SIEMENS
Energy Automation Development

Typprüfung - Type Test

Prüfurkunde - Test Certificate

PE-6411 Peripheriekoppl. Ax-Bus 1x opt. **GC6-411-E**

PE-6411 Periph. Controller Ax-Bus 1x FO **6MF11130GE110AF0**

Funktionsprüfungen - Functional testing

Prüfung - Test:	Funktion - Functional test	Datum - Date:	05-11-2007
Norm - Norm:	---:	Protokoll - Protocol:	6221-S00_00

Elektromagnetische Verträglichkeit - Electromagnetic compatibility

Prüfung - Test:	Störfeldstärke - Emission	Datum - Date:	30-10-2007
Norm - Norm:	CISPR 22:2005	Protokoll - Protocol:	6221-S22_00
Prüfung - Test:	Imm. HF-Feld - EM field immunity	Datum - Date:	19-06-2008
Norm - Norm:	IEC 61000-4-3:2006	Protokoll - Protocol:	6221-S03_00
Prüfung - Test:	Imm. Magnetfeld 50Hz - HF 50Hz immunity	Datum - Date:	31-10-2007
Norm - Norm:	IEC 61000-4-8:1993	Protokoll - Protocol:	6221-S08_00
Prüfung - Test:	Imm. Magnetfeld Puls - Magn. pulse immunity	Datum - Date:	31-10-2007
Norm - Norm:	IEC 61000-4-9:1993	Protokoll - Protocol:	6221-S09_00

Umweltprüfungen - Environmental testing

Prüfung - Test:	Klima - Climatic test	Datum - Date:	05-11-2007
Norm - Norm:	IEC 60068-2-x:	Protokoll - Protocol:	6221-S00_00
Prüfung - Test:	Fc: Schwingen - Vibrations	Datum - Date:	18-06-2008
Norm - Norm:	IEC 60068-2-6:2007	Protokoll - Protocol:	6221_S68_00
Prüfung - Test:	Ea: Schock - Shock	Datum - Date:	18-06-2008
Norm - Norm:	IEC 60068-2-27:2008	Protokoll - Protocol:	6221_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
Energy Automation Development
E A D TC2

Wien - Vienna, 12-02-2009

Prüfer - Tested by:
Name / Unterschrift - Signature

Geprüft - Reviewed by:
Name / Unterschrift - Signature

Department: PTD EA D TC2-3	**TEST REPORT**	SIEMENS
Tested by / on: F. Reitgruber 05.11.2007	Re: **TYPE TESTING**	Report no.: **6221-S00_00**
Released by / on: H. Stefl /2008-09-02	**Functional and Temperature test**	Account / Request no.: **S.71605.01.50.09.50**
File: 6221-S00_00.doc		Issued in / on.: Vienna, **19.11.2007**
	Product: PE-6410, PE-6412, DO-6221, DO-6230	Sheet: 1 / Sheets: 3

1. Requirements and Standards Applied

Test requirement acc. to:

GC6-xxx--.xx/42-5.06 TM1703 general functional specification for terminal modules

2. Summary of Test Result

The modules:

PE-6410
PE-6412
DO-6221
DO-6230

passed the functional and temperature test´s according to the test requirement.

according to: PE-6411

Department: PTD EA D TC2-3	**TEST REPORT**	SIEMENS
Tested by / on: H. Stefl / 2008-06-19	Re: **EMC TYPE TESTING** **Electromagnetic field immunity test**	Report no.: **6221-S03_00**
Released by / on: Lichtnekert J./ 2008-09-02		Account / Request no.: **S.71605.01.50.09.50**
File: 6221-S03_00.doc		Issued in / on: Vienna, **20.06.2008**
	Product: PE-6410, DO-6221, DO-6230	Sheet: 1 / Sheets: 6

1. Requirements and Standards Applied

Test requirement acc. to:

GC6-xxx--.xx/42-5.06 TM1703 general functional specification for terminal modules

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

EN 61000-4-3 (2006-05) 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 **PE-6410, DO-6221** and **DO-6230** has **passed** the radio interference immunity test according to the test requirement when subjected to an interference-field strength of .10V/m.

according to: PE-6411

Department: PTD EA D TC23	**TEST REPORT**	SIEMENS
Tested by / on: F. Reitgruber 31.10.2007	Re: **EMC TYPE TESTING**	Report no.: **6221-S08_00**
Released by / on: H. Stefl /2008-09-02	**Power frequency magnetic field immunity test**	Account / Request no.: **S.71605.01.50.09.50**
File: 6221-S08_00.doc		Issued in / on.: Vienna, **13.11.2007**
	Product: PE-6410, DO-6221, DO-6230	Sheet: 1 / Sheets: 7

1. Requirements and Standards Applied

Test requirement acc. to:

GC6-xxx--.xx/42-5.06 TM1703 general functional specification for terminal modules

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 modules:

PE-6410
DO-6221
DO-6230

passed the Power frequency magnetic field immunity test according to the test requirement when subjected to a field strength of 100 A/m permanently and 1000 A/m temporary.
according to: PE-6411

Department: PTD EA D TC23	**TEST REPORT**	SIEMENS	
Tested by / on: F. Reitgruber 31.10.2007	Re: **EMC TYPE TESTING**	Report no.: **6221-S09_00**	
Released by / on: H. Stefl /2008-09-02	**Pulse magnetic field immunity test**	Account / Request no. **S.71605.01.50.09.50**	
File: 6221-S09_00.doc		Issued in / on.: Vienna, **12.11.2007**	
	Product: PE-6410, DO-6221, DO-6230	Sheet: 1	Sheets: 6

1. 1Requirements and Standards Applied

Test requirement acc. to:

GC6-xxx--.xx/42-5.06 TM1703 general functional specification for terminal modules

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 modules:

PE-6410
DO-6221
DO-6230

passed the Power frequency pulse magnetic field immunity test according to the test requirement when subjected to a field strength of 1000 A/m.
according to: PE-6411

Department: PTD EA D TC2-3	**TEST REPORT**	SIEMENS	
Tested by / on: F. Reitgruber 30.10.2007	Re: **EMC TYPE TESTING** **Radio-Interference-Field Strength**	Report no.: **6221-S22_00**	
Released by / on: H. Stefl /2008-09-02		Account / Request no.: **S.71605.01.50.09.50**	
File: 6221-S22_00.doc		Issued in / on.: Vienna, **13.11.2007**	
	Product: PE-6410, PE-6412, DO-6221, DO-6230	Sheet: 1	Sheets: 15

1. Requirements and Standards Applied

Test requirement acc. to:

GC6-xxx--.xx/42-5.06 TM1703 general functional specification for terminal modules

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)

2. Summary of Test Result

The modules:

PE-6410
PE-6412
DO-6221
DO-6230

passed the radio-interference-field strength test (class A) according to the test requirement.

according to: PE-6411

Department: PTD EA D TC23	**TEST REPORT**	SIEMENS	
Tested by / on: H. Stefl / 2008-06-18	Re: **Environmental Testing Vibration (sinusoidal), Shock**	Report no.: **6221_S68_00**	
Released by / on: J. Lichtnekert / 2008-09-02		Account / Request no.: **S.71605.01.50.09.50**	
File: 6221-S68_00.doc		Issued in / on.: Vienna, **20.06.2008**	
	Product: **MX-6410, DO-6221, DO-6230**	Sheet: 1	Sheets: 12

1. Requirements and Standards Applied

Test requirement acc. to:

GC6-xxx--.xx/42-5.06 TM1703 general functional specification for terminal modules

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

IEC 60068-2-6 (1995-03) **+ Corrig. (1995)**	Environmental testing Part 2: Tests - Test Fc: Vibration (sinusoidal) (= EN 60068-2-6/1995-04)
IEC 60068-2-27 (1987)	Environmental testing Part 2: Tests. Test Ea and guidance: Shock (= EN 60068-2-27/1993-03)
IEC 60068-2-29 (1987)	Basic environmental testing procedures Part 2 : Tests. Test Eb and guidance: Bump (= EN 60068-2-29/1993-04)

2. Summary of Test Result

The modules **MX-6410, DO-6221** and **DO-6230 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.
according to: PE-6410, PE-6411