

# Express Converter

Hi-Speed Digitizer (DAQ) Series



## APX-5050

12 bit/500 MHz high speed sampling A/D conversion Board

- › Using high speed ADC with 12 bit / 500 MHz sampling
- › Single-ended input of  $\pm 2V / \pm 1V / \pm 0.5V$  to 2 ch
- › External trigger input · External clock input for each 1 channel
- › Supports variable frequency input
- › General purpose DI · DO for each 4 ch
- › General purpose AO 2 ch
- › DDR3-SDRAM (2 Gbyte) is installed as FIFO Memory
- › Memory transfer is possible without using a CPU with a built-in DMA controller
- › Equipped with Update function of FPGA data
- › PCI Express 2.0 (Gen 2) 5.0 GT / s × 8 compatible



### Specifications

Item	Specification
Model name	APX-5050
Input channel	Single end 2ch
Sampling clock	500MHz (*Note)
Resolution	12bit
Sampling time	2.5ns(min)
Number of samples	256 M words / 1 channel

Input range	±2V±1V±500mV
Input impedance	50Ω
Trigger	External trigger / Analog trigger / Soft trigger / DI trigger (Various trigger modes supported by FPGA)
Memory	DDR3 – SDRAM (2 GB)
FPGA	LSI: EP4SGX180HF35C2N (manufactured by ALTERA) Trigger type: Internal trigger (analog trigger), external trigger, soft trigger, DI trigger Analog trigger: Edge level pulse Trigger position: pre / post delay User logic: Free space can be customized
External Clock	Input(PPL): 5MHz, 100MHz Input(Direct input): 500MHz, 1000MHz
DA Circuit	Number of outputs: 2 ch Resolution: 16 bits Output range: -4 V to +4 V
System bus	PCI-Express2.0(Gen2)5.0GT/s× 8
Power supply	+ 12 V ± 9% 3.57 A (45 W)
Operating environment	Temperature 0 to 50 ° C, humidity 35% to 85% (no condensation)
Size	192.65 mm × 111.15 mm, panel width 20 mm (not including projections)
Weight	232g
Supported OS	Windows 7/8 compatible with 32 bit / 64 bit
Environmental response	RoHS

Notes)

- The specifications and appearance stated are subject to change without notice.
- Power consumption does not include inrush current.
- When sampling at 500MHz, it may have Glitch which causes a bit error. Please contact us for the details.
- In order to use the product correctly, be sure to read the instruction manual before using the product. Also, use the product under the conditions applicable to your product warranty.

Panel

System configuration

On FPGA customization

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