

The development board LDM-MAX3000-ZIFT100 is a printed circuit board, size 152x91x12 mm and prototypical field 72x91 mm (hole pitch 2.54 mm) with installed ZIF panel for the housing of the type TQFP-100 (XS1) with opportunity to use chip FPGA of Altera company a family of MAX 3000A CPLD in the housing TQFP-100 (EPM3064A, EPM3128A). All inputs and outputs are installed in the panel FPGA displayed on the contact pads XS5 – XS8. The 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 stabilized source with the voltage + 9 ... 12 V that is connected to the connector XS2. LEDs VD3 and VD4 are power indicators.

**ALTERA**

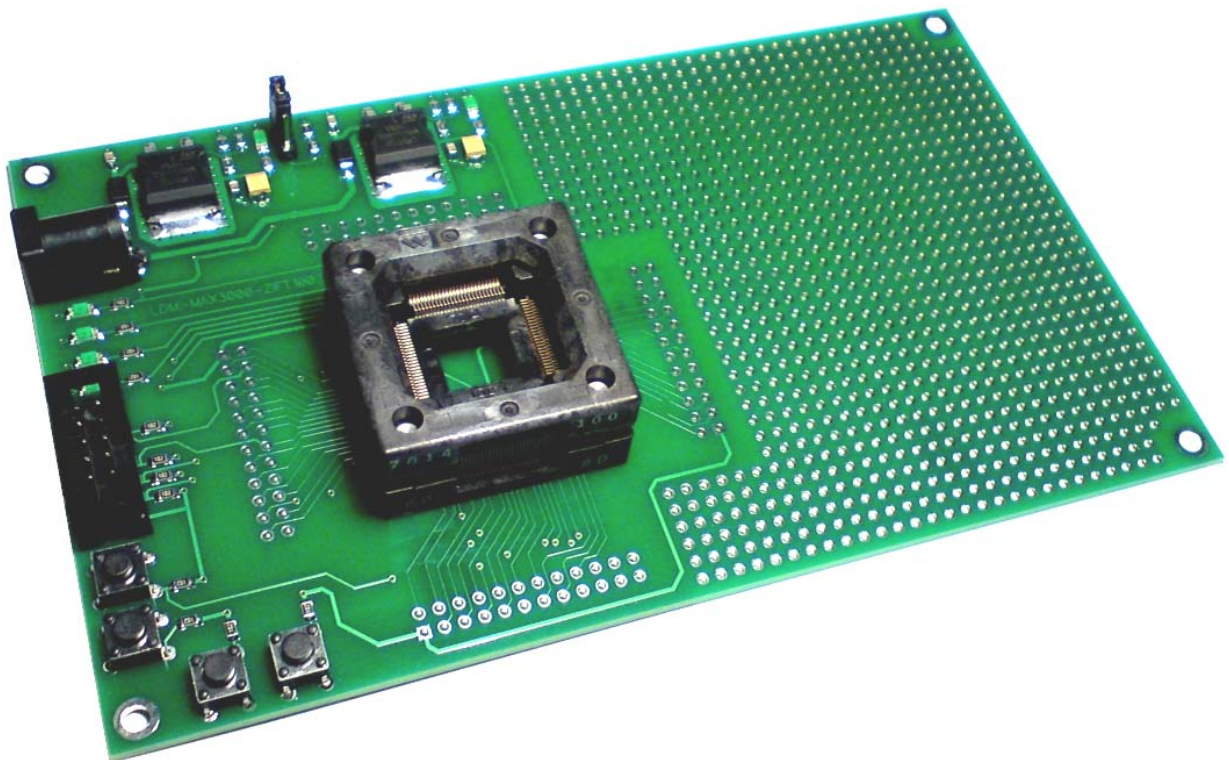
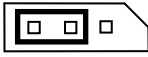

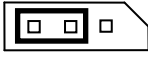
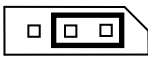


Fig. 1. General view of the development board LDM-MAX3000-ZIFT100

Linear voltage converter DA1 (LM317D2P) in the housing D2PAK transforms supply voltage to the voltage 3.3 V (VCCINT – core power FPGA), DA2 can be set to a voltage 3.3 V or 2.5 V (VCCIO – input/output power FPGA), it depends on switch position XS4 (Table 1).

Table1

Main characteristics of development boards.

Type of FPGA	Voltage of core power FPGA VCCINT, V	Position XS4	Voltage of input/output power FPGA VCCIO, V	Number of pins in/out	Logic capacity
EPM3064ATC100	3.3		3.3	66	1250
			2.5		
EPM3128ATC100	3.3		3.3	80	2500
			2.5		

The development board is intended for prototyping devices designed on FPGA of the company Altera a family of MAX 3000A, for assembly completed devices by mounting necessary components on the prototypical field of the board, and also for programming the product line of chips FPGA with following mounting chips on specialized PCB boards. Use of LDM-MAX3000-ZIFT100 allows minimizing the implementation time of the product on the market.

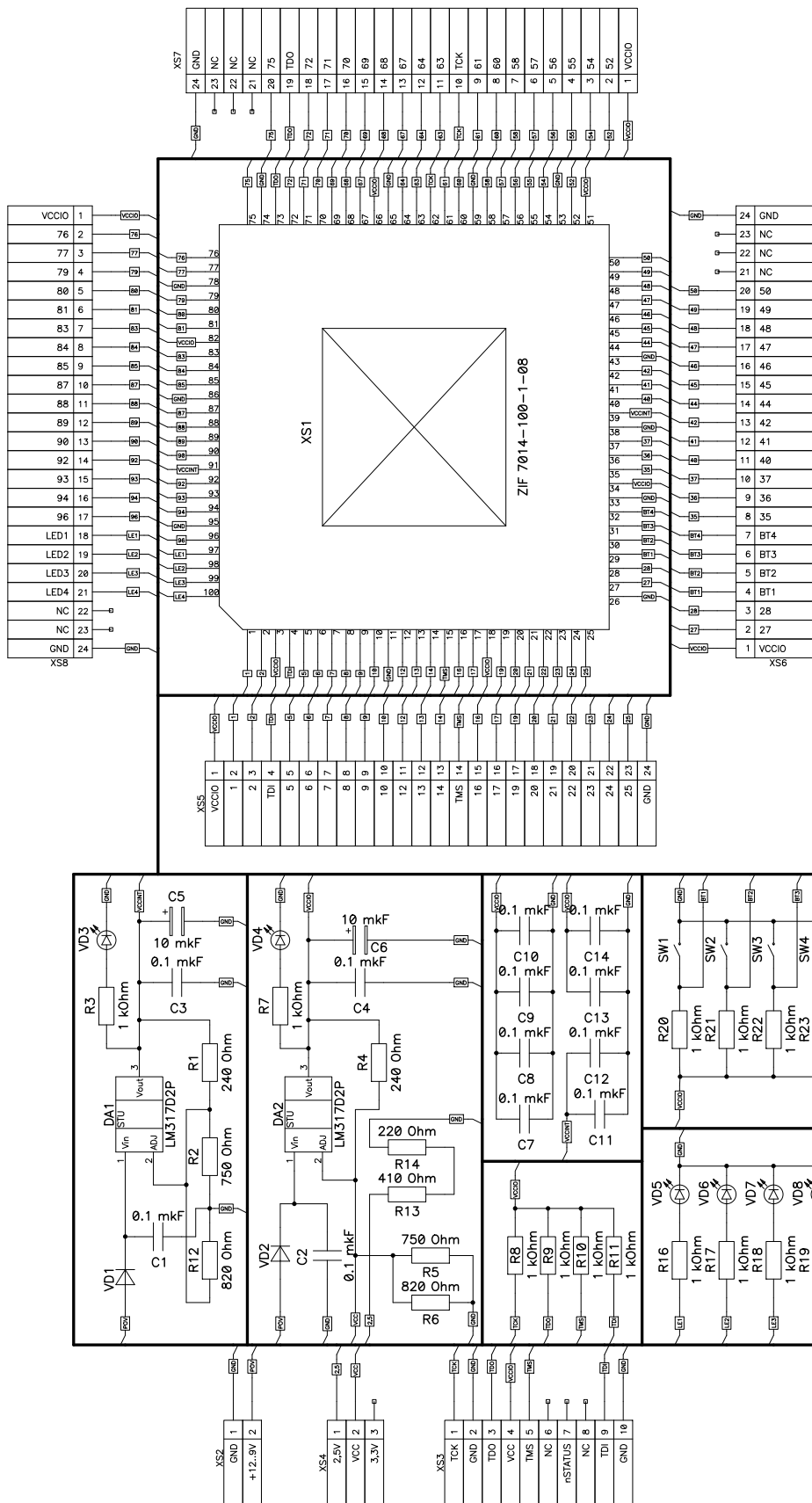


Fig. 2. The electrical scheme of LDM-MAX3000-ZIFT100

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.

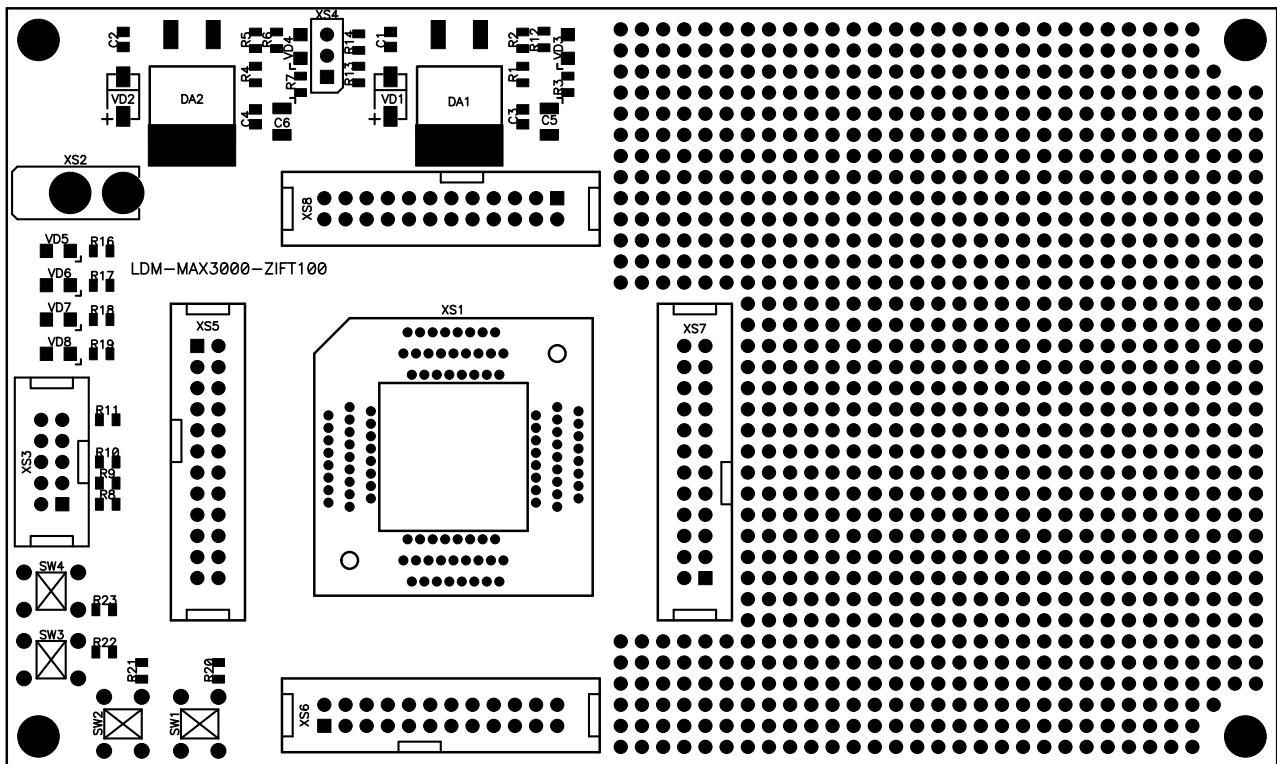


Fig. 3. Location of elements on the development board  
LDM-MAX3000-ZIFT100

### 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.