

**innODISK**<sup>®</sup>  
Beyond your imagination

2.5" SATA/PATA SSD Series

**innoRobust**<sup>®</sup>



Security | Reliability | Quality



**Industrial Storage Device**



# InnoRobust Product Overview

InnoDisk brings you the most advanced SSD solution, the InnoRobust drive series. The InnoRobust SSD not only provides high reliability performance, but also introduces data erasing features targeting military, defense, and aerospace applications. The shock, vibration, and altitude analysis were performed in accordance with the MIL-STD standards.



## Features

### Data Security

- QEraser
- SEraser
- Write Protect

### Environment

- -40°C~+85°C
- 80,000 ft Altitude
- > 4,000,000 Hours MTBF

### Conformal coating support

- Acrylic conformal coating

### High Speed Performance

- Sustained rate up to R-175MB/s; W-90MB/s

InnoRobust Series			
	InnoRobust Ultra SATA	InnoRobust SATA	InnoRobust PATA
	2.5" SATA High Performance	2.5" SATA	2.5" PATA
Capacity	16GB ~ 128GB	8GB ~ 128GB	8GB ~ 128GB
	Performance		
Sustained Read (MB/s)	Read 175 MB/sec.	Read 155MB/sec.	Read 85 MB/sec.
Sustained Write (MB/s)	Write 90 MB/sec.	Write 55MB/sec.	Write 45 MB/sec.
Random Read (IOPS @ 4KB)	2400	1700	1700
Random Write (IOPS @ 4KB)	100	100	100
	Erase time (Base on 16GB)		
QEraser	8 sec.	12 sec.	12 sec.
SEraser (DOD 5220.22-M)	1 minute 51 sec.	3 minutes 50 sec.	3 minutes 50 sec.
Write Protect	Support	Support	Support
	Power Consumption		
Read	670mA (max.)	350mA (max.)	350mA (max.)
Write	750mA (max.)	400mA (max.)	400mA (max.)
Idle	480mA (max.)	150mA (max.)	150mA (max.)
	Reliability		
MTBF	6,000,000 hours	4,000,000 hours	4,000,000 hours
DATA Retention	> 10 years	> 10 years	> 10 years
	Environmental		
Altitude	80,000 ft		
Operating Temperature	Standard Grade: 0°C to +70°C ; Industrial Grade: -40°C to +85°C		
Storage Temperature	-55°C to 95°C		
Shock(Operating)	1500G		
Vibration(Operating)	20G		
Humidity	5-95%, non-condensing		
Conformal Coating	Optional		
	Dimension		
Length (mm)	99.88	99.88	100.1
Width (mm)	69.63	69.63	69.8
Height (mm)	9.3	9.3	9.5



## SEraser

SEraser complies with military data elimination standards, such as USA-AF AFFSI 5020, DoD 5220.22-M, USA Navy NAVSO P-5239-26, NSA Manual 130-2, USA-Army 380-19, NISPOMSUP Chap 8, Sect. 8-501. It erases data in the disk, overwrites random data, and erases again to confirm that data has been eliminated.

Features	Standard	Description
QEraser	Fast Quick Erase	1.5 times quick erase rate. (For InnoRobust Ultra SSD only)
	Quick Erase	Quick erase.
SEraser	DoD 5220.22-M	Erase, overwrite with a single character, and then erase again.
	USA-AF AFFSI 5020	Erase, and overwrite with random data.
	USA Navy NAVSO P-5239-26	Erase, overwrite with random data, and then erase again.
	NSA Manual 130-2	Erase, overwrite with random data twice, and then erase and overwrite with one character.
	USA-Army 380-19	Erase and overwrite with random data, erase and overwrite with one character, and then erase and overwrite with complement of the character.
	NISPOMSUP Chap 8, Sect. 8-501	Overwrite all locations with one character, its complement, and then random data.

## Applications



Military and Aerospace



Enterprise System



Embedded / Industrial

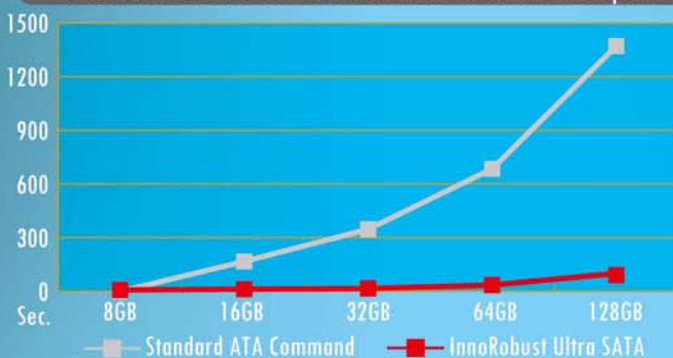


Government  
Business Intelligence  
Decision support

## QEraser

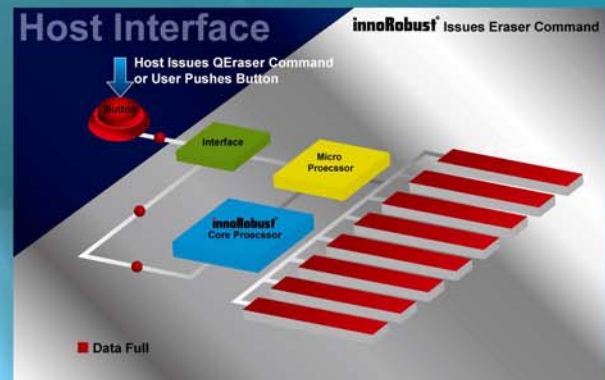
QEraser fast-erases all data in the InnoRobust SSD. All user data, master boot records (MBR), and FAT tables are destroyed completely in seconds. (ex. 16GB requires ONLY 8 seconds).

InnoRobust QEraser V.S. Standard ATA Command Erase Speed

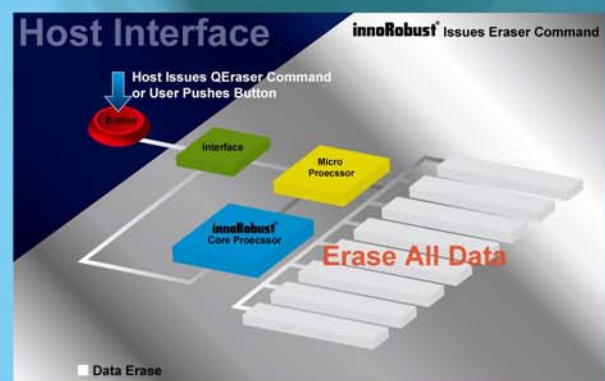


Capacity	16GB	32GB	64GB	128GB	Speed Benefit
Command					
Standard ATA Command	167 Sec	347 Sec	685 Sec	1371 Sec	
InnoRobust Ultra SATA	8 Sec	12 Sec	16 Sec	35 Sec	★ ★

## Before Erase



## After Erase





[www.innodisk.com](http://www.innodisk.com)

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