

(19) **United States**

(12) **Patent Application Publication** (10) **Pub. No.: US 2002/0173339 A1**

Safadi

(43) **Pub. Date: Nov. 21, 2002**

(54) **SELF-CONFIGURABLE MULTIPURPOSE MODULAR PORTABLE DEVICE AND METHODS FOR CONFIGURING SAME**

(57) **ABSTRACT**

(75) Inventor: **Reem Safadi**, Horsham, PA (US)

Correspondence Address:
LAW OFFICE OF BARRY R LIPSITZ
755 MAIN STREET
MONROE, CT 06468 (US)

(73) Assignee: **General Instrument Corporation**, 101
Tournament Drive, Horsham, PA 19044

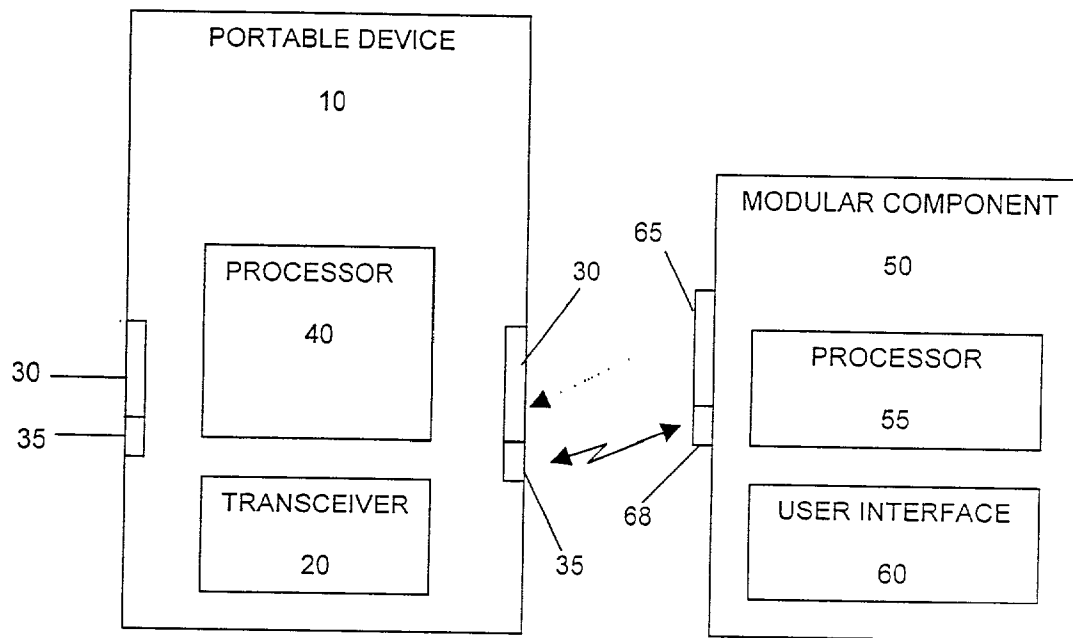
(21) Appl. No.: **09/860,745**

(22) Filed: **May 18, 2001**

Publication Classification

(51) **Int. Cl.⁷** **H04M 1/00**
(52) **U.S. Cl.** **455/553; 455/557**

A self-configurable multipurpose modular portable device and methods for configuring same are provided. Portable device **10** includes a transceiver **20** for wireless communication with a main consumer device **100**. Portable device **10** also includes a processor **40** for configuring portable device **10** and modular component **50** based on communications received wirelessly from main consumer device **100**. Attachment points **30** are provided on portable device **10** for attaching one or more modular components **50**. Depending on the desired functionality, the corresponding modular component **50** (e.g., cellular telephone, personal digital assistant, pager, etc.) may be attached to the portable device **10**. The modular portable device can be configured to communicate wirelessly with other intelligent devices, such as Internet enabled appliances and entertainment devices. Further, the modular components **50** can be configured wirelessly to provide independent functionality when not attached to the portable device **10**.



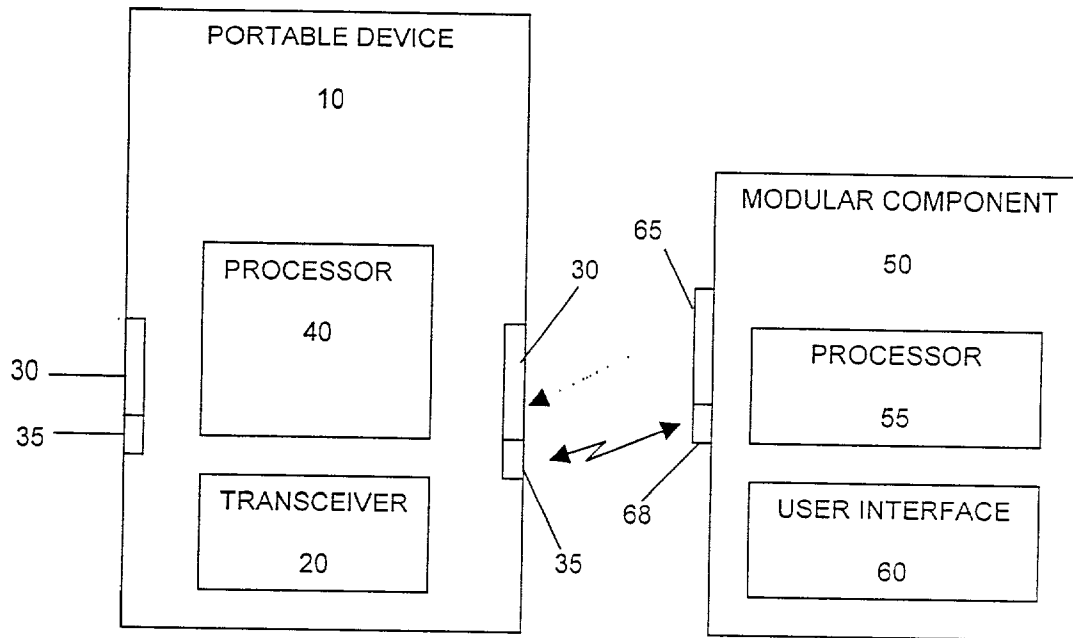


FIG. 1

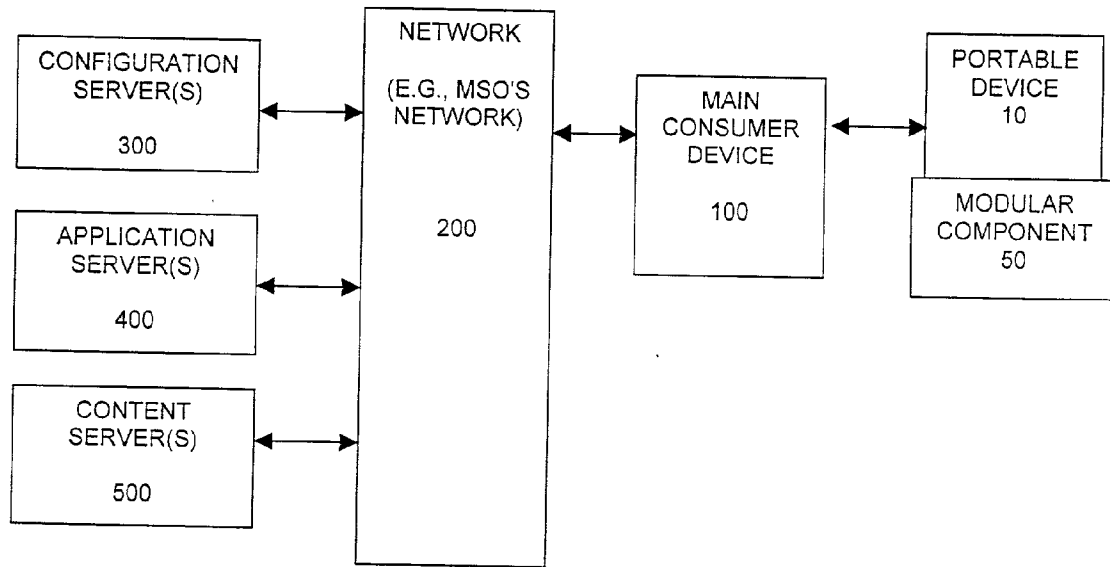


FIG. 2

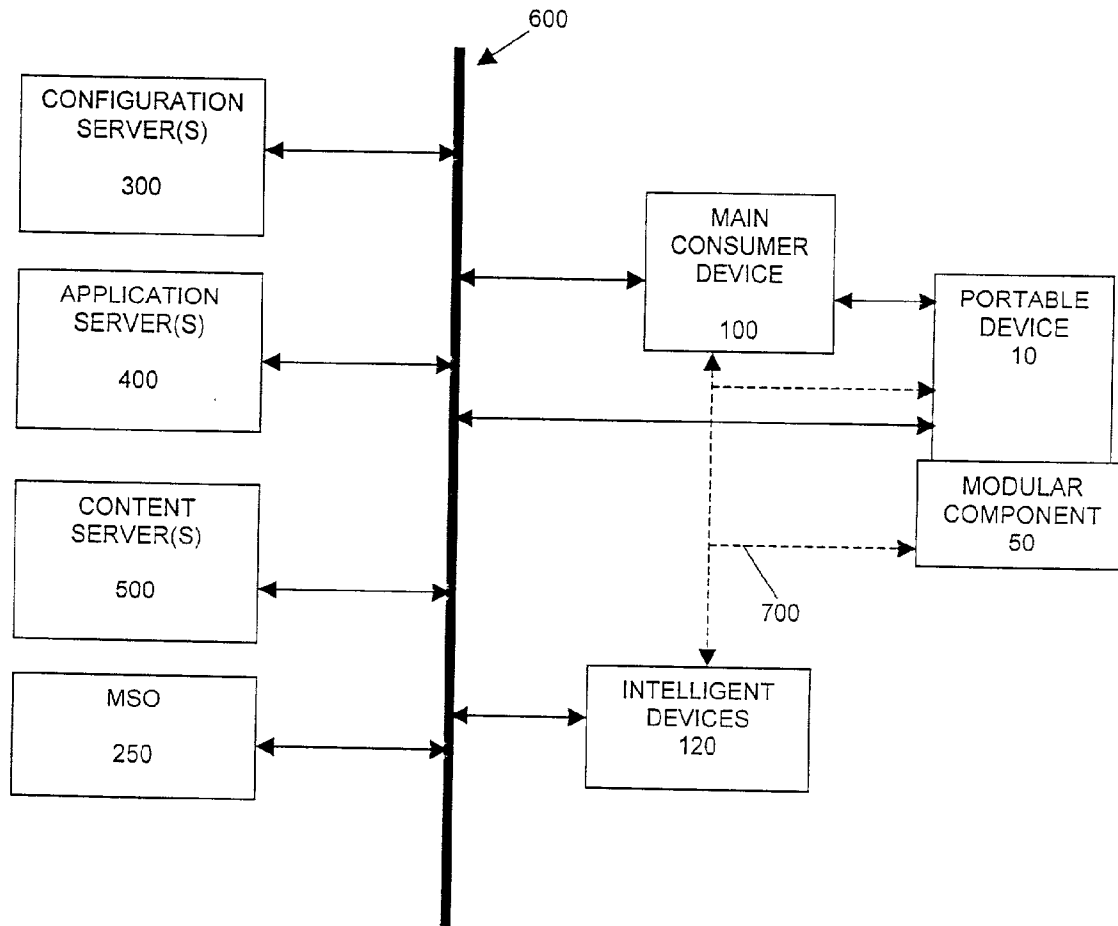


FIG. 3

SELF-CONFIGURABLE MULTIPURPOSE MODULAR PORTABLE DEVICE AND METHODS FOR CONFIGURING SAME

BACKGROUND OF THE INVENTION

[0001] The present invention relates to a multipurpose modular portable device which can be used to provide a variety of communication and entertainment functions. In particular, the present invention relates to a self-configurable multipurpose modular portable device and methods for configuring same. The portable device may act as any one of a number of handheld devices, including but not limited to a cellular telephone, a pager, a web pad, a web/phone pad, a remote control, a display device, a keyboard, an MP3 player, a personal digital assistant, or other similar device or combination of devices. The portable device is modular such that depending on the desired functionality, the corresponding modular component (e.g., cellular telephone, personal digital assistant, pager, etc.) may be attached. The portable device is configured by a main consumer terminal (e.g., a set-top terminal), which may authorize various services to be provided by the respective modular components. The modular portable device also allows a user to interact with various intelligent devices in the home, office, and vehicle, such as various Internet enabled devices, including but not limited to home appliances, televisions, stereos, personal computers, video cassette recorders, digital video disk players, digital video recorders, and the like.

[0002] There are an ever-increasing number of separate hand-held consumer communication devices, personal assistance devices, and portable entertainment devices currently available to consumers, with additional types and variations of such devices being developed at an increasing rate. The use and operation of a number of such separate devices by a consumer is cumbersome. For example, a user may carry a pager, a cellular telephone, and a personal digital assistant as separate devices.

[0003] It would be advantageous to provide a generic portable device that may take on several functions, depending on the modular component(s) attached, in a consumer friendly manner. It would be advantageous to provide for a system whereby said portable device is easily configurable to enable the various services and functions provided by each modular component. The aforesaid and other advantages are provided by the present invention. Corresponding methods and apparatus are provided.

SUMMARY OF THE INVENTION

[0004] The present invention relates to a multipurpose modular portable device which can be used to provide a variety of communication and entertainment functions. In particular, the present invention relates to a self-configurable multipurpose modular portable device and methods for configuring same. The portable device includes a transceiver for wireless communication with a main consumer device. One or more attachment points are provided on the portable device for attaching one or more modular components. The portable device also includes a processor for configuring the portable device and the modular component based on communications received from the main consumer device. The portable device communicates with the main consumer device when the portable device is within a predefined range

of the main consumer device. Once in the predefined range, the portable device provides the main consumer device with identification information relating to the portable device and the modular component. The main consumer device then provides the portable device with configuration information for the portable device and the modular component.

[0005] The modular portable device also allows a user to interact with various intelligent devices in the home, office, and vehicle, such as various Internet enabled devices, including but not limited to home appliances, televisions, stereos, personal computers, video cassette recorders, digital video disk players, digital video recorders, and the like.

[0006] The modular component may comprise a web pad, a personal digital assistant, a cellular telephone, a pager, a universal remote control, a wireless or detachable keyboard, speakers, an audio playback device (e.g., an MP3 player or the like), an audiovisual playback device, or any other similar portable personal intelligent devices or variations of such devices, including combinations of such devices.

BRIEF DESCRIPTION OF THE DRAWINGS

[0007] The present invention will hereinafter be described in conjunction with the appended drawing figures, wherein like numerals denote like elements, and:

[0008] **FIG. 1** shows a block diagram of an exemplary embodiment of a portable device and modular component;

[0009] **FIG. 2** shows a block diagram of an exemplary embodiment of the invention; and

[0010] **FIG. 3** shows a block diagram of a further exemplary embodiment of the invention.

DETAILED DESCRIPTION OF THE INVENTION

[0011] The ensuing detailed description provides preferred exemplary embodiments only, and is not intended to limit the scope, applicability, or configuration of the invention. Rather, the ensuing detailed description of the preferred exemplary embodiments will provide those skilled in the art with an enabling description for implementing a preferred embodiment of the invention, it being understood that various changes may be made in the function and arrangement of elements without departing from the spirit and scope of the invention as set forth in the appended claims.

[0012] An exemplary embodiment of a self-configurable multipurpose modular portable device in accordance with the invention is shown in **FIG. 1**. The portable device **10** includes a transceiver **20** for wireless communication with a main consumer device. One or more attachment points **30** are provided on the portable device **10** for attaching one or more modular components **50**. The portable device **10** also includes a processor **40** for configuring the portable device **10** and the modular component **50** based on communications received from the main consumer device. As shown in **FIG. 2**, the portable device **10** communicates with the main consumer device **100** when the portable device **10** is within a predefined range of the main consumer device **100**. Once in the predefined range, the portable device **10** provides the main consumer device **100** with identification information relating to the portable device **10** and the modular component **50**. The main consumer device **100** then provides the

Explore Litigation Insights

Docket Alarm provides insights to develop a more informed litigation strategy and the peace of mind of knowing you're on top of things.

Real-Time Litigation Alerts



Keep your litigation team up-to-date with **real-time alerts** and advanced team management tools built for the enterprise, all while greatly reducing PACER spend.

Our comprehensive service means we can handle Federal, State, and Administrative courts across the country.

Advanced Docket Research



With over 230 million records, Docket Alarm's cloud-native docket research platform finds what other services can't. Coverage includes Federal, State, plus PTAB, TTAB, ITC and NLRB decisions, all in one place.

Identify arguments that have been successful in the past with full text, pinpoint searching. Link to case law cited within any court document via Fastcase.

Analytics At Your Fingertips



Learn what happened the last time a particular judge, opposing counsel or company faced cases similar to yours.

Advanced out-of-the-box PTAB and TTAB analytics are always at your fingertips.

API

Docket Alarm offers a powerful API (application programming interface) to developers that want to integrate case filings into their apps.

LAW FIRMS

Build custom dashboards for your attorneys and clients with live data direct from the court.

Automate many repetitive legal tasks like conflict checks, document management, and marketing.

FINANCIAL INSTITUTIONS

Litigation and bankruptcy checks for companies and debtors.

E-DISCOVERY AND LEGAL VENDORS

Sync your system to PACER to automate legal marketing.