![Chipsmall logo]

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts,Customers Priority,Honest Operation,and Considerate Service",our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!

Contact us

IQS128 on AZP242A02 Connection Guide

1 IQS128 on AZP242A02

Connect CX to sense button (See Appnote: AZD008 for button design guidelines)

U1
OUT
VSS
CTRL/ND
IQS128 TSOT23-6
CX
VDDHI
VREG

C1 100pF
C2 1uF
C3 1uF
C4 100pF
R2 470R
R3 2K0
R1 2K0

OUT = DYCAL Output
CTRL = Input CTRL or Touch output
ND = Multiplexed optional Noise Detector
Optional: 100pF capacitors for additional
RF immunity (C1 and C4).

2 PCboard (AZP242A02)

OUT
GND
CTRL/ND
CX/Sense plate
VDDHI

3 PCB Layout
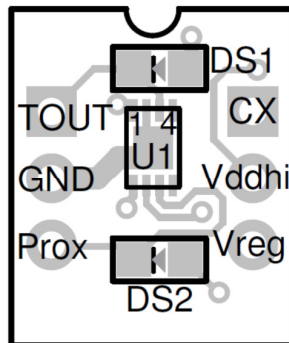

TOUT
GND
Prox
DS1
CX
Vddhi
Vreg
DS2
U1
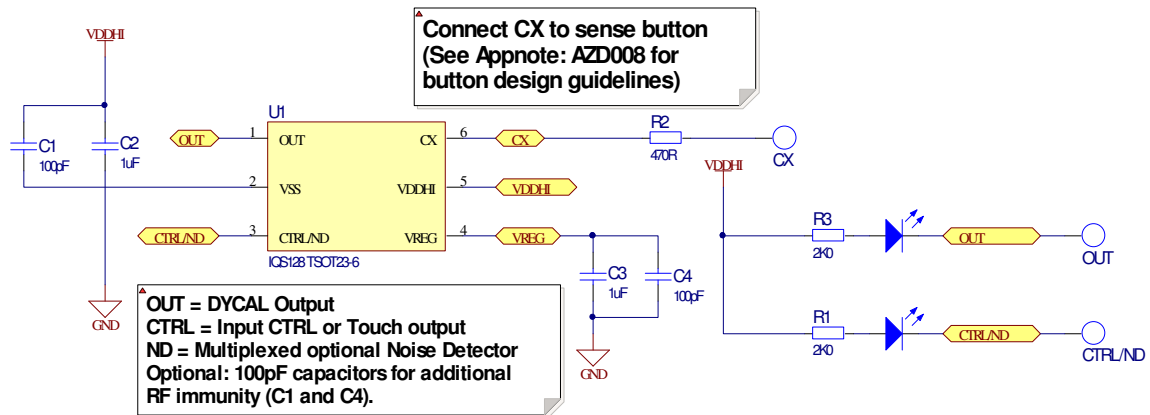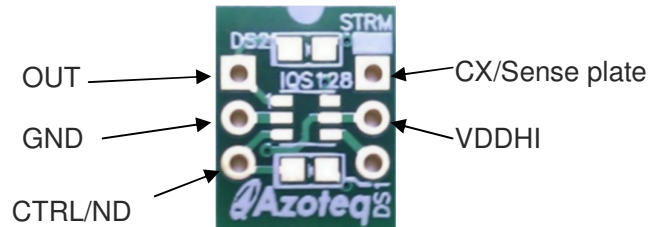
Figure 1.1   Top layer component placement
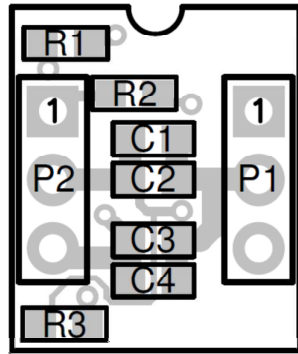
Figure 1.2   Bottom layer component placement

4 CT-Tool Connections

IQS128 pins	CT200 / CT220 pins	
	Programming	Streaming
GND	1	1
VDDHI	3	3
CTRL/ND	5	
CX	6	
OUT		10
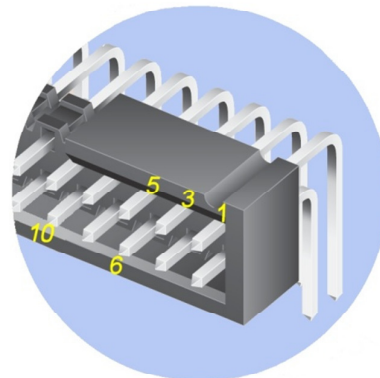
The IQS128 ProxSense® IC is a fully integrated capacitive sensor with Dynamic Calibration technology to compensate for sensor drift during proximity and touch detection.

Features

☐ Features DYCAL™ Intelligent Hysteresis
☐ Internal Capacitor Implementation (ICI)
☐ Automatic Antenna Tuning Implementation (Auto-ATI)
☐ Supply voltage: 2.95V to 5.5V
☐ Minimal external components
☐ 1-Wire open drain data streaming
☐ Advanced on-chip digital signal processing
☐ User selectable (OTP):

- External synchronization control or
- External control over filter operation
- I/O Sink or Source selection
- Time-out for stuck key

- Proximity and Touch sensitivity selections

6 pin TSOT23-6

IQS128LP offered in DFN(2x3)-8

Touch: 6 mm plastic, 10 mm glass

Proximity: 15cm

IQS128EV01 Kit includes:

- 3 x Module PCB with IQS128 (TSOT23-6)

Contact Information

Please visit www.azoteq.com for comprehensive datasheets, application notes, reference designs and a list of distributors for your region.