

# PPC Series

## Backlight Adjustment

This software tool is using for adjusting PPC products backlight under OS. It is easy and convenience with user friendly interface, and it allows customer to modify LCD illumination at any time.

Supported series: PPC-3000 series, PPC-4000 series, PPC-6000 series  
OS Support: Windows XP, Windows 7, Windows 8/8.1

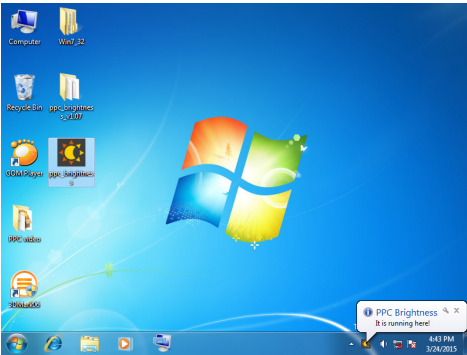


### Instructions for Use

- After your PPC has started and loaded the OS, the appropriate .Net Framework for the OS needs to be installed. Refer to:

Operating System	Required SW	Version
Windows XP(32Bit)	Net framework 2.0	2.0.50727.42
Windows XP(64Bit)	Net framework 3.5	3.5.30729.1
Windows 7	N/A	N/A
Windows 8	Net framework 3.5	3.5.30729.6387
Windows 8.1	Net framework 3.5	3.5.30729.7903

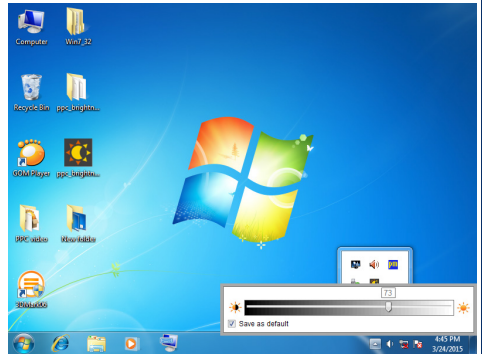
- After the .net framework is installed, double click on ppc\_brightness.exe, and the brightness configuration will open on the bottom right as shown:



- Find the backlight adjustment icon on the bottom right.



- You can use mouse to hold and drag the arrow right or left for adjusting brightness, and click on the icon one more time for hidden the interface. You may also use key-board to press "Ctrl + ↑" and "Ctrl + ↓". Caution:



**Caution:** This program will save user's last setting for illumination, and apply such settings next time when the system boot up. If you don't want to save the current settings, un-check "Save as default".

- If you want to exit this application, right click on the icon and choose Quit.



## Guidelines for AP Development

For all supported PPC models, customers can develop their own AP for controlling the illumination. This AP needs to control COM6 of the PPC to adjust the duty cycle of PWM signal for achieving this function.

The relationship between duty cycle of PWM signal and LCD light intensity is linear. It means as duty cycle equals 100%, the LCD light intensity will achieve the high point.

COM6 transmit signal by RS-232, and the format is 19200/N/8/1.

**Caution:** We strongly recommend that the customer's APP does **NOT** modify the duty cycle under the LCD's lowest available value to avoid a black screen. This value is usually about 10%, and you can use the following command to control and read the information from the IC.

### Command Specifications

Command	Function	Default Value	Application
ATF0	Retrieve Firmware Version	1.1	AP
ATPDn	Set PWM Duty Cycle	80%	AP
ATABD	Retrieve the minimum value of Brightness	10%	AP

These commands are based on the RS-232 setting as below:  
19200/N/8/1

All commands are in ASCII mode.

### Example

**ATPDn** - Set PWM Duty Cycle

#### Syntax:

ATPDn<Enter>

#### Parameters

Where [n] is:

Set PWM Duty Cycle

If no [n] parameter, it will return the current PWM Duty Cycle setting.

#### Return Value

Setting

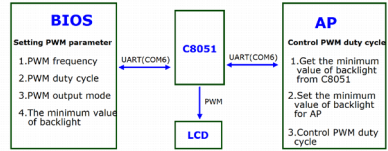
OK<Enter>

Return value

[n]<Enter>

Where n is 0~65535 Please refer to the following diagram;

We strongly suggest customers follow this diagram when developing their own AP.



1. The BIOS sets the PWM parameters everytime the motherboard boots.
2. The AP controls the PWM duty cycle in the operating system.