Paper No. 25 Filed: May 27, 2022

# UNITED STATES PATENT AND TRADEMARK OFFICE BEFORE THE PATENT TRIAL AND APPEAL BOARD TCL INDUSTRIES HOLDINGS CO., HISENSE CO., LTD., and LG ELECTRONICS INC. Petitioners, v. PARKERVISION, INC. Patent Owner Case No. IPR2021-00985 Patent No. 7,292,835

# **PETITIONERS' REPLY**

<sup>&</sup>lt;sup>1</sup> LG Electronics Inc., who filed a petition in IPR2022-00246, is joined as a petitioner in this proceeding.



# **TABLE OF CONTENTS**

1.	INTE	INTRODUCTION				
II.	CLAIM CONSTRUCTION					
	A.	"storage module"				
		1.	ParkerVision's Proposed Construction Contradicts the Inventor's Lexicography	7		
		2.	A Capacitor Used To Successfully Down-Convert a Signal Stores "Non-Negligible Energy"	9		
		3.	Petitioners Do Not Rely On "New Evidence"	12		
		4.	Dr. Steer's Unreliable Opinions Are Not Based on the Correct Construction of "Storage Module"	13		
	B.	"cable modem"				
		1.	"Cable Modem" Is Not a Claim Limitation	14		
		2.	If "Cable Modem" Is Limiting, It Refers to a Device That Can Down-Convert Signals From a TV Network, Including Devices Without Cables			
III.	THE	PRIO	R ART DISCLOSES "STORAGE MODULES"	17		
	A.	A. Hulkko Discloses the Claimed "Storage Modules"				
	B.	3. Schiltz Discloses "Storage Modules"				
IV.	"CABLE MODEM" IS NOT LIMITING AND, IN ANY EVENT, WAS OBVIOUS AT THE TIME OF THE INVENTION					
	A. "Cable Modem" Is Not Limiting					
	B. Alternatively, Cable Modems Were Obvious					
V.	7. IT WOULD HAVE BEEN OBVIOUS TO COMBINE THE REFE AT THE TIME OF THE INVENTION					



# IPR2021-00985 Patent 7,292,835 B2

	A.	Hulkko in View of Gibson	27
	B.	Gibson in View of Schiltz	28
VI.	CON	ICLUSION	29



# **TABLE OF AUTHORITIES**

	Page(s)
Cases	
Am. Med. Sys., Inc. v. Biolitec, Inc., 618 F.3d 1354 (Fed. Cir. 2010)	14
Belden Inc. v. Berk-Tek LLC, 805 F.3d 1064 (Fed. Cir. 2015)	12
Ericsson Inc. v. Intell. Ventures I LLC, 901 F.3d 1374 (Fed. Cir. 2018)	12
Nestle USA, Inc. v. Steuben Foods, Inc., 884 F.3d 1350 (Fed. Cir. 2008)	11
Omega Eng'g Inc. v. Raytek Corp., 334 F.3d 1314 (Fed. Cir. 2003)	8
ParkerVision, Inc. v. Qualcomm Inc., 621 F. App'x 1009 (Fed. Cir. 2015)	passim
ParkerVision, Inc. v. Qualcomm Inc., No. 3:11-CV-719-J-37TEM, 2013 WL 633077 (M.D. Fla. Feb. 20, 2013)	2, 9
Samsung Elecs. Co. v. Elm 3DS Innovations, LLC, 925 F.3d 1373 (Fed. Cir. 2019)	8
TomTom, Inc. v. Adolph, 790 F.3d 1315 (Fed. Cir. 2015)	14, 15



TCL Industries Holdings Co., Ltd. and Hisense Co., Ltd. ("Petitioners") submit this Reply to Patent Owner's ("ParkerVision") Response ("POR").

## I. INTRODUCTION

ParkerVision does not contest that the prior art renders obvious almost every element of the challenged claims. And ParkerVision chose not to cross-examine Petitioners' expert, Dr. Shoemake, whose direct testimony now stands unchallenged. ParkerVision disputes the disclosure of only two elements: "storage module" and "cable modem." ParkerVision also argues that certain references cannot be combined—even though such references disclose highly similar and well-known circuitry for down-converting a modulated signal. None of ParkerVision's arguments, however, demonstrates the patentability of any challenged claim.

First, ParkerVision argues that the prior art does not disclose a "storage module." That argument is premised in part on ParkerVision's attempt to read in an "energy transfer system" requirement into the construction of the term. POR at 67-68, 77-78. The Board previously rejected this exact same construction in a final decision. Ex. 2037 at 29-41 ("storage element" means "an element of a system that stores non-negligible amounts of energy from an input EM signal.") The Board should reject ParkerVision's argument again here.



# 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.

