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#### Tee et al.

#### (54) MOBILE TERMINAL FOR RELAYING MULTIMEDIA DATA TO AN EXTERNAL DISPLAY DEVICE

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#### **Related U.S. Application Data**

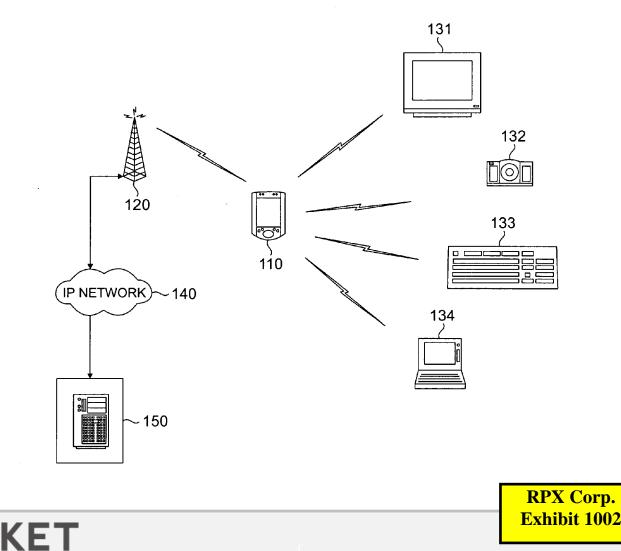
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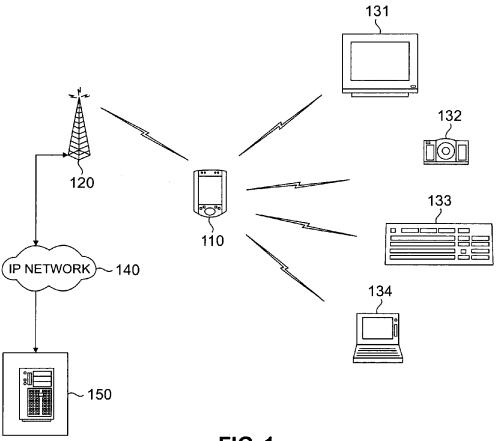
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#### (57) **ABSTRACT**

A mobile terminal comprising a local display for displaying multimedia data. The mobile terminal receives multimedia data via a first wireless interface and transmits the received multimedia data to an external display via a second wireless interface. The mobile terminal transmits the received multimedia data to the external display if the mobile terminal determines the quality of the external display is superior to the quality of the local display.



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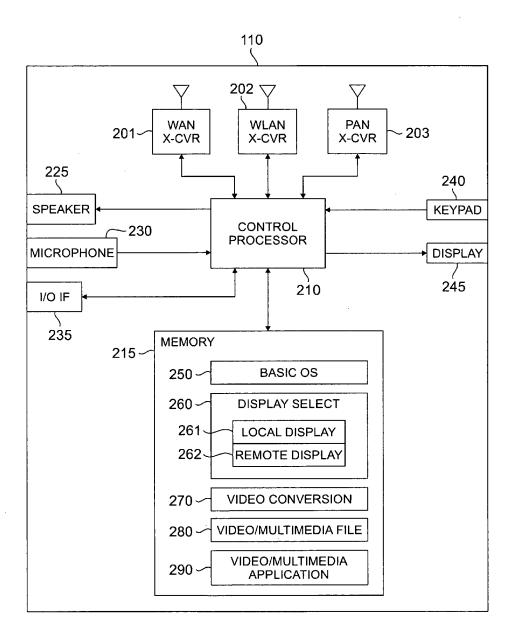


FIG. 2

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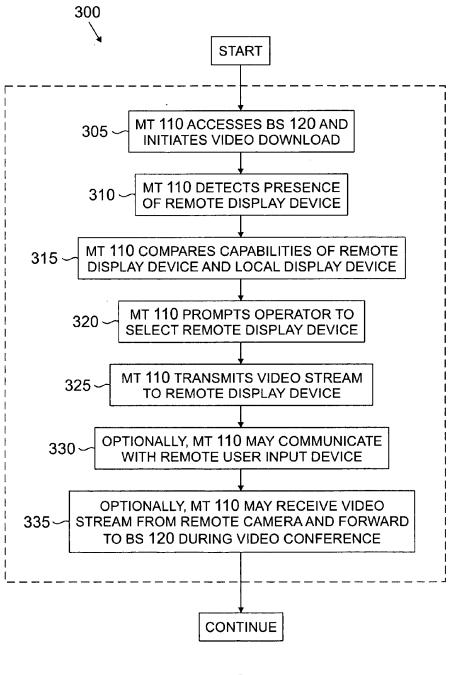


FIG. 3

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#### MOBILE TERMINAL FOR RELAYING MULTIMEDIA DATA TO AN EXTERNAL DISPLAY DEVICE

#### CROSS-REFERENCE TO RELATED APPLICATION AND CLAIM OF PRIORITY

**[0001]** The present application is related to U.S. Provisional Patent No. 60/661,267, filed Mar. 11, 2005, entitled "Mobile Device For Downloading, Relaying And Distributing Multimedia Applications". U.S. Provisional Patent No. 60/661,267 is assigned to the assignee of the present application and is hereby incorporated by reference into the present disclosure as if fully set forth herein. The present application hereby claims priority under 35 U.S.C. §119(e) to U.S. Provisional Patent No. 60/661,267.

#### TECHNICAL FIELD OF THE INVENTION

**[0002]** The present application relates generally to wireless communications and, more specifically, to a wireless mobile terminal that relays video and other data to peripheral devices.

#### BACKGROUND OF THE INVENTION

[0003] Wireless mobile terminals are being used in an ever-increasing variety of applications. This is particularly true of hand-held devices, such as cell phones, personal digital assistant (PDA) devices with wireless capability, and wireless hand-held (or palm top) computers. More and more, these applications include video and/or audio applications or multimedia applications that rely heavily on graphics. Previous generations of hand-held mobile terminals were capable of supporting multimedia and video/audio applications, but this capability was diminished by the relatively low data rates that conventional wireless networks could achieve. This problem is being addressed by new wireless communications standards and equipment that provide much higher data rates.

**[0004]** However, even if network bottlenecks are removed, the usefulness of small mobile terminals may be limited nonetheless by the human interface problems associated with handheld devices. The small display screens of wireless mobile terminals diminish the capabilities of some applications, particularly video applications. For example, the small screens of hand-held mobile terminals are a well-known hindrance to the display of website information in Internet browser applications. As a practical matter, the display of a mobile terminal (e.g., a cell phone or PDA) typically has size limitations imposed by form-factor, power consumption and cost. Thus, handheld mobile terminals may not be an attractive device for some video and multimedia applications.

**[0005]** Therefore, there is a need in the art for small mobile terminals that are better suited to video applications and to multimedia applications. In particular, there is a need for a mobile terminal that can overcome the limitations of a small display screen to provide improved viewing of video and multimedia applications.

SUMMARY OF THE INVENTION

[0006] A mobile terminal is provided. According to an

troller capable of transmitting the multimedia data to the local display, and a first transceiver capable of communicating with a remote display device. The controller is capable of comparing display parameter information associated with the external display device to display parameter information associated with the local display and, in response to the comparison, transmitting the multimedia data to the external display device via the first transceiver.

**[0007]** A method of operating a remote terminal is also provided. The method comprises transmitting multimedia data to a local display of the remote terminal, detecting the presence of a remote display device, establishing a wireless communication link with the remote display device, comparing display parameter information associated with the remote display device to display parameter information associated with the local display, and, in response to the comparison, transmitting the multimedia data to the remote display device.

**[0008]** Another mobile terminal is provided comprising a local display capable of displaying multimedia data. The mobile terminal is capable of receiving multimedia data via a first wireless interface and transmitting the received multimedia data to an external display via a second wireless interface. The mobile terminal transmits the received multimedia data to the external display if the mobile terminal determines the quality of the external display is superior to the quality of the local display.

[0009] Before undertaking the DETAILED DESCRIP-TION OF THE INVENTION below, it may be advantageous to set forth definitions of certain words and phrases used throughout this patent document: the terms "include" and "comprise," as well as derivatives thereof, mean inclusion without limitation; the term "or," is inclusive, meaning and/or; the phrases "associated with" and "associated therewith," as well as derivatives thereof, may mean to include, be included within, interconnect with, contain, be contained within, connect to or with, couple to or with, be communicable with, cooperate with, interleave, juxtapose, be proximate to, be bound to or with, have, have a property of, or the like; and the term "controller" means any device, system or part thereof that controls at least one operation, such a device may be implemented in hardware, firmware or software, or some combination of at least two of the same. It should be noted that the functionality associated with any particular controller may be centralized or distributed, whether locally or remotely. Definitions for certain words and phrases are provided throughout this patent document, those of ordinary skill in the art should understand that in many, if not most instances, such definitions apply to prior, as well as future uses of such defined words and phrases.

#### BRIEF DESCRIPTION OF THE DRAWINGS

**[0010]** For a more complete understanding of the present disclosure and its advantages, reference is now made to the following description taken in conjunction with the accompanying drawings, in which like reference numerals represent like parts:

**[0011] FIG. 1** illustrates an exemplary mobile terminal operating in a network environment according to one embodiment of the disclosure;

[0012] FIG. 2 illustrates the exemplary mobile terminal in

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