacity per disc drive lowers ownership costs by deploying fewer systems that use less cubic feet of space requiring less infrastructure such as cabinets, HBAs, and less wattage of power. The Nomadic 1U 12xPro uses high speed Solid State Drive (SSD) high-performance 2.5" form factor drives bay. The drives' non-volatile NAND Flash memory means no power is necessary to maintain stored information, so data is retained even during sudden power outages, and data integrity is more long term at a rate of 50GB write-erase per day per drive, for next 280 years. .

The Nomadic 1U 12xPro array provides an affordable storage solution that's simple to deploy and easy to manage. Designed to support growing storage requirements, the 12xPro scales to meet your business needs, and simplifies future upgrades to enterprise-level SAN or NAS solutions. A single GUI network interface provides common storage management across all arrays in the Nomadic 1U 12xPro Family, reducing the number of elements you need to manage.

Now there's finally a high-density array product that doesn't require refrigeration to keep it cool and its compact design makes it easy to be kept in the field and recording studio. With its' built-in 4480c Controller Technology offering two SAS expansion port option, you're able to expand the storage requirement to an enterprise level 250 drive bay. Remote monitoring, and the controller's browser-based management tool simplify the management of petabyte of storage.

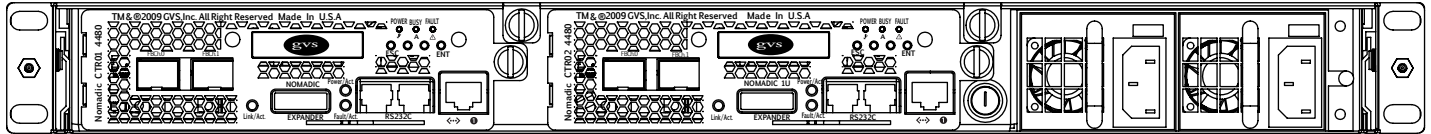


Users who have the need for extreme speed can reach over 5.8Gbit/sec sustained with full redundancy for RAW 2K, 4K film resolutions, or 1080p 60 frame, virtually eliminating the need for costly SAN solution for enterprise level product support. With dual 4Gb/s connectivity up to four 4Gb/s, exceptional data availability, reliability, and flexibility, online capacity expansion from 6TB to 12TB in single 1U rack space, the Nomadic 1U 12xPro offers an elite storage solution at an entry-level price.

Part	Model	Hardware	Drive Size	Controller	Host	SSD Drive	SAS Expansion	Max.	Power
N01U12ATP2F044	Nomadic1U-12F2	1x4480c	500GB	1GB	2x4Gb/s	12	2xSASe	6.0TB	1
N01U12S2P2S023	Nomadic1U-12F4	2x4480s	500GB	2GB	2xSCSI	12	2xSASe	6.0TB	2
N01U12ATP2I044	Nomadic1U-12F8	2x4480i	500B	2GB	Quade iSCSI	12	4xSAS	12.0TB	2
N01U08ATP2SASE	Nomadic1U-SASE	1x4420s	500-1000MB	0	SAS Expansion	12	2xSASe	24.0TB	4



# nomadic 1U 12xPro SSD technical specifications



## 6.0TB or 12.0TB RAID combines Solid State storage technologies with 6.4GB/sec Fibre Channel Speed and data protection in a 1U rack-optimized enclosure.

The innovative GVS-designed Nomadic 1U RAID architecture combines affordable, high-capacity SSD drive technology with a single to dual 4Gb/s fibre channel host interface for fast, reliable data access. Each GVS Drive Module uses a dedicated drive channel, maximizing the 800MB/s Fibre Channel host connection.

### 4480C Controller Fibre Channel features:

RAID level 0,1, 0+1, 3, 5, 6, 30, 50, JBOD and NRAID, SAS Expansion up to 128 devices

16(8) independent logical array configurations per controller

Support for multiple RAID sets, multiple hosts and LUN masking and mapping

Each logical array can have an independent RAID level

Background initialization

Write back and write through cache selection

Variable stripe size

Up to 8 LUNs

LUN slicing

Online RAID group capacity expansion

Drive hot-swapping

Global hot-spare per 16 drive

Automatic background data rebuilding

Intelligent Drive Management

Battery backup support

### 4480i Controller iSCSI Channel host:

iSCSI dual host interface provides high speed iSCSI support with SAS Expansion up to 128 devices

### 4480s Controller SCSI Channel host

SCSI RAID level 0,1, 0+1, 3, 5, 50, JBOD 4480s

### 4420s SAS Channel Expansion

2nd Nomadic 1U with 12xHot-swap expansion bay

### Management:

Complete Drive and system monitoring through Ethernet, RS-232

GVSView management software for all major platforms via Ethernet port

Event notification via an independent GVSView

For hard drive capacity measurements, 1GB = 1 billion bytes; actual formatted capacity less by 5% based on OS. Maximum capacity of 12TB achieved through use of 12x1TB Nomadic 1U Drive Modules. 3.4GB/sec per controller Actual rates will vary based on host interface. Weight varies by configuration and manufacturing process. GVS custom configures each Nomadic 1U based on customer specifications from block size. Each drive goes through an extensive burn-in period prior to shipment.

Product specifications are subject to change without notice. Above specifications may change without notice.

Nomadic 1U 12xPro® designed and manufactured in the U.S. by Grande Vitesse Inc.

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Firmware upgrade through Ethernet or RS-232

### Host Interface to the Fibre storage:

Two, or four 4Gb Fibre Channel ports (SFP), 400MB/s throughput per channel

Guaranteed delivery (800MB/s full duplex) per channel max 6.4Gbit/sec

Dual 4Gb/s or 8Gb/s Fibre Channel PCIe Card (sold separately) or compatible third-party PCIe card

Support for point-to-point, loop and fabric (switched) topologies

1000BASE-T Ethernet for remote management

Support read/write per port or read only true 2nd Fibre Channel port w/o need for SAN Software or switch

Short-Haul Transceiver (supports up to 500m with 50/125 m MMF)

Long-Haul Transceiver (supports up to 10km with 9/125 m SMF)

### RAID Controller specifications:

1GB or 2GB cache per controller up to 4GB max

### iSCSI Ethernet Interface:

Provide 2-4 iSCSI Ethernet port connects to LAN to high speed RAID storage w/iSCSI client tools.

### Battery Backup Module:

Smart battery backup module, integrated lithium cells. With one fully charged battery module used for each cached data protection during power failure.

### Material:

Heavy-duty cold-rolled steel

### Inside:

Zinc-plated with bright chromate

### Outside:

Top cover anodized for better cooling

### Cooling:

Rear: 4 x 60x 38mm hot-swap fans

Self-regulating speeds and front-to-back cooling

Optional: Front security door locking, noise reduction and air filter

### Expansion:

12 hotswap SAS/SATA-II drive bay with up to 4 x LC FC Interface, and SAS expansion option

### Controls:

Power secure lock key for on/off and system

### Mechanical Rear Controls:

Reset Power Supply for power replacement or faulty power indicator, Serial port, two RJ45, 4 FC LC or iSCSI, LCD 7 button controls, SAS expansion port

### Indicators:

LCD Out-of-Band, RS-232, LAN, and Fibre Channel

### Drive Bay:

Hotswap 12x SAS and SATA-II (SATA3G)

Optional SAS or SATA Drive can be mixed

### Drive Option:

N250SSD-Nomadic 1U 500GB and 1,000GB 2.6ms Solid State Drive Option

### Temperature:

5°C to 45°C (41°F to 113°F)

Storage temperature: -40° to 47°C (-40°F to 116°F)

### Humidity:

Operation mode : 5% to 75%

Non-operation mode : 5% to 95% non-condensing

### Altitude:

Sea level to 10,000 ft.

Maximum thermal output: 1465 BTUs per hour

### Power Supply:

275W 2x275W hot-swap Redundant load-sharing hot-swap power supplies

Min 1x150W module w/ 12 Drive and Dual Controller support

Each 275W Module run Max 40A

Max 2x Universal input (100V to 240V AC), power factor corrected

Frequency: 47Hz to 63Hz, single phase 8-4A

### Power Consumption:

Min: 57W Max: 115W tolerance : ±5%

### Dimension:

D21.0" (533.4mm) X W19" (482.6mm) X H1.75" (44.45mm)

With Front Face Cooling Cover, EMI and Noise Filter  
Option: D21.6" (548.64mm) X W19" (482.6mm) X H1.75" (44.45mm)

### Weight:

17 (7.71 kg) with dual redundant power supply.

With packaging 27lb (12.25 kg)

Product specifications are subject to change without notice.



# GRANDE VITESSE

### GVS Authorized Partner:

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