APPENDIX 9: PRELIMINARY INFRINGEMENT CONTENTIONS OF U.S. PATENT NO. 9,575,631

The Accused LGE ’631 Products are those that perform a method for controlling a predetermined function of a second work process in a multitasking mobile terminal that performs a first work process and a second work process. An exemplary identification of the Accused LGE ’631 Products, based on information presently available, is set forth in Plaintiff Pantech Corporation’s Patent Rule 3-1 and 3-2 Infringement Contentions, at Section A.[1]

U.S. No. 9,575,631	Evidence of Infringement
1. A method for controlling a predetermined function of a second work process during a first work process in a multitasking mobile terminal that performs the first work process and the second work process, the method comprising:	To the extent the preamble is found to be limiting, each of the Accused LGE ’631 Products performs a method for controlling a predetermined function of a second work process during a first work process in a multitasking mobile terminal that performs the first work process and the second work process. *See, e.g.*, Appendix 1 (showing that each of the devices is a mobile terminal). For example, the LG V60 ThinQ 5G is a smartphone capable of performing a method for controlling a predetermined function of a second work process during a first work process in a multitasking mobile terminal that performs the first work process and the second work process.

[1] While the following claim chart specifically charts infringement for the LG V60 ThinQ 5G and LG G7 ThinQ, on information and belief, and in view of the information in Appendix 1, including user manuals, the remaining Accused LGE ’631 Products operate the same or similar operating system(s) and include similar hardware and software that operate as a mobile terminal with the functionality described herein, and therefor infringe in the same manner.

APPENDIX 9: PRELIMINARY INFRINGEMENT CONTENTIONS OF U.S. PATENT NO. 9,575,631

U.S. No. 9,575,631	Evidence of Infringement
	  LG V60 ThinQ 5G Technical Specifications, https://www.lg.com/us/cell-phones/lg-lmv600amaattcb-att-v60-thinq-5g# As another example, the LG G7 ThinQ is a smartphone capable of performing a method for controlling a predetermined function of a second work process during a first work process in a multitasking mobile terminal that performs the first work process and the second work process.

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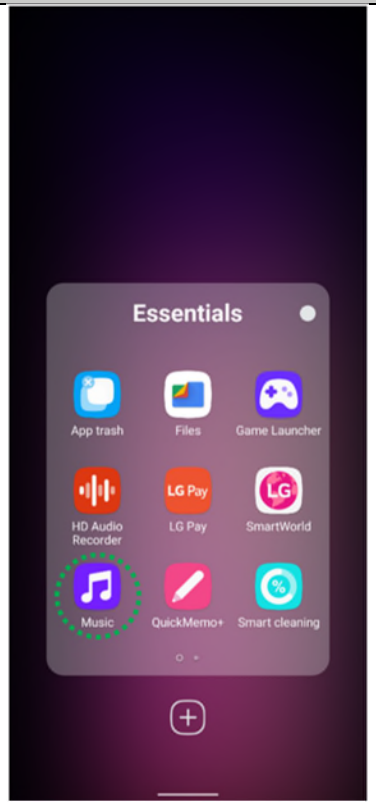
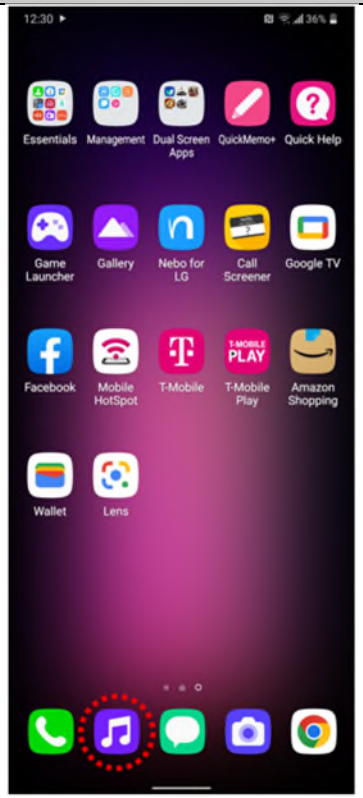
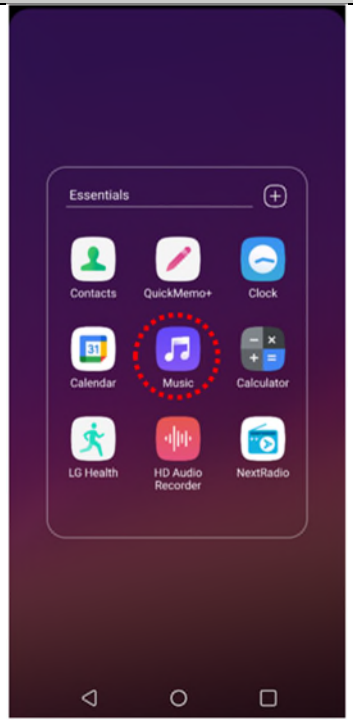
U.S. No. 9,575,631	Evidence of Infringement
	 LG G7 ThinQ Technical Specifications, https://www.lg.com/us/cell-phones/lg-G710ULM---LRA
[**1.a**] displaying one icon in a designated portion of a display, wherein the displayed icon corresponds to the first work process;	Each of the Accused LGE '631 Products displays one icon in a designated portion of a display, wherein the displayed icon corresponds to the first work process. *See*, *e.g.*, Appendix 1 (showing that each of the devices includes a display). For example, the LG V60 ThinQ 5G displays one icon in a designated portion of a display, wherein the displayed icon corresponds to the first work process (i.e., Music application). **<u>Example 1</u>**

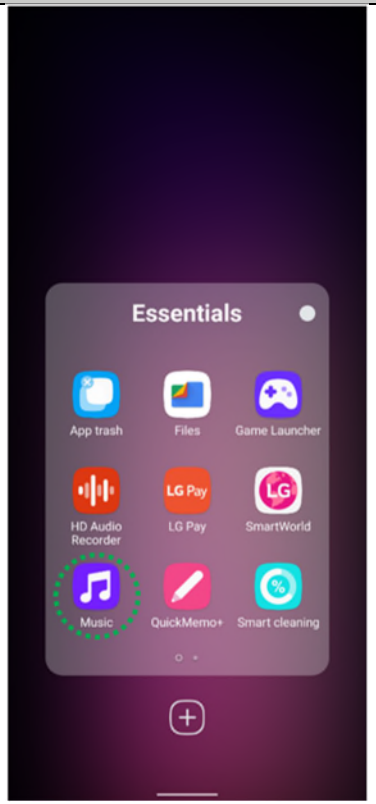
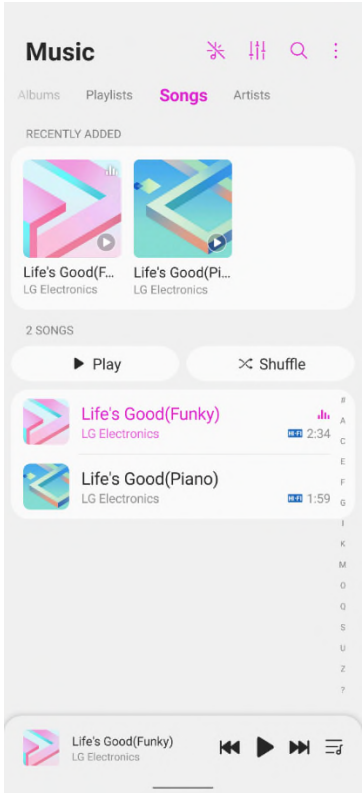
APPENDIX 9: PRELIMINARY INFRINGEMENT CONTENTIONS OF U.S. PATENT NO. 9,575,631

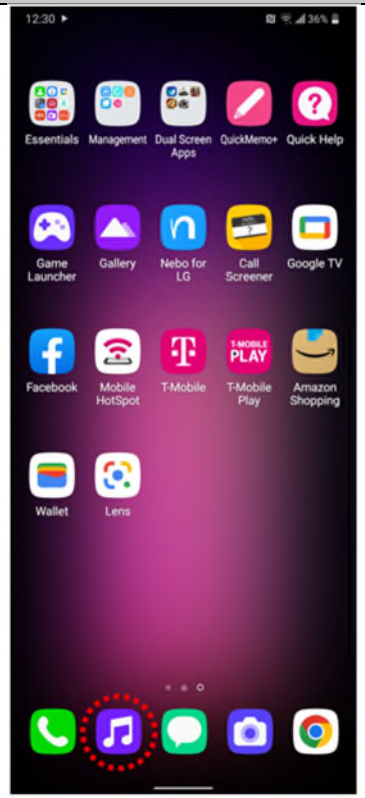
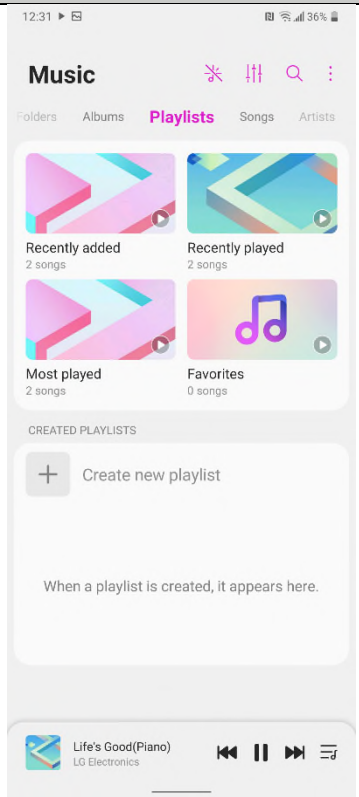
U.S. No. 9,575,631	Evidence of Infringement
	 **<u>Example 2</u>**

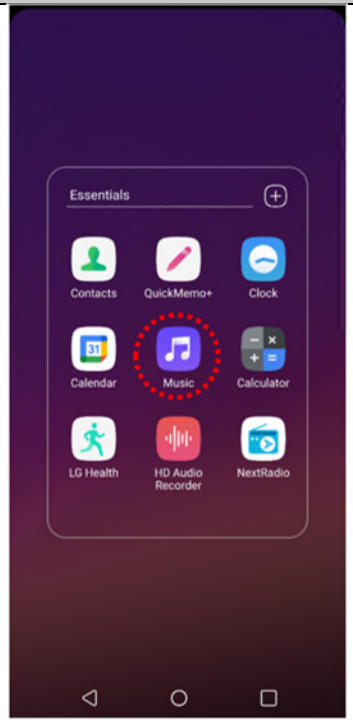
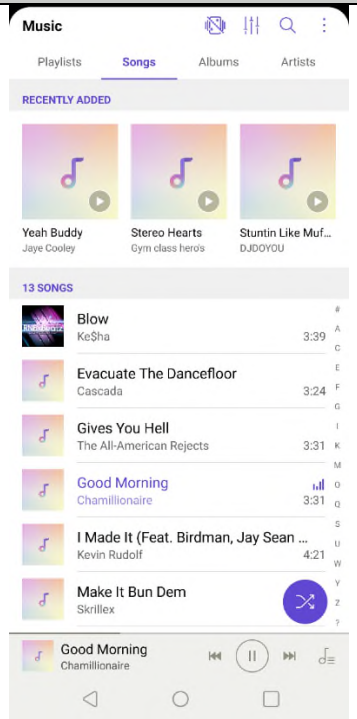
U.S. No. 9,575,631	Evidence of Infringement
	 **<u>Example 3</u>** As another example, the LG G7 ThinQ displays one icon in a designated portion of a display, wherein the displayed icon corresponds to the first work process (i.e., Music application).

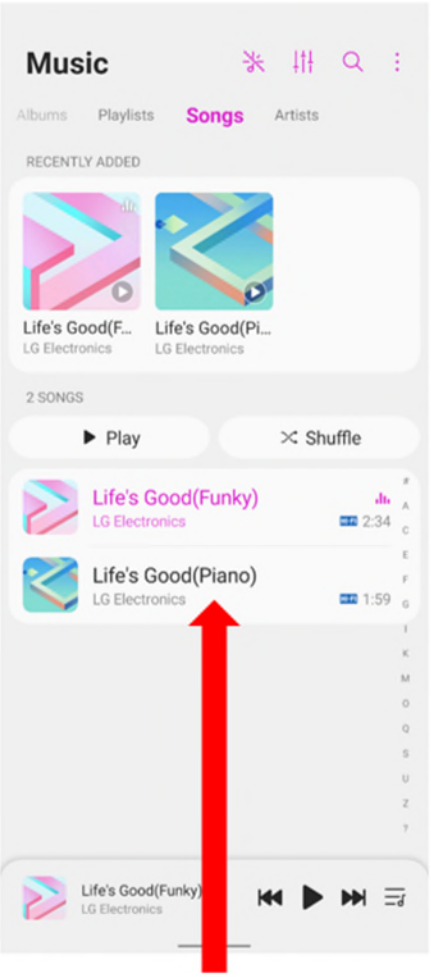
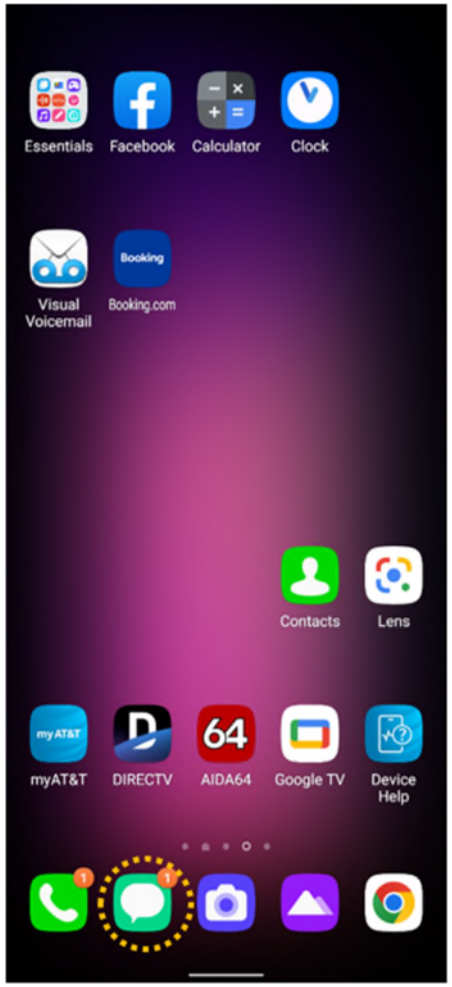
U.S. No. 9,575,631	Evidence of Infringement
	
[**1.b**] if the displayed icon corresponding to the first work process is selected, displaying a screen of the first work process in the display;	Each of the Accused LGE '631 Products displays a screen of the first work process in the display if the displayed icon corresponding to the first work process is selected. *See, e.g.*, Appendix 1 (showing that each of the devices includes a display). For example, the LG V60 ThinQ 5G displays a screen of the first work process (i.e., Music application) in the display if the displayed icon corresponding to the first work process is selected. **<u>Example 1</u>**

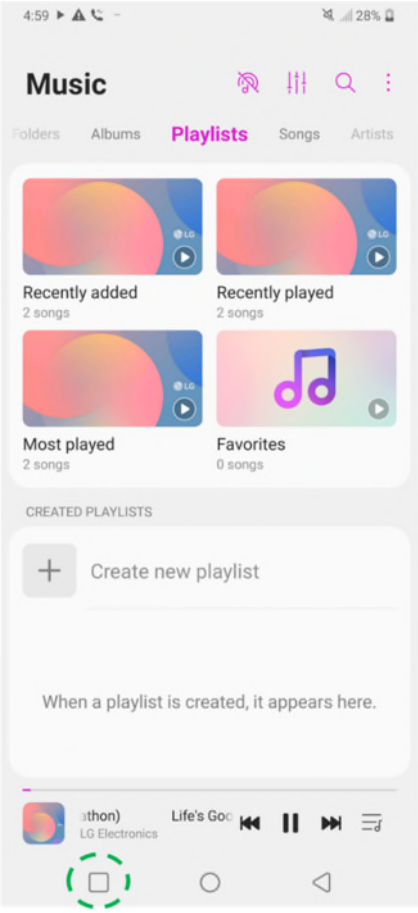
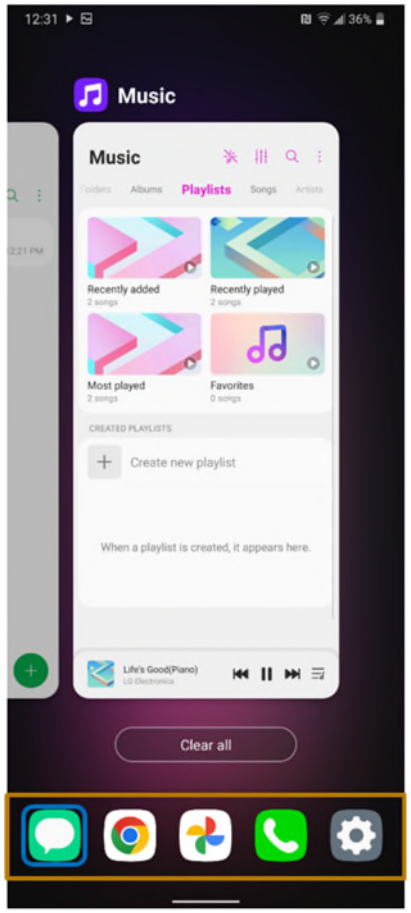
APPENDIX 9: PRELIMINARY INFRINGEMENT CONTENTIONS OF U.S. PATENT NO. 9,575,631

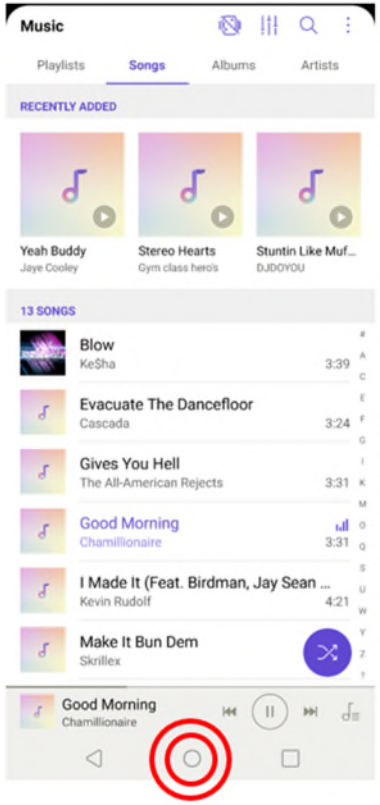
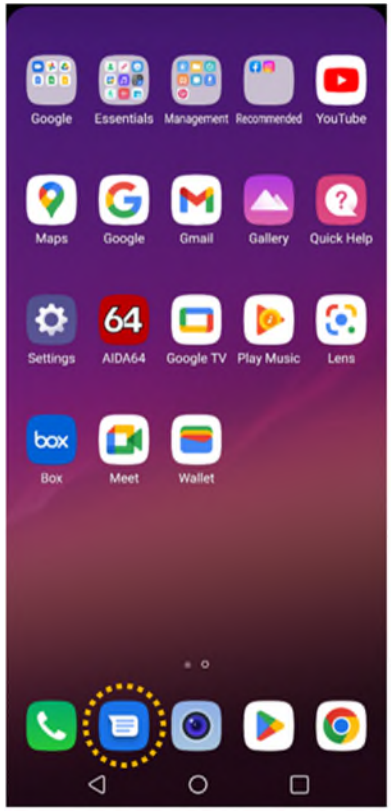
U.S. No. 9,575,631	Evidence of Infringement
	  **<u>Example 2</u>**

U.S. No. 9,575,631	Evidence of Infringement
	  **<u>Example 3</u>** As another example, the LG G7 ThinQ displays a screen of the first work process (i.e., Music application) in the display if the displayed icon corresponding to the first work process is selected.

U.S. No. 9,575,631	Evidence of Infringement
	 
[**1.c**] in response to a first command for sequentially displaying icons, performing sequential display of icons such that an icon corresponding to the second work process is displayed, wherein the icon	Each of the Accused LGE '631 Products performs sequential display of icons such that an icon corresponding to the second work process is displayed in response to a first command for sequentially displaying icons, wherein the icon corresponding to the second work process is displayed in the designated portion of the display. *See, e.g.*, Appendix 1 (showing that each of the devices includes a display). **<u>Example 1</u>** For example, the LG V60 ThinQ 5G performs sequential display of icons such that an icon corresponding to the second work process (i.e., Messages application) is displayed in response to a first command for

U.S. No. 9,575,631	Evidence of Infringement
corresponding to the second work process is displayed in the designated portion of the display;	sequentially displaying icons (i.e., swipe up), wherein the icon corresponding to the second work process is displayed in the designated portion of the display.   **Example 2**

U.S. No. 9,575,631	Evidence of Infringement
	For example, the LG V60 ThinQ 5G performs sequential display of icons such that an icon corresponding to the second work process (i.e., Messages application) is displayed in response to a first command for sequentially displaying icons (i.e., pressing the "Recent Apps" button), wherein the icon corresponding to the second work process is displayed in the designated portion of the display (i.e., the "Favorite Icons" area).  

U.S. No. 9,575,631	Evidence of Infringement
	<u>Example 3</u> As another example, the LG G7 ThinQ performs sequential display of icons such that an icon corresponding to the second work process (i.e., Messages application) is displayed in response to a first command for sequentially displaying icons (i.e., press home button), wherein the icon corresponding to the second work process is displayed in the designated portion of the display.   To the Extent LGE argues that this limitation is not literally met by any of the Accused LGE ’631 Products, Pantech asserts that this limitation is met under the doctrine of equivalents because each of the Accused LGE ’631 Products matches the function, way, and result of the claimed terminal apparatus and, to the extent

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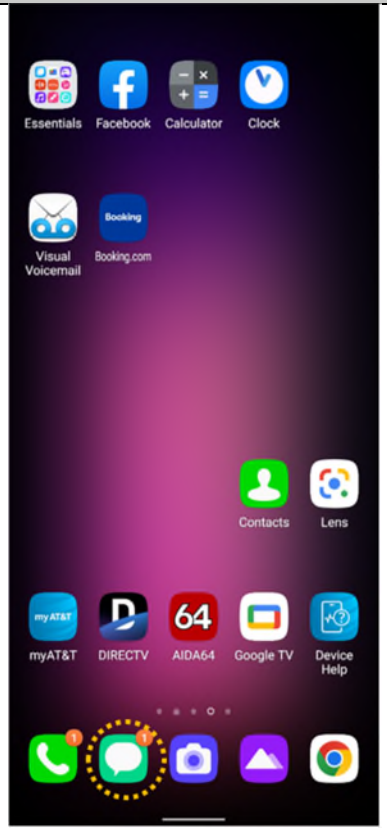
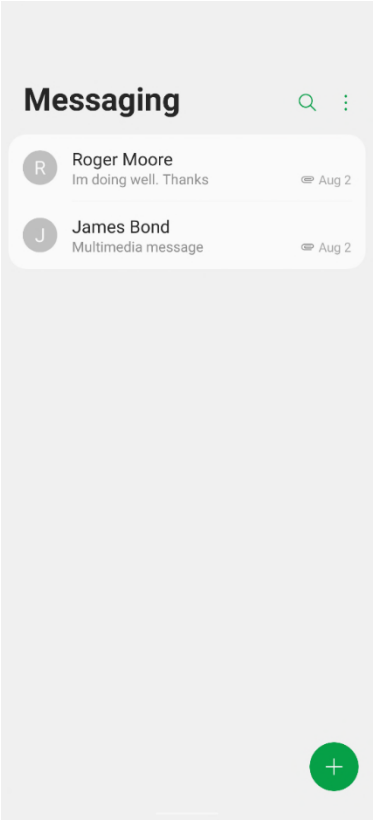
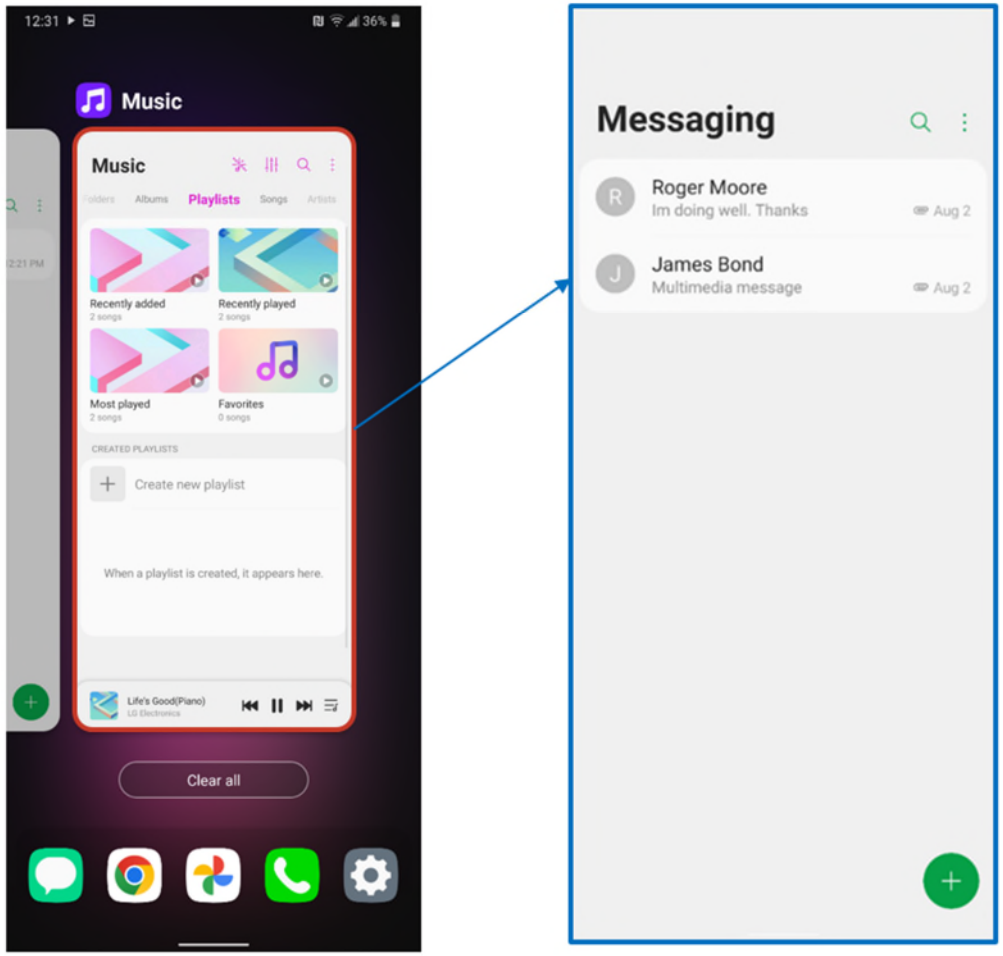
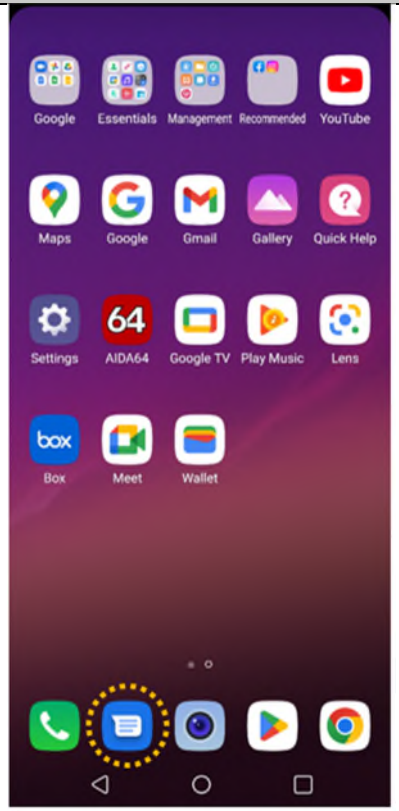
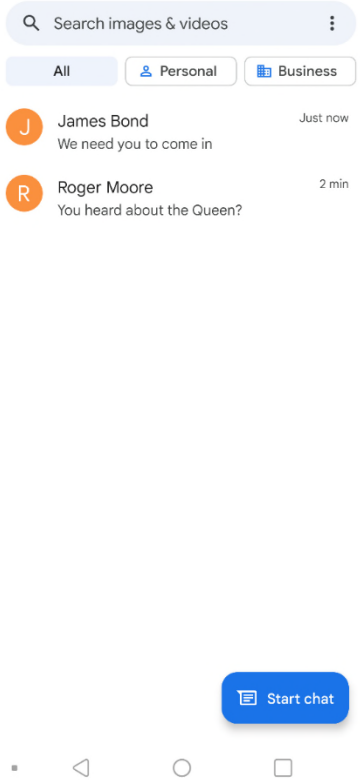
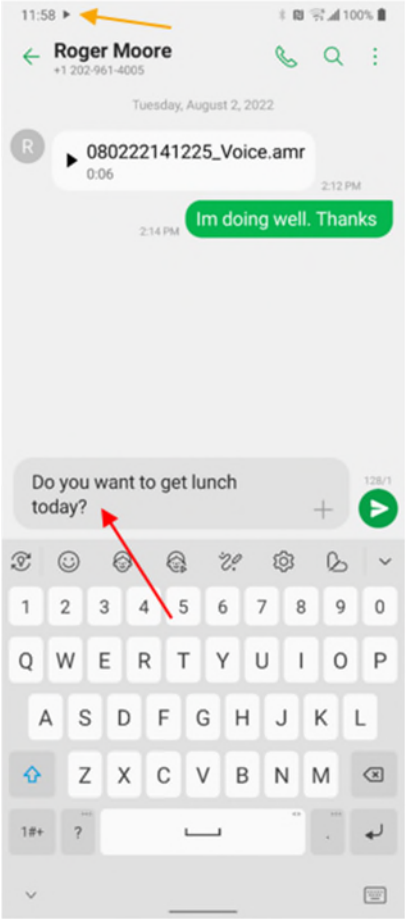
	there is a difference, the difference is insubstantial. For example, the extent that LGE argues that the accused LGE ’631 Products do not perform “sequential display of icons such that an icon corresponding to the second work process is displayed,” on information and belief, each of these products includes software, hardware, or a combination of the two that perform the equivalent function of sequential display of icons including an icon corresponding to a second work process because the accused functionality displays icons in an order manner and displays a second application.
[1.d] in response to a second command for changing to the second work process, replacing the screen of the first work process with a screen of the second work process;	Each of the Accused LGE ’631 Products replaces the screen of the first work process with a screen of the second work process in response to a second command for changing to the second work process. *See, e.g.*, Appendix 1 (showing that each of the devices includes a display). **<u>Example 1</u>** For example, the LG V60 ThinQ 5G replaces the screen of the first work process (i.e., Music application) with a screen of the second work process (i.e., Messages application) in response to a second command for changing to the second work process (i.e., selecting the Messages application icon).

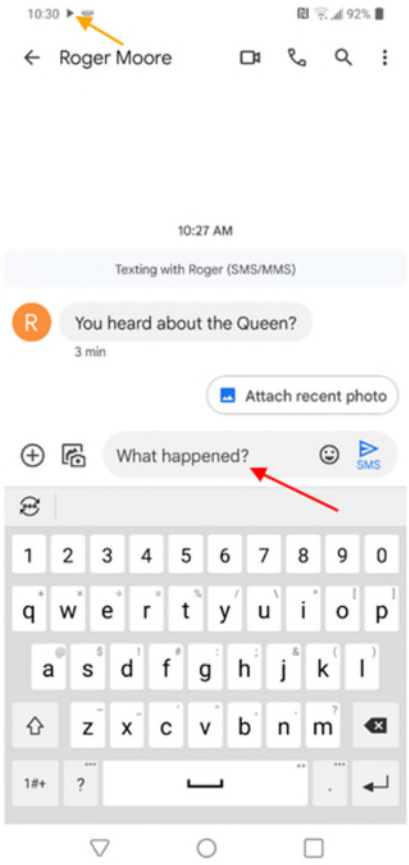
U.S. No. 9,575,631	Evidence of Infringement
	  **<u>Example 2</u>** For example, the LG V60 ThinQ 5G replaces the screen of the first work process (i.e., Music application) with a screen of the second work process (i.e., Messages application) in response to a second command for changing to the second work process (i.e., selecting the Messages application icon).

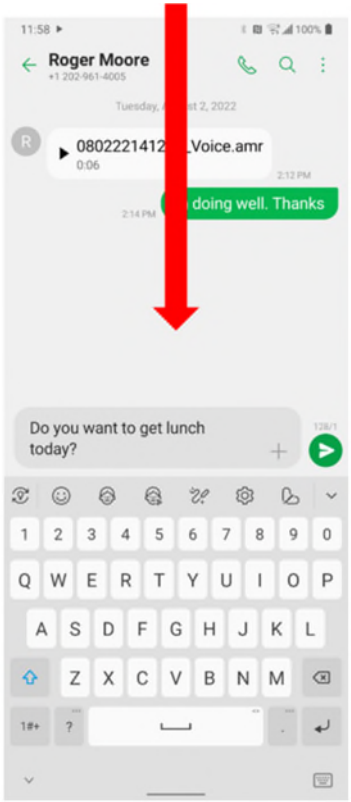
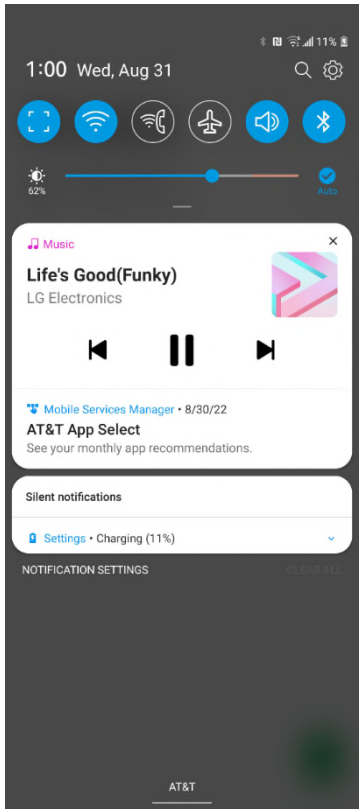
U.S. No. 9,575,631	Evidence of Infringement
	 **<u>Example 3</u>** For example, the LG G7 ThinQ replaces the screen of the first work process (i.e., Music application) with a screen of the second work process (i.e., Messages application) in response to a second command for changing to the second work process (i.e., selecting the Messages application icon).

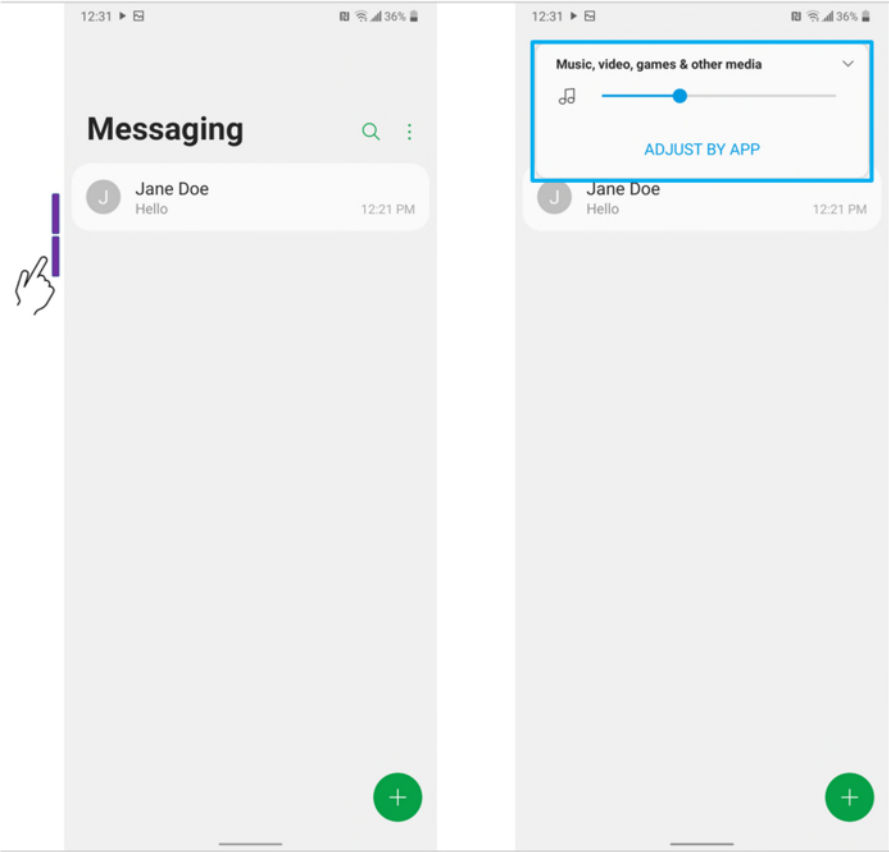
U.S. No. 9,575,631	Evidence of Infringement
	 
[1.e] controlling the multitasking of the second work process and the first work process;	Each of the Accused LGE '631 Products controls the multitasking of the second work process and the first work process. *See, e.g.*, Appendix 1 (showing that each of the devices includes a CPU/chipset). **<u>Example 1</u>**

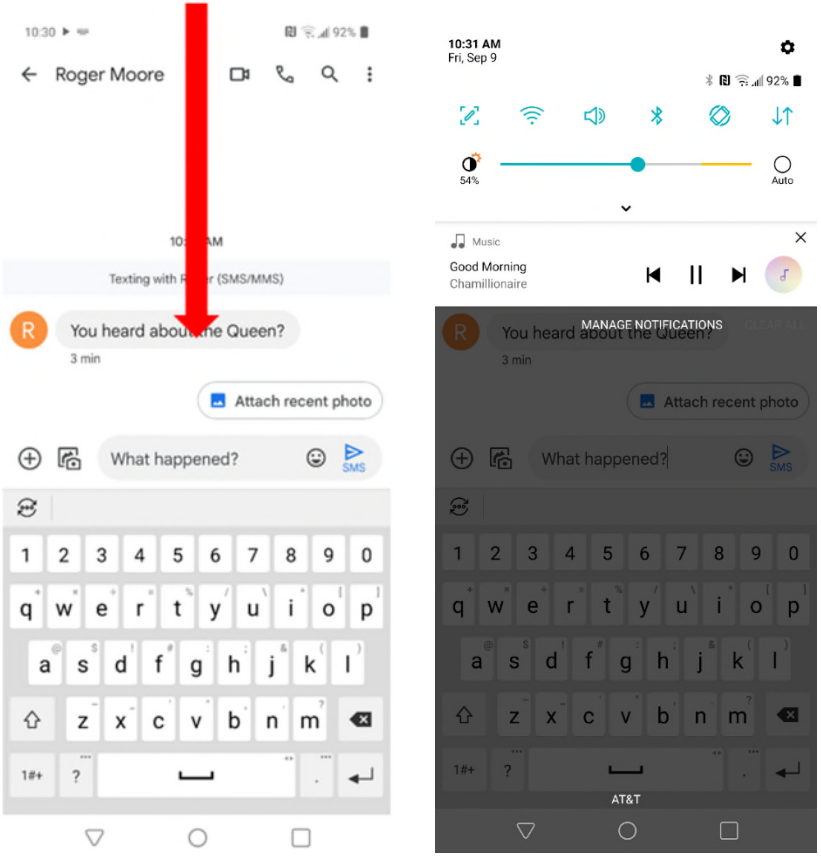
U.S. No. 9,575,631	Evidence of Infringement
	For example, the LG V60 ThinQ 5G controls the multitasking of the second work process (such as typing a message, indicated by the red arrow) and the first work process (such as playing music, indicated by the orange arrow).  **<u>Example 2</u>**

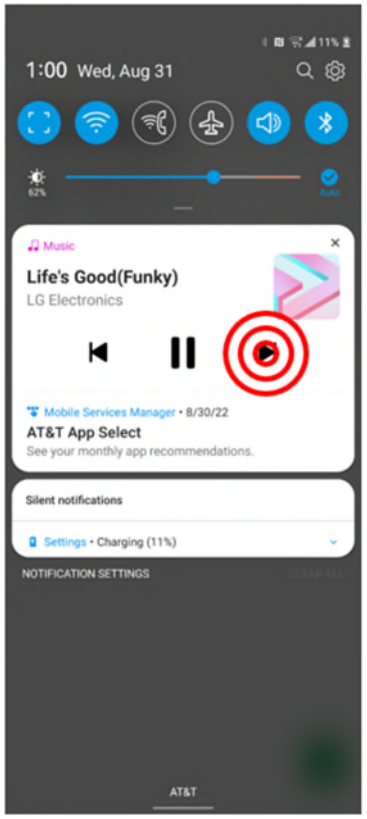
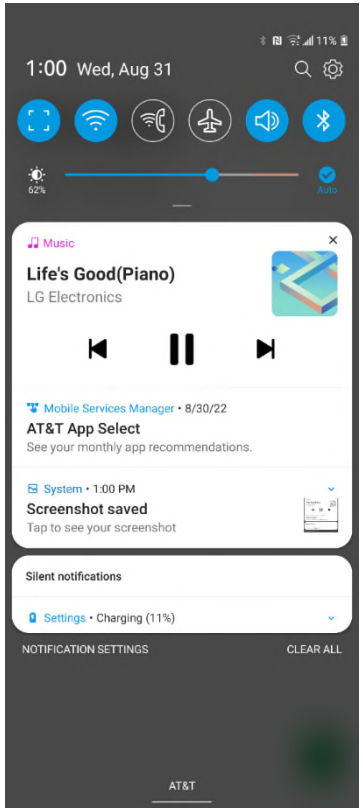
U.S. No. 9,575,631	Evidence of Infringement
	For example, the LG V60 ThinQ 5G controls the multitasking of the second work process (such interacting with messages, annotated in blue) and the first work process (such as playing music, indicated by the music icon, annotated in red).

U.S. No. 9,575,631	Evidence of Infringement
	Example 3 For example, the LG G7 ThinQ controls the multitasking of the second work process (such as typing a message, indicated by the red arrow) and the first work process (such as playing music, indicated by the orange arrow). 

U.S. No. 9,575,631	Evidence of Infringement
[1.f] in response to a third command for activating a control menu for controlling a predetermined function of the first work process, activating the control menu for controlling the predetermined function of the first work process; and	Each of the Accused LGE '631 Products activates the control menu for controlling the predetermined function of the first work process in response to a third command for activating a control menu for controlling a predetermined function of the first work process. *See, e.g.*, Appendix 1 (showing that each of the devices activates includes a CPU/chipset). **<u>Example 1</u>** For example, the LG V60 ThinQ 5G activates the control menu (i.e., notification center) for controlling the predetermined function of the first work process in response to a third command for activating a control menu (i.e., swipe down) for controlling a predetermined function of the first work process.  

U.S. No. 9,575,631	Evidence of Infringement
	<u>Example 2</u> For example, the LG V60 ThinQ 5G activates the control menu (i.e., volume control) for controlling the predetermined function of the first work process in response to a third command for activating a control menu (i.e., pressing a physical "volume up" or "volume down" button) for controlling a predetermined function of the first work process. 

U.S. No. 9,575,631	Evidence of Infringement
	<u>Example 3</u> As another example, the LG G7 ThinQ activates the control menu (i.e., notification center) for controlling the predetermined function of the first work process in response to a third command for activating a control menu (i.e., swipe down) for controlling a predetermined function of the first work process. 
[1.g] in response to a fourth command for controlling the	Each of the Accused LGE '631 Products controls the predetermined function of the first work process through the activated control menu in response to a fourth command for controlling the predetermined

U.S. No. 9,575,631	Evidence of Infringement
predetermined function of the first work process through the activated control menu, controlling the predetermined function of the first work process through the activated control menu.	function of the first work process through the activated control menu. *See, e.g.*, Appendix 1 (showing that each of the devices includes a CPU/chipset). **<u>Example 1</u>** For example, the LG V60 ThinQ 5G controls the predetermined function of the first work process (i.e., skip track) through the activated control menu in response to a fourth command for controlling the predetermined function (i.e., selecting skip track) of the first work process through the activated control menu.   **<u>Example 2</u>**

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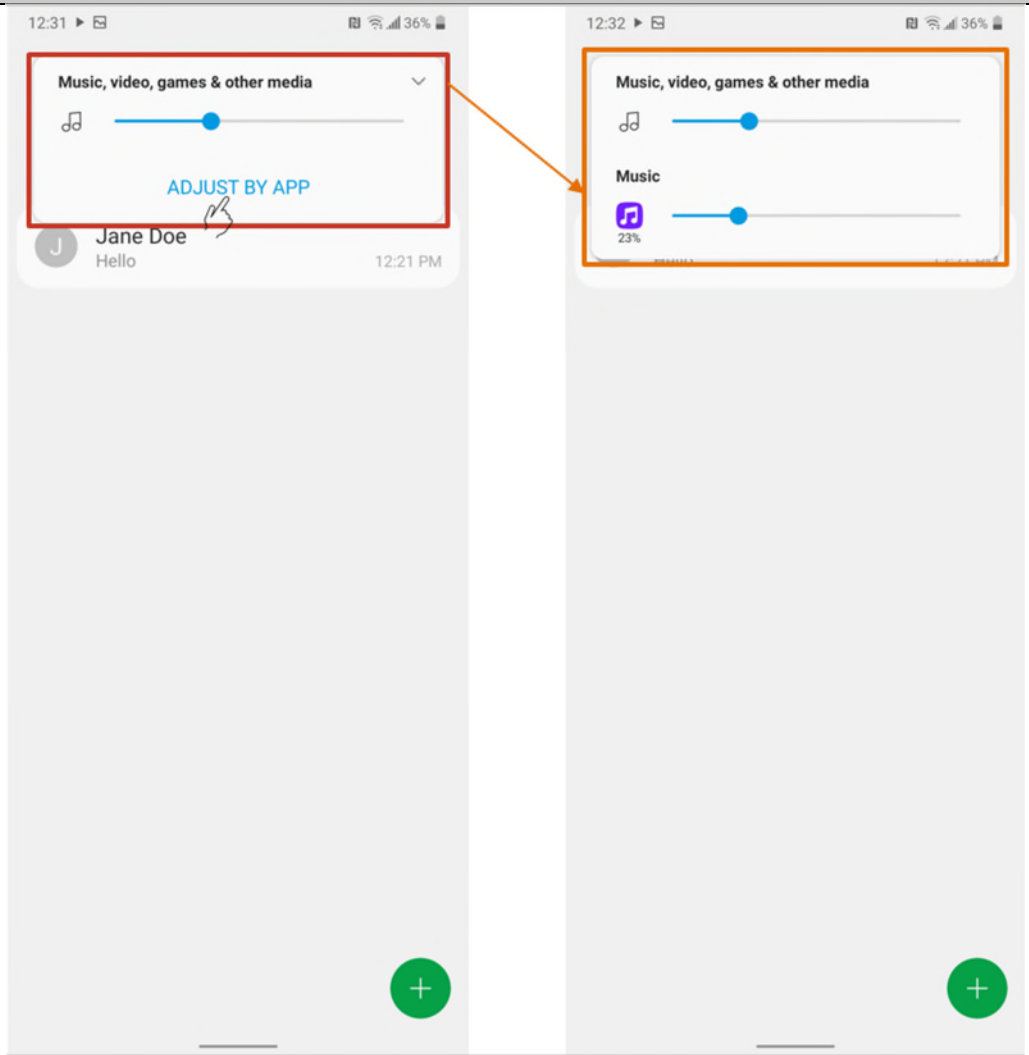
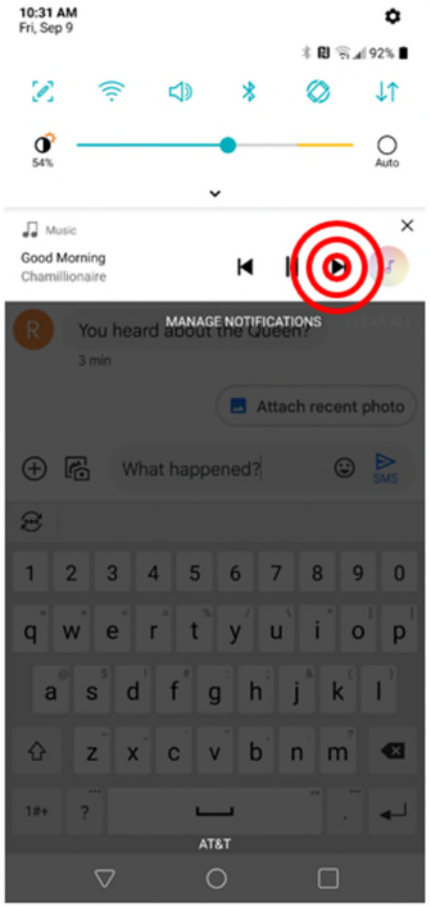
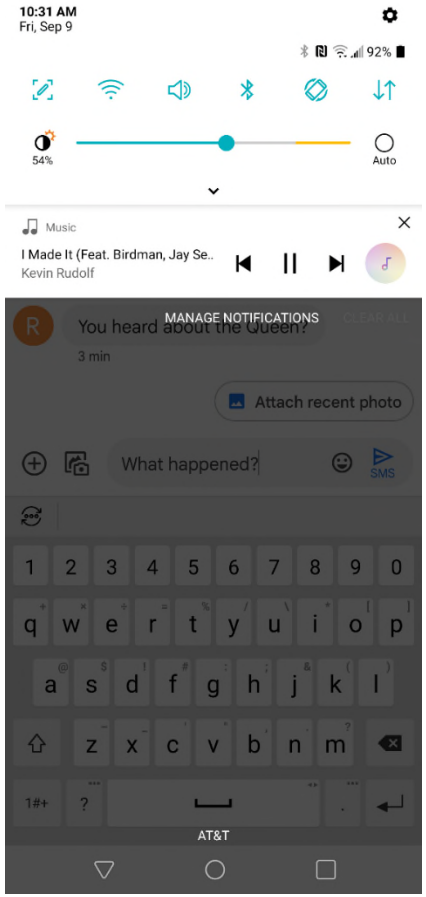
U.S. No. 9,575,631	Evidence of Infringement
	For example, the LG V60 ThinQ 5G controls the predetermined function of the first work process (i.e., manipulating the volume control menu) through the activated control menu in response to a fourth command for controlling the predetermined function (i.e., changing the volume or selecting “adjust by app”) of the first work process through the activated control menu.

U.S. No. 9,575,631	Evidence of Infringement
	 **<u>Example 3</u>** As another example, the LG G7 ThinQ controls the predetermined function of the first work process (i.e., skip track) through the activated control menu in response to a fourth command for controlling the

U.S. No. 9,575,631	Evidence of Infringement
	predetermined function (i.e., selecting skip track) of the first work process through the activated control menu.  

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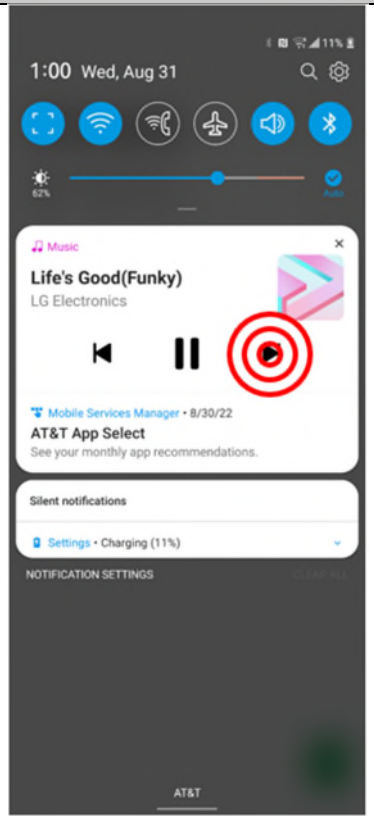
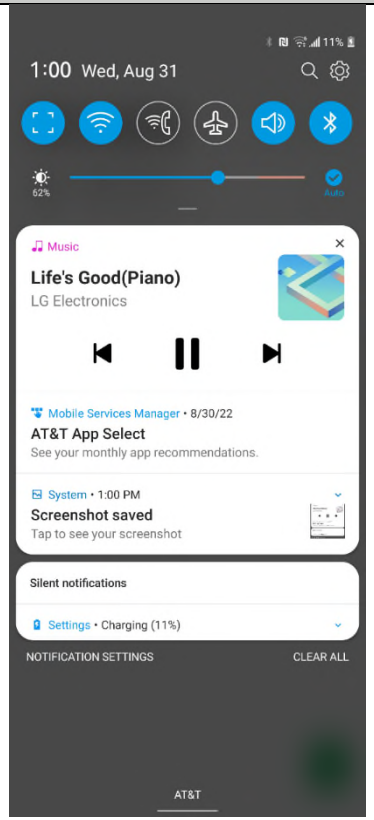
U.S. No. 9,575,631	Evidence of Infringement
[2.pre] The method of claim 1, wherein the controlling the predetermined function of the first work process comprises:	*See* claim [1.g].
[2.a] generating a control signal for controlling the predetermined function of the first work process in response to the fourth command; and	Upon information and belief, each of the Accused LGE '631 Products generates a control signal for controlling the predetermined function of the first work process in response to the fourth command. *See, e.g.*, Appendix 1 (showing that each of the devices includes a CPU/chipset). **<u>Example 1</u>** For example, because the LG V60 ThinQ 5G controls the predetermined function of the first work process (i.e., skip track) through the activated control menu in response to a fourth command for controlling the predetermined function (i.e., selecting skip track) of the first work process through the activated control menu, upon information and belief, the LG V60 ThinQ 5G generates a control signal for controlling the predetermined function of the first work process (i.e., skip track) in response to the fourth command (i.e., selecting skip track).

U.S. No. 9,575,631	Evidence of Infringement
	  **<u>Example 2</u>** For example, because the LG V60 ThinQ 5G controls the predetermined function of the first work process (i.e., manipulate volume) through the activated control menu in response to a fourth command for controlling the predetermined function (i.e., sliding volume button) of the first work process through the activated control menu, upon information and belief, the LG V60 ThinQ 5G generates a control signal for controlling the predetermined function of the first work process (i.e., manipulate volume) in response to the fourth command (i.e., sliding volume button).

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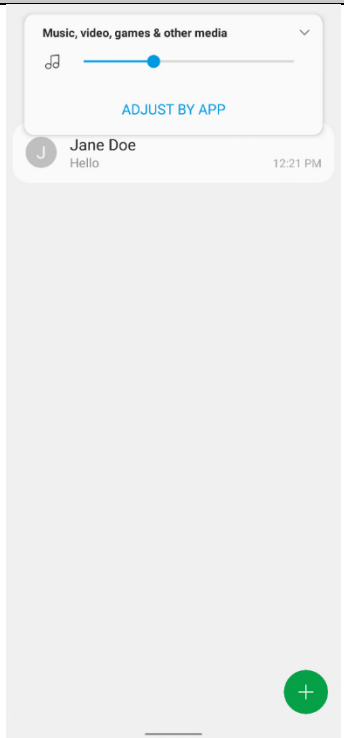
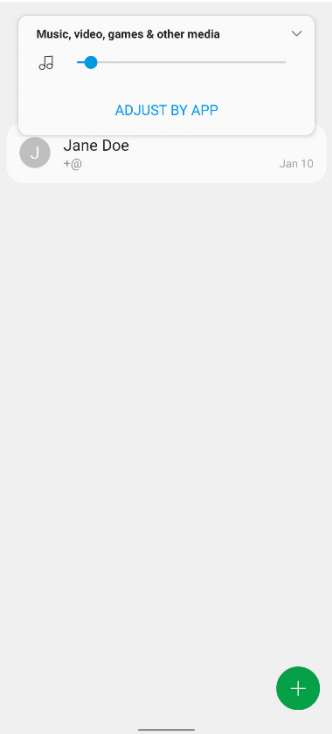
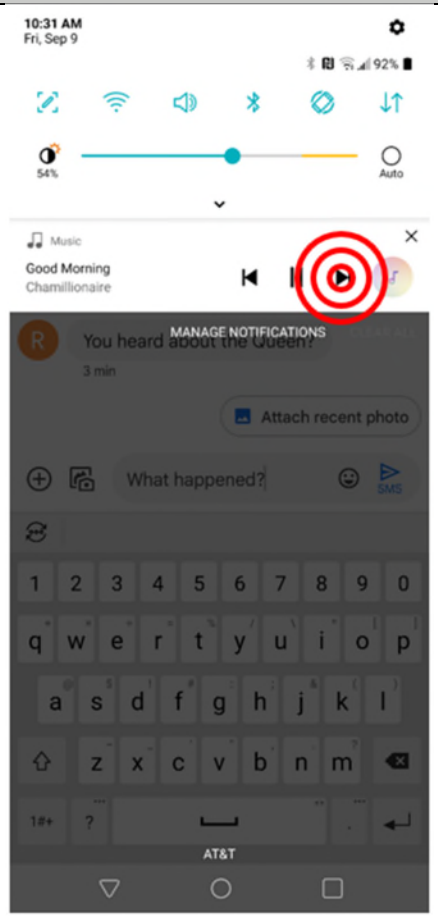
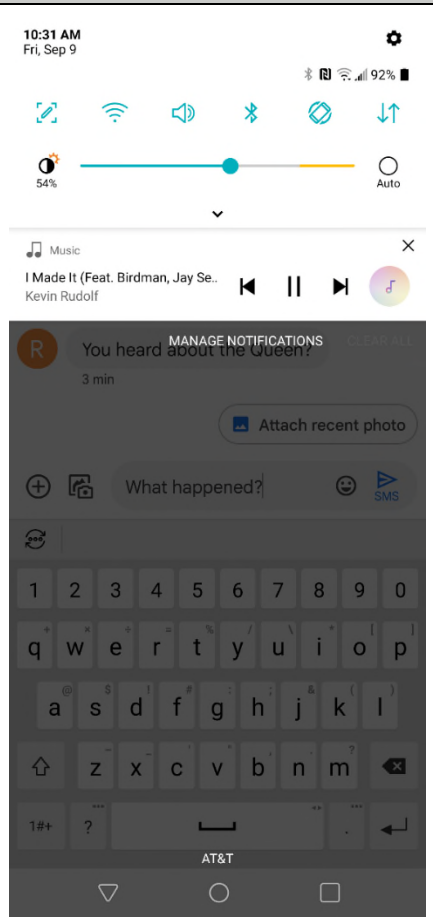
	  **<u>Example 3</u>** For example, because the LG G7 ThinQ controls the predetermined function of the first work process (i.e., skip track) through the activated control menu in response to a fourth command for controlling the predetermined function (i.e., selecting skip track) of the first work process through the activated control menu, upon information and belief, the LG G7 ThinQ generates a control signal for controlling the predetermined function of the first work process (i.e., skip track) in response to the fourth command (i.e., selecting skip track).

APPENDIX 9: PRELIMINARY INFRINGEMENT CONTENTIONS OF U.S. PATENT NO. 9,575,631

U.S. No. 9,575,631	Evidence of Infringement
	 

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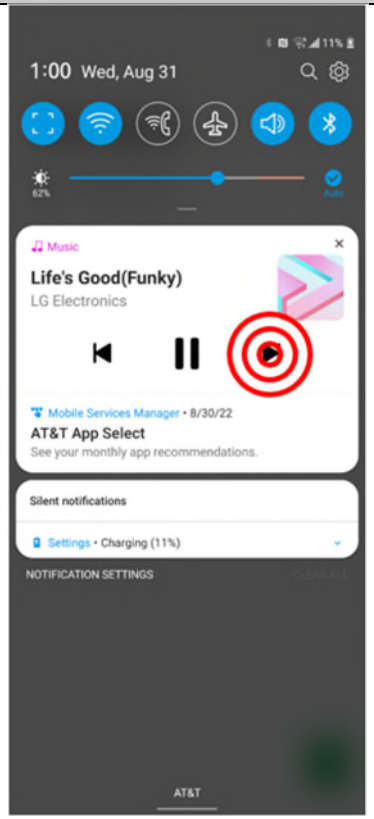
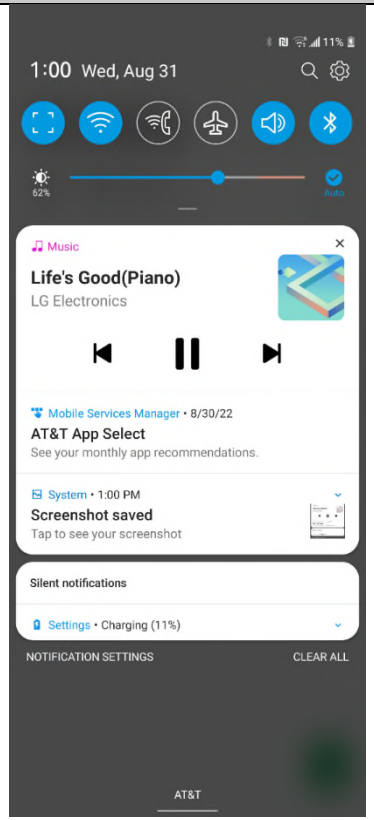
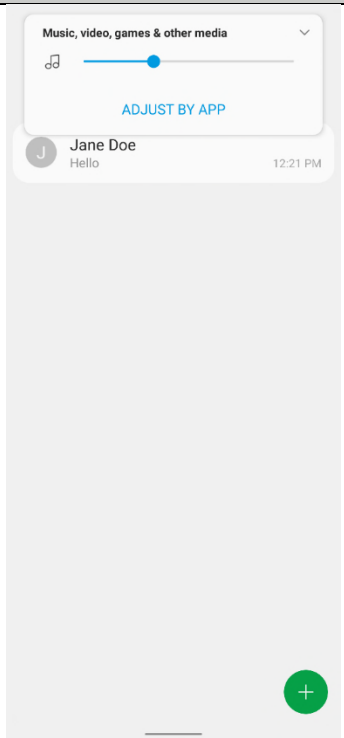
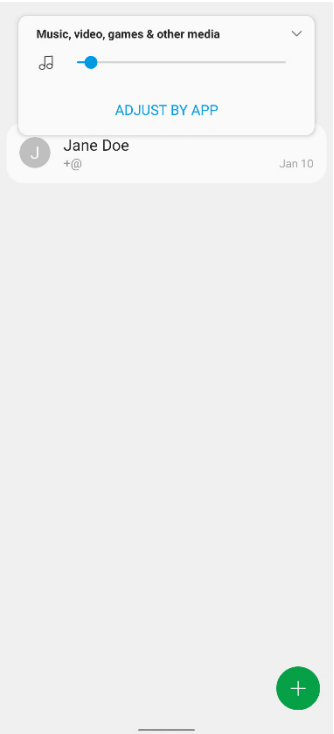
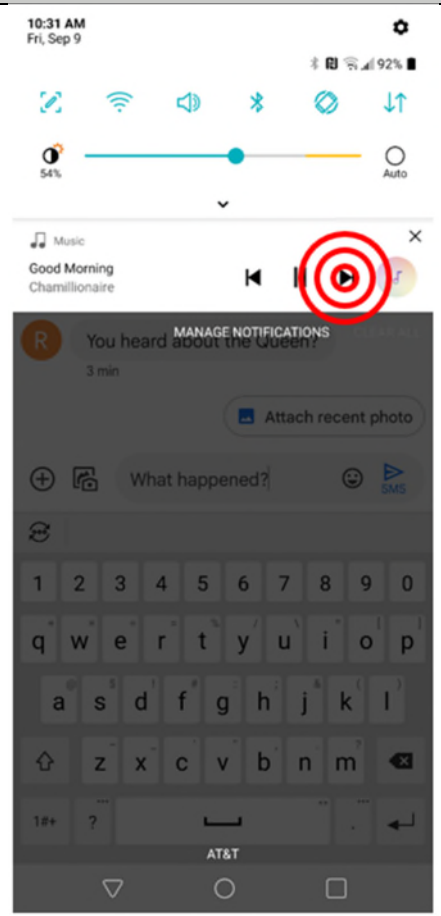
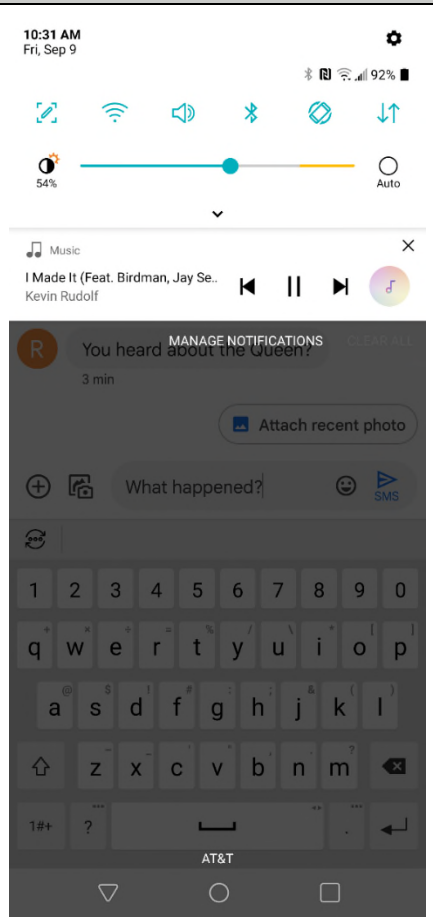
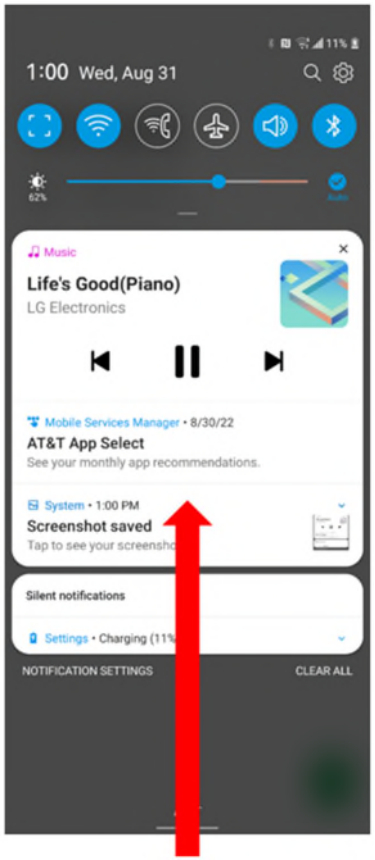
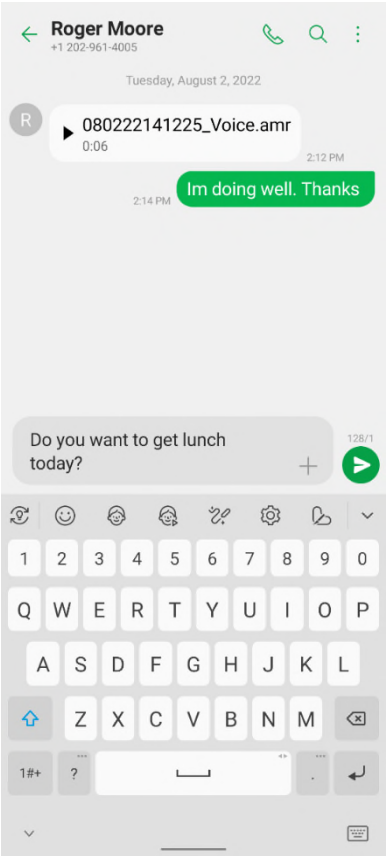
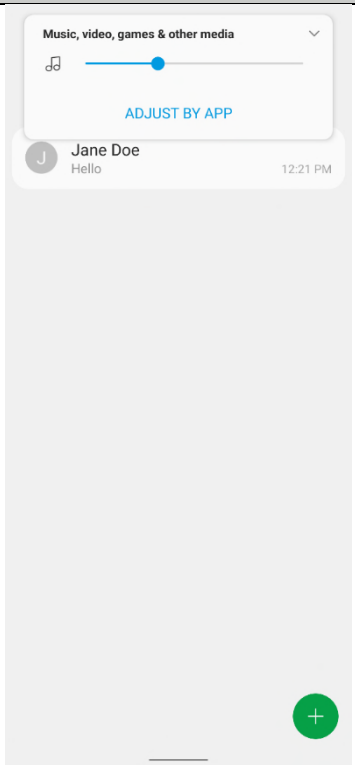
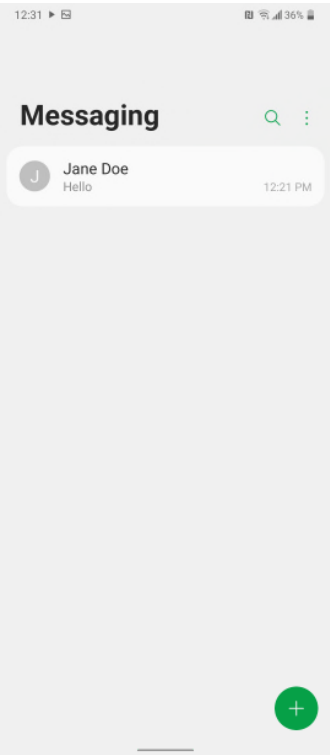
[2.b] controlling the predetermined function of the first work process in response to the generated control signal.	Upon information and belief, each of the Accused LGE '631 Products controls the predetermined function of the first work process in response to the generated control signal. *See, e.g.*, Appendix 1 (showing that each of the devices includes a CPU/chipset). **<u>Example 1</u>** For example, because the LG V60 ThinQ 5G controls the predetermined function of the first work process (i.e., skip track) through the activated control menu in response to a fourth command for controlling the predetermined function (i.e., selecting skip track) of the first work process through the activated control menu, upon information and belief, the LG V60 ThinQ 5G controls the predetermined function of the first work process (i.e., skip track) in response to the generated control signal (i.e., from [2.a]).

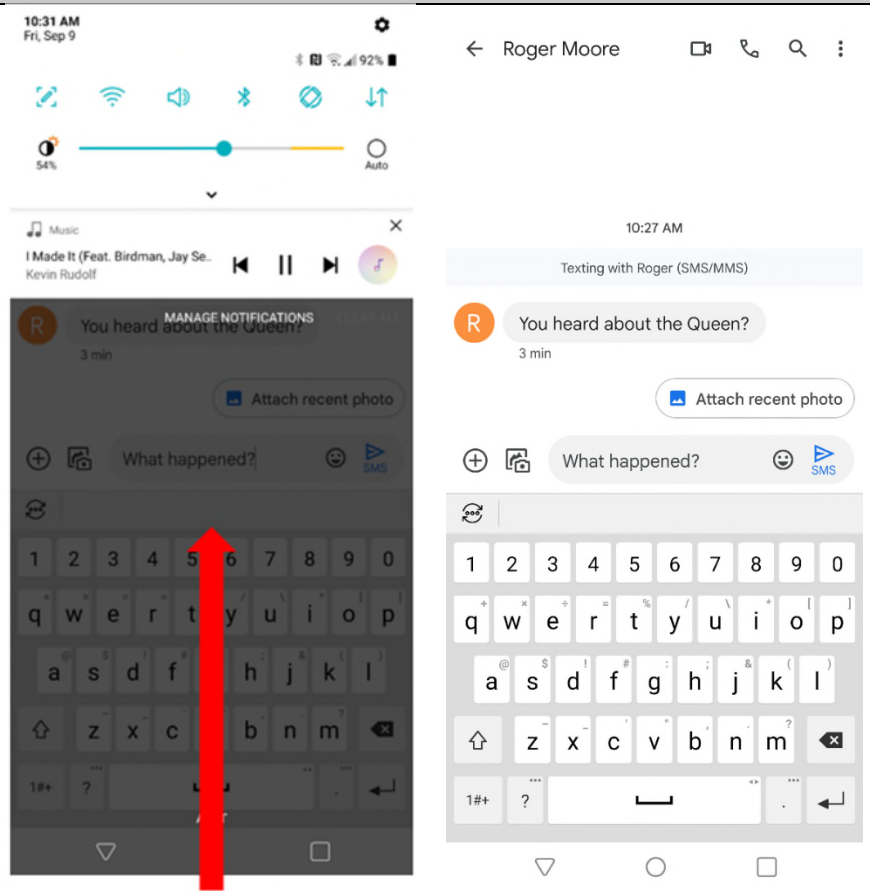
U.S. No. 9,575,631	Evidence of Infringement
	  **<u>Example 2</u>** For example, because the LG V60 ThinQ 5G controls the predetermined function of the first work process (i.e., manipulate volume) through the activated control menu in response to a fourth command for controlling the predetermined function (i.e., sliding volume button) of the first work process through the activated control menu, upon information and belief, the LG V60 ThinQ 5G controls the predetermined function of the first work process (i.e., manipulate volume) in response to the generated control signal (i.e., from [2.a]).

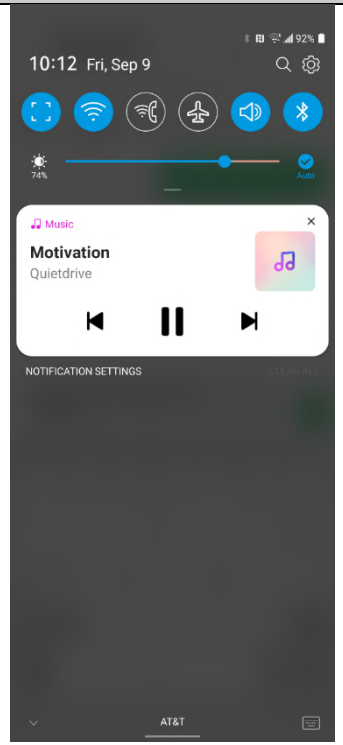
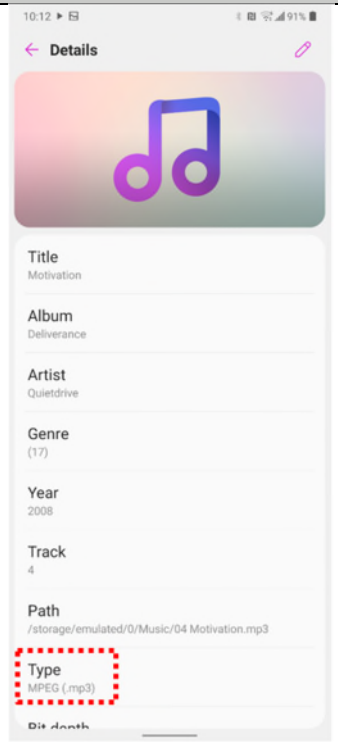
U.S. No. 9,575,631	Evidence of Infringement
	  **<u>Example 3</u>** For example, because the LG G7 ThinQ controls the predetermined function of the first work process (i.e., skip track) through the activated control menu in response to a fourth command for controlling the predetermined function (i.e., selecting skip track) of the first work process through the activated control menu, upon information and belief, the LG G7 ThinQ controls the predetermined function of the first work process (i.e., skip track) in response to the generated control signal (i.e., from [2.a]).

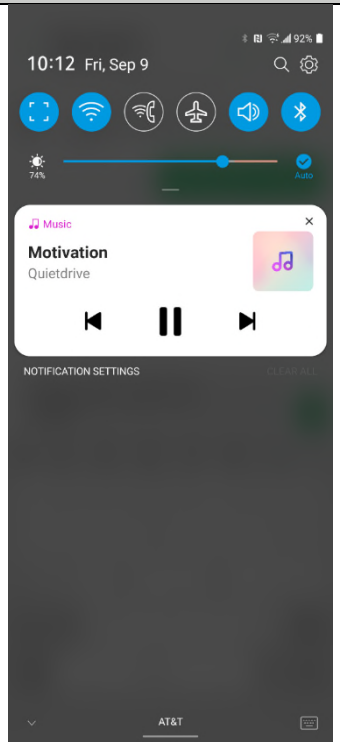
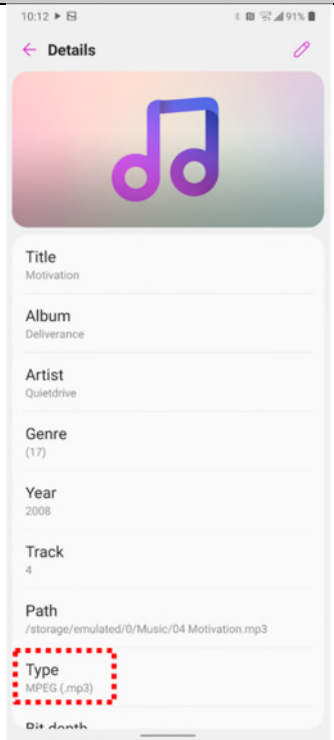
U.S. No. 9,575,631	Evidence of Infringement
	 
3. The method of claim 1, further comprising: in response to a fifth command for deactivating the	Each of the Accused LGE '631 Products deactivates the activated control menu in response to a fifth command for deactivating the activated control menu. *See, e.g.*, Appendix 1 (showing that each of the devices includes a CPU/chipset). **<u>Example 1</u>**

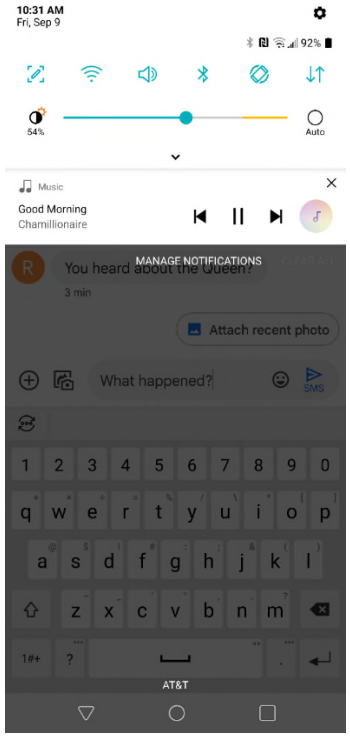
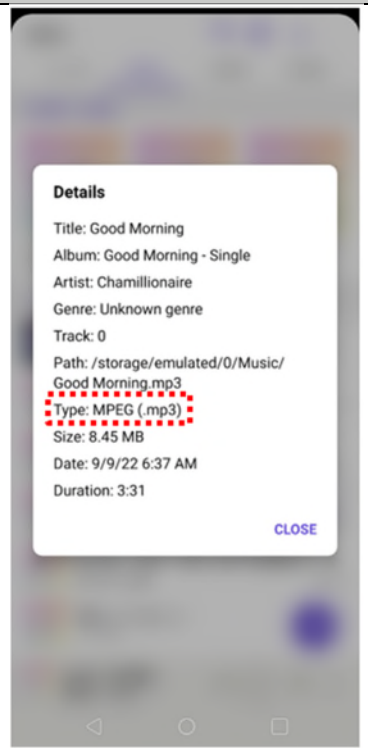
U.S. No. 9,575,631	Evidence of Infringement
activated control menu, deactivating the activated control menu.	For example, the LG V60 ThinQ 5G deactivates the activated control menu in response to a fifth command (i.e., swipe up) for deactivating the activated control menu.   **<u>Example 2</u>** For example, the LG V60 ThinQ 5G deactivates the activated control menu in response to a fifth command (i.e., swipe up) for deactivating the activated control menu.

U.S. No. 9,575,631	Evidence of Infringement
	  **<u>Example 2</u>** As another example, the LG G7 ThinQ deactivates the activated control menu in response to a fifth command (i.e., swipe up) for deactivating the activated control menu.

U.S. No. 9,575,631	Evidence of Infringement
	
4. The method of claim 1, wherein the first work process is an MP3 play process.	Each of the Accused LGE '631 Products performs the method of claim 1, wherein the first work process is an MP3 play process. **<u>Example 1</u>** For example, the LG V60 ThinQ 5G performs the method of claim 1, wherein the first work process is an MP3 play process.

U.S. No. 9,575,631	Evidence of Infringement
	  **<u>Example 2</u>** For example, the LG V60 ThinQ 5G performs the method of claim 1, wherein the first work process is an MP3 play process.

U.S. No. 9,575,631	Evidence of Infringement
	  **<u>Example 3</u>** For example, the LG G7 ThinQ performs the method of claim 1, wherein the first work process is an MP3 play process.

U.S. No. 9,575,631	Evidence of Infringement
	  To the Extent LGE argues that this limitation is not literally met by any of the Accused LGE ’631 Products, Pantech asserts that this limitation is met under the doctrine of equivalents because each of the Accused LGE ’631 Products matches the function, way, and result of the claimed terminal apparatus and, to the extent there is a difference, the difference is insubstantial. For example, the extent that LGE argues that the accused LGE ’631 Products do not perform “an MP3 play process,” on information and belief, each of these products includes software, hardware, or a combination of the two that perform the equivalent function of an MP3 play process because the accused functionality performs music playback.

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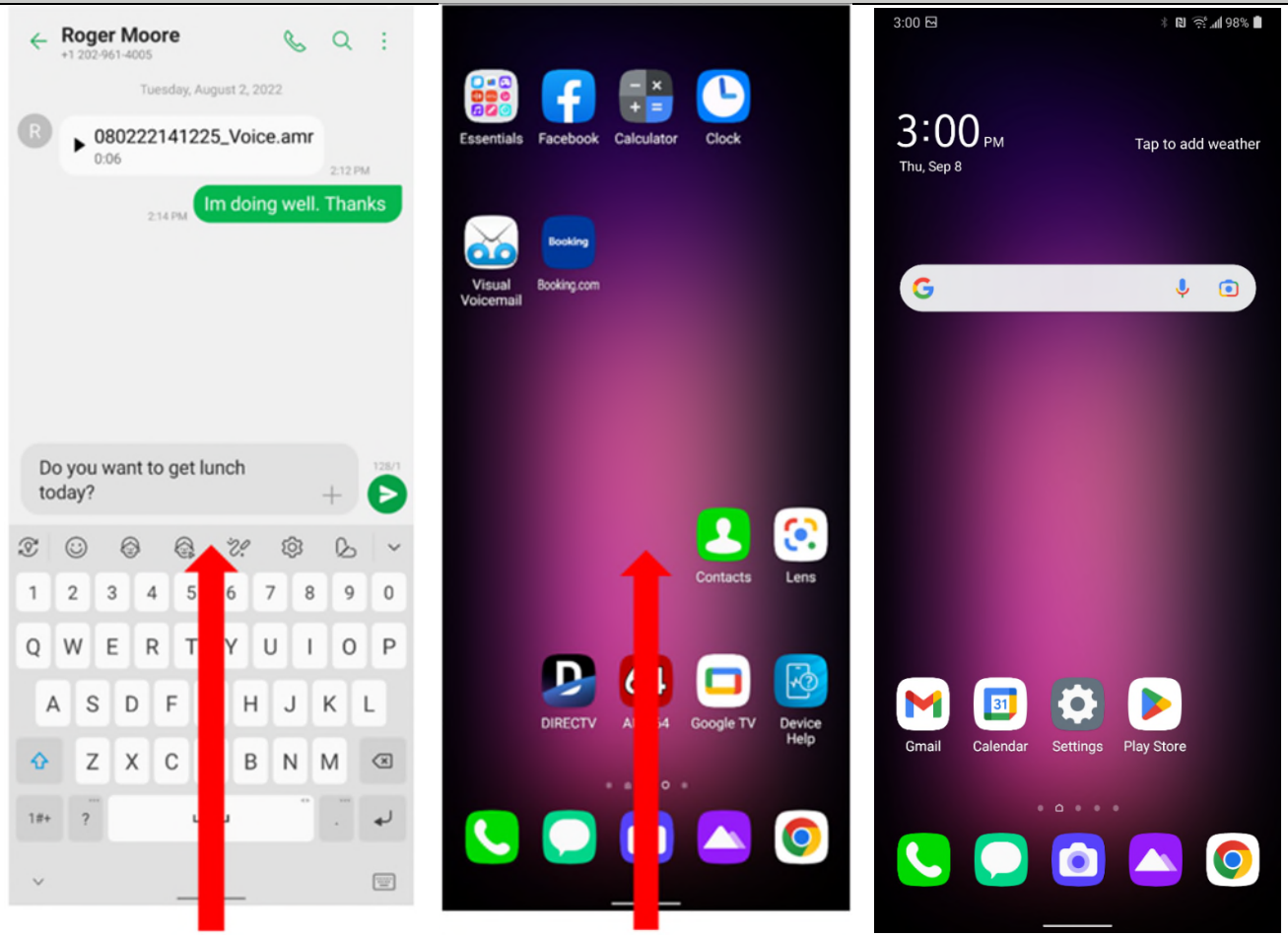
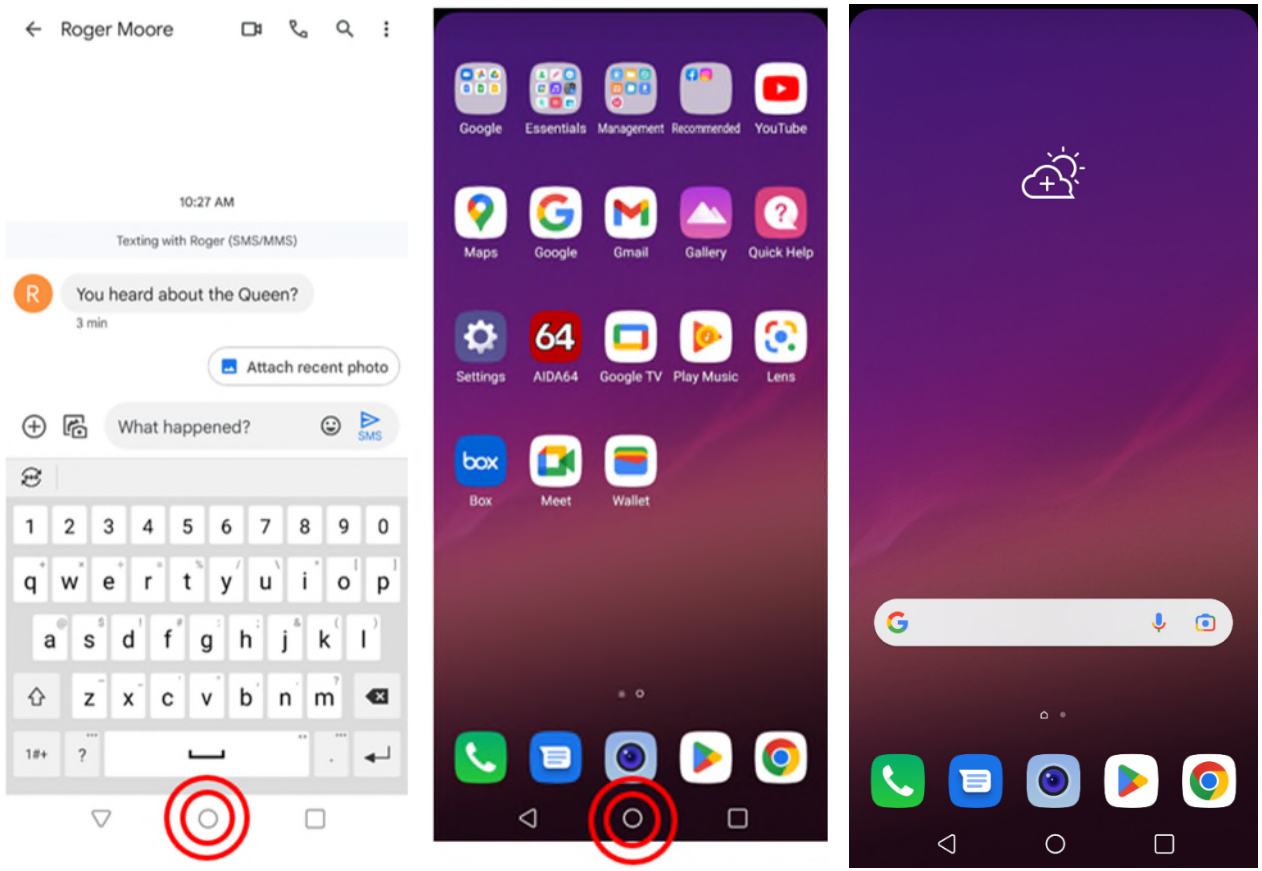
U.S. No. 9,575,631	Evidence of Infringement
8. The method of claim 1, wherein, in response to a repetition of the first command, performing sequential display of icons such that a displayed icon disappears from a screen of the mobile terminal and an icon appears on the screen of the mobile terminal.	Each of the Accused LGE ’631 Products performs the method of claim 1, wherein, in response to a repetition of the first command, performing sequential display of icons such that a displayed icon disappears from a screen of the mobile terminal and an icon appears on the screen of the mobile terminal. *See, e.g.*, Appendix 1 (showing that each of the devices includes a CPU/chipset and a display). **<u>Example 1</u>** For example, the LG V60 ThinQ 5G performs the method of claim 1, wherein, in response to a repetition of the first command (i.e., swipe up), performing sequential display of icons such that a displayed icon disappears from a screen of the mobile terminal and an icon appears on the screen of the mobile terminal.

U.S. No. 9,575,631	Evidence of Infringement
	 **<u>Example 2</u>** As another example, the LG G7 ThinQ performs the method of claim 1, wherein, in response to a repetition of the first command (i.e., press home button), performing sequential display of icons such that a displayed

U.S. No. 9,575,631	Evidence of Infringement
	icon disappears from a screen of the mobile terminal and an icon appears on the screen of the mobile terminal. 

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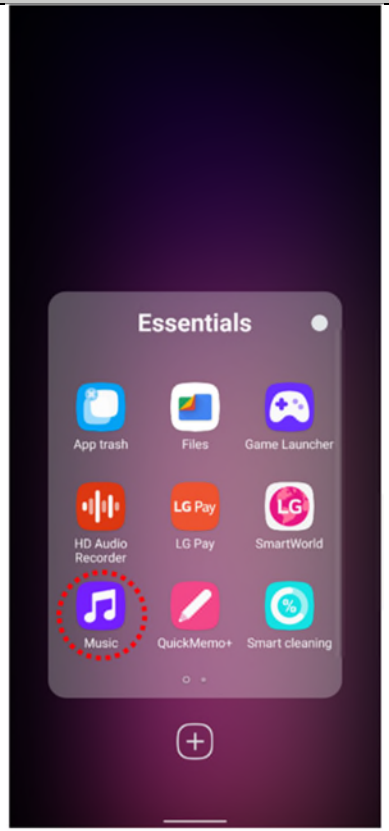
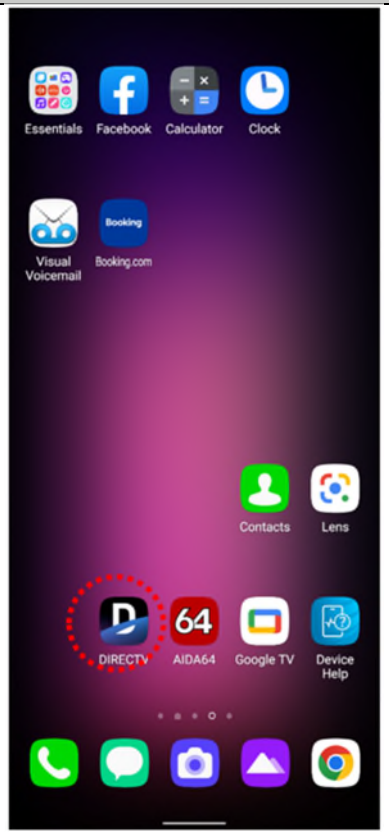
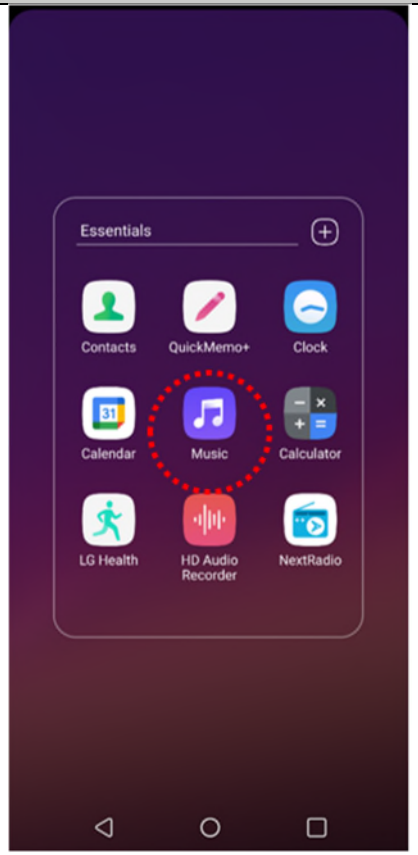
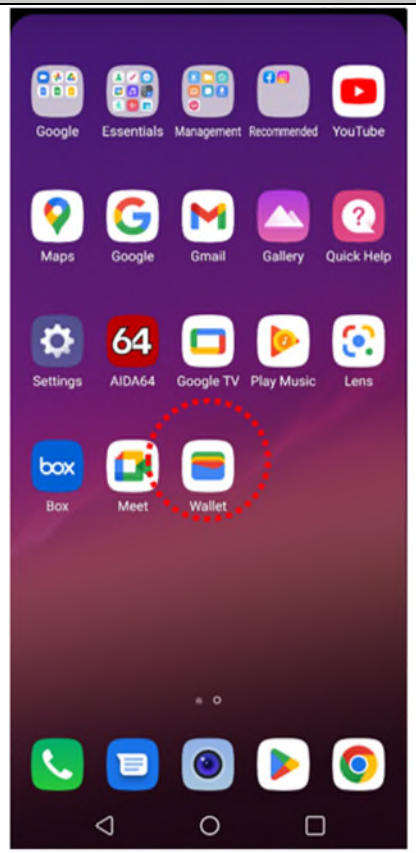
U.S. No. 9,575,631	Evidence of Infringement
9. The method of claim 1, wherein an icon to be displayed in the designated portion is replaced with an icon that is different from the icon corresponding to the second work process in response to the first command.	Each of the Accused LGE ’631 Products performs the method of claim 1, wherein an icon to be displayed in the designated portion is replaced with an icon that is different from the icon corresponding to the second work process in response to the first command. *See, e.g.*, Appendix 1 (showing that each of the devices includes a display). **<u>Example 1</u>** For example, the LG V60 ThinQ 5G performs the method of claim 1, wherein an icon to be displayed in the designated portion (i.e., the portion circled in red) is replaced with an icon that is different from the icon corresponding to the second work process in response to the first command (i.e., swipe up). As shown below, initially the Music icon is displayed in the designated portion. Following the first command (i.e., swipe up), the icon displayed in the designated portion (DirectTV icon) is different than the icon corresponding to the second work process (Messages icon).

U.S. No. 9,575,631	Evidence of Infringement
	  **<u>Example 3</u>** For example, the LG G7 ThinQ 5G performs the method of claim 1, wherein an icon to be displayed in the designated portion (i.e., the portion circled in red) is replaced with an icon that is different from the icon corresponding to the second work process in response to the first command (i.e., press home button). As shown below, initially the Music icon is displayed in the designated portion. Following the first command (i.e., press home button), the icon displayed in the designated portion (Wallet icon) is different than the icon corresponding to the second work process (Messages icon).

APPENDIX 9: PRELIMINARY INFRINGEMENT CONTENTIONS OF U.S. PATENT NO. 9,575,631

U.S. No. 9,575,631	Evidence of Infringement