

# mSATA

SATA6.0Gbps

HFDMS-GD / XFDMSS-GD / LFDMS-GD Series



The common mini PCI Express (PCI Express Mini Card) connector is adopted. The SATA 6.0 Gbps model offers speed stability!

## Product features

### ● Onboard life warning LED

The onboard LED will report the SSD status by lighting up when the end of the service life is approaching. This will allow the user to visually grasp the end of life of an SSD and prevent sudden failures. And the function is compatible with our lifetime diagnostic monitoring software LiveMonitor. The precise service life prediction is possible in the customer's actual operating environment.

### ● Randomizer Function

Random data pattern writing reduces the probability of an error and avoids the continuation of identical data for enhanced reliability by reducing the errors.

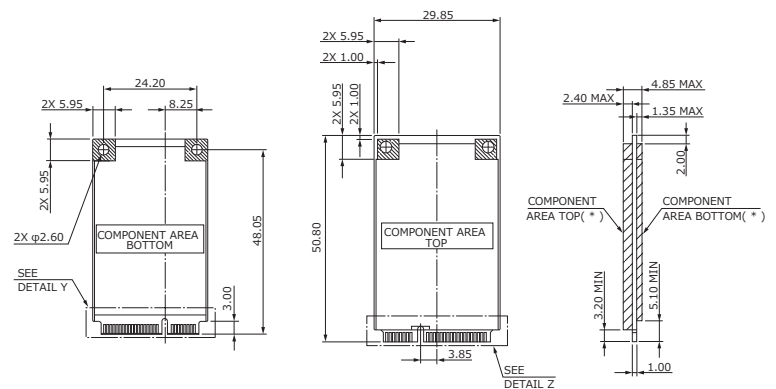
### ● Read Retry Function

A function to read the correct data even in a block with dropped data sustainability by repeated reading with a new voltage threshold.

### ● Supported SMART monitoring tool.

We can offer complement SMART monitoring tool called "Livemonitor". It also allows to check internal condition with access analysis.

Package view



(Unit : mm)

	Static wear leveling	Refresh Function	Read retry Function	Power loss guard Function	Off line scan	Fixed specifications	RoHS	RoHS compatibility	FDE (Encryption)	Implementation	Option	TCG Opal2.0	Lifetime Notification Function	Lifetime Notification LED	DevSleep Function	Power Shut Off Durability	Wide temperature	Environmental Documents	LiveMonitor	
SLC	●	●	●	●	●	●	●	○	○	●	●	●	●	●	●	●	●	●	●	●
Q-MLC	●	●	●	●	●	●	●	○	○	●	●	●	●	●	●	●	●	●	●	●
MLC	●	●	●	●	●	●	●	○	○	●	●	●	●	●	●	●	●	●	●	●

Static wear leveling 
 Refresh Function 
 Read retry Function 
 Power loss guard Function 
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 ●:Implementation ○:Option  
 TCG Opal2.0 
 Lifetime Notification Function 
 Lifetime Notification LED 
 DevSleep Function 
 Power Shut Off Durability 
 Wide temperature 
 Environmental Documents 
 LiveMonitor



## Product Specifications

Flash Type		SLC	Q-MLC	MLC
Capacity		7GB~60GB	15GB~120GB	30GB~240GB
interface		SATA 6.0Gbps		
Power SUPPLY Voltage		3.3V±5%		
Operating temperature	Standard	0°C~70°C		
	Wide temperature	-40°C~85°C	-25°C~85°C	
Storage temperature		-45°C~90°C		
Operating Humidity		~85% (non condensing)		
Storage Humidity		~95% (non condensing)		
Dimensions (mm)		29.85 × 50.8 × 4.0		
DRAM Cache		●	●	●
Performance	Sequential read (MB/s)	470	460	430
	Sequential write (MB/s)	330	410	320
	Random read (IOPS)	48,000	48,000	34,000
	Random write (IOPS)	53,000	62,000	60,000
TBW (TB) ※1	7GB	260	-	-
	15GB	530	91	-
	30GB	1000	180	18
	60GB	2100	360	36
	120GB	-	730	73
	240GB	-	-	150
Current consumption (mA)	Read (Max)	440	350	350
	Write (Max)	550	470	670
	Idle mode (typ.)	110	110	110
	DevSleep mode (typ.)	3		
Warranty period		1year		

※1 Total Byte Written (TBW) is calculated as write load conditions on the basis of "JEDEC 219 Client (Solid-State drive Requir

## Product lineup

		7GB	15GB	30GB	60GB	120GB	240GB
SLC	0~70°C	HFD MSS-007GD (A**AE)	HFD MSS-015GD (A**AE)	HFD MSS-030GD (A**AE)	HFD MSS-060GD (A**AE)	-	-
	-45~85°C	HFD MSS-007GD (A**AEI)	HFD MSS-015GD (A**AEI)	HFD MSS-030GD (A**AEI)	HFD MSS-060GD (A**AEI)	-	-
Q-MLC	0~70°C	-	XFD MSS-015GD (A**AH)	XFD MSS-030GD (A**AH)	XFD MSS-060GD (A**AH)	XFD MSS-120GD (A**AH)	-
	-25~85°C	-	XFD MSS-015GD (A**AHS)	XFD MSS-030GD (A**AHS)	XFD MSS-060GD (A**AHS)	XFD MSS-120GD (A**AHS)	-
MLC	0~70°C	-	-	LFD MSS-030GD (A**AH)	LFD MSS-060GD (A**AH)	LFD MSS-120GD (A**AH)	LFD MSS-240GD (A**AH)
	-25~85°C	-	-	LFD MSS-030GD (A**AHS)	LFD MSS-060GD (A**AHS)	LFD MSS-120GD (A**AHS)	LFD MSS-240GD (A**AHS)

\* management number

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