Fujitsu Iris Authentication Module
IR Camera Module & IR LED

Biometric authentication for smartphones with fingerprint sensors has been introduced by Apple in 2013 and became de facto standard in 2015 for high-end smartphones. Fujitsu is the first to try to introduce iris scan as the next biometric technology. This move could pave the way for the future, as we recall Fujitsu as a first mover on the fingerprint wave.

The Fujitsu Arrows NX F-04G unlocks the device and allows web login by simply looking at the screen. It uses Delta ID’s ActiveIRIS™ Technology and has been developed with the concept of a quick and easy user experience. Iris authentication is a biometric authentication system that uses the pattern of the iris in the human eye. This technology allows the screen to be unlocked very fast, and eliminates the need for inputting passwords or patterns.

The iris recognition system is composed of two elements: an Infrared Camera Module & an Infrared LED. Compared to fingerprint sensors, Fujitsu claims that the solution features a faster, safer and more secure authentication. It is also a cost effective solution due to the reuse of standard CIS and LED components.

OSRAM is the IR LED manufacturer and has designed this 810nm LED exclusively for this iris scan application. Sunny is taking a big risk with the manufacturing of the IR camera module, and integrates a state-of-the-art CMOS image sensor using a BSI process with a surprising element!

This report describes the supply chain of all the system (Camera Module, CIS, LED), cost and price calculations for the IR camera and the IR LED are performed.
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