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16 Attorneys for Plaintiff North Star Innovations,  
17 Inc.

18 **IN THE UNITED STATES DISTRICT COURT**  
19 **FOR THE CENTRAL DISTRICT OF CALIFORNIA**

20 NORTH STAR INNOVATIONS INC.,

21 Plaintiff,

22 v.

23 NANYA TECHNOLOGY CORP.  
24 U.S.A., and NANYA TECHNOLOGY  
25 CORP.,

26 Defendants.

Case No.

**COMPLAINT FOR PATENT  
INFRINGEMENT**

**JURY TRIAL DEMANDED**

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1 Plaintiff, North Star Innovations Inc., by and through its undersigned  
2 counsel, files this Complaint for Patent Infringement against Defendant Nanya  
3 Technology Corp. U.S.A. and Nanya Technology Corp. (collectively "Nanya" or  
4 "Defendants").

5 **THE PARTIES**

6 1. Plaintiff North Star Innovations Inc. ("NSI") is a corporation formed  
7 under the laws of the State of Delaware with its principal place of business at Plaza  
8 Tower, 600 Anton Boulevard, Suite 1350, Costa Mesa, CA 92626. NSI is an owner  
9 of seminal patents in the field of semiconductor and computer memory  
10 technologies, and is actively engaged in the licensing of such technologies.

11 2. Nanya Technology Corp. U.S.A. ("Nanya US") is a company  
12 organized under the laws of the State of Delaware and having a principal place of  
13 business at 1735 Technology Dr., Ste. 400, San Jose, California 95110-1334. Upon  
14 information and belief, Nanya US may be served with process in this judicial  
15 District.

16 3. Nanya Technology Corp. ("Nanya Taiwan") is a company  
17 incorporated in Taiwan, R.O.C. and having a principal place of business at No. 669,  
18 Fusing 3rd Rd., Gueishan Dist., Taoyuan City 333, Taiwan, R.O.C.

19 4. Upon information and belief, Nanya has conducted and regularly  
20 conducts business within this District, has purposefully availed itself of the  
21 privileges of conducting business in this District, and has sought protection and  
22 benefit from the laws of the State of California.

23 **JURISDICTION AND VENUE**

24 5. This action arises under the Patent Laws of the United States, 35  
25 U.S.C. § 1, *et seq.*, including 35 U.S.C. §§ 271, 281, 283, 284, and 285. This Court  
26 has subject matter jurisdiction over this case for patent infringement under 28  
27 U.S.C. §§ 1331 and 1338(a).

1           6.       As further detailed herein, this Court has personal jurisdiction over  
2 Nanya. Nanya is amenable to service of summons for this action. Furthermore,  
3 personal jurisdiction over Nanya in this action comports with due process. Nanya  
4 has conducted and regularly conducts business within the United States and this  
5 District. Nanya has purposefully availed itself of the privileges of conducting  
6 business in the United States, and more specifically in Delaware and this District.  
7 Nanya has incorporated under the laws of the State of California and sought  
8 protection and benefit from the laws of the State of California by placing infringing  
9 products into the stream of commerce through an established distribution channel  
10 with the awareness and/or intent that they will be purchased by consumers in this  
11 District.

12           7.       On information and belief, Nanya, directly or through intermediaries  
13 (including distributors, retailers, and others), subsidiaries, alter egos, and/or agents,  
14 ships, distributes, offers for sale, and/or sells its products in the United States and  
15 this Judicial District. On information and belief, Nanya has purposefully and  
16 voluntarily placed one or more of its infringing products, as described below, into  
17 the stream of commerce with the awareness and/or intent that they will be  
18 purchased by consumers in this District. On information and belief, Nanya  
19 knowingly and purposefully ships infringing products into and within this District  
20 through an established distribution channel. On information and belief, these  
21 infringing products have been and continue to be purchased by consumers in this  
22 District. Upon information and belief, through those activities, Nanya has  
23 committed the tort of patent infringement in this District and/or has induced others  
24 to commit patent infringement in this District.

25           8.       Venue is proper in this Court according to the venue provisions set  
26 forth by 28 U.S.C. §§ 1391(b)-(d) and 1400(b). Nanya is subject to personal  
27 jurisdiction in this District, and therefore is deemed to reside in this District for  
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1 purposes of venue. Upon information and belief Nanya has committed acts within  
2 this judicial District giving rise to this action and does business in this District,  
3 including but not limited to making sales in this District.

4 **BACKGROUND**

5 **A. The Patents-In-Suit**

6 9. U.S. Patent No. 5,893,752 titled “Process for Forming a  
7 Semiconductor Device” (“the '752 patent”) was duly and legally issued by the U.S.  
8 Patent and Trademark Office on April 13, 1999, after full and fair examination.  
9 Jiming Zhang and Dean J. Denning are the named inventors listed on the '752  
10 patent. The '752 patent has been assigned to Plaintiff NSI, and Plaintiff NSI holds  
11 all rights, title, and interest in the '752 patent, including the right to collect and  
12 receive damages for past, present and future infringements. A true and correct copy  
13 of the '752 patent is attached as Exhibit A and made a part hereof.

14 10. U.S. Patent No. 6,043,146 titled “Process for Forming a  
15 Semiconductor Device” (“the '146 patent”) was duly and legally issued by the U.S.  
16 Patent and Trademark Office on March 28, 2000, after full and fair examination.  
17 Joy K. Watanabe and John J. Stankus are the named inventors listed on the '146  
18 patent. The '146 patent has been assigned to Plaintiff NSI, and Plaintiff NSI holds  
19 all rights, title, and interest in the '146 patent, including the right to collect and  
20 receive damages for past, present and future infringements. A true and correct copy  
21 of the '146 patent is attached as Exhibit B and made a part hereof.

22 11. U.S. Patent No. 6,127,875 titled “Complimentary Double Pumping  
23 Voltage Boost Converter” (“the '875 patent”) was duly and legally issued by the  
24 U.S. Patent and Trademark Office on October 3, 2000, after full and fair  
25 examination. Steven P. Allen, Ahmad H. Atriss, Gerald L. Walcott and Walter C.  
26 Seelbach are the named inventors listed on the '875 patent. The '875 patent has been  
27 assigned to Plaintiff NSI, and Plaintiff NSI holds all rights, title, and interest in the

1 '875 patent, including the right to collect and receive damages for past, present and  
2 future infringements. A true and correct copy of the '875 patent is attached as  
3 Exhibit C and made a part hereof.

4 12. By assignment, NSI owns all right, title, and interest in and to the '752  
5 patent, the '146 patent and the '875 patent (collectively, “the patents-in-suit”).

6 **B. Nanya's Infringing Conduct**

7 13. Upon information and belief, Nanya makes, uses, offers to sell, and/or  
8 sells within, and/or imports into the United States products that incorporate the  
9 fundamental technologies covered by the patents-in-suit. Upon information and  
10 belief, the infringing products include, but are not limited to, semiconductor  
11 memory products. By way of example only, Plaintiff identifies the Nanya 2Gb  
12 DDR3(L) NT5CC128M16FP-DI (SDRAM); and Nanya NT5CC512M8CN-DI 4Gb  
13 C-Die DDR3 (SDRAM), as infringing products of one or more of the patents-in-  
14 suit. On information and belief, similar models of Nanya semiconductor and  
15 computer memory products are believed to infringe as well.

16 14. By incorporating the fundamental inventions covered by the patents-  
17 in-suit, Nanya can make improved products with the features thereof. Upon  
18 information and belief, third-party integrators have purchased and imported  
19 Nanya’s infringing products for subsequent sale throughout the United States,  
20 including this District. Upon information and belief, third-party consumers use and  
21 have used Nanya’s infringing products in the United States, including this District.

22 **COUNT I**

23 **Patent Infringement of U.S. Patent No. 5,893,752**

24 15. Plaintiff repeats and re-alleges each and every allegation of paragraphs  
25 1-14 as though fully set forth herein.

26 16. The '752 patent is valid and enforceable.

1 17. Nanya has never been licensed, either expressly or impliedly, under the  
2 '752 patent. Generally speaking, the '752 patent teaches, among other things, a  
3 process for forming a semiconductor device including the steps of forming  
4 patterned insulating layers, forming conductive films and polishing the conductive  
5 films.

6 18. Upon information and belief, Nanya has been and is directly infringing  
7 under 35 U.S.C. § 271(a), either literally or under the doctrine of equivalents, the  
8 '752 patent by making, using, offering to sell, and/or selling to third-party  
9 manufacturers, distributors, and/or consumers (directly or through intermediaries  
10 and/or subsidiaries) in this District and elsewhere within the United States and/or  
11 importing into the United States, without authority, products that include all of the  
12 limitations of at least claim 18 of the '752 patent, including but not limited to the  
13 semiconductor memory products identified as Nanya 2Gb DDR3(L)  
14 NT5CC128M16FP-DI (SDRAM), and/or other products made, used, sold, offered  
15 for sale, or imported by Nanya that include all of the limitations of at least claim 18  
16 of the '752 patent.

17 19. Upon information and belief, third parties including distributors,  
18 product integrators, third-party manufacturers, importers, and consumers that  
19 purchase Nanya's products that include all of the limitations of at least claim 18 of  
20 the '752 patent, including at least the semiconductor memory products identified as  
21 Nanya 2Gb DDR3(L) NT5CC128M16FP-DI (SDRAM), also directly infringe,  
22 either literally or under the doctrine of equivalents, under 35 U.S.C. § 271(a), the  
23 '752 patent by making, using, offering to sell, and/or selling infringing products in  
24 this District and elsewhere in the United States. 23. Upon information and belief,  
25 additional, similar models of Nanya's memory products are believed to infringe at  
26 least claim 18 of the '752 patent. NSI expressly reserves the right to assert  
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1 additional claims and to identify additional infringing products in accordance with  
2 the Court's scheduling order and local rules.

3 20. Nanya has knowledge of the '752 patent and its infringing conduct at  
4 least as of the date of service of this Complaint ("date of notice").

5 21. Upon information and belief, since at least the date of notice, Nanya  
6 with specific intent actively induces, under U.S.C. § 271(b), third-party  
7 manufacturers, distributors, importers and/or consumers to directly infringe at least  
8 claim 18 of the '752 patent. Nanya does so with knowledge, or with willful  
9 blindness of the fact, that the induced acts constitute infringement of the '752  
10 patent. Upon information and belief, Nanya intends to cause infringement by the  
11 aforementioned parties. Upon information and belief, Nanya takes affirmative steps  
12 to induce their infringement by, *inter alia*, creating advertisements that promote the  
13 infringing use of products, creating established distribution channels for these  
14 products into and within the United States, selling these products, manufacturing  
15 these products in conformity with U.S. laws and regulations, and/or distributing or  
16 making available instructions or manuals for these products to purchasers and  
17 prospective buyers. For example, reference is made to Exhibit D wherein Nanya  
18 provides a list of its representatives and distributors of the Americas on its  
19 corporate website, to be as follows: BAE Sales; Norcomp SC; Innovatech  
20 Associates Rocky Mountains LLC; Strategic Sales, Inc.; Quad State Sales &  
21 Marketing; SAI – Schillinger Associates, Inc.; Beacon Electronics; Beacon  
22 Electronics Industrial Representatives Inc; Synergy Associates; and Industrial  
23 Representatives Inc. As further shown by way of example for Synergy Associates,  
24 BAE Sales, and Norcomp SC, Exhibit D shows that the aforementioned  
25 representatives/distributors, in turn, advertise, offer for sale and sell, and provide  
26 access to materials promoting infringing use of Nanya's memory products.

1           22. Despite having knowledge of the '752 patent, Nanya has specifically  
2 intended and continues to specifically intend for persons who acquire and use the  
3 products that include all of the limitations of at least claim 18 of the '752 patent,  
4 including but not limited to semiconductor memory products such as Nanya 2Gb  
5 DDR3(L) NT5CC128M16FP-DI (SDRAM), including third-party manufacturers,  
6 distributors, importers, and/or consumers, to use such devices in a manner that  
7 infringes at least claim 18 of the '752 patent. This is evident when Defendants  
8 encourage and instruct customers and other end users in the use and operation of  
9 the products via advertisement and instructional materials.

10           23. Upon information and belief, Nanya has provided, and continues to  
11 provide, instructional materials, such as user guides, owner manuals, and similar  
12 online product support resources that specifically teach the customers and other end  
13 users to use products in an infringing manner, such as for example  
14 "NT5CB(C)256M8FN / NT5CB(C)128M16FP: Commercial, Industrial and  
15 Automotive DDR3(L) 2Gb SDRAM," Version 1.7, 04/2015,  
16 [http://www.nanya.com/PageEdition3.aspx?Menu\\_ID=140&def=220&lan=en-us](http://www.nanya.com/PageEdition3.aspx?Menu_ID=140&def=220&lan=en-us)  
17 (last visited Aug. 26, 2016), as provided in Exhibit E (and other instructional  
18 materials and documentation provided or made available by Nanya to customers  
19 after purchase).

20           24. Upon information and belief, Nanya's acts of infringement of the '752  
21 patent have been willful and intentional. Since at least the above-mentioned date of  
22 notice, Nanya acts with an objectively high likelihood that its actions constitute  
23 infringement of at least claim 18 of the '752 patent by refusing to take a license and  
24 continuing to make and sell its products, including but not limited to semiconductor  
25 memory products such as Nanya 2Gb DDR3(L) NT5CC128M16FP-DI (SDRAM),  
26 and the objectively-defined risk was either known or so obvious that it should have  
27 been known.



1 purchase Nanya's products that include all of the limitations of at least claim 1 of  
2 the '146 patent, including at least the semiconductor memory products identified as  
3 Nanya 2Gb DDR3(L) NT5CC128M16FP-DI (SDRAM), also directly infringe,  
4 either literally or under the doctrine of equivalents, under 35 U.S.C. § 271(a), the  
5 '146 patent by making, using, offering to sell, and/or selling infringing products in  
6 this District and elsewhere in the United States. 35. Upon information and belief,  
7 additional, similar models of Nanya's memory products are believed to infringe at  
8 least claim 1 of the '146 patent. NSI expressly reserves the right to assert additional  
9 claims and to identify additional infringing products in accordance with the Court's  
10 scheduling order and local rules.

11 31. Nanya has knowledge of the '146 patent and its infringing conduct at  
12 least as of the date of service of this Complaint ("date of notice").

13 32. Upon information and belief, since at least the date of notice, Nanya  
14 with specific intent actively induces, under U.S.C. § 271(b), third-party  
15 manufacturers, distributors, importers and/or consumers to directly infringe at least  
16 claim 1 of the '146 patent. Nanya does so with knowledge, or with willful blindness  
17 of the fact, that the induced acts constitute infringement of the '146 patent. Upon  
18 information and belief, Nanya intends to cause infringement by the aforementioned  
19 parties. Upon information and belief, Nanya takes affirmative steps to induce their  
20 infringement by, *inter alia*, creating advertisements that promote the infringing use  
21 of products, creating established distribution channels for these products into and  
22 within the United States, selling these products, manufacturing these products in  
23 conformity with U.S. laws and regulations, and/or distributing or making available  
24 instructions or manuals for these products to purchasers and prospective buyers. For  
25 example, reference is made to Exhibit D wherein Nanya provides a list of its  
26 representatives and distributors of the Americas on its corporate website, to be as  
27 follows: BAE Sales; Norcomp SC; Innovatech Associates Rocky Mountains LLC;

1 Strategic Sales, Inc.; Quad State Sales & Marketing; SAI – Schillinger Associates,  
2 Inc.; Beacon Electronics; Beacon Electronics Industrial Representatives Inc;  
3 Synergy Associates; and Industrial Representatives Inc. As further shown by way  
4 of example for Synergy Associates, BAE Sales, and Norcomp SC, Exhibit D shows  
5 that the aforementioned representatives/distributors, in turn, advertise, offer for sale  
6 and sell, and provide access to materials promoting infringing use of Nanya's  
7 memory products.

8 33. Despite having knowledge of the '146 patent, Nanya has specifically  
9 intended and continues to specifically intend for persons who acquire and use the  
10 products that include all of the limitations of at least claim 1 of the '146 patent,  
11 including but not limited to semiconductor memory products such as Nanya 2Gb  
12 DDR3(L) NT5CC128M16FP-DI (SDRAM), including third-party manufacturers,  
13 distributors, importers, and/or consumers, to use such devices in a manner that  
14 infringes at least claim 1 of the '146 patent. This is evident when Defendants  
15 encourage and instruct customers and other end users in the use and operation of  
16 the products via advertisement and instructional materials.

17 34. Upon information and belief, Nanya has provided, and continues to  
18 provide, instructional materials, such as user guides, owner manuals, and similar  
19 online product support resources that specifically teach the customers and other end  
20 users to use products in an infringing manner, such as for example "Nanya 2Gb  
21 DDR3(L) SDRAM NT5CC128M16FP-DI: Commercial, Industrial and Automotive  
22 DDR3(L) 2Gb SDRAM," Version 1.7, 04/2015,  
23 [http://www.nanya.com/PageEdition3.aspx?Menu\\_ID=140&def=220&lan=en-us](http://www.nanya.com/PageEdition3.aspx?Menu_ID=140&def=220&lan=en-us)  
24 (last visited Aug. 26, 2016), as provided in Exhibit E (and other instructional  
25 materials and documentation provided or made available by Nanya to customers  
26 after purchase).



1 limitations of at least claim 1 of the '875 patent, including but not limited to the  
2 semiconductor memory products identified as Nanya NT5CC512M8CN-DI 4Gb C-  
3 Die DDR3 (SDRAM), and/or other products made, used, sold, offered for sale, or  
4 imported by Nanya that include all of the limitations of at least claim 1 of the '875  
5 patent.

6 41. Upon information and belief, third parties including distributors,  
7 product integrators, third-party manufacturers, importers, and consumers that  
8 purchase Nanya's products that include all of the limitations of at least claim 1 of  
9 the '875 patent, including at least the semiconductor memory products identified as  
10 Nanya NT5CC512M8CN-DI 4Gb C-Die DDR3 (SDRAM), also directly infringe,  
11 either literally or under the doctrine of equivalents, under 35 U.S.C. § 271(a), the  
12 '875 patent by making, using, offering to sell, and/or selling infringing products in  
13 this District and elsewhere in the United States. 47. Upon information and belief,  
14 additional, similar models of Nanya's memory products are believed to infringe at  
15 least claim 1 of the '875 patent. NSI expressly reserves the right to assert additional  
16 claims and to identify additional infringing products in accordance with the Court's  
17 scheduling order and local rules.

18 42. Nanya has knowledge of the '875 patent and its infringing conduct  
19 since October 21, 2015, when Nanya was offered the opportunity to take a license  
20 to the '875 patent by letter to Brian Donahue, President of Nanya US, and Charles  
21 Kau, President and Director of Nanya Taiwan, and certainly no later than the date  
22 of service of this Complaint ("date of notice").

23 43. Upon information and belief, since at least the date of notice, Nanya  
24 with specific intent actively induces, under U.S.C. § 271(b), third-party  
25 manufacturers, distributors, importers and/or consumers to directly infringe at least  
26 claim 1 of the '875 patent. Nanya does so with knowledge, or with willful blindness  
27 of the fact, that the induced acts constitute infringement of the '875 patent. Upon  
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1 information and belief, Nanya intends to cause infringement by the aforementioned  
2 parties. Upon information and belief, Nanya takes affirmative steps to induce their  
3 infringement by, *inter alia*, creating advertisements that promote the infringing use  
4 of products, creating established distribution channels for these products into and  
5 within the United States, selling these products, manufacturing these products in  
6 conformity with U.S. laws and regulations, and/or distributing or making available  
7 instructions or manuals for these products to purchasers and prospective buyers. For  
8 example, reference is made to Exhibit D wherein Nanya provides a list of its  
9 representatives and distributors of the Americas on its corporate website, to be as  
10 follows: BAE Sales; Norcomp SC; Innovatech Associates Rocky Mountains LLC;  
11 Strategic Sales, Inc.; Quad State Sales & Marketing; SAI – Schillinger Associates,  
12 Inc.; Beacon Electronics; Beacon Electronics Industrial Representatives Inc;  
13 Synergy Associates; and Industrial Representatives Inc. As further shown by way  
14 of example for Synergy Associates, BAE Sales, and Norcomp SC, Exhibit D shows  
15 that the aforementioned representatives/distributors, in turn, advertise, offer for sale  
16 and sell, and provide access to materials promoting infringing use of Nanya's  
17 memory products.

18 44. Despite having knowledge of the '875 patent, Nanya has specifically  
19 intended and continues to specifically intend for persons who acquire and use the  
20 products that include all of the limitations of at least claim 1 of the '875 patent,  
21 including but not limited to semiconductor memory products such as Nanya  
22 NT5CC512M8CN-DI 4Gb C-Die DDR3 (SDRAM), including third-party  
23 manufacturers, distributors, importers, and/or consumers, to use such devices in a  
24 manner that infringes at least claim 1 of the '875 patent. This is evident when  
25 Defendants encourage and instruct customers and other end users in the use and  
26 operation of the products via advertisement and instructional materials.



1 49. Plaintiff has incurred and will incur attorneys' fees, costs, and expenses  
2 in the prosecution of this action. The circumstances of this dispute create an  
3 exceptional case within the meaning of 35 U.S.C. § 285, and Plaintiff is entitled to  
4 recover its reasonable and necessary attorneys' fees, costs, and expenses.

5 **JURY DEMAND**

6 50. Plaintiff hereby requests a trial by jury pursuant to Rule 38 of the Federal  
7 Rules of Civil Procedure.

8 **PRAYER FOR RELIEF**

9 51. Plaintiff respectfully requests that the Court find in its favor and against  
10 Nanya, and that the Court grants Plaintiff NSI the following relief:

- 11 A. A judgment that Nanya has infringed the patents-in-suit as  
12 alleged herein, directly and/or indirectly by way of inducing  
13 infringement of such patents;
- 14 B. A judgment for an accounting of all damages sustained by  
15 Plaintiff as result of the acts of infringement by Nanya;
- 16 C. A judgment and order requiring Nanya to pay Plaintiff damages  
17 under 35 U.S.C. § 284, including up to treble damages for  
18 willful infringement of the aforementioned patents-in-suit as  
19 provided by 35 U.S.C. § 284, and any royalties determined to be  
20 appropriate;
- 21 D. A permanent injunction enjoining Nanya and its officers,  
22 directors, agents, servants, employees, affiliates, divisions,  
23 branches, subsidiaries, parents and all others acting in concert or  
24 privity with them from direct and/or indirect infringement of the  
25 patents-in-suit pursuant to 35 U.S.C. § 283;
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- E. A judgment and order requiring Nanya to pay Plaintiff pre-judgment and post judgment interest on the damages awarded; and
- F. Such other and further relief as the Court deems just and equitable.

DATED: August 26, 2016

**BRANDON C. FERNALD  
FERNALD LAW GROUP, LLP**

By: /s/ Brandon C. Fernald  
Brandon C. Fernald

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