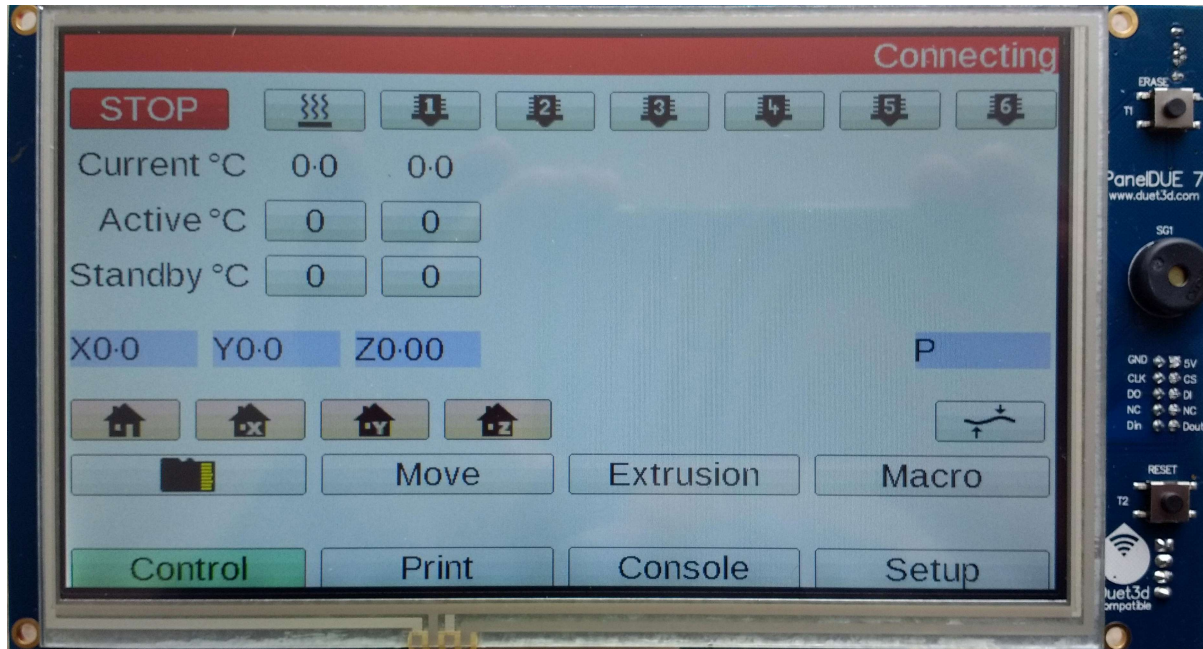


Duet3D PanelDue



Introduction

The PanelDue is a colour touch screen controller for the Duet and other 3D printing electronics that support it. There are versions a number of versions:

PanelDue 5i and **PanelDue 7i** have a 5" or 7" TFT LCD panel with the PanelDue Controller (by David Crocker) integrated on the LCD's PCB.

PanelDue Controller is a separate controller PCB that is not integrated into the LCD PCB. It supports a separate LCD of 4.3", 5" or 7" sizes.

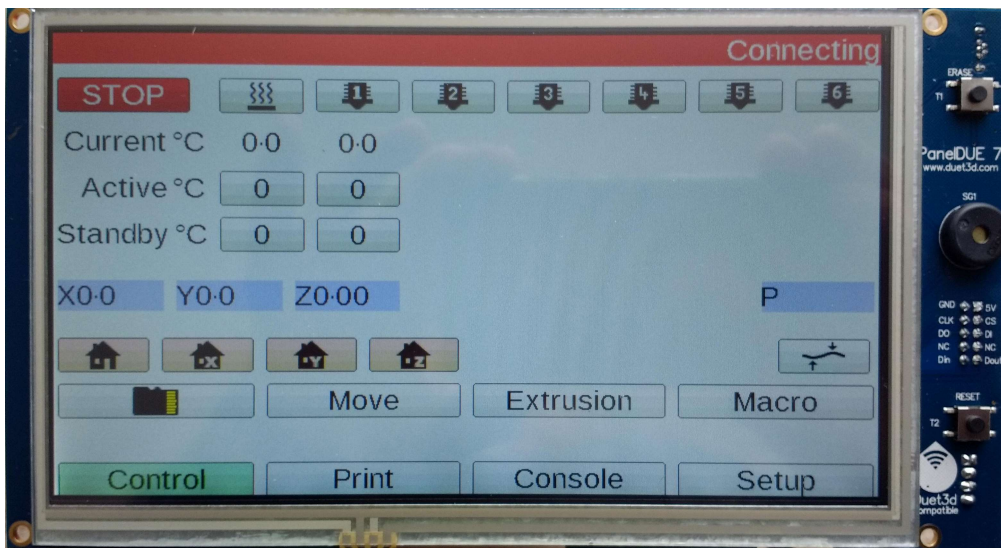
Features

PanelDue 5i and 7i

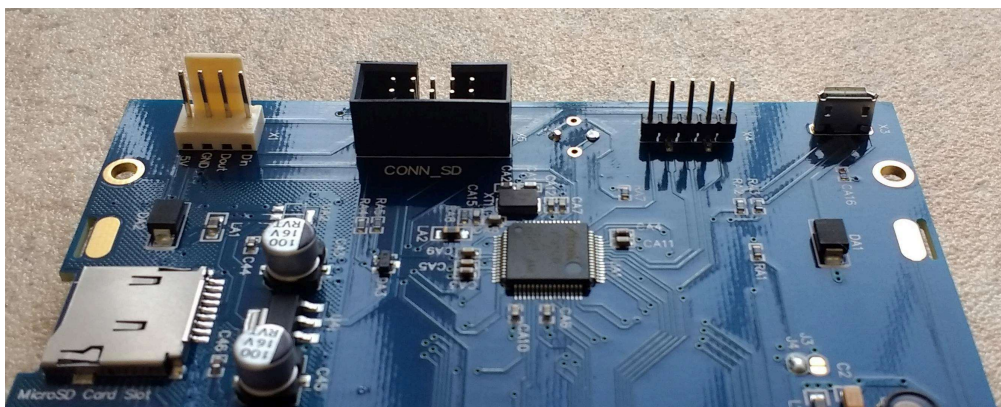
PanelDue Controller + separate LCD

- ▶ Resolution of 800×480 pixels on a 5 inch or 7 inch LCD.
- ▶ 5V power from host 3D printer controller.
- ▶ 2-wire async serial interface with 3.3V signal level (5V tolerant input). This is presented as a 4 pin header with 5V, Gnd and the two serial wires.

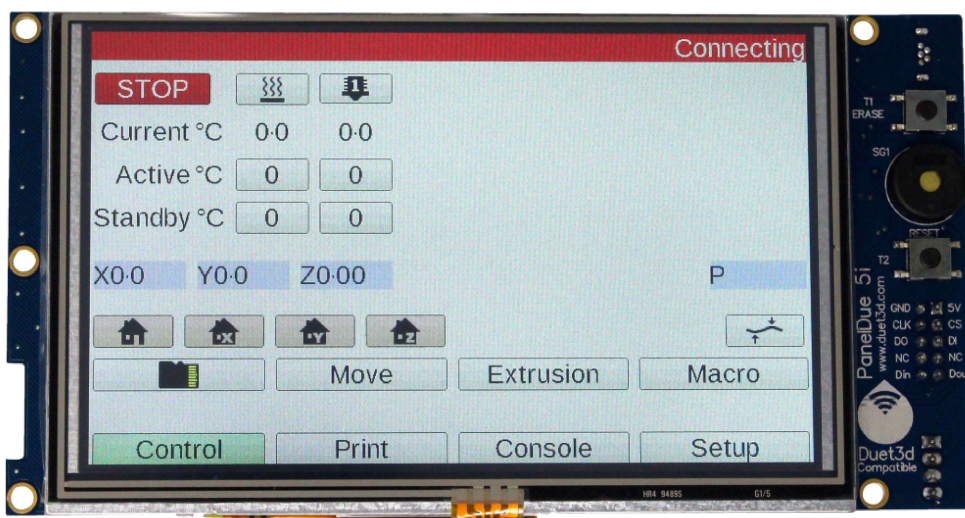
- ▶ Connections to the onboard micro SD card socket as well as the PanelDue serial and power connections are all available via a 10-way ribbon cable. A 300mm long ribbon cable is the maximum recommended length.
- ▶ PanelDue can display 7 tool/bed/chamber heaters in total on 5" and 7" screens.



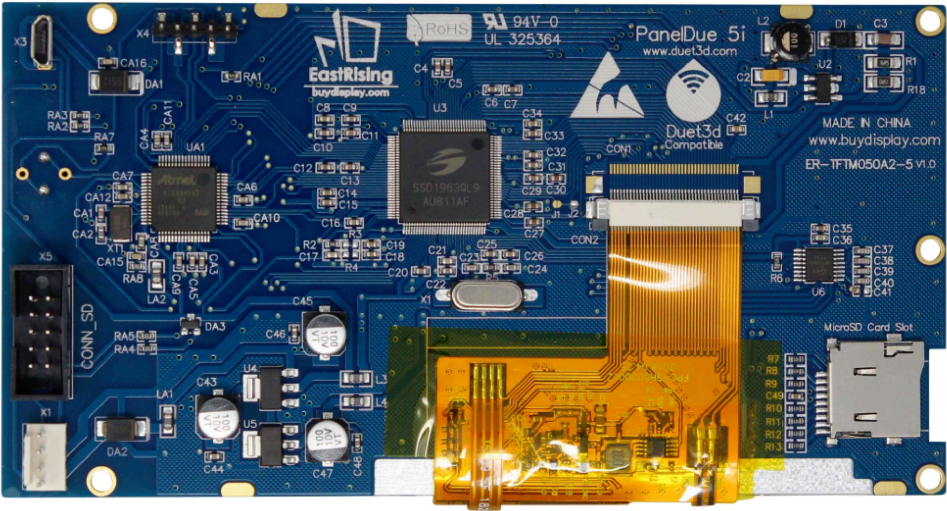
PanelDue 7i



PanelDue 7i connections

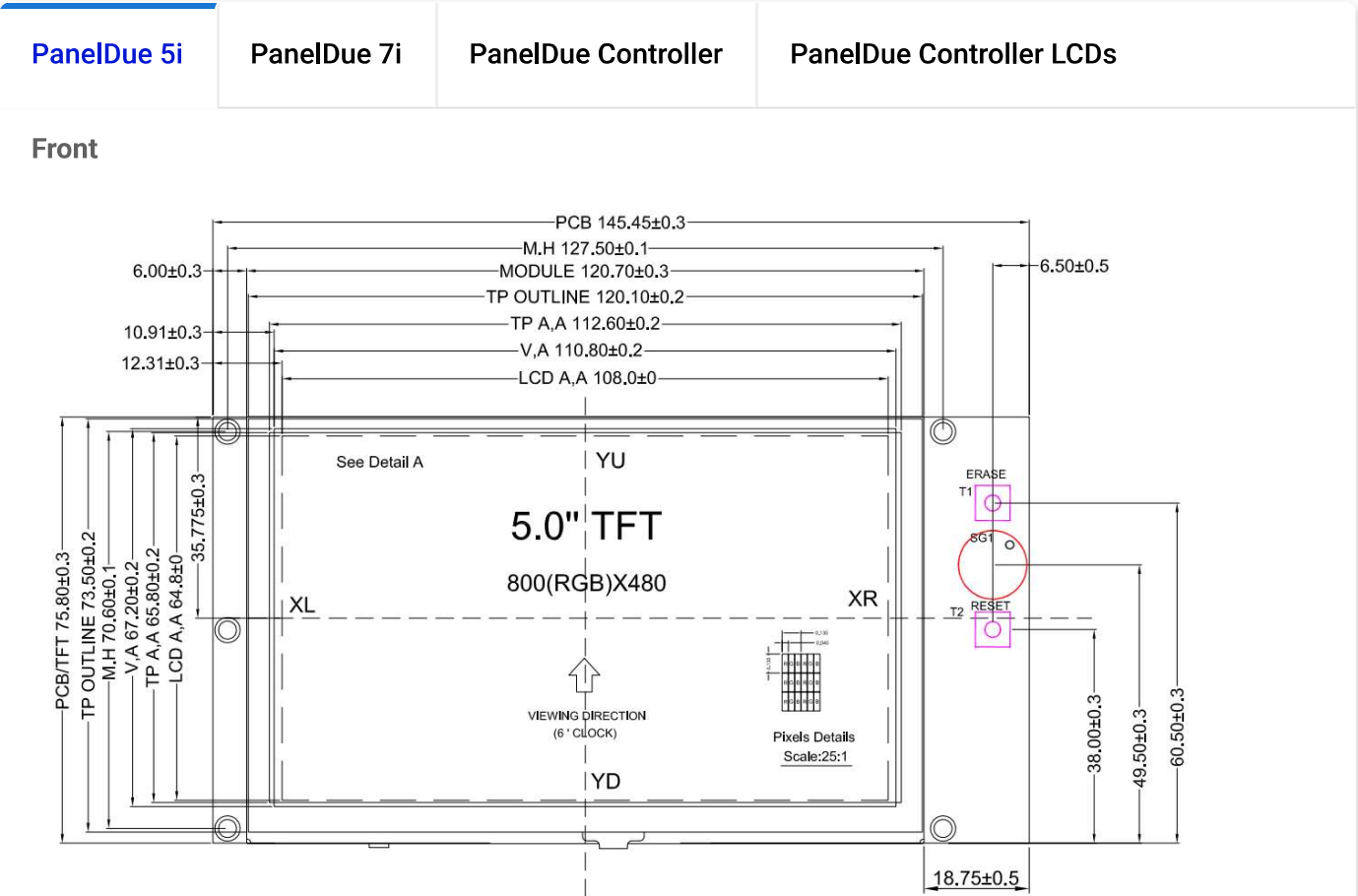


PanelDue 5i

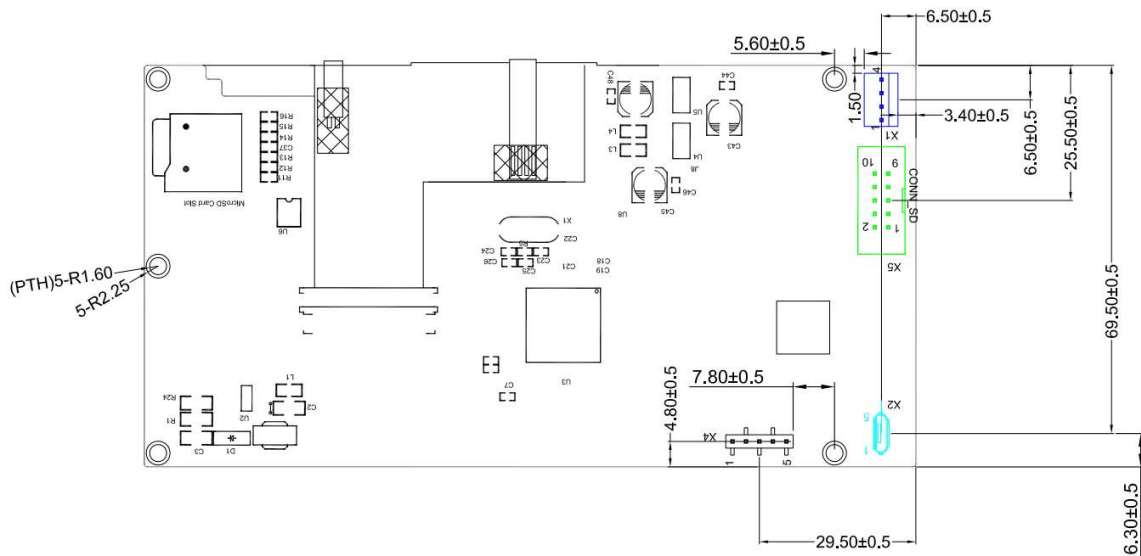


PanelDue 5i - reverse side

Dimensions



Side



4/6

an extender cable is not covered by the warranty.

Wiring

Below is a brief description to show connecting a PanelDue to a Duet mainboard. There is more detailed information here, including using a ribbon cable to allow access to the PanelDue SD card socket: [Connecting a PanelDue](#).

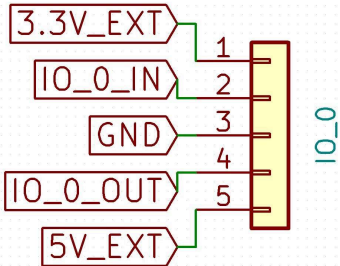
Information for connecting older versions of the PanelDue is available here: [DC42's PanelDue web page](#) .

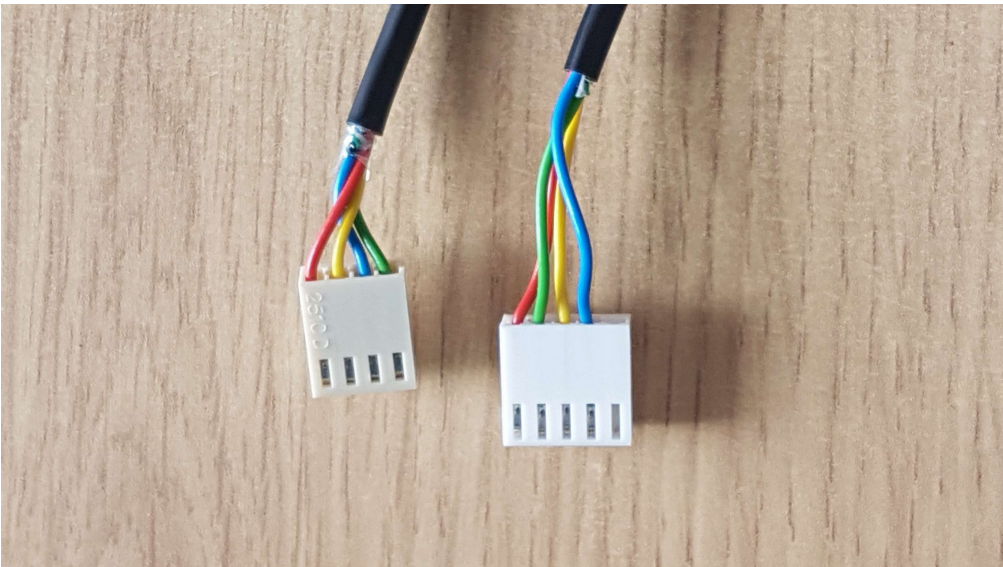
Duet 3

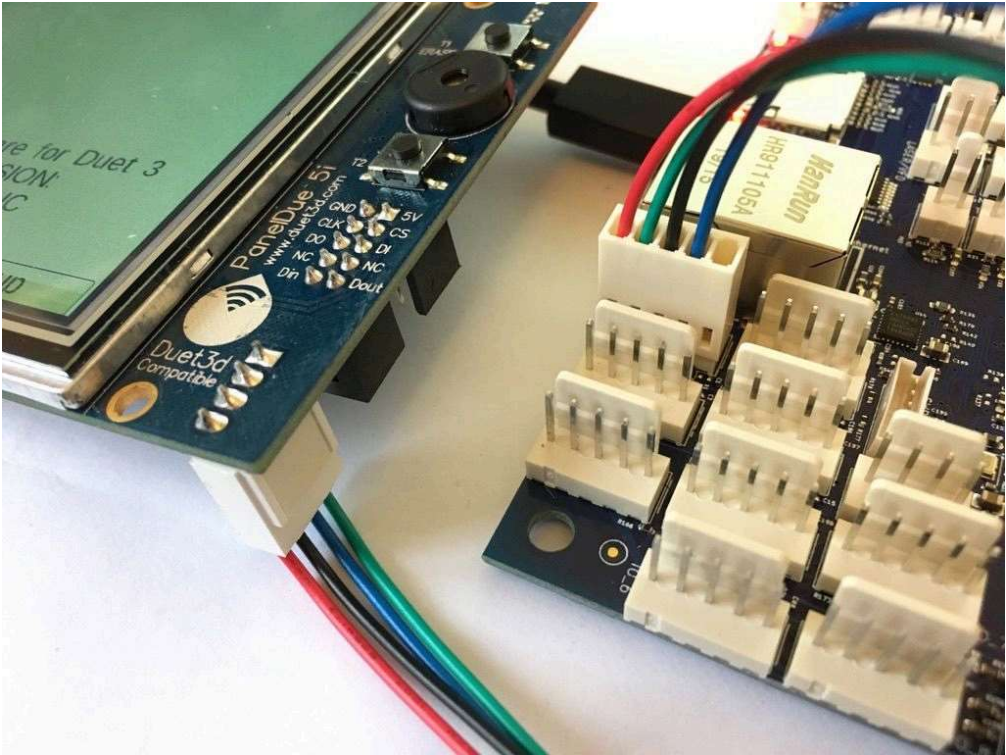
Duet 2 WiFi, Ethernet and Maestro

A PanelDue can be connected to connector IO_0 using a 4-core cable wired like the one shown in the images below. The 4-wire cable supplied with the PanelDue has a 4-way Molex KK connector on each end, but is supplied with a 5-way Molex KK connector for use with Duet 3. You will need to rewire one end. The 4-wire cable does not allow access to the SD card socket on the PanelDue.

NOTE: the Duet 3 pin order in the table below is **not** the physical order. See the diagram for the physical pin order.

PanelDue pin	Wire colour	Duet 3 IO_0 pin	
+5V	Red	5V_EXT (pin 5)	
GND	Black/yellow	GND (pin 3)	
Dout	Blue	IO_0_IN (pin 2)	
Din	Green	IO_0_OUT (pin 4)	





Configuration

RepRapFirmware 3.x and later: Using a PanelDue with Duet 3 and Duet 2 and RRF3 will require [M575 P1 S1 B57600](#) being present in config.g.

RepRapFirmware 2.x and earlier: In RRF2 the command above was assumed as the default, so no additional configuration is required.

Updating PanelDue Firmware

See: [PanelDue Firmware update](#)

Version History

The PanelDue design has been updated over time, the key change being the processor model used.

Version 3, 5i v1 and 7i v1	Version 2	Version 1.0, 1.1 and earlier 2
ATSAM4S4B processor, 120MHz, 64kB RAM, 256kb flash.		