Azoteq releases a chip made especially for wearables and smart watches

The IQS7210A allows designers to add a wake-up button, touchscreen, along with a waterproof button or force sensor, to wearables using a single chip.

The chip made for wearables and smart watches

The wake-up button options

PAARL, SOUTH AFRICA, February 15, 2022 /EINPresswire.com/ -- Azoteq, a pioneer in sensor fusion, has launched its new-generation multifunctional capacitive and inductive sensor. The IQS7210A allows designers to add a wake-up button, trackpad or touchscreen, along with a waterproof button or force sensor, to wearables using a single chip.

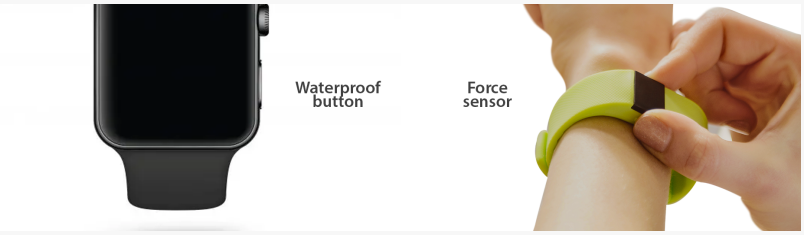
Azoteq's capacitive wake-up button uses ultra-low power. It can be designed on top of the touchscreen by utilizing one of the capacitive channels, or as a separate button alongside the touchscreen or trackpad. Once the button is touched, it wakes up the MCU, allowing you to save battery power and be on standby whenever the watch is not in use.

> By using only a single IC, it saves board space, bill of material, power consumption, and manufacturing costs."
>
> *Jean Viljoen*

Along with the wake-up button, the IQS7210A allows you to design a capacitive trackpad or touchscreen of up to 8x3 channels. The chip has built-in single-finger gesture recognition and two-finger tracking. The trackpad or touchscreen does not need any calibration – it automatically compensates for mechanical or temperature changes.

The third feature is a choice between Azoteq's waterproof inductive button or inductive force sensing. The waterproof button uses an inductive sensing coil

on the PCB to detect the movement of a metal object through the housing. This allows you to seal off all electronics on the inside of the housing, while still detecting the deflection of a metal button on the outside to produce a function.



Choose between a waterproof button or force sensor

Force sensing, however, happens when the user squeezes the housing of the application to produce the desired action – such as unlocking the screen. Force sensing is a popular user interface for wearable applications, as it is not prone to false activations. It is also a more robust and reliable interface than capacitive sensing in applications that tend to get wet or damp, or where the user is wearing gloves, such as in wearables that are used in more active lifestyles.

The IQS7210A is ideal for designing a mini-touchscreen and a waterproof button for an electronic toothbrush, remote control, or even a blender. In essence, Azoteq's IQS7210A IC is a multifunctional capacitive and inductive chip that allows you to add a wake-up button, trackpad or touchscreen, as well as a waterproof button or force sensor, to wearables using a single chip. By using only a single IC, it saves board space, bill of material, power consumption, and manufacturing costs.

About Azoteq (Pty) Ltd
Azoteq (www.azoteq.com) is a pioneer in sensor fusion. With more than a decade of capacitive-sensing experience, the sensor offering is now expanded to include multi-sensor technologies on single ICs. Azoteq has design and manufacturing centers in South Africa and China, and sales offices and distributors in South Africa, Asia, Europe and the USA.

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