

## FMC-NKS-401000 High Pin Count FMC Module

# 4- Channel 16-bit ADC 125MSPS

## Description

The FMC-NKS-401000 is a 4-channel 16-bit ADC which can provide synchronous and maximum sampling rate at 125MSPS. This module was designed based on dual-channel AD9268 ADC of Analog Device Company with DDR LVDS or CMOS outputs. Because of containing a FMC-HPC connector, FMC-NKS-401000 is mechanically and electrically compliant to VITA 57.1 standard. Controlling of clock source, sampling frequency and calibration by a SPI BUS are its other features. The clock sampling can be provided from an external or internal source and then send to distribution clock unit. Additionally a trigger input for customized sampling control is available. This module can use on every carrier card which follows the VITA 57.1 standards; therefore it can have the maximum data throughput and minimum latency.

## Features

### ADC's:

- 4 Channels, 16-bit Resolution, 125 MSPS
- Differential Analog Input with 650MHz Bandwidth
- Analog Input Filter Options
- SNR = 75 dBFS @ 70 MHz and 125 MSPS
- SFDR = 86 dBc @ 70 MHz and 125 MSPS
- ENOB = 12.5 Bits @ 70 MHz and 125 MSPS
- Xtalk Isolation > 95dB
- Low Power: 750 mW @ 125 MSPS
- High Performance AC-Coupled Analog Input
- 1.8 V Analog Supply Operation
- 1.8 V CMOS or LVDS Output Supply
- Flexible Analog Input Range: 1V p-p to 2V p-p
- Serial Port Control
- Pin Compatible with AD9650

### Other's:

- VITA 57.1 Compliant
- FMC Interface Connector for Digital
- Output, Power LEDs and Single-Ended MCX Connector for AIN, AOUT& EXTCLK
- Flexible Clock Tree Enables (Internal Clock, External Clock, Internal Clock with External Reference)
- Direct ADC Connection to Host FPGA Ensures
- Operating Temperature: -40°C to +85°C (Industrial)
- Physical Dimensions (L: 83.8 mm, W: 69 mm)

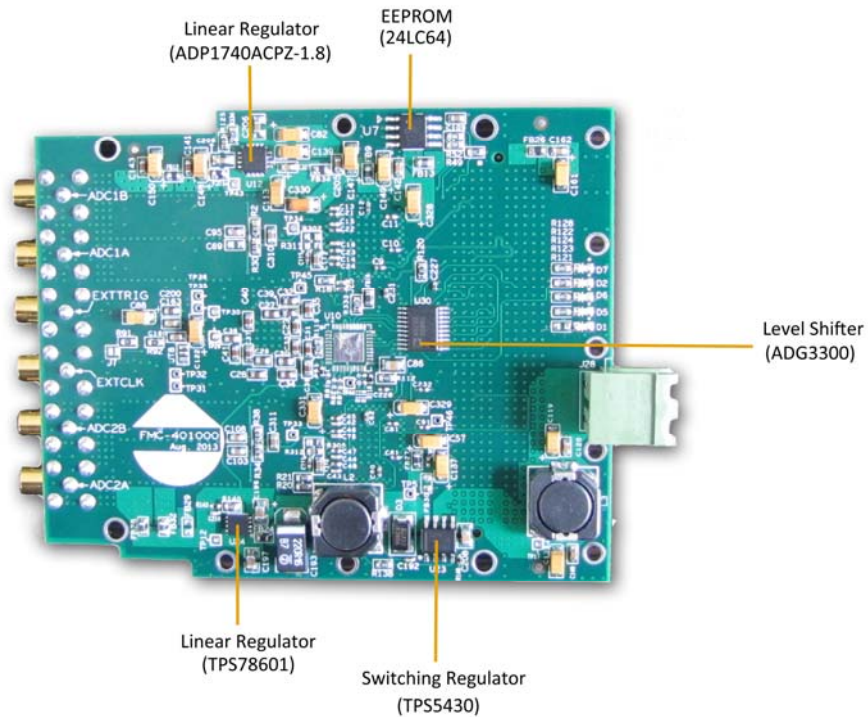
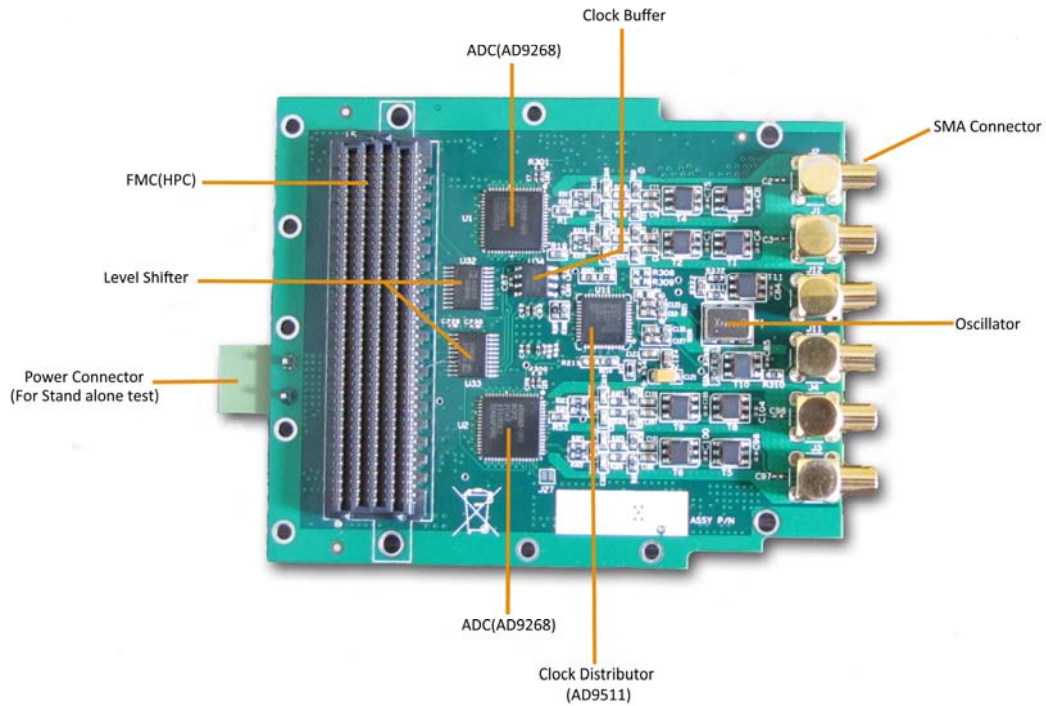
## Application

- RADAR/SONAR
- Medical Equipment
- Multimode digital receivers (3G)
- GSM, EDGE, W-CDMA, LTE
- CDMA2000, WiMAX, TD-SCDMA

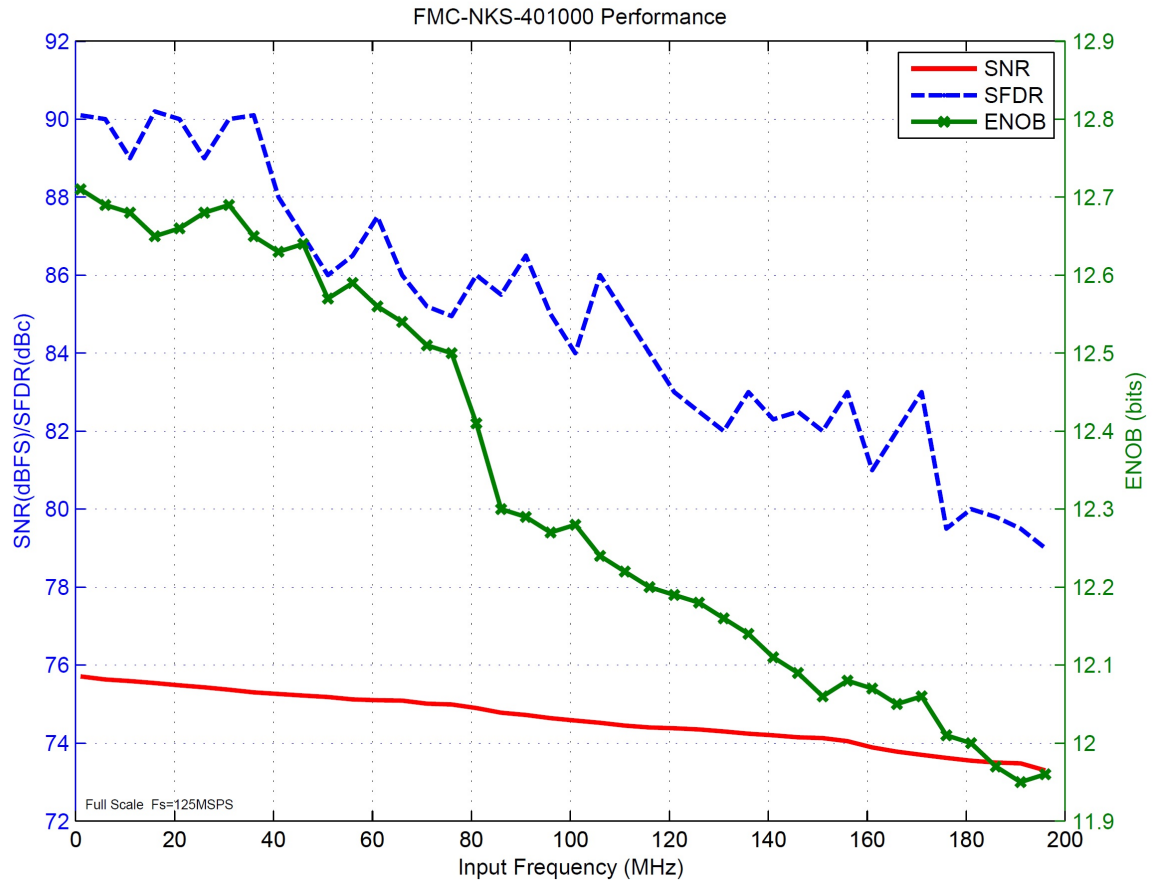
## Functional Block Diagram

[WWW.NIKSOO.COM/FMC-NKS-401000](http://WWW.NIKSOO.COM/FMC-NKS-401000)

## Board Features



## FMC-NKS-401000 Performance (Full Scale, Fs=125MSPS)



### Compatibility Table

Platform	Compatibility
FMC-NKS016-PCIE-A	Yes
FMC-NKS106-PCI-A	Yes
FMC-NKS-V106-A	Yes
VC707	Yes
ML605	Yes
VITA57.1 Carrier Cards	Yes

### Order Information

