

## Join us !

**CEVA** DSP est leader mondial des cœurs de propriété intellectuelle (IP) de traitement de signal et de connectivité sans fil. Les IPs CEVA couvrent des domaines aussi variés que les technologies de vision, de communication (LTE, 5G), de connectivité sans fil (WiFi, Bluetooth) et de traitement audio.

**RivieraWaves, filiale sôphopolitaine de CEVA depuis 2014**, est aujourd'hui une référence sur le marché des propriétés intellectuelles WiFi et Bluetooth. Ses IPs sont utilisées dans une multitude de produits : téléphonie mobile, matériel médical, sport, divertissement, systèmes industriels et autres capteurs sans fil.

**RivieraWaves** fournit à des compagnies de semi-conducteurs le logiciel, la radio et les blocs digitaux en vue de leur intégration dans des ASICs.

*CEVA DSP is the leading licensor of signal processing Intellectual Property for a smarter, connected world. Ceva's IPs cover a versatile range of end markets, including vision technologies, mobile communication (LTE, 5G), wireless connectivity (WIFI, Bluetooth) and audio processing.*

*RivieraWaves, a French Subsidiary of CEVA since 2014, is now a reference on the WIFI and Bluetooth IP markets. Its IPs are used in a wide range of products: mobile phones, medical devices, sports, entertainment, industrial systems, and wireless sensors amongst others. RivieraWaves provides to semiconductor companies the software, radio and digital blocs for integration into ASIC.*

### Sujet de stage / Internship subject

### Audio Codec Development

Voir au verso pour le descriptif / See at the back for description

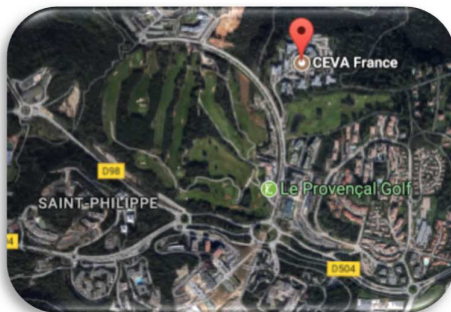
#### Why to join us?

- ☺ Technologie de pointe, projets à haute valeur technique
- ☺ Ambiance sympa dans un environnement international
- ☺ Conditions de travail stimulantes qui vous permettront d'être impliqué sur des tâches variées
  - ☺ *Exciting cutting edge technology, high technical value projects*
  - ☺ *Friendly atmosphere in an international environment*
  - ☺ *Stimulating working conditions which will enable you to be involved in various tasks*

#### When ?

Stage 6 mois, démarrant de préférence au 1er trim 2020 / 6-months internship, preferred start date in Q1-20

#### Where are we based?



Greenside Village  
400 Avenue Roumanille  
**Sophia-Antipolis**

Find us on the web:  
<http://ceva-dsp.com>

Contact : [rw-hr@ceva-dsp.com](mailto:rw-hr@ceva-dsp.com)

## Audio Codec Development

The internship will take place in CEVA-**RivieraWaves'** Digital Design team, working closely with other teams, such as hardware designers, software development team, who are developing baseband IPs for wireless standards such as latest generation of Wi-Fi and Bluetooth protocols.

The **RivieraWaves** Bluetooth next generation are constituted of several SW and HW pieces which are continuously evolving and for which a good level of quality has to be ensured. Being able to easily and quickly detect regressions during development steps and to get a clear status about the capacities of our Bluetooth IPs has become a very important challenge.

The purpose of this internship is to participate on audio codecs development for Bluetooth Next generation. The goal is to implement a hardware accelerator which will be integrated into our Bluetooth system to perform audio encoding/decoding algorithms such as mSBC or LC3.

The mission is split in several steps:

- Learn LC3/mSBC codec
- Specify the module and its internal algorithm
- Implement the specified algorithm in Verilog
- Verify the module using Cadence Simulator
- Integrate it into a Bluetooth platform
- Validate the complete system on FPGA
- Support to the Software team

### Student profile:

- Bac +5, last year of Engineering school
- Familiar with VHDL/Verilog
- Experience on RTL simulation and FPGA design
- Knowledge on encryption and security is a plus.
- Autonomous, communicative, with strong team spirit , relational and organizations skills

**Join us !**

### **Pour postuler / How to apply?**

Envoyez votre CV avec le titre du stage souhaité à / *Please send your cv with desired internship title :*

[rw-hr@ceva-dsp.com](mailto:rw-hr@ceva-dsp.com)

