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## Analog Devices Unveils 2.5-GSPS A/D Converter, Driver Amplifier and Rapid Prototyping FMC Module

*Featuring the AD9625-2.5 A/D converter, the module provides all hardware and software for wideband RF GSPS data converter interoperability with FPGA platforms.*

NORWOOD, Mass.--(BUSINESS WIRE)-- [Analog Devices, Inc.](#) (NASDAQ: ADI), the world's data converter market share leader\*, announced today immediate availability of the AD-FMCADC2-EBZ FMC module with HDL code and software drivers for rapid design prototyping and interoperability with Xilinx FPGAs. The AD-FMCADC2-EBZ board incorporates the 12-bit, 2.5-GSPS AD9625-2.5 [A/D converter](#), also introduced today, with input balun, power supplies and software stack. This module provides superior wideband dynamic performance and integrated functionality and enables development and prototyping of advanced RF sampling architectures. With its 76 dBc of spurious-free dynamic range at 1.8 GHz  $A_{in}$ , the AD9625-2.5's breakthrough-level of wideband dynamic performance means that designers can capture and process 4X cleaner spectrum than is currently available by competitive devices.

"Ingespace has developed a wideband data acquisition system that is based on several AD9625-2.5s. It is clear that the AD9625-2.5 GSPS is by far the best component on the market because it offers excellent linearity in the DC / 1 GHz band and 80 dB SFDR. In addition, the choice of the JESD204B interface allows us to couple several AD9625-2.5s to the same Virtex7 FPGA, thereby increasing performance by limiting the complexity and the total cost of the system. Finally, its small size and limited power dissipation has enabled us to produce a compact solution that requires a very light dissipation system," said Olivier Fouquet, President of Ingespace SARL. "Having developed a DC coupling solution on the analog input, it is now possible to acquire more than 2 GHz of instantaneous bandwidth by making use of complex sampling. This type of solution has great potential in the fields of telecommunications, aerospace and defense."

The AD9625-2.5 A/D converter is the third [GSPS data converter](#) that ADI has announced in the last month and the latest addition to ADI's wideband RF signal processing solutions portfolio. This portfolio of solutions provides previously unavailable dynamic performance for better signal extraction in noisy RF environments over a wider bandwidth than ever before. Learn more about GSPS A/D converters: <http://www.analog.com/AD9625video>.

### Rapid Prototyping GSPS FMC Module for FPGA Interoperability

The AD-FMCADC2-EBZ FMC module features the AD9625-2.5 GSPS data converter, an input balun, clock oscillator, and power management supplies in a proven signal chain design to reduce prototyping from months to hours while reducing project risk. The module comes with a comprehensive content stack of reference designs, software and HDL code to reduce programming and design time for any application. For more information on ADI's FPGA reference designs: <http://wiki.analog.com/resources/fpga>

- AD9625-2.5 12-bit 2.5 GSPS A/D converter: Order samples, performance evaluation boards or download data sheets: <http://www.analog.com/AD9625.2.5>
- Buy and evaluate today: [Digi-Key Corp.](#) and [Mouser Electronics](#) stock inventory of evaluation boards.
- AD-FMCADC2-EBZ FMC module : For more information:

[www.analog.com/AD-FMCADC2-EBZ](http://www.analog.com/AD-FMCADC2-EBZ) and download software and resources:  
<http://wiki.analog.com/resources/eval/user-guides/ad-ad-fmcadc2-ebz>

- Get questions answered by ADI engineers on EngineerZone™, ADI's online technical support community: [http://ez.analog.com/community/data\\_converters/high-speed\\_adcs](http://ez.analog.com/community/data_converters/high-speed_adcs)

### About the AD9625-2.5 12-bit 2.5-GSPS A/D Converter

The AD9625 provides better noise and dynamic range performance -- a 150 dBFS/Hz noise floor and 80 dBc SFDR out to Nyquist. This level of performance means designers can discern by 4X smaller signals in the presence of noise, clutter, blockers and interferers. The AD9625 can be used for advanced new designs in communications, instrumentation and military/aerospace applications. It is available with a performance evaluation board and an FMC module to simplify system prototyping and platform-level design and layout.

The AD9625-2.5 is designed for sampling wide bandwidth analog signals and can be used up to its third Nyquist zone. Its wider input bandwidth enables advanced RF sampling architectures that reduce the number of analog frequency down-conversion stages and their associated noise and cost contributions. The simplified system architecture eliminates the need to interleave multiple A/D converters to obtain needed performance and allows for the development of reconfigurable platforms. The AD9625-2.5 simplifies the digital interfacing challenge by integrating two digital-down converters (DDC), two numerically controlled oscillators (NCO) and a configurable JESD204B serial link for the output data. These industry firsts improve usability and functionality by reducing output data rate requirements and simplifying board-level design and layout.

#### **ADA4961: ADI's Newest Wideband RF A/D Converter Driver Amplifier**

Analog Devices is also introducing the ADA4961 RF differential [A/D converter driver amplifier](#) that drives heavy loads to 1.5 GHz and beyond and achieves -90 dBc IMD3 performance at 500 MHz and -87 dBc at 1.5 GHz. Combined with very low output noise (6.8 nV/rtHz), the new amplifier delivers 133 dB/Hz SFDR performance at 1.5 GHz and sets a new benchmark for dynamic range vs. power consumed.

This new level of RF performance allows wideband RF GSPS converters to achieve their optimum performance with minimal limitations of the driver amplifier or constraints on overall power that typically result from GaAs amplifiers. The ADA4961 can easily drive 10- to 16-bit high-speed converters, and in many receiver applications, may eliminate the need for an anti-alias filter.

#### **Pricing and Availability**

| <b>Product</b>                                                     | <b>Availability</b> | <b>Price Each Per 1K</b> | <b>Packaging</b>             |
|--------------------------------------------------------------------|---------------------|--------------------------|------------------------------|
| <a href="#">AD9625BBPZ.2.5</a>                                     | July 2014           | \$625                    | 196-ball BGA<br>12mm X 12mm  |
| <a href="#">ADA4961</a>                                            | NOW                 | \$11.99                  | 24-lead LFCSP<br>4 mm X 4 mm |
| <a href="#">AD-FMCADC2-EBZ Rapid Prototyping Platform</a>          | NOW                 | \$750 per                | NA                           |
| <a href="#">AD9625-2.5 EBZ Device Evaluation Board</a>             | NOW                 | \$750 per                | NA                           |
| <a href="#">HSC-ADC-EVALEZ Performance Board Data Capture Card</a> | NOW                 | \$1155 per               | NA                           |

#### **About Analog Devices**

Innovation, performance, and excellence are the cultural pillars on which Analog Devices has built one of the longest standing, highest growth companies within the technology sector. Acknowledged industry-wide as the world leader in data conversion and signal conditioning technology, Analog Devices serves over 60,000 customers, representing virtually all types of electronic equipment. Celebrating almost 50 years as a leading global manufacturer of high-performance integrated circuits used in analog and digital signal processing applications, Analog Devices is headquartered in Norwood, Massachusetts, with design and manufacturing facilities throughout the world. Analog Devices' is included in the S&P 500 Index.

\* Analog Devices, Inc. leads the worldwide data converter market with a 48.5 percent share, according to industry analyst firm Databeans, Inc. in its market research report titled "2012 Analog." Analog Devices' share is larger than the combined market share of the nearest eight competitors.

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