MESI

Simplifying Diagnostics

All diagnostic measurements.
All patient records.
One system.

MESI mTABLET

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Completely New Concept of a Medical Device

The MESI mTABLET system helps clinicians provide their patients with the best medical assessment by combining **diagnostic measurements, patient records and clinical support tools** in one modular and user-friendly system.

All measurement reports and patient data are automatically stored in the patient record. The information can be reviewed on a computer, through the practice's information system or on the **built-in MESI mRECORDS platform** providing secure access from any web-enabled device.

Performance and functionality can be enhanced with numerous extensions available in the **medical marketplace — MESI mSTORE**.

Blood Pressure

Ankle-Brachial Index

Pulse Oximetry

Spirometry

ALL IN ONE SYSTEM

Wireless and portable system provides boundless freedom in a modern healthcare facility. The modular system allows you to add diagnostic measurements with modules and apps according to your practice's needs. New ones can be added to the system whenever necessary.

reddot design award
winner 2018

3 YEAR WARRANTY

12-Lead ECG

Medical Tablet

Toe-Brachial Index

* These images are for demonstration purposes only.

Wherever Your Work Takes You, the **MESI mTABLET** System Follows

There is no need to change the way you go about your daily tasks: the MESI mTABLET system adapts to your particular healthcare setting. Whether you are a part of a **smaller practice**, a walk-in clinic, a **multi-level hospital** environment, or you provide the patients with **home care visits**: the MESI mTABLET can be used anywhere, without limitations. It supports you throughout your day and helps you **work smarter, not harder**.

In the healthcare practice

Configure your system according to your needs and set it up with little training. You can have a complete overview of all the measurements in real time or at any point during your day, accessible on any web-enabled device. Need a second opinion? The MESI mTABLET's share button ensures the consulting specialist receives the full report without any sensitive patient information.

In hospital

Keep all your team members in the loop through working groups and ensure the same level of care for all your patients by building custom protocols. All diagnostic procedures are fast and objective and all reports are automatically stored in the patient records. The unified user experience for every single measurement helps strengthen not only your relationships with your patients, but also your coworkers.

During home visits

Pack the MESI mTABLET and the modules into your bag and carry it with you — the battery will last all day. Perform the necessary measurements, take photos of skin conditions to monitor the healing progress and add relevant comments. Share the reports for a second opinion or review them on the built-in MESI mRECORDS platform.

MEDICAL DEVICE FOR A MODERN PRACTICE

Choose diagnostic modules according to your practice’s needs

MESI mTABLET ECG

First Completely Digital Electrocardiogram

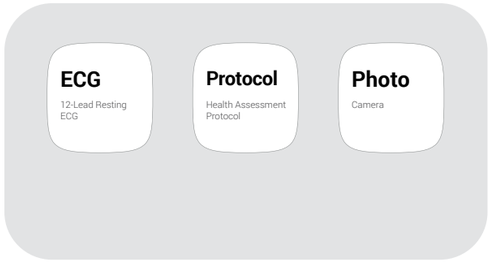
- Wireless, digital 12-lead ECG measurement
- Sharing results for an immediate second opinion
- Advanced analysis options with MESI mRECORDS

Why MESI mTABLET ECG?

- 12-lead wireless ECG
- Glasgow Interpretation Algorithm included
- ECG signal filters (MESI signal enhancement, high-pass, low-pass, mains, myogram)
- 8 advanced view options
- Recording speed and sensitivity settings
- Simple zoom-in, comment adding and advanced analysis with event tagging.
- Customizable printout directly from the MESI mTABLET

Application extensions

The **MESI mTABLET ECG** is not only an advanced electrocardiogram. By adding new smart applications, you can extend the use and make it your lifetime associate. This makes it a truly new concept of a medical device.



MESI mTABLET SPIRO

The Most Versatile Digital Spirometer

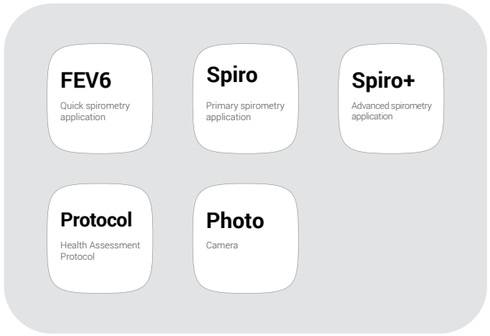
- Wireless mode of operation for practice or home visit use
- Pneumotachograph technology with integrated self-calibration for accurate measurements at any time
- Automatic best breath selection with a clear and intuitive measurement review

Why MESI mTABLET SPIRO?

- Automatic selection of the best of all repeated maneuvers with the BestBreath™ detection
- Detailed report with the ability to switch between charts and values for a clear interpretation
- Option to compare different measurements on the same screen with MESI mRECORDS

Application extensions

The **MESI mTABLET SPIRO** is not only a versatile digital spirometer. Multiple measurement modes and parameter calculation options (quick, primary or advanced) make it an indispensable tool for diagnosing asthma, chronic obstructive pulmonary disease (COPD) and other conditions that affect breathing.



MESI mTABLET ABI

The Smartest Wireless Ankle-Brachial Index

- PADsense™ algorithm for detection of severe Peripheral Arterial Disease
- 3CUFF™ technology permits simultaneous measurement
- 1-minute, easy and reliable ABI measurement with pulse waveform interpretation

SHARE FOR A SECOND OPINION

MULTIPLE CUFF SIZES

PADsense™ ALGORITHM

3CUFF™ TECHNOLOGY

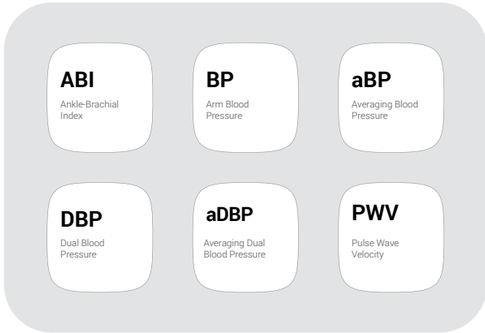
SAVE DIRECTLY INTO EHR

Why MESI mTABLET ABI?

- SmartArm™ detection – to determine the higher blood pressure of the two
- Automated, 3-cuff simultaneous measurement
- Multiple cuff sizes and ability to mix-and-match different size cuffs during one measurement
- Pulse waveforms and oscilation graphs
- Advanced review and alerts, thanks to PADsense™ algorithm

Application extensions

The **MESI mTABLET ABI** is not only an advanced Ankle-Brachial Index measuring device. By extending the use with smart applications, such as BP app or Photo app, you can measure blood pressure or track the healing of skin conditions in a matter of clicks, using the same device.



MESI mTABLET TBI

The Simplest Wireless Toe-Brachial Index

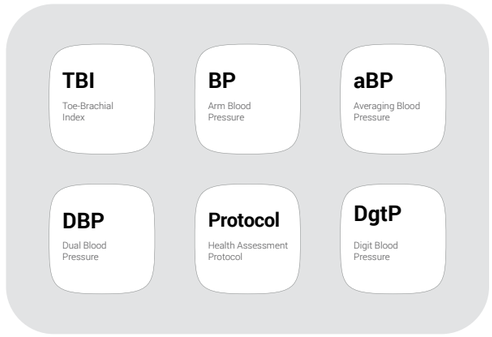
- Quick and reliable TBI measurement with pulse waveform interpretation
- Simple 1-step automated TBI measurement performed in 1 minute
- AdaptiveLED™ PPG probe detects skin thickness for increased accuracy

Why MESI mTABLET TBI?

- Safe, simultaneous measurements in both arms and big toes, with adaptive, infrared LED PPG light, detecting toe skin temperature and thickness
- FirstWave™ algorithm for detecting the first returning pulse waveform in the toes
- Comprehensive and reliable TBI report with pulse waveforms and oscillation graphs for the arms and PPG pulse waveforms for the toes
- Single-use (disposable) toe cuffs available

Application extensions

The **MESI mTABLET TBI** is not only an advanced Toe-Brachial Index measuring device. By adding smart applications such as DgtP, you can also perform a complete assessment of the vascular response in the hand digit arteries. Among other conditions, you can study the effect of a fistula on the hand circulation of ESRD patients with the use of your existing device. Expand the use of your device whenever you require new measurements!



MESI mTABLET BP

Revolutionised Office Blood Pressure

- First wireless arm cuff supporting multiple cuff sizes
- One arm cuff, several operating modes
- Advanced analysis options with pulse waveforms

SAVE DIRECTLY INTO EHR

SMART SIZE DETECTION

WIRELESS & PORTABLE

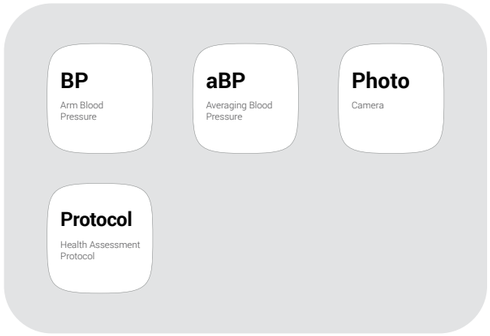
ADDITIONAL MEASUREMENTS AND APPS

Why MESI mTABLET BP?

- Precise measurement of BP with additional software extensions
- Wireless operation with easily-exchangable cuffs in multiple sizes
- Isolation of pulse waveforms with the help of digital filters
- Clear display of pulse waveforms

Application extensions

The **MESI mTABLET BP** is not only an advanced blood pressure monitor. Add new measurements whenever you need them! The aBP (Averaging Blood Pressure) application lets you take multiple blood pressure readings, which helps you detect masked hypertension and reduce overtreatment of white coat hypertension.



MESI mTABLET SPO2

The Most Flexible Pulse Oximeter

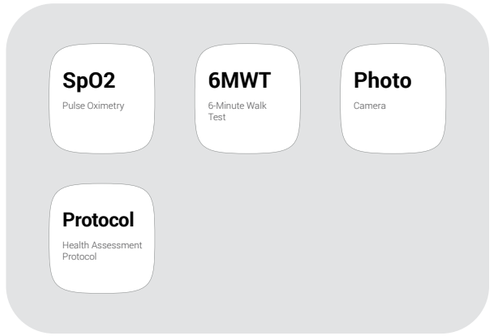
- An intuitive user interface with quickly adjustable operating modes
- Large screen with high visibility of SpO_2 levels and heart rate
- More than 8000 measurements per single battery charge

Why MESI mTABLET SPO2?

- Real-time audible and visual alarms
- High performance even with low perfusion
- Trend analysis
- Option to wirelessly monitor several patients at the same time
- Multiple measurement options

Application extensions

The **MESI mTABLET SPO2** is not only an advanced pulse oximeter. By adding other smart applications, such as the 6MWT (6-Minute Walk Test), you can easily assess functional capacity in patients with a wide range of pulmonary, cardiovascular, neurological, and neuromuscular conditions.



APPLICATIONS TAILORED TO YOUR PRACTICE´S NEEDS

Add measurements and applications whenever necessary

Create and Follow Clinical Protocols with the Protocol App

- Standardised patient assessment, implemented in the practice completely hassle-free
- Improved patient outcomes
- Clear audit trail and real-time review

Choose among various fully-customisable formats:

- Measurements (SpO_2, Ankle-Brachial Index...)
- Parameters (temperature, height, weight...)
- Check-boxes
- Drop-down options
- Open-ended questions

Use the flexibility the app offers:

- Create protocols directly on the MESI mRECORDS platform.
- Sort the protocols using several parameters.
- Set the sequences of protocol procedures according to your requirements.
- You can update the protocols according to latest guidelines/best practice.

Implement the protocol in your practice:

- Publish the protocol you want to implement.
- All members of the working group can access the protocols on the MESI mTABLET.
- Select the appropriate protocol and follow the step-by step guide.
- You can skip individual steps if they’re not applicable.

Review and use the results:

- All data, including the measurements, is automatically stored in the patient record (MESI mRECORDS) and is always available.
- Review all data obtained with the protocol on the MESI mTABLET and MESI mRECORDS.
- After reviewing the data, get a comprehensive report.
- You can print, share, or save the report at any time.

See how it works:

https://visit.mesimedical.com/protocol app

Simplified Cardiopulmonary Assessment with the 6MWT App

- An optimised way of performing an exercise test according to the ATS/ERS guidelines
- Step-by-step protocol for an easily performed test with accurate and repeatable results
- Standardised test providing an extensive report

Enhance your diagnostics

The 6-minute walk test is a submaximal exercise test measuring a distance walked in a span of 6 minutes – the distance provides a measure for an integrated global response of multiple cardiopulmonary and musculoskeletal systems involved in the exercise. With the 6MWT App for MESI mTABLET SPO2, this test becomes fully digital, straightforward and easy to perform.

Gain important insight

The test provides information on the patient's functional capacity, response to therapy and prognosis across a broad range of chronic cardiopulmonary conditions, such as pulmonary arterial hypertension (PAH), heart failure (HF), cardiac rehabilitation/coronary artery disease (CAD) and Peripheral Arterial Disease (PAD), in a comprehensive report format.

Adapt the test to each patient

The 6MWT App allows you to choose between the 10-point Borg scale and the 15-point Borg scale for the assessment of exertion, dyspnea and chest pain. During the measurement, standardised instructions for patients (encouragements) are displayed. Set the pre-test period and the patient recovery phase and switch between different views during the test: events, chart, overview, rest.

See how it works:

https://visit.mesimedical.com/6MWT app

Comprehensive Spirometry Package for Primary Healthcare

- FEVC and basic SVC measurement modes
- Pre- and post-measurement modes (bronchodilator test)
- Pneumotacograph technology with automated self-calibration

Spiro

Primary Spirometry

ENHANCED COMPARISSON OF PRE- & POST-MEASUREMENTS

AUTO

FULL SPIROMETRY INTERPRETATION & BREATH QUALITY SUMMARY

Accurate and Fast Spirometry Whenever you Need It

FEV6

Quick Spirometry Application

- Fast and accurate measurement of the most important spirometry parameters
- Automated breath detection and maneuver termination

ENHANCED VISUAL DISPLAY OF FLOW-VOLUME CURVE AND PARAMETERS

BASIC RESULTS ANALYSIS

Diagnostic Spirometry for Every Pulmonology Practice

Spiro+

Advanced Spirometry Application

- Advanced measurement modes, including FVC, FIVC, FVC+FIVC, SVC and TV
- Enhanced history graph with MESI mRECORDS: multiple-measurement history review

FLOW-VOLUME AND VOLUME-TIME CURVES DISPLAY

FULL-LOOP SPIROMETRY (INHALE & EXHALE)

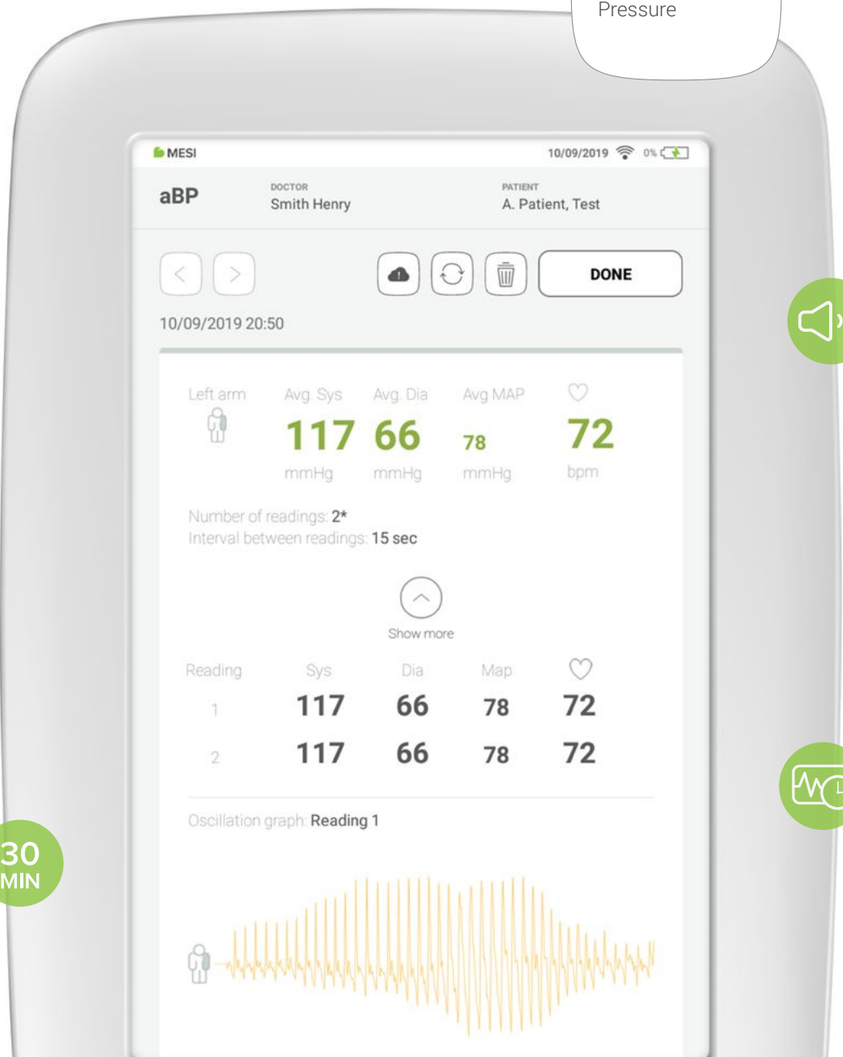
INCENTIVE ANIMATION MEASUREMENT MODE

Patient-specific Average Blood Pressure Measurement with the aBP App

- Accurate sequential BP measurement with the MESI mTABLET BP
- Customisable parameters (number of sequential measurements, initial delay and intervals, etc.)
- Reference scale with gathered results of all readings

aBP

Averaging Blood Pressure



AUDIO INDICATORS

AVERAGE SYS, AVERAGE DIA AND MAP

OBP30 MONITORING 30 MIN

Determine the Interarm Difference in One Step with the DBP App

- Simultaneous measurement in both arms
- All measurements are automatically saved in MESI mRECORDS
- Multiple cuff sizes for increased accuracy

DBP

Dual Blood Pressure

MOTION AND SMART SIZE DETECTION

ADJUSTABLE OPERATING MODES

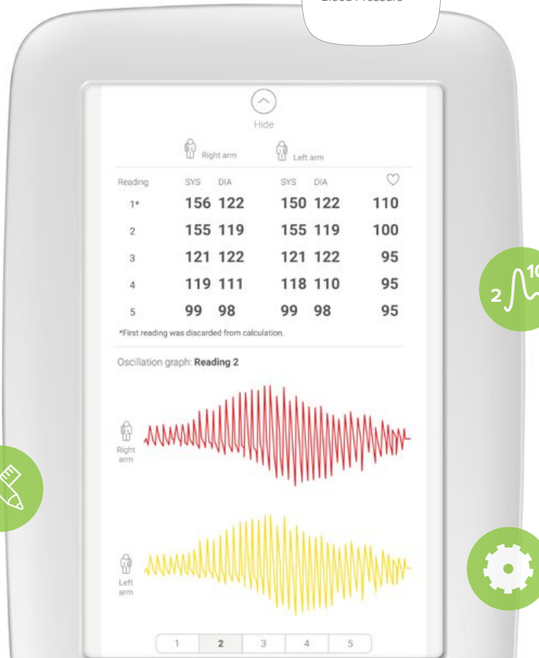
COLOUR-CODED RESULTS AND REFERENCE SCALE

Customisable Dual Average Blood Pressure Measurement with the aDBP App

- Sequential simultaneous BP measurement in both arms
- Determination of interarm difference and other potential cardiovascular risks

aDBP

Averaging Dual Blood Pressure



BETWEEN 2 AND 10 READINGS IN A SEQUENCE

FULLY CUSTOMISABLE MEASUREMENT

FULLY AUTOMATED MEASUREMENT

Advanced Arterial Age Assessment with the PWV App

- Quick, 2-in-1 measurement of arterial stiffness and Ankle-Brachial Index
- Accurate measurement of arterial stiffness requiring no technical expertise
- Reference values according to the European Arterial Stiffness Collaboration Group

PWV
Pulse Wave Velocity

AORTIC STIFFNESS ASSESSMENT

MEASUREMENT OF BRACHIAL-ANKLE PWV

AUTO
FULLY AUTOMATED NON-INVASIVE TEST

EHR Communication Made Easy with the Worklist App

- Measurements are ordered directly from the EHR and taken with the MESI mTABLET
- Supports HL7, DICOM, GDT protocols and facilitates communication through .JSON, .XML and API

Work list
Patient Worklist

INSTANT EHR SYNC

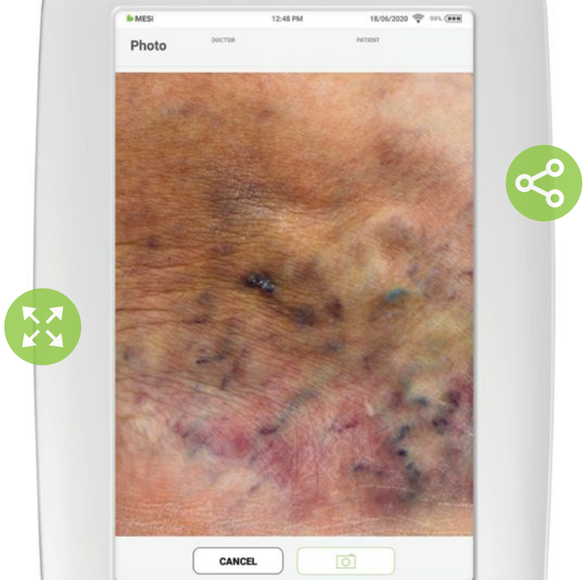
EASILY ACCESSED REPORTS

WORKS WITH ALL MESI mTABLET MODULE MEASUREMENTS

Capture Important Visual Information with the Photo App

- Track the patient's wound healing progression and other skin conditions
- Automatic and safe storage in the patient's record

Photo
Camera



OPTION FOR SECURE PHOTO-SHARING

10.1-INCH SCREEN FOR DETAILED PREVIEW

ACCESSORIES

Table-top Layout

All Devices Within your Reach

- Ideal layout for the doctor‘s office, where quick and reliable vital sign measurements are performed
- Plug-and-play set-up with no technical skills required
- Simultaneous charging of all modules and the MESI mTABLET

MAGNETIC CHARGING CONNECTOR

UP TO FOUR MODULES ON THE CHARGING STATION

Wall-mounted Layout

Space-saving Option for Charging and Storage

- Ideal for the examination room: all devices are well organised and fully charged at all times
- Fully customisable and space-saving set-up
- Magnetic charging points for safe storage of all modules

VERTICAL OR HORIZONTAL MOUNTING OPTION

DEDICATED WALL-MOUNT FOR THE MESI mTABLET

ADD-ONS FOR PATIENT CABLE STORAGE

MESI mTABLET Trolley

Wireless Diagnostic Station on Wheels

- Ideal for use in multiple rooms in a clinic or a hospital set-up
- Adaptable to the scope of the individual's use, with the option to customise the tray configuration
- Simultaneous charging of all modules, while providing enough space for all accessories and a printer
- Upgradeable with an automated ECG vacuum electrode system

MESI mTABLET CHARGING STATION SHELF

GENERAL SHELF

PRINTER SHELF

ECG VACUUM ELECTRODE SYSTEM

MESI mTABLET Bag

Your Entire System: Wherever, Whenever

- Ideal for home visits
- Wheeled case that fits the entire MESI mTABLET system, including charging plates and accessories
- Separate compartments for personal items and other medical supplies, with a dedicated space for a 15’ laptop
- Compliant with most airlines’ carry-on bag requirements

WHEELS FOR QUICK TRANSPORT

COMFORTABLE SHOULDER STRAPS

QUICK PULL-UP HANDLE

CARRY-ON LUGGAGE COMPLIANT

*This image is for demonstrational purposes only.

MESI mTABLET ACCESSORIES

PATIENT CABLE - BANANA ADAPTER
ECGMD patient cable - banana connectors (IEC)

ECG

BANANA ADAPTER - ALIGATOR CLIP
ECGMD patient cable - banana adapter - alligator clip

ECG

BANANA ADAPTER - CLIP WITH EXTENSION
ECGMD Patient cable - banana adapter - clip connector with extension

ECG

ECGMD MOUNT FOR STRAESSLE DT100 TPLUS
ECGMD mount with power adapter for Straessle DT100 Tplus

ECG

DISPOSABLE ELECTRODES
ECGMD disposable electrodes - Pediatric or Adult package

ECG

MOUTHPIECE
Disposable flow transducer for MESI SPIRO, without filter

SPIRO

MOUTHPIECE FILTERS
Disposable filters for MESI SPIRO

SPIRO

TUBELESS CUFF 4 SET - LARGE
Set of 4 cuffs for MESI mTABLET ABI - size: large

ABI

TUBELESS CUFF 2 SET - LARGE
Set of 2 cuffs for MESI mTABLET BP - size: large

TBI, BP

DIGIT CUFFS PAIR - SINGLE - USE
Set of 2 digit cuffs for MESI mTABLET TBI/TBP - size: medium/large

TBI, TBP

Y SENSOR CABLE
Y sensor cable for MESI mTABLET SPO2

SPO2

SOFTTIP® SENSOR CABLE
SoftTip® sensor cable for MESI mTABLET SPO2

SPO2

WRAP SENSOR CABLE
Wrap sensor cable for MESI mTABLET SPO2

SPO2

EARCLIP SENSOR
MESI mTABLET SPO2 EarClip sensor

SPO2

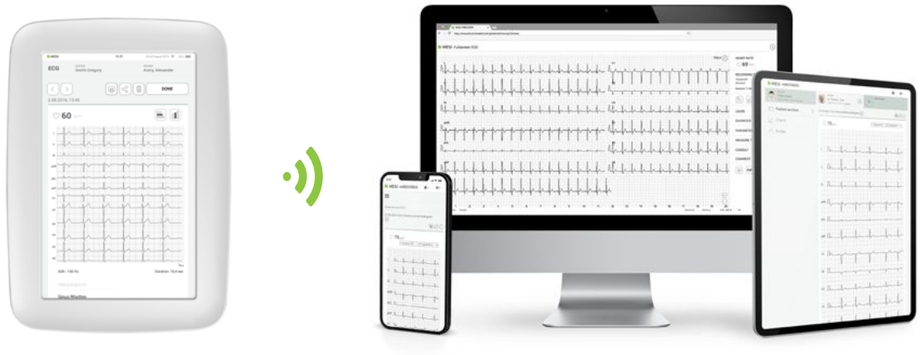
360° SOLUTION

Medical device
addressing your
evolving needs

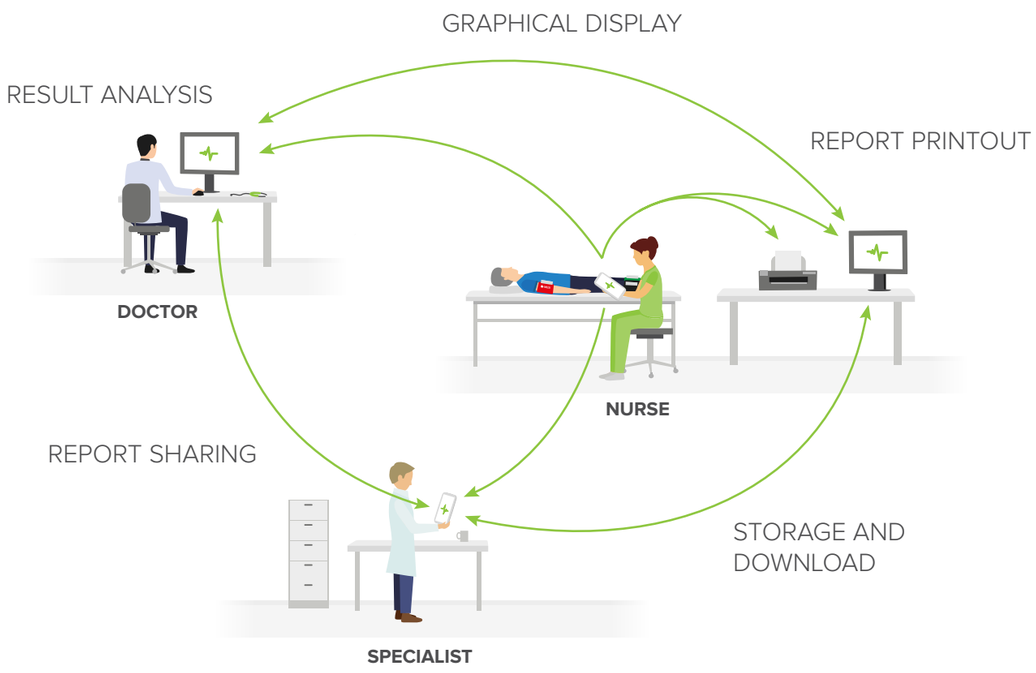
MESI mRECORDS

Accessing Reports Anywhere

Every **MESI mTABLET** comes with **MESI mRECORDS** software. It ensures that all your measurements and patient data are automatically stored, and available for further analysis and review. MESI mRECORDS can be accessed by any device through secure login.



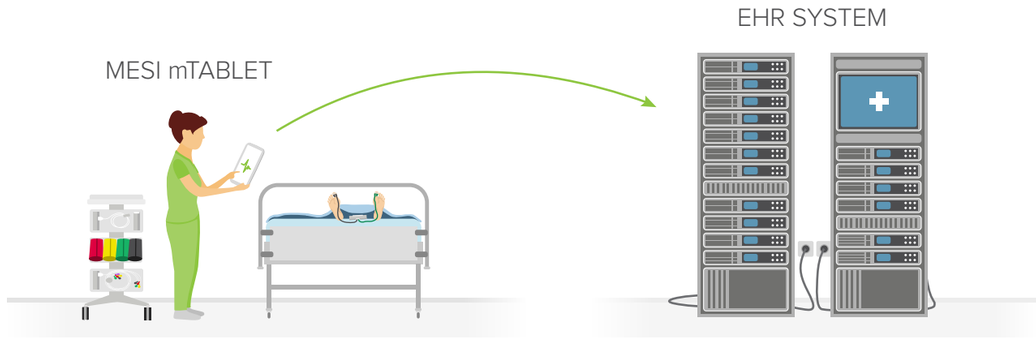
mrecords.mesimedical.com



EHR integrations

Storing Reports Automatically

The **MESI mTABLET** can fully adapt to your workflow. You can print out your results immediately, store them in a dedicated folder on your computer, or automatically upload them to your EHR software. Choose the level of integration that best fits your evolving requirements.



Available data management options:

OPTION 1

MESI mRECORDS for printouts and generating PDFs from the platform

OPTION 2

Direct PDF storage from the MESI mTABLET using the MESI mTABLET Print Service

OPTION 3

Worklist integration supporting GDT, HL7, DICOM, XML

OPTION 4

Full-scale integration providing a completely custom solution

MESI mSTORE

Everything in One Place

Similar to the applications on your mobile phone, both the **MESI mTABLET** and **MESI mRECORDS** can be enhanced with additional software, combining all measurements and medical software in one device.

ENHANCE BOTH THE MESI mTABLET AND MESI mRECORDS

ADD PRODUCTS TO YOUR WISHLIST

REQUEST DEMO APPS

- **Enhance both** the diagnostic modules and the patient records
- Find **all available products** from MESI and 3rd party developers **in one place**
- Temporarily activate **demo applications** to see how they fit into your practice

Knowledge at your fingertips

MESI mSTORE holds all the information on how to get even more out of your MESI products. Watch videos of upcoming measurements, review technical specifications and request demo applications.

Unlimited possibilities

Cannot find the app you need? MESI provides custom app development for healthcare providers and industry partners. You can get more information at mstore@mesimedical.com.

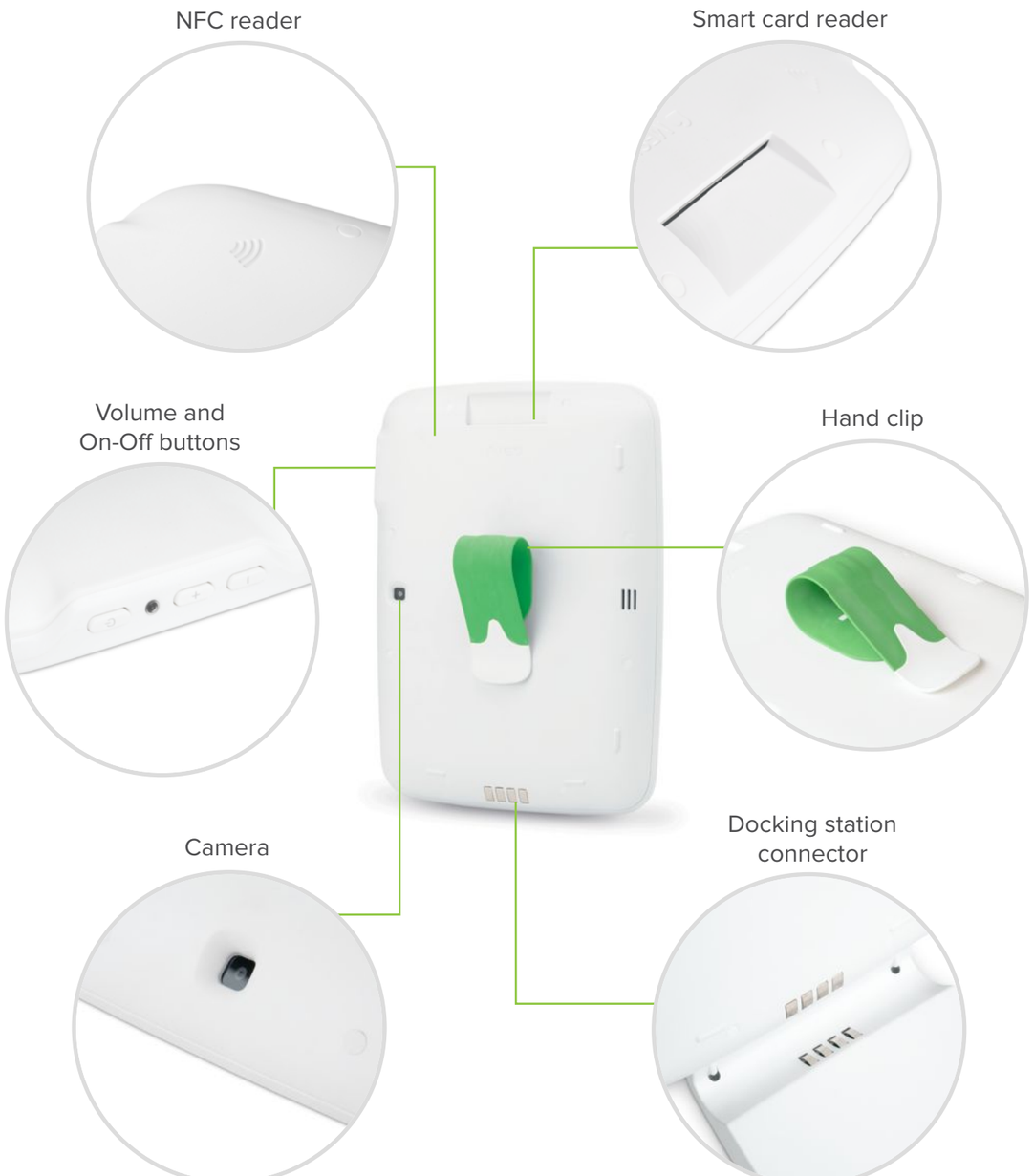
Smart apps for smart work

Find all the software extensions that enhance your existing workflow or help you establish an entirely new way of managing the measurements, your patient reports and follow-ups. Less writing, more diagnostics.

TECHNICAL SPECIFICATIONS

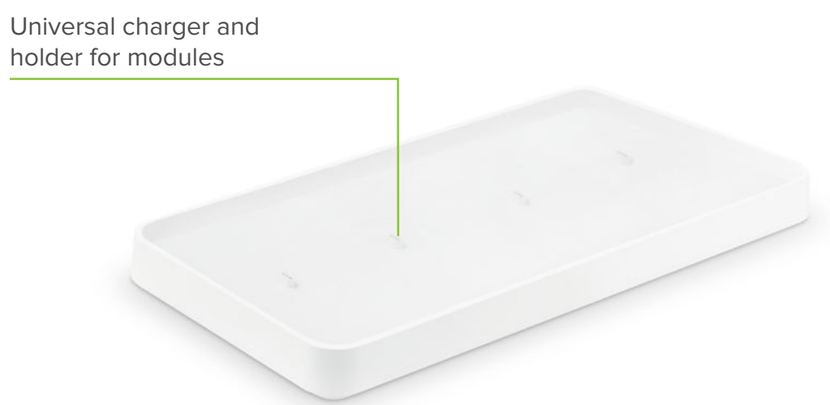
Certified Medical Tablet
Designed for Use in Medical Environments

MESI mTABLET



Wireless diagnostic modules

Charging plate



MESI mTABLET ECG Technical Specifications

Measurement Specifications

Electrode placement detection

Pacemaker detection: > ± 2 mv / 0.1 ms

Patient input circuitry: Fully floating and isolated, defibrillation protected (using original MESI or approved patient cable)

Accuracy

CMRR: > 110 dB

Sampling rate: 32K samples/second/channel (sampling frequency is done internally, output sampling frequency from module to tablet is 1 kHz)

Resolution: 2.5 uV / 19 bit

ECG analysis frequency: 1000 samples/second

Pacemaker detection: ± 2 mV / ± 0.1 ms

Processing

Interpretation: University of Glasgow Analysis Software

Patient data: name, date of birth, race

Measurement data is always first 10 seconds of data at 500 Hz rate per channel (5000 samples)

Low-pass filter: 150 Hz, 250 Hz

High-pass (baseline) filter: 0.05 Hz, 0.2 Hz, 0.5 Hz

Myogram (muscle tremor) filter:
25 Hz (40 dB/dec) or 35 Hz (20 dB/dec)

Mains filter: Distortion-free suppression of superimposed 50 or 60 Hz sinusoidal interferences using an adaptive digital filter

Lead display: 6:6+1, 6:6, 3:3 main,
3:3 aux, 6 main, 6 aux, 3:4, 12, 3:4+II

Sensitivity: 5 mm/mV, 10 mm/mV, 20 mm/mV

Recording speed: 12.5 mm/s, 25 mm/s, 50 mm/s

Power & Battery

High-power rechargeable Lithium-Polymer battery

Capacity: 1240 mAh

Examinations per battery charge: > 2000

Continuous use: > 5,5 h

Charging time for depleted battery:
Approximately 2 hours (minimum charge time for 1 automatic mode ECG: 10 minutes)

Input: 100-240 V AC / 50-60 Hz / 350 mA

Output: 5V DC / 5.0 A

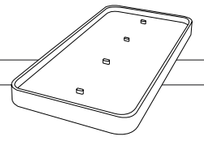
Charging Station

Dual purpose of the charging station: safe storage of the module between measurements and fully charged device at all times.

Width: 400 mm
Depth: 200 mm
Height: 38 mm

Weight: 675 grams

Positioning types:
Desk, wall mount or trolley



Module Dimensions

Width: 40 mm (1.57 inches)
Depth: 48 mm (1.89 inches)
Height: 135 mm (5.31 inches)

Weight: 220 grams

Smart Data Management

Secure report access with the out-of-the-box platform - MESI mRECORDS

MESI mPRINT service for secure printout through the internal network, direct .pdf storage on a local computer

Worklist integration for: DICOM, HL7, XML, GDT, JSON

Full custom integration on request

Protection Classification

Type of protection against electric shock: Class II

Medical device classification: Class IIa

Applied parts: CF

RF emissions (CIPSR 11): Group 1, Class B

Ingress protection: IP44

Applied Standards

EN 60601-1 General requirements for Safety

EN 60601-1-2 Electromagnetic compatibility - Requirements and tests

EN 60601-2-25 Particular requirements for basic safety and essential performance of electrocardiographs

Operating Conditions

Temperature, operating: 10° to 40°C

Relative humidity: 25 to 85% (no condensation)

Pressure during operation: 700 to 1060 hPa

Transport & Storage Conditions

Temperature:
-15° to 50°C (< 1 month)
-15° to 40°C (< 3 months)
-15° to 25°C (< 12 months)

Relative humidity: 25 to 85% (no condensation)

Pressure during operation: 700 to 1060 hPa

MESI mTABLET Technical Specifications

Operating System: MESI OS

Processor: CPU Quad ARM Cortex A53 @ up to 1.2 GHz per core

Barcode reader: 1D/2D barcode imager

Screen: 1280 x 800 px IPS

Storage: 8 GB

RAM: 1 GB

Connectivity: Wi-Fi 802.11 b/g/n and 2.4 GHz single band Bluetooth 4.1

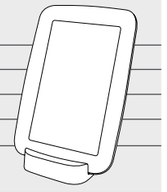
Camera: 5 MP

Environment: IP2x, 90 cm drop resistant

Audio: Mono speaker

Security: 2-step authentication, user password or PIN

Battery operation: more than 8 hours of continuous use



MESI mTABLET ABI Technical Specifications

Measurements

Ankle-Brachial Pressure Index using improved oscillometric method and plethysmography, with PADsense™ algorithm

Heart rate and systolic, diastolic and mean blood pressure using an improved oscillometric method and plethysmography

Measurement Extensions*

Blood Pressure

Averaging Blood Pressure

Dual Blood Pressure

*Available with upgrade

Measurement Range

Pressure: 0 to 299 mmHg

Heart rate: 30 to 199 bpm

Accuracy

Pressure: within ± 5 mmHg

Heart rate: within ± 5 % of readings

ABPI: within ± 0.1

Power & Battery

High-power rechargeable Lithium-Polymer battery

Capacity: 1240 mAh

Examinations per battery charge: >200

Charge time for depleted battery (for each unit): approximately 1.5 hours

Input: 100-240 V AC / 50-60 Hz / 350 mA

Output: 5 V DC / 5.0 A

Module Dimensions

Width: 40 mm (1.57 inches)
Depth: 40 mm (1.57 inches)
Height: 150 mm (5.91 inches)

Weight: 286 grams

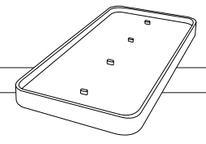
Charging Station

Dual purpose of the charging station: safe storage of the module between measurements and fully charged device at all times.

Width: 400 mm
Depth: 200 mm
Height: 38 mm

Weight: 675 grams

Positioning types:
Desk, wall mount or trolley



Smart Data Management

Secure report access with the out-of-the-box platform - MESI mRECORDS

MESI mPRINT service for secure printout through the internal network, direct .pdf storage on a local computer

Worklist integration for: DICOM, HL7, XML, GDT, JSON

Full custom integration on request

Connectivity

Data connectivity with MTABMD (Bluetooth 2.1 + EDR)

Receiving section

Frequency range: 2401.3 MHz - 2480.7 MHz

Bandwidth: 0.930 MHz

Automatic remote updates of software and hardware

Protection Classification

Protection against electric shock: Class II

Medical device classification: Class IIa

Applied parts: Type BF Applied part

RF emissions (CIPSR 11): Group 1. Class B

Ingress protection: IP42

Applied Sandards

EN 60601-1 General requirements for Safety

EN 60601-1-2 Electromagnetic compatibility - Requirements and tests

EN 80601-2-30 Particular requirements for the basic safety and essential performance of automated, non-invasive sphygmomanometers

Operating Conditions

Temperature, operating: 10° to 40°C

Relative humidity: 25 to 85% (no condensation)

Pressure during operation: 700 to 1060 hPa

Transport & Storage Conditions

Temperature:
-15° to 50°C (< 1 month)
-15° to 40°C (< 3 months)
-15° to 25°C (< 12 months)

Relative humidity: 25 to 85% (no condensation)

Pressure during operation: 700 to 1060 hPa

MESI mTABLET Technical Specifications

Operating System: MESI OS

Processor: CPU Quad ARM Cortex A53 @ up to 1.2 GHz per core

Barcode reader: 1D/2D barcode imager

Screen: 1280 x 800 px IPS

Storage: 8 GB

RAM: 1 GB

Connectivity: Wi-Fi 802.11 b/g/n and 2.4 GHz single band Bluetooth 4.1

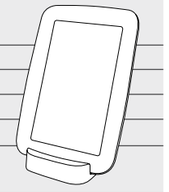
Camera: 5 MP

Environment: IP2x, 90 cm drop resistant

Audio: Mono speaker

Security: 2-step authentication, user password or PIN

Battery operation: more than 8 hours of continuous use



MESI mTABLET TBI Technical Specifications

Measurements

Toe-Brachial Pressure index combining plethysmography-oscillometric and photoplethysmographic methods.

Systolic toe blood pressure, systolic and diastolic brachial blood pressure, heart rate using plethysmographyoscillo-metric
and photoplethysmographic methods.

Measurement Extensions*

Blood Pressure
Averaging Blood Pressure
Dual Blood Pressure
Toe Blood Pressure
*Available with upgrade

Measurement Range

Pressure: 0 to 299 mmHg (arms)
Pressure: 20 to 250 mmHg (toes)
Heart rate: 30 to 199 bpm

Accuracy

Pressure: within ± 5 mmHg
Heart rate: within ± 5 % of readings
TBI: within ± 0.1

Power & Battery

High-power rechargeable Lithium-Polymer battery
Capacity: 1240 mAh
Examinations per battery charge: > 200
Charge time for depleted battery (for each unit): approximately 1.5 hours
Input: 100 - 240 V AC / 50 - 60 Hz / 350 mA
Output: 5 V DC / 5.0 A

Module Dimensions (TBPMD)

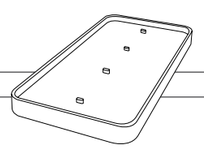
Width: 40 mm (1.57 inches)
Depth: 40 mm (1.57 inches)
Height: 150 mm (5.91 inches)
Weight: 244 grams

Module Dimensions (CUFFMD)

Width: 40 mm (1.57 inches)
Depth: 40 mm (1.57 inches)
Height: 150 mm (5.91 inches)
Weight: 286 grams

Charging Station

Dual purpose of the charging station: safe storage of the modules between measurements and fully charged device at all times
Width: 400 mm
Depth: 200 mm
Height: 38 mm
Weight: 675 grams
Positioning types:
Desk, wall mount or trolley



Smart Data Management

Secure report access with the out-of-the-box platform - MESI mRECORDS
MESI mPRINT service for secure printout through the internal network, direct .pdf storage on a local computer
Worklist integration for: DICOM, HL7, XML, GDT, JSON
Full custom integration on request

Connectivity

Data connectivity with MTABMD (Bluetooth 2.1 + EDR)
Receiving section
Frequency range: 2401.3 MHz - 2480.7 MHz
Bandwidth: 0.930 MHz
Automatic remote updates of software and hardware

Applied Standards:

EN 60601-1 General requirements for Safety
EN 60601-1-2 Electromagnetic compatibility - Requirements and tests
EN 80601-2-30 Particular requirements for the basic safety and essential performance of automated, non-invasive sphygmomanometers

Protection Classification

Protection against electric shock: Class II
Medical device classification: Class IIa
Applied parts: Type BF Applied part
RF emissions (CIPSR 11): Group 1. Class B
Ingress protection: IP42

Operating Conditions

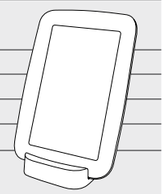
Temperature, operating: 10° to 40°C
Relative humidity: 25 to 85% (no condensation)
Pressure during operation: 700 to 1060 hPa

Transport & Storage Conditions

Temperature:
-15° to 50°C (< 1 month)
-15° to 40°C (< 3 months)
-15° to 25°C (< 12 months)
Relative humidity: 25 to 85% (no condensation)
Pressure during operation: 700 to 1060 hPa

MESI mTABLET Technical Specifications

Operating System: MESI OS
Processor: CPU Quad ARM Cortex A53 @ up to 1.2 GHz per core
Barcode reader: 1D/2D barcode imager
Screen: 1280 x 800 px IPS
Storage: 8 GB
RAM: 1 GB
Connectivity: Wi-Fi 802.11 b/g/n and 2.4 GHz single band Bluetooth 4.1
Camera: 5 MP
Environment: IP2x, 90 cm drop resistant
Audio: Mono speaker
Security: 2-step authentication, user password or PIN
Battery operation: more than 8 hours of continuous use



MESI mTABLET BP Technical Specifications

Measurements

Heart rate and systolic, diastolic and mean blood pressure using improved oscillometric method and plethysmography

Measurement Extensions*

Averaging Blood Pressure
Dual Blood Pressure
*Available with upgrade

Measurement Range

Pressure: 0 to 299 mmHg
Pulse rate: 30 to 199 bpm

Accuracy

Pressure: within ± 5 mmHg
Heart rate: within ± 5 % of readings

Power & Battery

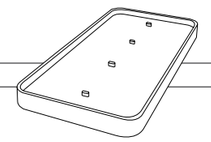
High-power rechargeable Lithium-Polymer battery
Capacity: 1240 mAh
Examinations per battery charge: > 200
Charge time for depleted battery (for each unit): approximately 1.5 hours
Input: 100 - 240 V AC / 50 - 60 Hz / 350 mA
Output: 5 V DC / 5.0 A

Module Dimensions

Width: 40 mm (1.57 inches)
Depth: 40 mm (1.57 inches)
Height: 150 mm (5.91 inches)
Weight: 286 grams

Charging Station

Dual purpose of the charging station: safe storage of the module between measurements and fully charged device at all times
Width: 400 mm
Depth: 200 mm
Height: 38 mm
Weight: 675 grams
Positioning types:
Desk, wall mount or trolley



Smart Data Management

Secure report access with the out-of-the-box platform - MESI mRECORDS
MESI mPRINT service for secure printout through the internal network, direct .pdf storage on a local computer
Worklist integration for: DICOM, HL7, XML, GDT, JSON
Full custom integration on request

Connectivity

Data connectivity with MTABMD (Bluetooth 2.1 + EDR)
Receiving section
Frequency range: 2401.3 MHz - 2480.7 MHz
Bandwidth: 0.930 MHz
Automatic remote updates of software and hardware

Protection Classification

Protection against electric shock: Class II
Medical device classification: Class IIa
Applied parts: Type BF Applied part
RF emissions (CIPSR 11): Group 1. Class B
Ingress protection: IP42*

Applied Standards

EN 60601-1 General requirements for Safety
EN 60601-1-2 Electromagnetic compatibility - Requirements and tests
EN 80601-2-30 Particular requirements for the basic safety and essential performance of automated, non-invasive sphygmomanometers

Operating Conditions

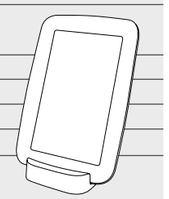
Temperature, operating: 10° to 40°C
Relative humidity: 25 to 85% (no condensation)
Pressure during operation: 700 to 1060 hPa

Transport & Storage Conditions

Temperature:
-15° to 50°C (< 1 month)
-15° to 40°C (< 3 months)
-15° to 25°C (< 12 months)
Relative humidity: 25 to 85% (no condensation)
Pressure during operation: 700 to 1060 hPa

MESI mTABLET Technical Specifications

Operating System: MESI OS
Processor: CPU Quad ARM Cortex A53 @ up to 1.2 GHz per core
Barcode reader: 1D/2D barcode imager
Screen: 1280 x 800 px IPS
Storage: 8 GB
RAM: 1 GB
Connectivity: Wi-Fi 802.11 b/g/n and 2.4 GHz single band Bluetooth 4.1
Camera: 5 MP
Environment: IP2x, 90 cm drop resistant
Audio: Mono speaker
Security: 2-step authentication, user password or PIN
Battery operation: more than 8 hours of continuous use



MESI mTABLET SPO2 Technical Specifications

Measurements:
Pulse oximetry and heart rate

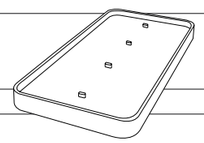
Measurement Extensions*
6-minute walk test
*Available with upgrade

Measurement Range
SpO2 measurement: 45 - 100 %
Pulse frequency measurement: 20 - 300 bpm

Accuracy
Plethysmogram: 0 - 28 LSB
Raw plethysmogram: 0 - 224 LSB
Signal quality: 0 - 100 %

Power & Battery
High-power rechargeable Lithium-Polymer battery
Capacity: 1240 mAh
Examinations per battery charge: > 8000
Continuous use: > 56 h
Charge time for depleted battery:
Approximately 2 hours
Input: 100 - 240 V AC / 50 - 60 Hz / 350 mA
Output: 5 V DC / 5.0 A

Charging Station
Dual purpose of the charging station: safe storage of the module between measurements and fully charged device at all times.
Width: 400 mm
Depth: 200 mm
Height: 38 mm
Weight: 675 grams
Positioning types:
Desk, wall mount or trolley



Module Dimensions
Width: 40 mm (1.57 inches)
Depth: 48 mm (1.89 inches)
Height: 135 mm (5.31 inches)
Weight: 210 grams

Smart Data Management
Secure report access with the out-of-the-box platform - MESI mRECORDS
MESI mPRINT service for secure printout through the internal network, direct .pdf storage on a local computer
Worklist integration for: DICOM, HL7, XML, GDT, JSON
Full custom integration on request

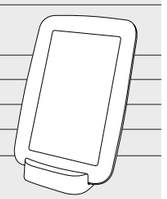
Protection Classification
Type of protection against electric shock: Class II
Medical device classification: Class IIa
Applied parts: CF
RF emissions (CIPSR 11): Group 1, Class B”
Ingress protection: IP44

Applied Standards
EN 60601-1 General requirements for Safety
EN 60601-1-2 Electromagnetic compatibility - Requirements and tests
EN 80601-2-61 Particular requirements for basic safety and essential performance of pulse oximeter equipment

Operating Conditions
Temperature, operating: 10° to 40°C
Relative humidity: 25 to 85% (no condensation)
Pressure during operation: 700 to 1060 hPa

Transport & Storage Conditions
Temperature:
-15° to 50°C (< 1 month)
-15° to 40°C (< 3 months)
-15° to 25°C (< 12 months)
Relative humidity: 25 to 85% (no condensation)
Pressure during operation: 700 to 1060 hPa

MESI mTABLET Technical Specifications
Operating System: MESI OS
Processor: CPU Quad ARM Cortex A53 @ up to 1.2 GHz per core
Barcode reader: 1D/2D barcode imager
Screen: 1280 x 800 px IPS
Storage: 8 GB
RAM: 1 GB
Connectivity: Wi-Fi 802.11 b/g/n and 2.4 GHz single band Bluetooth 4.1
Camera: 5 MP
Environment: IP2x, 90 cm drop resistant
Audio: Mono speaker
Security: 2-step authentication, user password or PIN
Battery operation: more than 8 hours of continuous use



MESI mTABLET SPIRO Technical Specifications

Measurement Specifications
Quick spirometry:
Measurement mode: FEV6
Parameters: PEF, FEV1, FEV6, FEV1/FEV6
Primary spirometry:
Measurement modes: FVC, SVC*, Pre- & Post-Drug Phase
Parameters: PEF, FEV1, FEV3, FEV6, FEV1/FVC, FEV1/FEV6, MEF75, MEF50, MEF25, MMEF, SVC*
Verification of each maneuver through on-screen quality indicators.
*available: end of May 2021
Advanced spirometry**:
Measurement modes: FVC, FIVC, FVC+FIVC, SVC, MVV, TV, Pre- & Post-Drug phase, motivational mode
Parameters: PEF, FEV1, FEV3, FEV6, FEV1/FVC, FEV1/FEV6, MEF75, MEF50, MEF25, FIVC, FIV1, FIV3, FIV6, PIF, MIF75, MIF50, MIF25, MMEF, SVC, MVV, MVVT, TV, MV
**available: July 2021

Sensor type
Pneumotach

Calibration
Automated self-calibration 1/s, based on ambient conditions and pre-calibrated mouthpieces

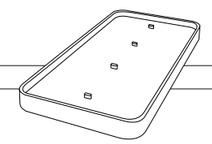
Accuracy & Reproducibility
Meets or exceeds ATS (1994), ERS (1993), and ATS/ERS (2019)

Measurement range
Volume range: 0-14 L
Flow range: +/- 14 L/sec

Quality checks
ATS Acceptability and ATS Reproducibility checks

Power & Battery
High-power rechargeable Lithium-Polymer battery
Capacity: 620 mAh
Examinations per battery charge: > 150
Continuous use: > 4 h
Charging time for depleted battery:
Approximately 1 hour (minimum charge time for a complete measurement using the FVC mode: 10 minutes)
Input: 100 - 240 V AC / 50-60 Hz / 350 mA
Output: 5 V DC / 5.0 A

Charging Station
Dual purpose of the charging station: safe storage of the module between measurements and fully charged device at all times.
Width: 400 mm
Depth: 200 mm
Height: 38 mm
Weight: 675 grams
Positioning types:
Desk, wall mount or trolley



Module Dimensions
Width: 40 mm (1.57 inches)
Depth: 40 mm (1.57inches)
Height: 140 mm (7.05 inches)
Weight: 220 grams

Smart Data Management
Secure report access with the out-of-the-box platform - MESI mRECORDS
MESI mPRINT service for secure printout through the internal network, direct .pdf storage on a local computer
Worklist integration for: DICOM, HL7, XML, GDT, JSON
Full custom integration on request

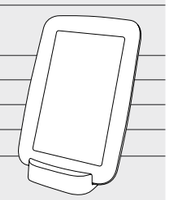
Protection Classification
Type of protection against electric shock: Class II
Medical device classification: Class IIa
Applied parts: B
RF emissions (CIPSR 11): Group 1, Class B
Ingress protection: IP30

Applied Standards
EN 60601-1 General requirements for Safety
EN 60601-1-2 Electromagnetic compatibility - Requirements and tests
EN ISO 26782 Anaesthetic and respiratory equipment - Spirometers intended for the measurement of time forced expired volumes in humans

Operating Conditions
Temperature, operating: 10° to 40°C
Relative humidity: 25 to 85% (no condensation)
Pressure during operation: 700 to 1060 hPa
Warm up period of 5 minutes

Transport & Storage Conditions
Temperature:
-15° to 50°C (< 1 month)
-15° to 40°C (< 3 months)
-15° to 25°C (< 12 months)
Relative humidity: 25 to 85% (no condensation)

MESI mTABLET Technical Specifications
Operating System: MESI OS
Processor: CPU Quad ARM Cortex A53 @ up to 1.2 GHz per core
Barcode reader: 1D/2D barcode imager
Screen: 1280 x 800 px IPS
Storage: 8 GB
RAM: 1 GB
Connectivity: Wi-Fi 802.11 b/g/n and 2.4 GHz single band Bluetooth 4.1
Camera: 5 MP
Environment: IP2x, 90 cm drop resistant
Audio: Mono speaker
Security: 2-step authentication, user password or PIN
Battery operation: more than 8 hours of continuous use



MESI mTABLET Trolley Technical Specifications

Basic configuration

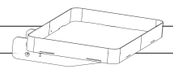
Trolley for MESI mTABLET system
Size: 1.147 m x 0.525 m x 0.374 m
Colour: Signal white (RAL 9003)
Material: Steel, aluminium and plastic
Weight (without devices): approx. 23 kg
Included segments: MESI mTABLET mount, general shelf and charging station shelf
Number of electrical sockets: 4
Total number of shelves with custom configuration: 4

Automated ECG electrode system configuration

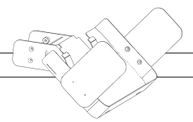
Trolley for MESI mTABLET system with the ECG vacuum electrode system
Size: 1.701 m x 0.525 m x 0.374 m (with folded AVS arm)
Colour: signal white (RAL 9003)
Material: steel, aluminium and plastic
Weight (without devices): approx. 28 kg
Included segments: MESI mTABLET mount, general shelf, charging station shelf and automated ECG electrode system
Number of electrical sockets: 4
Total number of shelves with custom configuration: 4

Shelf specifics:

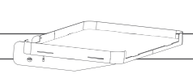
General shelf
0.3336 m x 0.4329 m x 0.0995 m
Weight: 2 kg



MESI mTABLET charging station shelf
Size: 0.2756 m x 0.1314 m x 0.4299 m
Weight: 2 kg



Printer shelf
Size: 0.3336 m x 0.4329 m x 0.0995 m
Weight: 2 kg



“

We certainly will recommend MESI mTABLET. In our opinion, many medical and physiotherapy clinics, as well as hospitals would benefit from this kind of device, because of its complex performance. It can be adjusted to our individual needs depending on the type of patient we are dealing with.

Anna Sobolewska
Owner of Lymphoedema
Treatment Clinic

“

I discovered MESI mTABLET on the internet and fell in love instantly. It is perfect for telemedicine – lightweight, easy to use, without tubes, enabling cloud-based data storage and easily shareable reports. I enjoy using modern technology that saves me a lot of time and money!

Dr Robert Farmasi
Family doctor

Build the Perfect **MESI mTABLET** System for Your Practice

1st STEP CHOOSE YOUR STARTING SYSTEM

Select a starting system that fits your practice needs.

ECG **ABI** **TBI**

2nd STEP ADD EXTENSIONS AND MODULES

You can add any combination of extensions and modules to your system, depending on what measurements you wish to perform.

ECG **SPIRO** **ABI** **TBI** **BP** **SPO2**

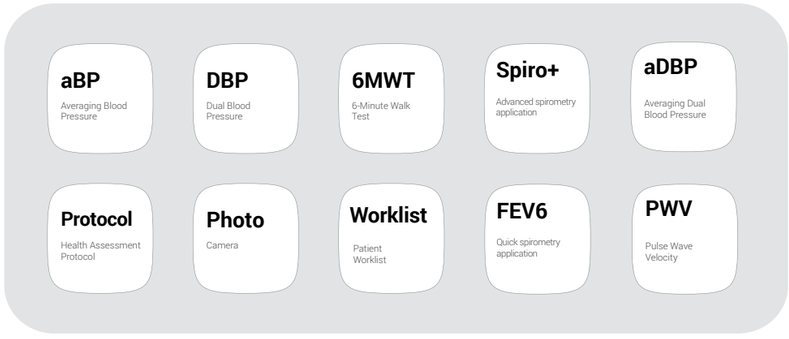
3rd STEP CHOOSE YOUR LAYOUT

Choose a layout that fits your practice

Tabletop Wall-Mounted Trolley Home Visits

4th STEP ADD SMART APPLICATIONS

Add smart applications that expand the use of your existing device.



5th STEP ADD ACCESSORIES

Select any accessories that you want to enhance the usability of the system you built.

Configure your own:

https://visit.mesimedical.com/configurator

DEMONSTRATION VIDEOS

Observe the **Devices in Action** by Watching These Videos

Use the QR code next to each device listed below to access a video showing how to perform a measurement with that extension.

MESI mTABLET ECG

https://visit.mesimedical.com/ECG measurement

MESI mTABLET ABI

https://visit.mesimedical.com/ABI measurement

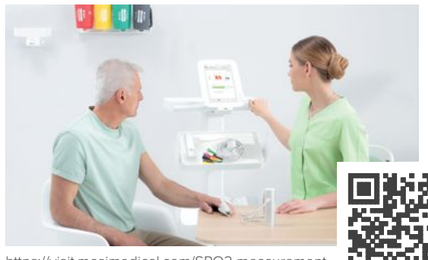
MESI mTABLET TBI

https://visit.mesimedical.com/TBI measurement

MESI mTABLET BP

https://visit.mesimedical.com/BP measurement

MESI mTABLET SPO2



https://visit.mesimedical.com/SPO2 measurement

MESI mTABLET SPIRO

https://visit.mesimedical.com/SPIRO measurement

A Solution of **Unlimited Possibilities**

Addressing the Big Data revolution

The way the MESI mTABLET handles information is unique. Objective results from diagnostic measurements, triage, specialist opinions, consultations and any other data are all stored in one place. This combination facilitates progressive analysis now, and anytime in the future.

Always up-to-date

The MESI mTABLET is constantly upgraded with additional diagnostic tools and medical apps. This boosts its functionality and gives users access to the information and tools they need.

Improving information flow between healthcare professionals

Communication between the primary care physician, nurse, and specialist is crucial for the patient's outcome. With the MESI mTABLET, all stakeholders access healthcare information in the same format. This prevents misunderstandings in communication and inconsistencies in reporting, thereby reducing time spent on diagnosis and treatment.

MESI
Simplifying Diagnostics

3 YEAR WARRANTY

MESI, Ltd.
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1000 Ljubljana, Slovenia, EU

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T: +386 1 620 34 87

www.mesimedical.com

MESIdoo
MESImedical
MESI

October 2021

Worldwide presence

European production and development

ISO 9001 and ISO 13485 certified

EU Medical Device Regulations compliant

MDSAP compliant

Food and Drug Administration cleared

DISTRIBUTOR