

## VLC Photonics PIC Design Contest 2019

### General Conditions

1. Objective: To design a cutting-edge photonic integrated circuit in the Silicon Nitride platform of the CNM foundry.
2. Conditions: The conditions for eligibility are:
  1. Submit the online application form before 28<sup>th</sup> January 2019.
  2. Prepare the design of a full Multi-Project Wafer (MPW) cell of 5.5x5.5 mm, according to the latest version of the design manual (and Process Design Kit, PDK, if needed) of the CNM foundry. A Design Kit License Agreement (DKLA) will need to be signed to access this information.
  3. Sign a Non-Disclosure Agreement (NDA) with VLC Photonics before January 28<sup>th</sup>, to protect any Intellectual Property of the design to be submitted. The candidate should be the original author and owner of the design.
  4. The participants will be able to use any kind of software for the design of the photonic circuit, as long as a valid GDS file (DRC clean) is provided.
  5. Submit the GDS design at the tape-in date, planned for 10<sup>th</sup> February 2019, and fill in a design report (template will be provided) explaining how the design was made, and attaching as much modelling and simulation information as feasible to validate it.
  6. Only one design is allowed for submission to each participant.
  7. A minimum of 3 candidates will be required for the realization of the contest. If this is not achieved by January 28<sup>th</sup>, the contest will be cancelled.
  8. A maximum of 6 candidates will be allowed, which will be selected on the priority date of their application form.
3. Fabrication and characterization:
  1. Fabrication and characterization of the designs is not a requisite for the contest.
  2. However, if the candidates actually want to have their designs fabricated at any CNM MPW run, there will be a discount of 25% on the cell price, and the final chips will be shipped at no cost to the participants.
3. Characterization of the fabricated dies, if any, is not required for the contest, but could be done at VLC if requested.
4. Criteria: The selection of the winner design will be performed based on the following criteria:
  1. Design correctness and complexity (40 points)
  2. Layout intricacy and adequacy for testing and packaging (20 points)
  3. Application concept novelty (20 points)
  4. Market potential (20 points)
5. Selection: VLC Photonics will evaluate all designs according to the criteria, and select a single winner no later than 1 month after tape-in.
6. Prize: The prize consists of 1.000€ or to get your design fabricated at any CNM MPW run. If the participant attended any previous PIC design training organized by VLC Photonics on 2019, these training fees will be reimbursed too.
7. Intellectual Property (IP): The IP of the designs remains at the designer side, and no IP or use of it is transferred or granted to VLC Photonics for the participation in this contest. However, VLC Photonics will be allowed to use all design layouts for marketing purposes, and will be acknowledged in any publication resulting from the winner design or any participating design that gets fabricated at CNM.