

Explore our product portfolio

Select product

ams AS7058 High Performance Vital Sign - Analog Frontend



Description

The AS7058 is an integrated multi-vital sign monitoring device, which provides a complete photoplethysmogram (PPG), electrocardiogram (ECG), body impedance (BioZ), and electrodermal activity (EDA). PPG measures the pulse rate or blood oxygen by sampling light modulated by the blood vessels, which expand and contract as blood pulses through them. ECG is the reference for any measurement of the biopotential generated by the heart. With EDA, it is possible to measure the skin's water content, and with BioZ, the body composition with an electrical system.

Datasheet

Select & order

Contact us

Support

Details

Features

- 2 ADC (20-bit) for PPG acquisition
- 1 ADC (20-bit) for ECG/BIOZ acquisition
- 8 photodiode input pins
- 8 emitters driven by 2 drivers up to 300mA at 500mV
- PPG SNR up to 120dB FS (white card loop back test)
- Advanced ambient light offset cancellation (AAOC)
- Excellent ECG, CMRR ~ 118dB, Noise ~ 0.68µVRMS
- Power consumption down to < 20µA @ 25 SPS
- Package: 2.815 x 2.545 x 0.5 mm³, WLCSP, 42 pins

Benefits

- Lowest noise ECG frontend (0.68µVRMS)
- Synchronized PPG and ECG for blood pressure
- Lowest power consumption on the market
- Innovative functions to measure galvanic skin response and bio-impedance (body composition)
- High variety and number of sensing inputs allow implementation of the widest variety of vital sign monitoring technologies for consumer medical applications and smart watches, fitness bands, monitoring patches

Application fields

- Mobile & wearables
- Vital sign monitoring →

Ordering codes

Product Type	Description	Order No.	
AS7058-BWLT		Q65113A6622	Request product
AS7058A-BWLM		Q65113A6625	Request product
AS7058-BWLM		Q65113A6621	Request product
AS7058A-BWLT		Q65113A6626	Request product

Downloads

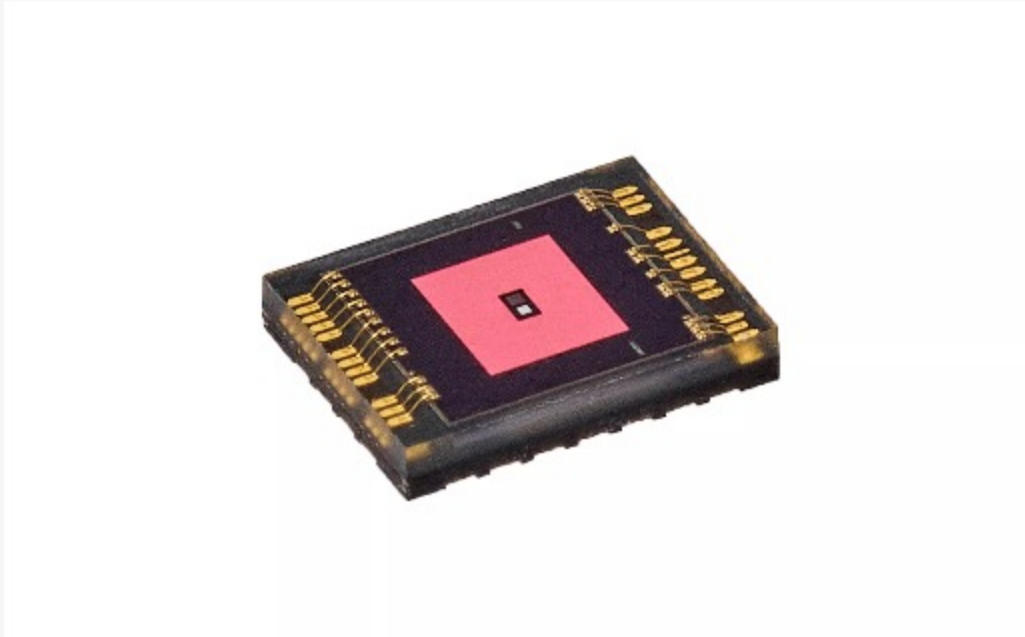
For other documents visit our [Download center](#)

Datasheets

AS7058 IC for PPG, ECG and body impedance measurement	Short datasheet	EN DE CN JP
---	-----------------	-------------------

Images

Related Products



ams AS7038RB Vital Sign Sensor

The operation of the AS7038RB is based on photoplethysmography (PPG) and electrocardiogram (ECG).PPG is the most used HRM method which measures the pulse rate by sampling light modulate...

Datasheet

Infos



ams AS7050 Medical and Health Sensor -...

The AS7050 Biosignal Sensor Analog Frontend is the next generation Vital Sign Sensor. It enables the user to detect biosignals such as photoplethysmogram (PPG), electrocardiogram (ECG) and...

Datasheet

Infos



ams AS7056 Medical and Health Sensor -...

The AS7056 Biosignal Sensor Analog Frontend is the next generation Vital Sign Sensor. It enables the user to detect biosignals such as photoplethysmogram (PPG), electrocardiogram (ECG) and...

Datasheet

Infos

4 Products in Total

Product selector

Find the right product.

Product selector

More analog frontend

State-of-the-art Analog Front End ICs comprise a one chip solution to derive high quality digital signals

Explore more analog frontend

Join our Newsletter

Subscribe