

**UNITED STATES DISTRICT COURT  
WESTERN DISTRICT OF PENNSYLVANIA**

SIEMENS MEDICAL SOLUTIONS USA, INC.,	)	No.: _____
	)	
	)	JURY TRIAL DEMANDED
Plaintiff,	)	
	)	
v.	)	
	)	
EV PRODUCTS INC., KROMEK LIMITED,	)	
KROMEK GROUP PLC, and NOVA R&D,	)	
INC.,	)	
	)	
Defendants.	)	

**COMPLAINT FOR PATENT INFRINGEMENT**

Plaintiff Siemens Medical Solutions USA, Inc. (“Siemens”) hereby alleges for its Complaint against eV Products Inc. (“eV Products”), Kromek Limited, Kromek Group plc, and NOVA R&D, Inc. (“NOVA”) (collectively referred to as “Defendants”) as follows:

**THE PARTIES AND PATENTS**

1. Siemens is a corporation organized and existing under the laws of Delaware, and registered to do business in Pennsylvania with a place of business at 51 Valley Stream Parkway, Malvern, Pennsylvania, 19355.

2. Siemens is the assignee and owner of all rights, title and interest in and to the following United States patents: (1) Patent No. 6,248,990 (“the ‘990 patent”), entitled “Radiation Imaging Device with an Array of Image Cells” (Exhibit A hereto); (2) Patent No. 6,355,923 (“the ‘923 patent”), entitled “Radiation Imaging Device with an Array of Image Cells” (Exhibit B hereto); and (3) Patent No. 6,403,964 (“the ‘964 patent”), entitled “Modular Imaging Apparatus” (Exhibit C hereto).

3. The above patents are referred to herein as the “patents-in-suit.” Each of the patents-in-suit was duly and legally issued by the United States Patent and Trademark Office. A

true and correct copy of each of the patents-in-suit is attached as Exhibits A-C to the Complaint as specifically set forth above in Paragraph 2.

4. eV Products is a corporation organized and existing under the laws of Delaware, with a principal place of business at 373 Saxonburg Boulevard, Saxonburg, Pennsylvania, 16056. eV Products touts itself as a “the leading manufacturer of Cadmium Zinc Telluride (CZT) detector technology in the world,” including some of the products accused of infringement herein, and it derives most of its revenue from product sales to Original Equipment Manufacturers (“OEMs”).

5. NOVA is a corporation organized and existing under the laws of California, with a principal place of business at 833 Marlborough Avenue, Suite 200, Riverside, California 92507. NOVA specializes in the “production (manufacturing) and marketing of detectors, ASICs, integrated circuits, detector modules and imaging subsystems” for a variety of applications such as position sensitive x-ray, gamma-ray and particle detectors. NOVA derives most of its revenue from product sales to OEMs and transacts business throughout the United States, including, on information and belief, in this District.

6. eV Products and NOVA are each wholly-owned subsidiaries of Kromek Limited, which is, in turn, a wholly-owned subsidiary of Kromek Group plc, a holding company and the ultimate parent of all other Defendants (Kromek Limited and Kromek Group plc are collectively referred to herein as “Kromek”).

7. Kromek Limited and Kromek Group plc are entities organized and existing under the laws of the United Kingdom, with their headquarters at NETPark, Thomas Wright Way, Sedgefield, County Durham, TS21 3FD. Kromek sells radiation detection and imaging products for medical applications. Kromek has operations in the United Kingdom and the United States, including, on information and belief, in this District, and Kromek sells products internationally with partnerships and distribution channels in Asia, Europe, and North America.

### **JURISDICTION, VENUE AND JOINDER**

8. This is an action for patent infringement arising under the patent laws of the United States, Title 35 of the United States Code. Accordingly, this Court has subject matter jurisdiction pursuant to 28 U.S.C. §§ 1331, 1338 and 1367.

9. Venue is proper in this district pursuant to 28 U.S.C. §§ 1391 and 1400.

10. This Court has personal jurisdiction over Defendants. On information and belief, by way of example and without limitation, each Defendant, directly or through its respective agents, subsidiaries, affiliates or distributors, makes, manufactures, uses, imports, distributes, markets, offers for sale and/or sells medical imaging products that infringe one or more claims of the patents-in-suit (“accused products”). The accused products include, without limitation, those products offered and sold under the brand names eV-2500, eV-3500, IMELDA, XENA, NEXIS, XRI Photon Counting Imager, and MARS CT.

11. By way of further example and without limitation, Defendants have purposefully and voluntarily placed the accused products into the stream of commerce with the expectation that they will be purchased in the Commonwealth of Pennsylvania and this District, and on information and belief, the accused products are actually purchased in this District.

12. Joinder is proper under 35 U.S.C. § 299. Joinder is appropriate here because there is a logical relationship between the claims and Defendants and a substantial evidentiary overlap in the facts giving rise to the cause of action against each Defendant. On its website, Kromek touts eV Products and NOVA as the two bases for its United States operations, and each of the accused products are sold and offered for sale by Kromek and/or its subsidiaries. The accused products are made, offered for sale, and/or sold under a common direction and as part of a common enterprise organized under the Kromek Group plc holding company.

### **BACKGROUND**

13. Siemens’ patents-in-suit relate to radiation imaging devices with an array of detector cells. More specifically, the ‘990 and ‘923 patents relate to radiation imaging devices

using direct energy conversion technology with an array of image cell circuits and which are capable of photon counting. The '964 patent relates to a radiation imaging apparatus including a modular support structure, each module supporting a number of imaging device tiles. Direct conversion technology for radiation imaging (*e.g.*, X-ray imaging) can be superior to the indirect conversion technology and can result in increased image quality and lower radiation exposure times, which are key advantages for medical or security applications.

14. On information and belief, Defendants have made, manufactured, used, imported, distributed, offered for sale, and/or sold products which use Siemens' patented technology without Siemens' permission, both in the Commonwealth of Pennsylvania and in this District, and they continue to do so.

15. By way of example, the accused eV-2500 and eV-3500 products are linear array imaging sensors which utilizes CZT-based detectors for superior efficiency and energy discrimination. The product software which accompanies the sensor, specifications, brochures and other product literature for the eV-2500 and eV-3500 instruct customers and users as to how to operate the product.

16. By way of further example, the accused IMELDA, XENA and NEXIS products are all either application-specific integrated circuits ("ASICs") or modules which contain ASICs designed for or suitable for medical radiation imaging. These accused products use Siemens' patented technology either alone or in combination with other radiation imaging components. They are offered and sold with Development Kits, including among other things firmware, software and an input/output interface, so that their customers can integrate the accused products with other radiation imaging components for either their own use or use by end-users.

17. By way of further example, the accused XRI Photon Counting Imager is a portable x-ray and gamma ray photon imaging counter which can be connected to a compatible personal computer or laptop. The XRI Photon Counting Imager is offered and sold with a Starter Kit including Installation and Operating Instructions which teach customers and end-users how to use the product.

18. By way of further example, the accused MARS CT is a low-dose x-ray computed tomography scanner designed for *in-vivo* 3-D reconstructions with simultaneous acquisition of energy bands within small specimens. On information and belief, Kromek and/or its subsidiaries offer and sell the MARS CT with instructions teaching customers and end-users how to use the product.

19. Defendants are direct infringers of one or more claims of one or more of the patents-in-suit through their own manufacture, use, importation, sale, or offer for sale of the accused products. In addition, end-users of each of the accused products also are direct infringers of one or more claims of one or more of the patents-in-suit, and Defendants have encouraged, urged, contributed to, and induced the end-users' direct infringement of the patents-in-suit.

20. Defendants were on notice of the patents-in-suit and Siemens' allegations of patent infringement no later than February 20, 2014, when Kromek received a letter identifying it and its subsidiaries, the patents-in-suit, and the foregoing accused products.

21. Despite their knowledge of the fact that the accused products infringe one or more claims of one or more of the patents-in-suit, Defendants have elected to continue making, using, importing, selling, and/or offering for sale the accused products. Defendants' infringement has, therefore, been willful. Defendants have willfully blinded themselves to the infringing nature of the accused products by failing to cease their own direct infringements and their inducements and contributions to infringements by end-users.

### **FIRST CAUSE OF ACTION**

#### **Infringement of U.S. Patent No. 6,248,990**

22. Siemens realleges each and every allegation set forth in Paragraphs 1 through 21 inclusive, and incorporates them herein by this reference.

23. Use of IMELDA, XRI Photon Counting Imager and/or MARS CT in accordance with the instructions provided by Defendants in product software, hardware and/or literature

directly infringes the '990 patent.

24. Defendants' manufacture, sale, offer for sale, and/or importation of the IMELDA, XRI Photon Counting Imager, and/or MARS CT products, with instructions to use the claimed inventions of the '990 patent, induces infringement of the '990 patent under 35 U.S.C. § 271(b).

25. Defendants' manufacture, sale, offer for sale, and/or importation of the IMELDA, XRI Photon Counting Imager, and/or MARS CT products, with instructions to use the claimed inventions of the '990 patent, are acts of contributory infringement of the '990 patent under 35 U.S.C. § 271(c).

26. By reason of the foregoing, Siemens has been damaged in an amount that is yet to be ascertained and has suffered and will continue to suffer irreparable loss and injury. In addition, Defendants' ongoing and future infringement is willful as described in Paragraphs 20 and 21, above. Siemens, therefore, is entitled to an award of exemplary damages, attorney's fees, and costs in bringing this action.

## **SECOND CAUSE OF ACTION**

### **Infringement of U.S. Patent No. 6,355,923**

27. Siemens realleges each and every allegation set forth in Paragraphs 1 through 21 inclusive, and incorporates them herein by this reference.

28. Use of eV-2500, eV-3500, IMELDA, XENA, NEXIS, XRI Photon Counting Imager, and/or MARS CT in accordance with the instructions provided by Defendants in product software, hardware and/or literature directly infringes the '923 patent.

29. Defendants' manufacture, sale, offer for sale, and/or importation of the eV-2500, eV-3500, IMELDA, XENA, NEXIS, XRI Photon Counting Imager, and/or MARS CT products, with instructions to use the claimed inventions of the '923 patent, induces infringement of the '923 patent under 35 U.S.C. § 271(b).

30. Defendants' manufacture, sale, offer for sale, and/or importation of the eV-2500, eV-3500, IMELDA, XENA, NEXIS, XRI Photon Counting Imager, and/or MARS CT products,

with instructions to use the claimed inventions of the '990 patent, are acts of contributory infringement of the '923 patent under 35 U.S.C. § 271(c).

31. By reason of the foregoing, Siemens has been damaged in an amount that is yet to be ascertained and has suffered and will continue to suffer irreparable loss and injury. In addition, Defendants' ongoing and future infringement is willful as described in Paragraphs 20 and 21, above. Siemens, therefore, is entitled to an award of exemplary damages, attorney's fees, and costs in bringing this action.

### **THIRD CAUSE OF ACTION**

#### **Infringement of U.S. Patent No. 6,403,964**

32. Siemens realleges each and every allegation set forth in Paragraphs 1 through 21 inclusive, and incorporates them herein by this reference.

33. Use of NEXIS in accordance with the instructions provided by Defendants in product software, hardware and/or literature directly infringes the '964 patent.

34. Defendants' manufacture, sale, offer for sale, and/or importation of the NEXIS product, with instructions to use the claimed inventions of the '964 patent, induces infringement of the '964 patent under 35 U.S.C. § 271(b).

35. Defendants' manufacture, sale, offer for sale, and/or importation of the NEXIS product, with instructions to use the claimed inventions of the '964 patent, are acts of contributory infringement of the '964 patent under 35 U.S.C. § 271(c).

36. By reason of the foregoing, Siemens has been damaged in an amount that is yet to be ascertained and has suffered and will continue to suffer irreparable loss and injury. In addition, Defendants' ongoing and future infringement is willful as described in Paragraphs 20 and 21, above. Siemens, therefore, is entitled to an award of exemplary damages, attorney's fees, and costs in bringing this action.

### **PRAYER FOR RELIEF**

Wherefore, Plaintiff Siemens Medical Solutions USA, Inc. (“Siemens”) prays for relief as follows:

- A. A declaration that eV Products Inc., Kromek Limited, Kromek Group plc, and NOVA R&D, Inc. (collectively referred to as “Defendants”) have infringed the patents-in-suit under 35 U.S.C. §§ 271 *et seq.*;
- B. That Defendants, their officers, agents, servants, employees, and all persons in active concert or participation with each, be preliminarily and permanently enjoined from directly or indirectly infringing the patents-in-suit;
- C. That Defendants be required to provide to Siemens an accounting of all gains, profits, and advantages derived by Defendants’ infringement of the patents-in-suit, and that Siemens be awarded damages adequate to compensate Siemens for the wrongful infringing acts by Defendants, in accordance with 35 U.S.C. § 284;
- D. That Defendants’ infringement be found to be willful, and that Defendants be ordered to pay treble compensatory damages pursuant to 35 U.S.C. § 284 as a result of their infringing acts, including all damages suffered by Siemens as a result of the infringement;
- E. That Siemens be awarded interest and its costs of suit incurred in this action;
- F. That the Court find this case to be exceptional under 35 U.S.C. § 285 and award reasonable attorney’s fees to Siemens;
- G. That Siemens be awarded compensatory and punitive damages; and
- H. That Siemens be awarded such further relief as the Court shall deem appropriate.



**DEMAND FOR JURY TRIAL**

Pursuant to Federal Rule of Civil Procedure 38(b), Plaintiff Siemens Medical Solutions USA, Inc. hereby demands a jury trial for all issues in this case that properly are subject to a jury trial.

DATED this the 20th day of March, 2015.

/s/ Kirsten R. Rydstrom

Kirsten R. Rydstrom (SBN 76549)

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