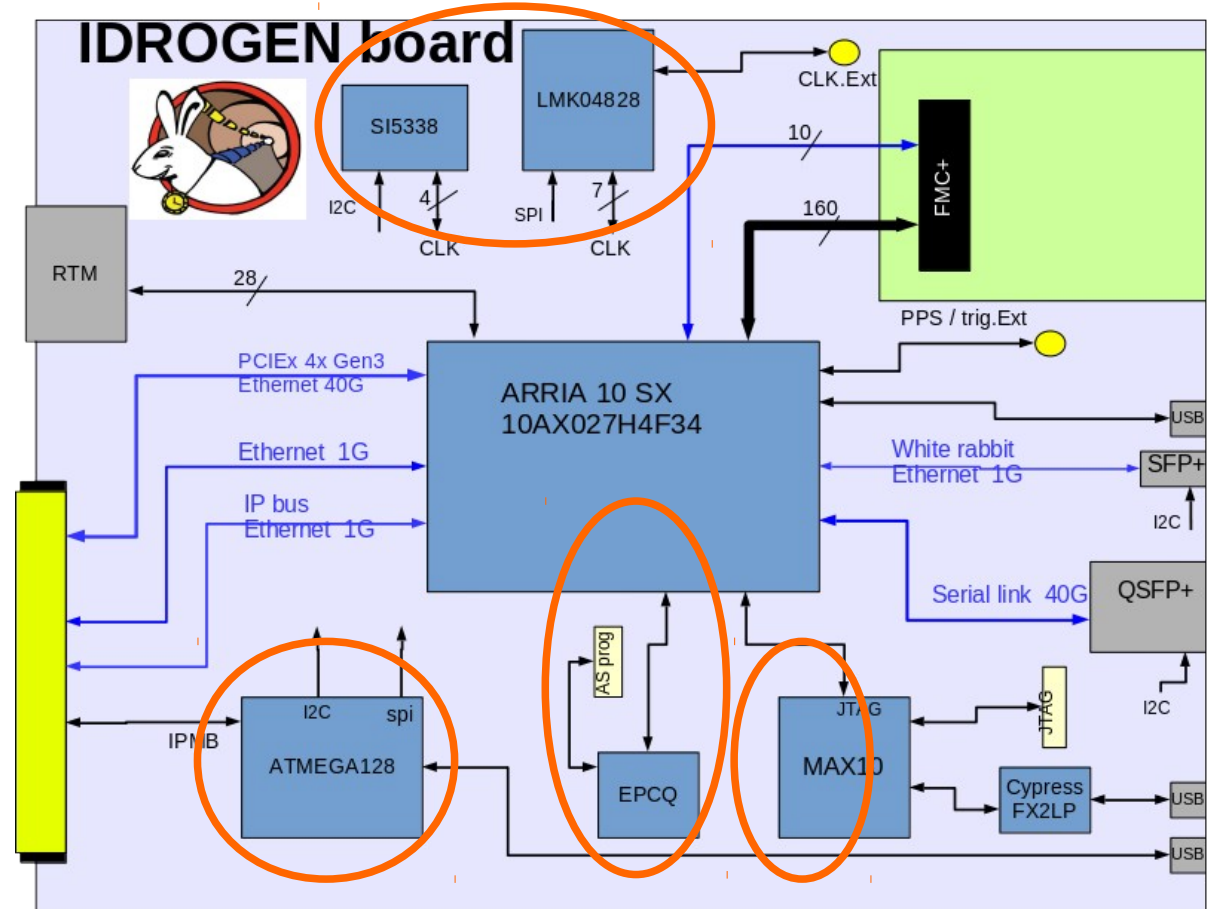


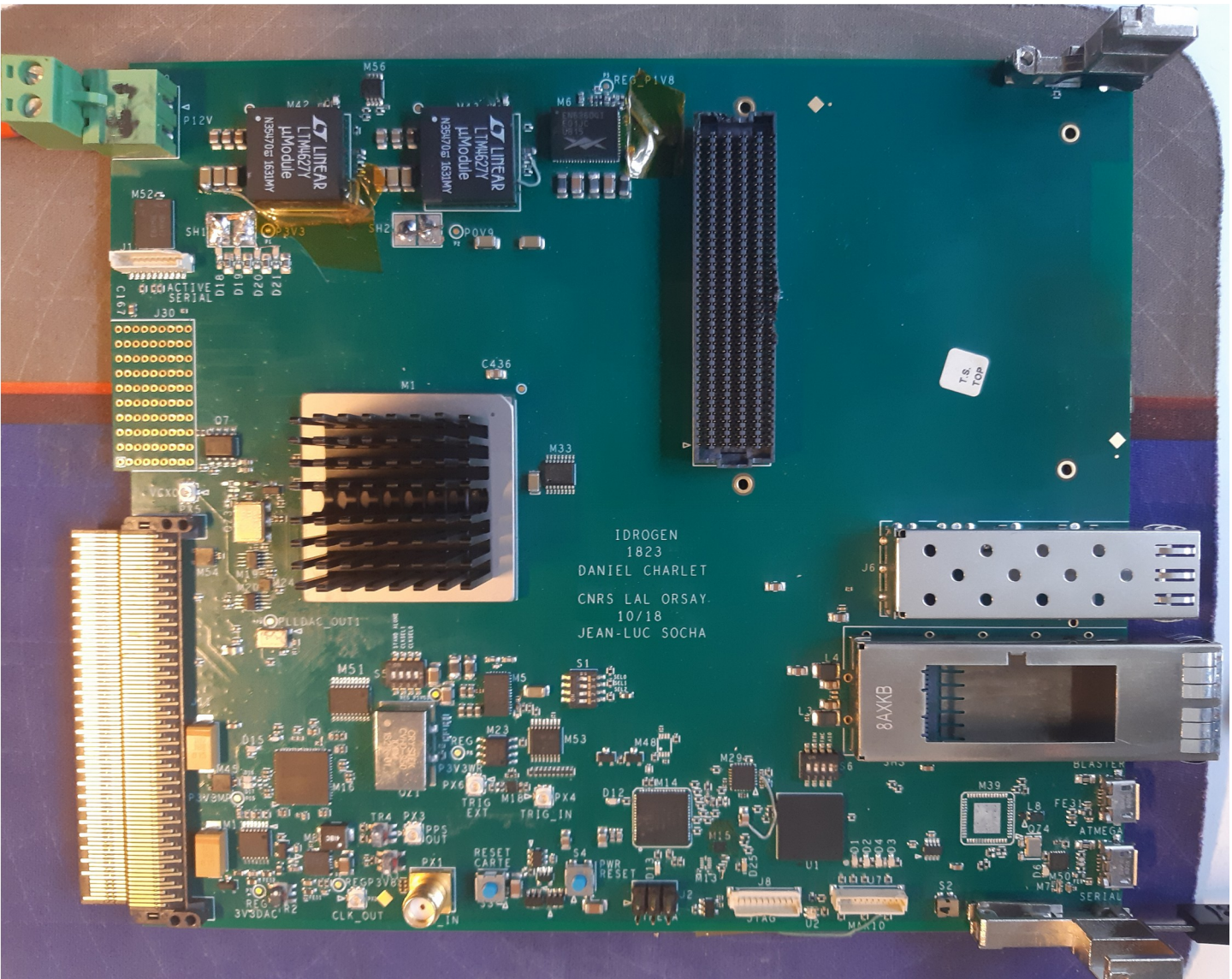
# IDROGEN board



- MTCA 4.0 standard, Double-width, full size AMC.
  - FPGA : 10GX027H4F34
  - Stand alone mode (power 12v)
  - HighPinCount FMC slot.
  - White Rabbit compliant.
- 
- Front panel connectivity : WR SFP+ QSFP+ 40G, USB
  - Backplane connectivity : 1Gbe IPbus, PCI 4x Gen3, IPMB, CLK & trigger lane.
  - RTM connector : J30.
  - Low cost
- 
- On board configuration (µC)
  - Very low noise synthesizer PLL synthesizer cleaner (LM04828) for WR clk and derived clk.
  - Dedicated PLL for serial links
  - Integrated USBBlaster II.
  - FPGA configuration : Active serial, IP bus.
  - External connectivity : PPS, Trigger, Ext CLK.

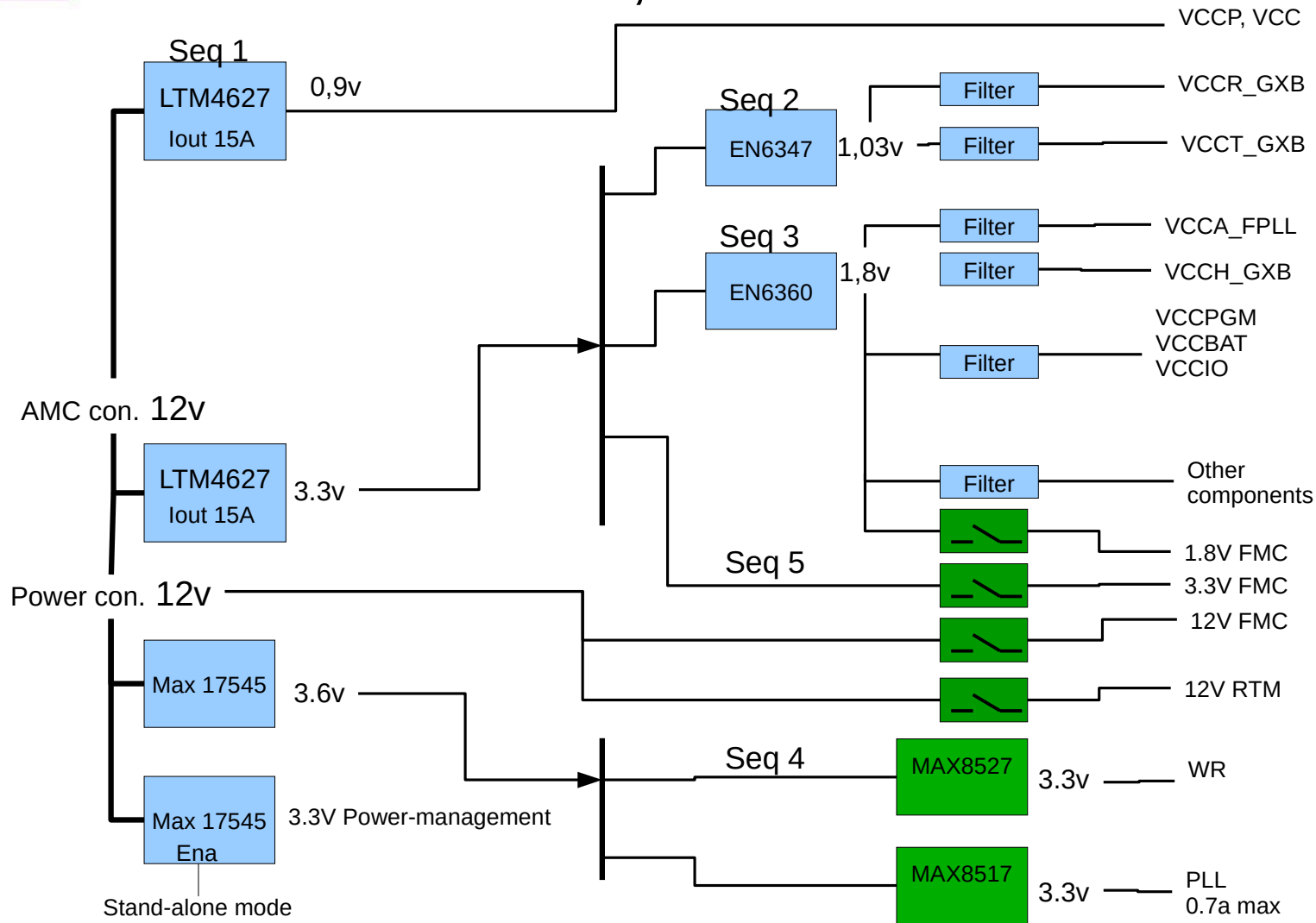
TESTE





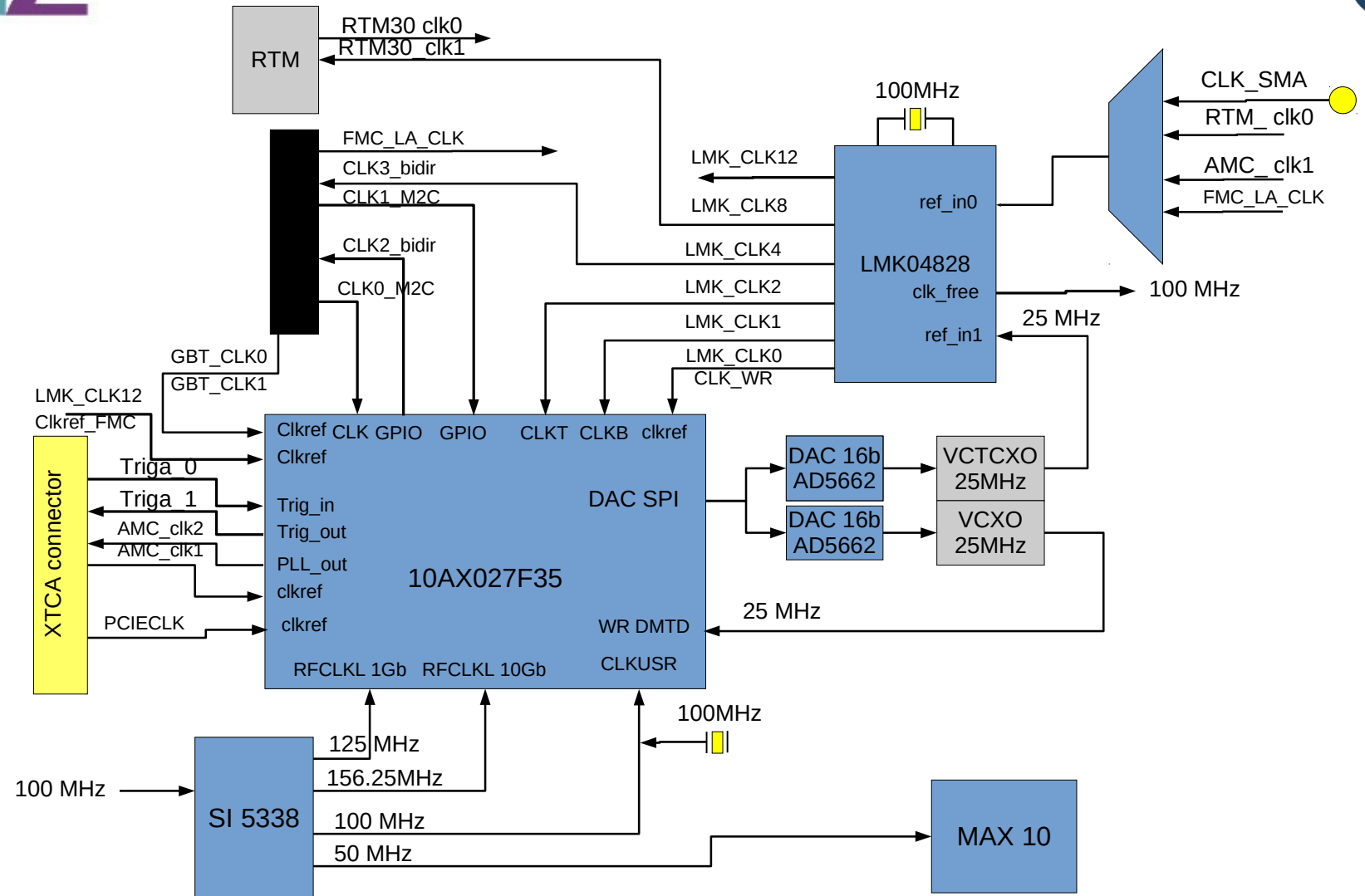


# Carte IDROGEN, arbre des alimentations





# IDROGEN Clock tree

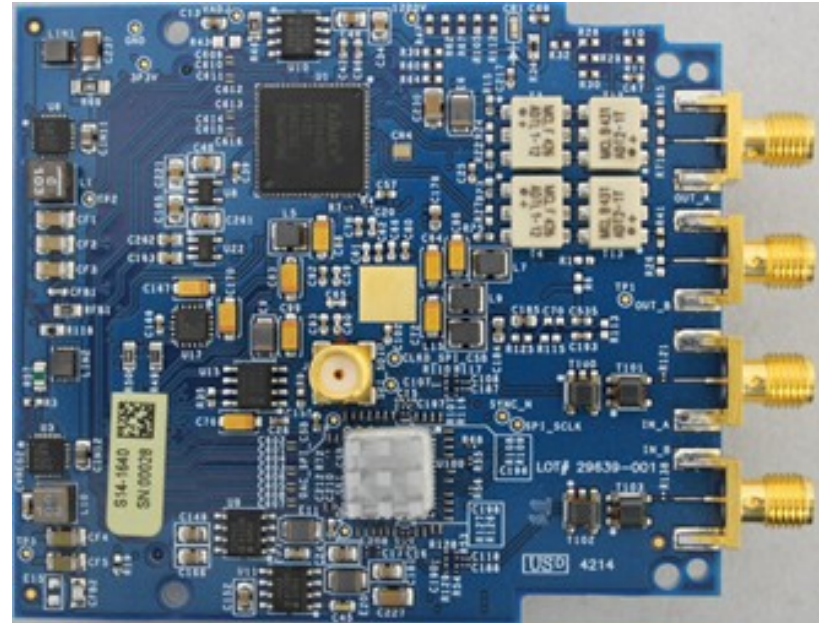


A stylized logo consisting of three curved, overlapping shapes in purple, teal, and purple.

# Statu test carte IDROGEN

- Déjà testé
  - Alimentations testées complètement
  - UC branche “stand-alone”
  - PLL LMK04828 , SI5338
  - FPGA ARRIA 10 partiellement testé
  - EPLD MAX 10 partiellement testé
- Tests pour les prochaines semaines.
  - Fonctionnement dans le châssis.
  - WhiteRabbit.
  - Slot FMC ( mezzanine ADC)
  - Communication bus arrière : PCIe, Ethernet
- Prochain mois
  - Communication face avant : Ethernet 40G
- Hardware futures
  - Version 2 IDROGEN

- Réalisation Mezzanine ADC
- Ressource humaine disponible ( à confirmer)
- Basé sur un design existant.
- Techniquement et financièrement intéressant :
  - PCB chinois, câblage laboratoire



Top

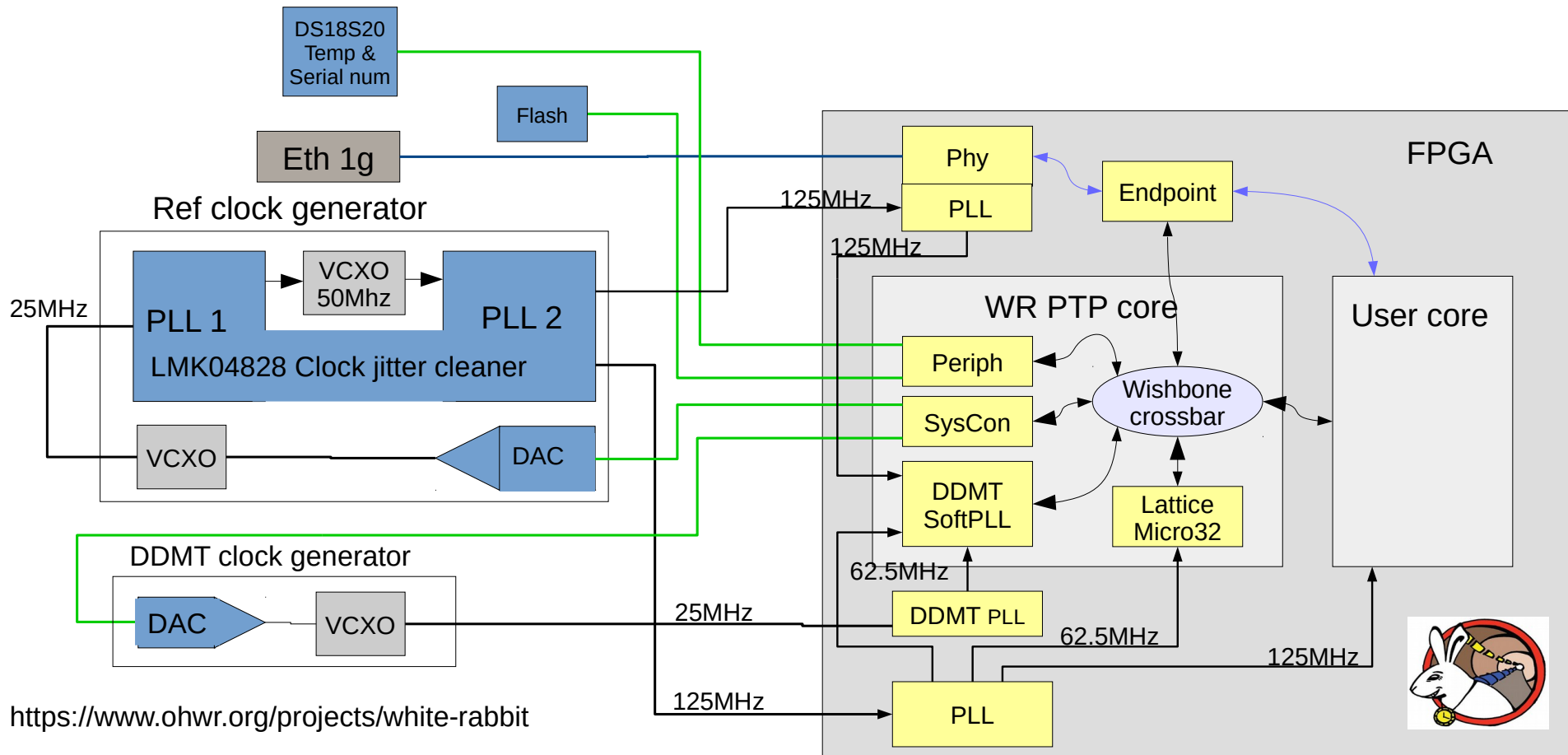
A stylized logo consisting of three curved, overlapping shapes in purple, teal, and purple.

# Chaîne électronique PAON IV

- Analogique
  - LNA actuel + ampli inter mini-circuit + filtre.
  - Test en laboratoire
- Mécanique
  - Mise “ en boîte IDROGEN”
- Déploiement sur cite
  - Mise en place fibre optique (coffret centrale vers antennes)
  - .....



# IDROGEN board, WR clock tree



<https://www.ohwr.org/projects/white-rabbit>

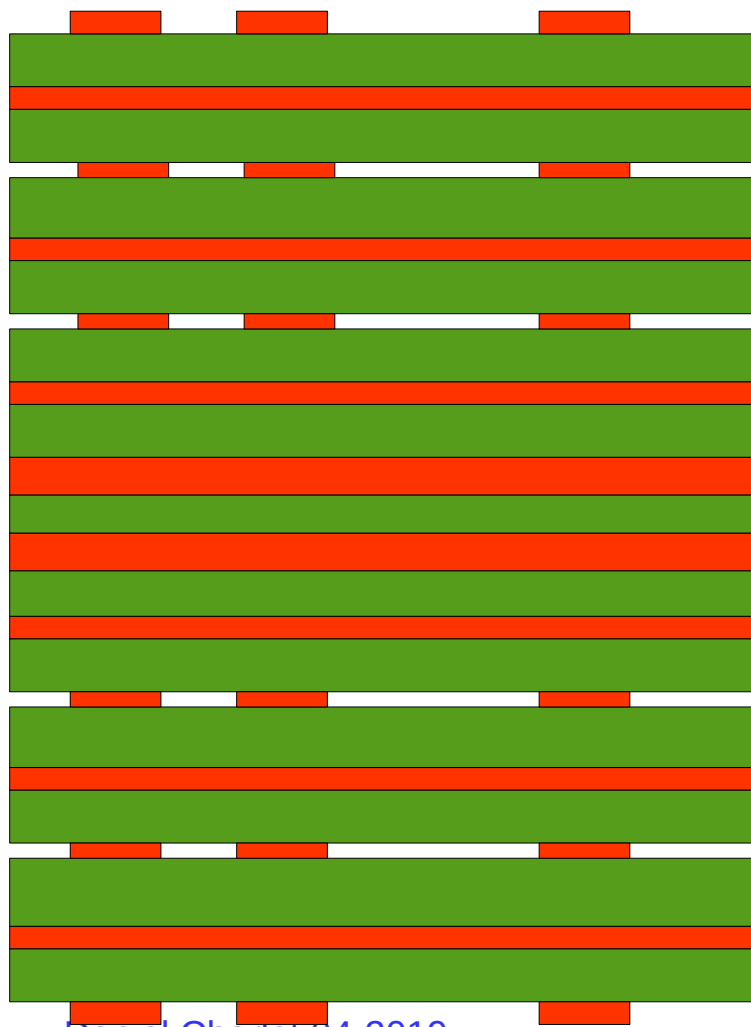




# IDROGEN board, WR clock tree



1	55	Signaux	85 Ohm
2	40	GND	
3	17	Signaux	85 Ohm
4	40	GND	
5	17	Signaux	85 Ohm
6	40	PWR	3,3v
7	70	PWR	0,9v/12v /1,8v
8	70	GND	
9	40	PWR	
10	17	Signaux	85 Ohm
11	40	GND	
12	17	Signaux	85 Ohm
13	40	GND	
14	55	Signaux	85 Ohm



75	1
100	2
100	3
100	4
100	5
50	6
50	7
50	8
100	9
100	10
100	11
100	12
75	13