RadiSys®

DATASHEET

Procelerant CR202/CR203

COM Express ATX Carrier Board

FEATURE SUMMARY

- PICMG COM.0 Express Revision 1.0 Compliant

- One COM Express module:
  - Basic and Extended Form Factor Modules
  - Type 2 and Type 3 modules

- ATX Form Factor 12" wide by 9.6" deep (305mmx244mm)

The RadiSys Procelerant® ATX carrier boards are development platforms that enable customers to initiate proprietary, customer-specific designs with RadiSys COM Express modules easily and quickly. The CR202 and CR203 both provide a wide range of device connectivity and also the flexibility to enable comprehensive system prototyping

Configuration Options

The CR202-PCIE16 supports Type 2 Modules.

The CR203-VGA supports Type 3 Modules.

Start Your Design Today

Pair the CR202-PCIE16 with a Procelerant® Z500, CEGM45, CEZ5XL and other Type 2 modules or the CR203-VGA with a Type 3 CEGM45 module and experience time-saving standard platform design across all your applications.

Carrier Designs Supported by RadiSys

Manufacturers can depend on RadiSys to support their design at every stage, whether they are utilizing RadiSys Design Services or designing their own carrier board. Design tools such as the Procelerant® COM Express Design Guidelines, as well as the schematics and Gerber files, are available for customers commited to RadiSys Procelerant® COM Express modules.

Procelerant CR202/CR203 Specifications

CR202-PCIE16 CONFIGURATION FOR TYPE 2 MODULES

FEATURE	FUNCTION	DESCRIPTION
MODULE SUPPORT	Form Factor	Basic and Extended
	Pin-out	Type 2
EXPANSION SLOTS	One PCI Express x16 slot, supports MEC-Dual-DVI, MEC-Dual-LVDS and external PEG usage	
	One PCI Express x4 slot, supports PCI Express Card and ExpressCard/54 modules	
	One PCI Express Mini Card slot for PCI Express- or USB-based devices (configurable option)	
	Two PCI Express x1 slots	
	One PCI 3.3V 32-bit 33MHz slot	
CONNECTORS	COM Express Module	440-pin 8mm COM Express female connector
	Network	One 10/100/1000BaseT via rear panel RJ-45
	SATA/SAS	Four onboard headers
	USB	Total of 8 ports
	VGA	One rear panel connector
	RS-232	Two serial ports with two DE9M connectors on the rear I/O panel
	Floppy	Onboard header
	Parallel Port	Onboard header
	CD-ROM	Onboard header
	PS/2	Two rear panel connectors
	Fans	Six total: Three 3 pin, Three 4 pin
	Power	ATX
	GPIO	One 8-pin onboard header
	SMBus/I2C	Onboard header
	LPC	One LPC slot for Super I/O-based extension cards
	IDE	One 40-pin onboard header
	Compact Flash	One Type II Socket
	Audio	1 standard microphone-in, line-in, and line-out external audio jacks for HDA codec
	TV out	One 7-pin connector, composite, S-video, and component video

	LVDS	One 41-pin onboard header for single-channel or dual-channel, 18-bit or 24-bit LVDS

CR203-VGA CONFIGURATION FOR TYPE 3 MODULES

FEATURE	FUNCTION	DESCRIPTION
MODULE SUPPORT	Form Factor	Basic and Extended
	Pin-out	Type 3
EXPANSION SLOTS	One PCI Express x16 slot, supports MEC-Dual-DVI, MEC-Dual-LVDS and external PEG usage	
	One PCI Express x4 slot, supports PCI Express Card and ExpressCard/54 modules	
	Two PCI Express x1 slots	
	One PCI Express Mini Card slot for PCI Express- or USB-based devices (configurable option)	
	One PCI 3.3V 32-bit 33MHz slot	
CONNECTORS	COM Express Module	440-pin 8mm COM Express female connector
	Network	Three 10/100/1000BaseT via rear panel RJ-45
	SATA/SAS	Four onboard headers
	USB	Total of 8 ports
	VGA	Onboard PCI-based VGA controller. One rear panel connector
	RS-232	Two serial ports with two DE9M connectors on the rear I/O panel
	Floppy	Onboard header
	Parallel Port	Onboard header
	CD-ROM	Onboard header
	PS/2	Two rear panel connectors
	Fans	Six total: Three 3 pin, Three 4 pin
	Power	ATX
	GPIO	One 8-pin onboard header
	SMBus/I2C	Onboard header
	LPC	One LPC slot for Super I/O-based extension cords
	Audio	1 standard microphone-in, line-in, and line-out external audio jacks for HDA codec
	LVDS	One 41-pin onboard header for single-channel or dual-channel, 18-bit or 24-bit LVDS

PHYSICAL SPECIFICATIONS

PHYSICAL	Dimensions	12" wide by 9.6" deep (305mm x 244mm)	
	Compliance	ATX form factor	
POWER REQUIREMENT	Input	Standard ATX power supply	
ENVIRONMENT	Temperature	Operating	+0°C to +60°C, de-rated 1.1°C per 300m over 2300m
		Storage	-40°C to +85°C, 5°C per minute maxiumum excursion gradient
	Humidity	Operating	5% to 95% RH non-condensing 95% RH at +30°C, linearly derated to 25% RH at 60°C
		Storage	5% to 95% RH non-condensing
	Altitude	Operating	up to 4570 meters
		Storage	up to 12,000 meters
	Shock	Operating	30G, half sine, 11ms duration, 3 times per face
		Non-Operating	40G, half sine, 11ms duration, 3 times per face
	Vibration	Operating	Random 5Hz – 2KHz, 7.7 grms, 10min in each of 3 axes 5 – 20Hz 0.004g2/Hz ramping up to 0.04g2/Hz 20 – 1000 Hz 0.04g2/Hz 1000 – 2000Hz 0.04g2/Hz ramping down to 0.01g2Hz
		Non-Operating	Random 5Hz – 2KHz, 9.7grms, 10 min in each of 3 axes 5 – 20Hz: 0.006g2/Hz ramping up to 0.06g2 20 – 1000Hz 0.06g2/Hz 1000 – 2000Hz: 0.06g2
REGULATORY	Safety	UL60950-1, EN60950-1, IEC60950-1	
	EMC	EN55024, FCC Part 15, Subpart B, Class B, and EN55022	
WARRANTY	Two years		

Ordering Information

Order Code - Type 2 Modules:
CR202-PCIE16: Type 2, ATX Carrier, PCI Express x16

Order Code - Type 3 Modules:
CR203-VGA: Type 3, ATX Carrier, VGA

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