IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

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MICROCHIP TECHNOLOGY INCORPORATED,	: C.A. No. 17-1194
Plaintiff,	:
vs.	:
APTIV SERVICES US, LLC,	:
Defendant.	:

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TRANSCRIPT OF PROCEEDINGS
TESTIMONY

- - -

Date: Thursday, April 7, 2022
Time: 9 o'clock a.m.
Place: J. Caleb Boggs Federal Building
844 N. King Street
Courtroom 6B
Wilmington, Delaware 19801

Before: HONORABLE JOSHUA D. WOLSON, JUDGE

Reporter: Rose A. Tamburri, RPR, CM, CRR
Notary Public of Delaware

- - -

VERITEXT LEGAL SOLUTIONS
MID-ATLANTIC REGION
1801 Market Street, Suite 1800
Philadelphia, Pennsylvania 19103

Slayden, are you going next? 13:25:05

MR. SLAYDEN: Yes. 13:25:08

THE COURT: All right. Who do you 13:25:08

call? 13:25:09

MR. SLAYDEN: I call Mr. Obolsky. 13:25:11

THE COURT: All right. Mr. 13:25:12

Obolsky, please come up. 13:25:13

THE COURT CLERK: Would you please 13:25:33

stand and raise your right hand. Please state 13:25:35

and spell your name for the record. 13:25:37

THE WITNESS: My name is Mitch 13:25:39

Obolsky, it's M-I-T-C-H, last name is 13:25:40

O-B-O-L-S-K-Y. 13:25:45

- - - 13:25:46

...MITCHEL OBOLSKY, after having 13:25:46

first been sworn and/or affirmed, was examined 13:25:46

and testified as follows... 13:25:46

- - - 13:25:58

DIRECT EXAMINATION 13:25:58

- - - 13:26:02

BY MR. SLAYDEN: 13:26:02

Q. Please state your name for the 13:26:03

record. 13:26:04

A. Yes, my name is Mitch Obolsky. 13:26:05

Q. When did you join Microchip? 13:26:09

A. I joined Microchip in 1995. 13:26:11

Q. What's your current title in Microchip? 13:26:14 13:26:16

A. My current title is Senior Vice President of the Networking and Data Center Business Unit. 13:26:16 13:26:19 13:26:23

Q. Can you describe your responsibilities to the jury, please. 13:26:23 13:26:24

A. Yes. At the highest level, I run four business units of Microchip and they all are related to wire connectivity. 13:26:26 13:26:29 13:26:31

Q. How long have you been in your current position? 13:26:35 13:26:38

A. The current position I've held is about four years. 13:26:39 13:26:41

Q. And as Senior Vice President, do you manage any engineers? 13:26:42 13:26:45

A. Yes, I do. 13:26:46

Q. How many? 13:26:47

A. Today, roughly 2,000 engineers. 13:26:48

Q. Can you describe to the jury the type of products that fall under your responsibility at Microchip? 13:26:51 13:26:54 13:26:55

A. Yeah. At a high level, they are all wire connectivity. Do you want me to give a little more detail? 13:26:56 13:27:00 13:27:02

Q. Maybe just a little bit. 13:27:03

A. Okay. So the ones we're talking about come from one of my business units that's a USB and Ethernet, we've seen a lot about USB. 13:27:05 13:27:07 13:27:09 13:27:13

Another business unit does what's called host, the automotive infotainment group, and that business does connectivity from the head unit out to the speaker. 13:27:13 13:27:16 13:27:20 13:27:22

Another business unit works on data center storage products, and the last one works on telecom products. 13:27:24 13:27:25 13:27:28

Q. And are you in charge -- is your group in charge, I'm sorry, or is it your responsibility over the Sandia chip that's involved in this case? 13:27:31 13:27:35 13:27:38 13:27:41

A. Yes. That falls under my responsibility. 13:27:42 13:27:45

Q. Okay. 13:27:45

Let's back up a little bit and let the jury know a little bit about you. 13:27:47 13:27:49

Where did you attend college? 13:27:50

A. I attended college in upstate New York; I went to Cornell University. 13:27:52 13:27:54

Q. And what did you study? 13:27:56

A. I studied electrical engineering. 13:27:57

Q. What year did you graduate? 13:28:00

A. I graduated in 1983. 13:28:01

Q. Well, over the past 40 years, have you had time to have a family? 13:28:04 13:28:09

A. Yes, I did. 13:28:09

Q. Are you married? 13:28:10

A. Yes, I am. 13:28:11

Q. How long have you been married? 13:28:12

A. I've been married also about 40 years. 13:28:14 13:28:16

Q. And do you have kids? 13:28:16

A. Yes, three. 13:28:17

Q. Okay. 13:28:17

Are they still at home? 13:28:18

A. No, they've all left. 13:28:19

Q. Well, did you have the chance -- did they have any grandchildren for you? 13:28:22 13:28:25

A. Yes, I have four granddaughters so far. 13:28:28 13:28:31

Q. You said 1995. I guess if my math is right, I think you've been at Microchip for 27 years? 13:28:31 13:28:33 13:28:36

A. Yes, 27 years. 13:28:37

Q. Can you tell the jurors why you've been at Microchip for 27 years? 13:28:38 13:28:39

A. Yes. You know, Microchip is a special company in semiconductors in that it's purpose built. Culture is one that's enjoyable in that world. We have a definition of what we expect out of an employee, we measure it regularly, and, you know, the people work very well together. 13:28:41 13:28:45 13:28:49 13:28:51 13:28:56 13:28:59 13:29:02

Q. Has Microchip changed over the 27 years you've been there? 13:29:06 13:29:09

A. Yes, it has. 13:29:10

Q. And has Microchip's product offerings grown over those 27 years? 13:29:11 13:29:13

A. Yeah. So that's the change. Microchip has grown substantially. Microchip was -- you know, when I joined originally, it was a small company. Now it's maybe 30 times the size it was when I first joined. And, you know, we were a very narrow product offering, 13:29:14 13:29:16 13:29:18 13:29:21 13:29:23 13:29:27

you know, what was called microcontrollers, that was one or two business units, and today we have 25 business units, so we're a much bigger company today. 13:29:31 13:29:34 13:29:36 13:29:39

Q. About how many different products does Microchip offer today? 13:29:39 13:29:41

A. So, yeah, it's a big number that's roughly 180,000 different part numbers that are available for sale today. 13:29:43 13:29:46 13:29:49

Q. Can you describe to the jury some examples of the products Microchip makes? 13:29:51 13:29:53

A. Sure. We talked about the ones that were under my direct responsibility, so in the world of USB, there would be products for microcontrollers, for all kinds of PCs, for consumer products. Microcontrollers were a key to the company. What we described as 8, 16 and 32-bit, which is basically a small, medium and large size. Those products are used to drive a very large number of electronic devices. 13:29:56 13:30:01 13:30:04 13:30:07 13:30:11 13:30:14 13:30:17 13:30:20 13:30:22 13:30:24

Probably most of you have a hundred different parts of a microchip in some part that you've bought, just hidden inside. 13:30:25 13:30:27 13:30:31

Q. Does Microchip make consumer products? 13:30:33 13:30:35

A. Yeah, Microchip does make products that are sold into consumer products. 13:30:36 13:30:38

Q. Okay. All right. 13:30:41

Has Microchip's capacity to produce and make microchips grown since you've been at the company? 13:30:42 13:30:44 13:30:49

A. Yeah. As a rough estimate, we probably produced about a million parts a day when I first joined, and today we produce more than 20 million parts today, so about 20X. 13:30:50 13:30:51 13:30:54 13:30:56

Q. So what is that per year do you think, on average, of chips that Microchip makes? 13:30:59 13:31:01 13:31:03

A. At a high level, we currently are running roughly eight billion units per year, so that's like more than there's every person on the planet to get a sense where you likely have one. 13:31:04 13:31:06 13:31:09 13:31:12 13:31:15

Q. Does Microchip make the same number of chips of each chip each month or does it vary? 13:31:16 13:31:18 13:31:20

A. So we -- we make whatever the 13:31:20

customers ask for, and that varies considerably across the year. So yes, we respond to the needs. For example, a lot of our customers buy a lot of their products Christmastime. They make consumer products that are only used from October to December and sold only at Christmas. 13:31:23 13:31:26 13:31:29 13:31:33 13:31:36 13:31:38 13:31:40

Other companies like automotive industry tends to ramp in June by every year and by March have stopped buying product. So every one of our customers has a different pattern, so we're quite flexible. 13:31:42 13:31:44 13:31:48 13:31:50 13:31:52

Q. And talking about customers, what is the preferred customer at Microchip? 13:31:54 13:31:56

A. So a preferred customer is usually one of our larger customers and someone we have a strong relationship, we give them preferred service, preferred support. In most cases, what's important to them is the technical support. We have a very large number of sales and technical people that are application engineers and we would help them develop a design, get it into production, work with all the qualification testing and even 13:31:57 13:31:59 13:32:02 13:32:04 13:32:08 13:32:11 13:32:13 13:32:17 13:32:20 13:32:22

solve issues later. 13:32:25

Q. Pricing, do your preferred customers get discounts on Microchip products? 13:32:27 13:32:30

A. Yes. If you are a larger preferred customer, certainly you get a price that's well below what would be our normal list price. 13:32:32 13:32:34 13:32:36 13:32:38

Q. And can you explain to the jurors how that pricing is set for preferred customers? 13:32:38 13:32:40

A. Yes. So for large customers, we use sort of a long-term agreement. They are not formal agreements, but, in essence, what we do is quote all the parts we sell to them once a year; we give them the prices for that year and they give us a forecast of how much they're going to buy. And then, you know, how much they intend to buy the next four years, and we give them a rough estimate of what they'll pay. So they can make give us a forecast. 13:32:43 13:32:49 13:32:51 13:32:53 13:32:57 13:32:59 13:33:01 13:33:03 13:33:05 13:33:07 13:33:10

Q. Would it be correct to say that if they buy more chips or earn more chips, they get a better pricing? 13:33:10 13:33:12 13:33:15

A. Yes, certainly. During the annual 13:33:16

agreements, often we find if they decided to use our product in more locations, then they would pay less per unit, or if they were going to use it less, then they would pay more. 13:33:18 13:33:21 13:33:23 13:33:25

Q. Do the terms of the long-term agreements that you mentioned change year to year? 13:33:28 13:33:30 13:33:32

A. Yes. So again, you know, it's just a forecast. The customers' business changes over time and, you know, based on that most recent use for last year, often it will be higher or lower than first said. The plans change. It's hard to have five years correct. 13:33:34 13:33:37 13:33:40 13:33:42 13:33:46 13:33:48

But each year, we review it and then we come up with a price for the next coming year. 13:33:50 13:33:52 13:33:55

Q. Is that an agreement between you and the customer? 13:33:56 13:33:58

A. Yes, it is. 13:33:59

Q. This case is about Microchip's '243 Patent. 13:33:59 13:34:02

During your 27 years, have you seen Microchip invest in innovation? 13:34:02 13:34:05

A. Yes. Microchip has a large number of 13:34:07

engineers and their jobs are research and development to provide new features to new products. 13:34:12 13:34:15 13:34:18

Q. Does Microchip file patent applications to protect its innovations? 13:34:19 13:34:22

A. Yes, it does. 13:34:24

Q. And do you know how many patents Microchip currently owns worldwide? 13:34:25 13:34:28

A. Yeah, today roughly 7,000 worldwide patents. 13:34:30 13:34:32

Q. And during your 27 years, have you ever been granted a patent? 13:34:32 13:34:35

A. Yes, I have. One patent. 13:34:35

Q. Does Microchip use your invention? 13:34:39

A. No, it does not. 13:34:42

Q. Do you think there's a future market? 13:34:44

A. Potentially. You know, the patent has applicability. The challenge is to find a way to use it, and the price point has to be right for a customer, so some day. 13:34:47 13:34:50 13:34:54 13:34:59

Q. Okay. 13:35:01

I think you have your exhibit notebook there. Can you turn to Exhibit 1, please. 13:35:01 13:35:03 13:35:05

MR. SLAYDEN: Mr. Ferrer, can we look at Exhibit 1. 13:35:13 13:35:14

BY MR. SLAYDEN: 13:35:15

Q. Do you recognize Exhibit 1, Mr. Obolsky? 13:35:16 13:35:18

A. Yes, I do. 13:35:18

Q. And on the first page, do you see where it lists assignee? 13:35:19 13:35:21

A. Yes, I do. 13:35:23

Q. And what company does it identify? 13:35:24

A. It lists Standard Microsystems Corporation. 13:35:26 13:35:30

Q. And do you have a nickname for that? 13:35:30

A. Yeah, we call it SMSC. 13:35:32

Q. Did Microchip purchase SMSC? 13:35:35

A. Yes, we did. 13:35:37

Q. And when was that, if you know? 13:35:38

A. It was roughly 2012, when the deal closed. 13:35:40 13:35:43

Q. Do you know how much Microchip paid for SMSC? 13:35:44 13:35:46

A. Yes. Net we paid about $750 million for SMSC. 13:35:47 13:35:50

Q. Can you explain to the jury why you 13:35:52

would pay $750 million for SMSC? 13:35:53

A. Yes. Microchip buys many companies, 13:35:56

and the reason we buy the companies and why we would pay that price is we're buying their 13:36:01 13:36:03

engineers, we're buying their technology, 13:36:06

we're buying their product, we're buying their customers, and then often, ultimately, the 13:36:08 13:36:12

market. 13:36:16

Q. You mentioned technology as part of the acquisition. Did Microchip acquire SMSC patents? 13:36:16 13:36:18 13:36:21

A. Yes, we did. All of their patents. 13:36:22

Q. And the '243 is one of those patents? 13:36:24

A. Yes, it is. 13:36:28

Q. Okay. 13:36:29

After the purchase, did SMSC remain a stand-alone company? 13:36:32 13:36:35

A. No, it did not. We merged the division of SMSC into Microchip, into what we call Microchip classic, the historical part of Microchip. 13:36:36 13:36:39 13:36:42 13:36:44

Q. And did you become responsible for any SMSC business units? 13:36:45 13:36:48

A. Yes. I took on what later became 13:36:50

named the USB Networking Business Unit which was responsible for the USB product line and the Ethernet product line. 13:36:54 13:36:57 13:37:00

Q. Did Mr. Bohm, the inventor of the patent here, join part of Microchip at the SMSC acquisition? 13:37:02 13:37:06 13:37:08

A. Yes, he did. 13:37:11

Q. And what position did he hold when he joined? 13:37:12 13:37:14

A. Yeah, so as you heard earlier from Mark, he was the manager for the architectural engineering group. 13:37:15 13:37:20 13:37:23

Q. And that group was part of your business unit? 13:37:24 13:37:27

A. Yes, it was. 13:37:27

Q. When Microchip purchased SMSC, did SMSC sell you products that used Mr. Bohm's multi-host patent? 13:37:32 13:37:35 13:37:40

A. No, they did not. Microchip did not. 13:37:41

Q. And after the purchase of SMSC, did Microchip immediately take any action to produce a product using Mr. Bohm's patent? 13:37:43 13:37:46 13:37:48

A. No, we did not. 13:37:50

Q. And can you explain to the jury why 13:37:51

you didn't produce a product under Mr. Bohm's patent? 13:37:53 13:37:56

A. So at that point, there was not yet a market that would clearly have that need where we could. 13:37:57 13:38:01 13:38:04

Q. Are you responsible for approving patent maintenance fees for your business unit? 13:38:09 13:38:12 13:38:13

A. Yes, I am. 13:38:14

Q. For example, have you approved the patent maintenance fees for Mr. Bohm's patents? 13:38:14 13:38:17 13:38:19

A. Yes, that's part of my responsibility. 13:38:19 13:38:21

Q. Did Microchip sell any products using Mr. Bohm's patent between 2012 and 2016? 13:38:21 13:38:24

A. No, we did not. 13:38:28

Q. Can you explain to the jury why Microchip would pay maintenance fees on Mr. Bohm's patent if Microchip was not using Mr. Bohm's invention? 13:38:29 13:38:30 13:38:33 13:38:36

A. Yes. If we believe a patent still has value today or in the future, you know, if we intend -- there's the possibility of using 13:38:37 13:38:40 13:38:43

that patent, we will pay maintenance fees to keep it alive. 13:38:46 13:38:49

Q. Is that because you think maybe in the future, a market might materialize? 13:38:51 13:38:53

A. Yes. It's not clear always what the future will bring, but we could see the value of the patent. 13:38:55 13:38:59 13:39:02

Q. Okay. 13:39:03

Did the market materialize for Mr. Bohm's multi-host invention? 13:39:04 13:39:07

A. Yes, it did. That was the advent of a complex spec. 13:39:09 13:39:13

Q. I'd like to transition to discuss Microchip's USB hub business. 13:39:15 13:39:17

What is a USB hub chip? 13:39:20

A. So at a high level, and I think it was a bit described earlier, but at a high level, USB hub chip, so normally you have a connection to a computer and you need more connections. What a USB hub chip will do is take a single host and fan that out into a lot more ports at that point. 13:39:22 13:39:25 13:39:27 13:39:31 13:39:34 13:39:38 13:39:40

Q. And what year did Microchip introduce the hub chip? 13:39:43 13:39:48

A. So Microchip, including its history of SMSC, started selling USB hub chips around 2006. 13:39:48 13:39:51 13:39:55

Q. Okay. Roughly 16 years? 13:39:57

A. About 16, 16 years, yeah. 13:39:59

Q. How many hub chip manufacturers are there? 13:40:02 13:40:04

A. There are actually many hub chip manufacturers. There are very few automotive hub chip manufacturers. 13:40:04 13:40:06 13:40:11

Q. And can you explain why there are few automotive USB hub chip manufacturers? 13:40:11 13:40:13

A. Yeah. So the primary high volume use of hub chips is into PCs and consumer products like monitors, and the hub you can go to the store and buy, and so those are usually -- they work over a temperature range, they don't have intrinsic quality requirements. 13:40:16 13:40:20 13:40:25 13:40:28 13:40:31 13:40:33

Taking that market to the automotive business is much different. We need higher reliability, higher qualities, we have to cover a wide temperature range. There is a lot of tougher requirements on an automotive hub. 13:40:37 13:40:38 13:40:41 13:40:43 13:40:45 13:40:47

Q. Just in general, automotive hubs seem to be more robust and tough -- 13:40:48 13:40:51

A. Absolutely. 13:40:53

Q. -- than consumer PC hub chips? 13:40:53

A. Sorry. Yes. They certainly do need to be more robust than a standard lower cost consumer product. 13:40:56 13:40:59 13:41:03

Q. Do you know, since it's in your business, about how many USB hub chips Microchip sells to the automotive industry each year? 13:41:05 13:41:06 13:41:09 13:41:11

A. Yeah. So roughly the last year or two, I would say about 35 million units per year. 13:41:12 13:41:14 13:41:17

Q. Have you heard of the term "The Big 3"? 13:41:18 13:41:21

A. Yes. 13:41:21

Q. What does it refer to? 13:41:22

A. It refers to the historical large three U.S. automotive manufacturers, so Ford, Chrysler, GM. Tesla may want to be called The Big 4 some day. 13:41:24 13:41:28 13:41:31 13:41:35

Q. Before Unwired began selling its dual role hub, who was the first supplier of hub 13:41:36 13:41:40

chips to the three big automakers? 13:41:42

A. So before Unwired entered the market 13:41:44
and even Unwired, itself, Microchip had almost 13:41:46
100 percent of the business with The Big 3; 13:41:50
all three of those manufacturers were using 13:41:54
Microchip's hub chip in their break out box. 13:41:56

Q. And where are Microchip's automated 13:41:59
USB hub chips produced? 13:42:03

A. So it's a little complex. Let me 13:42:05
take you through how you usually make a chip 13:42:07
so I can tell you how it's produced. 13:42:09

So the first step is we have to 13:42:11
produce a wafer. Those wafers today are 13:42:12
produced for all of the hub chips as a Taiwan 13:42:15
semiconductor, TS1C. 13:42:18

The second step is we bring them 13:42:20
back and we probe them and we separate out 13:42:22
which are the good, which are no good. We put 13:42:25
plastic around them. By the way, we probe 13:42:28
them in our facilities at Microchip. We put 13:42:30
the plastic around it. That can be done in 13:42:32
one of three places. We use Amcore, one 13:42:34
manufacturer that makes -- puts the plastic 13:42:37
around it; ASC is another one, or we do it in 13:42:39

our factories. 13:42:43

And as a final test, we bring them back to our Thailand facility, we test everything and then ship it out to the customer. 13:42:44 13:42:46 13:42:48 13:42:49

Q. What portion of Microchip's yearly chip production is automotive USB hub chip production? 13:42:50 13:42:52 13:42:56

A. Yeah, so at a high level, I gave you two numbers. We sell about 35 million chips to automotive USB hubs out of eight billion, so it is about one out of every 200 chips. 13:42:56 13:42:58 13:43:02 13:43:05

Q. Between 2017 and 2021, did Microchip have the capacity to produce an additional 10 million Sandia chips per year? 13:43:07 13:43:13 13:43:16

A. Yes. Certainly. If you look at our production of eight billion chips, you know, we talked about it being 20 million chips per day, so an entire year's worth of -- if you add 10 million more chips, was that the question? 13:43:17 13:43:20 13:43:22 13:43:25 13:43:29 13:43:31

Q. Yes. 13:43:31

A. It would only be about a half a day of our equipment production. So it's a very 13:43:32 13:43:34

small amount for Microchip. 13:43:36

Q. So what happens to Microchip's yearly sales and marketing calls when Microchip sells additional units of an existing product to an existing customer? 13:43:38 13:43:40 13:43:43 13:43:46

A. So a bit of a complex question. Let me break that down. 13:43:48 13:43:50

Q. Sorry. 13:43:51

A. Let me break that down in pieces. 13:43:52

So -- so if we're visiting a customer and -- a customer like Aptiv in this example, selling them a hundred parts already and we want to sell them one more, it's not a big expense. 13:43:55 13:43:58 13:44:01 13:44:03

So we go in there, he knows everybody, it's a very small incremental expense. 13:44:06 13:44:09

Now, if we are selling the same product family, we've always told the world the marketers have already prepared all the material, they have already sold all of their competitors, so the amount of effort to sell it to one more person is actually quite small of, essentially, the same product family to the same customers. 13:44:11 13:44:13 13:44:16 13:44:18 13:44:20 13:44:21 13:44:24 13:44:28

Q. Right. 13:44:28

Now, you mentioned that Microchip's chips are in a lot of car manufacturers. Can you give the jury a sense of which car manufacturers have Microchip chips in them? 13:44:30 13:44:32 13:44:35 13:44:38 13:44:42

A. Yeah. So across time, you can pretty much name almost every car manufacturer. Let me just take you through some of The Big 3 have it in U.S. across time, Tesla does; if you go to Europe, Audi, VW, BMW, Dimer, Mercedes, they all use our chips for at least some of their cars. 13:44:43 13:44:45 13:44:48 13:44:51 13:44:54 13:45:00 13:45:04

We go to Asia, a Kia, Mazda, Toyota, Honda, Nissan. You know, we pretty much at times have been in every one of those customers. 13:45:06 13:45:09 13:45:14 13:45:17

Q. And would that be true for what's at issue here; that is, in relation to USB hub chips? 13:45:17 13:45:19 13:45:21

A. Yes. Most certainly. And actually, that was my reference with the USB -- automotive USB hub chips have been, at times, pretty much in every one of them. 13:45:22 13:45:24 13:45:26 13:45:30

Q. Okay. 13:45:32

Was Microchip selling an automotive USB hub chip in 2014? 13:45:33 13:45:35

A. I'm sorry, repeat? 13:45:38

Q. Was Microchip selling a automotive USB hub chip in 2014? 13:45:39 13:45:41

A. Yes. Yep. We were. 13:45:43

Q. More than one? 13:45:46

A. Yeah, there were many products by that time. 13:45:47 13:45:49

Q. In 2014, could you connect the iPhone to a car using one of Microchip's USB hub chips? 13:45:50 13:45:54 13:45:57

A. Yes, you could. As you heard earlier, the Athens chip was in the marketplace and it offered two different solutions to CarPlay. You know, the single upstream solution, which we call FlexConnect or Flex, and then also the Dual upstream. 13:45:57 13:46:00 13:46:02 13:46:04 13:46:08 13:46:10

Sometimes a car wanted two wires so we gave them the Dual upstream solution, but either one of those two could have worked CarPlay in pretty much any car. 13:46:14 13:46:16 13:46:18 13:46:20

Q. I don't know if you were here yesterday, I think you were, Aptiv's counsel 13:46:23 13:46:24

referred to Microchip's old technology in opening statements. 13:46:26 13:46:29

Does Microchip still sell the Athens USB hub chip today? 13:46:30 13:46:32

A. Yes, it does. Athens was actually brand new in 2014, we were just reaching production, so -- and then today, Athens is still a very high seller. As a matter of fact, the volume continues to grow even this year. 13:46:35 13:46:37 13:46:39 13:46:43 13:46:45 13:46:48

Q. Are Athens hub chips compliant with USB standard? 13:46:48 13:46:51

A. Yes, they are. USB standard, I think one of the challenges in all of this discussion, a USB standard called out for one host and the Athens chip can give you one host and is compliant and has a USB logo, which means we have taken it to a third party lab, checked that we complied with the current standards, and they give us a logo to prove the compliance. 13:46:52 13:46:55 13:46:57 13:47:00 13:47:05 13:47:08 13:47:10 13:47:12 13:47:15

Q. Shifting gears a little bit, can you please describe for the jury the different players and their roles in the USB hub 13:47:15 13:47:18 13:47:20

business? 13:47:23

A. Yeah. This one -- so first you have 13:47:25

to understand how this fits in the car. So 13:47:27

you've heard some discussion today, there is a 13:47:31

head unit, that's one of the two computers in 13:47:34

the car, one of the computers in the car. 13:47:37

Then there is always a connector and a wire 13:47:39

and a break out box, okay. So those are all 13:47:41

pieces. 13:47:45

So if you go through the whole 13:47:45

sequence, there is a manufacturer of a head 13:47:47

unit, there is a manufacturer of connectors, 13:47:49

manufacturer of cables, another manufacturer 13:47:51

of the break out box very often and then there 13:47:53

are contract manufacturers for each of them. 13:47:57

And then, of course, the automotive 13:47:59

manufacturer would buy it all and puts it 13:48:01

together and Microchip makes the chip. So a 13:48:04

lot of different companies involved. 13:48:06

And there's software. So Apple 13:48:07

has, say, for instance, in CarPlay, so 13:48:10

everything had to work with Apple, and there's 13:48:12

always an operating system, so a lot of 13:48:14

different companies have to work together. 13:48:17

Q. So all of those companies you just mentioned need to work together to integrate a phone into a car? 13:48:21 13:48:23 13:48:26

A. Yes. They certainly all need to work together or it won't work. 13:48:27 13:48:30

Q. Were you in the courtroom yesterday when Aptiv's counsel referred to Microchip as a 900-pound gorilla? 13:48:36 13:48:38 13:48:41

A. Yes. 13:48:43

Q. Do you know the relative size of Aptiv compared to Microchip? 13:48:45 13:48:48

A. If you look at just raw head count, right, Microchip today has about 18,000, 19,000 employees and Aptiv has about 180,000 employees, so roughly 10 times the number of people in the size of Aptiv. 13:48:49 13:48:52 13:48:56 13:49:02 13:49:04

Q. Is Aptiv currently a customer of Microchip? 13:49:07 13:49:10

A. Yes. We sell many, many products to Aptiv today. 13:49:10 13:49:12

Q. Did you previously know Aptiv by a different name? 13:49:13 13:49:17

A. Yes, the history was just before being Aptiv, they were known as Delphi, and 13:49:17 13:49:21

before that, they were a subsidiary or a portion of General Motors before they were spun out separately in around 1999. 13:49:24 13:49:26 13:49:28

Q. How long has Aptiv or Delphi been a Microchip customer? 13:49:31 13:49:34

A. I've been with Microchip for 27 years, and they were a customer right when I came, so certainly more than 25 years. 13:49:36 13:49:38 13:49:40

Q. I don't know if you mentioned it already, but how many different products does Microchip supply to Aptiv each year today? 13:49:42 13:49:44 13:49:46

A. Today, and I did a quick check in preparing, but it's slightly more than 100 different part numbers are still sold to Aptiv today. 13:49:48 13:49:52 13:49:54 13:49:57

Q. Do multiple Microchip business units supply products to Aptiv today? 13:49:57 13:50:01

A. Yeah. At a high level, you know, roughly 12 of the 25 business units today are selling to Aptiv. 13:50:03 13:50:06 13:50:09

Q. Can you identify for the jury some of the products that Microchip supplies to Aptiv today? 13:50:12 13:50:14 13:50:17

A. Yeah. So let me start with the ones 13:50:18

that are directly under me and kind of fan out a little bit so you get an idea. 13:50:20 13:50:23

We talked about the USB chips from my USB networking division. Also the Ethernet chips are being sold to Aptiv. Another division that's under me, the automotive infotainment division, sells a lot of chips to Aptiv today. 13:50:25 13:50:27 13:50:31 13:50:33 13:50:36 13:50:39

And then from there, many other divisions, micro divisions selling to General Motors, we have RF division and I don't know exactly how Aptiv uses it, but they're typically used for buttons in your car that's the garage door opener or the key fob you push the button on. 13:50:40 13:50:41 13:50:47 13:50:49 13:50:51 13:50:53 13:50:57

But there are many, many, many products like that out there that we are partners together on. 13:50:58 13:51:00 13:51:02

Q. So you are still business partners in a sense? 13:51:03 13:51:05

A. Oh, absolutely. Absolutely. 13:51:05

Q. Switching gears a little bit, what is list price? 13:51:07 13:51:10

A. List price would be if you go to the 13:51:11

website, you know nobody at Microchip and you want to buy one or you want to buy 100 or a thousand, there's a price there. And many customers still do that today; they'll go there and push a button and that's the price you'll pay. 13:51:12 13:51:16 13:51:19 13:51:20 13:51:23 13:51:25

Q. Does Aptiv pay this price for Microchip products? 13:51:26 13:51:28

A. Aptiv certainly does not. 13:51:29

Q. Do they pay more or less than this price? 13:51:30 13:51:32

A. Aptiv -- as all large customers, I would say Aptiv today probably pays between one-third to one-half of our list price. 13:51:33 13:51:36 13:51:39

Q. And how is that price set? 13:51:42

A. So we talked a little earlier in that annual review, we discussed how many parts do you plan to buy, what is our future together in this family, assuming you have one product today, could be two tomorrow and then four, right. And so we'll set a price. 13:51:44 13:51:47 13:51:50 13:51:53 13:51:56 13:51:58

So it's based on how much they're currently buying and how much they plan to buy. We review that again every year, you 13:52:01 13:52:02 13:52:05

know, annually to chew everything up and then we do it again one year later. 13:52:08 13:52:12

Q. So even though this litigation is ongoing, you're still selling product to Aptiv and supporting those products on behalf of Aptiv? 13:52:13 13:52:15 13:52:18 13:52:20

A. Absolutely. That's -- you know, we have a narrow quarrel. We're here today on one item. As a matter of fact, even the last two weeks, Aptiv has been asking for a lot of help, essentially the same group of engineers on the Ethernet products. 13:52:21 13:52:24 13:52:27 13:52:30 13:52:32 13:52:35

Q. So are automotive industry customers like Aptiv treated differently by Microchip than some other customers? 13:52:39 13:52:41 13:52:44

A. Yes. We typically put dedicated teams in place. So, for instance, one of my responsibilities is something called automotive product group, and it has engineers and marketers that are able to do both, you know, applications support or technical support, and they put in place so that we can be far more responsive because the needs of this type of customer, you know, say you have 13:52:45 13:52:49 13:52:52 13:52:53 13:52:57 13:53:01 13:53:04 13:53:07 13:53:09

a single fail somewhere, if it's a consumer product, it can take a week or two to respond. If it's an automotive product, everybody wants to know what is going on, what is causing this, could there be more of them. 13:53:12 13:53:16 13:53:18 13:53:21 13:53:22

Did Microchip have some issue? Is it a software issue? Is it their issue? So very quickly we have to resolve issues for automotive customers. 13:53:24 13:53:26 13:53:28 13:53:31

Q. Understand. 13:53:32

Now, switching gears a little bit, are you familiar with a company named Unwired? 13:53:33 13:53:34

A. Yes, I am. 13:53:36

Q. And can you give a little background of your understanding of who Unwired was or is? 13:53:38 13:53:40 13:53:43

A. Yeah. So Unwired, prior to being acquired by Aptiv, was a customer of Microchip, and Unwired made break out boxes that originally were based on our technology and then decided to do some based on this new technology that was infringing our patents. 13:53:44 13:53:48 13:53:51 13:53:56 13:53:58 13:54:02

Q. You mentioned the term "break out box," and I don't want the jury to be 13:54:07 13:54:09

confused. I believe Mr. Bohm referred to a break out box also known by another name sometimes? 13:54:11 13:54:14 13:54:16

A. So it depends. And I know there may have been a little confusion because we make a chip, we make a USB hub chip, right? It goes into what we would call a break out box. Because we sell USB hub chips that go into thousands of applications, we identify that break out box as a plastic module in a car where one port goes over to the head unit and then brings out whatever they bring out, two or four. 13:54:16 13:54:19 13:54:21 13:54:25 13:54:27 13:54:29 13:54:31 13:54:34 13:54:37 13:54:39

We call that a break out box and it breaks out functionality. So that's my reference. And I think on the other side, sometimes they call that a hub. 13:54:39 13:54:41 13:54:44 13:54:47

Q. Call it a hub? 13:54:48

A. So I apologize if we don't use the same terminology. 13:54:49 13:54:51

Q. All right. 13:54:52

What parts did Unwired -- excuse me. Was Unwired ever a Microchip customer? I think you mentioned that. 13:54:53 13:54:57 13:55:00

A. Yeah. As I mentioned, yeah, certainly. Certainly they were. 13:55:01 13:55:03

Q. What parts did Unwired buy from Microchip? 13:55:04 13:55:06

A. So in the -- you know, the early part of their existence, in the early use of break out boxes, I believe they were using a standard hub, automotive hub, and they also used a hub car combo, but they were all automotive hubs. 13:55:06 13:55:12 13:55:17 13:55:18 13:55:21 13:55:26

Q. And when did they start to become a customer, about what timeframe? 13:55:27 13:55:28

A. So I would say 2010-ish. 13:55:30

Q. So you mentioned Aptiv is also a hub or break out box manufacturer. Before Aptiv acquired Unwired, were they competitors in the market? 13:55:35 13:55:37 13:55:40 13:55:43

A. They absolutely were competitors, trying to bid on the same programs against each other, at the end, automotive manufacturers. 13:55:43 13:55:47 13:55:50 13:55:53

Q. And were they both buying Microchip chips to put in their hubs to break out boxes? 13:55:54 13:55:59

A. Yes, they were both buying Microchip 13:56:01

hubs. 13:56:03

Q. In 2014, before Unwired was acquired by Aptiv, about how many USB hub chips did Microchip provide Unwired that year? 13:56:04 13:56:06 13:56:10

A. So I think right before they were acquired, you know, roughly two-and-a-half million chips per year. 13:56:13 13:56:15 13:56:17

Q. So did Unwired have a long-term customer relationship with Microchip? 13:56:19 13:56:22

A. So at that time, Unwired was a smaller company. You know, usually we have a long list of products and we do them based on the list. They were buying very few part numbers from us, and so a small company not buying many products, we did not have a long-term agreement. 13:56:24 13:56:26 13:56:28 13:56:31 13:56:33 13:56:35 13:56:38

Q. Did Unwired pay you more or less than list price for Microchip USB hub chips? 13:56:38 13:56:41

A. Yeah, Unwired was buying a reasonable volume so they did not pay list price. They probably were somewhere between 30 and 50 percent of list price. 13:56:44 13:56:47 13:56:50 13:56:52

Q. I think you mentioned it, but just to confirm, Unwired was a customer when Aptiv 13:56:53 13:56:55

purchased them in 2014? 13:56:57

A. Unwired was a customer of Microchip. 13:57:00

Q. Microchip? 13:57:02

A. Yes, when they were purchased by Aptiv. 13:57:03 13:57:06

Q. In 2014, did Unwired ask Microchip to quote USB hub chips for its hubs for any of The Big 3 automakers? 13:57:07 13:57:10 13:57:15

A. Yes. 13:57:16

Q. In 2014, besides Unwired, did other hub manufacturers ask Microchip to quote USB hub chips? 13:57:19 13:57:22 13:57:25

MS. DURIE: Your Honor, objection, leading. 13:57:27 13:57:27

THE COURT: Overruled. 13:57:28

Go ahead. 13:57:30

BY MR. SLAYDEN: 13:57:30

Q. In 2014, besides Unwired, did other hub manufacturers ask Microchip to quote USB hub chips for hubs for any of the three big automakers? That's a mouthful. 13:57:31 13:57:34 13:57:39 13:57:42

A. Besides Unwired, all of our current customers for hubs also were asking to quote the next generation of product for The Big 3. 13:57:45 13:57:48 13:57:52

Q. Okay. 13:57:54

When you quoted products to the 13:57:55

other hub manufacturers, did you have an 13:57:57

expectation that you would win the business? 13:58:00

A. Yes. You know, as we looked into 13:58:03

beginning of CarPlay being announced where we 13:58:08

had two solutions, we believed were the best 13:58:10

solutions on the market, they certainly were 13:58:12

the best on buying solution, but some wanted 13:58:16

one, some wanted the others. 13:58:18

But in the middle of 2014, we 13:58:19

thought we were going to win almost every one 13:58:21

of them. 13:58:24

Q. And who won The Big 3 USB hub CarPlay 13:58:24

business in 2014? 13:58:27

A. Yeah, so -- so we got to the middle 13:58:29

of the year, and later in the year, as we 13:58:33

learned more about Unwired, we learned that we 13:58:35

had lost all three of them to Unwired. 13:58:38

Q. And what was Microchip's reaction 13:58:41

when it found out its customer had now become 13:58:43

a competitor for USB hub chips? 13:58:45

A. As you saw earlier, as anybody would, 13:58:48

when you lose, we looked at, okay, what's it 13:58:52

take? What are their needs, what didn't we meet and what do we have to do to win the next one? 13:58:54 13:58:56 13:58:58

Q. So it's clear for the jurors, did Microchip have a CarPlay solution at that time? 13:58:58 13:59:02 13:59:03

A. Yes, we had two different CarPlay solutions; one for one wire and one for two, that pretty much every car manufacturer had planned to use. 13:59:03 13:59:05 13:59:09 13:59:11

Q. And was there a particular hub chip that was being used at that time? 13:59:12 13:59:13

A. Yes. The Athens family that was discussed earlier was the target for all of those discussions. 13:59:16 13:59:19 13:59:22

Q. Okay. 13:59:23

Going back to this timeframe around 2014, before Aptiv bought Unwired, did Aptiv contact Microchip about investigating what Unwired was doing? 13:59:24 13:59:26 13:59:30 13:59:33

A. Yes, they did. 13:59:36

Q. Okay. 13:59:38

Let's turn to -- can you turn in your binder to Exhibit 245. I can't find it. 13:59:39 13:59:42

A. There it is. I found it. 13:59:57

(Whereupon, Trial Exhibit 245 was introduced.) 13:59:57

BY MR. SLAYDEN: 13:59:57

Q. Do you recognize this document? 14:00:02

A. Yes, I do. 14:00:04

Q. And what is it? 14:00:05

A. It's an internal Microchip email. 14:00:06

MR. SLAYDEN: Okay. I move to admit Exhibit 245. 14:00:09

MS. DURIE: No objection. 14:00:13

THE COURT: All right. It's admitted. 14:00:14

BY MR. SLAYDEN: 14:00:15

Q. This email is dated May 1st, 2014. At this point, had Aptiv acquired Unwired yet? 14:00:16

A. No, not yet. 14:00:19

Q. And during -- 14:00:22

A. I think -- sorry. Can you ask again? 14:00:25

Q. I'm sorry, who were the -- do you know any of the people on this email? 14:00:27

A. Yes. So this email was written by one of our salesman to, it looks like, a range of marketers and other salespeople and 14:00:29

applications engineers. 14:00:44

Q. Okay. 14:00:45

You see the first sentence there 14:00:46

it states, "The director of program management 14:00:48

of Delphi called." 14:00:52

Do you see that? 14:00:53

A. Yes, I do. 14:00:54

Q. And so this was referring to Delphi 14:00:54

contacting Microchip? 14:00:56

A. Yes, it appears to say that. 14:00:58

Q. Okay. 14:01:01

It goes on to state, "Delphi has 14:01:01

been promoting our Flexconnect solution to 14:01:03

some key OEMs like, GM and Chrysler." 14:01:06

Do you see that? 14:01:09

A. Yes, I do. 14:01:09

Q. What is that referring to? 14:01:11

A. Yeah, so what that means is in this 14:01:11

period of time, we had been working closely 14:01:14

with Delphi, and from what we had understood, 14:01:17

we were likely together to win both of them 14:01:20

with Microchip's FlexConnect solution for 14:01:23

CarPlay. 14:01:26

Q. Okay. 14:01:27

The next sentence, as you see there, refers to or references "Unwire Carplay silicon solution is around $1.60 range." 14:01:28 14:01:31 14:01:35

Can you provide some context for the jurors on how Unwired's pricing at this time compared to Microchip's pricing on its own USB hub chips? 14:01:40 14:01:41 14:01:45 14:01:47

A. Yes. So at this point of time, in the reasonable absence of competitors, we were selling products for about $3 each, and this was roughly half of what we were selling them for. 14:01:48 14:01:53 14:01:55 14:01:58 14:02:00

Q. And the last sentence there, this is an important point there, and the "He" referring there, "He requested us," first of all, who is "He"? 14:02:02 14:02:05 14:02:10 14:02:12

A. As I read this message, it appears to be that director or program management at Delphi. 14:02:14 14:02:16 14:02:19

Q. So that's Delphi? 14:02:19

A. Yes. 14:02:20

Q. And it reads, "He requested us" -- and I guess "us" is Microchip -- "to find out more information on this and want to work with 14:02:21 14:02:23 14:02:27

us to fight against this solution ASAP." 14:02:30

Do you have an understanding of 14:02:35

what he's referring to? 14:02:36

A. Yes, because at that point, we 14:02:36

thought we were likely to win our solution, 14:02:38

and all the sudden, this alternate solution 14:02:42

from Unwired had showed up, and they were 14:02:44

asking us to say what we could do to find a 14:02:48

solution for them to compete against it. 14:02:51

Q. So just to be clear, they were asking 14:02:54

you to investigate the Unwired solution? 14:02:57

A. Oh, absolutely. They were asking us 14:02:58

to look into it. 14:03:00

Q. And that's because Aptiv at that time 14:03:01

was a direct competitor with Unwired? 14:03:04

A. Yes. Aptiv was -- was still a 14:03:06

competitor of Unwired just three or 14:03:09

four months before they acquired this, it 14:03:11

appears. 14:03:13

Q. And at that time, was Aptiv promoting 14:03:14

Microchip's FlexConnect solution? 14:03:17

A. At this point, that was a solution 14:03:19

they were trying to use, as we understood it. 14:03:22

As we also understood it from, you know, 14:03:25

talking to Chrysler themselves, they were planning to use it also. 14:03:27 14:03:29

Q. And after Delphi's request, did Microchip investigate Unwired's solution and response to Aptiv? 14:03:30 14:03:32 14:03:36

A. Yes, we certainly did. 14:03:37

Q. Now, you explained earlier that Aptiv acquired Unwired later in 2014. After Microchip was informed that Aptiv had won The Big 3 USB CarPlay business in 2014, what did Microchip do? 14:03:40 14:03:42 14:03:45 14:03:49 14:03:52

A. So, yes, once we learned that we had lost, you know, we went down a path of what can we do to respond, what's our next chip, right? 14:03:54 14:03:59 14:04:02 14:04:05

So the reality of what -- where we were was we had two what we viewed as USB standard compliant solutions. They had come up with noncompliant solution, didn't match the standard. We didn't actually think anybody was going to buy it because it was noncompliant. 14:04:05 14:04:11 14:04:13 14:04:16 14:04:18 14:04:21 14:04:23

But if, at the end of the day, Apple was going to allow it and the automotive 14:04:23 14:04:25

manufacturers were going to allow it, then fine, we would bring one to market also. 14:04:28 14:04:30

Q. So did you determine what Microchip specifically needed to do to win The Big 3's business the next time? 14:04:38 14:04:40 14:04:43

A. Yes. So that's when we started on the path of developing the Sandia business plan, and began the investigation of what we would have to do. 14:04:44 14:04:47 14:04:50 14:04:52

Q. Do you understand the term "USB persistent"? 14:04:56 14:04:57

A. Yes. It's not a term I normally use, but yes, I do. 14:04:58 14:05:01

Q. And what relevance does this have in a car? 14:05:02 14:05:05

A. So -- so when you look at CarPlay, you plug in and your phone works and it all comes up on the display; that's the simple part. 14:05:06 14:05:09 14:05:12 14:05:14

What we view as a minor feature turned out to be something that both Unwired can do and became a request from The Big 3. So normally you would have, you're playing music with MP3 player, another phone, it's the 14:05:15 14:05:19 14:05:21 14:05:24 14:05:28

head unit playing in the car. The challenge was that that host needed to talk to that item so the two could stay connected and talk. 14:05:32 14:05:35 14:05:37

You plug in your iPhone, the iPhone became the host, the head unit no longer could talk to that item, but the only one host in the system would have been that one. So there needed to be a way -- so this notion of persistence needed to be a way to continue to talk to that music player, as an example. 14:05:39 14:05:42 14:05:46 14:05:49 14:05:51 14:05:54 14:05:57 14:06:00

It could have been Maps, it could have been something else, but there needed to be a way to continue to have the head unit talk to it. 14:06:01 14:06:03 14:06:04 14:06:06

So at the time, Apple said they do not want -- they don't want to take it over, they want to let the head unit deal with it. And the standard just at this point, normal set of products don't allow it because it would require two systems. 14:06:07 14:06:09 14:06:11 14:06:13 14:06:16 14:06:19

Q. What was it that The Big 3 wanted at the time back in 2014 that Microchip wasn't offering in their solution for CarPlay and 14:06:22 14:06:25 14:06:28

specifically -- I'm sorry? 14:06:32

A. So for CarPlay, itself, we could do 14:06:35

everything. What we couldn't do was, at the 14:06:37

point of the CarPlay connection, allow these 14:06:39

other items to stay connected to the end unit, 14:06:41

so that's this persistence. You could drop 14:06:44

temporarily and come back, but you couldn't 14:06:47

keep both active at the same time. 14:06:48

Q. So as you investigated further and 14:06:50

tried to determine how to win the business 14:06:53

next time, did you determine anything else 14:06:56

that Microchip needed to do to win the 14:06:59

business next time? I'm sorry, that was a 14:07:02

terrible question. 14:07:05

A. I'm sorry, maybe you can rephrase 14:07:06

that. 14:07:08

Q. Aside from what you've already 14:07:08

listed, when you were doing a determination of 14:07:10

what you needed to do to win The Big 3 14:07:12

business next time, was there anything else 14:07:15

you determined that must be offered by 14:07:16

Microchip to get that business? 14:07:19

A. So, yeah. So if you look -- if you 14:07:22

look at where we were in time, right, we 14:07:27

needed -- we needed a noncompliant solution. We looked at it and said, you know, there are lots of ways we could do this. The software we wanted to be a Microchip solution in some of the alternatives that were being proposed, but we began to look at it and we began to analyze what should the chip be, what should the features be.

Q. Did you ever come to understand that the '243 Patent was involved?

A. Yes. Yes. So a different question. So yeah, as you start to look at the fact that you need two hosts, multi-host system, yeah, at that point, right. And as you heard Mark say, in the background they were already thinking about what might it be.

At this point, we said we're going to do a chip and I put the burden on them guys; we're late, we have to use all the IP we already have, how do we get it to market quickly.

And so they said, yeah, we have all this IP. In fact, we already should be able to do this quite quickly.

Q. And in response to Aptiv's specific request for you to investigate Unwired's solution, did you determine anything relating to the '243 Patent at that point or had technology? 14:08:29 14:08:31 14:08:34 14:08:36 14:08:39

A. Yeah. So it also became obvious, as we started to get serious about what that next chip would have to be, we were looking at options again. We were constrained on cost, we were constrained on time. The team was looking to alternatives. 14:08:40 14:08:42 14:08:45 14:08:47 14:08:50 14:08:52

But what also started to become obvious was that, you know, we couldn't find another way to do it except for to do it the way that was outlined originally on the multi-host patent. And as we thought about it, we said well, okay, we can't do it a different way, then what is Unwired doing? Are they also doing it that same way, right? Are they, therefore, infringing our patent, right? 14:08:53 14:08:54 14:08:57 14:08:59 14:09:02 14:09:03 14:09:06 14:09:08 14:09:11 14:09:14

So that was that whole-sided discussion about if they're doing this, we don't know for certain, they may have 14:09:14 14:09:17 14:09:19

something clever or they were infringing on the patent, right? But if it's a multi-host, they are likely infringing on the patent. 14:09:21 14:09:23 14:09:26

Q. Changing gears a little bit, did it surprise Microchip that the car manufacturers would accept a non-standard USB hub chip? And I'm back in 2014 when they lost The Big 3 business. 14:09:28 14:09:29 14:09:31 14:09:34 14:09:38

A. Yeah, we were certainly surprised. Historically, the automotive industry is extremely conservative. They didn't want to put anything out there to start a problem in the field. So the fact that they would do something out of standard certainly is surprising. 14:09:38 14:09:41 14:09:44 14:09:47 14:09:50 14:09:52 14:09:53

Q. And can you explain to the jurors what you mean by standard or non-standard USB in the context of the iPhone? 14:09:55 14:09:56 14:10:00

A. Yeah. So we talked about this complex ecosystem where everybody makes different pieces of it and they all have to come together and work. The beauty of standard and why standards exist in the industry is that we define all of those 14:10:04 14:10:06 14:10:09 14:10:11 14:10:13 14:10:15

electrical connections and we know that the minute we plug them together, they all should work. 14:10:17 14:10:19 14:10:21

But when you don't follow the standard, you introduce risk. And you never know for sure whether all the pieces will work together. So our bias would have been to stay with something standard if, you know, if we could. 14:10:22 14:10:23 14:10:25 14:10:28 14:10:31 14:10:33

At the end, if we could not accomplish that one additional feature, they went to non-standard. And we were surprised. We were surprised that automotive manufacturers would allow it, also surprised Apple would allow it. 14:10:34 14:10:36 14:10:38 14:10:40 14:10:43 14:10:45

Q. And why were you surprised, just from historically that was a change? 14:10:48 14:10:51

A. Yeah. So we had sold -- every USB hub we had ever sold, they had always asked that we produce local documentation to prove it met the standard. So up until then, if it wasn't standard, we couldn't even show it to you. And then all of the sudden, they were going to allow something not standard. 14:10:53 14:10:56 14:10:58 14:11:01 14:11:03 14:11:06 14:11:07

Q. And did it surprise you that Microchip -- did it surprise you that Microchip -- that any of the manufacturers would accept something non-standard? 14:11:09 14:11:12 14:11:14 14:11:16

A. Yeah. The head manufacturers are a little less concerned; they don't directly talk to the outside world. The only thing that surprised us about it was that it added complexity. 14:11:19 14:11:22 14:11:23 14:11:25 14:11:28

So the solution on the table that was being offered added a lot of additional software and some custom drivers, and so we were surprised because a lot of the people say we have this, you buy it. They don't really want to go change it for, you know, specific special needs. But they did. 14:11:28 14:11:30 14:11:32 14:11:35 14:11:38 14:11:40 14:11:42

Q. And you mentioned that the solution on the table at that time back in 2014, whose solution was that? 14:11:44 14:11:46 14:11:49

A. The solution was the Unwired solution, but at that point, the head units had all changed their software. 14:11:49 14:11:52 14:11:54

Q. Was anyone from your USB and networking group -- business unit, excuse 14:11:58 14:12:01

me -- involved in designing the architecture for a new USB hub chip for CarPlay? 14:12:03 14:12:05

A. Yes. 14:12:08

Q. And who was it from your business unit who was involved? 14:12:09 14:12:12

A. As you saw earlier, Mr. Bohm was responsible for the architecture, the architecture team that did that work. 14:12:13 14:12:16 14:12:18

Q. And did your business unit determine that architecture for a new multiple-host hub chip? 14:12:20 14:12:22 14:12:26

A. Yes. Yes, it did. 14:12:26

Q. And did you give it a name? 14:12:27

A. Yes, that was the beginning of the Sandia chip that we've talked about earlier. 14:12:29 14:12:32

MR. SLAYDEN: Mr. Ferrer, can you bring up Exhibit 25, please. 14:12:36 14:12:37

BY MR. SLAYDEN: 14:12:40

Q. And do you have 25? You can look at it right here. 14:12:41 14:12:43

Are you familiar with this document? 14:12:44 14:12:45

A. I got it. Where am I supposed to look? 14:12:46 14:12:48

Q. You can look at 25, yep. I'll wait for you. 14:12:48 14:12:51

A. Okay. 14:12:52

Q. Are you familiar with it? 14:12:57

A. Yes, I am. 14:12:59

Q. Did you write it? 14:13:00

A. No, I did not write it. 14:13:01

Q. Who wrote this document? 14:13:02

A. This document was written by Dave Sroka. 14:13:04 14:13:09

Q. And who is Dave Sroka? 14:13:09

A. Dave Sroka is one of the marketing managers within the UNG business unit. 14:13:11 14:13:13

Q. He is not an engineer? 14:13:17

A. Yes, he is also an engineer. 14:13:18

Q. Oh, is he? 14:13:20

A. Yes. 14:13:20

Q. Does Mr. Sroka report to you? 14:13:21

A. He does report in to my group, but he doesn't report directly to me. 14:13:24 14:13:26

Q. When did Dave Sroka publish Exhibit 25, the Sandia business plan? 14:13:27 14:13:31

A. It appears to be published August of 2015. 14:13:33 14:13:34

Q. As a VP for the business unit, did you ultimately approve this plan, Exhibit 25? 14:13:36 14:13:38

A. Yes, I did. 14:13:40

Q. Before the Sandia business plan was published, had Mark Bohm's team already defined the Sandia architecture? 14:13:43 14:13:44 14:13:47

A. Yes. He would have had to. 14:13:50

Q. Why is that? 14:13:54

A. You want me to elaborate? 14:13:55

So to write a business plan, what's the purpose of a business plan? We have engineers. So what we have to do is define what is it we're going to do, okay? How much will the product cost to sell, how much time will it take to develop, right? 14:13:57 14:13:58 14:14:00 14:14:03 14:14:05 14:14:08

And then -- and then, you know, how many units might we sell given certain features; should this feature be in, should it be out? If we add a feature, that cost went up, take it out; it went down. Both ways impact sales. 14:14:10 14:14:13 14:14:15 14:14:19 14:14:21 14:14:24

So we have to know roughly what it is before we can agree to know what to build. 14:14:26 14:14:28

Q. Does Microchip sell Sandia hub chips 14:14:31

today? 14:14:35
A. Yes, we do. 14:14:35
Q. When did planet Microchip start 14:14:37
selling Sandia hub chips? 14:14:40
A. So Sandia was first sampled somewhere 14:14:41
in 2016 and the sales began in 2017. 14:14:43
Q. Does Microchip offer different Sandia 14:14:46
solutions to support CarPlay? 14:14:49
A. Yes, we do. And as you saw earlier, 14:14:51
we offer three different CarPlay solutions; 14:14:54
the two that Athens previously had done and 14:14:57
now this multi-host in Mark Bohm's patent. 14:15:00
Q. Okay. 14:15:04
Can you briefly identify, just by 14:15:04
name, the three different solutions? 14:15:06
A. Yes. So there's the FlexConnect 14:15:08
solution, that's a single upstream that allows 14:15:11
different ports to take over and become the 14:15:15
host; there is a Dual upstream with the two 14:15:17
wires, and then there is the multi-hub 14:15:19
solution where you have a single wire with two 14:15:22
hosts simultaneously. 14:15:24
Q. About how many Sandia hub chips does 14:15:25
Microchip make a year? 14:15:28

A. So today, we are running roughly 10 million a year. 14:15:29 14:15:31

Q. About what percentage of Microchip's annual chip production is Sandia production? 14:15:33 14:15:35

A. Yeah, so if you follow through the math, 10 million and eight billion, it is about one out of every 800 chips. 14:15:38 14:15:41 14:15:44

Q. How did the actual demand for Sandia compare to the forecast in the Sandia business plan, Exhibit 25? 14:15:46 14:15:49 14:15:51

A. So we are roughly on track, you know, volume is roughly on the same order of what was originally expected today. 14:15:53 14:15:55 14:15:58

Q. Okay. 14:15:59

And does Microchip's Sandia hub chip compete against Aptiv's Boston 2 hub chip that Microchip accuses of infringement in this case? 14:15:59 14:16:04 14:16:09 14:16:11

A. Yes, it does. 14:16:12

Q. How many multiple-host CarPlay units USB hub solutions are currently offered in the market? 14:16:15 14:16:18 14:16:21

A. Yeah, right now today, generally available, offered, I am only aware of two; 14:16:21 14:16:25

the one Microchip offers and the one that Aptiv offers. 14:16:29 14:16:31

Q. Okay. 14:16:32

And how does Aptiv's price of its USB hub chip compare to Microchip's Sandia chip? 14:16:32 14:16:35 14:16:38

A. So Aptiv's pricing was reasonably aggressive, and as we noted, prior generations were $3 and Aptiv was, you know, the equivalent because they sell modules for about a dollar and-a-half, and so reasonably impressive compared to what we were. 14:16:38 14:16:41 14:16:44 14:16:48 14:16:50 14:16:54

Q. So did Aptiv's USB hub pricing impact Microchip's Sandia pricing? And I meant to say chip pricing. 14:16:57 14:17:01 14:17:06

A. Yes, certainly. In the absence of a competitor, right, we would have -- you know, we would have reduced the price, but not as far as we had to, to continue to compete with that solution in the market. 14:17:07 14:17:09 14:17:12 14:17:14 14:17:20

Q. Just to be clear for the jurors, does this mean Microchip had to price Sandia chips lower than it would have if Aptiv was not selling its own multi-host chip? 14:17:22 14:17:23 14:17:27 14:17:29

A. Yeah, to be clear, certainly. Yeah. Having a competitor at a much lower price and we still go head-to-head in many dockets, we needed to lower our price in the marketplace. 14:17:32 14:17:35 14:17:38 14:17:42

Q. Does Microchip's USB hub solution offer any advantages over Aptiv's USB hub product? 14:17:44 14:17:46 14:17:49

A. So, yes. So Microchip offers many advantages over the Aptiv solution. The product itself, we talked about, had a lot of flexibility. We required far less software. We are not really invasive, very easy to implement, the head units don't have to change very much. We offer very high quality, very high reliability, large sales force that can help customers around the world very quickly. 14:17:50 14:17:54 14:17:58 14:18:01 14:18:03 14:18:06 14:18:09 14:18:11 14:18:16

And then compatibility. So one very strong advantage is we sell a lot of chips that go into PCs and into consumer products, and, you know, when you plug a USB product, right, into a car, we've already plugged in likely very similar products for many, many years in these other products that Microchip sells. 14:18:20 14:18:22 14:18:25 14:18:28 14:18:31 14:18:35 14:18:38 14:18:41

So we know pretty much any phone that comes out is going to come up. So compatibility, if you're going to buy your car, new phone comes out tomorrow, you plug it in, it doesn't work. 14:18:41 14:18:43 14:18:45 14:18:48 14:18:50

So our history and the very high number of parts we've sold helps with compatibility. 14:18:51 14:18:53 14:18:56

Q. Okay. 14:18:57

Is Microchip planning a next generation of USB hub chips? 14:18:59 14:19:00

A. We certainly are. 14:19:02

Q. Is your business unit presently in the development -- excuse me. 14:19:04 14:19:07

Is your business unit presently in the development phase of additional chips? 14:19:08 14:19:10

A. Certainly. The USB and networking business group typically works on about 12 different products at a time. The way they are used, usually we can start about three or four a year, so four products are year-end products, four in the early part of the development, and then we're doing the research work and the business planning work on four 14:19:13 14:19:15 14:19:19 14:19:23 14:19:25 14:19:28 14:19:30 14:19:32

about to start. So pretty much about 12 being debated at any one time and being developed. 14:19:34 14:19:35 14:19:37

Q. Is there any time when Microchip is not developing the next generation USB hub chip? 14:19:40 14:19:42 14:19:45

A. No, there is no time, and the roadmap we have extends on. We have -- Sandia was released, the next product after it was already released, it's in production, and the next part is in development, and the one behind it is already in the plan, so there is already a long process. 14:19:45 14:19:48 14:19:51 14:19:54 14:19:56 14:19:58 14:20:01

Q. And I don't know if I will say it right, but is there already a next generation past Sandia? 14:20:02 14:20:04 14:20:06

A. Yes. As I said, I mentioned briefly, yeah, there is a product past Sandia, but that's already -- called Olympus. That's already selling in the marketplace. 14:20:07 14:20:09 14:20:13 14:20:15

Q. Does it have advantages over Sandia? 14:20:16

A. It does. We added -- so when you plug in today into a car, you pick up two things; you pick up charging of your phone and 14:20:19 14:20:21 14:20:24

you also pick up the ticket connection to the head unit or play music or whatever it might be. 14:20:27 14:20:29 14:20:32

And externally on Sandia, all the components that had to do with charging were external. With the next generation, we brought a lot more of those components into the chip. 14:20:33 14:20:36 14:20:39 14:20:42 14:20:43

Q. Okay. 14:20:44

Changing gears a little bit, did the fact that Unwired and Aptiv used Microchip's patented technology upset Microchip? 14:20:46 14:20:49 14:20:51 14:20:55

A. Yes. 14:20:55

Q. Can you explain to the jurors why that would upset Microchip? 14:20:56 14:20:57

A. We were bothered on two fronts. So up 'til then, you know, we had been partners. When we won, we won together. They knew our roadmap, they knew what we had planned. And so after that, fine, they decided to do their own chip. That, in itself, is not a problem. 14:20:59 14:21:03 14:21:07 14:21:10 14:21:12 14:21:15

But at that point, they became competitors; it starts to bother us. But now 14:21:18 14:21:19

they become unfair competitors because they are using technology that Microchip has developed as the key feature of their product. So yes, it bothered us. 14:21:22 14:21:24 14:21:25 14:21:29

Q. And did you have concerns about sharing products and pricing information with Aptiv going forward? 14:21:30 14:21:32 14:21:34

A. Yes. So we were still partners in many ways, but it became problematic to share our product roadmaps, our costs, our features with somebody who would be competing with us. 14:21:35 14:21:39 14:21:42 14:21:45

So more specifically, right, if you can sell both my product and yours and you know my pricing, pretty easy to figure out where you should set your pricing. So we did not want to share those products with them after that. 14:21:48 14:21:49 14:21:53 14:21:55 14:21:58 14:22:00

Q. That's because they're actually not selling chips, they're actually selling a break out box or a hub that the chip is inside; correct? 14:22:01 14:22:03 14:22:04 14:22:06

A. Yes. They are selling a module at the end of the day, and if that module could have either their internally developed chip or 14:22:07 14:22:09 14:22:11

our chip, it is a bit of a problem with us, because at that point, very often when they sell their chip, they win and we lose, right? Up until now, up until they have their own chip, when they win, we win, right? But now all the sudden, if they win, we lose, right? So that's very competitive. 14:22:13 14:22:14 14:22:17 14:22:19 14:22:23 14:22:25 14:22:28

Q. Did Microchip ever specifically inform Aptiv about Bohm's multi-host patent? 14:22:31 14:22:33

A. Yes, we did. 14:22:36

Q. And what did you expect Aptiv to do in response to your notice of infringement? 14:22:38 14:22:41

A. Yeah, so certainly in that period of time, what I really expected is we would sit together, given we were already working together, given we actually all knew each other, I thought we would sit down and work out some sort of business solution. I really did not expect us to be here, so... 14:22:43 14:22:45 14:22:48 14:22:50 14:22:53 14:22:54 14:22:56

Q. Okay. 14:23:00

And before this lawsuit then, did you personally talk to your customer, Aptiv, to resolve this dispute? 14:23:00 14:23:02 14:23:04

A. Yes, I -- we talked something like 10 14:23:06

different times. 14:23:10

Q. And no result? 14:23:11

A. We could not find a solution. 14:23:13

Q. Okay. 14:23:15

Has Aptiv asked Microchip to 14:23:16

supply Sandia hub chips for its product during 14:23:19

the period Aptiv has been selling its own 14:23:22

multi-host chip? 14:23:24

A. Yes, they did. 14:23:25

Q. Were any of Aptiv's requests for U.S. 14:23:28

carmakers? 14:23:30

A. Yes, our understanding is they were. 14:23:31

Q. And what was Microchip's response to 14:23:33

Aptiv's request? 14:23:36

A. So, you know, at first we said yes, 14:23:36

possibly -- a method by which we can do this. 14:23:40

But then it started to become obvious that it 14:23:42

was very hard to do this. And as a 14:23:45

competitor, we said fine, going forward, you 14:23:48

know, we won't offer you that product. You 14:23:50

can buy the early one still, but any of the 14:23:52

new ones that we're developing, we don't want 14:23:55

to give you those details anymore. 14:23:56

Q. Okay. 14:23:59

In 20 -- I want to change gears a little bit to some pricing questions. 14:23:59 14:24:03

In 2014, after -- after Aptiv won the new Big 3 business with Unwired's Boston 2 hub chip, did Microchip change any prices it charged to Aptiv? 14:24:05 14:24:08 14:24:15 14:24:17

A. Yes, we did. 14:24:18

Q. And what did you change? 14:24:19

A. So we got to the point where the long-term agreement was up for renewal and we knew we had a quandary. And as we discussed it, what we decided was -- at first we said let's give them all the pricing for everything but this sub-piece of the market, and for all the other products, we said everything is business as usual. We're still partners. We win together; we lose together. Nothing needs to change. 14:24:21 14:24:24 14:24:26 14:24:29 14:24:33 14:24:36 14:24:38 14:24:40 14:24:43 14:24:45

For this sub-piece, what we said is -- at first, you know, we wouldn't even give them an update, and then we decided that all the forecasts they had given us were no longer going to be true. They had their own alternate solution. It's very likely they're 14:24:46 14:24:48 14:24:50 14:24:52 14:24:55 14:24:57

going to buy far less chips than anything they had told us in the past. 14:24:59 14:25:02

So we did raise prices, but also, you know, our intent was not to -- not to stop relationships with the other parts of the company because they are -- we are both large companies. So to the point where what got interesting is another part of their company was buying the exact same chip and we said fine, as long as we can keep track of who buys what, do not touch the pricing for the other part of the company, just in this narrow area where we're directly competing and you are no longer going to buy the committed volume, so we are going to raise the pricing. 14:25:03 14:25:05 14:25:09 14:25:11 14:25:14 14:25:17 14:25:19 14:25:21 14:25:24 14:25:27 14:25:29 14:25:31 14:25:34

And we said -- we gave them a 10 to 20 percent increase; I don't remember exactly. 14:25:35 14:25:38 14:25:39

Q. And you talked about long-term agreements, and we talked about earlier that those long-term agreements were based on forecasted volumes. 14:25:41 14:25:42 14:25:44 14:25:47

Can you give an example, some context to the jury, for example, in 2017, how 14:25:49 14:25:51

the forecast may have changed from what you had agreed to previously? 14:25:54 14:25:56

A. So, yeah. Just at a high level, for instance, they were forecasting about seven million units to purchase and then I have around two million units instead. 14:25:57 14:26:01 14:26:02 14:26:06

Maybe a better way to look at it, right, actually look at the real history of what was going on. In the year before the acquisition, the two companies combined, the Delphi side and the Unwired side purchased $16 million worth of USB hub chips from us. The year after, that dropped to eight million. 14:26:07 14:26:09 14:26:11 14:26:13 14:26:17 14:26:21 14:26:23

And then, although we were just starting to reset pricing, what we then learned the year after was five million. None of the forecasts were for business to drop by a half and a third. Everything was up, up, up until they had this alternate solution all the sudden. 14:26:26 14:26:27 14:26:29 14:26:32 14:26:34 14:26:37 14:26:40

Q. So after removing Aptiv's advantageous long-term agreement, the pricing on USB hub chips alone, not affecting the other products, was Aptiv still paying less 14:26:40 14:26:43 14:26:45 14:26:48

than some other of Microchip's customers for the same products? 14:26:51 14:26:54

A. Yes. If you go look at the pricing, what you see is very often, they were in the bottom third of where the customers were. Even after the price increases, sometimes they still were almost the lowest price, but in no case were they the highest price. 14:26:55 14:26:58 14:27:00 14:27:03 14:27:06 14:27:08

There was often many other customers who, you know, we didn't have strong relationships that are paying much higher prices than Aptiv was paying. 14:27:10 14:27:12 14:27:14 14:27:16

Q. That's even after they continued in the market with Boston 2? 14:27:18 14:27:21

A. Even after we adjusted prices up, right, they are still nowhere near the top. So I still had hoped we would find a solution, right? 14:27:22 14:27:25 14:27:27 14:27:30

Q. Yeah. 14:27:30

A. So that was the essence of it. 14:27:31

Q. So I think you mentioned previously -- well, maybe not, but how many products does Microchip still supply to Aptiv today? 14:27:33 14:27:35 14:27:40 14:27:43

A. Yeah, so a brief check, it's a little bit more than a hundred different part numbers are being sold to Aptiv today. 14:27:43 14:27:45 14:27:47

Q. So how many parts were affected by this price change out of the hundred? 14:27:48 14:27:52

A. I think it's five or six part numbers total. And again, only in some parts of their business. 14:27:53 14:27:56 14:27:58

Q. And I guess I wonder why, since we're in this litigation, you didn't change the prices on all of Aptiv's parts? 14:28:00 14:28:05 14:28:07

A. Yeah, so at the end, obviously, you know, telling them that we were unhappy about our -- about their patent infringement, you know, led to a little more challenges in the business. But at the end of the day, we could easily win together in many, many other fields of play. 14:28:09 14:28:12 14:28:15 14:28:18 14:28:20 14:28:23 14:28:25

We kept a good relationship. We didn't bring this up. It didn't come up in any of our discussions with them. Who knows what happened on their side. And we continued to work together, and 'til this day, we continue to win new programs together and many 14:28:26 14:28:28 14:28:31 14:28:33 14:28:35 14:28:38

other products in the business. 14:28:40

Q. Can you turn to Exhibit 45 in your notebook, please. 14:28:42 14:28:44

(Whereupon, Trial Exhibit 45 was introduced.) 14:28:44 14:28:44

BY MR. SLAYDEN: 14:28:44

Q. Do you recognize this document? 14:28:52

A. Yes, I do. 14:28:54

Q. What is it? 14:28:55

A. So this document shows the unit sales, revenue and sales price, and as well as the costs and therefore profits for each of the products in the automotive USB hub product line. 14:28:56 14:29:00 14:29:03 14:29:07 14:29:11

Q. Okay. 14:29:11

How was it created? 14:29:11

A. Actually I created it. I pulled the data, the sales data, from our sales database and the cost data from our cost database. 14:29:13 14:29:15 14:29:19

MR. SLAYDEN: Move to admit Exhibit 45. 14:29:22 14:29:24

MS. DURIE: No objection. 14:29:24

THE COURT: All right. It is admitted. 14:29:25 14:29:25

BY MR. SLAYDEN: 14:29:25

Q. Can you turn to Exhibit 46 in your notebook. 14:29:26 14:29:28

A. Okay. 14:29:33

(Whereupon, Trial Exhibit 46 was introduced.) 14:29:33 14:29:33

BY MR. SLAYDEN: 14:29:33

Q. Are you there? Okay. 14:29:33

Do you recognize this document? 14:29:35

A. Yes, I do. 14:29:36

Q. What is it? 14:29:37

A. This is a subset of the data from the prior report. It doesn't include in it the cost of profit; it just shows the units, revenue and sales price for each of those same products. 14:29:39 14:29:41 14:29:44 14:29:47 14:29:49

MR. SLAYDEN: Move to admit Exhibit 46. 14:29:51 14:29:53

MS. DURIE: No objection. 14:29:53

THE COURT: Okay. It's admitted. 14:29:53

BY MR. SLAYDEN: 14:29:55

Q. Can you turn to Exhibit 48 in your notebook, please. 14:29:56 14:29:58

A. Okay. 14:29:59

(Whereupon, Trial Exhibit 48 was introduced.)

BY MR. SLAYDEN:

Q. And do you recognize this document?

A. Yes, I do.

Q. And what is it?

A. It's similar to the last one we just talked about, but just extends the period to add more years. So it has revenue units and sales price up through about two, three quarters ago.

MR. SLAYDEN: Move to admit Exhibit 48.

MS. DURIE: No objection.

THE COURT: It is admitted.

BY MR. SLAYDEN:

Q. Please turn to Exhibit 88 in your notebook, please.

A. This one is not here.

Q. 88 is not there?

(Brief pause.)

MR. SLAYDEN: One minute. Sorry. My apologies.

(Brief pause.)

THE COURT: I'm not sure what you're asking, Mr. Slayden. 14:31:39 14:31:40

MR. BANNER: Your Honor, we'd like to put it on the screen. 14:31:41 14:31:43

MR. SLAYDEN: It is a native document. We don't have a paper copy of it. There's no objection to it. We're just getting it into the record. 14:31:44 14:31:45 14:31:48 14:31:49

(Whereupon, Trial Exhibit 88 was introduced.) 14:31:49 14:31:51

THE COURT: Are you moving it into admission or are you putting it up for foundation purposes? 14:31:51 14:31:52 14:31:54

MR. SLAYDEN: I'm just going to move it into admission, yes, sir. 14:31:55 14:31:56

MS. DURIE: No objection. 14:31:58

THE COURT: Fine. It is admitted. If you want to show it, you can. 14:31:59 14:32:01

MR. SLAYDEN: Okay. 14:32:03

BY MR. SLAYDEN: 14:32:12

Q. I think we are getting about done here, Mr. Obolsky. Just one minute, and I apologize. 14:32:05 14:32:07 14:32:10

Now, you explained earlier that 14:32:12

Aptiv, the defendant in this case, had asked Microchip to look into the Unwired chip back in May 2014; correct? 14:32:14 14:32:16 14:32:19

A. Yes, I did. 14:32:21

Q. Okay. 14:32:22

I'd like to ask you a few questions about Microchip documents Aptiv's counsel referenced during her opening statement. 14:32:23 14:32:24 14:32:28 14:32:30

Can you turn to Exhibit 246 in your notebook. 14:32:30 14:32:33

A. Okay. 14:32:33

(Whereupon, Trial Exhibit 246 was introduced.) 14:32:33 14:32:33

BY MR. SLAYDEN: 14:32:38

Q. Do you recognize this document? 14:32:38

A. Yes, it's an internal Microchip email. 14:32:39 14:32:42

MR. SLAYDEN: Move to admit Exhibit 246. 14:32:44 14:32:46

MS. DURIE: No objection. 14:32:46

THE COURT: All right. It will be admitted. 14:32:47 14:32:48

MR. SLAYDEN: Mr. Ferrer, can you 14:32:48

please bring up Exhibit 246. 14:32:51

BY MR. SLAYDEN: 14:32:53

Q. Now, look at 246. This is an email 14:32:53

from July 20th, 2014. 14:32:56

Do you recognize the names on this 14:32:58

email? 14:33:00

A. Yes. 14:33:02

Q. And can you describe to the jury 14:33:03

generally who are the people on this email? 14:33:05

A. Yes. The first sent email is one of 14:33:08

the marketing managers in the group, and then 14:33:13

the people that are copied on it -- on the 14:33:14

"To" list are marketers, some salespeople and 14:33:18

some application engineers. 14:33:21

Q. Now, the second paragraph, second to 14:33:25

the last sentence, see if you can follow me, 14:33:27

it starts with, "Our 'Flex Hub.'" 14:33:32

Do you see that? 14:33:34

A. Yeah. 14:33:34

Q. It says, "Our 'Flex Hub' and the 14:33:35

associated AIPD solutions was generally well 14:33:37

received and is winning at many of the 14:33:40

automotive accounts." 14:33:42

Can you explain to the jury what 14:33:44

that means? 14:33:45

A. Yeah. So this was midyear 2014. The 14:33:46

salesmen went out, visited the customers at -- 14:33:51

you know, this is all The Big 3 and more, and 14:33:55

our belief at that time was our CarPlay flex 14:33:57

hub solution was likely to win almost all of 14:34:00

them. 14:34:04

Q. The next paragraph, the last sentence 14:34:06

starts with, "We have proposed that we do a 14:34:08

CES reference design with Delphi (both BoB and 14:34:13

head unit)" -- and BoB referring to break out 14:34:20

box -- "and we are proceeding..." 14:34:24

Now, this was referring to Delphi; 14:34:26

right? 14:34:28

A. Yes, I believe it is. 14:34:28

Q. Okay. 14:34:30

Can you explain what the sentence 14:34:30

is referring to? 14:34:32

A. So, yes. At this point, we were 14:34:33

still partners and this was all new, and so 14:34:35

what we wanted to do was go to the Consumer 14:34:40

Electronics Show, which is a very big show in 14:34:42

Las Vegas every January, and we wanted to show 14:34:45

a demonstration that showed a Delphi head unit 14:34:47

and then a Delphi break out box that uses Microchip's flex solution and show that, you know, as an example. 14:34:50 14:34:53 14:34:55

Q. Does Microchip sell chips to Aptiv for its head units also? 14:34:57 14:35:00

A. Yes, we do. 14:35:02

Q. And what do you sell to them? 14:35:03

A. We sell almost the same part numbers to them also. 14:35:05 14:35:08

Q. But -- okay. 14:35:09

So I take it the last sentence refers to jumping outside of USB standards and flex on every port. 14:35:10 14:35:15 14:35:18

Do you see that? 14:35:19

A. Where is that? 14:35:21

Q. Second to the last paragraph and it refers to stepping outside. There you go. And flex on every port. 14:35:24 14:35:34 14:35:38

Do you see that? 14:35:39

MR. SLAYDEN: Just keep going and highlight, please. 14:35:41 14:35:44

BY MR. SLAYDEN: 14:35:44

Q. Can you explain to the jury what this means? 14:35:45 14:35:47

A. Yeah. So this is the solution we did not have. So up 'til this point, all of our hubs, what was available to sell, were standard compliant. They all had one upstream port or one host and multiple downstream ports or endpoints. 14:35:48 14:35:50 14:35:55 14:35:56 14:35:59 14:36:03

And at this point, right, we could handle the idea of flexing on one port, no problem. You could plug in, you could switch from the head unit being the computer to our chip -- to the USB -- sorry, to the iPhone being the computer using our USB chip. 14:36:05 14:36:07 14:36:10 14:36:12 14:36:15 14:36:20

What we could not do was also allow all the ports to be able to stay connected to one or the other, right? The minute the iPhone shows up, the head unit computer would lose connection to everything else. 14:36:23 14:36:25 14:36:29 14:36:33 14:36:36 14:36:37

Q. Okay. 14:36:37

So can you explain to the jurors why Microchip did not want to make a chip that was not compliant with the USB standards? 14:36:38 14:36:40 14:36:42

A. So, yes. The point I was making a little bit earlier was, you know, the 14:36:44 14:36:48

automotive customers are generally pretty -- they don't want you to have problems. And up until this point, pretty much everything they had ever asked from us had to be standard compliant. 14:36:50 14:36:53 14:36:56 14:36:58 14:37:00

And also, Apple is very controlling, and we had quite a bit of concern would they allow chips that were non-standard compliance to be used in a system with the iPhone. 14:37:01 14:37:04 14:37:06 14:37:08 14:37:10

Q. Can you turn to Exhibit 66 in your notebook, please. 14:37:12 14:37:15

A. Okay. 14:37:25

(Whereupon, Trial Exhibit 66 was introduced.) 14:37:25 14:37:25

BY MR. SLAYDEN: 14:37:26

Q. Do you recognize this document? 14:37:26

A. Yes. It is an internal Microchip email. 14:37:28 14:37:31

MR. SLAYDEN: Move to admit Exhibit 66. 14:37:32 14:37:34

MS. DURIE: No objection. 14:37:34

THE COURT: Admitted. 14:37:35

MR. SLAYDEN: Mr. Ferrer, can you 14:37:36

bring up Exhibit 66. 14:37:37

Thank you, sir. 14:37:39

BY MR. SLAYDEN: 14:37:40

Q. Now, this is an email from 14:37:40

December 1, 2014, and just for reference, as 14:37:42

you talked about, this is before Aptiv 14:37:47

acquired Unwired. 14:37:50

Do you recognize the names on this 14:37:53

email? 14:37:55

A. Yes, I do. And I think it might be 14:37:56

after they were acquired, December. 14:38:00

Q. Excuse me? 14:38:02

A. I think this is slightly after they 14:38:03

were acquired in December. 14:38:05

Q. Okay. 14:38:06

Let's move down to -- do you 14:38:13

recognize the names on the email, first of 14:38:15

all? 14:38:18

A. Yes, I do. 14:38:18

Q. And who are they, in general? 14:38:19

A. In general, they are marketers inside 14:38:20

of the USB and networking group. 14:38:26

Q. And at the bottom of the page, last 14:38:28

paragraph, the first sentence, "When 14:38:30

persistent USB is a requirement we definitely have run into a wall." 14:38:38 14:38:41

Now, can you give some context to the jurors what is meant by that? 14:38:44 14:38:49

A. Yeah. What it means, and again, remember this is from a marketer's point of view, right? Their job is to sell the chips we already have and none of the chips we had could handle this requirement from Apple that was a dual host. So the fact that you needed a multiple host in the system and they tried, they tried to find potential answers, and at the end, we said we can't do it. All the chips we have are standard compliant. We cannot use these chips directly. We are going to need something different. 14:38:51 14:38:53 14:38:55 14:38:57 14:39:01 14:39:05 14:39:08 14:39:11 14:39:14 14:39:16 14:39:18 14:39:20

Q. Okay. 14:39:21

So was Microchip having trouble technically with developing a persistent USB solution at that time? 14:39:22 14:39:24 14:39:26

A. No, it wasn't a technical problem; it was a matter of having something that we had that would be, you know, available in the near term, right. It wasn't a longer term 14:39:27 14:39:29 14:39:31 14:39:33

question, it was an immediate type of question. Chips could not do it. 14:39:35 14:39:38

Q. Can you turn to Exhibit 36 in your notebook, please. 14:39:41 14:39:43

(Whereupon, Trial Exhibit 36 was introduced.) 14:39:43 14:39:43

BY MR. SLAYDEN: 14:39:43

Q. Do you recognize this document? 14:39:57

A. Yes, it's an email that I sent to our CEO. 14:39:59 14:40:02

Q. And what is it? You said it already. 14:40:04

MR. SLAYDEN: Move to admit Exhibit 36. 14:40:05 14:40:06

MS. DURIE: No objection. 14:40:07

THE COURT: All right. It's admitted. 14:40:07 14:40:08

MR. SLAYDEN: Mr. Ferrer, can you bring up 36, please. 14:40:09 14:40:10

BY MR. SLAYDEN: 14:40:11

Q. So I think you just stated, but is this an email you sent? 14:40:17 14:40:19

A. Yes, it is. Right. 14:40:20

Q. Okay. 14:40:22

The second bullet point, it says, 14:40:24

"We have been working on the business case and technical details to provide a single connection solution similar to Unwired." 14:40:28 14:40:31 14:40:34

Do you see that? 14:40:36

A. Yeah. 14:40:38

Q. Can you explain to the jurors what you meant by a "solution similar to Unwired"? 14:40:39 14:40:41

A. Yes. At this point, right, we had our compliant solutions, we had two solutions in the market, but at the end of the day, if a noncompliant solution could be sold, fine. If automotive manufacturers would accept it, if Apple would accept it, then we should add the missing features and bring out a noncompliant solution. 14:40:43 14:40:48 14:40:50 14:40:53 14:40:56 14:40:58 14:41:03 14:41:05

Q. So was Microchip copying Unwired? 14:41:06

A. I'm sorry? 14:41:08

Q. Was Microchip copying Unwired? 14:41:09

A. No, we were listening to the customers, right? This specific email was a discussion with Tecvox. Tecvox said, hey, we need this, and many other customers came in with difficult requirements. 14:41:11 14:41:12 14:41:16 14:41:20 14:41:23

But no, at the end, we were to 14:41:24

provide what the market had asked for, the spec with the requirement in place. Automotive dealers had asked for it and we were responding to, you know, a request from customers. 14:41:26 14:41:28 14:41:30 14:41:33 14:41:35

Q. And I think that point is made later in that paragraph, which states -- it is talking about "The key is to develop a solution that works for Chrysler, but also potentially works for another ten Automotive manufacturers." 14:41:35 14:41:38 14:41:41 14:41:45 14:41:47 14:41:50

Explain to the jury why it was important to Microchip to find a solution that worked for multiple auto manufacturers. 14:41:52 14:41:54 14:41:57

A. Yeah. So there's more here than may meet the eye. So we knew we had had a multi-host solution, but we also had chips like we saw from Sandia was a variety of chips that had -- do they want two connections, do they want four connections, do they want to have a car reader? 14:41:59 14:42:03 14:42:06 14:42:10 14:42:12 14:42:13 14:42:16

And by the way, in this period of time, a lot of you were buying SD cards and put your music on it and put it in to have it 14:42:17 14:42:19 14:42:23

play where car manufacturers were using SD cards to load Maps. So you pay, you know, and your car had the ability to run Maps, you would pay 200 bucks for a Map update, put the card in. 14:42:26 14:42:29 14:42:32 14:42:34 14:42:37

So each one of the automotive manufacturers had different requirements. So we were trying to sort out what is the chip we should build and how can we get it done at a cost point and reasonably quickly. But you get many requirements at the same time. 14:42:37 14:42:39 14:42:41 14:42:43 14:42:46 14:42:48

Q. I understand. 14:42:50

Can you turn to Exhibit 41 in your notebook, please? 14:42:51 14:42:55

A. Okay. 14:42:57

(Whereupon, Trial Exhibit 41 was introduced.) 14:42:57 14:42:57

BY MR. SLAYDEN: 14:42:57

Q. Do you recognize this document? 14:43:02

A. Yes, I do. 14:43:05

Q. And what is it? 14:43:06

A. It's a email from myself to Ganesh Moorthy, the CEO at the time. 14:43:08 14:43:16

MR. SLAYDEN: Move to admit 14:43:17

Exhibit 41. 14:43:19

MS. DURIE: No objection. 14:43:19

THE COURT: All right. It is 14:43:20

admitted. 14:43:21

BY MR. SLAYDEN: 14:43:21

Q. So this is another email by you dated 14:43:22

October 18th, 2015. 14:43:24

Do you see that? 14:43:26

A. Yes, I do. 14:43:27

Q. The first sentence refers to Unwired, 14:43:31

and the email reads later, "They also 14:43:33

mentioned they had been pushing for a 14:43:36

while...for lower prices, and later for a chip 14:43:39

to support single upstream head unit." 14:43:41

Do you see that? 14:43:44

A. Yes, I do. 14:43:45

Q. What pricing was Unwired pushing 14:43:47

Microchip for? 14:43:51

A. That's what -- in this period, and 14:43:51

even before the advent of CarPlay, Unwired was 14:43:54

buying chips from us and wanted them at lower 14:43:59

prices, so they were pushing for a very 14:44:01

specific subset, and they wanted to pay 14:44:03

roughly half of what we were selling them for. 14:44:06

Q. Okay. 14:44:08

Why didn't Microchip provide 14:44:09

Unwired with a single chip they requested? 14:44:12

A. So at the time when they first 14:44:14

requested, right, we didn't view it as 14:44:16

something that would necessarily be accepted. 14:44:18

Still was a lot of risk; it was one customer's 14:44:22

request. And if, at the end of the day, GM 14:44:25

and all the other car manufacturers wouldn't 14:44:28

accept it or Apple wouldn't accept it, it was 14:44:30

just not a priority for our investment, right? 14:44:33

Again, working on 12 chips, we are 14:44:35

going to continue on the ones we're working on 14:44:37

and we'll pick one of the slots in the future 14:44:40

if this becomes a viable solution. 14:44:42

Q. Right. 14:44:43

So later on in that next sentence, 14:44:44

it says -- and this was referred to in the 14:44:46

opening -- it says, "Bottom line we missed 14:44:49

it." 14:44:52

A. Yeah. 14:44:53

Q. Can you explain to the jury what you 14:44:53

meant by that? 14:44:55

A. We've seen it a couple times. What 14:44:55

it means is we had two solutions and, you know, we thought they would use it. The ability for the automotive manufacturers to accept what we viewed as non-standard, for Apple to accept it, we did not expect that to happen. So that's what this refers to, right. 14:44:57 14:45:01 14:45:05 14:45:08 14:45:11 14:45:14

And so, yeah, we did not develop that chip in that period of time because we did not believe it was going to be accepted. 14:45:17 14:45:20 14:45:23

Q. Mr. Obolsky, does Microchip have an issue with competition? 14:45:26 14:45:28

A. No, we do not. We do have an issue with unfair competition. 14:45:30 14:45:33

Q. Okay. 14:45:34

So this is my last question for you: Why is Microchip in court today? 14:45:35 14:45:37

A. Yeah, so -- so we're here because we made a large investment in developing new products, new features. You know, we do things that are proprietary, and so we have intellectual property and, you know, it's our job to protect that intellectual property to make sure nobody uses it without -- without paying for it, whether it be a royalty or some 14:45:42 14:45:45 14:45:48 14:45:52 14:45:54 14:45:57 14:45:59 14:46:02

other way.

MR. SLAYDEN: Thank you. That's all I have. Thank you, Mr. Obolsky.

THE COURT: Ms. Durie, before you step up, we have been going for about an hour-and-a-half. I have to stop today, as I said, somewhere between 3:30 and 3:45. Do you all want to take five minutes, or are you okay to press on? Really up to you.

Anyone who wants to take a drink, let me know, just raise your hand.

MS. DURIE: Could we take five minutes?

THE COURT: Absolutely. We will take five minutes, we'll head out. And remember, don't talk about the case, okay, no testimony and we are moving along.

(Whereupon, the jury was excused from the courtroom.)

THE COURT: Okay. Five minutes and be back at 2:50.

(Whereupon, a recess was taken at 2:45 p.m.)

THE COURT CLERK: All rise.

THE COURT: Get the jury, Mr. Koehler. 14:55:20 14:55:21

You can be seated. I'm sorry. 14:55:22

(Whereupon, the jury entered the courtroom.) 14:55:24 14:55:27

THE COURT: Be seated. 14:56:18

Ms. Durie. 14:56:24

MS. DURIE: Thank you, Your Honor. 14:56:24

\- - - 14:56:24

CROSS-EXAMINATION 14:56:24

\- - - 14:56:26

BY MS. DURIE: 14:56:26

Q. Mr. Obolsky, good afternoon. 14:56:27

You said that you are an inventor on a patent; is that right? 14:56:29 14:56:31

A. Yes, I am. 14:56:32

Q. You said, in fact, Microchip has paid maintenance fees on that patent; right? 14:56:33 14:56:35

A. No, not on my patent, I think that one has expired already. 14:56:37 14:56:40

Q. That's right. You filed for that patent in 2001; right? 14:56:42 14:56:44

A. Probably. 14:56:46

Q. And I think I heard you say you never 14:56:47

found a market opportunity for it; is that right? 14:56:49 14:56:52

A. Yeah, no, it was not used. 14:56:52

Q. Okay. 14:56:53

And -- and that happens; right? 14:56:54

A. (Indicates affirmatively.) 14:56:56

Q. Now, you said, in your direct examination, I think, that Microchip used to control 100 percent of sales of microchips to The Big 3; is that right? 14:56:58 14:57:02 14:57:05 14:57:12

A. Um-hmm, yes. 14:57:13

Q. So Microchip is the 900-pound gorilla of the automotive microchip world; right? 14:57:14 14:57:17

A. No, that's not correct. 14:57:21

Q. Well, Microchip is basically a monopolist with respect to those chips; right? 14:57:22 14:57:25

A. In this very narrow market, yes. 14:57:28

Q. Yes. And Microchip often would like to keep it that way; right? 14:57:29 14:57:33

A. Not necessarily. We actually prefer to keep a large market share. 14:57:35 14:57:37

Q. Okay. 14:57:38

Now, you said that Aptiv and Boston 2 chip compete with Microchip and the 14:57:39 14:57:41

Sandia chip; is that right? 14:57:46

A. Yes. 14:57:50

Q. You said Aptiv competes with a lower price; right? 14:57:50 14:57:53

A. Lower equivalent price, yes. 14:57:54

Q. Yeah. Can you name a single hub maker that was choosing between a Boston 2 chip and a Sandia chip? 14:57:55 14:58:01 14:58:03

A. Sorry? 14:58:04

Q. Sure. 14:58:05

Can you name a single hub maker, another company, that was choosing between Boston 2 or Sandia, between Aptiv and Microchip, for its hub? 14:58:06 14:58:09 14:58:12 14:58:15

A. When you say, "hub," this is what I would call the break out box, just to make sure. 14:58:18 14:58:22 14:58:24

Q. Sure. 14:58:24

A. Yeah, you want me to name one? Is that the question? 14:58:25 14:58:28

Q. Sure. 14:58:29

A. So, potentially Tecvox. 14:58:29

Q. Okay. 14:58:32

But Aptiv doesn't actually sell 14:58:32

its chips to anyone else; right? 14:58:35

A. As I understand it. I don't know 14:58:37

what Aptiv does, but as I understand it, yes. 14:58:39

Q. Right. 14:58:41

So there is no other hub maker 14:58:42

that is looking at buying chips from either 14:58:44

Aptiv or Microchip, because Aptiv doesn't sell 14:58:47

anything? 14:58:52

A. Okay. 14:58:52

Q. Okay? 14:58:53

A. That's true. 14:58:54

Q. So really, when you say that Aptiv 14:58:54

and Microchip are competing, what you mean is 14:58:57

that Aptiv isn't buying that category of chips 14:59:00

from Microchip anymore? 14:59:04

A. I'm not sure I follow. Can you ask 14:59:06

again? 14:59:08

Q. When you say that Aptiv and Microchip 14:59:08

are competing, what you mean is just that 14:59:12

Aptiv isn't buying those microchips from you 14:59:14

anymore? 14:59:18

A. No, that's not what I mean. 14:59:18

Q. In August of 2016, you sent a letter 14:59:21

to your customers and to the car companies 14:59:27

telling them that you had sued Aptiv for patent infringement; right? 14:59:31 14:59:35

A. Yes. 14:59:36

Q. You signed the letter; right? 14:59:36

A. Yes. 14:59:38

MS. DURIE: If we could please have PX-238 marked for identification, and I can hand copies out. 14:59:39 14:59:40 14:59:47

(Whereupon, Trial Exhibit PX-238 was introduced.) 14:59:50 14:59:55

BY MS. DURIE: 14:59:57

Q. Mr. Obolsky, you recognize what's been marked as Exhibit 238 as a copy of the letter that you sent? 14:59:57 14:59:59 15:00:02

A. Yes, I do. 15:00:03

MS. DURIE: We offer it. 15:00:06

MR. SLAYDEN: I have no objection. 15:00:07

THE COURT: Okay. It will be admitted. 15:00:08 15:00:09

MS. DURIE: If we can please see Exhibit 238. 15:00:10 15:00:13

BY MS. DURIE: 15:00:13

Q. You signed it; right? 15:00:14

A. Yes. 15:00:15

Q. And if we go back to the text of the letter, you said, "Dear Valued Customer, Microchip would like to inform you of legal action that is being taken by Microchip against a supplier of electronic components in the automotive USB connectivity market," and you listed three patents; right? 15:00:16 15:00:18 15:00:22 15:00:24 15:00:26 15:00:30 15:00:35

A. Yes. 15:00:37

Q. Now, you hold an engineering degree; right? 15:00:38 15:00:44

A. Yes, I do. 15:00:44

Q. You have been working at Microchip for around 27 years? 15:00:45 15:00:47

A. Yes. 15:00:49

Q. You are a senior vice president; right? 15:00:50 15:00:51

A. I am today. Not at this time. 15:00:52

Q. Okay. 15:00:53

Do you report to the CEO? 15:00:54

A. I do today, yes. 15:00:56

Q. Okay. 15:00:57

And you have some technical understanding of USB; right? 15:00:58 15:01:00

A. Yeah. High level understanding, yes. 15:01:02

Q. Now, you sent this letter to your customers so that they would have a bias against using -- or I should say a bias towards using Microchip's solution instead of buying a component from Aptiv that has a copy of the Aptiv chip in it; right? 15:01:05 15:01:07 15:01:12 15:01:15 15:01:19 15:01:23

A. That's a narrow part of the reason, yes. 15:01:26 15:01:29

Q. Okay. 15:01:30

But you wanted to inform them so they would have a bias to use the Microchip? 15:01:30 15:01:34

A. Certainly. 15:01:41

Q. Now, you didn't investigate, you personally as the person who signed this letter -- 15:01:43 15:01:46 15:01:49

A. Yeah. 15:01:49

Q. -- you didn't investigate how Aptiv's chip actually worked before you sent this letter; right? 15:01:49 15:01:52 15:01:54

A. I certainly personally didn't investigate, no. 15:01:55 15:01:58

Q. Right. 15:01:58

Your deposition was taken in this case; right? 15:01:59 15:02:00

A. Yeah. 15:02:01

Q. And obviously, that was after the lawsuit was filed and after this letter was sent; right? 15:02:01 15:02:04 15:02:06

A. Yes. 15:02:07

Q. Okay. 15:02:07

And at that point in time, you still didn't know any details about how the Aptiv chip actually worked; right? 15:02:08 15:02:09 15:02:14

A. We didn't know, we suspected. At that point, we did not have all the answers. 15:02:18 15:02:23

Q. And what it does, how it works, you couldn't explain? 15:02:26 15:02:30

A. I'm sorry? 15:02:31

Q. What it does, how it works, you couldn't explain? 15:02:32 15:02:34

A. I couldn't personally explain, right, how their chip works, no. 15:02:36 15:02:40

Q. Okay. 15:02:42

A. I could explain what it does, not how it works. 15:02:43 15:02:45

Q. All right. 15:02:46

MS. DURIE: Your Honor, I would like to -- I'm sorry. 15:02:48 15:02:49

BY MS. DURIE: 15:02:50

Q. And you're saying at the time of your deposition, you were capable of explaining what the Aptiv chip does? 15:02:51 15:02:52 15:02:54

A. At a high level. 15:02:56

Q. Okay. 15:02:57

At a high level? 15:02:58

A. At a high level. 15:02:59

Q. Not in any detail; right? 15:03:00

A. Not in any detail, no. 15:03:01

MS. DURIE: Now I'd like to mark for identification Exhibit 252. 15:03:06 15:03:08

(Whereupon, Trial Exhibit 252 was introduced.) 15:03:15 15:03:20

BY MS. DURIE: 15:03:20

Q. Now, Exhibit 252 is an email exchange with David Sroka and Don Perkins, among others, from August of 2014 timeframe; right? 15:03:29 15:03:34 15:03:39

A. Yes, it appears to be. 15:03:44

MS. DURIE: We offer it. 15:03:47

MR. SLAYDEN: No objection. 15:03:48

THE COURT: Okay. Received. 15:03:49

MS. DURIE: If we could publish, and I'd like to begin on page 2. If we can go 15:03:51 15:03:52

to page 2. 15:04:00

BY MS. DURIE: 15:04:01

Q. There's an email here that begins on the second page from Sal Canu; right? 15:04:01 15:04:03

A. You want me to look here or up there? I apologize. 15:04:09 15:04:11

Q. Sorry, it's on the second page of the exhibit, about a third, quarter of the way down. 15:04:11 15:04:14 15:04:16

Do you see where I am? 15:04:21

A. Yes. 15:04:22

Q. An email from Sal Canu; who is he? 15:04:23

A. Sorry? 15:04:28

Q. Who is he? 15:04:29

A. I didn't catch it. 15:04:29

Q. Mr. Canu, who is he? 15:04:30

A. Oh, yes. He's one of the sales engineers. 15:04:32 15:04:34

Q. Okay. 15:04:35

And this is August 14th, 2014; right? And it says, "We want to take a strong stance going into OEMs. We went into GM last week and we are going to Chrysler tomorrow. At GM we brought up a design showing 1 Host 15:04:36 15:04:41 15:04:49 15:04:53 15:04:55

coming down from the Head Unit. We didn't mention Unwired." 15:04:59 15:05:03

Do you see that? 15:05:05

A. Yes, I do. 15:05:06

Q. And if we take a look now at the response that is on the first page, there is a response from Don Perkins at the bottom of the page and then Mr. Sroka responds to that email at the top; right? 15:05:07 15:05:11 15:05:17 15:05:22 15:05:27

A. Yes, that appears right. 15:05:28

Q. Okay. 15:05:30

And if we take a look at Mr. Sroka's email -- and by the way, you've seen his name before; right? 15:05:31 15:05:34 15:05:37

A. Yes. 15:05:38

Q. Okay. 15:05:38

He is the person who wrote the specification or the product specification that we were looking at a little while ago for the Sandia chip; right? 15:05:39 15:05:44 15:05:45 15:05:48

A. Yes. He wrote the business plan. Yes. 15:05:50 15:05:52

Q. And you said, I think, he is both a marketing person, but also an engineer; right? 15:05:52 15:05:54

A. Yes. He is. 15:05:56

Q. And he says, "Couple additional 15:05:57

points: Carplay REQUIRES the head unit to 15:06:01

become a USB device. This is so the Apple 15:06:04

phone is the host and controls the USB bus. 15:06:07

In your diagram, the head unit stays the 15:06:10

host...NOT COMPLIANT...right there. CarPlay 15:06:12

requires a dedicated path...this solution 15:06:17

allows other USB devices to access the 15:06:19

host...this is NOT Compliant." 15:06:22

And then he goes on to note that 15:06:23

this is a completely non-standard USB; right? 15:06:25

A. Yes. 15:06:28

Q. And he says it's a completely 15:06:29

non-standard USB because two USB hosts are 15:06:31

implementing a single transaction by splitting 15:06:35

it into two serial transactions, instead of 15:06:39

one. "This goes against the primary 15:06:42

requirement of USB; one bus/one Host." 15:06:45

So the problem that he was 15:06:50

identifying here is that the way that 15:06:51

Microchip was conceptualizing of a solution to 15:06:55

this problem, it would require two hosts to be 15:07:01

controlling a single device in violation of 15:07:05

the USB standard; right? 15:07:07

A. At a high level. 15:07:11

MR. SLAYDEN: I'll object, Your Honor. That's an awful long narrative to give the witness. 15:07:13 15:07:14 15:07:16

THE COURT: Overruled. 15:07:17

BY MS. DURIE: 15:07:18

Q. Now, at the time of this email, Microchip was promoting its FlexConnect solution; right? 15:07:18 15:07:20 15:07:24

A. Let me check. Yes. 15:07:26

Q. Okay. 15:07:27

And FlexConnect did not allow for persistent USB in all of the other ports in the car; right? 15:07:27 15:07:32 15:07:35

A. Yes. As I understand it today, yes. 15:07:37

Q. Right. 15:07:39

So at this point in time, Microchip's solution offered customers a choice between either having a single-lane solution or having persistent USB, but not both; right? 15:07:40 15:07:43 15:07:46 15:07:50 15:07:53

A. Hang on. Can you say that again? 15:07:56

Q. Sure. 15:07:57

At this point in time, Microchip could offer its customers either a single-lane solution or persistent USB, but not both? 15:07:58 15:08:00 15:08:04

A. Or two upstream solutions if you wanted persistent. 15:08:09 15:08:12

Q. Right. 15:08:15

Two lanes instead of one, so not single lane; right? 15:08:15 15:08:17

A. Yes. Single lane would not have persistence, yes. 15:08:18 15:08:20

Q. Right. 15:08:22

And at this point in time when you learned that Unwired had a solution that was single lane, you thought at that point in time that carmakers weren't really going to care that much about the combination of single lane and persistent USB; right? 15:08:22 15:08:26 15:08:29 15:08:31 15:08:34 15:08:39

A. Yes, that's correct. 15:08:42

Q. Okay. 15:08:43

You also thought, during this period of time, that Unwired was never actually going to finish its chip; right? 15:08:44 15:08:46 15:08:50

A. Well, we certainly weren't sure. 15:08:52

Q. Okay. 15:08:54

You thought Unwired wasn't big enough to get it done; right? 15:08:54 15:08:57

A. Yeah, we thought it was hard and they may not get there, right. 15:08:58 15:09:00

Q. Okay. 15:09:01

Because they weren't big enough to get it done? 15:09:02 15:09:03

A. In essence, yes. 15:09:04

Q. Okay. 15:09:05

So you kept trying to sell the car companies on your FlexConnect solution that didn't provide for connectivity throughout the car; right? 15:09:06 15:09:09 15:09:12 15:09:15

A. That's not about connectivity through the car; it's about the persistent, right? We could be all four ports. 15:09:17 15:09:20 15:09:24

Q. Fair enough. Fair enough. That is absolutely fair. 15:09:25 15:09:27

You did not have the solution that would provide for persistent connections throughout the car? 15:09:28 15:09:29 15:09:31

A. Yeah, we didn't have the solution, and at that point, it hadn't even been asked for in the early part of the year, right? 15:09:32 15:09:34 15:09:37

Q. Now, you said before that you were concerned that you wouldn't be able to get USB certification for a one-lane persistent USB solution; right? 15:09:39 15:09:44 15:09:47 15:09:52

A. Yeah. Not those exact words, but yes, certification. 15:09:55 15:09:58

Q. And the way you get certification is you submit your product to a USB logo place that runs some tests on it; right? 15:09:59 15:10:00 15:10:03

A. Yes. 15:10:05

Q. And if it passes those tests, then you get a USB logo; right? 15:10:06 15:10:09

A. Yes, in essence. 15:10:11

Q. Now, you said you were also worried that Apple wasn't going to like your solution, right, that solution of a single-lane persistent USB, Apple might not like it? 15:10:12 15:10:14 15:10:17 15:10:18

A. I mean, allow it. 15:10:21

Q. Fair enough. I guess that's even stronger than not liking it. 15:10:23 15:10:25

And if Apple doesn't allow it, you can't sell it; right? 15:10:27 15:10:29

A. Yes. 15:10:30

Q. And so you didn't want to do what you 15:10:31

thought was going to be a noncompliant solution until you were sure that Apple was going to approve it; right? 15:10:35 15:10:37 15:10:39

A. Yeah, or at least had some confidence, we wouldn't have done it yet. 15:10:41 15:10:45

Q. Right. 15:10:46

You didn't know what the rules were going to be and you didn't want to spend the money until you knew what those rules were; right? 15:10:47 15:10:48 15:10:50 15:10:52

A. Yes, that's true. 15:10:54

Q. Okay. 15:10:55

MS. DURIE: Let me go to 246 in evidence, Mr. Glass, and if we could start on page 1. 15:11:03 15:11:05 15:11:11

BY MS. DURIE: 15:11:13

Q. So we looked at this email a little while ago. It's from July of 2014. And if we can pull up the paragraph that begins, "Competitive Threats have emerged." It's on the first page. There we go. 15:11:15 15:11:17 15:11:20 15:11:23 15:11:29

Now, this email is a trip report that Mr. Perkins made from a visit to the Detroit area; right? 15:11:31 15:11:33 15:11:36

A. Yes, it is. 15:11:38

Q. And he identified Unwired as the largest threat for the USB flex hub solution; right? 15:11:39 15:11:43 15:11:48

A. Yes, that's right. 15:11:49

Q. And Mr. Perkins said that he was gathering information on the Unwired solution and had begun to understand what their architecture is; right? 15:11:52 15:11:56 15:11:59 15:12:01

A. That's what it says, yes. 15:12:04

Q. And what Mr. Perkins thought was that the Unwired solution stepped outside of the USB standard because it offered flex on every port and connectivity throughout the car; right? 15:12:05 15:12:09 15:12:13 15:12:16 15:12:19

A. No, that's not a car, it's just combined. It did step out of Sandia. 15:12:21 15:12:24

Q. Okay. 15:12:29

A. I don't know that one causes the other. 15:12:29 15:12:33

Q. Okay. Fair enough. 15:12:33

And in the last sentence there, you said, "It is very important that we 'set the standard' for these architectures before 15:12:34 15:12:35 15:12:38

Unwired has an opportunity to compete with their ASIC solution." 15:12:41 15:12:44

So Mr. Perkins was suggesting that Microchip try to use its position to set the standard for what everyone was going to use before Unwired could get their chip to market; right? 15:12:47 15:12:49 15:12:53 15:12:56 15:12:59

A. Can you ask that question again? I'm not sure I completely understood what you said. 15:13:00 15:13:02 15:13:04

Q. Sure. 15:13:04

He was saying that Microchip should try to set the standard for the architecture before Unwired had an opportunity to get its solution to market? 15:13:05 15:13:06 15:13:08 15:13:11

A. That's what it says, yes. 15:13:14

Q. Okay. 15:13:16

Now, if we go to the second page -- 15:13:17 15:13:22

MS. DURIE: Mr. Glass, can you pull up the paragraph that begins, "Unwired is our largest threat." There we go. 15:13:23 15:13:24 15:13:26

BY MS. DURIE: 15:13:26

Q. And he says, "Unwired is our largest 15:13:30

threat for the USB Flex hub," and if we go down a little bit, he says, "It is difficult to believe that the car makers would commit to an ASIC from a small company like Unwired." 15:13:32 15:13:35 15:13:38 15:13:39

That was also your view; right? 15:13:43

A. Yeah, that's a fair estimate. Yes. 15:13:46

Q. Okay. 15:13:49

You thought that Unwired was too small to get it done? 15:13:49 15:13:51

A. At that time, yes. 15:13:55

Q. Now, if we could take a look at Exhibit 248. 15:13:59 15:14:05

(Whereupon, Trial Exhibit 248 was introduced.) 15:14:13 15:14:15

MR. SLAYDEN: No objection. 15:14:24

MS. DURIE: I hadn't offered it yet, but I will. I offer it. 15:14:27 15:14:28

THE COURT: All right. 15:14:29

Since there is no objection, we'll admit it. 15:14:30 15:14:32

MS. DURIE: Good. So if we can put up Exhibit 248. 15:14:32 15:14:34

BY MS. DURIE: 15:14:36

Q. This is an email again from Mr. 15:14:37

Sroka; right? 15:14:42

A. Hang on. 15:14:42

Yes, it appears to be. 15:14:44

Q. And it's from July of 2014; right? 15:14:45

A. Hang on. I'm not on the copy, I am just looking -- yes. 15:14:52 15:14:55

Q. Sure. 15:14:56

And the email's Subject line is, "Debunking Unwired"; right? 15:14:57 15:15:01

A. That's what it says, yes. 15:15:04

Q. And there is an attachment, and if we go to page 6 of the attachment -- actually page 6 of the PDF, I apologize, before the attachment, there is a slide that says, "Break Out Box Alternative Approach" {sic}; right? 15:15:06 15:15:12 15:15:18 15:15:21 15:15:26

A. Yes, I found it. 15:15:26

Q. Okay. 15:15:27

And this slide reflects what Microchip had learned about the Unwired solution from multiple customers; right? 15:15:28 15:15:31 15:15:34

A. I would assume that's true. I'm not sure if I've seen this one before, but yes, I assume that's true. 15:15:38 15:15:42 15:15:44

Q. Microchip was trying to figure out, 15:15:45

as best it could, how the Unwired solution worked; right? 15:15:47 15:15:50

A. Yes. 15:15:52

Q. And if we take a look towards the bottom, and it is the text that's in red there, it says, "Note if the iPhone connects to a standard Hub, the architecture is flawed." 15:15:54 15:15:59 15:16:02 15:16:05 15:16:08

Do you see that? 15:16:09

A. Yes, that's what it says. 15:16:11

Q. Okay. 15:16:12

Microchip thought that the architecture of the Unwired product was flawed because it was not USB compliant; right? 15:16:13 15:16:14 15:16:19

A. Yes, that's at least what someone thought, whoever wrote this. 15:16:23 15:16:27

Q. Well, it was apparently what Mr. Sroka thought, if we go to the first -- or Mr. Steele thought, if we go to the first page of the exhibit, it is an email from Brigham Steele, and is it Sroka or Sroka? 15:16:28 15:16:35 15:16:42 15:16:44 15:16:48

A. Either way is fine with me. 15:16:50

Q. Mr. Steele wrote, "More new slides, you may want to clean them up a little," and 15:16:53 15:16:56

then Mr. Sroka is the one who sent them around; right? 15:16:58 15:17:01

A. Yeah. 15:17:09

MS. DURIE: Now, let's go to Exhibit 62. 15:17:09 15:17:11

(Whereupon, Trial Exhibit 62 was introduced.) 15:17:12 15:17:16

BY MS. DURIE: 15:17:16

Q. Exhibit 62 is another email exchange among various individuals at Microchip in October 1, 2014; right? 15:17:26 15:17:29 15:17:32

A. Yes, it appears to be. 15:17:36

MS. DURIE: We offer it. 15:17:37

MR. SLAYDEN: No objection. 15:17:39

THE COURT: Okay. It is admitted. 15:17:40

BY MS. DURIE: 15:17:42

Q. And this is an email from October of 2014, if you look at the top, talking about "project for fiat and Chrysler"; right? 15:17:42 15:17:45 15:17:51

A. Hang on. Yes. 15:17:57

Q. And if we take a look at the second page, there is an email from Chris, is it Behal? 15:17:59 15:18:02 15:18:07

A. I don't know how to pronounce the 15:18:07

name. That's good. 15:18:09

Q. Well, he is a senior field 15:18:10

applications engineer at Microchip; right? 15:18:12

A. Okay. 15:18:16

Q. And I am cheating because it's on the 15:18:17

signature line. 15:18:19

A. Yeah. I trust you. 15:18:20

Q. And if we take a look at the email 15:18:21

from Mr. Behal, he is reporting on what he has 15:18:23

been told and he says, "Stefan, this does not 15:18:32

make sense to me and I believe Brigham 15:18:35

either" -- it is missing not -- "when this 15:18:37

came up a few months ago... 15:18:40

"However, Delphi is given that 15:18:41

requirement by their OEM's (Chrysler) and it 15:18:43

appears Fiat is wanting the same thing. They 15:18:46

somehow believe with carplay on one of the 15:18:50

Break Out Box's ports that they can still have 15:18:54

access data connectivity to the other Break 15:18:57

Out Box's ports." {Sic} 15:19:03

So this is saying Delphi has been 15:19:04

given the requirement by their customer, that 15:19:07

their customers want to have this persistent 15:19:10

USB solution; right? 15:19:14

A. Yes. 15:19:17

Q. And if you go down a little bit, a couple paragraphs down, there's a paragraph that begins, "It appears to me," four paragraphs down. 15:19:18 15:19:21 15:19:25 15:19:29

A. Okay. I found it. Yep. 15:19:30

Q. And he says, "It appears to me that the OEM's do not have good understanding of what is possible with Carplay... all they know is they want Carplay AND they want additional connectivity to head unit to other devices. 15:19:33 15:19:37 15:19:41 15:19:43 15:19:47

"How is that possible without an Iphone allowing it? I have no idea. Is it possible they know something about Carplay we don't? I don't think so but I can't figure out why they want this either..." 15:19:51 15:19:54 15:19:57 15:19:59 15:20:01

Now, at this point in time, Microchip was telling its customers that this solution wouldn't work; right? 15:20:07 15:20:09 15:20:12

A. Potentially, yes. 15:20:15

Q. Okay. 15:20:16

Mr. Behal is wondering how it could be possible to have persistent connectivity on downstream devices without the 15:20:17 15:20:20 15:20:22

iPhone allowing it; right? He says he has no idea? 15:20:25 15:20:28

A. Yeah. He didn't, yes. 15:20:29

Q. Okay. 15:20:30

MS. DURIE: Let's go to Exhibit 58. 15:20:35 15:20:37

(Whereupon, Trial Exhibit 58 was introduced.) 15:20:37 15:20:40

THE WITNESS: Are we done with this one? 15:20:41 15:20:42

MS. DURIE: We are. 15:20:43

Exhibit 58 is another email chain. This time, Brigham Steele and Mark Orlosky copying Chris Behal in some of it from the June 2014 timeframe. 15:20:55 15:21:00 15:21:04 15:21:07

BY MS. DURIE: 15:21:09

Q. Do you see that? 15:21:10

A. Yes, I do. 15:21:10

MS. DURIE: We offer it. 15:21:11

MR. SLAYDEN: I have no objection, Your Honor. 15:21:12 15:21:13

THE COURT: All right. It is received. 15:21:13 15:21:14

BY MS. DURIE: 15:21:15

Q. Now, Brigham Steele is another Microchip engineer; right? 15:21:15 15:21:18

A. Yes, he is an applications engineer. 15:21:19

Q. Right. 15:21:21

And he is talking to Mark Orlosky; right? 15:21:22 15:21:28

A. Yes. 15:21:28

Q. And Mark Orlosky was at Delphi; right? Actually the email at the very top, but that's fine. 15:21:28 15:21:32 15:21:34

A. Hang on. 15:21:36

Q. And Delphi was one of Microchip's customers at this time; right? 15:21:36 15:21:39

A. Yes, they were. 15:21:40

Q. This is before -- this is before Delphi bought Unwired; right? 15:21:41 15:21:44

A. Yeah. In June of 2014, yes. 15:21:48

Q. Right. 15:21:50

And if we look at the email that appears from Mr. Orlosky on the second page, it is the email in the middle of the page, and Mr. Orlosky writes, "Hi Brigham. Just ended a multiparty meeting with Chrysler and Harman." 15:21:51 15:21:53 15:22:02 15:22:04 15:22:10

Do you see where I am? 15:22:13

A. I found it, yes. 15:22:14

Q. Sorry. 15:22:15

"You were at Chrysler on the 18th for a demo. Dave Diovardi does not want to lose data capability on other ports not tied to the Apple device. Is this an Apple CarPlay spec requirement?" 15:22:16 15:22:18 15:22:21 15:22:24 15:22:27

Now, Dave Diovardi was from Chrysler; right? 15:22:29 15:22:33

A. Yes. 15:22:34

Q. And if we turn to the response to this from Mr. Steele at Microchip, it begins on the first page; right? 15:22:34 15:22:36 15:22:39

A. Hang on. From who? 15:22:42

Q. Go to the first page of the document. There is an email that begins in the middle of the page, so we're going up, forward in time. 15:22:45 15:22:47 15:22:50

A. Okay. 15:22:53

Q. So there is a response from Brigham Steele, June 18th, 2014, at 2:33 p.m.; right? 15:22:53 15:22:56

A. Okay. Yep. 15:23:01

Q. And he says, "Mark" -- so this is back to Mark at Delphi -- "Just to be clear, we need to make sure that the message is 15:23:02 15:23:05 15:23:07

consistent to Dave" -- at Chrysler -- "from his vendors. Dave likes to look at the big picture, so I love his ideas, but some items may be physically outside the capabilities of ANY USB system, and I think he needs to understand the capabilities of USB and some of the low level details. This is how I would break it down, let me know if you disagree with my analysis or if you have other questions." 15:23:09 15:23:12 15:23:15 15:23:18 15:23:21 15:23:25 15:23:28 15:23:30 15:23:33 15:23:35

And then he has a series of numbered paragraphs in which he is, in substance, explaining why this won't work; right? 15:23:36 15:23:38 15:23:41 15:23:46

A. I have not read this before, so I don't remember. 15:23:47 15:23:52

Q. Sure. 15:23:52

Let's take a look at it together. 15:23:52

No. 1, "With USB, you are only allowed 1 Host and multiple devices on a bus. This message is critical, so we need to make sure Dave understands this fact." 15:23:55 15:23:57 15:24:01 15:24:03

A. Okay. 15:24:05

Q. That's No. 1. 15:24:05

No. 2, "CarPlay passes the Host role from the head unit to the Phone itself." {Sic} 15:24:06 15:24:09 15:24:09

"3. Once the head unit has given up the Host role, it will not see any other ports. If the iPhone doesn't want to see the other ports, it will ignore them." {Sic} 15:24:11 15:24:14 15:24:16 15:24:19

And then it goes on to talk about the initial development that had been going on at Microchip; right? 15:24:21 15:24:23 15:24:26

A. Hang on. Where is that? 15:24:28

Q. A, "In our initial development we would plug in USB speakers and thumb drives into the other Hub ports. The iPhone would display a message that the speakers and thumb drive were not authenticated devices, so it would not support them. 15:24:30 15:24:33 15:24:36 15:24:39 15:24:42 15:24:45

"To avoid these annoying messages displayed on the phone, the head unit can disable those ports when entering Carplay." {Sic} 15:24:46 15:24:48 15:24:51 15:24:54

So Microchip had identified this issue in development, and its solution to the annoying messages that came up was to disable 15:24:54 15:24:56 15:25:00

those other ports; right? 15:25:03

A. That was one possible solution, yes. 15:25:04

Q. Okay. 15:25:07

So at this point in time, 15:25:09

Microchip was telling its customers this one 15:25:20

lane persistent USB thing isn't going to work 15:25:24

and you should go with the FlexConnect 15:25:28

solution instead? 15:25:30

A. That's about right. 15:25:32

Q. Okay. 15:25:33

Let's fast forward to 15:25:35

December 2014, and let me mark for 15:25:37

identification Exhibit 260 -- actually, it's 15:25:49

261, I believe, is in evidence. I apologize. 15:25:51

You know what, it may not be. 15:25:55

THE COURT: I don't think so. 15:25:58

MS. DURIE: No, you know what, 15:25:58

it's Exhibit 66. We have a couple of emails 15:25:59

that are duplicates of each other. I 15:26:03

apologize. 15:26:05

Let's take a look at Exhibit 66 15:26:06

which has been handed out. 15:26:08

BY MS. DURIE: 15:26:10

Q. Now, if we go to the second page of 15:26:11

this exhibit, the top of the second page -- actually, I take it back. The bottom -- there we go. The middle of the second page -- I'm sorry, go back. The second page is on the left. 15:26:15 15:26:26 15:26:28 15:26:31 15:26:36

In the middle of the second page towards the top, it says, "It appears that Chrysler is committed to the Unwired solution and Microchip Flex Connect solution is no longer being considered." {Sic} 15:26:36 15:26:38 15:26:40 15:26:44 15:26:46

This is from December of 2014; right? 15:26:48 15:26:52

A. Yes. 15:26:53

Q. Now, at this point in time, Tecvox was one of Microchip's customers; right? 15:26:53 15:26:57

A. Yes. 15:27:00

Q. And Microchip had been selling Tecvox on the FlexConnect; right? 15:27:01 15:27:04

A. Yes. 15:27:06

Q. And Tecvox was then trying to sell Chrysler on a module that incorporated that FlexConnect; right? 15:27:07 15:27:10 15:27:15

A. Yes, that's correct. 15:27:17

Q. And they were not successful in 15:27:17

convincing Chrysler to use that solution; right? 15:27:19 15:27:23

A. Yes, that's correct. 15:27:25

Q. And then if we take a look at the response to that up at the top of the first page, if we go to page 1, it says -- actually at the bottom, it says at the bottom there, from Mr. Sroka, "When persistent USB is a requirement we have definitely run into a wall." 15:27:27 15:27:31 15:27:36 15:27:45 15:27:48 15:27:52 15:27:56

Now, you said in your direct testimony that the wall that had been run into was just a marketing wall, not a technical wall; is that sort of the gist of it? 15:27:57 15:27:59 15:28:04 15:28:08

A. Well, I think in this context of this message right from a marketer, it was a marketing wall. The chips we had to sell couldn't do it. 15:28:12 15:28:14 15:28:16 15:28:19

Q. Right. You had run into a wall when it came to supplying a chip that was single lane and that had persistent USB? 15:28:20 15:28:22 15:28:26

A. Yes. 15:28:28

Q. Okay. 15:28:29

And right around the same time, 15:28:30

December of 2014, is when Mr. Sroka asked Mr. Bohm for a copy of his patent; right? 15:28:33 15:28:39

A. I don't remember the timeline, but yes, I believe that could be true. Yes. 15:28:43 15:28:45

Q. Okay. 15:28:47

THE COURT: Ms. Durie, before you move on to something new, can I give you a five-minute warning? 15:28:49 15:28:51 15:28:54

MS. DURIE: This is a perfect time to break. This would be a nice place. 15:28:56 15:28:57

THE COURT: All right. Then why don't we break for the day now. So as we break for the evening, I'm just going to repeat the caution I've given you about the testimony. You should not be conversing or talking about it among yourselves. 15:28:59 15:28:59 15:29:02 15:29:05 15:29:07 15:29:11

Second, I know it's tempting to go home and tell the people at home what you're listening to in court. I'm going to caution you not to do that because it will inevitably invite their responses and their thoughts to weigh in, and that is not what is going on in court. 15:29:13 15:29:15 15:29:17 15:29:19 15:29:22 15:29:24 15:29:28

And third, I'll repeat the caution 15:29:28

again. Don't go home and start looking things up. Google is not your friend in this context. Okay? You need to constrain what you know to what you hear in court. 15:29:30 15:29:32 15:29:35 15:29:39

So with that, I'll let you go. Is 9 o'clock good again for everybody tomorrow morning? Okay. Great. Let's plan to start at 9 tomorrow. We will have a full day tomorrow, and with that, we can let you step out and have a good night. Be safe with the weather. Okay. 15:29:41 15:29:44 15:29:46 15:29:48 15:29:51 15:30:00 15:30:06

(Whereupon, the jury was excused from the courtroom.) 15:30:07 15:30:09

THE COURT: Mr. Obolsky, you can step down. I am just going to caution you that you are still under oath and in the middle of cross-examination. You should not be discussing your testimony with anyone over the course of the evening. 15:30:20 15:30:23 15:30:25 15:30:26 15:30:28 15:30:30

THE WITNESS: I will go somewhere else. 15:30:32 15:30:33

THE COURT: Okay. All right. So you can step down. I don't know if there's any particular housekeeping? 15:30:33 15:30:35 15:30:37

MS. DURIE: I have one trivial one. This probably doesn't require Your Honor's attention. We have some physical devices that were admitted into evidence and I just want to make sure that we tender them for safekeeping. 15:30:40 15:30:41 15:30:43 15:30:45 15:30:46 15:30:49

THE COURT: That's fine. Mr. Koehler, can you take those and hang on to them? 15:30:50 15:30:52 15:30:54

THE COURT CLERK: Sure. 15:30:55

THE COURT: Okay. Anything else from the plaintiffs' side? 15:30:59 15:31:01

MR. RUSSELL: Your Honor, we did have one regarding particular exhibits...(inaudible). 15:31:03 15:31:04 15:31:12

THE COURT: That's fine. As long as there are no objections, that's fine. I mean even at the beginning of the examination, if you know you are going to use it, just let me know and I'll admit it then so you don't have to deal with that. I will just say give some thought to how you want to deal with those in terms of handing them amongst the jury when we submit the evidence. I don't 15:31:12 15:31:12 15:31:15 15:31:17 15:31:19 15:31:21 15:31:24 15:31:25 15:31:30

know whether you want to submit everything electronically or whether you plan to send back paper copies with them. If it's the latter, then there's no problem. Okay. All right. 15:31:32 15:31:33 15:31:36 15:31:38 15:31:40

So with that, again, if there are issues that I am going to need to take up tomorrow for conditional relevance kind of determinations, I would appreciate an email by about 9 o'clock to my chambers email and, you know, I certainly would appreciate the revised amended jury instructions tonight as well. Again, if you can email them, fine, just email them to chambers. That's fine, too. But I just want to be able to look at them and incorporate them into what I get you by the end of the day tomorrow. 15:31:41 15:31:44 15:31:45 15:31:47 15:31:50 15:31:53 15:31:58 15:32:01 15:32:04 15:32:07 15:32:09 15:32:12

MS. DURIE: Thank you. 15:32:14

THE COURT: All right. With that, we will stand in recess until tomorrow. I will see everyone here a few minutes before 9 in case there are any issues we need to take up. 15:32:15 15:32:16 15:32:18 15:32:21 15:32:23

MS. DURIE: Thank you, Your Honor. 15:32:23

THE COURT: All right. Everybody have a good night. 15:32:24 15:32:26

(Whereupon, the Court adjourned proceedings at 3:33 p.m.) 15:32:27 15:32:31

C E R T I F I C A T E

I do hereby certify that I am a Notary Public in good standing, that the aforesaid testimony was taken before me, pursuant to notice, at the time and place indicated; that said deponent was duly sworn to tell the truth, the whole truth, and nothing but the truth; that the testimony of said deponent was correctly recorded in machine shorthand by me and thereafter transcribed under my supervision with computer-aided transcription; that the deposition is a true and correct record of the testimony given by the witness; and that I am neither of counsel nor kin to any party in said action, nor interested in the outcome thereof.

WITNESS by hand and official seal this 7th day of April, 2022.

Notary Public

Job No. 5162168

08:17:24

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

- - -

MICROCHIP TECHNOLOGY INCORPORATED,	:	C.A. No. 17-1194
Plaintiff,	:	
vs.	:	
APTIV SERVICES US, LLC,	:	
Defendant.	:	

- - -

TRANSCRIPT OF PROCEEDINGS

TESTIMONY

VOLUME 3

- - -

Date: Friday, April 8, 2022

Time: 9 o'clock a.m.

Place: J. Caleb Boggs Federal Building
844 N. King Street
Courtroom 6B
Wilmington, Delaware 19801

Before: HONORABLE JOSHUA D. WOLSON, JUDGE

Reporter: Rose A. Tamburri, RPR, CM, CRR
Notary Public of Delaware

- - -

VERITEXT LEGAL SOLUTIONS
MID-ATLANTIC REGION
1801 Market Street, Suite 1800

(Whereupon, the Court commenced proceedings at 9 o'clock a.m.) 08:19:09 08:19:13

THE COURT CLERK: All rise. The Honorable Joshua D. Wolson presiding. 08:19:17 08:19:21

THE COURT: All right. Good morning, everybody. 08:19:26 08:57:07

MR. SLAYDEN: Good morning. 08:57:09

MS. DURIE: Good morning. 08:57:10

THE COURT: Have a seat, please. All right. 08:57:11 08:57:14

We got the jury instructions that everybody sent last night. Thank you. We are working through the changes you saw. I will try to incorporate them into our draft and I will get you something by the end of the day so you can look at them over the weekend. 08:57:16 08:57:17 08:57:20 08:57:24 08:57:28 08:57:31

MS. DURIE: And I just want to be clear that there is a dispute between the parties about the changes. 08:57:33 08:57:34 08:57:36

THE COURT: Yes, I saw that there was a draft. 08:57:37 08:57:38

MS. DURIE: Perfect. 08:57:39

THE COURT: And then I guess you accepted -- one side made changes, the other 08:57:40 08:57:42

side didn't accept all the changes and made their own changes. I didn't think that meant you had agreed to their changes. 08:57:46 08:57:48 08:57:50

MS. DURIE: Perfect. We just wanted to get it in because we knew you were waiting for it. 08:57:51 08:57:52 08:57:55

THE COURT: Understood. I think we understand the state of play. 08:57:56 08:57:57

MS. DURIE: Perfect. 08:57:59

THE COURT: You know, you'll see what we give you, and obviously to the extent of what we issue. I don't think it will be amongst the confusion, but if it is, you'll let us know. 08:58:00 08:58:01 08:58:05 08:58:08 08:58:10

MS. DURIE: Yes. Thank you. Very, very much appreciate it, getting the heads-up. 08:58:11 08:58:11 08:58:15

THE COURT: Yes. Okay. All right. I think that's it. I didn't hear anything else in terms of issues we need to take up; right? 08:58:15 08:58:20 08:58:23 08:58:25

MR. SLAYDEN: No, Your Honor. 08:58:26

THE COURT: All right. Let's bring the jury in and we'll get Mr. Obolsky 08:58:27 08:58:28

back up here.

(Whereupon, the jury entered the courtroom.)

THE COURT: All right.

Good morning, everybody. I am impressed with your promptness. I appreciate it. It's not always the case with juries, so you are in good standing.

All right. So we're going to resume this morning with Mr. Obolsky. I'm sorry, you can all be seated. You can resume Mr. Obolsky's cross-examination, so Mr. Obolsky, if you will step up.

You understand you're still under oath?

THE WITNESS: Yes, I do.

THE COURT: All right.

Ms. Durie, you may proceed.

MS. DURIE: Thank you.

- - -

CROSS-EXAMINATION, CONTINUED

- - -

BY MS. DURIE:

Q. Mr. Obolsky, good morning.

A. Good morning.
Q. Now, yesterday we left off in December of 2014, and we were talking about Chrysler. And just by way of a refresher, Tecvox was one of Microchip's customers; right?
A. Yes, it was.
Q. An Tecvox had been pitching the Chrysler business with a Microchip chip; right?
A. Yes, it was.
Q. Okay.
That was the FlexConnect chip that did not have persistent USB; right?
A. Yes.
Q. And Tecvox had learned that it was losing the Chrysler business; right?
A. Yes.
Q. Okay.
MS. DURIE: Let me mark for identification TX-262.
(Whereupon, Trial Exhibit 262 was introduced.)
BY MS. DURIE:

Q. Exhibit 262 is an email amongst a number of individuals at Microchip regarding a Thursday Chrysler meeting; correct? 09:00:47 09:00:50 09:00:56

A. Let me look at it. 09:01:00

Q. Sure. 09:01:01

A. Yes. 09:01:04

MS. DURIE: We offer it. 09:01:06

MR. SLAYDEN: No objection. 09:01:07

THE COURT: Okay. So received. 09:01:07

MS. DURIE: And, Mr. Glass, if we can put up page 1, and start at the -- that's perfect. 09:01:11 09:01:13 09:01:18

BY MS. DURIE: 09:01:19

Q. Now, this is an email, we see, from Sal Canu; correct? 09:01:19 09:01:27

A. Yes, it is. 09:01:29

Q. And can you remind us who he is? 09:01:30

A. He is a salesman and applications engineer inside of Microchip. 09:01:31 09:01:33

Q. Perfect. 09:01:35

Let's take a look -- let's start at "Short-term" in the middle of the page. He is discussing Microchip's short-term position; right? 09:01:36 09:01:38 09:01:41 09:01:43

A. Yeah, where are we looking? 09:01:48
Q. Right there where it says, 09:01:51
"Short-term." 09:01:53
A. Okay. I got it. 09:01:53
Q. And if the monitor in front of you 09:01:54
is -- 09:01:56
A. Easier up here. 09:01:56
Q. Completely understand. 09:01:57
And he says, "We looked at 09:02:00
developing a solution for 1 upstream lane, 09:02:02
persistent USB data and we don't have a 09:02:06
solution. We wish we could provide a solution 09:02:08
but we don't have it." 09:02:10
That was true; right? 09:02:12
A. Yes. 09:02:13
Q. And then if we go a little bit 09:02:13
further down, he says, "We still think our 09:02:17
USB84604 solution is the best solution." 09:02:23
That was the FlexConnect solution; 09:02:28
right? 09:02:30
A. Yes. 09:02:30
Q. Okay. 09:02:31
Now, let's go up -- actually, I 09:02:32
take it back. 09:02:35

MS. DURIE: Let's go down, take that down and go to "Long-term" underneath there, if we can blow that up. Perfect. That's what we need. That's great. 09:02:39 09:02:40 09:02:43 09:02:47

BY MS. DURIE: 09:02:49

Q. So he says, "Long-term: We have Sparta in the product pipeline and will continue on that path. This is the solution that works with 2 upstream lanes." 09:02:49 09:02:53 09:02:55 09:02:58

So that's not a one-lane solution, that's a two-lane solution; right? 09:03:02 09:03:04

A. That's what it says, yes. 09:03:07

Q. Okay. 09:03:08

And then he says, "We will consider a solution for 1 upstream lane with persistent USB data but do not have a commitment for that now." 09:03:10 09:03:12 09:03:15 09:03:18

So 1 upstream lane with persistent USB data, that's what Chrysler was asking for? 09:03:21 09:03:24

A. Yes. 09:03:26

Q. That's what Tecvox didn't have? 09:03:27

A. Yes. 09:03:29

Q. Right? 09:03:29

And Dave Diovardi, who is he? 09:03:31

A. Dave Diovardi is a program manager at Chrysler. 09:03:34 09:03:39

Q. Okay. 09:03:39

MS. DURIE: Now, if we can go up, Mr. Glass, to the top of the email. It says, "Our position: Upper Management involvement." 09:03:40 09:03:42 09:03:48

Actually, can we go back down to "Long-term," I apologize. 09:03:52 09:03:55

BY MS. DURIE: 09:03:56

Q. It says, "(We can ask Dave Diovardi here - Is the Unwired solution certified with Apple?) Certification of this system would help make the case to Upper Management to put this solution in the pipeline." 09:03:56 09:03:59 09:04:01 09:04:03 09:04:06

So some of the folks at Microchip were trying to make the case with upper management about this 1 upstream lane with persistent USB data saying hey, guys, we need to do this; right? 09:04:08 09:04:11 09:04:13 09:04:15 09:04:19

A. Yes. It appears so. 09:04:20

Q. And one of the road blocks was that Microchip was worried that Apple wasn't ultimately going to certify this? 09:04:22 09:04:24 09:04:26

A. Yes. 09:04:29

Q. Okay. 09:04:29

And so now, let's go up to the 09:04:30

top. "Our position: Upper Management 09:04:33

involvement." 09:04:37

Now, upper management, that's you; 09:04:39

right? You're part of upper management? 09:04:41

A. Yes. 09:04:43

Q. Okay. 09:04:44

"Upper Management is aware of the 09:04:45

market, the requirements, and all solutions 09:04:47

proposed. More information is needed for them 09:04:49

to make any directional changes and this will 09:04:51

take time. A business case providing revenue 09:04:54

commitments/estimates would have to justify 09:04:56

investment." 09:04:59

Now, sir, you said yesterday in 09:05:01

your direct examination that Microchip always 09:05:02

does what its customers want; right? 09:05:05

A. Eventually, yes. 09:05:08

Q. Yeah, eventually. 09:05:10

You knew that this was something 09:05:12

that Tecvox wanted; right? 09:05:13

A. Yes. We became aware, yes. 09:05:16

Q. Yeah. And your response wasn't 09:05:19

absolutely, we'll get right on it; your response was yeah, we'll think about it and see if that's something we want to do? 09:05:21 09:05:23 09:05:25

A. That's the response here. 09:05:28

Q. Right. 09:05:30

A. I'm not copied on this message. 09:05:31

Q. Okay. 09:05:33

So the wall that Microchip ran into in this timeframe is that they didn't have a solution to be able, both, to have music at the same time as CarPlay in a single lane format, and you weren't sure it was worth the investment to come up with one? 09:05:33 09:05:35 09:05:39 09:05:43 09:05:45 09:05:47

A. At this point, we weren't sure we should do this chip, yes. 09:05:51 09:05:53

Q. Right. 09:05:56

MS. DURIE: Mr. Glass, if we could put up TX-36 in evidence. 09:05:57 09:05:59

BY MS. DURIE: 09:06:04

Q. TX-36 is an email exchange with you and Steve Sanghi. 09:06:06 09:06:10

So who is Steve Sanghi? 09:06:14

A. Steve Sanghi, at the time, was the CEO of Microchip. 09:06:15 09:06:17

Q. And there is a copy there to Ganesh Moorthy. Who was he? 09:06:18 09:06:23

A. Ganesh was my boss immediately and eventually has now become the CEO. 09:06:24 09:06:28

Q. Right. 09:06:30

So fair to say this is about as upper management as it gets; right? 09:06:31 09:06:32

A. That's fair. 09:06:34

Q. Okay. 09:06:35

Now, if we can start at the email that you sent, it's on the second page, and blow up this. 09:06:37 09:06:41 09:06:48

So you said -- this is part of what you wrote; right? 09:06:51 09:06:52

A. Yeah. 09:06:56

Q. And you're talking about a meeting that's going to happen with Tecvox; right? 09:06:56 09:06:58

And if we go down, there is a discussion here about Don Perkins. Who is Don? 09:07:05 09:07:07 09:07:09

A. Don was one of the marketing managers at the time. 09:07:10 09:07:14

Q. Okay. 09:07:14

MS. DURIE: And so let's go down, 09:07:14

the next page following up on your email, we can go to page 3. There we go. 09:07:16 09:07:21

BY MS. DURIE: 09:07:21

Q. And so in your summary of this, you say, "In my last meeting with Raj, he stated that he blames Microchip for his failure at Chrysler." 09:07:25 09:07:28 09:07:31 09:07:34

So this is the Tecvox guy saying he thinks it's Microchip's fault that he lost the Chrysler business; right? 09:07:36 09:07:37 09:07:39

A. That's what -- that is what he thought, I guess. 09:07:42 09:07:43

Q. Yeah. 09:07:44

And you say, "He was trying to make me feel guilty, and be more agreeable to supporting them. The reality is the market is evolving quickly. Our current solution is good, but does not solve all problems. We are planning to develop a next generation solution, in part based on Tecvox's feedback. In part in response to the Unwired solution, which we had dismissed when they were a small standalone company." 09:07:45 09:07:48 09:07:51 09:07:54 09:07:56 09:07:58 09:08:00 09:08:03 09:08:05 09:08:07

And that's true; right? 09:08:09

A. That is true. Unwired was struggling quite a bit at the time. 09:08:14 09:08:17

Q. Yeah. They were a small stand-alone company and so you dismissed their solution? 09:08:18 09:08:20

A. Yes. 09:08:24

Q. Okay. 09:08:26

MS. DURIE: Let's go to the first page. Great. And actually, can you just go back to the whole document for a second so we can see where we're going. 09:08:34 09:08:29 09:08:36 09:08:39

BY MS. DURIE: 09:08:41

Q. So at the top, this is your email to your CEO, to the guy who is going to become your CEO, and you are responding to this email thread; right? 09:08:41 09:08:43 09:08:46 09:08:48

A. Can you repeat your question? I was not quite following. 09:08:51 09:08:54

Q. Sure. 09:08:55

This email that you wrote at the top, you're reporting to your CEO and to the guy who is going to become your CEO about this email thread underneath that we were just looking at; right? 09:08:56 09:08:57 09:09:00 09:09:02 09:09:04

A. Yes. 09:09:06

Q. Okay. 09:09:06

And you say, "We left with actions relating to pricing and technology," and then let's look at the second one. "We have been working on the business case and technical details to provide a single connection solution similar to Unwired. We are still not sure the ROI" -- that's return on investment; right? 09:09:07 09:09:10 09:09:13 09:09:16 09:09:18 09:09:20 09:09:24 09:09:28

A. Yes. 09:09:28

Q. "We are still not sure the return on investment justifies this project, but are much more confident than when it was first proposed. This development would be about 1.5 to $2 million." And then you go on to say, "With limited resources." 09:09:29 09:09:31 09:09:34 09:09:37 09:09:40 09:09:45

Limited resources; I think I heard in opening that Microchip's R & D budget is $1.2 billion; is that right? 09:09:48 09:09:50 09:09:55

A. It is today, yes. 09:09:57

Q. Yeah. 09:09:58

A. It was not at this time. 09:09:59

Q. Right. 09:10:01

But if it is -- if it's 09:10:02

$1.2 billion today, presumably it was several hundred million dollars back then; right? 09:10:04 09:10:07

A. That's a fair estimate. 09:10:08

Q. Okay. 09:10:09

So "with limited resources, this project needs to return 15 to $20 million or will not be funded." 09:10:10 09:10:13 09:10:17

So at this point in time, January 6, 2015, Microchip had not yet made a decision whether it was willing to make an investment in order to come out with a one-lane persistent USB solution; fair? 09:10:19 09:10:21 09:10:23 09:10:25 09:10:28

A. Yes, that was the Sandia chip we have been talking about that was being analyzed, the business plan was being worked. 09:10:30 09:10:33 09:10:35

Q. Okay. 09:10:37

Now, at this point in time, combatting the Unwired threat was a key goal of your business unit; right? 09:10:38 09:10:41 09:10:44

A. In this context, I think it was a key to what Tecvox needed and responded to Chrysler. 09:10:49 09:10:51 09:10:58

MS. DURIE: Okay. Let me mark for identification Exhibit 272. 09:10:58 09:11:00

(Whereupon, Trial Exhibit 272 was introduced.)

BY MS. DURIE:

Q. Okay.

Exhibit 272 is an email from you to a number of individuals, including Mark Bohm, January 12th, 2015; right?

A. Hang on one second.

Q. Sure.

A. Yes.

MS. DURIE: We offer it.

MR. SLAYDEN: No objection.

THE COURT: All right. It will come in.

MS. DURIE: And we can start at the top of the first page.

BY MS. DURIE:

Q. There's an email from you, January 12th, 2015, "Updated Goals," and underneath that you say, "One bonus goal related to Unwired that was already in our plans. In yellow."

So these are corporate goals; right?

A. Hang on.
Yeah, these are division goals, yes.
Q. Now, is it right that the way Microchip worked, bonuses for employees in a particular group or division are tied to goals for that division or group for some period of time?
A. No, they are not.
Q. Okay.
So bonuses are completely unrelated to corporate performance?
A. Well, bonus is only a function of corporate high-line revenue and growth, period.
Q. Okay. Fair enough.
Now, let's take a look at the goals. I take it even if you don't have bonuses tied to them, you still care about meeting them?
A. We set a plan and we hope to meet that plan.
Q. Great.
MS. DURIE: Let's take a look at

the third page, Mr. Glass, and let's take a look at what the goals were. 09:12:49 09:12:52

BY MS. DURIE: 09:12:55

Q. So Q4, fiscal year 2015, January to March of 2015, Objectives and Key Results. 09:12:55 09:13:00

So this is a list of goals, and then you're highlighting the status of performance against those goals; right? 09:13:04 09:13:06 09:13:09

A. Yes. 09:13:12

Q. Okay. 09:13:12

And so green means complete, yellow means at risk, red means likely miss, blue is on track. 1(c) goal, initiate business and technical actions to combat the Unwired threat, and the status of that particular goal is yellow, which means it was seen as being at risk; right? 09:13:13 09:13:17 09:13:21 09:13:25 09:13:27 09:13:30 09:13:32

A. Yeah. It was being completed by the end of March. 09:13:35 09:13:37

Q. There was a risk that you would not succeed in your business and technical actions to combat the Unwired threat by the end of the quarter? 09:13:38 09:13:41 09:13:43 09:13:49

A. I'm sorry, by? 09:13:49

Q. The end of the quarter. 09:13:50
A. Yes. And that's what it's measuring. 09:13:51
Q. Right. So keep this date in mind. 09:13:54
Let's go back to the first page. 09:13:57
January 12th, 2015; did anything 09:13:59
else happen on January 12th, 2015, relevant to 09:14:09
this case? 09:14:12
A. I'm sorry? 09:14:13
Q. Did anything else happen on 09:14:14
January 12th, 2015, that is relevant to this 09:14:16
case? 09:14:19
A. I don't specifically remember, but... 09:14:20
Q. All right. Let's take a look. 09:14:23
MS. DURIE: TX-9 in evidence, 09:14:25
please. 09:14:28
BY MS. DURIE: 09:14:28
Q. January 12th, 2015, "Dear Mr. Voto," 09:14:29
here are our concerns. 09:14:38
A. Yes. 09:14:41
Q. So you sent the notice letter to 09:14:41
Delphi the same day that you sent around 09:14:44
internally that your goal of initiating 09:14:46
business and technical actions to combat the 09:14:48
Unwired threat was at risk; right? 09:14:51

A. It would appear so, yes. 09:14:56

Q. All right. 09:14:58

Now, Delphi responded to that 09:14:58

letter promptly; right? 09:15:00

A. I guess, as I understand it. 09:15:03

MS. DURIE: Let's take a look. 09:15:09

Mark for identification Exhibit 269. 09:15:11

(Whereupon, Trial Exhibit 269 was 09:15:13

introduced.) 09:15:16

BY MS. DURIE: 09:15:28

Q. Exhibit 269 is a fax, which is kind 09:15:28

of charming. It is a fax from 2015, and if we 09:15:31

take a look at the thing that was faxed, it's 09:15:36

a letter from Delphi to Microchip Technology 09:15:38

Incorporated responding to the January 12th 09:15:43

letter that we were just looking at; right? 09:15:45

A. Yes, it appears to be. 09:15:49

MS. DURIE: We offer 269. 09:15:50

MR. SLAYDEN: It's got a 09:15:57

limitation to it. 09:15:59

THE COURT: I'm sorry? 09:16:01

MR. SLAYDEN: Subject to a 09:16:02

limitation, I'll represent, giving the letter 09:16:02

to attorneys. 09:16:08

THE COURT: Okay. I'll receive it. And, ladies and gentlemen, you'll see the exhibit. You should not draw any inferences, one way or another, from the fact that there were also attorneys who received a copy of it, which you'll see on the letter. 09:16:09 09:16:13 09:16:17 09:16:19 09:16:22 09:16:23

MS. DURIE: Terrific. 09:16:25

Mr. Glass, if we could see 269, please, page 2. 09:16:27 09:16:31

BY MS. DURIE: 09:16:32

Q. This is the letter that Delphi faxed back dated January 30th, 2015, responding to the letter, and if we can go down, saying we don't intend to use any of your intellectual properties, we value our business relationship, et cetera; right? 09:16:33 09:16:35 09:16:41 09:16:44 09:16:47 09:16:48

A. Yes, that appears so. 09:16:52

Q. Okay. 09:16:53

And Microchip didn't respond to this letter from Delphi; right? 09:16:53 09:16:57

A. I don't know. I don't know what happened next. 09:16:59 09:17:01

Q. You don't know what happened next. All right. Well, let's take a look. 09:17:02 09:17:05

MS. DURIE: 275. 09:17:10

(Whereupon, Trial Exhibit 275 was 09:17:13

introduced.) 09:17:16

BY MS. DURIE: 09:17:16

Q. Exhibit 275, email from Mitch Obolsky 09:17:29

to Steve Sanghi, CEO, Ganesh Moorthy, 09:17:33

CEO-to-be, initial proposal for Tecvox; right? 09:17:38

A. Hang on. Yes. 09:17:41

Q. January 26, 2015? 09:17:45

A. Yes. 09:17:46

MS. DURIE: We offer 275. 09:17:47

MR. SLAYDEN: No objection, Your 09:17:49

Honor. 09:17:51

THE COURT: All right. It's 09:17:51

admitted. 09:17:52

MS. DURIE: Okay. So Exhibit 275, 09:17:55

page 1, if you can blow that up. Perfect. 09:17:57

Thank you. All right. 09:18:01

BY MS. DURIE: 09:18:03

Q. So this is an email from you, "The 09:18:03

attached slides are the heart of the 09:18:05

discussion with Tecvox. There have been about 09:18:07

20 hours of internal Microchip meetings in the 09:18:12

last two weeks, and many more are needed to 09:18:14

complete the product definition." 09:18:17

And then it goes on to say, "We 09:18:22

now believe it is technically feasible to 09:18:25

develop a solution that competes with 09:18:28

Unwired's and also can serve the European car 09:18:30

manufacturers whose needs differ slightly." 09:18:33

So now you had concluded that this 09:18:38

one-lane persistent USB solution was 09:18:44

technically feasible? 09:18:48

A. That's what it says. That is 09:18:51

correct. 09:18:54

Q. That, indeed, is what it says. 09:18:54

Now, you let your CEO know -- if 09:18:57

we can scroll down a little bit -- you got a 09:19:01

preliminary set of features, you've got a 09:19:06

development timeline, you've got product 09:19:09

costs. 09:19:11

Developing a chip takes a lot; 09:19:11

right? 09:19:13

A. Yes, it does. 09:19:14

Q. Yeah. 09:19:15

And you say, "It will likely take 09:19:15

until the end of March to fully define the 09:19:17

product and timeline," so you're not even 09:19:20

going to have a plan until the end of March, and likely two years or more to reach production if the business plan says we should proceed with this project. 09:19:23 09:19:25 09:19:27 09:19:29

That's what you told your CEO at the time; right? 09:19:31 09:19:34

A. Yes. That's what it says. 09:19:35

Q. Okay. 09:19:36

And ultimately you decided, at this point in time, to call the thing that you were developing a multi-host device controller; right? 09:19:40 09:19:43 09:19:46 09:19:52

A. I guess so. I don't -- I don't know that. 09:19:54 09:19:56

Q. Yeah. 09:19:57

A. I assume. 09:19:58

Q. It is after you've sent the notice letter to Aptiv/Delphi; right? Right? 09:19:59 09:20:01

A. Hang on one second. You said this is after? What's the date? I'm sorry. 09:20:09 09:20:11

Q. Yeah, this is after. January 26th; right? 09:20:13 09:20:15

A. Yes, yes. Sorry. 09:20:16

Q. You're thinking about how to counter 09:20:17

the threat posed by the Unwired/Delphi solution at this point in time; right? 09:20:20 09:20:24

A. Yes. 09:20:26

Q. And so you picked, for the product that you were starting to develop, the name that was in the patent that you had sent to Delphi; right? 09:20:27 09:20:31 09:20:33 09:20:37

A. If that's true, yes. 09:20:40

MS. DURIE: Let's take a look. Identification, Exhibit 273. 09:20:43 09:20:48

(Whereupon, Trial Exhibit 273 was offered.) 09:20:52 09:20:55

BY MS. DURIE: 09:21:03

Q. Exhibit 273, an email from David Sroka to Mark Bohm, among others, dated January 12th, 2015; right? 09:21:05 09:21:09 09:21:12

A. Yes. 09:21:17

MS. DURIE: We offer it. 09:21:17

MR. SLAYDEN: No objection, Your Honor. 09:21:19 09:21:20

THE COURT: All right. It is admitted. 09:21:20 09:21:21

MS. DURIE: And, Mr. Glass, if we can take a look at Exhibit 273, second full 09:21:23 09:21:25

paragraph, from Mr. Sroka. 09:21:29
BY MS. DURIE: 09:21:31
Q. Now, just to be clear -- 09:21:31
MS. DURIE: And if you can blow 09:21:33
that up, too. 09:21:35
BY MS. DURIE: 09:21:35
Q. So Mr. Sroka is the one we saw 09:21:37
yesterday who is, both, a marketing guy, but 09:21:39
also an engineer who was working on that 09:21:41
PowerPoint product definition set of slides 09:21:43
for the chip that Microchip was working on; 09:21:45
right? 09:21:47
A. Can you repeat that? I'm sorry, I 09:21:48
didn't follow the whole thing. 09:21:51
Q. Sure. 09:21:52
Yesterday we saw a PowerPoint 09:21:53
presentation, it had Mr. Sroka's name on it, 09:21:54
relating to the development of the Sandia 09:21:57
chip; right? That's the one-lane persistent 09:21:59
USB? 09:22:01
A. Yes, I think so. 09:22:02
Q. Okay. 09:22:04
And I think we confirmed, he is, 09:22:04
both, a marketing guy, but also an engineer; 09:22:07

right? 09:22:09

A. Yes. 09:22:09

Q. Okay. 09:22:09

And so Mr. Sroka, as the person 09:22:10

responsible for this project, says, "First we 09:22:14

are well positioned with USB84604," so 09:22:18

Microchip is still trying to sell that old 09:22:22

FlexConnect solution; right? 09:22:25

A. I don't know about old. It was brand 09:22:27

new at that time. 09:22:30

Q. All right. Fine. 09:22:30

Microchip was still trying to sell 09:22:31

the FlexConnect solution that it had already 09:22:33

developed; right? 09:22:36

A. Yes. 09:22:37

Q. Okay. 09:22:37

And he says, "but we lost against 09:22:39

Unwired at Chrysler, Ford, and GM. Chrysler 09:22:42

came to us very aggressively to look at doing 09:22:47

a spoofed device," and this spoofed device, 09:22:49

that's the Unwired solution? 09:22:53

A. Well, I mean, Unwired has a solution. 09:22:54

Q. Right. 09:22:56

A. Chrysler asked us for a solution. 09:22:57

Q. Right. 09:22:59

And then if we keep going, it 09:22:59

says, "This really kept us in the game and by 09:23:02

showing our experience in the area (product 09:23:05

brief) and legitimized our inputs and concerns 09:23:09

for both Sparta and MHDC," multi-host device 09:23:12

controller... "we use this name as it relates 09:23:15

to our patents"; right? 09:23:18

A. Yes, that's what it says. 09:23:21

Q. Now, in the event, Microchip didn't 09:23:23

actually use that name for very long, did it? 09:23:25

A. I'm sorry? 09:23:28

Q. In the event, Microchip did not use 09:23:29

that name for very long? 09:23:33

A. I'm not sure what that means, "in the 09:23:34

event." 09:23:36

Q. Sure. Let's take a look. 09:23:36

A. I'm not sure what those words mean. 09:23:38

MS. DURIE: Fair enough. I think 09:23:42

I can help to clarify that for you. 09:23:43

Exhibit 236 for identification. 09:23:46

(Whereupon, Trial Exhibit 236 was 09:23:48

introduced.) 09:23:50

BY MS. DURIE: 09:24:00

Q. So Exhibit 236 is a copy of a Microchip specification for USB4916. That's the Sandia chip; right? 09:24:00 09:24:04 09:24:09

A. Yes. That's one of the variants, yes. 09:24:12 09:24:14

MS. DURIE: We offer 236. 09:24:14

MR. SLAYDEN: No objection, Your Honor. 09:24:16 09:24:16

THE COURT: All right. It will be received. 09:24:18 09:24:18

MS. DURIE: Okay. 09:24:19

BY MS. DURIE: 09:24:21

Q. So now, before we were looking at a document back in 2015 when you were talking about calling the chip the multi-host device controller. Now we have the product spec sheet. 09:24:22 09:24:23 09:24:29 09:24:33 09:24:35

MS. DURIE: Actually, if you can go all the way to the bottom, Mr. Glass. Go all the way to the bottom. 09:24:36 09:24:37 09:24:39

BY MS. DURIE: 09:24:39

Q. And we see 2017; right? 09:24:42

A. Yeah, that looks like the date on this document. 09:24:47 09:24:48

Q. Right. 09:24:50

And if we go up to the top, we see 09:24:50

that it is now called the USB 2.0 Hi-Speed 09:24:52

Multi-Host Endpoint Reflector; right? 09:24:57

A. I guess. That's what it says, yeah. 09:25:03

Q. So you changed the name; right? 09:25:04

A. I don't know. 09:25:06

Q. Okay. 09:25:07

Fast forward to October of 2015. 09:25:08

So we're now roughly 10 months after that 09:25:12

letter that we saw notifying Delphi/Aptiv 09:25:16

about the patents; okay? 09:25:21

MS. DURIE: Mark for 09:25:24

identification Exhibit 270. 09:25:26

(Whereupon, Trial Exhibit 270 was 09:25:28

introduced.) 09:25:31

MS. DURIE: And let me also mark 09:25:45

271. 09:25:46

(Whereupon, Trial Exhibit 271 was 09:25:49

introduced.) 09:25:52

MS. DURIE: Okay. 09:26:05

BY MS. DURIE: 09:26:05

Q. So Exhibit 270, email from Keith 09:26:06

Barber at Microchip to you, copying some of 09:26:11

the other folks whose names we have seen, attaching what is referred to as the DDC minutes. 09:26:15 09:26:17 09:26:21

And 271, which is the attachment and the minutes of that meeting. 09:26:23 09:26:27

Do you see that? 09:26:30

A. Yes, I do. 09:26:33

MS. DURIE: We offer 270 and 271. 09:26:34

MR. SLAYDEN: No objection, Your Honor. 09:26:37 09:26:38

THE COURT: All right. They're received. 09:26:38 09:26:39

MS. DURIE: Mr. Glass, if we could go to 270, that's right, that's 270, and if we could then put up 271. So just leave it like that for the moment. That's perfect. 09:26:40 09:26:42 09:26:47 09:26:52

BY MS. DURIE: 09:26:54

Q. So this is reporting on a meeting that took place between Microchip and Delphi; right? 09:26:55 09:26:56 09:26:59

A. Yes, it appears to be. 09:27:01

Q. And this is a meeting that took place in October of 2015; right? 09:27:03 09:27:06

A. Yes, that's the date on there. 09:27:11

Q. It took place at Delphi, Auburn Hills, Michigan, near Detroit; right? 09:27:13 09:27:22

A. Yeah, at Delphi. I don't know the location at all. 09:27:23 09:27:25

Q. Okay. 09:27:26

And you were there; right? 09:27:26

A. Yes. I just don't know where. 09:27:26

Q. Totally fair. 09:27:30

So folks from Delphi, including Rob Voto, Mike Dreon; right? You recognize Mr. Dreon? 09:27:31 09:27:33 09:27:39

A. I think so. 09:27:39

Q. Do you remember he was at the meeting, too? 09:27:42 09:27:43

A. I wouldn't remember, but I believe you, yes. 09:27:43 09:27:46

Q. All right. 09:27:46

And so you were there along with some of the other folks from Microchip; right? 09:27:47 09:27:49

A. Yes. 09:27:51

Q. And Microchip took notes of what the Delphi folks said and what the Microchip folks said; right? 09:27:52 09:27:56 09:27:59

A. Do we know that those are Microchip 09:28:00

notes? I don't know who took the notes. I can see that they were taken, but I don't know who took the notes. 09:28:02 09:28:04 09:28:09

Q. All right. 09:28:10

Well, notes were taken of the meeting in the form of minutes that were then attached to an email and circulated internally at Microchip? 09:28:11 09:28:13 09:28:18 09:28:18

A. Yes, they were forwarded. 09:28:18

Q. Sure. 09:28:20

You are not aware of any email within Microchip where anyone said hey, wait a minute, that's not what we talked about; right? 09:28:20 09:28:23 09:28:25 09:28:27

A. I don't know. 09:28:28

Q. I'm sure if there is one, we'll see it. 09:28:28 09:28:28

So let's take a look at the minutes of the meeting. Start at the top there. And that's actually perfect. We can just have it there, yeah. 09:28:31 09:28:32 09:28:34 09:28:36

"Rob does not consider" -- that's Rob Voto from Delphi; right? 09:28:38 09:28:39

A. Yes. 09:28:41

Q. Okay. 09:28:41

"Rob does not consider Delphi" -- 09:28:42

DDC, that's Delphi; right? 09:28:45

A. Yes, Delphi, Delphi, yes. 09:28:47

Q. Okay. 09:28:50

"Rob does not consider DDC as a 09:28:51

competent competitor to Microchip because 09:28:53

they're not trying to sell ASIC to the open 09:28:56

market." 09:28:59

So what Rob Voto from Delphi is 09:28:59

saying here is, we're not competing with you, 09:29:02

we're not trying to sell these chips to anyone 09:29:04

else; right? 09:29:07

A. Yeah. That was Rob's view, but I 09:29:08

disagree. 09:29:10

Q. Right. Fair enough. We're going to 09:29:11

get to your perspective in just a minute. 09:29:13

And Mr. Voto said, the next box, 09:29:15

"Microchip did not have a solution for the 09:29:21

single upstream lane that The Big 3 OEMs, 09:29:23

Ford, Chrysler, GM, wanted"; right? 09:29:27

A. Yes, that's correct. 09:29:32

Q. And that was true? 09:29:34

A. Yes. 09:29:37

Q. Okay. 09:29:38

It says in the notes, "Mitch 09:29:40

acknowledged that USB84604 was not adopted by 09:29:41

The Big 3." 09:29:46

That's that FlexConnect solution; 09:29:47

right? 09:29:49

A. Yeah. These are not things I said. 09:29:50

These are somebody else -- something people 09:29:53

wrote down. These are not things that I said. 09:29:55

Q. Well, it says, "Mitch acknowledged 09:29:57

that 84604, FlexConnect, was not adopted by 09:30:00

The Big 3." 09:30:05

Do you deny that you said that? 09:30:05

A. No, I don't deny I said that. 09:30:07

Q. Okay. Great. Let's go to the next 09:30:08

one. 09:30:11

MS. DURIE: No. 3 in that list, if 09:30:12

we can blow that up. There we go. Perfect. 09:30:14

BY MS. DURIE: 09:30:16

Q. "Rob," Rob Voto, Delphi, "said he 09:30:17

does not want to be a silicon developer" -- 09:30:20

that means making chips; right? 09:30:22

A. Yes. 09:30:24

Q. "Rob said he does not want to be a 09:30:25

silicon developer if he does not have to. If Microchip has an IC" -- that's a chip; right? 09:30:27 09:30:30

A. Yes. 09:30:32

Q. Okay. 09:30:33

-- "that he can use, he would rather use a Microchip chip. He wants to sell modules." 09:30:33 09:30:35 09:30:38

And that is, in fact, what Mr. Voto explained was his position at the meeting; right? 09:30:39 09:30:42 09:30:44

A. Yes. 09:30:44

Q. Okay. 09:30:46

MS. DURIE: Let us go on to the next page. 09:30:53 09:30:55

BY MS. DURIE: 09:30:57

Q. Now, this was the first time that you had talked with the folks at Microchip about that patent letter since they had responded to you at the end of January; right? 09:31:00 09:31:04 09:31:08 09:31:12

A. You mean they spoke to Delphi? 09:31:14

Q. I'm sorry, yes, spoke to Delphi. 09:31:17

A. Yes. 09:31:20

Q. And so that patent letter came up in this conversation; right? 09:31:20 09:31:23

A. Yes, it probably did. 09:31:25

Q. Okay. 09:31:28

And Rob, Rob Voto from Delphi, 09:31:28

said he "received/reviewed/responded to the 09:31:31

letter sent by Microchip legal in January 2015 09:31:35

regarding our patents." 09:31:38

Now, you said you weren't sure who 09:31:40

took those notes. The fact that it says, "our 09:31:42

patents," is probably a clue that these were 09:31:44

notes that were taken by Microchip; right? 09:31:46

A. I don't know. Let me read it. 09:31:51

Potentially, yes. 09:31:59

Q. Yeah. 09:32:00

His statement was that Delphi 09:32:01

believes it is not infringing. And that is, 09:32:04

in fact, what Mr. Voto told you; right? 09:32:07

A. I believe that's correct. 09:32:12

Q. Okay. 09:32:13

And it says, "Mitch," that's you, 09:32:14

"noted that the DDC ASIC may be infringing on 09:32:19

our patents. We will get a hub and test." 09:32:25

And that is, in fact, what you 09:32:29

told Mr. Voto; right? 09:32:31

A. Again, I don't know that to be true. 09:32:34

That's someone else's notes. 09:32:37

Q. Someone else at Microchip? 09:32:39

A. I guess now, yes, possibly. Yes. 09:32:41

Q. Do you deny that you said that? 09:32:45

A. I don't remember saying that, but I don't know. Yeah, I think -- I think certainly we were going to -- you know, we didn't have a product, and at one point, we would get a product and definitively prove they were infringing, but we didn't have one yet. 09:32:47 09:32:51 09:32:54 09:32:57 09:32:59 09:33:02 09:33:05

Q. So you told Mr. Voto -- he said we don't infringe and you said we think you may be infringing, we're going to check? 09:33:05 09:33:09 09:33:12

A. I think that's a matter of politeness in a meeting face-to-face with somebody. I'm not sure about the word "may" or what was said exactly, but I'm sure I was polite at the time. 09:33:15 09:33:17 09:33:19 09:33:21 09:33:24

Q. Did you make an effort to be polite in the original notice letter that you sent as well? 09:33:24 09:33:26 09:33:30

A. I think the letter needed to be factual. It's a legal type letter to say, you 09:33:30 09:33:32

know, at that point, we've looked at the data and it is actually being explained to us that it appears to be infringing our patents, also. 09:33:34 09:33:38 09:33:40

Q. Okay. 09:33:45

Now, let's look at what happened after this October meeting. 09:33:46 09:33:47

MS. DURIE: Let's have Exhibit 41 in evidence. 09:33:52 09:33:54

BY MS. DURIE: 09:34:01

Q. This is an email exchange among you and Ganesh Moorthy; right? 09:34:02 09:34:04

A. Yes. 09:34:08

Q. And we are on October 18th of 2015; right? 09:34:10 09:34:16

MS. DURIE: You can take it down. We don't need a particular -- that should be fine. I take it back. We can do that. 09:34:21 09:34:23 09:34:26

BY MS. DURIE: 09:34:28

Q. So in the middle of the page there, there is an email from Mr. Moorthy; right? 09:34:29 09:34:30

A. Yes. 09:34:34

Q. And one of his questions to you was, "How long does it make sense for Unwired to not see what they are doing as competitive to 09:34:34 09:34:38 09:34:41

you"; right? 09:34:46

A. Yes. When they win, we lose. That's 09:34:48

the definition of a competitor. 09:34:51

Q. Let's take a look at your response. 09:35:03

Second paragraph, actually the top, you're 09:35:14

changing your flight plans, et cetera, and 09:35:17

then you say, "Unwired sees themselves as a 09:35:19

module maker that was forced to do a chip 09:35:22

because no one else would. They showed a 09:35:25

willingness to use our chip, especially if it 09:35:30

is required by each of The Big 3." 09:35:34

So that was your report to 09:35:36

Microchip's CEO-to-be of what had transpired 09:35:38

at that meeting; right? 09:35:43

A. Yes. 09:35:44

Q. Okay. 09:35:45

And then you go on and you say, 09:35:46

"Bottom line we missed it." First Christian, 09:35:51

then the crossover marketer, then Don, then 09:35:55

Jesse; lots of other people's fault? 09:36:00

A. I'm sorry? 09:36:02

Q. Lots of other people's fault. 09:36:04

A. Well, we missed it. I didn't say 09:36:09

they missed it. 09:36:15

Q. Fair enough. Fair enough. 09:36:16

You would include yourself in one 09:36:17

of the people who missed it? 09:36:18

A. Yes. We did not see the market 09:36:19

accepting a non-standard solution. 09:36:22

Q. You didn't say anything here about 09:36:24

patents, did you? 09:36:27

A. I'm sorry? 09:36:28

Q. You didn't say anything here about 09:36:29

patents? 09:36:32

A. No. We don't mention the patents in 09:36:34

every letter. 09:36:37

Q. Now, Mr. Moorthy, to whom you sent 09:36:43

this, he was very concerned about competition 09:36:46

from Delphi; right? 09:36:52

A. I don't know about very concerned, 09:36:55

but certainly concerned about, you know, 09:36:57

somebody winning against us. They were the 09:37:01

competition. 09:37:06

Q. Competition. 09:37:06

Microchip doesn't usually face 09:37:07

competition; right? 09:37:09

A. We face competition all day every 09:37:10

day, yeah. 09:37:12

Q. Really? 09:37:12

A. Yeah. 09:37:13

Q. In the automotive chip business? 09:37:14

A. Certainly. We're like the 8th 09:37:16
largest or 9th largest automotive chip 09:37:19
manufacturer. 09:37:22

Q. How about in the market area where 09:37:24
you're a monopolist? 09:37:27

A. You used the word "monopolist." I 09:37:27
mean, I told you before, there are many, many 09:37:29
hub manufacturers. We just chose to do the 09:37:31
automotive hub variants that others chose not 09:37:33
to do, but other companies could do this 09:37:36
easily; they just choose not to. 09:37:38

Q. Right. 09:37:39

Now, you said I chose the 09:37:39
word monopolist. That was actually your word 09:37:42
yesterday; right? 09:37:43

A. Well, I responded that you could use 09:37:43
that word, and I said possibly. 09:37:45

Q. Yes, right. 09:37:45

And you said other people could 09:37:47
compete with you potentially, but as a general 09:37:49
proposition, they don't; right? 09:37:53

A. Well, they have not. 09:37:54
Q. Okay. 09:37:55
MS. DURIE: Let's take a look at 09:37:55
Exhibit 42 for identification. 09:37:57
(Whereupon, Trial Exhibit 42 was 09:37:59
introduced.) 09:38:01
BY MS. DURIE: 09:38:13
Q. TX-42 is an email exchange among Dave 09:38:14
Carpenter, Ganesh Moorthy and yourself, plus a 09:38:18
couple of other folks, November 2015, about 09:38:23
Delphi; correct? 09:38:27
A. Say it again. 09:38:31
Q. Sure. 09:38:32
Exhibit 42 is an email exchange 09:38:33
among Dave Carpenter, Ganesh Moorthy, Mitch 09:38:37
Obolsky, and a couple of other people from 09:38:40
November of 2015 about Delphi? 09:38:44
A. Yes. 09:38:48
MS. DURIE: We offer it. 09:38:50
MR. SLAYDEN: Your Honor, that's 09:38:51
subject to a limiting instruction. 09:38:52
THE COURT: All right. So it will 09:38:54
be received and, ladies and gentlemen, in this 09:38:56
exhibit when you see it, there are some 09:38:59

comments that are either reported or made by people who do not work at Microchip. And you can consider those statements for the fact that they were said and the impact they had on Microchip, but you should not treat them as true or consider them for the truth. Those are statements made by non-Microchip employees. You should consider them not to be the truth of what they say. Okay? 09:39:03 09:39:07 09:39:10 09:39:12 09:39:15 09:39:17 09:39:22 09:39:25 09:39:26

All right. You can proceed. 09:39:28

MS. DURIE: Thank you. If we can have up the last exhibit, 42. And I actually want to start at the beginning of time in the email exchange, but at the end of the document. So I want to start at the bottom of page 6, which is the first email in the thread. 09:39:30 09:39:31 09:39:35 09:39:38 09:39:41 09:39:43 09:39:48

BY MS. DURIE: 09:39:48

Q. And we have here an email from Keith Barber to you. 09:39:48 09:39:51

Now, who is Mr. Barber? 09:39:53

A. Hang on. Let me just -- 09:39:55

Q. Sure. Take your time. 09:39:56

A. Let me see where you are. 09:39:59

Q. No, that's fine. 09:40:00
A. Okay. Keith Barber is a salesman in 09:40:01
Detroit. 09:40:05
Q. Perfect. 09:40:05
And so let's take a look at what 09:40:06
he wrote, bottom of page 6. Okay. 09:40:08
So "Items for consideration:" 09:40:15
Now, above here, he's talking 09:40:19
about a price proposal that's being made to 09:40:21
Delphi; right? 09:40:25
A. Let me read it. 09:40:27
Q. Sure. 09:40:28
A. Where are we? 09:40:28
Q. "Mitch" -- 09:40:30
A. Hang on a minute. 09:40:32
Q. Take a look. 09:40:34
(Whereupon, the witness reviews 09:40:40
the exhibit.) 09:40:41
THE WITNESS: Okay. Yes. 09:40:42
MS. DURIE: Right. 09:40:44
BY MS. DURIE: 09:40:44
Q. He's talking about a price proposal 09:40:45
to Delphi, and he says at the bottom, "Items 09:40:47
for consideration: 09:40:50

"Unwired/Delphi developed an ASIC to capture the model year 2016 to 2018 USB single lane hub for Big 3 as the USB84604," that's FlexConnect, "did not meet the single USB lane requirement as communicated directly to Microchip"; right? 09:40:51 09:40:53 09:40:58 09:41:02 09:41:05 09:41:08

MCHP, what does that stand for? 09:41:10

A. Microchip. 09:41:12

Q. Right. 09:41:13

-- "by The Big 3 engineering teams"; true? 09:41:14 09:41:16

A. Yes, that's what it says. 09:41:17

Q. Okay. 09:41:18

MS. DURIE: Next page, one, two, three, four, let's go to five. 09:41:20 09:41:25

BY MS. DURIE: 09:41:27

Q. "Rob Voto," from Delphi, "expressed that if Microchip has a better solution, they will entertain engaging with Microchip. He wants to win module business and does not have to divert -- does not have to divert engineering resources and dollars on an ASIC. The question is, how do we enable him to make a decision to align with Microchip"; right? 09:41:29 09:41:33 09:41:35 09:41:37 09:41:40 09:41:42 09:41:45 09:41:47

What is UNG? 09:41:52

A. UNG was the name of the USB and 09:41:53
networking division that we've been talking 09:41:56
about. 09:41:58

Q. Okay. 09:41:59

Now, let's go down to the bottom 09:42:00
of page 7 continuing in the thread and look 09:42:02
what it says at the bottom, "Taking this 09:42:05
background into consideration." 09:42:08

So this is Keith Barber reporting 09:42:09
to you saying there is the background. Now, 09:42:12
here is what we want to propose to Delphi. 09:42:15

"Honor our 2016 LTA commitment of 09:42:18
2.6 million percent for all UNG products." 09:42:24

What does LTA mean? 09:42:28

A. That's long-term payment. 09:42:29

Q. Right. 09:42:31

Microchip and Delphi have a number 09:42:32
of long-term supply agreements; right? 09:42:34

A. Yes. 09:42:37

Q. Okay. 09:42:38

Some of those agreements, 09:42:39
Microchip is the sole source; right? 09:42:41

A. Almost every product we make is 09:42:44

proprietary, so many of our products -- well, that product, we are the sole source. Nobody has that product. 09:42:46 09:42:50 09:42:52

Q. Right. 09:42:53

That's why it's really important to have these long-term supply agreements; right? 09:42:53 09:42:55 09:42:58

A. I guess so, yes. As a reason, yes. 09:42:58

Q. Right. 09:43:03

From Delphi's perspective, it would be a big problem if they've got a sole source chip and suddenly they can't get it; right? 09:43:03 09:43:06 09:43:08 09:43:10

A. Potentially, yes. 09:43:10

Q. So what Mr. Barber is proposing is that Delphi honor its 2016 long-term agreement commitment of 2.69 percent. 09:43:13 09:43:17 09:43:21

What does that mean? 09:43:23

A. I can guess what it means. I think it means that they were expecting a reduction of 2.69 percent if they hit the volumes they had set. 09:43:30 09:43:31 09:43:34 09:43:38

Q. Right. 09:43:38

And that's pretty standard in 09:43:39

these long-term supply agreements; right? 09:43:41

A. To have a number that will go down, 09:43:43

yes. If they have a forecast that goes up, 09:43:45

sometimes it goes down. 09:43:48

Q. Right. 09:43:50

And if you look at what Mr. Barber 09:43:50

says a little further on here, he says, "We 09:43:52

want to create a symbiotic relationship and 09:43:54

the foundation is trust on both sides"; right? 09:43:57

A. Yes, that's what Mr. Barber says. 09:43:59

Yes. 09:44:01

Q. Okay. 09:44:02

MS. DURIE: Let's take a look at 09:44:04

your response. Page 3, middle of the page, 09:44:05

Mitch Obolsky, page 3, middle of the page, 09:44:15

part way down, further down, further down. 09:44:20

There we go. 09:44:23

BY MS. DURIE: 09:44:24

Q. From you, back to Keith Barber, 09:44:24

"After more thought and discussion, I think 09:44:26

the best answer is to tell Delphi there will 09:44:28

be no price reductions this year for those 09:44:30

products"; right? That's what you said? 09:44:32

A. Yes. 09:44:36

Q. Okay. 09:44:36

MS. DURIE: Now, let's look at 09:44:38

what Mr. Pennington says. He's one of the 09:44:39

individuals -- strike that. 09:44:41

BY MS. DURIE: 09:44:43

Q. Who is Mr. Pennington? 09:44:43

A. Mr. Pennington is a salesman who has 09:44:44

lived his whole life right there at Delphi. 09:44:48

Q. Okay. 09:44:50

He is a salesman that is working 09:44:51

for Microchip; right? 09:44:53

A. Yes, yes, yes. 09:44:54

Q. Okay. 09:44:55

Let's look at what he has to say. 09:44:55

MS. DURIE: Let's blow that up all 09:44:58

the way down to the bottom of the page. 09:44:59

Perfect. 09:45:01

BY MS. DURIE: 09:45:01

Q. "I'm not quite clear to what there 09:45:03

will be no price reductions this year for 09:45:05

those products. What does those products mean 09:45:07

exactly? Does this mean we will not honor our 09:45:11

CY 2016 committed price agreements with 09:45:14

Delphi? Is that the message, Mitch?" 09:45:18

And then he goes on in the middle of the next paragraph, he says, "If that's the message, I will support it and can carry it back to customer." 09:45:21 09:45:23 09:45:26 09:45:28

A. Um-hmm. 09:45:30

Q. And then he says in the middle of that paragraph, "There are going to be questions; right? Questions will evolve around when can they expect to get the 379,000 in savings that we promised them in our long -- long term agreements." 09:45:31 09:45:33 09:45:36 09:45:39 09:45:42 09:45:47

And if we look at the very bottom, he says, "My two cents." Last paragraph. "We all need to realize that this decision probably will have some type of impact on our business going forward, not only for UNG products but also for other divisions as well. From Delphi's perspective it now becomes one of supplier credibility. For me I am saddened that it has come to this, credibility is built over time and I am sure everyone will remember the wild ride we have had with Delphi over the last 25 years. Our reputation and integrity is everything. We all know the story of 09:45:49 09:45:51 09:45:57 09:45:59 09:46:01 09:46:04 09:46:07 09:46:09 09:46:13 09:46:15 09:46:20 09:46:24 09:46:26

credibility and when it is lost..." 09:46:28
And then you responded -- 09:46:31
actually, I take it back. Mr. Moorthy 09:46:35
responded; right? Let's take a look at his 09:46:37
response. 09:46:44
MS. DURIE: Top of the second 09:46:49
page, if we can blow up the top of the second 09:46:46
page, starting at line 2. 09:46:51
BY MS. DURIE: 09:46:53
Q. "In fact, Unwired had been destroying 09:46:53
Microchip revenue and profits with what they 09:46:56
have done." 09:46:59
That was part of his concern; 09:46:59
right? 09:47:01
A. That's what it says, yes. 09:47:02
Q. And then the next bullet point, Mr. 09:47:03
Moorthy says, beginning in the middle of the 09:47:06
paragraph, "Ideally we want Delphi to cease 09:47:08
development of new products that continues to 09:47:12
destroy our business - that discussion takes 09:47:14
time and we need some negotiating leverage." 09:47:21
Do you see that? 09:47:25
A. Yes. 09:47:26
MS. DURIE: Let's go to the first 09:47:28

page. 09:47:29
BY MS. DURIE: 09:47:34
Q. Mr. Carpenter weighs in. Second 09:47:35
paragraph of his email beginning part way 09:47:38
down, talking about Delphi's reaction, and it 09:47:46
says, maybe about seven lines down, "They 09:47:49
still do not understand why we view them as a 09:47:52
competitor when we did not have a viable 09:47:55
solution to single lane CarPlay. They met 09:47:57
with us on numerous occasions before kicking 09:47:59
off their ASIC development to be sure they 09:48:02
exhausted all alternatives with us." 09:48:04
That was true? 09:48:09
A. This is -- this is Dave Carpenter's 09:48:12
view of their view, so yes, that is true. 09:48:14
That's their view, yes. 09:48:18
Q. It was their view and it was true? 09:48:19
A. I'm not sure; which part are you 09:48:23
asking was true? 09:48:25
Q. The part that's highlighted there in 09:48:26
yellow. 09:48:29
A. Yeah, that they didn't understand why 09:48:32
we were a competitor, yes. Well, they were 09:48:35
taking our business away. They are a 09:48:37

competitor. So yes, that was their view. They didn't understand why taking business from Microchip would make them a competitor. 09:48:39 09:48:43 09:48:46

MS. DURIE: Good. Let's go -- 09:48:51

BY MS. DURIE: 09:49:04

Q. You said in your direct testimony yesterday that Aptiv continues to buy chips from Microchip; right? 09:49:05 09:49:07 09:49:10

A. Yes. Yes. 09:49:12

Q. Okay. 09:49:13

And you would agree, though, that in the relationship between Aptiv and Microchip, Microchip has a fair bit of negotiating leverage; right? 09:49:14 09:49:19 09:49:21 09:49:24

A. Well, we sell chips and they buy chips. I'm not sure. 09:49:28 09:49:31

Q. Now, you said yesterday in your direct testimony that Microchip was perfectly happy to keep selling chips to Aptiv; right? 09:49:33 09:49:34 09:49:37

A. Yes. When we're not competing, yes. 09:49:40

Q. When you're not competing. 09:49:43

Now, Microchip and Aptiv, under any definition of competing, are not competing on Aptiv's safety business; right? 09:49:46 09:49:50 09:49:54

A. I'm sorry? 09:49:58

Q. Let me back up. 09:50:00

Aptiv makes a bunch of different 09:50:01

kinds of components; right? 09:50:03

A. Yes. 09:50:04

Q. It has a line of business that are 09:50:06

products for safety in automobiles; right? 09:50:09

A. Yes. I don't know that to be true, 09:50:12

but yes, that's fine. 09:50:13

Q. Okay. 09:50:14

And it buys chips from Microchip 09:50:16

on the safety side of its business; right? 09:50:20

A. Again, I don't know the names of the 09:50:22

business, but yes, they buy chips from 09:50:23

Microchip, yes. 09:50:26

Q. Okay. 09:50:26

And the safety side of the 09:50:27

business, whatever you call it, things like 09:50:29

the controllers that automatically brake the 09:50:31

car if you get too close to somebody else, you 09:50:34

would agree that's a different line of 09:50:37

business from what we're talking about in this 09:50:38

lawsuit? 09:50:41

A. Yes. 09:50:42

Q. Okay. 09:50:42

Now, you're under oath; you're a 09:50:43
senior vice president at Microchip. You are 09:50:48
an officer of the company; right? 09:50:50

A. Not -- I'm not -- 09:50:53

Q. You are an appointed officer of the 09:50:57
company? 09:50:59

A. Yes, I guess. 09:51:00

Q. Okay. 09:51:01

So let's be very clear. Will you 09:51:03
agree that Microchip will engage in business 09:51:07
as usual with Aptiv, regardless of patent 09:51:12
disputes between the companies, on the safety 09:51:16
side of the business? 09:51:19

A. As a general case, yeah. We are 09:51:21
still working with Aptiv on pretty much every 09:51:23
area. 09:51:26

Q. Okay. 09:51:26

I understand you're still working 09:51:27
with Aptiv. Will you repeat after me: 09:51:28
Microchip will engage in business as usual 09:51:33
with Aptiv, regardless of what happens in this 09:51:38
case? 09:51:42

A. Will engage with -- I'm not sure I 09:51:45

understand what you're saying. What is the question? 09:51:49 09:51:51

Q. Will you agree, as an officer of Microchip, that Microchip will engage in business as usual with Aptiv on the unrelated safety side of its business, regardless of having disputes between the parties about the dual role hub? 09:51:52 09:51:58 09:52:03 09:52:09 09:52:14 09:52:17

A. I'm not sure I understand it. It's a very long, strange question to me, so maybe piece it. 09:52:19 09:52:23 09:52:26

Q. What part of that is complicated? 09:52:26

A. Just, I'm trying to follow the sequence of events directly. Yes, we will work with Aptiv. 09:52:30 09:52:32 09:52:34

Q. That was not my question. Let me ask it again. 09:52:35 09:52:37

A. I'm not sure I understand the question. 09:52:37 09:52:39

Q. Let me ask you again. 09:52:39

A. Yes. 09:52:40

Q. Will Microchip commit to engage in business as usual with Aptiv on the safety side of its business where you are the sole 09:52:41 09:52:47 09:52:53

supplier, regardless of patent disputes about the hub business at issue in this case? 09:52:56 09:53:04

A. I don't understand what "commit to engage" means. 09:53:10 09:53:11

Q. You are an officer of the company. 09:53:13

A. Yes. 09:53:15

Q. That's what I mean by commit. 09:53:16

A. We are absolutely willing to work with them on safety products together. 09:53:20 09:53:21

Q. Still not my question. 09:53:24

A. I don't understand the question. That's the problem. I'm happy to answer. 09:53:25 09:53:26

Q. Are you willing to repeat these words after me? 09:53:29 09:53:31

MR. SLAYDEN: Your Honor, object. She's asking him just to repeat the words she says? That's not a question. 09:53:32 09:53:33 09:53:37

THE COURT: Okay. I don't need speaking objections. 09:53:38 09:53:41

MR. SLAYDEN: I'm sorry. 09:53:41

THE COURT: If you have an objection, make an objection and if you need to approach, approach. 09:53:42 09:53:44 09:53:46

The objection is sustained. 09:53:47

BY MS. DURIE: 09:53:53

Q. Let me ask the question then, Mr. Obolsky, like this: 09:53:49 09:53:51

Are you willing to make a commitment that Microchip will engage in business as usual? Yes or no? 09:53:53 09:53:54 09:53:58

A. Yes. I guess we would do business as usual with Aptiv. I don't really understand the question, but yes, certainly. In our view, we want to continue to work with them as we always have. 09:54:02 09:54:06 09:54:09 09:54:12 09:54:14

Q. Business as usual? 09:54:15

A. Again, it's a very broad business as usual, but yes. Yes. 09:54:19 09:54:22

Q. Good. 09:54:25

A. Business as usual, yes, I believe so. 09:54:26

MS. DURIE: Good. Thank you. No further questions. 09:54:28 09:54:30

MR. SLAYDEN: Your Honor, we have one housekeeping issue here. 09:54:53 09:54:58

THE COURT: Do you need to approach? 09:55:00 09:55:01

MR. SLAYDEN: No, no, it's fine. 09:55:02

THE COURT: Okay. 09:55:03

MR. SLAYDEN: It is Exhibit 50; it is a native document. There's no objection to it. 09:55:04 09:55:06 09:55:09

THE COURT: Okay. 09:55:09

MR. SLAYDEN: So we move to admit Exhibit 50, Your Honor. 09:55:10 09:55:12

THE COURT: Okay. 09:55:13

No objections; right? Per his discussion, there is no objection, Ms. Durie? 09:55:13 09:55:16

MS. DURIE: No. 09:55:18

THE COURT: All right. So it will be received. 09:55:19 09:55:21

(Whereupon, Trial Exhibit 50 was introduced and admitted.) 09:55:21 09:55:25

MR. SLAYDEN: Mr. Ferrer, can you bring up Exhibit -- no, hold on. Don't bring it up. 09:55:28 09:55:32 09:55:35

May I approach? 09:55:36

THE COURT: Yes. 09:55:38

\- - - 09:55:39

REDIRECT EXAMINATION 09:55:39

\- - - 09:55:46

BY MR. SLAYDEN: 09:55:46

Q. Mr. Obolsky, can you identify 09:55:49

Exhibit 52 for us? 09:55:51

A. This one? 09:55:54

Q. 82, I'm sorry. 09:55:55

A. Yes. Yes. It appears to be an internal document that I wrote. 09:55:57 09:55:59

(Whereupon, Trial Exhibit 82 was introduced.) 09:55:59 09:56:03

MR. SLAYDEN: Okay. Move to admit it. 09:56:03 09:56:05

MS. DURIE: No objection. 09:56:05

THE COURT: Okay. It is received. 09:56:06

(Whereupon, Trial Exhibit 47 was introduced.) 09:56:06 09:56:16

BY MR. SLAYDEN: 09:56:16

Q. Mr. Obolsky, do you recognize the document I gave you? 09:56:36 09:56:39

A. Yes. 09:56:43

Q. Exhibit 47? 09:56:43

A. Yes. 09:56:46

MR. SLAYDEN: Move to admit it. I apologize for not having a copy. 09:56:46 09:56:48

MS. DURIE: No objection. 09:56:49

THE COURT: Okay. It is received. 09:56:51

Mr. Slayden, is that Exhibit 47, 09:57:01

the last one? 09:57:03

MR. SLAYDEN: Yes, sir. 09:57:04

THE COURT: Okay. 09:57:05

BY MR. SLAYDEN: 09:57:11

Q. Mr. Obolsky, do you recognize 09:57:12

Exhibit 42 that I have put in front of you? 09:57:14

A. Yes. This is a Microchip internal 09:57:17

document. 09:57:21

MR. SLAYDEN: Move to admit 09:57:22

Exhibit 42. 09:57:24

MS. DURIE: Sorry, 42? 09:57:27

MR. SLAYDEN: Yes. 09:57:29

THE COURT: 42, is that what you 09:57:30

said? 09:57:32

MR. SLAYDEN: 42, Your Honor. 09:57:32

THE COURT: Okay. 09:57:34

MS. DURIE: No objection. 09:57:34

THE COURT: Okay. It is received. 09:57:35

MR. SLAYDEN: I can take those 09:57:39

back. 09:57:40

(Brief pause.) 09:57:53

BY MR. SLAYDEN: 09:58:25

Q. Mr. Obolsky, yesterday you testified 09:58:26

concerning a period of time around 2014 when 09:58:28

Aptiv -- excuse me, Delphi contacted Microchip concerning Unwired. 09:58:34 09:58:39

Do you remember that? 09:58:40

A. Yes, I do. 09:58:41

Q. And did Aptiv actually -- Delphi actually contact Microchip and ask them to investigate Unwired's one-lane solution? 09:58:42 09:58:46 09:58:49

A. Yes, they did. 09:58:51

MR. SLAYDEN: Mr. Ferrer, can you bring up Exhibit 58. And can you go down to... 09:58:57 09:58:58 09:59:20

BY MR. SLAYDEN: 09:59:20

Q. Do you have Exhibit 58 in your notebook? 09:59:21 09:59:22

A. 58, I have -- I don't have it. 09:59:36

Q. That's okay. Can you see the screen? Or I can bring you a copy. 09:59:42 09:59:45

A. Yes, I can. 09:59:46

MR. SLAYDEN: And, Mr. Ferrer, can you bring up the last sentence of the first full paragraph, please. 09:59:59 10:00:00 10:00:02

BY MR. SLAYDEN: 10:00:04

Q. And do you recognize this email? 10:00:13

A. Yes. 10:00:17

Q. And do you recognize Mr. Orlosky? 10:00:19
A. From the exhibit, yes. 10:00:24
Q. And he is a Delphi employee? 10:00:26
A. As I understand it, yes. 10:00:29
Q. And the last sentence, it says, this 10:00:32
is Delphi talking, "I started working on these 10:00:38
products a little over a year ago and am self 10:00:41
taught. No one existed in this position (a 10:00:44
guy quit and I was not engaged) and the 10:00:47
SMSC/Microchip guys have been outstanding in 10:00:51
helping me learn the technologies and make the 10:00:54
right product decisions. We will continue 10:00:56
down this road and I'm sure there will be no 10:00:59
further discussion." {Sic} 10:01:02
Isn't that Delphi giving Microchip 10:01:04
a compliment for helping them during this time 10:01:07
when Unwired starting competing with Delphi? 10:01:10
A. Yes. At that point, we were partners 10:01:12
hoping to win together, and yeah, they were -- 10:01:15
as I mentioned earlier, we put a lot of 10:01:17
technical support into any designs with our 10:01:19
customer. 10:01:23
Q. And can you please remind the jury 10:01:26
why Microchip raised prices on its four USB 10:01:31

hub products back in the timeframe of 2019? 10:01:35

A. It became obvious that all the prior 10:01:39

discussions about what the plans were were no 10:01:42

longer going to be true and the volumes would, 10:01:43

you know, start to drop dramatically as they 10:01:45

shifted over to an alternate solution. So the 10:01:48

volume was dropping and all the forecasts 10:01:51

didn't make any sense, so we said fine, time 10:01:53

to adjust, and then it all bared out, right? 10:01:56

We talked about it dropping from 16 million to 10:01:58

eight million to five million in consecutive 10:02:01

years, and that was not the original forecast. 10:02:04

Q. So Aptiv wasn't going to be this 10:02:06

long-term agreement commitment? 10:02:08

A. I'm sorry. No, Aptiv was going to 10:02:10

come nowhere near what they had forecast 10:02:13

prior. 10:02:15

Q. And did that turn out to be true? 10:02:15

A. Yes. As I just mentioned, the 10:02:17

revenue -- the revenue dropped dramatically 10:02:19

once they had their own different solution 10:02:23

that was no longer a partnership with the new 10:02:25

competing solution. 10:02:27

Q. And I think you testified yesterday 10:02:28

that Microchip supplies Aptiv over 100 other products, approximately? 10:02:29 10:02:34

A. Yeah. 10:02:35

Q. To Aptiv? 10:02:36

A. Yes. Something just above 100, giving broad numbers. 10:02:37 10:02:41

Q. Did Microchip raise the prices on those products? 10:02:41 10:02:44

A. No, we did not. Only on the ones where we were directly competing. 10:02:44 10:02:46

MR. SLAYDEN: No further questions. 10:02:48 10:02:49

THE COURT: Ms. Durie? 10:02:51

MS. DURIE: Nothing further. 10:02:53

THE COURT: Mr. Obolsky, you can step down. If your binder is there, why don't you take it with you. 10:02:54 10:02:56 10:03:00

(Whereupon, the witness was excused.) 10:04:12 10:04:14

(Brief pause.) 10:04:15

MR. FENTON: Good morning, Your Honor. 10:04:48 10:04:49

THE COURT: Good morning. 10:04:49

MR. FENTON: My name is Truman 10:04:50

C E R T I F I C A T E

I do hereby certify that I am a Notary Public in good standing, that the aforesaid testimony was taken before me, pursuant to notice, at the time and place indicated; that said deponents were duly sworn to tell the truth, the whole truth, and nothing but the truth; that the testimony of said deponents was correctly recorded in machine shorthand by me and thereafter transcribed under my supervision with computer-aided transcription; that the transcript is a true and correct record of the testimony given by the witnesses; and that I am neither of counsel nor kin to any party in said action, nor interested in the outcome thereof.

WITNESS by hand and official seal this 8th day of April, 2022.

_____
Notary Public

Job No. 5162169