

TEST REPORT
of the accredited test laboratory

TÜV Nr.:M/EMV-14/106

about
the following EMC - test/- research

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Medical Technology/
Communication
Technology/ EMC

Department:
Testing Body for
Communication
Technology/ EMC

TÜV®

Applicant: Siemens AG Österreich
Ruthnergasse 3
A-1210 Vienna

Product: 6MF21010AB100AA00DD SICAM CMIC
6MF11130GJ110AA00BB CM-6811 Coupling TM-I/O-
Modules for CMIC

Serial Number: BF1312519888

Standard: Manufacturer Specification : TTS_CMIC_TM_IOs_V1.02.pdf



TÜV AUSTRIA SERVICES GMBH
Test laboratory for EMC

Deputy
Supervisor of EMC-laboratory


Ing. Andreas Malek



27.02.2014

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Checked by


Ing. Stefan Matzner

Accredited as:
Testing Laboratory,
Inspection Body,
Certification Body,
Calibration Laboratory,
First and Boiler test
laboratory

Notified Body 0408

**Non-executive
Board of Directors:**
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MARIHART

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The results of this test report only refer to the provided equipment.

Summary (Page 1)

Clause	Test	Severities	Result
4.1	Radiated Emissions	CISPR 11: 30MHz – 2GHz; Class A	OK
4.2	Electrostatic discharge requirements (ESD)	IEC 61000-4-2: 6kV contact, 8 kV air 10 discharges pos/neg	OK
4.3	Induced RF-field requirements	IEC 61000-4-6 : 150kHz – 80MHz; 10 Vms 80% AM	OK
4.4	Electrical fast transients/burst requirements	IEC 61000-4-4 : 4 kV Test level 5/50 ns t_r/t_f 5kHz Burst frequency 15 ms Burst time 3 Hz Repetition frequency Polarity: positive/negative	OK
4.5	Surge requirements	IEC 61000-4-5 : 4 kV Test level 1,2/50 μ s t_r/t_f Polarity: positive/negative	OK
4.6	Damped oscillatory wave requirements	IEC 61000-4-18 : 2,5 kV Test level Frequency: 1 MHz Repetition: 400/s Burst duration: 2 seconds Polarity: positive/negative	OK
4.7	Ring wave requirements	IEC 61000-4-12 : 2,5 kV Test level Frequency: 100 kHz Repetition: 1/s Polarity: 5 positive / 5 negative	OK
4.8	Induced common mode requirements	IEC 61000-4-16: 15Hz – 150kHz; 30Vrms DC/50/60/150/180Hz continuous 30V(rms) / 300 V(rms) for 1 second	OK
4.9	Voltage dips and interruptions	IEC 61000-4-29: 70% of Un for 10 / 100 ms 40% of Un for 10 / 100 ms 0% of Un for 1 / 10 / 50 / 100 / 500 ms	OK
4.10	DC ripple	IEC 61000-4-17: 10% ripple of Un 10 min.	OK
4.11	Starting current	IEC 60870-4: Class S1	OK
4.12	Voltage variation	IEC 60870-2-1: -25 % / + 30 % of VDC 18V / 78 VDC for the power supply range 10min.	OK
4.13	Surge withstand capability (Burst)	IEEE Std C37.90.1™-2012: Fast transient SWC test 4 kV Test level 5/50 ns t_r/t_f 5kHz Burst frequency 15 ms Burst time 3 Hz Repetition frequency Polarity: positive/negative	OK
4.14	Surge withstand capability (1 MHz oscillatory wave)	IEEE Std C37.90.1™-2012: Oscillatory SWC test 2,5kV 1MHz Polarity: positive/negative	OK
4.15	Insulation Test	IEC 60225-5: Steady State Test: 2,5kV 50Hz sinus for 1 minute Impulse Test: 5kV; 1,2 μ s/ 50 μ s; 500 Ω output impedance; 3 impulses pos/neg	OK
OK EUT passed NOK EUT failed			

Summary (Page 2)

EUT:

6MF21010AB100AA00DD SICAM CMIC
6MF11130GJ110AA00BB CM-6811 Coupling TM-I/O-
Modules for CMIC

Serial Number: BF1312519888

Manufacturer: Siemens AG Österreich
Ruthnergasse 3
A-1210 Wien

Description: Siemens AG Österreich provided the following configuration for the measurements:

Test setup consisting of:

SICAM CMIC
CM-6811 Coupling TM-I/O- Modules for CMIC

Auxiliary equipment:

DO-6212; BF1104123891; 6MF11130GC120AA0GG; GC6-212-E.01
DI-6102; BF1112072418; 6MF11130GB020AA0GG; GC6-102-E.01
DO-6212; BF1104123866; 6MF11130GC120AA0GG; GC6-212-E.01
DO-6200; BF1202100359; 6MF11130GC000AA0GG; GC6-200-E.11
AI-6300; BF1304517666; 6MF11130GD000AA0GG; GC6-300-E.01
AI-6300; BF1304518553; 6MF11130GD000AA0GG; GC6-300-E.01
Power supply: KERT Mod AT5VS

Operating mode: The measurements were carried out at the following running states:

continuous observation for checking the proper functioning of the
EUT by checking the continuously changing output states

Technical data EUT: 24V battery supply

**Climatic conditions in the
emc laboratory:** Relative humidity: 31 %
Temperature: 23 °C

Applicant: Siemens AG Österreich

Department: IC SG EA PRO D

Address: A-1210 WIEN, Ruthnergasse 3

Contact person: Mr. Herbert STEFL

EUT received on: 20.01.2014

Tests were performed on: 20.01.2014 - 22.01.2014