

## 16 Gbps Fibre Channel / 12 Gbps SAS / 10 Gbps iSCSI RDL-CD / CS series RAID subsystems with dual / single controller and 12 Gbps SAS backplane



RAIDdeluxe RDL-CD24F16D-R4 RAID subsystem

The RDL-CD (dual controller) / CS (single controller) RAID subsystems provide excellent host performance to increase system efficiency and performance.

The new systems are equipped with a Dual Core RAID-on-Chip (ROC) Areca RAID controller. It features 12 Gbps SAS and 6 Gbps SATA hard disks / SSDs.

RAIDdeluxe is designed to grow with future requirements. To this end, RAIDdeluxe uses only common modules. The RAIDdeluxe enclosure is designed for maximum expandability and flexibility.

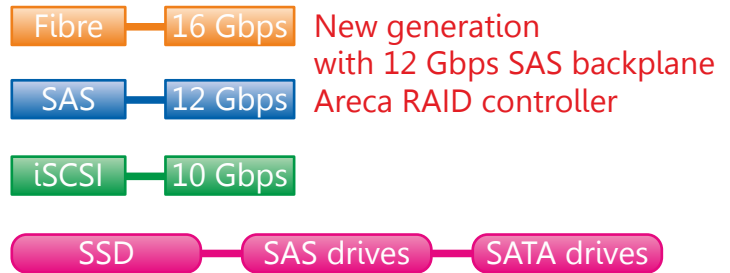
By connecting one or more RAIDdeluxe JBODs to the subsystem, additional hot-swappable SAS / SATA hard disk / SSD drives are possible – up to a total of 256 drives.

With RAIDdeluxe, the power supply is directly cooled for better airflow. This eliminates pockets of dead air and prevents overheating of the subsystem.

RAIDdeluxe incorporates a cableless design which uses fewer connectors. Fewer connectors result in better signal stability. In addition, RAIDdeluxe uses high-quality connectors for maximum signal integrity.

Exceptional manageability:

- Configuration and monitoring can be managed via the LCD control panel, the RS232 port or the LAN port
- The firmware-embedded web browser-based RAID manager allows local or remote access from any standard internet browser via a LAN port
- The controller also supports API library, so customers can write their own monitoring tool
- The Single Admin Portal (SAP) monitor utility enables management of multiple RAID units in the same network via a single application



### Features:

- Areca RAID controller
- RAID levels 0, 1, 3, 5, 6, 10, 30, 50, 60 Single Disk or JBOD
- Host ports per controller (depending on model):  
dual controller:
  - 4 x 16 Gbps Fibre Channel (dual host ports)
  - 8 x 16 Gbps Fibre Channel (quad host ports)
  - 4 x 12 Gbps SAS x4 (dual host ports)
  - 4 x 10 Gbps iSCSI (dual host ports)
 single controller:
  - 2 x 16 Gbps Fibre Channel (dual host ports)
  - 4 x 16 Gbps Fibre Channel (quad host ports)
  - 2 x 12 Gbps SAS x4 (dual host ports)
  - 2 x 10 Gbps iSCSI (dual host ports)
- 12 Gbps SAS / 6 Gbps SATA hard disk / SSD drive bays
- Support for up to 256 devices via JBODs
- SAS-Expansion port for additional JBODs (SFF-8644)
- Support for online array roaming
- Configurable stripe size up to 1024 KB
- Online RAID level / stripe size migration
- Online capacity expansion and raid level migration without interrupting server operations
- Online volume set expansion
- Multiple pairs SSD / HDD disk clone function
- Redundant controller operation with active / active and failover / fallback function
- Instant availability and background initialization
- Dual-active RAID controller with cache mirroring via dedicated high speed bus
- All models with FC controller are VMware certified



RAIDdeluxe 24 bay 2.5 SFF RAID subsystem



<b>Model Dual Controller</b>	RDL-CD12F16D-R2 RDL-CD12F16Q-R2 RDL-CD12S12D-R2 RDL-CD12I10D-R2	RDL-CD16F16D-R3 RDL-CD16F16Q-R3 RDL-CD16S12D-R3 RDL-CD16I10D-R3	RDL-CD24F16D-R2 RDL-CD24F16Q-R2 RDL-CD24S12D-R2 RDL-CD24I10D-R2	RDL-CD24F16D-R4 RDL-CD24F16Q-R4 RDL-CD24S12D-R4 RDL-CD24I10D-R4
<b>Model Single Controller</b>	RDL-CS12F16D-R2 RDL-CS12F16Q-R2 RDL-CS12S12D-R2 RDL-CS12I10D-R2	RDL-CS16F16D-R3 RDL-CS16F16Q-R3 RDL-CS16S12D-R3 RDL-CS16I10D-R3	RDL-CS24F16D-R2 RDL-CS24F16Q-R2 RDL-CS24S12D-R2 RDL-CS24I10D-R2	RDL-CS24F16D-R4 RDL-CS24F16Q-R4 RDL-CS24S12D-R4 RDL-CS24I10D-R4
<b>I/O Interface</b>				
<b>Host Interface</b>	Fibre-to-SAS : 4 / 2 x 16 Gbps FC or 8 / 4 x 16 Gbps FC SAS-to-SAS: 4 / 2 x 12 Gbps miniSAS HD iSCSI-to-SAS: 4 / 2 x 10 Gbps iSCSI, SFP+			
<b>HDD / SSD</b>	12 x 3.5 LFF / 2.5 SFF	16 x 3.5 LFF / 2.5 SFF	24 x 2.5 SFF	24 x 3.5 LFF / 2.5 SFF
<b>Disk Interface</b>	12 Gbps / 6 Gbps SAS and 6 Gbps / 3 Gbps SATA			
<b>Expansion</b>	Up to 256 disks total			
<b>RAID Controller</b>				
<b>Processor Type</b>	Dual Core ROC 1.2 GHz			
<b>Cache memory</b>	2 ~ 8 GB DDR3-1866 ECC SDRAM per controller			
<b>RAID Features</b>	<ul style="list-style-type: none"> <li>• 0, 1, 10 (1E), 3, 5, 6, 30, 50, 60, Single Disk or JBOD</li> <li>• Automatic drive failover and detection and rebuild using multiple Global, Dedicated or Enclosure hot-spare drives</li> <li>• Multiple RAID 0 and RAID 10 (1E) support (RAID 00 and RAID 100)</li> <li>• Multiple pairs SSD/HDD disk clone function</li> <li>• SSD automatic monitor clone support</li> </ul>			
<b>Availability and Reliability</b>	<ul style="list-style-type: none"> <li>• Redundant controller operation with active/active and fail-over/fail-back function</li> <li>• Dual-active RAID controller with cache mirroring through dedicated high speed bus</li> <li>• Automatic synchronization of firmware version in the dual-active mode</li> <li>• Multi-path &amp; load-balancing support</li> </ul>			
<b>Subsystem Management</b>				
<b>RAID Management</b>	<ul style="list-style-type: none"> <li>• Field-upgradeable firmware in flash ROM</li> <li>• Firmware-embedded manager via RS-232 port</li> <li>• Access terminal menu by telnet via a LAN port</li> </ul>		<ul style="list-style-type: none"> <li>• Embedded browser-based RAID manager via built-in 10/100 Lan port</li> <li>• SAP monitor utility easily manage multiple RAID units in the network</li> <li>• API library for customer to write its own monitor utility</li> </ul>	
<b>Monitors / Notification</b>	<ul style="list-style-type: none"> <li>• SMTP support for email notification</li> <li>• SNMP support for remote manager</li> </ul>		<ul style="list-style-type: none"> <li>• LCD control panel for setup, alarm mute and configuration</li> <li>• System status indication through LCD, LED and alarm buzzer</li> <li>• Enclosure management ready (SES over in-band SAS)</li> </ul>	
<b>Mechanical Specification</b>				
<b>Power Supply</b>	Hot swap and redundant with PFC, N+1 design			
<b>Power requirements</b>	AC 100 V ~ 240 V, 50 Hz ~ 60 Hz			
<b>Cooling</b>	Two fans within each power supply unit			
<b>Operating Temperature</b>	0 °C ~ 40 °C			
<b>Relative Humidity</b>	10 % ~ 80 % (non-condensing)			
<b>Dimension (WxHxL)/mm</b>	445 x 88.2 x 506, 2 U RM	445 x 132.6 x 506, 3 U RM	445 x 88.2 x 470, 2 U RM	445 x 176.4 x 506, 4 U RM
<b>Weight (Without Disks)</b>	27 / 28 kg	31 / 32 kg	28 / 29 kg	34 / 35 kg

