Samsung patent application explores watch rim for second display

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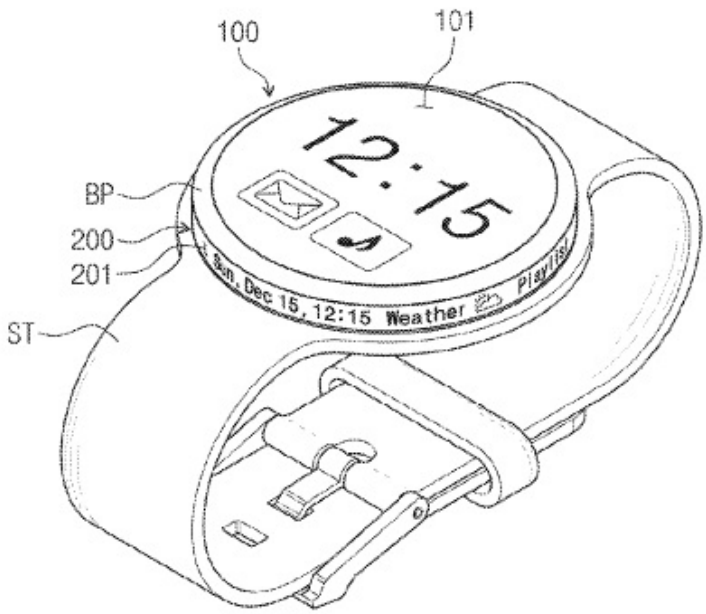

Credit: USPA 20170082982

(Tech Xplore)—The word *small* in digital gadgetry usually gets a bad reception. Small screen, small fonts, small display, are descriptives that usually draw frowns if not apologies. Samsung is another story.

Samsung—that company with imagination, electronic knowhow and a love for patents. (*BusinessInsider UK* said Samsung was granted more US

patents than any other company in 2016.)

Samsung appears obviously in the know about how to approach *small* to make its own lemonade.

Patent information reveals that Samsung has proposed an idea for a smartwatch of the future with a unique secondary rim that behaves as a display.

Luke Johnson in *TrustedReviews* said that the patent is showing "how an additional circular screen could be squeezed in to the outside edge of the watch's round bezel."

Johnson and other tech watchers have been talking about the patent application filed with the United States Patent and Trademark Office (USPTO). Samsung filed their patent application back in March 2016 and it is titled "Display Device and Smart Watch."

Patently Apple reports: "On Thursday a Samsung patent came to light that illustrated a secondary display being added to the rim of Samsung's Gear smartwatch." The report noted that Samsung's rotary dial around the watch already plays a role in allowing users to change apps but this other idea is special.

On the Samsung Gear S3 smartwatch, the bezel is used to scroll through the user interface (UI) without having to touch the display on the smartwatch, said *Android Headlines*.

Debshikha Banerjee, in *Droidmen*, an Android news portal, said under this patent concept, a smartwatch will feature a rotating dial display. Banerjee talked more about this rotating dial display.

She said it will feature "various bits of information such as weather, date

and time, playlist information, etc. It might also display notifications." *Android Headlines* referred to the second screen —which could be useful in locating this kind of basic information, "without having to launch specific apps or scroll through screens of widgets."

Patently Mobile, in closer detail commented that "Samsung's patent filing is 99% technical about the chips and circuitry to accomplish the concept of a fully rounded secondary display."

The report said that according to the filing the rotary display was limited to 90 degrees rotation.

According to Banerjee's report, Samsung said the rotating dial display is split in two parts, upper and lower.

C H Nguyen In *Android Headlines*: "To activate the secondary display on Samsung's smartwatch, you'll need to rotate the digital bezel."

The abstract reads, "A display device and a smart watch are disclosed. In one aspect, the display device includes a front display panel configured to display a front image in a front direction and having an edge at the perimeter that is curved. The display device also includes a side display panel that is curved and configured to display a side image in a side direction conforming to the edge of the front display panel. The display device further includes a driver circuit board connected to the front and side display panels and configured to respectively apply first and second signals, corresponding to image data, to the front and side display panels."

Patently Apple makes a statement about the bigger picture that goes without saying but, in the context of this patent news, is worth repeating. "The smartwatch market today remains a large niche market. In order to move it to a mass-market, designs have to go beyond the traditional

look."

More information: DISPLAY DEVICE AND SMART WATCH, United States Patent Application, 20170082982