UNITED STATES INTERNATIONAL TRADE COMMISSION WASHINGTON, D.C.

Before the Honorable Cameron R. Elliot Administrative Law Judge

IN THE MATTER OF CERTAIN AUDIO PLAYERS AND COMPONENTS THEREOF II

Inv. No. 337-TA-1330

COMPLAINANT GOOGLE'S POST-HEARING BRIEF

Page 1 of 7 SONOS EXHIBIT 1021

TABLE OF CONTENTS

I.	INTRODUCTION					
	A.	Procedural History				
	B.	The Parties				
		1.	Complainant Google LLC	2		
		2.	Respondent Sonos, Inc.	2		
	C.	Overview of the Technology		2		
		1.	Voice Assistants and Speech Processing	2		
		2.	Device Commissioning	4		
	D.	The Patents at Issue		4		
		1.	U.S. Patent No. 9,632,748	4		
		2.	U.S. Patent No. 11,024,311	5		
		3.	U.S. Patent No. 11,050,615	6		
	E.	The Products at Issue				
II.	JURISE	8				
III.	U.S. PA	U.S. PATENT NO. 9,632,748				
	A.	Claim Construction		8		
		1.	The ALJ's Claim Constructions	8		
		2.	Remaining Claim Construction Disputes	8		
	B.	-				
		1.	Independent Claim 7	20		
		2.	Dependent Claim 9	25		
		3.	Dependent Claim 10	26		
	C.	Alleg	ed Redesigns	26		
	D.	Domestic Industry – "Technical Prong"		27		
		1.	Independent Claim 7	28		
		2.	Dependent Claim 9	31		
		3.	Dependent Claim 10	32		
	E.	Validity		33		
		1.	Anticipation Under 35 U.S.C. § 102	33		
		2.	Obviousness Under 35 U.S.C. § 103	55		
		3.	Validity Under 35 U.S.C. § 112 – Written Description	58		

IV.	U.S. PA	TENT	NO. 11,024,311	62	
	A.	Clain	n Construction	62	
		1.	The ALJ's Claim Constructions	62	
		2.	Remaining Claim Construction Disputes	62	
	B.	Infringement			
		1.	Independent Claims 10 and 16	71	
		2.	Dependent Claim 17	74	
		3.	Dependent Claim 18	75	
		4.	Dependent Claim 19	75	
	C.	Alleg	ged Redesigns	75	
	D.	Domestic Industry – "Technical Prong"		76	
		1.	Independent Claims 10 and 16	76	
		2.	Dependent Claim 11	82	
		3.	Dependent Claim 17	83	
	E.	Valid	lity	84	
		1.	Anticipation Under 35 U.S.C. § 102	84	
		2.	Obviousness Under 35 U.S.C. § 103	96	
		3.	Validity Under 35 U.S.C. § 112 – Written Description	98	
	F.	Patent Eligibility Under 35 U.S.C. § 101			
V.	U.S. PA	S. PATENT NO. 11,050,615			
	A.	Claim Construction		104	
		1.	"receiving a request to initiate a commissioning process" (Claims 1, 16)	104	
		2.	"in response to receiving the request, receiving one or more network configuration packets from the wireless device via the short-range		
	D	T. C.	signal transmission path," (Claims 1, 16)		
	В.		ngement		
		1.	Independent Claims 1, 16		
		2.	Dependent Claim 5		
		3.	Dependent Claims 6, 19		
		4.	Dependent Claims 9, 17		
	-	5.	Indirect Infringement		
	C.	Sonos's Alleged Redesigns			
	D.	Domestic Industry – "Technical Prong"			

	1.	Independent Claims 1, 16	119	
	2.	Dependent Claim 5	127	
	3.	Dependent Claims 6, 19	127	
	4.	Dependent Claims 9, 17	128	
E.	Antio	Anticipation and Obviousness Under 35 U.S.C. §§ 102, 103		
	1.	Prior Art Overview	129	
	2.	Roberts: Anticipation and Obviousness	130	
	3.	Millington alone or in view of Asokan and/or Sonos v1.0	132	
	4.	Sonos v1.0 alone or in view of Asokan	136	
F.	Seco	Secondary Considerations of Non-Obviousness		
G.	Valid	Validity Under 35 U.S.C. § 112 – Written Description		
	1.	Claims 1 and 16	140	
H.	Enfo	orceability	141	
VI. DOME	STIC I	NDUSTRY – ECONOMIC PRONG	145	
VII. REMEI	DY AN	D BONDING	145	
A.	Limi	ted Exclusion Order	145	
B.	Ceas	e and Desist Order	146	
C.	Bono	d	147	
VIII CONCI	LISTO	M	1.19	

construction should be rejected.14

(b) "confidence level of detection" (Claim 18)

Claim 18 recites that the first quality score "comprises a confidence level of detection of the voice input." JX-1, cl 18. Sonos argues that this term should be construed to mean "a likelihood or probability of the quality or closeness of the match between a voice model (e.g., a model that represents voice existing in sensed sound) and the voice input perceived by the device." SPreHB 67-68; Tr. (Johnson) 898:6-899:8. A POSITA would not interpret "confidence level of detection of the voice input" to be so limited.

The specification describes the "confidence level of detection" using language that is broader than what Sonos proposes: "In some implementations, the quality score includes a confidence level of detection of the voice input; the quality score is a confidence level value for the voice input sample." JX-1, 30:44-46. In contrast, the portion of the specification upon which Sonos relies does not even match the claim language. Claim 18 recites a "confidence level of detection of the voice input." JX-1, cl 18. The portion of the specification Sonos cites explains that, "[i]n some implementations, the user identification module 560 also determines a confidence level or some other similar measure of the quality or closeness of the match between a voice model and the voice input, and identifies a match only if the match is the best and the confidence level is above a predefined threshold." *Id.* 24:42-48. Sonos asserts that the language of claim 18 should be restricted to this single embodiment simply because it uses the term "confidence level," without more. Contrary to the description in column 30,

¹⁴ Sonos also relies on the references to "recognition" in the '311 patent specification, including references "hotword recognition," to assert that a POSITA would not understand recognition and detection to be distinct processes. SPreHB 62-63. But a POSITA would understand that hotwords can be identified by detection or by performing speech recognition (e.g., in legacy systems), and when the specification refers to "hotword recognition" or another form of "recognition" it is referring to those prior approaches, rather than the more modern hotword "detection" approaches that are described in the patent and would fall within the scope of the "detecting a voice input" as recited in the '311 claims. Tr. (Mahon) 1149:22-1150:18, 1178:3-1179:13.

the description in column 24 that Sonos cites does not explicitly state that the "confidence level" is a "confidence level *of detection of the voice input.*" *Id.*

Moreover, Sonos relies on a "Multi-User Personalization" embodiment that is unrelated to the asserted claims. Specifically, this section describes that a device can compare a voice input to "a set of voice models associated with a plurality of users associated with the electronic device." JX-1, 24:23-26. A "user identification module" identifies a voice model that "best matches" the voice input to identify the user speaking to the device. *Id.* 24:35-42. The specification then describes that the user identification module can determine a confidence level and only identify a "match" between the user and a voice model if the confidence level is above a threshold. *Id.* 24:42-48. The specification does not state that this confidence level is even used as a quality score for device leadership negotiation, which is the subject of claim 18. Thus, Sonos's attempt to limit claim 18 to this unrelated disclosure is misplaced. *Arthrex, Inc. v. Smith & Nephew, Inc.*, 935 F.3d 1319, 1330 (Fed. Cir. 2019) ("[O]ur case law counsels against incorporating a feature of a preferred embodiment into the claims, particularly where, as here, the feature at issue is mentioned only tangentially.").

Sonos's proposed construction should be rejected, and "confidence level of detection" should be given its plain and ordinary meaning, which is a measure of the likelihood that an audio signal includes speech, and indicates a level of confidence that a voice input was detected. Tr. (Mahon) 1166:4-12.

(c) "signal-to-noise rating" (Claim 19)

Claim 19 recites "wherein the first quality score comprises a signal-to-noise rating...." JX-1 ['311] cl. 19. A POSITA would understand the phrase "signal-to-noise rating" to refer to a rating that quantifies a ratio or relationship between the level of signal and the level of noise in an application or environment. Tr. (Mahon) 205:9-206:20. This is consistent with the specification's description that "[i]n some implementations, the quality score includes a signal-to-noise rating of detection of the voice

VIII. CONCLUSION

Google respectfully submits that Sonos violated Section 337.

Dated: July 10, 2023

Respectfully submitted,

/s/ S. Alex Lasher

S. Alex Lasher Jeff Gerchick Nina S. Tallon Quinn Emanuel Urquhart & Sullivan, LLP 1300 I Street, NW, Suite 900 Washington, DC 20005 Tel.: (202) 538-8000

David A. Nelson Quinn Emanuel Urquhart & Sullivan, LLP 191 N. Wacker Dr., Suite 2700 Chicago, IL 60606 Tel.: (312) 705-7400

Patrick D. Curran Quinn Emanuel Urquhart & Sullivan, LLP 111 Huntington Ave, Suite 520 Boston, MA 02199 Tel.: (617) 712-7100

Elizabeth A. DiMarco Gregory F. Corbett WOLF, GREENFIELD & SACKS, P.C. 600 Atlantic Avenue Boston, MA 02210 Tel.: 617.646.8000

Counsel for Complainant Google LLC