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July 17, 2025

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**Re:** ***United Microelectronics Corp. and UMC Group (USA) v. Advanced Integrated Circuit Process LLC*, IPR2025-01093 for US Patent No. 8,587,076;**
***Advanced Integrated Circuit Process LLC v. United Microelectronics Corp.*, Civil Action No. 2:24-cv-00730 (E.D. Tex.) (Lead Case);**
***Advanced Integrated Circuit Process LLC v. Taiwan Semiconductor Manufacturing Co. Ltd.*, Civil Action No. 2:24-cv-00623 (E.D. Tex.) (Consolidated Member Case)**
**TPL Ref: 632329.000006**

Dear Counsel:

We write regarding a petition for *inter partes* review ("IPR") filed June 6, 2025 (Paper 1) with the United States Patent and Trademark Office, Patent Trial and Appeal Board ("PTAB") in IPR2025-01093 (the "Petition") to challenge claims 1-3, 6-8, and 10-13 (the "Challenged Claims") of U.S. Patent No. 8,587,076. The table below lists the grounds asserted by United

Microelectronics Corporation and UMC Group (USA) (collectively, "Petitioner") in the Petition, along with the Challenged Claims against which the grounds are asserted. Petitioner hereby stipulates that in the event (a) the PTAB institutes an IPR in response to the Petition, and does not subsequently vacate institution or (b) in response to the petition filed by Taiwan Semiconductor Manufacturing Co. Ltd. ("TSMC") against U.S. Patent No. 8,587,076 (IPR2025-00831), the PTAB institutes an IPR and the instituted IPR is not subsequently vacated or terminated before Final Written Decision, Petitioner will not pursue in the subject parallel litigation in U.S. District Court (the "Litigation") invalidity of the Challenged Claims based on:

1. the grounds listed in the below table against the corresponding claims listed in the below table for those grounds, as identified in the Petition,

2. any other grounds that could have reasonably been raised before the PTAB in IPR2025-01093 (i.e., any ground that could have reasonably been raised under pre-AIA §102 or §103 on the basis of prior art patent(s) or prior art printed publication(s)), or

3. any other invalidity ground under pre-AIA §102 or §103 involving any type of legally recognized prior art, including patent, printed publication, or system art.

| Ground | Basis | Claims | Reference(s) in IPR2025-01093 |
|---|---|---|---|
| I | § 103 | 1-3, 7-8, 10-13 | U.S. Patent Application Publication No. 2002/0063299 A1 ("Kamata") (Ex. 1027) |
| II | § 103 | 6 | U.S. Patent Application Publication No. 2002/0063299 A1 ("Kamata") (Ex. 1027) and Sim, J.H., et al., "Effects of ALD $HfO_2$ thickness on charge trapping and mobility," Microelectronic Engineering, Vol. 80, pp. 218-221, June 17, 2005 ("Sim") (Ex. 1024) |
| III | § 103 | 1-3, 7-8, 10-13 | U.S. Patent Application Publication No. 2006/0091432 A1 ("Guha") (Ex. 1028) |
| IV | § 103 | 6 | U.S. Patent Application Publication No. 2006/0091432 A1 ("Guha") (Ex. 1028) and Sim, J.H., et al., "Effects of ALD $HfO_2$ thickness on charge trapping and mobility," Microelectronic Engineering, Vol. 80, pp. 218-221, June 17, 2005 ("Sim") (Ex. 1024) |
| V | § 103 | 1-3, 7-8, 10-13 | U.S. Patent Application Publication No. 2003/0025135 S1 ("Matsumoto") (Ex. 1009) and U.S. Patent No. 6,504,214 ("Yu") (Ex. 1048) |

| Ground | Basis | Claims | Reference(s) in IPR2025-01093 |
|---|---|---|---|
| VI | § 103 | 6 | U.S. Patent Application Publication No. 2003/0025135 S1 ("Matsumoto") (Ex. 1009) and U.S. Patent No. 6,504,214 ("Yu") (Ex. 1048) and Sim, J.H., et al., "Effects of ALD $HfO_2$ thickness on charge trapping and mobility," Microelectronic Engineering, Vol. 80, pp. 218-221, June 17, 2005 ("Sim") (Ex. 1024) |
| VII | § 103 | 1 | U.S. Patent Application Publication No. 2003/0025135 S1 ("Matsumoto") (Ex. 1009) and Koyama, M., et al., "Effects of Nitrogen in HfSiON Gate Dielectric on the Electrical and Thermal Characteristics," Digest of International Electron Devices Meeting, pp. 849-852, Dec. 8-11, 2002 ("Koyama") (Ex. 1029) |
| VIII | § 103 | 1, 11, 12 | U.S. Patent Application Publication No. 2003/0025135 S1 ("Matsumoto") (Ex. 1009) and U.S. Patent Application Publication No. 2005/0051856 A1 ("Ono") (Ex. 1013) |

For the sake of clarity, and to avoid any doubt, if the PTAB declines to institute the grounds identified in the above table for whatever reason, Petitioner reserves the right to assert such grounds and all other available arguments for invalidity in the Litigation, including without limitation, under §112.

If institution of the Petition is granted, Petitioner further stipulates that it will submit a parallel stipulation in the Litigation as well as seek a stay of that Litigation pending resolution of the instituted IPR.

Best regards,

*/s/ Tim Tingkang Xia*

Tim Tingkang Xia (Petitioner Counsel IPR2025-01053)
Emma A. Bennett (Petitioner Counsel IPR2025-01053 and Defendant Counsel)
Mark Hannemann (Defendant Counsel of Record)
Ryan E. Dornberger (Defendant Counsel of Record)

cc: Counsel of Record via email

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**Re:** ***United Microelectronics Corp. and UMC Group (USA) v. Advanced Integrated Circuit Process LLC*, IPR2025-01092 for US Patent No. 8,253,180;**
***Advanced Integrated Circuit Process LLC v. United Microelectronics Corp.*, Civil Action No. 2:24-cv-00730 (E.D. Tex.) (Lead Case);**
***Advanced Integrated Circuit Process LLC v. Taiwan Semiconductor Manufacturing Co. Ltd.*, Civil Action No. 2:24-cv-00623 (E.D. Tex.) (Consolidated Member Case)**
**TPL Ref: 632329.000005**

Dear Counsel:

We write regarding a petition for *inter partes* review ("IPR") filed June 6, 2025 (Paper 1) with the United States Patent and Trademark Office, Patent Trial and Appeal Board ("PTAB") in IPR2025-01092 (the "Petition") to challenge claims 1-3, 5-6, 11, 13-14, 16-19, and 21-22 (the "Challenged Claims") of U.S. Patent No. 8,253,180. The table below lists the grounds asserted

by United Microelectronics Corporation and UMC Group (USA) (collectively, "Petitioner") in the Petition, along with the Challenged Claims against which the grounds are asserted. Petitioner hereby stipulates that in the event (a) the PTAB institutes an IPR in response to the Petition, and does not subsequently vacate institution or (b) in response to the petition filed by Taiwan Semiconductor Manufacturing Co. Ltd. ("TSMC") against U.S. Patent No. 8,253,180 (IPR2025-00830), the PTAB institutes an IPR and the instituted IPR is not subsequently vacated or terminated before Final Written Decision, Petitioner will not pursue in the subject parallel litigation in U.S. District Court (the "Litigation") invalidity of the Challenged Claims based on:

1. the grounds listed in the below table against the corresponding claims listed in the below table for those grounds, as identified in the Petition,

2. any other grounds that could have reasonably been raised before the PTAB in IPR2025-01092 (i.e., any ground that could have reasonably been raised under pre-AIA §102 or §103 on the basis of prior art patent(s) or prior art printed publication(s)), or

3. any other invalidity ground under pre-AIA §102 or §103 involving any type of legally recognized prior art, including patent, printed publication, or system art.

| Ground | Basis | Claims | Reference(s) in IPR2025-01092 |
|---|---|---|---|
| I | § 103 | 1-3, 5-6, 13-14, 16-19, 21-22 | U.S. Patent Application Publication No. 2002/0063299 A1 ("Kamata") (Ex. 1027) |
| II | § 103 | 11 | U.S. Patent Application Publication No. 2002/0063299 A1 ("Kamata") (Ex. 1027) and Sim, J.H., et al., "Effects of ALD $HfO_2$ thickness on charge trapping and mobility," Microelectronic Engineering, Vol. 80, pp. 218-221, June 17, 2005 ("Sim") (Ex. 1024) |
| III | § 103 | 18-19 | U.S. Patent Application Publication No. 2002/0063299 A1 ("Kamata") (Ex. 1027) and Wilk, G.D., et al., "High-k gate dielectrics: Current status and materials properties considerations," Journal of Applied Physics, Vol. 89, No. 10, pp. 5243-5275, May 15, 2001 ("Wilk") (Ex. 1018) |
| IV | § 103 | 1-3, 5-6, 13-14, 16-18, 21-22 | U.S. Patent Application Publication No. 2006/0091432 A1 ("Guha") (Ex. 1028) |
| V | § 103 | 11 | U.S. Patent Application Publication No. 2006/0091432 A1 ("Guha") (Ex. 1028) and Sim, J.H., et al., "Effects of ALD $HfO_2$ thickness on charge trapping and mobility," Microelectronic Engineering, Vol. 80, pp. 218-221, June 17, 2005 ("Sim") (Ex. 1024) |
| VI | § 103 | 1, 5, 13-14, 16-19 | U.S. Patent Application Publication No. 2003/0025135 S1 ("Matsumoto") (Ex. 1009) |

For the sake of clarity, and to avoid any doubt, if the PTAB declines to institute the grounds identified in the above table for whatever reason, Petitioner reserves the right to assert such grounds and all other available arguments for invalidity in the Litigation, including without limitation, under §112.

If institution of the Petition is granted, Petitioner further stipulates that it will submit a parallel stipulation in the Litigation as well as seek a stay of that Litigation pending resolution of the instituted IPR.

Best regards,

*/s/ Tim Tingkang Xia*

Tim Tingkang Xia (Petitioner Counsel IPR2025-01053)
Emma A. Bennett (Petitioner Counsel IPR2025-01053 and Defendant Counsel)
Mark Hannemann (Defendant Counsel of Record)
Ryan E. Dornberger (Defendant Counsel of Record)

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**Re:** ***United Microelectronics Corp. and UMC Group (USA) v. Advanced Integrated Circuit Process LLC*, IPR2025-01076 for US Patent No. 7,579,227;**
***Advanced Integrated Circuit Process LLC v. United Microelectronics Corp.*, Civil Action No. 2:24-cv-00730 (E.D. Tex.) (Lead Case);**
***Advanced Integrated Circuit Process LLC v. Taiwan Semiconductor Manufacturing Co. Ltd.*, Civil Action No. 2:24-cv-00623 (E.D. Tex.) (Consolidated Member Case)**
**TPL Ref: 632329.000003**

Dear Counsel:

We write regarding a petition for *inter partes* review ("IPR") filed June 2, 2025 (Paper 1) with the United States Patent and Trademark Office, Patent Trial and Appeal Board ("PTAB") in IPR2025-01076 (the "Petition") to challenge claims 1, 2, 7, 8, and 14 (the "Challenged Claims") of U.S. Patent No. 7,579,227. The table below lists the grounds asserted by United

Microelectronics Corporation and UMC Group (USA) (collectively, "Petitioner") in the Petition, along with the Challenged Claims against which the grounds are asserted. Petitioner hereby stipulates that in the event (a) the PTAB institutes an IPR in response to the Petition, and does not subsequently vacate institution or (b) in response to the petition filed by Taiwan Semiconductor Manufacturing Co. Ltd. ("TSMC") against U.S. Patent No. 7,579,227 (IPR2025-00828), the PTAB institutes an IPR and the instituted IPR is not subsequently vacated or terminated before Final Written Decision, Petitioner will not pursue in the subject parallel litigation in U.S. District Court (the "Litigation") invalidity of the Challenged Claims based on:

1. the grounds listed in the below table against the corresponding claims listed in the below table for those grounds, as identified in the Petition,

2. any other grounds that could have reasonably been raised before the PTAB in IPR2025-01076 (i.e., any ground that could have reasonably been raised under pre-AIA §102 or §103 on the basis of prior art patent(s) or prior art printed publication(s)), or

3. any other invalidity ground under pre-AIA §102 or §103 involving any type of legally recognized prior art, including patent, printed publication, or system art.

| Ground | Basis | Claims | Reference(s) in IPR2025-01076 |
|---|---|---|---|
| I | § 103 | 1 and 2 | U.S. Patent Application Publication No. 2003/0025135 A1 ("Matsumoto") (Ex. 1009) |
| II | § 103 | 7, 8, and 14 | U.S. Patent Application Publication No. 2003/0025135 A1 ("Matsumoto") (Ex. 1009) and U.S. Patent Application Publication No. 2006/0131672 A1 ("Wang") (Ex. 1012) |
| III | § 103 | 7 and 8 | U.S. Patent Application Publication No. 2003/0025135 A1 ("Matsumoto") (Ex. 1009) and U.S. Patent Application Publication No. 2005/0045938 A1 ("Mutou") (Ex. 1019) |
| IV | § 103 | 14 | U.S. Patent Application Publication No. 2003/0025135 A1 ("Matsumoto") (Ex. 1009) and U.S. Patent Application Publication No. 2005/0051856 A1 ("Ono") (Ex. 1013) |
| V | § 102 | 1 and 2 | JP2003-258241 ("Kajiyama") (Ex. 1010/1011) |
| VI | § 103 | 14 | JP2003-258241 ("Kajiyama") (Ex. 1010/1011) |

For the sake of clarity, and to avoid any doubt, if the PTAB declines to institute the grounds identified in the above table for whatever reason, Petitioner reserves the right to assert such grounds and all other available arguments for invalidity in the Litigation, including without limitation, under §112.

If institution of the Petition is granted, Petitioner further stipulates that it will submit a parallel stipulation in the Litigation as well as seek a stay of that Litigation pending resolution of the instituted IPR.

Best regards,

*/s/ Tim Tingkang Xia*

Tim Tingkang Xia (Petitioner Counsel IPR2025-01053)
Emma A. Bennett (Petitioner Counsel IPR2025-01053 and Defendant Counsel)
Mark Hannemann (Defendant Counsel of Record)
Ryan E. Dornberger (Defendant Counsel of Record)

cc: Counsel of Record via email

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| Plaintiff Counsel of Record in Lead 2:24-cv-00730 | Defendant Counsel of Record in Lead 2:24-cv-00730 | Consolidated Defendant Counsel of Record in 2:24-cv-00623 |
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**Re:** ***United Microelectronics Corp. and UMC Group (USA) v. Advanced Integrated Circuit Process LLC*, IPR2025-01090 for US Patent No. 8,907,425;**
***Advanced Integrated Circuit Process LLC v. United Microelectronics Corp.*, Civil Action No. 2:24-cv-00730 (E.D. Tex.) (Lead Case);**
***Advanced Integrated Circuit Process LLC v. Taiwan Semiconductor Manufacturing Co. Ltd.*, Civil Action No. 2:24-cv-00623 (E.D. Tex.) (Consolidated Member Case)**
**TPL Ref: 632329.000008**

Dear Counsel:

We write regarding a petition for *inter partes* review ("IPR") filed June 6, 2025 (Paper 1) with the United States Patent and Trademark Office, Patent Trial and Appeal Board ("PTAB") in IPR2025-01090 (the "Petition") to challenge claims 1, 3, 4, 7, 8 and 11 (the "Challenged Claims") of U.S. Patent No. 8,907,425. The table below lists the grounds asserted by United

Microelectronics Corporation and UMC Group (USA) (collectively, "Petitioner") in the Petition, along with the Challenged Claims against which the grounds are asserted. Petitioner hereby stipulates that in the event (a) the PTAB institutes an IPR in response to the Petition, and does not subsequently vacate institution or (b) in response to the petition filed by Taiwan Semiconductor Manufacturing Co. Ltd. ("TSMC") against U.S. Patent No. 8,907,425 (IPR2025-00683), the PTAB institutes an IPR and the instituted IPR is not subsequently vacated or terminated before Final Written Decision, Petitioner will not pursue in the subject parallel litigation in U.S. District Court (the "Litigation") invalidity of the Challenged Claims based on:

1. the grounds listed in the below table against the corresponding claims listed in the below table for those grounds, as identified in the Petition,

2. any other grounds that could have reasonably been raised before the PTAB in IPR2025-01090 (i.e., any ground that could have reasonably been raised under pre-AIA §102 or §103 on the basis of prior art patent(s) or prior art printed publication(s)), or

3. any other invalidity ground under pre-AIA §102 or §103 involving any type of legally recognized prior art, including patent, printed publication, or system art.

| Ground | Basis | Claims | Reference(s) in IPR2025-01090 |
|---|---|---|---|
| 1 | § 103 | 1, 3, 4, 7, 8, 11 | U.S. Patent Publication No. 2009/0246922 A1 ("Wu922") (Ex. 1005) and U.S. Patent Publication No. 2007/0249069 A1 ("Alvarez") (Ex. 1006) |
| 2 | § 103 | 1, 3, 4, 7, 8, 11 | U.S. Patent Publication No. 2005/0112817 A1 ("Cheng817") (Ex. 1008) |
| 2A | § 103 | 1, 3, 4, 7, 8, 11 | U.S. Patent Publication No. 2005/0112817 A1 ("Cheng817") (Ex. 1008) and U.S. Patent Publication No. 2007/0034906 A1 ("Wang906") (Ex. 1009) |
| 3 | § 103 | 1, 3, 4, 7, 8 | U.S. Patent Publication No. 2008/0029825 A1 ("Saito825") (Ex. 1010), U.S. Patent Publication No. 2005/0285203 A1 ("Fukutome") (Ex. 1011), and D. James, "2004 – The Year of 9-nm: A Review of 90 nm Devices," 2005 IEEE/SEMI Advanced Semiconductor Manufacturing Conference (2005) ("James") (Ex. 1012) |

For the sake of clarity, and to avoid any doubt, if the PTAB declines to institute the grounds identified in the above table for whatever reason, Petitioner reserves the right to assert such grounds and all other available arguments for invalidity in the Litigation, including without limitation, under §112.

If institution of the Petition is granted, Petitioner further stipulates that it will submit a parallel stipulation in the Litigation as well as seek a stay of that Litigation pending resolution of the instituted IPR.

Best regards,

*/s/ Tim Tingkang Xia*

Tim Tingkang Xia (Petitioner Counsel IPR2025-01053)
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July 17, 2025

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**Re:** ***United Microelectronics Corp. and UMC Group (USA) v. Advanced Integrated Circuit Process LLC*, IPR2025-01091 for US Patent No. 8,198,686;**
***Advanced Integrated Circuit Process LLC v. United Microelectronics Corp.*, Civil Action No. 2:24-cv-00730 (E.D. Tex.) (Lead Case);**
***Advanced Integrated Circuit Process LLC v. Taiwan Semiconductor Manufacturing Co. Ltd.*, Civil Action No. 2:24-cv-00623 (E.D. Tex.) (Consolidated Member Case)**
**TPL Ref: 632329.000007**

Dear Counsel:

We write regarding a petition for *inter partes* review ("IPR") filed June 6, 2025 (Paper 1) with the United States Patent and Trademark Office, Patent Trial and Appeal Board ("PTAB") in IPR2025-01091 (the "Petition") to challenge claims 25-28, 31 and 35 (the "Challenged Claims") of U.S. Patent No. 8,198,686. The table below lists the grounds asserted by United

Microelectronics Corporation and UMC Group (USA) (collectively, "Petitioner") in the Petition, along with the Challenged Claims against which the grounds are asserted. Petitioner hereby stipulates that in the event (a) the PTAB institutes an IPR in response to the Petition, and does not subsequently vacate institution or (b) in response to the petition filed by Taiwan Semiconductor Manufacturing Co. Ltd. ("TSMC") against U.S. Patent No. 8,198,686 (IPR2025-00682), the PTAB institutes an IPR and the instituted IPR is not subsequently vacated or terminated before Final Written Decision, Petitioner will not pursue in the subject parallel litigation in U.S. District Court (the "Litigation") invalidity of the Challenged Claims based on:

1. the grounds listed in the below table against the corresponding claims listed in the below table for those grounds, as identified in the Petition,

2. any other grounds that could have reasonably been raised before the PTAB in IPR2025-01091 (i.e., any ground that could have reasonably been raised under pre-AIA §102 or §103 on the basis of prior art patent(s) or prior art printed publication(s)), or

3. any other invalidity ground under pre-AIA §102 or §103 involving any type of legally recognized prior art, including patent, printed publication, or system art.

| Ground | Basis | Claims | Reference(s) in IPR2025-01091 |
|---|---|---|---|
| I | § 103 | 25-28, 31, and 35 | U.S. Patent Application Publication No. 2007/0215950 A1 ("Aoyama") (Ex. 1005) and U.S. Patent Application Publication No. 2007/0235823 A1 ("Hsu823") (Ex. 1006) |
| II | § 103 | 25-28, 31, and 35 | U.S. Patent Application Publication No. 2007/0066077 A1 ("Akasaka") (Ex. 1008) and U.S. Patent Application Publication No. 2007/0235823 A1 ("Hsu823") (Ex. 1006) |

For the sake of clarity, and to avoid any doubt, if the PTAB declines to institute the grounds identified in the above table for whatever reason, Petitioner reserves the right to assert such grounds and all other available arguments for invalidity in the Litigation, including without limitation, under §112.

If institution of the Petition is granted, Petitioner further stipulates that it will submit a parallel stipulation in the Litigation as well as seek a stay of that Litigation pending resolution of the instituted IPR.

Best regards,

*/s/ Tim Tingkang Xia*

Tim Tingkang Xia (Petitioner Counsel IPR2025-01053)

Emma A. Bennett (Petitioner Counsel IPR2025-01053 and Defendant Counsel)
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| Plaintiff Counsel of Record in Lead 2:24-cv-00730 | Defendant Counsel of Record in Lead 2:24-cv-00730 | Consolidated Defendant Counsel of Record in 2:24-cv-00623 |
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**Re:** ***United Microelectronics Corp. and UMC Group (USA) v. Advanced Integrated Circuit Process LLC*, IPR2025-01079 for US Patent No. 7,923,764;**
***Advanced Integrated Circuit Process LLC v. United Microelectronics Corp.*, Civil Action No. 2:24-cv-00730 (E.D. Tex.) (Lead Case);**
***Advanced Integrated Circuit Process LLC v. Taiwan Semiconductor Manufacturing Co. Ltd.*, Civil Action No. 2:24-cv-00623 (E.D. Tex.) (Consolidated Member Case)**
**TPL Ref: 632329.000004**

Dear Counsel:

We write regarding a petition for *inter partes* review ("IPR") filed June 2, 2025 (Paper 1) with the United States Patent and Trademark Office, Patent Trial and Appeal Board ("PTAB") in IPR2025-01079 (the "Petition") to challenge claims 1-6 and 11-19 (the "Challenged Claims") of U.S. Patent No. 7,923,764. The table below lists the grounds asserted by United

Microelectronics Corporation and UMC Group (USA) (collectively, "Petitioner") in the Petition, along with the Challenged Claims against which the grounds are asserted. Petitioner hereby stipulates that in the event (a) the PTAB institutes an IPR in response to the Petition, and does not subsequently vacate institution or (b) in response to the petition filed by Taiwan Semiconductor Manufacturing Co. Ltd. ("TSMC") against U.S. Patent No. 7,923,764 (IPR2025-00829), the PTAB institutes an IPR and the instituted IPR is not subsequently vacated or terminated before Final Written Decision, Petitioner will not pursue in the subject parallel litigation in U.S. District Court (the "Litigation") invalidity of the Challenged Claims based on:

1. the grounds listed in the below table against the corresponding claims listed in the below table for those grounds, as identified in the Petition,

2. any other grounds that could have reasonably been raised before the PTAB in IPR2025-01079 (i.e., any ground that could have reasonably been raised under pre-AIA §102 or §103 on the basis of prior art patent(s) or prior art printed publication(s)), or

3. any other invalidity ground under pre-AIA §102 or §103 involving any type of legally recognized prior art, including patent, printed publication, or system art.

| Ground | Basis | Claims | Reference(s) in IPR2025-01079 |
|---|---|---|---|
| I | § 103 | 1, 4, 5, and 14-19 | U.S. Patent Application Publication No. 2003/0025135 A1 ("Matsumoto") (Ex. 1009) |
| II | § 103 | 2, 3, 6, and 11 | U.S. Patent Application Publication No. 2003/0025135 A1 ("Matsumoto") (Ex. 1009) and U.S. Patent Application Publication No. 2006/0131672 A1 ("Wang") (Ex. 1012) |
| III | § 103 | 11 | U.S. Patent Application Publication No. 2003/0025135 A1 ("Matsumoto") (Ex. 1009), U.S. Patent Application Publication No. 2006/0131672 A1 ("Wang") (Ex. 1012), and ("Sim") (Ex. 1024) |
| IV | § 103 | 2 and 3 | U.S. Patent Application Publication No. 2003/0025135 A1 ("Matsumoto") (Ex. 1009) and U.S. Patent Application Publication No. 2005/0045938 A1 ("Mutou") (Ex. 1019) |
| V | § 103 | 6, 12, and 13 | U.S. Patent Application Publication No. 2003/0025135 A1 ("Matsumoto") (Ex. 1009) and U.S. Patent Application Publication No. 2005/0051856 A1 ("Ono") (Ex. 1013) |
| VI | § 103 | 15 | U.S. Patent Application Publication No. 2003/0025135 A1 ("Matsumoto") (Ex. 1009) and U.S. Patent Application Publication No. 2004/0110352 ("Bu") (Ex. 1025) |
| VII | § 103 | 18 and 19 | U.S. Patent Application Publication No. 2003/0025135 A1 ("Matsumoto") (Ex. 1009) and Wilk, G.D., et al. "High-k gate |

| Ground | Basis | Claims | Reference(s) in IPR2025-01079 |
|---|---|---|---|
| | | | dielectrics: Current status and materials properties considerations" ("Wilk") (Ex. 1018) |
| VIII | § 102 | 1, 5, 16 and 17 | JP2003-258241 ("Kajiyama") (Ex. 1010/1011) |
| IX | § 103 | 4, 6, 18, and 19 | JP2003-258241 ("Kajiyama") (Ex. 1010/1011) |
| X | § 103 | 11 | JP2003-258241 ("Kajiyama") (Ex. 1010/1011) and Wang (Ex. 1012) |
| XI | § 103 | 11 | JP2003-258241 ("Kajiyama") (Ex. 1010/1011) and Sim, J.H., et al., "Effects of ALD Hfo2 thickness on charge trapping and mobility," Microelectronic Engineering, Vol. 80, pp. 218-221, June 17, 2005 ("Sim") (Ex. 1024) |
| XII | § 103 | 12 and 13 | JP2003-258241 ("Kajiyama") (Ex. 1010/1011) and Ono (Ex. 1013) |
| XIII | § 103 | 14 and 15 | JP2003-258241 ("Kajiyama") (Ex. 1010/1011) and Bu (Ex. 1025) |
| XIV | § 103 | 18 and 19 | JP2003-258241 ("Kajiyama") (Ex. 1010/1011) and Wilk (Ex. 1018) |

For the sake of clarity, and to avoid any doubt, if the PTAB declines to institute the grounds identified in the above table for whatever reason, Petitioner reserves the right to assert such grounds and all other available arguments for invalidity in the Litigation, including without limitation, under §112.

If institution of the Petition is granted, Petitioner further stipulates that it will submit a parallel stipulation in the Litigation as well as seek a stay of that Litigation pending resolution of the instituted IPR.

Best regards,

*/s/ Tim Tingkang Xia*

Tim Tingkang Xia (Petitioner Counsel IPR2025-01053)
Emma A. Bennett (Petitioner Counsel IPR2025-01053 and Defendant Counsel)
Mark Hannemann (Defendant Counsel of Record)
Ryan E. Dornberger (Defendant Counsel of Record)

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**Re:** ***United Microelectronics Corp. and UMC Group (USA) v. Advanced Integrated Circuit Process LLC*, IPR2025-01053 for US Patent No. 8,796,779;**
***Advanced Integrated Circuit Process LLC v. United Microelectronics Corp.*, Civil Action No. 2:24-cv-00730 (E.D. Tex.) (Lead Case);**
***Advanced Integrated Circuit Process LLC v. Taiwan Semiconductor Manufacturing Co. Ltd.*, Civil Action No. 2:24-cv-00623 (E.D. Tex.) (Consolidated Member Case)**
**TPL Ref: 632329.000002**

Dear Counsel:

We write regarding a petition for *inter partes* review ("IPR") filed May 23, 2025 (Paper 1) with the United States Patent and Trademark Office, Patent Trial and Appeal Board ("PTAB") in IPR2025-01053 (the "Petition") to challenge claims 1, 2, 7, 12, and 13 (the "Challenged Claims") of U.S. Patent No. 8,796,779. The table below lists the grounds asserted by United

Microelectronics Corporation and UMC Group (USA) (collectively, "Petitioner") in the Petition, along with the challenged claims against which the grounds are asserted. Petitioner hereby stipulates that in the event (a) the PTAB institutes an IPR in response to the Petition, and does not subsequently vacate institution or (b) in response to the petition filed by Taiwan Semiconductor Manufacturing Co. Ltd. ("TSMC") against U.S. Patent No. 8,796,779 (IPR2025-00832), the PTAB institutes an IPR and the instituted IPR is not subsequently vacated or terminated before Final Written Decision, Petitioner will not pursue in the subject parallel litigation in U.S. District Court (the "Litigation") invalidity of the Challenged Claims based on:

1. the grounds listed in the below table against the corresponding claims listed in the below table for those grounds, as identified in the Petition,

2. any other grounds that could have reasonably been raised before the PTAB in IPR2025-01053 (i.e., any ground that could have reasonably been raised under pre-AIA §102 or §103 on the basis of prior art patent(s) or prior art printed publication(s)), or

3. any other invalidity ground under pre-AIA §102 or §103 involving any type of legally recognized prior art, including patent, printed publication, or system art.

| Ground | Basis | Claims | Reference(s) in IPR2025-01053 |
|---|---|---|---|
| I | § 102 | 1, 2, 7, 12, and 13 | U.S. Patent No. 6,881,657 B2 (Ex. 1005) |
| II | § 103 | 1, 12, and 13 | U.S. Patent No. 6,787,421 ("Gilmer") (Ex. 1009) |
| III | § 103 | 1, 12, and 13 | Gilmer and U.S. Patent No. 7,382,023 ("Chen") (Ex. 1010) |

For the sake of clarity, and to avoid any doubt, if the PTAB declines to institute the grounds identified in the above table for whatever reason, Petitioner reserves the right to assert such grounds and all other available arguments for invalidity in the Litigation, including without limitation, under §112.

If institution of the Petition is granted, Petitioner further stipulates that it will submit a parallel stipulation in the Litigation as well as seek a stay of that Litigation pending resolution of the instituted IPR.

Best regards,

*/s/ Tim Tinkang Xia*

Tim Tingkang Xia (Petitioner Counsel IPR2025-01053)
Emma A. Bennett (Petitioner Counsel IPR2025-01053 and Defendant Counsel)
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