

**IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF TEXAS
WACO DIVISION**

3SHAPE A/S,

Plaintiff,

v.

MEDIT CORP.,

Defendant.

Case No. 6:22-cv-00443-ADA-DTG

**DEFENDANT MEDIT CORPORATION'S
ANSWER TO PLAINTIFF'S COMPLAINT AND AFFIRMATIVE
COUNTERCLAIMS**

Defendant Medit Corp. (“Defendant” or “Medit”), by and through its undersigned attorneys, hereby answers the First Amended Complaint (the “Amended Complaint”) filed by Plaintiff 3Shape A/S (“Plaintiff” or “3Shape”). Medit denies each and every allegation in the Amended Complaint, except as expressly admitted herein, and specifically denies that it has committed any acts of infringement with respect to U.S. Patent Nos. 11,076,146 (“the ’146 Patent”), 9,629,551 (“the ’551 Patent”), 10,064,553 (“the ’553 patent”), 10,695,151 (“the ’151 patent”), and/or 11,368,667 (“the ’667 patent” and, collectively with the foregoing, the “patents-in-suit”).

The responses below reflect Medit’s current knowledge and belief regarding the allegations to which it responds and may be supplemented or amended in view of information discovered during the course of this proceeding. Medit repeats the headings set forth in the Amended Complaint for ease of reference, but the headings do not constitute any part of Medit’s Answer to the Amended Complaint or any admission by Medit as to the truth of the matters asserted. To the contrary, to the extent that a particular heading can be construed as an allegation, or otherwise

contains factual and/or legal characterizations, Medit denies all such allegations and/or characterizations unless expressly admitted.

THE PARTIES

1. Medit lacks knowledge or information sufficient to form a belief as to the truth of the allegations set forth in Paragraph 1 of the Amended Complaint, and on that basis denies such allegations.

2. Medit lacks knowledge or information sufficient to form a belief as to the truth of the allegations set forth in Paragraph 2 of the Amended Complaint, and on that basis denies such allegations.

3. Medit admits that it is a corporation existing under the laws of the Republic of Korea. Medit denies the remaining allegations of Paragraph 3.

4. Medit denies that it makes, sells, or imports any products or software in the United States. Medit admits the remaining allegations of Paragraph 4, but specifically denies the characterization of its products as accused; Medit has not infringed, whether directly or indirectly, literally or under the doctrine of equivalents, any valid claim of any patent of any third party.

JURISDICTION AND VENUE

5. Medit admits that the Amended Complaint purports to be a civil action for patent infringement under Title 35 of the United States Code.

6. Medit admits that this Court has subject matter jurisdiction under 28 U.S.C. § 1331 and § 1338(a) for actions that arise under the patent laws of the United States, but Medit denies that it has committed any acts of patent infringement with respect to the patents-in-suit in this district or any other district.

7. Medit does not contest that this Court has personal jurisdiction over it for purposes of this action only. The remainder of Paragraph 7 contains legal conclusions which do not require

a response. To the extent a response is required, Medit denies that it has committed any acts of patent infringement with respect to the patents-in-suit in this district or any other district and denies the remainder of the allegations.

8. Medit does not contest that this Court has personal jurisdiction over it for purposes of this action only. The remainder of Paragraph 8 contains legal conclusions which do not require a response.

9. Medit does not contest that venue is proper in this district for purposes of this action only. The remainder of Paragraph 9 contains legal conclusions which do not require a response.

THE ASSERTED PATENTS

10. Medit admits that the '146 Patent is entitled "Focus Scanning Apparatus," the face of the patent reflects an issue date of July 27, 2021, and Exhibit 1 purports to be a copy of the '146 Patent. Medit admits that the face of the '146 Patent lists 3Shape A/S as Assignee and that evidence of the assignment of the '146 Patent to 3Shape A/S is recorded with the USPTO at Reel/Frame 055651/0277. Medit denies that the '146 Patent is valid and enforceable. Medit lacks knowledge or information sufficient to form a belief as to the truth of the remaining allegations in Paragraph 10 of the Amended Complaint, and on that basis denies the remaining allegations.

11. Medit admits that the '551 Patent is entitled "Detection of a Movable Object When 3D Scanning a Rigid Object," the face of the patent reflects an issue date of April 25, 2017, and Exhibit 2 purports to be a copy of the '551 Patent. Medit admits that the face of the '551 Patent lists 3Shape A/S as Assignee and that evidence of the assignment of the '551 Patent to 3Shape A/S is recorded with the USPTO at Reel/Frame 043981/0005. Medit denies that the '551 Patent is valid and enforceable. Medit lacks knowledge or information sufficient to form a belief as to the truth of the remaining allegations in Paragraph 11 of the Amended Complaint, and on that basis denies the remaining allegations.

12. Medit admits that the '553 Patent is entitled "Detection of a Movable Object When 3D Scanning a Rigid Object," the face of the patent reflects an issue date of September 4, 2018, and Exhibit 3 purports to be a copy of the '553 patent. Medit admits that the face of the '553 patent lists 3Shape A/S as Assignee and that evidence of the assignment of the '553 patent to 3Shape A/S is recorded with the USPTO at Reel/Frame 043998/0743. Medit denies that the '553 patent is valid and enforceable. Medit lacks knowledge or information sufficient to form a belief as to the truth of the remaining allegations in Paragraph 12 of the Amended Complaint, and on that basis denies the remaining allegations.

13. Medit admits that the '151 patent is entitled "Detecting Tooth Shade," the face of the patent reflects an issue date of June 30, 2020, and Exhibit 4 purports to be a copy of the '151 patent. Medit admits that the face of the '151 patent lists 3Shape A/S as Assignee and that evidence of the assignment of the '151 patent to 3Shape A/S is recorded with the USPTO at Reel/Frame 044834/0161. Medit denies that the '151 patent is valid and enforceable. Medit lacks knowledge or information sufficient to form a belief as to the truth of the remaining allegations in Paragraph 13 of the Amended Complaint, and on that basis denies the remaining allegations.

14. Medit admits that the '667 patent is entitled "Intraoral Scanning Apparatus," the face of the patent reflects an issue date of June 21, 2022, and Exhibit 5 purports to be a copy of the '667 patent. Medit admits that the face of the '667 patent lists 3Shape A/S as Assignee and that evidence of the assignment of the '667 patent to 3Shape A/S is recorded with the USPTO at Reel/Frame 058193/0461. Medit denies that the '667 patent is valid and enforceable. Medit lacks knowledge or information sufficient to form a belief as to the truth of the remaining allegations in Paragraph 14 of the Amended Complaint, and on that basis denies the remaining allegations.

15. Medit lacks knowledge or information sufficient to form a belief as to the truth of the allegations set forth in Paragraph 15 of the Amended Complaint, and on that basis denies such allegations.

BACKGROUND

16. Medit admits that 3Shape sells a product marketed as the TRIOS. Medit lacks knowledge or information sufficient to form a belief as to the truth of the remaining allegations set forth in Paragraph 16 of the Amended Complaint, and on that basis denies such allegations.

17. Medit lacks knowledge or information sufficient to form a belief as to the truth of the allegations set forth in Paragraph 17 of the Amended Complaint, and on that basis denies such allegations.

18. Medit lacks knowledge or information sufficient to form a belief as to the truth of the allegations set forth in Paragraph 18 of the Amended Complaint, and on that basis denies such allegations.

19. Medit admits the allegations of Paragraph 19.

20. Medit denies the allegations of Paragraph 20.

COUNT I

(Alleged Infringement of U.S. Patent No. 11,076,146)

21. Medit incorporates its answers to Paragraphs 1 through 20 of the Amended Complaint as if fully restated herein.

22. Medit asserts that the allegations in Paragraph 22 of the Amended Complaint are legal conclusions regarding “inventions” allegedly disclosed in the ’146 Patent and requires no response. Further, the content of the ’146 Patent speaks for itself. To the extent a response is required, Medit denies the allegations in Paragraph 22.

23. Medit denies the allegations of Paragraph 23.

24. Medit denies the allegations of Paragraph 24.

25. Medit lacks knowledge or information sufficient to form a belief as to the truth of the allegations set forth in Paragraph 25 of the Amended Complaint, and on that basis denies such allegations.

26. Medit denies the allegations of Paragraph 26.

27. Medit denies the allegations of Paragraph 27.

28. Medit denies the allegations of Paragraph 28.

29. Medit denies the allegations of Paragraph 29

30. Medit asserts that Paragraph 30 of the Amended Complaint sets forth legal conclusions based on limitations and elements appearing in one or more claims of the '146 Patent, and for that reason, no response is required. To the extent a response is required, Medit denies the allegations in Paragraph 30.

31. Medit asserts that Paragraph 31 of the Amended Complaint sets forth legal conclusions based on limitations and elements appearing in one or more claims of the '146 Patent, and for that reason, no response is required. To the extent a response is required, Medit denies the allegations in Paragraph 31.

32. Medit asserts that Paragraph 32 of the Amended Complaint sets forth legal conclusions based on limitations and elements appearing in one or more claims of the '146 Patent, and for that reason, no response is required. To the extent a response is required, Medit denies the allegations in Paragraph 32.

33. Medit denies the allegations of Paragraph 33.

34. Medit admits that Paragraph 34 purports to contain images from a Medit i700 Brochure and a Medit i700 Wireless Webpage. Those two sources speak for themselves. Medit

denies any characterization in Paragraph 34 inconsistent with the content of those sources or the products themselves.

35. Medit asserts that Paragraph 35 of the Amended Complaint sets forth legal conclusions based on limitations and elements appearing in one or more claims of the '146 Patent, and for that reason, no response is required. To the extent a response is required, Medit denies the allegations in Paragraph 35.

36. Medit asserts that Paragraph 36 of the Amended Complaint sets forth legal conclusions based on limitations and elements appearing in one or more claims of the '146 Patent, and for that reason, no response is required. To the extent a response is required, Medit denies the allegations in Paragraph 36.

37. Medit asserts that Paragraph 37 of the Amended Complaint sets forth legal conclusions based on limitations and elements appearing in one or more claims of the '146 Patent, and for that reason, no response is required. To the extent a response is required, Medit denies the allegations in Paragraph 37.

38. Medit admits the allegations of Paragraph 38.

39. Medit asserts that Paragraph 39 of the Amended Complaint sets forth legal conclusions based on limitations and elements appearing in one or more claims of the '146 Patent, and for that reason, no response is required. To the extent a response is required, Medit denies the allegations in Paragraph 39.

40. Medit asserts that Paragraph 40 of the Amended Complaint sets forth legal conclusions based on limitations and elements appearing in one or more claims of the '146 Patent, and for that reason, no response is required. To the extent a response is required, Medit denies the allegations in Paragraph 40.

41. Medit denies the allegations of Paragraph 41.

42. Medit asserts that Paragraph 42 of the Amended Complaint sets forth legal conclusions based on limitations and elements appearing in one or more claims of the '146 Patent, and for that reason, no response is required. To the extent a response is required, Medit denies the allegations in Paragraph 42.

43. Medit asserts that Paragraph 43 of the Amended Complaint sets forth legal conclusions based on limitations and elements appearing in one or more claims of the '146 Patent, and for that reason, no response is required. To the extent a response is required, Medit denies the allegations in Paragraph 43.

44. Medit denies the allegations of Paragraph 44.

45. Medit denies the allegations of Paragraph 45.

46. Medit denies the allegations of Paragraph 46.

47. Medit denies the allegations of Paragraph 47.

48. Medit denies the allegations of Paragraph 48.

49. Medit denies the allegations of Paragraph 49.

50. Medit denies the allegations of Paragraph 50.

51. Medit denies the allegations of Paragraph 51.

52. Medit denies the allegations of Paragraph 52.

53. Medit denies the allegations of Paragraph 53.

54. Medit denies the allegations of Paragraph 54.

55. Medit denies the allegations of Paragraph 55.

COUNT II

(Alleged Infringement of U.S. Patent No. 9,629,551)

56. Medit incorporates its answers to Paragraphs 1 through 55 of the Amended Complaint as if fully restated herein.

57. Medit asserts that Paragraph 57 of the Amended Complaint sets forth legal conclusions based on limitations and elements appearing in one or more claims of the '551 Patent, and for that reason, no response is required. To the extent a response is required, Medit denies the allegations in Paragraph 57.

58. Medit denies the allegations of Paragraph 58.

59. Medit denies the allegations of Paragraph 59.

60. Medit denies the allegations of Paragraph 60.

61. Medit asserts that Paragraph 61 of the Amended Complaint sets forth legal conclusions based on limitations and elements appearing in one or more claims of the '551 Patent, and for that reason, no response is required. To the extent a response is required, Medit denies the allegations in Paragraph 61.

62. Medit denies the allegations of Paragraph 62.

63. Medit asserts that Paragraph 63 of the Amended Complaint sets forth legal conclusions based on limitations and elements appearing in one or more claims of the '551 Patent, and for that reason, no response is required. To the extent a response is required, Medit denies the allegations in Paragraph 63.

64. Medit asserts that Paragraph 64 of the Amended Complaint sets forth legal conclusions based on limitations and elements appearing in one or more claims of the '551 Patent, and for that reason, no response is required. To the extent a response is required, Medit denies the allegations in Paragraph 64.

65. Medit asserts that Paragraph 65 of the Amended Complaint sets forth legal conclusions based on limitations and elements appearing in one or more claims of the '551 Patent, and for that reason, no response is required. To the extent a response is required, Medit denies the allegations in Paragraph 65.

66. Medit asserts that Paragraph 66 of the Amended Complaint sets forth legal conclusions based on limitations and elements appearing in one or more claims of the '551 Patent, and for that reason, no response is required. To the extent a response is required, Medit denies the allegations in Paragraph 66.

67. Medit asserts that Paragraph 67 of the Amended Complaint sets forth legal conclusions based on limitations and elements appearing in one or more claims of the '551 Patent, and for that reason, no response is required. To the extent a response is required, Medit denies the allegations in Paragraph 67 of the Amended Complaint.

68. Medit denies the allegations of Paragraph 68.

69. Medit admits that it has had knowledge of the '551 patent prior to the date of the service of the Amended Complaint by virtue of the infringement litigation between the parties in the Düsseldorf district court involving 3Shape's related European patents, EP 2 732 434 B1 and EP 3 401 876, and Medit's challenges to EP 2 732 434 B1 and EP 3 401 876 in the German Federal Patent Court filed on August 31, 2020 and September 3, 2020 respectively.

70. Medit denies the allegations of Paragraph 70.

71. Medit denies the allegations of Paragraph 71.

72. Medit denies the allegations of Paragraph 72.

73. Medit denies the allegations of Paragraph 73.

74. Medit denies the allegations of Paragraph 74.

75. Medit denies the allegations of Paragraph 75.

76. Medit denies the allegations of Paragraph 76.

77. Medit denies the allegations of Paragraph 77.

78. Medit denies the allegations of Paragraph 78.

79. Medit denies the allegations of Paragraph 79.

80. Medit denies the allegations of Paragraph 80.

COUNT III

(Alleged Infringement of U.S. Patent No. 10,064,553)

81. Medit incorporates its answers to Paragraphs 1 through 80 of the Amended Complaint as if fully restated herein.

82. Medit asserts that Paragraph 82 of the Amended Complaint sets forth legal conclusions based on limitations and elements appearing in one or more claims of the '553 Patent, and for that reason, no response is required. To the extent a response is required, Medit denies the allegations in Paragraph 82.

83. Medit denies the allegations of Paragraph 83.

84. Medit denies the allegations of Paragraph 84.

85. Medit denies the allegations of Paragraph 85.

86. Medit asserts that Paragraph 86 of the Amended Complaint sets forth legal conclusions based on limitations and elements appearing in one or more claims of the '553 Patent, and for that reason, no response is required. To the extent a response is required, Medit denies the allegations in Paragraph 86.

87. Medit denies the allegations of Paragraph 87.

88. Medit asserts that Paragraph 88 of the Amended Complaint sets forth legal conclusions based on limitations and elements appearing in one or more claims of the '553 Patent,

and for that reason, no response is required. To the extent a response is required, Medit denies the allegations in Paragraph 88.

89. Medit asserts that Paragraph 89 of the Amended Complaint sets forth legal conclusions based on limitations and elements appearing in one or more claims of the '553 Patent, and for that reason, no response is required. To the extent a response is required, Medit denies the allegations in Paragraph 89.

90. Medit asserts that Paragraph 90 of the Amended Complaint sets forth legal conclusions based on limitations and elements appearing in one or more claims of the '553 Patent, and for that reason, no response is required. To the extent a response is required, Medit denies the allegations in Paragraph 90.

91. Medit asserts that Paragraph 91 of the Amended Complaint sets forth legal conclusions based on limitations and elements appearing in one or more claims of the '553 Patent, and for that reason, no response is required. To the extent a response is required, Medit denies the allegations in Paragraph 91.

92. Medit asserts that Paragraph 92 of the Amended Complaint sets forth legal conclusions based on limitations and elements appearing in one or more claims of the '553 Patent, and for that reason, no response is required. To the extent a response is required, Medit denies the allegations in Paragraph 92.

93. Medit denies the allegations of Paragraph 93.

94. Medit admits that it has had knowledge of the '553 patent prior to the date of the service of the Amended Complaint by virtue of the infringement litigation between the parties in the Düsseldorf district court involving 3Shape's related European patents, EP 2 732 434 B1 and

EP 3 401 876, and Medit's challenges to EP 2 732 434 B1 and EP 3 401 876 in the German Federal Patent Court filed on August 31, 2020 and September 3, 2020 respectively.

95. Medit denies the allegations of Paragraph 95.
96. Medit denies the allegations of Paragraph 96.
97. Medit denies the allegations of Paragraph 97.
98. Medit denies the allegations of Paragraph 98.
99. Medit denies the allegations of Paragraph 99.
100. Medit denies the allegations of Paragraph 100.
101. Medit denies the allegations of Paragraph 101.
102. Medit denies the allegations of Paragraph 102.
103. Medit denies the allegations of Paragraph 103.
104. Medit denies the allegations of Paragraph 104.
105. Medit denies the allegations of Paragraph 105.

COUNT IV

(Alleged Infringement of U.S. Patent No. 10,695,151)

106. Medit incorporates its answers to Paragraphs 1 through 105 of the Amended Complaint as if fully restated herein.

107. Medit asserts that Paragraph 107 of the Amended Complaint sets forth legal conclusions based on limitations and elements appearing in one or more claims of the '151 Patent, and for that reason, no response is required. To the extent a response is required, Medit denies the allegations in Paragraph 107.

108. Medit denies the allegations of Paragraph 108.
109. Medit denies the allegations of Paragraph 109.
110. Medit denies the allegations of Paragraph 110.

111. Medit asserts that Paragraph 111 of the Amended Complaint sets forth legal conclusions based on limitations and elements appearing in one or more claims of the '151 Patent, and for that reason, no response is required. To the extent a response is required, Medit denies the allegations in Paragraph 111.

112. Medit denies the allegations of Paragraph 112.

113. Medit denies the allegations of Paragraph 113.

114. Medit asserts that Paragraph 114 of the Amended Complaint sets forth legal conclusions based on limitations and elements appearing in one or more claims of the '151 Patent, and for that reason, no response is required. To the extent a response is required, Medit denies the allegations in Paragraph 114.

115. Medit asserts that Paragraph 115 of the Amended Complaint sets forth legal conclusions based on limitations and elements appearing in one or more claims of the '151 Patent, and for that reason, no response is required. To the extent a response is required, Medit denies the allegations in Paragraph 115.

116. Medit asserts that Paragraph 116 of the Amended Complaint sets forth legal conclusions based on limitations and elements appearing in one or more claims of the '151 Patent, and for that reason, no response is required. To the extent a response is required, Medit denies the allegations in Paragraph 116.

117. Medit asserts that Paragraph 117 of the Amended Complaint sets forth legal conclusions based on limitations and elements appearing in one or more claims of the '151 Patent, and for that reason, no response is required. To the extent a response is required, Medit denies the allegations in Paragraph 117.

118. Medit denies the allegations of Paragraph 118.

119. Medit admits that it has had knowledge of the '151 patent no later than the date of service of the Amended Complaint.

120. Medit denies the allegations of Paragraph 120.

121. Medit denies the allegations of Paragraph 121.

122. Medit denies the allegations of Paragraph 122.

123. Medit denies the allegations of Paragraph 123.

124. Medit denies the allegations of Paragraph 124.

125. Medit denies the allegations of Paragraph 125.

126. Medit denies the allegations of Paragraph 126.

127. Medit denies the allegations of Paragraph 127.

128. Medit denies the allegations of Paragraph 128.

COUNT V

(Alleged Infringement of U.S. Patent No. 11,368,667)

129. Medit incorporates its answers to Paragraphs 1 through 128 of the Amended Complaint as if fully restated herein.

130. Medit asserts that Paragraph 130 of the Amended Complaint sets forth legal conclusions based on limitations and elements appearing in one or more claims of the '151 Patent, and for that reason, no response is required. To the extent a response is required, Medit denies the allegations in Paragraph 107.

131. Medit denies the allegations of Paragraph 131.

132. Medit denies the allegations of Paragraph 132.

133. Medit denies the allegations of Paragraph 133.

134. Medit denies the allegations of Paragraph 134.

135. Medit denies the allegations of Paragraph 135.

136. Medit asserts that Paragraph 136 of the Amended Complaint sets forth legal conclusions based on limitations and elements appearing in one or more claims of the '667 Patent, and for that reason, no response is required. To the extent a response is required, Medit denies the allegations in Paragraph 136.

137. Medit asserts that Paragraph 137 of the Amended Complaint sets forth legal conclusions based on limitations and elements appearing in one or more claims of the '667 Patent, and for that reason, no response is required. To the extent a response is required, Medit denies the allegations in Paragraph 137.

138. Medit denies the allegations of Paragraph 138.

139. Medit denies the allegations of Paragraph 139.

140. Medit admits that Paragraph 140 purports to contain images from a Medit i700 Brochure and a Medit i700 Wireless Webpage. Those two sources speak for themselves. Medit denies any characterization in Paragraph 140 inconsistent with the content of those sources or the products themselves.

141. Medit asserts that Paragraph 141 of the Amended Complaint sets forth legal conclusions based on limitations and elements appearing in one or more claims of the '667 Patent, and for that reason, no response is required. To the extent a response is required, Medit denies the allegations in Paragraph 141.

142. Medit asserts that Paragraph 142 of the Amended Complaint sets forth legal conclusions based on limitations and elements appearing in one or more claims of the '667 Patent, and for that reason, no response is required. To the extent a response is required, Medit denies the allegations in Paragraph 142.

143. Medit denies the allegations of Paragraph 143.

144. Medit asserts that Paragraph 144 of the Amended Complaint sets forth legal conclusions based on limitations and elements appearing in one or more claims of the '667 Patent, and for that reason, no response is required. To the extent a response is required, Medit denies the allegations in Paragraph 144.

145. Medit denies the allegations of Paragraph 145.

146. Medit admits the allegations of Paragraph 146.

147. Medit denies the allegations of Paragraph 147.

148. Medit denies the allegations of Paragraph 148.

149. Medit denies that it has committed any acts of patent infringement with respect to any claims of the '667 patent in this district or any other district and further denies that it knew or should have known "at least as early as June 21, 2022" of any allegation of infringement of the '667 patent by 3Shape. Medit denies the remaining allegations of Paragraph 149.

150. Medit denies the allegations of Paragraph 150.

151. Medit denies the allegations of Paragraph 151.

152. Medit denies the allegations of Paragraph 152.

153. Medit denies the allegations of Paragraph 153.

154. Medit denies the allegations of Paragraph 154.

155. Medit denies the allegations of Paragraph 155.

156. Medit denies the allegations of Paragraph 156.

157. Medit denies the allegations of Paragraph 157.

158. Medit denies the allegations of Paragraph 158.

PRAYER FOR RELIEF

Medit denies that Plaintiff is entitled to any relief, whether enumerated as sections (a)-(j) in the Amended Complaint or otherwise requested. Medit has not infringed any valid and

enforceable claim of any of the patents-in-suit, and Plaintiff is not entitled to any remedy, relief, or recovery. Accordingly, Plaintiff's prayer for relief should be denied in its entirety with prejudice, and Plaintiff should take nothing.

DEMAND FOR JURY TRIAL

Plaintiff's demand for jury trial contains no factual allegations requiring a response from Medit. To the extent a response is required, Medit also demands a jury trial on all issues so triable.

AFFIRMATIVE DEFENSES

Further answering Plaintiff's Amended Complaint, Medit asserts the following defenses in response to the allegations set forth in the Amended Complaint, without assuming any burden that it would not otherwise have, including without admitting or acknowledging that it bears the burden of proof as to any of the defenses denominated herein. Medit reserves the right to amend its Answer with additional defenses and counterclaims as further information is obtained through discovery.

FIRST AFFIRMATIVE DEFENSE (Noninfringement of the '146 Patent)

Medit does not infringe and has not infringed any valid and enforceable claim of the '146 Patent under any theory, including directly (whether individually or jointly), indirectly (whether contributorily or by inducement), literally, or under the doctrine of equivalents and is not liable for infringement of any valid and enforceable claim of the patents-in-suit.

SECOND AFFIRMATIVE DEFENSE (Invalidity of the '146 Patent)

The claims of the '146 Patent are invalid and/or unenforceable for failure to comply with one or more of the requirements of United States Code, Title 35, including, without limitation, 35 U.S.C. §§ 101, 102, 103, and/or 112, the non-statutory doctrine of double patenting, and the rules, regulations, and laws pertaining thereto.

**THIRD AFFIRMATIVE DEFENSE
(Ensnarement as to the '146 Patent)**

Plaintiff's enforcement of the '146 Patent against Medit is barred by the doctrine of ensnarement. Plaintiff is foreclosed from asserting infringement under the doctrine of equivalents to the extent the scope of such equivalent would render the claims invalid for failure to satisfy one or more of the conditions of patentability, as set forth in 35 U.S.C. §§ 102 and 103.

**FOURTH AFFIRMATIVE DEFENSE
(Noninfringement of the '551 Patent)**

Medit does not infringe and has not infringed any valid and enforceable claim of the '551 Patent under any theory, including directly (whether individually or jointly), indirectly (whether contributorily or by inducement), literally, or under the doctrine of equivalents and is not liable for infringement of any valid and enforceable claim of the patents-in-suit.

**FIFTH AFFIRMATIVE DEFENSE
(Invalidity of the '551 Patent)**

The claims of the '551 Patent are invalid and/or unenforceable for failure to comply with one or more of the requirements of United States Code, Title 35, including, without limitation, 35 U.S.C. §§ 101, 102, 103, and/or 112, the non-statutory doctrine of double patenting, and the rules, regulations, and laws pertaining thereto.

**SIXTH AFFIRMATIVE DEFENSE
(Ensnarement as to the '551 Patent)**

Plaintiff's enforcement of the '551 Patent against Medit is barred by the doctrine of ensnarement. Plaintiff is foreclosed from asserting infringement under the doctrine of equivalents to the extent the scope of such equivalent would render the claims invalid for failure to satisfy one or more of the conditions of patentability, as set forth in 35 U.S.C. §§ 102 and 103.

**SEVENTH AFFIRMATIVE DEFENSE
(Noninfringement of the '553 Patent)**

Medit does not infringe and has not infringed any valid and enforceable claim of the '553 Patent under any theory, including directly (whether individually or jointly), indirectly (whether contributorily or by inducement), literally, or under the doctrine of equivalents and is not liable for infringement of any valid and enforceable claim of the patents-in-suit.

**EIGHTH AFFIRMATIVE DEFENSE
(Invalidity of the '553 Patent)**

The claims of the '553 Patent are invalid and/or unenforceable for failure to comply with one or more of the requirements of United States Code, Title 35, including, without limitation, 35 U.S.C. §§ 101, 102, 103, and/or 112, the non-statutory doctrine of double patenting, and the rules, regulations, and laws pertaining thereto.

**NINTH AFFIRMATIVE DEFENSE
(Ensnarement as to the '553 Patent)**

Plaintiff's enforcement of the '553 Patent against Medit is barred by the doctrine of ensnarement. Plaintiff is foreclosed from asserting infringement under the doctrine of equivalents to the extent the scope of such equivalent would render the claims invalid for failure to satisfy one or more of the conditions of patentability, as set forth in 35 U.S.C. §§ 102 and 103.

**TENTH AFFIRMATIVE DEFENSE
(Noninfringement of the '151 Patent)**

Medit does not infringe and has not infringed any valid and enforceable claim of the '151 Patent under any theory, including directly (whether individually or jointly), indirectly (whether contributorily or by inducement), literally, or under the doctrine of equivalents and is not liable for infringement of any valid and enforceable claim of the patents-in-suit.

**ELEVENTH AFFIRMATIVE DEFENSE
(Invalidity of the '151 Patent)**

The claims of the '151 Patent are invalid and/or unenforceable for failure to comply with one or more of the requirements of United States Code, Title 35, including, without limitation, 35 U.S.C. §§ 101, 102, 103, and/or 112, the non-statutory doctrine of double patenting, and the rules, regulations, and laws pertaining thereto.

**TWELFTH AFFIRMATIVE DEFENSE
(Ensnarement as to the '151 Patent)**

Plaintiff's enforcement of the '151 Patent against Medit is barred by the doctrine of ensnarement. Plaintiff is foreclosed from asserting infringement under the doctrine of equivalents to the extent the scope of such equivalent would render the claims invalid for failure to satisfy one or more of the conditions of patentability, as set forth in 35 U.S.C. §§ 102 and 103.

**THIRTEENTH AFFIRMATIVE DEFENSE
(Noninfringement of the '667 Patent)**

Medit does not infringe and has not infringed any valid and enforceable claim of the '667 Patent under any theory, including directly (whether individually or jointly), indirectly (whether contributorily or by inducement), literally, or under the doctrine of equivalents and is not liable for infringement of any valid and enforceable claim of the patents-in-suit.

**FOURTEENTH AFFIRMATIVE DEFENSE
(Invalidity of the '667 Patent)**

The claims of the '667 Patent are invalid and/or unenforceable for failure to comply with one or more of the requirements of United States Code, Title 35, including, without limitation, 35 U.S.C. §§ 101, 102, 103, and/or 112, the non-statutory doctrine of double patenting, and the rules, regulations, and laws pertaining thereto.

**FIFTEENTH AFFIRMATIVE DEFENSE
(Ensnarement as to the '667 Patent)**

Plaintiff's enforcement of the '667 Patent against Medit is barred by the doctrine of ensnarement. Plaintiff is foreclosed from asserting infringement under the doctrine of equivalents to the extent the scope of such equivalent would render the claims invalid for failure to satisfy one or more of the conditions of patentability, as set forth in 35 U.S.C. §§ 102 and 103.

**SIXTEENTH AFFIRMATIVE DEFENSE
(Prosecution History Estoppel)**

Plaintiff's claims are barred in whole or in part by estoppel. Plaintiff is estopped from construing any valid claim of the patents-in-suit to be infringed or to have been infringed, either literally or by application of the doctrine of equivalents, by any product made, used, imported, sold, or offered for sale by Medit in view of the prior art and/or because of admissions, representations, and/or statements made to the Patent and Trademark Office during prosecution of any application leading to the issuance of the patent-in-suit or any related patents, because of disclosure or language in the specification of the patent-in-suit, and/or because of limitations in the claims of the patents-in-suit.

**SEVENTEENTH AFFIRMATIVE DEFENSE
(Limitation on Damages)**

Pursuant to 35 U.S.C. § 286, Plaintiff may not recover damages for any alleged infringement committed more than six years prior to the filing of the Amended Complaint.

**EIGHTEENTH AFFIRMATIVE DEFENSE
(Equitable Defenses)**

Plaintiff's claims for relief are barred in whole or in part by the equitable doctrines of waiver, implied license, acquiescence, and/or estoppel, including, without limitation, due to Plaintiff's conduct.

**NINETEENTH AFFIRMATIVE DEFENSE
(License)**

To the extent that any of Plaintiff's allegations of infringement are premised on the alleged use, sale, offer for sale, or import of methods, systems, apparatus, and/or products that were manufactured by or for a licensee of Plaintiff or any predecessors-in-interest, or otherwise provided to Medit by or through a licensee or Plaintiff or any predecessors-in-interest, or under a covenant not to sue, such allegations are barred pursuant to license and/or exhaustion.

**TWENTIETH AFFIRMATIVE DEFENSE
(Failure to Mark)**

To the extent that Plaintiff, any predecessors-in-interest to the patents-in-suit, or their licensees failed to properly mark any of their relevant products, the monetary damages sought by Plaintiff are barred in whole or in part for failure to comply with 35 U.S.C. § 287 to those damages occurring only after notice of infringement.

**TWENTY-FIRST AFFIRMATIVE DEFENSE
(No Recovery of Costs)**

Plaintiff is barred by 35 U.S.C. § 288 from recovering costs associated with this action.

**TWENTY-SECOND AFFIRMATIVE DEFENSE
(Failure to State a Claim)**

The Amended Complaint fails to state a claim upon which relief can be granted.

**TWENTY-THIRD AFFIRMATIVE DEFENSE
(No Willful Infringement)**

Medit has not intentionally, willfully, or deliberately infringed nor caused to be infringed, either literally or under the doctrine of equivalents, any valid and asserted claim of the patents-in-suit. Plaintiff has failed to meet, and cannot meet as a matter of law, the requirements for willful infringement.

COUNTERCLAIMS

Medit, by and through its undersigned counsel, and by way of Counterclaims against 3Shape, alleges as follows:

Nature of the Action

1. This is an action by defendant and counterclaim plaintiff Medit pursuant to Rule 13 of the Federal Rules of Civil Procedure for declarations of non-infringement and invalidity of U.S. Patent Nos. 11,076,146 (“the ’146 Patent”), 9,629,551 (“the ’551 Patent”), 10,064,553 (“the ’553 patent”), 10,695,151 (“the ’151 patent”), and/or 11,368,667 (“the ’668 patent” and, collectively with the foregoing, the “3Shape’s patents-in-suit”). Further, Medit seeks, by its affirmative counterclaims, a determination that 3Shape, referred to herein as “counterclaim-defendant,” has infringed one or more claims of U.S. Patent Nos. 7,912,257 (“the ’257 patent); 9,191,648 (“the ’648 patent”); 9,245,374 (“the ’374 patent”); and 9,262,864 (“the ’864 patent” and, collectively with the foregoing, “Medit’s patents-in-suit”) as set forth in greater detail hereinbelow.

The Parties

2. Medit is corporation existing under the laws of the Republic of Korea with a principal place of business at 8, Yangpyeong-ro 25-gil, Yeongdeungpo-gu, Seoul, Republic of Korea and was founded in 2000.

3. On information and belief, 3Shape is a corporation existing under the laws of Denmark with a principal place of business at Holmens Kanal 7, 1060 Copenhagen K, Denmark and was founded in 2000.

Jurisdiction and Venue

4. This Court has subject matter jurisdiction over this claim pursuant to 28 U.S.C. §§ 1331, 1338, 1367, 2201, and 2202, and the principles of supplemental jurisdiction.

5. Counterclaim-defendant 3Shape is a foreign corporation not resident in the United States such that venue is proper in any judicial district, including this Court, pursuant to 28 U.S.C. § 1391.

6. 3Shape has filed suit against Medit for infringing one or more claims in each of 3Shape's patents-in-suit. Medit denies infringement and has asserted that the claims in 3Shape's patents-in-suit are invalid. Therefore, a substantial, actual, and continuing controversy exists between the parties under 28 U.S.C. § 2201 concerning the alleged infringement, validity, and enforceability of Plaintiff's patents-in-suit.

7. Plaintiff has consented to personal jurisdiction by commencing its action for patent infringement in this judicial district, as set forth in Plaintiff's Complaint and Amended Complaint.

DECLARATORY JUDGMENT COUNTERCLAIMS

First Counterclaim:

Declaratory Judgment of Non-Infringement of the '146 Patent

8. Medit incorporates its allegations in the Counterclaims paragraphs 1-7 as fully set forth herein.

9. 3Shape has filed suit against Medit for alleged infringement of the '146 Patent. Medit denies infringing the '146 Patent. A substantial, actual, and continuing controversy under 28 U.S.C. § 2201 thus exists between the parties as to 3Shape's allegations of infringement of the '146 Patent by Medit.

10. Medit has not infringed and does not infringe any valid and/or enforceable claim of the '146 Patent, either directly or indirectly, literally, under the doctrine of equivalents, or otherwise.

11. For example, the Medit products that 3Shape has accused of infringing in its First Amended Complaint and any subsequent filings or disclosures (“the Medit Accused Products”) fail to satisfy each and every limitation of the claims of the ’146 Patent, including at least the following limitations:

- wherein the 3D geometry is determined based on the plurality of 2D images and the time-varying illumination pattern;
- wherein the hardware processor is configured to selectively switch the color of the probe light by switching on and off the at least three monochromatic light sources;
- wherein the hardware process is further configured to locally process raw 3D data into data for the 3D geometry.

12. For at least these reasons, and without waiving its ability to assert additional reasons for non-infringement, Medit asserts that the Medit Accused Products do not infringe any claim of the ’146 Patent.

13. A judicial declaration that Medit does not infringe the ’146 Patent is necessary and appropriate at this time so that Medit can establish with certainty that 3Shape’s allegations of infringement are meritless with respect to the products and/or services that 3Shape accuses of infringing the ’146 Patent.

Second Counterclaim:

Declaratory Judgment of Invalidity of the ’146 Patent

14. Medit incorporates its allegations in the Counterclaims paragraphs 1-7 as fully set forth herein.

15. 3Shape has filed suit against Medit for alleged infringement of the ’146 Patent. Medit denies that the ’146 Patent is valid. A substantial, actual, and continuing controversy

under 28 U.S.C. § 2201 thus exists between the parties as to 3Shape's allegations of infringement of the '146 Patent.

16. The '146 Patent is invalid under the provisions of United States Code, Title 35, including without limitation, 35 U.S.C. §§ 101, 102, 103, and/or 112, the nonstatutory doctrine of double patenting, and the rules, regulations, and laws pertaining thereto.

17. For example, the '146 Patent is invalid under 35 U.S.C. §§ 102 and/or 103 based on the disclosures in one or more of the references and combinations cited in Medit's Initial Invalidity Contentions and/or Medit's Final Invalidity Contentions, both of which are incorporated herein by reference.

18. As a further example, the specification fails to provide adequate written description to reasonably convey to those skilled in the art that the inventor had possession of the subject matter of the claims of the '146 Patent that have been asserted by 3Shape.

19. For at least these reasons, and without waiving its ability to assert additional reasons for invalidity, Medit asserts that the claims of the '146 Patent are invalid.

20. A judicial declaration that the '146 Patent is invalid because it fails to satisfy the conditions for patentability specified in Title 35 of the United States Code is necessary and appropriate at this time so that Medit can ascertain its rights and duties with respect to the '146 Patent.

Third Counterclaim:

Declaratory Judgment of Non-Infringement of the '551 Patent

21. Medit incorporates its allegations in the Counterclaims paragraphs 1-7 as fully set forth herein.

22. 3Shape has filed suit against Medit for alleged infringement of the '551 Patent. Medit denies infringing the '551 Patent. A substantial, actual, and continuing controversy under 28 U.S.C. § 2201 thus exists between the parties as to 3Shape's allegations of infringement of the '551 Patent.

23. Medit has not infringed and does not infringe any valid and/or enforceable claim of the '551 Patent, either directly or indirectly, literally, under the doctrine of equivalents, or otherwise.

24. For example, the Medit Accused Products lack one or more of the elements recited in the claims of the '551 Patent:

- Determine/determining for the first 3D representation a first excluded volume in space where no surface can be present in both the first 3D representation and the second 3D representation;
- Determine/determining for the second 3D representation a second excluded volume in space where no surface can be present in both the first 3D representation and the second 3D representation;

25. For at least these reasons, and without waiving its ability to assert additional reasons for non-infringement, Medit asserts that the Medit Accused Products do not infringe any claim of the '551 Patent.

26. A judicial declaration that Medit does not infringe the '551 Patent is necessary and appropriate at this time so that Medit can establish with certainty that 3Shape's allegations of infringement are meritless with respect to the products and/or services that 3Shape accuses of infringing the '551 Patent.

Fourth Counterclaim:

Declaratory Judgment of Invalidity of the '551 Patent

27. Medit incorporates its allegations in the Counterclaims paragraphs 1-7 as fully set forth herein.

28. 3Shape has filed suit against Medit for alleged infringement of the '551 Patent. Medit denies that the '551 Patent is valid. A substantial, actual, and continuing controversy under 28 U.S.C. § 2201 thus exists between the parties as to the validity of the '551 Patent.

29. The '551 Patent is invalid under the provisions of United States Code, Title 35, including without limitation, 35 U.S.C. §§ 101, 102, 103, and 112, the nonstatutory doctrine of double patenting, and the rules, regulations, and laws pertaining thereto.

30. For example, the '551 Patent is invalid under 35 U.S.C. §§ 102 and/or 103 based on the disclosures in one or more of the references and combinations cited in Medit's Initial Invalidity Contentions and/or Medit's Final Invalidity Contentions, both of which are incorporated herein by reference.

31. As a further example, the specification fails to provide adequate written description to reasonably convey to those skilled in the art that the inventor had possession of the subject matter of the claims of the '551 Patent that have been asserted by 3Shape.

32. For at least these reasons, and without waiving its ability to assert additional reasons for invalidity, Medit asserts that the claims of the '551 Patent are invalid.

33. A judicial declaration that the '551 Patent is invalid because it fails to satisfy the conditions for patentability specified in Title 35 of the United States Code is necessary and appropriate at this time so that Medit can ascertain its rights and duties with respect to the '551 Patent.

Fifth Counterclaim:

Declaratory Judgment of Non-Infringement of the '553 Patent

34. Medit incorporates its allegations in the Counterclaims paragraphs 1-7 as fully set forth herein.

35. 3Shape has filed suit against Medit for alleged infringement of the '553 Patent. Medit denies infringing the '553 Patent. A substantial, actual, and continuing controversy under 28 U.S.C. § 2201 thus exists between the parties as to 3Shape's allegations of infringement of the '553 Patent.

36. Medit has not infringed and does not infringe any valid and/or enforceable claim of the '553 Patent, either directly or indirectly, literally, under the doctrine of equivalents, or otherwise.

37. For example, the Medit Accused Products lack one or more of the elements recited in the claims of the '553 Patent:

- Determine/determining for the first 3D representation a first excluded volume in space where no surface can be present in both the first 3D representation and the second 3D representation.

38. For at least these reasons, and without waiving its ability to assert additional reasons for non-infringement, Medit asserts that the Medit Accused Products do not infringe any claim of the '553 Patent.

39. A judicial declaration that Medit does not infringe the '553 Patent is necessary and appropriate at this time so that Medit can establish with certainty that 3Shape's allegations of infringement are meritless with respect to the products and/or services that 3Shape accuses of infringing the '553 Patent.

Sixth Counterclaim:

Declaratory Judgment of Invalidity of the '553 Patent

40. Medit incorporates its allegations in the Counterclaims paragraphs 1-7 as fully set forth herein.

41. 3Shape has filed suit against Medit for alleged infringement of the '553 Patent. Medit denies that the '553 Patent is valid. A substantial, actual, and continuing controversy under 28 U.S.C. § 2201 thus exists between the parties as to the validity of the '553 Patent.

42. The '553 Patent is invalid under the provisions of United States Code, Title 35, including without limitation, 35 U.S.C. §§ 101, 102, 103, and 112, the nonstatutory doctrine of double patenting, and the rules, regulations, and laws pertaining thereto.

43. For example, the '553 Patent is invalid under 35 U.S.C. §§ 102 and/or 103 based on the disclosures in one or more of the references and combinations cited in Medit's Initial Invalidity Contentions and/or Medit's Final Invalidity Contentions, both of which are incorporated herein by reference.

44. As a further example, the specification fails to provide adequate written description to reasonably convey to those skilled in the art that the inventor had possession of the subject matter of the claims of the '553 Patent that have been asserted by 3Shape.

45. For at least these reasons, and without waiving its ability to assert additional reasons for invalidity, Medit asserts that the claims of the '553 Patent are invalid.

46. A judicial declaration that the '553 Patent is invalid because it fails to satisfy the conditions for patentability specified in Title 35 of the United States Code is necessary and appropriate at this time so that Medit can ascertain its rights and duties with respect to the '553 Patent.

Seventh Counterclaim:

Declaratory Judgment of Non-Infringement of the '151 Patent

47. Medit incorporates its allegations in the Counterclaims paragraphs 1-7 as fully set forth herein.

48. 3Shape has filed suit against Medit for alleged infringement of the '151 Patent. Medit denies infringing the '151 Patent. A substantial, actual, and continuing controversy under 28 U.S.C. § 2201 thus exists between the parties as to 3Shape's allegations of infringement of the '151 Patent.

49. Medit has not infringed and does not infringe any valid and/or enforceable claim of the '151 Patent, either directly or indirectly, literally, under the doctrine of equivalents, or otherwise.

50. For example, the Medit Accused Products lack one or more of the elements recited in the claims of the '151 Patent:

- determining a tooth shade value for at least one point on the tooth based on the texture data of the corresponding point of the digital 3D representation and on known texture values of one or more reference tooth shade values;
- wherein the method comprises deriving a certainty score expressing the certainty of the determined tooth shade value;

51. For at least these reasons, and without waiving its ability to assert additional reasons for non-infringement, Medit asserts that the Medit Accused Products do not infringe any claim of the '151 Patent.

52. A judicial declaration that Medit does not infringe the '151 Patent is necessary and appropriate at this time so that Medit can establish with certainty that 3Shape's allegations of

infringement are meritless with respect to the products and/or services that 3Shape accuses of infringing the '151 Patent.

Eighth Counterclaim:

Declaratory Judgment of Invalidity of the '151 Patent

53. Medit incorporates its allegations in the Counterclaim paragraphs 1-7 as fully set forth herein.

54. 3Shape has filed suit against Medit for alleged infringement of the '151 Patent. Medit denies that the '151 Patent is valid. A substantial, actual, and continuing controversy under 28 U.S.C. § 2201 thus exists between the parties as to the validity of the '151 Patent.

55. The '151 Patent is invalid under the provisions of United States Code, Title 35, including without limitation, 35 U.S.C. §§ 101, 102, 103, and 112, the nonstatutory doctrine of double patenting, and the rules, regulations, and laws pertaining thereto.

56. For example, the '151 Patent is invalid under 35 U.S.C. §§ 102 and/or 103 based on the disclosures in one or more of the references and combinations cited in Medit's Initial Invalidity Contentions and/or Medit's Final Invalidity Contentions, both of which are incorporated herein by reference.

57. As a further example, the specification fails to provide adequate written description to reasonably convey to those skilled in the art that the inventor had possession of the subject matter of the claims of the '151 Patent that have been asserted by 3Shape.

58. For at least these reasons, and without waiving its ability to assert additional reasons for invalidity, Medit asserts that the claims of the '151 Patent are invalid.

59. A judicial declaration that the '151 Patent is invalid because it fails to satisfy the conditions for patentability specified in Title 35 of the United States Code is necessary and

appropriate at this time so that Medit can ascertain its rights and duties with respect to the '151 Patent.

Ninth Counterclaim:

Declaratory Judgment of Non-Infringement of the '667 Patent

60. Medit incorporates its allegations in the Counterclaim paragraphs 1-7 as fully set forth herein.

61. 3Shape has filed suit against Medit for alleged infringement of the '667 Patent. Medit denies infringing the '667 Patent. A substantial, actual, and continuing controversy under 28 U.S.C. § 2201 thus exists between the parties as to the 3Shape's allegations of infringement of the '667 Patent.

62. Medit has not infringed and does not infringe any valid and/or enforceable claim of the '667 Patent, either directly or indirectly, literally, under the doctrine of equivalents, or otherwise.

63. For example, the Medit Accused Products lack one or more of the elements recited in the claims of the '667 Patent:

- wherein the 3D geometry is determined based on the plurality of 2D images and the time-varying illumination pattern;
- transmit, via a wireless connection, the data for the 3D geometry at a reduced data rate in comparison with transmission of the raw 3D data.

64. For at least these reasons, and without waiving its ability to assert additional reasons for non-infringement, Medit asserts that the Medit Accused Products do not infringe any claim of the '667 Patent.

65. A judicial declaration that Medit does not infringe the '667 Patent is necessary and appropriate at this time so that Medit can establish with certainty that 3Shape's allegations of infringement are meritless with respect to the products and/or services that 3Shape accuses of infringing the '667 Patent.

Tenth Counterclaim:

Declaratory Judgment of Invalidity of the '667 Patent

66. Medit incorporates its allegations in the Counterclaim paragraphs 1-7 as fully set forth herein.

67. 3Shape has filed suit against Medit for alleged infringement of the '667 Patent. Medit denies that the '667 Patent is valid. A substantial, actual, and continuing controversy under 28 U.S.C. § 2201 thus exists between the parties as to the validity of the '667 Patent.

68. The '667 Patent is invalid under the provisions of United States Code, Title 35, including without limitation, 35 U.S.C. §§ 101, 102, 103, and 112, the nonstatutory doctrine of double patenting, and the rules, regulations, and laws pertaining thereto.

69. For example, the '667 Patent is invalid under 35 U.S.C. §§ 102 and/or 103 based on the disclosures in one or more of the references and combinations cited in Medit's Initial Invalidity Contentions and/or Medit's Final Invalidity Contentions, both of which are incorporated herein by reference.

70. As a further example, the specification fails to provide adequate written description to reasonably convey to those skilled in the art that the inventor had possession of the subject matter of the claims of the '667 Patent that have been asserted by 3Shape.

71. For at least these reasons, and without waiving its ability to assert additional reasons for invalidity, Medit asserts that the claims of the '667 Patent are invalid.

72. A judicial declaration that the '667 Patent is invalid because it fails to satisfy the conditions for patentability specified in Title 35 of the United States Code is necessary and appropriate at this time so that Medit can ascertain its rights and duties with respect to the '667 Patent.

AFFIRMATIVE COUNTERCLAIMS

Background: Medit and Medit's Asserted Patents

73. Medit is a pioneer in the field of 3D imaging technology. During its over two decades of business, Medit has won multiple awards for its intraoral scanners, including for its i-Series intraoral scanners. In 2019, Medit won the IDEA Design Award from the Industrial Designers Society of America and the RedDot Design Award for its i500 scanner. The following year, in 2020, Medit won the iDD Awards from the Institute of Digital Dentistry (iDD). Then, in 2021, Medit won the RedDot Design Award, the iF Design Award from iF Design, and the CELLERANT BEST OF CLASS from Cellerant Consulting Group for its i700 intraoral scanner.

74. United States Patent No. 7,912,257 ("the '257 Patent") entitled "Real Time Display of Acquired 3D Dental Data" was duly and legally issued by the United States Patent and Trademark Office ("USPTO") on March 22, 2011. A copy of the '257 Patent is attached to this Answer and Counterclaims as Exhibit A.

75. Medit holds all rights, title, and interests in the '257 Patent, including the rights to seek damages for past and future infringement as well as the right to seek injunctive relief.

76. United States Patent No. 9,191,648 ("the '648 Patent") entitled "Hybrid Stitching" was duly and legally issued by the USPTO on November 17, 2015. A copy of the '648 Patent is attached to this Answer and Counterclaims as Exhibit B.

77. Medit holds all rights, title, and interests in the '648 Patent, including the rights to seek damages for past and future infringement as well as the right to seek injunctive relief.

78. United States Patent No. 9,245,374 (“the ’374 Patent”) entitled “Space Carving in 3D Data Acquisition” was duly and legally issued by the USPTO on January 26, 2016. A copy of the ’374 Patent is attached to this Answer and Counterclaims as Exhibit C.

79. Medit holds all rights, title, and interests in the ’374 Patent, including the rights to seek damages for past and future infringement as well as the right to seek injunctive relief.

80. United States Patent No. 9,262,864 (“the ’864 Patent”) entitled “Synchronized Views of Video Data and Three-Dimensional Model Data” was duly and legally issued by the USPTO on February 16, 2016. A copy of the ’864 Patent is attached to this Answer and Counterclaims as Exhibit D.

81. Medit holds all rights, title, and interests in the ’864 Patent, including the rights to seek damages for past and future infringement as well as the right to seek injunctive relief.

Eleventh Counterclaim:

Infringement of the ’257 Patent

82. Medit incorporates its allegations in the Counterclaims paragraphs 1-7 and 73-81 as fully set forth herein.

83. 3Shape makes, uses, sells, offers to sell, and/or imports into the United States its Trios products, including at least the Trios 3, Trios 4, and Trios 5 products, and related software and hardware (collectively, “Trios Products” or “TRIOS”), without the authorization or consent of Medit.

84. On information and belief, 3Shape has directly, either literally or under the doctrine of equivalents, infringed at least one claim of the ’257 patent under 35 U.S.C. § 271(a), by making, using, selling, offering for sale in the United States and/or importing into the United States, without authority, the Trios Products.

85. TRIOS meets each and every limitation of one or more claims of the '257 Patent. Accordingly, 3Shape directly infringes the '257 Patent.

86. For example, the infringing Trios Products are intraoral scanners and related software and hardware that meet each limitation of claim 18 of the '257 Patent. The following paragraphs provide a non-limiting explanation of how the elements of claim 18 read onto TRIOS. This discussion is exemplary only and does not limit the scope of the claims in the '257 Patent.

87. TRIOS include a scanner for acquiring a sequence of image sets from one or more intraoral structures of a dental patient at a video rate. For example, the following illustrations from 3Shape's user manuals shows a still image of a live 3D display that is rendered in real-time on a screen by TRIOS:



This rendering displays intraoral structures of a patient. On information and belief, this 3D image is rendered from a sequence of image sets that are acquired at a video rate.

88. TRIOS further include a processor which is configured to receive the sequence of image sets and convert the sequence of image sets into a 3D representation of the intraoral structures.

89. In addition, the processor in TRIOS combines the 3D representation with previously obtained 3D representations from prior image sets to provide a 3D model of the intraoral structures, as shown in the illustration above.

90. The processor further generates a visual display signal of the 3D model that may be used to render the 3D model on a display.

91. On information and belief, the processor in TRIOS generates a visualization that identifies regions of inaccurate scan data within the 3D representation. This visualization is included within the visual display signal. For example, the following illustration shows a screen shot from TRIOS that indicates inaccurate scan data:



92. Finally, TRIOS include a display for displaying the visual display signal.

93. 3Shape also contributorily infringes at least claim 18 of the '257 Patent. As noted above, the infringing Trios Products have been specifically designed for use as intraoral scanners, along with the related software and hardware that can be used to identify regions of inaccurate scan data, and thus have no substantial non-infringing use. As correctly operated, TRIOS infringe one or more claims of the '257 Patent during their normal operation.

94. The actions by 3Shape in selling its Trios Products for use by dentists or other third parties result in direct infringement by those other third parties. Such direct infringement occurs through the customary and ordinary use of TRIOS so that those products will function and operate properly as intended by 3Shape.

95. 3Shape has directly infringed the '257 patent, including by making, using, selling, offering for sale in the United States, and importing into the United States, products that contain the intraoral scanner disclosed in the '257 patent. Further, 3Shape uses the scanner, e.g., by testing and/or demonstrating the Accused Products.

96. 3Shape also actively induces and has induced infringement of the '257 patent under 35 U.S.C. § 271(b), either literally or under the doctrine of equivalents.

97. On information and belief, 3Shape encouraged and facilitated infringement with specific intent by, for example, training its customers to use the TRIOS intraoral scanner in a manner that infringes at least one claim of the '257 patent, promoting the use of the TRIOS intraoral scanner in a manner that infringes at least one claim of the '257 patent to 3Shape's customers, and disseminating promotional and marketing material and product literature to those customers encouraging use of the TRIOS intraoral scanner in a manner that infringes at least one claim of the '257 patent. For example, 3Shape is aware that the features claimed in the '257 patent are features in the TRIOS intraoral scanner and are features used by others that purchase the TRIOS intraoral scanner and, therefore, that purchasers and/or end users of the TRIOS intraoral scanner will infringe the '257 patent.

98. 3Shape actively induces infringement of the '257 patent with knowledge and the specific intent to encourage that infringement by, inter alia, disseminating the TRIOS intraoral scanner and providing promotional materials, marketing materials, training materials, instructions, product manuals, user guides and technical information to third parties including but not limited to resellers, distributors, customers, potential customers, dentists, orthodontists, and/or other end users of the TRIOS intraoral scanner. Those third parties directly infringe the '257 patent at least by selling, offering to sell, and/or using the TRIOS intraoral scanner.

99. 3Shape has been and is now contributing to the infringement of the '257 patent under 35 U.S.C. § 271(c), either literally or under the doctrine of equivalents.

100. 3Shape has actively, knowingly, and intentionally contributed to and continues to actively, knowingly, and intentionally contribute to the infringement of the '257 patent by selling or offering to sell, and continuing to sell or offer for sale the TRIOS intraoral scanner within the United States and/or by importing the TRIOS intraoral scanner into the United States with knowledge that the infringing technology in the TRIOS intraoral scanner is especially made and/or especially adapted for use in infringement of the '257 patent, is a material part of the patented invention, and is not a staple article or commodity of commerce suitable for substantial non-infringing use and with knowledge that others including, but not limited to, resellers, distributors, customers, dentists, orthodontists, dental and orthodontic labs, and/or other end users of the TRIOS intraoral scanner do not use the product in a noninfringing manner. 3Shape has such knowledge at least because the claimed features of the '257 patent are used by others including, but not limited to resellers, distributors, customers, dentists, orthodontists, dental and orthodontic labs, and/or other end users of the TRIOS intraoral scanner.

101. On information and belief, 3Shape knew or should have known of the '257 patent and has acted, and continues to act, in an egregious and wanton manner by infringing the '257 patent. On information and belief, 3Shape's infringement of the '257 patent has been and continues to be willful and deliberate. Medit is a known revolutionary in intraoral scanners with whom 3Shape knows and has familiarity. On information and belief, 3Shape knowingly developed, has sold, sells, and offers to sell the TRIOS intraoral scanner in an infringing manner that was known to 3Shape or was so obvious that 3Shape should have known of its infringement.

102. On information and belief, despite knowing its actions constituted infringement of the '257 patent and/or despite knowing that there was a high likelihood that its actions constituted infringement of the '257 patent, 3Shape nevertheless continued its infringing actions, and continues to make, use, and sell the TRIOS intraoral scanner.

103. 3Shape's acts of infringement have injured and damaged Medit and will continue to injure and damage Medit.

104. 3Shape's actions have caused Medit to suffer irreparable harm resulting from the loss of its lawful patent rights and the loss of its ability to exclude others from making, using, selling, offering to sell, and importing the inventions of the '257 patent. On information and belief, 3Shape will continue these infringing acts unless enjoined by this court.

Twelfth Counterclaim:

Infringement of the '648 Patent

105. Medit incorporates its allegations in the Counterclaim paragraphs 1-7 and 73-81 as fully set forth herein.

106. 3Shape makes, uses, sells, offers to sell, and/or imports into the United States its Trios products without the authorization or consent of Medit.

107. On information and belief, 3Shape has directly, either literally or under the doctrine of equivalents, infringed at least one claim of the '648 patent under 35 U.S.C. § 271(a), by making, using, selling, offering for sale in the United States and/or importing into the United States, without authority, the Trios Products.

108. TRIOS meet each and every limitation of one or more claims of the '648 Patent. Accordingly, 3Shape directly infringes the '648 Patent.

109. For example, the infringing Trios Products are intraoral scanners and related software and hardware that meet each limitation of claim 23 of the '648 Patent. The following paragraphs provide a non-limiting explanation of how the elements of claim 23 read onto TRIOS. This discussion is exemplary only and does not limit the scope of the claims in the '648 Patent.

110. TRIOS includes a scanner that is configured to obtain a first 3D model that includes a first plurality of sets of three-dimensional points spatially related to one another by a first camera path.

111. Such scanner in TRIOS is further configured to obtain a second 3D model including a second plurality of sets of three-dimensional points spatially related with one another by a second camera path.

112. TRIOS further includes a processor.

113. On information and belief, the processor and associated memory in TRIOS are configured to register one of the first plurality of sets of three-dimensional points to one of the second plurality of sets of three-dimensional points to place the first three-dimensional model and the second three-dimensional model in a shared coordinate system.

114. For example, on information and belief, the following image taken from the output of a Trios Product is rendered after placing a first 3D model in a shared coordinate system with a second 3D model:



115. In addition, on information and belief, the respective processor in TRIOS is configured to create a virtual stitch graph that spatially relates the first plurality of sets and the second plurality of sets, thereby providing a combined model that includes the first plurality of sets and the second plurality of sets all spatially related by the virtual stitch graph. The processor is further configured to refine the combined model with a global motion optimization of the virtual stitch graph, as illustrated in the following two illustrations:



Before Optimization



After Optimization

116. Finally, TRIOS include a display for displaying the visual display signal.

117. 3Shape also contributorily infringes at least claim 23 of the '648 Patent. As noted above, the infringing Trios Products have been specifically designed for use as intraoral scanners, along with the related software and hardware, that can be used to render 3D images, including through the use of the virtual stitch graph as illustrated above. As correctly operated, TRIOS infringe one or more claims of the '648 Patent during their normal operation.

118. The actions by 3Shape in selling its Trios Products for use by dentists or other third parties result in direct infringement by those other third parties. Such direct infringement occurs through the customary and ordinary use of TRIOS so that those products will function and operate properly as intended by 3Shape.

119. 3Shape has directly infringed the '648 patent, including by making, using, selling, offering for sale in the United States, and importing into the United States, products that contain the intraoral scanner disclosed in the '648 patent. Further, 3Shape uses the scanner, e.g., by testing and/or demonstrating the Accused Products.

120. 3Shape also actively induces and has induced infringement of the '648 patent under 35 U.S.C. § 271(b), either literally or under the doctrine of equivalents.

121. On information and belief, 3Shape encouraged and facilitated infringement with specific intent by, for example, training its customers to use the TRIOS intraoral scanner in a manner that infringes at least one claim of the '648 patent, promoting the use of the TRIOS intraoral scanner in a manner that infringes at least one claim of the '648 patent to 3Shape's customers, and disseminating promotional and marketing material and product literature to those customers encouraging use of the TRIOS intraoral scanner in a manner that infringes at least one claim of the '648 patent. For example, 3Shape is aware that the features claimed in the '648 patent are features in the TRIOS intraoral scanner and are features used by others that purchase

the TRIOS intraoral scanner and, therefore, that purchasers and/or end users of the TRIOS intraoral scanner will infringe the '648 patent.

122. 3Shape actively induces infringement of the '648 patent with knowledge and the specific intent to encourage that infringement by, inter alia, disseminating the TRIOS intraoral scanner and providing promotional materials, marketing materials, training materials, instructions, product manuals, user guides and technical information to third parties including but not limited to resellers, distributors, customers, potential customers, dentists, orthodontists, and/or other end users of the TRIOS intraoral scanner. Those third parties directly infringe the '648 patent at least by selling, offering to sell, and/or using the TRIOS intraoral scanner.

123. 3Shape has been and is now contributing to the infringement of the '648 patent under 35 U.S.C. § 271(c), either literally or under the doctrine of equivalents.

124. 3Shape has actively, knowingly, and intentionally contributed to and continues to actively, knowingly, and intentionally contribute to the infringement of the '648 patent by selling or offering to sell, and continuing to sell or offer for sale the TRIOS intraoral scanner within the United States and/or by importing the TRIOS intraoral scanner into the United States with knowledge that the infringing technology in the TRIOS intraoral scanner is especially made and/or especially adapted for use in infringement of the '648 patent, is a material part of the patented invention, and is not a staple article or commodity of commerce suitable for substantial non-infringing use and with knowledge that others including, but not limited to, resellers, distributors, customers, dentists, orthodontists, dental and orthodontic labs, and/or other end users of the TRIOS intraoral scanner do not use the product in a noninfringing manner. 3Shape has such knowledge at least because the claimed features of the '648 patent are used by others

including, but not limited to resellers, distributors, customers, dentists, orthodontists, dental and orthodontic labs, and/or other end users of the TRIOS intraoral scanner.

125. On information and belief, 3Shape knew or should have known of the '648 patent and has acted, and continues to act, in an egregious and wanton manner by infringing the '648 patent. On information and belief, 3Shape's infringement of the '648 patent has been and continues to be willful and deliberate. Medit is a known revolutionary in intraoral scanners with whom 3Shape knows and has familiarity. On information and belief, 3Shape knowingly developed, has sold, sells, and offers to sell the TRIOS intraoral scanner in an infringing manner that was known to 3Shape or was so obvious that 3Shape should have known of its infringement.

126. On information and belief, despite knowing its actions constituted infringement of the '648 patent and/or despite knowing that there was a high likelihood that its actions constituted infringement of the '648 patent, 3Shape nevertheless continued its infringing actions, and continues to make, use, and sell the TRIOS intraoral scanner.

127. 3Shape's acts of infringement have injured and damaged Medit and will continue to injure and damage Medit.

128. 3Shape's actions have caused Medit to suffer irreparable harm resulting from the loss of its lawful patent rights and the loss of its ability to exclude others from making, using, selling, offering to sell, and importing the inventions of the '648 patent. On information and belief, 3Shape will continue these infringing acts unless enjoined by this court.

Thirteenth Counterclaim:

Infringement of the '374 Patent

129. Medit incorporates its allegations in the Counterclaim paragraphs 1-7 and 73-81 as fully set forth herein.

130. On information and belief, 3Shape has directly, either literally or under the doctrine of equivalents, infringed at least one claim of the '374 patent under 35 U.S.C. § 271(a), by making, using, selling, offering for sale in the United States and/or importing into the United States, without authority, the Trios Products.

131. 3Shape makes, uses, sells, offers to sell, and/or imports into the United States its Trios products without the authorization or consent of Medit.

132. TRIOS meet each and every limitation of one or more claims of the '374 Patent. Accordingly, 3Shape directly infringes the '374 Patent.

133. For example, the infringing Trios Products are intraoral scanners and related software and hardware that meet each limitation of claim 23 of the '374 Patent. The following paragraphs provide a non-limiting explanation of how the elements of claim 23 read onto TRIOS. This discussion is exemplary only and does not limit the scope of the claims in the '374 Patent.

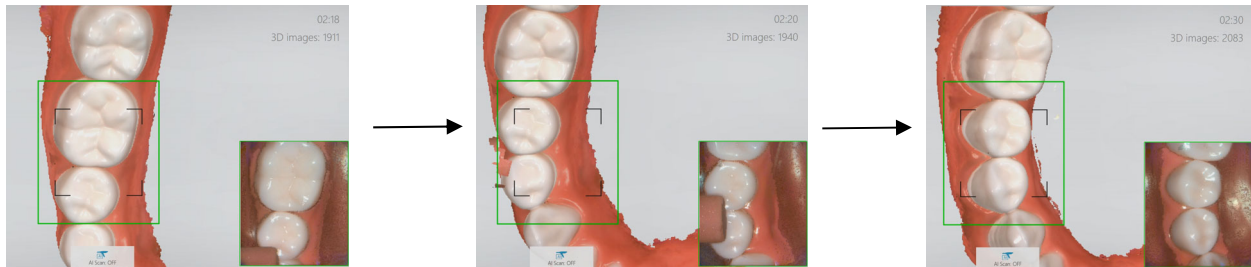
134. TRIOS include a scanner that is configured to obtain three-dimensional data from an object within a scan space. The following illustrations shows that such 3D data is obtained:



135. On information and belief, the TRIOS include a memory that is configured to store a spatial matrix that includes information for a plurality of voxels in a mesh of the scan space.

136. On information and belief, the TRIOS include a processor that is configured to identify a point in the scan space that is unoccupied, to store an indication in the spatial matrix for a modified processing of data from a one of the plurality of voxels that contains the point, and to thereby identify a prohibited volume within the scan space.

137. Further, on information and belief, the TRIOS process a portion of the 3D data that is not in the prohibited volume according to an unmodified processing, and to process a second portion of the 3D data that is in the prohibited volume according to the modified processing, wherein the modified processing includes detecting a point in the prohibited volume and displaying the point for a decay time with the second portion of the three-dimensional data. As an example, in the below illustration, when a pencil eraser is introduced into the prohibited volume, the image of the pencil eraser decays until it is no longer present whereas the rest of the 3D rendering remains unchanged:



138. 3Shape also contributorily infringes at least claim 23 of the '374 Patent. As noted above, the infringing Trios Products have been specifically designed for use as intraoral scanners, along with the related software and hardware, that can be used to render 3D images, including through the use of filtering operations using prohibited volumes as illustrated above. As correctly operated, TRIOS infringe one or more claims of the '374 Patent during their normal operation.

139. The actions by 3Shape in selling its Trios Products for use by dentists or other third parties result in direct infringement by those other third parties. Such direct infringement occurs through the customary and ordinary use of TRIOS so that those products will function and operate properly as intended by 3Shape.

140. 3Shape has directly infringed the '374 patent, including by making, using, selling, offering for sale in the United States, and importing into the United States, products that contain the intraoral scanner disclosed in the '374 patent. Further, 3Shape uses the scanner, e.g., by testing and/or demonstrating the Accused Products.

141. 3Shape also actively induces and has induced infringement of the '374 patent under 35 U.S.C. § 271(b), either literally or under the doctrine of equivalents.

142. On information and belief, 3Shape encouraged and facilitated infringement with specific intent by, for example, training its customers to use the TRIOS intraoral scanner in a manner that infringes at least one claim of the '374 patent, promoting the use of the TRIOS intraoral scanner in a manner that infringes at least one claim of the '374 patent to 3Shape's customers, and disseminating promotional and marketing material and product literature to those customers encouraging use of the TRIOS intraoral scanner in a manner that infringes at least one claim of the '374 patent. For example, 3Shape is aware that the features claimed in the '374 patent are features in the TRIOS intraoral scanner and are features used by others that purchase the TRIOS intraoral scanner and, therefore, that purchasers and/or end users of the TRIOS intraoral scanner will infringe the '374 patent.

143. 3Shape actively induces infringement of the '374 patent with knowledge and the specific intent to encourage that infringement by, inter alia, disseminating the TRIOS intraoral scanner and providing promotional materials, marketing materials, training materials,

instructions, product manuals, user guides and technical information to third parties including but not limited to resellers, distributors, customers, potential customers, dentists, orthodontists, and/or other end users of the TRIOS intraoral scanner. These same documents also provide information about the filtering operation of TRIOS. Those third parties directly infringe the '374 patent at least by selling, offering to sell, and/or using the TRIOS intraoral scanner.

144. 3Shape has been and is now contributing to the infringement of the '374 patent under 35 U.S.C. § 271(c), either literally or under the doctrine of equivalents.

145. 3Shape has actively, knowingly, and intentionally contributed to and continues to actively, knowingly, and intentionally contribute to the infringement of the '374 patent by selling or offering to sell, and continuing to sell or offer for sale the TRIOS intraoral scanner within the United States and/or by importing the TRIOS intraoral scanner into the United States with knowledge that the infringing technology in the TRIOS intraoral scanner is especially made and/or especially adapted for use in infringement of the '374 patent, is a material part of the patented invention, and is not a staple article or commodity of commerce suitable for substantial non-infringing use and with knowledge that others including, but not limited to, resellers, distributors, customers, dentists, orthodontists, dental and orthodontic labs, and/or other end users of the TRIOS intraoral scanner do not use the product in a noninfringing manner. 3Shape has such knowledge at least because the claimed features of the '374 patent are used by others including, but not limited to resellers, distributors, customers, dentists, orthodontists, dental and orthodontic labs, and/or other end users of the TRIOS intraoral scanner.

146. On information and belief, 3Shape knew or should have known of the '374 patent and has acted, and continues to act, in an egregious and wanton manner by infringing the '374 patent. On information and belief, 3Shape's infringement of the '374 patent has been and

continues to be willful and deliberate. Medit is a known revolutionary in intraoral scanners with whom 3Shape knows and has familiarity. On information and belief, 3Shape knowingly developed, has sold, sells, and offers to sell the TRIOS intraoral scanner in an infringing manner that was known to 3Shape or was so obvious that 3Shape should have known of its infringement.

147. On information and belief, despite knowing its actions constituted infringement of the '374 patent and/or despite knowing that there was a high likelihood that its actions constituted infringement of the '374 patent, 3Shape nevertheless continued its infringing actions, and continues to make, use, and sell the TRIOS intraoral scanner.

148. 3Shape's acts of infringement have injured and damaged Medit and will continue to injure and damage Medit.

149. 3Shape's actions have caused Medit to suffer irreparable harm resulting from the loss of its lawful patent rights and the loss of its ability to exclude others from making, using, selling, offering to sell, and importing the inventions of the '374 patent. On information and belief, 3Shape will continue these infringing acts unless enjoined by this court.

Fourteenth Counterclaim:

Infringement of the '864 Patent

150. Medit incorporates its allegations in the Counterclaim paragraphs 1-7 and 73-81 as fully set forth herein.

151. On information and belief, 3Shape has directly, either literally or under the doctrine of equivalents, infringed at least one claim of the '864 patent under 35 U.S.C. § 271(a), by making, using, selling, offering for sale in the United States and/or importing into the United States, without authority, the Trios Products.

152. 3Shape makes, uses, sells, offers to sell, and/or imports into the United States its Trios products without the authorization or consent of Medit.

153. TRIOS meet each and every limitation of one or more claims of the '864 Patent. Accordingly, 3Shape directly infringes the '864 Patent.

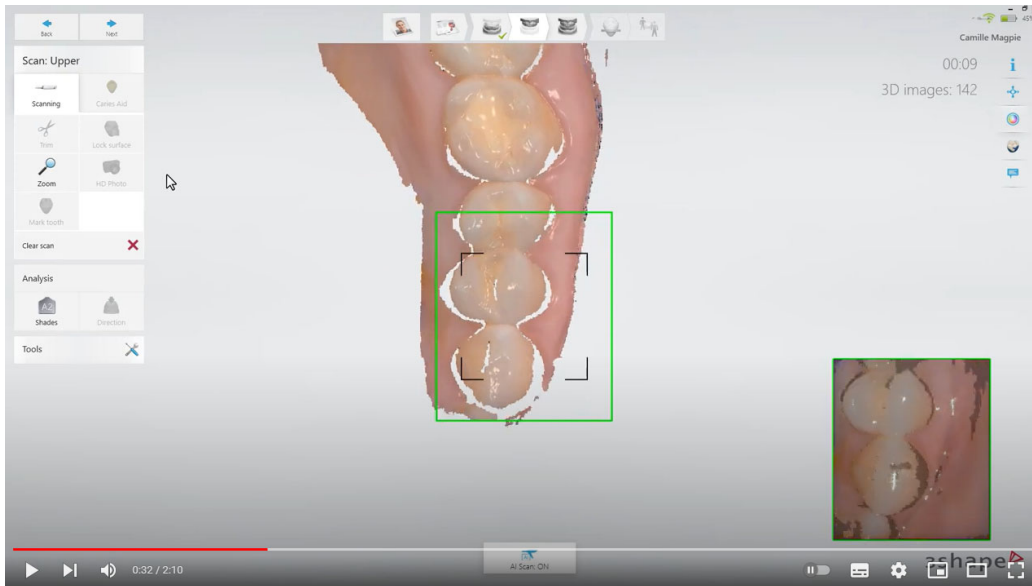
154. For example, the infringing Trios Products are intraoral scanners and related software and hardware that meet each limitation of claim 9 of the '864 Patent. The following paragraphs provide a non-limiting explanation of how the elements of claim 9 read onto TRIOS. This discussion is exemplary only and does not limit the scope of the claims in the '864 Patent.

155. TRIOS includes a memory that stores a 3D model of a subject along with the sequence of image sets used to create the 3D model. The following illustration shows such a 3D model that has been rendered on a screen:



156. On information and belief, each of the image sets described in the preceding paragraph includes a plurality of images of the subject where each of the images in an image set is capture from a different optical axis.

157. TRIOS further includes a display that is configured to provide a user interface displaying one of the plurality of images in a first window. Such a display is shown in the lower right corner in the following illustration:



158. The processor in TRIOS is further configured to render a 3D model in a second window in the user interface concurrently with the display of one of the plurality of images. The 3D model is rendered in the second window and is displayed in the center of the above illustration. On information and belief, the processor is configured to synchronize the first and the second windows to provide a common perspective on the subject in both the 3D model and the displayed image.

159. 3Shape also contributorily infringes at least claim 9 of the '864 Patent. As noted above, the infringing Trios Products have been specifically designed for use as intraoral scanners, along with the related software and hardware, that can be used to render 3D images as well as concurrently display another image taken from a plurality of images. As correctly operated, TRIOS infringe one or more claims of the '864 Patent during their normal operation.

160. The actions by 3Shape in selling its Trios Products for use by dentists or other third parties result in direct infringement by those other third parties. Such direct infringement occurs through the customary and ordinary use of TRIOS so that those products will function and operate properly as intended by 3Shape.

161. 3Shape has directly infringed the '864 patent, including by making, using, selling, offering for sale in the United States, and importing into the United States, products that contain the intraoral scanner disclosed in the '864 patent. Further, 3Shape uses the scanner, e.g., by testing and/or demonstrating the Accused Products

162. 3Shape also actively induces and has induced infringement of the '864 patent under 35 U.S.C. § 271(b), either literally or under the doctrine of equivalents.

163. On information and belief, 3Shape encouraged and facilitated infringement with specific intent by, for example, training its customers to use the TRIOS intraoral scanner in a manner that infringes at least one claim of the '864 patent, promoting the use of the TRIOS intraoral scanner in a manner that infringes at least one claim of the '864 patent to 3Shape's customers, and disseminating promotional and marketing material and product literature to those customers encouraging use of the TRIOS intraoral scanner in a manner that infringes at least one claim of the '864 patent. For example, 3Shape is aware that the features claimed in the '864 patent are features in the TRIOS intraoral scanner and are features used by others that purchase the TRIOS intraoral scanner and, therefore, that purchasers and/or end users of the TRIOS intraoral scanner will infringe the '864 patent.

164. 3Shape actively induces infringement of the '864 patent with knowledge and the specific intent to encourage that infringement by, inter alia, disseminating the TRIOS intraoral scanner and providing promotional materials, marketing materials, training materials, instructions, product manuals, user guides and technical information to third parties including but not limited to resellers, distributors, customers, potential customers, dentists, orthodontists, and/or other end users of the TRIOS intraoral scanner. Those third parties directly infringe the '864 patent at least by selling, offering to sell, and/or using the TRIOS intraoral scanner.

165. 3Shape has been and is now contributing to the infringement of the '864 patent under 35 U.S.C. § 271(c), either literally or under the doctrine of equivalents.

166. 3Shape has actively, knowingly, and intentionally contributed to and continues to actively, knowingly, and intentionally contribute to the infringement of the '864 patent by selling or offering to sell, and continuing to sell or offer for sale the TRIOS intraoral scanner within the United States and/or by importing the TRIOS intraoral scanner into the United States with knowledge that the infringing technology in the TRIOS intraoral scanner is especially made and/or especially adapted for use in infringement of the '864 patent, is a material part of the patented invention, and is not a staple article or commodity of commerce suitable for substantial non-infringing use and with knowledge that others including, but not limited to, resellers, distributors, customers, dentists, orthodontists, dental and orthodontic labs, and/or other end users of the TRIOS intraoral scanner do not use the product in a noninfringing manner. 3Shape has such knowledge at least because the claimed features of the '864 patent are used by others including, but not limited to resellers, distributors, customers, dentists, orthodontists, dental and orthodontic labs, and/or other end users of the TRIOS intraoral scanner.

167. On information and belief, 3Shape knew or should have known of the '864 patent and has acted, and continues to act, in an egregious and wanton manner by infringing the '864 patent. On information and belief, 3Shape's infringement of the '864 patent has been and continues to be willful and deliberate. Medit is a known revolutionary in intraoral scanners with whom 3Shape knows and has familiarity. On information and belief, 3Shape knowingly developed, has sold, sells, and offers to sell the TRIOS intraoral scanner in an infringing manner that was known to 3Shape or was so obvious that 3Shape should have known of its infringement.

168. On information and belief, despite knowing its actions constituted infringement of the '864 patent and/or despite knowing that there was a high likelihood that its actions constituted infringement of the '864 patent, 3Shape nevertheless continued its infringing actions, and continues to make, use, and sell the TRIOS intraoral scanner.

169. 3Shape's acts of infringement have injured and damaged Medit and will continue to injure and damage Medit.

170. 3Shape's actions have caused Medit to suffer irreparable harm resulting from the loss of its lawful patent rights and the loss of its ability to exclude others from making, using, selling, offering to sell, and importing the inventions of the '864 patent. On information and belief, 3Shape will continue these infringing acts unless enjoined by this court.

RESERVATION OF RIGHTS

Medit reserves the right to revise, supplement, or amend its Answer, Affirmative Defenses, and Counterclaims, including reserving all defenses permitted under the Federal Rules of Civil Procedure, the patent laws of the United States, and/or law or in equity, that may now exist or may in the future be available based on discovery and/or further investigation in this case.

PRAYER FOR RELIEF

WHEREFORE, Defendant Medit Corp., respectfully prays:

- A. enter a judgment that the 3Shape Patents are invalid;
- B. enter a judgment that Medit does not infringe the 3Shape Patents;
- C. enter a judgment that 3Shape has infringed each of the Medit patents-in-suit;
- D. enter a judgment that the Medit patents-in-suit are valid and enforceable;
- E. preliminarily and permanently enjoin 3Shape, its parents, subsidiaries, affiliates, agents, servants, employees, attorneys, representatives, successors and assigns,

and all others in active concert or participation with them from infringing the Medit patents-in-suit;

- F. order an award of damages to Medit in an amount adequate to compensate Medit for 3Shape's infringement, said damages to be no less than a reasonable royalty;
- G. order an accounting to determine the damages to be awarded to Medit as a result of 3Shape's infringement, including an accounting for infringing sales not presented at trial and award additional damages for any such infringing sales;
- H. assess pre-judgment and post-judgment interest and costs against 3Shape, together with an award of such interest and costs, in accordance with 35 U.S.C. § 284;
- I. render a finding that this case is "exceptional" and award to Medit its costs, expenses, and reasonable attorneys' fees, as provided by 35 U.S.C. § 285;
- J. grant such other and further relief as the Court may deem proper and just.

DEMAND FOR JURY TRIAL

Medit respectfully requests a trial by jury for all issues triable.

Dated: August 18, 2023

Respectfully submitted,

/s/ Douglas F. Stewart

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*Attorneys for Defendant and Counterclaim-plaintiff
Medit Corp.*

CERTIFICATE OF SERVICE

I hereby certify that on August 18, 2023, I electronically filed the foregoing with the Clerk of Court using the CM/ECF system, which will send notification of such filing via electronic mail to all counsel of record.

By: /s/ Douglas F. Stewart
Douglas F. Stewart