Connect Tech Inc.

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.

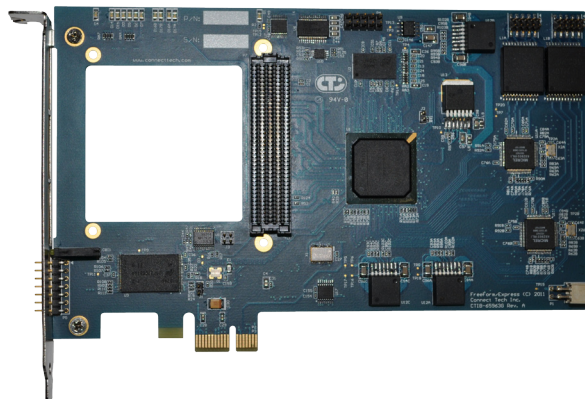Use Connect Tech's engineering services for FPGA design and software/driver development.

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*

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

Specifications subject to change without notice.
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RoHS