

## FreeForm/Express S6

Connect Tech's FreeForm/Express S6 is a reconfigurable computing platform that is based on the Xilinx Spartan-6 FPGA; featuring integrated PCI Express® blocks, advanced memory support, and 3.125 Gbps low-power transceivers. FreeForm/Express S6 includes an industry-standard FPGA Mezzanine Card (FMC) connector, which provides a flexible I/O interface for future scaling and customization. The PCIe bus bandwidth ensures high speed communication between the host system and the application's interfaces.

A wide range of available FMC modules adds interfaces such as ADC and digital video, which makes FreeForm/Express S6 a highly versatile platform for system development. Ideally suited for applications requiring both prototyping and field deployment including real-time data acquisition, high performance video processing, and software defined radio. FreeForm/Express S6 is optimized for embedded processor designs, supporting development with Xilinx's MicroBlaze.

Use Connect Tech's engineering services for FPGA design and software/driver development.

### Specifications

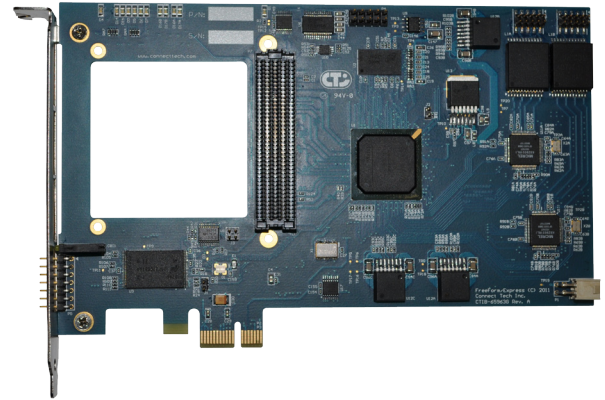
<b>Form Factor</b>	PCIe x1 lane
<b>FPGA</b>	Xilinx Spartan-6 LX45T
<b>Bus Interface</b>	Spartan-6 PCIe Gen 1 endpoint
<b>FPGA Mezzanine Card</b>	1x low pin count FPGA Mezzanine Card (LPC FMC) 36 LVDS pairs, 1 rocket I/O channel, I2C interface
<b>Memory</b>	128MB DDR3 RAM
<b>Flash</b>	4MB flash for FPGA configuration 2MB flash for embedded code storage
<b>Ethernet</b>	2x 10/100/1000 Ethernet ports
<b>Serial</b>	1X RS-232 port
<b>Clocks</b>	200MHz LVDS oscillator
<b>Programming</b>	JTAG test and programming chain
<b>Temperature</b>	Industrial Temperature: -40° C to 85° C (40° F to 185° F) (Actual operating range varies by logic use and frequency)
<b>Compliance</b>	RoHS compliant
<b>Power</b>	+3.3V DC +12V DC required by some FMC adapters
<b>Dimensions</b>	<b>Height:</b> 4.4" <b>Length:</b> 6.6"
<b>Warranty and Support</b>	Lifetime warranty and free technical support

Specifications subject to change without notice.

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## RoHS

**Product Name:** FreeForm/Express S6



## FEATURES

- ✓ *PCIe x1 lane form factor*
- ✓ *Based on the Spartan-6 FPGA*
- ✓ *Integrated PCI Express® blocks and advanced memory support*
- ✓ *Low Pin Count FMC connector*
- ✓ *128MB DDR3 Memory*
- ✓ *2x 10/100/1000 Ethernet Port*
- ✓ *RS-232 debug port*

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