

**IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS
MARSHALL DIVISION**

M-RED INC.,

Plaintiff,

v.

GIGA-BYTE TECHNOLOGY CO., LTD.,

Defendant.

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Case No.

JURY TRIAL DEMANDED

COMPLAINT FOR PATENT INFRINGEMENT

Plaintiff M-Red Inc. (“M-Red” or “Plaintiff”) for its Complaint against Giga-Byte Technology Co., Ltd., (“Giga-Byte” or “Defendant”) alleges as follows:

THE PARTIES

1. M-Red is a corporation organized and existing under the laws of the State of Texas, with its principal place of business located at 100 W. Houston Street, Marshall, Texas 75670.

2. On information and belief, Giga-Byte is a corporation organized and existing under the laws of the Republic of China with a principal place of business at No. 6, Baoqiang Road, Xindian District, New Taipei City, Taiwan. Giga-Byte may be served with process pursuant to the provisions of the Hague Convention. Giga-Byte may also be served with process by serving the Texas Secretary of State at 1019 Brazos Street, Austin, Texas 78701 as its agent for service because it engages in business in Texas but has not designated or maintained a resident agent for service of process in Texas as required by statute.

3. Giga-Byte is a leading manufacturer and seller of computers and server equipment in the world and in the United States. Upon information and belief, Giga-Byte does business in Texas and in the Eastern District of Texas directly and/or through intermediaries.

JURISDICTION AND VENUE

4. This is an action for patent infringement arising under the patent laws of the United States, 35 U.S.C. §§ 1, *et seq.* This Court has jurisdiction over this action pursuant to 28 U.S.C. §§ 1331 and 1338(a).

5. This Court has personal jurisdiction over Giga-Byte. Giga-Byte regularly conducts business and has committed acts of patent infringement and/or has induced acts of patent infringement by others in this Judicial District and/or has contributed to patent infringement by others in this Judicial District, the State of Texas, and elsewhere in the United States.

6. Giga-Byte is subject to this Court's jurisdiction pursuant to due process and/or the Texas Long Arm Statute due at least to its substantial business in this State and Judicial District, including (a) at least part of its past infringing activities, (b) regularly doing or soliciting business in Texas, and/or (c) engaging in persistent conduct and/or deriving substantial revenue from goods and services provided to customers in Texas.

7. For example, Giga-Byte (i) has done and continues to do business in the State of Texas; (ii) Giga-Byte has committed and continues to commit acts of patent infringement in the State of Texas, including making, using, offering to sell, and/or selling Accused Products in Texas, and/or importing Accused Products into Texas, including by Internet sales via Giga-Byte's website, as well as other online retailers such as Newegg and Amazon.com, in addition to sales via retail and wholesale stores, inducing others to commit acts of patent infringement in Texas, and/or committing at least a portion of any other infringements alleged herein; and (iii) Giga-Byte has regularly placed its products within the stream of commerce—directly, through subsidiaries, or through third parties—with the expectation and knowledge that such products, such as consoles and accessories, will be shipped to, sold, or used in Texas and elsewhere in the United States. Accordingly, Giga-Byte has established minimum contacts within Texas and purposefully availed itself of the benefits

of Texas, and the exercise of personal jurisdiction over Giga-Byte would not offend traditional notions of fair play and substantial justice.

8. Giga-Byte purposefully directs and controls the sale of the Accused Products into established United States distribution channels, including sales to nationwide retailers and for sale in Texas. Giga-Byte further places the Accused Products into international supply chains, knowing that the Accused Products will be sold in the United States, including Texas.

9. On information and belief, Giga-Byte derived substantial revenues from such infringing acts, including from its sales of infringing devices in the United States.

10. In addition, on information and belief, Giga-Byte knowingly contributed to or induced infringement by others within this Judicial District, including end-users, by advertising, marketing, offering for sale, and selling such devices to distributors, resellers, partners, and/or end-users in this Judicial District, and by providing instructions, user manuals, advertising, and/or marketing materials which facilitated, directed, or encouraged the use of its infringing functionality.

11. Venue is proper in this Judicial District pursuant to 28 U.S.C. § 1391 because, among other things, Giga-Byte does not reside in the United States, and thus may be sued in any judicial district pursuant to 28 U.S.C. § 1391(c)(3).

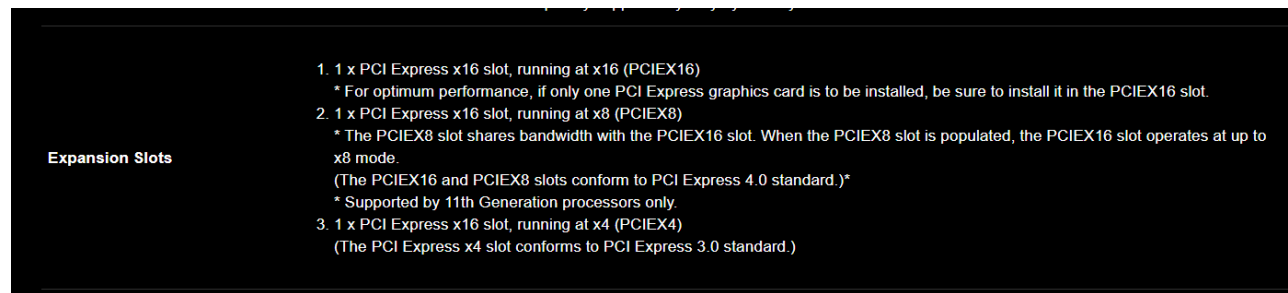
PATENT-IN-SUIT

12. On May 18, 2004, the United States Patent and Trademark Office duly and legally issued U.S. Patent No. 6,737,995 (the “’995 Patent”) entitled “Clock and Data Recovery with a Feedback Loop to Adjust the Slice Level of an Input Sampling Circuit.” A true and correct copy of the ’995 Patent is available at: <http://pdfpiw.uspto.gov/.piw?Docid=06737995>.

13. The ’995 Patent (the “Ng Patent”) generally describes techniques that aid in the recovery of clock and data signals, including sampling a transition bit and determining an offset

based in part on the state of that bit. The technology was developed by Devin Kenji Ng, John Michael Khoury, Jr., Guoqing Miao, and Juergen Pianka.

14. Giga-Byte implements the patented invention in the Accused Products, including in the Peripheral Component Interconnect slots (“PCIs”) of its motherboards. For example, this functionality is included and utilized in the PCIs used in Giga-Byte Accused Products, such as the Giga-Byte AORUS Gaming motherboards, GIGA-BYTE Gaming motherboards, and Ultra Durable motherboards.



Excerpts from Giga-Byte Z590 AORUS XTREME Specification sheet

15. For example, Giga-Byte makes, uses, sells, offers for sale, and imports products containing PCI slots which aid in the recovery of clock and data signals. For example, PCI Express 3.0 slots (“PCIs”) likely include a “Phased Lock Loop” (“PLL”) or “Delay Locked Loop” (“DLL”).”¹

16. Giga-Byte has infringed and is continuing to infringe the ’995 Patent (the “Asserted Patent”) by making, using, selling, offering to sell, and/or importing, products that utilize PCIs to adjust the slice level of an input sampling circuit to aid in clock and data recovery and associated software that infringes the Asserted Patent.

¹ <https://github.com/torvalds/linux/blob/master/drivers/cpufreq/brcmstb-avs-cpufreq.com>

17. M-Red has at all times complied with the marking provisions of 35 U.S.C. § 287 with respect to the Asserted Patent. On information and belief, prior assignees and licensees have also complied with the marking provisions of 35 U.S.C. § 287.

COUNT I
(Infringement of the '995 Patent)

18. Paragraphs 1 through 17 are incorporated by reference as if fully set forth herein.

19. M-Red has not licensed or otherwise authorized Giga-Byte to make, use, offer for sale, sell, or import any products that embody the inventions of the '995 Patent.

20. Giga-Byte has and continues to directly infringe the '995 Patent, either literally or under the doctrine of equivalents, without authority and in violation of 35 U.S.C. § 271, by making, using, offering to sell, selling, and/or importing into the United States products that satisfy each and every limitation of one or more claims of the '995 Patent.

21. For example, Giga-Byte has and continues to directly infringe at least claim 1 of the '995 Patent by making, using, offering to sell, selling, and/or importing into the United States products that include PCIs performing techniques that aid in the recovery of clock and data signals,

22. The Accused Products each include at least one PCI slot that includes a PLL or DLL for adjusting the slice level of an input sampling circuit.

23. The PCIs used in the Giga-Byte motherboards include a technique for determining an offset based on a state of a transition bit sampled from a stream of incoming signals.

24. The PCIs used in the Giga-Byte motherboards perform the method of claim 1 of the '995 Patent by receiving a stream of incoming data signals over the PCI interface.

25. The Accused Products perform the method of claim 1 of the '995 Patent by equalizing the incoming signals using a digital FIR filter that adds an offset to the input signal.

26. Each block of data consists of a 2-bit sync header followed by the payload of 128 bits. Upon information and belief, the Accused Products sample the state of the sync header, which is a transition bit, and determine an offset based on the state of the sampled bit.

27. The Accused Products use Continuous Time Linear Equalization and Nonlinear Equalization (Decision Feedback Equalization) to generate re-timed data signals corresponding to the incoming data signals. At least Decision Feedback Equalization uses a slicer as an analog-to-digital converter to convert the signal into a clean full-swing digital signal. The slice level is controlled in part by the output of the FIR filter that samples the transition bit.

28. The Accused Products generate re-timed data signals based upon the offset that is detected by the FIR filter and corrected by the slicer.

29. Giga-Byte has and continues to indirectly infringe one or more claims of the '995 Patent by knowingly and intentionally inducing others, including Giga-Byte customers and end-users of the Accused Products and products that include the Accused Products, to directly infringe, either literally or under the doctrine of equivalents, by making, using, offering to sell, selling and/or importing into the United States products that include infringing technology, such as the Giga-Byte Z590 AORUS EXTREME incorporating a PCI Express 3.0.

30. Giga-Byte, with knowledge that these products, or the use thereof, infringes the '995 Patent at least as of the date of this Complaint, knowingly and intentionally induced, and continues to knowingly and intentionally induce, direct infringement of the '995 Patent by providing these products to customers and ultimately to end-users for use in an infringing manner in the United States including, but not limited to, end-users of products that incorporate Accused Products.

31. Giga-Byte induced infringement by others, including end-users, with the intent to cause infringing acts by others or, in the alternative, with the belief that there was a high probability

that others, including end-users, infringe the '995 Patent, but while remaining willfully blind to the infringement.

32. M-Red has suffered damages as a result of Giga-Byte's direct and indirect infringement of the '995 Patent in an amount to be proved at trial.

33. M-Red has suffered, and will continue to suffer, irreparable harm as a result of Giga-Byte's infringement of the '995 Patent, for which there is no adequate remedy at law, unless Giga-Byte's infringement is enjoined by this Court.

DEMAND FOR JURY TRIAL

Plaintiff hereby demands a jury for all issues so triable.

PRAYER FOR RELIEF

WHEREFORE, M-Red prays for relief against Giga-Byte as follows:

- a. Entry of judgment declaring that Giga-Byte has directly and/or indirectly infringed one or more claims of the Asserted Patent;
- b. Entry of judgment declaring that Giga-Byte's infringement of the Asserted Patent is willful;
- c. An order awarding damages sufficient to compensate M-Red for Giga-Byte's infringement of the Asserted Patent, but in no event less than a reasonable royalty, including supplemental damages post-verdict, together with pre-judgment and post-judgment interest and costs;
- d. Enhanced damages pursuant to 35 U.S.C. § 284;
- e. Entry of judgment declaring that this case is exceptional and awarding M-Red its costs and reasonable attorney fees under 35 U.S.C. § 285;
- f. An accounting for acts of infringement;

g. Such other equitable relief which may be requested and to which the Plaintiff is entitled; and

h. Such other and further relief as the Court deems just and proper.

Dated: September 10, 2021

Respectfully submitted,

/s/ Alfred R. Fabricant

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