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General Sleep Corporation (www.generalsleep.com) is dedicated to providing clinicians and researchers with products and services that allow them to achieve maximum effectiveness in the diagnosis and study of sleep disorders. Our highly affordable Zmachine Synergy is a 9-channel, Type II, home sleep test that combines our FDA-cleared EEG-based sleep staging technology with a full complement of respiratory sensors and tri-axis body position. Compact, easy-to-use, and multi-night capable, the Zmachine Synergy delivers everything you'd expect in a next generation home sleep testing system. We didn't invent the home sleep test, we just made it better![®]

HOME SLEEP TESTING (HST) DEVICES

Company		General Sleep Corporation	Advanced Brain Monitoring Inc	BioSerenity Inc	BRAEBON Medical	Cadwell Industries Inc
HST		 Zmachine Synergy	 Sleep Profiler & PSG2	 AccuSom	 MediByte Jr	 ApneaTrak
Website		www.generalsleep.com	advancedbrainmonitoring.com	us.bioserenity.com/sleep-medicine	www2.braebon.com	www.cadwell.com/apneatrak
Starting Purchase Price		Contact company	Contact company	Contact company	\$2,750	\$3,250
Rental/Leasing Option		Yes	Contact company	Contact company	Yes	Yes
Starting Price for Consumables/Study		Contact company; configuration dependent	\$17.50	N/A	\$7	<\$3; disposable kits: \$30
Type	Type II	Yes	Yes	No	No	Yes
	Type III	Yes	No	Yes	Yes	Yes
	Type IV	Yes	No	No	No	Yes
Maximum Channels		9: EEG sleep staging, airflow (cannula or Bi/CPAP interface), Bi/CPAP pressure, respiratory effort (RIP), snore, SpO ₂ , pulse rate, plethysmography, tri-axis body position	13: EEG, LEOG, REOG, EMG or ECG, forehead pulse, snoring (dB), head movement, head position; PSG2 adds wireless finger SpO ₂ , pulse, nasal pressure airflow, optional thorax and abdomen piezo or RIP belts	5: airflow, respiratory effort, pulse rate, oxygen saturation, snore	8: airflow, snore, SpO ₂ , pulse rate, chest effort, body position, CPAP pressure, PPG	13: thoracic/abdominal effort, pressure, pressure-based snore, snore sensor, thermistor, SpO ₂ , pulse rate, plethysmography, body position, 3 channels ExG
Power Options	Disposable	No	No	No	Yes	No
	Rechargeable	Yes	Yes	Yes	Yes	Yes
Chain-of-Custody Assurance		Yes	No	Yes	Yes	Yes
Warranty (years)		2	2	for service period	1	1
Dimensions (cm)		10.2 x 6.1 x 2.4	7 x 4.5 x 1.75	5 x 3 x 1	6 x 6 x 2	7.3 x 11.5 x 2.5
Weight (grams)		86	76	350	90 (including battery)	143.5
Memory (MB)		8,000	8,000	64,000	256	128
Recording Time (hours)		> 300	30	32	18	24
Features		A chest worn device that combines single-channel EEG sleep staging technology with traditional respiratory channels to report an AHI based on EEG-derived sleep time and body position (not just recording time). With one-touch controls, multi-night recordings, and a full-color LED interface, the Synergy is now PAP compatible and backed by a HIPAA-compliant cloud portal.	Scientifically-validated and editable autoscored full disclosure signals with forehead-based self-application. For multnight evaluation of sleep architecture and sleep continuity in home or hospital, with auto-detection of sleep biomarkers associated with neurodegeneration. PSG2 upgrade enables auto-detection of apneas, hypopneas and RERAs, and REM-related SDB severity.	The AccuSom home sleep testing device is part of BioSerenity's Direct-to-Patient Home Sleep Testing offering. The level III device and single-use sensors are shipped to patients and can be used for up to three nights. Data transmits directly to be reviewed and interpreted by a board-certified sleep physician.	Local PC software or the BridgeBuilder Cloud Portal. SDB analysis including RERA, flow limitation, breath statistics, SpO ₂ perfusion. Carrying case, patient instructional video, USB cable. CPAP compatible, multiple nights, immediate report access, unlimited custom reports, locking connectors, stainless steel connector, LED study status indicator, all internal biosensors.	Add Sleep Time to HSAT testing with ApneaTrak:TST or EnsoData integration. Three versions available: Core (Type III), Legacy (AASM-recommended parameters), TST (3xExG channels). Use the same sensors recommended for in-lab studies. Connection to the PC (zero-click) automatically downloads the recording, clears, recharges, and prepares ApneaTrak for the next patient.







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Company		Cerebra	CleveMed	Compumedics USA	Natus Medical Inc	Neurovirtual USA Inc	Nox Medical
HST		 Cerebra Sleep System	 SleepView	 Somte	 Embletta MPR-PG	 BWMMini HST Compass	 Nox T3s
Website		www.cerebra.health	www.clevedmed.com	www.compumedics.com	neuro.natus.com/products-services/embletta-mpr-sleep-system	www.neurovirtual.com	www.noxmedical.com
Starting Purchase Price		Contact company	\$2,400	\$3,400	Contact company	Contact company	Contact company
Rental/Leasing Option		Yes	Contact company	Contact company	No	No	No
Starting Price for Consumables/Study		Contact company	\$20	<\$14	\$5-\$12	\$5	Contact company
Type	Type II	Yes	No	No	Yes	No	No
	Type III	No	Yes	Yes	Yes	Yes	Yes
	Type IV	No	Yes	Yes	Yes	Yes	Yes
Maximum Channels		16: 2x frontal EEG, 2x EOG chin, EMG, nasal cannula, chest and abdomen effort (RIP belt), SpO ₂ , 2-lead ECG (heart rate), pulse 2x, leg EMG, audio, body position	8: heart rate, pulse oximetry, respiratory airflow (CPAP compatible), RIP belt, snore, body position, auxiliary (second RIP, thermal airflow, or IDcheck), actigraphy	13: nasal pressure, snoring, CPAP mask pressure, thoracic and abdominal effort, body position, SpO ₂ , pulse rate, plethysmography waveform, signal quality, limb movement (or optional nasal thermistor), 2xEXG (EEG, EOG, EMG, ECG, or off)	19: pressure, sound, gravity (x/y/z), bipolar ExG, thermistor, thoracic effort (RIP), abdominal effort (RIP), DC (0-1V) battery, event button, SpO ₂ , SpO ₂ B-B, SpO ₂ quality, pulse rate, plethysmography, RD quality, PPG; + multiple derived channels. Optional proxies add up to 8 EEG, 2 EOG, 3 chin EMG, 2 channels leg EMG and 1 ECG channel	13: 2x RIP, pressure transducer, SpO ₂ , pulse, plethysmography, body position, 2x ExG; 3x DC channels, luminosity sensor	24: (15 recorded channels, 9 derived channels) 2x bipolar channels: RIP, abdomen + thorax breathing effort, respiratory sound, audio volume, gravity, activity, position, flow, snore, PWA; pulse, SpO ₂ ; 9 derived: heart rate, calibrated RIP flow, calibrated RIP sum, RIP flow, RIP sum, RIP phase, PTT, respiratory rate
Power Options	Disposable	No	Yes	Yes	Yes	Yes	Yes
	Rechargeable	Yes	No	No	No	Yes	Yes
Chain-of-Custody Assurance		No	Yes	No	No	No	Yes
Warranty (years)		2	1	1	1	1	2
Dimensions (cm)		table top unit: 21 x 12 x 0.7; head-mounted unit: 63 x 38 x 28; chest-mounted unit: 140 x 36 x 24	7.62 x 6.60 x 1.78	11.43 x 6.35 x 3.05; sensor interface: 7.62 x 4.45 x 2.29	10.7 x 7.9 x 1.9	10.8 x 7.7 x 2.8	6.8 x 6.2 x 2.6
Weight (grams)		TTU: 280; HMU 56; CMU 81	57	200	153	90	65 +/- 5g without battery
Memory (MB)		32,000	1,000	N/A (compact flash card)	2,000	32,000	4,000
Recording Time (hours)		13	100	36	24	24	24
Features		Remote upload, autoscoring, Odds Ratio Product sleep depth algorithm.	AASM-compliant HST with "Smart Check" green/red light to indicate if a good study was recorded. Uses a RIP belt, is CPAP compatible, and can collect multnight studies. HIPAA-compliant web portal offers access to studies, scoring, and reports, while facilitating collaboration between local sleep labs and office-based physicians, including IT management and data archival.	Carrying case included, will deliver results while patient is on CPAP, includes video instruction for patient, 24/7 technical support, and analysis, scoring, and reporting software. Designed for basic HST workflow with automated respiratory event analysis and customized reporting. Supports both nasal pressure and thermistor airflow signal.	Scalable multi-night recorder with auto or timed start options; high-resolution screen with signal display; signal test features (including impedance measurement), signal quality/status information; disposable and reusable sensors available; RemLogic or Natus SleepWorks for HST included.	A compact polysomnography type III and IV device powered by one AA battery, the HST Compass contains 2x AC bipolar channels, pressure transducer, integrated RIP interfaces, oximeter, integrated body position and DC channels—all embedded into a single module that will comfortably fit on the chest. Capability to see the traces and study information right on the screen.	The Nox T3s has refined Nox RIP technology with 200 Hz sampling frequency, which can be used as a primary flow measurement; built-in sensors for snoring, EKG, EMG, and EEG, Bluetooth BLE 5.0 technology extending the battery life for multnight studies, analysis in Noxturnal Software with artificial intelligence. Indicated for use in patients >2 years old.

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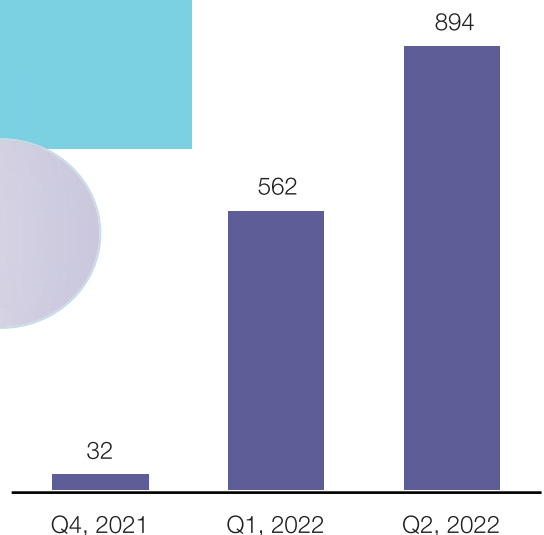
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HST DEVICES

Company		Onera Health	Philips Respironics	REMware	ResMed	SleepImage	SleepImage
HST							
		Onera STS	Alice NightOne	DreamClear	NightOwl	SleepImage Ring (Adult)	SleepImage Ring (Children)
Website		www.onerahealth.com	www.usa.philips.com/healthcare/product/HC1114801/alice-nightone-home-sleep-testing-device	www.dreamclear.com	www.nightowl.care	www.sleepimage.com	www.sleepimage.com
Starting Purchase Price		Contact company	\$2,474	\$1,250	Contact company	Contact company	Contact company
Rental/Leasing Option		Contact company	Yes	Yes	No	Yes	Yes
Starting Price for Consumables/Study		Contact company	\$5	\$25	Contact company	N/A (no consumables)	N/A (no consumables)
Type	Type II	Yes	No	Yes	No	No	No
	Type III	No	Yes	Yes	No	Yes	Yes
	Type IV	No	No	Yes	Yes	No	No
Maximum Channels		15: EEG right, EEG left, EOG right, EOG left, EMG right, EMG left, SpO ₂ , respiratory effort (via bioimpedance), respiratory flow (via bioimpedance), respiratory flow (via nasal cannula), ECG, activity, body position, sound pressure level, EMG leg	7: flow, snoring, thoracic effort, SpO ₂ , heart rate, body position, plethysmogram	8: body position, SPO ₂ , chest belt, nasal cannula, snore, heart rate, EEG (O1,M2), EOG	4: peripheral arterial tonometry, pulse rate, oximetry, actigraphy	6: plethysmogram, pulse rate, heart rate variability, respiration, oximetry, actigraphy	6: plethysmogram, pulse rate, heart rate variability, respiration, oximetry, actigraphy
Power Options	Disposable	No	Yes	N/A	Yes	No	No
	Rechargeable	Yes	Yes	N/A	No	Yes	Yes
Chain-of-Custody Assurance		No	No	Yes	No	No	No
Warranty (years)		N/A (fee-per-service)	2	1	N/A	1	1
Dimensions (cm)		8.2 x 6.3 x 2.1	10.34 x 2.51 x 6.78	13.2 x 9.4 x 2.7	2.4 x 1.7 x 0.7	3.8 x 3.0 x 3.8	3.8 x 3.0 x 2.7
Weight (grams)		54	84 + battery	175 (with sensors: 275)	3	15	12
Memory (MB)		4,000	4,000	N/A (smartphone memory)	N/A (smartphone memory)	N/A (smartphone memory)	N/A (smartphone memory)
Recording Time (hours)		8	10/study	20 (+12 standby)	112	~16	~16
Features		Onera's patch-based no-wire STS system records data from up to four points of contact, maximizing patient comfort. These noninvasive devices, with their intuitive design, are attached within minutes, are easy for patients to use, and save time during hook-up and removal. The user-centric technology offers new opportunities for sleep clinics to expand their programs, and for hospitals that have limited or no access to a sleep clinic to implement sleep diagnostic testing within their institution.	The "auto-on" feature turns on the device as soon as the RIP belt is clicked in place; no need for patients to push a "start" button. The integrated connection eliminates the need for an external effort wire set. The "smart guide" sequence guides patients through the setup process and provides feedback to the patient along the way.	Company provides HST service that includes device shipment, returns, patient support, AI scoring platform, scoring/interpretation signoff via cloud portal and more. A smartphone app records, measures, and transmits sleep staging, eye movements, oxygen levels, heart rate, breathing, snoring, EEG, and body position.	A fully disposable device based on peripheral arterial tonometry that provides pAHI and TST estimate. Autoscored reports available in the free NightOwl Portal. Smartphone connected. Device in line with AASM guideline requirements. Reimbursable for qualified physicians. Good for up to 14 nights on 1 patient.	SleepImage generates a report that is ready for interpretation in minutes after a sleep study. Report includes AHI 3% and 4% (OSA & CSA), RDI, and ODI based on TST and sleep staging, as well as sleep efficiency, latency, onset, duration, fragmentation, periodicity, NREM and REM sleep, WASO, and wake transitions. FDA-cleared for children and adults.	SleepImage generates a report that is ready for interpretation in minutes after a sleep study. Report includes AHI 3% and 4% (OSA & CSA), RDI, and ODI based on TST and sleep staging, as well as sleep efficiency, latency, onset, duration, fragmentation, periodicity, NREM and REM sleep, WASO, and wake transitions. FDA-cleared for children and adults.

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*Yoon, D.W., Hong, I.H., Baik, I. et al. Evaluation of the feasibility and preference of Nox-A1 type 2 ambulatory device for unattended home sleep test: a randomized crossover study. Sleep Biol. Rhythms 17, 297-304 (2019)









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Company		SOMNOmedics America Inc	Sunrise	Watermark Medical Inc	Wesper	ZOLL Itamar	ZOLL Itamar
HST							
		SOMNOtouch RESP	Sunrise Digital Solution	ARES 620	Wesper Lab	WatchPAT 300	WatchPAT ONE
Website		www.somnomedics-diagnostics.com	www.hellosunrise.com	www.watermarkmedical.com	www.wesper.co/providers	itamar-medical.com	itamar-medical.com
Starting Purchase Price		Configuration-dependent	Contact company	Contact company	\$50	Contact company	Contact company
Rental/Leasing Option		Configuration-dependent	No	Contact company	Yes	Contact company	Contact company
Starting Price for Consumables/Study		\$2	Contact company	Contact company	N/A	Contact company	Contact company
Type	Type II	Yes	No	Yes	No	No	No
	Type III	Yes	No	Yes	Yes	Yes	Yes
	Type IV	Yes	Yes	Yes	No	No	No
Maximum Channels		11: respiratory airflow, snore, CPAP pressure, thoracic breathing effort, SpO ₂ , pulse rate, finger plethysmogram, body position, movement, patient marker; optional: abdominal breathing effort	3: mandibular movement (accelerometer and gyroscope), position	9 (standard): SpO ₂ (dual sensors), heart rate, snoring, airflow, movement, position, EEG, EOG, EMG; 10 (effort belt): SpO ₂ , heart rate, snoring, airflow, movement, position, RIP, EEG, EOG, EMG	13: ABD, THX, air flow, pressure, SpO ₂ , heart rate, audio (separated to snoring and background noise), body position, movement, skin temperature (ABD +THX), sleep phases	7: PAT signal, pulse rate, oximetry, actigraphy, snoring, body position, chest motion	7: PAT signal, pulse rate, oximetry, actigraphy, snoring, body position, chest motion
Power Options	Disposable	No	Yes	No	Yes	Yes	Yes
	Rechargeable	Yes	No	Yes	Yes	Yes	No
Chain-of-Custody Assurance		No	No	Yes	No	Yes	No
Warranty (years)		2	N/A (disposable)	1	1	1	N/A
Dimensions (cm)		8.4 x 5.5 x 1.8	4.7 x 2.0 x 0.6	12.0 x 5.1 X 3.1	16 x 19 x 5	6.5 x 6 x 1.3	6 x 5.5 x 1.8
Weight (grams)		64	3	93.5	298.6	129.5	85
Memory (MB)		512	100 (internal)	N/A (SD card)	[up to 50 hours]	128	16
Recording Time (hours)		18	10	72	12	10	10
Features		Plug and play with Intelligent Connect sensors for easy application by the patient at home—programmed or manual start. Extensive analysis and reporting software (1 license). Charging and data transfer simultaneously via USB. CPAP-compatible recordings. Auto detection of sleep/wake. Additional abdomen belt available. Also available: SOMNOtouch RESP eco, a Type III and IV home sleep test.	Version 2 (type III with 8 channels) is pending FDA review and clearance. The Sunrise Digital Solution is a disposable, single point of contact HSAT consisting of a sensor, smartphone app, and a cloud-based algorithm. Upon completion of the Sunrise sleep study, both mandibular movement (MM) data, anthropometric data, and responses to sleep questionnaires are transferred via wireless connection to the cloud where the Sunrise software, using a dedicated machine learning algorithm, analyzes the data and generates a report available through the Sunrise platform. The MM signal reflects both the respiratory drive and variations in upper airway resistances occurring during SDB.	Compact forehead worn unit with up to 3 nights/ single report. Voice-prompted alerts. Patient app allows for secure transfer to cloud for real-time quality check and reduced study processing time (optional). Validated automated analysis. AHI/RDI data quantified across state, stage, and body position in both 3% and 4% desaturations using sleep time. Secure cloud storage and processing. Registered tech quality review option. Automated text generation. Integrated validated pre-test OSA risk questionnaire. Bluetooth RIP effort belt (optional).	Wesper Lab offers sleep expert support via video consultations and chat. Wesper Lab also offers longitudinal data analysis, HST +, a care plan, sleep diaries, and subjective data.	A wrist worn device that provides an automated analysis based upon 3 points of contact. Within 1-minute post study, raw data is downloaded and autoscored differentiating obstructive and central events, providing an AHI, AHIc, RDI, and ODI based upon true sleep time and sleep staging.	WatchPAT ONE is a fully disposable HSAT that also utilizes screening, pre and post sleep questionnaires through a smartphone app, which helps clinics to streamline diagnostic processes. As soon as the study is completed, sleep data is available for interpretation. It provides a validated autoscored report and raw data for manual review and editing. The report differentiates obstructive and central events and provides an AHI, AHIc, RDI, and ODI based upon TST, and sleep staging. ●

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