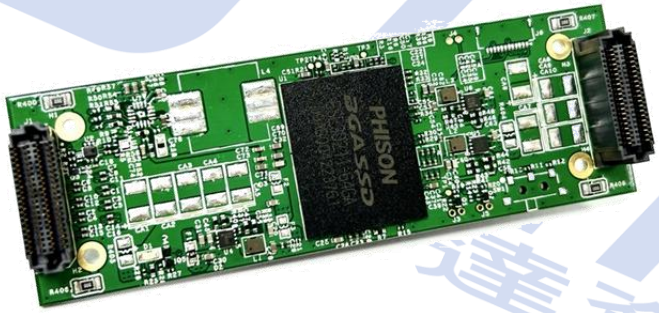
UD info Corp.

Industrial QMC PCIe SSD
QMC-SWDL Series
Product DataSheet



3F-4, No.8, Ln. 609, Sec. 5, Chongxin Rd., Sanchong Dist., New Taipei City 241, Taiwan (R.O.C.)
TEL: +886-2-7713-6050 FAX: +886-2-8511-3151
E-mail: sales@UDinfo.com.tw

Revision History

Revision	Draft Date	History	Author
	2026/3/4	Preliminary version	Golden Lee

Product Overview

- **Capacity**
  - 64GB up to 1TB
- **Form Factor**
  - QMC Single Wide
- **PCIe Interface**
  - PCIe Gen4 x4
  - NVMe 1.4
  - PCI Express Base 4.0
- **Performance**[Note1]
  - Seq. Read up to 4,900 MB/s
  - Seq. Write up to 4,300 MB/s
- **Power Consumption**[Note3]
  - Active mode (Max.): < TBD
  - Idle mode: < TBD
- **Power Management (Optional)**
  - PS0/PS1/PS2/PS3/PS4
  - Support APST
  - Support ASPM
  - Support L1.2 (<5mW)
- **Reliability**
  - MTBF > 2,000,000 hours
  - UBER < 1 sector per 10^{16} bits
  - DWPD > 0.6
  - TBW: Up to 1,341 TB
- **ECC**
  - LDPC (Low Density Parity Check)
  - RAID ECC
- **Temperature Range**[Note2]
  - Operation Temperature:
    - Standard: 0°C ~ 70°C
    - Wide: -40°C ~ 85°C
  - Storage Temperature: -40°C ~ 85°C
- **Environment Specification (TBD)**
  - Shock: $1500G_{0\text{-}P}$/0.5ms duration
  - Vibration: 20Hz~80Hz/1.52mm
    80Hz~2000Hz/$20G_{P\text{-}P}$
  - Drop: 80cm height/each face
  - Conflicting Material: Concrete floor
- **RoHS Compliant**
- **Features Support List**
  - SMART
  - Dynamic SLC Cache
  - HMB (Host Memory Buffer)
  - TCG OPAL 2.0[Note4] (option)
  - ETEDPP (End to End Data Path Protection)
  - Read Only Mode (End of Life)

Notes:

1. For more details on Performance, please refer to Chapter 2.3.
2. The operation temperature means NAND case temperature, which mechanism is described in Chapter 2.5.
3. For more details on Power Consumption, please refer to Chapter 4.2.
4. Supported by different production settings and firmware version.

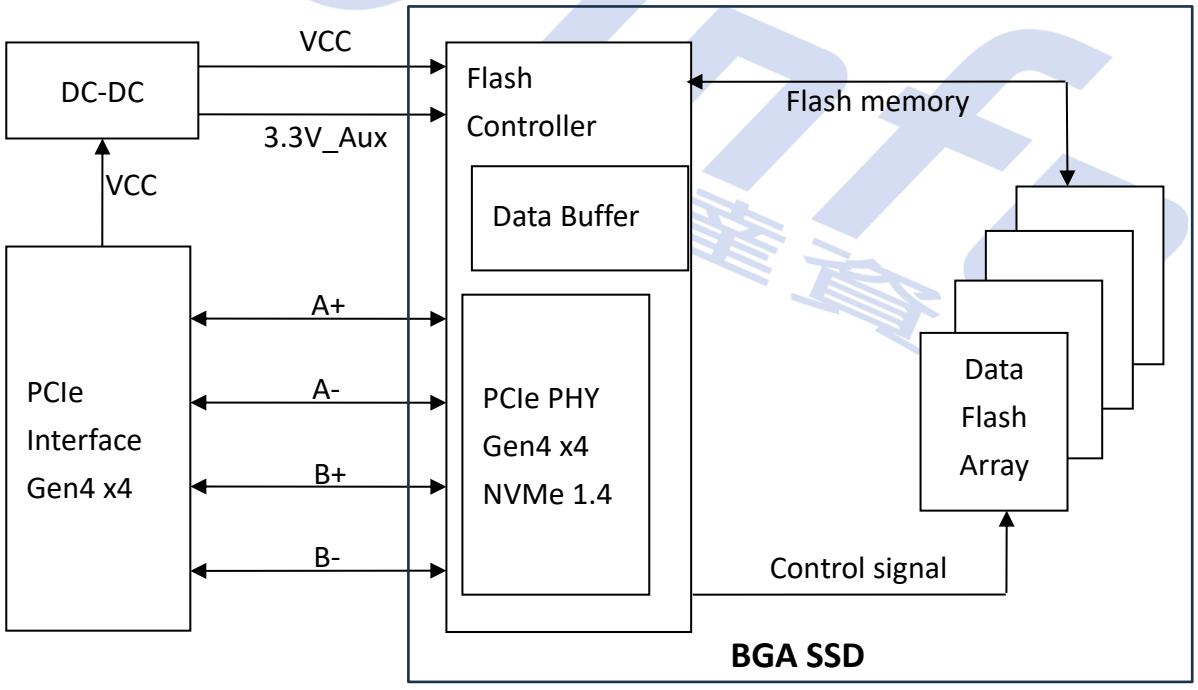
1. INTRODUCTION

1.1. General Description

This QMC Storage Module stands as the smallest and most reliable storage solution available for systems where space is at a premium and high performance is non-negotiable. Fully compliant with the VITA 93 standard, this module is specifically engineered to deliver enterprise-class throughput within an ultra-compact footprint. By leveraging a high-speed PCIe Gen4x4 interface, it ensures rapid data transfer and low latency, making it the ideal backbone for intensive edge computing and real-time data logging in the field.

Available in capacities ranging from 64GB to 1TB, the QMC provides scalable, high-density storage that does not compromise on resilience. It is IPMI Ready, allowing for sophisticated out-of-band health monitoring and thermal management essential for mission-critical reliability. Built with a signature ruggedized design, the module is qualified to survive extreme shock, vibration, and extended temperature ranges. For aerospace, defense, and industrial applications operating in the harshest environments, the QMC series offers the perfect balance of size, speed, and uncompromising durability.

1.2. Block Diagram



QMC PCIe SSD Block Diagram

2. PRODUCT SPECIFICATIONS

2.1. Product Specifications

- **Capacity**
  - 64GB up to 1TB
- **Electrical/Physical Interface**
  - PCIe Interface
  - PCI Express Base Ver 4.0
  - Compliant with NVMe 1.4
  - PCIe Gen4 x 4 lane & backward compatible to PCIe Gen3, Gen2 and Gen1
  - Support up to QD 128 with queue depth of up to 64K
  - PCI Express M.2 Specification Revision 4.0, Version 1.0

2.2. Device Capacity

Capacity	IDEMA Standard		User Data Size
	512Bytes/Sector	4KBytes/Sector	
	Total Sectors (LBA)	Total Sectors (LBA)	
64GB	125,045,424	15,630,678	Depended on file management
128GB	250,069,680	31,258,710	
256GB	500,118,192	62,514,774	
512GB	1,000,215,216	125,026,902	
1TB	2,000,409,264	250,051,158	

Notes:

1. 1 Gigabyte (GB) is equal to 1,000,000,000 Bytes; 1 sector is equal to 512 Bytes or 4K Bytes.
2. The calculation is following IDEMA Standard.
3. The total actual user data size of the SSD may be less than device capacity due to SSD format, SSD partition, operating system.

   EX: OS shows 238.47GB (NTFS) with 256GB SSD.

2.3. Performance

- **Burst Sequential Read/Write Performance (MB/s)**

Capacity	Flash Structure	Sequential (MB/s)		Random (IOPS)	
		Read	Write	Read	Write
64GB	Kioxia TLC, 64GB x1	TBD	TBD	TBD	TBD
128GB	Kioxia TLC, 64GB x2	TBD	TBD	TBD	TBD
256GB	Kioxia TLC, 64GB x4	TBD	TBD	TBD	TBD
512GB	Kioxia TLC, 64GB x8	TBD	TBD	TBD	TBD
1TB	Kioxia TLC, 64GB x16	TBD	TBD	TBD	TBD

Notes:

1. Performance may differ according to flash configuration, use condition, environment and platform.
2. Performance specification is under that Thermal Throttling has not worked yet.
3. Performance is measured with the follow conditions
   (a) OS Version: Win10 (64bit), version 1809
   (b) CPU: AMD Ryzen 7 5800X 8-Core Processor
   (c) CrystalDiskMark 7.0.0 with QD8T1, 1GB range for sequential read/write test
   (d) IOmeter v1.1.0 with QD32T16, 1GB range for 4KB random read/write test.
4. Measurement environment: Room temperature: 20~25℃, humidity: 40~60%RH, DC+3.3V condition.

3. ENVIRONMENTAL SPECIFICATIONS

3.1. Environmental Conditions (TBD)

3.1.1. Temperature Specification

	Mode	Min.	Max.	Unit
Temperature Ranges	Operation (Standard)	0	70	°C
	Operation (Wide)	-40	85	°C
	Storage	-40	85	°C
Humidity	Operation	5	90	%
	Storage	5	93	%
Temperature Cycle Test	Operation (Standard)	0	70	°C
	Operation (Wide)	-40	85	°C
	Storage	-40	85	°C

Notes:

The operation temperature means the case temperature. Airflow is suggested and it will allow device to be operated at appropriate temperature for each component during heavy workloads environment.

3.1.2. Mechanical Specification (TBD)

Items			Condition
Shock	Non-operational	Acceleration Force	1500G 0-p with half sine wave (0.5ms)
Vibration	Non-operational	Frequency/Displacement	20Hz~80Hz/1.52mm
		Frequency/Acceleration	80Hz~2000Hz/20G p-p with sine wave
Bending	Non-operational	≥ 20N	Hold 1min/5times
Drop	Non-operational	Height of Drop	80cm free fall
		Number of Drop	6 face of each unit
		Conflicting Material	Concrete floor

3.1.3. Electrostatic Discharge (ESD) (TBD)

Specification	+/- 4KV
EN 55035, CISPR 35 EN 61000-4-2 and IEC 61000-4-2	Device functions are affected, but EUT will be back to its normal or operational state automatically.

3.2. TBW (TeraBytes Written) and DWPD (Drive Write Per Day)

Capacity	TBW	DWPD
64GB	70	1
128GB	85	0.606
256GB	248	0.885
512GB	661	1.180
1TB	1,341	1.196

Notes:

1. TBW is measured by JEDEC Client 219A workload and calculated with PE count = 3000.
2. TBW may differ according to flash configuration and platform configuration.
3. DWPD is calculated based on 3-year lifetime.
4. DWPD = TBW / (365 x 3years x User capacity)
5. The SSD supports trim function. If Operation System does not support trim command, performance and TBW will be affected. (Like certain Windows OS, Linux kernel version before 2.6.33, other OS please refer to respective user manual)
6. The endurance of SSD could be estimated based on user behavior, NAND endurance cycles, and write amplification factor.

3.3. MTBF

MTBF, Mean Time between Failures, is a measure of reliability of a device. Its value represents the average time between a repair and the next failure. The unit of MTBF is in hours. The higher the MTBF value, the higher the reliability of the device.

Our MTBF result is based on simulation software (Relex 7.3). Please note that a lower MTBF should be expected for higher capacity drives, and we apply the lowest MTBF for all capacities.

Capacity	MTBF
64GB ~ 1TB	2 million hours

4. ELECTRICAL SPECIFICATIONS

4.1. Supply Voltage

Parameter	Rating
Operating Voltage	12V ± 5% 3.3V_Aux ± 5%
Rise Time (Max/Min)	100ms / 0.1ms
Fall Time (Max/Min)	5s / 10ms
Min. off Time[Note1]	1s

Notes:

1. Minimum time between power removed from SSD (Vcc < 100 mV) and power re-applied to the drive.
2. Ensure the voltage of each power domain in SSD has enough time to discharge less than 0.1V.

4.2. Power Consumption

Capacity	Read	Write	Idle
64GB	TBD	TBD	TBD
128GB	TBD	TBD	TBD
256GB	TBD	TBD	TBD
512GB	TBD	TBD	TBD
1TB	TBD	TBD	TBD

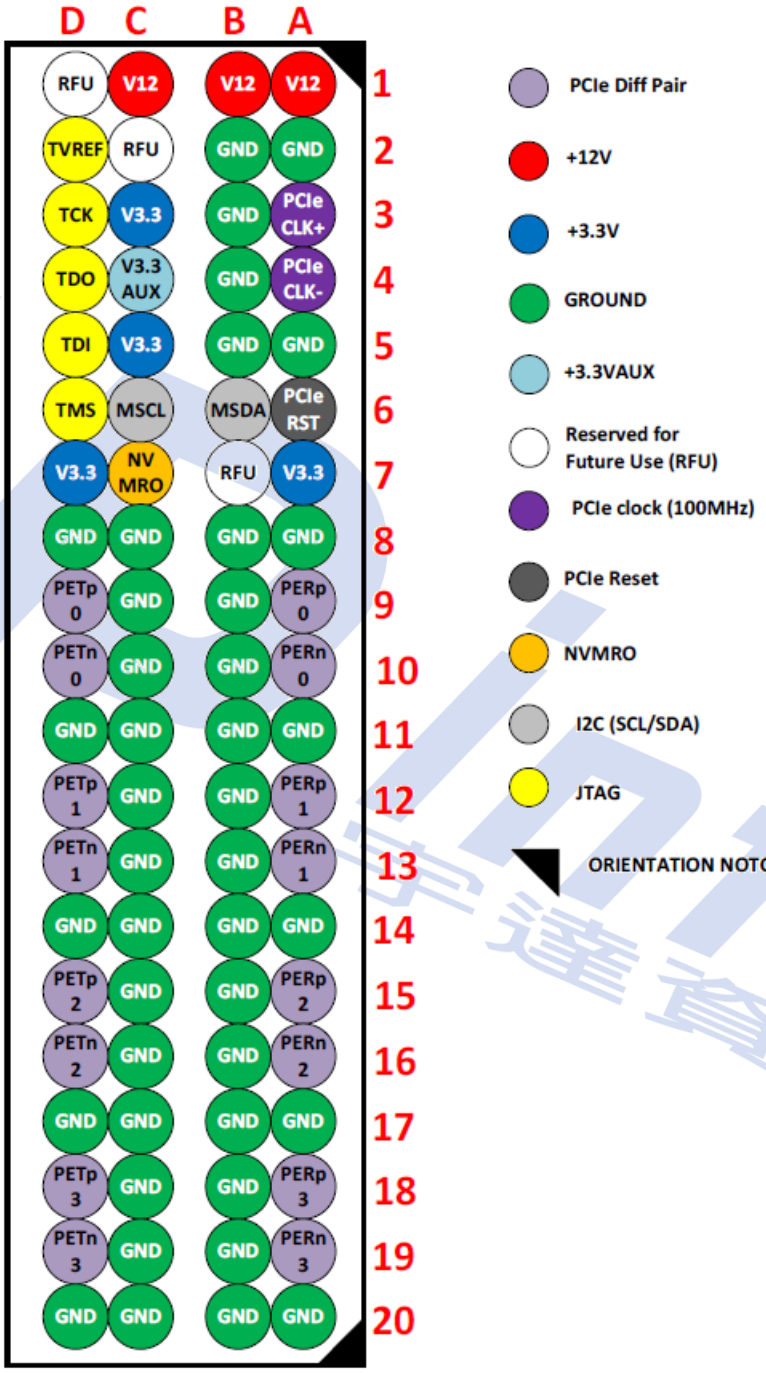
Unit: mW

Notes:

1. Use CrystalDiskMark 7.0.0 with the setting of 1GB. Sequentially read and write the disk for 5 times, and measure power consumption during sequential Read [1/5]~[5/5] or sequential Write [1/5]~[5/5].
2. The measured power voltage is 12V.
3. Idle power consumption is measured at idle state with no write/read operation.
4. It will not enter LPM (Low Power Mode) to avoid complex compatibility issues.
5. Power consumption may differ according to flash configuration, use condition, environment and platform.
6. Measurement environment: Room temperature: 20~25℃, humidity: 40~60%RH, DC+12V condition.

5. INTERFACE

5.1. Pin Assignment



5.2. Pin Descriptions

The follow table defines the details of the signal interfaces defined for the QMC Mezzanine Connectors.

Pin #	Signal	Description
A1	V12	+12V Power
A2	GND	Ground
A3	PCIe CLK+	100MHz PCIe Clock +
A4	PCIe CLK-	100MHz PCIe Clock -
A5	GND	Ground
A6	PCIe RST	PCI Express Reset
A7	V3.3	+3.3V Power
A8	GND	Ground
A9	PERp0	PCIe receive FROM QMC Carrier Lane 0+
A10	PERn0	PCIe receive FROM QMC Carrier Lane 0-
A11	GND	Ground
A12	PERp1	PCIe receive FROM QMC Carrier Lane 1+
A13	PERn1	PCIe receive FROM QMC Carrier Lane 1-
A14	GND	Ground
A15	PERp2	PCIe receive FROM QMC Carrier Lane 2+
A16	PERn2	PCIe receive FROM QMC Carrier Lane 2-
A17	GND	Ground
A18	PERp3	PCIe receive FROM QMC Carrier Lane 3+
A19	PERn3	PCIe receive FROM QMC Carrier Lane 3-
A20	GND	Ground
B1	V12	+12V Power
B2	GND	Ground
B3	GND	Ground
B4	GND	Ground
B5	GND	Ground
B6	MSDA	I2C Data
B7	RFU	Reserved
B8	GND	Ground
B9	GND	Ground
B10	GND	Ground
B11	GND	Ground

Pin #	Signal	Description
B12	GND	Ground
B13	GND	Ground
B14	GND	Ground
B15	GND	Ground
B16	GND	Ground
B17	GND	Ground
B18	GND	Ground
B19	GND	Ground
B20	GND	Ground
C1	V12	+12V Power
C2	RFU	Reserved
C3	V3.3	+3.3V Power
C4	V3.3 AUX	+3.3V Aux Power
C5	V3.3	+3.3V Power
C6	MSCL	I2C Clock
C7	NVMRO	Non-Volatile Memory Read Only (option)
C8	GND	Ground
C9	GND	Ground
C10	GND	Ground
C11	GND	Ground
C12	GND	Ground
C13	GND	Ground
C14	GND	Ground
C15	GND	Ground
C16	GND	Ground
C17	GND	Ground
C18	GND	Ground
C19	GND	Ground
C20	GND	Ground
D1	RFU	Reserved
D2	TVREF	JTAG TVREF / Present
D3	TCK	JTAG TCK
D4	TDO	JTAG TDO
D5	TDI	JTAG TDI
D6	TMS	JTAG TMS

Pin #	Signal	Description
D7	V3.3	+3.3V Power
D8	GND	Ground
D9	PETp0	PCIe transmit TO QMC Carrier Lane 0+
D10	PETn0	PCIe transmit TO QMC Carrier Lane 0-
D11	GND	Ground
D12	PETp1	PCIe transmit TO QMC Carrier Lane 1+
D13	PETn1	PCIe transmit TO QMC Carrier Lane 1-
D14	GND	Ground
D15	PETp2	PCIe transmit TO QMC Carrier Lane 2+
D16	PETn2	PCIe transmit TO QMC Carrier Lane 2-
D17	GND	Ground
D18	PETp3	PCIe transmit TO QMC Carrier Lane 3+
D19	PETn3	PCIe transmit TO QMC Carrier Lane 3-
D20	GND	Ground

6. SUPPORTED COMMANDS

6.1. NVMe Command List

Table 6-1 Admin Commands

Op-Code	Command Description
00h	Delete I/O Submission Queue
01h	Create I/O Submission Queue
02h	Get Log Page
04h	Delete I/O Completion Queue
05h	Create I/O Completion Queue
06h	Identify
08h	Abort
09h	Set Features
0Ah	Get Features
0Ch	Asynchronous Event Request
0Dh	Namespace Management
10h	Firmware Activate
11h	Firmware Image Download
14h	Device Self-test
15h	Namespace Attachment
18h	Keep Alive

Table 6-2 Admin Commands – NVM Command Set Specific

Op-Code	Command Description
80h	Format NVM
81h	Security Send
82h	Security Receive
84h	Sanitize

Table 6-3 NVM Commands

Op-Code	Command Description
00h	Flush
01h	Write
02h	Read
04h	Write Uncorrectable
05h	Compare
08h	Write Zeroes
09h	Dataset Management

6.2. Identify Device Command

The following table details the sector data returned by the IDENTIFY DEVICE command.

■ **Identify Controller Data Structure**

Bytes	O/M	Description	Default Value
01:00	M	PCI Vendor ID (VID)	0x1987
03:02	M	PCI Subsystem Vendor ID (SSVID)	0x1987
23:04	M	Serial Number (SN)	Serial Number
63:24	M	Model Number (MN)	Model Number
71:64	M	Firmware Revision (FR)	Firmware Name
72	M	Recommended Arbitration Burst (RAB)	0x04
75:73	M	IEEE OUI Identifier (IEEE)	Assigned by IEEE/RAC
76	O	Controller Multi-Path I/O and Namespace Sharing Capabilities (CMIC)	0x00
77	M	Maximum Data Transfer Size (MDTS)	0x06
79:78	M	Controller ID (CNTLID)	0x0000
83:80	M	Version (VER)	0x00010400
87:84	M	RTD3 Resume Latency (RTD3R)	0x000186A0
91:88	M	RTD3 Entry Latency (RTD3E)	0x004C4B40
95:92	M	Optional Asynchronous Events Supported (OAES)	0x00000000
99:96	M	Controller Attributes (CTRATT)	0x0002
101:100	O	Read Recovery Level support bitmap (RRLS)	0x00
110:102	-	Reserved	0x00
111	M	Controller Type, if support NVMe 1.4 shall be set to other than 0 (cntrltype)	0x01
127:112	O	FRU Globally Unique Identifier (FGUID[16])	0x00
129:128	O	Command Retry Delay Time 1 (CRDT1)	0x00
131:130	O	Command Retry Delay Time 2 (CRDT2)	0x00
133:132	O	Command Retry Delay Time 3 (CRDT3)	0x00
255:134	-	Reserved	0x00
257:256	M	Optional Admin Command Support (OACS)	0x0017
258	M	Abort Command Limit (ACL)	0x03
259	M	Asynchronous Event Request Limit (AERL)	0x07
260	M	Firmware Updates (FRMW)	0x12
261	M	Log Page Attributes (LPA)	0x1E
262	M	Error Log Page Entries (ELPE)	0xFE

Bytes	O/M	Description	Default Value
263	M	Number of Power States Support (NPSS)	0x04
264	M	Admin Vendor Specific Command Configuration (AVSCC)	0x01
265	O	Autonomous Power State Transition Attributes (APSTA)	0x01
267:266	M	Warning Composite Temperature Threshold (WCTEMP)	0x017D
269:268	M	Critical Composite Temperature Threshold (CCTEMP)	0x017F
271:270	O	Maximum Time for Firmware Activation (MTFA)	0x0064
275:272	O	Host Memory Buffer Preferred Size (HMPRE)	0x0
279:276	O	Host Memory Buffer Minimum Size (HMMIN)	0x0
295:280	O	Total NVM Capacity (TNVMCAP)	By capacity
311:296	O	Unallocated NVM Capacity (UNVMCAP)	0x00
315:312	O	Replay Protected Memory Block Support (RPMBS)	0x1F0002
317:316	O	Extended Device Self-test Time (EDSTT)	0x001E
318	O	Device Self-test Options (DSTO)	0x00
319	M	Firmware Update Granularity (FWUG)	0x04
321:320	M	Keep Alive Support (KAS)	0x0000
323:322	O	Host Controlled Thermal Management Attributes (HCTMA)	0x0001
325:324	O	Minimum Thermal Management Temperature (MNTMT)	0x0111
327:326	O	Maximum Thermal Management Temperature (MXTMT)	0x0170
331:328	O	Sanitize Capabilities (SANICAP)	0xA0000002
335:332	O	Host Memory Buffer Min. Descriptor Entry Size (hmminds)	0x400
337:336	O	Host Memory Maximum Descriptor Entries (hmmaxd)	0x10
339:338	O	NVM Set ID Maximum (nsetidmax)	0x00
341:340	O	Endurance Group ID Maximum (endgidmax)	0x00
342	O	ANA Maximum Transition Time (anatt)	0x00
343	O	Asymmetric Namespace Access Capabilities (ANACAP)	0x00
347:344	O	ANA Group ID Maximum (anagrpmax)	0x00

Bytes	O/M	Description	Default Value
351:348	O	Number of ANA Group IDs (nanagrpid)	0x00
355:352	O	Persistent Event Log Size (PELS)	0x60
511:356	-	Reserved	0x00
NVM Command Set Attributes			
512	M	Submission Queue Entry Size (SQES)	0x66
513	M	Completion Queue Entry Size (CQES)	0x44
515:514	M	Maximum Outstanding Commands (MAXCMD)	0x0100
519:516	M	Number of Namespaces (NN)	0x00000001
521:520	M	Optional NVM Command Support (ONCS)	0x00D7
523:522	M	Fused Operation Support (FUSES)	0x0000
524	M	Format NVM Attributes (FNA)	0x00
525	M	Volatile Write Cache (VWC)	0x07
527:526	M	Atomic Write Unit Normal (AWUN)	0xFF
529:528	M	Atomic Write Unit Power Fail (AWUPF)	0x00
530	M	NVM Vendor Specific Command Configuration (NVSCC)	0x01
531	M	Namespace Write Protection Capabilities (NWPC)	0x00
533:532	O	Atomic Compare & Write Unit (ACWU)	0x0000
535:534	-	Reserved	0x0000
539:536	O	SGL Support (SGLS)	0x00000000
543:540	O	Maximum Number of Allowed Namespace, if supports ANA Reporting shall not be 0 and less than NN (MNAN)	0x00
767:544	-	Reserved	0x00
IO Command Set Attributes			
1023:768	M	NVM Subsystem NVMe Qualified Name (SUBNQN)	nqn.2020-11.org.nvmexpress:uuid: (SN)
1791:1024	-	Reserved	0x00
2047:1792	-	Refer to the NVMe over Fabrics specification	0x00
2079:2048	M	Power State 0 Descriptor (PSD0)	0x00
2111:2080	O	Power State 1 Descriptor (PSD1)	0x00
2143:2112	O	Power State 2 Descriptor (PSD2)	0x00
2175:2144	O	Power State 3 Descriptor (PSD3)	0x00
2207:2176	O	Power State 4 Descriptor (PSD4)	0x00
2239:2208	O	Power State 5 Descriptor (PSD5)	0x00
2271:2240	O	Power State 6 Descriptor (PSD6)	0x00

Bytes	O/M	Description	Default Value
2303:2272	O	Power State 7 Descriptor (PSD7)	0x00
2335:2304	O	Power State 8 Descriptor (PSD8)	0x00
2367:2336	O	Power State 9 Descriptor (PSD9)	0x00
2399:2368	O	Power State 10 Descriptor (PSD10)	0x00
2431:2400	O	Power State 11 Descriptor (PSD11)	0x00
2463:2432	O	Power State 12 Descriptor (PSD12)	0x00
2495:2464	O	Power State 13 Descriptor (PSD13)	0x00
2527:2496	O	Power State 14 Descriptor (PSD14)	0x00
2559:2528	O	Power State 15 Descriptor (PSD15)	0x00
2591:2560	O	Power State 16 Descriptor (PSD16)	0x00
2623:2592	O	Power State 17 Descriptor (PSD17)	0x00
2655:2624	O	Power State 18 Descriptor (PSD18)	0x00
2687:2656	O	Power State 19 Descriptor (PSD19)	0x00
2719:2688	O	Power State 20 Descriptor (PSD20)	0x00
2751:2720	O	Power State 21 Descriptor (PSD21)	0x00
2783:2752	O	Power State 22 Descriptor (PSD22)	0x00
2815:2784	O	Power State 23 Descriptor (PSD23)	0x00
2847:2816	O	Power State 24 Descriptor (PSD24)	0x00
2879:2848	O	Power State 25 Descriptor (PSD25)	0x00
2911:2880	O	Power State26 Descriptor (PSD26)	0x00
2943:2912	O	Power State 27 Descriptor (PSD27)	0x00
2975:2944	O	Power State 28 Descriptor (PSD28)	0x00
3007:2976	O	Power State 29 Descriptor (PSD29)	0x00
3039:3008	O	Power State 30 Descriptor (PSD30)	0x00
3071:3040	O	Power State 31 Descriptor (PSD31)	0x00
3107:3072	O	Vendor Specific (VS)	0x00
3109:3108	O	PLP Supported	0x8001
4095:3110	O	Vendor Specific (VS)	0x00

Notes:

"O/M": O = Optional, M = Mandatory.

"-" : Not support

6.3. SMART Attributes

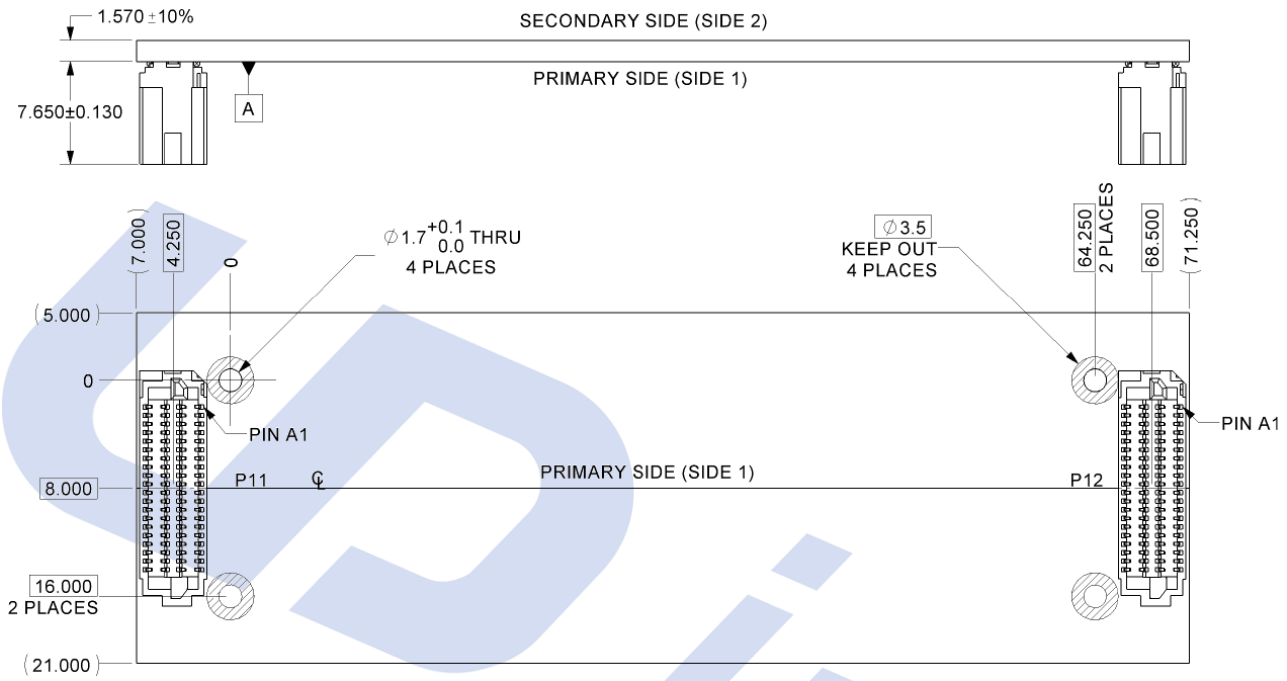
■ **SMART Attributes (Log Identifier 02h)**

Bytes Index	Bytes	Description
[0]	1	Critical Warning
[2:1]	2	Composite Temperature
[3]	1	Available Spare
[4]	1	Available Spare Threshold
[5]	1	Percentage Used
[31:6]	26	Reserved
[47:32]	16	Data Units Read
[63:48]	16	Data Units Written
[79:64]	16	Host Read Commands
[95:80]	16	Host Write Commands
[111:96]	16	Controller Busy Time
[127:112]	16	Power Cycles
[143:128]	16	Power On Hours
[159:144]	16	Unsafe Shutdowns
[175:160]	16	Media and Data Integrity Errors
[191:176]	16	Number of Error Information Log Entries
[195:192]	4	Warning Composite Temperature Time
[199:196]	4	Critical Composite Temperature Time
[201:200]	2	Temperature Sensor 1 (N/A)
[203:202]	2	Temperature Sensor 2 (N/A)
[205:204]	2	Temperature Sensor 3 (N/A)
[207:206]	2	Temperature Sensor 4 (N/A)
[209:208]	2	Temperature Sensor 5 (N/A)
[211:210]	2	Temperature Sensor 6 (N/A)
[213:212]	2	Temperature Sensor 7 (N/A)
[215:214]	2	Temperature Sensor 8 (N/A)
[219:216]	4	Thermal Management Temperature 1 Transition Count
[223:220]	4	Thermal Management Temperature 2 Transition Count
[227:224]	4	Total Time For Thermal Management Temperature 1
[231:228]	4	Total Time For Thermal Management Temperature 2
[511:232]	280	Reserved

7. PHYSICAL DIMENSION

- **Dimension: 78.25mm(L) x 26mm(W) x 9.35mm(H)**

Unit : mm



8. PART NUMBER DECODER

QMC-SWDL$X^8X^9X^{10}X^{11}X^{12}X^{13}X^{14}X^{15}X^{16}X^{17}$

$X^1X^2X^3$	X^4X^5	X^6X^7	X^8 X^9 X^{10} X^{11} X^{12}	X^{13}	X^{14}	X^{15}	$X^{16}X^{17}$
QMC	SW	DL	064GB 128GB 256GB 512GB 001TB	A: 3D TLC Standard (0ºC ~ +70ºC) B: 3D TLC Industrial (-40ºC ~ +85ºC)	F	U	blank