

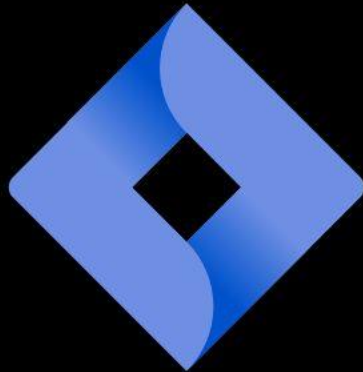
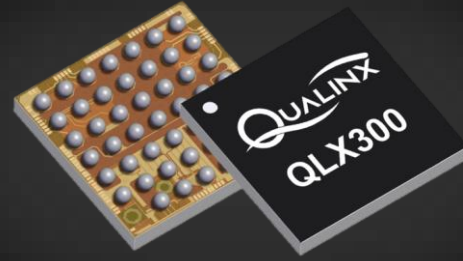
# Redefining the Connected Edge

TOM TRILL  
IMAN MADADI  
Sept. 29<sup>th</sup> 2023

CEO  
CIO & Founder

## Qualinx BV:

A fabless semiconductor company  
pioneering DRF (digital RF)  
radio technology



**THE Most Power Optimized,  
Fully Reconfigurable,  
GNSS & IoT Radio  
for both Indoor & Outdoor**


If it rolls, walks, flies, floats, picks, places or points, your asset needs **Qualinx**



# Founding Team



**Iman Madadi**  
Co-founder and COO

5 years of Management experience  
7 years of industrial experience  
7 granted patents  
PhD in Microelectronics, TU Delft, The Netherlands 




**Massoud Tohidian**  
Co-founder and CTO

11 years of research experience  
8 years of industrial experience  
Else Kooi Award winner 2017  
8 granted patents  
19 journal and conference publication  
PhD in Microelectronics, TU Delft, The Netherlands 



**Amir Ahmadimehr**  
Co-founder and VP Engineering

11 years of research experience  
6 years project management experience  
3 granted patents  
PhD in Microelectronics, TU Delft, The Netherlands 



**Tom Trill**  
CEO

30 years global industry experience  
Generated >\$6B in rev in Auto, IoT, Consumer & Enterprise markets  
Strong, established networks in business, manufacturing & capital  
MBA from Santa Clara University, Doctorate candidate (2025)

# History & Background

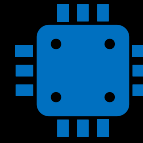
rich history and solid technical foundations; pioneering innovation, successful track record



Founded in 2015  
>10Yrs combined R&D  
(PhD + Qualinx)



World Class  
Experts & leaders  
in field of DRF  
Multiple Patents &  
IP



Scalable core  
Technology in  
Wireless Radios  
GNSS & IoT



HQ: Delft, The  
Netherlands  
Strategic fit with local,  
rich, deep-tech  
ecosystem



Successful  
commercial track  
record with Global  
digital & analog  
Customers



Mature and de-risked  
SCM, manufacturing,  
test and packaging  
infrastructure  
in place



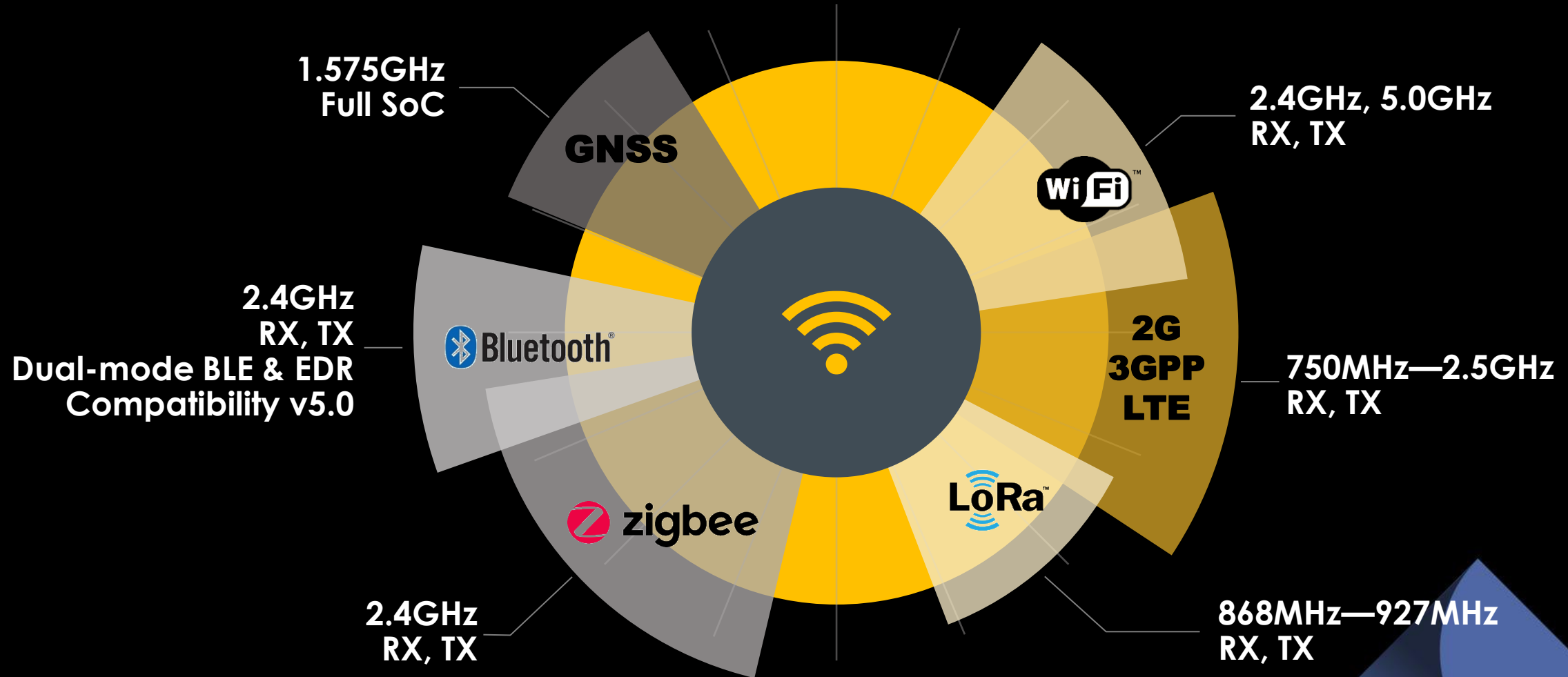
Ultra-low power DNA  
(as much as 10x  
reduction)  
Strong alignment with  
AIoT & Edge  
applications



Access to top talent pools  
From academia and industry  
Great Team, Culture, Energy

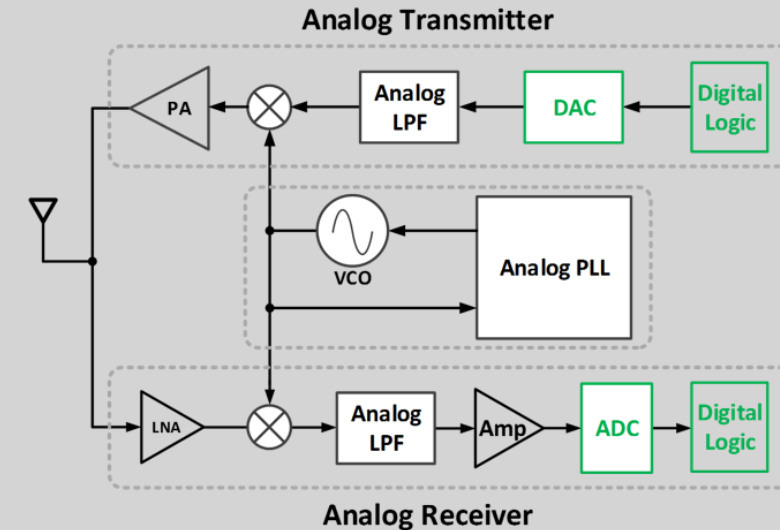
# Qualinx Expertise

Wireless RF & SoC



# Patented Digital RF (DRF) Technology

Digital Radio Frequency (DRF) replaces 80% of the analog content OF ANY IoT RADIO!



Qualinx

vs.

Current Market Standard

*"Qualinx ...filters can be designed so that they can easily be reconfigured in software. This makes one receiver suitable for many different wireless standards while the same chip can be used. Only a few designers deeply understand how to design these filters"*

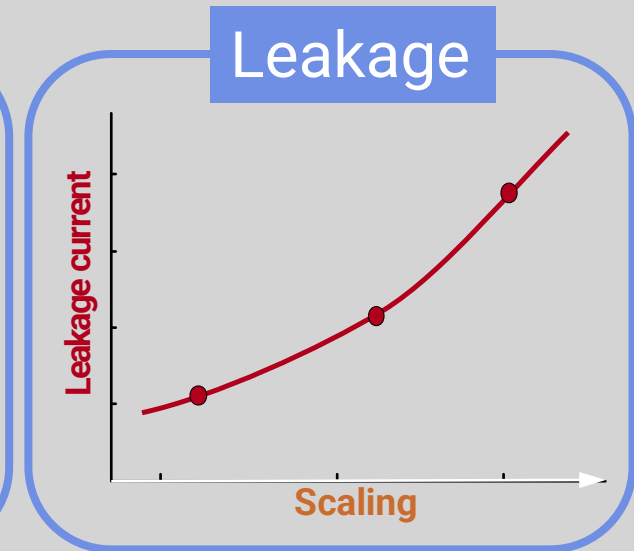
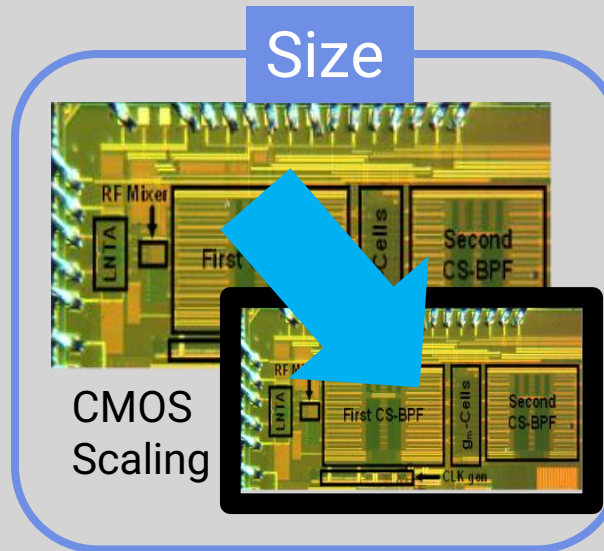
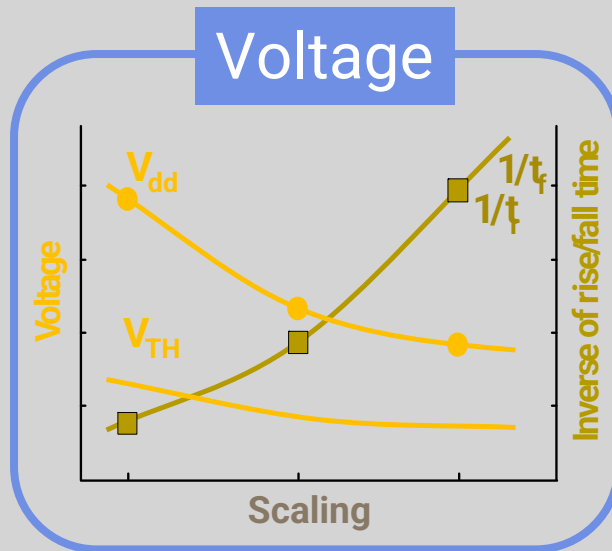
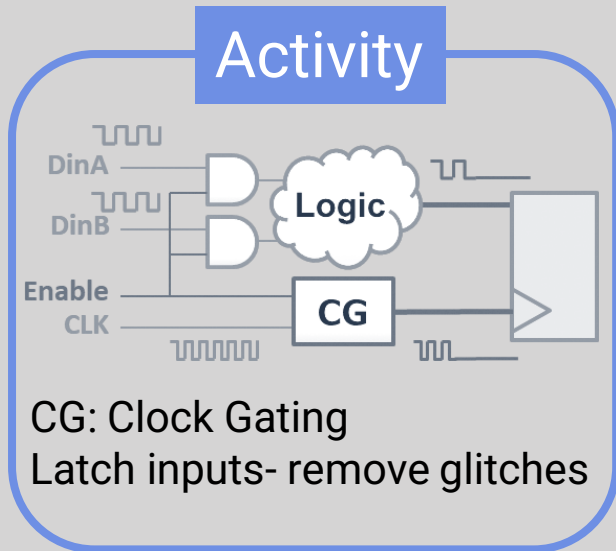
– Dr. Bram Nauta, Distinguished Professor & Head of IC Design, University of Twente, The Netherlands



# Value Proposition of Digital RF Technology



DRF is the Key to achieving intrinsic power reduction and CMOS scaling



DRF enables migration of RF designs from analog to digital.

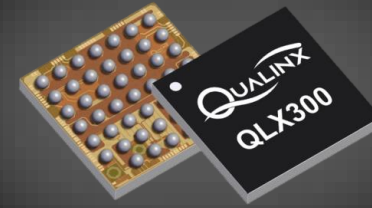
Digital CMOS process technology is synonymous with Moore's Law

Qualinx DRF has generational competitive advantage in scale – power, price, performance



# Qualinx Delivers ~20X Lower Power

**Benchmarking against #1  
Competitor**



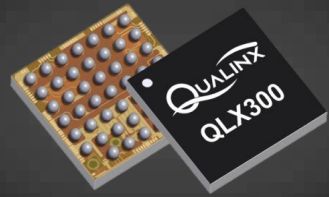
Imagine...

**Ultra-Low Power  
Reconfigurable  
Connectivity**

driving new  
**Innovation Cycles**  
at the edge

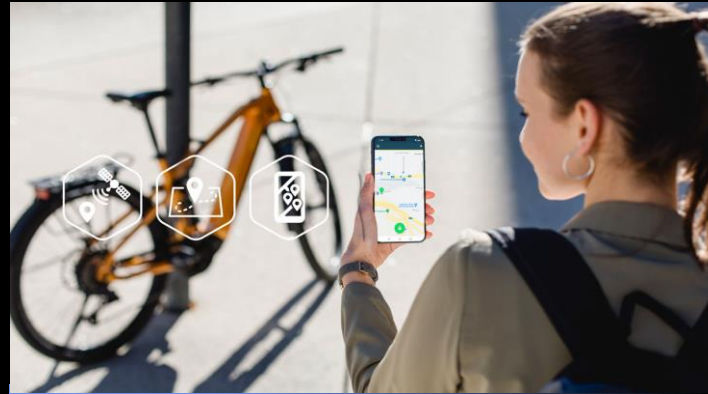
**QUALINX**





# Reducing the Cost & Complexity of **Connectivity** in Every Industry

## MOBILITY



Battery Life: 10 Years

## FREIGHT



Battery Life: 4 Years

## AG-TECH



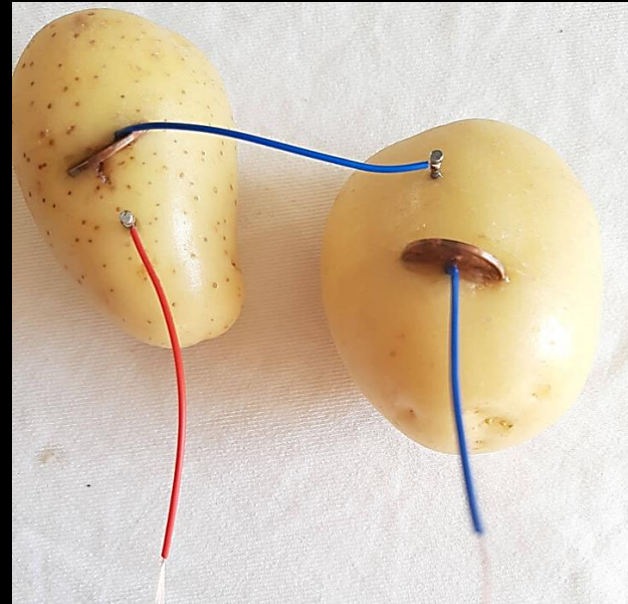
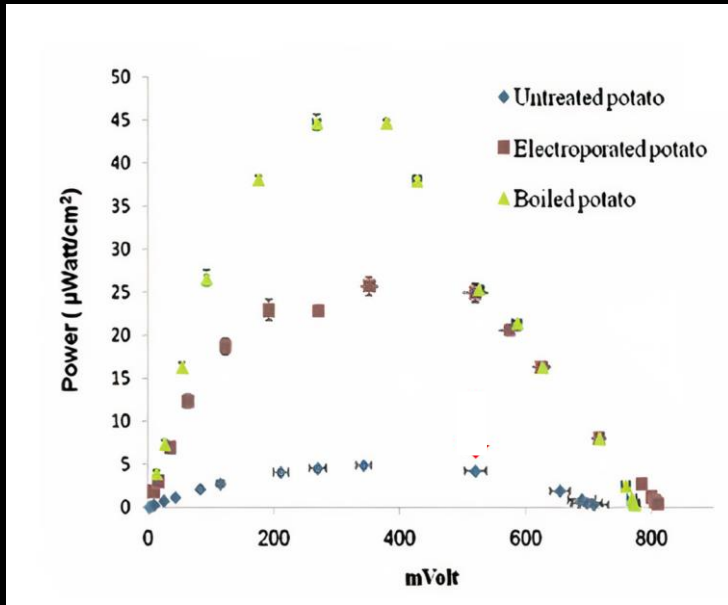
Battery Life: 3 Years

## CONSUMER

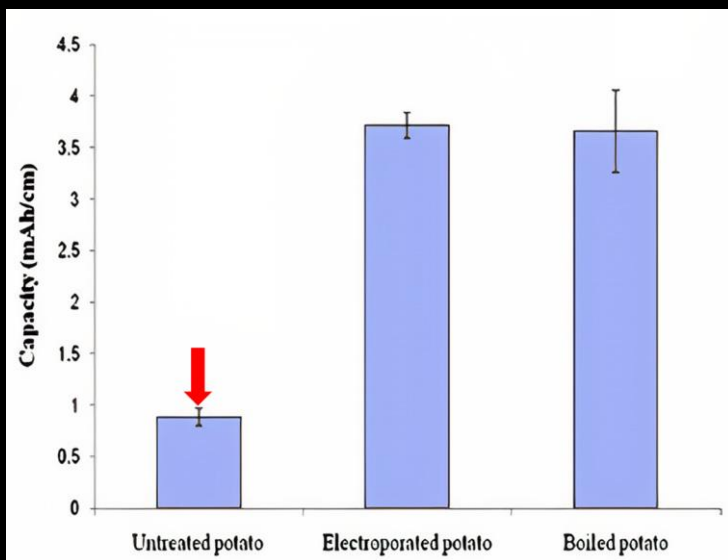


Battery Life: 1 Year

# Using the Ultimate Renewable Sources of Energy



- 3-5 Potatoes = 3 V output
- Enabling 5 mAh current output
- **Powering Qualinx GNSS IoT Radio**



# Academically Verified Model

See discussions, stats, and author profiles for this publication at: <https://www.researchgate.net/publication/239391768>

## Zn/Cu-vegetative batteries, bioelectrical characterizations, and primary cost analyses

Article in *Journal of Renewable and Sustainable Energy* · May 2010

DOI: 10.1063/1.3427222

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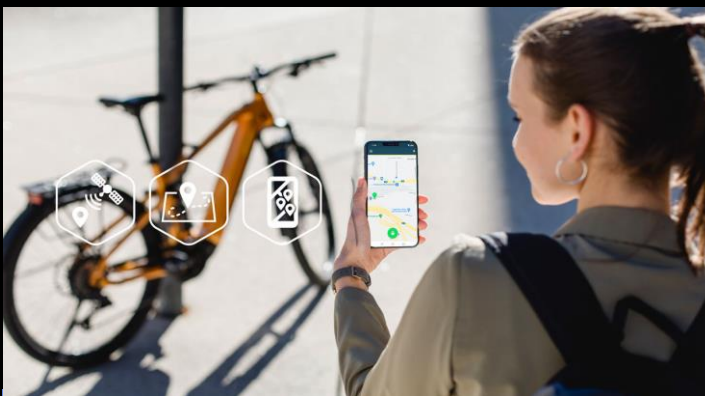
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# Next Gen Connectivity Inflection Point enabled by Qualinx

## MOBILITY



Potato Battery Life: 31 days

## FREIGHT



Potato Battery Life: 5 days

## AG-TECH

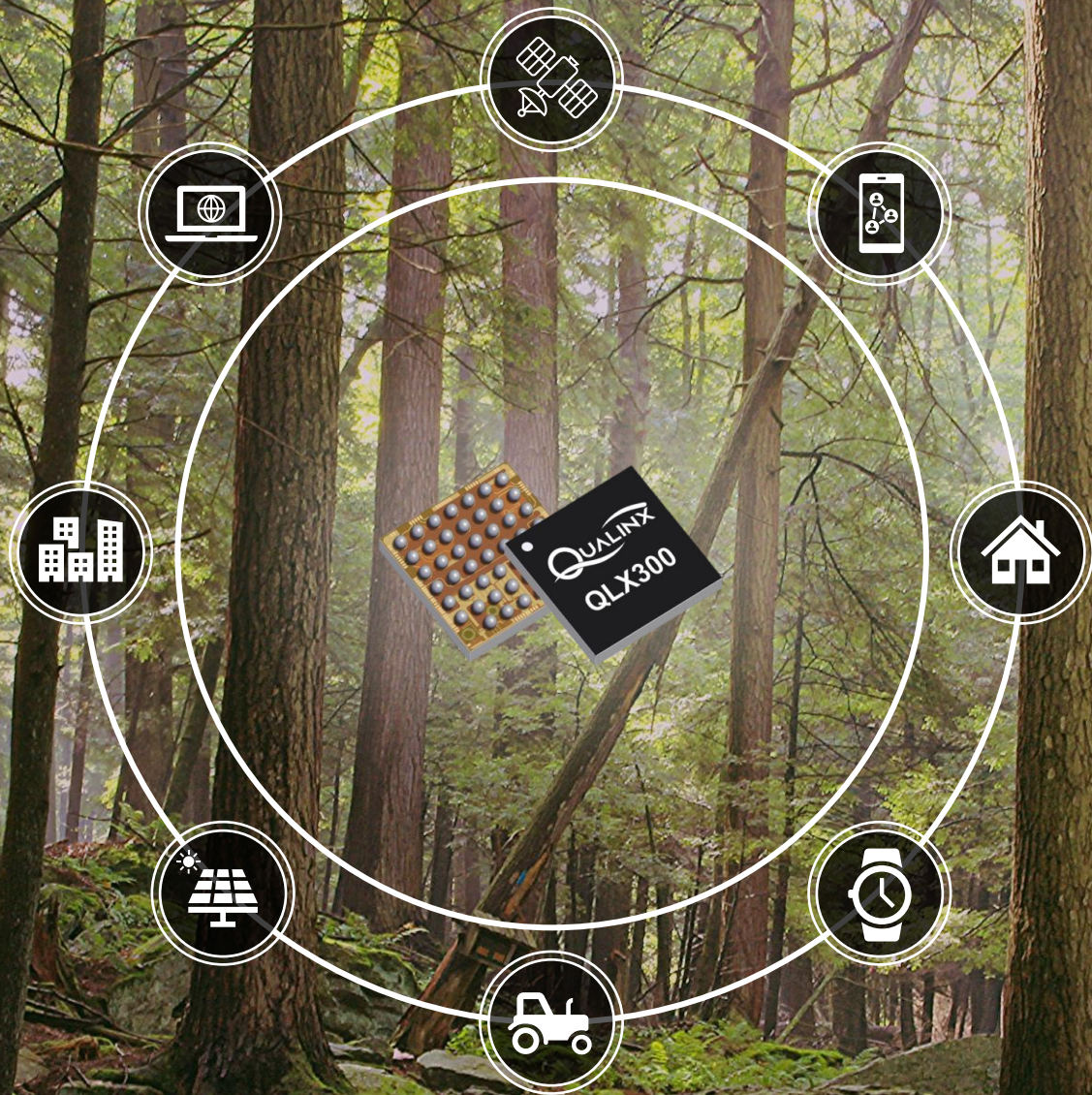


Potato Battery Life: 8 hours

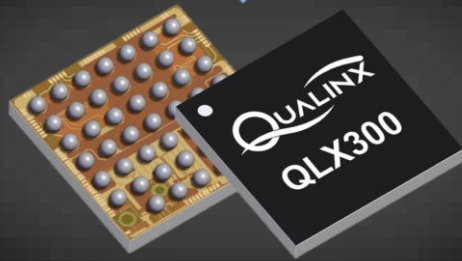
## CONSUMER



Potato Battery Life: 18 hours



**Potential to avoid >10,000 tons of CO2 emissions each year**



**Redefining the Connected Edge**

[www.Qualinx.io](http://www.Qualinx.io)