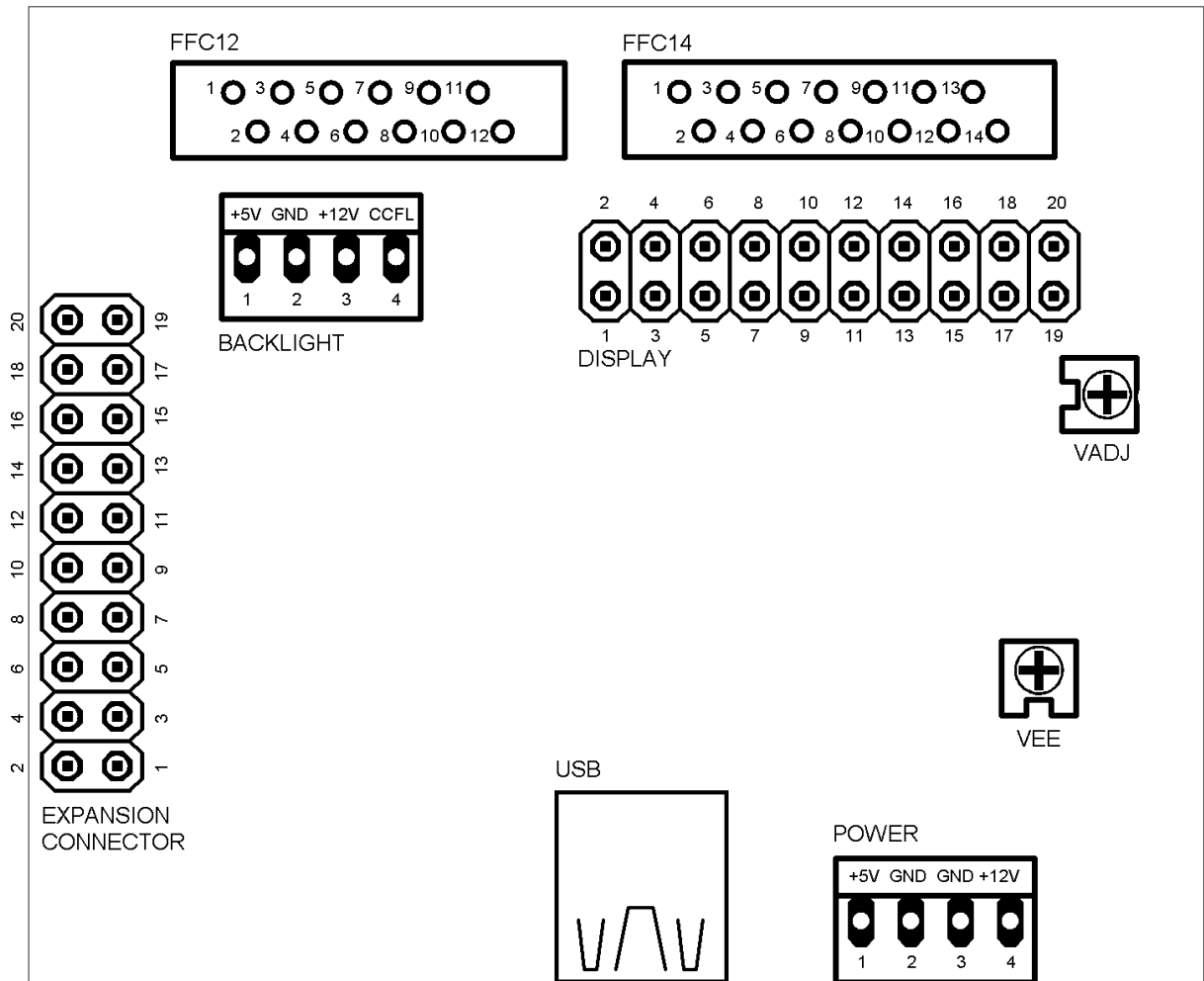


# Connectors



### Generic display connector

No	Symbol	Function
1	FPFRAME	First line marker
2	FPLINE	Data latch
3	GND	Ground (0V)
4	FPSHIFT	Data shift
5	FPD0	Display data
6	FPD1	Display data
7	FPD2	Display data
8	FPD3	Display data
9	GND	Ground (0V)
10	GND	Ground (0V)
11	+5V	Power supply (+5V)
12	+5V	Power supply (+5V)
13	MOD	Alternate (M / MOD / WF) (Note 1)
14	/DISPOFF	Display On / Off (Note 1)
15	VEE	Power supply for LCD drive
16	VADJ	LCD contrast adjust voltage
17	+3.3V	Power supply (+3.3V) (Note 1)
18	NC	Not connected
19	+12V	Power supply (+12V)
20	+12V	Power supply (+12V)

Note 1:

These pins are NC in board revisions <1.1

XECL and YSCL signals of the S1D13700 are not brought to any header but they are available in soldering points on the circuit board.

#### 14 pin 1.25 mm FFC connector

No	Symbol	Function
1	D0	Display data
2	D1	Display data
3	D2	Display data
4	D3	Display data
5	/DISPOFF	Display control H:Display on L:Display off
6	FLM	First line marker
7	NC	Not connected
8	LP	Data latch
9	CP	Data shift
10	VCC	Power supply for logic (+5V)
11	VSS	Ground (0V)
12	VEE	Power supply for LCD drive
13	VADJ	LCD contrast adjust voltage
14	FG	Frame ground

Displays compatible with this connector include

- Optrex DMF-50840
- Hitachi SP14Q002
- Datavision DG-32240-17
- and many others

#### 12 pin 1.25 mm FFC connector

No	Symbol	Function
1	VADJ (Vo)	LCD contrast adjust voltage
2	VEE	Power supply for LCD drive
3	D3	Display data
4	D2	Display data
5	D1	Display data
6	D0	Display data
7	NC	Not connected
8	VSS	Ground (0V)
9	VCC	Power supply for logic (+5V)
10	CP (CP2)	Data shift (Data input clock signal)
11	LP (CP1)	Data latch (Input data latch signal)
12	FLM (S)	First line marker (Scan startup signal)

### Power input connector

No	Symbol	Function
1	+5V	
2	GND	
3	GND	
4	+12V	Optional

+12V input is optional and it is only used in the generic display output connector and in the backlight connector. If your display configuration isn't using +12V voltage for anything then it's enough to connect only +5V.

### Backlight connector

No	Symbol	Function
1	+5V	+5V power supply
2	GND	Ground. Backlight PWM control switches this pin
3	+12V	+12V power supply
4	CCFL	CCFL dimming PWM output signal. Configurable for 3.3V, 5V, 12V

Connect the backlight to either +5V or +12V supply pin. For LED backlight use a current limiting resistor if necessary. Backlight switching is done on the ground side.

CCFL dimming output is a separate PWM output that can be used to generate a dimming signal that some CCFL inverters use. Output level for this PWM signal can be configured to be either +3.3V, +5V or +12V. Please ask for more information if you plan using this.

## Expansion connector

No	Symbol	Function
1	GND	Ground (0V)
2	GND	Ground (0V)
3		GPIO
4		GPIO
5	RX	GPIO
6	TX	GPIO
7	SSEL	GPIO
8	GND	Ground (0V)
9	MISO	GPIO
10	MOSI	GPIO
11	SCK	GPIO
12		GPIO
13	SCL	GPIO
14	SDA	GPIO
15	+3.3V	Power supply (+3.3V)
16		GPIO
17		GPIO
18		GPIO
19	GND	Ground (0V)
20	+3.3V	Power supply (+3.3V)