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 9 QUANTA COMPUTER INC. and TECH-COM (SHANGHAI)
 10 COMPUTER LTD.

11 UNITED STATES DISTRICT COURT
 12 FOR THE NORTHERN DISTRICT OF CALIFORNIA
 13 SAN JOSE DIVISION

14 CV12 0012

ORIGINAL

15 QUANTA COMPUTER INC., a Taiwanese
 16 corporation; TECH-COM (SHANGHAI)
 17 COMPUTER LTD., a Chinese corporation,

18 Plaintiffs,

19 v.

20 ADVANCED MICRO DEVICES, INC., a California
 21 corporation; ATI TECHNOLOGIES, ULC, a
 22 Canadian corporation.

23 Defendants.

Case No. _____

**COMPLAINT FOR DAMAGES AND
 RESTITUTION BASED ON BREACH OF
 CONTRACT; IMPLIED EQUITABLE
 INDEMNITY; BREACH OF EXPRESS
 AND IMPLIED WARRANTIES;
 NEGLIGENT AND INTENTIONAL
 MISREPRESENTATION; FRAUD IN THE
 INDUCEMENT; INTERFERENCE WITH
 CONTRACT; NEGLIGENT
 INTERFERENCE WITH PROSPECTIVE
 ECONOMIC ADVANTAGE; AND TRADE
 LIBEL.**

JURY TRIAL DEMANDED

FILED
 2012 JAN -3 P 3:44
 RICHARD W. WIEKING
 CLERK, U.S. DISTRICT COURT
 NORTHERN DISTRICT OF CALIFORNIA

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HRL

1 Plaintiffs Quanta Computer Inc. and Tech-Com (Shanghai) Computer Ltd. hereby allege as
2 follows:

3 **NATURE OF THE ACTION**

4 1. This is a complaint for damages and restitution based on Defendants' breach of
5 contract, implied equitable indemnity, breach of express warranty, breach of implied warranties of
6 merchantability and fitness for a particular purpose, negligent and intentional misrepresentation,
7 fraudulent inducement to contract, interference with contract, negligent interference with prospective
8 economic advantage, and trade libel.

9 2. On information and belief, Plaintiffs allege that each defendant, individually and in
10 concert with the other defendant, has: (1) breached its contracts for the sale of RS600ME chips
11 ("RS600ME") to plaintiffs; (2) failed to indemnify Plaintiffs for losses occasioned by Defendants'
12 breaches of contract; (3) breached express warranties regarding the thermal tolerance of RS600ME;
13 (4) breached the implied warranties of merchantability and fitness for a particular purpose by selling
14 RS600ME chips that are unfit for the ordinary purpose for which they are used; (5) negligently and
15 intentionally misrepresented facts concerning a) the thermal tolerance of RS600ME and b) the quality
16 of Plaintiffs' products and services; (6) intentionally interfered with Plaintiffs' contract with its
17 customer NEC to evade liability for selling a defective product; (7) fraudulently induced Plaintiffs to
18 purchase defective RS600ME chips; (8) interfered with Plaintiffs' economic prospects by intentionally
19 and negligently disrupting the economic relationship between Plaintiffs and its customer NEC; and (9)
20 caused Plaintiffs economic harm by recklessly disparaging the quality of Plaintiffs' products and
21 services to NEC.

22 **PARTIES**

23 3. Plaintiff Quanta Computer Inc. is a Taiwanese company with its headquarters and
24 principal place of business at No. 188, Wen Hwa 2nd Road, Kuei Shan Shiang, Republic of China
25 (Taiwan). Quanta Computer Inc. is primarily engaged in the business of designing and manufacturing
26 notebook computers for resale by others. Its top customers include leading vendors of computers and
27 other electronics, such as NEC, Apple, Dell, Gateway, Hewlett-Packard, Panasonic, and Sony.

28 4. Plaintiff Tech-Com (Shanghai) Computer Ltd. is a Chinese company with its

1 headquarters and principal place of business at No.68, Sanzhuang Road, Songjiang Export, Processing
2 Zone, Songjiang District, Shanghai, 201613, China. Tech-Com (Shanghai) Computer Ltd. is a
3 subsidiary of Quanta Development Ltd. and is in the business of manufacturing and marketing
4 computers and computer peripherals. Quanta Computer Inc. and Tech-Com (Shanghai) Computer
5 Ltd. are referred to herein as "Quanta Computer" and "Tech-Com," respectively and as "Quanta"
6 collectively.

7 5. Defendant Advanced Micro Devices, Inc. ("AMD") is a Delaware corporation with its
8 headquarters and principal place of business at One AMD Place, Sunnyvale, CA, 94085. On
9 information and belief, AMD is in the business of developing computer processors and other related
10 technologies, including chips and integrated graphics units for use in desktop and mobile computing
11 devices. On or about October 25, 2006, AMD acquired ATI Technologies, Inc. for approximately 5.4
12 billion USD. Post-acquisition, ATI Technologies, Inc. became ATI Technologies, ULC, ("ATI") a
13 Canadian unlimited liability company. On information and belief, since AMD's acquisition of ATI,
14 AMD has pursued an integration plan that included the transfer of ATI employees and the re-branding
15 of ATI products and facilities as AMD products and facilities. Plaintiffs are informed and believe, and
16 on that basis allege, that as a consequence of AMD's acquisition of ATI, AMD expressly or impliedly,
17 or by operation of law, assumed responsibility for the liabilities of ATI, including the present
18 litigation.

19 6. Defendant ATI is a Canadian unlimited liability company with its headquarters and
20 principal place of business at 1 Commerce Valley Drive East, Markham, Ontario, Canada. On
21 information and belief, ATI is an co-owned affiliate or wholly-owned subsidiary of AMD as of
22 October 25, 2006. On information and belief, ATI is in the business of developing graphics
23 processing units and chips for desktop and mobile computers. Prior to its acquisition by AMD, ATI
24 developed and marketed the RS600ME chip for use in notebook computers. AMD continued to
25 market the RS600ME chip following its acquisition of ATI. On information and belief, ATI has
26 developed and maintained continuous relationships with several California customers including
27 Hewlett-Packard Co., Apple Inc., and Gateway, Inc. for purposes of marketing and selling its
28 products, including the RS600ME chip. On information and belief, ATI maintained at least three

1 facilities within California for purposes of research and development and U.S. sales and distribution
2 functions, and continues to maintain a presence at 4555 Great America Parkway, Sunnyvale,
3 California.

4 JURISDICTION AND VENUE

5 7. This Court has subject matter jurisdiction over the claims pertaining to the present
6 litigation pursuant to 28 U.S.C. § 1332(a)(2) (diversity of citizenship). The matter in controversy
7 exceeds the sum or value of 75,000 USD, exclusive of interest and costs, and is between a citizen of
8 the State of California and citizens of foreign states.

9 8. This Court has personal jurisdiction over AMD because AMD resides in the State of
10 California. This Court has personal jurisdiction over ATI because of the systematic and continuous
11 nature of ATI's contacts within the State of California, including its continuous and purposeful
12 marketing activities within the State.

13 9. Venue is proper in this judicial district under 28 U.S.C. § 1391(a)(1) because both
14 AMD and ATI reside in this judicial district.

15 INTRADISTRICT ASSIGNMENT

16 10. Pursuant to Civil L.R. 3-2(c) and the Court's Assignment Plan, assignment to this
17 division of the Northern District is proper because Defendant AMD is headquartered in Sunnyvale,
18 California and a substantial part of the events or omissions that give rise to the claims occurred in
19 Santa Clara County.

20 GENERAL ALLEGATIONS

21 **I. The History of the NR3a Computer**

22 11. Quanta is a notebook computer original design manufacturer ("ODM"). Quanta
23 typically receives a specification for a product from a customer and then designs and builds a product
24 to match that specification. The ODM then sells the product to the customer who resells to the end
25 purchaser under its own brand. Among the companies for whom Quanta designs and manufactures
26 notebook computers are NEC Custom Technica, Ltd. and NEC Computers International (collectively,
27 "NEC").

28 12. In 2006, NEC engaged Quanta to develop and manufacture the NR3a line of notebook

1 computers ("NR3a"). Among the features NEC specified for the NR3a was that it use a certain Intel
2 microprocessor. This particular Intel microprocessor requires that it be supported by a set of
3 additional integrated circuits called a chipset. NEC also specified that the NR3a use a chipset from
4 ATI that consists of two chips: the RS600ME and the SB460.

5 13. Quanta designed the NR3a and began shipping it in September, 2006. In April, 2007,
6 Quanta introduced an updated version called the NR3a2 and in September, 2007, it introduced a
7 second updated version called the NR3a2+. Quanta ceased production of the NR3a line of products in
8 2008.

9 **A. RS600ME Thermal and Pressure Specifications**

10 14. The RS600ME chip is a processor and such chips can generate substantial amounts of
11 heat. Typically, the heat from a processor is removed through a heat sink, a thermally conductive
12 metal mass that is place in contact with the processor chip. The heat sink absorbs the heat and
13 distributes it to fins that are cooled by a fan. As Quanta designed the NR3a, it needed to know the
14 thermal characteristics of the RS600ME chip in order that it could design an adequate heat sink.
15 Quanta accessed ATI's databook for the RS600ME chip from ATI's website via its secured customer
16 account. The databook specified the following thermal tolerance limits:

17

Parameter	Maximum (Celsius)
Operation Case Temperature	103
Operation Junction Temperature	105
Absolute Junction Temperature	125
Storage Temperature	60
Ambient Temperature	45

18
19
20

21 15. A note following the thermal tolerance chart in the RS600 databook states: "the
22 maximum operating case temperature is the maximum case temperature at which the functionality of
23 the chip is qualified." Over the course of designing the original NR3a and each of the updated
24 versions, Quanta conducted extensive thermal tests on numerous components of, and at numerous
25 locations on the NR3a. Quanta's tests demonstrated that NR3a operated at temperatures well within
26 the RS600ME databook's thermal requirements. For example, even under heaviest applications, the
27 junction temperature of the RS600ME chip did not exceede 92 degrees Celsius.

28 16. The RS600 databook also provides pressure specifications to avoid damage to the chip

1 caused by improper mechanical assembly of the heat sink. The databook specified that 40 pounds per
2 square inch ("psi") was the maximum pressure the RS600ME die could withstand without risking chip
3 damage. Quanta conducted tests that confirmed that the pressure of the heat sink was less than 40 psi
4 at any point on the RS600ME die.

5 **B. NR3a Boot Failure Issue**

6 17. The NR3a experienced an unusual number of defective product returns. Typically, the
7 reason for the return was that the product failed to boot, meaning that at some point in the boot-up
8 operation, the computer encountered a fatal error.

9 18. NEC informed Quanta about the NR3a boot failure issue in October 7, 2007. Based
10 upon its own analysis, Quanta concluded that the fatal error in the boot process was occurring on the
11 RS600ME. It therefore contacted immediately contacted AMD. Following some analysis, AMD
12 denied that there was any common defect in the RS600ME. Rather, it suggested that most of the time,
13 either there was no problem or the problem must be with the Quanta printed circuit board on which the
14 chip was mounted.

15 19. Quanta continued to investigate the recurring problem but could find no manufacturing
16 defects in either its attachment of the RS600ME to the printed circuit board or in the boards
17 themselves. On January 3, 2009, Quanta sent an email to AMD requesting AMD's assistance in
18 conducting RS600ME failure analyses. After about a month of intensive investigation involving
19 NEC, Quanta and AMD, AMD notified NEC and Quanta that it had concluded that the cause of the
20 failures was Quanta's heat sink design for the RS600ME, which AMD asserted was causing damage
21 to the chip and causing the chip to fail. AMD suggested that Quanta needed to redesign the heat sink.

22 20. NEC accepted AMD's analysis and on February 13, 2009, actually thanked AMD for
23 pinpointing Quanta's heat sink design as the root cause of the returns. NEC required that Quanta
24 redesigned the heat sink for the RS600ME to comply with AMD's suggestions. It did so. Quanta
25 proposed and NEC approved an engineering change order describing the new heat sink design in
26 March, 2009. NEC then had this redesigned heat sink installed on almost its entire install base of
27 NR3a family machines (the "rework program").

28 21. The rework program, however, made no discernable difference. Within a few months,

1 even machines with a brand new RS600ME chip and the new heat sink began to exhibit the exact
2 same failure mode. Eventually, Quanta and NEC discovered that the only step that can reduce the
3 occurrence of the boot failure problem was to use software to reduce the operating speed of the chip
4 by some 40%.

5 **C. RS600ME Underfill and Defective Design Cause NR3a Boot Failure**

6 22. Even after AMD identified the Quanta heat sink design as the root cause of the boot
7 failure defect, Quanta continued to investigate the issue. On February 4, 2009, at Quanta's request,
8 AMD provided Quanta with the technical data regarding the underfill material used in the RS600ME
9 chip. Underfill is material, typically an epoxy, that is injected between the die and the substrate to
10 provide greater mechanical strength to the fragile connections between the die and the substrate.
11 AMD stated that the underfill in the RS600ME is Chipcoat U-8439-1, made by Namics. The
12 specification for this material states that it has a glass transition temperature of 70 degrees Celsius. In
13 other words, at 35 degrees below the specified safe operating temperature of the RS600ME, the epoxy
14 that ATI used to keep the die glued to the substrate literally melts.

15 23. Quanta then hired DfR Solutions, LLC ("DfR"), an electronics forensics firm in
16 Maryland, to investigate the cause of the defects in the RS600ME chips on computers that had
17 experienced boot failure. Quanta advised DfR of AMD's allegations that Quanta's original heat sink
18 design was responsible for the product failures. DfR identified microfractures in the solder bumps
19 connecting the failed RS600ME dies to the substrate. It also noted that, because of the underfill's
20 thermal behavior, it was likely that operational temperatures between 60-80 degrees Celsius
21 introduced elevated stress to the solder bumps, leading to the microfractures. DfR noted in its report
22 that it could not find any physical evidence of additional factors that contributed to the formation of
23 the micro cracks. DfR recommended additional study, particularly a finite element analysis, to
24 determine whether the underfill caused the defects.

25 24. Upon information and belief, NEC too continued to investigate the cause of the boot
26 failure. NEC concluded that the RS600ME underfill became less viscous in temperatures exceeding
27 60 degrees Celsius, causing the RS600ME die and substrate to misalign and introduce stress to the
28 solder balls. NEC corroborated its own findings and DfR's findings by noting that NR3a units that

1 had been modified to operate at temperatures below 60 degrees Celsius did not experience boot failure
2 issues. To achieve the roughly 20 degree Celsius decrease in the RS600ME case temperature, NEC
3 had to reduce the frequency of the chip processor from 500 megahertz to 300 megahertz, and of the
4 memory clock from 333 megahertz to 266 megahertz. In effect, NEC had to reduce the performance of
5 the RS600ME to that of a less-sophisticated and out-of-date model in order to prevent the ongoing
6 failure of RS600ME chips on the platform.

7 25. On April 14, 2011, Quanta sent a letter to AMD seeking to settle Quanta's claims
8 against AMD arising from AMD's delivery of defective RS600ME to Quanta. AMD replied on May
9 11, 2011 and denied that AMD's chips were defective. Upon information and belief, NEC too has
10 informed AMD that it does not believe the heat sink was the root cause of the boot failure and AMD
11 has continued to deflect blame away from its chip design by asserting to NEC that the cause of the
12 boot failure is the Quanta heat sink design.

13 **II. Quanta's Damages Resulting from the RS600ME Design Defect**

14 26. In early 2009, Quanta and NEC reasonably believed, based upon AMD's
15 representations, that the Quanta heat sink was the cause of the boot failure defect and that the rework
16 program, implementing AMD's suggested redesign of the heat sink, would cure the problem. NEC
17 and Quanta representatives met in Japan to discuss the costs of the rework program. Eventually,
18 Quanta and NEC entered into a settlement agreement by which, in exchange for a release of liability
19 from NEC, Quanta agreed to compensate NEC in the amount of 50% of NEC's costs associated with
20 the rework program. Quanta has paid approximately 20 million USD to NEC under this settlement
21 agreement already and it continues to incur additional costs as more machines fail in the field.

22 27. Further, Quanta has incurred substantial pecuniary losses arising from its own efforts to
23 repair and replace product involved in the rework program or that was returned defective by NEC
24 prior to the rework program. Quanta also expended engineering resources on needlessly redesigning
25 its heat sink to comply with ATI and AMD's suggested modifications and in its investigation of the
26 causes of the boot failure problem.

27 28. Finally, Quanta has suffered significant injury to prospective revenue and profits. As a
28 result of AMD's representation to NEC that deficiencies in Quanta's design were the cause of the boot

1 failure defect, NEC curtailed its reliance upon Quanta as an ODM and instead, directed its business
2 elsewhere. As a result, the Quanta's revenue from its NEC relationship dropped markedly in 2009 and
3 did not recover until NEC itself concluded that AMD was wrong. Quanta's lost profits resulting from
4 this drop in revenue exceed 14 million USD. Moreover, NEC has used the quality issues with the
5 NR3a as a justification to require Quanta to engage in additional, expensive quality assurance steps
6 that have an ongoing impact upon Quanta's profitability.

7 29. ATI and AMD knew or recklessly disregarded the fact that the RS600ME chip's
8 underfill material predisposed the chip to a lower thermal tolerance than represented in the RS600
9 databook. Namics Corp., the manufacturer of the underfill, produced the underfill's specification page
10 as early as March 2002. The underfill's specifications page explicitly stated that the glass transition
11 temperature of the underfill was 70 degrees Celsius. ATI and AMD personnel had possession and
12 knowledge of the contents of Namics' underfill specifications page. Furthermore, ATI had possession
13 and knowledge of the contents of the underfill's specifications page when it designed RS600ME and
14 generated the RS600 databook. ATI and AMD therefore knew or recklessly disregarded the fact that
15 RS600ME contained a design defect and that Quanta's heat sink design was not the root cause of the
16 solder bump micro cracks found on defective RS600ME.

17 30. Although ATI and AMD engineers had access to the underfill's specifications for the
18 duration of the NR3a boot failure issue, they failed to disclose information regarding those
19 specifications for more than a year after Quanta first sought AMD's assistance with the boot failure
20 issue and continued to deny that there was a problem with the RS600ME chip even to this day. Until
21 Quanta had access to the underfill's specifications and could analyze its properties, Quanta relied on
22 ATI and AMD's misrepresentations in the RS600 databook concerning the thermal tolerance of
23 RS600ME when Quanta purchased the product for use in NR3a. Quanta either would not have
24 purchased RS600ME or would have designed NR3a differently to operate at a lower temperature if
25 Quanta was aware that RS600ME had a lower thermal tolerance than indicated in the RS600
26 databook.

27 31. Additionally, ATI and AMD personnel knew or recklessly disregarded the fact that
28 Quanta's heat sink design was not the root cause of the defects in the RS600ME chips that led to the

1 boot failure. Nonetheless, ATI and AMD blamed Quanta's heat sink design not only to Quanta but to
2 Quanta's customer NEC. As a consequence of ATI and AMD's misrepresentation, Quanta needlessly
3 redesigned the heat sink the RS600ME in the NR3a family and committed with NEC to share the costs
4 of implementing that change across the install base. Quanta would not have redesigned its heat sink if
5 ATI and AMD had not accused the heat sink of causing the RS600ME micro cracks.

6 32. Quanta could not have avoided any of the damages it incurred as a result of the
7 RS600ME's design defect. ATI and AMD are highly regarded suppliers of computer chips. Quanta
8 reasonably relied on ATI and AMD's apparent expertise when it relied on misrepresentations
9 contained in the RS600 databook and ATI and AMD's misrepresentations regarding the heat sink for
10 the RS600ME. Furthermore, Quanta diligently investigated the cause of the NR3a boot failure issue
11 by enlisting the help of ATI, AMD, and DfR.

12 **FIRST CLAIM FOR RELIEF**
13 **(Breach of Contract)**

14 33. Quanta incorporates by reference and re-alleges each and every allegation set forth in
15 the foregoing paragraphs as though fully set forth herein.

16 34. Quanta entered into purchase orders with ATI and subsequently AMD for the purchase
17 of RS600ME.

18 35. Quanta timely ordered and tendered payment for RS600ME supplied to it by ATI and
19 AMD. Quanta has therefore fully performed its obligations under any contract governing the purchase
20 and sale of those chips.

21 36. Pursuant to RS600ME purchase orders, ATI and AMD were obligated to provide
22 Quanta with RS600ME units that complied with ATI's express warranty that RS600ME was qualified
23 to operate at temperatures indicated in the RS600 databook.

24 37. ATI and AMD delivered RS600ME to Quanta that did not comply with ATI's express
25 warranty that RS600ME was qualified to operate at temperatures indicated in the RS600 databook.
26 ATI and AMD manufactured RS600ME with Chipcoat U8439-1 as its underfill. The properties of the
27 underfill predisposed RS600ME to sustain damage at lower temperature thresholds than those
28 represented in ATI's databook.

1 38. Quanta suffered damages because of ATI and AMD's breach of contract.

2 ///

3 **SECOND CLAIM FOR RELIEF**
4 (Implied Equitable Indemnity)

5 39. Quanta incorporates by reference and re-alleges each and every allegation set forth in
6 the foregoing paragraphs as though fully set forth herein.

7 40. ATI and AMD did not use reasonable care in rendering performance under purchase
8 orders for RS600ME. ATI and AMD sold Quanta RS600ME units that ATI and AMD knew or
9 should have known did not possess the thermal tolerance limits that ATI and AMD had represented to
10 Quanta via the RS600 databook.

11 41. As a result of ATI and AMD's failure to use reasonable care in providing RS600ME
12 that performed as warranted, Quanta suffered liability to its customer NEC.

13 **THIRD CLAIM FOR RELIEF**
14 (Breach of Express Warranty)

15 42. Quanta incorporates by reference and re-alleges each and every allegation set forth in
16 the foregoing paragraphs as though fully set forth herein.

17 43. Quanta entered into purchase agreements with ATI and subsequently AMD for the
18 purchase of RS600ME.

19 44. ATI and AMD expressly warranted thermal tolerance limits for RS600ME in the
20 RS600 databook that exceeded RS600ME's actual thermal tolerance. Quanta purchased RS600ME
21 from ATI and AMD based on Quanta's reliance on their misrepresentations concerning the thermal
22 tolerance of RS600ME.

23 45. The thermal tolerance of the RS600ME was lower than that which ATI and AMD had
24 specified in the RS600 databook.

25 46. The lower thermal tolerance of the RS600ME actually and proximately caused
26 RS600ME to become defective.

27 47. Despite Quanta's repeated requests that ATI and AMD provide a remedy under the
28 warranty, ATI and AMD have refused. Quanta suffered damages because of RS600ME's failure to

1 perform as warranted.

2
3 **FOURTH CLAIM FOR RELIEF**
4 (Breach of Implied Warranty of Merchantability)

5 48. Quanta incorporates by reference and re-alleges each and every allegation set forth in
6 the foregoing paragraphs as though fully set forth herein.

7 49. ATI and AMD design and sell computer chip products, including chips such as
8 RS600ME.

9 50. RS600ME's ordinary purpose is for use as a chip in notebook computers, such as
10 NR3a. RS600ME contains a design defect because its underfill predisposes the chip to damage at
11 operational temperatures between 60-80 degrees Celsius. This is not an unusual condition for a
12 notebook computer running certain common software applications such as computer games. The
13 RS600ME chip experiences high failure rates under these conditions. The RS600ME chip is therefore
14 unfit for the ordinary purpose for which it is sold.

15 51. The lower thermal tolerance of the RS600ME actually and proximately caused the
16 RS600ME to become defective, leading to the defective performance of NR3a.

17 52. Quanta suffered damages because of RS600ME's failure to perform as warranted.

18 **FIFTH CLAIM FOR RELIEF**
19 (Breach of Implied Warranty of Fitness for a Particular Purpose)

20 53. Quanta incorporates by reference and re-alleges each and every allegation set forth in
21 the foregoing paragraphs as though fully set forth herein.

22 54. The RS600ME chip's ordinary purpose is for use as a chip in notebook computers,
23 such as NR3a. ATI and AMD were aware at the time they sold Quanta RS600ME that it was for use
24 in NR3a.

25 55. Quanta relied on ATI and AMD as reputable suppliers of computer chips to furnish
26 defect-free RS600ME chips that functioned as warranted in the RS600 databook in NR3a.

27 56. The RS600ME chip contained a design defect that actually and proximately caused the
28 NR3a boot failure issue.

1 57. Quanta suffered damages because of RS600ME's failure to perform as warranted.
2

3 **SIXTH CLAIM FOR RELIEF**
4 (Negligent Misrepresentation of Fact)

5 58. Quanta incorporates by reference and re-alleges each and every allegation set forth in
6 the foregoing paragraphs as though fully set forth herein.

7 59. ATI and AMD owed a duty to provide Quanta with truthful and accurate information
8 regarding the thermal tolerance of the RS600ME. Further, upon being solicited for and agreeing to
9 provide assistance in determining the cause of the boot failure defect, ATI and AMD owed a duty to
10 provide Quanta with truthful and accurate information regarding the cause of the defects in the
11 RS600ME that caused the boot failure defect.

12 60. ATI's RS600 databook misrepresented that RS600ME had specific thermal tolerances
13 as set forth above. In particular, ATI's RS600 databook states that the RS600ME has a safe operation
14 junction temperature of 105 degrees Celsius.

15 61. Subsequently, ATI and AMD, via their report generated on February 3, 2009,
16 misrepresented to Quanta and NEC that Quanta's heat sink design was the root cause of the defects in
17 the RS600ME chips that led to the boot failure defects. On February 3, 2009, Jacky Guan of AMD
18 Toronto stated in an email to various Quanta and NEC personnel: "we found that the DQ1 high
19 impedance is due to the C4 bump [*i.e.* solder bump] cracking damage and **the cracking is due to**
20 **excess stress on the DQ1 pin corner from NR3A heat sink**. The high impedance of DQ1 caused
21 memory write failure during boot up and thus the NR3A system no longer able to boot."
22 [sic][Emphasis added.] ATI and AMD have repeated this allegation, in sum and substance, on
23 multiple occasions since.

24 62. The statements of fact set forth in the preceding paragraphs were not, in fact, truthful
25 and accurate information. The safe operating temperature of the RS600ME is well below 105 degrees
26 Celsius and is probably below 70 degrees Celsius. A competent engineer with the expertise of ATI
27 and AMD engineers would have known that the RS600 databook misrepresented RS600ME's thermal
28 tolerance, as the underfill between the die and substrate undergoes a phase change at 70 degrees

1 Celsius, which predisposes the chip to damage at temperatures far below those indicated in the RS600
2 databook. Moreover, Quanta's heat sink was not responsible for RS600ME damage.

3 63. Each of ATI and AMD's misrepresentations occurred in a business and professional
4 capacity. ATI and AMD intended for the RS600 databook to provide material product information to
5 prospective and actual ATI and AMD customers, including Quanta. ATI and AMD generated the
6 February 3, 2009 report in response to business-related correspondences with Quanta.

7 64. Quanta relied on ATI and AMD's misrepresentation regarding the thermal tolerance of
8 RS600ME when it first purchased and continued to purchase RS600ME for use in NR3a. Quanta
9 redesigned the RS600ME heat sink in reliance on Jacky Guan's e-mail from January 3, 2009 and on
10 ATI and AMD's report dated January 3, 2009 and continued to purchase defective RS600ME units.

11 65. ATI and AMD are regarded as reputable suppliers of computer chips. Quanta
12 justifiably relied on ATI and AMD's misrepresentations by deferring to their apparent expertise as to
13 the quality and thermal behavior of RS600ME and the cause of the defects in the RS600ME.

14 66. Due to Quanta's reliance on ATI's and AMD's misrepresentation, Quanta sustained
15 damages.

16 **SEVENTH CLAIM FOR RELIEF**
17 **(Intentional Misrepresentation of Fact)**

18 67. Quanta incorporates by reference and re-alleges each and every allegation set forth in
19 the foregoing paragraphs as though fully set forth herein.

20 68. ATI and AMD knew or recklessly disregarded the fact that RS600ME's underfill
21 material predisposed the RS600ME to a lower thermal tolerance than represented in the RS600
22 databook. Namics Corp., the manufacturer of the underfill, produced the underfill's specification page
23 as early as March 2002. The underfill's specifications page explicitly stated that the glass transition
24 temperature of the underfill was 70 degrees Celsius. Upon information and belief, ATI and AMD
25 were aware of this characteristic of the underfill at all relevant times. ATI and AMD either
26 intentionally or recklessly hid this latent design defect in the RS600ME.

27 69. ATI and AMD intended to induce Quanta's and NEC's reliance on its
28 misrepresentation regarding the thermal tolerance of RS600ME to ensure NEC's specification of the

1 RS600ME for additional machines and Quanta's initial and continued purchases of RS600ME for use
2 in the NR3a.

3 70. Quanta actually relied on ATI and AMD's misrepresentation regarding the thermal
4 tolerance of RS600ME when it first purchased and continued to purchase RS600ME for use in NR3a.

5 71. ATI and AMD knew or recklessly disregarded the fact that the cause of the defects in
6 the RS600ME that led to the boot failure was not the Quanta heat sink. Nonetheless, ATI and AMD
7 intentionally or reckless made such misrepresentations in order to induce Quanta and NEC to believe
8 that the RS600ME was not the cause of the failure and thereby to ensure Quanta's continued purchase
9 of RS600ME chips.

10 72. Quanta and NEC actually relied on ATI and AMD's misrepresentation that Quanta's
11 heat sink design was responsible for RS600ME chip failures. Quanta redesigned the heat sink from
12 about February to March of 2009 in reliance on Jacky Guan's e-mail from January 3, 2009 and ATI
13 and AMD's report dated January 3, 2009 and continued to purchase defective RS600ME.

14 73. Quanta justifiably relied on ATI and AMD's misrepresentation, deferring to their
15 apparent expertise as to the quality and thermal behavior of RS600ME and the cause of the micro
16 cracks.

17 74. Due to Quanta's reliance on ATI's and AMD's misrepresentations, Quanta sustained
18 damages.

19 **EIGHTH CLAIM FOR RELIEF**
20 (Fraud in the Inducement)

21 75. Quanta incorporates by reference and re-alleges each and every allegation set forth in
22 the foregoing paragraphs as though fully set forth herein.

23 76. ATI and AMD knew or recklessly disregarded the fact that RS600ME's underfill
24 material predisposed the RS600ME to a lower thermal tolerance than represented in the RS600
25 databook. Upon information and belief, ATI and AMD were aware of this characteristic of the
26 underfill at all relevant times.

27 77. ATI and AMD knew or recklessly disregarded the fact that the cause of the defects in
28 the RS600ME that led to the boot failure was not the Quanta heat sink. Nonetheless, ATI and AMD

1 intentionally or reckless made such misrepresentations in order to induce Quanta and NEC to believe
2 that the RS600ME was not the cause of the failure and thereby to ensure Quanta's continued purchase
3 of RS600ME chips.

4 78. ATI and AMD's misrepresentations induced Quanta to purchase an additional
5 180,000+ RS600ME chips containing a latent design defect.

6 79. Due to ATI and AMD's fraudulent inducement of Quanta's continued purchase of
7 RS600ME, Quanta sustained damages.

8 **NINTH CLAIM FOR RELIEF**
9 (Interference with Contract)

10 80. Quanta incorporates by reference and re-alleges each and every allegation set forth in
11 the foregoing paragraphs as though fully set forth herein.

12 81. Quanta has a contractual relationship with NEC pursuant to which NEC can specify
13 and purchase from Quanta, and Quanta to design and supply to NEC, various notebook computers.
14 On information and belief, ATI and AMD were aware by the date of Quanta's initial purchase of
15 RS600ME of Quanta's contract with NEC and knew that Quanta's ongoing purchase of RS600ME
16 was for use in computers to be supplied to NEC.

17 82. With knowledge of Quanta's contract with NEC, ATI and AMD misrepresented to
18 NEC that Quanta's heat sink design was the root cause of the defects in the RS600ME that correlate
19 with the NR3a boot failure issue. ATI and AMD alleged that Quanta's heat sink design was the root
20 cause in order to evade liability to NEC for RS600ME's role in NEC's damages. Thereafter, Quanta
21 continued to purchase RS600ME for use in NR3a computers in reliance on ATI and AMD's and
22 therefore continued to provide product to NEC that would malfunction when placed in operation by
23 NEC's end purchasers.

24 83. The contract between Quanta and NEC requires Quanta to provide NEC with high
25 quality product, free from defect. By inducing Quanta to supply the NR3a with its defective
26 RS600ME chip to NEC, ATI and AMD induced Quanta to breach its commitment to provide high
27 quality product free from defect.

28 84. Quanta suffered damages because ATI and AMD induced Quanta's breach of its

1 contract with NEC.
2

3 **TENTH CLAIM FOR RELIEF**

4 (Negligent Interference with Prospective Economic Advantage)

5 85. Quanta incorporates by reference and re-alleges each and every allegation set forth in
6 the foregoing paragraphs as though fully set forth herein.

7 86. Quanta and NEC have an economic relationship whereby Quanta designs and
8 manufactures computer products to NEC specifications and NEC purchases such products from
9 Quanta. Pursuant to their agreement, Quanta was to receive an economic benefit from NEC for
10 Quanta's design and manufacture of NR3a, as well as future projects with NEC.

11 87. On information and belief, ATI and AMD knew of Quanta's relationship with NEC at
12 least by the time ATI first sold RS600ME chips to Quanta for use in NR3a.

13 88. ATI and AMD knew or should have known that Quanta's relationship with NEC would
14 be disrupted if ATI and AMD did not act with reasonable care in providing Quanta with RS600ME
15 chips that performed as warranted in the RS600 databook's thermal tolerance guidelines.
16 Furthermore, ATI and AMD knew or should have known that misrepresenting Quanta's heat sink
17 design as the root cause of the defects in the RS600ME chips that led to the boot failure would injure
18 the economic relationship between Quanta and NEC.

19 89. ATI and AMD delivered RS600ME chips to Quanta that did not perform as warranted,
20 resulting in NR3a's boot failure issue. Furthermore, ATI and AMD intentionally, recklessly, or
21 negligently misrepresented to NEC that the root cause of the NR3a boot failure issue as being
22 Quanta's heat sink design.

23 90. As a consequence of ATI and AMD's failure to provide RS600ME units that
24 performed as warranted, and their misrepresentation concerning the root cause of the boot failure
25 issue, ATI and AMD disrupted the economic relationship between Quanta and NEC. NEC, relying on
26 ATI and AMD's misrepresentation, blamed Quanta's heat sink design for the NR3a boot failure issue.
27 Quanta and NEC entered into an agreement to share the costs of the NR3a boot failure issue in
28 contemplation of Quanta's allegedly-deficient heat sink design based on ATI and AMD's

1 misrepresentation. Additionally, NEC refused to allow Quanta to bid on future projects similar to
2 those NEC routinely permitted Quanta to bid on because of its concerns regarding the quality of
3 Quanta's designs.

4 91. As a result, Quanta's economic relationship with NEC was harmed as a result of ATI
5 and AMD's misrepresentation because NEC lost confidence in Quanta's ability to provide satisfactory
6 products under their agreement.

7 92. ATI and AMD's delivery of defective RS600ME chips and misrepresentations
8 concerning the root cause of the NR3a boot failure issue were substantial factors in Quanta suffering
9 financial injury and the disruption of Quanta's economic relationship with NEC. Quanta incurred
10 liability under its settlement with NEC solely because of RS600ME's defective performance and ATI
11 and AMD's misrepresentation as to the root cause of the NR3a boot failure issue.

12 **ELEVENTH CLAIM FOR RELIEF**
13 (Trade Libel)

14 93. Quanta incorporates by reference and re-alleges each and every allegation set forth in
15 the foregoing paragraphs as though fully set forth herein.

16 94. ATI and AMD generated a report falsely stating that Quanta's heat sink design was the
17 root cause of the defects in the RS600ME chips and blaming Quanta's heat sink design for the NR3a
18 boot failure issue. ATI and AMD sent the report to NEC, one of Quanta's primary customers.

19 95. ATI and AMD's report disparaged the quality of Quanta's heat sink design as well as
20 the quality of Quanta's design and manufacture services.

21 96. ATI and AMD knew or recklessly disregarded the fact that the RS600ME's underfill
22 material predisposed the chip to a lower thermal tolerance than represented in the RS600 databook.
23 Rather than addressing the RS600ME design defect, ATI and AMD alleged that Quanta's heat sink
24 design was responsible for RS600ME chip damage and the NR3a boot failure issue with reckless
25 disregard for the demonstrable falsity of the allegation.

26 97. As a consequence of ATI and AMD's report, NEC forced Quanta to redesign its heat
27 sink, causing it damages in an amount to be determined. Furthermore, NEC forced Quanta to bear
28 half the costs associated with the NR3a boot failure issue, leading to further damages in excess of 20

1 million USD.

2 **PRAYER FOR RELIEF**

3 WHEREFORE, Quanta prays as follows:

- 4 1. That the Court enter judgment in favor of Quanta against Defendants on all counts;
- 5 2. That the Court award Quanta all of its damages associated with each cause of action
- 6 asserted in this complaint, including incidental and consequential damages flowing from Defendants'
- 7 conduct;
- 8 3. That the Court award Quanta punitive damages for Defendants' intentional
- 9 misrepresentations of fact, fraudulent inducement, willful interference with Quanta's contract with
- 10 NEC, and for disparaging the quality of Quanta's products and services;
- 11 4. That the Court restore to Quanta whatever benefit Defendants received as a consequence of
- 12 their interference with Quanta's economic prospects.
- 13 5. That the Court award such other and further relief to Quanta as the Court deems just and
- 14 proper.

15 **DEMAND FOR JURY TRIAL**

16 Plaintiffs hereby demand a trial of all claims and causes of action triable by jury asserted in

17 this Complaint.

18

19

20 DATED: January 3, 2012

Respectfully submitted,

21 KILPATRICK TOWNSEND & STOCKTON LLP

22

23

24 By: 

A. James Isbester

25 Attorney for Plaintiffs

26 Quanta Computer Inc. and Tech-Com (Shanghai) Computer Ltd.

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