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UNITED STATES DISTRICT COURT

NORTHERN DISTRICT OF CALIFORNIA

Microsystems Development Technologies,
 Inc. on behalf of itself and all others similarly
 situated,

Plaintiffs,

vs.

Panasonic Corporation,
 Panasonic Corporation of North America,
 Panasonic Industrial Devices Sales Company
 of America,
 KOA Corporation,
 KOA Speer Electronics, Inc.,
 Murata Manufacturing Co., Ltd.,
 Murata Electronics North America, Inc.
 ROHM Co. Ltd.,
 ROHM Semiconductor U.S.A., LLC,
 Vishay Intertechnology, Inc.,
 Yageo Corporation, and
 Yageo America Corporation

Defendants

Case No.:

CLASS ACTION COMPLAINT

JURY DEMAND

CLASS ACTION COMPLAINT

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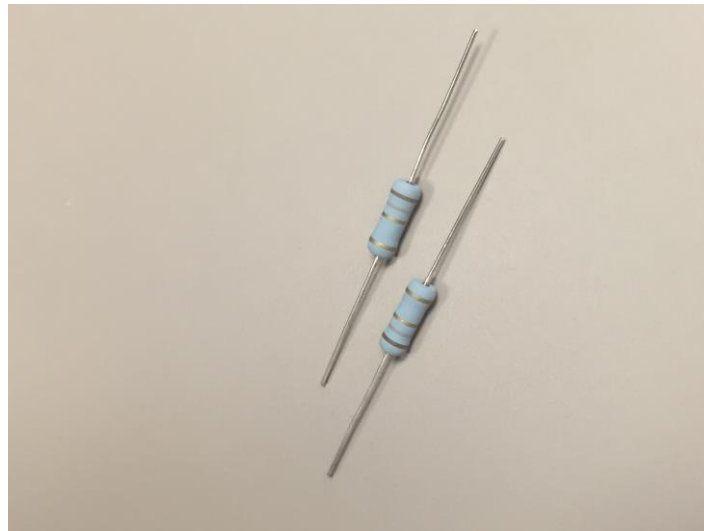
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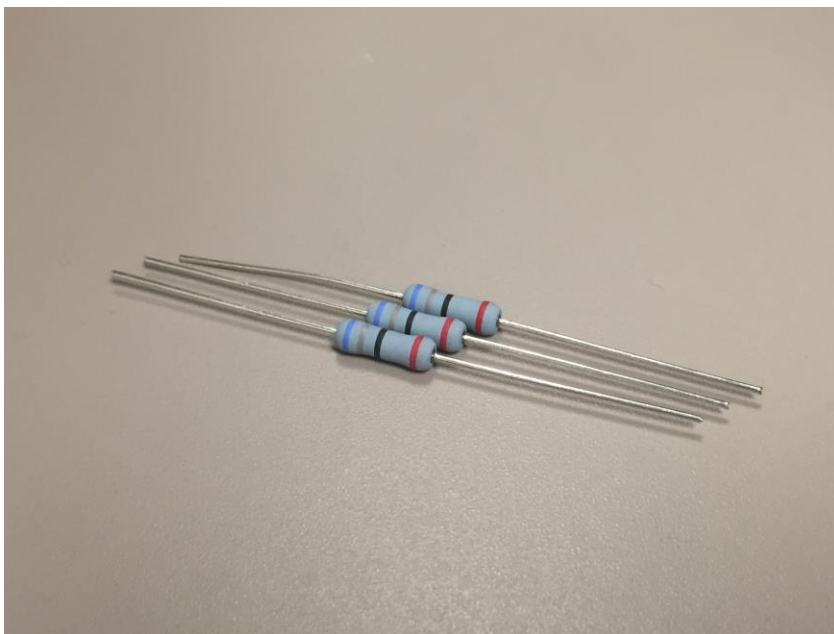
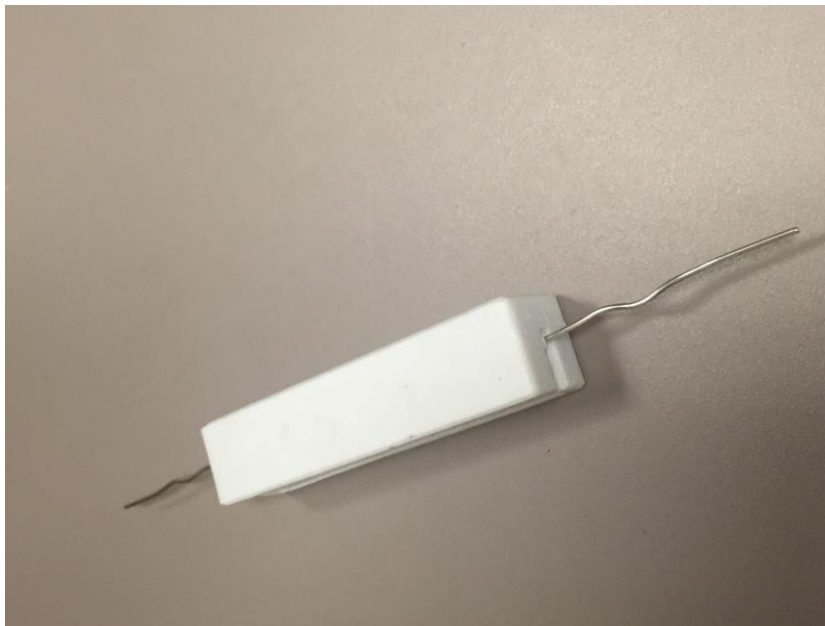
1 Miscrosystems Development Technologies, Inc. (“MDT” or “Plaintiff”) brings this
2 action on behalf of itself and all others similarly situated (the “Indirect Purchaser Classes”
3 defined below, *infra* at §§ 125-127, collectively “Plaintiffs”). Plaintiffs’ allegations in this
4 Complaint are based upon personal knowledge as to the facts pertaining to MDT, and upon
5 information and belief as to all other matters. These allegations are also based on the
6 investigation of counsel. Plaintiffs seek damages, injunctive relief, and all other relief
7 available under the federal antitrust laws and the antitrust, unfair competition and consumer
8 protection laws of California.

9 Plaintiffs demand a trial by jury, and allege as follows:

10 **I. NATURE OF ACTION**

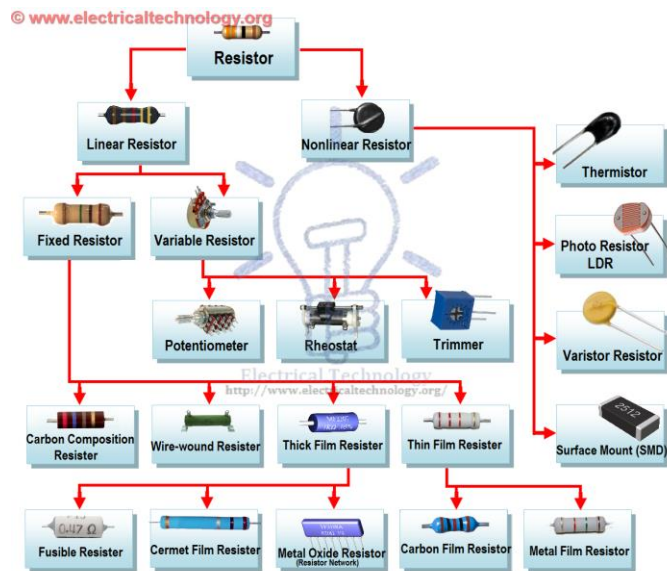
11 1. Resistors are one of the most common electronic components in the world
12 today. They are designed to provide a specific amount of resistance to an electronic circuit.
13 They are “passive” components in the sense that they regulate, as opposed to generate,
14 electrical currents. Since many electronic components have capacity for more electrical
15 current than is necessary, and additional electrical current may be harmful, resistors serve a
16 regulatory function by assuring that appropriate levels of voltage go to specific parts of an
17 electronic circuit. Almost all electronic products—from cellphones to personal computers—
18 contain resistors, often hundreds of them. *See images below.*





2. Resistors are widely used in a range of industries, including the telecommunications, audiovisual, automotive, and server computing markets. The overall resistor market can be separated into two categories: **linear resistors** and **non-linear resistors**, the former of which are the subject of this Complaint. In basic terms, a linear resistor is a resistor “in which current produced is directly proportional to the applied voltage.” See

<http://jabelufiroz.hubpages.com/hub/Linear-and-Non-Linear-Resistors> (last visited on August 18, 2015). A non-linear resistor is a resistor “whose current does not change linearly with changes in applied voltage.” *Id.* In contrast to non-linear resistors, which are used in specialized products, linear resistors are highly standardized. These two categories can be further broken down by the technology and materials used in the manufacturing process as illustrated in the diagrams below.¹

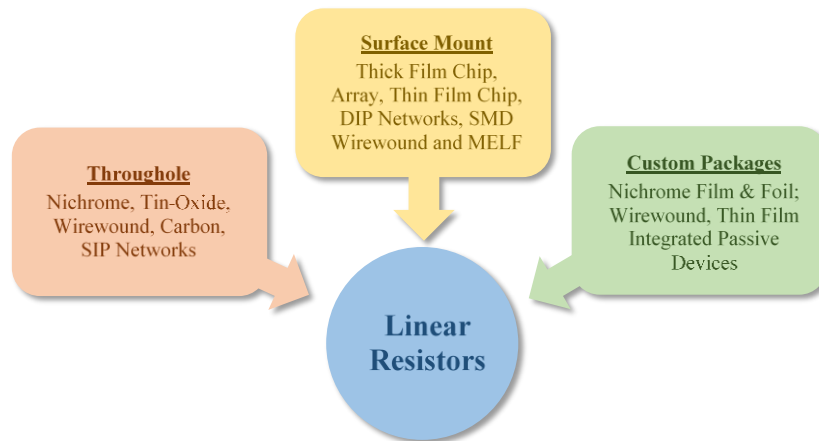


Source: <http://www.electricaltechnology.org/2015/01/resistor-types-resistors-fixed-variable-linear-non-linear.html> (last visited August 10, 2015)

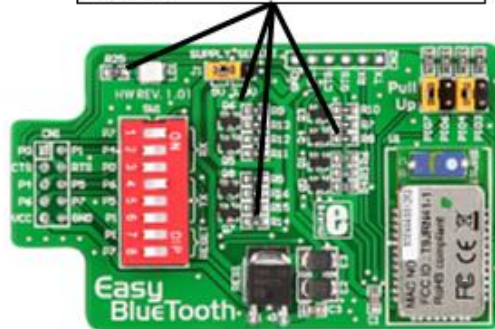
3. Linear resistors represent the largest category of resistors. The thick film chip resistor is considered to be the workhorse of the resistor industry. These so-called chip resistors are used in cellular phones, computer motherboards, disc drives, monitors, automotive electronic assemblies, television sets, stereo amplifiers, and many other components. Given

¹ Many manufacturers compete in both the capacitor and resistor markets (e.g. Panasonic, Vishay, and Yageo). See Dennis M. Zogbi, *Resistors: World Markets, Technologies & Opportunities: 2014-2019* (Paumanok Publications, September 2014).

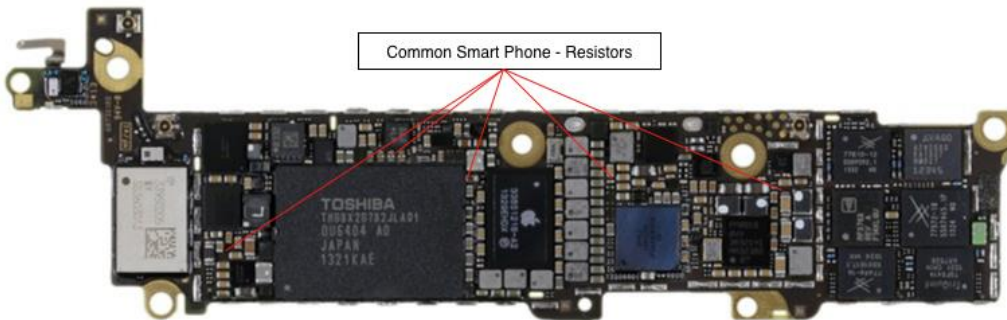
the high level of standardization of chip resistors, prices naturally fall over time. As a result, manufacturing has migrated from the western countries to Asia.



Bluetooth Technology Circuit Boards are found in most wireless devices today. Resistors are easily identified by the letter "R".



Common Smart Phone - Resistors





4. Plaintiffs purchased resistors as stand-alone products from distributors that had previously purchased them from Defendants. When purchased as stand-alone products, resistors are directly traceable to the specific manufacturer, because they either bear the Defendants' markings (*e.g.*, name, logo, series) or they marked with a chemical that permits a "chemical trace" back to the manufacturer.

5. Defendants—the worlds' largest manufacturers of linear resistors— along with other co-conspirators (as yet unknown) agreed, combined, and conspired to inflate, fix, raise, maintain or artificially stabilize prices of linear resistors sold in the United States.² Defendants' conspiracy successfully targeted various individuals and entities that purchased linear resistors from distributors, and those purchasers—*i.e.* the Plaintiffs—paid artificially inflated prices for linear resistors as a result.

6. Defendants' conduct violated, and continues to violate, Section One of the Sherman Act and the antitrust, consumer protection, and unfair competition laws of the State of California. Plaintiffs and the Classes paid artificially inflated prices for resistors, and have

² "Defendants," refers collectively to the following entities: Panasonic Corporation, Panasonic Corporation of North America, Panasonic Industrial Devices Sales Company of America, KOA Corporation, KOA Speer Electronics, Inc., Murata Manufacturing Co., Ltd., Murata Electronics North America, Inc., ROHM Co. Ltd., ROHM Semiconductor U.S.A., LLC, Vishay Intertechnology, Inc., Yageo Corporation, and Yageo America Corporation.

1 thereby suffered antitrust injury to their business or property as a direct result of the
2 anticompetitive and unlawful conduct alleged herein.

3 **II. GOVERNMENT INVESTIGATIONS INTO THE RESISTORS INDUSTRY**

4 **A. U.S. Investigations**

5 7. It has been widely reported that the Department of Justice (DOJ) initiated an
6 investigation of price fixing in the resistors industry in June of 2015.

7 8. It has also been reported that the DOJ's investigation in the resistors industry is
8 an "offshoot" of its price-fixing investigation into the capacitors industry. According to
9 reports, there is significant overlap in companies under investigation, though there are some
10 companies in the resistors case that do not appear in the capacitors case. It has been reported
11 that these two cases are part of a probe into the larger market for passive electronic
12 components, and that it is widely expected that the DOJ's inquiry will continue to expand.

13 9. So far, eight companies, including Panasonic Corporation ("Panasonic"), have
14 acknowledged being contacted by US or other antitrust authorities in connection with the
15 capacitors probe. Panasonic—one of the world's leading manufacturers of *both* resistors and
16 capacitors—cooperated with the DOJ in the capacitors investigation, and is also believed to be
17 cooperating with the DOJ in its investigation into price-fixing in the resistors market.

18 **B. Foreign Investigations**

19 10. In addition to the DOJ investigation, there have also been investigations by
20 foreign antitrust authorities. For example, it is reported that the Korean Fair Trade
21 Commission ("KFTC") recently conducted an on-site investigation of suspected price fixing in
22 the market for resistors. It is also reported that the Japanese Fair Trade Commission ("JFTC")
23 conducted raids at some of the Defendants' offices.

1 **III. THE DEFENDANTS CONCEALED THEIR UNLAWFUL CONDUCT**

2 **A. The Statute of Limitations Did Not Begin to Run Because Plaintiffs Did Not**
3 **and Could Not Discover Their Claims.**

4 11. Plaintiffs and Members of the Classes had no knowledge of the combination or
5 conspiracy alleged herein, or of facts sufficient to place them on inquiry notice of the claims
6 set forth herein, until (at the earliest) June 2015, when reports of the investigations into
7 anticompetitive conduct concerning resistors were first publicly disseminated.

8 12. Plaintiffs and Members of the Classes are purchasers who purchased resistors
9 manufactured by a Defendant from a distributor. They had no direct contact or interaction with
10 any of the Defendants in this case and had no means from which they could have discovered
11 the combination and conspiracy described in this Complaint before June 2015, when reports of
12 the investigations into anticompetitive conduct concerning resistors were first publicly
13 disseminated.

14 13. No information in the public domain was available to Plaintiffs and the
15 Members of the Classes prior to the public announcements of the government investigations
16 beginning in June 2015 that revealed sufficient information to suggest that any one of the
17 Defendants was involved in a criminal conspiracy to fix prices for resistors.

18 14. Publicly, some Defendants repeatedly and expressly stated throughout the Class
19 Period, including on their public Internet websites, that they maintained antitrust/fair
20 competition policies which prohibited the type of collusion seen in this litigation. See
21 Appendix A.

22 15. It was reasonable for members of the Classes who may have been exposed to
23 these public policies to believe that the Defendants were enforcing the policies.

24 16. For these reasons, the statute of limitations as to Plaintiffs and the Classes'
25 claims did not begin to run, and has been tolled with respect to the claims that Plaintiffs and
26 Members of the Classes have alleged in this Complaint.
27

B. Defendants' Fraudulent Concealment Tolloed the Statute of Limitations.

17. In the alternative, application of the doctrine of fraudulent concealment tolled the statute of limitations on the claims asserted herein by Plaintiffs and the Classes. Plaintiffs and the members of the Classes had no knowledge of the combination or conspiracy alleged in this Complaint, or of facts sufficient to place them on inquiry notice of their claims, until news sources first reported in June 2015 that the DOJ was conducting a probe into anticompetitive conduct among resistors manufacturers. Prior to that date, no information in the public domain or available to the Plaintiffs and the Classes suggested that any Defendant was involved in a criminal conspiracy to fix prices for resistors.

18. Plaintiffs exercised reasonable diligence. Plaintiffs and the Classes could not have discovered the alleged conspiracy at an earlier date by the exercise of reasonable diligence because of the deceptive practices and techniques of secrecy employed by Defendants and their co-conspirators to conceal their combination.

19. Before that time, Plaintiffs and Members of the Classes were unaware of Defendants' unlawful conduct, and did not know that they were paying supracompetitive prices for resistors throughout the United States during the Class Period. No information, actual or constructive, was ever made available to Plaintiffs that even hinted to Plaintiffs that they were being injured by Defendants' unlawful conduct.

20. The affirmative acts of Defendants alleged herein, including acts in furtherance of the conspiracy, were wrongfully concealed and carried out in a manner that precluded detection.

21. Defendants used mechanisms designed to conceal their collusion, such as covert meetings, use of code words or terms to refer to competitors and/or customers, use of pretexts to mask the true purpose of collusive communications, use of non-company phones, and instructions to destroy emails evidencing collusive activities.

22. By its very nature, Defendants' anticompetitive conspiracy was inherently self-concealing. Resistors are not exempt from antitrust regulation, and thus, before June 2015,

1 Plaintiffs reasonably considered it to be a competitive industry. Accordingly, a reasonable
2 person under the circumstances would not have been alerted to begin to investigate the
3 legitimacy of Defendants' resistors prices before June 2015.

4 23. Plaintiffs and Members of the Classes could not have discovered the alleged
5 contract, conspiracy or combination at an earlier date by the exercise of reasonable diligence
6 because of the deceptive practices and techniques of secrecy employed by Defendants and their
7 co-conspirators to avoid detection of, and fraudulently conceal, their contract, combination, or
8 conspiracy.

9 24. Because the alleged conspiracy was both self-concealing and affirmatively
10 concealed by Defendants and their co-conspirators, Plaintiffs and Members of the Classes had
11 no knowledge of the alleged conspiracy, or of any facts or information that would have caused
12 a reasonably diligent person to investigate whether a conspiracy existed, until June 2015, when
13 reports of the investigations into anticompetitive conduct concerning resistors were first
14 publicly disseminated.

15 25. For these reasons, the statute of limitations applicable to the claims of Plaintiffs'
16 and Members of the Classes was tolled and did not begin to run until, at the earliest, June 2015.

17 **IV. JURISDICTION AND VENUE**

18 26. Plaintiffs bring this action under Section 16 of the Clayton Act (15 U.S.C. § 26)
19 to secure equitable and injunctive relief against Defendants for violating the Sherman Act (15
20 U.S.C. § 1). Plaintiffs also assert claims for actual and exemplary damages and injunctive
21 relief pursuant to California's antitrust, unfair competition, and consumer protection laws, and
22 seek to obtain restitution, recover damages, and secure all other available relief against
23 Defendants for violation of those state laws. Plaintiffs and the Classes also seek attorneys'
24 fees, costs, and other expenses under these laws.

25 27. This Court has subject matter jurisdiction pursuant to Section 16 of the Clayton
26 Act (15 U.S.C. § 26), Section 1 of the Sherman Act (15 U.S.C. § 1), and 28 U.S.C. §§ 1331
27 and 1137. This Court also has subject matter jurisdiction of the state law claims pursuant to 28

1 U.S.C. § 1332(d) and 1367, in that: (i) this is a class action in which the matter or controversy
2 exceeds the sum of \$5,000,000, exclusive of interest and costs, and in which some members of
3 the proposed Classes are citizens of a state different from some Defendants; and (ii) Plaintiffs'
4 state law claims form part of the same case or controversy as their federal claims under Article
5 III of the United States Constitution.

6 28. Venue is proper in this District pursuant to Section 12 of the Clayton Act (15
7 U.S.C. § 22), and 28 U.S.C. §§ 1391(b)-(d) because a substantial part of the events giving rise
8 to Plaintiffs' claims occurred in this District, a substantial portion of the affected interstate
9 trade and commerce discussed below has been carried out in this District, and one or more of
10 the Defendants reside, are licensed to do business in, are doing business in, had agents in, or
11 are found or transact business in this District.

12 29. This Court has *in personam* jurisdiction over each of the Defendants because
13 each Defendant, either directly or through the ownership and/or control of its United States
14 subsidiaries, *inter alia*: (a) transacted business in the United States, including in this District;
15 (b) directly or indirectly sold or marketed substantial quantities of resistors throughout the
16 United States, including in this District; (c) had substantial aggregate contacts with the United
17 States as a whole, including in this District; or (d) were engaged in an illegal price-fixing
18 conspiracy that was directed at, and had a direct, substantial, reasonably foreseeable and
19 intended effect of causing injury to, the business or property of persons and entities residing in,
20 located in, or doing business throughout the United States, including in this District.
21 Defendants also conduct business throughout the United States, including in this District, and
22 they have purposefully availed themselves of the laws of the United States.

23 30. Defendants engaged in conduct both inside and outside of the United States that
24 caused direct, substantial, and reasonably foreseeable and intended anticompetitive effects
25 upon interstate commerce within the United States.
26
27

31. The activities of Defendants and their co-conspirators were within the flow of, were intended to, and did have, a substantial effect on interstate commerce in the United States. Defendants' products are sold in the flow of interstate commerce.

32. Resistors manufactured abroad by Defendants and sold as stand-alone products that were either manufactured in the United States or manufactured abroad and sold in the United States, are goods brought into the United States for sale and therefore constitute import commerce. To the extent any resistors are purchased in the United States, and such resistors do not constitute import commerce, Defendants' unlawful conduct with respect thereto, as more fully alleged herein during the respective Class Periods, had and continues to have a direct, substantial, and reasonably foreseeable effect on United States commerce. The anticompetitive conduct, and its effect on United States commerce described herein, caused antitrust injury to Plaintiffs and members of the Classes in the United States.

33. By reason of the unlawful activities hereinafter alleged, Defendants substantially affected commerce throughout the United States, causing injury to Plaintiffs and members of the Classes. Defendants, directly and through their agents, engaged in activities affecting all states, to fix, raise, maintain and/or stabilize prices, and allocate market shares for resistors, which conspiracies unreasonably restrained trade and adversely affected the market for such resistors.

34. Defendants' anticompetitive conduct adversely affected individuals and entities in the United States, including Plaintiffs and members of the Classes, who indirectly purchased resistors as stand-alone products.

V. INTRADISTRICT ASSIGNMENT

35. Intradistrict assignment to the San Jose Division is appropriate. Plaintiff Microsystems Development Technologies, Inc. has its principal place of business in San Jose. In addition, Defendants ROHM Semiconductor U.S.A., LLC and Yageo America Corporation have offices in San Jose. Moreover, the conduct at issue adversely the technology industry, the heart of

which is in Silicon Valley in and around San Jose. For these reasons, assignment to the San Jose Division is appropriate.

VI. PARTIES

A. Indirect Purchaser Plaintiff

36. **Microsystems Development Technologies, Inc.** purchased a resistor(s) as a stand-alone product(s) made by one or more Defendants from a distributor during the Class Period. Microsystems Development Technology, Inc. is a California Corporation with its principal place of business in San Jose, California. Microsystems Development Technology, Inc. has been injured and is threatened with further injury as a result of the violations alleged in this Complaint.

B. Defendants

37. Defendant **Panasonic Corporation** (“Panasonic”) is a Japanese corporation with its principal place of business located at 1006 Oaza Kadoma, Kadoma-shi, Osaka 571-8501, Japan. Panasonic is one of the world’s leading manufacturers of resistors. Panasonic—directly and/or through its subsidiaries, which it wholly owned and/or controlled—manufactured, marketed, and/or sold resistors that were purchased throughout the United States, including in this District, during the Class Period.

38. Defendant **Panasonic Corporation of North America** (“PNA”), a wholly owned subsidiary of Panasonic, is a Delaware corporation with its principal place of business located at Two Riverfront Plaza, Newark, New Jersey 07102. PNA is one of the world’s leading manufacturers of resistors. PNA—directly and/or through its subsidiaries, which it wholly owned and/or controlled—manufactured, marketed, and/or sold resistors that were purchased throughout the United States, including in this District, during the Class Period.

39. Defendant **Panasonic Industrial Devices Sales Company of America** (“PIDS”), a wholly owned subsidiary of Panasonic, a Delaware corporation with its principal place of business located at Two Riverfront Plaza, Newark, New Jersey 07102. (Panasonic, PNA and PIDS are collectively referred to as the “Panasonic Defendants”.) PIDS is one of the

world's leading manufacturers of resistors. PIDS—directly and/or through its subsidiaries, which it wholly owned and/or controlled—manufactured, marketed, and/or sold resistors that were purchased throughout the United States, including in this District, during the Class Period. MDT purchased resistors made by the Panasonic Defendants, or one of their subsidiaries, as a stand-alone product from a distributor during the Class Period.

40. Defendant **KOA Corporation** (“KOA”) is a Japanese corporation with its principal place of business located at 2-17-2 Midori-Cho, Fuchu-Shi, Tokyo 183-0006, Japan. KOA is one of the world's leading manufacturers of resistors. KOA—directly and/or through its subsidiaries, which it wholly owned and/or controlled—manufactured, marketed, and/or sold resistors that were purchased throughout the United States, including in this District, during the Class Period.

41. Defendant **KOA Speer Electronics, Inc.** (“KOA Speer”) is a Delaware corporation with its principal place of business located at 199 Bolivar Drive, Bradford, Pennsylvania 16701. KOA Speer is one of the world's leading manufacturers of resistors and is a wholly owned subsidiary of KOA (Collectively, the “KOA Defendants”). KOA Speer—directly and/or through its subsidiaries, which it wholly owned and/or controlled—manufactured, marketed, and/or sold resistors that were purchased throughout the United States, including in this District, during the Class Period. MDT purchased linear resistors made by the KOA Defendants, or one of their subsidiaries, as a stand-alone product from a distributor during the Class Period.

42. Defendant **Murata Manufacturing Co., Ltd.** (“Murata”) is a Japanese corporation with its principal place of business located at 10-1, Higashikotari 1-chome, Nagaokakyo-shi, Kyoto 617-8555, Japan. Murata is one of the world's leading manufacturers of resistors. Murata—directly and/or through its subsidiaries, which it wholly owned and/or controlled—manufactured, marketed, and/or sold resistors that were purchased throughout the United States, including in this District, during the Class Period. MDT purchased linear

1 resistors made by Murata, or one of its subsidiaries, as a stand-alone product from a distributor
2 during the Class Period.

3 43. Defendant **Murata Electronics North America, Inc.** (“MNA”) is a wholly
4 owned subsidiary of Murata Manufacturing Co., Ltd. (collectively “Murata Defendants”), a
5 Texas corporation with its principal place of business located at 2200 Lake Park Drive SE,
6 Smyrna, Georgia 30080-7604. MNA is one of the world’s leading manufacturers of resistors.
7 MNA—directly and/or through its subsidiaries, which it wholly owned and/or controlled—
8 manufactured, marketed, and/or sold resistors that were purchased throughout the United
9 States, including in this District, during the Class Period.

10 44. Defendant **ROHM Co., Ltd.** (“ROHM”) is a Japanese corporation with its
11 principal place of business located at 21 Saiin Mizosaki-cho, Ukyo-Ku, Kyoto 615-8585,
12 Japan. ROHM is one of the world’s leading manufacturers of resistors. ROHM—directly
13 and/or through its subsidiaries, which it wholly owned and/or controlled—manufactured,
14 marketed, and/or sold resistors that were purchased throughout the United States, including in
15 this District, during the Class Period.

16 45. Defendant **ROHM Semiconductor U.S.A., LLC** (“ROHM USA”) is a
17 Delaware limited liability corporation with its principal place of business located at 2323 Owen
18 Street, Suite 150, Santa Clara, California 95054. ROHM USA is one of the world’s leading
19 manufacturers of resistors, and is a wholly owned subsidiary of ROHM (collectively, the
20 “ROHM Defendants”). ROHM USA—directly and/or through its subsidiaries, which it wholly
21 owned and/or controlled—manufactured, marketed, and/or sold resistors that were purchased
22 throughout the United States, including in this District, during the Class Period. MDT
23 purchased linear resistors made by the ROHM Defendants, or one of their subsidiaries, as a
24 stand-alone product from a distributor during the Class Period.

25 46. Defendant **Vishay Intertechnology, Inc.** (“Vishay”) is a Delaware corporation
26 with its principal place of business located at 63 Lancaster Avenue, Malvern, Pennsylvania
27 19355. Vishay is one of the world’s leading manufacturers of resistors. Vishay—directly

1 and/or through its subsidiaries, which it wholly owned and/or controlled—manufactured,
2 marketed, and/or sold resistors that were purchased throughout the United States, including in
3 this District, during the Class Period. MDT purchased linear resistors made by Vishay, or one
4 of its subsidiaries, as a stand-alone product from a distributor during the Class Period.

5 47. Defendant **Yageo Corporation** (“Yageo”) is a Taiwanese corporation with its
6 principal place of business located at 3F, 233-1, Baoqiao Rd. Xindian Dist., New Taipei City
7 23145, Taiwan. Yageo is one of the world’s leading manufacturers of resistors. Yageo—
8 directly and/or through its subsidiaries, which it wholly owned and/or controlled—
9 manufactured, marketed, and/or sold resistors that were purchased throughout the United
10 States, including in this District, during the Class Period.

11 48. Defendant **Yageo America Corporation** is a Delaware corporation with its
12 principal place of business located at 2550 North First St., Suite 480, San Jose, CA 95131.
13 Yageo America Corporation is one of the world’s leading manufacturers of resistors, and is a
14 wholly owned subsidiary of Yageo (collectively, the “Yageo Defendants”). Yageo America
15 Corporation—directly and/or through its subsidiaries, which it wholly owned and/or
16 controlled—manufactured, marketed, and/or sold resistors that were purchased throughout the
17 United States, including in this District, during the Class Period. MDT purchased linear
18 resistors made by the Yageo Defendants, or one of their subsidiaries, as a stand-alone product
19 from a distributor during the Class Period.

20 **VII. AGENTS AND CO-CONSPIRATORS**

21 49. Each Defendant acted as the principal of or agent for the other Defendants with
22 respect to the acts, violations, and common course of conduct alleged herein.

23 50. Various persons, partnerships, sole proprietors, firms, corporations, and
24 individuals not named as Defendants in this lawsuit, the identities of which are presently
25 unknown, have participated as co-conspirators with the Defendants in the offenses alleged in
26 this Complaint, and have performed acts and made statements in furtherance of the conspiracy,
27

or in furtherance of the anticompetitive conduct. Plaintiffs reserve the right to name some or all of these persons and entities as Defendants at a later date.

51. Whenever in this Complaint reference is made to any act, deed, or transaction of any corporation or limited liability entity, the allegation means that the corporation or limited liability entity engaged in the act, deed or transaction by or through its officers, directors, agents, employees, or representatives while they were actively engaged in the management, direction, control, or transaction of the corporation's or limited liability entity's business or affairs.

VIII. FACTUAL ALLEGATIONS

A. The Characteristics of the Resistors Market Render Collusion Plausible Based on Activities.

52. The characteristics of the resistors industry in the United States are conducive to price-fixing and have rendered collusion plausible. Industry characteristics are critically important to determining the likelihood of collusion in that industry. Collusion is more plausible in industries where: (1) high barriers to entry exist; (2) demand is inelastic; (3) the market is highly concentrated; (4) the products are homogenous; (5) there are ample opportunities to conspire; (6) purchasers lack buying power; and (7) there is a history of collusive behavior.

1. The Resistors Industry Has High Barriers to Entry.

53. The resistors industry has high barriers to entry that facilitate the formation and maintenance of a cartel. Collusion between manufacturers that effectively increases product prices above competitive levels would attract new entrants seeking to benefit from supra-competitive pricing. New entrants are less likely, however, where there are significant barriers to entry.

54. There are substantial barriers that preclude, reduce, or make more difficult entry into the resistors market. Industry analysts state that “[o]nly through massive economics of scale is it possible to achieve profitability in the thick film chip resistor markets....”

55. A potential new entrant faces costly and lengthy start-up costs, including multi-million dollar costs associated with research and development, manufacturing plants and equipment, energy, distribution infrastructure, skilled labor, and long-standing customer relationships with existing manufacturers.

56. Resistors are expensive to manufacture. The cost to create the appropriate manufacturing facilities for resistor manufacturing are also very high and prohibitive to new entrants breaking into the market. For instance, in 2011, KOA Corporation planned to invest 2.3 billion JPY into the construction of a new resistors facility, a figure that does not even account for expenses associated with land acquisition and production.

2. The Demand for Resistors Is Inelastic.

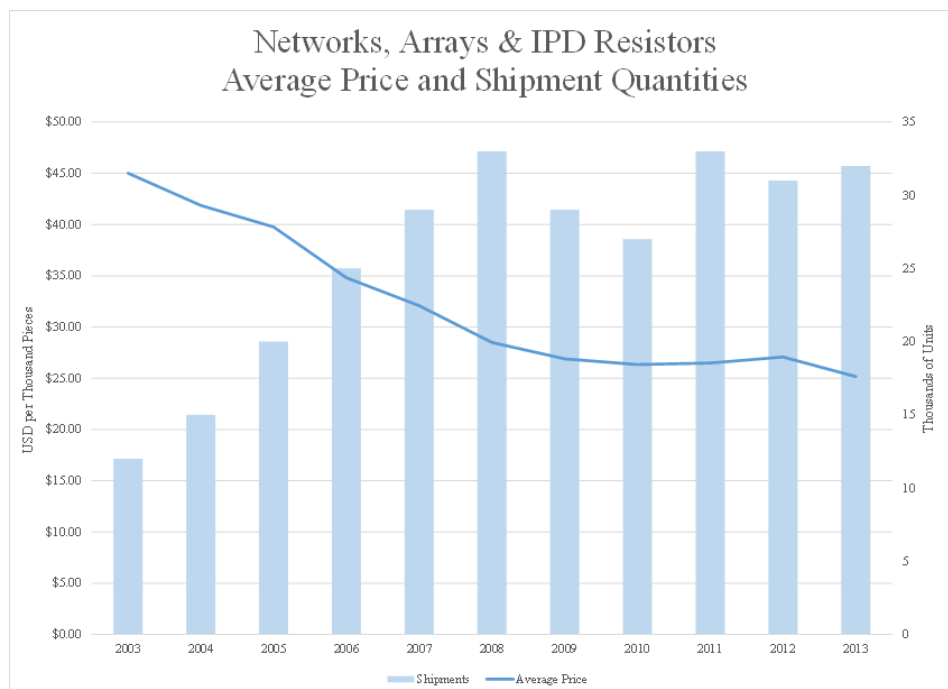
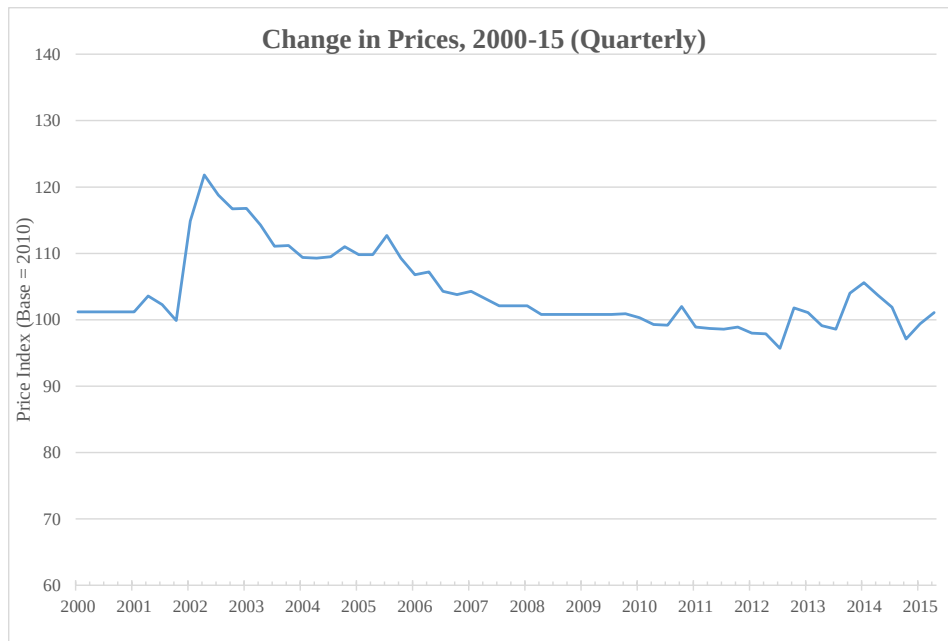
57. “Elasticity” is a term used to describe the sensitivity of supply and demand to changes in one or the other. For example, demand is said to be “inelastic” if an increase in the price of a product results in only a small decline in the quantity sold of that product, if any.

58. For a cartel to profit from raising prices above competitive levels, demand must be relatively inelastic at competitive prices. Otherwise, increased prices would result in declining sales, revenues, and profits, as customers purchased substitute products or declined to buy altogether. Inelastic demand is a market characteristic that facilitates collusion, allowing producers to raise their prices without triggering customer substitution and lost sales revenue.

59. Demand for resistors is highly inelastic because there are no close substitutes for these products. The demand for resistors will continue to rise due to increasing use of PCs, notebooks, ultrabooks, smartphones, and other consumer and electronic products that meet basic requirements in day-to-day life. No other type of passive electrical component (*e.g.*, inductors and capacitors) can serve as a substitute or a functional equivalent to a resistor in an electric circuit. Accordingly, a purchaser that is either an OEM or an Electronic

1 Manufacturing Services (“EMS”) provider cannot design quickly an electric circuit to bypass
 2 its need for a resistor with a certain resistance.

3 60. The pricing of linear resistors as a whole has experienced a dramatic rise since
 4 2002, but was relatively flat between 2007 and 2011. During this time period, demand for
 5 linear resistors has generally increased, and has thus been relatively inelastic. Demand for
 6 resistors also did not fluctuate in response the recession of 2008 or the earthquake and
 7 flooding in Asia in 2011.



1 **3. The Resistors Industry Is Highly Concentrated.**

2 61. Market concentration facilitates collusion. Collusive agreements are easier to
3 implement and sustain when there are few firms controlling a large portion of the market.
4 Practical matters such as coordinating cartel meetings and exchanging information are much
5 simpler with a small number of players. If the participants can coordinate pricing decisions,
6 their control over total industry output may result in prices that are elevated across the industry.
7 Moreover, their high degree of control also simplifies their coordination issues because there is
8 little outside competitive presence to undermine the cartel. With fewer firms in the market, the
9 transitory bump in profits that could be achieved by undercutting the cartel price and gaining a
10 transitory increase in market share would be outweighed by the greater long-term market share
11 for a colluding firm in a concentrated industry.

12 62. By contrast, if an industry is divided into a large number of small firms, the
13 current gain from cheating on a cartel (profits from sales captured from other cartel members
14 through undercutting of the cartel-fixed price in the current time period, which risks causing
15 the cartel to fall apart in the future) is large relative to the firm's possible gains from the
16 cartel's continuing future success (the firm's future share of the total cartel profits if collusion
17 were to continue successfully).

18 63. As the resistors market is dominated by a few companies who control the lion's
19 share of these markets, the continuing agreements, understandings, combinations or
20 conspiracies to fix, raise, maintain and/or stabilize prices, and to allocate market shares for
21 resistors are effective at setting the prices of resistors at artificially high, supra-competitive
22 prices.
23
24
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27

Linear Resistor Manufacturers
FY 2014 Estimated Global Market Shares

Vendor	Market Share	HHI	SMD Chip	Networks/ Arrays/IPD	Throughhole
Vishay	24%	576	O	O	O
KOA	17%	289	O	O	O
Yageo	10%	100	O	O	O
ROHM	7%	49	O	O	O
Panasonic	6%	36	O	O	O
TT Electronics	6%	36		O	O
Hokuriku	5%	25	O	O	
Walsin	5%	25	O	O	
Others	20%	20			
Total	100%	1156	7	8	6

Source: (Paumanok Report).

64. A concentrated market is more susceptible to collusion and other anticompetitive practices. The resistors market was concentrated during the respective Class Periods. In fact, throughout the Class Period, Defendants collectively maintained high market shares.

4. Resistors Are Homogenous and Commoditized Products.

65. Homogenous products enhance collusion because they enable manufacturers to more easily negotiate agreement on prices and/or quantities and facilitate monitoring. Resistors are homogenous products or commodities because their characteristics and qualities are essentially uniform across different manufacturers. Although different sub-types of resistors are not interchangeable, within each category, resistors are designed to be interchangeable.

66. The homogenization of resistors is aided by industry-standard product specifications. The principal dimensions of product differentiation in resistors are well known and easily quantifiable. Therefore, resistors can be purchased and sold in large volume quantities by manufacturers and distributors based on common size and technology characteristics. Indeed, manufacturers and distributors maintain very detailed product catalogs and substitution guides that outline rules for swapping out resistors made by other Defendants based on their common characteristics.

67. In economics, a commodity is a basic item or goods used in commerce that is interchangeable with other commodities of the same type. Commodities are most often used as inputs in the production of other goods or services. Product homogeneity facilitates collusion more than product differentiation. Examples of traditional commodities are sugar, wheat, and rubber. As technologies and markets for goods mature, it is more likely to be considered a commodity, at least in its more basic implementations.

68. While there are various forms of linear resistors, the product for which each linear resistor type is used (*e.g.* cell phones, personal computers, and home appliances) are highly standardized. Such standardization allows the production of thick film resistors (the largest category of linear resistors) to be highly automated to yield large amounts of output.

5. Sales of Resistors

69. Once a resistor is manufactured by a vendor, it must be distributed to the customer. Resistor sales are made either directly to an OEM or to an EMS, or they are sold through an authorized distributor (*e.g.* TTI, Digi-Key, Future, Arrow, Avnet, or WPG). In the Americas and Europe, distributors now account for slightly more than half of regional sales. This type of distribution network is made possible by the fact that resistors are highly standardized. This further enables resistors to be purchased in large quantities by distributors and then sold by those distributors based on common size and characteristics.

70. Resistors straddle the line between traditional commodities and emerging commodities because the resistors market is still developing. As resistors are in almost every electronic device—and as the electronic device market is expanding due to the exponential growth in computing technology—the established resistors market is still evolving.

71. The United Nations (“UN”) Commodity Trade Statistics Database, the largest depository of international trade data, includes resistors on its Commodity List. Over 170 reporter countries provide the UN Statistics Division with their annual international trade statistics data detailed by commodities and partner countries. The UN and UN member countries therefore consider resistors as commodities.



Code	Description	Name	Data Availability
TOTAL	ALL COMMODITIES	ALL COMMODITIES	Snapshot
85	Electrical, electronic equipment	Electrical mchy equip parts thereof; sound recorder etc	Snapshot
8533	Electrical resistors and rheostats except for heating	Electrical resistors (including rheostats and potentiometers), other than heating resistors.	Snapshot
853310	Electrical resistors, fixed carbon	Fixed carbon resistors, composition or film types	Snapshot
853321	Electrical resistors fixed, power capacity < 20 watt	Other fixed resistors :-- For a power handling capacity not exceeding 20 W	Snapshot
853329	Electrical resistors, fixed, except heating, > 20 watt	Other fixed resistors :-- Other	Snapshot
853331	Wirewound variable resistors, rheostats, etc, <20 watt	Wirewound variable resistors, including rheostats and potentiometers :-- For a power handling capacity not exceeding 20 W	Snapshot
853339	Wirewound variable resistors, rheostats, etc > 20 watt	Wirewound variable resistors, including rheostats and potentiometers :-- Other	Snapshot
853340	Variable resistors, rheostats and potentiometers, nes		Snapshot
853390	Parts of electrical resistors, rheostats, etc	Parts	Snapshot

Source: <http://comtrade.un.org/db/mr/rfCommoditiesList.aspx?px=H1&cc=8533>
(last visited August 2, 2015).

72. Further, according to some market analysts, the ubiquity of smartphones and personal computers and the consistency of features from one brand to another means that the products are becoming commodities. The commoditization of smartphones and personal computers has increased the commoditization of resistors.

73. Markets for commodity products are conducive to collusion. Typically, when a product is characterized as a commodity, competition is based principally on price, as opposed to other attributes such as product quality or customer service. This factor facilitates coordination because firms wishing to form a cartel can more easily monitor and detect defections from a price-fixing agreement where any observed differences in prices are more likely to reflect cheating on the conspiracy than any other factor which might affect pricing, such as special product characteristics, service or other aspects of the transaction.

B. Ability in Industry to Conspire

1. Defendants Have Ample Opportunities to Conspire.

74. Trade associations provided opportunities for Defendants to meet frequently and exchange information to facilitate collusion. Defendants are members of a number of trade associations in the United States, Asia and Europe. Their overlapping membership in various trade associations also provided incentive for cartel members to stay within the illegally agreed upon price framework, as they could monitor one another's activities in the capacitor market and punish non-compliance. Defendants' participation in trade associations, as described above, helped facilitate their collusion.

75. One such organization is the Electronic Components Industry Association ("ECIA"), which is located in Alpharetta, Georgia. Several of the Defendants are members of this organization, including KOA SE, PIDs, ROHM USA, TT Electronics, Vishay and Yageo America Corporation. They regularly meet to discuss matters of mutual concern.

76. By virtue of their membership in such organizations, Defendants have the opportunity to meet, have improper discussions under the guise of legitimate business contacts, and perform acts necessary for the operation and furtherance of the conspiracy. ECIA, for example, hosts an annual "Executive Conference." The 2014 conference was held in Chicago, Illinois, and the 2015 conference is also scheduled to be held in Chicago.

77. Trade associations and other common forums facilitated Defendants' collusion. Trade association meetings provide an excellent cover for meeting and communicating about the pricing of resistors and to conspire to fix, raise, maintain and/or stabilize prices, and to allocate market shares for resistors.

2. Resistor Manufacturers Had Relationships in Other Price-Fixed Markets.

78. Most of the resistor manufacturers also produce several other types of components, not just resistors. For instance, Panasonic produced lithium ion batteries, cathode ray tubes, capacitors and optical disk drives. Capacitors, optical disk drives, cathode ray tubes,

1 lithium ion batteries, and now resistors, have each been the subject of price-fixing
2 investigations.

3 **C. Motive to Conspire**

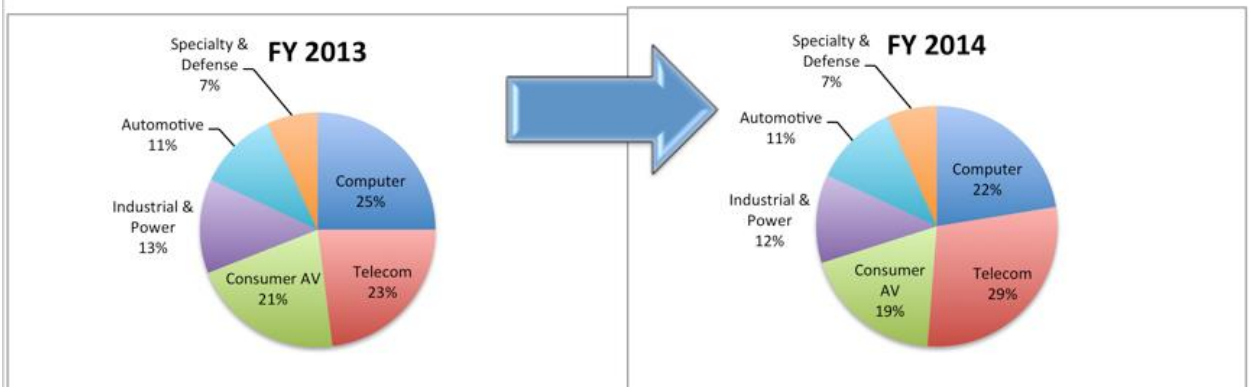
4 **1. Defendants Had a Common Motive to Conspire.**

5 79. As resistors are commodities, price is the most obvious differentiation among
6 them for purchasers. In a market of this nature, with trillions of components being
7 manufactured and sold a year at relatively inexpensive individual prices, there is a huge
8 incentive to fix, stabilize, maintain and raise the prices of the components to supra-competitive
9 levels through illegal conspiratorial agreements. By foregoing competition, each manufacturer
10 could still guarantee themselves massive profits in such a high volume market. This
11 anticompetitive conspiracy causes substantial harm to consumers, to competition, and to
12 United States commerce.

13 **IX. INDIRECT PURCHASERS OF RESISTORS LACKED BUYING POWER.**

14 80. Standard economics holds that when there are many buyers in a market for a
15 particular good, that good is more susceptible to effective cartel behavior. The incentive for
16 cartel members to undercut the conspiracy is lower when there are many smaller purchasers
17 because while each potential sale is small, disrupting the cartel can carry large penalties. A
18 cartel member, thus, is incentivized to avoid the collapse of the entire price-setting agreement,
19 and the loss of the supra-competitive profits on all sales in that market when there are many
20 buyers. Conversely, a cartel's ability to raise prices can be thwarted in markets where buyers
21 have significant negotiating power with sellers.

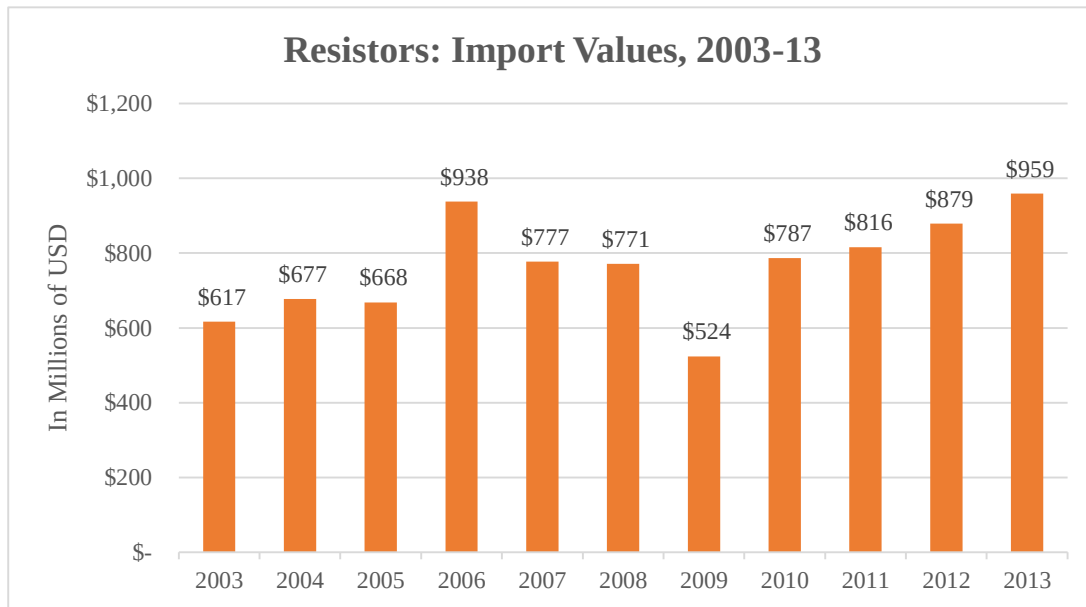
22 81. Resistors manufacturers sell their products to companies in audio-visual,
23 communications, computers, peripherals, and home electronics businesses. The largest
24 consumer of resistors is the telecommunications industry (29 percent), followed by the
25 Computers and Consumer Audio-Visual Industry.



82. Direct purchasers of resistors are generally distributors. Except for a few tier 1 OEMs, most OEMs and EMS providers that make equipment for OEMs generally buy resistors from distributors. There are very few large OEMs who possess buying power and as to those companies, Defendants were motivated to conspire amongst themselves to keep bid prices high to avoid cutthroat price competition that would harm them all. Plaintiffs here are indirect purchasers that bought resistors from distributors and incorporated those resistors into other products. Large numbers of buyers with little buying power, both at the primary level (*i.e.* distributors) and the secondary level (*i.e.* individuals and entities that purchased from distributors) is the general rule in the resistors industry.

83. As set forth above, both direct and indirect purchasers in the resistor market lacked buying power. Since there were many purchasers of resistors, it would have been easier to form and maintain the cartel. This is because a large number of buyers would have made it less likely that Defendant manufacturers would have cheated on the agreement to artificially inflate prices, because the loss of supra-competitive profits on their sales of resistors outweighed the potential additional profits of raising sales to a handful of modestly-sized customers.

84. The market for resistors in the United States accounts for a significant portion of the global capacitor market. It is currently estimated at about \$959 million. The Americas therefore account for about 23 percent of the global market at present.



Source: United States International Trade Commission (USITC)

X. DEFENDANTS COLLUDED TO KEEP THE PRICE OF RESISTORS ELEVATED DURING THE CLASS PERIOD.

85. As alleged in this Complaint, Defendants engaged in a conspiracy to fix, raise, stabilize, and maintain the price of resistors throughout the Class Period. Defendants' acts, practices, and course of conduct in furtherance of their conspiracy evolved over time and included, but were not limited to the following: coordinating prices for specific customers and products; engaging in continuous communications on confidential and proprietary business matters to eliminate price competition; allocating market shares; restricting supply of resistors; using input costs as a pretext for industry-wide pricing formulas; and concocting mechanisms to nullify competitive sales processes to their customers.

86. Defendants effectively moderated and even negated the downward pressure on resistor prices caused by price competition, oversupply, technological advancements, and demand reduction.

XI. ANTITRUST INJURY

87. Defendants' price-fixing conspiracy had the following effects, among others:

(a) Price competition has been restrained or eliminated with respect to resistors;

(b) The prices of resistors have been fixed, raised, maintained, or stabilized at artificially inflated levels;

(c) Indirect purchasers of resistors have been deprived of free and open competition; and

(d) Indirect purchasers of resistors, including Plaintiffs, paid artificially inflated prices.

88. During the respective Class Periods, Plaintiffs and the Classes paid supra-competitive prices for resistors.

89. By reason of the alleged violations of the antitrust laws, Plaintiffs and the Classes have sustained injury to their businesses or property, having paid higher prices for resistors than they would have paid in the absence of Defendants' illegal contract, combination, or conspiracy, and as a result have suffered damages. This is an antitrust injury of the type that the antitrust laws were meant to punish and prevent.

XII. AFFECTED TRADE AND COMMERCE

90. During the Class Period, Defendants collectively controlled the vast majority of the market for resistors, both globally and in the United States.

91. Defendants, directly and indirectly, sold resistors to manufacturers and consumers located in numerous states in the United States other than states in which Defendants are located. Substantial quantities of resistors containing resistors are shipped from

1 outside the United States into the United States, and are shipped interstate in a continuous and
2 uninterrupted flow of interstate and foreign trade and commerce.

3 92. In addition, substantial quantities of equipment and supplies necessary to the
4 production and distribution of resistors, as well as payments for resistors and related products
5 sold by Defendants, traveled in interstate and foreign trade and commerce. The business
6 activities of Defendants in connection with the production and sale of resistors that were the
7 subject of the charged conspiracy were within the flow of, and substantially affected, interstate
8 and foreign trade and commerce.

9 **A. Defendants' Conduct Involved Import Trade or Import Commerce and Had**
10 **a Direct, Substantial and Reasonably Foreseeable Effect on U.S. Domestic**
11 **and Import Trade or Commerce that Gave Rise to Plaintiffs' Antitrust**
12 **Claims**

13 93. Defendants' illegal conduct involved U.S. import trade or import commerce.
14 Defendants knowingly and intentionally sent price-fixed resistors into a stream of commerce
15 that they knew led directly into the United States, one of their most important markets and a
16 major source of their revenues. In this respect, they directed their anticompetitive conduct at
17 imports into the United States with the intent of causing price-fixed resistors to enter the
18 United States market and inflating the prices of resistors destined for the United States. Such
19 conduct was meant to produce and did in fact produce a substantial effect in the United States
20 in the form of higher prices.

21 94. The United States resistors market is enormous. Defendants and others shipped
22 millions of resistors, including those incorporated into finished products, into the United States
23 during the respective Class Periods for ultimate resale to U.S. consumers. As a result, a
24 substantial portion of Defendants' revenues were derived from the U.S. market. Defendants
25 spent hundreds of millions of dollars on advertising their products in the United States.

26 95. Because of the importance of the U.S. market to Defendants and their co-
27 conspirators, resistors intended for importation into and ultimate consumption in the United
States were a focus of Defendants' illegal conduct. Defendants knowingly and intentionally

1 sent price-fixed resistors into a stream of commerce that led directly into the United States.
2 This conduct by Defendants was meant to produce and did in fact produce a substantial effect
3 in the United States in the form of artificially-inflated prices for resistors.

4 96. During the Class Period, every Defendant shipped resistors directly into the
5 United States.

6 97. When high-level executives within Defendants' companies agreed on prices,
7 they knew that their price-fixed resistors would be sold in the United States.

8 98. For the reasons set forth above, Defendants' illegal conduct involved import
9 trade or import commerce into the United States.

10 99. Defendants' illegal conduct had a direct, substantial, and reasonably foreseeable
11 effect on U.S. domestic and import trade or commerce in the form of higher prices for resistors
12 and electronic products containing resistors that Plaintiffs and Members of the Classes paid.
13 These prices, tainted by collusion, directly and immediately impacted Plaintiffs and Members
14 of the Classes in the United States. In this respect, the U.S. effects of Defendants' illegal
15 conduct gave rise to Plaintiffs' and Members of the Classes' antitrust claims and were the
16 proximate cause of the injury that Plaintiffs and Members of the Classes suffered.

17 100. A number of facts demonstrate that Defendants' price-fixing conspiracy had a
18 direct, substantial and reasonably foreseeable effect on domestic commerce.

19 **B. The Defendants Targeted the United States.**

20 101. Because of the small size of resistors, transportation costs are relatively minor
21 and there is substantial international trade in these electronic components.

22 102. During the Class Period, Defendants manufactured and sold substantial
23 quantities of resistors shipped from outside the United States and from other states in a
24 continuous and uninterrupted flow of interstate and foreign trade and commerce. In addition,
25 substantial quantities of equipment and supplies necessary to the production and distribution of
26 resistors, as well as payments for resistors and related products sold by Defendants, traveled in
27

interstate and foreign trade and commerce. The business activities of Defendants in connection with the production and sale of resistors that were the subject of the charged conspiracy were within the flow of, and affected substantially, interstate and foreign trade and commerce.

103. Defendants engaged in conduct both inside and outside the United States that caused direct, substantial, and reasonably foreseeable and intended anticompetitive effects upon interstate commerce within the United States.

104. Defendants, directly and through their agents, engaged in a conspiracy to fix or inflate prices of resistors that restrained trade unreasonably and affected adversely the market for resistors. Defendants affected commerce, including import commerce, substantially throughout the United States, proximately causing injury to Plaintiffs and members of the Classes.

XIII. CLASS ACTION ALLEGATIONS

105. Plaintiffs bring this action on behalf of themselves and as a class action pursuant to Federal Rules of Civil Procedure (“Rules”) 23(a) and (b)(2), seeking equitable and injunctive relief on the following classes (“Nationwide Injunctive Class”):

All persons and entities in the United States who purchased one or more linear resistor(s) from a resistor distributor not for resale which a Defendant, its current or former subsidiary, or any of its co-conspirators from a date presently unknown to Plaintiffs and going through such time as the anticompetitive effects of Defendants’ conduct ceased (“Class Period”).

106. Plaintiffs will seek certification of a nationwide class of purchasers under California law pursuant to Rules 23(a) and (b)(3) as follows (“California Nationwide Damages Class”):

All persons and entities in the United States who purchased one or more linear resistor(s) from a resistor distributor not for resale which a Defendant, its current or former subsidiary, or any of its co-conspirators from a date presently unknown to Plaintiffs and going through such time as the anticompetitive effects of Defendants’ conduct ceased (“Class Period”).

107. Plaintiffs will also seek certification of statewide linear resistor damages classes, asserting claims of damages under the antitrust and restraint of trade laws of California (“California Statewide Damages Classes”) pursuant to Rule 23, as follows:

All persons and entities in California who purchased one or more linear resistor(s) from a resistor distributor not for resale which a Defendant, its current or former subsidiary, or any of its co-conspirators from a date presently unknown to Plaintiffs and going through such time as the anticompetitive effects of Defendants’ conduct ceased (“Class Period”). (“California Damages Classes”).

108. The Injunctive Class, California Nationwide Damages Class, and the California Statewide Damages Classes are collectively referred as the “Classes” unless otherwise indicated. Excluded from the Classes are Defendants, their parent companies, subsidiaries and affiliates, any co-conspirators, Defendants’ attorneys in this case, federal government entities and instrumentalities, states and their subdivisions, all judges assigned to this case, all jurors in this case, and all persons and entities who directly purchased linear resistors from Defendants.

109. While Plaintiffs do not know the exact number of the members of the Classes, Plaintiffs believe there are thousands of members in each of the Classes.

110. Common questions of law and fact exist as to all members of the Classes. This is particularly true given the nature of Defendants’ conspiracy, which was applicable to all of the members of the Classes, thereby making appropriate relief with respect to the Classes as a whole. Such questions of law and fact common to the Classes include, but are not limited to:

- a. Whether Defendants engaged in a combination and conspiracies among themselves to fix, raise, maintain, and/or stabilize the prices of linear resistors sold in the United States;
- b. The identity of the participants of the alleged conspiracies;
- c. The duration of the alleged conspiracies and the acts carried out by Defendants in furtherance of the conspiracies;
- d. Whether the alleged conspiracies violated the Sherman Act;

1 e. Whether the alleged conspiracies violated the antitrust and restraint of
2 trade laws of California;

3 f. Whether the alleged conspiracies violated the unfair competition and
4 consumer protection laws of California;

5 g. Whether the conduct of Defendants, as alleged in this Complaint,
6 caused injury to the business or property of Plaintiffs and members of the Classes;

7 h. The effect of the alleged conspiracy on the prices of linear resistors sold
8 in the United States during the respective Class Periods;

9 i. The appropriate injunctive and related equitable relief for the Injunctive
10 Classes; and

11 j. The appropriate class-wide measure of damages for the State Damages
12 Classes.

13 111. Plaintiffs' claims are typical of the claims of the members of the Classes, and
14 Plaintiffs will fairly and adequately protect the interests of the Classes. Plaintiffs and all
15 members of the Classes are similarly affected by Defendants' wrongful conduct in that they
16 paid artificially inflated prices for linear resistors purchased indirectly from Defendants.

17 112. Plaintiffs' claims arise out of the same common course of conduct giving rise
18 to the claims of the other members of the Classes. Plaintiffs' interests are coincident with, and
19 not antagonistic to, those of the other members of the Classes. Plaintiffs are represented by
20 counsel who are competent and experienced in the prosecution of antitrust, unfair
21 competition, and class action litigation.

22 113. The questions of law and fact common to the members of the Classes
23 predominate over any questions affecting only individual members, including legal and
24 factual issues relating to liability and damages.

25 114. Class action treatment is a superior method for the fair and efficient
26 adjudication of the controversy, in that, among other things, such treatment will permit a large
27 number of similarly situated persons to prosecute their common claims in a single forum

1 simultaneously, efficiently and without the unnecessary duplication of evidence, effort and
2 expense that numerous individual actions would engender. The benefits of proceeding through
3 the class mechanism, including providing injured persons or entities with a method for
4 obtaining redress for claims that it might not be practicable to pursue individually,
5 substantially outweigh any difficulties that may arise in management of this class action.

6 115. The prosecution of separate actions by individual members of the Classes
7 would create a risk of inconsistent or varying adjudications, establishing incompatible
8 standards of conduct for Defendants.

9 116. Plaintiffs bring the Damages Classes on behalf of all persons similarly situated
10 pursuant to Rule 23, on behalf of all persons and entities that, as residents of various states,
11 indirectly purchased one or more linear resistors that a Defendant or co-conspirator
12 manufactured during the respective Class Periods.

13 **XIV. GUILTY PLEAS IN PRIOR CASES**

14 117. Significantly Panasonic, one of the world's leading manufacturers of resistors,
15 has pled guilty in numerous price-fixing cases, including electronic products.

16 118. On September 30, 2010, Panasonic agreed to plead guilty and to pay a large
17 criminal fine for its participation in a conspiracy to price-fix refrigerant compressors from
18 October 14, 2004 through December 31, 2007.

19 119. On July 18, 2013, Panasonic agreed to plead guilty and to pay a \$45.8 million
20 criminal fine for its participation in a conspiracy to price-fix switches, steering angle sensors
21 and automotive high intensity discharge ballasts installed in cars sold in the United States and
22 elsewhere from at least as early as September 2003 until at least February 2010.

23 120. That same day, Panasonic's subsidiary, SANYO Electric Co., Ltd., agreed to
24 plead guilty and to pay a large criminal fine for its participation in a conspiracy to fix the prices
25 of cylindrical lithium-ion battery cells sold worldwide for use in notebook computer battery
26 packs from about April 2007 until about September 2008. The production and sale of both
27

1 lithium ion batteries and resistors were often overseen by the same departments and personnel
2 that were involved in fixing lithium ion battery prices.

3 121. The foregoing pattern of anticompetitive practices in various technology-related
4 markets is illustrative of Defendants' corporate conduct, which has included illegal activity
5 aimed at generating profits at the expense of their customers.

6 **XV. VIOLATIONS ALLEGED**

7 **FIRST CLAIM FOR RELIEF**
8 **(Violations of Sherman Act, 15 U.S.C. § 1)**
9 **(On Behalf of All Plaintiffs Against All Defendants)**

10 122. Plaintiffs incorporate and reallege, as though fully set forth herein, each of the
11 paragraphs set forth above.

12 123. Defendants and unnamed coconspirators entered into and engaged in a contract,
13 combination, or conspiracy in unreasonable restraint of trade in violation of Section One of the
14 Sherman Act (15 U.S.C. § 1).

15 124. Beginning at a date presently unknown to Plaintiffs and continuing through the
16 present, the exact starting date being unknown to Plaintiffs and exclusively within the
17 knowledge of Defendants, Defendants and their co-conspirators entered into a continuing
18 contract, combination, or conspiracy to unreasonably restrain trade and commerce in violation
19 of Section 1 of the Sherman Act (15 U.S.C. § 1) by artificially reducing or eliminating
20 competition in the United States.

21 125. In particular, Defendants have combined and conspired to raise, fix, maintain, or
22 stabilize the prices of linear resistors

23 126. As a result of Defendants' unlawful conduct, prices for linear resistors were
24 raised, fixed, maintained, and stabilized in the United States.

25 127. The contract, combination or conspiracy among Defendants consisted of a
26 continuing agreement, understanding, and concerted action among Defendants and their co-
27 conspirators.

1 128. For purposes of formulating and effectuating their contract, combination, or
2 conspiracy, Defendants and their co-conspirators did those things they contracted, combined,
3 or conspired to do, including:

4 a. Participating in meetings and conversations to discuss the prices and
5 supply of linear resistors.

6 b. Communicating in writing and orally to fix prices of linear resistors.

7 c. Agreeing to manipulate prices and supply of linear resistors sold in the
8 United States in a manner that deprived purchasers of free and open competition.

9 d. Issuing price announcements and price quotations in accordance with the
10 agreements reached.

11 e. Selling linear resistors to customers in the United States at non-
12 competitive prices.

13 f. Providing false statements to the public to explain increased prices for
14 linear resistors.

15 129. As a result of Defendants' unlawful conduct, Plaintiffs and the other members
16 of the Classes have been injured in their businesses and property in that they have paid more
17 for resistors than they otherwise would have paid in the absence of Defendants' unlawful
18 conduct.

19 130. The alleged contract, combination or conspiracy is a *per se* violation of the
20 federal antitrust laws.

21 131. These violations are continuing and will continue unless enjoined by this Court.

22 132. Pursuant to Section 16 of the Clayton Act, 15 U.S.C. § 26, Plaintiffs and the
23 Classes seek the issuance of an injunction against Defendants, preventing and restraining the
24 violations alleged herein.

SECOND CLAIM FOR RELIEF
(Violations of California's Cartwright Act,
Cal. Bus. & Prof. Code §§ 16720, et seq.)
(On Behalf of All Plaintiffs Against All Defendants)

133. Plaintiffs incorporate by reference all the above allegations as if fully set forth herein.

134. By reason of the foregoing, Defendants have violated California Business and Professions Code, §§ 16700, *et seq.* Plaintiffs on behalf of a nationwide class of Indirect Purchasers allege as follows.

135. Beginning at a time currently unknown to Plaintiffs and continuing thereafter through the present, Defendants and their co-conspirators entered into and engaged in a continuing unlawful trust in restraint of the trade and commerce described above in violation of section 16720, California Business and Professions Code. Defendants, and each of them, have acted in violation of section 16720 to fix, raise, stabilize, and maintain prices of, and allocate markets for linear resistors.

136. As a result of Defendants' unlawful conduct, prices for linear resistors were raised, fixed, maintained, and stabilized in the United States.

137. The contract, combination or conspiracy among Defendants consisted of a continuing agreement, understanding, and concerted action among Defendants and their co-conspirators.

138. For purposes of formulating and effectuating their contract, combination, or conspiracy, Defendants and their co-conspirators did those things they contracted, combined, or conspired to do, including:

a. Participating in meetings and conversations to discuss the prices and supply of linear resistors.

b. Communicating in writing and orally to fix prices of linear resistors.

c. Agreeing to manipulate prices and supply of linear resistors sold in the United States in a manner that deprived purchasers of free and open competition.

1 d. Issuing price announcements and price quotations in accordance with the
2 agreements reached.

3 e. Selling linear resistors to customers in the United States at non-
4 competitive prices.

5 f. Providing false statements to the public to explain increased prices for
6 linear resistors.

7 139. As a direct and proximate result of Defendants' unlawful conduct, Plaintiffs and
8 the members of the California Damages Classes have been injured in their business and
9 property in that they paid more for linear resistors than they otherwise would have paid in the
10 absence of Defendants' unlawful conduct. As a result of Defendants' violation of Section
11 16720 of the California Business and Professions Code, California Plaintiffs and the California
12 Indirect Purchaser Classes seek treble damages and their cost of suit, including a reasonable
13 attorney's fee, pursuant to section 16750(a) of the California Business and Professions Code.

14 140. It is appropriate to apply California antitrust law to purchasers of linear resistors
15 and/or electronic products containing linear resistors in all fifty states—that is, nationwide.
16 Nationwide application of California law is proper because conspiratorial acts occurred in
17 California, and the conspirators targeted their price-fixing activities at large purchasers of
18 linear resistors and/or electronic products containing linear resistors in California, such as
19 Apple Inc., Intel Corp., and Hewlett Packard Co.

20 141. Some Defendants maintained sales and marketing arms in the United States to
21 conduct business with major customers. These Defendants are incorporated, located, and
22 headquartered in the United States, and each does substantial business in domestic interstate
23 commerce throughout the United States.

24 142. The foreign-based Defendants have no reasonable expectation as to the
25 application of different state laws. Based on Plaintiffs' information and belief, California law
26 applies to contracts with California-based companies, such as Apple Inc., Intel Corp., and
27 Hewlett Packard Co.

THIRD CLAIM FOR RELIEF
(Violations of California's Unfair Competition Law,
Cal. Bus. & Prof. Code §§ 17200, et seq.)
(On Behalf of All Plaintiffs Against All Defendants)

143. Plaintiffs incorporate by reference the allegations in the above paragraphs as if fully set forth herein.

144. By reason of the foregoing, Defendants have violated California's Unfair Competition Law, Cal. Bus. & Prof. Code §§ 17200, *et seq.*

145. Defendants committed acts of unfair competition, as defined by section 17200, *et seq.*, by engaging in a conspiracy to fix and stabilize the price of linear resistors as described above.

146. The acts, omissions, misrepresentations, practices and non-disclosures of Defendants, as described above, constitute a common and continuing course of conduct of unfair competition by means of unfair, unlawful and/or fraudulent business acts or practices with the meaning of Section 17200, *et seq.*, including, but not limited to (1) violations of Section 1 of the Sherman Act; and (2) violations of the Cartwright Act.

147. Defendants' acts, omissions, misrepresentations, practices and nondisclosures are unfair, unconscionable, unlawful and/or fraudulent independently of whether they constitute a violation of the Sherman Act or the Cartwright Act.

148. Defendants' acts or practices are fraudulent or deceptive within the meaning of section 17200, *et seq.*

149. Defendants' conduct was carried out, effectuated, and perfected within the state of California. Defendants maintained offices in California where their employees engaged in communications, meetings and other activities in furtherance of Defendants' conspiracy.

150. By reason of the foregoing, the Classes are entitled to application of California law to a nationwide class and are entitled to an injunction to require Defendants to stop the conduct alleged in this Complaint.

XVI. REQUEST FOR RELIEF

WHEREFORE, Indirect Purchaser Plaintiffs respectfully request that:

1 151. The Court determine that this action may be maintained as a class action under
2 Rule 23(a), (b)(2), and (b)(3) of the Federal Rules of Civil Procedure, and direct that
3 reasonable notice of this action, as provided by Rule 23(c)(2) of the Federal Rules of Civil
4 Procedure, be given to each and every member of the Classes;

5 152. The unlawful conduct, conspiracy or combination alleged herein be adjudged
6 and decreed:

7 (a) An unreasonable restraint of trade or commerce in violation of Section 1
8 of the Sherman Act;

9 (b) A *per se* violation of Section 1 of the Sherman Act;

10 (c) An unlawful combination, trust, agreement, understanding, and/or
11 concert of action in violation of the California's antitrust, unfair competition, and
12 consumer protection laws as set forth herein; and

13 (d) Acts of unjust enrichment by Defendants as set forth herein.

14 153. Plaintiffs and the members of the Damages Classes recover damages, to the
15 maximum extent allowed under such laws, and that a joint and several judgment in favor of
16 Plaintiffs and the members of the Damages Classes be entered against Defendants in an
17 amount to be trebled to the extent such laws permit;

18 154. Plaintiffs and the members of the Damages Classes recover damages, to the
19 maximum extent allowed by such laws, in the form of restitution and/or disgorgement of
20 profits unlawfully gained from them;

21 155. Defendants, their affiliates, successors, transferees, assignees and other officers,
22 directors, partners, agents and employees thereof, and all other persons acting or claiming to
23 act on their behalf or in concert with them, be permanently enjoined and restrained from in any
24 manner continuing, maintaining or renewing the conduct, conspiracy, or combination alleged
25 herein, or from entering into any other conspiracy or combination having a similar purpose or
26 effect, and from adopting or following any practice, plan, program, or device having a similar
27 purpose or effect.

1 156. Plaintiffs and the members of the Damages Classes be awarded restitution,
2 including disgorgement of profits Defendants obtained as a result of their acts of unfair
3 competition and acts of unjust enrichment;

4
5 Dated: August 20, 2015

COTCHETT, PITRE & McCARTHY, LLP

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JURY DEMAND

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

Dated: August 20, 2015

COTCHETT, PITRE & McCARTHY, LLP

By: /s/ Joseph W. Cotchett

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APPENDIX A

<u>Defendant</u>	<u>Statement Re. Antitrust Compliance</u>
Fujitsu Media Devices, Ltd.	Fujitsu Way Code of Conduct http://www.fujitsu.com/uk/Images/fujitsu-way-code-of-conduct-2013.pdf
Hokuriku Electric Industry Co., Ltd Kamaya Electric Co., Ltd.	Compliance and Risk Management: Conduct Guidelines “Kamaya regards compliance and risk management as the most important issues of our business, complies with the laws as well and promotes fair and equitable business activities that are based on corporate ethics.” http://www.kamaya.co.jp/rel_en/compliancet.html
KOA Corporation KOA Speer Electronics Inc.	
Kyocera International Inc.	“The Kyocera Group complies with anti-monopoly laws and related legislation, and we are working to promote fair and free competition. For example, guidelines on compliance with anti-monopoly legislation were prepared and are already being used in employee training in Group companies in Japan, the U.S.A. and Europe.” http://global.kyocera.com/ecology/risk.html#d
Murata Manufacturing Co., Ltd	
Nichicon Corporation Nichicon America Corporation	
Panasonic Corporation Panasonic Corporation of North America Panasonic Industrial Devices Sales Company of America	Compliance with Laws, Regulations and Business Ethics “We will conduct business with integrity, a law-abiding spirit, and the highest ethical standards. We will fulfill our tasks by always observing not only applicable laws and regulations, but also the highest standards of business ethics. Compliance with laws, regulations, and business ethics in all our business activities is essential to the survival of our business.” http://www.panasonic.com/global/corporate/management/code-of-conduct/chapter-2.html#section2-3
ROHM Co., Ltd ROHM USA	“The ROHM Group will always conduct its business faithfully in strict compliance with the laws and business ethics. The Group will continuously work to collect, manage, and understand the laws and regulations of each country that are relevant to its business.” http://www.rohm.com/web/global/csr1/csr-ethics
TDK-EPC Corporation TDK U.S.A. Corporation	TDK Code of Conduct “The TDK Group shall take part in fair, transparent, and free competition and appropriate corporate activities. The TDK Group shall maintain a sound relationship with political bodies and governmental agencies.” http://www.global.tdk.com/about_tdk/code_of_conduct/chapter_one.htm

TT Electronics PLC	
Vishay Intertechnology, Inc. Holy Stone Polytechnic Co., Ltd.	Vishay Ethics Code of Business Conduct “The company seeks to excel and outperform its competitors honestly and fairly. Competitive advantage must result from superior performance, not unethical or illegal business deals” http://www.vishay.com/ir-documents/codeofbusiness.pdf
Walsin Technology Corporation	
Yageo Corporation Yageo America	Electronic Industry Citizenship Coalition Code of Conduct (EICC) “Fundamental to adopting the Code is the understanding that a business, in all of its activities, must operate in full compliance with the laws, rules and regulations of the countries in which it operates.” “Business Integrity – the highest standards of integrity are to be upheld in all business interactions. Participants shall have a zero tolerance policy to prohibit any and all forms of bribery, corruption, extortion and embezzlement (covering promising, offering, giving or accepting any bribes). All business dealings should be transparently performed and accurately reflects on Participant’s business books and records. Monitoring and enforcement procedures shall be implemented to ensure compliance with anti-corruption laws.” http://www.yageo.com/exep/pages/download/EICC_English%20v4.pdf