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Attorneys for Plaintiffs and the proposed class

14 UNITED STATES DISTRICT COURT
15 NORTHERN DISTRICT OF CALIFORNIA
16 SAN JOSE DIVISION

17 NATHAN BARNES and JONATHAN CASKEY-
18 MEDINA, Individually and on Behalf of All Others
19 Similarly Situated,

Plaintiff,

v.

20 ADVANCED MICRO DEVICES, INC.,

Defendant.

No. 5:18-cv-00883

CLASS ACTION COMPLAINT

DEMAND FOR JURY TRIAL

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1 Plaintiffs Nathan Barnes and Jonathan Caskey-Medina (“Plaintiffs”), individually, and on
2 behalf of all others similarly situated, by their undersigned counsel, allege the following based on
3 personal knowledge as to their own acts, and upon information and belief as to all other matters.

4 **I. INTRODUCTION**

5 1. Plaintiffs bring this action against defendant Advanced Micro Devices, Inc.
6 (“Defendant” or “AMD”), individually, and on behalf of all persons who purchased or leased a
7 defective AMD core processor (“CPU” or “processor”).

8 2. Founded in 1969, Defendant AMD is a global semiconductor company, with
9 facilities around the world. As part of its business operations, AMD designs, manufactures,
10 sells, and/or distributes electronic computer products, including the defective CPUs challenged
11 herein. In particular, AMD’s CPUs suffer from a critical security defect, discussed in further
12 detail below, which causes the CPUs to be exposed to significant security vulnerabilities by
13 allowing potential access to integral kernel data (the “Spectre Defect”). This access, in turn, can
14 compromise highly confidential personal and corporate information, such as that related to
15 passwords, social security numbers, and credit card numbers.

16 3. The CPUs Defendant AMD designed, manufactured, distributed, and/or sold to
17 Plaintiffs and Class members were not merchantable and were unfit for the ordinary and
18 particular purposes for which such goods are used due to the Spectre Defect.

19 4. Had Plaintiffs and the other Class members known of the Spectre Defect, they
20 would not have purchased or leased, or would have paid substantially less for AMD’s CPUs, or
21 the respective devices they purchased or leased that contained AMD’s CPUs.

22 5. Having purchased or leased a CPU that suffers from the Spectre Defect, Plaintiffs
23 and Class members suffered injury in fact and a loss of money or property as a result of
24 Defendant’s conduct in designing, manufacturing, distributing, and/or selling defective CPUs.
25 Defendant AMD has failed to remedy this harm, and has earned and continues to earn substantial
26 profit from selling defective CPUs.

II. PARTIES

1
2 6. Plaintiff Nathan Barnes (“Barnes”) is a resident of Meridian, Idaho. On
3 September 29, 2017, Barnes purchased an AMD RYZEN 3 1300X 4-Core 3.5 GHz (3.7 GHz
4 Turbo) Socket AM4 65W YD130XBBAEBOX Desktop Processor for \$129.99 from
5 Newegg.com. Barnes researched different processors on the market to determine the unit that
6 best served his needs. Barnes paid a premium price for the AMD RYZEN 3 because he believed
7 it to be of high quality. Barnes would not have purchased this AMD processor, or would not
8 have paid the price he paid, but for AMD’s failure to disclose the existence of the Defect.

9 7. Plaintiff Jonathan Caskey-Medina (“Caskey-Medina”) is a resident of Springfield,
10 Massachusetts. On January 6, 2018, Caskey-Medina purchased a CYBERPOWERPC
11 GUA2600BST/AMD R5/1TB/8GB/R for \$796.86 from Best Buy. Caskey-Medina researched
12 different computers on the market to determine the unit that contained the best CPU for his
13 needs. Caskey-Medina paid a premium price for the CYBERPOWERPC GUA2600BST/AMD
14 R5/1TB/8GB/R because he believed it to be of high quality. Caskey-Medina would not have
15 purchased this computer, or would not have paid the price he paid, but for AMD’s failure to
16 disclose the existence of the Defect.

17 8. Defendant AMD is incorporated under the laws of the State of Delaware. AMD’s
18 principal place of business is located at 2485 Augustine Drive, Santa Clara, California, 95054.

19 9. Whenever this complaint refers to any act of Defendant AMD, the reference shall
20 mean (1) the acts of the directors, officers, employees, affiliates, or agents of Defendant who
21 authorized such acts while actively engaged in the management, direction or control of the
22 affairs of Defendant, or at the direction of Defendant, and/or (2) any persons who are the parents
23 or alter egos of Defendant, while acting within the scope of their agency, affiliation, or
24 employment.

25 **III. JURISDICTION AND VENUE**

26 10. This Court has general personal jurisdiction over Defendant AMD because its
27 principal place of business is located in this District.

1 Designed to bring innovation and competition back to the full
 2 spectrum of PC markets, the high-performance Ryzen CPU
 3 architecture delivers ***uncompromising performance*** in Ryzen
 4 Threadripper, delivering advanced feature sets, increased efficiency,
 and leadership performance on today’s most demanding PC
 workloads.

5 * * *

6 Ryzen™ Threadripper™ positions AMD at the forefront of this
 7 exciting market for high-performance PCs, resulting in a platform
 8 that offers the highest echelons of consumers– from data scientists
 to video creators to gamers – complete and ***uncompromising***
 9 ***performance.***”

10 * * *

11 All AMD Ryzen™ Threadripper™ processors are supported by a
 12 full ecosystem of X399 platforms at launch, with motherboard
 13 designs already available from top motherboard manufacturers
 14 including ASRock, ASUS, Gigabyte, and MSI. The new X399
 15 platform chipsets offer dedicated PCIe lanes for USB, graphics, data
 and other I/O, providing a powerful, scalable, and ***reliable***
computing experience and bringing the benefit of future-ready
 technologies.¹

16 16. Just several months later, in August of 2017, when AMD released the Ryzen™
 17 Threadripper™ 1950X and AMD Ryzen™ Threadripper™ 1920X, the company reiterated that
 18 “with today’s Ryzen Threadripper launch, we deliver a new level of computing power to ***the***
 19 ***world’s fastest*** ultra-premium desktop systems via an entirely new platform and set of multi-core
 20 processors...”² AMD also proclaimed that “Ryzen Threadripper delivers...***indisputable***
 21 ***supremacy*** over comparable products in the market.” *Id.* (emphasis added). Subsequently, upon
 22 the launch of its New Ryzen 7 2700U and Ryzen 5 2500U Mobile Processors in October of
 23 2017, the headline of AMD’s press release announced that its processors will “Deliver Blazingly
 24

25 _____
 26 ¹ Advanced Micro Devices, Inc., *Ultimate Boost for High-End Desktop Market With Aug. 10*
Availability of 16- and 12-Core Ryzen™ Threadripper™ Processors, July 30, 2017. (Emphasis
 added).

27 ² Advanced Micro Devices, Inc., *AMD Launches the Highest-Performance Desktop Processor,*
 28 *Ever, with Ryzen™ Threadripper™ High End Desktop Processors*, August 10, 2017.
 (Emphasis added).

1 Fast Performance,” and that the company was “pleased to deliver the world’s fastest processor
2 for ultrathin notebooks.”³

3 17. AMD’s corporate website likewise showcases the purported superiority of the
4 speed of its processors. For instance, customers looking for a desktop are told that “[t]he AMD
5 FX™ Processor delivers *the highest clocks you can get on a consumer desktop PC*, with at least
6 twice the cores of comparably-priced competition.”⁴ The “clock speed,” also called the “clock
7 rate,” refers to the speed at which a microprocessor executes instructions. Every computer
8 contains an internal clock that regulates the rate at which instructions are executed and
9 synchronizes all the various computer components.⁵

10 **B. The Spectre Defect**

11 18. In an effort to run as quickly as possible, AMD’s CPUs employ a technique called
12 “speculative execution.” It is one of three components of “out-of-order execution”, also known
13 as “dynamic execution.”⁶ In essence, the processor attempts to guess what operation is going to
14 be run next so that code can be standing by, ready to execute. When the processor selects what it
15 believes is the next operation, it will fetch the code(s) needed to carry out that operation and have
16 the code(s) on standby. However, AMD’s “speculative execute” code may “fetch” secure codes
17 without first performing a security check which would block such a request.⁷ As such, an
18 innocuous program such as Javascript might be exploited to gain access to extremely secure
19 kernel data.

20 19. The Spectre Defect takes advantage of the design defects in AMD’s processors’
21 use of speculative execution. In particular, as has been recently reported by the technology
22 media, the Spectre Defect, among other things, can be exploited to misappropriate such highly
23 confidential data as that associated with passwords and other personal consumer information:

24
25 ³ Advanced Micro Devices, Inc., *AMD Introduces New Ryzen Mobile Processors, the World’s
Fastest Processor for Ultrathin Notebooks*, October 26, 2017.

26 ⁴ See Advanced Micro Devices, Inc., Processors for Desktops,
<https://www.amd.com/en/products/processors-desktop> (last accessed February 9, 2018).

27 ⁵ Vangie Beal, “Clock Speed,” *Webopedia.com*.

28 ⁶ Joel Hruska, “What is Speculative Execution?” *ExtremeTech*, January 10, 1018.

⁷ See *id.*

1 Both exploits [the Meltdown and Spectre] are aimed at the “kernel,”
2 an essentially invisible part of your device’s operating system that
3 is perhaps the most vital software component on your computer (or
4 phone or tablet). It’s the go-between for all of your applications and
5 basic parts of your computer: the processor, the memory, and the
6 device itself (think your keyboard and touchpad on a laptop, or the
7 power button on your phone).

8 The kernel does a lot of stuff that we won’t get into here, but one of
9 the most basic and primary functions is keeping the data in one
10 program from being read by another. You don’t necessarily want
11 Spotify to have access to your email client — and when you do want
12 to use your email client to send a Spotify song to a friend, it’s the
13 kernel that takes over and passes that information along.

14 Both the Meltdown and *Spectre* exploits ***can be used by malicious
15 users to get at sensitive data stored in the memory of other running
16 programs — everything from passwords and credit card
17 information to emails and photographs. And unlike traditional
18 malware which operates like an application, kernel exploits can’t
19 be seen by antivirus software or in system logs.*** We know that these
20 vulnerabilities exist, but so far there’s no way to know if anyone has
21 actually used them. It’s legitimately scary stuff.

22 So, wait, how do these exploits work?

23 One of the foundations of modern processing is something called
24 “speculative execution.” This means that a computer will do some
25 work before it’s needed, on the chance that you’ll need it in the near
26 future. If you do end up needing that work, it’s already done and
27 prevents a delay. If not, oh well — the benefit of having the work
28 preloaded outweighs the times when it’s not needed, especially
because modern processors are smart enough to learn over time what
you’re likely to do, and keep a cache of all those possible outcomes
in their memory.

* * *

29 Overall, your life is much, much better because you have a ton of
30 hands that allow you to do many things much faster. But ***now you
31 live in a world where someone can, if they so choose, take a peek
32 at everything you’re carrying around — and the only way to stop
33 that from happening is to slow down.***

34 So Meltdown and Spectre allow people to see my credit card
35 information?

36 Yep! Or really ***anything you enter into your computer’s memory
37 — which is to say, anything you do on your computer. Passwords,***

1 *credit card numbers, Social Security numbers, you name it.*
2 Neither Meltdown nor Spectre allow a bad actor to change anything
3 on your computer; someone can't infect your computer with
4 malware or install a keylogger. But *they can glean enough*
5 *information that they could later use to install malware on your*
6 *computer, or just grab personal information* that you'd probably
7 rather not have out in the wild.

8 * * *

9 So is Spectre not as big a deal?

10 Spectre isn't nearly as aggressive as Meltdown. If Meltdown allows
11 you to crack open someone's diary and read it at will, Spectre is
12 more akin to something that lets you flip open a random page in
13 someone's diary and read one word at a time, and then flip to another
14 random page and read one more word. It's not at all impossible to
15 still get some very sensitive information, but it takes longer and
16 requires more persistence.

17 But *Spectre will ultimately end up being the bigger issue.* While
18 Meltdown can be patched via a software update and only affected
19 Intel chips and possibly ARM chips, *Spectre affects Intel, AMD,*
20 *and ARM chips, and can't be completely fixed via a software*
21 *patch. You can patch against known exploits for Spectre, but those*
22 *can only be done on a case-by-case basis. This means the only way*
23 *to completely fix the problem is a hardware update — that is to*
24 *say, replacing the processor itself.* For consumers who tend to cycle
25 through devices somewhat regularly this is a hassle but will go away
26 over time, but large, slow-moving organizations (which tend to be
27 the big juicy targets for hacks like this) take a lot longer to cycle
28 through their hardware. *The effects of Spectre could be felt for*
*decades.*⁸

20. Following the initial exposure of the Spectre Defect by *The Register* on January 2,
2018, AMD denied that its processors were affected, stating that “there is a near zero risk to
AMD processors.”⁹ Subsequently, AMD had acknowledged however, that its processors are
vulnerable to the Spectre Defect.¹⁰

⁸ Jake Swearingen, “Nearly Every Computer Made Since 1995 Is Dangerously Flawed. Here’s
What You Need to Know,” *Select All*, January 4, 2018 (emphasis added).

⁹ Advanced Micro Devices, Inc., *AMD Processors: Google Project Zero, Spectre and Meltdown*,
<https://www.amd.com/en/corporate/speculative-execution>, (last accessed February 9, 2018).

¹⁰ *See id.*

1 **C. Defendant AMD’s Knowledge of the Spectre Defect**

2 21. Defendant AMD is aware that its CPUs suffer from the Spectre Defect that
3 exposes the CPUs to critical security vulnerabilities. In fact, a research team from Google’s
4 Project Zero, led by Jann Horn, informed AMD of the existence of the Spectre Defect no later
5 than by June 1, 2017.¹¹

6 22. Despite its knowledge of the Spectre Defect, AMD continued to sell its processors
7 to unknowing customers at prices much higher than what customers would have paid had they
8 known about the Spectre Defect and its threat to critical security features as well as on the
9 processing speeds of the devices they purchased.

10 **V. TOLLING OF THE STATUE OF LIMITATIONS AND ESTOPPEL**

11 23. **Discovery Rule Tolling.** Plaintiffs and members of the Class could not have
12 reasonably discovered through the exercise of reasonable diligence that their AMD processors
13 suffered from major security vulnerabilities that, if mitigated, resulted in reduced processing
14 performance, within the time period of any applicable statute of limitations.

15 24. Plaintiffs and members of the Class did not discover and did not know of any
16 facts that would have caused a reasonable person to suspect that Defendant was concealing a
17 latent defect and/or that the AMD processors contained a defect that exposed them to security
18 vulnerabilities that, if mitigated, resulted in reduced processing performance.

19 25. **Fraudulent Concealment Tolling.** Throughout the time period relevant to this
20 action, Defendant concealed from and failed to disclose to Plaintiffs and members of the Class
21 vital information concerning the Defect described herein, despite the fact that Defendant knew,
22 or should have known of, the Spectre Defect in its processors well before its discovery by a third
23 party.

24 26. Defendant kept Plaintiffs and members of the Class ignorant of vital information
25 essential to the pursuit of their claims. As a result, neither Plaintiffs nor members of the Class
26 could have discovered the Spectre Defect, even upon reasonable exercise of diligence.

27 _____
28 ¹¹ See Samuel Gibbs, *Meltdown and Spectre: ‘Worst Ever’ CPU Bugs Affect Virtually All Computers*, THE GUARDIAN, January 4, 2018.

1 27. Despite its knowledge of the Spectre Defect, Defendant failed to disclose and
2 concealed, and continues to conceal, critical information relating to the Spectre Defect from
3 Plaintiffs and members of the Class, even though, at any point in time, it could have done so
4 through individual correspondence, media release, or by other means.

5 28. Plaintiffs and members of the Class justifiably relied on Defendant to disclose the
6 Spectre Defect in the AMD processors they purchased or leased (either directly or as a
7 component of, among other things, a computer or server), because the Defect was hidden and not
8 discoverable through reasonable efforts by Plaintiffs and members of the Class.

9 29. Thus, the running of all applicable statutes of limitations have been suspended
10 with respect to any claims that Plaintiffs and members of the Class have sustained as a result of
11 the defective AMD processors by virtue of the fraudulent concealment doctrine.

12 30. **Estoppel.** Defendant was under a continuous duty to disclose to Plaintiffs and
13 members of the Class the true character, quality, and nature of the defective processors and
14 associated security vulnerabilities and reductions in processing performance, but concealed the
15 true nature, quality, and character of the processors.

16 31. Based on the foregoing, Defendant is estopped from relying on any statutes of
17 limitations in defense of this action.

18 **VI. CLASS ACTION ALLEGATIONS**

19 32. Plaintiffs bring this proposed class action pursuant to Rule 23 of the Federal Rules
20 of Civil Procedure. The requirements of Rule 23 are met with respect to the class defined below.

21 33. Plaintiffs bring their claims on their own behalf, and on behalf of the following
22 class (the "Class"):

23 All persons or entities in the United States that purchased or leased
24 one or more AMD processors with the Spectre Defect, or one or
25 more devices containing an AMD processor with the Spectre Defect.
26 Excluded from the Class are Defendant, its officers and directors,
27 members of immediate families of the excluded persons and/or
28 entities described above, and their legal representatives, heirs,
successors, or assigns, and any entity in which the Defendant had a
controlling interest.

1 34. Plaintiffs reserve the right to amend or modify the Class definition in connection
2 with a motion for class certification and/or the result of discovery. This lawsuit is properly
3 brought as a class action for the following reasons.

4 35. The Class is so numerous that individual joinder of the individual members of the
5 proposed Class is impracticable. The Class includes thousands of persons geographically
6 dispersed throughout the United States. The precise number and identities of Class members are
7 unknown to Plaintiffs, but are known to Defendant or can be ascertained through discovery,
8 using records of sales, warranty records, and other information kept by Defendant or its agents.

9 36. Plaintiffs do not anticipate any difficulties in the management of this action as a
10 class action. The Class is ascertainable, and there is a well-defined community of interest in the
11 questions of law and/or fact alleged herein since the rights of each Class member were infringed
12 or violated in similar fashion based upon Defendant's uniform misconduct. Notice can be
13 provided through sales and warranty records and publication.

14 37. Questions of law or fact common to the Class exist as to Plaintiffs and all Class
15 members, and these common questions predominate over any questions affecting only individual
16 members of the Class. Among these predominant common questions of law and/or fact are the
17 following:

- 18 A. Whether Defendant's CPUs possess the Spectre Defect and the nature of
19 that defect;
- 20 B. Whether Defendant knew, or should have known, that its CPUs were
21 defective and that, if mitigated, resulted in reduced processing
22 performance;
- 23 C. Whether Defendant had a duty to disclose, and breached its duty to
24 disclose, that its CPUs were defective and that, if mitigated, resulted in
25 reduced processing performance;
- 26 D. Whether Defendant intentionally, recklessly, or negligently
27 misrepresented or omitted material facts including the fact that its CPUs
28

1 are defective and that, if mitigated, resulted in reduced processing
2 performance;

3 E. Whether Defendant made any implied warranties in connection with the
4 sale of the defective CPUs;

5 F. Whether Defendant breached any implied warranties relating to its sale of
6 defective CPUs by failing to resolve the Defect in the manner required by
7 law;

8 G. Whether Defendant breached its express warranties in that its CPUs were
9 defective with respect to manufacture, workmanship, and/or design;

10 H. Whether Defendant violated the Magnuson-Moss Warranty Act, 15 U.S.C.
11 § 2301, *et seq.*;

12 I. Whether Defendant was unjustly enriched by selling defective CPUs;

13 J. Whether Defendant violated California's Consumers Legal Remedies Act,
14 California Civil Code § 1750, *et seq.*;

15 K. Whether Defendant violated California's Unfair Competition Law,
16 California Business & Professions Code § 17200, *et seq.*;

17 L. Whether Plaintiffs and the other Class members overpaid for AMD CPUs;

18 M. Whether Plaintiffs and the other Class members are entitled to equitable
19 relief, including, but not limited to, restitution or injunctive relief; and

20 N. Whether Plaintiffs and the other Class members are entitled to damages
21 and other monetary relief and, if so, in what amount.

22 38. Defendant engaged in a common course of conduct giving rise to the legal rights
23 sought to be enforced by Plaintiffs and the Class. Individual questions, if any, are insignificant
24 by comparison to the numerous common questions that will predominate.

25 39. Plaintiffs' claims are typical of the claims of Class members. The damages
26 sustained by Plaintiffs and the Class flow, in each instance, from a common nucleus of operative
27 facts based on the Defendant's uniform conduct as set forth above. The defenses, if any, that
28

1 will be asserted against Plaintiffs' claims likely will be similar to the defenses that will be
2 asserted, if any, against Class members' claims.

3 40. Plaintiffs will fairly and adequately protect the interests of Class members.
4 Plaintiffs have no interests materially adverse to or that irreconcilably conflict with the interests
5 of Class members and have retained counsel with significant experience in handling class actions
6 and other complex litigation, who will vigorously pursue this action.

7 41. A class action is superior to other available methods for the fair and efficient
8 group-wide adjudication of this controversy, and individual joinder of all Class members is
9 impracticable, if not impossible because a large number of Class members are located throughout
10 the United States. Moreover, the cost to the court system of such individualized litigation would
11 be substantial. Individualized litigation would likewise present the potential for inconsistent or
12 contradictory judgments and would result in significant delay and expense to all parties and
13 multiple courts hearing virtually identical lawsuits. By contrast, the conduct of this action as a
14 class action presents fewer management difficulties, conserves the resources of the parties and
15 the courts, protects the rights of each Class member and maximizes recovery to them.
16 Defendant has acted on grounds generally applicable to the entire Class, thereby making final
17 injunctive relief or corresponding declaratory relief appropriate with respect to the Class as a
18 whole.

19 **VII. CLAIMS FOR RELIEF**

20 **COUNT I**
21 **BREACH OF IMPLIED WARRANTY**

22 42. Plaintiffs incorporate all of the above allegations by reference as if fully set forth
23 herein.

24 43. Plaintiffs assert this claim on behalf of themselves and members of the Class.

25 44. At all relevant times, Defendant AMD was the manufacturer, distributor,
26 warrantor, and/or seller of the defective CPUs at issue, and knew or had reason to know of the
27 specific use for which its processors were purchased or leased. Defendant and its authorized
28

1 agents and resellers sold AMD's CPUs to Plaintiffs and the other Class members in the regular
2 course of business.

3 45. Pursuant to agreements between Defendant and its authorized agents and
4 resellers, the stores that Plaintiffs and the other Class members purchased their defective AMD
5 CPUs from are authorized retailers and authorized CPU service facilities. Plaintiffs and the other
6 Class members are third-party beneficiaries of such contracts.

7 46. Under the Uniform Commercial Code, Defendant is and at all relevant times was
8 a "merchant" and seller of "goods," the AMD CPUs at issue.

9 47. At all relevant times, ADM's CPUs are and were "goods" within the meaning of
10 the Uniform Commercial Code.

11 48. Pursuant to U.C.C. § 2-314, an implied warranty that goods are merchantable is
12 implied in every contract for a sale of goods. Defendant impliedly warranted to members of the
13 general public, including Plaintiffs and the other Class members, that its CPUs were of
14 merchantable quality (*i.e.*, a product of a high enough quality to make it fit for sale, usable for
15 the purpose it is made, of average worth in the marketplace, or not broken unworkable,
16 damaged, contaminated or flawed), was of the same quality as those generally acceptable in the
17 trade or that would pass without objection in the trade, were free from material defects and were
18 reasonably fit for the ordinary purpose for which they were intended or used. In addition,
19 Defendant was or should have been aware of the particular purposes for which its CPUs are
20 used, and that Plaintiffs and the other Class members were relying on the skill and judgment of
21 Defendant to furnish suitable goods for such purpose.

22 49. Defendant breached its implied warranty of merchantability by selling or leasing
23 Plaintiffs and the other Class members defective CPUs. The Spectre Defect renders AMD's
24 CPUs unmerchantable and unfit for their ordinary or particular use or purpose. Defendant has
25 not recalled, repaired, or replaced, free of charge, all AMD CPUs, or any of their defective
26 component parts, or refund the prices paid for such CPUs.

27 50. The Spectre Defect in AMD's CPUs existed when the CPUs left Defendant's and
28 its authorized agents' and retail sellers' possession and thus is inherent in such CPUs.

1 51. As a direct and proximate result of Defendant’s breach of its implied warranty of
2 merchantability, Plaintiffs and the other Class members have suffered damages and continue to
3 suffer damages, including economic damages at the point of sale in terms of the difference
4 between the value of the CPUs as warranted and the value of the CPUs as delivered.

5 Additionally, Plaintiffs and the other Class members either have or will incur economic,
6 incidental, and consequential damages in the cost of repair or replacement and costs of
7 complying with continued contractual obligations, as well as the cost of buying additional CPUs
8 they would not have otherwise purchased, had the CPUs in question not contained the non-
9 repairable Spectre Defect. The amount of said damages is to be proven at trial.

10 52. Defendant AMD cannot disclaim its implied warranty of merchantability, as it
11 knowingly sold or leased defective CPUs.

12 53. Additionally, as manufacturers of consumer goods, Defendant is precluded from
13 excluding or modifying an implied warranty of merchantability or limiting customers’ remedies
14 for breach of this warranty.

15 54. The applicable statute of limitations for the implied warranty claim has been
16 tolled by the discovery rule, concealment, and the terms of the express warranty.

17 55. Plaintiffs and the other Class members are entitled to legal and equitable relief
18 against Defendant, including damages, specific performance, rescission, attorneys’ fees, costs of
19 suit, and other relief as appropriate.

20 **COUNT II**
21 **BREACH OF EXPRESS WARRANTY**

22 56. Plaintiffs incorporate all of the above allegations by reference as if fully set forth
23 herein.

24 57. Plaintiffs assert this claim on behalf of themselves and members of the Class.

25 58. At all relevant times, pursuant to the Uniform Commercial Code, Defendant is
26 and was a “merchant” and seller of “goods,” the AMD CPUs.

27 59. At all relevant times, AMD’s CPUs are and were “goods” within the meaning of
28 the Uniform Commercial Code.

1 60. Under U.C.C. § 2-313, an affirmation of fact, promise, or description made by the
2 seller to the buyer pertaining to the goods becomes a part of the basis of the bargain and creates
3 an express warranty that the goods will conform to the affirmation, promise, or description.

4 61. Defendant AMD represented that its CPUs were reliable and possessed particular
5 processing speeds. Such representations became the basis of the bargain in Plaintiffs' and the
6 other Class members' decisions to purchase or lease AMD's CPUs, or devices containing these
7 CPUs.

8 62. Contrary to its representations, Defendant AMD's CPUs were not reliable due to
9 their critical security vulnerabilities, namely the Spectre Defect. Furthermore, Defendant
10 AMD's CPUs did not operate at stated processing speeds, as the so-called "patches" required to
11 mitigate the Spectre Defect result in reduced processing performance.

12 63. Plaintiffs and the other Class members were subjected to the Spectre Defect in
13 AMD's CPUs within the relevant warranty periods, but were unaware of the existence of the
14 Spectre Defect, which was known and concealed by Defendant AMD.

15 64. Plaintiffs and the other Class members could not have reasonably discovered the
16 Spectre Defect in AMD processors prior to the time when the Spectre Defect was revealed by the
17 technology media in January of 2018.

18 65. Defendant breached its express warranty by selling CPUs that were defective with
19 respect to design, workmanship, and manufacture, when Defendant knew its CPUs were subject
20 to the Spectre Defect and posed security vulnerabilities that, if mitigated, resulted in slower
21 processing speed.

22 66. AMD's CPUs were not of merchantable quality and were unfit for the ordinary
23 purposes for which AMD's CPUs are used because of the Spectre Defect, and do not perform as
24 warranted.

25 67. Defendant AMD knew or should have known that its CPUs suffered from
26 significant security vulnerabilities due to the Spectre Defect much earlier than January 2018. As
27 such, affording Defendant AMD a reasonable opportunity to cure its breach of express warranty
28 would be unnecessary and futile because Defendant has known of and concealed the Spectre

1 Defect and, has not recalled, repaired, or replaced, free of charge, all AMD CPUs , or any of
2 their defective component parts, or refund the prices paid for such CPUs within or outside of the
3 warranty periods despite the Spectre Defect’s existence at the time of sale or lease of AMD’s
4 CPUs, or devices containing AMD’s CPUs.

5 68. Defendant knew that its processors were inherently defective and did not conform
6 to their warranties, and as such, Plaintiffs and the other Class members purchased or leased
7 AMD’s CPUs, or devices containing AMD’s CPUs, under false pretenses.

8 69. As a direct and proximate result of Defendant’s breach of express warranty,
9 Plaintiffs and the other Class members have been damaged in an amount to be determined at
10 trial, including, but not limited to, repair and replacement costs, monetary losses associated with
11 diminished speed of AMD’s CPUs, reduction of the value of their computer devices, and loss of
12 use of or access to their computer devices which contained AMD’s CPUs.

13 **COUNT III**
14 **VIOLATION OF THE MAGNUSON-MOSS WARRANTY ACT (“MMWA”)**
15 **15 U.S.C. § 2301, *et seq.***

16 70. Plaintiffs incorporate all of the above allegations by reference as if fully set forth
17 herein.

18 71. Plaintiffs assert this claim on behalf of themselves and the Class.

19 72. Plaintiffs satisfy the MMWA’s jurisdictional requirement because this action
20 satisfies the diversity jurisdiction requirement under the Class Action Fairness Act, 28 U.S.C. §
21 1332(d).

22 73. Pursuant to MMWA, 15 U.S.C. § 2301(4)-(5), Defendant is a “supplier” and
23 “warrantor.”

24 74. Pursuant to MMWA, 15 U.S.C. § 2301(3), Plaintiffs and the other Class members
25 are “consumers.”

26 75. Pursuant to MMWA, 15 U.S.C. § 2301(1), AMD’s CPUs are “consumer
27 products.”

28 76. Any consumer who is damaged by the failure of a warrantor to comply with a
written or implied warranty has a cause of action under MMWA, 15 U.S.C. § 2310(d)(1).

1 77. Defendant provided Plaintiffs and the other Class members with one or more
2 express warranties, which are covered under the MMWA, 15 U.S.C. § 2301(6). Defendant
3 AMD directly provided warranty coverage for its CPUs, or indirectly provided warranty
4 coverage for its CPUs under one or more manufacturer's warranties, in connection with the
5 purchase or lease of AMD's CPUs, or devices containing AMD's CPUs.

6 78. Plaintiffs and the other Class members were subjected to the Spectre Defect in
7 AMD's CPUs within the warranty periods but had no knowledge of the existence of the Spectre
8 Defect, which was known and concealed by Defendant. Furthermore, AMD has not recalled,
9 repaired, or replaced, free of charge, all of its CPUs, or any of their defective component parts, or
10 refund the prices paid for such CPUs within a reasonable time.

11 79. Defendant provided Plaintiffs and the other Class members with one or more
12 implied warranties, which are covered under MMWA, 15 U.S.C. § 2301(7).

13 80. Defendant breached the warranties covered under MMWA, 15 U.S.C. § 2301(7),
14 in connection with the purchase or lease of AMD processors, or devices containing AMD
15 processors, by misrepresenting the standard, quality, or grade of its CPUs, and failing to disclose
16 and fraudulently concealing the existence of the Spectre Defect. Defendant AMD's CPUs have a
17 common defect in design, workmanship, and manufacture that is subject to critical security flaws
18 and fails to operate as warranted.

19 81. Defendant AMD knew, or should have known, of the Spectre Defect much earlier
20 than January 2018. Affording Defendant a reasonable opportunity to cure its breach of
21 warranties would be unnecessary and futile here because Defendant has known of and concealed
22 the Spectre Defect and, has not recalled, repaired, or replaced, free of charge, all AMD CPUs , or
23 any of their defective component parts, or refund the prices paid for such CPUs within or outside
24 of the warranty periods despite the Spectre Defect's existence when AMD's CPUs or devices
25 containing AMD's CPUs were sold or leased. Given these circumstances, the remedies available
26 under any informal settlement procedure would be inadequate and any requirement that Plaintiffs
27 resort to an informal dispute resolution procedure and/or afford Defendant a reasonable
28 opportunity to cure their breach of warranties is excused and thereby deemed satisfied.

1 82. Plaintiffs and the other Class members would suffer economic hardship if they
2 returned their AMD CPUs, or devices containing the AMD CPUs, but did not receive the return
3 of all payments made by them to Defendant. Thus, Plaintiffs and the other Class members have
4 not re-accepted their AMD CPUs by retaining them.

5 83. The amount in controversy of Plaintiffs' individual claims meets or exceeds the
6 sum of \$25. The amount in controversy of this action exceeds the sum of \$50,000, exclusive of
7 interest and costs, computed on the basis of all claims to be determined in this suit.

8 84. Plaintiffs, individually and on behalf of all similarly situated, seek all damages
9 permitted by law, including the reduction in the value of AMD's CPUs, in an amount to be
10 proven at trial.

11 **COUNT IV**
12 **NEGLIGENCE**

13 85. Plaintiffs incorporate all of the above allegations by reference as if set forth
14 herein.

15 86. Plaintiffs assert this claim on behalf of themselves and members of the Class.

16 87. Defendant AMD was negligent in the manufacture and design of the CPUs
17 containing the Spectre Defect, which CPUs were contained in, but also separate and apart from
18 the computer devices Plaintiffs and the other Class members have purchased.

19 88. Defendant AMD's negligence was a substantial factor and reasonably foreseeable
20 in causing harm to Plaintiffs and the other Class members.

21 89. Plaintiffs and the other Class members have been harmed, as they now own
22 computer devices with CPUs that due to the Spectre Defect are subject to the invasion of a
23 supposedly core protected part of the CPU and decreased performance, in an amount according
24 to proof at trial.

25 **COUNT V**
26 **ASSUMPSIT, RESTITUTION, UNJUST ENRICHMENT, AND/OR QUASI-CONTRACT**

27 90. Plaintiffs incorporate all of the above allegations by reference as if set forth
28 herein.

1 91. Plaintiffs assert this claim on behalf of themselves and members of the Class.

2 92. As Plaintiffs and the other Class members show just grounds for recovering
3 money paid for benefits Defendant AMD received from them, either directly or indirectly, and
4 they have a right to restitution at law through an action derived from the common-law writ of
5 assumpsit by implying a contract at law based on principles of restitution and unjust enrichment,
6 or through quasi-contract.

7 93. Plaintiffs and the other Class members conferred a benefit on Defendant AMD by
8 purchasing or leasing its CPUs, or devices containing AMD's CPUs.

9 94. Defendant AMD, having unjustly received such benefits, is required to make
10 restitution. The circumstances here are such, that, as between the two, it is unjust for Defendant
11 AMD to retain such benefit based on the conduct described above. Such money or property
12 belongs in good conscience to Plaintiffs and the other Class members, and can be traced to funds
13 or property in Defendant's possession. Plaintiffs and the other Class members have unjustly
14 enriched Defendant AMD through payments and the resulting profits enjoyed by Defendant
15 AMD as a direct result of such payments. Plaintiffs' and the other Class members' detriment
16 and Defendant's enrichment were related to and flowed from the conduct challenged herein.

17 95. By virtue of the purchase and sale of the AMD CPUs in question, Defendant
18 AMD alternatively entered into a series of implied-at-law or quasi-contracts that resulted in
19 money being had and received by Defendant, either directly or indirectly, at the expense of
20 Plaintiffs and the other Class members under agreements in assumpsit. Plaintiffs and the other
21 Class members conferred a benefit upon Defendant by purchasing the defective CPUs.
22 Defendant AMD had knowledge of the general receipt of such benefits, which Defendant
23 received, accepted, and retained. Defendant AMD owes Plaintiffs and the other Class members
24 these sums that can be obtained either directly from Class members, Defendant or its authorized
25 retailers.

26 96. Under principles of restitution, an entity that has been unjustly enriched at the
27 expense of another by the retention of benefit wrongfully obtained is required to make restitution
28 to the other. In addition, under common law principles recognized in claims of common counts,

1 101. Defendant AMD is a “person” under CLRA, California Civil Code §1761(c).

2 102. Plaintiffs and the other Class members are “consumers” under CLRA, California
3 Civil Code §1761(d).

4 103. Plaintiffs and the other Class members engaged in “transactions” under CLRA,
5 California Civil Code §1761(e), including the purchase of AMD’s CPUs and the presentation of
6 AMD’s CPUs for repair or replacement of the Spectre Defect.

7 104. Defendant AMD’s unfair and deceptive business practices were intended and did
8 result in the sale of AMD’s CPUs, a defective consumer product.

9 105. Defendant AMD’s CPUs failed to perform in accordance with their expected
10 characteristics, uses, and benefits.

11 106. Defendant AMD had exclusive knowledge of material facts, *i.e.*, that its CPUs
12 were defective, unknown to Plaintiffs and the other Class members. If Plaintiffs and the other
13 Class members had known of the Spectre Defect, they would not have purchased the CPUs at the
14 prices, they die, if at all.

15 107. Defendant AMD had a duty to disclose the Spectre Defect for various reasons,
16 including:

17 a. AMD had exclusive knowledge of the Spectre Defect and other related
18 material facts not known to Plaintiffs or the other Class members; and

19 b. AMD actively concealed material facts from Plaintiffs and the other Class
20 members.

21 108. Defendant engaged in unfair and deceptive practices by misrepresenting or not
22 disclosing the above material facts to Plaintiffs and the other Class members, in violation of Cal.
23 Civ. Code § 1770(a)(5), (7), (14) and (16).

24 109. As a direct and proximate result of Defendant AMD’s conduct, Plaintiffs and the
25 other Class members suffered injury. As such, Plaintiffs and the other Class members are entitled
26 to injunctive relief, court costs, attorneys’ fees, and other relief the Court deems proper.

27 110. At this time, Plaintiffs only seek injunctive relief and do not seek an award of
28 damages under the CLRA.

COUNT VII

**VIOLATION OF CALIFORNIA UNFAIR COMPETITION LAW (“UCL”)
California Business & Professions Code § 17200, *et seq.***

1
2
3 111. Plaintiffs incorporate all of the above allegations by reference as if fully set forth
4 herein.

5 112. Plaintiffs assert this claim on behalf of themselves and members of the Class.

6 113. Defendant AMD’s business acts and practices complained of were centered in,
7 carried out, effectuated and perfected within or had their effect in the State of California, and
8 injured Plaintiffs and all other Class members.

9 114. Defendant AMD has committed acts of unfair competition, as defined by § 17200,
10 *et seq.*, of the California Business Code, by engaging in the acts and practices specified above.

11 115. This claim is brought pursuant to §§ 17203 and 17204 of the California Business
12 and Professional Code to obtain equitable monetary and injunctive relief from Defendant for acts
13 and practices as alleged herein that violated § 7200 of the California Business and Professional
14 Code, commonly known as the Unfair Competition Law.

15 116. Defendant’s conduct as alleged herein violated § 7200. The acts, omissions,
16 practices and non-disclosures of Defendant constituted a common continuous course of conduct
17 of unfair competition by means of the commission of unfair and unlawful business acts or
18 practices within the meaning of California Business & Professions Code § 17200, *et seq.*

19 117. Defendant engaged in “unlawful” business acts and practices by:

- 20 a. Violating the Song-Beverly Consumer Warranty Act, California Civil Code §
21 1792, *et seq.*;
- 22 b. Breaching implied warranties; and
- 23 c. Violating the Consumers Legal Remedies Act, California Civil Code § 1750,
24 *et seq.*

25 118. Defendant engaged in “unfair” business acts and practices by, among other things:

- 26 a. Engaging in conduct where the utility of such conduct, if any, is outweighed
27 by the gravity of the consequences to Plaintiffs and the other Class members,
28 considering the reasonably available alternatives, based on legislatively

1 declared policies not to sell defective products in the market without
2 providing an adequate remedy therefor;

3 b. Engaging in conduct that is immoral, unethical, oppressive, unscrupulous, or
4 substantially injurious to Plaintiffs and the Class; and

5 c. Engaging in unfair business practices by refusing to repair or recall the
6 defective AMD CPUs or providing compensation therefor.

7 119. Specifically, Defendant AMD engaged in “unfair” business acts and practices by
8 selling the AMD CPUs knowing or being aware that the CPUs contained a critical security
9 defect. Defendant also engaged in unfair business acts and practices by making express and
10 implied warranties, which it refuses to honor.

11 120. As such conduct is or may well be continuing and on-going, Plaintiffs and the
12 other Class members are entitled to injunctive relief to prohibit or correct such on-going acts of
13 unfair competition, in addition to obtaining equitable monetary relief.

14 121. Plaintiffs and the other Class members used Defendant’s products and had
15 business dealings with Defendant either directly or indirectly as described above. The acts and
16 practices of Defendant have caused Plaintiffs and the other Class members to lose money and
17 property by being overcharged for and paying for the defective CPUs at issue, or being required
18 to purchase an additional working CPU. Such loss was the result of the above acts of unfair
19 competition and Defendant’s misconduct in violation of the laws set forth above. Plaintiffs and
20 the other Class members are therefore entitled to seek recovery of such amounts. Such injury
21 occurred at the time such monies were paid. Plaintiffs and the other Class members have thus
22 each suffered injury in fact and lost money or property as a result of such acts and practices as
23 set forth in detail above.

24 122. Defendant AMD has unjustly benefitted as a result of its wrongful conduct and its
25 acts of unfair competition. Plaintiffs and the other Class members are accordingly entitled to
26 equitable relief including restitution and/or restitutionary disgorgement of all revenues, earnings,
27 profits, compensation, and benefits that may have been obtained by Defendant as a result of such
28 business acts and practices, pursuant to California Business and Professions Code §§ 17203 and

1 17204, as well as attorneys' fees and costs, pursuant to, among others, California Code of Civil
2 Procedure § 1021.5.

3 **VIII. PRAYER FOR RELIEF**

4 WHEREFORE, Plaintiffs and all Class members pray for judgment against Defendant as
5 follows:

- 6 A. An order declaring this action to be a proper class action pursuant to Rule 23 of
7 the Federal Rules of Civil Procedure, declaring Plaintiffs as the Class
8 representatives, and Plaintiffs' counsel as Class counsel;
- 9 B. An order awarding Plaintiffs and Class members all proper measures of equitable
10 monetary relief and damages, plus any pre- and post-judgment interest to which
11 they may be entitled;
- 12 C. An order awarding declaratory relief and enjoining Defendant from continuing the
13 unlawful, deceptive, harmful, and unfair business conduct and practices alleged
14 herein;
- 15 D. An order awarding equitable, injunctive, and declaratory relief as the Court may
16 deem just and proper, including restitution and restitutionary disgorgement;
- 17 E. A declaration that Defendant is financially responsible for all Class notice and the
18 administration of Class relief;
- 19 F. Awarding Plaintiffs' costs and attorneys' fees; and
- 20 G. Granting such further and other relief as the Court may deem appropriate.

21 **IX. DEMAND FOR JURY TRIAL**

22 Plaintiffs, individually and on behalf of all others similarly situated, demand a trial by
23 jury on all issues so triable.

24 DATED: February 9, 2018

Respectfully Submitted,

25 /s/ Alison Chase

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