PHILIPS
RESPIRONICS

RADA

# Rapid Actigraphy Data Analyzer

## Cutting Edge Algorithms, Advanced Analyses, Invaluable Insights

RADA powered algorithms enable a statistically deeper dive into Motion Biosensor data, for more refined visibility. Uncover novel endpoints for a comprehensive view of a drug or therapy's impact on your study's subjects.

- Leverage RADA to extract possible disease discerning signals from a subject's motion data.
- Use algorithms developed via established signals, to provide disease identifying "novel" endpoints.
- Empower decision making for current and future study phases with enhanced clarity, regarding therapy impact to motion and/or sleep.

RADA is a Class II, FDA Approved, 510k Exempt Product (FDA Product Code IKK)

# RADA is an analytical tool that drills deeper into subject data – for a more detailed understanding of your drug or therapy.

## Conventional Endpoints via Actiware

- **Activity Endpoints:** Total Activity Counts, Avg. Activity, Max Activity, Mean Daily Activity, Activity Threshold Analysis, Daily Peak Activity
- **Sleep Endpoints:** Total Sleep Time, % Sleep, Onset Latency, Sleep Efficiency, Wake After Sleep Onset, Wake Time, % Wake, # Wake Bouts, Avg. Wake Bout Duration, Fragmentation Index

## Novel Endpoints via RADA

- Capture continuous motion data (alternative to discrete data points collected during study visits) to detect varying activity patterns.
- Re-analyze collected data as new algorithms are developed.

**Scratching**
- Event Start Date
- Event Start Time
- Event Duration
- Wrist/s
- Mean Power

**Extended cosinor**
- Acrophase
- Amplitude
- Mesor
- Minimum
- M (width)
- R2
- F Statistic
- P Value
- Gamma (steepness)
- Up Mesor
- Down Mesor

**Exploratory**
- Statistical Endpoints
  - Mean, Percentiles Skewness, Kurtosis
- Complexity Endpoints
  - Shannon's Entropy, Sample Entropy
- Symbolic Dynamics
  - Sequences, Variations
- Signal Characteristics
  - RMSSD, Mean Crossings
- Threshold Crossings
  - S0 – S4 Smoothed Activity
- MVPA Endpoints
  - Moderate/vigorous physical activity bouts
  - Total Duration of Bouts
- And More!


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