



maxim
integrated™



WELLNESS PLATFORM

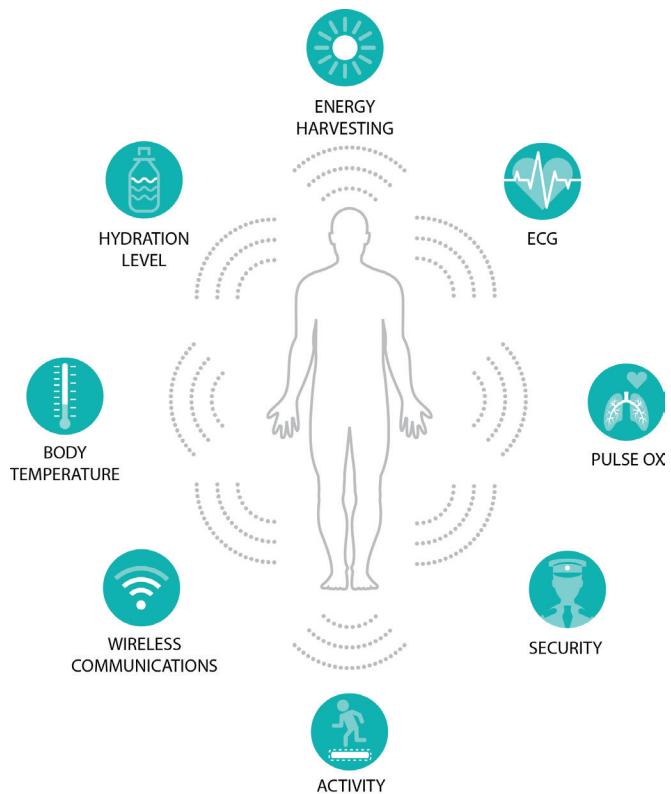
Bringing the Benefits of Analog Integration to Wearable Fitness and Medical Devices

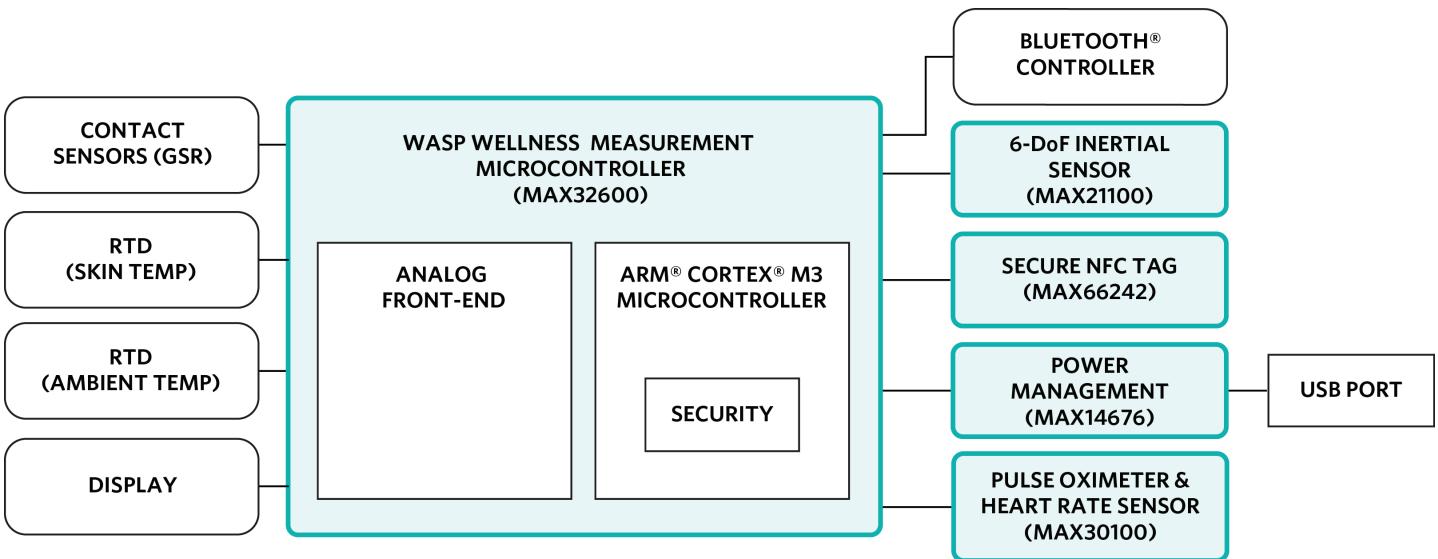
Maxim's Wellness Platform gives you access to our most advanced technologies yet.

At the heart of the platform is our WASP microcontroller, which combines an ARM® Cortex® M3 core with high-precision analog, built-in security, and power-sipping operation. All of this gives you a very compact solution that's flexible enough to suit wearable applications ranging from fitness watches to medical patches.

Complementing WASP is a complete suite of hardware and software for wearable medical applications. Maxim's Wellness Platform includes highly integrated devices for biosensing, inertial measurement, power and battery management, and ultra-low-power communications. Basically everything you need to design a wearable wellness device, while efficiently powering and securing it all.

Flexible and scalable, this platform gives you multiple options for optimizing system capabilities and performance. So you can cut development costs and your time to market for a healthier bottom line.





Maxim's Wellness Platform as Implemented in a Wellness Watch

A Platform for Success in Wearables

WASP Wellness Measurement Microcontroller (MAX32600)

WASP combines a low-power ARM Cortex M3 microcontroller with rich analog content, including a 24-bit ADC for high-precision measurements. It integrates Maxim's proprietary Trust Protection Unit to give you the highest level of security with onboard public key authentication, data encryption, and tamper detection.

Wearable Charge Management Solution (MAX14676)

The MAX14676 gives you an extremely compact power- and battery-management solution. It features our unique ModelGauge™ and Smart Power Selector™ technologies, so you know exactly how much capacity remains and can make the best use of it. It also includes several power-optimized peripherals, like an ultra-efficient buck regulator, to extend the battery life of your wearable device.

6-DoF Inertial Measurement Unit (MAX21100)

The MAX21100 is a monolithic 3-axis gyroscope plus 3-axis accelerometer IMU with integrated 9-axis sensor fusion using our proprietary motion merging engine (MME). Offered in a 3mm x 3mm x 0.83mm package, the MAX21100 is the industry's smallest and thinnest 6+3 DoF IMU with a stable, accurate gyroscope and reliable accelerometer.

Pulse Oximeter and Heart Rate Sensor Solution (MAX30100)

The MAX30100 is a fully integrated optical biosensor combining two LEDs, a photodetector, optimized optics, and a low-noise AFE in a tiny (5.6mm x 2.8mm x 1.2mm), optically enhanced system in package. The industry's smallest and lowest power pulse oximeter and heart-rate solution, it's well-suited for everything from watches to medical patches..

Secure NFC Tag (MAX66242)

The latest member of Maxim's DeepCover® Secure Authenticator family, the MAX66242 is a dual-interface tag IC that combines an ISO 15693 front-end with an I²C circuit block on a single chip. Its SHA-256 engine runs a symmetric key-based bidirectional secure authentication scheme to protect against counterfeiting and cloning.

Learn more about these solutions at: maximintegrated.com/Integrated-Healthcare.