StarFire-V340 is based on a piece of device of Altera® Stratix III 340 that is equivalent to up to 3.4 Million AISC gates to be prototyped. With highly flexible power, clock, memory and peripheral configurations on board and many daughter boards extendable as well, StarFire-V340 is a powerful tool for the software/hardware co-development, enables users to greatly shorten the time to market on their design projects.

StarFire-V340 powered on

StarFire-V340 prototype board supports SOC/ASIC and IP design verification on Digital TV, STB, PMP, mobile multi-media, and any other Video/Audio related designs.

Key features:

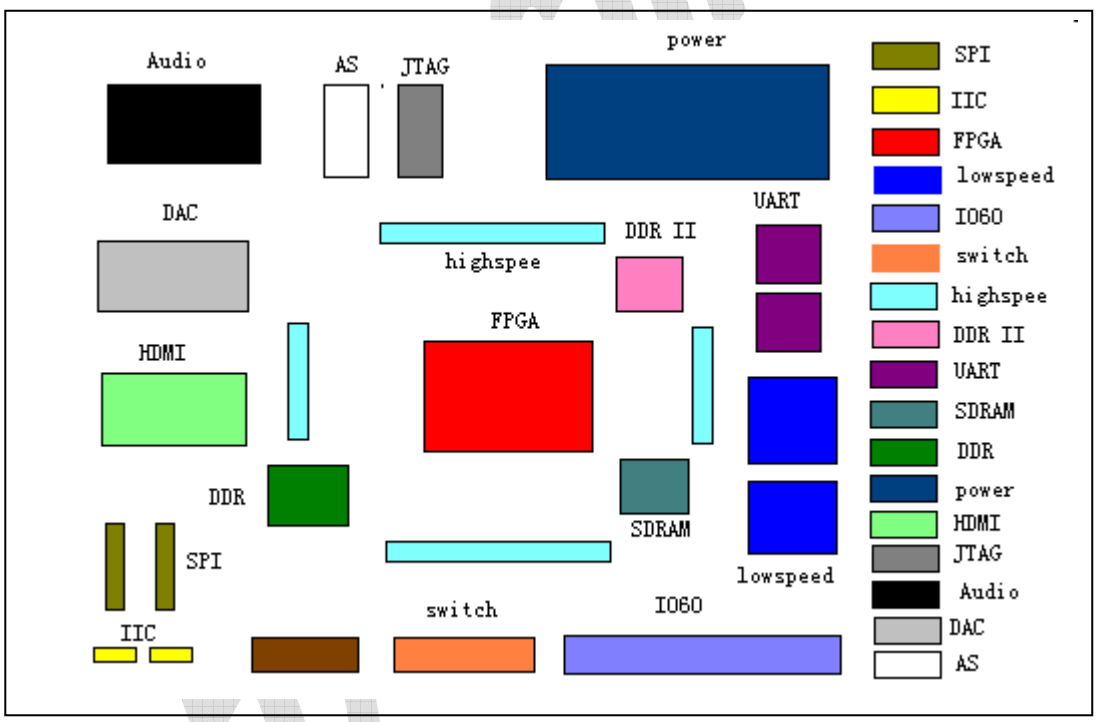
- One piece of Altera Stratix III EP3SL340F1760(compatible with EP4SE680) FPGA, capable of up to 3.4 Millions (or 6.8 Millions) of ASIC gates prototyped
- Stackable for two or more main boards, for higher capacity
- 20-layer PCB with impedance control, frequency on board is no less than166MHz
- With both SAMTEC® high speed connectors and common 2.54mm connectors, ensure high quantity extension
- Memory:
  - 2 pieces of SDRAM devices MT48LC32M16(8Meg×16bit×4banks) parallel connected, 32 bit data width, 133MHz clock, up to total 128M Byte SDRAM on board
  - 2 pieces of DDR Memory devices MT46V64M16(4Meg×16bit×4banks) parallel connected, 32 bit data width, 167MHz clock, up to total 256M Byte DDR SDRAM on board
  - 2 pieces of DDR II Memory devices MT47H128M16(16Meg×16bit×8banks) parallel connected, 32 bit data width, 533MHz clock, up to total 512M Byte DDR II SDRAM on board
- DAC: 6 standalone channels of high speed DAC at 240Msps, 10bit, Supporting S-Video output and RGB/YUV3 analog output
- HDMI transmitter：165Mhz, HDMI v1.3/DVI v1.0/HDCP v1.2，supporting all the video formats up to 1080P HDTV and UXGA(1600×1200@60Hz)supporting audio format of S/PDIF and 8 channels of I2S
- Audio: 2 I^2S audio outputs
- Each Bank is able to configured as different levels of LVTTL/SSTL18/SSTL25/LVDS
- Several best-in-class power modules, ensure good power quality for daughter boards as well
- 4 oscillator sockets on board at 3.3V or 5V
- 2 SMA connectors available for high speed differential external clock input
- 2 RS232 interfaces，2 I2C interfaces, 2 SPI interfaces
- 10 LEDs, 4 buttons, 16 switches

- 740 extension IO ports, 300 of them are in differential standard
- FPGA download through ByteBlaster or EPC64 device on board, off/in line
- Good cooling design
- ISO9000 certified manufacture process, solid mechanism

Tensilica™ processors Supported:

- All Tensilica cores can be easily implemented in StarFire-DARM, including:
  - General CPU: Diamond 106, 108, 212GP, 232L
  - Multimedia DSPs: Diamond 330HIFI Audio DSP, Diamond 388 VDO DSP
  - Communication baseband DSP：Diamond 545CK
- The peripheral AMBA bridges (AHB, AXI) make the simulation of SOC available
- Connectable with Xplorer™ IDE, hardware test program and some example algorithms are available

Diagram of system:



Daughter boards :

- NOR FLASH
- NAND FLASH
- DDR SODIMM
- Video I/O
- Audio analog
- HDMI video input

- CCD/CMOS interface
- LCD interface
- DVI I/O
- UART interface
- 100M Ethernet PHY
- USB1.1/2.0/OTG PHY
- USB interface
- PS2 interface
- Transfer Stream interface

Notes： Based on the standard configuration, any customizing design is welcomed