



# Certificate of Compliance

**Certificate:** 1708682

**Master Contract:** 231746

**Project:** 2611320

**Date Issued:** May 7, 2013

**Issued to:** MINMAX Technology Co., Ltd.  
18 Sin-Sin Road,  
An-Ping Industrial District  
Tainan 702  
TAIWAN  
**Attention:** Mr. Lester Fang

*The products listed below are eligible to bear the CSA Mark shown with adjacent indicators 'C' and 'US' for Canada and US or with adjacent indicator 'US' for US only or without either indicator for Canada only*



**Issued by:**   
Jupiter Huang Certifier

## PRODUCTS

CLASS 5311 11 - POWER SUPPLIES - Component Type (For Canadian Certification)

CLASS 5311 91 - POWER SUPPLIES - Component Type (For US Certification)

### **PART A**

• DC to DC Converters\*, PCB Mount, Models:

- MIW402X, DIW402X, Rated Input: 9 to 36Vdc, 600mA, Output: 3.3 to 15Vdc, +/-15Vdc, +/-1200mA.
- MIW403X, DIW403X, Rated Input: 18 to 75Vdc, 300mA, Output: 3.3 to 15Vdc, +/-5Vdc, +/- 1200mA.
- MDW101X, DDW101X, Rated Input: 4.5 to 9Vdc, 930mA, Output: 3.3 to +/-15Vdc, +/- 500mA.
- MDW102X, DDW102X, Rated Input: 9 to 18Vdc, 420mA, Output: 3.3 to +/-15Vdc, +/-500mA.
- MDW103X, DDW103X, Rated Input: 18 to 36Vdc, 205mA, Output: 3.3 to +/-15Vdc, +/-500mA.
- MDW104X, DDW104X, Rated Input: 36 to 72Vdc, 100mA, Output: 3.3 to +/-15Vdc, +/-67-500mA.
- MIW312X, DIW312X, Rated Input: 9 to 18Vdc, 590mA, Output: 3.3 to +/-15Vdc, +/-1200mA.
- MIW313X, DIW313X, Rated Input: 18 to 36Vdc, 290mA, Output: 3.3 to +/-15Vdc, +/-1200mA.



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## **PART B**

• DC to DC Converters\*, PCB Mount, Models:

- MKW302X, Rated Input: 9 to 18Vdc, 1985mA, Output: 3.3 to +/-15Vdc, +/-4000mA.
- MKW303X, Rated Input: 18 to 36Vdc, 980mA, Output: 3.3 to +/-15Vdc, +/-4000mA.
- MKW304X, Rated Input: 36 to 75Vdc, 490mA, Output: 3.3 to +/-15Vdc, +/-4000mA.
- MPW102X, Rated Input: 9 to 18Vdc, 24800mA, Output: 3.3 to +/-15Vdc, +/-5500mA.
- MPW103X, Rated Input: 18 to 36Vdc, 1400mA, Output: 3.3 to +/-15Vdc, +/-5500mA.
- MPW104X, Rated Input: 36 to 75Vdc, 700mA, Output: 3.3 to +/-15Vdc, +/-5500mA.
- MIW503X, DIW503X, Rated Input: 18 to 36Vdc, 480mA, Output: 2.5 to 12Vdc, 3000mA.
- MIW504X, DIW504X, Rated Input: 36 to 75Vdc, 240mA, Output: 2.5 to 12Vdc, 3000mA.
- MKW252X, Rated Input: 9 to 18Vdc, 1580mA, Output: 3.3 to +/-15Vdc; 4000mA.
- MKW253X, Rated Input: 18 to 36Vdc, 780mA, Output: 3.3 to +/-15Vdc; 4000mA.
- MKW254X, Rated Input: 36 to 75Vdc; 390mA, Output: 3.3 to +/-15Vdc; 4000mA.

## **PART C**

• DC to DC Converters\*, PCB Mount, Models:

### **MIW1100, DIW1100 Series**

- MIW111x, DIW111x, Rated Input: 4.5 – 9,0Vdc / 820mA, Output: See 'x' values below.
- MIW112x, DIW112x, Rated Input: 9 – 18Vdc / 320mA, Output: See 'x' values below.
- MIW132x, DIW132x, Rated Input: 10 – 30Vdc / 190mA, Output: See 'x' values below.
- MIW113x, DIW113x, Rated Input: 18 – 36Vdc / 155mA, Output: See 'x' values below.
- MIW114x, DIW114x, Rated Input: 36 – 75Vdc / 80mA, Output: See 'x' values below.

### **MKW5000 Series**

- MKW503x, Rated Input: 18 – 36Vdc / 744 – 1420mA, Output: See 'x' values below.
- MKW504x, Rated Input: 36 – 75Vdc / 372 – 710mA, Output: See 'x' values below.

### **MKW2600 Series**

- MKW262xA-RC, Rated Input: 9 – 36Vdc / 528 – 740mA, Output: See 'x' values below.
- MKW263xA-RC, Rated Input: 36 – 75Vdc / 264 – 370mA, Output: See 'x' values below.

### **MIW101x, MIW1200, DIW1200 Series**

- MIW101x, Rated Input: 4.5 – 9,0Vdc / 800mA, Output: See 'x' values below.
- MIW122x, DIW122x, Rated Input: 9 – 18Vdc / 300mA, Output: See 'x' values below.
- MIW123x, DIW123x, Rated Input: 18 – 36Vdc / 150mA, Output: See 'x' values below.
- MIW124x, DIW124x, Rated Input: 36 – 75Vdc / 75mA, Output: See 'x' values below.



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**MIW3000, DIW3000 Series**

- MIW301x, DIW301x, Rated Input: 4.5 – 7Vdc / 1460mA, Output: See 'x' values below.
- MIW302x, DIW302x, Rated Input: 9 – 18Vdc / 590mA, Output: See 'x' values below.
- MIW303x, DIW303x, Rated Input: 18 – 36Vdc / 290mA, Output: See 'x' values below.
- MIW304x, DIW304x, Rated Input: 36 – 75Vdc / 145mA, Output: See 'x' values below.

**MIW4100, DIW 4100 Series**

- MIW412x, DIW412x, Rated Input: 9 – 36Vdc / 528 – 787mA, Output: See 'x' values below.
- MIW413x, DIW413x, Rated Input: 36 – 75Vdc / 264 – 393mA, Output: See 'x' values below



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Series	x value	Output rating
<b><u>MIW1100, DIW1100</u></b>	1	5Vdc / 600mA
	2	12Vdc / 250mA
	3	15Vdc / 200mA
	4	±12Vdc / ±125mA
	5	±15Vdc / ±100mA
<b><u>MIW1300, DIW1300</u></b>	2	5Vdc / 600mA
	3	12Vdc / 250mA
	4	15Vdc / 200mA
	6	±12Vdc / ±125mA
	7	±15Vdc / ±100mA
<b><u>MKW5000</u></b>	0	2,5Vdc / 6000mA
	1	3,3Vdc / 6000mA
	9	5,1Vdc / 5000mA
	3	12Vdc / 2500mA
	4	15Vdc / 2000mA
<b><u>MKW2600</u></b>	1	3,3Vdc / 3000mA
	9	5,1Vdc / 2950mA
	3	12Vdc / 1250mA
	6	±12Vdc / ±625mA
	7	±15Vdc / ±500mA
<b><u>MIW101x</u> <u>MIW1200, DIW1200</u></b>	1	3,3Vdc / 600mA
	2	5Vdc / 500mA
	3	12Vdc / 250mA
	4	15Vdc / 200mA
	5	±5Vdc / ±250mA
	6	±12Vdc / ±125mA
	7	±15Vdc / ±100mA
<b><u>MIW3000, DIW3000</u></b>	1	3,3Vdc / 1200mA
	2	5Vdc / 1000mA
	3	12Vdc / 500mA
	4	15Vdc / 400mA
	5	±5Vdc / ±500mA
	6	±12Vdc / ±250mA
	7	±15Vdc / ±200mA
<b><u>MIW4100, DIW4100</u></b>	1	3,3Vdc / 1200mA
	2	5Vdc / 1000mA
	3	12Vdc / 500mA
	4	15Vdc / 400mA
	5	±5Vdc / ±500mA
	6	±12Vdc / ±250mA
	7	±15Vdc / ±200mA

**\*Notes:**

- Units were evaluated as components where the suitability of the combination with the host equipment shall be re-evaluated.
- MIW1000,MIW1100,MIW1200 and MIW1300 series = moulded case
- MIW3000,MKW5000,MKW2600A-RC series= metal enclosure
- MIW4100 series=Aluminum Anodizing Treatment in Black



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- The equipment has been evaluated for use in a Pollution Degree 1 or 2 and overvoltage category II environment.
- A suitable Electrical and Fire enclosure shall be provided.
- The product is specified for maximum ambient of: MIW1000, MIW1100, MIW1200, MIW1300 and MIW3000  $\leq 71^{\circ}\text{C}$ ; MKW5000 series:  $\leq 50^{\circ}\text{C}$ ; MKW2600A-RC series :  $\leq 60^{\circ}\text{C}$ .
- Functional insulation input to output.

### **APPLICABLE REQUIREMENTS**

CAN/CSA-C22.2 No. 60950-1-07

- Information Technology Equipment – Safety – Part 1: General requirements.

UL 60950-1 (2<sup>nd</sup> Edition)

- Information Technology Equipment – Safety – Part 1: General requirements.



## *Supplement to Certificate of Compliance*

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*The products listed, including the latest revision described below,  
are eligible to be marked in accordance with the referenced Certificate.*

### **Product Certification History**

<b>Project</b>	<b>Date</b>	<b>Description</b>
2611320	May 7, 2013	Covering alternative components.
2480033	December 6, 2011	Revises the electrical rating of inductor and Standard edition upgrade
2251262	November 5, 2010	Covers the report correction to specify the inductor use on particular models.
2164649	April 28, 2009	Covers the alternative model designation.
2054309	June 12, 2008	Cover the alternative enclosure material and report correction
1827681	Oct. 24, 2006	Duplicate of file for a CSA c/us report update (1708682) on a DC to DC converter. Addition of Models: Series MIW1100, MKW5000, MKW2600, MIW101, MIW1200, MIW3000 and MIW4100
1721933	Oct. 31, 2005	Change of model names for products covered by report (1708682)
1708682	Sep. 16, 2005	Original Certification.