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Plaintiffs (1) A.M. Photo & Imaging Center, Inc., (2) CMP Consulting Services,
Inc., (3) Crago, Inc., (4) Home Technologies Bellevue LLC, (5) Nathan Muchnick, Inc.,
(6) Omnis Computer Supplies, Inc., (7) Orion Home Systems, LLC, (8) Phelps Technologies,
Inc., (9) Royal Data Services, Inc., (10) Univisions-Crimson Holding, Inc., and (11) Weber's
World Company, individually and on behalf of a Class of all those similarly situated, bring this
action for damages and injunctive relief under the antitrust laws of the United States against the
defendants, and allege on information and belief as follows:

I. <u>INTRODUCTION</u>

- 1. Plaintiffs bring this antitrust class action on behalf of all persons and entities who directly purchased a Thin Film Transistor-Liquid Crystal Display ("TFT-LCD") panel, or a product containing a TFT-LCD panel, in the United States from the named defendants, any subsidiaries or affiliates thereof, or any co-conspirators as identified in this Complaint between January 1, 1996 and December 11, 2006 (the "Class Period"). TFT-LCDs are used in a number of products, including but not limited to, computer monitors, televisions, and cellular telephones. As used herein, "TFT-LCD Products" refers to TFT-LCD panels, and products containing TFT-LCD panels, manufactured by any of the named defendants or their subsidiaries, affiliates, or co-conspirators.
- 2. As explained in further detail below, TFT-LCD panels are made by sandwiching liquid crystal compound between two pieces of glass called substrates. The resulting screen contains hundreds or thousands of electrically charged dots, called pixels, that form an image. This panel is then combined with a backlight unit, a driver, and other equipment to create a "module" allowing the panel to operate and be integrated into a television, computer monitor, or other product.
- 3. TFT-LCDs are manufactured in fabrication plants, or "fabs" as they are known in the industry. Fabrication plants are very expensive. The number of panels produced has a direct and significant effect on the price of both raw TFT-LCDs as well as the applications into which they are placed. Although TFT-LCD panels are used in different applications, the TFT-LCD production process is such that manufacturers' output and prices can be measured in a

consistent and homogeneous way. These and other conditions in the TFT-LCD industry enabled the price-fixing conspiracy detailed in this Complaint. In particular, these conditions enabled defendants to engage in direct discussions about the prices to be charged for TFT-LCD Products. Additionally, these conditions made it economically feasible to maintain artificially high prices through manipulation of supply.

- 4. Beginning in at least 1996, defendants located in Japan, including but not limited to Hitachi, Sharp, and Toshiba, met or talked with at least one other defendant in order to agree on TFT-LCD Product prices and the amount of TFT-LCD Products each would produce. As production in Korea began to increase, the Japanese defendants expanded their meetings to involve their Korean competitors, including defendants LG Display and Samsung, which also agreed to fix prices and to control supply. In 2001, the Korean defendants convinced Taiwanese TFT-LCD Product manufacturers, including defendants AU Optronics, Chi Mei, Chunghwa, and HannStar, to join the conspiracy to fix prices and to control product supply. Defendants' conspiracy included agreements on the prices at which defendants would sell TFT-LCD Products to their own corporate subsidiaries and affiliates, as well as their co-conspirators, thereby ensuring TFT-LCD Product prices remained consistent among defendants and their customers, which was an attempt to prevent any price discrepancies to consumers.
- 5. Throughout the Class Period, defendants' conspiracy was effective in moderating the normal downward pressures on prices for TFT-LCD Products caused by periods of oversupply and technological change. Defendants' conspiracy resulted in unusually long periods of high prices and high profits. Although there were periods when prices for TFT-LCD Products temporarily declined as a result of new entrants being assimilated, or breakdowns in the effectiveness of the conspiracy, those price declines were from levels that had been set conspiratorially high, rather than from levels set by free and open competition. In addition, prices declined less than they would have in a competitive market. As a result of defendants' unlawful conduct, plaintiffs and members of the Class paid higher prices for TFT-LCD Products than they would have paid in a competitive market.

II. JURISDICTION AND VENUE

- 6. Plaintiffs bring this action to obtain injunctive relief and to recover damages, including treble damages, costs of suit, and reasonable attorneys' fees arising from defendants' violations of Section 1 of the Sherman Act (15 U.S.C. § 1).
- 7. The Court has subject matter jurisdiction pursuant to Sections 4 and 16 of the Clayton Act (15 U.S.C. §§ 15 and 26) and 28 U.S.C. §§ 1331 and 1337.
- 8. Venue is proper in this judicial district pursuant to Section 12 of the Clayton Act (15 U.S.C. § 22) and 28 U.S.C. § 1391(b), (c), and (d) because a substantial part of the events giving rise to plaintiffs' claims occurred in this district, a substantial portion of the affected interstate trade and commerce was carried out in this district, and one or more of the defendants reside in this district.
- 9. Defendants are subject to the jurisdiction of this Court by virtue of their nationwide contacts and other activities, as well as their contacts with the State of California.

III. PARTIES

A. Plaintiffs

- 10. Plaintiff A.M. Photo & Imaging Center, Inc. is a Georgia corporation with its principal place of business in Atlanta, Georgia. During the Class Period, plaintiff purchased a TFT-LCD Product directly from one of the defendants and suffered injury as a result of defendants' unlawful conduct.
- 11. Plaintiff CMP Consulting Services, Inc. is a Florida corporation with its principal place of business in Miami, Florida. During the Class Period, plaintiff purchased TFT-LCD Products directly from one or more defendants and suffered injury as a result of defendants' unlawful conduct.
- 12. Plaintiff Crago, Inc., formerly known as Dash Computers, Inc., is a Kansas corporation with its principal place of business in Merriam, Kansas. During the Class Period, plaintiff purchased TFT-LCD Products directly from one or more defendants and suffered injury as a result of defendants' unlawful conduct.

- 13. Plaintiff Home Technologies Bellevue LLC is a Washington limited liability company with its principal place of business in Bellevue, Washington. During the Class Period, plaintiff purchased TFT-LCD Products directly from one or more of the defendants and suffered injury as a result of defendants' unlawful conduct.
- 14. Plaintiff Nathan Muchnick, Inc. was a Pennsylvania corporation that had its principal place of business in Philadelphia, Pennsylvania. During the Class Period, plaintiff purchased TFT-LCD Products directly from one or more defendants and suffered injury as a result of defendants' unlawful conduct.
- 15. Plaintiff Omnis Computer Supplies, Inc. is a New York corporation with its principal place of business in Schenectady, New York. During the Class Period, plaintiff purchased TFT-LCD Products directly from one or more defendants and suffered injury as a result of defendants' unlawful conduct.
- 16. Plaintiff Orion Home Systems, LLC is a Minnesota limited liability corporation with its principal place of business in Eagen, Minnesota. During the Class Period, plaintiff purchased TFT-LCD Products directly from one or more defendants and suffered injury as a result of defendants' unlawful conduct.
- 17. Plaintiff Phelps Technologies, Inc. is a Missouri corporation with its principal place of business in Overland Park, Kansas. During the Class Period, plaintiff purchased TFT-LCD Products directly from one or more defendants and suffered injury as a result of defendants' unlawful conduct.
- 18. Plaintiff Royal Data Services, Inc. is a Hawaii corporation with its principal place of business in Honolulu, Hawaii. During the Class Period, plaintiff purchased TFT-LCD Products directly from one or more defendants and suffered injury as a result of defendants' unlawful conduct.
- 19. Plaintiff Univisions-Crimson Holding, Inc. is a New York corporation with its principal place of business in Syracuse, New York. During the Class Period, plaintiff purchased TFT-LCD Products directly from one or more defendants and suffered injury as a result of defendants' unlawful conduct.

20. Plaintiff Weber's World Company is a partnership that operates a retail store in Dana Point, California. During the Class Period, plaintiff purchased TFT-LCD Products directly from one or more defendants and suffered injury as a result of defendants' unlawful conduct.

B. <u>Japanese Defendants</u>

1. Epson America

21. Defendant Epson Electronics America, Inc. ("Epson America") is a California corporation with its principal place of business at 2580 Orchard Parkway, San Jose, California. Epson America is a wholly-owned and controlled subsidiary of Seiko Epson Corporation, which is also the ultimate parent company of co-conspirator Epson Imaging Devices Corporation. During the Class Period, Epson America sold and distributed TFT-LCD Products manufactured by Epson Imaging Devices Corporation to customers throughout the United States.

2. Hitachi

- 22. Defendant Hitachi, Ltd. is a Japanese company with its principal place of business at 6-6, Marunouchi 1-chome, Chiyoda-ku, Tokyo, 100-8280, Japan. The company was one of the original producers of TFT-LCDs. In 2002, it spun off its TFT-LCD manufacturing assets to Hitachi Displays, Ltd., a wholly-owned subsidiary. During the Class Period, Hitachi, Ltd. manufactured, sold, and distributed TFT-LCD Products to customers throughout the United States.
- 23. Defendant Hitachi Displays, Ltd. is a Japanese company with its principal place of business at AKS Bldg. 5F, 6-2 Kanda Neribei-cho 3, Chiyoda-ku, Tokyo, 101-0022, Japan. Hitachi Displays, Ltd. was formed in 2002 and acquired defendant Hitachi, Ltd.'s TFT-LCD manufacturing business. Hitachi Displays, Ltd. is a wholly-owned and controlled subsidiary of Hitachi, Ltd. During the Class Period, Hitachi Displays, Ltd. manufactured, sold, and distributed TFT-LCD Products to customers throughout the United States. Hitachi Displays, Ltd. is a member of the joint venture IPS Alpha Technology, Ltd.
- 24. Defendant Hitachi Electronic Devices (USA), Inc. is a Delaware corporation with its principal place of business at 575 Mauldin Road, Greenville, South Carolina.

1	Its ultimate parent company is Hitachi, Ltd. During the Class Period, Hitachi Electronic Devices			
2	(USA), Inc. sold and distributed TFT-LCD Products manufactured by Hitachi, Ltd. and Hitachi			
3	Displays, Ltd. to customers throughout the United States.			
4	25. Defendants Hitachi, Ltd., Hitachi Displays, Ltd., and Hitachi Electronic			
5	Devices (USA), Inc. are sometimes referred to collectively herein as "Hitachi."			
6	3. <u>Sharp</u>			
7	26. Defendant Sharp Corporation is a Japanese company with its principal			
8	place of business at 22-22 Nagaike-cho, Abeno-ku, Osaka 545-8522, Japan. The company was			
9	one of the earliest producers of TFT-LCDs. During the Class Period, Sharp Corporation			
10	manufactured, sold, and distributed TFT-LCD Products to customers throughout the United			
11	States.			
12	27. Defendant Sharp Electronics Corporation is a New York corporation with			
13	its principal place of business at Sharp Plaza, Mahwah, New Jersey. Sharp Electronics			
14	Corporation is a wholly-owned and controlled subsidiary of defendant Sharp Corporation.			
15	During the Class Period, Sharp Electronics Corporation sold and distributed TFT-LCD Products			
16	manufactured by defendant Sharp Corporation to customers throughout the United States.			
17	28. Defendants Sharp Corporation and Sharp Electronics Corporation are			
18	sometimes referred to collectively herein as "Sharp."			
19	4. <u>Toshiba</u>			
20	29. Defendant Toshiba Corporation is a Japanese company with its principal			
21	place of business at 1-1, Shibaura 1-chome, Minato-ku, Tokyo 105-8001, Japan. Toshiba			
22	Corporation participates in two joint ventures that manufacture, sell, and distribute TFT-LCD			
23	Products – Toshiba Matsushita Display Technology Co., Ltd. and IPS Alpha Technology, Ltd.			
24	During the Class Period, Toshiba Corporation manufactured, sold, and distributed TFT-LCD			
25	Products to customers throughout the United States.			
26	30. Defendant Toshiba America Electronic Components, Inc. is a California			
27	corporation with its principal place of business at 19900 MacArthur Boulevard, Suite 400, Irvine,			
28	California. Toshiba America Electronic Components, Inc. is a wholly-owned and controlled			

1	subsidiary of Toshiba America, Inc., a holding company for defendant Toshiba Corporation.
2	Toshiba America Electronic Components, Inc. is the United States sales and marketing
3	representative for defendants Toshiba Corporation and Toshiba Matsushita Display Technology
4	Co., Ltd. During the Class Period, Toshiba America Electronic Components, Inc. sold and
5	distributed TFT-LCD Products manufactured by Toshiba Corporation to customers throughout
6	the United States.
7	31. Defendant Toshiba America Information Systems, Inc. is a California
8	corporation with its principal place of business at 9470 Irvine Boulevard, Irvine, California.
9	Toshiba America Information Systems, Inc. is a wholly-owned and controlled subsidiary of
10	Toshiba America, Inc. During the Class Period, Toshiba America Information Systems, Inc. solo
11	and distributed TFT-LCD Products manufactured by Toshiba Corporation to customers
12	throughout the United States.
13	32. Defendants Toshiba Corporation, Toshiba America Electronics
14	Components, Inc., and Toshiba America Information Systems, Inc. are sometimes referred to
15	collectively herein as "Toshiba."
16	5. <u>Toshiba Matsushita</u>
17	33. Defendant Toshiba Matsushita Display Technology Co., Ltd. ("Toshiba
18	Matsushita") is a Japanese company with its principal place of business at Rivage Shinagawa, 1-
19	8, Konan c4-chome, Minato-ku, Tokyo 108-0075, Japan. Toshiba Matsushita is a joint venture
20	between Toshiba Corporation and Panasonic Corporation (formerly known as Matsushita Electric
21	Industrial Co., Ltd.). Toshiba Matsushita was created for the purpose of manufacturing TFT-
22	LCD Products. During the Class Period, Toshiba Matsushita manufactured, sold, and distributed
23	TFT-LCD Products to customers throughout the United States.
24	C. <u>Korean Defendants</u>
25	1. <u>LG Display</u>
26	34. Defendant LG Display Co., Ltd., formerly known as LG.Philips LCD Co.,

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Ltd., is a Korean entity with its principal place of business at 17th Floor, West Tower, LG Twin

Towers 20, Yeouido-dong, Yeongdeungpo-gu, Seoul, Korea 150-721. LG Display Co., Ltd. was

l	created in July 1999 as a joint venture between LG Electronics, Inc. and Koninklijke Philips
2	Electronics N.V. In July 2004, LG Display Co., Ltd. became a public company, with LG
3	Electronics, Inc. and Koninklijke Philips Electronics N.V. as the controlling shareholders. LG
1	Display Co., Ltd. describes itself as "the global leader in the development and manufacture of
5	TFT-LCD panels for televisions, computer monitors, notebooks and emerging mobile
5	applications." During the Class Period, LG Display Co., Ltd. manufactured, sold, and distributed
7	TFT-LCD Products to customers throughout the United States.

- 35. Defendant LG Display America, Inc., formerly known as LG.Philips LCD America, Inc., is a California corporation with its principal place of business at 150 East Brokaw Road, San Jose, California. LG Display America, Inc. is a wholly-owned and controlled subsidiary of LG Display Co., Ltd. During the Class Period, LG Display America, Inc. sold and distributed TFT-LCD Products manufactured by LG Display Co., Ltd. to customers throughout the United States.
- 36. Defendants LG Display Co., Ltd. and LG Display America, Inc. are sometimes referred to collectively herein as "LG Display."

2. Samsung

- 37. Defendant Samsung Electronics Co., Ltd. is a Korean company with its principal place of business at Samsung Main Building, 250, Taepyeongno 2-ga, Jung-gu, Seoul 100-742, Korea. It is the world's largest producer of TFT-LCD Products. During the Class Period, it manufactured, sold, and distributed TFT-LCD Products to customers throughout the United States.
- 38. Defendant Samsung Electronics America, Inc. ("Samsung America") is a New York corporation with its principal place of business at 105 Challenger Road, Ridgefield Park, New Jersey. Samsung America is a wholly-owned and controlled subsidiary of defendant Samsung Electronics Company, Ltd. During the Class Period, Samsung America sold and distributed TFT-LCD Products manufactured by Samsung Electronics Company, Ltd. to customers throughout the United States.

- 16 Defendant AU Optronics Corporation America ("AU America") is a 17 California corporation with its principal place of business at 9720 Cypresswood Drive, Suite 241, 18 Houston, Texas. AU America was formerly known as Acer Display Technology America, Inc. 19 AU America is a wholly-owned and controlled subsidiary of defendant AU Optronics 20 Corporation. In 2006, Hsuan Bin Chen, the president and Chief Operating Officer of AU 21 Optronics Corporation, was simultaneously the Chairman of AU America. During the Class 22 Period, AU America sold and distributed TFT-LCD Products manufactured by AU Optronics to 23 customers throughout the United States.
 - Defendants AU Optronics Corporation and AU America are sometimes 43. collectively referred to herein as "AU Optronics."

2. Chi Mei

44. Defendant Chi Mei Corporation ("CMC") is a Taiwanese company with its principal place of business located at No. 59-1, San Chia, Jen Te, Tainan County, Taiwan 71702.

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CMC is the pa	CMC is the parent company for all of the Chi Mei entities herein. During the Class Period, CMC				
manufactured	, sold, a	nd distributed TFT-LCD Products to customers throughout the United			
States.					
	45.	Defendant Chi Mei Optoelectronics Corporation ("CMO") is a Taiwanese			

- company with its principal place of business at No. 3, Sec. 1, Huanshi Road, Southern Taiwan Science Park, Sinshih Township, Tainan County, 74147 Taiwan. It is a subsidiary of CMC. CMO was formed in 1998, and has since become a major manufacturer of TFT-LCD Products. During the Class Period, CMO manufactured, sold, and distributed TFT-LCD Products to customers throughout the United States.
- 46. Defendant CMO Japan Co., Ltd. ("CMO Japan") is a Japanese company headquartered at Nansei-Yaesu Bldg. 4F, 2-2-10 Yaesu, Chuo-ku, Tokyo 104-0028, Japan. Up until 2006, CMO Japan was known as International Display Technology, Ltd. CMO Japan is a wholly-owned and controlled subsidiary of defendant CMO. CMO Japan has been in the TFT-LCD business since 2001. During the Class Period, CMO Japan manufactured, sold, and distributed TFT-LCD Products throughout the United States.
- Defendant Chi Mei Optoelectronics USA, Inc. ("CMO USA") is a Delaware corporation with its principal place of business at 101 Metro Drive, Suite 510, San Jose, California. Up until 2006, CMO USA was known as International Display Technology U.S.A., Inc. CMO USA is a wholly-owned and controlled subsidiary of defendant CMO Japan. The Chairman of CMO USA in 2006, Chen-Lung Kuo, was previously the Chairman of CMO Japan's predecessor, and in or about 2007 became Vice President in charge of sales and marketing for CMO. Similarly, the President of CMO USA in 2006, Junichi Ishii, was previously the President of CMO Japan's predecessor. During the Class Period, CMO USA sold and distributed TFT-LCD Products manufactured by CMO Japan to customers throughout the United States.
- 48. Defendant Nexgen Mediatech, Inc. ("Nexgen") is a Taiwanese company with its principal place of business at No. 11-2, Jen Te 4th St., en Te Village Jen Te, Tainan 717 Taiwan. Nexgen is a wholly-owned and controlled subsidiary of CMC. During the Class Period,

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Nexgen sold and distributed TFT-LCD Products manufactured by CMO to customers throughout the United States.

- 49. Defendant Nexgen Mediatech USA, Inc. ("Nexgen USA") is a California corporation with its principal place of business at 16712 East Johnson Drive, City of Industry, California. Nexgen USA is a wholly-owned and controlled subsidiary of CMC. During the Class Period, Nexgen USA sold and distributed TFT-LCD Products manufactured by CMO to customers throughout the United States.
- 50. Defendants CMC, CMO, CMO Japan, CMO USA, Nexgen, and Nexgen USA are sometimes referred to collectively herein as "Chi Mei."

3. Chunghwa

- 51. Defendant Chunghwa Picture Tubes, Ltd. is a Taiwanese company with its principal place of business at 1127 Heping Road, Bade City, Taoyuan, Taiwan. It is a subsidiary of Tatung Company, a consolidated consumer electronics and information technology company based in Taiwan. Chunghwa Picture Tubes, Ltd.'s Board of Directors includes representatives from Tatung Company. The Chairman of Chunghwa Picture Tubes, Ltd., Weishan Lin, is also the Chairman and General Manager of Tatung Company. During the Class Period, Chunghwa Picture Tubes, Ltd. manufactured, sold, and distributed TFT-LCD Products to customers throughout the United States.
- 52. Tatung Company of America, Inc. ("Tatung America") is a California corporation with its principal place of business at 2850 El Presidio Street, Long Beach, California. Tatung America is a subsidiary of Tatung Company. Currently, Tatung Company owns approximately half of Tatung America. The other half is owned by Lun Kuan Lin, the daughter of Tatung Company's former Chairman, T.S. Lin. During the Class Period, Tatung America sold and distributed TFT-LCD Products manufactured by Chunghwa Picture Tubes, Ltd. to customers throughout the United States.
- 53. Defendants Chunghwa Picture Tubes, Ltd. and Tatung America are sometimes referred to collectively herein as "Chunghwa."

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4. HannStar

54. Defendant HannStar Display Corporation ("HannStar") is a Taiwanese company with its principal place of business at No. 480, Rueiguang Road, 12th Floor, Neihu Chiu, Taipei 114, Taiwan. HannStar has been in the business of manufacturing and selling TFT-LCD Products since 1998. During the Class Period, HannStar manufactured, sold, and distributed TFT-LCD Products to customers throughout the United States.

IV. AGENTS AND CO-CONSPIRATORS

- 55. The acts alleged against the defendants in this Complaint were authorized, ordered, or done by their officers, agents, employees, or representatives, while actively engaged in the management and operation of defendants' businesses or affairs.
- 56. Each defendant acted as the principal, agent, or joint venturer of, or for, other defendants with respect to the acts, violations, and common course of conduct alleged by plaintiffs.
- 57. Various persons and/or firms not named as defendants in this Complaint participated as co-conspirators in the violations alleged herein and may have performed acts and made statements in furtherance thereof. These co-conspirators include, but are not limited to, the companies listed in the following paragraphs.
- 58. Co-conspirator Epson Imaging Devices Corporation ("Epson Japan") is a Japanese company with its principal place of business at 4F Annex, World Trade Center Building, 2-4-1 Hamamatsu-cho, Minato-ku, Tokyo 105-6104 Japan. Up until December 28, 2006, Epson Japan was known as Sanyo Epson Imaging Devices Corporation. The company was originally formed as a joint venture between Seiko Epson Corporation and Sanyo Electric Co., Ltd. but is now a wholly-owned subsidiary of Seiko Epson Corporation. During the Class Period, Epson Japan manufactured, sold, and distributed TFT-LCD Products to customers throughout the United States.
- 59. Co-conspirator Hydis Technologies Co., Ltd., formerly known as BOE Hydis Technology Co., Ltd. ("Hydis"), is a Korean manufacturer of TFT-LCD Products. The company originated in 1989 as the LCD business division of Hyundai Electronics Industries Co.

1	("Hyundai"). It spun-off from Hyundai in 2001, and it was subsequently acquired by the BOE
2	Group. On September 18, 2006, Hydis filed for Court Receivership in South Korea. During the
3	Class Period, Hydis manufactured, sold, and distributed TFT-LCD Products to customers
4	throughout the United States.

- 60. Co-conspirator IPS Alpha Technology, Ltd. ("IPS Alpha") is a Japanese entity with its principal place of business at 3732 Hayano, Mobara-shi, Chiba 297-0037, Japan. IPS Alpha was formed in January 2005 as a joint venture by Hitachi Displays, Ltd., Toshiba Corporation, and Panasonic Corporation to manufacture and sell TFT-LCD panels for televisions. During the Class Period, IPS Alpha manufactured, sold, and distributed TFT-LCD Products to customers throughout the United States.
- 61. Co-conspirator Mitsubishi Electric Corporation ("Mitsubishi") is a Japanese entity with its principal place of business located at 2-7-3 Marunouchi, Chiyoda-ku, Tokyo 100-8310, Japan. Mitsubishi was an early developer of TFT-LCD technology, and in 1991, it entered into a joint venture with Asahi Glass Co., Ltd. to mass produce TFT-LCD panels. Mitsubishi owned 80 percent of the joint venture, called Advanced Display Incorporated. In September 1999, Mitsubishi purchased Asahi Glass' stake in Advanced Display Incorporated, making it a wholly-owned subsidiary. During the Class Period, Mitsubishi manufactured, sold, and distributed TFT-LCD Products to customers throughout the United States.
- 62. Co-conspirator Mitsui & Co., Ltd. ("Mitsui") is a Japanese entity with its principal place of business at Building 2-1, Ohtemachi 1-chome, Chiyoda-ku, Tokyo 100-0004, Japan. Mitsui, known as Mitsui Bussan Kabashiki Kaisha in Japanese, is a trading house for a diverse group of products. During the Class Period, Mitsui sold and distributed TFT-LCD Products to customers throughout the United States.
- 63. Co-conspirator NEC LCD Technologies, Ltd. ("NEC") is a Japanese company with its principal place of business at 1753 Shimonumabe, Nakahara-Ku, Kawasaki, Kangawa, 211-8666, Japan. It has been in the TFT-LCD business since 1993. During the Class Period, NEC manufactured, sold, and distributed TFT-LCD Products to customers throughout the United States.

1	64. Co-conspirator Panasonic Corporation ("Panasonic"), is a Japanese entity
2	with its principal place of business at 1006 Oaza Kadoma, Kadoma, Osaka 571-8501, Japan. Up
3	until October 1, 2008, Panasonic was known as Matsushita Electric Industrial Co., Ltd.
4	Panasonic holds a minority stake in two joint ventures – Toshiba Matsushita and IPS Alpha.
5	During the Class Period, Panasonic manufactured, sold, and distributed TFT-LCD Products to
6	customers throughout the United States.
7	65. Co-conspirator Panasonic Corporation of North America, formerly known
8	as Matsushita Electric Corporation of America, is a Delaware corporation with its principal place
9	of business at 1 Panasonic Way, Secaucus, New Jersey. Panasonic Corporation of North America
10	is a wholly-owned and controlled subsidiary of co-conspirator Panasonic. During the Class
11	Period, Panasonic Corporation of North America sold and distributed TFT-LCD Products
12	manufactured by Panasonic to customers throughout the United States.
13	V. <u>CLASS ACTION ALLEGATIONS</u>
14	66. Plaintiffs bring this action on behalf of themselves and all others similarly
15	situated (the "Class") pursuant to Federal Rules of Civil Procedure 23(a), 23(b)(2), and 23(b)(3).
16	The Class is defined as follows:
17	All persons and entities who, between January 1, 1996 and
18	December 11, 2006, directly purchased a TFT-LCD Product in the United States from any defendant or any subsidiary or affiliate
19	thereof, or any co-conspirator. Excluded from the Class are defendants, their parent companies, subsidiaries and affiliates, any
20	co-conspirators, all governmental entities, and any judges or justices assigned to hear any aspect of this action.
21	67. The Class definition encompasses those who bought a TFT-LCD Product
22	directly from a defendant, even if the TFT-LCD panel contained therein was manufactured by an
23	affiliated entity, principal, agent, or co-conspirator.
24	68. Plaintiffs do not know the exact size of the Class because such information
25	is in the exclusive control of the defendants. Due to the nature of the trade and commerce
26	involved, however, plaintiffs believe that the Class members are numerous and geographically
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of North America

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dispersed throughout the United States, rendering joinder of all Class members impracticable.

1	69.	The questions of law or fact common to the Class include but are not
2	limited to:	
3		a. whether defendants engaged in a contract, combination, and/or
4		conspiracy to fix, raise, maintain, or stabilize prices of TFT-LCD
5		Products sold in the United States;
6		b. whether defendants engaged in a contract, combination, and/or
7		conspiracy to restrict output of TFT-LCD Products sold in the
8		United States;
9		c. whether defendants' conduct caused the prices of TFT-LCD
10		Products sold in the United States to be at artificially high and
11		noncompetitive levels;
12		d. whether plaintiffs and the other members of the Class were injured
13		by defendants' conduct, and, if so, the appropriate class-wide
14		measure of damages for Class members; and
15		e. whether plaintiffs and the Class are entitled to, among other things,
16		injunctive relief, and if so, the nature and extent of such injunctive
17		relief.
18	70.	These and other questions of law and fact are common to the Class, and
19	predominate over any	y questions affecting only individual Class members.
20	71.	Plaintiffs' claims are typical of the claims of the Class because plaintiffs
21	directly purchased Tl	FT-LCD Products from one or more of the defendants.
22	72.	Plaintiffs will fairly and adequately represent the interests of the Class in
23	that plaintiffs are dire	ect purchasers of TFT-LCD Products and have no conflict with any other
24	members of the Class	s. Furthermore, plaintiffs have retained competent counsel experienced in
25	antitrust, class action	, and other complex litigation.
26	73.	Defendants have acted on grounds generally applicable to the Class,
27	thereby making final	injunctive relief appropriate with respect to the Class as a whole.
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- 74. This class action is superior to the alternatives, if any, for the fair and efficient adjudication of this controversy. Prosecution as a class action will eliminate the possibility of repetitive litigation. There will be no material difficulty in the management of this action as a class action.
- 75. The prosecution of separate actions by individual Class members would create the risk of inconsistent or varying adjudications, establishing incompatible standards of conduct for defendants.

VI. TRADE AND COMMERCE

- 76. During the Class Period, each defendant, or one or more of its subsidiaries, sold TFT-LCD Products in the United States in a continuous and uninterrupted flow of interstate commerce and foreign commerce, including through and into this judicial district.
- 77. During the Class Period, defendants collectively controlled a vast majority of the market for TFT-LCD Products, both globally and in the United States.
- 78. The business activities of the defendants substantially affected interstate trade and commerce in the United States and caused antitrust injury in the United States.

VII. **FACTUAL ALLEGATIONS**

A. **TFT-LCD Technology**

- 79. The technology behind TFT-LCDs is not new. In the 1950s and 1960s, RCA Corp. researched whether liquid crystals could be the basis for a new, lightweight, lowpower display technology. In the 1970s, after RCA Corp. discontinued its efforts, Japanese companies took the lead in commercializing liquid crystal technology. These efforts resulted in monochrome calculators and watches. By at least the early 1990s, liquid crystal technology was introduced in notebook computers and small, low-resolution televisions. In the mid-1990s, the technology advanced further with the development of TFT-LCDs.
- 80. As noted above, the basic structure of a TFT-LCD panel is two glass substrates sandwiching a layer of liquid crystal compound. Liquid crystals change orientation under an applied electric field and can thereby block or pass light. One glass substrate has thin chemical films that act as transistors, and the other glass substrate is coated with liquid pigments

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that act as color filters. When voltage is applied to the transistors, the liquid crystal bends,

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27 28 causing light to pass through the filters to create red, green, or blue pixels. Pixels are the smallest unit in a picture image, and the density of pixels in a display determines the resolution. 81. The term "active matrix" describes the ability to switch each pixel in a

- display individually. Unlike older LCDs that have one transistor for each row and column of pixels, TFT-LCDs have a transistor for each pixel. Thus, the term "active matrix LCD" is sometimes used interchangeably with TFT-LCD. Active matrix displays are brighter and sharper than passive matrix displays of the same size.
- 82. The glass substrates used for TFT-LCD panels begin with a "motherglass," a sheet of glass that is cut to make multiple panels. TFT-LCDs are manufactured in fabs that are equipped to handle a particular size motherglass. Technological innovations over time have allowed manufacturers to begin the manufacturing process with larger and larger size motherglass sheets. This, in turn, has resulted in the ability to fabricate larger and/or more TFT-LCD panels. Each increase in motherglass size is described as a generation. Third generation fabs in the 1998 to 1999 period typically utilized 550 millimeter ("mm") by 650 mm motherglass, while some current (eighth generation) fabs utilize 2160 mm by 2460 mm motherglass. The use of larger motherglass provides substantial cost savings to manufacturers.
- 83. TFT-LCDs are capable of producing the same image as cathode ray tubes ("CRTs"), but in a much smaller package. TFT-LCDs also have lower energy requirements, are generally easier to read, and do not flicker like CRTs. TFT-LCD panels of approximately 10 inches or less in diagonal are considered "small" or "medium" displays. They are also referred to as "mobile displays." These displays are commonly used in cell phones, personal digital assistants, and cameras.
- 84. TFT-LCDs of 10 inches in diagonal and larger are considered "large-area displays." Large-area displays are most commonly used for desktop computer monitors, notebook computers, and televisions. The core products during most of the Class Period were displays for notebook computers and computer monitors. During much of the Class Period, 14inch and 15-inch notebook computers and 15-inch to 17-inch computer monitors were the most

popular TFT-LCD Products, representing as much as 80 percent of all TFT-LCDs produced for notebook computers or computer monitors.

B. Structure of the TFT-LCD Industry

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85. The TFT-LCD industry has several characteristics that facilitated a conspiracy, including market concentration, ease of information sharing, the consolidation of manufacturers, multiple interrelated business relationships, significant barriers to entry, heightened price sensitivity to supply and demand forces, and homogeneity of products.

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1. <u>Market Concentration</u>

9 10 86. The market for TFT-LCD Products is very large. A September 28, 2006 *Reuters* article reported that "[m]anufacturers are expected to pump out 48.4 million LCDs for TVs this year alone, up 70 percent over 2005, while flat-panel sales – most of those using LCD

technology – are expected to reach \$US 88 billion this year and \$US 100 billion in 2007."

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87. Despite its enormous size, the TFT-LCD industry is highly concentrated, a factor that is conducive to the type of collusive activity alleged by plaintiffs. In 2005, the top five suppliers – Samsung, LG Display, Sharp, AU Optronics, and Chi Mei – collectively shipped 90 percent of all TFT-LCD panels for television use. According to estimates in late 2006 from

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industry analyst iSuppli Corporation ("iSuppli"), LG Display had the greatest share of LCD television shipments in the first quarter of 2006 (22.3%), followed by Samsung (20%), Chi Mei

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(18.7%), AU Optronics (16.8%), and Sharp (13.9%). These companies were the five largest

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producers as measured by market share during much of the Class Period.

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2. <u>Information Sharing</u>

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business arrangements such as joint ventures, allegiances between companies in certain countries,

Because of common membership in trade associations, interrelated

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and relationships between the executives of certain companies, there were many opportunities for defendants to discuss and exchange competitive information. The ease of communication was

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facilitated by the use of meetings, telephone calls, e-mails, and instant messages. Defendants

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took advantage of these opportunities to discuss, and agree upon, their pricing for TFT-LCD

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Products as alleged below.

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89. Additionally, the TFT-LCD industry is analyzed by several market research firms. Each of these firms offers, for a fee, monthly market data on pricing, supply, utilization of fabs, and other key indicators of market activity. The capacity and pricing data reported by these firms comes directly from manufacturers. Manufacturers typically report historical, current, and perhaps most importantly, prospective information. Thus, defendants had access to each other's future plans for bringing capacity on line, capacity utilization, market share, pricing, and the advent of new technology. Because there were very few companies that needed to be analyzed in order to obtain this data, all competitors in the TFT-LCD market had ready and timely access to reliable information about their competition's pricing as well as future supply and capacity decisions. By meeting together as herein below alleged as well as monitoring and analyzing this information over time, participants in the conspiracy were able to signal their respective intent, verify that the conspiracy was working, and identify any parties who might be deviating from the conspiracy.

3. <u>Consolidation</u>

90. The TFT-LCD industry experienced significant consolidation during the Class Period, including: (a) the creation of AU Optronics in 2001 through the merger of Acer Display and Unipac Electronics; (b) the creation of Toshiba Matsushita in 2002; (c) Fujitsu, Ltd.'s transfer of its LCD business to Sharp in 2005; (d) the formation of IPS Alpha in 2005 by Hitachi, Panasonic, and Toshiba; and (e) AU Optronics' acquisition in 2006 of Quanta Display, which resulted in AU Optronics becoming the third-largest manufacturer of TFT-LCD Products.

4. Multiple Interrelated Business Relationships

91. The industry is marked by a web of cross-licensing agreements, joint ventures, and other cooperative arrangements that can facilitate collusion. AU Optronics, for example, entered into licensing arrangements with Sharp in 2005 and Samsung in 2006. Chunghwa did likewise with Sharp in December of 2006. Chi Mei has licensing arrangements with Sharp, AU Optronics, Chunghwa, HannStar and Hitachi. A diagram illustrating these various licensing arrangements is attached hereto as Exhibit A.

92. The industry has a close-knit nature whereby multiple business relationships between supposed competitors blur the lines of competition and provided ample opportunity to collude. These business relationships also created a unity of interest among competitors so that the conspiracy was easier to implement and enforce than if such interrelationships did not exist. Exhibit A illustrates these relationships.

5. <u>High Costs of Entry Into the Industry</u>

- 93. There are significant manufacturing and technological barriers to entry into the TFT-LCD industry. Efficient fabs are large and costly. TFT-LCD Products are also subject to technological advances, so that firms within the industry must spend significant capital on research and development. DisplaySearch, a research firm in Austin, Texas that covers the TFT-LCD industry, reported in September 2005 that the top TFT-LCD manufacturers collectively spend \$30 million a day on property, plant, and equipment. A January 2006 DisplaySearch report noted that a typical seventh generation fab can cost more than \$3 billion.
- 94. During the Class Period, the costs of the assembly components, both as a whole and individually, have been generally declining, and, in some periods, declining at a substantial rate. Later in the conspiracy, approximately 70 percent of the cost of TFT-LCD panel production was attributable to the cost of raw materials. The combination of price discussions and manipulation of the output of TFT-LCD Products allowed defendants to keep prices above where they would have been but for the conspiracy.

6. The "Crystal Cycle"

95. Like all markets, the TFT-LCD industry is subject to business cycles of supply and demand. In the TFT-LCD industry, this cycle is known as the "crystal cycle." This cycle has been described as "boom and bust" periods caused by alternating periods of oversupply and shortages, which create downward and upward pressures on prices for TFT-LCD Products. One fact that can affect such oversupply is the perceived demand for such products and whether manufacturers have adequately predicted such demand in determining how much capacity to build and how many TFT-LCD Products to produce.

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96. Another factor is the entry of new competitors. Typically, when a new competitor enters a market, it brings incremental production online thereby adding supply, and prices drop until an equilibrium is reached. In the TFT-LCD industry, however, defendants conspired to rein in and discipline these new entrants until the new entrants were assimilated into the conspiracy. This had the effect of tempering price drops and preventing them from reaching a competitive equilibrium.

97. The conspiracy did not completely eliminate the effects of the crystal cycle in the TFT-LCD industry. There were periods when defendants' collusive practices drove prices for TFT-LCD Products so high that demand began to fall to the point that defendants lowered prices for short periods of time. However, defendants' efforts to stabilize prices were successful in moderating the effects of the crystal cycle, including the impact on prices paid by direct purchasers. To the extent that prices for TFT-LCD Products fell, they fell from levels that had been set conspiratorially, rather than from levels set by free and open competition. Additionally, prices did not fall as low as they would have absent the conspiratorial conduct.

7. **Dominant Products**

- 98. Notwithstanding that there may be different applications for TFT-LCDs, there is a consistent and homogeneous way for defendants to monitor, analyze, discipline, and enforce their conspiracy. This can be done by looking at the predominant, or most popular, size panels and the applications for those panels that represent the highest percentage of sales. This can also be accomplished by looking at standardized statistics used in the industry, such as the amount of glass produced and revenues per metric ton of glass. By using these, and other industry analytics, defendants could monitor, analyze, discipline, and enforce their conspiracy.
- 99. For example, from the fourth quarter of 1999 through mid-2003, half or more of the TFT-LCD monitor shipments were 15-inch monitors. From mid-2003 to early 2006, 17-inch monitors were the predominant size. As for TFT-LCD televisions, from the fourth quarter of 1999 through the fourth quarter of 2000, shipments were predominantly of 10-inch to 14-inch models. During 2001 and much of 2002, sales of 13-inch to 15-inch models dominated. And in 2004 and 2005, the majority of shipments were of 20-inch and 32-inch models. The

following chart shows the popularity of 14-inch to 15-inch notebook and 15-inch to 17-inch computer monitors.

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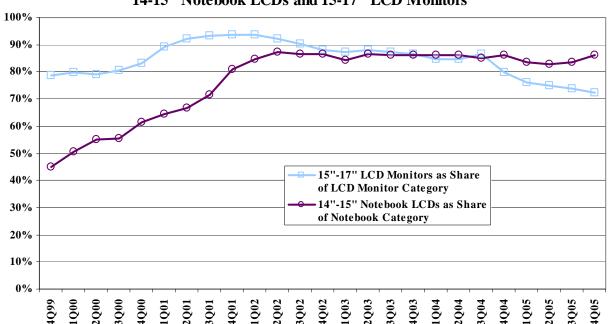
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Share of Shipments by Category 14-15" Notebook LCDs and 15-17" LCD Monitors



C. <u>Pre-Conspiracy Market</u>

100. Until the mid-1990s, Japanese companies like Hitachi, Toshiba, and Sharp were essentially the exclusive suppliers of TFT-LCD panels.

101. In early 1995, the industry faced declining TFT-LCD panel prices, which industry analysts attributed to advances in technology and improving efficiencies. One analyst in this period noted that the "flat panel display industry is following the classic cyclical business pattern of the semiconductor industry." The Japanese manufacturers realized that the capacity growth from investing in new plants was weakening the price of TFT-LCDs, and they slowed the rate of their investments. This, however, provided an opening to Korean manufacturers.

102. In 1995, three Korean companies – Samsung, LG Electronics, Inc. and, to a lesser extent, Hyundai – entered the market. These Korean firms offered comparable products at reduced prices in an effort to quickly gain market share. This resulted in increased competition in 1995, which contributed to the significant price declines seen during that timeframe.

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103. Increases in manufacturing capacity and decreases in manufacturing costs seemed to assure continuing price declines. By mid-1995, the Japanese companies and the new Korean competitors had a total capacity to supply 14 million TFT-LCD panels, while demand for them was only about three million. In addition to the surges in capacity during 1995, "[costs] were also dropping as production volume increases and manufacturing methods improved."

104. By late 1995, the effect of the entry by Korean suppliers had pushed down the price of some TFT-LCD panels by 50 percent from the previous year. The origin of the TFT-LCD conspiracy may be traceable to this trough in prices.

D. **Defendants' and Co-Conspirators' Illegal Agreements**

105. The TFT-LCD conspiracy was effectuated through a combination of group and bilateral discussions. In the formative years, when the Japanese defendants first entered into the conspiracy, bilateral discussions were the primary method of communication. During this period of the conspiracy, Hitachi, Sharp, and Toshiba met, or talked to, at least one other defendant about the prices for TFT-LCD Products, and thereby created a model for how the conspiracy would be carried out after the Korean, and later the Taiwanese defendants joined. These meetings among Hitachi, Sharp, and Toshiba included the discussion of price as well as capacity utilization. As more manufacturers entered the conspiracy, however, group meetings became more prevalent, until by 2001 a formal system of multilateral and bilateral meetings was in place.

1. "Crystal Meetings"

106. The group meetings among the participants in the TFT-LCD price-fixing conspiracy were referred to as "crystal meetings." Crystal meetings were attended by employees at three general levels of the defendants' corporations. The first level of these meetings were attended by the Chief Executive Officers or Presidents, and were known as "CEO" or "top" meetings. The second level were management-level meetings, referred to as "commercial" or "operation" meetings. The third level were meetings attended by lower-level sales and marketing personnel.

- 107. In a typical crystal meeting, the participants established a meeting agenda that included a discussion of the past month's producer shipments, customer demand, capacity utilization, and prices. Meeting participants shared information relating to all of these topics so that defendants could agree on what price each would charge for TFT-LCD panels to be sold in the following month. Meeting participants discussed and agreed upon target prices, floor prices, and price ranges for TFT-LCD panels. They also discussed prices of TFT-LCD panels that were sold to specific customers, and agreed upon target prices to be used in negotiations with large customers.
- 108. The purpose of the CEO or top meetings was to stabilize or raise prices. At the CEO meetings, the participants discussed prices and the supply and demand situation. The participants also discussed monthly and quarterly TFT-LCD fab output and supply figures, as well as the number of production days the fabs would operate for the next month, and agreed on output restrictions. Each meeting had an individual designated as the "chairman" who would use a projector or a whiteboard to put up figures on supply and demand and price for the group to review. The attendees would take turns making comments and adjusting the numbers. At some point during the meeting, the participants would reach an agreement on price.
- 109. The commercial or operation meetings were attended by the defendants' respective Vice Presidents of sales and marketing and other senior sales employees. The structure and content of the commercial meetings was largely the same as the CEO meetings. The participants discussed price, output, capacity, and the general market situation. These meetings occurred approximately monthly and sometimes quarterly.
- 110. Each of the participants in these meetings knew, and in fact discussed, the significant impact that the price of TFT-LCD panels has on the cost of the finished products into which they are placed. Defendants knew that the conspiratorially high prices of TFT-LCD panels would be reflected in the prices for finished TFT-LCD Products, and thus, there was no need to specifically discuss the prices of finished TFT-LCD Products.
- 111. The agreements reached at these meetings included: (1) establishing target prices, floor prices, and price ranges; (2) placing agreed-upon values on various attributes of

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27 28 panels, such as quality or certain technical specifications; (3) what to tell customers as the reason for price increases; (4) coordinating uniform public statements regarding anticipated supply and demand; (5) exchanging information about fabrication plant utilization and production capacity; and (6) reaching out to other competitors to encourage them to abide by the agreed-upon pricing. The meeting participants also agreed to maintain or lower production capacity.

- 112. Compared to the CEO and commercial meetings, the lower level meetings were less formal, and typically occurred at restaurants over lunch. The purpose of the lower level meetings was to exchange market information that would facilitate implementation of the conspiracy and carry out the agreements made at the CEO and commercial meetings. Participants in the lower level meetings exchanged information relating to past and future prices of TFT-LCD Products and shipment quantities.
- 113. In the summer of 2006, defendants discontinued the lower level meetings in favor of coordinated one-on-one meetings. The meetings were coordinated so that on the same date, two sets of competitors met one-on-one. After that meeting, each of them met one-on-one with another competitor. This continued until all competitors met with each other. These coordinated meetings took place until about November or December 2006. It was defendants' specific intent to conceal their meetings and for these coordinated one-on-one meetings to accomplish the same purposes as the group meetings.

2. **Bilateral Discussions**

- 114. The crystal meetings were supplemented by bilateral discussions between various defendants. The purpose of the bilateral discussions was to exchange information about past and future pricing, as well as information about shipments.
- 115. Defendants had bilateral discussions with each other during price negotiations with customers to avoid being persuaded by customers to cut prices. These discussions, usually between sales and marketing employees, took the form of in-person meetings, telephone calls, e-mails, and instant messages. The information gained in these communications was then shared with supervisors and taken into account in determining the price to be offered.

116. Bilateral discussions were also used to synchronize prices with manufacturers that did not ordinarily attend the group meetings. For example, HannStar was responsible for notifying Hitachi of the pricing agreements reached at the crystal meetings. Hitachi implemented the agreed-upon pricing as conveyed by HannStar. In this way, Hitachi participated in the conspiracy to fix the prices of TFT-LCD Products.

3. <u>Defendants' and Co-Conspirators' Participation in Group and</u> Bilateral Discussions

- 117. Defendant AU Optronics participated in multiple CEO, commercial, and lower level meetings, as well as bilateral discussions, between at least 2001 and 2006.

 Additionally, Quanta Display Inc. and Unipac Electronics, which merged with AU Optronics, participated in lower level meetings. Through these discussions, AU Optronics agreed on prices and supply levels for TFT-LCD Products.
- 118. Defendant Chi Mei participated in multiple CEO, commercial, and lower level meetings, as well as bilateral discussions, between at least 2001 and 2006. Through these discussions, Chi Mei agreed on prices and supply levels for TFT-LCD Products.
- 119. Defendant Chunghwa participated in multiple CEO, commercial, and lower level meetings, as well as bilateral discussions, between at least 2001 and 2006. Through these discussions, Chunghwa agreed on prices and supply levels for TFT-LCD Products.
- 120. Defendant HannStar participated in multiple CEO, commercial, and lower level meetings, as well as bilateral discussions, between at least 2001 and 2006. Through these discussions, HannStar agreed on prices and supply levels for TFT-LCD Products.
- 121. Defendant Hitachi had multiple bilateral discussions during the Class Period, and agreed on prices and supply levels for TFT-LCD Panels.
- 122. Defendant LG Display participated in multiple CEO, commercial, and lower level meetings, as well as bilateral discussions, between at least 2001 and 2006. Through these discussions, LG Display agreed on prices and supply levels for TFT-LCD Products.

- 123. Defendant Samsung participated in multiple CEO, commercial, and lower level meetings, as well as bilateral discussions, between at least 2001 and 2006. Through these discussions, Samsung agreed on prices and supply levels for TFT-LCD Products.
- 124. Defendant Sharp participated in multiple group and bilateral meetings during the Class Period, and agreed on prices and supply levels for TFT-LCD Products.
- 125. Defendant Toshiba participated in bilateral discussions during the Class Period, and agreed on prices and supply levels for TFT-LCD Products.
- 126. Co-conspirator Hydis participated in multiple lower level meetings between at least 2002 and 2005. In addition, Hydis had a bilateral meeting with a Taiwanese defendant at least as recently as 2005. Through these discussions, Hydis agreed on prices and supply levels for TFT-LCD Products.
- 127. Co-conspirator Mitsubishi participated in multiple lower level meetings in 2001 with Chi Mei, Chunghwa, Samsung, and Unipac Electronics (later AU Optronics). Through these meetings, Mitsubishi agreed on prices and supply levels for TFT-LCD Products.
- 128. Co-conspirator Mitsui had at least one bilateral meeting, which included a discussion about customers and future pricing, with a Taiwanese defendant in 2001. Mitsui was acting as an agent for co-conspirator Epson Japan in this discussion. Mitsui and Epson Japan agreed on prices and supply levels for TFT-LCD Products.
- 129. Co-conspirator NEC participated in meetings or discussions during the Class Period with at least one other defendant or co-conspirator, which included discussions about prices for TFT-LCD Products.
- 130. When plaintiffs refer to a corporate family or companies by a single name in their allegations of participation in the conspiracy, it is to be understood that the plaintiffs are alleging that one or more employees or agents of entities within the corporate family engaged in conspiratorial meetings on behalf of every company in that family. In fact, the individual participants in the conspiratorial meetings and discussions did not always know the corporate affiliation of their counterparts, nor did they distinguish between the entities within a corporate family. The individual participants entered into agreements on behalf of, and reported these

meetings and discussions to, their respective corporate families. As a result, the entire corporate family was represented in meetings and discussions by their agents and were parties to the agreements reached in them. Furthermore, to the extent that subsidiaries within the corporate families distributed TFT-LCD Products to direct purchasers, these subsidiaries played a significant role in the conspiracy because defendants wished to ensure that the prices for such products paid by direct purchasers would not undercut the pricing agreements reached at these various meetings. Thus, all entities within the corporate families were active, knowing participants in the alleged conspiracy.

131. Defendant Epson America is a wholly-owned and controlled subsidiary of co-conspirator Epson Japan and, as alleged above, Epson Japan was represented by co-conspirator Mitsui at one of the bilateral meetings described above. Mitsui served as an agent of, and under the direction of, Epson Japan and Epson America. Epson Japan and Epson America, through their agent, were parties to the agreements made at those meetings and acted as co-conspirators. In addition, to the extent Epson America distributed TFT-LCD Products to direct purchasers, it played a significant role in the conspiracy because defendants wished to ensure that the prices for such products paid by direct purchasers did not undercut the pricing agreements reached at these various meetings. Epson America was an active, knowing participant in the alleged conspiracy.

Corporation and Panasonic, and one or more of the partners in this joint venture participated in the meetings described above. As a result, Toshiba Matsushita was represented at those meetings by its agents and was a party to the agreements entered into by its joint venture partners at them. As explained above, the agreements at these meetings included agreements on price ranges and output restrictions. The joint venture partners controlled Toshiba Matsushita's production levels and the prices of TFT-LCD Products the joint ventures sold both to the joint venture partners and other non-affiliated companies. Thus, this defendant was an active, knowing participant in the alleged conspiracy.

Toshiba Corporation, and Panasonic, and one or more of the partners in this joint venture participated in the meetings described above. As a result, IPS Alpha was represented at those meetings and was a party to the agreements entered into by its joint venture partners at them. As explained above, the agreements at these meetings included agreements on price ranges and output restrictions. The joint venture partners had substantial control over IPS Alpha's production levels and the prices of TFT-LCD Products the joint ventures sold both to the joint venture partners and other non-affiliated companies. Thus, IPS Alpha and Panasonic were active, knowing participants in the alleged conspiracy.

E. <u>International Government Antitrust Investigations</u>

- 134. Defendants' conspiracy to restrict artificially the output of, and to raise the prices for, TFT-LCD Products sold in the United States during the Class Period, is demonstrated by a multinational investigation commenced by the United States Department of Justice ("DOJ") and others in late 2006.
- European Union, and the United States revealed the existence of a comprehensive investigation into anti-competitive activity among TFT-LCD manufacturers. In a December 11, 2006 filing with the Securities and Exchange Commission, defendant LG Display disclosed that officials from the Korea Fair Trade Commission and Japanese Fair Trade Commission ("JFTC") had visited the company's Seoul and Tokyo offices and that the DOJ had issued a subpoena to its San Jose office.
- 136. On December 12, 2006, news reports indicated that in addition to LG Display, TFT-LCD makers Samsung, Sharp, Epson, and AU Optronics were also under investigation. The JFTC stated that the probe was related to price-fixing. On that same date, the European Commission confirmed publicly that it as well was investigating the possibility of a cartel agreement and price-fixing among manufacturers of TFT-LCD Products.
- 137. On November 12, 2008, the DOJ announced that it had reached agreements with three TFT-LCD manufacturers LG Display Co. Ltd. (and its U.S. subsidiary, LG Display

1	1 America Inc.) Shorn Corneration, and Chunghaya Dicture Tubes, I	td to pland quilty and pay a		
	America Inc.), Sharp Corporation, and Chunghwa Picture Tubes, Ltd. – to plead guilty and pay a			
2	total of \$585 million in criminal fines for their roles in the conspiracy to fix prices of TFT-LCD			
3	3 panels.			
4	4 138. LG Display Co. Ltd and LG Display Americ	ea Inc. agreed to plead guilty		
5	5 and pay a \$400 million fine for their participation in a conspiracy f	from September 2001 to June		
6	6 2006 to fix the price of TFT-LCD panels sold in the United States.			
7	7 Chunghwa Picture Tubes, Ltd. agreed to ple	ad guilty and pay a \$65 million		
8	8 fine for its participation in a conspiracy from September 2001 to D	fine for its participation in a conspiracy from September 2001 to December 2006 to fix the price		
9	of TFT-LCD panels sold in the United States.			
10	10 140. The DOJ charged LG Display Co., Ltd., LG	Display America Inc., and		
11	11 Chunghwa Picture Tubes, Ltd. with carrying out the conspiracy by	:		
12	a. participating in meetings, conversation	ons, and communications in		
13	Taiwan, Korea and the United States	to discuss the prices of TFT-		
14	14 LCD panels;			
15	b. agreeing during those meetings, conv	versations and communications		
16	to charge prices for TFT-LCD panels	s at certain pre-determined		
17	17 levels;			
18	c. issuing price quotations in accordance	e with the agreements reached		
19	19 and			
20	d. exchanging information on sales of T	TFT-LCD panels, for the		
21	21 purpose of monitoring and enforcing	adherence to the agreed-upon		
22	22 prices.			
23	23 141. Sharp Corporation agreed to pay a \$120 mill	lion fine for its participation in		
24	conspiracies to fix the price of TFT-LCD panels sold to Dell, Inc. f	from April 2001 to December		
25	25 2006 for use in computer monitors and laptops; to Motorola, Inc. fr	2006 for use in computer monitors and laptops; to Motorola, Inc. from autumn 2005 to the midd		
26	of 2006 for use in Razr mobile phones; and to Apple Computer, Inc.	of 2006 for use in Razr mobile phones; and to Apple Computer, Inc. from September 2005 to		
27	December 2006 for use in iPod portable music players.			

1	142.	Sharp	Corporation agreed to plead guilty to fixing the price of TFT-LCD
2	panels sold to Dell between 2001 and 2006 by:		
3		a.	participating in bilateral meetings, conversations, and
4			communications in Japan and the United States to discuss the prices
5			of TFT-LCD panels to be sold to Dell;
6		b.	agreeing during those bilateral meetings, conversations and
7			communications to charge prices of TFT-LCD panels at certain pre-
8			determined levels to Dell;
9		c.	issuing price quotations in accordance with the agreements reached
10			and
11		d.	exchanging information on sales of TFT-LCD panels to be sold to
12			Dell for the purpose of monitoring and enforcing adherence to the
13			agreed-upon prices.
14	143.	Sharp	Corporation agreed to plead guilty to fixing the price of TFT-LCD
15	panels sold to Motor	ola and	Apple between 2005 and 2006 by:
16		a.	participating in bilateral meetings, conversations, and
17			communications in Japan and the United States to discuss the prices
18			of TFT-LCD panels to be sold to Apple and Motorola;
19		b.	agreeing during those bilateral meetings, conversations and
20			communications to charge prices of TFT-LCD panels at certain pre-
21			determined levels to Apple and Motorola;
22		c.	issuing price quotations in accordance with the agreements reached
23			and
24		d.	exchanging information on sales of TFT-LCD panels to be sold to
25			Apple and Motorola, for the purpose of monitoring and enforcing
26			adherence to the agreed-upon prices.
27	144.	These	e guilty pleas demonstrate that the investigations into the TFT-LCD
28	industry are not mere	e inforn	nation gathering efforts by regulatory authorities. In fact, as the
			FIRST AMENDED DIRECT PURCHASER

DOJ's representative told this Court at the September 19, 2007 hearing, the DOJ's investigation into the TFT-LCD industry is premised in part on insider information that presents a detailed "road map" of the conspiracy. Plaintiffs hereby incorporate by reference the *in camera* submissions made by the DOJ to this Court that have been represented to explain the contours of this conspiracy.

Toshiba was one of Sharp's principal competitors in the sale of TFT-LCD panels to Dell and Apple during the periods set forth in the DOJ's information against Sharp. Toshiba sold TFT-LCD panels to Dell between 2000 and 2006, and it sold TFT-LCD panels for use in Apple's iPod music players between 2001 and 2006. In fact, Toshiba was one of Apple's largest, if not largest, supplier of iPod screens for a substantial part of the Class Period. In the small-to-medium size TFT-LCD display market, Toshiba Matsushita was ranked second (behind Sharp) in worldwide market share in the first half of 2005, holding a 15.4 percent market share during the first quarter and a 14.1 percent market share during the second quarter. Toshiba's high percentage of TFT-LCD revenues dictated that no conspiracy would be effective without its participation. Sharp could not have successfully fixed the prices of the TFT-LCD panels it sold to Dell and Apple unless Toshiba, one of its biggest competitors, agreed not to undersell it.

F. Market During the Conspiracy

146. After initial introduction into a market, consumer electronics products and their component parts are typically characterized by downward pricing trends. However, since at least 1996, the TFT-LCD Products market has been characterized by unnatural and sustained price stability, as well as certain periods of substantial increases in prices. Defendants achieved price stability and price increases by agreeing to fix and maintain prices and to restrict supply through decreases in capacity utilization and restraint in new plant investment.

147. As described herein, defendants' TFT-LCD cartel evolved over time.

Defendants initiated their cartel when TFT-LCD Products were in their relative infancy. At that time, defendants balanced the desire to set prices collusively with the industry goal of establishing their products in the marketplace. As the cartel matured, new entrants were co-opted, and

production costs declined. At the same time, conspirators learned how they could best mitigate the crystal cycle by agreeing on prices and output.

1. <u>1996</u>

- 148. By early 1996, analysts were lamenting the excess supply and drastic price cuts in the TFT-LCD markets. The downward pressure on prices, which had already fallen 40 to 50 percent in 1995, was projected to continue due to lower manufacturing costs. Despite this, TFT-LCD Product prices actually rose in 1996, allegedly due to insufficient production capacity. In reality, defendants were fixing the prices.
- 149. During this period, the Japanese companies herein began to partner with Taiwanese companies to trade technology and collaborate on supply. Japanese engineers were lent to Taiwanese firms, and Taiwanese output was shipped to Japan. This mutually beneficial relationship between purported competitors continued into at least 1999.
- 150. A few months into 1996, there was a reversal in the downward trend in TFT-LCD Product prices and an alleged inability of manufacturers to supply enough TFT-LCD panels to meet demand. By May of 1996, an industry magazine was reporting that, "[f]lat-panel-display purchasers are riding a roller coaster of pricing in the display market, with no clear predictability anytime soon Perplexed purchasers trying to keep up with the gyrating market can take solace that even vendors are constantly being surprised by the sudden twists and turns."
- 151. By mid-1996, industry analysts were commenting on an unusual rise in TFT-LCD panel prices that was noted to be "quite rare in the electronics industry."
- 152. The "rare" increase in TFT-LCD panel prices was due to the agreements reached by the Japanese companies to increase prices. These companies met and agreed to increase prices and control supply in order to stop any price erosion as herein alleged.
- 153. 1996 also brought the advent of third generation fabs. In order to stay current with technology, manufacturers were moving quickly into third generation motherglass. LG Electronics, Inc. was scheduled to have its third generation fab online by 1997, and Hyundai was scheduled to do so by early 1998. However, manufacturers falsely claimed to be operating at full capacity and unable to meet demand, despite the millions of units of over-capacity that had

supposedly existed months earlier. This resulted in surging prices. These price increases were also inconsistent with the fact that production had become more efficient and cost effective.

2. <u>1997 – 1998</u>

- Taiwan to provide the Taiwanese manufacturers with the most up-to-date technology. In return, the Japanese received output from Taiwanese plants. In 1998, Chi Mei entered into such a strategic alliance with Fujitsu, a Japanese manufacturer that Sharp acquired in 2005. These arrangements between Japanese and Taiwanese companies resulted in cooperative discussions between supposed competitors. It was also expected to contribute to an increase in supply of TFT-LCD panels.
- 155. By 1998, the TFT-LCD industry still had excess capacity, due in part to the still recent entry of the Korean companies. A March 30, 1998 article in *Electronic News* reported that Hyundai's production lines were running at only 20 to 50 percent of capacity. The article quoted Rob Harrison, director of marketing for Hyundai's display division, as saying, "There is plenty of inventory and capacity available to suit any shortage You have to get your production up to full capacity again before you can even talk about there being a shortage and I think there are plenty of under-capacity fabs right now to bear the burden."
- 156. During this period, Samsung made a concerted effort to get other manufacturers in the industry to limit production. Yoon-Woo Lee, President and CEO of the Semiconductor Division of Samsung Electronics Co., Ltd. gave the keynote address at the Eighteenth International Display Research Conference (known as Asia Display 98). Mr. Lee said:

In order to maintain the tradition of top CRT manufacturer, we need to capture the high end market [and] deviate from the volume production of CRTs and LCDs.

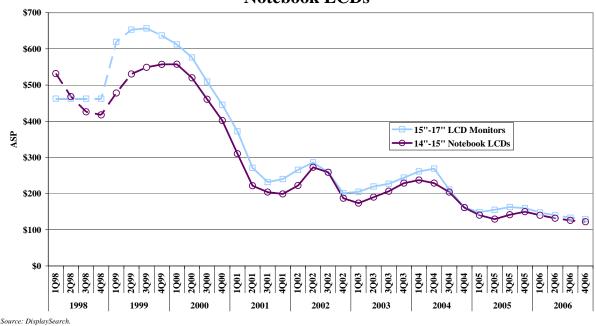
Taiwan is trying to enter TFT-LCD business because it has the advantage of the large PC production. To survive in this rapidly changing environment, we have to revise our previous strategies and redirect our business plans. It is time for fundamental shift for future decisions, time for transformation from volume driven to cost driven, time for driving value added strategies.

If we prepare now by shifting from the traditional business approach, to value added new approach, we may be able to deviate from repeating the "crystal cycle" again.

[Emphasis added.]

157. Samsung's effort to limit production, capacity restraints and the price-fixing agreement caused decreases in prices of TFT-LCD Products to slow and stop in late 1998. The chart below depicts the short-lived price fall in 1998 caused by the entry of Korean competitors, as well as the rise and eventual stabilization of prices in the first quarter of 2000, as the new entrants joined the conspiracy.

Average Selling Price of High-Volume LCD Monitors and Notebook LCDs



3. 1999

158. The efforts commenced by Samsung in 1998 continued to bear fruit. In 1999, TFT-LCD Product prices surged during that year due to a claimed "massive undersupply." This was despite the entry of Taiwanese manufacturers and several new fabs coming online.

159. At the beginning of 1999, industry publications suggested that the Japanese and Korean manufacturers were going to have the opportunity to recoup previous years' losses:

for TFT-LCD panels unlikely to be corrected in the near future, the domestic LCD industry is gleefully increasing its sales targets amid a sharp price rise." The lack of supply was a pretextual reason given publicly to justify a price increase.

161. Significantly, Boch Kwon, Vice President of LG Display's Sales Division and Yoon-Woo Lee, President and CEO of Samsung's Semiconductor Division, announced the following in the same trade publication:

LG LCD will raise prices across its entire TFT-LCD portfolio by 30 to 40 percent this year, Kwon said, although he expects that prices will stabilize some time in the second half. According to Samsung, demand for larger panels is reducing capacity because each display is eating up more square inches per motherglass substrate. This, combined with a stagnation in capital spending by many panel makers, will keep the LCD industry in a period of relative shortage until 2001, Lee said. The shortage has become acute, and has created an unusual market in which prices could rise as much as 30% to 80% in one year according to Ross Young, President of DisplaySearch, a research firm in Austin, Texas.

162. Also in 1999, the three major TFT-LCD producers in Korea became two, when LG Electronics, Inc. merged with Hyundai. The year 1999 also saw an additional merger when LG Electronics, Inc. and Koninklijke Philips Electronics N.V. created defendant LG Display.

4. <u>2000 - 2001</u>

163. By January of 2000, prices for TFT-LCD Products were falling again. The price decline in this period was substantially influenced by the entry of six new Taiwanese competitors, including Chi Mei, Chunghwa, HannStar, and Acer Display Technology, Inc. (later part of AU Optronics). Taiwanese defendants began their entry into the market in late 1999 and early 2000, by undercutting the collusively high prices of the other defendants to gain immediate market share. However, by 2000-2001, the Taiwanese defendants had increased their market share to the point that it made sense to participate in the conspiracy, and they then moderated the volume of their production.

- 164. Concurrent with the entry of the Taiwanese firms, the Koreans, just as the Japanese had done earlier, were investing in Taiwanese manufacturing capacity. Two of the largest Korean firms announced plans to invest billions in Taiwanese TFT-LCD panel production and to locate manufacturing facilities in Taiwan.
- 165. Newer generation fabs reduced costs and provided opportunities for additional profits at cartelized prices. In fact, a leading industry research house indicated that LCD manufacturers would pour \$5 billion into new manufacturing in 2000, roughly equivalent to the amount the industry spent in the previous three years combined.
- 166. In October 2000, *The Korea Herald* reported that, "IDC estimates that the global LCD supply is one to two percent in excess and the unbalance will rise to seven percent next year as manufacturers continue to book their output."
- 2000 and early 2001, prices of TFT-LCD panels stopped declining in mid-2001, and actually increased. In late 2001, a senior official at LG Display stated that the global market faced a supply shortage, and that this would "rapidly resolve the industry's oversupply and improve its profitability." Similarly, industry insiders suggested that the price increases were the result of an inability to meet increased demand. However, published data for 2001 showed that several defendants were operating their fabs significantly below capacity. For example, Chunghwa had a 75.3 percent utilization rate and Quanta Display, Inc. (which later merged with AU Optronics) had a 52 percent utilization rate. Based on the data indicating reduced capacity utilization during a time of rising prices and supposedly tight supply, the Taiwanese firms had begun actively cooperating with Japanese and Korean incumbents to restrict supply. Again, defendants reacted to the price trough by conspiring to fix prices. This agreement was reached in part at the bilateral and group meetings described above.
- 168. The rise in prices made no economic sense at this point in time and was the product of defendants' setting the price of TFT-LCD Products by agreement. First, defendants were bringing new plants on line that utilized larger motherglass, which was more cost effective. Second, as reported by an industry source, the variable cost of producing TFT-LCDs was

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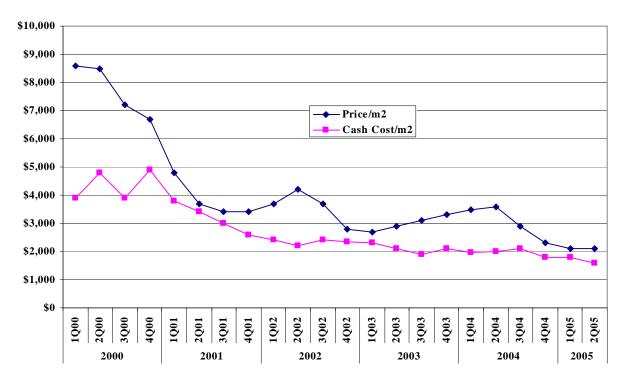
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27 28 declining during the latter part of 2001 and into 2002. With lower production costs and capacity to spare, it made little economic sense for defendants not to utilize their full capacity other than agreement by them not to do so. The chart below compares the variable costs of production per square meter of motherglass with the price per square meter of finished TFT-LCDs during the same period.

Price/m² and Cash Cost/m² Development for a Tier-1 Maker



Source: DisplaySearch, "TFT LCD Business Cycles and Trends".

5. <u>2002 - 2003</u>

Prices continued to rise from the second half of 2001 through the second 169. half of 2002. Industry analysts attributed these price increases to a "larger-than-expected panel shortage," despite continuing capacity expansion. In reality, the price increases were the result of agreements reached in the crystal meetings and bilateral discussions described above.

170. By the second half of 2002, the cartel's success at propping up prices led to lagging demand, and the cartel's response was to let prices level off and even begin to fall. Such downward price trends are not inconsistent with a monopoly or cartel. For example, the chart

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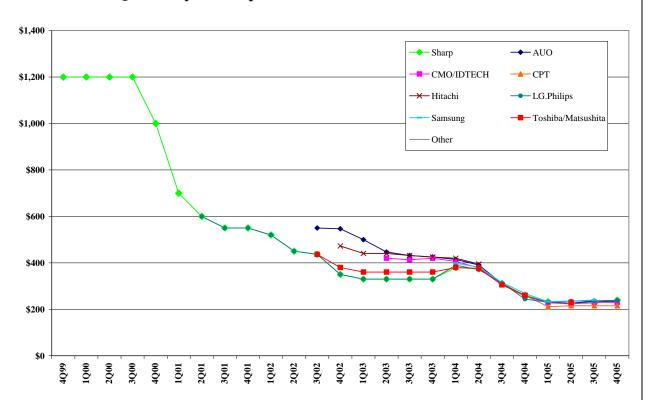
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27 28 below depicts defendant Sharp steadily dropping the prices on 20-inch televisions during a twoyear period when it was the only company making that product, and one of only two companies making any TFT-LCD televisions larger than 15.2 inches.

Quarterly ASP by Manufacturer for 20.0" LCD TVs



171. Throughout 2002, industry leaders shifted to fifth generation motherglass production technology. According to officials at Samsung, "[t]he new fifth-generation facilities offer panels that are 11.5 times bigger in size than those of the first-generation production line, while production cost is 20 percent lower than the fourth-generation counterpart because of the decrease in number of necessary parts."

172. Industry analysts took note of the unusual trends in the pricing of TFT-LCD Products. In February 2004, CNET.com quoted an analyst from IDC, a market research firm, as saying that, "LCD is one of the few [markets] where things have actually gone up in price." As described above and as further detailed in Section VIII below, defendants explained these price increases with false statements about market conditions in order to cover up the conspiracy.

1	173. During five consecutive quarters in 2003 and 2004, TFT-LCD Product				
2	prices rose significantly. AU Optronics reported that the price for certain of its TFT-LCD				
3	Products increased 28 percent between the second quarter of 2003 and the second quarter of				
4	2004. Similarly, LG Display reported that its pricing increased by 21 percent over the same				
5	period. This price increase can be seen in the chart at paragraph 157, entitled Average Selling				
6	Price of High-Volume LCD Monitors and Notebook LCDs.				
7	174. These soaring prices resulted in similar increases in the profits reaped by				
8	the TFT-LCD Product manufacturers. For example, the eight largest TFT-LCD Product				
9	manufacturers reported a collective profit increase of 740 percent between the second quarter of				
10	2003 and the second quarter of 2004. These record profits resulted from defendants' collective				
11	action to fix, raise, maintain or stabilize the price of TFT-LCD Products. Again, the sharing of				
12	information about price and production, the under-utilization of capacity, and restraints on output				
13	drove up the prices of TFT-LCDs.				
14	175. Around this time, industry analysts suggested that there were too many				
15	competitors in the TFT-LCD Product marketplace. Some industry participants went as far as				
16	overtly suggesting that the industry should seek to curtail supply through mergers. These				
17	suggestions were carried out. Significant consolidation and collaboration among competitors in				
18	the TFT-LCD Product market occurred.				
19	176. While TFT-LCD Product prices were increasing in late 2003, AU				
20	Optronics, Chi Mei, and HannStar decreased capacity utilization, as had been agreed to in crystal				
21	meetings.				
22	177. As noted above, Toshiba Corporation and Panasonic merged their TFT-				
23	LCD operations. The joint venture announced plans to solicit investment from other companies				
24	involved in the production of TFT-LCD panels, including device manufacturers and material				
25	suppliers. NEC formed an alliance with Casio. In addition, Taiwanese TFT-LCD manufacturers				
26	agreed to supply Panasonic with TFT-LCD panels for use in televisions.				
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178. Consolidation and collaboration continued in 2003 as Chi Mei bought Japan's IDT, a former subsidiary of IBM, and AU Optronics purchased a 20 percent stake in Japan's Fujitsu Display Technology.

179. Despite the increased efficiency and costs savings of fifth generation fabs, the industry experienced higher prices in 2003, purportedly because of a shortage of the most popular sizes of TFT-LCD panels. In order to keep prices artificially high, defendants chose not to operate at full capacity, nor to take advantage of lower variable costs.

6. 2004

- 180. Pursuant to defendants' agreement to fix and stabilize prices, prices continued to rise during the first half of 2004. In fact, between 2003 and mid-2004, panel prices increased for five consecutive quarters. Various types of crystal meetings were ongoing during this period.
- 181. The cartel's success at raising prices slowly dampened demand. In response, the cartel allowed prices to once again level off and began to decline in the second half of 2004. During this period of time, the market for TFT-LCD televisions started to grow, with the 32-inch panel representing approximately 9 percent of the market.
- In late 2004, AU Optronics reduced financial forecasts, claiming that 182. overcapacity-driven price declines were eroding profits. AU Optronics publicly announced plans to reduce capacity at its sixth generation fabs by 30 percent and to delay a planned seventh generation facility.
- 183. Consolidation and collaboration among and between competitors continued as Samsung and Sony launched their joint venture, named S-LCD Corp.

7. 2005

184. Analysts widely predicted a continuing period of oversupply and declining prices throughout 2005. However, by the third quarter of 2005, it was clear that the industry was not facing oversupply, but rather was reaping the benefits of a panel shortage and stable, or increasing, panel prices.

1	185. By 2005, 15-inch notebooks had surpassed 14-inch notebooks as the			
2	predominant product, and the volume of 32-inch panels for televisions took off as well. In 2005			
3	32-inch panels represented almost 27 percent of sales.			
4	186. Around this time, Samsung announced its intention to increase production			
5	of 40-inch TFT-LCD panels from 20,000 units in the second quarter to 150,000 units in the fourth			
6	quarter. An immediate increase to 100,000 units occurred the very next month. Samsung's			
7	ability to immediately increase output so drastically shows how quickly manufacturers could			
8	ramp up capacity and increase utilization.			
9	187. Analysts forecast excess production capacity in 2005 because of large			
10	TFT-LCD plants from Samsung and LG Display being brought on line. However, Sharp			
11	executive director Toshishige Hamano reported in October 2005 that the supply of LCD panels,			
12	particularly for use in televisions larger than 32 inches, would fall short of demand by 15 to 30			
13	percent. The shortage came as a surprise to analysts.			
14	188. This shortage was the result of collusion among defendants. Dr. Hui			
15	Hsiung, Executive Vice President and Director of AU Optronics, admitted in November of 2005			
16	that his company persuaded its competitors to lower the inventory for TFT-LCD Products:			
17	I think our policy, our strategy, has always been minimizing our inventory and that turned out to be quite successful in past few			
18	years by keeping the inventory lower. And I think in the past we did have some problem convincing our competitors doing the same			
19	thing. But in recent months, especially this year, actually, it did			
20	start to happen. I think that the industry understand[s] the benefit of keeping the capacity low. Again, even if the scenario does			
21	happen that we have a 5% over capacity this is not the drastic action to reduce about 5% of the loading. And this, coupled with the fact that many of the product cost structure is some 80% are actually			
22	material costs. So, fixed costs at 20% if you reduced the 5%, even 10%, loading, that impact on cost is actually, not very big. So, we			
23	think the industry become more mature. That is precisely what our competitors would do.			
24	compeniors would do.			
25	[Emphasis added.]			
26	189. Indeed, earlier that year, spokespersons for LG Display and Samsung had			
27	predicted that market stabilization.			

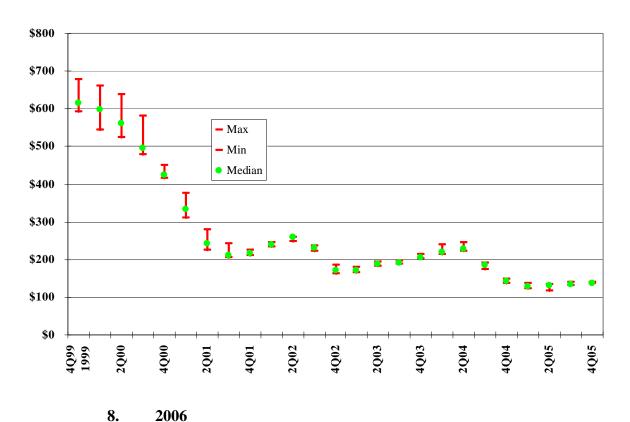
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190. A Samsung presentation from November of 2005 made by Sang-Wan Lee, the President of Samsung's TFT-LCD Products business, noted that it was possible to "secure a reasonable amount of profit while following the industry leaders."

191. These collusive actions were being perpetuated through the series of ongoing meetings as alleged above.

192. The effect of the conspiracy can be seen both in the way prices followed each other as depicted in the chart at paragraph 157, and the way prices for particular products converged as the conspiracy progressed. The chart below, which relates to 15-inch computer monitors, illustrates how the price dispersion among defendants diminished as the conspiracy matured.

Dispersion of Manufacturer ASPs for 15.0" LCD Monitors



193. A temporary oversupply of TFT-LCD Products occurred in 2006, which had the effect of reducing prices in the short term. Again, in the face of a price trough, defendants fixed and stabilized prices through their cartel activities. On May 25, 2006, at a

Taiwanese trade show, Mr. Hsiung of AU Optronics stated publicly that his company was reducing production of those products in order to avoid further price erosion. He expressed the view that his competitors should follow suit, saying that production ought to be reduced by at least 15 percent. Eddie Chen, a spokesperson for Chi Mei who was present at the trade show, promised to take similar steps in conjunction with his company's peers. A June 13, 2006 article in *InfoWorld* noted that as a result of Mr. Hsiung's statements, "[t]he chatter is growing louder each day."

- 194. Chi Mei was not the only one to follow AU Optronics' invitation to restrict the output and increase the prices of TFT-LCD Products. In May of 2006, in discussions between executives of the two companies, AU Optronics convinced Quanta Display, a company that it acquired in October of 2006, to reduce production of TFT-LCD Products. By June of 2006, LG Display also announced plans to cut production of TFT-LCD Products.
- 195. By the summer of 2006, this ongoing conspiracy was being effectuated through bilateral meetings as alleged above.
- 196. Despite the fact that certain of the defendants may have cut back on, or discontinued, their conspiratorial conduct in 2006 upon the commencement of the governmental investigations described below, the impact of the conspiracy continued at least through the end of that year. This carry-over in the antitrust injury was due, in part, to the nature of the pricing mechanisms in the industry, such as supply contracts.

G. The Role of Trade Associations During the Conspiracy Period

- 197. The TFT-LCD industry is served by several major trade organizations that put on industry-wide meetings several times a year. These meetings have facilitated collusion, and the trade associations have themselves functioned as a means for defendants to cooperate and discuss prices.
- 198. One such trade association is the Taiwan TFT-LCD Association ("TTLA"), to which AU Optronics, Chi Mei, and HannStar belong. Founded in 2000, TTLA's self-described mission is to "assist [] [the] TFT-LCD industry, condensing the consensus through various activities, promoting the cooperation within competition, acting as a window for interaction with

200. Japanese manufacturers of TFT-LCD Products have a similar organization of their own. The Semiconductor Equipment Association of Japan ("SEAJ"), founded in 1995, serves Japanese manufacturers of TFT-LCD Products. Its members include Sharp, Toshiba, NEC, Hitachi, and a Japanese subsidiary of Samsung. Like the KODEMIA and TTLA, the SEAJ was not merely a trade association that provided an opportunity to conspire; it was a vehicle by which the conspiracy was effectuated and implemented.

201. In addition to these national trade associations, the Society for Information Display ("SID") put on multiple meetings each year that were attended by executives from all of the major producers. One of these meetings had been known as the SID Symposium, but was renamed the "SID International Symposium and Business Conference." SID also puts on a long-running conference called the International Display Research Conference ("IRDC").

202. The 2004 SID International Symposium and Business Conference ("SID 2004") featured a presentation entitled "Beyond the Crystal Gateway," by H.B. Chen, President and CEO of AU Optronics. This was followed shortly by a presentation entitled "The FPD

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apital Equipment Investment Environment," which informed the attendees about "investments lanned at the major display manufacturers." A representative of DisplaySearch also spoke about ne LCD market. There were presentations by analysts from iSuppli/Stanford Resources, and ther industry experts. This was all followed by a "networking reception – sponsored by G.Philips LCD," to which all conference attendees were invited to participate.

203. SID 2005 featured a reprise of the SID 2004 speech by H.B. Chen of AU Optronics. This time it was called "2005: Beyond the Crystal Gateway." A DisplaySearch epresentative provided "the latest outlook for flat panel displays covering pricing, demand, and upply . . . and the cost and margin outlook for key FPDs will be projected." Again, these iscussions about the market were followed by a "networking reception." Among the attendees at ID 2004 were Bruce Berkoff of LG Display, Jun Souk and Dong-Hun Lee of Samsung, H.B. then of AU Optronics, Larry Weber of Panasonic, and Joel Pollack of Sharp. Senior executives com Sharp and Hitachi also attended.

The SID 2005 conference was very similar to SID 2004 but was even more 204. latant in its discussion of the crystal cycle. Jun H. Souk, Executive Vice President of Samsung, ave a presentation entitled "Managing the Crystal Cycles," which was paraphrased as follows: By reviewing what happened during the business up and down cycles of the LCD in the past, we ave learned lessons that will reduce the burden in future cycles. Efforts made in cost reduction, ine-investment timing, and new market generation will be described."

205. SID 2005 provided a prime opportunity for one of the dominant nanufacturers to explain to all of its key competitors how to manage supply and maximize "lineinvestment timing." Among the attendees at SID 2005 were Bruce Berkoff of LG Display and Sang Wan Lee, Jun Souk, and Joe Virginia of Samsung. SID 2005 also featured presentations regarding developments in LCD technology by officials from AU Optronics, Sharp, LG Display, Samsung, and Hitachi.

206. The conspiracy was also carried out at the annual meetings of the Global FPD Partners' Conference ("GFPC"), which have been held since 2005. The initial conference

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- 207. Participants in the 2006 GFPC noted how successful the event was in promoting information exchanges and "networking" among the co-conspirators. Or, as Dr. Hui Hsiung has said, "[i]n an industry growing as rapidly as the flat panel display industry, it is increasingly important to build connections across the supply chain and around the world . . . the GFPC plays a vital part in building those connections and growing our business."
- 208. Among the participants at GFPC 2006 were Mr. Souk and Ho Kyoon Chung of Samsung, Shigaeki Mizushima of Sharp, Kiyoshi Jan-o of NEC, Mr. Ogura of Toshiba Matsushita, Yoshihide Fuji of Toshiba, Mr. Nakajima of Panasonic, and Dr. Hui Hsiung of AU Optronics.
- 209. As indicated by the public pronouncements, these trade association meetings facilitated the conspiracy by giving defendants further opportunities to discuss prices and output.

VIII. FRAUDULENT CONCEALMENT

- 210. Plaintiffs had neither actual nor constructive knowledge of the facts supporting their claim for relief despite diligence in trying to discover the pertinent facts. Plaintiffs and members of the Class did not discover, and could not have discovered through the exercise of reasonable diligence, the existence of the conspiracy alleged herein until December 2006, when investigations by the DOJ and other antitrust regulators became public. Defendants engaged in a secret conspiracy that did not give rise to facts that would put plaintiffs or the Class on inquiry notice that there was a conspiracy to fix the prices of TFT-LCD Products.
- 211. The participants in the crystal meetings agreed to keep the meetings secret. In some instances, the location of the meeting was circulated only the day before in an effort to avoid detection. Furthermore, the participants agreed on what pretexts they would cite when questioned about rising prices. The participants also agreed to lie to the media and report that their fabs were operating at full capacity even when they were not, in order to create the appearance of a supply shortage.

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212. Defendants have used a variety of other purportedly market-based explanations for price increases in order to conceal their conspiracy. In 1999, Joel Pollack, a marketing manager for Sharp, blamed the sharp price rises of early 1999 on under-capitalization:

Prices have dropped at a steady rate over the past couple of years to the point where it was difficult to continue the necessary level of capitalization. The [low prices] have starved the industry.

- 213. Also, in early 1999, Omid Milani, a marketing manager for NEC, stated that "demand by fair is outstripping our supply capability" and predicted that "prices will continue to increase until a reasonable balance is achieved."
- 214. Also in 1999, Boch Kwon, Vice President of LG Display's Sales Division, and Yoon-Woo Lee, President and CEO of Samsung's Semiconductor Division, falsely reported that price increases resulted from "acute" shortages.
- 215. On February 4, 2001, Bruce Berkoff, Executive Vice President at LG Display, was quoted by News.com as saying that price increases were due to shortages. He claimed, "demand grew so fast that the supply can't keep up."
- 216. In the latter half of 2001, Koo Duk-Mo, an executive at LG Display, predicted a 10 to 15 percent price increase, purportedly resulting from increased demand during the holiday season.
- 217. Hsu Jen-Ting, a Vice President at Chi Mei, and Chen Shuen-Bin, President of AU Optronics, offered another rationale for the 2001 price increase in an interview for the *Taiwan Economic News* in October 2001. They blamed "component shortages due to the late expansion of 5th generation production lines and new demand from the replacement of traditional cathode ray tubes with LCD monitors."
- 218. In a PowerPoint shown to investors on September 16, 2003, Toshiba gave the following pretextual explanation for its soaring revenues: "*LCDs*: Profitability recovered faster than originally expected." A question-and-answer sheet released to investors that same day offered a better clue to its participation in the ongoing conspiracy: "Q4. How are recent prices for LCDs . . .? [Answer:] They remain high."

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conspired to do, including:

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and supply of TFT-LCD Products;

participating in meetings and conversations to discuss the prices

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1	plaintiffs and the Class shall be entered against the defendants in an amount to be trebled in		
2	accordance with such laws;		
3	D. Defendants, their subsidiaries, affiliates, successors, transferees, assignees		
4	and the respective officers, directors, partners, agents, and employees thereof, and all other		
5	persons acting or claiming to act on their behalf, shall be permanently enjoined and restrained		
6	from continuing and maintaining the combination, conspiracy or agreement alleged herein;		
7	E. Plaintiffs and members of the Class shall be awarded pre-judgment and		
8	post-judgment interest, and such interest shall be awarded at the highest legal rate from and after		
9	the date of service of the initial complaint in this action;		
10	F. Plaintiffs and members of the Class shall recover their costs of this suit,		
11	including reasonable attorneys' fees as provided by law; and		
12	G. Plaintiffs and members of the Class shall receive such other or further		
13	relief as may be just and proper.		
14	XI. <u>JURY TRIAL DEMANDED</u>		
15	Pursuant to Federal Rule of Civil Procedure 38(b), plaintiffs demand a trial by jur		
16	of all of the claims asserted in this Complaint so triable.		
17			
18	Dated: December 5, 2008 By: /s/ Bruce L. Simon		
19	Bruce L. Simon Daniel L. Warshaw		
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25	Purchaser Plaintiffs and the Proposed Class		
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1 2	Dated: December 5, 2008		By: /s/ Richard Marchard Marchard M. Heim Joseph R. Saveri	
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10	Pursuant to	General Order 45 P	art X-R the filer attest	as that concurrence in the
11	filing of this document has			is that concurrence in the
12				
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