

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

NEAR FIELD ELECTRONICS LLC

Plaintiff,

v.

BARNES & NOBLE BOOKSELLERS,
INC.

Defendant.

Civil Action No. 4:26-cv-871

JURY TRIAL DEMANDED

COMPLAINT FOR PATENT INFRINGEMENT

Plaintiff Near Field Electronics LLC (“Near Field” or “Plaintiff”), for its Complaint against Defendant Barnes & Noble Booksellers, Inc., (referred to herein as “Barnes & Noble” or “Defendant”), alleges the following:

NATURE OF THE ACTION

1. This is an action for patent infringement arising under the Patent Laws of the United States, 35 U.S.C. § 1 *et seq.*

THE PARTIES

2. Plaintiff Near Field is a limited liability company organized under the laws of the State of Texas with a place of business at 1400 Preston Road, Suite 461, Plano, Texas 75093.

3. Upon information and belief, Barnes & Noble is a corporation organized under the laws of the State of Delaware with a regular and established place of business located at 2601 Preston Road #1024, Frisco, Texas 75034. Barnes & Noble can be served with process through its registered agent, Capitol Services, Inc., 108 Lakeland Avenue, Dover, Delaware 19901.

Upon information and belief, Barnes & Noble sells, offers to sell, and/or uses products and

services throughout the United States, including in this judicial district, and introduces infringing products and services into the stream of commerce knowing that they would be sold and/or used in this judicial district and elsewhere in the United States.

JURISDICTION AND VENUE

4. This is an action for patent infringement arising under the Patent Laws of the United States, Title 35 of the United States Code.

5. This Court has subject matter jurisdiction under 28 U.S.C. §§ 1331 and 1338(a).

6. Venue is proper in this judicial district under 28 U.S.C. § 1400(b).

7. On information and belief, Defendant is subject to this Court's general and specific personal jurisdiction because Defendant has sufficient minimum contacts within the State of Texas and this District, pursuant to due process and/or the Texas Long Arm Statute because Defendant purposefully availed itself of the privileges of conducting business in the State of Texas and in this District, because Defendant regularly conducts and solicits business within the State of Texas and within this District, and because Plaintiff's causes of action arise directly from Defendant's business contacts and other activities in the State of Texas and this District.

U.S. PATENT NO. 6,691,201

8. On February 10, 2004, U.S. Patent No. 6,691,201 (the "'201 patent") was duly and legally issued by the United States Patent and Trademark Office under the title "Dual Mode USB-PS/2 Device." A true and correct copy of the '201 patent is attached as Exhibit A.

9. Plaintiff is the assignee and owner of the right, title, and interest in and to the '201 patent, including the right to assert all causes of action arising under said patents and the right to any remedies for infringement of them, including all past infringement.

10. The '201 patent is directed to an integrated circuit for a peripheral device capable of automatically selecting and operating in a plurality of signaling protocols using a single set of I/O pins. (Ex. A at 1:55-67; 3:47-62.)

11. To support multiple signaling protocols, conventional technology at the time incurred higher costs due to additional external components needed to support the additional signaling protocols, required the use of more board space to support the additional components, and dedicated valuable I/O pins on the micro-controller. (Ex. A at 1:40-45.) Additionally, conventional approaches also required additional firmware to manage the additional components as well as to support the multiple signaling protocols, which compromised the performance of one or more of the protocols necessary to support each respective mode. (*Id.* at 1:45-50.)

12. The single chip solution taught by the '201 patent eliminates the need for external components, simplifies firmware, and reduces board space and cost. (Ex. A at 1:50-2:8.)

U.S. PATENT NO. 6,742,071

13. On May 25, 2004, U.S. Patent No. 6,742,071 (the "'071 patent") was duly and legally issued by the United States Patent and Trademark Office under the title "Real-time I/O Processor Used to Implement Bus Interface Protocols." A true and correct copy of the '071 patent is attached as Exhibit B.

14. Plaintiff is the assignee and owner of the right, title, and interest in and to the '071 patent, including the right to assert all causes of action arising under said patents and the right to any remedies for infringement of them, including all past infringement.

15. The '071 patent is directed to a real-time input/output (I/O) processor circuit architecture used to implement bus interface protocols. (Ex. B at 1:6-10.) Specifically, the '071 patent teaches an interface that can act as a master device, generating control signals to manage communication with external devices. (*Id.* at 2:30-3:3.) This is achieved using a processor with

a limited instruction set capable of generating interface-specific waveforms and responding to external events in real time. (*See*, e.g., Ex. B at 4:66-5:11; 5:43-54; 8:13-9:59.)

16. The inventions of the '071 patent provide a flexible solution for interfacing with multiple or evolving bus protocols by using a programmable general-purpose interface (GPIF) to replace rigid, protocol-specific hardware designs. (Ex. B at 1:20–67; 11:24-34.) The teachings of the '071 patent enable higher-speed operation compared to traditional microprocessor-based I/O systems by allowing control outputs and data path decisions to be changed each clock cycle (*Id.* at 6:4-16.)

U.S. PATENT NO. 6,959,350

17. On October 25, 2005, U.S. Patent No. 6,959,350 (the “’350 patent”) was duly and legally issued by the United States Patent and Trademark Office under the title “Configurable USB Interface With Virtual Register Architecture.” A true and correct copy of the ’350 patent is attached as Exhibit C.

18. Plaintiff is the assignee and owner of the right, title, and interest in and to the ’350 patent, including the right to assert all causes of action arising under said patents and the right to any remedies for infringement of them, including all past infringement.

19. The ’350 patent is directed to a configurable bus interface controller that uses a hardware description language (HDL)-based configuration package to generate configuration circuitry for different USB endpoint configurations. (Ex. C at 2:38-3:5.) The configuration package defines parameters such as endpoint number, type, direction, and packet size, which are used to generate configuration registers or hardcoded combinational logic. (*Id.*)

20. Conventional technology at the time utilized hard-coded endpoint configurations. (Ex. C at 1:16-17.) Because of the endpoint configurations were hard-coded, the interface controller could not be reconfigured using software or other means. (*Id.* at 1:19-22.) Thus,

supporting different endpoints required writing and maintaining different HDL code for each different version of the interface controller. (*Id.* at 1:22-28.) Conventional approaches for overcoming this issue included a script that asked a designer a series of questions which then output a piece of HDL code that was incorporated into the base HDL code. However, this approach was clumsy, error-prone and produced code that was difficult to debug and maintain. (*Id.* at 1:29-33.)

21. The configurable bus interface controller disclosed by the '350 patent allows the interface controller to be flexibly configured without requiring separate HDL code for each endpoint. (Ex. C at 3:54-63; 5:30-50; 7:49-63.)

U.S. PATENT NO. 6,996,727

22. On February 7, 2006, U.S. Patent No. 6,996,727 (the "'727 patent") was duly and legally issued by the United States Patent and Trademark Office under the title "Power Supply for Universal Serial Bus Interface with Programmable Bus Pullup Resistor." A true and correct copy of the '727 patent is attached as Exhibit D.

23. Plaintiff is the assignee and owner of the right, title, and interest in and to the '727 patent, including the right to assert all causes of action arising under said patents and the right to any remedies for infringement of them, including all past infringement.

24. The '727 patent is directed to a power supply architecture for a bus interface that includes a programmable bus pullup resistor. (Ex. D at 1:54-67.) The invention enables a USB interface and external bus pullup resistor to be powered by an on-chip supply that operates in two modes: (1) a standard mode delivering a regulated voltage between a normal operating range, and (2) a power-down (standby) mode that significantly reduces current consumption by turning off the main power supply and instead enabling a low-power programmable resistor to maintain the necessary pullup function. (*Id.* at 1:54-67; 2:30-41; 3:1-18; 3:53-4:9.)

25. Conventional technology at the time provided only a constant 3.3V supply with no low-power mode. (Ex. D at 1:16-44.) In contrast, the teachings of the '727 patent disclose a mechanism to minimize power usage during idle states without compromising signaling requirements. Specifically, the invention allows the pullup resistor to remain effective during standby using a programmable element controlled by trim bits from a non-volatile memory, thereby compensating for process variations. (*Id.* at 3:1-18; 3:33-4:54.)

U.S. PATENT NO. 7,373,531

26. On May 13, 2008, U.S. Patent No. 7,373,531 (the "'531 patent'") was duly and legally issued by the United States Patent and Trademark Office under the title "Signal Detection Method, Frequency Detection Method, Power Consumption Control Method, Signal Detecting Device, Frequency Detecting Device, Power Control Consumption Device and Electronic Apparatus." A true and correct copy of the '531 patent is attached as Exhibit E.

27. Plaintiff is the assignee and owner of the right, title, and interest in and to the '531 patent, including the right to assert all causes of action arising under said patents and the right to any remedies for infringement of them, including all past infringement.

28. The '531 patent is directed to methods and devices for detecting signals, signal frequency, and power consumption status in an electronic device by monitoring through current in a circuit. (Ex. E at 1:19-31.) Specifically, it applies a signal to the gates of connected transistors, and detects the presence, absence, frequency, or state of the signal based on whether a through current flows. (*Id.* at 2:47-3:41.)

29. The teachings of the '531 patent thus enable an apparatus to detect an operation state of a monitoring target. Further, by executing a power supply stopping or reducing process, it is possible to reduce power consumption of the electronic apparatus. (Ex. E at 6:46-7:8.)

COUNT I – INFRINGEMENT OF THE '201 PATENT

30. The allegations set forth in the foregoing paragraphs 1 through 29 are incorporated into this First Claim for Relief.

31. Upon information and belief, Defendant has directly infringed at least claim 14 of the '201 patent by using and/or causing to be used NFC Front-end components, including without limitation the NXP PN512 NFC Front-End (collectively, the “Relevant Instrumentalities”), to perform the claimed method during contactless credit card payment transactions. The Relevant Instrumentalities include NFC front-end components with functionality materially similar to the NXP PN512 NFC Front-End when used to process contactless credit card payment transactions at a point of sale.

32. Exemplary infringement analysis showing infringement of claim 14 of the '201 patent is set forth in Exhibit A-1. This infringement analysis is necessarily preliminary, as it is provided in advance of any discovery provided by Barnes & Noble with respect to the '201 patent. Plaintiff reserves all rights to amend, supplement and modify this preliminary infringement analysis. Nothing in the attached chart should be construed as any express or implied contention or admission regarding the construction of any term or phrase of the claims of the '201 patent.

33. The Relevant Instrumentalities infringed claim 14 of the '201 patent during the pendency of the '201 patent. The '201 patent expired on January 31, 2022. Plaintiff therefore asserts liability only for the period beginning July __, 2020 and ending at the date of expiration. Liability exists for this period because when Barnes & Noble put the Relevant Instrumentalities into use, the Relevant Instrumentalities performed each and every step of the method(s) claimed by '201 patent. Specifically, Barnes & Noble put the Relevant Instrumentalities to use in the regular course of its business operations for processing NFC payment transactions. When used

as intended by Barnes & Noble, the Relevant Instrumentalities performed the steps of the claimed method. By putting the Relevant Instrumentalities to use and thereby performing each step of the patented method(s), Barnes & Noble has directly infringed the '201 patent.

34. Plaintiff has been harmed by Barnes & Noble's infringing activities.

COUNT II – INFRINGEMENT OF THE '071 PATENT

35. The allegations set forth in the foregoing paragraphs 1 through 34 are incorporated into this Second Claim for Relief.

36. Upon information and belief, Defendant has directly infringed at least claim 15 of the '071 patent by using and/or causing to be used NFC Front-end components, including without limitation the NXP PN512 NFC Front-End (collectively, the "Relevant Instrumentalities"), to perform the claimed method during contactless credit card payment transactions. The Relevant Instrumentalities include NFC front-end components with functionality materially similar to the NXP PN512 NFC Front-End when used to process contactless credit card payment transactions at a point of sale.

37. Exemplary infringement analysis showing infringement of claim 15 of the '071 patent is set forth in Exhibit B-1. This infringement analysis is necessarily preliminary, as it is provided in advance of any discovery provided by Barnes & Noble with respect to the '071 patent. Plaintiff reserves all rights to amend, supplement and modify this preliminary infringement analysis. Nothing in the attached chart should be construed as any express or implied contention or admission regarding the construction of any term or phrase of the claims of the '071 patent.

38. The Relevant Instrumentalities infringed claim 15 of the '071 patent during the pendency of the '071 patent. The '071 patent expired on November 21, 2021. Plaintiff therefore asserts liability only for the period beginning July __, 2020 and ending at the date of expiration.

Liability exists for this period because when Barnes & Noble put the Relevant Instrumentalities into use, the Relevant Instrumentalities performed each and every step of the method(s) claimed by '071 patent. Specifically, Barnes & Noble put the Relevant Instrumentalities to use in the regular course of its business operations for processing NFC payment transactions. When used as intended by Barnes & Noble, the Relevant Instrumentalities performed the steps of the claimed method. By putting the Relevant Instrumentalities to use and thereby performing each step of the patented method(s), Barnes & Noble has directly infringed the '071 patent.

39. Plaintiff has been harmed by Barnes & Noble's infringing activities.

COUNT III – INFRINGEMENT OF THE '350 PATENT

40. The allegations set forth in the foregoing paragraphs 1 through 39 are incorporated into this Third Claim for Relief.

41. Defendant has directly infringed at least claim 10 of the '350 patent by using and/or causing to be used NFC Front-end components, including without limitation the NXP PN512 NFC Front-End (collectively, the "Relevant Instrumentalities"), to perform the claimed method during contactless credit card payment transactions. The Relevant Instrumentalities include NFC front-end components with functionality materially similar to the NXP PN512 NFC Front-End when used to process contactless credit card payment transactions at a point of sale.

42. Exemplary infringement analysis showing infringement of claim 10 of the '350 patent is set forth in Exhibit C-1. This infringement analysis is necessarily preliminary, as it is provided in advance of any discovery provided by Barnes & Noble with respect to the '350 patent. Plaintiff reserves all rights to amend, supplement and modify this preliminary infringement analysis. Nothing in the attached chart should be construed as any express or implied contention or admission regarding the construction of any term or phrase of the claims of the '350 patent.

43. The Relevant Instrumentalities infringed claim 10 of the '350 patent during the pendency of the '350 patent. The '350 patent expired on August 12, 2023. Plaintiff therefore asserts liability only for the period beginning July __, 2020 and ending at the date of expiration. Liability exists for this period because when Barnes & Noble put the Relevant Instrumentalities into use, the Relevant Instrumentalities performed each and every step of the method(s) claimed by '350 patent. Specifically, Barnes & Noble put the Relevant Instrumentalities to use in the regular course of its business operations for processing NFC payment transactions. When used as intended by Barnes & Noble, the Relevant Instrumentalities performed the steps of the claimed method. By putting the Relevant Instrumentalities to use and thereby performing each step of the patented method(s), Barnes & Noble has directly infringed the '350 patent.

44. Plaintiff has been harmed by Barnes & Noble's infringing activities.

COUNT IV – INFRINGEMENT OF THE '727 PATENT

45. The allegations set forth in the foregoing paragraphs 1 through 44 are incorporated into this Fourth Claim for Relief.

46. Defendant has directly infringed at least claim 18 of the '727 patent by using and/or causing to be used NFC Front-end components, including without limitation the NXP PN512 NFC Front-End (collectively, the "Relevant Instrumentalities"), to perform the claimed method during contactless credit card payment transactions. The Relevant Instrumentalities include NFC front-end components with functionality materially similar to the NXP PN512 NFC Front-End when used to process contactless credit card payment transactions at a point of sale.

47. Exemplary infringement analysis showing infringement of claim 18 of the '727 patent is set forth in Exhibit D-1. This infringement analysis is necessarily preliminary, as it is provided in advance of any discovery provided by Barnes & Noble with respect to the '727 patent. Plaintiff reserves all rights to amend, supplement and modify this preliminary

infringement analysis. Nothing in the attached chart should be construed as any express or implied contention or admission regarding the construction of any term or phrase of the claims of the '727 patent.

48. The Relevant Instrumentalities infringed claim 18 of the '727 patent during the pendency of the '727 patent. The '727 patent expired on April 14, 2022. Plaintiff therefore asserts liability only for the period beginning July __, 2020 and ending at the date of expiration. Liability exists for this period because when Barnes & Noble put the Relevant Instrumentalities into use, the Relevant Instrumentalities performed each and every step of the method(s) claimed by '727 patent. Specifically, Barnes & Noble put the Relevant Instrumentalities to use in the regular course of its business operations for processing NFC payment transactions. When used as intended by Barnes & Noble, the Relevant Instrumentalities performed the steps of the claimed method. By putting the Relevant Instrumentalities to use and thereby performing each step of the patented method(s), Barnes & Noble has directly infringed the '727 patent.

49. Plaintiff has been harmed by Barnes & Noble's infringing activities.

COUNT V – INFRINGEMENT OF THE '531 PATENT

50. The allegations set forth in the foregoing paragraphs 1 through 49 are incorporated into this Fifth Claim for Relief.

51. Upon information and belief, Defendant has directly infringed at least claim 2 of the '531 patent by using and/or causing to be used NFC Front-end components, including without limitation the NXP PN512 NFC Front-End (collectively, the "Relevant Instrumentalities"), to perform the claimed method during contactless credit card payment transactions. The Relevant Instrumentalities include NFC front-end components with functionality materially similar to the NXP PN512 NFC Front-End when used to process contactless credit card payment transactions at a point of sale.

52. Exemplary infringement analysis showing infringement of claim 2 of the '531 patent is set forth in Exhibit E-1. This infringement analysis is necessarily preliminary, as it is provided in advance of any discovery provided by Barnes & Noble with respect to the '531 patent. Plaintiff reserves all rights to amend, supplement and modify this preliminary infringement analysis. Nothing in the attached chart should be construed as any express or implied contention or admission regarding the construction of any term or phrase of the claims of the '531 patent.

53. The Relevant Instrumentalities infringed claim 2 of the '531 patent during the pendency of the '531 patent. The '531 patent expired on March 19, 2026. Plaintiff therefore asserts liability only for the period beginning July __, 2020 and ending at the date of expiration. Liability exists for this period because when Barnes & Noble put the Relevant Instrumentalities into use, the Relevant Instrumentalities performed each and every step of the method(s) claimed by '531 patent. Specifically, Barnes & Noble put the Relevant Instrumentalities to use in the regular course of its business operations for processing NFC payment transactions. When used as intended by Barnes & Noble, the Relevant Instrumentalities performed the steps of the claimed method. By putting the Relevant Instrumentalities to use and thereby performing each step of the patented method(s), Barnes & Noble has directly infringed the '531 patent.

54. Plaintiff has been harmed by Barnes & Noble's infringing activities.

JURY DEMAND

Pursuant to Rule 38 of the Federal Rules of Civil Procedure, Plaintiff demands a trial by jury on all issues triable as such.

PRAYER FOR RELIEF

WHEREFORE, Plaintiff demands judgment for itself and against Barnes & Noble as follows:

A. An adjudication that Barnes & Noble has infringed the '201, '071, '350, '727 and '531 patents;

B. An award of damages to be paid by Barnes & Noble adequate to compensate Plaintiff for Barnes & Noble's past infringement of the '201, '071, '350, '727, and '531 patents, including interest, costs, expenses and an accounting of all infringing acts including, but not limited to, those acts not presented at trial;

C. A declaration that this case is exceptional under 35 U.S.C. § 285, and an award of Plaintiff's reasonable attorneys' fees; and

D. An award to Plaintiff of such further relief at law or in equity as the Court deems just and proper.

SHEA | BEATY PLLC

Dated: July 17, 2026

/s/ Trevor J. Beaty

Trevor J. Beaty

trevor@sheabeaty.com

One Grande Centre

1800 Teague Drive, Suite 500

Sherman, TX 75090

Tel: (903) 870-7771

*Attorneys for Plaintiff Near Field Electronics
LLC*