



SXM100

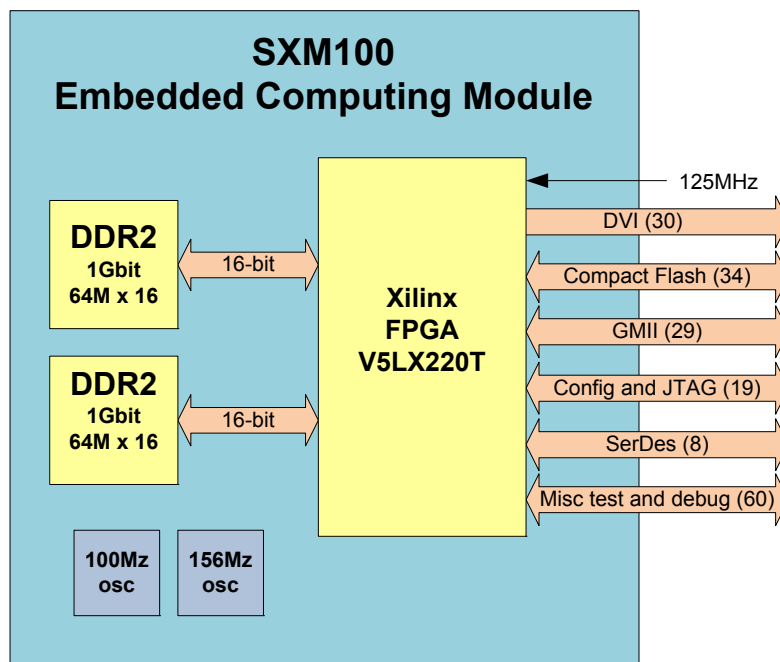
Embedded Computing Module

ENHANCED XILINX VIRTEX-5 LX220T MODULE

The SXM100 is an off-the-shelf high performance embedded computing module integrating a Xilinx Virtex-5 FPGA and DDR2 memories with interconnect and power distribution. The module utilizes siXis' unique Silicon Circuit Board (SiCB) technology which combines bare-die and packaged components on large-area silicon substrates. This provides superior size, weight, and power characteristics in an industry-standard package allowing it to be processed using commercial methods.

Key Features

- Xilinx XC5VLX220T FPGA
- 2 Gbits DDR2 memory
- 42.5 x 42.5 x 3.5 mm package
- Integrated clock source and distribution
- DVI interface
- Ethernet interface
- Compact Flash interface



SXM100 Technical Specifications

Compute FPGA:

- Xilinx XC5VLX220T
 - 138,240 FFs
 - 7,632 kbits embedded memory
 - 128 18-bit multipliers

Memory:

- 2 DDR2
 - 2 each 64M x 16 bits
 - Independent address and control

Mechanical:

- 42.5 x 42.5 x 3.5 mm
- 1738 pin BGA package

I/O:

- DVI
- Compact Flash
- GMII
- Config and JTAG
- SerDes
- Miscellaneous test and debug

On-Board Oscillators:

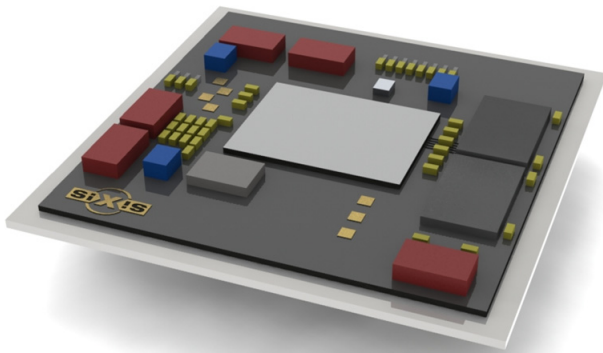
- 100 MHz
- 156.25 MHz

Required Input Power:

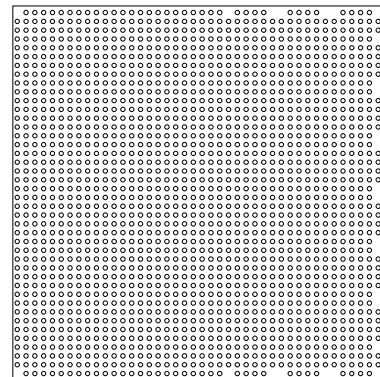
- 1.0 VDC
- 1.2 VDC
- 1.8 VDC
- 2.5 VDC

Demonstration Bitstreams [Provided with the siXis SXM100DB Development Board]:

- Microblaze
 - Pico Linux
 - Web server
- Graphics
 - spinning logo
 - fractal display



SXM100 Embedded Computing Module
with lid removed



1738 pin BGA (1 mm pitch)
42.5 x 42.5 mm BGA