

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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SONY ELECTRONICS, INC.,

Petitioner,

v.

JAWBONE INNOVATIONS, LLC,

Patent Owner.

Patent No. 11,122,357

Filing Date: August 5, 2013

Issue Date: September 14, 2021

Inventor: Gregory C. Burnett

Title: FORMING VIRTUAL MICROPHONE ARRAYS USING  
DUAL OMNIDIRECTIONAL MICROPHONE ARRAY (DOMA)

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**PATENT OWNER'S PRELIMINARY RESPONSE**

Case No. IPR2023-01153

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**EXHIBIT LIST**

<b>Exhibit No.</b>	<b>Description of Document</b>
2001	Joint Motion to Terminate Proceedings, <i>Amazon.com, Inc. v. Jawbone Innovations, LLC v. Amazon.com Inc.</i> , Case No. IPR2023-00251 (P.T.A.B. July 29, 2023)
2002	Declaration of Akbar M. Sayeed, Ph.D.
2003	Curriculum Vitae of Akbar M. Sayeed, Ph.D.
2004	Excerpts of MICROPHONE ARRAYS: SIGNAL PROCESSING TECHNIQUES AND APPLICATIONS, Ch. 18, Future Directions in Microphone Array Processing (Michael Brandstein & Darren Ward eds., Springer-Verlag 2001) (“Brandstein”)

## I. INTRODUCTION

On June 30, 2023, Sony Electronics, Inc. (“Sony” or “Petitioner”) filed a Petition requesting *inter partes* review of claims 1-20 (“Challenged Claims”) of U.S. Patent No. 11,122,357 (the “’357 Patent”) (Ex. 1001). Paper 2 (“Petition” or “Pet.”). The declaration of Richard M. Stern, Ph.D. (Ex. 1002) accompanied the Petition. On July 18, 2023, the Board issued a Notice of Filing Date Accorded for the Petition and set the time for filing patent owner’s preliminary response. Paper 4.

The Board should deny the Petition because the Petition fails to show a reasonable probability of success as to any claim. In particular, the Petition does not show that Brandstein and Gannot render obvious “wherein the first virtual microphone and the second virtual microphone are distinct virtual directional microphones with substantially similar responses to noise,” as recited in both independent claims of the ’357 Patent. To the contrary, the cited portions of Brandstein contemplate a Griffiths-Jim beamformer in which a top path passes through speech and where “**all other signals are attenuated,**” and a bottom path that suppresses speech and where “**all other signals are passed through.**” In other words, the top path nulls out noise, and the bottom path nulls out speech. This sharply contrasts with the ’357 Patent invention where the first virtual microphone includes **both** speech and noise, such that a second virtual microphone with a substantially similar noise response may be used to cancel the noise, and is exactly

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