

Remote Patient Monitoring

STMicroelectronics

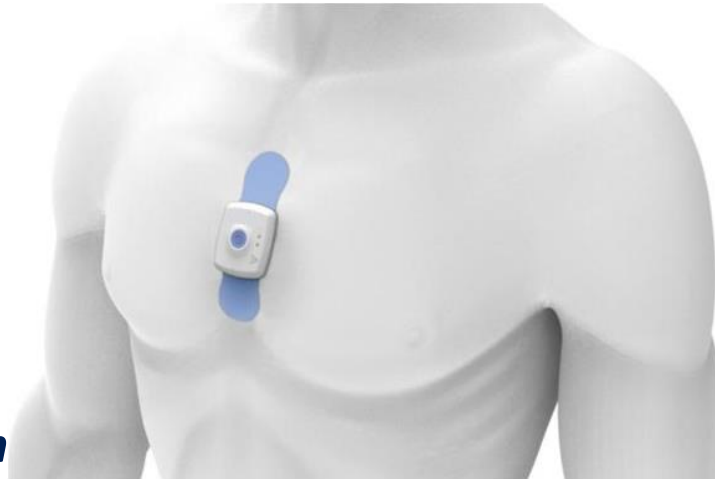
Olivier Horbowy

Advanced Systems

Strategic Marketing

EMEA

olivier.horbowy@st.com



life.augmented



ST Healthcare Offer

- **Standard Components**

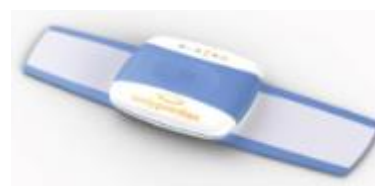
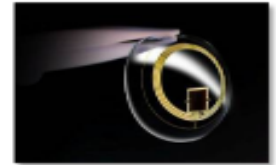
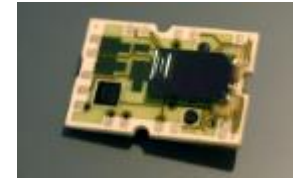
- *Off-the-shelf Component*
 - Microcontrollers
 - Micro-electromechanical systems (MEMS)
 - Environmental sensors (Pressure, Temperature,..)
 - Connectivity (Bluetooth, Bluetooth Low Energy, ...)

- **Dedicated Products**

- **MEMS**
 - *Insulin Pump*
 - *Sensors*
 - Chemical Sensors for Blood Analysis and Glucose
 - Accelerometers for Pacemakers & Neuro-stimulators
 - Pressure sensors for Eye pressure
 - Silicon PhotoMultipliers
- *Analog and Digital Chips (Implantable Electronics, Ultrasound Imaging, ECG, ..)*

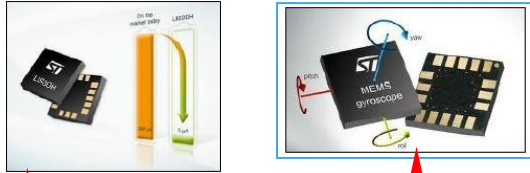
- **Subsystems**

- *Molecular Diagnostics*
- *Remote Monitoring*



ST Advanced Technology for Remote Patient Monitoring solutions

Accelerometers & Gyroscopes



Data Processing & Algorithm



Memories

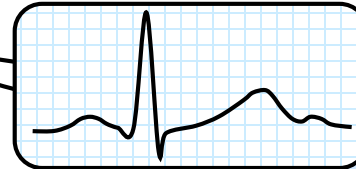
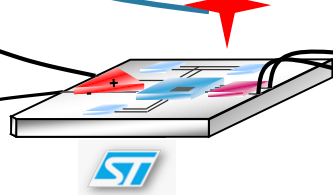
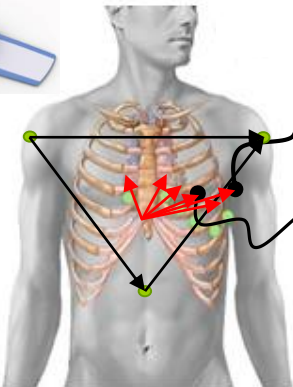


Technology Innovation

Healthcare Challenges

Remote Patient Monitoring Solutions

Accessible
Efficient
Cost-effective
HEALTHCARE



ECG Patch Solution

TECHNICAL FEATURES

- Single Lead AFE for ECG with self calibration circuitry
- Bio-impedance
- STM32F M3 Cortex ARM
- BT radio class 2: STLC 2584
- Digital 3-axis Accelerometer: LIS 331 DLH
- External parallel NAND FLASH 2Gbit
- Battery Level sensing
- Rechargeable battery LiPo 380 mAh
- 3 LEDs
- Mechanical ON/OFF button

APPLICATIONS

- Chronic cardiac disease monitoring
- Elderly people home monitoring
- Event monitoring
- Single lead holter

FUNCTIONS

- Heart rate measurement
- One lead ECG recording and transmission
- Physical activity estimation
- Breathing rate monitoring
- Body position detection



Solution: purchase decision?

Our customer



**End-to-end solution
provider**

The Customer of
Our Customer



- **Hospitals**
- **Insurance companies**
- **Pharm Labs**

Business System

6

