# SQF-S10

# **SQF-SHM**

Half-Size mSATA Flash Module





#### **Features**

- Compliant with standard CFast card Type 1 specifications
- Interface: SATA Gen. 2
- Supports 44 bit ECC correct per 1K Byte data
- Universal wear-leveling and bad block management
- Shock resistance, anti-vibration and low power consumption
- GUI management tool & software API package

#### **Features**

- Half-Size Mini PCle Form Factor
- Interface: SATA Gen. 2
- Supports 44 bit ECC correct per 1K Byte data
- Universal wear-leveling and bad block management
- · Shock resistance, anti-vibration and low power consumption
- GUI management tool & software API package

## **Specifications**

Connector Type	CFast Type 1 Connector
Flash type	SLC / MLC
Capacity	SLC: 1G to 32G MLC: 4G to 64G
Transfer Mode	SATA II (3.0 Gbps)
Sustained R/W Performance (*)	SLC: up to 70/50 MB/sec MLC: up to 65/35 MB/sec
Operating Temperature	Commercial grade: 0 to +70° C Industrial grade: -40 to +85° C
Shock Resistance	1,500 G, peak / 0.5 ms
Vibration Resistance	20 G, peak / 80 ~ 2000 Hz
Endurance	2,000,000 program/erase cycles
Dimensions (mm)	42.8 x 36.4 x 3.3

 $(\mbox{\ensuremath{^{\star}}})$  These values are for reference only; they may change according to the flash memory used.

#### **Specifications**

Connector Type	Mini PCIe 52pin connector with SATA pin-out
Flash type	SLC / MLC
Capacity	SLC: 1G to 16G MLC: 4G to 32G
Transfer Mode	SATA II (3.0 Gbps)
Sustained R/W Performance (*)	SLC: up to 35/30 MB/sec MLC: up to 30/20 MB/sec
Operating Temperature	Commercial grade: 0 to +70° C Industrial grade: -40 to +85° C
Shock Resistance	1,500 G, peak / 0.5 ms
Vibration Resistance	20 G, peak / 80 ~ 2000 Hz
Endurance	2,000,000 program/erase cycles
Dimensions (mm)	26.8 x 30 x 4.2

(\*) These values are for reference only; they may change according to the flash memory

### **Ordering Information**

PN	Description
SQF-S10S1-1G-S7C	Advantech SQFlash CFast SLC, DMA, 1 GB (0 ~ 70° C)
SQF-S10S1-1G-S7E	Advantech SQFlash CFast SLC, DMA, 1 GB (-40 ~ 85° C)
SQF-S10S2-XG-S7C	Advantech SQFlash CFast SLC, DMA, 2/4/8/16/32 GB (0 ~ 70 $^{\circ}$ C)
SQF-S10S2-XG-S7E	Advantech SQFlash CFast SLC, DMA, 2/4/8/16/32 GB (-40 $\sim$ 85 $^{\circ}$ C)
SQF-S10M1-4G-S7C	Advantech SQFlash CFast MLC, DMA, 4 GB (0 ~ 70° C)
SQF-S10M1-4G-S7E	Advantech SQFlash CFast MLC, DMA, 4 GB (-40 ~ 85° C)
SQF-S10M2-XG-S7C	Advantech SQFlash CFast MLC, DMA, 8/16/32/64 GB (0 ~ 70 $^{\circ}$ C)
SQF-S10M2-XG-S7E	Advantech SQFlash CFast MLC, DMA, 8/16/32/64 GB (-40 $\sim$ 85 $^{\circ}$ C)

Note: X stands for different capacities

### **Ordering Information**

PN	Description
SQF-SHMS1-XG-S7C	Advantech SQFlash HS mSATA SLC, DMA, 1/2/4/8/16 GB, (0 ~ 70° C)
SQF-SHMS1-XG-S7E	Advantech SQFlash HS mSATA SLC, DMA, 1/2/4/8/16GB, (-40 ~ 85° C)
SQF-SHMM1-XG-S7C	Advantech SQFlash HS mSATA MLC, DMA, 4/8/16/32 GB, (0 $\sim$ 70 $^{\circ}$ C)
SQF-SHMM1-XG-S7E	Advantech SQFlash HS mSATA MLC, DMA, $4/8/16/32$ GB, $(-40 \sim 85^{\circ}$ C)

Note: X stands for different capacities