

UNITED STATES PATENT AND TRADEMARK OFFICE

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**BEFORE THE PATENT TRIAL AND APPEAL BOARD**

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WAVES AUDIO, LTD  
Petitioner

v.

ANDREA ELECTRONICS CORPORATION  
Patent Owner

**Case: IPR2016-00459**

**Patent 6,363,345**

**AMENDED PETITION FOR *INTER PARTES* REVIEW OF  
U.S. PATENT NO. 6,363,345**

Amended Petition For *Inter Partes* Review of U.S. Patent No. 6,363,345  
Afforded Filing Date: January 14, 2016

In re Patent of:	Joseph Marsh, et al.
U.S. Patent No.:	6,363,345
Issue Date:	March 26, 2002
Serial No.:	09/252,874
Filing Date:	February 18, 1999
Title:	System, Method and Apparatus For Cancelling Noise

**Submitted via Electronic Filing**  
**Mail Stop PATENT BOARD**  
**Patent Trial and Appeal Board**  
**Commissioner for Patents**  
**P.O. Box 1450**  
**Alexandria, VA 22313-1450**

**AMENDED PETITION FOR INTER PARTES REVIEW  
OF U.S. PATENT NUMBER 6,363,345 UNDER 35 U.S.C. §§ 311-319**

Waves Audio Ltd. (“Waves” or “Petitioner”) hereby requests *Inter Partes* Review of Claims 1, 2, 3, 12-14, 17, 21, 23, 25, 38 and 47 in United States Patent Number 6,363,345 (“the ’345 Patent,” Exhibit 1001) owned by Andrea Electronics Corporation, LLC (“Andrea” or “Patentee”). A detailed statement supporting the petition follows.

The present Amended Petition is being filed to address the defects noted in the Notice of Filing Date Accorded to Petition mailed January 21, 2014. The requisite fee accompanied Petitioner’s initial Petition. If any additional fee is necessary the Director is authorized to charge Deposit Account No. 50-50-159. This document has been served on the Patent Owner as reflected in the accompanying Certificate of Service.

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**PETITIONER'S EXHIBIT LIST**

<b>Description</b>	<b>Exhibit #</b>
U.S. Patent No. 6,363,345, "System, Method and Apparatus For Cancelling Noise" to Joseph Marash and Baruch Berdugo, issued on Mar. 26, 2002 ("345 Patent")	1001
Prosecution History of Application No. 09/252,874 which issued as U.S. Patent No. 6,363,345	1002
Table 1 – List Of Each Challenged Claim Element Annotated With Its Claim Number and A Reference Letter	1003
Petitioner's List of Related Litigation Matters And Patents at Issue	1004
Petitioner's List of IPR Petitions and Challenged Patent Claims of the Andrea Patents	1005
U.S. Patent No. 6,266,633 ("Higgins") filed in the United States on December 22, 1998	1006
H. G. Hirsch and C. Ehrlicher, "Noise estimation techniques for robust speech recognition," Proc. IEEE Int. Conf. Acoustics, Speech, Signal Processing, vol. 1, pp. 153 -156, 1995 ("Hirsch")	1007
McAulay and Malpass, "Speech Enhancement Using a Soft-Decision Noise Suppression Filter," IEEE Transactions on Acoustics, Speech and Signal Processing, Vol. 28, No. 2, April 1980 ("McAulay")	1008
U.S. Patent No. 5,706,395 ("Arslan") was filed in the United States on April 19, 1995	1009
U.S. Patent No. 5,432,859 ("Yang") was published in the United States in 1995	1010
Rainer Martin, "An Efficient Algorithm to Estimate the Instantaneous SNR of Speech Signals," Proc. Eurospeech, pp. 1093-96, 1993 ("Martin")	1011

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