



FP7 Coordination and Support Action to fund 50 technology transfer projects (TTP) in computing systems. This project has received funding from the European Union's Seventh Framework Programme for research, technological development and demonstration under grant agreement n° 609491.

Low Power Miniaturized Contact-less Bio-impedance Measurement Device

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TTP Problem

Production in HYB



Challenge: development of miniature noninvasive sensors for monitoring vital health parameters in real time

TTP Solution

Monitoring respiration activity

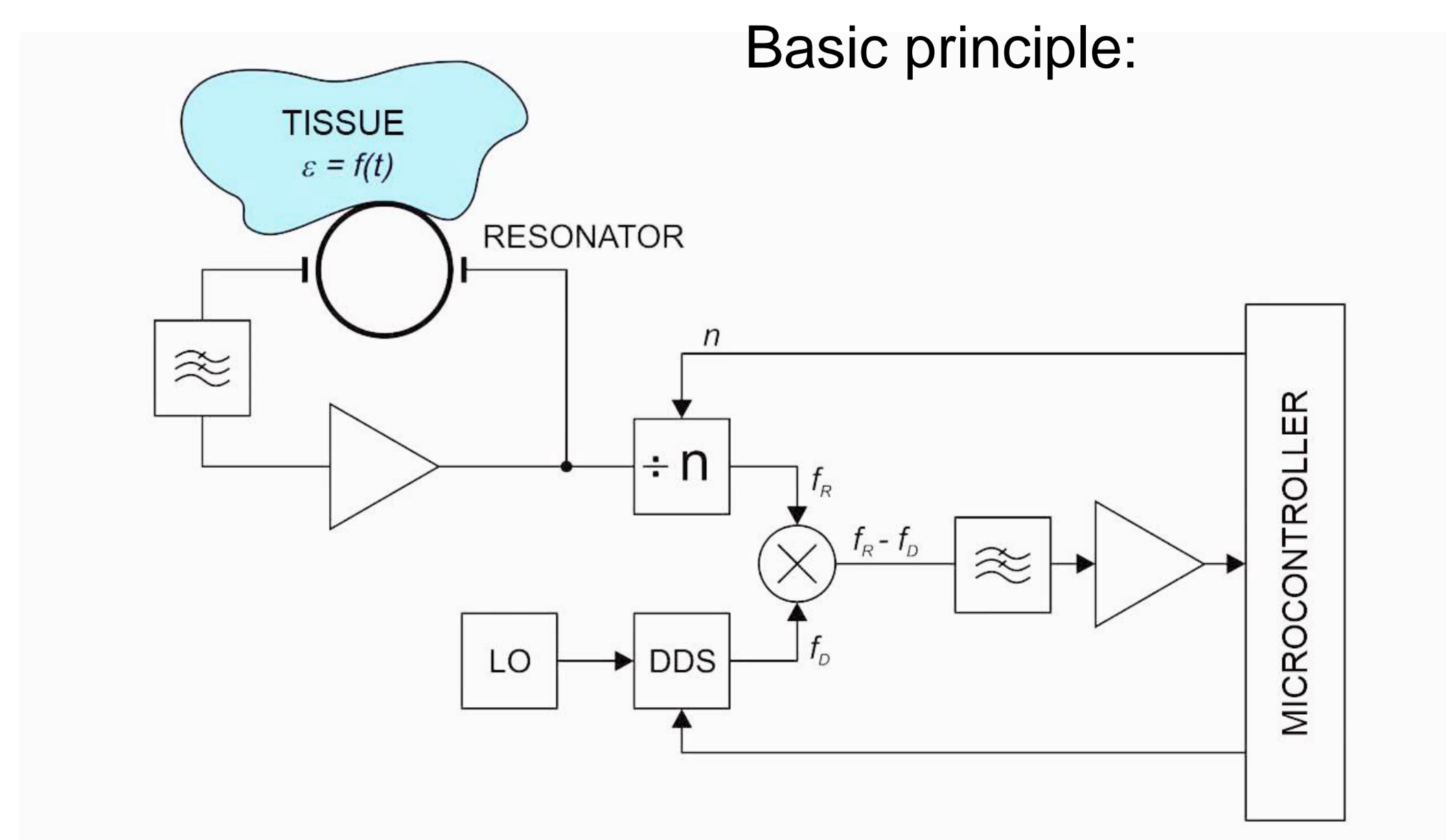
Chest impedance

Galvanic contact

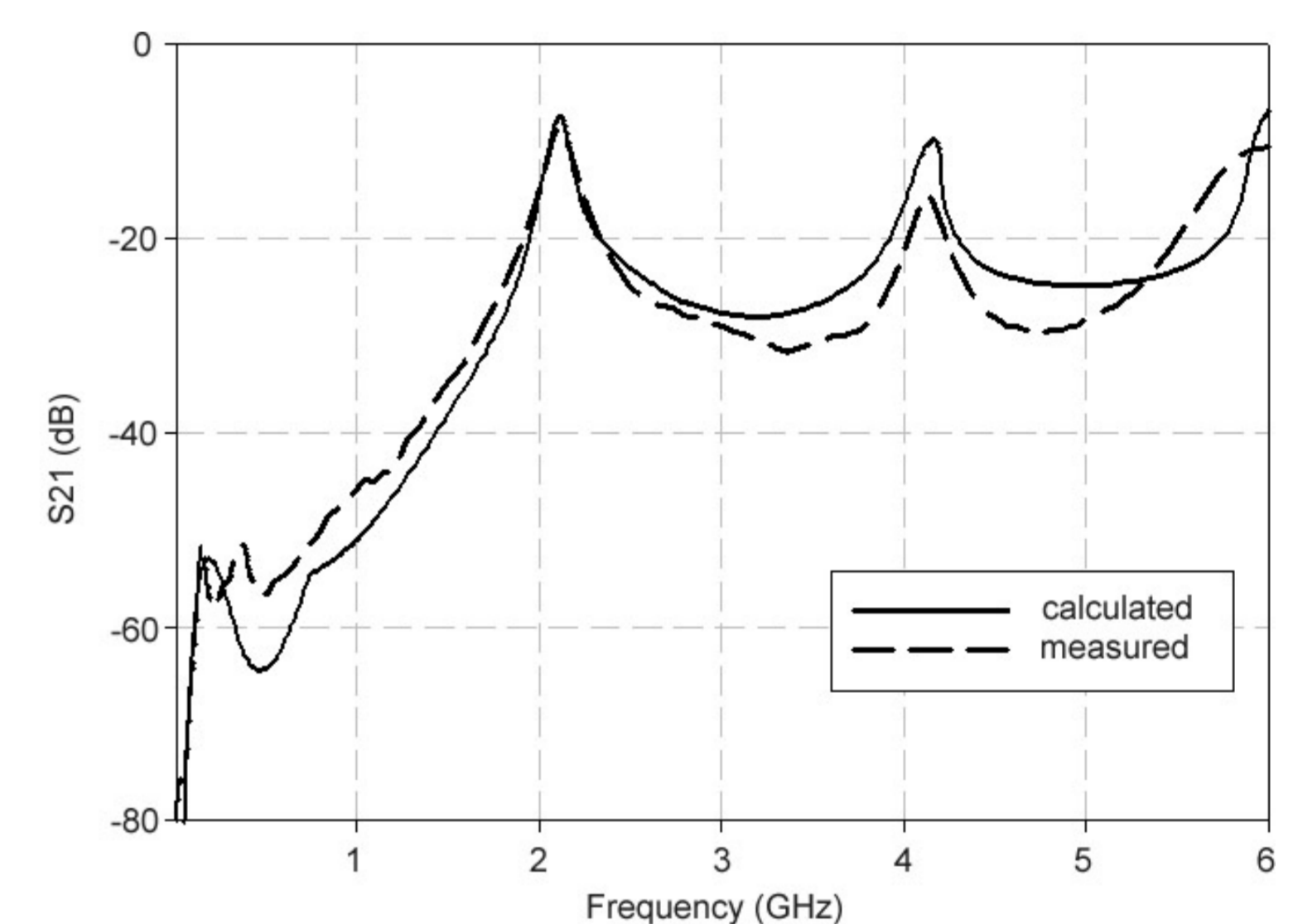
- biopotential + bioimpedance
- via ECG electrodes

Noninvasive

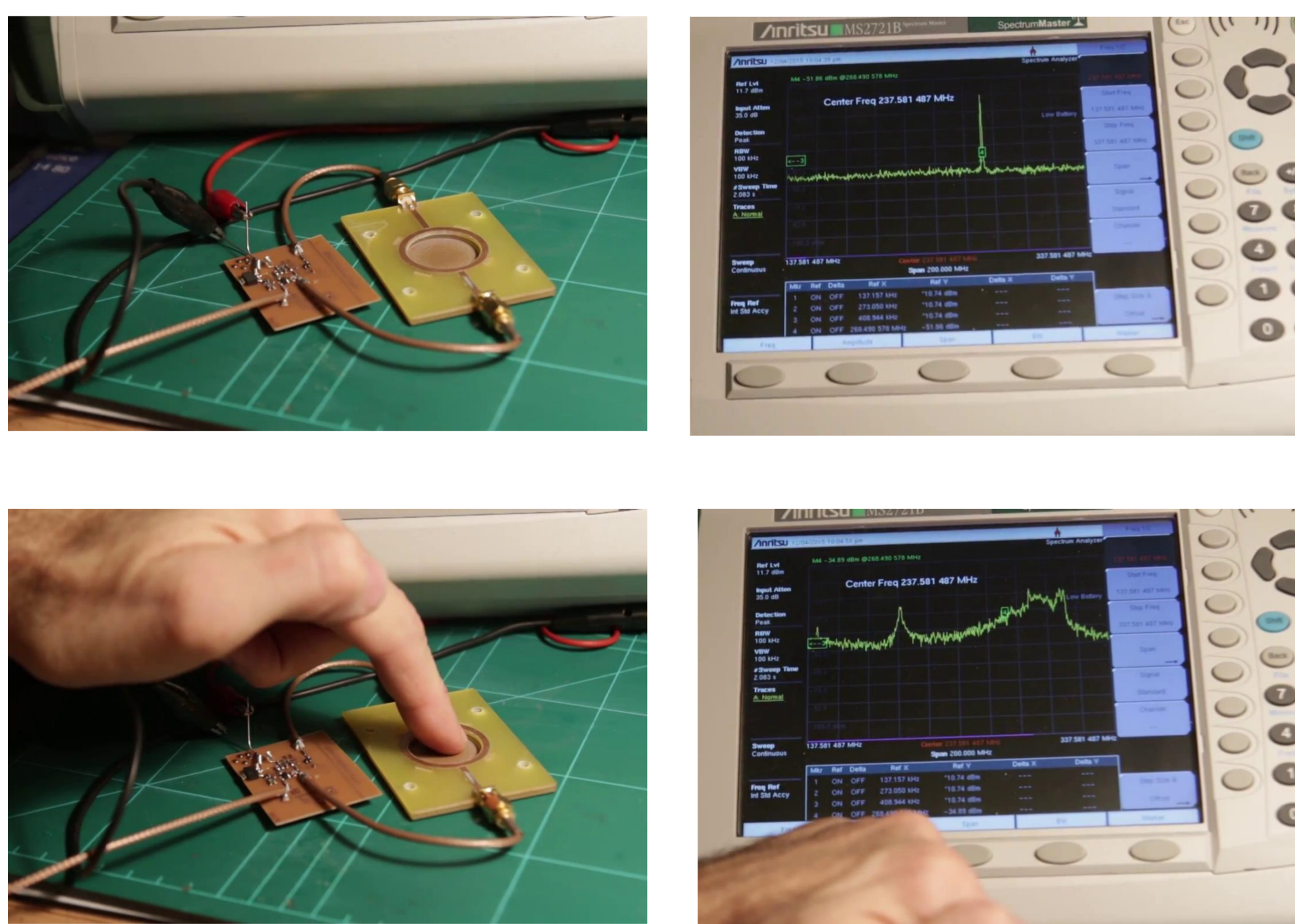
- visual (camera)
- Doppler radar
- microwave distance sensor
- **using tissue as load for ring resonator**



Preliminary measurements:

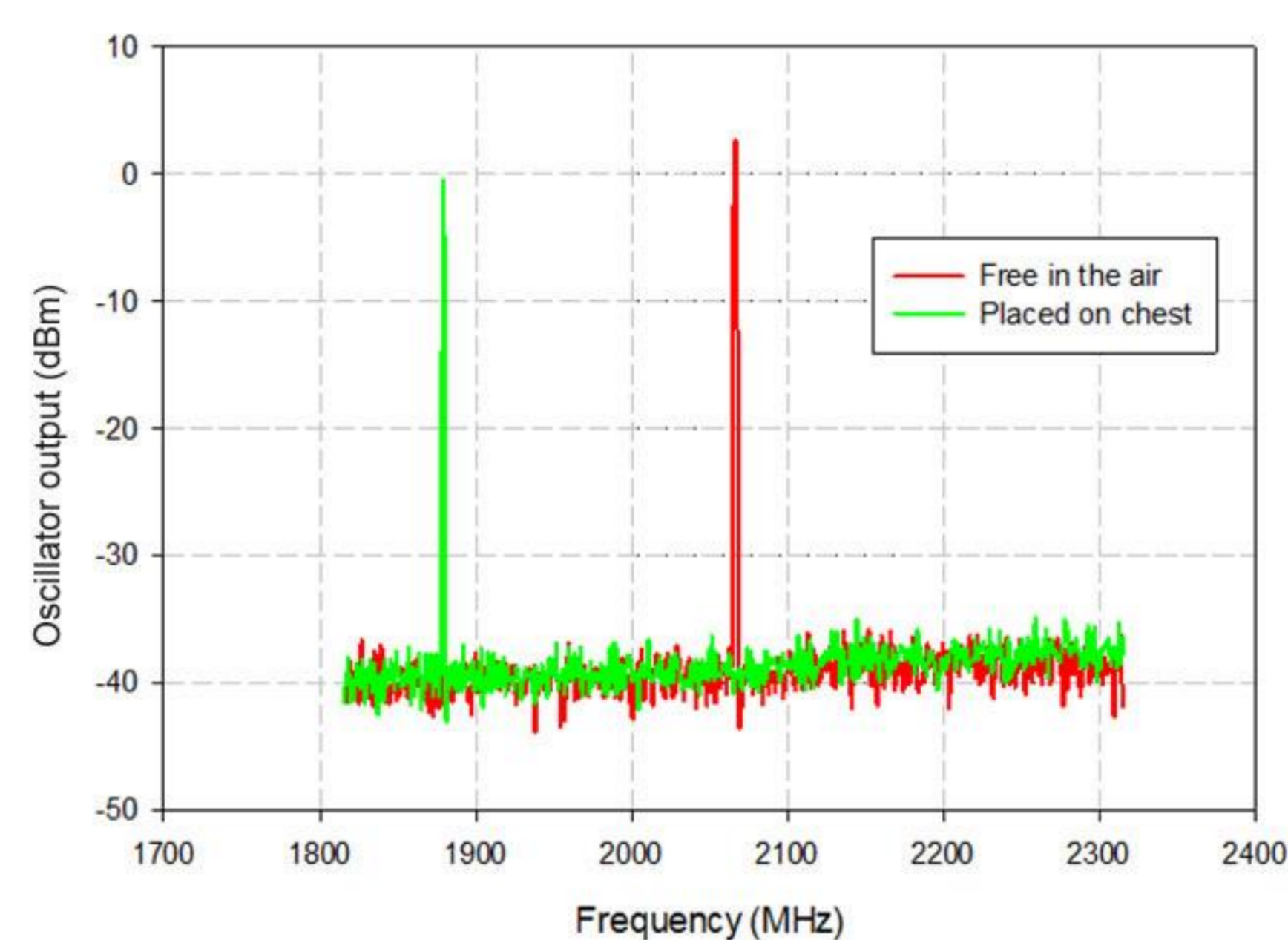


TTP Impact

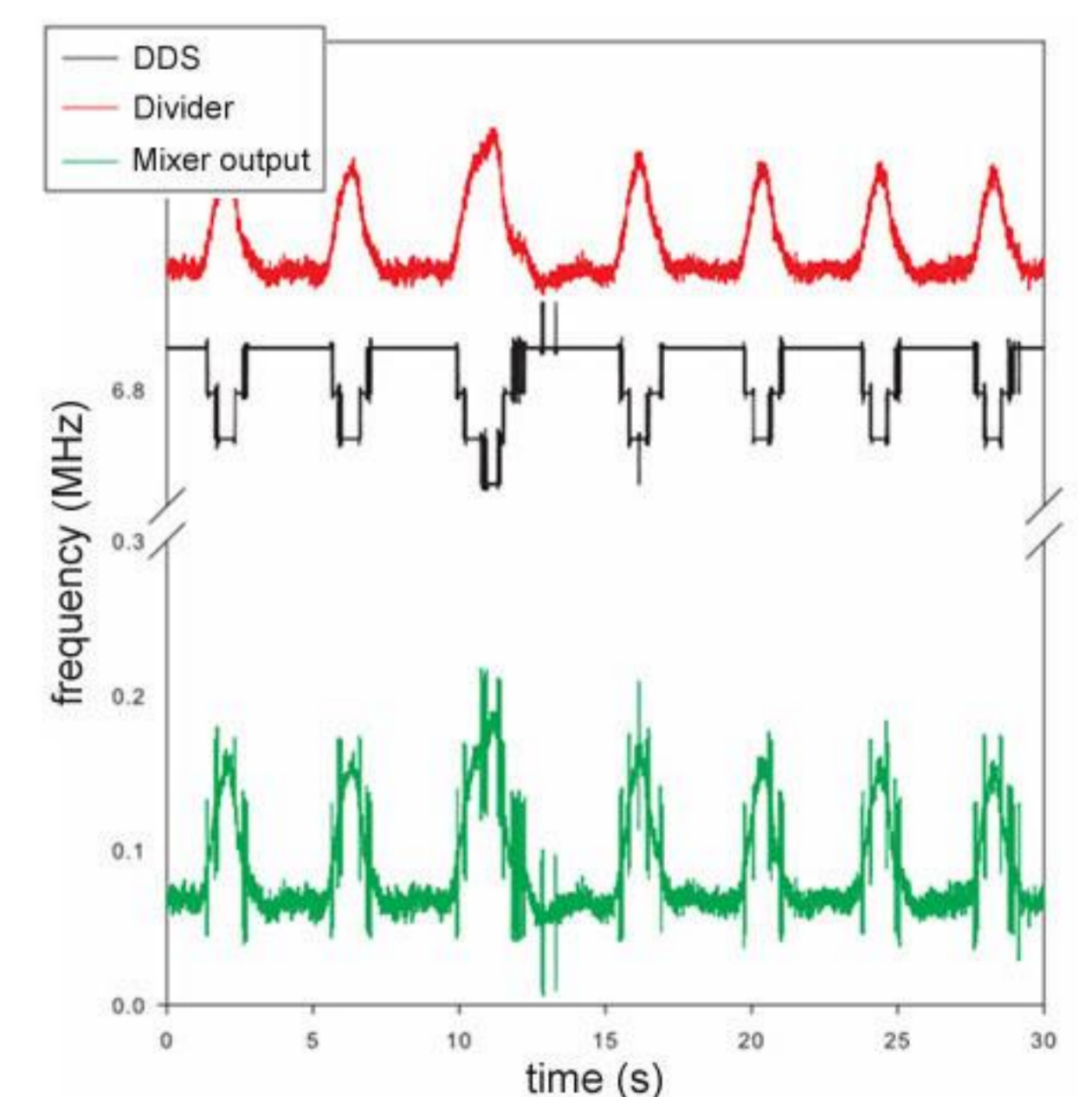


Demonstration of working prototype

Oscillator test



Sensing respiration



TTP Facts

Contact: Franc Novak
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TETRACom contribution: 25000 €
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