

Filed: September 25, 2023

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

MEDIATEK INC. and NXP USA, Inc.
Petitioners,

v.

Bell Northern Research, LLC,
Patent Owner.

IPR2023-01414
U.S. Patent 8,416,862
Filing Date: September 28, 2005
Issue Date: April 9, 2013

**PETITION FOR *INTER PARTES* REVIEW
OF U.S. PATENT 8,416,862**

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Cases

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Other Authorities

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---	----

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-------------------------	----

P.T.A.B. Cases

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