



Activity & Sleep Monitor for Clinical Trials





PRODUCT OVERVIEW

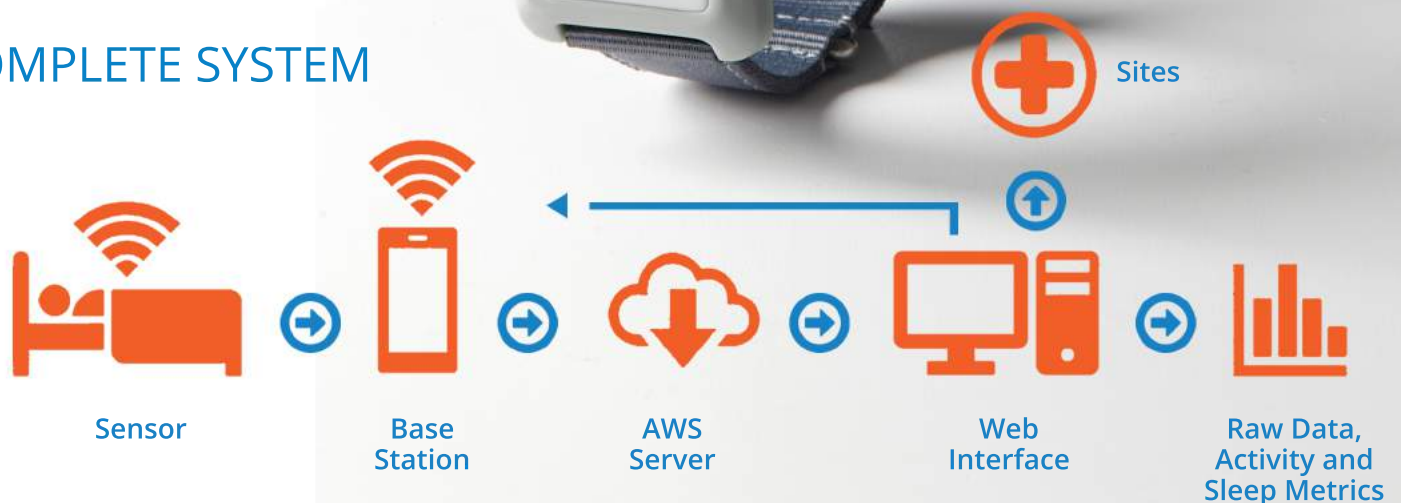
Verisense is Shimmer's fourth generation wearable platform, designed specifically to meet the needs of clinical trials. The culmination of over 10 years of experience in developing wearables for the research market, Verisense allows continuous remote monitoring with minimum burden on the participant and site, maximum data reliability, and advanced trial management tools for sponsors.

KEY BENEFITS

- ✔ Provides continuous raw data
- ✔ 24x7 data coverage
- ✔ No recharging for up to 6 months
- ✔ No need to remove - even for bathing
- ✔ Minimum burden for sites and participants
- ✔ Multiple features to ensure data integrity
- ✔ Advanced remote management features
- ✔ Flexible styling



A COMPLETE SYSTEM



SENSOR

- ✔ General purpose Inertial Measurement Unit (IMU)
- ✔ No touch operation
- ✔ No charging
- ✔ Replaceable battery with up to six-month life
- ✔ Water resistant
- ✔ Impact resistant
- ✔ Automatic data encryption and upload
- ✔ Interchangeable bands and cradle for flexible styling



BASE STATION

- ✔ Collects data whenever sensor is in range
- ✔ Automatic data upload via cellular or WIFI
- ✔ Alerts participant and web server to issues
- ✔ Simple site setup
- ✔ Designed to be placed and forgotten
- ✔ Links multiple sensors



CLOUD

- ✔ Monitors all sites at a glance
- ✔ Able to drill down to specific sensors
- ✔ Can send messages to sites and directly to Base Stations
- ✔ Generates activity and sleep metrics from peer reviewed algorithms



Seamless Integration To Ensure Compliance



Shimmer Offices:

Europe - Dublin, Ireland.

USA - Boston, MA.

Asia - Kuala Lumpur, Malaysia.

Web: www.verisense.net

Email: info@verisense.net



FLEXIBLE SERVICE

Shimmer will customize a level of service to fit your needs from nothing to turnkey projects.

An example of services that Shimmer provides on a regular basis:

- ✔ Training
- ✔ Data integration
- ✔ Algorithm development/customization
- ✔ Logistics
- ✔ Data collection monitoring
- ✔ Device location customization

METRICS & VALIDATION

Shimmer sensors have been used for over 10 years by thousands of researchers. The Verisense IMU provides data at sample rates from **12.5Hz to 800Hz**. Worn on the wrist it provides:

- ✔ Raw data: 3-axis accelerometer, 3-axis gyroscope
- ✔ Time spent in idle, light, moderate, or vigorous activity
- ✔ Sleep metrics: total time in bed and sleep efficiency
- ✔ Non-wear detection: total time device was not worn

The wrist-based activity and sleep algorithms have been validated internally and by 80+ peer reviewed publications.

EXTENDIBILITY

Verisense IMU can be used for many applications beyond just activity and sleep monitoring. Multiple sensors can be used on a single participant. Depending on the body location and number of sensors, a wide variety of additional metrics can be generated. Shimmer customers have used our IMUs to provide many gait parameters, Parkinson's tremor classification, joint angle calculation and rehab exercise count to name a few.

ABOUT SHIMMER



MD 682933



Founded based on Intel technology in 2008, Shimmer is now a leading wearable technologies service and sensor manufacturing company based in Dublin, Ireland. Shimmer provides customized sensor development services, volume manufacturing, and complete wearable sensor solutions of any complexity. Shimmer's technology and services have been employed by thousands of researchers at leading companies, universities, and research institutions in more than 75 countries for more than 10 years. Shimmer's technology is incorporated in the products and services of more than 20 original equipment manufacturers.

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