QTH-NKS-12 High Pin Count QTH Module
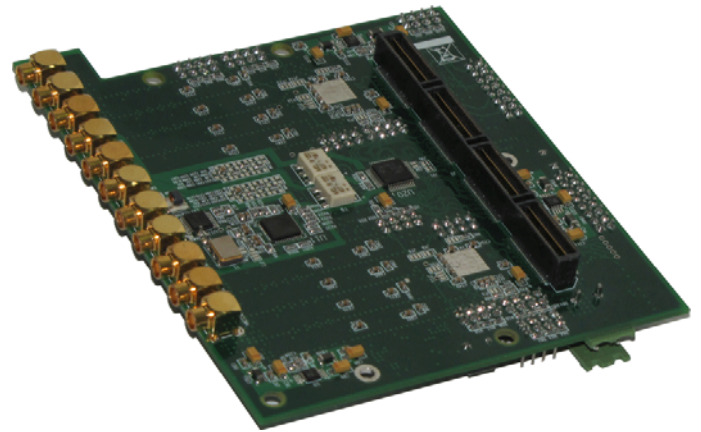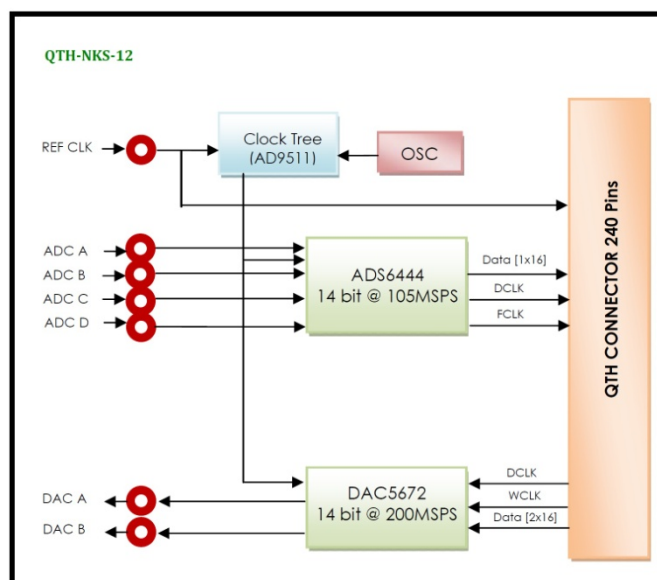
4- Channel 14-bit ADC 105MSPS
2- Channel 14-bit DAC 200MSPS

Description

The QTH-NKS-12 is an 4-channel 14-bit serial ADC at 105MSPS and dual-channel 14-bit DAC at 200MSPS that enable simultaneous and high speed sensitivity. This module was designed based on four-channel ADS6444 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, 105 MSPS
- SNR = 72 dBFS @ 10 MHz and 105 MSPS
- SFDR = 84 dBc @ 10 MHz and 105 MSPS
- ENOB = 11.6 Bits @ 10 MHz and 105 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)

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
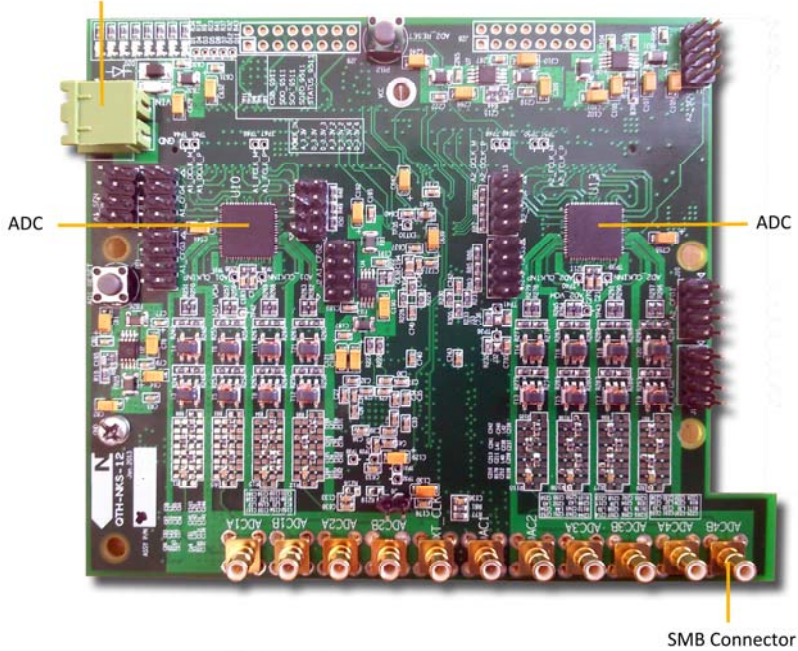- Pin Compatible to DAC2904 and AD9767 dual DACs

Other's:

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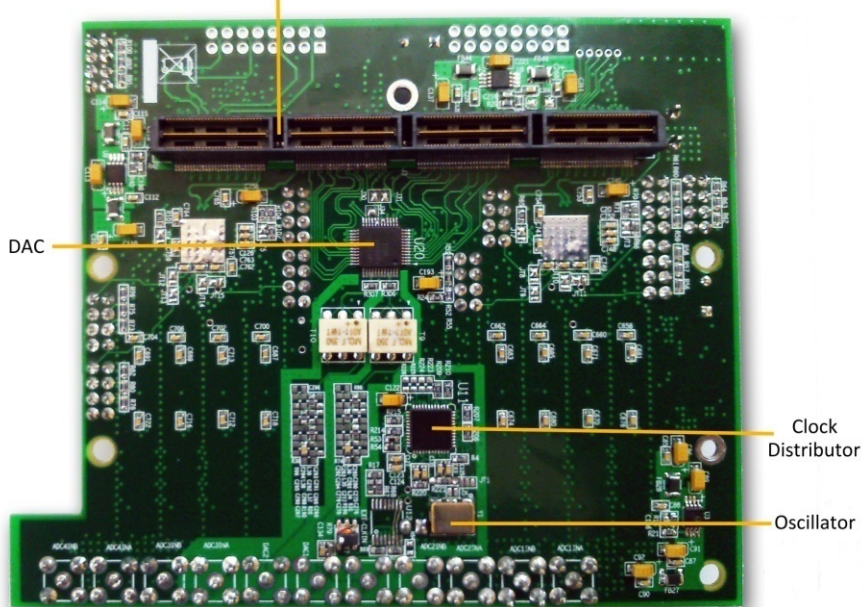- On-board Clock Distributer

- 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)

Application

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

Support: support@niksoo.com
Email: info@niksoo.com
www.niksoo.com

Board Features

Power Connecor (For Standalone Test)

ADC

ADC

SMB Connector

QTH Connector

DAC

Clock
Distributor

Oscillator

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

QTH - NKS - 12

Connector Type ——————

Niksoo Mark ——————

Daughterboard Code ——————