

IEC 61850 Certificate

Level A¹

No. D 115741 0001 Rev.00

Issued to:

Nexus Controls LLC
1800, Nelson Road, Longmont,
CO 80501, USA

For the client system:

MPU55/MPU56
Nexus OnCore Control Module
Software Version: OptimumC V2.7.3
Hardware Version:
369B1860G0030 (MPU55), 369B1860G0031 (MPU56)

Issued by:

TÜV SÜD CERTIFICATION AND TESTING (CHINA) CO., LTD
SHANGHAI BRANCH TESTING CENTER
No.1999, Duhui Road, Minhang District,
Shanghai, 201 108, People's Republic of China

The CLIENT has not been shown to be non-conforming to:
IEC 61850 Edition 2 Parts 6, 7-1, 7-2, 7-3, 7-4 and 8-1
Communication networks and systems for power utility automation

The conformance test has been performed according to IEC 61850-10 Edition 2, the UCA International Users Group Edition 2 Client Test Procedures version 1.2 with product's protocol, model and technical issue implementation conformance statements: "MPU55-MPU56_IEC61850_PICS_Client_Ed2_V1.0", "MPU55-MPU56_IEC61850_MICS_Client_Ed2_V1.0", "MPU55-MPU56_IEC61850_TICS_Client_Ed2_V1.0" and product's extra information for testing: "MPU55-MPU56_IEC61850_PIXIT_Client_Ed2_V1.0".

The following IEC 61850 conformance blocks have been tested with a positive result (number of relevant and executed test cases / total number of test):

1	Basic Exchange (12/24)	12a	Direct Control (4/9)
2	Data Sets (4/10)	12b	SBO Control (6/11)
5	Unbuffered Reporting (17/24)	12c	Enhanced Direct Control (4/9)
6	Buffered Reporting (20/28)	12d	Enhanced SBO Control (6/11)
		13	Time Synchronization (2/4)
		14	File Transfer (5/8)

This Certificate includes a summary of the test results as carried out at TÜV SÜD Certification and Testing (China) Co., Ltd Shanghai Branch Testing Center in P.R. China with 61850 Test Suite Pro version 4.2.0.3, OMICRON IEDScout version 4.20 and Wireshark version 3.6.0. This document has been issued for information purposes only, and the original paper copy of the TÜV SÜD report: No. 705002120501-00, version 1.0 will prevail.

The test has been carried out on one single specimen of the product as referred above and submitted to TÜV SÜD by Nexus Controls LLC. The manufacturer's production process has not been assessed. This certificate does not imply that TÜV SÜD has certified or approved any product other than the specimen tested.

Shanghai, January 25, 2022

Cong WANG

Cong WANG
Technical Certifier

Yifan WANG

Yifan WANG
Test Engineer

¹ Level A - Independent Test lab with certified ISO/IEC 17025 Quality System

Conformance Block	Mandatory	Conditional
1: Basic Exchange	cAss1, cAss2, cAss3, cAssN1, cAssN4, cAssN5, cAssN6	cAssN7 cSrv5, cSrv7, cSrvN3, cSrvN5
2: Data Sets		cDs3, cDs5, cDs6, cDsN1c,
5: Unbuffered Reporting	cRp3, cRp4, cRp5, cRp8, cRp9, cRp10, cRp11, cRp13a, cRp14, cRp15, cRp19, cRpN2, cRpN5, cRpN6	cRp2, cRp7, cRp16
6: Buffered Reporting	cBr3, cBr4, cBr5, cBr8, cBr9, cBr10, cBr11, cBr13a, cBr14, cBr15, cBr19, cBr30, cBr31, cBrN2, cBrN5, cBrN6	cBr2, cBr7, cBr16, cBr32
12a Direct control	cCtl4, cCtl5, cDOns1, cDOns2	
12b SBO control	cCtl4, cCtl5, cSBOns1, cSBOns2, cSBOns3	cSBOns4
12c Enhanced Direct Control	cCtl4, cCtl5, cDOes1, cDOes2	
12d Enhanced SBO control	cCtl4, cCtl5, cSBOes1, cSBOes2, cSBOes3	cSBOes4
13 Time sync	cTm1, cTmN1	
14 File transfer	cFt1, cFt3, cFtN1	cFt2, cFtN2

Zertifizierungsvertrag

Grundlage für die Zertifikatserteilung ist die Prüf- und Zertifizierungsordnung von TÜV SÜD Product Service.

Mit Erhalt des Zertifikates erkennt der Zertifikatsinhaber die jeweils gültige Fassung der Prüf- und Zertifizierungsordnung an (www.tuev-sued.de/ps_regulations) und wird somit Partner im Zertifiziersystem von TÜV SÜD Product Service.

Prinzipielle Voraussetzung für die Gültigkeit des Zertifikates:

- Gültigkeit der zitierten normativen Prüfgrundlage(n) ist gegeben und zusätzlich bei Zertifikaten mit Berechtigung zur Verwendung eines Prüfzeichens bzw. bei Zertifikaten für QM-Systeme:
- Voraussetzungen für vorschriftsmäßige Fertigung werden eingehalten.
- Die Fertigungs- bzw. Betriebsstätten werden regelmäßig überwacht.

Certification contract

Certification is based on the TÜV SÜD Product Service Testing and Certification Regulations. On receipt of the certificate the certificate holder agrees to the current version of the Testing and Certification Regulations (www.tuv-sud.com/ps_regulations) and thus becomes partner in the TÜV SÜD Product Service Certification System.

Requirements for the validity of the certificate in principle:

- Validity of the quoted test standard(s) In addition, for certificates with the right to use a certification mark and for QM certificates:
- Conditions for an adequate manufacturing are maintained
- Regular surveillance of the facility is performed

认证合约

认证基于 TÜV SÜD 产品服务《测试及认证准则》。获得证书即表明证书持有者接受当前版本的《测试及认证准则》（见 www.tuv-sud.com/ps_regulations）并成为 TÜV SÜD 产品服务认证系统内的合作伙伴。

维持证书有效性的原则要求：

- 认证所依据标准的有效性
- 此外，对于授权可使用认证标志的证书和质量管理体系证书：
- 保持充分的生产条件
 - 生产场地通过定期的监督

認證契約

認証は TÜV SÜD Product Service の試験認証規約に基づく。認証書保持者は認証書を受領することにより最新の試験認証規約(www.tuv-sud.com/ps_regulations)に同意したものとする。その結果、TÜV SÜD Product Service 認証システムのパートナーとなる。

認證書の有効性に関する原則的な要求事項

- 引用している試験規格が有効である
- さらに認証マークの使用を許諾された認証書や品質マネジメント認証書は：
- 適切な製造の条件を維持している
 - 定期的な工場監査を実施している

Contrato de certificação

A certificação se baseia nos Regulamentos de Testes e Certificação do Grupo TÜV SÜD. Ao receber o certificado, o Fornecedor, titular do certificado concorda com a versão atual dos Regulamentos de Testes e Certificação do Grupo TÜV SÜD (www.tuv-sud.com/ps_regulations) e assim, torna-se parceiro no Sistema de Certificação de Produtos e Serviços TÜV SÜD.

Requisitos para a validade do certificado (em princípio):

- Validade da(s) norma(s) de ensaio(s) referenciada(s).
- Adicionalmente, para os certificados com o direito ao uso da marca de certificação e para certificados de SG:
- Condições de fabricação adequada estão mantidas.
 - Auditoria de monitoração realizada regularmente.