

**UNITED STATES DISTRICT COURT  
EASTERN DISTRICT OF TEXAS  
MARSHALL DIVISION**

ENTROPIC COMMUNICATIONS, LLC,

Plaintiff,

v.

CHARTER COMMUNICATIONS, INC.,

Defendant.

Case No. 2:23-cv-00052-JRG

**DEMAND FOR JURY TRIAL**

**SECOND AMENDED COMPLAINT FOR PATENT INFRINGEMENT**

Plaintiff, Entropic Communications, LLC (“Entropic”), files this complaint for patent infringement against Charter Communications, Inc. (“Charter”), and in support thereof alleges as follows:

### **NATURE OF THE ACTION**

1. This is a civil action arising under the patent laws of the United States, 35 U.S.C. § 1 *et seq.*, including specifically 35 U.S.C. § 271, based on Charter’s infringement of U.S. Patent Nos. 11,381,866 (the “’866 Patent”), 11,399,206 (the “’206 Patent”), and 11,785,275 (the “’275 Patent”) (collectively, the “Patents-in-Suit”).

### **THE PARTIES**

2. Entropic is a Delaware limited liability company with an office at 7150 Preston Road, Suite 300, Plano, Texas 75024.

3. Entropic is the owner by assignment to all right, title, and interest to the Patents-in-Suit. Entropic is the successor-in-interest for the Patents-in-Suit.

4. Upon information and belief, Defendant Charter Communications, Inc. is a corporation established under the laws of the State of Delaware, with a principal place of business at 400 Washington St., Stamford, Connecticut 06902.

5. Charter Communications, Inc. has a registered agent in Texas, Corporation Service Company d/b/a CSC - Lawyers Incorporating Service Company, located at 211 East 7th Street, Suite 620, Austin, Texas 78701.

6. According to its website, <https://corporate.charter.com/about-charter>, “Charter Communications, Inc. (NASDAQ:CHTR) is a leading broadband connectivity company and cable operator serving more than 32 million customers in 41 states through its Spectrum brand.”

7. Charter owns or leases, and maintains and operates several stores in this district by and through subsidiary limited liability companies that it manages and controls, including Spectrum Gulf Coast LLC, and negotiates and signs agreements on Spectrum Gulf Coast's behalf.

8. Charter is the corporate manager of its subsidiary LLCs that own or lease property in this district, that employ employees in this district, and that own, store, sell, demonstrate, and lease equipment in this district. Charter has the right to exercise near total control of each entity's operations through its LLC agreements with each entity.

9. In each of those stores, Charter owns and stores equipment such as cable modems and set top boxes ("STBs"), including the Accused Cable Modem Products (defined below), Accused Set Top Products (defined below) and demonstrates the Accused Services (defined below) provided via those products to Charter customers by and through subsidiary limited liability companies that it manages and controls.

10. Charter employs and/or contracts with persons and directs them to install, service, repair and/or replace equipment, as appropriate, in this district by and through subsidiary limited liability companies that it manages and controls.

11. Charter is the corporate manager of its subsidiary LLCs that own or lease property in this district, that employ employees in this district, and that own, store, sell, demonstrate, and lease equipment in this district. Charter has the right to exercise near total control of each entity's operations through its LLC agreements with each entity.

12. As further alleged herein, this Court has personal jurisdiction over Charter, and venue is proper in this District.

### **PRESUIT DISCUSSIONS**

13. Prior to filing this Complaint, Entropic sent a communication by physical means to Charter on April 27, 2022, in an attempt to engage Charter and/or its agents in good faith licensing

discussions regarding Entropic's patent portfolio.<sup>1</sup> Entropic sent Charter another communication on August 9, 2022, and on December 23, 2022, Entropic sent Charter a communication by both physical and electronic means regarding a separate license to Entropic's patents for the field of the standardized networking technology commonly called MoCA, and also seeking to discuss with Charter a typical non-disclosure agreement in order to share such information.

### **ENTROPIC'S LEGACY AS A CABLE INNOVATOR**

14. Entropic Communications Inc. ("Entropic Inc."), the predecessor-in-interest to Entropic as to the Patents-in-Suit, was founded in San Diego, California in 2001 by Dr. Anton Monk, Itzhak Gurantz, Ladd El Wardani and others. Entropic Inc. was exclusively responsible for the development of the initial versions of the Multimedia over Coax Alliance ("MoCA") standards, including MoCA 1.0, ratified in 2006, MoCA 1.1, ratified in 2007, and was instrumental in the development of MoCA 2.0, ratified in 2010. It also developed Direct Broadcast Satellite ("DBS") Outdoor Unit ("ODU") single wire technology, and System-on-Chip ("SoC") solutions for STBs in the home television and home video markets.

15. Under the technical guidance of Dr. Monk, Entropic Inc. grew to be publicly listed on the NASDAQ in 2007. After the public listing, the company acquired RF Magic, Inc. in 2007, a company specializing in DBS ODU technology and related hardware.

16. Additional growth between 2007 and 2015 bolstered the technical expertise of Entropic Inc. with respect to signal acquisition, stacking, filtering, processing, and distribution for STBs and cable modems.

17. For years, Entropic Inc. pioneered innovative networking technologies, as well as television and internet related technologies. These technologies simplified the installation required

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<sup>1</sup> The Patents-in-Suit had not yet issued, but their parent patents were included in the list of issued Entropic patents.

to support wideband reception of multiple channels for demodulation, improved home internet performance, and enabled more efficient and responsive troubleshooting and upstream signal management for cable providers. These innovations represented significant advances in the field, simplified the implementation of those advances, and reduced expenses for providers and customers alike.

18. In 2015, MaxLinear, Inc. (“MaxLinear”)—a leading provider of radio-frequency, analog, digital, and mixed-signal semiconductor solutions—acquired Entropic Inc., and the pioneering intellectual property developed by Dr. Monk and his team.

19. In 2021, Plaintiff Entropic was established and MaxLinear transferred to Entropic a portfolio of intellectual property representing the Entropic and MaxLinear innovation in the cable and satellite services markets.

20. The Patents-in-Suit are the result of years of research and development in satellite and cable technology. These innovations are utilized by Charter to provide enhanced and expanded services to customers, which in turn has increased revenues for Charter while at the same time reducing costs.

### **JURISDICTION AND VENUE**

21. This Court has subject matter jurisdiction pursuant to 28 U.S.C. §§ 1331 and 1338(a) because the claims herein arise under the patent laws of the United States, 35 U.S.C. § 1 et seq., including 35 U.S.C. § 271.

22. Venue in this Judicial District of the Eastern District of Texas (“District”) is proper pursuant to 28 U.S.C. § 1400(b), because Charter has regular and established places of business in this District. Charter, by itself and/or through its agents, has committed acts of patent infringement within the State of Texas and within this District by using, selling, offering for sale, and/or leasing various telecommunication services products and services.

23. Charter, together with its controlled subsidiaries, is a cable operator that provides the Accused Services through the Accused Cable Modem products and Accused Set Top Products to subscribers under the Spectrum brand.

24. Charter has represented in proceedings before the United States International Trade Commission that Charter, together with its controlled subsidiaries, is a cable operator that provides television services through digital set-top boxes to subscribers under the Spectrum brand.

25. This Court has general personal jurisdiction over Charter because Charter conducts systematic and regular business within the State of Texas by, *inter alia* providing cable television, internet, and phone services to businesses and residents throughout the state.

26. Charter has a regular and established place of business in this District including at least at 1414 Summit Ave., Plano, Texas 75074.


27. The Court has personal jurisdiction over Charter because it has committed acts of infringement within the State of Texas and within this District through, for example, providing through its wholly owned subsidiaries, Charter and Spectrum branded products and services, including, set top boxes and digital video, audio, and other content services to customers. Charter provides cable television and internet services (“Accused Services”) via the lease, sale, and/or distribution of cable modems and set top boxes both online and from Charter stores in this District. For example, Charter has and continues to sell, lease, and/or distribute the Spectrum 100-series STBs, Spectrum 200-series STBs, Spectrum 101-series STBs, Spectrum 201-series STBs, Spectrum 110-series STBs, Spectrum 210-series STBs, the Arris DCX3600 STB, and products that operate in a similar manner (“Accused Set Top Products”) and the Spectrum D3.1 eMTA DOCSIS 3.1 Advanced Voice Modem (encompassing at least five model numbers depending on manufacturer: ET2251, E31T2V1, E31U2V1, EU2251, and EU4251), the Arris SB6183, and products that operate in a similar manner (“Accused Cable Modem Products”).

28. Upon information and belief, Charter, by itself and/or through its controlled subsidiaries, offers various telecommunication services throughout the United States. Charter operates and maintains a nationwide television and data network through which Charter sells, leases, and offers for sale products and services, including the Accused Services, Accused Cable Modem Products, and Accused Set Top Products, to businesses, consumers, and government agencies. Through its subsidiaries, Charter offers to sell, sells, and provides Spectrum branded products and services, including cable modems, set top boxes, and digital video, audio, and other content services to customers. Subscribers to Charter's television services receive one or more receivers and/or set-top boxes within this District. Subscribers to Charter's internet services receive one or more cable modems within this District.

29. Upon information and belief, the Accused Services are provided through and using the Accused Cable Modem Products and Accused Set Top Products.

30. Upon information and belief, Charter by itself, and/or through its agents, owns and or operates its businesses through *inter alia*, offices, Spectrum-branded storefronts, and/or other operational locations within the State of Texas and this District including, for example, at Spectrum stores located at 700 Alma Dr., Plano, Texas 75075; 2100 N. Dallas Pkwy, Plano, Texas 75075; and 4255-A Dowlen Rd., Beaumont, Texas 77706. Charter holds out these locations as its own through the use of its Spectrum branding on the locations themselves.

31. The Accused Cable Modem Products and Accused Set Top Products provided by Charter to supply the Accused Services are provided to customers in this district and may be obtained by customers from physical locations in this district, including those at 700 Alma Dr., Plano, Texas 75075; 2100 N. Dallas Pkwy, Plano, Texas 75075; and 4255-A Dowlen Rd., Beaumont, Texas 77706.

32. Each of the above locations features the  logo. According to Charter's website, <https://corporate.charter.com/about-charter>, this logo refers to "a suite of advanced broadband services offered by Charter Communications, Inc."

33. Upon information and belief, Charter, by itself and/or through its agents, own and/or lease the premises where these Spectrum stores are located.

34. Upon information and belief, these Spectrum stores are staffed by persons directly employed by Charter, many of whom live in this District.

35. Upon information and belief, Charter has engaged in regular and established business at physical places within this District such as at these Spectrum stores.

36. Upon information and belief, Charter employs and/or contracts with persons and directs them to install, service, repair, and/or replace equipment, as appropriate, in this District.

37. Upon information and belief, in each of these stores and/or service centers, Charter owns and stores the Accused Cable Modem Products and Accused Set Top Products and demonstrates the Accused Services provided via those products to Charter customers.

38. Upon information and belief, Charter's regular and established places of business within this District are used to conduct Charter's business, i.e. the provision of "Charter/Spectrum" cable television and internet services (which includes the Accused Services), and the maintenance and operation of communications networks within this District.

39. Venue is further proper because Charter has committed and continues to commit acts of patent infringement in this District, including making, using, offering to sell, and/or selling Accused Services, Accused Cable Modem Products, and Accused Set Top Products in this District, and/or importing the Accused Cable Modem Products and Accused Set Top Products into, and thereafter providing Accused Services in, this District, including by Internet sales and sales via retail and wholesale stores. Furthermore, for example, Charter deploys Accused Cable Modem



Products and Accused Set Top Products to many thousands of locations (e.g. customer premises) in this District and subsequently, by means of those instrumentalities, uses the claimed inventions at those locations in this District. Charter infringes by inducing and contributing to acts of patent infringement in this District and/or committing at least a portion of any other infringement alleged herein in this District.

40. Charter continues to conduct business in this District, including the acts and activities described in the preceding paragraph.

### **COUNT I**

#### **(Infringement of the '866 Patent)**

41. Entropic incorporates by reference each allegation of Paragraphs 1 through 40.

42. The '866 Patent duly issued on July 5, 2022 from an application filed January 28, 2022, an application filed March 30, 2021, an application filed June 4, 2019, an application filed October 24, 2017, an application filed November 23, 2015, an application filed February 10, 2015, an application filed August 8, 2013, an application filed April 19, 2010, and, *inter alia* a provisional application filed April 17, 2009.

43. Entropic owns all substantial rights, interest, and title in and to the '866 Patent, including the sole and exclusive right to prosecute this action and enforce the '866 Patent against infringers and to collect damages for all relevant times.

44. The '866 Patent generally describes a cable television device that digitizes an entire input signal, concurrently selects a plurality of desired channels from the digitized input signal without selecting any undesired channels, and provides the plurality of desired channels. A true and accurate copy of the '866 Patent is attached hereto as Exhibit 1.

45. The '866 Patent is directed to patent-eligible subject matter pursuant to 35 U.S.C. § 101.

46. The '866 Patent is valid and enforceable, and presumed as such, pursuant to 35 U.S.C. § 282.

47. Charter deploys one or more of the Accused Set Top Products in connection with operating and providing the Accused Services.

48. The Accused Set Top Products deployed by Charter to customer premises remain the property of Charter while deployed.

49. The Accused Set Top Products operate while deployed in a manner controlled and intended by Charter.

50. As set forth in the attached nonlimiting claim chart (Exhibit 2), Charter has directly infringed and is infringing at least Claim 27 of the '866 Patent by using, importing, selling, and/or offering for sale the Accused Set Top Products and/or the Accused Services.

51. Each aspect of the functioning of the Accused Set Top Products described in the claim chart operates while deployed to customer premises in a manner controlled and intended by Charter.

52. Charter provides no software, support, or other facility to customers to modify any aspect of the functioning described in the claim chart of the Accused Set Top Products while deployed to customer premises.

53. Charter directly infringes at least Claim 27 of the '866 Patent by using, importing, selling, and/or offering for sale the Accused Set Top Products (for example, the Spectrum 210-T) and/or the Accused Services (for example, digitizing and selecting desired television channels from an input signal).

54. The use of the Accused Services through the Accused Set-Top Products by Charter to, for example, demonstrate products in brick-and-mortar stores in the District, or to, for example, test those products, constitute acts of direct infringement of at least Claim 27 of the '866 Patent.

55. Customers and subscribers of Charter infringe at least Claim 27 of the '866 Patent by using the claimed system, at least during the use of the Accused Set Top Products (for example, the Spectrum 210-T).

56. The Accused Set Top Products have no substantial noninfringing uses. When an end user uses the Accused Set Top Products to receive the Accused Services, the end user directly infringes at least Claim 27 of the '866 Patent. The Accused Set Top Products are especially made or especially adapted for use in an infringing manner.

57. Entropic has been damaged as a result of the infringing conduct alleged above. Charter is liable to Entropic in an amount that compensates Entropic for Charter's infringement, which by law cannot be less than a reasonable royalty, together with interest and costs as fixed by this Court under 35 U.S.C. § 284.

58. Entropic is aware of no obligation to mark any instrumentality with the '866 Patent in accordance with 35 U.S.C. § 287.

## **COUNT II**

### **(Infringement of the '206 Patent)**

59. Entropic incorporates by reference each allegation of Paragraphs 1 through 58.

60. The '206 Patent duly issued on July 26, 2022 from an application filed January 28, 2022, an application filed March 30, 2021, an application filed June 4, 2019, an application filed October 24, 2017, an application filed November 23, 2015, an application filed February 10, 2015, an application filed August 8, 2013, an application filed April 19, 2010, and, *inter alia* a provisional application filed April 17, 2009.

61. Entropic owns all substantial rights, interest, and title in and to the '206 Patent, including the sole and exclusive right to prosecute this action and enforce the '206 Patent against infringers and to collect damages for all relevant times.

62. The '206 Patent generally describes a receiver system that receives an input signal from a cable network, digitizes the entire input signal, concurrently selects a plurality of desired channels from the digitized input signal without selecting any undesired channels, and provides the plurality of desired channels. A true and accurate copy of the '206 Patent is attached hereto as Exhibit 3.

63. The '206 Patent is directed to patent-eligible subject matter pursuant to 35 U.S.C. § 101.

64. The '206 Patent is valid and enforceable, and presumed as such, pursuant to 35 U.S.C. § 282.

65. Charter deploys one or more of the Accused Cable Modem Products and Accused Set Top Products in connection with operating and providing the Accused Services.

66. The Accused Cable Modem Products and Accused Set Top Products deployed by Charter to customer premises remain the property of Charter while deployed.

67. The Accused Cable Modem Products and Accused Set Top Products operate while deployed in a manner controlled and intended by Charter.

68. As set forth in the attached nonlimiting claim chart (Exhibit 4), Charter has directly infringed and is infringing at least Claim 13 of the '206 Patent by using, selling, and/or offering for sale the Accused Services through the Accused Cable Modem Products and Accused Set Top Products.

69. Each aspect of the functioning of the Accused Cable Modem Products and Accused Set Top Products described in the claim chart operates while deployed to customer premises in a manner controlled and intended by Charter.

70. Charter provides no software, support, or other facility to customers to modify any aspect of the functioning described in the claim chart of the Accused Cable Modem Products and Accused Set Top Products while deployed to customer premises.

71. Charter directly infringes at least Claim 13 of the '206 Patent by using, importing, selling, and/or offering for sale the Accused Cable Modem Products and Accused Set Top Products and/or the Accused Services (for example, digitizing and selecting desired channels from an input signal).

72. The use of the Accused Services through the Accused Cable Modem Products and Accused Set-Top Products by Charter to, for example, demonstrate products in brick-and-mortar stores in the District, or to, for example, test those products, constitute acts of direct infringement of at least Claim 13 of the '206 Patent.

73. Customers and subscribers of Charter infringe at least Claim 13 of the '206 Patent by using the claimed method, at least during receipt of the Accused Services utilizing, for example, the Accused Cable Modem Products and Accused Set Top Products.

74. The Accused Cable Modem Products and Accused Set Top Products have no substantial noninfringing uses. When an end user uses the Accused Cable Modem Products and Accused Set Top Products to receive the Accused Services, the end user directly infringes at least Claim 13 of the '206 Patent. The Accused Cable Modem Products and Accused Set Top Products are especially made or especially adapted for use in an infringing manner.

75. Entropic has been damaged as a result of the infringing conduct alleged above. Charter is liable to Entropic in an amount that compensates Entropic for Charter's infringement, which by law cannot be less than a reasonable royalty, together with interest and costs as fixed by this Court under 35 U.S.C. § 284.

76. No apparatus claims of the '206 Patent are presently asserted. Accordingly, there is no duty to mark pursuant to 35 U.S.C. § 287.

### **COUNT III**

#### **(Infringement of the '275 Patent)**

77. Entropic incorporates by reference each allegation of Paragraphs 1 through 76.

78. The '275 Patent duly issued on October 10, 2023 from an application filed September 30, 2022, an application filed July 12, 2022, an application filed January 28, 2022, an application filed March 30, 2021, an application filed June 4, 2019, an application filed October 24, 2017, an application filed November 23, 2015, an application filed February 10, 2015, an application filed August 8, 2013, an application filed April 19, 2010, and, *inter alia* a provisional application filed April 17, 2009.

79. Entropic owns all substantial rights, interest, and title in and to the '275 Patent, including the sole and exclusive right to prosecute this action and enforce the '275 Patent against infringers and to collect damages for all relevant times.

80. The '275 Patent generally describes a wideband receiver system that digitizes an input signal, selects desired channels from the digitized signal, and outputs the selected desired channels for demodulation. A true and accurate copy of the '275 Patent is attached hereto as Exhibit 5.

81. The '275 Patent is directed to patent-eligible subject matter pursuant to 35 U.S.C. § 101.

82. The '275 Patent is valid and enforceable, and presumed as such, pursuant to 35 U.S.C. § 282.

83. Charter deploys one or more of the Accused Set Top Products in connection with operating and providing the Accused Services.

84. The Accused Set Top Products deployed by Charter to customer premises remain the property of Charter while deployed.

85. The Accused Set Top Products operate while deployed in a manner controlled and intended by Charter.

86. As set forth in the attached nonlimiting claim chart (Exhibit 6), Charter has directly infringed and is infringing at least Claims 1-2, 5, 7-8, 10-12, 15, 17-18, and 20 of the '275 Patent by using, selling, and/or offering for sale the Accused Services through the Accused Set Top Products.

87. Each aspect of the functioning of the Accused Set Top Products described in the claim chart operates while deployed to customer premises in a manner controlled and intended by Charter.

88. Charter provides no software, support, or other facility to customers to modify any aspect of the functioning described in the claim chart of the Accused Set Top Products while deployed to customer premises.

89. Charter directly infringes at least Claims 1-2, 5, 7-8, 10-12, 15, 17-18, and 20 of the '275 Patent by using, importing, selling, and/or offering for sale the Accused Set Top Products (for example, the Spectrum 210-T) and/or the Accused Services (for example, digitizing and selecting desired channels from an input signal).

90. The use of the Accused Services through the Accused Set-Top Products by Charter to, for example, demonstrate products in brick-and-mortar stores in the District, or to, for example, test those products, constitute acts of direct infringement of at least Claims 1-2, 5, 7-8, 10-12, 15, 17-18, and 20 of the '275 Patent.

91. Customers and subscribers of Charter infringe at least Claims 1-2, 5, 7-8, 10-12, 15, 17-18, and 20 of the '275 Patent by using the claimed method, at least during receipt of the Accused Services utilizing, for example, the Accused Set Top Products.

92. The Accused Set Top Products have no substantial noninfringing uses. When an end user uses the Accused Set Top Products to receive the Accused Services, the end user directly infringes at least Claims 1-2, 5, 7-8, 10-12, 15, 17-18, and 20 of the '275 Patent. The Accused Set Top Products are especially made or especially adapted for use in an infringing manner.

93. Entropic has been damaged as a result of the infringing conduct alleged above. Charter is liable to Entropic in an amount that compensates Entropic for Charter's infringement, which by law cannot be less than a reasonable royalty, together with interest and costs as fixed by this Court under 35 U.S.C. § 284.

94. Entropic is aware of no obligation to mark any instrumentality with the '275 Patent in accordance with 35 U.S.C. § 287.

### **JURY DEMAND**

Entropic hereby requests a trial by jury on all issues so triable by right.

### **PRAYER FOR RELIEF**

WHEREFORE, Entropic requests that:

A. The Court find that Charter has directly infringed the Patents-in-Suit and hold Charter liable for such infringement;

B. The Court award damages pursuant to 35 U.S.C. § 284 adequate to compensate Entropic for Charter's past infringement of the Patents-in-Suit, including both pre- and post-judgment interest and costs as fixed by the Court;

C. The Court declare that this is an exceptional case entitling Entropic to its reasonable attorneys' fees under 35 U.S.C. § 285; and



D. The Court award such other relief as the Court may deem just and proper.

Dated: October 31, 2023

Respectfully submitted,

/s/ James Shimota by permission Andrea L. Fair

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**ATTORNEYS FOR PLAINTIFF**

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**CERTIFICATE OF SERVICE**

I hereby certify that a copy of the foregoing document was filed electronically in compliance with Local Rule CV-5(a). Therefore, this document was served on all counsel who are deemed to have consented to electronic service on this the 31<sup>st</sup> day of October, 2023.

/s/ Andrea L. Fair

Andrea L. Fair