



RRT-35NVMe-R 3.5" NVMe Enclosure with Removable Module

THE 3.5" NVME ENCLOSURE WITH REMOVABLE SSD MODULE is for applications that require the frequent removal of SSD, fast transfer rates and large capacities.

It consists of two components; the 3.5" NVMe enclosure with PCIe Gen 3x4 interface that has standard 3.5" mounting holes and removable NVMe SSD module. The connectors between the drive module and the enclosure are rated for 100,000 mating cycles to support frequent insertions and removals.

The NVMe SSD module can use any COTS NVMe Solid State Drive (SSD), providing capacities up to 15TB and transfer rates of up to 7,877 MB/S. Options for FIPS140-2, FIPS197, TCG opal, and military erase secure.

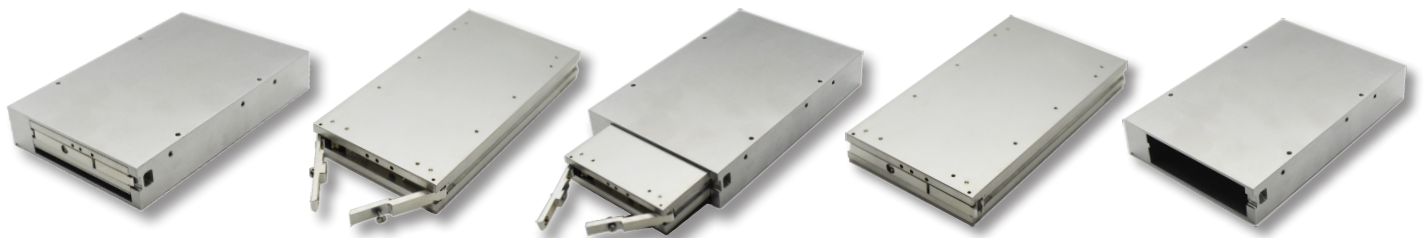


Parhelia B.V.
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- Capacities up to 16 TB
- 7,877 MB/S Transfer rates
- Removable SSD module
- PCIe Gen 3x4 interface
- 100,000 mating cycles
- 3.5" form factor
- Boot and/or disk storage
- COTS NVMe SSDs
- Military erase options
- FIPS140-2, FIPS197, TCG Opal options
- Option for thumbscrews to remove drive module without tools
- VxWorks, Linux and



EASILY REMOVE SSD DRIVE MODULE



206 W Julie Drive, Ste. 2
Tempe, AZ 85283



(480)-483-3777



www.redrocktech.com



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Ordering Information

3.5" NVMe Enclosure

RRT-35NVMe-R- UR - X

Options May be left blank

Conformal Coating

UR Polyurethane
AR Acrylic

Extended Temperature Range

X -40°C to 85°C

ORDER EXAMPLES

RRT-35-NVMe-R
RRT-35-NVMe-R-UR-X

Removable NVMe SSD Drive Module

RRT-DM-NVMe- pSLC - 4TB - UR - X - FE - TS

Requirements

NAND Flash Type

TLC 3D NAND
MLC Multi Level Cell
pSLC Pseudo Single Level Cell

Capacity

500GB - 15.3TB For TLC
500GB - 8TB For TLC-X
1TB - 16TB For MLC
1TB - 8TB For pSLC

ORDER EXAMPLES

RRT-DM-NVMe-TLC-15.3TB-TS
RRT-DM-NVMe-TLC-3840GB-UR-X-SE1
RRT-DM-NVMe-MLC-16TB-FIPS197
RRT-DM-NVMe-pSLC-1TB-UR-X-SE1

Options May be left blank

No Tools

TS Thumbscrews

Security

FE Fast Erase
SE1 NSA/CSS Manual 9-12 Erase
SE2 RCC-TG IRIG 106-107 Chapter 10 Erase
OPAL TCG Opal Compliant SSD
FIPS140-2 FIPS 140-2 Compliant SSD
FIPS197 FIPS 197 Compliant SSD

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Product Specifications

3.5" NVME ENCLOSURE WITH REMOVABLE MODULE

PERFORMANCE

NAND FLASH TYPE	TLC	MLC	pSLC	TLC-X
CAPACITIES ¹	Up to 15.3TB	Up to 16TB	Up to 4TB	Up to 8TB
INTERFACE ²	PCIe Gen 3/4 x4	PCIe Gen 2 x 4		PCIe Gen 3 x4
THROUGHPUT - SUSTAINED	3500MB/S (Gen3), 5000MB/S (Gen4)	800 MB/S	1000 MB/S	1500MB/S

RELIABILITY

MTBF - DRIVE	1 million hours		2 million hours	
MTBF - 3.5" ENCLOSURE ³	3 million hours			
DATA RETENTION	1 year		5 years	1 year
ENDURANCE (100GB) TOTAL BYTES WRITTEN	70 TBW		250 TBW	70 TBW
ENDURANCE RATING ⁴	5 years			
CARRIER/DRIVE MODULE MATING CYCLES	100,000 mating cycles			

POWER

VOLTAGE	12V +/- 5%, +5V +/- 5%			
WATTS (IDLE)	7 W	1.5 W		
WATTS (ACTIVE)	20 W	10 W		

ENVIRONMENTAL

OPERATING TEMP., VITA 47 CLASS ⁵	0°C to 55°C		0°C to 60°C	See TLC
EXT. OPERATING TEMP., VITA 47 CLASS ⁵	See TLC-X	Not available	-40°C to 85°C	
STORAGE TEMP.	-40°C to 85°C			
ALTITUDE	10,000 ft. (3,000 meters)		80,000 ft. (24,000 meters)	
RELATIVE HUMIDITY	5% to 95%			
SHOCK, VITA 47 CLASS ⁶	20g, 11 millisecond terminal sawtooth pulse		40g, 11 millisecond terminal sawtooth pulse	
VIBRATION, VITA 47 CLASS ⁷	0.04 g ² /Hz, 5 Hz to 100 Hz		0.1 g ² /Hz, 100 Hz to 1000 Hz	

PHYSICAL

FORM FACTOR	3.5"			
WEIGHT	30 oz. (849g)			
PITCH	4.0" x 5.75" x 1.625"(101.6mm x 146.1mm x 41.3mm)			

NOTES

- (1) Larger capacities available as new COTS U.2 NVMe drives released
- (2) Interface connected via compatible slot profile SLT3-PAY-1F1U1S1S1U1U2F1H-14.6.11 OR SLT3-PER-1F-14.3.2
- (3) Telcordia SR-332, issue 3, operating temp (40C), electrical stress (50%), environmental factor (1.0)
- (4) Based on JESD218 standard with 4KB random write workload
- (5) Thermal qualification per MIL-STD-810F, Method 501 Procedure II, and MIL-STD-810F, Method 502, Procedure II
- (6) Shock qualification per MIL-STD-810F, Method 516, Procedure I
- (7) Vibration qualification per MIL-STD-810F, Method 514, Procedure I



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