UNITED STATES INTERNATIONAL TRADE COMMISSION
WASHINGTON, D.C.

Before the Honorable Cameron Elliot
Administrative Law Judge

In the Matter of **CERTAIN AUDIO PLAYERS AND COMPONENTS THEREOF II**	**Inv. No. 337-TA-1330**

GROUND RULE 5.3 JOINT FINAL CASE-NARROWING DISCLOSURE

Pursuant to Ground Rule 5.3 and the Order Setting Procedural Schedule (Order No. 6), Complainant Google LLC ("Google") and Respondent Sonos, Inc. ("Sonos") respectfully submit this Joint Final Case-Narrowing Disclosure.

Google states that the maximum number of claims it will assert for infringement is 36, as set forth in the table below:

Asserted Patent	**Claims**
U.S. Patent No. 11,024,311	**1**, **10**, and **16**-20
U.S. Patent No. 9,812,128	**1,** 3-4, **6,** 8-9, **11**, and 13-14
U.S. Patent No. 9,632,748	**1**-3, **7**, and 9-10
U.S. Patent No. 11,050,615	**1**-3, 5-6, 9-10, **11**-12, 15, and **16-**19

Google further states that the maximum number of claims it will assert for the domestic industry technical prong is 30, as set forth in the table below:

Asserted Patent	**Claims**
U.S. Patent No. 11,024,311	**1**, **10**-11, **16**-17, and 20
U.S. Patent No. 9,812,128	**6**, 10, **11**, and 15
U.S. Patent No. 9,632,748	**1**-3, **7**, and 9-10
U.S. Patent No. 11,050,615	**1**-3, 5-6, 9-10, **11**-12, 15, and **16-**19

Sonos states that the prior art references presently asserted involved in contentions of invalidity are set forth below:

Amphenol Exhibit 1088
Amphenol v. Credo
IPR2025-00699

I. PRIOR ART FOR U.S. PATENT NOS. 9,632,748, 11,024,311 & 9,812,128

A. Patents

Country	Number	Filing Date	Publication Date	First-Named Inventor
US	8,340,975	10/4/2011	12/25/2012	Rosenberger
US	2013/0073293	9/20/2011	3/21/2013	Jang
US	2013/0238326	3/8/2012	9/12/2013	Kim
JP	2003/223188	12/9/2002	8/8/2003	Masahide[1]
US	2002/0143532	4/2/2001	10/3/2002	McLean
US	2014/0163978	12/11/2012	6/12/2014	Basye
US	2017/0076720	9/11/2015	3/16/2017	Gopalan

B. Systems

System	Date	Exemplary Evidence[2]	Persons With Knowledge
The Voice Pod System, as explained in Sonos's Initial Invalidity Contentions, Exs. A-6, B-10, C-10	No later than May 2013	• SONOS-ITC13xx-00002441-42; • SONOS-ITC13xx-00002455-57; • SONOS-ITC13xx-00002407-11; • SONOS-ITC13xx-00002443-44; • SONOS-ITC13xx-00002433-36; • SONOS-ITC13xx-00002437-38; • SONOS-ITC13xx-00002445-46; • SONOS-ITC13xx-00002448-54; • SONOS-ITC13xx-00023335-498; • ROSENBERGER-0068226; • ROSENBERGER-0425900; • ROSENBERGER-0144124; • ROSENBERGER-0193552; • ROSENBERGER-0193571; • ROSENBERGER-0393732; • ROSENBERGER-0393744; • ROSENBERGER-0393987; • ROSENBERGER-0393999; • ROSENBERGER-0433021; • ROSENBERGER-0394540; • SONOS-ITC13xx-00002425;	Theodore Rosenberger (shall be contacted through Lee Sullivan Shea & Smith LLP at 656 W Randolph St., STE 5W, Chicago, IL 60661)

[1] Certified translation produced as SONOS-ITC13xx-00002534.

[2] Sonos provides this exemplary listing of currently available evidence. Sonos reserves the right to rely on witness testimony and additional materials.

		• SONOS-ITC13xx-00002420-21; • SONOS-ITC13xx-00002422; • SONOS-ITC13xx-00002417-18; • SONOS-ITC13xx-00002419; • SONOS-ITC13xx-00002413-14; • SONOS-ITC13xx-00002439; • SONOS-ITC13xx-00002423-24; • SONOS-ITC13xx-00002428; • SONOS-ITC13xx-00002415-16; • SONOS-ITC13xx-00002458; • SONOS-ITC13xx-00002431-32; • SONOS-ITC13xx-00002440; • SONOS-ITC13xx-00002426-27; • SONOS-ITC13xx-00002447; • SONOS-ITC13xx-00002429-30; • SONOS-ITC13xx-00002458; • SONOS-ITC13xx-00002431-32; • ROSENBERGER-0071820; • ROSENBERGER0045414; • ROSENBERGER-0045417; • ROSENBERGER-0048972; • ROSENBERGER-0433021; • ROSENBERGER-0433070-75; • ROSENBERGER-0433117-21; • ROSENBERGER-0433083; • ROSENBERGER-0433112; • ROSENBERGER-0433116; • ROSENBERGER-0393999; • ROSENBERGER-0394004; • ROSENBERGER-0226524; • ROSENBERGER-0226525; • ROSENBERGER-0226528; • ROSENBERGER-0394540; • ROSENBERGER-0394543; • ROSENBERGER-0394554; • ROSENBERGER-0057196; • ROSENBERGER-0027440; • ROSENBERGER-0206470; • ROSENBERGER-022448; • ROSENBERGER-0234346; • SONOS-ITC13xx-00023335; • Source code for VoicePod product release 4.01 software;	

		• A demo VoicePod System as explained in Sonos's Initial Invalidly Contentions, Ex. A-10 comprising: (i) three VoicePods (Model No. VP-ZB-401-W) provisioned with product release 4.01 software, (ii) a Control4 HC-250 Home Controller running Control4 firmware version 03.26.15, (iii) a lightbulb hardwired to a Control4 LDZ-102 Wireless Dimmer, (iv) a Control4 CCZ-T1-W Wireless Thermostat, and (v) a Dell Latitude E6440 laptop running Windows 7 SP1 with provisioned with the VoicePod Configuration Tool software version 3.25.0.0 (2013) and the Control4 Composer software version 2.5.3.429171 (Feb. 8, 2014). *See, e.g.,* SONOS-ITC13xx-00023693; SONOS-ITC13xx-00023692; SONOS-ITC13xx-00023663753.	

C. Publications

Title	Date	Author(s)	Pages
Katsamanis, Athanasios & Rodomagoulakis, I. & Potamianos, Gerasimos & Maragos, Petros & Tsiami, Antigoni, *Robust far-field spoken command recognition for home automation combining adaptation and multichannel processing*, ICASSP, IEEE International Conference on Acoustics, Speech and Signal Processing – Proceedings 5547-5551 (2014).	2014	Katsamanis; Rodomagoulakis; Potamianos; Maragos; and Tsiami	
Wolf, Martin & Nadeu, Climent, *On the potential of channel selection for recognition of reverberated speech with multiple microphones*, INTERSPEECH 2010 (2010).	2010	Wolf; Nadeu	
Wölfel, Matthias & Fügen, Christian & Ikbal, Shajith & Mcdonough, John, *Multi-source far-distance microphone selection and combination for automatic transcription of lectures*, INTERSPEECH 2006 (2006).	2006	Wölfel; Fügen; Ikbal; and Mcdonough	
Wölfel, Matthias, *Channel Selection by Class Separability Measures for Automatic Transcriptions on Distant Microphones*, INTERSPEECH 2007 (2007).	2007	Wölfel	

Title	Date	Author(s)	Pages
Zhang, Zhaofeng & Xiao, Xiong & Wang, Longbiao & Chng, Eng & Li, Haizhou, *Noise Robust Speech Recognition Using Multi-Channel Based Channel Selection And Channel Weighting*, The Institute of Electronics, Information and Communication Engineers (2010).	2010	Zhang; Xiao; Wang; Chng; and Li	

II. PRIOR ART FOR U.S. PATENT NO. 11,050,615

A. Patents

Country	Number	Filing Date	Publication Date	First-Named Inventor
US	9,021,108	2/25/2011	4/28/2015	Brown
US	7,616,594	6/2/2005	11/10/2009	Roberts
US	8,326,951	6/6/2005	12/4/2012	Millington
US	9,288,228	08/05/2011	03/15/2016	Suumäki
US	7,748,035	4/22/2005	6/29/2010	Nedeltchev
US	2006/0251256	6/29/2005	11/9/2006	Asokan

B. Publications

Title	Date	Author(s)	Pages
Sonos, "Sonos Digital Music System User Guide" ("Sonos User Guide") (SONOS-ITC1330-00000035 – SONOS-ITC1330-00000148)	4/2005	Sonos, Inc.	6, 12, 17, 18, 95, 100, 104
Sonos, Sonos Website > Home page (www.sonos.com, available at https://web.archive.org/web/20050124023838/http:/www.sonos.com/) (captured January 24, 2005) (SONOS-ITC1330-00001454)	1/24/2005	Sonos, Inc.	1
Sonos, Sonos Website > Products page (www.sonos.com/products/, available at https://web.archive.org/web/20050124024720/http:/www.sonos.com/products/) (captured January 24, 2005) (SONOS-ITC1330-00001456)	1/24/2005	Sonos, Inc.	1

Title	Date	Author(s)	Pages
Sonos, Sonos Website > Products > How Sonos Works page (http://www.sonos.com/products/how_sonos_works.htm, available at https://web.archive.org/web/20050204010302/http:/www.sonos.com/products/how_sonos_works.htm) (captured February 4, 2005) (SONOS-ITC1330-00001455)	2/4/2005	Sonos, Inc.	1
Sonos, Sonos Website > Store page (http://www.sonos.com/store/, available at https://web.archive.org/web/20050123043916/http:/www.sonos.com/store/) (captured January 23, 2005) (SONOS-ITC1330-00001453)	1/23/2005	Sonos, Inc.	1
Sonos, Sonos Website > "How it started" page (available at https://www.sonos.com/en-us/how-it-started) (SONOS-ITC1330-00001430 – SONOS-ITC1330-00001444)	2022	Sonos, Inc.	15
Sonos, Netstart Protocol (SONOS-ITC1330-00000001 – SONOS-ITC1330-00000018)		Sonos, Inc.	2, 4
Sonos, ZP100 Product Specification (SONOS-ITC1330-00000026 – SONOS-ITC1330-00000034)	9/18/2006	Sonos, Inc.	5
Sonos, CR100 Product Specification (SONOS-ITC1330-00000019 – SONOS-ITC1330-00000025)	9/16/2006	Sonos, Inc.	6
ISO/IEC 18092 Standard (April 1, 2004) (SONOS-ITC1330-00003759 – SONOS-ITC1330-00003824)	4/1/2004	ISO / IEC / ECMA	1, 5-9, 16, 29
Specification of the Bluetooth System: Core Package Version 4.0 (June 30, 2010) (SONOS-ITC1330-00001457 – SONOS-ITC1330-00003758)	6/30/2010	Bluetooth SIG, Inc.	37-38, 40-41, 108-09
IEEE Standard Std 802.11n-2009 (Amendment to IEEE Std 802.11-2007) (Oct. 29, 2009) (SONOS-ITC1330-00006756 – SONOS-ITC1330-00007291)	10/2/2009	IEEE	2, 278
IEEE Std 802.11-2012 (Revision of IEEE Std 802.11-2007) (Mar. 29, 2012) (SONOS-ITC1330-00003963 – SONOS-ITC1330-00006755)	3/29/2012	IEEE	12, 19, 1478-79, 1701
Wi-Fi Protected Setup Specification v1.0 (2006) (SONOS-ITC1330-00007667 – SONOS-ITC1330-00007776)	12/2006	Wi-Fi Alliance	7-9, 54-55, 72-73, 77
Connection Handover Technical Specification, NFC Forum 1.2 (Jul. 7, 2010) (SONOS-ITC1330-00007437 – SONOS-ITC1330-00007463)	7/7/2010	NFC Forum	12
NFC Forum Data Exchange Format (NDEF) Specification, NFC Forum (2006) (SONOS-ITC1330-00007642 – SONOS-ITC1330-00007666)	7/24/2006	NFC Forum	1, 5, 7-8

Title	Date	Author(s)	Pages
ANSI/IEEE Std 802.11-1999 (1999) (SONOS-ITC1330-00008265 – SONOS-ITC1330-00008792)	12/1999	IEEE	34, 38
RFC: 791 Internet Protocol (Sept. 1981) (SONOS-ITC1330-00008793-SONOS-ITC1330-00008843)	9/1981	DARPA, Information Sciences Institute (USC)	8, 11

C. Systems

System	Sale / Offer for Sale / Public Use Date	Persons With Knowledge of Sale / Offer for Sale / Public Use
Sonos CR100 and ZP100	January 27, 2005	Sonos, Inc. 614 Chapala Street Santa Barbara, CA 93101

D. Other

Reference	Sale / Offer for Sale / Public Use Date	Entities With Knowledge of Sale / Offer for Sale / Public Use
Source code for CR-100, including source code made available for inspection in \v1.0-goldCR\ and subdirectories.	January 27, 2005	Sonos, Inc.
Source code for ZP-100, including source code made available for inspection in \v1.0-goldZP\ and subdirectories.	January 27, 2005	Sonos, Inc.

Dated: May 1, 2023

Respectfully submitted,

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CERTAIN AUDIO PLAYERS AND COMPONENTS THEREOF (II)

Inv. No. 337-TA-1330

CERTIFICATE OF SERVICE

I, Jeffrey Matthews, hereby certify that on May 1, 2023 copies of the foregoing documents were served upon the following parties as indicated:

The Honorable Katherine Hiner Acting Secretary to the Commission U.S. International Trade Commission 500 E Street, S.W. Washington, D.C. 20436	☐ Via First Class Mail ☐ Via Hand Delivery ☐ Via Express Delivery ☒ Via EDIS
The Honorable Cameron R. Elliot U.S. International Trade Commission 500 E Street, S.W., Room 317 Washington, D.C. 20436 Email: michael.turner@usitc.gov	☐ Via First Class Mail ☐ Via Hand Delivery ☒ Via Electronic Mail ☐ Via EDIS
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