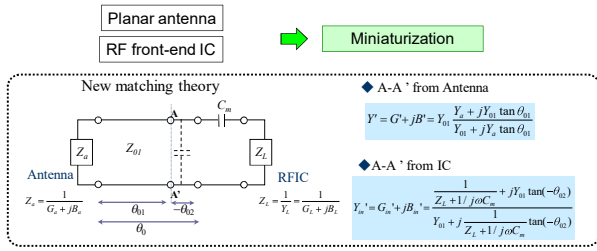
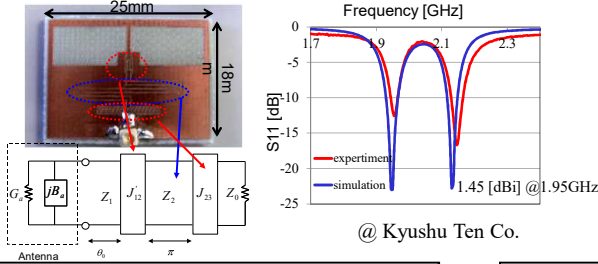


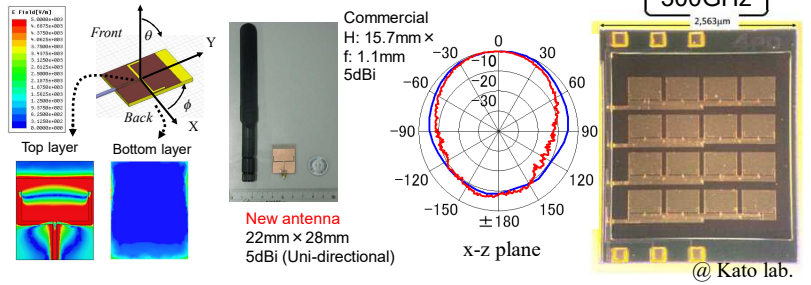
Miniaturized design



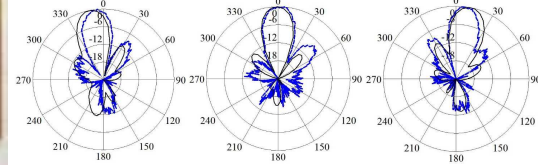
Planar antenna with 2 stage matching circuit @2GHz(Up link / Down link)



Unidirectional antenna, Phased array antenna and THz array antenna

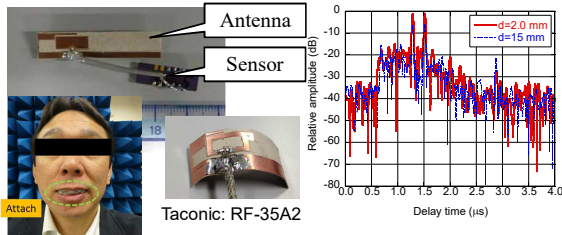


Phased array antenna @8GHz



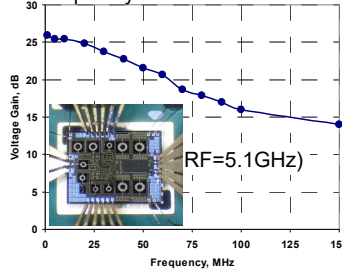
Battery-less Implant Sensor on flexible antenna

Using WiFi signal as a power (School of Dentistry)

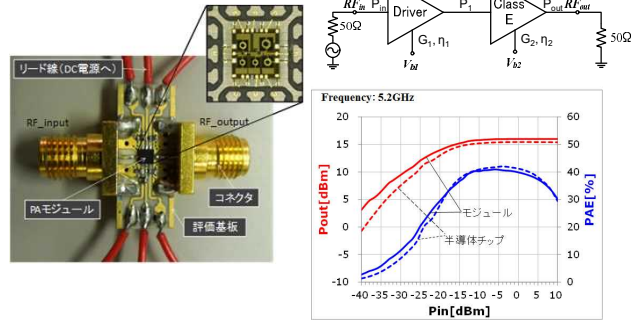


Direct Conversion Receiver

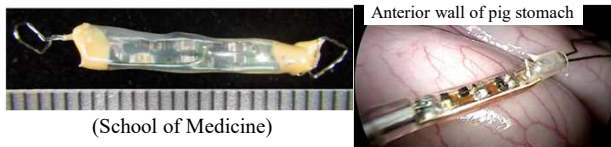
Measured Voltage Gain vs. IF frequency



CMOS Class-E power amplifier module @5GHz

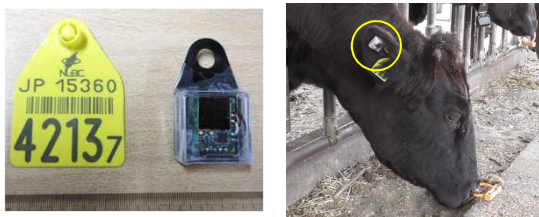


LED marker for endoscopic surgery(2mmφ)



Battery-less vital sensor

Livestock vital information is monitored (ALSENS, School of Agriculture)

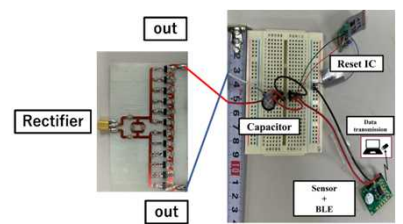


Radio frequency micro energy harvester (MEH)

Collect terrestrial DTV waves from Fukuoka Tower



MEH, sensors and BLE module



MEH can operate continuously within a radius of 7.5 km from the TV tower.



Patent

- 特許第4114001号 / 2008/4/25
- 特許第4097138号 / 2008/3/21、US 7498897 (USA)、10-0656256 (South Korea)
- 特許第4827260号 / 2011/09/22
- 特許第4775746号 / 2011/7/8
- 特許第4730346号 / 2011/4/28
- 特許第4811807号 / 2011/09/02
- USEP3508169A1 (USA) PCT/JP2017/031440 / 2016/8/31
- 特許第7218848号 / 2023/1/30

Patent application

- 特願2008-237554 / 2008/9/17
- 特願2010-031222 / 2010/2/16
- 特願2010-037604 / 2010/2/23
- 特願2014-89605 / 2014/4/7
- 特願2015-103212 / 2015/4/28
- 特願2017-101370 / 2017/5/23
- 特願2020-079282 / 2020/4/28
- 特願2021-079075 / 2021/3/11
- 特願2021-101088 / 2021/6/17
- 特願2023-02893 / 2023/2/27
- 特願2023-042976 / 2023/3/17

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