**Aqua Switch Water-Resistant Touch Button**

The new water-resistant projected capacitive (PCAP) touch button is called the Aqua Switch. While standard PCAP touch products offer basic water resistance, they can still experience false touches when exposed to large amounts of water or running water. To address this issue, we have redesigned the button's design, structure, hardware, and firmware to reduce liquid noise interference, ensuring that the PCAP touch buttons remain responsive and accurate even under heavy flowing water.

Excellent Water-Resistant Performance

When water is present on the surface of PCAP touch products, the controller often misinterprets the water as a touch input, leading to false touches. To solve this issue, AMT developed the Aqua Switch touch button, which uses self-capacitance sensing technology and offers outstanding water resistance. Even when exposed to a direct water flow of 12.5 liters per minute (equivalent to the IPX5 rating), the touch buttons remain accurate and stable, with no false touches.


AMT Aqua Switch Water-Resistant Touch Button for smart bus stops

**Aqua Switch Features:**

- Specifically designed for wet environments; ideal for outdoor or industrial applications
- Light-touch activation for enhanced user convenience
- Supports slide operations for intuitive interaction
- Supports up to 14 buttons for flexible configuration
- Can be combined with LED lights or buzzers for visual and audio feedback

Product Technical Specifications

Common PCAP touch buttons on the market often suffer from unresponsive touch or false touches due to water interference. Aqua Switch provides sensitive and precise operation. Its control IC meets automotive-grade AEC-Q100 requirements and can withstand challenges in various environments. The control board paired with Aqua Switch is the PM1651, which is expected to be released in the third quarter of this year. We can also meet customers' IC-on-board requirements.

The supported specifications are as follows:

- Supported cover glass thickness: ≤4.0 mm
- Wide temperature design: -40°C to 85°C
- Interfaces: $I^2C$ / UART
- Meets IEC 61000 / AEC-Q100 standards

Outdoor Application Example

With the rise of environmental awareness and energy saving, many smart bus stops now use energy-efficient ePaper displays. Since these ePaper displays do not have built-in touch functions, integrating the Aqua Switch into the display's frame allows users to perform accurate touch operations even on rainy days, such as flipping pages or adjusting screen brightness, thereby enhancing the user experience. The Aqua Switch offers excellent weather resistance, making it suitable for outdoor environments with extreme temperatures, such as EV charging stations, gas stations, car washes, and more.

The Aqua Switch PCAP touch button can also be combined with PCAP touch panels, ensuring stable and reliable touch operation even in wet conditions!