

## NKS-V5-PCIE-A High Pin Count QSH Carrier Virtex-5 Processing PCIe Card

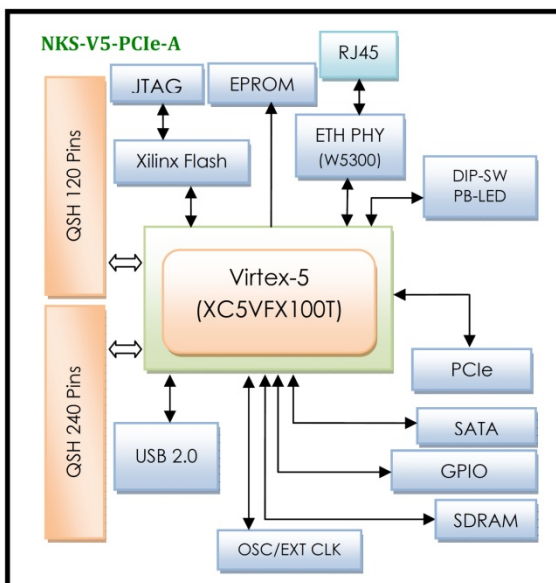
### Description

The NKS-V5-PCIE-A is a QSH industrial carrier card based on the Xilinx Virtex-5 FX100T FPGA family and plugged into a serial PCIe bus system unit supporting 1x, 4x and 8x PCIe data paths. This board also provides a developed platform for designing and verifying Virtex-5 FPGA based PCIe and Stand-Alone applications. SATA II interface is suitable for high performance digital IF sampling. Communication with a host computer via the PCIe bus and other interfaces enables users to control the card, modify algorithm settings and process real-time signals. Additionally, this card can transfer high bandwidth data through QSH/QTH standard modules.

### Features

- Virtex XC5VFX100T-1FFG1136I Xilinx Device
- PCI Express x8 Edge Connector
- Enhanced 10/100 Ethernet Full Stack Interface with RJ-45 Magnetics Connector
- 1 Gb SDRAM Component Memory (up to 167MHZ)
- QSH Connector for ADC/DAC QTH Modules Connect to FPGA
- Xilinx LOGICORE™ IP Supported PCI Express Endpoint Designs in X1, X4, and X8 Configurations
- Device Configuration Through On-board Platform Flash (8 MB)
- Download Using Xilinx Platform Cable USB (JTAG Programming Interface)
- 1 Serial ATA Disk Drive Interface Connector
- Enhanced High Speed USB 2.0 Interface
- User Push-button, Switches, 16xLEDs, 20xGPIO Header, JTAG and Trace Debug Ports
- Clocking (PCIe, SATA, and Two On-board Clock Sources)
- 12V PCIe HDD Connector or External Voltage Supply
- Physical Dimensions (L: 220.2 mm, W: 120.7 mm)
- Industrial Temperature Range (-40°C to 85°C)
- Operation System Support: Windows & Linux

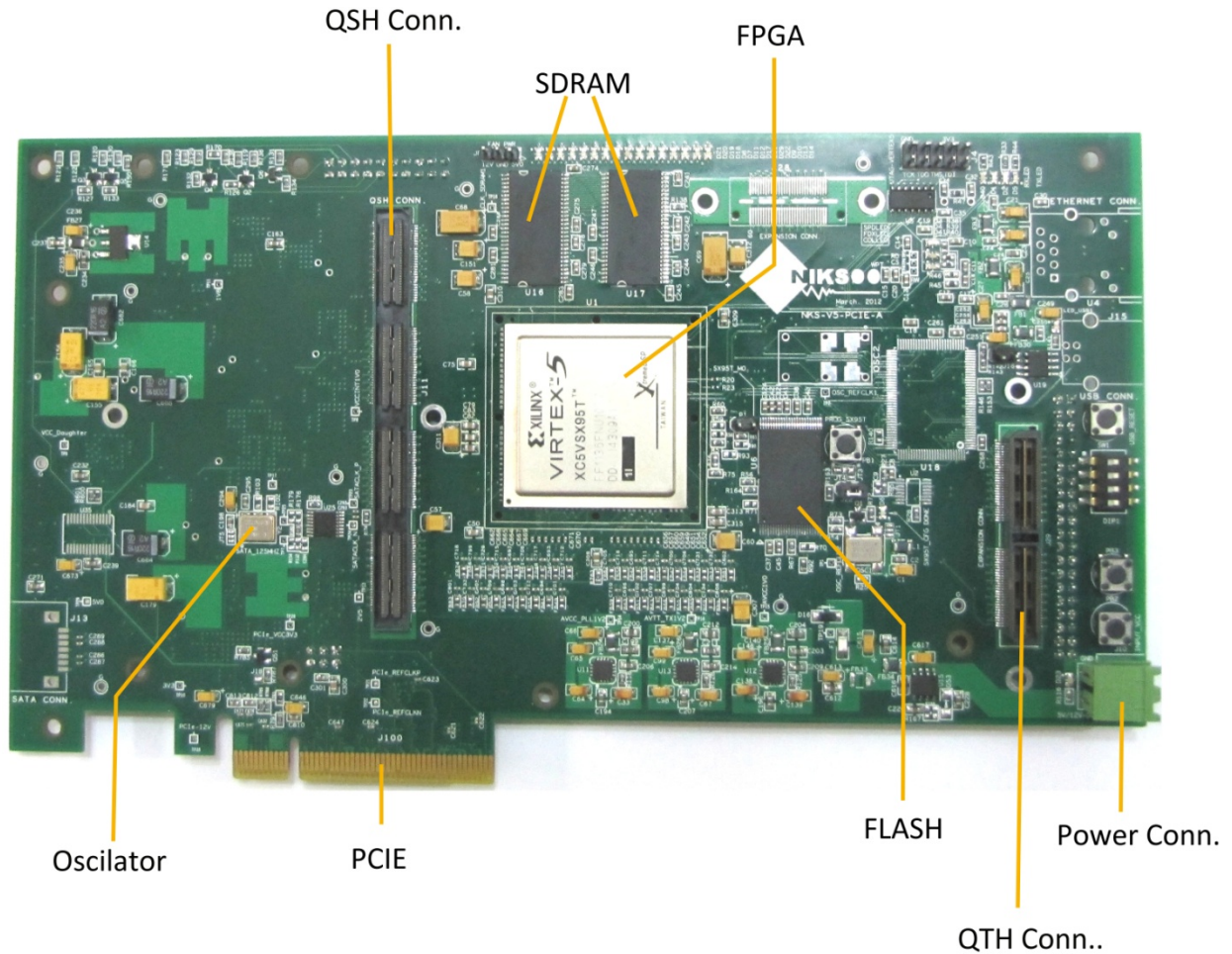
### Functional Block Diagram



### Application

- RADAR
- Parallel Processing Applications
- High-Bandwidth Data Transfer
- High Performance Data Acquisition
- Communications

## Board Features



## Compatibility Table

| NIKSOO Platform | Compatibility |
|-----------------|---------------|
| QTH-NKS-01      | Yes           |
| QTH-NKS-02      | Yes           |
| QTH-NKS-02-A    | Yes           |
| QTH-NKS-03      | Yes           |
| QTH-NKS-07      | Yes           |
| QTH-NKS-10      | Yes           |
| QTH-NKS-11      | Yes           |
| QTH-NKS-12      | Yes           |
| QTH-NKS-11-A    | Yes           |



# NKS-V5-PCIe-A

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