cessed by device **10**. Various other applications **48** provide the operational controls to further process and log the communications. Communication subsystem **34** includes receiver **50**, transmitter **52** and one or more antennas, illustrated as receive antenna **54** and transmit antenna **56**. In addition, communication subsystem **34** also includes processing module, such as digital signal processor (DSP) **58** and local oscillators (LOs) **60**. The specific design and implementation of communication subsystem **34** is dependent upon the communication network in which device **10** is intended to operate. For example, communication subsystem **34** of device **10** may be designed to work with one or more of a Mobitex (trade-mark) Radio Network ("Mobitex") and the DataTAC (trade-mark) Radio Network ("DataTAC"). Voice-centric technologies for cellular device **10** include Personal Communication Systems (PCS) networks like Global System for Mobile Communications (GSM) and Time Division Multiple Access (TDMA) systems. Certain networks provide multiple systems. For example, dual-mode wireless networks include Code Division Multiple Access (CDMA) networks, General Packet Radio Service (GPRS) networks, and so-called third-generation (3G) networks, such as Enhanced Data rates for Global Evolution (EDGE) and Universal Mobile Telecommunications Systems (UMTS). Other network communication technologies that may be employed include, for example, Ultra Mobile Broadband (UMB), Evolution-Data Optimized (EV-DO), and High Speed Packet Access (HSPA), etc.

[0048] In addition to processing communication signals, DSP **58** provides control of receiver **50** and transmitter **52**. For example, gains applied to communication signals in receiver **50** and transmitter **52** may be adaptively controlled through automatic gain control algorithms implemented in DSP **58**.

[0049] In a data communication mode a received signal, such as a text message or web page download, is processed by the communication subsystem **34** and is provided as an input to microprocessor **30**. The received signal is then further processed by microprocessor **30** which can then generate an output to display **14** or to an auxiliary I/O port **38**. A user may also compose data items, such as e-mail messages, using keys **24**, trackball **20**, or a thumbwheel (not shown), and/or some other auxiliary I/O device connected to port **38**, such as a keypad, a rocker key, a separate thumbwheel or some other input device. The composed data items may then be transmitted over communication network **68** via communication subsystem **34**.

[0050] In a voice communication mode, overall operation of device **10** is substantially similar to the data communication mode, except that received signals are output to speaker **16**, and signals for transmission are generated by microphone **28**. Alternative voice or audio I/O subsystems, such as a voice message recording subsystem, may also be implemented on device **10**.

[0051] Short-range communication subsystem **36** enables communication between device **10** and other proximate systems or devices, which need not necessarily be similar devices. For example, the short-range communication subsystem may include an infrared device and associated circuits and components, or a Bluetooth (trade-mark) communication module to provide for communication with similarly-enabled systems and devices.

[0052] Powering electronics of the mobile handheld communication device is power source **62** (shown in FIG. **2** as "battery"). Power source **62** may include one or more batteries. Power source **62** may be a single battery pack, especially a rechargeable battery pack. A power switch (not shown) provides an "on/off" switch for device **10**. Upon activation of the power switch an application **48** is initiated to turn on device **10**. Upon deactivation of the power switch, an application **48** is initiated to turn off device **10**. Power to device **10** may also be controlled by other devices and by internal software applications. Additional supplementary power may be provided by additional circuits (which may be referred to as modules) and components in device **10**.

[0053] Device **10** is provided with tactile elements **70** which works with touchpad **24**B to provide a tactile feedback sense as a user of device **10** is activation a region on touchpad **24**B. Further detail on tactile elements **70** is provided below.

[0054] Touchpad **24**B is an input device, which may be provided in portable electronic devices. Touchpad **24**B provides a surface on which a user is meant to glide his finger, in order to provide input signals to move a cursor generated on a graphical user interface (GUI). Touchpad **24**B has a series of sensors located underneath the surface to sense a capacitance of the finger or capacitance between sensors.

[0055] Touchpad **24**B may be implement in one or more of several circuits. One circuit provides a series of conductors in a grid where a series of row conductors are separated from a series of column conductors by an insulator layer. A high frequency electrical signal is applied sequentially between pairs in the grid, and the current that passes between the nodes is proportional to the capacitance. A user's finger provides a ground at points in the grid, resulting in a change in capacitance at that location. Alternatively, a capacitive shunt circuit may be provided to sense change in capacitance between a transmitter and receiver that are on opposite sides of the sensor. When a finger is placed between the transmitter and receiver, a ground is created which decreases the local capacitance, which can be detected as a position in touchpad **24**B (FIG. **3**). The touchpad surface may need to be contacted directly by an interfering body that will disrupt a sensing field in the touchpad circuitry. As such, using an insulated finger (e.g. a gloved finger) or a pencil to contact the surface of the touchpad **24**B may not cause a registration of a signal in the circuitry. Another technology may use a series of conductive and resistive layers with a circuit provided within the layers. To register a sense on such a region of touchpad **24**B, sufficiently pushing on the surface of touchpad **24** actuates the conductive and resistive layers. In other embodiments, a combination of resistive and capacitive senses may be provided. In other embodiments, touchpad **24**B may have certain regions having one or more capacitive sense sections and one or more resistive sense sections. Each of the regions on touchpad **24** may be considered to be the first of two regions when analyzing user actions for an embodiment. A number of physical features **70** may be affixed to the surface of touchpad **24**B at strategic locations on touchpad **24**B. Each of the tactile elements may be considered to be the second of two regions for analyzing user actions. An input signal generator **74** may be provided with the touchpad **24**B to control aspects of the input signals provided to touchpad **24**B and amplify, modify, filter and/or process the raw signals generated from touchpad **24**B into one or more signals that can be used by other modules or components in device **10**. The term "controller" may be used as an equivalent term to "input signal generator". Input signal generator **74** may be incorporated in whole or in part into touchpad **24**B.