

Chariot series
INDUSTRIAL Rugged Metal
2.5" SATA Flash Disk

A PRO of Industrial Flash Memory Storage
www.apro-tw.com



Preliminary Spec. sheet (081209-V2.1)



INDUSTRIAL
CompactFlash Card

INDUSTRIAL
PCMCIA ATA Card

INDUSTRIAL
micro IDE Flash Disk

INDUSTRIAL
Solid State Disk

INDUSTRIAL
micro SATA Flash Disk

INDUSTRIAL
Rugged USB Disk

Compatibility :



Supported O.S. :



Certification :



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

Features:

- SLC-NAND type flash technology
- 2.5" SATA drive form-factor
- Extremely rugged metal casing to endure harsh environments
- Industrial grade capacity from 8GB up to 64GB
- Standard grade capacity from 8GB up to 128GB
- Performance up to 64.8MB/sec



Specifications:

◆ Compatibility	SATA 1.0a and SATA 2.6 specification compliance
◆ Flash technology	NAND type SLC flash based
◆ Form-factor	Rugged Metal 2.5" SATA hard disk drive form-factor
◆ Host Interface	SATA 7-pin (data) + 15-pin (power connector)
◆ Performance	
● Data transfer rate	Serial ATA Gen-I and II (1.5Gb/s and 3.0Gb/s)
● Sequential read	64.8 MB/sec (Max.)
● Sequential write	55.3 MB/sec (Max.)
● Average access time	0.3ms (estimated)
◆ Environmental specification	
● Operating temperature	Standard grade 0°C ~ 70°C / Industrial Grade -40°C ~ 85°C
● Non-operating temperature	Standard grade -20°C ~ 80°C / Industrial Grade -50°C ~ 95°C
● Humidity	10% ~ 95% non-condensing
● Acoustic noise	0dB
● Vibration	15G compliance to MIL-STD-810F
● Shock	1,500G compliance to MIL-STD-810F
● Altitude	70,000 feet

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◆ Power consumption

- Power requirement +5V ± 10%
- Reading mode 360mA(Max.)
- Writing mode 400mA(Max.)
- Sleeping mode 240mA(Max.)

◆ Reliability

- Wear-leveling Dynamic wear-leveling algorithms
- MTBF > 3,000,000 hours
- ECC Enhanced management 4-bits per 512bytes block
- Endurance > 2,000,000 cycles logically contributed by dynamic wear-leveling and advanced bad sector management algorithms
- Data reliability < 1 non-recoverable error in 10¹⁴ bits read
- Data retention 10 years

◆ Physical specification

- Weight (max.) 115g ± 5g /4.06oz
- Dimension(W x L x H) 69.85 x 100.20 x 9.50 (mm)

◆ Conformal coating

Option for special request

◆ Warranty

- Standard grade 3 years
- Industrial grade 5 years

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Part number list – 2.5" Rugged metal casing

Product Picture	Capacity	0° C~ 70° C	-40° C~ 85° C
	8GB	SR2SF008G-KACSC	WR2SF008G-KAISI
	16GB	SR2SF016G-KACSC	WR2SF016G-KAISI
	32GB	SR2SF032G-KACSC	WR2SF032G-KAISI
	64GB	SR2SF064G-KACSC	WR2SF064G-KAISI
	128GB	SR2SF128G-KACSC	NA

Part number decoder :

X1 X2 X3 X4 X5 X6 X7 X8 X9 – **X11 X12 X13 X14 X15** / **C**

X1 : Grade

S : Standard Grade – operating temp. 0° C ~ 70° C

W : Industrial Grade – operating temp. -40° C ~ 85° C

X13 : Controller grade

C : Commercial grade

I : Industrial grade

X2 : The material of case

R : 2.5" Rugged metal Casing

X14 : Flash IC

S : Samsung SLC-NAND Flash IC

X3 X4 X5 : Product category

2SF : 2.5" SATA flash disk

X15 : Flash IC grade / Type

C : Commercial grade

I : Industrial grade

X6 X7 X8 X9 : Capacity

008G:	8GB	064G:	64GB
016G:	16GB	128G:	128GB
032G:	32GB		

C : Reserved for specific requirement

C : Conformal-coating

X11 : Controller

K : KTC (Chariot Series)

X12 : Controller version

A,B,C.....

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