

ADVANCED

# SPIROBANK II SMART<sup>TM</sup>

Handheld, Stand-alone, Tablet-  
Based and PC-Based Spirometer,  
with Oximetry option

A versatile Spirometer and Oximeter, with  
Tablet (iPad and Android) and PC  
connection.



# MAIN features



## REAL-TIME TEST

Spirometry: FVC, VC, IVC, MVV, PRE/POST  
Bronchodilator comparison  
Oximetry (optional): Spot test (SpO2, BPM)



## PC AND TABLET CONNECTION

Real time test on Tablet (via Bluetooth 4.0) and PC (via USB), connect with your EHR/EMR, back-up internal memory and more



## CARRY EVERYWHERE

High resolution backlight display, long battery life, large internal storage, carrying case included



## 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 510 (k)



# DISTINCTIVE features



## PREDICTED SETS & VALUES

Large Selection, including comparison %Pred, Z-score and LLN. Include GLI on App and PC



## INTUITIVE APP FOR TABLET

Including Virtual Assistant, data transfer via HL7, Calibration check and more



## EHR/EMR CONNECTIVITY

Via PC, integration with patient database (HL7, GDT)  
Via Tablet, automatic share to Remote Server



## COVID-19 PREVENTION

Complete Disposable Set with Antiviral filter. Bluetooth connection to test at safety distance

## 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



# Always INCLUDED

- ✦ Carrying case
- ✦ USB cable
- ✦ Noseclip
- ✦ PC Software license
- With Oximetry Option:
  - ✦ Finger Probe

# Compatible SOFTWARE

## MIR Spiro App



## REAL TIME TEST

Spirometry: FVC Pre, FVC Post, VC, Oximetry: SpO2 (%), Pulse (BPM)

Spirometry parameters: FVC, FEV1, FEV1%, PEF, FEF25-75, FET, Lung Age, VC, IVC

Pediatric Incentive (PATENTED)

Calibration (on iOS) with personalized printed report.

## FEATURES

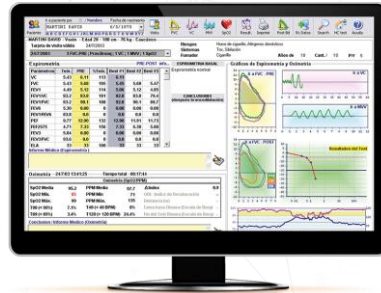
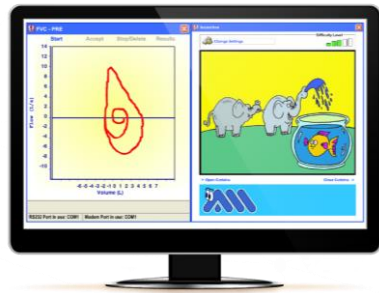
Predicted Sets include GLI, Predicted Values include Z-score and LLN

EHR/EMR direct integration via HL7 standards

Virtual Assistant: during and after the spirometry test.

Customizable PDF Medical Report to print and share

## winspiroPRO



## PC SOFTWARE

Embedded EHR/EMR connectivity (HL7, GDT, more) NET VERSION available, share one database between different PC workstations

Pediatric Incentive (PATENTED)

Interpretation and Quality Control Grade according to latest Spirometry Standards

## REAL TIME TEST

Spirometry: FVC-Pre, FVC-Post, VC-Pre, MVV, Bronchoprovocation tests, Bronchial Challenge

Oximetry: SpO2 (%), Pulse (BPM)

Customizable PDF report

## Spiro Connect



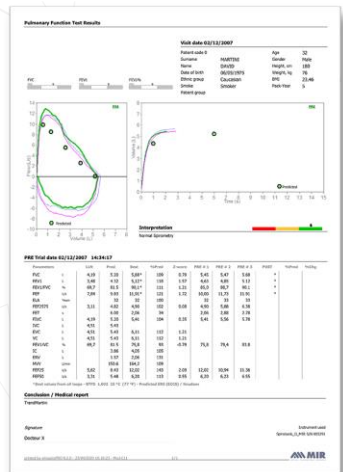
## PC SOFTWARE

Direct integration with your EHR/EMR via HL7 or Exchange Protocol.

Spirometry: FVC-Pre, FVC-Post, VC-Pre

Oximetry: SpO2 (%), Pulse (BPM)

Customizable PDF report



# Compatible TURBINES

flowMIR™ Disposable Turbine



Reusable Turbine



Mouthpiece

Turbine Disinfection

Turbine Calibration

Packaging

Antiviral Filter

Included Disposable

Not required

Not required

Individually sealed: 60 or 10 units / box

Available Disposable

Required, Not included

Required

Required

1 unit in Carton box

Required Disposable

PLAY VIDEO



SCIENTIFIC PUBLICATIONS



# Also available in MORE CONFIGURATIONS



## Technical Specification

### Spirobank II Smart

### Spirobank II Basic

TYPE OF SPIROMETER	StandAlone + PC + App, with Oximetry Option	StandAlone + PC
COMPATIBLE TURBINES	flowMIR™ Disposable Turbine, Reusable Turbine Flowmeter	flowMIR™ Disposable Turbine, Reusable Turbine Flowmeter
COMPATIBLE SOFTWARES	MIR Spiro App, Winspiro PRO, spiro Connect	Winspiro PRO, spiro Connect
EXTERNAL CONTROL	<p>Real-Time test on Tablet screen and PC screen, connect with your EHR/EMR, back-up internal memory, and much more</p> <p>Connect to your PC via USB (no Bluetooth)</p> <p>Connect to your Tablet via Bluetooth Smart BLE 4.0</p>	<p>Real-Time test on PC screen, connect with your EHR/EMR, back-up internal memory and much more</p> <p>Connect to your PC via USB</p>
EHR CONNECTIVITY	<p>Via PC: integration with patient database on your EHR/EMR (in HL7, GDT)</p> <p>Via APP: transfer data to a remote server in HL7 standards</p>	Via PC, integration with patient database on your EHR/EMR (in HL7, GDT)
MEASURED PARAMETERS	<p>Spirometry: FVC, VC, IVC, MVV, PRE-POST Bronchodilator comparison Oximetry (optional): Spot test (SpO2, BPM)</p> <p>Spirometry: FVC, FEV1, FEV1/FVC%, DTPEF, FEV 0.5, FEV0.5/FVC%, FEV0.75, FEV0.75/FVC%, FEV2, FEV2/FVC%, FEV3, FEV3/FVC%, FEV6, FEV1/FEV6%, PEF, FEF25, FEF50, FEF75, FEF25-75, FEF75-85%, FET, Vext, ELA, EVOL, FIVC, FIV1, PIF, FIV1/FIVC%, FIF25, FIF50, FIF75, R50, PIF, IRV, VC, IVC, IC, ERV, FEV1/VC%, TV, VE, RR, tI, tE, tI/t-tot, TV/tI, MVV</p> <p>Oximetry (Optional): SpO2% (min, max, average), BPM (min, max, average), Test duration, % Bradycardia Duration (&lt;40 BPM), % Tachycardia Duration (&gt;120 BPM), % of Time with SpO2 ≤ 90% (T90%, T89%)</p> <p>on MIR Spiro App: Spirometry: FVC, VC, PRE/POST Bronchodilator comparison Parameters: FVC, FEV1, FEV1%, PEF, FEF25-75, FET, Lung Age, VC, IVC. Oximetry (Optional): %SpO2 [Baseline, Min, Max, Mean], Pulse Rate [Baseline, Min, Max, Mean] Events.</p>	<p>Spirometry: FVC, VC, IVC, PRE/POST Bronchodilator comparison</p> <p>Spirometry: FVC, VC, IVC, IC, ERV, FEV1, FEV1%, PEF, FEF 25-75, FET, EVOL, ELA</p>

[COMPARE ON WEBSITE](#)



# TECHNICAL datasheet

## PRODUCT CODES - Spirobank II Smart Configurations

911028E0 – Spirometer • 911028E1 - Spirometer with reusable turbine

911029E0 - Spirometer + Oximeter • 911029E1 - Spirometer + Oximeter with reusable turbine

### Technical specification

Width	55 mm
Length	160 mm
Thickness	25 mm
Weight	140 g (battery pack included)

### Turbine



Reusable turbine (code 910002)



Disposable turbine (code 910004)

Power supply Rechargeable Lithium-Ion 3.7V,  
1100 mAh

Current capacity 1100 mAh

Consumption ~20-30 mA (during test)

Batteries charger voltage=5 V DC,  
current=minimum 500 mA,  
Connector: micro USB B-type  
compliant with EN 60601-1

Autonomy 50 hours

Connectivity USB 2.0, Bluetooth® 4.0

Display LCD monochrome, 160 × 80 pixel

Keyboard membrane keyboard with 6 keys

Mouthpieces Ø 30 mm (1.18 inch)

Type of electrical protection Internal power supply

Safety level for shock hazard Type BF Apparatus

Conditions of use Apparatus for continuous use

Conditions of storage Temperature: MIN -20 °C,  
MAX + 60 °C  
Humidity: MIN 10% RH;  
MAX 95%RH

Operating Conditions Temperature: MIN + 10 °C,  
MAX + 40 °C  
Humidity: MIN 10% RH,  
MAX 95%RH

Applied norms Electrical Safety Standard  
IEC 60601-1:2005 + A1: 2012  
Electro Magnetic Compatibility  
EN 60601-1-2:2015  
ISO 26782: 2009  
ISO 23747: 2015  
ATS/ERS: 2005, 2019 update

### Spirometry

Flow sensor	bi-directional digital turbine
Flow range	±16L/s
Volume accuracy	±2.5% or 50 mL
Flow accuracy	±5% or 200 mL/s
Dynamic resistance	<0.5 cm H2O/L/s
Temperature sensor	semiconductor (0-45°C)
Test available	FVC, VC, IVC, MVV, PRE-POST
Measured parameters	FVC, FEV1, FEV1/FVC%, DTPEF, FEV0.5, FEV0.5/FVC%, FEV0.75, FEV0.75/FVC%, FEV2, FEV2/FVC%, FEV3, FEV3/FVC%, FEV6, FEV1/FEV6%, PEF, FEF25, FEF50, FEF75, FEF25-75, FEF75-85%, FET, Vext, ELA, EVOL, FIVC, FIV1, PIF, FIV1/FIVC%, FIF25, FIF50, FIF75, R50, PIF, IRV, VC, IVC, IC, ERV, FEV1/VC%, TV, VE, RR, t <sub>i</sub> , t <sub>E</sub> , t <sub>i</sub> /t <sub>-tot</sub> , TV/t <sub>i</sub> , MVV
Memory capacity	Up to 10000 tests

### Oximetry (on request)

Measurement method	Red and infrared absorption
SpO2 range	0-99%
SpO2 accuracy	± 2% between 70-99% SpO2
Average number of heart beats for the %SpO2 calculation	8 beats
Pulse Rate Range	30-300 BPM
Accuracy	± 2BPM or 2% whichever is greater
Averaging interval for Signal quality indication	8 seconds average
Test available	0 - 8 segments on display spot
Measured parameters	SpO2% min, max, average BPM min, max, average Test duration % Bradycardia Duration (<40 BPM) % Tachycardia Duration (>120 BPM) % of Time with SpO2 ≤ 90% (T90%, T89%)
Memory capacity	up to 300 hours oximetry

### Certificates & Registrations

CE 0476	MED 9826
FDA 510 (k)	K 061712
CND code	Z12150102 (spiro)
	Z1203020408 (spiro + oxi)
GMDN code	46906 (spiro), 45607 (spiro + oxi)

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