

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

IC DISPLAY SYSTEMS, LLC,

Plaintiff,

v.

LENOVO HOLDING COMPANY, INC.  
and LENOVO (UNITED STATES), INC.,

Defendants.

**Civil Action No. 1:17-cv-267-LPS-CJB**

**JURY TRIAL DEMANDED**

**AMENDED COMPLAINT FOR PATENT INFRINGEMENT**

Plaintiff IC Display Systems LLC (“IC Display” or “Plaintiff”), for its Complaint against Defendants Lenovo Holding Company, Inc. (“LHCI”), and Lenovo (United States), Inc. (“Lenovo U.S.A.”) (individually each a “Defendant” and collectively “Defendants” or “Lenovo”) 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 and can be served through its registered agent at 717 North Union Street, Wilmington, Delaware 19805.

3. Upon information and belief, LHCI is a corporation organized and existing under the laws of Delaware, with a place of business at 1009 Think Place, Morrisville, North Carolina 27560, and can be served through its registered agent, The Corporation Trust Company, Corporation Trust Center 1209 Orange Street, Wilmington, Delaware 19801. Upon information

and belief, LHCI 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, Lenovo U.S.A. is a corporation organized and existing under the laws of Delaware, with a place of business at 1009 Think Place, Morrisville, North Carolina 27560, and can be served through its registered agent, The Corporation Trust Company, Corporation Trust Center 1209 Orange Street, Wilmington, Delaware 19801. Upon information and belief, Lenovo 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 LHCI and Lenovo U.S.A. because they are incorporated in Delaware and have purposely availed themselves 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:

Lenovo Thinkvision L1711p LCD Monitor, Lenovo ThinkVision L197w LCD Monitor, Lenovo ThinkVision L2440p LCD Monitor, Lenovo L215P Full HD LCD Monitor, Lenovo ThinkVision L1951P LCD Monitor, Lenovo L215 Full HD LCD Monitor, Lenovo L215P Full HD LCD Monitor, Lenovo ThinkVision L2250P LCD Monitor, Lenovo ThinkVision L1900p LCD Monitor, Lenovo ThinkVision L2251P LCD Monitor, Lenovo ThinkVision L2251X LCD

Monitor, Lenovo D186 Wide Monitor, Lenovo ThinkVision L2461X LCD Monitor, Lenovo L2361P LCD Monitor, Lenovo L2461X LCD Monitor, Lenovo L2261 LCD Monitor, Lenovo ThinkVision T2364t LCD Monitor, Lenovo ThinkVision T2324d 23-inch LED Backlit LCD Monitor, Lenovo ThinkVision Pro2820 28-inch WVA LED Backlit LCD Monitor, Lenovo ThinkVision T2424z 23.8-inch WVA LED Backlit LCD Monitor, Lenovo ThinkVision T2224z 21.5-inch WVA LED Backlit LCD Monitor, Lenovo ThinkVision T2224p 21.5-inch WVA LED Backlit LCD Monitor, Lenovo ThinkVision T2254p 22-inch LED Backlit LCD Monitor, Lenovo ThinkVision T2454p 24-inch WUXGA LED Backlit LCD Monitor, Lenovo ThinkVision T2424p 23.8-inch FHD LED Backlit LCD Monitor, Lenovo ThinkVision E2054 19.5-inch LED Backlit LCD Monitor, Lenovo ThinkVision T2324p 23-inch FHD LED Backlit LCD Monitor, Lenovo ThinkVision LT2024 20-inch LED Backlit LCD Monitor, Lenovo ThinkVision T1714p 17-inch Square LED Backlit LCD, Lenovo ThinkVision T2054p 19.5-inch LED Backlit LCD Monitor, Lenovo ThinkVision T2224d 21.5-inch LED Backlit LCD Monitor, Lenovo ThinkVision LT1913p 19-inch Square In-Plane Switching LED Backlit LCD Monitor (the “Infringing Instrumentalities”). Exemplary images of the Infringing Instrumentalities and such liquid crystal panels are provided below:

**Lenovo L215wA Full HD LCD Monitor**

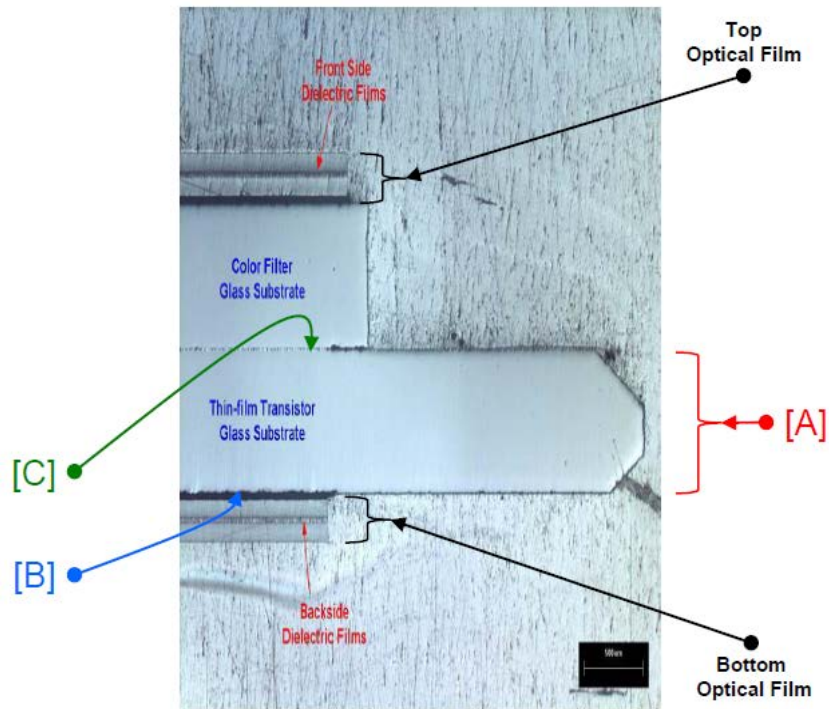


**LG LCD Module, LM215WF1  
used in Lenovo L215wA Full HD LCD Monitor**

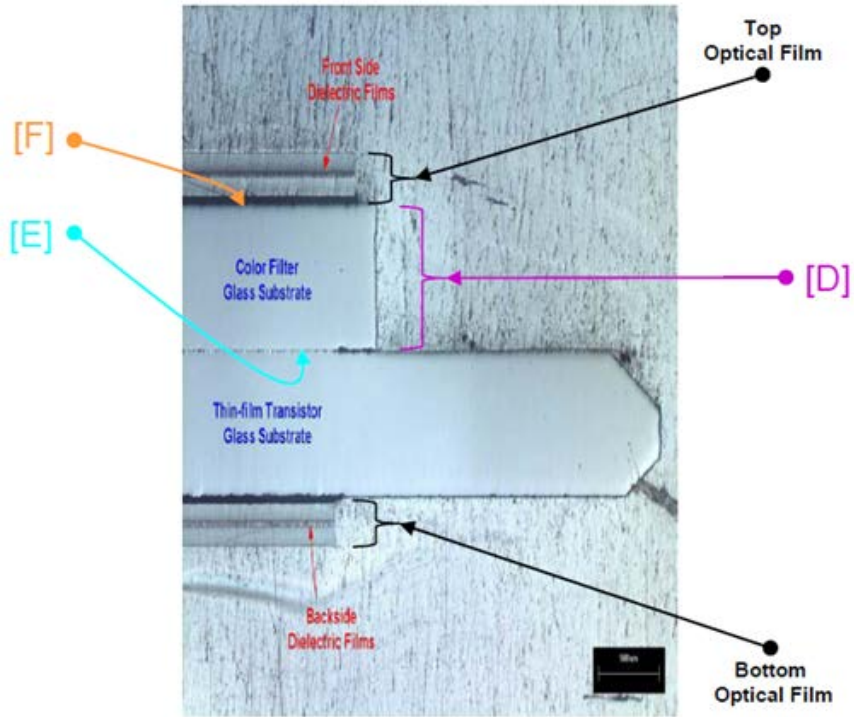
13. Claim 1 of the '561 patent generally recites a liquid crystal panel, comprising: a first transparent substrate having a first principal surface and a second principal surface opposite to the first principal surface; a second transparent substrate having a third principal surface and a fourth principal 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, comprising: a first transparent substrate (designated [A] below) having a first principal surface (designated [B] below) and a second principal surface (designated [C] below) opposite to the first principal surface; a second transparent substrate (designated [D] below) having a third principal surface (designated [E] below) and a fourth principal surface (designated [F] 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 [G] below); a liquid crystal layer (designated [H] below) interposed between the second principal surface and the third principal surface so as to fill the gap; at least one transparent film (designated [I] below)

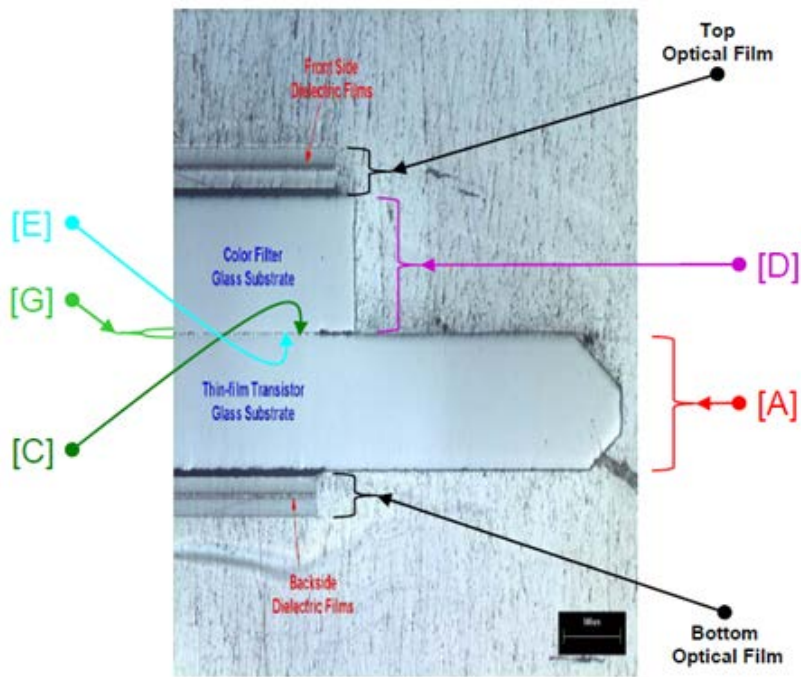
provided on at least one of the first and fourth principal surfaces; an adhesive layer (designated [J] below) interposed between the transparent film and at least one of the first and fourth principal surfaces on which the transparent film is provided, wherein the adhesive layer substantially smooths out minor defects on the principal surface associated therewith; and a dielectric multilayer film (designated [K] below) provided on the transparent film



**Cross Sectional View of LG LCD panel  
in LG LCD Module, LM215WF1**

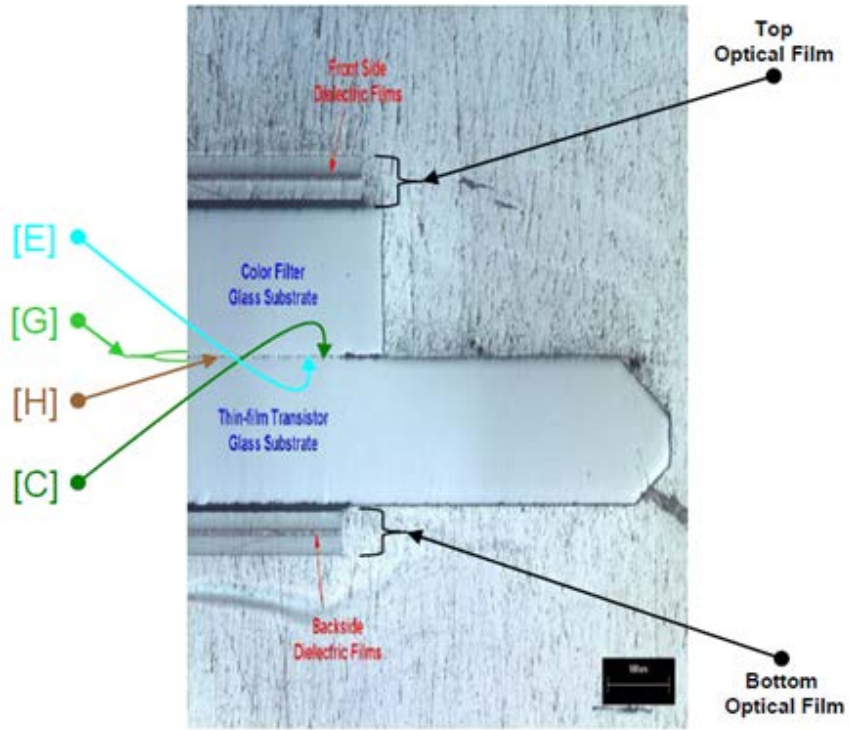


Cross Sectional View of LG LCD panel in LG LCD Module, LM215WF1

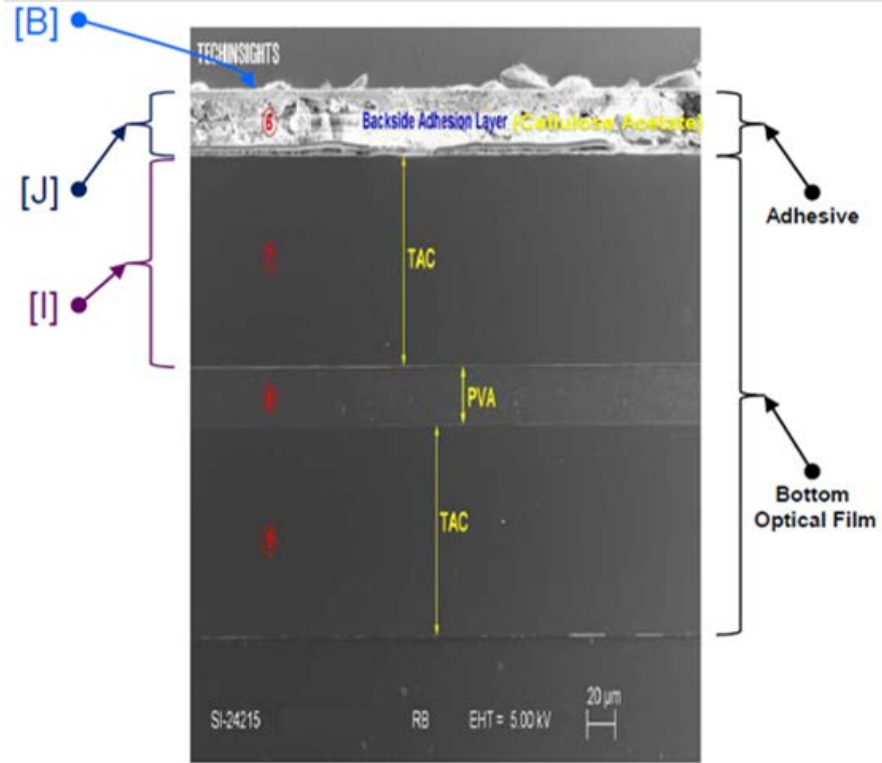


Cross Sectional View of LG LCD panel in LG LCD Module, LM215WF1

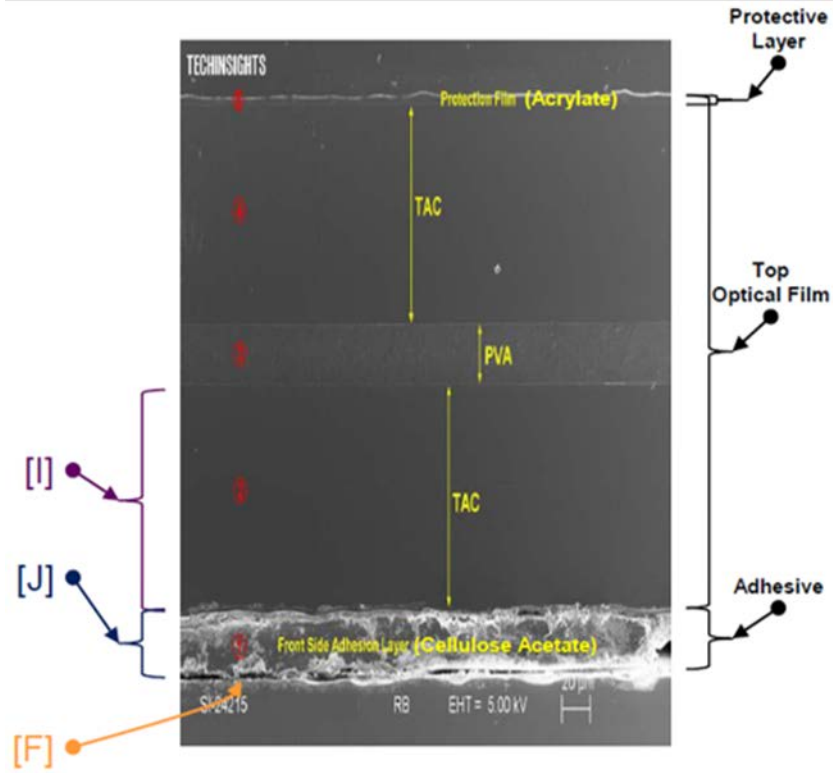




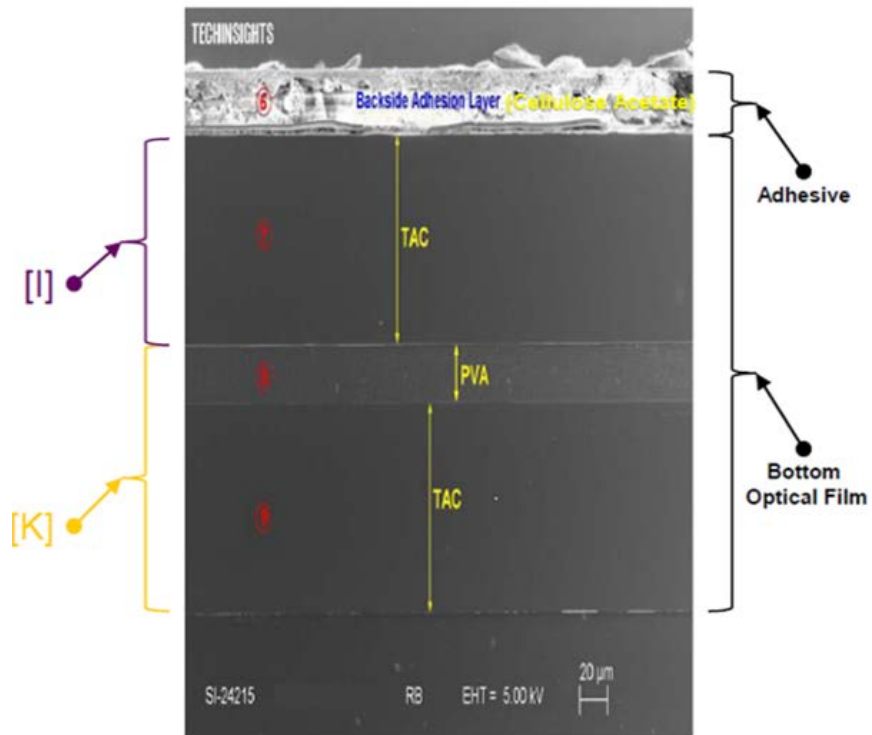
**Cross Sectional View of LG LCD panel  
in LG LCD Module, LM215WF1**



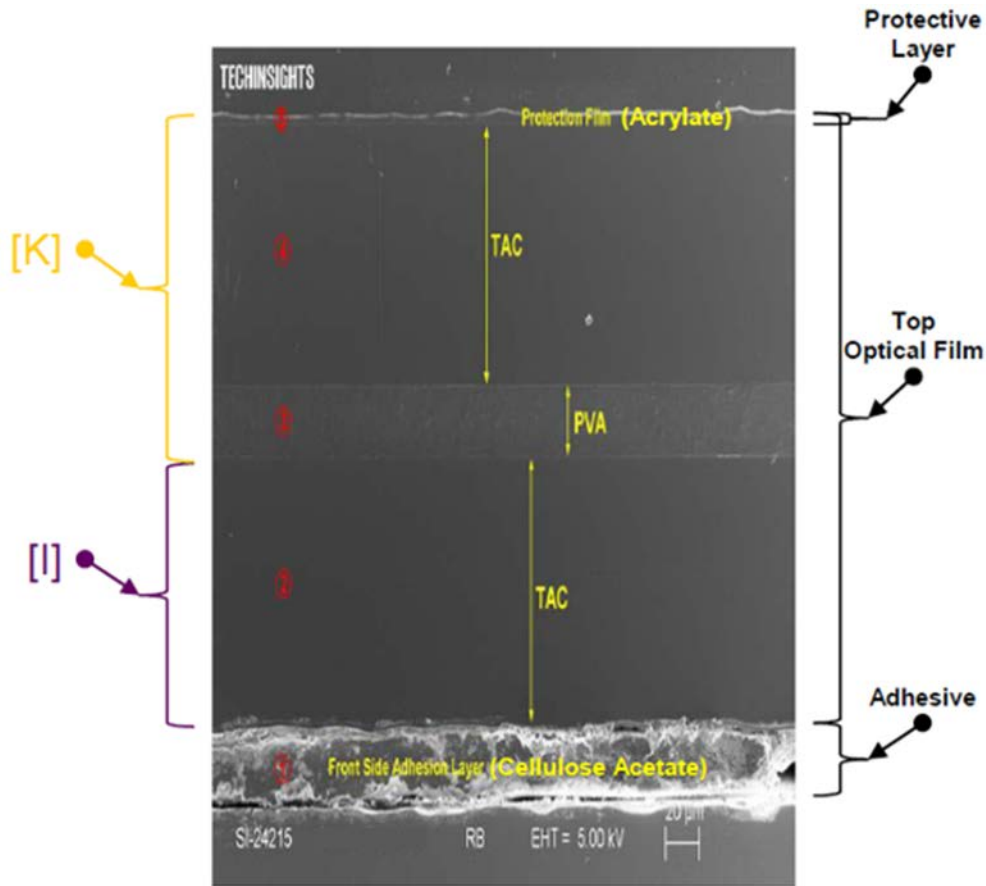
Magnified View of Bottom Optical Film



Magnified View of Top Optical Film



Magnified View of Bottom Optical Film



**Magnified View of Top Optical Film**

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  $\pm 0.2$  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 [J] (as shown in paragraph 14 above) with a refractive index (designated [L] below) within a range of  $\pm 0.2$  (designated [M] below) from a refractive index of said first and second substrates (designated [N] below).

**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 <sup>2</sup>	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 <sup>1</sup>	3	69	2.0 mil/2.0 mil	1.473	0.4		
8214 <sup>1</sup>	4	67	2.0 mil/2.0 mil	1.474	1.2		
8215 <sup>1</sup>	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 <sup>1</sup>	3	67	2.0 mil/2.0 mil	1.487	0.3		
8273D <sup>1,2</sup>	3	60	2.0 mil/2.0 mil	1.489	1.4		
8274 <sup>1</sup>	4	80	2.0 mil/2.0 mil	1.487	0.1		
8275 <sup>1</sup>	5	80	2.0 mil/2.0 mil	1.487	0		

[L]

<sup>1</sup> Made to order. Longer lead time required.  
<sup>2</sup> 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](http://www.3M.com/electronics)  
 1-800-251-8634

[N]

<b>Corning® EAGLE XG™ AMLCD Glass Substrates Material Information</b>	
<b>Optical Wavelength</b>	<b>Refractive Index</b>
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.**  
12<sup>th</sup> floor, Taepyungro Building  
310 Taepyungro-2ga  
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Fax: +82 2-728-0749  
Internet: www.samsungscp.co.kr

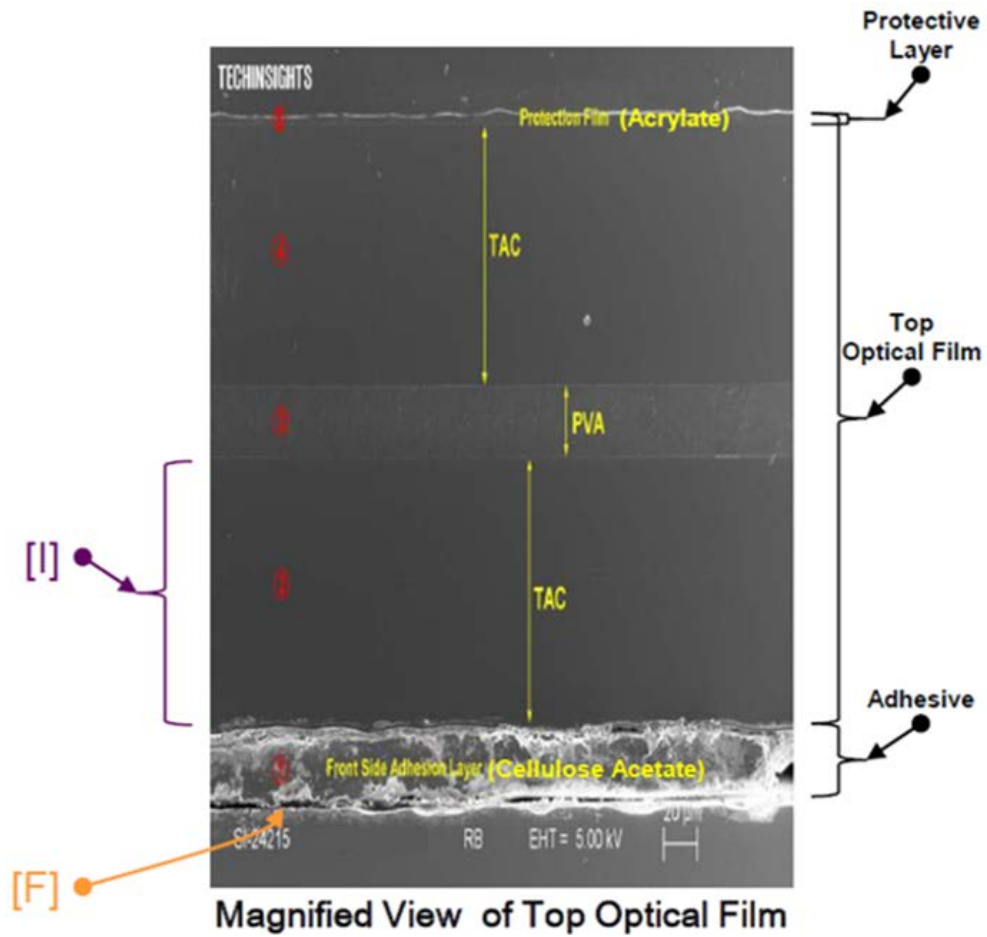
[M]

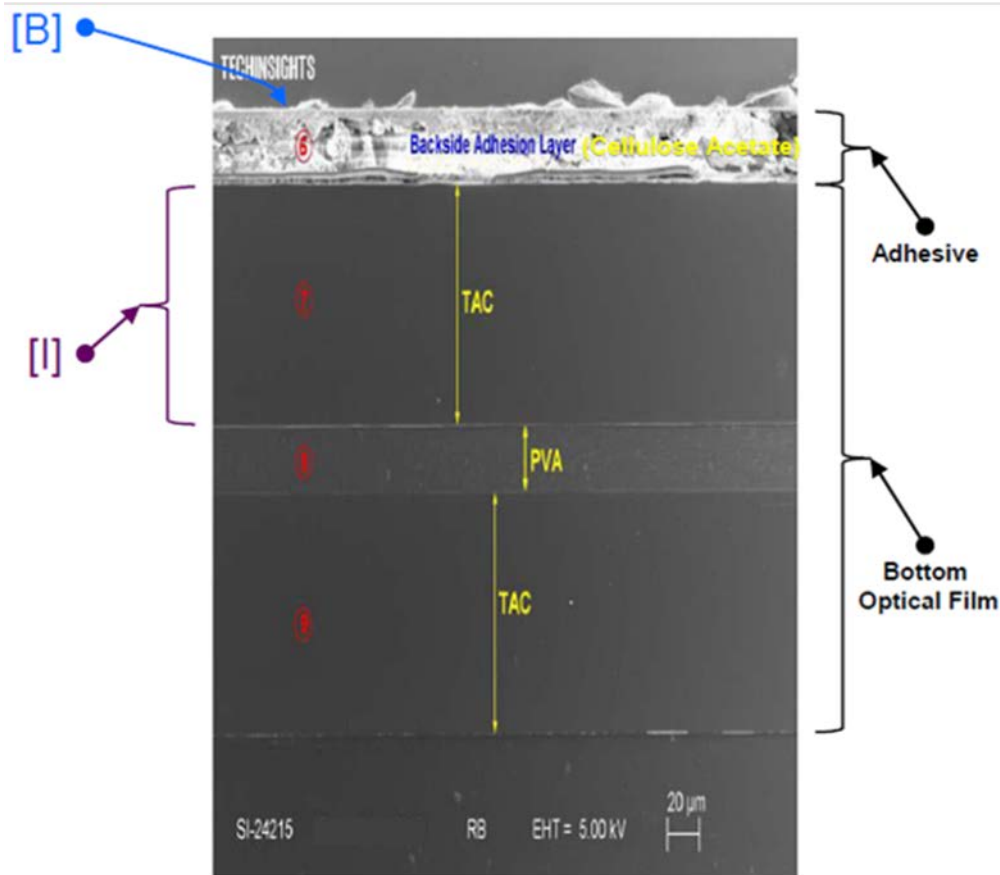
$$\begin{aligned} [M] &= [N] - [L] \\ &= 0.0448 [\text{Max}] \sim 0.0208 [\text{Min}] \\ &\leq \pm 0.2 \end{aligned}$$

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 [I] on both the first [B] and fourth principal surfaces [F].





**Magnified View of Bottom Optical Film**

19. 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, including interest, costs, expenses and an



accounting of all infringing acts including, but not limited to, those acts not presented at trial;  
and

C. An award to Plaintiff of such further relief at law or in equity as the Court deems  
just and proper.

Dated: May 16, 2017

DEVLIN LAW FIRM LLC

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*Attorneys for Plaintiff*  
*IC DISPLAY SYSTEMS, LLC*

**CERTIFICATE OF SERVICE**

The undersigned hereby certifies that all counsel of record who are deemed to have  
consented to electronic service are being served with a copy of this document via the Court's  
CM/ECF system per Local Rule CV-5 on May 16, 2017.

/s/ Timothy Devlin  
Timothy Devlin