



## PROCELERANT CE 915GM

### COM Express Embedded Computing Module

#### FEATURE SUMMARY

- 2GHz Pentium® M and 1.5GHz Celeron® M combined with Intel® 915GM Chipset on COM Express Module
- Intel ICH6M I/O Hub
- PICMG COM Express Compliant
- Basic Form Factor (95mm x 125mm)
- Type 2 COM Express Pin-out
- Intel 82573 10/100/1000BaseTX Ethernet Controller
- One SODIMM Socket for up to 1GB DDR2 Memory
- Flexible PCI-Express Options
- 3\*PCI-Express x1 PCI Express Ports
- Integrated Graphics
- Dual SDVO
- Analog VGA
- LVDS
- TV out
- COM Express Standard Features
- 8 USB Ports
- 2 SATA Ports
- 1 ATA 100 Port
- PCI 32-bit/33MHz PCI Bus
- 8 GPIO Lines
- Phoenix BIOS with ACPI 2.0 Power Management
- Win XP/Win XP Embedded/Red Hat Desktop Linux
- Optimized Passive and Active Heatsinks Available
- ROHS Compliant

#### PRODUCT DESCRIPTION

Based on the open PICMG® standard, the RadiSys Procelerant™ CE COM Express module combines Intel® Pentium® M and Celeron® M performance with key features vital for today's embedded applications. Paired with a RadiSys Procelerant™ CR carrier board, the RadiSys family of COM Express modules provides a final production or a design-specific development platform.

#### PICMG STANDARD

COM Express is the PICMG standard for a Computer-On-Module (COM) based on new serial differential signaling technologies such as PCI Express, Serial ATA, USB 2.0, LVDS, and Serial DVO. The COM Express modular concept enables OEMs to reduce time to market by reducing the time spent on processor design and enabling OEMs to focus on their core competencies and product differentiation. The modularity provides the ability for an OEM to plan for feature changes, contributing to the success of the product over its lifetime.

#### APPLICATIONS

RadiSys COM Express products are ideal for embedded applications that require a standard processor and memory subsystem at the center of their design – and require the modular flexibility to meet customer needs. Other ideal applications include designs that are size constrained and require the small footprint of COM Express.

#### CARRIER DESIGNS SUPPORTED BY RADISYS

Whether customers design their own carrier board or utilize RadiSys Design Services to design one, RadiSys supports the design each step of the way. Tools such as the Carrier Design Guide and 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 CE 915GM Specifications

| Feature     | Function                          | Description  |
|-------------|-----------------------------------|--|
| Physical    | Dimensions                        | 95mm x 125mm - COM Express Basic Form Factor   |
|             | Compliance                        | PICMG COM Express R1.0 Basic Form Factor, Type 2   |
| Processor   | Options                           | Intel® Pentium® M 760, LV Pentium-M 738, Celeron® M 370, ULV Celeron®-M 373  |
|             | Performance Clock Speed/FSB/Cache | CE760 Pentium®-M: 2GHz/533MHz FSB / 2MB Cache<br>CE370 Celeron®-M: 1.5GHz /400MHz FSB / 1MB Caches<br>CE738 LV Pentium®-M: 1.4GHz/400MHz FSB/2MB Cache<br>CE373 ULV Celeron®-M: 1.0GHz /400MHz FSB / 512MB Cache |
|             | Package                           | BGA  |
|             | Power                             | 27W / 21W / 10W / 5W (Processor only)  |
| Chipset     | Supplier                          | Intel® 915GM with ICH6M I/O Hub  |
|             | Features                          | Integrated video, PCI, IDE, PCI-Express, SATA, USB, LPC, GPIO  |
| Memory      | Type                              | Single 200-pin SO-DIMM socket, supports 400 and 533 Memory   |
|             | Capacity                          | Up to 1GB DDR2 in a single channel (Market Availability)   |
| BIOS        | Type                              | 1MB, Phoenix Technologies  |
| Audio       | Compliance                        | AC '97 Intel High Definition Audio via ICH6M I/O Hub   |
| Video       | Type                              | Dual Independent Displays via Intel 915GM Chipset  |
|             | Features                          | Dual SVDO, LVDS 18-bit dual channel, Analog VGA, TV Out  |
|             | External                          | PCI-Express x16 Graphics Port, Multi-plexed on SDVO interface pins   |
| Networking  | Type                              | IEEE 802.3 10BASE-T/100BASE-TX/1000BASE-T Compliant Physical Layer via Intel 82573V - Utilizes (1) PCI-Express x1 interfaces   |
| I/O         | USB                               | Eight USB 2.0 / 1.1 ports  |
|             | SATA                              | Two SATA 150 ports   |
|             | IDE                               | One Ultra ATA100/66/33 port  |
|             | OTHER                             | LPC, Smbus/I2C Bus   |
| Super I/O   | BIOS Support                      | National Semiconductor PC8374, Ask about support for Winbond W83627HF-AW   |
| Expansion   | PCI Express                       | 3*PCI-Express x1 and 1*PCI-Express x16   |
|             | PCI                               | PCI 2.3 32-bit 33MHz, four logical devices   |
| Connectors  | COM Express                       | (2) 220 pin COM Express standard connectors. Module connector pn: Tyco 3-1827231-6, Carrier connector pn: Tyco 3-3-1827233-6   |
| Power       | Input                             | 12V input from carrier board (5V standby)  |
|             | Dissipation:<br>3D Mark (Max)     | CE 760: 30.3W CE370: 26.5W<br>CD738: 20.7W CE373: 16.9W  |
| Environment | Temperature                       | 0° – 60°C (operation), -40° – 85° (non-operating)  |
|             | Humidity                          | 5% to 95% Condensing (Operating), 5% – 90% RH Non-Condensing at 40C  |
|             | Shock                             | 30G, trapezoidal 11ms duration   |
|             | Vibration                         | Operating: 30G, half sine 11ms duration, Storage: 50G, half sine 11ms duration 30G   |
| Regulatory  | Safety                            | UL60950-1, EN60950-1, IEC60950-1   |
|             | EMC                               | EN55022, EN55024 and FCC Part 15, Subpart B, Class B.  |
| Warranty    | -                                 | Two years  |

## Ordering Information

**Toll-Free:** 800-950-0044

**Phone:** 503-615-1100

**Support:** 866-385-6167

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

### ORDER CODES/description:

Module Order Codes:

**CE760-0** 2.0GHz Pentium M, 0MB

**CE738-0** 1.4GHz LV Pentium M, 0MB

**CE370-0** 1.5GHz Celeron-M, 0MB

**CE373-0** 1.0GHz ULV Celeron-M, 0MB

**CE760-512** 2.0GHz Pentium M, 512MB

**CE738-512** 1.4GHz LV Pentium M, 512MB

**CE370-512** 1.5GHz Celeron M, 512MB

**CE373-512** 1.0GHz ULV Celeron M, 512MB

Supporting Products:

**CR100-2DVI:** Development ATX Carrier Board with Dual DVI Connectors

**CR100-PCIE16:** Development ATX Carrier Board with 16-bit PCI-Express

**CE-AHS:** Active Heatsink & Assembly

**CE-PHS:** Passive Heatsink & Assembly

**CE-PHS17:** Low Profile Passive

**CE-TIM:** Thermal Interface Material, required with Heatsinks

**CE-DVI-VGA:** DVI to VGA cable



## Contact Information

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