

Port	Usage	available at headers	Other usage	Remarks
A0	available	✓		
A1	available	✓		
A2	available	✓		
A3	available	✓		
A4	available	✓		
A5	available	✓		
A6	available	✓		
A7	available	✓		
B0	available	✓		need to be output for hardware SPI (even if not used)
B1	SPI Bus Clock, used by Display, SD Card	✓ (*)		should be used only for additional SPI bus devices
B2	SPI Bus MOSI, used by Display, SD Card	✓ (*)		should be used only for additional SPI bus devices
B3	SPI Bus MISO, used by Display, SD Card	✓ (*)		should be used only for additional SPI bus devices
B4	available	✓		
B5	available	✓		
B6	available	✓		
B7	available	✓ (*)	optional: Display lighting (switch / dim by PWM)	
C0	available	✓ (*)	optional: RE of Max485	
C1	available	✓ (*)	optional: DE of Max485	
C2	available	✓		
C3	available	✓		
C4	available	✓		
C5	available	✓		
C6	available	✓		
C7	available	✓		
D0	available (I²C, used by RTC and other I²C devices)	✓ (*)		I²C used by optional RTC on mainboard
D1	available (I²C, used by RTC and other I²C devices)	✓ (*)		I²C used by optional RTC on mainboard
D2	available (also UART 1 - if jumper XX is closed: Rx1)	✓ (*)	UART 1; optional switch	on D2/D3 a TTL level serial interface is always available
D3	available (also UART1 - if jumper XX is closed: Tx1)	✓ (*)	UART 1	on D2/D3 a TTL level serial interface is always available
D4	available	✓ (*)	switch	
D5	available	✓ (*)	switch	TX for CAN Controller
D6	available	✓ (*)	switch	RX for CAN Controller
D7	available	✓ (*)	switch	
E0	available (also UART0 if Jumper J11 is set)	✓ (*)	optional UART0 / ISP	
E1	available (also UART0 if Jumper J12 is set)	✓ (*)	optional UART0 / ISP	
E2	available	✓		
E3	available	✓ (*)	optional: Power save option (or G1)	
E4	available	✓		
E5	available	✓	switch	
E6	available	✓		
E7	available	✓ (*)	switch	
F0	available	✓		
F1	available	✓		
F2	available	✓		
F3	available	✓		
F4	available, (also used: JTAG)	✓ (*)		not available if JTAG is enabled
F5	available, (also used: JTAG, SD Card)	✓ (*)	optional: SD Card, CS	No SD Card can be used if JTAG is enabled
F6	available (also used: JTAG)	✓ (*)	optional: switches display level shifter	Cannot be used if JTAG is enabled
F7	available, (also used: JTAG, SD Card)	✓ (*)	optional: SD Card, Remove from Bus (Tristate)	No SD Card can be used if JTAG is enabled
G0		—	Switch	
G1		—	Switch, other option: for power shutdown (selectable by J21)	
G2		—	optional: switch	
G3		—	Switch	also TOSC3- G3 can't be used if a clock crystal at the controller shall be used
G4	not available (=TOSC1)	-		
GND	generally available at Pin9 of each 2x10 connector	✓		
5V	generally available at Pin10 of each 2x10 connector (not Port B)	✓		
3V	Pin 10 at Port B	✓		
Reset		—		
Rx1	High level - comes from transceiver (then to D3)	✓		
Tx1	High level - comes from transceiver (then to D2)	✓		
Rx0	High level - comes from transceiver (then to E1)	✓		
Tx0	High level - comes from transceiver (then to E0)	✓		
RS485 - A	High level - comes from transceiver	✓		
RS485 -B	High level - comes from transceiver	✓		
Aref		✓		
AGND		✓		
Avcc	can be connected to Vcc5 by soldering a bridge over a inductivity (see manual)	✓		
✓ Green: Can be used without restrictions (no other usage by any option) (*) = Used also by other devices on the board or at the optional add-on-board - Check your options and a double usage carefully — Gray: not available at a header also JTAG (*): If JTAG is enable in fuses, no SD card, no ethernet, no CAN can be used as these need ports F4-F7 which are occupied by JTAG				D071x V1 final Stand 1. Juni 2009