

3.5" 68-Pin SCSI Wide Differential Solid State Drive



RRT-35SFA-HW

The 3.5" 68-pin SCSI Wide Differential Solid State Drive (SSD) is a proprietary FPGA based design that provides a long term solution for replacement of obsolete SCSI drives. Wide Differential is also called High Voltage Differential (HVD).

The design provides a transparent interface from the SCSI bus to a COTS 2.5" SSD.

The drive can be configured to provide specific capacities for applications that only work with low capacity drives.

FEATURES INCLUDE

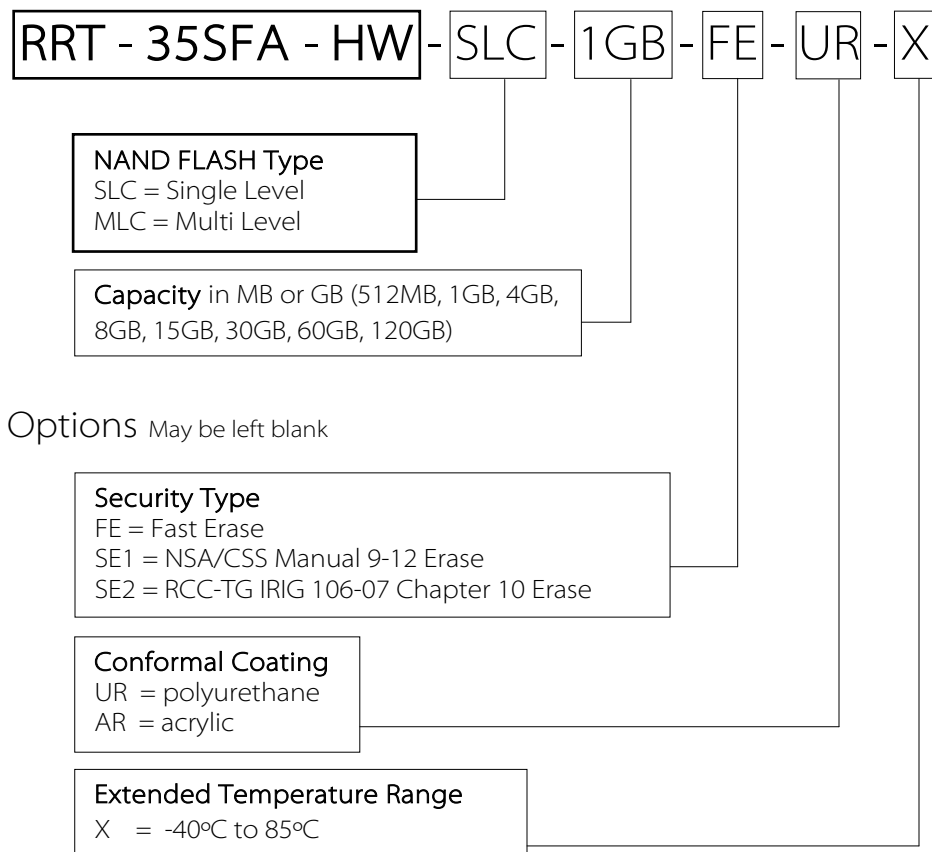
- Drop in replacement for obsolete 68-pin SCSI Wide Differential drives
- Capacities up to 256GB; larger capacities available as 2.5" COTS SSD capacities increase
- Wide Differential (High Voltage Differential) SCSI interface provides transfer rates up to 40MB/s
- Robust design for high temperature, shock and vibration environments
- Lower power consumption than mechanical hard drive equivalent
- Fast, efficient field replacement
- High density mass storage in 3.5" form factor
- Commercial and extended temperature options
- Options for discrete controlled secure erase
- 35% lighter than standard 3.5" SCSI drive
- Compatible with CPUs with a SCSI Wide Differential controller(High Voltage Differential)
- No additional software required
- SCSI ID selection 0 – 15

Security Options

Several security options are available. Erase/destroy options invoked by command or by discrete input.

- *Fast Erase* sets all locations to set value.
- *NSA/CSS Manual 9-12 Erase* erases all locations, including bad blocks, then sets all locations to 0x55. Then internal verification is performed reading 1% of capacity confirming data pattern.
- *RCC-TG-106-7 Chapter 10 Erase* erases all locations, including bad blocks, then sets all locations to 0x55, then sets all locations to 0xAA, and finally erased.

Ordering Information



Example: RRT-35SFA-HW-SLC-512MB-FE

Example: RRT-35SFGB-SE-AR-X

3.5" 68-Pin SCSI Wide Differential SSD Specifications

Performance				
Version	SLC	MLC	Secure Erase	
Capacities (1)	4MB - 256GB	4MB - 256GB	4MB - 128GB	
NAND FLASH Type	SLC	MLC	SLC	
Interface	Wide Differential (High Voltage Differential) Ultra SCSI, SCSI2, SCSI1			
Sustained Throughput				
Read	38 MB/s			
Write	38 MB/s			
Sector Size	512 bytes			
Reliability				
MTBF - Drive	2 million hours	1 million hours	1 million hours	1 million hours
MTBF - Drive Carrier (2)	3 million hours			
Endurance (100GB SSD) Total Bytes Written	1750TB	175TB	525TB	1750TB
Power				
Voltage	+5V +/- 5%			
Watts-idle	3W			
Watts-active	4W max			
Environmental				
Temperature Operating	0° to 70°C			
Temperature Storage	-40° to 85°C			
Extended Temperature Operating (3)	-40° to 85°C			
Relative Humidity	5% to 95%			
Altitude	80,000 ft (24,000 meters)			
Shock (4)	50g 11 millisecond			
Vibration	2.0Grms 20 Hz to 2000 Hz			
Vibration - Rugged (5)	12.0 Grms 20 Hz to 2000 Hz			
Physical				
Form Factor	3.5" drive			
Weight	15 oz. max (420g)			
(1) Larger capacities available as new COTS 2.5" drives are released (2) Telcordia SR-322, Issue 3, operating temp (40° C), electrical stress (50%), environmental factor (1.0) (3) Thermal qualification per MIL-STD-810F, Method 501 Procedure II, and MIL-STD-810F, Method 502 Procedure II (4) Shock qualification per MIL-STD-810F, Method 516 Procedure I (5) Vibration qualification per MIL-STD-810F, Method 514 Procedure I				

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