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(54) **TOUCH SCREEN DEVICE, METHOD, AND GRAPHICAL USER INTERFACE FOR DETERMINING COMMANDS BY APPLYING HEURISTICS**

(65) **Prior Publication Data**
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Related U.S. Application Data

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(52) **U.S. Cl.** **345/173**; 345/169; 715/786; 715/784

(58) **Field of Classification Search** 345/156, 345/157, 173-181
See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

5,528,260	A *	6/1996	Kent	345/684
5,655,094	A *	8/1997	Cline et al.	715/786
5,805,161	A *	9/1998	Tiphane	715/786
6,278,443	B1	8/2001	Amro et al.	345/173
6,466,203	B2	10/2002	Van Ee	345/173
6,559,869	B1 *	5/2003	Lui et al.	715/785
6,597,345	B2 *	7/2003	Hirshberg	345/168
6,657,615	B2	12/2003	Harada	345/173
6,683,628	B1 *	1/2004	Nakagawa et al.	715/799
6,690,387	B2	2/2004	Zimmerman et al.	345/684
7,088,344	B2	8/2006	Maezawa et al.	345/173
7,093,203	B2	8/2006	Mugura et al.	715/864
2002/0158838	A1	10/2002	Smith et al.	345/156
2003/0184593	A1	10/2003	Dunlop	345/810
2004/0012572	A1	1/2004	Sowden et al.	345/173
2004/0021676	A1	2/2004	Chen et al.	345/684
2004/0160420	A1	8/2004	Baharav	345/173
2005/0012723	A1	1/2005	Pallakoff	345/173
2005/0193351	A1	9/2005	Huoviala	715/840

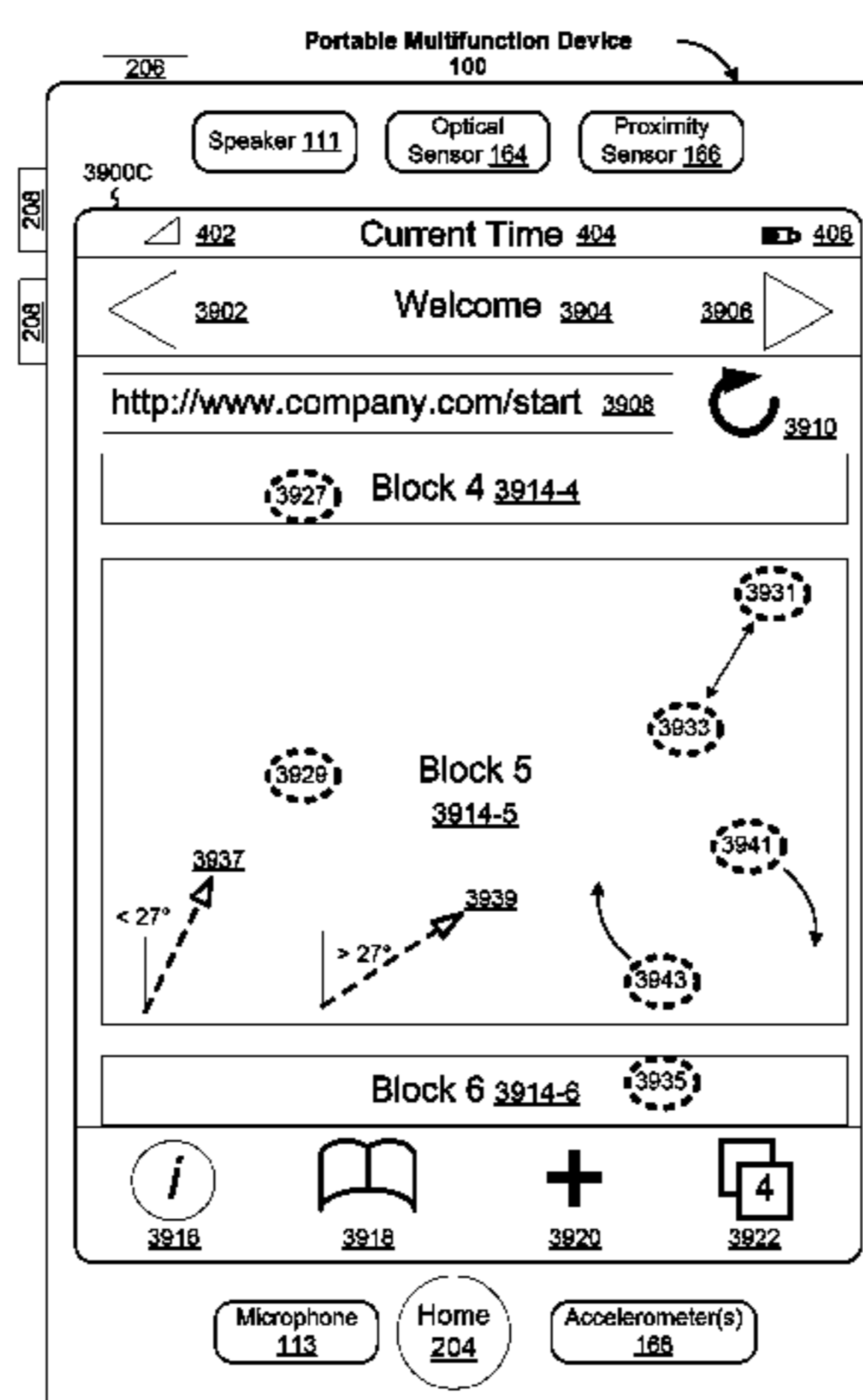
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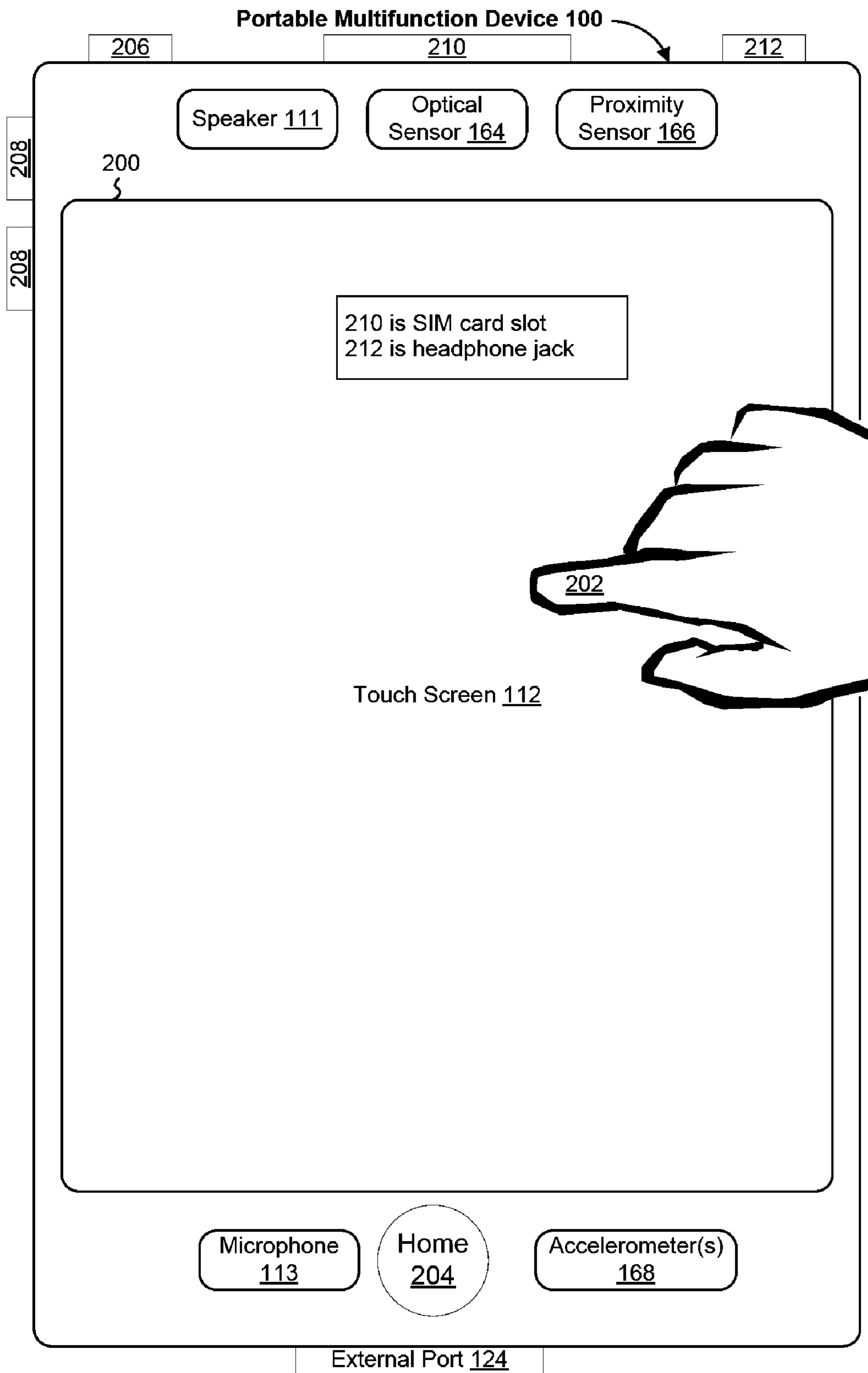


Figure 2