

**UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF FLORIDA**

Case No. _____

BlackBerry Limited

Plaintiff,

vs.

BLU Products, Inc.

Defendant.

BLACKBERRY’S COMPLAINT FOR PATENT INFRINGEMENT

Plaintiff BlackBerry Limited (“BlackBerry”), for its Complaint against Defendant BLU Products, Inc. (“BLU”), alleges as follows:

THE PARTIES

1. Plaintiff BlackBerry Limited is a Canadian company with its principal place of business at 2200 University Avenue East, Waterloo, Ontario, Canada N2K 0A7.

2. BlackBerry was founded in 1984 in Waterloo, Ontario by two engineering students, Mike Lazaridis and Douglas Fregin. In its early years, the company—then named Research In Motion (“RIM”)—focused its inventive energies on wireless data transmission.

3. From its modest beginnings more than 30 years ago, BlackBerry has gone on to offer a portfolio of award-winning products, services, and embedded technologies to tens of millions of individual consumers and organizations around the world, including governments, educational institutions, and over 90% of Fortune 500 companies. By transforming the way people communicate, BlackBerry laid a foundation for today’s multibillion-dollar modern smartphone industry.

4. In the course of developing its ground-breaking mobile communications devices, BlackBerry (and the BlackBerry family of companies) has invented a broad array of new technologies that cover everything from enhanced security protocols, to mobile device user interfaces, to communication advancements, to battery conservation, and many other areas. As just one example, security posed a critical challenge for BlackBerry to address when bringing its mobile devices to market. Commercial acceptance of such mobile devices required providing mechanisms to ensure safe and secure use of software applications that are downloaded from the Internet, so that users and businesses could be confident that their confidential and private information stayed that way in spite of ever increasing data breaches. Due to its innovative technologies, BlackBerry has been universally recognized as the gold standard when it comes to secure mobile devices.

5. Throughout its history, BlackBerry has demonstrated a commitment to innovation, including through its investments in research and development, which have totaled more than \$5.5 billion over the past five years. BlackBerry has protected the technical innovations resulting from these investments, including through seeking patent protection. As detailed below, BlackBerry owns rights to an array of patented technologies in the United States.

6. Upon information and belief, Defendant BLU is a corporation organized under the laws of the State of Delaware, having its principal place of business at 10814 N.W. 33rd Street, Doral, Florida 33172 (depicted below). On information and belief, BLU Products, Inc. may be served through its registered agent, Egozi, Bernard L, Egozi & Bennett, P.A. 2999 NE 191st, Suite 407, Aventura, FL 33180.



7. BLU infringes multiple BlackBerry patents by using, without authorization, BlackBerry's proprietary technology in BLU's commercial mobile devices.

JURISDICTION AND VENUE

8. This is an action for patent infringement arising under the patent laws of the United States, 35 U.S.C. § 101 *et seq.*

9. This Court has subject matter jurisdiction pursuant to 28 U.S.C. §§ 1331, 1332, 1338(a), and 1367.

10. This Court has personal jurisdiction over BLU for at least the following reasons: (1) BLU's principal place of business is located in this District; and (2) BLU regularly does business or solicits business, engages in other persistent courses of conduct, and/or derives substantial revenues from products and/or services provided to individuals in Florida.

11. BLU committed and continues to commit acts of infringement in violation of 35 U.S.C. § 271. BLU has made, used, offered for sale, sold, marketed, and/or imported infringing products in the State of Florida, including in this District. BLU's acts cause injury to BlackBerry, including within this District.

12. Venue is proper in this District pursuant to 28 U.S.C. §§ 1391(b) and (c) and 1400(b) for at least the following reasons: (1) BLU's principal place of business is located in this

District; and (2) BLU regularly does business or solicits business, engages in other persistent courses of conduct, and/or derives substantial revenues from products and/or services provided to individuals in Florida.

FACTUAL BACKGROUND

13. BlackBerry is a global leader in the mobile communications industry. Through its significant investment in research and development over the past 30 years, BlackBerry has developed innovative, cutting-edge technologies that have changed the face of telecommunications.

14. In the late 1990s, BlackBerry launched a series of game-changing handheld mobile devices that enabled users to send and receive email and messages on the go, without needing to be tethered to a modem or a desktop computer. The innovative nature of the 1998 RIM 950 Wireless Handheld, for example, was instantly recognized, garnering both an Editor's Choice Award from CNET and Andrew Seybold's Outlook Award.

15. In 2002, BlackBerry launched the BlackBerry 6710 and 6720—the first BlackBerry devices capable of both sending emails and making phone calls, and some of the earliest smartphones released in the United States. The next year, BlackBerry introduced smartphone models that added built-in audio hardware and color screens. Since those first smartphones, BlackBerry has continued to offer handheld wireless products incorporating its proprietary technologies in security, communications, mobile device user interfaces, and other areas.

16. BlackBerry's technological innovations continue to this day, as embodied in the latest iterations of BlackBerry's mobile devices—including the BlackBerry Classic, Leap, Passport, PRIV, and DTEK50.

17. Each successive iteration of BlackBerry's wireless devices has received significant unsolicited coverage in the media. For example, GSMA—the largest and most well known association of mobile operators—recognized BlackBerry's devices as changing the face of corporate communication. Thomson Reuters named BlackBerry one of the World's Top 100 Most Innovative Organizations, based largely on the number of “important patents” BlackBerry has. In 2015, Forrester Research crowned BlackBerry as a “leader in mobile management” based on BlackBerry's focus in security software and mobile solutions.

18. BlackBerry's mobile devices have garnered widespread industry acclaim for both their unique design and their performance. They have garnered dozens of industry awards, including the GSMA Chairman's Award, InfoWorld Magazine's Product of the Year Award, PC World's World Class Award, the Network Industry Award for Best New Mobile Communications Product, the BusinessWeek Best Product of the Year award, Digit Magazine's “World's Best Mobile OS” award, Security Products “Govies” Government Security Award, and PC Magazine's Best Products of the Year Award.

19. The industry acclaim for BlackBerry's innovations continues to this day. For example, in 2015 BlackBerry's Passport was awarded the prestigious Red Dot “Best of the Best” award for innovative product design (from thousands of total entries). Similarly, in 2016, BlackBerry's PRIV was awarded the Red Dot “Design Award” for best product design.

20. BlackBerry is informed and believes, and thereon alleges, that the BLU devices that have been provided with the Android operating system include: Advance 4.0, Advance 4.0 L, Advance 4.0 L2, Advance 4.5, Advance 5.0, Amour, Dash, Dash 3.2, Dash 3.5, Dash 3.5 II, Dash 4.0, Dash 4.5, Dash 5.0, Dash 5.0+, Dash 5.5, Dash C Music, Dash JR 3G, Dash L, Dash L2, Dash M, Dash M2, Dash Music 4.0, Dash X, Dash X Plus, Dash X Plus LTE, Dash X2,

Energy X, Energy XL, Energy X LTE, Energy X Plus, Energy X2, Life 8, Life 8 XL, Life Mark, Life One M, Life One X, Life Play, Life Play 2, Life Play Mini, Life Play S, Life Play X, Life Pro, Life Pure, Life Pure Mini, Life View, Life View 8.0 (Tablet), Life View Tab (Tablet), Life X8, Neo 3.5, Neo 4.5, Neo 5.5, Neo Energy Mini, Neo X, Neo X Plus, Neo XL, Pure XL, R1 HD, Selfie, Sport 4.5, Star 4.5, Studio 5.0 C, Studio 5.0 C HD, Studio 5.0 II, Studio 5.0 S II, Studio 5.5, Studio 5.5 C, Studio 5.5 HD, Studio 5.5 S, Studio 6.0 HD, Studio 7.0, Studio 7.0 II, Studio C, Studio C 5+5, Studio C HD, Studio C Mini, Studio C Super Camera, Studio Energy, Studio Energy 2, Studio G, Studio G Plus, Studio M HD, Studio One, Studio One Plus, Studio Selfie, Studio Selfie 2, Studio Touch, Studio X, Studio X 5, Studio X 6, Studio X Mini, Studio X Plus, Studio XL, Tank 4.5, Touchbook 8.0 3G, Touchbook G7, Vivo 4.3, Vivo 4.65 HD, Vivo 4.8 HD, Vivo 5, Vivo Air, Vivo IV, Vivo Selfie, Vivo XL, Zoey 2.4 3G, Zoey 3G, Energy X Mini, Grand 5.5 HD, Neo 5.0, Studio G HD, Energy Diamond Mini (hereinafter, the “BLU Android Devices”). *See, e.g.*, Ex. H, an 8/4/2016 capture of <http://bluproducts.com/index.php/android-phones>; Ex. I, an 8/4/2016 capture of <http://bluproducts.com/index.php/other-android-phones>.

BLACKBERRY’S PATENTS

21. U.S. Patent No. 8,489,868 (the “’868 patent”), entitled “Software Code Signing System and Method,” was duly and legally issued on July 16, 2013. BlackBerry Limited is the owner by assignment of all right, title, and interest in and to the ’868 patent, including without limitation the right to sue and recover for past infringement thereof. A copy of the ’868 patent is attached as **Exhibit A** to this Complaint.

22. U.S. Patent No. 8,713,466 (the “’466 patent”), entitled “Dynamic Bar Oriented User Interface,” was duly and legally issued on April 29, 2014. BlackBerry Limited is the owner by assignment of all right, title, and interest in and to the ’466 patent, including without

limitation the right to sue and recover for past infringement thereof. A copy of the '466 patent is attached as **Exhibit B** to this Complaint.

23. U.S. Patent 8,402,384 (the "'384 patent"), entitled "Dynamic Bar Oriented User Interface," was duly and legally issued on March 19, 2013. BlackBerry Limited is the owner by assignment of all right, title, and interest in and to the '384 patent, including without limitation the right to sue and recover for past infringement thereof. A copy of the '384 patent is attached as **Exhibit C** to this Complaint.

24. U.S. Patent 8,411,845 (the "'845 patent"), entitled "Handheld Electronic Device Having Improved Phone Call Log, and Associated Method," was duly and legally issued on April 2, 2013. BlackBerry Limited is the owner by assignment of all right, title, and interest in and to the '845 patent, including without limitation the right to sue and recover for past infringement thereof. A copy of the '845 patent is attached as **Exhibit D** to this Complaint.

25. U.S. Patent 6,271,605 (the "'605 patent"), entitled "Battery Disconnect System," was duly and legally issued on August 7, 2001. BlackBerry Limited is the owner by assignment of all right, title, and interest in and to the '605 patent, including without limitation the right to sue and recover for past infringement thereof. A copy of the '605 patent is attached as **Exhibit E** to this Complaint.

26. U.S. Patent 8,745,149 (the "'149 patent"), entitled "Handheld Electronic Device and Associated Method Providing Time Data in a Messaging Environment," was duly and legally issued on June 3, 2014. BlackBerry Limited is the owner by assignment of all right, title, and interest in and to the '149 patent, including without limitation the right to sue and recover for past infringement thereof. A copy of the '149 patent is attached as **Exhibit F** to this Complaint.

27. U.S. Patent 8,169,449 (the “’449 patent”), entitled “System Compositing Images From Multiple Applications,” was duly and legally issued on May 1, 2012. BlackBerry Limited is the owner by assignment of all right, title, and interest in and to the ’449 patent, including without limitation the right to sue and recover for past infringement thereof. A copy of the ’449 patent is attached as **Exhibit G** to this Complaint.

COUNT I - INFRINGEMENT OF ’868 PATENT

28. BlackBerry realleges and incorporates by reference the allegations set forth in the foregoing paragraphs.

29. On information and belief, BLU has directly infringed and is continuing to directly infringe the ’868 patent, either literally or under the doctrine of equivalents, by making, using, selling, offering for sale, and/or importing in the United States and in this Judicial District, products, software, and/or services that incorporate or make use of one or more of the inventions covered by the ’868 patent, including but not limited to the BLU Android Devices (*see, e.g.*, Exs. H, I) (“’868 Accused Products”), thereby infringing one or more claims of the ’868 patent.

30. BLU’s ’868 Accused Products satisfy each and every element of one or more claims of the ’868 patent, for example, and without limitation, claims 1 and 76 of the ’868 patent.

31. Claim 1 of the ’868 patent recites:

A mobile device containing software instructions which when executed on the mobile device cause the mobile device to perform operations for controlling access to an application platform of the mobile device, the operation comprising:

storing a plurality of application programming interfaces (APIs) at the mobile device, wherein at least one API comprises a sensitive API to which access is restricted; (“Element 1A”)

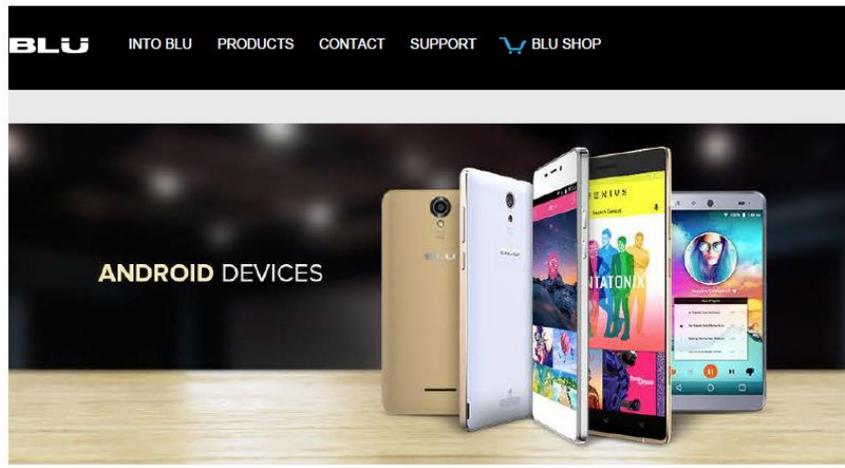
receiving, at the mobile device, an indication that a software application on the mobile device is requesting access to the sensitive API stored at the mobile device; (“Element 1B”)

determining, at the mobile device, whether the software application is signed, wherein a signed software application includes a digital signature generated using a private key of a private key-public key pair, wherein the private key is not accessible to the mobile device; (“Element 1C”)

the mobile device using a public key of the private key-public key pair to verify the digital signature of the software application; and (“Element 1D”)

based upon verifying the digital signature at the mobile device, the mobile device allowing the software application access to the sensitive API. (“Element 1E”)

32. To the extent the preamble is considered a limitation, the ’868 Accused Products satisfy the preamble of claim 1 of the ’868 patent: “A mobile device containing software instructions which when executed on the mobile device cause the mobile device to perform operations for controlling access to an application platform of the mobile device, the operation comprising.” *See, e.g.:*



Ex. H; *see also* Ex. I.

The Android Permission Model: Accessing Protected APIs

All applications on Android run in an Application Sandbox, described earlier in this document. By default, an Android application can only access a limited range of system resources. The system manages Android application access to resources that, if used incorrectly or maliciously, could adversely impact the user experience, the network, or data on the device.

These restrictions are implemented in a variety of different forms. Some capabilities are restricted by an intentional lack of APIs to the sensitive functionality (e.g. there is no Android API for directly manipulating the SIM card). In some instances, separation of roles provides a security measure, as with the per-application isolation of storage. In other instances, the sensitive APIs are intended for use by trusted applications and protected through a security mechanism known as Permissions.

These protected APIs include:

- Camera functions
- Location data (GPS)
- Bluetooth functions
- Telephony functions
- SMS/MMS functions
- Network/data connections

Ex. J at pgs. 1-2, an 8/11/2016 capture of <http://source.android.com/security/overview/app-security.html>.

33. The '868 Accused Products satisfy Element 1A of claim 1 of the '868 patent: “storing a plurality of application programming interfaces (APIs) at the mobile device, wherein at least one API comprises a sensitive API to which access is restricted.” *See, e.g.*, Paragraph 32.

34. The '868 Accused Products satisfy Element 1B of claim 1 of the '868 patent: “receiving, at the mobile device, an indication that a software application on the mobile device is requesting access to the sensitive API stored at the mobile device.” *See, e.g.*:

App Manifest

Every application must have an AndroidManifest.xml file (with precisely that name) in its root directory. The manifest file provides essential information about your app to the Android system, which the system must have before it can run any of the app's code. Among other things, the manifest does the following:

...

- It declares the permissions that the application must have in order to access protected parts of the API and interact with other applications.
...

Ex. K at 1, an 8/11/2016 capture of <http://developer.android.com/guide/topics/manifest/manifest-intro.html>.

Permissions

A permission is a restriction limiting access to a part of the code or to data on the device. The limitation is imposed to protect critical data and code that could be misused to distort or damage the user experience.

...

If an application needs access to a feature protected by a permission, it must declare that it requires that permission with a `<uses-permission>` element in the manifest. Then, when the application is installed on the device, the installer determines whether or not to grant the requested permission by checking the authorities that signed the application's certificates and, in some cases, asking the user. If the permission is granted, the application is able to use the protected features. If not, its attempts to access those features fail without any notification to the user.

Ex. K at 5; *see also* Paragraph 32.

35. The '868 Accused Products satisfy Element 1C of claim 1 of the '868 patent: “determining, at the mobile device, whether the software application is signed, wherein a signed software application includes a digital signature generated using a private key of a private key-public key pair, wherein the private key is not accessible to the mobile device.” *See, e.g.:*

Application Signing

Code signing allows developers to identify the author of the application and to update their application without creating complicated interfaces and permissions. Every application that is run on the Android platform must be signed by the developer. Applications that attempt to install without being signed will [be] rejected by either Google Play or the package installer on the Android device.

...

On Android, application signing is the first step to placing an application in its Application Sandbox. The signed application certificate defines

which user id is associated with which application; different applications run under different user IDs. Application signing ensures that one application cannot access any other application except through well-defined IPC.

When an application (APK file) is installed onto an Android device, the Package Manager verifies that the APK has been properly signed with the certificate included in that APK. If the certificate (or, more accurately, the public key in the certificate) matches the key used to sign any other APK on the device, the new APK has the option to specify in the manifest that it will share a UID with the other similarly-signed APKs.

...

Applications are also able to declare security permissions at the Signature protection level, restricting access only to applications signed with the same key while maintaining distinct UIDs and Application Sandboxes. A closer relationship with a shared Application Sandbox is allowed via the shared UID feature (<https://developer.android.com/guide/topics/manifest/manifest-element.html#uid>) where two or more applications signed with same developer key can declare a shared UID in their manifest.

Ex. J at 5-6.

Sign Your App

Android requires that all APKs be digitally signed with a certificate before they can be installed. This document describes how to sign your APKs using Android Studio, including creating and storing your certificate, signing different build configurations using different certificates, and configuring the build process to sign your APKs automatically.

Certificates and Keystores

A public-key certificate, also known as a digital certificate or an identity certificate, contains the public key of a public/private key pair, as well as some other metadata identifying the owner of the key (for example, name and location). The owner of the certificate holds the corresponding private key. ...

Ex. L at 1, an 8/11/2016 capture of <http://developer.android.com/studio/publish/app-signing.html>. *See also* Ex. M, an 8/11/2016 capture of

<http://developer.android.com/guide/topics/manifest/permission-element.html>; Paragraphs 32 and 34.

36. The '868 Accused Products satisfy Element 1D of claim 1 of the '868 patent: “the mobile device using a public key of the private key-public key pair to verify the digital signature of the software application.” *See, e.g.*, Paragraphs 32, 34, and 35.

37. The '868 Accused Products satisfy Element 1E of claim 1 of the '868 patent: “based upon verifying the digital signature at the mobile device, the mobile device allowing the software application access to the sensitive API.” *See, e.g.*, Paragraphs 32, 34, and 35.

38. Claim 76 of the '868 patent recites:

A method for controlling access to an application platform of a mobile device, comprising:

storing a plurality of application programming interfaces (APIs) at the mobile device, wherein at least one API comprises a sensitive API to which access is restricted; (“Element 76A”)

receiving, at the mobile device, an indication that a software application on the mobile device is requesting access to the sensitive API stored at the mobile device; (“Element 76B”)

determining, at the mobile device, whether the software application is signed, wherein a signed software application includes a digital signature generated using a private key of a private key-public key pair, wherein the private key is not accessible to the mobile device; (“Element 76C”)

mobile device using a public key of the private key-public key pair to verify of the digital signature of the software application; and (“Element 76D”)

based upon verifying the digital signature at the mobile device, the mobile device allowing the software application access to the sensitive API. (“Element 76E”)

39. To the extent the preamble is considered a limitation, the '868 Accused Products satisfy the preamble of claim 76 of the '868 patent: “A method for controlling access to an application platform of a mobile device, comprising.” *See, e.g.*, Paragraph 32.

40. The '868 Accused Products satisfy Element 76A of claim 76 of the '868 patent: “storing a plurality of application programming interfaces (APIs) at the mobile device, wherein at least one API comprises a sensitive API to which access is restricted.” *See, e.g.*, Paragraph 32.

41. The '868 Accused Products satisfy Element 76B of claim 76 of the '868 patent: “receiving, at the mobile device, an indication that a software application on the mobile device is requesting access to the sensitive API stored at the mobile device.” *See, e.g.*, Paragraphs 32 and 34.

42. The '868 Accused Products satisfy Element 76C of claim 76 of the '868 patent: “determining, at the mobile device, whether the software application is signed, wherein a signed software application includes a digital signature generated using a private key of a private key-public key pair, wherein the private key is not accessible to the mobile device.” *See, e.g.*, Paragraphs 32, 34, and 35.

43. The '868 Accused Products satisfy Element 76D of claim 76 of the '868 patent: “mobile device using a public key of the private key-public key pair to verify of the digital signature of the software application.” *See, e.g.*, Paragraphs 32, 34, and 35.

44. The '868 Accused Products satisfy Element 76E of claim 76 of the '868 patent: “based upon verifying the digital signature at the mobile device, the mobile device allowing the software application access to the sensitive API.” *See, e.g.*, Paragraphs 32, 34, and 35.

45. By its actions, BLU has injured BlackBerry and is liable to BlackBerry for infringement of the '868 patent pursuant to 35 U.S.C. § 271.

46. BlackBerry has been damaged by BLU's infringement of the '868 patent and will continue to be damaged unless BLU is enjoined by this Court. BlackBerry has suffered and

continues to suffer irreparable injury for which there is no adequate remedy at law. The balance of hardships favors BlackBerry, and public interest is not disserved by an injunction.

47. BlackBerry is entitled to recover from BLU all damages that BlackBerry has sustained as a result of BLU's infringement of the '868 patent, including without limitation, lost profits and not less than a reasonable royalty.

COUNT II - INFRINGEMENT OF '466 PATENT

48. BlackBerry realleges and incorporates by reference the allegations set forth in the foregoing paragraphs.

49. On information and belief, BLU has directly infringed and is continuing to directly infringe the '466 patent, either literally or under the doctrine of equivalents, by making, using, selling, offering for sale, and/or importing in the United States and in this Judicial District, products, software, and/or services that incorporate or make use of one or more of the inventions covered by the '466 patent, including but not limited to the BLU Android Devices (*see, e.g.*, Exs. H, I) ("466 Accused Products"), thereby infringing one or more claims of the '466 patent.

50. BLU's '466 Accused Products satisfy each and every element of one or more claims of the '466 patent, for example, and without limitation, claims 1 and 14 of the '466 patent.

51. Claim 1 of the '466 patent recites:

A method for displaying preview information, the method comprising:

displaying on a display dynamic preview information in a dynamic bar, the dynamic preview information being determined from information managed by a software application, the dynamic preview information being updated to reflect a change to the information managed by the software application; and ("Element 1A")

expanding the dynamic bar to display an expanded dynamic bar in response to a first input, displaying the expanded dynamic bar comprising: ("Element 1B")

displaying additional dynamic preview information determined from the information managed by the software application, the additional dynamic preview information being different from the dynamic preview information displayed in the dynamic bar; (“Element 1C”)

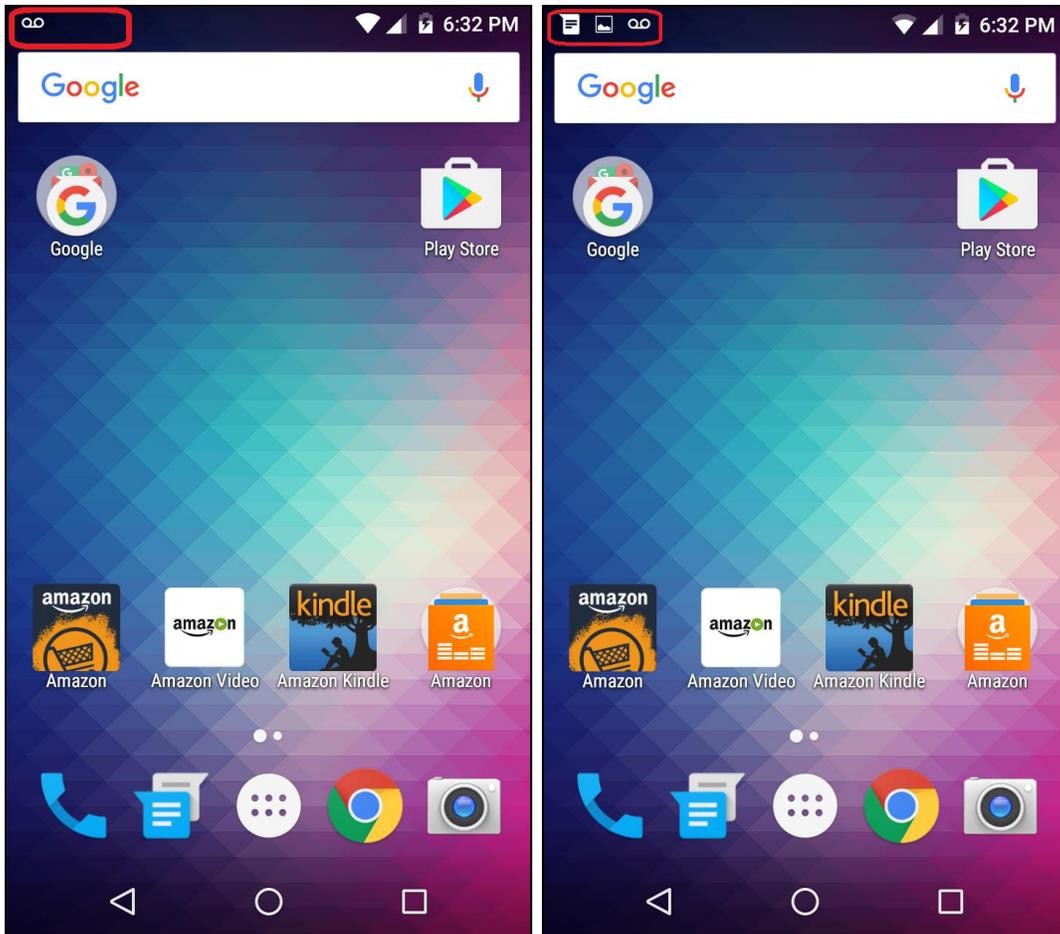
the additional dynamic preview information comprising a selectable link which when activated, invokes the software application. (“Element 1D”)

52. To the extent the preamble is considered a limitation, the ’466 Accused Products satisfy the preamble of claim 1 of the ’466 patent: “A method for displaying preview information, the method comprising.” *See, e.g.*, Ex. N, an 8/11/2016 capture of <http://developer.android.com/guide/topics/ui/notifiers/notifications.html>; *see also* Exs. H, I; *see also*:



Ex. O at 9-10, an 8/11/2016 capture of <http://www.bluproducts.com/r1-hd/> (image taken from native website due to better formatting).

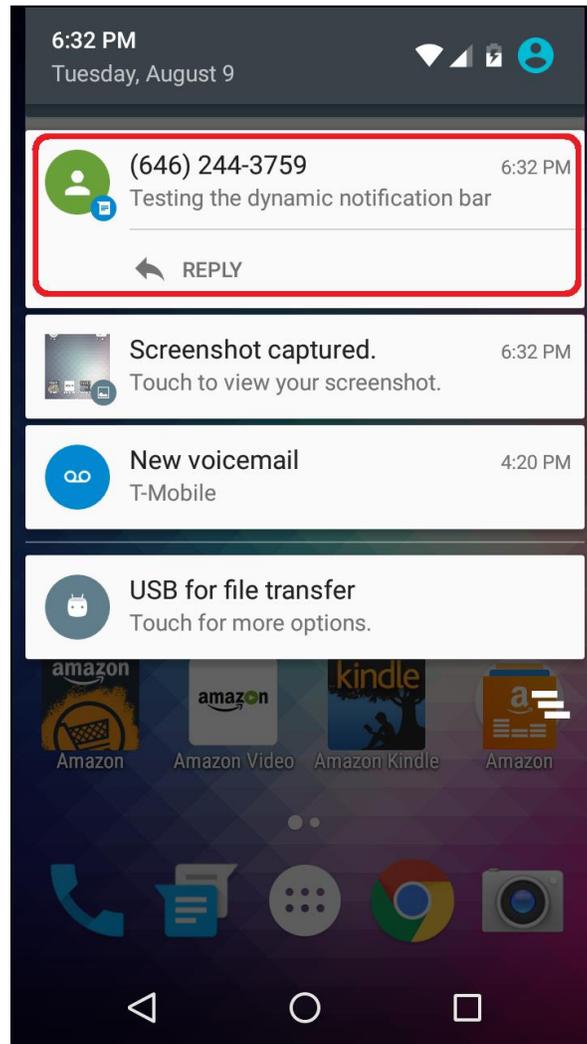
53. The '466 Accused Products satisfy Element 1A of claim 1 of the '466 patent: “displaying on a display dynamic preview information in a dynamic bar, the dynamic preview information being determined from information managed by a software application, the dynamic preview information being updated to reflect a change to the information managed by the software application.” *See, e.g.:*



Screenshots taken on R1 HD device running Android Version 6.0, red box annotations added.

The screenshots show that a notification icon is generated in the notification bar after a text message is received. *See also* Paragraph 52.

54. The '466 Accused Products satisfy Element 1B of claim 1 of the '466 patent: “expanding the dynamic bar to display an expanded dynamic bar in response to a first input, displaying the expanded dynamic bar comprising.” *See, e.g.:*



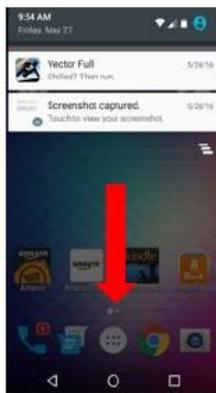
Screenshots taken on R1 HD device running Android Version 6.0, red box annotations added.

When the notification bar is selected, the notification bar expands and displays a preview of the text. *See also:*

R1 HD | Shortcuts and Notification Bar

How the Notification bar works

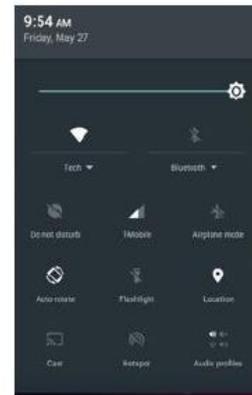
- The notification bar is located at the top of all your home screens, and it's the place your applications, and message services can drop you a note that there's something new to look at!
- The notification bar is also where you find your device status information, such as network, signal strength, and Wi-Fi signal strength.
- In order to see the details about any of your notifications you can pull down the notification bar like a drop down curtain, just slide your finger from the top of the screen down-wards
- The Notification bar is also where you can manage your device with a ton of shortcuts!



Swipe down to bring out the notification bar



You can clear notification by hitting the CLEAR ALL button

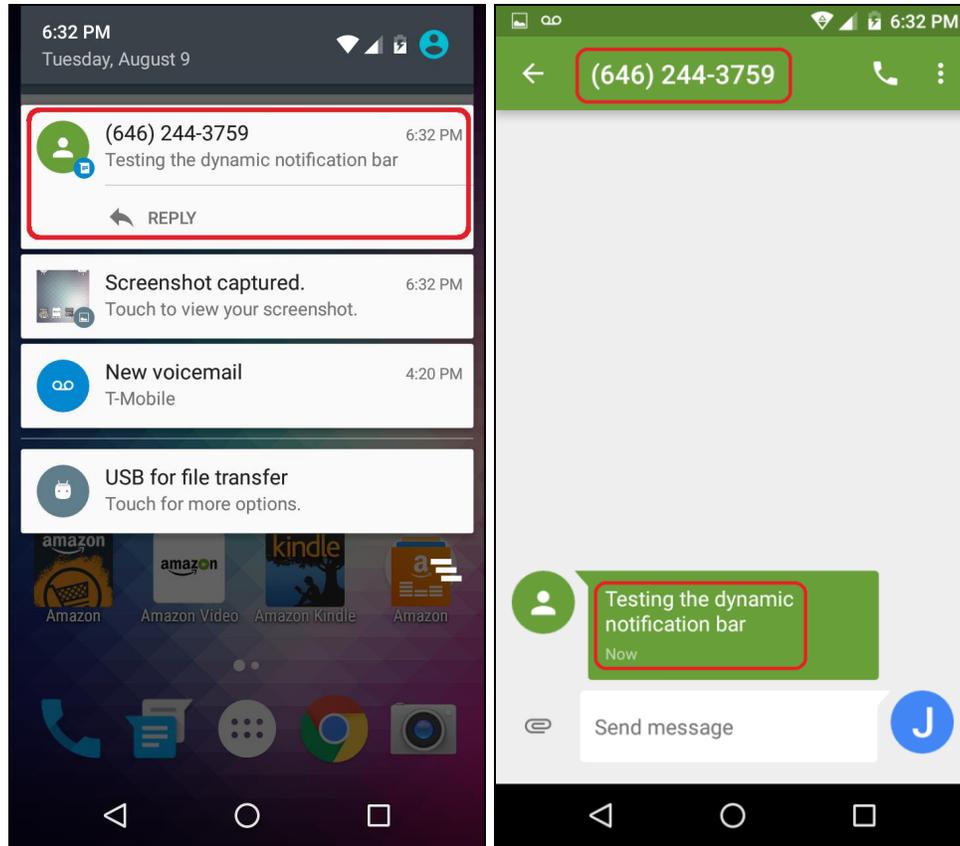


Your notification bar pulls out further, into your shortcut menu, where a ton of features can be toggled on and off!

Ex. P, an 8/11/2016 capture of <http://www.bluproducts.com/r1-hd-device/r1-hd-shortcuts-notifications.html>; see also Exs. H, I.

55. The '466 Accused Products satisfy Element 1C of claim 1 of the '466 patent: “displaying additional dynamic preview information determined from the information managed by the software application, the additional dynamic preview information being different from the dynamic preview information displayed in the dynamic bar.” See, e.g., Paragraph 54.

56. The '466 Accused Products satisfy Element 1D of claim 1 of the '466 patent: “the additional dynamic preview information comprising a selectable link which when activated, invokes the software application.” See, e.g.:



Screenshots taken on R1 HD device running Android Version 6.0, red box annotations added.

When the preview of the text is selected, the texting application is launched.

57. Claim 14 of the '466 patent recites:

A device for displaying preview information, the device comprising:

a display; (“Element 14A”)

a processor configured for: (“Element 14B”)

displaying, on the display, dynamic preview information in a dynamic bar, the dynamic preview information being determined from information managed by a software application, the dynamic preview information being updated to reflect a change to the information managed by the software application; and (“Element 14C”)

expanding the dynamic bar to display an expanded dynamic bar in response to a first input, displaying the expanded dynamic bar comprising: (“Element 14D”)

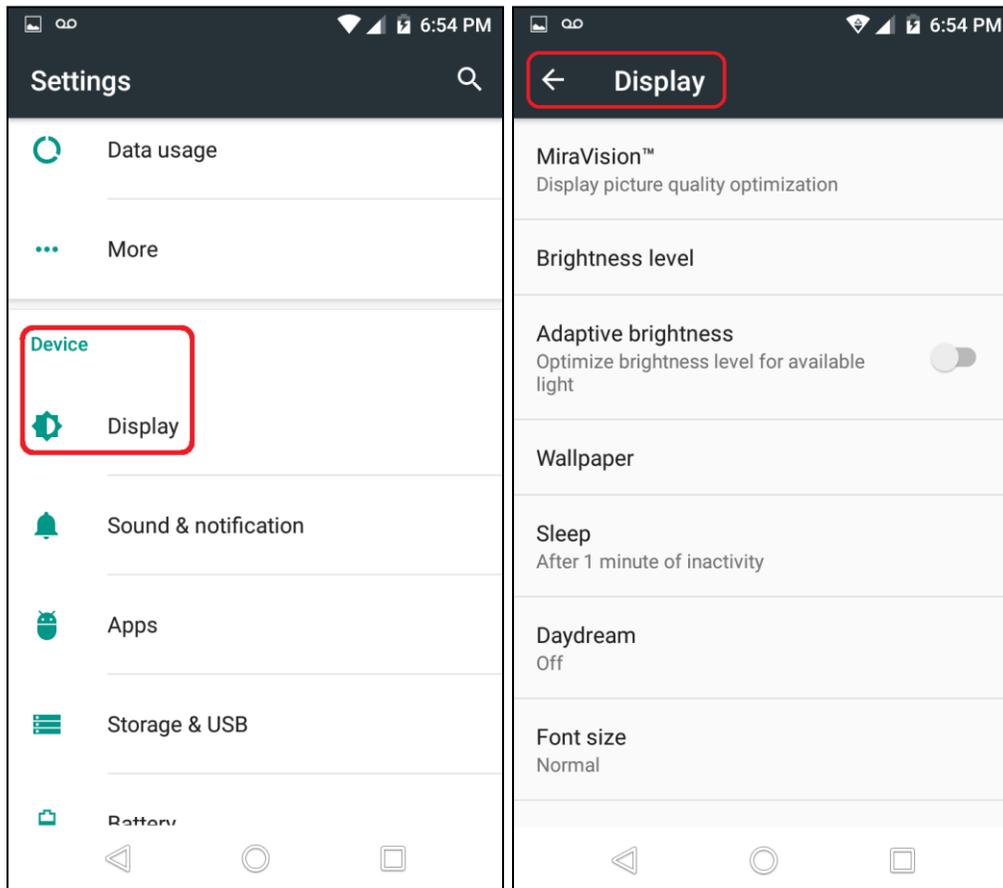
displaying additional dynamic preview information determined from the information managed by the software application, the additional dynamic

preview information being different from the dynamic preview information displayed in the dynamic bar; (“Element 14E”)

the additional dynamic preview information comprising a selectable link which when activated, invokes the software application. (“Element 14F”)

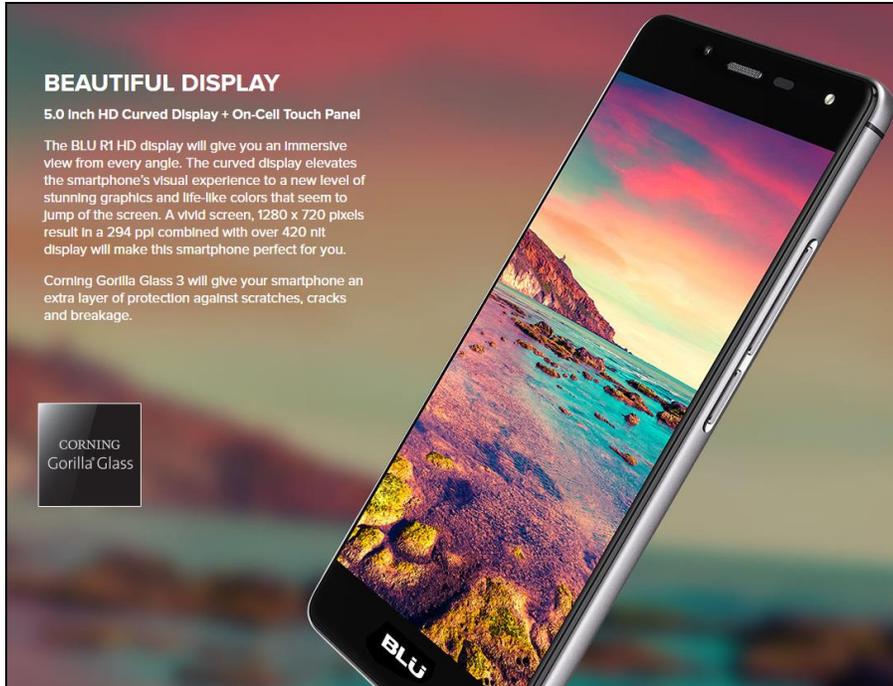
58. To the extent the preamble is considered a limitation, the ’466 Accused Products satisfy the preamble of claim 14 of the ’466 patent: “A device for displaying preview information, the device comprising.” *See, e.g.*, Paragraph 52.

59. The ’466 Accused Products satisfy Element 14A of claim 14 of the ’466 patent: “a display.” *See, e.g.*:



Screenshots taken on R1 HD device running Android Version 6.0, red box annotations added.

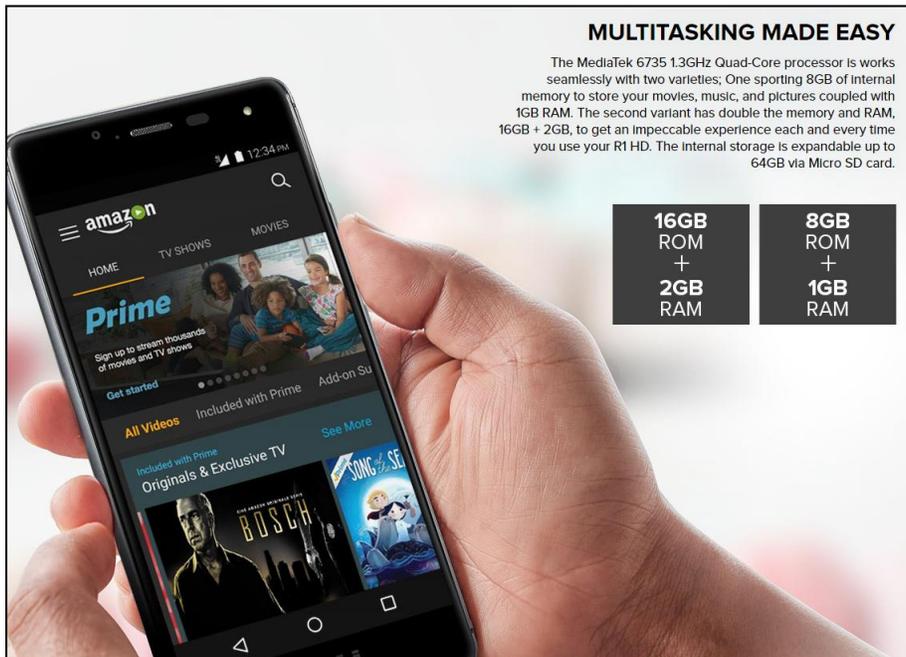
See also:



Ex. O at 3 (image taken from native website due to better formatting).

60. The '466 Accused Products satisfy Element 14B of claim 14 of the '466 patent:

“a processor configured for.” *See, e.g.:*



Ex. O at 3-4 (image taken from native website due to better formatting).

61. The '466 Accused Products satisfy Element 14C of claim 14 of the '466 patent: “displaying, on the display, dynamic preview information in a dynamic bar, the dynamic preview information being determined from information managed by a software application, the dynamic preview information being updated to reflect a change to the information managed by the software application.” *See, e.g.*, Paragraph 53.

62. The '466 Accused Products satisfy Element 14D of claim 14 of the '466 patent: “expanding the dynamic bar to display an expanded dynamic bar in response to a first input, displaying the expanded dynamic bar comprising.” *See, e.g.*, Paragraph 54.

63. The '466 Accused Products satisfy Element 14E of claim 14 of the '466 patent: “displaying additional dynamic preview information determined from the information managed by the software application, the additional dynamic preview information being different from the dynamic preview information displayed in the dynamic bar.” *See, e.g.*, Paragraph 55.

64. The '466 Accused Products satisfy Element 14F of claim 14 of the '466 patent: “the additional dynamic preview information comprising a selectable link which when activated, invokes the software application.” *See, e.g.*, Paragraph 56.

65. By its actions, BLU has injured BlackBerry and is liable to BlackBerry for infringement of the '466 patent pursuant to 35 U.S.C. § 271.

66. BlackBerry has been damaged by BLU's infringement of the '466 patent and will continue to be damaged unless BLU is enjoined by this Court. BlackBerry has suffered and continues to suffer irreparable injury for which there is no adequate remedy at law. The balance of hardships favors BlackBerry, and public interest is not disserved by an injunction.

67. BlackBerry is entitled to recover from BLU all damages that BlackBerry has sustained as a result of BLU's infringement of the '466 patent, including without limitation, lost profits and not less than a reasonable royalty.

COUNT III - INFRINGEMENT OF '384 PATENT

68. BlackBerry realleges and incorporates by reference the allegations set forth in the foregoing paragraphs.

69. On information and belief, BLU has directly infringed and is continuing to directly infringe the '384 patent, either literally or under the doctrine of equivalents, by making, using, selling, offering for sale, and/or importing in the United States and in this Judicial District, products, software, and/or services that incorporate or make use of one or more of the inventions covered by the '384 patent, including but not limited to the BLU Android Devices (*see, e.g.*, Exs. H, I) ("'384 Accused Products"), thereby infringing one or more claims of the '384 patent.

70. BLU's '384 Accused Products satisfy each and every element of one or more claims of the '384 patent, for example, and without limitation, claims 1 and 4 of the '384 patent.

71. Claim 1 of the '384 patent recites:

A method for controlling an apparatus comprising a display, the method comprising:

displaying a dynamic bar on the display; ("Element 1A")

displaying dynamic preview information in the dynamic bar, the dynamic preview information being determined from information managed by a software application, the dynamic preview information being updated to reflect a change to the information managed by the software application; ("Element 1B")

expanding the dynamic bar to display an expanded dynamic bar in response to a first input from an input device, displaying the expanded dynamic bar comprising: ("Element 1C")

displaying additional dynamic preview information determined from the information managed by the software application, the additional dynamic

preview information being different from the dynamic preview information displayed in the dynamic bar, and the additional dynamic preview information being updated to reflect the same or different change to the information managed by the software application; (“Element 1D”)

displaying a selectable link embedded in the additional dynamic preview information to invoke the software application; and (“Element 1E”)

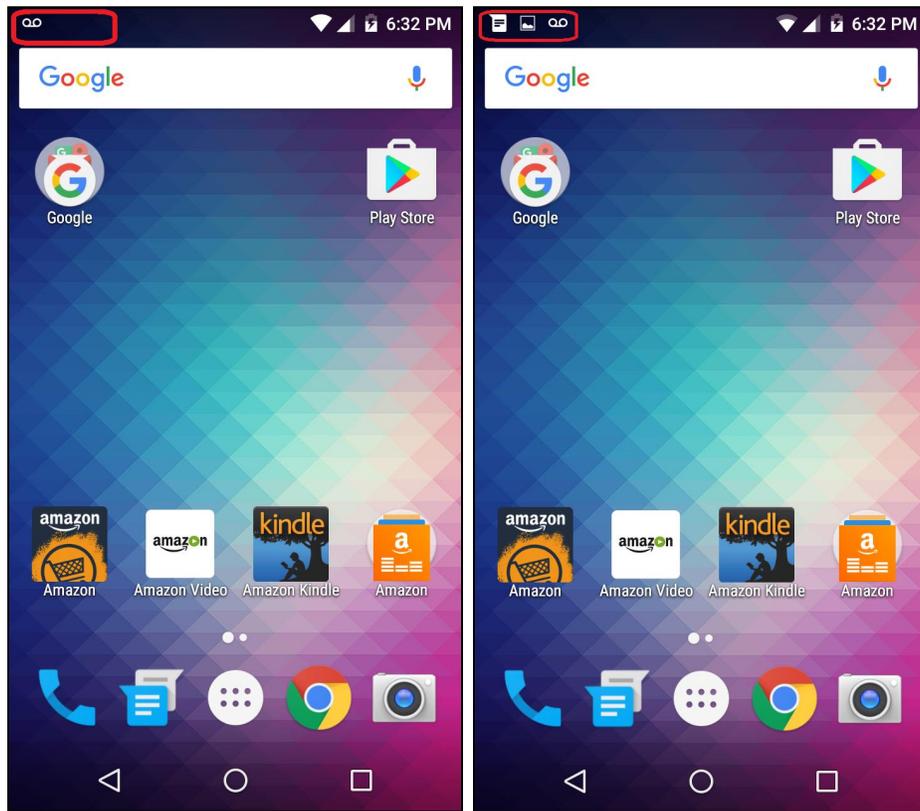
activating the software application in response to a second input invoking the link. (“Element 1F”)

72. To the extent the preamble is considered a limitation, the ’384 Accused Products satisfy the preamble of claim 1: “A method for controlling an apparatus comprising a display, the method comprising.” *See, e.g.,* Ex. H, I, N; *see also:*



Ex. O at 9-10 (image taken from native website due to better formatting).

73. The '384 Accused Products satisfy Element 1A of claim 1 of the '384 patent:
“displaying a dynamic bar on the display.” *See, e.g.*:

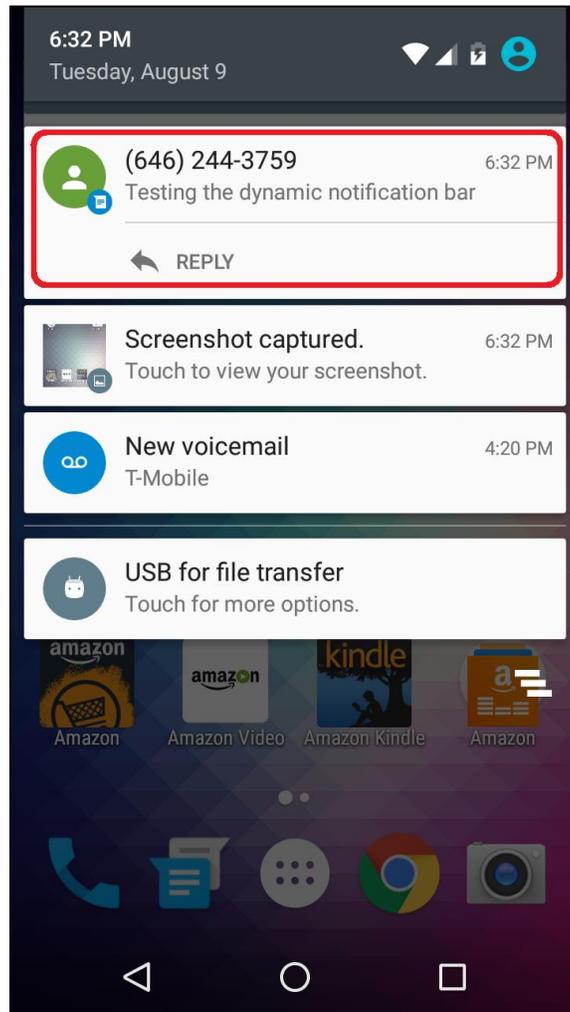


Screenshots taken on R1 HD device running Android Version 6.0, red box annotations added.

The screenshots show that a notification icon is generated in the notification bar after a text message is received. *See also* Paragraph 72.

74. The '384 Accused Products satisfy Element 1B of claim 1 of the '384 patent:
“displaying dynamic preview information in the dynamic bar, the dynamic preview information being determined from information managed by a software application, the dynamic preview information being updated to reflect a change to the information managed by the software application.” *See, e.g.*, Paragraph 73.

75. The '384 Accused Products satisfy Element 1C of claim 1 of the '384 patent:
“expanding the dynamic bar to display an expanded dynamic bar in response to a first input from an input device, displaying the expanded dynamic bar comprising.” *See, e.g.:*



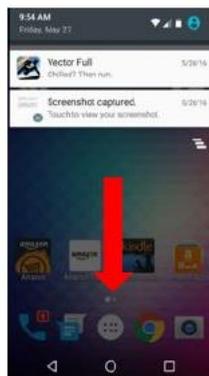
Screenshots taken on R1 HD device running Android Version 6.0, red box annotations added.

When the notification bar is selected, the notification bar expands and displays a preview of the text. *See also:*

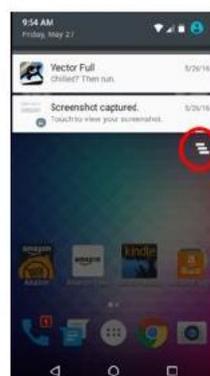
R1 HD | Shortcuts and Notification Bar

How the Notification bar works

- The notification bar is located at the top of all your home screens, and it's the place your applications, and message services can drop you a note that there's something new to look at!
- The notification bar is also where you find your device status information, such as network, signal strength, and Wi-Fi signal strength.
- In order to see the details about any of your notifications you can pull down the notification bar like a drop down curtain, just slide your finger from the top of the screen down-wards
- The Notification bar is also where you can manage your device with a ton of shortcuts!



Swipe down to bring out the notification bar



You can clear notification by hitting the CLEAR ALL button

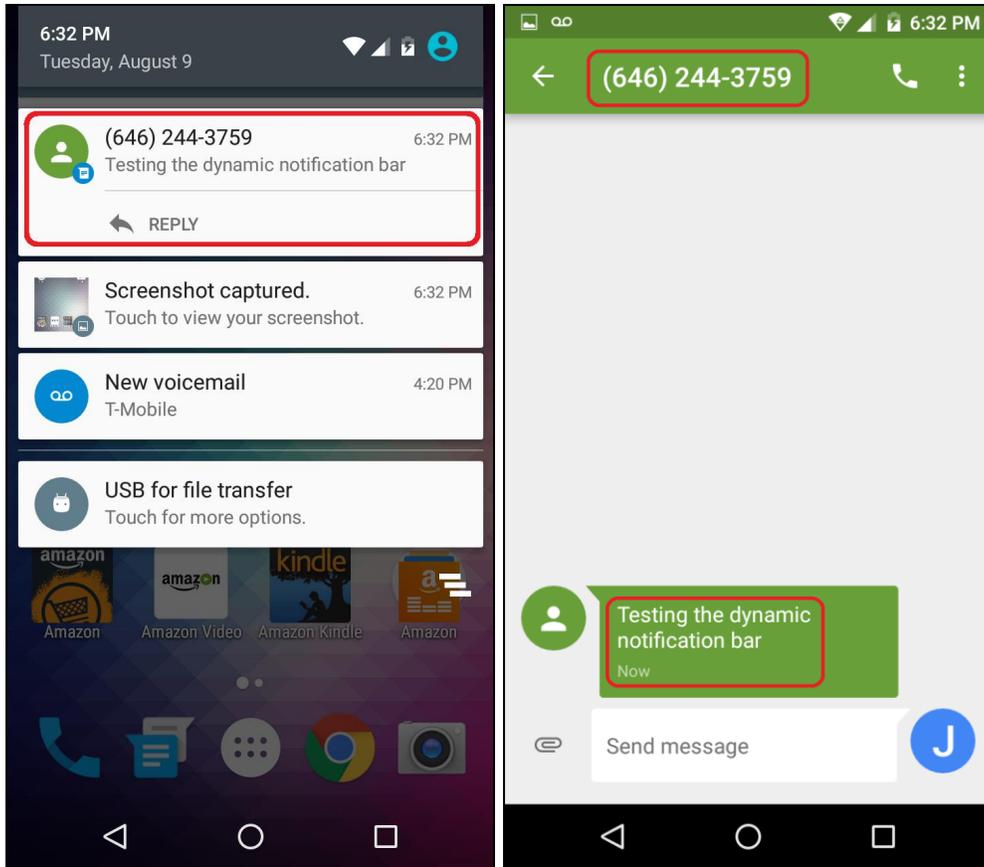


Your notification bar pulls out further, into your shortcut menu, where a ton of features can be toggled on and off!

Ex. P; *see also* Exs. H, I.

76. The '384 Accused Products satisfy Element 1D of claim 1 of the '384 patent: “displaying additional dynamic preview information determined from the information managed by the software application, the additional dynamic preview information being different from the dynamic preview information displayed in the dynamic bar, and the additional dynamic preview information being updated to reflect the same or different change to the information managed by the software application.” *See, e.g.*, Paragraph 75.

77. The '384 Accused Products satisfy Element 1E of claim 1 of the '384 patent: “displaying a selectable link embedded in the additional dynamic preview information to invoke the software application.” *See, e.g.*:



Screenshots taken on R1 HD device running Android Version 6.0, red box annotations added.

When the preview of the text is selected, the texting application is launched.

78. The '384 Accused Products satisfy Element 1F of claim 1 of the '384 patent: “activating the software application in response to a second input invoking the link.” *See, e.g.*, Paragraph 77.

79. Claim 4 of the '384 patent recites:

The method of claim 1:

wherein the apparatus comprises a cellular telephone.

80. The '384 Accused Products satisfy the elements of claim 4 of the '384 patent as set forth above in Paragraphs 72-78.

81. The '384 Accused Products satisfy Element 4G of claim 4 of the '384 patent: “wherein the apparatus comprises a cellular telephone.” *See, e.g.*, Paragraphs 72-78.

82. By its actions, BLU has injured BlackBerry and is liable to BlackBerry for infringement of the '384 patent pursuant to 35 U.S.C. § 271.

83. BlackBerry has been damaged by BLU's infringement of the '384 patent and will continue to be damaged unless BLU is enjoined by this Court. BlackBerry has suffered and continues to suffer irreparable injury for which there is no adequate remedy at law. The balance of hardships favors BlackBerry, and public interest is not disserved by an injunction.

84. BlackBerry is entitled to recover from BLU all damages that BlackBerry has sustained as a result of BLU's infringement of the '384 patent, including without limitation, lost profits and not less than a reasonable royalty.

COUNT IV - INFRINGEMENT OF '845 PATENT

85. BlackBerry realleges and incorporates by reference the allegations set forth in the foregoing paragraphs.

86. On information and belief, BLU has directly infringed and is continuing to directly infringe the '845 patent, either literally or under the doctrine of equivalents, by making, using, selling, offering for sale, and/or importing in the United States and in this Judicial District, products, software, and/or services that incorporate or make use of one or more of the inventions covered by the '845 patent, including but not limited to the BLU Android Devices (*see, e.g.*, Exs. H, I) (“'845 Accused Products”), thereby infringing one or more claims of the '845 patent.

87. BLU's '845 Accused Products satisfy each and every element of one or more claims of the '845 patent, for example, and without limitation, claims 1 and 16 of the '845 patent.

88. Claim 1 of the '845 patent recites:

A method of displaying a communications log on a mobile device, the method comprising:

detecting an outgoing phone call associated with a phone number; (“Element 1A”)

detecting an incoming phone call associated with the phone number; (“Element 1B”)

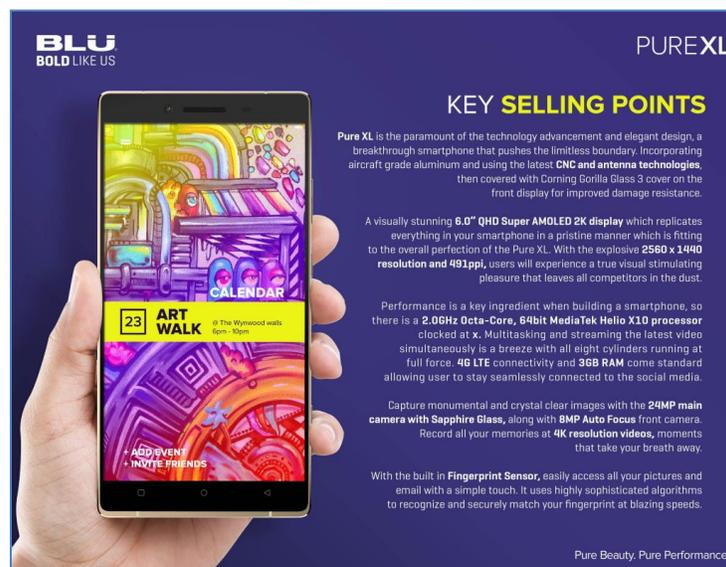
storing in a memory communications-related information for the incoming phone call; (“Element 1C”)

storing in the memory communications-related information for the outgoing phone call; (“Element 1D”)

displaying an entry in the communications log associated with one of the outgoing phone call and the incoming phone call; and (“Element 1E”)

displaying at least part of a listing when the entry is selected, the listing comprising communications-related information stored in the memory associated with the phone number including the outgoing phone call and the incoming phone call associated with the phone number. (“Element 1F”)

89. To the extent the preamble is considered a limitation, the ’845 Accused Products satisfy the preamble of claim 1 of the ’845 patent: “A method of displaying a communications log on a mobile device, the method comprising.” *See, e.g.:*



BLU
BOLD LIKE US

PUREXL

KEY SELLING POINTS

Pure XL is the paramount of the technology advancement and elegant design, a breakthrough smartphone that pushes the limitless boundary. Incorporating aircraft grade aluminum and using the latest **CNC and antenna technologies**, then covered with Corning Gorilla Glass 3 cover on the front display for improved damage resistance.

A visually stunning **6.0" QHD Super AMOLED 2K display** which replicates everything in your smartphone in a pristine manner which is fitting to the overall perfection of the Pure XL. With the explosive **2560 x 1440 resolution and 491ppi**, users will experience a true visual stimulating pleasure that leaves all competitors in the dust.

Performance is a key ingredient when building a smartphone, so there is a **2.0GHz Octa-Core, 64bit MediaTek Helio X10 processor** clocked at x. Multitasking and streaming the latest video simultaneously is a breeze with all eight cylinders running at full force. **4G LTE** connectivity and **3GB RAM** come standard allowing user to stay seamlessly connected to the social media.

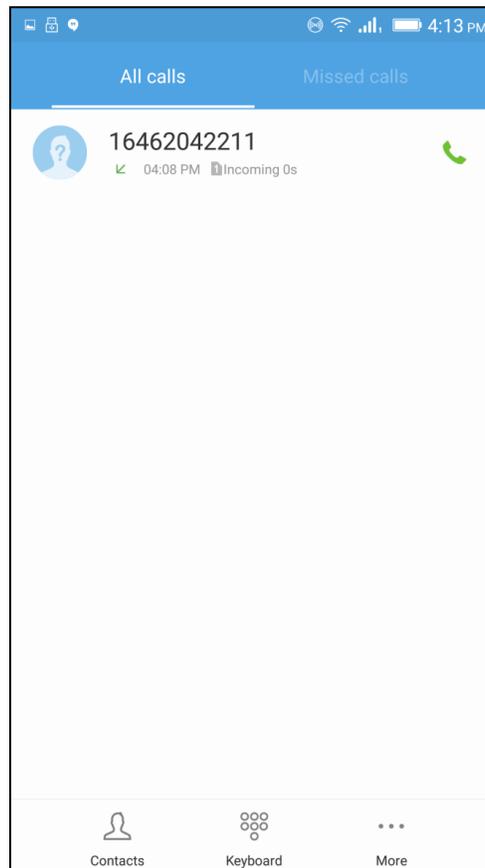
Capture monumental and crystal clear images with the **24MP main camera with Sapphire Glass**, along with **8MP Auto Focus** front camera. Record all your memories at **4K resolution videos**, moments that take your breath away.

With the built in **Fingerprint Sensor**, easily access all your pictures and email with a simple touch. It uses highly sophisticated algorithms to recognize and securely match your fingerprint at blazing speeds.

Pure Beauty. Pure Performance.

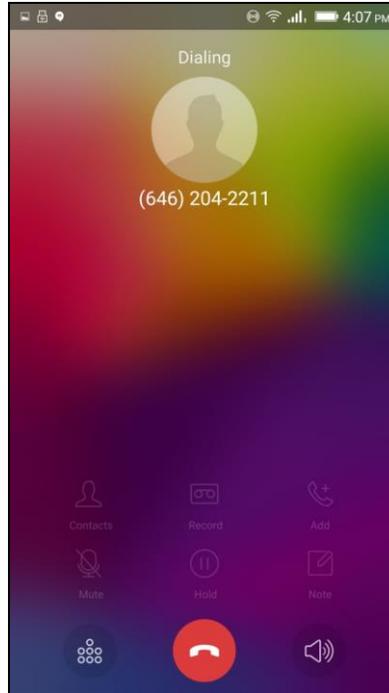
Ex. Q at 5, BLU Pure XL Sales Guide, downloaded on 8/12/2016 from

<http://s536785483.onlinehome.us/salesguides/images/salesguides/pure-xl-sg.pdf>. *See also:*



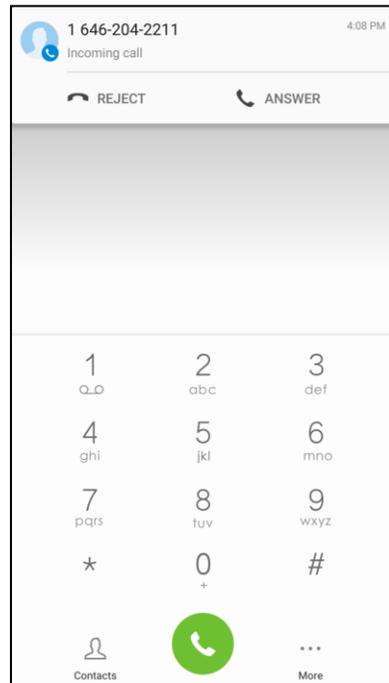
Screenshots taken on BLU PURE XL device running Android Version 5.1; *see also* Exs. H, I.

90. The '845 Accused Products satisfy Element 1A of claim 1 of the '845 patent: “detecting an outgoing phone call associated with a phone number.” *See, e.g.:*



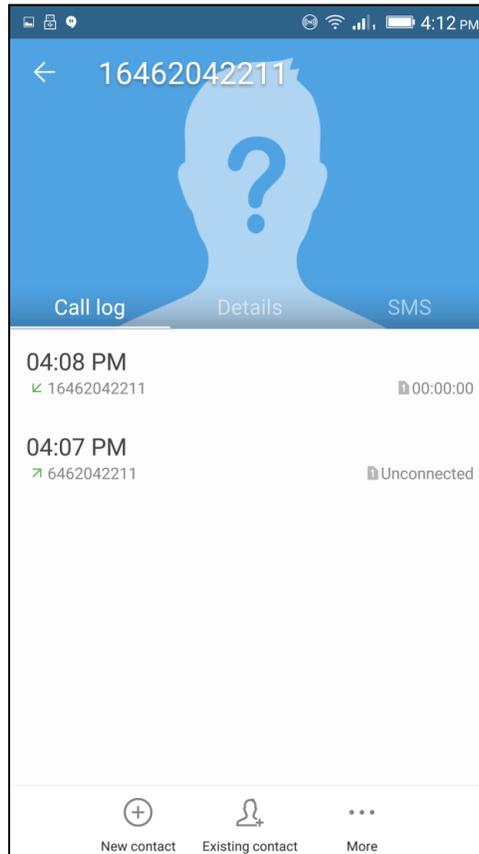
Screenshots taken on BLU PURE XL device running Android Version 5.1.

91. The '845 Accused Products satisfy Element 1B of claim 1 of the '845 patent: "detecting an incoming phone call associated with the phone number." *See, e.g.:*



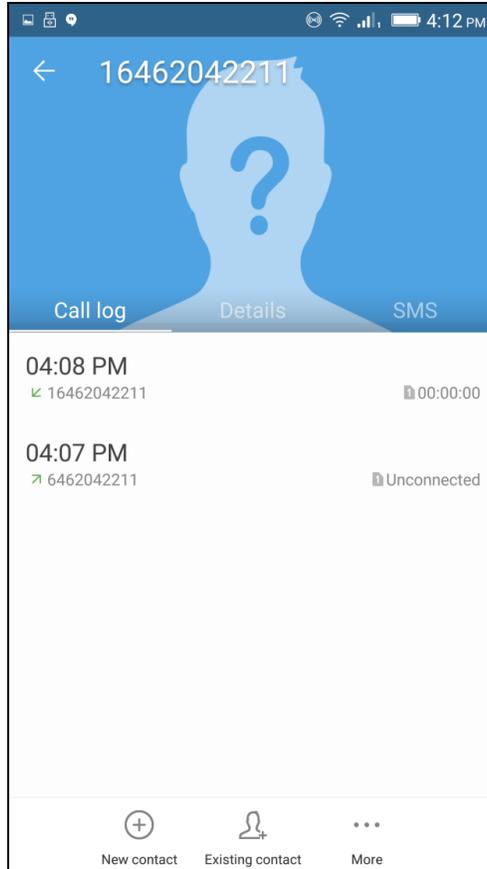
Screenshots taken on BLU PURE XL device running Android Version 5.1.

92. The '845 Accused Products satisfy Element 1C of claim 1 of the '845 patent: “storing in a memory communications-related information for the incoming phone call.” *See, e.g.:*



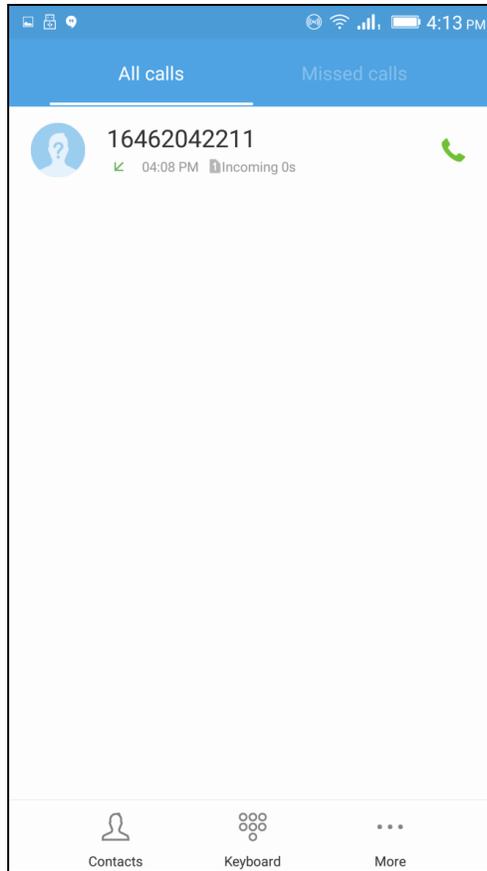
Screenshots taken on BLU PURE XL device running Android Version 5.1.

93. The '845 Accused Products satisfy Element 1D of claim 1 of the '845 patent: “storing in the memory communications-related information for the outgoing phone call.” *See, e.g.:*



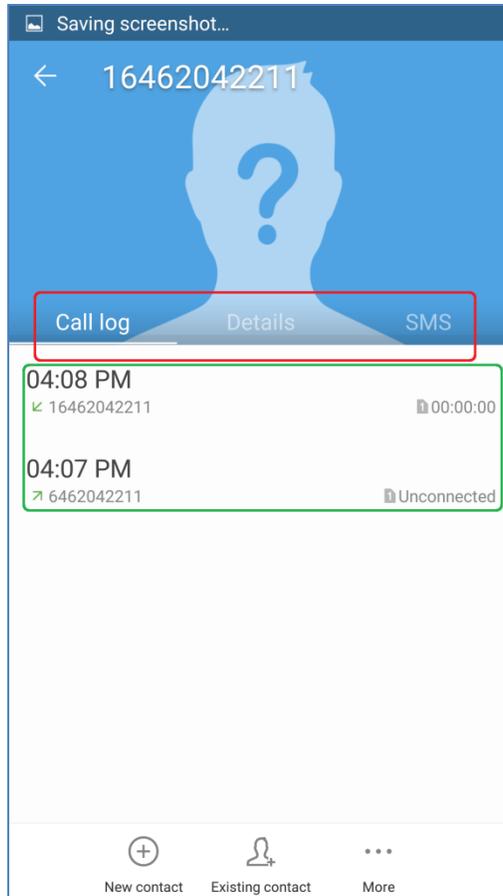
Screenshots taken on BLU PURE XL device running Android Version 5.1.

94. The '845 Accused Products satisfy Element 1E of claim 1 of the '845 patent: “displaying an entry in the communications log associated with one of the outgoing phone call and the incoming phone call.” *See, e.g.:*



Screenshots taken on BLU PURE XL device running Android Version 5.1.

95. The '845 Accused Products satisfy Element 1F of claim 1 of the '845 patent: “displaying at least part of a listing when the entry is selected, the listing comprising communications-related information stored in the memory associated with the phone number including the outgoing phone call and the incoming phone call associated with the phone number.” *See, e.g.:*



Screenshots taken on BLU PURE XL device running Android Version 5.1, red and green box annotations added. When the entry on the call log is selected, call log history (“Call log”; including phone number, time, and duration information (green box)), contact information (“Details”), and text message history (“SMS”) is provided for the contact.

96. Claim 16 of the ’845 patent recites:

A mobile device comprising:

a processor; (“Element 16A”)

an input apparatus coupled to the processor; and (“Element 16B”)

a memory coupled to the processor, the memory storing instructions executable by the processor, the instructions being adapted to: (“Element 16C”)

detect an outgoing phone call associated with a phone number; (“Element 16D”)

detect an incoming phone call associated with the phone number; (“Element 16E”)

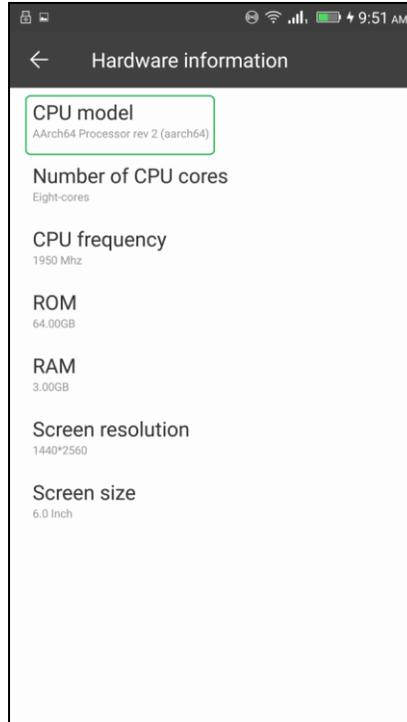
store in the memory communications-related information for the outgoing phone call; (“Element 16F”)

display an entry in the communications log associated with one of the outgoing phone call and the incoming phone call; and (“Element 16G”)

display at least part of a listing when the entry is selected, the listing comprising communications-related information stored in the memory associated with the phone number including the outgoing phone call and the incoming phone call associated with the phone number. (“Element 16H”)

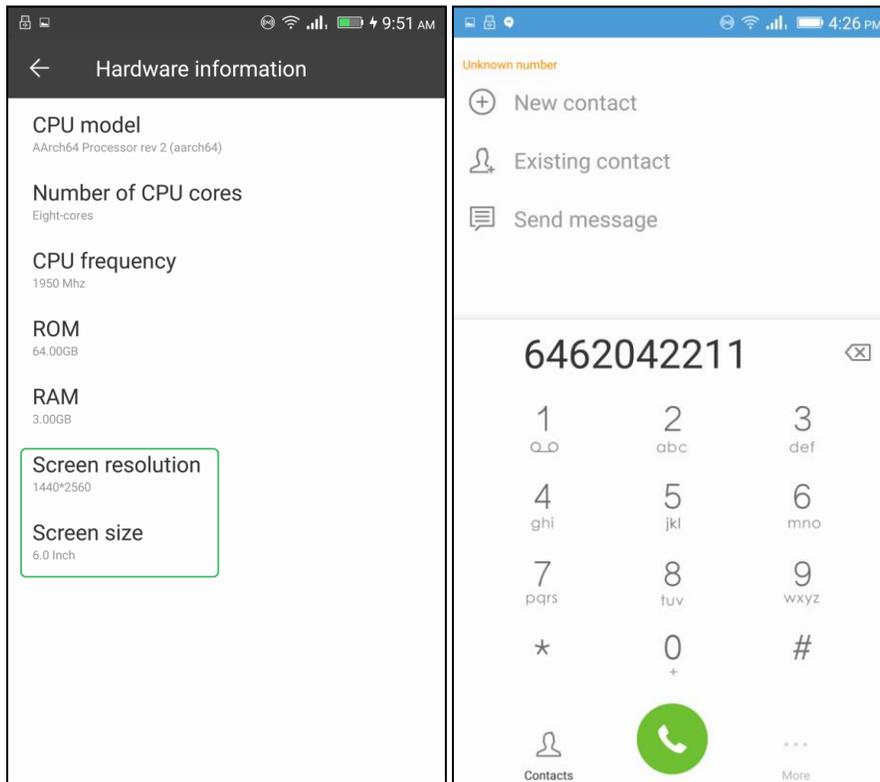
97. To the extent the preamble is considered a limitation, the ’845 Accused Products satisfy the preamble of claim 16 of the ’845 patent: “A mobile device comprising.” *See, e.g.*, Paragraph 89.

98. The ’845 Accused Products satisfy Element 16A of claim 16 of the ’845 patent: “a processor.” *See, e.g.*:



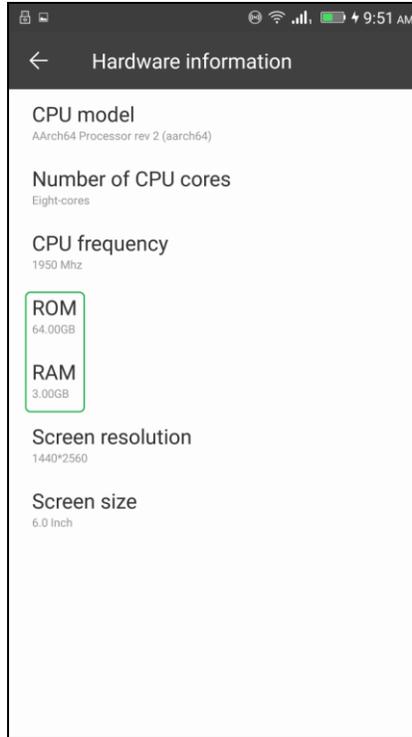
Screenshots taken on BLU PURE XL device running Android Version 5.1, green box annotation added.

99. The '845 Accused Products satisfy Element 16B of claim 16 of the '845 patent: “an input apparatus coupled to the processor.” *See, e.g.:*



Screenshots taken on BLU PURE XL device running Android Version 5.1, green box annotation added.

100. The '845 Accused Products satisfy Element 16C of claim 16 of the '845 patent: “a memory coupled to the processor, the memory storing instructions executable by the processor, the instructions being adapted to.” *See, e.g.:*



Screenshots taken on BLU PURE XL device running Android Version 5.1, green box annotation added.

101. The '845 Accused Products satisfy Element 16D of claim 16 of the '845 patent: “detect an outgoing phone call associated with a phone number.” *See, e.g.*, Paragraph 90.

102. The '845 Accused Products satisfy Element 16E of claim 16 of the '845 patent: “detect an incoming phone call associated with the phone number.” *See, e.g.*, Paragraph 91.

103. The '845 Accused Products satisfy Element 16F of claim 16 of the '845 patent: “store in the memory communications-related information for the outgoing phone call.” *See, e.g.*, Paragraph 93.

104. The '845 Accused Products satisfy Element 16G of claim 16 of the '845 patent: “display an entry in the communications log associated with one of the outgoing phone call and the incoming phone call.” *See, e.g.*, Paragraph 94.

105. The '845 Accused Products satisfy Element 16H of claim 16 of the '845 patent: “display at least part of a listing when the entry is selected, the listing comprising communications-related information stored in the memory associated with the phone number including the outgoing phone call and the incoming phone call associated with the phone number.” *See, e.g.*, Paragraph 95.

106. By its actions, BLU has injured BlackBerry and is liable to BlackBerry for infringement of the '845 patent pursuant to 35 U.S.C. § 271.

107. BlackBerry has been damaged by BLU's infringement of the '845 patent and will continue to be damaged unless BLU is enjoined by this Court. BlackBerry has suffered and continues to suffer irreparable injury for which there is no adequate remedy at law. The balance of hardships favors BlackBerry, and public interest is not disserved by an injunction.

108. BlackBerry is entitled to recover from BLU all damages that BlackBerry has sustained as a result of BLU's infringement of the '845 patent, including without limitation, lost profits and not less than a reasonable royalty.

COUNT V - INFRINGEMENT OF '605 PATENT

109. BlackBerry realleges and incorporates by reference the allegations set forth in the foregoing paragraphs.

110. On information and belief, BLU has directly infringed and is continuing to directly infringe the '605 patent, either literally or under the doctrine of equivalents, by making, using, selling, offering for sale, and/or importing in the United States and in this Judicial District, products, software, and/or services that incorporate or make use of one or more of the inventions covered by the '605 patent, including but not limited to the BLU Pure XL and BLU Vivo 5 (“'605 Accused Products”), thereby infringing one or more claims of the '605 patent.

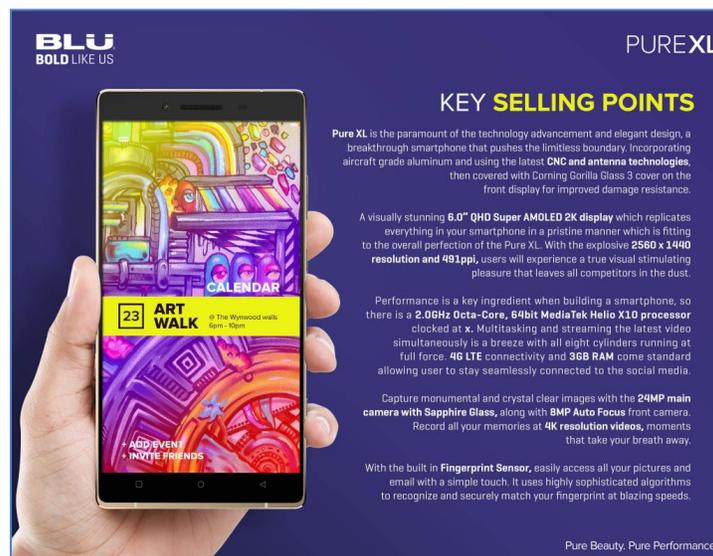
111. BLU’s ’605 Accused Products satisfy each and every element of one or more claims of the ’605 patent, for example, and without limitation, claims 9 and 25 of the ’605 patent.

112. Claim 9 of the ’605 patent recites:

A device comprising:

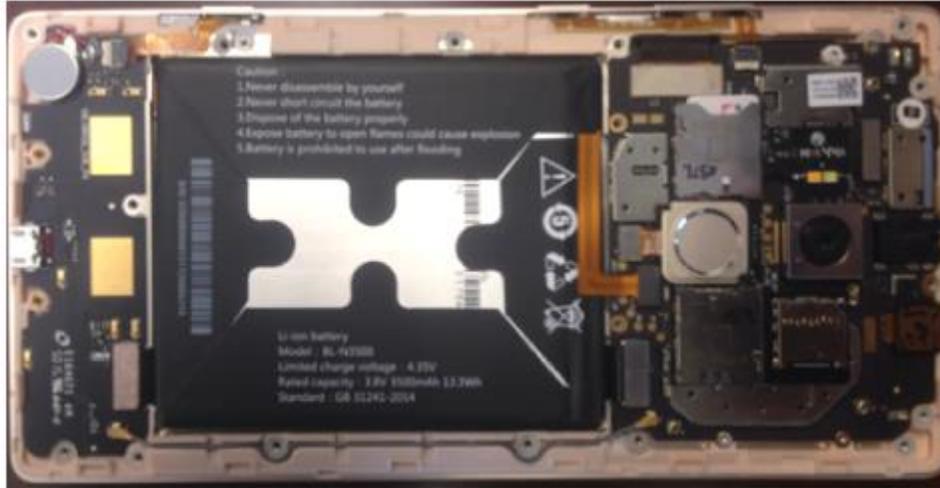
- (a) a battery for providing power; (“Element 9A”)
- (b) a load for using power provided by said battery; (“Element 9B”)
- (c) a switch coupled between said battery and said load and having a first and a second state, said switch being operative to connect said battery to said load when in said second state, said switch also being operative to disconnect said battery from said load when in said first state wherein the load is not provided with power when said switch is in the first state; and (“Element 9C”)
- (d) a switch controller coupled to said switch, said switch controller having an input for receiving a first signal from a first source and a second signal from a second source, said switch controller being operative to cause said switch to enter said second state in response to said first signal wherein the first signal provides an indication that an external power source has been coupled to the device, said switch controller also being operative to cause said switch to enter said first state in response to said second signal. (“Element 9D”)

113. To the extent the preamble is considered a limitation, the ’605 Accused Products satisfy the preamble of claim 9 of the ’605 patent: “A device comprising.” *See, e.g.:*



Ex. Q at 5.

114. The '605 Accused Products satisfy Element 9A of claim 9 of the '605 patent: “a battery for providing power.” *See, e.g.*:



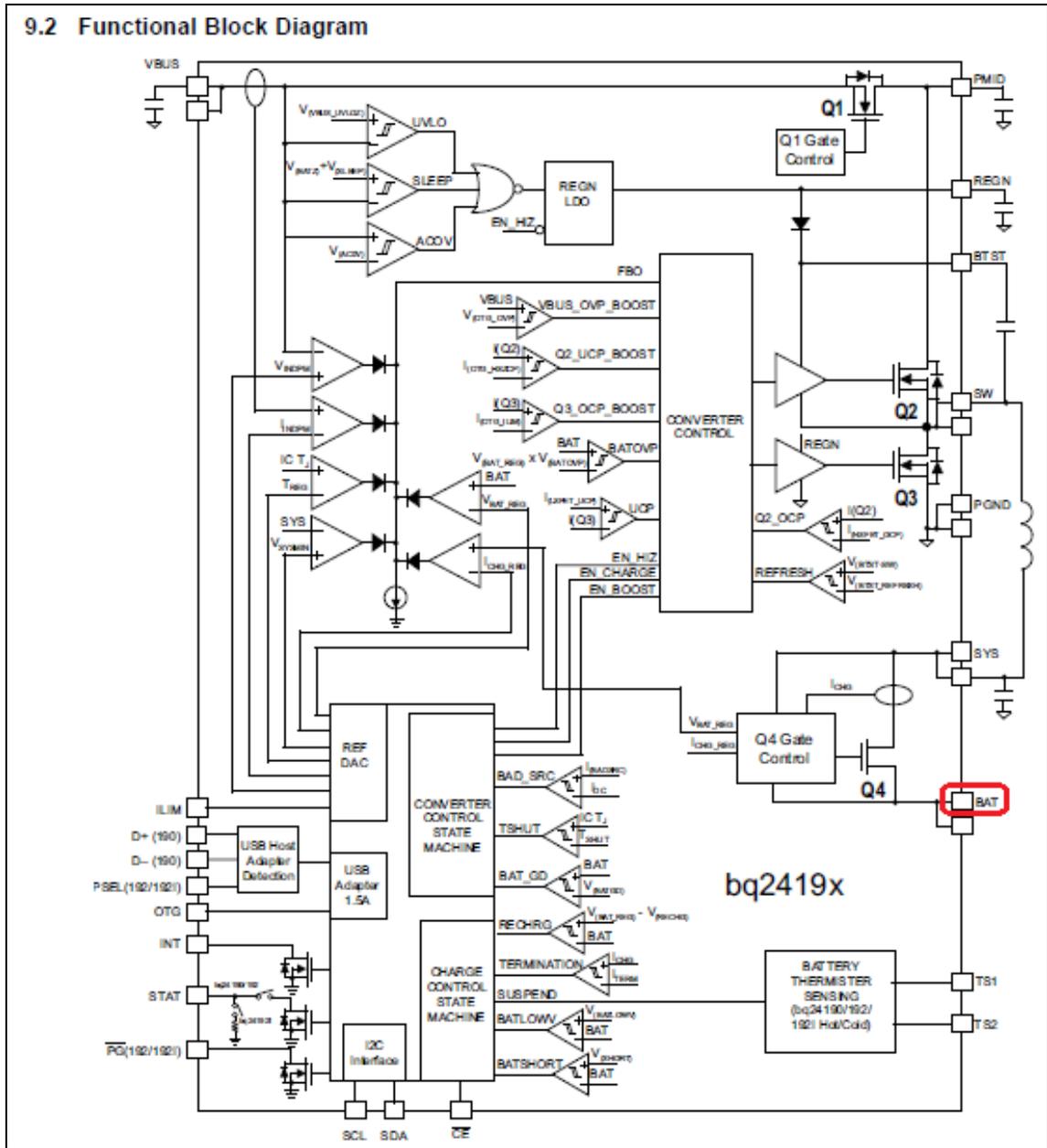
On information and belief, the BLU PURE XL (pictured above) includes and uses the Texas Instruments power path management device model TI BQ24192. *See also* Teardown Report for BLU PURE XL available from Teardown.com.



bq24190, bq24192, bq24192I

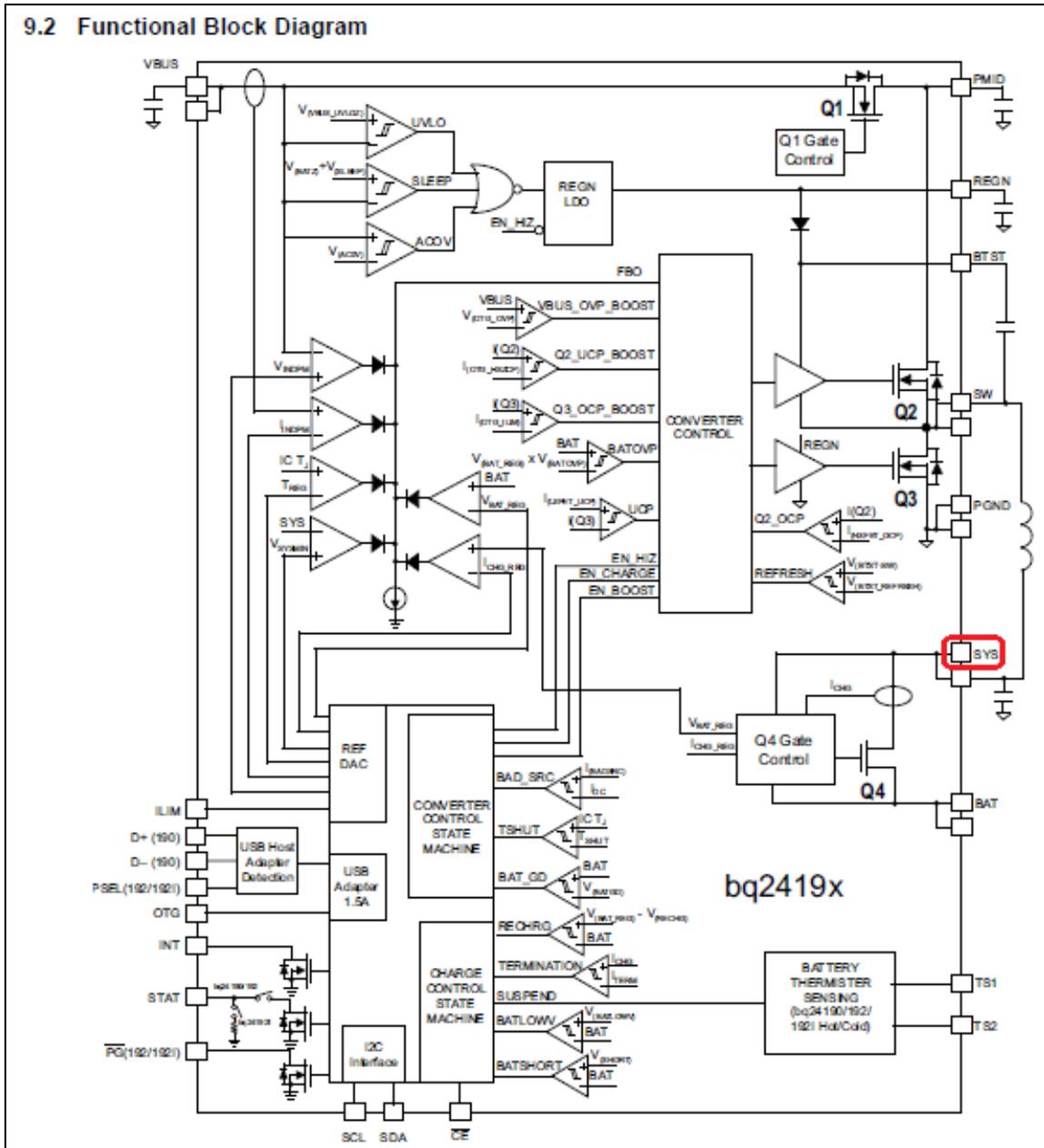
SLUSAW5B – JANUARY 2012 – REVISED DECEMBER 2014

**bq2419x I²C Controlled 4.5-A Single Cell USB/Adapter Charger
with Narrow VDC Power Path Management and USB OTG**



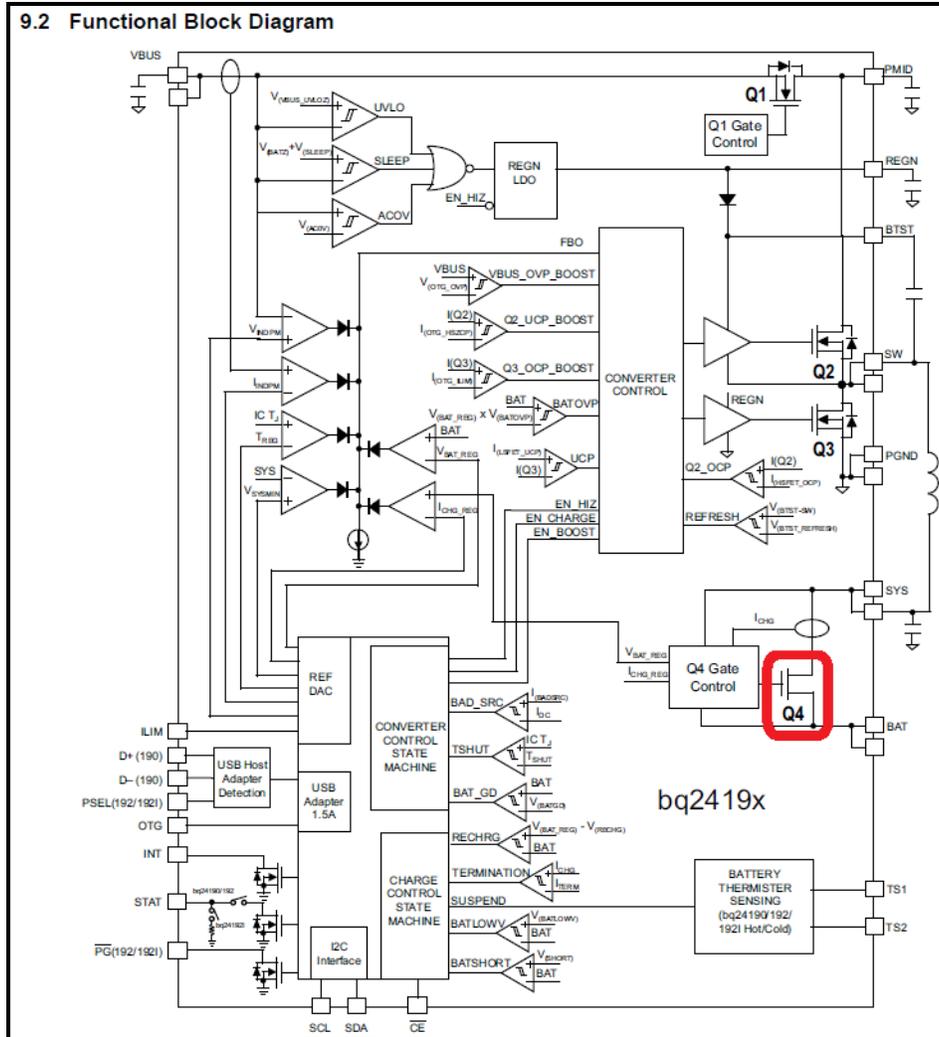
Ex. R, TI BQ24192 manual at 1, Figure 9.2, red box annotation added.

115. The '605 Accused Products satisfy Element 9B of claim 9 of the '605 patent: “a load for using power provided by said battery.” See, e.g.:



Ex. R at Figure 9.2, red box annotation added.

116. The '605 Accused Products satisfy Element 9C of claim 9 of the '605 patent: “a switch coupled between said battery and said load and having a first and a second state, said switch being operative to connect said battery to said load when in said second state, said switch also being operative to disconnect said battery from said load when in said first state wherein the load is not provided with power when said switch is in the first state.” See, e.g.:



Ex. R at Figure 9.2, red box annotation added.

9.3.1.2.1 BATFET Turn Off

The BATFET can be forced off by the host through I²C REG07[5]. This bit allows the user to independently turn off the BATFET when the battery condition becomes abnormal during charging. When BATFET is off, there is no path to charge or discharge the battery.

When battery is not attached, the BATFET should be turned off by setting REG07[5] to 1 to disable charging and supplement mode.

9.3.1.2.2 Shipping Mode

When end equipment is assembled, the system is connected to battery through BATFET. There will be a small leakage current to discharge the battery even when the system is powered off. In order to extend the battery life during shipping and storage, the device can turn off BATFET so that the system voltage is zero to minimize the leakage.

In order to keep BATFET off during shipping mode, the host has to disable the watchdog timer (REG05[5:4] = 00) and disable BATFET (REG07[5] = 1) at the same time.

Once the BATFET is disabled, the BATFET can be turned on by plugging in adapter.

Ex. R at 13.

117. The '605 Accused Products satisfy Element 9D of claim 9 of the '605 patent: “a switch controller coupled to said switch, said switch controller having an input for receiving a first signal from a first source and a second signal from a second source, said switch controller being operative to cause said switch to enter said second state in response to said first signal wherein the first signal provides an indication that an external power source has been coupled to the device, said switch controller also being operative to cause said switch to enter said first state in response to said second signal.” *See, e.g.:*

9 Detailed Description

9.1 Overview

The bq24190, bq24192, bq24192I is an I²C controlled power path management device and a single cell Li-Ion battery charger. It integrates the input reverse-blocking FET (RBFET, Q1), high-side switching FET (HSFET, Q2), low-side switching FET (LSFET, Q3), and BATFET (Q4) between system and battery. The device also integrates the bootstrap diode for the high-side gate drive.

9.3.1.2.1 BATFET Turn Off

The BATFET can be forced off by the host through I²C REG07[5]. This bit allows the user to independently turn off the BATFET when the battery condition becomes abnormal during charging. When BATFET is off, there is no path to charge or discharge the battery.

When battery is not attached, the BATFET should be turned off by setting REG07[5] to 1 to disable charging and supplement mode.

9.3.1.2.2 Shipping Mode

When end equipment is assembled, the system is connected to battery through BATFET. There will be a small leakage current to discharge the battery even when the system is powered off. In order to extend the battery life during shipping and storage, the device can turn off BATFET so that the system voltage is zero to minimize the leakage.

In order to keep BATFET off during shipping mode, the host has to disable the watchdog timer (REG05[5:4] = 00) and disable BATFET (REG07[5] = 1) at the same time.

Once the BATFET is disabled, the BATFET can be turned on by plugging in adapter.

Ex. R at 12-13.

118. Claim 25 of the '605 patent recites:

A method for controlling the operating environment of a rechargeable battery in an electronic device having a load and wherein the rechargeable battery is the direct source of power to the load, comprising the steps of:

- (a) providing a switch in the device that is operative to electrically couple the load to the rechargeable battery when in a second state, the switch also being

- operative to electrically decouple the load from the rechargeable battery when in a first state; (“Element 25A”)
- (b) charging the rechargeable battery; (“Element 25B”)
 - (c) placing said switch in the first state thereby electrically disconnecting the rechargeable battery from the load after the rechargeable battery has been at least partially charged so the load does not drain the battery after the battery has been charged; (“Element 25C”)
 - (d) electrically coupling an external power source to the device; (“Element 25D”)
 - (e) detecting the coupling of said external power source to the device; and (“Element 25E”)
 - (f) placing said switch in the second state whereby the rechargeable battery is electrically connected to the load in response to detecting the coupling of said external power source to the device. (“Element 25F”)

119. To the extent the preamble is considered a limitation, the ’605 Accused Products satisfy the preamble of claim 25 of the ’605 patent: “A method for controlling the operating environment of a rechargeable battery in an electronic device having a load and wherein the rechargeable battery is the direct source of power to the load, comprising the steps of.” *See, e.g.*, Paragraphs 112-14.

120. The ’605 Accused Products satisfy Element 25A of claim 25 of the ’605 patent: “providing a switch in the device that is operative to electrically couple the load to the rechargeable battery when in a second state, the switch also being operative to electrically decouple the load from the rechargeable battery when in a first state.” *See, e.g.*, Paragraph 115.

121. The ’605 Accused Products satisfy Element 25B of claim 25 of the ’605 patent: “charging the rechargeable battery.” *See, e.g.*:

3 Description

The bq24190, bq24192, and bq24192I are highly-integrated switch-mode battery charge management and system power path management devices for single cell Li-Ion and Li-polymer battery in a wide range of tablet and other portable devices.

Ex. R at 1; *see also* Paragraphs 116-17.

122. The '605 Accused Products satisfy Element 25C of claim 25 of the '605 patent: “placing said switch in the first state thereby electrically disconnecting the rechargeable battery from the load after the rechargeable battery has been at least partially charged so the load does not drain the battery after the battery has been charged.” *See, e.g.*, Paragraphs 116-17.

123. The '605 Accused Products satisfy Element 25D of claim 25 of the '605 patent: “electrically coupling an external power source to the device.” *See, e.g.*, Paragraphs 116-17.

124. The '605 Accused Products satisfy Element 25E of claim 25 of the '605 patent: “detecting the coupling of said external power source to the device.” *See, e.g.*, Paragraphs 116-17.

125. The '605 Accused Products satisfy Element 25F of claim 25 of the '605 patent: “placing said switch in the second state whereby the rechargeable battery is electrically connected to the load in response to detecting the coupling of said external power source to the device.” *See, e.g.*, Paragraphs 116-17.

126. By its actions, BLU has injured BlackBerry and is liable to BlackBerry for infringement of the '605 patent pursuant to 35 U.S.C. § 271.

127. BlackBerry has been damaged by BLU's infringement of the '605 patent and will continue to be damaged unless BLU is enjoined by this Court. BlackBerry has suffered and

continues to suffer irreparable injury for which there is no adequate remedy at law. The balance of hardships favors BlackBerry, and public interest is not disserved by an injunction.

128. BlackBerry is entitled to recover from BLU all damages that BlackBerry has sustained as a result of BLU's infringement of the '605 patent, including without limitation, lost profits and not less than a reasonable royalty.

COUNT VI - INFRINGEMENT OF '149 PATENT

129. BlackBerry realleges and incorporates by reference the allegations set forth in the foregoing paragraphs.

130. On information and belief, BLU has directly infringed and is continuing to directly infringe the '149 patent, either literally or under the doctrine of equivalents, by making, using, selling, offering for sale, and/or importing in the United States and in this Judicial District, products, software, and/or services that incorporate or make use of one or more of the inventions covered by the '149 patent, including but not limited to the BLU Android Devices (*see, e.g.*, Exs. H, I) ("'149 Accused Products"), thereby infringing one or more claims of the '149 patent.

131. BLU's '149 Accused Products satisfy each and every element of one or more claims of the '149 patent, for example, and without limitation, claims 1 and 9 of the '149 patent.

132. Claim 1 of the '149 patent recites:

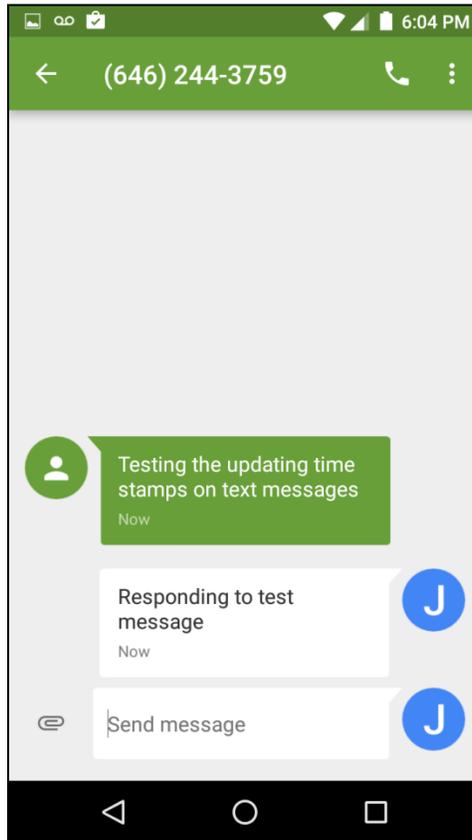
A method of displaying an instant messaging conversation on a display of an electronic device, the method comprising:

displaying a conversation of instant messages; ("Element 1A")

displaying a first time information for an instant message in the conversation in response to a first input; and ("Element 1B")

automatically changing the first time information for the instant message to a second time information as time progresses and displaying the second time information instead of the first time information. ("Element 1C")

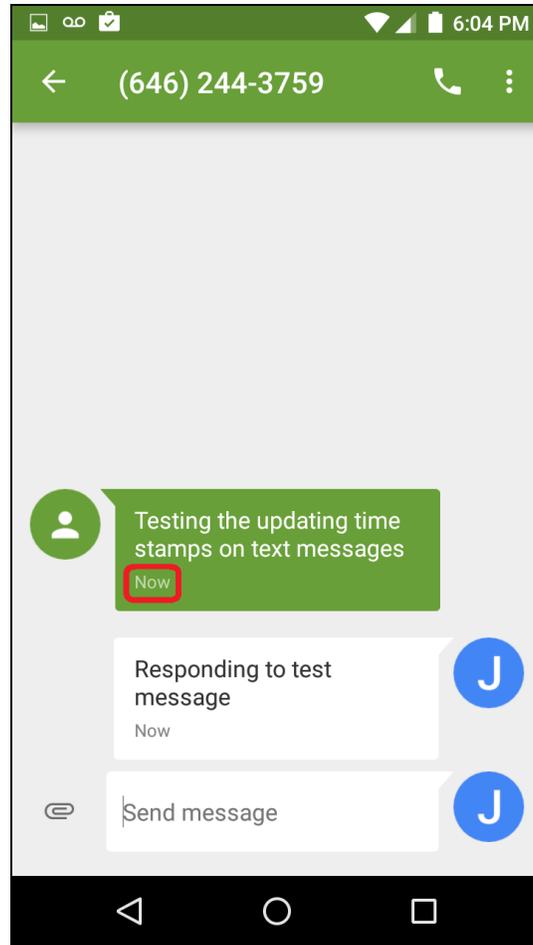
133. To the extent the preamble is considered a limitation, the '149 Accused Products satisfy the preamble of claim 1 of the '149 patent: “A method of displaying an instant messaging conversation on a display of an electronic device, the method comprising.” *See, e.g.*:



Screenshot taken on R1 HD device running Android Version 6.0.

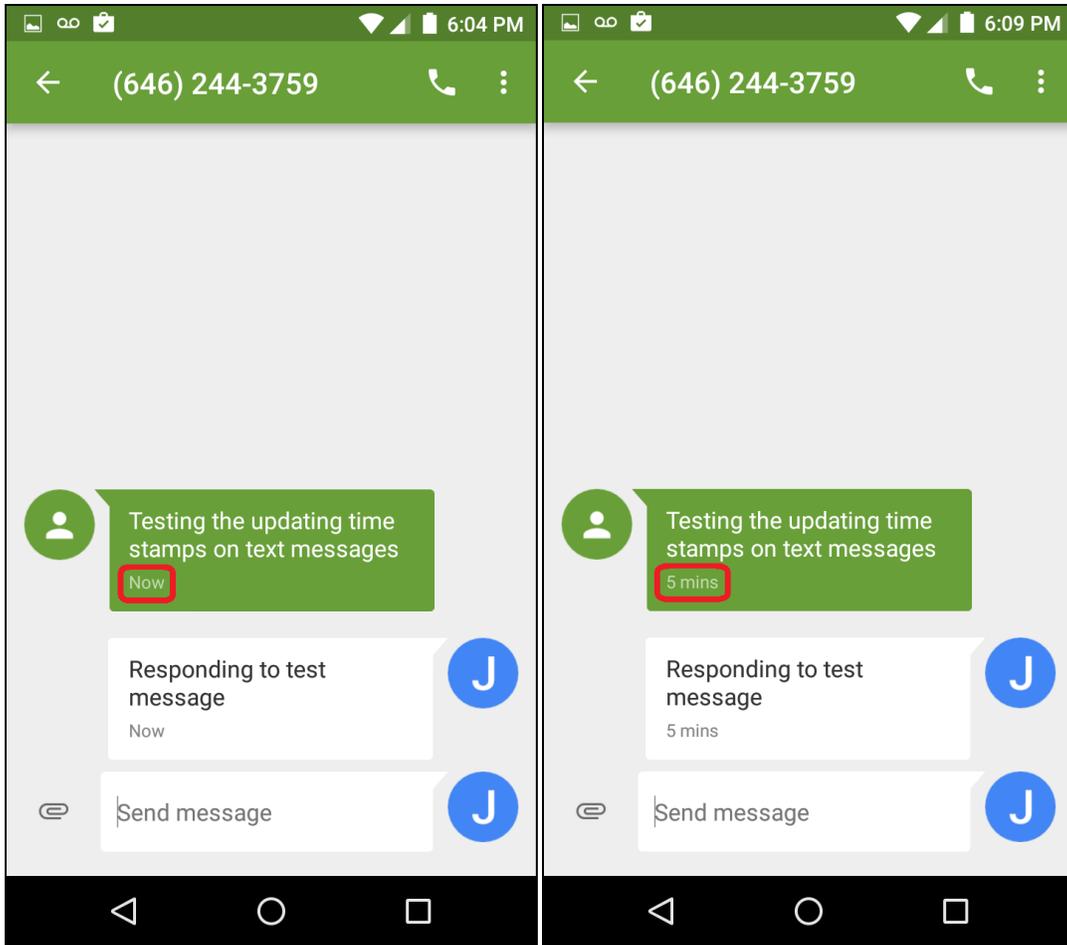
134. The '149 Accused Products satisfy Element 1A of claim 1 of the '149 patent: “displaying a conversation of instant messages.” *See, e.g.*, Paragraph 133.

135. The '149 Accused Products satisfy Element 1B of claim 1 of the '149 patent: “displaying a first time information for an instant message in the conversation in response to a first input.” *See, e.g.*:



Screenshot taken on R1 HD device running Android Version 6.0, red box annotation added. The device displays “Now” when the text message is viewed soon after receipt.

136. The '149 Accused Products satisfy Element 1C of claim 1 of the '149 patent: “automatically changing the first time information for the instant message to a second time information as time progresses and displaying the second time information instead of the first time information.” *See, e.g.:*



Screenshots taken on R1 HD device running Android Version 6.0, red box annotations added.

The device displays “Now” when the text message is viewed soon after receipt. The time stamp automatically changes from “Now” to “5 mins” after five minutes have elapsed.

137. Claim 9 of the '149 patent recites:

An electronic device for displaying an instant messaging conversation, the electronic device comprising:

a display; (“Element 9A”)

a memory; and (“Element 9B”)

a processor electronically coupled with the display and the memory, the processor configured to: (“Element 9C”)

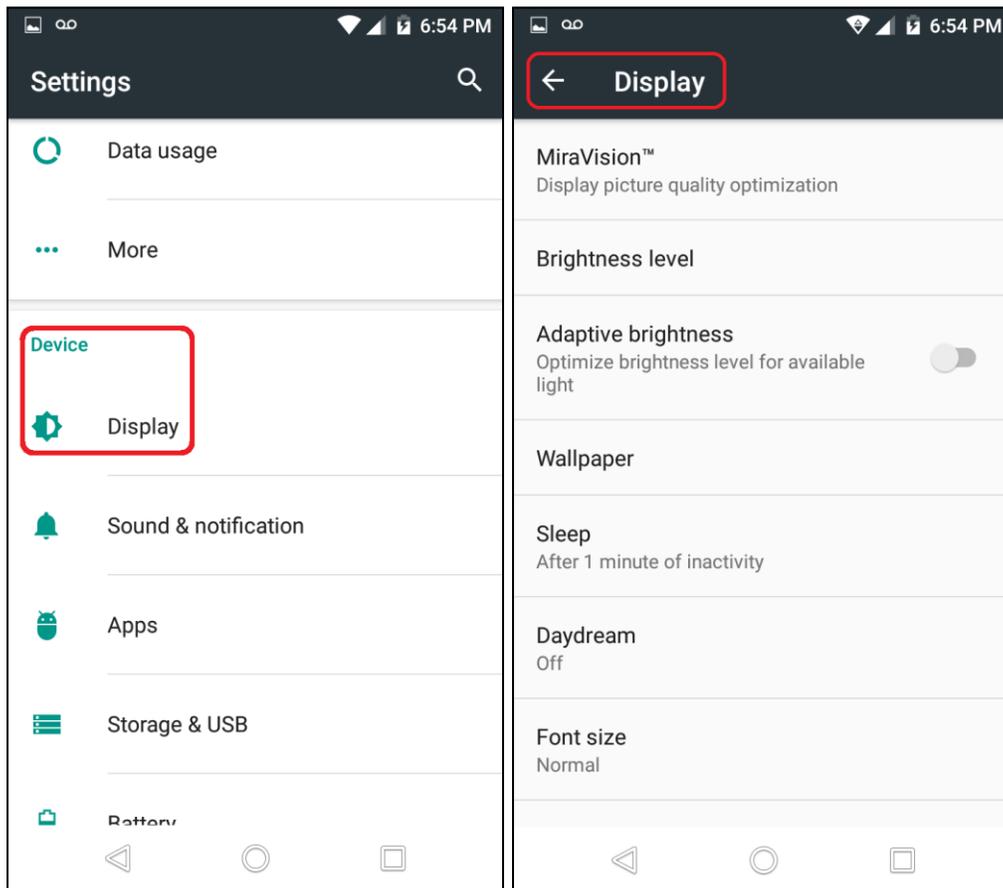
display a conversation of instant messages; (“Element 9D”)

display a first time information for an instant message in the conversation in response to a first input; and (“Element 9E”)

automatically change the first time information for the instant message to a second time information as time progresses and display the second time information instead of the first time information. (“Element 9F”)

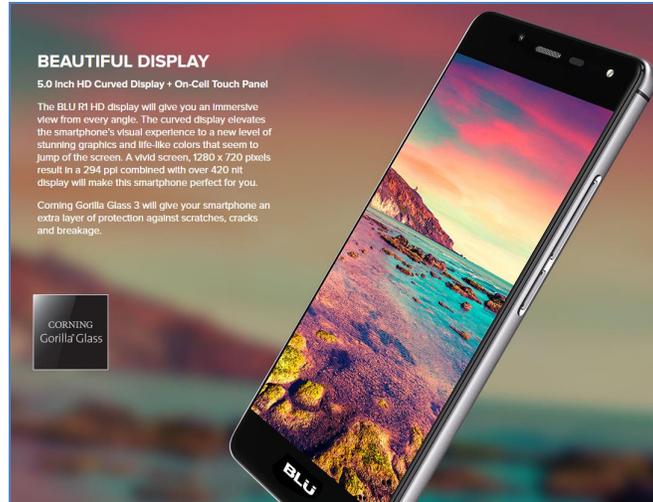
138. To the extent the preamble is considered a limitation, the ’149 Accused Products: “An electronic device for displaying an instant messaging conversation, the electronic device comprising.” *See, e.g.*, Paragraph 133.

139. The ’149 Accused Products satisfy Element 9A of claim 9 of the ’149 patent: “a display.” *See, e.g.*:



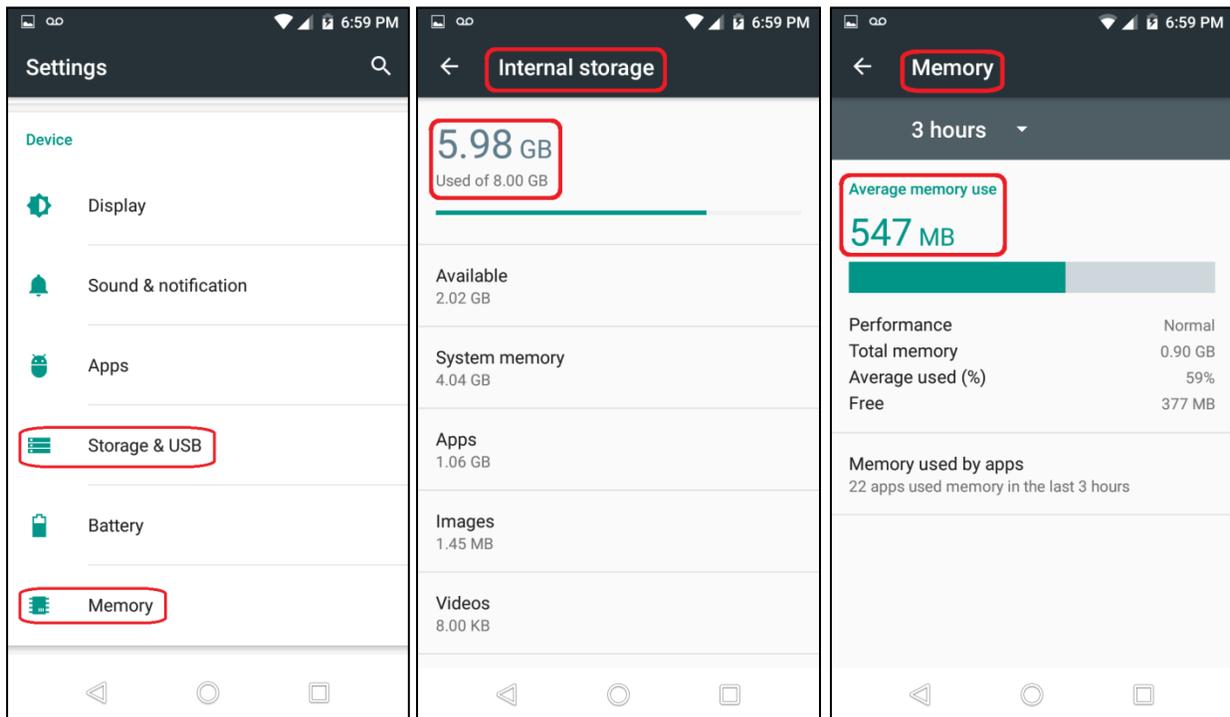
Screenshots taken on R1 HD device running Android Version 6.0, red box annotations added.

See also:



Ex. O at 3 (image taken from native website due to better formatting).

140. The '149 Accused Products satisfy Element 9B of claim 9 of the '149 patent: “a memory.” *See, e.g.:*



Screenshots taken on R1 HD device running Android Version 6.0, red box annotations added.

See also:

SPECIFICATIONS

TECHNOLOGY
 Android v6.0 Marshmallow
 2G: 850/900/1800/1900
 3G: 850/1700/1900/2100
 4G LTE: 2/4/7/17
 12 will be available OTA(Over-the-air)

PROCESSOR
 Mediatek 6735 | 1.3GHz Quad Core with Mali-T720

MEMORY
 Internal 16GB/8GB | 2GB/1GB RAM
 MicroSD up to 64GB

DISPLAY
 5.0" Capacitive Touch Panel
 HD 720X1280 - 294ppi
 BLU Infinite View (IPS Technology)

CAMERA
 8MP Main 3265x2449 pxels
 5MP Front with LED Flash
 HD 1080p Video @30fps

BATTERY
 2500 mAh

CONNECTIVITY
 Bluetooth 4.0
 WiFi, Hotspot
 Micro USB v2.0



Ex. O at 9-10 (*see* “MEMORY”; image taken from native website due to better formatting).

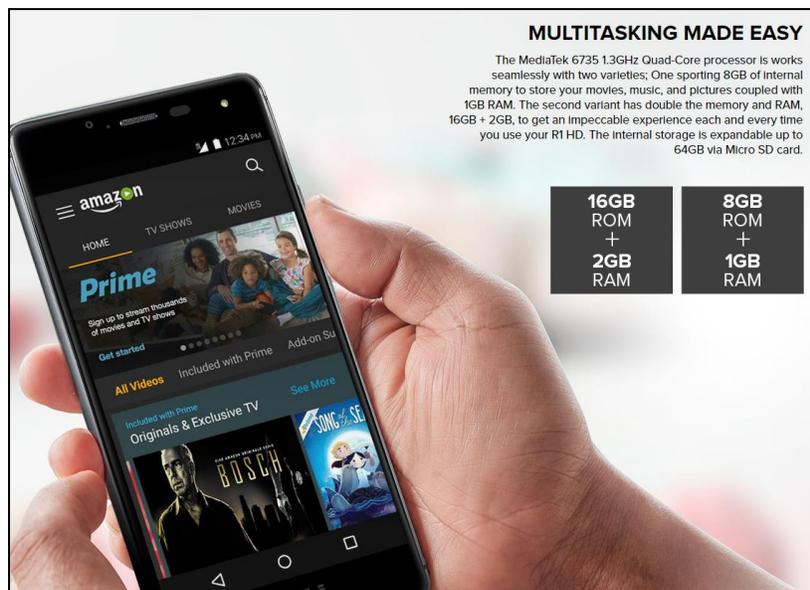
141. The '149 Accused Products satisfy Element 9C of claim 9 of the '149 patent: “a processor electronically coupled with the display and the memory, the processor configured to.”

See, e.g.:

MULTITASKING MADE EASY

The MediaTek 6735 1.3GHz Quad-Core processor is works seamlessly with two varieties; One sporting 8GB of internal memory to store your movies, music, and pictures coupled with 1GB RAM. The second variant has double the memory and RAM, 16GB + 2GB. To get an Impeccable experience each and every time you use your R1 HD. The internal storage is expandable up to 64GB via Micro SD card.

16GB ROM + 2GB RAM	8GB ROM + 1GB RAM
--	---



Ex. O at 3-4 (image taken from native website due to better formatting).

142. The '149 Accused Products satisfy Element 9D of claim 9 of the '149 patent: “display a conversation of instant messages.” *See, e.g.*, Paragraph 134.

143. The '149 Accused Products satisfy Element 9E of claim 9 of the '149 patent: “display a first time information for an instant message in the conversation in response to a first input.” *See, e.g.*, Paragraph 135.

144. The '149 Accused Products satisfy Element 9F of claim 9 of the '149 patent: “automatically change the first time information for the instant message to a second time information as time progresses and display the second time information instead of the first time information.” *See, e.g.*, Paragraph 136.

145. By its actions, BLU has injured BlackBerry and is liable to BlackBerry for infringement of the '149 patent pursuant to 35 U.S.C. § 271.

146. BlackBerry has been damaged by BLU's infringement of the '149 patent and will continue to be damaged unless BLU is enjoined by this Court. BlackBerry has suffered and continues to suffer irreparable injury for which there is no adequate remedy at law. The balance of hardships favors BlackBerry, and public interest is not disserved by an injunction.

147. BlackBerry is entitled to recover from BLU all damages that BlackBerry has sustained as a result of BLU's infringement of the '149 patent, including without limitation, lost profits and not less than a reasonable royalty.

COUNT VII - INFRINGEMENT OF '449 PATENT

148. BlackBerry realleges and incorporates by reference the allegations set forth in the foregoing paragraphs.

149. On information and belief, BLU has directly infringed and is continuing to directly infringe the '449 patent, either literally or under the doctrine of equivalents, by making, using, selling, offering for sale, and/or importing in the United States and in this Judicial District,

products, software, and/or services that incorporate or make use of one or more of the inventions covered by the '449 patent, including but not limited to the BLU Android Devices (*see, e.g.*, Exs. H, I) (“'449 Accused Products”), thereby infringing one or more claims of the '449 patent.

150. BLU's '449 Accused Products satisfy each and every element of one or more claims of the '449 patent, for example, and without limitation, claim 1 of the '449 patent.

151. Claim 1 of the '449 patent recites:

A system for compositing images using a multilayer graphics controller having an ability to show an image in a masked region based on a masking criterion, the system comprising:

a first application defining one or more images for display using a layer of the multilayer graphics controller, the first application further defining a masked display region using masking criterion; and (“Element 1A”)

a second application providing an image to a further layer of the multilayer graphics controller for display in the masked display region; (“Element 1B”)

wherein the multilayer graphics controller does not combine the one or more images of the first application with the image of the second application. (“Element 1C”)

152. To the extent the preamble is considered a limitation, the '449 Accused Products satisfy the preamble of claim 1 of the '449 patent: “A system for compositing images using a multilayer graphics controller having an ability to show an image in a masked region based on a masking criterion, the system comprising.” *See, e.g.*:

Hardware Composer

The Hardware Composer HAL ("HWC") was first introduced in Android 3.0 ("Honeycomb") and has evolved steadily over the years. Its primary purpose is to determine the most efficient way to composite buffers with the available hardware. As a HAL, its implementation is device-specific and usually implemented by the display hardware OEM.

The value of this approach is easy to recognize when you consider "overlay planes." The purpose of overlay planes is to composite multiple buffers together, but in the display hardware rather than the GPU. For example, suppose you have a typical Android phone in portrait orientation, with the status bar on top and navigation bar at the bottom, and app content everywhere else. The contents for each layer are in separate buffers. You could handle composition by rendering the app content into a scratch buffer, then rendering the status bar over it, then rendering the navigation bar on top of that, and finally passing the scratch buffer to the display hardware. Or, you could pass all three buffers to the display hardware, and tell it to read data from different buffers for different parts of the screen. The latter approach can be significantly more efficient.

Ex. S at 4, an 8/11/2016 capture of

<https://source.android.com/devices/graphics/architecture.html>.

153. The '449 Accused Products satisfy Element 1A of claim 1 of the '449 patent: "a first application defining one or more images for display using a layer of the multilayer graphics controller, the first application further defining a masked display region using masking criterion." *See, e.g.:*

Composition and the Hardware Scaler

Now that we have a bit more context, it's useful to go back and look at a couple of fields from `dumpsys SurfaceFlinger` that we skipped over earlier on. Back in the [Hardware Composer](#) discussion, we looked at some output like this:

type	source crop	frame	name
HWC	[0.0, 0.0, 320.0, 240.0]	[48, 411, 1032, 1149]	SurfaceView
HWC	[0.0, 75.0, 1080.0, 1776.0]	[0, 75, 1080, 1776]	com.android.grafika/com.android.grafika.PlayMovieSurfaceActivity
HWC	[0.0, 0.0, 1080.0, 75.0]	[0, 0, 1080, 75]	StatusBar
HWC	[0.0, 0.0, 1080.0, 144.0]	[0, 1776, 1080, 1920]	NavigationBar
FB TARGET	[0.0, 0.0, 1080.0, 1920.0]	[0, 0, 1080, 1920]	HWC_FRAMEBUFFER_TARGET

This was taken while playing a movie in Grafika's "Play video (SurfaceView)" activity, on a Nexus 5 in portrait orientation. Note that the list is ordered from back to front: the SurfaceView's Surface is in the back, the app UI layer sits on top of that, followed by the status and navigation bars that are above everything else. The video is QVGA (320x240).

The "source crop" indicates the portion of the Surface's buffer that SurfaceFlinger is going to display. The app UI was given a Surface equal to the full size of the display (1080x1920), but there's no point rendering and compositing pixels that will be obscured by the status and navigation bars, so the source is cropped to a rectangle that starts 75 pixels from the top, and ends 144 pixels from the bottom. The status and navigation bars have smaller Surfaces, and the source crop describes a rectangle that begins at the the top left (0,0) and spans their content.

The "frame" is the rectangle where the pixels end up on the display. For the app UI layer, the frame matches the source crop, because we're copying (or overlaying) a portion of a display-sized layer to the same location in another display-sized layer. For the status and navigation bars, the size of the frame rectangle is the same, but the position is adjusted so that the navigation bar appears at the bottom of the screen.

Ex. S at 12.

154. The '449 Accused Products satisfy Element 1B of claim 1 of the '449 patent: "a second application providing an image to a further layer of the multilayer graphics controller for display in the masked display region." *See, e.g.*, Paragraphs 152-53.

155. The '449 Accused Products satisfy Element 1C of claim 1 of the '449 patent: “wherein the multilayer graphics controller does not combine the one or more images of the first application with the image of the second application.” *See, e.g.*, Paragraphs 152-53.

156. By its actions, BLU has injured BlackBerry and is liable to BlackBerry for infringement of the '449 patent pursuant to 35 U.S.C. § 271.

157. BlackBerry has been damaged by BLU's infringement of the '449 patent and will continue to be damaged unless BLU is enjoined by this Court. BlackBerry has suffered and continues to suffer irreparable injury for which there is no adequate remedy at law. The balance of hardships favors BlackBerry, and public interest is not disserved by an injunction.

158. BlackBerry is entitled to recover from BLU all damages that BlackBerry has sustained as a result of BLU's infringement of the '449 patent, including without limitation, lost profits and not less than a reasonable royalty.

PRAYER FOR RELIEF

WHEREFORE, BlackBerry prays for judgment against BLU as follows:

- A. Adjudge and decree that BLU has infringed each of the patents asserted herein (“the Asserted Patents);
- B. Adjudge and decree that each of the Asserted Patents is valid and enforceable;
- C. Awarding to BlackBerry compensatory damages caused by BLU's infringement, including all lost profits resulting from BLU's acts of infringement, and reasonable royalties, together with interest and costs;
- D. Award to BlackBerry an ongoing royalty for BLU's post-verdict infringement, payable on each product or service offered by BLU that is found to infringe one or more of the

Asserted Patents, and on all future products and services that are not colorably different from those found to infringe;

E. Award to BlackBerry all other damages permitted by 35 U.S.C. § 284;

F. Permanently enjoin BLU, its officers, agents, servants, employees, attorneys, all parent and subsidiary corporations and affiliates, its assigns and successors in interest, and those persons in active concert or participation with BLU who receive notice of the injunction, from continuing acts of infringement of any of the Asserted Patents;

G. Find that this is an exceptional case and awarding to BlackBerry its reasonable attorneys' fees and costs pursuant to 35 U.S.C. § 285;

H. Award to BlackBerry such other and further relief, including other monetary and equitable relief, as this Court deems just and proper.

JURY TRIAL DEMANDED

Pursuant to Fed. R. Civ. P. 38(b), BlackBerry demands a trial by jury on all claims and issues so triable.

Dated: August 16, 2016

By: /s/ Marcos Daniel Jiménez

Marcos Daniel Jiménez (FBN 441503)

mjimenez@mwe.com

Audrey M. Pumariega (FBN 85206)

apumariega@mwe.com

McDERMOTT WILL & EMERY LLP

333 SE 2nd Avenue, Suite 4500

Miami, Florida 33131

Telephone: 305 358 3500

Facsimile: 305 347 6500

Scott R. Lassar (*pro hac vice pending*)

slassar@sidley.com

David T. Pritikin (*pro hac vice pending*)

dpritskin@sidley.com

Douglas I. Lewis (*pro hac vice pending*)

dilewis@sidley.com

SIDLEY AUSTIN LLP

One South Dearborn

Chicago, Illinois 60603

Telephone: 1 312 853 7000

Facsimile: 1 312 853 7036

Ching-Lee Fukuda (*pro hac vice pending*)

clfukuda@sidley.com

SIDLEY AUSTIN LLP

787 Seventh Avenue

New York, New York 10019

Telephone: 1 212 839 5300

Facsimile: 1 212 839 5599

Thomas N. Tarnay (*pro hac vice pending*)

ttarnay@sidley.com

SIDLEY AUSTIN LLP

2001 Ross Avenue, Suite 3600

Dallas, Texas 75201

Telephone: 1 214 981 3300

Facsimile: 1 214 981 3400

Attorneys for Plaintiff BlackBerry Limited