

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

APPLE INC.,

Petitioner,

v.

LIMESTONE MEMORY SYSTEMS LLC,

Patent Owner.

Patent No. 5,894,441

Issue Date: Apr. 13, 1999

Filed: Mar. 31, 1998

Inventor: Shigeyuki Nakazawa

Title: SEMICONDUCTOR MEMORY DEVICE WITH REDUNDANCY
CIRCUIT

Inter Partes Review No. IPR2016-01567

PATENT OWNER'S PRELIMINARY RESPONSE

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Other Authorities

H.R. Rep. No. 112-98, pt. 1, at 48 (2011).....6

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