

Advantech AE Technical Share Document

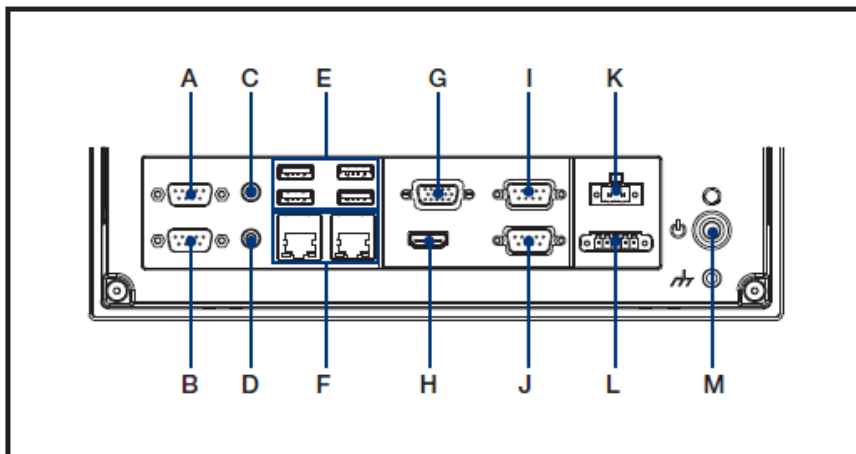
Date	2019 / 08 / 28	Release Note	<input type="checkbox"/> Internal <input checked="" type="checkbox"/> External
Category	<input checked="" type="checkbox"/> FAQ <input type="checkbox"/> SOP	Related OS	
Abstract	FAQ_How to use the GPIO function on PPC-31x0-RE9A?		
Keyword	GPIO		
Related Product	PPC-3100-RE9A, PPC-3120-RE9A		

■ **Problem Description:**

On PPC-3100-RE9A, we reserve a GPIO pin-header on M/B but there is no external connector for it.

I/O	5 x Serial ports: 4 x RS-232, 1 x isolated RS-422/485 (Adjustable through BIOS) 4 x USB 3.0 1 x Line-out, 1 x Mic-in 1 x VGA 1 x HDMI 1 x GPIO (8 channels, TTL level, internal)
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I/O View



- | | |
|-----------------|-------------------------------|
| A. COM4: RS-232 | H. HDMI |
| B. COM5: RS-232 | I. COM1: RS-232 |
| C. Line Out | J. COM2: RS-232 |
| D. Mic In | K. DC Inlet and AT/ATX switch |
| E. 4 x USB 3.0 | L. COM3: Isolated RS-422/485 |
| F. 2 x LAN | M. Power Button |
| G. VGA | |

Brief Solution:

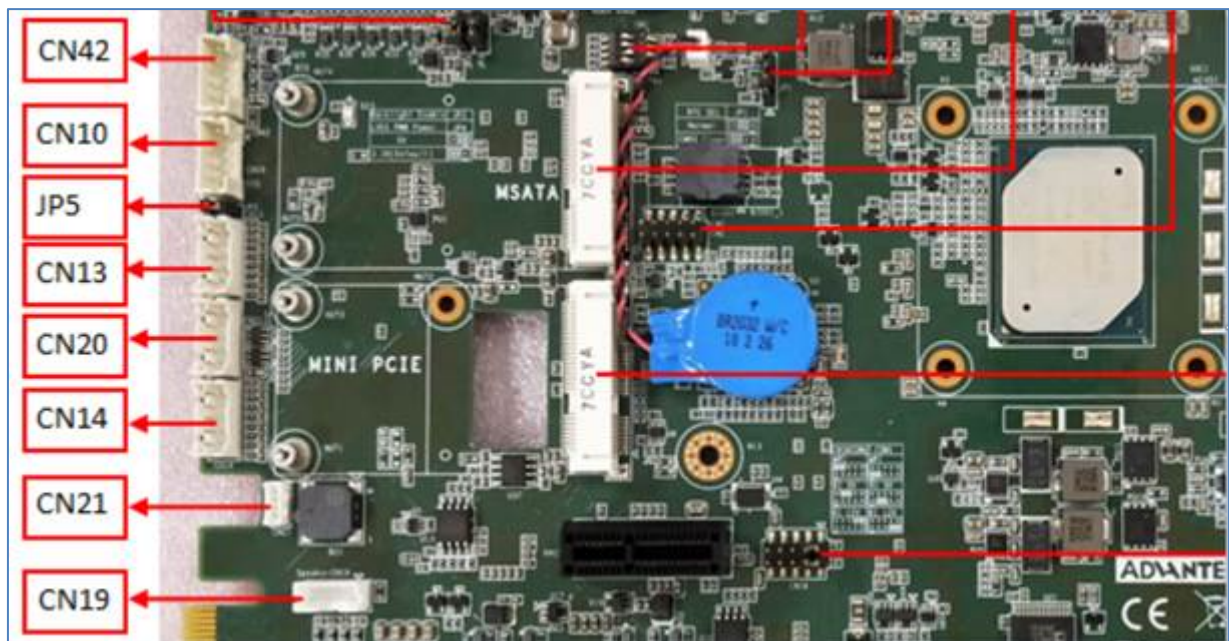
If user needs GPIO feature, he has to manually switch the COM4 or COM5 cable to CN20, they are the same type connector

Please refer to Figure 1 & 2 for CN20 connector, figure 3 for connection, figure 4 for GPIO pin define.

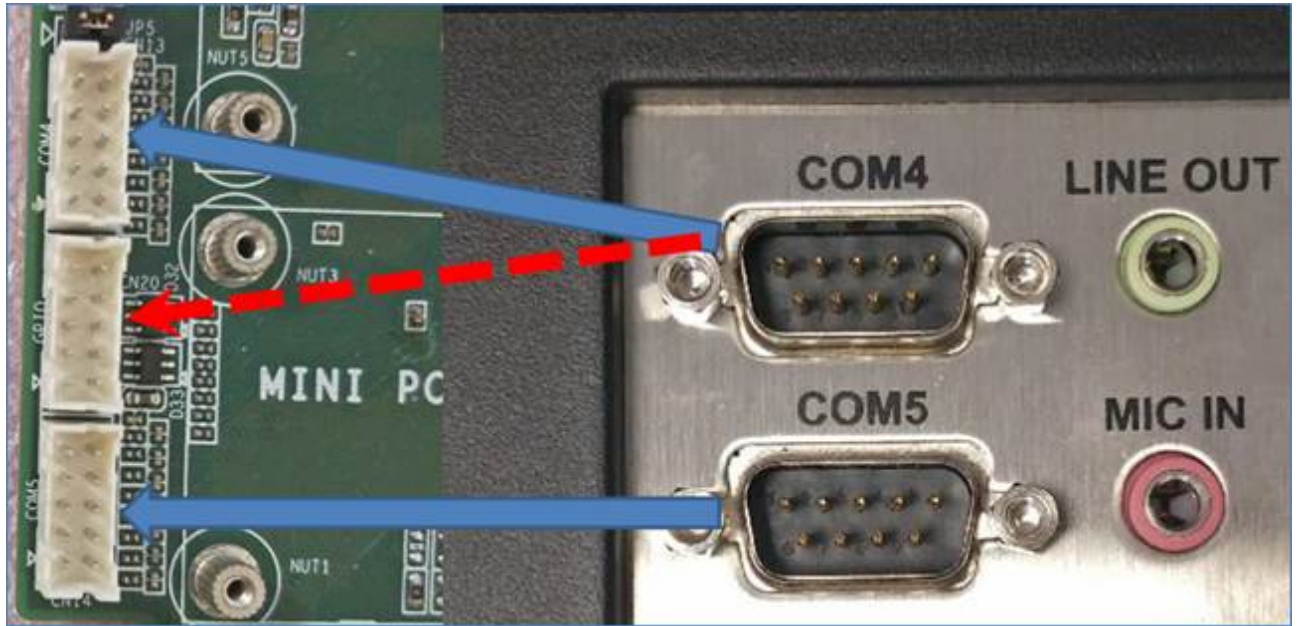
<Figure 1>

Motherboard layout diagram	
Connectors	Functions
CN1	LPC Conn.
CN4	LCD Backlight
CN7	SATA Power
CN13	COM4
CN14	COM5
CN15	RS422/485
CN16	COM1/COM2 Ring
CN19	Speaker
CN20	GPIO

<Figure 2>



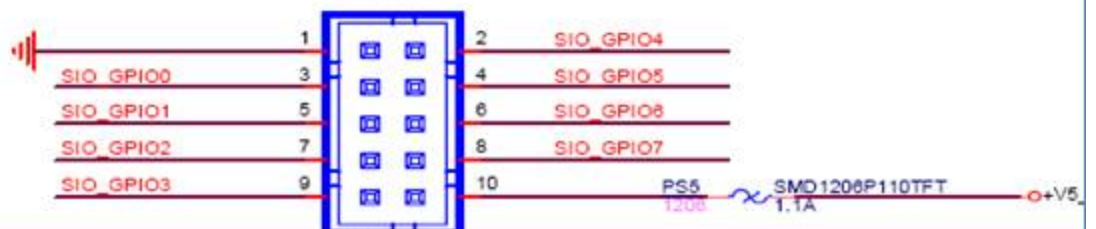
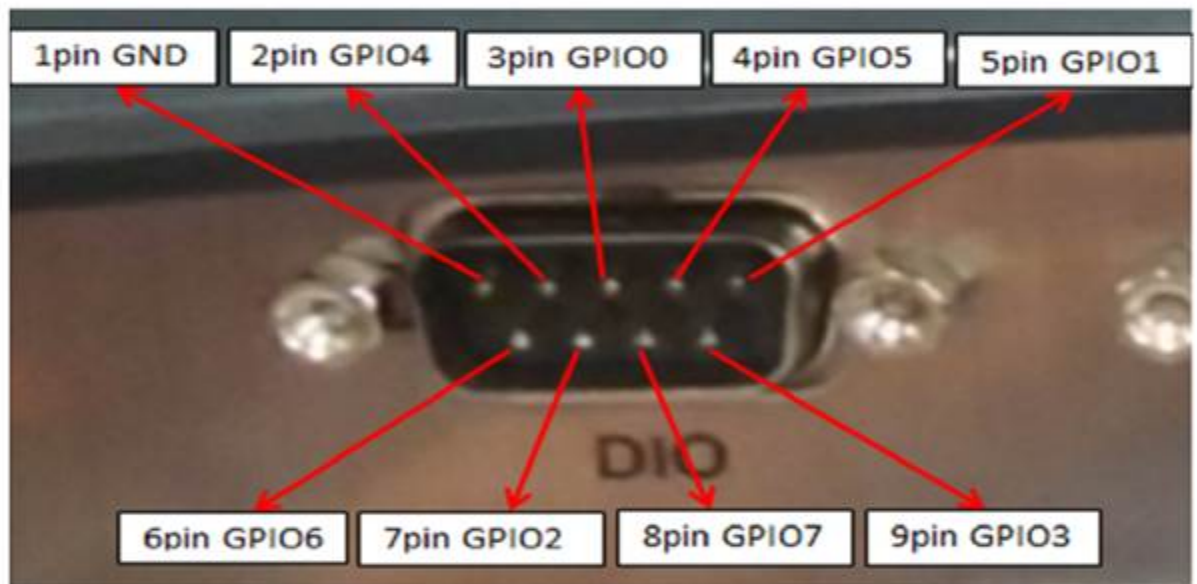
<Figure 3>



<Figure 4>

GPIO(DIO) port defining figure

DIO port define:



Download GPIO utility from “Software API” page

https://support.advantech.com/support/DownloadSRDetail_New.aspx?SR_ID=1-1SEOBK3&Doc_Source=Download

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Document No. 1-3894484611			
Date Updated	08-29-2019	Date Created	08-29-2019
Document Type	Software API	Related OS	Win10 / Win7 / Win8.1
Related Product	IPPC-6152A-R2AE / IPPC-6172A-R2AE / PPC-3100-RE9A / PPC-3120-RE9A / PPC-3151-650AE / PPC-3151W-P75A / PPC-3211W-P75A / PPC-6151C-RTAE / PPC-6171C-RTAE / PPC-6191C-RTAE		

GPIO for PPC series

Solution :

1. Windows 7 / Windows 8 / Windows 10

2. For example codes and user manual, please go to installation default path C:\Program Files\Advantech\Device Name\Examples

Download File	Released Date	Download Site	
AdvGPIO_Win7_8_10_V1.04.011.zip	2019-08-29	Primary	Secondary