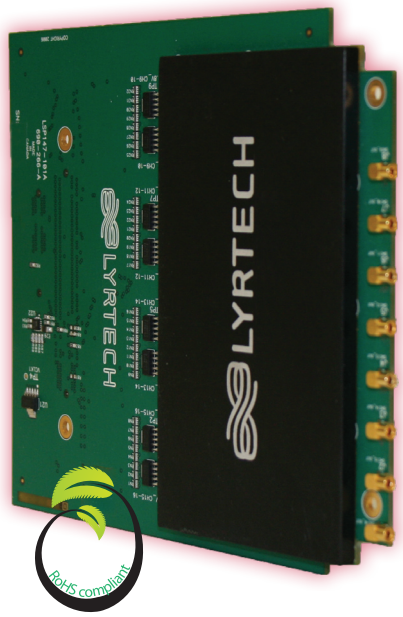
LYRTECH
Infinite possibilities...

ADC module

Add-on module for VHS-ADCs



The ADC module is a high-speed, multichannel analog-to-digital conversion add-on module for VHS-ADCs. It is equiped with eight phase-synchronous ADCs that operate at a maximum refresh rate 105 MSPS. The ADC channels of the module are identical to those of VHS-ADCs and offered with the same analog coupling input options. When installed on VHS-ADCs, all the channels are tightly phase synchronized to the same clock reference. For additional information, refer to the VHS-ADC.

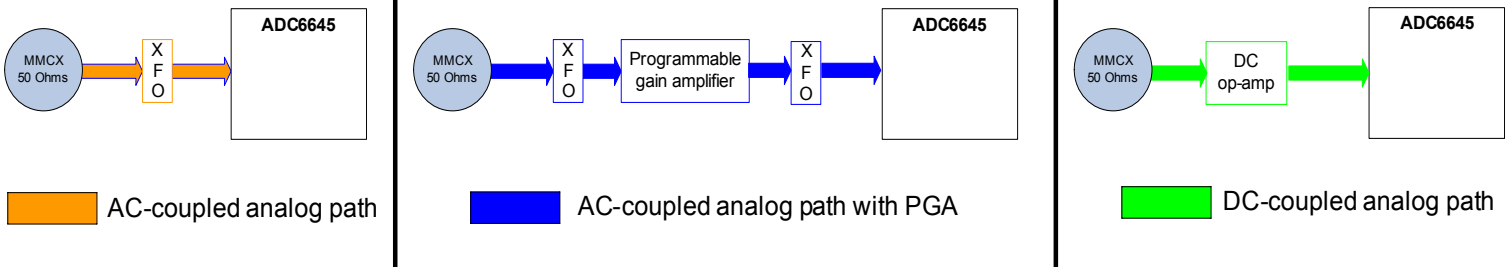
At a glance

- Eight, 14-bit, 105-MSPS analog-to-digital conversion channels
- Outstanding clock synchronization

Hardware options

The ADC module has the following optional hardware packages:

- AC-coupled I/Os—features AC-coupled A/D channel input analog paths
- AC-coupled I/Os with PGA—features AC-coupled A/D channel input analog paths supplied with programmable gain amplifier
- DC-coupled I/Os—features DC-coupled D/A channel input analog paths



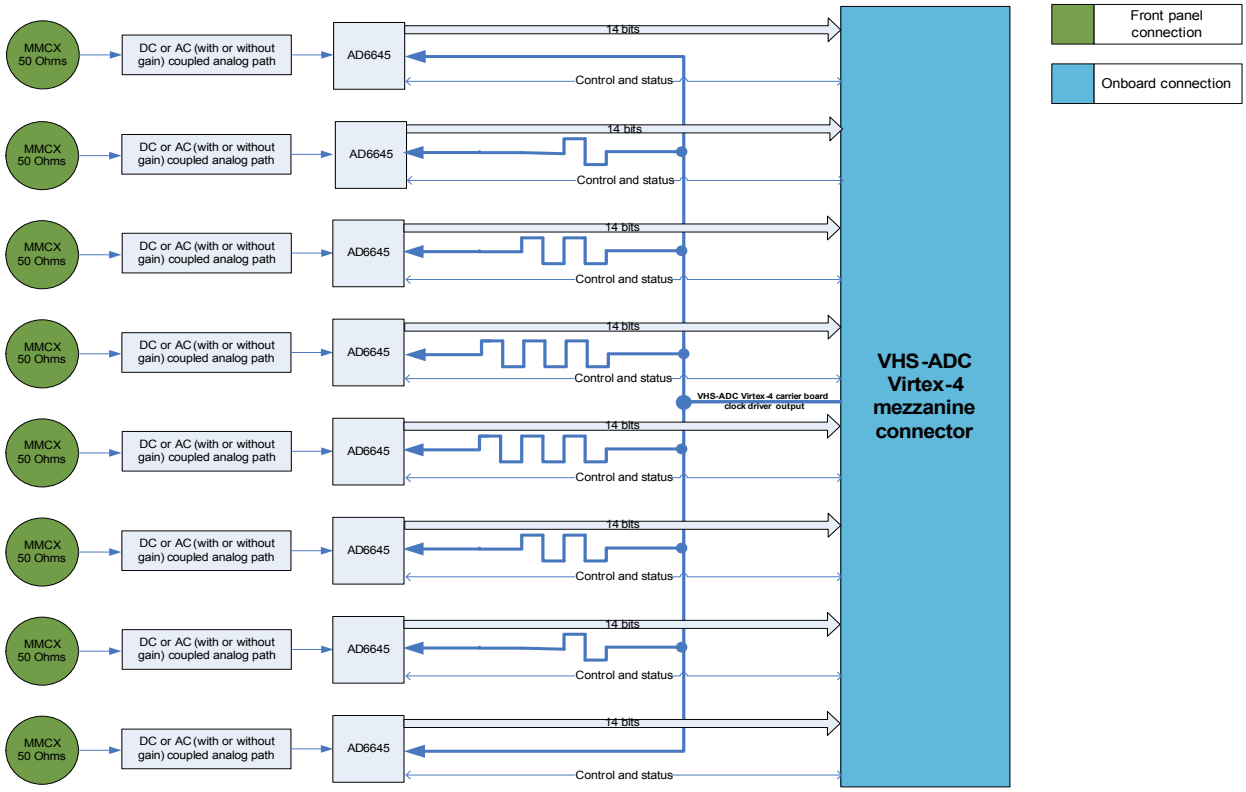
Compatibility matrix

VHS-ADCs	ADC module for VHS-ADCs: AC coupled, with gain	AC coupled, without gain	DC coupled, without gain
AC coupled, with gain	✓	✓	✓
AC coupled, without gain	✗	✓	✓
DC coupled, without gain	✗	✓	✓

Specifications

Analog-to-digital converters	• Analog Devices AD6645 (×8) • Guaranteed maximum sampling rate of 105 MSPS (14-bit resolution)
Analog inputs	50-Ω MMCX connectors
Optional analog inputs	**AC coupled, without programmable gain** • 0.4 MHz to 200 MHz analog input bandwidth (–3 dB) • 6 dBm full-scale input • 77.59 dBc SFDR at 70 MHz F_{in} (bandwidth = 50 MHz) • Interchannel crosstalk insulation of –102 dB at 70 MHz F_{in}
	AC coupled, with programmable gain • 0.4 MHz to 200 MHz analog input bandwidth (–3 dB) • –18 dBm to 4 dBm full-scale input • 75.78 dBc SFDR at 70 MHz F_{in} (bandwidth = 50 MHz) • Interchannel crosstalk insulation of –87 dB to –66 dB at 70 MHz F_{in} (minimum to maximum gain)
	DC coupled, without programmable gain • DC to 50 MHz analog input bandwidth (–3 dB) • 11-dBm full-scale input • 92.34 dBc SFDR at 1 MHz F_{in} (bandwidth = 2 MHz) • 68.49 dBc SFDR at 30 MHz F_{in} (bandwidth = 50 MHz) • Interchannel crosstalk insulation of –89 dB at 30 MHz F_{in}
Sampling clocks	Software-selectable sampling clocks from the VHS-ADC. The same phased-synchronous differential clock driving the carrier board's eight channels is propagated to the ADC module's interface connector.

Block diagram



FOR MORE INFORMATION

Lyrtech Inc.
2800 Louis-Lumière Street, Suite 100
Quebec City, Quebec
G1P 0A4 CANADA

Phone: (1) 418-877-4644 (international)
1-888-922-4644 (toll free USA and Canada)
Fax: (1) 418-877-7710

www.lyrtech.com info@lyrtech.com

With over 25 years of experience delivering advanced digital signal processing solutions to companies worldwide, Lyrtech serves customers across the Americas, Asia, and Europe. Lyrtech offers a full range of DSP–FPGA development platforms, as well as product development services. Lyrtech works in partnership with such industry leaders as Texas Instruments, The MathWorks, and Xilinx to deliver unsurpassed quality and support to its large OEM customer base, which includes many prestigious names of the consumer electronics, telecommunications, aerospace, and defense fields. In a world where digital signal processing technology is vital to network and wireless communications, audio and video processing, as well as electronic systems in all fields of technology, Lyrtech is an ideal partner.

Lyrtech products are constantly being improved; therefore, Lyrtech reserves itself the right to modify the information herein at any time and without notice.

2009-06

Simulink Enabled
Texas Instruments Design House Network
Xilinx Alliance Program