**IN THE UNITED STATES DISTRICT COURT**
**FOR THE NORTHERN DISTRICT OF ILLINOIS**
**EASTERN DIVISION**

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| THETA IP, LLC,<br><br>Plaintiff,<br><br>v.<br><br>MOTOROLA MOBILITY LLC;<br>LENOVO (UNITED STATES) INC.; and<br>LENOVO GROUP LTD.,<br><br>Defendants. | Civil Action No.: 1:22-cv-03441<br><br>**JURY TRIAL DEMANDED** |

**DEFENDANTS MOTOROLA MOBILITY LLC AND LENOVO (UNITED STATES) INC.'S PATENT RULE 2.3 INITIAL NON-INFRINGEMENT, UNENFORCEABILITY AND INVALIDITY CONTENTIONS**

## I. INTRODUCTION

Defendants Motorola Mobility LLC and Lenovo (United States) Inc. ("Defendants") hereby serve these Initial Non-Infringement, Unenforceability and Invalidity Contentions ("Contentions" or "Initial Non-Infringement, Unenforceability and Invalidity Contentions") in accordance with Local Patent Rule 2.3 and pursuant to the Court's September 29, 2022 and February 28, 2023 Orders. (Dkt. Nos. 26, 36).

Plaintiff Theta IP, LLC ("Theta" or "Plaintiff") has asserted claims 1, 23, and 29 of U.S. Patent No. 7,010,330 (the "'330 Patent"); claims 3, 4, and 8 of U.S. Patent No. 10,129,825 (the "'825 Patent"); and claims 7-11 and 13 of U.S. Patent No. 10,524,202 (the "'202 Patent") (hereinafter, the "Asserted Claims" of the "Asserted Patents") against Defendants. *See* Theta's Initial Infringement Contentions, January 6, 2023 ("Initial Infringement Contentions"). Defendants hereby provides their disclosures and related documents pertaining only to the Asserted Claims identified by Plaintiff in its Initial Infringement Contentions. These Contentions

- Japanese Patent Publication No. 11-298348, filed April 16, 1998, published October 29, 1999 (the "'348 Publication");
- Japanese Patent Application Publication No. 2000-13261, filed June 26, 1998, published January 14, 2000 (the "'261 Publication");
- Japanese Patent Application Publication No. 1996-79108, filed August 31, 1994, published March 22, 1996 (the "'108 Publication");
- Japanese Patent Application Publication No. H10-290173, filed April 14, 1997, published October 27, 1998 (the "'173 Publication");
- Japanese Patent Application Publication No. 08228118A, published on September 3, 1996 to Masaaki ("Masaaki");
- European Patent Publication No. EP 1104183A2, filed June 9, 2000, published March 30, 2001 (the "'183 Publication");
- European Patent Publication No. EP 0999649A2, filed November 2, 1999, published May 10, 2000 to Antti Rauhala ("Rauhala");
- PCT Publication No. WO 02/056470, published July 18, 2002 by Palaskas et al. (the "'470 Application");
- Farbod Behbahani et al., "Adaptive Analog IF Signal Processor for a Wide-Band CMOS Wireless Receiver," 36 IEEE J. Solid State Circuits 1205-17 (2001) ("Behbahani 2001");
- Tsividis *et al.,* "Internally Varying Analog Circuits Minimize Power Dissipation," IEEE Circuits & Devices Magazine (Jan. 2003) at 63-72 ("Tsividis 2003");
- Hosticka, "Performance Comparison of Analog and Digital Circuits," 73 Proceedings of the IEEE 25 (1985) ("Hosticka 1985");
- Vittoz, "Low-Power Low-Voltage Limitations and Prospects in Analog Design," Advances in Analog Circuit Design Workshop Eindhoven, Mar. 29-31, 1994 ("Vittoz 1994");
- Vittoz et al., "CMOS Low-Power Analog Circuit Design," Emerging Technologies: Designing Low Power Digital Systems, May 15, 1996 ("Vittoz 1996");
- Krishnapura and Tsividis, "Noise and Power Reduction in Filters Through the Use of Adjustable Biasing," IEEE Journal of Solid-State Circuits, Vol. 36, No. 12, 1912-20, December 2001 ("Krishnapura 2001");
- Rudolf F. Graf, Modern Dictionary of Electronics, Seventh Edition, 1999;
- Behzad Razavi, RF Microelectronics, Prentice Hall PTR, 1998;
- Phillip A. Laplante, Electrical Engineering Dictionary, 2000;
- A. Kestenbaum et al., Design Concepts for Process Control, Ind. Eng. Chem., Process Des. Dev., Vol. 15, No. 1, (1976);
- Lijun Qian, Optimal Power Control in Cellular Wireless Systems, Ph.D. diss., Rutgers The State University of New Jersey, School of Graduate Studies (2001);

claim. Additionally, citations to a particular figure in a prior art reference encompass all text relating to the figure, and citations to text encompass all figures relating to the text.

| Exhibit Number | Exhibit Description |
|---|---|
| 330-1 | ’330 Patent as anticipated by the ’901 Patent and/or rendered obvious by the ’901 Patent in light of the ’406 Patent, the ‘221 Patent, the ‘447 Patent, and/or the ‘566 Patent. |
| 330-2 | ‘330 Patent as anticipated by the ‘938 Patent and/or rendered obvious by the ‘938 Patent in light of the ‘605 Patent, the ‘525 Patent, the ‘221 Patent, and/or the ‘286 Patent. |
| 330-3 | ‘330 Patent as anticipated by the ‘427 Patent and/or rendered obvious by the ‘427 Patent in light of the ‘406 Patent, the ‘221 Patent, and/or the ‘447 Patent. |
| 330-4 | ‘330 Patent as anticipated by the ‘655 Patent and/or rendered obvious by the ‘655 Patent in light of the ’406 Patent, the ‘221 Patent, and/or the ‘447 Patent. |
| 330-5 | ‘330 Patent as anticipated by the ‘605 Patent and/or rendered obvious by the ‘605 Patent in light of the ’525 Patent, the ‘221 Patent, the ‘286 Patent, the ‘796 Patent, and/or the ‘437 Patent. |
| 330-6 | ‘330 Patent as anticipated by the ‘021 Patent and/or rendered obvious by the ‘021 Patent in light of the ’525 Patent, the ’605 Patent, the ’221 Patent, ’286 Patent, the ‘796 Patent, and/or the ’447 Patent. |
| 330-7 | ‘330 Patent as anticipated by ‘470 Application and/or rendered obvious by ‘470 Application in light of the ’221 Patent, the ’108 Publication, Tsividis 2003, the ’525 Patent, the ’605 Patent, and/or Vittoz 1996. |
| 330-8 | ‘330 Patent as anticipated by Behbahani 2001 and/or rendered obvious by Behbahani 2001 in light of the ’221 Patent, the ’108 Publication, Tsividis 2003, the ’525 Patent, the ’605 Patent, and/or Vittoz 1996. |
| 330-9 | ’330 Patent as anticipated by Rauhala and/or rendered obvious by Rauhala in light of the ’221 Patent, Vittoz 1996, and/or Tsividis 2003. |
| 330-10 | ’330 Patent as anticipated by the ’279 Patent and/or rendered obvious by the ’279 Patent. |
| 330-11 | ’330 Patent as anticipated by the ’711 Patent and/or rendered obvious by the ’711 Patent. |
| 330-12 | ’330 Patent as anticipated by the ’430 Patent and/or rendered obvious by the ’430 Patent. |
| 825-1 | ’825 Patent as anticipated by ’901 Patent and/or rendered obvious by the ’901 Patent in light of the ’602 Patent, the ’279 Patent, ’108 Publication, the ’348 Publication, Tsividis 2003, the ’183 Publication, the ’156 Patent, the ’221 Patent, the ’711 Patent, the ’297 Patent, the ’566 Patent, and/or Vittoz 1996. |

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|---|---|
| 825-2 | ’825 Patent as anticipated by ’776 Patent and/or rendered obvious by the ’776 Patent in light of the ’173 Publication, the ’108 Publication, the ’348 Publication, Tsividis 2003, the ’183 Publication, the ’156 Patent, the ’221 Patent, the ’711 Patent, the ’491 Patent, the ’297 Patent, and/or Vittoz 1996. |
| 825-3 | ’825 Patent as anticipated by ’279 Patent and/or rendered obvious by the ’279 Patent in light of the ’173 Publication, the ’108 Publication, the ’348 Publication, Tsividis 2003, the ’183 Publication, the ’156 Patent, the ’221 Patent, the ’711 Patent, the ’297 Patent, and/or Vittoz 1996. |
| 825-4 | ’825 Patent as anticipated by ’602 Patent and/or rendered obvious by the ’602 Patent in light of the ’173 Publication, the ’108 Publication, the ’348 Publication, Tsividis 2003, the ’183 Publication, the ’156 Patent, the ’221 Patent, the ’711 Patent, the ’297 Patent, the ’491 Patent, and/or Vittoz 1996. |
| 825-5 | ’825 Patent as anticipated by ’061 Patent and/or rendered obvious by the ’061 Patent in light of the ’173 Publication, the ’108 Publication, the ’348 Publication, the ’552 Patent, Tsividis 2003, the ’183 Publication, the ’156 Patent, the ’221 Patent, the ’711 Patent, the ’297 Patent, and/or Vittoz 1996. |
| 825-6 | ’825 Patent as anticipated by ’491 Patent and/or rendered obvious by the ’491 Patent in light of the ’173 Publication, the ’108 Publication, the ’348 Publication, Tsividis 2003, the ’183 Publication, the ’156 Patent, the ’221 Patent, the ’711 Patent, the ’297 Patent, and/or Vittoz 1996. |
| 825-7 | ’825 Patent as anticipated by ’711 Patent and/or rendered obvious by the ’711 Patent in light of the ’173 Publication, the ’108 Publication, the ’348 Publication, Tsividis 2003, the ’183 Publication, the ’221 Patent, the ’297 Patent, and/or Vittoz 1996. |
| 825-8 | ’825 Patent as anticipated by ’430 Patent and/or rendered obvious by the ’430 Patent in light of the ’602 Patent, ’108 Publication, Tsividis 2003, the ’183 Publication, the ’156 Patent, the ’221 Patent, the ’711 Patent, the ’297 Patent, and/or Vittoz 1996. |
| 825-9 | ’825 Patent as anticipated by ’348 Publication and/or rendered obvious by the ’348 Publication in light of the ’173 Publication, the ’108 Publication, Tsividis 2003, the ’183 Publication, the ’297 Patent, the ’156 Patent, the ’406 Patent, the ’221 Patent, the ’711 Patent, the ’491 Patent, and/or Vittoz 1996. |
| 825-10 | ’825 Patent as anticipated by Behbahani 2001 and/or rendered obvious by Behbahani 2001 in light of the ’173 Publication, the ’108 Publication, the ’348 Publication, Tsividis 2003, the ’183 Publication, the ’156 Patent, the ’221 Patent, the ’711 Patent, the ’297 Patent, Vittoz 1996, the ’491 Patent, and/or the ’525 Patent. |
| 825-11 | ’825 Patent as anticipated by the ’173 Publication and/or rendered obvious by the ’173 Publication in light of the ’108 Publication, the ’348 Publication, |

| Exhibit Number | Exhibit Description |
|---|---|
| | Tsividis 2003, the ’183 Publication, the ’156 Patent, the ’221 Patent, the ’711 Patent, the ’297 Patent, the ’491 Patent, and/or Vittoz 1996. |
| 825-12 | ’825 Patent as anticipated by the ’156 Patent and/or rendered obvious by the ’156 Patent in light of the ’173 Publication, the ’108 Publication, the ’348 Publication, Tsividis 2003, the ’183 Publication, the ’221 Patent, the ’491 Patent, the ’156 Patent, the ’711 Patent, the ’297 Patent, and/or Vittoz 1996. |
| 825-13 | ’825 Patent as invalid for double-patenting over the ’728 Patent. |
| 825-14 | ’825 Patent as anticipated by Rauhala and/or rendered obvious by Rauhala in light of the ’183 Publication, Tsvidis 2003, the ’156 Patent, the ’221 Patent, the ’711 Patent, the ’297 Patent, Vittoz 1996, and/or the ’491 Patent. |
| 825-15 | ’825 Patent as rendered obvious by the ’297 Patent in combination with other primary references. |
| 202-1 | ’202 Patent as anticipated by ’901 Patent and/or rendered obvious by the ’901 Patent in light of the ’602 Patent, the ’279 Patent, the ’108 Publication, the ’173 Publication, the ’221 Patent, the ’711 Patent, the ’297 Patent, Tsividis 2003, Vittoz 1996, and/or the ’348 Publication. |
| 202-2 | ’202 Patent as anticipated by ’776 Patent and/or rendered obvious by the ’776 Patent in light of the ’108 Publication, the ’173 Publication, the ’183 Publication, the ’221 Patent, the ’711 Patent, Tsividis 2003, the ’297 Patent, Vittoz 1996, the ’156 Patent, and/or the ’348 Publication. |
| 202-3 | ’202 Patent as anticipated by ’279 Patent and/or rendered obvious by the ’279 Patent in light of the ’108 Publication, the ’173 Publication, the ’183 Publication, the ’221 Patent, the ’711 Patent, Tsividis 2003, the ’297 Patent, Vittoz 1996, and/or the ’348 Publication. |
| 202-4 | ’202 Patent as anticipated by ’602 Patent and/or rendered obvious by the ’602 Patent in light of the ’108 Publication, the ’173 Publication, the ’183 Publication, the ’221 Patent, the ’711 Patent, Tsividis 2003, the ’297 Patent, Vittoz 1996, the ’156 Patent, and/or the ’348 Publication. |
| 202-5 | ’202 Patent as anticipated by ’491 Patent and/or rendered obvious by the ’491 Patent in light of the ’108 Publication, the ’173 Publication, the ’183 Publication, the ’221 Patent, the ’711 Patent, Tsividis 2003, the ’297 Patent, Vittoz 1996, the ’156 Patent, and/or the ’348 Publication. |
| 202-6 | ’202 Patent as anticipated by ’711 Patent and/or rendered obvious by the ’711 Patent in light of ’108 Publication, the ’173 Publication, the ’183 Publication, the ’221 Patent, Tsividis 2003, the ’297 Patent, Vittoz 1996, and/or the ’348 Publication. |
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| | ’183 Publication, the ’221 Patent, the ’711 Patent, Tsividis 2003, the ’297 Patent, Vittoz 1996, and/or the ’348 Publication. |
| 202-8 | ’202 Patent as anticipated by ’348 Publication and/or rendered obvious by the ’348 Publication in light of the ’108 Publication, the ’173 Publication, the ’183 Publication, the ’221 Patent, the ’711 Patent, Tsividis 2003, the ’297 Patent, Vittoz 1996, and/or the ’156 Patent. |
| 202-9 | ’202 Patent as anticipated by Behbahani 2001 and/or rendered obvious by Behbahani 2001 in light of the ’108 Publication, the ’173 Publication, the ’348 Publication, the ’183 Publication, the ’221 Patent, the ’711 Patent, Tsividis 2003, the ’297 Patent, Vittoz 1996, the ’156 Patent, and/or the ’525 Patent. |
| 202-10 | ’202 Patent as anticipated by the ’173 Publication and/or rendered obvious by the ’173 Publication in light of the ’108 Publication, the ’183 Publication, the ’221 Patent, the ’711 Patent, Tsividis 2003, the ’297 Patent, Vittoz 1996, the ’156 Patent, and/or the ’348 Publication. |
| 202-11 | ’202 Patent as anticipated by the ’156 Patent and/or rendered obvious by the ’156 Patent in light of the ’108 Publication, the ’173 Publication, the ’183 Publication, the ’221 Patent, the ’711 Patent, Tsividis 2003, the ’297 Patent, Vittoz 1996, and/or the ’348 Publication. |
| 202-12 | ’825 Patent as anticipated by Rauhala and/or rendered obvious by Rauhala in light of the ’173 Publication, the ’108 Publication, the ’348 Publication, the ’173 Publication, the ’221 Patent, the ’711 Patent, Tsividis 2003, the ’297 Patent, Vittoz 1996, the ’156 Patent, and/or the ’183 Publication. |
| 202-13 | ’202 Patent as invalid for double-patenting over the ’728 Patent. |
| 202-14 | ’202 Patent (claims 7, 8) as anticipated and/or rendered obvious by the ’297 Patent in combination with other primary references. |

### 1. Primary Prior Art

#### a. *The ’901 Patent*

U.S. Patent No. 6,670,901, filed July 31, 2001, published February 6, 2003, and issued Dec. 30, 2003 to Brueske et al. and assigned to Motorola (the “’901 Patent”) teaches a method for power dissipation reduction in a receiver of a wireless transceiver of a battery powered portable wireless device, and a corresponding improvement in a drain on battery life of the battery powered portable wireless device.

## IV. ADDITIONAL PRIOR ART

Defendants incorporate here by reference, whether or not cited in the Exhibits, all prior art cited in the Asserted Patents, all prior art relied on in the Samsung litigations, and all prior art cited in the prosecution history of the Asserted Patents, reexaminations, or *inter partes* review proceedings, and any foreign counterparts.

## V. DOCUMENT PRODUCTION

Defendants are concurrently producing a copy of each asserted prior art reference identified herein that is not in the file history of the Asserted Patents or that has not already been produced.

Respectfully submitted,

Date: March 17, 2023

*/s/ Brooke S. Boll*

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