

The GENEActiv is a comfortable, lightweight and waterproof medical device that delivers continuous recording of high-resolution unfiltered acceleration, environmental light and temperature at any body location.

GENEActiv Specification

Physical Parameters	
Size	43mm x 40mm x 13mm
Weight	16g (without strap)
Main Housing Material	PC/ABS (medical device grade)
Light Guide Material	PC (medical device grade)
Data Contact Material	Gold-plated
Strap	PU resin
Battery Type	Rechargeable lithium ion polymer
Environmental Protection	
Moisture Ingress	Water-resistant to 10m (IP68 – 1m 24hrs)
Material Ingress	Dust tight (IP68)
Operating Temperature	5 to 40 deg C
Mechanical Impact	0.5m drop resistant
Measurement Capabilities	
Memory	1.0 Gb non-volatile
Logging Frequencies	Selectable 10-100Hz
Maximum Logging Periods	60 days @20hz, 14 days @100hz
Internal Clock	
Type	Quartz Real Time Clock
Frequency	32.768kHz
Accuracy	+/- 20ppm (+/- 1.7s per day)



About GENEActiv

The GENEActiv has a robust, neutral design can objectively monitor activity, sleep, and lifestyle, reliably for up to two months without the need for charging.

The GENEActiv system is a low burden for both patients and sites with proven high adherence in many studies.

It produces raw, unfiltered tri-axial acceleration data in SI units in an open data format.

Features

- Designed for long-term 24-hour wear
- Up to 2 months battery life
- Can be worn in multiple body locations
- 100% waterproof lightweight design
- Ambient light and temperature sensor
- Open-source analytics and open SDKs available

Acceleration Measurements	
Sensor Type	MEMS
Range	+/- 8g
Resolution	12 bit (3.9mg)
Light Measurements	
Sensor Type	Digital Ambient Light Sensor
Wavelength	Peak wavelength 560 nm
Range	0 – 20,000 Lux typical
Resolution	3 - 48 Lux dynamic
Accuracy	+/- 10% @ 1000 Lux calibration
Event Logger	
Sensor Type	Mechanical membrane switch
Temperature Measurements	
Sensor Type	Digital Temperature Sensor
Range	0 to 60 deg C
Resolution	0.25 deg C
Accuracy	+/- 1 deg C
Measurement Frequency	Every 30s minimum
USB Connection	
Device USB	USB 2.0 Full Speed
Charging Cradle	Format 4 unit cradle USB 2.0 High Speed
Charge Time	90% @ 2 hours, 100% @ 3 hours
Data Download Time	Approx. up to 20 mins for 4 concurrent units
Radio and Wireless Signals	
Neither the GENEActiv nor the Charger Cradle receive or transmit any radio frequencies or wireless signals	

