



World Leader in Capacitive Proximity Sensing



Announcing the IQS211 Capacitive Controller with Proximity, Touch and Movement Detection Announced

Azoteq announces today the IQS211's release to market. The IQS211 is the first low cost proximity controller with movement detection that prevents stuck conditions.

The IQS211 offers one self-capacitance channel in a small SOT23-6 package. Proximity wakeup allows very low power consumption until the user interacts with the product.

The outputs can be configured via OTP settings for proximity or movement and touch outputs. The device can operate in standalone, I2C or 1-wire streaming modes.

The IQS211 has several modes of operation. In fast response mode the device only draws 80uA and in low power mode only 4 μ A while sensing, making it ideal for battery applications.

"The IQS211 is the lowest cost capacitive proximity, touch and movement controller available today" said Kobus Marneweck, VP of Marketing.

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Azoteq enables next generation user interfaces for users to interact naturally with products through capacitive proximity and touch

Azoteq to exhibit at Electronica 2014 in Munich, Germany

Azoteq plans to exhibit at Electronica 2014 in Munich, Germany on November 11th – 14th. Electronica 2014 is the International Trade Fair for Electrical Components, Systems, and Applications.

The focus of Azoteq's booth will be to demonstrate our Capacitive Proximity and Touch solutions.

Azoteq will present a wide range of capacitive proximity and touch solutions at our booth, showcasing the latest state of the art in capacitive sensing.

Live demo's will include 3D gesture trackpads, robust touch solutions for outdoor and vandal proof applications and low power proximity activated applications.

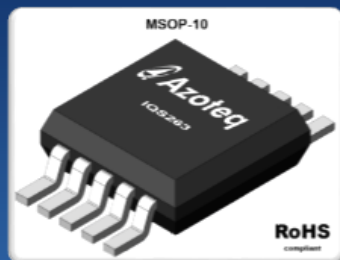
Other demos will show Azoteq's Movement Detector to differentiate between human contact and inanimate contact.

Please come by and visit our booth at Electronica 2014 in Munich! Our booth is located in Hall A5, Booth 516.



Visit us in Hall A5, Booth
516

For more information, email info@azoteq.com.



The IQS263 is one of our I2C sensors that are available with a Movement Filter

Available ICs with integrated Movement Filters

Azoteq has a wide variety of Capacitive Sensing ICs for any projects. For projects that need the Movement Filter, use the following ICs:

- IQS229
- IQS263
- IQS211

ESD test guidelines for touch-sensing applications

One of the biggest threats with regard to touch sensing applications is the risk of damage to the electronic equipment or components with electrostatic discharge (ESD). The testing of electrostatic discharge (ESD) immunity is usually done at expensive electromagnetic compliance (EMC) testing laboratories and the entire process can be very time consuming. This has led to a growing need for technical engineers and designers to be able to do their own pre-compliance testing.

The IEC standard is a system level test that replicates a charged person discharging to a system in a system end user environment. The purpose of the system level test is to ensure that finished products can survive normal operation. The IEC61000-4-2 standard is commonly used to certify equipment such as mobile phones and computers and any other sensitive electronic equipment such as that used in touch sensing applications.

Test Bench

The first step in the set-up is the test-bench: The drawing below is a simplified version of the test-bench set-up at Azoteq for table-top equipment.

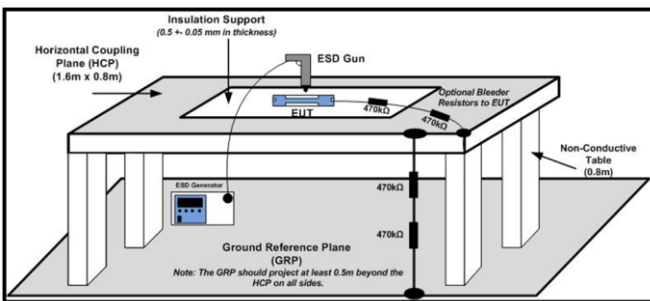


Figure 1: Basic Set-Up of Test Bench



Figure 2: The ESD test bench at Azoteq

Contact Discharge or Air Discharge

The IEC 61000-4-2 standard defines four standard levels of ESD protection, using two different testing methodologies: Contact discharge and air discharge.

These methods are often misunderstood and not performed correctly which leads to conflicting results. Below is a brief summary of the differences between the two methods:

Contact Discharge	Air Discharge
Preferred method	Use when contact discharge cannot be applied
More dedicated to conductive surfaces	More dedicated to insulating surfaces
Current levels and rise times are reproducible.	Current levels and rise times are less reproducible

The voltages shown are different for each method. This does not imply that the test severity is equivalent in all test methods.

For air discharge, testing is performed sequentially at all levels up to the specified test level.

For contact discharge, the test should be performed at the specified test level only unless otherwise specified by product committees.

For more information, email info@azoteq.com.

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Features

- Pin compatible with IQS127/128/227/228
- Automatic Tuning Implementation (ATI)
- On-chip movement detection algorithm
- Minimal external components
- Up to 60pF sensor load
- Standalone direct outputs:
 - Primary output – Activation
 - Secondary output - Movement
- I2C interface
- 1-Wire streaming interfaces
- Special configurations:
 - Activation based on capacitive load at power-on
 - Automatic Threshold Adjustment (ATA) with varying capacitive load
- Movement output selection:
 - Pulse Frequency Modulation (PFM, default)
 - Pulse Width Modulation (PWM)
 - Latched
 - PWM only active in activation
- Low power consumption:
 - 80uA (20ms response)
 - 20uA (50ms response)
 - 4uA Low Power mode
- Supply voltage: 1.8V to 3.6V
- Low profile TSOT23-6 package

Pricing and Availability

The IQS211 is priced at \$0.21 in quantities of 1K.



Applications of the IQS211

- Wearable devices (fitness)
- Movement detection devices (anti-theft)
- White goods and appliances
 - Human Interface Devices
- Proximity activated backlighting
 - Applications with long-term activation

Be kept up to date with the latest documents

Azoteq is committed to keeping you up to date with the latest documents and software. To be kept apprised of any new updates, please sign up to be notified today!

Just fill out the form on the Contact page and select what you would like to be kept up to date about.



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is Located [Here!](#)

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