

Personal Smart

# SPIROBANK<sup>TM</sup> OXI

App-Based Spirometer with  
embedded Oximeter.

The simplest device for accurate  
Remote Patient Monitoring and  
Homecare. Real time test available on  
Smartphone via Bluetooth 5-ready



# MAIN features



## AUTOMATIC PAIR AND PLAY

Automatic pairing via Bluetooth. Real-time test result on your Smartphone



## MEASURED PARAMETERS

**Spirometry Parameters:**  
PEF, FEV1, FVC, FEV1/FVC, FEF2575, FEV6, VEXT, DTPEF, FEF75, FET, FEF25, FEF50, FIVC, FIV1, PIF, FEV3, FEV05, FEV075, FEV2

**Oximetry Parameters:**  
%SpO2min, %SpO2mean, %SpO2max, BPMmin, BPMmean, BPMmax, Ttotal



## COMPLIANCE ATS/ERS 2019

And other Standards including ISO 26782 (for Spirometry), ISO 23747 (for PEF), ISO 80601-2-61 (for Oximetry) and more. CE0476, FDA Cleared.



# DISTINCTIVE features



## SPIROMETRY GUIDELINES

Suitable for all ages from 5 to 93 years and multi-ethnic groups (GLI predicted sets)



## REAL-TIME OXIMETRY

Innovative reflectance pulse-oximetry sensor (Touch). Easy to use and accurate.



## LIVE VIDEO EXAM

Connect with your Healthcare provider in real-time, from the comfort of your home



## COVID-19 PANDEMIC

Avoid going to the hospital or medical offices during COVID-19 pandemic

## GO-TO-MARKET TOOLKIT

Software Development Kit available for System Integrators and App Developers.  
OEM service available for Spirometry and Oximetry.



Learn more about available SDK and OEM



Up- to 30 Spirometry parameters and 8 Oximetry parameters available via SDK!

# Always INCLUDED

- 2x AAA 1.5V Batteries
- Single Patient Reusable Turbine
- Plastic reusable mouthpiece
- User manual
- App for Smartphone (iOS and Android)

# Compatible SOFTWARE

## MIR SPIROBANK APP

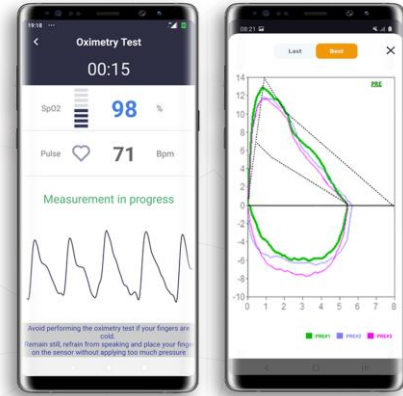
Mobile App (iOS and Android), for real time **spirometry** and **oximetry** test, directly on your Smartphone via Bluetooth 5-ready



### REAL TIME TEST

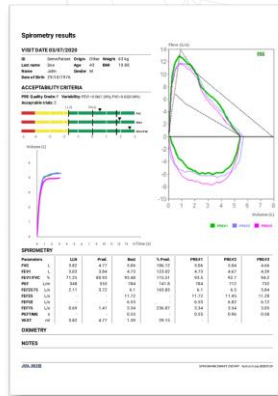
Spirometry: PEF, FVC, FEV1, FEV1/FVC ratio, FEF25/75, FEV6, VEXT, DTPEF, FEF75, FEF25, FEF50.

Oximetry: SpO2% (mean), Pulse BPM (mean)



### MEDICAL REPORT

Professional PDF report Including Acceptability Messages, Quality Control Grade, Acceptable Trials, Variability of FEV1 and FVC, Pictograms



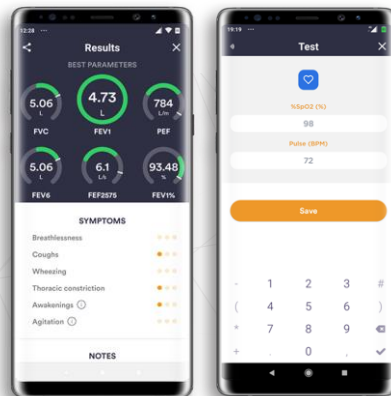
### SHARE RESULTS

Share results in PDF With anyone at anytime via eMail, Whatsapp, SMS, Cloud, Drive Bluetooth, Airdrop and other Apps



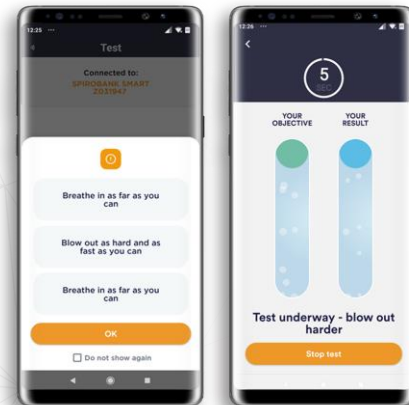
### PERSONAL TREND

E-diary, symptoms and notes can be added for each test. Oximetry results can also be added manually on the App



### INCENTIVE

Real time animation on Smartphone, to improve personal compliance during the test



# Compatible TURBINES

Single Patient Reusable Turbine



Mouthpiece

Included Reusable

Turbine Disinfection

Not required

Turbine Calibration

Not required

Packaging

Individually sealed: 1 unit / box

Antiviral Filter

Not required

flowMIR™ Disposable Turbine



Included Disposable

Not required

Not required

Individually sealed: 60 or 10 units / box

Not required



PLAY VIDEO REVIEW



SCIENTIFIC PUBLICATIONS



# Also available in **MORE CONFIGURATIONS**



## Technical Specification

### Spirobank Oxi

### Spirobank Smart

### Smart One OXI

### Smart One

TYPE OF SPIROMETER	App-Based, for Remote Patient Monitoring, with Oximetry Option	App-Based, for Remote Patient Monitoring	App-Based, for Personal Care, with Oximetry Option	App-Based, for Personal Care
COMPATIBLE TURBINES	flowMIR™ Disposable Turbine, Single Patient Reusable Turbine	flowMIR™ Disposable Turbine, Single Patient Reusable Turbine	Single Patient Reusable Turbine	Single Patient Reusable Turbine
COMPATIBLE SOFTWARES	MIR Spirobank App	MIR Spirobank App, iSpirometry App	Smart One App	Smart One App
EXTERNAL CONTROL	Real time plethysmographic curve and test result on SmartPhone screen. No internal memory, no display. Data are not stored in the device memory Connect to your Smartphone via Bluetooth 5-ready	Real time test on Smartphone screen. No internal memory, no display. Data are not stored in the device memory. Connect to your Smartphone via Bluetooth 5-ready	Real time plethysmographic curve and test result on SmartPhone/Tablet screen. No internal memory, no display. Data are not stored in the device memory. Connect to your Smartphone/Tablet via Bluetooth 5-ready	Real time test on SmartPhone/Tablet screen. No internal memory, no display. Data are not stored in the device memory. Connect to your Smartphone/Tablet via Bluetooth 5-ready
EHR CONNECTIVITY	Ready-to-Connect with 3rd party Apps for Professional and Personal Care and Clinical Trials	Ready-to-Connect with 3rd party Apps for Professional and Personal Care and Clinical Trials	Ready-to-Connect with 3rd party Apps for Professional and Personal Care and Clinical Trials	Ready-to-Connect with 3rd party Apps for Professional and Personal Care and Clinical Trials
REAL TIME TEST	Simple and intuitive App for Smartphone, always included for iOS and Android E-diary, symptoms and notes can be added for each test. Test Results can be shared in PDF (via Whatsapp, E-mail, other Apps), and printed directly (via Bluetooth printer). Real time animation, to help performing a good test. Easy to read Spirometry Guidelines for test compliance. Real time plethysmographic curve.	Simple and intuitive App for Smartphone, always included for iOS and Android E-diary, symptoms and notes can be added for each test. Test Results can be shared in PDF (via Whatsapp, E-mail, other Apps), and printed directly (via Bluetooth printer). Real time animation, to help performing a good test. Easy to read Spirometry Guidelines for test compliance.	Simple and intuitive App for Smartphone and Tablet, always included for iOS and Android E-diary, symptoms and notes can be added for each test. Test Results can be shared in PDF (via Whatsapp, E-mail, other Apps), and printed directly (via Bluetooth printer). Real time animation, to help performing a good test. Easy-to-read graphic trends for self-assessment. Real time plethysmographic curve.	Simple and intuitive App for Smartphone and Tablet, always included for iOS and Android E-diary, symptoms and notes can be added for each test. Test Results can be shared in PDF (via Whatsapp, E-mail, other Apps), and printed directly (via Bluetooth printer). Real time animation, to help performing a good test. Easy-to-read graphic trends for self-assessment.
MEASURED PARAMETERS	Spirometry Parameters: PEF, FEV1, FVC, FEV1/FVC, FEF2575, FEV6, VEXT, DTPEF, FEF75, FET, FEF25, FEF50, FIVC, FIV1, PIF, FEV3, FEV05, FEV075, FEV2  Oximetry Parameters: %SpO2min, %SpO2mean, %SpO2max, BPMmin, BPMmean, BPMmax, Ttotal  on MIR Spirobank App: Spirometry Parameters: PEF, FEV1, FVC, FEV1/FVC, FEF2575, FEV6, VEXT, DTPEF, FEF75, FEF25, FEF50 Oximetry Parameters: SpO2 (%), Pulse (BPM)	Spirometry Parameters: PEF, FVC, FEV1, FEV1/FVC, FEF2575, FEV6, VEXT, DTPEF, FEF75, FET, FEF25, FEF50, FIVC, FIV1, PIF, FEV3, FEV05, FEV075, FEV2  on MIR Spirobank App: PEF, FEV1, FVC, FEV1/FVC, FEF2575, FEV6, VEXT, DTPEF, FEF75, FEF25, FEF50  on iSpirometry App: PEF, FVC, FEV1, FEV1/FVC, FEF2575, FEV6	Spirometry Parameters: PEF, FEV1  Oximetry Parameters: %SpO2min, %SpO2mean, %SpO2max, BPMmin, BPMmean, BPMmax, Ttotal  on MIR Smart One App: Spirometry Parameters: PEF, FEV1 Oximetry Parameters: SpO2 (%), Pulse (BPM)	Spirometry Parameters: PEF, FEV1

[COMPARE ON WEBSITE](#)





# TECHNICAL datasheet

PRODUCT CODE 911125

## Technical specification

<b>Width</b>	49 mm
<b>Length</b>	109 mm
<b>Thickness</b>	21 mm
<b>Weight</b>	60.7 g (batteries included)

### Turbine



Reusable Turbine with plastic Mouthpiece (code 910013)



Disposable Turbine (code 910004)

<b>Mouthpiece</b>	Ø 30 mm (1.18 inches)
<b>Power supply</b>	2 batteries AAA 1.5 V
<b>Consumption</b>	max 12 mA average 8 µA (Stand by)
<b>Autonomy</b>	5-10 years
<b>IP protection level</b>	IP22
<b>Connectivity</b>	Bluetooth® 5-ready
<b>Type of electrical protection</b>	Internally powered
<b>Safety level for shock hazard</b>	Type BF Apparatus
<b>Conditions of use</b>	Apparatus for continuous use

<b>Storage conditions</b>	Temperature: MIN -25 °C, MAX + 70 °C
	Humidity: MIN 10% RH; MAX 93% RH

<b>Operating Conditions</b>	Temperature: MIN + 5 °C, MAX + 40 °C
	Humidity: MIN 15% RH, MAX 93% RH

<b>Shipping conditions</b>	Temperature: MIN -25 °C, MAX + 70 °C
	Humidity: MIN 10% RH; MAX 93% RH

<b>Applicable standards</b>	ATS/ERS: 2005, 2019 Update
	ISO 26782: 2009
	ISO 23747: 2015
	ISO 14971: 2019
	ISO 10993-1: 2018
	2011/65/UE Directive
	EN ISO 15223: 2016
	IEC 60601-1: 2005+Amd1:2012
	EN 60601-1-2: 2015
	IEC 60601-1-6: 2010+Amd2013
	EN 60601-1-11: 2015
	ISO 80601-2-61: 2017

## Spirometry

<b>Flow sensor</b>	bi-directional digital turbine
<b>Flow range</b>	16L/s (960 L/m)
<b>Volume range</b>	10 L
<b>Volume accuracy</b>	±2.5% o ±0.05L
<b>Flow accuracy</b>	±5.0% o 0,20 L/s
<b>Dynamic resistance</b>	<0.5 cm H <sub>2</sub> O/L/s (a 12 L/s)
<b>Temperature sensor</b>	none
<b>Available test</b>	FVC
<b>Measured parameters</b>	FEV1, PEF, FVC, FEV1/FVC, FEV6, FEF2575
<b>Additional parameters available with F/V version</b>	FIVC, FIV1, PIF FEF25, FEF50, FEF75, EVol, FEV05, FEV075, FEV2, FEV3, FET, PEF Time
<b>Memory capacity</b>	the application on the remote device (smartphone/tablet) memorizes data

## Oximetry

<b>Measuring method</b>	double wavelength
<b>%SpO<sub>2</sub> range</b>	70%-100%
<b>%SpO<sub>2</sub> accuracy</b>	±1.9%
<b>Average number of beats for the %SpO<sub>2</sub> calculation</b>	12 beats
<b>Pulse Rate range</b>	30-200 BPM
<b>Pulse Rate accuracy</b>	±3%
<b>Average interval for Pulse rate calculation</b>	12 seconds
<b>Quality signal indicator</b>	0-8 lines
<b>Available tests</b>	spot
<b>Measured parameters</b>	%SpO <sub>2MIN</sub> , %SpO <sub>2MEAN</sub> , %SpO <sub>2MAX</sub> , BPM <sub>MIN</sub> , BPM <sub>MEAN</sub> , BPM <sub>MAX</sub> , T <sub>TOTAL</sub>
<b>Wavelength sensors</b>	Red 660 nm Infrared 880 nm
<b>Maximum optical output power</b>	1.2 mW

## Certification & Registration

<b>CE 0476</b>	MED 9826
<b>FDA 510 (k)</b>	cleared
<b>Health Canada</b>	pending
<b>Codice CND</b>	Z12150102
<b>Codice GMDN</b>	46906