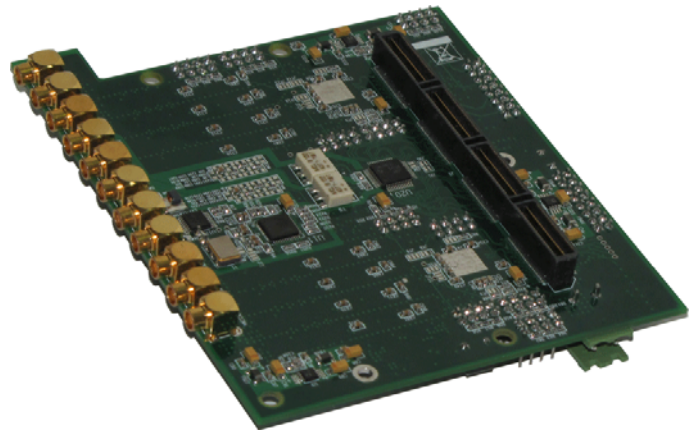


## QTH-NKS-12 High Pin Count QTH Module

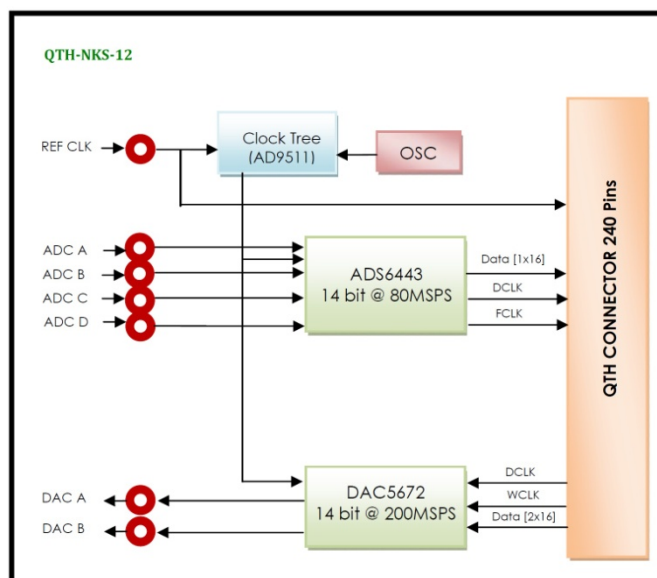
# 4- Channel 14-bit ADC 80MSPS 2- Channel 14-bit DAC 200MSPS

### Description

The QTH-NKS-12 is an 4-channel 14-bit serial ADC at 80MSPS and dual-channel 14-bit DAC at 200MSPS that enable simultaneous and high speed sensitivity. This module was designed based on four-channel ADS6443 ADC of TI Company with serial LVDS outputs and dual-channel DAC5672 DAC of TI Company with CMOS parallel inputs. The clock sampling can be provided from an external or internal source and then send to distribution clock unit. This module can use on every carrier card which follows the QSH/QTH standard; therefore it can have the maximum data throughput and minimum latency..



### Functional Block Diagram



## Features

### ADC's:

- 4 channels, 14-bit Resolution, 80MSPS
- SNR = 72 dBFS @ 10 MHz and 80 MSPS
- SFDR = 84 dBc @ 10 MHz and 80 MSPS
- ENOB = 11.6 Bits @ 10 MHz and 80 MSPS
- Analog Input Filter Options
- Efficient Serial LVDS-Compatible Outputs
- Analog Input: 2V p-p Range
- Xtalk Isolation >90 dB
- High Performance DC and AC-Coupled Analog Input
- Differential Input with 500 MHz Bandwidth
- Pin Compatible 12-Bit Family (ADS642X)
- QTH Interface Connector for Digital Input Output, Power LEDs and Single-ended MCX Connector for AIN, AOUT& EXTCLK
- Direct ADC/DAC Connection to Host FPGA Ensures
- Maximum Throughput
- Physical Dimensions (L: 117.9 mm, W: 97 mm)
- Industrial Temperature Range (-40°C to 85°C)

### DAC's:

- 2 Channels, 14-bit Resolution, 200 MSPS DAC Converters
- Analog Output Filter Options
- Wideband Input CMOS Data Bus
- 20-mA Full-Scale Output Current
- 3.3V Analog Supply Operation
- Independent or Single Resistor Gain Control
- High Performance AC-Coupled Analog Output
- SFDR = 80Dbfs
- Pin Compatible to DAC2904 and AD9767 dual DACs

### Other's:

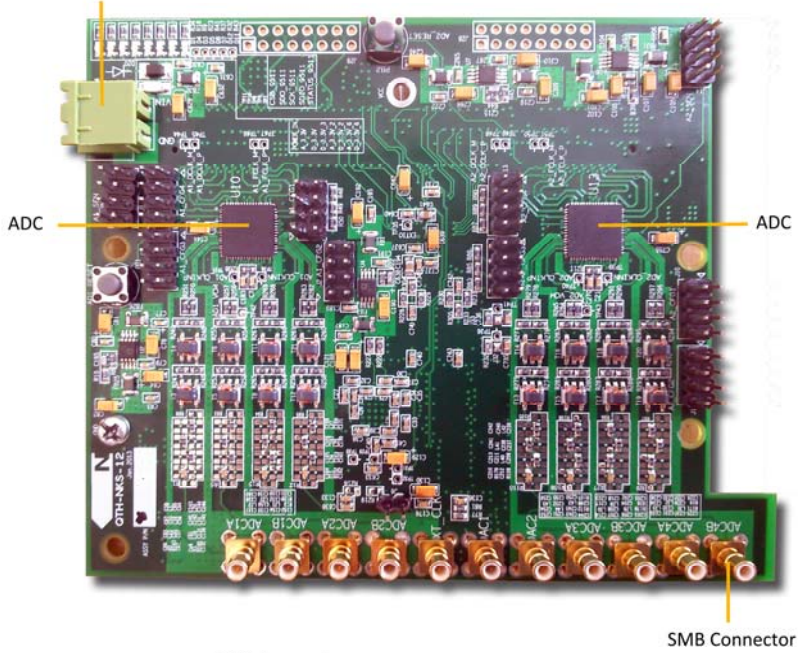
- Serial Port Control: Programmable Clock and Data Alignment
- On-board Clock Distributer

## Application

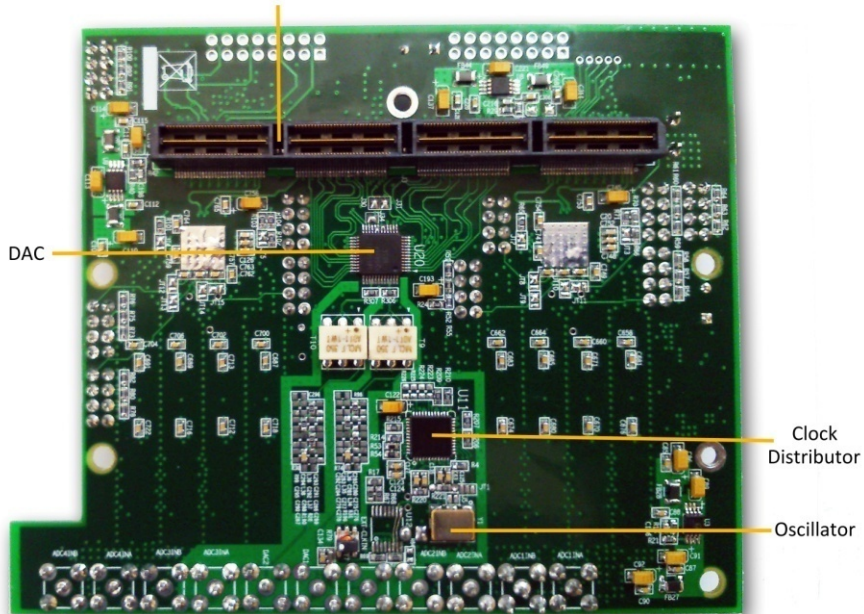
- RADAR/SONAR
- Medical Equipments
- Base-Station IF Receivers
- Wide Band-Width Communications

## Board Features

Power Connector (For Standalone Test)



QTH Connector



## Compatibility Table

NIKSOO Platform	Compatibility
NKS-V5-PCIE-A	Yes
FP-NKS-01-A	Yes
NKS-V5-PCI-A	Yes
FMC-NKS106-PCI-A	Yes
FMC-NKS016-PCIE-A	Yes

## Order Information

