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8 *Attorneys for USB Bridge Solutions, LLC*

9  
10 **UNITED STATES DISTRICT COURT**  
11 **NORTHERN DISTRICT OF CALIFORNIA**

12 USB BRIDGE SOLUTIONS, LLC,  
13  
14 Plaintiff,  
15  
16 v.  
17  
18 WESTERN DIGITAL  
19 CORPORATION,  
20  
21 Defendant.

Case No.: 22-cv-4487

**COMPLAINT FOR PATENT  
INFRINGEMENT**

**DEMANDED FOR JURY TRIAL**

1 **COMPLAINT FOR PATENT INFRINGEMENT**

2 1. Plaintiff USB Bridge Solutions, LLC (“USB”) hereby files this  
3 Complaint for patent infringement against Defendant Western Digital Corporation  
4 (“Western Digital” or “Defendant”) and alleges as follows:

5 **PARTIES**

6 2. Plaintiff USB is a limited liability company organized and existing  
7 under the laws of the State of Georgia, having its principal place of business at Day  
8 Building, 4725 Peachtree Corners Circle, Suite 230, Peachtree Corners, GA 30092.

9 3. On information and belief, Defendant Western Digital is a corporation  
10 organized and existing under the laws of the state of Delaware, having its principal  
11 place of business at 5601 Great Oaks Parkway, San Jose, CA 95519. Western  
12 Digital may be served with process through its registered agent, the Corporation  
13 Service Company, at 251 Little Falls Drive, Wilmington, Delaware, 19808.

14 **JURISDICTION AND VENUE**

15 4. This is an action under the patent laws of the United States, 35 U.S.C.  
16 §§ 1, et seq., for infringement by Western Digital of claims of U.S. Patent No.  
17 7,231,485.

18 5. This Court has subject matter jurisdiction pursuant to 28 U.S.C. §§  
19 1331 and 1338(a).

20 6. Western Digital is subject to personal jurisdiction of this Court  
21 because, *inter alia*, on information and belief, independently and/or via its agents,  
22 (i) Western Digital its principal place of business in this Judicial District at 5601  
23 Great Oaks Parkway, San Jose, CA 95519; (ii) Western Digital regularly conducts  
24 business in the State of California; and (iii) Western Digital has committed and  
25 continues to commit acts of patent infringement in the State of California,  
26 including by making, using, offering to sell, selling, and/or importing the accused  
27 products into California.  
28

1           7.     Venue is proper as to Western Digital in this Judicial District under 28  
2 U.S.C. § 1400(b) because, *inter alia*, on information and belief, Western Digital  
3 maintains a regular and established place of business in this Judicial District at  
4 5601 Great Oaks Parkway, San Jose, CA 95519, and has committed acts of patent  
5 infringement in this Judicial District and/or has contributed to or induced acts of  
6 patent infringement by others in this District.

7   **BACKGROUND**

8           8.     On June 12, 2007, the United States Patent and Trademark Office  
9 duly and lawfully issued U.S. Patent No. 7,231,485 (“the Patent-in-Suit” or the  
10 “’485 Patent”), entitled “Universal Serial Bus (USB) Interface For Mass Storage  
11 Device”.

12   **NOTICE**

13           9.     By letter dated June 2, 2020, USBB, via its licensing agent, notified  
14 Western Digital of the existence of the ’485 Patent and attached the Memorandum  
15 Opinion and Order Regarding Claim Construction issued in the *USB Bridge*  
16 *Solutions, LLC v. Buffalo Inc. et al.* (C.A. No. 1-17-cv-1158-LY) (W.D. Tex.)  
17 action.

18           10.    On April 11, 2022, USBB, via its licensing agent, followed up with  
19 Western Digital and, in addition to the information provided previously, identified  
20 exemplary infringing products, and provided evidence of infringement of several  
21 claims of the ’485 Patent.

22   **COUNT I: INFRINGEMENT OF THE ’485 PATENT**

23           11.    Plaintiff incorporates the preceding paragraphs as if fully set forth  
24 herein.

25           12.    On information and belief, Western Digital has infringed, and  
26 continues to infringe, the ’485 Patent pursuant to 35 U.S.C. § 271(a), literally or  
27 under the doctrine of equivalents, by making, using, offering to sell, selling in the  
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1 United States or importing into the United States all models of the Western Digital  
2 My Passport, including 1 TB, 2 TB, 4 TB, and 5 TB and all models of the Western  
3 Digital Elements Desktop Hard Drive, including 4 TB, 6 TB, 8 TB, 10 TB, 12 TB,  
4 14 TB, 16 TB, 18 TB and 20 TB, and all other external and/or portable drives and  
5 drive enclosures comprising a USB interface and SATA functionality recited in the  
6 asserted claims (“Accused Products”).

7 13. For example, on information and belief, Western Digital has infringed  
8 at least claim 8 of the ’485 Patent by making, using, offering to sell, selling in the  
9 United States or importing into the United States the Accused Products comprising  
10 a secondary board configured to enable communication between a mass storage  
11 device motherboard and a host motherboard, such as the Western Digital My  
12 Passport External Hard Drive. *See* Ex. 1, Photographs of Western Digital My  
13 Passport External Hard Drive; Ex. 2, Western Digital My Passport Product  
14 Specifications; Ex. 3, Photograph showing the secondary board in the Western  
15 Digital My Passport External Hard Drive being connected to a motherboard of a  
16 mass storage device. On information and belief, the Accused Products include a  
17 bridging System-on-Chip, such as the ASMedia ASM235CM. *See* Ex. 4,  
18 Photograph of a secondary board having a bridging System-on-Chip in the Western  
19 Digital My Passport External Hard Drive; Ex. 5, ASM235CM Webpage  
20 Description, p. 1 (“ASM235CM is the latest generation of ASMedia’s single chip  
21 solution, bridging the USB3.2 Gen2x1 to Serial ATA host interface with highly  
22 integrated SuperSpeedPlus, SuperSpeed, High Speed, SATA 1.5/3.0/6.0 Gbps.”).

23 14. The Accused Products comprise a connector port for receiving signals  
24 from the mass storage device motherboard. *See* Ex. 3, Photograph showing the  
25 secondary board in the Western Digital My Passport External Hard Drive having a  
26 connector port.

27 15. The Accused Products comprise a bridging circuit for converting the  
28

1 signals from the mass storage device motherboard into USB signals. *See* Ex. 3,  
2 Photograph showing the secondary board in the Western Digital My Passport  
3 External Hard Drive having a bridging System-on-Chip; Ex. 4, Photograph of the  
4 ASMedia ASM235CM bridging System-on-Chip in the Western Digital My  
5 Passport External Hard Drive; Ex. 5, ASM235CM Webpage Description, p. 1  
6 (“ASM235CM is the latest generation of ASMedia’s single chip solution, bridging  
7 the USB3.2 Gen2x1 to Serial ATA host interface with highly integrated  
8 SuperSpeedPlus, SuperSpeed, High Speed, SATA 1.5/3.0/6.0 Gbps.”).

9       16. The bridging circuit includes a USB physical interface transceiver.  
10 *See* Ex. 5, ASM235CM Webpage Description, p. 1 (“Compliant with USB3.1  
11 Specification Revision 1.0 . . . Compliant with USB Specification Revision 2.0”);  
12 Ex. 6, Universal Serial Bus 3.2 Specification, Sep. 2017, p. 56 (“A PHY is a  
13 transmitter and receiver that operate together and are located on the same  
14 component.”).

15       17. The bridging circuit includes a serial interface engine coupled to the  
16 USB physical interface transceiver. *See* Ex. 5, ASM235CM Webpage Description,  
17 p. 1 (“Compliant with USB3.1 Specification Revision 1.0 . . . Compliant with USB  
18 Specification Revision 2.0”); Ex. 7, Universal Serial Bus 3.0 Specification, Jun.  
19 2011, pg. 6-2 and 6-6 (showing “Parallel to Serial” converter and “Serialization  
20 and Deserialization of Data”). The serial interface engine is coupled to the USB  
21 physical interface transceiver, such as by a bus.

22       18. On information and belief, the bridging circuit includes an  
23 input/output interface coupled to the serial interface engine. *See* Ex. 8, ASM1053  
24 Datasheet (showing, for example, input/output interface being coupled to the serial  
25 interface engine). On information and belief, the relevant features and components  
26 of the ASM1053 SoC are also present in the ASM235CM SoC. The exemplary  
27 interfaces are coupled to the serial interface engine, such as by a bus.  
28

1           19. On information and belief, the bridging circuit includes a RAM  
2 control circuit coupled to the input/output interface, such as RAM and buffer  
3 control circuits internal to the ASM235CM. *See* Ex. 5, ASM235CM Webpage  
4 Description, p. 1 (“Integrated 8-bit micro-processor with embedded program RAM  
5 and ROM”); Ex. 8, ASM1053 Datasheet (showing RAM and the input/output  
6 interface discussed above). The exemplary RAM control circuits are coupled to  
7 the input/output interface, such as by a bus.

8           20. On information and belief, the bridging circuit includes a global  
9 control circuit coupled to the input/output interface. For example, the Accused  
10 Products include USB Device Control, SATA Host Control, and/or microprocessor  
11 global control circuits. *See* Ex. 5, ASM235CM Webpage Description, p. 1 (“ . . .  
12 ASM235CM . . . also integrates an 8-bit micro-processor and embedded RAM. .  
13 .”). The exemplary global control circuits are coupled to the input/output interface,  
14 such as by a bus. *See* Ex. 8, ASM1053 Datasheet.

15           21. The bridging circuit includes a translate circuit coupled to the global  
16 control circuit. For example, the microprocessor includes the translate circuit. *See*  
17 Ex. 5, ASM235CM Webpage Description, p. 1 (“Customers can easily enhance  
18 their storage device performance with ASM235CM since it also integrates an 8-bit  
19 micro-processor and embedded RAM to provide a cutting edge solution in USB to  
20 SATA device enclosure market.”) The microprocessor is coupled to the global  
21 control circuit, such as by a bus.

22           22. The bridging circuit includes a disk interface coupled to the RAM  
23 control circuit and the translate circuit. *See* Ex. 5, ASM235CM Webpage  
24 Description, p. 1 (“ASM235CM is the ASMedia third generation single chip  
25 solution, bridging the USB3.0 to Serial SATA host interface with highly integrated  
26 SuperSpeed USB3.0, High Speed USB2.0 and SATA1.5/3.0 Gbps ASMedia self  
27 -designed PHYs.”); *see also* Ex. 8, ASM1053 Datasheet. The exemplary disk  
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1 interface is coupled to the RAM control circuit and the translate circuit, such as by  
2 a bus.

3 23. The Accused Products include a USB connector port for outputting  
4 the USB signals to the host motherboard. *See* Ex. 3, Photograph showing  
5 secondary board in the Western Digital My Passport External Hard Drive having a  
6 USB connector output port.

7 24. On information and belief, Western Digital has induced infringement  
8 of the '485 Patent pursuant to 35 U.S.C. § 271(b), by actively and knowingly  
9 inducing, directing, causing, and encouraging others, including, but not limited to,  
10 its partners, resellers, distributors, customers, and end users, to make, use, sell,  
11 and/or offer to sell in the United States, and/or import into the United States, the  
12 Accused Products by, among other things, providing the accused products and  
13 incorporated USB Bridging technology, specifications, instructions, manuals,  
14 advertisements, marketing materials, and technical assistance relating to the  
15 installation, set up, use, operation, and maintenance of said products.

16 25. On information and belief, Western Digital has committed and  
17 continues to commit the foregoing infringing activities without a license.

18 26. On information and belief, Western Digital knew the '485 Patent  
19 existed and knew of an exemplary infringing Western Digital product while  
20 committing the foregoing infringing acts thereby willfully, wantonly and  
21 deliberately infringing the '485 Patent.

22 **PRAYER FOR RELIEF**

23 WHEREFORE, Plaintiff USBB prays for the judgment in its favor against  
24 Western Digital, and specifically, for the following relief:

25 A. Entry of judgment in favor of USBB against Western Digital on all  
26 counts;

27 B. Entry of judgment that Western Digital has infringed the Patent-in-  
28

1 Suit;

2 C. Entry of judgment that Western Digital's infringement of the Patent-  
3 in-Suit has been willful;

4 D. Award of compensatory damages adequate to compensate USBB for  
5 Western Digital's infringement of the Patent-in-Suit, in no event less than a  
6 reasonable royalty trebled as provided by 35 U.S.C. § 284;

7 E. USBB's costs;

8 F. Pre-judgement and post-judgement interest on USBB's award; and

9 G. All such other and further relief as the Court deems just or equitable.

10 **DEMAND FOR JURY TRIAL**

11 Pursuant to Rule 38 of the Fed. R. Civ. P., Plaintiff USBB hereby demands  
12 trial by jury in this action of all claims so triable.

13  
14 Respectfully Submitted,

15 August 3, 2022

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