

# Exhibit 1

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571-272-7822

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UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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VOLKSWAGEN GROUP OF AMERICA, INC.,  
Petitioner,

v.

NEO WIRELESS LLC,  
Patent Owner.

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IPR2022-01537  
Patent 10,075,941 B2

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Before HYUN J. JUNG, CHARLES J. BOUDREAU, and  
MATTHEW S. MEYERS, *Administrative Patent Judges*.

MEYERS, *Administrative Patent Judge*.

DECISION  
Granting Institution of *Inter Partes* Review  
35 U.S.C. § 314

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## I. INTRODUCTION

### A. *Background and Summary*

Volkswagen Group of America, Inc. (“Petitioner”) filed a Petition to institute an *inter partes* review of claims 1–14 (the “challenged claims”) of U.S. Patent 10,075,941 B2 (Ex. 1001, the “’941 patent”). Paper 1 (“Petition” or “Pet.”). Neo Wireless LLC (“Patent Owner”) filed a Preliminary Response. Paper 7 (“Preliminary Response” or “Prelim. Resp.”).

We have authority, acting on the designation of the Director, to determine whether to institute an *inter partes* review. 35 U.S.C. § 314; 37 C.F.R. § 42.4(a) (2020). The standard for instituting an *inter partes* review is set forth in 35 U.S.C. § 314(a), which provides that an *inter partes* review may not be instituted unless “the information presented in the petition . . . and any response . . . shows that there is a reasonable likelihood that the petitioner would prevail with respect to at least [one] of the claims challenged in the petition.”

After considering the Petition, the Preliminary Response, and the evidence of record, we determine that Petitioner has demonstrated a reasonable likelihood that it would prevail with respect to at least one of claims 1–14. Accordingly, we institute an *inter partes* review of all challenged claims on all asserted grounds pursuant to 35 U.S.C. § 314. 37 C.F.R. § 42.108(a) (“When instituting . . . review, the Board will authorize the review to proceed on all of the challenged claims and on all grounds of unpatentability asserted for each claim.”); *see also SAS Inst. Inc. v. Iancu*, 138 S. Ct. 1348, 1359–60 (2018).

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*B. Real Parties-in-Interest*

The parties identify themselves as the real parties-in-interest. Pet. 3; Paper 6, 1. Petitioner further states that Volkswagen Group of America, Inc. is a subsidiary of Volkswagen AG. Pet. 3.

*C. Related Proceedings*

The parties identify, as matters involving or related to the '941 patent, *In re: Neo Wireless, LLC Patent Litigation*, 2-22-md-03034 (E.D. Mich.) (“the NEO Wireless litigation”) and *Neo Wireless LLC v. Volkswagen Group of America, Inc. et al.*, 2-22-cv-11404 (E.D. Mich.). Pet. 3–4; Paper 6, 1–2. The parties also identify other district court proceedings involving the '941 patent, both current and former, including *Neo Wireless, LLC v. Volkswagen Group of America, Inc. et al.*, 1-22-cv-00076 (E.D. Tenn.) (terminated June 14, 2022). Pet. 3–4; Paper 6, 1–3.

The parties further state that Petitioner has filed petitions in IPR2022-01538 (U.S. Patent 10,771,302) and IPR2022-01539 (U.S. Patent 10,965,512). Pet. 4; Paper 6, 3–4. In addition, Patent Owner identifies IPR2022-01567 (U.S. Patent 10,447,450) as a related matter. Paper 6, 4. Petitioner also identifies IPR2021-01468 (“the -01468 proceeding”), a petition filed by Dell Inc. that was denied *inter partes* review, as a related matter. Pet. 4.

We additionally note that Ford Motor Company and American Honda Motor Co., Inc. (“Honda”) also have filed petitions for review of the '941 patent. IPR2023-00766, Paper 1; IPR2023-00791, Paper 3. Honda’s petition is substantially identical to the instant Petition and was accompanied by a motion for joinder as a petitioner in this proceeding. IPR2023-00791, Paper 2.

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*D. The '941 Patent*

The '941 patent is titled “Methods and Apparatus for Multi-Carrier Communication Systems with Adaptive Transmission and Feedback.” Ex. 1001, code (54). The '941 patent describes various methods to improve the performance of a wireless system, such as adaptive modulation and coding (“AMC”), channel estimation, transmission power control (“TPC”), and the adjustment of a subchannel configuration in accordance with the state of a communication channel. *Id.* at 1:34–48. The '941 patent, however, states that “[t]he subchannel configuration is normally defined and fixed in an operation, and it is usually not considered an adjustable function of the system to be adapted to the user profile and/or operational environment.” *Id.* at 2:4–7.

The '941 patent describes a method for adaptive transmission of wireless communication signals in which modulation and coding scheme (“MCS”), coding rates, training pilot patterns, TPC levels, and subchannel configurations “are jointly adjusted to adapt to the channel conditions.” Ex. 1001, 2:33–38. Figure 4 of the '941 patent is reproduced below.

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