LG Display takes high jump in panel for phones

April 4 2015, by Nancy Owano

Quad High-Definition. That's a phrase you're likely to see more and more of this year, as Seoul, Korea-based LG Display announced Friday it is launching a 5.5-inch QHD LCD panel for smartphones. So what?

This launch, said LG Display, happens to represent "a quantum jump" in color gamut, brightness and contrast ratio, touch function, power consumption and thinness.

The company's high color gamut technology can provide more accurate colors in red and green; LG Display reported a 20 percent improvement in color gamut with this technology. The display provides a 120 percent color gamut, exceeding the 100 percent gamut offered on conventional panels, for mobile devices. The company said, "The high color gamut LED technology provides more accurate colors in red and green by combining a blue LED chip with red and green phosphors instead of combining the blue LED chip with a yellow phosphor used in conventional LED backlights."

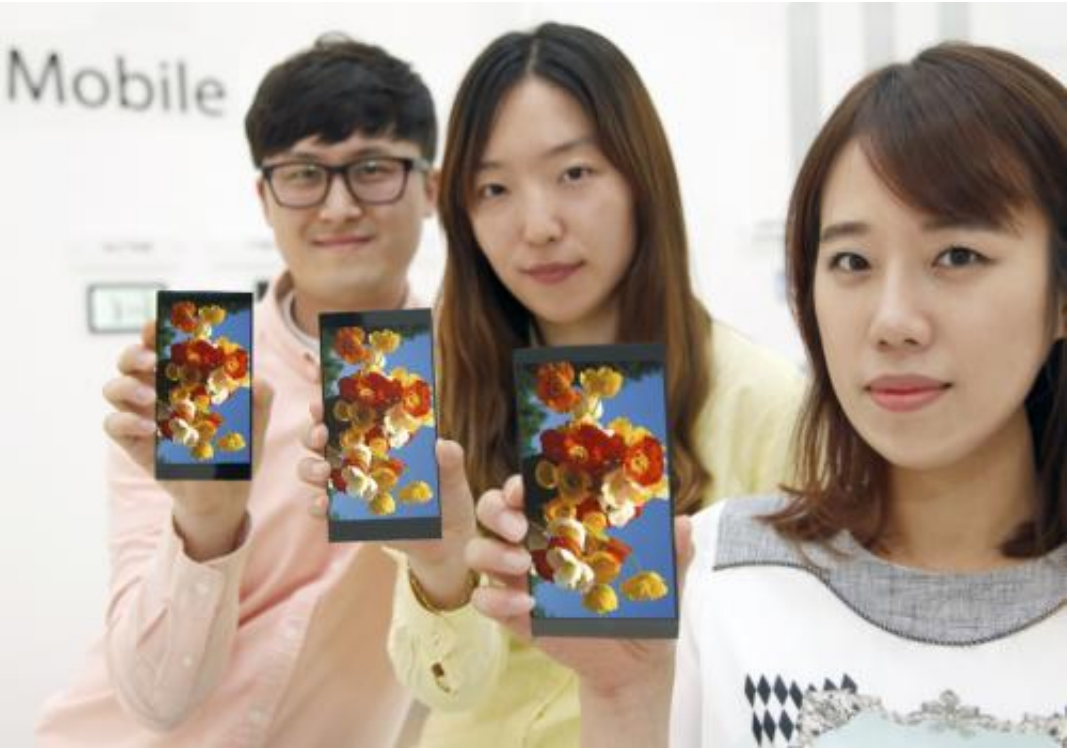
LG Display said the QHD display has 1,440 x 2,560 resolution, four times higher than HD resolution (720 x 1,280), and the number of pixels per inch is 538 PPI on the 5.5-inch panel size.

A higher contrast ratio (contributing to deeper blacks and brighter colors for a sharper picture quality) is 50 percent higher than conventional QHD LCD panels and brightness, 30 percent higher, without any increase in power consumption, said the company.

Touch sensitivity via Advanced In-Cell Touch (AIT) technology is another feature to watch. According to LG Display's team, placing a touch panel on top of the LCD was not the way they wanted to go; they chose to embed the touch sensor within the LCD. What they got as a result was a slimmer design; the thickness of the panel was reduced by eliminating the need for additional space for touch functions.

In October last year, AIT developers similarly said that the in-cell touch panel is "a type of technology where the touch-panel itself is built in the LCD. AIT technology is differentiated from the existing on-cell method,

which adds the transparent electrode film on the glass substrate with transparent glue." One of the significant changes is that it enables one to touch the screen even with gloves on, said Chief Research Engineer Hong-Chul Kim in that report.



The company has started mass production of the QHD LCD panel, to be used in LG Electronics' forthcoming flagship smartphone, said the company, to be unveiled at the end of the month.

Lance Whitney writing in *CNET* on Friday, said "LG did not mention the name of its next flagship phone in Friday's announcement. But the company will host a launch event on April 28 for the device."

On March 30, Aloysius Low in *CNET* reported that LG had sent out invites to upcoming events simultaneously taking place around the world in late April, "and they likely point to one thing: the unveiling of its new flagship handset." Low said the electronics giant was to host events on April 28 and April 29 (due to time zones) in six cities: New York, London, Paris, Seoul, Singapore and Istanbul.

More information: lgdnewsroom.com/press_releases/5777

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