

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

DELTRAN USA LLC,

Petitioner

v.

THE NOCO COMPANY,

Patent Owner

Case IPR2024-01219

Patent No. 11,667,203

DEPOSITION OF AYMAN ADEL FAYED, Ph.D.

WEDNESDAY, JULY 9, 2025

Deposition of AYMAN ADEL FAYED, Ph.D.,
taken remotely, before Patricia R. Frank,
Registered Merit Reporter, Certified Realtime
Reporter, and Notary Public, commencing at 9:57
a.m. EDT, on the above date.

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1 I N D E X

2	Witness	Page
3	AYMAN ADEL FAYED, Ph.D.	
4	By Mr. Chandra	5

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6 EXHIBITS PREVIOUSLY MARKED AND ATTACHED FOR
7 REFERENCE:

8	Exhibit No.	Description	Page
9	Exhibit 1001	U.S. Patent 11,667,203	16
10	Exhibit 1005	Pub. No. US 2013/0154543 A1	37
11	Exhibit 1007	Yu reference	52
12	Exhibit 1008	Yu reference English translation	52
13	Exhibit 1009	U.S. Patent 9,219,372 B2	65
14	Exhibit 1053	Declaration of Yingchun Wan	31
15	Exhibit 1058	WIPO Pub. No. 2012/074548 A1	63
16	Exhibit 2001	Declaration of Fayed	12
17	Exhibit 2003	Declaration of Fayed	12
18	Exhibit 2009	U.S. Patent 9,954,207 B2	59

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20 (REPORTER'S NOTE: All quotations from exhibits are
21 reflected in the manner in which they were read into
22 the record and do not necessarily denote an exact
quote from the document.)

1 THE COURT REPORTER: The
2 attorneys participating in this deposition
3 acknowledge that I am not physically present
4 in the deposition room and that I will be
5 reporting this deposition remotely. They
6 further acknowledge that, in lieu of an oath
7 administered in person, the witness will
8 verbally declare his testimony in this matter
9 is under penalty of perjury.

10 The parties and their counsel
11 consent to this arrangement and waive any
12 objections to this manner of reporting.
13 Please indicate your agreement by stating
14 your name and your agreement on the record,
15 counsel.

16 MR. SAUER: Yes. Joe Sauer.

17 MR. CHANDRA: Yes. Chetan
18 Chandra.

19 THE COURT REPORTER: Dr. Fayed,
20 do you acknowledge that your testimony today
21 will be given under penalty of perjury and
22 will be the truth, the whole truth, and

1 nothing but the truth?

2 THE WITNESS: I do.

3 THE COURT REPORTER: Thank you.

4 Counsel, you may proceed.

5 MR. CHANDRA: Just introducing.

6 So my name is Chetan Chandra. I'm with the
7 law firm of Fox Rothschild representing
8 Deltran in this proceeding. With me today
9 just observing, Ryan Miller and Nicholas
10 Almerini. All right. I didn't know if Joe
11 is going to introduce. We have I think David
12 Cochran from Jones Day and Jack Graves from
13 Jones Day who are counsel for NOCO, and
14 Joseph Sauer from Jones Day representing NOCO
15 as well, just for the record.

16 BY MR. CHANDRA:

17 Q. Good morning, Dr. Fayed.

18 A. Good morning.

19 Q. Dr. Fayed, could you state your
20 name for the record.

21 A. Yes. My name is Ayman Fayed.

22 Q. So it's pronounced Fayed; is

1 that correct?

2 **A. Fayed.**

3 Q. Fayed. Okay. I'll try my
4 best.

5 **A. Sure.**

6 Q. I understand you've been
7 deposed before; is that correct?

8 **A. I'm sorry. I didn't catch**
9 **that.**

10 Q. I understand you've been
11 deposed before; is that correct?

12 **A. I have -- yes, correct, I have**
13 **been deposed before.**

14 Q. About how many times?

15 **A. Off the top of my head, I'm**
16 **going to say 10, 12 times, 12 times,**
17 **something around that.**

18 Q. Okay. Well, despite your
19 experience, I'd still like to go over some
20 ground rules, at least to serve as a
21 reminder, so we can make sure the record is
22 clean and we can have as pleasant an

1 experience today as we can.

2 As you know, this is Deltran's
3 opportunity to understand the basis of your
4 opinions, so I will ask questions, and unless
5 your counsel instructs you not to answer, you
6 will answer the questions, right?

7 **A. Correct.**

8 Q. If you don't understand a
9 question, or need me to rephrase it, please
10 let me know and I'll do my best, okay?

11 **A. I will.**

12 Q. Please answer all questions
13 verbally, not with physical movements like a
14 nod or a shrug. You know, those things won't
15 show up on the transcript, so we need verbal
16 answers to questions. Agreed?

17 **A. I understand, yes.**

18 Q. I'm sure you know that to try
19 not to talk over each other. So I'll ask a
20 question, you know, you may want to pause to
21 see if your counsel wants to say anything and
22 then proceed with your answer.

1 (Court reporter clarification.)

2 BY MR. CHANDRA:

3 Q. So I'll try not to talk over
4 you and you'll try not to talk over me, okay?

5 **A. I understand.**

6 Q. If you need a break, let me
7 know and we can take a break so long as a
8 question isn't pending, okay?

9 **A. I understand, yes.**

10 Q. Is there any reason you cannot
11 testify truthfully today?

12 **A. No.**

13 Q. Are you under any medication or
14 other substance that would impair your
15 ability to answer questions truthfully?

16 **A. No.**

17 Q. Did you do anything to prepare
18 for this deposition?

19 **A. Yes.**

20 Q. What did you do?

21 **A. I have read my declaration and**
22 **some of the references involved in the**

1 **declaration. That's something that I did**
2 **last time. I also had a brief meeting with**
3 **counsel.**

4 Q. When you say "last time," what
5 do you mean?

6 A. **I said that last night.**
7 **Yesterday, I mean, yeah.**

8 Q. Sorry. Did you speak to anyone
9 besides counsel?

10 A. **No.**

11 Q. When you refer to counsel, are
12 you referring to Mr. Sauer?

13 A. **I'm referring to Mr. Sauer as**
14 **well as Jack, Mr. Graves.**

15 Q. Did you do anything else to
16 prepare for today?

17 A. **Did I talk to anyone else?**

18 Q. Did you do anything else?

19 A. **Other than what I listed**
20 **yesterday, that's what I did. I did have a**
21 **meeting, but that was over maybe a week or**
22 **ten days ago, around that, before I had to**

1 **travel with also Mr. Graves and Mr. Sauer.**

2 Q. How long was that meeting? Do
3 you recall?

4 A. **It was a full day meeting in**
5 **Jones Day's office in Cleveland.**

6 Q. I understand you have a laptop
7 that counsel has provided you, and there's
8 nothing open except for the public share
9 folder; is that right?

10 A. **That is correct. There is a**
11 **small laptop here in front of me, and there**
12 **is a folder by Henderson Legal Services.**
13 **Apparently it's a public folder. It says,**
14 **"This folder is empty right now."**

15 Q. Great. Including time you
16 spent reviewing your declaration and the
17 meetings, about how much time did you spend
18 preparing for this deposition?

19 A. **For preparing for the**
20 **deposition, after -- I suppose you're**
21 **referring to after I submitted my**
22 **declaration. The meeting and the time I**

11

1 **spent reviewing my declaration, other**
2 **documents, before that meeting I mentioned**
3 **before and yesterday, that's pretty much what**
4 **I did for the preparation.**

5 Q. Did you search for any
6 documents or other public records to prepare
7 for this deposition?

8 **A. Mr. Chandra, did I what? I'm**
9 **sorry. I didn't catch that.**

10 Q. Did you search for any
11 documents or other public records in
12 preparing for this deposition?

13 **A. No, no.**

14 Q. Your counsel has provided or he
15 has with you a clean copy of your two
16 declarations from this IPR; is that correct?

17 **A. That is correct, yes.**

18 Q. He can have them. We're not
19 going to ask about them right now. I just
20 want to establish.

21 **A. Okay.**

22 Q. So you submitted two

1 declarations. One was Exhibit 2001, which
2 was in support of NOCO's patent owner
3 preliminary response; is that correct?

4 **A. That is correct, yes.**

5 Q. The other declaration is
6 Exhibit 2003, which is more recent and is in
7 support of NOCO's patent owner response,
8 correct?

9 **A. That is correct, yes.**

10 Q. Preparing the two declarations
11 you've submitted, it looks like your more
12 recent declaration adds additional opinions
13 beyond what was in your prior exhibit, 2001;
14 is that correct?

15 **A. That is correct. There is**
16 **additional arguments that I listed in that**
17 **declaration, correct.**

18 Q. And per the arguments that are
19 in both declarations, is it fair to say that
20 they're substantially unchanged from
21 Exhibit 2001 to 2003?

22 **A. That is correct, yes.**

13

1 MR. SAUER: Objection to form.

2 BY MR. CHANDRA:

3 Q. And is it fair to say that
4 there's a great deal of overlap in your
5 opinion between these two declarations and
6 the declarations you submitted in the ADC
7 IPRs regarding the '243 and '023 patents?

8 MR. SAUER: Objection. Form.

9 THE WITNESS: There are many
10 common opinions between the two declarations,
11 correct.

12 BY MR. CHANDRA:

13 Q. Just because the patents share
14 the same specification, correct?

15 **A. There is a great deal of**
16 **similarities between the patents, yes.**

17 Q. And each of the '023 patent,
18 the '243 patent, and the '203 patent share
19 the same priority date of July 3, 2014,
20 correct?

21 **A. Without -- without going back**
22 **and verifying hundred percent that they are**

14

1 **exactly the same date, I'm inclined to answer**
2 **yes, they seem to have, if not exactly the**
3 **same date, very close to each other, but**
4 **without going back to verify, I can't hundred**
5 **percent affirm that.**

6 Q. Okay. In your -- so today I'm
7 primarily going to focus on your second
8 declaration in this case, Exhibit 2003,
9 because it contains, you know, essentially
10 all the opinions you have in the prior
11 declaration and some additional ones. So,
12 generally, if I refer to "your declaration,"
13 I mean, you know, the more recent one,
14 Exhibit 2003.

15 **A. I understand.**

16 Q. So in your declaration, you
17 offer opinions on battery requirements for
18 jump starters; is that right?

19 **A. That is correct.**

20 Q. You talk about peak amps,
21 correct?

22 **A. Correct.**

1 Q. You also talk about battery
2 capacity, correct?

3 **A. That is correct.**

4 Q. And is your opinion that all
5 portable jump starters require larger
6 capacity batteries than common consumer
7 electronic devices, correct?

8 **A. That is correct.**

9 Q. You also talk about 12-volt
10 barrel chargers in your declaration, correct?

11 **A. I do. Correct.**

12 Q. Twelve-volt barrel chargers
13 were known prior to July 2014, correct?

14 **A. That is correct.**

15 Q. There are many devices using
16 barrel chargers to charge large-capacity
17 batteries, correct?

18 **A. That is correct. Barrel**
19 **chargers were known for -- and I want to just**
20 **make sure I state that, because you**
21 **specifically say 12-volt, but barrel**
22 **chargers, you know, they do not have to be**

1 12-volt, right? I mean, there could be --
2 there were a variety of voltage levels. But
3 barrel chargers were known to be used
4 especially for devices that have
5 large-capacity batteries, that is correct.

6 Q. Thank you. I appreciate that
7 clarification, distinction there.

8 So as of July 2014, a POSITA
9 would have been able to incorporate a 12-volt
10 barrel charger into most devices, correct?

11 A. That would be correct. If a
12 POSITA chooses to incorporate a 12-volt
13 barrel charger, they normally would be able
14 to do that, correct.

15 Q. I'm going to put in the share
16 folder Exhibit 1001, which is the U.S. Patent
17 11,667,203. I'm showing you a copy. If you
18 have a copy as well, you can go ahead and
19 follow along on the paper copy.

20 Have you read U.S. Patent
21 11,667,203, which is Exhibit 1001 in this
22 IPR?

1 **A. Yes.**

2 Q. If I refer to it as the '203
3 patent, you understand what I mean, correct?

4 **A. I do, yes.**

5 Q. When was the last time you read
6 the '203 patent in full?

7 **A. I'm sorry. Counsel, when was
8 the last time I did what?**

9 Q. You read the patent completely.

10 **A. During the process of drafting
11 my declarations, particularly this last like
12 most recent one, I have of course read the
13 patent.**

14 Q. I want you to take a look at
15 column 4, line 45. Let me know when you're
16 there.

17 **A. I am at column 4, line 45,
18 right now.**

19 Q. Okay. So this states --

20 (Court reporter clarification.)

21 MR. CHANDRA: Why don't we take
22 a short five-minute break off the record.

1 I'm going to try to adjust my microphone
2 settings.

3 (Brief recess.)

4 BY MR. CHANDRA:

5 Q. Going back to the patent where
6 at column 4, line 45, this states, "A car
7 battery reverse sensor 10 monitors the
8 polarity of the vehicle battery 72 when the
9 handheld battery booster device is connected
10 to the vehicle's electric system," correct?

11 A. Correct.

12 Q. The passage continues, "As
13 explained below, the booster device prevents
14 the lithium battery pack from being connected
15 to the vehicle battery 72 when the terminals
16 of the battery 72 are connected to the wrong
17 terminals of the booster device," correct?

18 A. Correct.

19 Q. The lithium battery pack is the
20 battery pack in the jump starter, correct?

21 MR. SAUER: Objection. Form.

22 THE WITNESS: That is correct,

1 yeah. The lithium battery pack is the pack
2 inside the boosting device, yes.

3 BY MR. CHANDRA:

4 Q. So when using the patent's
5 described jump starter, there is a time when
6 the jump starter device is connected to the
7 vehicle electrical system without the jump
8 starter's battery being connected to the
9 vehicle battery, correct?

10 **A. Can you restate the question?**

11 **I want to make sure I get every word, yeah.**

12 Q. Sure. We can take it in parts.
13 So you're using the patented jump starter.
14 You connect the red and black clamps to the
15 vehicle battery.

16 **A. Correct.**

17 Q. At that time -- sorry. So at
18 that time the jump starter is connected to
19 the vehicle electrical system, correct?

20 MR. SAUER: Objection. Form.

21 THE WITNESS: The jump starter,
22 when you refer to the jump starter, if you

1 mean the clamp cables will be connected, yes,
2 they will be connected at that time, yes.

3 BY MR. CHANDRA:

4 Q. And before the contact relay is
5 closed, the jump starter battery is not
6 connected to the vehicle battery, correct?

7 A. That is correct. The clamps
8 could be connected to the vehicle battery.
9 That doesn't mean that the contact relay is
10 necessarily turned on, and, therefore, the
11 lithium battery inside the device will not be
12 connected to the vehicle system yet.

13 Q. And at that time, before the
14 contact relay is closed, so it's currently
15 open, the contact relay is open, the reverse
16 polarity sensor makes the determination of
17 polarity, correct?

18 MR. SAUER: Objection. Form.

19 THE WITNESS: And the clamps
20 are connected. You're specifically asking if
21 it does that while the clamps are connected.

22 BY MR. CHANDRA:

1 Q. Correct.

2 A. That would be -- that would
3 be -- I can't comment on the exact time when
4 it will do that, but at some point it will be
5 making that determination because that
6 determination will determine whether it
7 should or should not turn on the contact
8 relay. So at some point before it turns on
9 the contact relay to start the jump starting
10 process, it will be determining whether the
11 connection is in the right polarity or not.

12 Q. If the red and black clamps are
13 not connected to anything, can the reverse
14 polarity sensor make a determination of
15 polarity?

16 A. If the battery is not
17 connected, then there is no polarity to
18 determine. It's an open circuit.

19 Q. So you have to connect the jump
20 starter to something, to either the vehicle
21 battery or the vehicle electrical system, in
22 order for the reverse polarity sensor to make

1 a determination?

2 **A. That is correct.**

3 Q. Okay. You can put that aside
4 for now.

5 We're going to look at your
6 declaration, Exhibit 2003, on page 16. Let
7 me know when you're there.

8 MR. SAUER: I'm sorry. What
9 page?

10 MR. CHANDRA: Sixteen.

11 THE WITNESS: Yes, I am there.

12 BY MR. CHANDRA:

13 Q. The first paragraph is
14 paragraph 31. It says, "I have been informed
15 and understand that Richardson, Zhao, Yu,
16 Krieger, and Paparrizos are prior art to the
17 '203 patent," correct?

18 **A. Correct.**

19 Q. Did you analyze whether these
20 references legally qualify as prior art?

21 **A. I have looked at these
22 references as part of my technical analysis.**

1 **As far as the legal determination of prior**
2 **art, I don't have the legal background for**
3 **that, but I -- that's what I've been informed**
4 **by counsel, that they are prior art, so I**
5 **trust what they tell me there.**

6 Q. Okay. Can you turn to
7 paragraph 87 of your declaration which is on
8 page 45.

9 **A. Yes.**

10 Q. First, look at the heading D,
11 it says, "No Problem With Traditional Barrel
12 Chargers Was Perceived In The Art At The
13 Time, Nor Was USB A Known Technique For
14 Charging Large-Capacity Batteries," correct?

15 **A. Correct.**

16 Q. And in paragraph 87 you state,
17 "As explained above, charging of portable
18 jump starter devices, like every other device
19 having a large-capacity battery in July of
20 2014, relied on barrel chargers or other
21 proprietary charging techniques, which
22 provided charging power that was suitable for

1 these large-capacity batteries," correct?

2 **A. Correct.**

3 Q. By "other proprietary charging
4 techniques," are you referring to custom or
5 unique chargers made by a particular
6 manufacturer?

7 **A. That is correct. There were**
8 **different shapes also, you know, different**
9 **types of connectors, different -- like when**
10 **you saw "charging techniques," this**
11 **encompasses not just the charger or the power**
12 **conversion aspect. There is also what is the**
13 **algorithm that you use to charge the type of**
14 **battery. When you charge a lithium-ion**
15 **battery, it is a different procedure than you**
16 **charge, you know, a nickel-cadmium battery,**
17 **for example. So that's what I mean by that.**
18 **There could be a variety of charging**
19 **algorithms, power conversion techniques, that**
20 **are custom-made by the device manufacturer to**
21 **be able to charge the device.**

22 Q. In the next sentence following,

1 so it says, "Indeed, it is not surprising
2 that Petitioner was not able to identify any
3 prior art that teaches or suggests charging a
4 jump starter device having a comparable
5 battery capacity via USB," correct?

6 MR. SAUER: Objection. Form.

7 THE WITNESS: Yes, that is
8 correct, yeah.

9 BY MR. CHANDRA:

10 Q. And if we look at paragraph 88
11 on the next page, you state, "In this" -- oh,
12 sorry. Go ahead.

13 **A. Counsel, I'm sorry. Did you**
14 **mean page 88 or did you mean paragraph 88?**

15 Q. Paragraph 88.

16 **A. Okay. Yes. Go ahead.**

17 Q. The first sentence says, "In
18 this instance, USB was not a known technique
19 for charging any large-capacity battery due,
20 in part, to the extended charging times that
21 would result from the limited power levels
22 that were associated with USB in 2014,"

1 correct?

2 **A. Correct.**

3 Q. It goes on -- I'm going to read
4 it for the record -- "The grounds of the
5 petition fail to account for the market
6 demands known in the art at the time, and
7 therefore overlooked the fact not a known
8 solution to charging large-capacity
9 batteries. Here, there was no perceived
10 problem with using barrel chargers, nor was
11 USB charging considered a known solution for
12 charging any large-capacity batteries."

13 Did I read that all correctly?

14 **A. You have. The only thing, just**
15 **for the record, that you missed "USB" when**
16 **you were citing that sentence, so ...**

17 Q. Okay. Thank you.

18 So your opinion is that USB was
19 not a known solution to charging portable
20 jump starters as of July 2014; is that
21 correct?

22 **A. That is correct, yes.**

1 Q. But that's not true, correct?

2 MR. SAUER: Objection. Form.

3 THE WITNESS: I'm not sure why
4 you say it's not true.

5 BY MR. CHANDRA:

6 Q. Well, you were aware of prior
7 art jump starters that had USB charging,
8 correct?

9 MR. SAUER: Objection. Form.

10 THE WITNESS: No. Where did
11 you get that from?

12 BY MR. CHANDRA:

13 Q. Do you know what EPower-10 is?

14 A. **EPower-10, I believe that's one**
15 **of -- that was a device or something. It was**
16 **EPower-10 and EPower-20, and these were**
17 **devices that I have heard, and I looked at**
18 **some of these devices before, correct.**

19 Q. So you have seen the EPower-10
20 device in person, correct?

21 A. **In person. I don't believe**
22 **that I've seen it in person. I know that**

1 I've seen a data sheet or like some brochure
2 of some sort in the context of my involvement
3 in this case at some point. I do remember
4 EPower-10 and EPower-20. I don't believe
5 I've seen the devices in person, not hundred
6 percent sure because it's been a little while
7 since that previous case, but I believe that
8 I've seen brochures or marketing material of
9 some sort.

10 Q. Do you recall seeing this
11 device during your -- the ITC trial?

12 A. Yeah, that's what I was
13 referring to. I believe that EPower-10 was
14 involved in the ITC case; and during, you
15 know, my engagement in that case, this is
16 when I became aware of the marketing material
17 or the brochure associated with that device.

18 Q. So do you recall being asked
19 questions during the ITC trial about this
20 device?

21 A. Being asked during the trial, I
22 can't tell you for sure. I know I was

1 involved. I know that I discussed some of it
2 in some of my declarations. I don't recall
3 if I was asked about that in trial
4 specifically. I have to go back to the
5 record to be able to answer that.

6 Q. But you are at least aware of I
7 think you said marketing material or
8 brochures during the ITC trial, correct?

9 A. I believe that during the ITC
10 trial, yes, there were some material that I
11 have looked at, brochures, marketing
12 material. I do remember there was a
13 schematic of some sort also, but I don't know
14 if it was the EPower-10 or 20 or which one.
15 I can't tell you right now which one for
16 sure, but I am sure there was -- the only
17 thing I'm sure of right now at this moment is
18 that I am aware of the device and I have seen
19 some documentation related to it.

20 Q. Okay. Were you given the ITC's
21 final initial determination for that ITC
22 case?

1 A. The final determination.
2 Usually counsels don't necessarily share that
3 with us after we're done. I do not believe
4 so, actually. I do not believe that the
5 final determination was shared with me; but,
6 again, I can't tell you with hundred percent
7 certainty, but I am inclined to say that, no,
8 I have -- they have not shared it with me.

9 BY MR. CHANDRA:

10 Q. So you are not aware that the
11 ITC determined that EPower-10 qualifies as
12 prior art to the '023 and '243 patent?

13 MR. SAUER: Objection. Form.

14 THE WITNESS: I am not aware of
15 that, actually, no.

16 BY MR. CHANDRA:

17 Q. Sure. So you agree that
18 EPower-10 is a portable jump starter that has
19 a USB micro-charging input, correct?

20 MR. SAUER: Objection. Form.

21 THE WITNESS: I have to go back
22 and look at what that material that I looked

1 at was before I'm able to tell you. I don't
2 want to speculate, but I do remember, when I
3 was looking at this material, there was some
4 uncertainty regarding exactly how they are
5 doing the charger, but I can't -- I have to
6 go look back at the material that I examined
7 to tell you what EPower-10 exactly had.

8 BY MR. CHANDRA:

9 Q. Okay. I'm going to put
10 Exhibit 1053 in the public folder. Do you
11 have a copy of that, Professor?

12 MR. SAUER: What's 1053?

13 MR. CHANDRA: It's the
14 Declaration of Yingchun Wan.

15 MR. SAUER: No, I don't have a
16 copy of that printed I don't believe.

17 MR. CHANDRA: I just put it in
18 the public folder. I'll also share my screen
19 so he can follow along.

20 BY MR. CHANDRA:

21 Q. Can you guys see that on your
22 TV?

1 A. I can see on the TV, but when I
2 refresh the page, it's asking for e-mail and
3 names and company. I guess it wants to log
4 in or something.

5 MR. SAUER: Oh, it's asking you
6 to log in again?

7 THE WITNESS: Yeah. It looks
8 like it logged itself out.

9 MR. SAUER: Can we take a
10 minute here?

11 MR. CHANDRA: Yeah, of course.
12 Actually, why don't we take like a
13 five-minute break. I just need to get some
14 more coffee and water. Is that all right?

15 MR. SAUER: Sure.

16 MR. CHANDRA: We are going off
17 the record for a five-minute break at
18 10:30 a.m. Eastern.

19 (Brief recess.)

20 MR. CHANDRA: We're going back
21 on the record at 10:38 a.m. Eastern.

22

1 BY MR. CHANDRA:

2 Q. Dr. Fayed, did you talk to
3 anyone during the break?

4 A. Not about the testimony. I
5 asked for coffee during the break. That's --
6 yeah.

7 Q. Okay. Do you have Exhibit 1053
8 open on that computer in front of you?

9 A. I am clicking on it and it's
10 loading right now. Now I have it open.

11 MR. SAUER: You can also share
12 it on your screen.

13 MR. CHANDRA: Okay. I'll do
14 that.

15 BY MR. CHANDRA:

16 Q. Can you see that? Is that big
17 enough?

18 A. Yeah, that's big enough on the
19 screen, actually, yes.

20 Q. Okay. Great. Do you recognize
21 this exhibit?

22 A. This -- it appears to me that

1 **it's related to the full -- like the '015**
2 **patent. I was not personally involved in**
3 **that proceeding. I recognize that that's**
4 **related to that proceeding, but I do not**
5 **recall that I ever read that particular**
6 **declaration. So I recognize it, but I have**
7 **not read it.**

8 Q. Can you see that it says --
9 I'll zoom in -- Deltran EX1053 at the bottom
10 corner of the page?

11 **A. I do see that, yes.**

12 Q. So if you look at your
13 declaration, the front page of your
14 declaration should have the same IPR number,
15 IPR2024-01219?

16 **A. Yes, that is correct, yes. So**
17 **you're right. You're absolutely correct.**
18 **It's the same number, yes.**

19 Q. I'd like to go down -- I'm
20 going to go down to page 63 of this document.
21 Let's see. Okay. And I'll turn it so that
22 it's width-wise.

35

1 Have you seen this page before?

2 A. It does look familiar. I
3 believe I've seen it perhaps in the context
4 of the ITC. As I mentioned before, there
5 were brochures related to that particular
6 product, so I'm going to say -- I'm going to
7 say it does look familiar.

8 Q. This states at the top left
9 "EPower-10 The slimmest jump starter,"
10 correct?

11 A. Correct, yes.

12 Q. The right-hand side it has
13 "Technical Specifications."

14 Do you see that?

15 A. I do, yes.

16 Q. The first line is "Input:
17 14 volts 1 amp; Micro USB 5 volts/2 amps"; is
18 that right?

19 A. Correct.

20 Q. Under "Peak Current," which is
21 the fourth line, it says, "300 amps,"
22 correct?

1 **A. Correct.**

2 Q. Under "Weight," it says
3 "200 grams, battery capacity: 6000
4 milliamp-hours," correct?

5 **A. Correct.**

6 Q. You could take that down.
7 Let's turn to your Exhibit 2003 at page 56.
8 You can let me know when you're there.

9 **A. I'm there.**

10 Q. This is in a section titled
11 "Richardson Relies On Recharging From A
12 Connected Vehicle," right?

13 **A. Yes.**

14 Q. Go ahead and read paragraph 108
15 to yourself and let me know when you're done.

16 **A. Okay. Okay. I'm done.**

17 Q. You include a figure that looks
18 like a combination of Figures 2A and 2C; is
19 that correct?

20 **A. That is correct, yes.**

21 Q. In this paragraph 108, in the
22 figure you're talking about the recharging

1 method where Richardson's jump starter
2 batteries can be recharged from a running
3 vehicle; is that correct?

4 **A. That is correct, yes.**

5 Q. And what you've highlighted in
6 this figure is the charging path of that
7 method of charging; is that correct?

8 **A. That is correct.**

9 Q. And it's your opinion that
10 Richardson does not show or describe any
11 other charging methods, correct?

12 **A. That is correct, yes.**

13 Q. Let's take a look at
14 Richardson. It's Exhibit Number 1005.

15 MR. CHANDRA: Do you have a
16 copy, Joseph?

17 MR. SAUER: Yeah.

18 THE WITNESS: I have it.

19 BY MR. CHANDRA:

20 Q. For the record, this is U.S.
21 Publication No. US 2013/0154543 A1 to
22 Richardson et al. This is Exhibit --

1 **A. Yes.**

2 Q. Thank you. This is
3 Exhibit 1005 in this IPR.

4 **A. Correct.**

5 Q. Do you recognize this to be the
6 Richardson reference?

7 **A. Yes, I do.**

8 Q. Let's look at Figure 5 of
9 Richardson.

10 **A. Oh, I'm sorry. You mentioned**
11 **Figure 5.**

12 Q. Yes.

13 **A. I went to page 5. Sorry. Yes,**
14 **Figure 5. I am there.**

15 Q. Okay. At the bottom of this
16 figure there's a step -- it's a flowchart
17 where there is a decision at 252.

18 Do you see that?

19 **A. I do, yes.**

20 Q. And that text in that bubble
21 says, "Vehicle Volts within Correct Range,"
22 right?

1 **A. Correct.**

2 Q. So let's go to paragraph 34 of
3 Richardson.

4 **A. I am there.**

5 Q. Okay. There's a sentence that
6 starts five lines from the bottom of the page
7 with "If."

8 So it says, "If the difference
9 between the voltage selected and the voltage
10 measured is not within a predetermined range
11 of tolerance 252, a 'Wrong Selector Volts'
12 message is displayed 254 on the LCD 46 and
13 further operation is prohibited until the
14 correct voltage is selected 256 at which
15 point processing returns to the main
16 processing loop."

17 Did I read that correct?

18 **A. Yes, you have, but if -- I**
19 **would like to just read it to myself.**

20 Q. Sure.

21 **A. Okay.**

22 Q. Let's take this in steps. The

1 first part of that sentence says Step 252
2 looks for whether a difference between the
3 selected voltage and a vehicle voltage is
4 within a predetermined range and tolerance,
5 right?

6 **A. Right.**

7 Q. So Step 252 determines whether
8 there's a vehicle battery with a voltage that
9 would result in the difference being within a
10 predetermined range and tolerance.

11 MR. SAUER: Objection. Form.

12 THE WITNESS: Right. So my
13 understanding of that, this part of the
14 algorithm, that it checks the voltage of the
15 battery that it's connected to and will make
16 a determination whether it is configured to
17 be able to handle that particular vehicle or
18 system. Richardson has different
19 configuration in which it can configure
20 itself, so it has to determine if it's
21 configured properly for the particular
22 vehicle in question.

1 BY MR. CHANDRA:

2 Q. And the way Richardson
3 determines if it's configured properly is
4 using this predetermined range and tolerance,
5 correct?

6 A. That is correct. That's what
7 Richardson is describing there for making
8 that determination.

9 Q. If the difference between the
10 connected battery, the vehicle battery, and
11 the configuration that the user selected is
12 outside of that predetermined range in
13 tolerance, then Richardson says further
14 operation is prohibited, correct?

15 A. That's what it explains, yes.

16 Q. So if we look back at Figure 5,
17 right, at 252 is asking is it within the
18 correct range, which is referring to the
19 predetermined range and tolerance, right?

20 A. That is correct, yes.

21 Q. And if we're outside the
22 predetermined range and tolerance, we'll

1 go -- we'll get a "no" result and we'll go to
2 254, correct?

3 **A. Correct.**

4 Q. And if you follow 254, it goes
5 to 256, and there is a "no" loop that -- from
6 256. It doesn't go anywhere. It just loops
7 back into 256, but ultimately you'll go back
8 up to block D, correct?

9 **A. That is correct.**

10 Q. And block D --

11 **A. I'm sorry. I just want to make**
12 **sure, because 256, it has a "yes," and if the**
13 **answer is "yes," then it goes back to block**
14 **D. So the answer there is yes, not under all**
15 **conditions.**

16 Q. Could you say that last past
17 again? The answer there is yes, not under
18 all conditions?

19 **A. Well, because 256, it says**
20 **"Correct Voltage Selected," so that's what**
21 **it's checking. And if the answer is "yes,"**
22 **then it goes back to D. If the answer is**

1 **"no," it is not showing where it's going at**
2 **that point. So I just wanted to make sure**
3 **that we're -- yeah.**

4 Q. Yeah. So, yeah, I agree. The
5 Figure 5, what was printed in -- by the
6 Patent Office, it cut off the arrows. If we
7 pulled up the file drawings, it would show
8 that this is a loop. The arrow goes down,
9 comes back around. So you can see on the
10 right side of 256 there's an arrow coming in,
11 correct?

12 A. **Correct, yes. Correct, yeah.**

13 Q. So that's the result of a
14 "no" -- if you get a "no," it loops back into
15 that and --

16 A. **That's right. And it gets**
17 **stuck at that point. If the user doesn't**
18 **correct that configuration, then it will just**
19 **keep looping there, yes, correct.**

20 Q. So the only way to move on past
21 256 is to have the correct voltage selected
22 so that you have a "yes" result, and then

1 you'll go to block D.

2 MR. SAUER: Objection. Form.

3 THE WITNESS: That's what the
4 chart is suggesting, correct.

5 BY MR. CHANDRA:

6 Q. And block D -- if we look up at
7 Figure 3, block D returns to the Main Process
8 Loop, 210.

9 **A. Counsel, you said block D what?**

10 Q. Returns to the Main Process
11 Loop at 210?

12 **A. Yes, that is correct.**

13 Q. So going back to Step 252 --

14 **A. Yes.**

15 Q. -- if Step 252 does not return
16 a "yes," then we will never get to block E,
17 correct?

18 **A. Correct. If Step 252 does not
19 yield a "yes," it will not go into E.**

20 Q. And if we don't go to E, we'll
21 never get to Step 268 which is shown in
22 Figure 6, correct?

1 **A. That is correct, yes.**

2 Q. And Step 268 is where the
3 contact relay is closed, correct?

4 **A. Correct.**

5 Q. So if Step 252 does not return
6 a "yes," then the contact relay will not
7 close at Step 268, correct?

8 **A. So according to the chart,**
9 **that's correct. The issue here is that when**
10 **you look at the description in Richardson --**
11 **I don't want to jump ahead, I think, so I**
12 **will let you ask your question, because just**
13 **based on the chart there, you are correct,**
14 **right? The answer to that 252 question has**
15 **to be a "yes" in order for it to proceed and**
16 **get to 268 eventually.**

17 Q. Okay. Let's turn to your
18 Exhibit 2 -- sorry -- your declaration, 2003,
19 at page 89.

20 **A. I am there.**

21 Q. Could you read paragraph 159 to
22 yourself and let me know when you're done?

1 **A. Sure. Okay. I'm done.**

2 Q. So you agree that at Step 302,
3 Richardson performs battery presence
4 detection, correct?

5 MR. SAUER: Objection. Form.

6 THE WITNESS: That's not what
7 I'm describing here. In that step, it's
8 determining whether a disconnection happened
9 after you have already started jump starting
10 the vehicle. So it's a disconnect -- it's a
11 disconnection-sensing process, if you will.

12 BY MR. CHANDRA:

13 Q. In the first sentence of
14 paragraph 159 of your declaration you write,
15 "It is unsurprising that Richardson's
16 Step 252 does not perform vehicle battery
17 presence detection, since that function is
18 already occurring in Richardson at Step 302."

19 Did I read that correctly?

20 **A. You have, yes.**

21 Q. So Richardson's system --
22 sorry. Richardson's system is capable of

1 using its sensors to detect the presence of a
2 vehicle battery, correct?

3 A. So in that Step 302, what
4 Richardson's system is doing is detecting if
5 the battery got disconnected; and if it got
6 disconnected at that point, that means it was
7 connected. So the lack of the determination
8 that a disconnection has happened after you
9 are already jump starting the vehicle means
10 that the battery was connected prior to that.

11 Q. 302 Richardson determines that
12 a battery has been disconnected, correct?

13 A. That is correct.

14 Q. And if a battery is
15 disconnected, it's no longer present?

16 A. Correct, yeah. If the battery
17 is disconnected, it is no longer present,
18 correct.

19 Q. So at least at Step 302,
20 Richardson's system can detect when a battery
21 is not present.

22 A. So the general answer to that

1 question is yes, but it has a nuance because
2 when you -- the fact that you are capable of
3 determining that a battery has gotten
4 disconnected after it was already connected
5 is only like a subpart, if you will, of -- of
6 detecting that a battery got connected. And
7 if you allow me, I can elaborate a little bit
8 here, because the way it's relying on
9 determining that it was disconnected is more
10 of a dynamic detection. So if you're already
11 connected, current is flowing, then you
12 suddenly disconnect, then --

13 Q. So --

14 A. Oh, I'm sorry.

15 Q. No. It's okay. I mean, this
16 is yes or no question, right?

17 A. Okay. Then maybe you will
18 repeat it one more time.

19 Q. Sure. At least at Step 302
20 Richardson's system detects when a battery is
21 present, correct?

22 MR. SAUER: Objection. Form.

1 THE WITNESS: So the issue is
2 that I cannot answer that with a direct yes
3 or no because it's partly --

4 MR. CHANDRA: Okay.

5 THE WITNESS: Yeah.

6 MR. CHANDRA: So I'll rephrase
7 the question.

8 BY MR. CHANDRA:

9 Q. You agree that at Step 302
10 Richardson detects when a battery cable is
11 disconnected from the vehicle battery,
12 correct?

13 A. After it was already connected,
14 correct.

15 Q. And if a battery cable is
16 disconnected from the vehicle battery, then
17 the battery is no longer present, correct?

18 A. That is correct.

19 Q. You've seen the commercial
20 embodiment of Richardson, correct?

21 A. I've seen the commercial on
22 what?

1 Q. Embodiment of Richardson?

2 A. That is correct. During -- I
3 have seen it during the ITC trial. I think
4 there was -- it was like a big suitcase or
5 something that I've seen, yes. Suitcase size
6 I mean.

7 Q. And that commercial embodiment
8 was the Richardson Infinity series, correct?

9 A. It was Richardson. I don't
10 know if it was the 80 series. Like I don't
11 remember the exact series number, but it was
12 definitely Richardson.

13 Q. And this was a for-sale device
14 on the market?

15 MR. SAUER: Objection. Form.

16 THE WITNESS: I don't know if
17 it was a for-sale. I mean, I was there. I
18 presume it was for sale, but I don't know.

19 BY MR. CHANDRA:

20 Q. It worked to jump start
21 vehicles, correct?

22 A. That's my understanding, yes.

1 Q. Let's turn to paragraph 49 of
2 Richardson.

3 **A. I am there.**

4 Q. The first sentence states, "If
5 in manual mode, the jump starter 10 may be
6 used when the battery voltage of the vehicle
7 is below 10 volts, or if the vehicle's
8 battery is not connected," correct?

9 **A. Correct.**

10 Q. So if you're not in manual
11 mode, the jump starter cannot be used when
12 the vehicle battery is below 10 volts and
13 cannot be used if the vehicle battery is not
14 connected, correct?

15 MR. SAUER: Objection. Form.

16 THE WITNESS: Well, that
17 statement by itself, it says that you may be
18 able to use the device if you are in manual
19 mode, if the vehicle is below 10, or if the
20 vehicle battery is not connected. So that's
21 an option or a feature that exists in it. I
22 think your question is drawing a conclusion

1 out of that, that in auto mode it cannot do
2 these things. But it doesn't actually say
3 that. It just tells you that in manual mode
4 you could use it for that.

5 BY MR. CHANDRA:

6 Q. Okay. You can put that away
7 for now.

8 I'd like to look at Yu, which
9 is -- it's in two exhibits, Exhibit 1007, and
10 the English translation is in Exhibit 1008.

11 MR. SAUER: I have the English
12 translation for him.

13 MR. CHANDRA: Sure. We'll go
14 with that one.

15 THE WITNESS: I'm ready.

16 BY MR. CHANDRA:

17 Q. Do you recognize this to be the
18 certified translation of the Yu reference?

19 A. I do, yes.

20 Q. Can we go down to paragraph 26
21 of Yu which appears on page 5, and go ahead
22 and read that paragraph to yourself and let

1 me know when you're done.

2 **A. Sure. Did you say 26 or 27?**

3 **Q. Twenty-six.**

4 **A. Twenty-six. Okay.**

5 MR. SAUER: Can we pause for
6 just a minute.

7 (Discussion off the record.)

8 BY MR. CHANDRA:

9 **Q. Okay. Go ahead and read**
10 **paragraph 26. Let me know when you're done.**

11 **A. Sure. Okay.**

12 **Q. Okay. Reading that paragraph,**
13 **you can see that Yu states that the relay 2**
14 **is controlled by the microprocessor, correct?**

15 **A. That is correct for the part**
16 **where it turns off the relay. Give me one**
17 **second. Right. So it is controlled by the**
18 **microprocessor for the portion after two**
19 **seconds, and it will turn off that relay so**
20 **that output terminal 3 wiring can be**
21 **disconnected. So in this particular**
22 **situation, the microprocessor is making the**

1 **determination and turning off relay 2**
2 **accordingly. So for that portion, the**
3 **microprocessor is doing that control,**
4 **correct.**

5 Q. Let's look at -- let me just
6 find it. Okay. So if you look at the
7 paragraph, go one, two, three, four, five
8 lines from the bottom of the paragraph, it
9 starts -- and it's not the beginning of the
10 sentence, but it says the vehicle was started
11 for two seconds, and then Yu states, "the
12 microprocessor 42 controlled relay." Do you
13 see that?

14 "The microprocessor controlled
15 relay." Do you see that?

16 A. **I see that, yes.**

17 Q. So the microprocessor controls
18 the relay, correct?

19 A. **I can't answer --**

20 MR. SAUER: Objection.

21 THE WITNESS: I can't answer
22 yes or no because your question is a general

1 statement that the microprocessor is
2 controlling that relay at all times and under
3 all scenarios, but that's not what this is
4 explaining. It is only talking about that
5 particular condition after the vehicle is
6 started for two seconds. So that's why I'm
7 unable to tell you yes or no to your
8 question.

9 BY MR. CHANDRA:

10 Q. If you find that sentence I
11 just looked at, two lines up in the paragraph
12 it says -- the line starts with "within the
13 normal range, then the JUMP button of input
14 buttons 6."

15 Do you see that?

16 A. I see that.

17 Q. Okay. So the JUMP button is
18 one of the input buttons 6, correct?

19 A. Correct.

20 Q. Let's go to Figure 1 of Yu,
21 which is actually below, so it's down on
22 page 6.

1 **A. Yes.**

2 Q. At the bottom you see the input
3 buttons 6?

4 **A. I see that.**

5 Q. And the line from the input
6 buttons 6 goes to the microprocessor,
7 correct?

8 **A. That is correct.**

9 Q. And the line from the
10 microprocessor goes up to the relay switch
11 circuit.

12 **A. Yes. Correct.**

13 Q. And above that is one line to
14 the relay 2, correct?

15 **A. Correct.**

16 Q. Aside from the relay switch
17 circuit, is there anything else connected to
18 the relay that can control the relay?

19 **A. No, there isn't, but our**
20 **definition of the term "control" apparently**
21 **is not aligned.**

22 Q. Are there any other lines

1 connected to the relay that would suggest
2 that either the internal battery or output
3 terminal control the relay?

4 MR. SAUER: Objection. Form.

5 THE WITNESS: On this figure,
6 no, there are no other lines. The only line
7 that is coming through are the lines shown in
8 that figure. That I agree with. But that's
9 not the meaning of "control."

10 BY MR. CHANDRA:

11 Q. Okay. And there's one line
12 going from the microprocessor to the relay
13 switch circuit, correct?

14 A. Yeah, that is correct.

15 Q. So this figure of Yu depicts
16 that the relay is only controlled by the
17 relay switch circuit and the microprocessor,
18 correct?

19 A. I cannot answer that question
20 with yes or no until we, you and I, agree on
21 what the term "control" means.

22 Q. Well, if somebody presses one

1 of the input buttons or the JUMP button, for
2 example, the microprocessor will receive that
3 input, correct?

4 **A. Correct.**

5 Q. And then the microprocessor
6 will close the relay, correct?

7 **A. The microprocessor will close**
8 **the relay in response to the user pressing**
9 **the JUMP. So the user is doing the control.**
10 **The microprocessor is just the executioner of**
11 **that task.**

12 Q. If I took the microprocessor
13 out of this device, could the JUMP button
14 control the relay?

15 **A. If the microprocessor is**
16 **eliminating, it's equivalent to cutting the**
17 **arm of a person who's trying to open the**
18 **door. So, no, it will not.**

19 Q. So I'll ask it again. It's a
20 yes or no question.

21 If I took the JUMP -- the
22 microprocessor out, can the JUMP button

1 control the relay?

2 MR. SAUER: Objection. Form.

3 THE WITNESS: It will have no
4 means for executing that command, so it will
5 not be able to.

6 BY MR. CHANDRA:

7 Q. Okay. Let's take a look at
8 Exhibit 2009, which was an exhibit attached
9 to your declaration.

10 MR. CHANDRA: Do you have that,
11 Joseph?

12 MR. SAUER: We probably -- what
13 is it?

14 MR. CHANDRA: 2009.

15 MR. SAUER: 200 --

16 MR. CHANDRA: And I'll put
17 it -- if I can find the window, I'll put it
18 in the public folder as well.

19 MR. SAUER: I don't know if I
20 have that one. Give me just a second.

21 THE WITNESS: Counsel, can you
22 repeat the exhibit number?

1 MR. SAUER: 2009. I have it
2 here. The Koebler patent?

3 MR. CHANDRA: Yes, that's
4 right.

5 THE WITNESS: Yes, I have it.

6 BY MR. CHANDRA:

7 Q. Okay. Before we go there,
8 let's first take a look at your declaration,
9 2003, at page 37.

10 A. I'm there.

11 Q. Okay. Sorry. Page 75, a
12 couple lines down you can see you have a
13 sentence, "As discussed above, the battery
14 capacity of any battery pack will be directly
15 influenced by its peak current requirements,"
16 and you cite to Exhibit 2009, correct?

17 A. Correct.

18 Q. Now, let's take a look at that
19 exhibit which is --

20 MR. SAUER: Do you want to
21 share that, too?

22 MR. CHANDRA: Yeah, sure.

1 BY MR. CHANDRA:

2 Q. Can you see it?

3 A. I see that exhibit, yes, and I
4 have it in front of me as well.

5 Q. I'll point to things on the
6 screen as well. You can follow along on your
7 paper copy. Whatever you prefer.

8 So this is United States Patent
9 9,954,207, correct?

10 A. Correct.

11 Q. This is the Koebler reference?

12 A. Correct.

13 Q. And you recognize this as
14 Exhibit 2009 which you cite in your
15 declaration, correct?

16 A. That is correct.

17 Q. Is it fair to say that you
18 believe this exhibit is relevant to the
19 issues in this IPR?

20 MR. SAUER: Objection. Form.

21 THE WITNESS: For the purpose,
22 I cited it for, yes, which was related to the

1 fact that the battery capacity and the peak
2 current are related.

3 BY MR. CHANDRA:

4 Q. Let's go down to column 6,
5 line 45, of this patent. On -- well, the
6 pages aren't marked, so it's way down there,
7 page 26 of the PDF. You can also follow
8 along on the screen if you'd like.

9 A. Yes, I see it.

10 Q. Go ahead and read this first
11 paragraph here starting at line 45 under the
12 detailed description. Let me know when
13 you're done.

14 A. Okay. I am done with the first
15 paragraph.

16 Q. Do you see where Koebler states
17 that four lithium-ion phosphate cells in
18 series have a nominal voltage of 13.2 volts?

19 A. Yes, I see that.

20 Q. If we go back up to the first
21 page of this reference --

22 A. Okay.

1 Q. -- you can see there's a
2 Related U.S. Application Data on the
3 left-hand side right by the field numbered
4 63?

5 **A. Yes, I see that.**

6 Q. That says this is a
7 continuation-in-part of Application Number
8 13/989,273 filed as Application Number
9 PCT/US2011/001937 on November 28, 2011, now
10 Patent Number 9,412,944, right?

11 **A. 994, correct.**

12 Q. 994. Thank you.

13 I'm going to share on my screen
14 an Exhibit 1058 that's been premarked. I
15 think that's the next number in our series of
16 exhibits. And I'll put it in the public
17 folder as well. Just give me a second.

18 Okay. So I'm sharing on the
19 screen WIPO Publication Number 2012/074548
20 A1, which has a publication date on the
21 left-hand side of June 7, 2012.

22 Do you see that?

1 **A. I do, yes.**

2 Q. And at field 21, there's the
3 International Application Number which is
4 PCT/US2011/001937.

5 Do you see that?

6 **A. I do.**

7 Q. And that's the same PCT number
8 that is on the Koebler patent that we just
9 read, correct?

10 **A. I didn't, you know, memorize**
11 **it; but if you present me that they are the**
12 **same, then I believe you.**

13 Q. Okay. Yeah, I will present --
14 I think the record will show and I'll present
15 that they are the same.

16 **A. Okay.**

17 Q. So I'll go down to the
18 Koebler -- sorry. This is not Koebler. This
19 is the Exhibit 1058 here at "Detailed
20 Description." Can you read that paragraph
21 starting at line 17 to yourself?

22 **A. Okay. I'm done.**

1 Q. You can see that this is the
2 same paragraph that we read from Koebler,
3 correct?

4 **A. Yeah, it does appear so, yes.**

5 Q. This also states that four
6 lithium-ion phosphate cells in series have a
7 nominal voltage of 13.2 volts, correct?

8 **A. Correct.**

9 MR. CHANDRA: We've been going
10 just about an hour. Do you guys want to take
11 a short break? Maybe ten minutes and we'll
12 pick up?

13 THE WITNESS: Sure.

14 MR. CHANDRA: So I'll read us
15 off. We're going off the record at
16 11:23 a.m.

17 (Brief recess.)

18 MR. CHANDRA: Going back on the
19 record at 11:36 a.m. Eastern.

20 BY MR. CHANDRA:

21 Q. Let's take a look at the
22 Paparrizos' reference which is Exhibit 1009.

1 **A.** **So counsel are we done with**
2 **Koebler patent?**

3 **Q.** **Yes.**

4 **A.** **Okay. Yeah, I have Paparrizos**
5 **in front of me right now.**

6 **Q.** **You provide some opinions about**
7 **this reference, correct?**

8 **A.** **I provide some opinions**
9 **about -- not about the reference per se but**
10 **the combination of the reference with others,**
11 **yes.**

12 **Q.** **You recognize this as the**
13 **Paparrizos reference which is Exhibit 1009 in**
14 **this IPR, correct?**

15 **A.** **I do, yes.**

16 **Q.** **If you turn to column 2 at**
17 **line 24. Sorry. Apologies. It's -- yeah,**
18 **I'm sorry. That's right. Column 2 at**
19 **line 24. It's starting with Figure 1.**

20 **Do you see that?**

21 **A.** **I see that, yes.**

22 **Q.** **Go ahead and read that**

1 paragraph and let me know when you're done.

2 **A. Yes, I'm done.**

3 Q. So Paparrizos says that the
4 electronic device may be a portable computer,
5 correct?

6 **A. Correct.**

7 Q. A portable computer is a
8 laptop, correct?

9 **A. A laptop would qualify for**
10 **that, yes.**

11 Q. In the next paragraph -- go
12 ahead and read that paragraph and let me know
13 when you're done.

14 **A. Okay.**

15 Q. So Paparrizos, the last
16 sentence says, "The battery voltage of such
17 batteries typically range from 6 to 8.4 volts
18 but can provide lower or higher voltages,"
19 right?

20 **A. That is correct.**

21 Q. So Paparrizos contemplates
22 having a battery in his device that's larger

1 than 8.4 volts, correct?

2 **A. That is correct, yes.**

3 Q. Moving down the same column to
4 line 59, there's a sentence starting, "For
5 example, the electronic device 22b may be a
6 laptop computer."

7 **A. Correct. I see that.**

8 Q. And do you understand that 22b
9 is referring to an external device?

10 So if you want to confirm, at
11 line 41, the first sentence of that paragraph
12 says, "The electronic device may include a
13 connector 16 for connection to an external
14 device 22."

15 Do you see that?

16 **A. I see that, yes.**

17 Q. So the later sentence where it
18 mentions an electronic device 22b may be a
19 laptop computer, that's talking about the
20 external device, correct?

21 MR. SAUER: Objection. Form.

22 THE WITNESS: Can I take a

1 second to look at the figure?

2 BY MR. CHANDRA:

3 Q. Sure. I would point you to
4 Figure --

5 A. I think it's referring to
6 Figure 1B, it seems, the text is.

7 Q. Correct.

8 A. Yeah, right.

9 Q. Yeah. So if you're looking at
10 Figure 1B, on the right-hand side you can see
11 the dotted line depicts, you know, 10, which
12 is Paparrizos' device 10?

13 A. Yes.

14 Q. And on the left you'll see 22b
15 which appears to be a laptop.

16 A. Yes, that is correct, yeah. I
17 see that.

18 Q. Let's take a look at
19 column 1 if you can.

20 A. Okay.

21 Q. At line 13, there's a paragraph
22 starting "Computer" -- or sorry -- line 9, a

1 paragraph starting "Computer tablets and
2 other mobile devices," correct?

3 **A. Correct.**

4 Q. This paragraph appears in the
5 background section of Paparrizos?

6 **A. It does, yes.**

7 Q. Could you read that paragraph
8 starting with "Computer tablets" to yourself
9 and let me know when you're done?

10 **A. Sure. Okay.**

11 Q. Could you keep that open and
12 also open your declaration at page 65,
13 paragraph 124.

14 **A. I am at paragraph 124.**

15 Q. So 124 continues onto the next
16 page. On the next page, page 66, there is a
17 sentence starting with "Paparrizos'
18 techniques relate," and it continues on.
19 Could you read that sentence to yourself and
20 let me know when you're done?

21 **A. Sure. Okay.**

22 Q. The first citation you provide

1 in that sentence is to column 2, 26 to 29,
2 correct?

3 A. That is correct. This is
4 what -- well, on the top of that page, I also
5 refer to 2:26-29 which is the same reference.
6 So, yes, column 2, 26 to 29, that is correct.

7 Q. And I think there's just a typo
8 or a miscitation basically. I think that if
9 you read the quote, "Computer tablets and
10 other mobile devices, such as mobile phones,
11 digital SLR cameras, video recorders, and
12 audio device" -- or, sorry -- "video
13 recorders, audio devices," that actually
14 appears in column 1, line 9 of Paparrizos?

15 A. That appears to be correct.
16 Yes, you're right. This -- it must have
17 been -- in fact, if you look at the -- in
18 that same paragraph in page 66, do you see in
19 the fourth line from the top there is Id.,
20 1:13 to 15?

21 Q. Yes.

22 A. I think that there must have

1 **been like a copy-paste error or something --**

2 Q. Okay.

3 **A. -- in that process, yes.**

4 Q. So that citation, the first one
5 of that sentence says Id., you know, column
6 2, 26 to 29, that should have been a citation
7 to column 1, line 9 to 13 perhaps.

8 **A. That is correct, because**
9 **looking at the text, as you pointed out, it**
10 **matches that line, not the other one.**

11 Q. Okay. You can put those away.

12 **A. Okay.**

13 Q. In the course of your work that
14 you did for the ITC litigation, did you offer
15 the following opinion: A person of skill in
16 the art, therefore, would likely conclude
17 that adding a USB charging facility is only
18 useful maybe as an optional/secondary method
19 of charging, perhaps overnight, when the
20 device is not being used, and that the device
21 must have a primary method that can charge
22 the device at a reasonable rate.

1 MR. SAUER: Objection. Outside
2 the scope.

3 THE WITNESS: I mean, of course
4 I have to go back and look at my declarations
5 and testimony at that time, but it does sound
6 like -- it does sound like something I
7 believe, yes.

8 MR. CHANDRA: I'll pass the
9 witness.

10 MR. SAUER: I have no
11 questions.

12 MR. CHANDRA: Okay. I have no
13 follow-ups. Thank you.

14 (The deposition concluded at
15 11:47 a.m. Eastern.)

16 * * * * *

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1 C E R T I F I C A T I O N

2

3 I, Patricia R. Frank, a Registered Merit
4 Reporter, Certified Realtime Reporter, and Notary
5 Public, do hereby certify that I reported the
6 deposition in the above-captioned matter; that the
7 said witness testified under penalty of perjury;
8 that the foregoing is a true and correct transcript
9 of the stenographic notes of testimony taken by me
10 in the above-captioned matter.

11 I further certify that I am not an
12 attorney or counsel for any of the parties, nor a
13 relative or employee of any attorney or counsel
14 connected with the action, nor financially
15 interested in the action.

16

17



18

Patricia R. Frank, CRR, RMR #9764

19

20 Dated: July 10, 2025

21

22

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