

**IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF TEXAS
WACO DIVISION**

SONRAI MEMORY LTD.

Plaintiff,

v.

KINGSTON TECHNOLOGY COMPANY, INC.
AND KINGSTON TECHNOLOGY
CORPORATION

Defendants.

CASE NO. 6:21-cv-01284-ADA

PRELIMINARY INVALIDITY CONTENTIONS

Defendants Kingston Technology Company, Inc. and Kingston Technology Corporation (together, “Defendant” or “Kingston”) hereby provide their Preliminary Invalidity Contentions pursuant to the Scheduling Order entered in this case.

Preliminary Statement

Kingston is providing these Preliminary Invalidity Contentions as required by the Scheduling Order. In view of the Court’s order severing and staying Plaintiff’s U.S. Patent No. 6,724,241 claims against Kingston (Docket No. 60), Kingston is providing Preliminary Invalidity Contentions against the asserted claims of U.S. Patent No. 6,920,527. In addition, Kingston intends to seek a stay of this litigation in view of *inter partes review* petitions (for example, IPR2022-00255, and IPR2022-00437) that challenge the validity of U.S. Patent No. 6,920,527. Kingston discloses and incorporates herein the invalidity grounds and charts presented in the *inter partes review* petitions (for example, IPR2022-00255, and IPR2022-00437) that challenge the validity of U.S. Patent No. 6,920,527.

Defendant has based these Invalidity Contentions, in part, upon Plaintiff's Infringement Contentions, including Plaintiff's apparent claim constructions and the allegedly infringing features of the Accused Products. However, Plaintiff's Infringement Contentions fail to provide reasonable notice of Plaintiff's infringement theories. In the event that Plaintiff seeks to amend its Infringement Contentions or otherwise provide further detail about its infringement theories and/or the Court permits Plaintiff to assert additional claims or infringement theories against Defendant in the future, Defendant reserves the right to supplement and amend these Invalidity Contentions or to otherwise disclose new or supplemental invalidity contentions regarding such claims. Further, nothing herein is an admission that Plaintiff's Infringement Contentions are correct.

The references disclosed herein and discussed in the claim charts provided hereto may disclose the limitations of the Asserted Claims explicitly, implicitly, or inherently, or they may be relied upon to show the state of the art as of the relevant time. The claim charts cite particular teachings and disclosures of the prior art as applied to features of the Asserted Claims. However, persons having ordinary skill in the art generally may view an item of prior art in the context of other publications, literature, products, and understanding. Accordingly, the cited portions are only examples, and Defendant reserves the right to rely on uncited portions of the prior art references and on other publications and expert testimony as aids in understanding and interpreting the cited portions, as providing context, thereto, and as additional evidence that the prior art discloses a claim limitation. Defendant further reserves the right to rely on uncited portions of the prior art references, other publications, and testimony to establish bases for combinations of certain cited references that render the claims obvious.

Defendant's obviousness contentions and combinations are provided in the alternative to its anticipation contentions and are not to be construed to imply that any prior art reference included in the combinations is not by itself anticipatory. Defendant may present obviousness contentions and combinations in addition and as an alternative to an assertion of anticipation.

Defendant's investigation into prior art remains ongoing. This includes Defendant's investigation into the prior art referred to in these Invalidity Contentions, into prior art not yet known to Defendant, into third-party prior art, and into related evidence, documents, and knowledgeable witnesses. Moreover, prior art may become relevant depending on the claim constructions Plaintiff asserts, the claim constructions the Court adopts, and as Plaintiff provides further detail about its Infringement Contentions. Additional evidence and information about prior art, including documentation and witness testimony, may later be discovered and presented. None of the inventors have been deposed to date – Defendant expects the inventor testimony to open up additional avenues of prior art discovery including prior art computer programs used to develop and optimize optical lens systems. Accordingly, Defendant reserves the right to present this additional evidence and information in support of these Invalidity Contentions, and to supplement and amend these Invalidity Contentions in a manner consistent with the Federal Rules of Civil Procedure and the Court's rules.

I. CLAIM CHARTS

Subject to Defendant's Preliminary Statement and in addition to the *inter partes* review petitions (for example, IPR2022-00255, and IPR2022-00437) that challenge the validity of U.S. Patent No. 6,920,527, Defendant identify the prior art patents, publications, and systems in the tables below and in Exhibits B and E, which anticipate and/or render obvious one or more of the asserted claims. Each prior art reference identified in Exhibits B and E expressly, implicitly, or

inherently anticipates or renders obvious one or more of the claims of the Patents-in-Suit, either alone or in combination with other prior art references (specifically, the references disclosed in Exhibits B and E) or the knowledge of those of ordinary skill in the art at the time of the alleged invention.

Additional anticipatory references and obviousness combinations are possible, and Defendant reserves the right to identify any such additional references or use any such additional combinations. In particular, Defendant is unaware of the extent, if any, to which Plaintiff will contend that the claim limitations are not met by the prior art identified by Defendant, or to which Plaintiff will contend that certain prior art references cannot or would not be combined. To the extent that an issue arises with any such limitation, elements, or combinations, Defendant reserves the right to identify other prior art references, disclosures, or combinations that would have made obvious the addition of the allegedly missing claim limitation.

In the table below, Defendant identifies a non-exhaustive list of prior art references that, alone, or in combination, anticipate or render obvious the Asserted Claims of U.S. Patent No. 6,920,527 (“527 Patent”).

Exhibit	Description	Date	Bates Numbers
B-1	U.S. Patent No. 7,003,620 (“Avraham”)	Filed 11/26/02 Issued 2/21/06	DEFS-PRIORART-0007910-DEFS-PRIORART-0007921
B-2	U.S. Patent No. 5,799,200 (“Brant”)	Filed 9/28/95 Issued 8/25/98	DEFS-PRIORART-0007435-DEFS-PRIORART-0007448
B-4	U.S. Patent No. 6,731,537 (“Kanamori”)	Filed 2/26/02 Issued 5/4/04	DEFS-PRIORART-0007733-DEFS-PRIORART-0007750
B-5	U.S. Published Patent Application No. 2002/0147882 (“Pua”)	Filed 4/10/01 Pub. 10/10/02	DEFS-PRIORART-0007115-DEFS-PRIORART-0007139

Exhibit	Description	Date	Bates Numbers
B-6	U.S. Published Patent Application No. 2001/0029583 (“Palatov”)	Filed 2/16/01 Pub. 10/11/01	DEFS-PRIORART-0007074-DEFS-PRIORART-0007107
B-7	U.S. Patent No. 5,640,349 (“Kakinuma”)	Filed 1/18/96 Issued 6/17/97	DEFS-PRIORART-0007425-DEFS-PRIORART-0007434
B-8	U.S. Patent No. 7,114,117 (“Tamura ’117”)	Filed 2/27/02 Issued 9/26/06	DEFS-PRIORART-0008003-DEFS-PRIORART-0008034
B-9	U.S. Patent Application No. 2003/0028733 (“Tsunoda”)	Filed 6/13/02 Pub. 2/6/03	DEFS-PRIORART-0007209-DEFS-PRIORART-0007248
B-10	U.S. Patent No. 6,931,582 (“Tamura ’582”)	Filed 2/26/02 Issued 8/16/05	DEFS-PRIORART-0007840-DEFS-PRIORART-0007856
B-11	U.S. Patent No. 6,473,355 (“Caulkins”)	Filed 12/1/00 Issued 10/29/00	DEFS-PRIORART-0007653-DEFS-PRIORART-0007674
B-12	Japanese Patent Application Pub. No. H6-28114 (“Kodera”)	Filed 7/8/92 Issued 2/4/94	DEFS-PRIORART-0006153-DEFS-PRIORART-0006164
B-13	Japanese Patent Application Pub. No. H04-188347A (“Takamori”)	Filed 7/8/92 Issued 2/4/94	DEFS-PRIORART-0006106-DEFS-PRIORART-0006115
B-14	U.S. Patent No. 5,950,013 (“Yoshimura”)	Filed 8/8/97 Issued 9/7/99	DEFS-PRIORART-0007449-DEFS-PRIORART-0007508
B-15	U.S. Patent No. 5,606,529 (“Honma”)	Filed 3/6/96 Issued 2/25/97	DEFS-PRIORART-0007416-DEFS-PRIORART-0007424
B-16	U.S. Patent No. 6,711,043 (“Friedman”)	Filed 6/7/02 Issued 3/23/04	DEFS-PRIORART-0008687-DEFS-PRIORART-0008699
B-17	U.S. Patent No. 6,545,891 (“Tringali”)	Filed 8/14/00 Issued 4/8/03	DEFS-PRIORART-0008676-DEFS-PRIORART-0008686
B-18	U.S. Patent No. 5,515,333 (“Fujita ’333”)	Filed 6/17/94 Issued 5/7/96	DEFS-PRIORART-0007405-DEFS-PRIORART-0007415

Exhibit	Description	Date	Bates Numbers
B-19	U.S. Patent No. 5,359,569 (“Fujita ’569”)	Filed 10/29/92 Issued 10/25/94	DEFS-PRIORART-0007383-DEFS-PRIORART-0007394
B-20	U.S. Patent Appl. Pub. No. 2002/0185337/U.S. Patent No. 6,791,877 (“Miura”)	Filed 6/10/02 Pub. 12/12/02 Issued 9/14/04	DEFS-PRIORART-0007140-DEFS-PRIORART-0007208; DEFS-PRIORART-0007773-DEFS-PRIORART-0007839
B-21	U.S. Patent No. 7,082,483 (“Poo”)	Filed 5/16/02 Issued 7/25/06	DEFS-PRIORART-0007941-DEFS-PRIORART-0007952
B-22	U.S. Patent No. 6,693,840 (“Shimada”)	Filed 10/15/02 Issued 2/17/04	DEFS-PRIORART-0010519- DEFS-PRIORART-0010531
B-23	U.S. Patent No. 6,845,916 (“Obana”)	Filed 10/5/01 Issued 1/25/05	DEFS-PRIORART-0010469- DEFS-PRIORART-0010543
B-24	U.S. Patent No. 6,336,174 (“Li”)	Filed 8/9/99 Issued 1/2/02	DEFS-PRIORART-0010469- DEFS-PRIORART-0010483

In the table below, Defendant identifies a non-exhaustive list of prior art products or prior art systems that, alone, or in combination, anticipate or render obvious the Asserted Claims of the ’527 Patent.

Exhibit	Prior Art Products/Systems	Date	Bates Numbers
B-3	E-Disk® all-electronic IDE/ATA solid state hard disk drive (“E-Disk SSDs”)	No later than 2002	DEFS-PRIORART-0005591-DEFS-PRIORART-0005597

Exhibit	Prior Art Products/Systems	Date	Bates Numbers
B-25	U.S. Patent No. 5,950,013 (“Yoshimura”) in view of a Prior Flash Memory Device, for example, M-Systems DiskOnKey/USB flash drives (“M-Systems USB flash drive”), USB flash drives with STMicroelectronics ST7265 controller (“STM USB flash drive”), M-Systems DiskOnChip flash disk (“DiskOnChip”), SanDisk FlashDisk, SanDisk CF Card, SanDisk SD Card, SanDisk MMC Card or E-Disk SSDs	No later than June 2002	DEFS-PRIORART-0005591-DEFS-PRIORART-0005597 DEFS-PRIORART-0007449-DEFS-PRIORART-0007508; DEFS-PRIORART-0008819- DEFS-PRIORART-0008947; DEFS-PRIORART-0009898-DEFS-PRIORART-0010026 DEFS-PRIORART-0010442- DEFS-PRIORART-0010468 DEFS-PRIORART-0010584- DEFS-PRIORART-0010673
B-26	U.S. Patent No. 6,693,840 (“Shimada”) in view of a Prior Flash Memory Device, for example, M-Systems DiskOnKey/USB flash drives (“M-Systems USB flash drive”), USB flash drives with STMicroelectronics ST7265 controller (“STM USB flash drive”), M-Systems DiskOnChip flash disk (“DiskOnChip”), SanDisk FlashDisk, SanDisk CF Card, SanDisk SD Card, SanDisk MMC Card or E-Disk SSDs	No later than 2002	DEFS-PRIORART-0005591-DEFS-PRIORART-0005597 DEFS-PRIORART-0009898-DEFS-PRIORART-0010026 DEFS-PRIORART-0010442- DEFS-PRIORART-0010468 DEFS-PRIORART-0010519- DEFS-PRIORART-0010531 DEFS-PRIORART-0010584- DEFS-PRIORART-0010673
B-27	Siemens C541U Microcontroller or a prior memory device incorporating Siemens C541U Microcontroller	No later than April 1999	DEFS-PRIORART-0010027- DEFS-PRIORART-0010420
B-28	STMicroelectronics ST7265 controller a prior memory device incorporating STMicroelectronics ST7265 controller	No later than June 2002	DEFS-PRIORART-0010442- DEFS-PRIORART-0010468

Exhibit	Prior Art Products/Systems	Date	Bates Numbers
B-29	SanDisk FlashDisk product	No later than 1995	DEFS-PRIORART-0010584- DEFS-PRIORART-0010673

In the table below, Defendant identifies other prior art references, publications, and products that in combination, render obvious or provide background to the Asserted Claims of the '527 Patent.

Description	Date	Bates Numbers
U.S. Patent No. 5,953,511 (“Sescila”)	Filed 4/8/97 Issued 9/14/99	DEFS-PRIORART-0007509-DEFS-PRIORART-0007546
U.S. Patent No. 6,148,354 (“Ban”)	Filed 4/5/99 Issued 11/14/00	DEFS-PRIORART-0007554-DEFS-PRIORART-0007567
U.S. Patent No. 6,345,001 (“Mokhlesi”)	Filed 9/14/00 Issued 2/5/02	DEFS-PRIORART-0008749- DEFS-PRIORART-0008763
U.S. Patent No. 6,529,416 (“Bruce”)	Filed 3/27/01 Issued 3/4/03	DEFS-PRIORART-0007686-DEFS-PRIORART-0007697
U.S. Patent No. 6,567,273 (“Liu”)	Filed 4/25/02 Issued 5/20/03	DEFS-PRIORART-0010484- DEFS-PRIORART-0010484
U.S. Patent No. 6,654,841 (“Lin”)	Filed 7/16/01 Issued 11/25/03	DEFS-PRIORART-0010484- DEFS-PRIORART-0010500
U.S. Patent No. 6,671,808 (“Abbott”)	Filed 3/30/99 Issued 12/30/03	DEFS-PRIORART-0010501- DEFS-PRIORART-0010518
U.S. Patent No. 6,739,515 (“Wallace”)	Filed 5/9/02 Issued 5/25/04	DEFS-PRIORART-0008764-DEFS-PRIORART-0008778
U.S. Patent No. 6,924,996 (“Sugawara”)	Filed 11/12/02 Issued 8/2/05	DEFS-PRIORART-0010544- DEFS-PRIORART-0010566

Description	Date	Bates Numbers
U.S. Patent No. 6,947,288 (“Simmons”)	Filed 1/30/03 Issued 9/20/05	DEFS-PRIORART-0010567- DEFS-PRIORART-0010576
U.S. Patent No. 6,963,468 (“Chang”)	Filed 10/15/02 Issued 11/8/05	DEFS-PRIORART-0010577- DEFS-PRIORART-0010583
IEEE Standard for a High Performance Serial Bus (IEEE Std 1394-1995) (“IEEE Std 1394-1995”)	July 1996	DEFS-PRIORART-0005685-DEFS-PRIORART-0006076
Universal Serial Bus Specification, Revision 2.0 (“USB 2.0”)	April 2000	DEFS-PRIORART-0006424- DEFS-PRIORART-0007073
“M-Systems Flash Memory Lifetime Achievement Award 2018” by Flash Memory Summit retrieved from https://flashmemorysummit.com/English/News_Info/Lifetime_Achievement_Award/Lifetime_Achievement_Award_2018.html		DEFS-PRIORART-0010018-
“M-Systems Patents USB Flash Drive” by Center for Israel Education, retrieved from https://israeled.org/m-systems-patents-usb-flash-drive/		DEFS-PRIORART-0010019- DEFS-PRIORART-0010020
“Rugged & Reliable Data Storage: flash SSDs overview” by Ofer Tsur, M-Systems on StorageSearch.com, retrieved from http://www.storagesearch.com/msys-art1.html	May 2002	DEFS-PRIORART-0010021- DEFS-PRIORART-0010026
“SSD Market History” by Zsolt Kerekes on StorageSearch.com, retrieved from https://www.storagesearch.com/chartingtheriseofssds.html		DEFS-PRIORART-0010421- DEFS-PRIORART-0010441

Discovery has not yet opened, and Defendant reserves the right to supplement these contentions with prior art uncovered through discovery. For example, Defendant may supplement these contentions with third-party prior art systems. On information and belief, these systems include the Fast Flash Disk product lines by M-Systems (<http://web.archive.org/web/20021014151302/http://www.m-sys.com/content/products/>

[prodFam.asp](#)) and the Cruzer, MemoryStick, and SmartMedia Card product lines by SanDisk (<http://web.archive.org/web/20021201111202/http://www.esend.com/sandisk/>)/.

If the Judge or Jury finds that a particular prior art reference described in the charts referred to in tables above, do not teach or disclose a particular claim limitation, that limitation and the claims in which it appears still are rendered obvious for the reasons stated for that limitation in Exhibit E-2 (for the '527 patent). Exhibit E-2 explains where each particular limitation is found in other prior art references and/or in the knowledge of a person of ordinary skill in the art, and they provide exemplary motivations to modify the primary prior art reference and/or to combine the primary prior art reference with the other listed prior art.

= The charts of Exhibit B apply the prior art to the '527 patent in detail and present specific anticipatory references or exemplary combinations of prior art references that render obvious every asserted claim. The charts also explain the motivation one of ordinary skill would have to combine certain exemplary combinations of references. In addition, the same motivations apply equally to combinations of any or all references within each Exhibit. For example, a person of ordinary skill in the art would have been motivated to combine any reference in Exhibit B with one or more of the other prior art references identified in Exhibit B, respectively, at least because the references share common subject matter and approaches. For example, for the '527 patent, the references identified in the charts of Exhibit B share common subject matter and approaches, including a memory apparatus comprising a memory controller, a volatile memory a non-volatile memory. Additionally, such combinations would have been within that person's skill at the time of invention, and would amount to applying a known technique to a known device ready for improvement to yield predictable results.

II. SECTION 112 DEFENSES

A. Indefiniteness

The following claim limitations are indefinite and, accordingly, the claims in which they appear are invalid:

- “wherein said memory controller chip transfers said non-volatile memory with data written to said volatile memory from said computer system while said portable memory apparatus is coupled to said computer system.” (’527 patent, claim 6).

B. Lack of Written Description

The following claim elements, at least under Plaintiff’s apparent interpretations as to their scope, lack written description support in the specification and, accordingly, the claims in which they appear are invalid:

- “wherein said memory controller chip transfers said non-volatile memory with data written to said volatile memory from said computer system while said portable memory apparatus is coupled to said computer system.” (’527 patent, claim 6).

C. Lack of Enablement

The following claim elements are not enabled and, accordingly, the claims in which they appear are invalid:

- “wherein said memory controller chip transfers said non-volatile memory with data written to said volatile memory from said computer system while said portable memory apparatus is coupled to said computer system.” (’527 patent, claim 6)

III. PRIOR ART DOCUMENT PRODUCTION

Prior art references have been produced by defendants in the related proceedings or are concurrently produced to Plaintiff. Defendant hereby refers to the following documents: DEFS-PRIORART-0005589 to DEFS-PRIORART-0008748, DEFS-PRIORART-0008749 to DEFS-PRIORART-0008778, and DEFS-PRIORART-0009898 to DEFS-PRIORART-0010673.

IV. TECHNICAL DOCUMENT PRODUCTION

Defendant is producing technical documents sufficient to show the operation of the accused products—to the extent such documents are in Defendant’s possession, custody, or control. Defendant hereby refers to the following documents accompanying this Disclosure: KTCI00001- KTCI00036. Based on its investigation to date, Defendant believes and states that it is not in possession, custody, or control of other technical documents sufficient to show the relevant accused functionality of the accused components of the Accused Products. Defendant believes that other technical documents should be discovered from the respective manufacturers of such accused components. To the extent other technical documents sufficient to show the operation of the accused products are in Defendant’s possession, custody, or control, Defendant will continue to provide non-privileged information corresponding to this category as it becomes aware of Plaintiff’s accusations or as it becomes available through discovery.

Dated: February 24, 2022

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CERTIFICATE OF SERVICE

The undersigned hereby certifies that on February 24, 2022, I caused a true and correct copy of the foregoing document to be served via electronic mail to the following individuals:

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