



MonTitan™ High Performance  
PCIe Gen5 Enterprise SSD  
Solution development platform



# SM8366 SSD Controller



- PCIe Gen5 x4, Dual Port
- NVMe 2.0
- OCP Data Center NVMe SSD 2.0
- Programmable Standard NVMe, HB-FTL, ZNS FW
- High Performance
  - 14GB/s Sequential I/O
  - Random Read/Write 3.0 / 2.8M 4K IOPS
- PerformaShape™ ASIC based QOS sets
- 16 Channels, 2400 MT/s
- NANDCommand™ maximizing Enterprise NAND performance

Form Factors: E1.S, E3.S, U.2



## SM8366

PCIe Gen5 x4 Dual Port Enterprise SSD Controller  
Supports latest 3D TLC and QLC NAND in Standard Form Factors

SM8366 with MICRON  
E3.S 3D TLC NAND

SM8366 with Micron  
E1.S 3D TLC NAND

SM8366 with Micron  
U.2 3D TLC NAND



• The new MonTitan™ series programmable PCIe Gen5 platform utilizing the SM8366 SSD controller  
• SSD controller receives 100MB/s PCIe Gen5 and 20000 IOPS which is comparable

# Enterprise Storage Solutions

**Product Overview**

**Enterprise SSDs**

- Gen4/5 NVMe
- OCs
- ZNS SSD

**Silicon Motion FlashGo NVMe AFA Solution**

- 2U24NVMe Dual-Node; Capacity up to 48NVMe by JBof
- Smart Flash 2TB/4TB/8TB, 16TB
- 400Gb x2 / 100Gb x2 NIC; iSCSI / NVMeof
- RAID 6 with Smart GC & 70% Usable Capacity
- Volume Management: Add / Delete / Extend / Thin-provision / Snapshot / Clone
- Multi-level Data Reduction: Inline / Back-group Compression & Deduplication
- Redundant Controller / PSU / Fan & Battery backup Copy-to-Flash
- Ease of Use Management: Web UI & RESTful

**The fully redundant hardware design**

**High Performance Data Center SSD with low latency QoS Control**

**PCIe NVMe SSD Gen4 SP4E/SP4X**

- PCIe Gen4 x4
- NVMe 1.4a
- Capacities: 2-8TB, Read Intensive & Mixed Work-Load
- Seq. Read/Write: up to 6,300/3,500 MB/s
- Ran. Read/Write IOPS: up to 900/340 K
- 7:3 R/W mix IOPS: 500K+
- Enterprise: End to End Data Protection, Reliability, PLP, Thermal Throttling

Shannon Systems

**Leading High Performance Data Center SSD with PerformaShape™**

**PCIe NVMe SSD Gen5 SP5-E/X**

- PCIe Gen5 x4
- NVMe 2.0
- OCP Datacenter NVMe SSD Spec 2.0
- Capacities: 4-32TB, Read Intensive & Mixed Work-Load
- Enterprise: End to End Data Protection, Reliability, PLP, Thermal Throttling
- Seq. Read: up to 14GB/s
- Ran. Read: up to 3M IOPS
- ES: Q1/2023, CS: Q3/2023

Shannon Systems

**High Performance AFA Solution**

**VirtualStor® FlashGo NVMe All-Flash Array**

- 2U24NVMe Dual-Node; Capacity up to 48NVMe by JBof
- NVMe SSD, Smart Flash 2TB/4TB
- 1.2M IOPS @ 0.5ms latency; 40Gb x2 / 100Gb x2 NIC; iSCSI target, FC and NVMeof
- RAID 6 with smart GC & 70% usable capacity
- Volume Management: Add / Delete / Extend / Thin-provision / Snapshot / Clone
- Inline / Compression & Deduplication
- Redundant Controller / PSU / Fan & Battery backup
- Copy-to-Flash
- Ease of Use Management: Web UI & RESTful

BIGTERA

**Single-Chip SSD Solutions for Boot Drives**

**PCIe NVMe FerriSSD**

- Small BGA form factor for on-board / module design
- Digital signed firmware for added boot security
- Full E2E data-path protection for robust data integrity
- Firmware customization for intended application
- 100% full range screening to achieve zero dPPM
- 3D TLC/MLC/SLC mode; up to 512GB
- Temperature Support:
  - Commercial : 0°C to 70°C
  - Industrial : -40°C to 85°C

SiliconMotion

• FerriSSD PCIe NVMe enterprise SSDs: Best-in-class performance and robust data protection for server and network appliance boot drive applications  
 • Shannon Systems 2023 solutions: PCIe NVMe SSD, Gen4/5 PCIe and PCIe NVMe SSD Gen4/5/6/7/8/9/10/11/12/13/14/15/16/17/18/19/20/21/22/23/24/25/26/27/28/29/30/31/32/33/34/35/36/37/38/39/40/41/42/43/44/45/46/47/48/49/50/51/52/53/54/55/56/57/58/59/60/61/62/63/64/65/66/67/68/69/70/71/72/73/74/75/76/77/78/79/80/81/82/83/84/85/86/87/88/89/90/91/92/93/94/95/96/97/98/99/100/101/102/103/104/105/106/107/108/109/110/111/112/113/114/115/116/117/118/119/120/121/122/123/124/125/126/127/128/129/130/131/132/133/134/135/136/137/138/139/140/141/142/143/144/145/146/147/148/149/150/151/152/153/154/155/156/157/158/159/160/161/162/163/164/165/166/167/168/169/170/171/172/173/174/175/176/177/178/179/180/181/182/183/184/185/186/187/188/189/190/191/192/193/194/195/196/197/198/199/200/201/202/203/204/205/206/207/208/209/210/211/212/213/214/215/216/217/218/219/220/221/222/223/224/225/226/227/228/229/230/231/232/233/234/235/236/237/238/239/240/241/242/243/244/245/246/247/248/249/250/251/252/253/254/255/256/257/258/259/260/261/262/263/264/265/266/267/268/269/270/271/272/273/274/275/276/277/278/279/280/281/282/283/284/285/286/287/288/289/290/291/292/293/294/295/296/297/298/299/300/301/302/303/304/305/306/307/308/309/310/311/312/313/314/315/316/317/318/319/320/321/322/323/324/325/326/327/328/329/330/331/332/333/334/335/336/337/338/339/340/341/342/343/344/345/346/347/348/349/350/351/352/353/354/355/356/357/358/359/360/361/362/363/364/365/366/367/368/369/370/371/372/373/374/375/376/377/378/379/380/381/382/383/384/385/386/387/388/389/390/391/392/393/394/395/396/397/398/399/400/401/402/403/404/405/406/407/408/409/410/411/412/413/414/415/416/417/418/419/420/421/422/423/424/425/426/427/428/429/430/431/432/433/434/435/436/437/438/439/440/441/442/443/444/445/446/447/448/449/450/451/452/453/454/455/456/457/458/459/460/461/462/463/464/465/466/467/468/469/470/471/472/473/474/475/476/477/478/479/480/481/482/483/484/485/486/487/488/489/490/491/492/493/494/495/496/497/498/499/500/501/502/503/504/505/506/507/508/509/510/511/512/513/514/515/516/517/518/519/520/521/522/523/524/525/526/527/528/529/530/531/532/533/534/535/536/537/538/539/540/541/542/543/544/545/546/547/548/549/550/551/552/553/554/555/556/557/558/559/560/561/562/563/564/565/566/567/568/569/570/571/572/573/574/575/576/577/578/579/580/581/582/583/584/585/586/587/588/589/590/591/592/593/594/595/596/597/598/599/600/601/602/603/604/605/606/607/608/609/610/611/612/613/614/615/616/617/618/619/620/621/622/623/624/625/626/627/628/629/630/631/632/633/634/635/636/637/638/639/640/641/642/643/644/645/646/647/648/649/650/651/652/653/654/655/656/657/658/659/660/661/662/663/664/665/666/667/668/669/670/671/672/673/674/675/676/677/678/679/680/681/682/683/684/685/686/687/688/689/690/691/692/693/694/695/696/697/698/699/700/701/702/703/704/705/706/707/708/709/710/711/712/713/714/715/716/717/718/719/720/721/722/723/724/725/726/727/728/729/730/731/732/733/734/735/736/737/738/739/740/741/742/743/744/745/746/747/748/749/750/751/752/753/754/755/756/757/758/759/760/761/762/763/764/765/766/767/768/769/770/771/772/773/774/775/776/777/778/779/780/781/782/783/784/785/786/787/788/789/790/791/792/793/794/795/796/797/798/799/800/801/802/803/804/805/806/807/808/809/810/811/812/813/814/815/816/817/818/819/820/821/822/823/824/825/826/827/828/829/830/831/832/833/834/835/836/837/838/839/840/841/842/843/844/845/846/847/848/849/850/851/852/853/854/855/856/857/858/859/860/861/862/863/864/865/866/867/868/869/870/871/872/873/874/875/876/877/878/879/880/881/882/883/884/885/886/887/888/889/890/891/892/893/894/895/896/897/898/899/900/901/902/903/904/905/906/907/908/909/910/911/912/913/914/915/916/917/918/919/920/921/922/923/924/925/926/927/928/929/930/931/932/933/934/935/936/937/938/939/940/941/942/943/944/945/946/947/948/949/950/951/952/953/954/955/956/957/958/959/960/961/962/963/964/965/966/967/968/969/970/971/972/973/974/975/976/977/978/979/980/981/982/983/984/985/986/987/988/989/990/991/992/993/994/995/996/997/998/999/1000/1001/1002/1003/1004/1005/1006/1007/1008/1009/1010/1011/1012/1013/1014/1015/1016/1017/1018/1019/1020/1021/1022/1023/1024/1025/1026/1027/1028/1029/1030/1031/1032/1033/1034/1035/1036/1037/1038/1039/1040/1041/1042/1043/1044/1045/1046/1047/1048/1049/1050/1051/1052/1053/1054/1055/1056/1057/1058/1059/1060/1061/1062/1063/1064/1065/1066/1067/1068/1069/1070/1071/1072/1073/1074/1075/1076/1077/1078/1079/1080/1081/1082/1083/1084/1085/1086/1087/1088/1089/1090/1091/1092/1093/1094/1095/1096/1097/1098/1099/1100/1101/1102/1103/1104/1105/1106/1107/1108/1109/1110/1111/1112/1113/1114/1115/1116/1117/1118/1119/1120/1121/1122/1123/1124/1125/1126/1127/1128/1129/1130/1131/1132/1133/1134/1135/1136/1137/1138/1139/1140/1141/1142/1143/1144/1145/1146/1147/1148/1149/1150/1151/1152/1153/1154/1155/1156/1157/1158/1159/1160/1161/1162/1163/1164/1165/1166/1167/1168/1169/1170/1171/1172/1173/1174/1175/1176/1177/1178/1179/1180/1181/1182/1183/1184/1185/1186/1187/1188/1189/1190/1191/1192/1193/1194/1195/1196/1197/1198/1199/1200/1201/1202/1203/1204/1205/1206/1207/1208/1209/1210/1211/1212/1213/1214/1215/1216/1217/1218/1219/1220/1221/1222/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# PCIe Gen4 SSD Controllers Optimizes Performance and Power Consumption for PC/Laptop

## SM2264

Gen4-8channel

- 8-Channel up to 16TB (1600MT/s)
- Seq. Read: 7.5 GB/s
- Seq. Write: 7 GB/s
- Ran. Read: 1,300K IOPS
- Ran. Write: 1,200K IOPS
- 3D TLC/QLC supported

## SM2268XT

Gen4-4channel

- 4-Channel up to 4TB (3200MT/s)
- Seq. Read: 7.4 GB/s
- Seq. Write: 6.5 GB/s
- Ran. Read: 1,200K IOPS
- Ran. Write: 1,200K IOPS
- 3D TLC/QLC supported

## SM2269XT

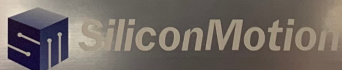
Gen4-4channel

- 4-Channel up to 4TB (1600MT/s)
- Seq. Read: 5.1 GB/s
- Seq. Write: 4.7 GB/s
- Ran. Read: 900K IOPS
- Ran. Write: 900K IOPS
- 3D TLC/QLC supported

## SM2267/XT

Gen4-4channel

- 4-Channel up to 4TB (1200MT/s)
- Seq. Read: 3.9 GB/s
- Seq. Write: 3.1 GB/s
- Ran. Read: 500K IOPS
- Ran. Write: 500K IOPS
- 3D TLC supported



• SM2264 Gen4 x 8 Channel, 8 MWD Channels up to 16TB (1600MT/s) designed for ultrahigh performance & gaming desktop PCs  
 • SM2268XT Gen4 x 4 Channel, 4 Channels up to 4TB (3200MT/s) designed for ultrahigh performance desktop PCs  
 • SM2269XT Gen4 x 4 Channel, 4 Channels up to 4TB (1600MT/s) designed for ultrahigh performance desktop PCs  
 • SM2267 Gen4 x 4 Channel, 4 Channels up to 4TB (1200MT/s) for ultrahigh performance desktop PCs  
 • SM2267XT Gen4 x 4 Channel, 4 Channels up to 4TB (1200MT/s) for value desktop PCs

Register to B2B and B2C accounts suitable for Automotive/Industrial applications

