

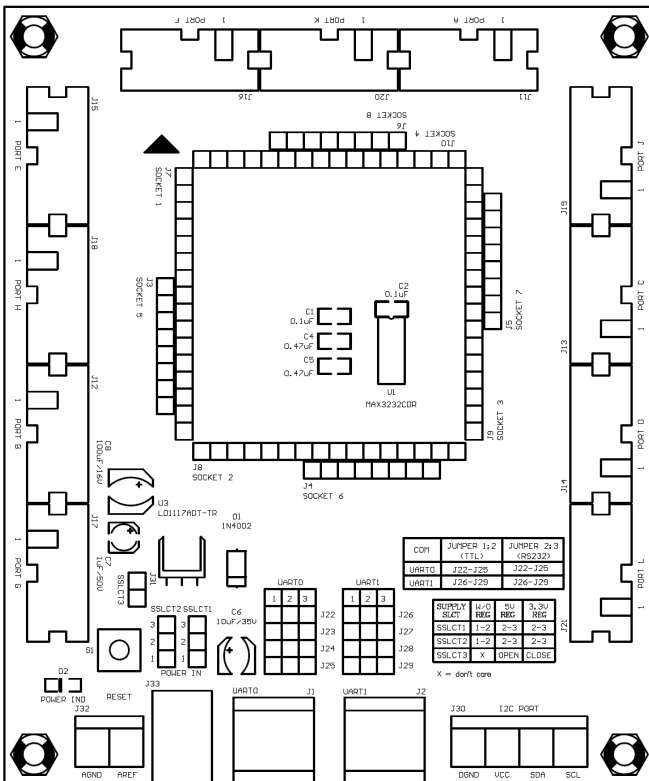
# DT-COMBO BASIC BASE BOARD

**DT-COMBO BASIC BASE BOARD** is a development base board module for CPU MODULE Series that has the abilities and connectors for basic functions such as input/output, serial UART, I<sup>2</sup>C, and ADC. This module can be connected to the CPU MODULE Series and can be used for various applications.

## Specifications

1. Supports CPU MODULE Series that has Input/Output lines up to 88 pins.
2. Two available RJ11 connectors for UART communication with 2 voltage level options, UART RS-232 or UART TTL.
3. Terminal for I<sup>2</sup>C communication is available.
4. Terminal for ADC voltage reference is available.
5. Reset button is available.
6. Power supply option of (VIN) 3.3-5.5 Volts DC (without regulator) or 6.5-12 Volts DC (through the regulator).
7. 800 mA voltage regulator with output options of 3.3 Volts DC or 5 Volts DC.
8. Compatible with the CPU MODULE Series.

## Component Layout



DC Jack (J33) functions as input line for the 6.5 - 12 Volts (VIN) power supply.

### DC Jack J33 polarity



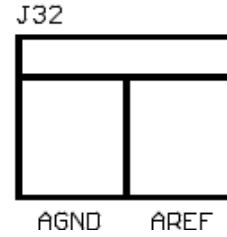
Jumper SSLCT1 (J34), SSLCT2 (J35), and SSLCT3 (J31) are used to set the configuration of the input and output voltage.

	SSLCT1	SSLCT2	SSLCT3
Without regulator	1 - 2	1 - 2	Don't care
Regulator 5V	2 - 3	2 - 3	OPEN
Regulator 3,3V	2 - 3	2 - 3	CLOSE

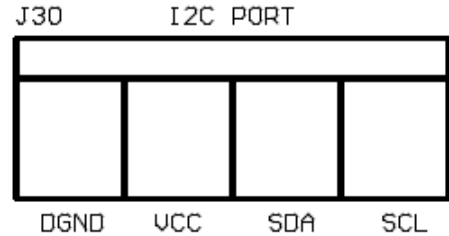
### Important!

- Pay attention to the settings of jumper SSLCT1, SSLCT2, and SSLCT3 before connecting the power supply source.

Terminal J32 is a connector for ADC voltage reference (AREF).

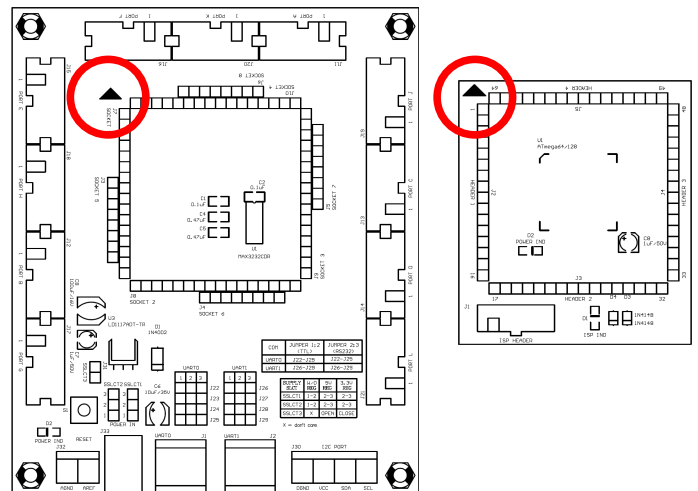


Terminal I<sup>2</sup>C PORT (J30) is a connector to the I<sup>2</sup>C interface.



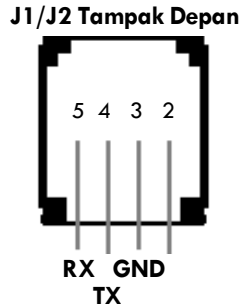
SCL and SDA is also connected to PORT D header.

SOCKET 1 (J7), SOCKET 2 (J8), SOCKET 3 (J9), SOCKET 4 (J10), SOCKET 5 (J3), SOCKET 6 (J4), SOCKET 7 (J5), and SOCKET 8 (J6) are power supply and input/output lines that can be connected to HEADER 1 - HEADER 8 on the CPU MODULE Series. Use the triangle marks on both modules as reference. Both marks should be in the same position and direction. Also pay attention to the position of the CPU MODULE connectors so that the installation is precisely aligned between pins (not shifted).



Connectors RJ11 (J1), UART0, and UART1 (J2) are connectors for UART communication lines.

Name	Function
GND	Ground Reference
TX	Input data line from board
RX	Output data line from board



UART0 voltage level used on connector RJ11 (J1) is arranged through jumper J22 – J25.

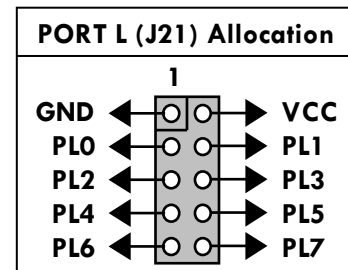
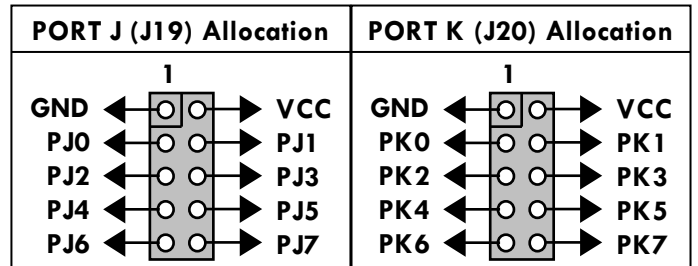
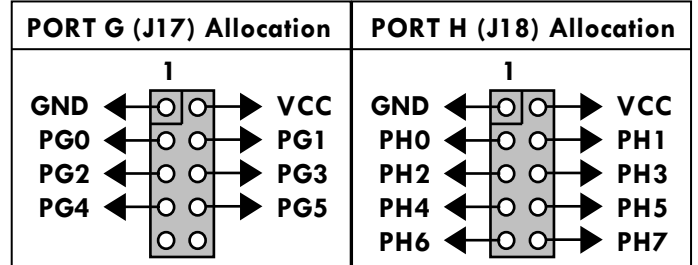
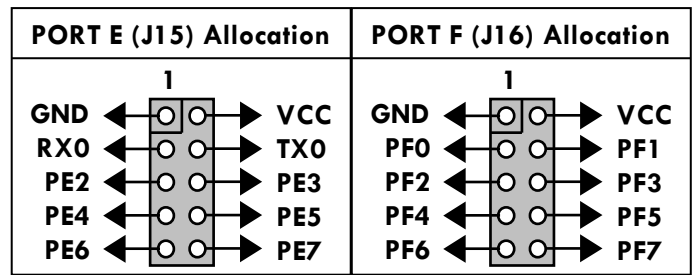
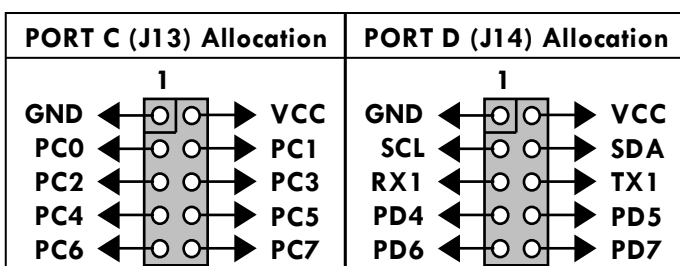
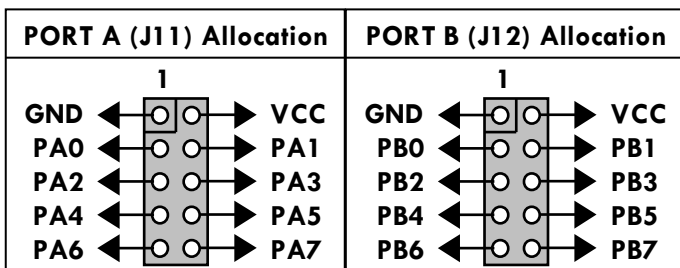
UART1 voltage level used on connector RJ11 (J2) is arranged through jumper J26 – J29.

Voltage Level	UART0 J22 – J25 Position	UART1 J26 – J29 Position
TTL	1 - 2	1 - 2
RS-232	2 - 3	2 - 3

#### Important!

- When using PORT E header (J15) pin 3 and 4 as the I/O or UART TTL, then jumper J22 and J24 should be removed.
- When using PORT D header (J14) pin 5 and 6 as the I/O or UART TTL, then jumper J28 and J26 should be removed.
- When using the RJ11 (J1) as UART0 communication line, PORT E (J15) pins 3 and 4 must not be connected to other circuits.
- When using the RJ11 (J12) as UART1 communication line, PORT D (J14) pins 5 and 6 must not be connected to other circuits.
- Pay attention to the jumper settings before connecting other devices via RJ11.

PORT A (J11), PORT B (J12), PORT C (J13), PORT D (J14), PORT E (J15), PORT F (J16), PORT G (J17), PORT H (J18), PORT J (J19), PORT K (J20), and PORT L (J21) headers function as I/O lines from microcontroller I/O pins.



#### Isi CD/DVD

1. CodeVisionAVR® evaluation.
2. Datasheet.
3. DT-COMBO BASIC BASE BOARD Manual.
4. DT-COMBO BASIC BASE BOARD Schematic.
5. DT-COMBO BASIC BASE BOARD Testing Procedure.
6. Innovative Electronics Website.

#### Testing Procedure

The testing procedure using DT-AVR ATMEGA64/128 CPU MODULE is listed in the **DT-COMBO BASIC BASE BOARD Testing Procedures.PDF** or use the testing procedure on each CPU MODULE Series.

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- ♦ Thank you for your confidence in using our products. If there are difficulties, questions, or suggestions regarding this product please contact our technical support:

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