pin	function
1	D0
2	D1
3	D2
4	D3
5	GND
6	VCC
7	/CS
8	RS
9	/WR
10	/RD
11	n/c
12	Touch XR (X+)
13	Touch YD (Y+)
14	Touch XL (X-)
15	Touch YU (Y-)
16	Led A (backlight anode)
17	Led K1 (backlight catode 1)
18	Led K2 (backlight catode 2)
19	Led K3 (backlight catode 3)
20	Led K4 (backlight catode 4)
21	FMARK
22	D4
23	D8
24	D9
25	D10
26	D11
27	D12
28	D13
29	D14
30	D15
31	/RESET
32	VCCA
33	VCC
34	GND
35	D5
36	D6
37	D7
38	n/c
39	n/c
40	n/c

2.8 inch LCD pinout (LCD connector)

ILI9341 controller

FPC 40pin 0.5mm pitch (bottom contacts)

n/c = not connected

pin	function
1	3V3
2	3V3
3	3V3
4	5V (n/c on 2.8 module)
5	5V (n/c on 2.8 module)
6	GND
7	GND
8	GND
9	D7
10	D6
11	D5
12	/RESET
13	Touch CLK
14	Touch /CS
15	Touch DIN
16	Touch DOUT
17	Touch /PENIRQ (n/c on mainboard*)
18	D15
19	D14
20	D13
21	D12
22	D11
23	D10
24	D9
25	D8
26	D4
27	Backlight control
28	/RD
29	/WR
30	RS
31	/CS
32	D3
33	D2
34	D1
35	D0
36	GND
37	n/c*
38	n/c*
39	n/c*
40	3V3

Photon LCD pinout (touchscreen module and mainboard connectors)

ILI9341 lcd controller

XR2046 SPI touch controller

FPC 40pin 0.5mm pitch (bottom contacts on touchscreen PCB and top contacts on mainboard)

n/c = not connected

* = not fully confirmed