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11 *Pro hac vice admission to be sought

12 *Attorneys for Plaintiff and the Putative Class*

13 **IN THE UNITED STATES DISTRICT COURT**
14 **FOR THE NORTHERN DISTRICT OF CALIFORNIA**
15 **SAN JOSE DIVISION**

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

17 *Plaintiff,*

18 v.

19 ADVANCED MICRO DEVICES, INC., a
20 Delaware corporation,

21 *Defendant.*

Case No.

COMPLAINT FOR:

- 1. **Violations of Cal. Civ. Code §§ 1750 *et seq.*;**
- 2. **Violations of Cal. Bus. & Prof. Code §§ 17200, *et seq.*;**
- 3. **Violations of Cal. Bus. & Prof. Code §§ 17500, *et seq.*;**
- 4. **Fraudulent Inducement;**
- 5. **Breach of Express Warranties;**
- 6. **Negligent Misrepresentation; and**
- 7. **Unjust Enrichment.**

DEMAND FOR JURY TRIAL

CLASS ACTION

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1 Plaintiff Tony Dickey (“Plaintiff” or “Dickey”) brings this class action complaint
2 (“Complaint”) against Defendant Advanced Micro Devices, Inc., (“AMD” or “Defendant”) based
3 on its deceptive marketing of certain of its central processing units (“CPUs”). Plaintiff, for his
4 Complaint, alleges as follows upon personal knowledge as to himself and his own acts and
5 experiences, and, as to all other matters, upon information and belief, including investigation
6 conducted by his attorneys.

7 NATURE OF THE ACTION

8 1. AMD is one of two major companies that design and produce CPUs¹ for personal
9 computers. Competing against rival Intel Corporation, AMD battles for consumer sales by
10 emphasizing key CPU specifications in its marketing and advertisements. For many years, CPUs
11 were compared against each other based on their “clock” speeds (in units of Megahertz (“MHz”)
12 and Gigahertz (“GHz”)).

13 2. More recently, though, both manufacturers (AMD and Intel) have moved away from
14 MHz and GHz towards a new metric called a “core.” A core is an independent processing unit,
15 which, like early CPUs, performs one calculation at a time. To increase performance, manufacturers
16 began making CPUs with two or more cores on one physical chip, creating “multicore” CPUs. Each
17 core in a multicore CPU is able to operate (*e.g.*, perform calculations and execute instructions)
18 independently from other cores. An eight-core CPU, then, can perform eight calculations
19 simultaneously and independently. Therefore, if one core is bogged down with a complex or
20 defective process, the other cores can handle other calculations or processes so that the computer
21 can continue performing at rapid speed.

22 3. AMD’s recent marketing reflects its shifting focus to selling multicore CPUs.
23 AMD’s advertising has highlighted the number of cores in its CPUs and consistently conveyed to
24 consumers that multiple cores in a single CPU allow consumers to perform several simultaneous
25 tasks.

26 ¹ A CPU is an integrated circuit which “generally consists of hundreds of millions or billions
27 of transistors that process data and control other devices in the system, acting as the ‘brain’ of the
28 computer.” AMD, *10-K Annual Report Pursuant to Section 13 or 15(d) of the Securities Exchange
Act of 1934*, 4 (“AMD 10-K”), true and accurate excerpts of which are attached hereto as Exhibit A.

1 4. With the launch of its “Bulldozer” line of CPUs, AMD announced and promoted the
 2 introduction of the “world’s first 8 core CPU.”² AMD stated that, with eight cores, its Bulldozer
 3 processors were the pinnacle of performance and that consumers could multitask greater than
 4 before. Central to AMD’s marketing was that the Bulldozer CPU had “8-cores.”

5 5. In claiming that its Bulldozer CPU had “8-cores,” AMD tricked consumers into
 6 buying its Bulldozer processors by overstating the number of cores contained in the Bulldozer
 7 chips. In fact, the Bulldozer chips functionally have only four cores—not eight, as advertised.
 8 Notably, AMD built the Bulldozer processors by stripping away components from two cores and
 9 combining what was left to make a single “module.” But by removing certain components of two
 10 cores to make one module, they no longer work independently. As a result, AMD’s Bulldozers
 11 suffer from material performance degradation and cannot perform eight instructions simultaneously
 12 and independently as claimed.

13 6. Average consumers in the market for computer CPUs lack the requisite technical
 14 expertise to understand the design of Defendant’s processors, and trust Defendant to convey
 15 accurate specifications regarding its CPUs. Because AMD did not convey accurate specifications,
 16 tens of thousands of consumers have been misled into buying Bulldozer CPUs that do not conform
 17 to what AMD advertised, and cannot perform the way a true eight core CPU would (*i.e.*, perform
 18 eight calculations simultaneously).

19 7. Accordingly, this putative class action lawsuit seeks (i) to prevent Defendant from
 20 continuing to misrepresent the specifications of its Bulldozer-based CPUs, and (ii) actual damages
 21 for those deceived into purchasing the products under false pretenses.

22 **PARTIES**

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

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

27 ² See *infra* note 8.
 28

1 District.

2 **JURISDICTION AND VENUE**

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

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

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

13 **INTRADISTRICT ASSIGNMENT**

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

16 **CHOICE OF LAW**

17 14. California law governs the substantive legal issues in the instant matter. AMD's
18 "Terms of Use / Copyright" state that "[a]ny claim relating to the Materials shall be governed by the
19 internal substantive laws of the State of California, United States of America."³ Moreover, the
20 instruction manual that accompanies every AMD Bulldozer processor incorporates AMD's "Terms
21 of Use."⁴

22 15. AMD's conduct at issue herein also occurred in California. AMD is headquartered in
23 California, and the advertisements at issue here were, on information and belief, drafted in and

24 ³ A true and accurate copy of AMD's "Terms of Use / Copyright" is attached hereto as
25 Exhibit B.

26 ⁴ A true and accurate copy of AMD's form "AMD Processor" document is attached hereto as
27 Exhibit C (stating that "[f] or more information please visit www.amd.com," and that consumers
28 should reference what is "set forth in AMD's Standard Term and Conditions of Sales ...").

1 disseminated from California.⁵

2 **FACTUAL BACKGROUND**

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

4 16. AMD was founded in 1969 in Sunnyvale, California and has grown into a global
5 semiconductor manufacturer with facilities around the world. Today, it is the second-largest
6 supplier of the CPUs found in personal computers and laptops (“PCs”), behind only Intel
7 Corporation (“Intel”).

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

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

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

25 “ ... semiconductor companies are designing and developing multi-core [CPUs], where

26 ⁵ *Search | LinkedIn*, www.linkedin.com/vsearch/p?keywords=marketing&postalCode=94101&openAdvancedForm=true&locationType=I&countryCode=us&distance=100&f_CC=1497
27 (last visited Oct. 26, 2015) (showing 92 public profiles of AMD marketing employees within 100
28 miles of San Francisco, California).

1 multiple processor cores are placed on a single die or in a single processor. Multi-core
 2 [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.*”⁶

3 20. AMD used the same definition in 2007 when stated that its then new “Dual-Core
 4 processor puts the power of dual-core technology on the desktop. Dual-core processors contain *two*
 5 *processing cores, residing on one chip, that perform calculations on two streams of data ...*”⁷ and
 6 that “[w]ith dual-core technology *there are two complete processor cores in one physical package*
 7 *... .*”⁸

8 21. And, in 2010, AMD reinforced the consumer expectation that cores are processors
 9 independent from each other, stating that its CPUs are offered “[w]ith the power of four processor
 10 cores on a single chip, [and] deliver[] industry-leading multitasking performance.”⁹ Even today,
 11 AMD defines a core as being “two or more processors on a single chip.”¹⁰

12 22. Similarly, Intel—AMD’s main competitor, and effectively the only other brand of
 13 CPUs cross-shopped by consumers—defines a core as such as being “a hardware term that
 14 describes the number of independent central processing units in a single computing component (die
 15 or chip).”¹¹

16 23. However, since launching its “Bulldozer” CPUs, AMD has deceived consumers by

17 ⁶ *AMD 10-K*, 4, *supra* (emphasis added).

18 ⁷ *Amazon.com: AMD Athlon 64 X2 Dual-Core 5600+ 2.8 GHz Processor, Socket AM2:*
 19 *Electronics*, http://www.amazon.com/gp/product/B000MNA082?ie=UTF8&ref_=de_a_smt&showDetailTechData=1#technical-data (last visited Oct. 26, 2015) (emphasis added).
 (describing dual-core AMD CPU released in 2007).

20 ⁸ *AMD Athlon 64 X2 5200 Brisbane Dual-Core 2.7GHz Socket AM2 65W ADO5200DOBOX*
 21 *Processor - Newegg.com*, www.newegg.com/Product/Product.aspx?Item=N82E16819103210 (last
 visited Oct. 26, 2015) (emphasis added) (describing dual-core AMD CPU released in 2007).

22 ⁹ *AMD Phenom II X4 970 Black Edition Deneb Quad-Core 3.5GHz Socket AM3 125W*
 23 *Desktop Processor HDZ970FBGMBOX - Newegg.com*, [www.newegg.com/Product/
 Product.aspx?Item=N82E16819103894](http://www.newegg.com/Product/Product.aspx?Item=N82E16819103894) (last visited Oct. 26, 2015) (describing four-core AMD
 CPU released in 2010).

24 ¹⁰ See *e.g.*, *AMD Processors for Business*, [www.amd.com/en-us/innovations/software-
 technologies/processors-for-business](http://www.amd.com/en-us/innovations/software-technologies/processors-for-business) (last visited Oct. 26, 2015); *Multi-Core Processing with AMD*,
 25 <http://www.amd.com/en-us/innovations/software-technologies/processors-for-business/multicore>
 (last visited Oct. 26, 2015).

26 ¹¹ *ARK | Intel® Core™ i5-6600 Processor (6M Cache, up to 3.90 GHz)*, [ark.intel.com/
 27 products/88188/Intel-Core-i5-6600-Processor-6M-Cache-up-to-3_90-GHz](http://ark.intel.com/products/88188/Intel-Core-i5-6600-Processor-6M-Cache-up-to-3_90-GHz) (last visited Oct. 26,
 28 2015).

1 advertising Bulldozers as having eight cores—two more than the competition—when they really
 2 only have four complete cores.


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

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

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

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

12 Take your PC’s megatasking abilities to extreme
 13 levels with the first native 8-core desktop
 14 processor built with dynamic, tuneable
 15 performance to handle multiple intensive apps
 16 without breaking a sweat.



17 **AMD FX 8-Core Black Edition FX-9590 (ex-Mic-US-861229)**
 18 ★★★★★
 19 ■ **Manufacturer:** AMD
 20 ■ **Processor Line:** AMD FX 8-Core Black Edition²
 21 ■ **Processor Model:** FX-9590
 22 ■ **Cores:** 8
 23 ■ **Frequency:** 4700
 24 ■ **Socket:** AM3+

17 **(Figure 1)** (emphasis added.)¹²

18 **(Figure 2)** (emphasis added.)¹³

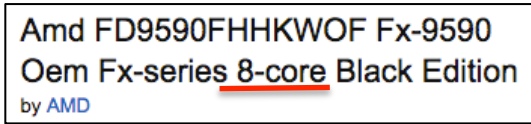
19 26. AMD makes similar representations at online retailers’ webpages for the Bulldozer
 20 processors. For example, AMD caused the NewEgg.com and Amazon.com product page
 21 descriptions to prominently include the number of cores in the title for the Bulldozer processors:

22 **AMD FX-9590 Vishera 8-Core**
 23 **4.7GHz Socket AM3+ 220W**
 24 **FD9590FHHKWF Desktop**
 25 **Processor - Black Edition**

26 **(Figure 3, AMD’s Newegg.com page)** (emphasis added.)¹⁴

26 ¹² *AMD FX Processors*, <http://www.amd.com/en-us/products/processors/desktop/fx> (last visited Oct. 26, 2015).


27 ¹³ *AMD FX 8-Core Black Edition FX-9590| Processors* |, <http://shop.amd.com/en-us/components/processors/ecxMicUS861229> (last visited Oct. 26, 2015).



(Figure 4, AMD’s Amazon.com page) (emphasis added.)¹⁵

27. 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:

Features




Overclock and keep cool with up to eight cores and 5 GHz of the most advanced technology you can buy.1The AMD FX-series processor unleashes up to 5 GHz of performance and contains up to eight powerful cores, so you can game, overclock and get the max out of your experience.

- Control up to eight cores and 5 GHz of relentless power

AMD FX 8-Core Processors

- The industry's first and only native 8-core desktop processor for unmatched multitasking and pure core performance with "Bulldozer" architecture.

Product Brief



This is FXing Serious.

We call it the new AMD FX 8-Core Processor Black Edition and it's unlocked for your overclocking pleasure.Experience unmatched multitasking and pure core performance with the industry's first 32nm 8-core desktop processor. Get the speed you crave with AMD Turbo CORE Technology to push your core frequencies to the limit when you need it most.

Maximum Performance

- The industry's only 8-core desktop processor

Core Name	Vishera
# of Cores	<u>8-Core</u>

Innovative Architecture

- The industry's first and only native 8-core desktop processor for unmatched multitasking and pure core performance with "Bulldozer" architecture

(Figure 5, showing AMD’s representations on Newegg.com) (emphasis added.)¹⁶

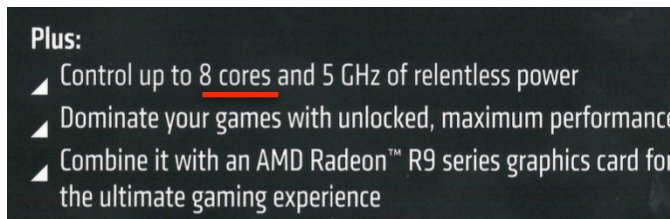
28. AMD similarly ensured that its marketing at brick-and-mortar stores emphasized the

¹⁴ AMD FX-9590 Vishera 8-Core 4.7GHz Socket AM3+ 220W FD9590FHHKWOF Desktop Processor - Black Edition - Newegg.com, www.newegg.com/Product/Product.aspx?Item=N82E16819113347 (last visited Oct. 26, 2015).

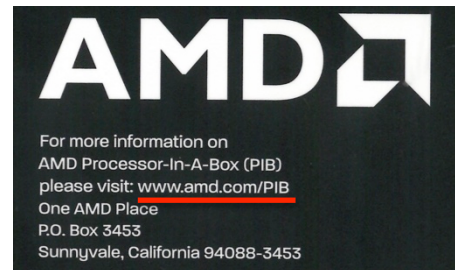
¹⁵ Amazon.com: AMD Athlon 64 X2 Dual-Core 5600+ 2.8 GHz Processor, Socket AM2: Electronics, *infra*.

¹⁶ AMD FX-9590 Vishera 8-Core 4.7GHz Socket AM3+ 220W FD9590FHHKWOF Desktop Processor - Black Edition - Newegg.com, *supra*.

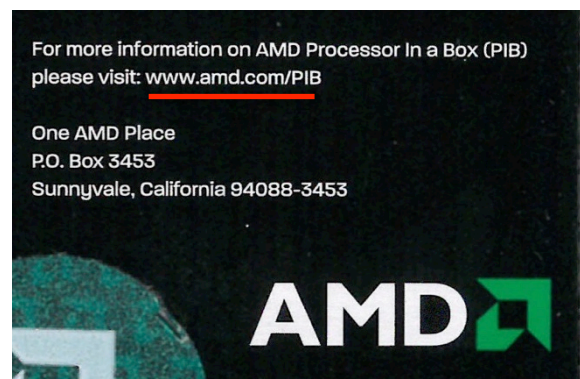
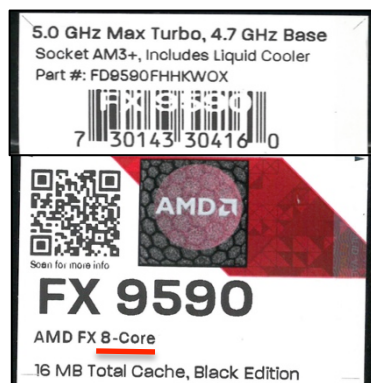
1 Bulldozers’ core-count. For example, AMD prominently displays that the FX-9590 Bulldozer CPU
 2 has “8 cores” on the product’s packaging, including on two different product seals that must be
 3 broken before consumers can access the processor (*i.e.*, consumers must view the representation
 4 before using the product). See Figures 6–8.



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8 (Figure 6, showing the FX-9590 Bulldozer’s retail packaging) (emphasis added.)¹⁷



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15 (Figure 7, showing product seal and incorporation of www.amd.com) (emphasis
16 added.)



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23 (Figure 8, showing secondary product seal and incorporation of www.amd.com)
24 (emphasis added.)¹⁸

25 29. Taken together, AMD’s marketing and advertisements for the Bulldozer

26 ¹⁷ 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.

27 ¹⁸ Figure 8 is an excerpt taken from AMD’s FX9590 Bulldozer processor’s secondary
 28 packaging, a true and accurate reproduction of which is attached hereto as Exhibit E.

1 processors—including those appearing on every processor’s packaging—make clear that the
2 Bulldozer CPUs have “8-cores.” However, as explained below, AMD has overstated the number of
3 cores within its Bulldozer processors.

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

5 30. Despite Defendant’s claims, AMD’s Bulldozer CPUs do not have eight cores as
6 advertised. Instead, AMD designed its Bulldozers around four component-sharing “modules” rather
7 than eight independent cores. A technical inspection of the Bulldozer processors and a review of
8 trade publications demonstrate that Bulldozers are missing key components compared to true eight
9 core CPUs. As a result, they cannot perform in the same way and at the same speed.

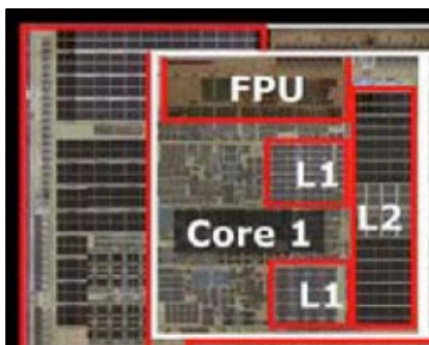
10 31. The foundation of every AMD Bulldozer processor is AMD’s “module” technology
11 that contains two processing units.¹⁹ In its marketing, AMD represents that each module contains
12 two cores, but that is not the case because a Bulldozer module begins as a single core, to which
13 AMD adds some—but not all—of the components from another core. As described above, a core is
14 a processing unit (what once was a single CPU) that is independent from other processing units on
15 the same physical chip or die. AMD’s decision to provide each module with only *some* (but not all)
16 of the components of two cores means a module contains only one complete core, not two as
17 advertised. While two cores can simultaneously process two instructions independently from each
18 other, AMD’s Bulldozer modules cannot.

19 32. A visual comparison of a module to a core reveals that a module does not contain
20 two cores. Figure 9 shows a pre-Bulldozer AMD CPU design. There, a sing core has a dedicated
21 (not shared) floating-point unit (“FPU”)²⁰ along with L1 and L2 cache. Similarly, Figure 10 shows

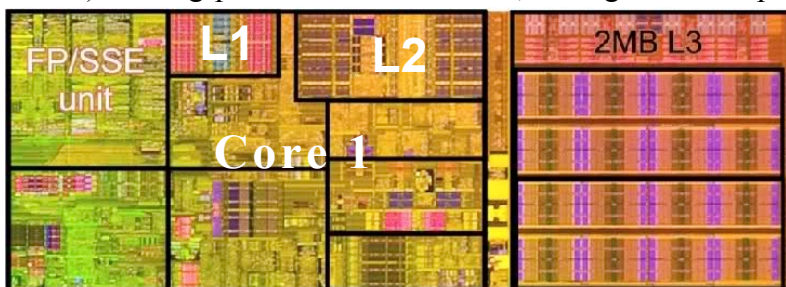
22 ¹⁹ AMD subsequently released “Piledriver” and “Steamroller” processors that contain and
23 were built using Bulldozer module technology.

24 ²⁰ A floating point unit is a sub processor purpose-built to perform calculations related to
25 “floating points,” or non-integer number (*i.e.*, numbers with decimal places). L2 cache is a bank of
26 computer memory that serves as a repository for a processing unit.
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1 a current Intel design where a single core has a dedicated (not shared) FPU and L1 and L2 cache.²¹
 2 With these designs, each core can process an instruction independently from other cores because it
 3 has its own dedicated cache and FPU, among other components. These processing units, then fit
 4 into the standard definition of a core. And, an 8-core CPU built with these designs will have eight
 5 copies of the cores shown above on one physical processor or die, and contain eight FPUs and eight
 6 sets of L1 and L2 cache.



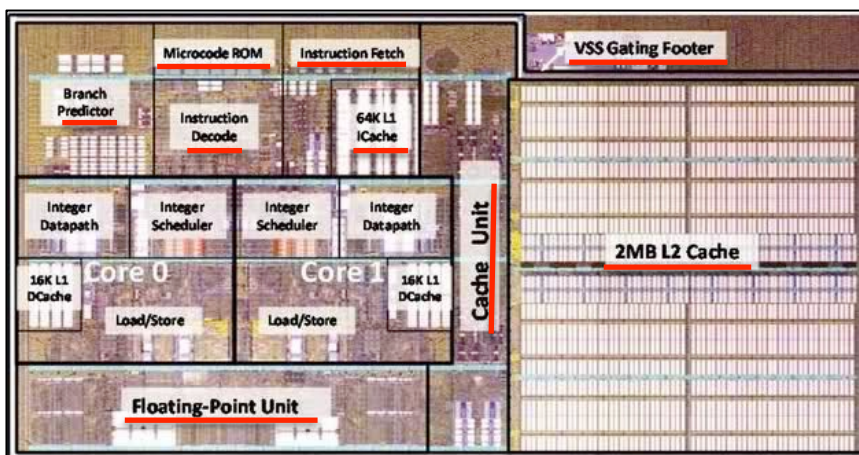
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12 (Figure 9, showing AMD's Phenom II core with a separate and dedicated (non-
13 shared) floating-point unit and L2 cache, among other components.)



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

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²¹ 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 Oct. 26, 2015).



(**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.)²²

33. 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 are not really 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 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 definition.

34. Technical trade publications (*i.e.*, publications not read by average consumers) have also taken note of the differences between AMD’s Bulldozer module processing units and actual cores. One industry publication stated that “the Bulldozer module doesn’t incorporate two complete cores” as advertised.²³ The publication “estimated that a Bulldozer module could [at most] average 80% of [the performance of] two complete cores.”²⁴

²² *Intel & AMD, Architectural Discussion, How Far Ahead Is Intel? - CPUs, Motherboards, and Memory - Linus Tech Tips*, <http://linustechtips.com/main/topic/48571-intel-amd-architectural-discussion-how-far-ahead-is-intel/> (last visited Oct. 26, 2015).

²³ *Per-Core Performance - AMD Bulldozer Review: FX-8150 Gets Tested*, www.tomshardware.com/reviews/fx-8150-zambezi-bulldozer-990fx,3043-3.html (last visited Sept. 22, 2015).

²⁴ *Id.*

1 35. The publication went on to state that, according to Microsoft (the developer of the
2 Windows operating system), “**modules have performance characteristics more similar to**
3 **[Hyper-Threading] than physical cores, so [it] is looking to detect and treat them the same as**
4 **Hyper-Threading in the future.**”²⁵ That is to say, Microsoft recognized that a module did not have
5 two cores, but only two module processing units (which are not the same) and compared a module
6 to an Intel core with “hyper-threading” technology, as described in footnote 24.

7 36. In fact, when not marketing to consumers, AMD acknowledges that a module is not
8 equal to two cores. In 2013, AMD released a technical video of one of its engineers describing the
9 Bulldozer design.²⁶ In the video, the engineer states that AMD’s modules have “additional sharing”
10 when compared to existing cores and that *modules*, rather than module processing units, have
11 “everything necessary to schedule a code on these processors.”²⁷ That is, an “8 core” Bulldozer
12 CPU with four modules really only has four actual cores.

13 C. *Misrepresenting a CPU’s Core-count is Material.*

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

17 38. When it was released in 2011, AMD advertised its 3.3 GHz FX-8150 Bulldozer
18 processor²⁸ as being the “first-ever eight-core desktop processor” for consumers.²⁹ Intel’s
19 competing chip at the time was its four core Intel Core i7-2600K running at 3.3 GHz.³⁰ As these
20 specifications suggest, the competing chips operate at the same clock speeds, but AMD seemingly
21 bests Intel on core-count. As such, consumers in the market for CPUs would identify the AMD chip

22 ²⁵ *Id.* (emphasis in original).

23 ²⁶ AMD, “*Bulldozer*” *Processor Topology*, May 28, 2013, www.youtube.com/watch?v=4EAuVsXWQ0s (last visited Oct. 26, 2015).

24 ²⁷ *Id.*

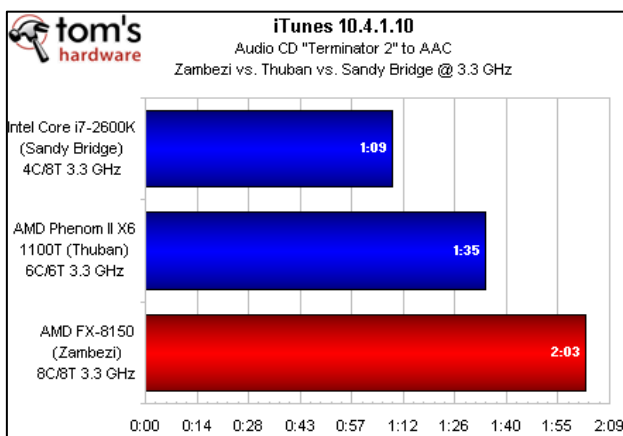
25 ²⁸ *The Bulldozer Review: AMD FX-8150 Tested - Print View*, *supra*.

26 ²⁹ AMD, *Unlock Your Record Setting AMD FX Series Processor Today*, (10/12/2011) <http://www.amd.com/en-us/press-releases/Pages/unlock-your-record-setting-2011oct12.aspx> (last visited Oct. 26, 2015).

27 ³⁰ *The Sandy Bridge Review: Intel Core i7-2600K, i5-2500K and Core i3-2100 Tested*, <http://www.anandtech.com/show/4083/the-sandy-bridge-review-intel-core-i7-2600k-i5-2500k-core-i3-2100-tested> (last visited Oct. 26, 2015).

1 as the better offering because it offers double the number of cores at the same speeds—therefore it
 2 would be expected that AMD’s CPU would be twice as fast as Intel’s. But as described above, the
 3 Bulldozer does not contain eight cores, only four modules, and its performance is less than it would
 4 be for a true eight-core CPU.

5 39. For instance, Figure 13 is a chart from a representative technical review of a
 6 Bulldozer processor compared against a Intel’s processors (lower is better). There, the “8-core” FX-
 7 8150 Bulldozer processor is 96% slower than the 4-core (with Hyper-Threading) Intel Core i7-
 8 2600K.³¹ In fact, the reviewer discovered that the new “8-core” Bulldozer chip was often *slower*
 9 than AMD’s older 6-core processor.³²



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 17 (Figure 13, showing AMD’s Bulldozer “AMD FX-8150,” taking 2:03 minutes to
 18 complete a task, markedly slower than Intel’s “Core i7” at 1:09 minutes and AMD’s
 19 pre-Bulldozer chip, the “Phenom II” at 1:35 minutes.)³³

20 40. The reason AMD’s “8-core” Bulldozer was slower than Intel’s 4-core CPU and its
 21 own 6-core CPU is that it does not have “8-cores,” but only eight module processing units with
 22 shared components. Average consumers in the market for a CPU lack the requisite technical
 23 expertise to understand the underlying design of the Bulldozer processors. Instead, average

24 ³¹ *Id.*

25 ³² *Id.*

26 ³³ *Per-Core Performance - AMD Bulldozer Review: FX-8150 Gets Tested*,
 27 <http://www.tomshardware.com/reviews/fx-8150-zambezi-bulldozer-990fx,3043-6.html> (last visited
 28 Oct. 26, 2015); *see also The Bulldozer Review: AMD FX-8150 Tested - Print View*,
<http://www.anandtech.com/print/4955/the-bulldozer-review-amd-fx8150-tested> (last visited Oct. 26,
 2015) (stating that in some instances, “Bulldozer simply does not perform,” and even in other cases,
 “the improvement over the previous generation [AMD six-core CPU] simply isn’t enough to justify
 an upgrade.”)

1 consumers trust AMD to convey accurate specifications in its marketing.

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

7 **III. Plaintiff Dickey's Experience With His FX-9590 Processor.**

8 42. On March 10, 2015, Plaintiff navigated to AMD.com. On AMD's website, Plaintiff
9 saw representations identical to those in Figures 1 and 2. Specifically, Plaintiff saw representations
10 that the FX-9590 Bulldozer chip was "the first native 8-core desktop processor" and had "8-
11 core[s]."

12 43. Plaintiff then navigated to www.Newegg.com where he saw AMD's representations
13 claiming that the Bulldozer processor had "8 cores." The representations he saw were created by
14 AMD and provided by it to Newegg.com. Specifically, Plaintiff saw representations on
15 Newegg.com that the FX-9590 Bulldozer was the "first native 8-core desktop processor" and "the
16 industry's first and only native 8-core desktop processor for unmatched multitasking and pure core
17 performance with 'Bulldozer' architecture," identical to the representations in Figures 3 and 5.

18 44. After viewing the representations, and on March 10, 2015, Plaintiff purchased two
19 FX-9590 Bulldozer processors on Newegg.com for \$299.99. Plaintiff then read the representations
20 that AMD created for the processors' packaging when he received the FX-9590 processors in the
21 mail but prior to opening and using the product. Specifically, Plaintiff read AMD's representations
22 that the FX-9590 Bulldozer was an "8-core" processor, as shown in Figures 6-8.

23 45. Plaintiff then began using the AMD FX-9590 Bulldozer processors. However, as
24 described above, the FX-9590 Bulldozer processors Plaintiff purchased did not have eight cores
25 each. Instead, they each only contained four Bulldozer "modules," which at best could constitute
26 four cores. As a result, Plaintiff's AMD FX-9590 Bulldozer processors did not perform as well as a
27 CPU with the same clock speed but with eight true cores.
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1 46. Plaintiff reasonably relied upon AMD’s express representations about the FX-9590’s
2 core-count in choosing to purchase that particular processor—namely, that the FX-9590 had two
3 more cores than Intel’s competing processors. Those representations were material to his purchase:
4 without them, Plaintiff would either have not purchased the FX-9590 chips or he would have paid
5 less for them.

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

8 48. Plaintiff is likely to consider purchasing AMD’s processors in the future and requires
9 an injunction requiring AMD to truthfully advertise its processor specifications going forward.
10 Defendant AMD is one of only two major companies that provide processors for consumer personal
11 computers.³⁴ As such, Plaintiff will be exposed to AMD’s deceptive marketing in the future and is
12 effectively left with no other option but to purchase products from AMD or Intel. Plaintiff would
13 consider purchasing AMD’s Bulldozer chips in the future if they were accurately advertised and
14 priced commensurately with their true value. Moreover, an injunction requiring AMD to stop
15 falsely marketing its CPUs will have an effect on the market for CPUs, leading to fewer misleading
16 advertisements.

17 CLASS ALLEGATIONS

18 49. **Class Definition:** Plaintiff brings this action pursuant to Federal Rule of Civil
19 Procedure 23(b)(2) and Rule 23(b)(3) on behalf of himself and a Class of similarly situated
20 individuals defined as follows:

21 All individuals in the United States that purchased any of the following AMD
22 Bulldozer processors: FX-8120, FX-8150, FX-8320, FX-8350, FX-8370, FX-9370,
and FX-9590.³⁵

23 ³⁴ Kay, Roger, *Intel v. AMD: The Juggernaut Vs. The Squid*, Forbes.com (Nov. 25, 2014),
24 <http://www.forbes.com/sites/rogerkay/2014/11/25/intel-and-amd-the-juggernaut-vs-the-squid/> (last
visited Oct. 26, 2015).

25 ³⁵ True and accurate copies of the online advertising and on-box representations for the FX-
26 8120, FX-8150, FX-8320, FX-8350, FX-8370, FX-9370, and FX-9590 Bulldozer processors
27 (“Bulldozer Processors”) are attached hereto as Exhibit F, emphasis showing substantially similar
28 representations and specifications. As the representations in Exhibit F 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*

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

8 50. **Numerosity:** The exact number of members of the Class is unknown and is not
 9 available to Plaintiff at this time, but individual joinder in this case is impracticable. The Class
 10 likely consists of tens of thousands of individuals. Class members can be easily identified through
 11 Defendant's or its agents' records.

12 51. **Commonality and Predominance:** There are many questions of law and fact
 13 common to the claims of Plaintiff and the other members of the Class, and those questions
 14 predominate over any questions that may affect individual members of the Class. Common
 15 questions for the Class include but are not limited to the following:

- 16 a) Whether Defendant intentionally misrepresented the core-count of its
- 17 Bulldozer Processors;
- 18 b) Whether Defendant's conduct described herein was willful;
- 19 c) Whether Defendant's conduct described herein constitutes a violation of

20 *also AMD FX-Series microprocessor family*, [http://www.cpu-world.com/CPUs/Bulldozer/TYPE-](http://www.cpu-world.com/CPUs/Bulldozer/TYPE-FX-Series.html)
 21 [FX-Series.html](http://www.cpu-world.com/CPUs/Bulldozer/TYPE-FX-Series.html) (last visited Oct. 26, 2015).

22 In addition, and as shown in Figure F, the Bulldozer Processors were marketed in the same
 23 way. Marketing for each contains the core-count within the product name, product description,
 24 product details, and on the box. Moreover, AMD overstated the core-count for each processor in the
 25 same way: AMD counted each module as two cores even though a Bulldozer module processing
 26 unit is not equal to a core. And, in one of its Form 10-Ks, AMD states the following about its FX
 27 processors: "Our CPUs for desktop PC platforms also consist of the following: AMD FX processors
 28 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=aHR0cDovL2FwaS50ZW5rd2l6YXJkLmNvbS9maWxpbnmcueG1sP2lwYWdlPTg3NDQwODgmRFNFUT0xJINFUT04JINRREVTQz1TRUNUSU9OX1BBR0UmZXhwPSZzdWJzaWQ9NTc%3D> (last visited Oct. 26, 2015).

1 California's Consumers Legal Remedies Act (Cal. Civ. Code. §§ 1750, *et*
2 *seq.*);

3 d) Whether Defendant's conduct described herein constitutes a violation of the
4 Unfair Competition Law (Cal. Bus. & Prof. Code §§ 17200, *et seq.*);

5 e) Whether Defendant's conduct described herein constitutes a violation of the
6 False Advertising Law (Cal. Bus. & Prof. Code §§ 17500, *et seq.*);

7 f) Whether Defendant's conduct described herein constitutes fraud in the
8 inducement;

9 g) Whether Defendant's conduct described herein constitutes a breach of
10 express warranty;

11 h) Whether Defendant's conduct described herein constitutes negligent
12 misrepresentation; and,

13 i) Whether Defendant's conduct has caused them to be unjustly enriched.

14 52. **Typicality:** Plaintiff's claims are typical of the claims of the other members of the
15 Class. Plaintiff and the Class sustained damages as a result of Defendant's uniform wrongful
16 conduct during transactions with Plaintiff and the Class.

17 53. **Adequate Representation:** Plaintiff has and will continue to fairly and adequately
18 represent and protect the interests of the Class, and he has retained counsel competent and
19 experienced in complex litigation and class actions. Plaintiff has no interests antagonistic to those of
20 the Class, and Defendant has no defenses unique to Plaintiff. Plaintiff and his counsel are
21 committed to vigorously prosecuting this action on behalf of the members of the Class, and they
22 have the resources to do so. Neither Plaintiff nor his counsel has any interest adverse to those of the
23 other members of the Class.

24 54. **Policies Generally Applicable to the Class:** This class action is appropriate for
25 certification because Defendant has acted or refused to act on grounds generally applicable to the
26 Class, thereby requiring the Court's imposition of uniform relief to ensure compatible standards of
27 conduct toward the members of the Class and making final injunctive relief appropriate with respect
28

1 to the Class as a whole. Defendant's policies challenged herein apply and affect the members of the
2 Class uniformly and Plaintiff's challenge of these policies hinges on Defendant's conduct with
3 respect to the Class as a whole, not on facts or law applicable only to Plaintiff.

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

17 56. Plaintiff reserves the right to revise the foregoing "Class Allegations" and "Class
18 Definition" based on facts learned through additional investigation and in discovery.

19 **FIRST CAUSE OF ACTION**
20 **Violation of the Consumers Legal Remedies Act**
21 **Cal. Civ. Code §§ 1750, *et seq.***
22 **(On Behalf of Plaintiff and the Class)**

23 57. Plaintiff incorporates by reference the foregoing allegations as if fully set forth
24 herein.

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

28 59. Defendant is a "person" as defined by Cal. Civ. Code § 1761(c).

 60. Plaintiff and each member of the Class are "consumers" as defined by Cal. Civ.

1 Code § 1761(a).

2 61. Defendant's Bulldozer Processors are "goods" within the meaning of Cal. Civ. Code
3 § 1761(a).

4 62. As described herein, Defendant has engaged in deceptive practices, unlawful
5 methods of competition, and/or unfair acts as defined by Cal. Civ. Code §§ 1750 *et seq.*, to the
6 detriment of Plaintiff and the Class.

7 63. Defendant, acting with knowledge, intentionally and unlawfully brought harm upon
8 Plaintiff and the Class by representing that the Bulldozer Processors had "8-cores" when in fact
9 Defendant's representations were false because the Bulldozer Processors have only four complete
10 cores.

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

- 13 a. In violation of § 1770(5), by representing that the Bulldozer Processors had
14 characteristics, ingredients, uses, benefits, or quantities which they did not
15 have;
- 16 b. In violation of § 1770(7), by representing that the Bulldozer Processors were
17 of a particular standard, quality, or grade of which they are not; and
- 18 c. In violation of § 1770(9), by advertising the Bulldozer Processors with the
19 intent not to sell its goods as advertised.

20 65. Defendant's unfair or deceptive acts or practices were capable of deceiving a
21 substantial portion of the purchasing public.

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

27 67. Once Defendant made specific public representations regarding the specifications of
28

1 the Bulldozer Processors, Defendant was under a duty to Plaintiff and the Class to disclose its
2 inability or unwillingness to manufacture, distribute, and sell processors as advertised because:

- 3 a. Defendant was in a superior position to know the true state of facts about the
4 specifications of the Bulldozer Processors;
- 5 b. Plaintiff and the Class could not reasonably have been expected to learn or
6 discover that Defendant did not design the Bulldozer Processors with the
7 advertised specifications;
- 8 c. Defendant knew that Plaintiff and the Class members could not reasonably
9 have been expected to learn or discover that the Bulldozer Processors did not
10 contain the core-count advertised; and
- 11 d. Defendant knew, and in fact intended, that Plaintiff and the Class members
12 would rely on Defendant's representations regarding the processors' core-
13 count in choosing whether or not to purchase the Bulldozer Processors.

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

17 69. The facts concealed or not disclosed by Defendant to Plaintiff and the Class,
18 including that the Bulldozer Processors did not have any many cores as advertised, are material in
19 that a reasonable consumer would have considered them to be important in deciding whether or not
20 to purchase the Bulldozer Processors.

21 70. Plaintiff and the Class reasonably expect their processors to have the specifications
22 equal to what Defendant advertised based upon Defendant's representations found online, the
23 processors' packaging, and in the processors' names. Plaintiff's and Class members' expectations
24 were reasonable under the circumstances.

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

27 72. Plaintiff and members of the Class relied on the representations made by Defendant
28

1 about the core-count of the Bulldozer Processors when purchasing the products.

2 73. Defendant's false representations about the core-count of the Bulldozer Processors
3 were acts likely to mislead Plaintiff and the members of the Class acting reasonably under the
4 circumstances.

5 74. Through the misrepresentations and omissions detailed herein, Defendant wrongfully
6 induced Plaintiff and the other members of the Class to purchase the Bulldozer Processors when
7 they otherwise would not have purchased the processors or would have only agreed to purchase
8 them at a lower price.

9 75. As a direct and proximate result of Defendant's violation of Cal. Civ. Code §§ 1750,
10 *et seq.*, Plaintiff and each Class member have suffered harm in the form of paying monies to
11 Defendant without receiving the entire benefit of his or her bargain.

12 76. Plaintiff and the members of the Class are likely to purchase processors with AMD
13 technology in the future and require an injunction requiring AMD to truthfully advertise its
14 processors' specifications. Specifically, because AMD and its competitor Intel manufacture and
15 distribute effectively all consumer CPUs, Plaintiff and members of the Class will be exposed to
16 AMD's deceptive marketing in the future and are effectively left with no other option but to
17 purchase products from AMD or Intel.

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

22 **SECOND CAUSE OF ACTION**
23 **Violations of California's Unfair Competition Law**
24 **Cal. Bus. & Prof. Code §§ 17200, *et seq.***
25 **(On Behalf of Plaintiff and the Class)**

26 78. Plaintiff incorporates by reference the foregoing allegations as if fully set forth
27 herein.

28 79. California's Unfair Competition Law ("UCL"), Cal Bus. & Prof. Code §§ 17200, *et seq.*, protects both consumers and competitors by promoting fair competition in commercial

1 markets for goods and services.

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

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

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

11 83. Defendant's representations were, in fact, false. Defendant's processors do not
12 actually contain the advertised core-count. In particular, Defendant's Bulldozer Processors contain
13 four "modules" (*i.e.*, four complete cores) which are materially distinct from "8-cores" that are
14 advertised.

15 84. Defendant has violated the fraudulent prong of the UCL by knowingly making false
16 representations to consumers—including Plaintiff and the Class—regarding the number of cores in
17 its Bulldozer Processors. These representations were made in an effort to convince consumers to
18 purchase the Bulldozer Processors.

19 85. Reasonable consumers are likely to be, and Plaintiff and the Class were, deceived by
20 Defendant's misrepresentations about the specifications of the Bulldozer Processors.

21 86. Defendant also violated the UCL's unfair prong by causing substantial injury to
22 consumers through its fraudulent conduct described above. The injuries caused by Defendant's
23 unfair conduct are not outweighed by any countervailing benefits to consumers or competition, and
24 the injury is one that consumers themselves could not reasonably have avoided. Given the
25 information asymmetry between Defendant and consumers regarding the true specifications of the
26 Bulldozer Processors, Defendant knew or had reason to know that Plaintiff and the Class could not
27 have reasonably known or discovered the falsity of representations about the actual specifications of
28

1 the Bulldozer Processors.

2 87. Defendant's fraudulent and unfair conduct occurred during the marketing,
3 distribution, and sale of consumer-grade CPUs, and therefore occurred in the course of Defendant's
4 business practices.

5 88. Defendant's fraudulent and unfair conduct directly and proximately caused Plaintiff
6 and the Class actual monetary damages in the form of the price paid for their Bulldozer
7 Processors—typically between \$150 and \$300—or, at least, the difference between what they paid
8 for the processors and their actual value.

9 89. But for Defendant's conduct as described herein, Plaintiff and the Class would not
10 have purchased the Bulldozer Processors, or would have paid substantially less for them.

11 90. Pursuant to Cal. Bus. & Prof. Code § 17203, Plaintiff seeks an order (1) requiring
12 Defendant to cease the unfair practices described herein; (2) requiring Defendant to restore to
13 Plaintiff and each Class member any money acquired by means of unfair competition (restitution);
14 and, (3) awarding reasonable costs and attorneys' fees pursuant to Cal. Code Civ. Proc. § 1021.5.

15 **THIRD CAUSE OF ACTION**
16 **Violation of False Advertising Law**
17 **Cal. Bus. & Prof. Code §§ 17500 *et seq.***
18 **(On Behalf of Plaintiff and the Class)**

19 91. Plaintiff incorporates the foregoing allegations as if fully set forth herein.

20 92. California's False and Misleading Advertising Law ("FAL") prohibits corporations
21 from intentionally disseminating advertisements for products or services that are "unfair, deceptive,
22 untrue, or misleading." Cal. Bus. & Prof. Code §17500.

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

94. A reasonable person is likely to be deceived by Defendant's advertisements.

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

6 96. Defendant's conduct directly and proximately caused Plaintiff and the Class actual
7 monetary damages in the form of the price paid for the Bulldozer Processors—typically between
8 \$150 and \$300—or, at least, the difference between what they paid for the processors and their
9 actual value.

10 97. Plaintiff seeks an order (1) requiring Defendant to cease the false advertising
11 practices described herein; (2) requiring Defendant to restore to Class members any money acquired
12 by means of false advertising (restitution); and, (3) awarding reasonable costs and attorneys' fees
13 pursuant to Cal. Code Civ. Proc. § 1021.5.

14 **FOURTH CAUSE OF ACTION**
15 **Fraud in the Inducement**
16 **(On Behalf of Plaintiff and the Class)**

17 98. Plaintiff incorporates by reference the foregoing allegations as if fully stated herein.

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

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

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

1 materially misleading.

2 102. Misrepresentations regarding a processor's core-count specifications are likely to
3 mislead a reasonable consumer who is acting reasonably under the circumstances.

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

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

8 105. Defendant received money as a result of Plaintiff and members of the Class monies
9 purchasing a product that did not meet the advertised specifications. Accordingly, Plaintiff and the
10 members of the Class have suffered injury in fact and lost money in justifiable reliance on
11 Defendant's misrepresentations of material fact.

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

16 107. Plaintiff and the Class have suffered harm as a proximate result of Defendant's
17 violations of law and wrongful conduct.

18 108. Plaintiff, on behalf of himself and the Class, seeks damages from Defendant's
19 unlawful conduct.

20 **FIFTH CAUSE OF ACTION**
21 **Breach of Express Warranties**
22 **(On Behalf of Plaintiff and the Class)**

23 109. Plaintiff incorporates by reference the foregoing allegations as if fully set forth
24 herein.

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

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

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

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

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

12 115. Defendant’s failure to provide Plaintiff and the Class members with processors that
13 conform to advertised core-count specifications constitutes a breach of the express warranty to
14 include such core-count specifications with the Bulldozer Processors.

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

22 117. Because the processors that Plaintiff and the Class members received did not have
23 the core-count specifications as expressly warranted and represented by Defendant, Plaintiff and the
24 members of the Class have been damaged insofar as they did not receive the benefit of their
25 bargain.

26 118. By serving this Complaint, Plaintiff and the Class hereby give Defendant notice that
27 it has breached the express warranties described above. Plaintiff and the members of the Class
28

1 request maximum damages as provided by the California Commercial Code.

2 **SIXTH CAUSE OF ACTION**
3 **Negligent Misrepresentation**
4 **(On Behalf of Plaintiff and the Class)**

5 119. Plaintiff incorporates by reference the foregoing allegations.

6 120. Through its marketing materials, Defendant represented to Plaintiff and the members
7 of the Class that the Bulldozer Processors have “8-cores.”

8 121. Plaintiff and the members of the Class were exposed to representations made by
9 Defendant regarding the Bulldozer Processors having eight cores. Those representations were
10 repeated on and through various websites, including amd.com, Newegg.com, and Amazon.com, and
11 on the Bulldozer’s packaging.

12 122. Those representations were false, and at the time such false statements were made,
13 Defendant knew or should have known of their falsity or, at the very least, Defendant acted with
14 negligence and carelessness in ascertaining the truth of the statements. Defendant knew or should
15 have known that they were unwilling or unable to include the qualities and specifications
16 represented in its marketing materials (online and on-box). Defendant did not have any reasonable
17 ground for believing its statements to be true.

18 123. Defendant intended that Plaintiff and the members of the Class rely on its
19 misrepresentations and omissions by purchasing Bulldozer Processors.

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

22 125. Defendant had a duty to not make the above-described misrepresentations, and to
23 take steps to correct any misrepresentations before Plaintiff and the members of the Class purchased
24 the Bulldozer Processors.

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

27 127. Plaintiff and Class Members justifiably relied on Defendant’s misrepresentations by
28 purchasing Bulldozer Processors, and were unaware of the falsity of Defendant’s statements at the

1 time they were made.

2 128. As a direct and proximate result of Defendant's misrepresentations, Plaintiff and the
3 members of the Class suffered damages in the form of monies paid to purchase Defendant's product
4 when they otherwise would not have purchased the processors or would only have agreed to
5 purchase them at a lower price.

6 **SEVENTH CAUSE OF ACTION**
7 **Unjust Enrichment**
8 **(On Behalf of Plaintiff and the Class)**

9 129. Plaintiff incorporates by reference the foregoing allegations as if fully set forth
10 herein.

11 130. Plaintiff and the Class have conferred a benefit upon Defendant in the form of the
12 money Defendant received from them for the purchase of the Bulldozer Processors, which did not
13 have the core-count specifications as Defendant promised.

14 131. Defendant appreciates and/or has knowledge of the benefits conferred upon it by
15 Plaintiff and the Class.

16 132. Under principles of equity and good conscience, Defendant should not be permitted
17 to retain the money obtained from Plaintiff and the members of the Class, which Defendant has
18 unjustly obtained as a result of its deceptive and misleading advertising.

19 133. Accordingly, Plaintiff and the Class seek full disgorgement and restitution of any
20 money Defendant has retained as a result of the unlawful and/or wrongful conduct alleged herein.

21 **PRAYER FOR RELIEF**

22 WHEREFORE, Plaintiff Tony Dickey on behalf of himself and the Class respectfully
23 requests that the Court enter an order:

24 A. Certifying this case as a class action on behalf of the Class defined above, appointing
25 Tony Dickey as representative of the Class, and appointing his counsel as class counsel;

26 B. Declaring that Defendant's actions, as set out above, violate the CLRA (Cal. Civ.
27 Code §§ 1750, *et seq.*); UCL (Cal. Bus. & Prof. Code §§ 17200 *et seq.*); the FAL (Cal. Bus. & Prof.
28 Code §§ 17500, *et seq.*), and constitute fraud in the inducement, breach of express warranties,

1 negligent misrepresentation, and unjust enrichment;

2 C. Awarding damages, including statutory and punitive damages where applicable, to
3 Plaintiff and the Class in an amount to be determined at trial;

4 D. Awarding Plaintiff and the Class their reasonable litigation expenses and attorneys'
5 fees;

6 E. Awarding Plaintiff and the Class pre- and post-judgment interest, to the extent
7 allowable;

8 F. Awarding such other injunctive and declaratory relief as is necessary to protect the
9 interests of Plaintiff and the Class; and

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

11 **DEMAND FOR JURY TRIAL**

12 Plaintiff demands a trial by jury for all issues so triable.

13 Respectfully submitted,

14 Dated: October 26, 2015

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

16 By: /s/ Samuel M. Lasser
One of Plaintiff's Attorneys

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28 **Pro hac vice admission to be sought
Attorneys for Plaintiff and the Putative Class*