

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

ERICSSON INC. AND TELEFONAKTIEBOLAGET
LM ERICSSON,
Petitioner

v.

INTELLECTUAL VENTURES II LLC,
Patent Owner

Patent 7,269,127

Title: PREAMBLE STRUCTURES FOR SINGLE-INPUT, SINGLE-
OUTPUT (SISO) AND MULTI-INPUT, MULTI-OUTPUT (MIMO)
COMMUNICATION SYSTEMS

PETITION FOR INTER PARTES REVIEW

Pursuant to the provisions of 35 U.S.C. §§ 311-319, Petitioner Ericsson Inc. and Telefonaktiebolaget LM Ericsson (collectively, “Ericsson”) hereby petitions the Patent Trial and Appeal Board to institute an *inter partes* review of claims 1-10, 17, 20, 21, 23, and 24 of United States Patent No. 7,269,127 (“the ’127 patent,” ERIC-1001) that issued on September 11, 2007, to Mody *et al.* According to USPTO records, the ’127 patent is currently assigned to Intellectual Ventures II LLC (“IV”).

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I. Mandatory Notices

A. Real Party-in-Interest

The real party-in-interest is Ericsson.

B. Related Matters

As of the filing date of this petition and to the best knowledge of Ericsson, the '127 patent is involved in the following litigations:

- *IVI LLC et al. v. AT&T Mobility LLC et al.*, 1-13-cv-01668 (D. Del. 2013).
- *IVI LLC et al. v. Leap Wireless Int'l et al.*, 1-13-cv-01669 (D. Del. 2013).
- *IVI LLC et al. v. Nextel Operations et al.*, 1-13-cv-01670 (D. Del. 2013).
- *IVI LLC et al. v. T-Mobile USA Inc. et al.*, 1-13-cv-01671 (D. Del. 2013).
- *IVI LLC et al. v. U.S. Cellular Corp.*, 1-13-cv-01672 (D. Del. 2013).

C. Lead and Back-up Counsel and Service Information

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Please address all correspondence to lead and back-up counsel. Ericsson also consents to electronic service by email.

II. Grounds for Standing

Ericsson certifies that the '127 patent for which review is sought is available for *inter partes* review and that Ericsson is not barred or estopped from requesting *inter partes* review challenging the patent claims on grounds stated in the petition.

III. Relief Requested

Ericsson asks that the Board review the accompanying prior art and analysis, institute a trial for *inter partes* review of claims 1-10, 17, 20, 21, 23, and 24 of the '127 patent, and cancel those claims as unpatentable.

IV. The Reasons for the Requested Relief

The full statement of the reasons for the relief requested is as follows:

A. Summary of the '127 Patent and Comparison with Primary Reference

The '127 patent is directed to the use of frame structures in telecommunications. A frame structure includes a preamble structure and a data structure, and the '127 patent alleges various shortcomings in existing preamble structures, including that existing structures include “considerable redundancy” which “reduces system throughput.” ERIC-1001, 2:66-3:12. According to the '127 patent “there is a need for an efficient preamble structure that provides time and frequency synchronization, estimation of parameters such as noise variance and channel parameters, and low PAPR [(peak-to-average power ratio)] when used with SISO

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