

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

SHURE INCORPORATED,
Petitioner,

v.

CLEARONE, INC.,
Patent Owner.

PGR2020-00079
Patent 10,728,653 B2

Before JONI Y. CHANG, KALYAN K. DESHPANDE,
and DAVID C. MCKONE, *Administrative Patent Judges*.

MCKONE, *Administrative Patent Judge*.

JUDGMENT

Final Written Decision

Determining No Challenged Claims Unpatentable

35 U.S.C. § 328(a)

Dismissing Patent Owner's Revised Contingent Motion to Amend

37 U.S.C. § 326(d)

Dismissing Patent Owner's Motion to Exclude

37 C.F.R. § 42.64(c)

I. INTRODUCTION

A. Background and Summary

Shure Inc. (“Petitioner”) filed a Petition (Paper 1, “Pet.”) requesting post-grant review (“PGR”) of claims 1–24 of U.S. Patent No. 10,728,653 B2 (Ex. 1001, “the ’653 patent”). Pet. 1. ClearOne, Inc. (“Patent Owner”) filed a Preliminary Response (Paper 10, “Prelim. Resp.”). Pursuant to 35 U.S.C. § 324, we instituted this proceeding. Paper 14 (“Dec.”).

Patent Owner filed a Patent Owner’s Response (Paper 27, “PO Resp.”), Petitioner filed a Reply to the Patent Owner’s Response (Paper 30, “Reply”), and Patent Owner filed a Sur-reply to the Reply (Paper 39, “Sur-reply”).

Additionally, Patent Owner filed a Contingent Motion to Amend (Paper 25) and sought preliminary guidance; Petitioner responded to the Motion to Amend (Paper 31); we issued Preliminary Guidance (Paper 35); Patent Owner filed a Revised Contingent Motion to Amend (Paper 37); Petitioner responded to the Revised Contingent Motion to Amend (Paper 42); and Patent Owner replied to Petitioner’s response (Paper 49).

Additionally, Patent Owner filed a Motion to Exclude (Paper 50, “Mot. to Exclude”); Petitioner responded to the Motion to Exclude (Paper 51); and Patent Owner replied to Petitioner’s response (Paper 52).

An oral argument was held in this proceeding on December 14, 2021. Paper 58 (“Tr.”).

We have jurisdiction under 35 U.S.C. § 6. This Decision is a final written decision under 35 U.S.C. § 328(a) as to the patentability of claims 1–24. Based on the record before us, Petitioner not has proved, by a preponderance of the evidence, that claims 1–24 are unpatentable. We

dismiss as moot Patent Owner's Revised Contingent Motion to Amend and Motion to Exclude.

B. Related Matters

The parties state that the patent to which the '653 patent claims priority (U.S. Pat. No. 9,813,806 ("the '806 patent")) is asserted in *Shure Inc. v. ClearOne, Inc.*, No. 1:17-cv-03078 (N.D. Ill.) ("the Illinois case"). Pet. 101; Paper 4, 2. Patent Owner identifies *ClearOne, Inc. v. Shure Acquisition Holdings, Inc.*, IPR2019-00683, challenging Petitioner's U.S. Patent No. 9,565,493, as relevant to this proceeding. Paper 4, 2–3.

C. The '653 Patent

The '653 patent, which issued from U.S. Patent Application No. 15/218,297 ("the '297 application"), relates to "beamforming microphone array systems with support for interior design elements," and describes embodiments "in the form of a ceiling tile (with or without sound absorbing material), light fixtures, or wall panels (with or without sound absorbing materials), and acoustic wall panels." Ex. 1001, 1:27–30, 1:66–2:2. According to the Specification, "[a] 'beamforming microphone' . . . may refer to one or more omnidirectional microphones coupled together that are used with a digital signal processing algorithm to form a directional pickup pattern that could be different from the directional pickup pattern of any individual omnidirectional microphone in the array." *Id.* at 4:60–67. Figure 1A, reproduced below, illustrates an example:

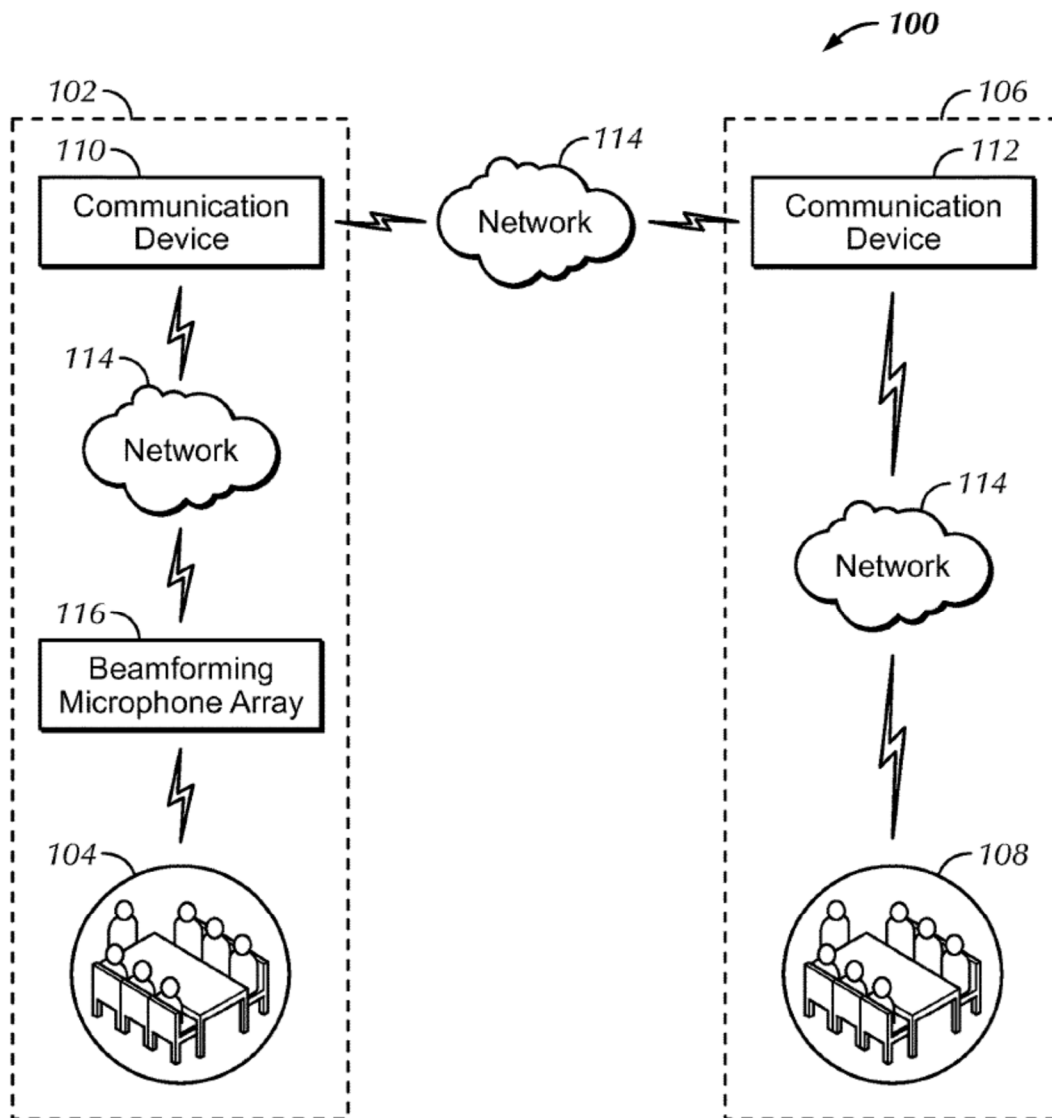


FIG. 1A

Figure 1A is a schematic of an environment for implementing a beamforming microphone array. *Id.* at 3:10–13, 5:12–15.

First environment 100 includes first location 102, with first set of users 104, communicating with second location 106, with second set of users 108, over network 114 via communication devices 110, 112. *Id.* at 5:19–25. First environment 100 includes beamforming microphone array 116, which “may include multiple microphones for converting ambient sounds (such as voices or other sounds) from various sound sources (such as the first set of

users 104) at the first location 102 into audio input signals.” *Id.* at 5:61–64. Array 116 may include acoustic echo cancellation (AEC), *id.* at 6:5–6, adjustable noise cancellation, *id.* at 6:18–22, and other signal processing technology. According to the Specification, “another embodiment of Array 116 may include adaptive acoustic processing that automatically adjusts to the room configuration for the best possible audio pickup.” *Id.* at 6:13–16.

The Specification states that “[t]he Array 116 may be configured and arranged into various usage configurations, such as ceiling mounted, drop-ceiling mounted, wall mounted, etc.” *Id.* at 7:51–54, Figs. 2A–2J. For example, “the Array 116 with BFM’s [beamforming microphones] 212 and the NBFMs [non-beamforming microphones] may be combined to a ceiling tile for a drop ceiling mounting configuration 260.” *Id.* at 9:38–40, Figs. 2F–2I. Figure 2F, reproduced below, is illustrative:

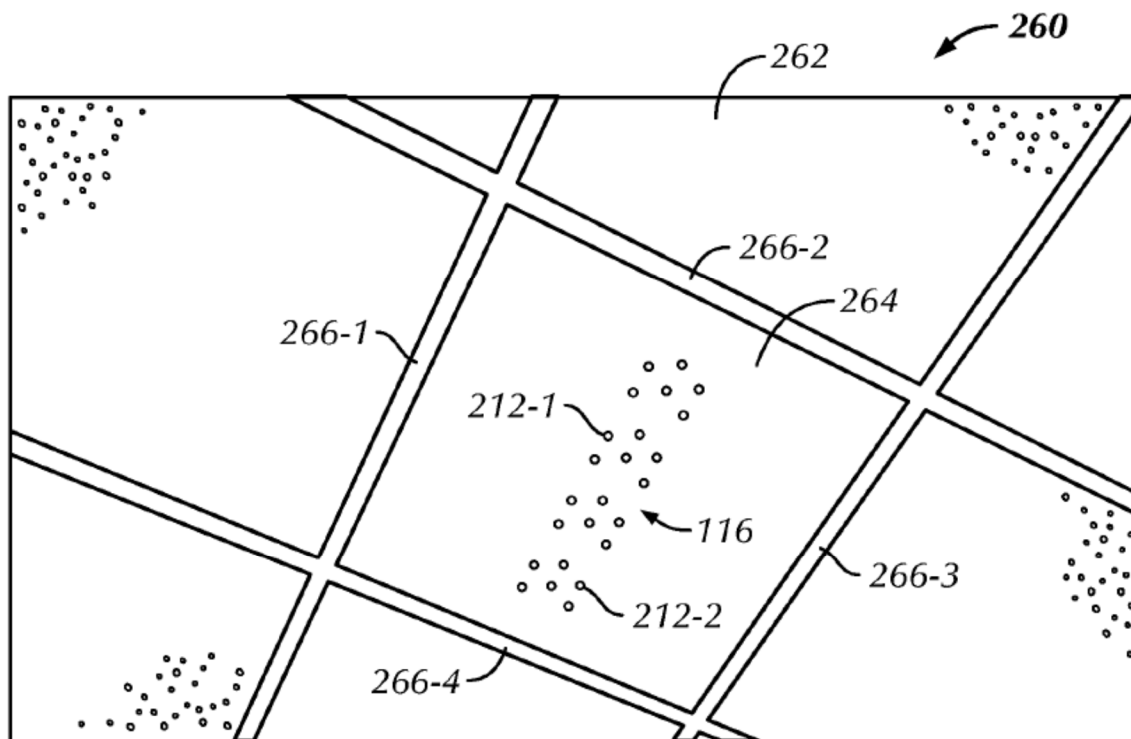


FIG. 2F

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