

**IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS
SHERMAN DIVISION**

AMERICAN PATENTS LLC,

Plaintiff,

v.

LG ELECTRONICS, INC., LG
ELECTRONICS U.S.A., INC., LG
ELECTRONICS MOBILECOMM U.S.A.,
INC., and LG ELECTRONICS
ALABAMA, INC.,

Defendants.

CIVIL ACTION NO. 4:18-cv-673

ORIGINAL COMPLAINT FOR
PATENT INFRINGEMENT

JURY TRIAL DEMANDED

ORIGINAL COMPLAINT FOR PATENT INFRINGEMENT

Plaintiff American Patents LLC (“American Patents” or “Plaintiff”) files this original complaint against LG Electronics, Inc., LG Electronics U.S.A., Inc., LG Electronics MobileComm U.S.A., Inc., and LG Electronics Alabama, Inc. (collectively, “LG”), alleging, based on its own knowledge as to itself and its own actions and based on information and belief as to all other matters, as follows:

PARTIES

1. American Patents is a limited liability company formed under the laws of the State of Texas, with its principal place of business at 2325 Oak Alley, Tyler, Texas, 75703.
2. Defendant LG Electronics, Inc. is a corporation organized under the laws of Korea, with a place of business at LG Twin Towers 20, Yeouido-Dong, Yeongdeungpo-Gu, Seoul, South Korea 150-721. LG does business in Texas, directly or through intermediaries and offers its products and/or services, including those accused herein of infringement, to customers and potential customers located in Texas, including in the Eastern District of Texas.

3. Defendant LG Electronics U.S.A., Inc. is a corporation organized and existing under the laws of the state of Delaware, with a place of business located at 1000 Sylvan Avenue, Englewood Cliffs, New Jersey 07632. LG Electronics U.S.A., Inc. does business in Texas, directly or through intermediaries and offers its products and/or services, including those accused herein of infringement, to customers and potential customers located in Texas, including in the Eastern District of Texas and has a regular and established place of business in this district. LG Electronics U.S.A., Inc. can be served with process through its registered agent, United States Corporation Co., 211 East 7th Street, Suite 620, Austin, Texas 78701.

4. Defendant LG Electronics MobileComm U.S.A., Inc. is a corporation organized and existing under the laws of the state of California with a place of business at 1000 Sylvan Avenue, Englewood Cliffs, New Jersey 07632. LG Electronics MobileComm U.S.A., Inc. does business in Texas, directly or through intermediaries and offers its products and/or services, including those accused herein of infringement, to customers and potential customers located in Texas, including in the Eastern District of Texas and has a regular and established place of business in this district. LG Electronics MobileComm U.S.A., Inc. can be served with process through its registered agent, Corporation Service Company d/b/a CSC-Lawyers Incorporating Service Company, 211 East 7th Street, Suite 620, Austin, Texas 78701.

5. Defendant LG Electronics Alabama, Inc. is a corporation organized and existing under the laws of the state of Alabama with a place of business at 201 James Record Road, Huntsville, Alabama 35824. LG Electronics Alabama, Inc. is authorized to do business in Texas and may be served via its registered agent, CT Corporation System, 1999 Bryan Street, Suite 900, Dallas, Texas 75201. LG Electronics Alabama, Inc. provides customer service for all official LG brand products purchased in the United States.

6. The LG defendants identified above are an interrelated group of companies that together make up one of the world's leading manufacturers and sellers of consumer electronics.

7. The LG defendants named above are part of the same corporate structure and distribution chain for the making, importing, offering to sell, selling, and using of the accused devices in the United States, including in the State of Texas generally and this judicial district in particular.

8. The LG defendants named above share the same management, common ownership, advertising platforms, facilities, distribution chains and platforms, and accused product lines and products involving related technologies.

9. Thus, the LG defendants named above operate as a unitary business venture and are jointly and severally liable for the acts of patent infringement alleged herein.

JURISDICTION AND VENUE

10. This is an action for infringement of United States patents arising under 35 U.S.C. §§ 271, 281, and 284–85, among others. This Court has subject matter jurisdiction of the action under 28 U.S.C. § 1331 and § 1338(a).

11. This Court has personal jurisdiction over LG pursuant to due process and/or the Texas Long Arm Statute because, *inter alia*, (i) LG has done and continues to do business in Texas; (ii) LG has committed and continues to commit acts of patent infringement in the State of Texas, including making, using, offering to sell, and/or selling accused products in Texas, and/or importing accused products into Texas, including by Internet sales and sales via retail and wholesale stores, inducing others to commit acts of patent infringement in Texas, and/or committing a least a portion of any other infringements alleged herein; and (iii) the domestic LG

entities are registered to do business in Texas. In addition, or in the alternative, this Court has personal jurisdiction over the non-resident LG defendants pursuant to Fed. R. Civ. P. 4(k)(2).

12. Venue is proper in this district pursuant to 28 U.S.C. § 1400(b). LG Electronics, Inc. is a foreign corporation and may be sued in this judicial district. Venue is further proper because the domestic LG entities have committed and continue to commit acts of patent infringement in this district, including making, using, offering to sell, and/or selling accused products in this district, and/or importing accused products into this district, including by Internet sales and sales via retail and wholesale stores, inducing others to commit acts of patent infringement in Texas, and/or committing at least a portion of any other infringements alleged herein in this district. They have regular and established places of business in this district, including at least at 14901 Beach St, Fort Worth, TX 76177 and 2155 Eagle Pkwy, Fort Worth, TX 76177.

BACKGROUND

13. The patents-in-suit generally pertain to communications networks and other technology used in “smart” devices such as smartphones. The technology disclosed by the patents was developed by personnel at AT&T Mobility and International Game Technology.

14. AT&T Mobility is the second largest provider of wireless services in the United States. AT&T Mobility and its parent company, AT&T Inc. have a rich history of invention and innovation. These companies can trace their roots back to the invention of the first telephone by Alexander Graham Bell in the 1870’s. Since the time of Alexander Bell, AT&T (or Ma Bell as it was once called) has been a leader in the field of communications. In the 1890’s AT&T built the first long distance telephone network in the United States. AT&T was instrumental throughout the 1900’s in developing and innovating telephone networks. In the early 1980’s, an AT&T

company created the first cellular network in the United States. In the 1990s and 2000s, AT&T was at the forefront of the wireless revolution. In 2007 as part of a partnership with Apple, AT&T exclusively sold the original iPhone to its customers.

15. International Game Technology (“IGT”) is a multinational company with approximately 12,000 employees worldwide. IGT focuses on gaming products such as slot machines, lottery games, digital games, and virtual gaming. IGT is a multibillion-dollar company and does most of its research and development in the United States.

COUNT I

DIRECT INFRINGEMENT OF U.S. PATENT NO. 7,373,655

16. On May 13, 2008, United States Patent No. 7,373,655 (“the ‘655 Patent”) was duly and legally issued by the United States Patent and Trademark Office for an invention entitled “System For Securing Inbound And Outbound Data Packet Flow In A Computer Network.”

17. American Patents is the owner of the ‘655 Patent, with all substantive rights in and to that patent, including the sole and exclusive right to prosecute this action and enforce the ‘655 Patent against infringers, and to collect damages for all relevant times.

18. LG made, had made, used, imported, provided, supplied, distributed, sold, and/or offered for sale products and/or systems that allow for initiation and/or control of Internet streamed content including, for example its G series of products (“accused products”):



(Source: <https://www.lg.com/us/mobile-phones/g7-thinq>)

19. By doing so, LG has directly infringed (literally and/or under the doctrine of equivalents) at least Claim 5 of the '655 Patent. LG's infringement in this regard is ongoing.

20. LG has infringed the '655 Patent by making, having made, using, importing, providing, supplying, distributing, selling or offering for sale systems utilizing a method.

21. The methods practiced by the accused products include arranging a network element in a network, the network element being pre-authorized to access a set of network resources.

22. The methods practiced by the accused products include receiving, at the network element, a request from a user to connect to the network element.

4. Open the Google Home app by tapping the app icon on your Android device.
5. Tap **Get Started** or find the device card > **Set up**.
6. **Confirm Google Account:** Choose which Google Account that you want to link to Chromecast. You can also add a different account if you don't see the listed account that you want to use. Tap **OK**.
7. **Permissions:**
 - a. **Location services** – If you don't have Location services on, tap **Go to settings** > find the Google Home app > turn on Location services > go back to the Google Home app.
 - b. **Location access** – Location access is needed to find nearby devices that need to be set up Tap **OK**.
8. **Scanning for Chromecast devices:** The Google Home app scans for nearby devices that are plugged in and ready to set up.
 - a. If you only have one device that needs to be set up, tap **Next**.
 - b. If the Google Home app finds a list of devices, tap the device that you want to set up > **Next**.
9. **Found devices:**
 - a. If one device is found, tap **Next**.
 - b. If multiple devices are found, choose the device that you want to set up > **Next**.
 - c. If you don't see your device, tap **Don't see your device**.
10. **Connecting to your new device:** The app will now connect your phone to your new Chromecast so that you can configure it.
11. **Making a connection:** We'll display a code on your TV to make sure that you're setting up the right device.
 - a. If you see a code on your TV, tap **Yes**.
 - b. If you didn't see a code, move closer to the Chromecast device and tap **Try again** > **Scan for devices**.

(Source:

<https://support.google.com/chromecast/answer/2998456?co=GENIE.Platform%3DAndroid&oco=1>)

23. The methods practiced by the accused products include determining whether the user is authorized to connect to the network element and, if so, allowing the user to assume the identity of the network element.

(Source: <https://store.google.com/product/chromecast> 2015)

24. The methods practiced by the accused products include accessing, by the user, one of the set of network resources that the network element is pre-authorized to access, based on the user's assuming the identity of the network element.

25. LG has had knowledge of the '655 Patent at least as of the date when it was notified of the filing of this action.

26. American Patents has been damaged as a result of the infringing conduct by LG alleged above. Thus, LG is liable to American Patents in an amount that adequately compensates it for such infringements, which, by law, cannot be less than a reasonable royalty, together with interest and costs as fixed by this Court under 35 U.S.C. § 284.

27. American Patents and/or its predecessors-in-interest have satisfied all statutory obligations required to collect pre-filing damages for the full period allowed by law for infringement of the '655 Patent.

COUNT II

DIRECT INFRINGEMENT OF U.S. PATENT NO. 7,934,090

28. On April 26, 2011, United States Patent No. 7,934,090 (“the ‘090 Patent”) was duly and legally issued by the United States Patent and Trademark Office for an invention entitled “System For Securing Inbound And Outbound Data Packet Flow In A Computer Network.”

29. American Patents is the owner of the ‘090 Patent, with all substantive rights in and to that patent, including the sole and exclusive right to prosecute this action and enforce the ‘090 Patent against infringers, and to collect damages for all relevant times.

30. LG made, had made, used, imported, provided, supplied, distributed, sold, and/or offered for sale products and/or systems that allow for initiation and/or control of Internet streamed content including, for example its G series of products (“accused products”):



(Source: <https://www.lg.com/us/mobile-phones/g7-thinq>)

31. By doing so, LG has directly infringed (literally and/or under the doctrine of equivalents) at least Claim 1 of the '090 Patent. LG's infringement in this regard is ongoing.

32. LG has infringed the '090 Patent by making, having made, using, importing, providing, supplying, distributing, selling or offering for sale systems utilizing a method for providing access to a network resource.

33. The methods practiced by the accused products include receiving, at a network node that is pre-authorized to access the network resource, a request to allow a first user to assume an identity of the network node, the network node that is pre-authorized having a plurality of access privileges associated therewith.

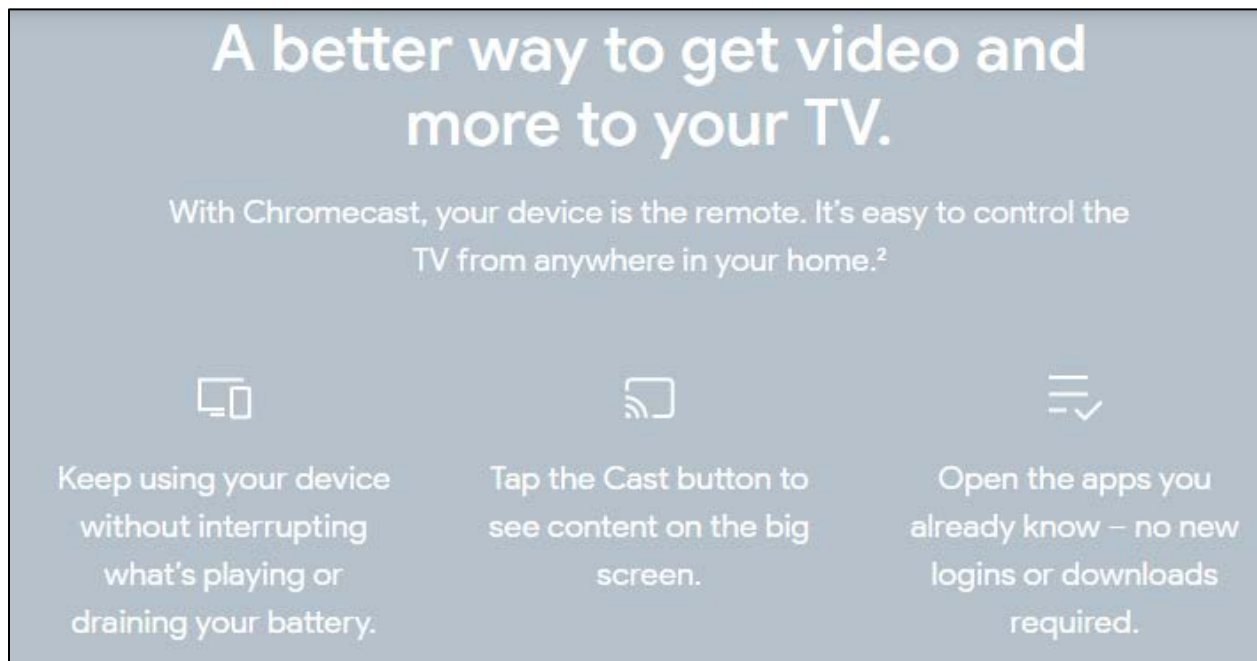
4. Open the Google Home app by tapping the app icon on your Android device.
5. Tap **Get Started** or find the device card > **Set up**.
6. **Confirm Google Account:** Choose which Google Account that you want to link to Chromecast. You can also add a different account if you don't see the listed account that you want to use. Tap **OK**.
7. **Permissions:**
 - a. **Location services** – If you don't have Location services on, tap **Go to settings** > find the Google Home app > turn on Location services > go back to the Google Home app.
 - b. **Location access** – Location access is needed to find nearby devices that need to be set up Tap **OK**.
8. **Scanning for Chromecast devices:** The Google Home app scans for nearby devices that are plugged in and ready to set up.
 - a. If you only have one device that needs to be set up, tap **Next**.
 - b. If the Google Home app finds a list of devices, tap the device that you want to set up > **Next**.
9. **Found devices:**
 - a. If one device is found, tap **Next**.
 - b. If multiple devices are found, choose the device that you want to set up > **Next**.
 - c. If you don't see your device, tap **Don't see your device**.
10. **Connecting to your new device:** The app will now connect your phone to your new Chromecast so that you can configure it.
11. **Making a connection:** We'll display a code on your TV to make sure that you're setting up the right device.
 - a. If you see a code on your TV, tap **Yes**.
 - b. If you didn't see a code, move closer to the Chromecast device and tap **Try again** > **Scan for devices**.

(Source:

<https://support.google.com/chromecast/answer/2998456?co=GENIE.Platform%3DAndroid&oco>

=1)

34. The methods practiced by the accused products include allowing the first user to assume the identity of the network node that is pre-authorized, such that the first user appears to the network resource to be the network node that is pre-authorized, after verifying that the first user is authorized.



(Source: <https://store.google.com/product/chromecast> 2015)

35. The methods practiced by the accused products include, based on the first user assuming the identity of the network node that is pre-authorized, allowing the first user to access the network resource using the plurality of access privileges associated with the network node that is pre-authorized.

36. LG has had knowledge of the '090 Patent at least as of the date when it was notified of the filing of this action.

37. American Patents has been damaged as a result of the infringing conduct by LG alleged above. Thus, LG is liable to American Patents in an amount that adequately

compensates it for such infringements, which, by law, cannot be less than a reasonable royalty, together with interest and costs as fixed by this Court under 35 U.S.C. § 284.

38. American Patents and/or its predecessors-in-interest have satisfied all statutory obligations required to collect pre-filing damages for the full period allowed by law for infringement of the '090 Patent.

COUNT III

DIRECT INFRINGEMENT OF U.S. PATENT NO. 8,668,584

39. On March 11, 2014, United States Patent No. 8,668,584 (“the ‘584 Patent”) was duly and legally issued by the United States Patent and Trademark Office for an invention entitled “Virtual Input System.”

40. American Patents is the owner of the ‘584 Patent, with all substantive rights in and to that patent, including the sole and exclusive right to prosecute this action and enforce the ‘584 Patent against infringers, and to collect damages for all relevant times.

41. LG made, had made, used, imported, provided, supplied, distributed, sold, and/or offered for sale products and/or systems that allow for advanced virtual input including, for example its G series of products (“accused products”):



(Source: <https://www.lg.com/us/mobile-phones/g7-thinq>)

42. By doing so, LG has directly infringed (literally and/or under the doctrine of equivalents) at least Claim 1 of the '584 Patent. LG's infringement in this regard is ongoing.

43. LG has infringed the '584 Patent by making, having made, using, importing, providing, supplying, distributing, selling or offering for sale systems having a device.

44. The accused products include a position sensing device for determining a location of a user input actuator at a virtual input location.

- Proximity/Ambient light sensor
 - Proximity sensor: During a call, the proximity sensor turns off the screen and disables touch functionality when the device is in close proximity to the human body. It turns the screen back on and enables touch functionality when the device is outside a specific range.
 - Ambient light sensor: The ambient light sensor analyzes the ambient light intensity when the auto-brightness control mode is turned on.
- Laser detection auto-focus
 - Detect the distance from the camera to your subject for automatic focusing.
 - Quickly focus on closer or farther objects when you use the rear camera to take photos.

(Source: screenshot from PDF user manual downloaded from <https://www.lg.com/us/support-mobile/lg-LGG710PM>)

45. The accused products include a motion sensing device including an electromagnetic transceiver module for detecting motion at the virtual input location.

Selfie shot

You can use the front camera to view your face on the screen and take selfies.

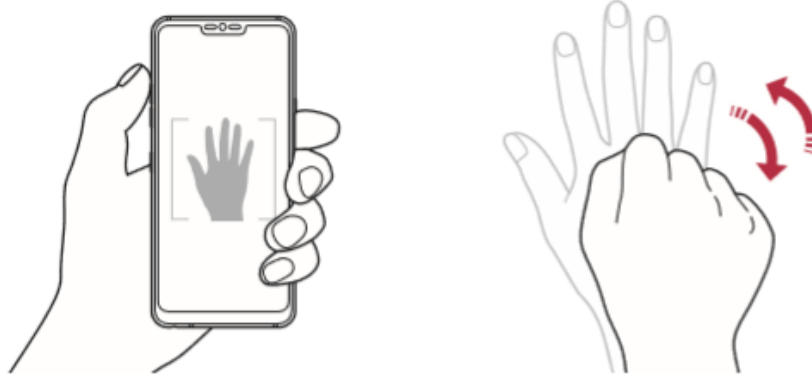
Gesture shot


You can take selfies by using gestures.

Show your palm to the front camera and then clench your fist.

You can also clench your fist and then open it towards the front camera.

- In three seconds, a photo is taken.

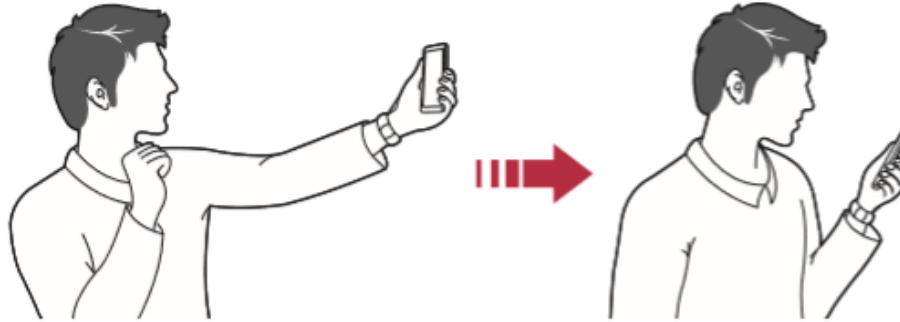



- To use this feature, switch to the front camera mode, then tap  > **Selfie shot > Gesture shot**.
- Make sure that your palm and fist are within the reference line so that the camera can detect them.
- This feature may not be available while using some of the camera features.

(Source: screenshot from PDF user manual downloaded from <https://www.lg.com/us/support-mobile/lg-LGG710PM>)

Gesture view

After taking a selfie with the front camera, you can preview the selfie immediately by placing the screen close to your face.



- Tap  > **Gesture view** to enable the Gesture view feature.
- Only one preview is available each time a photo is taken.
- If you rotate the device while in preview screen, the screen switches to camera mode.

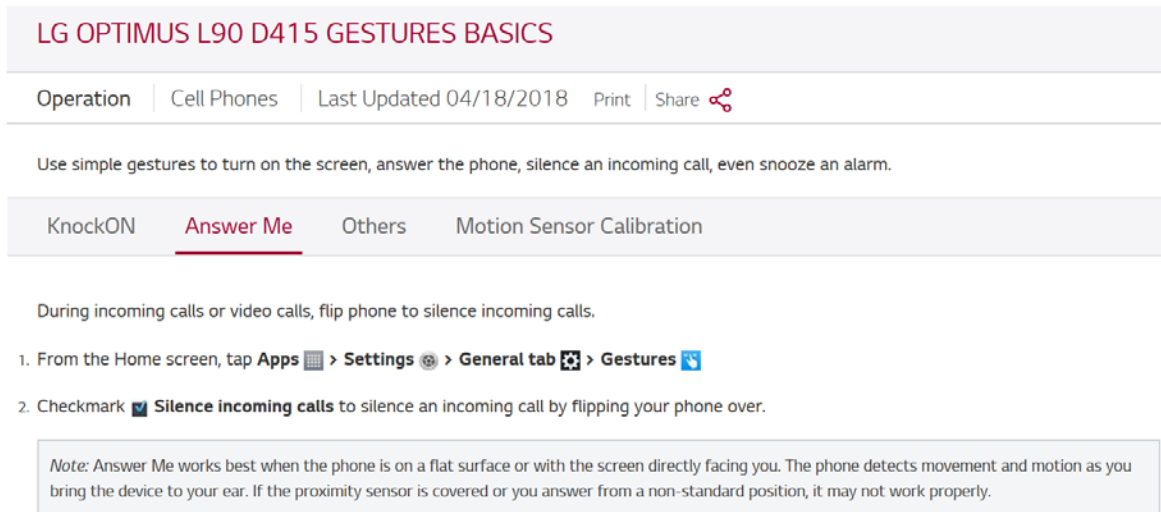
(Source: screenshot from PDF user manual downloaded from <https://www.lg.com/us/support-mobile/lg-LGG710PM>)

46. The accused products include a controller coupled to the position sensing device and the motion sensing device, the controller determining whether a portion of the user input actuator is within the virtual input location in space defining the virtual input.

• **FRONT CAMERAS**

- 8 MP Lens f/1.9
- Wide-angle field of view: 80°
- Resolution: up to 1920 x 1080 pixels (default)
- Full HD Video Recording
- Auto Shot - take a selfie with automatic face detection
- Gesture Shot - take a selfie with a simple hand gesture
- Gesture Interval Shot - take four selfies in sequence by making a fist twice
- Gesture View - transitions between camera mode and preview mode automatically
- Selfie Light - screen illuminates around the photo preview for well-lit selfies

(Source: <https://www.lg.com/us/mobile-phones/g7-thinq/specs>)



The screenshot shows the 'LG OPTIMUS L90 D415 GESTURES BASICS' page. It includes a navigation bar with 'Operation', 'Cell Phones', 'Last Updated 04/18/2018', 'Print', and 'Share'. The main content area has a sub-header 'Answer Me' and a description: 'Use simple gestures to turn on the screen, answer the phone, silence an incoming call, even snooze an alarm.' Below this is a list of gesture categories: 'KnockON', 'Answer Me', 'Others', and 'Motion Sensor Calibration'. A detailed instruction for 'Answer Me' is provided: 'During incoming calls or video calls, flip phone to silence incoming calls.' The steps are: 1. From the Home screen, tap Apps > Settings > General tab > Gestures. 2. Checkmark 'Silence incoming calls' to silence an incoming call by flipping your phone over. A note at the bottom states: 'Note: Answer Me works best when the phone is on a flat surface or with the screen directly facing you. The phone detects movement and motion as you bring the device to your ear. If the proximity sensor is covered or you answer from a non-standard position, it may not work properly.'

(Source: <https://www.lg.com/us/support/product-help/CT10000027-1396394190468-features#>)

47. LG has had knowledge of the ‘584 Patent at least as of the date when it was notified of the filing of this action.

48. American Patents has been damaged as a result of the infringing conduct by LG alleged above. Thus, LG is liable to American Patents in an amount that adequately

compensates it for such infringements, which, by law, cannot be less than a reasonable royalty, together with interest and costs as fixed by this Court under 35 U.S.C. § 284.

49. American Patents and/or its predecessors-in-interest have satisfied all statutory obligations required to collect pre-filing damages for the full period allowed by law for infringement of the '584 Patent.

COUNT IV

DIRECT INFRINGEMENT OF U.S. PATENT NO. 9,116,543

50. On August 25, 2015, United States Patent No. 9,116,543 (“the ‘543 Patent”) was duly and legally issued by the United States Patent and Trademark Office for an invention entitled “Virtual Input System.”

51. American Patents is the owner of the ‘543 Patent, with all substantive rights in and to that patent, including the sole and exclusive right to prosecute this action and enforce the ‘543 Patent against infringers, and to collect damages for all relevant times.

52. LG made, had made, used, imported, provided, supplied, distributed, sold, and/or offered for sale products and/or systems that allow for advanced virtual input including, for example its G series of products (“accused products”):



(Source: <https://www.lg.com/us/mobile-phones/g7-thinq>)

53. By doing so, LG has directly infringed (literally and/or under the doctrine of equivalents) at least Claim 1 of the '543 Patent. LG's infringement in this regard is ongoing.

54. LG has infringed the '543 Patent by making, having made, using, importing, providing, supplying, distributing, selling or offering for sale systems having a device.

55. The accused products include an electromagnetic sensor module configured to determine a location of a user input at a virtual input location:

- Proximity/Ambient light sensor
 - Proximity sensor: During a call, the proximity sensor turns off the screen and disables touch functionality when the device is in close proximity to the human body. It turns the screen back on and enables touch functionality when the device is outside a specific range.
 - Ambient light sensor: The ambient light sensor analyzes the ambient light intensity when the auto-brightness control mode is turned on.
- Laser detection auto-focus
 - Detect the distance from the camera to your subject for automatic focusing.
 - Quickly focus on closer or farther objects when you use the rear camera to take photos.

(Source: screenshot from PDF user manual downloaded from <https://www.lg.com/us/support-mobile/lg-LGG710PM>)

56. The accused products include a camera configured to detect motion at the virtual input location.

Selfie shot

You can use the front camera to view your face on the screen and take selfies.

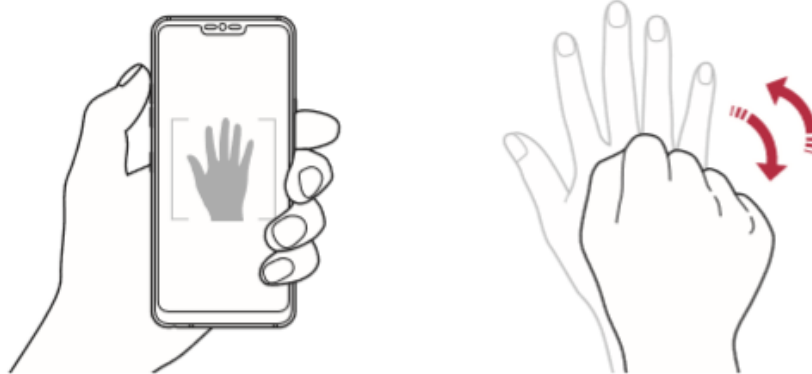
Gesture shot


You can take selfies by using gestures.

Show your palm to the front camera and then clench your fist.

You can also clench your fist and then open it towards the front camera.

- In three seconds, a photo is taken.

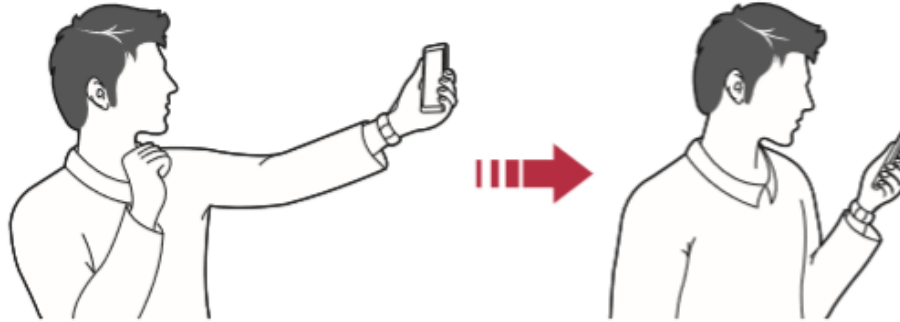



- To use this feature, switch to the front camera mode, then tap  > **Selfie shot > Gesture shot**.
- Make sure that your palm and fist are within the reference line so that the camera can detect them.
- This feature may not be available while using some of the camera features.

(Source: screenshot from PDF user manual downloaded from <https://www.lg.com/us/support-mobile/lg-LGG710PM>)

Gesture view

After taking a selfie with the front camera, you can preview the selfie immediately by placing the screen close to your face.



- Tap  > **Gesture view** to enable the Gesture view feature.
- Only one preview is available each time a photo is taken.
- If you rotate the device while in preview screen, the screen switches to camera mode.

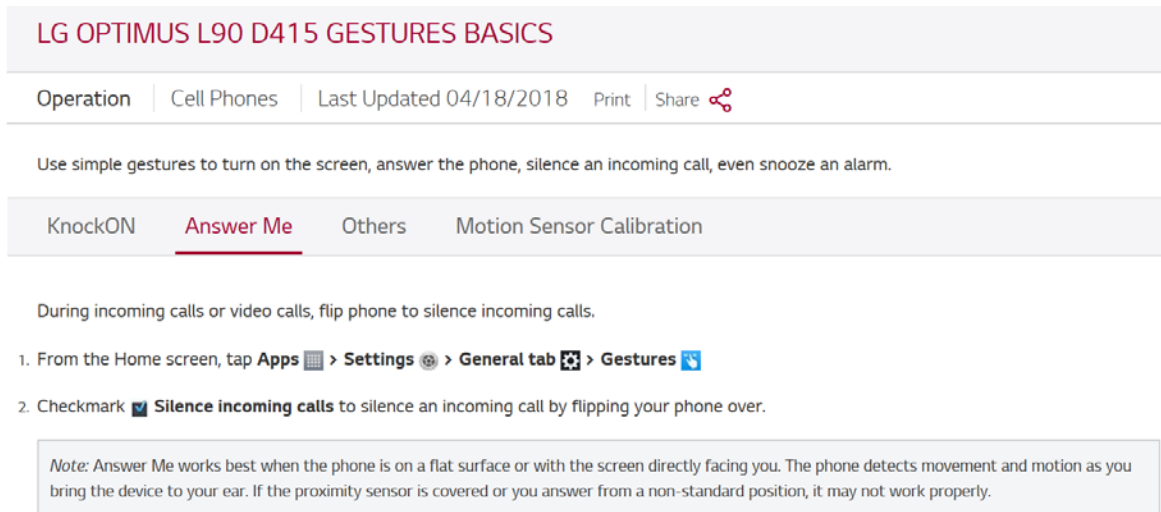
(Source: screenshot from PDF user manual downloaded from <https://www.lg.com/us/support-mobile/lg-LGG710PM>)

57. The accused products include a controller coupled to the electromagnetic sensor and the camera, wherein the controller is configured to determine whether a portion of the user input is within the virtual input location in space that defines a virtual input.

• **FRONT CAMERAS**

- 8 MP Lens f/1.9
- Wide-angle field of view: 80°
- Resolution: up to 1920 x 1080 pixels (default)
- Full HD Video Recording
- Auto Shot - take a selfie with automatic face detection
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- Gesture View - transitions between camera mode and preview mode automatically
- Selfie Light - screen illuminates around the photo preview for well-lit selfies

(Source: <https://www.lg.com/us/mobile-phones/g7-thinq/specs>)



The screenshot shows a webpage titled "LG OPTIMUS L90 D415 GESTURES BASICS". Below the title, there is a navigation bar with "Operation", "Cell Phones", "Last Updated 04/18/2018", "Print", and "Share" icons. The main content area starts with the text "Use simple gestures to turn on the screen, answer the phone, silence an incoming call, even snooze an alarm." Below this is a sub-navigation bar with "KnockON", "Answer Me" (highlighted with a red underline), "Others", and "Motion Sensor Calibration". The text "During incoming calls or video calls, flip phone to silence incoming calls." is followed by two numbered steps: "1. From the Home screen, tap Apps [grid icon] > Settings [gear icon] > General tab [grid icon] > Gestures [hand icon]" and "2. Checkmark [checkbox icon] Silence incoming calls to silence an incoming call by flipping your phone over." A note box at the bottom states: "Note: Answer Me works best when the phone is on a flat surface or with the screen directly facing you. The phone detects movement and motion as you bring the device to your ear. If the proximity sensor is covered or you answer from a non-standard position, it may not work properly."

(Source: <https://www.lg.com/us/support/product-help/CT10000027-1396394190468-features#>)

58. LG has had knowledge of the ‘543 Patent at least as of the date when it was notified of the filing of this action.

59. American Patents has been damaged as a result of the infringing conduct by LG alleged above. Thus, LG is liable to American Patents in an amount that adequately

compensates it for such infringements, which, by law, cannot be less than a reasonable royalty, together with interest and costs as fixed by this Court under 35 U.S.C. § 284.

60. American Patents and/or its predecessors-in-interest have satisfied all statutory obligations required to collect pre-filing damages for the full period allowed by law for infringement of the '543 Patent.

COUNT V

DIRECT INFRINGEMENT OF U.S. PATENT NO. 9,606,674

61. On March 28, 2017, United States Patent No. 9,606,674 (“the ‘674 Patent”) was duly and legally issued by the United States Patent and Trademark Office for an invention entitled “Virtual Input System.”

62. American Patents is the owner of the ‘674 Patent, with all substantive rights in and to that patent, including the sole and exclusive right to prosecute this action and enforce the ‘674 Patent against infringers, and to collect damages for all relevant times.

63. LG made, had made, used, imported, provided, supplied, distributed, sold, and/or offered for sale products and/or systems that allow for advanced virtual input including, for example its G series of products (“accused products”):



(Source: <https://www.lg.com/us/mobile-phones/g7-thinq>)

64. By doing so, LG has directly infringed (literally and/or under the doctrine of equivalents) at least Claim 1 of the '674 Patent. LG's infringement in this regard is ongoing.

65. LG has infringed the '674 Patent by making, having made, using, importing, providing, supplying, distributing, selling or offering for sale systems having a device.

66. The accused products include a location sensor configured to detect a location of a user input:

- Proximity/Ambient light sensor
 - Proximity sensor: During a call, the proximity sensor turns off the screen and disables touch functionality when the device is in close proximity to the human body. It turns the screen back on and enables touch functionality when the device is outside a specific range.
 - Ambient light sensor: The ambient light sensor analyzes the ambient light intensity when the auto-brightness control mode is turned on.
- Laser detection auto-focus
 - Detect the distance from the camera to your subject for automatic focusing.
 - Quickly focus on closer or farther objects when you use the rear camera to take photos.

(Source: screenshot from PDF user manual downloaded from <https://www.lg.com/us/support-mobile/lg-LGG710PM>)

67. The accused products include a motion sensor configured to detect motion at a virtual input location.

Selfie shot

You can use the front camera to view your face on the screen and take selfies.

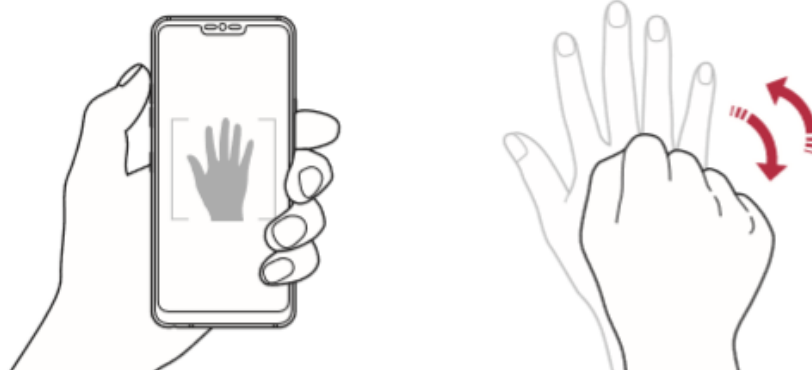
Gesture shot


You can take selfies by using gestures.

Show your palm to the front camera and then clench your fist.

You can also clench your fist and then open it towards the front camera.

- In three seconds, a photo is taken.

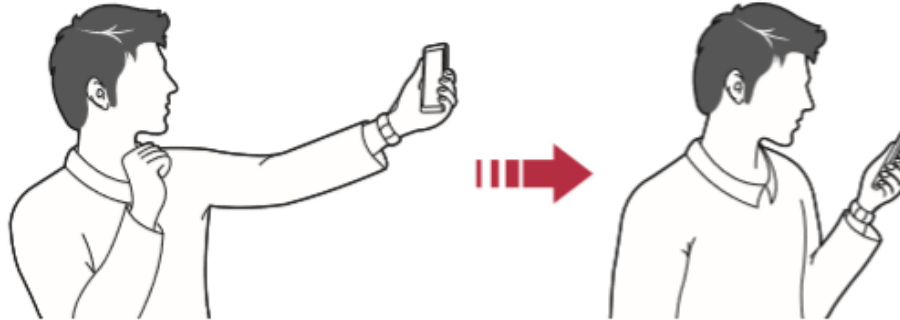



- To use this feature, switch to the front camera mode, then tap  > **Selfie shot > Gesture shot**.
- Make sure that your palm and fist are within the reference line so that the camera can detect them.
- This feature may not be available while using some of the camera features.

(Source: screenshot from PDF user manual downloaded from <https://www.lg.com/us/support-mobile/lg-LGG710PM>)

Gesture view

After taking a selfie with the front camera, you can preview the selfie immediately by placing the screen close to your face.



- Tap  > **Gesture view** to enable the Gesture view feature.
- Only one preview is available each time a photo is taken.
- If you rotate the device while in preview screen, the screen switches to camera mode.

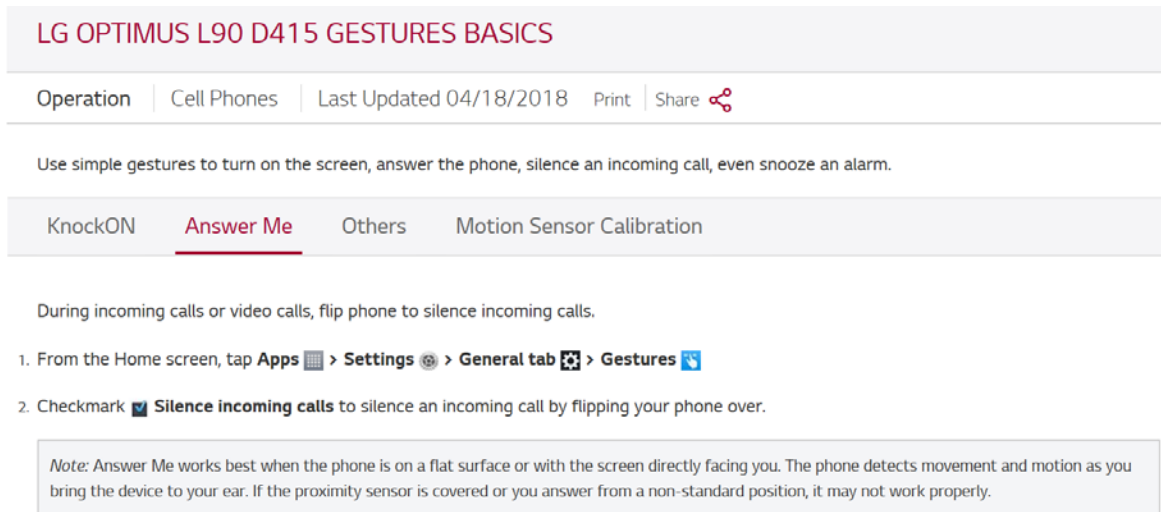
(Source: screenshot from PDF user manual downloaded from <https://www.lg.com/us/support-mobile/lg-LGG710PM>)

68. The accused products include a controller configured to determine whether at least a portion of the motion at the virtual input location detected by the motion sensor is at the location of the user input detected by the location sensor.

• **FRONT CAMERAS**

- 8 MP Lens f/1.9
- Wide-angle field of view: 80°
- Resolution: up to 1920 x 1080 pixels (default)
- Full HD Video Recording
- Auto Shot - take a selfie with automatic face detection
- Gesture Shot - take a selfie with a simple hand gesture
- Gesture Interval Shot - take four selfies in sequence by making a fist twice
- Gesture View - transitions between camera mode and preview mode automatically
- Selfie Light - screen illuminates around the photo preview for well-lit selfies

(Source: <https://www.lg.com/us/mobile-phones/g7-thinq/specs>)



The screenshot shows the 'LG OPTIMUS L90 D415 GESTURES BASICS' page. At the top, it says 'Operation | Cell Phones | Last Updated 04/18/2018 | Print | Share'. Below that, it states 'Use simple gestures to turn on the screen, answer the phone, silence an incoming call, even snooze an alarm.' There are four tabs: 'KnockON', 'Answer Me' (which is selected and underlined), 'Others', and 'Motion Sensor Calibration'. Under the 'Answer Me' tab, it says 'During incoming calls or video calls, flip phone to silence incoming calls.' There are two numbered steps: 1. 'From the Home screen, tap Apps [grid icon] > Settings [gear icon] > General tab [grid icon] > Gestures [hand icon]'. 2. 'Checkmark [checkmark icon] Silence incoming calls to silence an incoming call by flipping your phone over.' A note at the bottom says: 'Note: Answer Me works best when the phone is on a flat surface or with the screen directly facing you. The phone detects movement and motion as you bring the device to your ear. If the proximity sensor is covered or you answer from a non-standard position, it may not work properly.'

(Source: <https://www.lg.com/us/support/product-help/CT10000027-1396394190468-features#>)

69. LG has had knowledge of the '674 Patent at least as of the date when it was notified of the filing of this action.

70. American Patents has been damaged as a result of the infringing conduct by LG alleged above. Thus, LG is liable to American Patents in an amount that adequately

compensates it for such infringements, which, by law, cannot be less than a reasonable royalty, together with interest and costs as fixed by this Court under 35 U.S.C. § 284.

71. American Patents and/or its predecessors-in-interest have satisfied all statutory obligations required to collect pre-filing damages for the full period allowed by law for infringement of the '674 Patent.

ADDITIONAL ALLEGATIONS REGARDING INDIRECT INFRINGEMENT

72. LG has also indirectly infringed the '655 Patent, the '090 Patent, the '584 Patent, the '543 Patent, and the '674 Patent by inducing others to directly infringe the '655 Patent, the '090 Patent, the '584 Patent, the '543 Patent, and the '674 Patent. LG has induced the end-users, LG's customers, to directly infringe (literally and/or under the doctrine of equivalents) the '655 Patent, the '090 Patent, the '584 Patent, the '543 Patent, and the '674 Patent by using the accused products. LG took active steps, directly and/or through contractual relationships with others, with the specific intent to cause them to use the accused products in a manner that infringes one or more claims of the patents-in-suit, including, for example, Claim 5 of the '655 Patent, Claim 1 of the '090 Patent, Claim 1 of the '584 Patent, Claim 1 of the '543 Patent, and Claim 1 of the '674 Patent. Such steps by LG included, among other things, advising or directing customers and end-users to use the accused products in an infringing manner; advertising and promoting the use of the accused products in an infringing manner; and/or distributing instructions that guide users to use the accused products in an infringing manner. LG is performing these steps, which constitute induced infringement, with the knowledge of the '655 Patent, the '090 Patent, the '584 Patent, the '543 Patent, and the '674 Patent and with the knowledge that the induced acts constitute infringement. LG was and is aware that the normal and customary use of the accused

products by LG's customers would infringe the '655 Patent, the '090 Patent, the '584 Patent, the '543 Patent, and the '674 Patent. LG's inducement is ongoing.

73. LG has also induced its affiliates, or third-party manufacturers, shippers, distributors, retailers, or other persons acting on its or its affiliates' behalf, to directly infringe (literally and/or under the doctrine of equivalents) the '655 Patent, the '090 Patent, the '584 Patent, the '543 Patent, and the '674 Patent by importing, selling or offering to sell the accused products. LG took active steps, directly and/or through contractual relationships with others, with the specific intent to cause such persons to import, sell, or offer to sell the accused products in a manner that infringes one or more claims of the patents-in-suit, including, for example, Claim 5 of the '655 Patent, Claim 1 of the '090 Patent, Claim 1 of the '584 Patent, Claim 1 of the '543 Patent, and Claim 1 of the '674 Patent. Such steps by LG included, among other things, making or selling the accused products outside of the United States for importation into or sale in the United States, or knowing that such importation or sale would occur; and directing, facilitating, or influencing its affiliates, or third-party manufacturers, shippers, distributors, retailers, or other persons acting on its or their behalf, to import, sell, or offer to sell the accused products in an infringing manner. LG performed these steps, which constitute induced infringement, with the knowledge of the '655 Patent, the '090 Patent, the '584 Patent, the '543 Patent, and the '674 Patent and with the knowledge that the induced acts would constitute infringement. LG performed such steps in order to profit from the eventual sale of the accused products in the United States. LG's inducement is ongoing.

74. LG has also indirectly infringed by contributing to the infringement of the '655 Patent, the '090 Patent, the '584 Patent, the '543 Patent, and the '674 Patent. LG has contributed to the direct infringement of the '655 Patent, the '090 Patent, the '584 Patent, the '543 Patent,

and the '674 Patent by the end-user of the accused products. The accused products have special features that are specially designed to be used in an infringing way and that have no substantial uses other than ones that infringe the '655 Patent, the '090 Patent, the '584 Patent, the '543 Patent, and the '674 Patent, including, for example, Claim 5 of the '655 Patent, Claim 1 of the '090 Patent, Claim 1 of the '584 Patent, Claim 1 of the '543 Patent, and Claim 1 of the '674 Patent. The special features include initiation and/or control of Internet streamed content and advanced virtual input in a manner that infringes the '655 Patent, the '090 Patent, the '584 Patent, the '543 Patent, and the '674 Patent. The special features constitute a material part of the invention of one or more of the claims of the '655 Patent, the '090 Patent, the '584 Patent, the '543 Patent, and the '674 Patent and are not staple articles of commerce suitable for substantial non-infringing use. LG's contributory infringement is ongoing.

75. Furthermore, LG has a policy or practice of not reviewing the patents of others (including instructing its employees to not review the patents of others), and thus has been willfully blind of American Patents' patent rights.

76. LG's actions are at least objectively reckless as to the risk of infringing valid patents and this objective risk was either known or should have been known by LG.

77. LG's direct and indirect infringement of the '655 Patent, the '090 Patent, the '584 Patent, the '543 Patent, and the '674 Patent is, has been, and continues to be willful, intentional, deliberate, and/or in conscious disregard of American Patents' rights under the patents.

78. American Patents has been damaged as a result of the infringing conduct by LG alleged above. Thus, LG is liable to American Patents in an amount that adequately compensates it for such infringements, which, by law, cannot be less than a reasonable royalty, together with interest and costs as fixed by this Court under 35 U.S.C. § 284.

JURY DEMAND

American Patents hereby requests a trial by jury on all issues so triable by right.

PRAYER FOR RELIEF

American Patents requests that the Court find in its favor and against LG, and that the Court grant American Patents the following relief:

a. Judgment that one or more claims of the '655 Patent, the '090 Patent, the '584 Patent, the '543 Patent, and the '674 Patent have been infringed, either literally and/or under the doctrine of equivalents, by LG and/or all others acting in concert therewith;

b. A permanent injunction enjoining LG and its officers, directors, agents, servants, affiliates, employees, divisions, branches, subsidiaries, parents, and all others acting in concert therewith from infringement of the '655 Patent, the '090 Patent, the '584 Patent, the '543 Patent, and the '674 Patent; or, in the alternative, an award of a reasonable ongoing royalty for future infringement of the '655 Patent, the '090 Patent, the '584 Patent, the '543 Patent, and the '674 Patent by such entities;

c. Judgment that LG account for and pay to American Patents all damages to and costs incurred by American Patents because of LG's infringing activities and other conduct complained of herein, including an award of all increased damages to which American Patents is entitled under 35 U.S.C. § 284;

d. That American Patents be granted pre-judgment and post-judgment interest on the damages caused by LG's infringing activities and other conduct complained of herein;

e. That this Court declare this an exceptional case and award American Patents its reasonable attorney's fees and costs in accordance with 35 U.S.C. § 285; and

f. That American Patents be granted such other and further relief as the Court may

deem just and proper under the circumstances.

Dated: September 24, 2018

Respectfully submitted,

/s/ Zachariah S. Harrington

Matthew J. Antonelli

Texas Bar No. 24068432

matt@ahtlawfirm.com

Zachariah S. Harrington

Texas Bar No. 24057886

zac@ahtlawfirm.com

Larry D. Thompson, Jr.

Texas Bar No. 24051428

larry@ahtlawfirm.com

Christopher Ryan Pinckney

Texas Bar No. 24067819

ryan@ahtlawfirm.com

Michael D. Ellis

Texas Bar No. 24081586

michael@ahtlawfirm.com

ANTONELLI, HARRINGTON

& THOMPSON LLP

4306 Yoakum Blvd., Ste. 450

Houston, TX 77006

(713) 581-3000

Stafford Davis

State Bar No. 24054605

sdavis@stafforddavisfirm.com

Catherine Bartles

Texas Bar No. 24104849

cbartles@stafforddavisfirm.com

THE STAFFORD DAVIS FIRM

The People's Petroleum Building

102 North College Avenue, 13th Floor

Tyler, Texas 75702

(903) 593-7000

(903) 705-7369 fax

Attorneys for American Patents LLC