

Case No. IPR 2016-\_\_\_\_\_  
Petition for *Inter Partes* Review

UNITED STATES PATENT AND TRADEMARK OFFICE

---

BEFORE THE PATENT TRIAL AND APPEAL BOARD

---

**TELEFONAKTIEBOLAGET LM ERICSSON AND ERICSSON INC.**  
Petitioners,

v.

**CELLULAR COMMUNICATIONS EQUIPMENT LLC**  
Patent Owner.

---

Case No. IPR2016-\_\_\_\_\_

U.S. Patent No. 9,025,590

---

**PETITION FOR *INTER PARTES* REVIEW OF U.S. PATENT NO. 9,025,590  
UNDER 35 U.S.C. §§ 311-319 AND 37 C.F.R. § 42.100 *ET SEQ.***

**TABLE OF CONTENTS**

I.	INTRODUCTION .....	5
II.	MANDATORY NOTICES (37 C.F.R. § 42.8(B)).....	5
A.	REAL PARTIES IN INTEREST (37 C.F.R. § 42.8(B)(1)).....	5
B.	RELATED MATTERS (37 C.F.R. § 42.8(B)(2)).....	5
C.	LEAD AND BACK-UP COUNSEL (37 C.F.R. § 42.8(B)(3)) .....	5
D.	SERVICE INFORMATION (37 C.F.R. § 42.8(B)(4)) .....	6
E.	FEE FOR <i>INTER PARTES</i> REVIEW .....	6
III.	GROUND FOR STANDING (37 C.F.R. § 42.104(A)).....	6
IV.	IDENTIFICATION OF CHALLENGE (37 C.F.R. § 42.104(B)) .....	6
A.	IDENTIFICATION OF PRIOR ART .....	6
B.	STATUTORY GROUNDS ON WHICH THE CHALLENGE IS BASED.....	13
V.	OVERVIEW OF THE '590 PATENT .....	14
A.	BACKGROUND .....	14
B.	THE '590 PATENT.....	17
C.	THE PRIOR ART .....	18
1.	U.S. Patent No. 8,351,359 (“Heo”) .....	18
2.	U.S. Patent No. 8,537,767 (“Zhang”).....	21
D.	PROSECUTION HISTORY OF THE '590 PATENT .....	22
VI.	RELATED PATENT U.S. 8,848,556 .....	23
VII.	CLAIM CONSTRUCTION (37 C.F.R. § 42.104(B)(3)).....	25
A.	“BITMAP” (CLAIMS 1-2, 5-6, AND 9-10) / “A BITMAP INDICATING POWER HEADROOM REPORTS BEING REPORTED” (CLAIMS 1, 5) / “A BITMAP THAT INDICATES POWER HEADROOM REPORTS BEING REPORTED” (CLAIM 9) .....	26
B.	“TYPE 1 POWER HEADROOM REPORT” / “TYPE 2 POWER HEADROOM REPORT” (CLAIMS 3, 7, 11) .....	28
C.	“CELL” (CLAIMS 1, 5, 9) / “SERVING CELLS” (CLAIMS 3, 7, 11) .....	28
VIII.	LEVEL OF ORDINARY SKILL IN THE ART.....	29

IX.	GROUNDS OF UNPATENTABILITY.....	30
	A.    GROUND 1: CLAIMS 1-2, 5-6, AND 9-10 ARE RENDERED OBVIOUS BY HEO UNDER 35 U.S.C. § 103(A).....	30
	1.    Independent claim 1 of the '590 patent is rendered obvious by Heo .....	31
	2.    Independent claim 5 of the '590 patent is rendered obvious by Heo .....	37
	3.    Independent claim 9 of the '590 patent is rendered obvious by Heo .....	39
	4.    Dependent claims 2, 6, and 10 of the '590 patent are rendered obvious by Heo .....	40
	B.    GROUND 2: CLAIMS 3, 7, AND 11 ARE RENDERED OBVIOUS BY HEO ALONE OR IN COMBINATION WITH PELLETIER UNDER 35 U.S.C. § 103(A).....	41
	C.    GROUND 3: CLAIMS 1-3, 5-7, AND 9-11 RENDERED OBVIOUS BY ZHANG UNDER 35 U.S.C. § 103(A) .....	47
	1.    Independent claim 1 of the '590 patent is rendered obvious by Zhang .....	47
	2.    Independent claim 5 of the '590 patent is rendered obvious by Zhang .....	57
	3.    Independent claim 9 of the '590 patent is rendered obvious by Zhang .....	59
	4.    Dependent claims 2, 6, and 10 of the '590 patent are rendered obvious by Zhang.....	61
	5.    Dependent claims 3, 7, and 11 of the '590 patent are rendered obvious by Zhang.....	63
	D.    GROUND 4: CLAIMS 5-7 AND 9-11 ARE RENDERED OBVIOUS BY ZHANG IN COMBINATION WITH HEO UNDER 35 U.S.C. § 103(A).....	67
X.	CONCLUSION.....	69
	CERTIFICATE OF SERVICE .....	70
	CERTIFICATE OF COMPLIANCE WITH 37 C.F.R. § 42.24.....	71

**PETITIONER'S EXHIBIT LIST**

<b>Exhibit No.</b>	<b>Document</b>
<b>1001</b>	U.S. Patent No. 9,025,590 (“the ’590 patent”)
<b>1002</b>	Prosecution History of Application No. 14/500,398, which matured into the ’590 patent
<b>1003</b>	U.S. Patent No. 8,848,556 (“the ’556 patent”)
<b>1004</b>	Memorandum Opinion and Order regarding claim construction for the ’556 patent, D.I. 206, from Case No. 6:14-cv-00982 (E.D. Tex.)
<b>1005</b>	U.S. Patent No. 8,351,359 (“Heo”)
<b>1006</b>	U.S. Provisional Patent Application No. 61/180,652 (including file history) (“Heo Prov.-A”)
<b>1007</b>	U.S. Provisional Patent Application No. 61/303,920 (including file history) (“Heo Prov.-B”)
<b>1008</b>	U.S. Provisional Patent Application No. 61/320,211 (including file history) (“Heo Prov.-C”)
<b>1009</b>	U.S. Patent Application No. 2010/0111023 (“Pelletier”)
<b>1010</b>	U.S. Patent No. 8,537,767 (“Zhang”)
<b>1011</b>	U.S. Provisional Patent Application No. 61/282,813 (including file history) (“Zhang Prov.-A”)
<b>1012</b>	U.S. Provisional Patent Application No. 61/344,237 (including file history) (“Zhang Prov.-B”)
<b>1013</b>	U.S. Provisional Patent Application No. 61/410,655 (including file history) (“Zhang Prov.-C”)

Case No. IPR 2016-\_\_\_\_\_  
Petition for *Inter Partes* Review

<b>Exhibit No.</b>	<b>Document</b>
<b>1014</b>	Declaration of Mark Lanning (“Lanning Decl.”)
<b>1015</b>	Plaintiff’s Reply Brief on Claim Construction regarding the ’556 patent, D.I. 160, from Case No. 6:14-cv-00982 (E.D. Tex.)
<b>1016</b>	Patent Owner Response in <i>Sony Mobile Commc’ns (USA) Inc. v. Cellular Commc’ns Equip. LLC</i> , IPR2015-01716, Paper 8.
<b>1017</b>	Patent Owner Response in <i>LG Elec., Inc. v. Cellular Commc’ns Equip. LLC</i> , IPR2016-00197, Paper 6
<b>1018</b>	Portions of Dahlman, <i>et al.</i> , 3G Evolution: HSPA and LTE for Mobile Broadband (2d Ed. 2008).
<b>1019</b>	3GPP TSG-RAN WG2 Meeting #67bis, R2-095888 (Oct. 2009)
<b>1020</b>	3GPP TSG RAN WG2 #67bis, R2-095670 (Oct. 2009)
<b>1021</b>	3GPP TS 36.321, v8.7.0 (Sept. 2009)

# 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.