



NIPPON KAIJI KYOKAI

TYPE APPROVAL CERTIFICATE FOR AUTOMATIC DEVICES AND EQUIPMENT

Certificate No. TA15129M

This is to certify that the undernoted product(s) has/have been approved in accordance with the requirements specified in Chapter 1, Part 7 of "Guidance for the Approval and Type Approval of Materials and Equipment for Marine Use" and the relevant Society's Rules.

This certificate is issued to

Manufacturer:	Siemens AG 76181 Karlsruhe
Place of Manufacturing:	Ostliche Rheinbruckenstr. 50, Karlsruhe, Germany
Product description:	Programmable Electronic System
Model:	SIMATIC NET

Approval No.:	01A034
Valid until:	5 November 2018

This certificate is subject to the conditions specified in the attached sheet(s).

Issued at Tokyo on 16 March 2015.



Y. Shibata
General Manager
Machinery Department

Note: (1) This certificate has been issued due to the addition of new components.

(2) The manufacturer, if desired, is requested to apply to the Society for renewal prior to the expiration date.

Specification & documents:

1. Particulars: Power supply: AC 100 - 240V, 50/60Hz
DC 24V

2. Components and reference documents:

(1)Components

Components	Type
Scalance	104-2, 414, 106-1, 101, 491, 408, 108, 492, 495, 496, 208, 202-2 IRT, 744, 788, 005,112, 116, 124, 212, 216, 224, 307, 308, 310, 784, 204, 206, 302, 306, 320, 324, 528, 602:S602 ^{1,2,4,7,10,12} , 612:S612 ^{1,2,4,7,10,12} , 623:S623 ^{1,2,4,7,10,12} , 627:S627 ^{1,2,4,7,10,12} , 408:XM408-4C, 408:XM408-4C(Layer 3), 416:XM416-4C ^{2,4,7,10,12} , 416:XM416-4C(Layer 3) ^{2,4,7,10,12} , 408:PE408PoE ^{2,4,7,10,12} , 408:PE408 ^{2,4,7,10,12} , 408:XM408-8C ^{2,4,7,10,12} , 408:XM408-8C (Layer 3) ^{2,4,7,10,12} , 400:PE400-8FSP ^{2,4,7,10,12} , 524:XR524-24RJ-8SFP ^{2,4,7,10,12} , 524:XR524-24RJ-8SFP (Layer 3), 204:X204-2FM, 204:X204-2LD TS, 204:X204RNA EEC (HSR) ^{1,7} , 204:X204RNA EEC ^{1,7} , 204:X204RNA EEC (PRP/HSR) ^{1,7} , 304:X304-2FE ^{2,4,7,10,12} , 991:MM991-2FM (SC), 991:MM991-2P (SC RJ) ^{2,7,10,12} , 992:MM992-2VD (VARIABLE DISTANCE) ^{2,7,10,12}
	6GK5 EAP-W1-RJ-E1 EAP-W1-RJ-I1 EAP-W2-RJ-E2 EAP-W2-RJ-I2 EAP-W3-RJ-E3 EAP-W1-MM-E1 EAP-W1-MM-I1 EAP-W2-MM-E2 EAP-W2-MM-I2 EAP-W3-MM-E3
	S30122- X8000-xxx EAP-W2-RJ-I2 EAP-W2-RJ-E2

Components	Type	
Scalance	RAPN-	W1-M12-E3:W788-1 M12 ^{2,4,7,10,12}
		W1-M12-E3:W788-1 M12(USA)
		W1-M12-E3:W788-2 M12 ^{2,4,7,10,12}
		W1-M12-E3:W788-2 M12(USA) ^{2,4,7,10,12}
		W1-M12-E3:W748-1 M12 ^{2,4,7,10,12}
		W1-M12-E3:W748-1 M12(USA) ^{2,4,7,10,12}
		W1-M12-E3:W788C-2 M12 ^{2,4,7,10,12}
		W1-M12-E3:W788-2 M12 EEC
		W1-M12-E3:W788-2 M12 EEC(USA) ^{2,4,7,10,12}
		W1-M12-E3:W788C-2 M12 EEC ^{2,4,7,10,12}
		W1-RJ-E3:W788-1 RJ45 ^{2,4,7,10,12}
		W1-RJ-E3:W788-1 RJ45(USA) ^{2,4,7,10,12}
		W1-RJ-E3:W788-2 RJ45 ^{2,4,7,10,12}
		W1-RJ-E3:W788-2 RJ45(USA) ^{2,4,7,10,12}
		W1-RJ-E3:W748-1 RJ45 ^{2,4,7,10,12}
		W1-RJ-E3:W748-1 RJ45(USA) ^{2,4,7,10,12}
		W1-RJ-E3:W788C-2 RJ45 ^{2,4,7,10,12}
	MSN-	W1-RJ-E2:W734-1 RJ45 ^{2,4,7,10,12}
		W1-RJ-E2:W734-1 RJ45 (USA) ^{2,4,7,10,12}
		W1-RJ-E2:W774-1 RJ45 ^{2,4,7,10,12}
		W1-RJ-E2:W774-1 RJ45 (USA) ^{2,4,7,10,12}
		W1-M12-E2:W774-1 M12 EEC ^{2,4,7,10,12}
		W1-M12-E2:W774-1 M12 EEC(USA) ^{2,4,7,10,12}
Module	6GK5 991-..., 6GK5 992-..., 6GK5 993-...	
Security Module	6GK5 612, 6GK5 613, 6GK5 602	
Power Supply (PS)	6GK5 791	
Modular Outlet	6GK1 901	
IE/PB Link	6GK1 411	
OBT	6GK1 500	
BT	-	
OSM	-	
ESM	-	
OLM	6GK1 503	
CSM Module	6GK7 277-..., 6GK7 377-...	
S7 1200 CM	6GK7 242-..., 6GK7 243-...	
S7 1500 CM	6GK7542: CM 1542-1 ^{1,3,5,8}	
S7 400 CP	6GK7442: CP 442-1 RNA ^{1,3,6,9,11}	
	6GK7443: CP 443-1 RNA ^{1,3,6,9,11}	

(2) Reference Documents

- Catalog

Catalog ST 70・1999, Catalog ST 70・News 2000, Catalog ST 80・1999, CA 01 04/00SED,
C79000-G8976-C199-01, C79000-G8976-C184-02, A5E00288912-02, A5E00349864 Release 2,
Siemens IK PI-2005, C79000-G8976-C186-01, C79000-G8900-C196-01

- To be continued -

- Manual

A5E00349864, A2B00065774D, A2B00051521A, C79000-G8976-C186, A5E01048819-01, A5E01113043-10, A2B00073499E, BA_SCALANCE-X-200_76, BA_SCALANCE-X-200RNA_76, BA_SCALANCE-X-300_76, BA_SCALANCE-XM400_76, BAK_SCALANCE-MM900_76, IMH_SCALANCE-S_76_en-S6xx, BAK_SCALANCE-XR-500M_76_en-US, BA_SCALANCE-W7x8_76, BA_SCALANCE-W770-W730_76, GH_CM1542-1_76, GH_CP442-1-RNA_76, GH_CP443-1-RNA_0_de-DE

-Technical data

BA_SCALANCE-MM991_MM992, BA_SCALANCE-PE400_PE408, BA_SCALANCE-W7x8 BA_SCALANCE-W774_W734, BA_SCALANCE-X204, BA_SCALANCE-X204RNA, BA_SCALANCE-X-300, BA_SCALANCE-XM416_XM408, BAK_SCALANCE-XR-500M_76, CP553-1-RNA, GH_CM1542-1, GH_CP442-1-RNA_76, IMH_SCALANCE-S602_S612_S623_S627

3. Documentation and Test Reports:

- A&D AS E423-0102, A&D AS RD ST Type Test-02/05, A&D ATS 6/05-M0601798-A1
- A&D AS RD ST Type Test-11/2005, A&D AS RD ST Type Test-0606
- A&D AS RD ST Type Test-08/07
- 11A AS RD ST Type Test report No. 2008-K035-HV-01, -02, -03, -04, -05
- 11A AS RD ST Type Test-2011-02
- Information for flame retardant according UL746C chapter 17
- Marine Test COMMUNICATION MODULE and PROCESSOR
- Marine Test Report SCALANCE S_X
- Marine Test Report SCALANCE W_IWLAN
- UL-File: ¹E85972, ²E115352
- UL HAZ LOC File: ³E223122, ⁴E240480
- FM Cert. No.: ⁵3047741, ⁶3002335, ⁷3021712
- ATEX Cert.: ⁸DEKRA 12ATEX0240 X, ⁹Kema 03ATEX1225 X, ¹⁰Kema 07ATEX0145 X
- IECEx Cert.: ¹¹IECEx DEK 14.0034X, ¹²IECEx DEK 14.0025X

4. Installation

- OSM/ESM: Montage only with S7-300 profile rail or wall mounting
- Scalance 6GK5 744/788/414/491/492/495/496/786/784
Montage only with S7-300 profile rail or wall mounting possible
- Modular Outlet: Montage with mounting rail 35mm or wall mounting possible
- Scalance 6GK5 104-2, 106-1, 108, 208, 202-2 IRT, 101, 005, 112, 116, 124, 212, 216, 224, 307, 308, 310 and power supply :
Montage with S7-300 profile rail, mounting rail 35mm or wall mounting
- IE/PB Link: Montage only with S7-300 profile rail
- OLM: Montage with mounting rail 35mm
- Scalance 6GK5 408: Montage with S7-300 profile rail or mounting rail 35mm

Test items & approval conditions:

1. Test items:

(Applied testing items are marked with X.)

ENVIRONMENTAL TESTS		Mark
External examination		X
Operation test and performance test		X
Electric power supply failure test		X
Power supply fluctuation test	Electric	X
	Pneumatic and Hydraulic	--
Insulation resistance test		X
High voltage test		X
Pressure test (Pneumatic and Hydraulic)		--
Dry heat test (Temperature 70°C × 16 hours)		X
Damp heat test		X
Vibration test (Acceleration $\pm 1.0g \times 1.5$ hours for OBT, BT, OSM, ESM, $\pm 0.7g \times 1.5$ hours for others)		X
Inclination test		--
Cold test (Temperature -25°C × 16 hours)		X
Salt mist test		--
Electrostatic discharge immunity test		X
Radiated radio frequency immunity test		X
Conducted low frequency immunity test		X
Conducted high frequency immunity test		X
Burst / Fast transient immunity test		X
Surge immunity test		X
Radiated emission test		X
Conducted emission test		X
Flame retardant test		--

2. Approval conditions:

- (1) The products are allowed to be installed in general power distribution zone.
The products MM991-2FM, MM991-2P, MM992-2VD, all SCALANCE W (IWLAN), CM1542-1, S602, S612, S623, S627 are allowed to be installed in bridge and deck zone.
- (2) CM1542-1, S602, S612, S623, S627 fulfils the EMC requirements for installation on bridge and deck Zone with filter EPCOS B84113-C- B30 or equivalent.
- (3) The products are not allowed to be installed in the open decks.
- (4) Where Scalance, Power Supply, Modular Outlet and IE/PB Link are used in the bridge or open decks, these modules are to be connected to the filter, which has the following characteristics.
(I = 3A, C = $2 \times 0.47\mu\text{F} + 2 \times 4700\text{pF}$, L = $4 \times 4.7\text{mH}$)

- To be continued -

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Attached sheet -5/5 to the Certificate No. TA15129M

- (5) Scalance 6GK5 744/788 are only to be used in an environment where the Wireless LAN communication does not interfere with other equipment or systems.
- (6) Security Modules 6GK5 602/612/613 are only to be used with Ferrit 24V DC. Type: 74271222, Manufacturer: Wuerth
- (7) 24V/230V power supply lines are to be protected by Dehn Blitzductor order No.918 402 (tested) or equivalent.

- The End -