

1 UNITED STATES PATENT AND TRADEMARK OFFICE
2 BEFORE THE PATENT TRIAL AND APPEAL BOARD

3 AMAZON.COM, INC.,)
4 AMAZON.COM SERVICES)
5 LLC,) CASE NO.:
6) IPR2024-00604
7 Petitioner,)
8) U.S. Patent No.
9 VS.) 10,536,714
10)
11 NOKIA TECHNOLOGIES OY,)
12)
13 Patent Owner.)

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22 VS.) U.S. Patent No.
) 10,536,714
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23 -----
24 ORAL AND REALTIMED DEPOSITION OF
25 DR. VIVienne SZE
26 JANUARY 22, 2025
27 -----

28 JOB NO.: 567273

29 PAGES: 1 - 35

30 REPORTED BY: ANNETTE PELTIER

1 ORAL, REALTIMED DEPOSITION OF DR. VIVIENNE
2 SZE, produced as a witness at the instance of the
3 Patent Owner, and duly sworn, was taken in the
4 above-styled and numbered cause on
5 January 22, 2025, from 12:02 p.m. to 12:44 p.m.,
6 before Annette Peltier, CSR, Texas Certified
7 Realtime Reporter, in and for the State of Texas,
8 reported by machine shorthand pursuant to the
9 United States Patent and Trademark Office Rules
10 of Civil Procedure and the provisions stated on
11 the record or attached hereto.

A P P E A R A N C E S

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* * * * *

1 EXHIBIT TECH: Thank you to
2 everyone for attending this proceeding remotely,
3 which we anticipate will run smoothly.

4 Please remember to speak slowly
5 and do your best not to talk over one another.

6 Please be aware that we are
7 recording this proceeding for backup purposes.

8 Any off-the-record discussions
9 should be had away from the computer.

10 Please remember to mute your mic
11 for those conversations.

12 Please have your video enabled to
13 help the reporter identify who is speaking. If
14 you are unable to connect with video and are
15 connecting via phone, please identify yourself
16 each time before speaking.

17 We will provide a complimentary,
18 unedited recording of this deposition with the
19 purchase of a transcript.

20 I apologize in advance for any
21 technical-related interruptions.

22 Thank you.

12:03:27

Transcript of Dr. Vivienne Sze
Conducted on January 22, 2025

6

1	DR. VIVIENNE SZE,	12:03:27
2	Having been first duly sworn, testified upon her	12:03:27
3	oath as follows:	12:03:31
4	EXAMINATION	12:03:31
5	BY MS. TANNENBAUM:	12:03:32
6	Q. Good morning, Dr. Sze.	12:03:32
7	A. Morning.	12:03:58
8	Q. Dr. Sze, have you been deposed before?	12:03:58
9	A. Yes, only once, yeah.	12:04:03
10	Q. Okay. So are you -- you're familiar with	12:04:06
11	the general rules of a deposition.	12:04:10
12	But can we agree that you'll let me	12:04:13
13	know if you don't understand a question that I	12:04:16
14	ask?	12:04:18
15	A. Yes, I will let you know.	12:04:19
16	Q. Okay. Great.	12:04:21
17	Dr. Sze, is there anyone in the room	12:04:22
18	with you today?	12:04:25
19	A. No, there is not anyone in the room.	12:04:26
20	Q. And other than the videoconferencing	12:04:28
21	application, Zoom, do you have anything else	12:04:32
22	opened on your computer?	12:04:35

PLANET DEPOS

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Nokia Exhibit 2021, p. 6
Amazon.com v. Nokia
IPR2024-00604

Transcript of Dr. Vivienne Sze
Conducted on January 22, 2025

7

1	A. Oh, so I have a digital version of my	12:04:37
2	declaration open on the computer.	12:04:40
3	Q. Okay. And do you have any other documents	12:04:44
4	with you in the room today?	12:04:46
5	A. I have a printed document of the	12:04:48
6	declaration and all the exhibits that are	12:04:51
7	mentioned.	12:04:55
8	Q. Okay. So how did you prepare for today's	12:04:56
9	deposition?	12:05:00
10	A. I reviewed my declaration, and I had a	12:05:01
11	meeting with the attorneys.	12:05:06
12	Q. Which attorneys did you meet with?	12:05:07
13	A. Fred Chung and Jeff Liang.	12:05:12
14	Q. And how long did you meet with them?	12:05:15
15	A. Between three to four hours.	12:05:20
16	Q. And did you speak to anyone else other	12:05:25
17	than counsel for Amazon?	12:05:28
18	A. No, I did not speak to anyone else.	12:05:30
19	MS. TANNENBAUM: So I'd like to	12:05:35
20	ask the court reporter to introduce what's been	12:05:37
21	uploaded and premarked as Exhibit 1.	12:05:39
22	Can you please provide that to the	12:05:42

1	witness?	12:05:44
2	(Whereupon Exhibit Number 1 was	12:05:44
3	marked for identification.)	12:05:53
4	EXHIBIT TECH: Counsel, would you	12:05:53
5	like Exhibit 1 shared on the screen?	12:05:54
6	MS. TANNENBAUM: I don't need it.	12:05:58
7	Q. (BY MS. TANNENBAUM) It's a copy of your	12:05:59
8	declaration, so if you have that and don't need	12:06:01
9	it on the screen, as well...	12:06:05
10	A. Yeah. I have a paper copy, and as I	12:06:08
11	mentioned, I have a digital copy of it, of my	12:06:10
12	declaration.	12:06:14
13	Q. Okay. Great.	12:06:15
14	So you have Exhibit 1 in front of you.	12:06:18
15	Do you recognize Exhibit 1 as the	12:06:21
16	declaration you provided in both IPR 2024-00604	12:06:22
17	and 00605?	12:06:27
18	A. Yes. This is a declaration with that case	12:06:31
19	number, right, IPR 2024-00604, yep, yes.	12:06:34
20	Q. And I want to make this more	12:06:40
21	straightforward.	12:06:42
22	Do you agree that your declaration in	12:06:43

1	the 00604 and 00605 IPRs are substantially	12:06:46
2	similar?	12:06:51
3	A. I do not have the declaration 00605 in	12:06:55
4	front of me, so...	12:07:00
5	Q. Do you recall if the substance in your two	12:07:03
6	declarations are the same?	12:07:07
7	A. Yes, I -- but I do not recall the number	12:07:11
8	of the other one, so -- but yes, the contents are	12:07:13
9	the same but I don't know the exact number, if	12:07:19
10	that's what you're asking.	12:07:21
11	Q. Okay. Yeah, the other number is 00605.	12:07:22
12	So when I refer to "Exhibit 1," you'll	12:07:26
13	understand that it covers both of your	12:07:29
14	declarations?	12:07:31
15	A. Yes, okay.	12:07:34
16	Q. Okay. Great.	12:07:36
17	So Amazon's counsel asked you to	12:07:37
18	provide information regarding the availability of	12:07:41
19	documents uploaded on the joint collaborative	12:07:44
20	team on video coding document management site,	12:07:48
21	correct?	12:07:50
22	A. Yes, that is correct.	12:07:51

1	Q. And you understand the joint collaborative	12:07:53
2	team on video coding is referred to as "JCT-TV"?	12:07:56
3	A. We refer to it as "JCT-VC" --	12:08:05
4	Q. VC?	12:08:05
5	A. -- for the "video coding."	12:08:08
6	Q. Yeah, sorry. Sorry for messing that up.	12:08:08
7	VC.	12:08:13
8	So I'm going to be referring to it as	12:08:14
9	"JCT-VC" moving forward.	12:08:19
10	So the JCT-VC was created in early	12:08:21
11	2010, correct?	12:08:25
12	A. Yes, the JCT-VC was formed around that	12:08:30
13	time.	12:08:34
14	Q. And when did you first learn of the	12:08:34
15	JCT-VC?	12:08:36
16	A. Can you clarify? When I did first learn	12:08:41
17	that they were forming the committee, or when did	12:08:44
18	I first --	12:08:47
19	Q. Yes, when they were forming the committee.	12:08:47
20	A. Yes.	12:08:49
21	So I had heard about this potential	12:08:50
22	committee to develop a new standard back	12:08:54

1	in around 2009 and then --	12:08:56
2	Q. And professionally, what were you doing at	12:09:03
3	that time?	12:09:06
4	A. I was first a graduate student, and	12:09:06
5	then -- yeah, during the -- when I first heard	12:09:09
6	about it, I was a graduate student.	12:09:12
7	Q. And you became an active member of the	12:09:14
8	JCT-VC in October, 2010, correct?	12:09:18
9	A. Yes.	12:09:23
10	So in 2010, as my declaration says, I	12:09:25
11	graduated and then joined Texas Instruments and	12:09:30
12	then I was part of the JCT-VC.	12:09:33
13	Q. Were you involved in any earlier standards	12:09:36
14	organization?	12:09:39
15	A. I had made cont- -- as a graduate student,	12:09:47
16	I had made contributions to some	12:09:50
17	standardization -- or prestandardization efforts	12:09:54
18	before JCT-VC, which is the reason why I had	12:09:57
19	heard about the development of the -- or the	12:09:59
20	planning to develop a standard in 2009.	12:10:03
21	Q. And how did you become involved with that?	12:10:08
22	A. With -- with which one?	12:10:12

1 Q. The earlier standard organizations prior
2 to the formation of the JCT-VC that you mentioned
3 you had contributions towards.

12:10:16

12:10:20

12:10:26

4 A. Yeah.

12:10:29

5 So I was doing research in the area of
6 video compression for my Ph.D.; and through our
7 collaboration with Texas Instruments, I became
8 involved in participating in the meetings of, you
9 know, the pre-JCT-VC meetings.

12:10:30

12:10:34

12:10:38

12:10:41

12:10:47

10 Q. And did you have a specific role? Were
11 you -- I'll -- I'll rephrase that.

12:10:50

12:11:00

12 Were you a member of the
13 pre-standardization group?

12:11:02

12:11:08

14 A. Can -- I was a participant in attending
15 the meetings of this pre-standardization group.

12:11:14

12:11:17

16 Q. Okay. And how did you become a member of
17 JCT-VC?

12:11:26

12:11:28

18 A. So as I mentioned, I think basically
19 through working with Texas Instruments, I was
20 representing Texas Instruments at the JCT-VC
21 meeting.

12:11:34

12:11:37

12:11:40

12:11:44

22 Q. And what did you do to prepare for the

12:11:47

1	JCT-VC meetings?	12:11:50
2	A. Oh, to prepare for the meetings, often we	12:11:55
3	wanted to know what was going to be discussed in	12:11:59
4	the meetings; so we would review the various	12:12:02
5	contributions and proposals that were submitted	12:12:05
6	to the meetings and, of course, we would also	12:12:08
7	prepare our own contributions and proposals to	12:12:11
8	submit to the JCT-VC meetings.	12:12:14
9	Q. So you mentioned you were there on behalf	12:12:17
10	of Texas Instrument [sic].	12:12:20
11	Did Texas Instrument pay you to	12:12:22
12	represent them at JCT-VC?	12:12:26
13	A. Texas Instruments paid me a salary for	12:12:29
14	being an employee of Texas Instruments; and as	12:12:33
15	part of that -- the duties of the employee, I	12:12:38
16	attended those meetings to represent them.	12:12:40
17	Q. And were your travels funded when you	12:12:42
18	attended those meetings by Texas Instrument?	12:12:45
19	A. Yeah.	12:12:47
20	So Texas Instruments would cover our	12:12:48
21	travel cost to attend these meetings.	12:12:50
22	Q. Were there any other employees at Texas	12:12:52

1	Instrument that were also members of the JCT-VC?	12:12:54
2	A. Other members of -- so Texas Instruments,	12:13:00
3	I'm going to just say "TI." Other members of TI,	12:13:04
4	there were other members of our team who also	12:13:07
5	attended the meetings.	12:13:09
6	Q. And what qualifications did you need to	12:13:12
7	become a member of JCT-VC?	12:13:16
8	A. I don't recall any formal qualifications	12:13:23
9	that were necessary --	12:13:29
10	Q. So can anyone --	12:13:32
11	A. -- to attend the meetings, yeah.	12:13:34
12	Q. So can anyone become a member of the	12:13:36
13	JCT-VC?	12:13:39
14	A. The meetings were open for anyone to	12:13:46
15	attend.	12:13:52
16	Q. So can you tell me about the process of	12:13:52
17	becoming a member? Do you have to be a -- to be	12:13:55
18	a member, do you have to represent a company?	12:13:58
19	A. I don't recall any formal process, but I	12:14:14
20	do recall that the meetings were open for	12:14:17
21	attendance and -- so I don't recall going through	12:14:22
22	any formal process.	12:14:26

1	Q. So you mentioned, as a member, and I guess	12:14:31
2	as a nonmember, as well, you can attend the	12:14:36
3	meetings, correct?	12:14:39
4	A. I don't -- I guess my point is, I don't	12:14:41
5	recall any details of specific membership	12:14:44
6	criteria or being referred to as being members to	12:14:47
7	just participate in the -- in the meetings, yeah.	12:14:54
8	Q. So as a member, you attended the standard	12:14:57
9	meetings?	12:15:01
10	A. I would say as a participant. I don't	12:15:06
11	know what the formal -- like we -- we chose to	12:15:09
12	participate in the meetings.	12:15:12
13	Q. Did anyone unaffiliated with the company	12:15:14
14	participate in the JCT-VC meetings?	12:15:19
15	A. Yeah. There were researchers and	12:15:21
16	academics who were also participating in the	12:15:23
17	meetings.	12:15:26
18	Q. So which of the standard meetings did you	12:15:26
19	go to?	12:15:32
20	A. Are you asking specifically about the JCT	12:15:34
21	standard meetings or --	12:15:39
22	Q. Yes.	12:15:41

1 A. Yeah. So I attended, starting with the 12:15:41
2 meeting in October 2010, I believe that was 12:15:45
3 somewhere in China -- I forget the exact city, 12:15:50
4 and then up until, I believe, either 20 -- end of 12:15:54
5 2012 or middle of 2013. 12:16:03

6 Q. So you just mentioned prior to my last 12:16:06
7 question that there were researchers and 12:16:09
8 academics who were participating in the meetings. 12:16:13

9 Do you recall anyone specific who was 12:16:15
10 attending? 12:16:19

11 A. Specific people -- you mean, specific -- 12:16:20
12 what do you mean, anybody specific, who was not 12:16:25
13 part of a specific company who was attending 12:16:27
14 or... or what do you mean by... 12:16:30

15 Q. Yes, so let me clarify. 12:16:33

16 You mentioned that there were 12:16:36
17 researchers and academics who were also 12:16:38
18 participating in the meetings. 12:16:40

19 Do you recall who those individuals 12:16:42
20 are or what schools they were affiliated with? 12:16:44

21 A. Sure. 12:16:49

22 Well, let's see. There was, I 12:16:51

1	believe -- I'm trying to -- I think there's a	12:17:00
2	list of attendees. I'm trying -- because I'm	12:17:21
3	trying -- like, I don't want -- I'm trying to	12:17:24
4	remember specific -- I'm just trying to clarify,	12:17:27
5	if they were there, which meetings that they were	12:17:30
6	at, if it was the VK -- like, sorry, the	12:17:33
7	pre-standardization or the standardization	12:17:37
8	meetings. I'm just trying to...	12:17:40
9	From a research institute standpoint,	12:17:51
10	there were a lot of participants from HHI, which	12:17:53
11	is just Germany -- a German research institute,	12:17:56
12	which was not a company, necessarily.	12:18:00
13	And then I believe there were	12:18:02
14	participants from Hong Kong University, but I	12:18:14
15	don't recall exactly which meeting.	12:18:21
16	Q. Okay. Do you -- is -- do you have	12:18:26
17	anything else to add to that or I can continue?	12:18:29
18	A. Yes, please continue. That's fine.	12:18:36
19	Q. Okay. So you would say that these	12:18:39
20	individuals from the two places you just	12:18:53
21	mentioned in Hong Kong and Germany, were they	12:18:56
22	part of research groups that already existed	12:19:00

1	prior to the formation of the JCT-VC?	12:19:04
2	A. Yes. I think both of those institutes	12:19:10
3	would exist before 2010.	12:19:12
4	Q. Okay. Did you make any contributions to	12:19:15
5	the standard as a member of the JCT-VC?	12:19:20
6	A. So while I was at Texas Instruments, I	12:19:27
7	made -- yes, I made various contributions to the	12:19:31
8	JCT-VC, to -- to the development of HEVC.	12:19:34
9	Q. So can you please turn to paragraph 22 of	12:19:40
10	your declaration, please.	12:19:43
11	A. (Complying.)	12:19:45
12	Yes, I am on that paragraph.	12:19:49
13	Q. And you mentioned that you personally	12:19:52
14	recall that people who are interested in video	12:19:57
15	coding would access proposals and working drafts	12:20:01
16	from the JCT-VC websites, including meeting	12:20:04
17	attendees and nonattendees, such as graduate	12:20:07
18	students that were interested in video coding.	12:20:11
19	A. Yeah.	12:20:17
20	So for people who are definitely	12:20:18
21	interested in video compression, in particular in	12:20:20
22	the development of the HEVC standard, they would	12:20:23

1 access the contributions on the JCT-VC website, 12:20:27
2 including graduate students; so there were 12:20:32
3 several graduate students who were at MIT who 12:20:35
4 were also interested in this topic, and so they 12:20:38
5 could... 12:20:41

6 Q. Do you have any examples of those graduate 12:20:41
7 students accessing the proposals and working 12:20:44
8 drafts from the JCT-VC websites? 12:20:48

9 A. Yeah. So there were some students who 12:20:52
10 were looking at building hardware on this 12:20:55
11 standard, and so I had referred them to this 12:21:02
12 website to check the status of the standards. 12:21:04

13 Q. Did these people ask you about, you know, 12:21:09
14 where you directed them to in person at the 12:21:13
15 meetings or did, you know, they call you about 12:21:16
16 how to access documents? 12:21:19

17 A. Sorry, can you repeat the question? I 12:21:22
18 don't understand. 12:21:27

19 Q. Yes. 12:21:27

20 So you mentioned that you directed 12:21:27
21 people to the JCT-VC website to access the 12:21:29
22 documents, correct? 12:21:34

1 A. Yes. I had told folks that if they wanted 12:21:36
2 to know about developments in the HEVC standard 12:21:40
3 or the ongoing developments, to visit the JCT-VC 12:21:45
4 website. 12:21:49

5 Q. And did this happen in person at the 12:21:49
6 meetings, or did, for example, these graduate 12:21:54
7 students call you to ask you about -- where you 12:21:57
8 provided them information about, you know, 12:22:02
9 accessing the website to find out more 12:22:04
10 information about the standards? 12:22:07

11 A. So, yeah, I relayed this information not 12:22:09
12 at the meetings. This was outside of the 12:22:12
13 meetings. 12:22:14

14 Q. And how did they contact you? 12:22:14

15 A. They were -- what do you mean how? Like, 12:22:20
16 what do you mean by "how"? Like, how do I know 12:22:25
17 them or how do -- what do you mean by how do I 12:22:27
18 contact them? 12:22:30

19 Q. Did they call you? Did they send you an 12:22:30
20 e-mail? 12:22:32

21 A. I don't remember if it was in person or by 12:22:33
22 e-mail or by phone call, but I had relayed this 12:22:35

1 information. These were students in my former 12:22:41
2 research group, so I don't recall exactly the 12:22:45
3 mode of communication. 12:22:48

4 Q. Did anyone not in your research group or 12:22:51
5 individuals who did not attend the meetings ever 12:22:56
6 contact you about your contributions? 12:22:59

7 A. About -- did anyone who was not from my 12:23:03
8 research group, your question is, contact me 12:23:08
9 about my contributions who were not attending the 12:23:11
10 meeting? 12:23:21

11 Q. So let me -- let me clarify. 12:23:21

12 So the members of your research group, 12:23:23
13 did they attend the JCT-VC meetings in person? 12:23:26

14 A. No, they did not. 12:23:35

15 Q. And those individuals were nonmembers? 12:23:37

16 A. Again, I'm not familiar about the 12:23:45
17 membership aspects of it, but they did not 12:23:50
18 participate in attending the meetings. 12:23:52

19 They did make a contribution to the 12:23:55
20 meeting at some point. 12:23:58

21 Q. Can you tell me about your former research 12:24:02
22 group before you started working at Texas 12:24:05

1	Instruments?	12:24:13
2	A. Sure. You mean, my Ph.D. research group	12:24:13
3	that I was a Ph.D. student in?	12:24:17
4	Q. Well, you previously mentioned that you	12:24:21
5	knew these individuals who contacted you about,	12:24:23
6	you know, the standard, that they were part of	12:24:27
7	your research group.	12:24:31
8	Can you clarify which research group?	12:24:32
9	A. Oh, okay. They were not part of my -- as	12:24:34
10	in, I did not lead the research group. I was	12:24:37
11	part of a research group as a Ph.D. student,	12:24:40
12	doing research on energy efficient video	12:24:42
13	compression. I graduated. These students were	12:24:47
14	also part of that same research group, and so	12:24:52
15	they were continuing this line of research of low	12:24:55
16	power video compression and, in particular, they	12:25:00
17	became interested in the HEVC standard.	12:25:04
18	Q. So have -- did anyone that was not part of	12:25:09
19	that research group ever contact you about your	12:25:15
20	work you contributed towards -- at JCT-VC or the	12:25:19
21	standard in general?	12:25:24
22	A. So there were numerous... whenever I	12:25:47

1	attended conferences -- there's a bunch of	12:26:03
2	conferences related to image processing. Often	12:26:07
3	people would approach me about what we are doing	12:26:11
4	in the HEVC standard.	12:26:16
5	Q. And who were the individuals that	12:26:20
6	typically attended these conferences?	12:26:24
7	A. They were a mixture of researchers,	12:26:26
8	academics, and some -- sometimes folks in	12:26:30
9	industry.	12:26:33
10	Q. Okay. So you would say these are	12:26:34
11	individuals that were --	12:26:37
12	A. Interested in the topic of video	12:26:40
13	compression.	12:26:42
14	Q. Okay. Thank you.	12:26:42
15	So as a member of the JCT-VC, you	12:26:46
16	gained knowledge regarding the procedures for	12:26:52
17	accessing video coding standardization-related	12:26:55
18	documents on the JCT-VC website, correct?	12:26:59
19	A. I mean, as someone who is interested in	12:27:08
20	video compression, I learned that, yes, we can go	12:27:12
21	access the contributions and proposals related to	12:27:15
22	HEVC standardization on the JCT-VC website.	12:27:20

1	Q. So how did you gain this knowledge?	12:27:24
2	A. It was fairly common knowledge to know	12:27:29
3	this if you are interested in video compression	12:27:32
4	and video compression standards.	12:27:35
5	Q. Does the JCT-VC website have any	12:27:38
6	instructions on how to access video coding	12:27:42
7	standardization-related documents?	12:27:46
8	A. Can you repeat the question? Does the --	12:27:54
9	yes.	12:27:58
10	Q. Yes.	12:27:58
11	Does the JCT-VC website have any	12:27:58
12	instructions on how to access video coding	12:28:01
13	standardization-related documents?	12:28:04
14	A. I don't recall the details of what is	12:28:12
15	listed in terms of instructions. It was a fairly	12:28:14
16	straightforward way to access the contributions.	12:28:22
17	Q. But to access these documents, you first	12:28:30
18	need to select a specific meeting to see a list	12:28:33
19	of available documents, correct?	12:28:36
20	A. Yes. The documents were organized in	12:28:40
21	terms of which meetings they belonged to, but	12:28:44
22	that didn't seem to require instructions on how	12:28:50

1	to associate a contribution with the meeting that	12:28:54
2	it was presented at for this --	12:28:59
3	Q. So you -- sorry, I cut you off. Do you	12:29:05
4	have -- did you have --	12:29:08
5	A. Well, I said you didn't need to have	12:29:09
6	instructions to know that if you're interested in	12:29:11
7	a certain contribution that was presented or	12:29:13
8	discussed at a given meeting, that it would be	12:29:16
9	listed under the documents associated with that	12:29:19
10	meeting.	12:29:24
11	Q. So you cannot search for a document	12:29:26
12	without first going to the specific meeting,	12:29:29
13	correct, on the website?	12:29:31
14	A. If you were looking for a very specific	12:29:36
15	document, you could click through the different	12:29:39
16	meetings to go look for it.	12:29:42
17	And at the time, I believe, of the	12:29:44
18	document we're talking at hand, there were six	12:29:46
19	meetings; so you could easily click through the	12:29:48
20	six meetings to find the document that you were	12:29:51
21	interested in.	12:29:53
22	Q. If you were not aware of the JCT-VC	12:29:59

1 meetings, would you be able to access the video 12:30:01
2 coding standardization-related documents in 12:30:04
3 another manner? 12:30:06

4 A. I mean, generally speaking, those folks 12:30:27
5 who are interested in the HEVC standardization 12:30:30
6 would know about the JCT-VC meetings and would 12:30:33
7 access the documents. I don't know if there was 12:30:36
8 another way; you know, potentially someone -- if 12:30:38
9 there was a certain topic someone was interested 12:30:41
10 in, they would also be directed to this website. 12:30:43
11 So there could be other avenues if they did -- if 12:30:47
12 they were interested in a given topic just 12:30:50
13 because it was widely discussed in the video 12:30:53
14 coding community that there was a new standard 12:30:59
15 being developed under JCT-VC. 12:31:01

16 So it was quite well-known that if you 12:31:04
17 wanted to know what was happening in video 12:31:07
18 standardization, that you could visit this 12:31:10
19 website. 12:31:12

20 Q. So you mentioned that there were six 12:31:16
21 meetings. 12:31:18

22 How many documents are submitted for 12:31:18

1	each of the JCT-VC meetings?	12:31:22
2	(Talking over each other.)	12:31:25
3	A. Oh, so -- yeah, so to clarify, I'm saying	12:31:25
4	that there were six meetings.	12:31:29
5	The document that we're going to be	12:31:30
6	discussing at hand is at the sixth meeting.	12:31:32
7	There were -- there's many more than six	12:31:34
8	meetings, but up until this Nakamura document --	12:31:36
9	that's the sixth meeting.	12:31:40
10	So I think the number of contributions	12:31:41
11	or documents that are uploaded per meeting vary.	12:31:44
12	For the sixth meeting that we're	12:31:48
13	looking at, I believe it was a few hundred.	12:31:50
14	Q. So you mentioned that, you know, this was	12:31:59
15	something that was widely talked about within the	12:32:03
16	industry.	12:32:05
17	So if somebody wasn't a part of the	12:32:07
18	video coding industry and they were not familiar	12:32:11
19	with the meetings, do you agree that it would be	12:32:14
20	difficult for somebody to track down these	12:32:17
21	documents if they weren't aware of the meeting?	12:32:19
22	A. I wanted to clarify, so I -- what I said	12:32:22

1 was, I think, anyone who was interested in the
2 topic of video coding, not just in industry, but
3 in -- as -- also for researchers and in
4 academia -- so if they were interested in video
5 compression and if they were interested in
6 tracking the developments of the latest video
7 standard, then they would be likely aware of this
8 website with all the documents associated with
9 the standardization effort.

12:32:25

12:32:27

12:32:30

12:32:34

12:32:38

12:32:41

12:32:44

12:32:51

12:32:55

10 Q. Okay.

12:32:59

11 MS. TANNENBAUM: Can we go off the
12 record and just take a five-minute break?

12:33:02

12:33:02

13 THE COURT REPORTER: Yes, ma'am.
14 We're off the record.

12:33:08

12:33:09

15 (Break taken from 12:33 p.m. to
16 12:41 p.m.)

12:33:12

12:41:31

17 Q. (BY MS. TANNENBAUM) Dr. Sze, I just want
18 to circle back to the research group that you
19 were part of during your graduate program at MIT.

12:41:33

12:41:38

12:41:42

20 So was there a specific department at
21 MIT that you got your Ph.D. through?

12:41:46

12:41:50

22 A. Yes. I received my Ph.D. in the

12:41:54

1	department of electrical engineering and computer	12:41:57
2	science.	12:42:00
3	Q. And was that research group through that	12:42:01
4	specific department?	12:42:04
5	A. The research group was led by a professor	12:42:10
6	who is part of that department. The organization	12:42:17
7	of research at MIT is organized in terms of labs	12:42:24
8	as opposed to departments, but you get your	12:42:31
9	degree based on the program you are admitted for,	12:42:35
10	and the research group and -- the professor for	12:42:39
11	the research group and myself were both part of	12:42:44
12	electrical engineering, computer science	12:42:48
13	department at MIT.	12:42:51
14	Q. What was that professor's name?	12:42:51
15	A. Anantha Chandrakasan.	12:42:53
16	Q. And that professor, did they make any	12:42:58
17	contributions to any video coding standards?	12:43:02
18	A. Did Anantha Chandrakasan make -- so we had	12:43:08
19	worked on my research project, and my research	12:43:15
20	project had made contributions to the	12:43:18
21	pre-standardization effort and was also included	12:43:21
22	in a proposal for HEVC at the very beginning.	12:43:24

1	Q. Did you or any other members of the	12:43:32
2	research group make any contributions to H.264?	12:43:35
3	A. So the H.264 standard was already	12:43:46
4	finalized almost before I started my Ph.D., so	12:43:51
5	no, we did not make any contributions to the	12:43:55
6	H.264 standard.	12:43:59
7	Q. Okay.	12:44:01
8	A. Or I did not make any contributions to the	12:44:02
9	H.264 standard, I should say.	12:44:05
10	Q. Do you know if your professor did?	12:44:08
11	A. I do not know the scope of his work,	12:44:09
12	but...	12:44:11
13	Q. Okay.	12:44:11
14	A. I do not know of him making contributions,	12:44:13
15	but I would not say that I know all his whole	12:44:16
16	body of work, so I can just comment my -- on	12:44:20
17	myself primarily, yeah.	12:44:23
18	Q. Okay.	12:44:25
19	MS. TANNENBAUM: I have no further	12:44:26
20	questions.	12:44:27
21	THE COURT REPORTER: Is there	12:44:35
22	anything else for the record?	12:44:37

1 MS. TANNENBAUM: Nothing from me. 12:44:44

2 THE COURT REPORTER: Mr. Chung? 12:44:46

3 MR. CHUNG: No. I think we're 12:44:48

4 good. 12:44:49

5 (Deposition concluded.)

6

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Transcript of Dr. Vivienne Sze
Conducted on January 22, 2025

32

1 I, DR. VIVIENNE SZE, have read the foregoing
2 deposition and hereby affix my signature that
3 same is true and correct, except as noted above.

4 _____
5 DR. VIVIENNE SZE

6 THE STATE OF _____)
7 COUNTY OF _____)

8 Before me, _____, on
9 this day personally appeared DR. VIVIENNE SZE,
10 known to me (or proved to me under oath or
11 through _____) (description
12 of identity card or other document) to be the
13 person whose name is subscribed to the foregoing
14 instrument and acknowledged to me that they
15 executed the same for the purposes and
16 consideration therein expressed.

17 Given under my hand and seal of office this
18 _____ day of _____,
19 _____.

20 _____
21 NOTARY PUBLIC IN AND FOR
22 THE STATE OF _____
COMMISSION EXPIRES: _____

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3 AMAZON.COM, INC.,)
4 AMAZON.COM SERVICES)
5 LLC,) CASE NO.:
6) IPR2024-00604
7 Petitioner,)
8) U.S. Patent No.
9 VS.) 10,536,714
10)
11 NOKIA TECHNOLOGIES OY,)
12)
13 Patent Owner.)

14 UNITED STATES PATENT AND TRADEMARK OFFICE
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16 AMAZON.COM, INC.,)
17 AMAZON.COM SERVICES)
18 LLC,)
19) CASE NO.:
20 Petitioner,) IPR2024-00605
21)
22 VS.) U.S. Patent No.
) 10,536,714
NOKIA TECHNOLOGIES OY,)
)
Patent Owner.)

REPORTER'S CERTIFICATION
DEPOSITION OF DR. VIVIENNE SZE
JANUARY 22, 2025

I, Annette Peltier, Certified Shorthand
Reporter in and for the State of Texas, hereby
certify to the following:

That the witness, DR. VIVIENNE SZE, was duly

1 sworn by the officer and that the transcript of
2 the oral deposition is a true record of the
3 testimony given by the witness;

4 That the original deposition was delivered to
5 Mr. Mitch Verboncoeur, Custodial Attorney.

6 I further certify that the signature of the
7 deponent:

8 _____ was requested by the deponent or a party
9 before the completion of the deposition and that
10 signature is to be returned within 30 days from
11 the date of receipt of the transcript. If
12 returned, the attached changes and signature page
13 contains any changes and the reasons therefore.

14 XXX was not requested by the deponent or
15 party before the completion of the deposition.

16 I further certify that I am neither counsel
17 for, related to, nor employed by any of the
18 parties or attorneys in the action in which this
19 testimony was taken. Further, I am not a
20 relative or employee of any attorney of record in
21 this cause, nor am I financially or otherwise
22 interested in the outcome of the action.

A			
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