

SICAM DC 230 VAC –25 bis +70°C
6MF31000AB000AA0BB
SICAM DC 230 VAC –25 bis +70°C
6MF31000AB000AA0BB

Elektrische Sicherheit / Isolation - Electrical safety / Isolation

Prüfung - Test: Isol. Wechselfspg. - Dielectric test	Datum - Date: 28.04.14
Norm - Standard: IEC 61010-1:2010	Protokoll - Protocol: SICAM_DC-S55_01

Prüfung - Test: Isol. Stoßspg. - Impulse voltage test	Datum - Date: 28.04.14
Norm - Standard: IEC 61010-1:2010	Protokoll - Protocol: SICAM_DC-S55_01

Elektromagnetische Verträglichkeit - Electromagnetic compatibility

Prüfung - Test: Imm. PLC - Imm. PLC	Datum - Date: 28.04.14
Norm - Standard: EN 50065-2-3:2003	Protokoll - Protocol: SICAM_DC-S71_00

Prüfung - Test: Funkstörspannung DLC - Interference voltage	Datum - Date: 28.04.14
Norm - Standard: EN 50065-1:2011	Protokoll - Protocol: SICAM_DC-S70_00

Prüfung - Test: Imm. ged.Sinus Schw. - Imm. Ring waves	Datum - Date: 28.04.14
Norm - Standard: IEC 61000-4-12:2006	Protokoll - Protocol: SICAM_DC-S12_00

Prüfung - Test: Spannungseinbrüche - Voltage dips	Datum - Date: 17.02.14
Norm - Standard: IEC 61000-4-11:2004	Protokoll - Protocol: SICAM_DC-S11

Prüfung - Test: Störfeldstärke - Emission	Datum - Date: 28.04.14
Norm - Standard: CISPR 22:2008	Protokoll - Protocol: SICAM_DC-S22_00

Prüfung - Test: Störspannung SV - Radio dist. voltage	Datum - Date: 28.04.14
Norm - Standard: CISPR 22:2008	Protokoll - Protocol: SICAM_DC-S23_01

Prüfung - Test: Imm. ESD - ESD immunity	Datum - Date: 28.04.14
Norm - Standard: IEC 61000-4-2:2008	Protokoll - Protocol: SICAM_DC-S02_00

Prüfung - Test: Imm. HF-Feld - EM field immunity	Datum - Date: 03.02.14
Norm - Standard: IEC 61000-4-3:2006	Protokoll - Protocol: SICAM_DC-S03

Prüfung - Test: Imm. Burst - Burst immunity	Datum - Date: 28.04.14
Norm - Standard: IEC 61000-4-4:2012	Protokoll - Protocol: SICAM_DC-S04_00

Prüfung - Test: Imm. Surge 1,2/50 - Surge imm. 1,2/50µs	Datum - Date: 28.04.14
Norm - Standard: IEC 61000-4-5:2005	Protokoll - Protocol: SICAM_DC-S05_00

Prüfung - Test: Imm. HF induziert - Cond. dist. immunity	Datum - Date: 28.04.14
Norm - Standard: IEC 61000-4-6:2013	Protokoll - Protocol: SICAM_DC-S06_00

Prüfung - Test: Imm. Magnetfeld 50Hz - HF 50Hz immunity	Datum - Date: 28.04.14
Norm - Standard: IEC 61000-4-8:2009	Protokoll - Protocol: SICAM_DC-S08_00

Prüfung - Test: Imm. Magnetfeld Puls - Magn. pulse immunity	Datum - Date: 28.04.14
Norm - Standard: IEC 61000-4-9:1993	Protokoll - Protocol: SICAM_DC-S09_00

Prüfung - Test: Imm. 1MHz gedämpft - Oscillatory waves	Datum - Date: 28.04.14
Norm - Standard: IEC 61000-4-18:2006	Protokoll - Protocol: SICAM_DC-S18_00

Prüfung - Test: Imm. comm mode dist - Imm. comm mode dist	Datum - Date: 28.04.14
Norm - Standard: IEC 61000-4-16:1998	Protokoll - Protocol: SICAM_DC-S16_00

Prüfurkunde - Test Certificate

SICAM DC 230 VAC –25 bis +70°C

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SICAM DC 230 VAC –25 bis +70°C

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Umweltprüfungen - Environmental testing

Prüfung - Test: Klima - Climatic test

Datum - Date: 28.04.14

Norm - Standard: IEC 60068-2-x:

Protokoll - Protocol: SICAM_DC-S30_00

Prüfung - Test: Fc: Schwingen - Vibrations

Datum - Date: 28.04.14

Norm - Standard: IEC 60068-2-6:2007

Protokoll - Protocol: SICAM_DC-S68_00

Prüfung - Test: Ea: Schock - Shock

Datum - Date: 28.04.14

Norm - Standard: IEC 60068-2-27:2008

Protokoll - Protocol: SICAM_DC-S68_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

Wien - Vienna, 07.05.2014

IC-SG Energy Automation Products
Development

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Prüfer - Tested by:

Stefl Herbert

Digitally signed by Stefl Herbert
DN: serialNumber=Z001MUWX,
givenName=Herbert, sn=Stefl, o=Siemens,
cn=Stefl Herbert
Date: 2014.05.09 08:06:29 +0200


Name / Unterschrift - Signature

Geprüft - Reviewed by:

i.A. Kapoun Helmut

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o=Siemens, cn=Kapoun Helmut
Date: 2014.05.08 15:31:05 +0200

Name / Unterschrift - Signature

Department: IC-SG EA PRO D	TEST REPORT		
Tested by / on: M.Schachinger/ 2014-04-01	Betrifft: EMC TYPE TESTING Test for immunity to conducted, narrow-band, normal mode disturbances in the frequency range of 3kHz to 30MHz	Report no.: SICAM_DC-S71_00	
Released by: K. Beneder 20-04-2014		Account / Request no.: S.6167401.01.01.13	
File: SICAM_DC- S71_00.doc		Issued in / on.: Vienna, 2014-04-28	
		Product: SICAM DC	Sheet: 1

1. Requirements and Standards Applied

Test requirement acc. to:

Development Specification Hardware: **TTS_SICAM_DC.doc**

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

EN 50065-2-3 (2003-06) Signalling on low-voltage electrical installations in the frequency rang 3kHz to 148,5kHz
+ A1 (2005) Part 2-3: Immunity requirements for mains communications equipment and systems operating in the range of frequencies 3kHz to 95kHz and intended for use by electricity suppliers and distributors

(= EN 50065-2-3/2003-06 + A1/2005)

2. Summary of Test Result

The module **SICAM DC** has **passed** immunity testing to conducted, narrow-band, normal mode disturbances according to the test requirement when subjected

to a interference voltage of $5V_{rms}$ (3kHz – 10kHz and 95kHz – 150kHz) and

to a interference voltage of $2mV_{rms}$ (150kHz – 30MHz).

Department: IC-SG EA PRO D	TEST REPORT	SIEMENS	
Tested by / on: M.Schachinger/ 2014-04-18	Betrifft: EMC TYPE TESTING Test for output level in the frequency range of 0kHz to 150kHz	Report no.: SICAM_DC-S70_00	
<small>Created by: by Beneder Date: 2014.05.07 11:24:47 +0200</small> Beneder K.Beneder er.kurt		Account / Request no.: S.6167401.01.01.13	
File: SICAM_DC- S70_00.doc		Issued in / on.: Vienna, 2014-04-28	
Product: SICAM DC		Sheet: 1	Sheets: 6

1. Requirements and Standards Applied

Test requirement acc. to:

Development Specification Hardware: **TTS_SICAM_DC.doc**

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

EN 50065-1 (2011-04) Signalling on low-voltage electrical installations in the frequency rang 3kHz to 148,5kHz
Part 1: General requirements, frequency bands and electromagnetic disturbances


(= EN 50065-1/2011-4)

2. Summary of Test Result

The module **SICAM DC** has **passed** the output level test according to the test requirement.
The output level has to be:

lower than the 128dB μ V broadband limit in the frequency range of 9kHz to 95kHz and

lower than the 114dB μ V narrowband limit in the frequency range of 9kHz to 95kHz.

Department: IC-SG EA PRO D	TEST REPORT		
Tested by / on: H. Stefl / 2013-11-19	Re: Environmental Testing Vibration (sinusoidal), Shock	Report no.: SICAM_DC-S68_00	
Released by / on: K. Beneder 2014-04-28		Account / Request no.: S.6167401.01.01.13	
File: SICAM_DC- S68_00.doc		Issued in / on: Vienna, 2014-04-28	
		Product: SICAM DC	Sheet: 1

1. Requirements and Standards Applied

Test requirement acc. to: Product requirements SICAM CMIC and SICAM TM

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


- | | |
|---------------------------------|--|
| IEC 60068-2-6 (2007-12) | Environmental testing
Part 2: Tests - Test Fc: Vibration (sinusoidal)
(= EN 60068-2-6:2008-02) |
| IEC 60068-2-27 (2008-02) | Environmental testing
Part 2: Tests. Test Ea and guidance: Shock
(= EN 60068-2-27:2009-05) |

2. Summary of Test Result

The module **SICAM DC**

has **passed** the Environmental test "Vibration (sinusoidal) and Shock" according to the test requirement with

1g/1,5g by the **Vibration** testing and
10g/15g by the **Shock** testing.

Department: IC-SG EA PRO D	TEST REPORT		
Tested by / on: M. Schachinger 14.04.2014	Re: EMC TYPE TESTING Insulation Tests	Report no.: SICAM_DC-S55_01	
Prepared by / on: K. Benedek 14.04.2014		Account / Request no.: S.6167401.01.01.13	
File: SICAM_DC- S55_01.doc		Issued in / on.: Vienna, 2014-04-28	
		Products: SICAM DC	Sheet: 1

1. Requirements and Standards Applied

Test requirement acc. to:

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


IEC 61010-1 (2010-6) Safety requirements for electrical equipment for measurement, control, and laboratory use
(= EN 61010-1)

2. Summary of Test Result

The module **SICAM DC passed** the insulation tests according to the test requirement

- a) 60s dielectric voltage test using a test voltage of 3 kV_{eff}, 2,5 kV_{eff}, 1,5 kV_{eff}
- b) 5s dielectric voltage test using a test voltage of 3510V_{eff}, 1,5kV_{eff}
- c) impulse voltage test using a test voltage of 6,4 kV_s, 2,5 kV_s

(according to TTS_SICAM_DC.doc)

Department: IC-SG EA PRO D	TEST REPORT		
Tested by / on: M. Schachinger / 2014-03-07 to 17	Re: Environmental Testing Cold / Dry Heat / Damp Heat	Report no.: SICAM_DC-S30_00	
<small>Created by: Beneder Kurt</small> <small>Created on: 2014/03/07 11:27:10</small> <small>Doc. SerialNumber: 2001MUS1</small> <small>PersonName: Kurt, st-Beneder</small> <small>Organization: Siemens, c/o-Beneder Kurt</small>		Account / Request no.: S.6167401.01.01.13	
File: SICAM_DC- S30_00.doc		Issued in / on.: Vienna, 2014-04-28	
		Product: SICAM DC	Sheet: 1

1. Requirements and Standards Applied

Test requirement acc. to: **TTS_SICAM_DC.doc**

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

- IEC 60068-2-1 (2007-03)** Environmental testing -
Part 2: Tests; Tests A: Cold
(EN 60068-2-1:2007-04)
- IEC 60068-2-2 (2007-07)** Basic environmental testing procedures -
Part 2: Tests; Tests B: Dry heat
(= EN 60068-2-2:2007-09)
- IEC 60068-2-78 (2012-10)** Environmental testing -
Part 2-78: Tests; Test Cab: Damp heat, steady state
(= prEN 60068-2-78:2012-08)
- IEC 60068-2-30 (2005-08)** Environmental testing -
Part 2-30: Tests; Test Db: Damp heat, cyclic (12h + 12h
cycle)
(= EN 60068-2-30:2006-06)

2. Summary of Test Result

The module **SICAM DC** has **passed** the environmental test according to the test requirement when subjected to dry heat (70°C/10% rh), cold (-25°C) and damp heat (40°C/93% rh).

Department: IC-SG EA PRO D	TEST REPORT	SIEMENS	
Tested by / on: M. Schachinger / 2014-02-03 2014-04-17	Re: EMC TYPE TESTING Interference voltage	Report no.: SICAM_DC-S23_01	
Released by / on: K. Beneder / 2014-04-17		Account / Request no.: S.6167401.01.01.13	
File: SICAM_DC- S23_01.doc		Issued in / on.: Vienna, 2014-04-28	
		Product: SICAM DC	Sheet: 1

1. Requirements and Standards Applied

Test requirement acc. to:

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

CISPR 22 (2008-09) mod. Information technology equipment -
+ ISH 1 (2009-10) Radio disturbance characteristics -
+ ISH 2 (2010-04) Limits and methods of measurement
+ ISH 3 (2012-04) (= EN 55022/2010-12 + AC/2011-10)

EN 50065-1:2011 Signalling on low-voltage electrical installations in the frequency
range 3 kHz to 148,5 kHz -- Part 1: General requirements,
frequency bands and electromagnetic disturbances

2. Summary of Test Result

The module **SICAM DC** has **passed** the CISPR22 interference voltage test (class B) according to the test requirement. (150kHz-30MHz)

The module **SICAM DC** has **passed** the EN50065-1 interference voltage test according to the test requirement. (3-150kHz)

Department: PTD EA D TC2-3	TEST REPORT	SIEMENS	
Tested by / on: M. Schachinger / 2014-02-04	Re: EMC TYPE TESTING Radio-Interference-Field Strength Product: SICAM DC	Report no.: SICAM_DC-S22_00	
<small>Digitally signed by Beneder Kurt</small> <small>DN: cn=Beneder Kurt, o=Siemens, c=</small> <small>2014.05.07 11:28:01</small> Beneder Kurt <small>2014-04-28</small>		Account / Request no.: S.6167401.01.01.13	
File: SICAM_DC- S22_00.doc		Issued in / on.: Vienna, 2014-04-28	
		Sheet: 1	Sheets: 5

1. Requirements and Standards Applied


Test requirement acc. to:

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

CISPR 22 (2008-09) mod. Information technology equipment -
+ Interpr. Sheet 1 (2009-10) Radio disturbance characteristics -
+ Interpr. Sheet 1 (2010-04) Limits and methods of measurement
(= FprEN 55022/2009-11)

2. Summary of Test Result

The module **SICAM DC** has **passed** the radio-interference-field strength test (class A) according to the test requirement.

Department: IC-SG EA PRO D	TEST REPORT		
Tested by / on: M. Schachinger / 2014-03-03	Re: EMC TYPE TESTING Damped Oscillatory waves immunity test Product: SICAM DC	Report no.: SICAM_DC-S18_00	
Released by / on: K. Benedek / 2014-05-07		Konto-/Anforderungs-Nr.: S.6167401.01.01.13	
File: SICAM_DC- S18_00.doc		Issued in / on.: Vienna, 2014-04-28	
		Sheet: 1	Sheets: 7

1. Requirements and Standards Applied

Test requirement acc. to:


Development Specification Hardware: **TTS_SICAM_DC.doc**

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

IEC 61000-4-18 (2006-11) + AMD 1 (2010-04)	Electromagnetic compatibility (EMC) Part 4-18: Testing and measurement techniques - Damped oscillatory wave immunity test (= EN 61000-4-18/2007-04 + A1/2010-07)
IEC 60255-22-1 (2007-10)	Electrical relays Part 22-1: Electrical disturbance tests for measuring relays and protection equipment - 1 MHz burst immunity tests (= EN 60255-22-1/2008-02)

2. Summary of Test Result

The SICAM DC has **passed** the **damped oscillatory waves immunity test** according to the test requirement when subjected to a disturbance voltage of $\pm 2,5\text{kV}$ COMMON and $\pm 2,5\text{kV}$ Normal.

Department: IC-SG EA PRO D	TEST REPORT		
Tested by / on: M.Schachinger/ 2014-03-28	Betrifft: EMC TYPE TESTING Test for immunity to conducted, common mode disturbances with interference voltage	Report no.: SICAM_DC-S16_00	
Released by: K. Beneder 2014-05-07		Account / Request no.: S.6167401.01.01.13	
File: SICAM_DC- S16_00.doc		Issued in / on.: Vienna, 2014-04-28	
		Product: SICAM DC	Sheet: 1

1. Requirements and Standards Applied

Test requirement acc. to:

Development Specification Hardware: **TTS_SICAM_DC.doc**

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

IEC 61000-4-16 (1998-01)	Electromagnetic compatibility (EMC)
+ A1 (2001-07)	Part 4-16: Testing and measurement techniques -
+ A2 (2009-07)	Test for immunity to conducted, common mode disturbances in the frequency range 0 Hz to 150 kHz (= EN 61000-4-16/1998-02 + A1/2004-05)

2. Summary of Test Result

The module **SICAM DC** has **passed the following subtests**:


Immunity testing to conducted, common mode disturbances according to the test requirement when subjected to:

- a continuous disturbance (AC/DC) of $30V_{RMS}$
- a short duration disturbance of $300V_{RMS}$

The module **SICAM DC** was **not admitted to the following subtest due to no test requirement in EN 60870-2-1 and EN 50065-2-3.**

Immunity testing to conducted, common mode disturbances according to the test requirement when subjected to:

- a disturbance in the frequency range 15Hz-150kHz

Department: IC-SG EA PRO D	TEST REPORT		
Tested by / on: M. Schachinger / 2014-02-28	Re: EMC TYPE TESTING Ring waves immunity test Product: SICAM DC	Report no.: SICAM_DC-S12_00	
Released by / on: K. Benedek / 2014-02-28		Konto-/Anforderungs-Nr.: S.6167401.01.01.13	
File: SICAM_DC- S12_00.doc		Issued in / on.: Vienna, 2014-04-28	
		Sheet: 1	Sheets: 7

1. Requirements and Standards Applied

Test requirement acc. to:

Development Specification Hardware: **TTS_SICAM_DC.doc**

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

IEC 61000-4-12 (2006-09) Electromagnetic compatibility (EMC)
Part 4-12: Testing and measuring -
Ring waves immunity test
(= EN 61000-4-12/2006-12)

2. Summary of Test Result

The SICAM DC has **passed** the **Ring waves immunity test** according to the test requirement when subjected to a disturbance voltage of $\pm 2,5\text{kV}$ COMMON and $\pm 2,5\text{ kV}$ Normal.

Department: IC-SG EA PRO D	TEST REPORT	SIEMENS	
Tested by / on: M. Schachinger 18.03.2014	Re: EMC TYPE TESTING Pulse magnetic field immunity test	Report no.: SICAM_DC-S09_00	
Released by / on: K. Benedek 2014-05-07 <small>Authority signed: Benedek Kurt DN: serialNumber=200104191, organization=Kurt, cn=Benedek, o=Siemens, ou=Benedek Kurt Date: 2014.05.07 11:53:05 +0200</small>		Account / Request no. S.6167401.01.01.13	
File: SICAM_DC- S09_00.doc		Issued in / on.: Vienna, 2014-04-28	
Product: SICAM DC		Sheet: 1	Sheets: 7

1. Requirements and Standards Applied

Test requirement acc. to:


Development Specification Hardware: **TTS_SICAM_DC.doc**

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 **SICAM DC** has **passed** the Pulse magnetic field immunity test according to the test requirement when subjected to an field strength of 1000 A/m temporary.

Department: IC-SG EA PRO D	TEST REPORT		
Tested by / on: M. Schachinger 05.03.2014	Re: EMC TYPE TESTING Power frequency magnetic field immunity test	Report no.: SICAM_DC-S08_00	
Released by / on: K. Beneder 29.04.2014		Account / Request no.: S.6167401.01.01.13	
File: SICAM_DC- S08_00.doc		Issued in / on.: Vienna, 2014-04-28	
		Product: SICAM DC	Sheet: 1

1. Requirements and Standards Applied

Test requirement acc. to:


Development Specification Hardware: **TTS_SICAM_DC.doc**

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

IEC 61000-4-8 (2009-09) Electromagnetic compatibility (EMC)
 Part 4-8: Testing and measurement techniques -
 Power frequency magnetic field immunity test -
 Basic EMC publication
 (EN 61000-4-8/2010-02)

2. Summary of Test Result

The module **SICAM DC** 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(1min) and 1000 A/m temporary (3sec).

Department: IC-SG EA PRO D	TEST REPORT		
Tested by / on: M. Schachinger / 2014-02-27	Re: EMC TYPE TESTING Immunity to conducted disturbances, induced by radio-frequency fields	Report no.: SICAM_DC-S06_00	
Released by / on: K. Benedek / 2014-05-07 <small>OS: 2014-05-07 13:12:43 CS: 2014-05-07 13:12:43 S: 2014-05-07 13:12:43 SIEMENS, oG-Benedek Kurt</small>		Account / Request no.: S.6167401.01.01.13	
File: SICAM_DC- S06_00.doc		Issued in / on.: Vienna, 2014-04-28	
		Sheet: 1	Sheets: 8
	Product: SICAM DC		

1. Requirements and Standards Applied

Test requirement acc. to:

Development Specification Hardware: **TTS_SICAM_DC.doc**

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

IEC 61000-4-6 (2013-10) Electromagnetic compatibility (EMC)
 Part 4-6: Testing and measurement techniques –
 Immunity to conducted disturbances, induced by radio-
 frequency fields
 (= EN 61000-4-6:2014-02)

2. Summary of Test Result

The SICAM DC 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 10Vrms.

Department: IC-SG EA PRO D	TEST REPORT	SIEMENS	
Tested by / on: M.Schachinger / 2014-02-13	Re: EMC TYPE TESTING Surge immunity test 1.2/50µs-pulses Product: SICAM DC	Report no.: SICAM_DC-S05_00	
<small>Beneder Kurt, serialnumber=200110091, email=beneder.kurt@siemens.com</small> <small>K.Beneder, serialnumber=200110091, email=k.beneder@siemens.com</small> <small>ea.kurt</small>		Account / Request no. S.6167401.01.01.13	
File: SICAM_DC-S05_00.doc		Issued in / on.: Vienna, 2014-04-28	
		Sheet: 1	Sheets: 8

1. Requirements and Standards Applied

Test requirement acc. to:


Development Specification Hardware: **TTS_SICAM_DC.doc**

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

IEC 61000-4-5 (2005-11) Electromagnetic compatibility (EMC)
+ Corrig. 1 (2009-10) Part 4-5: Testing and measurement techniques -
Surge immunity test
(= EN 61000-4-5:2006-11)

2. Summary of Test Result

The SICAM DC **has passed** the surge immunity test according to the test requirement when subjected to an interference voltage of $\pm 4\text{kV}$ COMMON and $\pm 4\text{kV}$ NORMAL.

Department: IC-SG EA PRO D	TEST REPORT		
Tested by / on: M. Schachinger / 2014-02-11	Re: EMC TYPE TESTING Electrical fast transient/burst immunity test	Report no.: SICAM_DC-S04_00	
<small> Created by: Beneder Doc. SerialNumber: 2011M021 PersonName: Kurt, ssn=Beneder Siemens, cn=Beneder Kurt Date: 2014/02/07 11:39:38 4:07 </small>		Account / Request no.: S.6167401.01.01.13	
File: SICAM_DC- S04_00.doc		Issued in / on.: Vienna, 2014-04-28	
		Products: SICAM DC	Sheet: 1

1. Requirements and Standards Applied

Test requirement acc. to:


Development Specification Hardware: **TTS_SICAM_DC.doc**

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

IEC 61000-4-4 (2012-04) Electromagnetic compatibility (EMC)
 Part 4-4: Testing and measurement techniques -
 Electrical fast transient/burst immunity test
 (= EN 61000-4-4/2004-12 +A1:2010-03)

2. Summary of Test Result

The SICAM DC has **passed** the electrical fast transient/burst immunity test according to the test requirement when subjected to a disturbance voltage of 4kV, 2kV and 0,5kV (according to TTS_SICAM_DC.doc).

Department: IC-SG EA PRO D	TEST REPORT		
Tested by / on: M. Schachinger / 04.03.2014	Re: EMC TYPE TESTING Electrostatic discharge immunity test	Report no.: SICAM_DC-S02_00	
Prepared by / on: K. Beneder / 07.05.2014		Account / Request no.: S.6167401.01.01.13	
File: SICAM_DC- S02_00.doc		Issued in / on: Vienna, 2014-04-28	
		Products: SICAM DC	Sheet: 1

1. Requirements and Standards Applied

Test requirement acc. to:

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

IEC 61000-4-2 (2008-12) Electromagnetic compatibility (EMC)
 Part 4-2: Testing and measurement techniques -
 Electrostatic discharge immunity test - Basic EMC
 publication
 (= EN 61000-4-2:2009-05)

2. Summary of Test Result

The module **SICAM DC** has **passed** electrostatic discharge immunity testing acc. to the test requirement when subjected to a disturbance voltage of

± 8kV contact discharge and
± 8kV air discharge.



Voltage Dips and Interruptions Pre-Compliance Tests V1.1

SICAM DC

Distribution list:

Name (alphab.)	Department	Location
Mr. Beneder Kurt	CEE RC-AT IC-SG EA PRO D 5	VIE-RU
Mr. Demmer Andreas	CT RTC ELE RFT-AT	VIE-SIE
Mr. Frankenberg Robert	CEE RC-AT IC-SG EA PRO D 2	VIE-RU
Mr. Hofmann Andreas	CT RTC ELE RFT-AT	VIE-SIE
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Author: Andreas Demmer Dept.: CT RTC ELE RFT-AT Name: A. Demmer Tel.: 28218	Signature A. Demmer Demmer Andreas <small>Digitally signed by Andreas Demmer DN: cn=Andreas Demmer, o=Siemens, email=andreas.demmer@siemens.co.at, Date: 2014.05.09 14:14:30 +0200</small>	Inspector: Andreas Hofmann Dept.: CT RTC ELE RFT-AT Name: A. Hofmann Tel.: 34131	Signature
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V1.1	Valid	2014-02-17	A. Demmer	Change request

Persons authorized to make changes:

Mr. Demmer Andreas	CT RTC ELE RFT-AT	VIE-SIE
Mr. Hofmann Andreas	CT RTC ELE RFT-AT	VIE-SIE

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Notice

This document is NOT an official declaration of conformity according to EMC directive 2004/108/EC. Only the results of the desired measurements are documented.

1 Introduction

1.1 Purpose of the document

This document contains the results of the EMC pre-compliance measurements for the Siemens SICAM DC equipment.

1.2 Applicable documents

The documents which are supporting this report are listed below. Where a particular issue or revision of the document is specified in this section, no other issue or revision shall be used. Where no issue or revision is mentioned, the latest issue or revision shall be used. Deviations from the standards are mentioned in the detailed description of the test case.

Reference	Document title	Issue
EN 50065-2-3	Signalling on low-voltage electrical installations in the frequency range 3 kHz to 148.5 kHz - Immunity requirements for mains communications equipment and systems operating in the range of frequencies 3 kHz to 95 kHz and intended for use by electricity suppliers and distributors	A1: 2005
IEC 60870-2-1	Telecontrol equipment and systems - Part 2: Operating conditions - Section 1: Power supply and electromagnetic compatibility	
EN 61000-4-11: 2004	Voltage dips, short interruptions and variations immunity tests, AC port	2011-05-01

Table 1: Project standards

Reference	Document title	Issue/Revision
2 DVS_DLMS_DC_HW_RF_DLC-Modem_Kor.doc	Development specification hardware	0.02
TTS_SICAM_DC	Type test specifications SICAM DC	2014-02-04

Table 2: Applicable documents



Radiated electromagnetic Immunity Pre-Compliance Tests V1.1

SICAM DC

Distribution list:

Name (alphab.)	Department	Location
Mr. Beneder Kurt	CEE RC-AT IC-SG EA PRO D 5	VIE-RU
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IEC 60870-2-1	Telecontrol equipment and systems - Part 2: Operating conditions - Section 1: Power supply and electromagnetic compatibility	
EN 61000-4-3: 2006 A1: 2007 + A2: 2010	Electromagnetic compatibility - Testing and measurement techniques - Radiated, radio-frequency, electromagnetic field immunity test	2011-05-01

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Reference	Document title	Issue/Revision
2 DVS_DLMS_DC_HW_RF_DLC-Modem_Kor.doc	Development Specification Hardware	0.02
	Kurzbeschreibung Fertigungstest SICAM DC	

Table 2: Applicable documents