Connecting data to enable end-to-end insights and solutions

The integration of data from the therapy device and the sleep recorder is essential for effective device titration and therapy control. Using Bluetooth® dongles, the Nox T3 system can also now be used to simultaneously record polygraphy data, data from ResMed AirSense™ and AirCurve™ therapy devices, in addition to data from an external $ptCO_2$ device.

Inputs from flow gen and capnograph are recorded in the Nox T3's memory and displayed in Noxturnal software alongside Nox T3 signals when data are downloaded. This enables you to refine your diagnosis with detailed information about flow, pressure, mask pressure, leaks, tidal volume and $ptCO_2$.

ResMed nox medical

Specifications

Device

Signal Specifications:

Available Signals	Thorax and abdomen RIP, Nasal pressure/Mask pressure, Snore signal, Audio and snoring channel, 2 bipolar channels (PLM or EKG or EMG or EEG), Position, Activity, SpO_2, Pulse, Plethysmography, $ptCO_2$ (optional), ResMed therapy data (optional)
Bipolar Channels	Touch-proof connector DIN 42-802, ±8 mV input range AC, <3 µVrms noise
Flow/Pressure Signal	25 cmH_2O input pressure range, DC-90Hz, <2 mmH_2O noise
Activity/Position Signals	Internal 3 axis, ±2 g
Sound Signals	Internal 3.8 kHz bandwidth, 16-bit ADC
Wireless Interface	Bluetooth® V2.0 wireless interface for external devices

Performance Specifications:

Storage Capacity	1 GB
Recording Time	Up to 24 hours, including true audio recording
PC Communications	USB 2.0 hi-speed

Physical Specifications:

Power Source	One 1.5V AA battery during recording; host PC USB during data download
Battery Type	Alkaline primary, nickel-metal hydride rechargeable (NiMH), lithium
Battery Cover	Tamper proof and locked
Device Dimensions	79 mm W x 63 mm H x 21 mm D (3.11 in W x 2.48 in H x 0.83 in D)
Weight	65 grams (0.14 pounds)
Display	Type OLED—Dimensions 19 x 35 mm (0.75 x 1.38 in), resolution 128 x 64 dots
USB 2.0 Connection	USB-Mini type B

Software

Minimum PC Requirements:

Operating System	Windows® Vista and higher
Processor	X86 Intel based or AMD 1.7 GHz
Memory	512MB RAM, 1 GB of free disk space
Resolution	1024 x 768 or higher

Clinical studies

1 Shah et al. Portable monitoring: practical aspects and case examples. *Sleep Med Clin* 2011;6:355–66
2 Arnardottir et al. How to measure snoring? A comparison of the microphone, cannula and piezoelectric sensor. *J Sleep Res.* 2016 Apr;25(2):158-68.
3 Calibrated RIP Compared to Pneumotach - Nox White Paper
4 Winck et al. Sleep bruxism associated with obstructive sleep apnoea syndrome - A pilot study using a new portable device. *Revista Portuguesa de Pneumologia*, 2017 Jan - Feb;23(1):22-26.
5 Delessert et al. Pulse wave amplitude drops during sleep are reliable surrogate markers of changes in cortical activity. *Sleep* 2010 Dec;33(12):1687-92.
6 Cairns et al. A pilot validation study for the NOX T3™ portable monitor for the detection of OSA. *Sleep Breath.* 2014 Sep;18(3):609-14.
7 Liyue Xu et al. Validation of the Nox-T3 portable monitor for diagnosis of obstructive sleep apnea in Chinese adults. *Clin Sleep Med.* 2017;13(5):675–683.

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Nox T3® portable sleep recorder

User-friendly, home-based testing for sleep-disordered breathing

ResMed.com/NoxT3

Portable recorder designed for clinically-effective home sleep testing

The Nox T3® is a portable respiratory sleep recorder that enables the home-based diagnosis of sleep-related breathing disorders. This compact, lightweight device is AASM compliant, records all standard respiratory parameters and has two additional bipolar ExG channels.

Create a relaxed environment for sleep testing

It's simple and straightforward to hook up the sensors thanks to the Nox T3's ergonomic, user-friendly design.

- Small, wireless and **ergonomically designed** to facilitate natural sleep
- **Easy for patients** to hook up and manage during home sleep testing
- Fewer cables and sensors to **minimise sleep disturbance** and reduce the risk of a failed test
- Suitable for adults and children (>2 years old)

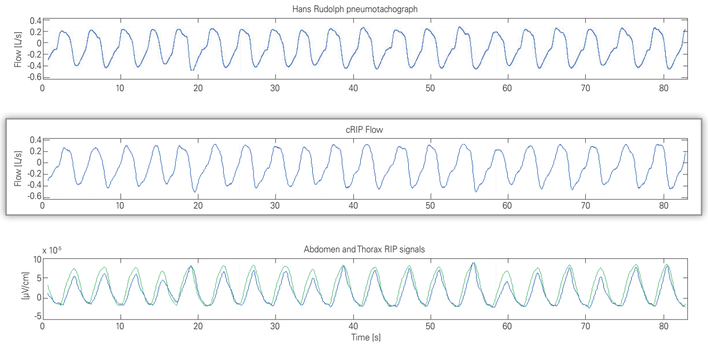
The Nox T3 can be programmed to record multiple sessions.

Access a wealth of advanced diagnostic features

With a built-in actimeter and 3D position sensor, the Nox T3 provides a precise estimate of the time your patient spends asleep, leading to more precise AHI scores and related statistics.[1]

- **Built-in microphone** with sound analysis in dB and audio playback to enhance snoring detection[2]
- **Accurate back-up flow signals** based on calibrated RIP technology (respiratory inductance plethysmography)[3]
- **Therapy control option** with connectivity to ResMed flow generators and $ptCO_2$ monitors
- **Two flexible bipolar channels** to enable either thermistor, PLM, EKG (Pulse Transit Time measurement), EMG or EEG traces
- **Customisable, AASM-compliant analysis and reports** with user-friendly Noxturnal® software
- **Automated bruxism analysis and reporting** of phasic and tonic events, with audible tooth grinding[4]
- **Pulse Wave Amplitude signal analysis** to help identify patients with a mild AHI index and suspected RERAs who should be referred for a polysomnography (PSG) test[5]

Accurate back-up flow signals with c-RIP Flow



cRIP Flow: accurate assumption of the volume in the lungs. Correlation coefficient with pneumotachograph : r=0.992[3]

Noxturnal: cutting-edge analytical and customisable reporting software

Noxturnal software features a broad variety of functionalities, ranging from programmed sleep recordings to the scoring and analysis of personalised reports that are adapted to the specific requirements of each clinician. The software can also interface with hospital information systems to enable even more effective management of patient data.

Transform day-to-day processes into an efficient, user-friendly workflow

- Full-featured raw data analysis and scoring, with audio play-back
- Accurate auto-score algorithm[6,7]
- Centralised settings for multi-user environments
- Specific tools to facilitate scoring, including single click scoring and automatic events association
- Customisable workspace layout and reports
- Export tools (EDF file formats, analysis, device profiles, layouts, reports, etc.)
- HL7-VLink and GDT interface for hospital systems integration

Sleep test summary screen

Customisable workspace layout