

**UNITED STATES DISTRICT COURT  
SOUTHERN DISTRICT OF NEW YORK**

COMCAST CABLE COMMUNICATIONS  
MANAGEMENT, LLC and COMCAST CABLE  
COMMUNICATIONS, LLC,

Plaintiffs-Counterclaim  
Defendants,

- against -

MAXLINEAR, INC.,

Defendant-Counterclaim  
Plaintiff.

Case No. 1:23-cv-04436-AKH

**ECF Case**

**DEFENDANT MAXLINEAR, INC.’S ANSWER TO THE SECOND AMENDED  
COMPLAINT AND COUNTERCLAIMS**

Defendant MaxLinear, Inc. (“MaxLinear”), by and through its undersigned counsel, files this Answer to the Second Amended Complaint of Plaintiffs Comcast Cable Communications Management, LLC and Comcast Cable Communications, LLC (“Comcast”), and asserts counterclaims against Comcast.

**NATURE OF CLAIMS AND COUNTERCLAIMS**

1. MaxLinear is a leading provider of radio frequency, analog, digital, and mixed-signal semiconductor solutions. Founded in 2003 by a handful of semiconductor engineers, MaxLinear has revolutionized digital communication. MaxLinear’s pioneering solutions have repeatedly defined the next generation of computer networking equipment, allowing well-known cable operators, cellular providers, and other major communications companies to provide consumers with ever faster, smarter, and more efficient communications networks.

2. Since its humble beginnings, MaxLinear has always placed its customers first. As a result, the company enjoys a hard-earned reputation for cutting-edge product development and unwavering customer support.

3. Among MaxLinear's many customers was Comcast. Because MaxLinear manufactures silicon chips used in many consumer cable modems, the two companies were natural business partners for more than 15 years. Hoping to expand a mutually beneficial relationship, MaxLinear serviced Comcast's devices and faithfully responded to the needs of Comcast's customers at no charge, even after Comcast failed to live up to its own contractual obligations. After signing a non-disclosure agreement and providing multiple confidentiality reminders, MaxLinear even shared key inventions and technological know-how with Comcast in good faith to help Comcast's cable systems stay current and remain competitive in a rapidly evolving media landscape where consumers could choose new, fiber-optic options with faster streaming speeds than Comcast's traditional cable network.

4. MaxLinear developed and shared these new technologies with the hope that Comcast would purchase and deploy them in service of the more than 14 million Comcast households that already use MaxLinear chips (and beyond). But Comcast had a different plan. While Comcast simultaneously lauded MaxLinear's new technology as part of its future plans, Comcast scaled back its existing purchase orders of MaxLinear products and ultimately ceased the purchase of any new MaxLinear products altogether. And rather than pay MaxLinear for an innovative, highly confidential, and proprietary technology that MaxLinear developed for and demonstrated to Comcast to allow it to succeed in the fiber-optic age, Comcast stole the idea, claimed it as its own, and hired MaxLinear's competitor to commercialize it.

5. As MaxLinear came to see that Comcast was not the trusted business partner it had anticipated, MaxLinear ended the parties' contractual relationship (even as it continues to support MaxLinear products that Comcast customers currently use).

6. Unhappy that it lost a key supplier of what it viewed as free and valued innovation, Comcast commenced this action, alleging breach of years-old contracts—specifically, a Vendor Support Agreement (“VSA”) and Statement of Work (“SOW”)—under which Comcast has never paid a dime. Comcast initially sought immediate judicial relief based on false allegations that MaxLinear would do what it never has done before: immediately abandon consumers. But even Comcast could not credibly maintain those allegations. It eventually withdrew requests for both a temporary restraining order and a preliminary injunction.

7. Several months later, Comcast filed a new complaint that includes novel allegations of contract breach by MaxLinear. But Comcast’s latest allegations are as meritless as the prior claims it recently withdrew; MaxLinear never violated its contractual commitments. To the contrary, even after MaxLinear terminated the VSA and SOW, MaxLinear continued to provide uninterrupted support to Comcast customers.

8. Comcast has previously sought to immunize its repeated wrongful conduct by invoking a “Covenant Not to Assert” in the now-terminated VSA that limits MaxLinear’s right to sue for certain violations of its intellectual property rights. But that provision does not excuse Comcast’s theft. Nothing in the VSA gives Comcast carte blanche to steal from MaxLinear or willfully and knowingly disregard MaxLinear’s intellectual property rights. Even if the VSA was not terminated, Comcast cannot dispute that it may be held accountable if it willfully infringes MaxLinear’s patents or knowingly misappropriates its trade secrets. Lest there be any doubt, the Covenant Not to Assert *does not* immunize Comcast here, where Comcast knowingly stole MaxLinear’s trade secrets. That Comcast may argue otherwise only further proves that it is more interested in securing the right to steal and infringe from MaxLinear without consequence than proving it did not steal or infringe in the first place.

9. Comcast cannot continue to abuse and exploit MaxLinear. It is Comcast that has violated its contractual and legal obligations to MaxLinear. It breached the parties' nondisclosure agreement, engaged in unfair competition, misappropriated MaxLinear's trade secrets, and violated the implied covenant of good faith and fair dealing. The parties' contract expressly contemplates that MaxLinear may sue Comcast under such circumstances. MaxLinear now responds to Comcast's allegations and seeks relief from this Court to hold Comcast accountable.

### **ANSWER**

MaxLinear denies each allegation set forth in Comcast's Second Amended Complaint ("SAC"), except for those expressly and specifically admitted below in this Answer. The SAC also includes several section headings, quoted herein, to which no response is required; to the extent a response is deemed required, any allegations in such headings are denied.

### **NATURE OF THE ACTION**

1. MaxLinear denies the allegations in paragraph 1.
2. MaxLinear admits that it has provided chips for broadband gateways used to provide Internet service to Comcast customers. The allegations in paragraph 2 characterize the contents of the Vendor Support Agreement ("VSA") and Statement of Work ("SOW"). Those documents are the best evidence of their contents and speak for themselves, and MaxLinear denies any characterizations of them. MaxLinear denies the remaining allegations in paragraph 2.
3. MaxLinear admits that it assigned part of its patent portfolio to Entropic. MaxLinear further admits that Entropic asserted those patents against Comcast in two lawsuits in the United States District Court for the Central District of California. MaxLinear denies the remaining allegations in paragraph 3.
4. MaxLinear denies the allegations in paragraph 4.
5. The allegations in paragraph 5 characterize the contents of the VSA and the SOW. Those documents are the best evidence of their contents and speak for themselves, and MaxLinear denies any characterizations of them.
6. The allegations in paragraph 6 characterize the contents of letters dated May 18, 2023 and May 24, 2023. Those documents are the best evidence of their contents and speak for

themselves, and MaxLinear denies any characterizations of them. MaxLinear denies the remaining allegations in paragraph 6.

7. MaxLinear admits that Comcast sought a temporary restraining order and preliminary injunction. The allegations in paragraph 7 characterize the contents of the parties' September 12, 2023 stipulation. That document is the best evidence of its contents and speaks for itself, and MaxLinear denies any characterizations of it. MaxLinear denies the remaining allegations in paragraph 7.
8. Paragraph 8 contains legal conclusions to which no response is required. To the extent that this paragraph contains factual allegations that require a response, MaxLinear admits that it maintains its position that the VSA and SOW are terminated and denies the remaining allegations.

### **THE PARTIES**

9. MaxLinear admits the allegations in paragraph 9.
10. MaxLinear admits the allegations in paragraph 10.
11. MaxLinear admits the allegations in paragraph 11.
12. MaxLinear lacks the knowledge or information necessary to form a belief as to the truth of the allegations in paragraph 12.
13. MaxLinear lacks the knowledge or information necessary to form a belief as to the truth of the allegations in paragraph 13.
14. MaxLinear lacks the knowledge or information necessary to form a belief as to the truth of the allegations in paragraph 14.
15. The allegations in paragraph 15 characterize the contents of an email dated October 16, 2023. That document is the best evidence of its contents and speaks for itself and thus, no response is required.

### **JURISDICTION AND VENUE**

16. The allegations in paragraph 16 are legal conclusions to which no response is required. To the extent a response is required, MaxLinear admits that Plaintiffs Comcast Management and Comcast Cable are citizens of Pennsylvania, and that MaxLinear is a citizen of Delaware and/or California, but not Pennsylvania.
17. The allegations in paragraph 17 are legal conclusions to which no response is required.
18. The allegations in paragraph 18 characterize the VSA. That document is the best evidence of its contents and speaks for itself, and MaxLinear denies any characterizations of it. This paragraph also contains legal conclusions to which no response is required.

19. The allegations in paragraph 19 characterize the contents of the VSA. That document is the best evidence of its contents and speaks for itself, and MaxLinear denies any characterizations of it. This paragraph also contains legal conclusions to which no response is required. MaxLinear denies being “closely related” to Entropic and denies working in concert with Entropic. MaxLinear lacks the knowledge or information necessary to form a belief as to the truth of the remaining allegations in paragraph 19.
20. MaxLinear lacks the knowledge or information necessary to form a belief as to the truth of the allegations in paragraph 20.
21. The allegations in paragraph 21 are legal conclusions to which no response is required.

### **FACTUAL ALLEGATIONS**

22. MaxLinear admits that Comcast is a provider of telecommunications services, including Internet, cable television, and telephone services. MaxLinear lacks the knowledge or information necessary to form a belief as to the truth of the remaining allegations in paragraph 22.
23. MaxLinear admits the allegations in paragraph 23.
24. MaxLinear lacks the knowledge or information necessary to form a belief as to the truth of the allegations in paragraph 24.
25. MaxLinear admits the allegations in paragraph 25.
26. The allegations in paragraph 26 characterize the contents of the VSA. That document is the best evidence of its contents and speaks for itself, and MaxLinear denies any characterizations of it.
27. The allegations in paragraph 27 characterize the contents of the VSA. That document is the best evidence of its contents and speaks for itself, and MaxLinear denies any characterizations of it.
28. The allegations in paragraph 28 characterize the contents of the VSA. That document is the best evidence of its contents and speaks for itself, and MaxLinear denies any characterizations of it.
29. The allegations in paragraph 29 characterize the contents of the VSA. That document is the best evidence of its contents and speaks for itself, and MaxLinear denies any characterizations of it.
30. The allegations in paragraph 30 characterize the contents of the SOW. That document is the best evidence of its contents and speaks for itself, and MaxLinear denies any characterizations of it.
31. The allegations in paragraph 31 characterize the contents of the SOW. That document is the best evidence of its contents and speaks for itself, and MaxLinear denies any

characterizations of it. MaxLinear lacks the knowledge or information necessary to form a belief as to the truth of the remaining allegations.

32. The allegations in paragraph 32 characterize the contents of the VSA. That document is the best evidence of its contents and speaks for itself, and MaxLinear denies any characterizations of it.
33. The allegations in paragraph 33 characterize the contents of the SOW. That document is the best evidence of its contents and speaks for itself, and MaxLinear denies any characterizations of it.
34. MaxLinear denies the allegations in paragraph 34.
35. MaxLinear admits the allegations in paragraph 35.
36. MaxLinear admits the allegations in paragraph 36.
37. MaxLinear admits the allegations in paragraph 37.
38. MaxLinear denies the allegations in paragraph 38.
39. MaxLinear denies the allegations in paragraph 39.
40. MaxLinear admits that Entropic asserted claims against Comcast in lawsuits filed in the Central District of California based on certain patents that MaxLinear assigned to Entropic.
41. MaxLinear denies the allegations in paragraph 41.
42. MaxLinear lacks the knowledge or information necessary to form a belief as to the truth of the allegations in paragraph 42.
43. MaxLinear lacks the knowledge or information necessary to form a belief as to the truth of the allegations in paragraph 43.
44. MaxLinear admits that a phone call occurred on April 28, 2023, between Peter Kiriacoulacos and Kishore Seendripu. MaxLinear denies remaining allegations in paragraph 44.
45. MaxLinear denies that it provided its consent for Comcast to share a copy of the VSA and SOW with Entropic. MaxLinear lacks the knowledge or information necessary to form a belief as to the truth of the allegations in paragraph 45.
46. MaxLinear lacks the knowledge or information necessary to form a belief as to the truth of the allegations in paragraph 46.
47. MaxLinear admits that Comcast moved to dismiss the California lawsuits. MaxLinear lacks the knowledge or information necessary to form a belief as to the truth of the remaining allegations in paragraph 47.
48. MaxLinear admits the allegations in paragraph 48.

49. MaxLinear admits that Mr. Torgerson and Mr. Cave discussed the California Lawsuits and that Mr. Torgerson conveyed Mr. Seendripu's intent to terminate the VSA. MaxLinear further admits that Mr. Torgerson sought an assurance that there would be a solid chance of business between MaxLinear and Comcast. MaxLinear denies the remaining allegations in paragraph 49.
50. MaxLinear denies the allegations in paragraph 50.
51. The allegations in paragraph 51 characterize the contents of an email dated May 19, 2023. That document is the best evidence of its contents and speaks for itself, and MaxLinear denies any characterizations of it.
52. The allegations in paragraph 52 characterize the contents of a letter dated May 23, 2023. That document is the best evidence of its contents and speaks for itself, and MaxLinear denies any characterizations of it.
53. The allegations in paragraph 53 characterize the contents of a letter dated May 23, 2023. That document is the best evidence of its contents and speaks for itself, and MaxLinear denies any characterizations of it.
54. MaxLinear admits that it has discussed the Agreements with Entropic but lacks the knowledge or information necessary to form a belief as to the truth of the allegations pertaining to the timing of those discussions in relation to any communications between Comcast and Entropic. MaxLinear lacks the knowledge or information necessary to form a belief as to the truth of the allegations pertaining to the California Lawsuits. MaxLinear denies the remaining allegations in paragraph 54.
55. Paragraph 55 contains legal conclusions to which no response is required. To the extent that this paragraph contains factual allegations that require a response, MaxLinear denies the allegations in paragraph 55.
56. The allegations in paragraph 56 characterize the contents of a letter dated May 24, 2023. That document is the best evidence of its contents and speaks for itself, and MaxLinear denies any characterizations of it.
57. MaxLinear admits that Mr. Herrin and Mr. Seendripu held a remote meeting on May 25, 2023, that Mr. Herrin characterized MaxLinear's termination letter as improper, and that Mr. Seendripu did not agree to withdraw its termination. MaxLinear denies the remaining allegations in paragraph 57.
58. MaxLinear denies the allegations in paragraph 58.
59. MaxLinear admits the allegations in paragraph 59.
60. The allegations in paragraph 60 characterize the contents of Comcast's application for a preliminary injunction and temporary restraining order. That document is the best evidence of its contents and speaks for itself, and MaxLinear denies any characterizations of it.



61. The allegations in paragraph 61 characterize the contents of the parties' June 2, 2023 stipulation. That document is the best evidence of its contents and speaks for itself, and MaxLinear denies any characterizations of it.
62. MaxLinear admits the allegations in paragraph 62.
63. The allegations in paragraph 63 characterize the contents of the parties' September 12, 2023 stipulation. That document is the best evidence of its contents and speaks for itself, and MaxLinear denies any characterizations of it.
64. MaxLinear admits the allegations in paragraph 64.
65. The allegations in paragraph 65 characterize the contents of Comcast's June 20, 2023 motion to dismiss in the California Lawsuits. That document is the best evidence of its contents and speaks for itself, and MaxLinear denies any characterizations of it.
66. The allegations in paragraph 66 characterize the contents of Entropic's June 30, 2023 opposition to Comcast's motion to dismiss in the California Lawsuits. That document is the best evidence of its contents and speaks for itself, and MaxLinear denies any characterizations of it.
67. Paragraph 67 contains legal conclusions to which no response is required. To the extent that this paragraph contains factual allegations that require a response, MaxLinear denies the allegations in paragraph 67.
68. MaxLinear admits the allegations in paragraph 68.

## **CAUSES OF ACTION**

### **COUNT I**

69. No response is required to the allegations in paragraph 69.
70. Paragraph 70 contains legal conclusions to which no response is required.
71. Paragraph 71 contains legal conclusions to which no response is required.
72. Paragraph 72 contains legal conclusions to which no response is required. To the extent that this paragraph contains factual allegations that require a response, MaxLinear denies the allegations in paragraph 72.
73. Paragraph 73 contains legal conclusions to which no response is required. To the extent that this paragraph contains factual allegations that require a response, MaxLinear denies the allegations in paragraph 73.
74. Paragraph 74 contains legal conclusions to which no response is required. To the extent that this paragraph contains factual allegations that require a response, MaxLinear denies the allegations in paragraph 74.

75. Paragraph 75 contains legal conclusions to which no response is required. To the extent that this paragraph contains factual allegations that require a response, MaxLinear denies the allegations in paragraph 75.
76. Paragraph 76 contains legal conclusions to which no response is required. To the extent that this paragraph contains factual allegations that require a response, MaxLinear denies the allegations in paragraph 76.
77. Paragraph 77 contains legal conclusions to which no response is required. To the extent that this paragraph contains factual allegations that require a response, MaxLinear denies the allegations in paragraph 77.

### **COUNT II**

78. No response is required to the allegations in paragraph 78.
79. Paragraph 79 contains legal conclusions to which no response is required.
80. Paragraph 80 contains legal conclusions to which no response is required.
81. Paragraph 81 contains legal conclusions to which no response is required.
82. Paragraph 82 contains legal conclusions to which no response is required. To the extent that this paragraph contains factual allegations that require a response, MaxLinear denies the allegations in paragraph 82.
83. Paragraph 83 contains legal conclusions to which no response is required. To the extent that this paragraph contains factual allegations that require a response, MaxLinear denies the allegations in paragraph 83.
84. Paragraph 84 contains legal conclusions to which no response is required. To the extent that this paragraph contains factual allegations that require a response, MaxLinear denies the allegations in paragraph 84.
85. Paragraph 85 characterizes Comcast's claim for relief. No response is required to the allegations in this paragraph.

### **COUNT III**

86. No response is required to the allegations in paragraph 86.
87. Paragraph 87 contains legal conclusions to which no response is required.
88. The allegations in paragraph 88 characterize the contents of the VSA. That document is the best evidence of its contents and speaks for itself, and MaxLinear denies any characterizations of it.

89. Paragraph 89 contains legal conclusions to which no response is required. To the extent that this paragraph contains factual allegations that require a response, MaxLinear denies the allegations in paragraph 89.
90. Paragraph 90 contains legal conclusions to which no response is required. To the extent that this paragraph contains factual allegations that require a response, MaxLinear denies the allegations in paragraph 90.
91. MaxLinear lacks the knowledge or information necessary to form a belief as to the truth of the allegations in paragraph 91.
92. Paragraph 92 contains legal conclusions to which no response is required. To the extent that this paragraph contains factual allegations that require a response, MaxLinear denies the allegations in paragraph 92.

#### **COUNT IV**

93. No response is required to the allegations in paragraph 93.
94. Paragraph 94 contains legal conclusions to which no response is required.
95. Paragraph 95 contains legal conclusions to which no response is required. To the extent that this paragraph contains factual allegations that require a response, MaxLinear denies the allegations in paragraph 95.
96. The allegations in paragraph 96 characterize the contents of the VSA. That document is the best evidence of its contents and speaks for itself, and MaxLinear denies any characterizations of it.
97. Paragraph 97 contains legal conclusions to which no response is required.
98. Paragraph 98 contains legal conclusions to which no response is required. To the extent that this paragraph contains factual allegations that require a response, MaxLinear denies the allegations in paragraph 98.
99. Paragraph 99 contains legal conclusions to which no response is required. To the extent that this paragraph contains factual allegations that require a response, MaxLinear denies the allegations in paragraph 99.

#### **COUNT V**

100. No response is required to the allegations in paragraph 100.
101. This count is not asserted against MaxLinear and therefore no response is required.
102. This count is not asserted against MaxLinear and therefore no response is required.
103. This count is not asserted against MaxLinear and therefore no response is required.

104. This count is not asserted against MaxLinear and therefore no response is required.

105. This count is not asserted against MaxLinear and therefore no response is required.

106. This count is not asserted against MaxLinear and therefore no response is required.

107. This count is not asserted against MaxLinear and therefore no response is required.

108. This count is not asserted against MaxLinear and therefore no response is required.

### **AFFIRMATIVE DEFENSES**

MaxLinear submits the following affirmative defenses to the allegations and claims Comcast asserts in the Second Amended Complaint. By pleading these defenses, MaxLinear does not assume the burden of proof, except as to those defenses deemed by law to be affirmative defenses, irrespective of how they are pleaded in this Counterclaims and Answer. MaxLinear has not knowingly or intentionally waived any applicable defenses and reserves the right to raise additional defenses as may be discovered during the course of this litigation.

#### **First Affirmative Defense**

The Second Amended Complaint fails to state a claim against MaxLinear for which relief can be granted.

#### **Second Affirmative Defense**

The claims asserted in the Second Amended Complaint are barred, in whole or in part, because Comcast has failed to satisfy its own contractual obligations, including, without limitation, its duty to communicate its “expectations and relative priorities” regarding nominal feature developments through monthly roadmaps. Comcast also breached the VSA by misappropriating MaxLinear’s trade secrets. Comcast’s material breaches under the contracts at issue relieved MaxLinear of its obligation to perform. Comcast thus cannot prevail on its claim for breach of contract.

**Third Affirmative Defense**

The claims asserted in the Second Amended Complaint are barred by Comcast's own breach of the implied covenant of good faith and fair dealing, including its failure to convey to MaxLinear its "expectations and relative priorities" regarding nominal feature developments through monthly roadmaps.

**Fourth Affirmative Defense**

To the extent Comcast seeks equitable relief, Comcast's claims are barred by the doctrine of unclean hands.

**Fifth Affirmative Defense**

The claims asserted in the Second Amended Complaint are barred, in whole or in part, because damages, if any, sustained by Comcast were not proximately caused by MaxLinear.

**Sixth Affirmative Defense**

To the extent the claims asserted in the Second Amended Complaint seek relief in excess of \$500,000.00, or seek to recover for "any loss of use, interruption of business, lost profits, or any indirect, special, punitive, incidental, or consequential damages, however caused and under any theory of liability, whether in contract, tort (including negligence) strict liability or otherwise," they are barred by section 8.1(a) of the VSA, including without limitation because MaxLinear has not committed gross negligence or acted with willful misconduct.

**Seventh Affirmative Defense**

The claims asserted in the Second Amended Complaint are subject to setoff.

**Eighth Affirmative Defense**

The claims asserted in the Second Amended Complaint are subject to recoupment.

**Ninth Affirmative Defense**

The claims asserted in the Second Amended Complaint are barred, in whole or in part, by Comcast's failure to mitigate damages.

## **COUNTERCLAIMS**

Pursuant to Federal Rule of Civil Procedure 13, Counterclaim Plaintiff MaxLinear alleges the following against Comcast. MaxLinear alleges upon knowledge as to itself and its own actions and upon information and belief as to all other matters except where otherwise noted as follows:

### **INTRODUCTION**

1. For 15 years, MaxLinear treated Comcast as a trusted business partner. Whenever Comcast faced a business challenge or an unmet need, MaxLinear deployed its world-class team of engineers to help Comcast in the hopes of deepening a mutually rewarding business relationship.

2. In recent years, Comcast and other cable internet operators have faced a particularly severe and existential business challenge: the rise of fiber-optic internet. Fiber-optic internet delivers connectivity using new, state-of-the-art fiber-optic infrastructure that permits lightning-fast upload and download speeds to meet the demands of modern consumers. By contrast, cable operators like Comcast deliver internet connectivity using decades-old infrastructure that is well-suited to delivering cable television services but more difficult to scale for bi-directional and symmetrical data services, which are increasingly in demand due to the proliferation of interactive gaming, artificial and virtual reality applications, video-conferencing, and similar modern demands. Thus, to combat the growing popularity of fiber, Comcast and other cable operators needed to find some way to upgrade their existing cable infrastructure so that they could rival the superior speed and performance of fiber-optic internet.

3. Threatened with market obsolescence, Comcast chose to upgrade its infrastructure using what the industry terms a full duplex, or “FDX,” approach. To do that, however, Comcast needed to upgrade its existing hardware—which would become prohibitively expensive to implement across its full footprint if it did not also upgrade its “amplifiers” used to “amplify” internet signals as they travel across large physical distances. Although Comcast was making

progress towards developing FDX solutions, as of 2020, it did not know how to upgrade its amplifiers to support FDX technology.

4. Meanwhile, by 2020, MaxLinear had invested substantial resources, including thousands of man-hours, into becoming the premier FDX innovator. It was a natural fit then for Comcast to solicit MaxLinear for FDX technology solutions. And to further encourage MaxLinear, Comcast dangled the prospect of a more robust FDX business partnership, in which Comcast would purchase MaxLinear technology.

5. MaxLinear responded as it always had, by devoting substantial time and resources to solve Comcast's problems. By the end of 2020, MaxLinear was able to leverage its existing FDX knowledge to create an FDX amplifier—the key to allowing Comcast to upgrade its network and compete with fiber. In December 2020, after the parties signed a nondisclosure agreement, MaxLinear showed its highly confidential and proprietary design along with other associated trade secrets to Comcast pursuant to a long-held understanding of confidentiality, confirmed in the nondisclosure agreement, and offered to collaborate with Comcast on the final product. Comcast walked away from that meeting with a presentation deck that included the design and other MaxLinear trade secrets. Although Comcast lauded MaxLinear's accomplishment and enthusiastically asked for additional meetings to discuss commercial deployment (obtaining even more proprietary information about MaxLinear's FDX-amplifier solution under the cover of the NDA), Comcast ultimately decided to abandon MaxLinear, refusing to enter into any product agreement.

6. Instead, Comcast knowingly published aspects of MaxLinear's design as its own, disclosed it to MaxLinear's competitor, and paid the competitor—which as late as 2020 had declared that it would not work on any FDX cable upgrade without being commissioned to do so



(*i.e.*, with an upfront payment commitment)—to commercialize a functionally identical FDX amplifier.

7. Comcast must be held accountable. This case presents a paradigmatic example of trade-secret misappropriation, unfair competition, and breach of contract, namely, breach of the Comcast-MaxLinear nondisclosure agreement. MaxLinear now seeks relief from this Court to vindicate its rights and to prevent Comcast from further capitalizing on MaxLinear's valuable, confidential, and highly proprietary trade secrets.

### **THE PARTIES**

8. MaxLinear is a Delaware corporation with its principal place of business at 5966 La Place Court, Suite 100, Carlsbad, California 92008.

9. Comcast Management is a Delaware limited liability company with a principal place of business at One Comcast Center, 1701 John F. Kennedy Blvd., Philadelphia, Pennsylvania 19103. Comcast Management's sole member is Comcast Cable.

10. Comcast Cable is a Delaware limited liability company with a principal place of business at One Comcast Center, 1701 John F. Kennedy Blvd., Philadelphia, Pennsylvania 19103.

### **JURISDICTION**

11. This Court has jurisdiction pursuant to 28 U.S.C. § 1332 because there is complete diversity of citizenship between the parties and the amount in controversy, exclusive of interests and costs, exceeds \$75,000. MaxLinear is a citizen of Delaware and California. Comcast Management and Comcast Cable are citizens of Pennsylvania. Counterclaim Defendants Comcast Holdings Corporation and Comcast Corporation are citizens of Pennsylvania.

12. This Court has jurisdiction pursuant to 28 U.S.C. § 1331 over the claim arising under the Defense of Trade Secrets Act, 18 U.S.C. § 1836.

13. This Court has supplemental jurisdiction for claims arising under state law pursuant to 28 U.S.C. § 1367.

14. This Court has personal jurisdiction over Comcast Management and Comcast Cable because they consented to jurisdiction in this Court by filing suit against MaxLinear.

15. Venue is proper in this District under 28 U.S.C. § 1391.

### **FACTUAL ALLEGATIONS**

#### **A. Faced With Increasingly Fierce Competition From Fiber-Optic Competitors, Comcast Had To “Evolve or Die.”**

16. Over the last twenty years, cable-internet operators, including Comcast, have faced a new and formidable competitor: fiber-optic internet, which boasts higher performance and a greater ability to meet the needs of the modern internet user. Cable operators deliver internet connectivity using a decades-old hybrid fiber coax infrastructure in which networks connect to a fiber node where signals are converted from optical form to radio frequencies and sent through a coaxial cable—and depending on the distance traveled, “amplified” several times at various distances with amplifier devices—to reach consumers. By contrast, fiber-optic providers like AT&T and Verizon install passive fiber-optic cables all the way to the consumer’s home, which cables use dedicated wavelengths of light for transmitting and receiving upstream and downstream information, thereby enabling symmetrical speeds without the need for dedicated channel selection or amplification.

17. The speed and performance of “fiber” infrastructure give it a clear advantage over traditional cable. Cable generally uses different bands of the available frequency spectrum for uploading and downloading data, meaning that upstream and downstream signals have a dedicated and fixed direction in which the signal flows. And because of cable’s roots in television, cable companies have historically dedicated more spectrum to downstream capacity, which permits the

movement of an internet signal from the operator to the home. As a result, cable has been able to boast high download speeds for content streamed to a consumer's home, but its upload capacity—which is necessary for modern activities like videoconferencing and gaming that require the movement of an internet signal from the home to the operator—have lagged considerably. Meanwhile, fiber has not only generally offered greater downstream capacity but also has solved the upstream problem by providing for symmetric upstream and downstream capacity, meaning that upstream and downstream signals can utilize the same fiber-optic cable. As a result, fiber significantly increases upload speeds, which mirror its increased download speeds, and thus the overall consumer internet performance.

18. Fiber's superior performance, particularly in meeting the demands of the modern consumer, has predictably led to increased demand for fiber at the expense of cable. Since fiber was broadly deployed as a consumer internet option in the early 2000s, it has become known for its lightning-fast speeds. By 2022, even though fiber providers were limited to only a handful of geographies, they had secured 20% of the U.S. internet service market, according to the Fiber Broadband Association. *How Do Americans Connect to the Internet?*, The Pew Charitable Trusts (July 7, 2022), <https://tinyurl.com/yxzu3zec>.

19. The COVID-19 pandemic only accelerated that trend. Consumers' demand for work-from-home, school-from-home, and other solutions that enable communication across physical distance highlighted the longstanding upstream problem with cable. As one fiber executive put it, "Video conferences are symmetric, and on a cable network you are lucky to have a [megabit] of upstream." Martha DeGrasse, *Fiber Providers See Strong Demand During COVID-19 Pandemic*, Fierce Telecom (Apr. 22, 2020), <https://tinyurl.com/mryswyny>.

20. It is no wonder commentators noted in 2020 that “[t]he need for fiber infrastructure [was] greater than ever.” *Id.* Industry experts questioned whether cable-internet providers could even survive absent a solution that could meet consumer demand and compete with fiber on performance. As one industry observer put it, cable operators must “[e]volve or [d]ie.” Brady Volpe, *Evolve or Die: Can DOCSIS 4.0 Compete With Fiber?*, SCTE, <https://tinyurl.com/42htbfz8>. The headlines from 2020 to today speak for themselves:

### The New York Times

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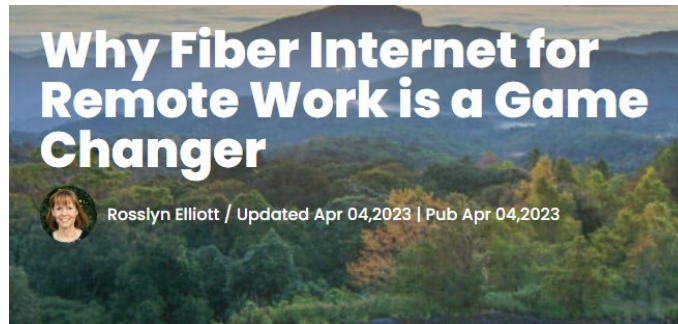
## ***So We’re Working From Home. Can the Internet Handle It?***

With millions of people working and learning from home during the pandemic, internet networks are set to be strained to the hilt.

Davey Alba & Cecilia Kang, *So We’re Working from Home. Can the Internet Handle It?*, N.Y. Times (Mar. 16, 2020), <https://www.nytimes.com/2020/03/16/technology/coronavirus-working-from-home-internet.html>.



Diana Goovaerts, *Comcast Broadband Sub Growth Flatlines Amid Fiber, FWA Pressure*, Fierce Telecom (July 28, 2022), <https://tinyurl.com/2dprd9b3>.



Rosslyn Elliott, *Why Fiber Internet for Remote Work is a Game Changer*, Brightspeed (Apr. 4, 2023), <https://tinyurl.com/yc28bv2a>.

## T-Mobile Eyes Fiber-Optic Expansion, Gearing Up to Challenge Cable Titans

by Anusuya Lahiri, Benzinga Editor

September 15, 2023 8:06 AM | 2 min read



Anusuya Lahiri, *T-Mobile Eyes Fiber-Optic Expansion, Gearing Up to Challenge Cable Titans*, Benzinga (Sept. 15, 2023), <https://tinyurl.com/3cf39u7s>.

21. Accordingly, traditional cable has faced a serious dilemma over the last several years: evolve and lay costly new fiber-optic cable like its upstart competitors or cling to the traditional coaxial cable wiring it had deployed decades ago and continue to face declining market share. Evolution, however, could only come at a significant price since replacing the existing coaxial infrastructure with fiber deployed all the way from the operator to the customer would easily cost tens of billions of dollars. For Comcast, it is estimated that “***a full fiber upgrade across Comcast’s full footprint would cost about \$61.14 billion.***” Jeff Baumgartner, *Comcast’s Multi-Gig Network Upgrade to Cost Less Than \$200 per Home Passed*, LightReading (Nov. 15, 2022), <https://tinyurl.com/bde3nenx> (emphasis added).

22. Unwilling to pay that exorbitant price, Comcast and other cable operators have therefore faced the dilemma of how to salvage their existing infrastructure but still deliver faster speeds and better performance comparable to a full fiber network.

**B. Cable Responds with DOCSIS 4.0, and Comcast Bets on FDX.**

23. The cable industry sought to respond to the fiber threat by working to develop DOCSIS (“Data Over Cable Service Interface Specification”) 4.0, an industry standard update released in March 2020 that seeks to enable higher download and upload speeds using cable’s existing infrastructure. With DOCSIS 4.0, cable operators hope to rival fiber’s upstream speeds by upgrading instead of replacing their existing infrastructure. Although cable operators may not achieve fully symmetrical downstream and upstream capacity with DOCSIS 4.0, the significant increase in upstream capacity is anticipated to meet consumer needs.

24. To implement DOCSIS 4.0, cable operators must choose either to increase the spectrum within the coaxial cables so that more channels can be dedicated to upstream capacity, or to deploy a full duplex, or “FDX,” approach that reconfigures part of the existing spectrum so that it can be used for both downstream and upstream communications (*i.e.*, to allow internet signals to flow bi-directionally in a given frequency spectrum).

25. Comcast committed to using the FDX approach to implement DOCSIS 4.0 and compete with fiber. However, that choice bred a new problem. Traditional amplifiers—which Comcast’s existing infrastructure heavily relied on to enhance radio-frequency signals transmitted across large physical distances over coaxial cables between the node and customers—are configured to operate asymmetrically, preventing upstream and downstream signals from traveling across the same spectrum. This problem could not be solved by making simple modifications to the same underlying amplifier technology, as that older technology lacked the type of precision and control necessary to allow bidirectional signals to travel within the same frequency spectrum

without interfering with each other. The existing amplifiers therefore prevented the objective of FDX: using the same spectrum for both upstream and downstream signals.

26. This limitation originally led Comcast to believe that it could only deploy FDX to the small subset of its network that did not use amplifiers. Deploying FDX in the lion's share of Comcast network would not be feasible, requiring expensive upgrades to remove the operation of those amplifiers. Indeed, Comcast Engineering Fellow Richard Prodan confidently asserted in 2020 that, because "FDX architecture provides two-way signal transmission with the same spectral brand," it "requires a passive architecture *without amplifiers*." Ex. 1, Richard Prodan, Optimizing the 10G Transition to Full-Duplex DOCSIS® 4.0, SCTE-ISBE Cable-Tec Expo at 22 (Oct. 2020), <https://tinyurl.com/yvvh76x7> (emphasis added). At the time, discussion of Comcast's FDX approach among industry observers similarly assumed an amplifier-free system architecture. See, e.g., Jeff Baumgartner, *Comcast: We're 'Fully committed' to Full Duplex DOCSIS*, LightReading (May 21, 2020), <https://tinyurl.com/37futuzv>.

27. Thus, in 2020, Comcast's hallowed FDX solution to the growing threat of fiber faced a severe problem: the only then-viable FDX architecture could not be deployed to serve the majority of its network. Comcast would have to make a massive capital investment and overhaul its existing infrastructure to eliminate the use of amplifiers and implement FDX. See Diana Goovaerts, *Comcast, Charter Push DOCSIS 4.0 Limits in CableLabs Showcase*, Fierce Telecom (Apr. 28, 2022) ("*[A]s it stands, the [FDX] technology can't be used in many parts of the [Comcast] network today*" because Comcast has more nodes with amplifiers than nodes without amplifiers), <https://tinyurl.com/bdd3zwth> (emphasis added). Removing the amplifiers would require Comcast to build and install more nodes physically closer to remote customers so that no signals would need to be amplified. And it would require Comcast to deploy more fiber to service

each one of the additional nodes. Finally, all customer premises equipment, like cable modems, cable gateways, and video set top boxes, would need to be upgraded or replaced in order for FDX devices to operate in the entire FDX spectrum. The extraordinary cost associated with this overhaul would all but eliminate Comcast's infrastructure-based competitive advantage over fiber.

28. Because the price tag of that infrastructure overhaul was simply infeasible, Comcast had to find a way to build an amplifier that would allow decipherable upstream and downstream signals to occupy the same spectrum. A Comcast executive put it bluntly: The "ability to be able to overlay the upstream and downstream frequencies right on top of each other is the secret sauce behind DOCSIS 4.0 FDX," and "*you can't just deploy your grandfather's amp*" to make that happen. Diana Goovaerts, *Comcast Claims First With End-to-End Full Duplex DOCSIS 4.0 Link*, Fierce Telecom (Oct. 14, 2021), <https://tinyurl.com/3e9mzmcf> (emphasis added). And until MaxLinear entered the picture with its next-generation amplifier technology, Comcast not only lacked an available, viable solution to implement the FDX technology it needed to stay competitive, it was unsure whether an FDX-amplifier solution was even possible.

**C. MaxLinear, a Leading FDX Innovator, Designs an FDX Amplifier and Confidentially Shares Its Design and Other Trade Secrets with Comcast.**

29. As it had done throughout their relationship, Comcast turned to MaxLinear to solve its problem. By then, MaxLinear was a well-known innovator in the FDX space, and Comcast sought to leverage MaxLinear's experience for its benefit.

30. Since 2016, MaxLinear has been investing in and developing the nascent FDX technology. MaxLinear designed the first application-specific integrated circuit ("ASIC") silicon chip to enable nodes to operate in symmetric FDX networks. It designed and manufactured "test beds" that Comcast used to create test environments for FDX technology. It designed a method by which FDX technology could be implemented in "taps," another device used in hybrid fiber



coax infrastructures. Throughout it all, MaxLinear sought to pitch its innovations and ideas to Comcast in the hopes of developing a deeper, mutually beneficial relationship and ultimately securing paying business from Comcast. Indeed, as of at least 2019, Comcast itself acknowledged that MaxLinear was the only company able to deliver viable, feasible FDX technology.

31. Although MaxLinear wanted to deepen and expand its relationship with Comcast, it also wanted to protect its confidential and proprietary technology from theft. The parties therefore consistently operated under a shared understanding and relationship of trust that their communications concerning technical developments would be kept confidential. Confirming that understanding, the parties signed a nondisclosure agreement barring each from disclosing the other's proprietary or confidential information without prior written consent. In particular, on June 29, 2020, MaxLinear and Comcast Cable Communications Management, LLC executed a Mutual Confidentiality and Nondisclosure Agreement ("NDA"). The confidentiality obligations of the NDA extend to Comcast Cable Communications, LLC and other "Affiliate(s)" that "Control[]" or are "under common Control with" Comcast Cable Communications Management, LLC, as well as other "Representative(s)," including "directors, officers, employees, subcontractors, agents or other representatives (including, without limitation, attorneys, accountants and consultants) of [Comcast Cable Communications Management, LLC] and its Affiliates." Ex. 2, NDA §§ 2(a), 2(f). By entering into the NDA, the parties agreed to use "Confidential Information solely" "to discuss [Comcast's] potential use of [MaxLinear's] products and/or services and to discuss [Comcast's] products and/or services," and under the NDA, Comcast was barred from "disclos[ing] the Confidential Information in any manner whatsoever, in whole or in part" "without the prior written consent of [MaxLinear]." *Id.* §§ 1, 2(b), 3(a). The NDA expressly defines "Confidential Information" to mean "all confidential or proprietary information,

documents, and materials, whether printed or in machine-readable form or given orally or through visual inspection, or otherwise, provided by the Disclosing Party,” including, *inter alia*, “trade secrets.” *Id.* § 2(b). And to affirm the parties’ longstanding practice and shared understanding of the types of information that should be treated as confidential, the NDA further defines Confidential Information to include:

[A]ll information that should reasonably have been understood by [Comcast], because of legends or other markings, the circumstances of disclosure, or the nature of the information itself, to be proprietary and confidential to [MaxLinear], regardless of whether such information is marked “Confidential.”

*Id.*

32. While the NDA identifies certain limitations to protections provided under the agreement—for example, the duration of the agreement, liabilities resulting from the agreement, and rights arising out the agreement—it expressly precludes applying such limitations to the protection of *trade secret* information:

Notwithstanding the foregoing, nothing herein shall be construed to waive, abridge or otherwise limit any protections afforded, under applicable law, to ***Confidential Information that consists of trade secrets*** even if such protections are greater and/or longer than the protections provided for under this Agreement.

*Id.* § 5 (emphasis added).

33. The NDA further establishes that MaxLinear retains ownership of the confidential and trade secret information shared with Comcast, specifying that “[d]isclosure of the Confidential Information shall not constitute any option, grant, or license to [Comcast] of such Confidential Information” and “shall not convey any ownership interests in the Confidential Information to [Comcast] or its Representatives or any rights in, to or arising from the Confidential Information.”

*Id.* § 11.

34. Pursuant to this shared understanding of confidentiality memorialized in the NDA, and after providing other express reminders of the parties' longstanding and shared expectation of confidentiality, MaxLinear shared its proprietary and highly valuable FDX and other technologies with Comcast in the hopes of expanding their business relationship.

35. As part of those confidential disclosures, MaxLinear presented Comcast with a solution to its FDX-amplifier problem. That solution, developed internally by MaxLinear, comprised a game-changing, next-generation FDX-compatible amplifier that digitized connections in existing amplifiers so that upstream and downstream cable channels could be almost instantaneously reconfigured to support and amplify signals transmitted in the opposite direction. To do so, MaxLinear designed, modeled, and analyzed an FDX amplifier, including a proprietary chip architecture capable of leveraging MaxLinear's advancements in digitally controlling bidirectional signals travelling in the same frequency spectrum. Through the particular use and arrangement of embedded signal processors, modems, converters, filters, and feedback lines, MaxLinear's design extinguishes the signal interference that had previously plagued FDX networks with legacy amplifiers. In developing that design, MaxLinear determined how to digitize much of the functionality and components associated with those legacy amplifiers, allowing for finer, dynamic tuning and better signal-to-noise performance during amplification. MaxLinear devoted substantial engineering and research and development resources to develop these innovations, all of which culminated in the first FDX-amplifier design.

36. MaxLinear's amplifier advancements were unknown to the industry at the time, and MaxLinear goes to great lengths to ensure that those innovations remained a secret. MaxLinear worked internally and confidentially when developing this new technology and associated know-how, knowing that, if utilized, it would provide a significant competitive advantage by providing

Comcast and potentially other cable-operator customers a way to avoid tens of billions of dollars in infrastructure costs. And MaxLinear ensured that, to the extent it needed to share its closely guarded trade secrets with customers or suppliers, the appropriate agreements and understandings were in place to protect against the disclosure of that proprietary information. For example, MaxLinear marked technical disclosures with confidentiality designations, insisted on confidential treatment, and entered into nondisclosure agreements such as the NDA it executed with Comcast. MaxLinear took these measures precisely because of the trade secrets' significance and economic value to the cable industry, including Comcast and MaxLinear's competitors.

37. MaxLinear's trade secret FDX-amplifier technologies, including those identified above, were detailed in technical presentations and discussions MaxLinear confidentially provided and communicated to Comcast—including Richard Prodan, the original FDX-amplifier skeptic. Those confidential disclosures included a private virtual meeting held in December 2020, where MaxLinear discussed its next generation FDX-amplifier technology and sent Comcast a slide presentation that included, for example, MaxLinear's FDX-amplifier design, layouts of the chip architecture used in that amplifier design, and test methods, results, and performance benchmarks demonstrating the viability of the technology. Through MaxLinear's description and presentation of its solution during its private meetings with Comcast, MaxLinear showed Comcast for the first time that deploying FDX amplifiers in Comcast's current architecture *was* feasible, contrary to Comcast's prior assumptions, and laid out the details for *how* that deployment could be achieved.

38. Importantly, MaxLinear emphasized to Comcast personnel that the information MaxLinear was presenting was strictly confidential and proprietary. And lest there be any doubt, MaxLinear stamped every page with identifiers stating "MaxLinear Confidential," "Shared with Comcast under NDA," and "MaxLinear Confidential, Proprietary":



## NEXT GEN DIGITAL AMPLIFIER

3 December 2020

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MaxLinear “Next Gen Digital Amplifier” Presentation to Comcast at 1 (redacted to remove reference to MaxLinear’s codename for the FDX Amplifier project).

39. At the December 2020 meeting, Comcast welcomed MaxLinear’s groundbreaking solution and enthusiastically began discussing its deployment. Indeed, the parties had additional private meetings to further discuss MaxLinear’s FDX-amplifier technology and how it would deploy that amplifier technology into Comcast’s network, and for many months, Comcast continued to express interest in commercializing MaxLinear’s FDX-amplifier technology. MaxLinear recognized the importance of the technology to Comcast and sought to negotiate a larger business relationship around the development of the amplifier. But despite MaxLinear’s efforts and delivery of a next-generation solution, Comcast delayed and ultimately stonewalled MaxLinear’s proposal for a larger business relationship—though only after dangling the prospect of larger purchase order volumes and receiving additional details about MaxLinear’s FDX-amplifier technology.

**D. Comcast Publicly Discloses Aspects of MaxLinear’s Solution and Commissions an FDX Amplifier That Is Functionally Identical to MaxLinear’s Design.**

40. Despite Comcast’s professed interest in the MaxLinear FDX-amplifier solution and the parties’ many meetings to discuss the technology’s commercialization, Comcast did not purchase any amplifiers from MaxLinear. Instead, Comcast reportedly partnered with MaxLinear’s competitor to commercialize and deploy MaxLinear’s FDX technology after purporting to experience a series of alleged technological breakthroughs that followed Comcast’s meetings with MaxLinear regarding the FDX-amplifier technology.

41. In October 2021—less than four months after Comcast last met with MaxLinear to discuss MaxLinear’s FDX amplifier—Comcast acknowledged that “groundbreaking work [was] underway by [its] technology partners to develop ‘amplifiers’ that will work in Full Duplex DOCSIS 4.0-enabled networks.” Elad Nafshi, *Announcing Another 10G Milestone Amidst a Flurry of Innovation*, Comcast (Oct. 14, 2021), <https://tinyurl.com/yphyu6a9>. One Comcast executive stated that “[w]hile most Internet users never need to know what amplifiers are, this work is potentially revolutionary in its ability to extend 10G benefits to millions more people, faster than was believed possible.” *Id.* Another Comcast executive boasted that the “progress” made on an FDX Amplifier “*accelerated [Comcast’s] thinking*” about FDX and “*obviously simplifies, architecturally, where [Comcast] can put FDX.*” Jeff Baumgartner, *Comcast ‘Making a Lot of Good Progress’ With DOCSIS 4.0*, LightReading (Oct. 11, 2021), <https://tinyurl.com/yu6zttfj> (emphasis added). Although Comcast did not specify what prompted this breakthrough or with whom it was working, MaxLinear continued to believe that it had a meaningful prospect of FDX-product commercialization with Comcast given their productive meetings to date.

42. About a year later, in September 2022, Richard Prodan, one of the Comcast employees *who attended and received copies* of MaxLinear’s confidential presentation on the design of its FDX-amplifier solution, published an industry paper on behalf of Comcast titled “The Full Duplex DOCSIS Amplifier – Why, How, and When.” Ex. 3, Richard Prodan, *The Full Duplex DOCSIS Amplifier – Why, How, and When*, SCTE-ISBE Cable-Tec Expo 22 (Sept. 2022), <https://tinyurl.com/d8svrr45>. Despite concluding just two years earlier that FDX technology required “a passive architecture *without amplifiers*,” Prodan made the case for Comcast’s intention to deploy FDX network architecture with amplifiers. In doing so, the Comcast paper authored by Prodan describes and illustrates aspects of an FDX-amplifier design that are materially *identical* to the one MaxLinear developed and confidentially shared with Comcast, *e.g., id.* at Fig. 10, including use of a specific processor for digitally implementing signal interference mitigation technology and incorporation of that technology into an FDX amplifier.

43. Comcast was aware that it had improperly disclosed aspects of MaxLinear’s closely guarded trade secret amplifier technology. Dr. Prodan is employed by Comcast, identifies himself as an “Engineering Fellow” at “Comcast Cable,” and makes various references to the plans Comcast has for the technology. And he authored, presented, and published the paper and a corresponding technical presentation as part of the Society of Cable Telecommunications Engineers (“SCTE”) Fall Technical Forum, of which Comcast is a named sponsor.

44. Even worse, contemporaneous with Prodan’s publication of the MaxLinear design, Comcast revealed that a MaxLinear competitor previously unwilling to invest and engage in FDX development had been commissioned to commercialize MaxLinear’s FDX-amplifier technology. In September of 2022, Comcast announced “a successful test of the final technical component *necessary*” to deliver FDX services: “*newly* designed FDX amplifiers” produced by MaxLinear’s

competitor. *Comcast Successfully Tests Final Component Needed to Deliver 10G-Powered Multi-Gigabit Symmetrical Speeds to Entire Network*, Comcast (Sept. 20, 2022), <https://tinyurl.com/4pbctau> (emphasis added). Parroting MaxLinear’s own talking points on the benefits of its FDX-amplifier technology, Comcast explained that “FDX was originally designed for network environments without radio frequency amplifiers, so the new FDX amplifiers make it dramatically easier to extend the benefits of 10G to every customer within reach of the network.” *Id.* FDX-amplifier technology “was ***the final core element*** of the 10G ecosystem that needed to be tested to ensure 10G technology could effectively serve Comcast’s entire network.” *Id.* (emphasis added).

45. A few months later, in February 2023, Comcast announced that its collaboration with MaxLinear’s competitor had produced FDX-amplifier prototypes, which it lauded as “a significant leap forward for the go-to-market readiness for [FDX]” and “the missing piece from an architecture standpoint that enables [Comcast] to deliver multiple gigabit symmetrical services ... across [its] entire footprint.” Jeff Baumgartner, *Comcast Gets Its Mitts on ‘Missing Piece’ of its DOCSIS 4.0 Network*, LightReading (Feb. 27, 2023), <https://tinyurl.com/2d3tzt9r>.

46. Comcast’s rapid development of an FDX-amplifier solution—with a technology partner who until recently was unwilling to commit resources to the development of FDX—is too convenient to be believed. As late as 2020, Comcast itself did not believe an FDX amplifier was possible. And MaxLinear’s competitor did not have the years of history and experience working in the FDX space that MaxLinear did.

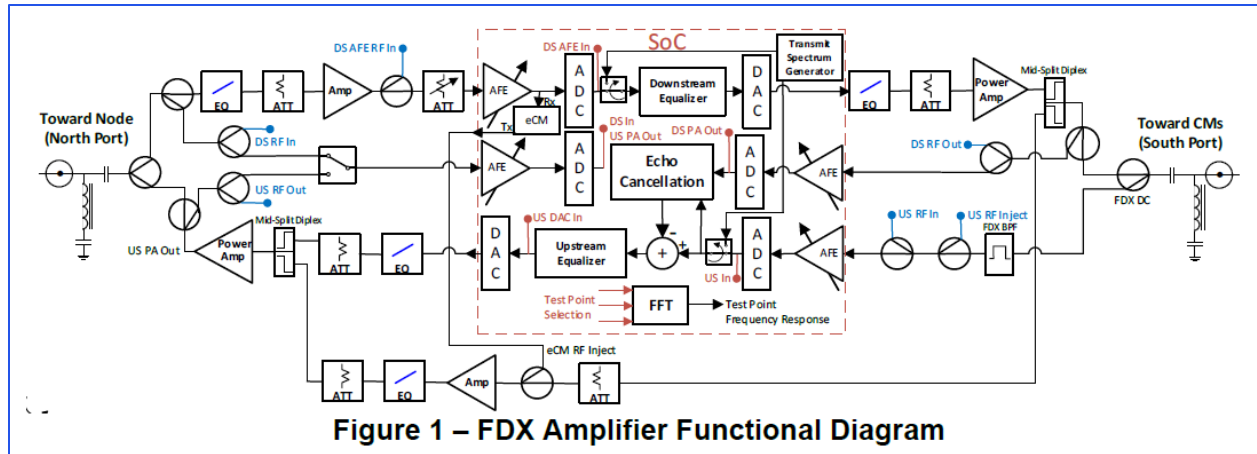
47. In fact, as of 2020, the competitor did not have an FDX-amplifier design. To the contrary, “[i]ndustry sources” were reporting that it “ha[d] halted investment in next-gen DOCSIS technology until it g[ot] financial support from cable operators, including help footing the bill on



product development.” Jeff Baumgartner, LightReading (May 29, 2020), <https://tinyurl.com/yh6u88dh>. What is more, the competitor does not work on a speculative basis (*i.e.*, developing products in the hopes of winning business and receiving compensation later).

48. By sharing MaxLinear’s trade secret FDX-amplifier technology and commissioning the implementation of that proven technology, Comcast minimized the risk for MaxLinear’s competitor and motivated it to reverse its prior position on FDX product development. In other words, Comcast was able to obtain the FDX-amplifier prototypes in February 2023 only by taking MaxLinear’s design, unlawfully disclosing it to MaxLinear’s competitor, and then paying that competitor to commercialize the FDX-amplifier technology that MaxLinear spent significant resources developing.

49. Comcast’s knowingly unlawful and improper use of MaxLinear’s trade secret technology to commercialize a FDX amplifier through MaxLinear’s competitor was recently confirmed at the SCTE Fall Technical Forum in September 2023. There, Comcast published another paper authored by Prodan, which included even more detail about Comcast’s FDX amplifier and improperly disclosed even more granular aspects of MaxLinear’s trade secret technology, including its design for embedding, arranging, and connecting the various digital processing components in an SoC architecture, which in turn is proven and can be implemented using the disclosures MaxLinear confidentially shared with Comcast:



Ex. 4, Richard Prodan, *Full Duplex DOCSIS (FDX) Amplifier Automatic Configuration*, SCTE-ISBE Cable-Tec Expo 23 at 5 (2023), <https://tinyurl.com/5c4v5ft9>.

50. Comcast never obtained MaxLinear’s consent to use or disclose MaxLinear’s trade secret FDX-amplifier technology, never told MaxLinear that it had used MaxLinear’s design to kickstart its development of an FDX amplifier, and never compensated MaxLinear for its significant work and investment in designing and validating the product. In the wake of this deception and Comcast’s repeated rejection of any further business dealings, it is unsurprising that MaxLinear terminated its contractual relationship with Comcast in May 2023.

51. At bottom, MaxLinear shared its trade secret next-generation FDX-amplifier technology with Comcast pursuant to an NDA, a longstanding shared understanding of confidentiality, and repeated statements notifying Comcast that the descriptions, schematics, and system performance analyses detailing this trade secret technology were confidential and proprietary. MaxLinear shared these materials so that Comcast would understand how MaxLinear’s innovations had solved Comcast’s challenges with the FDX infrastructure that it bet its DOCSIS 4.0 future on—not so that Comcast could take MaxLinear’s solution, publish it as its own, and then disclose it to and commercialize it with MaxLinear’s competitor.

52. When accused of exploiting MaxLinear’s intellectual property in the past, Comcast has tried to hide behind a provision in the now-terminated VSA that Comcast itself drafted in 2020. That “Covenant Not to Assert” purports to prohibit MaxLinear from suing Comcast for certain infringement and misappropriation. VSA § 7.3. But Comcast did not succeed in stripping MaxLinear of all of its intellectual property rights. The Covenant applies only “to the extent Comcast [and] Comcast’s Affiliates ... have not ... knowingly misappropriated a [MaxLinear] trade secret.” *Id.* By knowingly misappropriating MaxLinear’s FDX-amplifier trade secret technology, Comcast has rendered the Covenant Not to Assert irrelevant. Thus, Comcast’s Covenant cannot save it from the consequences of its actions.

**CAUSES OF ACTION**

**COUNT I – BREACH OF CONTRACT**

53. MaxLinear incorporates by reference the paragraphs above as if fully set forth herein.

54. The actions of Comcast, as set forth herein, constitute a breach of the NDA titled the “Mutual Confidentiality and Nondisclosure Agreement” that became effective on June 29, 2020. *See* Ex. 2, NDA. By signing that NDA, MaxLinear and Comcast agreed, among other things, not to disclose “confidential or proprietary information, documents, and materials” “in any manner whatsoever, in whole or in part.” *Id.* §§ 2(b), 3(a).

55. Comcast breached its obligations under the NDA by disclosing MaxLinear’s confidential information publicly and to MaxLinear’s competitor without MaxLinear’s authorization.

56. MaxLinear satisfied all relevant obligations under the NDA.

57. MaxLinear has suffered damages as a result of Comcast's breach of the NDA, including because Comcast's improper disclosure destroyed the value of MaxLinear's confidential information.

58. As a direct and proximate result of Comcast's actions, MaxLinear has been substantially and irreparably harmed in an amount not readily capable of determination. Unless restrained by this Court, Comcast will cause further irreparable injury to MaxLinear.

59. MaxLinear is entitled to injunctive relief enjoining Comcast, its agents and employees, and all persons acting in concert or participation with it, from engaging in any further use of MaxLinear's confidential information.

### **COUNT II – UNFAIR COMPETITION**

60. MaxLinear incorporates by reference the paragraphs above as if fully set forth herein.

61. The actions of Comcast, as set forth herein, constitute unfair competition.

62. Comcast copied, misappropriated, and/or sabotaged MaxLinear's labors and expenditures in developing and validating its proprietary FDX-amplifier technology by disclosing aspects of that technology and sharing the details of that technology and related know-how with MaxLinear's competitor.

63. Comcast acted in bad faith when it intentionally disclosed the details of MaxLinear's FDX-amplifier technology, including the design and related know-how of that technology. Comcast knowingly shared that confidential information as its own despite its knowledge that MaxLinear owned that technology and considered the information to be proprietary and confidential, including because it was shared with Comcast subject to the NDA and express confidentiality reminders. Comcast further purposefully led MaxLinear to believe it still could compete for future FDX-amplifier business—despite Comcast's plans to hire

MaxLinear's competitor—in order to obtain additional information from MaxLinear about its confidential amplifier design.

64. Comcast abused its confidential relationship with MaxLinear, including as memorialized in the NDA, by disclosing MaxLinear's confidential information to accelerate its competitor's development of an FDX amplifier.

65. As a result of Comcast's actions, MaxLinear has suffered direct and consequential damages, including in the form of actual, economic harm to its business, technology, good will, and reputation, and is entitled to recover compensatory damages, including opportunity costs and punitive damages in an amount to be proven at trial.

66. As a direct and proximate result of Comcast's actions, MaxLinear has been substantially and irreparably harmed in an amount not readily capable of determination. Unless restrained by this Court, Comcast will cause further irreparable injury to MaxLinear.

67. MaxLinear is entitled to injunctive relief enjoining Comcast, its agents and employees, and all persons acting in concert or participation with it, from engaging in any further use of MaxLinear's confidential information.

**COUNT III – NEW YORK TRADE SECRET MISAPPROPRIATION**

68. MaxLinear incorporates by reference the paragraphs above as if fully set forth herein.

69. The actions of Comcast, as set forth herein, constitute misappropriation under New York law.

70. MaxLinear owns and possesses confidential and trade secret information relating to its design of an FDX-amplifier solution and associated know-how, as previously discussed, which constitute trade secrets and proprietary confidential information that can be continuously used in the operation of MaxLinear's business under New York law.

71. These confidential and proprietary trade secrets are of substantial economic value and have conferred a competitive advantage on MaxLinear. MaxLinear expended significant resources in developing and validating its FDX amplifier and the other FDX-related technology that contributed to MaxLinear's expertise in FDX technology, including through the expense of significant manpower, time, and costs.

72. MaxLinear's amplifier design and the associated know-how was revolutionary and was not known to individuals outside of its business. Before MaxLinear disclosed its FDX-amplifier design to Comcast, no other company had developed and validated such a solution, and Comcast did not believe that an FDX amplifier with the capability of MaxLinear's amplifier was feasible.

73. Such information was extremely valuable, as it would enable the broader implementation of FDX and DOCSIS 4.0 technology at reduced cost to cable operators like Comcast.

74. At all times, MaxLinear has taken significant and reasonable steps to maintain the secrecy of its trade secrets and ensure that its design and associated know-how remained secret and confidential, including by maintaining the internally developed designs and know-how as confidential, requiring confidentiality agreements, expressly reminding Comcast of confidentiality, and signing an NDA with Comcast. Comcast had a duty to maintain the confidentiality of information shared by MaxLinear under the 2020 NDA. Because this information is valuable, is subject to reasonable measures to guard its secrets, and is difficult for others to properly acquire or independently duplicate, it constitutes protected trade secret information under New York law.

75. Comcast was aware that it acquired MaxLinear's proprietary FDX-amplifier design under a duty to maintain its confidentiality and not to use or disclose such information without authorization from MaxLinear.

76. Despite obtaining MaxLinear's proprietary and trade secret FDX-amplifier design and associated know-how under circumstances giving rise to a duty to maintain the secrecy of that information, Comcast knowingly and improperly used and disclosed the information in breach of the parties' confidential relationship, including by sharing the details of the design with MaxLinear's competitor to develop a competing FDX product. In this way, and for the reasons described above, Comcast has engaged in and continues to engage in misappropriation of MaxLinear's confidential information and trade secrets to benefit themselves and to the detriment of MaxLinear and its competitive position.'''

77. Comcast's conduct constitutes knowing, willful, and malicious misappropriation.

78. Comcast knew or should have known that MaxLinear's trade secrets are confidential; were acquired from MaxLinear under circumstances giving rise to a duty to maintain the secrecy of the trade secret or limit the use of the trade secret for the purposes for which they were disclosed; were developed and achieved by MaxLinear at great expense and effort; are maintained as confidential and are not generally available to the public or MaxLinear's competitors; would provide significant benefit to a competitor seeking to compete with MaxLinear; are critical to MaxLinear's ability to conduct its business successfully; and would significantly harm MaxLinear's competitive standing if disclosed to or used by a competitor.

79. As a result of Comcast's conduct, MaxLinear has suffered direct and consequential damages and is entitled to recover compensatory damages, including opportunity costs and punitive damages in an amount to be proven at trial.

80. As a direct and proximate result of Comcast's actions, MaxLinear has been and will be substantially and irreparably harmed in an amount not readily capable of determination, including but not limited to through the loss of goodwill, customers and potential customers, profits, reputation, and valuation of its trade secret FDX-amplifier technology. Unless restrained by this Court, Comcast will cause further irreparable injury to MaxLinear.

81. MaxLinear is entitled to injunctive relief enjoining Comcast, its agents and employees, and all persons acting in concert or participation with it, from engaging in any further use of MaxLinear's confidential information.

**COUNT IV – MISAPPROPRIATION UNDER DEFEND TRADE SECRETS ACT, 18  
U.S.C. § 1836**

82. MaxLinear incorporates by reference the paragraphs above as if fully set forth herein.

83. The actions of Comcast, as set forth herein, constitute misappropriation under the Defend Trade Secrets Act, 18 U.S.C. § 1836.

84. MaxLinear is the owner of certain confidential, valuable trade secret information relating to a next-generation FDX-amplifier design and associated know-how, as previously discussed.

85. Such information was developed for and is capable of being used in connection with MaxLinear's products and services intended for use in interstate and foreign commerce.

86. These confidential and proprietary trade secrets are of substantial economic value and have conferred a competitive advantage on MaxLinear. MaxLinear expended significant resources in developing and validating its FDX amplifier and the other FDX-related technology that contributed to MaxLinear's expertise in FDX technology, including through the expense of manpower, time, and costs.



87. MaxLinear's amplifier design and the associated know-how was revolutionary and was not known to individuals outside of its business. Before MaxLinear disclosed its FDX-amplifier design and the associated know-how to Comcast, no other company had developed such a solution, and Comcast did not believe that an FDX amplifier with the capability of MaxLinear's amplifier was feasible.

88. Such information derives independent economic value from not being generally known to others and not being readily ascertainable through proper means by others. Such information is extremely valuable to MaxLinear and others, as it enables the broader implementation of FDX and DOCSIS 4.0 technology at significantly reduced cost to cable operators like Comcast.

89. MaxLinear undertook significant efforts and reasonable steps to ensure that its design and associated know-how remained secret and confidential, including by maintaining the know-how as confidential, expressly reminding Comcast of its confidentiality, and signing an NDA with Comcast. Comcast had a duty to maintain the confidentiality of information shared by MaxLinear under the 2020 NDA.

90. Comcast was aware that it acquired MaxLinear's proprietary FDX-amplifier design and associated know-how under a duty to maintain its confidentiality and not to use or disclose such information without authorization from MaxLinear.

91. Despite obtaining MaxLinear's proprietary and trade secret FDX-amplifier design and associated know-how under circumstances giving rise to a duty to maintain the secrecy of that information, Comcast knowingly and improperly used and disclosed the information in breach of the parties' confidential relationship, including by sharing the details of the design with MaxLinear's competitor to develop a competing FDX product. In this way, and for the reasons

described above, Comcast has engaged in and continues to engage in actual misappropriation of MaxLinear's confidential information and trade secrets in violation of the DTSA to benefit Comcast and to the detriment of MaxLinear and its competitive position.

92. Comcast's conduct constitutes knowing, willful, and malicious misappropriation.

93. Comcast knew or should have known that MaxLinear's trade secrets are confidential; were acquired from MaxLinear under circumstances giving rise to a duty to maintain the secrecy of the trade secret or limit the use of the trade secret for the purposes for which they were disclosed; were developed and achieved by MaxLinear at great expense and effort; are maintained as confidential and are not generally available to the public or MaxLinear's competitors; would provide significant benefit to a competitor seeking to compete with MaxLinear; are critical to MaxLinear's ability to conduct its business successfully; and would significantly harm MaxLinear's competitive standing if disclosed to or used by a competitor.

94. As a direct and proximate result of Comcast's misappropriation, MaxLinear has been and will be substantially and irreparably harmed in an amount not readily capable of determination, including but not limited to through the loss of goodwill and profits. Unless restrained by this Court, Comcast will cause further irreparable injury to MaxLinear.

95. MaxLinear is entitled to injunctive relief enjoining Comcast, its agents and employees, and all persons acting in concert or participation with it, from engaging in any further use of MaxLinear's confidential information.

96. As a result of Comcast's actions, MaxLinear has also suffered direct and consequential damages and is entitled to recover compensatory damages, including opportunity costs and punitive damages in an amount to be proven at trial.

#### **JURY DEMAND**

MaxLinear demands a jury trial on its counterclaims for all issues so triable.

**PRAYER FOR RELIEF**

MaxLinear prays for judgment in their favor and against Comcast, inclusive as follows:

- a. Awarding damages in favor of MaxLinear and against Comcast in an amount to be determined at trial, including without limitation, MaxLinear's lost revenues and profits, and any unjust enrichment, restitution, or disgorgement, plus a reasonable royalty to the extent permitted under law;
- b. Awarding punitive damages in favor of MaxLinear in an amount to be determined at trial for Comcast's wanton, willful, and morally culpable conduct;
- c. Enjoining Comcast from using or disclosing MaxLinear's proprietary FDX-amplifier design or from utilizing any technology that relies in whole or in part on Comcast's misappropriation of MaxLinear's confidential information;
- d. Awarding MaxLinear pre-judgment and post-judgment interest, costs, expenses, and attorney fees incurred in this action and as allowed by law; and
- e. Awarding MaxLinear such other and further relief as the Court deems just and proper.

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Dated: New York, NY  
December 1, 2023

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