

**IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE**

IC DISPLAY SYSTEMS LLC,

Plaintiff,

v.

LG ELECTRONICS INC., and LG
ELECTRONICS U.S.A., INC.,

Defendants.

Civil Action No. _____

JURY TRIAL DEMANDED

COMPLAINT FOR PATENT INFRINGEMENT

Plaintiff IC Display Systems LLC (“ICDS” or “Plaintiff”), for its Complaint against Defendant LG Electronics Inc. (“LG Inc.”), and LG Electronics U.S.A., Inc., (“LG U.S.A.”) (individually each a “Defendant” and collectively “Defendants” or “LG”) alleges the following:

NATURE OF THE ACTION

1. This is an action for patent infringement arising under the Patent Laws of the United States, 35 U.S.C. § 1 *et seq.*

THE PARTIES

2. Plaintiff is a limited liability company organized under the laws of the State of Delaware with a place of business at 717 North Union Street, Wilmington, Delaware 19805.

3. Upon information and belief, LG Inc. is a corporation organized and existing under the laws of South Korea, with a place of business at LG Twin Towers 20 Yoido-dong, Youngdungpo-gu, Seoul, Korea. Upon information and belief, LG Inc. sells and offers to sell products and services throughout the United States, including in this judicial district, and introduces products and services that into the stream of commerce and that incorporate infringing

technology knowing that they would be sold in this judicial district and elsewhere in the United States.

4. Upon information and belief, LG U.S.A. is a corporation organized and existing under the laws of Delaware, with a place of business at 1000 Sylvan Avenue, Englewood Cliffs, New Jersey 07632, and can be served through its registered agent, United States Corporation Company, 2711 Centerville Road, Suite 400, Wilmington, Delaware 19808. Upon information and belief, LG U.S.A. sells and offers to sell products and services throughout the United States, including in this judicial district, and introduces products and services that into the stream of commerce and that incorporate infringing technology knowing that they would be sold in this judicial district and elsewhere in the United States.

JURISDICTION AND VENUE

5. This is an action for patent infringement arising under the Patent Laws of the United States, Title 35 of the United States Code.

6. This Court has subject matter jurisdiction under 28 U.S.C. §§ 1331 and 1338(a).

7. Venue is proper in this judicial district under 28 U.S.C. §§ 1391(b), (c), (d) and/or 1400(b). On information and belief, each Defendant conducts business in this District, the claims alleged in this Complaint arise in this District, and the acts of infringement have taken place and are continuing to take place in this District.

8. On information and belief, each Defendant is subject to this Court's general and specific personal jurisdiction because each Defendant has sufficient minimum contacts within the State of Delaware, pursuant to due process and/or the Del. Code. Ann. Tit. 3, § 3104 because each Defendant purposefully availed itself of the privileges of conducting business in the State of Delaware, because each Defendant regularly conducts and solicits business within the State of Delaware, and because Plaintiff's causes of action arise directly from each of Defendant's

business contacts and other activities in the State of Delaware. Further, this Court has personal jurisdiction over LG U.S.A. because it is incorporated in Delaware and has purposely availed itself of the privileges and benefits of the laws of the State of Delaware.

COUNT I – INFRINGEMENT OF U.S. PATENT NO. 5,892,561

9. The allegations set forth in the foregoing paragraphs 1 through 8 are incorporated into this First Claim for Relief.

10. On April 6, 1999, U.S. Patent No. 5,892,561 (“the ’561 patent”), entitled “LC Panel with Reduced Defects Having Adhesive Smoothing Layer on an Exterior Surface of the Substrate(s),” was duly and legally issued by the United States Patent and Trademark Office. A true and correct copy of the ’561 patent is attached as Exhibit 1.

11. Plaintiff is the assignee and owner of the right, title and interest in and to the ’561 patent, including the right to assert all causes of action arising under said patents and the right to any remedies for infringement of them.

12. Upon information and belief, each Defendant has and continues to directly infringe at least claims 1-3 of the ’561 patent by making, using, selling, importing and/or providing and causing to be used liquid crystal panels that fall within the scope of claims 1-3 of the ’561 patent, including, but not limited to, the products with the following designations or trade names: 60LX330C, 32LW340C, 49LX340H, 32LX340H, 49LW340C, 43LX340H, 43LW340C, 65LX770H, 40LX770H, 40LX340H, 43LX770H, 60WL30MS-D, 72WS70MS-B, 32WL30MS-B, 47WS50BS-B, 55LW540S, 55UW660H, 55LX570H, 55SH7DB, 55LW340C, 55LS33A, 55LY970H, 55LY570H, 55LY750H, 55LY760H, 55LS55A-5B, 55LS35A-5B, 32LS33A, 55LX341C, 55LP645H, 55LS75A-5B, 55LX770H, 32LX570H, 55UH5B, 55SL5B, 55WS50BS-B, 55LX770M, 55LHX, 47SL90, 42SL90, 47SL80, 42SL80, 55LH90, 42LH90, 47LH90, 55LH85, 47LH85, 37LH55, 47LH55, 42LH55, 55LH55, 55LH50, 42LH50, 47LH50,

55LH40, 42LH40, 37LH40, 32LH40, 47LH40, 42LH30, 32LH30, 47LH30, 37LH30, 19LU55, 26LU55, 22LU55, 37LH20, 22LH20, 32LH20, 19LF10, 26LG40, 32LG40, 26LH20, 19LH20, 42LH20, 47LF11, 32LF11, 42LF11, 22LF10, 26LF10, W2486L, W2361VG-PF, W2286L, W2753V-PF, W2061TQ-PF, W2343T-PF, M237WD-PM, W2243T-PF, W2361V-PF, W2353V-PF, W2253TQ-PF, W1953T-PF, W1943TB-PF, W2053TQ-PF, W2043T-PF, W2053TX, W2453V-PF, W3000H, W2241T, W1942T, W2052TQ, L227WTG, W1952TQ, W2600H, L1960TR-BF, W2252TQ, L226WTQ-BF, W2452T, L1933TR-SF, L1733TR-SF, 47LB1DA, 42LC4D, 26LC2D, 32LC4D, 42LB1DRA, 71PY1M, 23LC1RB, L206WTQ-BF, 37LB1DA, 20LC1RB, L1752T-BF, 15LC1RB, L1952T-BF, 32LC2D, L1770HQ-BF, 37LC2D, 42LB1DR, 55LP1M, 26LX2D, 32LX2D, 26LX1D, 37LP1D, 32LP1D, 32LX1D, 17LX1R, 23LX2R, 23LX1RV, 15LA6R, RU-50PZ61, 15LW1R, DU-37LZ30, 20LA6R, DU-30LZ30, MW-71PY10, DU-42LZ30, RU-60PZ61, RU-42PZ90V (the “Infringing Instrumentalities”).

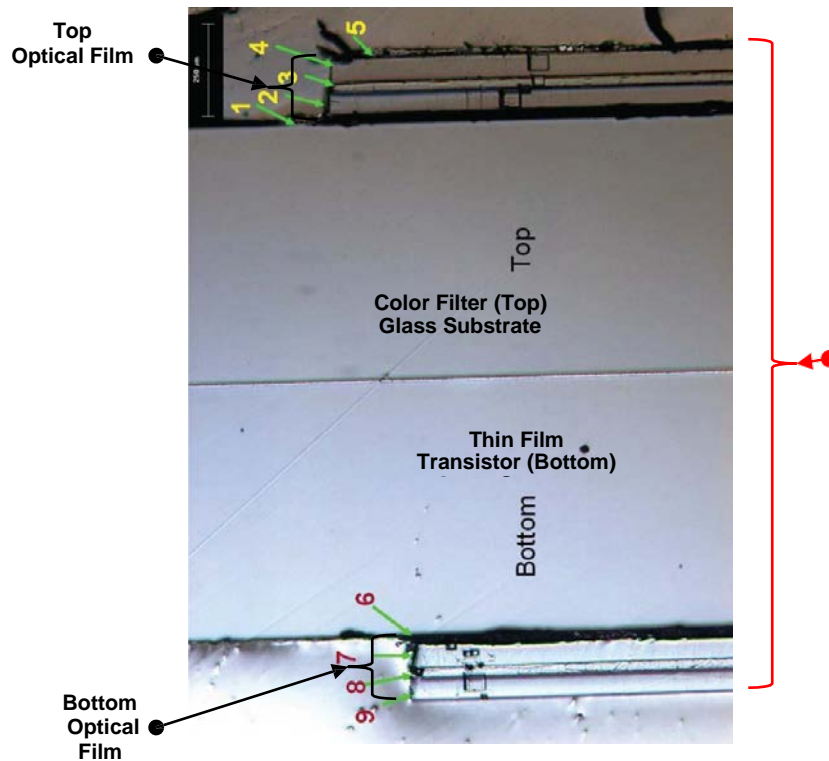
Exemplary images of the Infringing Instrumentalities are provided below:



LG 42LH40 42" Full HD



LCD Module
in **LG 42LH40 42" Full HD 1080p LCD**

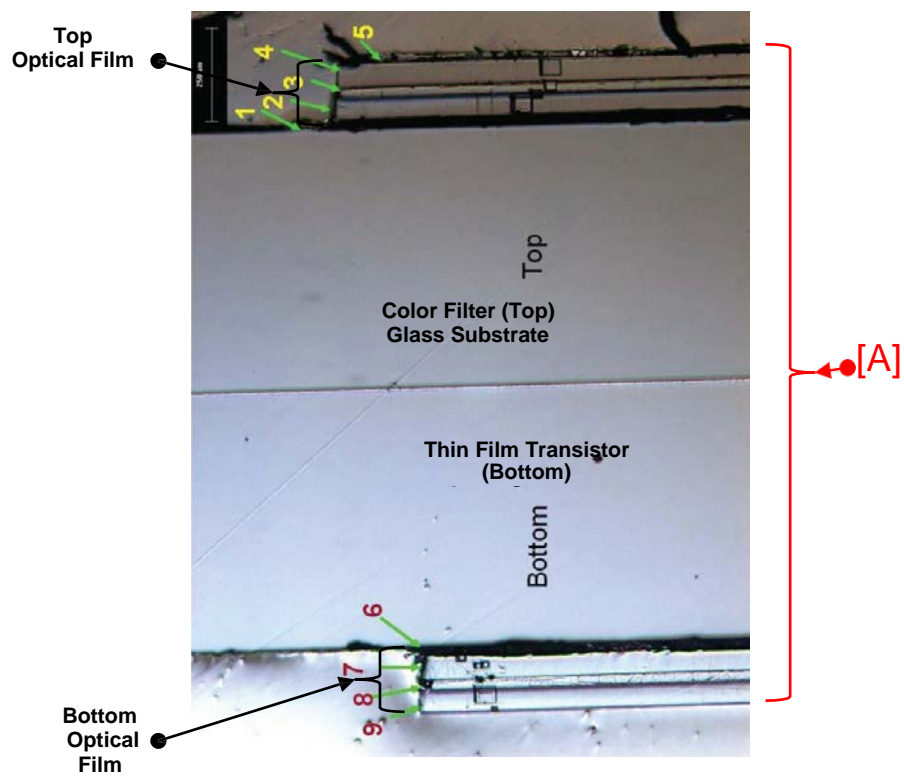


Cross Sectional View (a-a')
of LCD Module in **LG 42LH40 42"**
Full HD 1080p LCD TV

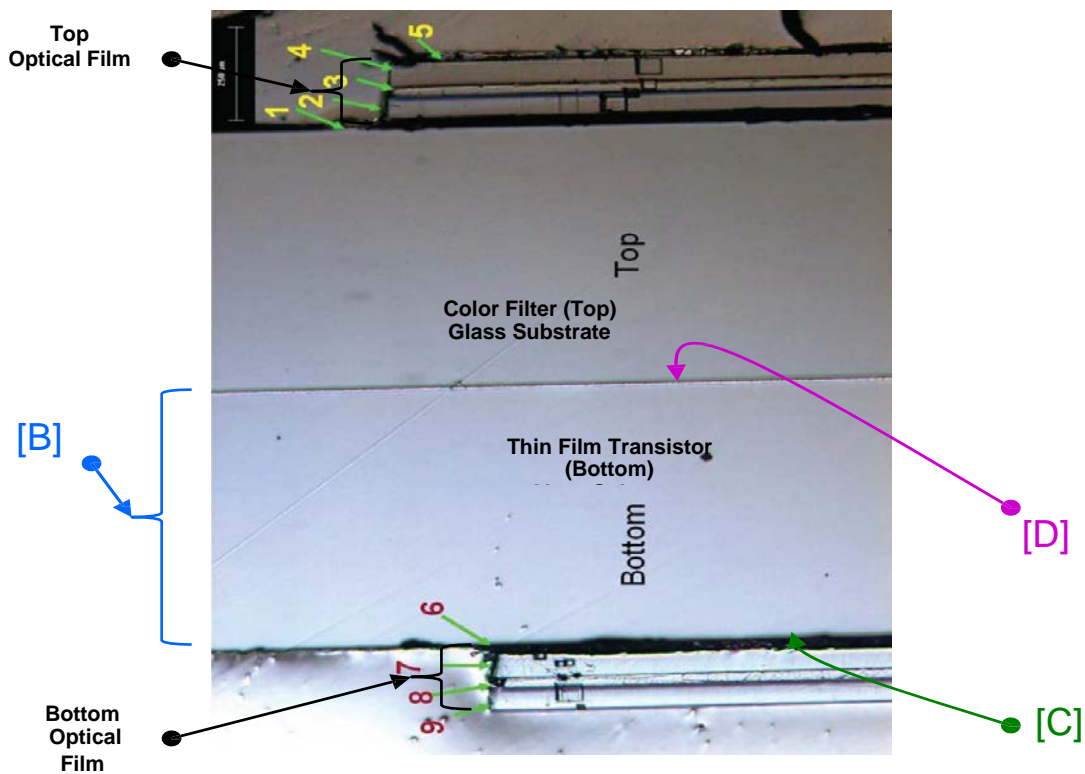
13. Claim 1 of the '561 patent generally recites a liquid crystal panel, comprising: a first transparent substrate having a first principal surface and a second principal surface opposite to the first principal surface; a second transparent substrate having a third principal surface and a fourth principal surface opposite to the third principal surface, the second transparent substrate being disposed such that the third principal surface faces the second principal surface of the first transparent substrate, with a gap formed between them; a liquid crystal layer interposed between the second principal surface and the third principal surface so as to fill the gap; at least one transparent film provided on at least one of the first and fourth principal surfaces; an adhesive layer interposed between the transparent film and at least one of the first and fourth principal

surfaces on which the transparent film is provided, wherein the adhesive layer substantially smooths out minor defects on the principal surface associated therewith; and a dielectric multilayer film provided on the transparent film.

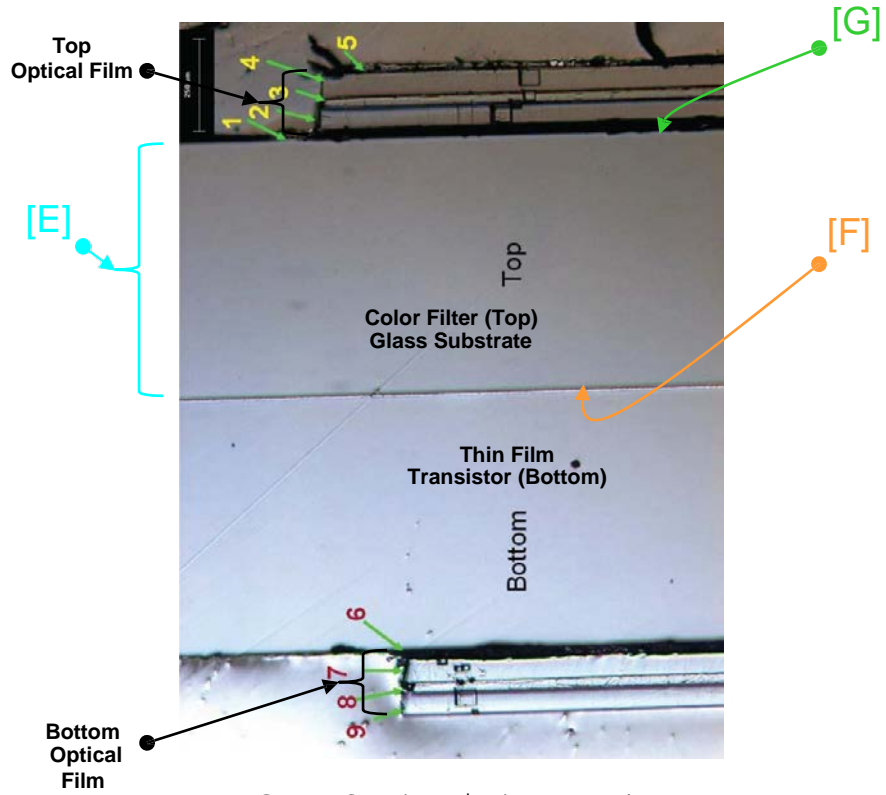
14. On information and belief, and as demonstrated in the exemplary images below, the Infringing Instrumentalities infringe claim 1 of the '561 patent because they comprise a liquid crystal panel (designated [A] below), comprising: a first transparent substrate (designated [B] below) having a first principal surface (designated [C] below) and a second principal surface (designated [D] below) opposite to the first principal surface; a second transparent substrate (designated [E] below) having a third principal surface (designated [F] below) and a fourth principal surface (designated [G] below) opposite to the third principal surface, the second transparent substrate being disposed such that the third principal surface faces the second principal surface of the first transparent substrate, with a gap formed between them (designated [H] below); a liquid crystal layer (designated [I] below) interposed between the second principal surface and the third principal surface so as to fill the gap; at least one transparent film (designated [J] below) provided on at least one of the first and fourth principal surfaces; an adhesive layer (designated [K] below) interposed between the transparent film and at least one of the first and fourth principal surfaces on which the transparent film is provided, wherein the adhesive layer substantially smooths out minor defects on the principal surface associated therewith; and a dielectric multilayer film (designated [L] below) provided on the transparent film.



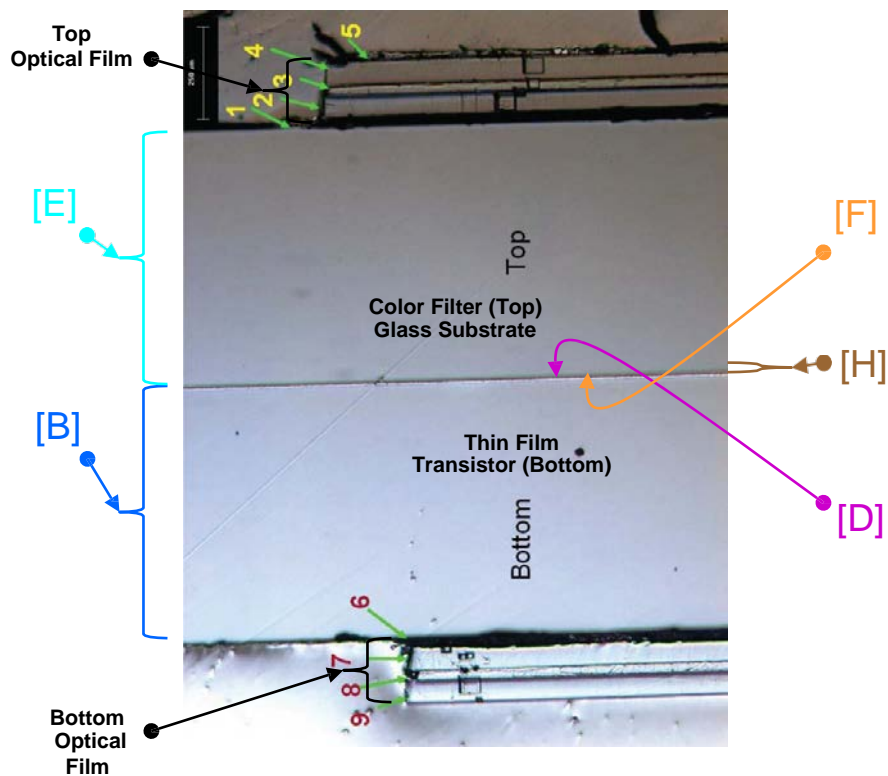
Cross Sectional View (a-a')
of LCD Module in **LG 42LH40 42"**
Full HD 1080p LCD TV



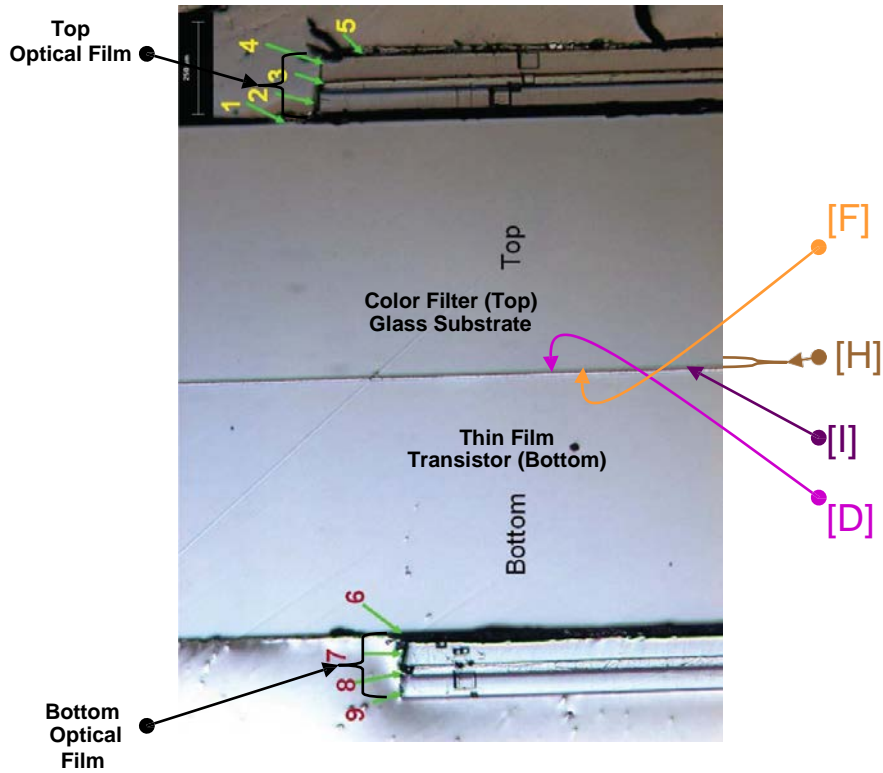
Cross Sectional View (a-a')
of LCD Module in **LG 42LH40 42"**
Full HD 1080p LCD TV



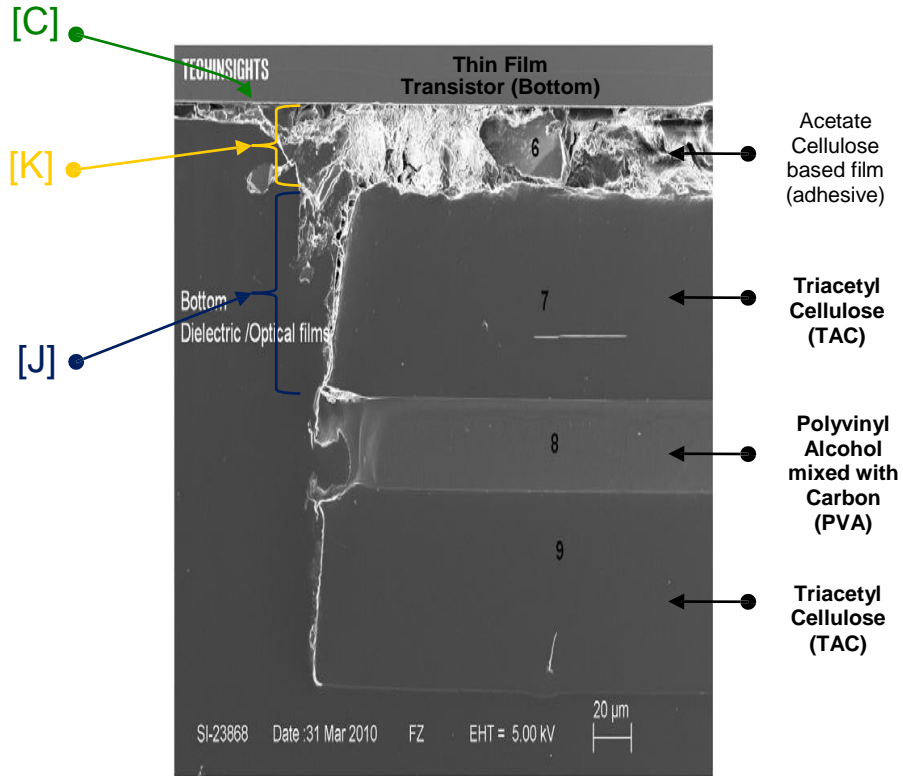
Cross Sectional View (a-a')
of LCD Module in **LG 42LH40**
42"
Full HD 1080p LCD TV



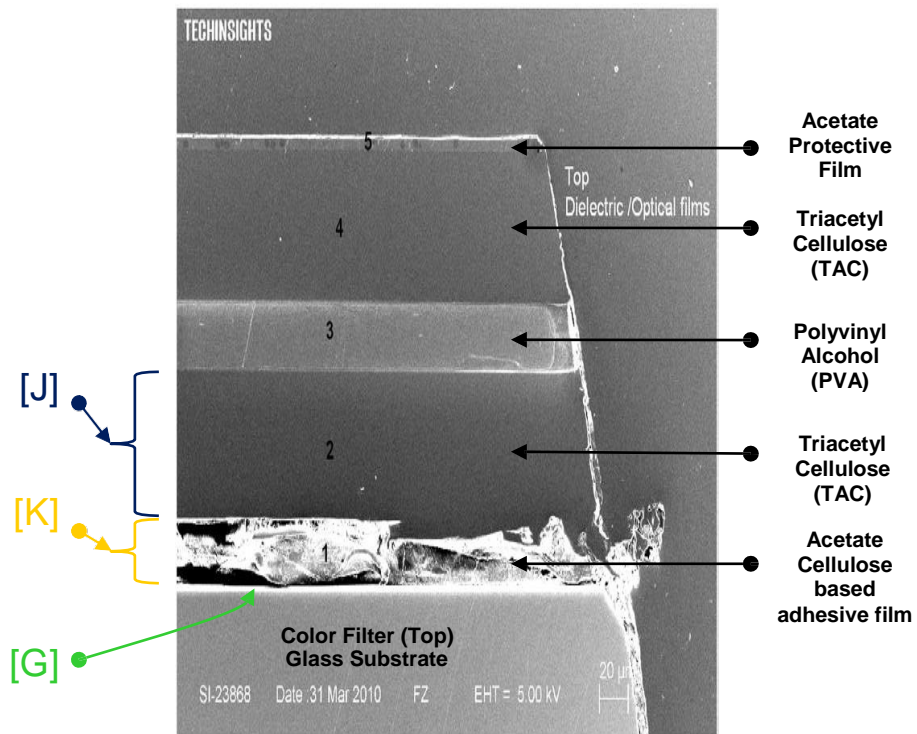
Cross Sectional View (a-a')
of LCD Module in **LG 42LH40**
42"
Full HD 1080p LCD TV



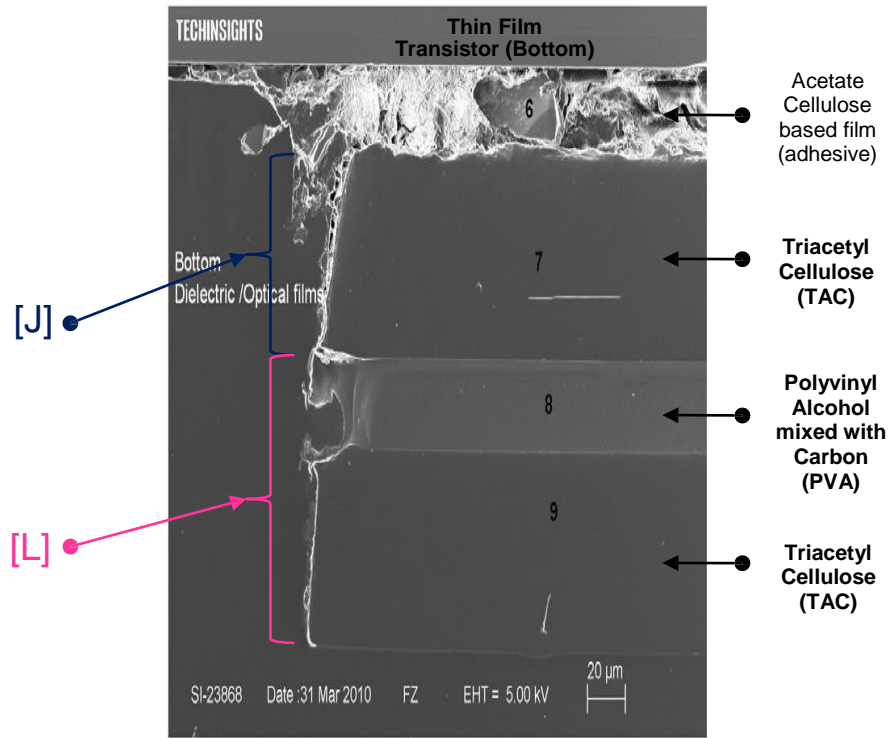
Cross Sectional View (a-a')
of LCD Module in **LG 42LH40**
42"
Full HD 1080p LCD TV



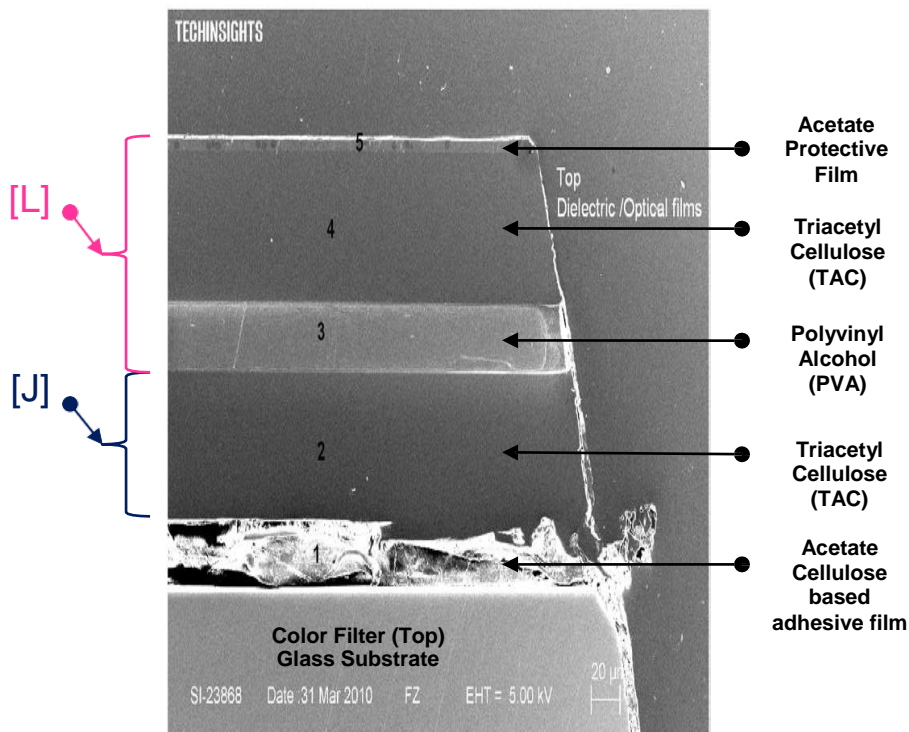
Magnified View of Bottom Optical



Magnified View of Top Optical



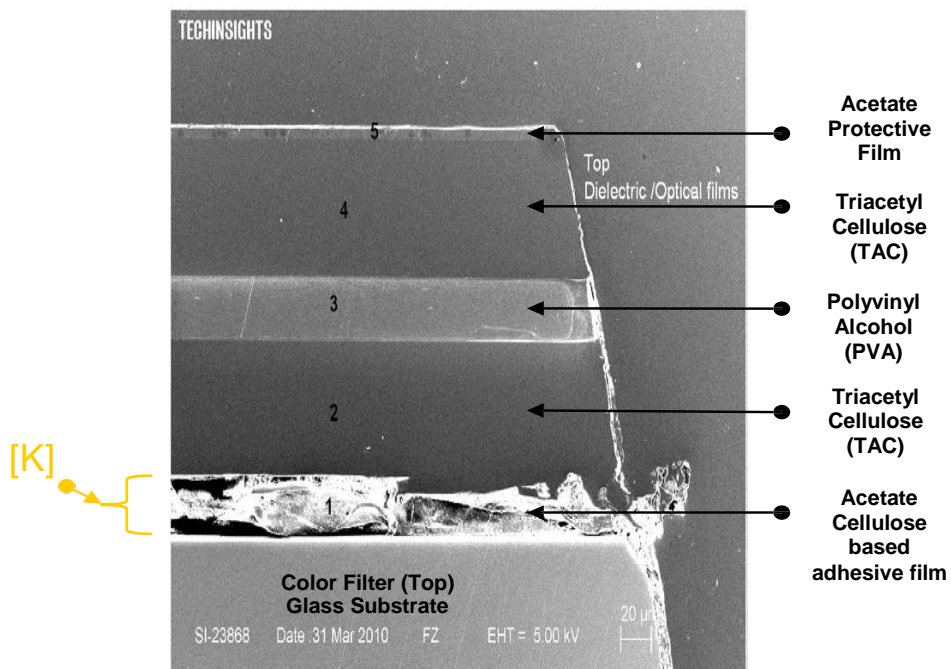
Magnified View of Bottom Optical



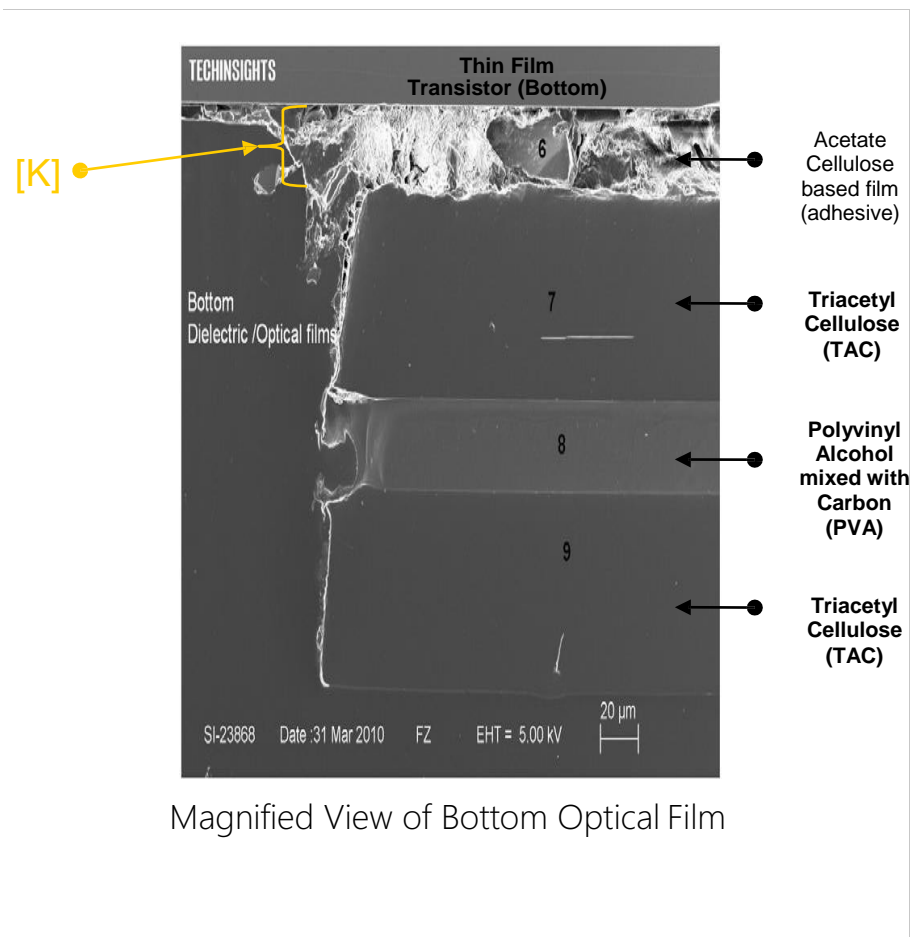
Magnified View of Top Optical

15. Claim 2 of the '561 patent generally recites a liquid crystal panel as claimed in claim 1, wherein the adhesive layer has a refractive index within a range of ± 0.2 from a refractive index of said first and second substrates.

16. On information and belief, and as demonstrated in the exemplary images above and below, the Infringing Instrumentalities infringe claim 2 of the '561 patent because they comprise a liquid crystal panel as claimed in claim 1 (as shown in paragraph 14 above), and that liquid crystal panel contains an adhesive layer [K] with a refractive index (designated [M] below) within a range of ± 0.2 (designated [N] below) from a refractive index of said first and second substrates (designated [O] below).



Magnified View of Top Optical Film



3M™ Optically Clear Adhesive

Product Number	Adhesive Thickness (mil)	Peel Adhesion to Glass (oz/in)	PET Release Film	Refractive Index	Haze (%)	Coating/ Processing Environment	Typical Applications
8171	1	42	2.0 mil/2.0 mil	1.475	0.6	Cleanroom	PC/PMMA Substrate
8172	2	45	2.0 mil/2.0 mil	1.474	0.8		
8173D ²	3	41	2.0 mil/2.0 mil	1.474	1		
8211	1	54	2.0 mil/2.0 mil	1.473	0.1		General Purpose
8212	2	65	2.0 mil/2.0 mil	1.475	0.6		
8213 ¹	3	69	2.0 mil/2.0 mil	1.473	0.4		
8214 ¹	4	67	2.0 mil/2.0 mil	1.474	1.2		
8215 ¹	5	69	2.0 mil/2.0 mil	1.473	0.8		
8271	1	47	2.0 mil/2.0 mil	1.485	0.3		
8271S	2	46	2.0 mil/2.0 mil	1.489	1.0		'Bare' ITO Surface
8272	2	57	2.0 mil/2.0 mil	1.485	0.3		
8273 ¹	3	67	2.0 mil/2.0 mil	1.487	0.3		
8273D ^{1,2}	3	60	2.0 mil/2.0 mil	1.489	1.4		
8274 ¹	4	80	2.0 mil/2.0 mil	1.487	0.1		
8275 ¹	5	80	2.0 mil/2.0 mil	1.487	0		

¹ Made to order. Longer lead time required.

² D—Double coated OCA



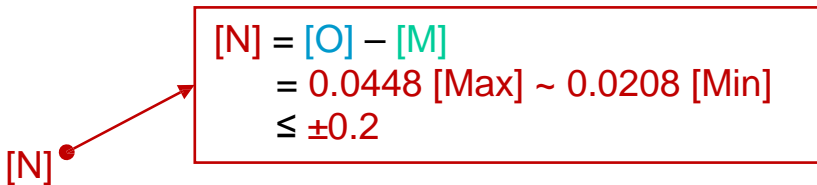
**Electronics Markets
Materials Division**

3M Electronics
3M Center, Building 21-1W-10
St. Paul, MN 55144-1000
www.3M.com/electronics
1-800-251-8634

**Corning® EAGLE XG™
AMLCD Glass Substrates
Material Information**

Optical Wavelength	Refractive Index
435.8 nm	1.5198
467.8 nm	1.5169
480 nm	1.5160
508.6 nm	1.5141
546.1 nm	1.5119
589.3 nm	1.5099
643.8 nm	1.5078

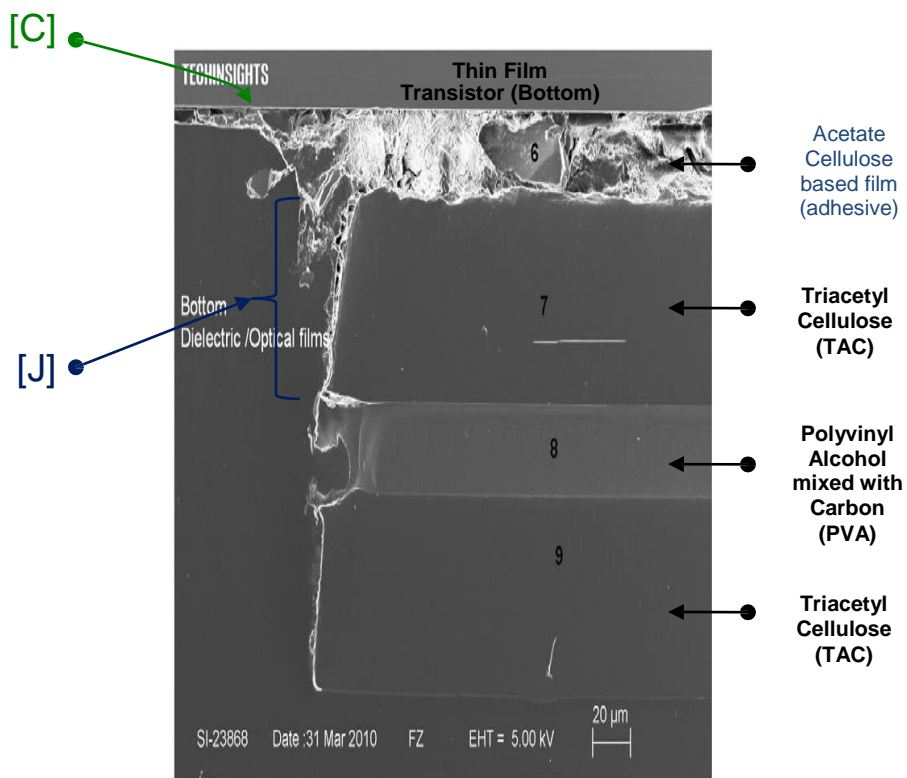
Korea
Samsung Corning Precision Glass Co., Ltd.
12th floor, Taepyungro Building
310 Taepyungro-2ga
Jung-gu, Seoul, 100-767 Korea
Telephone: +82 2-728-0733
Fax: +82 2-728-0749
Internet: www.samsungscp.co.kr



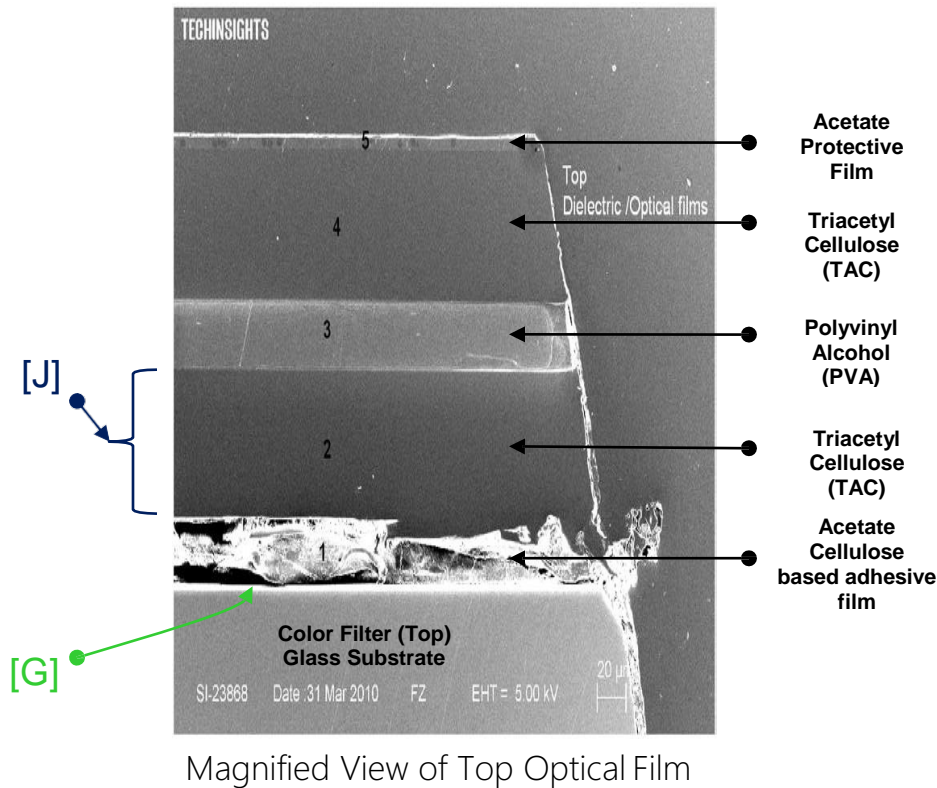
$[N] = [O] - [M]$
 $= 0.0448 \text{ [Max]} \sim 0.0208 \text{ [Min]}$
 $\leq \pm 0.2$

17. Claim 3 of the '561 patent generally recites a liquid crystal panel as claimed in claim 1, wherein said transparent film is provided on both said first and fourth principal surfaces.

18. On information and belief, and as demonstrated in the exemplary images above and below, the Infringing Instrumentalities infringe claim 3 of the '561 patent because they comprise a liquid crystal panel as claimed in claim 1 that includes a transparent film [J] on both the first [C] and fourth principal surfaces [G].



Magnified View of Bottom Optical Film



Magnified View of Top Optical Film

19. Defendants were each aware of the ‘561 patent at least as early as March 26, 2013. The ‘561 patent was cited during prosecution of LG Display Co., Ltd.’s, U.S. Patent No. 8,405,814, which issued on March 26, 2013. Since becoming aware of the ‘561 patent at that time, each Defendant knew or should have known that it was infringing the ‘561 patent. Accordingly, each Defendant’s infringement since at least as early as March 26, 2013, has been willful.

20. Plaintiff has been harmed by Defendants’ infringing activities.

JURY DEMAND

Pursuant to Rule 38 of the Federal Rules of Civil Procedure, Plaintiff demands a trial by jury on all issues triable as such.

PRAYER FOR RELIEF

WHEREFORE, Plaintiff demands judgment for itself and against Defendants as follows:

- A. An adjudication that each Defendant has infringed the '561 patent;
- B. An award of damages to be paid by Defendants adequate to compensate Plaintiff for Defendants' past infringement of the '561 patent, and any continuing or future infringement through the date such judgment is entered, including interest, costs, expenses and an accounting of all infringing acts including, but not limited to, those acts not presented at trial;
- C. A declaration that this case is exceptional under 35 U.S.C. § 285, and an award of Plaintiff's reasonable attorneys' fees; and
- D. An award to Plaintiff of such further relief at law or in equity as the Court deems just and proper.

Dated: October 18, 2016

DEVLIN LAW FIRM LLC

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