

# BON Series

## Industrial Rugged Metal 1.8" SATA II SLC SSD supports Fast Erase and Secure Erase



### Product features

- SLC - NAND type flash technology
- Extremely rugged metal casing to endure harsh environments
- Support Fast Erase by Hardware and Software definition
- Performance up to 184.2MB/sec
- Support Secure Erase by Software ATA command vendor code
- Capacity from 8GB up to 64GB

### Product specifications

<b>Compatibility</b>	<ul style="list-style-type: none"> <li>SATA 1.0a and SATA 2.6 specification compliance</li> </ul>	<b>Power consumption</b>	<ul style="list-style-type: none"> <li>Power requirement +5V ± 10%</li> <li>Reading mode 280mA (Max.)</li> <li>Writing mode 340mA (Max.)</li> <li>Sleeping mode 150mA (Max.)</li> </ul>
<b>Flash technology</b>	<ul style="list-style-type: none"> <li>SLC-NAND type flash based</li> </ul>	<b>Reliability</b>	<ul style="list-style-type: none"> <li>Wear-leveling Static wear-leveling algorithms</li> <li>MTBF &gt; 3,000,000 hours</li> <li>ECC 8 bits or 15 bits per 512bytes block</li> <li>Endurance &gt; 2,000,000 cycles</li> <li>Data retention 10 years</li> </ul>
<b>Form-factor</b>	<ul style="list-style-type: none"> <li>Rugged Metal 1.8" SATA SSD</li> </ul>	<b>Physical specification</b>	<ul style="list-style-type: none"> <li>Weight (max.) 55g ± 5g / 1.94 oz.</li> <li>Dimension(W x L x H) 69.80 x 59.90 x 9.50 (mm)</li> </ul>
<b>Host Interface</b>	<ul style="list-style-type: none"> <li>SATA 7-pin (data) + 15-pin (power)</li> </ul>	<b>Conformal coating</b>	<ul style="list-style-type: none"> <li>Option for special request</li> </ul>
<b>Performance</b>	<ul style="list-style-type: none"> <li>Data transfer rate Serial ATA Gen-I and Gen-II (1.5Gb/s and 3.0Gb/s)</li> <li>Sequential read 184.2 MB/sec (Max.)</li> <li>Sequential write 153.3 MB/sec (Max.)</li> <li>Average access time 0.2ms</li> </ul>	<b>Warranty</b>	<ul style="list-style-type: none"> <li>Standard grade 3 years</li> <li>Industrial grade 5 years</li> </ul>
<b>Environmental specification</b>	<ul style="list-style-type: none"> <li>Operating temp. STD. 0°C ~ 70°C / IND. -40°C ~ +85°C</li> <li>Non-operating temp. STD. -20°C ~ +80°C / IND. -50°C ~ +95°C</li> <li>Humidity 10% ~ 95% non-condensing</li> <li>Vibration 15G compliance to MIL-STD-810F</li> <li>Shock 1,500G compliance to MIL-STD-810F</li> <li>Altitude 70,000 feet</li> </ul>	<b>Functionality</b>	<ul style="list-style-type: none"> <li>Hardware Fast Erase the media data by hardware trigger</li> <li>Software Fast Erase the media data by ATA command vendor code Secure Erase the media data by ATA command vendor code</li> <li>Sanitization Procedure Default sanitizing by erase block data to 0xFF on file table for Fast Erase Sanitizing Based on NSA Manual 130-2 for Secure Erase Sanitizing Based on USA Air Force AFSSI 5020 for Secure Erase</li> </ul>



2, rue Jean Mermoz - TREMBLAY EN FRANCE - 93290  
 tél: +33 (0)1 48 61 95 28 - fax: +33 (0)1 48 61 94 03  
 http://www.naelcom.com - APRO-Flash@naelcom.com



Advanced Performance & Rugged Orientation

Operating temperature supports Standard grade 0°C ~ 70°C and Industrial grade -40°C ~ +85°C

Part number list - Industrial 1.8" rugged metal SATA II SLC SSD supports FE/SE

Product Picture	Capacity	0°C ~ 70°C	-40°C ~ +85°C
	8GB	SR8SF008G-JACSC-UFE(USE)	WR8SF008G-JAISI-UFE(USE)
	16GB	SR8SF016G-JACSC-UFE(USE)	WR8SF016G-JAISI-UFE(USE)
	32GB	SR8SF032G-JACSC-UFE(USE)	WR8SF032G-JAISI-UFE(USE)
	64GB	SR8SF064G-JACSC-UFE(USE)	WR8SF064G-JAISI-UFE(USE)

### Remarks:

UFE - Hardware and software ATA command code for Fast Erase function

USE - Secure Erase Procedure by Project Base

### Part number decoder

X1 X2 X3 X4 X5 X6 X7 X8 X9 — X11 X12 X13 X14 X15 — Z1 Z2 Z3 C

### Example

S R 8 S F 0 6 4 G — J A C S C — U F E

**X1** Grade

**S** : Standard grade operating temp. 0°C ~ 70°C  
**W** : Industrial grade operating temp. -40°C ~ +85°C

**X2** The material of casing

**R** : Rugged metal casing

**X3 X4 X5** Product category

**8SF** : 1.8" SATA II SSD

**X6 X7 X8 X9** Capacity

**008G** : 8GB      **032G** : 32GB

**016G** : 16GB      **064G** : 64GB

**X11** Controller

**J** : JMicon (BON Series supports FE/SE)

**X12** Controller version

**A,B,C.....**

**X13** Controller grade

**C** : Commercial grade  
**I** : Industrial grade

**X14** Flash IC

**S** : Samsung SLC-NAND flash IC

**X15** Flash IC grade

**C** : Commercial grade

**I** : Industrial grade

**Z1 Z2 Z3** Special function

**UFE** : Hardware and software ATA command code for Fast Erase function  
**USE** : Secure Erase procedure by project base

**C** Reserved for specific requirement

**C** : Conformal-coating

CF Industrial CompactFlash Card

CFast Industrial CFast Card

ATA Industrial PCMCIA ATA Card

MIF Industrial micro IDE Flash Module

MSE Industrial micro SATA Flash Module

MUM Industrial micro USB Module

SSD Industrial Solid State Disk

USB Industrial Rugged Metal USB Flash Disk

SD Industrial SD & SDHC Memory Card

AD Industrial Adapter Card-Drive

CF Industrial CompactFlash Card

CFast Industrial CFast Card

ATA Industrial PCMCIA ATA Card

MIF Industrial micro IDE Flash Module

MSE Industrial micro SATA Flash Module

MUM Industrial micro USB Module

SSD Industrial Solid State Disk

USB Industrial Rugged Metal USB Flash Disk

SD Industrial SD & SDHC Memory Card

AD Industrial Adapter Card-Drive