	Case 5:18-cv-04638 Document 1 Filed	08/01/18 Page 1 of 132	
1 2 3 4 5 6 7 8 9 10 11 12	LOCKE LORD LLP Regina J. McClendon (SBN 184669) rmcclendon@lockelord.com Meagan S. Tom (SBN 273489) meagan.tom@lockelord.com 101 Montgomery Street, Suite 1950 San Francisco, CA 94104 Telephone: (415) 318-8810 Fax: (415) 676-5816 Bryan G. Harrison (<i>pro hac vice</i> to be filed) bryan.harrison@lockelord.com Terminus 200, Suite 1200 3333 Piedmont Road NE Atlanta, GA 30305 Telephone: (404) 870-4600 Fax: (404) 872-5547 Attorneys for Plaintiff AU Optronics Corporation America		
l3 l4	UNITED STATES DISTRICT COURT		
15	NORTHERN DISTRICT	OF CALIFORNIA	
16	AU OPTRONICS CORPORATION AMERICA,) Case No.		
l7 l8	a California corporation,	COMPLAINT FOR DECLARATORY JUDGMENT AND EQUITABLE RELIEF	
۱9	vs.		
20	VISTA PEAK VENTURES, LLC	DEMAND FOR JURY TRIAL	
21	Defendant.		
22))		
23			
24	Plaintiff AU OPTRONICS CORPORATION AMERICA, for its Complaint for Declaratory		
25	Judgment and Equitable Relief, avers and alleges as follows:		
26	THE PARTIES, JURISDICTION, AND VENUE		
27	1. Plaintiff AU OPTRONICS CORPORATION AMERICA ("AUO USA") is a		
28	corporation organized and existing under the laws of the state of California with its principal place of		
	COMPLAINT FOR DECLARATORY JUDGMENT AND EQUITABLE RELIEF		

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business and center of operations located at 1525 McCarthy Blvd., Suite 218, Milpitas, California 2 95035.

2. Defendant VISTA PEAK VENTURES, LLC ("Defendant") is a limited liability company that purports to be organized and existing under the laws of the state of Texas with its business address located at 1400 Preston Rd, Suite 472, Plano, TX 75093.

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3. Defendant has filed three separate actions in the Marshall Division of the District Court for the Eastern District of Texas accusing AUO USA's parent company, AU Optronics Corporation ("AUO"), of infringing the following United States Patents: U.S. Patent No. 5,929,947 ("the '947 patent"), U.S. Patent No. 6,579,749 ("the '749 patent"), U.S. Patent No. 6,674,093 ("the '093 patent"), U.S. Patent No. 6,800,872 ("the '872 patent"), U.S. Patent No. 6,891,196 ("the '196 patent"), U.S. Patent No. 7,088,401 ("the '401 patent"), U.S. Patent No. 6,404,474 ("the '474 patent"), U.S. Patent No. 6,657,699 ("the '699 patent"), U.S. Patent No. 7,009,673 ("the '673 patent"), U.S. Patent No. 7,499,119 ("the '119 patent"), U.S. Patent No. 6,781,643 ("the '643 patent"), U.S. Patent No. 7,046,327 ("the '327 patent"), and U.S. Patent No. 6,730,970 ("the '970 patent"), collectively, the "Asserted Patents." See Vista Peak Ventures, LLC v. AU Optronics Corp., Case Nos. 2:18-cv-00276-JRG, ¶ 10, 22, 34, 46, 57, 68, 80; 2:18-cv-00278-JRG, ¶ 10, 33, 44, 45, 56; and 2:18-cv-00279-JRG, ¶¶ 10, 34, 45.

4. In an effort to manufacture personal jurisdiction over AUO, Defendant further alleges in each of these complaints that AUO controls AUO USA and that AUO USA "has committed acts within Texas giving rise to this action and/or has established minimum contacts with Texas such that personal jurisdiction over AUO would not offend traditional notions of fair play and substantial justice." See Vista Peak Ventures, LLC v. AU Optronics Corp., Case Nos. 2:18-cv-00276-JRG, ¶¶ 8-9; 2:18-cv-00278-JRG, ¶¶ 8-9; and 2:18-cv-00279-JRG, ¶¶ 8-9.

24 5. In ad damnum clause in each of its complaints, Defendant requests the court, inter 25 alia, to enjoin AUO USA from "making, using, selling, offering to sell, or importing any products 26 that infringe the Asserted Patents, and any other injunctive relief the Court deems just and 27 equitable." See Vista Peak Ventures, LLC v. AU Optronics Corp., Case Nos. 2:18-cv-00276-JRG, 28 pp. 28-29; 2:18-cv-00278-JRG, pp. 22; and 2:18-cv-00279-JRG, pp. 19-20.

6. Consequently, this action arises under the patent laws of the United States, namely 35 2 U.S.C. §§ 271, 281, and 284-285, among others.

7. Jurisdiction: This Court has subject matter jurisdiction pursuant to 28 U.S.C. §§ 1331 and 1338(a).

8. Intradistrict Assignment: Pursuant to Civil Local Rule 3-5(b), this case is properly assigned to the San Jose division.

9. Defendant is subject to this Court's specific personal jurisdiction pursuant to due process and/or the California Long Arm Statute, due at least to Defendant's substantial business in this State and judicial district, including its engagement of Ascenda Law Group of 333 W. San Carlos Street, Suite 200, San Jose, California 95110 as counsel to acquire the Asserted Patents, see Assignment Reel/Frame No. 045469/0023 from Getner Foundation LLC to Vista Peak Ventures, LLC (attached hereto as Exhibit A), and, upon information and belief, authorizing that Firm's filing of powers of attorney to act on behalf of Defendant before the United States Patent and Trademark Office with respect to at least some of the Asserted Patents after their acquisition.

10. Defendant is also subject to this Court's specific personal jurisdiction pursuant to due process and/or the California Long Arm Statute due at least to Defendant's targeting of specific residents of this State and judicial district, including AUO USA, against whom Defendant seeks injunctive relief in its complaints filed in the Eastern District of Texas based upon its assertions that AUO USA both infringes the Asserted Patents and aids in AUO's alleged infringement of the Asserted Patents. See Vista Peak Ventures, LLC v. AU Optronics Corp., Case Nos. 2:18-cv-00276-JRG, ¶¶ 8-9; 2:18-cv-00278-JRG, ¶¶ 8-9; and 2:18-cv-00279-JRG, ¶¶ 8-9. Had Defendant included 22 AUO USA as a party defendant in its complaints against AUO, 28 U.S.C. §§ 1391(c)(3) and 1400(b) 23 would require those complaints to have been filed in this District. Defendant's failure to name AUO 24 USA as a party defendant in its complaints notwithstanding Defendant's claim for injunctive relief 25 against AUO USA for alleged infringement of the Asserted Patents is tantamount to depriving AUO 26 USA of its procedural rights to defend such claims in the legally appropriate venue, namely, this District.

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11. Venue is appropriate pursuant to 28 U.S.C. § 1391(b) because this District is the

COMPLAINT FOR DECLARATORY JUDGMENT AND EQUITABLE RELIEF

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location where a substantial portion of the events at issue in this suit occurred.

FACTUAL BACKGROUND

12. Each of the Asserted Patents was issued between July 27, 1999, and March 3, 2009, to NEC Corporation or its affiliates (collectively, "NEC").

13. Since at least 2001, AUO and AUO USA have been and continue to be engaged in the business of thin film transistor liquid crystal displays ("TFT-LCDs") and other flat panel displays used in a wide variety of applications.

14. Since at least 2003, NEC has been a customer of AUO, purchasing its TFT-LCD display products. *See* https://www.auo.com/en-global/New Archive/detail/news Product 20030120.

15. Upon information and belief, NEC has been aware of the TFT-LCD technology of AUO that Defendant accuses of infringement in its complaints since at least 2003.

16. NEC assigned the Asserted Patents to Getner Foundation LLC ("Getner") in April 2011. *See* Assignment Reel Frame No. 026312/0213 from NEC Corporation to Getner Foundation LLC (attached hereto as Exhibit B) and Assignment Reel Frame No. 026254/0400 from NEC Corporation to Getner Foundation LLC (attached hereto as Exhibit C). Getner assigned the Asserted Patents to Defendant in February 2018. *See* Exhibit A.

17. For each Asserted Patent, Defendant has accused AUO of patent infringement under 35 U.S.C. § 271(a) by "making, offering for sale, selling, and/or importing those TFT-LCD panels, their components, and/or products containing same that incorporate the fundamental technologies covered by [one of the Asserted Patents], or by having [AUO USA] do the same." *See Vista Peak Ventures, LLC v. AU Optronics Corp.*, Case Nos. 2:18-cv-00276-JRG, ¶¶ 24, 36, 48, 59, 70, 82; 2:18-cv-00278-JRG, ¶¶ 24, 35, 47, 58; and 2:18-cv-00279-JRG, ¶¶ 25, 36, 47.

Peak Ventures, LLC v. AU Optronics Corp., Case Nos. 2:18-cv-00276-JRG, ¶ 93; 2:18-cv-00278-JRG, ¶69; and 2:18-cv-00279-JRG, ¶ 57.

FIRST CAUSE OF ACTION:

DECLARATORY JUDGMENT OF

NON-INFRINGEMENT OF EACH OF THE ASSERTED PATENTS

19. AUO USA hereby incorporates by reference Paragraphs 1 through 18, above, as if fully set forth herein.

20. On July 10, 2018, AUO USA received notice of three separate lawsuits Defendant filed against AUO in which Defendant, *inter alia*, also accused AUO USA of engaging in conduct constituting direct and indirect infringement of the Asserted Patents in the United States and aiding AUO in such infringement.

21. AUO USA denies that it has directly infringed any valid claim of the Asserted Patents and further denies that it has induced the infringement or contributed to the infringement of any valid claim of the Asserted Patents, either individually or in concert with AUO.

22. By virtue of the foregoing, an actual and justiciable controversy has arisen and now exists between AUO USA and Defendant, within the jurisdiction of the Court, regarding whether AUO USA infringes one or more of the Asserted Patents.

23. Declaratory relief is both appropriate and necessary in light of the conflicting positions of the parties. AUO USA desires a judicial determination of the parties' respective rights and obligations in connection with each of the Asserted Patents.

24. For the reasons set forth above, AUO USA respectfully requests that this Court
declare that, for each claim in the Asserted Patents for which Defendant claims infringement by
AUO USA, AUO USA has not directly infringed each one of the Asserted Patents, either literally or
under the doctrine of equivalents, and has neither induced the infringement nor contributed to the
infringement, of such claims either individually or in concert with AUO. Specifically, AUO USA
respectfully requests that this Court issue a judicial declaration to the effect that (*inter alia*, without
limitation) AUO USA's:

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Use, importation, sales, and offers to sell TFT-LCD panels does not directly or indirectly infringe the '947 patent, either literally or under the doctrine of equivalents; Use, importation, sales, and offers to sell TFT-LCD panels does not directly or indirectly infringe the '749 patent, either literally or under the doctrine of equivalents; Use, importation, sales, and offers to sell TFT-LCD panels does not directly or indirectly infringe the '093 patent, either literally or under the doctrine of equivalents; Use, importation, sales, and offers to sell TFT-LCD panels does not directly or indirectly infringe the '872 patent, either literally or under the doctrine of equivalents; Use, importation, sales, and offers to sell TFT-LCD panels does not directly or indirectly infringe the '196 patent, either literally or under the doctrine of equivalents; Use, importation, sales, and offers to sell TFT-LCD panels does not directly or indirectly infringe the '401 patent, either literally or under the doctrine of equivalents; Use, importation, sales, and offers to sell TFT-LCD panels does not directly or indirectly infringe the '474 patent, either literally or under the doctrine of equivalents; Use, importation, sales, and offers to sell TFT-LCD panels does not directly or indirectly infringe the '699 patent, either literally or under the doctrine of equivalents; Use, importation, sales, and offers to sell TFT-LCD panels does not directly or indirectly infringe the '673 patent, either literally or under the doctrine of equivalents; Use, importation, sales, and offers to sell TFT-LCD panels does not directly or indirectly infringe the '119 patent, either literally or under the doctrine of equivalents; Use, importation, sales, and offers to sell TFT-LCD panels does not directly or indirectly infringe the '643 patent, either literally or under the doctrine of equivalents; Use, importation, sales, and offers to sell TFT-LCD panels does not directly or indirectly infringe the '327 patent, either literally or under the doctrine of equivalents; Use, importation, sales, and offers to sell TFT-LCD panels does not directly or indirectly infringe the '970 patent, either literally or under the doctrine of equivalents; and

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Actions do not constitute inducement of infringement or contributory infringement of any claim in the Asserted Patents.

SECOND CAUSE OF ACTION:

DECLARATORY JUDGMENT OF

NO WILLFUL INFRINGEMENT OF EACH OF THE ASSERTED PATENTS

25. AUO USA hereby incorporates by reference Paragraphs 1 through 18, above, as if fully set forth herein.

8 26. On July 10, 2018, AUO USA received notice of three separate lawsuits Defendant filed against AUO in which Defendant, inter alia, accused AUO USA of engaging in alleged willful 10 infringement of the Asserted Patents in the United States. Vista Peak Ventures, LLC v. AU Optronics Corp., Case Nos. 2:18-cv-00276-JRG, ¶ 29, 41, 52, 63, 75, 87; 2:18-cv-00278-JRG, ¶ 28, 40, 51, 63; and 2:18-cv-00279-JRG, ¶ 29, 40, 51.

27. AUO USA denies that it infringes, directly or indirectly, any valid claim of the Asserted Patents.

28. By virtue of the foregoing, an actual and justiciable controversy has arisen and now exists between AUO USA and Defendant, within the jurisdiction of the Court, regarding whether AUO USA engaged in any course of conduct or possessed the requisite intent to willfully infringe one or more of the Asserted Patents.

29. Declaratory relief is both appropriate and necessary in light of the conflicting positions of the parties. AUO USA desires a judicial determination of the parties' respective rights and obligations in connection with each of the Asserted Patents.

22 30. For the reasons set forth above, AUO USA respectfully requests that this Court 23 declare that, for each claim in the Asserted Patents for which Defendant claims infringement by 24 AUO USA, AUO USA does not willfully infringe such claims. Specifically, AUO USA respectfully 25 requests that this Court issue a judicial declaration to the effect that (*inter alia*, without limitation) 26 AUO USA's:

27 28 Use, importation, sales, and offers to sell TFT-LCD panels does not willfully infringe the '947 patent;

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1 2 3 4 5 6 7	 Use, importation, sales, and offers to sell TFT-LCD panels does not willfully infringe the '749 patent; Use, importation, sales, and offers to sell TFT-LCD panels does not willfully infringe the '093 patent; Use, importation, sales, and offers to sell TFT-LCD panels does not willfully infringe the '872 patent; Use, importation, sales, and offers to sell TFT-LCD panels does not willfully infringe the '872 patent;
	• Use, importation, sales, and offers to sell TFT-LCD panels does not willfully infringe
8 9 10	 the '196 patent; Use, importation, sales, and offers to sell TFT-LCD panels does not willfully infringe the '401 patent;
11	• Use, importation, sales, and offers to sell TFT-LCD panels does not willfully infringe
12	the '474 patent;
13	• Use, importation, sales, and offers to sell TFT-LCD panels does not willfully infringe
14	the '699 patent;
15	• Use, importation, sales, and offers to sell TFT-LCD panels does not willfully infringe
16	the '673 patent;
17 18	• Use, importation, sales, and offers to sell TFT-LCD panels does not willfully infringe the '119 patent;
19	• Use, importation, sales, and offers to sell TFT-LCD panels does not willfully infringe
20	the '643 patent;
21	• Use, importation, sales, and offers to sell TFT-LCD panels does not willfully infringe
22	the '327 patent; and
23	• Use, importation, sales, and offers to sell TFT-LCD panels does not willfully infringe
24	the '970 patent.
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	COMPLAINT FOR DECLARATORY JUDGMENT AND EQUITABLE RELIEF

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1	THIRD CAUSE OF ACTION:				
2	DEFENDANT'S RELIEF UNDER THE ASSERTED PATENTS				
3	IS BARRED BY EQUITABLE ESTOPPEL				
4	31. AUO USA hereby incorporates by reference Paragraphs 1 through 18, above, as if				
5	fully set forth herein.				
6	32. The Asserted Patents issued to NEC before and after 2003.				
7	33. Upon information and belief, NEC has been aware of various AUO display				
8	technologies since at least 2003 and aware of the TFT-LCD technology accused of infringement by				
9	Defendant in its complaints since around that same time.				
10	34. Neither AUO nor AUO USA has been accused of infringing the Asserted Patents				
11	until February 2018, years after the time they began selling the products accused of infringing those				
12	patents and years after NEC, the original owner of the Asserted Patents, had been made aware of the				
13	accused AUO display technologies.				
14	35. As a result of the inexcusable delay in bringing suit against AUO and AUO USA for				
15	alleged infringement of the Asserted Patents, and AUO USA's detrimental reliance on NEC having				
16	not brought any infringement action for the Asserted Patents, Defendant should be estopped from				
17	obtaining relief for any alleged patent infringement against AUO USA.				
18	36. Under the circumstances, it would be against equity and good conscience to permit				
19	Defendant to obtain any relief against AUO USA under the Asserted Patents, including any damages				
20	or injunctions based on AUO USA's alleged infringements of the same.				
21	PRAYER FOR RELIEF				
22	WHEREFORE, AUO USA prays that the Court:				
23	1. Determine and declare the parties' respective rights and obligations under the				
24	Asserted Patents.				
25	2. Find and declare that AUO USA does not infringe each of the Asserted Patents,				
26	directly or indirectly, literally or under the doctrine of equivalents, and in no event willfully.				
27	3. Find and declare that Defendant is equitably estopped from any relief against AUO				
28	USA under the Asserted Patents.				
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COMPLAINT FOR DECLARATORY JUDGMENT AND EQUITABLE RELIEF

		Case 5:18-cv-04638 Document 1 Filed 08/01/18 Page 10 of 132				
	1	4. Award AUO USA its reasonable attorney fees and costs incurred in this matter.				
	2	5. Award AUO USA such other and further relief as the Court deems just and proper,				
	3	premises considered.				
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	5	Dated: August 1, 2018 Respectfully submitted, LOCKE LORD LLP				
	6	By: <u>/s/ Regina J. McClendon</u>				
	7	Regina J. McClendon				
	8 9	Attorneys for Plaintiff AU OPTRONICS CORPORATION AMERICA				
	9 10	AU OPTRONICS CORPORATION AMERICA				
	10					
	12					
_	13	DEMAND FOR JURY TRIAL				
Locke Lord LLP Montgomery Street, Suite 1950 San Francisco, CA 94104	14	Pursuant to Fed. R. Civ. P. 38, Plaintiff AU Optronics Corporation America hereby				
l LL et, Suit A 941	15	demands a trial by jury.				
Lord LL ry Street, Sui isco, CA 941	16	Dated: August 1, 2018 LOCKE LORD LLP				
Locke] Montgomer San Franci	17	By: /s/ Regina J. McClendon				
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101	19	Attorneys for Plaintiff AU OPTRONICS CORPORATION AMERICA				
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		10 COMPLAINT FOR DECLARATORY HUDGMENT AND FOLUTARLE RELIEF				
		COMPLAINT FOR DECLARATORY JUDGMENT AND EQUITABLE RELIEF				

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Exhibit A

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PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2

SUBMISSION TYPE: **NEW ASSIGNMENT** NATURE OF CONVEYANCE: ASSIGNMENT **CONVEYING PARTY DATA** Name **Execution Date** GETNER FOUNDATION LLC 02/13/2018 **RECEIVING PARTY DATA** Name: VISTA PEAK VENTURES, LLC Street Address: 1400 PRESTON ROAD **Internal Address:** SUITE 472 City: **PLANO** State/Country: TEXAS

PROPERTY NUMBERS Total: 250

75201

Postal Code:

Property Type	Number
Patent Number:	6566154
Patent Number:	6756187
Patent Number:	7214473
Patent Number:	6704076
Patent Number:	7006065
Patent Number:	7671829
Patent Number:	7598939
Patent Number:	8599125
Patent Number:	9111495
Patent Number:	7589383
Patent Number:	7005916
Patent Number:	7586504
Patent Number:	8471794
Patent Number:	6023314
Patent Number:	6055324
Patent Number:	6005653
Patent Number:	6310668
Patent Number:	6022110
Patent Number:	6031513

Property Type	Number
Patent Number:	6073369
Patent Number:	6717630
Patent Number:	6750895
Patent Number:	6824285
Patent Number:	6930665
Patent Number:	6734943
Patent Number:	7027121
Patent Number:	7218368
Patent Number:	6011860
Patent Number:	6573970
Patent Number:	7146076
Patent Number:	7354810
Patent Number:	7193678
Patent Number:	7468765
Patent Number:	7355323
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Patent Number:	7037766

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Patent Number:	7109554
Patent Number:	7105905
Patent Number:	7369725
Patent Number:	7656472
Patent Number:	7212722
Patent Number:	7122444
Patent Number:	7579222
Patent Number:	7373834
Patent Number:	6404474
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Patent Number:	6853407
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Patent Number:	6885439
Patent Number:	7301588
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Patent Number:	7476470
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Patent Number:	7106394
Patent Number:	7050020
Patent Number:	7148871
Patent Number:	7046327

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Patent Number:	7294881	
Patent Number:	7160003	
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Patent Number:	7183635	
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Patent Number:	6633002
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Patent Number:	6657619

Property Type	Number	
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Patent Number:	6549259	
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Patent Number:	7136123	
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Patent Number:	6608664	
Patent Number:	6760081	
Patent Number:	6414740	
Patent Number:	6633361	
Patent Number:	6486931	
Patent Number:	6542207	
Patent Number:	7088401	
Patent Number:	6249011	
Patent Number:	6352911	
Patent Number:	6760089	
Patent Number:	6954250	
Patent Number:	6714271	
Patent Number:	6809712	
Patent Number:	6778249	
Patent Number:	6690446	
Patent Number:	6525786	
Patent Number:	7202844	
Patent Number:	6586873	
Patent Number:	6468840	

Property Type	Number
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Patent Number:	6667777
Patent Number:	6873385
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Patent Number:	6583556
Patent Number:	7033951
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Patent Number:	6767694
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Patent Number:	6867825
Patent Number:	7057678
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Patent Number:	6567327
Patent Number:	6831627
Patent Number:	6727874
Patent Number:	7116297
Patent Number:	6747617
Patent Number:	6587089
Patent Number:	6127997
Patent Number:	6380006
Patent Number:	6513943
Patent Number:	6579749
Patent Number:	6693697
Patent Number:	7145628
Patent Number:	7123314

Property Type	Number	
Patent Number: 679	91656	
Patent Number: 657	/3972	
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CORRESPONDENCE DATA		
Fax Number: (40	8)773-6177	
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Phone: 866	6-877-4883	
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ATTORNEY DOCKET NUMBER:	5109-VPV	
NAME OF SUBMITTER:	TAREK N. FAHMI	
SIGNATURE:	/Tarek N. Fahmi/	
DATE SIGNED:	02/28/2018	
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ASSIGNMENT OF PATENT RIGHTS

For good and valuable consideration, the receipt of which is hereby acknowledged, Getner Foundation LLC, a Delaware limited liability company with an address at 251 Little Falls Drive, Wilmington, Delaware 19808("Assignor"), does hereby sell, assign, transfer, and convey unto Vista Peak Ventures, LLC, a Texas limited liability company with an address at 1400 Preston Road, Suite 472, Plano, TX 75201 ("Assignee"), all of Assignor's right, title, and interest in and to the following (collectively, the "Assigned Patent Rights"):

(a) the patents and patent applications listed in the table below (the "*Patents*");

		Issue Date/	
Patent/Application Number	Country	Filing Date	Title of Patent and Inventors
TWI304501	TW	12/21/2008	Method for manufacturing
(TW091111212)		(5/27/2002)	liquid crystal display device
	-		Yamamoto, Yuji
6566154	US	5/20/2003	Method for manufacturing
(10/160071)		(6/4/2002)	liquid crystal display device
			Yamamoto, Yuji
JP3522249	JP	2/20/2004	Method for removing organic
(JP2001-326584)		(10/24/2001)	film
			Kido, Shusaku
6756187		6/29/2004	
	08		Method for removing
(10/035222)		(1/4/2002)	patterned layer from lower
			layer through reflow
			Kido, Shusaku
7214473	US	5/8/2007	Method for removing
(10/773272)		(2/9/2004)	patterned layer from lower
			layer through reflow
			Kido, Shusaku
TWI287178	TW	9/21/2007	Method for removing
(TW090133502)		(12/31/2001)	patterned layer from lower
			layer through reflow
			Kido, Shusaku
6704076	US	3/9/2004	Method for fabricating a
(10/173518)		(6/17/2002)	liquid crystal display device
(10/1/00/10)			
			Okamoto, Mamoru;
			Sakamoto, Michiaki;
			Kikkawa, Hironori

Patent/Application Number	Country	<u>Issue Date/</u> Filing Date	<u>Title of Patent and Inventors</u>
CNZL02141283.9	CN	6/21/2006	Method for making a LCD
(CN02141283.9)		(7/5/2002)	device
(01/021/12020)		(//-/-0.02)	
			Okamoto, Mamoru;
			Sakamoto, Michiaki;
			Kikkawa, Hironori
JP3412583	JP	3/28/2003	Method and circuit for
(JP11-316873)		(11/8/1999)	driving color liquid crystal display
			Sugawara, Noriaki; Koga,
			Kouichi
7006065	US	2/28/2006	Gamma compensation
(09/707816)		(11/7/2000)	method and circuit for color
. ,			liquid crystal display
		·	Sugawara, Noriaki; Koga,
7671829		3/2/2010	Kouichi
(11/243626)	US	(10/5/2005)	Driving method and driving circuit for color liquid crystal
(11/243020)		(10/3/2003)	display
			Sugawara, Noriaki; Koga,
			Kouichi
KR10-0367418	KR	12/24/2002	Method and circuit for
(KR10-2000-0066269)		(11/8/2000)	driving color liquid crystal display
			Koga, Kouichi; Sugawara, Noriaki
TWI156469	TW	5/21/2002	Driving method and driving
(TW089123670)	н. - Г	(11/8/2000)	circuit for color liquid crystal
			Sugawara, Noriaki; Koga, Kouichi
JP4127305	JP	5/23/2008	Liquid crystal display device,
(JP2006-259148)		(9/25/2006)	backlight, and driving method
			and manufacturing method
			thereof
			Sumiyoshi, Ken; Yoshioka,
			Toshihiro; Hayama, Hiroshi;
			Matsushima, Hiroshi

Patent/Application Number	Country	<u>Issue Date/</u> Filing Date	Title of Patent and Inventors
JP4870652 (JP2007-312459)	JP	11/25/2011 (3/12/2007)	Liquid crystal display device, backlight and its driving method and manufacturing method
7598939	US	10/6/2009	Sumiyoshi, Ken; Yoshioka, Toshihiro; Hayama, Hiroshi; Matsushima, Hiroshi
(11/272663)	05	(11/14/2005)	Liquid crystal display device, backlight used for same display device, method for driving same backlight and method for manufacturing same backlight
			Sumiyoshi, Ken; Yoshioka, Toshihiro; Hayama, Hiroshi; Matsushima, Jin
8599125 (12/381737)	US	12/3/2013 (3/16/2009)	Liquid crystal display device, backlight used for same display device, method for driving same backlight and method for manufacturing same backlight
			Sumiyoshi, Ken; Yoshioka, Toshihiro; Hayama, Hiroshi; Matsushima, Jin
9111495 (14/066560)	US	8/18/2015 (10/29/2013)	Liquid crystal display device, backlight used for same display device, method for driving same backlight and method for manufacturing same backlight
			Sumiyoshi, Ken; Yoshioka, Toshihiro; Hayama, Hiroshi; Matsushima, Jin
7589383 (11/441213)	US	9/15/2009 (5/26/2006)	Thin film semiconductor device and method of manufacturing the same
			Yanase, Jirou

Patent/Application Number	Country	<u>Issue Date/</u> Filing Date	<u>Title of Patent and Inventors</u>
JP5559244 (JP2012-119817)	JP	6/13/2014 (5/25/2012)	Thin-film semiconductor device and manufacturing method thereof
JP4487488 (JP2003-033071)	JP	4/9/2010 (2/12/2003)	Kanji Yanase Circuit of driving display device, its control method, portable telephone and portable electronic apparatus Nakahira, Yoshihiko; Tsuchi,
7005916 (10/358245)	US	2/28/2006 (2/5/2003)	Hiroshi Amplifier circuit, driving circuit of display apparatus, portable telephone and portable electronic apparatus Nakahira, Yoshihiko; Tsuchi, Hiroshi
7586504 (11/294605)	US	9/8/2009 (12/6/2005)	Amplifier circuit, driving circuit of display apparatus, portable telephone and portable electronic apparatus Nakahira, Yoshihiko; Tsuchi,
8471794 (12/504981)	US	6/25/2013 (7/17/2009)	HiroshiDriving circuit for display apparatus, and method for controlling sameNakahira, Yoshihiko; Tsuchi, Uiroshi
CNZL03103193.5 (CN03103193.5)	CN	4/26/2006 (2/8/2003)	Hiroshi Amplifier of display device, drive circuit, mobile phone and portable electronic apparatus Nakadaira, Yoshihiko; Tsuchi, Hiroo
6023314 (09/088731)	US	2/8/2000 (6/2/1998)	Elliptically polarizing plate and liquid crystal display device using same Sumiyoshi, Ken

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Patent/Application Number	Country	<u>Issue Date/</u> Filing Date	<u>Title of Patent and Inventors</u>
6055324	US	4/25/2000	Fingerprint image entry
(09/103502)		(6/24/1998)	device of electrostatic
()		(0,2,1,1,2,0)	capacitance sensing type
			Fujieda, Ichiro
6005653	US	12/21/1999	Method and apparatus for
(09/169134)		(10/9/1998)	sealing liquid crystal display
			element cell employing seal
			members with Z-shaped cross
			sections that form pressure
			regions
			Matsuzawa, Tadashi
JP3036513	JP	2/25/2000	Liquid crystal display device
(JP10-162691)		(6/10/1998)	
(a i a <i>c c</i> a			Ukita, Toru
6310668	US	10/30/2001	LCD wherein opening in
(09/329559)		(6/10/1999)	source electrode overlaps gate
			electrode to compensate
			variations in parasitic
			capacitance
			Ukita, Tooru
6022110	US	2/8/2000	Projection color liquid crystal
(09/115669)		(7/14/1998)	display apparatus
			Tsujikawa, Susumu
6031513	US	2/29/2000	Liquid crystal display
(09/019162)		(2/6/1998)	
			Ikeda, Naoyasu
6073369	US .	6/13/2000	Substrate drying apparatus
(09/049150)		(3/27/1998)	and method
			Yasuyuki, Satou
JP3125766	JP	11/2/2000	Liquid crystal display device
(JP10-271140)		(9/25/1998)	and its manufacture
			Ikeda, Munehiro
6717630	US	4/6/2004	Liquid crystal display device
(09/404705)		(9/23/1999)	and method of fabricating the
			same
			Ikeda, Munehiro

		Issue Date/	
Patent/Application Number	Country	Filing Date	Title of Patent and Inventors
6750895	US	6/15/2004	Optical printer head with
(09/670596)		(9/29/2000)	integrated drive circuitry
			Otose, Tomohiko; Asada,
			Hideki; Uezono, Tsutomu;
			Oda, Atsushi; Toguchi,
100001000			Satoru
JP3801032	JP	5/12/2006	Light source and liquid
(JP2001-365327)		(11/29/2001)	crystal display using the light source
			Saito, Goro; Yagi, Toshie;
			Mimura, Hiroji; Sumiyoshi,
			Ken
6824285	US	11/30/2004	Light source and liquid
(10/277930)	0.5	(10/23/2002)	crystal display device using
(10/217700)		(10/23/2002)	this light source
			Saitoh, Goroh; Yagi, Yoshie;
			Mimura, Koji; Sumiyoshi,
			Ken
6930665	US	8/16/2005	Display device for D/A
(10/353951)		(1/30/2003)	conversion using load
			capacitances of two signal
			lines
			Sekine, Hiroyuki
JP3937304	JP	4/6/2007	Liquid crystal display panel
(JP2002-003920)		(1/10/2002)	and its manufacturing method
			Noiri, Yoshikazu
6734943	US	5/11/2004	Liquid crystal display panel
(10/338829)		(1/9/2003)	with sealing member on
			second partition wall and
			manufacturing method
			thereof
			Noiri, Yoshikazu

Patent/Application Number	<u>Country</u>	<u>Issue Date/</u> Filing Date	Title of Patent and Inventors
7027121	US	4/11/2006	Method for manufacturing
(10/620125)		(7/15/2003)	liquid crystal display device
			having the first substrate and
			support substrate pressed
			against each other under
			vacuum condition without use
			of an adhesive
			Horiuchi, Toshihiro; Noiri,
			Yoshikazu; Yoshizoe,
			Hidefumi; Ueebisu, Shinji;
			Mukai, Toshiaki
7218368	US	5/15/2007	Rubbing roll orientation
(10/990892)		(11/17/2004)	processor for liquid crystal
			display manufacturing
			Mori, Makoto
6011860	US	1/4/2000	Small reliable image input
(09/020908)		(2/9/1998)	apparatus incorporated in
			finger-print collation system
			of personal identification
			Fujieda, Ichiro; Suga,
			Michihisa
6573970	US	6/3/2003	Liquid crystal display device
(09/617040)		(7/14/2000)	
			Saitoh, Goroh; Takatori, Ken-
			ichi
JP4442061	JP	1/22/2010	Diffractive optical element
(JP2001-229082)		(7/30/2001)	and optical device using the
			same
			Fujieda, Ichiro
7146076	US	12/5/2006	Diffractive optical element
(10/201133)		(7/24/2002)	and optical device using the
			same
			Fujieda, Ichiro
JP5318308	JP	7/19/2013	Semiconductor substrate
(JP2001-247238)		(8/16/2001)	production system
			Tanabe, Hiroshi

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7354810 (10/856275)US4/8/2008 (5/28/2004)Method of and apparatus f manufacturing semiconduc thin film, and method of manufacturing thin film transistorJP4221270 (JP2003-364836)JP11/21/2008 (10/24/2003)Liquid crystal display devi and method for manufacturing the same Ueyama, Hiroshi7193678 (10/948758)US3/20/2007 (9/24/2004)Liquid crystal display devi and method for manufacturing the same Ueyama, Hiroshi			<u>Issue Date/</u>	
(10/856275)(5/28/2004)manufacturing semiconduction film, and method of manufacturing thin film transistorJP4221270JP11/21/2008Liquid crystal display deviation and method for manufacturing the same(JP2003-364836)JP(10/24/2003)Liquid crystal display deviation and method for manufacturing the same7193678US3/20/2007Liquid crystal display deviation and method for manufacturing the same(10/948758)US3/20/2007Liquid crystal display deviation and method for manufacturing the same(11/001240)US12/23/2008Electro-optical display deviation and image projection unitShiota, Kunihiro; Tanabe, HiroshiJP4771042JP7/1/2011(JP2004-216325)JP7/1/2011Piezoelectric element mounted device, liquid-dred discharging device using			Filing Date	Title of Patent and Inventors
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(JP2003-364836)(10/24/2003)and method for manufacturing the same7193678 (10/948758)US3/20/2007 (9/24/2004)Liquid crystal display devia and method for manufacturing the same7468765 (11/001240)US12/23/2008 (12/2/2004)Electro-optical display devi and image projection unit Shiota, Kunihiro; Tanabe, HiroshiJP4771042 (JP2004-216325)JP7/1/2011 (7/23/2004)Piezoelectric element mounted device, liquid-dro discharging device using				
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(JP2004-216325) (7/23/2004) mounted device, liquid-dred discharging device using	24771042	1P	7/1/2011	
discharging device using				
	12001 210020)		(1125/2001)	
device				
				device
Otose, Tomohiko				Otose, Tomohiko
		US	4/8/2008	Piezoelectric device, droplet
(11/187964) (7/25/2005) jetting device using the same same same same same same same sam	1/187964)		(7/25/2005)	jetting device using the same,
and image output device				and image output device
Otose, Tomohiko				Otose, Tomohiko

	a	Issue Date/	
Patent/Application Number 7626648	<u>Country</u> US	Filing Date	Title of Patent and Inventors
	05	12/1/2009	Pixel circuit substrate, LCD
(11/242935)		(10/5/2005)	apparatus and projection
			display apparatus having
			interlayer insulating film
			comprising a laminate of
			inorganic insulating material
			having a uniformly flat surface over TFT
			surface over 1 F1
			Shiota, Kunihiro; Tanabe,
			Hiroshi
7388625	US	6/17/2008	Thin-film transistor array
(11/313955)		(12/22/2005)	substrate and liquid crystal
			display device
			Matsuzaki, Tadahiro; Sera,
			Kenji
6781643	US	8/24/2004	Active matrix liquid crystal
(09/573185)		(5/18/2000)	display device
			Watanabe, Makoto;
			Watanabe, Takahiko
6445431	US	9/3/2002	Liquid crystal display with
(09/732920)		(12/11/2000)	polarization layer interior to
			substrates
			Nose, Takashi; Kaneko,
			Setsuo; Suzuki, Shigeyoshi
6501520	US	12/31/2002	Liquid crystal display with
(10/112947)		(4/2/2002)	polarization layer interior to
(substrates
			Nose, Takashi; Kaneko,
(0000)			Setsuo; Suzuki, Shigeyoshi
6822263 (10/457928)	US	11/23/2004	Thin film transistor formed
(10/437920)		(6/9/2003)	on a transparent substrate
			Sato, Yoshinobu; Yuda,
			Katsuhisa; Tanabe, Hiroshi
7119363	US	10/10/2006	Thin film transistor formed
(10/911833)		(8/5/2004)	on a transparent substrate
			Sato, Yoshinobu; Yuda,
			Katsuhisa; Tanabe, Hiroshi
			Katsumsa, Tanaue, mirusm

Patent/Application Number	<u>Country</u>	<u>Issue Date/</u> Filing Date	Title of Patent and Inventors
7585708	US	9/8/2009	Method for manufacturing a
(11/512596)		(8/30/2006)	thin-film transistor
			Sato, Yoshinobu; Yuda,
(000541	110	10/5/2004	Katsuhisa; Tanabe, Hiroshi
6800541	US	10/5/2004	Pulse laser irradiation method
(10/263771)		(10/4/2002)	for forming a semiconductor
			thin film
			Okumura, Hiroshi
JP3391343	JP	1/24/2003	Active matrix substrate and
(JP2000-308262)		(10/6/2000)	manufacturing method
			therefore
			Tanaka, Hiroaki; Yamaguchi,
			Hirotaka; Kaneko, Wakahiko;
			Sakamoto, Michiaki; Itoida,
			Satoshi; Hayase, Takasuke;
			Yoshikawa, Tae; Kano,
			Hiroshi
TWI151519	TW	3/1/2002	Active matrix substrate and
(TW089121918)		(10/19/2000)	the manufacturing method
			therefore
			Tanaka, Hiroaki; Yamaguchi,
			Hirotaka; Kaneko, Wakahiko;
			Sakamoto, Michiaki; Itoida,
			Satoshi; Hayase, Takasuke;
			Yoshikawa, Tae; Kano,
			Hiroshi
KR10-0393293	KR	7/21/2003	Active matrix substrate and
(KR10-2000-0062610)		(10/24/2000)	manufacturing method
			therefore
			Hayase, Takasuke; Ihida,
			Satoshi; Kaneko, Wakahiko;
			Kano, Hiroshi; Sakamoto,
			Michiaki; Tanaka, Hiroaki;
			Yamaguchi, Hirotaka;
			Yoshikawa, Tae

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Defended and the deep Number	C	Issue Date/	
Patent/Application Number 6674093	<u>Country</u> US	Filing Date 1/6/2004	<u>Title of Patent and Inventors</u> Active matrix substrate and
(09/695321)	05	(10/25/2000)	manufacturing method
(09/093321)		(10,25,2000)	therefore
			Tanaka, Hiroaki; Yamaguchi, Hirotaka; Kaneko, Wakahiko; Sakamoto, Michiaki; Ihida, Satoshi; Hayase, Takasuke; Yoshikawa, Tae; Kanou, Hiroshi
6891196 (10/617035)	US	5/10/2005 (7/11/2003)	Active matrix substrate and manufacturing method therefore
			Tanaka, Hiroaki; Yamaguchi, Hirotaka; Kaneko, Wakahiko; Sakamoto, Michiaki; Ihida, Satoshi; Hayase, Takasuke; Yoshikawa, Tae; Kanou, Hiroshi
7223622	US	5/29/2007	Active-matrix substrate and
(10/833153)		(4/28/2004)	method of fabricating same
			Hirata, Kazumi
JP3645755	JP	2/10/2005	Thin-film transistor and its
(JP11-263635)		(9/17/1999)	manufacturing method
			Tanabe, Hiroshi
6512246	US	1/28/2003	Thin film transistor
(09/656631)		(9/7/2000)	Tanabe, Hiroshi
6667188	US	12/23/2003	Thin film transistor and
(10/272071)		(10/16/2002)	method for fabricating same
			Tanabe, Hiroshi
6797535	US	9/28/2004	Thin film transistor and
(10/693395)		(10/24/2003)	method for fabricating same
			Tanabe, Hiroshi
KR10-0396227	KR	8/19/2003	Thin-film transistor and its
(KR10-2000-0053772)		(9/9/2000)	manufacturing method
			Tanabe, Hiroshi

Patent/Application Number	Country	<u>Issue Date/</u> Filing Date	Title of Patent and Inventors
TWI248546	TW	2/1/2006	Thin film transistor and
(TW089119085)		(9/15/2000)	method for fabricating same
			Tanabe, Hiroshi
JP4525451	JP	6/11/2010	Semiconductor device and
(JP2005-129251)		(4/27/2005)	image sensor device using same
			Haga, Hiroshi; Okumura, Fujio
6583456	US	6/24/2003	Image sensor with light
(09/956669)		(9/20/2001)	receiving elements of
			differing areas and image reader both having
			semiconductor device
			Haga, Hiroshi; Fujieda,
1000 (707)			Ichiro; Okumura, Fujio
JP3267271 (JP11-197741)	JP	1/11/2002 (7/12/1999)	Liquid crystal display device and its production
			Sakamoto, Michiaki;
			Okamoto, Mamoru; Nakada,
			Shinichi; Yamamoto, Yuji;
			Watanabe, Takahiko;
			Yoshikawa, Shuken;
TWI184524	TW	8/21/2003	Maruyama, Muneo
(TW088121147)	1 W	(12/3/1999)	Liquid crystal display device and the manufacturing
			method thereof
			Nakata, Shinichi; Yamamoto,
			Yuji; Okamoto, Mamoru;
			Sakamoto, Michiaki;
			Watanabe, Takahiko; Ihara,
			Hirofumi; Kikkawa, Hironori;
			Maruyama, Muneo

Datant/Application Number	Country	Issue Date/	Title of Detext on d Lesson to
Patent/Application Number KR10-0376355 (KR10-1999-0056047)	Country KR	Filing Date 3/5/2003 (12/9/1999)	Title of Patent and Inventors LIQUID CRYSTAL DISPLAY DEVICE AND MANUFACTURING METHOD THEREOF Nakata, Sinitzi; Yamamoto,
			Yuzi; Okamoto, Mamoru; Sakamoto, Mitziaki; Watanabe, Takahiko; Ihara, Hirohumi; Kikawa, Hironori; Maruyama, Muneo
6429916 (09/459010)	US	8/6/2002 (12/10/1999)	Liquid crystal display with filter and light shield separated from contact hole
			Nakata, Shinichi; Yamamoto, Yuji; Okamoto, Mamoru; Sakamoto, Michiaki; Watanabe, Takahiko; Ihara, Hirofumi; Kikkawa, Hironori; Maruyama, Muneo
6398610 (09/470398)	US	6/4/2002 (12/22/1999)	Display panel production line Inoue, Yoshiyasu
JP3730958 (JP2002-375607)	JP	9/5/2005 (12/25/2002)	Method of patterning multilayer film and multilayer wiring electrode
			Kato, Takeshi; Kido, Shusaku; Maeda, Akiyoshi
7012029 (10/745636)	US	3/14/2006 (12/29/2003)	Method of forming a lamination film pattern and improved lamination film pattern
			Katoh, Tsuyoshi; Kido, Syuusaku; Maeda, Akitoshi
7554207 (11/295462)	US	6/30/2009 (12/7/2005)	Method of forming a lamination film pattern and improved lamination film pattern
			Katoh, Tsuyoshi; Kido, Syuusaku; Maeda, Akitoshi

Patent/Application Number	<u>Country</u>	<u>Issue Date/</u> Filing Date	Title of Patent and Inventors
6734460	US	5/11/2004	Active matrix substrate and
(10/114093)		(4/2/2002)	method of fabricating the
			same
			Okumura, Hiroshi;
			Sukegawa, Osamu
KR10-0502685	KR	7/12/2005	Active matrix substrate and
(KR10-2002-0018192)		(4/3/2002)	manufacturing method
			therefore
			Okumura, Hiroshi;
			Sukegawa, Osamu
TWI181982	TW	7/11/2003	Active matrix substrate and
(TW091106803)		(4/3/2002)	method of fabricating the
			same
			Okumura, Hiroshi;
			Sukegawa, Osamu
CNZL02127312.X	CN	10/5/2005	Active matrix substrate and
(CN02127312.X)		(7/31/2002)	manufacture thereof
			Okumura, Nobu; Tasuku,
			Kawanobu
JP4920140	JP	2/10/2012	Liquid crystal display device
(JP2001-150092)		(5/18/2001)	and its manufacturing method
			Maeda, Akiyoshi; Tanaka,
			Hiroaki; Kimura, Shigeru;
			Kimura, Satoshi
KR10-0531094	KR	11/18/2005	Liquid crystal display device
(KR10-2002-0027406)		(5/17/2002)	and its manufacturing method
			Kimura, Satoshi; Kimura,
			Shigeru; Maeda, Akitoshi;
			Tanaka, Hiroaki
TWI189785	TW	11/1/2003	Active matrix substrate for
(TW091110359)		(5/17/2002)	liquid crystal display and its
			fabrication
			Maeda, Akitoshi; Tanaka,
			Hiroaki; Kimura, Shigeru;
			Kimura, Satoshi

		Issue Date/	
Patent/Application Number	Country	Filing Date	Title of Patent and Inventors
6894311	US	5/17/2005	Active matrix substrate for
(10/151544)		(5/20/2002)	liquid crystal display utilizing
			interconnection lines formed
			from multilayered films that
			include an aluminum-
			neodymium alloy layer
			Maeda, Akitoshi; Tanaka,
			Hiroaki; Kimura, Shigeru;
			Kimura, Satoshi
CNZL02140183.7	CN	10/25/2006	tive matrix substrate for LCD
(CN02140183.7)		(7/3/2002)	and mfg. method thereof
			Maeda, Akitoshi; Tanaka, Hiroaki; Kimura, Shigeru;
70277((LIC	5/0/0007	Kimura, Satoshi
7037766 (10/793086)	US	5/2/2006	Method of fabricating an
(10/793086)		(3/4/2004)	active matrix substrate for
			liquid crystal display utilizing
			interconnection lines formed
			from multilayered films that include an aluminum-
			neodymium alloy layer
			Maeda, Akitoshi; Tanaka,
			Hiroaki; Kimura, Shigeru;
			Kimura, Satoshi
JP5411236	JP	11/15/2013	Liquid crystal display device
(JP2011-249576)		(11/15/2011)	and its manufacturing method
			Maeda, Akiyoshi; Tanaka,
			Hiroaki; Kimura, Shigeru;
	· ·		Kimura, Satoshi

Patent/Application Number	<u>Country</u>	<u>Issue Date/</u> Filing Date	<u>Title of Patent and Inventors</u>
JP5408829	ЛР	11/15/2013	Active matrix substrate and
(JP2000-252076)		(8/23/2000)	method of manufacturing the
	1		same
			Kimura, Shigeru; Watanabe, Takahiko; Yoshikawa, Tae; Uchida, Hiroyuki; Kido, Shusaku; Nakada, Shinichi; Hamada, Tsutomu; Shimodousono, Hisashi; Doi, Satoshi; Harano, Toshihiko; Maeda, Akiyoshi; Itoida, Satoshi; Tanaka, Hiroaki; Hayase, Takasuke; Kuroba, Shoichi; Ihara, Hiroshi;
			Takechi, Kazue
6632696 (09/745657)	US	10/14/2003 (12/20/2000)	Manufacturing method of active matrix substrate plate and manufacturing method therefor
			Kimura, Shigeru; Watanabe, Takahiko; Yoshikawa, Tae; Uchida, Hiroyuki; Kido, Shusaku; Nakata, Shinichi; Hamada, Tsutomu; Shimodouzono, Hisanobu; Doi, Satoshi; Harano, Toshihiko; Maeda, Akitoshi; Ihida, Satoshi; Tanaka, Hiroaki; Hayase, Takasuke; Kuroha, Shouichi; Ihara, Hirofumi; Takechi, Kazushige

Patent/Application Number	Country	Issue Date/ Filing Date	<u>Title of Patent and Inventors</u>
KR10-0463410 (KR10-2000-0083299)	KR	12/15/2004 (12/27/2000)	Active matrix substrate plate and manufacturing method therefor
			Doi, Satoshi; Hamada, Tsutomu; Harano, Toshihiko; Hayase, Takasuke; Ihara, Hirofumi; Ihida, Satoshi; Kido, Shusaku; Kimura, Shigeru; Kuroha, Shoichi; Maeda, Akitoshi; Nakata, Shinichi; Shimodouzono, Hisanobu; Takechi, Kazushige; Tanaka, Hiroaki; Uchida, Hiroyuki; Watanabe, Takahiko; Yoshikawa, Tae
TWI165555 (TW089127961)	TW	10/11/2002 (12/27/2000)	Active matrix substrate plate and manufacturing method therefor
			Kimura, Shigeru; Watanabe, Takahiko; Yoshikawa, Tae; Uchida, Hiroyuki; Kido, Shusaku; Nakata, Shinichi; Hamada, Tsutomu; Shimodouzono, Hisanobu; Doi, Satoshi; Harano, Toshihiko; Maeda, Akitoshi; Ihida, Satoshi; Tanaka, Hiroaki; Hayase, Takasuke; Kuroha, Shouichi; Ihara, Hirofumi; Takechi, Kazushige
JP3652997 (JP2001-085793)	ЛР	3/4/2005 (3/23/2001)	Liquid crystal material and liquid crystal display device
6649226 (09/877180)	US	11/18/2003 (6/11/2001)	Matsumoto, Koichi Liquid crystal material and liquid crystal display Matsumoto, Kimikazu

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Patent/Application Number	<u>Country</u>	<u>Issue Date/</u> Filing Date	Title of Patent and Inventors
KR10-0437141	KR	6/14/2004	Liquid crystal material and
(KR10-2001-0033060)		(6/13/2001)	liquid crystal display
			Matsumoto, Kimikazu
TWI206385	ΤW	6/21/2004	Liquid crystal material and
(TW090114361)		(6/13/2001)	liquid crystal display
			Matsumoto, Kimikazu
6781647	US	8/24/2004	Liquid crystal display device
(09/842580)		(4/26/2001)	having a front light unit
			Fujieda, Ichiro
JP3570974	JP	7/2/2004	Active matrix type liquid
(JP2000-216202)		(7/17/2000)	crystal display device
			Matsumoto, Koichi; Nishida, Shinichi
KR10-0396823	KR	8/21/2003	Active matrix type liquid
(KR10-2001-0042383)		(7/13/2001)	crystal display device
			Matsumoto, Kimikazu;
			Nishida, Shinichi
TWI238915	TW	9/1/2005	Active matrix liquid crystal
(TW090117502)		(7/17/2001)	display device
			Matsumoto, Kimikazu;
			Nishida, Shinichi
7009673	US	3/7/2006	Active matrix liquid crystal
(10/656138)		(9/8/2003)	display having a thin film
			transistor over which
			alignment of liquid crystal
			molecules does not change
			Matsumoto, Kimikazu;
			Nishida, Shinichi
7492431	US	2/17/2009	Active matrix liquid crystal
(11/291997)		(12/2/2005)	display having a thin film
			transistor over which
			alignment of liquid crystal
			molecules does not change
			Matsumoto, Kimikazu;
			Nishida, Shinichi

Patent/Application Number	<u>Country</u>	<u>Issue Date/</u> Filing Date	Title of Patent and Inventors
6881894	US	4/19/2005	EMI shielding structures
(09/975791)		(10/12/2001)	C C
			Kai, Takanobu
7271041	US	9/18/2007	Method for manufacturing
(11/102765)		(4/11/2005)	thin film transistor
			Takahashi, Mitsuasa
7012849	US	3/14/2006	Semiconductor, image output
(10/619594)		(7/16/2003)	device, and driving method of
		(7/10/2003)	a functional device
			Otose, Tomohiko
7665816	US	2/23/2010	Image output device with an
(11/330968)		(1/13/2006)	injector
			· · · · · · · · · · · · · · · · · · ·
			Otose, Tomohiko
CNZL03132804.0	CN	4/9/2008	Semiconductor, image output
(CN03132804.0)		(7/21/2003)	device and driving method
			for function device
			Otose, Tomohiko
TWI291225	TW	12/11/2007	Thin film semiconductor
(TW092104387)		(3/5/2003)	device and method for
(()	manufacturing same
			Takahashi, Mitsuasa
7109554	US	9/19/2006	Thin film semiconductor
(10/961094)		(10/12/2004)	device and method for
			manufacturing same
			Takahashi, Mitsuasa
JP4423659	JP	12/18/2009	Thin film transistor, TFT
(JP2003-024473)		(1/31/2003)	substrate, and liquid crystal
			display
			Matsunaga, Naoki; Sera,
			Kenji
7105905	US	9/12/2006	Thin film transistor, TFT
(10/724040)		(12/1/2003)	substrate and liquid crystal
			display unit
			Matsunaga, Naoki; Sera,
			Kenji

Patent/Application Number	<u>Country</u>	<u>Issue Date/</u> Filing Date	Title of Patent and Inventors
CNZL200310124837.9 (CN200310124837.9)	CN	12/6/2006 (12/31/2003)	Film transistor, TFT substrate and LCD
			Matsunaga, Naoki; Sera, Kenji
JP4945107 (JP2005-268809)	JP	(9/15/2005)	Light source device and its manufacturing method, indicator device and its manufacturing method, and drive method for indicator device
			Takatori, Kenichi; Sumiyoshi, Ken
7369725 (11/521009)	US	5/6/2008 (9/14/2006)	Light source device and method for manufacturing the same, display device and method for manufacturing the same, and method for driving display device
			Takatori, Kenichi; Sumiyoshi, Ken
7656472 (12/050324)	US	2/2/2010 (3/18/2008)	Light source device and method for manufacturing the same, display device and method for manufacturing the same, and method for driving display device
			Takatori, Kenichi; Sumiyoshi, Ken
7212722 (11/299951)	US	5/1/2007 (12/13/2005)	Backlight unit and liquid- crystal display device using the same
CN/71 200/100/12/0 0		(10510000	Shinohara, Toshiya
CNZL200610051348.9 (CN200610051348.9)	CN	6/25/2008 (1/5/2006)	Backlight unit and liquid- crystal display device using the same
			Shinohara, Toshiya

Patent/Application Number	Country	<u>Issue Date/</u> Filing Date	Title of Patent and Inventors
7122444	US	10/17/2006	Manufacturing method of thin
(10/974932)		(10/28/2004)	film device substrate
			Nakata, Mitsura; Takechi, Kazushige; Kanoh, Hiroshi
7579222	US	8/25/2009	Manufacturing method of thin
(11/503286)		(8/14/2006)	film device substrate
			Nakata, Mitsura; Takechi, Kazushige; Kanoh, Hiroshi
7373834	US	5/20/2008	Pressure sensor
(11/586512)		(10/26/2006)	
			Takahashi, Mitsuasa
JP3127894	JP	11/10/2000	Active matrix type liquid
(JP10-209148)		(7/24/1998)	crystal display device
			Watanabe, Makoto;
			Watanabe, Takahiko
TWI188084	TW	10/11/2003	Active matrix-type liquid
(TW088110844)		(6/28/1999)	crystal display device
			Watanabe, Makoto;
			Watanabe, Takahiko
CNZL99109819.6	CN	3/12/2003	Active matrix-type liquid
(CN99109819.6)		(7/15/1999)	crystal display device
			Watanabe, Sei; Watanabe, Kihiko
6404474	US	6/11/2002	Horizontal electric field LCD
(09/357060)		(7/19/1999)	with increased capacitance
			between pixel and common electrodes
			Watanabe, Makoto; Watanabe, Takahiko
KR10-0313726	KR	10/24/2001	Active matrix-type liquid
(KR10-1999-0030005)		(7/23/1999)	crystal display device
			Watanabe, Makoto;
			Watanabe, Takahiko

		Issue Date/	
Patent/Application Number	Country	Filing Date	<u>Title of Patent and Inventors</u>
JP3538046	JP	3/26/2004	Liquid crystal module support
(JP10-353579)		(12/11/1998)	structure and portable
			terminal device mounting the
			same
			Yano, Kiichi; Miwa, Tomoo;
			Sato, Yasuyoshi; Ogawa,
			Toshinao; Nishiyama,
			Tomoaki; Baba, Masatake;
			Okabe, Akira; Fujishiro,
			Fumihiko; Kato, Takehiro;
			Mikami, Kazuaki; Fukuyoshi,
			Hirokazu
TWI151064	TW	2/21/2002	Liquid crystal module
(TW088121453)		(12/8/1999)	installation structure and
			portable terminal device
			having the same
			Yano, Takakazu; Miwa,
			Tomoo; Sato, Yasuhiro;
			Ogwa, Toshihisa; Nishiyama,
			Michiaki; Baba, Masatake;
			Okabe, Hikaru; Fumihiko,
			Fujishiro; Kato, Yudai;
			Mikami, Kazuaki; Fukuyoshi,
			Hirokazu
KR10-0419043	KR	2/4/2004	Structure for supporting
(KR10-1999-0056493)		(12/10/1999)	liquid module
			Yano, Takakazu; Miwa,
			Tomoo; Sato, Yasuhiro;
			Ogawa, Toshihisa;
			Nishiyama, Michiaki; Baba,
			Masatake; Okabe, Hikaru;
			Fujishiro, Fumihiko; Kato,
			Katsuhiro; Mikami, Kazuaki;
			Fukuyoshi, Hirokazu

Patent/Application Number	<u>Country</u>	<u>Issue Date/</u> Filing Date	Title of Patent and Inventors
CNZL99126036.8 (CN99126036.8)	CN	1/7/2004 (12/13/1999)	Liquid crystal module installation structure and portable terminal device having same
			Yano, Takakazu; Miwa, Tomoo; Sato, Yasuhiro; Ogawa, Toshihisa; Nishiyama, Michiaki; Baba, Masatake; Okabe, Hikaru; Fujishiro, Fumihiko; Kato, Katsuhiro; Mikami, Kazuaki; Fukuyoshi, Hirokazu
6594143 (09/459280)	US	7/15/2003 (12/13/1999)	Liquid crystal module mounting structure and mobile terminal mounted with the same
			Yano, Takakazu; Miwa, Tomoo; Sato, Yasuhiro; Ogawa, Toshihisa; Nishiyama, Michiaki; Baba, Masatake; Okabe, Hikaru; Fujishiro, Fumihiko; Kato, Katsuhiro; Mikami, Kazuaki; Fukuyoshi, Hirokazu
JP4375517 (JP2001-220829)	JP	9/18/2009 (7/23/2001)	Liquid crystal display device Sato, Tetsushi; Sekine, Hiroyuki; Yoshinaga, Kazuhide
6853407 (10/196356)	US	2/8/2005 (7/17/2002)	Liquid crystal display device including a lightly doped drain region Sato, Tetsushi; Sekine, Hiroyuki; Yoshinaga,
DE60222508.6 (DE60222508.6)	DE	9/19/2007 (7/18/2002)	Kazuhide Liquid crystal display device Sato, Tetsushi; Sekine, Hiroyuki; Yoshinaga, Kazuhide

Patent/Application Number	Country	<u>Issue Date/</u> Filing Date	<u>Title of Patent and Inventors</u>
DE60248633.5 (DE60248633.5)	DE	1/18/2017 (7/18/2002)	Liquid crystal display device
(2200270025.0)			Sato, Tetsushi; Sekine, Hiroyuki; Yoshinaga,
			Kazuhide
FR1279997 (FR02016030.5)	FR	9/19/2007 (7/18/2002)	Liquid crystal display device
			Sato, Tetsushi; Sekine, Hiroyuki; Yoshinaga, Kazuhide
FR1744206 (FR06022058.9)	FR	1/18/2017 (7/18/2002)	Liquid crystal display device
			Sato, Tetsushi; Sekine, Hiroyuki; Yoshinaga, Kazuhide
GB1279997 (GB02016030.5)	GB	9/19/2007 (7/18/2002)	Liquid crystal display device
			Sato, Tetsushi; Sekine, Hiroyuki; Yoshinaga, Kazuhide
GB1744206 (GB06022058.9)	GB	1/18/2017 (7/18/2002)	Liquid crystal display device
			Sato, Tetsushi; Sekine, Hiroyuki; Yoshinaga, Kazuhide
CNZL02126554.2 (CN02126554.2)	CN	1/19/2005 (7/23/2002)	Liquid crystal display
			Sato, Tetsushi; Sekine, Hiroyuki; Yoshinaga, Kazuhide
TWI290247 (TW091115733)	TW	11/21/2007 (7/15/2002)	Backlight unit uniformly illuminating object regardless of lapse of time and liquid crystal display panel device using the same
			Ueda, Shoichi; Sakaki, Yoshinobu
JP4819016 (JP2007-258154)	JP	9/9/2011 (10/1/2007)	Method of manufacturing liquid crystal display device
			Kido, Shusaku

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Patent/Application Number	<u>Country</u>	<u>Issue Date/</u> Filing Date	Title of Patent and Inventors
TWI311658	TW	7/1/2009	Pattern forming method and
(TW091114593)		(7/2/2002)	method for manufacturing
		(112/2002)	liquid crystal display device
			using the same
			Kido, Shusaku
6617263	US	9/9/2003	Pattern forming method for
(10/189571)		(7/8/2002)	flattening an organic film for
			a liquid crystal display device
			Kido, Shusaku
7408135	US	8/5/2008	Imaging device having dual
(10/252407)		(9/24/2002)	opening with open/close unit
			and electronic equipment
			incorporated therein the same
			Fujieda, Ichiro
JP3858263	JP	9/29/2006	Fingerprint image input
(JP2001-344895)		(11/9/2001)	device and electronic
			equipment using the same
			Fujieda, Ichiro
6885439	US	4/26/2005	Fingerprint input devices and
(10/288925)		(11/6/2002)	electronic devices provided
		(with the same
			Fujieda, Ichiro
CNZL02150502.0	CN	8/17/2005	Fingerprint input device and
(CN02150502.0)		(11/11/2002)	electrionic equipment with
		,(,	the fingerprint input device
TWI286643	TW	0/11/2007	Fujie, Ichiro
(TW092104486)	IW	9/11/2007	Optical unit and LCD device
(1×0.052104480)		(3/3/2003)	using the optical unit
			Ogawa, Toshihisa
7301588	US	11/27/2007	Optical unit and LCD device
(10/376637)		(3/3/2003)	using the optical unit
1			Ogawa, Toshihisa
7593070	US	9/22/2009	Optical unit and LCD device
(11/984403)		(11/16/2007)	using the optical unit
			Ogowa Tachibira
			Ogawa, Toshihisa

		<u>Issue Date/</u>	
Patent/Application Number	Country	Filing Date	<u>Title of Patent and Inventors</u>
CNZL03105113.8	CN	12/14/2005	Light unit element and liquid
(CN03105113.8)		(3/4/2003)	crystal display equipment using light unit element
			using light unit element
		· ·	Ogawa, Toshinao
KR10-0543817	KR	1/10/2006	Optical unit and LCD device
(KR10-2003-0013286)		(3/4/2003)	using the optical unit
			Ogawa, Toshihisa
TWI206131	TW	6/21/2004	In-plane switching mode
(TW092107034)		(3/27/2003)	liquid crystal display device
			Matsumoto, Kimikazu;
			Itakura, Kunimasa; Nishida,
			Shinichi
6950165	US	9/27/2005	In-plane switching mode
(10/397256)		(3/27/2003)	liquid crystal display device
			Matsumoto, Kimikazu;
			Itakura, Kunimasa; Nishida,
			Shinichi
KR10-0510566	KR	8/19/2005	In-plane switching mode
(KR10-2003-0019773)		(3/29/2003)	liquid crystal display device
			Matsumoto, Kimikazu;
			Itakura, Kunimasa; Nishida, Shinichi
CNZL03108606,3	CN	4/12/2006	In-plane switching mode
(CN03108606.3)		(3/31/2003)	liquid crystal display device
		1	Nishida, Shinichi; Itakura,
			Kunimasa; Matsumoto,
			Kimikazu
7476470	US	1/13/2009	Method for manufacturing
(10/987772)		(11/12/2004)	thin film semiconductor
			device and method for
			forming resist pattern thereof
			Takahashi, Mitsuasa
7151516	US	12/19/2006	Liquid crystal display device
(10/632713)		(8/1/2003)	
			Takeda, Hiroshi; Hirano,
			Youji

Patent/Application Number	<u>Country</u>	<u>Issue Date/</u> Filing Date	<u>Title of Patent and Inventors</u>
6840647 (09/991600)	US	1/11/2005 (11/23/2001)	Lighting device, liquid crystal display device including the same, and method of fabricating the same
			Hayashi, Kazuhiko; Fujieda, Ichiro; Oda, Atsushi; Kaneko, Setsuo
6816140 (10/013263)	US	11/9/2004 (12/7/2001)	Displaying device and displaying method and manufacturing method of the device
JP4190798 (JP2002-132310)	JP	9/26/2008 (5/8/2002)	Fujieda, Ichiro Thin film transistor and manufacturing method thereof
			Okumura, Nobu
TWI206712 (TW092112290)	TW	6/21/2004 (5/6/2003)	Thin-film transistor and method for manufacturing same
			Okumura, Hiroshi
6815269 (10/430540)	US	11/9/2004 (5/6/2003)	Thin-film transistor and method for manufacturing the same
			Okumura, Hiroshi
KR10-0510934 (KR10-2003-0028829)	KR.	8/22/2005 (5/7/2003)	Thin-film transistor and method for manufacturing same
			Okumura, Hiroshi
CNZL03130906.2 (CN03130906.2)	CN	5/30/2007 (5/8/2003)	Thin film transistor and manufacturing method thereof
			Oku, Muranobu

		Issue Date/	
Patent/Application Number 7199780	<u>Country</u> US	Filing Date 4/3/2007	Title of Patent and Inventors
(10/457374)	08	(6/10/2003)	Field sequential driving type liquid crystal display
(10(457574)		(0/10/2005)	apparatus capable of
			increasing brightness while
			suppressing irregularity, and
			its driving method
			Sekine, Hiroyuki
JP4133088	JP	6/6/2008	Liquid crystal display device
(JP2002-224997)		(8/1/2002)	
			Ishii, Toshiya; Sakamoto,
KD10.0575024		4/24/2007	Michiaki; Hayakawa, Kiyomi
KR10-0575034 (KR10-2003-0053185)	KR	4/24/2006 (7/31/2003)	Liquid crystal display device
(KK10-2003-0033183)		(7/31/2003)	Ishii, Toshiya; Sakamoto,
			Michiaki; Hayakawa, Kiyomi
CNZL03152510.5	CN	7/11/2007	LCD device
(CN03152510.5)		(8/1/2003)	
			Donburi, Toshiya; Sakamoto,
			Michiaki; Sasagawa, Kiyomi
TWI225564	TW	12/21/2004	Liquid crystal display device
(TW092121105)		(8/1/2003)	
			Ishii, Toshiya; Sakamoto,
6967702		11/22/2005	Michiaki; Hayakawa, Kiyomi
(10/633219)	US	11/22/2005 (8/1/2003)	Liquid crystal display device
(10/053219)		(8/1/2003)	Ishii, Toshiya; Sakamoto,
			Michiaki; Hayakawa, Kiyomi
7071040	US	7/4/2006	Method of fabricating thin
(10/639478)		(8/13/2003)	film transistor
			Matsunaga, Naoki; Sera,
			Kenji
JP4371687	JP	9/11/2009	Backlight device and liquid
(JP2003-087871)		(3/27/2003)	crystal display
			One Shinishinen Enhanced
			Ono, Shinichirou; Fukuyoshi, Hirokazu
7106394	US	9/12/2006	Backlight unit in a liquid
(10/807245)		(3/24/2004)	crystal display device
			Ono, Shin-Ichirou;
			Fukuyoshi, Hirokazu

Datant/Application Number	Country	Issue Date/	Title of Dotord and I turn of the
Patent/Application Number TWI255948	<u>Country</u> TW	Filing Date 6/1/2006	Title of Patent and Inventors
	1 W		Backlight unit in a liquid
(TW093108056)		(3/25/2004)	crystal display device
			Ono, Shinichirou; Fukuyoshi,
			Hirokazu
CNZL200410031388.8	CN	4/25/2007	Poor light apparatus and
(CN200410031388.8)		(3/26/2004)	liquid crystal display
			Ono, Shin-Ichirou;
			Fukuyoshi, Hirokazu
KR10-0685086	KR	2/13/2007	Backlight unit of LCD for
(KR10-2004-0020688)		(3/26/2004)	improving luminance
(11110 2001 0020000)		(3/20/2001)	
			Ono, Shinichirou; Fukuyoshi,
			Hirokazu
7050020	US	5/23/2006	3D image/2D image
(10/646799)		(8/25/2003)	switching display apparatus
			and portable terminal device
			Uehara, Shin-ichi; Takanashi,
			Nobuaki; Hayama, Hiroshi
GB1394593	GB	6/2/2010	3D image / 2D image
(GB03019284.3)		(8/26/2003)	switching display apparatus
			Uehara, Shin-ichi; Takanashi,
			Nobuaki; Hayama, Hiroshi
7148871	US	12/12/2006	Liquid crystal display device,
(10/656297)		(9/8/2003)	liquid crystal display device
			driving method, and liquid
			crystal projector apparatus
			Sekine, Hiroyuki
TWI255382	TW	5/21/2006	Liquid crystal display device
(TW093111937)	1	(4/28/2004)	
			Okamoto, Mamoru; Nishida,
			Shinichi; Konno, Takayuki;
7046327		5/16/2006	Maruyama, Muneo
	US	5/16/2006	Liquid crystal display device
(10/833318)		(4/28/2004)	including columnar spacer
			above gate line
			Okamoto, Mamoru; Nishida,
			Shinichi; Konno, Takayuki;
			Maruyama, Muneo

Patent/Application Number	Country	<u>Issue Date/</u> Filing Date	Title of Patent and Inventors
7057340	US	6/6/2006	Organic electroluminescence
(10/838203)		(5/5/2004)	display device
			Imura, Hironori
CNZL200410043242.5	CN	7/15/2009	Organic electroluminescence
(CN200410043242.5)		(5/14/2004)	display device
			Imura, Hironori
KR10-0707544	KR	4/6/2007	Organic electroluminescence
(KR10-2004-0034135)		(5/14/2004)	display device robust to stress from outside
			Imura, Hironori
JP4135088	JP	6/13/2008	Liquid crystal display and
(JP2003-283668)		(7/31/2003)	liquid crystal projector
			Sato, Yuko; Matsushima, Jin;
			Sugimoto, Mitsuhiro;
			Sumiyoshi, Ken
7310127	US	12/18/2007	LCD device and LCD
(10/901206)		(7/29/2004)	projector
			Sato, Yuko; Matsushima, Jin;
			Sugimoto, Mitsuhiro;
			Sumiyoshi, Ken
CNZL200410055632.4	CN	8/29/2007	LCD device and LCD
(CN200410055632.4)		(7/30/2004)	projector
			Sato, Yuko; Matsushima, Jin;
			Sugimoto, Mitsuhiro;
			Sumiyoshi, Ken
7554162	US	6/30/2009	Thin film transistor substrate
(10/873149)		(6/23/2004)	with low reflectance upper
			electrode
			Hayashi, Kenichi;
			Shimamoto, Hirofumi;
			Matsuzaki, Tadahiro
7242450	US	7/10/2007	Orientation film rubbing
(10/931560)		(9/1/2004)	apparatus and method to
			suppress scraping-off of the orientation film
			Mizoguchi, Chikaaki

Patent/Application Number	Country	<u>Issue Date/</u> Filing Date	Title of Patent and Inventors
JP4047796	JP	11/30/2007	Backlight device and double-
(JP2003-376749)		(11/6/2003)	faced display device
			Ogawa, Toshihisa; Ono, Shinichirou
7090365 (10/970737)	US	8/15/2006 (10/21/2004)	Backlight unit having an inclined light emission surface
			Ogawa, Toshihisa; Ono, Shin-ichirou
CNZL200410084884.X (CN200410084884.X)	CN	11/26/2008 (11/1/2004)	Backlight unit having an inclined light emission surface
			Ogawa, Toshihisa; Ono, Shin-ichirou
KR10-0669056 (KR10-2004-0090014)	KR	1/9/2007 (11/5/2004)	Backlight unit having an inclined light emission surface
			Ogawa, Toshihisa; Ono, Shinichirou
TWI293389 (TW093133818)	TW	2/11/2008 (11/5/2004)	Backlight unit and double- sided display device
			Ogawa, Toshihisa; Ono, Shin-ichirou
TWI247431 (TW093136866)	TW	1/11/2006 (11/30/2004)	Liquid crystal display unit Kimura, Shigeru
7511301 (11/000153)	US	3/31/2009 (12/1/2004)	Liquid crystal display unit
JP4512976 (JP2003-411873)	JP	5/21/2010 (12/10/2003)	Kimura, Shigeru Liquid crystal display device and its manufacturing method
			Hashimoto, Nobuaki
TWI269109 (TW093137736)	TW	12/21/2006 (12/7/2004)	Liquid crystal display device and method of manufacturing the same
			Hashimoto, Yoshiaki

Patent/Application Number	Country	<u>Issue Date/</u> Filing Date	Title of Patent and Inventors
7280178 (11/007157)	US	10/9/2007 (12/9/2004)	Liquid crystal display device and method of manufacturing the same
CNZL200410100094.6 (CN200410100094.6)	CN	6/11/2008 (12/10/2004)	Hashimoto, Yoshiaki Liquid crystal display device and method of manufacturing
(E11200+101000)+.0)			the same
KR10-0704062 (KR10-2004-0104009)	KR	3/29/2007 (12/10/2004)	Hashimoto, Yoshiaki Liquid crystal display device and method of manufacturing the same
7294881 (11/047814)	US	11/13/2007 (2/2/2005)	Hashimoto, YoshiakiNonvolatile semiconductormemory having a chargeaccumulation layer connectedto a gate
			Korenari, Takahiro; Sera, Kenji; Kanou, Hiroshi
JP4438441 (JP2004-038571)	JP	1/15/2010 (2/16/2004)	Lighting system and display device equipped with it Saito, Goro; Imai, Masao
7160003 (11/052765)	US	1/9/2007 (2/9/2005)	Illumination device and display device incorporating the same
	•		Saitoh, Goroh; Imai, Masao
CNZL200510007993.6 (CN200510007993.6)	CN	3/5/2008 (2/16/2005)	Illumination device and display device incorporating the same
			Saitoh, Goroh; Imai, Masao
JP4412027 (JP2004-096525)	JP	11/27/2009 (3/29/2004)	Amplifier circuit and display device
			Tsuchi, Hiroshi
CNZL200510062558.3 (CN200510062558.3)	CN	4/29/2009 (3/29/2005)	Amplifier circuit and display device
ı 			Tsuchi, Hiroshi

Patent/Application Number	<u>Country</u>	<u>Issue Date/</u> Filing Date	Title of Patent and Inventors
7339422	US	3/4/2008	Amplifier circuit and display
(11/093099)		(3/29/2005)	device
			Tsuchi, Hiroshi
7183635	US	2/27/2007	Semiconductor device having
(11/086338)		(3/23/2005)	a low-resistance bus interconnect, method of
			manufacturing same, and
			display apparatus employing
			same
			Toba, Tamaki
7405148	US	7/29/2008	Semiconductor device having
(11/610940)		(12/14/2006)	a low-resistance bus
			interconnect, method of
			manufacturing same, and display apparatus employing
			same
			Toba, Tamaki
CNZL200510062941.9	CN	6/11/2008	Semiconductor device having
(CN200510062941.9)		(3/31/2005)	a low-resistance bus
			interconnect, method of
			manufacturing same, and
			display apparatus employing same
			Toba, Tamaki
CNZL200510063863.4	CN		Space saving on peripheral
(CN200510063863.4)		(4/8/2005)	rim outside display pixel
			region in display device
			Ishibashi, Osamu
7483109	US	1/27/2009	Space saving on peripheral
(11/102777)		(4/11/2005)	rim outside display pixel
			region in display device
TWI282961	TW	6/21/2007	Ishibashi, Osamu
(TW094113667)	L VV	6/21/2007 (4/28/2005)	Liquid crystal display device, and light source driving
()			circuit and method to be used
			in same
			Honbo, Nobuaki

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Patent/Application Number CNZL200510066717.7	<u>Country</u> CN	Filing Date 1/23/2008	<u>Title of Patent and Inventors</u> Liquid crystal display device,
(CN200510066717.7)		(4/30/2005)	and light source driving
		(1/30/2003)	circuit and method to be used
			in same
			Honbo, Nobuaki
7489295	US	2/10/2009	Liquid crystal display device,
(11/118432)		(5/2/2005)	and light source driving
			circuit and method to be used
			in same
			Honbo, Nobuaki
JP4491638	JP	4/16/2010	External commutated inverter
(JP2004-150514)		(5/20/2004)	circuit for backlight and
			driving method
			Honpo, Nobuaki
7345432	US	3/18/2008	Inverter circuit for lighting
(11/131231)		(5/18/2005)	backlight of liquid crystal
			display and method for driving the same
			driving the same
			Honbo, Nobuaki
CNZL200610005009.7	CN	9/3/2008	Liquid crystal display panel
(CN200610005009.7)		(1/18/2006)	and liquid crystal display
			device
			Hiroya, Tsutomu; Sumiyoshi,
			Ken; Shigemura, Kouji
7525618	US	4/28/2009	Liquid crystal display panel
(11/334681)		(1/18/2006)	and liquid crystal display
			device
			Hiroya, Tsutomu; Sumiyoshi,
TD 4000 (01			Ken; Shigemura, Kouji
JP4382681 (JP2005_027000)	JP	10/2/2009	Liquid crystal display device
(JP2005-027909)		(2/3/2005)	Sakaki, Yoshinobu
TWI301923	TW	10/11/2008	Backlight unit and liquid-
(TW095103448)		(1/27/2006)	crystal display device using
			the same
			Sakaki, Yoshinobu

Patent/Application Number	Country	<u>Issue Date/</u> Filing Date	<u>Title of Patent and Inventors</u>
KR10-0823063 (KR10-2006-0010090)	KR	4/11/2008 (2/2/2006)	Backlight unit and liquid- crystal display device using the same
7250057			Sakaki, Yoshinobu
7350956 (11/345306)	US	4/1/2008 (2/2/2006)	Backlight unit and liquid- crystal display device using the same
			Sakaki, Yoshinobu
JP5309059 (JP2010-049923)	JP	7/5/2013 (3/5/2010)	Method and apparatus for deciding occurrence of microcrystals
7472(57	LIC	1/6/0000	Okumura, Nobu
7473657 (11/361756)	US	1/6/2009 (2/24/2006)	Laser irradiation method and apparatus for forming a polycrystalline silicon film
			Okumura, Hiroshi
7372211 (11/362839)	US	5/13/2008 (2/28/2006)	Cold cathode tube lighting device and driving method and integrated circuit to be used in same
			Honbo, Nobuaki
JP4543385 (JP2005-073631)	JP	7/9/2010 (3/15/2005)	Liquid crystal display device and itsmanufacturing method
			Yasuda, Yukiyasu; Suzuki, Seiji
KR10-0823061 (KR10-2006-0023072)	KR	4/11/2008 (3/13/2006)	Liquid crystal display device capable of settling disclination defect and manufacturing method of the same
			Yasuda, Kyounei; Suzuki, Seiji

De 4 4 1 4 NT 1	Con t	Issue Date/	
Patent/Application Number CNZL200610059141.6	<u>Country</u> CN	Filing Date 8/20/2008	<u>Title of Patent and Inventors</u> Liquid crystal display device
(CN200610059141.6)		(3/15/2006)	and manufacturing method of
()			the same
			Yasuda, Kyounei; Suzuki, Seiji
7564531 (11/375112)	US	7/21/2009 (3/15/2006)	LCD device and method including a plastic substrate with metal layer containing copper surrounded by barrier metal film embedded in a groove within the plastic substrate
			Yasuda, Kyounei; Suzuki, Seiji
CNZL200610100954.5	CN	9/17/2008	Optical element, optical
(CN200610100954.5)		(8/2/2006)	device, mobile information terminal, and manufacturing method
			Sumiyoshi, Ken; Mimura, Koji
7551340 (11/461959)	US	6/23/2009 (8/2/2006)	Optical element, optical device, mobile information
		(0,2,2000)	terminal, and manufacturing method
			Sumiyoshi, Ken; Mimura, Koji
JP4650624 (JP2005-216776)	JP	12/24/2010 (7/27/2005)	Backlight unit and liquid crystal display device
()			Shinohara, Toshiya; Sugitani, Choei
TWI339761	TW	4/1/2011	Backlight unit, display device
(TW095126699)		(7/21/2006)	provided with the backlight
			unit, and method of
			manufacturing the display device
			Shinohara, Toshiya; Sugitani, Chouei

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Revised Exhibit A

	~	Issue Date/	
Patent/Application Number	Country	Filing Date	Title of Patent and Inventors
7446825 (11/490119)	US	11/4/2008 (7/21/2006)	Backlight unit, display device provided with the backlight unit, and method of manufacturing the display device
			Shinohara, Toshiya; Sugitani, Chouei
KR10-0777871 (KR10-2006-0070122)	KR	11/13/2007 (7/26/2006)	Backlight unit for preventing deformation of a reflector sheet caused by an fpc, a display device having the backlight unit, and a method for manufacturing the display device Shinohara, Toshiya; Sugitani,
CNZL200610107589.0 (CN200610107589.0)	CN	12/31/2008 (7/27/2006)	Chouei Backlight unit, display device provided with the backlight unit, and method of manufacturing the display device
			Shinohara, Toshiya; Sugitani, Chouei
7499119 (11/582315)	US	3/3/2009 (10/18/2006)	Liquid-crystal display device with thin-film transistors and method of fabricating the same
			Yasuda, Kyounei
JP4771065 (JP2005-288352)	JP	7/1/2011 (9/30/2005)	Light source device, display device, and terminal device
•			Uehara, Shinichi; Imai, Masao
CNZL200610139942.3 (CN200610139942.3)	CN	5/9/2012 (9/27/2006)	Light source device, display device, and terminal device
			Uehara, Shin-ichi; Imai, Masao

Patent/Application Number	<u>Country</u>	<u>Issue Date/</u> Filing Date	<u>Title of Patent and Inventors</u>
RE44063	US	3/12/2013	Light source device, display
(13/111815)		(5/19/2011)	device, and terminal device
			Uehara, Shin-ichi; Imai, Masao
JP4813861 (JP2005-282719)	JP	9/2/2011 (9/28/2005)	Liquid crystal module
			Morishita, Shizuo
TWI361307 (TW095134782)	TW	4/1/2012 (9/20/2006)	Liquid crystal display module
			Morishita, Shizuo
7520655 (11/526571)	US	4/21/2009 (9/26/2006)	Liquid crystal display module
			Morishita, Shizuo
CNZL200610141508.9 (CN200610141508.9)	CN	7/22/2009 (9/28/2006)	Liquid crystal display module
· · · · · · · · · · · · · · · · · · ·			Morishita, Shizuo
JP4994649	JP	5/18/2012	Backlight for color liquid
(JP2005-349752)		(12/2/2005)	crystal display device
			Takahashi, Yoshitomo
RE45229	US	11/4/2014	Backlight for color liquid
(13/292700)		(11/9/2011)	crystal display apparatus
			Takahashi, Mitsuasa
JP4577229	JP	9/3/2010	Backlight device and liquid
(JP2006-038953)		(2/16/2006)	crystal display
			Nishigaki, Eitaro
RE44118	US	4/2/2013	Backlight unit and liquid-
(13/245678)		(9/26/2011)	crystal display device using
			the same
			Nishigaki, Eitaro
7568574	US	8/4/2009	Substrate transportation
(11/798090)		(5/10/2007)	method and apparatus
			Nagatomo, Kazuya
JP4939133 (JP2006-187865)	JP	3/2/2012 (7/7/2006)	Connector
· · · ·			Uchida, Toshio

Patent/Application Number	<u>Country</u>	<u>Issue Date/</u> Filing Date	Title of Patent and Inventors
7491079 (11/822489)	US	2/17/2009 (7/6/2007)	Connector and method of connecting the same
			Uchida, Toshio
JP4890100 (JP2006-144763)	JP	12/22/2011 (5/25/2006)	Image display device Komahisa, Manabu
7518690 (11/802784)	US	4/14/2009 (5/24/2007)	Image display device Komaju, Manabu
JP4493064 (JP2000-308171)	JP	4/16/2010 (10/6/2000)	Flat-face type fluorescent lamp, its fixing structure, and liquid crystal display device Fujishiro, Fumihiko
TW1259495 (TW090124797)	TW	8/1/2006 (10/5/2001)	Flat fluorescent lamp having unique mating portion and liquid crystal display device incorporating such a flat fluorescent lamp
6611092 (09/971994)	US	8/26/2003 (10/5/2001)	Fujishiro, FumihikoFlat fluorescent lamp having unique mating portion and liquid crystal display device incorporating such a flat fluorescent lampFujishiro, Fumihiko
6864947 (09/774921)	US	3/8/2005 (1/31/2001)	Method of fabricating liquid crystal display substrate and the same Shiraishi, Hideaki
TWI150201 (TW087117617)	TW	2/1/2002 (10/23/1998)	Semiconductor device and method for producing the same Fujita, Akira; Sugitani, Choei

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Patent/Application Number	Country	<u>Issue Date/</u> Filing Date	Title of Patent and Inventors
DE69808405.5 (DE69808405.5)	DE	10/2/2002 (10/26/1998)	Connection terminal structure for liquid crystal display and semiconductor device, and method of producing the same
FR0913719 (FR98120246.8)	FR	10/2/2002 (10/26/1998)	Fujita, Akira; Sugitani, ChoeiConnection terminal structurefor liquid crystal display andsemiconductor device, andmethod of producing thesameFujita, Akira; Sugitani, Choei
GB0913719 (GB98120246.8)	GB	10/2/2002 (10/26/1998)	Connection terminal structure for liquid crystal display and semiconductor device, and method of producing the same Fujita, Akira; Sugitani, Choei
6184966 (09/179654)	US	2/6/2001 (10/27/1998)	Semiconductor device and method for producing the same Fujita, Akira; Sugitani, Choei
6323931 (09/671414)	US	11/27/2001 (9/27/2000)	LCD with external circuit having anti-short-circuit pattern and particular structure Fujita, Akira; Sugitani, Choei
6683662 (10/003550)	US	1/27/2004 (10/24/2001)	Semiconductor device and method for producing the same Fujita, Akira; Sugitani, Choei

Patent/Application Number	Country	<u>Issue Date/</u> Filing Date	<u>Title of Patent and Inventors</u>
KR10-0302577	KR	7/4/2001	Semiconductor device and
(KR10-1998-0045382)		(10/28/1998)	manufacturing method
			thereof, especially for an
			LCD capable of preventing
			short-circuit occurred by
			current leakage between
			terminals due to corrosion of
			metal wires by installing an
			interterminal anti-short-
			circuiting pattern that is
			effective for cutting off
			humidity
			Fujita, Akira; Sugitani, Choei
6064458	US	5/16/2000	Rubbing apparatus and
(09/181641)		(10/29/1998)	rubbing method
			Mori, Shigeru
TWI137991	TW	7/11/2001	Semiconductor device and
(TW087116884)		(10/9/1998)	method of making the same
			Nakata, Shinichi
DE69835793.0	DE	9/6/2006	Thin-film transistor with
(DE69835793.0)		(10/26/1998)	light-shielding film for use in
			liquid crystal devices, and
			method of making the same
			Nakata, Shinichi
FR0915365	FR	9/6/2006	Thin-film transistor with
(FR98120242.7)		(10/26/1998)	light-shielding film for use in
			liquid crystal devices, and
			method of making the same
(Y) 444 54 65			Nakata, Shinichi
GB0915365	GB	9/6/2006	Thin-film transistor with
(GB98120242.7)		(10/26/1998)	light-shielding film for use in
			liquid crystal devices, and
			method of making the same
6262436		7/17/2001	Nakata, Shinichi
	US	7/17/2001	Semiconductor device and
(09/185640)		(11/4/1998)	method of making the same
			Nakata, Shinichi

Patent/Application Number	<u>Country</u>	<u>Issue Date/</u> Filing Date	Title of Patent and Inventors
KR10-0323367 (KR10-1998-0047384)	KR	1/23/2002 (11/5/1998)	Semiconductor device suitable for a flat display LCD of an active matrix display comprising a-si TFT and its fabrication method
6051815 (09/262340)	US	4/18/2000 (3/4/1999)	Nakata, Shinichi Apparatus for heat-treating substrate and method for separating the substrate from the apparatus
KR10-0326826 (KR10-1998-0037915)	KR	2/20/2002 (9/15/1998)	Satou, Yasuyuki LCD HAVING A WIDE VIEWING ANGLE, ESPECIALLY CAPABLE OF REDUCING APPEARANCE OF LIGHT SPOTS BY ALLOWING SOME LIQUID CRYSTAL MOLECULES ADJACENT TO THE TWO ALIGNMENT LAYERS TO HAVE A PRE-TILT ANGLE OF MORE THAN 2°
6078375 (09/154039)	US	6/20/2000 (9/16/1998)	Matsumoto, Kimikazu; Fujimaki, Eriko Liquid crystal display device with wide viewing angle Matsumoto, Kimikazu;
TWI144927 (TW087115488)	TW	11/1/2001 (9/17/1998)	Fujimaki, ErikoLiquid crystal display devicewith wide viewing angleMatsumoto, Kimikazu;
TWI164669 (TW087117847)	TW	9/21/2002 (10/28/1998)	Fujimaki, Eriko In-plane switching type liquid crystal display Shibahara, Hideo

Patent/Application Number	<u>Country</u>	<u>Issue Date/</u> Filing Date	Title of Patent and Inventors
6104463 (09/181338)	US	8/15/2000 (10/28/1998)	In-plane switching type liquid crystal display and method of operating the same
			Shibahara, Hideo
KR10-0303967 (KR10-1998-0046663)	KR	7/16/2002 (10/31/1998)	In-plane switching type liquid crystal display device and a method for operating the device for reducing uneven display by installing a chromaticity controller for controlling the chromaticity of the backlight
			Shibahara, Hideo
JP4775824 (JP2008-268528)	JP	7/8/2011 (10/17/2008)	Microlens array substrate, liquid crystal display element, liquid crystal display, and liquid crystal projector
			Matsushima, Hitoshi; Uehara, Shinichi; Sato, Yuko; Sumiyoshi, Ken; Kaneko, Setsuo
JP4735867 (JP2008-268529)	JP	5/13/2011 (10/17/2008)	Master die for microlens array
			Matsushima, Hitoshi; Uehara, Shinichi; Sato, Yuko; Sumiyoshi, Ken; Kaneko, Setsuo
7525732 (11/843677)	US	4/28/2009 (8/23/2007)	Method for forming finely- structured parts, finely- structured parts formed thereby, and product using such finely-structured part
			Uehara, Shin-ichi; Sato, Yuko; Sumiyoshi, Ken; Kaneko, Setsuo; Matsushima, Jin

Patent/Application Number	Country	<u>Issue Date/</u> Filing Date	Title of Datant and Inventory
6172730	US	1/9/2001	<u>Title of Patent and Inventors</u> Liquid crystal display
(09/262867)		(3/5/1999)	apparatus having stepped
		()	section in glass substrate
			Fujita, Akira
6480254	US	11/12/2002	Liquid crystal display
(09/667786)		(9/22/2000)	apparatus having stepped
			section in glass substrate
			Fujita, Akira
JP3482908	JP	10/17/2003	Driving circuit, driving
(JP11-145768)		(5/26/1999)	circuit system, biasing circuit,
			and driving circuit device
			Tsuchi, Hiroshi
6624669	US	9/23/2003	Drive circuit and drive circuit
(09/578287)		(5/25/2000)	system for capacitive load
·			Tsuchi, Hiroshi
KR10-0385780	KR	5/19/2003	Driving circuit, driving
(KR10-2000-0028753)		(5/26/2000)	circuit system, biasing circuit,
	1		and driving circuit device
			Tsuchi, Hiroshi
TWI174546	TW	3/21/2003	Drive circuit and drive circuit
(TW089110429)		(5/26/2000)	system for capacitive load
			Tsuchi, Hiroshi
6618204	US	9/9/2003	Light modulator, light source
(10/254493)		(9/25/2002)	using the light modulator,
			display apparatus using the
			light modulator, and method
			for driving the light
			modulator
((19027		0/0/2022	Takatori, Ken-ichi
6618027	US	9/9/2003	Light modulator, light source
(10/254710)		(9/25/2002)	using the light modulator,
			display apparatus using the
			light modulator, and method for driving the light
			modulator
			Takatori, Ken-ichi

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Country	<u>Issue Date/</u> Filing Date	<u>Title of Patent and Inventors</u>
Р	4/4/2003 (5/25/2001)	Method for forming pattern
		Kido, Shusaku
CR.	3/23/2005 (6/26/2001)	Method for forming pattern
R	7/1/2005	Kido, Shusaku
ĸ	(7/26/2004)	Method for forming pattern to precisely control resist pattern after resist pattern is varied in dimension
		Kido, Shusaku
W	9/1/2002 (6/26/2001)	Method of forming a pattern and semiconductor device produced by this method
		Kido, Shusaku
ſS	3/16/2004 (6/26/2001)	Method of deforming a pattern and semiconductor device formed by utilizing deformed pattern
		Kido, Shusaku
S	6/13/2006 (7/24/2002)	Method of deforming a pattern and semiconductor device formed by utilizing deformed pattern
. <u></u>	10/11/0005	Kido, Shusaku
S	10/11/2005 (11/21/2002)	Method of deforming a pattern and semiconductor device formed by utilizing deformed pattern Kido, Shusaku
S	12/20/2005	Method of deforming a
	(2/17/2004)	pattern and semiconductor device formed by utilizing deformed pattern Kido, Shusaku
ſ	S	

Patent/Application Number	<u>Country</u>	<u>Issue Date/</u> Filing Date	Title of Patent and Inventors
7030467 (10/778039)	US	4/18/2006 (2/17/2004)	Method of deforming a pattern and semiconductor device formed by utilizing deformed pattern
6949766 (10/778040)	US	9/27/2005 (2/17/2004)	Kido, Shusaku Method of deforming a pattern and semiconductor device formed by utilizing deformed pattern
7554164 (11/187978)	US	6/30/2009 (7/25/2005)	Kido, Shusaku Semiconductor device having a gap between a gate electrode and a dummy gate electrode
6791145 (10/778041)	US	9/14/2004 (2/17/2004)	Kido, Shusaku Semiconductor device formed by utilizing deformed pattern
JP3394483 (JP11-325739)	JP	4/7/2003 (11/16/1999)	Kido, Shusaku Thin-film transistor substrate and manufacturing method therefor Kato, Takeshi; Motojima, Hideto
GB2362509 (GB0027792.1)	GB	9/10/2002 (11/14/2000)	HidetoThin film transistor and fabrication method of the sameKatoh, Tsuoyoshi; Motoshima, Hideto
KR10-0348647 (KR10-2000-0067437)	KR	7/31/2002 (11/14/2000)	Motossinna, maetoThin-film transistor substrateand manufacturing methodthereforKatoh, Tsuoyoshi;Motosjima, Hideto

		Issue Date/	
Patent/Application Number	<u>Country</u> TW	<u>Filing Date</u> 11/1/2003	Title of Patent and Inventors
TWI189748 (TW089124125)	IW	(11/14/2000)	Thin film transistor and fabrication method of the same
			Katoh, Tsuoyoshi; Motoshima, Hideto
6730970 (09/711504)	US	5/4/2004 (11/14/2000)	Thin film transistor and fabrication method of the same
			Katoh, Tsuoyoshi; Motoshima, Hideto
7049184 (10/838368)	US	5/23/2006 (5/5/2004)	Semiconductor thin film, thin film transistor, method for manufacturing same, and manufacturing equipment of semiconductor thin film
			Tanabe, Hiroshi
8377805 (13/359406)	US	2/19/2013 (1/26/2012)	Semiconductor thin film, thin film transistor, method for manufacturing same, and manufacturing equipment of semiconductor thin film
			Tanabe, Hiroshi
8710507 (13/761585)	US	4/29/2014 (2/7/2013)	Semiconductor thin film, thin film transistor, method for manufacturing same, and manufacturing equipment of semiconductor thin film
			Tanabe, Hiroshi
JP4274127 (JP2005-012465)	JP	3/13/2009 (1/20/2005)	TFT, TFT manufacturing method and image input deviceusing TFT
			Tanabe, Hiroshi; Haga, Hiroshi

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Patent/Application Number	<u>Country</u>	<u>Issue Date/</u> Filing Date	Title of Patent and Inventors
7138303	US	11/21/2006	Method for manufacturing a
(10/815393)		(4/1/2004)	thin film transistor having
			high mobility and high on-
			current
			Tanabe, Hiroshi; Haga,
			Hiroshi
7285809	US	10/23/2007	Thin film transistor having
(11/410184)		(4/24/2006)	high mobility and high on-
			current
			Tanabe, Hiroshi; Haga,
			Hiroshi
KR10-0264757	KR	6/5/2000	Active matrix LCD and
(KR10-1998-0002500)		(1/30/1998)	method of producing the
			same
			Tanaka, Hiroaki
6665023	US	12/16/2003	Active matrix liquid crystal
(09/323492)		(6/1/1999)	display device having
			particular capacitance
			patterns
	· · ·		Watanabe, Makoto;
			Watanabe, Takahiko
6020214	US	2/1/2000	Method for manufacturing
(09/116213)		(7/16/1998)	thin film transistor array
```			substrate
			Watanabe, Takahiko;
			Sukegawa, Osamu
6137465	US	10/24/2000	Drive circuit for a LCD
(09/195617)		(11/19/1998)	device
			Sekine, Hiroyuki; Okumura,
· <del>- · · · · · · · · · · · · · · · · · ·</del>			Fujio
7079101	US	7/18/2006	Liquid crystal display device
(09/290579)		(4/13/1999)	and driving method therefor
			Asada, Hideki
6567136 (09/461001)	US	5/20/2003	Liquid crystal display device
(07/101001)		(12/14/1999)	Sakuramoto Tamaki
6567136 (09/461001)	US	5/20/2003 (12/14/1999)	Liquid crystal display dev Sakuramoto, Tamaki; Okumura, Hiroshi

Patent/Application Number	Country	<u>Issue Date/</u> Filing Date	<u>Title of Patent and Inventors</u>
6597414	US	7/22/2003	Horizontal electric-field type
(09/513923)		(2/28/2000)	LCD device
			Hasegawa, Fumio
JP3179410 (JP10-150821)	JP	4/13/2001 (6/1/1998)	Liquid crystal display device
		(0/11550)	Matsuyama, Hiroaki; Kobayashi, Kazumi; Hirai, Yoshihiko; Ishii, Toshiya; Murai, Hideya; Suzuki,
			Shigeyoshi
TWI134010 (TW088108722)	TW	5/28/2001 (5/27/1999)	Liquid crystal display device
			Matsuyama, Hiroaki; Kobayashi, Kazumi; Hirai, Yoshihiko; Ishii, Toshiya; Murai, Hideya; Suzuki, Shigeyoshi
6300996	US	10/9/2001	Liquid crystal display
(09/321454)		(5/27/1999)	apparatus
			Matsuyama, Hiroaki; Kobayashi, Kazumi; Hirai, Yoshihiko; Ishii, Toshiya; Murai, Hideya; Suzuki, Masayoshi
KR10-0339896 (KR10-1999-0019785)	KR	5/27/2002 (5/31/1999)	Liquid crystal display apparatus
			Gobayasi, Gazmi; Hirai, Yoshiko; Ishihi, Doshiya; Masyama, Hiroyaki; Murai, Hideya; Szuki, Amasayoshi
5875009 (08/912790)	US	2/23/1999 (8/18/1997)	Sequential staggered type thin film transistor
(00/12/20)			
			Shibahara, Hideo
JP3161528 (JP10-252663)	JP	2/23/2001 (9/7/1998)	Liquid crystal display panel
			Ihara, Hiroshi
TWI249069 (TW088115095)	TW	2/11/2006 (9/2/1999)	Liquid crystal display device
			Ihara, Hirofumi

Patent/Application Number	<u>Country</u>	<u>Issue Date/</u> Filing Date	Title of Patent and Inventors
KR10-0374435	KR	2/19/2003	Liquid crystal display device
(KR10-1999-0037827)		(9/7/1999)	and method of manufacturing
			the same
			Ihara, Hirofumi
6268898	US	7/31/2001	Liquid crystal display device
(09/391151)		(9/7/1999)	and method of manufacturing the same
			Ihara, Hirofumi
TWI149753	TW	1/21/2002	Liquid crystal display thin
(TW087116368)		(10/1/1998)	film transistor array and
			method of fabricating the same
			Tani, Masatoshi
KR10-0307987	KR	8/27/2001	Thin-film transistor arrays for
(KR10-1998-0041995)		(10/8/1998)	liquid crystal display device
			and manufacturing method
			Tani, Masatoshi
5929947	US	7/27/1999	Liquid crystal display thin
(09/168085)		(10/8/1998)	film transistor array with
			redundant film formed over a
			contact hole and method of
			fabricating the same
			Tani, Masatoshi
6441877	US	8/27/2002	Active matrix type liquid
(09/413535)		(10/6/1999)	crystal display device and
			method of forming the same
			Watanabe, Takahiko
JP3147104	JP	1/12/2001	Active matrix type liquid
(JP10-315692)		(11/6/1998)	crystal display device and
			driving method therefor
			Sekine, Hiroyuki
TWI184523	TW	8/21/2003	Active matrix liquid crystal
(TW088119444)		(11/5/1999)	display apparatus and its
			driving method
			Sekine, Hiroyuki

Patent/Application Number	<u>Country</u>	<u>Issue Date/</u> Filing Date	Title of Patent and Inventors
KR10-0325913	KR	2/14/2002	Liquid crystal display device
(KR10-1999-0049092)		(11/6/1999)	
			Sekine, Hiroyuki
6407728	US	6/18/2002	Active matrix liquid crystal
(09/435968)		(11/8/1999)	display device having signal
			selectors and method of
			driving the same
·			Sekine, Hiroyuki
JP3185778	JP	5/11/2001	Active matrix type liquid
(JP11-032847)		(2/10/1999)	crystal display device, its
			manufacture and its driving
			method
			Watanabe, Makoto;
			Watanabe, Takahiko
TWI165847	TW	11/1/2002	Active matrix type liquid
(TW089102090)		(2/9/2000)	crystal display device, its
			manufacture and its driving method
			method
			Watanabe, Makoto;
			Watanabe, Takahiko
KR10-0375897	KR	2/28/2003	Active matrix lcd,
(KR10-2000-0006122)		(2/10/2000)	manufacturing method
			therefor and driving method
			therefor
			Watanabe, Makoto;
			Watanabe, Takahiko
6563481	US	5/13/2003	Active matrix liquid crystal
(09/501685)		(2/10/2000)	display device, method of
			manufacturing the same, and
			method of driving the same
			Watanabe, Makoto;
			Watanabe, Takahiko
TWI152464	TW	3/21/2002	Active matrix liquid-crystal
(TW087119765)		(11/27/1998)	display device
			Matsumoto, Kimikazu;
			Nishida, Shinichi; Shibahara,
			Hideo

Patent/Application Number	<u>Country</u>	<u>Issue Date/</u> Filing Date	Title of Patent and Inventors
KR10-0321270	KR	1/7/2002	Active matrix liquid crystal
(KR10-1998-0051439)		(11/28/1998)	display device
			Matsumoto, Kimikazu; Nishida, Shinichi; Shibahara, Hideo
JP3327252 (JP11-139963)	ЛР	7/12/2002 (5/20/1999)	Tape carrier, manufacture thereof, TCP, and liquid crystal display
			Ato, Kisho
KR10-0367320 (KR10-2000-0026703)	KR	12/24/2002 (5/18/2000)	Tape carrier, manufacture thereof, TCP, and liquid crystal display
			Atou, Noriaki
TW1147570 (TW089109654)	TW	12/21/2001 (5/19/2000)	Tape carrier with high flexibility and high density connection wire pattern
			Atou, Noriaki
6633002 (09/575092)	US	10/14/2003 (5/19/2000)	Tape carrier having high flexibility with high density wiring patterns
			Atou, Noriaki
JP3482910 (JP11-149078)	JP	10/17/2003 (5/28/1999)	Scanning circuit Sato, Tetsushi; Sekine, Hiroyuki
TWI162272 (TW089108255)	TW	9/1/2002 (5/1/2000)	Scanning circuit
			Sato, Tetsushi; Sekine, Hiroyuki
KR10-0371505 (KR10-2000-0028174)	KR	1/24/2003 (5/24/2000)	Scan circuit
			Sato, Tetsushi; Sekine, Hiroyuki
6876352 (09/577843)	US	4/5/2005 (5/25/2000)	Scanning circuit
			Sato, Tetsushi; Sekine, Hiroyuki

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Patent/Application Number	<u>Country</u>	<u>Issue Date/</u> Filing Date	Title of Patent and Inventors
JP3451583	JP	7/18/2003	Clamp circuit for liquid
(JP11-180309)		(6/25/1999)	crystal display device
			Shiki, Tatsuya
TWI159982	TW	7/11/2002	Clamping circuit for liquid
(TW089112297)		(6/22/2000)	crystal display device
			Shiki, Tatsuya
6657619	US	12/2/2003	Clamping circuit for liquid
(09/602182)		(6/22/2000)	crystal display device
			Shiki, Tatsuya
KR10-0378853	KR	3/24/2003	Clamp circuit for liquid
(KR10-2000-0034731)		(6/23/2000)	crystal display device
			Shiki, Tatsuya
6580486	US	6/17/2003	Active matrix liquid crystal
(09/604610)		(6/27/2000)	display device having
			electrostatic shielding layer
			between data lines
			Sekine, Hiroyuki
6669809	US	12/30/2003	Apparatus for removing a
(09/791793)		(2/26/2001)	coating film
			Hashimoto, Yoshiaki; Sato,
			Yasuyuki
JP3264270 (JP11-210754)	JP	12/28/2001 (7/26/1999)	Liquid crystal display device
(51 11-210754)		(1/20/1999)	Watanabe, Makoto;
			Watanabe, Takahiko
TWI180112	TW	6/21/2003	Active-matrix in-plane
(TW089114855)		(7/25/2000)	switching mode LCD panel
			Watanabe, Makoto;
			Watanabe, Takahiko
KR10-0331913	KR	3/26/2002	Liquid crystal display device
(KR10-2000-0042942)		(7/26/2000)	
			Watanabe, Makoto;
			Watanabe, Takahiko

Patent/Application Number	Country	Issue Date/ Filing Date	Title of Patent and Inventors
6646691 (09/626114)	US	11/11/2003 (7/26/2000)	Active-matrix in-plane switching mode LCD panel having multiple common electrode voltage sources
CA-COTE 4		10/22/2022	Watanabe, Makoto; Watanabe, Takahiko
6469754 (09/654624)	US	10/22/2002 (9/5/2000)	Liquid-crystal display with scanner
6429910 (09/666819)	US	8/6/2002 (9/21/2000)	Okumura, Fujio Liquid crystal display device and method for repairing breakage of circuit lines thereof Hirata, Tomoya; Miyahara,
6788355	US	9/7/2004	Tae Active matrix LCD panel
(09/695212)		(10/25/2000)	Ihida, Satoshi; Yamaguchi, Hirotaka; Tanaka, Hiroaki; Hayase, Takasuke; Kanou, Hiroshi; Kaneko, Wakahiko; Miyahara, Tae; Sakamoto,
6661401	US	12/9/2003	Michiaki; Nakata, Shinichi Circuit for driving a liquid
(09/711632)	05	(11/13/2000)	crystal display and method for driving the same circuit
6600172	US	7/29/2003	Sekine, Hiroyuki Image sensor and method of
(09/718603)		(11/22/2000)	fabricating the same Matsuno, Fumihiko
JP3266119 (JP10-344855)	JP	1/11/2002 (11/19/1998)	Liquid crystal display device and video data transfer method
			Hori, Yoshihiko

Patent/Application Number	Country	<u>Issue Date/</u> Filing Date	Title of Patent and Inventors
TW1172615 (TW088120125)	TW	2/21/2003 (11/18/1999)	Liquid crystal display device and method for transferring image data
6407730 (09/442455)	US	6/18/2002 (11/18/1999)	Hori, Yoshihiko Liquid crystal display device and method for transferring image data
KR10-0313210 (KR10-1999-0051548)	KR	10/17/2001 (11/19/1999)	Hori, Yoshihiko Liquid crystal display device and method for transferring image data Hori, Yoshihiko
6437370 (09/503176)	US	8/20/2002 (2/14/2000)	Image sensor structure and manufacturing process therefor
JP3512665 (JP11-055478)	JP	1/16/2004 (3/3/1999)	Matsuno, Fumihiko Color liquid crystal panel and its manufacture Okamoto, Mamoru; Yamamoto, Yuji; Sakamoto, Michiaki; Nakada, Shinichi; Yoshikawa, Chikanori; Watanabe, Takahiko; Ihara, Hiroshi
6429917 (09/513758)	US	8/6/2002 (2/25/2000)	Color liquid-crystal panel having a frame-shaped black matrix and manufacturing process therefor Okamoto, Mamoru; Yamamoto, Yuji; Sakamoto, Michiaki; Nakata, Shinichi; Kikkawa, Hironori; Watanabe, Takahiko; Ihara, Hirofumi

Patent/Application Number	Country	<u>Issue Date/</u> Filing Date	Title of Patent and Inventors
JP3544489	JP	4/16/2004	Liquid crystal display device
(JP11-112008)		(4/20/1999)	and its manufacture
			Yoshikawa, Shuken; Watanabe, Takahiko; Ihara, Hiroshi; Nakada, Shinichi; Okamoto, Mamoru;
			Yamamoto, Yuji; Sakamoto, Michiaki
KR10-0371795 (KR10-2000-0020798)	KR	1/28/2003 (4/19/2000)	Liquid crystal display device and its manufacture
			Ihara, Hiroshi; Nakada, Shinichi; Okamoto, Mamoru; Sakamoto, Michiaki; Watanabe, Takahiko; Yamamoto, Yuji; Yoshikawa, Shuken;
6330043 (09/552035)	US	12/11/2001 (4/19/2000)	Liquid crystal display device and method of fabrication TFT panel
			Kikkawa, Hironori; Watanabe, Takahiko; Ihara, Hirofumi; Nakata, Shinichi; Okamoto, Mamoru; Yamamoto, Yuji; Sakamoto, Michiaki
TWI180819 (TW089107446)	TW	7/1/2003 (4/20/2000)	Liquid crystal display device and method of fabricating TFT panel
			Kikkawa, Hironori; Watanabe, Takahiko; Ihara, Hirofumi; Nakata, Shinichi; Okamoto, Mamoru; Yuji, Yamamoto; Sakamoto, Michiaki
JP3803510 (JP11-145316)	JP	5/12/2006 (5/25/1999)	Liquid crystal display panel
JP3680849 (JP2003-301185)	JP	5/27/2005 (8/26/2003)	Sugimoto, Mitsuhiro Liquid crystal display panel Sugimoto, Mitsuhiro

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Patent/Application Number	Country	<u>Issue Date/</u> Filing Date	Title of Patent and Inventors
TWI165651 (TW089109335)	TW	10/21/2002 (5/16/2000)	Liquid crystal panel
KR10-0367417 (KR10-2000-0028501)	KR	12/24/2002 (5/25/2000)	Sugimoto, Mitsuhiro Liquid crystal display panel
6486936 (09/579321)	US	11/26/2002 (5/25/2000)	Sugimoto, Mitsuhiro Liquid crystal panel with seal containing hard and soft spacers
JP3838818 (JP11-171294)	JP	8/11/2006 (6/17/1999)	Sugimoto, Mitsuhiro Liquid crystal display panel and its production
			Yamamoto, Yuji; Okamoto, Mamoru; Sakamoto, Michiaki; Watanabe, Takahiko; Ihara, Hiroshi; Yoshikawa, Shuken; Nakada, Shinichi
TW1254179 (TW089111852)	TW	5/1/2006 (6/16/2000)	Liquid-crystal display panel and method for manufacturing same
			Yamamoto, Yuji; Okamoto, Mamoru; Sakamoto, Michiaki; Watanabe, Takahiko; Ihara, Hirofumi; Kikkawa, Hironori; Nakata, Shinichi
6870592 (09/594721)	US	3/22/2005 (6/16/2000)	Liquid-crystal display panel with spacer in pixel electrode contact hole and method for manufacturing same
			Yamamoto, Yuji; Okamoto, Mamoru; Sakamoto, Michiaki; Watanabe, Takahiko; Ihara, Hirofumi; Kikkawa, Hironori; Nakata, Shinichi

		Issue Date/	
Patent/Application Number	Country	Filing Date	Title of Patent and Inventors
KR10-0386826	KR	5/26/2003	Liquid crystal display panel
(KR10-2000-0033502)		(6/17/2000)	and its production
			Yamamoto, Yuji; Okamoto,
			Mamoru; Sakamoto,
			Michiaki; Watanabe,
			Takahiko; Ihara, Hiroshi;
			Yoshikawa, Shuken; Nakada,
			Shinichi
JP3539330	JP	4/2/2004	Liquid crystal display panel
(JP2000-035827)		(2/14/2000)	and its manufacturing method
			Sato, Yuko; Sugimoto,
			Mitsuhiro
6549259	US	4/15/2003	Liquid crystal display panel
(09/780382)		(2/12/2001)	and fabrication method of the
			same
			Sata Vultat Sucimata
			Sato, Yuko; Sugimoto, Mitsuhiro
KR10-0504683	KR	7/21/2005	Liquid crystal display panel
(KR10-2001-0007007)		(2/13/2001)	and its manufacturing method
			Sato, Yuko; Sugimoto,
			Mitsuhiro
JP3792485	JP	4/14/2006	Active matrix type liquid
(JP2000-166318)		(6/2/2000)	crystal display device
			Sakamoto, Michiaki;
			Maruyama, Muneo;
			Yamamoto, Yuji; Okamoto,
			Mamoru
TWI291070	TW	12/11/2007	Active matrix liquid crystal
(TW090113101)		(5/30/2001)	display device
			Sakamoto, Michiaki;
			Maruyama, Muneo;
			Yamamoto, Yuji; Okamoto,
			Mamoru

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Patent/Application Number	<u>Country</u>	<u>Issue Date/</u> Filing Date	Title of Patent and Inventors
6822704	US	11/23/2004	Active matrix liquid crystal
(09/870749)		(6/1/2001)	display device
			Sakamoto, Michiaki; Maruyama, Muneo; Yamamoto, Yuji; Okamoto, Mamoru
7224414 (10/761354)	US	5/29/2007 (1/22/2004)	Active matrix liquid crystal display device
			Sakamoto, Michiaki; Maruyama, Muneo; Yamamoto, Yuji; Okamoto, Mamoru
KR10-0413577 (KR10-2001-0030947)	KR	12/18/2003 (6/2/2001)	Active matrix liquid crystal display device
			Maruyama, Muneo; Okamoto, Mamoru; Sakamoto, Michiaki; Yamamoto, Yuji
TW1288260 (TW090116361)	TW	10/11/2007 (7/4/2001)	Reflector formed with highly reliable conductive pattern, process for fabricating reflector and liquid crystal display unit using the same
			Sato, Yasuhiro; Kaneko, Hideki; Nishiyama, Michiaki
7136123 (10/985003)	US	11/14/2006 (11/10/2004)	Reflector formed with highly reliable conductive pattern, process for fabricating reflector and liquid crystal display unit using the same
TW107(001		0.01.0007	Sato, Yasuhiro; Kaneko, Hideki; Nishiyama, Michiaki
TWI276901 (TW089108890)	TW	3/21/2007 (5/10/2000)	LCD device having test contact pads
			Ukita, Tooru

Patent/Application Number	<u>Country</u>	<u>Issue Date/</u> Filing Date	Title of Patent and Inventors
6930744	US	8/16/2005	LCD device having test
(09/568710)		(5/11/2000)	contact pads
			Ukita, Tooru
6608664	US	8/19/2003	Vibration-proof liquid crystal
(09/577702)		(5/23/2000)	display having mounting end regions of lower rigidity
			Hasegawa, Fumio
TWI174315	TW	3/21/2003	Liquid crystal display
(TW089110010)		(5/24/2000)	
			Hasegawa, Fumio
KR10-0374371	KR	2/19/2003	LIQUID CRYSTAL
(KR10-2000-0028246)		(5/25/2000)	DISPLAY
			Hasegawa, Fumio
6760081	US	7/6/2004	Liquid crystal display device
(09/577734)		(5/23/2000)	having uniform feedthrough
			voltage components
			Takagi, Kouji
TWI266941	TW	11/21/2006	A liquid-crystal display
(TW089110233)		(5/26/2000)	apparatus and a method for
			manufacturing same
			Hosoyamada, Shunichi
6414740	US	7/2/2002	LCD having temperature
(09/583730)		(5/31/2000)	detection elements provided
			on an active-substrate
			Hosoyamada, Shunichi
KR10-0386733	KR	5/26/2003	Liquid crystal display device,
(KR10-2000-0030180)		(6/1/2000)	and manufacturing method of
			liquid crystal display device
			Hosoyamada, Shunichi
TWI253535	TW	4/21/2006	LCD panel in which signal
(TW089110556)		(5/31/2000)	line terminals have slits to
			allow inspection of alignment
			of the terminals and the TCP
			leads
			Fujita, Akira

Patent/Application Number	<u>Country</u>	<u>Issue Date/</u> Filing Date	<u>Title of Patent and Inventors</u>
6633361 (09/587061)	US	10/14/2003 (6/2/2000)	LCD panel in which signal line terminals have slits to allow inspection of alignment of the terminals and the TCP leads
KR10-0335453 (KR10-2000-0030571)	KR	4/23/2002 (6/3/2000)	Fujita, Akira LCD panel unit for a LCD device
6486931 (09/592914)	US	11/26/2002 (6/13/2000)	Fujita, AkiraLCD optical guide plate with a roughened back surface having projections that support a reflecting sheetUeda, Shoichi
6542207 (09/599637)	US	4/1/2003 (6/23/2000)	Liquid crystal display Yoshizawa, Seiji
KR10-0376348 (KR10-2000-0035553)	KR	3/5/2003 (6/27/2000)	Liquid crystal display device reducing pixel error and manufacture method of the same
			Ihara, Hirohumi; Kaneko, Wakahiko; Iida, Takayas
TWI250349 (TW089112937)	TW	3/1/2006 (6/29/2000)	Liquid crystal display device with less pixel error and method of manufacturing the same
			Ihara, Hiroshi; Kaneko, Wakahiko; Iida, Takayasu
7088401 (09/609169)	US	8/8/2006 (6/30/2000)	Liquid crystal display device with less pixel error and method of manufacturing the same
			Ihara, Hirofumi; Kaneko, Wakahiko; Iida, Takayasu

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Patent/Application Number	<u>Country</u>	<u>Issue Date/</u> Filing Date	<u>Title of Patent and Inventors</u>
TWI190424	TW	11/11/2003	Thin-film transistor array and
(TW089102883)		(2/19/2000)	its manufacture
			Matsumoto, Seiichi
KR10-0399256	KR	9/15/2003	Thin-film transistor array and
(KR10-2000-0009205)		(2/24/2000)	its manufacture
			Matsumoto, Seiichi
6249011	US	6/19/2001	Thin film transistor array
(09/513925)		(2/28/2000)	with light shield layer
			Matsumoto, Seiichi
6352911	US	3/5/2002	Thin-film transistor array and
(09/619675)		(7/19/2000)	method for producing the
			same
			Matsumoto, Seiichi
KR10-0445776	KR	8/16/2004	Liquid crystal display and
(KR10-2000-0011930)		(3/10/2000)	manufacturing method
			thereof
			Kuroba, Shoichi
TWI205279	TW	6/21/2004	Liquid crystal display and
(TW089104423)		(3/10/2000)	manufacturing method
			thereof
			Kuroha, Shoichi
6760089	US	7/6/2004	Liquid crystal display and
(09/522609)		(3/10/2000)	manufacturing method
			thereof
			Kuroha, Shoichi
6954250	US	10/11/2005	Liquid crystal display and
(10/882286)		(7/2/2004)	manufacturing method
			thereof
			Kuroha, Shoichi
TWI182529	TW	7/21/2003	LCD and manufacturing
(TW089105200)		(3/22/2000)	method thereof
			Matsuyama, Hiroaki; Hirai,
			Yoshihiko

Patent/Application Number	Country	<u>Issue Date/</u> Filing Date	Title of Patent and Inventors
6714271 (09/533075)	US	3/30/2004 (3/22/2000)	Liquid crystal display having an in a pixel electrode along a boundary of differently oriented regions
			Matsuyama, Hiroaki; Hirai, Yoshihiko
KR10-0358872 (KR10-2000-0014704)	KR	10/16/2002 (3/23/2000)	LCD and manufacturing method thereof
			Hirai, Yoshihiko; Matsuyama, Hiroaki
6809712 (09/802215)	US	10/26/2004 (3/8/2001)	Drive circuit of liquid crystal display, having clip circuit before polarity inversion circuit
			Takeda, Hiroshi
6778249 (09/621460)	US	8/17/2004 (7/21/2000)	Liquid-crystal display element and method for manufacturing same
			Kamosawa, Hirofumi; Shimizu, Takeya
6690446 (09/689901)	US	2/10/2004 (10/13/2000)	Color liquid crystal display panel, manufacturing method of the same, and liquid crystal display
			Okamoto, Mamoru; Yamamoto, Yuji; Sakamoto, Michiaki; Kikkawa, Hironori
6525786 (09/711043)	US	2/25/2003 (11/13/2000)	Transverse electric liquid crystal display device
			Ono, Shin-ichirou
TW1189333 (TW089124340)	TW	10/11/2003 (11/16/2000)	Transverse electric liquid crystal display device
			Ono, Shin Ichirou

Patent/Application Number	<u>Country</u>	<u>Issue Date/</u> Filing Date	<u>Title of Patent and Inventors</u>
KR10-0400714	KR	9/24/2003	Transverse electric field
(KR10-2000-0068692)		(11/18/2000)	liquid crystal display device
			Ono, Shinichiro
7202844	US	4/10/2007	Liquid crystal display
(09/726721)		(11/30/2000)	controller and liquid crystal display
	_	-	Nakamigawa, Kazuhiro
6586873	US	7/1/2003	Display panel module with
(09/839118)		(4/23/2001)	improved bonding structure and method of forming the same
			Mizutani, Kazuhiro;
			Kitazume, Eiichi
KR10-0404064	KR	10/21/2003	Display panel module having
(KR10-2001-0021938)		(4/24/2001)	improved bonding structure and manufacturing method thereof
			Kitazume, Eiichi; Mizutani, Kazuhiro
6468840	US	10/22/2002	Active matrix substrate and
(09/841074)		(4/25/2001)	manufacturing method thereof
			Tanaka, Hiroaki; Uchida,
			Hiroyuki
6800872	US	10/5/2004	Active matrix thin film
(10/235493)		(9/6/2002)	transistor
			Tanaka, Hiroaki; Uchida,
TWI178482	TW	5/21/2003	Hiroyuki Active matrix substrate and
(TW090110057)	L W	(4/26/2001)	manufacturing method
()			thereof
			Tanaka, Hiroaki; Uchida, Hiroyuki

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Patent/Application Number	Country	<u>Issue Date/</u> Filing Date	Title of Patent and Inventors
KR10-0445791	KR	8/16/2004	Active matrix substrate and
(KR10-2001-0023218)		(4/28/2001)	manufacturing method
			thereof
			Tanaka, Hiroaki; Uchida,
			Hiroyuki
JP4410912	JP	11/20/2009	Electrostatic protection
(JP2000-170057)		(6/7/2000)	circuit
			Uchida, Hiroyuki
TWI195654	TW	2/1/2004	Surge protection circuit for
(TW090113333)		(6/1/2001)	semiconductor devices
			Uchida, Hiroyuki
KR10-0463411	KR	12/15/2004	Surge protection circuit for a
(KR10-2001-0031517)		(6/5/2001)	semiconductor display panel
			Uchida, Hiroyuki
6812528	US	11/2/2004	Surge protection circuit for
(09/874296)		(6/6/2001)	semiconductor devices
			Uchida, Hiroyuki
6621551	US	9/16/2003	Method and system for
(09/892836)		(6/27/2001)	fabricating a liquid crystal
			display by optically detecting
			anisotropic angular
			misalignment
			Matsuzawa, Tadashi
TWI293397	TW	2/11/2008	Liquid crystal display unit
(TW090116915)		(7/10/2001)	having pixel electrode
			encircled with partition wall
			and process for fabrication
			thereof
			Matsumoto, Kimikazu
6657699	US	12/2/2003	Liquid crystal display unit
(09/901034)		(7/10/2001)	having pixel electrode
			encircled with partition wall
-			and process for fabrication
			thereof
			Matsumoto, Kimikazu

Patent/Application Number	Country	<u>Issue Date/</u> Filing Date	<u>Title of Patent and Inventors</u>
6740596	US	5/25/2004	Manufacturing method of
(09/903244)		(7/11/2001)	active matrix substrate
			Hayase, Takasuke; Tanaka, Hiroaki; Kido, Shusaku; Harano, Toshihiko
6683661	US	1/27/2004	Liquid crystal display and
(09/924059)		(8/8/2001)	image display device using the same
			Matsumoto, Seiichi
7518586	US	4/14/2009	Method and circuit for
(09/925601)		(8/10/2001)	driving liquid crystal display and image display device
			Hosoyamada, Shunichi
KR10-0485506	KR	4/18/2005	Liquid crystal display device
(KR10-2001-0048360)		(8/10/2001)	and method of manufacturing thereof
			Kikkawa, Hironori;
			Maruyama, Muneo;
			Okamoto, Mamoru;
			Sakamoto, Michiaki;
			Yamamoto, Yuji
TWI202337	TW	5/11/2004	Liquid crystal display device
(TW090119732)		(8/10/2001)	and method for
			manufacturing the same
			Kikkawa, Hironori; Muneo,
			Maruyama; Yamamoto, Yuji;
			Okamoto, Mamoru;
			Sakamoto, Michiaki
6667777	US	12/23/2003	Liquid crystal display device
(09/927501)		(8/10/2001)	and method for
			manufacturing the same
			Kikkawa, Hironori;
			Maruyama, Muneo;
			Yamamoto, Yuji; Okamoto,
			Mamoru; Sakamoto, Michiaki

Patent/Application Number	<b>Country</b>	<u>Issue Date/</u> Filing Date	Title of Patent and Inventors
KR10-0458994	KR	11/19/2004	Liquid crystal display device
(KR10-2001-0055783)		(9/11/2001)	and method for manufacturing the same
	,		Matsumoto, Kimikazu
TWI200887 (TW090122554)	TW	4/11/2004 (9/11/2001)	Liquid crystal display and method of manufacturing same
			Matsumoto, Kimikazu
6873385 (09/949633)	US	3/29/2005 (9/12/2001)	Liquid crystal display with selectively placed barriers
			Matsumoto, Kimikazu
JP4966444 (JP2000-342844)	JP	4/6/2012 (11/10/2000)	TFT liquid crystal display device
			Tsubo, Yumiko
6831295 (10/008973)	US	12/14/2004 (11/8/2001)	TFT-LCD device having a reduced feed-through voltage
			Tsubo, Yumiko
KR10-0535531 (KR10-2001-0069662)	KR	12/2/2005 (11/9/2001)	TFT liquid crystal display device
			Tsubo, Yumiko
TWI185821 (TW090127998)	TW	9/1/2003 (11/9/2001)	TFT-LCD device having a reduced feed-through voltage
			Tsubo, Yumiko
6559917 (09/987088)	US	5/6/2003 (11/13/2001)	Pattern formation method using reflow enhancement layer and method for manufacturing reflective type liquid crystal display device using the same
			Ikeno, Hidenori
6583556 (09/994807)	US	6/24/2003 (11/28/2001)	Flat-type fluorescent lamp for illumination unit and liquid crystal device
			Oishi, Toshiya; Fujishiro, Fumihiko; Kanatsu, Tsutomu

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Patent/Application Number	<u>Country</u>	<u>Issue Date/</u> Filing Date	Title of Patent and Inventors
TWI285390	TW	8/11/2007	Flat-type fluorescent lamp for
(TW090129752)		(11/29/2001)	illumination unit and liquid crystal device
			Oishi, Toshiya; Fujishiro, Fumihiko; Kanatsu, Tsutomu
KR10-0485508 (KR10-2002-0007360)	KR	4/18/2005 (2/8/2002)	Liquid crystal display device and driving method thereof
			Yoshikawa, Fumitake
TWI189774 (TW091102723)	TW	11/1/2003 (2/8/2002)	Liquid crystal display device and driving method thereof
		A.	Yoshikawa, Fumitake
7033951 (10/077226)	US	4/25/2006 (2/15/2002)	Process for forming pattern and method for producing liquid crystal display apparatus
			Kido, Shusaku
7226865 (11/268811)	US	6/5/2007 (11/7/2005)	Process for forming pattern and method for producing liquid crystal display apparatus
			Kido, Shusaku
TWI200892 (TW091103514)	TW	4/11/2004 (2/26/2002)	Liquid crystal display with control electrodes for preventing lateral leak of electric field
			Sakamoto, Michiaki; Hidehira, Masanobu; Okamoto, Mamoru
KR10-0498254 (KR10-2002-0010678)	KR	6/21/2005 (2/27/2002)	Liquid crystal display with control electrodes for preventing lateral leak of electric field
			Hidehira, Masanobu; Okamoto, Mamoru; Sakamoto, Michiaki

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Patent/Application Number	<u>Country</u>	<u>Issue Date/</u> Filing Date	<u>Title of Patent and Inventors</u>
7136116 (10/084355)	US	11/14/2006 (2/28/2002)	Liquid crystal display with control electrodes for preventing lateral leak of electric field
TWI312884	TW	8/1/2009	Sakamoto, Michiaki; Hidehira, Masanobu; Okamoto, Mamoru Process for forming pattern
(TW091103004)		(2/21/2002)	Kido, Shusaku
6767694 (10/084848)	US	7/27/2004 (2/25/2002)	Process for forming pattern and method for producing liquid crystal display apparatus employing process for forming pattern
KR10-0494431	KR	C/1/2005	Kido, Shusaku
(KR10-2002-0011286)	KK	6/1/2005 (3/4/2002)	Liquid crystal display Kasuga, Koji
TWI300499 (TW091104220)	TW	9/1/2008 (3/5/2002)	Lamp unit, light guide plate, liquid crystal display, and method for assembling them
			Kasuga, Koji
6894738 (10/087787)	US	5/17/2005 (3/5/2002)	Lamp unit, light guide plate, liquid crystal display, and method for assembling them Kasuga, Koji
CNZL02141106.9 (CN02141106.9)	CN	4/26/2006 (7/4/2002)	Lamp unit, light conducting board, LCD and method for assembling same
CNZL02127598.X (CN02127598.X)	CN	7/6/2005 (8/2/2002)	Kasuga, Yasuji Liquid crystal display and manufacturing method thereof Okamoto, Mamoru; Sakamoto, Michiaki; Hidehira, Akinobu

Patent/Application Number	<u>Country</u>	<u>Issue Date/</u> Filing Date	Title of Patent and Inventors
6909418	US	6/21/2005	Image display apparatus
(10/119024)		(4/10/2002)	
			Arai, Nobuhiro
JP4875248	JP	12/2/2011	Liquid crystal display device
(JP2001-117002)		(4/16/2001)	and control circuit
			Ito, Masaatsu; Takami, Kazuhiko; Okuzono, Noboru
7030852	US	4/18/2006	Liquid crystal display unit
(10/122240)		(4/16/2002)	having incoming pixel data
· · ·			rearrangement circuit
			Ito, Masahiro; Takami,
CN127 00140104 5		10/0/000	Kazuhiko; Okuzono, Noboru
CNZL02140184.5	CN	12/3/2008	LCD unit with input pixel
(CN02140184.5)		(7/3/2002)	data reregulating circuit
			Ito, Masahiro; Takami,
			Iichihiko; Okuzo, Nobori
KR10-0512396	KR	8/29/2005	Liquid crystal display device
(KR10-2002-0020575)		(4/16/2002)	1 5
. ,			Kanatsu, Tsutomu; Ishida,
			Hiroshi
TWI182283	TW	7/21/2003	Liquid crystal display device
(TW091107717)		(4/16/2002)	
			Kanatsu, Tsutomu; Ishida,
			Hiroshi
6867825	US	3/15/2005	Liquid crystal display device
(10/122242)		(4/16/2002)	
			Kanatsu, Tsutomu; Ishida,
			Hiroshi
7057678	US	6/6/2006	Liquid crystal display device
(10/123653)		(4/16/2002)	having backlight with return
			substrate above or below a
		,	portion of lamp tubes
			Ishida, Hiroshi; Kanatsu,
			Tsutomu
6811458	US	11/2/2004	Method for manufacturing
(10/142287)		(5/9/2002)	liquid crystal display
			-quite of Jour displuy
			Kouya, Akiyoshi

Exhibit A, Page 80 of 87

Patent/Application Number	<u>Country</u>	<u>Issue Date/</u> Filing Date	Title of Patent and Inventors
6707525	US	3/16/2004	Liquid crystal display device
(10/226268)		(8/23/2002)	Elquid orystal display device
		()	Miyazaki, Tatsuya
KR10-0491324	KR	5/16/2005	Liquid crystal display
(KR10-2002-0051264)		(8/28/2002)	
<b>`</b>			Miyazaki, Tatsuya
TWI200737	TW	4/11/2004	Liquid crystal display device
(TW091119626)		(8/28/2002)	1 5 1
-			Miyazaki, Tatsuya
JP4771038	JP	7/1/2011	Liquid crystal display device
(JP2001-278590)		(9/13/2001)	i y spectrum
			Sato, Hiroki
KR10-0491325	KR	5/16/2005	Liquid crystal display
(KR10-2002-0055842)		(9/13/2002)	· · · · · · · · · · · · · · · · · · ·
			Satoh, Hiroki
TWI225565	TW	12/21/2004	Liquid crystal display (LCD)
(TW091120967)		(9/13/2002)	
			Sato, Hiroki
6870593	US	3/22/2005	Liquid crystal display cell
(10/242604)		(9/13/2002)	with improved spacer
			structure
			Satoh, Hiroki
TWI227361	TW	2/1/2005	
(TW092121767)	1 44	(8/8/2003)	Substrate for liquid-crystal display device and fabricatio
(1 (1 (1 (1 (1 (1 (1 (1 (1 (1 (1 (1 (1 (		(0/0/2003)	method thereof
			method mereor
· · · · · · · · · · · · · · · · · · ·			Ishino, Takayuki
6982769	US	1/3/2006	Substrate for liquid-crystal
(10/638000)		(8/8/2003)	display device and fabricatio
			method thereof
			Ishino, Takayuki
KR10-0560587	KR	3/7/2006	Substrate for liquid-crystal
(KR10-2003-0055209)		(8/9/2003)	display device and fabrication
			method thereof
			Ishino, Takayuki
6567327	US	5/20/2003	Driving circuit,
(09/924609)		(8/9/2001)	charge/discharge circuit and
· /			the like
			Tsuchi, Hiroshi

Patent/Application Number	<u>Country</u>	<u>Issue Date/</u> Filing Date	<u>Title of Patent and Inventors</u>
JP4491632	JP	4/16/2010	Driving method for liquid
(JP2000-107245)		(4/7/2000)	crystal display device
			Hasegawa, Fumio; Aoki, Makoto
6831627 (09/826252)	US	12/14/2004 (4/4/2001)	Driving method for liquid crystal display
			Hasegawa, Fumio; Aoki, Makoto
6727874 (09/988189)	US	4/27/2004 (11/19/2001)	Driving circuit and driving method of color liquid crystal display, and color liquid crystal display device
×			Okuzono, Noboru
7116297 (10/413458)	US	10/3/2006 (4/14/2003)	Liquid crystal display device and driving method for liquid crystal display device
		×	Koga, Koichi; Okuzono, Noboru; Yamaguchi, Machihiko
6747617 (09/714300)	US	6/8/2004 (11/16/2000)	Drive circuit for an organic EL apparatus
			Kawashima, Shingo
KR10-0454134 (KR10-2000-0068371)	KR	10/13/2004 (11/17/2000)	Organic EL driving circuit
			Kawashima, Shingo
TWI171629 (TW089103782)	TW	2/1/2003 (3/3/2000)	LCD panel and LCD device equipped therewith
			Nakajima, Keiichi
6587089	US	7/1/2003	LCD panel and LCD device
(09/518797)		(3/3/2000)	equipped therewith
			Nakajima, Keiichi
KR10-0330068	KR	3/13/2002	LCD panel and LCD device
(KR10-2000-0010871)		(3/4/2000)	equipped therewith
			Nakajima, Keiichi

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Patent/Application Number	Country	<u>Issue Date/</u> Filing Date	Title of Patent and Inventors
JP3147098	JP	1/12/2001	Driving circuit of liquid
(JP10-227635)		(7/28/1998)	crystal display device
			Tsuchi, Hiroshi
KR10-0275651	KR	9/22/2000	Driver for liquid crystal
(KR10-1998-0030359)		(7/28/1998)	display apparatus with no operational amplifier
			Tsuchi, Hiroshi
6127997	US	10/3/2000	Driver for liquid crystal
(09/123482)		(7/28/1998)	display apparatus with no operational amplifier
			Tsuchi, Hiroshi
6380006	US	4/30/2002	Pattern formation method and
(09/878198)		(6/12/2001)	method of manufacturing
· ,		, , ,	display using it
			Kido, Shusaku
6513943	US	2/4/2003	Backlight unit and display
(09/810542)		(3/19/2001)	device using the same
			backlight unit
			Fukuyoshi, Hirokazu
TWI176526	TW	4/21/2003	Backlight unit and display
(TW090106549)		(3/20/2001)	device using the same
			backlight unit
			Fukuyoshi, Hirokazu
KR10-0380769	KR	4/4/2003	Back-face light source and
(KR10-2001-0015112)		(3/23/2001)	display using the same
			Fukuyoshi, Hirokazu
JP3353832	JP	9/27/2002	Method and apparatus for
(JP11-312090)		(11/2/1999)	manufacture of thin-film
			transistor
			Takechi, Kazue
6579749	US	6/17/2003	Fabrication method and
(09/440615)		(11/15/1999)	fabrication apparatus for thin
·			film transistor
			Takechi, Kazushige

Patent/Application Number	<u>Country</u>	<u>Issue Date/</u> Filing Date	Title of Patent and Inventors
KR10-0411442 (KR10-1999-0050989)	KR	12/3/2003 (11/17/1999)	Method for manufacturing thin film transistor and an apparatus for manufacturing the transistor
6693697 (10/042144)	US	2/17/2004 (1/11/2002)	Daketzi, GazsigeActive-matrix type liquidcrystal display device havingthick and thin overcoat layerslayered over a black matrix
			Sakamoto, Michiaki; Yamamoto, Yuji; Okamoto, Mamoru; Kimura, Shigeru; Nakata, Shinichi; Kuroha, Shouichi; Hidehira, Masanobu; Horie, Yoshitaka; Ishino, Takayuki
TWI291067 (TW090111523)	TW	12/11/2007 (5/11/2001)	Fabrication method of liquid crystal display panel
7145628 (09/855148)	US	12/5/2006 (5/14/2001)	Sasaki, Takeshi Method for fabricating a liquid crystal panel comprising spacers having an initial size larger than an appropriate cell gap
7123314 (10/871000)	US	10/17/2006 (6/21/2004)	Sasaki, Takeshi Thin-film transistor with set trap level densities, and method of manufactures Matsunaga, Naoki; Sera,
6791656 (10/349937)	US	9/14/2004 (1/24/2003)	Kenji Liquid crystal display panel avoiding display unevenness and manufacturing method Akiyoshi Kouya

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		<u>Issue Date/</u>	
Patent/Application Number	<u>Country</u>	<u>Filing Date</u>	<u>Title of Patent and Inventors</u>
TWI278697	TW	4/11/2007	Liquid crystal display panel
(TW089119815)		(9/26/2000)	avoiding display unevenness
			and manufacturing method
			Akiyoshi Kouya
TWI269918	TW	1/1/2007	LCD panel and method of
(TW089126848)	1	(12/14/2000)	fabricating same
(1 # 00)1200+0)		(12/14/2000)	labricating same
			Takeshi Sasaki
6573972	US	6/3/2003	LCD panel and method of
(09/735806)		(12/14/2000)	fabricating same
			Takeshi Sasaki
JP5038560	JP	7/13/2012	Field-effect transistor,
(JP2001-233256)	51	(8/1/2001)	manufacturing method
(312001-233230)		(0/1/2001)	
			therefor, liquid crystal display
			device using the same and
			manufacturing method
			therefor
			Kenji Sera
6784456	US	8/31/2004	Field effect transistor as well
(10/207765)		(7/31/2002)	as liquid crystal display using
- /			the same
			Kenji Sera

(b) any future reissues, reexaminations, extensions, continuations, continuing prosecution application, requests for continuing examinations, divisions, and registrations of any of the Patents;

(c) rights to apply in any or all countries of the world for future patents, certificates of invention, utility models, industrial design protections, design patent protections, or other future governmental grants or issuances of any type related to the Patents; and

(d) causes of action and enforcement rights of any kind under, or on account of, any of the Patents and/or any of the items described in either of the foregoing categories (b) or (c), including, without limitation, all causes of action, enforcement rights and all other rights to seek and obtain any other remedies of any kind for past, current and future infringement.

Assignor hereby authorizes the respective patent office or governmental agency in each jurisdiction to issue any and all future patents, certificates of invention, utility models or other governmental grants or issuances that may be granted upon any of the Assigned Patent Rights in

#### Case 5:18-cv-04638 Document 1 Filed 08/01/18 Page 97 of 132

#### **Revised Exhibit A**

the name of Assignee, as the assignee to the entire interest therein. This Assignment of Patent Rights will inure for the benefit of any permitted successors or assigns of Assignee.

Assignor will, at the reasonable request of Assignee, take all reasonable steps necessary and proper, to confirm the assignment to Assignee of the Assigned Patent Rights pursuant to this Assignment of Patent Rights, including without limitation, the execution, acknowledgment, and recordation of specific assignments, oaths, declarations, and other documents on a country-bycountry basis, to assist Assignee in obtaining and perfecting the Assigned Patent Rights.

IN WITNESS WHEREOF this Assignment of Patent Rights is executed on <u>**HEBANARY**</u> 13, 2018.

ASSIGNOR

Getner Foundation LLC By: Name: 7/5 Title: STATE )SS. COUNTY OF

On <u>Februari 13, 2018</u>, before me, <u>Janice L. Goebel</u>, Notary Public in and for said State, personally appeared <u>Jim Weisfield</u>, personally known to me (or proved to me on the basis of satisfactory evidence) to be the person whose name is subscribed to the within instrument and acknowledged to me that he/she executed the same in his/her authorized capacity, and that by his/her signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument.

WITNESS my hand and official seal.

Signature \ Panico (Seal) my Comparission expires February 9, 2019

JANICE L. GOEBEL NOTARY PUBLIC STATE OF WASHINGTON COMMISSION EXPIRES FEBRUARY 9, 2019

- 76 -

### Case 5:18-cv-04638 Document 1 Filed 08/01/18 Page 98 of 132

ASSIGNEE

VISTA	N PEAK VENTURES, LLC	
By:	Spin (hull	
Name:	DAVID PRIPHAN	
Title:	CED	
	STATE OF Washington )	,
	COUNTY OF King )	
	On <u>February 13, 2018</u> , before me, <u>Unrice L.E.</u> Notary Public in and for said State, personally appeared <u>David</u> personally known to me (or proved to me on the basis of satisfactor person whose name is subscribed to the within instrument and ach he/she executed the same in his/her authorized capacity, and that is the instrument the person, or the entity upon behalf of which the the instrument.	<u>d Prid Warn</u> , ory evidence) to be the knowledged to me that by his/her signature on
	WITNESS my hand and official seal. Signature <u>langing he led</u> (Seal) Notary Public in a for the stale of Washington My commission expires February 9, 2019	JANICE L. GOEBEL NOTARY PUBLIC STATE OF WASHINGTON COMMISSION EXPIRES FEBRUARY 9, 2019

- 1 -

Case 5:18-cv-04638 Document 1 Filed 08/01/18 Page 99 of 132

# Exhibit B

#### PATENT ASSIGNMENT

# Electronic Version v1.1

Stylesheet Version v1.1

SUBMISSION TYPE:		NEW ASSIGNMENT			
NATURE OF CONVEYANCE:		ASSIGNMENT			
CONVEYING PARTY DATA					
		Ν	lame	Execution Date	
NEC Corporation				04/18/2011	
RECEIVING PARTY DA	ΓΑ				
Name:	Getner Founda	ition LL	с		
Street Address:	160 Greentree	Drive,	Suite 101		
City:	Dover				
State/Country:	DELAWARE				
Postal Code:	19904				
PROPERTY NUMBERS	Total: 1				
Property Ty	pe		Number		
Application Number:		131118	315		
CORRESPONDENCE D	ATA				
Fax Number:	(216)696				13111815
			the fax attempt is unsuccessful.		, , ,
Phone: Email:	216-696-		atentattorneys.com		۲. ۲
Correspondent Name:	Turocy &				00
Address Line 1:	127 Publ				00 00\$
Address Line 2:	57th Floc	r, Key [·]	Tower		<del>ý</del>
Address Line 4:	Cleveland	d, OHIC	) 44114		DD
ATTORNEY DOCKET NUMBER: VNECP281USA					
NAME OF SUBMITTER:		Thomas Watson			
Total Attachments: 8 source=US NEC Getner Assignment#page1.tif source=US NEC Getner Assignment#page2.tif source=US NEC Getner Assignment#page3.tif source=US NEC Getner Assignment#page4.tif source=US NEC Getner Assignment#page5.tif source=US NEC Getner Assignment#page7.tif source=US NEC Getner Assignment#page8.tif					

(US)

# Assignment

Whereas, NEC Corporation, a Japanese corporation, having a place of business at 7-1, Shiba 5-chome, Minato-ku, Tokyo 108-8001, Japan, hereinafter called Assignor, is the owner and assignee of record of the patents and pending applications listed on the attached Schedule A; and

Whereas, Getner Foundation LLC, having a place of business at 160 Greentree Drive, Suite 101, Dover, DE, 19904, U.S.A, hereinafter called Assignee, desires to acquire the Assignor's entire right, title, and interest in said patents and pending applications listed on the attached Schedule A;

Now therefore, for valuable consideration, receipt whereof is hereby acknowledged;

Assignor hereby sells, assigns and transfers to Assignee, its successors and assigns, its entire right, title and interest including rights to recover for past infringement in:

- (a) the patents and pending applications listed on the attached Schedule A, (b) all continuations, divisions, reissues and continuations-in-part thereof and all other patent applications claiming priority rights from the items in category (a), and (c) all U.S. patents or other governmental grants or issuances that may be granted on any applications within the foregoing categories (a) and (b), the items in categories (a), (b), and (c) individually and collectively referred to hereafter as the "*Patents*";
- 2. all inventions claimed or described in the Patents (the "Inventions");
- 3. all non-United States patents, patent applications, and counterparts relating to any or all of the Inventions or the Patents, including, without limitation, certificates of invention, utility models, industrial design protection, design patent protection, and other governmental grants or issuances ("Foreign Rights"), and including the right to file foreign applications directly in the name of Assignee, its successors and assigns;
- 4. the right to claim priority rights deriving from the Patents;
- 5. all causes of action and remedies related to the Patents, the Inventions, or Foreign Rights (including, without limitation, the right to sue for past, present, or future infringement, misappropriation or violation of rights related to any of the foregoing and the right to collect royalties and other payments under or on account of any of the foregoing); and

#### PATENT REEL: 026312 FRAME: 0210

#### Exhibit B, Page 2 of 9

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 any and all other rights and interests arising out of, in connection with, or in relation to, the Patents, the Inventions, or Foreign Rights.

IN WITNESS WHEREOF, Assignor has executed this Assignment by proper persons duly authorized.

Date: April 18, 2011

NEC Corporation Laguntich - Junogle

Nafne: Kazuhiko Yamada Title: General Manager, Intellectual Asset Development Promotion Division

Witness:

Date: April 18, 2011

Hingachi Johni Hingaki Ishiji

#### PATENT REEL: 026312 FRAME: 0211

Exhibit B, Page 3 of 9

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# Schedule A

#### **US Patents**

Application No.	Patent No.
09/711504	6730970
09/874296	6812528
10/084848	6767694
10/077226	7033951
11/268811	7226865
10/160071	6566154
10/189571	6617263
10/638000	6982769
10/338829	6734943
10/374601	6862061
10/620125	7027121
10/705864	6872603
10/770017	6985199
10/948758	7193678
10/745636	7012029
11/295462	7554207
11/822489	7491079
11/318519	7338911
11/802784	7518690
11/798090	7568574
10/242604	6870593
10/833318	7046327
10/990892	7218368
10/970737	7090365
11/007157	7280178
11/000153	7511301
11/131231	7345432
11/118432	7489295
11/375112	7564531
11/151349	7369206
11/345306	7350956
11/526571	7520655
11/362839	7372211
11/462112	7492434
11/299951	7212722
11/361756	7473657
11/398541	7341151
11/566130	7614758
11/582315	7499119
11/705832	7597469
11/586512	7373834

11/490119         7446825           512216         6435686           11/461959         7551340           11/522970         7534026           08/262934         5742362           08/326222         5847688           08/524624         5717467           09/473274         RE37551           08/626072         5677211           08/594233         5889569           09/178534         6110598           08/702949         5723878           08/702949         5723878           08/759083         5726726           08/767844         5874934           08/891385         6476882           08/920904         5805248           08/920904         5805248           08/921044         6285041           09/391514         6461901           08/869431         6292162           08/912790         5875009           08/912790         5875009           08/91385         6407842           08/914327         5929959           08/928511         5967799           08/89432         5995174           09/04150         6073369           09/10254         6028577	1	
11/461959         7551340           11/522970         7534026           08/262934         5742362           08/326222         5847688           08/326222         5847688           08/524624         5717467           09/473274         RE37551           08/626072         5677211           08/594233         5889569           09/178534         6110598           08/702949         5723878           08/759083         5726726           08/773345         5821159           09/081442         6107668           08/767844         5874934           08/891385         6476882           08/920904         5805248           08/921044         6285041           09/391514         6461901           08/869431         6292162           08/912790         5875009           08/912790         5875009           08/91385         6476882           08/914327         5929959           08/928511         5967799           08/883661         5885142           08/883432         5995174           09/012054         6028577           08/883432         5995174 </td <td>11/490119</td> <td>7446825</td>	11/490119	7446825
11/522970         7534026           08/262934         5742362           08/326222         5847688           08/524624         5717467           09/473274         RE37551           08/626072         5677211           08/626072         5677211           08/594233         5889569           09/178534         6110598           08/702949         5723878           08/759083         5726726           08/773345         5821159           09/081442         6107668           08/767844         5874934           08/891385         6476882           08/920904         5805248           08/921044         6285041           09/391514         6461901           08/869431         6292162           08/912790         5875009           08/912790         5875009           08/914327         5929959           08/914327         5929959           08/928511         5967799           08/83661         5885142           08/83832         5995174           09/012054         6028577           08/978647         6043859           09/107286         6211866 <td>512216</td> <td>6435686</td>	512216	6435686
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# **<u>US Patent Applications</u>**

Application No.	Patent No.
12/381737	
12/504981	
12/609786	

RECORDED: 05/19/2011

Exhibit B, Page 9 of 9

# Exhibit C

# PATENT ASSIGNMENT

### Electronic Version v1.1 Stylesheet Version v1.1

SUBMISSION TYPE:		NEW ASSIGNMENT			
NATURE OF CONVEYANCE:		ASSIGNMENT			
CONVEYING PARTY	DATA				
1		Name		Execution Da	ate
NEC Corporation				04/18/2011	
RECEIVING PARTY I	DATA				
Name:	Getner Foundatio	on LLC			
Street Address:	160 Greentree D	rive, Suite 101			
City:	Dover				
State/Country:	DELAWARE				
Postal Code:	19904				
					]
Property T	уре		Number		
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	10	160071 035222	Number		
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Application Number: Application Number:	10 ⁻ 100 100	)35222	Number		
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Application Number: Application Number: Application Number: Application Number:	10 ⁻ 100 100 091 102	035222 173518 707816	Number		
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Application Number:	09874296
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Application Number:	09826252
Application Number:	09906087
Application Number:	09988189
ļī.	PATENT

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	10413458
Application Number:	09714300
Application Number:	09518797
Application Number:	07582633
Application Number:	08425806
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II	PATENT

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Application Number:	09732920
Application Number:	10112947
Application Number:	10457928
Application Number:	10911833
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Application Number:	10272071
Application Number:	09956669
Application Number:	11295462
Application Number:	10778442
Application Number:	10793086
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Application Number:	10656138
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Application Number:	09671414
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Application Number:	10254710
Application Number:	10201132
Application Number:	11329452
Application Number:	10300735
11	PATENT

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	10778038
Application Number:	10778039
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Application Number:	10778041
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Application Number:	12609786
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Application Number:	12585789
Application Number:	10349937
Application Number:	10314299
Application Number:	10893298
Application Number:	09473274

### CORRESPONDENCE DATA

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Correspondence will be sent via US Mail when the fax attempt is unsuccessful		
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Email:	rwardzala@thepatentattorneys.com	
Correspondent Name:	Turocy & Watson, LLP	

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Address Line 2: 57th Floor, Ke	127 Public Square 57th Floor, Key Tower Cleveland, OHIO 44114	
ATTORNEY DOCKET NUMBER:	VNEC MATTERS	
NAME OF SUBMITTER:	Thomas E. Watson	
Total Attachments: 8 source=US NEC Getner Assignment#page1.tif source=US NEC Getner Assignment#page2.tif source=US NEC Getner Assignment#page3.tif source=US NEC Getner Assignment#page4.tif source=US NEC Getner Assignment#page5.tif source=US NEC Getner Assignment#page6.tif source=US NEC Getner Assignment#page7.tif source=US NEC Getner Assignment#page8.tif		

(US)

# Assignment

Whereas, NEC Corporation, a Japanese corporation, having a place of business at 7-1, Shiba 5-chome, Minato-ku, Tokyo 108-8001, Japan, hereinafter called Assignor, is the owner and assignee of record of the patents and pending applications listed on the attached Schedule A; and

Whereas, Getner Foundation LLC, having a place of business at 160 Greentree Drive, Suite 101, Dover, DE, 19904, U.S.A, hereinafter called Assignee, desires to acquire the Assignor's entire right, title, and interest in said patents and pending applications listed on the attached Schedule A;

Now therefore, for valuable consideration, receipt whereof is hereby acknowledged;

Assignor hereby sells, assigns and transfers to Assignee, its successors and assigns, its entire right, title and interest including rights to recover for past infringement in:

- (a) the patents and pending applications listed on the attached Schedule A, (b) all continuations, divisions, reissues and continuations-in-part thereof and all other patent applications claiming priority rights from the items in category (a), and (c) all U.S. patents or other governmental grants or issuances that may be granted on any applications within the foregoing categories (a) and (b), the items in categories (a), (b), and (c) individually and collectively referred to hereafter as the "*Patents*";
- 2. all inventions claimed or described in the Patents (the "Inventions");
- 3. all non-United States patents, patent applications, and counterparts relating to any or all of the Inventions or the Patents, including, without limitation, certificates of invention, utility models, industrial design protection, design patent protection, and other governmental grants or issuances ("Foreign Rights"), and including the right to file foreign applications directly in the name of Assignee, its successors and assigns;
- 4. the right to claim priority rights deriving from the Patents;
- 5. all causes of action and remedies related to the Patents, the Inventions, or Foreign Rights (including, without limitation, the right to sue for past, present, or future infringement, misappropriation or violation of rights related to any of the foregoing and the right to collect royalties and other payments under or on account of any of the foregoing); and

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### Exhibit C, Page 16 of 23

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 any and all other rights and interests arising out of, in connection with, or in relation to, the Patents, the Inventions, or Foreign Rights.

IN WITNESS WHEREOF, Assignor has executed this Assignment by proper persons duly authorized.

Date: April 18, 2011

NEC Corporation Laguntich - Junogle

Nafne: Kazuhiko Yamada Title: General Manager, Intellectual Asset Development Promotion Division

Witness:

Date: April 18, 2011

Hingachi Johni Hingaki Ishiji

### PATENT REEL: 026254 FRAME: 0397

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### Schedule A

### **US Patents**

Application No.	Patent No.
09/711504	6730970
09/874296	6812528
10/084848	6767694
10/077226	7033951
11/268811	7226865
10/160071	6566154
10/189571	6617263
10/638000	6982769
10/338829	6734943
10/374601	6862061
10/620125	7027121
10/705864	6872603
10/770017	6985199
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11/462112	7492434
11/299951	7212722
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Application No.	Patent No.
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