



**THE DATASHEET OF  
SQF-SMSM4-256G-SBC**



# SQF-SMS 640

## SATA III (6.0Gb) mSATA

# SQF-SM8 640

## SATA III (6.0Gb) M.2 2280

NEW



RoHS COMPLIANT 2002/95/EC CE FCC



### Features

- MO-300 mSATA Module
- Compliant with SATA III and SATA v3.2 standard
- Support LDPC of ECC correct
- Shock resistance, anti-vibration and low power consumption
- GUI management tool & software API package

### Specifications

|                               |  |
|-------------------------------|--|
| Connect Type                  | Mini PCIe 52pin connector with SATA pin-out                      |
| Flash type                    | Ultra MLC / MLC  |
| Capacity                      | Ultra MLC: 8 to 512GB<br>MLC: 16 to 512GB, 1TB                   |
| Transfer Mode                 | SATA III (6.0 Gbps)  |
| Max. Power Consumption        | Read: 520 mA, Write: 800 mA                                      |
| Sustained R/W Performance (*) | Ultra MLC and MLC up to 560/495 MB/sec                           |
| Operating Temperature         | Commercial grade: 0 to +70° C<br>Industrial grade: -40 to +85° C |
| Shock Resistance              | 1,500 G, peak / 0.5 ms   |
| Vibration Resistance          | 20 G, peak / 80 ~ 2000 Hz  |
| Dimensions (mm)               | 50.8 x 30 x 4.2  |

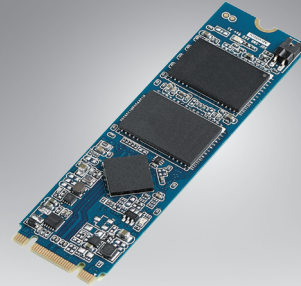
(\*) These values are for reference only; they may change according to the flash memory used.

### Ordering Information

| PN                | Description  |
|-------------------|--|
| SQF-SMSM2-XXG-SBC | SQFlash 640 series mSATA MLC 16/32/64 GB, 2-CH (0 ~ 70° C)               |
| SQF-SMSM2-XXG-SBE | SQFlash 640 series mSATA MLC 16/32/64 GB, 2-CH (-40 ~ 85° C)             |
| SQF-SMSM4-XX-SBC  | SQFlash 640 series mSATA MLC 128/256/512 GB, 1TB, 4-CH (0 ~ 70° C)       |
| SQF-SMSM4-XX-SBE  | SQFlash 640 series mSATA MLC 128/256/512 GB, 1TB, 4-CH (-40 ~ 85° C)     |
| SQF-SMSU2-XXG-SBC | SQFlash 640 series mSATA Ultra MLC 8/16/32 GB, 2-CH (0 ~ 70° C)          |
| SQF-SMSU2-XXG-SBE | SQFlash 640 series mSATA Ultra MLC 8/16/32 GB, 2-CH (-40 ~ 85° C)        |
| SQF-SMSU4-XX-SBC  | SQFlash 640 series mSATA Ultra MLC 64/128/256/512 GB, 4-CH (0 ~ 70° C)   |
| SQF-SMSU4-XX-SBE  | SQFlash 640 series mSATA Ultra MLC 64/128/256/512 GB, 4-CH (-40 ~ 85° C) |

Note: X stands for different capacities

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### Features

- NGFF M.2 2280 SSD
- Interface: SATA III (6.0 Gbps)
- Support LDPC of ECC correct
- Shock resistance, anti-vibration and low power consumption
- GUI management tool & software API package
- Support hardware write protect

### Specifications

|                               |  |
|-------------------------------|--|
| Connect Type                  | NGFF B+M key   |
| Flash type                    | Ultra MLC / MLC  |
| Capacity                      | Ultra MLC: 8 to 512GB<br>MLC: 16 to 512GB, 1TB                   |
| Transfer Mode                 | SATA III (6.0 Gbps)  |
| Max. Power Consumption        | Read: 520 mA, Write: 800 mA                                      |
| Sustained R/W Performance (*) | Ultra MLC and MLC up to 560/495 MB/sec                           |
| Operating Temperature         | Commercial grade: 0 to +70° C<br>Industrial grade: -40 to +85° C |
| Shock Resistance              | 1,500 G, peak / 0.5 ms   |
| Vibration Resistance          | 20 G, peak / 80 ~ 2000 Hz  |
| Dimensions (mm)               | 80.0 x 22.0 x 3.8  |



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

### Ordering Information

| PN                | Description   |
|-------------------|---|
| SQF-SM8M2-XXG-SBC | SQFlash 640 series M.2 2280 16/32/64 GB MLC, 2-CH (0 ~ 70° C)               |
| SQF-SM8M2-XXG-SBE | SQFlash 640 series M.2 2280 16/32/64 GB MLC, 2-CH (-40 ~ 85° C)             |
| SQF-SM8M4-XX-SBC  | SQFlash 640 series M.2 2280 128/256/512 GB, 1TB MLC, 4-CH (0 ~ 70° C)       |
| SQF-SM8M4-XX-SBE  | SQFlash 640 series M.2 2280 128/256/512 GB, 1TB MLC, 4-CH (-40 ~ 85° C)     |
| SQF-SM8U2-XXG-SBC | SQFlash 640 series M.2 2280 8/16/32 GB Ultra MLC, 2-CH (0 ~ 70° C)          |
| SQF-SM8U2-XXG-SBE | SQFlash 640 series M.2 2280 8/16/32 GB Ultra MLC, 2-CH (-40 ~ 85° C)        |
| SQF-SM8U4-XX-SBC  | SQFlash 640 series M.2 2280 64/128/256/512 GB Ultra MLC, 4-CH (0 ~ 70° C)   |
| SQF-SM8U4-XX-SBE  | SQFlash 640 series M.2 2280 64/128/256/512 GB Ultra MLC, 4-CH (-40 ~ 85° C) |

## Looking for pricing, stock, or lifecycle information?

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