

Test Application / Test Contract

For Certification of PROFINET IO Products
According to IEC 61158 / IEC 61784

Application for Testing a PROFINET IO Product

Please fill out completely and return with authorized signature to:

pic.industry@siemens.com

Attn: **PROFINET Test Lab**

We,

Company	
Name of Applicant	
Department	
Address Line 1	
Address Line 2	
Email Address	
Telephone	

are applying for certification of the product described in more detail on the next page.
Basis is the test specification for PROFINET IO products of the PROFIBUS User Organization (PNO).

Earliest possible Test Date	
We request to attend the test in-person	☐ Yes OR ☐ No

Required Test Features (Please check all that apply)

Conformance Class (CC-)	☐ A	OR	☐ B	OR	☐ C
<i>Conformance Classes are defined in the PI document: PROFINET Specification "Profiles for decentralized periphery". Note: SecurityClass2/3, RSI, and Conformance Class D testing cannot be certified yet as of today. Please contact us for further information and/or check for a trial PNIO test bundle on the PI website.</i>					
PNIO_Version	☐ 2.44	OR	☐ 2.45	OR	☐ 2.46
<i>In GSDML or CDML file.</i>					
GSDML Version	☐ 2.44	OR	☐ 2.45	OR	☐ 2.46
<i>We recommend that vendors use the latest GSDML version available. Leave blank for controller. Note: The GSDML version cannot be below the PNIO_Version.</i>					
Netload Class	☐ I	OR	☐ II	OR	☐ III
<i>All PROFINET devices must support at least Netload Class I.</i>					
Implementation Type	☐ Stack	OR	☐ Module	OR	☐ ASIC
<i>How the PROFINET protocol is implemented on your product.</i>					

Type of Application ☐ IO-Device ☐ IO-Controller ☐ Virtual Device ☐ Virtual Controller ☐ Other Application (specify below):	Supported Features ☐ Alarms ☐ Fast Start-Up ☐ MRP Manager ☐ MRP Client ☐ DHCP ☐ Wireless ☐ System Redundancy ☐ Security Class 1*	Supported Profiles ☐ PROFIenergy ☐ Other Profile (specify below):
<i>*For Security Class 1 devices, please confirm that you will have a PI-issued smart card and setup to sign the GSDX container in-house before the confirmed test date.</i>		
☐ We will be able to sign the GSDX package in-house before our confirmed test date (highly recommended).		
☐ We will use the signing service from PI and accept that extra test lab time / cost will incur, if the GSDX package cannot be signed in a timely manner.		
<i>Additional information:</i>		

Type of Test	
☐ Full Test	Result is a test report which can be used to apply for a product certificate at PI.
☐ Pre-Test	Result is a list of findings, not a test report valid for a certificate.
☐ Reference Design	Result is a test report (marked as 'Reference Design') as indicator that this implementation is certifiable.

Required Technical Data:

Product Name	
Description File Name (GSDML/CDML)	
Release HW Version ('HardwareRelease' Value in GSDML file)	
Release SW (FW) Version ('SoftwareRelease' Value in GSDML file)	
Vendor Ident Number (0x_ _ _ _)	
Device Ident Number (0x_ _ _ _)	

Optional Information – Virtual Device or Controller

These sections must only be completed if one of the corresponding items is checked in the previous sections.

OPTIONAL APPLICATION: Virtual Device or Controller	
Virtual devices/controllers are dependent on the system running them, and this information helps the test lab understand both your product and your resources to help reproduce any issues that may arise during these tests. The information is also required for the test report. User documentation containing the minimum requirements to run the virtual instance should be provided along with testing.	
☐ <i>The device/controller submitted for certification uses the following reference hardware:</i>	
Operating System	
PC (model, processor, cores, RAM, etc.)	
Virtualization Technology	

Optional Information – Product Variants

Is more than one product based on this exact implementation, and only vary in detail like product name, number of ports, etc., and shall be certified at the same time?
If so, please describe the variant(s) here and list the product(s) below. All these values should correspond with the device's GSDML file. Controller variants may be on multiple CDML files. If controller functions as i-device, fill all three columns.

PRODUCT VARIANTS	Device Access Point Name (e.g. DAP 11) <i>Device Only</i>	DAP Module ID (e.g. 0x000012AB) <i>Device Only</i>	Order Number / Order ID (Device/Controller SKU or Model Number)

Optional Test Features (Please check all that apply)

These sections must only be completed if you have checked one of the corresponding items in the previous section.

OPTIONAL APPLICATION: PROFINET IO-Controller	
Controller testing incorporates manual test cases, and this information helps the test lab understand both your device and your resources to help reproduce any issues that may arise during these tests.	
☐ <i>The controller submitted for certification has been tested with the following equipment:</i>	
Configuration software name (e.g. TIA Portal, PCWorx, ToolboxST, etc)	
Configuration software minimum hardware requirements (e.g. Windows 10 x64, 8 GB RAM, 100 GB HDD, etc.)	
☐ <i>The controller submitted for certification operates with the following performance values:</i>	
Supported SendClock values (e.g. 250 us, 500 us, 1 ms, etc...)	
Minimum supported cycle time (e.g. 250 us, 500 us, 1 ms, etc...)	
Maximum number of simultaneous PROFINET connections (e.g. 10 devices can be connected simultaneously)	
☐ <i>The controller submitted for certification has been tested with the following devices prior to submission for certification testing:</i>	
List of PROFINET devices the Controller will be tested with at customer site (e.g. Siemens ET200SP, Phoenix Contact Axioline, GE RX3iCEP, etc.)	

OPTIONAL PROFILE: PROFIenergy	
<i>The device submitted for certification conforms to the selected PROFIenergy Entity Class, defined in "Test Specification and Test Cases for PROFIenergy - Technical Specification for PROFINET"</i>	
☐ PE Entity Class 1	
☐ PE Entity Class 2	<i>For PROFIenergy Entity Classes 2 and 3, please include your declaration of support for all implemented power switching services.</i>
☐ PE Entity Class 3	

Return Shipping Information

Once a device has completed testing, we retain the device for use in our PROFINET integration test apparatus. If you require the return of your device, please indicate your preferred method of shipping and billing below.

☐ Customer will provide a printed return label with the product	OR	FedEx Account Number (nine digits)	OR	UPS Account Number (six digits)

Items required For Certification

These items are supporting documentation necessary to determine the scope of the Conformance Test and compile a test report. They may all be submitted at different times, but a failure on the part of the customer to provide any of this documentation will lead to a delay in issuing a Test Report.

Required with Application:

- 1) A draft GSDML file for a device test and/or a draft CDML file(s) for a controller test, and a general description of the product.
- 2) A copy of the form/email confirming the VendorID assigned by the PNO.
- 3) DeviceID assigned to the device/controller by the manufacturer (shown above).
- 4) A purchase order addressed to the PROFI Interface Center for the testing fee(s), see Page 5.

Required at the Test Date:

- 1) Descriptions and explanations needed to understand how the product functions, e.g., a product manual, as well as a complete description of the PROFINET functions supported.
- 2) Final GSDML and/or CDML file.
- 3) The exact type designation, and release versions of the hardware and firmware/software.
- 4) If the product does not utilize RJ45 or M12 connectors, the customer must provide any hardware necessary to connect the device to a RJ45 or M12 network.
- 5) In addition to the product itself, any auxiliary equipment required to test the operational functionality of the product, e.g., motor for drive testing, etc.
- 6) Wireshark capture file of the Device submitted for certification connecting to a controller / or for controller tests capture file of the controller connecting to a device. Capture should span the time from the first DCP Identify Request from the controller to at least 100 real-time cyclic frames produced after the controller sends the Application Ready Response.

For complex devices, it is *strongly* suggested that the applicant plan to have a representative at the lab for at least the 1st day of testing to help resolve any unforeseen issues. It is further suggested that this representative have the capability to make any software/firmware changes necessary to resolve any critical issues.

Deliverables from the test lab upon completion of testing:

- 1) For successful tests, a positive test report will be issued from the Test Lab.
- 2) For tests failed after revision, an issue list and a quote for a re-test will be sent from the Lab.
 - a) The new quote will be based on the severity and number of issues the lab finds in the original test.
 - b) Between the issuance of the new quote and the start of the next test cycle, the test lab will answer all email support questions related to the issues cited within 10 business days at no additional charge.
 - c) At customer request, phone support regarding reported issues may be available for an additional fee.

The guidelines described in Attachments 1 and 2 apply to the execution of this order for testing. The applicant agrees to their content.

I understand that if the device is not provided for testing within 6 months, this test application is void and a new test application and purchase order must be supplied.

Signature of Applicant _____

Place _____ and Date _____

Fee Schedule

Conformance Class	Device			Controller	
	A	B	C	A	B
Reserved Lab Time ¹	3 days	4 days	4 days	min. 4 days	min. 5 days
Included Firmware Updates ¹	3	3	3		
Standard Cost ²	\$5,400	\$7,200	\$7,200	<i>*inquire*</i>	<i>*inquire*</i>

¹ If a certification test cannot be completed in the reserved time or with the allotted firmware updates, additional day(s) of lab time may be purchased at a cost of \$1,800 per day, and two firmware updates per day of test time.

² Additional features, such as support for Alarms, Fast Startup, MRP, PROFlenergy, or variants, may incur additional time and cost. Tests that conclude significantly faster than the minimum allotted lab time may be discounted.

PURCHASE ORDER REQUIREMENTS

The services provided by Siemens Industry, Inc. are subject to the attached Siemens Standard Base and Services Terms.

Address PO to:

Siemens Industry, Inc
1000 Deerfield Parkway
Buffalo Grove, IL 60089-4513

Email PO to:

pic.industry@siemens.com

Email for remittance:

ar.industry@siemens.com

Terms:

NET30

To be accepted, the PO must include the following statement:

"Notwithstanding any other references, this order is subject to Siemens Standard Base and Services Terms"

Attachment 1 for Test Application

Processing of Test Requests

The PNO-PROFINET Test Lab carries out the tests impartially, in the chronological sequence in which the orders were received. During the entire process, from arrival to return shipment, it is ensured that unauthorized persons will have no access to the test item.

The clients, as well as persons from the PNO advisory board designated by the board of the PNO, have the right to be present during the test as witnesses. The person responsible for the test will ensure that the principle of confidentiality vis-à-vis other clients as well as safety measures are not jeopardized by this.

Processing of the Test Request

For the test, the applicant makes available to the PNO-PROFINET Test Lab the device to be tested, including technical documentation. For the test to be considered a prototype test, the specimen has to correspond to the devices of the series.

On arrival, the test objects are immediately taken to the rooms of the PNO-PROFINET Test Lab. As a rule, this is done with the specimen still packaged. The PNO-PROFINET Test Lab checks and documents the complete shipment.

During arrival inspection, the scope and the testability of the test item are determined and documented. The test request is returned with a corresponding explanation if it is determined that the client's requirements exceed the testing capability of the PNO-PROFINET Test Lab regarding testing scope and measuring accuracy, or that the test item does not meet the technical prerequisites for a test according to the testing methods and testing procedures used as a basis. In addition, all those applications are returned which endanger objective results or which are of small significance.

Storing the Test Object

If testing of the item cannot be started immediately after its receipt, it will be properly stored and placed under lock and key.

Test

The test is carried out exclusively according to PNO guidelines for operating PNO-PROFINET test labs and according to internal instructions of the PNO-PROFINET Test Lab. The test is carried out by appropriately trained personnel expressly assigned by the director of the PNO-PROFINET Test Lab.

The test is based on testing methods, including testing instructions and testing specifications, of the PNO-PROFINET Test Lab recognized by the PNO. The testing procedures, and the results gained through it, are monitored by the director of the PNO-PROFINET Test Lab or his representative. The client will be informed within a reasonable time about discrepancies which occur during testing. Steps to correct them can only be initiated by the client.

After the entire test has been concluded, the PNO-PROFINET Test Lab will summarize the results of the test in a test report.

The test report lists all test items which were passed, not passed and which are undecided. The test report states explicitly that the test as executed means a single run of the test items indicated, with a single specimen of the customer implementation. From this, neither a general claim of proven standard conformity of the tested implementation can be derived, nor is a statement included regarding stability or quality. On request, the test protocols made by the test system during testing are made available to the customer in their entirety.

Appeal

Within two weeks, the customer can, in writing, **appeal** the test results mentioned in the test report. If, within an additional 4 weeks, no agreement can be reached between the customer and the PROFINET Test Lab, the customer has the right to turn to the advisory board of the PROFIBUS User Organization (PNO) for arbitration, to whom the PNO itself assigns the task of a mediation- and arbitration center, according to its overall requirements for testing and certification (FA1/PNO-PRZ/05 Dec 1992).

Therefore, the PNO advisory board is to be approached first for a mediation discussion. If this effort is not successful, the test customer can call for an expert accepted by both parties.

Shipping/Storing

In accordance with the PNO guideline "PROFINET IO Device Test", the test plant is continually expanded -within the scope of what is technically possible- with a wide spectrum of PROFINET-products by different manufacturers, in order to ensure interoperability of as many PROFINET-products as possible. An agreement must be made between the manufacturer and the PROFINET Test Lab if the customer wishes the device to be returned. It is assumed unless otherwise noted that the product under test will remain at the LAB facility.

Shipping by the PNO-PROFINET Test Lab

If the tested product is to be returned to the customer, the following procedure is followed. Within a reasonable time after the test has been completed, the PNO-PROFINET Test Lab will provide for suitable packaging and proper shipment of the devices, data media and documents. How the items are shipped is to be agreed on with the client beforehand. In every case it is guaranteed that the item is protected from damage and unauthorized interference during storage, transport and shipping. The customer and the PNO-PROFINET Test Lab will receive copies of the shipping papers. Costs for packaging and shipping are borne by the customer.

The Customer Transports Devices, Data Media and Documents Themselves

The customer (or their representative) is provided suitable opportunity and assistance to pack, load and transport the items mentioned above. The transfer is confirmed by the customer or their representative. The customer bears the cost for packaging.

Confidential Treatment of Customer-Specific Information and Products

The employees of the PNO-PROFINET Test Lab are obligated to treat all customer-specific information and products confidentially.

Corresponding to the capacity of the PNO-PROFINET Test Lab, simultaneous processing of test requests is provided for. To ensure confidentiality vis-à-vis different customers, an agreement is made that only one customer (or his representative) respectively shall be present in the PNO-PROFINET Test Lab, and that confidentiality vis-à-vis the other customers is maintained. An agreement can be made that several customers (or their representatives) are present at the same time but this requires the consent of all customers.

Special Arrangement if Orders for Testing are Interrupted

The customer's devices, data media and documents remain in the PNO-PROFINET Test Lab if there is an interruption of the test assignment and the customer doesn't take them back.

If, due to customer delays, the testing is delayed from the agreed-upon start date, the PNO-PROFINET Test Lab reserves the right to void the original test date and reassign a new test date to the customer. If a device has begun testing but the test must be delayed more than three business days (e.g. to update firmware to address issues), the PNO-PROFINET Test Lab may place the test on hold and assign a new test date to the customer.

Documentation of the Test Results

The documentation of the test results which are summarized in the test report ensures that the test can be repeated any time under the same conditions. All documentation is marked unmistakably with at least the following entries:

- name of document
- unmistakable test number
- date

All test results are treated confidentially and are suitably filed. The safekeeping period is 3 years. The documents are saved electronically on a controlled access server. After this time has expired, the documents are destroyed and the data media deleted.

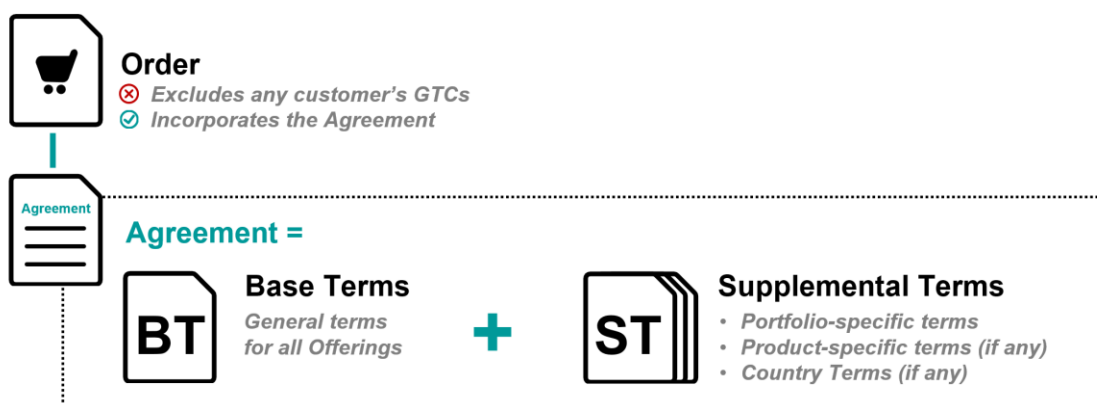
Corrections or additions after the test report has been issued are marked as additions to the test report. The additions are marked with a consecutive number, and are assigned clearly to this test report by its number. Regarding format, the additions correspond to the specifications for test reports. The test reports do not contain advice or suggestions which ensue from the test results.

Base Terms United States of America

These Base Terms are agreed between the Siemens entity named on the Order (“Siemens”) and the customer that accepted the Order (“Customer”). These Base Terms together with the applicable Supplemental Terms form the “Agreement”.

Capitalized terms are defined [at the end of the document](#).

Agreement structure



Commercial terms

1. Siemens' Offerings

1.1. Delivery mode

Siemens will deliver the Offerings and invoice as specified in the Order. Siemens may deliver the Offerings in stages or installments (and invoice accordingly).

1.2. Updates for Offerings

Siemens may issue Updates to its Offerings and Customer is responsible for installing the Updates. Siemens will use commercially reasonable efforts to notify Customer when Updates are generally available. Information provided on Siemens' website is sufficient notice. If there is a risk of imminent harm to Customer or third parties, Siemens may install Updates automatically by remote access or other means and without prior notice.

Siemens may choose not to support non-current versions of the Offerings or to update them to future versions.

1.3. Cybersecurity

As a member of the Charter of Trust (<https://www.charteroftrust.com/>), Siemens promotes the corresponding cybersecurity principles.

Siemens does not warrant that the Offerings are secure except as stated in the Offering description set out or referred to in the Order.

Siemens provides further information, including security advisories, at <https://www.siemens.com/cert>.

2. Payment, interest, and taxes

2.1. Payment terms

Customer will pay the price stated in the Order (plus reasonable and verifiable travel and incidental expenses and Tax, if applicable) within 30 days of the invoice date, without deduction or set-off. If Customer disputes an invoice, it must pay any undisputed portion.

2.2. Interest

Siemens is entitled to charge interest on overdue payments at the monthly percentage rate of 1.5% or at the highest rate allowed by law (whichever is lower).

2.3. Taxes

All prices and expenses stated in the Order are exclusive of any Tax. Customer will pay or refund Siemens for any applicable Tax imposed by any government authority for Customer's use or receipt of the Offerings.

If Customer is exempt from value-added or sales tax, or similar taxes, it must provide a valid, timely, and executed exemption certificate, direct pay permit, or other such government-approved documentation.

If Customer is required by law to deduct or withhold Tax, Customer will increase the amount it pays to Siemens so that Siemens still receives the amount originally invoiced. Customer will promptly provide all tax receipts confirming it has paid Tax or has withheld Tax.

3. Changes

3.1. Change requests

When Customer sends Siemens a change request, Siemens will send Customer:

- a. a price estimate;
- b. a schedule impact; and
- c. any other necessary changes to the Order.

3.2. Change effectiveness

A change becomes effective when Customer and Siemens accept it in writing.

3.3. Changes in law and standards

3.3.1. **Right to make adjustments.** Siemens may make reasonable adjustments to the Order for any additional requirements or costs it incurs due to any:

- a. laws, regulations, court judgments or decisions, or guidance issued by public authorities;
- b. engineering standards or codes of practice; or
- c. Customer's site rules,

in each case issued or changed after the effective date of the Order. Siemens will inform Customer accordingly.

3.3.2. **Type of adjustments.** Such adjustments may, for example, include changes to:

- a. the time schedules and scope of Offerings as needed; or
- b. Siemens' price, to reflect any reasonable additional costs.

3.4. Equivalent performance

Siemens may supply the Offerings using a technically equivalent method or material to that set out in the Order, if this does not detrimentally alter the agreed functionalities.

4. Customer's obligations

4.1. Providing Contributions

Customer will:

- a. be responsible for the performance and interoperability of Contributions;
- b. obtain all required consents and licenses at Customer's cost; and
- c. make sure that Siemens, its Affiliates, and their subcontractors have the right and access to use any Contributions.

4.2. Reasonable adjustments

Siemens will have the right to adjust the Order, including the time schedule and price, to make up for any delay or reasonable additional costs it incurs if Customer does not:

- a. provide its Contributions in accordance with the respective Order; or
- b. fulfill its obligations specified in this Section 4, or in the respective Supplemental Terms.

4.3. Use of the Offerings

Customer is solely responsible for any results and conclusions obtained from using the Offerings.

4.4. Security and safety

Customer is responsible for:

- a. the security of its infrastructure, network, hardware, software, systems, data, and interfaces;
- b. taking appropriate steps to protect and retrieve its data, including by maintaining backup copies; and
- c. the safety of persons onsite.

4.5. No reverse engineering

Customer will not reverse engineer, decompile, or copy the Offerings or their parts unless allowed by mandatory law or the Order.

5. Siemens' use rights

Siemens, its Affiliates, and their subcontractors may:

- a. use for any purpose, in perpetuity, and at its risk any comment or feedback Customer gives to Siemens on Siemens' Offerings, including suggestions for changes or enhancements, support requests, and error corrections;
- b. use data Siemens collects in connection with the Offerings to provide, develop and improve its products and services; and
- c. identify Customer by name or logo as part of a general customers list on websites and marketing materials unless Customer objects in writing.

Additional software terms

6. Code format

Offerings containing software will be delivered in object code, unless the applicable Supplemental Terms specify delivery of source code. If Third-Party Terms require Siemens to furnish Third-Party Technology source code, Siemens will provide it upon:

- a. written request; and
- b. payment of any reasonable expenses.

7. Siemens software terms

Supplemental Terms as specified in the Order may additionally apply for Siemens software.

8. Third Party Terms

8.1. Conflict with Order

In the event of a conflict with the terms of the Order; the Third-Party Terms prevail with respect to Third-Party Technology.

8.2. Connection of open-source software with Siemens software

To the extent Third-Party Terms for open-source software grant Customer use rights based on the connection of the open-source software with Siemens software contained in the Offering, these Third-Party Terms for open-source software prevail with respect to such Siemens software.

Confidentiality and compliance

9. Confidentiality

9.1. Protection and use

The receiving party will:

- a. protect Confidential Information by the same means it uses to protect its own (and always by at least reasonable means); and
- b. use Confidential Information only as required for the purposes of the Order.

9.2. Limited disclosure

The receiving party will:

- a. only disclose Confidential Information:
 - to its employees and to the employees of its Affiliates, agents, advisors, and contractors who need to know it; or
 - with the disclosing party's consent; and
- b. make sure that all recipients are bound by confidentiality obligations as strict as those in the Agreement.

9.3. Return and handling

If the disclosing party requests it, the receiving party will return or destroy all Confidential Information. Copies required under applicable laws or created as part of a routine information technology backup may be kept but must remain confidential.

During performance of the Order, Siemens may gain general expertise, know-how, ideas, concepts, and techniques that are retained in the unaided memory of its employees and may use this residual knowledge without conditions or restrictions.

9.4. Required disclosure

If a governmental agency or law requires it, the receiving party may disclose Confidential Information, provided it:

- a. promptly gives written notice to the disclosing party (if the law allows); and
- b. works with the disclosing party to limit the scope of disclosure.

9.5. Exceptions

The above confidentiality obligations will not apply to any information that:

- a. is or becomes generally available to the public (without the receiving party having breached the Agreement);

- b. becomes available to the receiving party from a source other than the disclosing party (if the receiving party has no reason to believe that the information is confidential);
- c. was already in the receiving party's possession without an obligation of confidentiality; or
- d. is independently developed by the receiving party without the use of Confidential Information.

10. Data protection

Customer and Siemens will both comply with applicable laws regarding data protection.

11. Export control compliance

11.1. Export Regulations

Customer will comply with all applicable Export Regulations.

11.2. Required information

Customer will promptly provide, upon request, information about users, the intended use, the location of use, and the final destination of the Offerings.

11.3. Special data handling

If Customer intends to disclose to Siemens any information that is defense-related or requires controlled or special data handling, Customer will:

- a. notify Siemens in advance; and
- b. use the disclosure tools and methods Siemens requires.

11.4. Export checks for Offerings

Before Customer performs any transaction with a third party concerning the Offerings delivered by Siemens, it will check and certify by appropriate measures (e.g., monitoring) that:

- a. Customer does not violate any Export Regulations with its use, transfer, or distribution of such Offerings, the brokering of contracts, or the provision of other economic resources in connection with Offerings, also considering any prohibitions to get around these (e.g., by undue diversion);
- b. the Offerings are not intended for prohibited or unauthorized non-civilian purposes (for example: armaments, nuclear technology, or any other defense and military use); and
- c. Customer has screened all direct and indirect parties involved in the receipt, use, or distribution of the Offerings against all applicable restricted party lists of the Export Regulations concerning trading with the entities, persons, and organizations listed there.

11.5. Semiconductor development

Customer will not, without Siemens' prior written consent, use Offerings to develop or produce integrated circuits at any advanced semiconductor fabrication facility located in the Peoples Republic of China and further restricted locations meeting the criteria specified in the U.S. Export Administration Regulations, 15 C.F.R. 744.23.

11.6. No (Re-)Export to Russia or Belarus

Customer will

- a. not export or re-export, directly or indirectly (e.g., via Eurasian Economic Union (EAEU) countries), to or for use in Russia or Belarus any Offerings supplied by Siemens in connection with the Order;
- b. undertake its best efforts to ensure that the purpose of this Section 11.6 is not frustrated by third parties, including authorized solution partners; and
- c. establish and maintain an adequate monitoring mechanism to detect conduct by any third parties that would frustrate the purpose of this Section 11.6.

11.7. Reservation and suspension

11.7.1. **Reservation.** Siemens will not have to fulfill any Order if prevented by:

- a. impediments arising out of national or international foreign trade issues;

- b. impediments arising out of customs requirements; or
- c. any Export Regulations.

11.7.2. **Suspension.** Siemens may limit or suspend access to the Offerings by Customer or Customer's users if Export Regulations require so.

11.8. Breach of Export Regulations

Any violation of this Section 11 is a material breach of the Order and entitles Siemens to, e.g.:

- a. suspend or terminate the Order in line with Section 12 and 13; and
- b. penalties in the amount of 5% of the total price paid under the Order if Section 11.6 is breached.

Suspension and termination

12. Suspension

12.1. Suspension right

Siemens may suspend the performance of its obligations under an Order, by giving Customer written notice, if:

- a. Customer's payment is more than 15 days late;
- b. Customer does not provide the required Contributions in accordance with the Order after a reasonable grace period; or
- c. Customer materially breaches the Order.

12.2. Payment during suspension

If Siemens suspends performance, Customer will pay:

- a. the price stated in the Order (plus reasonable and verifiable travel and incidental expenses and Tax, if applicable) related to any portion of the Offerings delivered before the effective date of suspension; and
- b. any reasonable costs and expenses incurred because of the suspension.

12.3. Schedule adjustment

If Siemens resumes performance, it will adjust all affected schedules to reasonably accommodate the suspension. After 15 days' suspension for any reason, Siemens may reassign personnel.

13. Termination

13.1. Termination right

Either Customer or Siemens may terminate any Order upon written notice if the other:

- a. experiences an Insolvency Event; or
- b. does not remedy a material breach within 30 days of notice.

The right to rescind an Order is excluded.

13.2. Payment if Customer terminates

If an Order is terminated by Customer under Section 13.1, Customer will pay the price stated in the Order (plus reasonable and verifiable travel and incidental expenses) related to any portion of the Offerings delivered before the effective date of termination.

13.3. Payment if Siemens terminates

If an Order is terminated by Siemens under Section 13.1, Customer will pay:

- a. the price stated in the Order (plus reasonable and verifiable travel and incidental expenses) for the Offerings, minus any expenditures avoided by termination; and

- b. all reasonable costs and expenses Siemens incurred due to such termination.

13.4. Survival

The following Sections of the Base Terms will survive termination of the Order: 1.3 (Cybersecurity), 2 (Payment, interest and taxes), 4.4 (Security and safety), 4.5 (No reverse engineering), 5 (Siemens' use rights), 9 (Confidentiality), 11 (Export control compliance), 13.2 (Payment if Customer terminates), 13.3 (Payment if Siemens terminates), 14 (Intellectual property infringement), 15 (Liability), and 17 (Applicable law and dispute resolution).

Claims, liability, and dispute resolution

14. Intellectual property infringement

14.1. Claim of Siemens' infringement

In case of an Infringement Claim, Siemens will:

- a. defend, at Siemens' cost, the Infringement Claim; and
- b. pay all damages finally awarded against Customer by a court of competent jurisdiction or agreed in settlement with Siemens' consent.

14.2. Remedies

In case of an Infringement Claim, Siemens may, at its option and expense, provide these remedies:

- a. obtain the right for Customer to continue the use of the Offering;
 - b. modify the Offering to become non-infringing; or
 - c. replace the infringing part of the Offering,
- in case of **b.** and **c.** without materially affecting the functionality of the Offering.

14.3. Refund

14.3.1. **Conditions for refunds.** If remedies under Section 14.2 are not available at commercially reasonable expense:

- a. Siemens may terminate any Orders, including licenses, for such Offering; and
- b. Customer will receive the refunds for the allegedly infringing portions of the Offering specified in Section 14.3.2 ("Refunds"), provided that, after receiving Siemens' notification, it:
 - stops using the allegedly infringing portion of the Offering; and
 - returns all related portions of the Offering in its possession.

14.3.2. **Refunds.** Refunds will equal:

- a. for Hardware or perpetual software, the remainder of a 60-month amortization period from their initial delivery;
- b. for subscription services or time-based licenses, the remainder of their term; and
- c. for any other Offering, refund of prepaid price for the infringing portion of the Offering.

14.4. No admission

If Customer stops using the allegedly infringing Offering (or any part thereof), it will notify the third-party claimant in writing that this is not an admission of infringement.

14.5. Preconditions

Any defense or remedies under this Section 14 are subject to Customer giving Siemens:

- a. prompt written notice of the Infringement Claim;
- b. all requested information (including information about Customer's use of the Offering) and reasonable assistance related to the Infringement Claim; and
- c. sole authority to defend or settle the Infringement Claim.

14.6. Customer's prior consent

Siemens will not admit liability or incur obligations on Customer's behalf without Customer's prior written consent, which it will not unreasonably withhold or delay.

14.7. Exclusions

Siemens will not have any liability or obligations as specified in this Section 14 to the extent that an Infringement Claim arises out of:

- a. not using a replacement, correction, patch, or new version of the Offering provided by Siemens that performs substantially the same functions as the allegedly infringing Offering;
- b. using the Offering in combination with software, equipment, products, or other items not provided by Siemens;
- c. using an Offering provided free of charge;
- d. any adjustment, modification, or configuration of the Offering not made by Siemens;
- e. Customer's instructions, requests, specifications, and Contributions;
- f. using the Offering for a purpose or in a manner not authorized by Siemens;
- g. deliverables resulting from services; or
- h. information or data not provided by or on behalf of Siemens.

14.8. Claim of Customer's infringement

If any allegation is made against Siemens or its Affiliates based on a claim that the Contributions infringe an intellectual property right, Siemens' obligations under Sections 14.1, 14.2, 14.5, and 14.6 will reciprocally apply to Customer in favor of Siemens and its Affiliates.

14.9. Exclusive remedies

This Section 14 sets out Siemens' entire liability and Customer's sole and exclusive rights and remedy for infringement of third-party intellectual property rights.

15. Liability

15.1. Exclusive liability

This Section 15 governs Siemens' liability for all claims, costs, damages, and indemnities, regardless of the form of action, whether based in contract, statute, tort (including negligence), or otherwise and applies in addition to any other limitation or exclusion of Siemens' liability set out in the Agreement and the Order.

15.2. Scope of limitations

The limitations and exclusions in the Agreement and the Order:

- a. apply to:
 - Siemens;
 - Siemens' Affiliates; and
 - Siemens' respective officers, directors, licensors, subcontractors, and representatives; and
- b. will not apply to the extent liability cannot be limited or excluded according to applicable law, for example in case of personal injury and death.

15.3. Limitation of liability

15.3.1. For **Recurring Price Offerings**, Siemens' aggregate liability for all claims under or in connection with the Order in respect of events arising in one Contract Year is limited to the total price paid under the Order for the Recurring Price Offering during such Contract Year.

15.3.2. For **Other Offerings**, Siemens' aggregate liability for all claims under or in connection with the Order is limited to the total price paid under the Order for the Other Offering.

15.4. Exclusions of liability

15.4.1. **Time limitations.** Any claims by Customer will be excluded after 2 years from the date of the event giving rise to the claim.

- 15.4.2. **Disclaimer.** Even if foreseeable, Siemens will never be liable for:
- a. any indirect, incidental, consequential, special, exemplary, or punitive damages;
 - b. loss of production;
 - c. interruption of operations;
 - d. loss of use;
 - e. loss or corruption of data;
 - f. contractual claims of third parties;
 - g. loss of revenue, profits, capital and interest, or anticipated savings; or
 - h. any Offerings provided free of charge.

16. Force majeure

16.1. No liability

Neither party will be liable for a performance failure or delay (except related to any payment obligations) due to a cause beyond the reasonable control of either party, its suppliers, or its subcontractors.

16.2. Time adaptation

Impacted schedules in the Order will be reasonably adjusted for a force majeure event.

16.3. Termination right

If a force majeure event continues for more than 180 days, either Customer or Siemens may terminate the Order. Customer will pay Siemens for the Offerings provided up to the date of termination.

17. Applicable law and dispute resolution

17.1. Applicable law

The Agreement and any Order will be governed by the substantive laws, excluding choice-of-law rules, of the State of Delaware.

The United Nations Convention on Contracts for the International Sale of Goods does not apply to the Agreement and any Order.

17.2. Dispute Resolution

All disputes arising out of, or in connection with, the Agreement or any Order will be finally settled by a state or federal court located in the State of Delaware.

General clauses

18. Written form and notices

"In writing" includes e-mail, unless otherwise stated. Termination notices must be sent by letter to the address specified in the applicable Order.

19. Amendments

The Order and any amendments to it can only be effective if signed by both parties (either manually or by an electronic system specified by Siemens).

20. No restrictions

Subject to confidentiality, nothing in the Order restricts Siemens from providing services to third parties that are similar or identical to the services provided to Customer.

21. Affiliates and subcontractors

Siemens may use Affiliates and subcontractors to fulfill its obligations under the Order. Siemens remains responsible for its obligations and those of its Affiliates and subcontractors.

22. Independent relationship

Nothing in the Order creates a partnership or an employment relationship between Siemens and Customer or any of their respective personnel.

23. Order of precedence

In the event of a conflict between the Order, these Base Terms, and the Supplemental Terms, the following order of precedence applies:

- a. Order (excluding any Customer general terms and conditions, even if the document states differently);
- b. applicable Supplemental Terms; and
- c. these Base Terms.

24. Entire agreement

The Order is the entire agreement with respect to its subject matter and supersedes and extinguishes any previous or contemporaneous agreements, assurances, warranties, or representations.

Each party agrees that it has no remedies in respect of any statement or representation (whether made innocently or negligently, but excluding any made fraudulently) that is not set out in the Order.

If a translation of the Order or the Agreement conflicts with the original, the English language version will prevail.

The parties agree that only the Agreement applies to the Order. The terms of any purchase order or other document from Customer are excluded and such terms will not apply to any Order and will not supplement or modify the Order irrespective of any language to the contrary in such document.

25. No assignment

Neither party may assign or otherwise transfer (by operation of law or otherwise) its respective rights or obligations under the Order without the written consent of the other. However, Siemens may assign to an Affiliate or an acquirer of all or substantially all the business covered by the Order. Unless specified in the Order, no third party may enforce any term of the Order.

26. No waiver

Failure to enforce a provision of the Order will not be considered a waiver.

27. Validity

If any provision of the Agreement or any Order is invalid, illegal, or unenforceable, the remaining provisions will not be affected. Such provision will be deemed to be restated in line with applicable law to reflect the parties' original intent.

Definitions

Affiliate

Any legal entity that, directly or indirectly:

- is controlled by a party;
- controls a party; or
- is controlled by a legal entity that directly or indirectly controls a party.

Confidential Information

Information that:

	• is disclosed by one party, its Affiliates, or their subcontractors to the other party or their Affiliates; • is marked or declared as confidential (or that any reasonable person can recognize as confidential in its nature); and • includes the terms of the Agreement and any Order, Offerings, Siemens-owned Intellectual Property, and any information Customer derives from benchmarking any Offering.
Contract Year	The 12-month period starting with the effective date of an Order or its anniversary.
Contributions	Everything Customer (or someone on behalf of Customer) must provide or perform in connection with an Order so that Siemens can perform the Offerings, including all assistance, documents, information, data, and approvals.
Documentation	Instructions for use, learning materials, technical and functional documentation, and API (Application Programming Interface) information made available with the applicable Offering, which may be updated by Siemens from time to time.
Export Regulations	All applicable sanctions, embargoes, and (re-)export control regulations and in any event those of the European Union, the United States of America, and any locally applicable jurisdiction.
Hardware	Offerings that are tangible products, equipment, components, parts, and materials which may include firmware.
Insolvency Event	When a party: • becomes bankrupt or insolvent; • goes into liquidation; • has a receiving order against it; • compounds with its creditors; or • continues business under a receiver, trustee, or manager for the benefit of its creditors.
Intellectual Property	Rights in data, software, ideas, know-how, or any other proprietary material or information.
Infringement Claim	Specific claim, allegation, or complaint a third party makes against Customer that an Offering directly infringes any: • patent or trademark issued or registered by the United States, China, Japan, or the European Patent Office or the European Union Intellectual Property Office; • copyright; or • trade secret.
Offerings	The Hardware, services, solutions, software, or documents provided to Customer as exclusively set out in an Order.
Order	A contract consisting of an order form, a statement of work, or any other document that sets forth the Offerings and price, incorporates the Agreement, and is agreed upon by both parties by manual or electronic signatures or by an electronic system specified by Siemens.
Other Offerings	Offerings without a recurring price.
Recurring Price Offerings	Offerings with recurring prices, for example service contracts and subscriptions.
Supplemental Terms	Additional terms and conditions that apply to a particular Offering as attached or referenced in an Order. It may be titled EULA or have a similar term.
Tax	Any taxes, duties, tariffs and any other charges.
Third-Party Technology	Any third-party software, technology, and other materials, including open-source software components, licensed by third parties under separate terms.
Third-Party Terms	License conditions that may apply for Third-Party Technology and are specified in the Documentation, Supplemental Terms, Third-Party Technology source code (if any), and/or in “read me,” header-, notices-, or similar files.
Update(s)	Updates, security patches, or bug fixes.

Services Supplemental Terms

These Services Supplemental Terms (“Services Terms”) apply in addition to the Base Terms between the Siemens entity named on the Order and the Customer that accepted the Order. They apply only to services as described in the Order (“Services”).

Capitalized terms are defined in the Base Terms.

Commercial terms

1. Siemens Offerings

1.1. Services Offerings

- 1.1.1. **Scope description.** Siemens will perform the Services as detailed in the Services description set out (or referred to) in the Order.
- 1.1.2. **Supervision.** To the extent the Services include supervision, Siemens’ only obligation is to provide correct instructions. Siemens will not be liable for the performance of third parties or Customer’s personnel.

1.2. Location

- 1.2.1. **Onsite.** If Services are provided at Customer’s site, Siemens will:
 - a. provide them during normal local business hours (excluding holidays); and
 - b. comply with Customer’s reasonable site rules provided in writing before performance starts.
- 1.2.2. **Off-site.** If onsite performance is not necessary, Services may be performed:
 - a. at a location of Siemens’ choice; or
 - b. by remote access.

1.3. Personnel

Siemens may direct and allocate personnel for the Services at its option and is responsible for all compensation and other employment benefits of Siemens’ employees.

1.4. Data processing

Where Siemens acts as Customer’s processor of personal data provided by Customer, the following terms apply:

- a. the Data Privacy Terms available at <https://www.siemens.com/dpt>; and
- b. any additional information related to the processing of personal data, including authorized subprocessors, set out in the Order (if applicable).

2. Customer’s obligations

2.1. Providing Contributions

Customer will provide the following Contributions:

- a. support Siemens by providing:
 - the environment and opportunity to start work on time, without interruption, and with adequate and legally compliant health and safety measures in place for onsite work;

- qualified personnel with the necessary know-how and decision-making ability;
 - a secure internet connection and authorized access to Customer's or third-party systems (as required);
 - reasonable support to ensure that all obligations required by competent authorities for the commissioning, acceptance, and use of the Services are met;
 - timely acceptance (where required), input, and feedback;
 - lockable rooms for storage and adequate working and recreation rooms for Siemens and their subcontractors, including appropriate sanitary facilities; and
 - all necessary information about the location of concealed electric, gas, water, and fiberoptic lines or similar installations, and the static and sub-surface conditions of the site.
- b. obtain any permits and approvals from relevant authorities, except if only Siemens can obtain them;
 - c. ensure cooperation by any third parties retained by Customer;
 - d. for time and material Orders, confirm with Siemens the hours worked on a time basis. Siemens' time sheets are deemed accepted within 10 days of submission unless Customer identifies a material reason in writing to reject them; and
 - e. any additional Contributions as set out in the Order.

2.2. Scheduling and management

Siemens is not responsible for Customer's scheduling, planning, project management, or any resulting delay or cost.

2.3. Hazardous materials and environmental conditions

- 2.3.1. **Customer site responsibilities.** If Services are provided at Customer's site, Customer will handle, store, dispose, and remediate the effects of any hazardous waste, hazardous materials on-site (including asbestos), geological or geothermal conditions, archaeological findings, or other conditions that require special treatment or have a negative effect on the Services or the environment.
- 2.3.2. **Reimbursement and suspension.** Customer will refund Siemens for all costs caused by the discovery or handling of any such materials or conditions. If a health or safety risk arises during the provision of the Services, Siemens may suspend the Services until such risks are removed.

2.4. Remote support

- 2.4.1. **Remote support.** Siemens may provide the Services remotely.
- 2.4.2. **Remote access.** If Siemens needs remote access, Customer will, at its expense:
 - a. provide an access-controlled internet connection (e.g., wired or wireless broadband connections via DSL, UMTS, or LTE) that meets the technical requirements of a secure remote connection;
 - b. grant Siemens necessary access to Customer's assets to provide the Services;
 - c. activate and accept each remote access of Siemens (if agreed); and
 - d. have a qualified person authorized by Customer and familiar with Customer's assets and production system at its site.
- 2.4.3. **Remote access functionality**
 - a. **Use of Siemens remote access functionality.** If agreed in the Order, Siemens will provide remote access functionality. Customer will check that the security standards are compatible with its operating environment, security requirements, and internal policies.
 - b. **Use of Customer remote access functionality.** If Customer provides remote access functionality, it will ensure the confidentiality and integrity of the remote connection and its availability. Siemens will not be liable for the use of this Customer remote access functionality and it can reject if it does not comply with common security standards.

3. Delivery and performance

3.1. Acceptance

- 3.1.1. **No acceptance required.** Acceptance of the Services is not required unless agreed otherwise in the Order.
- 3.1.2. **Acceptance required.** If the Order requires acceptance:
- a. Siemens will issue a notice of completion if the Services or an agreed portion are ready for acceptance; and
 - b. Customer will accept unless the Services are carried out in breach of Section 4. In this case, Customer will describe the breach in a written notice of rejection and Siemens will:
 - remedy it within a reasonable time (or as agreed by the parties); and
 - resubmit for acceptance.
- 3.1.3. **Deemed acceptance.** The Services or agreed delivered portion are deemed accepted on the earlier of:
- a. 10 business days from completion notice if Customer has not given a rejection notice; or
 - b. the date the delivered portion is put into productive use.

3.2. Delivery and performance dates

Any dates in the Order are estimates and non-binding. However, if Customer obtains Siemens' written consent to specific delivery or performance dates expressly subject to liquidated damages ("Binding Dates"), Section 3.3 will apply.

3.3. Delay

- 3.3.1. **Liquidated damages.** If Siemens is solely responsible for delaying Binding Dates and Customer suffers a loss, Siemens will, after a grace period of 1 week, pay liquidated damages equal to 0.5% of the price for the delayed portion of the Services for every full week of delay.
- Aggregate liquidated damages will not exceed 5% of the price for the delayed portion.
- 3.3.2. **Termination for delay.** Customer may only terminate the Order for delay if:
- a. the maximum liquidated damages are payable; and
 - b. a reasonable additional delivery or performance period has expired.
- 3.3.3. **Exclusive remedy.** This Section 3.3 sets out Siemens' entire and exclusive liability for delay and excludes all of Customer's other rights and remedies for delay.

Warranties

4. Services warranty

The Services will be performed in a professional manner with the level of care reasonably expected under similar circumstances. Siemens does not warrant a specific outcome unless agreed otherwise in the Order.

5. Services warranty period

5.1. Original warranty period

The warranty period for Services is 90 days following:

- a. completion of the Services; or
- b. acceptance, if it has been agreed in the Order.

5.2. Warranty period for re-performed Services

The warranty period for re-performed Services is 30 days from reperformance if the original warranty period expires earlier. In any event, the warranty period ends no later than 120 days from the beginning of the original warranty period.

6. Warranty claims

6.1. Notification

Customer will notify Siemens in writing of any breach of the Services warranty promptly upon discovery and always within the applicable warranty period.

6.2. Remedies

Siemens will remedy all breaches by reperforming the Services (onsite or remotely) within a reasonable time.

6.3. Duty of cooperation and reimbursement

In case of warranty claim, Customer will:

- a. at its expense:
 - provide Siemens access to the defective portions of the Services;
 - perform any necessary disassembly and reassembly; and
 - provide Siemens access to operation and maintenance data.
- b. pay Siemens for any diagnostic and remedial work if it is established that no breach of the warranty existed.

6.4. Failure to remedy

If Siemens is unable to remedy the breach using commercially reasonable efforts:

- a. Customer may terminate the Order in line with the Base Terms; and
- b. Siemens will refund the price paid for the non-conforming portion of the Services.

7. Warranty exclusions

7.1. Time limit

Any warranty claim is excluded after the applicable warranty period expires.

7.2. Exclusions

Siemens excludes any warranty or liability for:

- a. faulty or negligent handling, or unusually excessive use;
- b. non-compliance with instructions in the Order, manuals, and similar documents available to Customer;
- c. non-reproducible software errors;
- d. any cause outside of Siemens' control;
- e. modifications or repairs made by anyone other than Siemens or their authorized representatives; or
- f. use or implementation of suggestions, recommendations, reports, or other documents, including the outcome.

8. Exclusive remedy

Sections 4–7 state Siemens' entire liability and Customer's exclusive rights and remedy for warranty claims. Siemens makes no other warranty, express, implied, or statutory, about the Services, including any warranties of merchantability or fitness for a particular purpose.

Intellectual property rights

9. Retained Intellectual Property

Each party will retain all rights in:

- a. the Intellectual Property they developed or acquired outside of the respective Order; and
- b. the improvements, modifications, or derivatives they make to it under an Order.

10. Developed Intellectual Property

Any Intellectual Property developed under an Order as part of the Offering is owned by Siemens and licensed to Customer as specified in Section 11.

11. Siemens license to Customer

Siemens grants Customer a non-exclusive, worldwide, perpetual, and non-transferable right to use Siemens' Intellectual Property as part of the Offering:

- a. in unmodified form; and
- b. for Customer's internal business purpose.

Additional license rights and restrictions may be stated in the respective Order.