



Fraunhofer Institute for Integrated Circuits IIS

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Fraunhofer IIS | Am Wolfsmantel 33 | 91058 Erlangen, Germany

University of Pavia  
 Piero Malcovati  
 Dept. of Electrical, Comp. & Biomed. Ing.  
 Via Ferrata 1  
 24100 Pavia  
 Italy

Erlangen, November 07, 2022

## Offer No. 044/20289/S45

Dear Mr. Malcovati,

In the context of the EURO PRACTICE IC service (a project funded by the European Commission) and, as far as not otherwise regulated in this offer (Annex A), based on the enclosed »General Terms and Conditions for Research and Development contracted to Fraunhofer-Gesellschaft zur Foerderung der angewandten Forschung e.V., Version June 2021« (”Fraunhofer-GTC”), we offer:

### Subject/Task/Time schedule/Costs

Engineering service including design rule check (DRC) and design submission to the semiconductor foundry

MPW Prototype production in ams C35B4C3 technology on MPW-Run 9461 of October 24, 2022,  
 incl. delivery of 50 samples - prototypes

|                             |   |                                    |
|-----------------------------|---|------------------------------------|
| Project name:               | ASYNCSAR  |                                    |
| Chip area:                  | 7.36 mm <sup>2</sup>                              |                                    |
| Price per mm <sup>2</sup> : | 580.00 € plus VAT, if applicable                  |                                    |
| MPW production costs:       | 7.36 mm <sup>2</sup> x 580.00 €/mm <sup>2</sup> = | 4,268.80 € plus VAT, if applicable |

|   |                                    |
|---|------------------------------------|
| Packaging in JLCC84                             |                                    |
| Packaging costs for 10 packaged ICs à 133.00 €: | 1,330.00 € plus VAT, if applicable |
| Setup costs:                                    | 385.00 € plus VAT, if applicable   |

**Total costs: 5,983.80 € plus VAT, if applicable**

Fraunhofer-Gesellschaft zur Förderung der angewandten Forschung e. V., München  
 Executive Board  
 Prof. Dr.-Ing. habil. Prof. E. h. Dr.-Ing. E. h. mult. Dr. h. c. mult. Reimund Neugebauer, Präsident  
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 Prof. Dr. rer. nat. habil. Axel Müller-Groeling

Cheques and transfers payable to:  
 Deutsche Bank, München  
 Account 752193300 BLZ 700 700 10  
 IBAN DE86 7007 0010 0752 1933 00  
 BIC (SWIFT-Code) DEUTDEMM  
 V.A.T. Ident No. DE129515865  
 Tax Number 143/215/20392

Expected delivery date: approx. February 2023

All indicated expected delivery times are standard delivery times, based on the fabrication runtime of third party vendors. Fraunhofer shall make reasonable efforts to deliver on time. However, notwithstanding the foregoing, Fraunhofer shall not be held liable for any delays or failures to meet delivery dates.

#### **Payment plan**

100 % payment due at delivery of the IC samples

#### **Cancellation fee**

A cancellation fee amounting up to 100% of the MPW costs is applicable upon cancelling the registration after the cancellation deadline or failing to submit a DRC-clean GDS before the tapeout deadline.

#### **Conditions of payment**

All prices given do not include applicable value added taxes. All prices are binding and should be transferred to Fraunhofer's account number named in invoice.

The Client bears all Italian direct (withholding tax of Fraunhofer, etc.) and indirect (value added taxes, etc.) taxes and dues caused by the performance of the contract, irrespective of what party is legally obliged to declare and/or pay taxes or dues. The Client informs Fraunhofer about required actions to comply with its duties under public law stated in the previous sentence. So all prices under this contract are understood as free of any Italian direct and indirect taxes.

#### **Changes to contract**

Any changes to the content of the contract made necessary during the course of the project will require a reassessment of the price and are to be agreed upon by the Client and Fraunhofer.

#### **COVID-19**

Due to the current situation because of COVID-19 we cannot give binding project terms or deadlines. Start and duration of the work may be delayed. No Party shall be considered to be in breach of this Agreement if it is prevented from fulfilling its obligations by such delay. Accordingly, compensation claims due to delay shall be excluded. Both contracting parties are however entitled to terminate the contract with two weeks' notice if the estimated period of performance for the work is extended by more than three months. Section 14.3 of the General Terms and Conditions for Research and Development contracted to Fraunhofer-Gesellschaft zur Förderung der angewandten Forschung e.V. Version June 2021 shall apply accordingly.

#### **Components of the offer**


The Fraunhofer-GTC and Annex A »Modifications to Fraunhofer General Terms and Conditions applicable to this project« form an integral part of the offer. The Fraunhofer-GTC can be accessed and down-loaded at:

<https://www.fraunhofer.de/en/gtc.html>

**Proposal validity**

This proposal is valid and binding until November 30, 2022.

Best regards,

DocuSigned by:  
  
43C381221A97AA1  
Dr. Norbert Weber  
Head of Department

DocuSigned by:  
  
61D68DE946954781  
Thomas Drischer  
Group Manager

Encl.

Annex A: »Modifications to Fraunhofer-GTC applicable to this project«

## **Annex A: Modifications to Fraunhofer-GTC applicable to this project**

Sections 6.2 to 6.7 are deleted without replacement

Section 8 of the General Terms and Conditions is replaced by the following provisions:

### **8. Contractual and Tortious Liability**

- 8.1 Unlimited liability: Fraunhofer shall be liable without limitation for willful misconduct and according to the provisions of the German Product Liability Act (Produkthaftungsgesetz). Fraunhofer shall be liable without limitation for negligence in the event of damage arising from loss of life, personal injury, or damage to health.
- 8.2 Apart from that, the following limited liability applies: the liability for negligence shall be limited to the damage that was foreseeable and typically to be expected when the Contract was concluded. Fraunhofer shall be liable for slight negligence otherwise only in the case of the breach of a material contractual obligation that must be fulfilled for due implementation of the Contract and that the client can reasonably expect to be fulfilled. This liability limitation also applies in favor of Fraunhofer's legal representatives and performing agents (Erfüllungsgehilfen).
- 8.3 Critical Use  
As Fraunhofer is bound to specific liability regulations with the semiconductor foundry ("**Foundry**") in respect to Critical Use of the Results Fraunhofer is obliged to set forth substantially similar limitations in this contract as follows:

**"Result"** as defined in 6.1 General Term and Conditions.

Client declares and warrants that the Result is not designed or intended for use in (a) any Medical Device, defined below, (b) any nuclear systems or facilities, (c) any air traffic control device, application or system, (d) any weapons device, application or system or (e) any other mission critical application in which failure of the Result could create a situation where death, bodily injury or catastrophic property damage could occur (each a "Critical Use"). "Medical Device" means any machine or tool (a) intended for surgical implant into the human body, (b) intended to support or sustain human life, or (c) where such machine or tool's malfunction or failure to perform as expected may result in injury or death to the patient.

Neither Fraunhofer nor Foundry will be liable to Client for any losses, damages, liabilities, costs or expenses incurred or arising or resulting from any Critical Use of Result.

Client will defend and indemnify Fraunhofer and Foundry and its Affiliates its officers, directors, employees and subcontractors and from and against any claim, suit, demand or action (including all losses, liabilities, damages, settlements and attorney's fees and expenses) which arises out of, involves or relates to a Critical Use of the Result.

If Client is not End-Customer, Client declares and warrants to agree with its End Customer(s) regulations as strict as here which exclude Critical Use and that exclude liability of Fraunhofer and Foundry as set forth above. "End Customer" means a third party that is not an Affiliate of and is otherwise unaffiliated with Client, to whom Client may deliver the Result.

8.4 MPW Deliverables - Prototypes

If Fraunhofer offers MPW-run services, all MPW deliverables and thus the Result of the order are "Prototypes", intended for internal use and testing (design verification, circuit evaluation and prototype testing) and not for resale. No production nor commercial uses of Prototypes are allowed.

8.5 Fraunhofer shall not be liable in case Fraunhofer declines to manufacture MPWs due to deviations from Design Rules. Client expressly recognizes that Fraunhofer services cannot and do not guarantee nor hold out the prospect of correct working of designs manufactured on MPW runs.

The fact that Fraunhofer has performed Design Rule Checks on Client generated designs does not mean that Fraunhofer guarantee nor hold out the prospect of correct working of the designs. It is solely Client's responsibility to ensure correct working of the designs.

Fraunhofer merely states that Prototypes are taken from wafers that meet the standard quality level of the selected third party vendor(s) and have passed the standard third party vendor wafer parametric tests. Fraunhofer does not guarantee the functionality or yield of any Prototype. Fraunhofer shall not be responsible or liable for the use of the Prototypes delivered under this contract to Client nor for damages caused by it.

8.6 Client is aware that in an individual case the results may bear a risk of product liability. Client will take out reasonable insurance against such risk. Notwithstanding the foregoing, Client shall indemnify Fraunhofer from any and all third-party claims based on product liability.

Section 15 is deleted without replacement

**In addition to the General Terms and Conditions the following provisions shall apply:**

**Delivery terms**

Place of performance for Fraunhofer-Gesellschaft shall be the place of business of the Fraunhofer-Institutes involved. In case of delivery of objects "CPT < Via Ferrata 1, 24100 Pavia, Italy>" Incoterms® 2020 shall apply. As far as not otherwise agreed in writing Client shall provide transport insurance at his own expense.

**Security of electronic data transmission**

For the communication with our Clients sometimes we use unencoded electronic data transmission. We cannot guarantee the security of the data transmission. On your request, we offer PGP- or S/MIME-encoding.

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We assign Fraunhofer IIS with the performance of this offer No.: **044/20289/S45**

Pavia, \_\_\_\_\_

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University of Pavia