

## Garantir GT- R3000

Powered by PROMISE Technology



### Features

- ▶ Dynamic storage solution optimized for virtualized environments
- ▶ Unified FC & iSCSI connections for SAN and/or NAS in the same storage
- ▶ Support for on demand expansion, ideal for today's growing datacenters
- ▶ Advanced Storage Services included at no extra cost
- ▶ Designed to meet the growing challenge of unstructured data
- ▶ Enterprise design with cutting edge redundancy, reliability and high capacity
- ▶ Flexible 1/10Gb and optional 8/16Gb FC, with 12G/6GSAS and 6GSATA backward compatible
- ▶ Fully tuned RAID expansion for video surveillance applications
- ▶ Cache Guard Data Protection & Predictive Data Migration (PDM) keep you safe
- ▶ Scale up to 208 hard disk drives via Garantir GT-J3000 series expansion units

### Agility, Reliability and Ultimate in Value

The Garantir GT-R3000 Series unified storage appliance consolidates both block and file protocols onto a single hardware platform, providing today's SMB IT operations with cost-effective ways to be flexible, meet performance goals while simplifying storage administration.

High availability features design with active-active configuration, the Garantir GT-R3000 Series storage solution can be used in data-intensive environments such as virtualized, cloud data centers or mid-size to large scale surveillance installations utilizing the Garantir GT- A Series products where no downtime is required. From Terabytes to Pet bytes and beyond with support for on-demand expansion capability plus advanced storage services features bundled, the Garantir GT-R3000 Series offerings are the most cost-effective solutions that all SMB's can afford.

### Efficient, Intelligent and Highly Scalable for Your Business Needs

Future proof your storage investment, the Garantir GT-R3000 Series supports up to 208 hard drives with online expansion capability. Over-allocating of storage leveraging Thin-Provisioning feature helps take the worry out of planning and testing when additional capacity is required in the future. The included Read/Write Flash Cache Acceleration feature provides additional performance boost while lowering the latency. PROMISE intelligent data caching automatically promotes hot data to cache in real time, so you get the full benefit off flash performance. An additional allayer of data protection with the use of the Snapshot feature aides with Point-in-Time content recovery when your business needs it most.

### Simplifying Management and Support

Simplicity and ease of use are absolutely crucial for SMBs with limited IT resources. The Garantir GT-R3000 is designed specially with SMBs in mind as it features One Plug Auto Service (OPAS) to reduce maintenance complexity and streamline an easier tech support workflow. Simply plug in a USB drive and the user can retrieve information about the system for tech support, upgrade firmware, reset passwords and much more. Embedded web storage management with intelligence Wizard technology helps reduce the learning curve for setup and configuring of the storage solution in your environment.

### Going the Extra Mile to Protect Your Data

The Garantir GT-R3000's new Cache Guard Data Protection features, Advanced Battery Flash Backup, go that extra mile to ensure your data is safe in case of power loss. Delivering protection of RAID controller write cache content beyond the standard 72-hour window, you can rest assured knowing your data is protected even when disaster strikes.

Predictive Data Migration (PDM) proactive and predictive analytics keep our data safe with self healing technology.

## Technical Specifications

Models and Controller Feature				
Models *S: Single Controller / D: Dual Controller	GT- R3600iS* / R3600iD*	GT- R3600xiS* / R3600xiD*	GT-R3604fiS* / R3604fiD	GT- R3600fiS* / R3600fiD*
Drive Support	<ul style="list-style-type: none"> <li>Up to 16 3.5" drives</li> <li>6/12 Gb SAS, 6 Gb SATA HDD<sup>2</sup> and SSD</li> <li>Supports any mix of SAS and SATA drives simultaneously in the same enclosure</li> </ul>			
Memory	8GB x 1 per ctrl (up to 64GB)			
Host Connectivity per Ctrl	1x Quad port 1GbE	1x Quad port 1GbE 1x Dual port 10GbE SFP+	1x Quad port 1GbE 1 X Quad port 16GB FC	1x Quad port 1GbE 1x Dual port 10GBASE-T
Capacity/Expansion	Online Capacity/Volume Expansion up-to 12 JBOD's, 208 drives			
<b>Operational Features</b>				
RAID Levels	0, 1, 5, 6, 10, 50, 60			
RAID Stripe Size Support	64K, 128K, 256K, 512K and 1MB			
Hot Spares	Global or dedicated with revertible option			
Max pool per System	Advance pool:32	Standard pool:32		
Max Volumes per System	Advance pool:1024	Standard pool:991		
Max Volumes per Pool	Advance pool:256	Standard pool:31		
Advanced Storage Features	<ul style="list-style-type: none"> <li>Advanced Cache Mirroring over PCIe Gen3</li> <li>LUN Masking and Mapping</li> <li>Asymmetric LUN Unit Access (ALUA)</li> <li>Perfect Flash - Non-Disruptive Software Update</li> </ul>		<ul style="list-style-type: none"> <li>I/O performance &amp; power monitoring tools</li> <li>USB Service Log</li> <li>Data Services (optional): Thin-provision Snapshot, Thin Clone, SSD Caching, Pair Management, Remote Thick clone, Cloud Backup and WORM</li> </ul>	
Background Activities	<ul style="list-style-type: none"> <li>Media Patrol</li> <li>Foreground Initialization</li> <li>Redundancy Check</li> <li>Feature rich task scheduler for background activities</li> </ul>		<ul style="list-style-type: none"> <li>Background Synchronization</li> <li>Rebuild</li> <li>Disk SMART Polling</li> <li>UP Monitoring</li> </ul>	
Perfect RAID Features	<ul style="list-style-type: none"> <li>Predictive Data Migration (PDM)</li> <li>Intelligent Bad Sector Remapping</li> <li>SMART Error Handling</li> </ul>		<ul style="list-style-type: none"> <li>NVRAM Error Logging</li> <li>Disk Slot Power Control</li> </ul>	
SAN Protocol	8/16G FC ; Max 256 Sessions purport		1/10G iSCSI ; Max 1024 Sessions per controller	
Storage Expansion per Ctrl	1 x one 12Gb SAS Mini-SAS (SFF-8644)			
Management per Ctrl	1 x RJ-45 1Gb Ethernet and 1x RJ11 Serial Port			
Green RAID Features	Four levels of advanced power management disk drive (MAID) support • Efficient 80PLUS Certified Power Supply			
<b>NAS Features<sup>1</sup></b>				
Supported Network Protocols	SMB/CIFS (Windows, MAC), NFS (Linux/Unix), FTP, Web DAV			
Max. NAS Share	1024 per pool			
NAS Share Size	1PB			
Concurrent Sessions / Memory	256 for each protocol /32GB, 128 for each protocol /16GB			
Max. Account	10K			
Supported Domain	Microsoft Active Directory, LDAP, Apple Open Directory			
Max. Domain Account	100k			
Data Management	Permission Management, Quota Management, Online Expansion			
<b>System Management</b>				
Management Interfaces	<ul style="list-style-type: none"> <li>Web Based management using Web PAMPROe (Ethernet)</li> <li>Third Party Management Support via SNMP</li> </ul>		<ul style="list-style-type: none"> <li>Command Line Interface (CLI)</li> </ul>	
Supported OSs	Windows Server 2008, 2012, 2016, OS X 10.x, RHEL 6.5, 6.6, 6.7, and 7.2, SLES 11, 11 SP4, and 12 SP1			
Software Certification	VMware ESXi 6.7, Citrix Server 7.4, Windows Server 2012 R2			
<b>Mechanical Specifications</b>				
Power Supply	CRPS 550W ; Efficiency 80PLUS Certified Redundant Power Supply			
Voltage	AC: 100-240VAC; DC: 180-320VDC Auto-Ranging			
Current	< 8A@100-240VAC@full load; < 8A@180-320VDC@full load			
Power Conversion Efficiency	>80% @ 110V (>20% load), >80% @ 240V (>20% load) Temperature Range			
Temperature Range	Operational: 5° to 35°C, Non-Operational: -40° to 60°C			
Humidity	Operational: 20% to 80% (Non-Condensing), Non-Operational: ~ 95% (Non-Condensing)			
Acoustic Noise Levels	< 60dB, 25C			
Shock	Operational: 5G, 11 ms duration, Non-Operational: 30G, 11ms duration			
Vibration	Operational: 0.2G, 5 to 500Hz (sine wave) ; 0.41G, 3-10-200-500Hz (Random) , Non-Operational: 1G, 5 to 500Hz (sine wave) ; 2.256G, 5-80-350-500Hz (Random)			
Safety and Emission Certification	EMC Class A: CE, FCC, VCCI, BSMI, RCM Safety: IEEE CB, NTRL			
Environmental Standards	RoHS, WEEE			
Dimensions (H x W x D)	131mm x 446.7mm x 507mm (5.2" x 17.6" x 19.96")			
<b>Warranty and Support</b>				
Warranty	3 years limited warranty			
Supported Hardware Options	Flash Module, 8Gb and 16Gb SFP Optical Transceiver, SAS Cable, 6G SAS-to-SATA Interposer Adapter, 10Gb SFP+ Optical Transceiver			

Note:  
1: 32GB DRAM is required for NAS feature and Data Services.  
2: SATA drives require a SAS-SATA adapter.

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