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Seiko Epson Breaks OLED Record, Achieves "Ultimate Black"

As well as a 50,000 hours functioning lifespan

It's becoming pretty clear that OLEDs represent the display solutions of choice for the future, as these organic light-emitting diode-based devices can provide an image quality similar to that obtained by the most advanced LCD and plasma screens, without requiring a very high amount of power. And this is the reason why Seiko Epson's latest development could prove to be extremely important, as the company has just announced the development of a very unique OLED display, capable of reproducing "the Ultimate Black". As some of you might know, the light emitting capabilities of OLED displays make possible such features as high contrast, wide viewing angles and fast response times. In addition, the display can be made very thin and lightweight, making this new device a promising candidate for next-generation flat panel displays. However, in order to make the device viable for practical applications, it was critical to find a solution to a number of technical problems, including how to give the device a longer life. As high-quality image representation lies at the heart of OLED displays, above and beyond what is possible with conventional flat panel displays, Epson determined that this was precisely the feature the company should pursue. To realize the requisite high-quality representation of textures, Epson has been uncompromising in its efforts to achieve "the ultimate black", since it is black that holds the key to overall image quality. Furthermore, the problem of early stage brightness deterioration, until now a major obstacle to extending the life of the device, was solved by improving the light-emitting materials and through the development of Epson's own original element structure. As a result, Epson was successful in lengthening the life of the device to more than 50,000 hours, a level appropriate for practical application. However, the extended functioning life is not necessarily the single most important breakthrough, since the device's other features are quite impressive as well: a 20.3-cm diagonal, 800 x 480 resolution, 200 cd/m² brightness level and 100,000 : 1 or greater contrast ratio. It remains to be seen just how soon the first working samples will hit the market, but one thing's for sure: since power saving and lowering the level of emissions are very important issues nowadays, OLEDs will most likely be just about everywhere in a couple of years, replacing the traditional, power-hungry displays. We are just a few, but there are many of you, Softpedia users, out there. That's why we thought it would be a good idea to create an email address for you to help us a little in finding gadgets we missed. Interesting links are bound to be posted with recognition going mainly to those who submit. The address is .