

Deposition of Michael Stephen Lebby, Ph.D.  
Conducted on June 30, 2016

1	1 UNITED STATES PATENT AND TRADEMARK OFFICE 2 _____ 3 BEFORE THE PATENT TRIAL AND APPEAL BOARD 4 _____ 5 LG ELECTRONICS, INC., and 6 LG ELECTRONICS U.S.A., INC., 7 Petitioner 8 v. 9 TOSHIBA SAMSUNG STORAGE 10 TECHNOLOGY KOREA CORPORATION, 11 Patent Owner 12 _____ 13 Case IPR2015-01653 14 Patent RE43,106 15 16 Deposition of MICHAEL STEPHEN LEBBY, PH.D. 17 Arlington, Virginia 18 Thursday, June 30, 2016 19 9:03 a.m. 20 Job No. 115907 21 Pages 1 - 212 22 Reported by: Karen Young	3	1 A P P E A R A N C E S 2 ON BEHALF OF THE PETITIONER: 3 BRIAN A. TOLLEFSON, ESQUIRE 4 SOUMYA P. PANDA, ESQUIRE 5 ROTHWELL, FIGG, ERNST & MANBECK, P.C. 6 607 14th Street, Northwest, Suite 800 7 Washington, D.C. 20005 8 (202) 783-6040 9 10 ON BEHALF OF THE PATENT OWNER: 11 JOSEPH A. RHOA, ESQUIRE 12 NIXON & VANDERHYE P.C. 13 901 North Glebe Road, 11th Floor 14 Arlington, Virginia 22203-1808 15 (703) 816-4000 16 17 ALSO PRESENT: 18 Justin Burnam, Nixon Vanderhye 19 20 21 22
2	1 Deposition of MICHAEL STEPHEN LEBBY, PH.D., 2 held at the offices of: 3 NIXON & VANDERHYE P.C. 4 901 North Glebe Road, 11th Floor 5 Arlington, Virginia 22203-1808 6 (703) 816-4000 7 8 9 10 11 Pursuant to notice, before Karen Young, 12 Notary Public of the Commonwealth of Virginia 13 14 15 16 17 18 19 20 21 22	4	1 C O N T E N T S 2 EXAMINATION OF MICHAEL STEPHEN LEBBY, PH.D. PAGE 3 By Mr. Tollefson..... 5 4 By Mr. Rhoa..... 206 5 By Mr. Tollefson..... 207 6 7 8 9 10 E X H I B I T S 11 (No new exhibits were marked.) 12 PREVIOUSLY MARKED 13 Exhibit 1001 '106 reissued patent by Yoo et al 147 14 Exhibit 1002 Document 180 15 Exhibit 2002 Declaration 5 16 17 18 19 20 21 22

LG Electronics, Inc. et al.  
**EXHIBIT 1021**  
IPR Petition for  
U.S. Patent No. RE43,106

<p style="text-align: right;">5</p> <p>1 PROCEEDINGS 2 MICHAEL STEPHEN LEBBY, PH.D., 3 having been duly sworn, was examined as follows: 4 - - - 5 EXAMINATION BY COUNSEL FOR THE PETITIONER 6 BY MR. TOLLEFSON: 7 Q Good morning. 8 A <b>Morning.</b> 9 Q Could you please state your full name for 10 the record? 11 A <b>Michael Stephen Lebby. Stephen with a</b> 12 <b>P-H.</b> 13 Q And could you please state your home 14 address for the record? 15 A <b>680 Mission Street, 24F, San Francisco,</b> 16 <b>CA 94105.</b> 17 Q I'm handing you what's previously been 18 marked Exhibit 2002 to IPR2015-01653. Do you 19 recognize that document, Dr. Lebby? 20 A <b>Yes, I do.</b> 21 Q Okay, and what is that document I just 22 handed to you?</p>	<p style="text-align: right;">7</p> <p>1 routine. I'm going to refresh your memory on some 2 of the processes and ground rules. So this -- this 3 deposition is a cross examination based on the 4 declaration that you've submitted in the IPR, and 5 I'll be asking questions, and the court reporter 6 will be writing down everything we say, so I'll do 7 my best not to ask a question, while you're in the 8 middle of the answer, I'll try not to interrupt 9 you, and I ask that you wait until I finish my 10 question before you answer. Is that okay? 11 A <b>That's fine.</b> 12 Q Okay. And since the printed record -- 13 there's no videotape here, the printed record is 14 going to be used in the proceeding, I ask that you 15 give audible answers, no uh-huhs and head nods, 16 that they won't be recorded properly, so yeses and 17 nos or -- or full sentence answers. Is that okay? 18 A <b>That's fine.</b> 19 Q Okay, good. Is there any reason such as 20 any medical conditions or any medicines or anything 21 that you'd be on that would prevent you from 22 answering truthfully and honestly today?</p>
<p style="text-align: right;">6</p> <p>1 A <b>That's my declaration.</b> 2 Q And this is the declaration that was 3 submitted on behalf of Patent Owner Toshiba Samsung 4 Storage Technology Korea Corporation in an IPR 5 proceeding, correct? 6 A <b>That is correct.</b> 7 Q And you've been retained by the patent 8 owner to assist in this matter? 9 A <b>That is correct.</b> 10 Q Dr. Lebby, have you ever been retained to 11 perform any expert consultation work in an IPR 12 proceeding before this current proceeding? 13 A <b>Yes, I have.</b> 14 Q About how many proceedings? 15 A <b>I don't recall exactly, but probably</b> 16 <b>three to five.</b> 17 Q Have you ever had your deposition taken 18 before? 19 A <b>Yes, I have.</b> 20 Q About how many times? 21 A <b>Twelve, plus or minus a few.</b> 22 Q Okay, great. Then you understand the</p>	<p style="text-align: right;">8</p> <p>1 A <b>No.</b> 2 Q Okay. And if I ask a question and you 3 don't understand the question, I ask that you 4 please let me know that, and if you answer a 5 question, I'll have to assume that you understood 6 the question, okay? 7 A <b>That's correct.</b> 8 Q Okay. If you could turn to page 16 of 9 your declaration, Exhibit 2002, are you there, 10 Dr. Lebby? 11 A <b>Yes, I'm there.</b> 12 Q Okay. Is that your signature on that 13 page? 14 A <b>That certainly looks like my signature.</b> 15 Q Do you recall signing the declaration? 16 A <b>I recall signing a declaration a couple</b> 17 <b>months ago, yes.</b> 18 Q Okay, and there's a date on that page. 19 Do you see that date? 20 A <b>Date says the 5th of May 2016.</b> 21 Q Okay. Do you believe that you signed 22 this declaration on May 5th, 2016?</p>

9

1 **A Yes.**

2 Q Okay. And if you could turn the page to

3 the next page, which is -- appears to be page 1 of

4 your resume, if you wouldn't mind, could you flip

5 through that and confirm for me that that is your

6 resume, Dr. Leppy?

7 **A Yes, I confirm this is my resume.**

8 Q Okay. Do you happen to know when this

9 copy of the resume was last updated? Let me -- let

10 me reask the question. I'm not asking about this

11 exact copy. I mean the version of the resume

12 that's attached to your declaration, can you let me

13 know whether you recall the last time that was

14 updated?

15 **A It was probably April or May this year.**

16 Q Are you aware of anything -- any

17 inaccuracies in the resume that you'd like to

18 correct?

19 **A Not at this time.**

20 Q Okay. Have you ever been engaged to work

21 in -- excuse me, rephrase my question. Have you

22 ever been engaged by Samsung in the past to provide

10

1 expert consulting services?

2 **A Yes, I have.**

3 Q And in connection with patent litigation?

4 **A Correct.**

5 Q Are those engagements listed in your

6 resume?

7 **A Page 5 of my resume, looks like case 10,**

8 **I represented Samsung as the respondent to Optical**

9 **Devices, and also I believe page 4, case 4, I**

10 **represented Samsung as a respondent for another ITC**

11 **case.**

12 Q Are there any other engagements that

13 you're aware of where you were asked to provide

14 expert consulting services to Samsung?

15 **A I believe that is it.**

16 Q So there's no engagements that you're

17 aware of where you provided expert services --

18 expert consulting services to Samsung that are not

19 listed in your resume?

20 **A That's correct.**

21 Q How about Toshiba? Have you ever been

22 engaged by Toshiba before to provide expert

11

1 consulting services?

2 **A I believe the answer's no.**

3 Q If I refer to Toshiba Samsung Storage

4 Technology Corporation Korea as TSSTK, will that

5 work for you for the deposition?

6 **A Yes.**

7 Q Okay, so when I say TSSTK, I mean the

8 patent owner in this case. Prior to your

9 engagement in this matter, IPR2015-01653, have you

10 been asked or been engaged by TSSTK to provide

11 expert consulting services?

12 **A No.**

13 Q When did you -- when were you engaged by

14 TSSTK in this matter?

15 **A I believe it was the first quarter of**

16 **this year, but I don't know exactly.**

17 Q Were you engaged by a law firm or were

18 you engaged directly by TSSTK?

19 **A In this particular case, I believe it was**

20 **a referral from the previous law firm that**

21 **represented TSSK -- TSSTK.**

22 Q Do you remember the law firm?

12

1 **A DLA Piper.**

2 Q So DLA Piper hired you?

3 **A Yes. Well, "hired" is an interesting**

4 **term. I got approved, but there was no work until**

5 **the law firm was changed.**

6 Q Okay. So you didn't begin working on

7 your declaration until the law firm changed to

8 current counsel?

9 **A That is correct.**

10 Q Do you have representation today? Are

11 you being represented by a lawyer?

12 **A No, unless my counsel -- well, I don't**

13 **understand the question. I mean, I don't have a**

14 **personal lawyer, but I'm represented by my counsel**

15 **here.**

16 Q Do you have an understanding whether Mr.

17 Rhoa's representing you today for the purpose of

18 this deposition?

19 **A Yes, he is.**

20 Q Are you paying Mr. Rhoa to represent you

21 today in this deposition?

22 **A No.**

13

1 Q Do you know who's paying Mr. Rhoa to  
2 represent you today?  
3 A **I don't know the answer to that question.**  
4 Q Were you asked to pay Mr. Rhoa for his  
5 time today?  
6 A **No.**  
7 Q Did you do anything to prepare for this  
8 deposition?  
9 A **I read documents over the last two days.**  
10 Q What documents did you review?  
11 A **I don't know if I can list them by  
12 memory, but certainly my declaration, and also my  
13 counsel's declaration and petition on behalf of the  
14 patent owner. I also read the deposition of your  
15 expert, and I read the APA section of the '106  
16 patent, the '106 patent, and the '750 patent.**  
17 Q Do you recall any more documents?  
18 A **There was a couple of other documents,  
19 but I don't recall their titles.**  
20 Q Do you recall whether they were patent  
21 documents or other kinds of documents?  
22 A **No, they were legal documents.**

14

1 Q Did any of these legal documents refresh  
2 your memory as to anything that you may anticipate  
3 testifying about today?  
4 A **No.**  
5 Q These legal documents -- were they big  
6 thick documents, legal documents?  
7 A **I believe one of them was your expert's  
8 report, which I did not read in total, but I was  
9 certainly shown a copy of it, and I believe another  
10 one of the documents may have been an LG petition I  
11 believe.**  
12 Q Okay, so when you said that you had read  
13 the petition on behalf of the patent owner, is it  
14 possible you meant to say the patent owner's reply?  
15 A **It was filed by my counsel, yes, I  
16 believe it might be the right phrase.**  
17 Q And then you also read the petition filed  
18 by LG that initiated the challenge against the  
19 patent in this IPR; is that right?  
20 A **That's correct.**  
21 Q Okay. Other than reading these  
22 documents, did you do anything else to prepare for

15

1 this deposition today?  
2 A **Yes, I had discussions with my counsel  
3 yesterday.**  
4 Q About how long were your discussions with  
5 counsel yesterday?  
6 A **The majority of the day yesterday.**  
7 Q And what does that -- what does that  
8 mean, majority of the day?  
9 A **From 9:00 a.m. to 4:00 p.m.**  
10 Q Did you have any other discussions with  
11 counsel besides the ones that you had yesterday in  
12 preparation for this deposition?  
13 A **No.**  
14 Q And when you said someone showed you  
15 copies, who showed you copies of documents?  
16 A **My counsel.**  
17 Q And that was in the meeting yesterday?  
18 A **Correct.**  
19 Q Did you review any documents outside of  
20 your meeting yesterday in preparation for this  
21 deposition today?  
22 A **Only last night and this morning.**

16

1 Q And the documents that you read last  
2 night and this morning -- do you recall which  
3 documents those were?  
4 A **My declaration, my counsel's petition,  
5 and the two patents in question.**  
6 Q If you could turn back to page 4 of your  
7 resume, at the very top is a reference to a  
8 Ziptronix, Inc. V OmniVision Technologies, Inc. and  
9 some other companies. That's a description of a  
10 litigation where you were engaged to provide expert  
11 consulting services to Ziptronix; is that correct?  
12 A **Yes.**  
13 Q And the subject matter of the litigation  
14 was CMOS-based image sensor materials, devices,  
15 optics and products?  
16 A **Correct.**  
17 Q Is CMOS-based image sensor materials,  
18 devices, optics and products an area that you would  
19 consider yourself an expert in?  
20 A **I believe so, yes.**  
21 Q Is there -- do you recall precisely what  
22 the technology was? Like could you explain to me

17

1 in more detail than this general description?  
2 **A CMOS-based image sensor is typically you**  
3 **would see as a camera on a cell phone, so it's an**  
4 **array of photo detectors made out of silicon.**  
5 Q Okay. Did it involve the actual sensor  
6 or did it involve the lens?  
7 **A In this particular case it was the actual**  
8 **sensor that was made out of the silicon**  
9 **semiconductor.**  
10 Q Did it have anything to do with focusing  
11 laser light on an optical disk?  
12 **A In this particular case it did not use**  
13 **laser light.**  
14 Q Okay. Item number 2 says testimony for  
15 U.S.-China Economic and security review commission  
16 on the optoelectronics industry. What was the  
17 subject matter of your statement?  
18 **A The U.S. optoelectronics industry that**  
19 **encompasses all different types of optoelectronics,**  
20 **ranging from consumer optoelectronics to fiber**  
21 **optics displays. It's a very broad definition.**  
22 Q What is optoelectronics?

18

1 **A Optoelectronics is the subject matter to**  
2 **do with both the optical and the electronics side**  
3 **of things in terms of devices and optics.**  
4 Q Now, can you state a little bit more  
5 about that? I don't really understand what you  
6 mean, the optical and electronics sides of things  
7 in terms of devices and optics.  
8 **A Part of the responsibilities of OIDA,**  
9 **which is the optoelectronics association that I**  
10 **worked for at that time, included work on optical**  
11 **storage, fiber optics, displays, optics in general,**  
12 **laser diodes, LEDs.**  
13 Q So what kind of work did you do with  
14 optical storage at this time? Let me reask the  
15 question for you. So at this time, which is March  
16 24th, 2009, you were working for the  
17 optoelectronics association; is that correct?  
18 **A OIDA stands for Optoelectronics Industry**  
19 **Development Association.**  
20 Q And you were working for OIDA?  
21 **A Correct.**  
22 Q And you said you were doing work in the

19

1 optical storage area; is that --  
2 **A Correct.**  
3 Q What sort of work were you doing in the  
4 optical storage area?  
5 **A Typically the association represents**  
6 **industry for work in government. And also at this**  
7 **time, we arranged workshops and conferences in the**  
8 **field, and we also did technical road maps or**  
9 **technology road maps of the field.**  
10 Q And when you say we, are you referring to  
11 OIDA or are you referring to yourself?  
12 **A I'm referring to both.**  
13 Q Is there anything else you did in the  
14 optical storage area for OIDA?  
15 **A We wrote monthly reports, we gave**  
16 **technical updates to the industry, so there's a lot**  
17 **of things that the industry association did.**  
18 Q Okay. And these technical reports, or  
19 excuse me. These technical updates -- what sort of  
20 things in the optical storage area did you update  
21 the industry on?  
22 **A Technologies such as laser diodes, some**

20

1 **of the optics that's used in the storage systems,**  
2 **photo detectors used in storage systems, even to**  
3 **the extent of forecasting disks, the growth of the**  
4 **industry, cost of DVDs, CD, Blu-ray type players,**  
5 **how many units were sold, who was buying the units,**  
6 **typical market data as well.**  
7 Q Okay. Did you design products at that  
8 time?  
9 **A OIDA is a trade association. It doesn't**  
10 **design products.**  
11 Q Okay. So you -- at this time, you did  
12 not design products?  
13 **A That is correct.**  
14 Q So when you say you're updating the  
15 industry on all this sort of laundry list of  
16 things, did OIDA do research and then provide the  
17 industry results of the research?  
18 **A That's correct.**  
19 Q So what kind of research did you do in  
20 the optical storage area?  
21 **A Looking at publications, talking to**  
22 **industry, talking to companies that produce these**

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