

Charles E. Tompkins (*pro hac vice* motion  
forthcoming)  
cet@willmont.com  
**WILLIAMS MONTGOMERY & JOHN LTD.**  
1607 22nd Street NW, Suite 300  
Washington, D.C. 20008  
Telephone: (202) 791-9951  
Facsimile: (312) 630-8586

Eric R. Lifvendahl (*pro hac vice* motion  
forthcoming)  
erl@willmont.com  
**WILLIAMS MONTGOMERY & JOHN LTD.**  
233 S. Wacker Drive, Suite 6800  
Chicago, IL 60606  
Telephone: (312) 443-3200  
Facsimile: (312) 630-8500

Eustace de St. Phalle (CA Bar # 171900)  
EdeSaintPhalle@rlslawyers.com  
**RAINS LUCIA STERN ST. PHALLE &  
SILVER, PC**  
220 Montgomery Street, 15th Floor  
San Francisco, CA 94104  
Telephone: (415) 341-9341  
Facsimile: (925) 609-1690

*Attorneys for Plaintiff Flextronics International USA, Inc.*

**UNITED STATES DISTRICT COURT  
NORTHERN DISTRICT OF CALIFORNIA**

FLEXTRONICS INTERNATIONAL USA, INC.,  
  
Plaintiff,  
  
v.

HOKURIKU ELECTRIC INDUSTRY CO., HDK  
AMERICA, INC., ROHM CO., LTD., AND ROHM  
SEMICONDUCTOR U.S.A., LLC,  
  
Defendants.

Case No.

**COMPLAINT OF FLEXTRONICS  
INTERNATIONAL USA, INC.**

**JURY TRIAL DEMANDED**

**TABLE OF CONTENTS**

I.	INTRODUCTION .....	1
II.	PARTIES .....	2
A.	Plaintiff.....	2
B.	Defendants .....	3
1.	HDK .....	3
2.	ROHM.....	4
III.	CO-CONSPIRATORS AND AGENTS .....	4
1.	Alps .....	5
2.	Kamaya .....	5
3.	KOA .....	6
4.	Midori.....	6
5.	Panasonic .....	7
6.	Susumu.....	7
7.	TOCOS.....	8
8.	Walsin .....	8
IV.	JURISDICTION AND VENUE .....	9
V.	TRADE AND COMMERCE.....	10
VI.	FACTUAL ALLEGATIONS .....	12
A.	Background on Resistors .....	12
B.	Early 2000s: Resistor Prices Collapse .....	13
C.	Defendants Conspire to Restrain Competition.....	15
D.	The U.S. Subsidiary Conspirators Participated in the Conspiracy .....	19
E.	Defendants’ Collusive Discussions Were Intended to, and Did, Further Their Agreement to Stabilize Resistor Prices .....	19
1.	The Type of Information Discussed Was Highly Competitively Sensitive, Enabling Collusion and Market Impact to the Benefit of Defendants and the Detriment of Flex .....	19
F.	Defendants’ Conspiracy Worked: Prices Stabilized and Profitability Returned .....	20

1 VII. CHARACTERISTICS OF THE RESISTORS MARKET ..... 20

2 A. Industry Concentration..... 20

3 B. High Barriers to Entry ..... 20

4 C. Inelastic Demand..... 21

5 D. Interchangeable, Commodity-like Products..... 22

6 E. Declining Demand ..... 23

7 F. Excess Manufacturing Capacity..... 23

8 G. Opportunities for Conspiring and Sharing Information..... 24

9 VIII. FRAUDULENT CONCEALMENT..... 25

10 IX. EFFECTS OF THE CONSPIRACY ..... 26

11 X. CAUSE OF ACTION ..... 28

12 XI. DEMAND FOR JUDGMENT..... 29

1 Plaintiff Flextronics International USA, Inc., on behalf of itself and the affiliated entities  
2 identified in attachment A hereto (collectively, “Flex”) brings this action for damages and injunctive  
3 relief under Section 4 of the Clayton Act against Hokuriku Electric Industry Co., HDK America, Inc.,  
4 ROHM Co., Ltd., and ROHM Semiconductor U.S.A., LLC (collectively, “Defendants”) for the  
5 Defendants’ violation of Section 1 of the Sherman Act, 15 U.S.C. § 1. Numerous other persons injured  
6 by the Defendants’ and their co-conspirators’ price-fixing conspiracy have filed Section 1 Sherman Act  
7 claims in this Court. This action is an individual action separate from the direct purchaser class actions  
8 currently pending before the court. Flex has elected to exclude itself (opt out) of the direct purchaser  
9 class action.

10 Based on investigation of its counsel, Flex alleges on information and belief as follows:

### 11 I. INTRODUCTION

12 1. Flex brings this action against Defendants, who are large manufacturers of linear resistors  
13 (“Resistors”), for conspiring between themselves and with certain other Resistor manufacturers to charge  
14 Flex and others supra-competitive prices for Resistors in violation of Section 1 of the Sherman Act.

15 2. At least as early as July 2003, Defendants and their co-conspirators (collectively, “the  
16 Conspirators”) agreed to work together to artificially stabilize and increase Resistor prices and preserve  
17 market shares globally. The Conspirators executed their scheme through meetings and direct  
18 communications concerning the price, output, capacity, and other competitively sensitive data regarding  
19 Resistors in order to coordinate the Conspirators’ market behavior.

20 3. The Conspirators were members of the Japan Electronics and Information Technology  
21 Industries Association (“JEITA”) and its Passive Components Business Committee. JEITA was  
22 composed of and controlled by the Conspirators, which provided a forum to carry out their conspiracy.  
23 Senior officials from the Conspirators served as executives of JEITA and ran the meetings. At a July  
24 2003 Committee meeting, the Conspirators agreed on a procedure for facilitating coordination of industry  
25 behavior with the aim of reducing output and stabilizing Resistor prices. The Conspirators’ anti-  
26 competitive behavior caused Flex to pay supra-competitive prices for Resistors purchased in the United  
27 States and elsewhere from July 1, 2003 until at least August 1, 2014 (the “Relevant Period”).

28 4. The Conspirators also colluded through in-person meetings, telephone conversations, and

1 email exchanges between individual competitors. These individual co-conspirator communications  
2 furthered the agreements reached at the JEITA meetings. The Conspirators' conspiratorial conduct,  
3 including regular sharing of sensitive information about pricing, market performance, and capacity,  
4 permitted the Conspirators to stabilize and raise prices, and to restrain competition.

5 5. Similar to the capacitors market, certain conditions in the Resistors market rendered it  
6 particularly susceptible to the Conspirators' manipulation. Resistors are interchangeable commodities  
7 and Resistor sellers compete largely on price. A small number of manufacturers dominate the Resistors  
8 market, and high barriers to enter into the market reduce the risk that new market entrants could quickly  
9 undermine the effectiveness of the alleged conspiracy.

10 6. The Conspirators concealed their illegal conduct through a variety of means including  
11 collusive exchanges at JEITA industry conferences, a private forum that the Conspirators controlled and  
12 limited to co-conspirator manufacturers. The Conspirators also took steps to avoid detection by ensuring  
13 that meeting minutes were not publicly distributed. The Conspirators also attempted to sanitize  
14 incriminating language in those minutes to avoid revealing the collusive nature of their actions. The  
15 Conspirators' concealment was successful, as their conspiracy remained a secret until the summer of  
16 2015, when media organizations reported that Panasonic was seeking leniency from the United States  
17 Department of Justice for Panasonic's participation in anticompetitive conduct in the Resistors market.

18 7. This suit seeks to recover the overcharges Flex paid as a result of the conspiracy, as well  
19 as treble damages, attorneys' fees, and other applicable relief.

## 20 **II. PARTIES**

21 8. Whenever this Complaint alleges an act, deed, or transaction of any corporation, that  
22 allegation means that the corporation engaged in the act, deed, or transaction by or through its officers,  
23 directors, agents, employees, or representatives while they were actively engaged in the management,  
24 direction, control, or transaction of the corporation's business or affairs.

### 25 **A. Plaintiff**

26 9. Plaintiff Flextronics International U.S.A., Inc. is a California corporation with its principal  
27 place of business located at 6201 America Center Drive, San Jose, California 95002. Flextronics  
28 International USA, Inc., brings this suit on behalf of itself and all affiliated entities (collectively referred

1 to herein as “Flex”), which are identified in Attachment A. Flex manufactures electronic products and  
2 other goods at locations around the world, including in the United States.

3 10. Flex directly purchased Resistors for the purpose of manufacturing electronic products for  
4 Flex’s customers, including U.S.-based customers, and for use by United States end-users. Flex’s  
5 products are sold for consumer, medical, automotive, aerospace, and defense applications, among others.

6 11. Flex directly purchased approximately \$500 million worth of Resistors from the  
7 Conspirators, the Conspirators’ subsidiaries and affiliates, or agents controlled by the Conspirators  
8 during the Relevant Period, and has suffered injury as a result of the Conspirators’ anticompetitive and  
9 unlawful conduct.

10 12. During the relevant period, Flex purchased Resistors directly from the Conspirators both  
11 in the United States and abroad for incorporation into finished goods sold in the United States.

12 13. During the Relevant Period, Flex held frequent negotiations with certain Conspirators  
13 regarding the price and volume of Resistors. These negotiations began with Requests for Quotation  
14 (“RFQs”) which were issued to the Conspirators by Flex. Flex then negotiated via multiple methods,  
15 including face-to-face negotiations in the United States. Flex executives in the United States approved  
16 or authorized the price at which Flex purchased Resistors.

17 14. Flextronics International USA, Inc. is the designated assignee of the claims of its relevant  
18 affiliates, pursuant to a specific written agreement whereby any of the antitrust claims described in this  
19 Complaint against the Conspirators that are held by the Flex affiliates identified in Attachment A are  
20 assigned to Flextronics International USA, Inc.

21 **B. Defendants**

22 **1. HDK**

23 15. Defendant Hokuriku Electric Industry Co. (“HDK Co.”) is a Japanese corporation with its  
24 principal place of business located at 3158 Shimo-okubu, Toyama City, Toyama 939-2292, Japan. HDK  
25 Co. has been developing and supplying Resistors since 1943 and is one of the world’s leading  
26 manufacturers of Resistors. HDK Co. is the largest manufacturer of thick film chip Resistors used in  
27 automobiles. During the Relevant Period, HDK Co. manufactured, sold, and distributed Resistors either  
28 directly or through its business units, subsidiaries, agents, or affiliates to United States purchasers,

1 including abroad for inclusion into finished products sent to the U.S.

2 16. Defendant HDK America, Inc. (“HDK America”), a wholly owned subsidiary of HDK  
3 Co., is an Illinois corporation with its principal place of business located at 200 N. Northwest Highway,  
4 Suite 201, Barrington, Illinois 60010. During the Relevant Period, HDK America, either directly or  
5 through its business units, subsidiaries, agents, or affiliates, sold and distributed to United States  
6 purchasers Resistors manufactured by business units, subsidiaries, agents, or affiliates of its corporate  
7 parent, HDK Co.

8 17. Defendants HDK Co. and HDK America together are referred to herein as “HDK.”

## 9 **2. ROHM**

10 18. Defendant ROHM Co., Ltd. (“ROHM Co.”) is a Japanese corporation with its principal  
11 place of business located at 21 Saiin Mizosaki-cho, Ukyo-ku, Kyoto 615-8585, Japan. During the  
12 Relevant Period, ROHM Co. manufactured, sold, and distributed Resistors either directly or through its  
13 business units, subsidiaries, agents, or affiliates to United States purchasers, including abroad for  
14 inclusion into finished products sent to the U.S.

15 19. Defendant ROHM Semiconductor U.S.A., LLC (“ROHM USA”), a Delaware limited  
16 liability corporation, is a wholly owned subsidiary of ROHM Co. with its principal place of business  
17 located at 2323 Owen Street, Suite 150, Santa Clara, California 95054. In addition to its headquarters  
18 office, ROHM USA maintains no fewer than sixteen additional sales offices located throughout the  
19 United States. During the Relevant Period, ROHM USA, either directly or through its business units,  
20 subsidiaries, agents, or affiliates, sold and distributed to United States purchasers Resistors manufactured  
21 by certain business units, subsidiaries, agents, or affiliates of its corporate parent, ROHM Co.

22 20. Defendants ROHM Co. and ROHM USA together are referred to herein as “ROHM.”

## 23 **III. CO-CONSPIRATORS AND AGENTS**

24 21. The following firms and corporations, not named as Defendants herein, participated as  
25 Co-Conspirators with Defendants and performed acts and made statements in furtherance of the  
26 conspiracy. Flex reserves the right to name some or all of these persons as Defendants and to name  
27 additional Co-Conspirators.

28 ///

1                   **1.     Alps**

2           22.     Alps Electric Co., Ltd. (“Alps Electric”) is a Japanese corporation with its principal place  
3 of business in Tokyo, Japan. During the Relevant Period, Alps Electric manufactured, sold, and  
4 distributed Resistors either directly or through its business units, subsidiaries, agents, or affiliates to  
5 United States purchasers, including abroad for inclusion into finished products sent to the U.S.

6           23.     Alps Electric (North America), Inc. is a subsidiary of Alps Electric with its principal place  
7 of business located at 3151 Jay Street, Suite 101, Santa Clara, California 95054. Alps Electric (North  
8 America), Inc. also maintains offices in Detroit, Michigan; McAllen, Texas; Dublin, Ohio; San Diego,  
9 California; Austin, Texas; and Redmond, Washington. During the Relevant Period, Alps Electric (North  
10 America), Inc. – either directly or through its business units, subsidiaries, agents or affiliates – sold and  
11 distributed to United States purchasers Resistors manufactured by its corporate parent, Alps Electric.

12           24.     Alps Electric and Alps Electric (North America), Inc. are together referred to herein as  
13 “Alps.”

14                   **2.     Kamaya**

15           25.     Kamaya Electric Co., Ltd. (“Kamaya Electric”) is a Japanese corporation with its principal  
16 place of business located in PSA Building 3F, 6-1-6 Chou, Yamato-shi Kanagawa, 242- 0021, Japan.  
17 During the Relevant Period, Kamaya Electric manufactured, sold, and distributed Resistors either directly  
18 or through its business units, subsidiaries, agents, or affiliates to United States purchasers, including  
19 abroad for inclusion into finished products sent to the U.S. Since 2006, Kamaya Electric has been a  
20 subsidiary of Walsin Technology Corporation, which owns all or nearly all of Kamaya Electric.

21           26.     Kamaya Inc. is a wholly owned subsidiary of Kamaya Electric with its principal place of  
22 business located at 6407 Cross Creek Boulevard, Fort Wayne, Indiana 46818. Kamaya Inc. maintains a  
23 sales office at 4163 Cleveland Ave, #1, San Diego, CA 92103, and a warehouse at 28-A Concord Street,  
24 El Paso, TX 79906. During the Relevant Period, Kamaya Inc. – either directly or through its business  
25 units, subsidiaries, agents or affiliates – sold and distributed to United States purchasers Resistors  
26 manufactured by certain business units, subsidiaries, agents, or affiliates of its corporate parents, Kamaya  
27 Electric and Walsin Technology Corporation.

28           27.     Kamaya Electric and Kamaya Inc. are together referred to herein as “Kamaya.”



1                   **3. KOA**

2           28. KOA Corporation (“KOA Corp.”) is a Japanese corporation with its principal place of  
3 business located at 2-17-2 Midori-Cho, Fuchu-Shi, Tokyo 183-0006, Japan. KOA Corp. is one of the  
4 world’s leading manufacturers of Resistors, and the largest manufacturer of thick film chip Resistors  
5 used in automobiles. KOA claims to have 30% market share in Japan and 40% market share in the U.S.  
6 for fixed Resistors.<sup>1</sup> During the Relevant Period, KOA Corp. manufactured, sold, and distributed  
7 Resistors either directly or through its business units, subsidiaries, agents, or affiliates to United States  
8 purchasers, including abroad for inclusion into finished products sent to the U.S.

9           29. KOA Speer Electronics, Inc. (“KOA Speer”), a subsidiary of KOA Corp., is a Delaware  
10 corporation with its principal place of business located at 199 Bolivar Drive, Bradford, Pennsylvania  
11 16701. During the Relevant Period, KOA Speer, either directly or through its business units, subsidiaries,  
12 agents, or affiliates, sold and distributed to United States purchasers Resistors manufactured by business  
13 units, subsidiaries, agents, or affiliates of its corporate parent, KOA Corp.

14           30. KOA Corp. and KOA Speer are together referred to herein as “KOA.”

15                   **4. Midori**

16           31. Midori Precisions Co., Ltd. (“Midori Precisions”) is a Japanese corporation with its  
17 principal place of business located in Tokyo, Japan. During the Relevant Period, Midori Precisions  
18 manufactured, sold, and distributed Resistors either directly or through its business units, subsidiaries,  
19 agents, or affiliates to United States purchasers, including abroad for inclusion into finished products sent  
20 to the U.S.

21           32. Midori America Corp. is a wholly owned subsidiary of Midori Precisions with is principal  
22 place of business located at 2501 E. Chapman Ave., Suite 260, Fullerton, CA 92831. According to its  
23 website, Midori America Corp. was “established for the purpose of serving the North, Central, and South  
24 American markets . . . [a]s the sales, marketing and distribution arm”<sup>2</sup> of Midori Precisions that

25 \_\_\_\_\_  
26 <sup>1</sup> KOA website, [www.koaglobal.com/en/ir/top-message](http://www.koaglobal.com/en/ir/top-message), last checked June 26, 2018.

27 <sup>2</sup> Midori America Corp. website, [www.midoriamerica.com/about](http://www.midoriamerica.com/about), last checked June 26, 2018.  
28

1 “maintains a complete inventory of Midori standard products[.]” During the Relevant Period, Midori  
2 America Corp. – either directly or through its business units, subsidiaries, agents or affiliates – sold and  
3 distributed to United States purchasers Resistors manufactured by its corporate parent, Midori Precisions.

4 33. Midori Precisions and Midori America Corp. are together referred to herein as “Midori.”

## 5 **5. Panasonic**

6 34. Panasonic Corporation is a Japanese corporation with its principal place of business  
7 located at 1006, Oaza Kadoma, Kadoma-shi, Osaka 571-8501, Japan. Until October 1, 2008, Panasonic  
8 Corporation operated under the name of Matsushita Electric Industrial Co., Ltd. (“Matsushita Electric”).  
9 Panasonic Electronic Devices Co. Ltd. (“PED”) is a former Japanese subsidiary of Panasonic  
10 Corporation that was absorbed by Panasonic Corporation around April 2012. During the Relevant Period,  
11 Matsushita Electric, Panasonic Corporation, and PED (referred to together as “Panasonic Corp.”)  
12 manufactured, sold, and distributed Resistors either directly or through their business units, subsidiaries,  
13 agents, or affiliates to United States purchasers, including abroad for inclusion into finished products sent  
14 to the U.S.

15 35. Panasonic Corporation of North America (“PNA”), a wholly owned subsidiary of  
16 Panasonic Corporation, is a Delaware corporation with its principal place of business located at Two  
17 Riverfront Plaza, Newark, New Jersey 07102. During the Relevant Period, PNA, either directly or  
18 through its business units, subsidiaries, agents, or affiliates (including, without limitation, Panasonic  
19 Industrial Sales Company), sold and distributed to United States purchasers Resistors manufactured by  
20 business units, subsidiaries, agents, or affiliates of its corporate parent, Panasonic Corporation.

21 36. Panasonic Corp. and PNA are together referred to herein as “Panasonic.”

## 22 **6. Susumu**

23 37. Susumu Co., Ltd. (“Susumu Co.”) is a Japanese corporation with its principal place of  
24 business located in Kyoto, Japan. During the Relevant Period, Susumu Co. manufactured, sold, and  
25 distributed Resistors either directly or through its business units, subsidiaries, agents, or affiliates to  
26 United States purchasers, including abroad for inclusion into finished products sent to the U.S.

27 38. Susumu International (USA) Inc. is a subsidiary of Susumu Co. with its principal place of  
28 business located in Palisades Park, New Jersey, and with offices located in North Mankato, Minnesota

1 and San Jose, California. According to its company website, Susumu International (USA) is a sales and  
 2 marketing arm of Susumu Co. During the Relevant Period, Susumu International (USA) – either directly  
 3 or through its business units, subsidiaries, agents or affiliates – sold and distributed to United States  
 4 purchasers Resistors manufactured by its corporate parent, Susumu Co.<sup>3</sup>

5 39. Susumu Co. and Susumu International (USA) Inc. are together referred to herein as  
 6 “Susumu.”

## 7 7. TOCOS

8 40. Tokyo Cosmos Electric Co. (“TOCOS Electric”) is a Japanese corporation with its  
 9 principal place of business located in Zama, Japan. During the Relevant Period, TOCOS Electric  
 10 manufactured, sold, and distributed Resistors either directly or through its business units, subsidiaries,  
 11 agents, or affiliates to United States purchasers, including abroad for inclusion into finished products sent  
 12 to the U.S.

13 41. TOCOS America is a wholly owned subsidiary of TOCOS Electric with its principal place  
 14 of business located at 1177 E. Tower Road, Schaumburg, IL 60173. During the Relevant Period, TOCOS  
 15 America – either directly or through its business units, subsidiaries, agents or affiliates – sold and  
 16 distributed to United States purchasers Resistors manufactured by certain business units, subsidiaries,  
 17 agents, or affiliates of its corporate parent, TOCOS Electric.

18 42. TOCOS Electric and TOCOS America are together referred to herein as “TOCOS.”

## 19 8. Walsin

20 43. Walsin Technology Corporation (“Walsin Technology Co.” or “WTC”) is a Taiwanese  
 21 corporation with its principal place of business located at 566-1, Kao-Shi Road, Yang- Mei, Tao-Yuan,  
 22 Taiwan. During the Relevant Period, Walsin Technology Co. manufactured, sold, and distributed  
 23 Resistors either directly or through its business units, subsidiaries, agents, or affiliates to United States  
 24 purchasers, including abroad for inclusion into finished products sent to the U.S.

25 44. Walsin Technology Corporation U.S.A. (“Walsin USA”) is a wholly-owned subsidiary of  
 26 \_\_\_\_\_

27 <sup>3</sup> Susumu International (USA) Inc. website, [www.susumu-usa.com](http://www.susumu-usa.com), last checked June 29, 2018.  
 28

1 Walsin Technology Co. with its principal place of business located at 6032 Fieldstone Drive, Dallas,  
2 Texas 75252. During the Relevant Period, Walsin USA – either directly or through its business units,  
3 subsidiaries, agents or affiliates – sold and distributed to United States purchasers Resistors  
4 manufactured by certain business units, subsidiaries, agents, or affiliates of its corporate parent, Walsin  
5 Technology Co., as well as Kamaya Electric Co.

6 45. Walsin Technology Co. and Walsin USA are together referred to herein as “Walsin.”

7 46. On information and belief, certain Resistor manufacturers that also manufactured  
8 capacitors participated in both a conspiracy to fix the price of capacitors as well as Resistors.

#### 9 **IV. JURISDICTION AND VENUE**

10 47. Flex brings this action under Sections 4 of the Clayton Act, 15 U.S.C. §§ 15 and 26, to  
11 recover treble damages and costs of suit, including reasonable attorneys’ fees, against Defendants for the  
12 injuries that Flex has suffered from the Conspirators’ violations of Section 1 of the Sherman Act, 15  
13 U.S.C. § 1.

14 48. This Court has subject matter jurisdiction over this action pursuant to 28 U.S.C. §§ 1331,  
15 1337(a) and Sections 4 and 16 of the Clayton Act (15 U.S.C. §§ 15(a) and 26).

16 49. Venue is proper in this District pursuant to 15 U.S.C. §§ 15(a) and 22 and 28 U.S.C. §  
17 1391(b), (c) and (d) because, during the Relevant Period, Defendants resided, transacted business, were  
18 found, or had agents in this District, and a substantial portion of the affected interstate trade and  
19 commerce discussed below has been carried out in this District.

20 50. This Court has personal jurisdiction over each Defendant, because each Defendant:  
21 transacted business throughout the United States, including in this District; sold Resistors throughout the  
22 United States, including in this District; had substantial contacts with the United States, including in this  
23 District; or committed overt acts in furtherance of their illegal scheme and price-fixing conspiracy in the  
24 United States. In addition, the conspiracy was directed at, and had the intended effect of, causing injury  
25 to persons residing in, located in, or doing business throughout the United States, including in this  
26 District.

27 51. The Conspirators purposefully and knowingly directed the conspiracy alleged herein  
28 toward U.S. markets. Each Conspirator sold Resistors abroad for inclusion in products shipped to the

1 U.S. and coordinated prices abroad for products shipped to the U.S. Each Conspirator also maintained  
2 U.S. subsidiaries throughout the Relevant Period through which it marketed and sold Resistors to U.S.  
3 purchasers.

4 52. Based on information and belief, the Conspirators colluded with each other to coordinate  
5 their behavior in U.S. markets and directed their conspiracy at U.S. markets. Examples of these collusive  
6 activities include the following:

7 53. ROHM, KOA, HDK, and Susumu discussed the performance of U.S. automotive end-  
8 markets for Resistors, with the goal of coordinating their behavior in these markets, during a January  
9 2008 JEITA Resistor Information Exchange Meeting.

10 54. The Conspirators discussed the performance of the U.S. Resistor market, with the goal of  
11 coordinating their sales and marketing activities in the U.S. market, during an August 25, 2010 meeting  
12 of the JEITA Passive Components Business Committee and Resistors Working Group, attended by all  
13 Defendants as well as co-conspirators Alps, Susumu, and Midori.

14 55. HDK Co., ROHM, and KOA, along with other Resistor manufacturers, promoted  
15 coordination between the firms present in U.S. markets by discussing their companies' chip Resistor  
16 sales in the United States during a September 2013 meeting of JEITA's "Chip Resistor Expert  
17 Committee."

18 56. Panasonic and KOA discussed KOA's sales to North America in private meetings during  
19 the Relevant Period.

20 57. HDK and Panasonic employees discussed Resistor products sold to "A Co." in September  
21 1, 2008 email correspondence. On information and belief, "A Co." was code for customer Apple, Inc., a  
22 U.S. corporation.

## 23 **V. TRADE AND COMMERCE**

24 58. The activities of the Conspirators, as described in this Complaint, were within the flow of  
25 and substantially affected interstate and import commerce.

26 59. During the Relevant Period, the Conspirators sold substantial quantities of Resistors,  
27 including to Flex, in a continuous and uninterrupted flow of interstate commerce, including through and  
28 into this District and elsewhere.

1           60. The Conspirators' conduct both within and outside the United States caused direct,  
2 substantial, and reasonably foreseeable anticompetitive effects upon interstate and import commerce  
3 within the United States.

4           61. Defendants manufactured certain Resistors outside the United States that were sold to  
5 Flex for inclusion into finished products sent to the United States. Defendants also manufactured certain  
6 Resistors outside the U.S. that were sold within the United States. These sales constitute domestic or  
7 import commerce.

8           62. Through the unlawful activities alleged herein, Defendants substantially and foreseeably  
9 affected commerce throughout the United States, causing injury to Flex. Defendants—directly and  
10 through their respective parents, subsidiaries, business units, agents, affiliates, successors, and  
11 predecessors—knowingly and intentionally engaged in a conspiracy to fix, raise, maintain and/or  
12 stabilize prices in the United States and elsewhere for Resistors that were included in finished products  
13 imported to the U.S. That conspiracy unreasonably restrained trade and artificially inflated the prices for  
14 Resistors and for manufactured products incorporating Resistors imported into the United States.

15           63. Defendants engaged in conduct both inside and outside of the United States that caused  
16 direct, substantial, and reasonably foreseeable anticompetitive effects upon interstate commerce within  
17 the United States.

18           64. Specifically, Defendants marketed, sold, or distributed Resistors to be shipped or billed to  
19 customers, including Flex, in the U.S. Such sales constitute domestic or import commerce.

20           65. The Conspirators knew, including from sales and billing records, direct communications  
21 with Flex, customer negotiations, and market research that a significant portion of the Resistors sold or  
22 distributed to Flex would be incorporated into products manufactured for Flex's U.S. purchasers and/or  
23 shipped to the U.S.

24           66. The Conspirators' anticompetitive conduct caused purchasers in the United States to pay  
25 supra-competitive prices for manufactured products that incorporated Resistors that Flex had purchased  
26 from the Conspirators. These overseas sales thus had a substantial, direct, and reasonably foreseeable  
27 effect on U.S. commerce.

28           67. Resistors sold overseas directly to Flex that are imported into the United States similarly

1 have a substantial, direct, and reasonably foreseeable effect on U.S. import commerce.

2 68. To the extent any sales of Defendants' Resistors to Flex do not constitute domestic or  
 3 import commerce, the Defendants' unlawful activities with respect to those sales had a direct, substantial,  
 4 and reasonably foreseeable effect on U.S. commerce that gives rise to the claims asserted herein. The  
 5 Conspirators' anticompetitive conduct described herein directly, foreseeably, and substantially inflated  
 6 the price at which Flex management in the United States authorized Flex affiliates outside the United  
 7 States to purchase Resistors. This conduct gave rise to a claim by Flex affiliates outside the U.S. when  
 8 those affiliates purchased Resistors at prices artificially inflated by the alleged conspiracy.

9 69. The anticompetitive conduct described herein, and its substantial and foreseeable effect on  
 10 U.S. commerce, proximately caused antitrust injury to Flex, including to its foreign affiliates. The  
 11 resulting injuries to Flex amounted to tens of millions of dollars or more. As the natural and predictable  
 12 consequences of Defendants' anticompetitive conduct, Defendants reasonably should have anticipated—  
 13 or did anticipate—these injuries to Flex.

## 14 VI. FACTUAL ALLEGATIONS

### 15 A. Background on Resistors

16 70. Resistors are electrical components that limit or regulate the flow of electrical current in  
 17 an electronic circuit. Resistors can also be used to provide a specific voltage for an active device such as  
 18 a transistor. The resistance is the measure of opposition to the flow of current in a Resistor. More  
 19 resistance means more opposition to current.

20 71. Resistors are considered "passive" electronic components because they regulate rather  
 21 than generate electrical current and do not require electrical power to operate. Resistors are a  
 22 fundamental component of electrical circuits used in electronic devices such as televisions, cell phones,  
 23 computers, automobiles, and kitchen equipment. Many such devices will contain multiple – sometimes  
 24 hundreds – of Resistors per device.

25 72. Resistors may be divided into two basic categories – linear resistors and non-linear  
 26 resistors. In basic terms, a linear resistor is a resistor in which the current produced is directly  
 27 proportional to the applied voltage. Linear resistors consist of fixed and variable resistors. A nonlinear  
 28 resistor is a resistor whose current does not change linearly with changes in applied voltage. Non-linear



1 resistors are excluded from this Complaint.

2 73. Linear resistors can be created in a variety of ways. The most common type used in  
3 electronic devices and systems is the carbon-composition Resistor. In carbon-composition Resistors, fine  
4 granulated carbon is mixed with clay and hardened. The resistance depends on the proportion of carbon  
5 to clay; the higher this ratio, the lower the resistance.

6 74. Two other common types of linear Resistor used in many electronic devices are thick and  
7 thin film Resistors. Thick and thin film Resistors are characterized by a ceramic base encompassed by a  
8 resistive layer. Thin film Resistors have a thickness in the order of .1 micrometer or smaller while thick  
9 film Resistors are about a thousand times thicker. Thick film Resistors tend to be more accurate, have a  
10 better temperature coefficient, and be more stable. Thus, thin film Resistors are used in technologies  
11 requiring a high level of precision. Conversely, thick film Resistors are preferred for applications where  
12 these requirements are not necessary. Though each type of linear Resistor has properties that may render  
13 it more or less useful for a given electronic device, many manufacturers, including Defendants,  
14 manufacture multiple different types of linear Resistors. Generally, linear Resistors are most commonly  
15 used in consumer electronics such as computers and audio/visual devices.

16 75. Throughout the Relevant Period, Defendants sold linear Resistors to: (1) Original  
17 Equipment Manufacturers (“OEMs”) who incorporate Resistors into their finished products, (2)  
18 manufacturers like Flex who create or assemble electrical circuits that ultimately are incorporated into  
19 finished products manufactured by OEMs and other product manufacturers, and (3) electronic component  
20 distributors who buy Resistors directly from manufacturers and resell them.

21 **B. Early 2000s: Resistor Prices Collapse**

22 76. Signing and implementation of the international Information Technology Agreement of  
23 1996 (“ITA”) precipitated major declines in prices in the Japanese Resistor industry. Resistor prices fell  
24 by about 30 percent from 1997 to early 2000 in Japan’s protected market.

25 77. Prices for the Resistor products that Japan was exporting fell by approximately 20 percent  
26 over 1997-2000. This suggests that the exported products sold to foreign buyers were initially priced  
27 lower than products sold into the domestic market, as would be expected with a protected domestic  
28 market. As implementation of the ITA continued, however, this divergence between domestic and export



1 prices of Japanese Resistors disappeared. After 2001, Japan's domestic and export Resistor price indexes  
2 roughly converge and show a similar pattern of movement.

3 78. Globally, robust economic conditions in the 1990s resulted in an explosion of demand for  
4 consumer electronics that, in turn, resulted in strong demand for Resistors. However, economic growth  
5 slowed significantly in 2001, causing a corresponding decline in demand for Resistors. According to U.S.  
6 Census Bureau figures, shipment values for Resistors manufactured in the United States dropped by more  
7 than 20% from 2000 to 2001.<sup>4</sup>

8 79. Amidst this weak economic climate, purchasers of Resistors began applying significant  
9 pressure on the industry to lower prices. Indeed, between 2001 and 2002, global prices for Resistors  
10 dropped significantly.

11 80. This had a devastating impact on Resistor manufacturers' profitability, forcing some  
12 manufacturers to produce components at or below the cost of production. Facing significant losses,  
13 manufacturers were forced to reduce work forces, consolidate, close plants, and reduce capacity. During  
14 this period, many manufacturers of passive electronic components such as Resistors were operating at  
15 between 60 and 70% while vendors were "swimming in excess supply and fighting for contracts"  
16 according to a 2002 EBN report.

17 81. Despite falling global prices for Resistors, and even after Resistors prices underwent a  
18 sharp decline through 2000, both domestic and export prices for Japanese Resistors roughly stabilized—  
19 or even increased. From 2002 through early 2005, Resistor export prices increased by about 20% to a  
20 level coinciding with domestic Resistor prices. Japanese Resistor prices, both domestic and for export,  
21 declined moderately from 2005 through the end of 2006 before beginning a prolonged period of increase,  
22 followed by stability, through the end of 2014. Indeed, the data suggests an elevation in Resistor prices of  
23 20-25% over 2007-2014, compared with prices at the end of 2001.

24 82. Another consequence of this increased competition was the increased use by Resistor  
25

26 <sup>4</sup> See U.S. Census Bureau Statistical Abstract of the United States: 2003,  
27 <https://www2.census.gov/library/publications/2004/compendia/statab/123ed/tables/manufact.pdf>, at table  
28 1011, last checked June 29, 2018.

1 purchasers of online reverse auctions for passive electronic components such as Resistors.  
2 Unsurprisingly, the use of online reverse auctions was vigorously opposed by manufacturers such as the  
3 Conspirators. Yet, given the market power of many Resistors purchasers, pro-competitive practices such  
4 as reverse auctions could only be squelched if the industry as a whole acted together.

5 **C. Defendants Conspire to Restrain Competition**

6 83. Based on information and belief, the rebound in Japanese Resistor prices that occurred  
7 after 2002 followed by further price increases after 2006 was the result of coordinated efforts among  
8 Japanese Resistor manufacturers to restrain competition and stabilize and increase Resistor prices.  
9 Despite weak economic conditions, purchasers of Resistors were often committed to inflexible  
10 production or delivery deadlines to their respective customers, and accordingly could be forced to accept  
11 a price increase in order to avoid production delays or customer dissatisfaction.

12 84. The Conspirators carried out regular collusive discussions in meetings hosted by JEITA,  
13 which provided the Conspirators with both a consistent forum for these discussions as well as a  
14 mechanism for ensuring compliance with the conspiratorial agreement by all competitors. As early as  
15 July 2003, the Conspirators agreed to promote cooperation and reduce competition through JEITA  
16 meetings involving the regular exchange of strategic information among competitors, enabling the  
17 Conspirators to coordinate their behavior with the overall effect of reducing competition and stabilizing  
18 Resistor prices.

19 85. As early as 2003, the Conspirators agreed to restrain competition to halt price erosion and  
20 maintain or increase prices. The Conspirators carried out the conspiracy through regular collusive  
21 discussions under the auspices of JEITA, as well as through discussions among individual competitors.  
22 The Conspirators facilitated the coordination of their behavior and eliminated competition through these  
23 regular meetings, which provided a mechanism for coordinating behavior concerning current and future  
24 prices, capacity, costs, sales, forecasts, and in other competitively sensitive areas.

25 86. JEITA meetings often included what are commonly referred to as “passive components”  
26 which include Resistors, capacitors, and inductors. Many of the capacitor manufacturers that attended  
27 JEITA Passive Component Business Committee meetings have pled guilty for their participation in a  
28 conspiracy to fix and maintain capacitor prices. Many of these meetings are the same meetings the

1 Conspirators attended.

2 87. During the relevant period and in furtherance of the conspiracy, at the JEITA meetings the  
3 Conspirators ignored corporate formalities and instead referenced and referred to one another without  
4 distinguishing between a parent and a subsidiary. For example, HDK or KOA referred to the corporate  
5 family generally. The Conspirators did not distinguish between corporate families because, in part,  
6 information obtained from competitors was shared throughout the corporation. On information and  
7 belief, the Conspirators also would use abbreviations or code names for one another to hide their  
8 identities and the conspiracy.

9 88. The Conspirators entered the conspiracy to foster cooperation, stabilize prices, and  
10 restrain competition in the Resistors industry. At a July 9, 2003 meeting of JEITA's Passive Components  
11 Business Committee, the participating Conspirators agreed on a procedure for facilitating coordination of  
12 industry behavior in their subsequent meetings. The procedure included sharing: (1) current sales and  
13 changes in production of Resistors, (2) business conditions judging from current orders received, (3)  
14 market trends, (4) product trends, (5) overseas production status, (6) future outlook information, and (7)  
15 shared industry topics.

16 89. During the Relevant Period, the Conspirators communicated and shared information about  
17 specific customers in order to maintain or increase Resistor prices sold to that customer. Based on  
18 information and belief, the Conspirators shared information about specific OEMs and Electronics  
19 Manufacturing Services ("EMS") Companies like Flex in order to maintain or increase Resistor prices  
20 sold to OEMs and EMS customers.

21 90. Throughout 2003 and 2004, the Conspirators, including ROHM, Panasonic, HDK,  
22 Kamaya, and KOA, attended meetings at which sensitive, non-public information about Resistors was  
23 shared with the purpose of stabilizing prices and reducing competition.

24 91. At an August 2005 JEITA Passive Components Business Committee meeting attended by  
25 Alps, Panasonic, KOA, and others, an agreement was reached by the attendees as to the method of  
26 conducting and exchanging information going forward. The information the Conspirators exchanged  
27 allowed them to fix and maintain Resistor prices.

28 92. During 2006, the Conspirators and other Resistor manufacturers, including Kamaya,

1 Panasonic, ROHM, KOA, HDK, Kamaya, Sakae Tsushin, Teikoku Tsushin, Taiyosha, Alps, and  
2 TOCOS met and exchanged Resistor sales information, including sales as a percentage of the previous  
3 period, in order to coordinate their market behavior.

4 93. Throughout 2007 and 2008, the Conspirators continued to meet and exchange information  
5 as part of the conspiracy. The meetings included JEITA meetings, social outings, and golf events. For  
6 example, ROHM, Panasonic, HDK, and KOA met and exchanged competitive information in no fewer  
7 than five JEITA-sponsored forums occurring in 2008 alone. Information exchanged between and among  
8 the Conspirators included non-public sensitive information about the companies' production, capacity,  
9 sales, prices, volume, sales to EMS companies like Flex, and technical capabilities. Often, emails about  
10 the information exchanges included warnings to keep the information confidential, not to share the  
11 information, and referred to competitors by code to keep identities secret.

12 94. As an example of one such exchange, in April 2008 Panasonic employees emailed one  
13 another with the title Confidential Competitor Information (KOA). The email included information  
14 Panasonic received from a KOA employee about KOA's monthly production volume for certain  
15 Resistors, future strategy on production, and pricing information. The email also contained confidential  
16 information obtained from "R Co.," which is believed to be code for Defendant ROHM.

17 95. In addition to the formal exchange of information about Resistors at the JEITA meetings,  
18 the Conspirators met one-on-one to exchange non-public sensitive information as part of the conspiracy.  
19 On information and belief, one such meeting included the exchange of pricing information between  
20 Panasonic and HDK in September 2008. The information exchanged is believed to be the pricing  
21 information for Resistors for a large U.S. company that was also a customer of Flex.

22 96. On information and belief, JEITA's Passive Components Business Committee held a  
23 "Resistor Information Exchange Meeting" on October 30, 2008, attended by ROHM (represented by  
24 Osamu Maeda and Hiroshi Kaida), KOA (Kunio Misawa), Panasonic (Yoshinori Hourai), HDK (Keiichi  
25 Shimada), Taiyosha (Senji Hibino), Alps (Nakarai), and Midori (Okamura). The minutes state that "[a]ll  
26 attendees carried out information exchange." The meeting involved coordinating discussions and  
27 presentations, including presentations by competitors HDK, KOA, Taiyosha, Midori, Alps, and ROHM's  
28 performance in comparison to previous years. The next day, Panasonic's Yoshihiro Hashimoto and

1 Yoshinori Hourai, KOA's Akira Nonomura and Kunio Misawa, ROHM's Hiromichi Katafuchi and  
2 Hiroshi Kaida, HDK's Kazuo Nomura and Keiichi Shimada, and Taiyosha's Akihiro Katada and Senji  
3 Hibino attended a Resistors meeting in Nagoya, Japan, from October 31 until November 1, 2008.  
4 Attendees held another collusive "information exchange meeting" on October 31 and participated in a  
5 golf session on November 1, providing further opportunities for collusive discussions.

6 97. In 2009 and 2010, the Conspirators continued to attend JEITA meetings, including  
7 specifically ROHM, HDK, KOA, Taiyosha, Alps, Sakae Tsushin, Teikoku Tsushin, and Panasonic. As at  
8 prior meetings, the Conspirators exchanged non-public information about their sales, capacity, and  
9 projections in order to maintain the price of Resistors. The information presented at JEITA meetings  
10 often focused on specific markets such as cars, cell phones, notebook computers, and televisions.

11 98. In 2011 and 2012, the Conspirators met both in JEITA meetings and separately to  
12 exchange confidential, non-public information as part of the Resistors conspiracy, including JEITA  
13 meetings in at least January, February, and August 2011, and January and May 2012. The information  
14 exchanged allowed the Conspirators to coordinate their market behavior and successfully maintain or  
15 increase prices.

16 99. At JEITA meetings in 2011 and 2012, the Conspirators shared information about their  
17 companies' past sales and future projects, including for specific products like cell phones or televisions,  
18 and specific markets including Japan, Thailand, Europe and the U.S.

19 100. During a meeting of JEITA's Capacitor and Resistor/General Components Committee in  
20 May 2012, Panasonic, KOA, and HDK representatives presented on their companies' respective FY 2011  
21 sales amounts, profit and losses, and current sales information, breaking out current performance data by  
22 product type (including Resistors), effect of exchange rates on sales, and other company-specific data.  
23 This information exchange enabled the Conspirators to adjust their behavior in response to the  
24 information presented and thereby further coordinate their activities.

25 101. From 2003 to 2014, JEITA's Passive Components Business Committee and Resistors  
26 Working Group provided regular meetings and forums that the Conspirators used to exchange  
27 competitive information.

28 102. The Conspirators continued to meet and exchange information in furtherance of the

1 conspiracy until a July 2014 JEITA meeting at which an investigation into antitrust compliance was  
2 announced.

3 **D. The U.S. Subsidiary Conspirators Participated in the Conspiracy**

4 103. Based on information and belief, each Conspirator family's corporate parent dominated  
5 and controlled the finances, policies, and business decisions of their various subsidiaries, including the  
6 U.S. subsidiaries. This included the parent companies' control over the prices set by the subsidiaries.

7 104. The subsidiary of each Conspirator family performed functions under the direction and  
8 control of the foreign-based Conspirator's parent's officers and managers. As a means of control, the  
9 Conspirators' foreign parent corporations "seconded" their employees to their U.S. and other subsidiaries  
10 so that these employees could act a conduit for the parents' decisions and conspiratorial agreements and  
11 implement them at the subsidiary level.

12 105. The foreign Conspirators also maintained control over their U.S. subsidiaries by sitting on  
13 boards of the U.S. subsidiaries.

14 106. The conspiracy was organized at the parent level and carried out by both executives and  
15 employees of the Conspirators' corporate parent and subsidiaries, including those in the U.S. Information  
16 learned at the parent level at JEITA meetings or through other communications with competitors was  
17 often shared with the subsidiaries. Additionally, employees of the Conspirators' subsidiaries also  
18 participated in conspiratorial communications and meetings, and reported the information to other  
19 offices, including to the parent.

20 **E. Defendants' Collusive Discussions Were Intended to, and Did, Further Their**  
21 **Agreement to Stabilize Resistor Prices**

22 107. The Conspirators' discussions exhibited the characteristics of collusion among  
23 competitors that creates and furthers a conspiracy to stabilize prices and reduce competition.

24 **1. The Type of Information Discussed Was Highly Competitively Sensitive,**  
25 **Enabling Collusion and Market Impact to the Benefit of Defendants and the**  
26 **Detriment of Flex**

27 108. Particular types of data exchanges are more likely than others to reduce strategic  
28 uncertainty in the market and facilitate coordination among competitors. Strategic information relates to  
current or future prices, capacity, costs, sales, forecasts, customer information, marketing plans, and

1 actual and planned investments, among others. This competitively sensitive information is not the type of  
 2 information that would normally be exchanged by companies that are actually competing with each  
 3 other, since exchange of this information provides important advantages to a true competitor. The fact  
 4 that the communications among the Conspirators involved this type of information indicates that the  
 5 purpose was to coordinate behavior rather than to compete more effectively.

#### 6 **F. Defendants' Conspiracy Worked: Prices Stabilized and Profitability Returned**

7 109. Defendants' conspiracy had its intended effect. The conspiracy successfully halted the  
 8 decline in the price of Japanese Resistors, and even achieved price increases above the pre-conspiracy  
 9 levels. Defendants' conspiracy also succeeded in stabilizing and increasing the prices of Resistors  
 10 purchased by United States OEMs and EMS companies.

### 11 **VII. CHARACTERISTICS OF THE RESISTORS MARKET**

12 110. The structure and characteristics of the Resistors market is particularly conducive to a  
 13 price-fixing agreement, rendering allegations of collusion particularly plausible. These factors are  
 14 discussed below.

#### 15 **A. Industry Concentration**

16 111. A high degree of concentration facilitates coordination among co-conspirators. The fewer  
 17 competitors in a market, the easier it is for those competitors to collude. The Resistors market is highly  
 18 concentrated.

19 112. The Conspirators are the dominant players in the Resistors market. For example, in 2003,  
 20 Conspirators KOA, ROHM, Kamaya, HDK, and Panasonic held approximately 51% of the market for  
 21 Resistors. Their market shares have remained fairly stable for more than a decade.

22 113. The Conspirators possessed sufficient market share to impose price increases and ensure  
 23 price stabilization during the Relevant Period.

#### 24 **B. High Barriers to Entry**

25 114. The presence of significant entry barriers to potential competitors that could otherwise  
 26 cause the incumbents to reduce their prices helps facilitate coordination among co-conspirators.

27 115. Companies seeking to manufacture and sell Resistors, without having any prior  
 28 involvement in the Resistors market, face various significant barriers to their entry. Thus, those fringe



1 companies producing Resistors could not sufficiently ramp up production to become large enough to  
2 undermine the conspiracy.

3 116. The barriers to entry for new market participants are quite high. Barriers to entry into the  
4 Resistors markets include: (i) patents; (ii) high research and development costs; (iii) capital costs to build  
5 a manufacturing facility; (iv) investments in machinery and production lines; and (v) maintenance of a  
6 sizable sales, marketing and technical support organization.

7 117. Likewise, leading Resistors manufacturers have reported spending between 4-6% of  
8 revenue on research and development – the equivalent of millions if not hundreds of millions of dollars a  
9 year.

10 118. New market entrants would need substantial start-up capital – exceeding hundreds of  
11 millions of dollars – in addition to access to production technology, raw materials, and sufficient supply  
12 chain commitments to warrant such a significant outlay of capital.

13 119. The Resistors manufacturing industry is a mature one dominated by established  
14 corporations, most having multinational operations, global market reach, and diverse product portfolios  
15 of all types of passive electrical components. These companies – Defendants here – have significant  
16 experience in the global Resistors industry and established reputations with both sellers of raw materials  
17 and purchasers of finished Resistors. These companies typically have access to significant financial  
18 resources that allow them to commit the capital necessary to bring online new fabrication operations and  
19 facilities or to expand/retrofit existing ones to meet and exceed market demand and adjust to  
20 technological changes. This readily available access to capital also permits manufacturers like  
21 Defendants the ability to establish and secure necessary supply chain commitments for all raw materials  
22 they require. Defendants are all established manufacturers in the Resistors industry.

23 **C. Inelastic Demand**

24 120. Price elasticity of demand is the measure of responsiveness in the quantity demanded for a  
25 product as a result of change in price of the same product. Inelastic demand is a market characteristic that  
26 facilitates collusion, allowing producers to raise their prices without triggering customer substitution and  
27 lost sales revenue. Inelastic demand is another indicator that a price-fixing conspiracy would be  
28 successful.



121. As set forth above, Resistors are critical to the manufacture of certain types of electrical circuits used in electronic devices. KOA's own internal documents acknowledge that chip Resistors are "the building block of almost all electronic circuits" and are used to improve the reliability and functionality of electrical components through the creation and maintenance of an optimal level of current.

122. When there are few or no substitutes for a product, purchasers have little choice but to pay higher prices in order to produce their product. Because OEMs, circuit assemblers, and third-party distributors regularly have inflexible production and delivery deadline commitments with their own customers, there often is no immediate substitute for Resistors needed to make those commitments. Indeed, no other type of passive electrical component (such as an inductor or capacitor) would be able to serve an equivalent function and thus to satisfy production and delivery demands the Conspirators' purchasers had no alternatives to Resistors.

#### **D. Interchangeable, Commodity-like Products**

123. A commodity is a product that is standardized across suppliers allowing for a high degree of substitutability among different suppliers in the market. When products offered by different suppliers are viewed as interchangeable by purchasers, market participants typically compete on the basis of price rather than other attributes such as product quality or customer service rendering it is easier for participants both to agree on prices for the product and to monitor these prices.

124. In the Resistors market, standardization is a key element in the design of electronic components such as Resistors. Indeed, both the International Electrical Commission ("IEC") and American National Standards Institute ("ANSI") promulgate standards denoting Resistor sizes, values, markings, and measurement methods. Resistors are mass-produced pursuant to these standardized manufacturing processes rendering them mutually interchangeable.

125. Moreover, Resistors of like resistance are interchangeable. Thus, even if certain aspects of a given Resistor differs, so long as the amount of resistance remains constant Resistors are substitutable.

126. The Conspirators are aware of the interchangeability of their products. The Conspirators have even created cross-reference guides that list competitor's Resistors by product number or technical and operational specifications with a corresponding reference to those Resistors offered by the

1 Conspirators that are interchangeable.

2 127. Indeed, the Conspirators' own internal documents referred to thick film chip Resistors as  
3 "commodity chips" and acknowledged the interchangeability of their Resistor products. For example,  
4 2011 KOA minutes discuss ramp up of "commodity flat chip production," also referred to as "standard  
5 products," and distinguish these from high margin Resistor products.

6 128. Because Resistors of like resistance are interchangeable, commodity-like products, in a  
7 competitive market, manufacturers would compete largely on the basis of price. Where, as here, prices  
8 have remained stable or increased, market conditions are suggestive of collusive conduct.

9 **E. Declining Demand**

10 129. Static or declining demand renders collusion more likely. Under normal business  
11 conditions, when faced with weak demand conditions firms will attempt to maintain sales by taking  
12 market share from competitors via price competition. Stable or increasing prices in the face of static or  
13 declining demand is yet another characteristic that is suggestive of anticompetitive conduct among  
14 market participants.

15 130. As discussed more fully above, demand for Resistors has steadily declined since the early  
16 2000s both as a result of declining demand for consumer electronics and also due to technological trends  
17 favoring the smaller design of such electronics that, in turn, require fewer Resistors. Despite these  
18 demand conditions, prices for Resistors have remained relatively stable since 2003.

19 **F. Excess Manufacturing Capacity**

20 131. The existence of excess manufacturing capacity tends to have a negative correlation with  
21 price because manufacturers have the ability to steal share by lowering prices and increasing production.  
22 As witnessed in 2001, this trend is even stronger in an environment of declining demand because  
23 manufacturers have no choice but to compete for a smaller number of potential buyers. Where prices  
24 remain stable or rise in an environment of excess manufacturing capacity and declining demand, it  
25 becomes more likely that anticompetitive behavior is afoot.

26 132. As described in more detail above, both before and during the Relevant Period, the  
27 Conspirators possessed excess manufacturing capacity and demand for Resistors has steadily declined.  
28 However, after 2003, these market conditions did not result in dramatic price reductions. To the contrary,

1 prices often remained stable or even rose. These pricing trends are suggestive of anticompetitive conduct.

2 **G. Opportunities for Conspiring and Sharing Information**

3 133. Because of their common membership and participation in trade associations and  
4 interrelated business relationships between certain executives, officers, and employees of the  
5 Conspirators, there were many opportunities both before and during the Relevant Period for the  
6 Conspirators to collude by discussing competitive information regarding their Resistors.

7 134. Industry trade associations make a market more susceptible to collusive behavior because  
8 they can provide a pretext under which conspirators can exchange sensitive company information such as  
9 pricing and market allocation.

10 135. A number of industry trade associations exist and count the Conspirators among their  
11 members. For example, Defendants are all members of the Japan Electronics and Information  
12 Technology Industries Association (“JEITA”), a prominent trade organization. Additionally, Defendants  
13 were also members of the Passive Components Marketing Services group and the Electronic Components  
14 Industry Association, trade associations that facilitated the conspiracy by collecting and aggregating  
15 competitive information including sales in terms of dollars and units. The aggregate data was then  
16 circulated to the Conspirators with a short time lag, allowing the Conspirators to monitor each other’s  
17 pricing.

18 136. The Conspirators also attended various trade conferences that allowed them to meet  
19 without drawing attention. For example, the employees of the Conspirators regularly attended the  
20 Electronics Distribution Show and the Consumer Electronics Show. These trade shows provided  
21 numerous opportunities for the Conspirators to meet privately to further the conspiracy.

22 137. Additionally, many of the Conspirators also manufactured other passive electronic  
23 components, including capacitors. These Conspirators regularly met in secret to fix prices and exchange  
24 confidential non-public information, and engage in cartel activity with respect to the capacitors industry.  
25 For example, Panasonic conspired in violation of the antitrust laws with capacitor manufacturers,  
26 including at times Defendant ROHM, starting no later than January 1, 2003. These meetings provided yet  
27 another opportunity for the Conspirators to further their conspiracy as to Resistors.

28 ///

## VIII. FRAUDULENT CONCEALMENT

138. Flex did not discover, and could not have discovered through the exercise of reasonable diligence, the existence of the conspiracy alleged herein until July 2015, when foreign competition authorities began investigating the industry.

139. The Conspirators recognized the unlawful nature of their conspiracy and took steps to conceal it. For example, recognizing the collusive nature of discussions within the JEITA Passive Components Business Committee and its Resistors subcommittees, the Committee in 2008 changed the entries on its meeting minutes to begin referring to “information exchange concerning general market conditions” instead of “information exchange conducive to corporate management,” as it had previously, in order to conceal participants’ ongoing collusive discussions including individual companies’ Resistor prices, sales, and production capacity. JEITA meetings were held in private settings and their minutes were not made public.

140. As described above, key participants in the conspiracy concealed their activities by warning each other to treat collusive discussions as “confidential,” by referring to co-conspirators with code words, and by reminding their co-conspirators to not distribute evidence of their competitive information exchanges outside the conspiracy.

141. Because the Conspirators’ alleged conspiracy was kept secret until at least July 2015, Flex was unaware of the Conspirators’ unlawful conduct alleged herein, and they did not know before that time that they were paying supra-competitive prices for Resistors throughout the United States and the world during the Relevant Period.

142. The Conspirators’ concerted pricing remained unnoticed for many reasons including the facts that pricing for these Resistors changes frequently and the sheer number and variety of Resistors rendered it difficult to track market-wide movement in pricing. Before July 2015, Flex reasonably considered the Resistors industry to be a competitive industry.

143. Under the circumstances surrounding the Conspirators’ collusive practices, the Conspirators’ acts of concealment were more than sufficient to preclude suspicion by a reasonable person that the Conspirators’ pricing was conspiratorial. Accordingly, a reasonable person under the circumstances would not have been alerted to investigate the legitimacy of the Conspirators’ Resistors

1 prices before July 2015.

2 144. Flex could not have discovered the alleged conspiracy at an earlier date by the exercise of  
3 reasonable diligence because of the deceptive practices and techniques of secrecy employed by the  
4 Conspirators to avoid detection of and fraudulently conceal their conspiracy.

5 145. None of the facts or information available to Flex prior to July 2015, if investigated with  
6 reasonable diligence, could or would have led to the discovery of the conspiracy alleged herein prior to  
7 that date.

8 146. As a result of the Conspirators' fraudulent concealment of their conspiracy, the running of  
9 any statute of limitations has been tolled with respect to any claims that Flex has alleged in this  
10 Complaint.

11 147. The Conspirators engaged in a successful anti-competitive conspiracy concerning  
12 Resistors, which they affirmatively concealed, at least in the following respects:

- 13 (a) By communicating secretly to discuss output and prices of Resistors;
- 14 (b) By agreeing among themselves not to discuss publicly, or otherwise reveal, the nature  
15 and substance of the acts and communications in furtherance of their illegal scheme;
- 16 (c) By attributing pricing to reasons other than their anticompetitive agreement; and
- 17 (d) By falsely describing the market for Resistors as competitive.

18 148. As a result of the Conspirators' fraudulent concealment, all applicable statutes of  
19 limitations affecting Flex's claims have been tolled.

## 20 **IX. EFFECTS OF THE CONSPIRACY**

21 149. Because of the Conspirators' illegal conspiracy, Flex was injured in its business or  
22 property because Flex paid more for Resistors than it otherwise would have paid in a competitive market.

23 150. The Conspirators' unlawful contract, combination, or conspiracy has had at least the  
24 following effects:

- 25 (a) price competition in the Resistors market was artificially restrained;
- 26 (b) prices for Resistors sold by the Conspirators have been raised, fixed,  
27 maintained, or stabilized at supra-competitive levels; and
- 28 (c) purchasers of Resistors from the Conspirators have been deprived of the

benefit of free and open competition in the Resistors market.

151. Flex directly purchased approximately \$500 million worth of Resistors from the Conspirators during the Relevant Period. Flex's global Resistor purchasing is overseen by management employees located in San Jose, California. Flex purchases of Resistors worldwide typically are made in United States dollars.

152. Many of the Resistors purchased by Flex were imported into the United States and used at Flex's United States manufacturing facilities, purchased for use in the manufacture of products for United States customers, or assembled into products sold to United States corporations or end-users.

153. Electronics and electrical product companies, including many located in the United States, rely on manufacturers such as Flex to manufacture devices that include electronic and electrical components.

154. Flex typically directly purchases the electric and electronic components, including Resistors, necessary to manufacture products for Flex's customers. Flex then uses its global manufacturing, supply chain, and logistical expertise to manufacture and deliver products to Flex's customers worldwide, including businesses and end-users in the United States.

155. For example, in 2007, Flex purchased part number RK73B2BTDD473J, a thick film linear Resistor, from KOA for delivery to Flex's Dallas, Texas facility. Flex also purchased the same Resistor from KOA in 2007 at Flex facilities worldwide for Flex's U.S.-based end customers.

156. Flextronics International USA, Inc. purchased Resistors directly from the Conspirators during the relevant time period. For example, Flextronics International USA, Inc. purchased part number ERJ2RKF2050X, a thick film linear Resistor, from Panasonic in 2008 for delivery to its Milpitas, California facility.

157. The overall conspiracy alleged herein (1) targeted United States companies; (2) targeted companies producing goods for United States businesses; and (3) targeted Resistors incorporated into products sold to United States end-users directly. As a result, Defendants' conduct substantially and foreseeably impacted United States commerce and gives rise to antitrust and other claims by Flex.

158. The Conspirators' sales of Resistors to Flex for the manufacture of products that were intended for sale to United States customers or end-users involved import commerce, and had a

1 substantial, direct and reasonably foreseeable effect on United States import commerce that gives rise to  
2 a claim by Flex under United States law.

3 159. Certain of the Conspirators also collusively allocated sales of Resistors to be used in  
4 certain products manufactured by Flex for its United States customers. The participating conspirators  
5 understood when making these agreements that the market allocation would increase prices to United  
6 States businesses and customers, and had a substantial, direct, and reasonably foreseeable impact on  
7 United States consumers.

8 160. Certain of the Conspirators that sold particular types of Resistors to Flex's United States  
9 customers specifically agreed on prices to be charged to those United States customers.

10 161. Certain of the Conspirators also exchanged data specifically referencing EMS operations  
11 in the United States and other United States customers of Flex.

12 162. As a direct and proximate result of the Conspirators' anticompetitive and unlawful  
13 conduct, Flex was injured in its business and property in that it paid artificially inflated prices for the  
14 Resistors it purchased directly from the Conspirators.

15 **X. CAUSE OF ACTION**  
16 **SHERMAN ACT VIOLATION § 1 15 U.S.C. § 1**  
17 **(Alleged Against All Defendants)**

18 163. Flex incorporates and re-alleges each allegation set forth in the preceding paragraphs of  
19 this Complaint.

20 164. Beginning at least as early July 1, 2003, and continuing thereafter, the Conspirators, by  
21 and through their officers, directors, employees, agents, or other representatives, in violation of Section 1  
22 of the Sherman Act, 15 U.S.C. § 1, entered into a continuing agreement, understanding, and conspiracy  
23 in restraint of trade to restrict output and to artificially raise, fix, maintain, or stabilize prices for linear  
24 Resistors in the United States, and entered into a continuing agreement, understanding and conspiracy in  
25 restraint of trade to exchange information regarding output and production capacity that had the effect of  
26 restricting output and of fixing, raising, maintaining, or stabilizing the prices of Resistors.

27 165. Flex has been injured in its business and property by reason of the Conspirators' unlawful  
28 combination, contract, conspiracy, and agreement. Flex has paid more for Resistors than it otherwise  
would have paid in the absence of the alleged conspiracy. This injury is of the type the federal antitrust

1 laws were designed to prevent and flows from that which makes the Conspirators' conduct unlawful.

2 166. Accordingly, Flex seeks damages, to be trebled pursuant to federal antitrust law, and costs  
3 of suit, including reasonable attorneys' fees.

4 **XI. DEMAND FOR JUDGMENT**

5 **WHEREFORE**, the Flex requests that the Court enter judgment on their behalf by adjudging and  
6 decreeing that:

7 A. That the contract, combination, or conspiracy, and the acts done in furtherance thereof by  
8 the Conspirators be adjudged to have violated Section 1 of the Sherman Act, 15 U.S.C. § 1.

9 B. That judgment be entered for Flex against Defendants for three times the amount of  
10 damages sustained by Flex as allowed by law.

11 C. That Flex recover pre-judgment and post-judgment interest as permitted by law.

12 D. That Flex recover its costs of the suit, including attorneys' fees, as provided by law.

13 E. For such other and further relief as is just and proper under the circumstances.

14 Dated: July 25, 2018

15 WILLIAMS MONTGOMERY & JOHN LTD.

16 By: /s/ Charles E. Tompkins  
17 Charles E. Tompkins, *pro hac vice*  
18 *forthcoming*  
Eric R. Lifvendahl, *pro hac vice forthcoming*

19 RAINS LUCIA STERN ST. PHALLE &  
20 SILVER, PC

21 By: /s/ Eustace de Saint Phalle  
22 Eustace de Saint Phalle  
23 *Attorneys for Flextronics International USA,*  
24 *Inc.*  
25  
26  
27  
28



**JURY TRIAL DEMANDED**

Pursuant to Federal Rule of Civil Procedure 38(b), Flex demands a trial by jury of all the claims asserted in this complaint so triable.

Dated: July 25, 2018

WILLIAMS MONTGOMERY & JOHN LTD.

By: /s/ Charles E. Tompkins  
Charles E. Tompkins, *pro hac vice*  
*forthcoming*  
Eric R. Lifvendahl, *pro hac vice forthcoming*

RAINS LUCIA STERN ST. PHALLE &  
SILVER, PC

By: /s/ Eustace de Saint Phalle  
Eustace de Saint Phalle  
*Attorneys for Flextronics International USA,*  
*Inc.*

**EXHIBIT A****FLEXTRONICS INTERNATIONAL USA, INC'S AFFILIATES**

	<b>Legal Entity Name</b>
1.	Advance Mold & Manufacturing, Inc.
2.	AGM Automotive Costa Rica S.A.
3.	AGM Automotive Mexico, LLC
4.	AGM Automotive, LLC
5.	AGM Durmont Austria GmbH
6.	AGM Durmont Mexico, S. de R.L. de C.V.
7.	AGM Holding GmbH
8.	Astron Group Limited
9.	Avail Medical Products, Inc.
10.	Availmed, S.A. de C.V.
11.	BISSELL Asia Development Center (Shenzhen) Limited
12.	Centrex Precision Plastics, Inc.
13.	Chatham International Holdings B.V.
14.	Chengdu Flextronics Mechanical Manufacturing Co., Ltd.
15.	Ciii Ltd.
16.	Ciii USA, Inc.
17.	Commercial Company in the form of a limited liability company factory "Flextronics LLC"
18.	Dii International Holdings C.V.

	<b>Legal Entity Name</b>
19.	Dongguan Flextronics Precision Metal Co., Ltd.
20.	Dovatron Mfg.
21.	Elementum Holding Ltd
22.	Elementum SCM (Cayman) Ltd
23.	Elementum SCM (Deutschland) GmbH
24.	Elementum SCM Argentina S.R.L.
25.	Elementum SCM Europe Ltd.
26.	Elementum SCM Ltd
27.	Elementum SCM, Inc.
28.	Express Cargo Forwarding Limited
29.	Farm Design, Inc.
30.	Finchley Trading Limited
31.	Flex Automotive GmbH
32.	Flex Digital Health, Inc.
33.	Flex Electronics (Shanghai) Co., Ltd.
34.	Flex Home Product Co Ltd
35.	Flex International s.r.o.
36.	Flex IDE8 Hong Kong Limited
37.	Flex IDE8 Manufacturing (Tianjin) Co., Ltd.
38.	Flex Lighting Solutions, Inc.

	<b>Legal Entity Name</b>
39.	Flex Ltd.
40.	Flex Luxembourg Holdings S.a.r.l.
41.	Flex Precision Plastics Solutions (Switzerland) AG
42.	Flex Solutions Nordic AB
43.	Flex Solutions Poland sp. z o.o.
44.	FlexMedical Slovakia s. r. o. v likvidácii
45.	Flextronics (Canada) Inc.
46.	Flextronics (China) Electronics Technology Co., Ltd.
47.	Flextronics (Israel) Ltd.
48.	Flextronics (Malaysia) Sdn. Bhd.
49.	Flextronics (Shanghai) Co., Ltd
50.	Flextronics (Shanghai) Electronic Equipment Repair Service Co., Ltd.
51.	Flextronics Aerospace & Defense Services Inc
52.	Flextronics Aichi K.K.
53.	Flextronics America, LLC
54.	Flextronics AP, LLC
55.	Flextronics Asset and Investments LLC Hungary
56.	Flextronics Australia Pty Ltd
57.	Flextronics Automotive (Suzhou) Co., Ltd.
58.	Flextronics Automotive de Juarez, S.A. de C.V.

	<b>Legal Entity Name</b>
59.	Flextronics Automotive GmbH & Co. KG
60.	Flextronics Automotive Inc.
61.	Flextronics Automotive Sales and Marketing, Ltd.
62.	Flextronics Automotive USA (Texas), LLC
63.	Flextronics Automotive USA Design and Development Corporation
64.	Flextronics Automotive USA Manufacturing Co.
65.	Flextronics Automotive USA, Inc.
66.	Flextronics Automotive Verwaltungs GmbH
67.	Flextronics Beerse N.V.
68.	Flextronics Bermuda Ltd.
69.	Flextronics Canada Design Services, Inc.
70.	Flextronics Cayman (SLR) Limited
71.	Flextronics Central Europe B.V.
72.	Flextronics Chateaudun S.N.C.
73.	Flextronics China (Mauritius) Electronics Technology Co., Ltd.
74.	Flextronics China Holding (Singapore) Pte. Ltd.
75.	Flextronics Computing (Suzhou) Co., Ltd
76.	Flextronics Computing Mauritius Limited
77.	Flextronics Computing Sales and Marketing (L) Ltd.
78.	Flextronics Corporation

	<b>Legal Entity Name</b>
79.	Flextronics Design Asia Pte. Ltd.
80.	Flextronics Design Consumer Electronics (India) Private Limited
81.	Flextronics Design Korea Ltd.
82.	Flextronics Design S.r.l.
83.	Flextronics Design, s.r.o.
84.	Flextronics Electronics (Mauritius) Limited
85.	Flextronics Electronics Technology (Shenzhen) Co., Ltd.
86.	Flextronics Electronics Technology (Suzhou) Co., Ltd.
87.	Flextronics Enclosure (Zhuhai) Co., Ltd
88.	Flextronics Enclosure Zhuhai (Mauritius) Co., Ltd.
89.	Flextronics Enclosure System (Changzhou) Ltd.
90.	Flextronics Enclosure Systems (Shenzhen) Ltd.
91.	Flextronics Enclosures (Hong Kong) Limited
92.	Flextronics Europe Holdings C.V.
93.	Flextronics Europe Holdings LLC
94.	Flextronics Europe Limited
95.	Flextronics Fabricação de Equipamentos do Brasil Ltda.
96.	Flextronics Foundation
97.	Flextronics Funding LLC
98.	Flextronics Global Enclosures (Shanghai) Co., Ltd.

	<b>Legal Entity Name</b>
99.	Flextronics Global Enclosures (Singapore) Pte. Ltd.
100.	Flextronics Global Enclosures Shanghai (Mauritius) Co., Ltd
101.	Flextronics Global Holdings II Ltd.
102.	Flextronics Global Holdings L.P.
103.	Flextronics Global Procurement Ltd.
104.	Flextronics Global Services (Manchester) Limited
105.	Flextronics Global Services (Singapore) Pte. Ltd.
106.	Flextronics Global Services Canada Inc. Services Globaux Flextronics Canada Inc.
107.	Flextronics Global Services Lojistik Hizmetleri Limited �irketi
108.	Flextronics Guadalajara Group, S. de R.L. de C.V.
109.	Flextronics Holding (Singapore) Pte. Ltd.
110.	Flextronics Holding do Brasil Ltda.
111.	Flextronics Holding Finland Oy
112.	Flextronics Holding France S.A.
113.	Flextronics Holding GmbH
114.	Flextronics Holding USA, Inc.
115.	Flextronics Holdings Mexico Dos, S.A. de C.V.
116.	Flextronics Holdings Mexico, S.A. de C.V.
117.	Flextronics Holdings Spain, S.L.U.
118.	Flextronics Ind. (Malaysia) Sdn. Bhd.

	<b>Legal Entity Name</b>
119.	Flextronics Industrial (Shenzhen) Co Ltd
120.	Flextronics Industrial (Suzhou) Co., Ltd.
121.	Flextronics Industrial (Zhuhai) Co., Ltd.
122.	Flextronics Industrial Ltd.
123.	Flextronics Industrial Shenzhen (Mauritius) Co Ltd.
124.	Flextronics Industrial Zhuhai (Mauritius) Co., Ltd.
125.	Flextronics Industries (H.K.) Limited
126.	Flextronics Industries Marketing (L) Ltd.
127.	Flextronics Industries Singapore Ltd.
128.	Flextronics Information Technology (Shen Zhen) Co., Ltd
129.	Flextronics Information Technology Shen Zhen (Mauritius) Co., Ltd.
130.	Flextronics Instituto de Tecnologia – FIT
131.	Flextronics Integrated Services Mex, S. de R.L. de C.V.
132.	Flextronics International (Singapore Group) Pte. Ltd.
133.	Flextronics International (Thailand) Ltd.
134.	Flextronics International AB
135.	Flextronics International Asia-Pacific Ltd
136.	Flextronics International Componentes Ltda.
137.	Flextronics International Cork B.V.
138.	Flextronics International Cork B.V. (Irish Branch)



	<b>Legal Entity Name</b>
139.	Flextronics International de Amazonia Ltda.
140.	Flextronics International Denmark A/S
141.	Flextronics International DK
142.	Flextronics International Europe B.V.
143.	Flextronics International Finland Oy
144.	Flextronics International France S.A.
145.	Flextronics International Germany GmbH & Co. KG
146.	Flextronics International Gesellschaft m.b.H.
147.	Flextronics International Holding LLC (CA)
148.	Flextronics International Holding LLC (DE)
149.	Flextronics International Holdings Pte. Ltd.
150.	Flextronics International Ireland Limited
151.	Flextronics International Itatiaia (Xerox)
152.	Flextronics International Japan Co., Ltd
153.	Flextronics International Kft.
154.	Flextronics International L'Aquila SpA
155.	Flextronics International Latin America (L) Ltd.
156.	Flextronics International Lojýstýk Hýzmetler Týcaret Lýmýted Þýrkety
157.	Flextronics International Ltd.
158.	Flextronics International Management Services Ltd.

	<b>Legal Entity Name</b>
159.	Flextronics International N.V.
160.	Flextronics International Norway AS
161.	Flextronics International Ostersund AB
162.	Flextronics International Poland Sp. z o.o.
163.	Flextronics International s.r.o.
164.	Flextronics International Sweden AB
165.	Flextronics International Taiwan Ltd.
166.	Flextronics International Technology LLC
167.	Flextronics International Tecnologia Ltda
168.	Flextronics International Termelő és Szolgáltató Vámzabadterületi Korlátolt Felelősségű Társaság
169.	Flextronics International UK Ltd.
170.	Flextronics Investment Holding (Singapore) Pte. Ltd.
171.	Flextronics Investment Holding GmbH
172.	Flextronics Italy S.p.A.
173.	Flextronics Laval S.N.C.
174.	Flextronics Lighting Solutions, Inc.
175.	Flextronics Link (HK) Ltd.
176.	Flextronics LLC
177.	Flextronics Logistics (Hong Kong) Limited
178.	Flextronics Logistics (Zhuhai) Co., Ltd.

	<b>Legal Entity Name</b>
179.	Flextronics Logistics B.V.
180.	Flextronics Logistics Poland sp. z o.o.
181.	Flextronics Logistics USA, Inc.
182.	Flextronics Logistics Zhuhai (Mauritius) Co., Limited
183.	Flextronics Manufacturing (H.K.) Limited
184.	Flextronics Manufacturing (Shanghai) Co., Ltd.
185.	Flextronics Manufacturing (Singapore) Pte. Ltd.
186.	Flextronics Manufacturing (Tianjin) Co., Ltd.
187.	Flextronics Manufacturing (Zhuhai) Co., Ltd.
188.	Flextronics Manufacturing Aguascalientes, S.A. de C.V.
189.	Flextronics Manufacturing Europe B.V.
190.	Flextronics Manufacturing Juarez, S. de R.L. de C.V.
191.	Flextronics Manufacturing Mex, S.A. de C.V.
192.	Flextronics Manufacturing Puebla, S. de R.L. de C.V.
193.	Flextronics Manufacturing S.r.l.
194.	Flextronics Manufacturing Shanghai (Mauritius) Co., Ltd.
195.	Flextronics Manufacturing Zhuhai (Mauritius) Co., Ltd.
196.	Flextronics Marketing (L) Ltd.
197.	Flextronics Mauritius Holdings Limited
198.	Flextronics Mauritius Limited

	<b>Legal Entity Name</b>
199.	Flextronics Mechanicals Marketing (L) Ltd.
200.	Flextronics Mechanicals Singapore Pte. Ltd.
201.	Flextronics Medical Sales and Marketing, Ltd
202.	Flextronics Mexico Holdings II LLC
203.	Flextronics New Zealand Limited
204.	Flextronics ODM Finland Oy
205.	Flextronics ODM Luxembourg S.A.
206.	Flextronics Ostersund AB
207.	Flextronics Photonics FICO, Inc.
208.	Flextronics Photonics PPT, Inc.
209.	Flextronics Plastic (Asia Pacific) Limited
210.	Flextronics Plastic Technology (ShenZhen) Ltd.
211.	Flextronics Plastic Technology ShenZhen (Mauritius) Ltd.
212.	Flextronics Plastics (M) Sdn. Bhd.
213.	Flextronics Plastics (Shenzhen) Co., Ltd
214.	Flextronics Plastics (Singapore) Pte. Ltd.
215.	Flextronics Plastics (Zhuhai) Co., Ltd
216.	Flextronics Plastics Gushu (Mauritius) Co., Ltd
217.	Flextronics Plastics Services, LLC
218.	Flextronics Plastics Zhuhai (Mauritius) Co., Ltd.

	<b>Legal Entity Name</b>
219.	Flextronics Plastics, S.A. de C.V.
220.	Flextronics Power Systems (Dongguan) Co., Ltd.
221.	Flextronics Precision Metal (Hong Kong) Limited
222.	Flextronics Precision Plastics, Inc.
223.	Flextronics Puerto Rico Limited
224.	Flextronics R&D (Shenzhen) Co., Ltd
225.	Flextronics R&D Shenzhen (Mauritius) Co., Ltd
226.	Flextronics Romania S.R.L.
227.	Flextronics S.R.L.
228.	Flextronics Sales & Marketing (A-P) Ltd.
229.	Flextronics Sales & Marketing North Asia (L) Ltd.
230.	Flextronics Sales and Marketing Consumer Digital Ltd.
231.	Flextronics San Jose IPO
232.	Flextronics Sárvár Logistics Korlátolt Felelősségű Társaság
233.	Flextronics Scotland Limited
234.	Flextronics Shah Alam Sdn. Bhd.
235.	Flextronics Shanghai (Mauritius) Co., Ltd.
236.	Flextronics Shanghai Electronic Equipment Repair Service (Mauritius) Co., Ltd.
237.	Flextronics SMI (China) Ltd
238.	Flextronics St-Etienne S.N.C.

	<b>Legal Entity Name</b>
239.	Flextronics Systems (Penang) Sdn. Bhd.
240.	Flextronics Systems Texas Ltd.
241.	Flextronics Technologies (India) Private Limited
242.	Flextronics Technologies Luxembourg LLC
243.	Flextronics Technologies Luxembourg S.a r.l.
244.	Flextronics Technologies Mauritius Ltd.
245.	Flextronics Technologies Mexico, S. de R.L. de C.V.
246.	Flextronics Technologies San Luis, S.A. de C.V.
247.	Flextronics Technology (Malaysia) Sdn. Bhd.
248.	Flextronics Technology (Nanjing) Co., Ltd
249.	Flextronics Technology (Penang) Sdn. Bhd.
250.	Flextronics Technology (Shah Alam) Sdn. Bhd.
251.	Flextronics Technology (Shanghai) Co., Ltd.
252.	Flextronics Technology (ShenZhen) Co., Ltd
253.	Flextronics Technology (Singapore) Pte. Ltd.
254.	Flextronics Technology (Suzhou) Co., Ltd.
255.	Flextronics Technology (Switzerland) GmbH
256.	Flextronics Technology (Zhuhai) Co. Ltd.
257.	Flextronics Technology Nanjing (Mauritius) Co., Ltd
258.	Flextronics Technology Shanghai (Mauritius) Co., Ltd.

	<b>Legal Entity Name</b>
259.	Flextronics Technology ShenZhen (Mauritius) Co., Ltd
260.	Flextronics Technology Wujiang (Mauritius) Ltd
261.	Flextronics Technology Zhuhai (Mauritius) Co., Ltd
262.	Flextronics Tecnologia Do Brasil Ltd.
263.	Flextronics Telecom Systems Ltd
264.	Flextronics UK Limited
265.	Flextronics Vagyonkezelő és Befektetési Korlátolt Felelősségű Társaság
266.	Flextronics Verwaltungs GmbH
267.	FlextronicsTullamore
268.	Glouple Ventures 2000-II, LLC
269.	IDE8 Cayman
270.	IDE8 Mauritius Limited
271.	IDE8 Technology (Shanghai) Co., Ltd
272.	I E C Holdings Limited
273.	Instrumentation Engineering, Inc.
274.	International Manufacturing Synergies, Ltd.
275.	Irish Express Cargo Limited
276.	Irumold Group, S.L.U.
277.	Irumold Servicios, S.L.U.
278.	Irumold, S.L.U.

	<b>Legal Entity Name</b>
279.	Kiinteisto Oy Flex Finland
280.	Kunshan AGM Automotive Components Co., Ltd.
281.	Kunshan AGM Trading Company Ltd.
282.	Lab IX
283.	Lighting Acquisition LLC
284.	Masa da Amazônia Ltda.
285.	MCi (Mirror Controls International) Asia B.V.
286.	MCi (Mirror Controls International) B.V.
287.	MCi (Mirror Controls International) Holdings B.V.
288.	MCi (Mirror Controls International) Inc.
289.	MCi (Mirror Controls International) Ireland Limited
290.	MCi (Mirror Controls International) Ireland Operations Limited
291.	MCi (Mirror Controls International) Netherlands B.V.
292.	MCi (Mirror Controls International) S. de R.L. de C.V.
293.	MCi (Mirror Controls International) Yuhan Hoesa
294.	MCi Hoogeveen B.V.
295.	MCi Ireland Pension Plan Trustee Limited
296.	MCi Mirror Controls (Suzhou) Co., Ltd.
297.	MICOH B.V.
298.	Multek (FTZ) Limited



	<b>Legal Entity Name</b>
299.	Multek Brasil Ltda.
300.	Multek China Limited
301.	Multek Display (Hong Kong) Limited
302.	Multek Display Cayman Ltd.
303.	Multek Electronics Limited
304.	Multek Flexible Circuits, Inc.
305.	Multek Hong Kong Limited
306.	Multek Industries Limited
307.	Multek Technologies Limited
308.	Multek Technology (Zhuhai) Co Limited
309.	Multek Zhuhai Limited
310.	Multilayer Technology Geschäftsführungs GmbH
311.	Multilayer Technology GmbH & Co. KG
312.	Nanjing Flextronics Panda Mobile Terminals Co., Ltd
313.	NEXTracker Australia Pty. Ltd.
314.	NEXTracker Chile SpA
315.	NEXTracker, Inc.
316.	NEXTRACKER Mexico, S. de R.L. de C.V.
317.	Pacific Device, Inc.
318.	Parque de Tecnologia Electronica, S.A. de C.V.

	<b>Legal Entity Name</b>
319.	Power Systems R&D (Singapore) Pte. Ltd.
320.	Power Systems R&D Philippines, Inc.
321.	Power Systems Technologies (Beijing) Company Limited
322.	Power Systems Technologies (Ganzhou) Co., Ltd.
323.	Power Systems Technologies (Shenzhen) Company Limited
324.	Power Systems Technologies Far East Limited
325.	Power Systems Technologies GmbH
326.	Power Systems Technologies Ltd.
327.	Private Joint Stock Company “Flextronics Service UA”
328.	PT. Flextronics Technology Indonesia
329.	Saturn Electronics de Monterrey, S.A. de C.V.
330.	Shiant Resource Service Co., Ltd
331.	SLR Europe B.V.
332.	SLR GmbH
333.	Solectron (Shanghai) Technology Co., Ltd.
334.	Solectron Australia Pty Limited
335.	Solectron France SAS
336.	Solectron Holding Deutschland GmbH
337.	Solectron Phillipines Inc.
338.	Solectron Sweden AB

	<b>Legal Entity Name</b>
339.	Solectron Turkey
340.	Solectron USA, LLC
341.	Sønderborg Værktøjsfabrik A/S
342.	Stellar Microelectronics, Inc.
343.	Suzhou AGM Durmont Automotive Components Co., Ltd.
344.	Swedform Enclosure Systems AB
345.	The DII Group (BVI) Co. Limited
346.	The DII Group Asia Limited
347.	ThermoMend B.V.
348.	ThermoMend International Ltd.
349.	Vastbright PCB (Holding) Limited
350.	Vista Point Electronic Technologies (Zhuhai) Co., Ltd.
351.	Vim Technologies Ltd
352.	Wink Labs, Inc.
353.	Z124