

TELTOHEART

Smart wristband for medical purpose with an exceptional set of features and design which can record 6-lead electrocardiogram and continual detection of atrial fibrillation.



KEY FEATURES AND VALUES



MEDICAL INSTITUTION

- ◆ The possibility to offer new telemedicine services remotely
- ◆ The possibility to increase the number of customers/patients
- ◆ API for integration to existing software/platform
- ◆ Patient history and real-time medical data
- ◆ Directly communication with customer/patients

DISTRIBUTOR

- ◆ Easy management of all clients
- ◆ Remote device diagnostic and FOTA
- ◆ Billing system



END USER

- ◆ The possibility to perform an electrocardiogram at home
- ◆ Real-time notification of Atrial fibrillation detection
- ◆ History of medical and health data
- ◆ Remote sharing of medical and health data with the doctor
- ◆ The possibility to get diagnostic from the doctor



6-LEAD ECG RECORDING

High precision, medical-grade electrocardiogram recording for precise medical diagnosis determination.



ALERTS AND NOTIFICATIONS

Constant monitoring of heart rate to instantly notify the user to measure the ECG in case of any discrepancies.



ATRIAL FIBRILLATION DETECTION

Patented algorithm shows high specificity to detect atrial fibrillation.



MAN-DOWN DETECTION*

Next-generation 3-axis accelerometer detects changes in motion and body position continuously analyzing data to determine any fall-down.

*Coming soon



CONTINUOUS HEART RATE MONITORING

PPG sensors allows detecting changes in blood circulation in a timely manner and helps continuously measure heart rate.

KEY FEATURES AND VALUES



FEATURE	COMING SOON
Man-down detection	✓
Physical activity tracking	✓
Medication reminder	✓
SpO2	✓



 **6-lead ECG**

BODY

Dimensions (Width x Length x Height) in mm:	40.5 (1.6") x 47 (1.9") x 14.7 (0.6")
Weight:	52 g
Chip:	nRF5340 2x ARM Cortex M33 cores for application and network
Platform (OS):	Zephyr RTOS

DISPLAY

Brightness:	250 NITS
Resolution:	240 x 240 px
Type:	LCD TFT
Size:	1.3"
Cover lens:	Corning gorilla glass 3
Surface hardness:	>8 H
Display area:	547.56 sq mm

TELTOHEART MEMORY

Capacity:	128 Mb
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CONNECTIVITY

Bluetooth:	5.3
Remote access:	Cloud

FEATURES

- ECG sensors for electrocardiogram
- PPG sensors for AFib detection
- Heart rate monitoring
- Low/High heart rate
- Cloud-based firmware updates, configuration app (Bluetooth)
- Water resistant 1 m (for 30 minutes)
- Protection level against access to hazardous parts and ingress of solid objects: IP 67

POWER SUPPLY

Build-in rechargeable Li-Po battery (not replaceable by the user):	410 mAh 1.56 Wh
Charging voltage:	5 V
Operating voltage:	• Internal Battery 3.8 V • External power supply 5 V
Max. Input current:	0.5 A

SENSORS AND COMPONENTS

- Accelerometer
- Gyroscope

BUTTONS

One (Turn on, Restart, Back)

STRAPS

The wristband with an electrode is made of silicone rubber with an integrated stainless-steel electrode

Strap material: Silicone

Strap sizes • S • M

SUPPORTED PERIPHERALS

Accessories: TelloHeart charging dock

Compatibility with other manufacturer accessories:

- Any CE marked wall charger with 5 V/1A output and USB type-A connector
- Any CE certified USB-A to USB-C cable
- Any smartphone operating on Android OS version 10 or above with Google play store service.
- Any smartphone using iOS version 14 or above

Compatibility with MRI or CT was not checked and use of device in MRI or CT environment is prohibited

Bluetooth compatibility: Devices that use Bluetooth v5.0 in 2.4 GHz (2.402 – 2.480 GHz) band and SMP protocol are compatible with the device

CONDITIONS FOR USE

Operation temperature range: -10 °C ~ +45 °C

Charging temperature range: 0 ~ +45°C

Storage temperature range:

- 1 Month: -20 ~ +35 °C
- 6 Months: -20 ~ 30 °C

PPG/ECG MEASUREMENTS SPECIFICATIONS

PPG features Continuous heart rate and atrial fibrillation monitoring

ECG features Electrocardiogram (ECG) measurement: 6 leads.

ECG electrode location Bottom surface, top upper surface, wrist band.

ECG and electrodes Lead I and Lead III (measured). Lead II and augmented aVL, aVR, aVF (calculated).

ATRIAL FIBRILLATION

Measurement method Non-invasive

Technology Bio-optical (photoplethysmography, PPG), 6-lead electrocardiography (ECG).

CERTIFICATES

Approved CE/RED, UKCA, FCC, IC

Pending MDR FDA