

Nova Measuring Instruments Ltd.

IMPORTANT ANNUAL MEETING INFORMATION

Using a **black ink** pen, mark your votes with an X as shown in this example.
Please do not write outside the designated areas.



Annual Meeting Proxy Card

▼ PLEASE FOLD ALONG THE PERFORATION, DETACH AND RETURN THE BOTTOM PORTION IN THE ENCLOSED ENVELOPE. ▼

A Items

Item No. 1
Approval and ratification of the re-appointment of Brightman Almagor Zohar & Co., a member of Deloitte Touche Tohmatsu, as the independent auditors of the Company for the period ending at the close of the next annual general meeting.

For	Against	Abstain
☐	☐	☐

Item No. 2
Approval of the Compensation Policy for the Company's directors and officers, in accordance with the requirements of the Israeli Companies Law.

For	Against	Abstain
☐	☐	☐

Are you a controlling shareholder in the Company, or have a personal interest in the approval of the Compensation Policy? (Please note: If you do not mark either Yes or No, your shares will not be voted for Item No. 2)).

Yes	No
☐	☐

Item No. 3
Approval of amendment of the terms of options held by Mr. Gabi Seligsohn, former President and Chief Executive Officer of the Company.

For	Against	Abstain
☐	☐	☐

Are you a controlling shareholder in the Company, or have a personal interest in the approval of the amendment to the terms of Mr. Seligsohn options? (Please note: If you do not mark either Yes or No, your shares will not be voted for Item No. 3)).

Yes	No
☐	☐

Item No. 4
Approval of the employment terms of Mr. Eitan Oppenheim, the President and Chief Executive Officer of the Company.

For	Against	Abstain
☐	☐	☐

Are you a controlling shareholder in the Company, or have a personal interest in the approval of the Employment Agreement? (Please note: If you do not mark either Yes or No, your shares will not be voted for Item No. 4)).

Yes	No
☐	☐

Item No. 5
Re-election of each of Messrs. Michael Brunstein and Alon Dumanis as a director of the Company to hold office until the close of the next annual general meeting.

	For	Against	Abstain
I. Michael Brunstein	☐	☐	☐
II. Alon Dumanis	☐	☐	☐

Item No. 6
Re-election of Mr. Avi Cohen as an independent director of the Company, to hold office until the close of the next annual general meeting.

	For	Against	Abstain
I. Mr. Avi Cohen	☐	☐	☐

Shareholders entitled to notice of and to vote at the meeting shall be determined as of the close of business on August 6, 2013, the record date fixed by the Board of Directors for such purpose.

The signer hereby revokes all previous proxies given by the signer to vote at the annual general meeting or any adjournments thereof.

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Proxy — Nova Measuring Instruments Ltd.
Weizmann Science Park, Building 22, 2nd Floor, Einstein Street, Ness Ziona, Israel
Tel: +972-73-2295600
Fax: +972-8-9407776

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THIS PROXY IS SOLICITED ON BEHALF OF THE BOARD OF DIRECTORS OF NOVA MEASURING INSTRUMENTS LTD.

The undersigned, a shareholder of Nova Measuring Instruments Ltd. (the "Company"), an Israeli corporation, hereby appoints Michael Brunstein and Dror David, and each of them acting individually, as the attorney and proxy of the undersigned, with full power of substitution, for and in the name of the undersigned, to vote and otherwise act on behalf of the undersigned at the annual general meeting of shareholders of the Company to be held at the offices of the Company, Building 22 (2nd floor) Weizmann Science Park, Einstein Street, Ness Ziona, on September 12, 2013, at 5:00 p.m. Israel time (10:00 a.m. Eastern time), or at any adjournment(s) or postponement(s) thereof, with respect to all of the ordinary shares, par value NIS 0.01, of the Company (the "Shares") which the undersigned would be entitled to vote, with all powers the undersigned would possess if personally present, provided said proxies are authorized and directed to vote as indicated with respect to the matter set forth below this Proxy. Subject to applicable law and the rules of NASDAQ, in the absence of such instructions, the Shares represented by properly executed and received proxies will be voted "FOR" all of the proposed resolutions to be presented to the annual general meeting or any adjournment(s) or postponement(s) thereof for which the Board of Directors recommends a "FOR" vote, other than Items 2, 3 and 4.

This proxy also delegates, to the extent permitted by applicable law, discretionary authority to vote with respect to any other business which may properly come before the annual general meeting or any adjournment(s) or postponement(s) thereof.

WHETHER OR NOT YOU EXPECT TO ATTEND THE MEETING, PLEASE COMPLETE, DATE AND SIGN THIS FORM OF PROXY AND MAIL THE ENTIRE PROXY PROMPTLY, ALONG WITH PROOF OF IDENTITY IN ACCORDANCE WITH THE COMPANY'S PROXY STATEMENT, IN THE ENCLOSED ENVELOPE IN ORDER TO ASSURE REPRESENTATION OF YOUR SHARES. NO POSTAGE NEED BE AFFIXED IF THE PROXY IS MAILED IN THE UNITED STATES.

B Non-Voting Items

Change of Address — Please print your new address below.

Comments — Please print your comments below.

Meeting Attendance

Mark the box to the right
if you plan to attend the
Annual Meeting.

☐

C Authorized Signatures — This section must be completed for your vote to be counted. — Date and Sign Below

Please sign exactly as your name(s) appears on the Proxy. If held in joint tenancy, the shareholder named first in the Company's register must sign. Trustees, Administrators, etc., should include title and authority. Corporation should provide full name of corporation and title of authorized officer signing the Proxy. PLEASE BE SURE TO RETURN THE ENTIRE PROXY ALONG WITH PROOF OF IDENTITY AS DESCRIBED IN THE COMPANY'S PROXY STATEMENT.

Date (mm/dd/yyyy) — Please print date below.

Signature 1 — Please keep signature within the box.

Signature 2 — Please keep signature within the box.



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