Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts,Customers Priority,Honest Operation,and Considerate Service",our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!


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Scope

The extension board has been designed to control more then one device with the PTC-04.
8 extension boards can be connected to the PTC-04. Each board can calibrate 8 devices using 3 wires per device. So in total 64 devices can be calibrated with the use of one PTC-04.

Functional description

To address each module separately we are working with 2 ID`s. One will be the board ID (called devID) and the other one the Channel ID, which is the actual module that is selected on the board.
The connection between the extension boards and the ptc is done by using a standard DB15 connector.

See schematic below
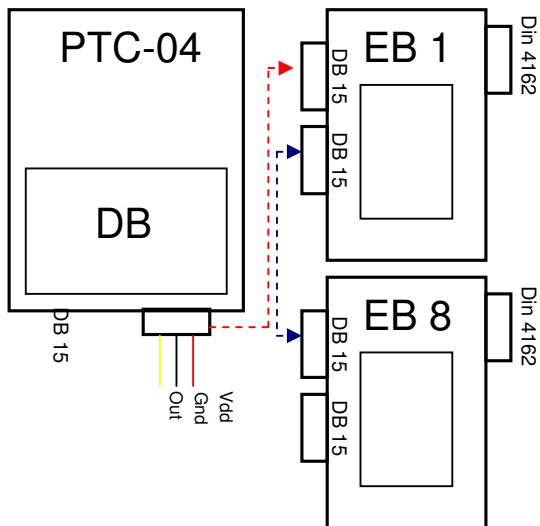
Connections and Power supply

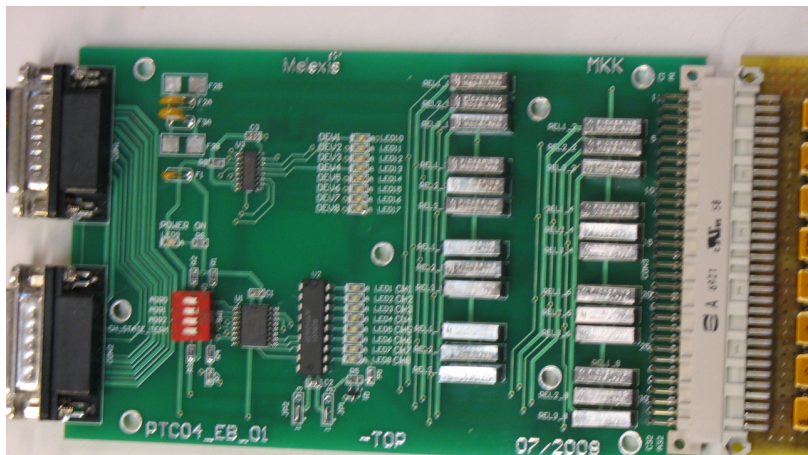For the PTC-04 we are using a default DB15 connector. With the following pin numbering

Pin Nr	Name
1	Vdd
2	Out
3	Gnd
4	Mice
5	SCL
6	SDA
7	5V DO
8	DGND
9	Vdd_Sense
10	Out_Sense
11	Gnd_Sense
12	
13	
14	
15	Channel_state

Connectors on the Extension Board

A mail din 41612C64 connector is foreseen on the extension boards using following connections.
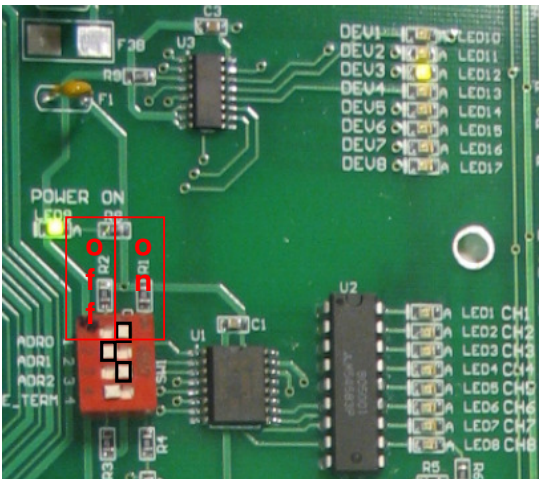
DIP switch

A dipswitch is used to indicate the hardware address that is assigned to the Extension Board.
As the boards are using an I2C communication it is required that each board can be addressed separately with a specific device number.

A binary coding is used for determining the hardware address.

Hardware Address	1	2	3
DEV1	ON	ON	ON
DEV2	OFF	ON	ON
DEV3	ON	OFF	ON
DEV4	OFF	OFF	ON
DEV5	ON	ON	OFF
DEV6	OFF	ON	OFF
DEV7	ON	OFF	OFF
DEV8	OFF	OFF	OFF

i.e.

Channel state (DIPSWITCH 4)

The signal CH_state is used for feedback purposes during the selection of the Channel ID, used for all 8 extension boards. All boards have one open collector connected trough 47 ohms It is enough to set ON SW1/4 on one board only.
Please be sure that this dipswitch is only set to on only 1 time for all the boards.