

Prüfurkunde - Test Certificate

SM-2551 Ser. Interface Prozessor 2 SS

BC2-551--

SM-2551 Serial Interface Processor 2 SI

6MF10130CF510AA1

Elektrische Sicherheit / Isolation - Electrical safety / Isolation

Prüfung - Test: Isol. Wechselspg. - Dielectric test	Datum - Date: 15-10-2009
Norm - Norm: IEC 60255-5:2000	Protokoll - Protocol: 2551-S55_00

Prüfung - Test: Isol. Stoßspg. - Impulse voltage test	Datum - Date: 15-10-2009
Norm - Norm: IEC 60255-5:2000	Protokoll - Protocol: 2551-S55_00

Elektromagnetische Verträglichkeit - Electromagnetic compatibility

Prüfung - Test: Imm. HF-Feld - EM field immunity	Datum - Date: 05-04-2006
Norm - Norm: IEC 61000-4-3:2006	Protokoll - Protocol: BC2Sys-S03_00

Prüfung - Test: Imm. GSM-Feld - GSM field immunity	Datum - Date: 05-04-2006
Norm - Norm: ENV 50204:1995	Protokoll - Protocol: BC2SYS-S03_00

Prüfung - Test: Störfeldstärke - Emission	Datum - Date: 25-11-2004
Norm - Norm: CISPR 22:2003	Protokoll - Protocol: BC2551-S22_00

Prüfung - Test: Imm. ESD - ESD immunity	Datum - Date: 25-11-2004
Norm - Norm: IEC 61000-4-2:1995	Protokoll - Protocol: BC2551-S02_00

Prüfung - Test: Imm. Burst - Burst immunity	Datum - Date: 25-11-2004
Norm - Norm: IEC 61000-4-4:2004	Protokoll - Protocol: BC2551-S04_00

Prüfung - Test: Imm. HF induziert - Cond. dist. immunity	Datum - Date: 25-11-2004
Norm - Norm: IEC 61000-4-6:2003	Protokoll - Protocol: BC2551-S06_00

Prüfung - Test: Imm. Magnetfeld 50Hz - HF 50Hz immunity	Datum - Date: 25-11-2004
Norm - Norm: IEC 61000-4-8:1993	Protokoll - Protocol: BC2551-S08_00

Prüfung - Test: Imm. Magnetfeld Puls - Magn. pulse immunity	Datum - Date: 25-11-2004
Norm - Norm: IEC 61000-4-9:1993	Protokoll - Protocol: BC2551-S09_00

Umweltprüfungen - Environmental testing

Prüfung - Test: Klima - Climatic test	Datum - Date: 25-11-2004
Norm - Norm: IEC 60068-2-x:	Protokoll - Protocol: BC2sys-s30_01

Der Prüfgegenstand hat die Prüfungen bestanden. Nach Abschluss der Prüfungen waren die Eigenschaften unverändert und der Prüfgegenstand voll funktionsfähig.
The equipment has successfully passed the type test. The equipment did not show any changes and was fully in order subsequent to these tests.

Siemens AG Österreich

Wien - Vienna, 04-04-2011

Energy Automation Development
E A D TC2

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Prüfer - Tested by:



Name / Unterschrift - Signature

Geprüft - Reviewed by:



Name / Unterschrift - Signature

		SIEMENS	
Tested by / on: H. STEFL/ 2009-10-15	Re: EMC TYPE TESTING Insulation Tests Products: SM-2551	Report no.: 2551-S55_00	
Released by / on: J. Lichnekert / 2011-02-28		Account / Request no.:	
File: 2551-S55_00.doc		Issued in / on.: Vienna, 2009-10-15	
		Sheet: 1	Sheets: 7

1. Requirements and Standards Applied

Test requirement acc. to:

FB AK 1703 ACP Functional Description AK_ACP_FB_ENG.pdf (MC2-011-2)


Test setup and execution were to comply with the following test standard:

IEC 60255-5 (2000-12) Electrical relays -
Part 5: Insulation coordination for measuring relays and
protection equipment; Requirements and tests
(= EN 60255-5/2001-04)

2. Summary of Test Result

The module **SM-2551** has **passed** the insulation tests according to the test requirement

- a) dielectric voltage test using a test voltage of **2,1kV_{DC}** or **1,5 kV_{eff}**
- b) impulse voltage test using a test voltage of **2,5 kV_s**

Department: Quality Systems	TEST REPORT		
Tested by / on: Stefl/05.04.2006	Re: EMC TYPE TESTING Electromagnetic field immunity test	Report no.: BC2sys-S03_00	
Released by / on: J. Lichtnekert/ 05.12.2007		Account / Request no.: T001	
File: BC2sys-S03_00_e.doc		Issued in / on: Vienna, 25.06.2011	
		Product: CP-2010, CP-2012, SM-2551, SM-0551	Sheet: 1

1 Requirements and Standards Applied

Test requirement acc. to:

AK1703ACP_FS Rev. 1.02 Allg. Funktionsspezifikation AK 1703 ACP
(general function specification AK 1703 ACP)


Test setup and execution were to comply with the following test standard:

IEC 61000-4-3 (2006-02) Electromagnetic compatibility (EMC)
Part 4-3: Testing and measurement techniques -
Radiated, radio-frequency, electromagnetic field immunity test

ENV 50204 (1995-03) Radiated electromagnetic field from digital radio telephones.
Immunity test.

2 Summary of Test Result

The modules **CP-2010, CP-2012, SM-2551** and **SM-0551** have **passed** the radio interference immunity test according to the test requirement when subjected to an interference-field strength of 10V/m.

Department: HW-DC	TEST REPORT		
Tested by / on: J. Teufelhart/ 25.11.2004	Re: EMC TYPE TESTING Radio-Interference-Field Strength Product: SM-2551	Report no.: BC2551-S22_00	
Released by / on: Stefl H.		Account / Request no.: E367X	
File: BC2551-S22_00_e.doc		Issued in / on.: Vienna, 25.06.2011	
		Sheet: 1	Sheets: 27

1 Requirements and Standards Applied

Test requirement acc. to:


AK1703ACP_FS Rev. 1.02	Allg. Funktionsspezifikation AK 1703 ACP (general function specification AK 1703 ACP)
Baycontroller_FS Rev 2.01	Allg. Funktionsspezifikation BC 1703 AC (general function specification BC 1703 ACP)
GC6-xxx--.xx/42-5.06	Allg. Funktionsspezifikation TM1703 (general function specification TM 1703)

Test setup and execution were to comply with the following test standard:

CISPR 22 (2003-04) mod.	Information technology equipment - Radio disturbance characteristics - Limits and methods of measurement
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2 Summary of Test Result

The module **SM-2551** has **passed** the radio-interference-field strength test according to the test requirement.

Department: HW-DC	TEST REPORT			
Tested by / on: J. Teufelhart/ 25.11.2004	Re: EMC TYPE TESTING Electrostatic discharge immunity test	Report no.: BC2551-S02_00		
Released by / on:		Account / Request no.: E367X		
File: BC2551-S02_00_e.doc		Issued in / on.: Vienna, 25.06.2011		
		Product: SM-2551	Sheet: 1	Sheets: 11

1 Requirements and Standards Applied

Test requirement acc. to:


AK1703ACP_FS Rev. 1.02	Allg. Funktionsspezifikation AK 1703 ACP (general function specification AK 1703 ACP)
Baycontroller_FS Rev 2.01	Allg. Funktionsspezifikation BC1703 ACP (general function specification BC 1703 ACP)
GC6-xxx--.xx/42-5.06	Allg. Funktionsspezifikation TM1703 (general function specification TM 1703)
MA2-002-1.03	Funktionsbeschreibung AK 1703 (function description AK 1703)
MA4-000-1.02	Funktionsbeschreibung AMC 1703 (function description AMC 1703)

Test setup and execution were to comply with the following test standard:

IEC 61000-4-2 (1995-01) +A1 (1998-01) + A2 (2000-11)	Electromagnetic compatibility (EMC) Part 4-2: Testing and measurement techniques - Electrostatic discharge immunity test - Basic EMC publication (= EN 61000-4-2/1995 + A1/1998 + A2/2001)
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2 Summary of Test Result

The module **SM-2551** has **passed** electrostatic discharge immunity testing acc. to the test requirement when subjected to a disturbance voltage of $\pm 6\text{kV}$ (contact discharge) and $\pm 8\text{kV}$ (air discharge).

Department: HW-DC	TEST REPORT		
Tested by / on: J. Teufelhart/ 25.11.2004	Re: EMC TYPE TESTING Electrical fast transient/burst immunity test Product: SM-2551	Report no.: BC2551-S04_00	
Released by / on: Stefl H.		Account / Request no.: E367X	
File: BC2551-S04_00_e.doc		Issued in / on.: Vienna, 25.06.2011	
		Sheet: 1	Sheets: 15

1 Requirements and Standards Applied

Test requirement acc. to:


AK1703ACP_FS Rev. 1.02	Allg. Funktionsspezifikation AK 1703 ACP (general function specification AK 1703 ACP)
Baycontroller_FS Rev 2.01	Allg. Funktionsspezifikation BC1703 ACP (general function specification BC 1703 ACP)
GC6-xxx--.xx/42-5.06	Allg. Funktionsspezifikation TM1703 (general function specification TM 1703)
MA2-002-1.03	Funktionsbeschreibung AK 1703 (function description AK 1703)
MA4-000-1.02	Funktionsbeschreibung AMC 1703 (function description AMC 1703)

Test setup and execution were to comply with the following test standard:

IEC 61000-4-4 (2004-07)	Electromagnetic compatibility (EMC) Part 4-4: Testing and measurement techniques - Electrical fast transient/burst immunity test Basic EMC publication
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2 Summary of Test Result

The module **SM-2551** has **passed** the electrical fast transient/burst immunity test according to the test requirement when subjected to a disturbance voltage of 2kV

Department: HW-DC	TEST REPORT		
Tested by / on: J. Teufelhart/ 25.11.2004	Re: EMC TYPE TESTING Immunity to conducted disturbances, induced by radio-frequency fields	Report no.: BC2551-S06_00	
Released by / on: Steffl H.		Account / Request no.: E367X	
File: BC2551-S06_00_e.doc		Issued in / on.: Vienna, 25.06.2011	
		Product: SM-2551	Sheet: 1

1 Requirements and Standards Applied

Test requirement acc. to:


AK1703ACP_FS Rev. 1.02	Allg. Funktionsspezifikation AK 1703 ACP (general function specification AK 1703 ACP)
Baycontroller_FS Rev 2.01	Allg. Funktionsspezifikation BC1703 ACP (general function specification BC 1703 ACP)
GC6-xxx--.xx/42-5.06	Allg. Funktionsspezifikation TM1703 (general function specification TM 1703)
MA2-002-1.03	Funktionsbeschreibung AK 1703 (function description AK 1703)
MA4-000-1.02	Funktionsbeschreibung AMC 1703 (function description AMC 1703)

Test setup and execution were to comply with the following test standard:

IEC 61000-4-6 (2003-05)	Electromagnetic compatibility (EMC) Part 4-6: Testing and measurement techniques – Immunity to conducted disturbances, induced by radio- frequency fields
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2 Summary of Test Result

The module **SM-2551** has **passed** the test of its immunity to conducted disturbances, induced by radio-frequency fields, according to the test requirement when subjected to a disturbance voltage of 10V.

Department: HW-DC	TEST REPORT		
Tested by / on: J. Teufelhart/ 25.11.2004	Re: EMC TYPE TESTING Power frequency magnetic field immunity test	Report no.: BC2551-S08_00	
Released by / on:		Account / Request no.: E367X	
File: BC2551-S08_00_e.doc		Issued in / on.: Vienna, 25.06.2011	
		Product: SM-2551	Sheet: 1

1 Requirements and Standards Applied

Test requirement acc. to:


AK1703ACP_FS Rev. 1.02	Allg. Funktionsspezifikation AK 1703 ACP (general function specification AK 1703 ACP)
Baycontroller_FS Rev 2.01	Allg. Funktionsspezifikation BC1703 ACP (general function specification BC 1703 ACP)
GC6-xxx--.xx/42-5.06	Allg. Funktionsspezifikation TM1703 (general function specification TM 1703)
MA2-002-1.03	Funktionsbeschreibung AK 1703 (function description AK 1703)
MA4-000-1.02	Funktionsbeschreibung AMC 1703 (function description AMC 1703)

Test setup and execution were to comply with the following test standard:

IEC 61000-4-8 (1993-06) + A1 (2000-11)	Electromagnetic compatibility (EMC) Part 4-8: Testing and measurement techniques - Power frequency magnetic field immunity test - Basic EMC publication (= EN 61000-4-8/1993 + A1/2001)
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2 Summary of Test Result

The module **SM-2551** has **passed** the Power frequency magnetic field immunity test according to the test requirement when subjected to an field strength of 1000 A/m permanently and 1400 A/m temporary.

Department: HW-DC	TEST REPORT		
Tested by / on: J. Teufelhart/ 25.11.2004	Re: EMC TYPE TESTING Pulse magnetic field immunity test	Report no.: BC2551-S09_00	
Released by / on:		Account / Request no. E367X	
File: BC2551-S09_00_e.doc		Issued in / on.: Vienna, 25.06.2011	
		Product: SM-2551	Sheet: 1

1 Requirements and Standards Applied

Test requirement acc. to:

Baycontroller_FS Rev 2.01 Allg. Funktionsspezifikation BC 1703 ACP
(general function specification BC 1703 ACP)

Test setup and execution were to comply with the following test standard:

IEC 61000-4-9 (1993-06) Electromagnetic compatibility (EMC)
+ A1 (2000-11) Part 4-9: Testing and measurement techniques -
Pulse magnetic field immunity test
(= EN 61000-4-9/1993 + A1/2001)

2 Summary of Test Result

The module **SM-2551** has **passed** the Pulse magnetic field immunity test according to the test requirement when subjected to an field strength of 1000 A/m.

Tested by / on: J. Teufelhart 25.11.2004	Re: Environmental Testing Damp Heat Product: SM-2551	Report no.: BC2551-S30_01
Released by / on: H. Stefl		Account / Request no.: E367X
File: BC2551- S30_01_e.doc.doc		Issued in / on.: Vienna, 25.06.2011
		Sheet: 1 Sheets:4

1 Requirements and Standards Applied

Test requirement acc. to:

AK1703ACP_FS Rev. 1.02	Allg. Funktionsspezifikation AK 1703 ACP (general function specification AK 1703 ACP)
Baycontroller_FS Rev 2.01	Allg. Funktionsspezifikation BC 1703 ACP (general function specification BC 1703 ACP)
GC6-xxx--.xx/42-5.06	Allg. Funktionsspezifikation TM 1703 (general function specification TM 1703)

Test setup and execution were to comply with the following test standard:

IEC 60068-2-1 (1990-04) + A1 (1993-02) + A2 (1994-05)	Environmental testing - Part 2: Tests; Tests A: Cold (= EN 60068-2-1:1993 + A1:1993 + A2:1994)
IEC 60068-2-2 (1974) + A1 (1993-01) + A2 (1994-05)	Basic environmental testing procedures - Part 2: Tests; Tests B: Dry heat (= EN 60068-2-2:1993 + A1:1993 +A2:1994)
IEC 60068-2-78 (2001-08)	Environmental testing - Part 2-78: Tests; Test Cab: Damp heat, steady state (= EN 60068-78:2001)

2 Summary of Test Result

The module **SM-2551** has **passed** the environmental test according to the test requirement when subjected to cold (-5°C), damp heat (40°C/98%) and dry heat (55°C/10%).