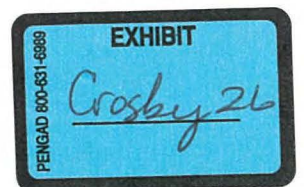


# EXHIBIT 1

[REDACTED]

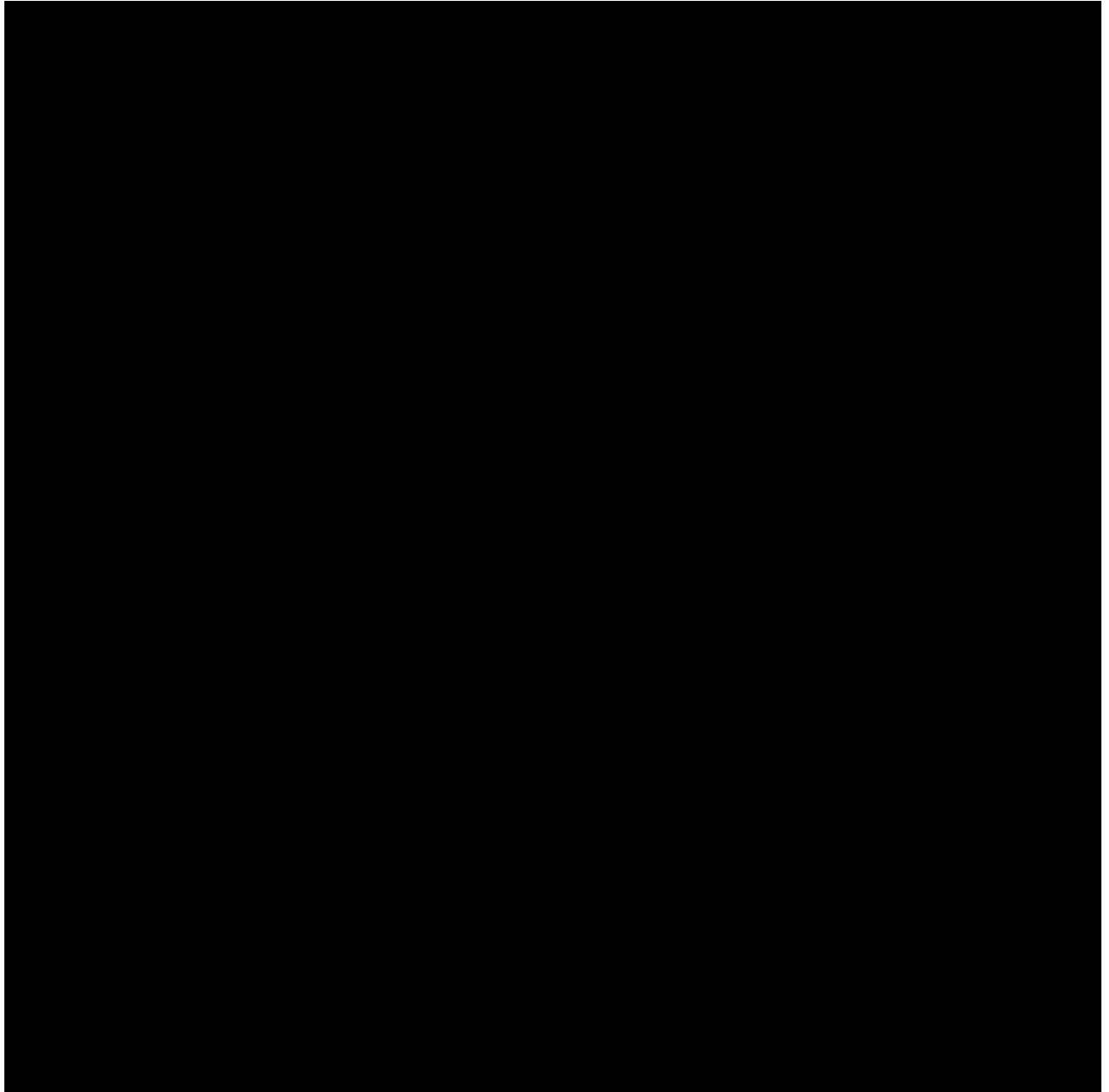
# APPENDIX 6



**The Accused PiXel8 and PiXel8 Pro Products Practice Each and Every Limitation of the  
Asserted Claims**

**1. '536 PATENT, CLAIM 1**

**1.1. "1[pre] A method of treating dermatological tissue, comprising:"**



40. I personally inspected the Pixel8 and confirmed the Accused PiXel Products practice this limitation. [REDACTED]

1.6. **“1[c] energizing a motor coupled to a plurality of extendable needles to cause a plurality of the extendable needles to extend a desired distance from the needle assembly end surface; and”**

41. It is my opinion that the Rohrer Respondents perform and/or instruct, recommend, encourage, and/or promote users to perform a method of operation utilizing the Accused PiXel Products which includes energizing a motor coupled to a plurality of extendable needles to cause a plurality of the extendable needles to extend a desired distance from the needle assembly end surface, for the reasons discussed herein for '536 Patent, Claim 1[c] (discussing the Accused Products' functionality), in Section 11.1 (discussing evidence of direct infringement), and in Section 12 (discussing evidence of indirect infringement).

42. I understand that the parties agree that the term “extendable needles” means “needles that can be extended [from the deployable needle assembly end surface].” See July 21, 2023 JCCC.



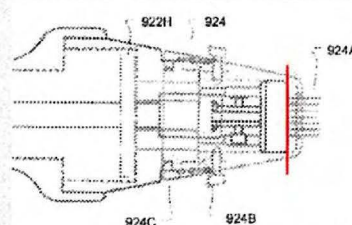
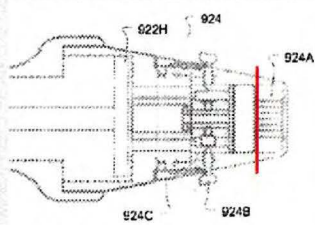
43. I understand that the parties dispute the construction of the term “a [user holdable device releasably couplable] deployable needle assembly end surface.” The constructions proposed by the parties are below:

| Serendia                                                                                                                                                                                                                                                                                                                                          | Staff                                                                                                                                                                                                                                                                                                | Respondents                                                                                                                                                                                                                  |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| the deployable needle assembly end surface is the plane defined by the tips of the needles of the deployable needle assembly when the needles are not extended, the needle assembly can be movable within a needle module that is releasably couplable to the proximal end of a user holdable device<br><br><i>(same as Staff's construction)</i> | The deployable needle assembly end surface is the plane defined by the tips of the needles of the deployable needle assembly when the needles are not extended, the needle assembly can be movable within a needle module that is releasably couplable to the proximal end of a user holdable device | the end surface of a [user holdable device] deployable needle assembly from which the plurality of needles protrude, wherein the deployable needle assembly is releasably couplable to a [user holdable device] proximal end |

44. Regardless of the construction, it is my opinion that the Accused PiXel Products practice this limitation. Under Serendia’s proposed construction, the Accused PiXel Products practice this limitation literally or under the doctrine of equivalents. Under Respondents’ proposed construction the Accused PiXel Products practice this limitation literally or under the doctrine of equivalents too. *See* Respondents’ Markman Presentation at slide 22 (reproduced from Figure 1 above). According to Respondents, under their construction “The Needles Are Extendable From The Needle Assembly End Surface.” *Id.*

### Under Respondents' Construction, The Needles Are Extendable From The Needle Assembly End Surface

- The patent and claims are directed to deployable or movable needles, not needles that are capable of being lengthened or made longer.



- When the claims recite "needles extendable ...from a needle assembly end surface", that is referring to needles that are deployable or moveable and originate from an end surface of the needle assembly from which they protrude.
- That is Respondents' construction and the only defensible one supported by the intrinsic evidence.
- Otherwise, the claim term is indefinite. (See Resp. Markman Br. at 14–16).

Respondents' Markman Presentation

22

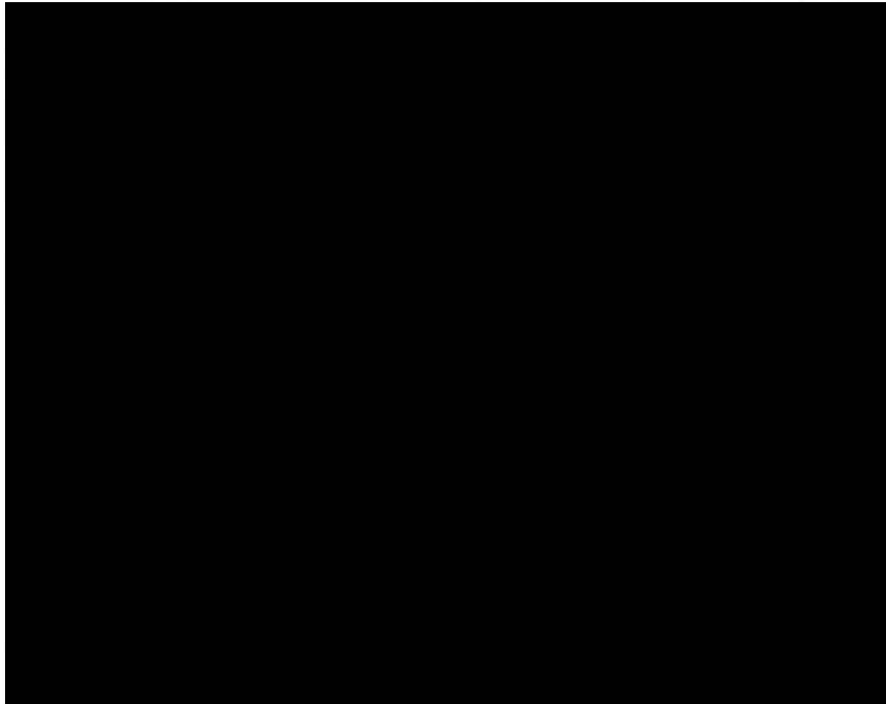
45. The Rohrer Respondents' documents confirm that the Accused PiXel Products practice this limitation. For example, a PiXel8 YouTube Video shows the Accused PiXel Products energize a solenoid coupled to a plurality of extendable needles to cause a plurality of the extendable needles to extend a desired distance from the needle assembly end surface. SERENDIA-00007805 (PiXel8 YouTube Video 3) at 0:16, 0:36, 0:39, 0:40, 1:00, 1:01; *see also* SERENDIA-00006784 (PiXel8 Parameters) at SERENDIA-00006786. An electric motor is a machine that converts electrical energy into mechanical energy. A solenoid is a type of electric motor.

[REDACTED]

47. I personally inspected the Pixel8 and confirmed the Accused PiXel Products practice this limitation. [REDACTED]

[REDACTED]

48. Furthermore, see Figure 6 below which illustrates the mechanism for adjusting the desired distance of needle extension (SERENDIA-00082480). The end of the handpiece (proximal end) can be rotated relative to the body of the handpiece. A scale on the proximal end is lined up with an arrow on the body of the handpiece. The adjustment range is from 0.0 mm to 4.0 mm.



49. To the extent that the Rohrer Respondents contend that this limitation is not literally present the Accused PiXel Products, it is met under the doctrine of equivalents. Both this claim limitation and the Accused PiXel Products perform substantially the same function of causing the plurality of needles to extend a desired distance from the deployable needle assembly end surface. The way that the Accused PiXel Products do so is also substantially the same – like the subject claim limitation, the Accused PiXel Products include solenoids to linearly move the plurality of needles to extend from the end surface, and the desired distance that the needles extend is predetermined by the mechanical adjustment on the handpiece. Further, both the claim limitation and the Accused PiXel Products achieve the same result: extending the plurality of needles a desired distance from the end surface.

[REDACTED]

- 5.3. “11[a2] the deployable needle assembly mechanically separatably from the proximal end and including a plurality of extendable needles, a plurality of the extendable needles extendable from a deployable needle assembly end surface,”

75. It is my opinion that the Accused PiXel Products practice this limitation. [REDACTED]

[REDACTED]

- 5.4. “11[a3] one of the proximal end and the deployable needle assembly including at least one electrical conductor and the other including at least one restorably deflectable electrical contact couplable to the one of the proximal end and the deployable needle assembly at least one electrical conductor”

76. It is my opinion that the Accused PiXel Products practice this limitation. [REDACTED]

[REDACTED]

- 5.5. “11[b] a motor coupled to a plurality of extendable needles that causes the plurality of extendable needles to extend a desired distance from the needle assembly end surface when the motor is energized with a particular signal; and”

77. It is my opinion that the Accused PiXel Products practice this limitation. [REDACTED]

[REDACTED]

78. I understand that the parties agree that the term “particular signal” means “Plain and ordinary meaning: an electrical motor control signal.” *See* July 21, 2023 JCCC.

79. The Rohrer Respondents’ documents confirm that the Accused PiXel Products practice this limitation. For example, a PiXel8 YouTube Video shows the Accused PiXel Products energize a solenoid coupled to the needle assembly to cause a plurality of the extendable needles to extend a desired distance from the needle module end surface in response to a particular signal. SERENDIA-00007805 (PiXel8 YouTube Video 3) at 0:39, 0:40, 1:00, 1:01. A solenoid is a type of electric motor.

[REDACTED]

[REDACTED]

[REDACTED]

81. To the extent that the Rohrer Respondents contend that this limitation is not literally present in the Accused PiXel Products, it is met under the doctrine of equivalents. Both this claim limitation and the Accused PiXel Products perform substantially the same function of causing the plurality of needles to extend a desired distance from the end surface after receiving a signal. The way that the Accused PiXel Products do so is also substantially the same – like the subject claim limitation, the Accused PiXel Products include solenoids to linearly move the plurality of needles to extend a desired distance from the end surface in response to a signal, and the desired distance that the needles extend is predetermined by the mechanical adjustment on the handpiece. Further, both the claim limitation and the Accused PiXel Products achieve the same result: extending the plurality of needles a desired distance from the end surface after receiving a signal.

82. Moreover, there is an insubstantial difference between this claim limitation and the Accused PiXel Products: Under Rohrer's view that the solenoid in the Accused PiXel Products is not a type of motor (which I believe is incorrect), there is an insubstantial difference between using a solenoid cause the plurality of needles to extend a desired distance from the end surface after receiving a signal and using a motor. Both receive electrical signals to perform mechanical linear movement.

83. I personally inspected the Pixel8 and confirmed the Accused PiXel Products practice this limitation. [REDACTED]

5.6. "11[c] a signal generator electrically coupled to the plurality of extended needles to energize the plurality of extended needles."

84. It is my opinion that the Accused PiXel Products practice this limitation. [REDACTED]

## 6. '536 PATENT, CLAIM 16

6.1. "The apparatus of claim 11, the wherein at least one restorably deflectable electrical contact includes a depressible pin."

85. It is my opinion that the Accused PiXel Products practice this limitation.

[REDACTED]

[REDACTED]

8. '774 PATENT, CLAIM 11<sup>1</sup>

8.1. "11[pre] An apparatus for treating dermatological tissue, comprising:"

94. It is my opinion that the Accused PiXel Products practice this limitation.

[REDACTED]

---

<sup>1</sup> I understand Serendia is currently asserting claims 13 and 14 of the '774 Patent. I provide an analysis of claims 11 and 12 of the '774 Patent here because claims 13 and 14 of the '774 Patent depend upon those claims.

[REDACTED]

8.2. “11[a] a device including a plurality of needles one of extending or extendable a desired distance from a surface, the desired distance selected to enable the plurality of needles to penetrate dermatological tissue; and”

98. It is my opinion that the Accused PiXel Products practice this limitation.

99. I understand that parties agree that the term “needles one of extending or extendable” means “needles that are either extended or can be extended [from the device surface] (needles “extending” a desired distance from the surface covers non-extendable needles having a fixed length; ‘extendable’ needles covers needles which are not fixed).” *See* July 21, 2023 JCCC.

100. I understand that parties agree that the term “a plurality of needles one of extending or extendable . . . the plurality of extended needles” means “Plain and ordinary meaning: two or more extendable needles or extending needles . . . the two or more extended needles.” *See* July 21, 2023 JCCC.

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

113. I personally inspected the Pixel8 and confirmed the Accused PiXel Products practice this limitation. [REDACTED]

[REDACTED]

9. '774 PATENT, CLAIM 12

9.1. "The apparatus for treating dermatological tissue of claim 11, wherein the device includes an end surface configured to be placed on or near dermatological tissue to be treated, the end surface including a plurality of needles extendable a desired distance from the end surface."

114. It is my opinion that the Accused PiXel Products practice this limitation.

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

118. I personally inspected the Pixel8 and confirmed the Accused PiXel Products practice this limitation. [REDACTED]

**10. '774 PATENT, CLAIM 13**

**10.1. "The apparatus for treating dermatological tissue of claim 12, further including a mechanism for causing the plurality of the extendable needles to extend a desired distance from the end surface."**

119. It is my opinion that the Accused PiXel Products practice this limitation.

120. I understand that the parties dispute the construction of the term "mechanism." The constructions proposed by the parties are below:

| Serendia                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Staff                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Respondents                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>This term is subject to 35 U.S.C. § 112(6)</p> <p><b>Recited Function:</b> causing the plurality of the extendable needles to extend a desired distance from the end surface.</p> <p><b>Corresponding Structures:</b></p> <p>A motor and LED module 922, depicted in Figs. 9A, 9C-D, 10A-E; and described at col. 13 lines 15-20, 22-26; col. 14 lines 14-20, 29-34; or</p> <p>A needle deployment motor controller (NDMC) module 911B, depicted in Fig. 9B; and described at col. 10 lines 31-36, 51-55; or</p> <p>One or more motors 922A, depicted in Figs. 9C-D; and described at col. 10 lines 36-39, 55-59; col. 11 lines 57-60; col. 14 lines 3-11, 24-26; or</p> <p>One or more drive shafts 922C, depicted in Figs. 9C-D</p> | <p>This term is subject to 35 U.S.C. § 112(6)</p> <p><b>Recited Function:</b> causing the plurality of the extendable needles to extend a desired distance from the end surface.</p> <p><b>Corresponding Structures:</b></p> <p>A motor and LED module 922, depicted in Figs. 9A, 9C-D, 10A-E; and described at col. 13 lines 15-20, 22-26; col. 14 lines 14-20, 29-34; or</p> <p>A needle deployment motor controller (NDMC) module 911B, depicted in Fig. 9B; and described at col. 10 lines 31-36, 51-55; or</p> <p>One or more motors 922A, depicted in Figs. 9C-D; and described at col. 10 lines 36-39, 55-59; col. 11 lines 57-60; col. 14 lines 3-11, 24-26; or</p> <p>One or more drive shafts 922C, depicted in Figs. 9C-D</p> | <p>This term is subject to 35 U.S.C. § 112(6)</p> <p><b>Recited Function:</b> causing the plurality of the extendable needles to extend a desired distance from the end surface.</p> <p><b>Corresponding Structure:</b></p> <p>A motor as described at col. 14, lines 3-11; col. 10, lines 36-39; col. 14, lines 24-26.</p> <p>Or, in the alternative</p> <p>One or more motors, one or more drive shafts, and a motor controller (NDMC) module operating in concert as described at col. 10, lines 31-39, 51-59; col. 11, lines 23-27, 53-60; col. 13, lines 15-26; col. 14, lines 3-11, 14-34.</p> <p>And equivalents thereof under 35 U.S.C. § 112(6).</p> |

[REDACTED]

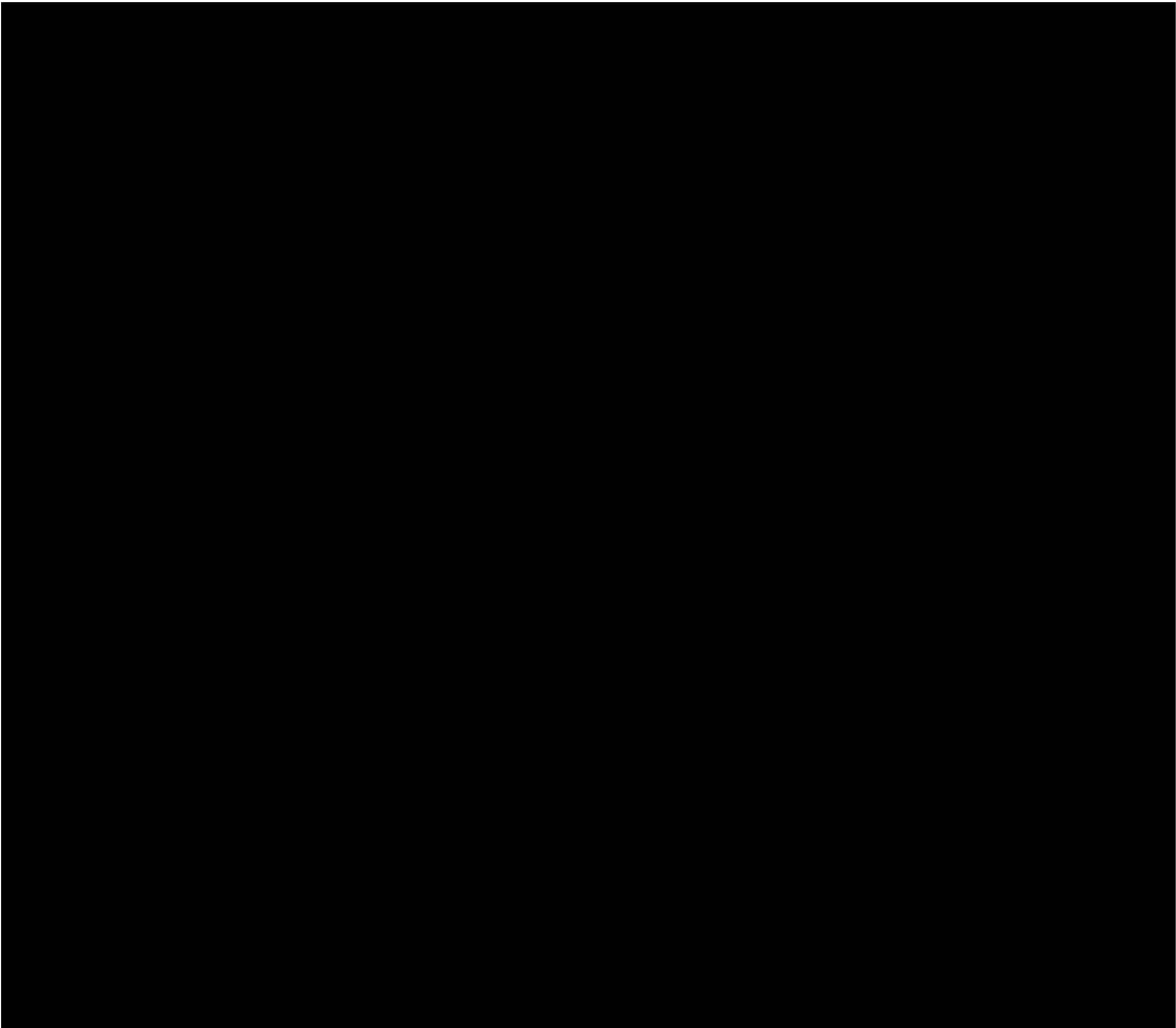
|                                                                                                                                         |                                                                                            |  |
|-----------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|--|
| and 10A-E; and described at<br>col. 11 lines 23-27, 53-57.<br><br>And equivalents thereof.<br><br><i>(same as Staff's construction)</i> | and 10A-E; and described at<br>col. 11 lines 23-27, 53-57.<br><br>And equivalents thereof. |  |
|-----------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|--|

121. Regardless of the construction, it is my opinion that the Accused PiXel products practice this limitation. Under Serendia's proposed construction, the Accused PiXel Products practice this limitation literally because the products include (a) a needle deployment motor controller or its equivalent, (b) a motor or its equivalent, and/or (c) a drive shaft or its equivalent to cause the plurality of extendable needles to extend a desired distance from the end surface. Under Respondents' proposed construction the Accused PiXel Products practice this limitation literally because the products include a solenoid, which is either a motor or its equivalent, to cause the plurality of extendable needles to extend a desired distance from the end surface.

[REDACTED]

[REDACTED]

[REDACTED]



127. I personally inspected the Pixel8 and confirmed the Accused PiXel Products practice this limitation. 

128. Under either parties' construction, the solenoid of the Accused PiXel Products is a motor or its equivalent under § 112(6). The solenoid of the Accused PiXel Products performs the same function as the claimed motor—causing the plurality of the extendable needles to extend a desired distance from the end surface—and is insubstantially different from an electric motor. A solenoid adds nothing of significance to the structure, material or acts of the motor disclosed in the '774 Patent.

[REDACTED]

**11. '774 PATENT, CLAIM 14**

**11.1. "The apparatus for treating dermatological tissue of claim 12, further including a motor coupled to the plurality of extendable needles that may be directed to cause the plurality of the extendable needles to extend a desired distance from the end surface."**

129. It is my opinion that the Accused PiXel Products practice this limitation. *See* discussion for '774 Patent, Claim 13 above. As discussed, a solenoid is a type of electric motor.

130. To the extent that the Rohrer Respondents contend that this limitation is not literally present in the Accused PiXel Products, it is met under the doctrine of equivalents. Both this claim limitation and the Accused PiXel Products perform substantially the same function of causing the plurality of needles to extend a desired distance from the deployable needle assembly end surface. The way that the Accused PiXel Products do so is also substantially the same – like the subject claim limitation, the Accused PiXel Products include solenoids to linearly move the plurality of needles to extend a desired distance from the end surface, and the desired distance that the needles extend is predetermined by the mechanical adjustment on the handpiece. Further, both the claim limitation and the Accused PiXel Products achieve the same result: extending the plurality of needles a desired distance from the end surface.

131. Moreover, there is an insubstantial difference between this claim limitation and the Accused PiXel Products: under Rohrer's view that the solenoid in the Accused PiXel Products is not a type of motor (which I believe is incorrect), there is an insubstantial difference between using a solenoid cause the plurality of needles to extend a desired distance from the end surface and using a motor. Both receive electrical signals to perform mechanical linear movement.

**12. '812 PATENT, CLAIM 1**

**12.1. "1[pre] A method of treating dermatological tissue, comprising:"**

[REDACTED]

[REDACTED]

180. I personally inspected the Pixel8 and confirmed the Accused PiXel Products practice this limitation. [REDACTED]

181. See also Figure 11 below which shows the screen which allows for setting the predetermined intensity and the predetermined duty cycle. The penetration depth of the needles is adjusted via a mechanism on the handpiece as shown in Figure 6 above.

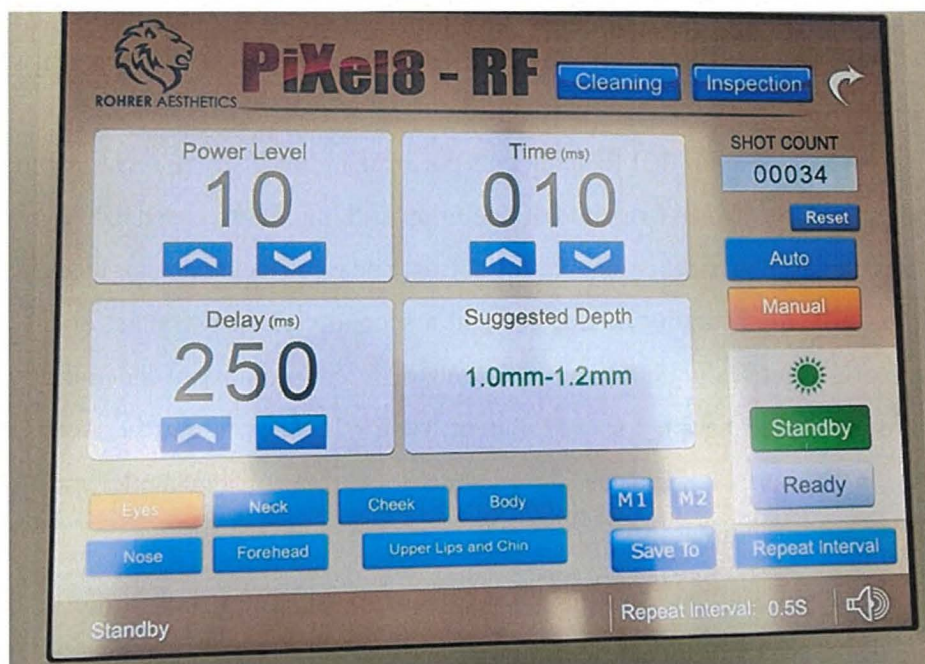


**Figure 11: PiXel8-RF Parameter Set Screen**

182. To the extent that the Rohrer Respondents contend that this limitation is not literally present in the Accused PiXel Products, it is met under the doctrine of equivalents (the portion relating to a motor). Both this claim limitation and the Accused PiXel Products perform substantially the same function of deploying the plurality of needles to a predetermined depth. The way that the Accused PiXel Products do so is also substantially the same – like the subject claim limitation, the Accused PiXel Products include solenoids to linearly move the plurality of needles to a predetermined depth. Further, both the claim limitation and the Accused PiXel Products achieve the same result: deploying the plurality of needles to a predetermined depth.

[REDACTED]

16.5. “12[b3] the needle assembly movable within the releasably couplable deployable needle module to extend the plurality of needles from the releasably couplable deployable needle assembly end surface”

193. It is my opinion that the Accused PiXel Products practice this limitation. [REDACTED]

[REDACTED]

16.6. “12[b4] while at least one electrical contact of the needle assembly remains electrically coupled to at least one electrical contact of the user holdable device proximal end.”

194. It is my opinion that the Accused PiXel Products practice this limitation. [REDACTED]

[REDACTED]

17. '812 PATENT, CLAIM 13

17.1. “The apparatus of claim 12, further including a motor coupled to the needle assembly to extend the plurality of needles a desired distance from the releasably couplable deployable needle assembly end surface when the motor is energized with a particular signal.”

195. It is my opinion that the Accused PiXel Products practice this limitation literally or under the doctrine of equivalents. [REDACTED]

[REDACTED]

196. I understand that parties agree that the term “particular signal” means “Plain and ordinary meaning: an electrical motor control signal.” See July 21, 2023 JCCC.

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

199. To the extent that the Rohrer Respondents contend that this limitation is not literally present in the Accused PiXel Products, it is met under the doctrine of equivalents. Both this claim limitation and the Accused PiXel Products perform substantially the same function of causing the plurality of needles to extend a desired distance from the deployable needle module end surface after receiving a signal. The way that the Accused PiXel Products do so is also substantially the same – like the subject claim limitation, the Accused PiXel Products include solenoids to linearly move the plurality of needles to extend a desired distance from the end surface in response to a signal. Further, both the claim limitation and the Accused PiXel Products achieve the same result: extending the plurality of needles a desired distance from the end surface after receiving a signal.

200. Moreover, there is an insubstantial difference between this claim limitation and the Accused PiXel Products: Under Rohrer's view that the solenoid in the Accused PiXel Products is not a type of motor (which I believe is incorrect), there is an insubstantial difference between using a solenoid cause the plurality of needles to extend a desired distance from the end surface after receiving a signal and using a motor. Both receive electrical signals to perform mechanical linear movement.

201. I personally inspected the Pixel8 and confirmed the Accused PiXel Products practice this limitation. [REDACTED].

**18. '812 PATENT, CLAIM 14**

**18.1. "The apparatus of claim 13, further including a signal generator electrically coupled to the user holdable device proximal end to energize the plurality of needles."**

202. It is my opinion that the Accused PiXel Products practice this limitation. [REDACTED]

[REDACTED]

[REDACTED]