

PETER HERGESHEIMER Attorneys Eyes Only
OMEGA PATENTS vs. CALAMP

April 22, 2015

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<p>1 UNITED STATES DISTRICT COURT</p> <p>2 MIDDLE DISTRICT OF FLORIDA</p> <p>3 ORLANDO DIVISION</p> <p>4</p> <p>5 OMEGA PATENTS, LLC, a Florida)</p> <p>6 Corporation,)</p> <p>7)</p> <p>8 Plaintiff,)</p> <p>9)</p> <p>10 vs.) Case No.</p> <p>11) 6:13-cv-1950-Orl</p> <p>12 CALAMP CORP., a Delaware) 36DAB</p> <p>13 Corporation,)</p> <p>14)</p> <p>15 Defendants.)</p> <p>16)</p> <p>17)</p> <p>18)</p> <p>19)</p> <p>20)</p> <p>21)</p> <p>22)</p> <p>23)</p> <p>24)</p> <p>25)</p> <p>VIDEOTAPED DEPOSITION OF</p> <p>PETER HERGESHEIMER</p> <p>ATTORNEYS' EYES ONLY</p> <p>WEDNESDAY, APRIL 22, 2015</p> <p>10:05 A.M.</p> <p>2400 East Katella Avenue</p> <p>Suite 1050</p> <p>Anaheim, California 92806</p> <p>REPORTED BY: SANDRA K. MARTINOVICH, CSR NO. 11537</p>	<p>1 INDEX OF EXAMINATION</p> <p>2</p> <p>3 WITNESS: PETER HERGESHEIMER</p> <p>4 EXAMINATION PAGE</p> <p>5 By Mr. Santurri 5</p> <p>6</p> <p>7</p> <p>8</p> <p>9</p> <p>10</p> <p>11</p> <p>12</p> <p>13</p> <p>14</p> <p>15</p> <p>16</p> <p>17</p> <p>18</p> <p>19</p> <p>20</p> <p>21</p> <p>22</p> <p>23</p> <p>24</p> <p>25</p>
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<p style="text-align: right;">Page 5</p> <p>1 ATTORNEYS' EYES ONLY VIDEOTAPED DEPOSITION OF 2 PETER HERGESHEIMER 3 WEDNESDAY, APRIL 22, 2015 4 5 THE VIDEOGRAPHER: Good morning, this is Tape No. 1 to the 6 videotaped deposition of Peter Hergesheimer in the matter of 7 Omega Patens, LLC versus Calamp Corp. being heard before the 8 United States District Court, Middle District of Florida 9 Orlando Division, case No. 6:13 dash CV dash 1950 dash ORL 10 dash 36DAB. 11 This deposition is being held at KPPB, LLP, 2400 East 12 Katella Avenue, Suite 1050, Anaheim, California 92806 on 13 April 22, 2015 at 10:05 a.m. 14 My name is Brandon Bernard, I'm the videographer. 15 The court reporter is Sandy Martinovich -- Martinovich. 16 Counsel, will you please introduce yourself and 17 affiliations and the witness will be sworn in. 18 MR. SANTURRI: Ryan Santurri on behalf of plaintiff Omega 19 Patents, LLC and with me is Brian Gilchrist and Chris Regan. 20 MR. KAUTH: Joel Kauth for defendant Calamp Corporation. 21 PETER HERGESHEIMER, 22 having been first duly sworn, testifies as follows: 23 EXAMINATION 24 BY MR. SANTURRI: 25 Q. Morning, sir.</p>	<p style="text-align: right;">Page 7</p> <p>1 designation for topic 1 in that Mr. Hergesheimer will be 2 designated for operation of the device and your questions on 3 willfulness go to -- non-infringement or if you need the 4 details on the operation of the device. 5 BY MR. SANTURRI: 6 Q. Okay. Have you had a chance to look at the topics of 7 deposition that you see in Exhibit 24? 8 A. Yes, I did review those. 9 Q. All right. Sir, is there -- are you able to -- 10 strike that. 11 Having reviewed your prior testimony, are you able to 12 adopt the testimony you previously gave on behalf of Calamp 13 with respect to the topics at least that you've been 14 designated today? 15 A. I believe I can, yes. 16 Q. Okay. Are you familiar with the vPOD device that 17 Calamp offers? 18 A. Yes. 19 Q. Can you explain what the vPOD is? 20 A. The vPOD is -- is a portion of the LMU3000, it's the 21 OBD bus interface and it's been removed and enclosed in a 22 separate closure. 23 MR. SANTURRI: All right. Sir, I'm going to hand you what 24 I've marked as Exhibit 65. 25 (Deposition Exhibit 65 was marked for</p>
<p style="text-align: right;">Page 6</p> <p>1 A. Morning. 2 Q. Can you state your name for the record. 3 A. Peter Hergesheimer. 4 Q. All right. Sir, and by whom are you employed? 5 A. Calamp. 6 Q. Okay. And what's your position at Calamp? 7 A. I'm the senior director of software and architecture 8 in the MRM group. 9 Q. All right. Sir, now I understand that I've taken 10 your deposition before in this case. Do you recall that? 11 A. Yes. 12 Q. Have you -- did you have a chance to review your 13 transcript after the deposition concluded? 14 A. I did. 15 Q. Did you find anything that was incorrect or -- where 16 you made it incorrect or misstated anything? 17 A. No, I didn't find anything. 18 Q. And is there any reason -- well, do you understand 19 that you've been designated to testify on behalf of Calamp 20 Corporation today? 21 A. Yes. 22 Q. And if you can take a look at what we previously 23 marked as Exhibit 24. 24 MR. KAUTH: If I can interject one clarification, on the 25 designation for topic 10, it was supposed to mirror the</p>	<p style="text-align: right;">Page 8</p> <p>1 identification.) 2 BY MR. SANTURRI: 3 Q. I see down in the title block that it says -- for 4 drawing number it references the vPOD. Can you look at 5 Exhibit 65 and see if these diagrams are engineering diagrams 6 for the vPOD? 7 A. Yes, I believe I would say this is the schematic for 8 the vPOD. 9 Q. Now, I recall from our earlier discussions that there 10 were -- we talked about the LMU3000 in sort of two pieces, the 11 LMU layer and the OBD layer. Do you recall that? 12 A. Yes. 13 Q. Now, is the -- the vPOD is basically the OBD layer of 14 the LMU3000 within a housing? 15 A. Yes. 16 Q. And the -- does that mean that the -- the -- for 17 example, the schematics that we have in Exhibit 65 are -- is 18 most or all of the architecture that we have here something 19 that was developed by B&B or was that something that was 20 developed by Calamp? 21 A. I believe the design is developed by B&B, but the -- 22 but the layout, the board layout and those types of things, 23 are Calamp. 24 Q. So the -- well, do you recall when the vPOD was 25 developed?</p>

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<p style="text-align: right;">Page 9</p> <p>1 A. I do -- I'm not sure exactly what year, but it seems</p> <p>2 maybe four, five years ago.</p> <p>3 Q. I notice on these drawings and in the revision</p> <p>4 history that it goes up through at least 2013. Does that</p> <p>5 sound about right or do you think this product was available</p> <p>6 prior to then?</p> <p>7 A. Yeah, the vPOD would have been developed after the</p> <p>8 LMU3000, so it was an off-shoot from that effort, so 2013</p> <p>9 sounds about right.</p> <p>10 Q. And the vPOD, does it go through the same vehicle</p> <p>11 detection or discovery process as the LMU3000?</p> <p>12 A. Yeah, it goes through the same process, yes.</p> <p>13 Q. Does it have the same vehicle device -- strike that.</p> <p>14 Does the vPOD have the same vehicle bus parameters</p> <p>15 and information loaded into it that are also available in the</p> <p>16 LMU3000?</p> <p>17 A. In -- yes, the parameters that are part of the OBD</p> <p>18 portion of the 3000 would be the same as what's in the vPOD.</p> <p>19 Q. Are there certain Calamp LMU devices that work with</p> <p>20 the vPOD?</p> <p>21 A. Yes, I believe there are.</p> <p>22 Q. Okay. Do you know the universe of LMU's that -- let</p> <p>23 me back up.</p> <p>24 Are there any Calamp LMU's that do not work with the</p> <p>25 vPOD?</p>	<p style="text-align: right;">Page 11</p> <p>1 A. Yes.</p> <p>2 Q. Why?</p> <p>3 A. Because some customers require other interfaces that</p> <p>4 aren't available on the LMU3000.</p> <p>5 Q. So the LMU2600 and 4200 provide additional interfaces</p> <p>6 that aren't found on the LMU3000?</p> <p>7 A. Yes.</p> <p>8 Q. Like what?</p> <p>9 A. Serial ports and discrete inputs and discrete</p> <p>10 outputs.</p> <p>11 Q. Isn't there a serial port on the LMU3000?</p> <p>12 A. There is, yes; it's sometimes available, sometimes</p> <p>13 not available, depends on different versions. But it's not a</p> <p>14 very rugged connector, so it's somewhat impractical to use</p> <p>15 that port.</p> <p>16 Q. The port that's on the LMU3000 -- let me give you</p> <p>17 what was previously marked in your last deposition as</p> <p>18 Exhibit 3 and I think these were your markings before the</p> <p>19 serial port that we have on the left side there?</p> <p>20 A. Yes.</p> <p>21 Q. That's the -- that's the serial port that you were</p> <p>22 referring to that's not particularly rugged?</p> <p>23 A. Correct.</p> <p>24 Q. And the serial port, is that used to be able to</p> <p>25 provision the devices?</p>
<p style="text-align: right;">Page 10</p> <p>1 A. Yes.</p> <p>2 Q. Do you know the universe of LMU's that do work with</p> <p>3 the vPOD?</p> <p>4 A. Yes.</p> <p>5 Q. Okay. And what are those?</p> <p>6 A. The LMU2600 series and the LMU4200 series.</p> <p>7 Q. Is the vPOD able to perform any operations without</p> <p>8 being connected either to LMU2600 series or LMU4200 series?</p> <p>9 A. I would say it needs the -- the LMU portion to do</p> <p>10 anything practical.</p> <p>11 Q. In other words, nobody is able to -- nobody that</p> <p>12 purchases a vPOD is able to use them for interfacing of</p> <p>13 vehicle's bus without either an LMU2600 or LMU4200?</p> <p>14 A. That's correct.</p> <p>15 Q. Okay. And is there any other purpose for the vPOD</p> <p>16 other than to access the vehicle's bus and read information</p> <p>17 from the bus?</p> <p>18 A. No.</p> <p>19 Q. None of the standard LMU2600 features require the</p> <p>20 vPOD other than interfacing the bus; right?</p> <p>21 A. That's correct.</p> <p>22 Q. And the same with the LMU4200?</p> <p>23 A. Correct.</p> <p>24 Q. Do you know why Calamp is offering the -- offers the</p> <p>25 vPOD for the LMU2600 rather than just offering the LMU3000?</p>	<p style="text-align: right;">Page 12</p> <p>1 A. It can be used to provision the devices, yes.</p> <p>2 Q. My recollection is that for the -- for Calamp's</p> <p>3 devices they're manufactured in China and then come back to</p> <p>4 Oxnard for the initial provisioning of software; right?</p> <p>5 A. Yes.</p> <p>6 Q. And does that happen through the serial port?</p> <p>7 A. Yes, it does.</p> <p>8 Q. And another option to provision them is over the air;</p> <p>9 correct?</p> <p>10 A. Correct.</p> <p>11 Q. The -- with the LMU3000, is Calamp able to use over</p> <p>12 the air -- the over-the-air updates to change the software</p> <p>13 within the LMU layer of the LMU3000?</p> <p>14 A. Yes.</p> <p>15 Q. And can Calamp change the software or firmware on the</p> <p>16 OBD layer using over-the-air updates?</p> <p>17 A. Yes.</p> <p>18 Q. And with the LMU3030, is Calamp able to change the</p> <p>19 software on the LMU layer using over-the-air updates?</p> <p>20 A. Yes.</p> <p>21 Q. And with the LMU3030 can Calamp change the software</p> <p>22 in the OBD layer over the air?</p> <p>23 A. Yes.</p> <p>24 Q. Do you know whether there's info on the vPOD on</p> <p>25 Calamp's website?</p>

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<p>Page 13</p> <p>1 A. I don't know.</p> <p>2 Q. Do you know whether or not there ever has been?</p> <p>3 A. I don't know.</p> <p>4 Q. Do you know whether Calamp promotes the vPOD?</p> <p>5 A. I believe so.</p> <p>6 MR. SANTURRI: I'm going to hand you Exhibit 66.</p> <p>7 (Deposition Exhibit 66 was marked for</p> <p>8 identification.)</p> <p>9 BY MR. SANTURRI:</p> <p>10 Q. Have you ever seen the Calamp advanced training</p> <p>11 presentation that we have in Exhibit 66?</p> <p>12 A. No, I haven't.</p> <p>13 Q. All right. If you can turn -- these pages are not</p> <p>14 numbered, but if you can turn in about seven or eight pages to</p> <p>15 section 2, and the first page shows us what's listed as the</p> <p>16 LMU3000 and vPOD; is that correct?</p> <p>17 A. Yes.</p> <p>18 Q. Now, the -- the information of the vPOD here says</p> <p>19 that it's -- that the vPOD is supported under the LMU2700</p> <p>20 series and LMU4500 series, do you know whether that's true?</p> <p>21 A. Yes, that's true. And the 4500 series is based on</p> <p>22 the 4200 and the 27 is based on the 2600, it's just different</p> <p>23 configurations.</p> <p>24 Q. Okay. Now, if you go to the next page there's</p> <p>25 reference to the LMU3030 and the vPOD2. Do you see that?</p>	<p>Page 15</p> <p>1 different -- using basically language from different protocols</p> <p>2 to determine what bus protocol the bus is operating on?</p> <p>3 A. Yes, I believe it actually walks through multiple</p> <p>4 buses and different protocols on these buses.</p> <p>5 Q. So, for example, when it sends out -- I'm going to</p> <p>6 hand you what's previously been marked as Exhibit 13. Have</p> <p>7 you ever seen a diagram like this depicting the initial</p> <p>8 messages that are sent out by the LMU3000 and 3030?</p> <p>9 A. No, I haven't seen this diagram.</p> <p>10 Q. If you can take a look for a second and you can see</p> <p>11 that it goes through sending out a CAN 11 bit message and then</p> <p>12 a CAN 29 bit message two J1850 messages, a K line message, and</p> <p>13 another J1850 message. Do you see that?</p> <p>14 A. I see in the diagram where those message send blocks</p> <p>15 are, yes.</p> <p>16 Q. Does this appear to be the basic process, as you</p> <p>17 understand it, for determining what bus protocol is found in</p> <p>18 the vehicle in which the LMU3000 or 3030 is installed?</p> <p>19 A. It would make sense that this is, but I can't confirm</p> <p>20 this is the exact protocol.</p> <p>21 Q. Okay. But whether this is -- whether this is the</p> <p>22 exact sequence that's walked through by the LMU3000 and 3030,</p> <p>23 this is the basic idea where you get, for example, CAN</p> <p>24 messages sent out and if there's no response, it sends J1850</p> <p>25 messages out, and basically goes through the different bus</p>
<p>Page 14</p> <p>1 A. Yes.</p> <p>2 Q. And is the vPOD2 basically the OBD layer of the</p> <p>3 LMU3030 in its own housing?</p> <p>4 A. Yes.</p> <p>5 Q. And so with respect to the OBD functionality of the</p> <p>6 LMU3030, is the same OBD functionality found in the vPOD2?</p> <p>7 A. Yes, it is.</p> <p>8 Q. Do you know whether the vPOD2 is on sale?</p> <p>9 A. I believe it's in production, yes.</p> <p>10 Q. If you can turn further on back, it's the section 3</p> <p>11 and it's titled vehicle detection and discovery. If you keep</p> <p>12 on going back to the slide that's labelled vehicle detection</p> <p>13 and discovery.</p> <p>14 A. Okay.</p> <p>15 Q. Do you -- do you know the difference between what</p> <p>16 Calamp calls vehicle detection and what Calamp calls vehicle</p> <p>17 discovery?</p> <p>18 A. Yes, I think I do.</p> <p>19 Q. Okay. Can you walk me through vehicle detection with</p> <p>20 respect to the LMU3000 and vPOD?</p> <p>21 A. So vehicle detection with the 3000 vPOD technology is</p> <p>22 a method that the OBD layer uses to determine what the</p> <p>23 vehicle -- what type the vehicle is so it knows how to</p> <p>24 configure its queries for parameters.</p> <p>25 Q. And does that start with the initial querying on</p>	<p>Page 16</p> <p>1 protocols unless a response is received; right?</p> <p>2 A. In general I believe that's the -- that's the steps</p> <p>3 that it goes through. It attempts different buses one at a</p> <p>4 time.</p> <p>5 Q. And the -- and that's the same basic start-up routine</p> <p>6 for both the vPOD and J -- I'm sorry, vPOD and LMU3000; right?</p> <p>7 A. Yes, vPOD and LMU3000.</p> <p>8 Q. And it's the same again for the LMU3030 and vPOD2?</p> <p>9 A. As part of the detection process, yes.</p> <p>10 Q. And then once the LMU3000 has detected the bus</p> <p>11 protocol, it then queries the bus for a VIN; right?</p> <p>12 A. I think that is what the method is so it can do some</p> <p>13 further processing.</p> <p>14 Q. And then based on the VIN that's received, the</p> <p>15 LMU3000 has some sort of -- strike that.</p> <p>16 Based on the VIN that's received by the LMU3000, it's</p> <p>17 able to match that VIN with a library of information within</p> <p>18 the LMU3000 to determine the type of vehicle and the bus</p> <p>19 parameters that are available; right?</p> <p>20 A. That's my understanding, yes.</p> <p>21 Q. And with the LMU3030, the process is a little bit</p> <p>22 different once the VIN is requested; right?</p> <p>23 A. Yes.</p> <p>24 Q. Okay. And if you can flip -- if you go back to</p> <p>25 Exhibit 66, Calamp presentation, there's a -- sort of a flow</p>

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<p style="text-align: right;">Page 17</p> <p>1 chart on the next page. Is that -- is that your basic</p> <p>2 understanding of how the LMU3030 determines what vehicle it's</p> <p>3 installed in?</p> <p>4 A. Yes, that's my understanding.</p> <p>5 Q. And the same process applies for the vPOD2 as for the</p> <p>6 LMU3030?</p> <p>7 A. That's correct.</p> <p>8 Q. And so what we basically get is the LMU3030 or the</p> <p>9 vPOD2 reads the VIN and then it starts to accumulate the bus</p> <p>10 data and then there's the VIN to code process using some</p> <p>11 remote server; right?</p> <p>12 A. Yes.</p> <p>13 Q. And the VIN -- the VIN is sent off to the remote</p> <p>14 server; right?</p> <p>15 A. Correct.</p> <p>16 Q. And additional data is received in response?</p> <p>17 A. Yes.</p> <p>18 Q. And then that additional data helps the LMU -- based</p> <p>19 on the additional data provided, once that data is received,</p> <p>20 the LMU3030 matches up the data received from that remote</p> <p>21 server with its library of information, identifies the right</p> <p>22 vehicle, and is able to select the OEM specific parameters for</p> <p>23 that particular vehicle; right?</p> <p>24 A. I would say in general that's the process, yes.</p> <p>25 Q. And then you can see further down below it --</p>	<p style="text-align: right;">Page 19</p> <p>1 Q. The plan is going to be for Calamp to host that VIN</p> <p>2 to code process?</p> <p>3 A. Yes.</p> <p>4 Q. Do you know who would know whether that's been</p> <p>5 shifted over to Calamp yet?</p> <p>6 A. I would think Gallin may even know.</p> <p>7 Q. Have you -- do you know what other information has</p> <p>8 been received from Innova in regards to the LMU3030 in terms</p> <p>9 of the information that was acquired from them about the</p> <p>10 software operation of the LMU3030?</p> <p>11 A. My understanding that the information we received was</p> <p>12 some -- some software and some basic training on that software</p> <p>13 and I believe that's -- the same applies for the server side.</p> <p>14 So we received some actual software and training there as</p> <p>15 well.</p> <p>16 Q. The querying the bus for the VIN, that's done by the</p> <p>17 3000, 3030, and the vPOD units. Do you know what device on</p> <p>18 the bus provides the VIN in response to the query?</p> <p>19 A. I would believe it would be the engine control unit,</p> <p>20 the ECU.</p> <p>21 Q. Okay. Are you familiar with the LMU3050?</p> <p>22 A. I've heard the nomenclature before, but I don't know</p> <p>23 it as a separate product.</p> <p>24 Q. Do you know if that's -- well, my understanding is</p> <p>25 that it's -- the LMU3050 is a 3030 with data bus codes</p>
<p style="text-align: right;">Page 18</p> <p>1 actually, according to this document the bottom of that slide</p> <p>2 gives us the order that the bus protocols are scanned. Do you</p> <p>3 see that?</p> <p>4 A. I see it.</p> <p>5 Q. Do you know -- I know you said you hadn't seen this</p> <p>6 presentation before, is this the type of presentation that's</p> <p>7 generated at Calamp?</p> <p>8 A. Yes, I believe this would be the Calamp initiated</p> <p>9 presentation.</p> <p>10 Q. Do you know the typical audience for a presentation</p> <p>11 like this?</p> <p>12 A. My guess is this is for in-house training.</p> <p>13 Q. Okay. You don't think this would be provided to</p> <p>14 Calamp customers?</p> <p>15 A. It seems a little too detailed for that. It may be</p> <p>16 the case, but it seems a little too detailed.</p> <p>17 Q. The -- as I understand it, Calamp has acquired at</p> <p>18 least some of the data and so information from Innova that</p> <p>19 relates to the OBD layer of the LMU3030 and vPOD2; is that</p> <p>20 right?</p> <p>21 A. Yes.</p> <p>22 Q. Do you know whether the server that does the VIN to</p> <p>23 code, whether that's done now by Calamp versus by Innova?</p> <p>24 A. I'm not sure if they've switched over yet or not, but</p> <p>25 it's the plan.</p>	<p style="text-align: right;">Page 20</p> <p>1 specific to European vehicles, is that your understanding of</p> <p>2 the 3050?</p> <p>3 A. I know that it's the product that we sell to a</p> <p>4 customer in the UK and as such it would be -- I'm not sure</p> <p>5 it's got specific parameters that are European based, but --</p> <p>6 so I really can't say as to whether it's different than a</p> <p>7 3030.</p> <p>8 Q. Do you know whether the 3050 has the same -- has the</p> <p>9 same components and functionality of the 3030?</p> <p>10 A. That's my understanding is that it does.</p> <p>11 Q. And do you know whether the 3050 is provisioned in</p> <p>12 Oxnard?</p> <p>13 A. I believe it is, yes.</p> <p>14 Q. Have you been involved in the provisioning process?</p> <p>15 A. To -- I've been involved in some of the design</p> <p>16 portions of that process.</p> <p>17 Q. What do you mean by the design portions?</p> <p>18 A. Well, I manage the ATE, which is the automated test</p> <p>19 equipment group, so I'm aware of the processes. Not</p> <p>20 necessarily in detail, but --</p> <p>21 Q. During the provision process, for some customers the</p> <p>22 customer's script is loaded by Calamp; right?</p> <p>23 A. Yes, that's correct.</p> <p>24 Q. Do you know roughly what the percentage of customers</p> <p>25 is that has the scripts loaded by Calamp?</p>

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<p style="text-align: right;">Page 21</p> <p>1 A. I -- I would guess it's more than half, more likely 2 75 percent or so. 3 Q. And when Calamp provisions devices with customer 4 scripts is there a -- is there a testing or validation process 5 after the script has been loaded to ensure that it functions? 6 A. There's typically a testing process before it's 7 loaded to check the hardware and then the provisioning of the 8 script is put in place. And there is in some cases a 9 validation that the script is operating properly, I would say 10 that's a very small percentage of the customers. 11 Q. Why -- when it occurs, why does that post 12 provisioning validation occur? 13 A. It's typically because the customer has requested it. 14 Q. Is that a line item or check-box that they can ask 15 Calamp to validate the provisioning? 16 A. I don't know if it's that formal. Maybe in cases 17 where they need the activation and want this to check into a 18 system. There is -- I -- I don't know of any detailed 19 validation of script functionality in the provisioning 20 process. 21 Q. During this litigation Calamp ran some searches of 22 PULS to try to determine the number of LMU 3000's and 3030's 23 that included scripts that did geofencing, were you involved 24 with that querying process? 25 A. No, I wasn't.</p>	<p style="text-align: right;">Page 23</p> <p>1 there's -- and there's a reference if you look to the numbered 2 paragraph 4 and there's some other references within this 3 document to the -- offering the LMU1600 and 3030 hardware 4 products, plug in, OBD enabled devices. 5 A. I see the reference. 6 Q. But you're not familiar with what the 1600 is? 7 A. No, it's likely a variation or somebody's marketing, 8 a variation. 9 Q. If you can turn to 25801. And if you go to numbered 10 paragraph 1 on 25801, talks about how the LMU1600 device reads 11 diagnostic trouble code status changes from the vehicle OBD 12 bus. Other than the 3000 and the 3030 and the now vPOD, 13 vPOD2, do you know of any other Calamp devices that can read 14 diagnostic trouble codes from the bus? 15 A. Only -- only the products we've talked about, the 16 3030, the 3000, vPOD, and vPOD2. 17 Q. Okay. And 3050? 18 A. And the 3050. 19 Q. I think you told me in your prior deposition that 20 you've been involved in writing/editing scripts at some point 21 in time during your career at Calamp; is that right? 22 A. Yes. 23 Q. Have you worked on any scripts for the -- the devices 24 we've talked about today; the 3000, 3030, 3050, and the vPOD 25 units?</p>
<p style="text-align: right;">Page 22</p> <p>1 Q. Do you know anything about how that process occurred 2 or the results of it? 3 A. I'm not sure of the results, I'm guessing the process 4 occurred by a database search that was specific for that 5 purpose. 6 Q. So you don't know -- well, strike that. 7 Do you know whether the searches have been updated or 8 revised since Calamp previously provided the results of the 9 initial searches? 10 A. I don't know for sure, but I'm guessing not because 11 we've got other things to do. 12 Q. I think -- strike that. 13 Do you know what the LMU1600 is? 14 A. No, I don't really know what that is. 15 Q. If you could flip back in the ex bits here that you 16 have in front of you to Exhibit 56. 17 A. 56. 18 Q. And if you can turn to -- 19 A. Is this the document you're talking about? 20 Q. Yes, sir. Do you know whether you were involved at 21 all in preparing the response to the RTP for Enterprise 22 Holdings? 23 A. I don't believe I was involved with this. 24 Q. All right. If you can turn to page -- it's Bates 25 labelled 25796, so in the bottom right-hand corner. And</p>	<p style="text-align: right;">Page 24</p> <p>1 A. I may have in an assistance capacity, but I haven't 2 started or completed those types of scripts. 3 Q. Do you know whether there have been scripts done by 4 Calamp that do point radial geofencing for any of the units 5 that we have at issue in this case? 6 A. There may be scripts -- I would guess there are 7 likely scripts that use -- use that feature built into the LMU 8 software, but I can't say whether there are, in fact, those 9 scripts. 10 Q. Is that -- is that a common script for customers to 11 use? 12 A. It's a common script for more the fleet customers to 13 use and so there is a slight crossover between fleet customers 14 and -- and customers that use the 3030 and 3000. 15 Q. Another of the issues we have in this case is speed 16 exceedance reports based on vehicle bus speed. Do you know 17 whether Calamp has prepared or implemented scripts that 18 provide for a speed exceedance based on the vehicle bus speed? 19 A. No, I don't. 20 Q. Vehicle bus speed is one of the parameters that's 21 collected by the LMU3000, 3030, 3050, and vPOD; right? 22 A. Vehicle speed collected on the -- from the vehicle 23 bus is -- yes, a perimeter of that is available. 24 Q. I may have asked you this last time, but have you 25 ever met Ken Flick at Omega Patents?</p>

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<p style="text-align: right;">Page 25</p> <p>1 A. I don't believe I have, no.</p> <p>2 Q. Do you know whether you've worked with any of Omega's</p> <p>3 licensees on projects?</p> <p>4 A. I don't know who those licensees are, but --</p> <p>5 Q. Do you know whether you've ever met or worked with a</p> <p>6 guy named Bill or William Duffy?</p> <p>7 A. I don't -- I don't recall that.</p> <p>8 Q. Yesterday Mr. Chen talked about talking to a guy</p> <p>9 named Danny Nevzeau, I think is his name, with Fortin in</p> <p>10 Canada, does any of that ring a bell to you?</p> <p>11 A. No.</p> <p>12 Q. Were you involved in looking for prior art, prior</p> <p>13 devices that Calamp contends invalidate any of the patents at</p> <p>14 issue in this case?</p> <p>15 A. No, I wasn't.</p> <p>16 Q. Did you -- do you recall working with David Bailey at</p> <p>17 your lawyer's office to locate prior art or discuss</p> <p>18 infringement or invalidity in this case?</p> <p>19 A. No, I don't believe I did.</p> <p>20 Q. Did you work with Mr. Chen at all on trying to find</p> <p>21 prior devices or prior patents?</p> <p>22 A. No, I don't do prior art searches.</p> <p>23 Q. Have you done them in the past?</p> <p>24 A. I'd say informally.</p> <p>25 Q. You didn't do any informal searches in this case?</p>	<p style="text-align: right;">Page 27</p> <p>1 me ask that better.</p> <p>2 Do you know whether Calamp offers an inbound server</p> <p>3 to its customers for use with LMU devices?</p> <p>4 A. I believe the wireless network group has a service</p> <p>5 that -- that acts as an inbound server, the Colt server.</p> <p>6 Q. It's called the Colt server?</p> <p>7 A. Colt.</p> <p>8 Q. C-o-l-t?</p> <p>9 A. I believe so, yes.</p> <p>10 Q. Do you know whether there -- what group did you say</p> <p>11 it was?</p> <p>12 A. Wireless networks group.</p> <p>13 Q. Do you know whether the wireless networks group</p> <p>14 offers the -- any of the products at issue in this case; the</p> <p>15 3000, 3030, 3050, or vPOD?</p> <p>16 A. I don't know for certain, I believe they may.</p> <p>17 Q. Do you know how the pricing differs from the wireless</p> <p>18 network group versus purchasing the unit from Calamp or one of</p> <p>19 its customers?</p> <p>20 A. No, I'm not aware of the wireless network pricing.</p> <p>21 Q. Do you know whether the -- well, if you can --</p> <p>22 earlier we looked at Exhibit 65, which was the schematics for</p> <p>23 the vPOD, would you expect there to be an analogous schematic</p> <p>24 for the vPOD2?</p> <p>25 A. Yes, I would expect there is a schematic for the</p>
<p style="text-align: right;">Page 26</p> <p>1 A. No.</p> <p>2 Q. And you didn't do formal searches?</p> <p>3 A. No.</p> <p>4 Q. Do you know whether you've tested the products at</p> <p>5 issue in this case, the LMU3000, 3030, 3050, or vPOD in actual</p> <p>6 vehicles?</p> <p>7 A. Personally I have not, no.</p> <p>8 Q. You know those devices have been tested by Calamp in</p> <p>9 vehicles though?</p> <p>10 A. Yes.</p> <p>11 Q. Do you know whether anyone at Calamp has ever done or</p> <p>12 tested point radial geofencing or PEG zones used any of the</p> <p>13 devices at issue in this case?</p> <p>14 A. I don't know, it seems somewhat unlikely, yes.</p> <p>15 Q. Do you know how -- how, if at all, Calamp charges its</p> <p>16 customers for use of the PULS system?</p> <p>17 A. I'm not aware of Calamp charging any customers for</p> <p>18 the use of PULS.</p> <p>19 Q. Do you know whether Calamp charges for support</p> <p>20 services or use of FAE's?</p> <p>21 A. I don't believe so in general.</p> <p>22 Q. Is that rolled into the price of the units?</p> <p>23 A. Essentially, yeah.</p> <p>24 Q. Do you know whether Calamp charges for the use of</p> <p>25 inbound server by Calamp -- well, strike that. Let me -- let</p>	<p style="text-align: right;">Page 28</p> <p>1 vPOD2.</p> <p>2 Q. Is the vPOD2, did you say that was being manufactured</p> <p>3 now?</p> <p>4 A. Yes, it is.</p> <p>5 Q. And do you know whether in terms of the actual</p> <p>6 components on the board of the vPOD, do you know whether those</p> <p>7 components are the same as the OBD layer of the LMU3000?</p> <p>8 A. You're saying vPOD?</p> <p>9 Q. And the 3000.</p> <p>10 A. Yes, they would be the same components.</p> <p>11 Q. So same -- same processor, same memory, everything</p> <p>12 would be the same?</p> <p>13 A. There may be some minor components that are</p> <p>14 different, but -- and there may be some additional components</p> <p>15 for power supply on the vPOD that are not on the OBD portion</p> <p>16 of the 3000. But yeah, they're -- the significant components</p> <p>17 are the same.</p> <p>18 Q. And with the 3030 and the vPOD2, the components found</p> <p>19 on the OBD layer of the 3030 are the same as the components</p> <p>20 found on the -- in the vPOD2 in terms of the processor,</p> <p>21 memory, that sort of thing?</p> <p>22 A. Yes.</p> <p>23 Q. Is the software run by the vPOD the same as what's</p> <p>24 run in the 3000?</p> <p>25 A. Yes, to my knowledge.</p>

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<p style="text-align: right;">Page 29</p> <p>1 Q. And is the software in the vPOD2 the same as what's</p> <p>2 run in the 3030?</p> <p>3 A. Yes.</p> <p>4 Q. If you can pull back out your -- what was previously</p> <p>5 marked as Exhibit 3 from your prior deposition. I think one</p> <p>6 component that I didn't have marked on there was the LMU</p> <p>7 processor. Is that the chip that we see at U5?</p> <p>8 A. I would -- let's see, this is the 3000?</p> <p>9 Q. Yes, sir.</p> <p>10 A. I don't believe that's the processor. I'm not sure</p> <p>11 what that -- that component is, it doesn't look to me like</p> <p>12 it's large enough to be the processor.</p> <p>13 Q. Can you identify the LMU processor based on</p> <p>14 Exhibit 3?</p> <p>15 A. No, I don't see it on this exhibit.</p> <p>16 Q. Let's try -- I'm going to again hand you what was</p> <p>17 previously marked as Exhibit 5. Let's try this again. Are</p> <p>18 you able to tell whether U5 on this board is the LMU</p> <p>19 processor?</p> <p>20 A. This board appears to be the OBD board from the</p> <p>21 LMU3000 and that particular architecture uses FPGA with</p> <p>22 existing B&B technology in it and I believe that includes the</p> <p>23 processor. I -- I can't identify that as being the FPGA.</p> <p>24 Q. All right. If we go back to Exhibit 3, is that the</p> <p>25 LMU layer?</p>	<p style="text-align: right;">Page 31</p> <p>1 A. Yes.</p> <p>2 Q. And they all have a wireless transmitter and</p> <p>3 receivers -- cellular transmitter and receiver?</p> <p>4 A. Yes.</p> <p>5 Q. And the -- each of them has a controller on the LMU</p> <p>6 board; correct?</p> <p>7 A. Right.</p> <p>8 Q. And the -- they each have a controller on the OBD</p> <p>9 layer; correct?</p> <p>10 A. Yes.</p> <p>11 Q. And when data from the OBD layer -- that's the path</p> <p>12 of travel is from the processor -- the OBD layer to the</p> <p>13 processor in the LMU layer; correct?</p> <p>14 A. That's correct.</p> <p>15 Q. And then from that point to the extent that any bus</p> <p>16 information is going to be sent out of the unit, it goes from</p> <p>17 the -- out of the LMU layer through the cellular transceiver</p> <p>18 to the inbound server; right?</p> <p>19 A. That's correct.</p> <p>20 Q. And I think we covered it earlier, but there was a</p> <p>21 serial port on the LMU3000, 3030, and 3050?</p> <p>22 A. There is, sometimes it's exposed and sometimes it</p> <p>23 isn't.</p> <p>24 Q. Exposed meaning you can access it from the outside --</p> <p>25 from outside the housing?</p>
<p style="text-align: right;">Page 30</p> <p>1 A. Yes, it has the cellular radio on it. It does not</p> <p>2 appear to have the GPS receiver on it. Is there a flip side</p> <p>3 of this board?</p> <p>4 Q. Would you expect the same board to have the GPS</p> <p>5 module attached?</p> <p>6 A. No, I think there's a third board for the GPS</p> <p>7 receiver.</p> <p>8 Q. Then maybe we don't have a picture of the other side.</p> <p>9 Maybe we'll come back to that. All right. Sir, if you can</p> <p>10 flip back a ways in your exhibits to Exhibit 55. I understand</p> <p>11 you've been designated to answer questions regarding Calamp's</p> <p>12 position on non-infringement, is that your understanding?</p> <p>13 A. I don't have a legal basis for this, but --</p> <p>14 Q. Okay.</p> <p>15 MR. KAUTH: I want to note that in the designation he's</p> <p>16 been designated as operation of the device, not on anything</p> <p>17 with the patents.</p> <p>18 MR. SANTURRI: Okay.</p> <p>19 BY MR. SANTURRI:</p> <p>20 Q. Sir, if I can have you flip back to column 26, it's</p> <p>21 all the way in the back, one of the last few pages, last</p> <p>22 couple. And just to step through a few things and confirm</p> <p>23 them. All of the accused products in this case the 3000, 3030</p> <p>24 3050, and the vPOD all have -- well, let me back up.</p> <p>25 The 3000, 3030, and 3050 all have GPS units; right?</p>	<p style="text-align: right;">Page 32</p> <p>1 A. Correct.</p> <p>2 Q. On the ones it's not exposed, if you open up the</p> <p>3 housing is there a serial port internal?</p> <p>4 A. Yes.</p> <p>5 Q. Because that's how -- the serial port is how Calamp</p> <p>6 is able to download software and firmware to the unit;</p> <p>7 correct?</p> <p>8 A. Yes.</p> <p>9 Q. And the same downloading process can also occur over</p> <p>10 the air?</p> <p>11 A. Correct.</p> <p>12 Q. And the LMU3000, 3030, and 3050 are all designed to</p> <p>13 work with multiple vehicles; right?</p> <p>14 A. Yes.</p> <p>15 Q. And is there a reason why you -- you wouldn't view</p> <p>16 the controllers within the LMU3000, 3030, and 3050 as a</p> <p>17 multi-vehicle compatible controller?</p> <p>18 MR. KAUTH: Objection; form. You can answer.</p> <p>19 THE WITNESS: Is there a reason I wouldn't? No reason.</p> <p>20 BY MR. SANTURRI:</p> <p>21 Q. From an engineering perspective, the LMU3000, 3030,</p> <p>22 and 3050 all have a controller that's compatible with multiple</p> <p>23 vehicles?</p> <p>24 A. I guess it's compatible, yeah.</p> <p>25 Q. The vPOD and vPOD2, those devices do not include GPS;</p>

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<p>Page 33</p> <p>1 correct?</p> <p>2 A. Correct.</p> <p>3 Q. But they have to -- in order for the vPOD and vPOD2</p> <p>4 to function they have to be paired with one of the Calamp</p> <p>5 LMU's that we talked about earlier?</p> <p>6 A. Yes.</p> <p>7 Q. And do each of those LMU2600, 2700, 4200, and 4500</p> <p>8 series devices have GPS on board?</p> <p>9 A. Yes.</p> <p>10 Q. And with -- with respect to the -- the vPOD and vPOD2</p> <p>11 operation, data from the bus flows from the vPOD or vPOD2 to</p> <p>12 the controller within the -- the LMU to which it's connected;</p> <p>13 correct?</p> <p>14 A. Correct.</p> <p>15 Q. And to the extent there's going to be a report or</p> <p>16 data bus information that's sent wirelessly goes from that LMU</p> <p>17 unit through the cellular radio unit to the inbound server?</p> <p>18 A. Yes.</p> <p>19 Q. And the scripting process is -- basically would allow</p> <p>20 for the same functionality to apply whether for the LMU3000,</p> <p>21 3030, 3050, or either of the vPOD units; correct?</p> <p>22 A. Yes.</p> <p>23 Q. So if you can script a point radial geofence, it's</p> <p>24 going to work for the LMU 3000, 3030, 3050, or LMU with a vPOD</p> <p>25 connected; right?</p>	<p>Page 35</p> <p>1 3050, earlier we were talking about the provisioning process</p> <p>2 and I just wanted to make sure I understand what goes into</p> <p>3 that. So the LMU3000, 3030, 3050, they're all manufactured</p> <p>4 somewhere in China; right?</p> <p>5 A. That's correct.</p> <p>6 Q. And then they're shipped back to California for</p> <p>7 Calamp's facilities; right?</p> <p>8 A. Most of the time, yes; sometimes they can be direct</p> <p>9 shipped from China.</p> <p>10 Q. To where?</p> <p>11 A. To the customer.</p> <p>12 Q. Okay. But for the -- for the most part the LMU3000,</p> <p>13 3030, and 3050 are shipped back to California; correct?</p> <p>14 A. I would say that's correct.</p> <p>15 Q. And then there's a -- those devices are tested at</p> <p>16 Calamp's California facilities?</p> <p>17 A. Yes, they're tested in -- in the Oxnard facility</p> <p>18 prior to the provision.</p> <p>19 Q. Where is Oxnard at in California?</p> <p>20 A. North of Los Angeles.</p> <p>21 Q. And then after -- and is that just called a</p> <p>22 validation test or is that the testing?</p> <p>23 A. The testing is a manufacturing test, not a -- not a</p> <p>24 validation, but just a validation of the hardware operation.</p> <p>25 Q. And then once the hardware is verified or the</p>
<p>Page 34</p> <p>1 A. Yes.</p> <p>2 Q. And for purposes of doing a speed exceedance with bus</p> <p>3 speed, you can do that with the LMU3000, 3030, and 3050;</p> <p>4 right?</p> <p>5 A. I believe so, yes.</p> <p>6 Q. And you can likewise do it using a vPOD in</p> <p>7 combination -- or vPOD2 in combination with one of the</p> <p>8 compatible LMU units?</p> <p>9 A. Yes.</p> <p>10 MR. SANTURRI: Why don't we go ahead and take a break and</p> <p>11 grab some water.</p> <p>12 THE VIDEOGRAPHER: We are off the record at 11:06 a.m.</p> <p>13 (Brief recess.)</p> <p>14 THE VIDEOGRAPHER: We are back on the record at</p> <p>15 11:18 a.m.</p> <p>16 BY MR. SANTURRI:</p> <p>17 Q. Do you -- strike that.</p> <p>18 Did you undertake any investigation of whether</p> <p>19 Calamp's devices infringe any of the claims in this case?</p> <p>20 A. I don't believe I did.</p> <p>21 Q. Didn't -- didn't review the patents to try to</p> <p>22 determine for yourself?</p> <p>23 A. I may have, but it would have been years ago and I</p> <p>24 don't recall any outcome.</p> <p>25 Q. All right. With respect to the LMU3000, 3030, and</p>	<p>Page 36</p> <p>1 hardware operation is verified, then the 3000, 3030, and 3050</p> <p>2 is -- strike all that.</p> <p>3 Once there's the manufacturing verification process,</p> <p>4 there's software that's downloaded by Calamp into each of the</p> <p>5 LMU3000, 3030, and 3050; right?</p> <p>6 A. Actually, the software is downloaded prior to the</p> <p>7 verification test.</p> <p>8 Q. Okay. So there was the manufacturing -- the</p> <p>9 operational testing, is that the first step when they get --</p> <p>10 when devices get back from China?</p> <p>11 A. When they get back from China the first step is</p> <p>12 actually the downloading of the software.</p> <p>13 Q. So -- and the downloading -- well, let me start this</p> <p>14 process to make sure I have it.</p> <p>15 So LMU3000, 3030, and 3050 are manufactured in China;</p> <p>16 right?</p> <p>17 A. Right.</p> <p>18 Q. And then they're typically going to be shipped back</p> <p>19 to Calamp's facilities in California?</p> <p>20 A. Yes.</p> <p>21 Q. And the first step there once they return here or</p> <p>22 arrive here in California is for Calamp to download software</p> <p>23 into each of the LMU's; right?</p> <p>24 A. Yes.</p> <p>25 Q. And that's done through the serial port that we</p>

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<p style="text-align: right;">Page 37</p> <p>1 looked at on the bored?</p> <p>2 A. Yes.</p> <p>3 Q. Okay. And then once that software is downloaded</p> <p>4 through the port, then those devices are tested by Calamp?</p> <p>5 A. Yes.</p> <p>6 Q. And once the testing is complete, are they then</p> <p>7 shipped to customers?</p> <p>8 A. It depends on the customer, they may be provisioned</p> <p>9 prior to shipment.</p> <p>10 Q. And what's the distinction between downloading</p> <p>11 software and provisioning?</p> <p>12 A. Downloading the software is generic to all customers.</p> <p>13 Though they may be specific versions that a particular</p> <p>14 customer has requested, after the software is downloaded the</p> <p>15 test is executed using the software on the LMU's. After that</p> <p>16 the provisioning of the customer's script take place and</p> <p>17 sometimes a cellular account is also provisioned at that time.</p> <p>18 Q. Okay. So -- now, is the -- the initial download of</p> <p>19 the software, is that software for both the LMU layer and the</p> <p>20 OBD layer?</p> <p>21 A. Yes.</p> <p>22 Q. And then when you provision the devices, is that --</p> <p>23 does that mean that you're downloading scripts through the</p> <p>24 same serial port into the devices?</p> <p>25 A. Yes.</p>	<p style="text-align: right;">Page 39</p> <p>1 of the LMU3000?</p> <p>2 A. Yes.</p> <p>3 Q. And you're just saying that there can be additional</p> <p>4 functionality in the vPOD/LMU combination that might not be</p> <p>5 found in the LMU3000?</p> <p>6 A. Correct.</p> <p>7 Q. And with respect to the vPOD2, is all of the</p> <p>8 functionality and features found in the LMU3030 also found in</p> <p>9 the vPOD2 combined with a compatible LMU?</p> <p>10 A. Yes.</p> <p>11 Q. Okay. Do you recall whether you worked with a fellow</p> <p>12 named Eric Anders (phonetic) in this case?</p> <p>13 A. I don't recall the name.</p> <p>14 Q. All right. Do you remember talking to anyone who was</p> <p>15 working for Calamp as a technical expert in this case?</p> <p>16 A. No.</p> <p>17 Q. Did you talk to anybody who was a technical expert in</p> <p>18 this case?</p> <p>19 A. Can you clarify that?</p> <p>20 Q. Well, have you had any conversations with someone</p> <p>21 who's -- who you understood to be Calamp's expert for the</p> <p>22 litigation?</p> <p>23 A. Oh, not from a technical sense, no.</p> <p>24 Q. Did you work with -- you didn't have any discussions</p> <p>25 with a fellow named Eric Anders about this case?</p>
<p style="text-align: right;">Page 38</p> <p>1 Q. Okay. And then once the -- once that has occurred,</p> <p>2 is there a subsequent testing phase once the devices have the</p> <p>3 script downloaded in them?</p> <p>4 A. Not typically, no.</p> <p>5 Q. Then they would just be shipped out to customers?</p> <p>6 A. Yes.</p> <p>7 Q. Okay. In terms of the -- the LMU3000 and comparing</p> <p>8 it to the vPOD, I know we talked something about that, I just</p> <p>9 want to make sure I understand it in plain English. So the</p> <p>10 LMU3000 has both -- or has GPS functionality, cellular</p> <p>11 functionality, and an OBD interface all within that box,</p> <p>12 right?</p> <p>13 A. Yes.</p> <p>14 Q. And is there any functional difference between the</p> <p>15 OBD 3000 and a vPOD combined with one of the compatible LMU's?</p> <p>16 MR. KAUTH: Objection; form.</p> <p>17 THE WITNESS: So the -- it's possible that other products,</p> <p>18 such as the 4200 family, has more interfaces and has</p> <p>19 additional functionality not present in the 3000.</p> <p>20 BY MR. SANTURRI:</p> <p>21 Q. Is it fair to say that the functionality and</p> <p>22 feature -- that the functionality and features of the</p> <p>23 LMU3000 -- strike that.</p> <p>24 Is it fair to say that the LMU combined with the vPOD</p> <p>25 has at least all of the features and functionality of the --</p>	<p style="text-align: right;">Page 40</p> <p>1 A. No, I don't know the name.</p> <p>2 Q. And have you -- I think I asked you before about</p> <p>3 invalidity, but did you work with David Bailey, one of</p> <p>4 Calamp's lawyers, for analyzing infringement in this case?</p> <p>5 A. I may have years ago, but not recently.</p> <p>6 Q. You have been designated as a representative on</p> <p>7 whether Calamp has willfully or deliberately infringed in this</p> <p>8 case. Beyond knowing about the devices and how they operate,</p> <p>9 do you know anything about Calamp's assertions that its</p> <p>10 actions are not willful or deliberate?</p> <p>11 A. I would say from my experience in the development of</p> <p>12 these devices that there's no willful infringement.</p> <p>13 Q. And -- and what's that based on?</p> <p>14 A. That's based on knowing where the -- the technology</p> <p>15 that we use came from and the fact that these were</p> <p>16 sales-driven requests and somebody had a problem to solve and</p> <p>17 we went about solving the problem.</p> <p>18 Q. What do you mean sales-driven request?</p> <p>19 A. Well, typically our -- typically we have a customer</p> <p>20 that says hey, I would like to do this particular -- have a</p> <p>21 product that has this feature and so Calamp goes about</p> <p>22 designing that product.</p> <p>23 Q. So the LMU3000 development was the result of -- or</p> <p>24 was -- was undertaken because customers expressed a demand to</p> <p>25 Calamp for these products?</p>

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<p style="text-align: right;">Page 41</p> <p>1 A. I -- I believe that's the case. I can't say</p> <p>2 specifically for these, but that's in general how our product</p> <p>3 development works.</p> <p>4 Q. Does -- have you been involved on Calamp's behalf</p> <p>5 with reverse engineering any similar products on the market?</p> <p>6 A. No.</p> <p>7 Q. Do you know whether Calamp tried to reverse engineer</p> <p>8 any data bus modules or adaptors?</p> <p>9 A. I'm pretty certain they did not.</p> <p>10 Q. Have you been provided with any of the opinions of</p> <p>11 counsel in this case?</p> <p>12 A. Not recently, to my knowledge.</p> <p>13 Q. Well, let me -- well, actually, you have them in</p> <p>14 front of you, so let me pull them out and make sure you know</p> <p>15 what I'm talking about. For example, if you want to pull out</p> <p>16 Exhibit 63. Have you ever seen the opinion of Mr. Bailey</p> <p>17 that's found at Exhibit 63?</p> <p>18 A. No, I -- I haven't seen this before.</p> <p>19 Q. Have you seen any opinions of counsel that came in a</p> <p>20 written format like this?</p> <p>21 A. No.</p> <p>22 Q. Do you recall working with Mr. Bailey on opinions of</p> <p>23 non-infringement or invalidity?</p> <p>24 A. I've been on phone calls with Mr. Bailey, but to tell</p> <p>25 you the truth, I couldn't even say that they were related to</p>	<p style="text-align: right;">Page 43</p> <p>1 before or not.</p> <p>2 Q. Well, do you recall looking at this to try to</p> <p>3 evaluate whether Calamp's OBD devices infringed this claim?</p> <p>4 A. No, I don't.</p> <p>5 Q. Do you recall whether you looked at any of the claims</p> <p>6 in the patents of suit for purposes of evaluating</p> <p>7 infringement?</p> <p>8 A. Well, I know I have reviewed some patents, and it's</p> <p>9 been years, to see if there's been -- to look at the wording</p> <p>10 of the claim and see if there's any infringement, but that's</p> <p>11 less of a -- I think more of an informal process and I</p> <p>12 couldn't say it was this -- this patent or not.</p> <p>13 Q. Well, do you recall reaching the conclusion with</p> <p>14 respect to any of Omega's patents that the Calamp OBD devices</p> <p>15 were infringing?</p> <p>16 MR. KAUTH: Objection; form.</p> <p>17 THE WITNESS: No, I don't recall coming to that</p> <p>18 conclusion.</p> <p>19 BY MR. SANTURRI:</p> <p>20 Q. Do you recall coming to the conclusion that they were</p> <p>21 not -- none of them were infringing?</p> <p>22 A. I don't recall that either.</p> <p>23 Q. Did you work with Mr. Chen on evaluating Omega's</p> <p>24 patents?</p> <p>25 A. I worked with Mr. Chen on evaluating somebody's</p>
<p style="text-align: right;">Page 42</p> <p>1 this case or not.</p> <p>2 Q. Okay.</p> <p>3 A. And it's been quite a while since.</p> <p>4 Q. Based on your experience and education, would you --</p> <p>5 would you agree that the ability of the LMU3000 to query</p> <p>6 devices on the bus and receive response is performing a</p> <p>7 control function of those devices?</p> <p>8 MR. KAUTH: I'll object as outside the scope of his</p> <p>9 designation, but you can answer if you know.</p> <p>10 THE WITNESS: I wouldn't call it a control function, it's</p> <p>11 a query process.</p> <p>12 BY MR. SANTURRI:</p> <p>13 Q. Okay. How do you define a control function?</p> <p>14 A. A control would be to manipulate something to --</p> <p>15 to -- to cause some type of action.</p> <p>16 Q. Well, isn't -- isn't causing a device to respond</p> <p>17 causing an action?</p> <p>18 A. I suppose it could be interpreted that way. It's not</p> <p>19 how I kind of view the control process, but okay.</p> <p>20 Q. All right. Can you take out Exhibit 51. If you can</p> <p>21 flip to the last couple pages, column 11. And you see claim 1</p> <p>22 there in column 11?</p> <p>23 A. Yes.</p> <p>24 Q. Do you recall having reviewed claim 1 in the past?</p> <p>25 A. I truthfully can't say whether I have seen this</p>	<p style="text-align: right;">Page 44</p> <p>1 patents, but it may have been Omega's or -- or not, I'm not</p> <p>2 sure.</p> <p>3 Q. Do you remember the technology at issue in the</p> <p>4 patents that you were looking at?</p> <p>5 A. It was around vehicle bus technology.</p> <p>6 Q. But you don't know whether they were Omega's patents?</p> <p>7 A. No, I don't.</p> <p>8 Q. Did you reach a conclusion that there was an</p> <p>9 infringement on any of the patents that you looked at?</p> <p>10 A. No, I didn't come to that conclusion.</p> <p>11 Q. Did you conclude that there was no infringement with</p> <p>12 all the patents you looked at?</p> <p>13 A. I wouldn't say -- I don't recall there being an</p> <p>14 infringement on any of the patents I looked at.</p> <p>15 Q. Have you been asked to -- by Calamp to -- or its</p> <p>16 lawyers to investigate design around or products to avoid any</p> <p>17 of Omega's patents?</p> <p>18 MR. KAUTH: I'll object to the extent that it calls for</p> <p>19 any information from your lawyers. But you can answer without</p> <p>20 disclosing any information received from counsel.</p> <p>21 THE WITNESS: Can you state the question again?</p> <p>22 BY MR. SANTURRI:</p> <p>23 Q. Sure. Have you evaluated any design options in an</p> <p>24 effort to avoid any of Omega's patents?</p> <p>25 A. We did look at some options to -- to ensure that we</p>

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<p style="text-align: right;">Page 45</p> <p>1 didn't have any infringements, but whether it was Omega's</p> <p>2 patents or not I'm not clear on.</p> <p>3 Q. And did you implement whatever design option it was</p> <p>4 in an effort to try to avoid infringement?</p> <p>5 A. No, we did not.</p> <p>6 Q. Do you recall when that was?</p> <p>7 A. Let's see, I can't recall specifically; it's been</p> <p>8 three or four years at least.</p> <p>9 Q. Was that specific to devices that operated on the</p> <p>10 bus?</p> <p>11 A. Yes, it was specific to a vehicle bus.</p> <p>12 Q. Did you make notes or create any designs or</p> <p>13 prototypes?</p> <p>14 A. No, we didn't go that far.</p> <p>15 Q. But you -- ultimately Calamp didn't implement</p> <p>16 whatever alternative designs you came up with in an effort to</p> <p>17 avoid the patents you reviewed?</p> <p>18 A. To tell you the truth, I don't think we came up with</p> <p>19 any alternative designs.</p> <p>20 Q. So -- so there was an evaluation of some patents on</p> <p>21 data bus; right?</p> <p>22 A. There was some evaluation of some behaviors of the --</p> <p>23 of our -- our equipment.</p> <p>24 Q. What behaviors?</p> <p>25 A. I believe it had to do with pulling.</p>	<p style="text-align: right;">Page 47</p> <p>1 if it didn't work on multiple vehicles?</p> <p>2 A. It would have a limited value.</p> <p>3 Q. You would need separate skus for each vehicle; right?</p> <p>4 A. That would be one way of solving that problem.</p> <p>5 Q. Is there any other way?</p> <p>6 A. Different skus could be different software got loaded</p> <p>7 onto the same sku.</p> <p>8 Q. Okay. So you can -- whether you have a different sku</p> <p>9 or not, you would need to -- if -- if the LMU3000 was vehicle</p> <p>10 specific, it would need software for each vehicle in which it</p> <p>11 was -- separate software for each vehicle in which it was</p> <p>12 designed to work?</p> <p>13 A. Each vehicle type I would guess, yes.</p> <p>14 Q. And that would be a more expensive exercise, I would</p> <p>15 think, from Calamp's perspective?</p> <p>16 A. Yes.</p> <p>17 Q. And less desirable than the -- than the option you</p> <p>18 have now where the LMU is able to service multiple vehicles?</p> <p>19 A. Yes, even though it is still pretty painful.</p> <p>20 Q. Do you know whether the LMU3000 -- let me back up.</p> <p>21 Other than using the serial port or wireless update,</p> <p>22 are there any other options available to Calamp in order to</p> <p>23 load the software and data bus codes on the LMU3000?</p> <p>24 A. Could you say that again?</p> <p>25 Q. Sure. So I know we talked earlier about using a</p>
<p style="text-align: right;">Page 46</p> <p>1 Q. What do you mean by pulling?</p> <p>2 A. Getting parameters from the vehicle bus.</p> <p>3 Q. And what -- what -- were there specific behaviors you</p> <p>4 were concerned about?</p> <p>5 A. I don't remember the details of the behaviors, I just</p> <p>6 remember it was related to the -- actually getting the</p> <p>7 parameters from the bus.</p> <p>8 Q. When you say getting parameters from the bus, what --</p> <p>9 is that after the device has determined what the bus protocol</p> <p>10 is?</p> <p>11 A. Yes, I believe so.</p> <p>12 Q. Is that after the device has determined what the VIN</p> <p>13 number is?</p> <p>14 A. I would guess so, yes.</p> <p>15 Q. When you said that you didn't -- you didn't come up</p> <p>16 with other design alternatives to -- to avoid whatever patents</p> <p>17 you were evaluating?</p> <p>18 A. We had a discussion with -- and I believe my lawyer</p> <p>19 was -- our lawyer was present in those discussions.</p> <p>20 Q. Did -- do you know whether the OBD 3000 and the</p> <p>21 other -- well, let me just start with the OBD 3000.</p> <p>22 MR. KAUTH: Do you mean LMU?</p> <p>23 MR. SANTURRI: Yes. All right. I'll start that all over.</p> <p>24 BY MR. SANTURRI:</p> <p>25 Q. Do you know whether the LMU3000 would have any value</p>	<p style="text-align: right;">Page 48</p> <p>1 serial port to download software and data bus codes on an</p> <p>2 LMU3000; right?</p> <p>3 A. Yes.</p> <p>4 Q. And you could also do that wirelessly; right?</p> <p>5 A. Yes.</p> <p>6 Q. Other than those two options, is there any way from</p> <p>7 an engineering perspective in order to load the software and</p> <p>8 data bus codes onto the LMU3000?</p> <p>9 A. Nothing that comes to mind at all, no.</p> <p>10 Q. Could that be done during the manufacturing process,</p> <p>11 loaded directly onto the processor or directly into the memory</p> <p>12 during manufacturing?</p> <p>13 A. There is a processor interface that's used for debug</p> <p>14 that conceivably could be used to load the program that way,</p> <p>15 but it's not as cost effective to do that.</p> <p>16 Q. It would be a more expensive way to do it?</p> <p>17 A. Yes.</p> <p>18 Q. Less convenient?</p> <p>19 A. Yes.</p> <p>20 Q. I know I gave you one of the requests for proposals,</p> <p>21 are you ever involved in those -- in preparation of those</p> <p>22 types of documents?</p> <p>23 A. Mostly consulted for those, but not -- not directly</p> <p>24 in the generation of the documents.</p> <p>25 Q. Consulted separate from Calamp or as part of where</p>

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<p>Page 49</p> <p>1 you work?</p> <p>2 A. As part of Calamp. So if Calamp has an RFP they're</p> <p>3 working on, I may or may not be asked to provide technical</p> <p>4 solutions that contribute to that.</p> <p>5 Q. Have you -- strike that.</p> <p>6 Have you been involved on Calamp's behalf with</p> <p>7 evaluating technology for licensing purposes?</p> <p>8 A. I may have, not in anything I can really recollect</p> <p>9 specifically.</p> <p>10 Q. That's not part of -- part of your regular duties</p> <p>11 with Calamp?</p> <p>12 A. No.</p> <p>13 Q. Have you evaluated it or analyzed any of the Omega</p> <p>14 Patents that are not part of this case that you can recall?</p> <p>15 A. Not that I can recall.</p> <p>16 Q. Have you evaluated technology or patent of other</p> <p>17 companies who have been involved with Calamp in patent</p> <p>18 litigation?</p> <p>19 A. So litigating against Calamp I guess is what you're</p> <p>20 saying?</p> <p>21 Q. Yes, sir.</p> <p>22 A. I've been involved, yes, I believe so.</p> <p>23 Q. Are you familiar with the Forbes patents?</p> <p>24 A. No. Not by name, no.</p> <p>25 Q. Does the vPOD have a serial port on it?</p>	<p>Page 51</p> <p>1 software. Yes, that's kind of a lookup table, so to speak.</p> <p>2 And I -- I don't have detailed knowledge on those.</p> <p>3 Q. But that's part of the software that's downloaded</p> <p>4 into the vPOD; right?</p> <p>5 A. Yes.</p> <p>6 Q. And is that downloaded through the serial port on the</p> <p>7 vPOD?</p> <p>8 A. Yes.</p> <p>9 Q. Is it possible to download that same software</p> <p>10 wirelessly to the vPOD?</p> <p>11 A. Yes, I believe it is.</p> <p>12 Q. Is that -- would that go through the attached LMU?</p> <p>13 A. Yes.</p> <p>14 Q. Okay. And would the vPOD2, does it have a serial</p> <p>15 port?</p> <p>16 A. Yes.</p> <p>17 Q. Just like with the 3030 and 3050, can you use the</p> <p>18 serial port on the vPOD2 to download the software and bus</p> <p>19 codes?</p> <p>20 A. To download the software and I believe it also has</p> <p>21 maybe something like a database list as well, yes.</p> <p>22 Q. Okay. And does the vPOD2 allow for wireless download</p> <p>23 of that software through its attached LMU to the vPOD?</p> <p>24 A. Yes.</p> <p>25 MR. SANTURRI: All right. Sir, I don't think I have any</p>
<p>Page 50</p> <p>1 A. Yes, it does.</p> <p>2 Q. And do you download the software and data bus codes</p> <p>3 on the vPOD in the same manner as you do for the LMU3000?</p> <p>4 A. Okay. When you talk about data bus codes being</p> <p>5 downloaded, I'm not really sure what the --</p> <p>6 Q. Well, you understand that there is -- there are data</p> <p>7 bus codes as part of the OBD layer in the 3000 and 3030;</p> <p>8 right?</p> <p>9 A. These are codes that are on the vehicle bus that are</p> <p>10 used to access parameters; right? They're called PIDS; right?</p> <p>11 Q. That's one example, yes.</p> <p>12 A. Okay.</p> <p>13 Q. And is that -- is that usually part of the OBD layer</p> <p>14 software or firmware?</p> <p>15 A. The -- the OBD software/firmware layer is responsible</p> <p>16 for using those parameter identifications to go ask for those</p> <p>17 parameters on the various vehicle buses.</p> <p>18 Q. And so is that software that includes the -- let me</p> <p>19 strike that.</p> <p>20 For the vPOD, the software that's loaded onto the</p> <p>21 vPOD includes both sort of the operational software for the</p> <p>22 OBD layer and the codes and data needed to be able to access</p> <p>23 the bus and query information; right?</p> <p>24 A. I believe you're talking about something like a</p> <p>25 database or a list of things that are contained alongside the</p>	<p>Page 52</p> <p>1 more questions.</p> <p>2 MR. KAUTH: All right. I have no questions.</p> <p>3 MR. SANTURRI: Read or waive?</p> <p>4 MR. KAUTH: Read, please.</p> <p>5 MR. SANTURRI: And you're not going to be here tomorrow;</p> <p>6 right? We can go off video.</p> <p>7 THE VIDEOGRAPHER: We are off the record at 11:51 a.m.</p> <p>8 And this concludes today's deposition. Total number of media</p> <p>9 used was one.</p> <p>10 (Brief discussion off the record.)</p> <p>11 MR. SANTURRI: From plaintiff's perspective, we're okay</p> <p>12 with all the ex bits for Tuesday and Wednesday's depo to</p> <p>13 remain here for the subsequent depositions this week.</p> <p>14 MR. KAUTH: And defendant agrees.</p> <p>15</p> <p>16 (Whereupon the proceedings ended at 11:51 p.m.)</p> <p>17 (Penalty of Perjury on the following page, attached</p> <p>18 hereto.)</p> <p>19</p> <p>20</p> <p>21</p> <p>22</p> <p>23</p> <p>24</p> <p>25</p>

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1 REPORTER'S CERTIFICATION

2

3 I, Sandra K. Martinovich, a Certified Shorthand

4 Reporter in and for the State of California, do hereby

5 certify:

6

7 That the foregoing witness was by me duly sworn; that

8 the deposition was then taken before me at the time and place

9 herein set forth; that the testimony and proceedings were

10 reported stenographically by me and later transcribed into

11 typewriting under my direction; that the foregoing is a true

12 record of the testimony and proceedings taken at that time.

13

14 IN WITNESS WHEREOF, I subscribe my name this 22nd Day

15 of April, 2015.

16

17 

18

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20 SANDRA K. MARTINOVICH

21 CSR. NO. 11537

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1 DEPOSITION ERRATA SHEET

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25 PETER HERGESHEIMER

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1 DEPOSITION ERRATA SHEET

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4 Our Assignment No. 320400

5 Case Caption:

6 OMEGA PATENTS

7 Vs.

8 CALAMP CORPORATION

9

10 DECLARATION UNDER PENALTY OF PERJURY

11 I declare under penalty of perjury that I have read

12 the entire transcript of my Deposition taken in the

13 above-captioned matter or the same has been read to me, and

14 the same is true and accurate, save and except for changes

15 and/or correction, if any, as indicated by me on the

16 DEPOSITION ERRATA SHEET hereof, with the understanding that I

17 offer these changes as if still under oath.

18 Signed on the _____ day of _____, 20____,

19 _____.

20 PETER HERGESHEIMER

21

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1 DEPOSITION ERRATA SHEET

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