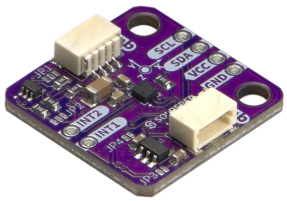
PRODUCT DATASHEET



IIS2DULPX Accelerometer Breakout

333363

The IIS2DULPX Accelerometer breakout offers ultra-low power motion sensing with 3-axis acceleration and onboard algorithms for smart applications.

Full product documentation, files and tutorials: **solde.red/333363**

CORE ATTRIBUTES

SKU **333363**

BARCODE **732388642601**

DESCRIPTION

The **IIS2DULPX Accelerometer breakout** brings industrial-grade motion sensing to your projects while barely touching your battery, sipping just **3 µA** in ultra-low-power mode and dropping to **12 nA** in deep power-down. Built around STMicroelectronics' IIS2DULPX, it measures **3-axis acceleration** across four selectable ranges (**±2g to ±16g**) at up to **800 Hz**, and adds a **QVAR** sensing channel for capacitive touch, liquid level, or electric field detection. On-chip algorithms for **wake-up**, **free-fall**, **tap recognition**, **6D orientation**, **step counting**, and **tilt** run autonomously, offloading your microcontroller entirely.

Connectivity is equally painless. Just plug in a **Qwiic** cable to one of the two onboard Qwiic connectors and you're ready to go, **no soldering needed**. The board is 5V compatible via an onboard regulator, communicates over I2C (address 0x18), and is a perfect fit for wearables, asset trackers, and any battery-powered IoT application where every microamp counts.

TECHNICAL DETAILS

3-axis accelerometer: ±2g/±4g/±8g/±16g, ODR from 1.6 Hz to 800 Hz **QVAR sensing channel:** for capacitive touch, liquid level, and electric field detection **Ultra-low power:** 3 µA (ULP) / 6.5 µA (LP) / 9.3 µA (HP) / 12 nA deep power-down **Supply voltage:** 1.62 V to 3.6 V, 5V compatible via onboard regulator **Interface:** I2C (address 0x18) with 2 interrupt pins (INT1, INT2) **2x Qwiic connectors:** for easy plug-and-play connection **FIFO buffer:** up to 256 samples for efficient data batching **Embedded features:** wake-up, free-fall, tap/double-tap, 6D/4D orientation, step counter, tilt, sleep detection

SPECIFICATIONS

INTERFACE	I2C
QWIIC COMPATIBLE	Yes
I2C ADDRESS DEFAULT	0x18
BREADBOARD COMPATIBLE	

	Yes
MEASUREMENT TYPES	Acceleration
IC PART NUMBER	IIS2DULPX
LOGIC LEVEL	3V3 Or 5V

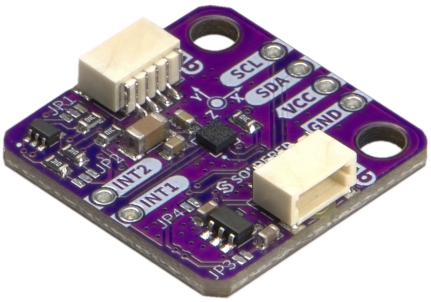
DOCUMENTS

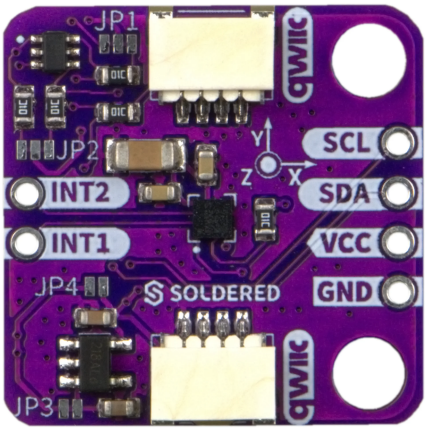
Main IC Datasheet	https://cdn.shopify.com/s/files/1/0990/5029/1549/files/iis2dulpx.pdf?v=1777288704

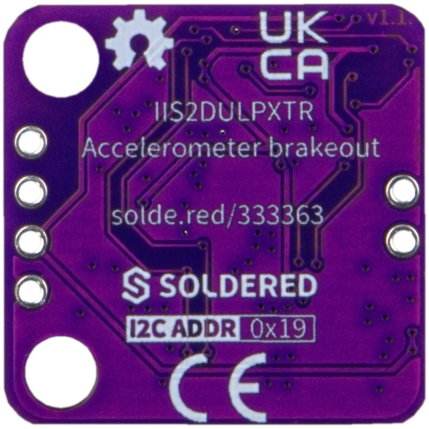
LINKS

Arduino Library	https://github.com/SolderedElectronics/Soldered-IIS2DULPXTR-Accelerometer-Arduino-Library
MicroPython Module	https://github.com/SolderedElectronics/Soldered-IIS2DULPX-MicroPython-Library
Arduino Library Documentation	https://docs.soldered.com/iis2dulpx/arduino/examples/
Arduino: Get Started	https://docs.soldered.com/iis2dulpx/arduino/geting-started/
Full Documentation	https://docs.soldered.com/iis2dulpx/overview/
MicroPython: Get Started	https://docs.soldered.com/iis2dulpx/micropython/geting-started/
mim_package	https://checkmim.com/packages/solderedelectronics+Soldered-IIS2DULPX-MicroPython-Library
Pinout	https://cms.soldered.com/products/333363/media/333363_pinout-png_dcc1f0.svg

GALLERY


SCL
SDA
VCC
GND
INT2
INT1
JP1
JP2
JP3
JP4


JP1
JP2
INT2
INT1
JP4
JP3
SCL
SDA
VCC
GND
SOLDERED
QWIIC
QWIIC


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CA
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SOLDERED
I2C ADDR 0x19
CE