

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

WESTINGHOUSE AIR BRAKE TECHNOLOGIES CORPORATION,
Petitioner,

v.

SIEMENS INDUSTRY, INC.,
Patent Owner.

Case IPR2017-01270
Patent 7,236,860 B2

Before KRISTEN L. DROESCH, MEREDITH C. PETRAVICK, and
TIMOTHY J. GOODSON, *Administrative Patent Judges*.

GOODSON, *Administrative Patent Judge*.

DECISION
Denying Institution of *Inter Partes* Review
37 C.F.R. § 42.108

I. INTRODUCTION

Petitioner filed a Petition (Paper 1, “Pet.”) requesting *inter partes* review of claims 1, 3, 5, 7, 10, 15, 16, 18, 20, and 25 of U.S. Patent No. 7,236,860 B2 (Ex. 1001, “the ’860 patent”). Patent Owner filed a Preliminary Response to the Petition. Paper 8 (“Prelim. Resp.”). We have authority to determine whether to institute an *inter partes* review. *See* 35

IPR2017-01270
Patent 7,236,860 B2

U.S.C. § 314; 37 C.F.R. § 42.4(a). Upon consideration of the Petition and the Preliminary Response, we do not institute an *inter partes* review of any claims of the '860 patent.

A. Related Matters

Patent Owner is asserting the '860 patent against Petitioner in *Siemens Industry, Inc. v. Westinghouse Air Brake Tech. Corp.*, Case No. 1-16-cv-00284 in the U.S. District Court for the District of Delaware. Pet. vi; Paper 5, 1. In co-pending Case IPR2017-01263, Petitioner is challenging U.S. Patent No. 6,996,461, to which the '860 patent claims priority as a continuation. Paper 5, 1; Ex. 1001, at [63].

B. The '860 Patent

The '860 patent is entitled “Method and System for Ensuring that a Train Does Not Pass an Improperly Configured Device.” Ex. 1001, at [54]. Consistent with that title, the Background of the '860 patent indicates that the invention seeks to improve train safety by avoiding accidents due to improperly set switches or malfunctioning grade crossing gates. *Id.* at 1:18–49. To that end, the '860 patent describes

a computerized train control system in which a control module determines a position of a train using a positioning system such as a global positioning system (GPS), consults a database to determine when the train is approaching a configurable device such as a switch or grade crossing gate, continuously interrogates the device to determine its status as the train approaches the device, and forces an engineer/conductor to acknowledge any detected malfunction.

Id. at 1:54–62.

Repeatedly interrogating the device as the train approaches is beneficial because it permits detection of malfunctions or changes in configuration after the initial interrogation. *Id.* at 4:9–15. In addition, “it is

preferable for the device's response to include its identification number as this allows for greater assurance that a response from some other source has not been mistaken as a response from the device." *Id.* at 4:16–20. The '860 patent also explains that an advantage of interrogating a configurable device as the train approaches is that the device need not transmit information when no trains are in the area, which saves power compared to continuously transmitting wayside devices. *Id.* at 5:34–41.

C. Challenged Claims

Petitioner challenges claims 1, 3, 5, 7, 10, 15, 16, 18, 20, and 25. Of these, claims 1 and 15 are independent claims. Claim 1 is reproduced below, with labels added by Petitioner for ease of reference:

1. A system for controlling a train, the system comprising:
 - [a] a control unit located on the train;
 - [b] a database connected to the control unit, the database including position information for a plurality of configurable devices, the database further including an identifier for each of the configurable devices;
 - [c] a positioning system connected to the control unit, the position system being operable to provide position information pertaining to the train to the control unit; and
 - [c1]¹ a transceiver connected to the control unit;
 - [d] wherein the control unit is configured to perform the steps of:
 - obtaining a position of the train from the positioning system;
 - [e] identifying a configurable device in the database as a next configurable device the train will approach;

¹ Petitioner omitted, and therefore did not label, this limitation in the listing of claims in the Claim Appendix of the Petition. *See* Pet. 68.

[f] determining a proximity of the train to the next configurable device;

[g] comparing the proximity to a threshold;

[h] transmitting an interrogation message to the next configurable device when the proximity is below a threshold;

[i] receiving a response to the interrogation message, the response including an identifier associated with a configurable device and a configuration of the configurable device;

[j] allowing the train to pass the configurable device if the response is received within a first period of time, the identifier included in the response matches the identifier associated with the configurable device of interest, and the configuration included in the response is acceptable; and

[k] taking corrective action otherwise.

Ex. 1001, 5:57–6:24; *see also* Pet. 68–69 (reproducing claim with labels added).

D. Alleged Grounds of Unpatentability

Petitioner asserts the following three grounds of unpatentability:

References	Basis	Claims Challenged
Petit ² and Blesener ³	§ 103	1, 3, 5, 7, 10, 15, 16, 18, 20, and 25
RSAC ⁴ and Blesener	§ 103	1, 3, 5, 7, 10, 15, 16, 18, 20, and 25
RSAC, Blesener, and Petit	§ 103	1, 3, 5, 7, 10, 15, 16, 18, 20, and 25

² U.S. Patent No. 5,092,544, issued Mar. 3, 1992, Ex. 1008.

³ Int’l Pub. No. WO 02/091013 A2, published Nov. 14, 2002, Ex. 1007.

⁴ Railroad Safety Advisory Committee, *Implementation of Positive Train Control Systems*, Ex. 1005.

Pet. 11. In addition to the references listed above, Petitioner relies on the Declaration of Steven R. Ditmeyer. Ex. 1002.

II. ANALYSIS

A. Claim Construction

We interpret the claims of an unexpired patent using the broadest reasonable interpretation in light of the specification of the patent. 37 C.F.R. § 42.100(b); *Cuozzo Speed Techs. LLC v. Lee*, 136 S. Ct. 2131, 2144–46 (2016). Under that standard, a claim term generally is given its ordinary and customary meaning, as would be understood by one of ordinary skill in the art in the context of the entire disclosure. *See In re Translogic Tech., Inc.*, 504 F.3d 1249, 1257 (Fed. Cir. 2007). “[O]nly those terms need be construed that are in controversy, and only to the extent necessary to resolve the controversy.” *Vivid Techs., Inc. v. Am. Sci. & Eng’g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999)).

1. “configurable device”

The term “configurable device” appears in each of independent claims 1 and 15, as well as many of their dependent claims.

Petitioner proposes that this term should be construed to mean “any device along the wayside of a train track that is capable of being in at least two physical states.” Pet. 8. In support of that construction, Petitioner points to the Specification’s description of a switch or grade crossing gate as exemplary configurable devices in which the switch’s or gate’s position reflects the physical state of the device. *Id.* at 8 (citing Ex. 1001, 2:44–66, 5:4–16).

Patent Owner responds that the term should be construed to mean a “wayside device, such as a switch or crossing gate, that is capable of being

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