

Prüfurkunde - Test Certificate

SM-2557 Network-Interf.Ethernet 2x100TX

BC2-557--

SM-2557 Network-Interf.Ethernet 2x100TX

6MF10130CF570AA0BB

Funktionsprüfungen - Functional testing

Prüfung - Test: Funktion - Functional test

Datum - Date: 03-06-2009

Norm - Norm: ---:

Protokoll - Protocol: 2557-S00_00

Elektrische Sicherheit / Isolation - Electrical safety / Isolation

Prüfung - Test: Isol. Wechselspg. - Dielectric test

Datum - Date: 28-05-2009

Norm - Norm: IEC 60255-5:2000

Protokoll - Protocol: 2557-S55_00

Prüfung - Test: Isol. Stoßspg. - Impulse voltage test

Datum - Date: 28-05-2009

Norm - Norm: IEC 60255-5:2000

Protokoll - Protocol: 2557-S55_00

Elektromagnetische Verträglichkeit - Electromagnetic compatibility

Prüfung - Test: Störfeldstärke - Emission

Datum - Date: 27-04-2009

Norm - Norm: CISPR 22:2005

Protokoll - Protocol: 2557-S22_00

Prüfung - Test: Imm. ESD - ESD immunity

Datum - Date: 06-05-2009

Norm - Norm: IEC 61000-4-2:1995

Protokoll - Protocol: 2557-S02_00

Prüfung - Test: Imm. HF-Feld - EM field immunity

Datum - Date: 26-05-2009

Norm - Norm: IEC 61000-4-3:2006

Protokoll - Protocol: 2557-S03_00

Prüfung - Test: Imm. Burst - Burst immunity

Datum - Date: 06-05-2009

Norm - Norm: IEC 61000-4-4:2004

Protokoll - Protocol: 2557-S04_00

Prüfung - Test: Imm. Burst - Burst immunity

Datum - Date: 06-05-2009

Norm - Norm: IEC 61000-4-4:2004

Protokoll - Protocol: 2557-S04_00

Prüfung - Test: Imm. HF induziert - Cond. dist. immunity

Datum - Date: 05-05-2009

Norm - Norm: IEC 61000-4-6:2003

Protokoll - Protocol: 2557-S06_00

Prüfung - Test: Imm. Magnetfeld 50Hz - HF 50Hz immunity

Datum - Date: 18-05-2009

Norm - Norm: IEC 61000-4-8:1993

Protokoll - Protocol: 2557-S08_00

Prüfung - Test: Imm. Magnetfeld Puls - Magn. pulse immunity

Datum - Date: 06-05-2009

Norm - Norm: IEC 61000-4-9:1993

Protokoll - Protocol: 2557-S09_00

Umweltprüfungen - Environmental testing

Prüfung - Test: Klima - Climatic test

Datum - Date: 03-06-2009

Norm - Norm: IEC 60068-2-x:

Protokoll - Protocol: 2557-S00_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, 25-11-2009

Energy Automation Development
E A D TC2

Page 1 of 1


Prüfer - Tested by:

Stefl

Name / Unterschrift - Signature

Geprüft - Reviewed by:


Name / Unterschrift - Signature

Department: EA D TC2-3	TEST REPORT		
Tested by / on: H. STEFL 2009-06-03	Re: Environmental Testing Functional test, Environmental test Heat, Cold	Report no.: 2557_S00_00	
Released by / on: Lichtnekert J. / 22.10.2009		Account / Request no.: S.61628.03.59.05.50	
File: 2557-S00_00.doc		Issued in / on.: Vienna, 2009-06-08	
		Products: SM-2547, SM-2557	Sheet: 1

1 Requirements

Test requirement acc. to:

FB AK 1703 ACP Functional Description	AK_ACP_FB_ENG.pdf	(MC2-011-2.00)
DSY TM 1703 ACP System Datasheet	TM_ACP_SystemDS(e).pdf	(MC6-007-1.01)
HB BC 1703 ACP System Manual	BC_ACP_SHB_ENG.pdf	(DC5-014-2.00)

SM-25x7 requirement acc. to: ClearCase


\ProjDocu_VIER\361618_1703_Enhancements_FY2008\P.M150-
P.M260_Hardware\DevelopmentSpecifications\DVS_HW_DNIP1703.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 (2001-08)	Environmental testing - Part 2-78: Tests; Test Cab: Damp heat, steady state (= EN 60068-78:2001-10)

2 Summary of Test Result

The module **SM-2557** has **passed** the function and temperature tests according to the test requirement.

Department: EA D TC2-3	TEST REPORT		
Tested by / on: H. STEFL 2009-05-06	Re: EMC TYPE TESTING Electrostatic discharge immunity test	Report no.: 2557-S02_00	
Released by / on: Lichtnekert J. / 22.10.2009		Account / Request no.: S.61628.03.59.05.50	
File: 2557-S02_00.doc		Issued in / on.: Vienna, 2009-05-08	
Products: SM-2557		Sheet: 1	Sheets: 8

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

2. Summary of Test Result

The module **SM-2557** has **passed** electrostatic discharge immunity testing acc. to the test requirement when subjected to a disturbance voltage of $\pm 6V$ (contact discharge) and $\pm 8kV$ (air discharge).

Department: EA D TC2-3	TEST REPORT		
Tested by / on: H. STEFL / 2009-05-26	Re: EMC TYPE TESTING Electromagnetic field immunity test Product: SM-2557	Report no.: 2557-S03_00	
Released by / on: Lichtnekert J. / 22.10.2009		Account / Request no.: S.61628.03.59.05.50	
File: 2557-S03_00.doc		Issued in / on: Vienna, 2009-05-27	
		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:

EN 61000-4-3 (2006-05)
+ A1 (2008-02)

Electromagnetic compatibility (EMC)
Part 4-3: Testing and measurement techniques -
Radiated, radio-frequency, electromagnetic field immunity test
(= IEC 61000-4-3/2006-02 + A1/2007-11)

2. Summary of Test Result

The module **SM-2557** has **passed** the radio interference immunity test according to the test requirement when subjected to an interference-field strength of **10V/m**.

Department: EA D TC2-3	TEST REPORT	SIEMENS	
Tested by / on: H. STEFL / 2009-05-06	Re: EMC TYPE TESTING Electrical fast transient/burst immunity test	Report no.: 2557_S04_00	
Released by / on: Lichtnekert J. / 22.10.2009		Account / Request no.: S.61628.03.59.05.50	
File: 2557-S04_00.doc		Issued in / on.: Vienna, 2009-05-08	
		Products: SM-2557	Sheet: 1

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 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 module **SM-2557** has **passed** the electrical fast transient/burst immunity test according to the test requirement when subjected to a disturbance voltage of **±2 kV**.

Department: PTD EA D TC2-3	TEST REPORT		
Tested by / on: H. STEFL / 2009-05-05	Re: EMC TYPE TESTING Immunity to conducted disturbances, induced by radio-frequency fields	Report no.: 2557_S06_00	
Released by / on: Lichtnekert J. / 22.10.2009		Account / Request no.: S.61628.03.59.05.50	
File: 2557-S06_00.doc		Issued in / on.: Vienna, 2009-05-14	
		Product: SM-2557	Sheet: 1

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 61000-4-6 (2003-05) Electromagnetic compatibility (EMC)
+ A1 (2004-10) Part 4-6: Testing and measurement techniques –
+ A2 (2006-03) Immunity to conducted disturbances, induced by radio-
frequency fields
(= EN 61000-4-6/2007-06 + Corrig./2007-08)

2. Summary of Test Result

The module **SM-2557** 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: EA D TC23	TEST REPORT		
Tested by / on:H. STEF L / 2009-05-18	Re: EMC TYPE TESTING Power frequency magnetic field immunity test	Report no.: 2557-S08_00	
Released by / on: Lichtnekert J. / 22.10.2009		Account / Request no.: S.61628.03.59.05.50	
File: 2557-S08_00.doc		Issued in / on.: Vienna, 2009-05-19	
		Product: SM-2557	Sheet: 1

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 61000-4-8 (1993-06) Electromagnetic compatibility (EMC)
+ A1 (2000-11) 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 **SM-2557** 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.

Department: EA D TC23	TEST REPORT		
Tested by / on: H. STEFL / 2009-05-06	Re: EMC TYPE TESTING Pulse magnetic field immunity test	Report no.: 2557-S09_00	
Released by / on: Lichtnekert J. / 22.10.2009		Account / Request no. S.61628.03.59.05.50	
File: 2557-S09_00.doc		Issued in / on.: Vienna, 2009-05-19	
		Product: SM-2557	Sheet: 1

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 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-2557** has **passed** the Pulse magnetic field immunity test according to the test requirement when subjected to an field strength of 1000A/m temporary.

Department: EA D TC2-3	TEST REPORT		
Tested by / on: Stefl, Seidl/2009-04027	Re: EMC TYPE TESTING Radio-Interference-Field Strength	Report no.: 2557-S22_00	
Released by / on: Lichtnekert J. / 22.10.2009		Account / Request no.: S.61628.03.59.05.50	
File: 2557-S22_00.doc		Issued in / on.: Vienna, 2009-04-28	
		Product: SM-2557	Sheet: 1

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:

CISPR 22 (2005-04) mod. Information technology equipment -
+ AMD 1 (2005-07) Radio disturbance characteristics -
+ AMD 2 (2006-01) Limits and methods of measurement
(= EN 55022/2006-09 + A1/2007-10)

2. Summary of Test Result

The module **BC2-557--** has **passed** the radio-interference-field strength test (class A) according to the test requirement.

Department: EA D TC2-3	TEST REPORT		
Tested by / on: H. STEFL/ 2009-05-28	Re: EMC TYPE TESTING Insulation Tests Products: SM-2557	Report no.: 2557-S55_00	
Released by / on: Lichtnekert J. / 22.10.2009		Account / Request no.: S.61628.03.59.05.50	
File: 2557-S55_00.doc		Issued in / on.: Vienna, 2009-05-29	
		Sheet: 1	Sheets: 8

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-2557** 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**