### UNITED STATES PATENT AND TRADEMARK OFFICE

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## BEFORE THE PATENT TRIAL AND APPEAL BOARD

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APPLE INC. Petitioner

V.

MAXELL, LTD. Patent Owner

N IDD 2020 00400

Case No. IPR2020-00408 U.S. Patent No. 6,430,498

PETITION FOR *INTER PARTES* REVIEW OF U.S. PATENT NO. 6,430,498



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### I. INTRODUCTION

Petitioner Apple Inc. ("Petitioner") requests an *Inter Partes* Review ("IPR") of claims 1, 3-5, 7-11, and 13 (collectively, the "Challenged Claims") of U.S. Patent No. 6,430,498 ("the '498 Patent"). '498 Patent (Ex. 1001).

### II. SUMMARY OF THE '498 PATENT

### A. Description of the alleged invention of the '498 Patent

The '498 Patent generally describes "a portable terminal provided with the function of walking navigation, which can supply location-related information to the walking user." '498 Patent (Ex. 1001), 1:10-13. According to the '498 Patent, conventional navigation systems at the time of the invention were unsuitable for walking navigation because they were too large to be carried by a walking user, while maps provided by conventional map information services could not be displayed clearly on the small screens of portable telephones. *Id.* at 1:25-32; 1:40-46. The '498 Patent purports to address these problems by providing a portable terminal that can "supply location information easier for the user to understand during walking." *Id.* at 2:47-48.

The '498 Patent describes a "portable terminal . . . with the function of walking navigation [that] is provided with data communication, input, and display devices just like those of ordinary portable telephones and PHS [Personal Handyphone System] terminals, as well as a device for getting location information and a device for getting direction information denoting the user's present place." *Id.* 



at 2:56–62. Figure 10 of the '498 Patent depicts the primary components of the described portable device:

FIG. 10

72 DISPLAY DEVICE FOR DATA COMMUNICATION

73 INPUT DEVICE FOR GETTING LOCATION INFORMATION

74 INTERNAL MEMORY DEVICE

75 EXTERNAL MEMORY DEVICE

76 DEVICE FOR GETTING LOCATION INFORMATION

77 DEVICE FOR GETTING DIRECTION INFORMATION

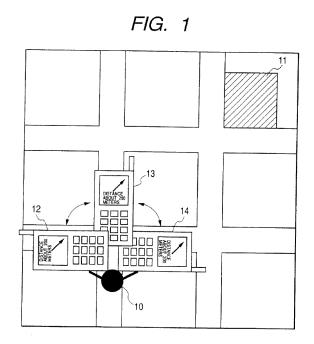
78 DEVICE FOR GETTING DIRECTION INFORMATION

79 DEVICE FOR GETTING DIRECTION INFORMATION

Id. at Fig. 10.

The portable terminal obtains location information and orientation information of the terminal from, for example, "device for getting location information" 77 and "device for getting direction information" 78 as depicted above. *Id.* at Abstract, 2:60-65, 9:28-51. Based on this information, the portable terminal obtains and displays information such as route guidance for reaching a destination, which in some circumstances may be the location of another portable terminal. *Id.* at Abstract, 2:66-3:35; 8:33-36; Fig. 5. In one embodiment, the direction of a destination is indicated with an orientation of a line that always points in the

direction of the destination. *Id.* at Abstract. Figure 1, below, illustrates this direction-indicating line that adjusts as the device is rotated:



Id. at Fig. 1; see also id. at Figs 3(a) and 3(b) (showing other displays).

## B. Summary of the prosecution history of the '498 Patent

The Application that resulted in the '498 Patent was filed on July 11, 2000 as US App. No. 09/613,634 and claims priority to Japanese Patent 11-197010, which was filed July 12, 1999. '498 Patent (Ex. 1001). For purposes of this proceeding, Petitioner applies July 12, 1999 as the priority date for the Challenged Claims.

On June 27, 2001, the Examiner rejected all claims of the application that resulted in the '498 Patent under 35 U.S.C. Section 102(b) as anticipated by U.S. Patent No. 5,146,231 to Ghaem et al. ("Ghaem"). '498 Patent File History (Ex.



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