



# IEC 61850 Test Register



## Test Register for

IEC 61850 Client Systems  
IEC 61850 Server Devices  
IEC 61850 Ethernet Switches  
IEC 61850 Sampled Value Publishers (Merging Units)

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### **Contact**

KEMA Nederland B.V.  
Protocol Competence & Test Centre  
P.O. box 9035, 6800 ET ARNHEM  
The Netherlands  
tel: +31 26 356 2025  
fax: +31 26 351 3683  
email : [emea@kema.com](mailto:emea@kema.com)  
<http://www.kema.com/pctc>



# IEC 61850 Test Register



## Test Register for IEC 61850 Client Systems

MANUFACTURER	COUNTRY	CLIENT SYSTEM	PROTOCOL	DATE
Protecta Electronics Co Ltd.	Hungary	EuroGateway firmware version: 1.2 hardware version: 1.3	IEC 61850-8-1 block 1, 2, 5, 6, 12abcd, 13	2011-07
Ing. Punzenberger COPA-DATA GmbH	Austria	COPA-DATA IEC850 - Driver for IEC61850 protocol; version 6.51.0.4101	IEC 61850-8-1 block 1, 2+, 5, 6, 12abcd, 14	2011-06
Invensys Operations Management	USA	Invensys Station Computing Device SCD5200 and Remote Terminal Unit RTU50	IEC 61850-8-1 block 1, 5, 6, 12abcd, 13	2011-01
IPCOMM	Germany	IPCOMM ipConv Gateway, IEC61850 Client Protocol Stack PS_IEC61850CLIENT_1 21.01.2011, Hardware: IPCOMM IPC191V3	IEC 61850-8-1 block 1, 2, 5, 6, 12abcd, 13	2011-01
LS Industrial Systems	Korea	TOPAS-SA System based on IEC 61850, Version 1.0	IEC 61850-8-1 block 1, 2+, 4, 5, 6, 12abcd, 13, 14	2010-11
U2S	Korea	SAMCAS IEC61850 Client V1.0	IEC 61850-8-1 block 1, 2+, 4, 5, 6, 12abcd, 13, 14	2010-07
Telvent	Spain	Telvent subCAT Firmware version 1.409	IEC 61850-8-1 block 1, 5, 6, 12abcd, 13, 14	2010-02
Siemens	Germany	Siemens SICAM PAS version V6.00.35	IEC 61850-8-1 block 1, 2+, 4, 5, 6, 12acd, 13, 14	2009-03



# IEC 61850 Test Register



## Test Register for IEC 61850 Sampled Values Publishers (Merging Units)

MANUFACTURER	COUNTRY	SAMPLED VALUES PUBLISHER	PROTOCOL	DATE
Bharat Heavy Electricals Ltd. (BHEL)	India	BHEL-MU Merging Unit Firmware K0.01 Supporting: 4 phase voltage and current	Implementation Guideline for IEC 61850-9-2 (9-2LE)	2011-02
ABB Switzerland	Switzerland	CP-MUP merging unit for protection Hardware version AD Firmware version 1.0.1.0 Supporting: 3 phase voltage and current Neutral is calculated	Implementation Guideline for IEC 61850-9-2 (9-2LE)	2010-03

## Test Register for IEC 61850 Server Devices

MANUFACTURER	COUNTRY	SERVER DEVICE	PROTOCOL	DATE
Schweitzer Engineering Laboratories (SEL)	USA	SEL-421 Protection, Automation, and Control System, Version R308	IEC 61850-8-1 block 1, 2, 5, 6, 9ab, 12acd	2011-10
VAMP	Finland	VAMP 210, 230, 245, 255, 260, 265, 265M SW version: 10.87 Serial Number: 034851	IEC 61850-8-1 block 1, 2+, 5, 6, 9ab, 12abcd, 13	2011-10
VAMP	Finland	VAMP 257, 259 SW version: 10.87 Serial Number: 034852	IEC 61850-8-1 block 1, 2+, 5, 6, 9ab, 12abcd, 13	2011-10
VAMP	Finland	VAMP 50, 51, 52, 55 SW version: 10.87 Serial Number: 003549	IEC 61850-8-1 block 1, 2+, 5, 6, 9ab, 12abcd, 13	2011-10
A. Eberle	Germany	PQI-D Power Quality Interface Firmware 1.44.01	IEC 61850-8-1 block 1, 2, 5, 13, 14	2011-09
Dranetz-BMI	USA	Encore 61000 SW version: 3.3 HW version: 61000PQ	IEC 61850-8-1 block 1, 2, 13	2011-09
Hyundai Heavy Industries Co.	Korea	HiMAP-CCU SW ver 1.00 HW ver 1.00	IEC 61850-8-1 block 1, 2+, 4, 5, 6, 9ab, 12ad, 13, 14	2011-09
Hyundai Heavy Industries Co.	Korea	HiMAP-GCU SW ver 1.00 HW ver 1.00	IEC 61850-8-1 block 1, 2+, 4, 5, 6, 9ab, 12ad, 13, 14	2011-09
Hyundai Heavy Industries Co.	Korea	HiMAP-TCU SW ver 1.00 HW ver 1.00	IEC 61850-8-1 block 1, 2+, 4, 5, 6, 9ab, 12ad, 13, 14	2011-09
Infoware	Hungary	MAB3 Substation Remote Terminal Unit Version 5.3001.1	IEC 61850-8-1 block 1, 2, 5, 6, 9ab, 12acd, 13	2011-09
Schweitzer Engineering Laboratories (SEL)	USA	SEL-700G Generator Protection Relay Version R104	IEC 61850-8-1 block 1, 2, 5, 6, 9ab, 12acd, 13	2011-09
Thytronic	Italy	PRON NA80 Version 1.2	IEC 61850-8-1 block 1, 2+, 5, 6, 9ab, 12a, 13, 14	2011-09
Microelettrica Scientifica	Italy	FMR-R 850 Version 2.19.1	IEC 61850-8-1 block 1, 2, 5, 6, 13	2011-08

MANUFACTURER	COUNTRY	SERVER DEVICE	PROTOCOL	DATE
NR Electric Co.	China	PCS-9705 Bay Control Unit, Hardware version PCS-9000-HW-V1.06 Software version PCS-9000-SW-V2.12	IEC 61850-8-1 block 1, 2, 3, 4+, 5, 6, 9ab, 12ad, 13, 14	2011-08
Schweitzer Engineering Laboratories (SEL)	USA	SEL-311C Transmission Protection System Version R599	IEC 61850-8-1 block 1, 2, 5, 6, 9ab, 12acd, 13	2011-08
Schweitzer Engineering Laboratories (SEL)	USA	SEL-311L Line Current Differential Protection and Automation System Host firmware R413 Interface firmware R110	IEC 61850-8-1 block 1, 2, 5, 6, 9ab, 12acd	2011-08
Schweitzer Engineering Laboratories (SEL)	USA	SEL-351A Protection System, Version R599	IEC 61850-8-1 block 1, 2, 5, 6, 9ab, 12acd, 13	2011-08
Schweitzer Engineering Laboratories (SEL)	USA	SEL-351S Protection System, Version R599	IEC 61850-8-1 block 1, 2, 5, 6, 9ab, 12acd, 13	2011-08
Schweitzer Engineering Laboratories (SEL)	USA	SEL-451-5 Protection, Automation, and Bay Control System Version R307	IEC 61850-8-1 block 1, 2, 5, 6, 9ab, 12acd	2011-08
Siemens	Germany	SETRON T 7KG966 Multifunctional Transducer Firmware V02.00.04	IEC 61850-8-1 block 1, 2, 5, 6+, 13	2011-08
Sanion	South Korea	SLP-K120 T/L Protection IED Hardware version 1.2 Firmware version 1.0 Software version 1.0	IEC 61850-8-1 block 1, 2+, 4, 5, 6, 9ab, 12ad, 13, 14	2011-07
Schweitzer Engineering Laboratories (SEL)	USA	SEL-2411 Programmable Automation Controller Version R307	IEC 61850-8-1 block 1, 2, 5, 6, 9ab, 12acd	2011-07
Schweitzer Engineering Laboratories (SEL)	USA	SEL-487E Transformer Protection Relay Version R300	IEC 61850-8-1 block 1, 2, 5, 6, 9ab, 12acd, 13	2011-07
Iskra Sistemi	Slovenia	NEO 3000 FPC 680 Hardware version: FPC 680-F03 Software version: 1.0	IEC 61850-8-1 block 1, 2+, 5, 6, 9ab, 12ad, 13	2011-06
Schneider Electric	Canada	ION8650 meter Firmware version v400	IEC 61850-8-1 block 1, 2, 5, 6, 12a, 13	2011-06

MANUFACTURER	COUNTRY	SERVER DEVICE	PROTOCOL	DATE
Schweitzer Engineering Laboratories (SEL)	USA	SEL-487B Bus Differential and Breaker Failure Relay Version R300	IEC 61850-8-1 block 1, 2, 5, 6, 9ab, 12acd, 13	2011-06
Schweitzer Engineering Laboratories (SEL)	USA	SEL-710 Motor Protection Relay Version R406	IEC 61850-8-1 block 1, 2, 5, 6, 9ab, 12acd, 13	2011-06
Schweitzer Engineering Laboratories (SEL)	USA	SEL-751 Feeder Protection Relay Version R100	IEC 61850-8-1 block 1, 2, 5, 6, 9ab, 12acd, 13	2011-06
Schweitzer Engineering Laboratories (SEL)	USA	SEL-787 Transformer Protection Relay Version R206	IEC 61850-8-1 block 1, 2, 5, 6, 9ab, 12acd, 13	2011-06
Woodward Kempen	Germany	MCA4 Protection and Control Relay Version 2.0.h	IEC 61850-8-1 block 1, 2+, 5, 6, 9ab, 12d, 13	2011-06
Alstom Grid	United Kingdom	MiCOM P145 Feeder Management Relay, Version 46A	IEC 61850-8-1 block 1, 2, 4, 5, 6, 9ab, 12abcd, 13, 14	2011-05
Hyosung	Korea	Hyosung NeoProPAC-GBC, Firmware version 1.0, H/W version 1.2	IEC 61850-8-1 block 1, 2+, 4, 5, 6, 9ab, 12ad, 13, 14	2011-05
Hyosung	Korea	Hyosung NeoProPAC-TBU, Firmware version 1.0, H/W version 0.1	IEC 61850-8-1 block 1, 2+, 4, 5, 6, 9ab, 12ad, 13, 14	2011-05
Hyosung	Korea	Hyosung NeoProPAC-TPU, Firmware version 1.0, H/W version 0.1	IEC 61850-8-1 block 1, 2+, 4, 5, 6, 9ab, 12ad, 13, 14	2011-05
Schweitzer Engineering Laboratories (SEL)	USA	SEL-387E Current Differential and Voltage Protection Relay Host firmware R704 Interface firmware R109	IEC 61850-8-1 block 1, 2, 5, 6, 9ab, 12acd	2011-05
Mitsubishi Electric Corporation	Japan	Biased Differential Relay MRD-HA MM-CPU = PGJA21 C MR-CPU = PGJA22 L	IEC 61850-8-1 block 1, 2, 4+, 5, 6, 9ab, 12a, 13, 14	2011-04
Mitsubishi Electric Corporation	Japan	Circuit Breaker and Overcurrent Protection Relay MFR-H1SA M-CPU = HL01 B, R-CPU = HL02 B L-CPU = HL05, C-CPU = HL06 A E-CPU = HL08 A	IEC 61850-8-1 block 1, 2, 4+, 5, 6, 9ab, 12a, 13, 14	2011-04



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MANUFACTURER	COUNTRY	SERVER DEVICE	PROTOCOL	DATE
Mitsubishi Electric Corporation	Japan	High Impedance Differential Relay MBP-H3SA, M-CPU = JC06, R-CPU = JC07 L-CPU = HL05, C-CPU = HL06 A E-CPU = HL08 A	IEC 61850-8-1 block 1, 2, 4+, 5, 6, 9ab, 12a, 13, 14	2011-04
Schweitzer Engineering Laboratories (SEL)	USA	SEL-751A Feeder Protection Relay Firmware R410	IEC 61850-8-1 block 1, 2, 5, 6, 9ab, 12acd, 13	2011-04
SystemCORP Embedded Technology Pty	Australia	WebCAN Substation Control and Monitoring System Firmware v1.36.00	IEC 61850-8-1 block 1, 2, 5, 6, 9ab, 12abcd, 13, 14	2011-04
Bharat Heavy Electricals Ltd. (BHEL)	India	BHEL-MU Merging Unit Firmware K0.01	IEC 61850-8-1 block 9ab, 13	2011-02
Vizimax	Canada	RightWON System RWU010000 RWZ0A0000 V 1.0.4 Firmware version 1.4.1	IEC 61850-8-1 block 1, 2+, 5, 6, 9ab, 12abcd, 13, 14	2011-01
Dynamic Ratings	Australia	DR-E3, Version SO 1.0.2, BOOT 1.1.2	IEC 61850-8-1 block 1, 2, 5, 6, 12a, 13	2010-12
KEPCO KDN	Korea	Kipro-F Main Feeder Protection IED, Version 1.0	IEC 61850-8-1 block 1, 2+, 5, 6, 9ab, 12ad, 13, 14	2010-12
KEPCO KDN	Korea	Kipro-T Main Transformer Protection IED, Version 1.0	IEC 61850-8-1 block 1, 2+, 5, 6, 9ab, 12a, 13, 14	2010-12
Schneider Electric	Canada	ION7650, ION7550 and Siemens 9510, 9610 meter, Firmware v360	IEC 61850-8-1 block 1, 2, 5, 6, 12a, 13	2010-12
Basler Electric	USA	BE1-11 Application Version 2.04.00 Style number BE1-11-F5A1N5H1N0E00	IEC 61850-8-1 block 1, 2, 4, 5, 6, 9ab, 12a, 13, 14	2010-11
Vitzrotech	Korea	ViPAM7000 Multifunction Protection & Control Device Firmware version: 1.0	IEC 61850-8-1 block 1, 2+, 4, 5, 6, 9ab, 12ad, 13, 14	2010-10
ZIV P+C	Spain	DBN Version SO 2.85 BOOT 3.8 IRV-97EA; IEC 5.46R	IEC 61850-8-1 block 1, 2, 5, 6, 9ab, 12c, 13, 14	2010-10

MANUFACTURER	COUNTRY	SERVER DEVICE	PROTOCOL	DATE
ABB Automation	Germany	AC 800M CI868 Communication Interface for IEC 61850, version: 5.0.2000.20	IEC 61850-8-1 block 9ab	2010-09
Nanjing Nari-Relays Electric	China	PCS-931 Line Differential Relay, Hardware version PCS-900-HW-V1.06 Software version PCS- 900-SW-V2.12	IEC 61850-8-1 block 1, 2, 3, 4+, 5, 6, 9ab, 12ad, 13, 14	2010-08
Toshiba Corporation	Japan	GRB150 Main software: GSPBP1-01-A IEC61850 firmware: GPM850-01-E	IEC 61850-8-1 block 1, 2, 4, 5, 6, 9ab, 12c, 13, 14	2010-07
Toshiba Corporation	Japan	GRD110 Main software: GSPDM1-01-A IEC61850 firmware: GPM850-01-E	IEC 61850-8-1 block 1, 2, 4, 5, 6, 9ab, 12c, 13, 14	2010-07
Toshiba Corporation	Japan	GRD130 Main software: GSPDM1-03-A IEC61850 firmware: GPM850-01-E	IEC 61850-8-1 block 1, 2, 4, 5, 6, 9ab, 12c, 13, 14	2010-07
Yousung Instrument & Electric	Korea	YSDPI9800 Multifunction Protection Version 1.0	IEC 61850-8-1 block 1, 2+, 5, 6, 9ab, 12ad, 13, 14	2010-07
Mitsubishi	Japan	Current Differential Relay MCD-HA Version: MM-CPU = PGHN01 A MR-CPU = PGJA02 A	IEC 61850-8-1 block 1, 2, 4+, 5, 6, 9ab, 12a, 13, 14	2010-05
Mitsubishi	Japan	Distance Relay MDT-HA Version: MM-CPU = PGHN11 A MR-CPU = PGHN12 F	IEC 61850-8-1 block 1, 2, 4+, 5, 6, 9ab, 12a, 13, 14	2010-05
Nanjing Nari-Relays Electric	China	PCS-902 Line Differential Relay, version 1.01	IEC 61850-8-1 block 1, 2, 3, 4+, 5, 6, 9ab, 12ad, 13, 14	2010-05
Protecta Electronics	Hungary	EP+: DTRV, DTVA and DTIVA; Version 2.8	IEC 61850-8-1 block 1, 2, 4, 5, 6, 9ab, 12acd, 13	2010-05
Sprecher Automation	Austria	SPRECON-E-P94-DD6 Software version: 8.15	IEC 61850-8-1 block 1, 2, 5, 6, 9ab, 12acd, 13, 14	2010-05
Remsdaq	UK	Callisto <sup>nx</sup> IEC61850 Server v1.3.10	IEC 61850-8-1 block 1, 2+, 5, 6, 9a, 12abcd	2010-04



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MANUFACTURER	COUNTRY	SERVER DEVICE	PROTOCOL	DATE
ABB	Sweden	REB670, REC670, RED670, REG670, REL670, RET670  Software version 1.5.0.1 Hardware version 1MRK001535-19	IEC 61850-8-1 block 1, 2, 3, 4, 5, 6, 9ab, 12ad, 13, 14	2010-02
Kalki Communication Technologies	India	Sync2000 protocol gateway  IEC61850_V2.14.1	IEC 61850-8-1 block 1, 2+, 5, 6, 9a, 12abcd, 13	2010-02
Advanced Control Systems	Serbia	PCT210 IEC-MMS-GOOSE v1.0.0	IEC 61850-8-1 block 1, 2+, 5, 9ab, 13, 14	2009-12
Toshiba Corporation	Japan	GRB100 Main software: GSPBM1-01-A  IEC61850 firmware: GPM850-01-E	IEC 61850-8-1 block 1, 2, 4, 5, 6, 9ab, 12c, 13, 14	2009-12
Toshiba Corporation	Japan	GRD140 Main software: GSPDM1-04-A  IEC61850 firmware: GPM850-01-E	IEC 61850-8-1 block 1, 2, 4, 5, 6, 9ab, 12c, 13, 14	2009-12
RTDS Technologies Inc.	Canada	GTNET – GSE Firmware version GTNET-GSE v4.3	IEC 61850-8-1 block 9ab	2009-11
VITZROTECH	Korea	ViPAM5000 Multifunction Protection Firmware version: 1.0	IEC 61850-8-1 block 1, 2+, 5, 6, 9ab, 12ad, 13, 14	2009-10
Schneider Electric	France	Sepam series 40 version 7.0 with ACE850 version 1.0	IEC 61850-8-1 block 1, 2, 4, 5, 6, 12ad, 13, 14	2009-09
Schneider Electric	France	Sepam series 80 version 6.0 with ACE850 version 1.0	IEC 61850-8-1 block 1, 2, 4, 5, 6, 9ab, 12ad, 13, 14	2009-09
GE Energy	Canada	D25 Multifunction IED Gen 4; B097-1 IEC 61850 Server and GSE Agent Ver 3.00; MMS Library Ver 5.00	IEC 61850-8-1 block 1, 2, 6, 9ab, 12abcd, 13, 14	2009-08
LS Industrial Systems	Korea	X GIPAM Multifunctional Protection & Control Device IEC61850 EXT. v1.0	IEC 61850-8-1 block 1, 2, 5, 6, 9ab, 12abcd, 13, 14	2009-08

MANUFACTURER	COUNTRY	SERVER DEVICE	PROTOCOL	DATE
ABB	Finland	IED 630 Software version 1.0.RC16 Hardware version SBFNABACBBBZANNAXA	IEC 61850-8-1 block 1, 2, 3, 4, 5, 6, 9ab, 12ad, 13, 14	2009-07
ABB	Finland	REF615, RED615, RET615 and REM615 Software version: 2.0.3 Hardware revision: C	IEC 61850-8-1 block 1, 2, 4+, 5, 6, 9ab, 12ad, 13, 14	2009-07
NARI Group Corporation	China	NS3500 UHV Measuring and Control Device Firmware version V6.121	IEC 61850-8-1 block 1, 2, 3, 5, 6, 9ab, 12d, 13, 14	2009-07
NARI Group Corporation	China	NS3600 Protection, Supervisory and Control Equipment Firmware version V6.14	IEC 61850-8-1 block 1, 2, 3, 5, 6, 9ab, 12d, 13, 14	2009-07
NARI Group Corporation	China	NZD68 Bay Control Unit Firmware version V3.12	IEC 61850-8-1 block 1, 2, 3, 5, 6, 9ab, 12d, 13, 14	2009-07
NARI Group Corporation	China	NZD7 Protection and Measuring and Control Device Firmware version V3.14	IEC 61850-8-1 block 1, 2, 3, 4+, 5, 6, 9ab, 12ad, 13, 14	2009-07
P&B Engineering	UK	P&B SuperVision Series MotorVision MVD Motor Protection Relay Firmware V2.058	IEC 61850-8-1 block 1, 2+, 5, 6, 9ab, 12abcd, 13, 14	2009-07
Guodian Nanjing Automation	China	PST1200U Firmware version 5.02.03.002	IEC 61850-8-1 block 1, 2, 4+, 5, 6, 9ab, 12ab, 13, 14	2009-06
SHR Automation	China	UDC-501 Bay Control Unit Firmware version R2.03	IEC 61850-8-1 block 1, 2, 3, 4+, 5, 6, 9ab, 12acd, 13, 14	2009-06
SHR Automation	China	UDM-502 Merging Unit Firmware version R2.05	IEC 61850-8-1 block 9ab	2009-06
SHR Automation	China	UDW-501 Arc-Suppression Coil Control Unit Firmware version R2.02	IEC 61850-8-1 block 9ab	2009-06
Siemens A.G. PTD	Germany	Siprotec 7SJ80 Overcurrent protection Firmware V04.61 EN100 V04.03	IEC 61850-8-1 block 1, 2+, 4, 5, 6+, 9ab, 12acd, 13, 14	2009-06

MANUFACTURER	COUNTRY	SERVER DEVICE	PROTOCOL	DATE
Siemens	Germany	Siprotec 7SK80 Motor protection Firmware V04.61 EN100 V04.03	IEC 61850-8-1 block 1, 2+, 4, 5, 6+, 9ab, 12acd, 13, 14	2009-06
Siemens	Germany	Siprotec 7UT612 Differential protection Firmware V04.60 EN100 V04.03	IEC 61850-8-1 block 1, 2+, 4, 5, 6+, 9ab, 12acd, 13, 14	2009-06
Siemens	Germany	Siprotec 7UT68 Differential protection Firmware V04.60 EN100 V04.03	IEC 61850-8-1 block 1, 2+, 4, 5, 6+, 9ab, 12acd, 13, 14	2009-06
ABB	Sweden	IED 650 Software version 1.0.RC10 Hardware version 1MRK006500-AA	IEC 61850-8-1 block 1, 2, 3, 4, 5, 6, 9ab, 12ad, 13, 14	2009-05
Camille Bauer	Switzerland	SINEAX CAM Measurement unit and generic I/O Firmware version 2.14	IEC 61850-8-1 block 1, 2, 5, 13	2009-05
Efacec	Portugal	BCU 500 Firmware version: 1.0	IEC 61850-8-1 block 1, 2, 5, 6, 9ab, 12a, 13	2009-05
Efacec	Portugal	TPU S420 Version: TPU S420-Ed1-S-V7.3	IEC 61850-8-1 block 1, 2, 5, 6, 9ab, 12ab, 13	2009-05
AREVA Energietechnik	Germany	MS 3000 Monitoring System Firmware version 2.36	IEC 61850-8-1 block 1, 2, 5, 12a, 13	2009-04
Areva T&D	UK	AREVA MiCOM P141 Feeder Management Relay Version 42C	IEC 61850-8-1 block 1, 2, 4, 5, 6, 9ab, 12abcd, 13, 14	2009-04
Areva T&D	UK	AREVA MiCOM P143 Feeder Management Relay Firmware version 42C	IEC 61850-8-1 block 1, 2, 4, 5, 6, 9ab, 12abcd, 13, 14	2009-04
Areva T&D	Germany	AREVA P632 Transformer-Differential Protection Device Version -611 -204	IEC 61850-8-1 block 1, 2, 4, 5, 6, 9ab, 12abcd, 13, 14	2009-04

MANUFACTURER	COUNTRY	SERVER DEVICE	PROTOCOL	DATE
P&B Engineering	UK	P&B SuperVision Series FeederVision FVD Feeder Protection Relay Firmware V2.022	IEC 61850-8-1 block 1, 2+, 5, 6, 9ab, 12abcd, 13, 14	2009-04
VAMP	Finland	VAMP 257 Feeder Manager SW version: 10.19 HW version: 3C7CAM	IEC 61850-8-1 block 1, 2+, 5, 6, 9a, 12a, 13	2009-04
HYOSUNG Corporation	Korea	BCU-100 Bay Controller for High Voltage Gas Insulated Switchgear Firmware version: 2.0 Hardware version: 1.0	IEC 61850-8-1 block 1, 2+, 5, 6, 9ab, 12a, 13	2008-12
HYOSUNG Corporation	Korea	GCU-2000 Bay Controller for MV Gas Insulated Switchgear, Firmware: RS 1922 Hardware: GCU-2000-00	IEC 61850-8-1 block 1, 2+, 5, 6, 9ab, 12a, 13	2008-12
HYOSUNG Corporation	Korea	T-LU Local Unit for Transformer Firmware version: 3.0 Hardware version: 1.0	IEC 61850-8-1 block 1, 2+, 5, 6, 13	2008-12
Mitsubishi	Japan	MR4010E Bay Control and Monitoring With firmware version: com506_00000005	IEC 61850-8-1 block 1, 2, 4+, 6, 9ab, 12ad, 13, 14	2008-11
Areva T&D	UK	Areva MiCOM P645 Transformer Protection Relay Software Version 01A Hardware Version K	IEC 61850-8-1 block 1, 2, 5, 9ab, 13, 14	2008-10
Areva T&D	UK	Areva MiCOM P746 Numerical Busbar Protection Software Version 01A Hardware Version K	IEC 61850-8-1 block 1, 2, 5, 9ab, 13, 14	2008-10
ABB AB	Sweden	IED 670 1.1r10 Software version 1.4_77m_19 Hardware version 1MRK001535-14	IEC 61850-8-1 block 1, 2, 3, 4, 5, 6, 9ab, 12ad, 13, 14	2008-09
Areva T&D	UK	Areva MiCOM P841 Multifunction Line Terminal Protection Firmware version 45A	IEC 61850-8-1 block 1, 2, 5, 9ab, 13, 14	2008-09

MANUFACTURER	COUNTRY	SERVER DEVICE	PROTOCOL	DATE
Yantai DongFang Electronics Information Industry Co.Ltd.	China	DF1725IED firmware: DF1000-V6.00-1725IED-V3.00 and IEC61850-V3.00	IEC 61850-8-1 block 1, 2, 3, 5, 6, 9ab, 12acd, 13, 14	2008-09
Siemens AG	Austria	AK1703 ACP HW/FW-Revision CP-2010/MC25:BC2-010--.26 / 14.01, HW/FW-Revision SM-2556/ET03:BC2-556--.10/06.02	IEC 61850-8-1 block 1, 2, 5, 9ab, 12acd, 13	2008-08
Siemens AG	Austria	BC1703 ACP HW/FW-Revision CP-5000/CPC55: BC5-000-A.02 / 14, HW/FW-Revision SM-2556/ET03: BC2-556--.10 / 06.02	IEC 61850-8-1 block 1, 2, 4, 5, 9ab, 12acd, 13	2008-08
Siemens AG	Austria	TM1703 ACP HW/FW-Revision CP-6003/CPC65:GC6-003-A.03 / 17HW/FW-Revision SM-2556/ET03:BC2-556--.10 / 06.02	IEC 61850-8-1 block 1, 2, 5, 9ab, 12a, 13	2008-08
Telvent Energía, S.A.	Spain	Telvent SubCATFirmware version 1.13	IEC 61850-8-1 block 1, 2, 5, 6, 9ab, 12abcd, 13, 14	2008-08
NARI-RELAYS	China	RCS-931 Line Differential Relay Firmware version R10.01	IEC 61850-8-1 block 1, 2, 4+, 5, 6, 9ab, 12ad, 13, 14	2008-07
NARI-RELAYS	China	RCS-9611C Feeder Management Relay Firmware version R2.20	IEC 61850-8-1 block 1, 2, 4+, 5, 6, 9ab, 12ad, 13, 14	2008-07
Prolan Process Control Co	Hungary	Prolan ProField IED Protocol stack: 1.1.0 Configuration: 1.0.0 Firmware: 1.0.2	IEC 61850-8-1 block 1, 2, 5, 6, 9ab, 12abcd, 13	2008-07
ABB Oy	Finland	REF 545 V3.5 With SPA-ZC 400 V2.1.2	IEC 61850-8-1 block 1, 2, 5, 6, 9ab, 12ad, 13	2008-06
ABB Oy	Finland	REM 545 V2.5 With SPA-ZC 400 V2.1.2	IEC 61850-8-1 block 1, 2, 5, 6, 9ab, 12ad, 13	2008-06

MANUFACTURER	COUNTRY	SERVER DEVICE	PROTOCOL	DATE
ABB	Finland	RET 545 V3.0 With SPA-ZC 400 V2.1.2	IEC 61850-8-1 block 1, 2, 5, 6, 9ab, 12ad, 13	2008-06
EFACEC	Portugal	UAC 420 Automation and Control Unit, Version UAC 420-Ed1-S-v6.4	IEC 61850-8-1 block 1, 2, 5, 6, 12abcd, 13	2008-05
Protecta Electronics Co.	Hungary	EUROPROT Superset device, Firmware version 1.2	IEC 61850-8-1 block 1, 2, 5, 6, 9ab, 12ab, 13	2008-05
Schweitzer Engineering Laboratories (SEL)	USA	SEL-710 Motor Protection Relay Firmware R204	IEC 61850-8-1 block 1, 2, 5, 9ab, 12a	2008-05
Schweitzer Engineering Laboratories (SEL)	USA	SEL-751A Feeder Protection Relay Firmware R103	IEC 61850-8-1 block 1, 2, 5, 9ab, 12a	2008-05
GE Energy	Canada	D25 Multifunctional IED Version: Gen 4 B097-0 IEC 61850 DPA Version: 240 L030-0 MMS Library Version: 410	IEC 61850-8-1 block 1, 2, 6, 12ab, 13, 14	2008-04
Hyundai Heavy Industries Co.	Korea	HIMAP-BCS Hyundai Intelligent Measurement and Protective Bay Controller for digital Substation automation Hardware 1.0 Software 2.0	IEC 61850-8-1 block 1, 2+, 5, 6, 9ab, 12ab, 13	2008-04
Hyundai Heavy Industries Co.	Korea	HIPDS Hyundai Intelligent Preventive Diagnosis System Hardware 3.0 Software 3.0	IEC 61850-8-1 block 1, 2+, 5, 6, 9ab, 12ab, 13	2008-04
Toshiba Corporation	Japan	G1IF4 Interface unit main software: GSPPM1-01-AIEC61850 communication firmware: GPM850-03-B	IEC 61850-8-1 block 1, 2, 4, 5, 6, 9ab, 12cd, 13, 14	2008-04

MANUFACTURER	COUNTRY	SERVER DEVICE	PROTOCOL	DATE
Toshiba Corporation	Japan	GRL100 Line Differential Protection, Main software: GSPLM1-01-AIEC61850 communication firmware: GPM850-01-D	IEC 61850-8-1 block 1, 2, 4, 5, 6, 9ab, 12c, 13, 14	2008-04
DIMAT	Spain	TPU-1 Tele protection unit Software version 1.0	IEC 61850-8-1 block 9ab	2008-03
DOBLE Engineering	USA	F6150 Power System Simulator Firmware version 4.27	IEC 61850-8-1 block 9ab, 13	2008-03
ZIV P+C	Spain	#IDV-A, Type: 8IDV-A3N-220401SB OS version 2.0 Application version 4.6	IEC 61850-8-1 block 1, 2, 5, 6, 9ab, 12a, 13, 14	2008-03
ZIV P+C	Spain	#MCV-A, Type: 6MCV-A3N-22J411VB OS version 2.0 Application version 4.6	IEC 61850-8-1 block 1, 2, 5, 6, 9ab, 12ac, 13, 14	2008-03
ZIV P+C	Spain	#RTV-D, Type: 6RTV-D3N-220301QB OS version 2.0 Application version 4.6	IEC 61850-8-1 block 1, 2, 5, 6, 9ab, 12ac, 13, 14	2008-03
ZIV P+C	Spain	#ZLV-B, Type: 8ZLV-B3N-225200QEL OS version 2.0 Application version 4.6	IEC 61850-8-1 block 1, 2, 5, 6, 9ab, 12ac, 13, 14	2008-03
ABB Oy	Finland	REF615 Feeder Protection Relay Version: V1.0.1	IEC 61850-8-1 block 1, 2, 4+, 5, 6, 9ab, 12ad, 13, 14	2008-01
Beijing Sifang Engineering Co.	P.R.China	CSC-101 Numerical Transmission Line Protection Equipment Version 1.10	IEC 61850-8-1 block 1, 2+, 3, 4+, 5, 6, 9ab, 12ad, 13, 14	2008-01
Beijing Sifang Engineering Co.	P.R.China	CSC-150 Numerical Busbar Protection Equipment Version 1.10	IEC 61850-8-1 block 1, 2+, 3, 4+, 5, 6, 9ab, 12ad, 13, 14	2008-01
Beijing Sifang Engineering Co.	P.R.China	CSC-161 Numerical Transmission Line Protection Equipment Version 1.10	IEC 61850-8-1 block 1, 2+, 3, 4+, 5, 6, 9ab, 12ad, 13, 14	2008-01



# IEC 61850 Test Register



MANUFACTURER	COUNTRY	SERVER DEVICE	PROTOCOL	DATE
Beijing Sifang Engineering Co.	P.R.China	CSC-211 Numerical Protection and Management Equipment Version 1.10	IEC 61850-8-1 block 1, 2+, 3, 4+, 5, 6, 9ab, 12ad, 13, 14	2008-01
Beijing Sifang Engineering Co.	P.R.China	CSC-326 Numerical Transformer Protection Equipment Version 1.10	IEC 61850-8-1 block 1, 2+, 3, 4+, 5, 6, 9ab, 12ad, 13, 14	2008-01
Beijing Sifang Engineering Co.	P.R.China	CSI-200EA Numerical Measuring and Control Equipment Version 1.10	IEC 61850-8-1 block 1, 2+, 3, 4+, 5, 6, 9ab, 12ad, 13, 14	2008-01
Siemens	Germany	Siprotec 7VK6 Breaker Management Relay Firmware V04.60	IEC 61850-8-1 block 1, 2+, 4, 5, 6, 9ab, 12ad, 13, 14	2008-01
ELIOP	Spain	iBC 5000 Elitel 5/5000 Version 1.09 Rev 5	IEC 61850-8-1 block 1, 2, 5, 6, 9ab, 12ab, 13, 14	2007-12
Ingeteam T&D	Spain	TCP-IH Integrated Protection & Control System Hardware version 06.02.06 Software revision S	IEC 61850-8-1 block 1, 2, 4, 5, 6, 9ab, 12abcd, 13, 14	2007-12
BHEL	India	Protec-LN	IEC 61850-8-1 block 1, 2, 3, 4, 5, 6, 9a, 13, 14	2007-10
Siemens	Germany	Siprotec 6MD61 I/O Box Firmware V04.01	IEC 61850-8-1 block 1, 2+, 5, 6, 9ab, 12ad, 13	2007-10
Siemens	Germany	Siprotec 6MD63 MV Bay Control Unit Firmware V04.64	IEC 61850-8-1 block 1, 2+, 5, 9ab, 12ad, 13	2007-10
Siemens	Germany	Siprotec 6MD66 HV Bay Control Unit Firmware V04.70	IEC 61850-8-1 block 1, 2+, 5, 9ab, 12ad, 13, 14	2007-10
Siemens	Germany	Siprotec 7SA522 Distance Protection Firmware V04.64	IEC 61850-8-1 block 1, 2+, 4, 5, 6, 9ab, 12acd, 13, 14	2007-10
Siemens	Germany	Siprotec 7SA6 Distance Protection and Control Firmware V04.64	IEC 61850-8-1 block 1, 2+, 4, 5, 6, 9ab, 12acd, 13, 14	2007-10
Siemens	Germany	Siprotec 7SD5 Differential Protection for 2 - 6 Line-Terminals with Distance Protection Firmware V04.60	IEC 61850-8-1 block 1, 2+, 4, 5, 6, 9ab, 12acd, 13, 14	2007-10

MANUFACTURER	COUNTRY	SERVER DEVICE	PROTOCOL	DATE
Siemens	Germany	Siprotec 7SD6 Universal Two-Terminal Differential Protection Firmware V04.60	IEC 61850-8-1 block 1, 2+, 4, 5, 6, 9ab, 12acd, 13, 14	2007-10
Siemens	Germany	Siprotec 7SJ61 Multifunction Protection Firmware V04.70	IEC 61850-8-1 block 1, 2+, 4, 5, 6, 9ab, 12acd, 13, 14	2007-10
Siemens	Germany	Siprotec 7SJ62 Multifunction Protection Firmware V04.70	IEC 61850-8-1 block 1, 2+, 4, 5, 6, 9ab, 12acd, 13, 14	2007-10
Siemens	Germany	Siprotec 7SJ63 Multifunction Protection Firmware V04.64	IEC 61850-8-1 block 1, 2+, 4, 5, 6, 9ab, 12acd, 13, 14	2007-10
Siemens	Germany	Siprotec 7SJ64 Multifunction Protection with Synchro Function Firmware V04.70	IEC 61850-8-1 block 1, 2+, 4, 5, 6, 9ab, 12acd, 13, 14	2007-10
Siemens	Germany	Siprotec 7SS52 Distributed Busbar / Breaker Failure Protection Firmware V04.61	IEC 61850-8-1 block 1, 2+, 5, 6, 9ab, 12a, 13, 14	2007-10
Siemens	Germany	Siprotec 7UM62 Multifunction Generator Protection Relay Firmware V04.62	IEC 61850-8-1 block 1, 2+, 4, 5, 6, 9ab, 12ad, 13, 14	2007-10
Siemens	Germany	Siprotec 7UT613 Differential Protection Firmware V04.60	IEC 61850-8-1 block 1, 2+, 4, 5, 6, 9ab, 12acd, 13, 14	2007-10
Siemens	Germany	Siprotec 7UT633 Multifunctional differential protection for transformers 2-3 windings Firmware V04.60	IEC 61850-8-1 block 1, 2+, 4, 5, 6, 9ab, 12acd, 13, 14	2007-10
Siemens	Germany	Siprotec 7UT635 Multifunctional differential protection for transformers 2-5 windings Firmware V04.60	IEC 61850-8-1 block 1, 2+, 4, 5, 6, 9ab, 12acd, 13, 14	2007-10



# IEC 61850 Test Register



MANUFACTURER	COUNTRY	SERVER DEVICE	PROTOCOL	DATE
Siemens	Germany	Siprotec 7VE6 Multifunctional Paralleling Devices Firmware V04.60	IEC 61850-8-1 block 1, 2+, 4, 5, 6, 9ab, 12ad, 13, 14	2007-10
SELTA	Italy	SELTA STCE/SA100 Regime Ver 2.0.6 (b4) Regime Code 658079005-A0-IT	IEC 61850-8-1 block 1, 2, 5, 6, 9ab, 12ab, 14	2007-08
SELTA	Italy	SELTA STCE/SA200 Regime Ver 2.0.6 (b4) Regime e 658079005- A0-IT	IEC 61850-8-1 block 1, 2, 6, 9ab, 14	2007-08
Toshiba Corporation	Japan	GBU100 Bay Control Unit Version LBXP-S1-A Firmware GPM850-02-A	IEC 61850-8-1 block 1, 2, 4, 6, 9ab, 12d, 13, 14	2007-08
Areva T&D	Germany	MiCOM P132 Feeder Management and Bay Control Firmware -611 -204	IEC 61850-8-1 block 1, 2, 5, 9ab, 12acd, 13, 14	2007-06
Areva T&D	UK	MiCOM P345 Generator Protection Firmware 32G	IEC 61850-8-1 block 1, 2, 5, 9ab, 13, 14	2007-06
Areva T&D	Germany	MiCOM P437 Distance Protection Device Firmware -611 -203	IEC 61850-8-1 block 1, 2, 5, 9ab, 13, 14	2007-06
Areva T&D	Germany	MiCOM P439 Distance Protection & Control Firmware -613 -206	IEC 61850-8-1 block 1, 2, 5, 9ab, 13, 14	2007-06
Areva T&D	Germany	MiCOM P634 Transformer Differential Protection Firmware -611 -203	IEC 61850-8-1 block 1, 2, 5, 9ab, 13, 14	2007-06
Areva T&D	UK	MiCOM P741 Numerical Busbar Protection Firmware 40A	IEC 61850-8-1 block 1, 2, 5, 9ab, 13, 14	2007-06
Areva T&D	UK	MiCOM P743 Numerical Busbar Protection Firmware 40A	IEC 61850-8-1 block 1, 2, 5, 9ab, 13, 14	2007-06
NARI-Relays	China	RCS-9705C Bay Control Unit Firmware R6.43.5	IEC 61850-8-1 block 1, 2, 3, 4, 5, 6, 9ab, 12d, 13, 14	2007-06
Schneider Electric	France	ECI 850 Sepam Server, Version 1.2 with Sepam Series 40	IEC 61850-8-1 block 1, 2, 4, 6, 12ad, 13, 14	2007-06



# IEC 61850 Test Register



MANUFACTURER	COUNTRY	SERVER DEVICE	PROTOCOL	DATE
Toshiba Corporation	Japan	GRT100 Transformer Protection Version GSPTM1-01-A Firmware GPM850-01-C	IEC 61850-8-1 block 1, 2, 4, 5, 6, 9ab, 12c, 13, 14	2007-06
ABB	Vaasa	REF542plus Feeder Terminal	IEC 61850-8-1 block 1, 2, 5, 6, 12ad, 13	2007-04
Areva T&D	UK	MiCOM P145 Feeder Management Relay	IEC 61850-8-1 block 1, 2, 5, 9ab, 13, 14	2007-04
Areva T&D	UK	MiCOM P442/P444 Distance Relay	IEC 61850-8-1 block 1, 2, 5, 9ab, 13, 14	2007-04
Areva T&D	UK	MiCOM P443 Fast Multifunction Distance Protection	IEC 61850-8-1 block 1, 2, 5, 9ab, 13, 14	2007-04
ZIV P+C	Spain	#IRV-A Type: 7IRV-A3N-220400VB OS version 2.0 Application version 3.13	IEC 61850-8-1 block 1, 2, 5, 6, 9ab, 12ac, 13	2007-04
SEL	USA	SEL-311L Line Current Differential Protection	IEC 61850-8-1 block 1, 2, 5, 9ab, 12a, 13	2006-11
SEL	USA	SEL-421 High Speed Line Protection	IEC 61850-8-1 block 1, 2, 5, 9ab, 12a, 13	2006-11
GE Multilin	Spain	F650 Bay Controller	IEC 61850-8-1 block 1, 2, 4, 5, 6, 9ab, 12abcd, 13, 14	2006-09
GE Multilin	Canada	UR F60 Feeder Relay	IEC 61850-8-1 block 1, 2, 5, 6, 9ab, 12ab, 13, 14	2006-09
Areva T&D	UK	MiCOM P545 Current Differential Relay	IEC 61850-8-1 block 1, 2, 5, 9ab, 13, 14	2006-08
Toshiba Corporation	Japan	GRZ100	IEC 61850-8-1 block 1, 2, 4, 5, 6, 9ab, 12c, 13, 14	2006-07
Areva T&D	Germany	MiCOM P139 Feeder Management and Bay Control Unit	IEC 61850-8-1 block 1, 2, 4, 5, 9ab, 12acd, 13, 14	2006-06
Siemens	Germany	Siemens Siprotec 7UT635 Multifunctional differential protection for transformers	IEC 61850-8-1 block 1, 2+, 4, 5, 9ab, 12acd, 13, 14	2006-05
Siemens	Germany	Siprotec 6MD61 I/O Box	IEC 61850-8-1 block 1, 2+, 5, 9ab, 12ad, 13, 14	2006-05
Siemens	Germany	Siprotec 6MD63 Bay Control Unit	IEC 61850-8-1 block 1, 2+, 5, 9ab, 12ad, 13, 14	2006-05
Siemens	Germany	Siprotec 6MD66 Bay Control Unit	IEC 61850-8-1 block 1, 2+, 5, 9ab, 12ad, 13, 14	2006-05
Siemens	Germany	Siprotec 7SA6 Distance Protection and Control	IEC 61850-8-1 block 1, 2+, 4, 5, 9ab, 12acd, 13, 14	2006-05



# IEC 61850 Test Register



MANUFACTURER	COUNTRY	SERVER DEVICE	PROTOCOL	DATE
Siemens	Germany	Siprotec 7SJ61 Multifunction Protection	IEC 61850-8-1 block 1, 2+, 4, 5, 9ab, 12acd, 13, 14	2006-05
Siemens	Germany	Siprotec 7SJ62 Multifunction Protection	IEC 61850-8-1 block 1, 2+, 4, 5, 9ab, 12acd, 13, 14	2006-05
Siemens	Germany	Siprotec 7SJ63 Multifunction Protection	IEC 61850-8-1 block 1, 2+, 4, 5, 9ab, 12acd, 13, 14	2006-05
Siemens	Germany	Siprotec 7SS52 Distributed Busbar / Breaker Failure Protection	IEC 61850-8-1 block 1, 2+, 5, 9ab, 12a, 13, 14	2006-05
Siemens	Germany	Siprotec 7UM62 Multifunction Generator Protection Relay	IEC 61850-8-1 block 1, 2+, 4, 5, 9ab, 12ad, 13, 14	2006-05
Siemens	Germany	Siprotec 7UT613 Differential Protection	IEC 61850-8-1 block 1, 2+, 4, 5, 9ab, 12acd, 13, 14	2006-05
Siemens	Germany	Siprotec 7UT633 Multifunctional differential protection for transformers	IEC 61850-8-1 block 1, 2+, 4, 5, 9ab, 12acd, 13, 14	2006-05
Areva T&D	France	MiCOM C264P	IEC 61850-8-1 block 1, 2, 5, 6, 9ab, 12acd, 13	2006-04
GE Multilin	Spain	F650 Bay Controller	IEC 61850-8-1 block 1, 2, 5, 6, 12a, 13, 14	2006-04
ABB Sweden	Sweden	ABB IED 670	IEC 61850-8-1 block 1, 2, 3, 4, 6, 9ab, 12ad, 13	2006-03
TEAM S.A.	Spain	SISTEAM 61850 GATEWAY ZY7060	IEC 61850-8-1 block 1, 2, 5, 13, 14	2006-01
Maschinenfabrik Reinhausen	Germany	Voltage regulator TAPCON 260	IEC 61850-8-1 block 1, 2, 5, 12a, 13	2005-10
A. Eberle GmbH & Co.	Germany	REG-PE tap changer controller with REG-D unit	IEC 61850-8-1 block 1, 2, 5, 12a, 13	2005-09
ABB	Finland	ABB REF545 with SPA- ZC 400	IEC 61850-8-1 block 1, 2, 5, 6, 12ad, 13	2005-08
ABB Switzerland	Switzerland	ABB REL316*4	IEC 61850-8-1 block 1, 2, 4, 5, 6, 9ab, 12ad, 13	2005-08
GE Multilin	Canada	UR F60 feeder relay	IEC 61850-8-1 block 1, 2, 5, 6	2005-08
Siemens	Germany	Siprotec 7SJ64x Protection and control unit	IEC 61850-8-1 block 1, 2+, 4, 5, 9ab, 12ad, 13, 14	2005-04
ELIOP	Spain	Sigres NT gateway	IEC 61850-8-1	2004-08



## IEC 61850 Test Register



MANUFACTURER	COUNTRY	SERVER DEVICE	PROTOCOL	DATE
Siemens	Germany	Siemens Instrument Transformer Unit (ITU)	IEC 61850-9-1 Publisher	2002-01
ABB High Voltage Technologies	Switzerland	ABB Merging Unit	IEC 61850-9-1 Publisher	2001-12
ABB Utility Automation	Switzerland	ABB 500BU003 Bay Unit	IEC 61850-9-1 Subscriber	2001-12
Siemens	Germany	Siemens 7SA525 Distance protection	IEC 61850-9-1 Subscriber	2001-12
Siemens Metering	Switzerland	Siemens ZMU802 High precision combi meter	IEC 61850-9-1 Subscriber	2001-12

The most recent list and all corresponding IEC 61850 certificates can be found at:

<http://www.ucaiug.org/org/TechnicalO/Testing/UCAIug%20Testing%20Quality%20Assurance%20Program/Forms/AllItems.aspx>.

If you don't have a login account you can create a free guest account on the home page.

For more information on the test results please contact the manufacturer directly.

## Test Register for IEC 61850 Ethernet Switches

MANUFACTURER	COUNTRY	ETHERNET SWITCH	TEST SCOPE	DATE
RuggedCom	USA	RS900	Functional test IEC 61850-3 full	2011-07
NARI	China	PCS-9882	Functional test	2011-03
N-Tron	USA	712FX4 and 710FX2	Functional test	2011-02
NARI	China	EPS6028E	Functional test	2011-02
Etherwan	Taiwan	EX87244	Functional test IEC 61850-3 full	2010-12
Beijing Omate	China	Omate 6000	Functional test	2010-08
PT-Switch	China	M7000	Functional test	2010-08
Cisco	USA	Surge 16/24	Functional test IEC 61850-3 full	2010-06
Golden Highway	China	IETH8008-F4C4	Functional test IEC 61850-3 full	2010-04
Nexans	Germany	iSwitch G 1043E SFP-3VI PRO3	Functional test	2010-04
NARI	China	PCS-9882	Functional test	2010-03
SixNet	USA	Sixnet EL228	Functional test IEC 61850-3 full	2010-03
Wiscom	China	WISLINK W-2000	Functional test IEC 61850-3 full	2010-01
GE Multilin	Canada	ML2400	Functional test IEC 61850-3 full	2009-08
Cisco	USA	IE-3000	Functional test IEC 61850-3 full	2009-08
Kyland	China	SICOM3024P	Functional test IEC 61850-3 full	2009-01
GarrettCom	USA	Magnum 6K	Functional test	2008-10
MOXA	Taiwan	PT-7710	Functional test IEC 61850-3 full	2008-04
MOXA	Taiwan	PT-7324	Functional test IEC 61850-3 full	2007-10
MOXA	Taiwan	PT-7728	Functional test IEC 61850-3 full	2007-10
Hirschmann	Germany	MACH-1030	Functional test IEC 61850-3 full	2007-10
RuggedCom	USA	RSG2100	Functional test IEC 61850-3 full	2006-10
uSysCom	Spain	3SWT	Functional test IEC 61850-3 limited	2006-04

For more information on the test results please contact the manufacturer directly.

## Overview of ACSI services per conformance block for Server Devices

Conformance Block	Mandatory	Optional
1: Basic Exchange	Associate, Abort, Release GetServerDirectory, GetLogicalDeviceDirectory GetLogicalNodeDirectory (DATA) GetDataValues, GetDataDirectory, GetDataDefinition	GetAllDataValues SetDataValues
2: Data Set	GetLogicalNodeDirectory (DATA-SET) GetDataSetValues GetDataSetDirectory	SetDataSetValues
2+: Data Set Definition	CreateDataSet, DeleteDataSet	
3: Substitution	SetDataValues, GetDataValues	
4: Setting Group	SelectActiveSG, GetSGCBValues	GetSGValues
4+: Setting Group Definition	SelectEditSG GetSGValues, SetSGValues ConfirmEditSGValues	
5: Unbuffered Reporting	Report, GetURCBValues, SetURCBValues	
6: Buffered Reporting	Report, GetBRCBValues, SetBRCBValues	
7: Logging	GetLCBValues, GetLogicalNodeDirectory(LOG) QueryLogByTime or QueryLogAfter, GetLogStatusValues	SetLCBValues
8a: GSSE publish	SendGSSEMessage (publish)	GetGsCBValues SetGsCBValues
8b: GSSE subscribe	SendGSSEMessage (subscribe)	
8c: GSSE mngt	GetGsReference, GetGSSEDataOffset	
9a: GOOSE publish	SendGOOSEMessage (publish)	GetGoCBValues SetGoCBValues
9b: GOOSE subscribe	SendGOOSEMessage (subscribe)	
9c: GOOSE mngt	GetGoReference, GetGOOSEElementNumber	
10: Sampled values part 9-1 pub/sub	<no ACSI service associated>	
11: Sampled values part 9-2 pub/sub	SendUSVMessage or SendMSVMessage	GetxSVCBValues SetxSVCBValues
12a: Direct control	Operate	TimeActivatedOperate
12b: SBO control	Select, Cancel, Operate	TimeActivatedOperate
12c: Enhanced Direct Control	Operate CommandTermination	TimeActivatedOperate
12d: Enhanced SBO control	SelectWithValue, Cancel, Operate CommandTermination	TimeActivatedOperate
13: Time sync	SNTP Time Synchronization	
14: File transfer	GetFile GetFileAttributeValues	SetFile DeleteFile