

Exhibit B: Infringement of U.S. Patent No. 11,907,553 – 7/6/2026

The Accused Instrumentalities consist of Samsung's Solid State Drives ("SSDs") that support Flexible Data Placement (FDP) and and/or NVMe 2.1 and associated software and firmware. For example, this includes but is not limited to, Samsung's PM9D3 and PM1763. The Accused Instrumentalities infringe claims 1-4 and 9-12 ("the Asserted Claims") of U.S. Patent No. 11,907,553 ("the '553 patent") in at least the following exemplary ways.

Samsung infringes the Asserted Claims under 35 U.S.C. § 271(a) by making, using, selling, and/or offering for sale the Accused Instrumentalities in the United States.

These infringement contentions are provided based on information obtained to date and may not be exhaustive. Gaea's investigation of Samsung's infringement is ongoing. Gaea reserves the right to seek to supplement and/or amend these disclosures to identify additional accused instrumentalities and/or to further identify where each element of each asserted claim is found in each accused instrumentality, including on the basis of discovery obtained from Samsung and from third parties during the course of this litigation.

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'553 Patent Claim 1	'553 Patent Accused Instrumentalities
1[P] An apparatus comprising:	The Samsung Accused Instrumentalities are an apparatus. For example, the Accused Instrumentalities include SSDs which are devices or systems.
1[A] a solid-state memory;	<p>The Samsung Accused Instrumentalities comprise a solid-state memory, including for example, non-volatile flash memory.</p> <p>As described for '023 Patent claim limitation 1[A] and 14[A], incorporated here by reference, the Samsung SSDs include storage media in the form of a sold-state memory.</p>
1[B] a device memory;	<p>The Samsung Accused Instrumentalities comprise a device memory.</p> <p>For example, Samsung describes¹ firmware that contains control program and is described as “a kind of digital repository”. The location of the control program in firmware would be device memory. Further, upon information and belief, the “embedded microcontroller” described for limitation 1[C] would also include device memory that would store, for example, program instructions.</p> <p>The three most crucial components of any SSD are the NAND flash memory, the controller, and the firmware. The first does the critical task of storing your precious data; the second two work together to accomplish the complex and equally essential tasks of managing data storage and maintaining the performance and lifespan of the SSD. Using the control program contained in the drive firmware, the controller (an embedded microchip) executes automated signal processing, wear-leveling, Error Correcting Code (ECC), bad block management, and garbage collection algorithms, communicates with the host device (e.g. a PC), and facilitates data encryption, among other tasks. Redundantly stored in NAND flash, the firmware may be updated manually to improve or extend functionality when the SSD manufacturer releases an update.</p>

¹ Samsung Solid State Drive White Paper, available at https://download.semiconductor.samsung.com/resources/white-paper/Samsung_SSD_White_Paper.pdf, at pg 30.

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	<p>The NAND flash itself is a kind of digital repository, while the controller functions as the command center for everything the SSD does – from actually reading and writing data to executing the Garbage Collection and wear-leveling algorithms that keep the drive clean and speedy. Thus, the firmware, which drives the controller, is arguably the most important component of a good SSD because it delivers the largest difference among branded SSDs in terms of performance, reliability, and endurance (lifespan). Developing good firmware requires precise engineering skills and painstaking integration among the NAND flash, controller, DRAM and other SSD components. Intimate knowledge of NAND characteristics, semiconductor process technologies, and controller characteristics must go hand-in-hand. Samsung represents one of the few manufacturers that designs all of these components in-house; and, among those who do, Samsung enjoys the most experience (with over 6 years as the number one supplier in the preinstalled SSD market).</p>
1[C] a programmable processor operatively coupled to the device memory;	<p>The Samsung Accused Instrumentalities comprise a programmable processor operatively coupled to the device memory.</p> <p>As described for '023 Patent claim limitation 1[B], incorporated here by reference, the Samsung SSDs include a programmable processor in the form of software and hardware components.</p> <p>For example, Samsung describes² an “embedded microcontroller” that uses the control program contained in the drive firmware. Thus, Samsung Accused Instrumentalities included a programmable processor and the programmable processor is operatively coupled to the device memory.</p> <p>The three most crucial components of any SSD are the NAND flash memory, the controller, and the firmware. The first does the critical task of storing your precious data; the second two work together to accomplish the complex and equally essential tasks of managing data storage and maintaining the performance and lifespan of the SSD. Using the control program contained in the drive firmware, the controller (an embedded microchip) executes automated signal processing, wear-leveling, Error Correcting Code (ECC), bad block management, and garbage collection algorithms, communicates with the host device (e.g. a PC), and facilitates data encryption, among other tasks. Redundantly stored in NAND flash, the firmware may be updated manually to improve or extend functionality when the SSD manufacturer releases an update.</p>
1[D] a device controller	<p>The Samsung Accused Instrumentalities comprise a device controller operatively coupled with the solid-state memory and the programmable processor.</p>

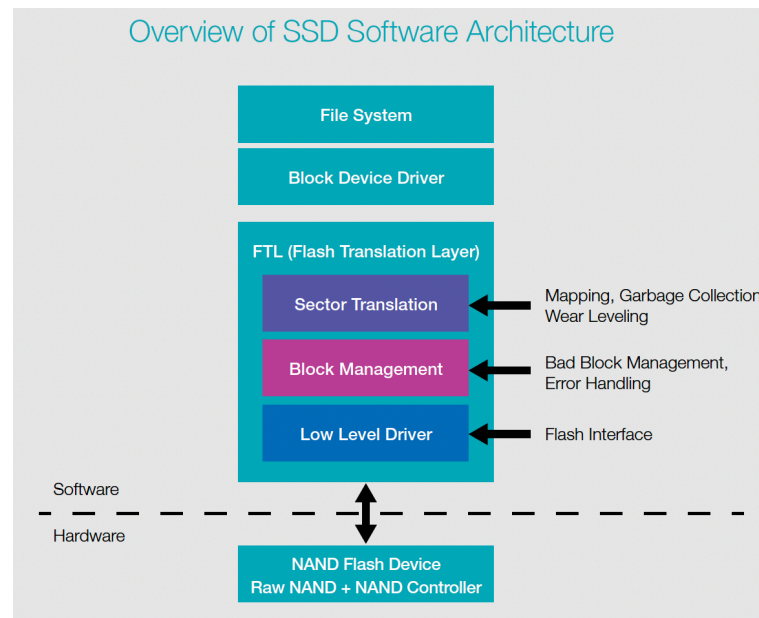
² Samsung Solid State Drive White Paper, available at, https://download.semiconductor.samsung.com/resources/white-paper/Samsung_SSD_White_Paper.pdf at pg 30.

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operatively coupled with the solid-state memory and the programmable processor; and

As described for '023 Patent claim limitation 1[B], incorporated here by reference, the Samsung SSDs include a device controller that interfaces with the storage media and is operatively coupled to the programmable processor in the form of software and hardware components.

For example, Samsung describes³ a device controller that consists of Software and Hardware components with the Hardware components including a hardware NAND Controller that is operatively coupled with the solid-state memory (e.g., NAND Flash Device Raw NAND) and the programmable processor (e.g., Software portions of the SSD Software Architecture) as shown below:

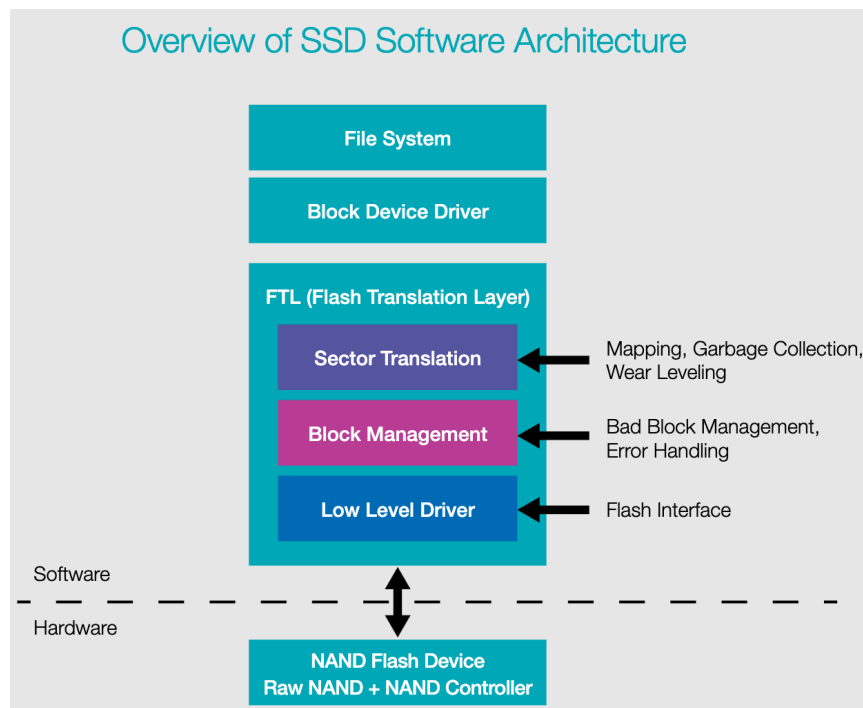


³ Samsung White Paper “Power Loss Protection in SSDs”, available at https://image-us.samsung.com/SamsungUS/b2b/resource/2016/07/08/b2b_resource_WHP-SSD-POWERLOSSPROTECTION-r1-JUL16J.pdf, at pg 3.

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1[E] an application stored on the device memory and comprising instructions that, when executed by the programmable processor, direct the programmable processor to at least:

The Samsung Accused Instrumentalities comprise an application stored on the device memory and comprising instructions that, when executed by the programmable processor, direct the programmable processor to at least do the limitations described below.



As shown above⁴, the Accused Instrumentalities Software application comprises instructions that, when executed by the programmable processor, perform various functions. For example, one Software component is the Flash Translation Layer which includes mapping, garbage collection and wear levelling functionality. Further, in another example, a Software component manages Hardware, such as the NAND device controller.

⁴ Samsung White Paper “Power Loss Protection in SSDs”, available at https://image-us.samsung.com/SamsungUS/b2b/resource/2016/07/08/b2b_resource_WHP-SSD-POWERLOSSPROTECTION-r1-JUL16J.pdf, at pg. 3.

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1[E1] in response to receiving a storage request comprising content, retrieve a storage device policy from the device memory;	<p>The Samsung Accused Instrumentalities comprise an application stored on the device memory and comprising instructions that, when executed by the programmable processor, direct the programmable processor to in response to receiving a storage request comprising content, retrieve a storage device policy from the device memory.</p> <p>As described for '023 Patent claim limitation 1[B1], incorporated here by reference, the Samsung SSDs include receiving a storage device policy from the host. Upon information and belief, the storage device policy from the host is stored in the device memory.</p> <p>As described for '023 Patent claim limitation 1[B2], incorporated here by reference, the Samsung SSDs include receiving a storage request from the host to store content. Upon information and belief, as part of the write command, the Samsung SSDs retrieve a storage device policy from the device memory.</p>
1[E2] process the content for storage based on the storage device policy; and	<p>The Samsung Accused Instrumentalities comprise an application stored on the device memory and comprising instructions that, when executed by the programmable processor, direct the programmable processor to process the content for storage based on the storage device policy.</p> <p>As an example, the NVMe 2.1 specification includes protocols for FDP that includes storing the content on the storage media based on by the at least one storage device policy⁵:</p>

⁵ See, e.g., NVMe 2.1 Base Specification at §§ 8.1.10.1, 8.1.10.3; NVMe Command Set Specification at § 3.3.6.

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8.1.10.3 Write Commands using Flexible Data Placement (Informative)

Hosts writing user data to a namespace created in an Endurance Group that has Flexible Data Placement enabled have two mechanisms for specifying the placement of the user data with the Endurance Group to the controller.

1. Each namespace has a default Placement Handle. If any write command:
 - a. has the DTYPE field being ignored by the controller (refer to section 8.1.8.4); or
 - b. has the DTYPE field not being ignored by the controller and specifies a DTYPE field value cleared to 00h,then the Placement Handle value of 0h for the specified namespace is combined with a Reclaim Group selected by the controller to create the Placement Identifier (refer to Figure 282 and Figure 283) utilized for that write command.
2. If any write command has the DTYPE field not being ignored by the controller and specifies a DTYPE field set to Data Placement (i.e., 02h) and specifies a namespace in which the Data Placement Directive is enabled, then the Placement Identifier specified by the DSPEC field specifies the Reclaim Group Identifier and Placement Handle used for the write command.

To reduce write amplification, hosts track the user data written to an entire Reclaim Unit and deallocate that user data by issuing one or more Dataset Management commands specifying the AD bit set to '1' and one or more Range fields specifying the LBA ranges that were written to that Reclaim Unit.

3.3.6 Write command

The Write command writes data and metadata, if applicable, to the I/O controller for the logical blocks indicated. The host may also specify protection information to include as part of the operation.

The command uses Command Dword 2, Command Dword 3, Command Dword 10, Command Dword 11, Command Dword 12, Command Dword 13, Command Dword 14, and Command Dword 15 fields. If the command uses PRPs for the data transfer, then the Metadata Pointer, PRP Entry 1, and PRP Entry 2 fields are used. If the command uses SGLs for the data transfer, then the Metadata SGL Segment Pointer and SGL Entry 1 fields are used.

Figure 67: Write – Data Pointer

Bits	Description
127:00	Data Pointer (DPTR): This field specifies the location of a data buffer where data is transferred from. Refer to the Common Command Format figure in the NVM Express Base Specification for the definition of this field.

Figure 69: Write – Command Dword 10 and Command Dword 11

Bits	Description
63:00	Starting LBA (SLBA): This field indicates the 64-bit address of the first logical block to be written as part of the operation. Command Dword 10 contains bits 31:00; Command Dword 11 contains bits 63:32.

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	Figure 71: Write – Command Dword 13 if CETYPE is cleared to 0h	
	Bits	Description
	31:16	Directive Specific (DSPEC): Specifies the Directive Specific value associated with the Directive Type field (refer to the Directives section in the NVM Express Base Specification).
	15:08	Reserved
As shown above, the Accused Instrumentalities store content based on the recording method indicated by the at least one storage device policy, for example, including the command described in NVMe 2.1 Base Specification § 8.1.10.3 and NVMe Command Set Specification at § 3.3.6, which requests that the Accused Instrumentalities write and store content, for example, indicated in the DPTR field at the LBA indicated in the SLBA field using the FDP storage policy indicated by the DSPEC field.		

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WHY SSDs NEED POWER LOSS PROTECTION

When the host operating system (OS) sends an IO write command to the SSD, the data is first received and processed by the SSD controller. The data is then moved to the volatile DRAM cache to improve performance and perform write optimization, after which data is eventually written to non-volatile NAND. While NAND is non-volatile and thus data in it is protected against power losses, the data that has yet to reach NAND is vulnerable and subject to corruption in case of an unexpected power loss.

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graph LR; Host[Host] -- "Write IO" --> SSD[SSD Controller]; SSD --> DRAM[DRAM]; DRAM --> NAND[NAND];
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The Journey of Data Inside an SSD

Usually SSDs send an acknowledgement to the OS that the data has been written once it has been committed to DRAM. In other words, the OS considers that the data is now safe, even though it hasn't been written to NAND yet. The reason why SSDs use DRAM for write IO caching is because NAND can only be programmed at the page-level (typically 8KB or 16KB in modern NAND), so write IOs need to be combined for optimal performance and endurance. Otherwise, for example a common 4KB write, would have to be written to NAND as 8KB or 16KB depending on the page size, which would seriously reduce endurance and performance.

As shown above⁶, the Accused Instrumentalities application comprising instructions that, when executed by the programmable processor, processes the content for storage. For example, “[t]he data is first received and processed by the SSD controller.” As an example, a processing function is when “[d]ata is then moved to the volatile DRAM cache to improve performance.” Further, another example processing function is to “[p]erform write optimization” so that “[w]rite IOs need to be combined for optimal performance and endurance.”

⁶ Samsung White Paper “Power Loss Protection in SSDs”, available at https://image-us.samsung.com/SamsungUS/b2b/resource/2016/07/08/b2b_resource_WHP-SSD-POWERLOSSPROTECTION-r1-JUL16J.pdf, at pgs 2-3.

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1[E3] transfer the content to the device controller; and	<p>The Samsung Accused Instrumentalities comprise an application stored on the device memory and comprising instructions that, when executed by the programmable processor, direct the programmable processor to transfer the content to the device controller.</p> <p>As shown below in Samsung documentation⁷, the Samsung SSDs transfer the cached content in the volatile DRAM via the FTL application Software. For example, “[d]ata is eventually written to non-volatile NAND” by transferring from the FTL application Software to the Hardware NAND device controller:</p>
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⁷ Samsung White Paper “Power Loss Protection In SSDs”, available at https://image-us.samsung.com/SamsungUS/b2b/resource/2016/07/08/b2b_resource_WHP-SSD-POWERLOSSPROTECTION-r1-JUL16J.pdf, at pgs 2-3.

WHY SSDs NEED POWER LOSS PROTECTION

When the host operating system (OS) sends an IO write command to the SSD, the data is first received and processed by the SSD controller. The data is then moved to the volatile DRAM cache to improve performance and perform write optimization, after which data is eventually written to non-volatile NAND. While NAND is non-volatile and thus data in it is protected against power losses, the data that has yet to reach NAND is vulnerable and subject to corruption in case of an unexpected power loss.

Usually SSDs send an acknowledgement to the OS that the data has been written once it has been committed to DRAM. In other words, the OS considers that the data is now safe, even though it hasn't been written to NAND yet. The reason

why SSDs use DRAM for write IO caching is because NAND can only be programmed at the page-level (typically 8KB or 16KB in modern NAND), so write IOs need to be combined for optimal performance and endurance. Otherwise, for

example a common 4KB write, would have to be written to NAND as 8KB or 16KB depending on the page size, which would seriously reduce endurance and performance.

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graph LR; Host[Host] -- "Write IO" --> SSD[SSD Controller]; SSD --> DRAM[DRAM]; DRAM --> NAND[NAND];
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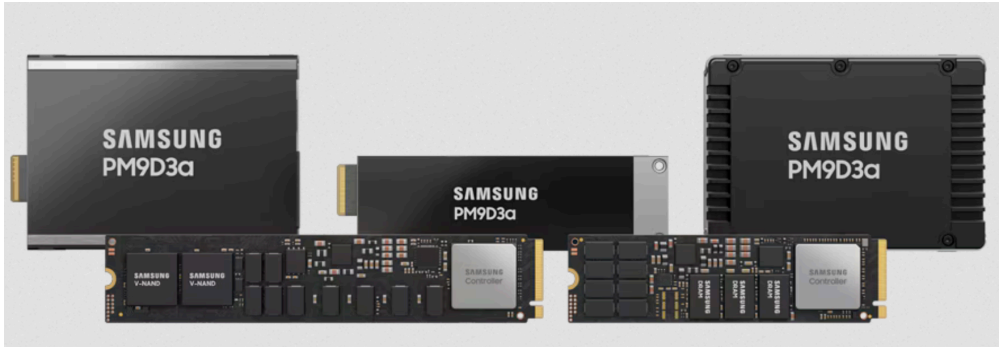
The diagram illustrates the data flow within an SSD. It starts with a 'Host' box on the left, which sends a 'Write IO' signal to an 'SSD Controller' box. The 'SSD Controller' is part of a larger light blue box representing the SSD. Inside this box, the data then moves to a 'DRAM' box, and finally to a 'NAND' array represented by a grid of eight 'NAND' boxes.

The Journey of Data Inside an SSD

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	<p style="text-align: center;">Overview of SSD Software Architecture</p> <pre> graph TD FS[File System] --> BDD[Block Device Driver] BDD --> FTL[FTL Flash Translation Layer] subgraph FTL ST[Sector Translation] BM[Block Management] LLD[Low Level Driver] end ST --> ST_Func[Mapping, Garbage Collection, Wear Leveling] BM --> BM_Func[Bad Block Management, Error Handling] LLD --> LI[Flash Interface] FTL <--> Software/Hardware Boundary NFD[NAND Flash Device Raw NAND + NAND Controller] style FTL fill:#008080,color:#fff style NFD fill:#008080,color:#fff </pre> <p>The diagram illustrates the SSD software architecture. It is divided into two main sections by a dashed line: Software (top) and Hardware (bottom). The software stack consists of the File System, Block Device Driver, and the FTL (Flash Translation Layer). The FTL is further divided into three sub-layers: Sector Translation (responsible for Mapping, Garbage Collection, and Wear Leveling), Block Management (responsible for Bad Block Management and Error Handling), and the Low Level Driver (responsible for the Flash Interface). The hardware layer consists of the NAND Flash Device, which includes Raw NAND and the NAND Controller. A bidirectional arrow connects the Low Level Driver to the NAND Flash Device.</p>
<p>1[F] the device controller configured to: receive the content from the programmable processor and store the content on the solid-state memory.</p>	<p>The Samsung Accused Instrumentalities comprise the device controller configured to receive the content from the programmable processor and store the content on the solid-state memory.</p> <p>As described for '023 Patent claim limitations 1[B3], incorporated here by reference, the Samsung SSDs include a device controller that stores the content in the storage media in the form of a solid-state memory.</p> <p>Here, the device controller, identified above for 1[D], is configured to receive content from the programmable processor, identified above for 1[C], and store the content on the solid-state memory.</p>

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'553 Patent Claim 2	'553 Patent Accused Instrumentalities
<p>2[A] The apparatus of claim 1 further comprising an interface connector that communicatively couples the solid-state memory, the device controller, the programmable processor, and the device memory to a host computer.</p>	<p>The Samsung Accused Instrumentalities include an interface connector that communicatively couples the solid-state memory, the device controller, the programmable processor, and the device memory to a host computer.</p> <p>Samsung public documentation indicates that the Samsung SSDs, including but not limited to the Samsung PM9D3 SSD contains NAND and/or V-NAND, a Samsung Controller integrated circuit, and memory used by the controller integrated circuit⁸ and shows an interface connector that couples the components to a host computer as shown in the image below:</p>  <p>As another example, Samsung documentation describes the Samsung device as supporting PCIe⁹:</p>

⁸ <https://image.semiconductor.samsung.com/image/samsung/p6/semiconductor/products/pf-layout/spec-ssd-dcssd-pm9d3a.png> (showing “Samsung V-NAND”)

⁹ <https://semiconductor.samsung.com/news-events/tech-blog/samsung-pm9d3a-solid-state-drive/>

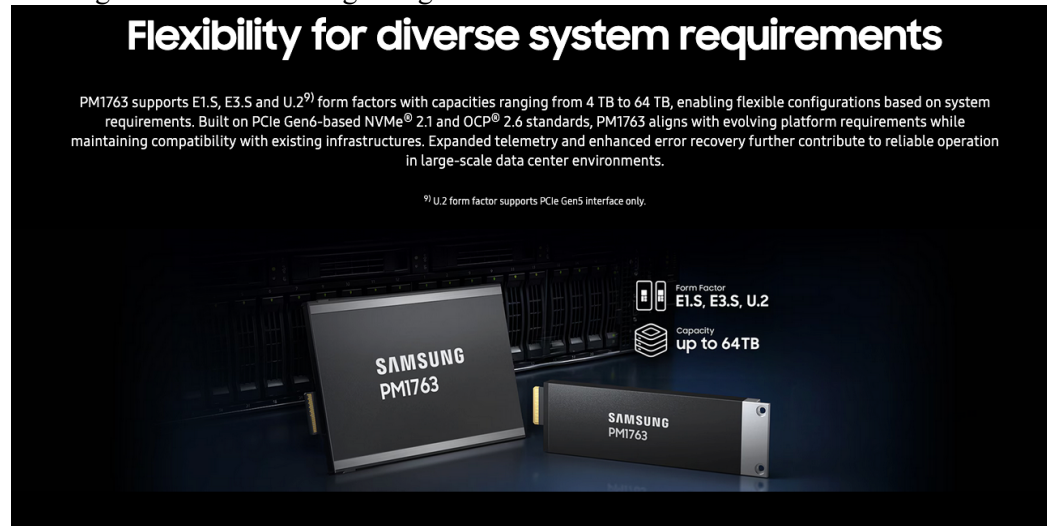
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PM9D3a Features and Benefits

Best in Class Performance

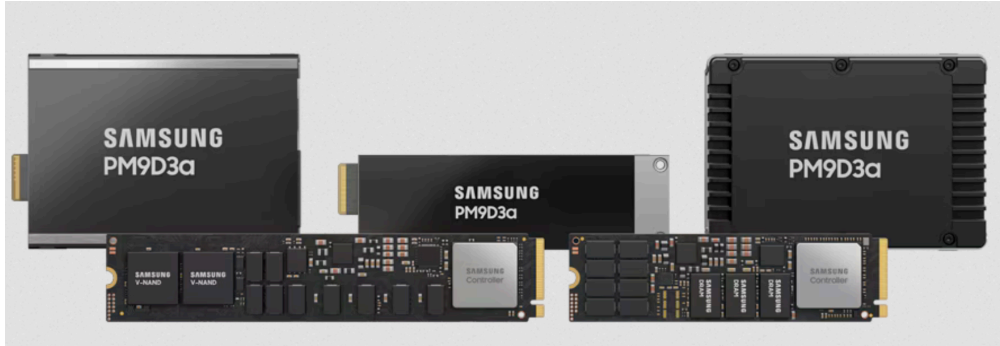
The PM9D3a features a Storage Networking Industry Association (SNIA) based 2.5" form factor with full PCIe Gen5 support. This device is able to harness the production efficiencies of Samsung's eighth-generation three-bit V-NAND technology to boost random read speeds up to 2.4 times. Sequential read and write speeds can reach 12,000MB/s and 6,800MB/s respectively. With random reads up to 2,000K IOPS, random writes up to 400K IOPS, and a 15.36TB capacity, the PM9D3a is one of the highest-performing SSDs in the industry. These maximum speeds are based on the U.2/E3.S form factors.

Likewise, Samsung documentation¹⁰ regarding the PM1763 shows the same:



¹⁰ <https://semiconductor.samsung.com/ssd/enterprise-ssd/pm1763/>

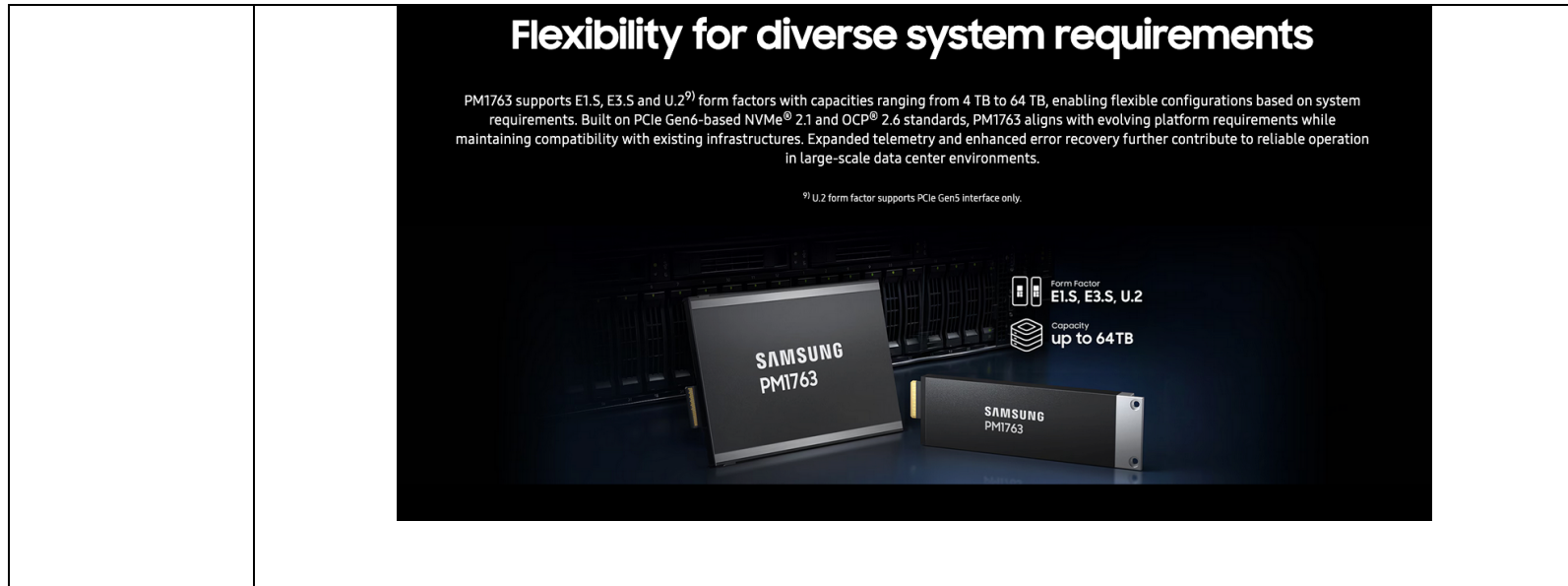
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'553 Patent Claim 3	'553 Patent Accused Instrumentalities
<p>3[A] The apparatus of claim 2 further comprising a printed circuit board communicatively coupled to the interface connector that mounts the solid-state memory, the device memory, the device controller, and the programmable processor.</p>	<p>The Samsung Accused Instrumentalities include a printed circuit board communicatively coupled to the interface connector that mounts the solid-state memory, the device memory, the device controller, and the programmable processor.</p> <p>Samsung public documentation indicates that the Samsung SSDs, including but not limited to the Samsung PM9D3 SSD include a printed circuit board¹¹.</p> <div data-bbox="678 498 1671 841"></div> <p>Likewise, Samsung documentation¹² regarding the PM1763 shows the same:</p>

¹¹ <https://image.semiconductor.samsung.com/image/samsung/p6/semiconductor/products/pf-layout/spec-ssd-dcssd-pm9d3a.png> (showing “Samsung V-NAND”)

¹² <https://semiconductor.samsung.com/ssd/enterprise-ssd/pm1763/>

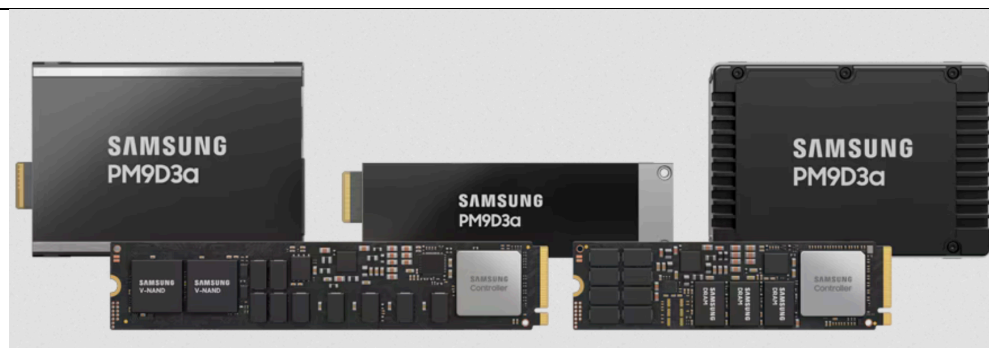
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'553 Patent Claim 4	'553 Patent Accused Instrumentalities
4[A] The apparatus of claim 3 further comprising a case that supports the printed circuit board.	<p>The Samsung Accused Instrumentalities include a case that supports the printed circuit board.</p> <p>Samsung public documentation indicates that the Samsung SSDs, including but not limited to the Samsung PM9D3 SSD include a case that supports the printed circuit board as shown in the image below¹³:</p>

¹³ <https://image.semiconductor.samsung.com/image/samsung/p6/semiconductor/products/pf-layout/spec-ssd-dcssd-pm9d3a.png> (showing “Samsung V-NAND”)

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Likewise, Samsung documentation¹⁴ regarding the PM1763 shows the same:

Flexibility for diverse system requirements

PM1763 supports E1.S, E3.S and U.2⁹⁾ form factors with capacities ranging from 4 TB to 64 TB, enabling flexible configurations based on system requirements. Built on PCIe Gen6-based NVMe[®] 2.1 and OCP[®] 2.6 standards, PM1763 aligns with evolving platform requirements while maintaining compatibility with existing infrastructures. Expanded telemetry and enhanced error recovery further contribute to reliable operation in large-scale data center environments.

⁹⁾ U.2 form factor supports PCIe Gen5 interface only.

Form Factor
E1.S, E3.S, U.2

Capacity
up to 64TB

¹⁴ <https://semiconductor.samsung.com/ssd/enterprise-ssd/pm1763/>

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'553 Patent Claim 9	'553 Patent Accused Instrumentalities
9[P] An apparatus comprising:	The Samsung Accused Instrumentalities are an apparatus. For example, the Accused Instrumentalities include SSDs which are devices or systems.
9[A] a solid-state memory;	<p>The Samsung Accused Instrumentalities comprise a solid-state memory, including for example, non-volatile flash memory.</p> <p>As described for '023 Patent claim limitation 1[A] and '553 Patent claim 1[A], incorporated here by reference, the Samsung SSDs include storage media in the form of a sold-state memory.</p>
9[B] a device memory;	<p>The Samsung Accused Instrumentalities comprise a device memory.</p> <p>As described for '553 Patent claim limitation 1[B], incorporated here by reference, the Samsung SSDs include a device memory.</p>
9[C] a programmable processor operatively coupled to the device memory;	<p>The Samsung Accused Instrumentalities comprise a programmable processor operatively coupled to the device memory.</p> <p>As described for '553 Patent claim limitation 1[C], incorporated here by reference, the Samsung SSDs include a programmable processor operatively coupled to the device memory.</p>
9[D] a device controller operatively coupled with the solid-state memory and the programmable processor; and	<p>The Samsung Accused Instrumentalities comprise a device controller operatively coupled with the solid-state memory and the programmable processor.</p> <p>As described for '553 Patent claim limitation 1[D], incorporated here by reference, the Samsung SSDs include a device controller operatively coupled with the solid-state memory and the programmable processor.</p>

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9[E] an application stored on the device memory and comprising instructions that, when executed by the programmable processor, direct the programmable processor to at least:	<p>The Samsung Accused Instrumentalities comprise an application stored on the device memory and comprising instructions that, when executed by the programmable processor, direct the programmable processor to at least do the limitations described below.</p> <p>As described for '553 Patent claim limitation 1[E], incorporated here by reference, the Samsung SSDs include an application stored in device memory comprising instructions executed by the programmable processor.</p>
9[F] receive a storage request comprising content and a storage device policy;	<p>The Samsung Accused Instrumentalities include a device controller operatively coupled with the storage media and configured to receive from a host, a storage request wherein the storage request includes at least one storage device policy.</p> <p>As described for '023 Patent claim limitation 1[B1], incorporated here by reference, the Samsung SSDs include receiving a storage device policy from the host. Upon information and belief, the storage device policy from the host is stored in the device memory.</p> <p>As described for '023 Patent claim limitation 1[B2], incorporated here by reference, the Samsung SSDs include receiving a storage request from the host to store content. Upon information and belief, as part of the write command, the Samsung SSDs receive a storage device policy.</p>

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9[G] in response to receiving the storage request and the storage device policy, process the content for storage based on the storage device policy; and	<p>The Samsung Accused Instrumentalities comprise an application stored on the device memory and comprising instructions that, when executed by the programmable processor, direct the programmable processor to in response to receiving the storage request and the storage device policy, process the content for storage based on the storage device policy.</p> <p>As described for '553 Patent claim limitation 1[E2], incorporated here by reference, the Samsung SSDs include a programmable processor that processes the received content based on the received storage device policy.</p>
9[H] transfer the content to the device controller; and	<p>The Samsung Accused Instrumentalities comprise an application stored on the device memory and comprising instructions that, when executed by the programmable processor, direct the programmable processor to transfer the content to the device controller.</p> <p>As described for '553 Patent claim limitation 1[E3], incorporated here by reference, the Samsung SSDs include a programmable processor that transfers the received content to the device controller.</p>
9[I] the device controller configured to:	<p>The Samsung Accused Instrumentalities comprise the device controller configured to receive the content from the programmable processor and store the content on the solid-state memory.</p> <p>As described for '553 Patent claim limitation 1[F], incorporated here by reference, the Samsung SSDs include a device controller.</p>
9[J] receive the content from the programmable processor and store the content on the solid-state memory.	<p>The Samsung Accused Instrumentalities comprise the device controller configured to receive the content from the programmable processor and store the content on the solid-state memory.</p> <p>As described for '553 Patent claim limitation 1[F], incorporated here by reference, the Samsung SSDs include a device controller that stores the receives content in the solid-state memory.</p>

Exhibit B: Infringement of U.S. Patent No. 11,907,553 – 7/6/2026

'553 Patent Claim 10	'553 Patent Accused Instrumentalities
<p>10[A] The apparatus of claim 9 further comprising an interface connector that communicatively couples the solid-state memory, the device controller, the programmable processor, and the device memory to a host computer.</p>	<p>The Samsung Accused Instrumentalities include an interface connector that communicatively couples the solid-state memory, the device controller, the programmable processor, and the device memory to a host computer.</p> <p>This limitation is met for the same reasons as described above for dependent claim 2.</p> <p>Samsung public documentation indicates that the Samsung SSDs, including but not limited to the Samsung PM9D3 SSD contains NAND and/or V-NAND, a Samsung Controller integrated circuit, and memory used by the controller integrated circuit¹⁵.</p> <div data-bbox="667 597 1661 941" data-label="Image"> </div> <p>Likewise, Samsung documentation¹⁶ regarding the PM1763 shows the same:</p>

¹⁵ <https://image.semiconductor.samsung.com/image/samsung/p6/semiconductor/products/pf-layout/spec-ssd-dcssd-pm9d3a.png> (showing “Samsung V-NAND”)

¹⁶ <https://semiconductor.samsung.com/ssd/enterprise-ssd/pm1763/>

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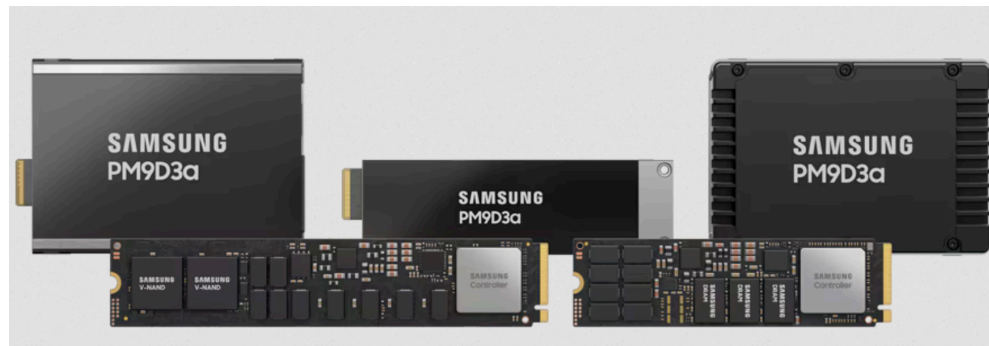


'553 Patent Claim 11	'553 Patent Accused Instrumentalities
11[A] The apparatus of claim 10 further comprising a printed circuit board communicatively coupled to the	<p>The Samsung Accused Instrumentalities include a printed circuit board communicatively coupled to the interface connector that mounts the solid-state memory, the device memory, the device controller, and the programmable processor.</p> <p>This limitation is met for the same reasons as described above for dependent claim 3.</p> <p>Samsung public documentation indicates that the Samsung SSDs, including but not limited to the Samsung PM9D3 SSD include a printed circuit board¹⁷.</p>

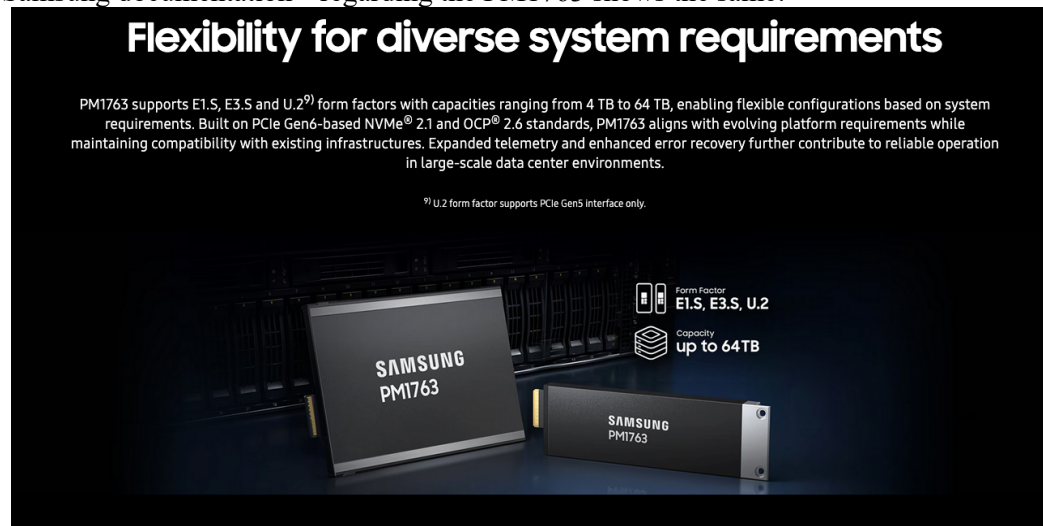
¹⁷ <https://image.semiconductor.samsung.com/image/samsung/p6/semiconductor/products/pf-layout/spec-ssd-dcssd-pm9d3a.png> (showing "Samsung V-NAND")

Exhibit B: Infringement of U.S. Patent No. 11,907,553 – 7/6/2026

interface connector that mounts the solid-state memory, the device memory, the device controller, and the programmable processor.

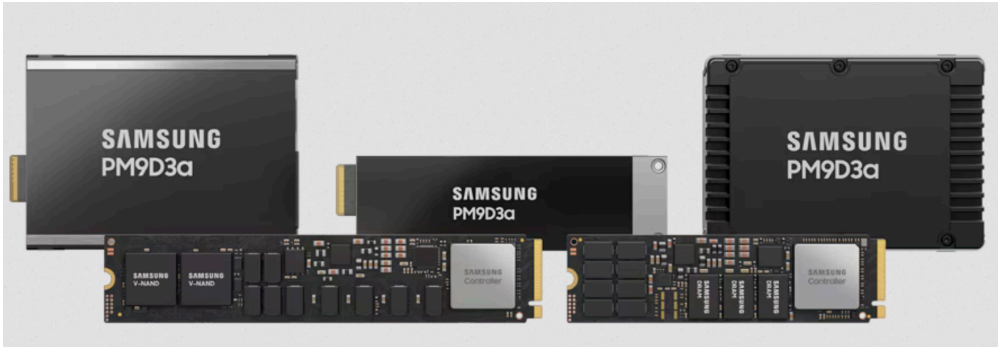


Likewise, Samsung documentation¹⁸ regarding the PM1763 shows the same:



¹⁸ <https://semiconductor.samsung.com/ssd/enterprise-ssd/pm1763/>

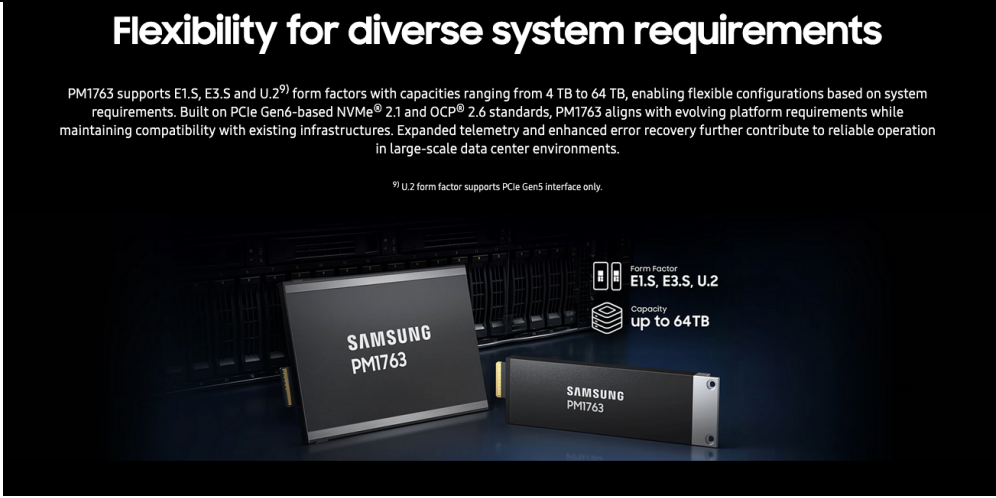
Exhibit B: Infringement of U.S. Patent No. 11,907,553 – 7/6/2026

'553 Patent Claim 12	'553 Patent Accused Instrumentalities
12[A] The apparatus of claim 11 further comprising a case that supports the printed circuit board.	<p>The Samsung Accused Instrumentalities include a case that supports the printed circuit board.</p> <p>This limitation is met for the same reasons as described above for dependent claim 4.</p> <p>Samsung public documentation indicates that the Samsung SSDs, including but not limited to the Samsung PM9D3 SSD include a case that supports the printed circuit board¹⁹.</p>  <p>Likewise, Samsung documentation²⁰ regarding the PM1763 shows the same:</p>

¹⁹ <https://image.semiconductor.samsung.com/image/samsung/p6/semiconductor/products/pf-layout/spec-ssd-dcssd-pm9d3a.png> (showing “Samsung V-NAND”)

²⁰ <https://semiconductor.samsung.com/ssd/enterprise-ssd/pm1763/>

Exhibit B: Infringement of U.S. Patent No. 11,907,553 – 7/6/2026

	<div><h2>Flexibility for diverse system requirements</h2><p>PM1763 supports E1.S, E3.S and U.2⁹⁾ form factors with capacities ranging from 4 TB to 64 TB, enabling flexible configurations based on system requirements. Built on PCIe Gen6-based NVMe[®] 2.1 and OCP[®] 2.6 standards, PM1763 aligns with evolving platform requirements while maintaining compatibility with existing infrastructures. Expanded telemetry and enhanced error recovery further contribute to reliable operation in large-scale data center environments.</p><p><small>⁹⁾ U.2 form factor supports PCIe Gen5 interface only.</small></p></div>
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