

The product line of development boards LDM-PP 2.xxxx is a printed circuit board, size 100x71x12 mm and prototypical field 71x50 mm (hole pitch 2.54 mm) with installed chip FPGA DD1 of the company Altera a family of MAX 3000A CPLD or MAX 7000S CPLD in the housing TQFP-100. For the convenience of the design the board under the chip DD1 is traced so that it is convenient to solder by wiring (pin in/out have appropriate areas, provided by the housing DD1, refer to pin numbers are shown in Fig.4). The development board has a connector XS3 (IDC-10MS) to connect a download cable LDM-USB-Blaster, LDM-PB 2.01 ByteBlasterMV or its analogs (in the mode JTAG). Power can be carried out by an external source of stabilized with the voltage + 9 ... 12 V that is connected to the connector XS1. LEDs VD2 and VD4 are power indicators.

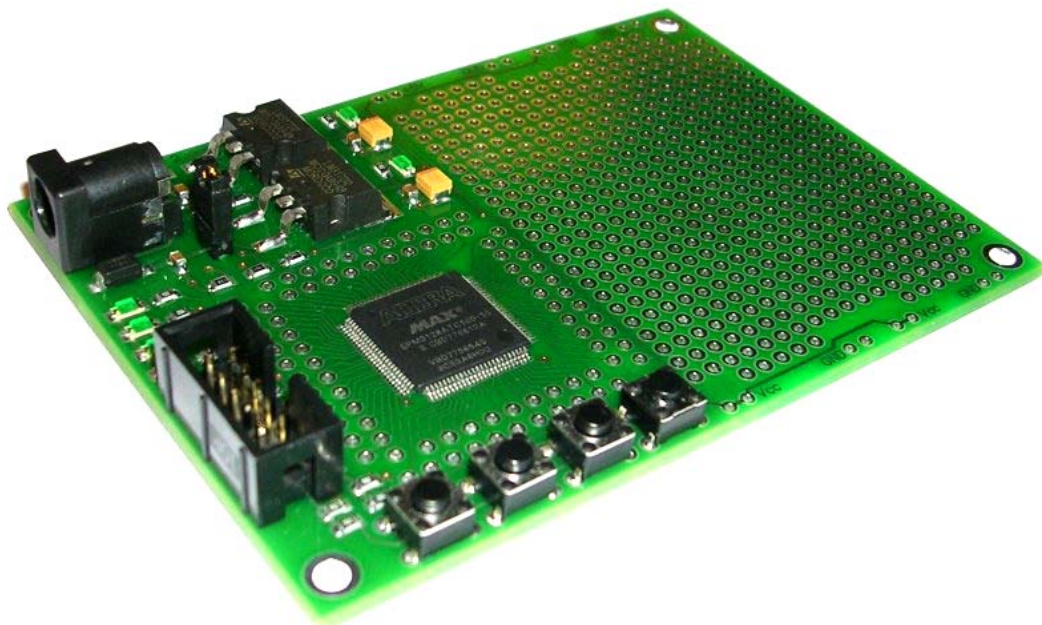


Fig. 1. General view of the development board LDM-PP 2.xxxx

Linear voltage converter DA1 (LM317D2P) in the housing D2PAK transforms supply voltage to the voltage 3.3 V or 5.0 V, it depends on the type of FPGA (Table 1).

Table 1

Main characteristics of development boards.

Board Edition	Type of FPGA	Voltage FPGA, V	Number of pins in/out	Logic capacity of logic cells
LDM-PP 2.3128	EPM3128ATC100	3.3	80	2500
LDM-PP 2.7064	EPM7064STC100	5.0	68	1250
LDM-PP 2.7128	EPM7128STC100	5.0	84	2500

The development board is intended for prototyping devices designed on FPGA of the company Altera a family of MAX 3000A or MAX 7000S, and also for assembly completed devices by mounting necessary components on the prototypical field of the board. Use of LDM-PP 2.xxxx allows minimizing the implementation time of the product on the market.

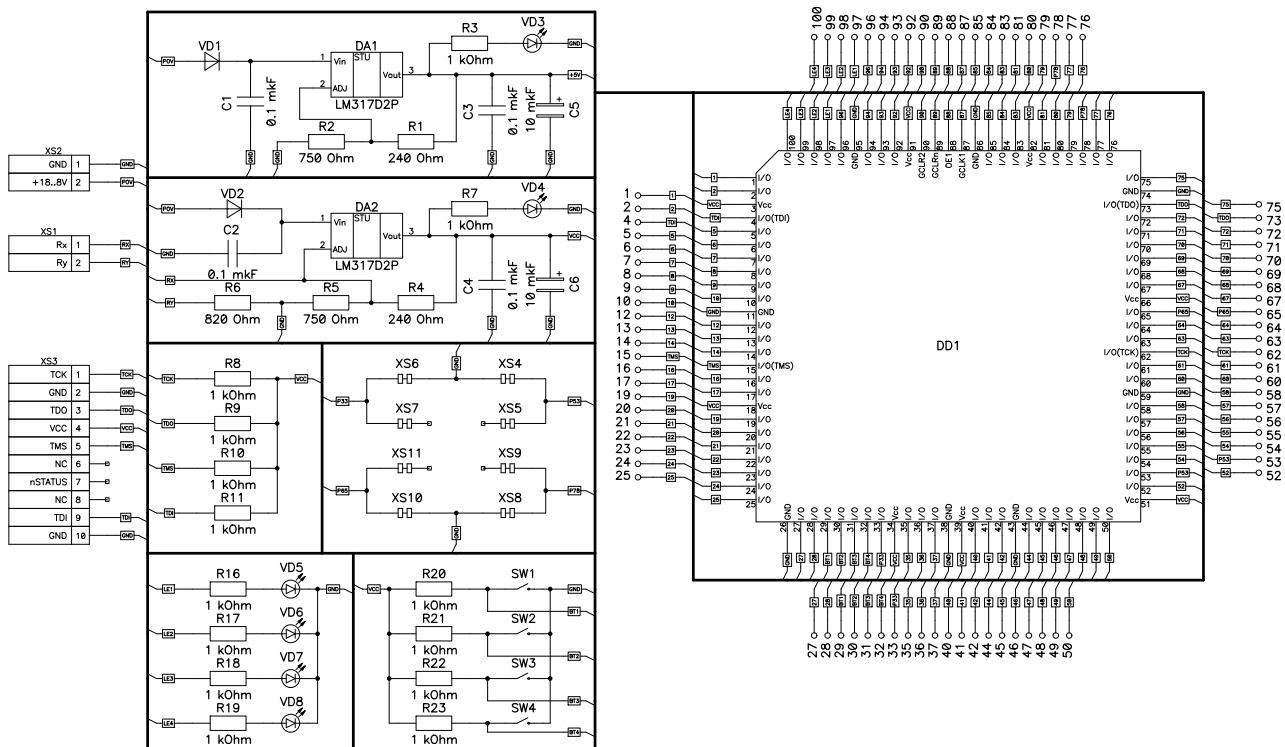


Fig. 2. The electrical scheme of LDM-PP 2.xxxx

There are four LEDs VD5-VD8 and four buttons SW1-SW4, on the board which are connected with FPGA. It is intended for simplification of designing and can be useful during the test of project.

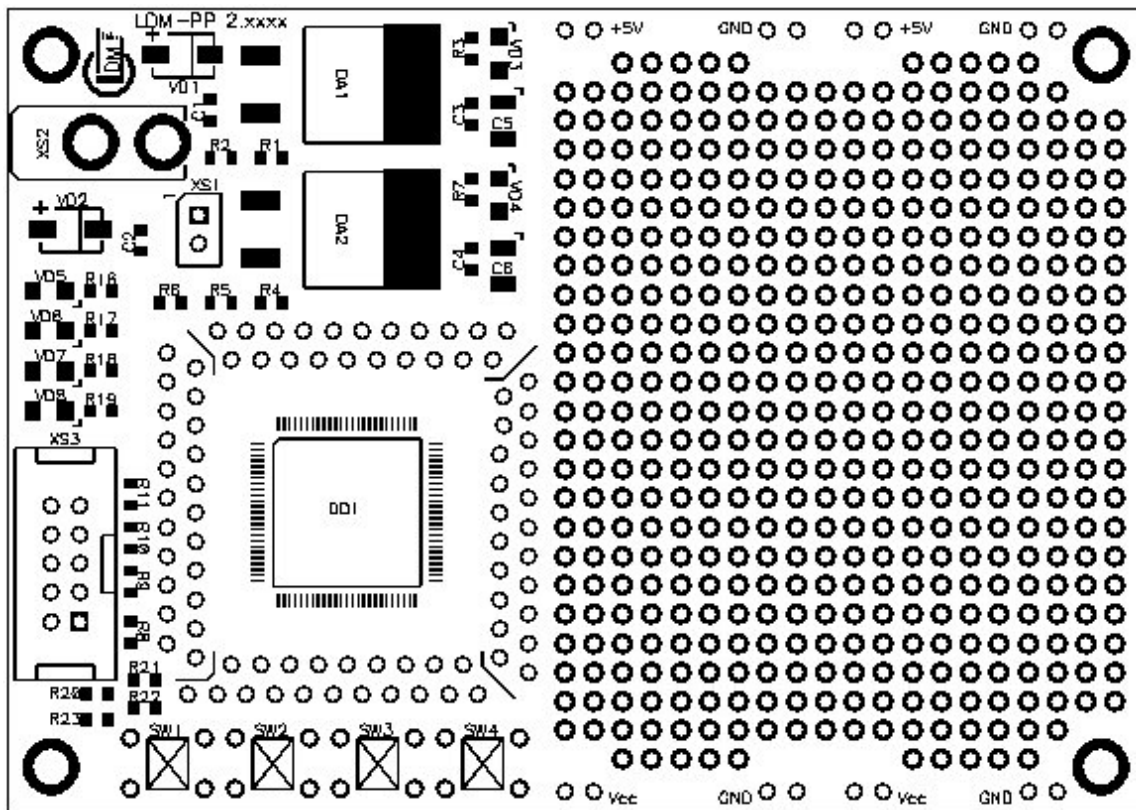


Fig. 3. External view of the printing board of LDM-PP 2.xxxx

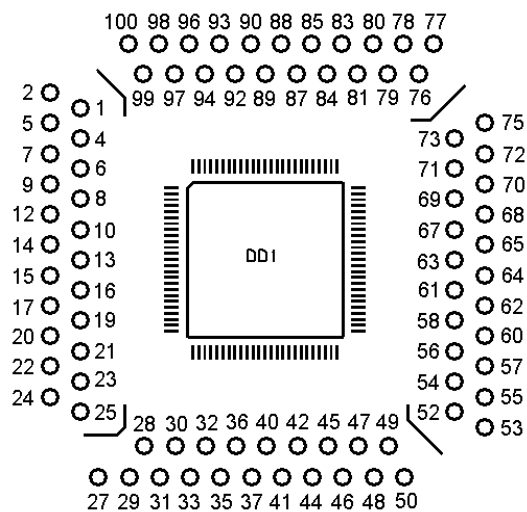


Fig. 4. Designation of mounting pads.

### Packaging arrangements:

- The development board;
- Description of the development board;
- Examples of projects for Quartus II Web Edition Software;
- Description of the family of FPGA Altera.