

CMC 256plus
PC-controlled 4 Phase Voltage/6 Phase Current Test Set
S/N JC155A

Manufacturer : Omicron Electronics GmbH
Oberes Ried 1
A-6833 Klaus

Doc.-No : ZEB 136-2/07

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Sheets : 5

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TTI-P-G119/97-01

1 Introduction and Assignment to the Standards

This test report describes the required EMC-tests with the test article CMC 256plus to establish an EC-Declaration of Conformity and to verify the electromagnetic compatibility in industrial environment

**The test article corresponds to the CE requirements and has met the listed standards.
The measurement results are valid only for the test article type represented in the EMC-test laboratory.
The manufacturer guarantees that all following test articles are identical with the measured test article**

1.1 *Applicable EU-Guidelines*

- | | | |
|-------------------------------------|---|---------------------------|
| <input checked="" type="checkbox"/> | EMC - Directive | 89/336/EWG or 2004/108/EG |
| <input type="checkbox"/> | Low Voltage - Directive | 79/23/EWG |
| <input type="checkbox"/> | Machinery - Directive | 89/392/EWG |
| <input type="checkbox"/> | Telecommunication Equipment - Directive | 91/263/EWG |

1.2 *Applikation*

- Residential and commercial Environment (Class B)
 Industrial Environment (Class A)

1.3 *Type of Test*

- Sample Test
 Routine Ccheck Out
 Desk Top Device
 Footed Device

2 Applicable Standards

2.1 Radiated and conducted Emissions

- EN 50081-2 (61000-6-4) Generic standard : Emission standard for industrial emissions
- EN 55011 Industrial, scientific and medical (ISM) radio-frequency equipment, limits and methods
- EN 61000-3-2 Limits for harmonics current emissions in public low voltage supply systems
- EN 61000-3-3 Limits of voltage changes, voltage fluctuations and flicker in public low voltage supply systems
- FCC Part 15 Subpart B Conducted and radiated emissions

2.2 Susceptibility

- EN 61000-6-2 Generic standard: Immunity for industrial environments
- IEC/EN 61000-4- 2 Immunity to electric static discharges
- IEC/EN 61000-4-3 Immunity to radiated radio-frequency electromagnetic fields
- IEC/EN 61000-4-4 Immunity to fast transients/burst requirements
- IEC/EN 61000-4-5 Immunity to surges
- IEC/EN 61000-4-6 Immunity to conducted disturbances induced by radio frequency fields
- IEC/EN 61000-4-11 Immunity to voltage dips, short interruptions and voltage variations

3 Summary Test Results

3.1 Radiated and Conducted Emission

Standard/Procedure	Test Severity	Pass	Remarks
<input checked="" type="checkbox"/> EN 55011 Emissions ISM-Devices	Limit <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> A <input type="checkbox"/> B radiated Emissions conducted Emissions	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> partial <input type="checkbox"/> No	Industrial Environment FCC Part 15 Subpart B
<input checked="" type="checkbox"/> EN 61000-3-2 Harmonics		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> partial <input type="checkbox"/> No	230VAC 20% CV 230VAC 30% CV 110VAC
<input checked="" type="checkbox"/> EN 61000-3-3 Voltage Variations		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> partial <input type="checkbox"/> No	230VAC 110VAC

3.2 Susceptibility

Standard/Procedure	Test Severity	Pass	Remarks
<input checked="" type="checkbox"/> EN 61000-4-2 Immunity to Electro Static Discharge	<input checked="" type="checkbox"/> Metal Housing <input type="checkbox"/> Plastic Housing <input checked="" type="checkbox"/> Contact Discharge <input checked="" type="checkbox"/> Air Discharge <input type="checkbox"/> 1. <input checked="" type="checkbox"/> ±2 kV <input checked="" type="checkbox"/> ±2 kV <input type="checkbox"/> ±2kV 2. <input checked="" type="checkbox"/> ±4 kV <input checked="" type="checkbox"/> ±4 kV <input type="checkbox"/> ±4kV 3. <input type="checkbox"/> ±6 kV <input checked="" type="checkbox"/> ±8 kV <input type="checkbox"/> ±8 kV 4. <input type="checkbox"/> ±8 kV <input type="checkbox"/> ±15 kV <input type="checkbox"/> ±15kV X <input type="checkbox"/> ± kV <input type="checkbox"/> ± kV <input type="checkbox"/>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> partial <input type="checkbox"/> No	
<input checked="" type="checkbox"/> EN 61000-4-3 Immunity to Electromagnetic Fields	1. <input type="checkbox"/> 1 V/m <input checked="" type="checkbox"/> 80% AM, 1 kHz-Sinus 2. <input type="checkbox"/> 3 V/m <input checked="" type="checkbox"/> horizontal Polarisation 3. <input checked="" type="checkbox"/> 10V/m <input checked="" type="checkbox"/> vertical Polarisation X <input type="checkbox"/> 20V/m	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> partial <input type="checkbox"/> No	Freq.-Range 80MHz – 1GHz with 10V/m and 1 – 3GHz with 5V/m
<input checked="" type="checkbox"/> EN 61000-4-4 Immunity to Bursts	<input checked="" type="checkbox"/> Power Supply Lines <input checked="" type="checkbox"/> Signal-Lines 1. <input checked="" type="checkbox"/> ±0,5 kV <input checked="" type="checkbox"/> ±0,25 kV 2. <input checked="" type="checkbox"/> ±1 kV <input checked="" type="checkbox"/> ±0,5 kV 3. <input checked="" type="checkbox"/> ± 2 kV <input checked="" type="checkbox"/> ±1,0 kV 4. <input type="checkbox"/> ±4 kV <input type="checkbox"/> 2 kV X <input type="checkbox"/> kV <input type="checkbox"/> 4 kV 1. <input checked="" type="checkbox"/> 5 kHz <input checked="" type="checkbox"/> 5 kHz 2. <input type="checkbox"/> 2,5 kHz <input type="checkbox"/> 2,5 kHz X. <input type="checkbox"/> kHz <input type="checkbox"/> kHz	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> partial <input type="checkbox"/> No	

<input checked="" type="checkbox"/> EN 61000-4-5 Immunity to Surges	<input checked="" type="checkbox"/> Power Supply Lines <input type="checkbox"/> Signal-Lines <input checked="" type="checkbox"/> ±0,5 kV <input type="checkbox"/> 0,25 kV 2. <input checked="" type="checkbox"/> ±1 kV <input type="checkbox"/> 0,5 kV 3. <input checked="" type="checkbox"/> ±2 kV <input type="checkbox"/> 1 kV 4. <input type="checkbox"/> 4 kV <input type="checkbox"/> 2 kV X <input type="checkbox"/> kV <input type="checkbox"/> kV Type of Coupling <input checked="" type="checkbox"/> sym./unsym. <input checked="" type="checkbox"/> pos. Surge <input type="checkbox"/> sym. Data Lines <input checked="" type="checkbox"/> neg. Surge	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> partial <input type="checkbox"/> No	± 1kV sym. ± 2kV unsym.
<input checked="" type="checkbox"/> EN 61000-4-6 Conducted Susceptibility	<input checked="" type="checkbox"/> Power Supply Lines <input checked="" type="checkbox"/> Signal Lines 1. <input type="checkbox"/> 1V <input type="checkbox"/> 1V 2. <input type="checkbox"/> 3V <input type="checkbox"/> 3V 3. <input checked="" type="checkbox"/> 10V <input checked="" type="checkbox"/> 10V X <input type="checkbox"/> 30 V <input type="checkbox"/> V <input checked="" type="checkbox"/> 80 % AM <input checked="" type="checkbox"/> 80 % AM	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> partial <input type="checkbox"/> No	<u>Power Supply Lines</u> 150kHz – 50MHz 10V <u>Signal Lines</u> 150kHz – 80MHz 10V
<input checked="" type="checkbox"/> EN 61000-4-11 Voltage Dips and short Interruptions		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> partial <input type="checkbox"/> No	230VAC 110VAC (for information only)

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