

NKS-DSP78-A

TMS3206678 Processing Board

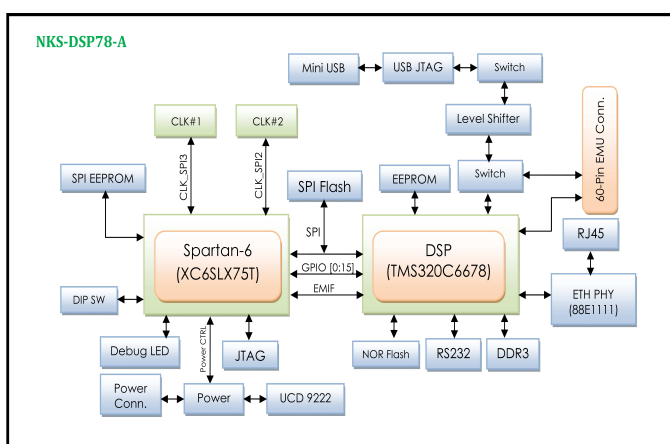
Description

The NKS-DSP78-A is a high performance, cost-efficient, standalone development platform that enables users to evaluate and develop applications for the Texas Instruments' TMS320C6678 Digital Signal Processor (DSP). The TMS320C66x DSPs (including the TMS320C6678 device) are the highest-performance fixed / floating-point DSP generation in the TMS320C6000 DSP platform. The TMS320C6678 device is based on the third-generation high-performance, advanced VelociTI™ very-long-instruction-word (VLIW) architecture developed by Texas Instruments (TI), designed specifically for high density wireline / wireless media gateway infrastructure. The Evaluation Module (EVM) also serves as a hardware reference design platform for the TMS320C6678 DSP. The FPGA (Xilinx XC6SLX75T) controls the EVM power sequencing, reset mechanism, DSP boot mode configuration and clock initialization.

Features

- Texas Instruments' multi-core DSP – TMS320C6678
- Spartan XC6SLX75T Xilinx Device
- 512 Mbytes of DDR3-1333 Memory
- 64 Mbytes of NAND Flash
- 16MB SPI NOR FLASH
- Gigabit Ethernet port supporting 10/100/1000 Mbps data-rate
- 128K-byte I2C EEPROM for booting
- 2 User LEDs, 5 Banks of DIP Switches and 4 Software-controlled LEDs
- RS232 Serial interface on 3-Pin header or UART over mini-USB connector
- EMIF, Timer, SPI, UART on 80-pin expansion header
- On-Board XDS100 type Emulation using High-speed USB 2.0 interface
- TI 60-Pin JTAG header to support all external emulator types

Functional Block Diagram



Application

- Amplifiers
- Data Converters
- Medical Equipment
- Video & Imaging
- Broadband data Applications
- Wireless Communications Infrastructure
- Complex DSP Applications
- Military

Board Features

