

## COMPARISON MATRIX

Name	SPIROLAB	SPIROBANK II BASIC	SPIROBANK II ADVANCED	SPIROBANK II ADVANCED PLUS	SPIROBANK II SMART	MINISPIR LIGHT	MINISPIR	SPIRODOC
Picture								
Dimensions	8.6 x 8.3 x 2" (220x210x51 mm)	6 x 2 x 1" (160x55x25 mm)	6 x 2 x 1" (160x55x25 mm)	6 x 2 x 1" (160x55x25 mm)	6 x 2 x 1" (160x55x25 mm)	5.5 x 1.9 x 1" (142x49.7x26 mm)	5.5 x 1.9 x 1" (142x49.7x26 mm)	4.2 x 2.4 x 1.0" (101x48x16 mm)
Display	7"	2.5"	2.5"	2.5"	2.5"	Not Required	Not Required	3"
Weight	51 Oz (1450 g)	5 Oz (140 g)	5 Oz (145 g)	5 Oz (145 g)	5 Oz (145 g)	2.2 Oz (65 g)	2.2 Oz (65 g)	4.0 Oz (116 g)
Carrying Case	Included	Plastic Case	Plastic Case	Plastic Case	Plastic Case	No	Plastic Case	Plastic Case
Device Type	Desktop	Pocket Size	Pocket Size	Pocket Size	Pocket Size	PC Based	PC Based	Pocket Size
Stand alone	Yes	Yes	Yes	Yes	Yes	No	No	Yes
Real Time PC	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Real TimeTablet	No	No	No	No	Yes	No	No	No
PC Required	Only for Computer connection	Only for Computer connection	Only for Computer connection	Only for Computer connection	Only for Computer connection	Yes	Yes	Only for Computer connection
Tablet Required	No	No	No	No	Only for Tablet Connection	No	No	No
Power Supply	Rechargeable battery AC 100-240V	Rechargeable USB cable	Rechargeable USB cable	Rechargeable USB cable	Rechargeable USB cable	USB Socket of PC	USB Socket of PC	USB Socket of PC
Battery Charger	Included	Not Included	Not Included	Included	Not Included	Not Required	Not Required	Not Included
Data Input	Touchscreen in standalone	Keyboard in standalone	Keyboard in standalone	Keyboard in standalone	Keyboard in standalone	Via PC	Via PC	Touchscreen in standalone
Real Time Curves	Yes	Only when connected to PC	Only when connected to PC	Only when connected to PC	Only when connected to PC or Tablet	Yes on PC	Yes on PC	Only when connected to PC
Thermal Printer	Internal	No	No	No	No	No	No	No
Connectivity	USB, Bluetooth 2.0	USB	USB, Bluetooth 2.0	USB, Bluetooth 2.0	USB, Bluetooth Low Energy	USB	USB	USB, Bluetooth 2.0
USB to Printer	Yes	No	No	No	No	No	No	No
Bluetooth to Printer	No	No	No	No	No	No	No	Yes
GSM/GPRS/EDGE	No	No	No	No	No	No	No	No
Tests Spirometry	FVC, VC, MVV	FVC, VC	FVC, VC, MVV	FVC, VC, MVV	FVC, VC	Only via PC	Only via PC	FVC, VC, MVV
POST BD	Yes	Yes	Yes	Yes	Yes	Optional Only via PC	Only via PC	Yes
Bronchial Chall.	Only via PC	No	Only via PC	Only via PC	Only via PC	No	Only via PC	Only via PC
N. of Parameters	Over 70 (including Pulse-Oximetry)	12	40	Over 80 (including Pulse-Oximetry)	Over 16 (including Pulse-Oximetry)	10	Over 50 (including Pulse-Oximetry)	Over 90 (including Pulse-Oximetry)
Parameters List Spiro	FVC, FEV1, FEV1/FVC, FEV1/VC, PEF, FEF25, FEF50, FEF75, FEF25-75, FEF75-85, Lung Age, Extrapolated Volume, FET, Time to PEF, FEV0.5, FEV0.5/FVC, FEV0.75, FEV0.75/FVC, FEV2, FEV2/FVC, FEV3, FEV3/FVC, FEV6, FEV1/FEV6, FEV1/PEF, FEV1/FEV0.5, FIVC, FIV1, FIV1/FIVC, PIF, FIF25, FIF50, FIF75, FEF50/FIF50, VC, IVC, IC, ERV, IRV, Rf, VE, VT, ti, tE, VT/ti, tE/tTOT, MVV (measured), MVV (calculated)	FVC, FEV1, FEV1%, PEF, FEF25-75, FET, Extrap. Volume, Lung Age, VC, IVC, IC, ERV	FVC, FEV1, FEV1/FVC, FEV1/VC, PEF, FEF25, FEF50, FEF75, FEF25-75, FEF75-85, Lung Age, Extrap. Volume, FET, Time to PEF, FEV0.5, FEV0.5/FVC, FEV0.75, FEV0.75/FVC, FEV2, FEV2/FVC, FEV3, FEV3/FVC, FEV6, FEV1/FEV6, FIVC, FIV1, FIV1/FIVC, PIF, FIF25, FIF50, FIF75, FEF50/FIF50, VC, IVC, IC, ERV, IRV, Rf, VE, VT, ti, tE, VT/ti, tE/tTOT, MVV (measured), MVV (calculated)	FVC, FEV1, FEV1/FVC, FEV1/VC, PEF, FEF25, FEF50, FEF75, FEF25-75, FEF75-85, Lung Age, Extrap. Volume, FET, Time to PEF, FEV0.5, FEV0.5/FVC, FEV0.75, FEV0.75/FVC, FEV2, FEV2/FVC, FEV3, FEV3/FVC, FEV6, FEV1/FEV6, FIVC, FIV1, FIV1/FIVC, PIF, FIF25, FIF50, FIF75, FEF50/FIF50, VC, IVC, IC, ERV, IRV, Rf, VE, VT, ti, tE, VT/ti, tE/tTOT, MVV (measured), MVV (calculated)	FVC, FEV1, FEV1/FVC, FEV1/VC, PEF, FEF25, FEF50, FEF75, FEF25-75, FEF75-85, Lung Age, VC, IVC	Only via PC	Only via PC	FVC, FEV1, FEV1/FVC%, FEV3, FEV3/FVC%, FEV6, FEV1/FEV6%, PEF, FEF25%, FEF50%, FEF75%, FEF25%-75%, FET, Estimated Lung Age, Extr. Vol., FIVC, FIV1, FIV1/FIVC%, PIF, VC, IVC, IC, ERV, FEV1/VC%, VT, VE, Rf, ti, te, ti/t-tot, VT/ti, MVV measured, MVV (calculated)
Memory Spiro	10,000 tests	10,000 tests	10,000 tests	10,000 tests	10,000 tests	Uses PC Memory	Uses PC Memory	10,000 tests
Pulse-Oximetry	Optional	No	No	Yes	Optional	No	Optional	Optional
Spot Test	Yes	-	-	Yes	Yes	-	Yes	Yes

DEVICE

## COMPARISON MATRIX

Name	SPIROLAB	SPIROBANK II BASIC	SPIROBANK II ADVANCED	SPIROBANK II ADVANCED PLUS	SPIROBANK II SMART	MINISPIR LIGHT	MINISPIR	SPIRODOC
Picture								
Spot Test Param	SpO2 [Baseline, Min, Max, Mean], Pulse Rate [Baseline, Min, Max, Mean], T90, T89, T88, T5, Index [12s], SpO2 Events, Pulse Rate Events [Bradycardia, Tachycardia]	-	-	SpO2 [Baseline, Min, Max, Mean], Pulse Rate [Baseline, Min, Max, Mean], T90, T89, T88, T5, Index [12s], SpO2 Events, Pulse Rate Events [Bradycardia, Tachycardia]	SpO2 [Baseline, Min, Max, Mean], Pulse Rate [Baseline, Min, Max, Mean]	-	SpO2 [Baseline, Min, Max, Mean], Pulse Rate [Baseline, Min, Max, Mean], T90, T89, T88, T5, Index [12s], SpO2 Events, Pulse Rate Events [Bradycardia, Tachycardia]	SpO2 [Baseline, Min, Max, Mean], Pulse Rate [Baseline, Min, Max, Mean], T90, T89, T88, T5, Index [12s], SpO2 Events, Pulse Rate Events [Bradycardia, Tachycardia]
Walk Test	No	-	-	Yes Only when data downloaded to PC	Yes Only when data downloaded to PC	-	No	Yes
Walk Test Param.	-	-	-	Visible only Via PC	Visible only Via PC	-	-	O2-Gap, Estimated distance walked, Predicted distance [Min, Standard], TΔ2% [SpO2≥2%], TΔ4% [ΔSpO2≥4%], Time [Rest, Walking, Recovery], Desaturation Area/ Distance Optional data entry: Borg Dyspnea [Baseline, End, Change], Borg Fatigue [Baseline, End, Change], Arterial blood pressure [Systolic, Diastolic], Oxygen administered
Sleep Test	No	-	-	Yes Only when data downloaded to PC	Yes Only when data downloaded to PC	-	No	Yes
Sleep Test Param.	-	-	-	Visible only Via PC	Visible only Via PC	-	-	Body position, SpO2 Events, Desaturation index (ODI), Desaturation [Mean Value, Mean duration, Longest duration, Nadir Peak], ΔSpO2 [Min Drop, Max Drop], Total Pulse Variations, Pulse Rate Index, NOD89% [SpO2<89%; >5min], NOD4% [SpO2 Basale-4%; >5min], NOD90% [SpO2<90%; >5min], Nadir<86%; >5min]
Memory Pulse-Ox	900 Hours Pulse-Oximetry	-	-	900 Hours Pulse-Oximetry	900 Hours Pulse-Oximetry (Option)	-	Uses PC Memory	900 Hours Pulse-Oximetry (Option)
Incentive	Yes	Only via PC	Only via PC	Only via PC	Only via PC Or Tablet	Only via PC	Only via PC	Only via PC
Doctor's Interface	Yes	Yes	Yes	Yes	Yes	Yes via PC	Yes via PC	Yes
Patient's Interface	No	No	No	No	No	No	No	Yes
E-diary	No	No	No	No	No	No	No	Yes
Calibration	Not required but possible	Not required but possible	Not required but possible	Not required but possible	Not required but possible	Not required but possible	Not required but possible	Not required but possible
Upgradable	Free Lifelong	Free Lifelong	Free Lifelong	Free Lifelong	Free Lifelong	Free Lifelong	Free Lifelong	Free Lifelong
Sensor Type	Turbine	Turbine	Turbine	Turbine	Turbine	Turbine	Turbine	Turbine
Disposable Sensor	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Reusable Sensor	Optional	Optional	Optional	Optional	Optional	Optional	Optional	Optional
Software Name	WinspiroPRO	WinspiroPRO	WinspiroPRO	WinspiroPRO	WinspiroPRO	WinspiroPRO	Winspiro Light	WinspiroPRO
Included	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Data Input	Via PC when connected USB	Via PC when connected USB	Via PC when connected USB	Via PC when connected USB	Via PC when connected USB	Via PC	Via PC	Via PC when connected USB
USB to PC	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Bluetooth to PC	Yes	No	Yes	Yes	No only to tablet	No	No	Yes
Network Version	Optional	Optional	Optional	Optional	Optional	No	Optional	Optional

DEVICE

SENSOR

SOFTWARE

## COMPARISON MATRIX

Name	SPIROLAB	SPIROBANK II BASIC	SPIROBANK II ADVANCED	SPIROBANK II ADVANCED PLUS	SPIROBANK II SMART	MINISPIR LIGHT	MINISPIR	SPIRODOC
Picture								
EMR EHR EPR	Yes (HL7, GDT, BDT, Proprietary)	Yes (HL7, GDT, BDT, Proprietary)	Yes (HL7, GDT, BDT, Proprietary)	Yes (HL7, GDT, BDT, Proprietary)	Yes (HL7, GDT, BDT, Proprietary)	No	Yes (HL7, GDT, BDT, Proprietary)	Yes (HL7, GDT, BDT, Proprietary)
N. of Parameters	Over 70 (including pulse-oximetry)	12	40	Over 80 (including pulse-oximetry)	Over 80 (including pulse-oximetry)	10	Over 50 (including pulse-oximetry)	Over 80 (including pulse-oximetry)
Tests Spirometry	FVC, VC, MVV	FVC, VC	FVC, VC, MVV	FVC, VC, MVV	FVC, VC, MVV	FVC, VC	FVC, VC, MVV	FVC, VC, MVV
POST BD	Yes	Yes	Yes	Yes	Yes	Optional	Yes	Yes
Bronchial Chall.	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes
Parameters List Spiro	FVC, FEV1, FEV1/FVC, FEV1/VC, PEF, FEF25, FEF50, FEF75, FEF25-75, FEF75-85, Lung Age, Extrapolated Volume, FET, Time to PEF, FEV0.5, FEV0.5/FVC, FEV0.75, FEV0.75/FVC, FEV2, FEV2/FVC, FEV3, FEV3/FVC, FEV6, FEV1/FEV6, FEV1/PEF, FEV1/FEV0.5, FIVC, FIV1, FIV1/FIVC, PIF, FIF25, FIF50, FIF75, FEF50/FIF50, VC, IVC, IC, ERV, IRV, Rf, VE, VT, ti, tE, VT/ti, tE/tTOT, MVV (measured), MVV (calculated)	FVC, FEV1, FEV1%, PEF, FEF25-75, FET, Extrap. Volume, Lung Age, VC, IVC, IC, ERV	FVC, FEV1, FEV1/FVC, FEV1/VC, PEF, FEF25, FEF50, FEF75, FEF25-75, FEF75-85, Lung Age, Extrap. Volume, FET, Time to PEF, FEV0.5, FEV0.5/FVC, FEV0.75, FEV0.75/FVC, FEV2, FEV2/FVC, FEV3, FEV3/FVC, FEV6, FEV1/FEV6, FIVC, FIV1, FIV1/FIVC, PIF, FIF25, FIF50, FIF75, FEF50/FIF50, VC, IVC, IC, ERV, IRV, Rf, VE, VT, ti, tE, VT/ti, tE/tTOT, MVV (measured), MVV (calculated)	FVC, FEV1, FEV1/FVC, FEV1/VC, PEF, FEF25, FEF50, FEF75, FEF25-75, FEF75-85, Lung Age, Extrap. Volume, FET, Time to PEF, FEV0.5, FEV0.5/FVC, FEV0.75, FEV0.75/FVC, FEV2, FEV2/FVC, FEV3, FEV3/FVC, FEV6, FEV1/FEV6, FIVC, FIV1, FIV1/FIVC, PIF, FIF25, FIF50, FIF75, FEF50/FIF50, VC, IVC, IC, ERV, IRV, Rf, VE, VT, ti, tE, VT/ti, tE/tTOT, MVV (measured), MVV (calculated)	FVC, FEV1, FEV1/FVC, FEV1/VC, PEF, FEF25, FEF50, FEF75, FEF25-75, FEF75-85, Lung Age, Extrap. Volume, FET, Time to PEF, FEV0.5, FEV0.5/FVC, FEV0.75, FEV0.75/FVC, FEV2, FEV2/FVC, FEV3, FEV3/FVC, FEV6, FEV1/FEV6, FIVC, FIV1, FIV1/FIVC, PIF, FIF25, FIF50, FIF75, FEF50/FIF50, VC, IVC, IC, ERV, IRV, Rf, VE, VT, ti, tE, VT/ti, tE/tTOT, MVV (measured), MVV (calculated)	FVC, FEV1, FEV1%, FEV6, PEF, FEF25-75%, FIVC, Lung Age, VC, IVC	FVC, FEV1, FEV1/FVC%, FEV3, FEV3/FVC%, FEV6, FEV1/FEV6%, PEF, FEF25%, FEF50%, FEF75%, FEF25-75%, FET, Vext, Lung Age, FIVC, FIV1, FIV1/FIVC%, PIF, VC, IVC, IC, ERV, FEV1/VC%, VT, VE, Rf, ti, te, ti/t-tot, VT/ti, MVV	FVC, FEV1, FEV1/FVC%, FEV3, FEV3/FVC%, FEV6, FEV1/FEV6%, PEF, FEF25%, FEF50%, FEF75%, FEF25-75%, FET, Estimated Lung Age, Extr. Vol., FIVC, FIV1, FIV1/FIVC%, PIF, VC, IVC, IC, ERV, FEV1/VC%, VT, VE, Rf, ti, te, ti/t-tot, VT/ti, MVV measured, MVV (calculated)
Memory Spiro	Depending on PC's Free Memory	Depending on PC's Free Memory	Depending on PC's Free Memory	Depending on PC's Free Memory	Depending on PC's Free Memory	Depending on PC's Free Memory	Depending on PC's Free Memory	Depending on PC's Free Memory
Pulse-Oximetry	Yes	No	No	Yes	Optional	No	Optional	Optional
Spot Test	Yes	-	-	Yes	Yes	-	Yes	Yes
Spot Test Param.	SpO2 [Baseline, Min, Max, Mean], Pulse Rate [Baseline, Min, Max, Mean], T90, T89, T88, T5, Index [12s], SpO2 Events, Pulse Rate Events [Bradycardia, Tachycardia]	-	-	SpO2 [Baseline, Min, Max, Mean], Pulse Rate [Baseline, Min, Max, Mean], T90, T89, T88, T5, Index [12s], SpO2 Events, Pulse Rate Events [Bradycardia, Tachycardia]	SpO2 [Baseline, Min, Max, Mean], Pulse Rate [Baseline, Min, Max, Mean], T90, T89, T88, T5, Index [12s], SpO2 Events, Pulse Rate Events [Bradycardia, Tachycardia]	-	SpO2 [Baseline, Min, Max, Mean], Pulse Rate [Baseline, Min, Max, Mean], T90, T89, T88, T5, Index [12s], SpO2 Events, Pulse Rate Events [Bradycardia, Tachycardia]	SpO2 [Baseline, Min, Max, Mean], Pulse Rate [Baseline, Min, Max, Mean], T90, T89, T88, T5, Index [12s], SpO2 Events, Pulse Rate Events [Bradycardia, Tachycardia]
Walk Test	No	-	-	Yes	Yes	-	No	Yes
Walk Test Param.	-	-	-	O2-Gap, Estimated distance, Distance walked, Predicted distance [Min, Standard], TΔ2% [SpO2>2%], TΔ4% [ΔSpO2>4%], Time [Rest, Walking, Recovery], Desaturation Area/ Distance Optional data entry: Borg Dyspnea [Baseline, End, Change], Borg Fatigue [Baseline, End, Change], Arterial blood pressure [Systolic, Diastolic], Oxygen administered	O2-Gap, Estimated distance, Distance walked, Predicted distance [Min, Standard], TΔ2% [SpO2>2%], TΔ4% [ΔSpO2>4%], Time [Rest, Walking, Recovery], Desaturation Area/ Distance Optional data entry: Borg Dyspnea [Baseline, End, Change], Borg Fatigue [Baseline, End, Change], Arterial blood pressure [Systolic, Diastolic], Oxygen administered	-	-	O2-Gap, Estimated distance, Distance walked, Predicted distance [Min, Standard], TΔ2% [SpO2>2%], TΔ4% [ΔSpO2>4%], Time [Rest, Walking, Recovery], Desaturation Area/ Distance Optional data entry: Borg Dyspnea [Baseline, End, Change], Borg Fatigue [Baseline, End, Change], Arterial blood pressure [Systolic, Diastolic], Oxygen administered
Sleep Test	No	-	-	Yes	Yes	-	No	Yes
Sleep Test Param.	-	-	-	Body position, SpO2 Events, Desaturation index (ODI), Desaturation [Mean Value, Mean duration, Longest duration, Nadir Peak], ΔSpO2 [Min Drop, Max Drop], Total Pulse Variations, Pulse Rate Index, NOD89% [SpO2<89%; >5min], NOD4% [SpO2 Basale-4%; >5min], NOD90% [SpO2<90%; Nadir<86%; >5min]	Body position, SpO2 Events, Desaturation index (ODI), Desaturation [Mean Value, Mean duration, Longest duration, Nadir Peak], ΔSpO2 [Min Drop, Max Drop], Total Pulse Variations, Pulse Rate Index, NOD89% [SpO2<89%; >5min], NOD4% [SpO2 Basale-4%; >5min], NOD90% [SpO2<90%; Nadir<86%; >5min]	-	-	Body position, SpO2 Events, Desaturation index (ODI), Desaturation [Mean Value, Mean duration, Longest duration, Nadir Peak], ΔSpO2 [Min Drop, Max Drop], Total Pulse Variations, Pulse Rate Index, NOD89% [SpO2<89%; >5min], NOD4% [SpO2 Basale-4%; >5min], NOD90% [SpO2<90%; Nadir<86%; >5min]

SOFTWARE

## COMPARISON MATRIX

Name	SPIROLAB	SPIROBANK II BASIC	SPIROBANK II ADVANCED	SPIROBANK II ADVANCED PLUS	SPIROBANK II SMART	MINISPIR LIGHT	MINISPIR	SPIRODOC	
Picture									
SOFTWARE	Memory Pulse-Ox	Depending on PC's Free Memory	-	-	Depending on PC's Free Memory	Depending on PC's Free Memory	-	Depending on PC's Free Memory	
	Incentive	Multiple ones for Expir. & Inspir.	Multiple ones for Expir. & Inspir.	Multiple ones for Expir. & Inspir.	Multiple ones for Expir. & Inspir.	Multiple ones for Expir. & Inspir.	Multiple ones for Expir. & Inspir.	Multiple ones for Expir. & Inspir.	
	Real Time Curves	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
	Custom. Printout	Yes (Including Parameter selection)	Yes (Including Parameter selection)	Yes (Including Parameter selection)	Yes (Including Parameter selection)	Yes (Including Parameter selection)	Yes (no parameter selection)	Yes (Including Parameter selection)	Yes (Including Parameter selection)
	Upgradeable	Free Lifelong	Free Lifelong	Free Lifelong	Free Lifelong	Free Lifelong	Free Lifelong	Free Lifelong	Free Lifelong
	Calibration	Not required but possible	Not required but possible	Not required but possible	Not required but possible	Not required but possible	Not required but possible	Not required but possible	Not required but possible
IPAD TABLET APPLICATION	App Name	-	-	-	-	MIRspiro	-	-	
	Included	-	-	-	-	Yes	-	-	
	Data Input	-	-	-	-	Yes	-	-	
	USB to Tablet	-	-	-	-	No	-	-	
	Bluetooth to Tablet	-	-	-	-	Yes	-	-	
	EMR EHR EPR	-	-	-	-	Yes HL7 Web Interface	-	-	
	Spirometry Tests	-	-	-	-	FVC, VC	-	-	
	POST BD	-	-	-	-	Yes	-	-	
	Bronchial Chall.	-	-	-	-	No	-	-	
	N. of Parameters	-	-	-	-	13 Including Pulse-Oximetry	-	-	
	Parameters Spiro	-	-	-	-	FVC, FEV1, FEV1%, PEF, FEF25-75, FET, ELA, IVC, EVC	-	-	
	Memory Spiro	-	-	-	-	Depending on Tablet's Free Memory	-	-	
	Pulse-Oximetry	-	-	-	-	Optional	-	-	
	Spot Test	-	-	-	-	Yes	-	-	
	Spot Test Param.	-	-	-	-	SpO2 [Baseline, Min, Max, Mean], Pulse Rate [Baseline, Min, Max, Mean]	-	-	
	Walk Test	-	-	-	-	-	-	-	
	Walk Test Param.	-	-	-	-	-	-	-	
	Sleep Test	-	-	-	-	-	-	-	
	Sleep Test Param.	-	-	-	-	-	-	-	
	Memory Pulse-Ox	-	-	-	-	Depending on Tablet's Free Memory	-	-	
	Incentive	-	-	-	-	Yes	-	-	
	Software Usability	-	-	-	-	Navigation back and forth from one menu to the other	-	-	
	Real Time Curves	-	-	-	-	Yes	-	-	
Customizable Printout	-	-	-	-	Only general customization (no parameter selection)	-	-		
Upgradeable App	-	-	-	-	Free Lifelong	-	-		
Calibration	-	-	-	-	Yes	-	-		