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# IQS227/8ASEV02 Quick start guide

Single Channel Capacitive Proximity/Touch Controller with movement detection

The IQS227/8AS ProxSense® IC is a self-capacitance controller designed for applications where an awake/activate on proximity/touch function is required. The IQS227/8AS operates standalone or I<sup>2</sup>C can be configured via OTP (One Time Programmable) bits.

## 1 Reference design and pin layout

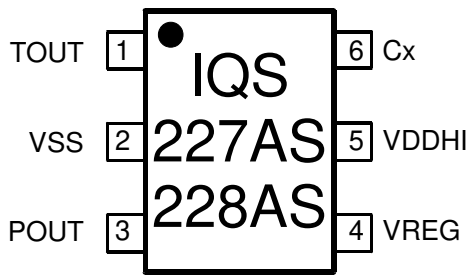


Figure 1.1 IQS227/8AS pinout

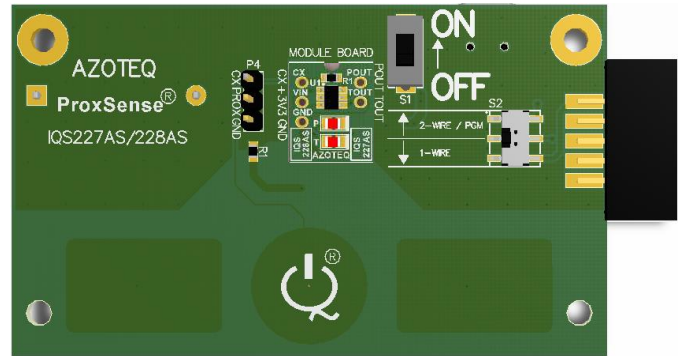


Figure 1.2 IQS227/8ASEV02

IQS227/8AS in TSOT23-6			
Pin	Name	Type	Function
1	TOUT	Digital Input / Output	Touch output / General output
2	VSS	Signal GND	
3	POUT	Digital Input / Output	Multifunction proximity output / control input
4	VREG	Regulator output	Requires external capacitor
5	VDDHI	Supply Input	Supply: 1.8V – 3.3V
6	Cx	Sense electrode	Connect to conductive area intended for sensor

## 2 IQS227/8AS reference design

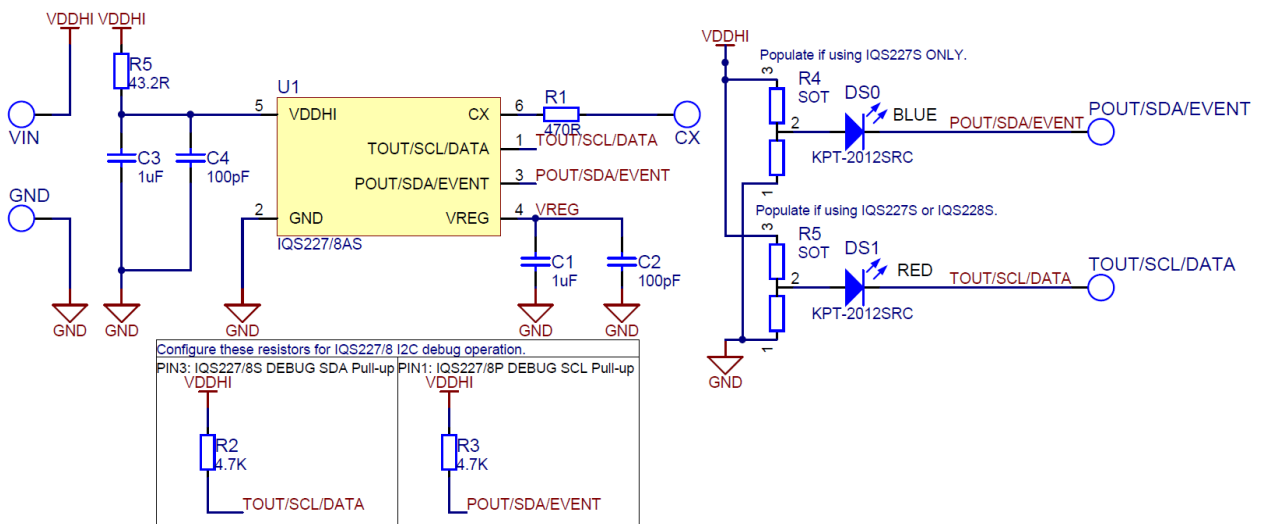


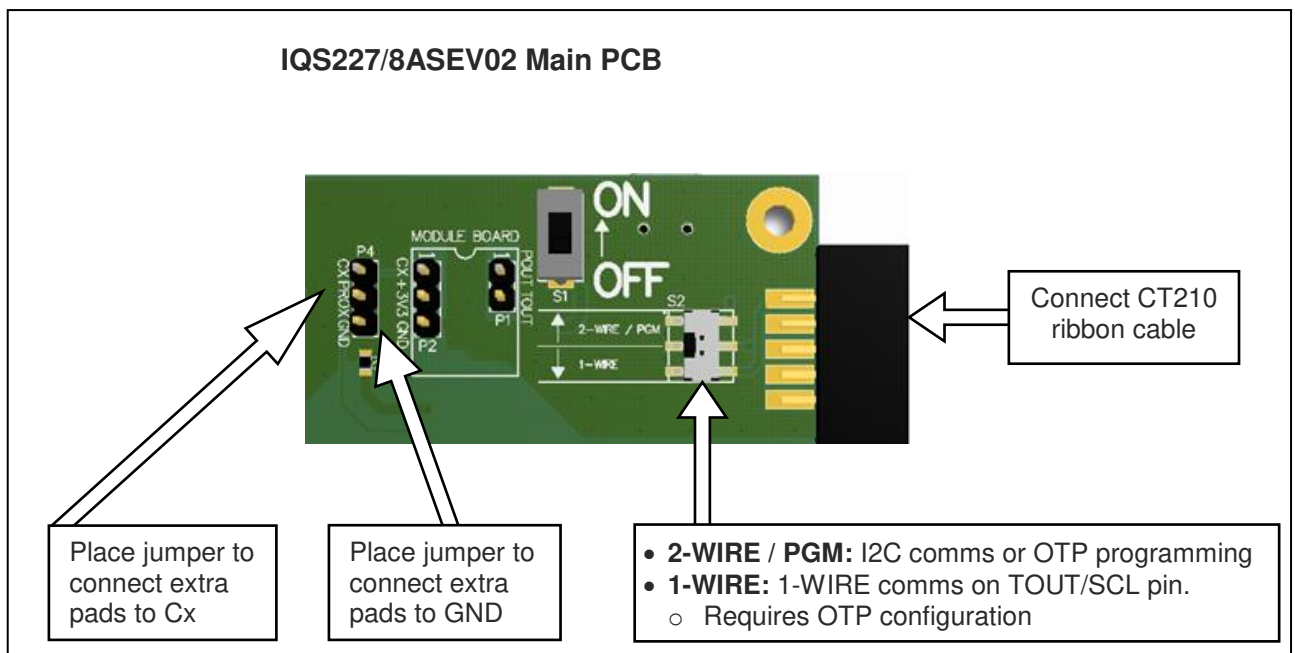
Figure 2.1 IQS227/8AS layout on AZP451B01



### 3 Configuration options

The IQS227/8ASEV02 comes with 3 different coloured EV01 module boards each with their own OTP configuration. Please refer to the leaflet inside the EV-kit box as shown on the left.

Module-Board		Overlay(s)	Sensitivity	Solder mask colour	IC configuration
IQS227AS	IQS228AS				
		1	LOW	GREEN	<b>IQS227AS 000C1D0C TS R</b> <b>IQS228AS 000C1D00 TS R</b>
		2	MED	BLUE	<b>IQS227AS 00041E0C TS R</b> <b>IQS228AS 00041700 TS R</b>
		3	HIGH	BLACK	<b>IQS227AS 00000008 TS R</b> <b>IQS228AS 0000000C TS R</b>



### 4 Default UI

Different UI's can be selected in the IQS227/8AS GUI and can then be selected to run in standalone mode.

The GUI is available for download from the Software & Tools section of [azoteq.com](http://azoteq.com) and the [CT210](#) (sold separately) is used in conjunction with the GUI to select the different UI's and settings.

Using [USBProg](#) the IQS227/8AS can be configured in different variations. Please note when settings are programmed it is permanent.