

RVAS 3400 Sub1 or -1/2 ATR is V&G's natural convection or conduction –cooled Network Attached Storage (NAS) system that support up to 8 Terabyte of storage.

Network-attached storage (NAS) appliances are now gaining firm foundation in consumer markets, aside from it's strong application in enterprise networks. Recently, it also further expand it's application to industrial operation, particularly in transportation solutions, but also in other harsh environments like wind farms, electrical substations, or other remote installations. V&G's RVAS 3400 is designed and for industrial-grade purposes that support extreme temperatures of both high and low temperature, high vibration, sudden shocks, network and power redundancy, resource conservation, and data security, this test parameters are following MIL-STD-810G.

It support at least 2 bays for solid state drives which has 1TB each bay and can be scaled up to 8TB. Network access is through two 10/100/1000BASE-T front panel ports. The system supports NFS, SMB/CIFS, FTP, SFTP, and HTTP protocols and JBOD, RAID 0, RAID 1, RAID 5, and RAID 6 configurations; the drives are configured as JBODs by default. Once the system is configured, data can be stored and retrieved through any of the supported protocols.

The RVAS3400 has the option to provide 256-bit AES encryption utilizing NIST, CSE, and FIPS140-2 certified encryption chips. Encryption keys can be loaded over Ethernet or stored on the system's controller. The controller has a TPM security device for secure storage of the encryption keys. The RVAS3400 supports zeroization procedures, meeting both DOD NISPOM 5220.22 and NSA/CSS 9-12 specifications. The time to erase using ATA Secure Erase is approximately 5 seconds, using NSA Erase it is approximately 16 minutes, and using DOD Erase it is approximately 48 minutes. Erase times do not vary based on the amount of storage, from 1 TB to 8T

## **FEATURES:**

- > Up to 8TB of Solid State Drives
- > Support storage classification and ATA Secure Erase
  - RAID 0, 1, 5, 6, 10, 50, 60 configurations
  - 256-bit AES Encryption
  - 2 Ethernet Port: 10/100/1000 BASE-T
  - Convection and conduction-cooled chassis
- > Weight is less than 12 lbs
- > Physical Dimension:
  - 8.66 in (L) x 7.61 in (W) x 4.65 in (H)
- > MIL-STD-461E/F EMI Filtering
- > Internal hold of up to 100ms @ 70W (Optional)
- > Operating System support Linux BSP
- > Syslog, S.M.A.R.T., SNMP monitoring-SSH, FTP, TFTP, NFS (v3/v4)
- > SMB/CIFS, and RSync service
- > System power support 220VAC or 24VDC (with power board)



### **Physical Specifications:**

- Sub1or-½ ATR, natural convection-or conduction-cooled chassis (reduced height and length)
- Dimensions: 8.66 in. (L) x 7.61 in. (W) x 4.65 in. (H)
- Boards are inserted in the back of the chassis in a vertical orientation
- Weighs less than 12 lbs. (fully populated)
- Foldable front panel handle

### **Storage Characteristics:**

- Up to 8 TB of storage
- 256-bit AES encryption (optional, not supported on configurations above 2.5 TB)
- DOD NISPOM 5220.22 declassification support (optional)
- NSA/CSS 9-12 declassification support (optional)
- Write protection
- ATA Secure Erase support

### **Front Panel I/O:**

- Two D38999 circular connectors for I/O
- 10/100/1000BASE-T Gigabit Ethernet interfaces
- RS-232 serial links

### **Software:**

- Standard software Linux BSP available
- EXT3/EXT4/XFS/JFS file system support software
- RAID, JBOD, RAID 0/1/5/6 support
- Syslog, S.M.A.R.T, SNMP monitoring-SSH, FTP, TFTP, NFS (v3/v4), SMB/CIFS, and Rsync services
- Plugin support (iSCSI, LVM) Power Supply
- MIL-STD-704 28 VDC input voltage support
- Integrated MIL-STD-704 28 VDC

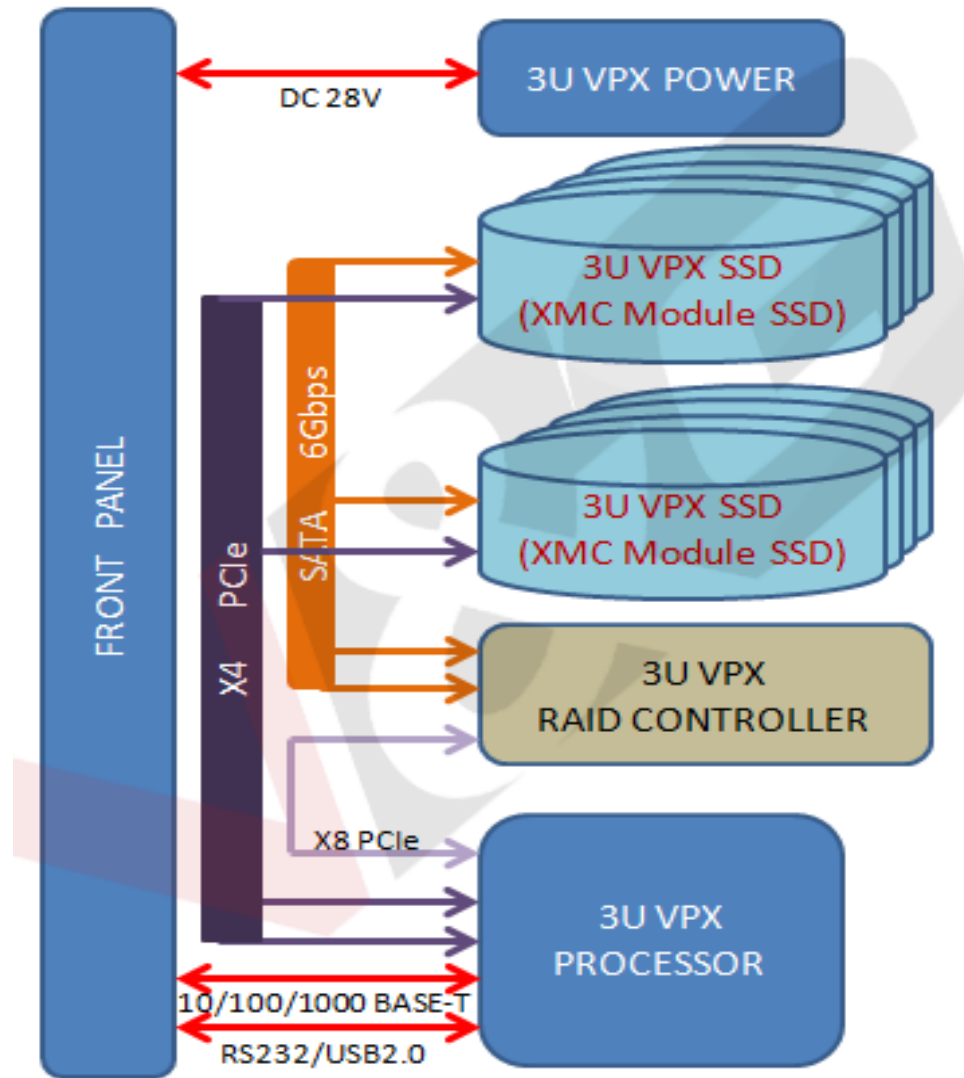
### **Thermal:**

- At 55°C ambient and 200 LFM ambient airflow at sea level
- Maintains 85°C board rail temperatures with up to 105 W total chassis power dissipation
- One high power payload slot at up to 40 W
- Three lower power payload slots at up to 10 W each
- Conduction through the base plate can provide additional cooling

### **Power Supply:**

- 70 W (3.5 TB and 1000BASE-T Gigabit Ethernet)
- Up to 100 ms internal holdup time at 70 W

## Block Diagram



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