What Sharp’s IGZO display technology will mean for the Nintendo Switch

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A Sharp-produced video shows off IGZO’s advantages over traditional amorphous silicon TFT displays.
Nintendo will partner with Sharp to put the company’s IGZO (indium gallium zinc oxide) displays in the Switch, according to a report from the Wall Street Journal.

The Journal reported back in March that Sharp was set to be a new supplier for the Switch’s display technology, which is currently a silicon display provided by Taiwanese suppliers. Now, Executive Vice President Katsuaki Nomura says the company will be providing IGZO displays to “a video game client,” according to the Journal.

It’s not clear if the new display technology will show up in the portable-only Switch Lite (due in September), the new standard Switch model with improved battery life (coming this month), or both. Sharp’s IGZO displays first showed up in Japanese cell phones in late 2012, and these were soon being integrated into large-scale touchscreens, designed for desktop computer use. The new type of thin-film transistor (TFT) backplane in these displays allows for “electron mobility” that’s 20 to 50 times faster than traditional “amorphous

silicon” IPS displays, like those found in the Switch currently, Sharp says.

That, in turn, allows the display to be quickly switched on and off while showing still images, leading to “reduce[d] power consumption to a fifth or even a tenth that of conventional screens.” Such power reductions could help improve the Switch’s portable battery life, a selling point Nintendo has been stressing for both of its upcoming models.

Improved electron mobility also means IGZO displays can have slightly faster response times than traditional displays. Monitor comparison site Display Ninja suggests the change could help get those times down from 4ms to around 1ms. That’s not the kind of change most users would consciously notice, but it could help at the margins for games with high frame rates.

IGZO displays are also capable of providing greater color accuracy, increased brightness, and better pixel density than more widespread panel types, according to Display Ninja. The last of these could be particularly important for the Switch Lite, which packs the Switch’s 720p portable resolution into a 5.5″ diagonal display instead of the standard Switch’s 6.2″.

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