UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF TEXAS
MIDLAND-ODESSA DIVISION

RESONANT SYSTEMS, INC. d/b/a RevelHMI, *Plaintiff*, v. APPLE INC., *Defendant*.	Case No. 7:23-cv-00077-ADA

DEFENDANT APPLE INC.'S FINAL INVALIDITY CONTENTIONS

Defendant Apple Inc. ("Apple") provides the following Final Invalidity Contentions to Plaintiff Resonant Systems, Inc. d/b/a RevelHMI ("Resonant" or "Plaintiff") regarding U.S. Patent Nos. 8,093,767 (the "'767 patent"), 8,860,337 (the "'337 patent"), 9,941,830 (the "'830 patent") and 11,152,882 (the "'882 patent") (collectively, the "Patents-in-Suit" or "Asserted Patents").

These contentions are made only as to the claims of the Patents-in-Suit that Plaintiff has identified in its Preliminary Infringement Contentions:

Patent	Asserted Claims[1]	Resonant's Alleged Priority Date	Chart Prefix
'767 patent	**1**–5	May 18, 2009	A
'337 patent	**1**, **2**, 3, **4**	May 18, 2009	B
'830 patent	**1**–8, 14–17, **19**, **20**	May 18, 2009	C
'882 patent	**1**–7, **10**, 17, 19, 20	February 13, 2015	D

[1] The independent claims are bolded underlined. Based on Plaintiff's representation, Apple understand that Plaintiff is no longer asserting claims 1 and 4 of the '337 patent and claim 7 of the '882 patent.

have been obvious to one of ordinary skill in the art. Thus, all anticipation charts should be interpreted as both reflecting anticipation by the reference as well as invalidity due to single reference obviousness, to the extent that Plaintiff contends that any limitation is missing.

A. Anticipation

Prior art references anticipating the Asserted Claims are provided in the lists below. The prior art listed below anticipates the Asserted Claims under the proper construction of the claims and/or under Plaintiff's apparent interpretation of the claims as set forth by Plaintiff in its Complaint and Infringement Contentions.

1. '767 patent

Ex. #	Reference
A-1	Apple iPhone 4/4S - Updated
A-2	Apple MacBook Trackpad
A-3	Immersion System
A-4	Samsung Haptic/Haptic 2
A-5	Shahoian 696
A-6	Kern
A-7	Chang 538
A-8	Grant 562
A-9	Grant 849
A-10	Gregorio 277
A-11	Gregorio 594
A-12	Ibuki 571
A-13	Fukumoto 227
A-14	Houston 945

Ex. #	Reference
A-15	Fuller 484
A-16	Lutz 852
A-17	Wakuda 811
A-18	Hill 759
A-19	Gutman 622
A-20	Izumi 294
A-21	Ramsay 948
A-22	Amaya 799
A-23	Ueda 480
A-24	Ogusu 053
A-25	Cosper 532
A-26	LG CT810 System
A-27	Ibuki 795
A-28	Logitech iFeel Mouse
A-29	Thesling 478
A-30	Stevens 303
A-31	Hwang 326

2. ’337 patent

Ex. #	Reference
B-1	iPhone 4/4S - Updated
B-2	MacBook Trackpad
B-3	Immersion System
B-4	Samsung Haptic/Haptic 2

(e.g., Siliconix Si9961A), Cirrus Logic Stereo Codecs (e.g., CS43L22 and CS42L52), Grant 562, Tierling 437, Chang 538, Taghezout 362; Rossi 641, Aldrich, Pakula 859, Bruel & Kjaer's systems, MB Dynamics' systems, Data Physics Corp.'s systems, The Modal Shop's systems, and/or Takeuchi 380.

- Immersion's system in view of Shahoian 696, Kern, Houston 945, ST Microelectronics drivers (e.g., L298), Allegro Microsystems drivers (e.g., 3958 and 3959), Vishay drivers (e.g., Siliconix Si9961A), Cirrus Logic Stereo Codecs (e.g., CS43L22 and CS42L52), Grant 562, Tierling 437, Chang 538, Taghezout 362, Cosper 532, Gregorio 277, Wakuda 811, Fuller 484, Grant 849, Ueda 480, Ibuki 571, Izumi 294, Murray 768, Gutman 622, Hasser, Wall, Ito 648, Niwa, Yinggang, Al-Ali, Rossi 641, Aldrich, Pakula 859, Bruel & Kjaer's systems, MB Dynamics' systems, Data Physics Corp.'s systems, The Modal Shop's systems, and/or Takeuchi 380.
- Ibuki 795 in view of Shahoian 696, Kern, Houston 945, ST Microelectronics drivers (e.g., L298), Allegro Microsystems drivers (e.g., 3958 and 3959), Vishay drivers (e.g., Siliconix Si9961A), Cirrus Logic Stereo Codecs (e.g., CS43L22 and CS42L52), Grant 562, Tierling 437, Chang 538, Taghezout 362; Rossi 641, Aldrich, Pakula 859, Bruel & Kjaer's systems, MB Dynamics' systems, Data Physics Corp.'s systems, The Modal Shop's systems, and/or Takeuchi 380.
- Izumi 294 in view of Shahoian 696, Houston 945, ST Microelectronics drivers (e.g., L298), Allegro Microsystems drivers (e.g., 3958 and 3959), Vishay drivers (e.g., Siliconix Si9961A), Cirrus Logic Stereo Codecs (e.g., CS43L22 and CS42L52), Grant 562, Tierling 437, Chang 538, Taghezout 362, Grant 849, Grant 562, Ueda

480, Murray 768, Gutman 622, Izumi 294, Immersion's system, Samsung Haptic/Haptic 2, Samsung P3, Ramsay 984, Rosenberg 032, Cruz-Hernandez 719, Fuller 484, Hayward 2007, Adobe Audition 2.0/3.0, Rovan, Hasser, Wall, Ito 648, Niwa, Yinggang, Al-Ali, Rossi 641, Aldrich, Pakula 859, Bruel & Kjaer's systems, MB Dynamics' systems, Data Physics Corp.'s systems, The Modal Shop's systems, and/or Takeuchi 380.

- Kern in view of Shahoian 696, Houston 945, ST Microelectronics drivers (e.g., L298), Allegro Microsystems drivers (e.g., 3958 and 3959), Vishay drivers (e.g., Siliconix Si9961A), Cirrus Logic Stereo Codecs (e.g., CS43L22 and CS42L52), Grant 562, Tierling 437, Chang 538, Taghezout 362, Grant 849, Grant 562, Ueda 480, Murray 768, Gutman 622, Izumi 294, Immersion's system, Samsung Haptic/Haptic 2, Samsung P3, Ramsay 984, Rosenberg 032, Cruz-Hernandez 719, Fuller 484, Hayward 2007, Adobe Audition 2.0/3.0, Rovan, Hasser, Wall, Ito 648, Niwa, Yinggang, Al-Ali, Rossi 641, Aldrich, Pakula 859, Bruel & Kjaer's systems, MB Dynamics' systems, Data Physics Corp.'s systems, The Modal Shop's systems, and/or Takeuchi 380.
- LG Viewty in view of Adobe Audition 2.0/3.0, Al-Ali, Allegro Microsystems drivers (e.g., 3958 and 3959), Chang 538, Cirrus Logic Stereo Codecs (e.g., CS43L22 and CS42L52), Cosper 532, Cruz-Hernandez 719, Fuller 484, Grant 562, Grant 849, Gutman 622, Hasser, Hayward 2007, Houston 945, Immersion's system, Izumi 294, Kern, Murray 768, Niwa, Ramsay 984, Rosenberg 032, Rossi 641, Rovan, Samsung Haptic Phones, Shahoian 696, ST Microelectronics drivers (e.g., L298), Takeuchi 380, Tierling 437, Taghezout 362; Vishay drivers (e.g., Siliconix

Grant 849, Grant 562, Ueda 480, Murray 768, Gutman 622, Izumi 294, Immersion's system, Samsung Haptic/Haptic 2, Samsung P3, Ramsay 984, Rosenberg 032, Cruz-Hernandez 719, Fuller 484, Hayward 2007, Adobe Audition 2.0/3.0, Rovan, Hasser, Wall, Ito 648, Niwa, Yinggang, Al-Ali, Rossi 641, Aldrich, Pakula 859, Bruel & Kjaer's systems, MB Dynamics' systems, Data Physics Corp.'s systems, The Modal Shop's systems, and/or Takeuchi 380.

- Shahoian 696 in view of U.S. Pat. App. No. 09/608,125 ("Schena 125"), Kern, Houston 945, ST Microelectronics drivers (e.g., L298), Allegro Microsystems drivers (e.g., 3958 and 3959), Vishay drivers (e.g., Siliconix Si9961A), Cirrus Logic Stereo Codecs (*e.g.*, CS43L22 and CS42L52), Grant 562, Tierling 437, Chang 538, Taghezout 362, Cosper 532, Ueda 480, Gregorio 277, Wakuda 811, Fuller 484, Grant 849, Izumi 294, Ibuki 571, Murray 768, Gutman 622, Immersion's system, Samsung Haptic/Haptic 2, Samsung P3, Ramsay 984; Rosenberg 032, Cruz-Hernandez 719, Hayward 2007, Rovan, Adobe Audition 2.0/3.0, Hasser, Wall, Ito 648, Niwa, Yinggang, Al-Ali, Rossi 641, Aldrich, Pakula 859, Bruel & Kjaer's systems, MB Dynamics' systems, Data Physics Corp.'s systems, The Modal Shop's systems, and/or Takeuchi 380.
- Stevens 303 in view of U.S. Pat. App. No. 09/608,125 ("Schena 125"), Kern, Houston 945, ST Microelectronics drivers (e.g., L298), Allegro Microsystems drivers (e.g., 3958 and 3959), Vishay drivers (e.g., Siliconix Si9961A), Cirrus Logic Stereo Codecs (*e.g.*, CS43L22 and CS42L52), Grant 562, Tierling 437, Chang 538, Taghezout 362, Cosper 532, Ueda 480, Gregorio 277, Wakuda 811, Fuller 484, Grant 849, Izumi 294, Ibuki 571, Murray 768, Gutman 622,

CERTIFICATE OF SERVICE

I certify that on June 6, 2024, a true and correct copy of the foregoing was served on counsel of record for Plaintiff via electronic mail at rak_revelhmi@raklaw.com.

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