TONY DICKEY, and PAUL PARMER, individually and on behalf of all others similarly situated,

Plaintiffs,

v.

ADVANCED MICRO DEVICES, INC., a Delaware corporation,

Defendant.

SECOND AMENDED COMPLAINT FOR:

4. Fraudulent Inducement;
5. Breach of Express Warranties; and

DEMAND FOR JURY TRIAL

CLASS ACTION
Plaintiffs Tony Dickey and Paul Parmer ("Plaintiffs") bring this second amended class action complaint ("Complaint") against Defendant Advanced Micro Devices, Inc., ("AMD" or "Defendant") based on its deceptive marketing of certain of its central processing units ("CPUs"). Plaintiffs, for their Complaint, allege as follows upon personal knowledge as to themselves and their own acts and experiences, and, as to all other matters, upon information and belief, including investigation conducted by their attorneys.

**NATURE OF THE ACTION**

1. AMD is one of two major companies that design and produce CPUs for personal computers.

2. A CPU—a “central processing unit” or “processor”—is defined as “the logic circuitry that responds to and processes the basic instructions that drive a computer. . . . The basic elements of a processor [include]:
   - The arithmetic logic unit (ALU), which carries out arithmetic and logic operations on the operands in instructions.
   - The floating point unit (FPU), also known as a math coprocessor or numeric coprocessor, a specialized coprocessor that manipulates numbers more quickly than the basic microprocessor circuitry can.
   - Register, which hold instructions and other data. Registers supply operands to the ALU and store the results of operations.
   - L1 and L2 cache memory. Their inclusion in the CPU saves time compared to having to get data from random access memory (RAM)."[1]

3. Not long ago, CPUs contained only one main processor and were advertised—and compared against each other—in terms of their “clock” speeds. A CPU’s clock speed describes how fast it can perform calculations and is measured in units of Megahertz (“MHz”) and Gigahertz (“GHz”).

4. Recently, however, AMD—along with its main competitor, Intel—began selling and advertising “multi-core” CPUs (i.e., as opposed to CPUs with only a single processors, which—under today’s terminology—would be described as “single-core” CPUs).

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5. A multi-core CPU is defined as “an integrated circuit (IC) to which two or more processors have been attached for enhanced performance, reduced power consumption, and more efficient simultaneous processing of multiple tasks. . . . A dual core set-up is somewhat comparable to having multiple, separate processors installed in the same computer, but because the two processors are actually plugged into the same socket, the connection between them is faster.”

6. Essentially, a computer with a multi-core CPU is the same as a computer with multiple, independent processors running in parallel but, because the independent processors are joined on a single chip, a multi-core CPU gains efficiencies.

6. Because multi-core CPUs join multiple processors (each of which have their own ALU, FPU, registers, and LI and L2 cache memory—i.e., the “basic [processor] elements” described above, ¶ 2) onto a single chip, each “core” in a multi-core CPU can perform one calculation at a time separately from other cores. And because a multi-core CPU joins multiple processors on to a single chip, the setup allows each core in a multi-core CPUs to multitask—i.e., independently handle calculations or processes—at full speed.

7. With the launch of its “Bulldozer” line of CPUs, AMD announced and promoted the introduction of the “world’s first 8 core CPU.” AMD stated that, with eight cores, its Bulldozer processors were the pinnacle of performance and that consumers could multitask greater than before. Central to AMD’s marketing was its claim that the Bulldozer CPU had “8-cores.” AMD includes the core-count in each of its Bulldozer processor’s model names and numbers (e.g., “AMD FX 8-Core Black Edition”). It also includes the core-count on each of its Bulldozer processor’s individual product webpage, which can be found at specific subdirectories on www.AMD.com.

8. In claiming that its Bulldozer CPU had “8-cores,” however, AMD overstated the number of cores contained in the Bulldozer chips. In fact, the Bulldozer chips functionally have only four cores—not eight, as advertised. Notably, AMD built the Bulldozer processors by stripping away components from two cores (including, for example, each core’s own FPU) and combining

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3 See infra note 8.
what was left to make a single “module.” But by removing key elements of two cores to make one module, the leftover “cores” no longer work independently and, by design, can no longer perform true multitasking (and, thus, are not true cores). As a result, AMD’s Bulldozers suffer from material performance degradation and cannot perform eight instructions simultaneously and independently (i.e., as a truly 8-core processor would, by definition, be capable of doing). That is, while AMD represents that the Bulldozers have “8” cores (i.e., eight countable cores), AMD designed the processors to only have “4” (countable) cores.

9. Average consumers in the market for computer CPUs lack the requisite technical expertise to understand the design of Defendant’s processors, and trust Defendant to convey accurate specifications regarding its CPUs. Because AMD did not convey accurate specifications, tens of thousands of consumers have been misled into buying Bulldozer CPUs that do not conform to what AMD advertised, and cannot perform the way a true eight core CPU would (i.e., perform eight calculations simultaneously, without restriction).

10. Accordingly, this putative class action lawsuit seeks to prevent Defendant from continuing to misrepresent the specifications of its Bulldozer-based CPUs, and actual damages for those deceived into purchasing the products under false pretenses.

PARTIES

11. Plaintiff Tony Dickey is a natural person and citizen of the State of Alabama.

12. Plaintiff Paul Parmer is a natural person and citizen of the State of California.

13. Defendant Advanced Micro Devices, Inc., is a Delaware corporation with its principal place of business located at One AMD Place, P.O. Box 3453, Sunnyvale, CA 94088. AMD does business throughout the United States and the State of California, including in this District.

JURISDICTION AND VENUE

14. The Court has jurisdiction over this action pursuant to 28 U.S.C. § 1332(d)(2), because (i) at least one member of the Classes is a citizen of a different state than the Defendant, (ii) the amount in controversy exceeds $5,000,000, exclusive of interests and costs, and (iii) none of the
exceptions under that subsection apply to this action.

15. This Court has personal jurisdiction over Defendant because Defendant conducts business in California, is headquartered in California, and because the events giving rise to this lawsuit occurred, in substantial part, in California.

16. Venue is proper in the United States District Court for the Northern District of California pursuant to 28 U.S.C. § 1391(b) because Defendant maintains its headquarters and conducts significant business in this District.

**INTRADISTRICT ASSIGNMENT**

17. Pursuant to Civil Local Rule 3-2(e), this case shall be assigned to the San Jose Division.

**CHOICE OF LAW**

18. California law governs the substantive legal issues in the instant matter. AMD’s “Terms of Use / Copyright” state that “[a]ny claim relating to the Materials shall be governed by the internal substantive laws of the State of California, United States of America.”\(^4\) Moreover, the instruction manual that accompanies every AMD Bulldozer processor incorporates AMD’s “Terms of Use.”\(^5\)

19. AMD’s conduct at issue herein also occurred in California. AMD is headquartered in California, and the advertisements at issue here were, on information and belief, drafted in and disseminated from California.\(^6\)

**FACTUAL BACKGROUND**

I. **An Introduction to AMD and CPU Core Technology**

20. AMD was founded in 1969 in Sunnyvale, California and has grown into a global

\(^4\) A true and accurate copy of AMD’s “Terms of Use / Copyright” is attached hereto as Exhibit B.

\(^5\) A true and accurate copy of AMD’s form “AMD Processor” document is attached hereto as Exhibit C (stating that “[f] or more information please visit www.amd.com,” and that consumers should reference what is “set forth in AMD’s Standard Term and Conditions of Sales ... ”).

\(^6\) Search LinkedIn, www.linkedin.com/vsearch/p?keywords=marketing&postalCode=94101&openAdvancedForm=true&locationType=I&countryCode=us&distance=100&f_CC=1497 (last visited Nov. 21, 2016) (showing 90 public profiles of AMD marketing employees within 100 miles of San Francisco, California).
semiconductor manufacturer with facilities around the world. Today, it is the second-largest
supplier of the CPUs found in personal computers and laptops ("PCs"), behind only Intel
Corporation ("Intel").

21. Since its inception, AMD has battled with Intel over market share of the consumer
PC CPU market. Early on, personal computer CPUs were limited to performing only a single
calculation (i.e., processing one instruction) at a time. As such, AMD and Intel focused their
advertisements on how fast their CPUs could perform a single calculation, in units of “clock” speed.
A CPU’s high Megahertz (MHz) and then Gigahertz (GHz) speeds were indicative of high
performance.

22. As advertised clock speeds began to plateau, CPU manufacturers began to increase
(and then advertise) the number of “cores” in their CPUs. AMD and Intel increased the core-count
of their CPUs by joining two or more CPUs into one physical processor (called a “die”). A core, as
it is understood and defined in the industry, is a processing unit that is capable of performing
calculations independent from other cores. A two-core CPU, then, can multitask—that is, perform
two calculations simultaneously and independently (just as two separate CPUs) at a certain clock
speed. For instance, a CPU advertised as being an “8-core 3.4 GHz CPU” is representing that it has
eight independent cores, each independently performing calculations at 3.4 gigahertz.

23. In line with the basic definitions of “processors” and “multi-core processors”
provided above, ¶¶ 2, 5, industry experts and consumers alike define a “core” as a processing unit
capable of performing a calculation independently. Industry texts use this definition, including
Georgia Tech’s College of Computing which states that for “typical off-the-shelf multiprocessor,”
which “[i]ncludes multi-core processors,” “each processor executes its own instructions and
operates on its own data.”7 Similarly, the textbook *Understanding Operating Systems* defines a
multicore processor as “a single chip (one piece of silicon) with two ‘processor cores’ in the same

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7 *Multiprocessors, Georgia Tech College of Computing*, www.cc.gatech.edu/~milos/Teaching/CS6290F07/12_Multiprocessors.ppt (last visited Nov. 21, 2016).
amount of space. With this arrangement, two sets of calculations can take place at the same time.”

Countless other texts repeat this definition—including, for example:

- Siebert, Eric, *VMware V13, Implementation and Administration*, 52 (“Simply put, a multicore CPU combines multiple independent cores on a single physical CPU.”);
- Smith, Roderick W., *LPIC-2, Linux Professional Institute Certification STUDY GUIDE*, (“Most modern computers have at least two CPU cores—CPU components that act like independent CPUs. A dual-core CPU acts like two CPUs.”);
- Shen, Gang, Huange, Xiong, *Advanced Research on Computer Science and Information Engineering*, Communications in Computer and Information Science, 49 (“In the structure of modern computer, CPU has multi-core. The CPU cache (multi-level)—memory forms a leveled storing structure. Two CPU cores are integrated into one chip. Every core is an independent computing unit which can perform computing tasks and have independent registers. L1 Cache.”);
- Brenckmann, Ingo; Pöhling, Mathias, *The SAP HANA Project Guide*, Section 3.1.2 Multi-Core (“In the timeframe 2000-2004 chipmakers came to the conclusion that they could actually pack more than one ‘core’ into one CPU. A core is an independent processor inside a CPU.”); and
- Morley, Deborah; Parker, Charles S., *Understanding COMPUTERS Today and Tomorrow*, 58 (“Most CPUs today are multi-core CPUs, that is, CPUs that contain the processing components or cores of multiple independent processors on a single CPU … Multi-core CPUs allow computers to work simultaneously on more than one task at a time, such as burning a DV while surfing the Web, as well as to work faster within a single application if the software is designed to take advantage of multiple cores.”).

24. Through its marketing, AMD consistently reinforced the common meaning (and, with Intel) helped create the consumer expectation that a core is an independent processing unit. For example, AMD uses the common definition of a core in its investor filings:

“... semiconductor companies are designing and developing multi-core [CPUs], where multiple processor cores are placed on a single die or in a single processor. Multi-core [CPUs] offer enhanced overall system performance and efficiency because computing tasks can be spread across two or more processing cores, each of which can execute a task [i.e., a calculation] at full speed.”

25. AMD used the same definition in 2007 when it stated that its then new “Dual-Core processor puts the power of dual-core technology on the desktop. Dual-core processors contain two

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9 *AMD 10-K*, 4, *supra* (emphasis added).
processing cores, residing on one chip, that perform calculations on two streams of data …”10 and that “[w]ith dual-core technology there are two complete processor cores in one physical package …”11

26. And, in 2010, AMD reinforced the consumer expectation that cores are processors independent from each other, stating that its CPUs are offered “[w]ith the power of four processor cores on a single chip, [and] deliver[] industry-leading multitasking performance.”12 Even today, AMD defines a core as being “two or more processors on a single chip.”13

27. Similarly, Intel—AMD’s main competitor, and effectively the only other brand of CPUs cross-shopped by consumers—defines a core as being “a hardware term that describes the number of independent central processing units in a single computing component (die or chip).”14

28. This definition of “core” (i.e., as an independent processing unit) is also shared by consumers and computer enthusiasts. For example, companies and individuals have written and shared various “how to” articles describing how consumers can assign individual computer processes (such as an audio application, for example) to a single core on a multi-core CPU (which has the benefit of keeping every other core on that multi-core CPU unencumbered by that specific

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10 Amazon.com: AMD Athlon 64 X2 Dual-Core 5600+ 2.8 GHz Processor, Socket AM2: Electronics, http://www.amazon.com/gp/product/B000MNA082?ie=UTF8&ref_=de_a_smtd&showDetailTechData=1#technical-data (last visited Nov. 21, 2016) (emphasis added).
14 ARK | Intel® Core™ i5-6600 Processor (6M Cache, up to 3.90 GHz), ark.intel.com/products/88188/Intel-Core-i5-6600-Processor-6M-Cache-up-to-3_90-GHz (last visited Nov. 21, 2016).
computer process and can result in net efficiencies). Such techniques would not be possible if individual cores were not complete, independent processors.

29. Likewise, and as alleged more specifically below, this definition of “core” is also shared by Plaintiffs Dickey and Parmer. In line with the industry standard definition (and common usage) of the term discussed herein, both Plaintiffs understand that when a company advertises a multi-core CPU, that company is promising that the advertised CPU will utilize a specific number of independent processing units that—by virtue of their independence from the CPU’s other cores—are each capable of independent operation at the CPU’s advertised clock speed (e.g., a 4.0 GHz “8-core” CPU would utilize eight independent processing units that can each simultaneously process tasks at speeds of 4.0 GHz).

30. However, since launching its “Bulldozer” CPUs, AMD has deceived consumers by advertising Bulldozers as having eight cores—two more than the competition—when they really only have four complete cores.

II. **AMD Falsely Advertises Its Bulldozer Chips As Having Eight “Cores.”**

31. With its Bulldozer product line, AMD aimed to further convince consumers that a high core-count in a CPU is equal to high performance, emphasizing that it offers more cores than the competition. A close inspection of the Bulldozer’s CPU architecture and technical literature, however, reveals that AMD uniformly overstated the number of cores in its processors.

   A. **AMD advertises its Bulldozer CPUs as having eight “cores.”**

32. Since launching the Bulldozer CPUs, AMD’s marketing online and on-packaging has centered on their number of purported cores in each Bulldozer CPU. For example, on its website www.amd.com, AMD advertises the following for its Bulldozer chips:

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(Figure 1) (emphasis added.)

33. AMD makes similar representations at online retailers’ webpages for the Bulldozer processors. For example, AMD caused the NewEgg.com and Amazon.com product page descriptions to prominently include the number of cores in the title for the Bulldozer processors:

(Figure 3. AMD’s Newegg.com page) (emphasis added.)

(Figure 4. AMD’s Amazon.com page) (emphasis added.)

34. Beyond webpage titles, AMD provides the same online retailers descriptive marketing copy for its Bulldozer processors. For instance, AMD repeatedly emphasizes that the Bulldozer processors have eight cores:

19 Amazon.com: AMD Athlon 64 X2 Dual-Core 5600+ 2.8 GHz Processor, Socket AM2: Electronics, infra.
(Figure 5, showing AMD’s representations on Newegg.com) (emphasis added.)

AMD similarly ensured that its marketing at brick-and-mortar stores emphasized the Bulldozers’ core-count. For example, AMD prominently displays that the FX-9590 Bulldozer CPU has “8 cores” on the product’s packaging, including on two different product seals that must be broken before consumers can access the processor (i.e., consumers must view the representation before using the product). See Figures 6–8.

(Figure 6, showing the FX-9590 Bulldozer’s retail packaging) (emphasis added.)


Figures 6 and 7 are excerpts taken from AMD’s FX9590 Bulldozer processor’s packaging, a true and accurate reproduction of which is attached hereto as Exhibit D.
(Figure 7, showing product seal and incorporation of www.amd.com) (emphasis added.)

(Figure 8, showing secondary product seal and incorporation of www.amd.com) (emphasis added.)

36. And as noted above, even the full product names for AMD’s Bulldozer CPUs state that each has 8 cores (e.g., “AMD FX 8-Core Black Edition”).

37. Taken together, AMD’s marketing and advertisements for the Bulldozer processors—including those appearing on every processor’s packaging—make clear that the Bulldozer CPUs have “8-cores.” However, as explained below, AMD has overstated the number of cores within its Bulldozer processors.

B. AMD’s Bulldozer CPUs Do Not Have Eight Cores.

38. Despite Defendant’s claims, AMD’s Bulldozer CPUs do not have eight cores. Instead, AMD designed its Buldozers around four component-sharing “modules” rather than eight independent cores. A technical inspection of the Bulldozer processors and review of trade publications demonstrate that each of the 8 “cores” in a Bulldozer CPU lacks key processor

22 Figure 8 is an excerpt taken from AMD’s FX9590 Bulldozer processor’s secondary packaging, a true and accurate reproduction of which is attached hereto as Exhibit E.
elements. At best, then, each of the 8 “cores” in a Bulldozer CPU is a sub-processor that cannot, by design and definition, operate and simultaneously multitask as actual cores.

39. The foundation of every AMD Bulldozer processor is AMD’s “module” technology that contains two sub-processing units. In its marketing, AMD represents that each module contains two cores, but that is not the case because a Bulldozer module begins as a single core, to which AMD adds some—but not all—of the components from another core. As described above, a core is a processing unit (i.e., a processor with its own ALU, FPU, registers, and L1 and L2 cache memory) that is independent from other processing units on the same physical chip or die. AMD’s decision to provide each module with only some (but not all) of the components of two cores means a module contains only one complete core, not two as advertised. While two complete cores can simultaneously process two instructions independently from each other, AMD’s Bulldozer modules cannot.

40. A visual comparison of a module to a core reveals that a module does not contain two cores. Figure 9 shows a pre-Bulldozer AMD CPU design. There, a single core has a dedicated (not shared) floating-point unit (“FPU”) along with L1 and L2 cache. Similarly, Figure 10 shows a current Intel design where a single core has a dedicated (not shared) FPU and L1 and L2 cache.25

23 AMD subsequently released “Piledriver” and “Steamroller” processors that contain and were built using Bulldozer module technology.

24 A floating point unit is a sub processor purpose-built to perform calculations related to “floating points,” or non-integer number (i.e., numbers with decimal places). L2 cache is a bank of computer memory that serves as a repository for a processing unit.

25 In addition to its multi-core processors, Intel offers a “Hyper-Threading” feature on its CPUs. Hyper-Threading is a technology used by Intel to create virtual cores. Specifically, engineers found that by adding additional components to a CPU, it may be possible to cause one core to process two instructions rather than one. By including Hyper-Threading, Intel increased performance of a single core. However, Hyper-Threading does not offer the same performance as two “physical” (i.e., actual) cores.

Importantly, Intel does not market its CPUs with Hyper-Threading as having more cores than a chip without Hyper-Threading. That is, Intel does not count Hyper-Threading’s virtual cores as additional “physical cores.” For example, Intel advertises its Hyper-Thread enabled Core i5 chips as having “2 cores” but being capable of executing “4 threads,” what it defines as “a software term for the basic ordered sequence of instructions that can be passed through or processed by a single CPU core.” See ARK | Intel® Core™ i5-5250U Processor (3M Cache, up to 2.70 GHz), http://ark.intel.com/products/84984/Intel-Core-i5-5250U-Processor-3M-Cache-up-to-2_70-GHz (last visited Nov. 21, 2016).
With these designs, each core can process an instruction independently from other cores because it has its own dedicated cache and FPU, among other components (e.g., ALU and registers). These complete processing units fit into the definition of a core. And, an 8-core CPU built with these designs will have eight copies of the cores shown above on one physical processor or die and, thus, would contain eight FPUs and eight sets of L1 and L2 cache.

(Figure 9, showing AMD’s Phenom II core with a separate and dedicated (non-shared) floating-point unit and L2 cache, among other components.)

(Figure 10, showing Intel’s Westmere core with a separate floating-point unit and L2 cache, among other components)

(Figure 11, showing a Bulldozer module with two module processing units marked as “Core 0” and “Core 1” and sharing a single floating point unit and L2 cache) (emphasis added, showing shared components.)

41. But as Figure 11 reveals, AMD designed its module processing units to share common components. As such, AMD’s advertised “cores” are not independent from each other and, by definition, are not actual cores. For instance, AMD’s Bulldozer module processing units share a single FPU. If one module processing unit performs a floating point calculation, the other must wait until that resource is free for its own floating point calculation, creating a bottleneck. The same is true for the L2 cache, and other shared sub-components. A Bulldozer CPU advertised as having “eight cores,” then, has eight module sub-processing units but only four FPUs, four sets of L2 cache, and four sets of other important core components. As such, the “eight core” AMD Bulldozer CPU does not have eight cores under the industry standard and commonly accepted definition.

42. Looking at entire processors, it becomes evident that the Bulldogs do not have “8-cores.” Figure 12, on the following page, shows an Intel processor with eight true cores. There, eight cores are identified and they all effectively follow the Intel core design in Figure 10.

(Figure 12, showing an Intel Core i7-5960X eight core processor.)

43. In contrast, Figure 13 shows an FX-8150 8-Core Bulldozer processor. There, only four modules are countable and they follow the design pattern identified in Figure 11.

(Figure 13, showing an “8-core” AMD Bulldozer processor.)

44. In fact, when not marketing to consumers, AMD acknowledges that a module is not equal to two cores. In 2013, AMD released a technical video of one of its engineers describing the Bulldozer design. In the video, the engineer states that AMD’s modules have “additional sharing” when compared to existing cores and that modules, rather than module processing units, have “everything necessary to schedule a code on these processors.” That is, an “8 core” Bulldozer CPU with four modules really only has four actual cores.

30 Id.
C. Misrepresenting a CPU’s Core-count is Material.

45. As the AMD engineer put it: Bulldozer module processing units share more resources than a core. In practice, AMD’s choice to design the Bulldozer module processor units to share components creates a performance bottleneck compared to CPUs with actual cores.

46. When it was released in 2011, AMD advertised its 3.3 GHz FX-8150 Bulldozer processor as being the “first-ever eight-core desktop processor” for consumers. Intel’s competing chip at the time was its four core Intel Core i7-2600K running at 3.3 GHz. As these specifications suggest, the competing chips operate at the same clock speeds, but AMD seemingly bests Intel on core-count. As such, consumers in the market for CPUs would identify the AMD chip as the better offering because it offers double the number of cores at the same speeds—therefore it would be expected that AMD’s CPU would be twice as fast as Intel’s. But as described above, the Bulldozer does not contain eight cores and its performance is less than it would be for a true eight-core CPU.

47. For instance, Figure 14 is a chart from a representative technical review of a Bulldozer processor compared against an Intel processor (lower is better). There, the “8-core” FX-8150 Bulldozer processor is 96% slower than the 4-core (with Hyper-Threading) Intel Core i7-2600K. In fact, the reviewer discovered that the new “8-core” Bulldozer chip was often slower than AMD’s older 6-core processor.

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31 The Bulldozer Review: AMD FX-8150 Tested - Print View, supra.
34 Id.
35 Id.
48. The reason AMD’s “8-core” Bulldozer was slower than Intel’s 4-core CPU and its own 6-core CPU is that it does not have “8-cores,” but only eight module processing units with shared components. And even if they were privy to the Bulldozer technical design documentation, average consumers in the market for a CPU lack the requisite technical expertise to understand the underlying design of the Bulldozer processors. Instead, average consumers trust AMD to convey accurate specifications in its marketing.

49. And although AMD knew that average consumers were unable to discern the falsehood of its representations at the time of sale, AMD misled consumers who desired a processor with eight cores by advertising inflated core-counts of its Bulldozer CPUs. As a result, tens of thousands of consumers have been deceived by AMD’s marketing and purchased Bulldozer processors believing AMD’s representations about its core-count to be true.

III. Plaintiff Dickey’s Experience With His FX-9590 Processor.

50. On March 10, 2015, Plaintiff Dickey navigated to AMD.com’s product webpage for the FX-9590 Bulldozer chip (located at http://products.amd.com/en-us/search/CPU/AMD-FX-
Series/AMD-FX-8-Core-Black-Edition/FX-9590/98). On AMD’s website, Plaintiff Dickey saw
representations identical to those in Figures 1 and 2. Specifically, Plaintiff Dickey saw
representations that the FX-9590 Bulldozer chip was “the first native 8-core desktop processor” and
had “8-core[s].”

51. Plaintiff Dickey then navigated to www.Newegg.com where he saw AMD’s
representations claiming that the Bulldozer processor had “8 cores.” The representations he saw
were created by AMD and provided by it to Newegg.com. Specifically, Plaintiff Dickey saw
representations on Newegg.com that the FX-9590 Bulldozer was the “first native 8-core desktop
processor” and “the industry’s first and only native 8-core desktop processor for unmatched
multitasking and pure core performance with ‘Bulldozer’ architecture,” identical to the
representations in Figures 3 and 5. These also matched the representations AMD made on its own
website.

52. After viewing and relying upon these representations, on March 10, 2015, Plaintiff
Dickey purchased two FX-9590 Bulldozer processors on Newegg.com for $299.99. Plaintiff Dickey
then read the representations that AMD created for the processors’ packaging when he received the
FX-9590 processors in the mail but prior to opening and using the product. Specifically, Plaintiff
Dickey read AMD’s representations that the FX-9590 Bulldozer was an “8-core” processor, as
shown in Figures 6–8.

53. Plaintiff Dickey then began using the AMD FX-9590 Bulldozer processors.

However, as described above, the FX-9590 Bulldozer processors Plaintiff Dickey purchased did not
have eight cores each. Instead, they each only contained four Bulldozer “modules,” which at best
could constitute four cores. As a result, Plaintiff Dickey’s AMD FX-9590 Bulldozer processors did
not perform as well as a CPU with the same clock speed but with eight true cores.

54. Plaintiff Dickey purchased the FX-9590 Black Edition 8-Core Bulldozer processor
specifically because AMD advertised it as having 8 cores. Relying on those advertisements, and
based on his own understanding of the term “core,” Plaintiff Dickey believed that the FX-9590
Black Edition 8-Core Bulldozer processor would contain 8 cores, such that each “core” would be
independent from all the others (i.e., it would not share resources with the other cores) and would be
capable of performing independent calculations at full speed.

55. Had Dickey known that each of the advertised “cores” in the FX-9590 Black Edition
8-Core Bulldozer processor shared processing resources (e.g., the FPU and cache)—and, thus, was
not independent or, by design, capable of performing at full speed—he would not have purchased it
in the first place (or, at the least, would have paid less for it).

56. Accordingly, Plaintiff Dickey has suffered damages as the result of AMD’s
misrepresentations in the form of money paid to purchase the FX-9590 Bulldozer processors.

57. Plaintiff Dickey is likely to consider purchasing AMD’s processors in the future and
requires an injunction requiring AMD to truthfully advertise its processor specifications going
forward. Defendant AMD is one of only two major companies that provide processors for consumer
personal computers.\textsuperscript{37} As such, Plaintiff Dickey will be exposed to AMD’s deceptive marketing in
the future and is effectively left with no other option but to purchase products from AMD or Intel.
Plaintiff Dickey would consider purchasing AMD’s Bulldozer chips in the future if they were
accurately advertised and priced commensurately with their true value. Moreover, an injunction
requiring AMD to stop falsely marketing its CPUs will have an effect on the market for CPUs,
leading to fewer misleading advertisements.

IV. Plaintiff Parmer’s Experience With His FX 8350 Black Edition 8-Core Processor.

58. On or around June 2015, Plaintiff Parmer purchased an FX 8350 Black Edition 8-
Core Bulldozer processor for $189.99 from Amazon.com.

59. Before purchasing the product, Plaintiff Parmer recognized that the name of the
product identified that it had “8-Cores.”

60. In addition, and also before deciding to make his purchase, Plaintiff Parmer visited
AMD.com and the FX 8350 AMD product webpage, located at http://shop.amd.com/en-
us/componentsprocessors/FD8350FRHKBOX, and viewed representations substantially similar to
\textsuperscript{37}Kay, Roger, \textit{Intel v. AMD: The Juggernaut Vs. The Squid}, Forbes.com (Nov. 25, 2014),
visited Nov. 21, 2016).
those identified in Exhibit F. Specifically, Plaintiff Parmer saw and replied upon the representations on AMD.com that the FX-8350 Black Edition 8-Core Bulldozer was the “first native 8-core desktop processor” and “the industry’s first and only native 8-core desktop processor for unmatched multitasking and pure core performance with ‘Bulldozer’ architecture.” See Exhibit F.

61. Plaintiff Parmer then began using the FX 8350 Black Edition 8-Core Bulldozer processor. However, as described above, the FX 8350 Black Edition 8-Core Bulldozer processor Plaintiff Parmer purchased did not have 8 independent cores. Instead, it only contained four Bulldozer “modules,” which at best could constitute four cores. As a result, Plaintiff Parmer’s FX 8350 Black Edition 8-Core Bulldozer processor did not perform as well as a CPU with the same clock speed but with eight true cores.

62. Plaintiff Parmer purchased the FX 8350 Black Edition 8-Core Bulldozer processor specifically because AMD advertised it as having 8-cores. Relying on those advertisements, and based on his own understanding of the term “core,” Plaintiff Parmer believed that the FX 8350 Black Edition 8-Core Bulldozer processor would contain 8 cores, such that each “core” would be independent from all the others (i.e., it would not share resources with the other cores) and would be capable of performing independent calculations at full speed.

63. Had Parmer known that each of the advertised “cores” in the FX 8350 Black Edition 8-Core Bulldozer processor shared processing resources (e.g., the FPU and cache)—and, thus, was not independent or capable of performing at full speed—he would not have purchased it in the first place (or, at least, would have paid less for it).

64. Accordingly, Plaintiff Parmer has suffered damages as the result of AMD’s misrepresentations in the form of money paid to purchase the FX 8350 Black Edition 8-Core Bulldozer.

65. Plaintiff Parmer is likely to consider purchasing AMD’s processors in the future and requires an injunction requiring AMD to truthfully advertise its processor specifications going forward. Defendant AMD is one of only two major companies that provide processors for consumer
personal computers. As such, Plaintiff Parmer will be exposed to AMD’s deceptive marketing in
the future and is effectively left with no other option but to purchase products from AMD or Intel.
Plaintiff Parmer would consider purchasing AMD’s Bulldozer chips in the future if they were
accurately advertised and priced commensurately with their true value. Moreover, an injunction
requiring AMD to stop falsely marketing its CPUs will have an effect on the market for CPUs,
leading to fewer misleading advertisements.

CLASS ALLEGATIONS

66. Plaintiffs Dickey and Parmer bring this action pursuant to Federal Rule of Civil
Procedure 23(b)(2) and Rule 23(b)(3) on behalf of themselves and a national Class of similarly
situated individuals (the “Nationwide Class”) defined as follows:

All individuals in the United States that purchased an AMD Bulldozer processor after
viewing and relying upon the description provided on that processor’s respective
AMD webpage, including:

67. Plaintiff Parmer brings this action pursuant to Federal Rule of Civil Procedure 23(b)(2) and Rule 23(b)(3) on behalf of himself and a statewide Class of similarly situated individuals (the “California Class”) defined as follows:

All California residents that purchased any of the following AMD Bulldozer processors: FX-8120, FX-8150, FX-8320, FX-8350, FX-8370, FX-9370, and FX-9590.

68. The following people are excluded from the Classes: (1) any Judge or Magistrate presiding over this action and members of their families; (2) Defendant, Defendant’s subsidiaries, parents, successors, predecessors, and any entity in which the Defendant or its parents have a controlling interest and its current or former employees, officers and directors; (3) persons who properly execute and file a timely request for exclusion from the Classes; (4) persons whose claims in this matter have been finally adjudicated on the merits or otherwise released; (5) Plaintiffs’ counsel and Defendant’s counsel; and (6) the legal representatives, successors, and assigns of any such excluded persons.

69. Numerosity: The exact number of members of the Classes is unknown and is not available to Plaintiffs at this time, but individual joinder in this case is impracticable. The Classes likely consists of tens of thousands of individuals. Members of the Classes can be easily identified

8120, FX-8150, FX-8320, FX-8350, FX-8370, FX-9370, and FX-9590 Bulldozer processors (“Bulldozer Processors”) are attached hereto as Exhibit G, emphasis showing substantially similar representations and specifications. As the representations in Exhibit G show, AMD built all of the Bulldozer Processors around the same “Bulldozer Microarchitecture,” meaning the processors only differ with regards to price, clock speed (GHz), and other non-material or not-at-issue features. See also AMD FX-Series microprocessor family, http://www.cpu-world.com/CPUs/Bulldozer/TYPEN-FX-Series.html (last visited Nov. 21, 2016).

In addition, and as shown in Exhibit G, the Bulldozer Processors were marketed in the same way. Marketing for each contains the core-count within the product name, product description, product details, and on the box. Moreover, AMD overstated the core-count for each processor in the same way: AMD counted each module as two cores even though a Bulldozer module processing unit is not equal to a core. And, in one of its Form 10-Ks, AMD states the following about its FX processors: “Our CPUs for desktop PC platforms also consist of the following: AMD FX processors based on the ‘Bulldozer’ and ‘Piledriver’ x86 multi-core architecture ….” Advanced Micro Devices - SEC Filing, http://ir.amd.com/mobile/view?c=74093&v=202&d=3&id=aHR0cDovL2FwaS50ZW5rd2l6YXJkLmNvbS9maWxpbcueG1sP2lwYWdlPTg3NDQwODgmRFNFUT0xJlNFUT04JlNRREVQTQz1TRUNUSU9OX1BBR0UmZXhwPSZzdWJzaWQ9NTc%3D (last visited Nov. 21, 2016).
through Defendant’s or its agents’ records.

70. **Commonality and Predominance**: There are many questions of law and fact common to the claims of Plaintiffs and the other members of the Classes, and those questions predominate over any questions that may affect individual members of the Classes. Common questions for the Classes include but are not limited to the following:

   a) Whether Defendant intentionally misrepresented the core-count of its Bulldozer Processors;
   b) Whether Defendant’s conduct described herein was willful;
   c) Whether Defendant’s conduct described herein constitutes a violation of California’s Consumers Legal Remedies Act (Cal. Civ. Code. §§ 1750, et seq.);
   d) Whether Defendant’s conduct described herein constitutes a violation of the Unfair Competition Law (Cal. Bus. & Prof. Code §§ 17200, et seq.);
   e) Whether Defendant’s conduct described herein constitutes a violation of the False Advertising Law (Cal. Bus. & Prof. Code §§ 17500, et seq.);
   f) Whether Defendant’s conduct described herein constitutes fraud in the inducement;
   g) Whether Defendant’s conduct described herein constitutes a breach of express warranty; and
   h) Whether Defendant’s conduct described herein constitutes negligent misrepresentation.

71. **Typicality**: Plaintiffs’ claims are typical of the claims of the other members of the Classes. Plaintiffs and the Classes sustained damages as a result of Defendant’s uniform wrongful conduct during transactions with Plaintiffs and the Classes.

72. **Adequate Representation**: Plaintiffs have and will continue to fairly and adequately represent and protect the interests of the Classes, and he has retained counsel competent and experienced in complex litigation and class actions. Plaintiffs have no interests antagonistic to those
of the Classes, and Defendant has no defenses unique to Plaintiffs. Plaintiffs and their counsel are committed to vigorously prosecuting this action on behalf of the members of the Classes, and they have the resources to do so. Neither Plaintiffs nor their counsel has any interest adverse to those of the other members of the Classes.

73. **Policies Generally Applicable to the Classes**: This class action is appropriate for certification because Defendant has acted or refused to act on grounds generally applicable to the Classes, thereby requiring the Court’s imposition of uniform relief to ensure compatible standards of conduct toward the members of the Classes and making final injunctive relief appropriate with respect to each of the Classes. Defendant’s policies challenged herein apply and affect the members of the Classes uniformly and Plaintiffs’ challenge of these policies hinges on Defendant’s conduct with respect to the Classes, not on facts or law applicable only to Plaintiffs.

74. **Superiority**: This class action is also appropriate for certification because class proceedings are superior to all other available methods for the fair and efficient adjudication of this controversy and joinder of all members of the Classes is impracticable. The damages suffered by the individual members of the Classes will likely be small relative to the burden and expense of individual prosecution of the complex litigation necessitated by Defendant’s wrongful conduct. Thus, it would be virtually impossible for the individual members of the Classes to obtain effective relief from Defendant’s misconduct. Even if members of the Classes could sustain such individual litigation, it would not be preferable to a class action because individual litigation would increase the delay and expense to all parties due to the complex legal and factual controversies presented in this Complaint. By contrast, a class action presents far fewer management difficulties and provides the benefits of single adjudication, economy of scale, and comprehensive supervision by a single court. Economies of time, effort, and expense will be fostered and uniformity of decisions will be ensured.

75. Plaintiffs reserve the right to revise the foregoing “Class Allegations” and “Class Definition” based on facts learned through additional investigation and in discovery.
FIRST CAUSE OF ACTION
Violation of the Consumers Legal Remedies Act
(On Behalf of Plaintiffs and the Classes)

76. Plaintiffs incorporate by reference the foregoing allegations as if fully set forth herein.

77. The Consumers Legal Remedies Act ("CLRA") applies to Defendant’s actions and conduct as described herein because it extends to transactions that are intended to result, or which have resulted, in the sale of goods or services to consumers.

78. Defendant is a “person” as defined by Cal. Civ. Code § 1761(c).

79. Plaintiffs and each member of the Classes are “consumers” as defined by Cal. Civ. Code § 1761(a).

80. Defendant’s Bulldozer Processors are “goods” within the meaning of Cal. Civ. Code § 1761(a).

81. As described herein, Defendant has engaged in deceptive practices, unlawful methods of competition, and/or unfair acts as defined by Cal. Civ. Code §§ 1750 et seq., to the detriment of Plaintiffs and the Classes.

82. Defendant, acting with knowledge, intentionally and unlawfully brought harm upon Plaintiffs and the Classes by representing that the Bulldozer Processors had “8-cores” when in fact Defendant’s representations were false because the Bulldozer Processors have only four complete cores.

83. Specifically, Defendant violated Cal. Civ. Code § 1750 in at least the following respects:

a. In violation of § 1770(5), by representing that the Bulldozer Processors had characteristics, ingredients, uses, benefits, or quantities which they did not have;

b. In violation of § 1770(7), by representing that the Bulldozer Processors were of a particular standard, quality, or grade of which they are not; and

c. In violation of § 1770(9), by advertising the Bulldozer Processors with the
intent not to sell its goods as advertised.

84. Defendant’s unfair or deceptive acts or practices were capable of deceiving a substantial portion of the purchasing public.

85. Defendant knew that it was unable or unwilling to manufacture, distribute, and sell processors with the advertised specifications at the time that it made representations claiming that the Bulldozer Processors had twice the number of cores that they actually had. Specifically, Defendant possessed technical materials and documentation and would have known that the Bulldozer modules were not equivalent to two cores as advertised.

86. Once Defendant made specific public representations regarding the specifications of the Bulldozer Processors, Defendant was under a duty to Plaintiffs and the Classes to disclose its inability or unwillingness to manufacture, distribute, and sell processors as advertised because:

   a. Defendant was in a superior position to know the true state of facts about the specifications of the Bulldozer Processors;

   b. Plaintiffs and the Classes could not reasonably have been expected to learn or discover that Defendant did not design the Bulldozer Processors with the advertised specifications;

   c. Defendant knew that Plaintiffs and the members of the Classes could not reasonably have been expected to learn or discover that the Bulldozer Processors did not contain the core-count advertised; and

   d. Defendant knew, and in fact intended, that Plaintiffs and the members of the Classes would rely on Defendant’s representations regarding the processors’ core-count in choosing whether or not to purchase the Bulldozer Processors.

87. In failing to disclose its inability or unwillingness to design, manufacture, and sell processors with the advertised specifications, Defendant has knowingly and intentionally concealed material facts and breached its duty not to do so.

88. The facts concealed or not disclosed by Defendant to Plaintiffs and the Classes, including that the Bulldozer Processors did not have any many cores as advertised, are material in
that a reasonable consumer would have considered them to be important in deciding whether or not to purchase the Bulldozer Processors.

89. Plaintiffs and the Classes reasonably expect their processors to have the specifications equal to what Defendant advertised based upon Defendant’s representations found online, the processors’ packaging, and in the processors’ names. Plaintiffs’ and members of the Class’s expectations were reasonable under the circumstances.

90. The core-count of the Bulldozer Processors are and were material selling points of Defendant’s processors, and primary reasons to purchase the products.

91. Plaintiffs and members of the Classes relied on the representations made by Defendant about the core-count of the Bulldozer Processors when purchasing the products.

92. Defendant’s false representations about the core-count of the Bulldozer Processors were acts likely to mislead Plaintiffs and the members of the Classes acting reasonably under the circumstances.

93. Through the misrepresentations and omissions detailed herein, Defendant wrongfully induced Plaintiffs and the other members of the Classes to purchase the Bulldozer Processors when they otherwise would not have purchased the processors or would have only agreed to purchase them at a lower price.

94. As a direct and proximate result of Defendant’s violation of Cal. Civ. Code §§ 1750, et seq., Plaintiffs and each member of the Classes have suffered harm in the form of paying monies to Defendant without receiving the entire benefit of his or her bargain.

95. Plaintiffs and the members of the Classes are likely to purchase processors with AMD technology in the future and require an injunction requiring AMD to truthfully advertise its processors’ specifications. Specifically, because AMD and its competitor Intel manufacture and distribute effectively all consumer CPUs, Plaintiffs and members of the Classes will be exposed to AMD’s deceptive marketing in the future and are effectively left with no other option but to purchase products from AMD or Intel.

96. Under Cal. Civ. Code § 1780(a) and (b), Plaintiffs, individually and on behalf of the
Classes, seek an injunction requiring Defendant to cease and desist the illegal conduct alleged in this Complaint, and all other appropriate remedies for its violations of the CLRA. For the sake of clarity, Plaintiffs explicitly disclaims any claim for damages under the CLRA at this time.

**SECOND CAUSE OF ACTION**

Violations of California’s Unfair Competition Law  
**Cal. Bus. & Prof. Code §§ 17200, et seq.**  
(On Behalf of Plaintiffs and the Classes)

97. Plaintiffs incorporate by reference the foregoing allegations as if fully set forth herein.

98. California’s Unfair Competition Law (“UCL”), Cal Bus. & Prof. Code §§ 17200, et seq., protects both consumers and competitors by promoting fair competition in commercial markets for goods and services.

99. The UCL prohibits any unlawful, unfair, or fraudulent business act or practice, including the employment of any deception, fraud, false pretense, false promise, misrepresentation, or the concealment, suppression, or omission of any material fact. A business practice need only meet one of the three criteria to be considered unfair competition.

100. The specifications of a consumer product is a material term of any transaction because it directly affects a consumer’s choice of, or conduct regarding, whether to purchase a product. Any deception or fraud related to the specifications of a product is materially misleading.

101. As described herein, Defendant has engaged in deceptive business practices, as defined by the UCL, by misrepresenting the core-count of its Bulldozer Processors.

102. Defendant’s representations were, in fact, false. Defendant’s processors do not actually contain the advertised core-count. In particular, Defendant’s Bulldozer Processors contain four “modules” (i.e., four complete cores) which are materially distinct from “8-cores” that are advertised.

103. Defendant has violated the fraudulent prong of the UCL by knowingly making false representations to consumers—including Plaintiffs and the Class—regarding the number of cores in its Bulldozer Processors. These representations were made in an effort to convince consumers to purchase the Bulldozer Processors.
104. Reasonable consumers are likely to be, and Plaintiffs and the Classes were, deceived by Defendant’s misrepresentations about the specifications of the Bulldozer Processors.

105. Defendant also violated the UCL’s unfair prong by causing substantial injury to consumers through its fraudulent conduct described above. The injuries caused by Defendant’s unfair conduct are not outweighed by any countervailing benefits to consumers or competition, and the injury is one that consumers themselves could not reasonably have avoided. Given the information asymmetry between Defendant and consumers regarding the true specifications of the Bulldozer Processors, Defendant knew or had reason to know that Plaintiffs and the Classes could not have reasonably known or discovered the falsity of representations about the actual specifications of the Bulldozer Processors.

106. Defendant’s fraudulent and unfair conduct occurred during the marketing, distribution, and sale of consumer-grade CPUs, and therefore occurred in the course of Defendant’s business practices.

107. Defendant’s fraudulent and unfair conduct directly and proximately caused Plaintiffs and the Classes actual monetary damages in the form of the price paid for their Bulldozer Processors—typically between $150 and $300—or, at least, the difference between what they paid for the processors and their actual value.

108. But for Defendant’s conduct as described herein, Plaintiffs and the Classes would not have purchased the Bulldozer Processors, or would have paid substantially less for them.

109. Pursuant to Cal. Bus. & Prof. Code § 17203, Plaintiffs seek an order (1) requiring Defendant to cease the unfair practices described herein; (2) requiring Defendant to restore to Plaintiffs and each member of the Classes any money acquired by means of unfair competition (restitution); and, (3) awarding reasonable costs and attorneys’ fees pursuant to Cal. Code Civ. Proc. § 1021.5.

THIRD CAUSE OF ACTION
Violation of False Advertising Law
(On Behalf of Plaintiffs and the Classes)

110. Plaintiffs incorporate the foregoing allegations as if fully set forth herein.
111. California’s False and Misleading Advertising Law (“FAL”) prohibits corporations from intentionally disseminating advertisements for products or services that are “unfair, deceptive, untrue, or misleading.” Cal. Bus. & Prof. Code §17500.

112. As depicted in Figures 1–8 and detailed throughout this Complaint, Defendant has disseminated unfair, deceptive, untrue, and misleading advertisements that overstate the core-count of its Bulldozer Processors. As detailed in Section II above, these advertisements are false and misleading and were designed to convince consumers to purchase the processors. In short, Defendant’s advertisements are false because they advertise specifications that Defendant knew the processors did not have (i.e., AMD knew a Bulldozer module is not equal to two complete cores).

113. A reasonable person is likely to be deceived by Defendant’s advertisements.

114. Defendant knew or should have known when creating and disseminating these advertisements that they contained materially false and misleading information. As the developers, engineers, testers, and distributors of the Bulldozer Processors, Defendant is intimately familiar with the processors’ specifications. Thus, it is reasonable to infer that Defendant is (and was) aware of the fact that the Bulldozer Processors did not have any many cores as advertised.

115. Defendant’s conduct directly and proximately caused Plaintiffs and the Classes actual monetary damages in the form of the price paid for the Bulldozer Processors—typically between $150 and $300—or, at least, the difference between what they paid for the processors and their actual value.

116. Plaintiffs seek an order (1) requiring Defendant to cease the false advertising practices described herein; (2) requiring Defendant to restore to members of the Classes any money acquired by means of false advertising (restitution); and, (3) awarding reasonable costs and attorneys’ fees pursuant to Cal. Code Civ. Proc. § 1021.5.

FOURTH CAUSE OF ACTION
Fraud in the Inducement
(On Behalf of Plaintiffs and the Classes)

117. Plaintiffs incorporate by reference the foregoing allegations as if fully stated herein.

118. As described with particularity herein, Defendant has designed, overseen, and
disseminated false and misleading advertisements for its Bulldozer Processors. This conduct includes, but is not limited to, Defendant promoting and advertising that the Bulldozer Processors have “8-cores” when Defendant knew or should have known that the processors only have four complete cores.

119. By committing the acts alleged in this Complaint, Defendant has designed and disseminated untrue and misleading statements through fraudulent advertising in order to sell or induce members of the public to purchase its Bulldozer Processors.

120. The number of cores within a CPU is a material term of any transaction for a processor because it directly affects a consumer’s choice of, or conduct regarding, whether to purchase a particular CPU. Any deception of fraud related to the core-count for a processor is materially misleading.

121. Misrepresentations regarding a processor’s core-count specifications are likely to mislead a reasonable consumer who is acting reasonably under the circumstances.

122. Defendant knew or should have known of the falsity of the representations it made regarding the core-count of its Bulldozer Processors.

123. Defendant intended that the deceptive and fraudulent misrepresentations it made would induce consumers to rely upon them and act by purchasing its Bulldozer Processors.

124. Defendant received money as a result of Plaintiffs and members of the Classes monies purchasing a product that did not meet the advertised specifications. Accordingly, Plaintiffs and the members of the Classes have suffered injury in fact and lost money in justifiable reliance on Defendant’s misrepresentations of material fact.

125. In deceiving Plaintiffs and the Classes by misrepresenting the actual core-count specifications of the Bulldozer Processors, and inducing Plaintiffs and the Classes to proffer payment based on those misrepresentations, Defendant has engaged in and has, and/or continues to have, direct knowledge of fraudulent practices designed to mislead and deceive consumers.

126. Plaintiffs and the Classes have suffered harm as a proximate result of Defendant’s violations of law and wrongful conduct.
127. Plaintiffs, on behalf of themselves and the Classes, seek damages from Defendant’s unlawful conduct.

**FIFTH CAUSE OF ACTION**

**Breach of Express Warranties**

(On Behalf of Plaintiffs and the Classes)

128. Plaintiffs incorporate by reference the foregoing allegations as if fully set forth herein.

129. Pursuant to California Commercial Code § 2313, Defendant’s sale of its Bulldozer Processors included express warranties created by Defendant’s affirmations of fact, made through the marketing materials and advertisements displayed on retailers’ websites, on the processors’ packaging, and in the processors’ product description.

130. Defendant’s express warranties included affirmations of fact and promises that the Bulldozer Processors would conform to the core-count specifications represented on retailers’ websites, on the processors’ packaging, in the processors’ product description, and in the Bulldozer Processors’ names and model numbers.

131. Specifically, Defendant’s statements included affirmations of fact and promises that the Bulldozer Processors have “8-cores.” As such, Defendant expressly warranted that the Bulldozer Processors would conform to such specifications.

132. Defendant, under the California Commercial Code, was obligated to deliver the Bulldozer Processors as advertised, promised, and/or described.

133. Defendant breached its express warranties because the processors did not conform to the core-count specifications advertised on retailers’ websites, on the processors’ packaging, in the processors’ product description.

134. Defendant’s failure to provide Plaintiffs and the members of the Classes with processors that conform to advertised core-count specifications constitutes a breach of the express warranty to include such core-count specifications with the Bulldozer Processors.

135. Plaintiffs and the members of the Classes relied on Defendant’s affirmations, promises, and descriptions when they purchased the Bulldozer Processors. But for Defendant’s
affirmations and promises, Plaintiffs and the Classes would not have purchased the Bulldozer
Processors, or would have only agreed to purchase them at a lower price. As such, Defendant’s
breach of express warranties injured Plaintiffs and the Classes because they purchased a product of
diminished value—processors that do not have the core-count specifications as described by
Defendant’s affirmations and promises.

136. Because the processors that Plaintiffs and the members of the Classes received did
not have the core-count specifications as expressly warranted and represented by Defendant,
Plaintiffs and the members of the Classes have been damaged insofar as they did not receive the
benefit of their bargain.

137. By serving this Complaint, Plaintiffs and the Classes hereby give Defendant notice
that it has breached the express warranties described above. Plaintiffs and the members of the
Classes request maximum damages as provided by the California Commercial Code.

SIXTH CAUSE OF ACTION
Negligent Misrepresentation
(On Behalf of Plaintiffs and the Classes)

138. Plaintiffs incorporate by reference the foregoing allegations.

139. Through its marketing materials, Defendant represented to Plaintiffs and the
members of the Classes that the Bulldozer Processors have “8-cores.”

140. Plaintiffs and the members of the Classes were exposed to representations made by
Defendant regarding the Bulldozer Processors having eight cores. Those representations were
repeated on and through various websites, including amd.com, Newegg.com, and Amazon.com, on
the Bulldozer’s packaging, and in the Bulldozer Processors’ names and model numbers.

141. Those representations were false, and at the time such false statements were made,
Defendant knew or should have known of their falsity or, at the very least, Defendant acted with
negligence and carelessness in ascertaining the truth of the statements. Defendant knew or should
have known that they were unwilling or unable to include the qualities and specifications
represented in its marketing materials (online and on-box). Defendant did not have any reasonable
ground for believing its statements to be true.
142. Defendant intended that Plaintiffs and the members of the Classes rely on its misrepresentations and omissions by purchasing Bulldozer Processors.

143. Defendant understood, and intended, that their current and future customers would see the representations discussed herein.

144. Defendant had a duty to not make the above-described misrepresentations, and to take steps to correct any misrepresentations before Plaintiffs and the members of the Classes purchased the Bulldozer Processors.

145. However, Defendant did not take any steps to correct, clarify its false representations about the qualities and specifications of the Bulldozer Processors.

146. Plaintiffs and members of the Classes justifiably relied on Defendant’s misrepresentations by purchasing Bulldozer Processors, and were unaware of the falsity of Defendant’s statements at the time they were made.

147. As a direct and proximate result of Defendant’s misrepresentations, Plaintiffs and the members of the Classes suffered damages in the form of monies paid to purchase Defendant’s product when they otherwise would not have purchased the processors or would only have agreed to purchase them at a lower price.

**PRAYER FOR RELIEF**

WHEREFORE, Plaintiffs Tony Dickey and Paul Parmer on behalf of themselves and the Classes respectfully requests that the Court enter an order:

A. Certifying this case as a class action on behalf of the Classes defined above, appointing Tony Dickey and Paul Parmer as representatives of the Nationwide Class, appointing Paul Parmer as representative of the California Class, and appointing Plaintiffs’ counsel as class counsel;

C. Awarding damages, including statutory and punitive damages where applicable, to
Plaintiffs and the Classes in an amount to be determined at trial;

D. Awarding Plaintiffs and the Classes their reasonable litigation expenses and
attorneys’ fees;

E. Awarding Plaintiffs and the Classes pre- and post-judgment interest, to the extent
allowable;

F. Awarding such other injunctive and declaratory relief as is necessary to protect the
interests of Plaintiffs and the Classes; and

G. Awarding such other and further relief as the Court deems reasonable and just.

DEMAND FOR JURY TRIAL

Plaintiffs demand a trial by jury for all issues so triable.

Respectfully submitted,

Dated: November 21, 2016

TONY DICKEY and PAUL PARMER, individually
and on behalf of all others similarly situated,

By: /s/ Benjamin S. Thomassen
One of Plaintiffs’ Attorneys

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