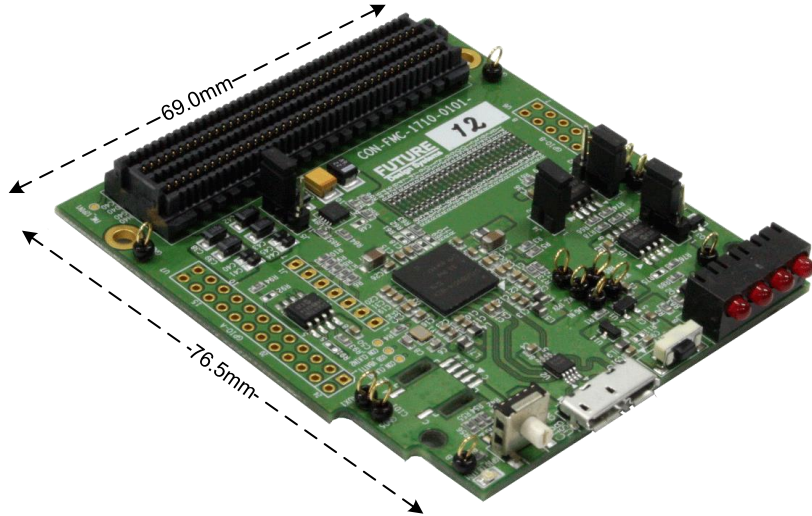


Talking to FPGA through USB

Connecting Linux/Windows/Android to the FPGA through USB



CON-FMC™

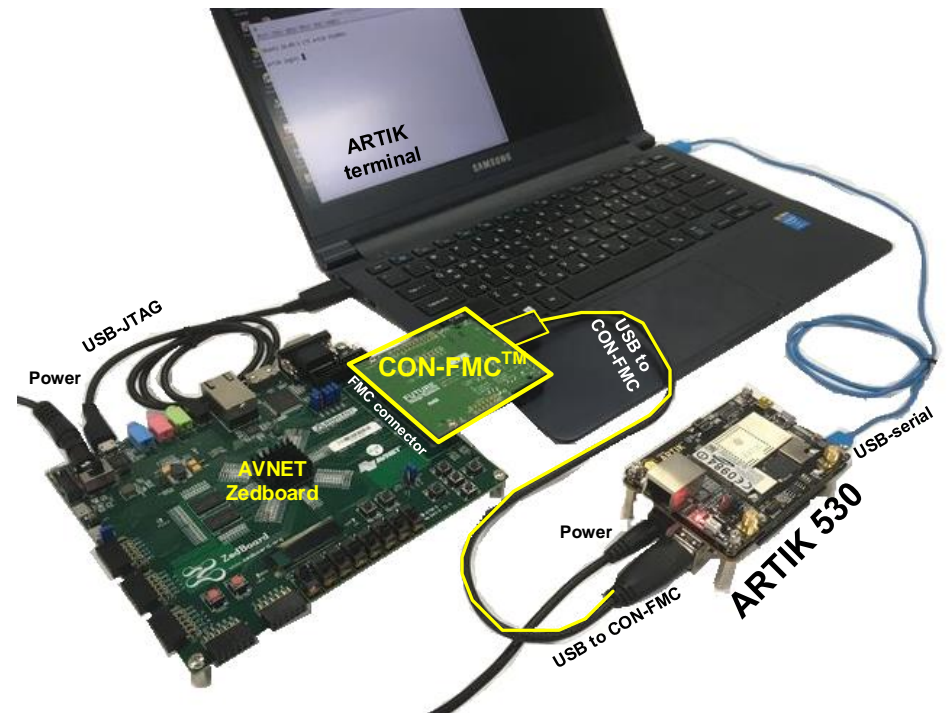
- USB 3.0/2.0
- FMC VITA 57.1 compliant including LPC, HPC, and HPC+
- Linux, Windows, Android
- Raspberry Pi, Odroid, Samsung ARTIK, and so on
- 10~250MByte/sec bandwidth depending on the host system

<http://www.future-ds.com/CON-FMC>

CON-FMC™ C API

User-Level program without device driver installation.

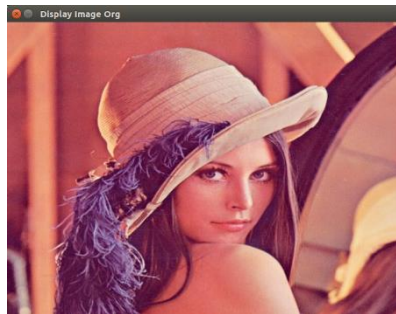
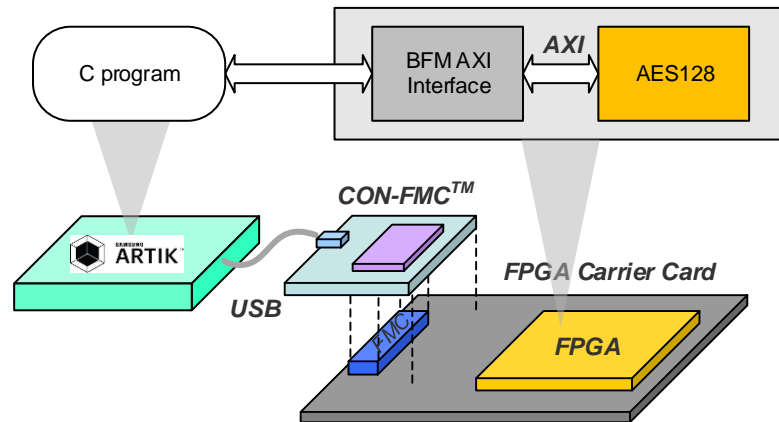
```
void BfmRead (unsigned int addr, unsigned int *data,  
              unsigned int size, unsigned int length);  
void BfmWrite(unsigned int addr, unsigned int *data,  
              unsigned int size, unsigned int length);
```



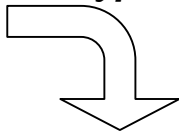
A typical setup of CON-FMC™ with ARTIK530 along with ZedBoard.

Application Examples: CON-FMC™ with Samsung ARTIK

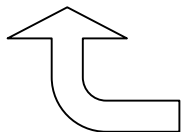
Example: Serial SHA256 with AMBA AHB



Encryption on FPGA

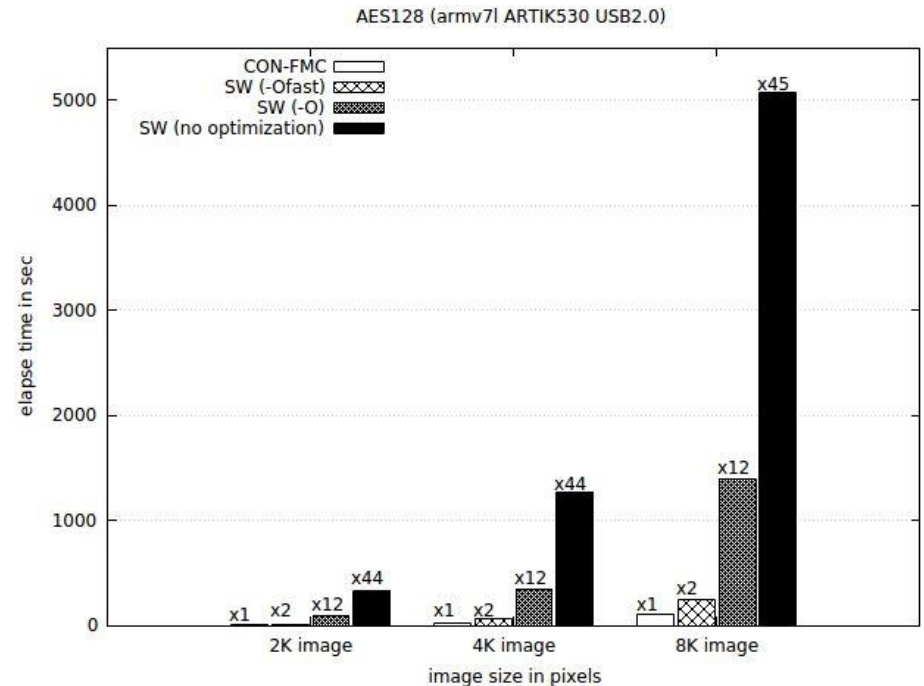


Decryption on FPGA



Performance benefit for AES128 case

Image data encryption/decryption



Processing 8k image with CON-FMC is faster than that of software solution by 45x TIMES.