

# XC8110AA010R Evaluation Board User Manual

**6Vmax, 500mA Load switch IC with ideal diode function**

## **CAUTION**

### **ENGINEERING EVALUATION PURPOSES ONLY**

This evaluation board is made for the purpose of the product evaluation. It is strictly prohibited to use this evaluation board for any other purpose.

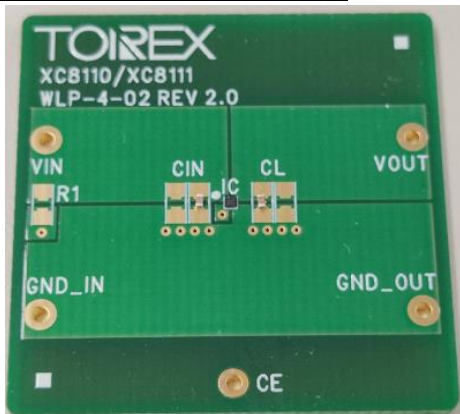
Torex Semiconductor does not guarantee that all samples will perform in exactly the same way and we recommend that you always consult our product data sheets for the minimum and maximum specifications.

It is also important that you evaluate all our products carefully before mass

## **XC8110AA010R Evaluation Board**

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### **Evaluation Board Picture**



### **Evaluation Board SPEC**

PARAMETER		SYMBOL	MIN.	TYP.	MAX.	UNITS
Input Voltage	Applied voltage to $V_{OUT}$ : 0V ~ 1.5V	$V_{IN}$	1.5	-	6.0	V
	Applied voltage to $V_{OUT}$ : 1.5V ~ 6.0V		0.0	-	6.0	
Output Voltage	Applied voltage to $V_{IN}$ : 0V ~ 1.5V	$V_{OUT}$	1.5	-	6.0	V
	Applied voltage to $V_{IN}$ : 1.5V ~ 6.0V		0.0	-	6.0	
Output Current ( $T_a=25^\circ\text{C}$ )	$1.5\text{V} \leq V_{IN} \leq 1.7\text{V}$	$I_{OUT}$	-	-	300	mA
	$1.7\text{V} < V_{IN} \leq 6.0\text{V}$		-	-	500	mA

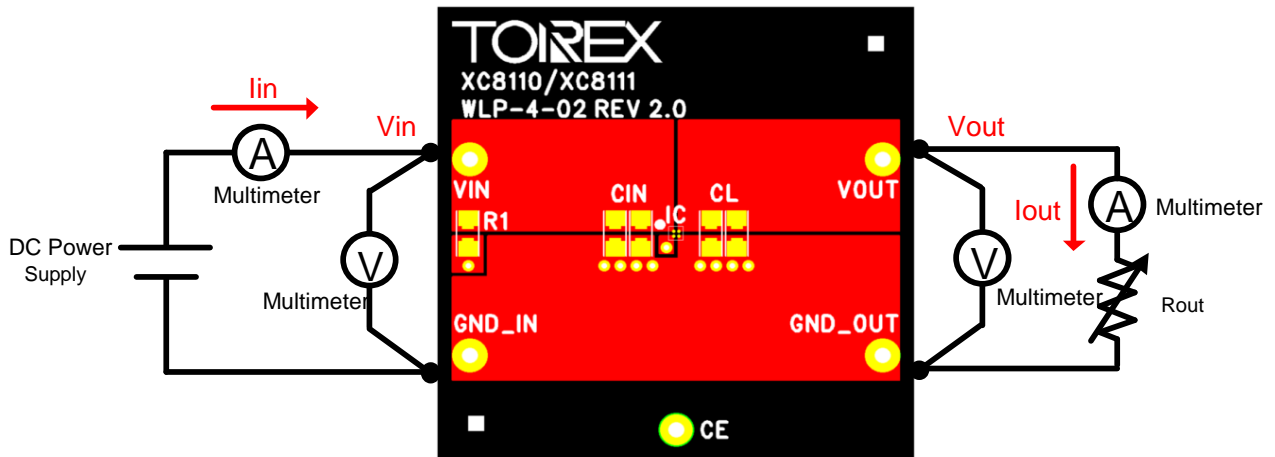
### **XC8110/XC8110 Series Features**

- Input Voltage Range ..... 1.5V ~ 6.0V
- Max Output Current ..... 500mA
- Ideal Diode function
  - Forward Voltage ..... 20mV
  - Quiescent Current ..... 3.6 $\mu$ A
  - Stand-by Current ..... 0.65 $\mu$ A
- ORing connection available
- Built-in protection function (Over Current, Thermal Shutdown)

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**Quick Start Procedure**

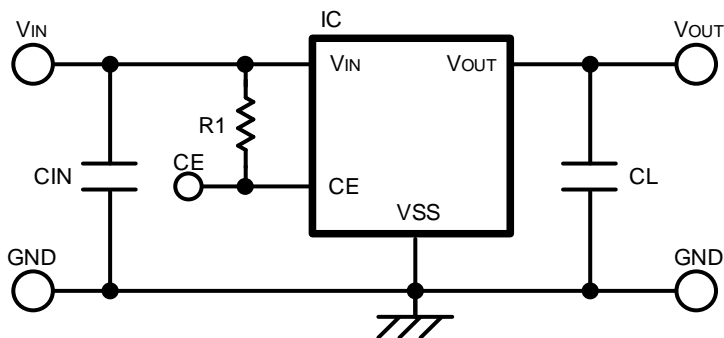


Active : CE="H" (1.2V~6.0V)  
 Stand-by : CE="L" (0V~0.3V)

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### **Schematic**



### **BOM**

#### **Required Circuit Component**

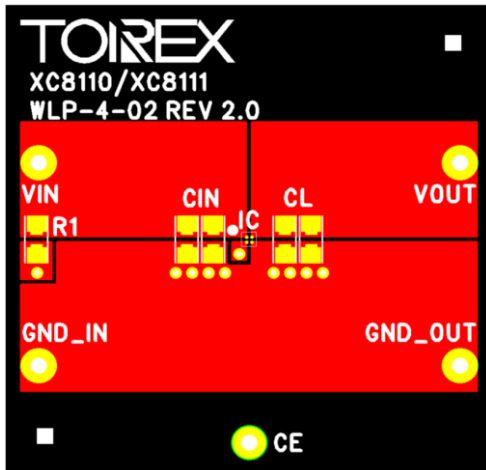
Item	Value	Description	Size [mm]	Part Number	Manufacture
IC	-	Load switch IC with ideal diode	WLP-4-02	XC8110AA010R-G	TOREX
CIN	0.1uF	Ceramic cap., 50V	1005	CGA2B3X7R1H104K	TDK
CL	0.1uF	Ceramic cap., 50V	1005	CGA2B3X7R1H104K	TDK
R1	-	-	-	-	-

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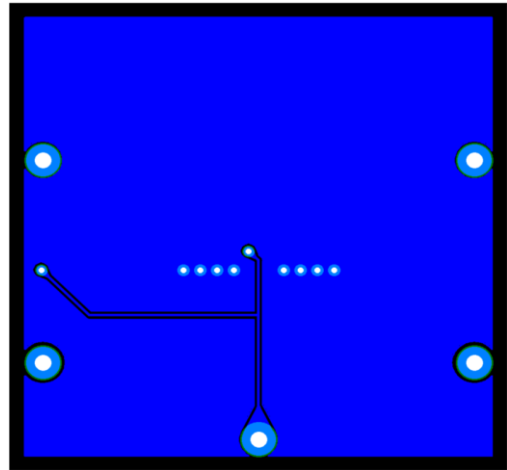
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### **PCB Layout**

Layer 1



Layer 2

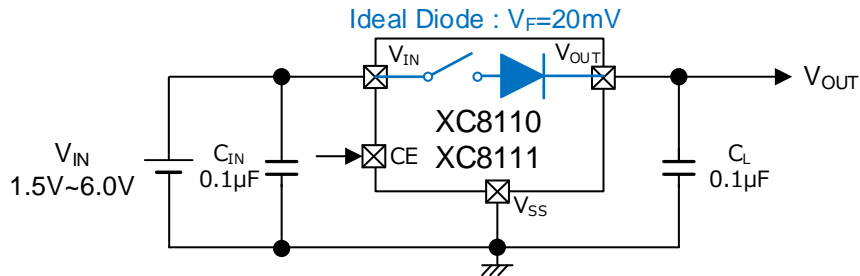


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### **【Appendix】 Typical Application Circuit**

#### **Diode / substitute for load switch**



#### **OR circuit: backup circuit, etc.**

