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wireless freedom

Company Overview and Technologies

Wireless Freedom

Wireless Freedom

- **Freedom to communicate with no space restrictions**
- **Apply technology to make it a reality**
- **Application to several equipment types**

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Activity

IP licencing, development, and production of wireless products

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Company facts

- **Private (SA) company founded in April 2001 by a team of researchers and teachers from the technical university of Lisbon (IST)**
- **Activity: licensing, development and production of communication technology, equipment and systems**
- **Main office and R&D in Lisbon – Portugal**
- **Works 100% for the international market with customers from USA, UK, EU, Japan and Canada**

External Partners

- Chipset manufacturers
- Industrial design
- Mechanical design
- Production
- Digital Signal Processing algorithms

Technologies

- DECT (Digital Enhanced Cordless Telecommunications)
  - Standard version (Europe)
  - DECT 6.0 (USA, Canada)
  - J-DECT (Japan)
  - 2,4GHz and 5,8GHz frequency hopping spread spectrum
  - Wideband audio

- Bluetooth LE Audio

- Wi-Fi – Audio streaming
- DSP, RF and mechanical integration
- VoIP, PSTN and ISDN

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Services

- New product concept to specification
- Protocol design / licensing
- Firmware/Software development
  - Wireless firmware, system interfaces firmware, DSP and embedded Linux
- Hardware development & Mechanical integration
- Industrial design
- Assistance in product testing and certification
- Production

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Headsets & Headphones

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Business Equipments

- DECT base stations in multi-cell systems
- SOHO communications central office Router/Firewall
- DECT handsets and headsets
- Professional intercommunication system
- DECT multi-cell solutions

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DECT

- Long term know how and experience in bringing several products to market
- Own protocol stack. Support of voice, audio, data,…
- DECT ULE HAN-FUN know-how and support
- Partial or complete product development

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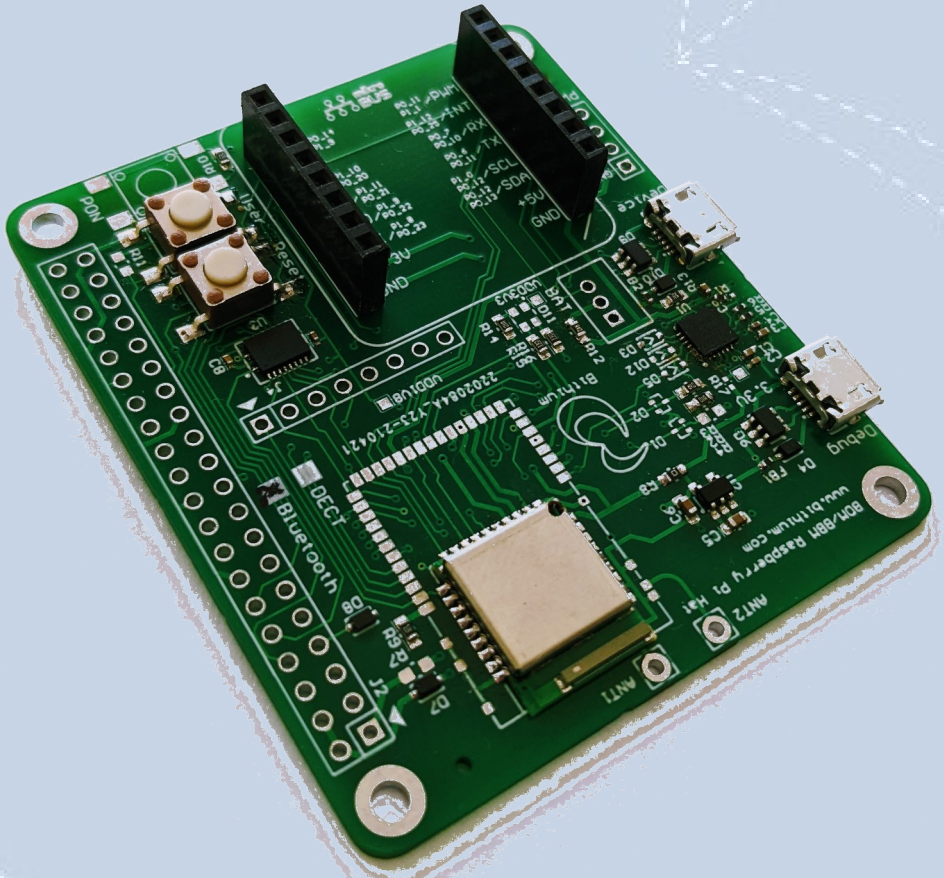
Bithium Dev kit



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DECT stack features

- Support for full-slot, long-slot and short-slot
- DECT Security embedded
- LC3-plus, CELT/Opus, other codecs
- Audio Broadcast support
- Tailored to customer/project specific requirements or chalenges

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Current Focus

Audio Conferencing

High Audio Quality

Wireless Headsets & Headphones

Automation

VoIP

Audio processing

Next steps

- **Security testing with third parties**
- **NR+**

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Enjoy what technology can bring you!