SIEMENS

Power Distribution
Energy Automation Development

Typprüfung - Type Test

Prüfurkunde - Test Certificate

AI-5306 Ana. Eing. 16x ±20mA,1ms-Abtast. **BC5-306--**

AI-5306 Ana. Inputs 16x +20mA,1ms **6MF10130FD060AA1**

Funktionsprüfungen - Functional testing

Prüfung - Test:	Funktion - Functional test	Datum - Date:	23-01-2008
Norm - Norm:	---:	Protokoll - Protocol:	5306-S00_00

Elektrische Sicherheit / Isolation - Electrical safety / Isolation

Prüfung - Test:	Isol. Wechselspg. - Dielectric test	Datum - Date:	28-11-2007
Norm - Norm:	IEC 60255-5:2000	Protokoll - Protocol:	5306-S55_00
Prüfung - Test:	Isol. Stoßspg. - Impulse voltage test	Datum - Date:	28-11-2007
Norm - Norm:	IEC 60255-5:2000	Protokoll - Protocol:	5306_S55_00

Elektromagnetische Verträglichkeit - Electromagnetic compatibility

Prüfung - Test:	Störfeldstärke - Emission	Datum - Date:	26-11-2007
Norm - Norm:	CISPR 22:2005	Protokoll - Protocol:	5306-S22_00
Prüfung - Test:	Imm. ESD - ESD immunity	Datum - Date:	16-11-2007
Norm - Norm:	IEC 61000-4-2:1995	Protokoll - Protocol:	5306-S02_00
Prüfung - Test:	Imm. HF-Feld - EM field immunity	Datum - Date:	03-12-2007
Norm - Norm:	IEC 61000-4-3:2006	Protokoll - Protocol:	5603-S03_00
Prüfung - Test:	Imm. Burst - Burst immunity	Datum - Date:	15-11-2007
Norm - Norm:	IEC 61000-4-4:2004	Protokoll - Protocol:	5306-S04_00
Prüfung - Test:	Imm. Surge 1,2/50 - Surge imm. 1,2/50µs	Datum - Date:	21-11-2007
Norm - Norm:	IEC 61000-4-5:1995	Protokoll - Protocol:	5306-S05_00
Prüfung - Test:	Imm. HF induziert - Cond. dist. immunity	Datum - Date:	15-11-2007
Norm - Norm:	IEC 61000-4-6:2003	Protokoll - Protocol:	5306-S06_00
Prüfung - Test:	Imm. Magnetfeld 50Hz - HF 50Hz immunity	Datum - Date:	26-11-2007
Norm - Norm:	IEC 61000-4-8:1993	Protokoll - Protocol:	5306-S08_00
Prüfung - Test:	Imm. Magnetfeld Puls - Magn. pulse immunity	Datum - Date:	26-11-2007
Norm - Norm:	IEC 61000-4-9:1993	Protokoll - Protocol:	5306-S09_00

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

Power Distribution
Energy Automation Development
E A D TC2

Wien - Vienna, 11-11-2008

Prüfer - Tested by:

STEFL Seidl

Name / Unterschrift - Signature

Geprüft - Reviewed by:

A. WÖHRER

Name / Unterschrift - Signature

Department: PTD EA D TC2-3	**TEST REPORT**	SIEMENS
Tested by / on: H. STEFL / 2008-01-23	Re: **Environmental Testing** **Functional and Temperature test**	Report no.: **5306-S00_00**
Released by / on: J. Lichtnekert / 2008-09-02		Account / Request no.: **S.71606.01.50.09.11**
File: 5306-s00_00.doc		Issued in / on.: Vienna, **2008-01-25**
	Products: AI-5300 / AI-5306	Sheet: 1 / Sheets: 15

1 Requirements

Test requirement acc. to:

BC 1703 ACP	**FB BC 1703 ACP Functional Description document: BC_ACP_FB(e).pdf Rev.3**

2 Summary of Test Result

The modules **AI-5306** has **passed** the function and temperature tests according to the test requirement.

Department: PTD EA D TC2-3	**TEST REPORT**	SIEMENS	
Tested by / on: H. STEFL / 2007-11-16	Re: **EMC TYPE TESTING** **Electrostatic discharge immunity test**	Report no.: **5306-S02_00**	
Released by / on: J. Lichtnekert / 2008-09-02		Account / Request no.: **S.71606.01.50.09.11**	
File: 5306-S02_00.doc		Issued in / on.: Vienna, **2007-11-18**	
	Products: AI-5306	Sheet: 1	Sheets: 9

1. Requirements and Standards Applied

Test requirement acc. to:

BC 1703 ACP **FB BC 1703 ACP Functional Description document: BC_ACP_FB(e).pdf Rev.3**

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)

2. Summary of Test Result

The module **AI-5306** has **passed** electrostatic discharge immunity testing acc. to the test requirement when subjected to a disturbance voltage of **± 6kV** (contact discharge) and **± 8kV** (air discharge). according to: AI-5300

Department: PTD EA D TC2-3	**TEST REPORT**	SIEMENS
Tested by / on: H. STEFL/ 2007-12-03	Re: **EMC TYPE TESTING** **Electromagnetic field immunity test**	Report no.: **5603-S03_00**
Released by / on: J. Lichtnekert / 2008-09-02		Account / Request no.: **S.71606.01.50.09.11**
File: 5306-S03_00.doc		Issued in / on: Vienna, **04. 12. 2007**
	Product: AI-5306	Sheet: 1 / Sheets: 7

1. Requirements and Standards Applied

Test requirement acc. to:

BC 1703 ACP **FB BC 1703 ACP Functional Description document: BC_ACP_FB(e).pdf Rev.3**

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

EN 61000-4-3 (2007-02) Electromagnetic compatibility (EMC)
Part 4-3: Testing and measurement techniques - Radiated, radio-frequency, electromagnetic field immunity test
(= IEC 61000-4-3/2006-02)

2. Summary of Test Result

The module **AI-5306** has **passed** the radio interference immunity test according to the test requirement when subjected to an interference-field strength of 10V/m and 3V/m.
according to: AI-5300

Department: PTD EA D TC2-3	**TEST REPORT**	SIEMENS	
Tested by / on: H. STEFL / 2007-11-15	Re: **EMC TYPE TESTING**	Report no.: **5306-S04_00**	
Released by / on: J.Lichtnekert / 2008-09-02	**Electrical fast transient/burst immunity test**	Account / Request no.: **S.71606.01.50.09.11**	
File: 5306-S04_00.doc		Issued in / on.: Vienna, **2007-11-18**	
	Products: AI-5306	Sheet: 1	Sheets: 9

1. Requirements and Standards Applied

Test requirement acc. to:

BC 1703 ACP **FB BC 1703 ACP Functional Description document: BC_ACP_FB(e).pdf Rev.3**

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

IEC 61000-4-4 (2004-07)	Electromagnetic compatibility (EMC)
+ Corrig. 1 (2006-08)	Part 4-4: Testing and measurement techniques -
+ Corrig. 2 (2007-06)	Electrical fast transient/burst immunity test
	(= EN 61000-4-4/2004-12)

2. Summary of Test Result

The modules **AI-5306** has **passed** the electrical fast transient/burst immunity test according to the test requirement when subjected to a disturbance voltage of **± 4kV.**
according to: AI-5300

Department: PTD EA D TC2-3	**TEST REPORT**	SIEMENS
Tested by / on:H. STEFL / 2007-11-21	Re: **EMC TYPE TESTING** **Surge immunity test** **1.2/50µs-pulses**	Report no.: **5306-S05_00**
Released by / on: J. Lichtnekert / 2008-09-02		Account / Request no. **S.71606.01.50.09.11**
File: 5306-S05_00.doc		Issued in / on.: Vienna, **2007-11-25**
	Product: AI-5306	Sheet: 1 / Sheets: 10

1. Requirements and Standards Applied

Test requirement acc. to:

BC 1703 ACP **FB BC 1703 ACP Functional Description document: BC_ACP_FB(e).pdf Rev.3**

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

IEC 61000-4-5 (2005-11) Electromagnetic compatibility (EMC)
Part 4-5: Testing and measurement techniques -
Surge immunity test

2. Summary of Test Result

The module **AI-5306** has **passed** the surge immunity test according to the test requirement when subjected to an interference voltage of ± **2,0kV COMMON** and **NORMAL**.
according to: AI-5300

Department: PTD EA D TC2-3	**TEST REPORT**	SIEMENS
Tested by / on: H. STEFL / 2007-11-15	Re: **EMC TYPE TESTING** **Immunity to conducted disturbances, induced by radio-frequency fields**	Report no.: **5306-S06_00**
Released by / on: J. Lichtnekert / 2008-09-02		Account / Request no.: **S.71606.01.50.09.11**
File: 5306-S06_00.doc		Issued in / on.: Vienna, **2007-11-18**
	Product: AI-5306	Sheet: 1 / Sheets: 7

1. Requirements and Standards Applied

Test requirement acc. to:

BC 1703 ACP **FB BC 1703 ACP Functional Description document: BC_ACP_FB(e).pdf Rev.3**

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

IEC 61000-4-6 (2003-05) **+ A1 (2004-10)** **+ A2 (2006-03)**	Electromagnetic compatibility (EMC) Part 4-6: Testing and measurement techniques – Immunity to conducted disturbances, induced by radio-frequency fields

2. Summary of Test Result

The module **AI-5306** 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**.
according to: AI-5300

Department: PTD EA D TC23	**TEST REPORT**	SIEMENS
Tested by / on: H. STEFL/ 2007-11-26	Re: **EMC TYPE TESTING**	Report no.: **5306-S08_00**
Released by / on: J. Lichtnekert / 2008-09-02	**Power frequency magnetic field immunity test**	Account / Request no.: **S.71606.01.50.09.11**
File: 5306-S08_00.doc		Issued in / on.: Vienna, **2007-11-28**
	Product: AI-5306	Sheet: 1 / Sheets: 7

1. Requirements and Standards Applied

Test requirement acc. to:

BC 1703 ACP	**FB BC 1703 ACP Functional Description document: BC_ACP_FB(e).pdf Rev.3**

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)

2. Summary of Test Result

The module **AI-5306** has **passed** the Power frequency magnetic field immunity test according to the test requirement when subjected to an field strength of 100 A/m permanently and 1000 A/m temporary. according to: AI-5300

Department: PTD EA D TC23	**TEST REPORT**	SIEMENS
Tested by / on: H. STEFL/ 2007-11-26	Re: **EMC TYPE TESTING** **Pulse magnetic field immunity test**	Report no.: **5306-S09_00**
Released by / on: J. Lichtnekert / 2008-09-02		Account / Request no. **S.71606.01.50.09.11**
File: 5306-S09_00.doc		Issued in / on.: Vienna, **2007-11-28**
	Product: AI-5306	Sheet: 1 / Sheets: 6

1. Requirements and Standards Applied

Test requirement acc. to:

BC 1703 ACP **FB BC 1703 ACP Functional Description document: BC_ACP_FB(e).pdf Rev.3**

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

IEC 61000-4-9 (1993-06) + A1 (2000-11)	Electromagnetic compatibility (EMC) 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 **AI-5306** has **passed** the Pulse magnetic field immunity test according to the test requirement when subjected to an field strength of 1000 A/m temporary.
according to: AI-5300

Department: PTD EA D TC2-3	**TEST REPORT**	SIEMENS
Tested by / on: H. STEFL/ 2007-11-26	Re: **EMC TYPE TESTING** **Radio-Interference-Field Strength**	Report no.: **5306-S22_00**
Released by / on: J. Lichtnekert / 2008-09-02		Account / Request no.: **S.71606.01.50.09.11**
File: 5306-S22_00.doc		Issued in / on.: Vienna, **2007-11-28**
	Product: AI-5306	Sheet: 1 / Sheets: 8

1. Requirements and Standards Applied

Test requirement acc. to:

BC 1703 ACP **FB BC 1703 ACP Functional Description document: BC_ACP_FB(e).pdf Rev.3**

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

CISPR 22 (2005-04) mod. **+ AMD 1 (2005-07)** **+ AMD 2 (2006-01)**	Information technology equipment - Radio disturbance characteristics – Limits and methods of measurement (= EN 55022/2006-09)

2. Summary of Test Result

The module **AI-5306** has **passed** the radio-interference-field strength test class A according to the test requirement.
according to: AI-5300

Department: PTD EA D TC2-3	**TEST REPORT**	SIEMENS
Tested by / on: Seidl/ 2006-11-27, Stefl / 2007-11-28	Re: **EMC TYPE TESTING**	Report no.: **5306-S55_00**
Released by / on: J. Lichtnekert / 2008-09-02	**Insulation Tests**	Account / Request no.: **S.71606.01.50.09.11**
File: 5306-S55_00.doc		Issued in / on.: Vienna, **2007-11-30**
	Products: AI-5306	Sheet: 1 / Sheets: 10

1. Requirements and Standards Applied

Test requirement acc. to:

BC 1703 ACP **FB BC 1703 ACP Functional Description document: BC_ACP_FB(e).pdf Rev.3**

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 **AI-5306 passed** the insulation tests according to the test requirement

a) dielectric voltage test using a test voltage of 1,6 kV_{eff}
b) impulse voltage test using a test voltage of 3 kV_s

according to: AI-5300