#### UNITED STATES PATENT AND TRADEMARK OFFICE

#### BEFORE THE PATENT TRIAL AND APPEAL BOARD

GOOGLE LLC, SAMSUNG ELECTRONICS CO., LTD., and SAMSUNG ELECTRONICS AMERICA, INC. Petitioners,

v.

MULLEN INDUSTRIES LLC, Patent Owner.

Case No. IPR2025-00018

Patent No. 11,122,418

### **DECLARATION OF DAVID H. WILLIAMS**

Google Exhibit 1003 Google v Mullen IPR2025-00018



## **TABLE OF CONTENTS (CONDENSED)**

I.	PE	RSONAL AND PROFESSIONAL BACKGROUND	1	
II.	M	ATERIALS REVIEWED AND CONSIDERED	11	
III.	M	Y UNDERSTANDING OF PATENT LAW	12	
	A.	Anticipation	14	
	B.	Obviousness	15	
IV.	PE	RSON OF ORDINARY SKILL IN THE ART ("POSA")	18	
V.	TH	E '418 PATENT	20	
	A.	Specification Embodiments	20	
	B.	Prosecution History of the '418 Patent	23	
	C.	The Challenged Claims	24	
VI.	CL	AIM INTERPRETATION	25	
VII.	PRIOR-ART REFERENCES			
	A.	Background on Motivation to Combine and Reasonable Expectation of Success in Combining Prior Art	25	
	B.	Sheha (EX1005)	31	
	C.	Randall (EX1007)	42	
	D.	Ryden (EX1009)	46	
	E.	Tanaka (EX1011)	55	
	F.	Ganesh (EX1012)	55	
	G.	Wollrab (EX1014)	56	
	Н.	De-Vries (EX1013)	56	
VIII		TE CHALLENGED CLAIMS ARE UNPATENTABLE IN LIGHT THE PRIOR ART IDENTIFIED IN THE PETITION	57	
	A.	Ground 1: Claims 1-3, 6-7, 10, 13, 18-21, 24, 26-27, and 30 Are Anticipated or Alternatively Obvious over Sheha	58	
		1. Discussion of Sheha (EX1005)	58	
		2. Mapping of Sheha to Claims 1-3, 6-7, 10, 13, 18-21, 24, 26-27,	60	



В.	Ground 2: Claims 4-5, 11, 17, 22-23, and 28-29 Would Have Been Obvious over Sheha in View of Ryden109			
	1.	Discussion of Ryden (EX1009)	109	
	2.	Discussion of Sheha-Ryden Combination	110	
	3.	Mapping of Sheha-Ryden Combination to Claims 4-5, 11, 22-23, and 28-29	113	
C.		ound 3: Claims 8-9, 12, 14, and 25 Would Have Been Obvious er Sheha in view of Tanaka	118	
	1.	Discussion of Tanaka (EX1011)	118	
	2.	Discussion of Sheha-Tanaka Combination	120	
	3.	Mapping of Sheha-Tanaka Combination to Claims 8-9, 12, 14, and 25	124	
D.		ound 4: Claims 15-17 Would Have Been Obvious over Sheha in w of Ganesh	132	
	1.	Discussion of Ganesh (EX1012)	133	
	2.	Discussion of Sheha-Ganesh Combination	137	
	3.	Mapping of Sheha-Ganesh Combination to Claims 15-17	139	
Е.		ound 5: Claims 1-3, 6-10, 13-14, 18-21, 24-27, 30 Are ticipated or Alternatively Obvious over Randall	141	
	1.	Discussion of Randall (EX1007)	141	
	2.	Mapping of Randall to Claims 1-3, 6-10, 13-14, 18-21, 24-27, 30	145	
F.		ound 6: Claim 12 Would Have Been Obvious over Randall in ew of De-Vries	181	
	1.	Discussion of De-Vries (EX1013)	182	
	2.	Randall-De-Vries Combination.	182	
	3.	Mapping of Randall-De-Vries Combination to Claim 12	183	
G.		ound 7: Claims 3, 10, 15-17, 21, 27 Would Have Been Obvious er Randall in View of Wollrab	183	
	1.	Wollrab (EX1014)	184	
	2	Randall-Wollrah Combination	184	



		3.	Mapping Randall-Wollrab Combination to Claims 3, 10, 15-17, 21, 27	185
	Н.		ound 8: Claims 4-5, 11, 17, 22-23, 28-29 Would Have Been vious over Randall in View of Ryden	192
		1.	Randall-Ryden Combination	192
		2.	Mapping of Randall-Ryden Combination to Claims 4-5, 11, 17, 22-23, 28-29	193
	I.		ound 9: Claims 15-17 Would Have Been Obvious over Randall View of Ganesh	199
		1.	Randall-Ganesh Combination	199
		2.	Mapping of Randall-Ganesh to Claims 15-17	202
IX.			MENTS ON MULLEN'S CHARACTIZATIONS OF MY SITION TESTIMONY CITED IN IPR2023-00090, PAPER 15	204
X	CI	ΔIN	MIISTING	221

## **TABLE OF CONTENTS (FULL)**

I.	PERSONAL AND PROFESSIONAL BACKGROUND	1
II.	MATERIALS REVIEWED AND CONSIDERED	11
III.	MY UNDERSTANDING OF PATENT LAW	12
	A. Anticipation	14
	B. Obviousness	15
IV.	PERSON OF ORDINARY SKILL IN THE ART ("POSA")	18
V.	THE '418 PATENT	20
	A. Specification Embodiments	20
	B. Prosecution History of the '418 Patent	23
	C. The Challenged Claims	24
VI.	CLAIM INTERPRETATION	25
VII.	PRIOR-ART REFERENCES	25
	A. Background on Motivation to Combine and Reasonable Expectation of Success in Combining Prior Art	25
	B. Sheha (EX1005)	
	C. Randall (EX1007)	42
	D. Ryden (EX1009)	46
	E. Tanaka (EX1011)	55
	F. Ganesh (EX1012)	55
	G. Wollrab (EX1014)	56
	H. De-Vries (EX1013)	56
VIII	THE CHALLENGED CLAIMS ARE UNPATENTABLE IN LIGHT OF THE PRIOR ART IDENTIFIED IN THE PETITION	57
	A. Ground 1: Claims 1-3, 6-7, 10, 13, 18-21, 24, 26-27, and 30 Are Anticipated or Alternatively Obvious over Sheha	58
	1. Discussion of Sheha (EX1005)	58
	2. Mapping of Sheha to Claims 1-3, 6-7, 10, 13, 18-21, 24, 26-27, and 30	60
	a. Claim 1	61



# DOCKET

# Explore Litigation Insights



Docket Alarm provides insights to develop a more informed litigation strategy and the peace of mind of knowing you're on top of things.

## **Real-Time Litigation Alerts**



Keep your litigation team up-to-date with **real-time** alerts and advanced team management tools built for the enterprise, all while greatly reducing PACER spend.

Our comprehensive service means we can handle Federal, State, and Administrative courts across the country.

## **Advanced Docket Research**



With over 230 million records, Docket Alarm's cloud-native docket research platform finds what other services can't. Coverage includes Federal, State, plus PTAB, TTAB, ITC and NLRB decisions, all in one place.

Identify arguments that have been successful in the past with full text, pinpoint searching. Link to case law cited within any court document via Fastcase.

## **Analytics At Your Fingertips**



Learn what happened the last time a particular judge, opposing counsel or company faced cases similar to yours.

Advanced out-of-the-box PTAB and TTAB analytics are always at your fingertips.

#### API

Docket Alarm offers a powerful API (application programming interface) to developers that want to integrate case filings into their apps.

#### **LAW FIRMS**

Build custom dashboards for your attorneys and clients with live data direct from the court.

Automate many repetitive legal tasks like conflict checks, document management, and marketing.

#### **FINANCIAL INSTITUTIONS**

Litigation and bankruptcy checks for companies and debtors.

### **E-DISCOVERY AND LEGAL VENDORS**

Sync your system to PACER to automate legal marketing.

