RadiSys®

DATASHEET

Procelerant CE3100

Core™ 2 Duo COM Express Module with ECC Memory

FEATURE SUMMARY

- Intel Core™ 2 Duo L7400

- Core™ Duo U2500,

- Celeron® M ULV 423

- Intel® 3100 Chipset

- PICMG COM Express Compliant

- Basic Form Factor (95 x 125mm)

- Type 3 COM Express Pin-out

Based on the open PICMG standard, the RadiSys Procelerant™ CE3100 COM Express basic size (95mm x 125mm) modules combine Intel® Core™2 Duo L7400 processor performance with ECC enabled memory. A key feature for today's embedded communications applications. Paired with a RadiSys Procelerant™ carrier board, RadiSys COM Express modules provide a ready-to-use development platform

PICMG STANDARD

COM Express is the PICMG standard for a Computer-On-Module (COM) based on high speed serial differential signaling technologies such as PCI Express, Serial ATA, USB 2.0, LVDS, and Serial DVO while retaining legacy PCI bus support to ease migration from existing modular designs. COM Express enables OEMs to reduce time to market by reducing the time spent on processor design and enabling focus on core competencies and product differentiation. Planned feature changes, demand fluctuations and performance upgrades can be handled without product re-designs. COM Express modules can reduce service repair inventories, and simplify upgrades, contributing to the success of the product over its lifetime.

APPLICATIONS

The Procelerant™ CE3100 allows developers of enterprise-class and carrier-grade equipment to take advantage of a proven computing platform for a variety of wireless and wireline applications. The CE3100 is ideal for embedded applications that require a standard processor module and Error Correcting Code (ECC) memory without the added expense of video and audio functions while delivering the robustness required for demanding telecom applications. When incorporated with the RadiSys Promentum™ ATCA-2210, system designers gain a switch and control module well suited for Radio Network Controller, Media Gateway, IMS and IPTV applications. The CE3100 also utilizes a Core 2 Duo L7400 processor and offers flexible storage options with Serial ATA (SATA) and Serial Attached Small Computer System Interface (SAS) configurations in an effort to meet reliability and cost requirements of both equipment manufacturers and service providers. The type 3 module also provides dual gigabit Ethernet capabilities to maximize IO bandwidth.

CARRIER DESIGNS SUPPORTED BY RADISYS

OEMs can depend on RadiSys to support their design at every stage, whether designing their own carrier board or utilizing RadiSys Design Services. Design tools such as the Carrier Design Guide, Thermal Design Guide, as well as schematics and Gerber files are available for customers committed

to using RadiSys Procelerant™ CE processor modules. Ask your RadiSys Sales Manager for more information.

Procelerant CE3100 Specifications

FEATURE	FUNCTION	DESCRIPTION
PHYSICAL	Dimensions	95mm x 125mm – COM Express Basic Form Factor
	Compliance	PICMG COM Express R1.0 Basic Form Factor, Type 3
PROCESSOR	Core™ 2 Duo L7400 1.5GHz,/ 667MHz FSB/ 4MB	
	Core™ Duo U2500 1.2GHz/ 667MHz FSB/ 2MB	
	Celeron® M ULV 423 1.06 GHz/ 533MHz FSB/ 1MB	
CHIPSET	Supplier	Intel Whitmore Lake 3100
MEMORY	Type	Single 200-pin SODIMM socket, supports 533MHz Memory
	Capacity	Up to 2GB ECC DRAM
BIOS	Type	Phoenix BIOS with ACPI 3.0 Power Management
NETWORKING	Supplier/Type	2 10/100/1000Base-T Ethernet via Intel 82571EB GbE controller
I/O	USB	Four USB 2.0/1.1
	SATA	4
	SAS	4 SAS ports option via LSI SAS 1064E SAS controller
	GPIOs	4 GPIs, 4 GPOs
	Other	LPC, SMBus/I2C Bus
EXPANSION	PCI Express	Configurable PCI Express interface: 1 PCIe x4 OR 4 PCIe x1 Additional 1 PCIe x4 without SAS controller
	PCI	1 PCI 2.3 32-bit 33MHz, two logical devices
POWER	Input	12V
	Dissipation (Max)	CE3100-L74-02 : 42.99 W CE3100-L74-0 : 42.75 W CE3100-U25-0 : 33.97 W CE3100-423-0 : 28.78 W

PHYSICAL SPECIFICATIONS

ENVIRONMENT	Temperature	Operating	0° – 60°C
		Storage	-40° – 85°C (non-operating)
	Humidity	Operating (Condensing)	5%-95%, 5% - 90% RH

		Storage (Non-Condensing)	at 40C°
	Shock	Operating	30G, half sine 11ms duration
		Storage	50G, half sine 11ms duration 30G
	Vibration	Operating	5-2000Hz Random, 0.5g, 10min min. in each of 3 axes
		Storage	5g acceleration over 5-2000Hz sine wave (P-P), 1 oct/min sine sweep
REGULATORY	Safety	UL60950-1, EN60950-1, IEC60950-1	
	EMC	EN55022, EN55024, and FCC Part 15, Subpart B, Class B	
WARRANTY	Standard	Two years, parts only	

Ordering Information

Call for pricing and availability. Refer to the order codes below. description:

Module Order Codes:

- CE3100-L74-0 : Type3, 1.5GHz Core2 Duo L7400, SATA, computer module

Supporting Products:

- CR200-VGA: Type 3 ATX Carrier, VGA

RadiSys
THE POWER OF WE