PEM-E205VLA

Vortex DX3 processor based on ETX 3.02 module with DDR3 Memory down, VGA, LVDS, PCI, ISA, IDE and USB

FEATURES

- Support DDR3 Memory-down, up to 2GB
- One VGA and LVDS, FastEthernet interface
- Support industrial temperature -40°C~85°C

RoHS

Portwell PEM-E205VLA is designed with DMP 1.0 GHz Dual-Core processor, with less than 5W overall TDP, PCI and dual 24bit LVDS support it is suitable for industrial and transportation applications. Expansion for the PEM-E205VLA ETX module includes ISA interface with controllers integrated into processor-enhancing capabilities to support 8/16-bit ISA device with Zero-Wait-State. In addition, the module supports dual displays, VGA and LVDS with greater graphic performance compared to its previous generation. The resolution for one display interface supports up to 1920x1440@60Hz with 234MHz video clock, and the other, 1920x1200, 1x DVO (24bits) and 1x D-SUB or 2x DVO (12bits x2).

General

Product	PEM-E205VLA
Form Factor	ETX 3.02, 114x95 mm
Processor	Vortex86DX3 SoC
Core	2
Freq.	1 GHz
Turbo	N/A
Cache	256KB
Processor Graphics	GPU integrated in Vortex 86DX3
Graphics Base Frequency	N/A
Graphics Max Dynamic Frequency	N/A
HW Encoding	Contact us
HW Decoding	H.264
HW Acceleration	Contact us
Processor TDP	5W
BIOS	AMI BIOS
ECC Memory Supported	Yes
Memory	Yes
Memory	On board DDR3 memory up to 2GB (optional with ECC)

I/O Interface

SATA	2x SATA II (Option to 1x NAND-Flash) 1x IDE		
USB	4x USB2.0		
Ethernet	1x RTL8119I GbE controller		
Serial I/O	GPIO	N/A	
	I²C	Baud rate: 400KHz	
	SMBus	Baud rate: 100KHz	
	UART	2x UART	
PEG	N/A		
PCI Express	N/A		
Display	VGA	VGA	1920x1440@ 60Hz
	LVDS	eDP	1920×1200
	HDMI	DP	NA
		HDMI	NA
Security	Contact us		

PEM-E205VLA

MECHANICAL & ENVIRONMENT

Dimension	114x95 mm
Power DC IN	5V,3V, 5VSB, VBAT, AT/ATX mode
Storage Temperature	-40°C~ +80°C
Operating Temperature	-40°C~ +80°C
Certification	Contact us
MTBF	Over 120,000 hours at both 35° C and 55° C
Vibration	Random 5Hz to 2KHz, 7.7 grms, 10min in each of 3 axes
OS	Windows for Workgroups 3.11 / Windows XP Embedded Standard 2009 and higher / Windows 7 Embedded Linux (Kernel >= 2.4)/ RTOS32 MS DOS 6.22 / FreeDOS

ORDERING GUIDE

Product	Ordering P/N	Status
PEM-E205VLA	AB1-3D65	Available

Accessory	Ordering P/N	Status
PEM-C200	AB1-3246	Available
Heat spreader	B8308090	Available
Heat Sink	B8308090	Available

BLOCK DIAGRAM

PEM-E205VLA

ETX® 3.0 114x95 mm | AT/ATX Mode | -40°C~ +80°C | 5V DC-in