

## MPW Run Application Form

Please complete this form with your Company details and required Products and Services and send it to [coordinator@jeppix.eu](mailto:coordinator@jeppix.eu). This form is a non-binding document. Mention "MPW Run Application Form" in the subject of your email. Your request will be processed shortly. Thank you.

**Customer Name \***

**Contact e-mail address \***

**Company Name \***

**Company VAT number \***

**Company Address \***

Street Address

City

Postal / Zip Code

Country

**Delivery Details \*\*\***

**Recipient of goods**

**Contact phone number**

**Contact e-mail address**

**Delivery Address (if different from the Company address)**

**Company Address**

Street Address

City

Postal / Zip Code

Country

### Your design

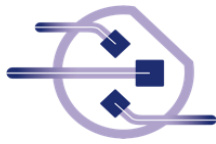
**Please let us know about your design:**

Design phase:	<input type="checkbox"/> educational	<input type="checkbox"/> research	<input type="checkbox"/> prototyping
	<input type="checkbox"/> interested in production scale-up	<input type="checkbox"/> other (please specify).....	
Product:	<input type="checkbox"/> lasers	<input type="checkbox"/> phase modulators	<input type="checkbox"/> modulators
	<input type="checkbox"/> detectors	<input type="checkbox"/> optical amplifiers	<input type="checkbox"/> polarisation devices
	<input type="checkbox"/> filters	<input type="checkbox"/> reflectors	<input type="checkbox"/> other (please specify).....
Application:	<input type="checkbox"/> Fiber optic sensors	<input type="checkbox"/> optical communications	
	<input type="checkbox"/> computation and signal processing	<input type="checkbox"/> free-space sensors	<input type="checkbox"/> spectroscopy
	<input type="checkbox"/> other (please specify).....		
Market:	<input type="checkbox"/> Information and communications	<input type="checkbox"/> Automotive & Aerospace	
	<input type="checkbox"/> Biomedical	<input type="checkbox"/> Agriculture & Food	<input type="checkbox"/> Industry 4.0
	<input type="checkbox"/> Smart cities & Smart Living	<input type="checkbox"/> other (please specify).....	

\* Obligatory fields. Please note in case of your order the information must be complete and final since it is used for export control. Non-compliance with this requirement might cause delays and additional charges. Please check in advance your company eligibility to execute foreign trade transactions.

\*\* All prices exclude VAT tax and delivery (if applicable)

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**MPW RUN: FOUNDRY SERVICE \*\***



**Fraunhofer Heinrich Hertz Institute**

- Cell type **HHI-4-2-8** (2 x 8 mm<sup>2</sup>): 4 chips (copies) of your design with 2 x 8 mm<sup>2</sup> total design area, optical anti-reflection coating vs air on both facets **- 6000 EUR**
- Cell type **HHI-4-4-8** (4 x 8 mm<sup>2</sup>): 4 chips (copies) of your design with 4 x 8 mm<sup>2</sup> total design area, optical anti-reflection coating vs air on both facets **-12000 EUR**
- Cell type **HHI-4-12-8** (12 x 8 mm<sup>2</sup>): 4 chips (copies) of your design with 12 x 8 mm<sup>2</sup> total design area, optical anti-reflection coating vs air on both facets **- 36000 EUR**
- Cell type **HHI-4-12-8-CUSTOM COATING-1** (12 x 8 mm<sup>2</sup>): 4 chips (copies) of your design with 12 x 8 mm<sup>2</sup> total design area, custom coating on either facet **- 38000 EUR**

Type of coating reflectivity (high/low)

Optical index outer medium (1 ≤ n ≤ 2)

- Cell type **HHI-4-12-8-CUSTOM COATING-2** (12 x 8 mm<sup>2</sup>): 4 chips (copies) of your design with 12 x 8 mm<sup>2</sup> total design area, custom coating on both facets

Type of coating reflectivity WEST (high/low)

Optical index outer medium WEST (1 ≤ n ≤ 2)

Type of coating reflectivity EAST (high/low)

Optical index outer medium EAST (1 ≤ n ≤ 2)

**- 40000 EUR**

Run ID  Quantity of ordered cells

- Cleaving. In case of additional cleave lines, please specify the number of chips after cleaving. This is mandatory for export control and shipping.

N chips  Comments

Do you have a valid JePPIX User Agreement or NDA with the Foundry?

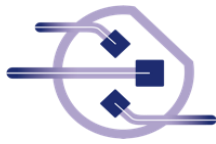
Specify the Ref.N. and its validity here

- Automated Design Rule Check for Fraunhofer HHI MPW by TU/e (free)

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**LIGENTEC**

**LIGENTEC**

- Cell types **MPW-AN800** (5 x 5 mm<sup>2</sup> or 5 x 10 mm<sup>2</sup>): 16 chip copies and the choice between 5 x 5 mm<sup>2</sup> or 5 x 10 mm<sup>2</sup> total design area - **16000 EUR**
- Cell types **MPW-AN350** (5 x 5 mm<sup>2</sup> or 5 x 10 mm<sup>2</sup>): 16 chip copies and the choice between 5 x 5 mm<sup>2</sup> or 5 x 10 mm<sup>2</sup> total design area - **14000 EUR**
- Cell types **MPW-AN150** (5 x 5 mm<sup>2</sup> or 5 x 10 mm<sup>2</sup>): 16 chip copies and the choice between 5 x 5 mm<sup>2</sup> or 5 x 10 mm<sup>2</sup> total design area - **12000 EUR**

Run ID  Quantity of ordered cells



**LioniX International**

- Cell types **LX-I-16-16 LX-I-8-32** (16 x 16 mm<sup>2</sup> or 8 x 32 mm<sup>2</sup>): 4 cells with 16 x 16 mm<sup>2</sup> or 8 x 32 mm<sup>2</sup> total design area
  - for commercial organisations: - **16000 EUR**
  - for Universities (check the conditions [here](#)): - **8500 EUR**

Run ID  Quantity of ordered cells



**SMART Photonics**

- Cell type **SMART XS** (2 x 4.6 mm<sup>2</sup>): 8 chips (copies) of your design with 2 x 4.6 mm<sup>2</sup> total design area - **6900 EUR**
- Cell type **SMART X** (4 x 4.6 mm<sup>2</sup>): 8 chips (copies) of your design with 4 x 4.6 mm<sup>2</sup> total design area - **11000 EUR**
- Cell type **SMART X2** (1-3 x 4.6 mm<sup>2</sup>): Standard cell size with 2 designs - 2x8 chips (copies) of your design with 1-3 x 4.6 mm<sup>2</sup> total design area - **12200 EUR**
- Cell type **SMART X3** (1-2 x 4.6 mm<sup>2</sup>): Standard cell size with 3 designs - 3x8 chips (copies) of your design with 1-2 x 4.6 mm<sup>2</sup> total design area - **14300 EUR**
- Cell type **SMART XL** (8 x 4.6 mm<sup>2</sup>): 8 chips (copies) of your design with 8 x 4.6 mm<sup>2</sup> total design area - **21400 EUR**
- Access to TU/e extension PDK (free for non-commercial use, see section on licensing)
- Automated Design Rule Check for SMART MPW by TU/e (free)

Run ID  Quantity of ordered cells

Comments

Do you have a valid NDA with the Foundry?

Specify the Ref.N. and its validity here



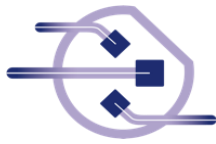
**Eindhoven University of Technology**

- Cell type **IMOS-MPW-64-TG** (6 x 4 mm<sup>2</sup>): at least 3 chips (copies) of your design with 6 x 4 mm<sup>2</sup> total design area - **20000 EUR**
- 50% collaboration discount is available when an agreed cooperation plan with TU/e is established. TU/e requires full disclosure of measurement data and full acknowledgement in the first peer-reviewed publication. Contact [coordinator@jeppix.eu](mailto:coordinator@jeppix.eu) for details.
- Delivery terms (Incoterms 2020): DAP to your destination. Optional

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**SOFTWARE: SIMULATION AND LAYOUT DESIGN TOOLS\*\***



LUMERICAL

**Ansys / Lumerical: Simulation**

- INTERCONNECT.** A one-time only, 3 month Trial Licence of Ansys Lumerical INTERCONNECT - **0 EUR**



**Luceda Photonics: Simulation and Layout design (one time offer)**

- LUCEDA IPKISS** for Commercial Organisations:  
3 months license is valid only for the first tape-out - **3000 EUR**
- LUCEDA IPKISS** for Research Centers and Institutes:  
3 months license valid only for the first tape-out - **1400 EUR**
- LUCEDA IPKISS** for Universities:  
1 year license is available under conditions of proper reference to IPKISS in the publications - **1400 EUR**



**Nazca Design: Layout Design**

- Nazca Design: Software is open source available for [download](#) free of charge
- PDK 3 months** subscription (sufficient for 1 MPW cycle) - **495 EUR**
- PDK 6 months** subscription - **765 EUR**
- PDK 12 months** subscription - **1395 EUR**
- Mask review** - **495 EUR**
- Layout support** - **1595 EUR**
- Mask review + Layout support + PDK** - **2095 EUR**

Please note that End User License Agreement (EULA) must be in place to access Nazca PDK subscription. EULA of the PDK Subscription are available [here](#).



**Photon Design: Simulation**

- PICWave - Design Kit Edition:** One-time intro offer. The bundle license validity is 3 months - **530 EUR**
- PICWave - Design Kit Edition Standard:** The license validity is 3 months - **1400 EUR**



**Synopsys: Layout Design**

- PDKs for the Synopsys Platform are available via JePPIX and the foundries.



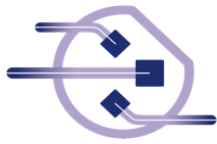
**VPI Photonics: Simulation**

- VPI-Je-CMP-1:** VPI Component Maker, One PDK - **830 EUR**
- VPI-Je-CMP-2:** VPI Component Maker, Two PDKs - **1100 EUR**
- VPI-Je-CMP-3:** VPI Component Maker, Three PDKs - **1350 EUR**
- VPI-Je-DD:** VPI Device Designer - **600 EUR**
- VPI bundle** (VPI-Je-CMP 3 PDKs + DD) - **1500 EUR**

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## DESIGN SUPPORT by DESIGN HOUSES \*\*



### BRIGHT Photonics

- Custom design** is tailored to your application needs. Prices based on functional elements rather than cell size. Custom design starting at **11000 EUR**
- Prototypes:** Custom design + packaged device(s), pigtailed and wirebonded. Starting at **14000 EUR**
- Mask review** in Nazca - **495 EUR**
- Layout support** in Nazca - **1595 EUR**

For custom design contact: [info@BrightPhotonics.eu](mailto:info@BrightPhotonics.eu)



### VLC Photonics

- Basic design support:** Layout, design for packaging, design for testing, DRC – **2000 EUR**
- Standard design support:** Design for a single MPW cell using only available building blocks at the foundry PDK – **4000 EUR**
- Custom design:** A design is considered standard when it adheres to the MPW requirements and generic foundry processes, and the photonic circuit only makes use of building blocks available on the target foundry PDK. When a novel building block or process customization is required to be newly designed, such design is considered custom. A full design report will be provided afterwards in electronic pdf format.

For custom design contact: [info@vlcphotonics.com](mailto:info@vlcphotonics.com)

- Request - 50% Academic discount on *Design Support* or - 25% Academic discount on *Standard design services*, including reference in publications

## BUILDING BLOCKS by DESIGN HOUSES \*\*



### BRIGHT Photonics

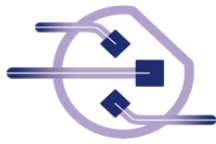
- AWG BB** - Custom AWG Building Block on any JePPIX platform, starting at **-750 EUR**
- MMI BB** - Custom MMI Building Block on any JePPIX platform, starting at **-450 EUR**

For other custom building blocks and standard PDK extensions contact: [info@BrightPhotonics.eu](mailto:info@BrightPhotonics.eu)

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## TESTING: CHARACTERIZATION \*\*



### VLC Photonics

- VLC-CHA: Price depends on the number of dies to be measured, the number of structures per die, and the type of measurements for each structure. Starting at **2.000 EUR**



### PhotonFirst

- Price on request. [Contact us](#).

## PACKAGING \*\*



### BRIGHT Photonics

- Prototypes:** Custom design + packaged device(s), pigtailed and wirebonded. Starting at **14000 EUR**



### Fraunhofer Heinrich Hertz Institute

- PICconnect **Mainboard**  
8 current and 8 voltage sources, 4 laser drivers and 1 temperature controller with GUI plus 12V/4.5A power supply and 5 m Ethernet cable - **7500 EUR**
- PICconnect **PIC Assembly, Single-sided**  
Temperature controllable PIC Assembly of one chip with one PIC Board (50 bond pads on PIC's south side accessible) plus one ZIF cable, one ribbon cable and one adapter board - **5000 EUR**
- PICconnect **PIC Assembly, Double-sided**  
Temperature controllable PIC Assembly of one chip with two PIC Boards (50 bond pads on PIC's north and south side accessible each) plus two ZIF cables, two ribbon cables and two adapter boards - **6000 EUR**
- RFconnect **fiber coupled RF PIC Assembly**  
The thermally controllable assembly with 8 RF & optical ports and 42 DC ports facilitates the connection of RF measurement equipment - **10000 EUR**

### PhotonFirst

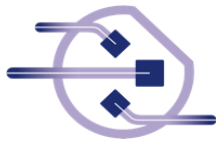


- Non-standard packaging solution: price on request. [Contact us](#).

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**PICadvanced**

**PICadvanced**

- Packaged PIC PA-MPW-JE-H0-xxx**  
Packaged PIC with proprietary holder interface: SMF fiber interface; DC and RF interface; cooled with TEC. Following PICadvanced packaging design rules - **6000 EUR**
- Packaged PIC in PCB DC PA-MPW-JE-H1-xxx**  
Packaged PIC with proprietary holder interface: SMF fiber interface; DC and RF interface; cooled with TEC. Packaged in a control board with graphical user interface, for DC test and monitoring, up to 20 current sources (max 100mA) or voltage sources (max 5V). Following PICadvanced packaging design rules - **8000 EUR**
- Packaged PIC in PCB RF PA-MPW-JE-H2-xxx**  
Packaged PIC with proprietary holder interface: SMF fiber interface; DC and RF interface; cooled with TEC. Packaged in a control board with graphical user interface, for DC test and monitoring, up to 20 current sources (max 100mA) or voltage sources (max 5V) and up to 4 RF-SMA connectors without RF driving electronics included. Following PICadvanced packaging design rules - **10000 EUR**
- Packaged PIC in PCB DC and RF, CUSTOM PA-MPW-JE-H3-xxx**  
Packaged PIC with proprietary holder interface: SMF fiber interface; DC and RF interface; cooled with TEC.  
Packaged in a control board with DC and RF driving following the user requirements.  
Following PICadvanced packaging design rules - **10000 EUR**
- 50% discount to academic users can be applied via a collaboration protocol

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\*\*\* Extra charges may apply for delivery services