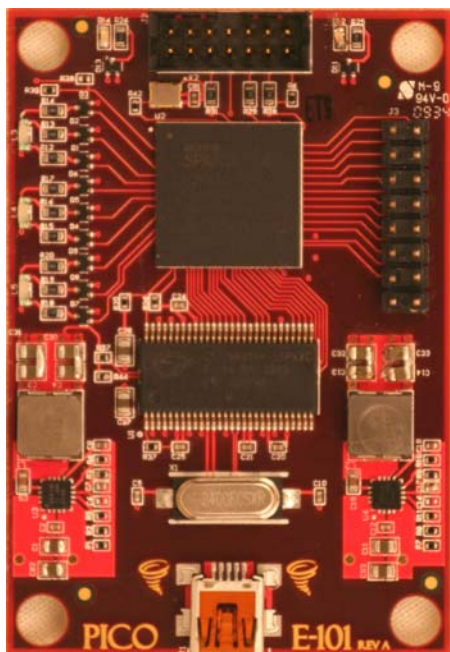


## Spartan-6 USB Board



E-Series cards are small form factor, high-performance solutions for embedded and hardware accelerated computing. E-Series cards are based on industry standard Xilinx FPGA devices, and on standard I/O interfaces.

## E-101

### Specifications

- Xilinx Spartan-6 LX45
  - 43,661 Logic Cells
  - 58 DSP48A1 Slices
  - 2,088 Kbits Block RAM
- USB 2.0 High Speed (480Mb/s)
- 14 User GPIO
- JTAG
- Status LED
- User LEDs (Tri-Color)
- Power Consumption: 2.5 Watts

### Applications

- Embedded Systems and Digital Signal Processing
- Embedded Control Systems
- MATLAB/Simulink™ Acceleration
- Encryption / Decryption
- Image Processing
- Communications Protocol Decoding
- Security Algorithms and Testing
- UAVs and Surveillance Systems
- Pattern Matching and Bio Informatics

### Software

- PicoUtil: Utility program for FPGA management (Windows and Linux)
- Xilinx ISE Foundation and WebPACK

### Performance

(Cryptography Algorithms)

WEP 40-bit	WPA 100 mil word	WinZip/FileVault 100 mil word	NTLM 8 characters	BlueTooth 12 digit	DES 56-bit
16.97 hours 18 million key/sec	18.52 hours 1,500 key/sec	9.26 hours 3,000 key/sec	51.19 days 1.5 billion key/sec	4.13 hours 20 million key/sec	1.43 years 1.6 billion key/sec

[www.picocomputing.com/e101](http://www.picocomputing.com/e101)



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