

## FMC-NKS-210000 High Pin Count FMC Module 2- Channel 12-bit ADC 1GSPS

### Description

The FMC-NKS-210000 is a dual-channel 12-bit ADC which can provide synchronous and maximum sampling rate at 1GSPS. This module was designed based on single-channel ADS5400 ADC of TI Company with DDR LVDS outputs. Because of containing a FMC-HPC connector, FMC-NKS-210000 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 standard; therefore it can have the maximum data throughput and minimum latency.

### Features

#### ADC's:

- 2 Channels, 12-Bit Resolution, 1 GSPS
- 2.1 GHz Input Bandwidth
- Single Ended AC-Coupled Analog Input
- SFDR = 68 dBc @ 800MHz and 1GSPS
- SNR = 57.2 dBFS @ 800MHz and 1GSPS
- ENOB = 9 bits @ 800 MHz and 1 GSPS
- 1.5V to 2V Selectable Full-Scale Range
- LVDS-Compatible Outputs, 1 or 2 Bus Options

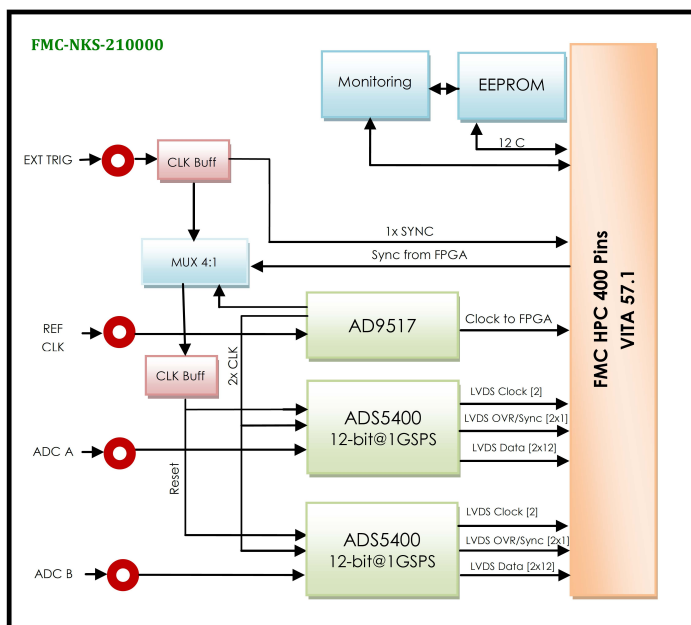
#### Other's:

- 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
- Maximum Throughput
- Operating Temperature: -40°C to +85°C (Industrial)
- Physical Dimensions (L: 83.8 mm, W: 69 mm)

### Application

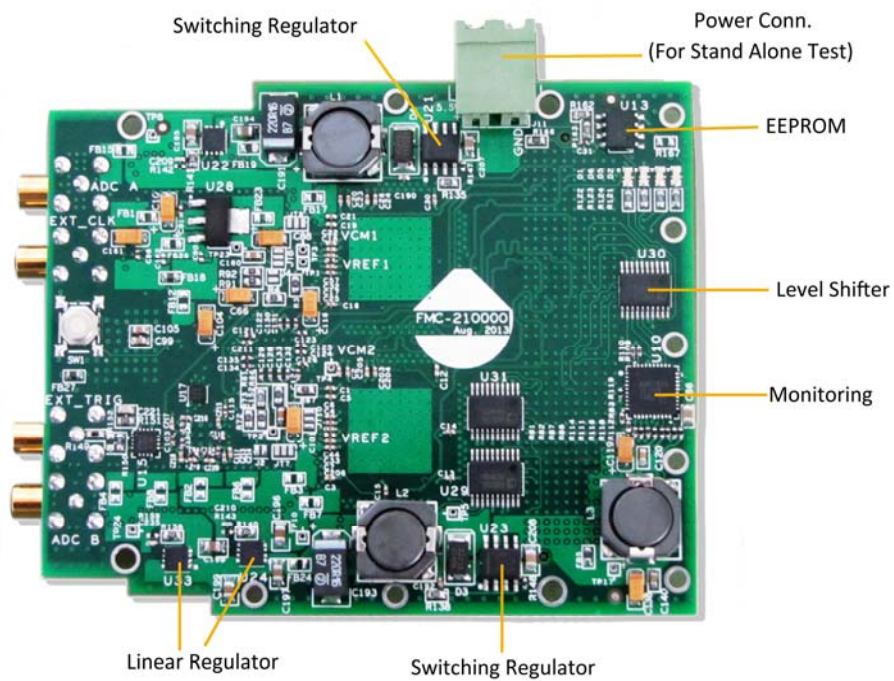
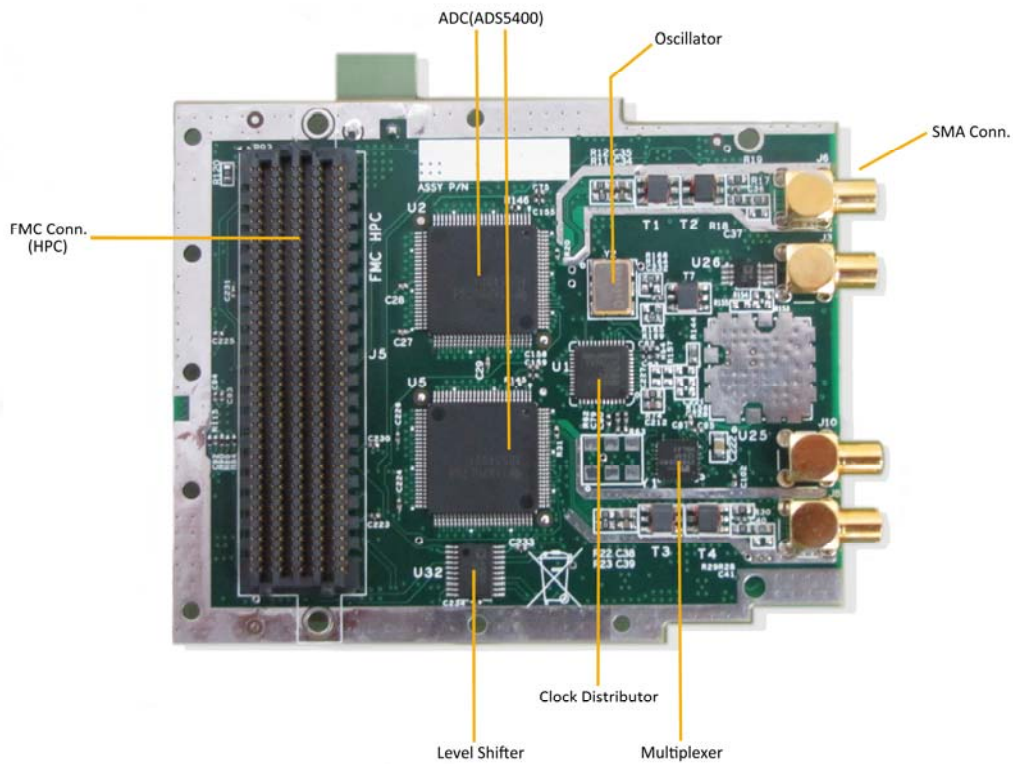
- RADAR/SONAR
- Direct RF Down Conversion
- Wide Band-Width Communications
- Wireless Communications Infrastructure
- Medical Equipment
- GPS

### Functional Block Diagram

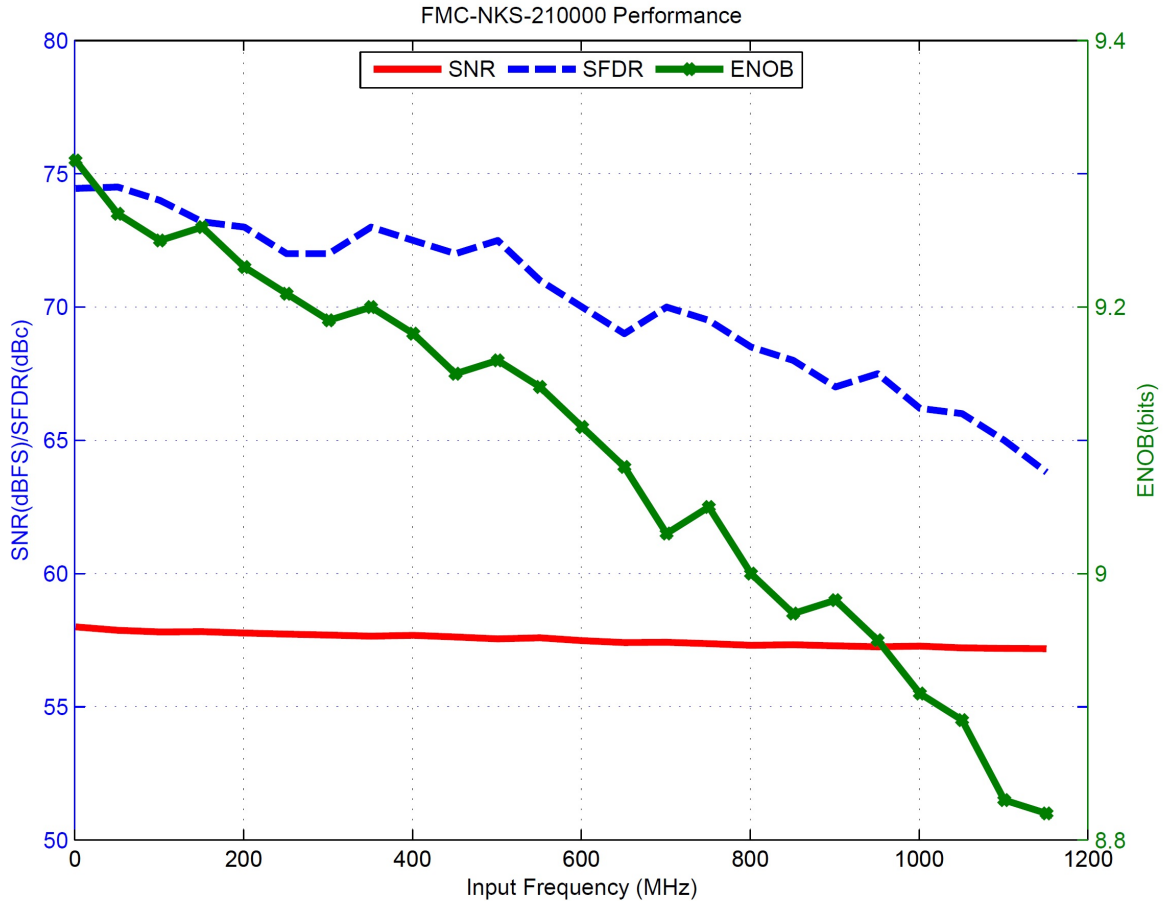


[WWW.NIKSOO.COM/FMC-NKS-210000](http://WWW.NIKSOO.COM/FMC-NKS-210000)

## Board Features



## FMC-NKS-210000 Performance (Full Scale, $F_s = 1\text{GSPS}$ )



### 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

