IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

EVERTZ MICROSYSTEMS LTD.,	)	
	)	
Plaintiff,	)	
	)	
v.	)	C.A. No. 19-302-MN
	)	
LAWO INC., LAWO NORTH AMERICA CORP., and LAWO AG,	)	**JURY TRIAL DEMANDED**
	)	
	)	
Defendants.	)	

FIRST AMENDED COMPLAINT FOR PATENT INFRINGEMENT

Plaintiff Evertz Microsystems Ltd. ("Evertz") files this First Amended Complaint for Patent Infringement against Defendants Lawo Inc., Lawo North America Corp., and Lawo AG (collectively, "Lawo"), and alleges as follows:

NATURE OF THIS ACTION

1. This is a patent infringement action based on each Lawo defendant's continued infringement of various Evertz patents. In particular, this is a patent infringement action based on each Lawo defendant's continued infringement of i) U.S. Patent No. 8,537,838, issued September 17, 2013, and titled "Packet Based Transmission of Multiple Data Signals" (the "'838 Patent"), ii) U.S. Patent No. 9,100,217, issued August 4, 2015, and titled "Apparatus, Systems and Methods for Packet Based Transmission of Multiple Data Signals" (the "'217 Patent"), iii) U.S. Patent No. 9,473,322, issued October 18, 2016, and titled "Apparatus, Systems and Methods for Packet Based Transmission of Multiple Data Signals" (the "'322 Patent"), iv) U.S. Patent No. 8,270,398, issued September 18, 2012, and titled "System and Method for Signal Processing" (the "'398 Patent"), v) U.S. Patent No. 9,654,391, issued May 16, 2017, and titled "Video Router" (the "'391 Patent"), vi) U.S. Patent No. 9,942,139, issued April 10, 2018, and titled "Video Router" (the "'139 Patent"),

and vii) U.S. Patent No. 10,164,877, issued December 25, 2018, and titled "Video Router" (the "'877 Patent") (collectively, the "Patents-In-Suit").

PARTIES

2. Plaintiff Evertz is a corporation organized under the laws of the Province of Ontario, Canada, and has a principal place of business at 5292 John Lucas Drive, Burlington, Ontario L7L 5Z9, Canada.

3. Upon information and belief, Lawo Inc. is a Delaware corporation, and has a principal place of business at 99 Hudson Street, 5th Floor, New York, New York 10013. Lawo Inc. can be served through its registered agent, The Corporation Trust Company, 1209 Orange Street, Wilmington, Delaware 19801.

4. Upon information and belief, Lawo North America Corp. is a Canadian corporation, and has a principal place of business at 2041 McCowan Road, Unit 1, Toronto, Ontario M1S 3Y6, Canada.

5. Upon information and belief, Lawo AG is a German corporation, and has a principal place of business at AM Oberwald 8, 76437 Rastatt, Germany.

JURISDICTION AND VENUE

6. This is an action for patent infringement arising under the United States Patent Act, 35 U.S.C. § 100, et seq.

7. This Court has subject matter jurisdiction over this action under 28 U.S.C. §§ 1331 and 1338(a).

8. This Court has personal jurisdiction over Defendant Lawo Inc. because Lawo Inc. is incorporated in Delaware and, on information and belief, has continuous and systematic contacts with the State of Delaware, including continuous contacts with, offers to sell, and/or sales to, customers in Delaware. Further, on information and belief, Lawo AG manufactures and supplies

products that it offers to sell, sells, and/or imports into the United States, including through its subsidiaries Lawo Inc. and Lawo North America Corp. On information and belief, Lawo Inc., Lawo North America Corp, and Lawo AG have committed acts within the District of Delaware giving rise to this action, including using, offering for sale, selling, and/or importing into the United States products that infringe one or more of the claims of the Patents-In-Suit.

9. Lawo Inc. is incorporated in Delaware, Lawo North America Corp. is a Canadian corporation, and Lawo AG is a German company. Venue is proper in this District under 28 U.S.C. §§ 1391(b), 1391(c), and/or 1400(b).

FACTUAL BACKGROUND

Evertz Microsystems Ltd.

10. Evertz is a Canadian technology company originally founded as DynaQuip Electron Devices Limited in 1966. Evertz designs, manufactures, and markets solutions for the production, post-production, broadcast, and telecommunications markets in the United States, Canada, and internationally. Evertz's innovations center on video and audio infrastructure solutions for television, telecommunications, and new-media industries, including on-demand services and mobile devices.

11. Last year, Evertz invested approximately $80 million (CAD) on research and development. In the past five years, Evertz has spent more than $340 million (CAD) on research and development. Evertz is recognized as a global innovator and a leading solutions provider to the broadcast and media industries, and has received a number of awards for its novel infrastructure solutions and technologies, including Emmy Awards from the National Academy of Television Arts and Sciences in 2008 and 2017.

12. Among other things, Evertz's award-winning solutions convert traditional broadcast transmissions to internet protocol ("IP") based transmissions, thereby optimizing

broadcast speed and quality through software-defined networking, system architecture, and product solutions.

13. Because they are valuable business assets, Evertz takes steps to protect the intellectual property assets that result from its investments in innovation, including by securing utility patent protection in North America.

Evertz Patents Relating to Packet-Based Transmission of Multiple Data Signals

14. The United States Patent and Trademark Office ("USPTO") issued the '838 Patent on September 17, 2013. Evertz is the lawful owner by assignment of all rights, title, and interest in and to the '838 Patent. A true and correct copy of the '838 Patent is attached as Exhibit A.

15. The USPTO issued the '217 Patent on August 4, 2015. Evertz is the lawful owner by assignment of all rights, title, and interest in and to the '217 Patent. A true and correct copy of the '217 Patent is attached as Exhibit B.

16. The USPTO issued the '322 Patent on October 18, 2016. Evertz is the lawful owner by assignment of all rights, title, and interest in and to the '322 Patent. A true and correct copy of the '322 Patent is attached as Exhibit C.

17. Rakesh Thakor Patel and Romolo Magarelli, are the named inventors of the '838 Patent, the '217 Patent, and the '322 Patent (collectively, the "First Patent Family").

18. The First Patent Family relates generally to a system for transmitting and distributing video and audio signals. In simplified terms, the inventions, among other things, permit numerous different video/audio feeds to be displayed in one or more windows on one or more monitors, in various formats.

19. More specifically, the First Patent Family relates to a system for efficiently receiving various input signals (e.g., video, audio, and/or data), generating packetized signals for

transmission to an output processor, and providing output signals based on the packetized signals to various output devices. One or more master controllers generate control signals to, for example, define characteristics for generating the packetized signals and providing output signals. Among other things, the control signals may specify the location and dimensions for display of video input signals and correlation with specific audio equalization or noise cancellation. The inventions claimed by the First Patent Family facilitate generating one or more formatted output signals from one or more input signals, without the need for excessive cabling, signal regeneration/replication, and corresponding signal degradation, thereby proving indispensable in applications where multiple video, audio, and/or data inputs must be monitored, such as in connection with the broadcast of news or sporting events.

20. Evertz makes and sells numerous systems that use the claimed inventions of the First Patent Family, including products in Evertz's MVP, Maestro II, VUE, and VistaLINK PRO product lines. The inventions of the First Patent Family embodied in the various Evertz product lines have garnered industry praise and have had substantial commercial success.

Evertz Patent Relating to Signal Processing

21. The USPTO issued the '398 Patent on September 18, 2012. Evertz is the lawful owner by assignment of all rights, title, and interest in and to the '398 Patent. A true and correct copy of the '398 Patent is attached as Exhibit D.

22. Romolo Magarelli, Rakesh Thakor Patel, Eric Fankhauser, and Daniel G. Turow are the named inventors of the '398 Patent.

23. The '398 Patent relates generally to a system that allows for a plurality of input signals to be routed to one or more output processors, where each output processor processes the one or more input signals it receives and provides one or more output signals based on the received

input signals. A controller controls the configuration of a cross point switch to switch a subset of input signals to particular output processors.

24. Evertz makes and sells numerous systems that use the claimed invention of the ’398 Patent, including products in Evertz’s EQX product lines. The inventions of the ’398 Patent embodied in Evertz’s EQX product lines have garnered industry praise and have had substantial commercial success.

Evertz Patents Relating to Video Routing

25. The USPTO issued the ’391 Patent on May 16, 2017. Evertz is the lawful owner by assignment of all rights, title, and interest in and to the ’391 Patent. A true and correct copy of the ’391 Patent is attached as Exhibit E.

26. The USPTO issued the ’139 Patent on April 10, 2018. Evertz is the lawful owner by assignment of all rights, title, and interest in and to the ’139 Patent. A true and correct copy of the ’139 Patent is attached as Exhibit F.

27. The USPTO issued the ’877 Patent on December 25, 2018. Evertz is the lawful owner by assignment of all rights, title, and interest in and to the ’877 Patent. A true and correct copy of the ’877 Patent is attached as Exhibit G.

28. Rakesh Thakor Patel is the named inventor of the ’391 Patent, the ’139 Patent, and the ’877 Patent (collectively, the “Second Patent Family”).

29. The Second Patent Family relates generally to a system for transmitting and distributing video, audio, and/or data signals. In simplified terms, the inventions, among other things, provide a data communication network to route video, audio, and/or data signals to and from devices.

30. More specifically, the Second Patent Family relates to a data communication network that includes a plurality of line cards and network switches to route various input signals across the network. One or more controllers generate control signals to, for example, control the operation of the line cards and network switches. The inventions claimed by the Second Patent Family facilitate efficient routing of video, audio, and/or data signals, thereby proving indispensable in applications where a large number of signals must be efficiently routed, such as in connection with the broadcast of news or sporting events.

31. Evertz makes and sells numerous systems that use the claimed invention of the Second Patent Family, including products in Evertz's EXE product lines. The inventions of the Second Patent Family embodied in Evertz's EXE product line have garnered industry praise and have had substantial commercial success.

32. Evertz's MVP, Maestro II, VUE, VistaLINK PRO, EXE and EQX product lines are collectively referred to herein as the "Evertz Covered Products."

Providius, Former Evertz Employees, and Lawo

33. On October 29, 2012, while the application that matured into the '838 Patent was pending at the USPTO, Tony Zare, Ayman Al Khatib, and Jackson Wiegman founded a Canadian corporation named Mayana Media Corp. in Ontario. In May 2013, Mayana was renamed Providius Corp. Providius directly competed with Evertz in the design, manufacture, marketing, and sales of systems for transmitting and distributing video and audio signals in broadcasting industries. Providius and Evertz attended the same trade shows in the United States and, on information and belief, offered to sell and/or sold products for use by the same customers and in the same types of applications as those of the Evertz Covered Products.

34. Mr. Zare is a design engineer and was an Evertz employee from April 15, 2002, until March 6, 2015. Mr. Zare owed various duties to Evertz as conditions of his employment and was party to a confidentiality agreement he entered with Evertz. At the same time he was working at Evertz, public records reveal that Mr. Zare was a director of Providius from its founding until April 29, 2013. Further, Mr. Zare signed an annual return filed by Providius on January 28, 2015, pursuant to the Canada Business Corporations Act. On information and belief, Mr. Zare concealed his work with Providius from Evertz to maintain access to Evertz's confidential research and development activities. At the time of his departure from Evertz in 2015, almost two and a half years after cofounding Providius, he was a director-level Evertz employee working on digital compression systems, including technologies incorporated in the Evertz Covered Products. While at Evertz, Mr. Zare worked on teams with Evertz's Mr. Patel, one of the aforementioned inventors of the '838 Patent. Further, Mr. Zare is identified as an inventor in another Evertz patent family (U.S. Patent No. 9,620,131B2, filed on April 8, 2011, issued on April 11, 2017; and U.S. Patent Application 15/445,605, filed on February 28, 2017).

35. Mr. Al Khatib is a production engineer and was an Evertz employee from May 7, 2007, until November 22, 2016. Mr. Al Khatib owed various duties to Evertz as conditions of his employment and was party to a confidentiality agreement he entered with Evertz. When he left his employment with Evertz, Mr. Al Khatib was a Director of International Business and—on information and belief—well-versed in Evertz's competitive business relationship with Lawo. Public records evidence that, contemporaneous with his employment at Evertz, Mr. Al Khatib was also a director of Providius from its founding until at least April 29, 2013. On information and belief, he too concealed his work with Providius from Evertz to maintain access to Evertz's confidential innovations, business opportunities, and technology plans.

36. Mr. Wiegman was an Evertz employee from October 29, 2007, until October 19, 2012, approximately ten days before he cofounded Providius. Mr. Wiegman owed various duties to Evertz as conditions of his employment and was party to a confidentiality agreement he entered with Evertz. At the time he left his employment with Evertz, Mr. Wiegman was a director-level Evertz product manager, who—on information and belief—was not only familiar with Evertz's competitive business relationship with Lawo, but also with Evertz's product line plans and future product planning.

37. On information and belief, sometime in 2016, Providius launched a product called "BMG Solution" that was based on and substantially similar to proprietary Evertz solutions, including the Evertz Covered Products.

38. On information and belief, between 2016 and 2018, Lawo acquired Providius and/or the BMG Solution, and Lawo started promoting Providius' BMG Solution as its own product in competition with Evertz and the Evertz Covered Products. In 2018, Lawo and Evertz attended the same trade show in the United States and, on information and belief, offered to sell and/or sold products for use by the same customers and in the same types of applications as those of the Evertz Covered Products.

39. On information and belief, Messrs. Zare and Wiegman continue to be senior technical employees of Providius and are also involved with technology and product development for Lawo. For example, Mr. Zare is identified on Lawo's website as a Senior Director of Product Management and he appears in a promotional video for Lawo "SMART" scope (*see*, LAWO, www.lawo.com/products/network-monitoring/smartscope.html, last visited March 11, 2019).

40. Public records show that on December 23, 2016, Messrs. Zare and Al Khatib rejoined Providius' Board of Directors. Further, Messrs. Zare and Wiegman continue to serve on Providius' Board alongside Philipp Lawo, the CEO of Lawo.

41. On information and belief, Messrs. Zare, Al Khatib, and/or Wiegman knew of Evertz's efforts to commercialize the Evertz Covered Products, to prosecute the Patents-in-Suit, and/or the issuance of each of the Patents-in-Suit. On further information and belief, Messrs. Zare, Al Khatib, and Wiegman willfully and without authorization transferred confidential and proprietary information about Evertz innovations, including but not limited to Evertz Covered Products and innovations covered by the Patents-in-Suit, to Lawo, and Lawo used this information knowing it to be proprietary to Evertz and/or covered by the Patents-in-Suit to offer to sell, sell, and/or import into the United States products that infringe the Patents-in-Suit, as further described below.

42. On May 16, 2018, Evertz sued Lawo, Providius, and Messrs. Zare, Al Khatib, and Wiegman, among others, in the Ontario Superior Court of Justice, Court File No. CV1800597979000, alleging theft of confidential information, breach of confidence, conspiracy, and unjust enrichment, in addition to other related claims (the "Ontario Civil Action").

43. As explained in Evertz's Ontario Civil Action complaint, and on information and belief, Messrs. Zare, Al Khatib and Wiegman misappropriated Evertz's confidential information about Evertz Covered Products, including, among other things, software, architecture, product solution, roadmap, materials, work flow, and pricing information, to build an IP-based broadcast network product for Providius and Lawo using information from Evertz (Ontario Civil Action Complaint, p. 20, Paras. 91-92).

44. As a result, Providius was, on information and belief, able to release a product line (the BMG Solution) with attributes and functionality similar to Evertz Covered Products, despite being a new company with few resources (Ontario Civil Action Complaint, p. 19, Para. 81). In comparison, it had taken Evertz many years and tens of millions of dollars in research and development investment to develop and release the Evertz Covered Products.

45. Each Lawo defendant has, on information and belief, continued to willfully copy and profit from Evertz's confidential and proprietary information, and to willfully infringe the Patents-In-Suit. To that end, Lawo has introduced a product called V_matrix, which Lawo touts on its website as a "new IP broadcast video core infrastructure." However, Lawo's V_matrix product is not "new." To the contrary, on information and belief, it makes substantial use of confidential, proprietary, and patented Evertz technology knowingly transferred without authorization by Messrs. Zare, Al Khatib, and Wiegman to Lawo.

Lawo Infringes the Patents-In-Suit

46. Lawo offers to sell, sells, uses, and imports into the United States a system of products it calls V_matrix. Lawo's V_matrix systems infringe at least claim 1 of each of the '838 Patent, the '217 Patent, the '322 Patent, '398 Patent, the '391 Patent, the '139 Patent, and the '877 Patent.

47. A true and correct copy of Lawo's English language brochure for its V_matrix system, downloaded from Lawo's website at <www.lawo.com/fileadmin/content/Products/V__matrix/Lawo_V__matrix_EN.pdf>, is attached as Exhibit H.

48. As described in detail below in Counts I - VII, Lawo offers a series of products that infringe the Patents-in-Suit, including the V_matrix system, which may comprise a plurality of

modules. The accused product comprises one or more V_matrix modules that receive one or more input signals, generate packetized signals, transmit the packetized signals, and produce one or more output signals.

COUNT I
INFRINGEMENT OF U.S. PATENT NO. 8,537,838

49. Evertz repeats and re-alleges the allegations contained in Paragraphs 1 through 48 above as if fully set forth herein.

50. Each Lawo defendant, individually and collectively, has directly infringed and continues to directly infringe, literally or under the doctrine of equivalents, one or more claims of the ’838 Patent in violation of 35 U.S.C. § 271(a) by making, using, offering to sell, selling (directly or through intermediaries), and/or importing into the United States, Lawo products including, but not limited to, the Lawo V_matrix system.

51. For example, each Lawo defendant, individually and collectively, infringes at least claim 1 of the ’838 Patent that reads:

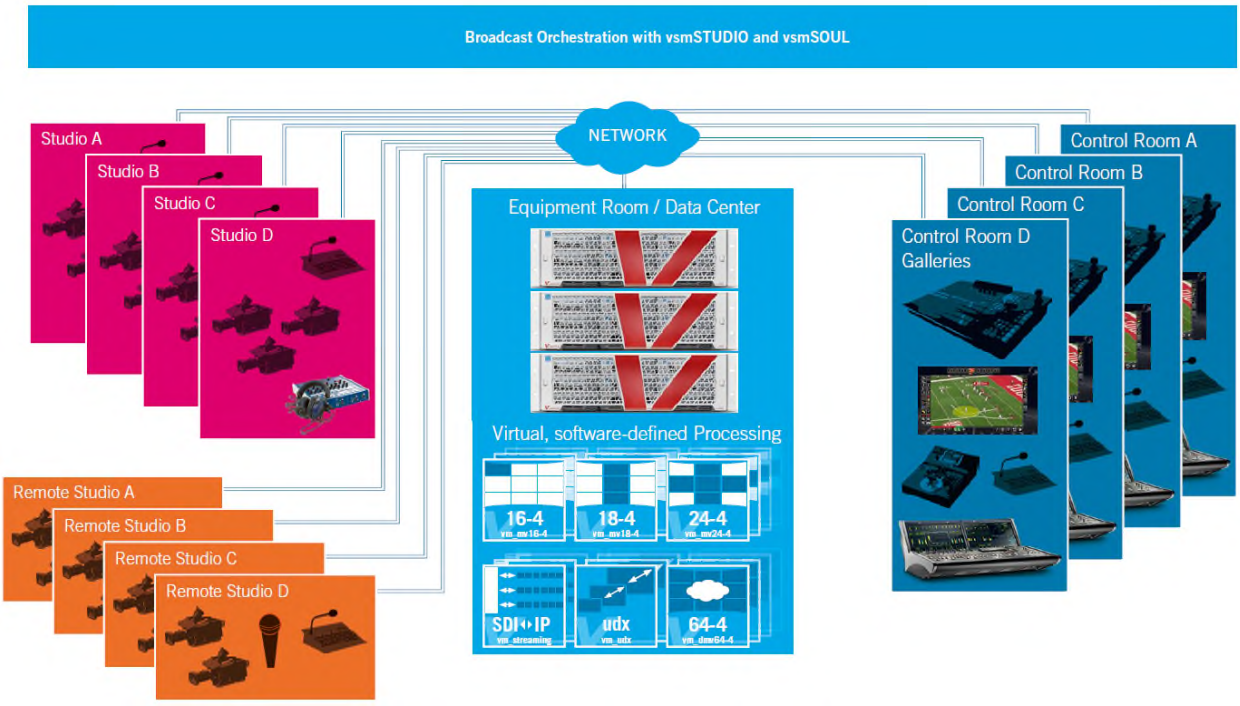
> A system for receiving one or more input signals and for producing one or more output signals, the system comprising:
>
> > (a) a master controller for generating input processor control signals and output processor control signals, and for assigning a unique global identification code to each of a plurality of packet source signals;
> >
> > (b) an input processor having: (i) one or more input ports for receiving the input signals; (ii) one or more input signal processors for processing the input signals to provide one or more processed signals (iii) an input processor memory system for buffering the input signals and the processed signals, wherein at least some of the buffered signals are designated as packet source signals; (iv) one or more packetized signal output ports; (v) one or more packetized signal output stages for retrieving one or more of the packet source signals from the input processor memory system and for producing one or more packetized signals at the packetized signal output ports, wherein each of the packetized signals includes a series of packetized signal packets, wherein each of the packetized signal packets contains the unique global identification code corresponding to one of the packet source signals and data corresponding to the same packet source signal; and (vi) an input processor local controller for controlling the operation

> of at least the signal processors and the packetized signal output stages in response to the input processor control signals;
>
> (c) an output processor having: (i) one or more packetized signal input ports for receiving the packetized signals; (ii) one or more packetized signal input stages for extracting data corresponding to each of the packet source signals from each of the packetized signals and for storing data corresponding to each of the packet source signals in a separate buffer in the output processor memory system as an output source signal based on the unique global identification code in the packetized signal packets of each packetized signal; (iii) one or more output signal generators for providing one or more output signals, each of the output signals corresponding to one or more of the output source signals; (iv) an output processor local controller for controlling the operation of the packetized signal input stages and the output signal generators in response to the output processor control signals; and
>
> (d) a communications link coupled between the one or more packetized signal output ports and the one or more packetized signal input ports.

52. The Lawo products including, but not limited to, the Lawo V_matrix system perform each and every limitation of ’838 Patent claim 1. The following paragraphs explain the infringement in detail, with particular reference to Exhibit H.

53. By way of example, a series of Lawo products individually and collectively provide broadcast video core infrastructure for broadcast facilities. Lawo refers to this system as “V_matrix.” The V_matrix system may receive one or more input signals, such as recorded video signals from a studio, and may output one or more output signals, such as video for monitoring in a control room. The V_matrix system may comprise a plurality of modules (e.g., C100 modules and/or virtual machines running on one or more C100 modules).

54. The following figure provides an overview of the V_matrix "ecosystem" as presented by Lawo:



V_matrix System Overview (Ex. H, at 4-5.)

55. The accused product comprises a master controller that generates input processor control signals and output processor control signals. For example, vsmSTUDIO and/or vsmSOUL provides a "unified orchestration, control and monitoring system" that generates input processor control signals and output processor control signals. The accused product accomplishes IP routing using vsmSOUL:

vsmSOUL Description (Ex. H, at 20.)

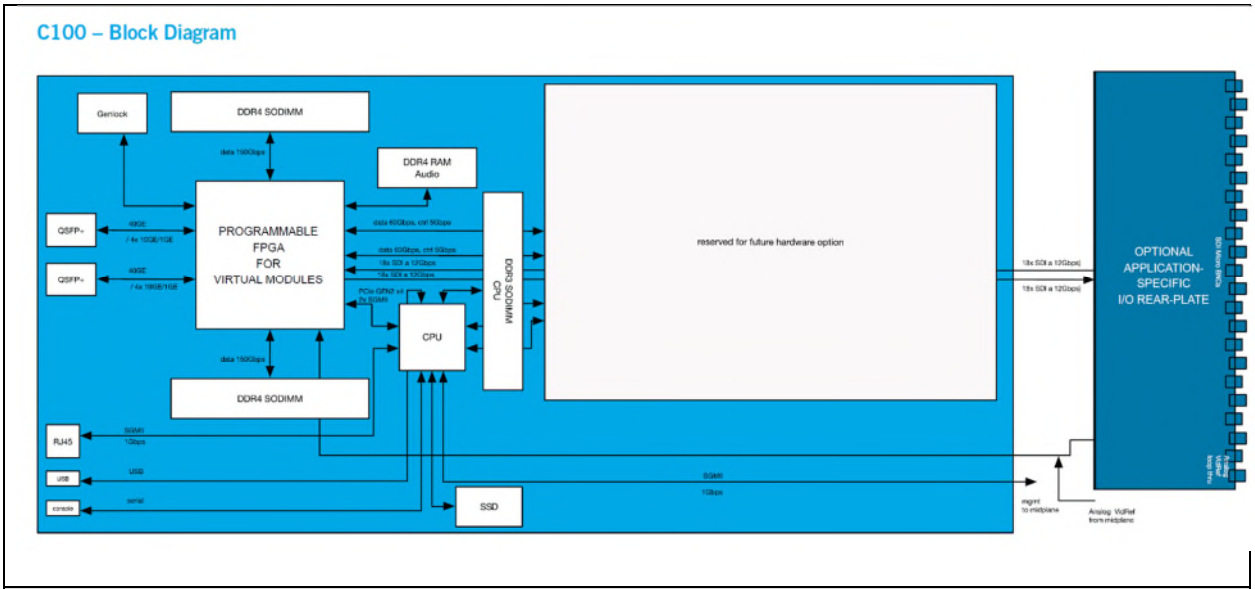
56. The accused product comprises an input processor with one or more input ports, one or more input signal processors, an input processor memory system, one or more packetized signal output ports, one or more packetized signal output stages, and an input processor local controller.

57. For example, the input processor of the accused product comprises one or more components of a C100 module and/or a virtual machine module running on the C100 module (e.g., vm_dmv64-4). The one or more input ports may be data inputs, such as SDI inputs and/or IP inputs. The input processor may utilize one or more input signal processors to provide processed signals. For example, a vm_dmv64-4 may generate downscaled versions of a received signal.

Every vm_dmv64-4 has an input stage capable of receiving up to 24 sources of any combination of 4K/3G/HD/SD which is limited only by the physical (up to 18 SDI inputs) or network (2x 40GbE) I/O. These sources are downscaled by the vm_mv64-4 and returned to the network as IP (RFC 4175) encapsulated mipmaps.

vm_dmv64-4 Description (Ex. H, at 16.)

58. The input processor of the accused product also comprises an input processor memory system for buffering input signals and/or processed signals. For example, each C100 module comprises DDR4 SODIMMs with signal buffering functionality. Processed signals may be buffered using the memory.



C100 – Block Diagram (Ex. H, at 6.)

For example, the accused product buffers received input signals and downscaled versions of received signals before transmitting at least some of the buffered signals as packet source signals in packetized signals.

59. The input processor of the accused product comprises one or more packetized signal output stages for producing and transmitting packetized signals. For example, a C100 module, when configured with a vm_dmv64-4 virtual module, comprises an FPGA and QSFP+ ports for producing packetized signals packets corresponding to the packet source signals, and for transmitting the packetized signal packets. The accused product may utilize IP transmissions to send the packet source signals using one or more packetized signal packets.

V_matrix C100 Core Processing Module (Ex. H, at 6.)

60. The master controller of the accused product assigns a unique global identification code to the packetized signal packets. For example, the master controller may assign a unique multicast address to each of the plurality of packet source signals. In this manner, each packet source signal has a unique global identification code (e.g., a multicast address) that identifies that particular packet source signal.

61. The input processor of the accused product comprises an input processor local controller for controlling the signal processors and the signal output stages based on input processor control signals from the master controller. For example, the FPGA and CPU of a C100 module control operation of the signal processors and the signal output stages. The FPGA and CPU may receive input processor control signals via RJ45 ports from the master controller (e.g., from the vsmSOUL).

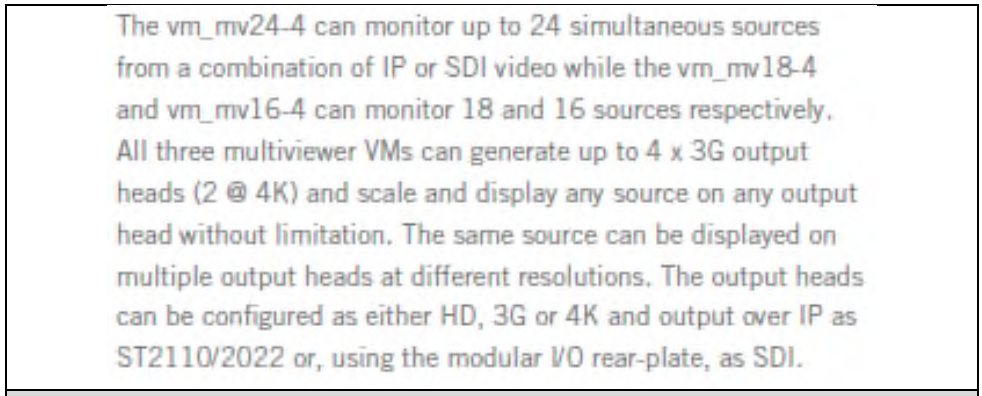
62. The accused product comprises an output processor with one or more packetized signal input ports, one or more packetized signal input stages, one or more output signal generators, and an output processor local controller.

63. The output processor of the accused product comprises one or more packetized signal input ports for receiving packetized signals from the input processor. For example, a vm_mv24-4 module operating on a C100 module may receive packetized signals at one or more

QSFP+ ports through a communications link. The module may identify a particular packet source signal within a packetized signal based on a unique global identification code (e.g., a multicast address).

64. The output processor of the accused product comprises one or more packetized signal input stages. For example, the accused product extracts data corresponding to each packet source signal from packetized signals (e.g., based on a multicast address) via a buffer (e.g., a FIFO buffer utilizing the DDR4 SODIMMs).

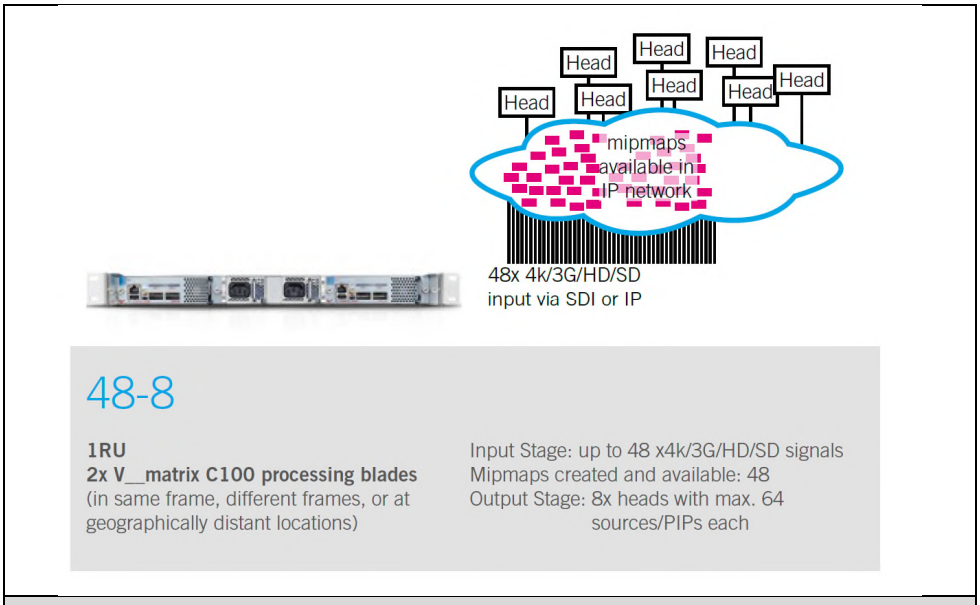
65. The output processor of the accused product comprises an output signal generator that provides one or more output signals. For example, a vm_mv24-4 module provides up to four output signals, which may each contain a mosaic of buffered packet source signals.



vm_mv24-4 Description (Ex. H, at 14.)

66. The output processor of the accused product comprises a local controller for controlling the packetized signal input stages and the output signal generators based on output processor control signals from the master controller. For example, the FPGA and CPU of a C100 module control operation of the signal input stages and the output signal generators. The FPGA and CPU may receive output processor control signals via RJ45 ports from the master controller (e.g., from the vsmSOUL).

67. The accused product comprises a communications link between the packetized signal output ports and the packetized signal input ports. The accused product is designed to utilize an IP infrastructure to connect one or more modules. For example, a C100 module executing a vm_dmv_64-4 module may comprise QSFP+ ports that are communicatively coupled, via IP communication, to QSFP+ ports of a second C100 module executing a vm_mv24-4 module. Downscaled versions of a received signal (e.g., mipmaps) may thus be sent from an input processor of one module, via a communication link, to an output processor of a second module. In some instances, one or more other communication links, such as an internal backplane and/or switch for communication within a frame, may substitute for and/or augment IP communication via QSFP+ ports.



Virtual Module (Ex. H, at 17.)

68. Evertz has not licensed or granted permission to Lawo to use the subject matter of the ’838 Patent.

69. Each Lawo defendant is aware of the ‘838 Patent and its infringement at least as of the date of this Amended Complaint and has willfully infringed the ’838 Patent.

70. Evertz has been damaged and continues to be damaged by Lawo's infringement of the '838 Patent.

71. Evertz is entitled to recover from Lawo the damages sustained by Evertz as a result of Lawo's wrongful acts in an amount subject to proof at trial.

72. Evertz is suffering and will continue to suffer irreparable harm for which there is no adequate remedy at law as a result of Lawo's infringement of the '838 Patent. By way of example, Lawo's infringing products compete with Evertz's products and Lawo's infringing products were willfully derived from Evertz's proprietary information that is now embodied in '838 Patent claim 1. Unless enjoined, Lawo will continue its infringing conduct.

COUNT II
INFRINGEMENT OF U.S. PATENT NO. 9,100,217

73. Evertz repeats and re-alleges the allegations contained in Paragraphs 1 through 72 above as if fully set forth herein.

74. Each Lawo defendant, individually and collectively, has directly infringed and continues to directly infringe, literally or under the doctrine of equivalents, one or more claims of the '217 Patent in violation of 35 U.S.C. § 271(a) by making, using, offering to sell, selling (directly or through intermediaries), and/or importing into the United States, Lawo products including, but not limited to, the Lawo V_matrix system.

75. For example, each Lawo defendant, individually and collectively, infringes at least claim 1 of the '217 Patent that reads:

> A method of producing a packetized signal comprising:
>
> receiving one or more input signals;
>
> determining which of the one or more input signals and signals derived from the one or more input signals are required to generate the packetized signal;

> upon determining the one or more input signals required to generate the packetized signal, buffering the one or more input signals required to generate the packetized signal in a memory system;
>
> upon determining the signals derived from the one or more input signals required to generate the packetized signal, processing at least one of the one or more input signals to provide a corresponding processed signal, wherein the corresponding processed signal is required to generate the packetized signal, and buffering the corresponding processed signal in the memory system;
>
> designating the one or more input signals buffered in the memory system and the corresponding processed signal buffered in the memory system as packet source signals and assigning each of the packet source signals a unique global identification code; and
>
> generating the packetized signal wherein the packetized signal includes a series of packetized signal packets, wherein each of the packetized signal packets contains the unique global identification code of one of the packet source signals and data corresponding to the same packet source signal.

76. Each Lawo defendant performs each and every limitation of ’217 Patent claim 1. The following paragraphs explain the infringement in detail, with particular reference to Exhibit H.

77. The accused product receives one or more input signals and determines which of the one or more input signals and signals derived from the one or more input signals are required to generate the packetized signal. For example, the accused product comprises an input processor with one or more input ports for receiving one or more input signals. The input processor of the accused product comprises one or more components of a C100 module and/or a virtual machine module running on the C100 module (e.g., vm_dmv64-4). The input ports may be data inputs, such as SDI inputs and/or IP inputs (Ex. H, at 6, 10). The accused product may determine the received input signals and downscaled versions of received signals in packetized signals (Ex. H, at 6).

78. The accused product processes at least one of the one or more input signals, and buffers the input signals and the processed signals. For example, the input processor may utilize

one or more input signal processors to provide processed signals. For example, a vm_dmv64-4 may generate downscaled versions of a received input signal (Ex. H, at 10).

79. The input processor of the accused product also comprises an input processor memory system for buffering input signals and/or processed signals. For example, each C100 module comprises DDR4 SODIMMs with signal buffering functionality. The accused product buffers received input signals and downscaled versions of received signals before including at least some of the buffered signals as packet source signals in packetized signals (Ex. H, at 6).

80. The accused product designates some of the buffered signals as packet source signals and assigns a unique global identification code to each packet source signal. For example, a unique multicast address is assigned to each of the plurality of packet source signals in the accused product. In this manner, each packet source signal has a unique global identification code (e.g., a multicast address) that identifies that particular packet source signal (Ex. H, at 16, 17).

81. The input processor of the accused product produces packetized signals. For example, a C100 module, when configured with a vm_dmv64-4 virtual module, comprises an FPGA and QSFP+ ports for producing packetized signals packets corresponding to the packet source signals (Ex. H, at 11).

82. Evertz has not licensed or granted permission to Lawo to use the subject matter of the ’217 Patent.

83. Each Lawo defendant is aware of the ‘217 Patent and its infringement at least as of the date of this amended Complaint and has willfully infringed the ’217 Patent.

84. Evertz has been damaged and continues to be damaged by Lawo’s infringement of the ’217 Patent.

85. Evertz is entitled to recover from Lawo the damages sustained by Evertz as a result of Lawo's wrongful acts in an amount subject to proof at trial.

86. Evertz is suffering and will continue to suffer irreparable harm for which there is no adequate remedy at law as a result of Lawo's infringement of the '217 Patent. By way of example, Lawo's infringing products compete with Evertz's products and Lawo's infringing products were willfully derived from Evertz's proprietary information that is now embodied at least '217 Patent claim 1. Unless enjoined, Lawo will continue its infringing conduct.

COUNT III
INFRINGEMENT OF U.S. PATENT NO. 9,473,322

87. Evertz repeats and re-alleges the allegations contained in Paragraphs 1 through 86 above as if fully set forth herein.

88. Each Lawo defendant, individually and collectively, has directly infringed and continues to directly infringe, literally or under the doctrine of equivalents, one or more claims of the '322 Patent in violation of 35 U.S.C. § 271(a) by making, using, offering to sell, selling (directly or through intermediaries), and/or importing into the United States, Lawo products including, but not limited to, the Lawo V_matrix system.

89. For example, each Lawo defendant, individually and collectively, infringes at least claim 1 of the '322 Patent that reads:

> A method of producing a packetized signal comprising:
>
> receiving one or more input signals;
>
> automatically assigning each of the one or more input signals a unique global identification code;
>
> deriving one or more derived signals from at least one of the input signals;
>
> determining which of the one or more input signals and derived signals are required to generate the packetized signal;
>
> upon determining the derived signals required to generate the packetized signal, processing at least one input signals to provide a corresponding processed signal,

> wherein the corresponding processed signal is required to generate the packetized signal, and buffering the corresponding processed signal in the memory system; and
>
> upon determining the one or more input signals required to generate the packetized signal, buffering the one or more input signals required to generate the packetized signal in a memory system.

90. Each Lawo defendant performs each and every limitation of ’322 Patent claim 1. The following paragraphs explain the infringement in detail, with particular reference to Exhibit H.

91. The accused product comprises an input processor with one or more input ports for receiving one or more input signals. For example, the input processor of the accused product comprises one or more components of a C100 module and/or a virtual machine module running on the C100 module (e.g., vm_dmv64-4). The one or more input ports may be data inputs, such as SDI inputs and/or IP inputs (Ex. H, at 6, 10).

92. The accused product automatically assigns unique global identification code to at least one received input signal. For example, in the accused product, a unique multicast address is assigned to each of the plurality of buffered signals, including at least one received input signal. In this manner, each buffered signal has a unique global identification code (e.g., a multicast address) that identifies that buffered signal (Ex. H, at 16, 17).

93. The accused product derives a signal from the input signals. For example, a vm_dmv64-4 may generate downscaled versions of a received signal (Ex. H, at 10).

94. The accused product determines which of the input signals and derived signals are required to generate the packetized signal. For example, the accused product may transmit pre-determined received input signals and downscaled versions of received signals in packetized signals (Ex. H, at 6).

95. Based on the determination, the accused product processes at least one input signal, and buffers the input signals and the processed signals. For example, the input processor may utilize one or more input signal processors to provide downscaled versions of a received signal (Ex. H, at 10).

96. The input processor of the accused product also comprises an input processor memory system for buffering input signals and/or processed signals. For example, each C100 module comprises DDR4 SODIMMs with signal buffering functionality. The accused product buffers received input signals and downscaled versions of received signals before including at least some of the buffered signals in packetized signals (Ex. H, at 6).

97. Evertz has not licensed or granted permission to Lawo to use the subject matter of the ’322 Patent.

98. Each Lawo defendant is aware of the ‘322 Patent and its infringement at least as of the date of this Amended Complaint and has willfully infringed the ’322 Patent.

99. Evertz has been damaged and continues to be damaged by Lawo’s infringement of the ’322 Patent.

100. Evertz is entitled to recover from Lawo the damages sustained by Evertz as a result of Lawo’s wrongful acts in an amount subject to proof at trial.

101. Evertz is suffering and will continue to suffer irreparable harm for which there is no adequate remedy at law as a result of Lawo’s infringement of the ’322 Patent. By way of example, Lawo’s infringing products compete with Evertz’s products and Lawo’s infringing products were willfully derived from Evertz’s proprietary information that is now embodied in the ’322 Patent claim 1. Unless enjoined, Lawo will continue its infringing conduct.

COUNT IV
INFRINGEMENT OF U.S. PATENT NO. 8,270,398

102. Evertz repeats and re-alleges the allegations contained in Paragraphs 1 through 101 above as if fully set forth herein.

103. Each Lawo defendant, individually and collectively, has directly infringed and continues to directly infringe, literally or under the doctrine of equivalents, one or more claims of the '398 Patent in violation of 35 U.S.C. § 271(a) by making, using, offering to sell, selling (directly or through intermediaries), and/or importing into the United States, Lawo products including, but not limited to, the Lawo V_matrix system.

104. For example, each Lawo defendant, individually and collectively, infringes at least claim 1 of the '398 Patent that reads:

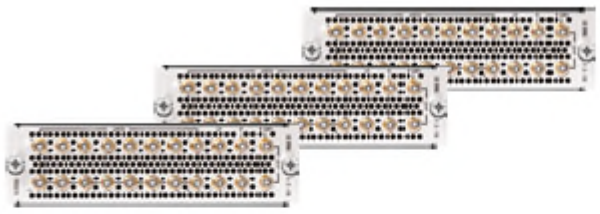
> A modular system for processing signals comprising:
>
> > a plurality of frame input terminals for receiving a plurality of input signals;
> >
> > a plurality of input modules coupled to the frame input terminals to receive the input signals;
> >
> > a cross point switch coupled to the input modules at a plurality of cross point switch input terminals to receive the input signals, wherein the cross point switch is configurable to couple one or more of the input signals to each of a plurality of processor input terminals;
> >
> > a plurality of output modules, each output module including one or more output processors, wherein each of at least some of the output processors is coupled to one or more of the processor input terminals to receive one or more of the input signals, and wherein each output module has one or more frame output terminals; and
> >
> > a controller coupled to:
> >
> > > the cross point switch to couple at least some of the frame input terminals to one of the processor input terminals whereby the input signals received at the frame input terminals are provided at the corresponding processor input terminals; and
> > >
> > > at least one of the output processors to controllably configure the at least one output processor to processor input signals received at the one or more processor input terminals of the at least one output processor to provide one or more output signals at the one or more frame output terminals of the at least one output processor.

105. The Lawo products including, but not limited to, the Lawo V_matrix system perform each and every limitation of ’398 Patent claim 1. The following paragraphs explain the infringement in detail, with particular reference to Exhibit H.

106. The accused product comprises a plurality of frame input terminals, a plurality of input modules, a cross point switch coupled to the plurality of input modules, a plurality of output modules and a controller coupled to the cross point switch and at least one of the plurality of output processors.

107. By way of an example, in one implementation of the accused product, the accused product may comprise at least four C100 modules (e.g., four C100 modules installed in a 2RU or a 3RU frame, or four C100 modules installed in multiple frames) (Ex. H, at 6, 16, 18).

108. The accused product comprises frame input terminals for receiving a plurality of input signals. For example, each C100 module is connected to a rear-mounted I/O interface module to be able to receive SDI video inputs, and the C100 module comprises QSFP+ ports to be able to receive IP video inputs. (Ex. H, at 6, 7, 19). The rear-plate I/O modules may be configured to include 10 SDI input and 10 SDI output connections, 18 SDI input and 2 SDI output connections, 2 SDI input and 18 SDI output connections, and 2 SDI input, 2 SDI output and 18 bidirectional input/output connections (Ex. H, at 22).



V__matrix REAR-PLATE I/O MODULES

The V__matrix rear-plate I/O modules provide additional interfaces on the back of the processing blade. These rear-plates house a variety of application specific physical interface connectors in order to provide connectivity to legacy broadcast equipment such as baseband video and audio components. All

V_matrix Rear-Plate I/O Modules (Ex. H, at 7.)

109. The accused product comprises a plurality of input modules coupled to the frame input terminals to receive the input signals. For example, each input module of the accused product may comprise one or more components of a C100 module and/or a virtual machine module running on the C100 module (e.g., vm_dmv64-4). In this implementation, at least two C100 modules receive SDI or IP input signals from the frame input terminals.

Every vm_dmv64-4 has an input stage capable of receiving up to 24 sources of any combination of 4K/3G/HD/SD which is limited only by the physical (up to 18 SDI inputs) or network (2x 40GbE) I/O. These sources are downscaled by the vm_mv64-4 and returned to the network as IP (RFC 4175) encapsulated mipmaps.

vm_dmv64-4 Description (Ex. H, at 16.)

110. The accused product comprises a cross point switch coupled to the input modules to couple one or more input signals to each of a plurality of processor input terminals. For example, upon information and belief, the V_matrix frame of the accused product may include an internal

switching fabric for routing video signals from one C100 module to another C100 module installed in the same frame. The internal switching fabric may receive routing control signals from a controller (e.g., from the vsmSOUL) (Ex. H, at 6, 20-21).

111. The accused product comprises a plurality of output modules where each output module includes one or more output processors. For example, each output module of the accused product may comprise one or more components of a C100 module and/or a virtual machine module running on the C100 module (e.g., vm_dmv64-4, vm_mv24-4, etc.). The vm_dmv64-4 or vm_mv24-4 module operating on a C100 module may receive one or more input signals (e.g., at one or more QSFP+ ports from the V_matrix frame's internal switching fabric), and may generate output signals (e.g., at one or more QSFP+ ports).

112. The accused product comprises a controller to control the cross point switch and at least one output processor. The V_matrix frame may provide power and connectivity for control and monitoring to the C100 modules installed in the frame (Ex. H, at 6). For example, each input module, output module, and internal switching fabric in the V_matrix system is coupled to vsmSTUDIO and/or vsmSOUL through a network. VsmSTUDIO and vsmSOUL provide a "unified orchestration, control and monitoring system" that generates control signals for the C100 modules and the V_matrix frame (Ex. H, at 4, 5, 19).

113. The accused product may comprise C100 modules in various arrangements. For example, two C100 modules may be installed in one frame and two C100 modules may be installed in a different frame. In another example, one C100 module may be installed in one frame and three C100 modules may be installed in another frame. In yet another example, each of four C100 modules may be installed in four different frames. At least four C100 modules (six modules, eight modules, etc.) may be installed across any number of frames. The C100 modules may be installed

in different frames, and may be connected through an external switching fabric and cables connecting the different V_matrix frames (Ex. H, at 6, 16, 17). In various different arrangements involving at least two V_matrix frames, the external switching fabric connecting the V_matrix frames additionally routes video signals between the various C100 modules.

114. Evertz has not licensed or granted permission to Lawo to use the subject matter of the ’398 Patent.

115. Each Lawo defendant is aware of the ’398 Patent and its infringement at least as of the date of this Amended Complaint and has willfully infringed the ’398 Patent.

116. Evertz has been damaged and continues to be damaged by Lawo’s infringement of the ’398 Patent.

117. Evertz is entitled to recover from Lawo the damages sustained by Evertz as a result of Lawo’s wrongful acts in an amount subject to proof at trial.

118. Evertz is suffering and will continue to suffer irreparable harm for which there is no adequate remedy at law as a result of Lawo’s infringement of the ’398 Patent. By way of example, Lawo’s infringing products compete with Evertz’s products and Lawo’s infringing products were willfully derived from Evertz’s proprietary information that is now embodied at least ’398 Patent claim 1. Unless enjoined, Lawo will continue its infringing conduct.

COUNT V
INFRINGEMENT OF U.S. PATENT NO. 9,654,391

119. Evertz repeats and re-alleges the allegations contained in Paragraphs 1 through 118 above as if fully set forth herein.

120. Each Lawo defendant, individually and collectively, has directly infringed and continues to directly infringe, literally or under the doctrine of equivalents, one or more claims of the ’391 Patent in violation of 35 U.S.C. § 271(a) by making, using, offering to sell, selling

(directly or through intermediaries), and/or importing into the United States, Lawo products including, but not limited to, the Lawo V_matrix system.

121. For example, each Lawo defendant, individually and collectively, infringes at least claim 1 of the ’391 Patent that reads:

> A video router comprising:
>
> a backplane including a plurality of static point-to-point backplane connections;
>
> a plurality of line cards, each line card including:
>
> a plurality of input ports and output ports, each input port and output port is coupled to a respective external signal through the backplane;
>
> a line card cross-point switch having a plurality of input switch terminals and a plurality of output switch terminals such that a first plurality of input and output switch terminals are coupled to the respective plurality of input and output ports and a second plurality of input and output switch terminals are coupled to the plurality of backplane connections;
>
> a line card controller coupled to the line card cross-point switch to selectively couple some of the input switch terminals to the output switch terminals;
>
> one or more fabric cards, each fabric card including:
>
> a fabric card cross-point switch having a plurality of input switch terminals and a plurality of output switch terminals coupled to the plurality of backplane connections;
>
> a fabric card controller coupled to the fabric card cross-point switch to selectively couple some of the input switch terminals to the output switch terminals; and
>
> a controller communication network coupled to each of the line cards and fabric cards to control the operation of the fabric card controllers and the line card controllers.

122. The Lawo products including, but not limited to, the Lawo V_matrix system perform each and every limitation of ’391 Patent claim 1. The following paragraphs explain the infringement in detail, with particular reference to Exhibit H.

123. The accused product comprises a backplane, a plurality of line cards, one or more fabric cards and a controller. By way of an example, in one implementation, the accused product

comprises two C100 modules installed in a single V_matrix frame (e.g. in 1RU frame) (Ex. H, at 6, 16, 18).

124. In this implementation, a V_matrix frame of the accused product comprises the backplane. The V_matrix frame provides power and connectivity for control and monitoring to the C100 modules installed in the frame. (Ex. H, at 6). The V_matrix frame, on information and belief, may have internal static connections for transmitting and receiving video signals to and from the C100 modules (Ex. H, at 6).

The V__matrix frames provide power and protected housing for the V__matrix processing blades. Each frame has a dedicated 1GE management port that provides connectivity for control and monitoring to all installed processing modules of the frame.
V_matrix FRAMES Description (Ex. H, at 6.)

125. Each line card of the accused product includes a plurality of input ports and output ports. For example, each line card of the accused product comprises one or more components of a C100 module and/or a virtual machine module running on the C100 module (e.g., vm_dmv64-4). Each C100 module is connected to a rear-mounted I/O interface module to be able to receive SDI video inputs, and the C100 module comprises QSFP+ ports to be able to receive IP video inputs (Ex. H, at 6, 7, 19). Similarly, each C100 module is connected to a rear-mounted I/O interface module to be able to provide SDI video outputs, and the C100 module comprises QSFP+ ports to be able to provide IP video outputs (Ex. H, at 6, 7, 19).

126. Each line card of the accused product also includes a line card cross-point switch having a plurality of input switch terminals and output switch terminals. For example, each C100 module comprises an FPGA with signal routing functionality, where the FPGA is configured to receive or transmit SDI or IP video signals to or from the rear-mounted I/O interface module and

the QSFP+ ports. At least some of the SDI or IP video signals, on information and belief, may be transmitted to or received from the internal connections and/or traces in the V_matrix frame (Ex. H, at 6).

127. Each line card of the accused product includes a line card controller coupled to the line card cross-point switch. For example, the CPU of a C100 module controls the operation of the FPGA to facilitate video signal routing. The FPGA and CPU may receive control signals from a controller (e.g., from the vsmSOUL) (Ex. H, at 6).

128. The accused product comprises one or more fabric cards where each fabric card includes a fabric card cross-point switch having input switch terminals and output switch terminals and a fabric card controller coupled to the fabric card cross-point switch. For example, upon information and belief, the V_matrix frame of the accused product may include an internal switching fabric which may route the video signals to and/or from the internal static connections that comprise the backplane (Ex. H, at 6).

129. The accused product comprises a controller communication network to control the operation of each line card and fabric card. For example, upon information and belief, each line card and the internal switching fabric in the V_matrix frame is coupled to vsmSTUDIO and/or vsmSOUL through a network. vsmSTUDIO and VSMSOUL provides a “unified orchestration, control and monitoring system” that generates control signals for the C100 modules and the V_matrix frame (Ex. H, at 4, 5, 19). The accused product accomplishes IP routing using vsmSOUL (Ex. H, at 19, 20).

130. In another implementation of the accused product, at least two C100 modules are installed in different frames (e.g., one C100 module is installed in one frame and another C100 module is installed in another frame). In this implementation, the two C100 modules are connected

through an external switching fabric and/or cables connecting the C100 modules or the V_matrix frames to the external switching fabric (Ex. H, at 6, 16, 17).

131. In this implementation, the backplane comprises the static connections within V_matrix frames housing the two C100 modules as well as the cables connecting the C100 modules or the V_matrix frames to the external switching fabric (Ex. H, at 6).

132. The accused product comprises a plurality of line cards with each line card including input and output ports, a line card cross-point switch and a line card controller. For example, a line card of the accused product comprises a C100 module, where the C100 module is connected to a rear-mounted I/O interface module for receiving and/or transmitting SDI video signals and is connected to QSFP+ ports to be able to receive and transmit IP video signals (Ex. H, at 6, 7, 19).

133. Each line card comprises a cross-point switch. For example, each C100 module comprises an FPGA with signal routing functionality, where the FPGA is configured to receive or transmit SDI or IP video signals to or from the rear-mounted I/O interface module and/or the QSFP+ ports. At least some of the SDI or IP video signals may be transmitted to or received from the cables connecting the V_matrix frames, the internal static connections in the V_matrix frames, or both (Ex. H, at 6).

134. Each line card of the accused product includes a line card controller coupled to the line card cross-point switch. For example, the CPU of a C100 module controls the operation of the FPGA to facilitate video signal routing. The FPGA and CPU may receive control signals from a controller (e.g., from the vsmSOUL) (Ex. H, at 6).

135. The accused product comprises at least one fabric card with each fabric card having a fabric card cross-point switch and a fabric card controller. For example, in this implementation,

the external switching fabric coupled between the two V_matrix frames in the accused product route the video signals between the C100 modules. The V_matrix frame of the accused product, on information and belief, may also include an internal switching fabric for routing the video signals between the internal static connections that comprise the backplane (Ex. H, at 6).

136. The accused product comprises a controller communication network to control the operation of each line card and fabric card. For example, upon information and belief, each line card, the internal switching fabric in the V_matrix frames, and the external switching fabric are coupled to the vsmSTUDIO and/or vsmSOUL through a network. vsmSTUDIO and vsmSOUL provide a "unified orchestration, control and monitoring system" that generates control signals for the C100 modules, the V_matrix frame and the external switching fabric connecting multiple V_matrix frames.

137. Evertz has not licensed or granted permission to Lawo to use the subject matter of the '391 Patent.

138. Each Lawo defendant is aware of the '391 Patent and its infringement at least as of the date of this Amended Complaint and has willfully infringed the '391 Patent.

139. Evertz has been damaged and continues to be damaged by Lawo's infringement of the '391 Patent.

140. Evertz is entitled to recover from Lawo the damages sustained by Evertz as a result of Lawo's wrongful acts in an amount subject to proof at trial.

141. Evertz is suffering and will continue to suffer irreparable harm for which there is no adequate remedy at law as a result of Lawo's infringement of the '391 Patent. By way of example, Lawo's infringing products compete with Evertz's products and Lawo's infringing

products were willfully derived from Evertz's proprietary information that is now embodied at least '391 Patent claim 1. Unless enjoined, Lawo will continue its infringing conduct.

COUNT VI
INFRINGEMENT OF U.S. PATENT NO. 9,942,139

142. Evertz repeats and re-alleges the allegations contained in Paragraphs 1 through 141 above as if fully set forth herein.

143. Each Lawo defendant, individually and collectively, has directly infringed and continues to directly infringe, literally or under the doctrine of equivalents, one or more claims of the '139 Patent in violation of 35 U.S.C. § 271(a) by making, using, offering to sell, selling (directly or through intermediaries), and/or importing into the United States, Lawo products including, but not limited to, the Lawo V_matrix system.

144. For example, each Lawo defendant, individually and collectively, infringes at least claim 1 of the '139 Patent that reads:

> A data transmission system, comprising:
>
> a plurality of video routers;
>
> a supervisory system configured to transmit one or more router configuration signals to one or more video routers, the one or more router configuration signals comprising instructions to selectively configure the one or more routers; and
>
> a controller communication network for coupling the plurality of video routers and the supervisory system,
>
> wherein, each video router comprises:
>
> a backplane including a plurality of backplane connections,
>
> at least one line card, the line card comprising:
>
> a plurality of input ports and output ports, each input port and output port being coupled to a respective external signal through the backplane, and
>
> a line card cross-point switch having a plurality of input switch terminals and a plurality of output switch terminals, wherein a first plurality of input and output switch terminals are coupled to a respective plurality of input and output ports and a second plurality of input and output switch terminals are coupled to a respective plurality of backplane connections, and

at least one fabric card, each fabric card comprising:

a fabric card cross-point switch having a plurality of input switch terminals and a plurality of output switch terminals, wherein the plurality of input and output switch terminals are coupled to a respective plurality of backplane connections, and

wherein, each line card and fabric card comprises a card controller, the card controller being coupled to one or more cross-point switches and configured to selectively couple one or more input switch terminals of a cross-point switch to one or more output switch terminals of that cross-point switch, the cross-point switch being a fabric card cross-point switch or a line card cross-point switch,

wherein, the controller communication network is communicably coupled to each card controller to control the operation of each line card and fabric card.

145. The Lawo products including, but not limited to, the Lawo V_matrix system perform each and every limitation of ’139 Patent claim 1. The following paragraphs explain the infringement in detail, with particular reference to Exhibit H.

146. The accused product comprises a plurality of video routers, a supervisory system and a controller communication network coupling the plurality of video routers and the supervisory system.

147. For example, the accused product may be used in a broadcast facility where multiple V_matrix frames and C100 modules are used to transmit video, audio and/or data signals. The multiple V_matrix frames may be connected to each other via an external switching fabric as well as cables connecting the C100 modules or the V_matrix frames to the external switching fabric (Ex. H, at 4 - 5 and 16 – 17).

148. The accused product comprises a supervisory system that transmits router configuration signals to the video routers. For example, vsmSTUDIO and/or vsmSOUL provides a control and monitoring system that generates control signals for configuring the various video routers (Ex. H, at 4, 5).

149. Evertz has not licensed or granted permission to Lawo to use the subject matter of the ’139 Patent.

150. Each Lawo defendant is aware of the ‘139 Patent and its infringement at least as of the date of this Amended Complaint and has willfully infringed the ’139 Patent.

151. Evertz has been damaged and continues to be damaged by Lawo’s infringement of the ’139 Patent.

152. Evertz is entitled to recover from Lawo the damages sustained by Evertz as a result of Lawo’s wrongful acts in an amount subject to proof at trial.

153. Evertz is suffering and will continue to suffer irreparable harm for which there is no adequate remedy at law as a result of Lawo’s infringement of the ’139 Patent. By way of example, Lawo’s infringing products compete with Evertz’s products and Lawo’s infringing products were willfully derived from Evertz’s proprietary information that is now embodied at least ’139 Patent claim 1. Unless enjoined, Lawo will continue its infringing conduct.

COUNT VII
INFRINGEMENT OF U.S. PATENT NO. 10,164,877

154. Evertz repeats and re-alleges the allegations contained in Paragraphs 1 through 153 above as if fully set forth herein.

155. Each Lawo defendant, individually and collectively, has directly infringed and continues to directly infringe, literally or under the doctrine of equivalents, one or more claims of the ’877 Patent in violation of 35 U.S.C. § 271(a) by making, using, offering to sell, selling (directly or through intermediaries), and/or importing into the United States, Lawo products including, but not limited to, the Lawo V_matrix system.

156. For example, each Lawo defendant, individually and collectively, infringes at least claim 1 of the ’877 Patent that reads:

A priority based transmission system comprising:

a plurality of data signals;

a plurality of video routers;

a supervisory system configured to transmit one or more router configuration signals to one or more video routers, the one or more router configuration signals comprising a data signal path;

a controller communication network for coupling the plurality of video routers and the supervisory system;

wherein, each video router comprises:

a backplane including a plurality of backplane connections,

at least one line card, the line card comprising:

a plurality of input ports and output ports, each input port and output port being coupled to a respective data signal through the backplane, and

a line card cross-point switch having a plurality of input switch terminals and a plurality of output switch terminals, wherein a first plurality of input and output switch terminals are coupled to a respective plurality of input and output ports and a second plurality of input and output switch terminals are coupled to a respective plurality of backplane connections, and

at least one fabric card, each fabric card comprising: a fabric card cross-point switch having a plurality of input switch terminals and a plurality of output switch terminals, wherein the plurality of input and output switch terminals are coupled to a respective plurality of backplane connections,

wherein the data signal path comprises an input switch terminal, one or more cross-point switches from one or more video routers, and an output switch terminal, and

wherein, each line card and fabric card comprises a card controller, the card controller being coupled to one or more cross-point switches and configured to determine the path of one or more data signals based on the router configuration signals.

157. The Lawo products including, but not limited to, the Lawo V_matrix system perform each and every limitation of ’877 Patent claim 1. The following paragraphs explain the infringement in detail, with particular reference to Exhibit H.

158. The accused product comprises a plurality of data signals, a plurality of video routers, a supervisory system and a controller communication network coupling the plurality of video routers and the supervisory system.

159. For example, the accused product may be used in a broadcast facility where multiple V_matrix frames and C100 modules are used to transmit video, audio and/or data signals. The multiple V_matrix frames may be connected to each other via an external switching fabric as well as cables connecting the C100 modules or the V_matrix frames to the external switching fabric (Ex. H, at 4 - 5 and 16 – 17).

160. The accused product comprises a supervisory system that transmits router configuration signals to the video routers where the router configuration signals comprise a data signal path. For example, vsmSTUDIO and/or vsmSOUL provides a control and monitoring system that generates control signals for configuring the various video routers in order to provide a signal path for the incoming video, audio and/or data signals (Ex. H, at 4, 5).

161. The signal path of the incoming video, audio and/or data signals comprises two or more line cards, one or more V_matrix frames and optionally an external switching fabric as well as cables connecting the C100 modules or the V_matrix frames to the external switching fabric.

162. Evertz has not licensed or granted permission to Lawo to use the subject matter of the ’877 Patent.

163. Each Lawo defendant is aware of the ‘877 Patent and its infringement at least as of the date of this Amended Complaint and has willfully infringed the ’877 Patent.

164. Evertz has been damaged and continues to be damaged by Lawo’s infringement of the ’877 Patent.

165. Evertz is entitled to recover from Lawo the damages sustained by Evertz as a result of Lawo's wrongful acts in an amount subject to proof at trial.

166. Evertz is suffering and will continue to suffer irreparable harm for which there is no adequate remedy at law as a result of Lawo's infringement of the '877 Patent. By way of example, Lawo's infringing products compete with Evertz's products and Lawo's infringing products were willfully derived from Evertz's proprietary information that is now embodied at least '877 Patent claim 1. Unless enjoined, Lawo will continue its infringing conduct.

PRAYER FOR RELIEF

WHEREFORE, Evertz respectfully requests that this Court enter judgment against each Lawo defendant, granting Evertz the following relief:

A. A judgment holding each Lawo defendant liable for direct infringement of the Patents-In-Suit, and that all such infringements have been willful;

B. All damages available under 35 U.S.C. § 284 resulting from Lawo's willful infringement of the Patents-In-Suit in an amount to be proven at trial, but no less than a reasonable royalty, including treble damages, based on any infringement found to be willful and egregious, together with pre-judgment interest and post-judgment interest;

C. An order and judgment permanently enjoining each Lawo defendant and those acting in active and concert participation with them from further acts of infringement of the Patents-In-Suit;

D. A judgment holding this to be an exceptional case, and an award to Evertz for its attorneys' fees, costs, and expenses incurred prosecuting this action pursuant to 35 U.S.C. § 285; and

E. Such other and further relief as the Court deems just and equitable.

DEMAND FOR JURY TRIAL

Evertz demands a trial by jury of all issues so triable.

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