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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

CIRRUS LOGIC, INCORPORATED,
OMNIVISION TECHNOLOGIES, INCORPORATED, and
TEXAS INSTRUMENTS INCORPORATED,
Petitioners.

v.

GREENTHREAD, LLC,
Patent Owner

IPR2024-00017 (Patent No. 8,421,195)1
IPR2024-00018 (Patent No. 9,190,502)2
IPR2024-00019 (Patent No. 11,316,014)3
IPR2024-00020 (Patent No. 11,121,222)
IPR2024-00021 (Patent No. 11,121,222)4

CONFIDENTIAL

DEPOSITION OF ROBERT CLEARY, JR.

APPEARING REMOTELY

July 29, 2025

1:00 p.m.

Reported by: Eileen Mulvenna, CSR/RMR/CRR/RDR

DIGITAL EVIDENCE GROUP
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Page 2 1 REMOTE DEPOSITION of ROBERT CLEARY, JR., a 2 witness on behalf of the OmniVision Technologies in 3 the above-titled action, held on July 29, 2025, 4 commencing at approximately 1:00 p.m., before 5 Eileen Mulvenna, CSR/RMR/CRR/RDR, Certified 6 Shorthand Reporter, Registered Merit Reporter, 7 Certified Realtime Reporter, Registered Diplomate 8 Reporter, and Notary Public of the State of New 9 York. 10 11 12 13 14 15 16 17 18 19 20 21 22	Page 4 1 INDEX 2 WITNESS EXAMINATION BY PAGE 3 ROBERT CLEARY, JR. 4 MR. HEJNY 5 5 6 EXHIBITS 7 PAGE 8 Exhibit 2031 No Bates numbers, Intel 54 9 RealSense Product Family 10 D400 Series Datasheet 11 12 13 14 15 16 17 18 19 20 21 22
Page 3 1 A P P E A R A N C E S: 2 3 4 DAVID H. BLUESTONE, ESQUIRE 5 Attorneys for Petitioner OmniVision Technologies 6 BENESCH FRIEDLANDER COPLAN & ARONOFF LLP 7 71 South Wacker Drive, Suite 1600 8 Chicago, Illinois 60606 4637 9 312.517.9564 10 dblostone@beneschlaw.com 11 12 13 SCOTT W. HEJNY, ESQUIRE 14 BRANDON MERRILL, ESQUIRE 15 Attorneys for Patent Owner 16 MCKOOL SMITH, P.C. 17 300 Crescent Court, Suite 2100 18 Dallas, Texas 75201 19 214.978.4000 20 shejny@mckoolsmith.com 21 22	Page 5 1 THE REPORTER: Before I swear in the 2 witness, do all counsel stipulate to the 3 witness being sworn in remotely? 4 MR. HEJNY: Yes. 5 MR. BLUESTONE: Yes. 6 THE REPORTER: Counsel, please state 7 your appearances and whom you represent for 8 the record. 9 MR. HEJNY: Scott Hejny, McKool Smith, 10 on behalf of Greenthread. And with me is my 11 colleague Brandon Merrill. 12 MR. BLUESTONE: David Bluestone of 13 Benesch Friedlander Coplan & Aronoff on 14 behalf of OmniVision Technologies, Inc. 15 ROBERT CLEARY, JR., 16 having been duly sworn by Eileen Mulvenna, 17 a Notary Public of the State of New York, 18 was examined and testified as follows: 19 EXAMINATION 20 BY MR. HEJNY: 21 Q. Hello, Mr. Cleary. How are you today? 22 A. Good.

Page 6 1 Q. Have you ever been deposed before? 2 A. No. 3 Q. Have you ever taken a deposition 4 before? 5 A. Yes. 6 Q. So I'm not going to go through the 7 rules of the road with you. I'm sure you know all 8 the details about the deposition. 9 Let me know if we need to take a 10 break. We'll probably take a break about every 11 hour. But if you need one beforehand, just let me 12 know. 13 A. Okay. 14 Q. Is there any reason you believe you 15 can't provide truthful and accurate testimony here 16 today in your deposition? 17 A. No. 18 Q. Is there anyone present in the room 19 with you today, Mr. Cleary? 20 A. No. 21 Q. Where are you located? 22 A. Santa Clara, California.	Page 8 1 Mr. Chan? 2 A. I just wanted to double confirm with 3 him my understanding that OmniVision has not made a 4 single sale to Intel since the year 2020. 5 Q. Okay. Anyone else? Did you speak to 6 anyone other than Mr. Bluestone or Mr. Chan? 7 A. No. 8 Q. And do you have a copy of your 9 declaration with you today? 10 A. Yes. 11 Q. And this is the declaration of Robert 12 Cleary -- Cleary -- pardon me -- dated July 11, 13 2025? 14 A. Yes. 15 Q. Did you draft this declaration? 16 A. I was involved in the drafting, yes. 17 Q. Did you write certain portions of the 18 declaration? 19 A. Yes. 20 Q. Which portions did you write? 21 A. I don't recall exactly which portions. 22 It was a joint effort between me and my outside
Page 7 1 Q. Are you in your office? 2 A. I'm in a conference room. 3 Q. But it's an OmniVision conference room 4 in Santa Clara, California? 5 A. Yes. 6 Q. What did you do to prepare for your 7 deposition today? 8 A. I spoke to Dave Bluestone yesterday. 9 Q. About how long? 10 A. I don't know. It was on and off. 11 Q. More than an hour? 12 A. Yes. 13 Q. More than two hours? 14 A. Yes. 15 Q. Can you give me a ballpark estimate? 16 A. Probably three hours, I guess. 17 Q. Sure. 18 Did you speak to anyone other than 19 Mr. Bluestone in preparation for your deposition? 20 A. I spoke briefly to Anson Chan, our 21 CFO. 22 Q. And what did you discuss with	Page 9 1 counsel. 2 Q. Did anyone else at OmniVision help in 3 the preparation of your declaration? 4 A. I mean, not directly in the drafting 5 of it, no. 6 Q. What about -- did you conduct an 7 investigation in preparing the declaration and the 8 statements made therein? 9 A. Yes. 10 Q. And what did you do as part of that 11 investigation? 12 A. Somewhat summarized in the 13 declaration. Do you have anything more specific you 14 want to ask? 15 Q. Well, just generally, what did you do 16 when you conducted your investigation to prepare 17 this declaration? 18 A. I searched legal's databases for 19 anything related to Intel. 20 Q. You said you searched legal's 21 databases. What are -- what are legal's databases? 22 A. It is the repository where all of our

Page 10 1 contracts are stored. 2 Q. So that repository would include 3 contracts with OmniVision's customers? 4 A. Yes. 5 Q. Would it also include contracts with 6 OmniVision's suppliers? 7 A. Yes. 8 Q. How long did you spend searching 9 legal's databases? 10 A. This was the beginning of July, I 11 believe. So I don't specifically remember exactly 12 how long. It probably didn't take me more than 13 30 minutes. 14 Q. And what else did you do as part of 15 your investigation when completing your declaration? 16 A. I asked our CFO to give me a summary 17 of all records of all sales to Intel. 18 Q. And did he provide that summary to 19 you? 20 A. He did. 21 Q. And what did that summary look like? 22 A. It looked like we didn't make any	Page 12 1 you spoke with Mr. Chan. 2 How long did it take Mr. Chan to 3 prepare the summary for you? 4 A. He turned it around pretty quickly. 5 Must have been 30 minutes. 6 Q. So you spent roughly an hour in total 7 confirming the accuracy of the statements that you 8 made in your declaration? 9 MR. BLUESTONE: Object to form. 10 THE WITNESS: That's a 11 mischaracterization. That's not true. 12 BY MR. HEJNY: 13 Q. How long did you spend preparing and 14 confirming the accuracy of your declaration? 15 A. My declaration has multiple 16 paragraphs. You have, so far, only asked me about 17 the contents that would arguably be probably a few 18 of them. 19 So can you repeat the question. 20 Q. Sure. 21 So how long did you spend preparing 22 your declaration?
Page 11 1 sales after the year 2020. 2 Q. Did he send you a document reflecting 3 the sales summary? 4 A. Yes. 5 Q. But you didn't attach that document to 6 your declaration? 7 A. No. It was not relevant. 8 Q. So evidence of the absence of sales, 9 in your opinion, is not relevant to your 10 declaration? 11 A. That's not what I said. 12 Q. Well, you said that your CFO -- is 13 that Anson Chan? 14 A. Yes. 15 Q. So Mr. Chan sent you a document that 16 included a sales summary of sales to Intel; correct? 17 A. Correct. 18 Q. And you did not attach that as 19 evidence in support of your declaration; is that 20 also correct? 21 A. Correct. 22 Q. So you searched legal's databases and	Page 13 1 A. Again, drafting it, probably two to 2 three hours, if that, but the investigation 3 underlying the facts, probably -- that was probably 4 more like three hours total, if I had to guess. 5 Q. Okay. So in preparing your 6 declaration, you searched legal's databases and you 7 asked Mr. Chan for a summary of Intel sales. 8 What else did you do as part of your 9 investigation? 10 A. I reviewed PDF pages 2 and 5 through 9 11 of Exhibit 2021 from IPR 2024-00017, because it 12 identified the relevant Intel accused products. 13 Q. And what did you do after reviewing 14 Exhibit 2021? 15 A. Scratched my head, because I was 16 confused specifically -- 17 MR. HEJNY: Objection, nonresponsive. 18 BY MR. HEJNY: 19 Q. What did you do after reviewing 20 Exhibit 2021? 21 A. That was literally what I did after I 22 read it. I -- I looked, and I understood that the

Page 14 1 Intel accused products are simply CPUs and flash 2 memory devices, which -- which I immediately 3 recognized have no relevance to anything that 4 OmniVision sells. 5 Q. And then what did you do after 6 reviewing Exhibit 2021, in the course of your 7 investigation? 8 A. Okay. I did collect all the documents 9 that I found in any way relate to Intel in legal's 10 databases, and I sent them to David Bluestone. 11 Q. But none of those documents are cited 12 to or attached to your declaration; correct? 13 A. I don't believe any of them were 14 attached. I'm not sure if any of them were directly 15 cited. 16 Q. Sure. 17 Take a second and read through your 18 declaration and see if you see any citations to 19 OmniVision documents. 20 (Document review.) 21 THE WITNESS: I don't think I would 22 call any of the -- any of the language in the	Page 16 1 them generally, but not -- not -- I didn't re-review 2 them for the declaration. 3 Q. When did you review the pleadings from 4 the IPRs listed on the front of your declaration? 5 A. I don't recall. 6 Q. Did you review them in connection with 7 the preparation of your declaration? 8 A. I already answered that. 9 Q. What's your answer? 10 A. The court reporter can read it back. 11 I didn't re-review them, but I have reviewed them 12 before. I didn't feel it was necessary to re-review 13 them. 14 Q. Why did you review them before? 15 A. Because we filed IPRs. 16 Q. Are you responsible for OmniVision's 17 participation in the IPRs listed on the cover sheet 18 of your declaration? 19 A. What do you mean, "responsible for"? 20 Q. You're in-house counsel for 21 OmniVision; correct? 22 A. Correct.
Page 15 1 declaration as citation to an OmniVision 2 document. 3 BY MR. HEJNY: 4 Q. And you don't see any specific 5 citations to OmniVision documents in your 6 declaration; correct? 7 A. I just said I don't -- I don't see 8 anything that would be classified as a citation. 9 Q. How long did you spend reviewing 10 Exhibit 2021? 11 A. About 10, 15 minutes. 12 Q. Did you review any of the -- strike 13 that. I'll start again. 14 On the first page of your declaration, 15 there's a list of IPR proceedings that began with 16 IPR 2024. 17 Do you see that? 18 A. Yes. 19 Q. Did you review any of the pleadings 20 filed in any of those IPR proceedings in connection 21 with the preparation of your declaration? 22 A. No. I don't -- I mean, I've reviewed	Page 17 1 Q. Are you responsible for the 2 prosecution of the IPR proceedings listed on the 3 cover sheet of your declaration? 4 MR. BLUESTONE: Objection, outside the 5 scope. 6 THE WITNESS: I mean, my outside 7 counsel is handling it. But, ultimately, I 8 am responsible for all patent litigation for 9 OmniVision Technologies, Inc., if that's what 10 you mean. 11 BY MR. HEJNY: 12 Q. Is there someone else on your in-house 13 legal team that's responsible for managing the IPRs 14 that are listed on the cover sheet of your 15 declaration? 16 A. No. 17 Q. So you haven't reviewed -- strike 18 that. 19 Did you review the board's order 20 ordering additional discovery in the IPRs listed on 21 the cover sheet of your declaration? 22 A. Yes.

Page 18 1 Q. When did you review that document? 2 A. Long after, I believe it was as soon 3 as I got a redacted version. So I don't know how 4 long that took after it was issued by the board. 5 Q. Your declaration is dated July 11th, 6 2025? 7 A. Yes. 8 Q. When were you first contacted about 9 providing a declaration in connection with the IPRs 10 listed on the cover sheet of your declaration? 11 A. I don't recall, but it was probably 12 soon after the order came out. 13 Q. Have you reviewed any of the parties' 14 arguments regarding why additional discovery should 15 or should not be granted in this case? 16 A. Are you referring to pleadings? 17 Q. Yes. 18 A. I am not certain if I read the actual 19 pleadings or not. I read the order that came 20 afterwards, but I just cannot recall if I read the 21 pleadings or just got a summary of them. 22 Q. Do you know why you were selected to	Page 20 1 A. I'm not aware of anyone in our entire 2 company that works with Intel presently. Again, we 3 haven't made a single sale to Intel since the year 4 2020. 5 Q. Is OmniVision a fabless semiconductor 6 company? 7 A. Yes. 8 Q. And you understand what I mean by 9 "fabless semiconductor organization"? 10 A. Yes. 11 Q. What does that mean to you from a 12 business perspective? 13 A. It means we design our products, but 14 we outsource the manufacturing of them to a fab. We 15 do not have our own fab, thus we are fabless. 16 Q. Where are the fabrication 17 organizations located that OmniVision uses to make 18 its products? 19 MR. BLUESTONE: Object to form, 20 outside the scope. 21 THE WITNESS: Which products? 22
Page 19 1 prepare the declaration in connection with these 2 proceedings? 3 A. Yes. 4 Q. Why? 5 A. I'm a general counsel in charge of all 6 contracts and all patent litigation, so seemed to 7 make sense. 8 Q. Are there other members of your team 9 that assist you with patent litigation matters? 10 A. There are no other lawyers that assist 11 with it. I have a paralegal that assists. She's 12 technically on my team. 13 Q. Did you contact Intel as part of your 14 investigation? 15 A. No. 16 Q. Do you have members on your team that 17 are in contact with Intel, either from a legal or 18 product side? 19 A. No one from my team would have any 20 contact with Intel other than me. 21 Q. Did you speak to anyone at OmniVision 22 that works with Intel?	Page 21 1 BY MR. HEJNY: 2 Q. Do you have more than one fabless 3 manufacturer? 4 A. Yes. 5 Q. And where are they located? 6 MR. BLUESTONE: Objection, outside 7 scope. 8 THE WITNESS: [REDACTED] are the 9 vast majority of where our fabs would be 10 located, but it's different -- every -- every 11 product could be different. 12 BY MR. HEJNY: 13 Q. Do the fab shops that are located in 14 [REDACTED], do they manufacture OmniVision's 15 products and then ship them to OmniVision U.S.? 16 MR. BLUESTONE: Same objection. 17 THE WITNESS: No, not generally. 18 BY MR. HEJNY: 19 Q. What happens after a product is fabbed 20 for OmniVision? 21 A. Well, it's not a product once the fab 22 is completed. It's a wafer.

Page 22 1 Q. So where's the manufacturing process 2 go from there? The fab -- the fabless shops 3 manufacture the wafer. 4 And then what's the next step in 5 manufacturing? 6 A. From there, I believe the typical 7 supply chain would be that the wafers would be sent 8 to a testing house of some sort. 9 Q. Where are those testing houses 10 located? 11 A. Again, mostly [REDACTED]. 12 Q. And what happens after the wafers are 13 tested at a testing house? 14 A. Typically, the next step would be 15 removing the failed chips within the wafers and 16 dicing -- dicing -- dicing the wafers to pull out 17 the -- what will become an individual chip and 18 removing the ones that have failed. 19 Q. And the individual chips that have 20 passed the test, what's the next manufacturing 21 process for those chips? 22 A. I believe the next step would be	Page 24 1 Is packaging the chips that pass the 2 test the penultimate test before sale? 3 A. As a general matter, yes. 4 Q. Now, how does OmniVision sell its 5 chips? Does it sell directly, or does it sell 6 through third parties? 7 A. Depends on the customer, but we -- we 8 have -- both of those are options. 9 Q. [REDACTED] 10 [REDACTED] 11 [REDACTED] 12 [REDACTED] 13 [REDACTED] 14 [REDACTED] 15 [REDACTED] 16 [REDACTED] 17 [REDACTED] 18 [REDACTED] 19 [REDACTED] 20 [REDACTED] 21 [REDACTED] 22 [REDACTED]
Page 23 1 putting the color filters on, so a whole nother -- a 2 whole nother step. That might happen on the actual 3 wafers before they take out the failed chips. 4 They're interchangeable, in my mind. But I'm not 5 sure which one happens first or second. But color 6 filters is another important step. 7 Q. Where does that take place? Where are 8 the colored filters applied to the chips that pass 9 the testing? 10 A. That's a different vendor, primarily 11 [REDACTED] 12 [REDACTED] 13 product -- every product has a different -- slightly 14 different supply chain. 15 Q. And what happens after the color 16 filters are applied to the chips that have passed 17 the testing at the testing house? 18 A. I believe, as a general matter, the 19 next step would be another round of testing, 20 followed by packaging them in some way. 21 Q. And is packaging the passed chips -- 22 or strike that.	Page 25 1 BY MR. HEJNY: 2 Q. Prior to 2020, did OmniVision sell 3 directly to Intel? 4 A. A limited amount, but, yes. Not mass 5 production quantities. 6 Q. What products did OmniVision sell to 7 Intel prior to 2020? 8 A. A variety of OmniVision products, 9 primarily image sensors. 10 Q. Anything other than image sensors? 11 A. Not that I'm aware of. 12 Q. So we were just talking about direct 13 sales. 14 Does OmniVision also sell to 15 third-party distributors? 16 A. We do sell to third-party 17 distributors, yes. 18 Q. [REDACTED] 19 [REDACTED] 20 [REDACTED] 21 [REDACTED] 22 [REDACTED]

Page 26

1

Q.

[REDACTED]

Page 28

1 that my understanding?

2 A. That is your understanding and my
3 understanding.

4 Q. And the understanding is that
5 OmniVision is not a direct supplier to Intel since
6 sometime in 2020?

7 A. We have not sold a product directly to
8 Intel since 2020.

9 Q.

[REDACTED]

Page 27

1

[REDACTED]

18 BY MR. HEJNY:

19 Q. So in the past, OmniVision had sold
20 products directly to Intel?

21 A. In the past, yes.

22 Q. So Intel is not a current customer; is

Page 29

1

[REDACTED]

19

BY MR. HEJNY:

20 Q. Does OmniVision have any subsidiaries
21 or affiliates?

22 A. Yes.

8 (Pages 26 to 29)

Page 30 1 Q. Who are they? 2 A. You'll have to be more specific. We 3 have a lot of subsidiaries and affiliates. 4 Q. Are there OmniVision subsidiaries or 5 affiliates that sell products to Intel? 6 A. Not that I'm aware of. All the -- all 7 of the -- all of the sales to Intel were in the U.S. 8 by OmniVision Technologies, Inc. 9 Q. Did you do any investigation to 10 determine whether or not any OmniVision subsidiaries 11 or affiliates sell products to Intel? 12 A. Yes. That was what I asked Anson Chan 13 to summarize for me. 14 Q. So Mr. Chan summarized OmniVision 15 direct sales; correct? 16 A. Yes. 17 Q. Did he also address OmniVision sales 18 from subsidiaries and affiliates? 19 A. OmniVision and its subsidiaries, yes. 20 Q. What about OmniVision and its 21 affiliates? 22 A. If by "affiliates" you mean companies	Page 32 1 do not have access to sales agreements for separate 2 legal entities, such as our -- our parent company. 3 We do not control our parent company. 4 Q. Who is OmniVision's parent company? 5 A. It was Will Semiconductor Shanghai 6 Co., Limited. But they recently changed their name 7 in June to OmniVision Integrated Circuits 8 Group, Inc. 9 Q. Did you do any investigation to 10 determine whether OmniVision Integrated Circuits 11 Group, Inc., made any sales to Intel? 12 A. No. I believe that was outside the 13 scope of the discovery order, not that I have 14 control over that or access to it. 15 Q. So your answer is no? 16 A. Correct, no. 17 Q. Are you aware of any Intel products on 18 the market today that include OmniVision chips? 19 A. Sorry, can you repeat that. 20 Q. Sure. 21 Are you aware of any Intel products 22 that are on the market today that include OmniVision
Page 31 1 under common control, then no, we don't -- we don't 2 control or have access to records of companies that 3 are not -- sorry, subsidiaries that are not below 4 us, such as our parent company. 5 Q. So when I asked you if Mr. Chan 6 addressed OmniVision sales from subsidiaries and 7 affiliates, your answer was OmniVision and its 8 subsidiaries, yes; is that your testimony? 9 A. Right, not affiliates, just OmniVision 10 and subsidiaries. 11 Q. What distinction does OmniVision make 12 between subsidiaries and affiliates? 13 A. Subsidiaries are entities below us and 14 controlled by us, "us" being OmniVision 15 Technologies, Inc. 16 Affiliates, broadly defined, usually 17 means companies under common control, either 18 controlled by or controlling. 19 So what I have access to and what 20 Anson has access to are sales records for OmniVision 21 Technologies, Inc., and all entities controlled by 22 us, which is all subsidiary entities below us. We	Page 33 1 chips? 2 A. No. 3 MR. BLUESTONE: Objection, outside the 4 scope. 5 Sorry, go ahead. 6 THE WITNESS: No. 7 BY MR. HEJNY: 8 Q. Turning to your declaration, if you 9 wouldn't mind turning to page 2. 10 A. Page 2 on the PDF or page 2 on the 11 page numbering? 12 Q. You got a copy of your declaration. 13 It's page 2 -- page number vert-wise? 14 A. Okay. 15 Q. So I'm looking at paragraph 8. 16 So the first statement, you say that 17 "I can confirm that OmniVision has never 18 manufactured or sold any of the Intel accused 19 products to Intel." 20 Do you see that? 21 A. Yes. 22 Q. That sounds surprising, right?

Page 34 1 Because the accused products are Intel products, 2 including processors and NAND flash products; 3 correct? 4 A. Yes. 5 Q. Then you go on to state, "And 6 OmniVision is unaware of having supplied any 7 components to Intel for any Intel accused products." 8 Do you see that? 9 A. Yes. 10 Q. What do you mean by "components to 11 Intel for any Intel accused products"? 12 A. I mean, what do I mean by 13 "components"? 14 Q. Yes. 15 A. Any piece of an Intel accused product, 16 even materials. We didn't supply them anything that 17 went into any Intel accused products. 18 Q. And you say that you're unaware of 19 having supplied. 20 What do you mean by "unaware"? 21 A. I mean after my extremely thorough 22 investigation, I did not become aware of any such	Page 36 1 THE WITNESS: I mean, I could have 2 also confirmed it then. It's not -- it's 3 literally not possible. 4 BY MR. HEJNY: 5 Q. You didn't state that in your 6 declaration; correct? 7 A. Not in those exact words. I chose 8 other words. I'm pretty sure the combination of me 9 being unaware combined with my extremely thorough 10 investigation was sufficient. 11 Q. How long did your extremely thorough 12 investigation take you? 13 A. I already answered all of your 14 questions on that. 15 Q. I'm asking you again. 16 How long did your extremely thorough 17 investigation take? 18 MR. BLUESTONE: Objection, asked and 19 answered. 20 THE WITNESS: Yeah, asked and 21 answered. I already told you. We went 22 through it in detail.
Page 35 1 supply. 2 Q. The first part of your sentence, you 3 confirm that OmniVision has never manufactured or 4 sold any of the Intel accused products, but you're 5 merely unaware of having supplied any components for 6 Intel accused products. 7 Do you see the distinction? 8 A. Yes. 9 Q. Can you not definitively state that 10 OmniVision has never supplied any components to 11 Intel for any Intel accused products? 12 A. I can definitively say that now, yes. 13 Q. Why didn't you say that in your 14 declaration? 15 A. I don't know. 16 Q. Did you choose the words in this 17 paragraph of your declaration? 18 A. Yes. 19 Q. You say that you can confirm it now. 20 What has changed since July 11th that 21 lets you confirm it now? 22 MR. BLUESTONE: Object to form.	Page 37 1 MR. HEJNY: Objection, nonresponsive. 2 BY MR. HEJNY: 3 Q. How long did your extremely thorough 4 investigation take you? 5 MR. BLUESTONE: Same objections. 6 THE WITNESS: Do you want to go back 7 to -- to the specific things you asked before 8 and go in detail again over what you already 9 asked before? We can do it again. 10 BY MR. HEJNY: 11 Q. I just want you to testify. You're 12 committing perjury on the record. 13 How long did your extremely thorough 14 investigation take you? 15 A. As I testified earlier, I spent -- I 16 would like to go back and reread the record for all 17 of what I testified earlier. Overall, probably 18 seven hours. I will rely on the exact testimony I 19 gave earlier. 20 Q. So you can't recall your earlier 21 testimony? 22 MR. BLUESTONE: Object to form.

Page 38 1 THE WITNESS: I cannot recall it 2 verbatim; correct. 3 BY MR. HEJNY: 4 Q. Did you also investigate whether Intel 5 had made any indemnity claim to OmniVision? 6 A. Yes. 7 Q. And the results of your investigation 8 were that Intel had not made an indemnity claim; is 9 that correct? 10 A. Correct. 11 Q. Are you familiar with the terms and 12 conditions of sale for OmniVision products? 13 A. Yes. We have -- we have terms and 14 conditions of sale. You seem to be implying that 15 it's -- it applies to every single sale, which is 16 not true. But yes, I control all of our contracts. 17 And that is one of the -- one of the templates that 18 I control. 19 Q. Are the terms and conditions of sale 20 the same for each OmniVision customer? 21 A. No. 22 Q. How do they differ?	Page 40 1 [REDACTED] 2 [REDACTED] 3 [REDACTED] 4 [REDACTED] 5 [REDACTED] 6 [REDACTED] 7 [REDACTED] 8 [REDACTED] 9 [REDACTED] 10 [REDACTED] 11 [REDACTED] 12 [REDACTED] 13 [REDACTED] 14 [REDACTED] 15 [REDACTED] 16 [REDACTED] 17 [REDACTED] 18 [REDACTED] 19 [REDACTED] 20 [REDACTED] 21 [REDACTED] 22 [REDACTED]
Page 39 1 A. You'd have to be more specific. 2 There's literally thousands of different variations 3 of terms. They're negotiable. 4 Q. Do terms and conditions of sale 5 typically include an indemnity provision? 6 A. No. 7 Q. So the terms and conditions of sales 8 from OmniVision typically don't include an offer to 9 indemnify buyers that are accused of patent 10 infringement? 11 A. That is correct. 12 Q. [REDACTED] 13 [REDACTED] 14 [REDACTED] 15 [REDACTED] 16 [REDACTED] 17 [REDACTED] 18 [REDACTED] 19 [REDACTED] 20 [REDACTED] 21 [REDACTED] 22 [REDACTED]	Page 41 1 [REDACTED] 2 [REDACTED] 3 [REDACTED] 4 [REDACTED] 5 [REDACTED] 6 [REDACTED] 7 [REDACTED] 8 [REDACTED] 9 [REDACTED] 10 [REDACTED] 11 [REDACTED] 12 [REDACTED] 13 [REDACTED] 14 [REDACTED] 15 [REDACTED] 16 [REDACTED] 17 [REDACTED] 18 [REDACTED] 19 [REDACTED] 20 [REDACTED] 21 [REDACTED] 22 [REDACTED]

Page 42 1 [REDACTED] 2 [REDACTED] 3 [REDACTED] 4 [REDACTED] 5 [REDACTED] 6 [REDACTED] 7 [REDACTED] 8 [REDACTED] 9 [REDACTED] 10 [REDACTED] 11 [REDACTED] 12 [REDACTED] 13 [REDACTED] 14 [REDACTED] 15 [REDACTED] 16 [REDACTED] 17 [REDACTED] 18 [REDACTED] 19 [REDACTED] 20 [REDACTED] 21 [REDACTED] 22 [REDACTED]	Page 44 1 [REDACTED] 2 [REDACTED] 3 [REDACTED] 4 [REDACTED] 5 [REDACTED] 6 [REDACTED] 7 [REDACTED] 8 [REDACTED] 9 [REDACTED] 10 [REDACTED] 11 [REDACTED] 12 [REDACTED] 13 [REDACTED] 14 [REDACTED] 15 [REDACTED] 16 [REDACTED] 17 [REDACTED] 18 [REDACTED] 19 [REDACTED] 20 [REDACTED] 21 [REDACTED] 22 [REDACTED]
Page 43 1 [REDACTED] 2 [REDACTED] 3 [REDACTED] 4 [REDACTED] 5 [REDACTED] 6 [REDACTED] 7 [REDACTED] 8 [REDACTED] 9 [REDACTED] 10 [REDACTED] 11 [REDACTED] 12 [REDACTED] 13 [REDACTED] 14 [REDACTED] 15 [REDACTED] 16 [REDACTED] 17 [REDACTED] 18 [REDACTED] 19 [REDACTED] 20 [REDACTED] 21 [REDACTED] 22 [REDACTED]	[REDACTED] [REDACTED] 1 [REDACTED] 2 [REDACTED] 3 [REDACTED] 4 [REDACTED] 5 [REDACTED] 6 [REDACTED] 7 BY MR. HEJNY: 8 Q. What is a module integrator? 9 A. They make camera modules. They 10 integrate image sensors, the camera module box and a 11 lens to create an actual camera. Generally, we only 12 sell the image sensor piece of that. 13 Q. Are you aware of whether module 14 integrators also make sales to Dell? I mean -- 15 strike that. 16 Are you aware of whether module 17 integrators also make sales to Intel? 18 A. Just generally or for the Intel 19 accused products? 20 Q. Just generally, are you aware of 21 whether module integrators make sales to Intel? 22 A. Well, a camera module would not go

Page 46 1 into a CPU or a flash memory. So for the accused -- 2 for the Intel accused products, I can fairly 3 certainly say that module integrators do not sell 4 anything to Intel for the Intel accused products. 5 Q. I'm not talking about the Intel 6 accused products. 7 My question is are you generally aware 8 of whether module integrators make sales to Intel of 9 products that accused of OmniVision chips? 10 MR. BLUESTONE: Objection, outside the 11 scope. Discovery order is directed to the 12 Intel accused products. 13 THE WITNESS: No. You'd have to ask 14 Intel. I don't know what the relationship is 15 with a module integrator. 16 BY MR. HEJNY: 17 Q. You didn't contact Intel in connection 18 with your investigation; correct? 19 A. Correct. 20 Q. Are you aware of any entity that has 21 requested indemnification from OmniVision? 22 MR. BLUESTONE: Objection, outside the	Page 48 1 call up the board and discuss this? Because 2 I don't want to shut things down, but whoever 3 issued a request for an indemnification is 4 way beyond what this order relates to. 5 MR. HEJNY: I'll withdraw the 6 question. Let's take a break. 7 MR. BLUESTONE: Thanks. 8 THE REPORTER: We're off the record. 9 (Recess from the record.) 10 THE REPORTER: We're back on the 11 record. 12 BY MR. HEJNY: 13 Q. Mr. Cleary, do you have a copy of 14 Exhibit 2021 with you? 15 A. Only through page 8. 16 Q. And that's perfectly fine. It's a 17 huge document. And I was hoping that you had a copy 18 so that I wouldn't have to upload the -- I extracted 19 those pages from -- from the exhibit for use in the 20 deposition, but we should be able to work with what 21 you have. 22 At the bottom right corner, does it
Page 47 1 scope. 2 THE WITNESS: Again, I'm responsible 3 for all patent litigation and have been for 4 7 1/2 years. All such indemnity requests 5 would come to me directly and immediately. 6 BY MR. HEJNY: 7 Q. And have you fielded any indemnity 8 requests in your 7 1/2 years as patent litigation 9 counsel for OmniVision? 10 MR. BLUESTONE: Objection, outside the 11 scope. 12 Go ahead. 13 THE WITNESS: Have I fielded requests? 14 BY MR. HEJNY: 15 Q. Yes. 16 A. Yes. 17 Q. Who tendered indemnification requests 18 to OmniVision? 19 MR. BLUESTONE: Objection, outside the 20 scope. 21 We're going way beyond the bounds of 22 this now, Scott. Are we going to have to	Page 49 1 say, "Greenthread Exhibit 2021, page 1 of 371"? 2 A. Yeah. And I have it printed through 3 page 9 of 371. 4 Q. Great. Thank you. 5 If you'll turn to page 5 of 371. Let 6 me know when you're there. 7 A. Okay. 8 Q. And are these the products that you 9 analyzed when making a determination as to whether 10 or not any of these Intel processors include a 11 product made or sold by OmniVision? 12 MR. BLUESTONE: Sorry, Scott. I don't 13 mean to interrupt. Are we talking about the 14 number 5 on the top of the page, where it 15 says "page 5 of 371," or the bottom, where it 16 says four -- the page 5 on the right? 17 There's -- there are just three different 18 ones. I just want to make sure we're talking 19 about the same thing. I'm sorry. 20 MR. HEJNY: Sure. No. The page I'm 21 referring to, at the bottom right-hand 22 corner, it says, "Exhibit 2021, page 5 of

13 (Pages 46 to 49)

Page 50 1 371." 2 MR. BLUESTONE: Okay. That clarifies 3 it. Thank you. Sorry to interrupt. 4 MR. HEJNY: No. Thanks. I appreciate 5 you helping to keep the record clear. 6 BY MR. HEJNY: 7 Q. So are you with me, Mr. Cleary, on 8 page 5 of 371 of Exhibit 2021? 9 A. Yes. 10 Q. And you see it begins with the list of 11 Intel Atom processors. 12 Do you see that? 13 A. Yes. 14 Q. And what did you do to confirm your 15 belief that none of the processors listed on this 16 page include a product made or sold by OmniVision? 17 A. I simply understood that they are CPUs 18 and that an image sensor -- it would be nonsensical 19 to have any OmniVision product go into that type of 20 product. 21 Q. Have you ever seen a CPU that includes 22 an image sensor?	Page 52 1 A. Yes. 2 Q. Have you ever seen an image processor 3 attached to a NAND unit? 4 MR. BLUESTONE: Object to form. 5 THE WITNESS: I have not. 6 (The reporter seeks clarification.) 7 MR. HEJNY: It's N-A-N-D, capital 8 N-A-N-D. 9 BY MR. HEJNY: 10 Q. So your -- your understanding -- it's 11 just your general understanding of the nature of 12 CPUs. 13 You didn't see a parts list, for 14 example, for an Intel Atom C2308? 15 MR. BLUESTONE: Object to form. 16 Sorry, go ahead. 17 THE WITNESS: Correct. I do not have 18 access to a parts list for any Intel product. 19 BY MR. HEJNY: 20 Q. Did you contact Intel regarding any of 21 these products? 22 A. No.
Page 51 1 A. No. 2 Q. Did you do any investigation of the 3 Intel Atom C2308 processor to determine whether or 4 not it did or did not include an OmniVision image 5 sensor? 6 A. I really didn't need to go further 7 than understanding that it is a CPU, because it's 8 nonsensical. And I have never heard of an image 9 sensor going into a CPU, or any of our other 10 products. But the CPU is a small encased black box. 11 And image sensors need light. And it's nonsensical 12 on many levels. So I didn't really need to 13 investigate further than understanding that those 14 are all CPUs. 15 Q. Is your answer the same to the 16 remainder of the processors listed on pages 6 and 7 17 of Exhibit 2021? 18 A. Correct, yeah. All CPUs, the same 19 logic applies. 20 Q. And is your answer the same with 21 respect to the Intel accused NAND flash memory 22 products?	Page 53 1 Q. Are you aware of any Intel devices in 2 general that include an OmniVision image processor? 3 MR. BLUESTONE: Objection, outside the 4 scope. 5 THE WITNESS: Image -- image 6 processor, you mean like the CMOS image 7 sensor? Is that what you said? 8 BY MR. HEJNY: 9 Q. Yes. 10 A. In passing, I'm aware of them trying 11 to do a prototype of something. I'm not entirely 12 familiar with what it was. I don't think it ever 13 made it to mass production. 14 Q. I'm uploading an exhibit to the chat. 15 It's Exhibit 2031. Let me know when you see that 16 document show up in the chat. 17 And there's a button at the bottom 18 that says chat. And if you click on it, the chat 19 bar should pop out on the right-hand side of the 20 Zoom screen. 21 A. So I download it. 22 Q. Yeah. If you double-click on it, it

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1 should either open or download. 2 A. It's downloading. 3 MR. BLUESTONE: I know you haven't 4 asked a question yet, Scott, but I'm going to 5 put an objection right now that this is 6 outside the scope, because there's nothing in 7 the definition of Intel accused products that 8 seems to relate to this product. But go 9 ahead with your questioning, and I'll object 10 further. 11 (Exhibit 2031, No Bates numbers, Intel 12 RealSense Product Family D400 Series 13 Datasheet, received and marked.) 14 BY MR. HEJNY: 15 Q. Let me know when you have it open. It 16 might take a minute. 17 A. Okay. It says Intel RealSense on the 18 top? 19 Q. Yes. 20 A. 169 pages. 21 Q. Are you familiar with the Intel 22 RealSense Product Family D400 Series?	1 MR. HEJNY: I'm just representing that 2 this is an Intel product, an Intel RealSense 3 Product Family D400 Series. 4 MR. BLUESTONE: To the extent that 5 it's just an Intel product, I'm going to 6 object that it's outside the scope of his 7 declaration and the discovery order. 8 I'll give you a little latitude to see 9 where it goes. But, again, I don't want to 10 be difficult; but if we're just prying 11 around, we'll have an issue. Go ahead and 12 ask your question. 13 MR. HEJNY: Sure. 14 BY MR. HEJNY: 15 Q. So the top of the page, do you see 16 that this product includes an OmniVision 17 Technologies OV2740 image sensor? 18 A. Yes. 19 Q. Are you familiar with the type of 20 processor that is used in the Intel RealSense 21 Product Family D400 Series? 22 MR. BLUESTONE: Same objections. Just
Page 55	Page 57
1 MR. BLUESTONE: Objection, outside the 2 scope. 3 You can answer. 4 THE WITNESS: I wouldn't say I'm 5 familiar with it. I've heard of it. 6 BY MR. HEJNY: 7 Q. This document is dated September 2023, 8 Revision 17, on the cover sheet? 9 A. Yes. 10 Q. Turn to PDF page 43. 11 A. Yes. 12 Q. Are you on the page that says at the 13 top Table 3-12 Standard Left and Right Imager 14 Properties - D410/D415? 15 A. Yes. 16 Q. And at the top of the page, do you see 17 that it includes an image sensor as an OmniVision 18 Technologies OV2740? Do you see that? 19 MR. BLUESTONE: I'll object. This is 20 outside the scope. 21 Scott, are you representing that this 22 is one of the Intel accused products?	1 going to levy a standard objection to this 2 line of questioning. Go ahead. 3 MR. HEJNY: Sure. I'll give you the 4 standing objection. 5 MR. BLUESTONE: Thank you. 6 THE WITNESS: We call it an image 7 sensor, not an image processor. But yeah, 8 I'm familiar with the OV2740. 9 BY MR. HEJNY: 10 Q. Are you familiar with how these 11 OmniVision Technologies image sensors are integrated 12 with Intel processors? 13 MR. BLUESTONE: Object to the form. 14 Object, outside the scope. 15 THE WITNESS: No, I'm not aware of -- 16 not aware of that. 17 BY MR. HEJNY: 18 Q. Are aware of whether an OmniVision 19 image sensor such as the OV2740 is used -- has ever 20 been used in combination with any of the Intel 21 accused products listed in Exhibit 2021? 22 A. Again, that would be nonsensical; and

Page 58 1 I'm not aware of any such interaction. 2 Oh, so you were asking me if it's -- 3 can you repeat the question. 4 Q. Sure. 5 Are you aware of whether an OmniVision 6 Technologies image sensor such as the OV2740 was 7 ever used in combination with any of the Intel 8 accused products listed in Exhibit 2021? 9 A. In combination with them. What do you 10 mean by that? 11 Q. What is the interaction between a CPU 12 and an OmniVision image sensor? 13 MR. BLUESTONE: Objection, lacks 14 foundation. 15 THE WITNESS: I don't know. They're 16 certainly not sold together. 17 MR. HEJNY: I have no further 18 questions. I'll pass the witness. 19 MR. BLUESTONE: No questions for 20 OmniVision. Thank you. 21 THE REPORTER: Okay. We're off the 22 record.	Page 60 1 STATE OF NEW YORK) 2 ss: 3 COUNTY OF WESTCHESTER) 4 5 I, EILEEN MULVENNA, CSR/RMR/CRR/RDR, a 6 Certified Court Reporter, Registered Merit Reporter, 7 Certified Realtime Reporter, Registered Diplomate 8 Reporter, and Notary Public in and for the State of 9 New York, do hereby certify: 10 That I reported the taking of the 11 deposition of the witness, ROBERT CLEARY, JR., 12 commencing on the 29th day of July, 2025, at the 13 hour of 1:00 p.m. 14 That prior to being examined, the witness 15 was duly sworn by me to testify to the truth, the 16 whole truth, and nothing but the truth. 17 That I thereafter transcribed my said 18 shorthand notes into typewriting and that the 19 typewritten transcript of said deposition is a 20 complete, true and accurate transcription of my 21 said shorthand notes taken down at said time, and 22 that a request has been made to review the transcript. I further certify that I am not a relative or employee of an attorney or counsel of any of the parties, nor a relative or employee of any attorney or counsel involved in said action, nor a person financially interested in the action. IN WITNESS WHEREOF, I have hereunto set my signature this 29th day of July, 2025. _____ EILEEN MULVENNA, CSR/RMR/CRR
Page 59 1 (The examination concluded. The time 2 is 2:19 p.m.) 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	Page 61 1 Robert Cleary Jr., c/o 2 MCKOOL SMITH, P.C. 3 300 Crescent Court, Suite 2100 4 Dallas, Texas 75201 5 6 Case: Cirrus Logic, Inc., et al. v. Greenthread, LLC 7 Date of deposition: July 29, 2025 8 Deponent: Robert Cleary Jr. 9 10 11 Please be advised that the transcript in the 12 above-referenced matter is now complete and 13 ready for signature. 14 The deponent may come to this office to sign the 15 transcript, a copy may be purchased for the 16 witness to review and sign, or the deponent 17 and/or counsel may waive the option of 18 signing. Please advise us of the option 19 selected. 20 Please forward the errata sheet and the original 21 signed signature page to counsel noticing the 22 deposition, noting the applicable time period allowed for such by the governing Rules of Procedure. If you have any questions, please do not hesitate to call our office at 202.232.0646. Sincerely, Digital Evidence Group Copyright 2025 Digital Evidence Group Copying is forbidden, including electronically, absent express written consent.

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SIGNATURE PAGE

5 Case: Cirrus Logic, Inc., et al. v. Greenthread, LLC
6 Witness Name: Robert Cleary Jr.

7 Deposition Date: July 29, 2025

8 I do hereby acknowledge that I have read
9 and examined the foregoing pages of the
10 transcript of my deposition and that:

11 (Check appropriate box):

12 () The same is a true, correct and
13 complete transcription of the answers given by
14 me to the questions therein recorded.

15 () Except for the changes noted in the
16 attached Errata Sheet, the same is a true,
17 correct and complete transcription of the
18 answers given by me to the questions therein
19 recorded.

20 _____
21 DATE WITNESS SIGNATURE

22 _____
DATE NOTARY

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ERRATA SHEET

7 Case: Cirrus Logic, Inc., et al. v. Greenthread, LLC

8 Witness Name: Robert Cleary Jr.

9 Deposition Date: July 29, 2025

10 Page No. Line No. Change

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Signature Date