

# Smart Force Sensor

MAXREFDES82

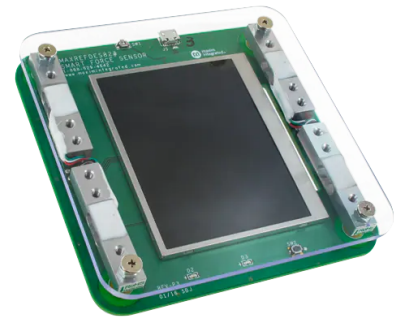
## Product Overview

05/11/2022

For the most up-to-date information, visit [www.mouser.com](http://www.mouser.com) or the supplier's website.

## Description

Maxim Integrated MAXREFDES82 Smart Force Sensor Reference Design features a next-generation industrial, smart force sensor. This sensor is designed to sense the weight and center of mass of objects placed on the platform. The scale provides full-scale responses up to 780g. The user interface provides an active display of the center of mass on the platform, as well as the total measured weight. The design works very well as a ruggedized touch interface with force sensing in addition to serving as a smart force sensor. The system consumes less than 50mA during normal operation and features a USB interface for quick evaluation and integration.



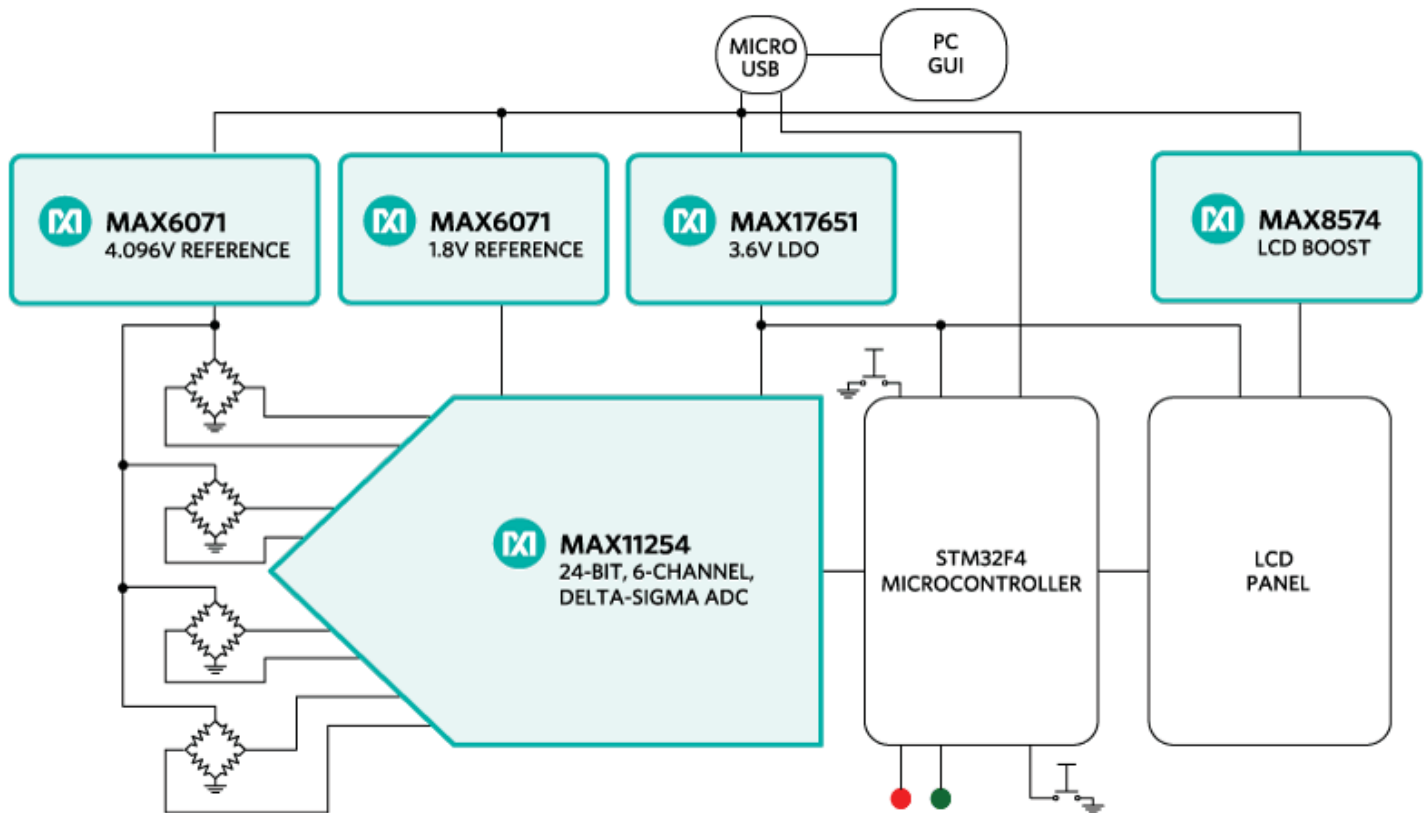
## Features

- STMicroelectronics STM32F429ZIT6 STM32 F4 high-performance ARM Cortex-M4 microcontroller with 2MB Flash
- Maxim Integrated MAX11254ATJ+ delta-sigma Analog-to-Digital Converter (ADC)
- Maxim Integrated MAX8574EUT+ high-efficiency LCD boost converter with true shutdown
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- Maxim Integrated MAX6071AAUT41+ High-Performance Voltage Reference, 4.096V
- ISSI IS42S16400J 64M (4Mx16) 3.3V 143MHz SDR SDRAM
- Newhaven Display NHD-3.5-320240MF-ATXL#-1 TFT (Thin-Film-Transistor) 320x240 Color Liquid Crystal Display Module
- 3D Human Interface Input
- High precision weigh scale
- Low power ADC
- Compact
- Rugged, cost-effective, flexible 3D human-interface input device
- High precision and high-resolution measurements
- Fast and low power data acquisition

## Applications

- 3D human interface input device
- Battery-powered instrumentation
- Industrial control and measurement

## Block Diagram



## Mouser Part Number

[View Part](#)

To learn more, visit <https://www.mouser.com/new/maxim-integrated/maxim-maxrefdes82/>