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8	UNITED STATES DISTRICT COURT NORTHERN DISTRICT OF CALIFORNIA			
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11	VTT TECHNICAL DESEADCH CENTRE OF	Case No. 5:10 av 1174		
12	VTT TECHNICAL RESEARCH CENTRE OF FINLAND LTD.,Case No. 5:19-cv-1174			
13	Plaintiff,	COMPLAINT FOR PATENT		
14	v.	INFRINGEMENT		
15	SITIME CORPORATION,	JURY TRIAL DEMANDED		
16	Defendant.			
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		COMPLAINT FOR PATENT INFRINGEMENT Case No. 5:19-cv-1174		

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#### **COMPLAINT FOR PATENT INFRINGEMENT**

Plaintiff VTT Technical Research Centre of Finland Ltd. ("VTT" or "Plaintiff") files this Complaint and demand for a jury trial seeking relief for patent infringement by Defendant SiTime Corporation ("SiTime"). Plaintiff states and alleges the following:

#### THE PARTIES

1. VTT is a limited company organized and existing under the laws of Finland. VTT
is headquartered in Espoo, Finland. VTT's principal place of business is located at
Vuorimiehentie 3, Espoo, PL1000, 02044 VTT, Finland.

9 2. VTT was formed in 1942 and operates under the mandate of Finland's Ministry of
10 Employment and the Economy.

3. VTT has a long history of discovery and innovation. VTT supports and facilitates
 fundamental and applied research in numerous technical fields. These efforts, like the scientific
 and technical research that led to the patent at issue in this case, requires significant investment
 from public and private sources. For example, VTT performs approximately \$180 million in
 research annually, which is funded by the Finnish government, the European Union, and private
 companies.

4. VTT employs more than 1500 scientists and has more than 2000 active research
projects at any given time. Because of its vast investment and commitment to innovation, VTT
has the capacity to conduct more than 4 million hours of research and development each year.

The knowledge obtained through VTT's research benefits many people and
 organizations around the world, including governments, companies, researchers, and consumers.
 To maximize those benefits, VTT sometimes patents and commercializes inventions made by its
 researchers and then uses the proceeds to fund further research activities at VTT.

6. VTT has been awarded more than 1400 patents as a result of its research and
innovation, and has more than 500 patent applications under examination in patent offices around
the world. These patents and patent applications span many fields and disciplines. Among these
is Micro-Electro-Mechanical Systems (MEMS), where VTT pioneered the development of MEMS
resonator design and operation.

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1 7. On information and belief, SiTime is a corporation organized and existing under the laws of the State of Delaware, with a principal place of business located at 5451 Patrick Henry 2 3 Drive, Santa Clara, California 95054.

4 8. On information and belief, SiTime is a wholly-owned subsidiary of MegaChips 5 Corporation ("MegaChips"). On information and belief, MegaChips' registered address is 1-1-1 Miyahara, Yodogawa-ku, Osaka, 532-0003, Japan. 6

## 7

#### **ASSERTED PATENT**

8 9. On October 15, 2013, United States Patent No. 8,558,643 ("the '643 patent") titled 9 "Micromechanical Device Including N-Type Doping for Providing Temperature Compensation and Method of Designing Thereof" was duly and legally issued by the United States Patent and 10 Trademark Office. VTT owns the '643 patent by assignment. A true and correct copy of the '643 12 patent is attached as Exhibit A.

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## BACKGROUND

14 10. In 2012, representatives from VTT met with Markus Lutz, Founder and Executive 15 Vice President of SiTime, regarding VTT's MEMS technology. VTT provided Markus Lutz with 16 a list of patents and patent applications that included the applications that led to the '643 patent. 17 VTT also invited SiTime to license VTT's patents. SiTime declined VTT's offer.

11. In March 2016, VTT contacted MegaChips through a representative regarding VTT's patent portfolio that covers various MEMS resonator technologies. The letter and accompanying presentation to MegaChips specifically identified the '643 patent and stated that the '643 patent was relevant to SiTime's TempFlat<sup>TM</sup> MEMS products.

22 12. After receiving no response to the March 2016 letter and accompanying 23 presentation, VTT's representative sent another letter to MegaChips in April 2016.

24 13. In May 2016, legal counsel for SiTime responded to the communications from 25 VTT. The letter from SiTime's legal counsel included questions regarding VTT, VTT's 26 intellectual property holdings, and the researchers that invented the MEMS technology covered by 27 the '643 patent (among other patents).

In June 2016, VTT's representative sent a letter to SiTime's legal counsel
 responding to each of the questions raised in the May 2016 letter. Neither SiTime nor any SiTime
 representative ever responded to the May 2016 letter.

15. In May 2017, legal counsel for VTT sent a letter to SiTime's legal counsel regarding the '643 patent and SiTime's TempFlat<sup>TM</sup> MEMS resonators. The letter discussed the elements of claim 1 of the '643 patent and the relevant features of the TempFlat<sup>TM</sup> products. In the letter, VTT's legal counsel requested a telephone conference with the appropriate SiTime representative to determine whether VTT's understanding of the structure of SiTime's TempFlat<sup>TM</sup> products was correct given that SiTime does not publicly disclose, in detail, the structure of those products.

11 16. From July 2017 through August 2018, legal counsel for VTT and SiTime
12 participated in several telephone conferences regarding VTT's intellectual property, including the
13 '643 patent. During those telephone conferences and in related correspondence, VTT's legal
14 counsel reiterated its request for more information regarding the structure of SiTime's TempFlat<sup>TM</sup>
15 products and also requested that the parties enter into a non-disclosure agreement so that SiTime
16 could share this information with VTT's legal counsel in confidence. SiTime declined to enter
17 into a non-disclosure agreement and refused to provide this information.

### JURISDICTION AND VENUE

17. This is an action for patent infringement arising under the patent laws of the United States, 35 U.S.C. §§ 1 *et seq*. This Court has subject matter jurisdiction pursuant to 28 U.S.C. §§ 1331 and 1338(a).

18. This Court has personal jurisdiction over SiTime because its principal place of
business is located in this judicial district; it regularly conducts business and therefore has
substantial and continuous contacts within this judicial district; because it has purposefully availed
itself to the privileges of conducting business in this judicial district; and/or because it has
committed acts of patent infringement in this judicial district.

19.

Venue is proper in this District pursuant to 28 U.S.C. § 1400(b).

#### COUNT I

#### (Patent Infringement)

3 20. Plaintiff restates and realleges the preceding paragraphs of this Complaint. 4 21. Based on publicly-available information, VTT suspected that SiTime had made, 5 imported, used, sold, and/or offered for sale TempFlat<sup>™</sup> MEMS resonators (the "Accused 6 Products") that directly infringe one or more of the claims of the '643 patent. On information and belief, exemplary Accused Products include part numbers SiT1602, SiT1618, SiT2001, SiT2002, 7 8 SiT2018, SiT2019, SiT2020, SiT2021, SiT2024, SiT2025, SiT3372, SiT3373, SiT3807, SiT3808, 9 SiT3809, SiT3907, SiT3921, SiT3922, SiT8008, SiT8009, SiT8208, SiT8209, SiT8918, SiT8919, 10 SiT8920, SiT8921, SiT8924, SiT8925, SiT8926, SiT9005, SiT9102, SiT9120, SiT9121, SiT9122, 11 SiT9365, SiT9366, SiT9367, SiT9386, and SiT9387.

12 22. SiTime knew of the '643 patent no later than March 2016. Based on publiclyavailable information, VTT suspected that SiTime actively and knowingly induced infringement 13 14 of one or more claims of the '643 patent by, for example, providing Accused Products to 15 manufacturers to be incorporated into other products and then imported into, sold, and used in the 16 United States. On information and belief, SiTime knew that importing, selling, and using these 17 other products that incorporated the Accused Products are acts of direct infringement of the '643 18 patent and SiTime encouraged those acts with the specific intent to infringe the '643 patent. 19 Alternatively, on information and belief, SiTime knew that there is a high probability that the 20 import, sale, and use of products that incorporate the Accused Products constituted direct 21 infringement of the '643 patent but took deliberate actions to avoid learning of these facts.

22 23. As a result of these suspicions of direct and indirect infringement, VTT, acting
23 through representatives and legal counsel, contacted SiTime and provided its understanding of the
24 structure of the Accused Products. VTT asked that SiTime either confirm VTT's understanding or
25 provide information regarding the structure of the Accused Products if VTT's understanding was
26 incorrect. SiTime refused to provide VTT with any information regarding the structure of its
27 Accused Products.

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24. Because SiTime refused to provide VTT with information regarding the structure
 of the Accused Products, VTT has not been able to further analyze the extent of SiTime's
 infringement. Therefore, relying on the precedent established in *Hoffmann-La Roche Inc. v. Invamed Inc.*, 213 F.3d 1359 (Fed. Cir. 2000) and on information and belief, VTT pleads that
 SiTime has directly and indirectly infringed one or more claims of the '643 patent as set forth in
 the preceding paragraphs.

7 25. The claim chart attached hereto as Exhibit 2 describes how, based on information
8 and belief, the elements of claim 1 of the '643 patent are met by one of the exemplary Accused
9 Products.

26. On information and belief, SiTime has known that its activities concerning its Accused Products have infringed the '643 patent since at least 2016 when MegaChips and SiTime received a communication from VTT's representative that identified the '643 patent, and compared features of claim 1 of the '643 patent and the Accused Products.

27. On information and belief, SiTime has no reasonable basis to believe that each element of at least claim 1 of the'643 patent is not satisfied by its Accused Products and that its actions do not directly and indirectly infringe. Further, SiTime did not provide information relating to the structure of the Accused Products, despite repeated requests by VTT.

28. VTT has been damaged as the result of SiTime's willful infringement. Upon information and belief, SiTime will continue to infringe the '643 patent unless and until it is enjoined by this Court.

29. SiTime has caused and will continue to cause VTT irreparable injury and damage by infringing the '643 patent. VTT will suffer further irreparable injury, for which it has no adequate remedy at law, unless and until SiTime is enjoined from infringing the '643 patent.

#### PRAYER FOR RELIEF

WHEREFORE, VTT respectfully request that this Court:

(1) Enter judgment that SiTime has infringed one or more claims of the '643 patent;

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1	(2)	(2) Enter an order permanently enjoining SiTime and its officers, agents, employees,		
2	attorneys, parent company, and all persons in active concert or participation with any of them,			
3	from infringing the '643 patent;			
4	(3)	Award VTT damages in an amount sufficient to compensate it for SiTime's		
5	infringement	nfringement of one or more claims of the '643 patent, together with pre-judgment and post-		
6	judgment interest and costs, and all other damages permitted under 35 U.S.C. § 284;			
7	(4)	(4) Treble the damages awarded to VTT under 35 U.S.C. § 284 by reason of SiTime's		
8	willful infringement of one or more claims of the '643 patent;			
9	(5) Perform an accounting of SiTime's infringing activities through trial and judgment;			
10	(6) Declare this case to be "exceptional" under 35 U.S.C. § 285 and award VTT its			
11	attorneys' fees, expenses, and costs incurred in this action; and			
12	(7)	Award VTT such other and furth	her relief as this Court deems just and proper.	
13	JURY TRIAL DEMAND			
14	VTT demands a jury trial on all issues so triable.			
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17	Dated: Marcl	h 4 2019	FISH & RICHARDSON P.C.	
18		1,2017		
19			By: /s/ Michael R. Headley	
20			Michael R. Headley	
21			Attorneys for Plaintiff VTT Technical Research Centre of Finland Ltd.	
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			7 COMPLAINT FOR PATENT INFRINGEMENT Case No. 5:19-cv-1174	