Company	ActiGraph	Ambulatory Monitoring Inc		CamNtech	Philips Respironics
Product Name	wActiSleep-BT Monitor	Micro Motionlogger Watch	Motionlogger Watch	MotionWatch 8	Actiwatch Spectrum
Website	www.actigraphcorp.com	www.ambulatory-monitoring.com	www.ambulatory-monitoring.com	www.camntech.com	www.philips.com/actigraphy
Cost/Warranty	$299/1 year	1 year	1 year	$750/2 years	1-year standard warranty; extended warranty available
Accelerometer Technology	3-axis solid state accelerometer with digital filtering	Solid state triaxial	Solid state triaxial	MEMS – 3 axis	Solid-state "piezoelectric"
Product Dimensions	4.6 cm x 3.3 cm x 1.9 cm	3.6 cm x 3.6 cm x 1.2 cm	5.5 cm x 4.5 cm x 1.8 cm H	3.81 cm x 2.54 cm x 1.016 cm	4.8 cm x 3.7 cm x 1.4 cm
Weight, Including Batteries and Wrist Band	22 grams	30 grams	65 grams	16.8 grams	30 grams
Batteries	Rechargeable lithium polymer	1 DL2430 disposable coin cell	1 DL2450 disposable coin cell	Common watch R2032	Lithium coin cell CR 2430
Battery Life	31 days	30+ days	30+ days	1 year	1-year battery life (with continuous use at 1-minute epoch)
Type of Memory Storage	2 GB nonvolatile	2 MB nonvolatile	2 MB nonvolatile	4 MB nonvolatile	2 MB nonvolatile
Recording Time at 1-Minute Sample Interval	120 days	30+ days	30+ days	182 days	36 days—Activity plus 4 channels of light data
Logging Intervals	Collects as raw data (30-100 Hz), processing in 1, 2, 3, 5,10, 15, 30, 60, 120, 150, 180, and 240-second intervals	1, 2, 5, 10, 30, 60 seconds	1, 2, 5, 10, 15, 30, 60 seconds	2, 5, 15, 30, 60 seconds	15-second, 30-second, 1-minute, 2-minute, 5-minute
Light Sensor Type	Photodiode	Photodiode	Photodiode	Digital	Red, green, and blue color sensitive photodiodes
Wavelength Range	450 to 700 nm (600 nm peak)	400-700 nm (520 nm peak)	400-700 nm (520 nm peak)	0 to 64,000 lux	blue 400-500 nm; green 500-600 nm; red 600-700 nm
Moisture Protection	Water-resistant	100 m water-resistant	50 m water-resistant	Waterproof	Immersible 1 m for 30 minutes per IPX7 IEC 60529
Operating Temperature Range	-4°F to 140°F	33°F to 120°F	33°F to 120°F	0°F to 150°F	41°F to 104°F
Communications Interface	USB, Bluetooth LE	USB-to-IrDA	USB-to-IrDA	USB	Infrared to dock 57.6 kpbs; USB to PC (USB 1.1 and 2 compatible)
Computer Operating System Compatibility	Windows XP, Windows Vista, Windows 7, Windows 8, Parallels Desktop for Mac	Windows XP, Windows Vista, Windows 7, Windows 8	Windows XP, Windows Vista, Windows 7, Windows 8	Windows XP, Windows 7, Windows 8	Actiware: Windows 2000, Windows XP, or Windows Vista; Actiware CT: Windows 2000, Windows XP Professional, Windows Vista Business, or Windows Vista Ultimate
Peer Reviewed Validation Articles	Yes	Yes	Yes	Yes	Yes
Additional Features	Integrated wear time sensor for off wrist detection, support for heart rate (wireless HR sensor required), PLM scoring, automatic bedtime detection, body position, and daytime activity profile. Compatible mobile app for iPhone, iPad, and Android platforms supports real time device communication and data reports.	Time/date display, event marker with LED feedback, visual status indicator, multimode data collection, temperature channel, off-wrist detection.	Adjustable time of day/date display, backlight, event marker with visual/audible feedback, visual status and battery indicators, multimode data collection, temperature channel, off-wrist detection channel, PVT test, user rating scale entry, alarms (1 user and up to 10 fixable), stopwatch, countdown timer	The Event Marker button has a visual LED feedback indicator, confirming the event was marked	Device also records in a red, green, and blue light only mode; off-wrist detection; event marking; shock and vibration resistant; dust, heat, and perspiration resistant; latex/nickel free; biocompatibility tested; adheres to the requirements of 21 CFR Part 820, and ISO 9001 and 13485 certification; programmable time/date display with backlight; status feedback; multiple light and activity data collection modes; NIST traceable calibration; sleep mode

SOMNOmedics America Inc
SOMNOwatch
www.somnomedics-diagnostics.com
2 years
Miniaturized poly-silicone-surface micromachined sensor (MEMS)
4.5 cm x 4.5 cm x 1.6 cm
30 grams
Li-Ion-Accu, inbuilt, rechargeable
26+ days
8 MB internal storage card
45 days
Sampling rate 1 per second up to 256 per second; storage rate 1 per 120 seconds (2 minutes) up to 256 per second
NPN-phototransistor
350-970 nm
Water-resistant (waterproof on demand)
41°F to 104°F
USB
Windows XP, 7, and other Windows operating systems
Yes
Event marker button, sleep/wake analysis, PLM scoring, 1 external channel possible (2nd Actisensor, ECG, EEG, respiratory), programmable start and stop periods for several recording periods, linking of several SOMNOwatch recordings thanks to high synchronization rate