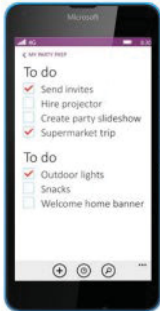


Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	Lumia 640 3G Dual SIM Prepared for Anything  Windows Phone Key Features • Latest version of Windows Phone 8.1 along with seamlessly integrated Microsoft Office experiences • Built-in Skype integration and a 1MP front-facing camera for switching seamlessly between voice and video calls • 8MP camera with LED flash and Lumia Camera right out of the box • 1GB of memory and powerful quad core processor • Smart Dual SIM to ensure you never miss a call Accessories • Cover for Lumia 640 – with card holder • Microsoft Screen Sharing for Lumia Phones • Comfort Headset Size: 141.3 x 72.2 x 8.85 (volumetric) mm Weight: 145g Colors:  Talk time and Standby time (Estimates) • Standby time: up to 35 days (840 hours) • Talk time: up to 27.3 hours (2G) • Talk time: up to 20.3 hours (3G) Sales Package • Lumia 640 3G Dual SIM • Charger: AC-20 • WH-108 headset (In select markets only) • Battery: BV-TSC (removable) • User guide • Note: there may be differences in country / customer variants Operating System: Windows Phone 8.1 with Lumia Denim Networks: • GSM/EDGE: 850/900/1800/1900 MHz, WCDMA: 850/900/1900/2100 MHz Processor: CPU Qualcomm Snapdragon 400 (MSM8926), 1.2 GHz quad core processor Memory: 1GB RAM, 8 GB internal mass memory + up to 128 GB Micro SD & 30GB* free OneDrive cloud storage Display: 5" HD (1280x720, 16:9) IPS LCD, 294 PPI, Glance screen, Corning Gorilla Glass 3, Sunlight readability enhancements Primary Camera: 8 MP AF (3280x2464), f/2.2, 28 mm, 1080p @ 30 fps video (continuous autofocus), Flash: LED, Lumia Camera Secondary Camera: HD 1 MP wide angle, f/2.4, 720p video Connectivity: BT 4.0, microUSB 2.0, Micro SIM, A-GPS +GLONASS, BeiDou, DLNA, Screen cloning with Miracast, WLAN 802.11 b/g/n/ Sensors: Accelerometer, Magnetometer, Proximity, Ambient Light Sensor Audio: 3.5 mm AV connector (AHJ), FM Radio, Internet Radio Battery: 2500 mAh (BV-TSC) removable battery * available when camera roll back up is activated.  (Prepared for Anything at 2.)

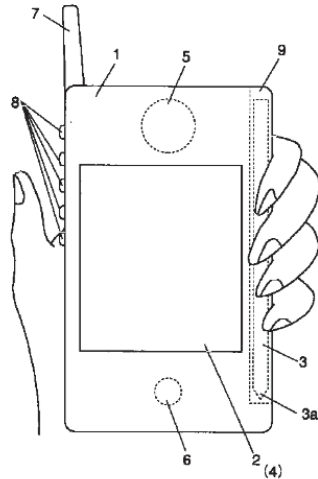
Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	Lumia 640 LTE Single SIM Prepared for Anything  Windows Phone Key Features • Latest version of Windows Phone 8.1 along with seamlessly integrated Microsoft Office experiences • Built-in Skype integration and a 1MP front-facing camera for switching seamlessly between voice and video calls • 8MP camera with LED flash and Lumia Camera right out of the box • 1GB of memory and powerful quad core processor • Fast LTE connectivity Accessories • Cover for Lumia 640 – with card holder • Microsoft Screen Sharing for Lumia Phones • Comfort Headset Size: 141.3 x 72.2 x 8.85 (volumetric) mm Weight: 145g Colors:  Talk time and Standby time (Estimates) • Standby time: up to 36 days (870 hours) • Talk time: up to 26.5 hours (2G) • Talk time: up to 17.5 hours (3G) Sales Package • Lumia 640 LTE Single SIM • Charger: AC-20 • WH-108 headset (In select markets only) • Battery: BV-TSC (removable) • User guide • Note: there may be differences in country / customer variants Operating System: Windows Phone 8.1 with Lumia Denim Networks: • LTE: 1, 3, 7, 8, 20 (2100, 1800, 2600, 900, 800) MHz • GSM/EDGE: 850/900/1800/1900 MHz, WCDMA: 850/900/2100 MHz Processor: CPU Qualcomm Snapdragon 400 (MSM8926), 1.2 GHz quad core processor Memory: 1GB RAM, 8 GB internal mass memory + up to 128 GB Micro SD & 30GB* free OneDrive cloud storage Display: 5" HD (1280x720, 16:9) IPS LCD, 294 PPI, Glance screen, Corning Gorilla Glass 3, Sunlight readability enhancements Primary Camera: 8 MP AF (3280x2464), f/2.2, 28 mm, 1080p @ 30 fps video (continuous autofocus), Flash: LED, Lumia Camera Secondary Camera: HD 1 MP wide angle, f/2.4, 720p video Connectivity: BT 4.0, microUSB 2.0, Micro SIM, A-GPS +GLONASS, BeiDou, NFC, DLNA, Screen cloning with Miracast, WLAN 802.11 b/g/n/ Sensors: Accelerometer, Magnetometer, Proximity, Ambient Light Sensor Audio: 3.5 mm AV connector (AHJ), FM Radio, Internet Radio Battery: 2500 mAh (BV-TSC) removable battery * available when camera roll back up is activated.  (Prepared for Anything at 3.)

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Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	THIS IS LUMIA 640 ONENOTE MOBILE OneNote Mobile makes it easy to capture notes and ideas on the go. You can type a note, use your phone's camera to capture a photo and insert it into a note, capture audio using your phone's microphone, or dictate a voice note while you're doing something else on your phone and have it automatically transcribed and inserted into OneNote. It can even work when your phone is locked. ON THE START SCREEN OneNote is a separate app on your Start screen, enabling you to get to it even faster. Tap the OneNote Live Tile on the Start screen to see all your OneNote notebooks. By default, you'll see any existing notebooks on OneDrive that are tied to the Microsoft account you used to set up your phone, as well as a new one that was created when you set up your phone. You'll also see a shared notebook for any Rooms you've created. The OneNote Live Tile will even show you which note was updated last. If you want, you can pin individual notes to the Start screen for faster access. FIND YOUR NOTES FAST If you find yourself using OneNote more and more, don't worry. It's easy to navigate your notebooks. You can also search the text in your notes — just tap Search and enter a word or phrase. Or tap Recent to see your notes in the order you last accessed them.  AUTOMATIC SYNC WITH ONEDRIVE AND OFFICE 365 By default, all your OneNote notebooks are automatically synced with OneDrive or OneDrive Pro on Office 365, making it easy to create a to-do list on your PC and then check off items as they're completed on your phone. It works the other way, too, so you can capture a photo of a whiteboard using your phone and then view it on your PC using the desktop version of OneNote or the OneNote Web App. Of course, you have complete control over which notebooks or pages in a notebook are synced. (Not all notebooks or pages are synced, only the ones you access.) EASY INFORMATION CAPTURING AND RICH FORMATTING When you're viewing a note, just tap on the screen where you want to edit the note — it'll bring up the Word Flow Keyboard, which can help correct and predict your typing. Below the keyboard, you'll see buttons for inserting a To-Do item with checkbox, creating a bulleted list, inserting an existing photo (or capturing and inserting a new one), and capturing audio using your phone's microphone. Tap More to the right of those buttons to share a note, pin it to Start, create a numbered list, increase or decrease indent, or choose formatting options that include bold, italics, underlined, and highlighting. DID YOU KNOW? You can send photos to OneNote. Just shoot a picture with the camera, tap and hold the photo, tap Share, and choose OneNote. DID YOU KNOW? You can dictate your notes and have them automatically transcribed and added to OneNote, without having to type them in by hand: press and hold the Search button to activate Speech. Say "Note" and speak your note.  Windows Phone  Microsoft

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	(Lumia 640 Device.) (Lumia 640 Device.)

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	(Lumia 640 Device.) To the extent Keyless argues that Lumia 640 does not disclose or render obvious this limitation, it would have been obvious in view of Lumia 640, POSITA's pre-existing knowledge, and/or the teachings of Lumia 640 combined with Rydbeck, Yamaguchi, and/or Dutta. For example, a POSITA would find the combination obvious to try, due at least to the similarity of the technical teachings of the art. As another example, a POSITA would find that the teachings could be predictably interchanged by, for example, simple substitution, at least because of the predictability of the art and the known interchangeability of the various elements. As another example, a POSITA would be motivated to combine the references, and would have a reasonable expectation of success in doing so, at least because the references use known variations of existing technology to solve routine and well understood problems in predictable ways. For example, each of Rydbeck, Yamaguchi, and Dutta teaches that the ideal configuration for a mobile phone is such that the length of the device corresponds to the distance between the ear and mouth of a user. For example, Rydbeck discloses a mobile phone device configured such that during operation, a speaker is adjacent to a user's ear and a microphone is adjacent to the user's mouth. (Rydbeck at 8:57-60; <i>see also id.</i> at 2:1-6, 2:15-18, 8:21-27, 9:13-20, Fig. 10.)

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations										
	As another example, Yamaguchi discloses a mobile phone device having a speaker 5 and microphone 6 such that during operation, the speaker is positioned close to the mouth of a user and the microphone is positioned close to the ear of a user. (Yamaguchi at [0005].) Further, Yamaguchi discloses a mobile phone that is 100-150mm in length. (Yamaguchi at [0009], [0015], FIG. 1) 【図1】 <table border="0" style="margin-left: auto; margin-right: auto;"> <tr> <td>1 装置本体</td><td>6 マイク部</td></tr> <tr> <td>2 液晶表示部</td><td>7 アンテナ部</td></tr> <tr> <td>3 ペン</td><td>8 各種操作スイッチ</td></tr> <tr> <td>4 タッチパネル部</td><td>9 ペン収納部</td></tr> <tr> <td>5 スピーカー部</td><td></td></tr> </table>  (Yamaguchi at FIG. 1.) As another example, Dutta teaches that the ideal size of a mobile phone is based on the distance from a user's ear to a user's mouth. (Dutta at [0003], FIGS. 2A-2B.) Accordingly, mobile phones were commonly designed to be long and narrow. (Dutta at [0004].)	1 装置本体	6 マイク部	2 液晶表示部	7 アンテナ部	3 ペン	8 各種操作スイッチ	4 タッチパネル部	9 ペン収納部	5 スピーカー部	
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5 スピーカー部											

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	Fig. 2A Fig. 2B (Dutta at FIGS. 2A and 2B) A POSITA would have found it obvious to configure the mobile phone disclosed by Lumia 640 such that both the length of the front surface of the mobile phone and, correspondingly, the distance between the microphone and speaker of the device, correspond to the distance between the user's ear and mouth. Each of Rydbeck, Yamaguchi, and Dutta teaches configuring a mobile phone in this way in order to improve operability and device performance while achieving the "ideal" phone size. (Dutta at [0003].) A POSITA would have been motivated to configure a mobile phone in this way to provide the user with an ergonomically comfortable interface, wherein the microphone could easily detect speech from a user's mouth and the user could easily detect sound produced by the speaker during a phone call. As explained by Rydbeck, a mobile phone "preferably includes a microphone which can be positioned...proximate to the

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	mouth of a user during telephone operation.” (Rydbeck at 2:15-18.) A POSITA would be motivated to configure a mobile phone such that the microphone and speaker were proximate to a user’s mouth and ear, respectively, to improve the performance of the phone by improving the call quality and clarity of voice transmission while making phone calls. Accordingly, a mobile phone such that its length corresponds to the distance between a user’s mouth and ear was routine and conventional to a POSITA, as shown by each of Rydbeck, Yamaguchi, and Dutta. A POSITA would have considered the combination of the teachings of Rydbeck, Yamaguchi, and/or Dutta with the mobile phone architecture disclosed by Lumia 640 to be an example of (A) combining prior art elements (the mobile device of Lumia 640 with the teaching of the optimal mobile phone size as taught by Rydbeck, Yamaguchi, and Dutta) according to known methods to yield predictable results (improving user experience and device performance); (B) use of a known technique (sizing a mobile phone based on the distance between the mouth and ear of a user as taught by Rydbeck, Yamaguchi, and Dutta) to improve similar devices in the same way (improving user experience and device performance); (C) applying a known technique (sizing a mobile phone based on the distance between the mouth and ear of a user as taught by Rydbeck, Yamaguchi, and Dutta) to a known device ready for improvement to yield predictable results (improving user experience and device performance); and/or (D) some teaching, suggestion, or motivation in the prior art (e.g., the teachings of Rydbeck, Yamaguchi, and Dutta) that would have led one of ordinary skill to modify the mobile phone disclosed by Lumia 640 to arrive at the claimed invention. Additional exemplary citations include: “In a preferred embodiment, the device includes an antenna connected to a top portion of the primary body. The antenna is configured to extend away from the rear major surface such that, when a user orients the device with the speaker adjacent his or her ear, the antenna is oriented away from the user.” (Rydbeck at 2:1-6.) “The device also preferably includes a microphone which can be positioned on the rear major surface (on a bottom portion), or on a flip, such that it is proximate to the mouth of a user during telephone operation.” (Rydbeck at 2:15-18.)

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	“A turnaround wireless communications device according to claim 1, further comprising an antenna connected to a top portion of said primary body, and wherein said antenna is configured to extend away from said rear major surface toward said front surface when a user orients said turnaround wireless communications device such that said speaker is adjacent the user's ear during operation.” (Rydbeck at 8:21-27.) “a microphone located such that it is positioned proximate a user's mouth when the user has said speaker adjacent his or her ear...” (Rydbeck at 8:57-60.) “A turn around wireless communications device according to claim 11, further comprising an antenna connected to a top portion of said primary body, and wherein said antenna is configured to extend away from said rear major surface toward said forward major surface when a user orients said turnaround wireless communications device such that said speaker is adjacent his or her ear during operation.” (Rydbeck at 9:13-20.) “As for outputs to the liquid-crystal display part 2, image data processing is performed in the device body 1, and text, graphics data, and wireless status are displayed on the liquid-crystal display part 2. When inputting text on a desktop, text and line strokes are inputted by pressing, with a pen tip 3a, the front surface of the touch panel part 4 disposed on the front surface of the liquid-crystal display part 2. To input text other than on a desktop, a side-surface portion of the device body 1 is held in one hand, and input is performed by the other hand with the pen 3. Apart from icon manipulations, manipulation via the various manipulable switches 8 is performed by a fingertip of the hand holding the pen 3. In addition, by adjusting one's grip on the main device 1, an ear is placed near the speaker part 5 or the mouth is placed near the microphone part 6 to perform audio input/output operations. Furthermore, to EJECT the memory card from the card-housing part, the card EJECT button is slid with a fingertip of the hand holding the pen 3, and the memory card is removed.” (Yamaguchi at [0005].) “MEANS FOR SOLVING THE PROBLEMS To solve these problems, the present invention has a configuration such that: an antenna part of a wireless part and various manipulable switches are disposed on a same surface of a side-surface portion of the device body; a pen-housing part is disposed on an opposite side-surface portion of the device body; a housing part for a memory card having a data storage function is disposed on a rear-surface portion; a card EJECT button is disposed on the rear-surface portion near the pen-

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	housing part; a rotary switch, which has a function of selecting data displayed on a liquid-crystal part, a push button, which has a function of confirming data that has been selected using the rotary switch, and the various switches are disposed on a same surface of a side-surface portion of the device body; furthermore, the liquid-crystal part, which has a function of displaying wireless status, and a button, which has a wireless ON/OFF switching function, are disposed on a same top-surface portion of the device body; and the dimensions of the device body have dimensional ratios of height 100–150 mm, width 60–75 mm, and depth 15–25 mm.” (Yamaguchi at [0009].) “The invention according to claim 5 of the present invention is the mobile-communication-information terminal device according to any one of claims 1, 2, 3, and 4, wherein: the device body has dimensional ratios of length 100–150 mm, width 60–75 mm, and depth 15–25 mm; thus, the invention has the effect of improved portability and ease of manipulation, such as when storing the device in a clothing pocket, holding the device with one hand, and manipulating the various buttons.” (Yamaguchi at [0015].) “For example, more and more mobile phones are equipped with a browser for the world wide web (web or www). Unfortunately, the ideal size of a mobile phone is determined by the typical ear-to-mouth distance of the average user and by ergonomically favorable grippability.” (Dutta at [0003].) “Consequently the displays of mobile phones must be adapted to the long, narrow shape of the phone itself.” (Dutta at [0004].)
[1c] wherein the width of the front surface is substantially shorter than the length and	Lumia 640, alone or in combination with other references identified in this chart or elsewhere in Defendants’ invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless’s apparent interpretation of this limitation, discloses “the width of the front surface is substantially shorter than the length.” For example, Lumia 640, including its front surface, was 141.3 mm in length and 72.2 mm in width. (Prepared for Anything at 2-4.)

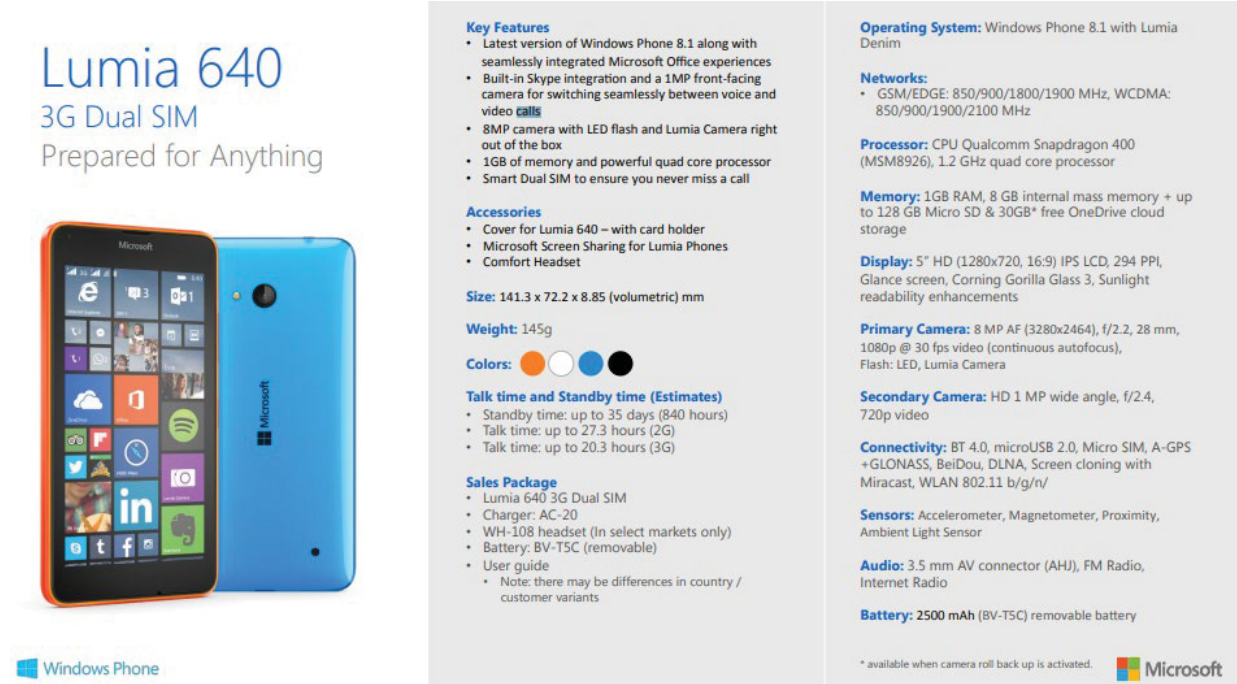
Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
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(Prepared for Anything at 4.)



Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	(Lumia 640 Device.) <i>See also infra</i> claim [7].
[1d] wherein the housing has a thin thickness; and	Lumia 640, alone or in combination with other references identified in this chart or elsewhere in Defendants’ invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless’s apparent interpretation of this limitation, discloses “the housing has a thin thickness.” For example, Lumia 640 had a thickness of 8.85 mm, which was less than the length or the width. (Prepared for Anything at 2-4.)  The image shows a product page for the Lumia 640. On the left, there's a blue Lumia 640 phone with a red border, displaying the Windows Phone interface. Above it, the text reads 'Lumia 640 3G Dual SIM Prepared for Anything'. Below the phone is the 'Windows Phone' logo. To the right of the phone is a list of specifications organized into sections: Key Features, Accessories, Size, Weight, Colors, Talk time and Standby time (Estimates), Sales Package, Operating System, Networks, Processor, Memory, Display, Primary Camera, Secondary Camera, Connectivity, Sensors, Audio, and Battery. At the bottom right, there's a small note about camera roll back up and the Microsoft logo. Key Features • Latest version of Windows Phone 8.1 along with seamlessly integrated Microsoft Office experiences • Built-in Skype integration and a 1MP front-facing camera for switching seamlessly between voice and video calls • 8MP camera with LED flash and Lumia Camera right out of the box • 1GB of memory and powerful quad core processor • Smart Dual SIM to ensure you never miss a call Accessories • Cover for Lumia 640 – with card holder • Microsoft Screen Sharing for Lumia Phones • Comfort Headset Size: 141.3 x 72.2 x 8.85 (volumetric) mm Weight: 145g Colors:  Talk time and Standby time (Estimates) • Standby time: up to 35 days (840 hours) • Talk time: up to 27.3 hours (2G) • Talk time: up to 20.3 hours (3G) Sales Package • Lumia 640 3G Dual SIM • Charger: AC-20 • WH-108 headset (In select markets only) • Battery: BV-TSC (removable) • User guide • Note: there may be differences in country / customer variants Operating System: Windows Phone 8.1 with Lumia Denim Networks: • GSM/EDGE: 850/900/1800/1900 MHz, WCDMA: 850/900/1900/2100 MHz Processor: CPU Qualcomm Snapdragon 400 (MSM8926), 1.2 GHz quad core processor Memory: 1GB RAM, 8 GB internal mass memory + up to 128 GB Micro SD & 30GB* free OneDrive cloud storage Display: 5" HD (1280x720, 16:9) IPS LCD, 294 PPI, Glance screen, Corning Gorilla Glass 3, Sunlight readability enhancements Primary Camera: 8 MP AF (3280x2464), f/2.2, 28 mm, 1080p @ 30 fps video (continuous autofocus), Flash: LED, Lumia Camera Secondary Camera: HD 1 MP wide angle, f/2.4, 720p video Connectivity: BT 4.0, microUSB 2.0, Micro SIM, A-GPS +GLONASS, BeiDou, DLNA, Screen cloning with Miracast, WLAN 802.11 b/g/n/ Sensors: Accelerometer, Magnetometer, Proximity, Ambient Light Sensor Audio: 3.5 mm AV connector (AHJ), FM Radio, Internet Radio Battery: 2500 mAh (BV-TSC) removable battery * available when camera roll back up is activated.  (Prepared for Anything at 2.) Additional exemplary citations include:

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	Lumia 640 LTE Single SIM Prepared for Anything  Windows Phone Key Features • Latest version of Windows Phone 8.1 along with seamlessly integrated Microsoft Office experiences • Built-in Skype integration and a 1MP front-facing camera for switching seamlessly between voice and video calls • 8MP camera with LED flash and Lumia Camera right out of the box • 1GB of memory and powerful quad core processor • Fast LTE connectivity Accessories • Cover for Lumia 640 – with card holder • Microsoft Screen Sharing for Lumia Phones • Comfort Headset Size: 141.3 x 72.2 x 8.85 (volumetric) mm Weight: 145g Colors:  Talk time and Standby time (Estimates) • Standby time: up to 36 days (870 hours) • Talk time: up to 26.5 hours (2G) • Talk time: up to 17.5 hours (3G) Sales Package • Lumia 640 LTE Single SIM • Charger: AC-20 • WH-108 headset (In select markets only) • Battery: BV-TSC (removable) • User guide • Note: there may be differences in country / customer variants Operating System: Windows Phone 8.1 with Lumia Denim Networks: • LTE: 1, 3, 7, 8, 20 (2100, 1800, 2600, 900, 800) MHz • GSM/EDGE: 850/900/1800/1900 MHz, WCDMA: 850/900/2100 MHz Processor: CPU Qualcomm Snapdragon 400 (MSM8926), 1.2 GHz quad core processor Memory: 1GB RAM, 8 GB internal mass memory + up to 128 GB Micro SD & 30GB* free OneDrive cloud storage Display: 5" HD (1280x720, 16:9) IPS LCD, 294 PPI, Glance screen, Corning Gorilla Glass 3, Sunlight readability enhancements Primary Camera: 8 MP AF (3280x2464), f/2.2, 28 mm, 1080p @ 30 fps video (continuous autofocus), Flash: LED, Lumia Camera Secondary Camera: HD 1 MP wide angle, f/2.4, 720p video Connectivity: BT 4.0, microUSB 2.0, Micro SIM, A-GPS +GLONASS, BeiDou, NFC, DLNA, Screen cloning with Miracast, WLAN 802.11 b/g/n/ Sensors: Accelerometer, Magnetometer, Proximity, Ambient Light Sensor Audio: 3.5 mm AV connector (AHJ), FM Radio, Internet Radio Battery: 2500 mAh (BV-TSC) removable battery * available when camera roll back up is activated. (Prepared for Anything at 3.)

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	Lumia 640 LTE Dual SIM Prepared for Anything  Windows Phone Key Features • Latest version of Windows Phone 8.1 along with seamlessly integrated Microsoft Office experiences • Built-in Skype integration and a 1MP front-facing camera for switching seamlessly between voice and video calls • 8MP camera with LED flash and Lumia Camera right out of the box • 1GB of memory and powerful quad core processor • Best of both worlds with LTE support available on dual SIM models for the first time Accessories • Cover for Lumia 640 – with card holder • Microsoft Screen Sharing for Lumia Phones • Comfort Headset Size: 141.3 x 72.2 x 8.85 (volumetric) mm Weight: 145g Colors:  Talk time and Standby time (Estimates) • Standby time: up to 36 days (870 hours) • Talk time: up to 26.5 hours (2G) • Talk time: up to 17.5 hours (3G) Sales Package • Lumia 640 LTE Dual SIM • Charger: AC-20 • WH-108 headset (In select markets only) • Battery: BV-TSC (removable) • User guide • Note: there may be differences in country / customer variants Operating System: Windows Phone 8.1 with Lumia Denim Networks: • LTE: 1, 2, 3, 4, 5, 7, 8, 12, 20, 28 (2100, 1900, 1800, 1700/2100, 850, 2600, 900, 700, 800, 700) MHz • TD-LTE: 38, 40 (2570-2620, 2300-2400) MHz • GSM/EDGE: 850/900/1800/1900 MHz, WCDMA: 850/900/1900/2100 and 1700/2100 MHz Processor: CPU Qualcomm Snapdragon 400 (MSM8926), 1.2 GHz quad core processor Memory: 1GB RAM, 8 GB internal mass memory + up to 128 GB Micro SD & 30GB* free OneDrive cloud storage Display: 5" HD (1280x720, 16:9) IPS LCD, 294 PPI, Glance screen, Corning Gorilla Glass 3, Sunlight readability enhancements Primary Camera: 8 MP AF (3280x2464), f/2.2, 28 mm, 1080p @ 30 fps video (continuous autofocus), Flash: LED, Lumia Camera Secondary Camera: HD 1 MP wide angle, f/2.4, 720p video Connectivity: BT 4.0, microUSB 2.0, Micro SIM, A-GPS + GLONASS, BeiDou, NFC, DLNA, Screen cloning with Miracast, WLAN 802.11 b/g/n/ Sensors: Accelerometer, Magnetometer, Proximity, Ambient Light Sensor Audio: 3.5 mm AV connector (AHJ), FM Radio, Internet Radio Battery: 2500 mAh (BV-TSC) removable battery * available when camera roll back up is activated. 

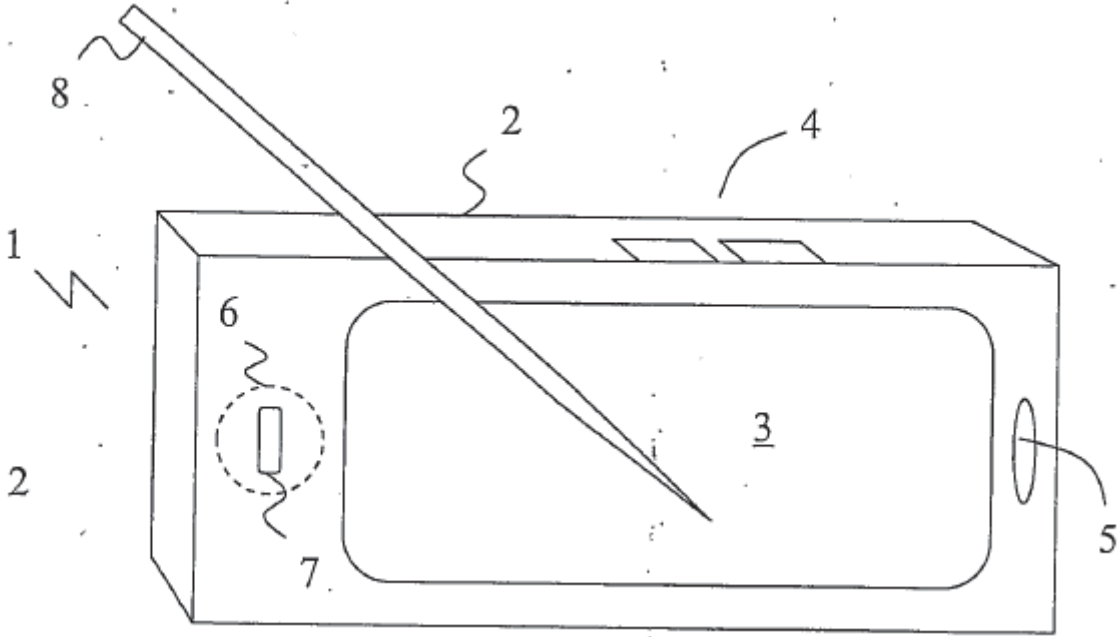
(Prepared for Anything at 4.)

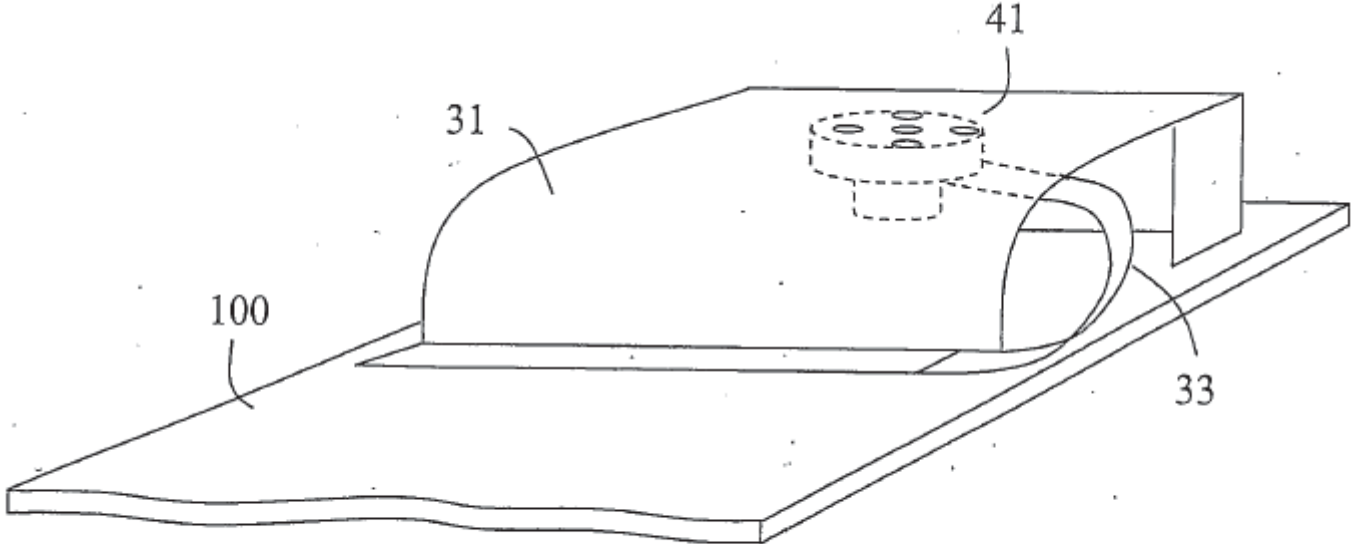


Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	(Lumia 640 Device.) To the extent Keyless argues that Lumia 640 does not disclose or render obvious this limitation, it would have been obvious in view of Lumia 640, POSITA's pre-existing knowledge, and/or the teachings of Lumia 640 combined with Wedel, Rydbeck, Yamaguchi, and/or Dutta. For example, a POSITA would find the combination obvious to try, due at least to the similarity of the technical teachings of the art. As another example, a POSITA would find that the teachings could be predictably interchanged by, for example, simple substitution, at least because of the predictability of the art and the known interchangeability of the various elements. As another example, a POSITA would be motivated to combine the references, and would have a reasonable expectation of success in doing so, at least because the references use known variations of existing technology to solve routine and well understood problems in predictable ways. For example, each of Wedel, Rydbeck, Yamaguchi, and Dutta teaches configuring a mobile phone device such that device is compact and can be placed in a user's pocket. Therefore, the mobile phone must have been thin to slip into a pocket. A POSITA would have found it obvious to configure a device to be thin so it could easily be carried and stored by a user in a pocket, or the like. For example, Wedel teaches that mobile phones "are getting smaller and smaller" and are now "pocket size." (Wedel at 1:14-21.) Wedel explains that the small size "is generally considered to be an important factor for the end customer," and there is "general market demand for small size and light weight terminals." (Wedel at 1:14-21, 3:19-21.) In order to reduce the size of the terminal, Wedel teaches reducing the thickness by, for example, mounting the speaker inside the antenna cavity. (Wedel at 1:6-9, 2:21-25, 3:19-21, 9:28-31, 13:1-8.) For example, Rydbeck teaches that it is desirable to configure a mobile phone to be small, miniaturized, or "pocket-sized." (Rydbeck at 1:11-19, 2:60-62, 4:39-43, 10:29-30.) In order for a mobile phone to fit in a user's pocket, it must have been thin. As another example, Yamaguchi teaches that it is desirable to configure a mobile phone so it can be stored in a pocket of a user's clothing. (Yamaguchi at [0007], [0010], [0014], [0015], [0031], [0032], [0035].) In order to fit in a pocket, Yamaguchi teaches that the mobile phone is 100-150mm in length, 60-75mm in width, and only 15-25mm in depth. (Yamaguchi at [0034], [0036].)

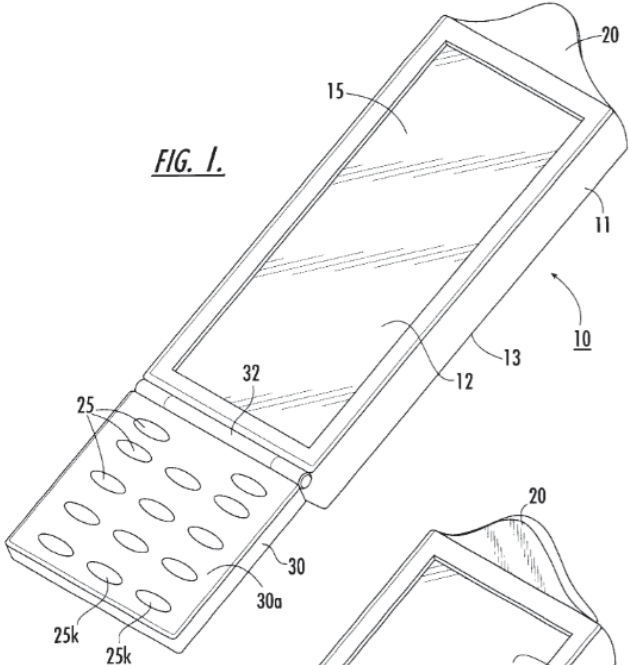
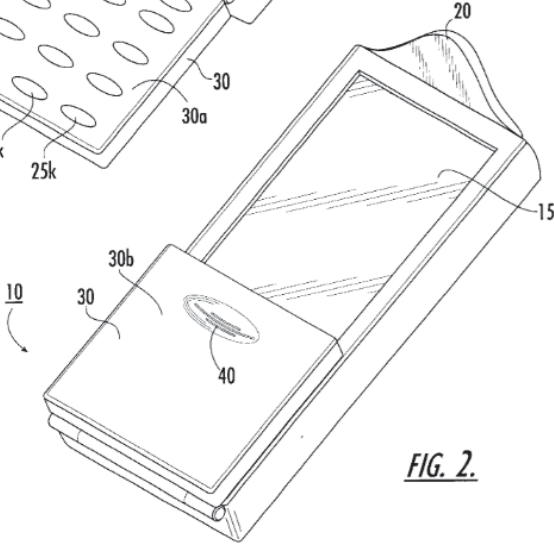
Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	Dutta similarly teaches the benefit of reducing the dimensions of portable devices. (Dutta at [0002].) In addition, it is favorable to configure the size of a mobile phone to provide an ergonomically favorable grip, which inherently requires that the device is thin so that a user's hands can wrap around its edges. (Dutta at [0003].) A POSITA would have been motivated to configure a mobile phone to maximize housing thinness to improve the ease of use and portability of the phone. Configuring a mobile phone in this way was routine and conventional to a POSITA, as shown by each of Wedel, Rydbeck, Yamaguchi, and Dutta. A POSITA would have been motivated to size a phone accordingly in order to improve device performance and user experience. Thus, a POSITA would have considered the combination of the teachings of Wedel, Rydbeck, Yamaguchi, and/or Dutta into the mobile phone architecture disclosed by Lumia 640 to be an example of (A) combining prior art elements (the relative dimensions of a mobile phone as taught by Wedel, Rydbeck, Yamaguchi, and Dutta) according to known methods to yield predictable results (improving the portability and operability of a mobile phone); (B) use of a known technique (sizing a mobile phone such that the housing has a thinness as taught by Wedel, Rydbeck, Yamaguchi, and Dutta) to improve similar devices in the same way (improving user experience and device performance); (C) applying a known technique (sizing a mobile phone as taught by Wedel, Rydbeck, Yamaguchi, and Dutta) to a known device ready for improvement to yield predictable results (improving user experience and device performance); and/or (D) some teaching, suggestion, or motivation in the prior art (e.g., the teachings of Wedel, Rydbeck, Yamaguchi, and Dutta) that would have led one of ordinary skill to modify the mobile phone disclosed by Lumia 640 to arrive at the claimed invention. Additional exemplary citations include: “More specifically the invention relates to a communication terminal including a component which integrates said speaker and an antenna element, and to said component as such.” (Wedel at 1:6-9.) “. . . at the same time the dimensions of the communication terminals have gone from briefcase size to the pocket size phones of today. Still today, mobile phones are getting smaller and smaller and the size is generally considered to be an important factor for the end customer. The development in electronics has

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	made it possible to miniaturise the components of the terminals, at the same time making the terminals capable of performing more advanced functions and services.” (Wedel at 1:14-21.) “The antenna of the terminal is generally located at the upper portion of the terminal, and a lower portion of the terminal being occupied by a battery. Placing the speaker 6 behind the display 3 would therefore increase the thickness of the terminal 1 since it would have to compete with the antenna for the relevant space.” (Wedel at 2:21-25.) “It is an object of the present invention to provide a novel speaker arrangement for a communication terminal, meeting the general market demand for small size and light weight terminals.” (Wedel at 3:19-21.) “Fig. 6 illustrates an embodiment of a spacer element 61, adapted for use with the combined speaker and antenna element according to the invention. In a low profile, built in, radio antenna for mobile communication, such as a PIFA, the antenna comprises a substantially planar active antenna element and a ground plane.” (Wedel at 9:28-31.) “The present invention brings about several advantages, thanks to the inventive idea to mount the speaker inside the antenna cavity, where one antenna element and the speaker are carried by a common structure provided by a flexible film. First of all, the invention brings about space savings. A terminal or housing, implementing the invention, may be designed with a thickness basically defined by the distance between the flexible film and the support structure, e.g. a PCB, since the thickness contribution from the speaker has been eliminated.” (Wedel at 13:1-8.) Wedel discloses the following at FIGS. 2 and 11:

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	Fig. 2 

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	 Fig. 11 “The evolution of wireless communication devices incorporating cellular/digital wireless telephones is undergoing two potentially conflicting trends. One trend is toward miniaturization of the cellular telephone body and the other is toward a demand for larger visual displays thereon. There is, therefore, a need to configure pervasive computing devices such as smaller, miniaturized, or “pocket-sized” wireless telephones in a manner which allows for larger displays over conventional devices.” (Rydbeck at 1:11-19.) “The invention is particularly suitable for pocket-sized wireless telephones or miniaturized pervasive computing devices which include wireless telephones.” (Rydbeck at 2:60-62.) “Turning now to the figures, FIG. 1 illustrates a wireless communication device 10 according to one embodiment of the present invention. The wireless communication device 10 includes a primary body 11, a front or forward major surface 12, and an opposing a rear major surface 13 (FIG. 3). (The “forward” and

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	“rear” surface designations are for description purposes only. It will be appreciated that, in practice, each of these surfaces can be the “front” surface or the “back” surface, and that indeed, each will act both as the back and the front, depending on the selected or activity/mode and the corresponding orientation of the device). The wireless communications device 10 also includes a keypad 25, an antenna 20, a speaker 35 (FIG. 3), and a microphone 40 (FIGS. 2, and 3). As shown in FIG. 1, the wireless communications device 10 also includes a flip member 30. The present invention is particularly suited for pocket-sized or palm sized wireless communications devices incorporating remote telephonic communications systems. Typically, these pocket or palm sized devices are less than about 8-10 inches in length and less than about 4 inches in width.” (Rydbeck at 4:24-44.) “A method according to claim 20, wherein said wireless communications device is pocket-sized.” (Rydbeck at 10:29-30.) Rydbeck discloses the following at FIGS. 1 and 2:

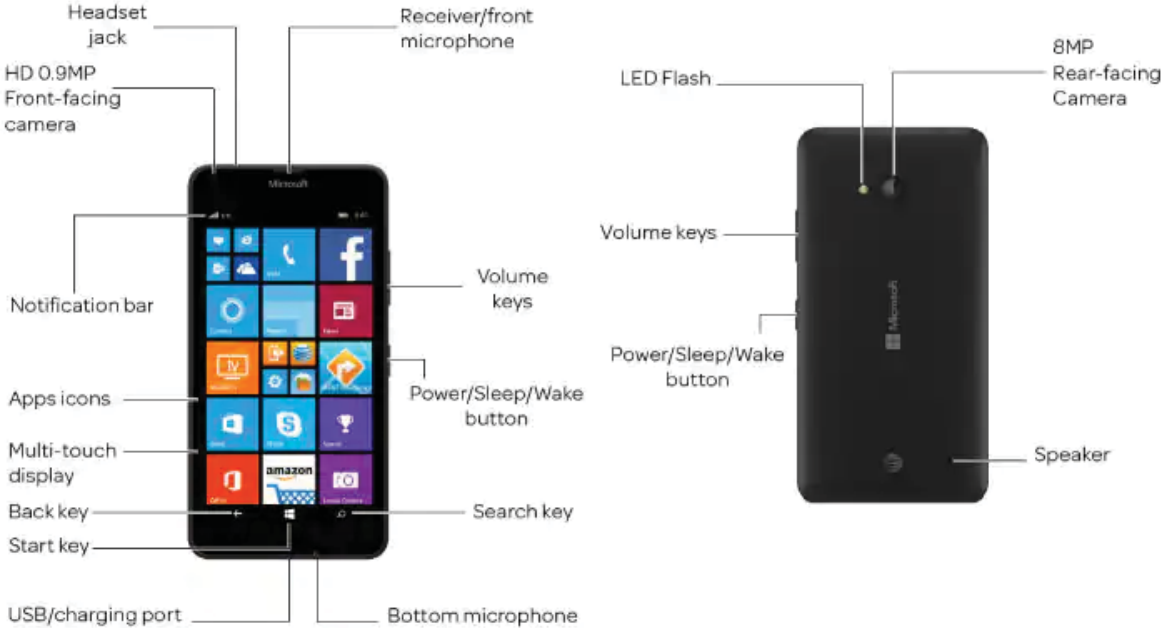
Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	<u>FIG. 1.</u>  <u>FIG. 2.</u> 

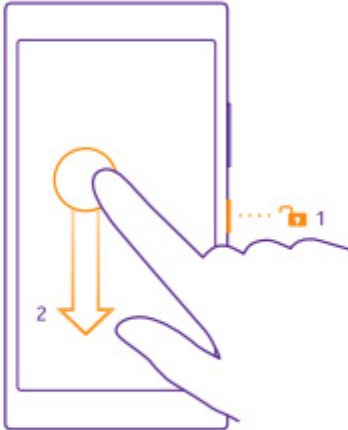
Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	“Meanwhile, there is a demand for a series of manipulations to be performable with one hand from the perspective of making the mobile-communication-information terminal device ‘easy to manipulate’, as well as a demand for a size such that the device can fit in a clothing pocket or the like from the perspective of making the device ‘easily portable anywhere.’” (Yamaguchi at [0007].) “According to the present invention, the various switches can be manipulated with a finger of one hand in a state in which the device body is held in the one hand, and the device body can be stored in a clothing pocket, thereby resulting in a mobile-communication-information terminal device having good ease of manipulation and portability.” (Yamaguchi at [0010].) “The invention according to claim 4 of the present invention is the mobile-communication-information terminal device according to claim 1, wherein: the liquid-crystal part, which has a function of displaying wireless status, and a button, which has a wireless ON/OFF switching function, are disposed on a same top surface of the device body; thus, the invention has the effects that, even if the device body is stored in a clothing breast pocket, wireless status can be confirmed without removing the device from the pocket, and wireless can also be switched ON/OFF, thereby improving ease of manipulation.” (Yamaguchi at [0014].) “The invention according to claim 5 of the present invention is the mobile-communication-information terminal device according to any one of claims 1, 2, 3, and 4, wherein: the device body has dimensional ratios of length 100–150 mm, width 60–75 mm, and depth 15–25 mm; thus, the invention has the effect of improved portability and ease of manipulation, such as when storing the device in a clothing pocket, holding the device with one hand, and manipulating the various buttons.” (Yamaguchi at [0015].) “Wireless status can easily be confirmed from the liquid-crystal part 15 provided on the top surface of the device body 1, even when the device body 1 is stored in a clothing breast pocket or the like. Likewise, it becomes possible to switch wireless ON/OFF by pressing the button 16 provided on the top surface of the device body 1 with the device body 1 still stored in the clothing breast pocket or the like. In addition, a wireless ON state is displayed on the liquid-crystal part 15, and, in a wireless OFF state, wireless ON/OFF status can easily be confirmed by the disappearance of the display on the liquid-crystal part 15.” (Yamaguchi at [0031].)

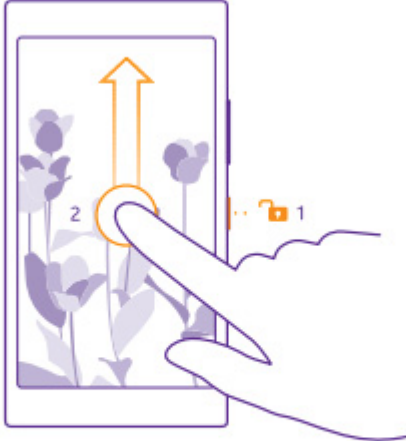
Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	“Through the above-mentioned operation, wireless status can be confirmed, and wireless can be switched ON/OFF while leaving the device body 1 stored in the clothing breast pocket without taking the device body 1 out; thereby, improvement in ease of manipulation can be achieved.” (Yamaguchi at [0032].) “(Fifth Embodiment) FIG. 6 is an exterior oblique view of a mobile-communication-information terminal device according to a fifth embodiment of the present invention. As shown in FIG. 6, dimension A 17 of the main device 1 is the length-directional dimension thereof in a manipulation state, dimension B 18 is the width-directional dimension, and dimension C 19 is the depth-directional dimension thereof.” (Yamaguchi at [0033].) “Dimension A 17, dimension B 18, and dimension C 19 of the mobile-communication-information terminal device according to the fourth embodiment are length 100–150 mm, width 60–75 mm, and depth 15–25 mm, such that a hand can hold a bottom-surface portion and both side-surface portions of the device body 1 when holding the device body 1.” (Yamaguchi at [0034].) “As a result, the main device 1 is capable of fitting into a clothing pocket or the like, and various manipulations can be achieved while holding the device body 1 in one hand; thereby, improvement in portability and improvement in ease of manipulation can be achieved.” (Yamaguchi at [0035].) “EFFECTS OF THE INVENTION According to the present invention, as is clear from the description above, an antenna part and various manipulable switches of a mobile-communication-information terminal device are provided on a same-side surface portion of a device body, a pen-housing part is provided on an opposite side-surface portion, a memory-card-housing part is provided on a rear-surface portion of the device body, and a card EJECT button is provided adjacent to the memory-card-housing part and near the pen-housing part; a rotary switch, which has a function of selecting data, is provided on the same side surface as the various manipulable switches, and a push button, which has a function of confirming selected data, is provided perpendicular to the rotational direction of the rotary switch and on the same side surface near a front-surface portion of the device body; a liquid-crystal part, which has a function of displaying wireless status, and a button, which has a wireless ON/OFF switching function, are further provided on a same top-surface portion of the device body; and the dimensional ratios of the device body are length 100–150 mm, width 60–75 mm, and depth 15–25 mm, thereby enabling a series of manipulations to be performed with one

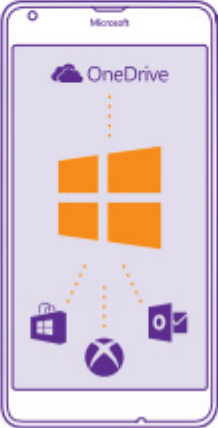
Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	hand and enabling the device body to fit in a clothing pocket or the like; thus, improvement in ease of manipulation and improvement in portability can be achieved.” (Yamaguchi at [0036].) Yamaguchi discloses the following at FIG. 6: 【図6】 “A goal in the ongoing further development of portable terminals consists in continuously reducing its dimensions to make its transport as comfortable as possible. Unfortunately, this also means that the displays of these devices are very small. With the ever greater usage of portable devices, such as, for example, personal digital assistants (PDAs) and mobile phones to access the Internet, the limitations that arise due to the small displays are increasingly significant.” (Dutta at [0002].) “For example, more and more mobile phones are equipped with a browser for the world wide web (web or www). Unfortunately, the ideal size of a mobile phone is determined by the typical ear-to-mouth distance of the average user and by ergonomically favorable grippability.” (Dutta at [0003].) <i>See also infra</i> claim [8].

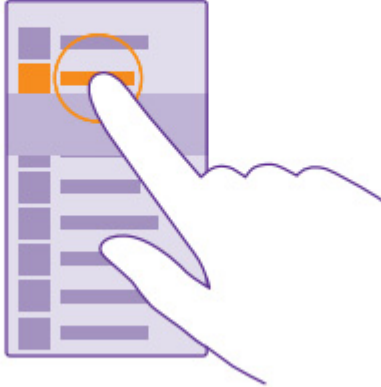
Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
[1e] a display unit integrated within the front surface of said housing wherein said display unit practically covers the entire front surface of said housing;	Lumia 640, alone or in combination with other references identified in this chart or elsewhere in Defendants’ invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless’s apparent interpretation of this limitation, discloses “a display unit integrated within the front surface of said housing wherein said display unit practically covers the entire front surface of said housing.” For example, Lumia 640 includes a “touch screen” that functions as a display and is integrated within the front surface of the phone housing. (Device Diagram; User Guide at 11, 12, 16, 20; Prepared for Anything at 2-4, 7; Introducing Microsoft Lumia at 13.) The screen covers the majority of the front surface of the housing. (Device Diagram; User Guide at 11, 12, 16, 20; Prepared for Anything at 2-4, 7; Introducing Microsoft Lumia at 13.)

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	Device Diagram Get familiar with the hardware of your Microsoft Lumia 640  The diagram illustrates the hardware components of the Microsoft Lumia 640. The front view (left) shows the multi-touch display with a notification bar at the top, various app icons, and a bottom dock with a back key, start key, and search key. The rear view (right) shows the 8MP rear-facing camera, LED flash, volume keys, power/sleep/wake button, and a speaker. Labels with leader lines identify the following parts: - Headset jack - HD 0.9MP Front-facing camera - Receiver/front microphone - Notification bar - Apps icons - Multi-touch display - Back key - Start key - USB/charging port - Volume keys - Power/Sleep/Wake button - Search key - Bottom microphone - LED Flash 8MP Rear-facing Camera - Speaker (Device Diagram.) Additional exemplary citations include:

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	Switch the phone off Press and hold the power key, and drag the lock screen down.  Lock the keys and screen If you want to avoid accidentally making a call when your phone is in your pocket or bag, you can set your keys and screen to lock automatically. Press the power key. (User Guide at 11.)

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	Unlock the keys and screen Press the power key, and drag the lock screen up.  ★ Tip: Instead of pressing the power key, you can also double-tap the screen if double-tap is switched on. To switch on double-tap, on the start screen, swipe down from the top of the screen, tap ALL SETTINGS > touch, and switch Wake up to On . Set the keys and screen to lock automatically On the start screen, swipe down from the top of the screen, tap ALL SETTINGS > lock screen > Screen times out after, and select the length of time after which the keys and screen are locked automatically. (User Guide at 12.)

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	Your first Lumia? Let's get started. Set up your new phone, explore your phone's views and menus, and learn how to use the touch screen. Set up your phone Make the most out of your phone's features from the get-go.  (User Guide at 16.)

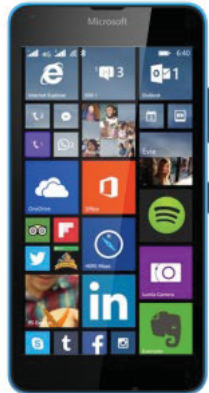
Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	Use the touch screen Explore your phone with a tap, swipe, or drag. To open an app or other item, tap the app or item. Tap and hold to open further options Place your finger on an item until the menu opens.  Tap and hold to drag an item Place your finger on the item for a couple of seconds, and slide your finger across the screen. (User Guide at 20.)

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	Lumia 640 3G Dual SIM Prepared for Anything  Windows Phone Key Features • Latest version of Windows Phone 8.1 along with seamlessly integrated Microsoft Office experiences • Built-in Skype integration and a 1MP front-facing camera for switching seamlessly between voice and video calls • 8MP camera with LED flash and Lumia Camera right out of the box • 1GB of memory and powerful quad core processor • Smart Dual SIM to ensure you never miss a call Accessories • Cover for Lumia 640 – with card holder • Microsoft Screen Sharing for Lumia Phones • Comfort Headset Size: 141.3 x 72.2 x 8.85 (volumetric) mm Weight: 145g Colors:  Talk time and Standby time (Estimates) • Standby time: up to 35 days (840 hours) • Talk time: up to 27.3 hours (2G) • Talk time: up to 20.3 hours (3G) Sales Package • Lumia 640 3G Dual SIM • Charger: AC-20 • WH-108 headset (In select markets only) • Battery: BV-TSC (removable) • User guide • Note: there may be differences in country / customer variants Operating System: Windows Phone 8.1 with Lumia Denim Networks: • GSM/EDGE: 850/900/1800/1900 MHz, WCDMA: 850/900/1900/2100 MHz Processor: CPU Qualcomm Snapdragon 400 (MSM8926), 1.2 GHz quad core processor Memory: 1GB RAM, 8 GB internal mass memory + up to 128 GB Micro SD & 30GB* free OneDrive cloud storage Display: 5" HD (1280x720, 16:9) IPS LCD, 294 PPI, Glance screen, Corning Gorilla Glass 3, Sunlight readability enhancements Primary Camera: 8 MP AF (3280x2464), f/2.2, 28 mm, 1080p @ 30 fps video (continuous autofocus), Flash: LED, Lumia Camera Secondary Camera: HD 1 MP wide angle, f/2.4, 720p video Connectivity: BT 4.0, microUSB 2.0, Micro SIM, A-GPS +GLONASS, BeiDou, DLNA, Screen cloning with Miracast, WLAN 802.11 b/g/n/ Sensors: Accelerometer, Magnetometer, Proximity, Ambient Light Sensor Audio: 3.5 mm AV connector (AHJ), FM Radio, Internet Radio Battery: 2500 mAh (BV-TSC) removable battery * available when camera roll back up is activated.  (Prepared for Anything at 2.)

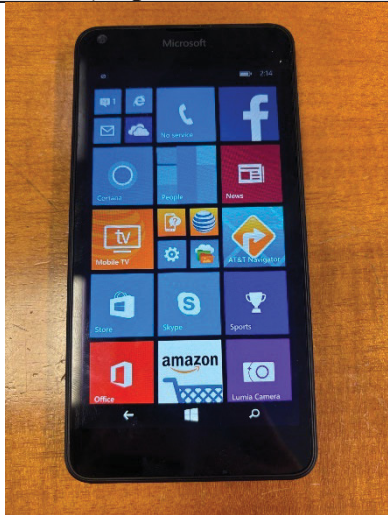
Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	Lumia 640 LTE Single SIM Prepared for Anything  Windows Phone Key Features • Latest version of Windows Phone 8.1 along with seamlessly integrated Microsoft Office experiences • Built-in Skype integration and a 1MP front-facing camera for switching seamlessly between voice and video calls • 8MP camera with LED flash and Lumia Camera right out of the box • 1GB of memory and powerful quad core processor • Fast LTE connectivity Accessories • Cover for Lumia 640 – with card holder • Microsoft Screen Sharing for Lumia Phones • Comfort Headset Size: 141.3 x 72.2 x 8.85 (volumetric) mm Weight: 145g Colors:  Talk time and Standby time (Estimates) • Standby time: up to 36 days (870 hours) • Talk time: up to 26.5 hours (2G) • Talk time: up to 17.5 hours (3G) Sales Package • Lumia 640 LTE Single SIM • Charger: AC-20 • WH-108 headset (In select markets only) • Battery: BV-TSC (removable) • User guide • Note: there may be differences in country / customer variants Operating System: Windows Phone 8.1 with Lumia Denim Networks: • LTE: 1, 3, 7, 8, 20 (2100, 1800, 2600, 900, 800) MHz • GSM/EDGE: 850/900/1800/1900 MHz, WCDMA: 850/900/2100 MHz Processor: CPU Qualcomm Snapdragon 400 (MSM8926), 1.2 GHz quad core processor Memory: 1GB RAM, 8 GB internal mass memory + up to 128 GB Micro SD & 30GB* free OneDrive cloud storage Display: 5" HD (1280x720, 16:9) IPS LCD, 294 PPI, Glance screen, Corning Gorilla Glass 3, Sunlight readability enhancements Primary Camera: 8 MP AF (3280x2464), f/2.2, 28 mm, 1080p @ 30 fps video (continuous autofocus), Flash: LED, Lumia Camera Secondary Camera: HD 1 MP wide angle, f/2.4, 720p video Connectivity: BT 4.0, microUSB 2.0, Micro SIM, A-GPS +GLONASS, BeiDou, NFC, DLNA, Screen cloning with Miracast, WLAN 802.11 b/g/n/ Sensors: Accelerometer, Magnetometer, Proximity, Ambient Light Sensor Audio: 3.5 mm AV connector (AHJ), FM Radio, Internet Radio Battery: 2500 mAh (BV-TSC) removable battery * available when camera roll back up is activated. 

(Prepared for Anything at 3.)

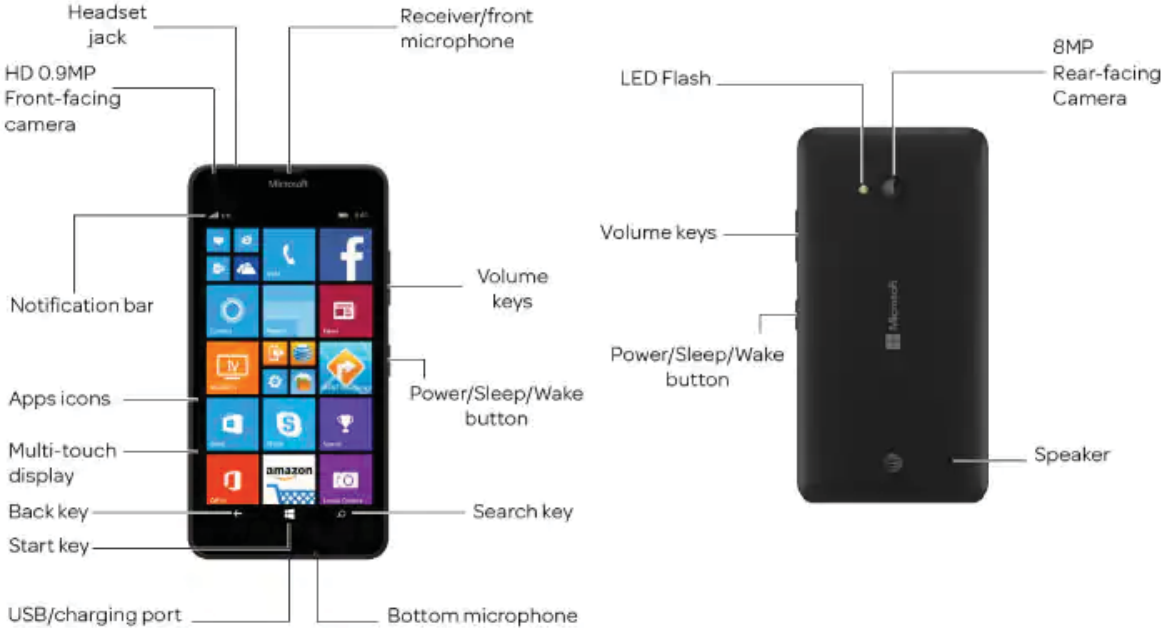
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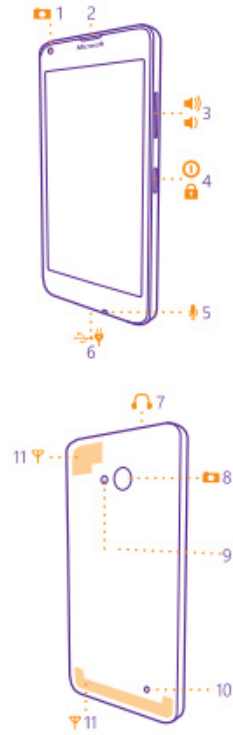
Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	THIS IS LUMIA 640 SEAMLESSLY SWITCH BETWEEN WORK AND PLAY WITH LUMIA 640 Smooth Access to Everything you Love Packed with speed, Lumia 640 allows you to smoothly and quickly access important documents or run all of your favorite websites, apps and games thanks to a powerful quad core Qualcomm Snapdragon processor and Windows Phone 8.1. Power and Flexibility Power through the work day with battery to spare, thanks to a 2500 mAh long-lasting battery. Enjoy all of your favorite apps with plenty of power and memory including 1GB of memory and 8GB of on-board storage - expandable up to 128GB microSD, not to mention free OneDrive storage*. Lumia 640 allows you to enjoy all the apps you love – alive on your home screen. You can even run apps from your memory card. Crisp Display Enjoy smooth web browsing and gaming action on the crisp 5" display even in bright daylight condition. Detail Rich Photos Lumia 640 is equipped with a 8 MP rear facing camera, perfect for capturing detail rich photos even in low light. It even sports the latest Lumia Camera app right out of the box, ensuring you capture that perfect shot every time. In addition, the front facing camera allows for more meaningful face-to-face Skype video calls, as well as great selfies which can be captured, edited and shared quickly and easily via the dedicated Lumia Selfie app. Glance Screen Innovations Glance Screen on your Lumia 640 helps you keep track of information in real time. All your most important notifications including calls, messages, emails, calendar updates, or any apps that use notifications such as Twitter, Facebook, Whatsapp, or games, are always visible at a glance of your screen. This will save you time and energy.  * 15 GB of OneDrive access comes standard. Additional 15 GB of OneDrive access with activation of camera roll backup. Unlimited OneDrive access with activation of included Office 365 Personal subscription. Windows Phone Microsoft (Prepared for Anything at 7.)

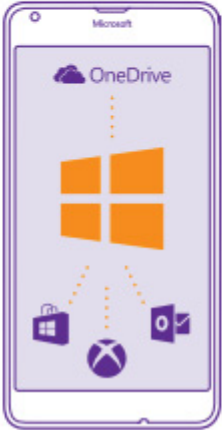
Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	The latest range of Microsoft Lumia phones. Microsoft Lumia 550 Screen size: 4.7" HD720 Connectivity: 4G-ready Main camera: 5MP with LED flash Front camera: 2MP camera and 480p video recording Processor (speed): Qualcomm® Snapdragon™ 210 Quad-core Microsoft Lumia 640* Screen size: 5" Gorilla Glass® 3 Connectivity: 4G-ready Main camera: 8MP Front camera: 1MP HD wide angle Processor (speed): Qualcomm® Snapdragon™ 1.2GHz quad-core Microsoft Lumia 640 XL* Screen size: 5.7" Gorilla Glass® 3 Connectivity: 4G-ready Main camera: 13MP ZEISS optics Front camera: Full HD 5MP wide angle Processor (speed): Qualcomm® Snapdragon™ 1.2GHz quad-core Microsoft Lumia 650 Screen size: 5" HD OLED Connectivity: 4G-ready Main camera: 8 MP autofocus with LED flash Front camera: 5MP wide angle Processor: Qualcomm® Snapdragon™ Quad-core 1.3 GHz Microsoft Lumia 950 Screen size: 5.2" QuadHD Gorilla Glass® 3 Connectivity: 4G-ready Main camera: Pureview 20MP ZEISS optics with triple LED flash Front camera: Full HD 5MP wide angle Processor: Qualcomm® Snapdragon™ 808 64-bit HexaCore Microsoft Lumia 950 XL Screen size: 5.7" QuadHD Gorilla Glass® 4 Connectivity: 4G-ready Main camera: Pureview 20MP ZEISS optics with triple LED flash Front camera: Full HD 5MP wide angle Processor: Qualcomm® Snapdragon™ 810 64-bit Octa-core *Microsoft Lumia 640 and 640 XL come with Windows 8.1. Screens simulated. Receive a free upgrade to Windows 10, when available. See www.microsoft.com/en/mobile/windows10/ for more details. (Introducing Microsoft Lumia at 13.)

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	 (Lumia 640 Device.)
[1f] wherein said mobile phone device does not include a physical key on the front surface, and	Lumia 640, alone or in combination with other references identified in this chart or elsewhere in Defendants’ invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless’s apparent interpretation of this limitation, discloses “wherein said mobile phone device does not include a physical key on the front surface.” For example, Lumia 640 discloses a mobile phone that does not include a physical key on the front surface. (Device Diagram; User Guide at 5, 16; Prepared for Anything at 2-4; Introducing Microsoft Lumia at 13.) Lumia 640 responds to touchscreen inputs, such as through the use of virtual keys. (Device Diagram; User Guide at 5, 20, 23, 50; Prepared for Anything at 14.)

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	The image shows a black Microsoft Lumia 640 smartphone lying on a wooden surface. The screen displays the Windows Phone operating system with a grid of colorful app tiles. The tiles include: Phone, Messages, Internet Explorer, Facebook, Mail, Photos, No service, People, News, Calendar, Music, Mobile TV, Settings, AT&T, Office, Skype, Sports, Amazon, and Lumia Camera. The bottom of the screen shows the Windows Phone navigation bar with back, home, and search icons. (Lumia 640 Device.)

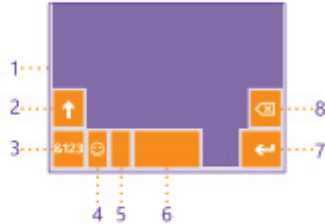
Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	Device Diagram Get familiar with the hardware of your Microsoft Lumia 640  The diagram illustrates the hardware components of the Microsoft Lumia 640. The front view (left) shows the multi-touch display with a notification bar at the top, various app icons, and a bottom dock with a back key, start key, and search key. The rear view (right) shows the 8MP rear-facing camera, LED flash, volume keys, power/sleep/wake button, and a speaker. Labels with leader lines identify the following parts: - Headset jack - HD 0.9MP Front-facing camera - Receiver/front microphone - Notification bar - Apps icons - Multi-touch display - Back key - Start key - USB/charging port - Volume keys - Power/Sleep/Wake button - Search key - Bottom microphone - LED Flash 8MP Rear-facing Camera - Speaker (Device Diagram.) Additional exemplary citations include:

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	Get started Get to grips with the basics, and have your phone up and running in no time. Keys and parts Explore the keys and parts of your new phone. 1 Front camera 2 Earpiece 3 Volume keys 4 Power/Lock key 5 Microphone 6 Micro-USB connector 7 Audio connector AHJ 3.5 mm 8 Camera lens 9 Camera flash 10 Microphone 11 Antenna area Some of the accessories mentioned in this user guide, such as charger, headset, or data cable, may be sold separately.  (User Guide at 5.)

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	Your first Lumia? Let's get started. Set up your new phone, explore your phone's views and menus, and learn how to use the touch screen. Set up your phone Make the most out of your phone's features from the get-go.  (User Guide at 16.)

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	Use the touch screen Explore your phone with a tap, swipe, or drag. To open an app or other item, tap the app or item. Tap and hold to open further options Place your finger on an item until the menu opens.  Tap and hold to drag an item Place your finger on the item for a couple of seconds, and slide your finger across the screen. (User Guide at 20.)

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	Back, start, and search keys The back, start, and search keys help you navigate your phone.  • To see which apps you have open, tap and hold the back key ←. You can then switch to another app or close the ones you don't need. • To go back to the previous screen you were in, tap the back key ←. Your phone remembers all the apps and websites you've visited since the last time your screen was locked. • To go to the start screen, tap the start key ■. The app you were in stays open in the background. • To search the web or for items on your phone, tap the search key 🔍. • If your phone has Cortana, to control your phone with your voice, tap and hold the search key 🔍, and say what you want to do. Or, to change the Cortana settings or use other Cortana functions, tap the search key 🔍. Cortana is not available in all regions and languages. For information on the supported languages, go to www.windowsphone.com. • To switch the vibration of these keys on or off, on the start screen, swipe down from the top of the screen, tap ALL SETTINGS > touch, and change the setting for navigation bar. Changing the vibration setting for incoming calls doesn't affect the vibration of the keys. (User Guide at 23.)

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	Write text Learn how to write text quickly and efficiently with your phone's keyboard. Use the on-screen keyboard Writing with the on-screen keyboard is easy. You can use the keyboard when holding your phone in portrait or landscape mode. You can write your messages by tapping the letters or by swiping through them. Tap a text box. 1 Character keys 2 Shift key 3 Numbers and symbols key 4 Smiley key 5 Comma key 6 Space key 7 Enter key 8 Backspace key  The keyboard layout can vary in different apps and languages. ★ Tip: To add the comma key to the keyboard, on the start screen, swipe down from the top of the screen, and tap ALL SETTINGS > keyboard > advanced > Show a comma key when available. You can add the comma key only if you have at least 2 keyboards installed on your phone. Swipe to write text Swipe from the first letter of the word, and draw a path from letter to letter. Lift your finger after the last letter. To continue, keep on swiping without tapping the space key. Your phone adds the spaces. Not all languages are supported. (User Guide at 50.)

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	Lumia 640 3G Dual SIM Prepared for Anything  Windows Phone Key Features • Latest version of Windows Phone 8.1 along with seamlessly integrated Microsoft Office experiences • Built-in Skype integration and a 1MP front-facing camera for switching seamlessly between voice and video calls • 8MP camera with LED flash and Lumia Camera right out of the box • 1GB of memory and powerful quad core processor • Smart Dual SIM to ensure you never miss a call Accessories • Cover for Lumia 640 – with card holder • Microsoft Screen Sharing for Lumia Phones • Comfort Headset Size: 141.3 x 72.2 x 8.85 (volumetric) mm Weight: 145g Colors:  Talk time and Standby time (Estimates) • Standby time: up to 35 days (840 hours) • Talk time: up to 27.3 hours (2G) • Talk time: up to 20.3 hours (3G) Sales Package • Lumia 640 3G Dual SIM • Charger: AC-20 • WH-108 headset (In select markets only) • Battery: BV-TSC (removable) • User guide • Note: there may be differences in country / customer variants Operating System: Windows Phone 8.1 with Lumia Denim Networks: • GSM/EDGE: 850/900/1800/1900 MHz, WCDMA: 850/900/1900/2100 MHz Processor: CPU Qualcomm Snapdragon 400 (MSM8926), 1.2 GHz quad core processor Memory: 1GB RAM, 8 GB internal mass memory + up to 128 GB Micro SD & 30GB* free OneDrive cloud storage Display: 5" HD (1280x720, 16:9) IPS LCD, 294 PPI, Glance screen, Corning Gorilla Glass 3, Sunlight readability enhancements Primary Camera: 8 MP AF (3280x2464), f/2.2, 28 mm, 1080p @ 30 fps video (continuous autofocus), Flash: LED, Lumia Camera Secondary Camera: HD 1 MP wide angle, f/2.4, 720p video Connectivity: BT 4.0, microUSB 2.0, Micro SIM, A-GPS +GLONASS, BeiDou, DLNA, Screen cloning with Miracast, WLAN 802.11 b/g/n/ Sensors: Accelerometer, Magnetometer, Proximity, Ambient Light Sensor Audio: 3.5 mm AV connector (AHJ), FM Radio, Internet Radio Battery: 2500 mAh (BV-TSC) removable battery * available when camera roll back up is activated. 

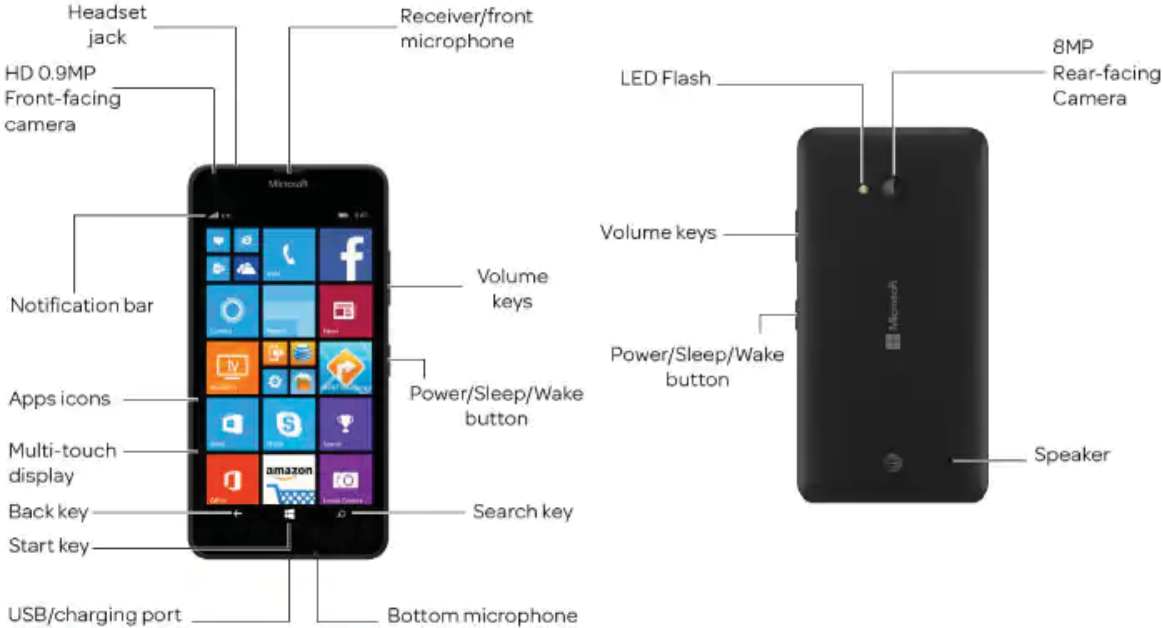
(Prepared for Anything at 2.)

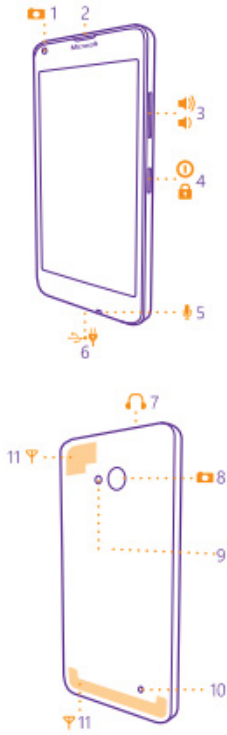
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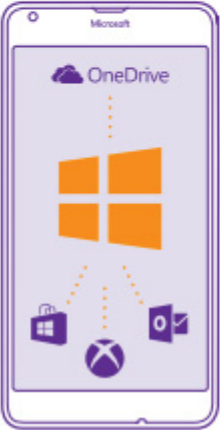
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Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	THIS IS LUMIA 640 BASIC NAVIGATION Start Function Swipe up from the bottom of the screen to access the virtual start function which will take you to the start screen from anywhere on your Lumia 640. Search Function Pressing the virtual search function will automatically launch Cortana (where available). Swipe up from the bottom of the screen to access this. Back Function The Back function allows you to go back within an app or between apps. The Back function also lets you navigate to a previous screen or webpage, exit a search operation, or close an on-screen keyboard, menu or dialog box. Press and hold the Back function to display a list of running apps and choose the one you want. Swipe up from the bottom of the screen to access this.  Volume buttons The Volume buttons adjust the volume of an active audio stream, such as a phone call, music audio, or an in-progress movie. Pressing one of the Volume buttons when you receive an incoming call will silence the ringtone. Power button If your Lumia 640 is off, a brief press on the Power button turns it on. When the Lumia 640 is on, a brief press of the Power button will turn off the display and lock the phone. Action Center gives you a single place to check your notifications and alerts, so you never miss a thing. In addition, customizable quick action slots are available at the top of Action Center so you're always in control. To access your Action Center, simply swipe down from any screen. You even have the option to access your Action Center from the Lock screen, again with a simple swipe down. For a more interactive experience of Lumia devices, you can also go to www.trylumiaphone.com Windows Phone Microsoft (Prepared for Anything at 14.)

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	The latest range of Microsoft Lumia phones. Microsoft Lumia 550 Screen size: 4.7" HD720 Connectivity: 4G-ready Main camera: 5MP with LED flash Front camera: 2MP camera and 480p video recording Processor (speed): Qualcomm® Snapdragon™ 210 Quad-core  Microsoft Lumia 640* Screen size: 5" Gorilla Glass® 3 Connectivity: 4G-ready Main camera: 8MP Front camera: 1MP HD wide angle Processor (speed): Qualcomm® Snapdragon™ 1.2GHz quad-core  Microsoft Lumia 640 XL* Screen size: 5.7" Gorilla Glass® 3 Connectivity: 4G-ready Main camera: 13MP ZEISS optics Front camera: Full HD 5MP wide angle Processor (speed): Qualcomm® Snapdragon™ 1.2GHz quad-core  Microsoft Lumia 650 Screen size: 5" HD OLED Connectivity: 4G-ready Main camera: 8 MP autofocus with LED flash Front camera: 5MP wide angle Processor: Qualcomm® Snapdragon™ Quad-core 1.3 GHz  Microsoft Lumia 950 Screen size: 5.2" QuadHD Gorilla Glass® 3 Connectivity: 4G-ready Main camera: Pureview 20MP ZEISS optics with triple LED flash Front camera: Full HD 5MP wide angle Processor: Qualcomm® Snapdragon™ 808 64-bit HexaCore  Microsoft Lumia 950 XL Screen size: 5.7" QuadHD Gorilla Glass® 4 Connectivity: 4G-ready Main camera: Pureview 20MP ZEISS optics with triple LED flash Front camera: Full HD 5MP wide angle Processor: Qualcomm® Snapdragon™ 810 64-bit Octa-core  *Microsoft Lumia 640 and 640 XL come with Windows 8.1. Screens simulated. Receive a free upgrade to Windows 10, when available. Features may vary by device. See www.microsoft.com/en/mobile/windows10/ for more details. (Introducing Microsoft Lumia at 13.)
[1g] wherein said components of the mobile phone are integrated within said housing such that none of said components is noticeably extended out from said housing.	Lumia 640, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "wherein said components of the mobile phone are integrated within said housing such that none of said components is noticeably extended out from said housing." For example, Lumia 640 is a mobile phone without components extending out from the housing. (Device Diagram; User Guide at 5, 16; Prepared for Anything at 2-4; Introducing Microsoft Lumia at 13.)

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	Device Diagram Get familiar with the hardware of your Microsoft Lumia 640  The diagram illustrates the hardware components of the Microsoft Lumia 640. The front view (left) shows the multi-touch display with a notification bar at the top, various app icons, and a bottom bar with a back key, start key, and search key. The rear view (right) shows the 8MP rear-facing camera, LED flash, volume keys, power/sleep/wake button, and a speaker. Labels with leader lines identify the following components: - Headset jack - HD 0.9MP Front-facing camera - Receiver/front microphone - Notification bar - Apps icons - Multi-touch display - Back key - Start key - USB/charging port - Volume keys - Power/Sleep/Wake button - Search key - Bottom microphone - LED Flash 8MP Rear-facing Camera - Speaker (Device Diagram.) Additional exemplary citations include:

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	Get started Get to grips with the basics, and have your phone up and running in no time. Keys and parts Explore the keys and parts of your new phone. 1 Front camera 2 Earpiece 3 Volume keys 4 Power/Lock key 5 Microphone 6 Micro-USB connector 7 Audio connector AHJ 3.5 mm 8 Camera lens 9 Camera flash 10 Microphone 11 Antenna area Some of the accessories mentioned in this user guide, such as charger, headset, or data cable, may be sold separately.  (User Guide at 5.)

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	Your first Lumia? Let's get started. Set up your new phone, explore your phone's views and menus, and learn how to use the touch screen. Set up your phone Make the most out of your phone's features from the get-go.  (User Guide at 16.)

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	Lumia 640 3G Dual SIM Prepared for Anything  Windows Phone Key Features • Latest version of Windows Phone 8.1 along with seamlessly integrated Microsoft Office experiences • Built-in Skype integration and a 1MP front-facing camera for switching seamlessly between voice and video calls • 8MP camera with LED flash and Lumia Camera right out of the box • 1GB of memory and powerful quad core processor • Smart Dual SIM to ensure you never miss a call Accessories • Cover for Lumia 640 – with card holder • Microsoft Screen Sharing for Lumia Phones • Comfort Headset Size: 141.3 x 72.2 x 8.85 (volumetric) mm Weight: 145g Colors:  Talk time and Standby time (Estimates) • Standby time: up to 35 days (840 hours) • Talk time: up to 27.3 hours (2G) • Talk time: up to 20.3 hours (3G) Sales Package • Lumia 640 3G Dual SIM • Charger: AC-20 • WH-108 headset (In select markets only) • Battery: BV-TSC (removable) • User guide • Note: there may be differences in country / customer variants Operating System: Windows Phone 8.1 with Lumia Denim Networks: • GSM/EDGE: 850/900/1800/1900 MHz, WCDMA: 850/900/1900/2100 MHz Processor: CPU Qualcomm Snapdragon 400 (MSM8926), 1.2 GHz quad core processor Memory: 1GB RAM, 8 GB internal mass memory + up to 128 GB Micro SD & 30GB* free OneDrive cloud storage Display: 5" HD (1280x720, 16:9) IPS LCD, 294 PPI, Glance screen, Corning Gorilla Glass 3, Sunlight readability enhancements Primary Camera: 8 MP AF (3280x2464), f/2.2, 28 mm, 1080p @ 30 fps video (continuous autofocus), Flash: LED, Lumia Camera Secondary Camera: HD 1 MP wide angle, f/2.4, 720p video Connectivity: BT 4.0, microUSB 2.0, Micro SIM, A-GPS +GLONASS, BeiDou, DLNA, Screen cloning with Miracast, WLAN 802.11 b/g/n/ Sensors: Accelerometer, Magnetometer, Proximity, Ambient Light Sensor Audio: 3.5 mm AV connector (AHJ), FM Radio, Internet Radio Battery: 2500 mAh (BV-TSC) removable battery * available when camera roll back up is activated. 

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	Lumia 640 LTE Single SIM Prepared for Anything  Windows Phone Key Features • Latest version of Windows Phone 8.1 along with seamlessly integrated Microsoft Office experiences • Built-in Skype integration and a 1MP front-facing camera for switching seamlessly between voice and video calls • 8MP camera with LED flash and Lumia Camera right out of the box • 1GB of memory and powerful quad core processor • Fast LTE connectivity Accessories • Cover for Lumia 640 – with card holder • Microsoft Screen Sharing for Lumia Phones • Comfort Headset Size: 141.3 x 72.2 x 8.85 (volumetric) mm Weight: 145g Colors:  Talk time and Standby time (Estimates) • Standby time: up to 36 days (870 hours) • Talk time: up to 26.5 hours (2G) • Talk time: up to 17.5 hours (3G) Sales Package • Lumia 640 LTE Single SIM • Charger: AC-20 • WH-108 headset (In select markets only) • Battery: BV-TSC (removable) • User guide • Note: there may be differences in country / customer variants Operating System: Windows Phone 8.1 with Lumia Denim Networks: • LTE: 1, 3, 7, 8, 20 (2100, 1800, 2600, 900, 800) MHz • GSM/EDGE: 850/900/1800/1900 MHz, WCDMA: 850/900/2100 MHz Processor: CPU Qualcomm Snapdragon 400 (MSM8926), 1.2 GHz quad core processor Memory: 1GB RAM, 8 GB internal mass memory + up to 128 GB Micro SD & 30GB* free OneDrive cloud storage Display: 5" HD (1280x720, 16:9) IPS LCD, 294 PPI, Glance screen, Corning Gorilla Glass 3, Sunlight readability enhancements Primary Camera: 8 MP AF (3280x2464), f/2.2, 28 mm, 1080p @ 30 fps video (continuous autofocus), Flash: LED, Lumia Camera Secondary Camera: HD 1 MP wide angle, f/2.4, 720p video Connectivity: BT 4.0, microUSB 2.0, Micro SIM, A-GPS +GLONASS, BeiDou, NFC, DLNA, Screen cloning with Miracast, WLAN 802.11 b/g/n/ Sensors: Accelerometer, Magnetometer, Proximity, Ambient Light Sensor Audio: 3.5 mm AV connector (AHJ), FM Radio, Internet Radio Battery: 2500 mAh (BV-TSC) removable battery * available when camera roll back up is activated.  (Prepared for Anything at 3.)

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	Lumia 640 LTE Dual SIM Prepared for Anything  Windows Phone Key Features • Latest version of Windows Phone 8.1 along with seamlessly integrated Microsoft Office experiences • Built-in Skype integration and a 1MP front-facing camera for switching seamlessly between voice and video calls • 8MP camera with LED flash and Lumia Camera right out of the box • 1GB of memory and powerful quad core processor • Best of both worlds with LTE support available on dual SIM models for the first time Accessories • Cover for Lumia 640 – with card holder • Microsoft Screen Sharing for Lumia Phones • Comfort Headset Size: 141.3 x 72.2 x 8.85 (volumetric) mm Weight: 145g Colors:  Talk time and Standby time (Estimates) • Standby time: up to 36 days (870 hours) • Talk time: up to 26.5 hours (2G) • Talk time: up to 17.5 hours (3G) Sales Package • Lumia 640 LTE Dual SIM • Charger: AC-20 • WH-108 headset (In select markets only) • Battery: BV-T5C (removable) • User guide • Note: there may be differences in country / customer variants Operating System: Windows Phone 8.1 with Lumia Denim Networks: • LTE: 1, 2, 3, 4, 5, 7, 8, 12, 20, 28 (2100, 1900, 1800, 1700/2100, 850, 2600, 900, 700, 800, 700) MHz • TD-LTE: 38, 40 (2570-2620, 2300-2400) MHz • GSM/EDGE: 850/900/1800/1900 MHz, WCDMA: 850/900/1900/2100 and 1700/2100 MHz Processor: CPU Qualcomm Snapdragon 400 (MSM8926), 1.2 GHz quad core processor Memory: 1GB RAM, 8 GB internal mass memory + up to 128 GB Micro SD & 30GB* free OneDrive cloud storage Display: 5" HD (1280x720, 16:9) IPS LCD, 294 PPI, Glance screen, Corning Gorilla Glass 3, Sunlight readability enhancements Primary Camera: 8 MP AF (3280x2464), f/2.2, 28 mm, 1080p @ 30 fps video (continuous autofocus), Flash: LED, Lumia Camera Secondary Camera: HD 1 MP wide angle, f/2.4, 720p video Connectivity: BT 4.0, microUSB 2.0, Micro SIM, A-GPS + GLONASS, BeiDou, NFC, DLNA, Screen cloning with Miracast, WLAN 802.11 b/g/n/ Sensors: Accelerometer, Magnetometer, Proximity, Ambient Light Sensor Audio: 3.5 mm AV connector (AHJ), FM Radio, Internet Radio Battery: 2500 mAh (BV-T5C) removable battery * available when camera roll back up is activated. 

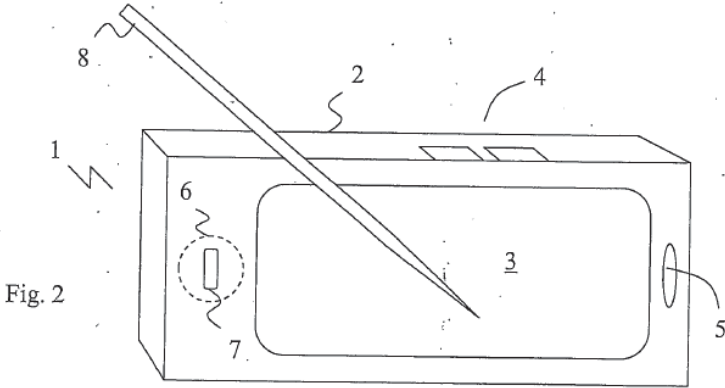
Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	The latest range of Microsoft Lumia phones. Microsoft Lumia 550 Screen size: 4.7" HD720 Connectivity: 4G-ready Main camera: 5MP with LED flash Front camera: 2MP camera and 480p video recording Processor (speed): Qualcomm® Snapdragon™ 210 Quad-core  Microsoft Lumia 640* Screen size: 5" Gorilla Glass® 3 Connectivity: 4G-ready Main camera: 8MP Front camera: 1MP HD wide angle Processor (speed): Qualcomm® Snapdragon™ 1.2GHz quad-core  Microsoft Lumia 640 XL* Screen size: 5.7" Gorilla Glass® 3 Connectivity: 4G-ready Main camera: 13MP ZEISS optics Front camera: Full HD 5MP wide angle Processor (speed): Qualcomm® Snapdragon™ 1.2GHz quad-core  Microsoft Lumia 650 Screen size: 5" HD OLED Connectivity: 4G-ready Main camera: 8 MP autofocus with LED flash Front camera: 5MP wide angle Processor: Qualcomm® Snapdragon™ Quad-core 1.3 GHz  Microsoft Lumia 950 Screen size: 5.2" QuadHD Gorilla Glass® 3 Connectivity: 4G-ready Main camera: Pureview 20MP ZEISS optics with triple LED flash Front camera: Full HD 5MP wide angle Processor: Qualcomm® Snapdragon™ 808 64-bit HexaCore  Microsoft Lumia 950 XL Screen size: 5.7" QuadHD Gorilla Glass® 4 Connectivity: 4G-ready Main camera: Pureview 20MP ZEISS optics with triple LED flash Front camera: Full HD 5MP wide angle Processor: Qualcomm® Snapdragon™ 810 64-bit Octa-core  *Microsoft Lumia 640 and 640 XL come with Windows 8.1. Screens simulated. Receive a free upgrade to Windows 10, when available. Features may vary by device. See www.microsoft.com/en/mobile/windows10/ for more details. (Introducing Microsoft Lumia at 13.)

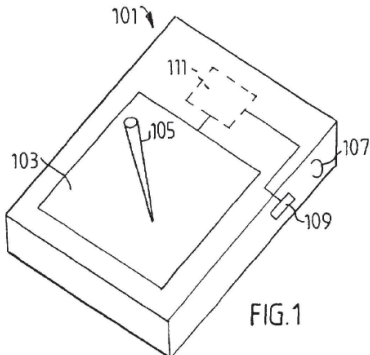
Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	(Lumia 640 Device.) To the extent Keyless contends that this element is not disclosed, a POSITA would have found it obvious in light of Lumia 640, POSITA's pre-existing knowledge, and/or the teachings of Lumia 640 combined with Bast, Pensjo, Wedel, Dutta, and/or Gupta. For example, a POSITA would find the combination obvious to try, due at least to the similarity of the technical teachings of the art. For example, a POSITA would have found the combination obvious to try, due at least to the similarity of the technical teachings of the art. As another example, a POSITA would have found that the teachings could be predictably interchanged by, for example, simple substitution, at least because of the predictability of the art and the known interchangeability of the various elements. As another example, a POSITA would have been motivated to combine the references, and would have a reasonable expectation of success in doing so, at least because the references use known variations of existing technology to solve routine and well understood problems in predictable ways. For example, Bast discloses a mobile phone that does not include components extended out from its housing. (Bast at FIG. 1.) Bast explains that the mobile phone device uses the touch screen and stylus for input and output, so there would be no need for any physical keyboard or buttons. (Bast at [0010], [0012], [0024].)

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	As another example, Pensjo discloses a similar mobile phone that does not include components extended out from its housing. (Pensjo at FIGS. 1 and 3-5.) Pensjo’s mobile phone uses a stylus and a virtual keyboard to enable user input, so there is no need to make any components (e.g., physical keyboard) extend out from the phone housing. (Pensjo at [0010], [0012], [0024].) As another example, Wedel discloses a similar mobile phone that does not include components extended out from its housing. (Wedel at FIG. 2.) Wedel teaches that mobile phones “are getting smaller and smaller” and are now “pocket size.” (Wedel at 1:14-21.) Wedel explains that the small size “is generally considered to be an important factor for the end customer,” and there is “general market demand for small size and light weight terminals.” (Wedel at 1:14-21, 3:19-21.) Without any component extended out from its housing, Wedel’s mobile phone is made more portable and easier to fit in a pocket. As another example, Dutta discloses a similar mobile phone that does not include components extended out from its housing. (Dutta at FIGS. 2A and 2B.) Dutta teaches that there was a continuing effort to reduce the mobile phones’ sizes in order to make them more portable. (Dutta at [0002].) Particularly, Dutta teaches that the mobile phones were commonly designed to have a long, narrow shape. (Dutta at [0004].) To that end, it is useful not to let the phone’s components extend out from its housing. As another example, Gupta discloses a “buttonless” mobile phone that does not require any physical button for enabling input. (Gupta at Title, Abstract, [0009], [0019].) Gupta recognizes the need to reduce the size of mobile phones while providing a display that is large enough for practical information viewing and easy data input. (Gupta at [0004].) To that end, Gupta uses a “full length” touchscreen display to replace the traditional fixed keypad. (Gupta at [0017], FIGS. 2 and 3.) A POSITA would have been motivated to configure a mobile phone to ensure no component extended out from the phone’s housing, so as to make the phone easy to fit into a pocket and to avoid unintended input to the device. Configuring a mobile phone in this way was routine and conventional to a POSITA, as shown by each of Bast, Pensjo, Wedel, Dutta, and Gupta. A POSITA would have been motivated to design a phone accordingly in order to improve user experience and satisfaction. Thus, a POSITA would have considered the combination of the teachings of Bast, Pensjo, Wedel, Dutta, and/or Gupta into the mobile phone architecture disclosed by Lumia 640 to be an example of (A) combining prior art elements (the fully integrated mobile phone design as taught by Bast, Pensjo, Wedel, Dutta, and Gupta) according to known

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	methods to yield predictable results (improving the portability and operability of a mobile phone); (B) use of a known technique (excluding components extended from a phone housing, as taught by Bast, Pensjo, Wedel, Dutta, and Gupta) to improve similar devices in the same way (improving user experience and device performance); (C) applying a known technique (excluding components extended from a phone housing, as taught by Bast, Pensjo, Wedel, Dutta, Gupta) to a known device ready for improvement to yield predictable results (improving user experience and device performance); and/or (D) some teaching, suggestion, or motivation in the prior art (e.g., the teachings of Bast, Pensjo, Wedel, Dutta, and Gupta) that would have led one of ordinary skill to modify the mobile phone disclosed by Lumia 640 to arrive at the claimed invention. Additional exemplary citations include: “The mobile terminal shown in Figure 1 combines the functions of a personal digital assistant (PDA) and a mobile telephone. It includes a housing 1 equipped, on the front face, with a large screen 2, which can be a touch screen. The front face of the housing also includes a microphone 3 and a speaker 4, located at the lower part and the upper part, respectively, of the front face of the housing. The touch screen 2 is a rectangular screen that is as large as possible to enable: the input and display of data, particularly writing by means of a stylus; the display of various information, like the time; the display of short messages or messages obtained by email; and the display of program and function icons, settings icons, a virtual keypad for numbering etc. When coming on line, it can, for example, as shown in Figure 1, display a desktop in the form of icons corresponding to the various applications programmed in the terminal.” (Bast at [0010].) “To enable the user to discretionally toggle from one display to the other, as is considered to be more suitable at a given time, the mobile terminal can be equipped with a toggle button. This button can be a conventional button disposed on the housing or a virtual toggle button 5, accessible to the user and permanently displayed, in the form of an icon on the touch screen 2 (Figures 1 to 3). An equivalent function is accessible by means of a menu.” (Bast at [0012].) “Calibration essentially consists of determining the vertical position of the device. This calibration can be carried out automatically or manually. In one preferred embodiment, the robustness of the system is increased by combining the two calibration modes.” (Bast at [0018].)

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	“A small mechanical switch (not shown) disposed at the base of the housing 1 enables the orientation of the terminal to be manually calibrated. When the user places the terminal vertically on a table or any other horizontal surface 10, the switch closes and the central processing unit 7 considers the corresponding position to be the vertical position.” (Bast at [0020].) “If the screen 2 is a touch screen, the housing’s orientation detector can be associated with a virtual toggle button, thus enabling the user to change the current display mode.” (Bast at [0024].) Bast discloses the following at FIG. 1: Figure 1 “Figure 2 discloses a different embodiment of a state of the art communication terminal 1, wherein the display 3 occupies a larger portion of the front side of the terminal. Several of the functions of the keypad 4 have been included in a graphical user interface applicable to the display 3, rendering a data input interface having less keys. Those keys 4 may also be moved to the side of the communication terminal in order to allow for the display 3 to occupy a larger portion of the front side of terminal 1. A specific tool 8 may be provided for inputting data on a touch-sensitive screen of the display 3.” (Wedel at 2:3-11.)

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	Wedel discloses the following at FIG. 2:  “Fig. 1 illustrates a view of a portable device 101 comprising a touch sensitive screen display 103 used for input of operational commands and/or data. The device 101 further includes a pen 105 as a pointing tool for touching specific areas of the screen display 103 in a predefined manner. When not in use, the pen can be placed in a pen holder 107 of the portable device. The pen holder is in this example placed on the side of the device and comprises a ring for receiving the pen. The pen holder may of course be designed and placed in many different ways within the scope of the invention, such as a recess together with some kind of a spring-like element. The device 101 further comprises a mechanism 109 for detecting whether the pen is located in the holder or not, and an electronic control unit 111 connected to the pen detecting mechanism 109. The control unit 111 operates to control circuits, not shown, for displaying various patterns, pictures and/or information on the screen display 103.” (Pensjo at [0008].) “Fig. 3 is a view of an exemplary mobile telephone 301 comprising a touch screen display 303 being in a sleep mode due to the presence of a pen in a pen holder, not shown. the layout of the screen display 303 is in a "portrait" format.” (Pensjo at [0010].)

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	“Fig. 4 is a view of the mobile telephone 301 of Fig. 3 after the pen has been removed from the pen holder. In this example, the layout of the screen display 303 has been changed into a "landscape" format including a numeric keyboard.” (Pensjo at [0011].) “Finally, Fig. 5 is a view of an exemplary electronic device 501, comprising a touch screen 503, where the device has changed from a sleeping mode into an active mode in response to the pen being removed from the pen holder, not shown. The user may be alerted of the change into the active mode by illuminating, e.g., the lower part 505 of the screen 503.” (Pensjo at [0012].) “According to one aspect of the invention, the device is in a first passive mode, or sleep mode, when the pen is present in the pen holder 107. In this state, the touch functionality of the screen is preferably not activated such that data or commands cannot be entered by mistake, e.g., when the device is located in a pocket or a suitcase. The screen may in this mode display various information, such as phone numbers, e-mails, reminder alerts etc. When the device switches from the first mode to a second active mode after the pen has been removed from the pen holder 107, the screen appearance changes into a layout designed for input of commands and/or data and also the touch functionality of the screen is activated.” (Pensjo at [0013].) Pensjo discloses the following at FIGS. 1 and 3-5:  FIG. 1

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	FIG. 3 FIG. 5 FIG. 4 “A goal in the ongoing further development of portable terminals consists in continuously reducing its dimensions to make its transport as comfortable as possible. Unfortunately, this also means that the displays of these devices are very small. With the ever greater usage of portable devices, such as, for example, personal digital assistants (PDAs) and mobile phones to access the Internet, the limitations that arise due to the small displays are increasingly significant.” (Dutta at [0002].) “Consequently the displays of mobile phones must be adapted to the long, narrow shape of the phone itself.” (Dutta at [0004].) “Figs. 2A and 2B are exemplary representations of the display of a mobile phone corresponding to a preferred embodiment of the present invention. The two figures show this telephone 205, which is equipped

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	with a display 210. From the illustration it follows that the display 210 occupies the majority of the surface of the telephone 205, in which a microphone 215 is located at one end of the display, and a speaker 220 is located at the other end of the display.” (Dutta at [0018].) “The difference between these two figures consists in the representation of data 225 and 230 on the display 210. In Fig. 2A, the data 225 are depicted such that the text is read in portrait format of the display 210, as is usual in current mobile phone models. It is clear that reading is problematic in this format of the display.” (Dutta at [0019].) “However, in Fig. 2B, the representation of the data 230 has been rotated by 90 degrees so that they are shown on the display 210 in landscape format. In this case the data 23 are significantly easier to read.” (Dutta at [0020].) Dutta discloses the following at FIGS. 2A and 2B:

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	Fig. 2A Fig. 2B “The functions of personal digital assistants and cellular telephones are merging. Devices are emerging that not only can hold addresses and phone numbers but can also communicate over the Internet through a wireless connection. This gives the user the ability to send e-mail, download stock quotes, look-up directions for travel as well as make telephone calls.” (Gupta at [0002].) “Many cellular telephone manufacturers enable the personal digital assistant and cellular telephone capability by providing a larger display on the telephone. The larger display is able to show multiple lines of information as well as icons for accessing the personal digital assistant functions of the device.” (Gupta at [0003].)

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	“In order to keep the telephone small and still provide a reasonably large display for information, the size of the keypads for entering data has been reduced substantially. Individuals with large fingers or users that try to input data while moving may have trouble depressing the small keys properly. There is a resulting unforeseen need for a small communications device that merges the functions of a personal digital assistant and a telephone, cellular or otherwise, while still providing a display that is large enough for practical information viewing and a keypad that is easy to use.” (Gupta at [0004].) “A buttonless communication device that uses a touchscreen display for entering and displaying data. The different modes of the device are displayed as icons on the display allowing the device to enter the mode enabled by contact of the appropriate icon. A telephone mode displays a keypad of icon numbers, a send icon, an end icon, and an entered telephone number display area. By contact with the appropriate icons, a telephone number can be called or an incoming call answered.” (Gupta at Abstract.) “A touch-screen display is comprised of icons that represent numbers. The icons are used to enter a number in response to a contact, on the display, over a particular icon to be entered. A controller controls the transmitter, the receiver, and the touch-screen display. The controller controls the operation of the communications device and comprises an apparatus that generates the icons representing numbers for display on the touch-screen display. The controller also comprises an apparatus that generates an accumulated telephone number in response to the particular icons contacted on the touch-screen display.” (Gupta at [0008].) “FIG. 2 shows a buttonless, wireless communication device of the present invention in a telephone mode.” (Gupta at [0009].) “The communication device of the present invention provides a telephone with a full length, tactile response, touchscreen display. Instead of portions of the telephone being taken up by a fixed keypad, the touchscreen display can display a keypad while in the telephone dialing mode but then replace the keypad with extra display space for data. The display also features dynamically raised keys and buttons in response to what is being displayed.” (Gupta at [0017].) “FIG. 2 illustrates the buttonless communication device of the present invention. In the preferred embodiment, this communication device is a wireless radiotelephone for use in a cellular system. Alternate

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	embodiments use other types of telephones such as cordless telephones, for use in the home, that are coupled to the public switched telephone system. The cellular radiotelephone of the present invention is not constrained to any one air-interface standard. It works equally well with code division multiple access (CDMA), global system for mobile communication (GSM), time division multiple access (TDMA), or even advanced mobile phone system (AMPS).” (Gupta at [0019].) “The telephone illustrated in FIG. 2 is comprised of a large touchscreen display (201). FIG. 2 illustrates the present invention in the telephone mode. In this mode, the device displays number icons (205) or other informational symbols (not shown) which form and are used as a telephone keypad for entering telephone numbers. The display also displays a ‘SEND’ key (207) and an “END” key (210) (for purposes of this disclosure, the term ‘key’ does not refer to a physical button or switch but instead refers to an area of the display screen which when contacted or touched causes the generation of a signal to the phone that is representative of the ‘button’ or ‘pad’ that was actuated. The functions of a ‘SEND’ and ‘END’ key are generally known to start and stop a wireless phone call. A portion of the display (215) is reserved for displaying the telephone number as it is being typed in.” (Gupta at [0020].) “In the preferred embodiment, the user receives an aural feedback whenever a “key” is contacted. Since the surface of the screen of the preferred embodiment is smooth and there is no key movement to let the user know that data has been entered, the telephone can be set up to generate an electronic beep, clicking noise, or some other sound to indicate the successful actuation of each “key”. The chosen sound may be chosen by setting up user preferences of the telephone operator or the sound may be turned off for silent operation.” (Gupta at [0022].) “The display also has a browser icon (310) that takes the user to the browser program used by the telephone. The browser is a scaled down version of a personal computer browser such as NETSCAPE NAVIGATOR and, in the preferred embodiment, conforms to the wireless access protocol (WAP) standard for wireless Internet access. This browser program enables the user to access selected Web sites over the Internet and display the accessed data on the large telephone display. It can be seen the that lack of a fixed telephone keypad enables substantially more data to be displayed while in this mode than would be possible with the fixed keypad.” (Gupta at [0026].)

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	“The process of the present invention is illustrated in FIG. 6. This process begins with the controller generating the icons indicating the different modes of the communication device (step 601). The controller then displays these icons on the touchscreen display. The user touches the telephone icon to put the communication device into the telephone mode (step 610). The controller reads the contact on the touchscreen display and, knowing the coordinates of the telephone mode icon on the display, puts the device into the telephone mode (step 615). Once in the telephone mode, the controller generates the number icons and causes the touchscreen display to display them in a keypad-style format (step 620). The controller also generates the other telephone keys, such as “send”, “end”, and the telephone number display and displays them in the proper format on the touchscreen display.” (Gupta at [0037].) “The size of the touchscreen display of the present invention provides the communication device with the ability to display multimedia deliveries from the Internet or other sources. The display could show the presentation along with dynamically changing control buttons such as fast forward, back, review, stop, and pause.” (Gupta at [0049].) “In summary, the present invention provides a communication device having a full-length touchscreen display. This enables the display of additional data and information not possible on communication devices having a fixed keypad.” (Gupta at [0051].) Gupta discloses the following at FIGS. 2-4, and 8:

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	Fig. 2 is a perspective view of a mobile device screen. The screen displays the phone number "800-555-8615" at the top. Below the number is a numeric keypad with digits 1 through 0. To the left of the keypad is a "SEND" button, and to the right is an "END" button. Various components are labeled with reference numerals: 215 points to the top of the screen, 201 points to the screen area, 207 points to the "SEND" button, 210 points to the "END" button, and 205 points to the keypad area. <u>Fig. 2</u> (Gupta at FIG. 2) Fig. 3 is a perspective view of a mobile device screen. The screen displays two icons: a book icon representing a browser and an envelope icon representing email. Below the icons, the words "BROWSER" and "EMAIL" are displayed. Various components are labeled with reference numerals: 325 points to the top of the screen, 305 points to the browser icon, 301 points to the email icon, 310 points to the "BROWSER" text, 315 points to the "EMAIL" text, and 320 points to the bottom of the screen. <u>Fig. 3</u> (Gupta at FIG. 3)

Claim 1

Exemplary Disclosures (Express and/or Inherent) and Citations

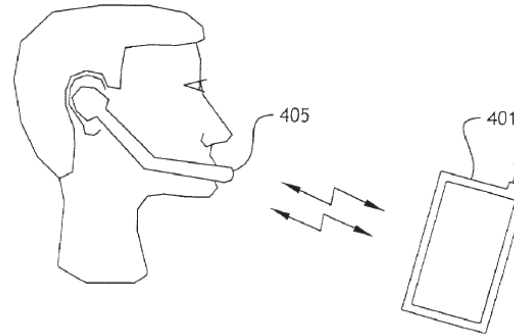


Fig. 4
(Gupta at FIG. 4)

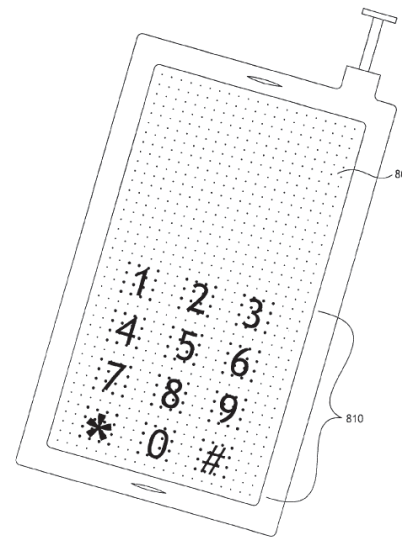
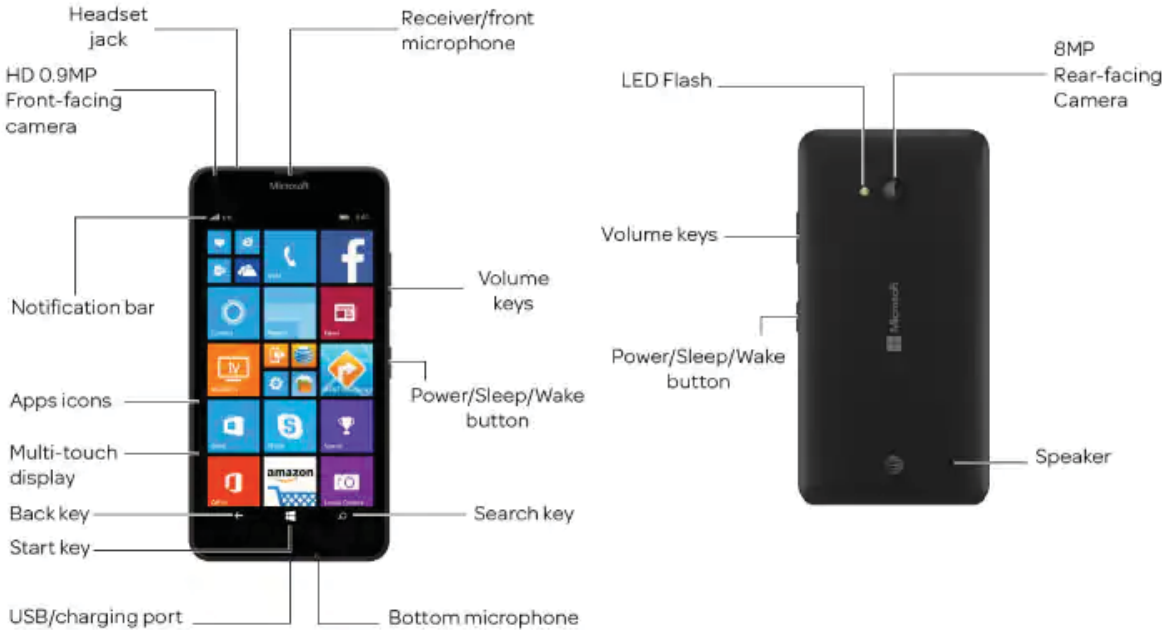
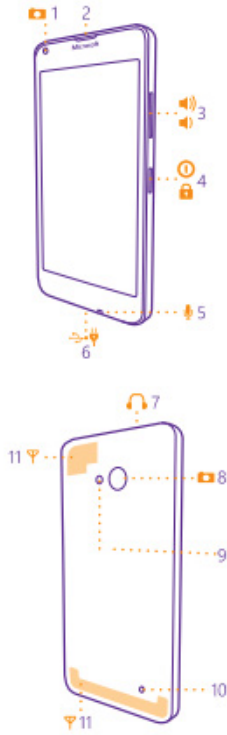
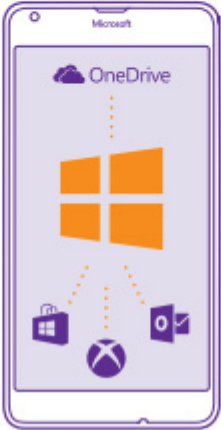


Fig. 8
(Gupta at FIG. 8)

Claim 2	Exemplary Disclosures (Express and/or Inherent) and Citations
[2pre] The device of claim 1,	Claim 2 depends from claim 1. Defendant incorporates all the prior art disclosures from claim 1 here, which anticipate and/or render claim 1 obvious as set out above. Defendant reserves the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claim 1 to show the additional limitations of claim 2 are anticipated and/or obvious for the same reasons set out in claim 1. Lumia 640, alone or in combination with other references identified in this chart or elsewhere in Defendants’ invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless’s apparent interpretation of this limitation, discloses “[t]he device of claim 1.” <i>See supra</i> claim [1].
[2a] wherein said practically rectangular shape has rounded corners.	Lumia 640, alone or in combination with other references identified in this chart or elsewhere in Defendants’ invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless’s apparent interpretation of this limitation, discloses “wherein said practically rectangular shape has rounded corners.” For example, the corners of Lumia 640’s housing have rounded edges. (Device Diagram; User Guide at 5, 16; Prepared for Anything at 2-4; Introducing Microsoft Lumia at 13.)

Claim 2	Exemplary Disclosures (Express and/or Inherent) and Citations
	Device Diagram Get familiar with the hardware of your Microsoft Lumia 640  The diagram illustrates the hardware components of a Microsoft Lumia 640. The front view shows the top with a headset jack, HD 0.9MP front-facing camera, and receiver/front microphone. The screen displays a notification bar, app icons, and a multi-touch display. Below the screen are the back key, start key, and USB/charging port. The bottom features a search key and bottom microphone. The rear view shows the LED flash, 8MP rear-facing camera, volume keys, power/sleep/wake button, and a speaker. (Device Diagram.) Additional exemplary citations include:

Claim 2	Exemplary Disclosures (Express and/or Inherent) and Citations
	Get started Get to grips with the basics, and have your phone up and running in no time. Keys and parts Explore the keys and parts of your new phone. 1 Front camera 2 Earpiece 3 Volume keys 4 Power/Lock key 5 Microphone 6 Micro-USB connector 7 Audio connector AHJ 3.5 mm 8 Camera lens 9 Camera flash 10 Microphone 11 Antenna area Some of the accessories mentioned in this user guide, such as charger, headset, or data cable, may be sold separately.  The image contains two diagrams of a smartphone. The top diagram is a side view showing the left edge of the device. It has callout numbers 1 through 6 pointing to various features: 1 points to the front camera at the top left, 2 points to the earpiece at the top center, 3 points to the volume keys on the upper left side, 4 points to the power/lock key on the upper right side, 5 points to a microphone on the lower right side, and 6 points to the micro-USB connector at the bottom. The bottom diagram is a front view of the device. It has callout numbers 7 through 11: 7 points to the 3.5mm audio connector at the top, 8 points to the camera lens in the upper center, 9 points to the camera flash just below the lens, 10 points to a microphone at the bottom center, and 11 points to the antenna area at the bottom left corner. (User Guide at 5.)

Claim 2	Exemplary Disclosures (Express and/or Inherent) and Citations
	Your first Lumia? Let's get started. Set up your new phone, explore your phone's views and menus, and learn how to use the touch screen. Set up your phone Make the most out of your phone's features from the get-go.  (User Guide at 16.)

Claim 2	Exemplary Disclosures (Express and/or Inherent) and Citations
	Lumia 640 3G Dual SIM Prepared for Anything  Windows Phone Key Features • Latest version of Windows Phone 8.1 along with seamlessly integrated Microsoft Office experiences • Built-in Skype integration and a 1MP front-facing camera for switching seamlessly between voice and video calls • 8MP camera with LED flash and Lumia Camera right out of the box • 1GB of memory and powerful quad core processor • Smart Dual SIM to ensure you never miss a call Accessories • Cover for Lumia 640 – with card holder • Microsoft Screen Sharing for Lumia Phones • Comfort Headset Size: 141.3 x 72.2 x 8.85 (volumetric) mm Weight: 145g Colors:  Talk time and Standby time (Estimates) • Standby time: up to 35 days (840 hours) • Talk time: up to 27.3 hours (2G) • Talk time: up to 20.3 hours (3G) Sales Package • Lumia 640 3G Dual SIM • Charger: AC-20 • WH-108 headset (In select markets only) • Battery: BV-TSC (removable) • User guide • Note: there may be differences in country / customer variants Operating System: Windows Phone 8.1 with Lumia Denim Networks: • GSM/EDGE: 850/900/1800/1900 MHz, WCDMA: 850/900/1900/2100 MHz Processor: CPU Qualcomm Snapdragon 400 (MSM8926), 1.2 GHz quad core processor Memory: 1GB RAM, 8 GB internal mass memory + up to 128 GB Micro SD & 30GB* free OneDrive cloud storage Display: 5" HD (1280x720, 16:9) IPS LCD, 294 PPI, Glance screen, Corning Gorilla Glass 3, Sunlight readability enhancements Primary Camera: 8 MP AF (3280x2464), f/2.2, 28 mm, 1080p @ 30 fps video (continuous autofocus), Flash: LED, Lumia Camera Secondary Camera: HD 1 MP wide angle, f/2.4, 720p video Connectivity: BT 4.0, microUSB 2.0, Micro SIM, A-GPS +GLONASS, BeiDou, DLNA, Screen cloning with Miracast, WLAN 802.11 b/g/n/ Sensors: Accelerometer, Magnetometer, Proximity, Ambient Light Sensor Audio: 3.5 mm AV connector (AHJ), FM Radio, Internet Radio Battery: 2500 mAh (BV-TSC) removable battery * available when camera roll back up is activated. 

(Prepared for Anything at 2.)

Claim 2	Exemplary Disclosures (Express and/or Inherent) and Citations
	Lumia 640 LTE Single SIM Prepared for Anything  Windows Phone Key Features • Latest version of Windows Phone 8.1 along with seamlessly integrated Microsoft Office experiences • Built-in Skype integration and a 1MP front-facing camera for switching seamlessly between voice and video calls • 8MP camera with LED flash and Lumia Camera right out of the box • 1GB of memory and powerful quad core processor • Fast LTE connectivity Accessories • Cover for Lumia 640 – with card holder • Microsoft Screen Sharing for Lumia Phones • Comfort Headset Size: 141.3 x 72.2 x 8.85 (volumetric) mm Weight: 145g Colors:  Talk time and Standby time (Estimates) • Standby time: up to 36 days (870 hours) • Talk time: up to 26.5 hours (2G) • Talk time: up to 17.5 hours (3G) Sales Package • Lumia 640 LTE Single SIM • Charger: AC-20 • WH-108 headset (In select markets only) • Battery: BV-T5C (removable) • User guide • Note: there may be differences in country / customer variants Operating System: Windows Phone 8.1 with Lumia Denim Networks: • LTE: 1, 3, 7, 8, 20 (2100, 1800, 2600, 900, 800) MHz • GSM/EDGE: 850/900/1800/1900 MHz, WCDMA: 850/900/2100 MHz Processor: CPU Qualcomm Snapdragon 400 (MSM8926), 1.2 GHz quad core processor Memory: 1GB RAM, 8 GB internal mass memory + up to 128 GB Micro SD & 30GB* free OneDrive cloud storage Display: 5" HD (1280x720, 16:9) IPS LCD, 294 PPI, Glance screen, Corning Gorilla Glass 3, Sunlight readability enhancements Primary Camera: 8 MP AF (3280x2464), f/2.2, 28 mm, 1080p @ 30 fps video (continuous autofocus), Flash: LED, Lumia Camera Secondary Camera: HD 1 MP wide angle, f/2.4, 720p video Connectivity: BT 4.0, microUSB 2.0, Micro SIM, A-GPS + GLONASS, BeiDou, NFC, DLNA, Screen cloning with Miracast, WLAN 802.11 b/g/n/ Sensors: Accelerometer, Magnetometer, Proximity, Ambient Light Sensor Audio: 3.5 mm AV connector (AHJ), FM Radio, Internet Radio Battery: 2500 mAh (BV-T5C) removable battery * available when camera roll back up is activated. 

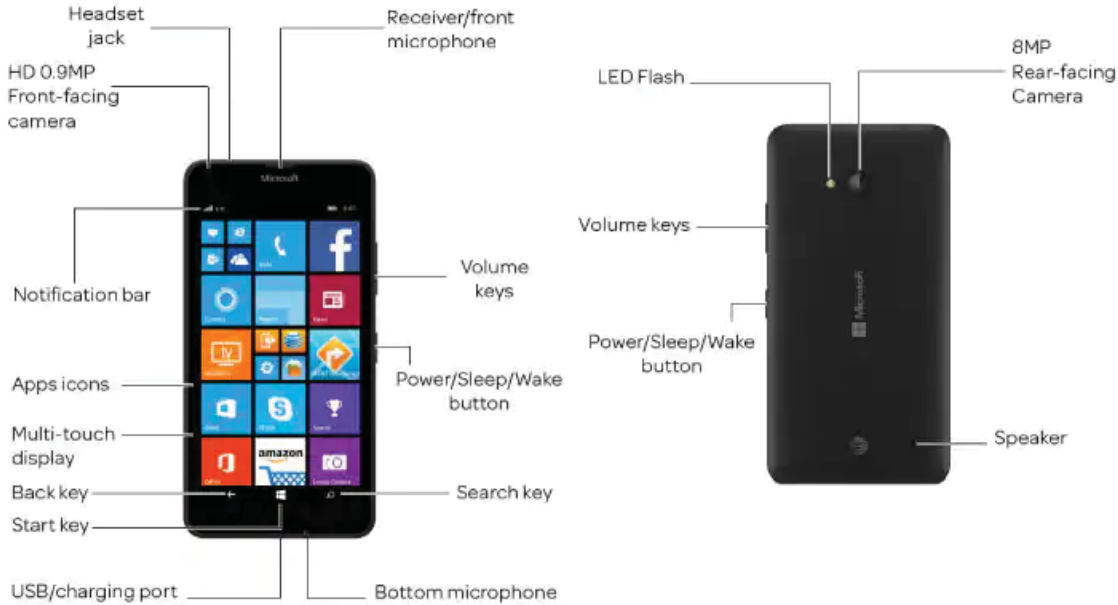
(Prepared for Anything at 3.)

Claim 2	Exemplary Disclosures (Express and/or Inherent) and Citations
	Lumia 640 LTE Dual SIM Prepared for Anything  Windows Phone Key Features • Latest version of Windows Phone 8.1 along with seamlessly integrated Microsoft Office experiences • Built-in Skype integration and a 1MP front-facing camera for switching seamlessly between voice and video calls • 8MP camera with LED flash and Lumia Camera right out of the box • 1GB of memory and powerful quad core processor • Best of both worlds with LTE support available on dual SIM models for the first time Accessories • Cover for Lumia 640 – with card holder • Microsoft Screen Sharing for Lumia Phones • Comfort Headset Size: 141.3 x 72.2 x 8.85 (volumetric) mm Weight: 145g Colors:  Talk time and Standby time (Estimates) • Standby time: up to 36 days (870 hours) • Talk time: up to 26.5 hours (2G) • Talk time: up to 17.5 hours (3G) Sales Package • Lumia 640 LTE Dual SIM • Charger: AC-20 • WH-108 headset (In select markets only) • Battery: BV-TSC (removable) • User guide • Note: there may be differences in country / customer variants Operating System: Windows Phone 8.1 with Lumia Denim Networks: • LTE: 1, 2, 3, 4, 5, 7, 8, 12, 20, 28 (2100, 1900, 1800 1700/2100, 850, 2600, 900, 700, 800, 700) MHz • TD-LTE: 38, 40 (2570-2620, 2300-2400) MHz • GSM/EDGE: 850/900/1800/1900 MHz, WCDMA: 850/900/1900/2100 and 1700/2100 MHz Processor: CPU Qualcomm Snapdragon 400 (MSM8926), 1.2 GHz quad core processor Memory: 1GB RAM, 8 GB internal mass memory + up to 128 GB Micro SD & 30GB* free OneDrive cloud storage Display: 5" HD (1280x720, 16:9) IPS LCD, 294 PPI, Glance screen, Corning Gorilla Glass 3, Sunlight readability enhancements Primary Camera: 8 MP AF (3280x2464), f/2.2, 28 mm, 1080p @ 30 fps video (continuous autofocus), Flash: LED, Lumia Camera Secondary Camera: HD 1 MP wide angle, f/2.4, 720p video Connectivity: BT 4.0, microUSB 2.0, Micro SIM, A-GPS +GLONASS, BeiDou, NFC, DLNA, Screen cloning with Miracast, WLAN 802.11 b/g/n/ Sensors: Accelerometer, Magnetometer, Proximity, Ambient Light Sensor Audio: 3.5 mm AV connector (AHJ), FM Radio, Internet Radio Battery: 2500 mAh (BV-TSC) removable battery * available when camera roll back up is activated. 

Claim 2	Exemplary Disclosures (Express and/or Inherent) and Citations
	The latest range of Microsoft Lumia phones. Microsoft Lumia 550 Screen size: 4.7" HD720 Connectivity: 4G-ready Main camera: 5MP with LED flash Front camera: 2MP camera and 480p video recording Processor (speed): Qualcomm® Snapdragon™ 210 Quad-core  Microsoft Lumia 640* Screen size: 5" Gorilla Glass® 3 Connectivity: 4G-ready Main camera: 8MP Front camera: 1MP HD wide angle Processor (speed): Qualcomm® Snapdragon™ 1.2GHz quad-core  Microsoft Lumia 640 XL* Screen size: 5.7" Gorilla Glass® 3 Connectivity: 4G-ready Main camera: 13MP ZEISS optics Front camera: Full HD 5MP wide angle Processor (speed): Qualcomm® Snapdragon™ 1.2GHz quad-core  Microsoft Lumia 650 Screen size: 5" HD OLED Connectivity: 4G-ready Main camera: 8 MP autofocus with LED flash Front camera: 5MP wide angle Processor: Qualcomm® Snapdragon™ Quad-core 1.3 GHz  Microsoft Lumia 950 Screen size: 5.2" QuadHD Gorilla Glass® 3 Connectivity: 4G-ready Main camera: Pureview 20MP ZEISS optics with triple LED flash Front camera: Full HD 5MP wide angle Processor: Qualcomm® Snapdragon™ 808 64-bit HexaCore  Microsoft Lumia 950 XL Screen size: 5.7" QuadHD Gorilla Glass® 4 Connectivity: 4G-ready Main camera: Pureview 20MP ZEISS optics with triple LED flash Front camera: Full HD 5MP wide angle Processor: Qualcomm® Snapdragon™ 810 64-bit Octa-core  *Microsoft Lumia 640 and 640 XL come with Windows 8.1. Screens simulated. Receive a free upgrade to Windows 10, when available. Features may vary by device. See www.microsoft.com/en/mobile/windows10/ for more details. (Introducing Microsoft Lumia at 13.)

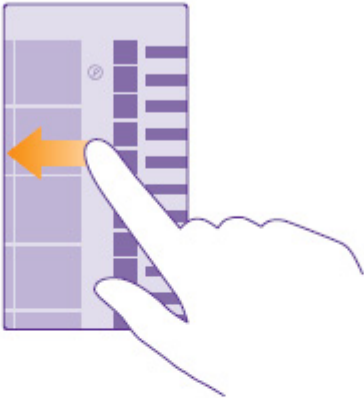
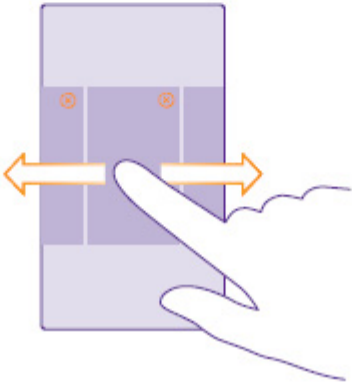
Claim 2	Exemplary Disclosures (Express and/or Inherent) and Citations
	 (Lumia 640 Device.)

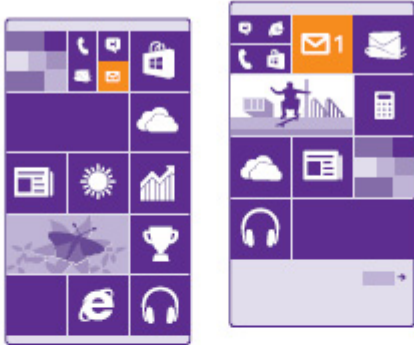
Claim 3	Exemplary Disclosures (Express and/or Inherent) and Citations
[3pre] device of claim 1	Claim 3 depends from claim 1. Defendant incorporates all the prior art disclosures from claim 1 here, which anticipate and/or render claim 1 obvious as set out above. Defendant reserves the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claim 1 to show the additional limitations of claim 3 are anticipated and/or obvious for the same reasons set out in claim 1. Lumia 640, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "[t]he device of claim 1." <i>See supra</i> claim [1].
[3a] wherein plurality of icons corresponding to plurality of applications	Lumia 640, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and

Claim 3	Exemplary Disclosures (Express and/or Inherent) and Citations
are displayed on said display unit, and	Keyless's apparent interpretation of this limitation, discloses "wherein plurality of icons corresponding to plurality of applications are displayed on said display unit." For example, Lumia 640 displays a plurality of icons on the touchscreen that correspond to a plurality of applications. (Device Diagram; User Guide at 17, 28, 38, 59; Prepared for Anything at 1, 2, 7, 11, 12, 14-16, 18, 19, 24-28; Introducing Microsoft Lumia at 3, 10.) Device Diagram Get familiar with the hardware of your Microsoft Lumia 640  (Device Diagram.)

Claim 3	Exemplary Disclosures (Express and/or Inherent) and Citations
	Explore your tiles, apps, and settings Everything you need is on 2 views: the start screen and apps menu. Fill the start screen with shortcuts to your favorite apps and the contacts you need the most, and find all your apps easily in the apps menu. The start screen consists of tiles, which are shortcuts to your apps, contacts, browser bookmarks, and more. Some tiles may show you notifications and updates, such as your missed calls, received messages, and the latest news.  1. To see all the apps on your phone, on the start screen, simply swipe left. To return to the start screen, swipe right. (User Guide at 17.)

Claim 3	Exemplary Disclosures (Express and/or Inherent) and Citations
	THIS IS LUMIA 640 EVEN MORE FEATURES WITH WINDOWS PHONE 8.1 UPDATE 1 CORTANA The most personal digital assistant on the market will now be available in the UK and China as a Beta. For US Windows Phone users, Cortana now includes improved natural language, car kit integration via Bluetooth for contacts, snooze reminders and calendar improvements. LIVE FOLDERS If you prefer to keep your apps or games organised, you can now put them into folders. Simply press, hold and drag an app over another to create a new folder on the Start screen. Each folder can be renamed by tapping on the text field above the open folder. APPS CORNER Create a customised Start screen, where only specific apps or games are accessible. This could be particularly useful in the workplace if you're issuing Windows Phones to employees. SMS MERGE AND FORWARDING Select individual text messages to either delete them out of a messaging thread, or to copy and past them into a new message in order to forward them. SNOOZE TIMES It's now possible to customize the snooze time within the Alarm app. CONSUMER VPN Maintain privacy and security when using data while connected to public Wi-Fi hotspots or even with your home Wi-Fi. MOBILE WEB SITE ENHANCEMENTS IN IE Connect and browse even faster with improved downloading speeds on mobile websites. STORE LIVE TILE (US only) The Store Live Tile displays featured apps and games that are the most popular in the Store, or most relevant for you.  Windows Phone Microsoft (Prepared for Anything at 19.) Additional exemplary citations include:

Claim 3	Exemplary Disclosures (Express and/or Inherent) and Citations
	Switch between views and apps Not all your apps are on the start screen – swipe to the apps menu to find them. Or check what’s already running on your phone and switch between the apps. To see all the apps on your phone, on the start screen, simply swipe left. To return to the start screen, swipe right.  ★ Tip: To find an app quickly, tap any letter in the apps menu, and in the following menu, tap the first letter or character for the app you want. View, switch between, and close open apps To view the open apps, tap and hold the back key ←. To switch the app, swipe to the app you want, and tap the app. To close the apps you no longer need, tap ⊗.  (User Guide at 28.)

Claim 3	Exemplary Disclosures (Express and/or Inherent) and Citations
	Personalize your phone Learn how to personalize the start screen, and how to change ringtones.  Personalize the start screen Make your start screen yours – choose your background photo, pin your favorite apps and much more to the start screen, or change the tile size and layout as you like. To get the most out of the space on the start screen, group apps into folders. 1. To add a background photo, on the start screen, swipe down from the top of the screen, and tap ALL SETTINGS > start+theme > choose photo. 2. Tap a photo, crop it as you like, and tap ✓.  Tip: Why not match your background and tile colors with your background picture? Tap Background or Accent color. To share your theme and other settings to all your Windows devices, on the start screen, swipe down from the top of the screen, tap ALL SETTINGS > sync my settings, and switch theme to On . Move a tile Tap and hold the tile, drag and drop it to the new location, and tap the screen. (User Guide at 38.)

Claim 3	Exemplary Disclosures (Express and/or Inherent) and Citations
	Store Make your phone your own with more apps, games, and other items, some of which are free of charge. Browse Store to find the latest content for you and your phone.  You can download: • Apps • Games • Entertainment apps and services • News apps and services • Books (User Guide at 59.)

Claim 3	Exemplary Disclosures (Express and/or Inherent) and Citations
	 Microsoft Lumia 640 Prepared for Anything Windows Phone Microsoft (Prepared for Anything at 1.)

Claim 3	Exemplary Disclosures (Express and/or Inherent) and Citations
	Lumia 640 3G Dual SIM Prepared for Anything  Windows Phone Key Features • Latest version of Windows Phone 8.1 along with seamlessly integrated Microsoft Office experiences • Built-in Skype integration and a 1MP front-facing camera for switching seamlessly between voice and video calls • 8MP camera with LED flash and Lumia Camera right out of the box • 1GB of memory and powerful quad core processor • Smart Dual SIM to ensure you never miss a call Accessories • Cover for Lumia 640 – with card holder • Microsoft Screen Sharing for Lumia Phones • Comfort Headset Size: 141.3 x 72.2 x 8.85 (volumetric) mm Weight: 145g Colors:  Talk time and Standby time (Estimates) • Standby time: up to 35 days (840 hours) • Talk time: up to 27.3 hours (2G) • Talk time: up to 20.3 hours (3G) Sales Package • Lumia 640 3G Dual SIM • Charger: AC-20 • WH-108 headset (In select markets only) • Battery: BV-T5C (removable) • User guide • Note: there may be differences in country / customer variants Operating System: Windows Phone 8.1 with Lumia Denim Networks: • GSM/EDGE: 850/900/1800/1900 MHz, WCDMA: 850/900/1900/2100 MHz Processor: CPU Qualcomm Snapdragon 400 (MSM8926), 1.2 GHz quad core processor Memory: 1GB RAM, 8 GB internal mass memory + up to 128 GB Micro SD & 30GB* free OneDrive cloud storage Display: 5" HD (1280x720, 16:9) IPS LCD, 294 PPI, Glance screen, Corning Gorilla Glass 3, Sunlight readability enhancements Primary Camera: 8 MP AF (3280x2464), f/2.2, 28 mm, 1080p @ 30 fps video (continuous autofocus), Flash: LED, Lumia Camera Secondary Camera: HD 1 MP wide angle, f/2.4, 720p video Connectivity: BT 4.0, microUSB 2.0, Micro SIM, A-GPS + GLONASS, BeiDou, DLNA, Screen cloning with Miracast, WLAN 802.11 b/g/n/ Sensors: Accelerometer, Magnetometer, Proximity, Ambient Light Sensor Audio: 3.5 mm AV connector (AHJ), FM Radio, Internet Radio Battery: 2500 mAh (BV-T5C) removable battery * available when camera roll back up is activated. 

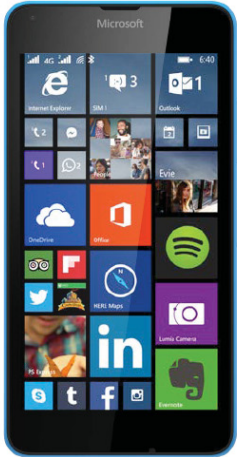
Claim 3	Exemplary Disclosures (Express and/or Inherent) and Citations
	THIS IS LUMIA 640 SEAMLESSLY SWITCH BETWEEN WORK AND PLAY WITH LUMIA 640 Smooth Access to Everything you Love Packed with speed, Lumia 640 allows you to smoothly and quickly access important documents or run all of your favorite websites, apps and games thanks to a powerful quad core Qualcomm Snapdragon processor and Windows Phone 8.1. Power and Flexibility Power through the work day with battery to spare, thanks to a 2500 mAh long-lasting battery. Enjoy all of your favorite apps with plenty of power and memory including 1GB of memory and 8GB of on-board storage - expandable up to 128GB microSD, not to mention free OneDrive storage*. Lumia 640 allows you to enjoy all the apps you love – alive on your home screen. You can even run apps from your memory card. Crisp Display Enjoy smooth web browsing and gaming action on the crisp 5" display even in bright daylight condition. Detail Rich Photos Lumia 640 is equipped with a 8 MP rear facing camera, perfect for capturing detail rich photos even in low light. It even sports the latest Lumia Camera app right out of the box, ensuring you capture that perfect shot every time. In addition, the front facing camera allows for more meaningful face-to-face Skype video calls, as well as great selfies which can be captured, edited and shared quickly and easily via the dedicated Lumia Selfie app. Glance Screen Innovations Glance Screen on your Lumia 640 helps you keep track of information in real time. All your most important notifications including calls, messages, emails, calendar updates, or any apps that use notifications such as Twitter, Facebook, Whatsapp, or games, are always visible at a glance of your screen. This will save you time and energy.  * 15 GB of OneDrive access comes standard. Additional 15 GB of OneDrive access with activation of camera roll backup. Unlimited OneDrive access with activation of included Office 365 Personal subscription. Windows Phone Microsoft (Prepared for Anything at 7.)

Claim 3	Exemplary Disclosures (Express and/or Inherent) and Citations
	 (Prepared for Anything at 11.)

Claim 3	Exemplary Disclosures (Express and/or Inherent) and Citations
	THIS IS LUMIA 640 GETTING STARTED 1. Press and hold the power key on the side right side until the phone vibrates. 2. A Setup wizard will appear which will ask you to review the Windows Phone Terms of Use and accept the document terms. 3. You will then be asked to select either recommended or custom settings (recommended will be the easiest option here). 4. Please ensure you enter the correct country/region, date and time zone. 5. You will then be given the option to either sign in to your Microsoft account (this can be a Hotmail, Xbox, Messenger or Windows live ID address) or create one if you don't already have one. Follow the steps accordingly. 6. Finally, give your phone a few minutes to finish installing applications and synchronise your Microsoft account email, contacts, calendar, photos and feeds to your phone. 7. Now you're good to go! If you did not set up or sign in to a Microsoft account when you first turned on your phone then follow the instructions below: On your start screen swipe left to your list of apps and select: • Settings > email+accounts > add an account Sign in to your account or follow the instructions to create a new one. Windows Phone Microsoft (Prepared for Anything at 12.)

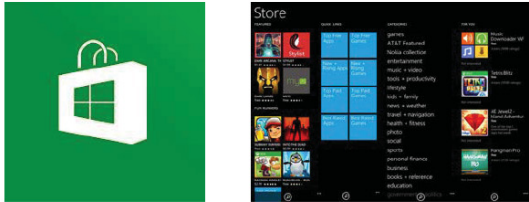
Claim 3	Exemplary Disclosures (Express and/or Inherent) and Citations
	THIS IS LUMIA 640 BASIC NAVIGATION Start Function Swipe up from the bottom of the screen to access the virtual start function which will take you to the start screen from anywhere on your Lumia 640. Search Function Pressing the virtual search function will automatically launch Cortana (where available). Swipe up from the bottom of the screen to access this. Back Function The Back function allows you to go back within an app or between apps. The Back function also lets you navigate to a previous screen or webpage, exit a search operation, or close an on-screen keyboard, menu or dialog box. Press and hold the Back function to display a list of running apps and choose the one you want. Swipe up from the bottom of the screen to access this. Volume buttons The Volume buttons adjust the volume of an active audio stream, such as a phone call, music audio, or an in-progress movie. Pressing one of the Volume buttons when you receive an incoming call will silence the ringtone. Power button If your Lumia 640 is off, a brief press on the Power button turns it on. When the Lumia 640 is on, a brief press of the Power button will turn off the display and lock the phone. Action Center gives you a single place to check your notifications and alerts, so you never miss a thing. In addition, customizable quick action slots are available at the top of Action Center so you're always in control. To access your Action Center, simply swipe down from any screen. You even have the option to access your Action Center from the Lock screen, again with a simple swipe down. For a more interactive experience of Lumia devices, you can also go to www.trylumiaphone.com Windows Phone Microsoft (Prepared for Anything at 14.)

Claim 3	Exemplary Disclosures (Express and/or Inherent) and Citations
	 (Prepared for Anything at 15.)

Claim 3	Exemplary Disclosures (Express and/or Inherent) and Citations
	THIS IS LUMIA 640 WHAT'S NEW IN LUMIA DENIM AND WINDOWS PHONE 8.1 With Windows Phone 8.1, you get the Start screen you can make your own, Live Tiles that provide updates at a glance, Office Mobile, Outlook Mobile, Windows Phone Hubs, and the Xbox entertainment experience. In fact, you get everything you liked about Windows Phone 8 and more, including tons of new features, enhancements, and under-the-hood improvements. ACTION CENTER Windows Phone's new Action Center gives you a single place to check for all your notifications, so you never miss a thing. New features include: Quick actions. Customize the Action Center with customizable slots that you can use to access your favorite settings and even some applications. Action Center above Lock screen. Windows Phone gives you the option to view notifications within Action Center even when your Lumia 640 is locked. Notification settings. Select how you want to be alerted about notifications. A convenient handle bar. For most screens, you simply swipe down to reveal the Action Center. But for full screen experiences, the handle bar makes it less likely that you'll accidentally activate Action Center.  BATTERY SAVER Battery Saver can be used to significantly stretch your battery by trading off non critical functionality. When Battery Saver is enabled, your Lumia 640 changes some non-essential phone functionality from automatic to manual, such as email sync, social media updates, etc., but the phone still receives text messages and phone calls. New and improved features include: App-by-app monitoring. See which specific apps are using your battery, both when an app is in use and when it's running in the background. App-by-app management. Windows Phone 8.1 now features built-in tools that let you control exactly which apps run in the background for more effective power management. Battery Saver Live Tile. Features a power meter to indicate your phone's current power level at a glance. BING / SEARCH Your Lumia 640 can help you quickly find what you want without requiring you to launch your browser. Bing Search now also includes: Full device search. Bing Search results now include items from both the web and your device, including email, messaging, calendar, apps, and contacts. Results are displayed in a new Phone panel along with panels for web, local, images and video. Windows Phone Microsoft (Prepared for Anything at 16.)

Claim 3	Exemplary Disclosures (Express and/or Inherent) and Citations
	THIS IS LUMIA 640 SKYPE Windows Phone offers a truly always-on Skype experience, providing you with free calling to over 300 million Skype users, including video calling and instant messaging. New Skype functionality includes: Skype built-in. Skype is now available out of the box on Windows Phone 8.1, making it easier to stay connected wherever you are. Instant call upgrade. When you're in a regular call, you can easily upgrade it to a Skype Video Call straight from the dialer.  WORD FLOW KEYBOARD The Word Flow Keyboard on Windows Phone is ridiculously fast and personal. In fact, it was officially certified by the Guinness Book of World Records as the world's fastest smartphone keyboard. New and improved features include: Shape writing. With the new shape writing feature, you skip typing and simply slide your finger from one letter to the next, without lifting a finger, to enter text. Adding contacts. Word Flow will automatically add the names from your contacts into your library. Just start typing one of your contact's names and Word Flow will suggest the proper spelling. Increased library out of the box. Word Flow in Windows Phone 8.1 has increased the number of words in the word suggestion libraries across several languages right out of the box, building on the words you use most frequently. CALENDAR Windows Phone provides powerful calendar tools to help you stay on top of your day, beginning by displaying your next appointment on the lock screen and Start screen. New and improved features include: Interactive weekly and annual views. Along with daily and monthly views, you can now switch instantly to a weekly view and even view an annual calendar. Because all views are interactive you can quickly drill down on each view to a specific appointment on your calendar. Automatic weather posts: You'll now find the latest weather posted at the top of your daily calendar to help you better prepare for your day. MESSAGING Windows Phone makes messaging fun and easy. New and improved messaging features include: Contact integration. Can't reach your contact via text? Just tap the Contact button to go directly to other SMS and IM options in applications such as Skype video chat and messaging. Mute thread: If you are busy and don't want to receive text notifications, you can now tap the More button to mute the thread. EMAIL Only Windows Phone has Outlook Mobile built in, making it easy to manage all your emails from your phone. You can set up multiple email accounts, with access to powerful features to help you manage it all, including one-tap calling, mapping, and access to documents. New features include: S/MIME protection: Sometimes you want additional protection for your e-mail communication to keep it from unwanted eyes. Along with the option to read Information Rights Management (IRM)-protected email, you can now send and receive signed and encrypted email using S/MIME. WALLET The Wallet in Windows Phone provides a single place for keeping your debit, credit, loyalty, and membership card information. New capabilities include: New design for cards. Applications that support wallet can now provide a much richer design to match the service or brand. New card distribution options. Wallet cards can now be distributed through email and web. This makes it even easier to distribute Wallet cards on Windows Phone without having to create an application in the Store. Windows Phone Microsoft (Prepared for Anything at 18.)

Claim 3	Exemplary Disclosures (Express and/or Inherent) and Citations
	 (Prepared for Anything at 24.)

Claim 3	Exemplary Disclosures (Express and/or Inherent) and Citations
	THIS IS LUMIA 640 WINDOWS PHONE STORE The Windows Phone Store - available in 191 countries - is your superstore for loading up your Windows Phone with apps and games. Even if you don't know exactly what you're looking for you'll have plenty of opportunity to discover something interesting. By just entering the Store you'll see a listing of Featured apps & games, and app collections that align with your interests. Swipe to the left to see personal recommendations selected just "For You". The Windows Phone Store utilizes the power of Bing search technology to deliver the most relevant results and recommendations. The Store even learns what you like and recommends apps just for you. We think you'll also appreciate how we've made it easy to decide whether apps are right for you - and to stay on top of any updates. The Windows Phone Store is quick, convenient, one-stop shopping for your phone - with a new experience every time you visit.  FINDING THE APPS YOU'LL LOVE The Windows Phone Store provides many ways to shop for apps - just tap the Store Tile on the Start screen (or tap Store in your App list) and start exploring. The Store is now comprised of four main panels: Featured apps, Quick Links, Categories, and a "For You" panel. While browsing apps, the first thing you'll see is the Featured apps of the day. Each Featured app is quality-rated by a team of editors, and selected based on consumer appeal. Scroll down to find recommended Collections which are also hand-curated to help you discover great apps in the Store. Quick Links give you the best sellers, including Top Free, Top Paid, Top Games, Best Rated. These are perennial favourites that consumers love to see. Categories allow you to "browse the aisles" for the apps you want. Categories make it easy to find certain types of apps — such as those for entertainment, news, sports, business, education and will also include a category of apps made especially for your Lumia. The For You panel provides opt-in personal suggestions that Bing thinks you may like based on your interests, previous purchases and activity on your Facebook page. DID YOU KNOW? You can now choose to have all your apps update automatically. Once they've been updated, you'll receive a notification in the Action Center. DID YOU KNOW? New Windows 8 "universal apps" can be purchased once and downloaded for use all across your Windows 8 devices - phone, PC and tablet. DID YOU KNOW? The enhanced Store interface provides more app details to help you find the perfect app, sorting reviews by most helpful, recent, highest and lowest rated. Windows Phone Microsoft (Prepared for Anything at 25.)

Claim 3	Exemplary Disclosures (Express and/or Inherent) and Citations
	THIS IS LUMIA 640 KEY APPS ON LUMIA 640 WHATSAPP Whatsapp uses 3G or Wifi to send messages to your friends and family. Switch from SMS to Whatsapp to send and receive messages, pictures, audio notes and video messages.  FACEBOOK Facebook keeps you up to date with friends. See what friends are up to, share updates, photos and videos, get notified when friends like and comment on your posts, text, chat and have group conversations.  APP SOCIAL App Social offers an exciting way to discover great apps for your Windows Phone device.  FLIPBOARD Flipboard is your personal magazine. An award-winning app used by millions every day, it is the best way to catch up on things happening around the world or dive deep into specific topics, from gadgets to grilling.   Windows Phone  Microsoft (Prepared for Anything at 26.)

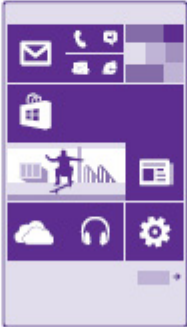
Claim 3	Exemplary Disclosures (Express and/or Inherent) and Citations
	THIS IS LUMIA 640 KEY APPS ON LUMIA 640 EVERNOTE Evernote is the modern workspace that helps you be your most productive self. You're on the path to something big — Evernote is where you do the work to achieve it. BBM BBM brings you together in the moment with friends and family through instant chats, picture sharing, voice notes and more. Download the official version of BBM now to start chatting with other BBM users on Windows Phone, iPhone, Android and BlackBerry. TWITTER With Twitter, you can watch the world unfold like never before. Get real-time stories, pictures, videos, conversations, ideas, and inspiration all in your timeline. Follow people and your interests to get unfiltered access and unique behind-the-scenes perspectives. Express yourself with photos, videos and comments. GAMEHUB Discover even more great games from Gameloft! Quickly access your favorite Gameloft games on the Store and also enjoy playing FREE games exclusive to the GameHub.     Windows Phone Microsoft (Prepared for Anything at 27.)

Claim 3	Exemplary Disclosures (Express and/or Inherent) and Citations
	THIS IS LUMIA 640 KEY APPS ON LUMIA 640 LINE Enjoy free chat! With LINE you can enjoy exchanging free messages with all your friends. Send messages, photos, videos, voice messages, as well as location info in an instant!  FITBIT Live a healthier, more active life with Fitbit, the top app for tracking all-day activity, workouts and health. Use this app on its own to track basic activity, or connect with Fitbit's line of activity trackers and the Aria Smart Scale to get a complete picture of your daily stats—including steps, distance, calories burned, sleep, weight, and more.  WECHAT Connect with friends across platforms. WeChat allows free texting, voice messages and video calls right from your pocket. You can record voice messages, have voice and video calls, chat, and transfer images and videos.  SPOTIFY A world of music in your pocket. Spotify allows you to listen to music whenever you like by streaming over 3G and Wi-Fi. You can even save your playlists and listen to them offline without a connection.   Windows Phone  Microsoft (Prepared for Anything at 28.)

Claim 3	Exemplary Disclosures (Express and/or Inherent) and Citations
	3 Microsoft Lumia with Windows 10 Your business. Mobile. The power, security and productivity of Windows 10 is here. And with Microsoft Lumia, it's anywhere. Beyond the desktop. Beyond the office. Beyond expectations. Start a document in your office, make changes in a taxi. With Microsoft Lumia with Windows 10, your business travels wherever you go. Expect document-friendly large screens and world-class tools to keep you productive. Discover our greatest operating system and best ever Microsoft Office experience – with familiar tools such as PowerPoint, Word, Excel and Outlook – all wrapped-up in stylish, feature-rich handsets. Designed with security and ease of management in mind, plus simple integration with your existing IT investments, you get the best of everything Microsoft® – and the best for your business. Inside and out. Microsoft Lumia. Your business. Mobile. *Features may vary by device. Internet and mobile fees apply. (Introducing Microsoft Lumia at 3.)

Claim 3	Exemplary Disclosures (Express and/or Inherent) and Citations
	10 Microsoft Lumia with Windows 10 There are hundreds of thousands of apps in the Windows Store. More added every day. Source: Microsoft by the numbers (Introducing Microsoft Lumia at 10.)

Claim 3	Exemplary Disclosures (Express and/or Inherent) and Citations
	 (Lumia 640 Device.)
[3b] wherein upon providing a sweeping action on said display unit, plurality of other icons corresponding to plurality of other applications are displayed on said display unit.	Lumia 640, alone or in combination with other references identified in this chart or elsewhere in Defendants’ invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless’s apparent interpretation of this limitation, discloses “wherein upon providing a sweeping action on said display unit, plurality of other icons corresponding to plurality of other applications are displayed on said display unit.” For example, Lumia 640 discloses that a user may “swipe left” to enter an app menu and view more applications. (User Manual at 17, 18, 21; Prepared for Anything at 12, 13.) Additionally, a user may swipe up or down to scroll through a list, such as a list of application icons. (User Manual at 21, 22.)

Claim 3	Exemplary Disclosures (Express and/or Inherent) and Citations
	Explore your tiles, apps, and settings Everything you need is on 2 views: the start screen and apps menu. Fill the start screen with shortcuts to your favorite apps and the contacts you need the most, and find all your apps easily in the apps menu. The start screen consists of tiles, which are shortcuts to your apps, contacts, browser bookmarks, and more. Some tiles may show you notifications and updates, such as your missed calls, received messages, and the latest news.  1. To see all the apps on your phone, on the start screen, simply swipe left. To return to the start screen, swipe right. (User Guide at 17.) Additional exemplary citations include:

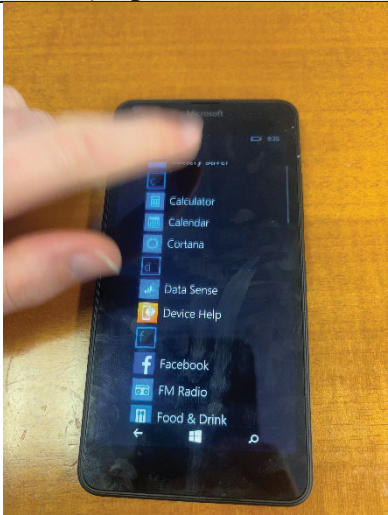
Claim 3	Exemplary Disclosures (Express and/or Inherent) and Citations
	★ Tip: To go back to the start screen from any view, tap the start key . The apps menu is the home to all your apps – in neat alphabetical order. All the installed apps end up here. To look up an app in the apps menu, tap , or tap a letter. 2. To add an app shortcut to your start screen, in the apps menu, tap and hold the app, and tap pin to start. (User Guide at 18.)

Claim 3	Exemplary Disclosures (Express and/or Inherent) and Citations
	THIS IS LUMIA 640 GETTING STARTED 1. Press and hold the power key on the side right side until the phone vibrates. 2. A Setup wizard will appear which will ask you to review the Windows Phone Terms of Use and accept the document terms. 3. You will then be asked to select either recommended or custom settings (recommended will be the easiest option here). 4. Please ensure you enter the correct country/region, date and time zone. 5. You will then be given the option to either sign in to your Microsoft account (this can be a Hotmail, Xbox, Messenger or Windows live ID address) or create one if you don't already have one. Follow the steps accordingly. 6. Finally, give your phone a few minutes to finish installing applications and synchronise your Microsoft account email, contacts, calendar, photos and feeds to your phone. 7. Now you're good to go! If you did not set up or sign in to a Microsoft account when you first turned on your phone then follow the instructions below: On your start screen swipe left to your list of apps and select: • Settings > email+accounts > add an account Sign in to your account or follow the instructions to create a new one.  Windows Phone Microsoft (Prepared for Anything at 12.)

Claim 3	Exemplary Disclosures (Express and/or Inherent) and Citations
	THIS IS LUMIA 640 TRANSFER YOUR CONTACTS The Windows Phone 8.1 operating system makes it incredibly easy to transfer contacts. What's more, it's even simpler via the Transfer My Data app that comes pre-installed on the Lumia 640. 1. Swipe left to find the list of installed apps. 2. Tap on Transfer My Data app and make sure Bluetooth is switched on your Lumia. 3. Once the app is running you'll be able to find any devices in your area that are using Bluetooth and visible. 4. Select your old phone and accept the pairing. 5. Once linked, you'll find that contacts are sent over automatically. 6. You may find that you'll be able to transfer messages and pictures in the same way.  GET SOCIAL Setting up a social media account on your Lumia smartphone is easy and follows many of the same steps as setting up email. 1. Simply swipe to the left on the Start screen and scroll to Settings and choose Email+Accounts> Add an Account. 2. Here you will have access to all the default account types you can add, so just scroll down the list and tap on Facebook, Twitter or any other social media channel. 3. Enter your credentials and tap the Sign In button and your Lumia will take care of the rest. 4. If you ever need to delete the Facebook feed on your Lumia 640, all you have to do is head back to the Email +Accounts page and tap and hold on your Facebook account in the list. 5. A drop-down menu will appear and you can select the Delete option to remove your account from your phone.  Windows Phone Microsoft (Prepared for Anything at 13.)

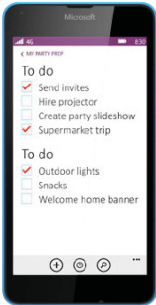
Claim 3	Exemplary Disclosures (Express and/or Inherent) and Citations
	A photograph of a black Microsoft Lumia 640 smartphone lying flat on a wooden surface. The screen displays the Windows Phone operating system with a grid of colorful app tiles. Visible tiles include Phone, Internet Explorer, Facebook, Mail, Photos, News, Contacts, People, AT&T WorldNow, Mobile TV, Settings, Skype, Sports, Office, Amazon, and Lumia Camera. The status bar at the top shows the time as 2:54. (Lumia 640 Device.) A photograph of the same Microsoft Lumia 640 smartphone being held by a person's hand. The screen shows a different arrangement of app tiles, including Phone, Facebook, Mail, Photos, News, AT&T WorldNow, Settings, Skype, Sports, Office, Amazon, and Lumia Camera. The status bar at the top shows the time as 4:08. (Lumia 640 Device.)

Claim 3	Exemplary Disclosures (Express and/or Inherent) and Citations
	(Lumia 640 Device.) (Lumia 640 Device.)

Claim 3	Exemplary Disclosures (Express and/or Inherent) and Citations
	 (Lumia 640 Device.)

Claim 4	Exemplary Disclosures (Express and/or Inherent) and Citations
[4pre] The device of claim 3	Claim 4 depends from claim 3. Defendant incorporates all the prior art disclosures from claim 1 here, which anticipate and/or render claim 3 obvious as set out above. Defendant reserves the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claim 3 to show the additional limitations of claim 4 are anticipated and/or obvious for the same reasons set out in claim 3. Lumia 640, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "[t]he device of claim 3." <i>See supra</i> claim [3].
[4a] wherein upon providing a predefine interaction with an icon,	Lumia 640, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and

Claim 4	Exemplary Disclosures (Express and/or Inherent) and Citations
said corresponding application is opened on the display unit.	Keyless's apparent interpretation of this limitation, discloses "wherein upon providing a predefined interaction with an icon, said corresponding application is opened on the display unit." For example, Lumia 640 discloses that to open an application the user should "tap the app," which is a predefined interaction. (User Guide at 20, 39, 82, 129; Prepared for Anything at 33, 35, 36.) Use the touch screen Explore your phone with a tap, swipe, or drag. To open an app or other item, tap the app or item. (User Guide at 20.) Group tiles into folders Tap and hold the tile, and drag and drop it on top of the tile or folder you want to group it with. To open an app from the folder, tap the folder, then tap the app you want. To change the name of the folder, tap and hold the name, and type in the name you want. To remove a folder, unpin the tiles in it. (User Guide at 39.) Additional exemplary citations include: Open your camera quickly Make sure you get to your camera in a flash when you need it – place a shortcut in the action center. 1. On the start screen, swipe down from the top of the screen, and tap ALL SETTINGS > notifications+actions. 2. To change a shortcut to open the default camera, tap the shortcut and . 3. To turn the camera on quickly using the shortcut, swipe down from the top of the screen, and tap .  Tip: To turn the camera on when your phone is locked, press the power key, swipe down from the top of the screen, and tap . (User Guide at 82.) Open the camera If you add a shortcut for the camera in the action center, you can quickly switch the camera on when your phone is locked. Press the power key, swipe down from the top of the screen, and tap .

Claim 4	Exemplary Disclosures (Express and/or Inherent) and Citations
	(User Guide at 129.) THIS IS LUMIA 640 ONENOTE MOBILE OneNote Mobile makes it easy to capture notes and ideas on the go. You can type a note, use your phone's camera to capture a photo and insert it into a note, capture audio using your phone's microphone, or dictate a voice note while you're doing something else on your phone and have it automatically transcribed and inserted into OneNote. It can even work when your phone is locked. ON THE START SCREEN OneNote is a separate app on your Start screen, enabling you to get to it even faster. Tap the OneNote Live Tile on the Start screen to see all your OneNote notebooks. By default, you'll see any existing notebooks on OneDrive that are tied to the Microsoft account you used to set up your phone, as well as a new one that was created when you set up your phone. You'll also see a shared notebook for any Rooms you've created. The OneNote Live Tile will even show you which note was updated last. If you want, you can pin individual notes to the Start screen for faster access. FIND YOUR NOTES FAST If you find yourself using OneNote more and more, don't worry. It's easy to navigate your notebooks. You can also search the text in your notes — just tap Search and enter a word or phrase. Or tap Recent to see your notes in the order you last accessed them.  AUTOMATIC SYNC WITH ONEDRIVE AND OFFICE 365 By default, all your OneNote notebooks are automatically synced with OneDrive or OneDrive Pro on Office 365, making it easy to create a to-do list on your PC and then check off items as they're completed on your phone. It works the other way, too, so you can capture a photo of a whiteboard using your phone and then view it on your PC using the desktop version of OneNote or the OneNote Web App. Of course, you have complete control over which notebooks or pages in a notebook are synced. (Not all notebooks or pages are synced, only the ones you access.) EASY INFORMATION CAPTURING AND RICH FORMATTING When you're viewing a note, just tap on the screen where you want to edit the note — it'll bring up the Word Flow Keyboard, which can help correct and predict your typing. Below the keyboard, you'll see buttons for inserting a To-Do item with checkbox, creating a bulleted list, inserting an existing photo (or capturing and inserting a new one), and capturing audio using your phone's microphone. Tap More to the right of those buttons to share a note, pin it to Start, create a numbered list, increase or decrease indent, or choose formatting options that include bold, italics, underlined, and highlighting. DID YOU KNOW? You can send photos to OneNote. Just shoot a picture with the camera, tap and hold the photo, tap Share, and choose OneNote. DID YOU KNOW? You can dictate your notes and have them automatically transcribed and added to OneNote, without having to type them in by hand: press and hold the Search button to activate Speech. Say "Note" and speak your note. Windows Phone Microsoft (Prepared for Anything at 33.)

Claim 4

Exemplary Disclosures (Express and/or Inherent) and Citations

THIS IS LUMIA 640

IMPROVED CALENDAR

Windows Phone provides powerful calendar tools to help you stay on top of your day, beginning by displaying your next appointment on the lock screen and Start screen. With Windows Phone 8.1, you can now view your schedule in different ways, with interactive weekly, monthly and even yearly calendars, all just one tap away.

Automatic weather forecasts appear above each day to help you dress for the weather. Appointments from multiple calendars are displayed in one place and colour-coded — including your Room and Facebook events.

ALWAYS KNOW WHAT'S NEXT
Your Windows Phone puts upcoming appointments front and centre. Your next appointment is readily displayed on your phone's lock screen and as a large notification just prior to you meeting. You'll also see your next meeting displayed on the Calendar Live Tile on the Start screen — showing you at a glance where you need to be next.

SEE ALL YOUR CALENDARS IN ONE PLACE
Your Windows Phone supports multiple calendars, including those from Hotmail, Outlook.com, Google, Yahoo, Exchange Server, your Rooms, and Facebook, with the ability to turn each one on or off at any time. You'll see appointments across all your calendars in a single view, with appointments from each calendar colour-coded to help you differentiate between personal and work commitments at a glance. You can sync and view multiple calendars for Exchange ActiveSync-enabled accounts.



QUICK EVENTS
Quick Events in Windows Phone 8.1 let you create appointments faster by typing the subject from directly within your calendar's day view — just tap the time for the appointment in the displayed grid and start typing.

VIEW YOUR COMPLETE SCHEDULE YOUR WAY
Windows Phone gives you multiple ways to view your calendar, depending on whether you're making a new appointment or working your way through an already packed day, week or month. Just tap the View button to select an interactive day, week, month view. You can even access your yearly calendar. Each view lets you slide left or right to instantly see past or future dates. For example, on the day view, you can slide left to see tomorrow's schedule or slide right to see your appointments from yesterday. You can always return to your current schedule by tapping the Today button. And because each view is interactive, you can quickly tap a week, month or year to drill right down to specific appointments.

DID YOU KNOW?
When viewing a meeting on your calendar you can view a complete list of attendees by tapping the Attendees link.

DID YOU KNOW?
By opening an appointment and tapping the Late button that looks like a running figure you can send an email telling everyone that you're running late.

DID YOU KNOW?
Windows Phone lets you use your calendar to sync, view, and manage your Task List, which you'll find by tapping the More button.

Windows Phone

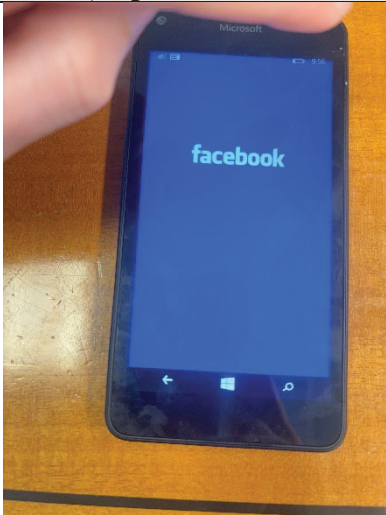
Microsoft

(Prepared for Anything at 35.)

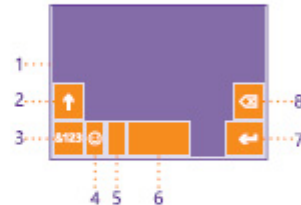
Claim 4	Exemplary Disclosures (Express and/or Inherent) and Citations
	THIS IS LUMIA 640 BETTER MESSAGING Windows Phone 8.1 includes powerful new features that make messaging even better. Word Flow makes it faster and easier to compose a message. Location Sharing enables you to easily share a map of your location. You can also delete multiple messages at the same time, and can even sync your instant messages to the cloud, on Hotmail and Outlook.com. THREADS You'll see your Threads whenever you launch Messaging. They're organized by conversation to help you keep track of who said what. Threads with messages you haven't viewed are in colour, enabling you to quickly see which people have reached out to you or replied to a message you sent. Buttons at the bottom of the panel provide quick access to common actions. Tap New to start a new Thread You can also search threads for specific words or names. Tap More to quickly access draft text messages. Or go to Settings to Group Text (described below) on or off. You can also turn on Text Message Backup to back up your messages to the cloud. That way, if you ever have to retrieve your backup texts, you can select to download all of your text messages (or just your texts from last month or the past year). MUTE AND QUIET HOURS If you are busy and don't want to receive text notifications, you can now tap the More button to mute the thread. SEND AND RECEIVE MESSAGES WITH YOUR VOICE Built-in voice-to-text conversion in Windows Phone 8.1 makes it easy to compose messages using your voice. It works with email, text messages, and IMs, as well as hands-free text messaging for use with headsets and Bluetooth devices NEVER MISS A MESSAGE When you receive a new text message or, you'll hear a sound and a brief notification will appear at the top of the screen, even if your phone is locked. When you have new messages, the Messaging Tile on the Start screen will show you how many you have and the emoticon on the Tile will change. SEND PHOTOS, CONTACTS, AND MORE Windows Phone supports MMS and photo attachments in Messenger, so you can send photos that are saved to your phone and links to websites within your messages. Just tap Attach when composing a message and choose a photo — you can choose from your online albums and the photos on your phone. Or tap Camera at the bottom of the screen to use your phone's camera to take and include a new photo on the fly. And now, with Windows Phone 8.1, you can also share contacts, videos, voice notes, contact cards and Office documents via text message. To share your location when composing a message, simply tap Attach > My Location. Windows Phone will instantly pinpoint your location and add a small map to your message. DID YOU KNOW? The Word Flow keyboard makes using emoticons more fun and easy. Just tap the emoticon key on the keyboard to choose from hundreds of new ones. In fact, we added so many that we had to redesign the emoticon chooser. DID YOU KNOW? Windows Phone makes it easy to act on the content of text messages and IMs by enabling you to send an email, call a phone number, open a website, or map an address with just a tap. Windows Phone Microsoft

(Prepared for Anything at 36.)

Claim 4	Exemplary Disclosures (Express and/or Inherent) and Citations
	A photograph of a black Microsoft Lumia 640 smartphone lying on a wooden surface. The screen displays the Windows Phone operating system with a grid of colorful app tiles. Visible tiles include: Messages, Phone, Facebook, Internet Explorer, People, News, Photos, Settings, AT&T, Office, Amazon, Sports, and Lumia Camera. The status bar at the top shows the time as 2:54. (Lumia 640 Device.) A photograph showing a hand interacting with the same Microsoft Lumia 640 smartphone. A finger is touching the Facebook app tile in the top right corner of the screen. The rest of the screen and the wooden background are the same as in the previous image. (Lumia 640 Device.)

Claim 4	Exemplary Disclosures (Express and/or Inherent) and Citations
	 (Lumia 640 Device.)

Claim 5	Exemplary Disclosures (Express and/or Inherent) and Citations
[5pre] The device of claim 1	Claim 5 depends from claim 1. Defendant incorporates all the prior art disclosures from claim 1 here, which anticipate and/or render claim 1 obvious as set out above. Defendant reserves the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claim 1 to show the additional limitations of claim 5 are anticipated and/or obvious for the same reasons set out in claim 1. Lumia 640, alone or in combination with other references identified in this chart or elsewhere in Defendants’ invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless’s apparent interpretation of this limitation, discloses “[t]he device of claim 1.” <i>See supra</i> claim [1].
[5a] wherein said device is adapted to display text entered through a keyboard in landscape	Lumia 640, alone or in combination with other references identified in this chart or elsewhere in Defendants’ invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless’s apparent interpretation of this limitation, discloses “wherein said device is adapted to display

Claim 5	Exemplary Disclosures (Express and/or Inherent) and Citations
direction and in portrait direction on said display unit when the device is used, respectively, in landscape position and in portrait position.	text entered through a keyboard in landscape direction and in portrait direction on said display unit when the device is used, respectively, in landscape position and in portrait position.” For example, Lumia 640 includes a virtual keyboard used to enter text. (User Guide at 50; Prepared for Anything at 14, 18, 33, 36.) The keyboard and entered text are displayed in landscape direction when the phone is held in landscape position and in portrait direction when the phone is displayed in portrait direction. (User Guide at 50.) Write text Learn how to write text quickly and efficiently with your phone's keyboard. Use the on-screen keyboard Writing with the on-screen keyboard is easy. You can use the keyboard when holding your phone in portrait or landscape mode. You can write your messages by tapping the letters or by swiping through them. Tap a text box. 1 Character keys 2 Shift key 3 Numbers and symbols key 4 Smiley key 5 Comma key 6 Space key 7 Enter key 8 Backspace key  The keyboard layout can vary in different apps and languages. ★ Tip: To add the comma key to the keyboard, on the start screen, swipe down from the top of the screen, and tap ALL SETTINGS > keyboard > advanced > Show a comma key when available. You can add the comma key only if you have at least 2 keyboards installed on your phone. Swipe to write text Swipe from the first letter of the word, and draw a path from letter to letter. Lift your finger after the last letter. To continue, keep on swiping without tapping the space key. Your phone adds the spaces. Not all languages are supported. (User Guide at 50.)

Claim 5	Exemplary Disclosures (Express and/or Inherent) and Citations
	(Lumia 640 Device.) (Lumia 640 Device.) Additional exemplary citations include:

Claim 5	Exemplary Disclosures (Express and/or Inherent) and Citations
	Back Function The Back function allows you to go back within an app or between apps. The Back function also lets you navigate to a previous screen or webpage, exit a search operation, or close an on-screen keyboard, menu or dialog box. Press and hold the Back function to display a list of running apps and choose the one you want. Swipe up from the bottom of the screen to access this. (Prepared for Anything at 14.) WORD FLOW KEYBOARD The Word Flow Keyboard on Windows Phone is ridiculously fast and personal. In fact, it was officially certified by the Guinness Book of World Records as the world's fastest smartphone keyboard. New and improved features include: Shape writing. With the new shape writing feature, you skip typing and simply slide your finger from one letter to the next, without lifting a finger, to enter text. Adding contacts. Word Flow will automatically add the names from your contacts into your library. Just start typing one of your contact's names and Word Flow will suggest the proper spelling. Increased library out of the box. Word Flow in Windows Phone 8.1 has increased the number of words in the word suggestion libraries across several languages right out of the box, building on the words you use most frequently. (Prepared for Anything at 18.)

Claim 5	Exemplary Disclosures (Express and/or Inherent) and Citations
	EASY INFORMATION CAPTURING AND RICH FORMATTING When you're viewing a note, just tap on the screen where you want to edit the note — it'll bring up the Word Flow Keyboard, which can help correct and predict your typing. Below the keyboard, you'll see buttons for inserting a To-Do item with checkbox, creating a bulleted list, inserting an existing photo (or capturing and inserting a new one), and capturing audio using your phone's microphone. Tap More to the right of those buttons to share a note, pin it to Start, create a numbered list, increase or decrease indent, or choose formatting options that include bold, italics, underlined, and highlighting. (Prepared for Anything at 33.) DID YOU KNOW? The Word Flow keyboard makes using emoticons more fun and easy. Just tap the emoticon key on the keyboard to choose from hundreds of new ones. In fact, we added so many that we had to redesign the emoticon chooser. (Prepared for Anything at 36.)

Claim 7	Exemplary Disclosures (Express and/or Inherent) and Citations
[7pre] The device of claim 1	Claim 7 depends from claim 1. Defendant incorporates all the prior art disclosures from claim 1 here, which anticipate and/or render claim 1 obvious as set out above. Defendant reserves the right to rely on

Claim 7	Exemplary Disclosures (Express and/or Inherent) and Citations
	any of the prior art disclosures and obviousness rationale and evidence set out for claim 1 to show the additional limitations of claim 7 are anticipated and/or obvious for the same reasons set out in claim 1. Lumia 640, alone or in combination with other references identified in this chart or elsewhere in Defendants’ invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless’s apparent interpretation of this limitation, discloses “[t]he device of claim 1.” <i>See supra</i> claim [1].
[7a] wherein the width of the device is approximately half of said length.	Lumia 640, alone or in combination with other references identified in this chart or elsewhere in Defendants’ invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless’s apparent interpretation of this limitation, discloses “wherein the width of the device is approximately half of said length.” For example, Lumia 640, including its front surface, was 141.3 mm in length and 72.2 mm in width. (Prepared for Anything at 2-4.)

Claim 7	Exemplary Disclosures (Express and/or Inherent) and Citations
	Lumia 640 3G Dual SIM Prepared for Anything  Windows Phone Key Features • Latest version of Windows Phone 8.1 along with seamlessly integrated Microsoft Office experiences • Built-in Skype integration and a 1MP front-facing camera for switching seamlessly between voice and video calls • 8MP camera with LED flash and Lumia Camera right out of the box • 1GB of memory and powerful quad core processor • Smart Dual SIM to ensure you never miss a call Accessories • Cover for Lumia 640 – with card holder • Microsoft Screen Sharing for Lumia Phones • Comfort Headset Size: 141.3 x 72.2 x 8.85 (volumetric) mm Weight: 145g Colors:  Talk time and Standby time (Estimates) • Standby time: up to 35 days (840 hours) • Talk time: up to 27.3 hours (2G) • Talk time: up to 20.3 hours (3G) Sales Package • Lumia 640 3G Dual SIM • Charger: AC-20 • WH-108 headset (In select markets only) • Battery: BV-TSC (removable) • User guide • Note: there may be differences in country / customer variants Operating System: Windows Phone 8.1 with Lumia Denim Networks: • GSM/EDGE: 850/900/1800/1900 MHz, WCDMA: 850/900/1900/2100 MHz Processor: CPU Qualcomm Snapdragon 400 (MSM8926), 1.2 GHz quad core processor Memory: 1GB RAM, 8 GB internal mass memory + up to 128 GB Micro SD & 30GB* free OneDrive cloud storage Display: 5" HD (1280x720, 16:9) IPS LCD, 294 PPI, Glance screen, Corning Gorilla Glass 3, Sunlight readability enhancements Primary Camera: 8 MP AF (3280x2464), f/2.2, 28 mm, 1080p @ 30 fps video (continuous autofocus), Flash: LED, Lumia Camera Secondary Camera: HD 1 MP wide angle, f/2.4, 720p video Connectivity: BT 4.0, microUSB 2.0, Micro SIM, A-GPS +GLONASS, BeiDou, DLNA, Screen cloning with Miracast, WLAN 802.11 b/g/n/ Sensors: Accelerometer, Magnetometer, Proximity, Ambient Light Sensor Audio: 3.5 mm AV connector (AHJ), FM Radio, Internet Radio Battery: 2500 mAh (BV-TSC) removable battery * available when camera roll back up is activated. 

(Prepared for Anything at 2.)

Additional exemplary citations include:

Claim 7	Exemplary Disclosures (Express and/or Inherent) and Citations
	Lumia 640 LTE Single SIM Prepared for Anything  Windows Phone Key Features • Latest version of Windows Phone 8.1 along with seamlessly integrated Microsoft Office experiences • Built-in Skype integration and a 1MP front-facing camera for switching seamlessly between voice and video calls • 8MP camera with LED flash and Lumia Camera right out of the box • 1GB of memory and powerful quad core processor • Fast LTE connectivity Accessories • Cover for Lumia 640 – with card holder • Microsoft Screen Sharing for Lumia Phones • Comfort Headset Size: 141.3 x 72.2 x 8.85 (volumetric) mm Weight: 145g Colors:  Talk time and Standby time (Estimates) • Standby time: up to 36 days (870 hours) • Talk time: up to 26.5 hours (2G) • Talk time: up to 17.5 hours (3G) Sales Package • Lumia 640 LTE Single SIM • Charger: AC-20 • WH-108 headset (In select markets only) • Battery: BV-T5C (removable) • User guide • Note: there may be differences in country / customer variants Operating System: Windows Phone 8.1 with Lumia Denim Networks: • LTE: 1, 3, 7, 8, 20 (2100, 1800, 2600, 900, 800) MHz • GSM/EDGE: 850/900/1800/1900 MHz, WCDMA: 850/900/2100 MHz Processor: CPU Qualcomm Snapdragon 400 (MSM8926), 1.2 GHz quad core processor Memory: 1GB RAM, 8 GB internal mass memory + up to 128 GB Micro SD & 30GB* free OneDrive cloud storage Display: 5" HD (1280x720, 16:9) IPS LCD, 294 PPI, Glance screen, Corning Gorilla Glass 3, Sunlight readability enhancements Primary Camera: 8 MP AF (3280x2464), f/2.2, 28 mm, 1080p @ 30 fps video (continuous autofocus), Flash: LED, Lumia Camera Secondary Camera: HD 1 MP wide angle, f/2.4, 720p video Connectivity: BT 4.0, microUSB 2.0, Micro SIM, A-GPS + GLONASS, BeiDou, NFC, DLNA, Screen cloning with Miracast, WLAN 802.11 b/g/n/ Sensors: Accelerometer, Magnetometer, Proximity, Ambient Light Sensor Audio: 3.5 mm AV connector (AHJ), FM Radio, Internet Radio Battery: 2500 mAh (BV-T5C) removable battery * available when camera roll back up is activated. 

Claim 7	Exemplary Disclosures (Express and/or Inherent) and Citations
	Lumia 640 LTE Dual SIM Prepared for Anything  Windows Phone Key Features • Latest version of Windows Phone 8.1 along with seamlessly integrated Microsoft Office experiences • Built-in Skype integration and a 1MP front-facing camera for switching seamlessly between voice and video calls • 8MP camera with LED flash and Lumia Camera right out of the box • 1GB of memory and powerful quad core processor • Best of both worlds with LTE support available on dual SIM models for the first time Accessories • Cover for Lumia 640 – with card holder • Microsoft Screen Sharing for Lumia Phones • Comfort Headset Size: 141.3 x 72.2 x 8.85 (volumetric) mm Weight: 145g Colors:  Talk time and Standby time (Estimates) • Standby time: up to 36 days (870 hours) • Talk time: up to 26.5 hours (2G) • Talk time: up to 17.5 hours (3G) Sales Package • Lumia 640 LTE Dual SIM • Charger: AC-20 • WH-108 headset (In select markets only) • Battery: BV-TSC (removable) • User guide • Note: there may be differences in country / customer variants Operating System: Windows Phone 8.1 with Lumia Denim Networks: • LTE: 1, 2, 3, 4, 5, 7, 8, 12, 20, 28 (2100, 1900, 1800 1700/2100, 850, 2600, 900, 700, 800, 700) MHz • TD-LTE: 38, 40 (2570-2620, 2300-2400) MHz • GSM/EDGE: 850/900/1800/1900 MHz, WCDMA: 850/900/1900/2100 and 1700/2100 MHz Processor: CPU Qualcomm Snapdragon 400 (MSM8926), 1.2 GHz quad core processor Memory: 1GB RAM, 8 GB internal mass memory + up to 128 GB Micro SD & 30GB* free OneDrive cloud storage Display: 5" HD (1280x720, 16:9) IPS LCD, 294 PPI, Glance screen, Corning Gorilla Glass 3, Sunlight readability enhancements Primary Camera: 8 MP AF (3280x2464), f/2.2, 28 mm, 1080p @ 30 fps video (continuous autofocus), Flash: LED, Lumia Camera Secondary Camera: HD 1 MP wide angle, f/2.4, 720p video Connectivity: BT 4.0, microUSB 2.0, Micro SIM, A-GPS +GLONASS, BeiDou, NFC, DLNA, Screen cloning with Miracast, WLAN 802.11 b/g/n/ Sensors: Accelerometer, Magnetometer, Proximity, Ambient Light Sensor Audio: 3.5 mm AV connector (AHJ), FM Radio, Internet Radio Battery: 2500 mAh (BV-TSC) removable battery * available when camera roll back up is activated. Microsoft (Prepared for Anything at 4.) 

Claim 7	Exemplary Disclosures (Express and/or Inherent) and Citations
	(Lumia 640 Device.)

Claim 8	Exemplary Disclosures (Express and/or Inherent) and Citations
[8pre] The device of claim 1	Claim 8 depends from claim 1. Defendant incorporates all the prior art disclosures from claim 1 here, which anticipate and/or render claim 1 obvious as set out above. Defendant reserves the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claim 1 to show the additional limitations of claim 8 are anticipated and/or obvious for the same reasons set out in claim 1. Lumia 640, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "[t]he device of claim 1." <i>See supra</i> claim [1].
[8a] wherein the thickness of the device is less than 20 percent of said width.	Lumia 640, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "wherein the thickness of the device is less than 20 percent of said width." For example, Lumia 640 had a width of 72.2 mm and a thickness of 8.85 mm, which was 12% of the width. (Prepared for Anything at 2-4.)

Claim 8	Exemplary Disclosures (Express and/or Inherent) and Citations
	Lumia 640 3G Dual SIM Prepared for Anything  Windows Phone Key Features • Latest version of Windows Phone 8.1 along with seamlessly integrated Microsoft Office experiences • Built-in Skype integration and a 1MP front-facing camera for switching seamlessly between voice and video calls • 8MP camera with LED flash and Lumia Camera right out of the box • 1GB of memory and powerful quad core processor • Smart Dual SIM to ensure you never miss a call Accessories • Cover for Lumia 640 – with card holder • Microsoft Screen Sharing for Lumia Phones • Comfort Headset Size: 141.3 x 72.2 x 8.85 (volumetric) mm Weight: 145g Colors:  Talk time and Standby time (Estimates) • Standby time: up to 35 days (840 hours) • Talk time: up to 27.3 hours (2G) • Talk time: up to 20.3 hours (3G) Sales Package • Lumia 640 3G Dual SIM • Charger: AC-20 • WH-108 headset (In select markets only) • Battery: BV-TSC (removable) • User guide • Note: there may be differences in country / customer variants Operating System: Windows Phone 8.1 with Lumia Denim Networks: • GSM/EDGE: 850/900/1800/1900 MHz, WCDMA: 850/900/1900/2100 MHz Processor: CPU Qualcomm Snapdragon 400 (MSM8926), 1.2 GHz quad core processor Memory: 1GB RAM, 8 GB internal mass memory + up to 128 GB Micro SD & 30GB* free OneDrive cloud storage Display: 5" HD (1280x720, 16:9) IPS LCD, 294 PPI, Glance screen, Corning Gorilla Glass 3, Sunlight readability enhancements Primary Camera: 8 MP AF (3280x2464), f/2.2, 28 mm, 1080p @ 30 fps video (continuous autofocus), Flash: LED, Lumia Camera Secondary Camera: HD 1 MP wide angle, f/2.4, 720p video Connectivity: BT 4.0, microUSB 2.0, Micro SIM, A-GPS +GLONASS, BeiDou, DLNA, Screen cloning with Miracast, WLAN 802.11 b/g/n/ Sensors: Accelerometer, Magnetometer, Proximity, Ambient Light Sensor Audio: 3.5 mm AV connector (AHJ), FM Radio, Internet Radio Battery: 2500 mAh (BV-TSC) removable battery * available when camera roll back up is activated.  (Prepared for Anything at 2.) Additional exemplary citations include:

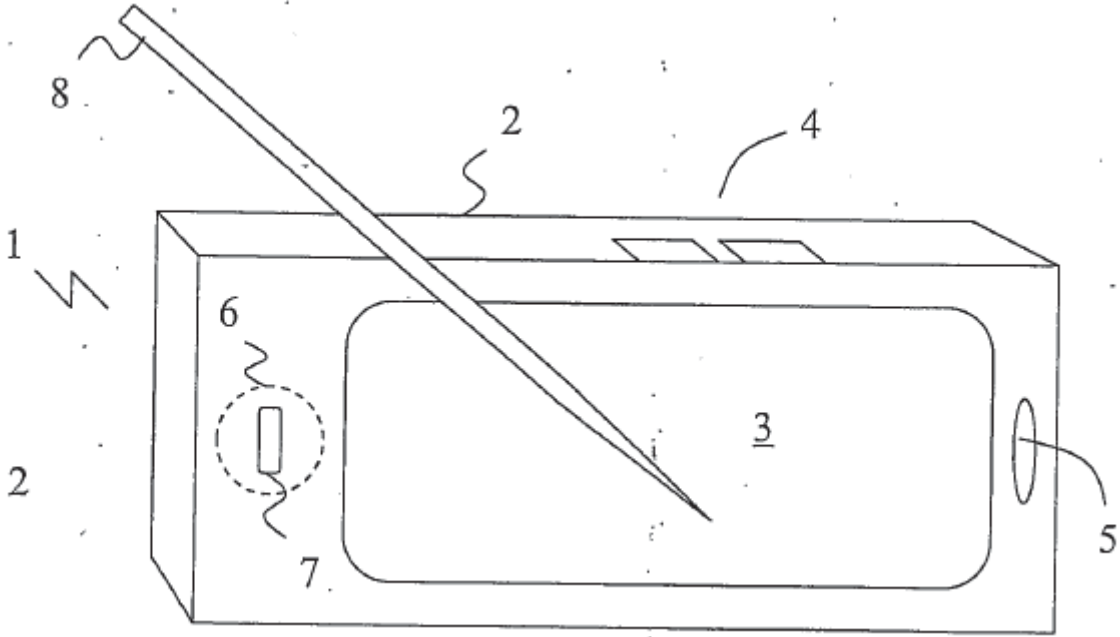
Claim 8	Exemplary Disclosures (Express and/or Inherent) and Citations
	Lumia 640 LTE Single SIM Prepared for Anything  Windows Phone Key Features • Latest version of Windows Phone 8.1 along with seamlessly integrated Microsoft Office experiences • Built-in Skype integration and a 1MP front-facing camera for switching seamlessly between voice and video calls • 8MP camera with LED flash and Lumia Camera right out of the box • 1GB of memory and powerful quad core processor • Fast LTE connectivity Accessories • Cover for Lumia 640 – with card holder • Microsoft Screen Sharing for Lumia Phones • Comfort Headset Size: 141.3 x 72.2 x 8.85 (volumetric) mm Weight: 145g Colors:  Talk time and Standby time (Estimates) • Standby time: up to 36 days (870 hours) • Talk time: up to 26.5 hours (2G) • Talk time: up to 17.5 hours (3G) Sales Package • Lumia 640 LTE Single SIM • Charger: AC-20 • WH-108 headset (In select markets only) • Battery: BV-TSC (removable) • User guide • Note: there may be differences in country / customer variants Operating System: Windows Phone 8.1 with Lumia Denim Networks: • LTE: 1, 3, 7, 8, 20 (2100, 1800, 2600, 900, 800) MHz • GSM/EDGE: 850/900/1800/1900 MHz, WCDMA: 850/900/2100 MHz Processor: CPU Qualcomm Snapdragon 400 (MSM8926), 1.2 GHz quad core processor Memory: 1GB RAM, 8 GB internal mass memory + up to 128 GB Micro SD & 30GB* free OneDrive cloud storage Display: 5" HD (1280x720, 16:9) IPS LCD, 294 PPI, Glance screen, Corning Gorilla Glass 3, Sunlight readability enhancements Primary Camera: 8 MP AF (3280x2464), f/2.2, 28 mm, 1080p @ 30 fps video (continuous autofocus), Flash: LED, Lumia Camera Secondary Camera: HD 1 MP wide angle, f/2.4, 720p video Connectivity: BT 4.0, microUSB 2.0, Micro SIM, A-GPS +GLONASS, BeiDou, NFC, DLNA, Screen cloning with Miracast, WLAN 802.11 b/g/n/ Sensors: Accelerometer, Magnetometer, Proximity, Ambient Light Sensor Audio: 3.5 mm AV connector (AHJ), FM Radio, Internet Radio Battery: 2500 mAh (BV-TSC) removable battery * available when camera roll back up is activated.  (Prepared for Anything at 3.)

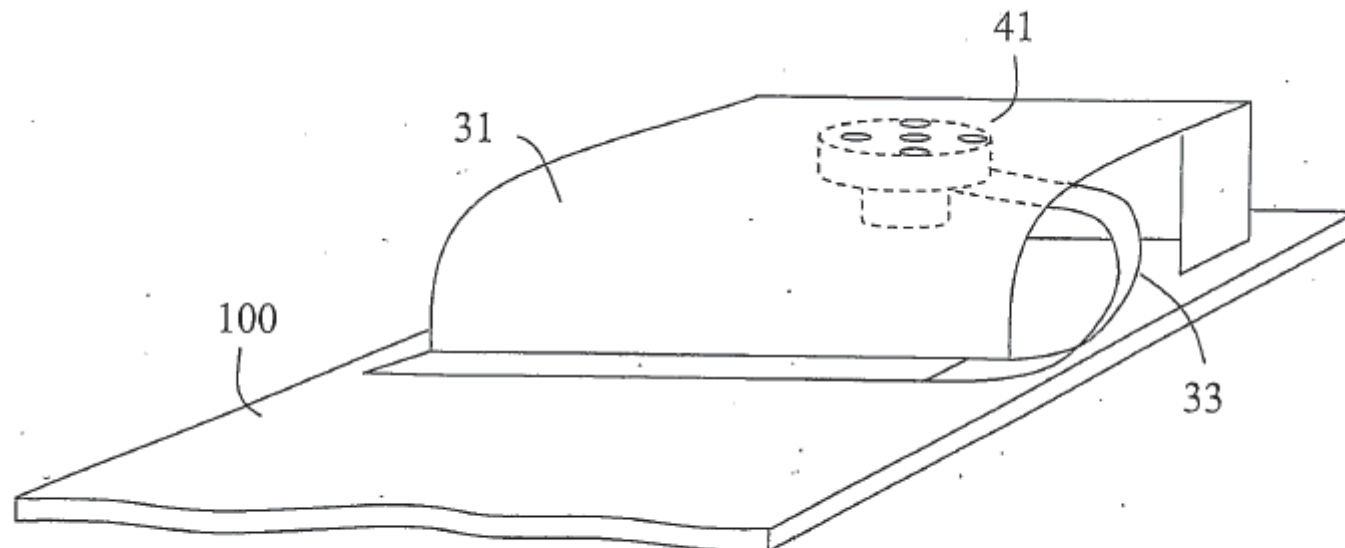
Claim 8	Exemplary Disclosures (Express and/or Inherent) and Citations
	Lumia 640 LTE Dual SIM Prepared for Anything  Windows Phone Key Features • Latest version of Windows Phone 8.1 along with seamlessly integrated Microsoft Office experiences • Built-in Skype integration and a 1MP front-facing camera for switching seamlessly between voice and video calls • 8MP camera with LED flash and Lumia Camera right out of the box • 1GB of memory and powerful quad core processor • Best of both worlds with LTE support available on dual SIM models for the first time Accessories • Cover for Lumia 640 – with card holder • Microsoft Screen Sharing for Lumia Phones • Comfort Headset Size: 141.3 x 72.2 x 8.85 (volumetric) mm Weight: 145g Colors:  Talk time and Standby time (Estimates) • Standby time: up to 36 days (870 hours) • Talk time: up to 26.5 hours (2G) • Talk time: up to 17.5 hours (3G) Sales Package • Lumia 640 LTE Dual SIM • Charger: AC-20 • WH-108 headset (In select markets only) • Battery: BV-TSC (removable) • User guide • Note: there may be differences in country / customer variants Operating System: Windows Phone 8.1 with Lumia Denim Networks: • LTE: 1, 2, 3, 4, 5, 7, 8, 12, 20, 28 (2100, 1900, 1800, 1700/2100, 850, 2600, 900, 700, 800, 700) MHz • TD-LTE: 38, 40 (2570-2620, 2300-2400) MHz • GSM/EDGE: 850/900/1800/1900 MHz, WCDMA: 850/900/1900/2100 and 1700/2100 MHz Processor: CPU Qualcomm Snapdragon 400 (MSM8926), 1.2 GHz quad core processor Memory: 1GB RAM, 8 GB internal mass memory + up to 128 GB Micro SD & 30GB* free OneDrive cloud storage Display: 5" HD (1280x720, 16:9) IPS LCD, 294 PPI, Glance screen, Corning Gorilla Glass 3, Sunlight readability enhancements Primary Camera: 8 MP AF (3280x2464), f/2.2, 28 mm, 1080p @ 30 fps video (continuous autofocus), Flash: LED, Lumia Camera Secondary Camera: HD 1 MP wide angle, f/2.4, 720p video Connectivity: BT 4.0, microUSB 2.0, Micro SIM, A-GPS + GLONASS, BeiDou, NFC, DLNA, Screen cloning with Miracast, WLAN 802.11 b/g/n/ Sensors: Accelerometer, Magnetometer, Proximity, Ambient Light Sensor Audio: 3.5 mm AV connector (AHJ), FM Radio, Internet Radio Battery: 2500 mAh (BV-TSC) removable battery * available when camera roll back up is activated. 
	(Prepared for Anything at 4.) 

Claim 8	Exemplary Disclosures (Express and/or Inherent) and Citations
	(Lumia 640 Device.) To the extent Keyless argues that Lumia 640 does not disclose or render obvious this limitation, it would have been obvious in view of Lumia 640, POSITA's pre-existing knowledge, and/or the teachings of Lumia 640 combined with Wedel, Rydbeck, Yamaguchi, and/or Dutta. For example, a POSITA would find the combination obvious to try, due at least to the similarity of the technical teachings of the art. As another example, a POSITA would find that the teachings could be predictably interchanged by, for example, simple substitution, at least because of the predictability of the art and the known interchangeability of the various elements. As another example, a POSITA would be motivated to combine the references, and would have a reasonable expectation of success in doing so, at least because the references use known variations of existing technology to solve routine and well understood problems in predictable ways. For example, each of Wedel, Rydbeck, Yamaguchi, and Dutta teaches configuring a mobile phone device such that device is compact and can be placed in a user's pocket. Therefore, the mobile phone must have been thin to slip into a pocket. A POSITA would have found it obvious to configure a device to be thin so it could easily be carried and stored by a user in a pocket, or the like. For example, Wedel teaches that mobile phones "are getting smaller and smaller" and are now "pocket size." (Wedel at 1:14-21.) Wedel explains that the small size "is generally considered to be an important factor for the end customer," and there is "general market demand for small size and light weight terminals." (Wedel at 1:14-21, 3:19-21.) In order to reduce the size of the terminal, Wedel teaches reducing the thickness by, for example, mounting the speaker inside the antenna cavity. (Wedel at 1:6-9, 2:21-25, 3:19-21, 9:28-31, 13:1-8.) For example, Rydbeck teaches that it is desirable to configure a mobile phone to be small, miniaturized, or "pocket-sized." (Rydbeck at 1:11-19, 2:60-62, 4:39-43, 10:29-30.) In order for a mobile phone to fit in a user's pocket, it must have been thin. As another example, Yamaguchi teaches that it is desirable to configure a mobile phone so it can be stored in a pocket of a user's clothing. (Yamaguchi at [0007], [0010], [0014], [0015], [0031], [0032], [0035].) In order to fit in a pocket, Yamaguchi teaches that the mobile phone is 100-150mm in length, 60-75mm in width, and only 15-25mm in depth. (Yamaguchi at [0034], [0036].)

Claim 8	Exemplary Disclosures (Express and/or Inherent) and Citations
	Dutta similarly teaches the benefit of reducing the dimensions of portable devices. (Dutta at [0002].) In addition, it is favorable to configure the size of a mobile phone to provide an ergonomically favorable grip, which inherently requires that the device is thin so that a user's hands can wrap around its edges. (Dutta at [0003].) A POSITA would have been motivated to configure a mobile phone to maximize housing thinness to improve the ease of use and portability of the phone. Configuring a mobile phone in this way was routine and conventional to a POSITA, as shown by each of Wedel, Rydbeck, Yamaguchi, and Dutta. A POSITA would have been motivated to size a phone accordingly in order to improve device performance and user experience. Thus, a POSITA would have considered the combination of the teachings of Wedel, Rydbeck, Yamaguchi, and/or Dutta into the mobile phone architecture disclosed by Lumia 640 to be an example of (A) combining prior art elements (maximizing housing thinness as taught by Wedel, Rydbeck, Yamaguchi, and Dutta) according to known methods to yield predictable results (improving the portability and operability of a mobile phone); (B) use of a known technique (sizing a mobile phone such that the thinness of the housing was maximized as taught by Wedel, Rydbeck, Yamaguchi, and Dutta) to improve similar devices in the same way (improving user experience and device performance); (C) applying a known technique (sizing a mobile phone such that the thinness of the housing was maximized as taught by Wedel, Rydbeck, Yamaguchi, and Dutta) to a known device ready for improvement to yield predictable results (improving user experience and device performance); and/or (D) some teaching, suggestion, or motivation in the prior art (e.g., the teachings of Wedel, Rydbeck, Yamaguchi, and Dutta) that would have led one of ordinary skill to modify the mobile phone disclosed by Lumia 640 to arrive at the claimed invention. Additional exemplary citations include: “More specifically the invention relates to a communication terminal including a component which integrates said speaker and an antenna element, and to said component as such.” (Wedel at 1:6-9.) “. . . at the same time the dimensions of the communication terminals have gone from briefcase size to the pocket size phones of today. Still today, mobile phones are getting smaller and smaller and the size is generally considered to be an important factor for the end customer. The development in electronics has

Claim 8	Exemplary Disclosures (Express and/or Inherent) and Citations
	made it possible to miniaturise the components of the terminals, at the same time making the terminals capable of performing more advanced functions and services.” (Wedel at 1:14-21.) “The antenna of the terminal is generally located at the upper portion of the terminal, and a lower portion of the terminal being occupied by a battery. Placing the speaker 6 behind the display 3 would therefore increase the thickness of the terminal 1 since it would have to compete with the antenna for the relevant space.” (Wedel at 2:21-25.) “It is an object of the present invention to provide a novel speaker arrangement for a communication terminal, meeting the general market demand for small size and light weight terminals.” (Wedel at 3:19-21.) “Fig. 6 illustrates an embodiment of a spacer element 61, adapted for use with the combined speaker and antenna element according to the invention. In a low profile, built in, radio antenna for mobile communication, such as a PIFA, the antenna comprises a substantially planar active antenna element and a ground plane.” (Wedel at 9:28-31.) “The present invention brings about several advantages, thanks to the inventive idea to mount the speaker inside the antenna cavity, where one antenna element and the speaker are carried by a common structure provided by a flexible film. First of all, the invention brings about space savings. A terminal or housing, implementing the invention, may be designed with a thickness basically defined by the distance between the flexible film and the support structure, e.g. a PCB, since the thickness contribution from the speaker has been eliminated.” (Wedel at 13:1-8.) Wedel discloses the following at FIGS. 2 and 11:

Claim 8	Exemplary Disclosures (Express and/or Inherent) and Citations
	Fig. 2  The diagram shows a perspective view of a rectangular device. A large, rounded rectangular opening is centered on the front face. A long, thin rod is inserted into this opening, extending from the front face towards the back. The rod is labeled with the number 8. The front face is labeled with the number 1. The top surface is labeled with the number 2. The right side is labeled with the number 5. The left side is labeled with the number 6. The bottom edge is labeled with the number 7. The top edge is labeled with the number 4. The central opening is labeled with the number 3. The rod is shown in a perspective view, extending from the front face towards the back.

Claim 8**Exemplary Disclosures (Express and/or Inherent) and Citations****Fig. 11**

“The evolution of wireless communication devices incorporating cellular/digital wireless telephones is undergoing two potentially conflicting trends. One trend is toward miniaturization of the cellular telephone body and the other is toward a demand for larger visual displays thereon. There is, therefore, a need to configure pervasive computing devices such as smaller, miniaturized, or “pocket-sized” wireless telephones in a manner which allows for larger displays over conventional devices.” (Rydbeck at 1:11-19.)

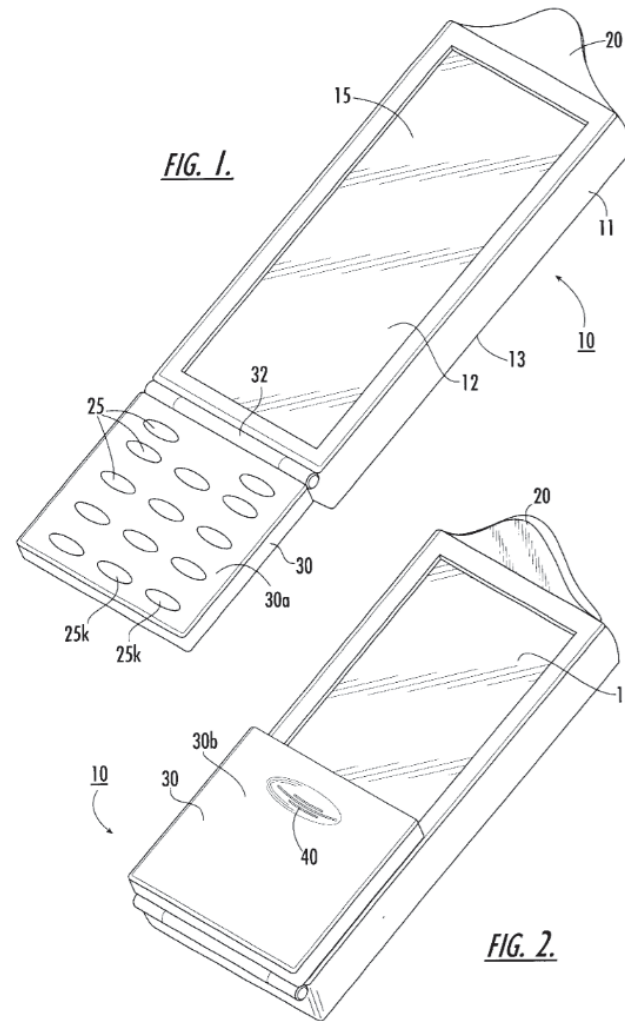
“The invention is particularly suitable for pocket-sized wireless telephones or miniaturized pervasive computing devices which include wireless telephones.” (Rydbeck at 2:60-62.)

“Turning now to the figures, FIG. 1 illustrates a wireless communication device 10 according to one embodiment of the present invention. The wireless communication device 10 includes a primary body 11, a front or forward major surface 12, and an opposing a rear major surface 13 (FIG. 3). (The “forward” and

Claim 8	Exemplary Disclosures (Express and/or Inherent) and Citations
	“rear” surface designations are for description purposes only. It will be appreciated that, in practice, each of these surfaces can be the “front” surface or the “back” surface, and that indeed, each will act both as the back and the front, depending on the selected or activity/mode and the corresponding orientation of the device). The wireless communications device 10 also includes a keypad 25, an antenna 20, a speaker 35 (FIG. 3), and a microphone 40 (FIGS. 2, and 3). As shown in FIG. 1, the wireless communications device 10 also includes a flip member 30. The present invention is particularly suited for pocket-sized or palm sized wireless communications devices incorporating remote telephonic communications systems. Typically, these pocket or palm sized devices are less than about 8-10 inches in length and less than about 4 inches in width.” (Rydbeck at 4:24-44.) “A method according to claim 20, wherein said wireless communications device is pocket-sized.” (Rydbeck at 10:29-30.) Rydbeck discloses the following at FIGS. 1 and 2:

Claim 8

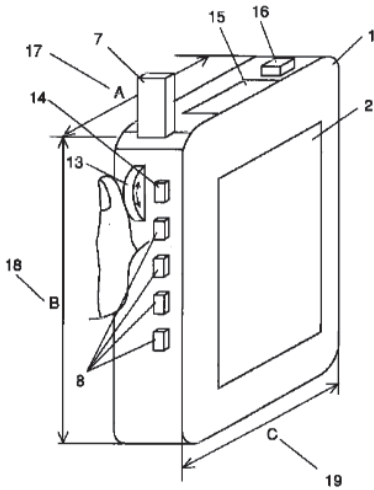
Exemplary Disclosures (Express and/or Inherent) and Citations



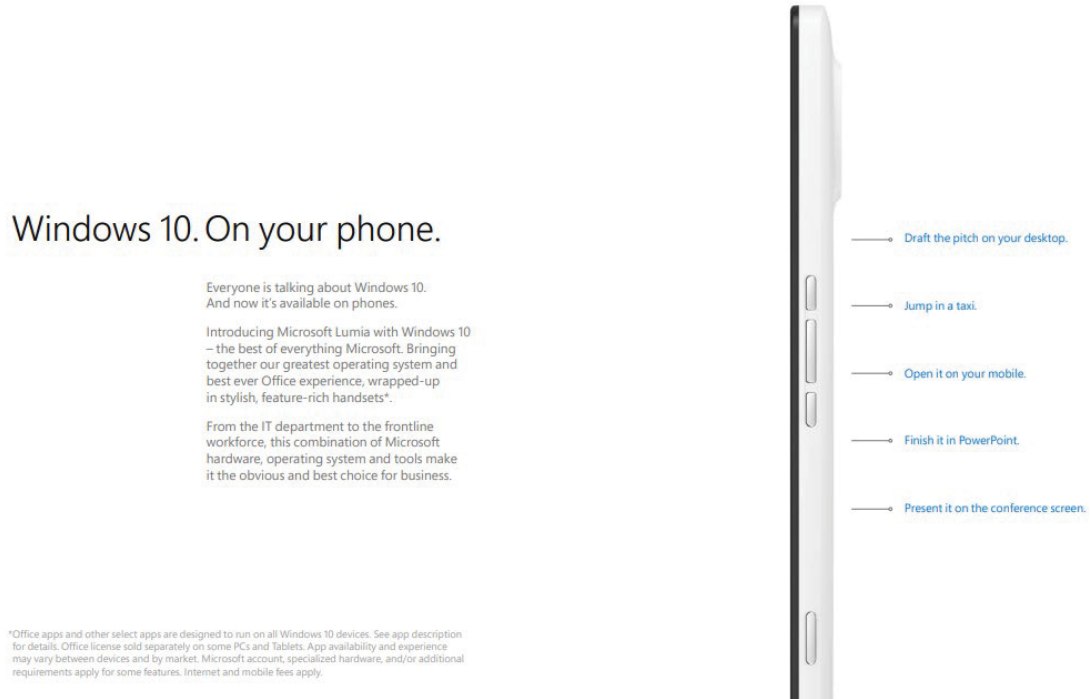
“Meanwhile, there is a demand for a series of manipulations to be performable with one hand from the perspective of making the mobile-communication-information terminal device ‘easy to manipulate’, as well

Claim 8	Exemplary Disclosures (Express and/or Inherent) and Citations
	as a demand for a size such that the device can fit in a clothing pocket or the like from the perspective of making the device ‘easily portable anywhere.’” (Yamaguchi at [0007].) “According to the present invention, the various switches can be manipulated with a finger of one hand in a state in which the device body is held in the one hand, and the device body can be stored in a clothing pocket, thereby resulting in a mobile-communication-information terminal device having good ease of manipulation and portability.” (Yamaguchi at [0010].) “The invention according to claim 4 of the present invention is the mobile-communication-information terminal device according to claim 1, wherein: the liquid-crystal part, which has a function of displaying wireless status, and a button, which has a wireless ON/OFF switching function, are disposed on a same top surface of the device body; thus, the invention has the effects that, even if the device body is stored in a clothing breast pocket, wireless status can be confirmed without removing the device from the pocket, and wireless can also be switched ON/OFF, thereby improving ease of manipulation.” (Yamaguchi at [0014].) “The invention according to claim 5 of the present invention is the mobile-communication-information terminal device according to any one of claims 1, 2, 3, and 4, wherein: the device body has dimensional ratios of length 100–150 mm, width 60–75 mm, and depth 15–25 mm; thus, the invention has the effect of improved portability and ease of manipulation, such as when storing the device in a clothing pocket, holding the device with one hand, and manipulating the various buttons.” (Yamaguchi at [0015].) “Wireless status can easily be confirmed from the liquid-crystal part 15 provided on the top surface of the device body 1, even when the device body 1 is stored in a clothing breast pocket or the like. Likewise, it becomes possible to switch wireless ON/OFF by pressing the button 16 provided on the top surface of the device body 1 with the device body 1 still stored in the clothing breast pocket or the like. In addition, a wireless ON state is displayed on the liquid-crystal part 15, and, in a wireless OFF state, wireless ON/OFF status can easily be confirmed by the disappearance of the display on the liquid-crystal part 15.” (Yamaguchi at [0031].) “Through the above-mentioned operation, wireless status can be confirmed, and wireless can be switched ON/OFF while leaving the device body 1 stored in the clothing breast pocket without taking the device body 1 out; thereby, improvement in ease of manipulation can be achieved.” (Yamaguchi at [0032].)

Claim 8	Exemplary Disclosures (Express and/or Inherent) and Citations
	“(Fifth Embodiment) FIG. 6 is an exterior oblique view of a mobile-communication-information terminal device according to a fifth embodiment of the present invention. As shown in FIG. 6, dimension A 17 of the main device 1 is the length-directional dimension thereof in a manipulation state, dimension B 18 is the width-directional dimension, and dimension C 19 is the depth-directional dimension thereof.” (Yamaguchi at [0033].) “Dimension A 17, dimension B 18, and dimension C 19 of the mobile-communication-information terminal device according to the fourth embodiment are length 100–150 mm, width 60–75 mm, and depth 15–25 mm, such that a hand can hold a bottom-surface portion and both side-surface portions of the device body 1 when holding the device body 1.” (Yamaguchi at [0034].) “As a result, the main device 1 is capable of fitting into a clothing pocket or the like, and various manipulations can be achieved while holding the device body 1 in one hand; thereby, improvement in portability and improvement in ease of manipulation can be achieved.” (Yamaguchi at [0035].) “EFFECTS OF THE INVENTION According to the present invention, as is clear from the description above, an antenna part and various manipulable switches of a mobile-communication-information terminal device are provided on a same-side surface portion of a device body, a pen-housing part is provided on an opposite side-surface portion, a memory-card-housing part is provided on a rear-surface portion of the device body, and a card EJECT button is provided adjacent to the memory-card-housing part and near the pen-housing part; a rotary switch, which has a function of selecting data, is provided on the same side surface as the various manipulable switches, and a push button, which has a function of confirming selected data, is provided perpendicular to the rotational direction of the rotary switch and on the same side surface near a front-surface portion of the device body; a liquid-crystal part, which has a function of displaying wireless status, and a button, which has a wireless ON/OFF switching function, are further provided on a same top-surface portion of the device body; and the dimensional ratios of the device body are length 100–150 mm, width 60–75 mm, and depth 15–25 mm, thereby enabling a series of manipulations to be performed with one hand and enabling the device body to fit in a clothing pocket or the like; thus, improvement in ease of manipulation and improvement in portability can be achieved.” (Yamaguchi at [0036].) Yamaguchi discloses the following at FIG. 6:

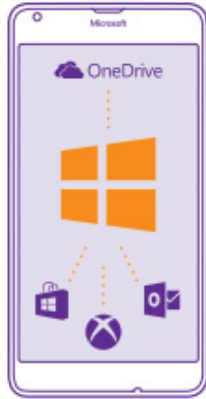
Claim 8	Exemplary Disclosures (Express and/or Inherent) and Citations
	【図6】  “A goal in the ongoing further development of portable terminals consists in continuously reducing its dimensions to make its transport as comfortable as possible. Unfortunately, this also means that the displays of these devices are very small. With the ever greater usage of portable devices, such as, for example, personal digital assistants (PDAs) and mobile phones to access the Internet, the limitations that arise due to the small displays are increasingly significant.” (Dutta at [0002].) “For example, more and more mobile phones are equipped with a browser for the world wide web (web or www). Unfortunately, the ideal size of a mobile phone is determined by the typical ear-to-mouth distance of the average user and by ergonomically favorable grippability.” (Dutta at [0003].)

Claim 9	Exemplary Disclosures (Express and/or Inherent) and Citations
[9pre] A mobile phone, comprising:	To the extent that the preamble is held to be limiting, Lumia 640, alone or in combination with other references identified in this chart or elsewhere in Defendants’ invalidity contentions, and/or further in

Claim 9	Exemplary Disclosures (Express and/or Inherent) and Citations
	light of the knowledge of a POSITA and Keyless’s apparent interpretation of this limitation, discloses “[a] mobile phone.” For example, Lumia 640 is a phone, which is a mobile phone, capable of making phone calls. (User Guide at 16, 23, 27, 38, 62, 117; Prepared for Anything at 2-4, 9, 16; Introducing Microsoft Lumia at 3, 5, 12, 13; Device Diagram.)  Windows 10. On your phone. Everyone is talking about Windows 10. And now it's available on phones. Introducing Microsoft Lumia with Windows 10 – the best of everything Microsoft. Bringing together our greatest operating system and best ever Office experience, wrapped-up in stylish, feature-rich handsets*. From the IT department to the frontline workforce, this combination of Microsoft hardware, operating system and tools make it the obvious and best choice for business. *Office apps and other select apps are designed to run on all Windows 10 devices. See app description for details. Office license sold separately on some PCs and Tablets. App availability and experience may vary between devices and by market. Microsoft account, specialized hardware, and/or additional requirements apply for some features. Internet and mobile fees apply. (Introducing Microsoft Lumia at 5.)

Claim 9	Exemplary Disclosures (Express and/or Inherent) and Citations
	Lumia 640 3G Dual SIM Prepared for Anything  Windows Phone Key Features • Latest version of Windows Phone 8.1 along with seamlessly integrated Microsoft Office experiences • Built-in Skype integration and a 1MP front-facing camera for switching seamlessly between voice and video calls • 8MP camera with LED flash and Lumia Camera right out of the box • 1GB of memory and powerful quad core processor • Smart Dual SIM to ensure you never miss a call Accessories • Cover for Lumia 640 – with card holder • Microsoft Screen Sharing for Lumia Phones • Comfort Headset Size: 141.3 x 72.2 x 8.85 (volumetric) mm Weight: 145g Colors:  Talk time and Standby time (Estimates) • Standby time: up to 35 days (840 hours) • Talk time: up to 27.3 hours (2G) • Talk time: up to 20.3 hours (3G) Sales Package • Lumia 640 3G Dual SIM • Charger: AC-20 • WH-108 headset (In select markets only) • Battery: BV-TSC (removable) • User guide • Note: there may be differences in country / customer variants Operating System: Windows Phone 8.1 with Lumia Denim Networks: • GSM/EDGE: 850/900/1800/1900 MHz, WCDMA: 850/900/1900/2100 MHz Processor: CPU Qualcomm Snapdragon 400 (MSM8926), 1.2 GHz quad core processor Memory: 1GB RAM, 8 GB internal mass memory + up to 128 GB Micro SD & 30GB* free OneDrive cloud storage Display: 5" HD (1280x720, 16:9) IPS LCD, 294 PPI, Glance screen, Corning Gorilla Glass 3, Sunlight readability enhancements Primary Camera: 8 MP AF (3280x2464), f/2.2, 28 mm, 1080p @ 30 fps video (continuous autofocus), Flash: LED, Lumia Camera Secondary Camera: HD 1 MP wide angle, f/2.4, 720p video Connectivity: BT 4.0, microUSB 2.0, Micro SIM, A-GPS +GLONASS, BeiDou, DLNA, Screen cloning with Miracast, WLAN 802.11 b/g/n/ Sensors: Accelerometer, Magnetometer, Proximity, Ambient Light Sensor Audio: 3.5 mm AV connector (AHJ), FM Radio, Internet Radio Battery: 2500 mAh (BV-TSC) removable battery * available when camera roll back up is activated. 

Claim 9	Exemplary Disclosures (Express and/or Inherent) and Citations
	People & messaging Contact your friends and family, and share your files, such as photos, using your phone. Stay tuned with the latest updates to your social networking services even when on the go. Calls Learn how to make calls on your new phone and talk to your friends. Call a contact Calling your friends is quick and easy when you've saved them as contacts in your phone. Tap . 1. Tap . 2. Tap the contact and the number, if the contact has several numbers.  Tip: Is your friend's voice too loud or quiet? Press the volume keys to change the volume.  Tip: Want to let others hear the conversation? Tap speaker. Call a phone number Tap , type in the phone number, and tap call. To type in the + character, used for international calls, tap and hold 0. The + character only works from abroad. The + character may not work in all regions. In this case, enter the international access code directly. Search your call history To search for a call record, swipe to history, tap , and type in the contact's name or phone number. Remove a call record To remove a call record, swipe to history, tap and hold the call record, and tap delete. To remove all the call records, tap ... > select calls > ... > select all > . Copy and paste a phone number On the start screen, tap  People, swipe to contacts, tap a contact, tap and hold the phone number, tap copy, and in a text box, tap . Make a call with Skype You can use your phone to make Skype-to-Skype calls and video calls. With Skype global rates, you can also call landlines or other mobile phones. Pay as you go with your credit card, or get a monthly subscription for the best rates. If you don't yet have the Skype app, you can download it from www.windowsphone.com. Tap  Skype, and sign in with the same Microsoft account that you use with your phone. (User Guide at 62.) Additional exemplary citations include:

Claim 9	Exemplary Disclosures (Express and/or Inherent) and Citations
	Your first Lumia? Let's get started. Set up your new phone, explore your phone's views and menus, and learn how to use the touch screen. Set up your phone Make the most out of your phone's features from the get-go.  When you turn your phone on for the first time, your phone guides you to set up your network connections, phone settings, and Microsoft account in one sitting. (User Guide at 16.)

Claim 9	Exemplary Disclosures (Express and/or Inherent) and Citations
	Transfer content to your Lumia phone Learn how to transfer content to your Lumia phone. Transfer content to your new Lumia phone There are nifty ways to transfer your photos, videos, and other important stuff from your old to your new phone. These instructions may not apply to all phone models and manufacturers. You may need to install some apps on your phone or computer for the transfer. Depending on what you need to install and how much content you are transferring, the transfer may take a while. Some file formats may not be transferred. Some third-party converter apps may be available to convert the files to a format that can be transferred. (User Guide at 23.)

Claim 9	Exemplary Disclosures (Express and/or Inherent) and Citations
	Basics Learn how to get the most out of your new phone. What's new in this release? Check some of the key things in this release at a glance. • Find the settings you're looking for easily – settings are now reorganized into groups, and you can even search them. • Switch your calendar to show week numbers in the monthly view. • Turn mobile data on and off easily – add a shortcut to the action center. Get to know your phone Your phone has two views, start screen and apps menu. To switch between the views, simply swipe left or right.  (User Guide at 27.)

Claim 9	Exemplary Disclosures (Express and/or Inherent) and Citations
	Personalize your phone Learn how to personalize the start screen, and how to change ringtones.  (User Guide at 38.)

Claim 9	Exemplary Disclosures (Express and/or Inherent) and Citations
	Phone management & connectivity Take care of your phone and its contents. Learn how to connect to accessories and networks, transfer files, create backups, lock your phone, and keep the software up to date.  Update your phone software Stay in step with the beat – update your phone software and apps wirelessly to get new and enhanced features for your phone. Updating the software may also improve your phone performance.  Make sure that the device battery has enough power, or connect the charger before starting the update. ⚠ Warning: If you install a software update, you cannot use the device, even to make emergency calls, until the installation is completed and the device is restarted. (User Guide at 117.)

Claim 9	Exemplary Disclosures (Express and/or Inherent) and Citations
	Lumia 640 LTE Single SIM Prepared for Anything  Windows Phone Key Features • Latest version of Windows Phone 8.1 along with seamlessly integrated Microsoft Office experiences • Built-in Skype integration and a 1MP front-facing camera for switching seamlessly between voice and video calls • 8MP camera with LED flash and Lumia Camera right out of the box • 1GB of memory and powerful quad core processor • Fast LTE connectivity Accessories • Cover for Lumia 640 – with card holder • Microsoft Screen Sharing for Lumia Phones • Comfort Headset Size: 141.3 x 72.2 x 8.85 (volumetric) mm Weight: 145g Colors:  Talk time and Standby time (Estimates) • Standby time: up to 36 days (870 hours) • Talk time: up to 26.5 hours (2G) • Talk time: up to 17.5 hours (3G) Sales Package • Lumia 640 LTE Single SIM • Charger: AC-20 • WH-108 headset (In select markets only) • Battery: BV-T5C (removable) • User guide • Note: there may be differences in country / customer variants Operating System: Windows Phone 8.1 with Lumia Denim Networks: • LTE: 1, 3, 7, 8, 20 (2100, 1800, 2600, 900, 800) MHz • GSM/EDGE: 850/900/1800/1900 MHz, WCDMA: 850/900/2100 MHz Processor: CPU Qualcomm Snapdragon 400 (MSM8926), 1.2 GHz quad core processor Memory: 1GB RAM, 8 GB internal mass memory + up to 128 GB Micro SD & 30GB* free OneDrive cloud storage Display: 5" HD (1280x720, 16:9) IPS LCD, 294 PPI, Glance screen, Corning Gorilla Glass 3, Sunlight readability enhancements Primary Camera: 8 MP AF (3280x2464), f/2.2, 28 mm, 1080p @ 30 fps video (continuous autofocus), Flash: LED, Lumia Camera Secondary Camera: HD 1 MP wide angle, f/2.4, 720p video Connectivity: BT 4.0, microUSB 2.0, Micro SIM, A-GPS + GLONASS, BeiDou, NFC, DLNA, Screen cloning with Miracast, WLAN 802.11 b/g/n/ Sensors: Accelerometer, Magnetometer, Proximity, Ambient Light Sensor Audio: 3.5 mm AV connector (AHJ), FM Radio, Internet Radio Battery: 2500 mAh (BV-T5C) removable battery * available when camera roll back up is activated. 

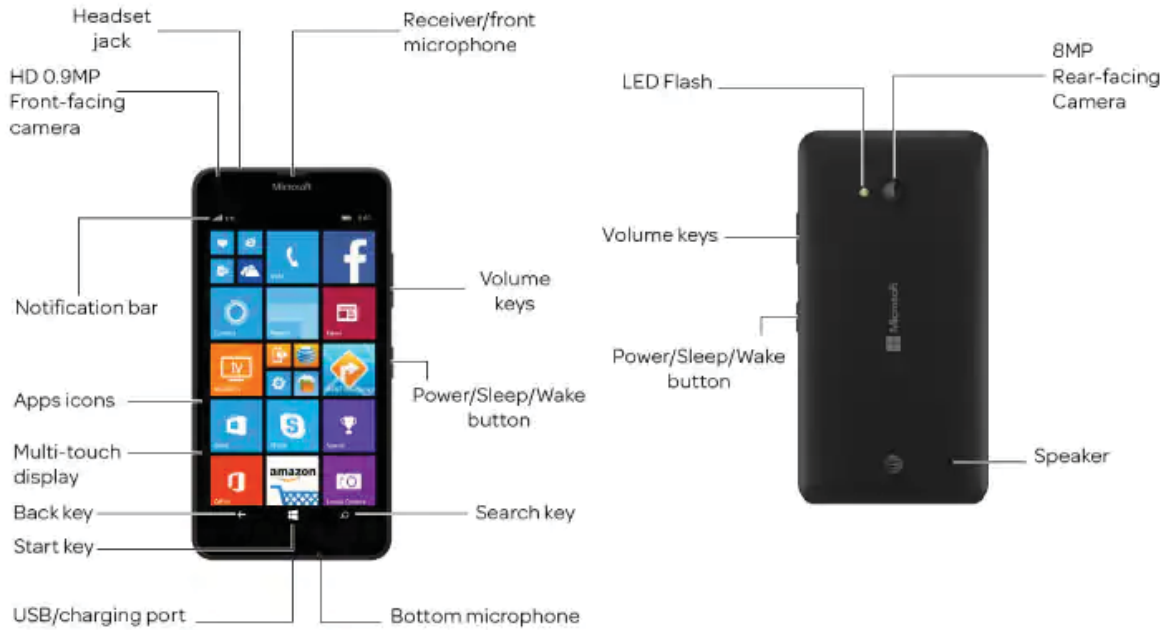
Claim 9	Exemplary Disclosures (Express and/or Inherent) and Citations
	Lumia 640 LTE Dual SIM Prepared for Anything  Windows Phone Key Features • Latest version of Windows Phone 8.1 along with seamlessly integrated Microsoft Office experiences • Built-in Skype integration and a 1MP front-facing camera for switching seamlessly between voice and video calls • 8MP camera with LED flash and Lumia Camera right out of the box • 1GB of memory and powerful quad core processor • Best of both worlds with LTE support available on dual SIM models for the first time Accessories • Cover for Lumia 640 – with card holder • Microsoft Screen Sharing for Lumia Phones • Comfort Headset Size: 141.3 x 72.2 x 8.85 (volumetric) mm Weight: 145g Colors:  Talk time and Standby time (Estimates) • Standby time: up to 36 days (870 hours) • Talk time: up to 26.5 hours (2G) • Talk time: up to 17.5 hours (3G) Sales Package • Lumia 640 LTE Dual SIM • Charger: AC-20 • WH-108 headset (In select markets only) • Battery: BV-TSC (removable) • User guide • Note: there may be differences in country / customer variants Operating System: Windows Phone 8.1 with Lumia Denim Networks: • LTE: 1, 2, 3, 4, 5, 7, 8, 12, 20, 28 (2100, 1900, 1800 1700/2100, 850, 2600, 900, 700, 800, 700) MHz • TD-LTE: 38, 40 (2570-2620, 2300-2400) MHz • GSM/EDGE: 850/900/1800/1900 MHz, WCDMA: 850/900/1900/2100 and 1700/2100 MHz Processor: CPU Qualcomm Snapdragon 400 (MSM8926), 1.2 GHz quad core processor Memory: 1GB RAM, 8 GB internal mass memory + up to 128 GB Micro SD & 30GB* free OneDrive cloud storage Display: 5" HD (1280x720, 16:9) IPS LCD, 294 PPI, Glance screen, Corning Gorilla Glass 3, Sunlight readability enhancements Primary Camera: 8 MP AF (3280x2464), f/2.2, 28 mm, 1080p @ 30 fps video (continuous autofocus), Flash: LED, Lumia Camera Secondary Camera: HD 1 MP wide angle, f/2.4, 720p video Connectivity: BT 4.0, microUSB 2.0, Micro SIM, A-GPS + GLONASS, BeiDou, NFC, DLNA, Screen cloning with Miracast, WLAN 802.11 b/g/n/ Sensors: Accelerometer, Magnetometer, Proximity, Ambient Light Sensor Audio: 3.5 mm AV connector (AHJ), FM Radio, Internet Radio Battery: 2500 mAh (BV-TSC) removable battery * available when camera roll back up is activated. Microsoft (Prepared for Anything at 4.) TWO SIMS, ONE PHONE • Never miss a call With Smart Dual SIM, all phone calls are delivered to the one phone ensuring people never miss a call. No more managing calls on multiple phones. • Save time and effort Why carry around two phones, or constantly swap SIMs, when Windows Phone 8.1 very smartly displays your two SIM accounts separately, clearly labelling them 1 and 2, as well as highlighting each with different colours? It couldn't be easier. • Going abroad While you remain connected to home with one SIM, getting an additional local SIM card while traveling makes it cheaper to connect with friends that live in your chosen destination too. • Full coverage Avoid coverage 'not-spots' with two SIMs from opposing networks; when one loses signal, just use the other one. That way, you're always connected. • Work smart Enjoy the convenience of just one phone that can serve your business and personal communication needs. • Save money From buying just one phone instead of two, to enjoying the flexibility of choosing the best tariff for your connection with two SIMs, there's money to be saved with the Lumia 640 Dual SIM. (Prepared for Anything at 9.)

Claim 9	Exemplary Disclosures (Express and/or Inherent) and Citations
	THIS IS LUMIA 640 WHAT'S NEW IN LUMIA DENIM AND WINDOWS PHONE 8.1 With Windows Phone 8.1, you get the Start screen you can make your own, Live Tiles that provide updates at a glance, Office Mobile, Outlook Mobile, Windows Phone Hubs, and the Xbox entertainment experience. In fact, you get everything you liked about Windows Phone 8 and more, including tons of new features, enhancements, and under-the-hood improvements. ACTION CENTER Windows Phone's new Action Center gives you a single place to check for all your notifications, so you never miss a thing. New features include: Quick actions. Customize the Action Center with customizable slots that you can use to access your favorite settings and even some applications. Action Center above Lock screen. Windows Phone gives you the option to view notifications within Action Center even when your Lumia 640 is locked. Notification settings. Select how you want to be alerted about notifications. A convenient handle bar. For most screens, you simply swipe down to reveal the Action Center. But for full screen experiences, the handle bar makes it less likely that you'll accidentally activate Action Center.  BATTERY SAVER Battery Saver can be used to significantly stretch your battery by trading off non critical functionality. When Battery Saver is enabled, your Lumia 640 changes some non-essential phone functionality from automatic to manual, such as email sync, social media updates, etc., but the phone still receives text messages and phone calls. New and improved features include: App-by-app monitoring. See which specific apps are using your battery, both when an app is in use and when it's running in the background. App-by-app management. Windows Phone 8.1 now features built-in tools that let you control exactly which apps run in the background for more effective power management. Battery Saver Live Tile. Features a power meter to indicate your phone's current power level at a glance. BING / SEARCH Your Lumia 640 can help you quickly find what you want without requiring you to launch your browser. Bing Search now also includes: Full device search. Bing Search results now include items from both the web and your device, including email, messaging, calendar, apps, and contacts. Results are displayed in a new Phone panel along with panels for web, local, images and video. Windows Phone Microsoft (Prepared for Anything at 16.)

Claim 9	Exemplary Disclosures (Express and/or Inherent) and Citations
	Your business. Mobile. The power, security and productivity of Windows 10 is here. And with Microsoft Lumia, it's anywhere. Beyond the desktop. Beyond the office. Beyond expectations. Start a document in your office, make changes in a taxi. With Microsoft Lumia with Windows 10, your business travels wherever you go. Expect document-friendly large screens and world-class tools to keep you productive. Discover our greatest operating system and best ever Microsoft Office experience – with familiar tools such as PowerPoint, Word, Excel and Outlook – all wrapped-up in stylish, feature-rich handsets. Designed with security and ease of management in mind, plus simple integration with your existing IT investments, you get the best of everything Microsoft* – and the best for your business. Inside and out. Microsoft Lumia. Your business. Mobile. *Features may vary by device. Internet and mobile fees apply. (Introducing Microsoft Lumia at 3.)

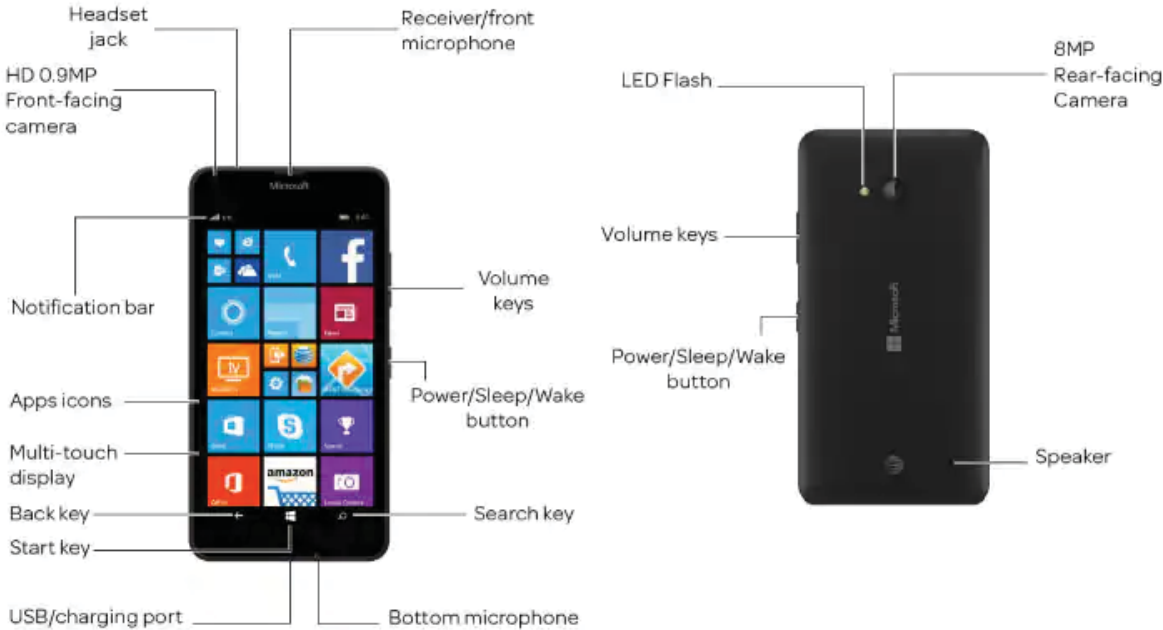
Claim 9	Exemplary Disclosures (Express and/or Inherent) and Citations
	 Microsoft Lumia phones. Microsoft inside and out. Microsoft Lumia phones bring together cutting-edge technology with our celebrated Windows 10 operating system and business-focused tools. The latest Microsoft Lumia phones are packed with the latest features, to get the most out of Windows 10. For example, the Microsoft Lumia 950 and 950 XL support Windows Hello Beta, an exciting innovation that uses biometric information to unlock your phone. These devices also support mobile docking and wireless charging, and have the latest features you'd expect from a business phone¹. And with a commitment from Microsoft to continuous updates and innovations, this will only get better over time². • 4G LTE-ready connectivity – for faster data connections³ • Gorilla Glass® and durable build – help protect your investments from scratches and everyday damage³ • Wireless charging – select Microsoft Lumia phones (950 and 950 XL) can be charged wirelessly, keeping clutter to a minimum³ • Qualcomm® Snapdragon™ processors – for speed, connectivity and helping longer battery life • Replaceable batteries – for more control • HD and wide-angle lenses – for better video conferencing³  ¹ Mobile docking and wireless charging features also require additional hardware and/or accessories (sold separately). ² Additional requirements will apply over time for updates, and availability may vary by device, carrier and market. ³ Features may vary by device. (Introducing Microsoft Lumia at 12.)

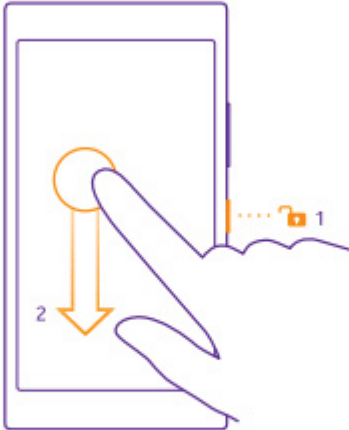
Claim 9	Exemplary Disclosures (Express and/or Inherent) and Citations
	The latest range of Microsoft Lumia phones. Microsoft Lumia 550 Screen size: 4.7" HD720 Connectivity: 4G-ready Main camera: 5MP with LED flash Front camera: 2MP camera and 480p video recording Processor (speed): Qualcomm® Snapdragon™ 210 Quad-core Microsoft Lumia 640* Screen size: 5" Gorilla Glass® 3 Connectivity: 4G-ready Main camera: 8MP Front camera: 1MP HD wide angle Processor (speed): Qualcomm® Snapdragon™ 1.2GHz quad-core Microsoft Lumia 640 XL* Screen size: 5.7" Gorilla Glass® 3 Connectivity: 4G-ready Main camera: 13MP ZEISS optics Front camera: Full HD 5MP wide angle Processor (speed): Qualcomm® Snapdragon™ 1.2GHz quad-core Microsoft Lumia 650 Screen size: 5" HD OLED Connectivity: 4G-ready Main camera: 8 MP autofocus with LED flash Front camera: 5MP wide angle Processor: Qualcomm® Snapdragon™ Quad-core 1.3 GHz Microsoft Lumia 950 Screen size: 5.2" QuadHD Gorilla Glass® 3 Connectivity: 4G-ready Main camera: Pureview 20MP ZEISS optics with triple LED flash Front camera: Full HD 5MP wide angle Processor: Qualcomm® Snapdragon™ 808 64-bit HexaCore Microsoft Lumia 950 XL Screen size: 5.7" QuadHD Gorilla Glass® 4 Connectivity: 4G-ready Main camera: Pureview 20MP ZEISS optics with triple LED flash Front camera: Full HD 5MP wide angle Processor: Qualcomm® Snapdragon™ 810 64-bit Octa-core  *Microsoft Lumia 640 and 640 XL come with Windows 8.1. Screens simulated. Receive a free upgrade to Windows 10, when available. Features may vary by device. See www.microsoft.com/en/mobile/windows10/ for more details. (Introducing Microsoft Lumia at 13.)

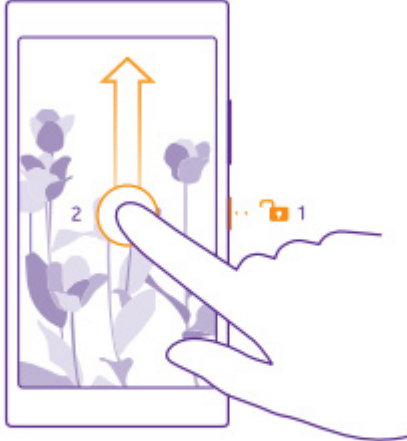
Claim 9	Exemplary Disclosures (Express and/or Inherent) and Citations
	Device Diagram Get familiar with the hardware of your Microsoft Lumia 640  The diagram illustrates the hardware components of the Microsoft Lumia 640. The front view shows the multi-touch display with various app icons, a notification bar at the top, and a bottom bar with a back key, start key, and search key. The back view shows the 8MP rear-facing camera, LED flash, volume keys, power/sleep/wake button, and a speaker. The front-facing camera and headset jack are also labeled. (Device Diagram.)

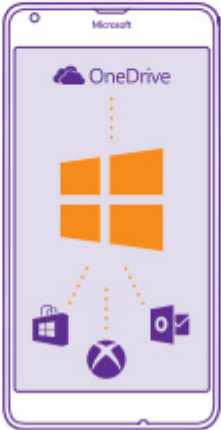
Claim 9	Exemplary Disclosures (Express and/or Inherent) and Citations
	(Lumia 640 Device.) (Lumia 640 Device.)

Claim 9	Exemplary Disclosures (Express and/or Inherent) and Citations
[9a] a body having a practically rectangular shape, said body having a front surface, a back surface and four side surfaces,	Lumia 640, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "a body having a practically rectangular shape, said body having a front surface, a back surface and four side surfaces." <i>See supra</i> claim [1a] (discussing limitation "a practically rectangular-shaped housing . . . , said housing having a front surface, a back surface and four side surfaces").
[9b] wherein the length of the front surface of the mobile phone corresponds to the distance between the ear and the mouth of a user and	Lumia 640, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "wherein the length of the front surface of the mobile phone corresponds to the distance between the ear and the mouth of a user." <i>See supra</i> claim [1b] (discussing limitation "wherein the length of the front surface approximately corresponds to the distance between the ear and the mouth of a user").
[9c] wherein the width of the front surface of the mobile phone is significantly shorter than the length, and	Lumia 640, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "wherein the width of the front surface of the mobile phone is significantly shorter than the length." <i>See supra</i> claim [1c] (discussing limitation "wherein the width of the front surface is substantially shorter than the length").
[9d] wherein said body has a thin thickness	Lumia 640, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "wherein said body has a thin thickness." <i>See supra</i> claim [1d] (discussing limitation "wherein the housing has a thin thickness").
[9e] a touch sensitive display unit	Lumia 640, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "a touch sensitive display unit." For example, Lumia 640 includes a "multi-touch display." (Device Diagram; User Guide at 11, 12, 16, 20; Prepared for Anything at 2-4, 7; Introducing Microsoft Lumia at 13.)

Claim 9	Exemplary Disclosures (Express and/or Inherent) and Citations
	Device Diagram Get familiar with the hardware of your Microsoft Lumia 640  The diagram illustrates the hardware components of the Microsoft Lumia 640. The front view (left) shows the screen with various icons and the bottom navigation bar. The rear view (right) shows the back of the phone with the camera and flash. Labels include: - Headset jack - HD 0.9MP Front-facing camera - Receiver/front microphone - Notification bar - Apps icons - Multi-touch display - Back key - Start key - USB/charging port - Volume keys - Power/Sleep/Wake button - Search key - Bottom microphone - LED Flash 8MP Rear-facing Camera - Speaker (Device Diagram.) Additional exemplary citations include:

Claim 9	Exemplary Disclosures (Express and/or Inherent) and Citations
	Switch the phone off Press and hold the power key, and drag the lock screen down.  Lock the keys and screen If you want to avoid accidentally making a call when your phone is in your pocket or bag, you can set your keys and screen to lock automatically. Press the power key. (User Guide at 11.)

Claim 9	Exemplary Disclosures (Express and/or Inherent) and Citations
	Unlock the keys and screen Press the power key, and drag the lock screen up.  ★ Tip: Instead of pressing the power key, you can also double-tap the screen if double-tap is switched on. To switch on double-tap, on the start screen, swipe down from the top of the screen, tap ALL SETTINGS > touch, and switch Wake up to On . Set the keys and screen to lock automatically On the start screen, swipe down from the top of the screen, tap ALL SETTINGS > lock screen > Screen times out after, and select the length of time after which the keys and screen are locked automatically. (User Guide at 12.)

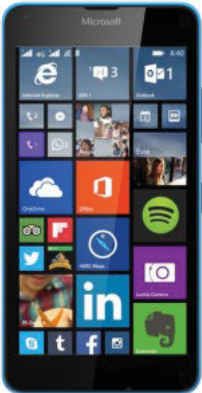
Claim 9	Exemplary Disclosures (Express and/or Inherent) and Citations
	Your first Lumia? Let's get started. Set up your new phone, explore your phone's views and menus, and learn how to use the touch screen. Set up your phone Make the most out of your phone's features from the get-go.  (User Guide at 16.)

Claim 9	Exemplary Disclosures (Express and/or Inherent) and Citations
	Use the touch screen Explore your phone with a tap, swipe, or drag. To open an app or other item, tap the app or item. Tap and hold to open further options Place your finger on an item until the menu opens.  Tap and hold to drag an item Place your finger on the item for a couple of seconds, and slide your finger across the screen. (User Guide at 20.)

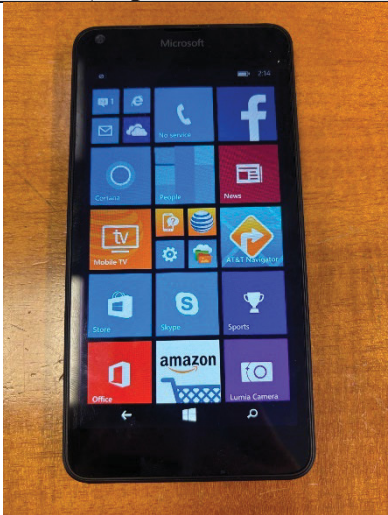
Claim 9	Exemplary Disclosures (Express and/or Inherent) and Citations
	Lumia 640 3G Dual SIM Prepared for Anything  Windows Phone Key Features • Latest version of Windows Phone 8.1 along with seamlessly integrated Microsoft Office experiences • Built-in Skype integration and a 1MP front-facing camera for switching seamlessly between voice and video calls • 8MP camera with LED flash and Lumia Camera right out of the box • 1GB of memory and powerful quad core processor • Smart Dual SIM to ensure you never miss a call Accessories • Cover for Lumia 640 – with card holder • Microsoft Screen Sharing for Lumia Phones • Comfort Headset Size: 141.3 x 72.2 x 8.85 (volumetric) mm Weight: 145g Colors:  Talk time and Standby time (Estimates) • Standby time: up to 35 days (840 hours) • Talk time: up to 27.3 hours (2G) • Talk time: up to 20.3 hours (3G) Sales Package • Lumia 640 3G Dual SIM • Charger: AC-20 • WH-108 headset (In select markets only) • Battery: BV-TSC (removable) • User guide • Note: there may be differences in country / customer variants Operating System: Windows Phone 8.1 with Lumia Denim Networks: • GSM/EDGE: 850/900/1800/1900 MHz, WCDMA: 850/900/1900/2100 MHz Processor: CPU Qualcomm Snapdragon 400 (MSM8926), 1.2 GHz quad core processor Memory: 1GB RAM, 8 GB internal mass memory + up to 128 GB Micro SD & 30GB* free OneDrive cloud storage Display: 5" HD (1280x720, 16:9) IPS LCD, 294 PPI, Glance screen, Corning Gorilla Glass 3, Sunlight readability enhancements Primary Camera: 8 MP AF (3280x2464), f/2.2, 28 mm, 1080p @ 30 fps video (continuous autofocus), Flash: LED, Lumia Camera Secondary Camera: HD 1 MP wide angle, f/2.4, 720p video Connectivity: BT 4.0, microUSB 2.0, Micro SIM, A-GPS +GLONASS, BeiDou, DLNA, Screen cloning with Miracast, WLAN 802.11 b/g/n/ Sensors: Accelerometer, Magnetometer, Proximity, Ambient Light Sensor Audio: 3.5 mm AV connector (AHJ), FM Radio, Internet Radio Battery: 2500 mAh (BV-TSC) removable battery * available when camera roll back up is activated. 

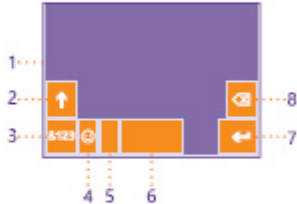
Claim 9	Exemplary Disclosures (Express and/or Inherent) and Citations
	Lumia 640 LTE Single SIM Prepared for Anything  Windows Phone Key Features • Latest version of Windows Phone 8.1 along with seamlessly integrated Microsoft Office experiences • Built-in Skype integration and a 1MP front-facing camera for switching seamlessly between voice and video calls • 8MP camera with LED flash and Lumia Camera right out of the box • 1GB of memory and powerful quad core processor • Fast LTE connectivity Accessories • Cover for Lumia 640 – with card holder • Microsoft Screen Sharing for Lumia Phones • Comfort Headset Size: 141.3 x 72.2 x 8.85 (volumetric) mm Weight: 145g Colors:  Talk time and Standby time (Estimates) • Standby time: up to 36 days (870 hours) • Talk time: up to 26.5 hours (2G) • Talk time: up to 17.5 hours (3G) Sales Package • Lumia 640 LTE Single SIM • Charger: AC-20 • WH-108 headset (In select markets only) • Battery: BV-T5C (removable) • User guide • Note: there may be differences in country / customer variants Operating System: Windows Phone 8.1 with Lumia Denim Networks: • LTE: 1, 3, 7, 8, 20 (2100, 1800, 2600, 900, 800) MHz • GSM/EDGE: 850/900/1800/1900 MHz, WCDMA: 850/900/2100 MHz Processor: CPU Qualcomm Snapdragon 400 (MSM8926), 1.2 GHz quad core processor Memory: 1GB RAM, 8 GB internal mass memory + up to 128 GB Micro SD & 30GB* free OneDrive cloud storage Display: 5" HD (1280x720, 16:9) IPS LCD, 294 PPI, Glance screen, Corning Gorilla Glass 3, Sunlight readability enhancements Primary Camera: 8 MP AF (3280x2464), f/2.2, 28 mm, 1080p @ 30 fps video (continuous autofocus), Flash: LED, Lumia Camera Secondary Camera: HD 1 MP wide angle, f/2.4, 720p video Connectivity: BT 4.0, microUSB 2.0, Micro SIM, A-GPS + GLONASS, BeiDou, NFC, DLNA, Screen cloning with Miracast, WLAN 802.11 b/g/n/ Sensors: Accelerometer, Magnetometer, Proximity, Ambient Light Sensor Audio: 3.5 mm AV connector (AHJ), FM Radio, Internet Radio Battery: 2500 mAh (BV-T5C) removable battery * available when camera roll back up is activated. 

Claim 9	Exemplary Disclosures (Express and/or Inherent) and Citations
	Lumia 640 LTE Dual SIM Prepared for Anything  Windows Phone Key Features • Latest version of Windows Phone 8.1 along with seamlessly integrated Microsoft Office experiences • Built-in Skype integration and a 1MP front-facing camera for switching seamlessly between voice and video calls • 8MP camera with LED flash and Lumia Camera right out of the box • 1GB of memory and powerful quad core processor • Best of both worlds with LTE support available on dual SIM models for the first time Accessories • Cover for Lumia 640 – with card holder • Microsoft Screen Sharing for Lumia Phones • Comfort Headset Size: 141.3 x 72.2 x 8.85 (volumetric) mm Weight: 145g Colors:     Talk time and Standby time (Estimates) • Standby time: up to 36 days (870 hours) • Talk time: up to 26.5 hours (2G) • Talk time: up to 17.5 hours (3G) Sales Package • Lumia 640 LTE Dual SIM • Charger: AC-20 • WH-108 headset (In select markets only) • Battery: BV-TSC (removable) • User guide • Note: there may be differences in country / customer variants Operating System: Windows Phone 8.1 with Lumia Denim Networks: • LTE: 1, 2, 3, 4, 5, 7, 8, 12, 20, 28 (2100, 1900, 1800 1700/2100, 850, 2600, 900, 700, 800, 700) MHz • TD-LTE: 38, 40 (2570-2620, 2300-2400) MHz • GSM/EDGE: 850/900/1800/1900 MHz, WCDMA: 850/900/1900/2100 and 1700/2100 MHz Processor: CPU Qualcomm Snapdragon 400 (MSM8926), 1.2 GHz quad core processor Memory: 1GB RAM, 8 GB internal mass memory + up to 128 GB Micro SD & 30GB* free OneDrive cloud storage Display: 5" HD (1280x720, 16:9) IPS LCD, 294 PPI, Glance screen, Corning Gorilla Glass 3, Sunlight readability enhancements Primary Camera: 8 MP AF (3280x2464), f/2.2, 28 mm, 1080p @ 30 fps video (continuous autofocus), Flash: LED, Lumia Camera Secondary Camera: HD 1 MP wide angle, f/2.4, 720p video Connectivity: BT 4.0, microUSB 2.0, Micro SIM, A-GPS +GLONASS, BeiDou, NFC, DLNA, Screen cloning with Miracast, WLAN 802.11 b/g/n/ Sensors: Accelerometer, Magnetometer, Proximity, Ambient Light Sensor Audio: 3.5 mm AV connector (AHJ), FM Radio, Internet Radio Battery: 2500 mAh (BV-TSC) removable battery * available when camera roll back up is activated. 

Claim 9	Exemplary Disclosures (Express and/or Inherent) and Citations
	THIS IS LUMIA 640 SEAMLESSLY SWITCH BETWEEN WORK AND PLAY WITH LUMIA 640 Smooth Access to Everything you Love Packed with speed, Lumia 640 allows you to smoothly and quickly access important documents or run all of your favorite websites, apps and games thanks to a powerful quad core Qualcomm Snapdragon processor and Windows Phone 8.1. Power and Flexibility Power through the work day with battery to spare, thanks to a 2500 mAh long-lasting battery. Enjoy all of your favorite apps with plenty of power and memory including 1GB of memory and 8GB of on-board storage - expandable up to 128GB microSD, not to mention free OneDrive storage*. Lumia 640 allows you to enjoy all the apps you love - alive on your home screen. You can even run apps from your memory card. Crisp Display Enjoy smooth web browsing and gaming action on the crisp 5" display even in bright daylight condition. Detail Rich Photos Lumia 640 is equipped with a 8 MP rear facing camera, perfect for capturing detail rich photos even in low light. It even sports the latest Lumia Camera app right out of the box, ensuring you capture that perfect shot every time. In addition, the front facing camera allows for more meaningful face-to-face Skype video calls, as well as great selfies which can be captured, edited and shared quickly and easily via the dedicated Lumia Selfie app. Glance Screen Innovations Glance Screen on your Lumia 640 helps you keep track of information in real time. All your most important notifications including calls, messages, emails, calendar updates, or any apps that use notifications such as Twitter, Facebook, Whatsapp, or games, are always visible at a glance of your screen. This will save you time and energy.  * 15 GB of OneDrive access comes standard. Additional 15 GB of OneDrive access with activation of camera roll backup. Unlimited OneDrive access with activation of included Office 365 Personal subscription. Windows Phone Microsoft (Prepared for Anything at 7.)

Claim 9	Exemplary Disclosures (Express and/or Inherent) and Citations
	The latest range of Microsoft Lumia phones. Microsoft Lumia 550 Screen size: 4.7" HD720 Connectivity: 4G-ready Main camera: 5MP with LED flash Front camera: 2MP camera and 480p video recording Processor (speed): Qualcomm® Snapdragon™ 210 Quad-core Microsoft Lumia 640* Screen size: 5" Gorilla Glass® 3 Connectivity: 4G-ready Main camera: 8MP Front camera: 1MP HD wide angle Processor (speed): Qualcomm® Snapdragon™ 1.2GHz quad-core Microsoft Lumia 640 XL* Screen size: 5.7" Gorilla Glass® 3 Connectivity: 4G-ready Main camera: 13MP ZEISS optics Front camera: Full HD 5MP wide angle Processor (speed): Qualcomm® Snapdragon™ 1.2GHz quad-core Microsoft Lumia 650 Screen size: 5" HD OLED Connectivity: 4G-ready Main camera: 8 MP autofocus with LED flash Front camera: 5MP wide angle Processor: Qualcomm® Snapdragon™ Quad-core 1.3 GHz Microsoft Lumia 950 Screen size: 5.2" QuadHD Gorilla Glass® 3 Connectivity: 4G-ready Main camera: Pureview 20MP ZEISS optics with triple LED flash Front camera: Full HD 5MP wide angle Processor: Qualcomm® Snapdragon™ 808 64-bit HexaCore Microsoft Lumia 950 XL Screen size: 5.7" QuadHD Gorilla Glass® 4 Connectivity: 4G-ready Main camera: Pureview 20MP ZEISS optics with triple LED flash Front camera: Full HD 5MP wide angle Processor: Qualcomm® Snapdragon™ 810 64-bit Octa-core  *Microsoft Lumia 640 and 640 XL come with Windows 8.1. Screens simulated. Receive a free upgrade to Windows 10, when available. Features may vary by device. See www.microsoft.com/en/mobile/windows10/ for more details. (Introducing Microsoft Lumia at 13.)

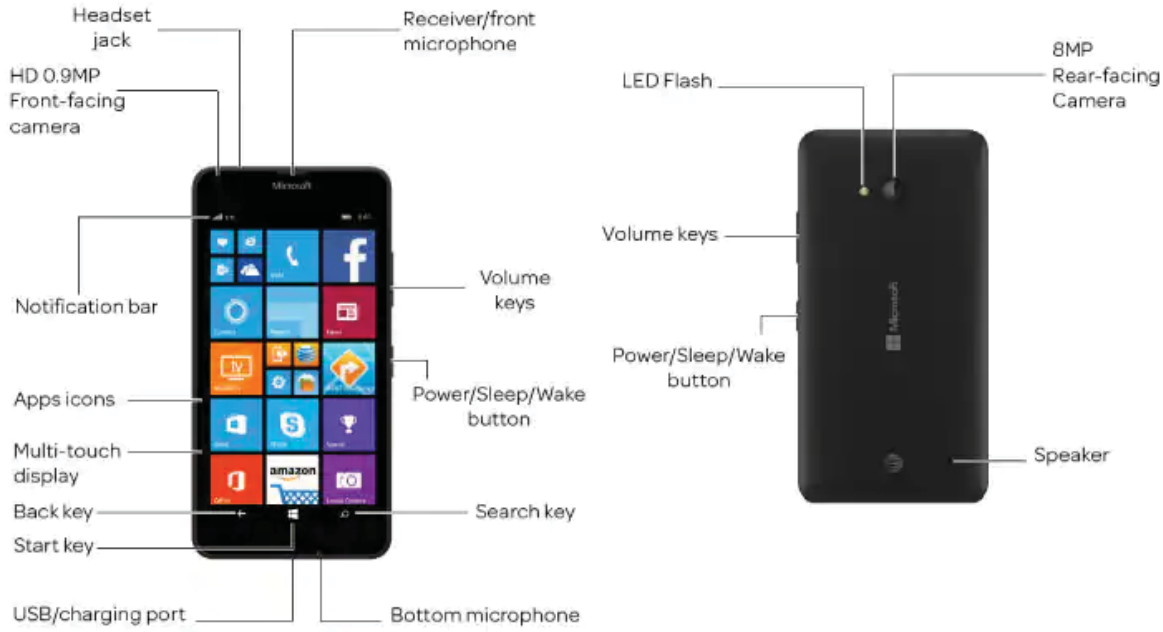
Claim 9	Exemplary Disclosures (Express and/or Inherent) and Citations
	 (Lumia 640 Device.)
[9f] a virtual keyboard to enter text; and	Lumia 640, alone or in combination with other references identified in this chart or elsewhere in Defendants’ invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless’s apparent interpretation of this limitation, discloses “a virtual keyboard to enter text.” For example, Lumia 640 includes a virtual keyboard used to enter text. (User Guide at 50; Prepared for Anything at 14, 18, 33, 36.)

Claim 9	Exemplary Disclosures (Express and/or Inherent) and Citations
	Write text Learn how to write text quickly and efficiently with your phone's keyboard. Use the on-screen keyboard Writing with the on-screen keyboard is easy. You can use the keyboard when holding your phone in portrait or landscape mode. You can write your messages by tapping the letters or by swiping through them. Tap a text box. 1 Character keys 2 Shift key 3 Numbers and symbols key 4 Smiley key 5 Comma key 6 Space key 7 Enter key 8 Backspace key  The keyboard layout can vary in different apps and languages.  Tip: To add the comma key to the keyboard, on the start screen, swipe down from the top of the screen, and tap ALL SETTINGS > keyboard > advanced > Show a comma key when available. You can add the comma key only if you have at least 2 keyboards installed on your phone. Swipe to write text Swipe from the first letter of the word, and draw a path from letter to letter. Lift your finger after the last letter. To continue, keep on swiping without tapping the space key. Your phone adds the spaces. Not all languages are supported. (User Guide at 50.)

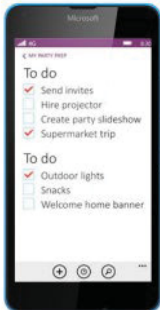
Claim 9	Exemplary Disclosures (Express and/or Inherent) and Citations
	(Lumia 640 Device.) (Lumia 640 Device.) Additional exemplary citations include:

Claim 9	Exemplary Disclosures (Express and/or Inherent) and Citations
	Back Function The Back function allows you to go back within an app or between apps. The Back function also lets you navigate to a previous screen or webpage, exit a search operation, or close an on-screen keyboard, menu or dialog box. Press and hold the Back function to display a list of running apps and choose the one you want. Swipe up from the bottom of the screen to access this. (Prepared for Anything at 14.) WORD FLOW KEYBOARD The Word Flow Keyboard on Windows Phone is ridiculously fast and personal. In fact, it was officially certified by the Guinness Book of World Records as the world's fastest smartphone keyboard. New and improved features include: Shape writing. With the new shape writing feature, you skip typing and simply slide your finger from one letter to the next, without lifting a finger, to enter text. Adding contacts. Word Flow will automatically add the names from your contacts into your library. Just start typing one of your contact's names and Word Flow will suggest the proper spelling. Increased library out of the box. Word Flow in Windows Phone 8.1 has increased the number of words in the word suggestion libraries across several languages right out of the box, building on the words you use most frequently. (Prepared for Anything at 18.)

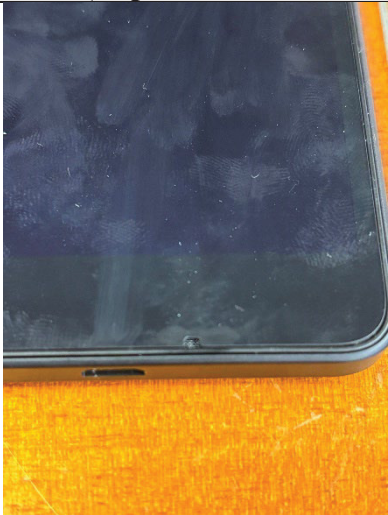
Claim 9	Exemplary Disclosures (Express and/or Inherent) and Citations
	EASY INFORMATION CAPTURING AND RICH FORMATTING When you're viewing a note, just tap on the screen where you want to edit the note — it'll bring up the Word Flow Keyboard, which can help correct and predict your typing. Below the keyboard, you'll see buttons for inserting a To-Do item with checkbox, creating a bulleted list, inserting an existing photo (or capturing and inserting a new one), and capturing audio using your phone's microphone. Tap More to the right of those buttons to share a note, pin it to Start, create a numbered list, increase or decrease indent, or choose formatting options that include bold, italics, underlined, and highlighting. (Prepared for Anything at 33.) DID YOU KNOW? The Word Flow keyboard makes using emoticons more fun and easy. Just tap the emoticon key on the keyboard to choose from hundreds of new ones. In fact, we added so many that we had to redesign the emoticon chooser. (Prepared for Anything at 36.)
[9g] a microphone and a speaker	Lumia 640, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "a microphone and a speaker."

Claim 9	Exemplary Disclosures (Express and/or Inherent) and Citations
	For example, Lumia 640 includes a microphone and a speaker. (Device Diagram; User Guide at 5; Prepared for Anything at 33.) Device Diagram Get familiar with the hardware of your Microsoft Lumia 640  The diagram illustrates the hardware components of the Microsoft Lumia 640. The front view (left) shows the screen with various icons and keys at the bottom. The rear view (right) shows the back of the phone with the camera and flash. Labels with leader lines point to the following components: - Headset jack - HD 0.9MP Front-facing camera - Notification bar - Apps icons - Multi-touch display - Back key - Start key - USB/charging port - Receiver/front microphone - Volume keys - Power/Sleep/Wake button - Search key - Bottom microphone - LED Flash 8MP Rear-facing Camera - Speaker (Device Diagram.) Additional exemplary citations include:

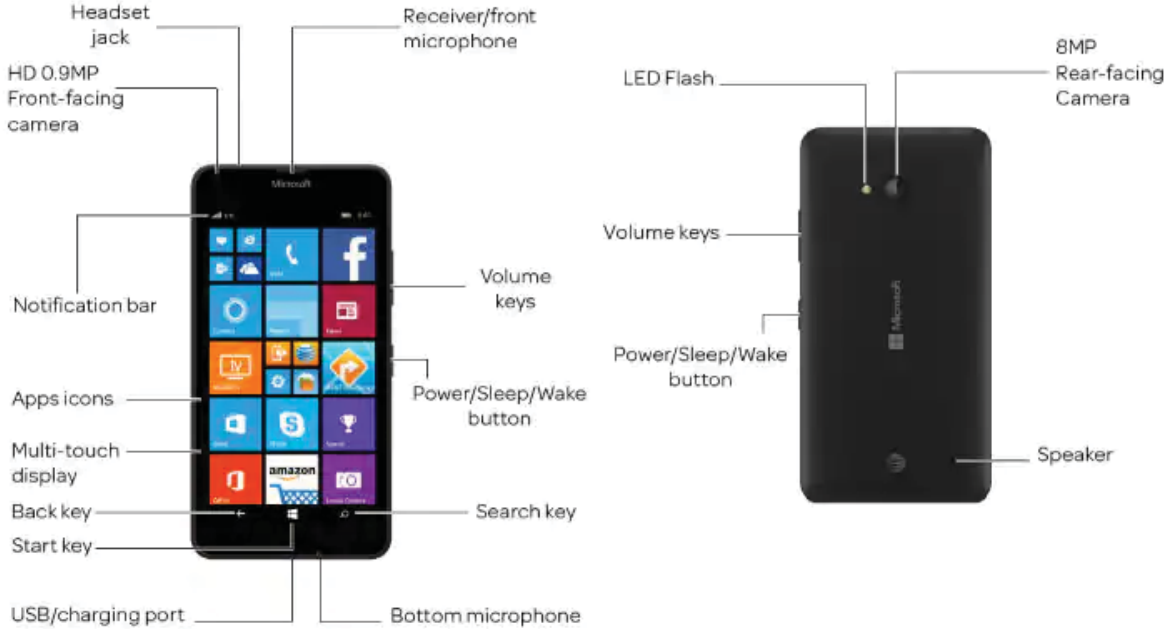
Claim 9	Exemplary Disclosures (Express and/or Inherent) and Citations
	Get started Get to grips with the basics, and have your phone up and running in no time. Keys and parts Explore the keys and parts of your new phone. 1 Front camera 2 Earpiece 3 Volume keys 4 Power/Lock key 5 Microphone 6 Micro-USB connector 7 Audio connector AHJ 3.5 mm 8 Camera lens 9 Camera flash 10 Microphone 11 Antenna area Some of the accessories mentioned in this user guide, such as charger, headset, or data cable, may be sold separately. (User Guide at 5.)

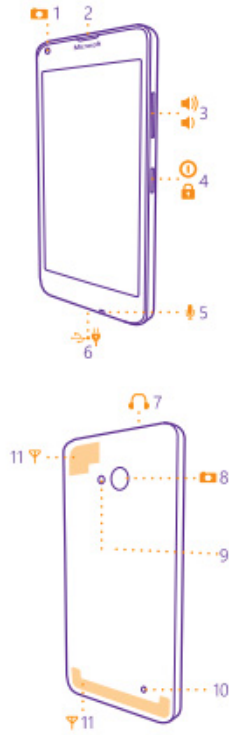
Claim 9	Exemplary Disclosures (Express and/or Inherent) and Citations
	THIS IS LUMIA 640 ONENOTE MOBILE OneNote Mobile makes it easy to capture notes and ideas on the go. You can type a note, use your phone's camera to capture a photo and insert it into a note, capture audio using your phone's microphone, or dictate a voice note while you're doing something else on your phone and have it automatically transcribed and inserted into OneNote. It can even work when your phone is locked. ON THE START SCREEN OneNote is a separate app on your Start screen, enabling you to get to it even faster. Tap the OneNote Live Tile on the Start screen to see all your OneNote notebooks. By default, you'll see any existing notebooks on OneDrive that are tied to the Microsoft account you used to set up your phone, as well as a new one that was created when you set up your phone. You'll also see a shared notebook for any Rooms you've created. The OneNote Live Tile will even show you which note was updated last. If you want, you can pin individual notes to the Start screen for faster access. FIND YOUR NOTES FAST If you find yourself using OneNote more and more, don't worry. It's easy to navigate your notebooks. You can also search the text in your notes — just tap Search and enter a word or phrase. Or tap Recent to see your notes in the order you last accessed them.  AUTOMATIC SYNC WITH ONEDRIVE AND OFFICE 365 By default, all your OneNote notebooks are automatically synced with OneDrive or OneDrive Pro on Office 365, making it easy to create a to-do list on your PC and then check off items as they're completed on your phone. It works the other way, too, so you can capture a photo of a whiteboard using your phone and then view it on your PC using the desktop version of OneNote or the OneNote Web App. Of course, you have complete control over which notebooks or pages in a notebook are synced. (Not all notebooks or pages are synced, only the ones you access.) EASY INFORMATION CAPTURING AND RICH FORMATTING When you're viewing a note, just tap on the screen where you want to edit the note — it'll bring up the Word Flow Keyboard, which can help correct and predict your typing. Below the keyboard, you'll see buttons for inserting a To-Do item with checkbox, creating a bulleted list, inserting an existing photo (or capturing and inserting a new one), and capturing audio using your phone's microphone. Tap More to the right of those buttons to share a note, pin it to Start, create a numbered list, increase or decrease indent, or choose formatting options that include bold, italics, underlined, and highlighting. DID YOU KNOW? You can send photos to OneNote. Just shoot a picture with the camera, tap and hold the photo, tap Share, and choose OneNote. DID YOU KNOW? You can dictate your notes and have them automatically transcribed and added to OneNote, without having to type them in by hand: press and hold the Search button to activate Speech. Say "Note" and speak your note. Windows Phone Microsoft

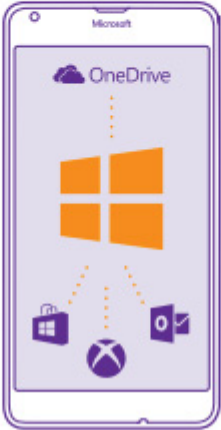
(Prepared for Anything at 33.)

Claim 9	Exemplary Disclosures (Express and/or Inherent) and Citations
	 (Lumia 640 Device.)  (Lumia 640 Device.)

Claim 9	Exemplary Disclosures (Express and/or Inherent) and Citations
[9h] wherein said display unit, practically occupying the entire front surface of the mobile phone, is integrated within said mobile phone and	Lumia 640, alone or in combination with other references identified in this chart or elsewhere in Defendants’ invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless’s apparent interpretation of this limitation, discloses “wherein said display unit, practically occupying the entire front surface of the mobile phone, is integrated within said mobile phone.” <i>See supra</i> claim [1e] (discussing limitation “a display unit integrated within the front surface of said housing wherein said display unit practically covers the entire front surface of said housing”).
[9i] wherein said front surface of the mobile phone does not have a physical button and wherein said mobile phone does not have a physical keyboard to enter text, and	Lumia 640, alone or in combination with other references identified in this chart or elsewhere in Defendants’ invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless’s apparent interpretation of this limitation, discloses “wherein said front surface of the mobile phone does not have a physical button and wherein said mobile phone does not have a physical keyboard to enter text.” <i>See supra</i> claim [1f]. For example, Lumia 640 discloses a mobile phone that does not include a physical key on the front surface or a physical keyboard. (Device Diagram; User Guide at 5, 16; Prepared for Anything at 2-4; Introducing Microsoft Lumia at 13.) Lumia 640 responds to touchscreen inputs, such as through the use of virtual keys. (Device Diagram; User Guide at 5, 20, 23, 50; Prepared for Anything at 14.)

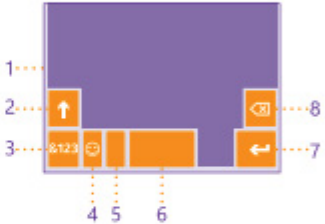
Claim 9	Exemplary Disclosures (Express and/or Inherent) and Citations
	(Lumia 640 Device.) Device Diagram Get familiar with the hardware of your Microsoft Lumia 640  (Device Diagram.) Additional exemplary citations include:

Claim 9	Exemplary Disclosures (Express and/or Inherent) and Citations
	Get started Get to grips with the basics, and have your phone up and running in no time. Keys and parts Explore the keys and parts of your new phone. 1 Front camera 2 Earpiece 3 Volume keys 4 Power/Lock key 5 Microphone 6 Micro-USB connector 7 Audio connector AHJ 3.5 mm 8 Camera lens 9 Camera flash 10 Microphone 11 Antenna area Some of the accessories mentioned in this user guide, such as charger, headset, or data cable, may be sold separately.  The image contains two diagrams of a smartphone. The top diagram shows the front and side of the phone. Callout 1 points to the front camera, 2 to the earpiece, 3 to the volume keys, 4 to the power/lock key, 5 to the microphone, and 6 to the micro-USB connector. The bottom diagram shows the back of the phone. Callout 7 points to the audio connector, 8 to the camera lens, 9 to the camera flash, 10 to the microphone, and 11 to the antenna area. (User Guide at 5.)

Claim 9	Exemplary Disclosures (Express and/or Inherent) and Citations
	Your first Lumia? Let's get started. Set up your new phone, explore your phone's views and menus, and learn how to use the touch screen. Set up your phone Make the most out of your phone's features from the get-go.  (User Guide at 16.)

Claim 9	Exemplary Disclosures (Express and/or Inherent) and Citations
	Use the touch screen Explore your phone with a tap, swipe, or drag. To open an app or other item, tap the app or item. Tap and hold to open further options Place your finger on an item until the menu opens.  Tap and hold to drag an item Place your finger on the item for a couple of seconds, and slide your finger across the screen. (User Guide at 20.)

Claim 9	Exemplary Disclosures (Express and/or Inherent) and Citations
	Back, start, and search keys The back, start, and search keys help you navigate your phone.  • To see which apps you have open, tap and hold the back key ←. You can then switch to another app or close the ones you don't need. • To go back to the previous screen you were in, tap the back key ←. Your phone remembers all the apps and websites you've visited since the last time your screen was locked. • To go to the start screen, tap the start key . The app you were in stays open in the background. • To search the web or for items on your phone, tap the search key . • If your phone has Cortana, to control your phone with your voice, tap and hold the search key , and say what you want to do. Or, to change the Cortana settings or use other Cortana functions, tap the search key . Cortana is not available in all regions and languages. For information on the supported languages, go to www.windowsphone.com. • To switch the vibration of these keys on or off, on the start screen, swipe down from the top of the screen, tap ALL SETTINGS > touch, and change the setting for navigation bar. Changing the vibration setting for incoming calls doesn't affect the vibration of the keys. (User Guide at 23.)

Claim 9	Exemplary Disclosures (Express and/or Inherent) and Citations
	Write text Learn how to write text quickly and efficiently with your phone's keyboard. Use the on-screen keyboard Writing with the on-screen keyboard is easy. You can use the keyboard when holding your phone in portrait or landscape mode. You can write your messages by tapping the letters or by swiping through them. Tap a text box. 1 Character keys 2 Shift key 3 Numbers and symbols key 4 Smiley key 5 Comma key 6 Space key 7 Enter key 8 Backspace key  The keyboard layout can vary in different apps and languages. ★ Tip: To add the comma key to the keyboard, on the start screen, swipe down from the top of the screen, and tap ALL SETTINGS > keyboard > advanced > Show a comma key when available. You can add the comma key only if you have at least 2 keyboards installed on your phone. Swipe to write text Swipe from the first letter of the word, and draw a path from letter to letter. Lift your finger after the last letter. To continue, keep on swiping without tapping the space key. Your phone adds the spaces. Not all languages are supported. (User Guide at 50.)

Claim 9	Exemplary Disclosures (Express and/or Inherent) and Citations
	Lumia 640 3G Dual SIM Prepared for Anything  Windows Phone Key Features • Latest version of Windows Phone 8.1 along with seamlessly integrated Microsoft Office experiences • Built-in Skype integration and a 1MP front-facing camera for switching seamlessly between voice and video calls • 8MP camera with LED flash and Lumia Camera right out of the box • 1GB of memory and powerful quad core processor • Smart Dual SIM to ensure you never miss a call Accessories • Cover for Lumia 640 – with card holder • Microsoft Screen Sharing for Lumia Phones • Comfort Headset Size: 141.3 x 72.2 x 8.85 (volumetric) mm Weight: 145g Colors:  Talk time and Standby time (Estimates) • Standby time: up to 35 days (840 hours) • Talk time: up to 27.3 hours (2G) • Talk time: up to 20.3 hours (3G) Sales Package • Lumia 640 3G Dual SIM • Charger: AC-20 • WH-108 headset (In select markets only) • Battery: BV-TSC (removable) • User guide • Note: there may be differences in country / customer variants Operating System: Windows Phone 8.1 with Lumia Denim Networks: • GSM/EDGE: 850/900/1800/1900 MHz, WCDMA: 850/900/1900/2100 MHz Processor: CPU Qualcomm Snapdragon 400 (MSM8926), 1.2 GHz quad core processor Memory: 1GB RAM, 8 GB internal mass memory + up to 128 GB Micro SD & 30GB* free OneDrive cloud storage Display: 5" HD (1280x720, 16:9) IPS LCD, 294 PPI, Glance screen, Corning Gorilla Glass 3, Sunlight readability enhancements Primary Camera: 8 MP AF (3280x2464), f/2.2, 28 mm, 1080p @ 30 fps video (continuous autofocus), Flash: LED, Lumia Camera Secondary Camera: HD 1 MP wide angle, f/2.4, 720p video Connectivity: BT 4.0, microUSB 2.0, Micro SIM, A-GPS +GLONASS, BeiDou, DLNA, Screen cloning with Miracast, WLAN 802.11 b/g/n/ Sensors: Accelerometer, Magnetometer, Proximity, Ambient Light Sensor Audio: 3.5 mm AV connector (AHJ), FM Radio, Internet Radio Battery: 2500 mAh (BV-TSC) removable battery * available when camera roll back up is activated.  (Prepared for Anything at 2.)

Claim 9	Exemplary Disclosures (Express and/or Inherent) and Citations
	Lumia 640 LTE Single SIM Prepared for Anything  Windows Phone Key Features • Latest version of Windows Phone 8.1 along with seamlessly integrated Microsoft Office experiences • Built-in Skype integration and a 1MP front-facing camera for switching seamlessly between voice and video calls • 8MP camera with LED flash and Lumia Camera right out of the box • 1GB of memory and powerful quad core processor • Fast LTE connectivity Accessories • Cover for Lumia 640 – with card holder • Microsoft Screen Sharing for Lumia Phones • Comfort Headset Size: 141.3 x 72.2 x 8.85 (volumetric) mm Weight: 145g Colors:  Talk time and Standby time (Estimates) • Standby time: up to 36 days (870 hours) • Talk time: up to 26.5 hours (2G) • Talk time: up to 17.5 hours (3G) Sales Package • Lumia 640 LTE Single SIM • Charger: AC-20 • WH-108 headset (In select markets only) • Battery: BV-T5C (removable) • User guide • Note: there may be differences in country / customer variants Operating System: Windows Phone 8.1 with Lumia Denim Networks: • LTE: 1, 3, 7, 8, 20 (2100, 1800, 2600, 900, 800) MHz • GSM/EDGE: 850/900/1800/1900 MHz, WCDMA: 850/900/2100 MHz Processor: CPU Qualcomm Snapdragon 400 (MSM8926), 1.2 GHz quad core processor Memory: 1GB RAM, 8 GB internal mass memory + up to 128 GB Micro SD & 30GB* free OneDrive cloud storage Display: 5" HD (1280x720, 16:9) IPS LCD, 294 PPI, Glance screen, Corning Gorilla Glass 3, Sunlight readability enhancements Primary Camera: 8 MP AF (3280x2464), f/2.2, 28 mm, 1080p @ 30 fps video (continuous autofocus), Flash: LED, Lumia Camera Secondary Camera: HD 1 MP wide angle, f/2.4, 720p video Connectivity: BT 4.0, microUSB 2.0, Micro SIM, A-GPS + GLONASS, BeiDou, NFC, DLNA, Screen cloning with Miracast, WLAN 802.11 b/g/n/ Sensors: Accelerometer, Magnetometer, Proximity, Ambient Light Sensor Audio: 3.5 mm AV connector (AHJ), FM Radio, Internet Radio Battery: 2500 mAh (BV-T5C) removable battery * available when camera roll back up is activated.  (Prepared for Anything at 3.)

Claim 9	Exemplary Disclosures (Express and/or Inherent) and Citations
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Claim 9	Exemplary Disclosures (Express and/or Inherent) and Citations
	THIS IS LUMIA 640 BASIC NAVIGATION Start Function Swipe up from the bottom of the screen to access the virtual start function which will take you to the start screen from anywhere on your Lumia 640. Search Function Pressing the virtual search function will automatically launch Cortana (where available). Swipe up from the bottom of the screen to access this. Back Function The Back function allows you to go back within an app or between apps. The Back function also lets you navigate to a previous screen or webpage, exit a search operation, or close an on-screen keyboard, menu or dialog box. Press and hold the Back function to display a list of running apps and choose the one you want. Swipe up from the bottom of the screen to access this.  Volume buttons The Volume buttons adjust the volume of an active audio stream, such as a phone call, music audio, or an in-progress movie. Pressing one of the Volume buttons when you receive an incoming call will silence the ringtone. Power button If your Lumia 640 is off, a brief press on the Power button turns it on. When the Lumia 640 is on, a brief press of the Power button will turn off the display and lock the phone. Action Center gives you a single place to check your notifications and alerts, so you never miss a thing. In addition, customizable quick action slots are available at the top of Action Center so you're always in control. To access your Action Center, simply swipe down from any screen. You even have the option to access your Action Center from the Lock screen, again with a simple swipe down. For a more interactive experience of Lumia devices, you can also go to www.trylumiaphone.com  Windows Phone  Microsoft

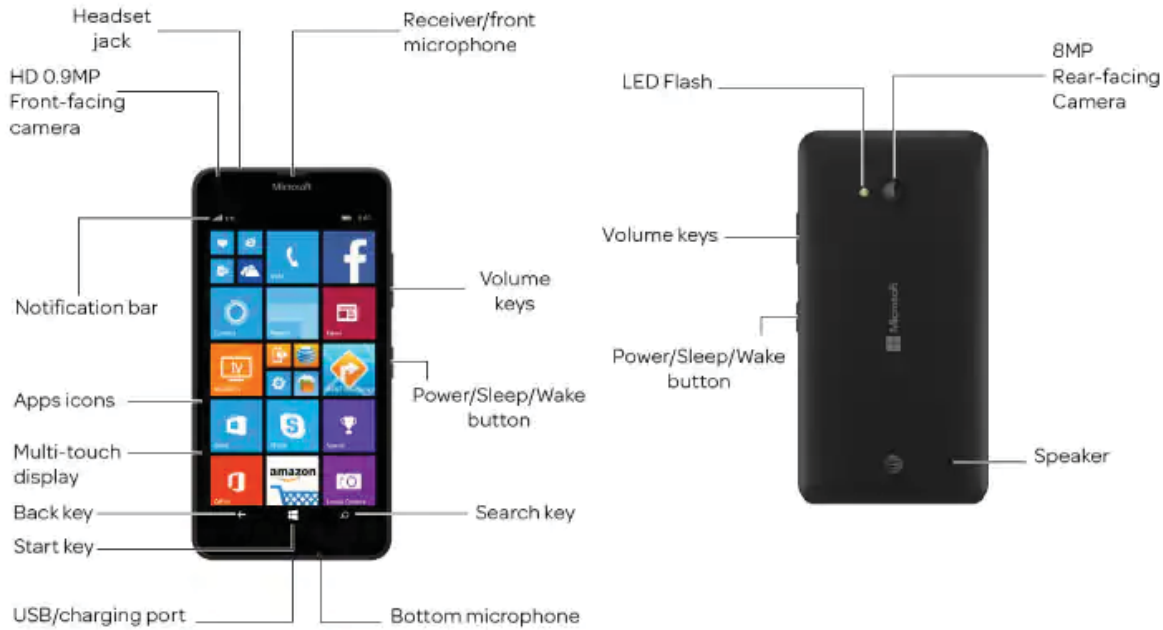
(Prepared for Anything at 14.)

Claim 9	Exemplary Disclosures (Express and/or Inherent) and Citations
	The latest range of Microsoft Lumia phones. Microsoft Lumia 550 Screen size: 4.7" HD720 Connectivity: 4G-ready Main camera: 5MP with LED flash Front camera: 2MP camera and 480p video recording Processor (speed): Qualcomm® Snapdragon™ 210 Quad-core  Microsoft Lumia 640* Screen size: 5" Gorilla Glass® 3 Connectivity: 4G-ready Main camera: 8MP Front camera: 1MP HD wide angle Processor (speed): Qualcomm® Snapdragon™ 1.2GHz quad-core  Microsoft Lumia 640 XL* Screen size: 5.7" Gorilla Glass® 3 Connectivity: 4G-ready Main camera: 13MP ZEISS optics Front camera: Full HD 5MP wide angle Processor (speed): Qualcomm® Snapdragon™ 1.2GHz quad-core  Microsoft Lumia 650 Screen size: 5" HD OLED Connectivity: 4G-ready Main camera: 8 MP autofocus with LED flash Front camera: 5MP wide angle Processor: Qualcomm® Snapdragon™ Quad-core 1.3 GHz  Microsoft Lumia 950 Screen size: 5.2" QuadHD Gorilla Glass® 3 Connectivity: 4G-ready Main camera: Pureview 20MP ZEISS optics with triple LED flash Front camera: Full HD 5MP wide angle Processor: Qualcomm® Snapdragon™ 808 64-bit HexaCore  Microsoft Lumia 950 XL Screen size: 5.7" QuadHD Gorilla Glass® 4 Connectivity: 4G-ready Main camera: Pureview 20MP ZEISS optics with triple LED flash Front camera: Full HD 5MP wide angle Processor: Qualcomm® Snapdragon™ 810 64-bit Octa-core  *Microsoft Lumia 640 and 640 XL come with Windows 8.1. Screens simulated. Receive a free upgrade to Windows 10, when available. Features may vary by device. See www.microsoft.com/en/mobile/windows10/ for more details. (Introducing Microsoft Lumia at 13.)
[9j] wherein said display unit is adapted to display text, entered through the virtual keyboard, in landscape direction and in portrait direction when the mobile phone is used, respectively, in landscape position and in portrait position.	Lumia 640, alone or in combination with other references identified in this chart or elsewhere in Defendants’ invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless’s apparent interpretation of this limitation, discloses “wherein said display unit is adapted to display text, entered through the virtual keyboard, in landscape direction and in portrait direction when the mobile phone is used, respectively, in landscape position and in portrait position.” <i>See supra</i> claim [5a] (discussing limitation “wherein said display unit is adapted to display text, entered through the virtual keyboard, in landscape direction and in portrait direction when the mobile phone is used, respectively, in landscape position and in portrait position”). For the reasons discussed in connection with claim [5a], a POSITA would have been motivated to implement this limitation in view of Lumia

Claim 9	Exemplary Disclosures (Express and/or Inherent) and Citations
	640, POSITA's pre-existing knowledge, and/or the teachings of the references cited <i>supra</i> claim [5a], irrespective of whether the claimed keyboard was virtual or physical.

Claim 10	Exemplary Disclosures (Express and/or Inherent) and Citations
[10pre] The mobile phone of claim 9	Claim 10 depends from claim 9. Defendant incorporates all the prior art disclosures from claim 9 here, which anticipate and/or render claim 9 obvious as set out above. Defendant reserves the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claim 9 to show the additional limitations of claim 10 are anticipated and/or obvious for the same reasons set out in claim 9. Lumia 640, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "[t]he mobile phone of claim 9." <i>See supra</i> claim [9].
[10a] wherein the distance between said microphone and said speaker corresponds to the distance between the ear and the mouth of a user	Lumia 640, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "wherein the distance between said microphone and said speaker corresponds to the distance between the ear and the mouth of a user." For example, Lumia 640 includes a speaker, or earpiece, near the top of the front surface and a microphone near the bottom of the front surface. (Device Diagram; User Guide at 5; Prepared for Anything at 33.) A POSITA would have understood that Lumia 640's length, including the length of its front surface, would correspond to the distance between the ear and mouth of the user because such dimensions would have been obvious to allow the user to hold the end of the device containing the speaker against their ear and the end of the device containing the microphone near their mouth.

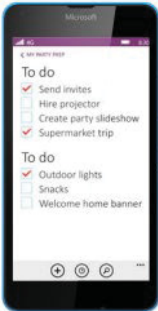
Claim 10	Exemplary Disclosures (Express and/or Inherent) and Citations
	Get started Get to grips with the basics, and have your phone up and running in no time. Keys and parts Explore the keys and parts of your new phone. 1 Front camera 2 Earpiece 3 Volume keys 4 Power/Lock key 5 Microphone 6 Micro-USB connector 7 Audio connector AHJ 3.5 mm 8 Camera lens 9 Camera flash 10 Microphone 11 Antenna area Some of the accessories mentioned in this user guide, such as charger, headset, or data cable, may be sold separately. (User Guide at 5.)

Claim 10	Exemplary Disclosures (Express and/or Inherent) and Citations
	Device Diagram Get familiar with the hardware of your Microsoft Lumia 640  The diagram illustrates the hardware components of the Microsoft Lumia 640. The front view shows the multi-touch display with various app icons, a notification bar at the top, and a bottom bar with a back key, start key, and search key. The rear view shows the 8MP rear-facing camera, LED flash, volume keys, power/sleep/wake button, and a speaker. Labels with leader lines point to the following components: - Headset jack - HD 0.9MP Front-facing camera - Receiver/front microphone - Notification bar - Apps icons - Multi-touch display - Back key - Start key - USB/charging port - Volume keys - Power/Sleep/Wake button - Search key - Bottom microphone - LED Flash 8MP Rear-facing Camera - Speaker (Device Diagram.) Additional exemplary citations include:

Claim 10	Exemplary Disclosures (Express and/or Inherent) and Citations
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Claim 10	Exemplary Disclosures (Express and/or Inherent) and Citations
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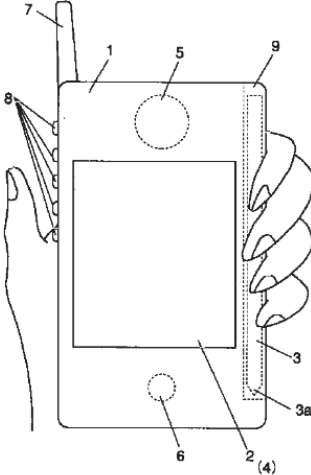
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Claim 10	Exemplary Disclosures (Express and/or Inherent) and Citations
	THIS IS LUMIA 640 ONENOTE MOBILE OneNote Mobile makes it easy to capture notes and ideas on the go. You can type a note, use your phone's camera to capture a photo and insert it into a note, capture audio using your phone's microphone, or dictate a voice note while you're doing something else on your phone and have it automatically transcribed and inserted into OneNote. It can even work when your phone is locked. ON THE START SCREEN OneNote is a separate app on your Start screen, enabling you to get to it even faster. Tap the OneNote Live Tile on the Start screen to see all your OneNote notebooks. By default, you'll see any existing notebooks on OneDrive that are tied to the Microsoft account you used to set up your phone, as well as a new one that was created when you set up your phone. You'll also see a shared notebook for any Rooms you've created. The OneNote Live Tile will even show you which note was updated last. If you want, you can pin individual notes to the Start screen for faster access. FIND YOUR NOTES FAST If you find yourself using OneNote more and more, don't worry. It's easy to navigate your notebooks. You can also search the text in your notes — just tap Search and enter a word or phrase. Or tap Recent to see your notes in the order you last accessed them.  AUTOMATIC SYNC WITH ONEDRIVE AND OFFICE 365 By default, all your OneNote notebooks are automatically synced with OneDrive or OneDrive Pro on Office 365, making it easy to create a to-do list on your PC and then check off items as they're completed on your phone. It works the other way, too, so you can capture a photo of a whiteboard using your phone and then view it on your PC using the desktop version of OneNote or the OneNote Web App. Of course, you have complete control over which notebooks or pages in a notebook are synced. (Not all notebooks or pages are synced, only the ones you access.) EASY INFORMATION CAPTURING AND RICH FORMATTING When you're viewing a note, just tap on the screen where you want to edit the note — it'll bring up the Word Flow Keyboard, which can help correct and predict your typing. Below the keyboard, you'll see buttons for inserting a To-Do item with checkbox, creating a bulleted list, inserting an existing photo (or capturing and inserting a new one), and capturing audio using your phone's microphone. Tap More to the right of those buttons to share a note, pin it to Start, create a numbered list, increase or decrease indent, or choose formatting options that include bold, italics, underlined, and highlighting. DID YOU KNOW? You can send photos to OneNote. Just shoot a picture with the camera, tap and hold the photo, tap Share, and choose OneNote. DID YOU KNOW? You can dictate your notes and have them automatically transcribed and added to OneNote, without having to type them in by hand: press and hold the Search button to activate Speech. Say "Note" and speak your note. Windows Phone Microsoft

(Prepared for Anything at 33.)

Claim 10	Exemplary Disclosures (Express and/or Inherent) and Citations
	(Lumia 640 Device.) (Lumia 640 Device.)

Claim 10	Exemplary Disclosures (Express and/or Inherent) and Citations
	(Lumia 640 Device.) To the extent Keyless argues that Lumia 640 does not disclose or render obvious this limitation, it would have been obvious in view of Lumia 640, POSITA's pre-existing knowledge, and/or the teachings of Lumia 640 combined with Rydbeck, Yamaguchi, and/or Dutta. For example, a POSITA would find the combination obvious to try, due at least to the similarity of the technical teachings of the art. As another example, a POSITA would find that the teachings could be predictably interchanged by, for example, simple substitution, at least because of the predictability of the art and the known interchangeability of the various elements. As another example, a POSITA would be motivated to combine the references, and would have a reasonable expectation of success in doing so, at least because the references use known variations of existing technology to solve routine and well understood problems in predictable ways. For example, each of Rydbeck, Yamaguchi, and Dutta teaches that the ideal configuration for a mobile phone is such that the length of the device corresponds to the distance between the ear and mouth of a user.

Claim 10	Exemplary Disclosures (Express and/or Inherent) and Citations										
	For example, Rydbeck discloses a mobile phone device configured such that during operation, a speaker is adjacent to a user's ear and a microphone is adjacent to the user's mouth. (Rydbeck at 8:57-60; <i>see also id.</i> at 2:1-6, 2:15-18, 8:21-27, 9:13-20, Fig. 10.) As another example, Yamaguchi discloses a mobile phone device having a speaker 5 and microphone 6 such that during operation, the speaker is positioned close to the mouth of a user and the microphone is positioned close to the ear of a user. (Yamaguchi at [0005].) Further, Yamaguchi discloses a mobile phone that is 100-150mm in length. (Yamaguchi at [0009], [0015], FIG. 1) 【図1】 <table border="0" style="margin-left: auto; margin-right: auto;"> <tbody> <tr> <td>1 装置本体</td><td>6 マイク部</td></tr> <tr> <td>2 液晶表示部</td><td>7 アンテナ部</td></tr> <tr> <td>3 ペン</td><td>8 各種操作スイッチ</td></tr> <tr> <td>4 タッチパネル部</td><td>9 ペン収納部</td></tr> <tr> <td>5 スピーカー部</td><td></td></tr> </tbody> </table>  (Yamaguchi at FIG. 1.)	1 装置本体	6 マイク部	2 液晶表示部	7 アンテナ部	3 ペン	8 各種操作スイッチ	4 タッチパネル部	9 ペン収納部	5 スピーカー部	
1 装置本体	6 マイク部										
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5 スピーカー部											

Claim 10	Exemplary Disclosures (Express and/or Inherent) and Citations
	As another example, Dutta teaches that the ideal size of a mobile phone is based on the distance from a user's ear to a user's mouth. (Dutta at [0003], FIGS. 2A-2B.) Accordingly, mobile phones were commonly designed to be long and narrow. (Dutta at [0004].) <i>Fig. 2A</i> <i>Fig. 2B</i> (Dutta at FIGS. 2A and 2B) A POSITA would have found it obvious to configure the mobile phone disclosed by Lumia 640 such that both the length of the front surface of the mobile phone and, correspondingly, the distance between the microphone and speaker of the device, correspond to the distance between the user's ear and mouth. Each of Rydbeck, Yamaguchi, and Dutta teaches configuring a mobile phone in this way in order to improve operability and device performance while achieving the "ideal" phone size. (Dutta at

Claim 10	Exemplary Disclosures (Express and/or Inherent) and Citations
	[0003].) A POSITA would have been motivated to configure a mobile phone in this way to provide the user with an ergonomically comfortable interface, wherein the microphone could easily detect speech from a user's mouth and the user could easily detect sound produced by the speaker during a phone call. As explained by Rydbeck, a mobile phone "preferably includes a microphone which can be positioned...proximate to the mouth of a user during telephone operation." (Rydbeck at 2:15-18.) A POSITA would be motivated to configure a mobile phone such that the microphone and speaker were proximate to a user's mouth and ear, respectively, to improve the performance of the phone by improving the call quality and clarity of voice transmission while making phone calls. Accordingly, a mobile phone such that its length corresponds to the distance between a user's mouth and ear was routine and conventional to a POSITA, as shown by each of Rydbeck, Yamaguchi, and Dutta. A POSITA would have considered the combination of the teachings of Rydbeck, Yamaguchi, and/or Dutta with the mobile phone architecture disclosed by Lumia 640 to be an example of (A) combining prior art elements (the mobile device of Lumia 640 with the teaching of the optimal mobile phone size as taught by Rydbeck, Yamaguchi, and Dutta) according to known methods to yield predictable results (improving user experience and device performance); (B) use of a known technique (sizing a mobile phone based on the distance between the mouth and ear of a user as taught by Rydbeck, Yamaguchi, and Dutta) to improve similar devices in the same way (improving user experience and device performance); (C) applying a known technique (sizing a mobile phone based on the distance between the mouth and ear of a user as taught by Rydbeck, Yamaguchi, and Dutta) to a known device ready for improvement to yield predictable results (improving user experience and device performance); and/or (D) some teaching, suggestion, or motivation in the prior art (e.g., the teachings of Rydbeck, Yamaguchi, and Dutta) that would have led one of ordinary skill to modify the mobile phone disclosed by Lumia 640 to arrive at the claimed invention. Additional exemplary citations include: "In a preferred embodiment, the device includes an antenna connected to a top portion of the primary body. The antenna is configured to extend away from the rear major surface such that, when a user orients the device with the speaker adjacent his or her ear, the antenna is oriented away from the user." (Rydbeck at 2:1-6.)

Claim 10	Exemplary Disclosures (Express and/or Inherent) and Citations
	“The device also preferably includes a microphone which can be positioned on the rear major surface (on a bottom portion), or on a flip, such that it is proximate to the mouth of a user during telephone operation.” (Rydbeck at 2:15-18.) “A turnaround wireless communications device according to claim 1, further comprising an antenna connected to a top portion of said primary body, and wherein said antenna is configured to extend away from said rear major surface toward said front surface when a user orients said turnaround wireless communications device such that said speaker is adjacent the user's ear during operation.” (Rydbeck at 8:21-27.) “a microphone located such that it is positioned proximate a user's mouth when the user has said speaker adjacent his or her ear...” (Rydbeck at 8:57-60.) “A turn around wireless communications device according to claim 11, further comprising an antenna connected to a top portion of said primary body, and wherein said antenna is configured to extend away from said rear major surface toward said forward major surface when a user orients said turnaround wireless communications device such that said speaker is adjacent his or her ear during operation.” (Rydbeck at 9:13-20.) “As for outputs to the liquid-crystal display part 2, image data processing is performed in the device body 1, and text, graphics data, and wireless status are displayed on the liquid-crystal display part 2. When inputting text on a desktop, text and line strokes are inputted by pressing, with a pen tip 3a, the front surface of the touch panel part 4 disposed on the front surface of the liquid-crystal display part 2. To input text other than on a desktop, a side-surface portion of the device body 1 is held in one hand, and input is performed by the other hand with the pen 3. Apart from icon manipulations, manipulation via the various manipulable switches 8 is performed by a fingertip of the hand holding the pen 3. In addition, by adjusting one's grip on the main device 1, an ear is placed near the speaker part 5 or the mouth is placed near the microphone part 6 to perform audio input/output operations. Furthermore, to EJECT the memory card from the card-housing part, the card EJECT button is slid with a fingertip of the hand holding the pen 3, and the memory card is removed.” (Yamaguchi at [0005].)

Claim 10	Exemplary Disclosures (Express and/or Inherent) and Citations
	“MEANS FOR SOLVING THE PROBLEMS To solve these problems, the present invention has a configuration such that: an antenna part of a wireless part and various manipulable switches are disposed on a same surface of a side-surface portion of the device body; a pen-housing part is disposed on an opposite side-surface portion of the device body; a housing part for a memory card having a data storage function is disposed on a rear-surface portion; a card EJECT button is disposed on the rear-surface portion near the pen-housing part; a rotary switch, which has a function of selecting data displayed on a liquid-crystal part, a push button, which has a function of confirming data that has been selected using the rotary switch, and the various switches are disposed on a same surface of a side-surface portion of the device body; furthermore, the liquid-crystal part, which has a function of displaying wireless status, and a button, which has a wireless ON/OFF switching function, are disposed on a same top-surface portion of the device body; and the dimensions of the device body have dimensional ratios of height 100–150 mm, width 60–75 mm, and depth 15–25 mm.” (Yamaguchi at [0009].) “The invention according to claim 5 of the present invention is the mobile-communication-information terminal device according to any one of claims 1, 2, 3, and 4, wherein: the device body has dimensional ratios of length 100–150 mm, width 60–75 mm, and depth 15–25 mm; thus, the invention has the effect of improved portability and ease of manipulation, such as when storing the device in a clothing pocket, holding the device with one hand, and manipulating the various buttons.” (Yamaguchi at [0015].) “For example, more and more mobile phones are equipped with a browser for the world wide web (web or www). Unfortunately, the ideal size of a mobile phone is determined by the typical ear-to-mouth distance of the average user and by ergonomically favorable grippability.” (Dutta at [0003].) “Consequently the displays of mobile phones must be adapted to the long, narrow shape of the phone itself.” (Dutta at [0004].)

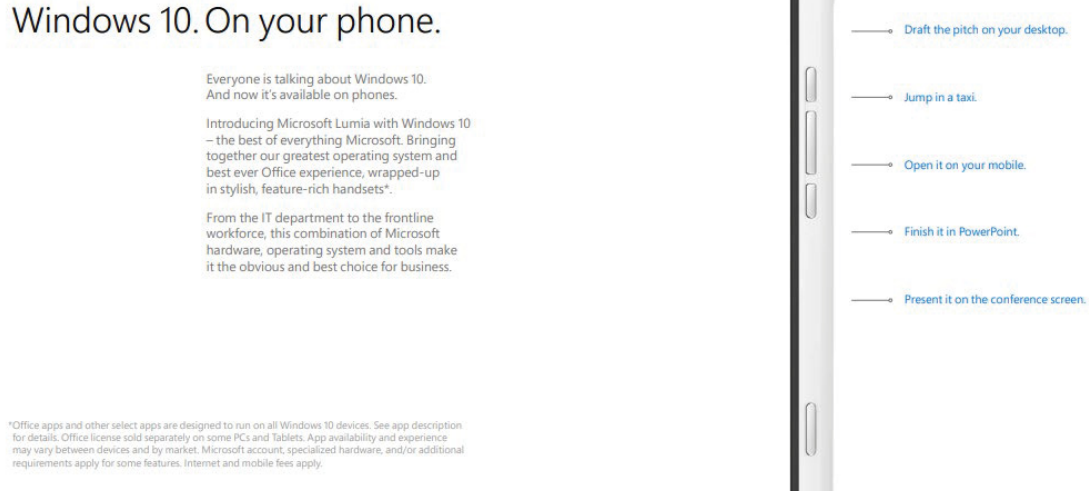
Claim 11	Exemplary Disclosures (Express and/or Inherent) and Citations
[11pre] The mobile phone of claim 9	Claim 11 depends from claim 9. Defendant incorporates all the prior art disclosures from claim 9 here, which anticipate and/or render claim 9 obvious as set out above. Defendant reserves the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claim 9 to show the additional limitations of claim 11 are anticipated and/or obvious for the same reasons set out in claim 9. Lumia 640, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "[t]he mobile phone of claim 9." <i>See supra</i> claim [9].
[11a] wherein said practically rectangular shape has rounded corners.	Lumia 640, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "wherein said practically rectangular shape has rounded corners." <i>See supra</i> claim [2a].

Claim 12	Exemplary Disclosures (Express and/or Inherent) and Citations
[12pre] The mobile phone of claim 9	Claim 12 depends from claim 9. Defendant incorporates all the prior art disclosures from claim 9 here, which anticipate and/or render claim 9 obvious as set out above. Defendant reserves the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claim 9 to show the additional limitations of claim 12 are anticipated and/or obvious for the same reasons set out in claim 9. Lumia 640, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "[t]he mobile phone of claim 9." <i>See supra</i> claim [9].
[12a] wherein plurality of icons corresponding to	Lumia 640, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and

Claim 12	Exemplary Disclosures (Express and/or Inherent) and Citations
plurality of applications are displayed on said display unit, and	Keyless's apparent interpretation of this limitation, discloses "wherein plurality of icons corresponding to plurality of applications are displayed on said display unit." <i>See supra</i> claim [3a].
[12b] wherein upon providing a sweeping action on said display unit, plurality of other icons corresponding to plurality of other applications are displayed on said display unit.	Lumia 640, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "wherein upon providing a sweeping action on said display unit, plurality of other icons corresponding to plurality of other applications are displayed on said display unit." <i>See supra</i> claim [3b].

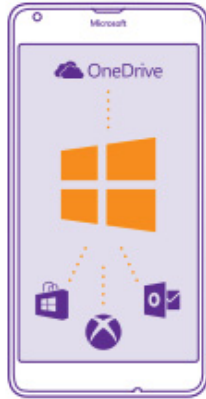
Claim 13	Exemplary Disclosures (Express and/or Inherent) and Citations
[13pre] The mobile phone of claim 12	Claim 13 depends from claim 12. Defendant incorporates all the prior art disclosures from claim 12 here, which anticipate and/or render claim 12 obvious as set out above. Defendant reserves the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claim 12 to show the additional limitations of claim 13 are anticipated and/or obvious for the same reasons set out in claim 12. Lumia 640, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "[t]he mobile phone of claim 12." <i>See supra</i> claim [12].
[13a] wherein upon providing a predefine interaction with an icon, the corresponding application is opened on the screen.	Lumia 640, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "wherein upon providing a predefine interaction with an icon, the corresponding application is opened on the screen." <i>See supra</i> claim [4a].

Claim 14	Exemplary Disclosures (Express and/or Inherent) and Citations
[14pre] The mobile phone of claim 9	Claim 14 depends from claim 9. Defendant incorporates all the prior art disclosures from claim 9 here, which anticipate and/or render claim 9 obvious as set out above. Defendant reserves the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claim 9 to show the additional limitations of claim 14 are anticipated and/or obvious for the same reasons set out in claim 9. Lumia 640, alone or in combination with other references identified in this chart or elsewhere in Defendants’ invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless’s apparent interpretation of this limitation, discloses “[t]he mobile phone of claim 9.” <i>See supra</i> claim [9].
[14a] wherein said components of the mobile phone are integrated within the body such that none of said components is significantly extended out from the body.	Lumia 640, alone or in combination with other references identified in this chart or elsewhere in Defendants’ invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless’s apparent interpretation of this limitation, discloses “wherein said components of the mobile phone are integrated within the body such that none of said components is significantly extended out from the body.” <i>See supra</i> claim [1g] (discussing the limitation “wherein said components of the mobile phone are integrated within said housing such that none of said components is noticeably extended out from said housing”).
Claim 15	Exemplary Disclosures (Express and/or Inherent) and Citations
[15pre] A mobile phone device, comprising:	To the extent that the preamble is held to be limiting, Lumia 640, alone or in combination with other references identified in this chart or elsewhere in Defendants’ invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless’s apparent interpretation of this limitation, discloses “[a] mobile phone device.” For example, Lumia 640 is a phone, which is a mobile phone device, capable of making phone calls. (User Guide at 16, 23, 27, 38, 62, 117; Prepared for Anything at 2-4, 9, 16; Introducing Microsoft Lumia at 3, 5, 12, 13; Device Diagram.)

Claim 15	Exemplary Disclosures (Express and/or Inherent) and Citations
	 Windows 10. On your phone. Everyone is talking about Windows 10. And now it's available on phones. Introducing Microsoft Lumia with Windows 10 - the best of everything Microsoft. Bringing together our greatest operating system and best ever Office experience, wrapped-up in stylish, feature-rich handsets*. From the IT department to the frontline workforce, this combination of Microsoft hardware, operating system and tools make it the obvious and best choice for business. *Office apps and other select apps are designed to run on all Windows 10 devices. See app description for details. Office license sold separately on some PCs and Tablets. App availability and experience may vary between devices and by market. Microsoft account, specialized hardware, and/or additional requirements apply for some features. Internet and mobile fees apply. (Introducing Microsoft Lumia at 5.)

Claim 15	Exemplary Disclosures (Express and/or Inherent) and Citations
	Lumia 640 3G Dual SIM Prepared for Anything  Windows Phone Key Features • Latest version of Windows Phone 8.1 along with seamlessly integrated Microsoft Office experiences • Built-in Skype integration and a 1MP front-facing camera for switching seamlessly between voice and video calls • 8MP camera with LED flash and Lumia Camera right out of the box • 1GB of memory and powerful quad core processor • Smart Dual SIM to ensure you never miss a call Accessories • Cover for Lumia 640 – with card holder • Microsoft Screen Sharing for Lumia Phones • Comfort Headset Size: 141.3 x 72.2 x 8.85 (volumetric) mm Weight: 145g Colors:  Talk time and Standby time (Estimates) • Standby time: up to 35 days (840 hours) • Talk time: up to 27.3 hours (2G) • Talk time: up to 20.3 hours (3G) Sales Package • Lumia 640 3G Dual SIM • Charger: AC-20 • WH-108 headset (In select markets only) • Battery: BV-TSC (removable) • User guide • Note: there may be differences in country / customer variants Operating System: Windows Phone 8.1 with Lumia Denim Networks: • GSM/EDGE: 850/900/1800/1900 MHz, WCDMA: 850/900/1900/2100 MHz Processor: CPU Qualcomm Snapdragon 400 (MSM8926), 1.2 GHz quad core processor Memory: 1GB RAM, 8 GB internal mass memory + up to 128 GB Micro SD & 30GB* free OneDrive cloud storage Display: 5" HD (1280x720, 16:9) IPS LCD, 294 PPI, Glance screen, Corning Gorilla Glass 3, Sunlight readability enhancements Primary Camera: 8 MP AF (3280x2464), f/2.2, 28 mm, 1080p @ 30 fps video (continuous autofocus), Flash: LED, Lumia Camera Secondary Camera: HD 1 MP wide angle, f/2.4, 720p video Connectivity: BT 4.0, microUSB 2.0, Micro SIM, A-GPS +GLONASS, BeiDou, DLNA, Screen cloning with Miracast, WLAN 802.11 b/g/n/ Sensors: Accelerometer, Magnetometer, Proximity, Ambient Light Sensor Audio: 3.5 mm AV connector (AHJ), FM Radio, Internet Radio Battery: 2500 mAh (BV-TSC) removable battery * available when camera roll back up is activated. 

Claim 15	Exemplary Disclosures (Express and/or Inherent) and Citations
	People & messaging Contact your friends and family, and share your files, such as photos, using your phone. Stay tuned with the latest updates to your social networking services even when on the go. Calls Learn how to make calls on your new phone and talk to your friends. Call a contact Calling your friends is quick and easy when you've saved them as contacts in your phone. Tap . 1. Tap . 2. Tap the contact and the number, if the contact has several numbers. ★ Tip: Is your friend's voice too loud or quiet? Press the volume keys to change the volume. ★ Tip: Want to let others hear the conversation? Tap speaker. Call a phone number Tap , type in the phone number, and tap call. To type in the + character, used for international calls, tap and hold 0. The + character only works from abroad. The + character may not work in all regions. In this case, enter the international access code directly. Search your call history To search for a call record, swipe to history, tap , and type in the contact's name or phone number. Remove a call record To remove a call record, swipe to history, tap and hold the call record, and tap delete. To remove all the call records, tap ... > select calls > ... > select all > . Copy and paste a phone number On the start screen, tap  People, swipe to contacts, tap a contact, tap and hold the phone number, tap copy, and in a text box, tap . Make a call with Skype You can use your phone to make Skype-to-Skype calls and video calls. With Skype global rates, you can also call landlines or other mobile phones. Pay as you go with your credit card, or get a monthly subscription for the best rates. If you don't yet have the Skype app, you can download it from www.windowsphone.com. Tap  Skype, and sign in with the same Microsoft account that you use with your phone. (User Guide at 62.) Additional exemplary citations include:

Claim 15	Exemplary Disclosures (Express and/or Inherent) and Citations
	Your first Lumia? Let's get started. Set up your new phone, explore your phone's views and menus, and learn how to use the touch screen. Set up your phone Make the most out of your phone's features from the get-go.  When you turn your phone on for the first time, your phone guides you to set up your network connections, phone settings, and Microsoft account in one sitting. (User Guide at 16.)

Claim 15	Exemplary Disclosures (Express and/or Inherent) and Citations
	Transfer content to your Lumia phone Learn how to transfer content to your Lumia phone. Transfer content to your new Lumia phone There are nifty ways to transfer your photos, videos, and other important stuff from your old to your new phone. These instructions may not apply to all phone models and manufacturers. You may need to install some apps on your phone or computer for the transfer. Depending on what you need to install and how much content you are transferring, the transfer may take a while. Some file formats may not be transferred. Some third-party converter apps may be available to convert the files to a format that can be transferred. (User Guide at 23.)

Claim 15	Exemplary Disclosures (Express and/or Inherent) and Citations
	Basics Learn how to get the most out of your new phone. What's new in this release? Check some of the key things in this release at a glance. • Find the settings you're looking for easily – settings are now reorganized into groups, and you can even search them. • Switch your calendar to show week numbers in the monthly view. • Turn mobile data on and off easily – add a shortcut to the action center. Get to know your phone Your phone has two views, start screen and apps menu. To switch between the views, simply swipe left or right.  (User Guide at 27.)

Claim 15	Exemplary Disclosures (Express and/or Inherent) and Citations
	Personalize your phone Learn how to personalize the start screen, and how to change ringtones.  (User Guide at 38.)

Claim 15	Exemplary Disclosures (Express and/or Inherent) and Citations
	Phone management & connectivity Take care of your phone and its contents. Learn how to connect to accessories and networks, transfer files, create backups, lock your phone, and keep the software up to date.  Update your phone software Stay in step with the beat – update your phone software and apps wirelessly to get new and enhanced features for your phone. Updating the software may also improve your phone performance.  Make sure that the device battery has enough power, or connect the charger before starting the update. ⚠ Warning: If you install a software update, you cannot use the device, even to make emergency calls, until the installation is completed and the device is restarted. (User Guide at 117.)

Claim 15	Exemplary Disclosures (Express and/or Inherent) and Citations
	Lumia 640 LTE Single SIM Prepared for Anything  Windows Phone Key Features • Latest version of Windows Phone 8.1 along with seamlessly integrated Microsoft Office experiences • Built-in Skype integration and a 1MP front-facing camera for switching seamlessly between voice and video calls • 8MP camera with LED flash and Lumia Camera right out of the box • 1GB of memory and powerful quad core processor • Fast LTE connectivity Accessories • Cover for Lumia 640 – with card holder • Microsoft Screen Sharing for Lumia Phones • Comfort Headset Size: 141.3 x 72.2 x 8.85 (volumetric) mm Weight: 145g Colors:  Talk time and Standby time (Estimates) • Standby time: up to 36 days (870 hours) • Talk time: up to 26.5 hours (2G) • Talk time: up to 17.5 hours (3G) Sales Package • Lumia 640 LTE Single SIM • Charger: AC-20 • WH-108 headset (In select markets only) • Battery: BV-T5C (removable) • User guide • Note: there may be differences in country / customer variants Operating System: Windows Phone 8.1 with Lumia Denim Networks: • LTE: 1, 3, 7, 8, 20 (2100, 1800, 2600, 900, 800) MHz • GSM/EDGE: 850/900/1800/1900 MHz, WCDMA: 850/900/2100 MHz Processor: CPU Qualcomm Snapdragon 400 (MSM8926), 1.2 GHz quad core processor Memory: 1GB RAM, 8 GB internal mass memory + up to 128 GB Micro SD & 30GB* free OneDrive cloud storage Display: 5" HD (1280x720, 16:9) IPS LCD, 294 PPI, Glance screen, Corning Gorilla Glass 3, Sunlight readability enhancements Primary Camera: 8 MP AF (3280x2464), f/2.2, 28 mm, 1080p @ 30 fps video (continuous autofocus), Flash: LED, Lumia Camera Secondary Camera: HD 1 MP wide angle, f/2.4, 720p video Connectivity: BT 4.0, microUSB 2.0, Micro SIM, A-GPS + GLONASS, BeiDou, NFC, DLNA, Screen cloning with Miracast, WLAN 802.11 b/g/n/ Sensors: Accelerometer, Magnetometer, Proximity, Ambient Light Sensor Audio: 3.5 mm AV connector (AHJ), FM Radio, Internet Radio Battery: 2500 mAh (BV-T5C) removable battery * available when camera roll back up is activated. 

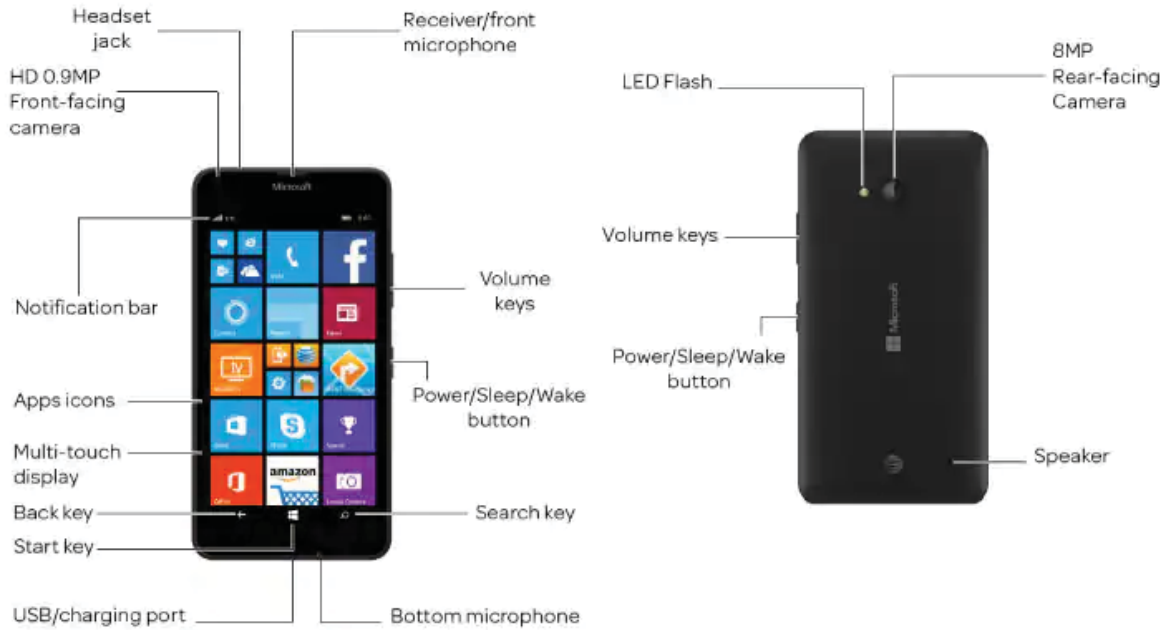
Claim 15	Exemplary Disclosures (Express and/or Inherent) and Citations
	Lumia 640 LTE Dual SIM Prepared for Anything  Windows Phone Key Features • Latest version of Windows Phone 8.1 along with seamlessly integrated Microsoft Office experiences • Built-in Skype integration and a 1MP front-facing camera for switching seamlessly between voice and video calls • 8MP camera with LED flash and Lumia Camera right out of the box • 1GB of memory and powerful quad core processor • Best of both worlds with LTE support available on dual SIM models for the first time Accessories • Cover for Lumia 640 – with card holder • Microsoft Screen Sharing for Lumia Phones • Comfort Headset Size: 141.3 x 72.2 x 8.85 (volumetric) mm Weight: 145g Colors:  Talk time and Standby time (Estimates) • Standby time: up to 36 days (870 hours) • Talk time: up to 26.5 hours (2G) • Talk time: up to 17.5 hours (3G) Sales Package • Lumia 640 LTE Dual SIM • Charger: AC-20 • WH-108 headset (In select markets only) • Battery: BV-TSC (removable) • User guide • Note: there may be differences in country / customer variants Operating System: Windows Phone 8.1 with Lumia Denim Networks: • LTE: 1, 2, 3, 4, 5, 7, 8, 12, 20, 28 (2100, 1900, 1800 1700/2100, 850, 2600, 900, 700, 800, 700) MHz • TD-LTE: 38, 40 (2570-2620, 2300-2400) MHz • GSM/EDGE: 850/900/1800/1900 MHz, WCDMA: 850/900/1900/2100 and 1700/2100 MHz Processor: CPU Qualcomm Snapdragon 400 (MSM8926), 1.2 GHz quad core processor Memory: 1GB RAM, 8 GB internal mass memory + up to 128 GB Micro SD & 30GB* free OneDrive cloud storage Display: 5" HD (1280x720, 16:9) IPS LCD, 294 PPI, Glance screen, Corning Gorilla Glass 3, Sunlight readability enhancements Primary Camera: 8 MP AF (3280x2464), f/2.2, 28 mm, 1080p @ 30 fps video (continuous autofocus), Flash: LED, Lumia Camera Secondary Camera: HD 1 MP wide angle, f/2.4, 720p video Connectivity: BT 4.0, microUSB 2.0, Micro SIM, A-GPS + GLONASS, BeiDou, NFC, DLNA, Screen cloning with Miracast, WLAN 802.11 b/g/n/ Sensors: Accelerometer, Magnetometer, Proximity, Ambient Light Sensor Audio: 3.5 mm AV connector (AHJ), FM Radio, Internet Radio Battery: 2500 mAh (BV-TSC) removable battery * available when camera roll back up is activated.  (Prepared for Anything at 4.) TWO SIMS, ONE PHONE • Never miss a call With Smart Dual SIM, all phone calls are delivered to the one phone ensuring people never miss a call. No more managing calls on multiple phones. • Save time and effort Why carry around two phones, or constantly swap SIMs, when Windows Phone 8.1 very smartly displays your two SIM accounts separately, clearly labelling them 1 and 2, as well as highlighting each with different colours? It couldn't be easier. • Going abroad While you remain connected to home with one SIM, getting an additional local SIM card while traveling makes it cheaper to connect with friends that live in your chosen destination too. • Full coverage Avoid coverage 'not-spots' with two SIMs from opposing networks; when one loses signal, just use the other one. That way, you're always connected. • Work smart Enjoy the convenience of just one phone that can serve your business and personal communication needs. • Save money From buying just one phone instead of two, to enjoying the flexibility of choosing the best tariff for your connection with two SIMs, there's money to be saved with the Lumia 640 Dual SIM. (Prepared for Anything at 9.)

Claim 15	Exemplary Disclosures (Express and/or Inherent) and Citations
	THIS IS LUMIA 640 WHAT'S NEW IN LUMIA DENIM AND WINDOWS PHONE 8.1 With Windows Phone 8.1, you get the Start screen you can make your own, Live Tiles that provide updates at a glance, Office Mobile, Outlook Mobile, Windows Phone Hubs, and the Xbox entertainment experience. In fact, you get everything you liked about Windows Phone 8 and more, including tons of new features, enhancements, and under-the-hood improvements. ACTION CENTER Windows Phone's new Action Center gives you a single place to check for all your notifications, so you never miss a thing. New features include: Quick actions. Customize the Action Center with customizable slots that you can use to access your favorite settings and even some applications. Action Center above Lock screen. Windows Phone gives you the option to view notifications within Action Center even when your Lumia 640 is locked. Notification settings. Select how you want to be alerted about notifications. A convenient handle bar. For most screens, you simply swipe down to reveal the Action Center. But for full screen experiences, the handle bar makes it less likely that you'll accidentally activate Action Center.  BATTERY SAVER Battery Saver can be used to significantly stretch your battery by trading off non critical functionality. When Battery Saver is enabled, your Lumia 640 changes some non-essential phone functionality from automatic to manual, such as email sync, social media updates, etc., but the phone still receives text messages and phone calls. New and improved features include: App-by-app monitoring. See which specific apps are using your battery, both when an app is in use and when it's running in the background. App-by-app management. Windows Phone 8.1 now features built-in tools that let you control exactly which apps run in the background for more effective power management. Battery Saver Live Tile. Features a power meter to indicate your phone's current power level at a glance. BING / SEARCH Your Lumia 640 can help you quickly find what you want without requiring you to launch your browser. Bing Search now also includes: Full device search. Bing Search results now include items from both the web and your device, including email, messaging, calendar, apps, and contacts. Results are displayed in a new Phone panel along with panels for web, local, images and video. Windows Phone Microsoft (Prepared for Anything at 16.)

Claim 15	Exemplary Disclosures (Express and/or Inherent) and Citations
	Your business. Mobile. The power, security and productivity of Windows 10 is here. And with Microsoft Lumia, it's anywhere. Beyond the desktop. Beyond the office. Beyond expectations. Start a document in your office, make changes in a taxi. With Microsoft Lumia with Windows 10, your business travels wherever you go. Expect document-friendly large screens and world-class tools to keep you productive. Discover our greatest operating system and best ever Microsoft Office experience – with familiar tools such as PowerPoint, Word, Excel and Outlook – all wrapped-up in stylish, feature-rich handsets. Designed with security and ease of management in mind, plus simple integration with your existing IT investments, you get the best of everything Microsoft* – and the best for your business. Inside and out. Microsoft Lumia. Your business. Mobile. *Features may vary by device. Internet and mobile fees apply. (Introducing Microsoft Lumia at 3.)

Claim 15	Exemplary Disclosures (Express and/or Inherent) and Citations
	 Microsoft Lumia phones. Microsoft inside and out. Microsoft Lumia phones bring together cutting-edge technology with our celebrated Windows 10 operating system and business-focused tools. The latest Microsoft Lumia phones are packed with the latest features, to get the most out of Windows 10. For example, the Microsoft Lumia 950 and 950 XL support Windows Hello Beta, an exciting innovation that uses biometric information to unlock your phone. These devices also support mobile docking and wireless charging, and have the latest features you'd expect from a business phone¹. And with a commitment from Microsoft to continuous updates and innovations, this will only get better over time². • 4G LTE-ready connectivity – for faster data connections³ • Gorilla Glass® and durable build – help protect your investments from scratches and everyday damage³ • Wireless charging – select Microsoft Lumia phones (950 and 950 XL) can be charged wirelessly, keeping clutter to a minimum³ • Qualcomm® Snapdragon™ processors – for speed, connectivity and helping longer battery life • Replaceable batteries – for more control • HD and wide-angle lenses – for better video conferencing³  ¹ Mobile docking and wireless charging features also require additional hardware and/or accessories (sold separately). ² Additional requirements will apply over time for updates, and availability may vary by device, carrier and market. ³ Features may vary by device. (Introducing Microsoft Lumia at 12.)

Claim 15	Exemplary Disclosures (Express and/or Inherent) and Citations
	The latest range of Microsoft Lumia phones. Microsoft Lumia 550 Screen size: 4.7" HD720 Connectivity: 4G-ready Main camera: 5MP with LED flash Front camera: 2MP camera and 480p video recording Processor (speed): Qualcomm® Snapdragon™ 210 Quad-core Microsoft Lumia 640* Screen size: 5" Gorilla Glass® 3 Connectivity: 4G-ready Main camera: 8MP Front camera: 1MP HD wide angle Processor (speed): Qualcomm® Snapdragon™ 1.2GHz quad-core Microsoft Lumia 640 XL* Screen size: 5.7" Gorilla Glass® 3 Connectivity: 4G-ready Main camera: 13MP ZEISS optics Front camera: Full HD 5MP wide angle Processor (speed): Qualcomm® Snapdragon™ 1.2GHz quad-core Microsoft Lumia 650 Screen size: 5" HD OLED Connectivity: 4G-ready Main camera: 8 MP autofocus with LED flash Front camera: 5MP wide angle Processor: Qualcomm® Snapdragon™ Quad-core 1.3 GHz Microsoft Lumia 950 Screen size: 5.2" QuadHD Gorilla Glass® 3 Connectivity: 4G-ready Main camera: Pureview 20MP ZEISS optics with triple LED flash Front camera: Full HD 5MP wide angle Processor: Qualcomm® Snapdragon™ 808 64-bit HexaCore Microsoft Lumia 950 XL Screen size: 5.7" QuadHD Gorilla Glass® 4 Connectivity: 4G-ready Main camera: Pureview 20MP ZEISS optics with triple LED flash Front camera: Full HD 5MP wide angle Processor: Qualcomm® Snapdragon™ 810 64-bit Octa-core *Microsoft Lumia 640 and 640 XL come with Windows 8.1. Screens simulated. Receive a free upgrade to Windows 10, when available. Features may vary by device. See www.microsoft.com/en/mobile/windows10/ for more details. (Introducing Microsoft Lumia at 13.)

Claim 15	Exemplary Disclosures (Express and/or Inherent) and Citations
	Device Diagram Get familiar with the hardware of your Microsoft Lumia 640  The diagram illustrates the hardware components of the Microsoft Lumia 640. The front view shows the multi-touch display with a notification bar at the top and various app icons. The rear view shows the 8MP rear-facing camera, LED flash, and speaker. Labels point to specific features on both views. Front View Labels: - Headset jack - HD 0.9MP Front-facing camera - Notification bar - Apps icons - Multi-touch display - Back key - Start key - USB/charging port - Receiver/front microphone - Volume keys - Power/Sleep/Wake button - Search key - Bottom microphone Rear View Labels: - LED Flash 8MP Rear-facing Camera - Volume keys - Power/Sleep/Wake button - Speaker (Device Diagram.)

Claim 15	Exemplary Disclosures (Express and/or Inherent) and Citations
	(Lumia 640 Device.) (Lumia 640 Device.)

Claim 15	Exemplary Disclosures (Express and/or Inherent) and Citations
[15a] a body having a practically rectangular shape;	Lumia 640, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "a body having a practically rectangular shape." <i>See supra</i> claim [1a].

Claim 15	Exemplary Disclosures (Express and/or Inherent) and Citations		
[15b] a processor; and	Lumia 640, alone or in combination with other references identified in this chart or elsewhere in Defendants’ invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless’s apparent interpretation of this limitation, discloses “a processor.” For example, Lumia 640 includes a Qualcomm Snapdragon processor. (Prepared for Anything at 2-5, 7; Introducing Microsoft Lumia at 12, 13.)  Lumia 640 3G Dual SIM Prepared for Anything Windows Phone <table border="1"> <tr> <td> Key Features • Latest version of Windows Phone 8.1 along with seamlessly integrated Microsoft Office experiences • Built-in Skype integration and a 1MP front-facing camera for switching seamlessly between voice and video calls • 8MP camera with LED flash and Lumia Camera right out of the box • 1GB of memory and powerful quad core processor • Smart Dual SIM to ensure you never miss a call Accessories • Cover for Lumia 640 – with card holder • Microsoft Screen Sharing for Lumia Phones • Comfort Headset Size: 141.3 x 72.2 x 8.85 (volumetric) mm Weight: 145g Colors:  Talk time and Standby time (Estimates) • Standby time: up to 35 days (840 hours) • Talk time: up to 27.3 hours (2G) • Talk time: up to 20.3 hours (3G) Sales Package • Lumia 640 3G Dual SIM • Charger: AC-20 • WH-108 headset (In select markets only) • Battery: BV-T5C (removable) • User guide • Note: there may be differences in country / customer variants </td><td> Operating System: Windows Phone 8.1 with Lumia Denim Networks: • GSM/EDGE: 850/900/1800/1900 MHz, WCDMA: 850/900/1900/2100 MHz Processor: CPU Qualcomm Snapdragon 400 (MSM8926), 1.2 GHz quad core processor Memory: 1GB RAM, 8 GB internal mass memory + up to 128 GB Micro SD & 30GB* free OneDrive cloud storage Display: 5" HD (1280x720, 16:9) IPS LCD, 294 PPI, Glance screen, Corning Gorilla Glass 3, Sunlight readability enhancements Primary Camera: 8 MP AF (3280x2464), f/2.2, 28 mm, 1080p @ 30 fps video (continuous autofocus), Flash: LED, Lumia Camera Secondary Camera: HD 1 MP wide angle, f/2.4, 720p video Connectivity: BT 4.0, microUSB 2.0, Micro SIM, A-GPS +GLONASS, BeiDou, DLNA, Screen cloning with Miracast, WLAN 802.11 b/g/n/ Sensors: Accelerometer, Magnetometer, Proximity, Ambient Light Sensor Audio: 3.5 mm AV connector (AHJ), FM Radio, Internet Radio Battery: 2500 mAh (BV-T5C) removable battery * available when camera roll back up is activated.  </td></tr> </table> (Prepared for Anything at 2.)	Key Features • Latest version of Windows Phone 8.1 along with seamlessly integrated Microsoft Office experiences • Built-in Skype integration and a 1MP front-facing camera for switching seamlessly between voice and video calls • 8MP camera with LED flash and Lumia Camera right out of the box • 1GB of memory and powerful quad core processor • Smart Dual SIM to ensure you never miss a call Accessories • Cover for Lumia 640 – with card holder • Microsoft Screen Sharing for Lumia Phones • Comfort Headset Size: 141.3 x 72.2 x 8.85 (volumetric) mm Weight: 145g Colors:  Talk time and Standby time (Estimates) • Standby time: up to 35 days (840 hours) • Talk time: up to 27.3 hours (2G) • Talk time: up to 20.3 hours (3G) Sales Package • Lumia 640 3G Dual SIM • Charger: AC-20 • WH-108 headset (In select markets only) • Battery: BV-T5C (removable) • User guide • Note: there may be differences in country / customer variants	Operating System: Windows Phone 8.1 with Lumia Denim Networks: • GSM/EDGE: 850/900/1800/1900 MHz, WCDMA: 850/900/1900/2100 MHz Processor: CPU Qualcomm Snapdragon 400 (MSM8926), 1.2 GHz quad core processor Memory: 1GB RAM, 8 GB internal mass memory + up to 128 GB Micro SD & 30GB* free OneDrive cloud storage Display: 5" HD (1280x720, 16:9) IPS LCD, 294 PPI, Glance screen, Corning Gorilla Glass 3, Sunlight readability enhancements Primary Camera: 8 MP AF (3280x2464), f/2.2, 28 mm, 1080p @ 30 fps video (continuous autofocus), Flash: LED, Lumia Camera Secondary Camera: HD 1 MP wide angle, f/2.4, 720p video Connectivity: BT 4.0, microUSB 2.0, Micro SIM, A-GPS +GLONASS, BeiDou, DLNA, Screen cloning with Miracast, WLAN 802.11 b/g/n/ Sensors: Accelerometer, Magnetometer, Proximity, Ambient Light Sensor Audio: 3.5 mm AV connector (AHJ), FM Radio, Internet Radio Battery: 2500 mAh (BV-T5C) removable battery * available when camera roll back up is activated. 
Key Features • Latest version of Windows Phone 8.1 along with seamlessly integrated Microsoft Office experiences • Built-in Skype integration and a 1MP front-facing camera for switching seamlessly between voice and video calls • 8MP camera with LED flash and Lumia Camera right out of the box • 1GB of memory and powerful quad core processor • Smart Dual SIM to ensure you never miss a call Accessories • Cover for Lumia 640 – with card holder • Microsoft Screen Sharing for Lumia Phones • Comfort Headset Size: 141.3 x 72.2 x 8.85 (volumetric) mm Weight: 145g Colors:  Talk time and Standby time (Estimates) • Standby time: up to 35 days (840 hours) • Talk time: up to 27.3 hours (2G) • Talk time: up to 20.3 hours (3G) Sales Package • Lumia 640 3G Dual SIM • Charger: AC-20 • WH-108 headset (In select markets only) • Battery: BV-T5C (removable) • User guide • Note: there may be differences in country / customer variants	Operating System: Windows Phone 8.1 with Lumia Denim Networks: • GSM/EDGE: 850/900/1800/1900 MHz, WCDMA: 850/900/1900/2100 MHz Processor: CPU Qualcomm Snapdragon 400 (MSM8926), 1.2 GHz quad core processor Memory: 1GB RAM, 8 GB internal mass memory + up to 128 GB Micro SD & 30GB* free OneDrive cloud storage Display: 5" HD (1280x720, 16:9) IPS LCD, 294 PPI, Glance screen, Corning Gorilla Glass 3, Sunlight readability enhancements Primary Camera: 8 MP AF (3280x2464), f/2.2, 28 mm, 1080p @ 30 fps video (continuous autofocus), Flash: LED, Lumia Camera Secondary Camera: HD 1 MP wide angle, f/2.4, 720p video Connectivity: BT 4.0, microUSB 2.0, Micro SIM, A-GPS +GLONASS, BeiDou, DLNA, Screen cloning with Miracast, WLAN 802.11 b/g/n/ Sensors: Accelerometer, Magnetometer, Proximity, Ambient Light Sensor Audio: 3.5 mm AV connector (AHJ), FM Radio, Internet Radio Battery: 2500 mAh (BV-T5C) removable battery * available when camera roll back up is activated. 		

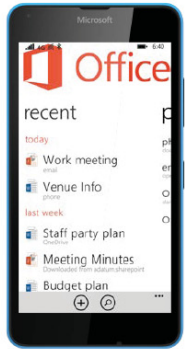
Claim 15	Exemplary Disclosures (Express and/or Inherent) and Citations
	12 Microsoft Lumia with Windows 10  Microsoft Lumia phones. Microsoft inside and out. Microsoft Lumia phones bring together cutting-edge technology with our celebrated Windows 10 operating system and business-focused tools. The latest Microsoft Lumia phones are packed with the latest features, to get the most out of Windows 10. For example, the Microsoft Lumia 950 and 950 XL support Windows Hello Beta, an exciting innovation that uses biometric information to unlock your phone. These devices also support mobile docking and wireless charging, and have the latest features you'd expect from a business phone¹. And with a commitment from Microsoft to continuous updates and innovations, this will only get better over time². • 4G LTE-ready connectivity – for faster data connections³ • Gorilla Glass® and durable build – help protect your investments from scratches and everyday damage³ • Wireless charging – select Microsoft Lumia phones (950 and 950 XL) can be charged wirelessly, keeping clutter to a minimum³ • Qualcomm® Snapdragon™ processors – for speed, connectivity and helping longer battery life • Replaceable batteries – for more control • HD and wide-angle lenses – for better video conferencing³  ¹ Mobile docking and wireless charging features also require additional hardware and/or accessories (sold separately). ² Additional requirements will apply over time for updates, and availability may vary by device, carrier and market. ³ Features may vary by device. (Introducing Microsoft Lumia at 12.) Additional exemplary citations include:

Claim 15	Exemplary Disclosures (Express and/or Inherent) and Citations
	Lumia 640 LTE Single SIM Prepared for Anything  Windows Phone Key Features • Latest version of Windows Phone 8.1 along with seamlessly integrated Microsoft Office experiences • Built-in Skype integration and a 1MP front-facing camera for switching seamlessly between voice and video calls • 8MP camera with LED flash and Lumia Camera right out of the box • 1GB of memory and powerful quad core processor • Fast LTE connectivity Accessories • Cover for Lumia 640 – with card holder • Microsoft Screen Sharing for Lumia Phones • Comfort Headset Size: 141.3 x 72.2 x 8.85 (volumetric) mm Weight: 145g Colors:  Talk time and Standby time (Estimates) • Standby time: up to 36 days (870 hours) • Talk time: up to 26.5 hours (2G) • Talk time: up to 17.5 hours (3G) Sales Package • Lumia 640 LTE Single SIM • Charger: AC-20 • WH-108 headset (In select markets only) • Battery: BV-T5C (removable) • User guide • Note: there may be differences in country / customer variants Operating System: Windows Phone 8.1 with Lumia Denim Networks: • LTE: 1, 3, 7, 8, 20 (2100, 1800, 2600, 900, 800) MHz • GSM/EDGE: 850/900/1800/1900 MHz, WCDMA: 850/900/2100 MHz Processor: CPU Qualcomm Snapdragon 400 (MSM8926), 1.2 GHz quad core processor Memory: 1GB RAM, 8 GB internal mass memory + up to 128 GB Micro SD & 30GB* free OneDrive cloud storage Display: 5" HD (1280x720, 16:9) IPS LCD, 294 PPI, Glance screen, Corning Gorilla Glass 3, Sunlight readability enhancements Primary Camera: 8 MP AF (3280x2464), f/2.2, 28 mm, 1080p @ 30 fps video (continuous autofocus), Flash: LED, Lumia Camera Secondary Camera: HD 1 MP wide angle, f/2.4, 720p video Connectivity: BT 4.0, microUSB 2.0, Micro SIM, A-GPS +GLONASS, BeiDou, NFC, DLNA, Screen cloning with Miracast, WLAN 802.11 b/g/n/ Sensors: Accelerometer, Magnetometer, Proximity, Ambient Light Sensor Audio: 3.5 mm AV connector (AHJ), FM Radio, Internet Radio Battery: 2500 mAh (BV-T5C) removable battery * available when camera roll back up is activated. 

(Prepared for Anything at 3.)

Claim 15	Exemplary Disclosures (Express and/or Inherent) and Citations
	Lumia 640 LTE Dual SIM Prepared for Anything  Windows Phone Key Features • Latest version of Windows Phone 8.1 along with seamlessly integrated Microsoft Office experiences • Built-in Skype integration and a 1MP front-facing camera for switching seamlessly between voice and video calls • 8MP camera with LED flash and Lumia Camera right out of the box • 1GB of memory and powerful quad core processor • Best of both worlds with LTE support available on dual SIM models for the first time Accessories • Cover for Lumia 640 – with card holder • Microsoft Screen Sharing for Lumia Phones • Comfort Headset Size: 141.3 x 72.2 x 8.85 (volumetric) mm Weight: 145g Colors:  Talk time and Standby time (Estimates) • Standby time: up to 36 days (870 hours) • Talk time: up to 26.5 hours (2G) • Talk time: up to 17.5 hours (3G) Sales Package • Lumia 640 LTE Dual SIM • Charger: AC-20 • WH-108 headset (In select markets only) • Battery: BV-TSC (removable) • User guide • Note: there may be differences in country / customer variants Operating System: Windows Phone 8.1 with Lumia Denim Networks: • LTE: 1, 2, 3, 4, 5, 7, 8, 12, 20, 28 (2100, 1900, 1800 1700/2100, 850, 2600, 900, 700, 800, 700) MHz • TD-LTE: 38, 40 (2570-2620, 2300-2400) MHz • GSM/EDGE: 850/900/1800/1900 MHz, WCDMA: 850/900/1900/2100 and 1700/2100 MHz Processor: CPU Qualcomm Snapdragon 400 (MSM8926), 1.2 GHz quad core processor Memory: 1GB RAM, 8 GB internal mass memory + up to 128 GB Micro SD & 30GB* free OneDrive cloud storage Display: 5" HD (1280x720, 16:9) IPS LCD, 294 PPI, Glance screen, Corning Gorilla Glass 3, Sunlight readability enhancements Primary Camera: 8 MP AF (3280x2464), f/2.2, 28 mm, 1080p @ 30 fps video (continuous autofocus), Flash: LED, Lumia Camera Secondary Camera: HD 1 MP wide angle, f/2.4, 720p video Connectivity: BT 4.0, microUSB 2.0, Micro SIM, A-GPS + GLONASS, BeiDou, NFC, DLNA, Screen cloning with Miracast, WLAN 802.11 b/g/n/ Sensors: Accelerometer, Magnetometer, Proximity, Ambient Light Sensor Audio: 3.5 mm AV connector (AHJ), FM Radio, Internet Radio Battery: 2500 mAh (BV-TSC) removable battery * available when camera roll back up is activated. 

(Prepared for Anything at 4.)

Claim 15	Exemplary Disclosures (Express and/or Inherent) and Citations
	THIS IS LUMIA 640 LUMIA 640 HELPS PEOPLE ACCOMPLISH MORE ON THE GO – RIGHT OUT OF THE BOX Increased Productivity Easily connect with work and personal e-mail correspondence on the go with Microsoft Outlook, built-in and free. Access, edit and share Word, Excel and PowerPoint documents, and OneNote notebooks, wherever you may be whether they are work presentations or your all-important CV. Built-in Skype Integration Skype comes pre-loaded on Lumia 640 so you have instant access to free calls to over 300 million Skype users. The Skype experience is made even better with built-in Skype integration and a front-facing camera which allow you to switch seamlessly between voice and video calls and chat with the utmost ease. Innovations Brought by Windows Phone 8.1 and Lumia Denim Have the most personalized home screen with the latest version of Windows Phone 8.1 which is powered by a speedy quad core processor. Lumia 640 comes complete with one-swipe Action Center, Word Flow, Live folders and Cortana (where available), a truly personal virtual assistant that anticipates your needs and makes tailored suggestions as a result. In addition to all of that, you can stay up-to-date with the best features through regular updates to Windows. Lumia 640 will upgrade to, and benefit from the core features of Windows 10 as it becomes available later this year. OneDrive Cloud Storage Save and sync photos, videos and Office documents securely with free OneDrive cloud storage*, so that your documents go wherever you go. With OneDrive, there is no need to worry about losing important documents or pictures. The auto back-up feature means all your files are uploaded with zero hassle. Furthermore, the OneDrive upload file size limit has been increased by 400%, to 10GB, so you can upload whatever documents and videos you need without having to worry about size.   * 15 GB of OneDrive access comes standard. Additional 15 GB of OneDrive access with activation of camera roll backup. Unlimited OneDrive access with activation of included Office 365 Personal subscription.  Windows Phone  Microsoft (Prepared for Anything at 5.)

Claim 15	Exemplary Disclosures (Express and/or Inherent) and Citations
	THIS IS LUMIA 640 SEAMLESSLY SWITCH BETWEEN WORK AND PLAY WITH LUMIA 640 Smooth Access to Everything you Love Packed with speed, Lumia 640 allows you to smoothly and quickly access important documents or run all of your favorite websites, apps and games thanks to a powerful quad core Qualcomm Snapdragon processor and Windows Phone 8.1. Power and Flexibility Power through the work day with battery to spare, thanks to a 2500 mAh long-lasting battery. Enjoy all of your favorite apps with plenty of power and memory including 1GB of memory and 8GB of on-board storage - expandable up to 128GB microSD, not to mention free OneDrive storage*. Lumia 640 allows you to enjoy all the apps you love – alive on your home screen. You can even run apps from your memory card. Crisp Display Enjoy smooth web browsing and gaming action on the crisp 5" display even in bright daylight condition. Detail Rich Photos Lumia 640 is equipped with a 8 MP rear facing camera, perfect for capturing detail rich photos even in low light. It even sports the latest Lumia Camera app right out of the box, ensuring you capture that perfect shot every time. In addition, the front facing camera allows for more meaningful face-to-face Skype video calls, as well as great selfies which can be captured, edited and shared quickly and easily via the dedicated Lumia Selfie app. Glance Screen Innovations Glance Screen on your Lumia 640 helps you keep track of information in real time. All your most important notifications including calls, messages, emails, calendar updates, or any apps that use notifications such as Twitter, Facebook, Whatsapp, or games, are always visible at a glance of your screen. This will save you time and energy.  * 15 GB of OneDrive access comes standard. Additional 15 GB of OneDrive access with activation of camera roll backup. Unlimited OneDrive access with activation of included Office 365 Personal subscription. Windows Phone Microsoft (Prepared for Anything at 7.)

Claim 15	Exemplary Disclosures (Express and/or Inherent) and Citations
	13 Microsoft Lumia with Windows 10 ⌕ ⌕ ⌕ The latest range of Microsoft Lumia phones. Microsoft Lumia 550 Screen size: 4.7" HD720 Connectivity: 4G-ready Main camera: 5MP with LED flash Front camera: 2MP camera and 480p video recording Processor (speed): Qualcomm® Snapdragon™ 210 Quad-core Microsoft Lumia 640* Screen size: 5" Gorilla Glass® 3 Connectivity: 4G-ready Main camera: 8MP Front camera: 1MP HD wide angle Processor (speed): Qualcomm® Snapdragon™ 1.2GHz quad-core Microsoft Lumia 640 XL* Screen size: 5.7" Gorilla Glass® 3 Connectivity: 4G-ready Main camera: 13MP ZEISS optics Front camera: Full HD 5MP wide angle Processor (speed): Qualcomm® Snapdragon™ 1.2GHz quad-core Microsoft Lumia 650 Screen size: 5" HD OLED Connectivity: 4G-ready Main camera: 8 MP autofocus with LED flash Front camera: 5MP wide angle Processor: Qualcomm® Snapdragon™ Quad-core 1.3 GHz Microsoft Lumia 950 Screen size: 5.2" QuadHD Gorilla Glass® 3 Connectivity: 4G-ready Main camera: Pureview 20MP ZEISS optics with triple LED flash Front camera: Full HD 5MP wide angle Processor: Qualcomm® Snapdragon™ 808 64-bit HexaCore Microsoft Lumia 950 XL Screen size: 5.7" QuadHD Gorilla Glass® 4 Connectivity: 4G-ready Main camera: Pureview 20MP ZEISS optics with triple LED flash Front camera: Full HD 5MP wide angle Processor: Qualcomm® Snapdragon™ 810 64-bit Octa-core *Microsoft Lumia 640 and 640 XL come with Windows 8.1. Screens simulated. Receive a free upgrade to Windows 10, when available. Features may vary by device. See www.microsoft.com/en/mobile/windows10/ for more details. (Introducing Microsoft Lumia at 13.)
[15c] a display unit, said display unit occupying practically the entire surface of the front surface of said device is integrated within said device;	Lumia 640, alone or in combination with other references identified in this chart or elsewhere in Defendants’ invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless’s apparent interpretation of this limitation, discloses “a display unit, said display unit occupying practically the entire surface of the front surface of said device is integrated within said device.” <i>See supra</i> claim [1e] (discussing the limitation “a display unit, said display unit occupying practically the entire surface of the front surface of said device is integrated within said device”).

Claim 15	Exemplary Disclosures (Express and/or Inherent) and Citations
[15d] wherein plurality of icons corresponding to a plurality of applications are displayed by said processor on said display unit; and	Lumia 640, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "wherein plurality of icons corresponding to a plurality of applications are displayed by said processor on said display unit." <i>See supra</i> claim [3a] (discussing limitation "plurality of icons corresponding to plurality of applications are displayed on said display unit"). For the reasons discussed in connection with claim [3a], a POSITA would have been motivated to implement this limitation in view of Lumia 640, POSITA's pre-existing knowledge, and/or the teachings of the references cited <i>supra</i> claim [3a]. A POSITA would have expected the displayed icons to be displayed by a processor as discussed <i>supra</i> claim [15b].
[15e] wherein upon identifying an input corresponding to a sweeping action provided on a touch sensitive surface of said device, said processor displays plurality of other icons corresponding to plurality of other applications on said display unit.	Lumia 640, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "wherein upon identifying an input corresponding to a sweeping action provided on a touch sensitive surface of said device, said processor displays plurality of other icons corresponding to plurality of other applications on said display unit." <i>See supra</i> claim [3b] (discussing limitation "and wherein upon providing a sweeping action on said display unit, plurality of other icons corresponding to plurality of other applications are displayed on said display unit"). A POSITA would have understood that on the touch-screen, the display is a touch-sensitive surface. <i>See also supra</i> claim [9e].

Claim 16	Exemplary Disclosures (Express and/or Inherent) and Citations
[16pre] The device of claim 15,	Claim 16 depends from claim 15. Defendant incorporates all the prior art disclosures from claim 15 here, which anticipate and/or render claim 15 obvious as set out above. Defendant reserves the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claim 15 to show the additional limitations of claim 16 are anticipated and/or obvious for the same reasons set out in claim 15. Lumia 640, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and

Claim 16	Exemplary Disclosures (Express and/or Inherent) and Citations
	Keyless's apparent interpretation of this limitation, discloses "[t]he device of claim 15." <i>See supra</i> claim [15].
[16a] wherein said display unit is touch sensitive and wherein said sweeping action is provided on said display unit.	Lumia 640, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "wherein said display unit is touch sensitive and wherein said sweeping action is provided on said display unit." <i>See supra</i> claim [3b] (discussing limitation "and wherein upon providing a sweeping action on said display unit, plurality of other icons corresponding to plurality of other applications are displayed on said display unit"), claim [9e] (discussing limitation "a touch sensitive display unit").

Claim 17	Exemplary Disclosures (Express and/or Inherent) and Citations
[17pre] The device of claim 15	Claim 17 depends from claim 15. Defendant incorporates all the prior art disclosures from claim 15 here, which anticipate and/or render claim 15 obvious as set out above. Defendant reserves the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claim 15 to show the additional limitations of claim 17 are anticipated and/or obvious for the same reasons set out in claim 15. Lumia 640, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "[t]he device of claim 15." <i>See supra</i> claim [15].
[17a] wherein upon providing a predefined interaction with an icon, the corresponding application is opened on the screen.	Lumia 640, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "wherein upon providing a predefined interaction with an icon, the corresponding application is opened on the screen." <i>See supra</i> claim [4a] (discussing limitation "wherein upon providing a predefine interaction with an icon, said corresponding application is opened on the display unit").

Claim 18	Exemplary Disclosures (Express and/or Inherent) and Citations
[18pre] The device of claim 15	Claim 18 depends from claim 15. Defendant incorporates all the prior art disclosures from claim 15 here, which anticipate and/or render claim 15 obvious as set out above. Defendant reserves the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claim 15 to show the additional limitations of claim 18 are anticipated and/or obvious for the same reasons set out in claim 15. Lumia 640, alone or in combination with other references identified in this chart or elsewhere in Defendants’ invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless’s apparent interpretation of this limitation, discloses “[t]he device of claim 15.” <i>See supra</i> claim [15].
[18a] wherein said device does not include a physical key on the front surface of the device.	Lumia 640, alone or in combination with other references identified in this chart or elsewhere in Defendants’ invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless’s apparent interpretation of this limitation, discloses “wherein said device does not include a physical key on the front surface of the device.” <i>See supra</i> claim [1f] (discussing limitation “wherein said mobile phone device does not include a physical key on the front surface”)

Claim 19	Exemplary Disclosures (Express and/or Inherent) and Citations
[19pre] The device of claim 15	Claim 19 depends from claim 15. Defendant incorporates all the prior art disclosures from claim 15 here, which anticipate and/or render claim 15 obvious as set out above. Defendant reserves the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claim 15 to show the additional limitations of claim 19 are anticipated and/or obvious for the same reasons set out in claim 15. Lumia 640, alone or in combination with other references identified in this chart or elsewhere in Defendants’ invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless’s apparent interpretation of this limitation, discloses “[t]he device of claim 15.” <i>See supra</i> claim [15].

Claim 19	Exemplary Disclosures (Express and/or Inherent) and Citations
[19a] wherein said components of the mobile phone are integrated within the body such that none of said components is noticeably extended out from said the body.	Lumia 640, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "wherein said components of the mobile phone are integrated within the body such that none of said components is noticeably extended out from said the body." <i>See supra</i> claim [1g] (discussing limitation "wherein said components of the mobile phone are integrated within said housing such that none of said components is noticeably extended out from said housing").
Claim 20	Exemplary Disclosures (Express and/or Inherent) and Citations
[20pre] The device of claim 15	Claim 20 depends from claim 15. Defendant incorporates all the prior art disclosures from claim 15 here, which anticipate and/or render claim 15 obvious as set out above. Defendant reserves the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claim 15 to show the additional limitations of claim 20 are anticipated and/or obvious for the same reasons set out in claim 15. Lumia 640, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "[t]he device of claim 15." <i>See supra</i> claim [15].
[20a] wherein said display unit is adapted to display text entered through a keyboard in landscape direction and in portrait direction on said display unit when the device is used, respectively, in landscape position and in portrait position.	Lumia 640, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "wherein said display unit is adapted to display text entered through a keyboard in landscape direction and in portrait direction on said display unit when the device is used, respectively, in landscape position and in portrait position." <i>See supra</i> claim [5a] (discussing limitation "wherein said device is adapted to display text entered through a keyboard in landscape direction and in portrait direction on said display unit when the device is used, respectively, in landscape position and in portrait position").